# PART 1 - GENERAL (GEN)

## GEN 0.

## GEN 0.1 PREFACE

### 1. Name of the publishing authority

The AIP-Thailand is published by authority of The Civil Aviation Authority of Thailand.

### 2. Applicable ICAO documents

The AIP is prepared in accordance with the Standards and Recommended Practices (SARPs) of Annex 15 to the Convention on International Civil Aviation and the Aeronautical Information Services Manual (ICAO Doc 8126). Charts contained in the AIP are produced in accordance with Annex 4 to the Convention on International Civil Aviation and the Aeronautical Chart Manual (ICAO Doc 8697). Differences from ICAO Standards, Recommended Practices and Procedures are given in subsection **GEN 1.7**.

### 3. The AIP structure and established regular amendment interval

### 3.1 The AIP structure

The AIP forms part of the Integrated Aeronautical Information Package, details of which are given in subsection **GEN 3.1**. The principal AIP structure is shown in graphic form on page **GEN 0.1**-3.

The AIP is made up of three parts, General (GEN), En-route (ENR) and Aerodromes (AD), each part is divided into sections and subsections as applicable, containing various types of information subjects.

3.1.1 Part 1 - General (GEN)

Part 1 consists of five sections containing information as briefly described hereafter.

**GEN 0** - Preface; Record of AIP Amendments; Record of AIP Supplements; Checklist of AIP pages; List of hand amendments to the AIP; and the Table of Contents to Part 1.

**GEN 1** - National regulations and requirements - Designated authorities; Entry, transit and departure of aircraft; Entry, transit and departure of passengers and crew; Entry, transit and departure of cargo; Aircraft instruments, equipment and flight documents; Summary of national regulations and international agreements/conventions; and Differences from ICAO Standards, Recommended Practices and Procedures.

**GEN 2** - Table and codes - Measuring system, aircraft markings, public holidays; Abbreviations used in AIS publications; Chart symbols; Location indicators; List of radio navigation aids; Conversion tables; and Sunrise/Sunset tables.

**GEN 3** - Services - Aeronautical Information Services; Aeronautical Charts; Air Traffic Services; Communication services; Meteorological services; and Search and rescue.

**GEN 4** - Charges for aerodromes and Air Navigation Services-Aerodrome charges; and Air Navigation Services charge; and Regulatory Fee.

3.1.2 Part 2 - En-route (ENR)

Part 2 consists of seven sections containing information as briefly described hereafter.

**ENR 0** - Table of contents to Part 2

**ENR 1** - General rules and procedures - General rules; Visual Flight Rules; Instrument Flight Rules; ATS airspace classification; Holding, approach and departure procedures; Radar services and procedures; Altimeter setting procedures; Regional supplementary procedures; Air Traffic Flow Management; Flight planning; Addressing of flight plan messages; Interception of civil aircraft; Unlawful interference; and Air traffic incidents.

**ENR 2** - Air Traffic Services airspace - Detailed description of Flight Information Regions (FIR); Terminal Control Areas (TMA); and Other regulated airspace.

**ENR 3** - ATS routes - Detailed description of ATS routes; Area navigation routes; and En-route holding.

***Note:*** *Other types of routes which are specified in connection with procedures for traffic to and from aerodromes/ heliports are described in the relevant sections and subscriptions of Part 3 - Aerodromes.*

**ENR 4** - Radio navigation aids/systems - Radio navigation aids - en-route; Special navigation systems; Name - code designators for significant points; and Aeronautical ground lights - en-route.

**ENR 5** - Navigation warnings - Prohibited, restricted and danger areas; Military exercise and training areas; Other activities of a dangerous nature; Air navigation obstacles - en-route; Aerial sporting and recreational activities; and Bird migration and areas with sensitive fauna.

**ENR 6** - En-route charts - En-route Chart - ICAO and index charts.

3.1.3 Part 3 - Aerodromes (AD)

Part 3 consists of 3 sections containing information as briefly described hereafter.

**AD 0** - Table of contents to Part 3

**AD 1** - Aerodromes - Introduction - Aerodrome availability; Rescue and fire fighting services; Index to aerodromes and heliports; and Grouping of aerodromes.

**AD 2** - Aerodromes - Detailed information about aerodromes; including helicopter landing areas, if located at the aerodromes.

**3.2 Regular amendment interval**

AIP is amended in accordance with the AIRAC schedule as published in AIC.

**4. Service to contact in case of detected AIP errors or omissions.**

In the compilation of the AIP, care has been taken to ensure that the information contained therein is accurate and complete. Any errors and omissions which may nevertheless be detected, as well as any correspondence concerning the Integrated Aeronautical Information Package, should be referred to:

Aeronautical Information Management Department
The Civil Aviation Authority of Thailand
222 Soi Vibhavadi Rangsit 28,
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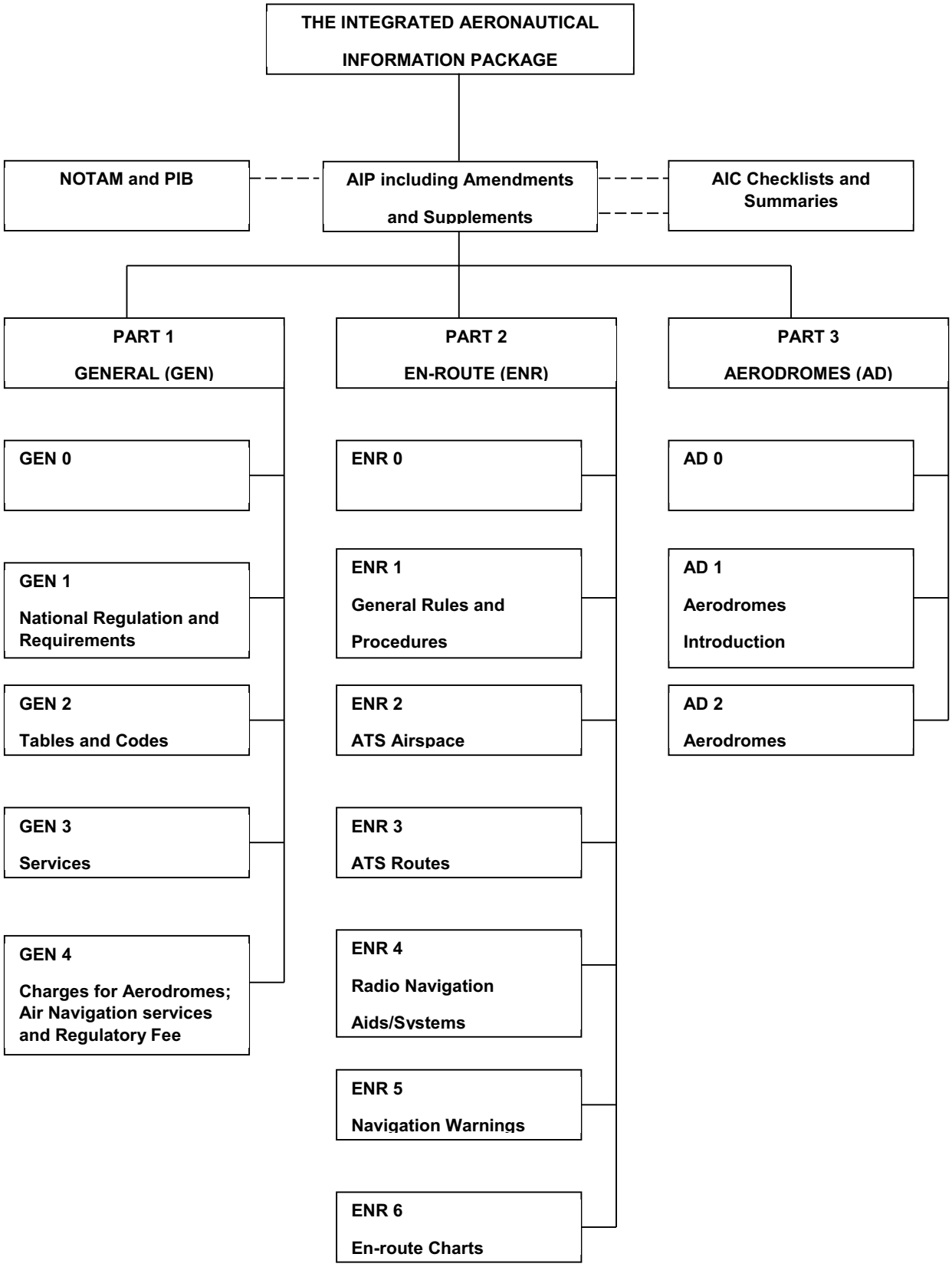
Chatuchak
Bangkok 10900
Thailand


THE INTEGRATED AERONAUTICAL INFORMATION PACKAGE
NOTAM and PIB
AIP including Amendments and Supplements
AIC Checklists and Summaries
PART 1 GENERAL (GEN)
PART 2 EN-ROUTE (ENR)
PART 3 AERODROMES (AD)
GEN 0
GEN 1 National Regulation and Requirements
GEN 2 Tables and Codes
GEN 3 Services
GEN 4 Charges for Aerodromes; Air Navigation services and Regulatory Fee
ENR 0
ENR 1 General Rules and Procedures
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ENR 3 ATS Routes
ENR 4 Radio Navigation Aids/Systems
ENR 5 Navigation Warnings
ENR 6 En-route Charts
AD 0
AD 1 Aerodromes Introduction
AD 2 Aerodromes

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## GEN 0.2 RECORD OF AIP AMENDMENTS

| AIP AMENDMENT | | | |
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| NR/ Year | Publication date | Date inserted | Inserted by |
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| AIRAC AIP AMENDMENT | | | |
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| NR/ Year | Publication date | Effective date | Inserted by |
| 9/19 | 04 JUL 2019 | 15 AUG 2019 | |
| 10/19 | 01 AUG 2019 | 12 SEP 2019 | |
| 11/19 | 29 AUG 2019 | 10 OCT 2019 | |
| 12/19 | 26 SEP 2019 | 07 NOV 2019 | |
| 13/19 | 24 OCT 2019 | 05 DEC 2019 | |
| 1/20 | 21 NOV 2019 | 02 JAN 2020 | |
| 2/20 | 19 DEC 2019 | 30 JAN 2020 | |
| 3/20 | 16 JAN 2020 | 27 FEB 2020 | |
| 4/20 | 13 FEB 2020 | 26 MAR 2020 | |
| 5/20 | 12 MAR 2020 | 23 APR 2020 | |
| 6/20 | 09 APR 2020 | 21 MAY 2020 | |
| 7/20 | 07 MAY 2020 | 18 JUN 2020 | |
| 8/20 | 04 JUN 2020 | 16 JUL 2020 | |
| 9/20 | 02 JUL 2020 | 13 AUG 2020 | |
| 10/20 | 30 JUL 2020 | 10 SEP 2020 | |
| 11/20 | 27 AUG 2020 | 08 OCT 2020 | |
| 12/20 | 24 SEP 2020 | 05 NOV 2020 | |
| 13/20 | 22 OCT 2020 | 03 DEC 2020 | |
| 14/20 | 19 NOV 2020 | 31 DEC 2020 | |
| 1/21 | 17 DEC 2020 | 28 JAN 2021 | |
| 2/21 | NIL | NIL | |
| 3/21 | 11 FEB 2021 | 25 MAR 2021 | |
| 4/21 | 11 MAR 2021 | 22 APR 2021 | |
| 5/21 | 08 APR 2021 | 20 MAY 2021 | |
| 6/21 | 06 MAY 2021 | 17 JUN 2021 | |
| 7/21 | 03 JUN 2021 | 15 JUL 2021 | |
| 8/21 | 01 JUL 2021 | 12 AUG 2021 | |
| 9/21 | NIL | NIL | |
| 10/21 | 26 AUG 2021 | 07 OCT 2021 | |
| 11/21 | 23 SEP 2021 | 04 NOV 2021 | |
| 12/21 | 21 OCT 2021 | 02 DEC 2021 | |
| 13/21 | 18 NOV 2021 | 30 DEC 2021 | |
| 1/22 | NIL | NIL | |
| 2/22 | NIL | NIL | |
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| 4/22 | 10 MAR 2022 | 21 APR 2022 | |

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| AIRAC AIP AMENDMENT | | | |
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| NR/ Year | Publication date | Effective date | Inserted by |
| 5/22 | 07 APR 2022 | 19 MAY 2022 | |
| 6/22 | 05 MAY 2022 | 16 JUN 2022 | |
| 7/22 | 02 JUN 2022 | 14 JUL 2022 | |
| 8/22 | 30 JUN 2022 | 11 AUG 2022 | |
| 9/22 | 28 JUL 2022 | 08 SEP 2022 | |
| 10/22 | 25 AUG 2022 | 06 OCT 2022 | |
| 11/22 | 22 SEP 2022 | 03 NOV 2022 | |
| 12/22 | 20 OCT 2022 | 01 DEC 2022 | |
| 13/22 | 17 NOV 2022 | 29 DEC 2022 | |
| 1/23 | 15 DEC 2022 | 26 JAN 2023 | |
| 2/23 | 12 JAN 2023 | 23 FEB 2023 | |
| 3/23 | 09 FEB 2023 | 23 MAR 2023 | |
| 4/23 | 09 MAR 2023 | 20 APR 2023 | |
| 5/23 | 06 APR 2023 | 18 MAY 2023 | |
| 6/23 | 04 MAY 2023 | 15 JUN 2023 | |
| 7/23 | 01 JUN 2023 | 13 JUL 2023 | |
| 8/23 | 29 JUN 2023 | 10 AUG 2023 | |
| 9/23 | NIL | NIL | |
| 10/23 | NIL | NIL | |
| 11/23 | 21 SEP 2023 | 2 NOV 2023 | |
| 12/23 | 19 OCT 2023 | 30 NOV 2023 | |
| 13/23 | 16 NOV 2023 | 28 DEC 2023 | |
| 1/24 | 14 DEC 2023 | 25 JAN 2024 | |
| 2/24 | 11 JAN 2024 | 22 FEB 2024 | |
| 3/24 | 08 FEB 2024 | 21 MAR 2024 | |
| 4/24 | 7 MAR 2024 | 18 APR 2024 | |
| 5/24 | 4 APR 2024 | 16 MAY 2024 | |
| 6/24 | 2 MAY 2024 | 13 JUN 2024 | |
| 7/24 | 30 MAY 2024 | 11 JUL 2024 | |
| 8/24 | 27 JUN 2024 | 8 AUG 2024 | |
| 9/24 | 25 JUL 2024 | 5 SEP 2024 | |
| 10/24 | 22 AUG 2024 | 3 OCT 2024 | |
| 11/24 | 19 SEP 2024 | 31 OCT 2024 | |
| 12/24 | 17 OCT 2024 | 28 NOV 2024 | |
| 13/24 | 14 NOV 2024 | 26 DEC 2024 | |
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| AIP AMENDMENT | | | | | AIRAC AIP AMENDMENT | | | |
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| NR/ Year | Publication date | Date inserted | Inserted by | | NR/ Year | Publication date | Effective date | Inserted by |
| | | | | | 3/25 | 06 FEB 2025 | 20 MAR 2025 | |
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## GEN 0.3 RECORD OF AIP SUPPLEMENTS

| NR / Year | Subject | AIP section(s) affected | Period of validity | Cancellation record |
|---|---|---|---|---|
| 8/00 | ESTABLISHMENT OF NEW INSTRUMENT APPROACH PROCEDURES AT PHRAE AIRPORT | AD | 05 OCT 2000 - UFN | |
| 10/00 | ESTABLISHMENT OF INSTRUMENT APPROACH PROCEDURE AT TAK/TAK AIRPORT | AD | 28 DEC 2000 - UFN | |
| 7/01 | ESTABLISHMENT OF STANDARD INSTRUMENT DEPARTURE (SIDs) AT TRANG AIRPORT | AD | 09 AUG 2001 - UFN | |
| 15/09 | CANCELLATION OF THE OCA/H AIRCRAFT CATEGORY C AND D ON INSTRUMENT APPROAGH CHART IN MAE HONG SON AIRPORT CONTAINED IN AIP THAILAND | AD | 19 NOV 2009 - UFN | |
| 4/11 | IMPLEMENTATION OF RNP 10 OPERATIONS (50 NM LONGITUDINAL SEPARATION) ON ROUTE SEGMENTS JOINING ATS ROUTE P762 WITHIN BANGKOK FIR | AD | 30 JUN 2011 - UFN | |
| 7/11 | IMPLEMENTATION OF PRE-DEPARTURE CLEARANCE (PDC) OVER DATA LINK | AD | 25 AUG 2011 - UFN | |
| 16/11 | IMPLEMENTATION OF RNP 10 OPERATIONS ON ATS ROUTES WITHIN BANGKOK FIR | AD | 15 DEC 2011 - UFN | |
| 14/14 | ESTABLISHMENT OF THE TEMPORARY ENGINE RUN-UP AREA, THE TEMPORARY ISOLATED AIRCRAFT PARKING AREAS AND THE TEMPORARY HELICOPTER LANDING AREA AT SUVARNABHUMI AIRPORT | AD | 21 AUG 2014 - UFN | |
| 24/16 | Deferred Implementation of ICAO's Amendment 7A to the 15th Edition of Procedure for AirNavigation Services- Air Traffic Management (PANS-ATM, Doc 4444) in Thailand | AD | 05 JAN 2017 - UFN | |
| 31/16 | OPERATING PROCEDURES FOR RNP10 OPERATIONS ON ATS ROUTES L507, P646, N895, L524 AND L301 | AD | 02 FEB 2017 - UFN | |
| 2/17 | RE-ACTIVATE STANDARD INSTRUMENT DEPARTURE RUNWAY 20 OF RANONG AIRPORT | AD | 30 MAR 2017 - UFN | |
| 10/17 | TYPE OF AIRCRAFT CAN BE PARKED AT PIER 5 DON MUEANG INTERNATIONAL AIRPORT | AD | 01 JUN 2017 - UFN | |
| 21/17 | MODES OF OPERATION FOR SUVARNABHUMI INTERNATIONAL AIRPORT | AD | 20 JUL 2017 - PERM | |
| 40/17 | REVISED CLOSURE OF TAXIWAY C AND D AT PHUKET INTERNATIONAL AIRPORT | AD | 27 OCT 2017 - UFN | |
| 11/18 | IMPLEMENTATION OF OPERATING PROCEDURES AND ESTABLISHMENT OF STANDARD DEPARTURE CHART – INSTRUMENT (SID) OF RAYONG / U-TAPAO RAYONG PATTAYA INTERNATIONAL AIRPORT | AD | 11 OCT 2018 - UFN | |
| 26/20 | TEMPORARY TOWER CRANES AT NEARBY CHIANG MAI INTERNATIONAL AIRPORT | AD | 05 NOV 2020 - 16 DEC 2023 | |
| 31/20 | ESTABLISHMENT OF NEW TAXIWAYS AND TAXILANES FOR TEMPORARY AIRCRAFT PARKING AT SUVARNABHUMI INTERNATIONAL AIRPORT | AD | 31 DEC 2020 - UFN | |
| 04/21 | TEMPORARY WITHDRAWAL OF SUKHOTHAI DME (CH40X) AT SUKHOTHAI AIRPORT | AD | 04 JUN 2021 - UFN | |
| 05/21 | TEMPORARY WITHDRAWAL OF NAN/NAN NAKHON ILS/ DME AT NAN NAKHON AIRPORT | AD | 15 JUL 2021 - UFN | |
| 08/21 | TEMPORARY WITHDRAWAL OF PATTANI (PT) NDB | AD | 09 APR 2021 - UFN | |

| NR / Year | Subject | AIP section(s) affected | Period of validity | Cancellation record |
|---|---|---|---|---|
| 14/21 | THE CLOSURE OF TAXIWAY AT SUVARNABHUMI INTERNATIONAL AIRPORT | AD | 27 AUG 2021 - UFN | |
| 01/22 | RUNWAY EXTENSION, RUNWAY OVERLAY, CONSTRUCTION OF RUNWAY 08/26 RESA AND REVISION OF AIRFIELD LIGHTING SYSTEMS AT TRANG AIRPORT | AD | 08 APR 2022 - 30 OCT 2025 | |
| 02/22 | OPENING OF NEW PRIVATE JET TERMINAL, APRON, AIRCRAFT PARKING STANDS, HANGAR AND TAXIWAY AT PHUKET INTERNATIONAL AIRPORT (VTSP) | AD | 24 FEB 2022 - UFN | |
| 02/22 | RUNWAY AND TAXIWAY EXTENSION, APRON EXPANSION, CARGO TERMINAL CONSTRUCTION AND AIRFIELD LIGHTING SYSTEM REVISION AT BURIRAM AIRPORT | AD | 03 JUN 2022 - 31 MAR 2024 | |
| 04/22 | APRON EXTENSION, RUNWAY AND TAXIWAY OVERLAY, CONSTRUCTION OF TAXIWAY D, RUNWAY 03/21 TURN PAD AND RESA,AND REVISION OF AIRFIELD LIGHTING SYSTEMS AT KHON KAEN AIRPORT | AD | 03 JUN 2022 - 29 FEB 2024 | |
| 05/22 | OPENING OF NEW APRON AT KRABI AIRPORT (VTSG) | AD | 03 JUN 2022 - PERM | |
| 07/22 | RELOCATION OF TAXIWAY C AND D SIGNS, AND REVISION OF AIRFIELD LIGHTING SYSTEMS AT NAKHON SI THAMMARAT AIRPORT (VTSF) | AD | 11 AUG 2022 - PERM | |
| 16/22 | APRON EXTENSION, RUNWAY AND TAXIWAY OVERLAY, CONSTRUCTION OF TAXIWAY D, RUNWAY 03/21 TURN PAD AND RESA, AND REVISION OF AIRFIELD LIGHTING SYSTEMS AT KHON KAEN AIRPORT (VTUK) | AD | 18 NOV 2022 - 08 FEB 2024 | |
| 18/22 | THE NEW ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (A-VDGS) AT SUVARNABHUMI INTERNATIONAL AIRPORT (VTBS) | AD | 23 SEP 2022 - UFN | |
| 23/22 | REVISED IMPLEMENTATION OF AIRPORT COLLABORATIVE DECISION MAKING (A-CDM) AT SUVARNABHUMI INTERNATIONAL AIRPORT (VTBS) | AD | 21 OCT 2022 - 21 OCT 2023 | |
| 24/22 | REVISED IMPLEMENTATION OF AIRPORT COLLABORATIVE DECISION MAKING (A-CDM)AT DON MUEANG INTERNATIONAL AIRPORT (VTBD) | AD | 21 OCT 2022 - 21 OCT 2023 | |
| 27/22 | PHUKET INTERNATIONAL AIRPORT RUNWAY CLOSURE PROGRAM (VTSP) | AD | 15 DEC 2022 - 25 OCT 2023 | |
| 28/22 | THE CONSTRUCTION OF RUNWAY END SAFETY AREA (RESA) AND REINSTALLATION OF APPROACH LIGHTING SYSTEM OF RUNWAY 03/21 AT MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT (VTCT) | AD | 26 JAN 2023 - 29 NOV 2023 | |
| 01/23 | TEMPORARY ELECTRIC POLE AT PHUKET INTERNATIONAL AIRPORT (VTSP) | AD | 13 JAN 2023 - UFN | |
| 02/23 | THE CONSTRUCTION OF RUNWAY WIDTH EXTENSION, OVERLAY OF RUNWAY 18/36 AND AIRFIELD LIGHTING SYSTEM AT LAMPANG AIRPORT (VTCL) | AD | 16 JAN 2023 - 30 MAY 2024 | |
| 03/23 | RUNWAY 04/22 OVERLAY, PARALLEL TAXIWAY CONSTRUCTIONAND AIRFIELD LIGHTING SYSTEM REVISION AT SURAT THANI AIRPORT (VTSB) | AD | 17 JAN 2023 - 16 MAR 2024 | |
| 03/23 | TEMPORARY OBSTACLE INSTALLATION AT HAT YAI INTERANTIONAL AIRPORT (VTSS) | AD | 13 JAN 2023 - 31 DEC 2023 | |
| 04/23 | GROUP OF TREE EXCEEDED HIGH THE OBSTACLE LIMITATION SURFACE AT HAT YAI INTERNATIONAL AIRPORT (VTSS) | AD | 13 JAN 2023 - UFN | |

| NR / Year | Subject | AIP section(s) affected | Period of validity | Cancellation record |
|---|---|---|---|---|
| 06/23 | THE UPPER-AIR BALLOON OBSERVATION IN BANGKOK FIR 2023 | AD | 11 FEB 2023 - 31 DEC 2023 | |
| 07/23 | TEMPORARY SUSPENSION OF TRANG GP (ITRN) - (VTST) | AD | 18 MAY 2023 - 31 MAR 2024 | |
| 08/23 | THE UTILIZATION AND CONDITIONS OF THE SAT-1 TAXIWAY AND NORTH APRON AREAS AT SUVARNABHUMI INTERNATIONAL AIRPORT (VTBS) | AD | 23 MAR 2023 - 30 SEP 2023 | |
| 08/23 | MOBILE CRANE OPERATIONS IN CONSTRUCTION OF RUNWAY EXTENSION, RUNWAY OVERLAY, RUNWAY 08/26 RESA AND REVISION OF AIRFIELD LIGHTING SYSTEMS AT TRANG AIRPORT (VTST) | AD | 10 APR 2023 - 30 OCT 2023 | |
| 11/23 | RUNWAY AND TAXIWAY EXTENSION, APRON EXPANSION, CARGO TERMINAL CONSTRUCTION AND AIRFIELD LIGHTING SYSTEM REVISION AT BURIRAM AIRPORT | AD | 10 AUG 2023 - 08 MAR 2024 | |
| 12/23 | THE APPLICATION FOR AN AUTOMATED WEATHER OBSERVING SYSTEM (AWOS) LICENSE AT LAMPANG AIRPORT IS IN PROGRESS | AD | 10 AUG 2023 - 31 DEC 2024 | |
| 12/23 | NEW TAXIWAYS CONSTRUCTION AND AIRFIELD LIGHTING SYSTEMS REVISION AT KRABI AIRPORT (VTSG) | AD | 13 MAR 2023 - 30 APR 2024 | |
| 14/23 | REVISED TEMPORARY TOWER CRANE AT NEARBY CHIANG MAI INTERNATIONAL AIRPORT | AD | 07 APR 2023 - 31 OCT 2023 | |
| 15/23 | TEMPORARY SUSPENSION OF SURAT THANI DVOR/DME (STN) - (VTSB) | AD | 18 MAY 2023 - 15 JUL 2024 | |
| 16/23 | OPENING OF NEW APRON AND NEW TAXIWAY M AND CLOSURE OF EXISTING APRON AND TAXIWAYS (A AND B) AT SURAT THANI AIRPORT (VTSB) | AD | 08 MAY 2023 - 30 SEP 2023 | |
| 17/23 | TEMPORARY SUSPENSION OF SURAT THANI DVOR/DME (STN) - (VTSB) | AD | 15 JUN 2023 - 15 JUL 2024 | |
| 19/23 | TEMPORARY CONSTRUCTION WITH TOWER CRANES ERECTED IN THE VICINITY OF DON MUEANG INTERNATIONAL AIRPORT (VTBD) | AD | 08 JUN 2023 - 31 DEC 2024 | |
| 20/23 | THE RUNWAY PREVENTIVE MAINTENANCE PROGRAM AT SUVARNABHUMI INTERNATIONAL AIRPORT (VTBS) | AD | 06 JUN 2023 - 27 OCT 2023 | |
| 21/23 | THE CLOSURE OF TAXIWAY AND TAXILANE FOR PAVEMENT RECONSTRUCTION PHASE 1 AT SUVARNABHUMI INTERNATIONAL AIRPORT (VTBS) | AD | 06 JUN 2023 - 08 OCT 2023 | |
| 22/23 | THE CONSTRUCTION OF NEW TAXIWAYS AT SUVARNABHUMI INTERNATIONAL AIRPORT (VTBS) | AD | 06 JUN 2023 - 05 MAY 2024 | |
| 24/23 | NEW TAXIWAYS CONSTRUCTION AND AIRFIELD LIGHTING SYSTEMS REVISION AT KRABI AIRPORT (VTSG) | AD | 10 AUG 2023 - 16 APR 2024 | |
| 25/23 | THE VISUAL DOCKING GUIDANCE SYSTEM (VDGS) OF AIRCRAFT STAND NUMBER 3 AT MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT (VTCT) IS UNSERVICEABLE | AD | 10 AUG 2023 - 29 JUN 2024 | |
| 27/23 | Opening of New Apron at Krabi Airport (VTSG) | AD | 10 AUG 2023 - 09 AUG 2024 | |
| 28/23 | OBSTACLE TELECOMMUNICATION TOWER HIGHT 197 FT AGL IN AIR NAVIGATION SAFETY ZONE OF MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT (VTCT) | AD | 10 AUG 2023 - UFN | |
| 29/23 | OBSTACLE RADIO TRANSMISSION MAST HIGHT 230 FT AGL IN AIR NAVIGATION SAFETY ZONE OF MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT (VTCT) | AD | 10 AUG 2023 - UFN | |

| NR / Year | Subject | AIP section(s) affected | Period of validity | Cancellation record |
|---|---|---|---|---|
| 30/23 | OBSTACLE EQUIPMENT (LLWAS) HIGHT 82 FT AGL AT MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT (VTCT) | AD | 10 AUG 2023 - UFN | |
| 31/23 | REVISED THE CONSTRUCTION OF NEW TAXIWAYS AT MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT (VTCT) | AD | 10 AUG 2023 - 30 APR 2024 | |
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| NR / Year | Subject | AIP section(s) affected | Period of validity | Cancellation record |
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## GEN 0.4 CHECKLIST OF AIP PAGES

| Page | Date |
|---|---|
| **PART 1 - GENERAL (GEN)** | |
| **GEN 0.** | |
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| 0.1-3 | 18 JUL 19 |
| 0.2-1 | 21 APR 22 |
| 0.2-2 | 20 FEB 25 |
| **0.2-3** | **10 JUL 25** |
| 0.3-1 | 2 NOV 23 |
| 0.3-2 | 2 NOV 23 |
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| 0.3-4 | 2 NOV 23 |
| 0.3-5 | 2 NOV 23 |
| **0.4-1** | **10 JUL 25** |
| **0.4-2** | **10 JUL 25** |
| **0.4-3** | **10 JUL 25** |
| **0.4-4** | **10 JUL 25** |
| **0.4-5** | **10 JUL 25** |
| **0.4-6** | **10 JUL 25** |
| **0.4-7** | **10 JUL 25** |
| **0.4-8** | **10 JUL 25** |
| **0.4-9** | **10 JUL 25** |
| **0.4-10** | **10 JUL 25** |
| **0.4-11** | **10 JUL 25** |
| 0.5-1 | 18 JUL 19 |
| 0.6-1 | 18 JUL 19 |
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| **1.1-1** | **10 JUL 25** |
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| 1.1-3 | 20 FEB 25 |
| 1.1-4 | 20 FEB 25 |
| 1.2-1 | 20 MAR 25 |
| 1.2-2 | 20 MAR 25 |
| 1.2-3 | 20 MAR 25 |
| 1.2-4 | 20 MAR 25 |
| 1.2-5 | 20 MAR 25 |
| 1.2-6 | 20 MAR 25 |
| 1.2-7 | 20 MAR 25 |
| 1.2-8 | 20 MAR 25 |
| 1.3-1 | 18 JUL 19 |
| 1.3-2 | 18 JUL 19 |
| 1.3-3 | 18 JUL 19 |
| 1.3-4 | 18 JUL 19 |
| 1.3-5 | 18 JUL 19 |
| 1.4-1 | 5 NOV 20 |
| 1.4-2 | 20 FEB 25 |
| 1.4-3 | 31 DEC 20 |
| 1.4-4 | 31 DEC 20 |
| 1.4-5 | 31 DEC 20 |
| 1.5-1 | 3 DEC 20 |
| 1.6-1 | 8 OCT 20 |
| 1.6-2 | 8 OCT 20 |
| 1.6-3 | 8 OCT 20 |
| 1.7-1 | 26 DEC 24 |
| 1.7-2 | 26 DEC 24 |
| 1.7-3 | 26 DEC 24 |
| 1.7-4 | 26 DEC 24 |
| **GEN 2.** | |
| 2.1-1 | 20 FEB 25 |
| 2.1-2 | 20 FEB 25 |
| 2.1-3 | 20 FEB 25 |
| 2.2-1 | 28 NOV 24 |
| 2.2-2 | 12 SEP 19 |
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| 2.2-13 | 12 SEP 19 |
| 2.2-14 | 12 SEP 19 |
| 2.2-15 | 12 SEP 19 |
| 2.2-16 | 12 SEP 19 |
| 2.2-17 | 12 SEP 19 |
| 2.2-18 | 12 SEP 19 |
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| 2.3-2 | 18 JUL 19 |
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| 2.4-2 | 25 JAN 24 |
| 2.4-3 | 25 JAN 24 |
| **2.5-1** | **10 JUL 25** |
| **2.5-2** | **10 JUL 25** |
| **2.5-3** | **10 JUL 25** |
| 2.6-1 | 18 JUL 19 |
| 2.6-2 | 18 JUL 19 |
| 2.6-3 | 18 JUL 19 |
| 2.7-1 | 18 JUL 19 |
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| 3.1-3 | 12 SEP 19 |
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| 3.1-5 | 18 JUN 20 |
| 3.1-6 | 8 AUG 24 |
| 3.1-7 | 28 NOV 24 |
| 3.2-1 | 8 AUG 24 |
| 3.2-2 | 8 AUG 24 |
| **3.2-3** | **10 JUL 25** |
| **3.2-4** | **10 JUL 25** |
| **3.2-5** | **10 JUL 25** |
| 3.2-6 | 15 MAY 25 |
| **3.2-7** | **10 JUL 25** |
| **3.2-8** | **10 JUL 25** |
| **3.2-9** | **10 JUL 25** |
| **3.2-10** | **10 JUL 25** |
| **3.2-11** | **10 JUL 25** |
| **3.2-12** | **10 JUL 25** |
| **3.2-13** | **10 JUL 25** |
| **3.2-14** | **10 JUL 25** |
| **3.2-15** | **10 JUL 25** |
| **3.2-16** | **10 JUL 25** |
| **3.2-17** | **10 JUL 25** |
| **3.2-18** | **10 JUL 25** |
| **3.2-19** | **10 JUL 25** |
| **3.2-20** | **10 JUL 25** |
| **3.2-21** | **10 JUL 25** |
| **3.2-22** | **10 JUL 25** |
| 3.2-23 | 28 NOV 24 |
| 3.2-24 | 15 MAY 25 |
| **3.3-1** | **10 JUL 25** |
| **3.3-2** | **10 JUL 25** |
| **3.3-3** | **10 JUL 25** |
| **3.3-4** | **10 JUL 25** |
| **3.3-5** | **10 JUL 25** |
| **3.3-6** | **10 JUL 25** |
| **3.3-7** | **10 JUL 25** |
| **3.3-8** | **10 JUL 25** |
| **3.3-9** | **10 JUL 25** |
| **3.3-10** | **10 JUL 25** |
| **3.3-11** | **10 JUL 25** |
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| 3.4-2 | 23 JAN 25 |
| 3.4-3 | 23 JAN 25 |
| 3.4-4 | 23 JAN 25 |
| 3.4-5 | 23 JAN 25 |
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| **3.5-1** | **10 JUL 25** |
| **3.5-2** | **10 JUL 25** |
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| 3.5-4 | 30 NOV 23 |
| 3.5-5 | 30 NOV 23 |
| 3.6-1 | 8 AUG 24 |
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| 3.6-3 | 18 JUL 19 |
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| 4.1-3 | 18 JUL 19 |
| 4.2-1 | 17 APR 25 |
| 4.2-2 | 17 APR 25 |
| 4.2-3 | 17 APR 25 |
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| 0.6-2 | 18 JUL 19 |
| **ENR 1.** | |
| 1.1-1 | 18 JUL 19 |
| 1.2-1 | 18 APR 24 |
| 1.2-2 | 28 DEC 23 |
| 1.2-3 | 28 DEC 23 |
| 1.2-4 | 28 DEC 23 |
| 1.3-1 | 18 JUL 19 |
| 1.4-1 | 28 DEC 23 |
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| 1.5-1 | 18 JUL 19 |
| 1.6-1 | 3 OCT 24 |
| 1.6-2 | 3 OCT 24 |
| 1.6-3 | 3 OCT 24 |
| **1.6-4** | **10 JUL 25** |
| 1.6-5 | 3 OCT 24 |
| 1.6-6 | 5 SEP 24 |
| 1.6-7 | 3 OCT 24 |
| 1.6-8 | 3 OCT 24 |
| 1.6-9 | 3 OCT 24 |
| 1.6-10 | 3 OCT 24 |
| 1.6-11 | 3 OCT 24 |
| 1.6-12 | 3 OCT 24 |
| 1.6-13 | 3 OCT 24 |
| 1.6-14 | 3 OCT 24 |
| 1.6-15 | 3 OCT 24 |
| 1.6-16 | 3 OCT 24 |
| 1.6-17 | 3 OCT 24 |
| 1.6-18 | 3 OCT 24 |
| 1.6-19 | 3 OCT 24 |
| 1.6-20 | 3 OCT 24 |
| 1.6-21 | 3 OCT 24 |
| 1.6-22 | 3 OCT 24 |
| 1.6-23 | 3 OCT 24 |
| 1.6-24 | 3 OCT 24 |
| 1.6-25 | 3 OCT 24 |
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| 1.8-5 | 30 DEC 21 |
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| 1.8-8 | 18 APR 24 |
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| **1.8-10** | **10 JUL 25** |
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| 1.9-2 | 21 APR 22 |
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| 1.9-6 | 25 MAR 21 |
| 1.9-7 | 25 MAR 21 |
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| 1.10-2 | 23 JAN 25 |
| 1.10-3 | 23 JAN 25 |
| 1.10-4 | 23 JAN 25 |
| 1.10-5 | 23 JAN 25 |
| 1.10-6 | 23 JAN 25 |
| 1.10-7 | 23 JAN 25 |
| 1.10-8 | 23 JAN 25 |
| 1.10-9 | 23 JAN 25 |
| 1.10-10 | 23 JAN 25 |
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| 1.10-12 | 23 JAN 25 |
| 1.10-13 | 23 JAN 25 |
| 1.10-14 | 23 JAN 25 |
| 1.10-15 | 23 JAN 25 |
| 1.10-16 | 23 JAN 25 |
| 1.10-17 | 23 JAN 25 |
| **1.10-18** | **10 JUL 25** |
| 1.10-19 | 23 JAN 25 |
| 1.10-20 | 23 JAN 25 |
| 1.10-21 | 23 JAN 25 |
| **1.10-22** | **10 JUL 25** |
| 1.10-23 | 23 JAN 25 |
| 1.10-24 | 23 JAN 25 |
| 1.10-25 | 23 JAN 25 |
| **1.10-26** | **10 JUL 25** |
| 1.10-27 | 23 JAN 25 |
| 1.10-28 | 23 JAN 25 |
| 1.10-29 | 23 JAN 25 |
| 1.11-1 | 18 JUL 19 |
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| 1.14-5 | 18 JUL 19 |
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| **2.1-4** | **10 JUL 25** |
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| 2.1-11 | 26 DEC 24 |
| **2.1-12** | **10 JUL 25** |
| **2.1-13** | **10 JUL 25** |
| **2.1-14** | **10 JUL 25** |
| **2.1-15** | **10 JUL 25** |
| **2.1-16** | **10 JUL 25** |
| **2.1-17** | **10 JUL 25** |
| **2.1-18** | **10 JUL 25** |
| **2.1-19** | **10 JUL 25** |
| **2.1-20** | **10 JUL 25** |
| **2.1-21** | **10 JUL 25** |
| **2.1-22** | **10 JUL 25** |
| **2.1-23** | **10 JUL 25** |
| **2.1-24** | **10 JUL 25** |
| **2.1-25** | **10 JUL 25** |
| **2.1-26** | **10 JUL 25** |
| **2.1-27** | **10 JUL 25** |
| **2.1-28** | **10 JUL 25** |
| **2.1-29** | **10 JUL 25** |
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| **3.1-4** | **10 JUL 25** |
| 3.1-5 | 16 MAY 24 |
| **3.1-6** | **10 JUL 25** |
| 3.1-7 | 17 APR 25 |
| 3.1-8 | 15 MAY 25 |
| 3.1-9 | 16 MAY 24 |
| **3.1-10** | **10 JUL 25** |
| 3.1-11 | 15 MAY 25 |
| 3.1-12 | 23 JAN 25 |
| 3.1-13 | 15 MAY 25 |
| **3.1-14** | **10 JUL 25** |
| **3.1-15** | **10 JUL 25** |
| **3.1-16** | **10 JUL 25** |
| 3.1-17 | 16 MAY 24 |
| **3.1-18** | **10 JUL 25** |
| **3.1-19** | **10 JUL 25** |
| **3.1-20** | **10 JUL 25** |
| 3.1-21 | 26 DEC 24 |
| **3.1-22** | **10 JUL 25** |
| 3.1-23 | 26 DEC 24 |
| 3.1-24 | 26 DEC 24 |
| **3.1-25** | **10 JUL 25** |
| **3.1-26** | **10 JUL 25** |
| 3.1-27 | 15 MAY 25 |
| **3.1-28** | **10 JUL 25** |
| **3.1-29** | **10 JUL 25** |
| **3.1-30** | **10 JUL 25** |
| **3.1-31** | **10 JUL 25** |
| **3.1-32** | **10 JUL 25** |
| **3.1-33** | **10 JUL 25** |
| **3.1-34** | **10 JUL 25** |
| **3.1-35** | **10 JUL 25** |
| 3.1-36 | 15 MAY 25 |
| 3.1-37 | 26 DEC 24 |
| 3.1-38 | 16 MAY 24 |
| 3.1-39 | 26 DEC 24 |
| 3.1-40 | 16 MAY 24 |
| 3.1-41 | 26 DEC 24 |
| 3.1-42 | 26 DEC 24 |
| **3.1-43** | **10 JUL 25** |
| 3.1-44 | 15 MAY 25 |
| 3.1-45 | 15 MAY 25 |
| **3.1-46** | **10 JUL 25** |
| **3.1-47** | **10 JUL 25** |
| 3.1-48 | 26 DEC 24 |
| 3.1-49 | 15 MAY 25 |
| 3.1-50 | 26 DEC 24 |
| 3.1-51 | 26 DEC 24 |
| 3.1-52 | 16 MAY 24 |
| 3.1-53 | 26 DEC 24 |
| 3.1-54 | 26 DEC 24 |
| 3.1-55 | 15 MAY 25 |
| **3.1-56** | **10 JUL 25** |
| 3.1-57 | 26 DEC 24 |
| 3.1-58 | 16 MAY 24 |
| **3.1-59** | **10 JUL 25** |
| **3.1-60** | **10 JUL 25** |
| **3.1-61** | **10 JUL 25** |
| **3.1-62** | **10 JUL 25** |
| 3.1-63 | 26 DEC 24 |
| 3.1-64 | 15 MAY 25 |
| 3.1-65 | 15 MAY 25 |
| 3.1-66 | 26 DEC 24 |
| **3.1-67** | **10 JUL 25** |
| **3.1-68** | **10 JUL 25** |
| **3.1-69** | **10 JUL 25** |
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| **3.1-71** | **10 JUL 25** |
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| 3.3-1 | 23 JAN 25 |
| 3.3-2 | 2 NOV 23 |
| **3.3-3** | **10 JUL 25** |
| **3.3-4** | **10 JUL 25** |
| **3.3-5** | **10 JUL 25** |
| **3.3-6** | **10 JUL 25** |
| 3.3-7 | 23 APR 20 |
| **3.3-8** | **10 JUL 25** |
| **3.3-9** | **10 JUL 25** |
| 3.3-10 | 18 APR 24 |
| 3.3-11 | 8 OCT 20 |
| **3.3-12** | **10 JUL 25** |
| 3.3-13 | 15 MAY 25 |
| 3.3-14 | 18 APR 24 |
| 3.3-15 | 2 NOV 23 |
| 3.3-16 | 2 NOV 23 |
| **3.3-17** | **10 JUL 25** |
| **3.3-18** | **10 JUL 25** |
| **3.3-19** | **10 JUL 25** |
| **3.3-20** | **10 JUL 25** |
| 3.3-21 | 23 JAN 25 |
| 3.3-22 | 2 NOV 23 |
| 3.3-23 | 15 MAY 25 |
| 3.3-24 | 15 MAY 25 |
| **3.3-25** | **10 JUL 25** |
| **3.3-26** | **10 JUL 25** |
| **3.3-27** | **10 JUL 25** |
| 3.3-28 | 23 JAN 25 |
| **3.3-29** | **10 JUL 25** |
| **3.3-30** | **10 JUL 25** |
| **3.3-31** | **10 JUL 25** |
| 3.3-32 | 23 JAN 25 |
| 3.3-33 | 23 JAN 25 |
| 3.3-34 | 23 JAN 25 |
| 3.3-35 | 23 JAN 25 |
| 3.3-36 | 23 JAN 25 |
| 3.3-37 | 23 JAN 25 |
| **3.3-38** | **10 JUL 25** |
| **3.3-39** | **10 JUL 25** |
| 3.3-40 | 23 JAN 25 |
| **3.3-41** | **10 JUL 25** |

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| **3.3-42** | **10 JUL 25** |
| **3.3-43** | **10 JUL 25** |
| 3.3-44 | 15 MAY 25 |
| 3.3-45 | 23 JAN 25 |
| 3.3-46 | 23 JAN 25 |
| 3.3-47 | 23 JAN 25 |
| **3.3-48** | **10 JUL 25** |
| 3.3-49 | 23 JAN 25 |
| 3.3-50 | 23 JAN 25 |
| 3.3-51 | 15 MAY 25 |
| 3.3-52 | 23 JAN 25 |
| 3.3-53 | 23 JAN 25 |
| 3.3-54 | 23 JAN 25 |
| 3.3-55 | 15 MAY 25 |
| 3.3-56 | 23 JAN 25 |
| 3.3-57 | 23 JAN 25 |
| 3.3-58 | 23 JAN 25 |
| 3.3-59 | 23 JAN 25 |
| 3.3-60 | 23 JAN 25 |
| 3.3-61 | 23 JAN 25 |
| 3.3-62 | 23 JAN 25 |
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| 3.5-1 | 19 MAY 22 |
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| 4.1-2 | 23 JAN 25 |
| **4.1-3** | **10 JUL 25** |
| **4.1-4** | **10 JUL 25** |
| 4.1-5 | 15 MAY 25 |
| **4.1-6** | **10 JUL 25** |
| **4.1-7** | **10 JUL 25** |
| **4.1-8** | **10 JUL 25** |
| **4.1-9** | **10 JUL 25** |
| **4.1-10** | **10 JUL 25** |
| **4.1-11** | **10 JUL 25** |
| 4.1-12 | 23 MAR 23 |
| 4.2-1 | 18 JUL 19 |
| 4.3-1 | 12 AUG 21 |
| **4.4-1** | **10 JUL 25** |
| **4.4-2** | **10 JUL 25** |
| **4.4-3** | **10 JUL 25** |
| **4.4-4** | **10 JUL 25** |
| 4.5-1 | 17 JUN 21 |
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| 5.1-1 | 5 DEC 19 |
| 5.1-2 | 5 DEC 19 |
| 5.1-3 | 30 NOV 23 |
| 5.1-4 | 30 NOV 23 |
| 5.1-5 | 30 NOV 23 |
| 5.1-6 | 30 NOV 23 |
| 5.1-7 | 30 NOV 23 |
| 5.1-8 | 5 DEC 19 |
| 5.1-9 | 18 JUN 20 |
| 5.1-10 | 5 DEC 19 |
| 5.1-11 | 10 AUG 23 |
| 5.1-12 | 20 MAY 21 |
| 5.1-13 | 20 MAY 21 |
| 5.1-14 | 20 MAY 21 |
| 5.1-15 | 5 DEC 19 |
| 5.1-16 | 18 JUN 20 |
| 5.1-17 | 5 DEC 19 |
| 5.1-18 | 30 NOV 23 |
| 5.1-19 | 5 DEC 19 |
| 5.1-20 | 2 JAN 20 |
| 5.1-21 | 5 DEC 19 |
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| 0.6-3 | 23 JAN 25 |
| 0.6-4 | 18 JUN 20 |
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| 0.6-7 | 18 JUL 19 |
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| 0.6-10 | 18 JUL 19 |
| 0.6-11 | 18 JUN 20 |
| 0.6-12 | 23 JAN 25 |
| 0.6-13 | 18 JUN 20 |
| 0.6-14 | 18 JUN 20 |
| 0.6-15 | 23 JAN 25 |
| 0.6-16 | 18 JUN 20 |
| 0.6-17 | 18 JUN 20 |
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| 0.6-19 | 18 JUN 20 |
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| 1.1-1 | 28 JAN 21 |
| 1.1-2 | 28 JAN 21 |
| 1.1-3 | 26 DEC 24 |
| 1.2-1 | 20 APR 23 |
| 1.2-2 | 20 APR 23 |
| 1.3-1 | 25 JAN 24 |
| 1.3-2 | 6 OCT 22 |
| 1.3-3 | 6 OCT 22 |
| 1.3-4 | 10 OCT 19 |
| 1.4-1 | 18 JUL 19 |
| **1.5-1** | **10 JUL 25** |
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| 2-VTBD-1-2 | 7 OCT 21 |
| 2-VTBD-1-3 | 8 AUG 24 |
| 2-VTBD-1-4 | 20 MAY 21 |
| 2-VTBD-1-5 | 28 NOV 24 |
| 2-VTBD-1-6 | 23 MAR 23 |
| 2-VTBD-1-7 | 17 APR 25 |
| 2-VTBD-1-8 | 18 MAY 23 |
| 2-VTBD-1-9 | 3 NOV 22 |
| **2-VTBD-1-10** | **10 JUL 25** |
| **2-VTBD-1-11** | **10 JUL 25** |
| 2-VTBD-1-12 | 20 MAY 21 |
| 2-VTBD-1-13 | 20 MAY 21 |
| 2-VTBD-1-14 | 7 OCT 21 |
| 2-VTBD-1-15 | 20 MAY 21 |
| 2-VTBD-1-16 | 20 MAY 21 |
| 2-VTBD-1-17 | 20 MAY 21 |
| 2-VTBD-1-18 | 20 MAY 21 |
| 2-VTBD-1-19 | 20 MAY 21 |
| 2-VTBD-1-20 | 28 NOV 24 |
| 2-VTBD-1-21 | 28 NOV 24 |
| 2-VTBD-1-22 | 28 NOV 24 |
| 2-VTBD-1-23 | 28 NOV 24 |
| 2-VTBD-1-24 | 28 NOV 24 |
| 2-VTBD-1-25 | 28 NOV 24 |
| 2-VTBD-1-26 | 28 NOV 24 |
| 2-VTBD-1-27 | 28 NOV 24 |
| 2-VTBD-1-28 | 28 NOV 24 |
| 2-VTBD-1-29 | 28 NOV 24 |
| 2-VTBD-1-30 | 28 NOV 24 |
| 2-VTBD-1-31 | 28 NOV 24 |
| 2-VTBD-1-32 | 28 NOV 24 |
| 2-VTBD-1-33 | 28 NOV 24 |
| 2-VTBD-1-34 | 28 NOV 24 |
| **2-VTBD-1-35** | **10 JUL 25** |
| 2-VTBD-1-36 | 28 NOV 24 |
| 2-VTBD-1-37 | 28 NOV 24 |
| 2-VTBD-1-38 | 28 NOV 24 |
| 2-VTBD-1-39 | 28 NOV 24 |
| **2-VTBD-1-40** | **10 JUL 25** |
| **2-VTBD-1-41** | **10 JUL 25** |
| **2-VTBD-1-42** | **10 JUL 25** |
| **2-VTBD-1-43** | **10 JUL 25** |
| 2-VTBD-2-1 | 20 FEB 25 |
| 2-VTBD-2-3 | 20 MAY 21 |
| 2-VTBD-2-4 | 28 JAN 21 |
| 2-VTBD-2-5 | 20 FEB 25 |
| 2-VTBD-3-1 | 18 JUL 19 |
| 2-VTBD-3-3 | 18 JUL 19 |
| 2-VTBD-3-5 | 3 OCT 24 |
| **2-VTBD-6-1** | **10 JUL 25** |
| **2-VTBD-6-2** | **10 JUL 25** |
| **2-VTBD-6-3** | **10 JUL 25** |
| **2-VTBD-6-4** | **10 JUL 25** |
| **2-VTBD-6-5** | **10 JUL 25** |
| **2-VTBD-6-6** | **10 JUL 25** |
| **2-VTBD-6-7** | **10 JUL 25** |
| **2-VTBD-6-9** | **10 JUL 25** |
| **2-VTBD-6-10** | **10 JUL 25** |
| **2-VTBD-6-11** | **10 JUL 25** |
| **2-VTBD-6-12** | **10 JUL 25** |
| **2-VTBD-6-13** | **10 JUL 25** |
| **2-VTBD-6-14** | **10 JUL 25** |
| **2-VTBD-6-15** | **10 JUL 25** |
| **2-VTBD-6-16** | **10 JUL 25** |
| **2-VTBD-6-17** | **10 JUL 25** |
| **2-VTBD-6-18** | **10 JUL 25** |
| **2-VTBD-6-19** | **10 JUL 25** |
| **2-VTBD-6-20** | **10 JUL 25** |
| **2-VTBD-6-21** | **10 JUL 25** |
| **2-VTBD-6-23** | **10 JUL 25** |
| **2-VTBD-6-24** | **10 JUL 25** |
| **2-VTBD-6-25** | **10 JUL 25** |
| **2-VTBD-6-26** | **10 JUL 25** |
| **2-VTBD-6-27** | **10 JUL 25** |
| **2-VTBD-6-28** | **10 JUL 25** |
| **2-VTBD-6-29** | **10 JUL 25** |
| **2-VTBD-6-30** | **10 JUL 25** |
| **2-VTBD-6-31** | **10 JUL 25** |
| **2-VTBD-6-32** | **10 JUL 25** |
| **2-VTBD-6-33** | **10 JUL 25** |
| **2-VTBD-6-34** | **10 JUL 25** |
| **2-VTBD-6-35** | **10 JUL 25** |
| **2-VTBD-6-36** | **10 JUL 25** |
| **2-VTBD-6-37** | **10 JUL 25** |
| **2-VTBD-6-38** | **10 JUL 25** |
| **2-VTBD-6-39** | **10 JUL 25** |
| **2-VTBD-6-40** | **10 JUL 25** |
| **2-VTBD-6-41** | **10 JUL 25** |
| **2-VTBD-6-43** | **10 JUL 25** |
| **2-VTBD-6-44** | **10 JUL 25** |
| **2-VTBD-6-45** | **10 JUL 25** |
| **2-VTBD-6-46** | **10 JUL 25** |

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| **2-VTBD-6-47** | **10 JUL 25** |
| **2-VTBD-6-48** | **10 JUL 25** |
| **2-VTBD-6-49** | **10 JUL 25** |
| **2-VTBD-6-50** | **10 JUL 25** |
| **2-VTBD-6-51** | **10 JUL 25** |
| **2-VTBD-6-52** | **10 JUL 25** |
| **2-VTBD-6-53** | **10 JUL 25** |
| **2-VTBD-6-54** | **10 JUL 25** |
| **2-VTBD-6-55** | **10 JUL 25** |
| 2-VTBD-7-1 | 26 DEC 24 |
| 2-VTBD-7-2 | 8 OCT 20 |
| 2-VTBD-7-3 | 21 APR 22 |
| 2-VTBD-7-4 | 20 MAR 25 |
| 2-VTBD-7-5 | 8 OCT 20 |
| 2-VTBD-7-6 | 8 OCT 20 |
| 2-VTBD-7-7 | 8 OCT 20 |
| 2-VTBD-7-8 | 8 OCT 20 |
| 2-VTBD-7-9 | 26 DEC 24 |
| 2-VTBD-7-10 | 4 NOV 21 |
| 2-VTBD-7-11 | 21 APR 22 |
| 2-VTBD-7-12 | 26 DEC 24 |
| 2-VTBD-7-13 | 4 NOV 21 |
| 2-VTBD-7-14 | 4 NOV 21 |
| 2-VTBD-7-15 | 4 NOV 21 |
| 2-VTBD-7-16 | 4 NOV 21 |
| **2-VTBD-8-1** | **10 JUL 25** |
| **2-VTBD-8-3** | **10 JUL 25** |
| **2-VTBD-8-5** | **10 JUL 25** |
| **2-VTBD-8-7** | **10 JUL 25** |
| 2-VTBD-8-9 | 18 MAY 23 |
| **2-VTBD-8-10** | **10 JUL 25** |
| **2-VTBD-8-11** | **10 JUL 25** |
| 2-VTBD-8-13 | 18 MAY 23 |
| 2-VTBD-8-14 | 18 JUL 19 |
| **2-VTBD-8-15** | **10 JUL 25** |
| 2-VTBD-8-17 | 18 MAY 23 |
| 2-VTBD-8-18 | 18 JUL 19 |
| **2-VTBD-8-19** | **10 JUL 25** |
| 2-VTBD-8-21 | 18 MAY 23 |
| 2-VTBD-8-22 | 18 MAY 23 |
| **2-VTBD-8-23** | **10 JUL 25** |
| 2-VTBD-8-25 | 18 MAY 23 |
| 2-VTBD-8-26 | 4 NOV 21 |
| 2-VTBD-8-27 | 18 MAY 23 |
| 2-VTBD-8-28 | 4 NOV 21 |
| 2-VTBD-8-29 | 18 MAY 23 |
| 2-VTBD-8-30 | 18 MAY 23 |
| 2-VTBD-8-31 | 18 MAY 23 |
| 2-VTBD-8-32 | 18 MAY 23 |
| 2-VTBD-9-1 | 28 NOV 24 |
| 2-VTBD-9-2 | 28 NOV 24 |
| 2-VTBD-9-3 | 28 NOV 24 |
| 2-VTBD-9-4 | 28 NOV 24 |
| 2-VTBD-9-5 | 28 NOV 24 |
| 2-VTBD-9-7 | 28 NOV 24 |
| 2-VTBD-9-8 | 28 NOV 24 |
| 2-VTBD-9-9 | 28 NOV 24 |
| 2-VTBD-9-10 | 28 NOV 24 |
| 2-VTBD-9-11 | 28 NOV 24 |
| 2-VTBD-9-13 | 28 NOV 24 |
| 2-VTBD-9-14 | 28 NOV 24 |
| 2-VTBD-9-15 | 28 NOV 24 |
| 2-VTBD-9-16 | 28 NOV 24 |
| 2-VTBD-9-17 | 28 NOV 24 |
| 2-VTBD-9-18 | 28 NOV 24 |
| 2-VTBD-9-19 | 28 NOV 24 |
| 2-VTBD-9-20 | 28 NOV 24 |
| 2-VTBD-9-21 | 28 NOV 24 |
| 2-VTBD-9-22 | 28 NOV 24 |
| 2-VTBD-9-23 | 28 NOV 24 |
| 2-VTBD-9-24 | 28 NOV 24 |
| 2-VTBD-9-25 | 28 NOV 24 |
| 2-VTBD-9-26 | 28 NOV 24 |
| 2-VTBD-9-27 | 28 NOV 24 |
| 2-VTBD-9-28 | 28 NOV 24 |
| 2-VTBD-9-29 | 28 NOV 24 |

**CHIANG MAI/CHIANG MAI INTERNATIONAL AIRPORT**

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| 2-VTCC-1-1 | 18 APR 24 |
| 2-VTCC-1-2 | 17 APR 25 |
| 2-VTCC-1-3 | 28 NOV 24 |
| 2-VTCC-1-4 | 17 APR 25 |
| 2-VTCC-1-5 | 28 NOV 24 |
| 2-VTCC-1-6 | 28 NOV 24 |
| 2-VTCC-1-7 | 26 DEC 24 |
| 2-VTCC-1-8 | 28 NOV 24 |
| 2-VTCC-1-9 | 28 NOV 24 |
| 2-VTCC-1-10 | 28 NOV 24 |
| 2-VTCC-1-11 | 7 DEC 17 |
| 2-VTCC-1-12 | 12 SEP 19 |
| 2-VTCC-1-13 | 28 JAN 21 |
| 2-VTCC-1-14 | 18 MAY 23 |
| 2-VTCC-1-15 | 28 NOV 24 |
| 2-VTCC-1-16 | 28 NOV 24 |
| 2-VTCC-1-17 | 28 NOV 24 |
| 2-VTCC-1-18 | 28 NOV 24 |
| 2-VTCC-1-19 | 28 NOV 24 |
| 2-VTCC-1-20 | 28 NOV 24 |
| 2-VTCC-1-21 | 28 NOV 24 |
| 2-VTCC-1-22 | 28 NOV 24 |
| 2-VTCC-1-23 | 26 DEC 24 |
| 2-VTCC-1-24 | 26 DEC 24 |
| 2-VTCC-2-1 | 28 NOV 24 |
| 2-VTCC-2-3 | 28 NOV 24 |
| 2-VTCC-2-5 | 28 NOV 24 |
| 2-VTCC-3-1 | 21 MAR 24 |
| 2-VTCC-5-1 | 2 NOV 23 |
| 2-VTCC-6-1 | 18 JUL 19 |
| 2-VTCC-6-2 | 18 JUL 19 |
| 2-VTCC-6-3 | 18 JUL 19 |
| 2-VTCC-6-5 | 18 JUL 19 |
| 2-VTCC-6-6 | 18 JUL 19 |
| 2-VTCC-6-7 | 18 JUL 19 |
| 2-VTCC-6-9 | 26 DEC 24 |
| 2-VTCC-6-10 | 26 DEC 24 |
| 2-VTCC-6-11 | 26 DEC 24 |
| 2-VTCC-6-12 | 26 DEC 24 |
| 2-VTCC-6-13 | 26 DEC 24 |
| 2-VTCC-6-14 | 26 DEC 24 |
| 2-VTCC-6-15 | 26 DEC 24 |
| 2-VTCC-6-17 | 26 DEC 24 |
| 2-VTCC-6-18 | 26 DEC 24 |
| 2-VTCC-6-19 | 26 DEC 24 |
| 2-VTCC-6-20 | 26 DEC 24 |
| 2-VTCC-6-21 | 26 DEC 24 |
| 2-VTCC-6-22 | 26 DEC 24 |
| 2-VTCC-6-23 | 26 DEC 24 |
| 2-VTCC-6-24 | 26 DEC 24 |
| 2-VTCC-6-25 | 26 DEC 24 |
| 2-VTCC-6-26 | 26 DEC 24 |
| 2-VTCC-6-27 | 26 DEC 24 |
| 2-VTCC-6-28 | 26 DEC 24 |
| 2-VTCC-6-29 | 26 DEC 24 |
| 2-VTCC-6-30 | 26 DEC 24 |
| 2-VTCC-7-1 | 26 DEC 24 |
| 2-VTCC-7-2 | 26 DEC 24 |
| 2-VTCC-7-3 | 26 DEC 24 |
| 2-VTCC-7-4 | 26 DEC 24 |
| 2-VTCC-7-5 | 26 DEC 24 |
| 2-VTCC-7-6 | 26 DEC 24 |
| 2-VTCC-7-7 | 26 DEC 24 |
| 2-VTCC-7-8 | 26 DEC 24 |
| 2-VTCC-7-9 | 26 DEC 24 |
| 2-VTCC-7-11 | 26 DEC 24 |
| 2-VTCC-7-12 | 26 DEC 24 |
| 2-VTCC-7-13 | 26 DEC 24 |
| 2-VTCC-7-14 | 26 DEC 24 |
| 2-VTCC-7-15 | 26 DEC 24 |
| 2-VTCC-7-16 | 26 DEC 24 |
| 2-VTCC-7-17 | 26 DEC 24 |
| 2-VTCC-7-18 | 26 DEC 24 |
| 2-VTCC-7-19 | 26 DEC 24 |
| 2-VTCC-7-20 | 26 DEC 24 |
| 2-VTCC-7-21 | 26 DEC 24 |
| 2-VTCC-8-1 | 26 DEC 24 |
| 2-VTCC-8-2 | 26 DEC 24 |
| 2-VTCC-8-3 | 26 DEC 24 |
| 2-VTCC-8-4 | 26 DEC 24 |
| 2-VTCC-8-5 | 26 DEC 24 |
| 2-VTCC-8-6 | 26 DEC 24 |
| 2-VTCC-8-7 | 26 DEC 24 |
| 2-VTCC-8-8 | 26 DEC 24 |
| 2-VTCC-8-9 | 26 DEC 24 |
| 2-VTCC-8-11 | 26 DEC 24 |
| 2-VTCC-8-12 | 26 DEC 24 |
| 2-VTCC-8-13 | 26 DEC 24 |
| 2-VTCC-8-14 | 26 DEC 24 |

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|---|---|
| 2-VTCT-1-1 | 22 FEB 24 |
| 2-VTCT-1-2 | 14 JUL 22 |
| 2-VTCT-1-3 | 18 APR 24 |
| 2-VTCT-1-4 | 28 NOV 24 |
| 2-VTCT-1-5 | 17 APR 25 |
| 2-VTCT-1-6 | 20 MAR 25 |
| 2-VTCT-1-7 | 26 DEC 24 |
| 2-VTCT-1-8 | 26 DEC 24 |
| 2-VTCT-1-9 | 26 DEC 24 |
| 2-VTCT-1-10 | 18 APR 24 |
| 2-VTCT-1-11 | 18 APR 24 |
| 2-VTCT-1-12 | 17 APR 25 |
| 2-VTCT-1-13 | 17 APR 25 |
| 2-VTCT-2-1 | 20 FEB 25 |
| 2-VTCT-2-3 | 28 NOV 24 |
| 2-VTCT-2-5 | 20 FEB 25 |
| 2-VTCT-3-1 | 18 JUL 19 |
| 2-VTCT-6-1 | 26 DEC 24 |
| 2-VTCT-6-2 | 26 DEC 24 |
| 2-VTCT-6-3 | 26 DEC 24 |
| 2-VTCT-6-4 | 26 DEC 24 |
| 2-VTCT-8-1 | 2 NOV 23 |
| 2-VTCT-8-2 | 26 DEC 24 |
| 2-VTCT-8-3 | 2 NOV 23 |
| 2-VTCT-8-4 | 26 DEC 24 |
| 2-VTCT-8-5 | 2 NOV 23 |
| 2-VTCT-8-6 | 26 DEC 24 |
| 2-VTCT-8-7 | 2 NOV 23 |
| 2-VTCT-8-8 | 26 DEC 24 |
| 2-VTCT-8-9 | 2 NOV 23 |
| 2-VTCT-8-10 | 2 NOV 23 |
| 2-VTCT-8-11 | 2 NOV 23 |
| 2-VTCT-8-12 | 2 NOV 23 |
| 2-VTCT-8-13 | 2 NOV 23 |
| 2-VTCT-8-14 | 2 NOV 23 |

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|---|---|
| 2-VTSP-1-1 | 28 NOV 24 |
| 2-VTSP-1-2 | 25 JAN 24 |
| 2-VTSP-1-3 | 17 JUN 21 |
| 2-VTSP-1-4 | 28 NOV 24 |

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| 2-VTSP-1-5 | 28 NOV 24 |
| 2-VTSP-1-6 | 17 APR 25 |
| 2-VTSP-1-7 | 28 NOV 24 |
| **2-VTSP-1-8** | **10 JUL 25** |
| **2-VTSP-1-9** | **10 JUL 25** |
| 2-VTSP-1-10 | 28 NOV 24 |
| 2-VTSP-1-11 | 28 NOV 24 |
| 2-VTSP-1-12 | 25 JAN 24 |
| 2-VTSP-1-13 | 25 JAN 24 |
| 2-VTSP-1-14 | 17 JUN 21 |
| 2-VTSP-1-15 | 17 JUN 21 |
| 2-VTSP-1-16 | 17 JUN 21 |
| 2-VTSP-1-17 | 17 JUN 21 |
| 2-VTSP-1-18 | 26 JAN 23 |
| 2-VTSP-1-19 | 25 JAN 24 |
| 2-VTSP-1-20 | 25 JAN 24 |
| 2-VTSP-1-21 | 25 JAN 24 |
| 2-VTSP-1-22 | 25 JAN 24 |
| 2-VTSP-1-23 | 25 JAN 24 |
| **2-VTSP-1-24** | **10 JUL 25** |
| **2-VTSP-1-25** | **10 JUL 25** |
| 2-VTSP-2-1 | 28 NOV 24 |
| 2-VTSP-2-3 | 28 NOV 24 |
| 2-VTSP-2-4 | 25 JAN 24 |
| 2-VTSP-2-5 | 28 NOV 24 |
| 2-VTSP-3-1 | 18 JUL 19 |
| **2-VTSP-6-1** | **10 JUL 25** |
| **2-VTSP-6-2** | **10 JUL 25** |
| **2-VTSP-6-3** | **10 JUL 25** |
| **2-VTSP-6-5** | **10 JUL 25** |
| **2-VTSP-6-6** | **10 JUL 25** |
| **2-VTSP-6-7** | **10 JUL 25** |
| **2-VTSP-6-8** | **10 JUL 25** |
| **2-VTSP-6-9** | **10 JUL 25** |
| 2-VTSP-7-1 | 20 MAY 21 |
| 2-VTSP-7-2 | 18 JUL 19 |
| 2-VTSP-7-3 | 18 JUL 19 |
| 2-VTSP-7-4 | 18 JUL 19 |
| 2-VTSP-7-5 | 18 JUL 19 |
| 2-VTSP-7-7 | 20 MAY 21 |
| 2-VTSP-7-8 | 18 JUL 19 |
| 2-VTSP-7-9 | 18 JUL 19 |
| 2-VTSP-7-10 | 18 JUL 19 |
| 2-VTSP-7-11 | 18 JUL 19 |
| **2-VTSP-8-1** | **10 JUL 25** |
| **2-VTSP-8-3** | **10 JUL 25** |
| **2-VTSP-8-5** | **10 JUL 25** |
| **2-VTSP-8-7** | **10 JUL 25** |
| **2-VTSP-8-9** | **10 JUL 25** |
| 2-VTSP-8-11 | 2 NOV 23 |
| 2-VTSP-8-12 | 2 NOV 23 |
| 2-VTSP-8-13 | 2 NOV 23 |
| 2-VTSP-8-14 | 2 NOV 23 |
| 2-VTSP-8-15 | 2 NOV 23 |
| 2-VTSP-8-16 | 2 NOV 23 |
| 2-VTSP-8-17 | 17 JUN 21 |
| 2-VTSP-8-19 | 2 NOV 23 |
| 2-VTSP-8-20 | 2 NOV 23 |
| 2-VTSP-8-21 | 17 JUN 21 |

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| 2-VTBS-1-1 | 15 MAY 25 |
| 2-VTBS-1-2 | 12 JUN 25 |
| 2-VTBS-1-3 | 12 JUN 25 |
| 2-VTBS-1-4 | 28 NOV 24 |
| 2-VTBS-1-5 | 28 NOV 24 |
| 2-VTBS-1-6 | 28 NOV 24 |
| 2-VTBS-1-7 | 26 DEC 24 |
| 2-VTBS-1-8 | 28 NOV 24 |
| 2-VTBS-1-9 | 28 NOV 24 |
| 2-VTBS-1-10 | 28 NOV 24 |
| 2-VTBS-1-11 | 28 NOV 24 |
| 2-VTBS-1-12 | 28 NOV 24 |
| 2-VTBS-1-13 | 28 NOV 24 |
| 2-VTBS-1-14 | 28 NOV 24 |
| 2-VTBS-1-15 | 17 APR 25 |
| 2-VTBS-1-16 | 28 NOV 24 |
| 2-VTBS-1-17 | 28 NOV 24 |
| 2-VTBS-1-18 | 28 NOV 24 |
| 2-VTBS-1-19 | 28 NOV 24 |
| **2-VTBS-1-20** | **10 JUL 25** |
| **2-VTBS-1-21** | **10 JUL 25** |
| **2-VTBS-1-22** | **10 JUL 25** |
| 2-VTBS-1-23 | 28 NOV 24 |
| 2-VTBS-1-24 | 28 NOV 24 |
| 2-VTBS-1-25 | 28 NOV 24 |
| 2-VTBS-1-26 | 28 NOV 24 |
| 2-VTBS-1-27 | 28 NOV 24 |
| 2-VTBS-1-28 | 28 NOV 24 |
| 2-VTBS-1-29 | 28 NOV 24 |
| 2-VTBS-1-30 | 28 NOV 24 |
| 2-VTBS-1-31 | 28 NOV 24 |
| 2-VTBS-1-32 | 28 NOV 24 |
| 2-VTBS-1-33 | 28 NOV 24 |
| 2-VTBS-1-34 | 28 NOV 24 |
| 2-VTBS-1-35 | 28 NOV 24 |
| 2-VTBS-1-36 | 28 NOV 24 |
| 2-VTBS-1-37 | 28 NOV 24 |
| 2-VTBS-1-38 | 28 NOV 24 |
| 2-VTBS-1-39 | 28 NOV 24 |
| 2-VTBS-1-40 | 28 NOV 24 |
| 2-VTBS-1-41 | 12 JUN 25 |
| 2-VTBS-1-42 | 12 JUN 25 |
| 2-VTBS-1-43 | 12 JUN 25 |
| 2-VTBS-1-44 | 12 JUN 25 |
| 2-VTBS-1-45 | 12 JUN 25 |
| 2-VTBS-1-46 | 12 JUN 25 |
| 2-VTBS-1-47 | 12 JUN 25 |
| 2-VTBS-1-48 | 12 JUN 25 |
| 2-VTBS-1-49 | 12 JUN 25 |
| 2-VTBS-1-50 | 12 JUN 25 |
| 2-VTBS-1-51 | 12 JUN 25 |
| 2-VTBS-1-52 | 12 JUN 25 |
| 2-VTBS-1-53 | 12 JUN 25 |
| 2-VTBS-1-54 | 12 JUN 25 |
| 2-VTBS-1-55 | 12 JUN 25 |
| 2-VTBS-1-56 | 12 JUN 25 |
| 2-VTBS-1-57 | 12 JUN 25 |
| **2-VTBS-1-58** | **10 JUL 25** |
| 2-VTBS-1-59 | 12 JUN 25 |
| 2-VTBS-1-60 | 12 JUN 25 |
| 2-VTBS-1-61 | 12 JUN 25 |
| 2-VTBS-1-62 | 12 JUN 25 |
| 2-VTBS-1-63 | 12 JUN 25 |
| 2-VTBS-1-64 | 12 JUN 25 |
| **2-VTBS-1-65** | **10 JUL 25** |
| **2-VTBS-1-66** | **10 JUL 25** |
| **2-VTBS-1-67** | **10 JUL 25** |
| **2-VTBS-1-68** | **10 JUL 25** |
| **2-VTBS-1-69** | **10 JUL 25** |
| **2-VTBS-1-70** | **10 JUL 25** |
| **2-VTBS-1-71** | **10 JUL 25** |
| **2-VTBS-1-72** | **10 JUL 25** |
| **2-VTBS-1-73** | **10 JUL 25** |
| **2-VTBS-1-74** | **10 JUL 25** |
| **2-VTBS-1-75** | **10 JUL 25** |
| **2-VTBS-1-76** | **10 JUL 25** |
| **2-VTBS-1-77** | **10 JUL 25** |
| **2-VTBS-1-78** | **10 JUL 25** |
| **2-VTBS-1-79** | **10 JUL 25** |
| **2-VTBS-1-80** | **10 JUL 25** |
| 2-VTBS-1-81 | **10 JUL 25** |
| 2-VTBS-1-82 | **10 JUL 25** |
| 2-VTBS-2-1 | 15 MAY 25 |
| 2-VTBS-2-3 | 15 MAY 25 |
| 2-VTBS-2-4 | 2 NOV 23 |
| 2-VTBS-2-5 | 2 NOV 23 |
| 2-VTBS-2-6 | 2 NOV 23 |
| 2-VTBS-3-1 | 15 MAY 25 |
| 2-VTBS-3-3 | 15 MAY 25 |
| 2-VTBS-3-5 | 15 MAY 25 |
| 2-VTBS-3-7 | 31 OCT 24 |
| 2-VTBS-3-9 | 31 OCT 24 |
| 2-VTBS-3-11 | 31 OCT 24 |
| **2-VTBS-6-1** | **10 JUL 25** |
| **2-VTBS-6-2** | **10 JUL 25** |
| **2-VTBS-6-3** | **10 JUL 25** |
| **2-VTBS-6-4** | **10 JUL 25** |
| **2-VTBS-6-5** | **10 JUL 25** |
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| **2-VTBS-6-22** | **10 JUL 25** |
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| **2-VTBS-6-26** | **10 JUL 25** |
| **2-VTBS-6-27** | **10 JUL 25** |
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| **2-VTBS-6-42** | **10 JUL 25** |
| **2-VTBS-6-43** | **10 JUL 25** |
| **2-VTBS-6-44** | **10 JUL 25** |
| **2-VTBS-6-45** | **10 JUL 25** |
| **2-VTBS-6-46** | **10 JUL 25** |
| **2-VTBS-6-47** | **10 JUL 25** |
| **2-VTBS-6-48** | **10 JUL 25** |
| **2-VTBS-6-49** | **10 JUL 25** |
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| **2-VTBS-6-59** | **10 JUL 25** |
| **2-VTBS-6-60** | **10 JUL 25** |

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| **2-VTBS-6-61** | **10 JUL 25** |
| **2-VTBS-6-62** | **10 JUL 25** |
| **2-VTBS-6-63** | **10 JUL 25** |
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| **2-VTBS-6-71** | **10 JUL 25** |
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| **2-VTBS-6-73** | **10 JUL 25** |
| **2-VTBS-6-74** | **10 JUL 25** |
| **2-VTBS-6-75** | **10 JUL 25** |
| **2-VTBS-6-76** | **10 JUL 25** |
| **2-VTBS-6-77** | **10 JUL 25** |
| **2-VTBS-6-78** | **10 JUL 25** |
| **2-VTBS-6-79** | **10 JUL 25** |
| **2-VTBS-6-80** | **10 JUL 25** |
| **2-VTBS-6-81** | **10 JUL 25** |
| **2-VTBS-6-82** | **10 JUL 25** |
| **2-VTBS-6-83** | **10 JUL 25** |
| **2-VTBS-6-84** | **10 JUL 25** |
| **2-VTBS-6-85** | **10 JUL 25** |
| **2-VTBS-6-86** | **10 JUL 25** |
| **2-VTBS-6-87** | **10 JUL 25** |
| **2-VTBS-6-88** | **10 JUL 25** |
| **2-VTBS-6-89** | **10 JUL 25** |
| **2-VTBS-6-90** | **10 JUL 25** |
| **2-VTBS-6-91** | **10 JUL 25** |
| **2-VTBS-6-92** | **10 JUL 25** |
| **2-VTBS-6-93** | **10 JUL 25** |
| **2-VTBS-6-94** | **10 JUL 25** |
| **2-VTBS-6-95** | **10 JUL 25** |
| **2-VTBS-6-96** | **10 JUL 25** |
| **2-VTBS-6-97** | **10 JUL 25** |
| **2-VTBS-6-98** | **10 JUL 25** |
| **2-VTBS-6-99** | **10 JUL 25** |
| **2-VTBS-6-100** | **10 JUL 25** |
| **2-VTBS-6-101** | **10 JUL 25** |
| **2-VTBS-6-102** | **10 JUL 25** |
| **2-VTBS-6-103** | **10 JUL 25** |
| **2-VTBS-6-104** | **10 JUL 25** |
| **2-VTBS-6-105** | **10 JUL 25** |
| **2-VTBS-6-106** | **10 JUL 25** |
| **2-VTBS-6-107** | **10 JUL 25** |
| **2-VTBS-6-108** | **10 JUL 25** |
| **2-VTBS-6-109** | **10 JUL 25** |
| **2-VTBS-6-110** | **10 JUL 25** |
| **2-VTBS-6-111** | **10 JUL 25** |
| **2-VTBS-6-112** | **10 JUL 25** |
| **2-VTBS-6-113** | **10 JUL 25** |
| **2-VTBS-6-114** | **10 JUL 25** |
| **2-VTBS-6-115** | **10 JUL 25** |
| **2-VTBS-6-116** | **10 JUL 25** |
| **2-VTBS-6-117** | **10 JUL 25** |
| **2-VTBS-6-118** | **10 JUL 25** |
| **2-VTBS-6-119** | **10 JUL 25** |
| **2-VTBS-6-120** | **10 JUL 25** |
| **2-VTBS-6-121** | **10 JUL 25** |
| **2-VTBS-6-122** | **10 JUL 25** |
| **2-VTBS-6-123** | **10 JUL 25** |
| **2-VTBS-6-124** | **10 JUL 25** |
| **2-VTBS-6-125** | **10 JUL 25** |
| **2-VTBS-6-126** | **10 JUL 25** |
| 2-VTBS-7-1 | 26 DEC 24 |
| 2-VTBS-7-2 | 31 OCT 24 |
| 2-VTBS-7-3 | 31 OCT 24 |
| 2-VTBS-7-4 | 31 OCT 24 |
| 2-VTBS-7-5 | 31 OCT 24 |
| 2-VTBS-7-6 | 26 DEC 24 |
| 2-VTBS-7-7 | 31 OCT 24 |
| 2-VTBS-7-8 | 31 OCT 24 |
| 2-VTBS-7-9 | 31 OCT 24 |
| 2-VTBS-7-10 | 31 OCT 24 |
| 2-VTBS-7-11 | 26 DEC 24 |
| 2-VTBS-7-12 | 31 OCT 24 |
| 2-VTBS-7-13 | 31 OCT 24 |
| 2-VTBS-7-14 | 31 OCT 24 |
| 2-VTBS-7-15 | 31 OCT 24 |
| 2-VTBS-7-16 | 26 DEC 24 |
| 2-VTBS-7-17 | 31 OCT 24 |
| 2-VTBS-7-18 | 31 OCT 24 |
| 2-VTBS-7-19 | 31 OCT 24 |
| 2-VTBS-7-20 | 31 OCT 24 |
| 2-VTBS-8-1 | 26 DEC 24 |
| 2-VTBS-8-2 | 20 MAR 25 |
| **2-VTBS-8-3** | **10 JUL 25** |
| 2-VTBS-8-5 | 20 MAR 25 |
| 2-VTBS-8-6 | 20 MAR 25 |
| **2-VTBS-8-7** | **10 JUL 25** |
| 2-VTBS-8-9 | 20 MAR 25 |
| 2-VTBS-8-10 | 20 MAR 25 |
| **2-VTBS-8-11** | **10 JUL 25** |
| 2-VTBS-8-13 | 20 MAR 25 |
| 2-VTBS-8-14 | 20 MAR 25 |
| **2-VTBS-8-15** | **10 JUL 25** |
| 2-VTBS-8-17 | 20 MAR 25 |
| 2-VTBS-8-18 | 20 MAR 25 |
| 2-VTBS-8-19 | 20 MAR 25 |
| 2-VTBS-8-20 | 20 MAR 25 |
| 2-VTBS-8-21 | 20 MAR 25 |
| 2-VTBS-8-22 | 20 MAR 25 |
| 2-VTBS-8-23 | 20 MAR 25 |
| 2-VTBS-8-24 | 20 MAR 25 |
| 2-VTBS-8-25 | 20 MAR 25 |
| 2-VTBS-8-26 | 20 MAR 25 |
| 2-VTBS-8-27 | 20 MAR 25 |
| 2-VTBS-8-28 | 20 MAR 25 |
| 2-VTBS-9-1 | 28 NOV 24 |
| 2-VTBS-9-2 | 28 NOV 24 |
| 2-VTBS-9-3 | 28 NOV 24 |
| 2-VTBS-9-5 | 28 NOV 24 |
| 2-VTBS-9-6 | 28 NOV 24 |
| 2-VTBS-9-7 | 28 NOV 24 |
| 2-VTBS-9-8 | 28 NOV 24 |
| 2-VTBS-9-9 | 28 NOV 24 |
| 2-VTBS-9-11 | 28 NOV 24 |
| 2-VTBS-9-12 | 28 NOV 24 |
| 2-VTBS-9-13 | 15 MAY 25 |

**RAYONG / U-TAPAO RAYONG PATTAYA INTERNATIONAL AIRPORT**

| | |
|---|---|
| 2-VTBU-1-1 | 23 JAN 25 |
| 2-VTBU-1-2 | 17 JUN 21 |
| 2-VTBU-1-3 | 12 AUG 21 |
| 2-VTBU-1-4 | 20 FEB 25 |
| 2-VTBU-1-5 | 23 JAN 25 |
| 2-VTBU-1-6 | 23 JAN 25 |
| 2-VTBU-1-7 | 23 JAN 25 |
| 2-VTBU-1-8 | 23 JAN 25 |
| **2-VTBU-1-9** | **10 JUL 25** |
| **2-VTBU-1-10** | **10 JUL 25** |
| 2-VTBU-2-1 | 16 JUN 22 |
| 2-VTBU-2-3 | 16 JUN 22 |
| 2-VTBU-2-4 | 18 JUL 19 |
| 2-VTBU-3-1 | 18 JUL 19 |
| 2-VTBU-6-1 | 16 JUN 22 |
| 2-VTBU-6-2 | 18 JUL 19 |
| 2-VTBU-6-3 | 16 JUN 22 |
| 2-VTBU-6-4 | 18 JUL 19 |
| **2-VTBU-8-1** | **10 JUL 25** |
| 2-VTBU-8-3 | 16 JUN 22 |
| **2-VTBU-8-4** | **10 JUL 25** |
| 2-VTBU-8-5 | 23 MAR 23 |
| **2-VTBU-8-6** | **10 JUL 25** |
| 2-VTBU-8-7 | 16 JUN 22 |
| **2-VTBU-8-8** | **10 JUL 25** |
| 2-VTBU-8-9 | 14 JUL 22 |
| **2-VTBU-8-10** | **10 JUL 25** |
| 2-VTBU-8-11 | 16 JUN 22 |
| 2-VTBU-8-12 | 16 JUN 22 |
| 2-VTBU-8-13 | 16 JUN 22 |
| 2-VTBU-8-14 | 16 JUN 22 |

**SONGKHLA / HAT YAI INTERNATIONAL AIRPORT**

| | |
|---|---|
| 2-VTSS-1-1 | 18 APR 24 |
| 2-VTSS-1-2 | 28 NOV 24 |
| 2-VTSS-1-3 | 28 NOV 24 |
| 2-VTSS-1-4 | 15 MAY 25 |
| 2-VTSS-1-5 | 28 NOV 24 |
| **2-VTSS-1-6** | **10 JUL 25** |
| **2-VTSS-1-7** | **10 JUL 25** |
| **2-VTSS-1-8** | **10 JUL 25** |
| **2-VTSS-1-9** | **10 JUL 25** |
| 2-VTSS-1-10 | 12 SEP 19 |
| 2-VTSS-1-11 | 12 SEP 19 |
| 2-VTSS-1-12 | 12 SEP 19 |
| 2-VTSS-1-13 | 12 SEP 19 |
| **2-VTSS-1-14** | **10 JUL 25** |
| **2-VTSS-1-15** | **10 JUL 25** |
| **2-VTSS-1-16** | **10 JUL 25** |
| **2-VTSS-1-17** | **10 JUL 25** |
| 2-VTSS-2-1 | 28 NOV 24 |
| 2-VTSS-2-3 | 7 NOV 19 |
| 2-VTSS-2-5 | 28 NOV 24 |
| 2-VTSS-3-1 | 7 NOV 19 |
| 2-VTSS-5-1 | 20 FEB 25 |
| **2-VTSS-6-1** | **10 JUL 25** |
| **2-VTSS-6-2** | **10 JUL 25** |
| **2-VTSS-6-3** | **10 JUL 25** |
| **2-VTSS-6-5** | **10 JUL 25** |
| **2-VTSS-6-6** | **10 JUL 25** |
| **2-VTSS-6-7** | **10 JUL 25** |
| **2-VTSS-6-8** | **10 JUL 25** |
| **2-VTSS-7-1** | **10 JUL 25** |
| **2-VTSS-7-2** | **10 JUL 25** |
| **2-VTSS-7-3** | **10 JUL 25** |
| **2-VTSS-7-5** | **10 JUL 25** |
| **2-VTSS-7-6** | **10 JUL 25** |
| **2-VTSS-7-7** | **10 JUL 25** |
| **2-VTSS-8-1** | **10 JUL 25** |
| **2-VTSS-8-2** | **10 JUL 25** |
| **2-VTSS-8-3** | **10 JUL 25** |
| **2-VTSS-8-4** | **10 JUL 25** |
| **2-VTSS-8-5** | **10 JUL 25** |
| **2-VTSS-8-6** | **10 JUL 25** |
| 2-VTSS-8-7 | 16 MAY 24 |
| 2-VTSS-8-8 | 16 MAY 24 |
| **2-VTSS-8-9** | **10 JUL 25** |
| 2-VTSS-8-11 | 16 MAY 24 |
| 2-VTSS-8-12 | 16 MAY 24 |
| 2-VTSS-8-13 | 16 MAY 24 |
| 2-VTSS-8-14 | 16 MAY 24 |
| 2-VTSS-9-1 | 16 MAY 24 |

**BURIRAM / BURI RAM AIRPORT**

| | |
|---|---|
| 2-VTUO-1-1 | 13 JUN 24 |
| 2-VTUO-1-2 | 13 JUN 24 |
| 2-VTUO-1-3 | 13 JUN 24 |
| 2-VTUO-1-4 | 17 APR 25 |

| Page | Date |
|---|---|
| 2-VTUO-1-5 | 26 DEC 24 |
| 2-VTUO-1-6 | 15 MAY 25 |
| 2-VTUO-1-7 | 26 DEC 24 |
| 2-VTUO-1-8 | 15 MAY 25 |
| 2-VTUO-2-1 | 21 MAR 24 |
| 2-VTUO-2-2 | 29 DEC 22 |
| 2-VTUO-2-3 | 29 DEC 22 |
| 2-VTUO-2-4 | 29 DEC 22 |
| 2-VTUO-2-5 | 29 DEC 22 |
| 2-VTUO-3-1 | 29 DEC 22 |
| 2-VTUO-8-1 | 17 JUN 21 |
| 2-VTUO-8-3 | 17 JUN 21 |
| 2-VTUO-8-4 | 15 MAY 25 |
| 2-VTUO-8-5 | 17 JUN 21 |
| 2-VTUO-8-6 | 15 MAY 25 |
| 2-VTUO-8-7 | 26 DEC 24 |
| 2-VTUO-8-8 | 26 DEC 24 |
| 2-VTUO-8-9 | 26 DEC 24 |
| 2-VTUO-8-10 | 26 DEC 24 |
| 2-VTUO-8-11 | 26 DEC 24 |
| 2-VTUO-8-12 | 26 DEC 24 |

**CHUMPHON / CHUMPHON AIRPORT**

| | |
|---|---|
| 2-VTSE-1-1 | 20 APR 23 |
| 2-VTSE-1-2 | 20 APR 23 |
| 2-VTSE-1-3 | 20 APR 23 |
| 2-VTSE-1-4 | 17 APR 25 |
| 2-VTSE-1-5 | 31 OCT 24 |
| **2-VTSE-1-6** | **10 JUL 25** |
| **2-VTSE-1-7** | **10 JUL 25** |
| 2-VTSE-1-8 | 16 MAY 24 |
| **2-VTSE-1-9** | **10 JUL 25** |
| 2-VTSE-2-1 | 20 APR 23 |
| 2-VTSE-2-2 | 20 APR 23 |
| 2-VTSE-2-3 | 20 APR 23 |
| 2-VTSE-2-4 | 20 APR 23 |
| 2-VTSE-2-5 | 20 APR 23 |
| 2-VTSE-2-6 | 20 APR 23 |
| 2-VTSE-3-1 | 20 APR 23 |
| **2-VTSE-8-1** | **10 JUL 25** |
| **2-VTSE-8-3** | **10 JUL 25** |
| 2-VTSE-8-5 | 17 JUN 21 |
| **2-VTSE-8-6** | **10 JUL 25** |
| 2-VTSE-8-7 | 17 JUN 21 |
| **2-VTSE-8-8** | **10 JUL 25** |
| 2-VTSE-8-9 | 17 JUN 21 |
| **2-VTSE-8-10** | **10 JUL 25** |
| 2-VTSE-8-11 | 17 JUN 21 |
| 2-VTSE-8-12 | 18 JUL 19 |
| **2-VTSE-8-13** | **10 JUL 25** |
| 2-VTSE-8-15 | 4 NOV 21 |
| 2-VTSE-8-16 | 15 JUL 21 |
| 2-VTSE-8-17 | 4 NOV 21 |
| 2-VTSE-8-18 | 15 JUL 21 |
| 2-VTSE-9-1 | 17 JUN 21 |
| 2-VTSE-9-2 | 31 DEC 20 |
| 2-VTSE-9-3 | 17 JUN 21 |
| 2-VTSE-9-4 | 31 DEC 20 |
| 2-VTSE-9-5 | 17 JUN 21 |
| 2-VTSE-9-6 | 31 DEC 20 |

**KHON KAEN / KHON KAEN AIRPORT**

| | |
|---|---|
| 2-VTUK-1-1 | 29 DEC 22 |
| 2-VTUK-1-2 | 29 DEC 22 |
| 2-VTUK-1-3 | 17 APR 25 |
| 2-VTUK-1-4 | 29 DEC 22 |
| 2-VTUK-1-5 | 15 MAY 25 |
| 2-VTUK-1-6 | 15 MAY 25 |
| 2-VTUK-1-7 | 30 NOV 23 |
| 2-VTUK-1-8 | 15 MAY 25 |
| 2-VTUK-2-1 | 29 DEC 22 |
| 2-VTUK-2-3 | 29 DEC 22 |
| 2-VTUK-6-1 | 21 APR 22 |
| 2-VTUK-6-2 | 4 NOV 21 |
| 2-VTUK-6-3 | 4 NOV 21 |
| 2-VTUK-6-5 | 21 APR 22 |
| 2-VTUK-6-6 | 21 APR 22 |
| 2-VTUK-6-7 | 4 NOV 21 |
| 2-VTUK-8-1 | 4 NOV 21 |
| 2-VTUK-8-3 | 4 NOV 21 |
| 2-VTUK-8-5 | 21 APR 22 |
| 2-VTUK-8-6 | 15 MAY 25 |
| 2-VTUK-8-7 | 21 APR 22 |
| 2-VTUK-8-8 | 15 MAY 25 |
| 2-VTUK-8-9 | 21 APR 22 |
| 2-VTUK-8-10 | 21 APR 22 |
| 2-VTUK-8-11 | 4 NOV 21 |
| 2-VTUK-8-13 | 21 APR 22 |
| 2-VTUK-8-14 | 4 NOV 21 |
| 2-VTUK-8-15 | 4 NOV 21 |
| 2-VTUK-9-1 | 13 AUG 20 |
| 2-VTUK-9-2 | 15 MAY 25 |
| 2-VTUK-9-3 | 13 AUG 20 |
| 2-VTUK-9-4 | 15 MAY 25 |
| 2-VTUK-9-5 | 13 AUG 20 |
| 2-VTUK-9-6 | 15 MAY 25 |
| 2-VTUK-9-7 | 13 AUG 20 |
| 2-VTUK-9-8 | 15 MAY 25 |
| 2-VTUK-9-9 | 13 AUG 20 |
| 2-VTUK-9-10 | 15 MAY 25 |
| 2-VTUK-9-11 | 13 AUG 20 |
| 2-VTUK-9-12 | 15 MAY 25 |

**KRABI / KRABI AIRPORT**

| | |
|---|---|
| 2-VTSG-1-1 | 31 OCT 24 |
| 2-VTSG-1-2 | 28 NOV 24 |
| 2-VTSG-1-3 | 17 APR 25 |
| 2-VTSG-1-4 | 28 NOV 24 |
| **2-VTSG-1-5** | **10 JUL 25** |
| **2-VTSG-1-6** | **10 JUL 25** |
| **2-VTSG-1-7** | **10 JUL 25** |
| 2-VTSG-2-1 | 28 NOV 24 |
| 2-VTSG-3-1 | 31 OCT 24 |
| 2-VTSG-6-1 | 20 MAY 21 |
| 2-VTSG-6-3 | 20 MAY 21 |
| 2-VTSG-6-5 | 17 JUN 21 |
| 2-VTSG-6-6 | 18 JUL 19 |
| 2-VTSG-6-7 | 17 JUN 21 |
| 2-VTSG-6-8 | 18 JUL 19 |
| 2-VTSG-6-9 | 18 JUL 19 |
| 2-VTSG-7-1 | 17 JUN 21 |
| 2-VTSG-7-2 | 18 JUL 19 |
| 2-VTSG-8-1 | 17 JUN 21 |
| **2-VTSG-8-2** | **10 JUL 25** |
| 2-VTSG-8-3 | 17 JUN 21 |
| **2-VTSG-8-4** | **10 JUL 25** |
| 2-VTSG-8-5 | 17 JUN 21 |
| **2-VTSG-8-6** | **10 JUL 25** |
| 2-VTSG-8-7 | 17 JUN 21 |
| 2-VTSG-8-8 | 17 JUN 21 |
| 2-VTSG-9-1 | 31 OCT 24 |

**LAMPANG / LAMPANG AIRPORT**

| | |
|---|---|
| 2-VTCL-1-1 | 26 DEC 24 |
| 2-VTCL-1-2 | 20 MAR 25 |
| 2-VTCL-1-3 | 26 DEC 24 |
| 2-VTCL-1-4 | 8 AUG 24 |
| 2-VTCL-1-5 | 8 AUG 24 |
| 2-VTCL-1-6 | 17 APR 25 |
| 2-VTCL-1-7 | 23 JAN 25 |
| 2-VTCL-1-8 | 20 FEB 25 |
| 2-VTCL-1-9 | 20 MAR 25 |
| 2-VTCL-1-10 | 20 MAR 25 |
| 2-VTCL-1-11 | 20 MAR 25 |
| 2-VTCL-2-1 | 26 DEC 24 |
| 2-VTCL-2-3 | 20 MAR 25 |
| 2-VTCL-2-5 | 20 MAR 25 |
| 2-VTCL-3-1 | 26 DEC 24 |
| 2-VTCL-6-1 | 20 FEB 25 |
| 2-VTCL-6-2 | 20 FEB 25 |
| 2-VTCL-6-3 | 26 DEC 24 |
| 2-VTCL-6-5 | 20 FEB 25 |
| 2-VTCL-6-6 | 20 FEB 25 |
| 2-VTCL-6-7 | 26 DEC 24 |
| 2-VTCL-7-1 | 20 FEB 25 |
| 2-VTCL-7-2 | 26 DEC 24 |
| 2-VTCL-7-3 | 26 DEC 24 |
| 2-VTCL-7-5 | 20 FEB 25 |
| 2-VTCL-7-6 | 20 FEB 25 |
| 2-VTCL-7-7 | 26 DEC 24 |
| 2-VTCL-8-1 | 20 FEB 25 |
| 2-VTCL-8-2 | 20 FEB 25 |
| 2-VTCL-8-3 | 20 FEB 25 |
| 2-VTCL-8-4 | 26 DEC 24 |
| 2-VTCL-8-5 | 20 FEB 25 |
| 2-VTCL-8-6 | 20 FEB 25 |
| 2-VTCL-8-7 | 20 FEB 25 |
| 2-VTCL-8-8 | 20 FEB 25 |
| 2-VTCL-8-9 | 20 FEB 25 |
| 2-VTCL-8-11 | 20 FEB 25 |
| 2-VTCL-8-12 | 20 FEB 25 |
| 2-VTCL-8-13 | 26 DEC 24 |
| 2-VTCL-8-15 | 20 FEB 25 |
| 2-VTCL-8-16 | 20 FEB 25 |
| 2-VTCL-8-17 | 26 DEC 24 |

**LOEI / LOEI AIRPORT**

| | |
|---|---|
| 2-VTUL-1-1 | 7 OCT 21 |
| 2-VTUL-1-2 | 2 NOV 23 |
| 2-VTUL-1-3 | 2 NOV 23 |
| 2-VTUL-1-4 | 2 NOV 23 |
| 2-VTUL-1-5 | 17 APR 25 |
| 2-VTUL-1-6 | 2 NOV 23 |
| 2-VTUL-1-7 | 15 MAY 25 |
| 2-VTUL-1-8 | 15 MAY 25 |
| 2-VTUL-1-9 | 30 NOV 23 |
| 2-VTUL-1-10 | 15 MAY 25 |
| 2-VTUL-2-1 | 2 NOV 23 |
| 2-VTUL-6-1 | 26 DEC 24 |
| 2-VTUL-6-2 | 26 DEC 24 |
| 2-VTUL-6-3 | 26 DEC 24 |
| 2-VTUL-6-5 | 26 DEC 24 |
| 2-VTUL-6-6 | 26 DEC 24 |
| 2-VTUL-6-7 | 26 DEC 24 |
| 2-VTUL-8-1 | 20 MAY 21 |
| 2-VTUL-8-2 | 15 MAY 25 |
| 2-VTUL-8-3 | 26 DEC 24 |
| 2-VTUL-8-4 | 26 DEC 24 |
| 2-VTUL-8-5 | 22 APR 21 |

**LOP BURI / KHOK KATHIAM AIRPORT**

| | |
|---|---|
| 2-VTBL-1-1 | 17 APR 25 |
| 2-VTBL-1-2 | 17 APR 25 |
| 2-VTBL-1-3 | 17 APR 25 |
| 2-VTBL-1-4 | 17 APR 25 |
| 2-VTBL-1-5 | 17 APR 25 |
| 2-VTBL-1-6 | 17 APR 25 |
| 2-VTBL-1-7 | 17 APR 25 |
| 2-VTBL-1-8 | 17 APR 25 |
| 2-VTBL-1-9 | 17 APR 25 |
| 2-VTBL-1-10 | 17 APR 25 |
| 2-VTBL-2-1 | 17 APR 25 |
| 2-VTBL-8-1 | 17 APR 25 |

| Page | Date |
|---|---|
| 2-VTBL-8-2 | 17 APR 25 |

**MAE HONG SON / MAE HONG SON AIRPORT**

| | |
|---|---|
| **2-VTCH-1-1** | **10 JUL 25** |
| 2-VTCH-1-2 | 13 JUN 24 |
| 2-VTCH-1-3 | 28 NOV 24 |
| 2-VTCH-1-4 | 13 JUN 24 |
| 2-VTCH-1-5 | 17 APR 25 |
| 2-VTCH-1-6 | 8 AUG 24 |
| 2-VTCH-1-7 | 13 JUN 24 |
| 2-VTCH-1-8 | 20 FEB 25 |
| 2-VTCH-1-9 | 26 DEC 24 |
| 2-VTCH-1-10 | 8 AUG 24 |
| 2-VTCH-1-11 | 8 AUG 24 |
| 2-VTCH-1-12 | 20 FEB 25 |
| 2-VTCH-2-1 | 18 JUL 19 |
| 2-VTCH-6-1 | 20 FEB 25 |
| 2-VTCH-6-2 | 23 APR 20 |
| 2-VTCH-8-1 | 20 FEB 25 |
| 2-VTCH-8-2 | 20 FEB 25 |

**MAE HONG SON / PAI AIRPORT**

| | |
|---|---|
| 2-VTCI-1-1 | 26 DEC 24 |
| 2-VTCI-1-2 | 12 SEP 19 |
| 2-VTCI-1-3 | 12 SEP 19 |
| 2-VTCI-1-4 | 12 SEP 19 |
| 2-VTCI-1-5 | 12 SEP 19 |
| 2-VTCI-1-6 | 12 SEP 19 |
| 2-VTCI-2-1 | 18 JUL 19 |

**NAKHON PATHOM/KAMPHAENG SAEN AIRPORT**

| | |
|---|---|
| 2-VTBK-1-1 | 12 SEP 19 |
| 2-VTBK-1-2 | 12 SEP 19 |
| 2-VTBK-1-3 | 12 SEP 19 |
| 2-VTBK-1-4 | 12 SEP 19 |
| 2-VTBK-1-5 | 12 SEP 19 |
| 2-VTBK-1-6 | 12 SEP 19 |

**NAKHON PHANOM / NAKHON PHANOM AIRPORT**

| | |
|---|---|
| 2-VTUW-1-1 | 21 MAR 24 |
| 2-VTUW-1-2 | 21 MAR 24 |
| 2-VTUW-1-3 | 5 SEP 24 |
| 2-VTUW-1-4 | 17 APR 25 |
| 2-VTUW-1-5 | 21 MAR 24 |
| 2-VTUW-1-6 | 15 MAY 25 |
| 2-VTUW-1-7 | 15 MAY 25 |
| 2-VTUW-1-8 | 15 MAY 25 |
| 2-VTUW-1-9 | 21 MAR 24 |
| 2-VTUW-1-10 | 21 MAR 24 |
| 2-VTUW-1-11 | 15 MAY 25 |
| 2-VTUW-2-1 | 5 SEP 24 |
| 2-VTUW-8-1 | 15 MAY 25 |
| 2-VTUW-8-2 | 15 MAY 25 |
| 2-VTUW-8-3 | 15 MAY 25 |
| 2-VTUW-8-4 | 15 MAY 25 |
| 2-VTUW-8-5 | 15 MAY 25 |
| 2-VTUW-8-6 | 15 MAY 25 |
| 2-VTUW-8-7 | 2 NOV 23 |
| 2-VTUW-8-8 | 8 SEP 22 |
| 2-VTUW-8-9 | 21 APR 22 |
| 2-VTUW-8-10 | 8 SEP 22 |

**NAKHON RATCHASIMA / NAKHON RATCHASIMA AIRPORT**

| | |
|---|---|
| 2-VTUQ-1-1 | 13 JUN 24 |
| 2-VTUQ-1-2 | 7 OCT 21 |
| 2-VTUQ-1-3 | 17 APR 25 |
| 2-VTUQ-1-4 | 23 MAR 23 |
| 2-VTUQ-1-5 | 15 MAY 25 |
| 2-VTUQ-1-6 | 15 MAY 25 |
| 2-VTUQ-1-7 | 15 MAY 25 |
| 2-VTUQ-1-8 | 15 MAY 25 |
| 2-VTUQ-2-1 | 23 MAR 23 |
| 2-VTUQ-2-2 | 23 MAR 23 |
| 2-VTUQ-6-1 | 21 APR 22 |
| 2-VTUQ-6-2 | 17 JUN 21 |
| 2-VTUQ-6-3 | 21 APR 22 |
| 2-VTUQ-6-4 | 17 JUN 21 |
| 2-VTUQ-6-5 | 17 JUN 21 |
| 2-VTUQ-8-1 | 15 MAY 25 |
| 2-VTUQ-8-3 | 15 MAY 25 |
| 2-VTUQ-8-5 | 15 MAY 25 |
| 2-VTUQ-8-7 | 15 MAY 25 |
| 2-VTUQ-8-9 | 21 APR 22 |
| 2-VTUQ-8-10 | 20 MAY 21 |
| 2-VTUQ-8-11 | 21 APR 22 |
| 2-VTUQ-8-12 | 20 MAY 21 |
| 2-VTUQ-9-1 | 17 JUN 21 |
| 2-VTUQ-9-2 | 17 JUN 21 |
| 2-VTUQ-9-3 | 17 JUN 21 |
| 2-VTUQ-9-4 | 17 JUN 21 |

**NAKHON RATCHASIMA / KHORAT AIRPORT**

| | |
|---|---|
| **2-VTUN-1-1** | **10 JUL 25** |
| **2-VTUN-1-2** | **10 JUL 25** |
| **2-VTUN-1-3** | **10 JUL 25** |
| **2-VTUN-1-4** | **10 JUL 25** |
| **2-VTUN-1-5** | **10 JUL 25** |
| **2-VTUN-1-6** | **10 JUL 25** |
| **2-VTUN-1-7** | **10 JUL 25** |
| **2-VTUN-1-8** | **10 JUL 25** |
| **2-VTUN-1-9** | **10 JUL 25** |
| **2-VTUN-1-10** | **10 JUL 25** |
| **2-VTUN-1-11** | **10 JUL 25** |
| **2-VTUN-1-12** | **10 JUL 25** |
| **2-VTUN-1-13** | **10 JUL 25** |
| 2-VTUN-2-1 | 18 JUL 19 |
| 2-VTUN-8-1 | 23 APR 20 |
| 2-VTUN-8-2 | 23 APR 20 |

**NAKHON SAWAN /NAKHON SAWAN AIRPORT**

| | |
|---|---|
| 2-VTPN-1-1 | 16 JUL 20 |
| 2-VTPN-1-2 | 12 SEP 19 |
| 2-VTPN-1-3 | 12 SEP 19 |
| 2-VTPN-1-4 | 12 SEP 19 |
| 2-VTPN-1-5 | 12 SEP 19 |

**NAKHON SAWAN/TAKHLI AIRPORT**

| | |
|---|---|
| 2-VTPI-1-1 | 12 SEP 19 |
| 2-VTPI-1-2 | 2 JAN 20 |
| 2-VTPI-1-3 | 12 SEP 19 |
| 2-VTPI-1-4 | 12 SEP 19 |
| 2-VTPI-1-5 | 12 SEP 19 |
| 2-VTPI-1-6 | 7 NOV 19 |
| 2-VTPI-2-1 | 18 JUL 19 |
| 2-VTPI-8-1 | 7 NOV 19 |
| 2-VTPI-8-2 | 7 NOV 19 |
| 2-VTPI-8-3 | 7 NOV 19 |
| 2-VTPI-8-5 | 7 NOV 19 |
| 2-VTPI-8-6 | 7 NOV 19 |
| 2-VTPI-8-7 | 5 DEC 19 |
| 2-VTPI-8-8 | 7 NOV 19 |
| 2-VTPI-8-9 | 5 DEC 19 |
| 2-VTPI-8-10 | 5 DEC 19 |

| Page | Date |
|---|---|

**NAKHON SI THAMMARAT / NAKHON SI THAMMARAT AIRPORT**

| | |
|---|---|
| 2-VTSF-1-1 | 18 APR 24 |
| 2-VTSF-1-2 | 18 APR 24 |
| 2-VTSF-1-3 | 18 APR 24 |
| 2-VTSF-1-4 | 17 APR 25 |
| 2-VTSF-1-5 | 18 APR 24 |
| **2-VTSF-1-6** | **10 JUL 25** |
| **2-VTSF-1-7** | **10 JUL 25** |
| 2-VTSF-1-8 | 18 APR 24 |
| **2-VTSF-1-9** | **10 JUL 25** |
| 2-VTSF-2-1 | 18 JUL 19 |
| 2-VTSF-6-1 | 13 AUG 20 |
| 2-VTSF-6-2 | 18 JUL 19 |
| 2-VTSF-6-3 | 13 AUG 20 |
| 2-VTSF-6-4 | 18 JUL 19 |
| **2-VTSF-8-1** | **10 JUL 25** |
| **2-VTSF-8-2** | **10 JUL 25** |
| **2-VTSF-8-3** | **10 JUL 25** |
| **2-VTSF-8-4** | **10 JUL 25** |
| **2-VTSF-8-5** | **10 JUL 25** |
| **2-VTSF-8-6** | **10 JUL 25** |
| **2-VTSF-8-7** | **10 JUL 25** |
| **2-VTSF-8-8** | **10 JUL 25** |
| **2-VTSF-8-9** | **10 JUL 25** |
| **2-VTSF-8-10** | **10 JUL 25** |
| 2-VTSF-8-11 | 15 JUL 21 |
| 2-VTSF-8-12 | 15 JUL 21 |
| 2-VTSF-8-13 | 15 JUL 21 |
| 2-VTSF-8-14 | 15 JUL 21 |

**NAKHON SI THAMMARAT / CHA - IAN AIRPORT**

| | |
|---|---|
| 2-VTSN-1-1 | 18 JUL 19 |
| 2-VTSN-1-2 | 18 JUL 19 |
| 2-VTSN-1-3 | 18 JUL 19 |
| 2-VTSN-1-4 | 18 JUL 19 |
| 2-VTSN-1-5 | 18 JUL 19 |

**NAN / NAN NAKHON AIRPORT**

| | |
|---|---|
| 2-VTCN-1-1 | 7 OCT 21 |
| 2-VTCN-1-2 | 7 OCT 21 |
| 2-VTCN-1-3 | 17 APR 25 |
| 2-VTCN-1-4 | 30 NOV 23 |
| 2-VTCN-1-5 | 15 MAY 25 |
| 2-VTCN-1-6 | 15 MAY 25 |
| 2-VTCN-1-7 | 15 MAY 25 |
| 2-VTCN-2-1 | 15 JUL 21 |
| 2-VTCN-8-1 | 26 DEC 24 |
| 2-VTCN-8-2 | 23 MAR 23 |
| 2-VTCN-8-3 | 26 DEC 24 |
| 2-VTCN-8-4 | 26 DEC 24 |
| 2-VTCN-8-5 | 26 DEC 24 |
| 2-VTCN-8-6 | 26 DEC 24 |
| 2-VTCN-8-7 | 26 DEC 24 |
| 2-VTCN-8-8 | 23 MAR 23 |
| 2-VTCN-8-9 | 26 DEC 24 |
| 2-VTCN-8-10 | 23 MAR 23 |

**NARATHIWAT / NARATHIWAT AIRPORT**

| | |
|---|---|
| 2-VTSC-1-1 | 26 DEC 24 |
| 2-VTSC-1-2 | 5 SEP 24 |
| 2-VTSC-1-3 | 17 APR 25 |
| **2-VTSC-1-4** | **10 JUL 25** |
| **2-VTSC-1-5** | **10 JUL 25** |
| **2-VTSC-1-6** | **10 JUL 25** |
| **2-VTSC-1-7** | **10 JUL 25** |
| **2-VTSC-1-8** | **10 JUL 25** |
| 2-VTSC-2-1 | 8 AUG 24 |

| Page | Date |
|---|---|
| 2-VTSC-6-1 | 8 AUG 24 |
| 2-VTSC-6-2 | 8 AUG 24 |
| 2-VTSC-6-3 | 8 AUG 24 |
| 2-VTSC-6-4 | 5 SEP 24 |
| 2-VTSC-8-1 | 5 SEP 24 |
| **2-VTSC-8-2** | **10 JUL 25** |
| 2-VTSC-8-3 | 8 AUG 24 |
| **2-VTSC-8-4** | **10 JUL 25** |
| **2-VTSC-8-5** | **10 JUL 25** |
| **2-VTSC-8-6** | **10 JUL 25** |
| **2-VTSC-8-7** | **10 JUL 25** |
| 2-VTSC-8-8 | 5 SEP 24 |
| **2-VTSC-8-9** | **10 JUL 25** |
| 2-VTSC-8-11 | 5 SEP 24 |
| 2-VTSC-8-12 | 5 SEP 24 |
| 2-VTSC-8-13 | 8 AUG 24 |
| 2-VTSC-8-14 | 8 AUG 24 |

**PATTANI / PATTANI AIRPORT**

| | |
|---|---|
| 2-VTSK-1-1 | 12 SEP 19 |
| 2-VTSK-1-2 | 12 SEP 19 |
| 2-VTSK-1-3 | 12 SEP 19 |
| 2-VTSK-1-4 | 12 SEP 19 |
| **2-VTSK-1-5** | **10 JUL 25** |
| 2-VTSK-2-1 | 18 JUL 19 |
| **2-VTSK-8-1** | **10 JUL 25** |
| **2-VTSK-8-2** | **10 JUL 25** |
| **2-VTSK-8-3** | **10 JUL 25** |
| **2-VTSK-8-4** | **10 JUL 25** |

**PHETCHABUN / PHETCHABUN AIRPORT**

| | |
|---|---|
| 2-VTPB-1-1 | 7 OCT 21 |
| 2-VTPB-1-2 | 7 OCT 21 |
| 2-VTPB-1-3 | 17 APR 25 |
| 2-VTPB-1-4 | 7 OCT 21 |
| 2-VTPB-1-5 | 2 DEC 21 |
| 2-VTPB-1-6 | 26 DEC 24 |
| 2-VTPB-1-7 | 26 DEC 24 |
| 2-VTPB-1-8 | 26 DEC 24 |
| 2-VTPB-2-1 | 18 JUL 19 |
| 2-VTPB-8-1 | 2 NOV 23 |
| 2-VTPB-8-2 | 26 DEC 24 |
| 2-VTPB-8-3 | 26 DEC 24 |
| 2-VTPB-8-4 | 26 DEC 24 |
| 2-VTPB-8-5 | 26 DEC 24 |
| 2-VTPB-8-6 | 26 DEC 24 |
| 2-VTPB-8-7 | 26 DEC 24 |
| 2-VTPB-8-8 | 26 DEC 24 |

**PHITSANULOK / PHITSANULOK AIRPORT**

| | |
|---|---|
| 2-VTPP-1-1 | 28 NOV 24 |
| 2-VTPP-1-2 | 7 OCT 21 |
| 2-VTPP-1-3 | 12 JUN 25 |
| 2-VTPP-1-4 | 8 AUG 24 |
| 2-VTPP-1-5 | 8 AUG 24 |
| 2-VTPP-1-6 | 28 NOV 24 |
| 2-VTPP-1-7 | 8 AUG 24 |
| 2-VTPP-1-8 | 15 MAY 25 |
| 2-VTPP-1-9 | 17 APR 25 |
| 2-VTPP-1-10 | 17 APR 25 |
| 2-VTPP-1-11 | 17 APR 25 |
| 2-VTPP-1-12 | 12 JUN 25 |
| 2-VTPP-2-1 | 31 OCT 24 |
| 2-VTPP-2-2 | 23 MAR 23 |
| 2-VTPP-2-3 | 12 JUN 25 |
| 2-VTPP-2-5 | 12 JUN 25 |
| 2-VTPP-2-6 | 12 JUN 25 |
| 2-VTPP-6-1 | 26 DEC 24 |
| 2-VTPP-6-2 | 26 DEC 24 |
| 2-VTPP-6-3 | 26 DEC 24 |
| 2-VTPP-6-5 | 26 DEC 24 |
| 2-VTPP-6-6 | 26 DEC 24 |
| 2-VTPP-6-7 | 26 DEC 24 |
| 2-VTPP-8-1 | 15 MAY 25 |
| 2-VTPP-8-2 | 15 MAY 25 |
| 2-VTPP-8-3 | 15 MAY 25 |
| 2-VTPP-8-4 | 15 MAY 25 |
| 2-VTPP-8-5 | 15 MAY 25 |
| 2-VTPP-8-6 | 15 MAY 25 |
| 2-VTPP-8-7 | 15 MAY 25 |
| 2-VTPP-8-8 | 15 MAY 25 |
| 2-VTPP-8-9 | 15 MAY 25 |
| 2-VTPP-8-10 | 15 MAY 25 |
| 2-VTPP-8-11 | 15 MAY 25 |
| 2-VTPP-8-12 | 15 MAY 25 |
| 2-VTPP-8-13 | 15 MAY 25 |
| 2-VTPP-8-15 | 15 MAY 25 |
| 2-VTPP-8-16 | 15 MAY 25 |
| 2-VTPP-8-17 | 15 MAY 25 |
| 2-VTPP-9-1 | 21 APR 22 |
| 2-VTPP-9-2 | 21 APR 22 |
| 2-VTPP-9-3 | 21 APR 22 |
| 2-VTPP-9-4 | 21 APR 22 |
| 2-VTPP-9-5 | 21 APR 22 |
| 2-VTPP-9-6 | 21 APR 22 |

**PHRAE / PHRAE AIRPORT**

| | |
|---|---|
| **2-VTCP-1-1** | **10 JUL 25** |
| 2-VTCP-1-2 | 21 MAR 24 |
| 2-VTCP-1-3 | 21 MAR 24 |
| 2-VTCP-1-4 | 21 MAR 24 |
| **2-VTCP-1-5** | **10 JUL 25** |
| 2-VTCP-1-6 | 8 AUG 24 |
| 2-VTCP-1-7 | 8 AUG 24 |
| 2-VTCP-1-8 | 26 DEC 24 |
| 2-VTCP-1-9 | 8 AUG 24 |
| **2-VTCP-1-10** | **10 JUL 25** |
| 2-VTCP-2-1 | 26 DEC 24 |
| **2-VTCP-6-1** | **10 JUL 25** |
| **2-VTCP-6-2** | **10 JUL 25** |
| 2-VTCP-6-3 | 26 DEC 24 |
| 2-VTCP-6-4 | 26 DEC 24 |
| 2-VTCP-8-1 | 26 DEC 24 |
| 2-VTCP-8-2 | 26 DEC 24 |
| 2-VTCP-8-3 | 26 DEC 24 |
| 2-VTCP-8-4 | 26 DEC 24 |
| 2-VTCP-8-5 | 26 DEC 24 |
| 2-VTCP-8-6 | 26 DEC 24 |
| 2-VTCP-8-7 | 26 DEC 24 |
| 2-VTCP-8-8 | 26 DEC 24 |

**PRACHUAP KHIRIKHAN / PRACHUAP AIRPORT**

| | |
|---|---|
| **2-VTBP-1-1** | **10 JUL 25** |
| 2-VTBP-1-2 | 22 FEB 24 |
| 2-VTBP-1-3 | 12 SEP 19 |
| 2-VTBP-1-4 | 12 SEP 19 |
| 2-VTBP-1-5 | 12 SEP 19 |
| 2-VTBP-1-6 | 22 FEB 24 |

**PRACHUAP KHIRI KHAN / HUA HIN AIRPORT**

| | |
|---|---|
| 2-VTPH-1-1 | 7 OCT 21 |
| 2-VTPH-1-2 | 22 FEB 24 |
| 2-VTPH-1-3 | 13 JUN 24 |
| 2-VTPH-1-4 | 13 JUN 24 |
| 2-VTPH-1-5 | 13 JUN 24 |
| 2-VTPH-1-6 | 17 APR 25 |
| 2-VTPH-1-7 | 13 JUN 24 |
| **2-VTPH-1-8** | **10 JUL 25** |
| **2-VTPH-1-9** | **10 JUL 25** |
| 2-VTPH-1-10 | 15 MAY 25 |
| **2-VTPH-1-11** | **10 JUL 25** |
| 2-VTPH-2-1 | 18 JUL 19 |
| **2-VTPH-8-1** | **10 JUL 25** |
| **2-VTPH-8-3** | **10 JUL 25** |
| **2-VTPH-8-4** | **10 JUL 25** |
| 2-VTPH-8-5 | 12 AUG 21 |
| 2-VTPH-8-6 | 12 AUG 21 |
| 2-VTPH-9-1 | 27 FEB 20 |
| 2-VTPH-9-2 | 27 FEB 20 |
| 2-VTPH-9-3 | 27 FEB 20 |
| 2-VTPH-9-4 | 27 FEB 20 |
| 2-VTPH-9-5 | 27 FEB 20 |
| 2-VTPH-9-6 | 27 FEB 20 |
| 2-VTPH-9-7 | 27 FEB 20 |
| 2-VTPH-9-8 | 27 FEB 20 |
| 2-VTPH-9-9 | 27 FEB 20 |
| 2-VTPH-9-10 | 27 FEB 20 |
| 2-VTPH-9-11 | 27 FEB 20 |
| 2-VTPH-9-12 | 27 FEB 20 |

**RANONG / RANONG AIRPORT**

| | |
|---|---|
| 2-VTSR-1-1 | 7 OCT 21 |
| 2-VTSR-1-2 | 7 OCT 21 |
| 2-VTSR-1-3 | 17 APR 25 |
| 2-VTSR-1-4 | 7 OCT 21 |
| **2-VTSR-1-5** | **10 JUL 25** |
| **2-VTSR-1-6** | **10 JUL 25** |
| **2-VTSR-1-7** | **10 JUL 25** |
| 2-VTSR-2-1 | 18 JUL 19 |
| 2-VTSR-6-1 | 20 MAY 21 |
| 2-VTSR-6-2 | 20 MAY 21 |
| 2-VTSR-6-3 | 20 MAY 21 |
| 2-VTSR-6-4 | 20 MAY 21 |
| 2-VTSR-6-5 | 20 MAY 21 |
| 2-VTSR-6-6 | 20 MAY 21 |
| 2-VTSR-6-7 | 20 MAY 21 |
| 2-VTSR-6-8 | 20 MAY 21 |
| **2-VTSR-8-1** | **10 JUL 25** |
| **2-VTSR-8-2** | **10 JUL 25** |
| **2-VTSR-8-3** | **10 JUL 25** |
| **2-VTSR-8-4** | **10 JUL 25** |
| **2-VTSR-8-5** | **10 JUL 25** |
| **2-VTSR-8-6** | **10 JUL 25** |
| 2-VTSR-8-7 | 2 NOV 23 |
| 2-VTSR-8-8 | 2 NOV 23 |

**ROI ET / ROI ET AIRPORT**

| | |
|---|---|
| 2-VTUV-1-1 | 11 AUG 22 |
| 2-VTUV-1-2 | 7 OCT 21 |
| 2-VTUV-1-3 | 17 APR 25 |
| 2-VTUV-1-4 | 26 MAR 20 |
| 2-VTUV-1-5 | 15 MAY 25 |
| 2-VTUV-1-6 | 30 NOV 23 |
| 2-VTUV-1-7 | 15 MAY 25 |
| 2-VTUV-2-1 | 7 OCT 21 |
| 2-VTUV-6-1 | 21 APR 22 |
| 2-VTUV-6-2 | 16 JUL 20 |
| 2-VTUV-6-3 | 16 JUL 20 |
| 2-VTUV-6-5 | 21 APR 22 |
| 2-VTUV-6-6 | 16 JUL 20 |
| 2-VTUV-6-7 | 16 JUL 20 |
| 2-VTUV-8-1 | 21 APR 22 |
| 2-VTUV-8-2 | 15 MAY 25 |
| 2-VTUV-8-3 | 21 APR 22 |
| 2-VTUV-8-4 | 15 MAY 25 |
| 2-VTUV-8-5 | 21 APR 22 |
| 2-VTUV-8-6 | 15 MAY 25 |
| 2-VTUV-8-7 | 21 APR 22 |
| 2-VTUV-8-8 | 16 JUL 20 |

| Page | Date |
|---|---|
| 2-VTUV-8-9 | 15 MAY 25 |
| 2-VTUV-8-10 | 16 JUL 20 |
| 2-VTUV-8-11 | 21 APR 22 |
| 2-VTUV-8-12 | 20 MAY 21 |
| 2-VTUV-8-13 | 20 MAY 21 |
| 2-VTUV-8-15 | 21 APR 22 |
| 2-VTUV-8-16 | 20 MAY 21 |
| 2-VTUV-8-17 | 20 MAY 21 |
| 2-VTUV-9-1 | 21 APR 22 |
| 2-VTUV-9-2 | 21 APR 22 |
| 2-VTUV-9-3 | 21 APR 22 |
| 2-VTUV-9-4 | 21 APR 22 |

**SA KAEO / WATTHANA NAKHON AIRPORT**

| | |
|---|---|
| 2-VTBW-1-1 | 11 AUG 22 |
| 2-VTBW-1-2 | 28 DEC 23 |
| 2-VTBW-1-3 | 11 AUG 22 |
| 2-VTBW-1-4 | 28 DEC 23 |
| 2-VTBW-1-5 | 28 DEC 23 |
| 2-VTBW-1-6 | 28 DEC 23 |

**SAKON NAKHON / SAKON NAKHON AIRPORT**

| | |
|---|---|
| 2-VTUI-1-1 | 8 SEP 22 |
| 2-VTUI-1-2 | 7 OCT 21 |
| 2-VTUI-1-3 | 31 OCT 24 |
| 2-VTUI-1-4 | 15 JUN 23 |
| 2-VTUI-1-5 | 15 JUN 23 |
| 2-VTUI-1-6 | 15 JUN 23 |
| **2-VTUI-1-7** | **10 JUL 25** |
| 2-VTUI-1-8 | 15 MAY 25 |
| 2-VTUI-1-9 | 15 MAY 25 |
| 2-VTUI-1-10 | 30 NOV 23 |
| 2-VTUI-1-11 | 15 MAY 25 |
| 2-VTUI-2-1 | 31 OCT 24 |
| 2-VTUI-8-1 | 2 NOV 23 |
| 2-VTUI-8-2 | 15 MAY 25 |
| 2-VTUI-8-3 | 2 NOV 23 |
| 2-VTUI-8-4 | 15 MAY 25 |
| 2-VTUI-8-5 | 15 MAY 25 |
| 2-VTUI-8-6 | 15 MAY 25 |
| 2-VTUI-8-7 | 15 MAY 25 |
| 2-VTUI-8-8 | 15 MAY 25 |
| 2-VTUI-8-9 | 2 NOV 23 |
| 2-VTUI-8-10 | 28 JAN 21 |
| 2-VTUI-8-11 | 2 NOV 23 |
| 2-VTUI-8-12 | 28 JAN 21 |

**SONGKHLA / SONGKHLA AIRPORT**

| | |
|---|---|
| 2-VTSH-1-1 | 12 SEP 19 |
| 2-VTSH-1-2 | 12 SEP 19 |
| 2-VTSH-1-3 | 12 SEP 19 |
| 2-VTSH-1-4 | 12 SEP 19 |
| 2-VTSH-1-5 | 12 SEP 19 |
| 2-VTSH-2-1 | 18 JUL 19 |

**SUKHOTHAI / SUKHOTHAI AIRPORT**

| | |
|---|---|
| 2-VTPO-1-1 | 11 JUL 24 |
| 2-VTPO-1-2 | 2 NOV 23 |
| 2-VTPO-1-3 | 2 NOV 23 |
| 2-VTPO-1-4 | 2 NOV 23 |
| 2-VTPO-1-5 | 12 JUN 25 |
| 2-VTPO-1-6 | 26 DEC 24 |
| 2-VTPO-1-7 | 2 NOV 23 |
| 2-VTPO-1-8 | 20 MAR 25 |
| 2-VTPO-2-1 | 18 JUL 19 |
| 2-VTPO-2-3 | 18 JUL 19 |
| 2-VTPO-3-1 | 18 JUL 19 |
| 2-VTPO-6-1 | 26 DEC 24 |
| 2-VTPO-6-2 | 26 DEC 24 |
| 2-VTPO-6-3 | 26 DEC 24 |
| 2-VTPO-6-4 | 26 DEC 24 |
| 2-VTPO-8-1 | 20 MAR 25 |
| 2-VTPO-8-3 | 26 DEC 24 |
| 2-VTPO-8-4 | 26 DEC 24 |
| 2-VTPO-8-5 | 26 DEC 24 |
| 2-VTPO-8-7 | 26 DEC 24 |
| 2-VTPO-8-8 | 26 DEC 24 |
| 2-VTPO-8-9 | 26 DEC 24 |
| 2-VTPO-8-10 | 26 DEC 24 |

**SURAT THANI / SURAT THANI AIRPORT**

| | |
|---|---|
| 2-VTSB-1-1 | 31 OCT 24 |
| 2-VTSB-1-2 | 28 NOV 24 |
| 2-VTSB-1-3 | 17 APR 25 |
| 2-VTSB-1-4 | 28 NOV 24 |
| **2-VTSB-1-5** | **10 JUL 25** |
| **2-VTSB-1-6** | **10 JUL 25** |
| 2-VTSB-1-7 | 31 OCT 24 |
| 2-VTSB-1-8 | 28 NOV 24 |
| **2-VTSB-1-9** | **10 JUL 25** |
| 2-VTSB-2-1 | 26 DEC 24 |
| 2-VTSB-3-1 | 31 OCT 24 |
| 2-VTSB-6-1 | 18 JUL 19 |
| 2-VTSB-6-2 | 18 JUL 19 |
| 2-VTSB-6-3 | 18 JUL 19 |
| 2-VTSB-6-5 | 30 JAN 20 |
| 2-VTSB-6-6 | 18 JUL 19 |
| 2-VTSB-6-7 | 18 JUL 19 |
| 2-VTSB-6-8 | 18 JUL 19 |
| 2-VTSB-7-1 | 18 JUL 19 |
| 2-VTSB-7-2 | 18 JUL 19 |
| 2-VTSB-7-3 | 18 JUL 19 |
| 2-VTSB-7-5 | 18 JUL 19 |
| 2-VTSB-7-6 | 18 JUL 19 |
| 2-VTSB-7-7 | 18 JUL 19 |
| 2-VTSB-7-8 | 18 JUL 19 |
| 2-VTSB-8-1 | 23 MAR 23 |
| 2-VTSB-8-2 | 23 MAR 23 |
| **2-VTSB-8-3** | **10 JUL 25** |
| 2-VTSB-8-5 | 23 MAR 23 |
| 2-VTSB-8-6 | 23 MAR 23 |
| 2-VTSB-8-7 | 23 MAR 23 |
| 2-VTSB-8-8 | 23 MAR 23 |
| 2-VTSB-9-1 | 31 OCT 24 |

**SURAT THANI / SAMUI AIRPORT**

| | |
|---|---|
| 2-VTSM-1-1 | 10 AUG 23 |
| 2-VTSM-1-2 | 2 NOV 23 |
| 2-VTSM-1-3 | 2 NOV 23 |
| 2-VTSM-1-4 | 18 APR 24 |
| 2-VTSM-1-5 | 25 JAN 24 |
| 2-VTSM-1-6 | 15 MAY 25 |
| **2-VTSM-1-7** | **10 JUL 25** |
| 2-VTSM-1-8 | 12 JUN 25 |
| 2-VTSM-1-9 | 12 JUN 25 |
| **2-VTSM-1-10** | **10 JUL 25** |
| 2-VTSM-2-1 | 18 JUL 19 |
| 2-VTSM-2-3 | 18 JUL 19 |
| 2-VTSM-2-5 | 18 JUL 19 |
| 2-VTSM-3-1 | 18 JUL 19 |
| 2-VTSM-6-1 | 18 JUN 20 |
| 2-VTSM-6-2 | 18 JUN 20 |
| 2-VTSM-6-3 | 18 JUN 20 |
| 2-VTSM-6-5 | 18 JUN 20 |
| 2-VTSM-6-6 | 18 JUN 20 |
| 2-VTSM-6-7 | 18 JUN 20 |
| 2-VTSM-8-1 | 18 JUN 20 |
| **2-VTSM-8-2** | **10 JUL 25** |
| 2-VTSM-8-3 | 18 JUN 20 |
| **2-VTSM-8-4** | **10 JUL 25** |
| 2-VTSM-8-5 | 18 JUN 20 |
| **2-VTSM-8-6** | **10 JUL 25** |
| 2-VTSM-8-7 | 18 JUN 20 |
| **2-VTSM-8-8** | **10 JUL 25** |
| 2-VTSM-8-9 | 15 JUL 21 |
| 2-VTSM-8-10 | 15 JUL 21 |
| 2-VTSM-8-11 | 15 JUL 21 |
| 2-VTSM-8-13 | 15 JUL 21 |
| 2-VTSM-8-14 | 15 JUL 21 |
| 2-VTSM-8-15 | 15 JUL 21 |
| 2-VTSM-8-17 | 15 JUL 21 |
| 2-VTSM-8-18 | 15 JUL 21 |
| 2-VTSM-8-19 | 15 JUL 21 |
| 2-VTSM-8-21 | 15 JUL 21 |
| 2-VTSM-8-22 | 15 JUL 21 |
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**TAK / TAK AIRPORT**

| | |
|---|---|
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| **2-VTPT-1-3** | **10 JUL 25** |
| **2-VTPT-1-4** | **10 JUL 25** |
| **2-VTPT-1-5** | **10 JUL 25** |
| **2-VTPT-1-6** | **10 JUL 25** |
| 2-VTPT-2-1 | 18 JUL 19 |
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| **2-VTPT-7-1** | **10 JUL 25** |
| **2-VTPT-8-1** | **10 JUL 25** |
| **2-VTPT-9-1** | **10 JUL 25** |

**TAK / MAE SOT AIRPORT**

| | |
|---|---|
| 2-VTPM-1-1 | 1 DEC 22 |
| 2-VTPM-1-2 | 26 JAN 23 |
| 2-VTPM-1-3 | 26 JAN 23 |
| 2-VTPM-1-4 | 26 JAN 23 |
| 2-VTPM-1-5 | 17 APR 25 |
| 2-VTPM-1-6 | 26 JAN 23 |
| 2-VTPM-1-7 | 26 JAN 23 |
| 2-VTPM-1-8 | 26 DEC 24 |
| 2-VTPM-1-9 | 26 DEC 24 |
| 2-VTPM-1-10 | 26 DEC 24 |
| 2-VTPM-2-1 | 1 DEC 22 |
| 2-VTPM-2-2 | 1 DEC 22 |
| 2-VTPM-2-3 | 26 JAN 23 |
| 2-VTPM-2-4 | 1 DEC 22 |
| 2-VTPM-2-5 | 1 DEC 22 |
| 2-VTPM-2-6 | 1 DEC 22 |
| 2-VTPM-3-1 | 1 DEC 22 |
| 2-VTPM-6-1 | 26 DEC 24 |
| 2-VTPM-6-2 | 26 DEC 24 |
| 2-VTPM-7-1 | 26 DEC 24 |
| 2-VTPM-7-2 | 26 DEC 24 |
| 2-VTPM-8-1 | 26 DEC 24 |
| 2-VTPM-8-2 | 26 DEC 24 |
| 2-VTPM-8-3 | 26 DEC 24 |
| 2-VTPM-8-4 | 26 DEC 24 |

**TRANG / TRANG AIRPORT**

| | |
|---|---|
| 2-VTST-1-1 | 7 OCT 21 |
| 2-VTST-1-2 | 21 MAR 24 |
| 2-VTST-1-3 | 17 APR 25 |
| 2-VTST-1-4 | 7 OCT 21 |
| **2-VTST-1-5** | **10 JUL 25** |
| **2-VTST-1-6** | **10 JUL 25** |
| 2-VTST-1-7 | 21 MAR 24 |
| 2-VTST-2-1 | 17 JUN 21 |
| **2-VTST-8-1** | **10 JUL 25** |
| 2-VTST-8-2 | 18 JUL 19 |
| **2-VTST-8-3** | **10 JUL 25** |
| 2-VTST-8-4 | 18 JUL 19 |

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| 2-VTBO-1-1 | 17 APR 25 |
| 2-VTBO-1-2 | 17 APR 25 |
| 2-VTBO-1-3 | 17 APR 25 |
| 2-VTBO-1-4 | 17 APR 25 |
| **2-VTBO-1-5** | **10 JUL 25** |
| **2-VTBO-1-6** | **10 JUL 25** |
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| 2-VTBO-2-1 | 17 APR 25 |
| 2-VTBO-3-1 | 17 APR 25 |
| 2-VTBO-6-1 | 17 APR 25 |
| 2-VTBO-7-1 | 17 APR 25 |
| 2-VTBO-8-1 | 23 MAR 23 |
| 2-VTBO-8-2 | 15 JUL 21 |
| 2-VTBO-9-1 | 17 APR 25 |
| **UBON RATCHATHANI / UBON RATCHATHANI AIRPORT** | |
| **2-VTUU-1-1** | **10 JUL 25** |
| **2-VTUU-1-2** | **10 JUL 25** |
| **2-VTUU-1-3** | **10 JUL 25** |
| 2-VTUU-1-4 | 13 JUN 24 |
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| **2-VTUU-1-7** | **10 JUL 25** |
| 2-VTUU-1-8 | 28 NOV 24 |
| 2-VTUU-1-9 | 15 MAY 25 |
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| 2-VTUU-1-12 | 13 JUN 24 |
| **2-VTUU-1-13** | **10 JUL 25** |
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| **2-VTUU-6-1** | **10 JUL 25** |
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| **2-VTUU-6-3** | **10 JUL 25** |
| **2-VTUU-6-4** | **10 JUL 25** |
| **2-VTUU-7-1** | **10 JUL 25** |
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| **2-VTUU-7-3** | **10 JUL 25** |
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| 2-VTUD-1-4 | 13 JUL 23 |
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| 2-VTUD-1-7 | 13 JUL 23 |
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| 2-VTUD-7-6 | 28 JAN 21 |
| 2-VTUD-7-7 | 28 JAN 21 |
| 2-VTUD-8-1 | 15 MAY 25 |
| 2-VTUD-8-2 | 15 MAY 25 |
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| 2-VTSY-1-2 | 21 MAY 20 |
| 2-VTSY-1-3 | 21 APR 22 |
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| 2-VTSY-3-3 | 21 APR 22 |
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| **KHON-KAEN / NAM PHONG** | |
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| 2-VTUZ-1-3 | 30 NOV 23 |
| 2-VTUZ-1-4 | 30 NOV 23 |
| 2-VTUZ-1-5 | 26 DEC 24 |
| 2-VTUZ-1-6 | 30 NOV 23 |

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## GEN 0.5 LIST OF HAND AMENDMENT TO THE AIP

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# GEN 1. NATIONAL REGULATIONS AND REQUIREMENTS

## GEN 1.1 DESIGNATED AUTHORITIES

### INTRODUCTION

The requirements for entry and departure of aircraft engaged in international flights, the standard procedure for clearance of these aircraft at all international airports, are given for the information and guidance of operators conducting international flights.

The postal and telegraphic addresses of the designated authorities concerned with the entry, transit and departure of international air navigation, and for the collection of fees therefrom, are as follows:

**1. The Civil Aviation Authority Of Thailand**

Aeronautical Information Management Department
The Civil Aviation Authority of Thailand
222 Soi Vibhavadi Rangsit 28,
Vibhavadi Rangsit Rd., Chatuchak,
Chatuchak

Bangkok 10900
Thailand

| | |
|---|---|
| Tel: | +662 568 8831 |
| Fax: | +662 568 8848 |
| Telex: | NIL |
| AFS: | VTBAYAYD |

**2. Meteorology**

Thai Meteorological Department
4353 Sukhumvit Road, Bangna
Bangkok 10260
Thailand

| | |
|---|---|
| Tel: | +662 399 4566-75 |
| Fax: | +662 399 1613 |
| | +662 399 4011 |
| E-mail: | saraban@tmd.mail.go.th |
| AFS: | VTBBYMYX |
| Website: | www.tmd.go.th |

Military: Royal Thai Navy
(Base Operations Division Naval Air Station Royal Thai Naval Air Division)
70 moo.2 Sukhumvit Rd, Phla, Ban Chang, Rayong 21130

| | |
|---|---|
| Tel: | +663 824 5489 |
| Fax: | +663 824 5489 |
| AFS: | VTBUYMYX |
| Website: | www.aeromet-utapao.com |

**3. Customs**

Director General
Customs Department
Suntornkosa Road, Klongtoei
Bangkok 10110
Thailand

| | |
|---|---|
| Tel: | +662 267 7600 |
| | +662 267 1164 |
| Fax: | NIL |
| Telex: | NIL |
| AFS: | NIL |
| E-mail: | prcustoms@gmail.com |
| Website: | www.customs.go.th |

**4. Immigration**

Commissioner Immigration Bureau
Immigration Bureau
507 Soi Suan Phlu
Bangkok 10120
Thailand

| | |
|---|---|
| Tel: | +662 287 3101-10 |
| Fax: | +662 287 1310 |
| | +662 287 1516 |
| Telex: | NIL |
| AFS: | NIL |
| E-mail: | NIL |
| Website: | https://www.immigration.go.th/ |

**5. Health**

Deputy Director and chief of International
Communicable Disease Control Office
Department of Communicable Disease Control
Tiwanond Road
Nonthaburi 11000
Thailand

| | |
|---|---|
| Tel: | +662 590 3187 |
| Fax: | +662 591 8436 |
| Telex: | NIL |
| AFS: | NIL |

**6. Airport Charges**

Airport Operated by Airports of Thailand Public Company Limited

The President
Airports of Thailand Public Company Limited
333 Cherdwutagard Road
Don Mueang
Bangkok 10210
Thailand

| | |
|---|---|
| Tel: | +662 535 2411 |
| Fax: | +662 535 2427 |
| Website: | https://www.airportthai.co.th |

**7. Airport Charges**

Airport Operated by Department of Airports

Director General
Department of Airports
71 Soi Ngamduplee, Rama IV Road,
Thung Mahamek, Sathorn
Bangkok 10120
Thailand

| | |
|---|---|
| Tel: | +662 287 0320-9 |
| Fax: | +662 286 3373 |
| Website: | https://www.airports.go.th |
| AFS: | VTBNYDYA |

**8. Airport Standards Control Division**

Airport Operated by Department of Airports

Director General
Department of Airports
71 Soi Ngamduplee, Rama IV Road,
Thung Mahamek, Sathorn
Bangkok 10120
Thailand

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|---|---|
| Tel: | +662 287 0320-9 |
| Fax: | +662 287 4060 |
| Website: | https://www.airports.go.th |
| AFS: | VTBNYDYB |

**9. Airport Charges**

Airport Operated by Bangkok Airways Public Company Limited

The President
Bangkok Airways Public Company Limited
99 Mu 14, Vibhavadirangsit Road.,
Chom Phon, Chatuchak,
Bangkok 10900
Thailand

| | |
|---|---|
| Tel: | +662 265 5678 |
| Website: | https://www.bangkokair.com |

**10. Plants Quarantine**

Agricultural Regulatory Office
Department of Agriculture
Bangkok 10900
Thailand

| | |
|---|---|
| Tel: | +662 134 0718 |
| | +662 134 0501 |
| Fax: | +662 134 0718 |
| | +662 134 0502 |
| Telex: | NIL |
| AFS: | NIL |
| E-mail: | bapqs@doa.in.th |
| Website: | http://www.doa.go.th/ard/ |

**11. Animal Quarantine**

Division of Veterinary Inspection and Quarantine
Department of Livestock Development
91 Moo4 Tiwanon Road, Bangkadee
Patumthani 12000
Thailand

| | |
|---|---|
| Tel: | +662 501 3437 |
| Fax: | NIL |
| Telex: | NIL |
| AFS: | NIL |
| E-mail: | aqi3@dld.go.th |

**12. Aircraft Accident Investigation Division**

The Aircraft Accident Investigation
Commitee of Thailand
38 Ratchadamnoen nok Road,
Wat Sommanat
Pom Prap Sattru Phai
Bangkok 10100
Thailand

| | |
|---|---|
| Tel: | +662 287 3198 |
| Fax: | +662 286 2925 |
| E-mail: | aaic_secretary@mot.go.th |

**13. Air Navigation Facility Charges**

The President
Aeronautical Radio of Thailand Ltd.
102 Ngamduplee, Rama IV,
Tungmahamek, Sathon,
Bangkok 10120
Thailand

| | |
|---|---|
| Tel: | +662 285 9000 |
| Fax: | +662 287 3131 |
| Telex: | NIL |
| AFS: | VTBBYFYX |
| Website: | https://www.aerothai.co.th |

## GEN 1.2 ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT

### 1. INTRODUCTION

Legal basis and general provisions

1.1 In compliance with Section 28 of the Air Navigation Act B.E. 2497 (1954), foreign aircraft require permission to enter the Kingdom of Thailand.

International flights into, from or over the Kingdom of Thailand territory shall be subjected to the current Thai regulations relating to civil aviation. These regulations correspond in all essentials to the Standards and Recommended Practices contained in Annex 9 to the Convention on International Civil Aviation.

1.2 To fly over or take-off or land in the territory of the Kingdom of Thailand, foreign aircraft/airline is required to obtain prior permission. Application for such permission shall be made to Flight Permit Division (FP), The Civil Aviation Authority of Thailand (CAAT).

1.3 No aircraft entering or leaving the Kingdom of Thailand shall land before or depart except at or from a Customs Airport. Provided that an aircraft which is compelled by force majeure to land before arrival at or after departure from a Customs Airport shall, after compliance with the procedure laid down below, be deemed to have landed at or departed from a Customs Airport according to the requirement of the foregoing paragraph. In case that any aircraft entering or leaving the Kingdom of Thailand is compelled by force majeure to land at any place other than a Customs Airport, the person in charge shall forthwith report to a Customs Officer or an Administrative or Police Official, and on demand, produce to such Officer the log books of the aircraft and shall not allow any goods to be unloaded from the aircraft without the consent of a Customs Officer; and no passenger or member of the personnel thereof shall leave the immediate vicinity without the consent of a Customs Officer or an Administrative or Police Official. If the place of landing be an airport, the person in charge shall forthwith report the arrival of the aircraft and the place whence it came to the proprietor or officer in charge of the airport, who shall forthwith report the arrival of the aircraft to a Customs Officer and shall not allow any goods to be unloaded therefrom or any passenger or member of the personnel thereof to leave the airport without the consent of such Officer.

1.4 Notwithstanding the regulations relating to civil aviation over the Kingdom of Thailand territory, aircraft operators should consult the respective AIPs for other documentary and / or permit requirements for flights intending to enter, depart, and / or overfly the sovereign airspaces of States along the planned flight routes.

1.5 Flight permission is limited to the time it takes to conduct the flights covered by the permission. After the purpose of these flights has been fulfilled, the aircraft shall leave the Kingdom of Thailand territory.

1.6 Flight permission shall be submitted to and granted by Flight Permit Division (FP) via Flight Permit Online System (FPOS) at https://fpos.caat.or.th

Note: Register at https://www.caat.or.th/th/archives/58886

### 2. FOREIGN AIR OPERATOR PERMISSION (FAOP), FOREIGN AIRCRAFT OPERATOR SECURITY PROGRAMME (FAOSP), AND SAFETY STANDARD

2.1 Foreign Air Operator Permission (FAOP)

Pursuant to Requirement No. 42 issued by the Civil Aviation Authority of Thailand (CAAT) and Section 41/126 of the Air Navigation Act, foreign air carriers conducting scheduled commercial air transport into or from the Kingdom of Thailand must meet the following qualifications:

1. Hold a valid Air Operator Certificate (AOC) issued by the civil aviation authority of a country with a Bilateral Air Services Agreement with Thailand.
2. Be designated as the user of air traffic rights under such Agreement.
3. Hold documents related to safety.
4. Be granted a Foreign Aircraft Operator Security Programme (FAOSP)
5. Obtain permission through the Foreign Air Operating Permission (FAOP) system.
   For further details, please visit: https://portal.caat.or.th/FAOP/index.php
   Operation Licensing Division (OL), E-mail: faop@caat.or.th

2.2 Foreign Aircraft Operator Security Programme (FAOSP)

According to Notification of the Civil Aviation Authority of Thailand Re: Foreign Aircraft Operator Security Programme B.E.2566(2023), foreign air operator who plans to conducts a scheduled flight and non-scheduled flight (Programmed Charter or Inclusive Tour Charter) into or from the Kingdom of Thailand shall submit a Foreign Aircraft Operator Security Programme (FAOSP) and grant approval by the Director General of the Civil Aviation Authority of Thailand before submitting the flight permission application via Flight Permit Online System (FPOS).

2.2.1 Scheduled Flights

The approval process for the Foreign Aircraft Operator Security Programme (FAOSP) is an integral part of granting permission to foreign air operators for conducting commercial air transport, as outlined in Section 2.1.

2.2.2 Non-Scheduled Flights

A foreign air operator intending to conduct non-scheduled services, such as Charter Flights (Programmed Charter or Inclusive Tour Charter), are required to submit a set of documents to E-mail: sfd_faosp@caat.or.th at least one hundred and twenty (120) days prior to the expected start-up date of a flight into or from the Kingdom of Thailand and grant approval by the Director General of the Civil Aviation Authority of Thailand before submitting the request via the Flight Permit Online System (FPOS).The required documents are specified in the Notification of the Civil Aviation Authority of Thailand Re: Foreign Aircraft Operator Security Programme B.E.2566 (2023). Additionally, the Supplementary Station Procedure (SSP) in an editable format is provided via E-mail: sfd_faosp@caat.or.th.
For further information contact: website at https://www.caat.or.th/th/archives/75999
Operator Security and Facilitation Oversight Division (OS), E-mail: sfd_faosp@caat.or.th

2.3 Safety Standard

Pursuant to the Air Navigation ACT B.E. 2497 Chapter 1/1, The Civil Aviation Authority of Thailand (CAAT) is responsible for the regulation and supervision of all aeronautical matters within Thailand, in particular with regard to the Foreign Air Operator according to sections 28, 41/122, 41/123 as mentioned in the relevant air services agreement and Thailand Civil Aviation Regulation - Air Operations Part Foreign Air Operators Requirements (TCAR OPS Part - FAO). The responsibility for the safety of an aircraft operator lies primarily with the state of the Operator. Foreign Air Operators shall ensure that any person authorized by CAAT will be permitted to board any of its aircraft that have landed within Thailand, at any time, with or without prior notice to:

1. Inspect the documents and manuals to be carried on board.
2. Carry out a ramp inspection.

The CAAT Requirements No. 22 ON “REPORTING OF CIVIL AVIATION OCCURRENCES” requires the Foreign Air Operator to report mandatory occurrence and send to CAAT via email safetyreport@caat.or.th.
For further information contact: Foreign Air Operators Division (FA), E-mail: ops.fao@caat.or.th

2.4 Exemptions and Approvals for the Safe Transport of Dangerous Goods by Air

For exemptions and approvals for the safe transport of dangerous goods by Air, air operator shall submit the application package and required document to Flight Operations Standards Department, Dangerous Goods Standards Division, The Civil Aviation Authority of Thailand (CAAT).
For further information contact: Dangerous Goods Standards Division (DG), E-mail: ops_dg@caat.or.th

**3. APPLICATION FOR SLOTS**

3.1 To ensure efficiency of aircraft operations and optimization of airport resources, an airline and aircraft operators must have a slot allocated by CAAT as the Slot Coordinator prior operating at a Level 3 airport and a schedule facilitated from the appointed Schedule Facilitators prior operating at a Level 2 airport.

3.2 Applications of scheduled and non-scheduled (commercial and non-commercial) flights for allocation of slots or facilitation of schedules should be directed to the CAAT Slot Coordinator or the appointed Facilitator using the IATA Standard Schedules Information Manual (SSIM) called a Slot Clearance Request (SCR) or for General/Business Aviation (GA/BA) called a General (Aviation) Clearance Request (GCR) by e-mail as follows:

| Level of Airport (s) | IATA/ICAO Code | Full Name | Requirement | Via Email Address | Unit(s) |
|---|---|---|---|---|---|
| L3 | BKK/VTBS | Bangkok/ Suvarnabhumi International Airport | Coordination | slot@caat.or.th | CAAT |
| | DMK/VTBD | Bangkok/ Don Mueang International Airport | Coordination | slot@caat.or.th | CAAT |
| | HKT/VTSP | Phuket/ Phuket International Airport | Coordination | slot@caat.or.th | CAAT |
| | CNX/VTCC | Chiang Mai/ Chiang Mai International Airport | Coordination | slot@caat.or.th | CAAT |
| | USM/VTSM | Surat Thani/ Samui Airport | Coordination | slot@caat.or.th | CAAT |
| L2 | KBV/VTSG | Krabi/Krabi Airport | Facilitation | slotthai@airports.go.th | DOA |
| | HDY/VTSS | Songkhla / Hat Yai International Airport | Facilitation | slot@airportthai.co.th | AOT |
| | CEI/VTCT | Chiang Rai/ Mae Fah Luang-Chiang Rai International Airport | Facilitation | slot@airportthai.co.th | AOT |
| | UTP/VTBU | Rayong/ U-Tapao Rayong Pattaya International Airport | Facilitation | slot@caat.or.th | CAAT |

3.3 All operators shall adhere to the Rules of the Civil Aviation Authority of Thailand on Criteria for Slot Allocation for Airport Arrival and Departure of Aircraft B.E. 2562 (2019) which is aligned to the IATA Worldwide Airport Slot Guidelines (WASG). A copy of the Rules of the Civil Aviation Authority of Thailand on Criteria for Slot Allocation for Airport Arrival and Departure of Aircraft B.E. 2562 (2019) can be obtained from CAAT website www.caat.or.th and a copy of WASG document can be obtained from IATA website www.iata.org/wasg.

3.4 The following types of flights are exempted to obtain slots from the CAAT Slot Coordinator for the operation to/from Level 3 Airports:

- Emergency landing
- Military flights
- State flights

3.5 Changes on the day of operation

3.5.1 Request must be made for additional services planned on the day of operation (for example, a new positioning flight) and the operators must receive confirmation of an allocated slot before operating.

3.5.2 All operators should not notify the CAAT Slot Coordinator and or the appointed Facilitator of on-the-day equipment changes, or operational variations (for example, delayed flights or weather disruptions) to their allocated slots.

3.5.3 Only significant operational variations which affect the following day(s) may require the operators to submit a request for a new slot for the following day(s).

3.5.4 All operators should notify the CAAT Slot Coordinator of on-the-day cancellations so that the slots can be reallocated to other operators.
For further information contact: Airport Slot Allocation Division (SG), E-mail: slot@caat.or.th

**4. SCHEDULED FLIGHTS**

4.1 Definition and General

Definition

Scheduled international air services are regulated in a basic way by article 6 of the Chicago Convention. A scheduled international air service is a series of flights that possesses all the following characteristics:

a) it passes through the airspace over the territory of more than one State;
b) it is performed by aircraft for the transport of passengers, mail or cargo for remuneration, in such a manner that each flight is open to use by members of the public;
c) it is operated, so as to serve traffic between the same two or more points, either

   i. according to a published timetable, or
   ii. with flights so regular or frequent that they constitute a recognizably systematic series.

General

Scheduled international air services may be a foreign air operator into or in transit across the Kingdom of Thailand in pursuance of:

a) The International Air Services Transit Agreement, provided that States in which the airline is registered is a contracting party to this agreement; or
b) Agreement between the Kingdom of Thailand and States in which the airline is registered.

4.2 Scheduled Flight Permission

4.2.1 Flight Permission for Air Operating License Holders (Thai Air Operators)

i. Thai air operators holding an Air Operating License (AOL), who would like to apply for scheduled flight permission must meet the following qualifications and requirements:

   1. Hold an Air Operating License for scheduled commercial air transport operations
   2. Hold an Air Operator Certificate (AOC)
   3. Hold a Route Allocation Approval for the route specified in the application

ii. Applicants requesting approval for scheduled flight permission must obtain slots for level 2 and level 3 Airport (See Section 3)
iii. Applicants must ensure that the following documents remain valid during the period of operations;

   1. Air Operator Certificate (AOC)
   2. Air Operating License for scheduled commercial air transport
   3. Certificate of Airworthiness
   4. Certificate of Registration
   5. Certificate of Insurance
   6. Other relevant supporting documents

iv. Details for schedule flight permission application are as follows:

1. Name of the Air Operator Certificate (AOC) holder
2. Type of aircraft for scheduled flight operations
3. Aircraft nationality and registration marks
4. Flight number and schedule of the operations
5. Routing

v. Deadline for application

All air operators/authorized agents are to submit their applications for scheduled flights for each IATA schedule season at least thirty (30) days before the start of the season for approval by CAAT via FPOS.

vi. Revision of flight scheduled

1. In case of any revision for permitted flight scheduled, the air operators/authorized agents must submit a revision application for those flights to the Flight Permit Division no less than seven (7) business days before the start of the season.
2. In case of changing the flight date and time:

- If the new timing is more than twenty-four (24) hours earlier or later than the originally approved flight schedule, the air operators/authorized agents must submit a revision application for approval at least two (2) business days in advance, unless there are urgent or emergency situations. Additionally, for flights operating at Level 2 and Level 3 Airport, the new timing must be facilitated/allocated before submitting the application.
- If the new timing is less than twenty-four (24) hours earlier or later than the originally approved flight schedule, without changes to other details, the air operators/authorized agents may use the existing flight permission. However, for flights operating at Level 2 and Level 3 Airport, the new timing must be facilitated/allocated from Slot Facilitators/Slot Coordinator.

3. The revision for any change, such as flight number, route or schedule change more than period of seven (7) consecutive days or four (4) consecutive weeks, the air operators/authorized agents must submit a revision application for approval at least two (2) business days prior the day of operation, unless there are urgent or emergency situations. Additionally, for flights operating at Level 2 and Level 3 Airport, the new timing must be facilitated/allocated before submitting the application.

   Urgent and emergency situations mentioned in 2 and 3 refer to unforeseen circumstances, such as adverse weather conditions, security concerns, political situations, medical emergencies, or any circumstances that may impact the safety of the aircraft and passengers. This also includes strikes or actions taken by employees or personnel of other relevant entities, or any occurrences that affect the air operator's aircraft operations.

vii. Additional flights and cancellation of flights

For additional scheduled flights and cancellation of flights, the air operators/authorized agents must submit an application for approval at least three (3) business days prior to the day of operation.

viii. Resume flight

For resuming cancelled scheduled flights in order to align with increased traffic demand or any necessary reason, the air operators/authorized agents must submit an application for approval at least three (3) business days prior to the day of operation.

4.2.2 Flight Permission for Foreign Air Operators

i. Any foreign air operators/authorized agents who would like to apply for scheduled flight permission must meet the following qualifications:

1. Being designated as the air carrier by the government of the state of registry for scheduled air services between the state of registry and the Kingdom of Thailand.
2. Holding Foreign Air Operator Permission (FAOP) to engage in scheduled commercial air transport to and from the Kingdom of Thailand. (See Section 2.1)

ii. Applicants requesting approval for scheduled flight permission must obtain slots for level 2 and level 3 Airport. (See Section 3)

iii. Applicants must ensure that the following documents remain valid during the period of operations:

1. Air Operator Certificate (AOC)
2. Operators Specifications relevant for the aircraft or aircraft type and containing operational information such as capability for low visibility operations
3. Certificate of registration
4. Certificate of airworthiness and airworthiness review certificate (if applicable)
5. Certificate of insurance (by aircraft or by fleet)
6. Noise certificate
7. Maintenance release of the most recent major maintenance (equivalent to “c” check certificate of release) (if applicable)

8. State of registry's approved aging aircraft programme (if applicable) which may be part of the maintenance programme
9. Lease arrangements, if applicable

iv. Details for schedule flight permission application are as follows:

1. Name of the Air Operator Certificate (AOC) holder.
2. List of fleets with details of the capacity of the aircraft to be used for the operations.
3. Flight schedule of the operations.

- Flight number
- Flight schedule
- Flight route for operations to/from the Kingdom of Thailand, specifying the airport names of origin and destination with their Location Indicators (ICAO Code) assigned by the International Civil Aviation Organization.

4. Details of codeshare operation and codeshare agreement.

v. Deadline for application

Same requirements as Section 4.2.1 Article v.

vi. Revision of flight scheduled

Same requirements as Section 4.2.1 Article vi.

vii. Additional flights and cancellation of flights

Same requirements as Section 4.2.1 Article vii.

viii. Resume flight

Same requirements as Section 4.2.1 Article viii.

4.3 Documentary Requirements for Clearance of Aircraft

4.3.1 The documents required for clearance of aircraft on entry and departure to and from the Kingdom of Thailand must be submitted by authorized agent or pilot-in-command. All documents are acceptable when completed in legible English. No visas are required in connection with such documents. The requirements are as follows:

4.3.2 Aircraft Documents Required (Arrival / Departure)

| Required by | General Declaration | Passenger Manifest | Cargo Manifest | Stores List |
|---|---|---|---|---|
| Departure | | | | |
| Airport Authority | 1 | 1 | 1 | - |
| Customs | 1 | 1 | 2 | 1 |
| Immigration | 2 | 3 | - | - |
| Health Authority | - | - | - | - |
| Animal Quarantine | - | - | 1 | - |
| **Total** | 4 | 5 | 4 | 1 |

| Required by | General Declaration | Passenger Manifest | Cargo Manifest | Stores List |
|---|---|---|---|---|
| Arrival | | | | |
| Airport Authority | 1 | 1 | 1 | - |
| Customs | 1 | 1 | 2 | - |
| Immigration | 2 | 3 | - | - |
| Health Authority | 1 | 1 | - | - |
| Plant Quarantine | - | - | 1 | - |
| Animal Quarantine | - | - | 1 | - |
| **Total** | 5 | 6 | 5 | - |

4.4 Public Health Measures Applied to Aircraft

4.4.1 Public health measures are required to be carried out in respect of aircraft entering the Kingdom of Thailand in accordance with Communicable Disease Act B.E.2558 (A.D.2015), Thailand and International Health Regulations (WHO).

4.4.2 Aircraft arriving from affected area may land at an international airport provided the aircraft has been disinsected while in flight approximately thirty minutes before arrival at the airport. The insecticide to be used is authorized aerosol (standard reference aerosol). If, in special circumstances a second spraying of the aircraft is deemed necessary by the Health Authority to be carried out on the ground, passengers and crew are permitted to disembark beforehand.

**5. Non-scheduled flights**

5.1 Definition and General

Definition

A non-scheduled air service is a commercial air transport service performed as other than a scheduled air service.

General

Applicants requesting approval for non-scheduled flight permission must obtain slots for Level 2 and Level 3 Airport. (See Section 3)

5.2 Overflights, Non-Traffic or Technical Landings

Subject to the observance of the terms of the Convention on International Civil Aviation, application must be made and prior approval obtained from The Civil Aviation Authority of Thailand for all aircraft of the Contracting States of the Convention on International Civil Aviation desiring to carry out non-scheduled fight into, in transit non-stop across Thailand, or to make stops for non-traffic purpose in Thailand.

i. Documents required for application

Same requirement as Section 4.2.2 Article iii. Documents 1 – 5.

ii. Deadline for application

The application must be submitted to the Flight Permit Division at least three (3) business days in advance of the intended flight date via FPOS. (See Section 1.6).

iii. Details for flight permission application are as follows:

1. Name of operator
2. Owner, type, nationality and registration mark of the aircraft
3. Name, billing address and contact of applicants
4. Purpose of flight
5. Routing, including aerodromes before/after the Kingdom of Thailand
6. Names of aerodromes to land in the Kingdom of Thailand
7. Dates and times of its arrival and departure at each aerodrome
8. In case of carrying dangerous goods (See Section 2.4)

iv. Revision of Flight Schedule

Same requirements as Section 4.2.1 Article vi.

5.3 Non-Scheduled Flights with Commercial Purpose

Aircraft of Contracting States of the Convention on International Civil Aviation intending to conduct a non-scheduled flight into and/or out of the Kingdom of Thailand for the commercial purpose of embark/disembark passengers, cargo and mail, must apply for permission to The Civil Aviation Authority of Thailand.

i. Documents required for application

Same requirement as Section 4.2.2 Article iii.

Note: For foreign air operators who would like to conduct a non-scheduled Programmed Charter or Inclusive Tour Charter, FAOSP approval are required. (See Section 2.2)

ii. Deadline for application

The application must be submitted to the Flight Permit Division at least three (3) business days in advance of the intended flight date via FPOS (See Section 1.6).

iii. Details for flight permission application are as follows:

1. Name of operator
2. Type, nationality and registration mark of the aircraft
3. Name, billing address and contact of applicants
4. Purpose of flight
5. Routing, name of aerodrome including aerodromes before/after the Kingdom of Thailand
6. Dates and times of its arrival and departure at each aerodrome
7. Number and list of passengers, categories of passengers (i.e. Inclusive Tour Group, Affinity Group or Own Use Charter etc.) including points of embarkation or disembarkation of passengers
8. Name of charterer and agent including address to contact in the Kingdom of Thailand
9. Description and quantity of freight, consignor, consignee, including points of loading and unloading of freight

iv. Revision of Flight Schedule

Same requirements as Section 4.2.1 Article vi.

***Note:*** Passenger Charter Flight

A. Own Use Charter Flight

1. The entire capacity of the aircraft hired by the charterer (individual, firm, legitimate club or associations) for transportation either for employees of the charterer or for persons affiliated with the charterer other than employees (e.g. the hiring by a sports club for transportation of a football team to a match).
2. The charterer of the aircraft solely shall decide the destination of the aircraft as well as all arrangement connected with the journey.
3. The charterer shall defray all expenses incidental to the flight, no payment, either direct or indirect, to be made by the participant of the flight to the charterer.
4. In case of Own Use Charter, passengers depart from Thailand must be the same as passengers that the operators carry to Thailand.

B. Inclusive Tour Charter Flight

1. Air operators are required to obtain FAOSP approval prior to applying for flight permission application through FPOS. (See section 2.2)
2. The entire capacity of the aircraft shall be hired by one or several persons in charge of inclusive Tour Charter Flight and shall be reserved for the sole use of the participants of a travel program which has been fixed in advance. If the trip is to be regarded as an inclusive tour, the following conditions must be complied with:

- The duration of the tour shall not be less than one week.
- The travel arrangement shall comprise transportation, hotel accommodation and meal (i.e. at least breakfast and one principal meal) as well as excursions, if such can be arranged, including home transportation.
- Each group of passengers to be transported shall consist of not less than 15 persons,all from the same Inclusive Tour Charter Agencyand with the same travel arrangement. The same aircraft may carry several of these groups.
- There shall be a travel agency courier at the disposal of the group at the point of destination.
- The participation group members shall make full payment, no refund of payment in case of part of the arrangement not being utilized, for the entire travel arrangement.

3. Any charter flights operated by foreign carriers transporting passengers between any points in Thailand is prohibited.
4. Passengers travel to Thailand with all type of charter flights are able to depart by either that same charter operator or scheduled fights.
5. The operator may carry passengers to Thailand and then ferry out, after that operate ferry in and then carry the same passengers back.
6. Transportation of revenue passengers who do not participate in Inclusive Tour Group or selling one-way ticket, is not permitted.
7. The flight may not be performed with aircraft not owned by the contracting charter company, unless permission has been obtained from The Civil Aviation Authority of Thailand.
8. It is the duty of the charter company concerned to control the participants of the respective groups to be transported together on the outward and return flight.

C. Affinity Group Charter Flight

Affinity Group Charter Flight, one chartered for the exclusive use of a group (or groups) consisting of members of an association or club having principal aims and objectives other than travel and sufficient affinity prior to the application for charter transportation to distinguish it and set it apart from the general public.

D. Programmed Charter

Programmed charter means a flight for transporting or travelling provided on period of time and having a regular program subject to a contract or an agreement made with the tourism business operators. Operators need to apply for FAOSP and get approval before submitting a flight permission application through FPOS. (See Section 2.2)

5.4 Non-Scheduled Flights without Commercial Purpose

Aircraft of Contracting States of the Convention on International Civil Aviation intending to conduct a non-scheduled (non-commercial) flight into and/or out of the Kingdom of Thailand for the purpose of embark/disembark passengers, cargo and mail, must apply for permission to The Civil Aviation Authority of Thailand.

i. Documents required for application

Same requirement as Section 4.2.2 Article iii. Documents 1 – 5.

ii. Deadline for application

The application must be submitted to the Flight Permit Division at least three (3) business days in advance of the intended flight date via FPOS (See Section 1.6).

iii. Details for flight permission application are as follows:

1. Name of operator
2. Owner, type, nationality and registration mark of the aircraft
3. Name, billing address and contact of applicants
4. Purpose of flight
5. Routing, name of aerodrome including aerodromes before/after the Kingdom of Thailand
6. Dates and times of its arrival and departure at each aerodrome
7. Number of passengers (if any)

iv. Revision of Flight Schedule

Same requirements as Section 4.2.1 Article vi.

5.5 Foreign air operators desiring to operate diplomatic flights, or aircraft of non-Contracting States of the Convention on International Civil Aviation, desiring to fly in transit, non-stop across the Kingdom of Thailand or to land for non-traffic purposes must apply and obtain prior approval through diplomatic channel. The application must contain the documents same as Section 5.4.

## GEN 1.3 ENTRY, TRANSIT AND DEPARTURE OF PASSENGER AND CREW

### 1. Customs Requirements

1.1 All inbound passengers are required to proceed to customs green or red channels for customs inspection. A Passenger who has nothing to declare, will be immediately released through the green channel, while passengers who has goods to declare, must proceed through the red channel for customs inspection.

1.1.1 For International Airport in Thailand, the dual-channel system for the clearance of inbound passengers and their baggage is introduced.

a) Green channel with the words “NOTHING TO DECLARE” for passengers having with them no goods or only goods which can be admitted free of import duties and taxes and are not subject to import prohibitions or restrictions.
b) Red channel with the words “GOODS TO DECLARE” for any passengers who is unsure whether or not goods are subject to a).

1.1.2 Passenger proceeding through the green channel may be subject to random search if the customs officer has reasonable suspicion.

1.1.3 The following goods accompanying passengers are duty free allowance:

a) 200 cigarettes or 250 grams of cigars and tobacco or altogether weighting not more than 250 grams at the maximum
b) 1 liter of alcoholic liquor
c) Personal effects in reasonable quantity and of which value not exceeding 20,000 THB
d) Used household effects on permanent change of domicile in reasonable amounts, application for duty exemption should be submitted to customs offices at the arrival port.

1.1.4 The following articles are restricted and prohibited to bring into Thailand:

a) Narcotics and stimulated drugs;
b) Armaments and dangerous objects;
c) Obscene articles;
d) Telecommunication equipments;
e) Wild animals and plants;
f) Any articles concerning Intellectual Property Right (IPR) violation
g) Other prohibited and restricted goods according to laws and regulations of concerned government agencies.

1.1.5 Passenger with the dutiable item and restricted articles which are not intended for use in Thailand must inform customs and present the airplane ticket stating the destination to the third country. Those items shall be placed in customs custody not more than 30 days. They can be reclaimed on the departure date while checking in by informing the airline staff and paying the storage fees at the customs office.

1.1.6 Any dutiable, prohibited and/or restricted articles found being brought through the Green Channel will be confiscated and the bearer may be subject to a fine of four times of price of the goods including duty or to imprisonment for a term of not exceeding ten years, or to both.

1.2 Baggage belonging to outbound passenger will normally be released without interference of the Customs due to most of export items are exempted from Customs duty.

1.2.1 The following articles are restricted and prohibited to take out of Thailand:

a) Narcotics and stimulated drugs;
b) Armaments and dangerous objects;
c) Obscene articles
d) Wild animals and plants;
e) Antique and artistic objects;
f) Buddha images, idols and parts;
g) Other restricted and prohibited goods according to laws and regulation of concerned government agencies.

1.2.2 Outbound passengers who want to apply for VAT. Refund must submit the completed form for VAT. Refund application for tourist (pp.10). This form should be presented together with the purchased goods and the receipts to the customs officer at the customs inspection office at the departure hall before checking in the ticket. After proceeding at the immigration counter, passenger is able to claim the VAT. Refund at the revenue department’s office.

1.3 Currency

1.3.1 Any person leaving or entering the Kingdom of Thailand is requires to declare Thai currency or negotiable monetary instruments on which the name of the payee has been omitted and are endorsed without restriction when carrying over 450,000 THB.

1.3.2 Any person leaving or entering the Kingdom of Thailand is requires to declare foreign currency or negotiable monetary instruments on which the name of the payee has been omitted and are endorsed without restriction when carrying over USD 15,000 or its equivalent in another currency.

1.3.3 Any person leaving or entering the Kingdom of Thailand is requires to declare Thai or foreign currency or negotiable monetary

instruments listed in Article 1 and 2, if the combined value is over 450,000 THB or its equivalent in another currency.

1.3.4 Any person taking out Thai currency (banknotes and coins) from the Kingdom of Thailand is required to request permission from in the following instances:

a) When travelling to Cambodia, Laos, Malaysia, Myanmar, Vietnam and Yunnan Province, China and carrying over 2,000,000 THB; and
b) When traveling to other countries not listed in a) and carrying over 50,000 THB.

**2. Immigrant Requirements**

2.1 First Port of Arrival and First Port of Departure

2.1.1 First Port of Arrival

a) All passengers arriving into Thailand must clear immigration formalities at their first port of arrival.
b) Passengers transferring to C.I.Q. (Customs, Immigration, Quarantine) destinations, which currently are Suvarnabhumi, Chiang Mai, Mae Fah Luang-Chiang Rai, Krabi, Phuket, Samui, Trat and Udon Thani, can have their luggage through-checked to the final destinations, and subsequently clear customs formalities for their checked-luggage at the respective destination airports.
c) However, customs inspection of carry-on luggage may take place at the first port of arrival.
d) In addition, health, animal and plant quarantine may also take place at the first port of arrival.
e) The aforementioned first port of arrival procedures are effective from the following dates:

– For passenger, whose first port of arrival is Suvarnabhumi Int'l airport, from 1 April 2007 onwards,
– For passengers, whose first port of arrival is any other C.I.Q. airport, from 28 October 2007 onwards.

2.1.2 First Port of Departure

a) Passengers who originate their flights at any of C.I.Q. (Customs, Immigration Quarantine) airports, which currently are Suvarnabhumi, Chiang Mai, Mae Fah Luang-Chiang Rai, Krabi, Phuket, Samui, Trat and Udon- Thani, and will connect to international flights leaving Thailand may have their luggage through-checked, then clear immigration, customs as well as health, animal and plant quarantine at the airport of origin, i.e. the first port of departure.
b) The aforementioned first port of departure procedures is currently in effect; they are included here only for the sake of completeness.

2.2 No documents or visas are required of passengers arriving and departing on the same through flight or transferring to another flight at the same airport and staying within transit lounge not exceeding 12 hours.

2.3 An alien who wishes to enter into Thailand must hold a valid passport and a visa, the latter being issued at Thai Embassy or Thai Consulate abroad, with the exception of certain types of aliens stated in items **2.3**, **2.5**and **2.6**.

2.4 Holder of a passport of Cambodia and Myanmar may enter into Thailand for a period of up to 14 days without visa.

2.5 An alien may enter into Thailand for a period of up to 30 days without visa under following conditions:

2.5.1 Holding the nationality and passport or a travel document of the following countries:

Australia, Austria, Bahrain, Belgium, Brazil, Brunei Darussalam, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hellenic, Hong Kong, Iceland, Indonesia, Ireland, Israel, Italy, Japan, Korea (South), Kuwait, Luxembourg, Malaysia, Monaco, Netherlands, New Zealand, Norway, Oman, Peru, Philippines, Portugal, Principality of Liechtenstein, Qatar, Republic of Hungary, Republic of Poland, Republic of Slovenia, Singapore, Slovak Republic, Spain, South Africa, Sweden, Switzerland, Turkey, United Arab Emirates, United Kingdom, United State of America, Vietnam.

2.5.2 Holding the nationality and passport of the following countries: Hong Kong, Laos (with a passport with at least six-month validity), Macao, Mongolia, Russia, Vietnam

2.5.3 Holder of diplomatic or an official passport who enters and stays temporarily in the Kingdom of tourism purposes: Cambodia, China, Hong Kong, Laos, Oman, Macao, Mongolia, Myanmar, Vietnam, Brunei, Ecuador, Pakistan(only diplomatic passport) and Indonesia(only diplomatic passport, an official passport with at least six-month validity)

2.5.4 Holding a diplomatic, an official or a service passport of Cambodia and Brunei.

2.5.5 Holding a diplomatic, special and service passports of Oman.

2.5.6 Holder of a passport of its equivalent document who enters and stays temporarily in the Kingdom for any international meetings or sports competition which are hosted by the Thai Government or approved by the Ministries, Department concerned.

2.5.7 Holder of valid diplomatic passport of Islamic Republic of Pakistan may enter, exit, or transit without a visa for staying in the Kingdom of Thailand for a period not exceeding thirty (30) days, provided that they do not take up any employment, be itself-employment, or any other private activity in the Kingdom of Thailand. Nationals of the Islamic Republic of Pakistan, holding a valid diplomatic passport, who are assigned as members of the diplomatic mission or consular, or who are representatives of an international organization in the Kingdom of Thailand, as well as their family members holding valid diplomatic passports may enter, stay, and leave the Kingdom of Thailand without visa for a period

up to thirty (30) days. Such period will depend on request of the Ministry of Foreign Affairs or the Embassy concerned, be extended until the end of their assignment,

2.5.8 The ambassador, the ambassador's spouse and their children who holding diplomatic passports from any country (in addition to who have been previously identified)

2.6 An alien may enter into Thailand for a period of up to 90 days without visa under following conditions.

2.6.1 Holding a diplomatic or an official passport of the following countries:

Albania, Argentina, Austria, Belarus, Belgium, Brazil, Bhutan, Chile, Costa Rica, Croatia, Czech Republic, Colombia, Estonia (only diplomatic passport), France (only diplomatic passport), Germany, Hungary, India Israel, Italy, Japan, Korea (South), Liechtenstein, Luxembourg, Malaysia, Mexico, Montenegro, Morocco, Nepal, Netherlands, Panama, Peru, Philippines, Poland, Romania, Russia, Spain, Sri Lanka, Slowak Republic, South Africa, Switzerland, Tajikistan, Tunisia, Turkey, Ukraine and Uruguay.

2.6.2 Holding a passport of Argentina, Brazil, Chile, Korea (South) and Peru.

2.6.3 Holding a diplomatic or service passports of the Republic of Tajikistan and Ukraine.

2.6.4 Holder of a passport or its equivalent document of Asia-Pacific Economic Cooperation (APEC) Economies holding APEC Business Travel Card (ABTC) who enters and stays temporarily in the Kingdom for any business not exceeding 90 days. The card must be valid and marked "THA" in the back of the card.

2.6.5 Nationals of the Kingdom of Spain, holding a valid, current Spanish diplomatic passport, may enter the territory of the Kingdom of Thailand without a visa for stays of up to ninety (90) days during a period of one hundred and eighty (180) days, provided that they do not engage in gainful activity during their stay and provided that the entry is not carried out for accreditation purposes.

2.6.6 Holder of a valid diplomatic or an official passport of the Democratic Socialist Republic of Sri Lanka may enter, exit, or transit without a visa for staying in the Kingdom of Thailand for a period not exceeding ninety (90) days since the first day of arrival, provided that they do not take up any employment, be it self-employment, or any other private activity in the Kingdom of Thailand. Nationals of the Democratic Socialist Republic of Sri Lanka, holding a valid diplomatic passport, who are assigned as members of the diplomatic mission or consular in the Kingdom of Thailand, as well as their family members holding valid diplomatic passports requires obtaining a visa to enter, stay, and leave the Kingdom of Thailand.

2.6.7 Holder of valid diplomatic or service passports of Montenegro may entry, exit, transit and stay in the Kingdom of Thailand for a period not exceeding ninety (90) days, within a six-month period, counting from the day of the first entry, provided that they do not apply for temporary residence and do not take up any employment, be itself-employment, or any other private activity in the Kingdom of Thailand. Nationals of Montenegro, holding valid diplomatic and service passports, who are assigned as members of the diplomatic mission or consular post of Montenegro or who are representatives of Montenegro to an international organization in the Kingdom of Thailand, as well as their family members holding valid diplomatic or service passports of Montenegro, may enter, stay, and exit the Kingdom of Thailand without obtaining a visa for a period not exceeding ninety (90) days within a six-month period, counting from the day of first entry. Such period will, upon request of the Ministry of Foreign Affairs of Montenegro or the Embassy of Montenegro accredited to the Kingdom of Thailand, be extended until the end of their assignment.

2.7 An alien holding the nationality of following countries that issue passports or its equivalent document may enter into Thailand for a period of up to 30 days by asking a visa on arrival at Don Mueang, Suvarnabhumi, Chiang Mai, Mae Fah Luang-Chiang Rai, Phuket, Hat Yai, U-Tapao Rayong Pattaya, Krabi, Samui, Sukhothai and Surat Thani airports: Bhutan, China, Cyprus, Czech Republic, Ethiopia, Hungary, India, Kazakhstan, Latvia, Liechtenstein, Lithuania, Maldives, Mauritius, Oman, Papua New Guinea, Poland, Principality of Andorra, Republic of Bulgaria, Republic of Estonia, Republic of Malta, Republic of San Marino, Romania, Russia, Saudi Arabia, Slowak Republic, Slovenia, Taiwan, The Republic of Fiji Island, Ukraine and Uzbekistan.

2.8 For embarking passengers, only passports or documents used in Lieu of passports and Embarkation Card are required to be submitted.

2.9 A flight crew member and a crew member who are on duty and retain their valid licenses or their certificates in their possession may enter into Thailand for a period of up to 30 days with a passport presented to the officer.

**3. Public Health Requirements**

3.1 The requirement of possession the valid international certificates of vaccination or revaccination against yellow fever is necessary if the individual comes from affected area, except the direct transit passenger who remains in direct transit area of the airport.

3.2 In accordance with the immigration Act, Thailand B.E.2522, aliens which fall into any of the following categories are excluded from entering into the kingdom:

3.2.1 Mental or physical defects, having any of the diseases prescribed in the ministerial regulation of the following diseases: leprosy tuberculosis, filariasis in the stage of repulsive in appearance, tertiary stage of syphilis, drug addicts.

3.2.2 Having not yet been vaccinated or inoculated or undergone any other medical treatment for protection against quarantinable diseases during the declaration of the above mentioned diseases and having refused to have such vaccinations administered by the

immigration Doctor.

3.3 On departure, health formalities are required in accordance with International Health Regulations (WHO).

**4. Animal Quarantine Requirements**

4.1 Exportation

4.1.1 Animals or animal carcasses specified in Animal Epidemics Act B.E.2558(2015) and Ministerial Regulations is prohibited unless accompanied by Export License and Veterinary Health Certificate granted by Authorized Veterinary Officer of Department of Livestock Development.

4.1.2 Application for Export License and Veterinary Health Certificate must be done at least 15 days prior to date of departure.

4.2 Importation, Transshipment

4.2.1 Animals or animal carcasses specified in Animal Epidemics Act B.E.2558(2015) and Ministerial Regulations is prohibited unless there are Import Permit granted by Authorized Veterinary Officer of Department of Livestock Development and Veterinary Health Certificate of the country of origin.

4.2.2 Veterinary Health Certificate of the country of origin must be in English and issued by an Authorized Veterinary Officer and accompanied with every shipment of animals and/or animal carcasses. The aforementioned Certificate should meet the importation requirement of Department of Livestock Development.

4.2.3 Import Permit granted by Authorized Veterinary Officer of Department of Livestock Development must be done at least 15 days prior to date of entry.

4.2.4 Veterinary Health Certificate and Permit must declare to the Authorized Veterinary Officer at port of entry.

4.2.5 The carrier administrator shall provide details of imported animals and/or animal carcasses into Kingdom of Thailand to Animal Quarantine Station of port of entry before the arrival date of such carrier.

**5. Other**

5.1 Instruction on the export of antiquities or Buddha Images from The Kingdom of Thailand

5.1.1 Buddha images, Bodhisattva images or related fragments a part of ancient Monuments and prehistoric objects, are forbidden to be taken out of the Kingdom, newly cast complete Buddha Images can be exported for worship, cultural exchange or educational purposes with licenses issued by the Fine Arts Department. Not more than 5 pieces per person shall be allowed. (more information contact to 0 2628 5032)

5.1.2 Reproductions of antiquities can also be exported with licenses.

5.1.3 Procedures to obtain a license for export of antiquities or Buddha images:

5.1.3.1 The following documents should be produced together with the application form:

a) Two copies (3x5 inches) of front view photograph of the object(s)
b) A photocopy of the applicant's passport (in case of export of Buddha images the photocopy of passport must be certified as true copy by the respective Embassy or Consulate in Thailand.)

5.1.3.2 Bring the object(s) and the documents to apply for a license at any of the following places:

a) Office of Archaeology and National Museums, 81/1 Si Ayutthaya Road, Theves, Dusit, Bangkok, Tel: 0 2628 5032
b) Chiang Mai National Museum, Superhighway Rod, Amphoe Muang, Chiang Mai, Tel: (053) 221-308
c) Songkhla National Museum, 12/1 Jana Road, Tambon Bohyang, Amphoe Muang, Songkhla, Tel: (074) 331-728, 311-881
d) Thalang National Museum, Tambon Si Sunthorn, Amphoe Thalang, Phuket. Tel: (076) 311-426

5.1.3.3 Please allow 4 working days for license issuing process.

5.2 Limitation of gel, aerosol and liquid

Thailand will implement the new security measures on the carriage of liquids, gels, aerosols and the like in hand baggage on board scheduled, non-scheduled and private flights both domestic and international from Thailand as of 1 June 2007, as follows:

5.2.1 All liquids, gels, aerosols and the like must be carried in containers with a capacity not greater than 100 milliliters each (or equivalent in other volumetric measurements). Liquids etc. carried in containers with a capacity of more than 100 milliliters will not be accepted, even if the container is only partially filled;

5.2.2 Containers must be placed in a transparent re-sealable plastic bag with a maximum capacity not exceeding 1 liter. The containers must fit comfortably within the transparent plastic bag, which must be completely closed;

5.2.3 The transparent plastic bag is to be presented for screening at the security screening point by separating it from other hand baggage

such as coats and laptop computers.

5.2.4 Each passenger is permitted to carry only one such bag.

5.2.5 Reasonable amount of medicines and baby milk/foods are exempted from the requirements stated in items 1, 2 and 3 but they are to be presented for screening at the security screening point.

5.2.6 All liquids, gels, aerosols and the like bought from the duty-free shops at the airport or on board aircraft are exempted from the requirements stated in items 1, 2 and 3 but they must be packed in a transparent sealed plastic bag without reopening sign after buying. Also, the receipt shall be clearly displayed and the date of purchase shall coincide with the day of travel of normal, transit or transfer passengers.

For the passengers benefit before shopping in duty-free shops at the airports, please check the information with the shops or the airlines for the regulations on the carriage of liquids, gels, aerosols and the like which are practised at the airport of your destination, transit and transfer.

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## GEN 1.4 ENTRY, TRANSIT AND DEPARTURE OF CARGO

**1. Customs Requirement Concerning Cargo and Other Articles**

1.1 The minimum documents required for clearance of goods through Customs for entering into the Kingdom of Thailand are as follows:

1.1.1 Import Declaration;

1.1.2 Bill of lading (B/L) of Air Waybill;

1.1.3 Invoice;

1.1.4 Packing List;

1.1.5 Import License (if applicable);

1.1.6 Certificate of Origin (if applicable);

1.1.7 Insurance Premium Invoice (if applicable);

1.1.8 Other relevant documents such as catalogue, product ingredients, etc.

1.2 The Following documents are required for transshipment of goods:

1.2.1 Transshipment Entry;

1.2.2 Bill of Lading (Through bill of landing);

1.2.3 Manifest which shown embarking port, transshipment port and destination port as same as through bill of lading; and

1.2.4 If transit goods are under controlled by various agencies it is required Transit Permit before transit the Kingdom of Thailand.

1.3 The minimum documents are required for clearance of goods to be shipped out of the Kingdom of Thailand are as follows:

1.3.1 Export Declaration;

1.3.2 Invoice;

1.3.3 Export License (if possible);

1.3.4 Other relevant documents such as catalogue, product ingredients, etc.

1.4 Permit granted by The Civil Aviation Authority of Thailand (CAAT) is required for transport of dangerous goods by air:

1.4.1 Dangerous Goods:

Class 1: Explosives

Division 1.1: Substances and articles which have a mass explosion hazard

Division 1.2: Substances and articles which have a projection hazard but not a mass explosion hazard

Division 1.3: Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard

Division 1.4: Substances and articles which present no significant hazard

Division 1.5: Very insensitive substances which have a mass explosion hazard

Division 1.6: Extremely insensitive articles which do not have a mass explosion hazard

Class 2: Gases

Division 2.1: Flammable gases

Division 2.2: Non-flammable, non-toxic gases

Division 2.3: Toxic gases

Class 3: Flammable liquids

Class 4: Flammable solids; substances liable to spontaneous combustion; substances which, on contact with water, emit flammable gases

Division 4.1: Flammable solids, self-reactive and related substances and solid desensitized explosives and polymerizing substances

Division 4.2: Substances liable to spontaneous combustion

Division 4.3: Substances which, in contact with water, emit flammable gases

Class 5: Oxidizing substances and organic peroxides

Division 5.1: Oxidizing substances

Division 5.2: Organic peroxides

Class 6: Toxic and infectious substances

Division 6.1: Toxic substances

Division 6.2: Infectious substances

Class 7: Radioactive material

Class 8: Corrosive substances

Class 9: Miscellaneous dangerous substances and articles, including environmentally hazardous substances

1.4.2 In case of foreign air operators wishing to receive, storage, load, unload or transport dangerous goods in an aircraft to or from the territory of Kingdom of Thailand must obtain prior written permission from the Director General complied with Requirement of The Civil Aviation Authority of Thailand No.68 Application for and issuance of permission for operating Dangerous Goods and Prohibited or Special Handling Items.

**2. Customs Procedure for Postal Parcels**

2.1 Categorization of Postal Items for Customs Formalities

Postal items sent from aboard to Thailand are subject to selective inspection for Customs formalities categorization purpose before further distribution to the consignees. The postal items can be categorized into 3 groups as follow.

**Group 1**: Exempted from duty items, which are the items that follow below criteria.

a) Postal items sent by mail and the value of each dose not exceed 1,500 baht.
b) Trade samples of no commercial value. The Customs Officers will deliver such items to Thailand Post for further distribution to the consignees at the stated address on the postal items.

**Group 2**: Dutiable items, regardless a number of packages, sent at the same time by one consigner to another consignee or arrived simultaneously, whose FOB (Free on Board) values do not exceed 40,000 baht and are not the prohibited goods or restricted goods.

The Customs officers will open the packages with the presence of Thailand Post officers to joint inspect and make assessment of goods. Then pass the postal items to Thailand Post to send to the destined postal office in order to distribute to the consignees and collect the duty for the Customs Department. Thailand Post will issue “Notification to collect international postal items” and send to the stated consignee. The consignee will have to take the notification to the Thailand Post office stated on “Notification to collect international postal items” to pay the duty and receive the postal items. Officers of Thailand Post will issue the receipt for the duty payment on behalf of the customs.

In case the Customs officers find any postal items with the problems relating the goods value assessment or items that the consignees require the duty receipt issued by the Customs Department, the Customs officer will categorize such items as Group 3.

**Group 3**: Postal items other than Group 1 and Group 2.

The Customs officers will pass the postal items to Thailand Post to keep in the cargo. Thailand Post will issue “Notification to collect international postal items” and send to the consignees stated on the package. The consignees will have to take “Notification to collect international postal items” to Postal and Airport Customs Service Division or the Customs House stated in the notification and follow the customs formalities in order to receive the goods.

**The customs formalities for the goods of Group 3 can be done in 2 ways.**

a) If the value of goods exceeds 40,000 baht, the consignee is required to make an Import Declaration Form through the paperless system.
b) In case the value of goods does not exceed 40,000 baht, the Customs officer will then collect the duties and issue a receipt. The consignee is not required to make an Import Declaration Form.

2.2 Documents Required for receipt of postal items at Postal and Airport Customs Service Division or Customs House.

2.2.1 Documents required for fulfilling customs formalities in case of receiving goods by oneself.

a) “Notification to collect international postal items”
b) The personal identification card or any cards issued by the government agencies of the consignee whose name appears on the notification.

2.2.2 In the case of authority being given to other persons to receive goods on behalf on oneself.

a) “Notification to collect international postal items” with the authority appointer being filled in details on the back of the notification and duly signed.
b) The identification card of the appointer (copy & certified).
c) The identification card of the appointee.

2.2.3 In the case of the consignee being a legal entity, such as a company, a firm or a shop.

a) “Notification to collect international postal items” with the signature of the company's authorized person and the company's seal on the back of the notification.
b) The owner's card or a manager's card or an identification card of a person empowered to sign the documents binding such legal entity (copy & certified) and the appointee's card.
c) A certified copy of company registration.

***Note:*** *The appointee has no authorization to appoint any third person as another appointee.*

2.3 Objection to Duty Assessment (items of Group 2)

When the consignees contact the Postal Office to receive the goods and are requested to pay for the duties of such goods, if the consignees disagree with the duty assessments, the consignees have to do:

a) Make a request in writing (the request form can be downloaded from www.postalcustoms.com). The request should be submitted along with “Notification to collect international postal items” and any related document directly.
b) The request should be submitted to Postal and Airport Customs Service Division, the Department of Customs or send through the Postal Office where the consignee contacts to receive the goods.
c) The consignee must not accept the duties at the Postal Office. After the request has been submitted, such postal items will be sent to Postal and Airport Customs Service Division for further consideration of the request.
d) The persons who submit the request can receive and make the payment for the duties at Postal and Airport Customs Service Division, Rongmuang Road, Wang-Mai, Patumwan District, Bangkok.

2.4 Contact us

For further inquiry and information please contact:

Customs Call Center: Call 1164 or
Customs Clinic: Call +662 667 7800-4, Fax. +662 667 7885,
E-mail: Customs_clinic@customs.go.th
Additional information may also be obtained from Customs ports of entry/exit. Please consult our telephone directory for a Customs office near you. The listing can be found under the “CONTACT US” section.

**3. Plants Quarantine Requirements**

3.1 Plant Quarantine Requirements: According to the Plant Quarantine Act B.E. 2507 (1964) amended by the Plant Quarantine Act (No.2) B.E. 2542 (1999) and the Plant Quarantine Act (No.3) B.E. 2551 (2008), the importation and exportation of plants shall be complied with the following rules.

3.1.1 Import Plant Quarantine Requirements

a) Prohibited articles: Prohibited articles which are specified in Ministerial Notifications are specific part of plants, any part of plants including soil, organic fertilizer, agricultural micro-organisms, animal pests of plant, earthworms, insects, mites, nematodes, snails, slugs, weeds, parasites or predators. Any person importing or bringing in transit prohibited articles shall comply with the following rules. (i) The importation or bringing in transit of prohibited articles for research purpose shall be received permission from the Director-General, accompanied by a phytosanitary certificate and complied with criteria, procedures and conditions specified by the Director-General. (ii) The importation or bringing in transit of prohibited articles which have already been subjected to pest risk analysis and allowed to import for commercial purpose or other purposes shall be received permission from the Director-General, accompanied by a phytosanitary certificate and complied with criteria, procedures and conditions specified by the Director-General. (iii) The importation or bringing in transit of prohibited articles for research, commercial or other purposes shall be made through the plant quarantine station for inspection by the plant quarantine official.
b) Restricted articles: Restricted articles which are specified in Ministerial Notifications are specific part of plants or any part of plants. Any person importing or bringing in transit restricted articles shall comply with the following rules. (i) The importation or bringing in transit shall be accompanied by a phytosanitary certificate and complied with criteria, procedures and conditions specified by the Director-General. (ii) The importation or bringing in transit of restricted articles shall be made through the plant quarantine station for inspection by the plant quarantine official.

c) Unprohibited articles: Unprohibited articles are plants other than prohibited and restricted articles. Any person importing or bringing in transit of unprohibited articles shall attach with a phytosanitary certificate and shall declare to the plant quarantine official.

3.1.2 Export Plant Quarantine Requirements

Any person who would carry out plants and/or plant products to abroad shall provide the phytosanitary certificate issued by Plant Quarantine Service, which comply with the requirement of the importing countries.

Procedure of export plant quarantine primarily depends on the requirements of importing countries which vary with the nature of plants and pests of quarantine concern.

These requirements generally consist of following measures.

a) Entry prohibited.
b) Entry approved under import permit.
c) Entry approved with the attachment of export phytosanitary certificate issued by the plant quarantine service of the exporting country.
d) Disinfection treatment required in exporting country.
e) Phytosanitary inspection required at growing site in exporting country.
f) Restriction posed on method of transportation, stage and portion of plant products, time of importation and mode of packing

By far, the most common is the requirement for export inspection and attachment of phytosanitary certificate which is issued by the Plant Quarantine Service in the country of origin. Therefore, you may have to apply for export inspection of the plants in order to obtain the phytosanitary certificate. The import requirements have to be followed which may take much time if specific requirements are required i.e. laboratory test, treatments.

**Phytosanitary certification process**

The applicant submits the application from P.Q.7 at the Plant Quarantine Station. In some cases, import permit from the importing countries need to be obtained in advance. Attached the import permit or its copy (if any) with the application form P.Q.7. If the import requirements cannot be followed by the plant quarantine officer at the office such as specific laboratory tests, inspection at the growing or production site, arrangements with the responsible agency has to be made in advance and laboratory report has to be attached. ‘Phytosanitary Certificate’ will be issued for the shipment which has approved by the inspectors.

**Inspection method**

Inspection is made primarily to confirm whether your plants are prohibited entry into the destined country or infested with the past of quarantine concern to the country.

**Inspection site**

Export inspection is carried out at the Plant Quarantine Station or the exporter packing house.

**Other reminders**

Some kind of plants must be examined by special inspection procedure. Please remind, therefore, that the inspection may not be completed within a day.

**Fees**

The applicant shall pay inspection (and/or treatment) and issuance of a phytosanitary certificate fee at the rate specified by the Director General, Department of Agriculture.

**4. Animal Quarantine Requirements**

4.1 Exportation

4.1.1 Animals or animal carcasses specified in Animal Epidemics Act B.E.2558(2015) and Ministerial Regulations is prohibited unless accompanied by Export License and Veterinary Health Certificate granted by Authorized Veterinary Officer of Department of Livestock Development.

4.1.2 Application for Export License and Veterinary Health Certificate must be done at least 15 days prior to date of departure.

4.2 Importation, Transshipment

4.2.1 Animals or animal carcasses specified in Animal Epidemics Act B.E.2558(2015) and Ministerial Regulations is prohibited unless there are Import Permit granted by Authorized Veterinary Officer of Department of Livestock Development and Veterinary Health Certificate of the country of origin.

4.2.2 Veterinary Health Certificate of the country of origin must be in English and issued by an Authorized Veterinary Officer and accompanied with every shipment of animals and/or animal carcasses. The aforementioned Certificate should meet the importation

requirement of Department of Livestock Development.

4.2.3 Import Permit granted by Authorized Veterinary Officer of Department of Livestock Development must be done at least 15 days prior to date of entry.

4.2.4 Veterinary Health Certificate and Permit must declare to the Authorized Veterinary Officer at port of entry.

4.2.5 The carrier administrator shall provide details of imported animals and/or animal carcasses into Kingdom of Thailand to Animal Quarantine Station of port of entry before the arrival date of such carrier.

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## GEN 1.5 AIRCRAFT INTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS

### 1. FOR THAI REGISTERED AIRCRAFT

1.1 Commercial air transport operations shall comply with the Notification of the Civil Aviation Authority of Thailand on Air Operator Certificate Requirements;

1.2 Helicopter operations shall comply with the Notification of the Civil Aviation Authority of Thailand on Helicopter Operations Requirements; and

1.3 General aviation operations shall comply with the Notification of the Civil Aviation Authority of Thailand on General Aviation Requirements.

### 2. FOR OTHER STATE OF REGISTRY AIRCRAFT OPERATING IN THE KINGDOM OF THAILAND

2.1 Commercial air transport operations shall adhere to the regulations promulgated by their State of the Operator, which comply with the provisions of Annex 6: Operation of Aircraft, Part I and III;

2.2 General aviation operations shall adhere to the regulations promulgated by their State of Registry, which comply with the provisions of Annex6: Operation of Aircraft, Part I and III; and

2.3 For operations that require specific approval, the operator shall obtain specific approval from the State of the Operator, the State of Registry or the Civil Aviation Authority of Thailand as appropriate.

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## GEN 1.6 SUMMARIES OF NATIONAL REGULATIONS AND INTERNATIONAL AGREEMENT / CONVENTIONS

### 1. Summary of national regulations

1.1 The following is a list of civil aviation legislation in force in the Kingdom of Thailand.

1.2 Copies may be obtained from The Civil Aviation Authority of Thailand (website: www.caat.or.th), except those of Customs and Immigration that may be obtained from the Departments concerned as well as the WHO publications from the Ministry of Public Health, Soi Bamrasnaraduom, Tiwanond Road, Nonthaburi 11000.

| Title | Contents |
|---|---|
| Civil Aviation Authority of Thailand Emergency Decree B.E. 2558 (2015) | There shall be the Civil Aviation Authority of Thailand, abbreviated as “CAAT”, which is a State agency but not a government agency nor a State enterprise under the law on budget procedures or other laws, and has the status of a juristic person. |
| Air Navigation Act B.E. 2497 (1954) as amended by Air Navigation Act (No. 14) B.E. 2562 (2019) | This Act provides provisions for regulating civil aviation to implement the obligations of a Contracting State under the Convention on International Civil Aviation done at Chicago on 7th day of December 1944, consisting of the following subjects:<br>- Powers of the Minister of Transport and of the Civil Aviation Authority of Thailand and the Director under the Act;<br>- Powers and duties of the Civil Aviation Board;<br>- Civil Aviation Regulatory;<br>- Air Navigation Service Regulatory;<br>- Dangerous good and Prohibited item Regulatory;<br>- General provisions on aircraft;<br>- Registration and markings of aircraft;<br>- Aircraft types, production of aircraft and airworthiness control;<br>- Air Operator Certification;<br>- Aviation Economic Regulatory;<br>- Personnel (Personnel Licensing);<br>- Security;<br>- Facilitation;<br>- Aerodromes and air navigation facilities;<br>- Passenger Service Charges;<br>- Ramp and aircraft technical services;<br>- Accident (aircraft accident investigation);<br>- Search and Rescue;<br>- Powers to inspect, seize and delay of aircraft;<br>- Penalty provisions; |
| International Air Carriage Act B.E. 2558 (2015) | This Act applies to all international carriage by air for reward. Also, the Act applies equally to gratuitous carriage by aircraft performed by an air transport undertaking. |
| Act on Certain Offences Against Air Navigation B.E. 2558 (2015) | This Act applies to offences and certain other acts committed on board an aircraft in flight, aircraft in service or in the airport serving for public. The Act consists of provisions concerning the following subjects:<br>- Offences against air navigation and aircraft;<br>- Powers and duties of aircraft commander; competent authority and in-flight security officer;<br>- Jurisdiction; |
| Act on Treatments Against Aircrafts Committing Wrongful Acts B.E. 2553 (2010). | In the present, aircraft are being used in a manner that illegally threat the stability of the public safety or national security. Therefore, it needs to coordinate with officers (air force officer or other military officers having powers and duties set forth in Air Defence Plan) who specialize in treating such aircraft. The Act consist of provisions concerning the following subjects:<br>- Inspection and identification of aircraft committing wrongful acts;<br>- Detection and seizure of aircraft, and arrest, control and preliminary investigation;<br>- Costs arising out of the interception or operations;<br>- Penalties. |

**2. Summary of International Agreements/Conventions**

| Legislation | Effective Date |
|---|---|
| Convention on International Civil Aviation Chicago, 7/12/44 | 4/5/1947 |
| International Air Services Transit Agreement Chicago, 7/12/44 | 6/3/1947 |
| Protocol on the Authentic Quinquelingual Text of the Convention on International Civil Aviation Montreal, 29/9/95 | - |
| Article 93 bis Montreal | 20/3/1961 |
| Article 45 Montreal | 18/1/1960 |
| Articles 48(a), 49(e) and 61 Montreal | 12/12/1956 |
| Article 50(a) Montreal | 17/7/1962 |
| Article 48(a) Rome | 11/9/1975 |
| Article 50(a) New York | 16/1/1973 |
| Article 56 Vienna | 19/12/1974 |
| Article 50(a) Montreal | 6/3/1981 |
| Protocol of Amendment (Final paragraph, Russian Text) Montreal | 17/8/1999 |
| Article 3 bis Montreal | 1/10/1998 |
| Article 56 Montreal | 18/4/1905 |
| Article 50(a) Montreal | 28/11/1902 |
| Protocol of Amendment (Final paragraph, Arabic Text) Montreal, 29/9/95 | - |
| Protocol of Amendment (Final paragraph, Chinese Text) Montreal, 1/10/98 | - |
| Article 50(a) Montreal, 6/10/16 | - |
| Article 56 Montreal, 6/10/16 | - |
| Convention on the International Recognition of Rights in Aircraft Geneva, 19/6/48 | 8/1/1968 |
| Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface Rome, 7/10/52 | - |
| Convention for the Unification of Certain Rules for International Carriage by Air, Montreal, 28/5/99 | 2/10/1917 |
| Convention on Offences and Certain Other Acts Committed on Board Aircraft, Tokyo, 14/9/63 | 4/6/1972 |
| Convention for the Suppression of Unlawful Seizure of Aircraft, The Hague, 16/12/70 | 15/6/1978 |
| Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, Montreal, 23/9/71 | 15/6/1978 |
| Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, Supplementary to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, done at Montreal on 23/9/71, Montreal, 24/2/88 | 13/6/1996 |
| Convention on the Marking of Plastic Explosives for the Purpose of Detection, Montreal, 1/3/91 | 26/3/1906 |
| International COSPAS-SARSAT Programme Agreement Paris, 1/7/88 | 19/11/1999 |
| Convention on the Privileges and Immunities of the Specialized Agencies, 21/11/47 – application to ICAO (Annex III) | 30/3/1956 |

**3. Miscellaneous Information**

3.1 Subject to the observance of the applicable rules, conditions, and limitations set forth in this document and in legislation described in item 1, foreign civil aircraft registered in any foreign country which at the time is a Contracting States of the International Civil Aviation Organization may be navigated in the Kingdom of Thailand.

3.2 Aircraft registered under the laws of foreign countries, not being Contracting States of the International Civil Aviation Organization, which grant reciprocal treatment to Thai aircraft and airmen, may be navigated in the Kingdom of Thailand subjected to the observance of the same rules, conditions and limitations applicable in the case of aircraft of the International Civil Aviation Organization Contracting States.

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## GEN 1.7 DIFFERENCES FROM ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES

| **Annex 1 – Personnel Licensing<br>179th Amendment** | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/850/Annex1, Amendment179(Standards).pdf | | | |

| **Annex 2 – Rules of the Air<br>48th Amendment** | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| **Annex 3 – Meteorological Service for International Air Navigation<br>81st Amendment** | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/851/Annex3, Amendment81(Standards).pdf | | | |

| **Annex 4 – Aeronautical Charts<br>62nd Amendment** | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| **Annex 5 – Units of Measurement to be used in Air and Ground operations<br>17th Amendment** | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| **Annex 6 – Operation of Aircraft - Part I - International Commercial Air Transport-Aeroplanes<br>49th Amendment** | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/852/Annex6_PartI,Amendment49(Standards).pdf | | | |

| **Annex 6 – Operation of Aircraft - Part II - International General Aviation-Aeroplanes<br>41st Amendment** | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/853/Annex6_PartII,Amendment41(Standards).pdf | | | |

| **Annex 6 – Operation of Aircraft - Part III - International Operations-Helicopters<br>25th Amendment** | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/854/Annex6_PartIII,Amendment25(Standards).pdf | | | |

| **Annex 7 – Aircraft Nationality and Registration Marks<br>7th Amendment** | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |

| Annex 7 – Aircraft Nationality and Registration Marks<br>7th Amendment | | | |
|---|---|---|---|
| NIL | NIL | NIL | NIL |

| Annex 8 – Airworthiness of Aircraft<br>109th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/720/Annex8, (Amendment109).pdf | | | |

| Annex 9 – Facilitation<br>26th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/264/EFOD_Annex 9.pdf | | | |

| Annex 10 – Aeronautical Telecommunications Volume I – Radio Navigational Aids<br>93rd Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| Annex 10 – Aeronautical Telecommunications Volume II – Communication Procedures including those with PANS status<br>93rd Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| Annex 10 – Aeronautical Telecommunications Volume III – PART 1 Digital Data Communication System, PART 2 Voice Communication Systems<br>92nd Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| Annex 10 – Aeronautical Telecommunications Volume IV – Surveillance Radar and Collision Avoidance Systems<br>91st Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| Annex 10 – Aeronautical Telecommunications Volume V – Aeronautical Radio Frequency Spectrum Utilization<br>90th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| Annex 11 – Air Traffic Services<br>53rd Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| Annex 12– Search and Rescue<br>19th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |
| https://ais.caat.or.th/file/post/855/Annex12, Amendment19(Standards).pdf | | | |

| Annex 13 – Aircraft Accident and Incident Investigation<br>19th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/856/Annex13, Amendment19(Standards).pdf | | | |

| Annex 14 – Aerodrome Volume I – Aerodrome Design and Operations<br>17th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/700/Annex14Vol1, Amendment17(Standards).pdf | | | |

| Annex 14 – Aerodrome Volume II – Heliports<br>9th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/702/Annex14Vol2, Amendment9(Standards).pdf | | | |

| Annex 15 – Aeronautical Information Services<br>43rd Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| Annex 16 – Environmental Protection Volume I – Aircraft Noise<br>13th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/721/Annex16Vol1, (Amendment13).pdf | | | |

| Annex 16 – Environmental Protection Volume II – Aircraft Engine Emissions<br>10th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/722/Annex16Vol2,(Amendment10).pdf | | | |

| Annex 16 – Environmental Protection Volume III – Aircraft CO2 Emissions<br>1st Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| https://ais.caat.or.th/file/post/723/Annex16Vol3, (Amendment1).pdf | | | |

| Annex 16 – Environmental Protection Volume IV – Carbon Offsetting and Reduction Scheme for International Aviation<br>1st Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |

| Annex 16 – Environmental Protection Volume IV – Carbon Offsetting and Reduction Scheme for International Aviation 1st Amendment | | | |
|---|---|---|---|
| NIL | NIL | NIL | NIL |

| Annex 17 – Security 16th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| Annex 18 – The Safe Transport of Dangerous Goods by Air 12th Amendment | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

| Annex 19 – Safety Management | | | |
|---|---|---|---|
| Annex References | State Legislation, Regulation or Document References | Level of Implementation of SARP's | Text of differences |
| NIL | NIL | NIL | NIL |

# GEN 2. TABLES AND CODES

## GEN 2.1 MEASURING SYSTEM, AIRCRAFT MARKINGS, HOLIDAYS

### 1. Units of measurement

1.1 Units of measurement to be used in flight operations and air-ground communications are as follows:

| QUANTITY | UNIT OF MEASUREMENT |
|---|---|
| Distance used in navigation, position reporting, etc.-generally in excess of 2 to 3 nautical miles | NAUTICAL MILES (NM) |
| Relatively short distances such as those relating to aero-drome (e.g. runway lengths) | METRES (M) |
| Altitudes, elevations and heights | FEET (FT) |
| Horizontal speed, including wind speed | KNOTS (KT) |
| Vertical speed | FEET PER MINUTE (FT/MIN) |
| Wind direction for landing and take-off | DEGREES MAGNETIC |
| Wind direction except for landing and take-off | DEGREES TRUE |
| Visibility | KILOMETRES (KM) |
| Runway visual range | METRES (M) |
| Altimeter setting | HECTOPASCALS (hPa) |
| Temperature | DEGREES CELSIUS (°C) |
| Mass (Weight) | KILOGRAMES (KG) or METRIC TON (T) |
| Time | HOURS AND MINUTES, THE DAY OF 24 HOURS BEGINNING AT MIDNIGHT (UTC) |
| *Visibility of less than 5 km may be given in metres.* | |

### 2. Temporal refernce system

Co-ordinated Universal Time (UTC) is used in the air traffic and communication services and in documents published by the Aeronautical Information Services. When reporting time, the nearest full minute is used, e.g., 12 hr 40 min 40 sec is reported as 1241. Time checks to aircraft are accurate within 30 sec.

### 3. Horizontal reference system

3.1 All published geographical coordinates in the Bangkok FIR indicating latitude and longitude are expressed in terms of the World Geodetic System-1984 (WGS-84) geodetic reference datum.

3.2 The area of application for the published geographical coordinates coincides with the area of responsibility of the Aeronautical Information Services, i.e. the entire territory of Thailand as well as the airspace over the high seas encompassed by the Bangkok Flight Information Region in accordance with the Regional Air Navigation Agreement.

3.3 Aerodromes with coordinates which have been transformed into WGS-84 coordinates but whose accuracy does not meet the requirements in Appendix 1. Aeronautical Data Catalogue in Doc 10066 PANS-AIM, are listed below:

VTUN — Nakhon Ratchasima / Khorat

VTSN — Nakhon Si Thammarat / Cha - Ian

### 4. Vertical reference system

4.1 Name/designation of system

The vertical reference system corresponds to mean sea level (MSL).

4.2 Geoid model

The geoid model used is the Earth Gravitational Model 1996 — (EGM-96).

**5. Aircraft nationality and registration marks**

The nationality mark for aircraft registered in Thailand consists of the letters HS. The nationality mark is followed by a Hyphen and a registration mark consisting of 3 letters, e.g., HS-TDD.

**6. Public holidays**

| NAME | Date |
|---|---|
| New Year's Day | 1 January 2025 |
| Makha Bucha Day | 12 February 2025 |
| Chakri Memorial Day | 6 April 2025 |
| Substitution for Chakri Memorial Day | 7 April 2025 |
| Songkran Festival Days | 13 - 15 April 2025 |
| Substitution for Songkran Festival Days | 16 April 2025 |
| Royal Coronation Ceremony | 4 May 2025 |
| Substitution for Royal Coronation Ceremony | 5 May 2025 |
| The Royal Ploughing Ceremony | 9 May 2025 |
| Visakha Bucha Day | 11 May 2025 |
| Substitution for Visakha Bucha Day | 12 May 2025 |
| Additional holiday Announced by Thai Govt. | 2 June 2025 |
| H.M. Queen Suthida Bajrasudhabimalalakshana's Birthday | 3 June 2025 |
| Asarnha Bucha Day | 10 July 2025 |
| Buddhist Lent Day | 11 July 2025 |
| H.M. King Maha Vajiralongkorn Phra Vajiraklaochaoyuhua's Birthday | 28 July 2025 |
| Additional holiday Announced by Thai Govt. | 11 August 2025 |
| H.M. Queen Sirikit The Queen Mother's Birthday and National Mother Day | 12 August 2025 |
| H.M. King Bhumibol Adulyadej The Great Memorial Day | 13 October 2025 |
| King Chulalongkorn Memorial Day | 23 October 2025 |
| H.M. King Bhumibol Adulyadej The Great's Birthday, National Day and National Father Day | 5 December 2025 |
| Constitution Day | 10 December 2025 |
| New Year's Eve | 31 December 2025 |

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## GEN 2.2 ABBREVIATIONS USED IN AERONAUTICAL INFORMATION PRODUCTS

*Abbreviations marked with an asterisk (*) are either different from or are not contained in ICAO Doc 8400

| **A** | |
|---|---|
| A | Amber |
| A/A | Air-to-air |
| AAL | Above aerodrome level |
| ABM | Abeam |
| ABN | Aerodrome deacon |
| ABT | About |
| AC | Altocumulus |
| ACAS | Airborne collision avoidance system |
| ACC | Area control centre or area control |
| ACCID | Notification of an aircraft accident |
| ACFT | Aircraft |
| ACK | Acknowledge |
| ACL | Altimeter check location |
| ACN | Aircraft classification number |
| ACP | Acceptance (message type designator) |
| ACPT | Accept or accepted |
| ACT | Active or activated or activity |
| AD | Aerodrome |
| ADA | Advisory area |
| ADC | Aerodrome chart |
| ADDN | Addition or additional |
| ADF | Automatic direction-finding equipment |
| ADIZ | (to be pronounced “AY-DIZ”) Air defence identification zone |
| ADJ | Adjacent |
| ADO | Aerodrome office (specify service) |
| ADR | Advisory route |
| ADS-B | Automatic dependent surveillance-broadcast |
| ADS-C | Automatic dependent surveillance-contract |
| ADSU | Automatic dependent surveillance unit |
| ADVS | Advisory service |
| ADZ | Advise |
| AES | Aircraft earth station |
| AFIL | Flight plan filed in the air |
| AFIS | Aerodrome flight information service |
| AFM | Yes or affirm or affirmative or that is correct |
| AFS | Aeronautical fixed service |
| AFT... | After…(time or place) |
| AFTN | Aeronautical fixed telecommunication network |
| A/G | Air-to-ground |
| AGA | Aerodromes, air routes and ground aids |
| AGL | Above ground level |
| AGN | Again |
| AIC | Aeronautical information circular |
| AIP | Aeronautical information publication |
| AIRAC | Aeronautical information regulation and control |
| AIREP | Air-report |
| AIRMET | Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations |
| AIS | Aeronautical information services |
| ALA | Alighting area |
| ALERFA | Alert phase |
| ALR | Alerting (message type designator) |
| ALS | Approach lighting system |
| ALT | Altitude |
| ALTN | Alternate or alternating (light alternates in colour) |
| ALTN | Alternate (aerodrome) |
| AMA | Area minimum altitude |

| | |
|---|---|
| AMD | Amend or amended (used to indicate amended meteorological message; message type designator) |
| AMDT | Amendment (AIP amendment) |
| AMS | Aeronautical mobile service |
| AMSL | Above mean sea level |
| AMSS | Aeronautical mobile satellite service |
| ANC... | Aeronautical chart-1:500 000 (followed by name/title) |
| ANCS... | Aeronautical navigation chart-small scale (followed by name/title) |
| ANS | Answer |
| AOC | Aerodrome obstacle chart |
| AP | Airport |
| APCH | Approach |
| APDC… | Aircraft parking/docking chart (followed by name/title) |
| APN | Apron |
| APP | Approach control office or approach control or approach control service |
| APR | April |
| APRX | Approximate or approximately |
| APSG | After passing |
| APV | Approve or approved or approval |
| ARC | Area chart |
| ARNG | Arrange |
| ARO | Air traffic services reporting office |
| ARP | Aerodrome reference point |
| ARP | Air-report (message type designator) |
| ARQ | Automatic error correction |
| ARR | Arrive or arrival |
| ARR | Arrival (message type designator) |
| ARS | Special air-report (message type designator) |
| ARST | Arresting [specify (part of) aircraft arresting equipment] |
| AS | Altostratus |
| ASC | Ascend to or ascending to |
| ASE | Altimetry system error |
| ASDA | Accelerate-stop distance available |
| ASPH | Asphalt |
| ATA | Actual time of arrival |
| ATC | Air traffic control (in general) |
| ATCSMAC... | Air traffic control surveillance minimum altitude chart (followed by name/title) |
| ATD | Actual time of departure |
| ATFM | Air traffic flow management |
| ATIS | Automatic terminal information service |
| ATM | Air traffic management |
| ATN | Aeronautical telecommunication network |
| ATP... | At…(followed by time or place) |
| ATS | Air traffic services |
| ATTN | Attention |
| ATZ | Aerodrome traffic zone |
| AUG | August |
| AUTH | Authorized or authorization |
| AUW | All up weight |
| AUX | Auxiliary |
| AVBL | Available or availability |
| AVG | Average |
| AVGAS | Aviation gasoline |
| AWY | Airway |
| AZM | Azimuth |
| **B** | |
| B | Blue |
| BA | Braking action |
| BASE | Cloud base |
| BCFG | Fog patches |
| BCN | Beacon (aeronautical ground light) |
| BCST | Broadcast |
| BDRY | Boundary |

| | |
|---|---|
| BFR | Before |
| BKN | Broken |
| BLDG | Building |
| BLO | Below clouds |
| BLW... | Below… |
| BOMB | Bombing |
| BR | Mist |
| BRF | Short (used to indicate the type of approach desired or required) |
| BRG | Bearing |
| BRKG | Braking |
| BS | Commercial broadcasting station |
| BTL | Between layers |
| BTN | Between |
| BUFR | Binary universal form for the representation of meteorological data |
| **C** | |
| ...C | Centre (preceded by runway designation number to identify a parallel runway) |
| C | Degrees Celsius (Centigrade) |
| CA | Course to an altitude |
| CAAT | The Civil Aviation Authority of Thailand |
| CAT | Category |
| CAT | Clear air turbulence |
| CAVOK | (to be pronounced “KAV-OH-KAY”) Visibility, cloud and present weather better than prescribed values or conditions |
| CB | (to be pronounced “CEE BEE”) Cumulonimbus |
| CC | Cirrocumulus |
| CD | Candela |
| CDN | Coordination (message type designator) |
| CF | Change frequency to… |
| CF | Course to a fix |
| CGL | Circling guidance light(s) |
| CH | Channel |
| CHEM | Chemical |
| CHG | Modification (message type designator) |
| CI | Cirrus |
| CIDIN | Common ICAO data interchange network |
| CIT | Near or over large towns |
| CIV | Civil |
| CK | Check |
| CL | Centre line |
| CLA | Clear type of ice formation |
| CLBR | Calibration |
| CLD | Cloud |
| CLG | Calling |
| CLIMB-OUT | Climb-out area |
| CLR | Clear(s) or cleared to …or clearance |
| CLSD | Close or closed or closing |
| CM | Centimetre |
| CMB | Climb to or climbing to |
| CMPL | Completion or completed or complete |
| CNL | Cancel or cancelled |
| CNL | Flight plan cancellation (message type designator) |
| CNS | Continuous |
| COM | Communications |
| CONC | Concrete |
| COND | Condition |
| CONS | Continuous |
| CONST | Construction or constructed |
| CONT | Continue or continued |
| COOR | Coordinate or coordination |
| COP | Change-over point |
| COR | Correct or correction or corrected (used to indicate corrected meteorological message; message type designator) |
| COT | At the coast |

| | |
|---|---|
| COV | Cover or covered or covering |
| CPDLC | Controller-pilot data link communications |
| CPL | Current flight plan (message type designator) |
| CRC | Cyclic redundancy check |
| CRM | Collision risk model |
| CRZ | Cruise |
| CS | Call sign |
| CS | Cirrostratus |
| CTA | Control area |
| CTAM | Climb to and maintain |
| CTC | Contact |
| CTL | Control |
| CTN | Caution |
| CTR | Control zone |
| CU | Cumulus |
| CUF | Cumuliform |
| CUST | Customs |
| CW | Continuous wave |
| CWY | Clearway |
| **D** | |
| D... | Danger area (followed by identification) |
| DA | Decision Altitude |
| D-ATIS | (to be pronounced “DEE-ATIS”) Data link automatic terminal information service |
| DCD | Double channel duplex |
| DCKG | Docking |
| DCP | Datum crossing point |
| DCPC | Direct controller-pilot communications |
| DCS | Double channel simplex |
| DCT | Direct (in relation to flight plan clearances and type of approach) |
| DEC | December |
| DEG | Degrees |
| DEP | Depart or departure |
| DEPO | Deposition |
| DER | Departure end of the runway |
| DES | Descend to or descending to |
| DEST | Destination |
| DETRESFA | Distress phase |
| DEV | Deviation or deviating |
| DF | Direction finding |
| DFDR | Digital flight data recorder |
| DFTI | Distance from touchdown indicator |
| DH | Decision height |
| DIF | Diffuse |
| DIST | Distance |
| DIV | Divert or diverting |
| DLA | Delay (message type designator) |
| DLA | Delay or delayed |
| DLIC | Data link initiation capability |
| DLY | Daily |
| DME | Distance measuring equipment |
| DNG | Danger or dangerous |
| DOM | Domestic |
| DP | Dew point temperature |
| DPT | Depth |
| DR | Dead reckoning |
| DRG | During |
| DS | Duststorm |
| DSB | Double sideband |
| DTAM | Descend to and maintain |
| DTG | Date-time group |
| DTHR | Displaced runway threshold |
| DTRT | Deteriorate or deteriorating |
| DTW | Dual tandem wheels |
| DU | Dust |
| DUC | Dense upper cloud |
| DUR | Duration |
| D-VOLMET | Data link VOLMET |

| | |
|---|---|
| DVOR | Doppler VOR |
| DW | Dual wheels |
| DX* | Duplex |
| DZ | Drizzle |
| **E** | |
| E | East or eastern longitude |
| EAT | Expected approach time |
| EB | Eastbound |
| EDA | Elevation differential area |
| EET | Estimated elapsed time |
| EFC | Expect further clearance |
| EHF | Extremely high frequency [30 000 to 300 000 MHz] |
| ELBA | Emergency location beacon-aircraft |
| ELEV | Elevation |
| ELR | Extra long range |
| ELT | Emergency locator transmitter |
| EM | Emission |
| EMBD | Embedded in layer (to indicate Cumulonimbus embedded in layer of other clouds) |
| EMERG | Emergency |
| EN* | English |
| END | Stop-end (related to RVR) |
| ENE | East north east |
| ENG | Engine |
| ENR | En-route |
| EOBT | Estimated off-block time |
| EQPT | Equipment |
| ER | Here or herewith |
| ESE | East-south-east |
| EST | Estimate or estimated or estimation (message type designator) |
| ETA | Estimated time of arrival or estimating arrival |
| ETD | Estimated time of departure or estimating departure |
| ETO | Estimated time over significant point |
| EUR RODEX | European regional OPMET data exchange |
| EV | Every |
| EVS | Enhanced vision system |
| EXC | Except |
| EXER | Exercises or exercising or to exercise |
| EXP | Expect or expected or expecting |
| EXTD | Extend or extending |
| **F** | |
| F | Degrees Fahrenheit |
| F | Fixed |
| FA | Course from a fix to an altitude |
| FAC | Facilities |
| FAF | Final approach fix |
| FAL | Facilitation of international air transport |
| FAP | Final approach point |
| FAS | Final approach segment |
| FATO | Final approach and take-off |
| FAX | Facsimile transmission |
| FBL | Light (used to qualify icing, turbulence, interference or static reports) |
| FC | Funnel cloud |
| FCST | Forecast |
| FCT | Friction coefficient |
| FDPS | Flight data processing system |
| FEB | February |
| FG | Fog |
| FIC | Flight information centre |
| FIR | Flight information region |
| FIS | Flight information service |
| FISA | Automated flight information service |
| FL | Flight level |

| | |
|---|---|
| FLD | Field |
| FLG | Flashing |
| FLR | Flares |
| FLT | Flight |
| FLTCK | Flight check |
| FLUC | Fluctuating or fluctuation or fluctuated |
| FLW | Follow(s) or following |
| FLY | Fly or flying |
| FM | Course from a fix to manual termination (used in navigation database coding) |
| FM | From |
| FNA | Final approach |
| FPL | Filed flight plan (message type designator) |
| FPM | Feet per minute |
| FPR | Flight plan route |
| FR | Fuel remaining |
| FREQ | Frequency |
| FRI | Friday |
| FRNG | Firing |
| FRONT | Front (relating to weather) |
| FROST | Frost (used in aerodrome warnings) |
| FRQ | Frequent |
| FSL | Full stop landing |
| FSS | Flight service station |
| FST | First |
| FT | Feet |
| FTE | Flight technical error |
| FTP | Fictitious threshold point |
| FTT | Flight technical tolerance |
| FU | Smoke |
| FZ | Freezing |
| FZDZ | Freezing drizzle |
| FZFG | Freezing fog |
| FZRA | Freezing rain |
| **G** | |
| G | Green |
| G/A | Ground-to-air |
| G/A/G | Ground-to-air and air-to-ground |
| GAIN | Airspeed or headwind gain |
| GAGAN | GPS and geostationary earth orbit augmented navigation |
| GAMET | Area forecast for low-level flights |
| GARP | GBAS azimuth reference point |
| GBAS | (to be pronounced “GEE-BAS”) Ground-based augmentation system |
| GCA | Ground controlled approach system or ground controlled approach |
| GEN | General |
| GEO | Geographic or true |
| GES | Ground earth station |
| GLD | Glider |
| GLONASS | (to be pronounced “GLO-NAS”) Global orbiting navigation satellite system |
| GMC... | Ground movement chart (followed by name/ title) |
| GLS | GBAS landing system |
| GND | Ground |
| GNDCK | Ground check |
| GNSS | Global navigation satellite system |
| GP | Glide path |
| GPA | Glide path angle |
| GPIP | Glide path intercept point |
| GPS | Global positioning system |
| GPWS | Ground proximity warning system |
| GR | Hail |
| GRAS | (to be pronounced “GRASS”) Ground-based regional augmentation system |
| GRASS | Grass landing area |

| | |
|---|---|
| GRIB | Processed meteorological data in the form of grid point values expressed in binary form (meteorological code) |
| GRVL | Gravel |
| GS | Ground speed |
| GS | Small hail and/or snow pellets |
| GUND | Geoid undulation |
| **H** | |
| H | High pressure area or the centre of high pressure |
| H24 | Continuous day and night service |
| HA | Holding/racetrack to an altitude |
| HAPI | Helicopter approach path indicator |
| HBN | Hazard beacon |
| HDF | High frequency direction-finding station |
| HDG | Heading |
| HEL | Helicopter |
| HF | High frequency [3 000 to 30 0000 kHz] |
| HF | Holding/racetrack to a fix |
| HGT | Height or height above |
| HJ | Sunrise to sunset |
| HLDG | Holding |
| HM | Holding/racetrack to a manual termination |
| HN | Sunset to sunrise |
| HO | Service available to meet operational requirement |
| HOL | Holiday |
| HOSP | Hospital aircraft |
| HPA | Hectopascal |
| HR | Hours |
| HS | Service available during hours of scheduled operations |
| HUD | Head-up display |
| HURCN | Hurricane |
| HVDF | High and very high frequency direction-finding stations (at the same location) |
| HVY | Heavy |
| HX | No specific working hours |
| HYR | Higher |
| HZ | Haze |
| HZ | Hertz (cycle per second) |
| **I** | |
| IAC | Instrument approach chart (followed by name/title) |
| IAF | Initial approach fix |
| IAO | In and out of clouds |
| IAP | Instrument approach procedure |
| IAR | Intersection of air routes |
| IAS | Indicated airspeed |
| IBN | Identification beacon |
| ICAO | International Civil Aviation Organisation |
| ICE | Icing |
| ID | Identifier or identify |
| IDENT | Identification |
| IF | Intermediate approach fix |
| IFF | Identification friend/foe |
| IFR | Instrument flight rules |
| IGA | International general aviation |
| ILS | Instrument landing system |
| IM | Inner marker |
| IMC | Instrument meteorological conditions |
| IMG | Immigration |
| IMPR | Improve or improving |
| IMT | Immediate or immediately |
| INA | Initial approach |
| INBD | Inbound |
| INC | In cloud |
| INCERFA | Uncertainty phase |

| | |
|---|---|
| INFO | Information |
| INOP | Inoperative |
| INP | If not possible |
| INPR | In progress |
| INS | Inches (dimensional unit) |
| INS | Inertial navigation system |
| INSTL | Install or installed or installation |
| INSTR | Instrument |
| INT | Intersection |
| INTER* | Intermittent |
| INTL | International |
| INTRG | Interrogator |
| INTRP | Interrupt or interruption or interrupted |
| INTSF | Intensify or intensifying |
| INTST | Intensity |
| IR | Ice on runway |
| IRS | Inertial reference system |
| ISA | International standard atmosphere |
| ISB | Independent sideband |
| ISOL | Isolated |
| ITC* | International aeronautical fixed Telecommunication centre |
| **J** | |
| JAN | January |
| JTST | Jet stream |
| JUL | July |
| JUN | June |
| **K** | |
| KG | Kilograms |
| KHZ | Kilohertz |
| KIAS | Knots indicated airspeed |
| KM | Kilometres |
| KMH | Kilometres per hour |
| KPA | Kilopascal |
| KT | Knots |
| KW | Kilowatts |
| **L** | |
| …L | Left (preceded by runway designation number to identify a parallel runway) |
| L | Locator (see LM, LO) |
| L | Low pressure area or the centre of low pressure |
| LAM | Logical acknowledgment (message type designator) |
| LAN | Inland |
| LAT | Latitude |
| LCA | Local or locally or location or located |
| LDA | Landing distance available |
| LDAH | Landing distance available, helicopter |
| LDG | Landing |
| LDI | Landing direction indicator |
| LEN | Length |
| LF | Low frequency [30 to 300 kHz] |
| LGT | Light or lighting |
| LGTD | Lighted |
| LIH | Light intensity high |
| LIL | Light intensity low |
| LIM | Light intensity medium |
| LM | Locator, middle |
| LMT | Local mean time |
| LNAV | (to be pronounced “EL-NAV”) Lateral navigation |
| LNG | Long (used to indicate the type of approach desired or required) |
| LO | Locator, outer |

| | |
|---|---|
| LOC | Localizer |
| LONG | Longitude |
| LORAN | Loran (long range air navigation system) |
| LOSS | Airspeed or headwind loss |
| LPV | Localizer performance with vertical guidance |
| LRG | Long range |
| LTD | Limited |
| LTP | Landing threshold point |
| LTT | Landline teletypewriter |
| LV | Light and variable (relating to wind) |
| LVE | Leave or leaving |
| LVL | Level |
| LYR | Layer or layered |
| **M** | |
| …M | Metres (preceded by figures) |
| M… | Mach number (followed by figures) |
| M… | Minimum value of runway visual range (followed by figures in METAR/SPECI) |
| MAA | Maximum authorized altitude |
| MAG | Magnetic |
| MAHF | Missed approach holding fix |
| MAINT | Maintenance |
| MAP | Aeronautical maps and charts |
| MAPT | Missed approach point |
| MAR | At sea |
| MAR | March |
| MAS | Manual A1 Simplex |
| MATF | Missed approach turning fix |
| MAX | Maximum |
| MAY | May |
| MBST | Microburst |
| MCA | Minimum crossing altitude |
| MCW | Modulated continuous wave |
| MDA | Minimum descent altitude |
| MDF | Medium frequency direction-finding station |
| MDH | Minimum descent height |
| MEA | Minimum en-route altitude |
| MEHT | Minimum eye height over threshold (for visual approach slope indicator system) |
| MET | Meteorological or meteorology |
| METAR | Aerodrome routine meteorological report (in meteorological code) |
| MF | Medium frequency [300 to 3000 kHz] |
| MHDF | Medium and high frequency direction-finding stations (at the same location) |
| MHVDF | Medium, high and very high frequency direction-finding stations (at the same location) |
| MHZ | Megahertz |
| MID | Mid-point (related to RVR) |
| MIFG | Shallow fog |
| MIL | Military |
| MIN | Minutes |
| MKR | Marker radio beacon |
| MLS | Microwave landing system |
| MM | Middle marker |
| MNM | Minimum |
| MNPS | Minimum navigation performance specifications |
| MNT | Monitor or monitoring or monitored |
| MNTN | Maintain |
| MOA | Military operating area |
| MOC | Minimum obstacle clearance (required) |
| MOCA | Minimum obstacle clearance altitude |
| MOD | Moderate (used to indicate the intensity of weather phenomena, interference or static reports, e.g MODRA=moderate rain) |
| MON | Above mountains |
| MON | Monday |

| | |
|---|---|
| MOPS | Minimum operational performance standards |
| MOV | Move or moving or movement |
| MPS | Metres per second |
| MRA | Minimum reception altitude |
| MRG | Medium range |
| MRP | ATS/MET reporting point |
| MS | Minus |
| MSA | Minimum sector altitude |
| MSAS | (to be pronounced “EM-SAS”) Multi-functional transport satellite (MTSAT) |
| MSAW | Minimum safe altitude warning |
| MSG | Message |
| MSL | Mean sea level |
| MT | Mountain |
| MTU | Metric units |
| MTW | Mountain waves |
| MVDF | Medium and very high frequency direction-finding stations (at the same location) |
| M/W* | Microwave |
| MWO | Meteorological watch office |
| MX | Mixed type of ice formation (white and clear) |
| **N** | |
| N | No distinct tendency (in RVR during previous 10 minutes) |
| N | North or northern latitude |
| NAT | North Atlantic |
| NAV | Navigation |
| NB | Northbound |
| NBFR | Not before |
| NC | No change |
| NDB | Non-directional radio beacon |
| NE | North-east |
| NEB | North-eastbound |
| NEG | No or negative or permission not granted or that is not correct |
| NGT | Night |
| NIL | None or I have nothing to send to you |
| NM | Nautical miles |
| NML | Normal |
| NN | No name, unnamed |
| NNE | North-north-east |
| NNW | North-north-west |
| NOF | International NOTAM office |
| NOSIG | No significant change (used in trend-type landing forecasts) |
| NOTAM | A notice containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations |
| NOV | November |
| NR | Number |
| NRH | No reply heard |
| NS | Nimbostratus |
| NSC | Nil significant cloud |
| NSE | Navigation system error |
| NW | North-west |
| NWB | North-westbound |
| NXT | Next |
| **O** | |
| OAC | Oceanic area control center |
| OAS | Obstacle assessment surface |
| OBS | Observe or observed or observation |
| OBSC | Obscure or obscured or obscuring |
| OBST | Obstacle |
| OCA | Obstacle Clearance Altitude or Height |

| | |
|---|---|
| OCA | Oceanic control area |
| OCC | Occulting (light) |
| OCH | Obstacle Clearance Height |
| OCL | Obstacle clearance limit |
| OCNL | Occasional or occasionally |
| OCS | Obstacle clearance surface |
| OCT | October |
| OFZ | Obstacle free zone |
| OHD | Overhead |
| OIS | Obstacle identification surface |
| OLDI | On-line data interchange |
| OM | Outer marker |
| OPA | Opaque, white type of ice formation |
| OPC | The control indicated is operational control |
| OPMET | Operational meteorological (information) |
| OPN | Open or opening or opened |
| OPR | Operator or operate or operative or operating or operational |
| OPS | Operations |
| O/R | On request |
| ORD | Indication of an order |
| OSV | Ocean station vessel |
| OTP | On top |
| OTS | Organized track system |
| OUBD | Outbound |
| OVC | Overcast |
| **P** | |
| P… | Prohibited area (followed by identification) |
| PA | Precision approach |
| PALS | Precision approach lighting system (specify category) |
| PANS | Procedures for air navigation services |
| PAPI | Precision approach path indicator |
| PAR | Precision approach radar |
| PARL | Parallel |
| PACT… | Precision approach terrain chart (followed by name/title) |
| PAX | Passenger(s) |
| PBN | Performance-based navigation |
| PCD | Proceed or proceeding |
| PCL | Pilot-controlled lighting |
| PCN | Pavement classification number |
| PDC | Pre-departure clearance |
| PDG | Procedure design gradient |
| PER | Performance |
| PERM | Permanent |
| PIB | Pre-flight information bulletin |
| PJE | Parachute jumping exercise |
| PL | Ice pellets |
| PLA | Practice low approach |
| PLN | Flight plan |
| PLVL | Present level |
| PN | Prior notice required |
| PNR | Point of no return |
| PO | Dust devils |
| POB | Persons on board |
| POSS | Possible |
| PPI | Plan position indicator |
| PPR | Prior permission required |
| PPSN | Present position |
| PRFG | Aerodrome partially covered by fog |
| PRI | Primary |
| PRKG | Parking |
| PROB | Probability |
| PROC | Procedure |
| PROV | Provisional |
| PS | Plus |
| PSG | Passing |
| PSN | Position |
| PSP | Pierced steel plank |

| | |
|---|---|
| PSR | Primary surveillance radar |
| PSYS | Pressure system(s) |
| PTN | Procedure turn |
| PTS | Polar track structure |
| PWR | Power |
| **Q** | |
| QDM | Magnetic heading (zero wind) |
| QDR | Magnetic bearing |
| QFE | Atmospheric pressure at aerodrome elevation (or at runway threshold) |
| QFU | Magnetic orientation of runway |
| QNH | Altimeter sub-scale setting to obtain elevation when on the ground |
| QTE | True bearing |
| QUAD | Quadrant |
| **R** | |
| …R | Right (preceded by runway designation number to identify a parallel runway) |
| R | Rate of turn |
| R | Red |
| R… | Restricted area (followed by identification) |
| R… | Runway (followed by figures in METAR/ SPECI) |
| RA | Rain |
| RA | Resolution advisory |
| RAC | Rules of the air and air traffic services |
| RAG | Ragged |
| RAG | Runway arresting gear |
| RAI | Runway alignment indicator |
| RAIM | Receiver autonomous integrity monitoring |
| RAPCON* | Radar approach control |
| RASC | Regional AIS system centre |
| RASS | Remote altimeter setting source |
| RB | Rescue boat |
| RCA | Reach cruising altitude |
| RCAG* | Remote control air ground |
| RCC | Rescue co-ordination centre |
| RCF | Radio communication failure (message type designator) |
| RCH | Reach or reaching |
| RCL | Runway centre line |
| RCLL | Runway centre line light(s) |
| RCLR | Recleared |
| RCP | Required communication performance |
| RDH | Reference datum height (for ILS) |
| RDL | Radial |
| RDO | Radio |
| RE | Recent (used to qualify weather phenomena such as rain, e.g. recent rain = RERA) |
| REC | Receive or receiver |
| REDL | Runway edge light(s) |
| REF | Reference to…or refer to… |
| REG | Registration |
| REIL* | Runway end identifier light(s) |
| RENL | Runway end light(s) |
| REP | Report or reporting or reporting point |
| REQ | Request or requested |
| RERTE | Re-route |
| RESA | Runway end safety area |
| RF | Constant radius arc to a fix |
| RG | Range (lights) |
| RHC | Right-hand circuit |
| RIF | Reclearance in flight |
| RITE | Right (direction of turn) |
| RL | Report leaving |
| RLA | Relay to |
| RLCE | Request level change en route |
| RLLS | Runway lead-in lighting system |

| | |
|---|---|
| RMK | Remark |
| RNAV | (to be pronounced “AR-NAV”) Area navigation |
| RNG | Radio range |
| RNP | Required navigation performance |
| ROBEX | Regional OPMET bulletin exchange (scheme) |
| ROC | Rate of climb |
| ROD | Rate of descent |
| RON | Receiving only |
| RPDS | Reference path data selector |
| RPI | Radar position indicator |
| RPL | Repetitive flight plan |
| RPLC | Replace or replaced |
| RPS | Radar position symbol |
| RQNMTS | Requirements |
| RR | Report reaching |
| RRA | (or RRB, RRC…etc., in sequence) Delayed meteorological message (message type designator) |
| RSC | Rescue sub-centre |
| RSCD | Runway surface condition |
| RSP | Responder beacon |
| RSR | En-route surveillance radar |
| RTAF* | Royal Thai Air Force |
| RTD | Delayed (used to indicate delayed meteorological message; message type designator) |
| RTE | Route |
| RTF | Radiotelephone |
| RTG | Radiotelegraph |
| RTHL | Runway threshold light(s) |
| RTN | Return or returned or returning |
| RTN* | Royal Thai Navy |
| RTODAH | Rejected take-off distance available, helicopter |
| RTS | Return to service |
| RTT | Radio teletype writer |
| RTZL | Runway touchdown zone light(s) |
| RUT | Standard regional route transmitting frequencies |
| RV | Rescue vessel |
| RVR | Runway visual range |
| RVSM | Reduced vertical separation minimum (300 m (1 000 ft)) between FL 290 and FL 410 |
| RWY | Runway |
| **S** | |
| S | South or southern latitude |
| S… | State of the sea (followed by figures in METAR/SPECI) |
| SA | Sand |
| SALS | Simple approach lighting system |
| SAN | Sanitary |
| SAP | As soon as possible |
| SAR | Search and rescue |
| SARPS | Standard and Recommended Practices (ICAO) |
| SAT | Saturday |
| SATCOM | Satellite communication |
| SB | Southbound |
| SBAS | (to be pronounced “ESS-BAS”) Satellite-based augmentation system |
| SC | Stratocumulus |
| SCT | Scattered |
| SD | Standard deviation |
| SDBY | Stand by |
| SDF | Standard deviation Stepdown fix |
| SE | South-east |
| SEB | South-eastbound |
| SEC | Seconds |

| | |
|---|---|
| SECN | Section |
| SECT | Sector |
| SELCAL | Selective calling system |
| SEP | September |
| SER | Service or servicing or served |
| SEV | Severe (used e.g. to qualify icing and turbulence reports) |
| SFC | Surface |
| SG | Snow grains |
| SGL | Signal |
| SH… | Shower (followed by RA=rain, SN=snow, PL=ice pellets, GR=hail, GS=small hail and/or snow pellets or combinations thereof, e.g. SHRASN=showers of rain and snow) |
| SHF | Super high frequency [3 000 to 30 000 MHz] |
| SI | International system of units |
| SID | Standard instrument departure |
| SIF | Selective identification feature |
| SIGMET | Information concerning en-route weather phenomena which may affect the safety of aircraft operations |
| SIMUL | Simultaneous or simultaneously |
| SIWL | Single isolated wheel load |
| SKED | Schedule or scheduled |
| SLP | Speed limiting point |
| SLW | Slow |
| SMC | Surface movement control |
| SMR | Surface movement radar |
| SN | Snow |
| SNOCLO | Aerodrome closed due to snow (used in METAR/SPECI) |
| SNOWTAM | A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format |
| SPECI | Aviation selected special weather report (in aeronautical meteorological (code) |
| SPECIAL | Special meteorological report (in abbreviated plain language) |
| SPI | Special position indicator |
| SPL | Supplementary flight plan (message type designator) |
| SPOC | SAR point of contact |
| SPOT | Spot wind |
| SQ | Squall |
| SR | Sunrise |
| SRA | Surveillance radar approach |
| SRE | Surveillance radar element of precision approach radar system |
| SRG | Short range |
| SRR | Search and rescue region |
| SRY | Secondary |
| SS | Sandstorm |
| SS | Sunset |
| SSB | Single sideband |
| SSE | South-south-east |
| SSR | Secondary surveillance radar |
| SST | Supersonic transport |
| SSW | South-south-west |
| ST | Stratus |
| STA | Straight in approach |
| STAR | Standard instrument arrival |
| STD | Standard |
| STF | Stratiform |
| STN | Station |
| STNR | Stationary |
| STOL | Short take-off and landing |
| STS | Status |
| STWL | Stopway light(s) |
| SUBJ | Subject to |

| | |
|---|---|
| SUN | Sunday |
| SUPPS | Regional supplementary procedures |
| SVC | Service message |
| SVCBL | Serviceable |
| SW | South-west |
| SWB | South-westbound |
| SWY | Stopway |
| SX* | Simplex |
| **T** | |
| T | Temperature |
| TA | Traffic advisory |
| TA | Transition altitude |
| TAA | Terminal arrival altitude |
| TACAN | UHF tactical air navigation aid |
| TAF | Aerodrome forecast |
| TA/H | Turn at an altitude/height |
| TAIL | Tail wind |
| TAR | Terminal area surveillance radar |
| TAS | True airspeed |
| TAX | Taxiing or taxi |
| TC | Tropical cyclone |
| TCAC | Tropical cyclone advisory centre |
| TCAS RA | (to be pronounced “TEE-CAS-AR-AY” Traffic alert and collision avoidance system resolution advisory |
| TCH | Threshold crossing height |
| TCU | Towering cumulus |
| TDO | Tornado |
| TDZ | Touchdown zone |
| TECR | Technical reason |
| TEL | Telephone |
| TEMPO | Temporary or temporarily |
| TF | Track to fix |
| TFC | Traffic |
| TGL | Touch-and-go landing |
| TGS | Taxiing guidance system |
| THR | Threshold |
| THRU | Through |
| THU | Thursday |
| TIL | Until |
| TIP | Until past…(followed by place) |
| TKOF | Take-off |
| TL… | Till (followed by time be which weather change is forecast to end) |
| TLOF | Touchdown and lift-off area |
| TMA | Terminal control area |
| TN… | Minimum temperature (followed be figures in TAF) |
| TNA | Turn altitude |
| TNH | Turn height |
| TO… | To…(followed by place) |
| TOC | Top of climb |
| TODA | Take-off distance available |
| TODAH | Take-off distance available, helicopter |
| TOP | Cloud top |
| TORA | Take-off run available |
| TOX | Toxic |
| TP | Turning point |
| TR | Track |
| TRA | Temporary reserved airspace |
| TRANS | Transmits or transmitter |
| TRL | Transition level |
| TROP | Tropopause |
| TS | Thunderstorm (in aerodrome reports and forecasts, TS used alone means thunder heard but no precipitation at the aerodrome) |

| | |
|---|---|
| TS… | Thunderstorm (followed by RA=rain, SN=snow, PL=ice pellets, GR=hail, GS=small hail and/or snow pellets or combinations thereof, e.g. TSRANSN=thunderstorm with rain and snow) |
| TSUNAMI | Tsunami (used in aerodrome warnings) |
| TT | Teletypewriter |
| TUE | Tuesday |
| TURB | Turbulence |
| T-VASIS | (to be pronounced"TEE-VASIS") T visual approach slope indicator system |
| TVOR | Terminal VOR |
| TWR | Aerodrome control tower or aerodrome control |
| TWY | Taxiway |
| TWYL | Taxiway-link |
| TX… | Maximum temperature (followed by figures in TAF) |
| TYP | Type of aircraft |
| TYPH | Typhoon |
| **U** | |
| U | Upward (tendency in RVR during previous 10 minutes) |
| UA | Unmanned aircraft |
| UAB… | Until advised by… |
| UAC | Upper area control centre |
| UAR | Upper air route |
| UAS | Unmanned aircraft system |
| UDF | Ultra high frequency direction-finding station |
| UFN | Until further notice |
| UHDT | Unable higher due traffic |
| UHF | Ultra high frequency [300 to 3 000 MHz] |
| UIC | Upper information centre |
| UIR | Upper flight information region |
| ULR | Ultra long range |
| UNA | Unable |
| UNAP | Unable to approve |
| UNL | Unlimited |
| UNREL | Unreliable |
| UP | Unidentified precipitation (used in automated METAR/SPECI) |
| U/S | Unserviceable |
| UTA | Upper control area |
| UTC | Coordinated Universal Time |
| **V** | |
| …V… | Variations from the mean wind direction (preceded and followed by figures in METAR/SPECI, e.g. 350V070) |
| VA | Heading to an altitude |
| VA | Volcanic ash |
| VAAC | Volcanic ash advisory centre |
| VAC… | Visual approach chart (followed by name/ title) |
| VAL | In valleys |
| VAN | Runway control van |
| VAR | Magnetic variation |
| VAR | Visual-aural radio range |
| VASIS | Visual approach slope indicator systems |
| VC… | Vicinity of the aerodrome (followed by FG=fog, FC=funnel cloud, SH=shower, PO=dust/sand whirls, BLDU=blowing dust, BLSA=blowing sand, BLSN=blowing snow, DS=dust storm, SS=sandstorm, TS=thunderstorm or VA=volcanic ash, e.g. VCFG=vicinity fog) |
| VCY | Vicinity |
| VDF | Very high frequency direction-finding station |

| | |
|---|---|
| VER | Vertical |
| VFR | Visual flight rules |
| VHF | Very high frequency [30 to 300 MHz] |
| VI | Heading to an intercept |
| VIP | Very important person |
| VIS | Visibility |
| VLF | Very low frequency [3 to 30 kHz] |
| VLR | Very long range |
| VM | Heading to a manual termination |
| VMC | Visual meteorological conditions |
| VNAV | (to be pronounce VEE-NAV) Vertical navigation |
| VOLMET | Meteorological information for aircraft in flight |
| VOR | VHF omnidirectional radio range |
| VORTAC | VOR and TACAN combination |
| VOT | VOR airborne equipment test facility |
| VPA | Vertical path angle |
| VRB | Variable |
| VSA | By visual reference to the ground |
| VSP | Vertical speed |
| VTF | Vector to final |
| VTOL | Vertical take-off and landing |
| VV… | Vertical visibility (followed by figures in METAR/SPECI and TAF) |
| **W** | |
| W | West or western longitude |
| W | White |
| W... | Sea-surface temperature (followed by figures in METAR/SPECI) |
| WAAS | Wide area augmentation system |
| WAC | World aeronautical Chart – ICAO 1: 1 000 000 |
| WAFC | World area forecast centre |
| WB | Westbound |
| WBAR | Wing bar lights |
| WBI | Wind direction indicator |
| WDSPR | Widespread |
| WED | Wednesday |
| WEF | With effect from or effective from |
| WGS-84 | World Geodetic System-1984 |
| WI | Within |
| WID | Width |
| WIE | With immediate effect or effective immediately |
| WILCO | Will comply |
| WIP | Work in progress |
| WKN | Weaken or weakening |
| WNW | West-north-west |
| WO | Without |
| WPT | Way-point |
| WRNG | Warning |
| WS | Wind shear |
| WSPD | Wind speed |
| WSW | West-south-west |
| WT | Weight |
| WTSPT | Waterspout |
| WWW | Worldwide web |
| WX | Weather |
| **X** | |
| X | Cross |
| XBAR | Crossbar (of approach lighting system) |
| XNG | Crossing |
| XS | Atmospherics |
| **Y** | |

| | |
|---|---|
| Y | Yellow |
| YCZ | Yellow caution zone (runway lighting) |
| YR | Your |
| **Z** | |
| Z | Coordinated Universal Time (in meteorological messages) |

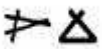
## GEN 2.3 CHART SYMBOLS

### 1. Aerodromes

### 1.1 Charts other than approach charts

| | |
|---|---|
| Civil (land) |  |
| Civil (water) |  |
| Joint civil and military (land) |  |
| Joint civil and military (water) |  |
| Military (land) |  |
| Military (water) |  |
| Emergency aerodrome or aerodrome with no facilities |  |
| Sheltered anchorage |  |
| Heliport |  |

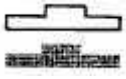
### 1.2 Approach charts

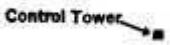
| | |
|---|---|
| The aerodrome on which the procedure is based |  |
| Aerodromes affecting the traffic pattern on the aerodrome on which the procedure is based |  |

### 1.3 Aerodrome charts

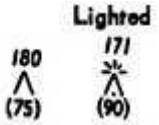
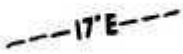
| | |
|---|---|
| Hard surface runway |  |
| Unpaved runway |  |
| Stopway |  |

### 2. Aerodrome Installations and lights

| | |
|---|---|
| Aerodrome reference point (ARP) |  |
| Taxiways and parking areas |  |

| | |
|---|---|
| Control tower |   |
| Point light |  |
| Barrette |  |
| Marine light |  |
| Obstacle light |  |
| Aeronautical ground light |  |
| Wind direction indicator (lighted) |  |
| Wind direction indicator (unlighted) |  |
| Landing direction indicator (lighted) |  |
| Landing direction indicator (unlighted) |  |

**3. Miscellaneous**

| | |
|---|---|
| Highest elevation on chart |   |
| Obstacles |   |
| Group obstacles<br>***Note:*** *Numerals in italics indicate elevation of top of obstacle above sea level. Upright numerals in parentheses indicate height above specified datum.* |   |
| Restricted airspace (prohibited, restricted or danger areas) |  |
| Common boundary of two areas |  |
| Transmission line or overhead cable |  |
| Isogonal |   |

## GEN 2.4 LOCATION INDICATORS

The location indicators marked with and asterisk (*) cannot be used in the address component of AFS messages.

| 1. ENCODE | | 2. DECODE | |
|---|---|---|---|
| **Location** | **Indicator** | **Indicator** | **Location** |
| Bangkok (ACC / FIC / COM Centre) | VTBB | VTBA | Bangkok (The Civil Aviation Authority Of Thailand) |
| Bangkok (Department of Airports) | VTBN | VTBB | Bangkok (ACC / FIC / COM Centre) |
| Bangkok/ Don Mueang International Airport | VTBD | VTBC | Chanthaburi |
| Bangkok/ Suvarnabhumi International Airport | VTBS | VTBD | Bangkok/ Don Mueang International Airport |
| Bangkok (The Civil Aviation Authority Of Thailand) | VTBA | VTBE | Saraburi |
| Buri Ram Airport | VTUO | VTBF | Chon Buri/ Pattaya |
| Chanthaburi | VTBC | VTBH | Lop Buri/ Sapram Nak |
| Chiang Mai/ Chiang Mai International Airport | VTCC | VTBI | Prachin Buri |
| Chiang Rai/ Mae Fah Luang-Chiang Rai International Airport | VTCT | VTBK | Nakhon Pathom/ Kamphaeng Saen |
| Chiang Rai/ Rob Wiang | VTCR | VTBL | Lop Buri/ Khok Kathiam |
| Chon Buri/ Bang Phra | VTBT | VTBM | Phetchaburi/ Maruk |
| Chon Buri/ Pattaya | VTBF | VTBN | Bangkok (Department of Airports) |
| Chumphon/ Chumphon | VTSE | VTBO | Trat/ Khao Sming |
| Khon Kaen | VTUK | VTBP | Prachuap Khiri Khan |
| KHON-KAEN / NAM PHONG | VTUZ | VTBS | Bangkok/ Suvarnabhumi International Airport |
| Krabi | VTSG | VTBT | Chon Buri/ Bang Phra |
| Krabi/ Phi Phi | VTSI | VTBU | Rayong/ U-Tapao Rayong Pattaya International Airport |
| Lampang | VTCL | VTBV | TRAT |
| Lamphun | VTCO | VTBW | Sa Kaeo/ Watthana Nakhon |
| Lamphun/ Ban-Thi | VTCM | VTBX | Phra Nakhon Si Ayutthaya/ Bang Pa-in |
| Lamphun/ Mae Hat Noi | VTCY | VTBY | Phra Nakhon Si Ayutthaya/ Uthai |
| Loei | VTUL | VTBZ | Lop Buri/ Nikhom Sang Ton Eng |
| Lop Buri/ Khok Kathiam | VTBL | VTCC | Chiang Mai/ Chiang Mai International Airport |
| Lop Buri/ Nikhom Sang Ton Eng | VTBZ | VTCH | Mae Hong Son |
| Lop Buri/ Sapram Nak | VTBH | VTCI | Mae Hong Son / Pai |
| Mae Hong Son | VTCH | VTCL | Lampang |
| Mae Hong Son / Pai | VTCI | VTCM | Lamphun/ Ban-Thi |

| 1. ENCODE | | 2. DECODE | |
|---|---|---|---|
| **Location** | **Indicator** | **Indicator** | **Location** |
| Nakhon Pathom/ Kamphaeng Saen | VTBK | VTCN | Nan/ Nan Nakhon |
| Nakhon Phanom | VTUW | VTCO | Lamphun |
| Nakhon Ratchasima | VTUQ | VTCP | Phrae |
| Nakhon Ratchasima / Khorat | VTUN | VTCR | Chiang Rai/ Rob Wiang |
| Nakhon Ratchasima/ Pak Chong | VTUP | VTCT | Chiang Rai/ Mae Fah Luang-Chiang Rai International Air-port |
| Nakhon Sawan | VTPN | VTCY | Lamphun/ Mae Hat Noi |
| Nakhon Sawan/ Takhli | VTPI | VTPB | Phetchabun |
| Nakhon Si Thammarat | VTSF | VTPH | Prachuap Khiri Khan/ Hua Hin |
| Nakhon Si Thammarat / Cha - Ian | VTSN | VTPI | Nakhon Sawan/ Takhli |
| Nan/ Nan Nakhon | VTCN | VTPL* | Phetchabun/ Lom Sak |
| Narathiwat | VTSC | VTPM | Tak/ Mae Sot |
| Pattani | VTSK | VTPN | Nakhon Sawan |
| Phetchabun | VTPB | VTPO | Sukhothai |
| Phetchabun/ Lom Sak | VTPL* | VTPP | Phitsanulok |
| Phetchaburi/ Maruk | VTBM | VTPR | Ratchaburi/ Photharam |
| Phitsanulok | VTPP | VTPT | Tak |
| Phra Nakhon Si Ayutthaya/ Bang Pa-in | VTBX | VTPY | Tak/ Khuan Phumiphon |
| Phra Nakhon Si Ayutthaya/ Uthai | VTBY | VTSA | Satun |
| Phrae | VTCP | VTSB | Surat Thani |
| Phuket/ Phuket International Airport | VTSP | VTSC | Narathiwat |
| Prachin Buri | VTBI | VTSE | Chumphon/ Chumphon |
| Sa Kaeo/ Watthana Nakhon | VTBW | VTSF | Nakhon Si Thammarat |
| Prachuap Khiri Khan | VTBP | VTSG | Krabi |
| Prachuap Khiri Khan/ Hua Hin | VTPH | VTSH | Songkhla |
| Ranong | VTSR | VTSI | Krabi/ Phi Phi |
| Ratchaburi/ Photharam | VTPR | VTSK | Pattani |
| Rayong/ U-Tapao Rayong Pattaya International Airport | VTBU | VTSM | Surat Thani/ Samui |
| Roi Et | VTUV | VTSN | Nakhon Si Thammarat / Cha - Ian |
| Roi Et/ Rob Muang | VTUR | VTSP | Phuket/ Phuket International Airport |
| Sakon Nakhon/ Sakon Nakhon | VTUI | VTSR | Ranong |
| Sara Buri | VTBE | VTSS | Songkhla / Hat Yai Internation-al Airport |

| 1. ENCODE | | 2. DECODE | |
|---|---|---|---|
| **Location** | **Indicator** | **Indicator** | **Location** |
| Satun | VTSA | VTST | Trang |
| Songkhla | VTSH | VTSY | Yala/ Betong |
| Songkhla / Hat Yai International Airport | VTSS | VTUD | Udon Thani |
| Sukhothai | VTPO | VTUI | Sakon Nakhon/ Sakon Nakhon |
| Surat Thani | VTSB | VTUK | Khon Kaen |
| Surat Thani/ Samui | VTSM | VTUL | Loei |
| Tak | VTPT | VTUN | Nakhon Ratchasima / Khorat |
| Tak/ Mae Sot | VTPM | VTUO | Buri Ram Airport |
| Tak/ Khuan Phumiphon | VTPY | VTUP | Nakhon Ratchasima/ Pak Chong |
| Trang | VTST | VTUQ | Nakhon Ratchasima |
| Trat | VTBV | VTUR | Roi Et/ Rob Muang |
| Trat/ Khao Sming | VTBO | VTUU | Ubon Ratchathani |
| Ubon Ratchathani | VTUU | VTUV | Roi Et |
| Udon Thani | VTUD | VTUW | Nakhon Phanom |
| Yala/ Betong | VTSY | VTUZ | KHON-KAEN / NAM PHONG |

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## GEN 2.5 LIST OF RADIO NAVIGATION AIDS

| ID | Station name | Aid | Purpose A=Aerodrome E=Enroute AE=Both | Station name | ID | Aid | Purpose A=Aerodrome E=Enroute AE=Both |
|---|---|---|---|---|---|---|---|
| BET | BETONG | DVOR/DME | AE | BANGKOK | BKK | DVOR/DME | AE |
| BKK | BANGKOK | DVOR/DME | AE | BANGKOK RWY03L | IBKD | ILS/DME | A |
| BR | BURI RAM | NDB | A | BANGKOK RWY21R | IBKK | ILS/DME | A |
| BRM | BURI RAM | DVOR/DME | AE | BANGKOK RWY21L | IDMG | ILS/DME | A |
| BUT | U-TAPAO | DVOR/DME | AE | BETONG | BET | DVOR/DME | AE |
| CMA | CHIANG MAI | DVOR/DME | AE | BURI RAM | BR | NDB | A |
| CMP | CHUM PHAE | DVOR/DME | E | BURI RAM | BRM | DVOR/DME | AE |
| CP | CHUM PHON | NDB | A | CHIANG MAI | CMA | DVOR/DME | AE |
| CPN | CHUM PHON | DVOR/DME | AE | CHIANG MAI RWY36 | ICMA | ILS/DME | A |
| CT | CHIANG RAI | NDB | A | CHIANG RAI | CT | NDB | A |
| CTR | CHIANG RAI | DVOR/DME | AE | CHIANG RAI | CTR | DVOR/DME | AE |
| HHN | HUA HIN | DVOR/DME | AE | CHIANG RAI RWY03 | ICTR | ILS/DME | A |
| HN | HUA HIN | NDB | A | CHUM PHAE | CMP | DVOR/DME | E |
| HTY | HAT YAI | DVOR/DME | AE | CHUM PHON | CP | NDB | A |
| IBKD | BANGKOK RWY03L | ILS/DME | A | CHUM PHON | CPN | DVOR/DME | AE |
| IBKK | BANGKOK RWY21R | ILS/DME | A | CHUM PHON RWY24 | ICPN | ILS/DME | A |
| IBUT | U-TAPAO RWY18 | ILS/DME | A | HAT YAI | HTY | DVOR/DME | AE |
| ICMA | CHIANG MAI RWY36 | ILS/DME | A | HAT YAI RWY26 | IHTY | ILS/DME | A |
| ICPN | CHUM PHON RWY24 | ILS/DME | A | HUA HIN | HN | NDB | A |
| ICTR | CHIANG RAI RWY03 | ILS/DME | A | HUA HIN | HHN | DVOR/DME | AE |
| IDMG | BANGKOK RWY21L | ILS/DME | A | KAMPHAENG SAEN | KPS | NDB | A |
| IHTY | HAT YAI RWY26 | ILS/DME | A | KAMPHAENG SAEN | KPS | VOR/DME | A |
| IKBI | KRABI RWY32 | ILS/DME | A | KHON KAEN | KKN | DVOR/DME | AE |
| ILOB | LOP BURI RWY05 | ILS/DME | A | KHON KAEN | KN | NDB | A |
| ILPN | LAMPANG RWY36 | LOC/DME | A | KHORAT | KRT | DVOR/DME | E |
| INKP | NAKHON PHANOM RWY15 | ILS/DME | A | | | | |
| INKR | NAKHON RATCHASIMA RWY06 | ILS/DME | A | KRABI | KBI | DVOR/DME | AE |
| INKS | NAKHON SI THAMARAT RWY19 | ILS/DME | A | KRABI RWY32 | IKBI | ILS/DME | A |
| INTW | NARATHIWAT RWY02 | ILS/DME | A | LAMPANG | LP | NDB | A |
| IPCB | PHETCHABUN RWY36 | ILS/DME | A | LAMPANG | LPN | DVOR/DME | AE |
| IPKT | PHUKET RWY27 | ILS/DME | A | LAMPANG RWY36 | ILPN | LOC/DME | A |
| IPSL | PHITSANULOK RWY32 | ILS/DME | A | LOEI | LOY | DVOR/DME | AE |
| IRAN | RANONG RWY02 | ILS/DME | A | LOEI | LY | NDB | A |
| IROT | ROI ET RWY36 | ILS/DME | A | LOP BURI | LB | NDB | A |
| ISEN | SUVARNABHUMI RWY19 | ILS/DME | A | LOP BURI RWY 05 | ILOB | ILS/DME | A |

| ID | Station name | Aid | Purpose A=Aerodrome E=Enroute AE=Both | Station name | ID | Aid | Purpose A=Aerodrome E=Enroute AE=Both |
|---|---|---|---|---|---|---|---|
| ISES | SUVARNABHUMI RWY01 | ILS/DME | A | MAE HONG SON | MH | NDB | A |
| ISKN | SAKON NAKHON RWY23 | ILS/DME | A | MAE HONG SON | MHS | DVOR/DME | AE |
| ISKT | SUKHOTHAI RWY36 | ILS/DME | A | MAE SOT | MS | NDB | A |
| ISTN | SURAT THANI RWY22 | ILS/DME | A | MAE SOT | MST | DVOR/DME | AE |
| ISWN | SUVARNABHUMI RWY20L | ILS/DME | A | NAKHON PHANOM | NP | NDB | A |
| ISWS | SUVARNABHUMI RWY02R | ILS/DME | A | NAKHON PHANOM | NKP | DVOR/DME | AE |
| ITRN | TRANG RWY08 | ILS/DME | A | NAKHON PHANOM RWY15 | INKP | ILS/DME | A |
| IUBL | UBON RATCHATHANI RWY23 | ILS/DME | A | NAKHON RATCHASIMA | KR | NDB | A |
| IUDN | UDON THANI RWY30 | ILS/DME | A | NAKHON RATCHASIMA | NKR | DVOR/DME | A |
| | | | | NAKHON RATCHASİMA RWY06 | INKR | ILS/DME | A |
| KBI | KRABI | DVOR/DME | AE | NAKHON SI THAMMARAT | NKS | DVOR/DME | AE |
| KKN | KHON KAEN | DVOR/DME | AE | NAKHON SI THAMMARAT RWY19 | INKS | ILS/DME | A |
| KN | KHON KAEN | NDB | A | NAN | NN | NDB | A |
| KPS | KAMPHAENG SAEN | NDB | A | NAN | NAN | DVOR/DME | AE |
| KPS | KAMPHAENG SAEN | VOR/DME | A | NARATHIWAT | NT | NDB | A |
| KR | NAKHON RATCHASIMA | NDB | A | NARATHIWAT | NTW | DVOR/DME | AE |
| KRT | KHORAT | DVOR/DME | E | NARATHIWAT RWY02 | INTW | ILS/DME | A |
| LB | LOP BURI | NDB | A | | | | |
| LOY | LOEI | DVOR/DME | AE | PHETCHABUN | PH | NDB | A |
| LP | LAMPANG | NDB | A | PHETCHABUN | PCB | DVOR/DME | AE |
| LPN | LAMPANG | DVOR/DME | AE | PHETCHABUN RWY36 | IPCB | ILS/DME | A |
| LY | LOEI | NDB | A | PHITSANULOK | PSL | DVOR/DME | AE |
| MH | MAE HONG SON | NDB | A | PHITSANULOK RWY32 | IPSL | ILS/DME | A |
| MHS | MAE HONG SON | DVOR/DME | AE | PHRAE | PR | NDB | A |
| MS | MAE SOT | NDB | A | PHRAE | PAE | DVOR/DME | AE |
| MST | MAE SOT | DVOR/DME | AE | PHUKET | PUT | DVOR/DME | AE |
| NAN | NAN | DVOR/DME | AE | PHUKET RWY27 | IPKT | ILS/DME | A |
| NKP | NAKHON PHANOM | DVOR/DME | AE | PRACHUAP KHIRI KHAN | PCK | NDB | A |
| NKR | NAKHON RATCHASIMA | DVOR/DME | A | RANONG | RN | NDB | A |
| NKS | NAKHON SI THAMMARAT | DVOR/DME | AE | RANONG | RAN | DVOR/DME | AE |
| NN | NAN | NDB | A | RANONG RWY02 | IRAN | ILS/DME | A |
| NP | NAKHON PHANOM | NDB | A | RAYONG | RYN | DVOR/DME | E |
| NT | NARATHIWAT | NDB | A | ROI ET | RE | NDB | A |

| ID | Station name | Aid | Purpose A=Aerodrome E=Enroute AE=Both | Station name | ID | Aid | Purpose A=Aerodrome E=Enroute AE=Both |
|---|---|---|---|---|---|---|---|
| NTW | NARATHIWAT | DVOR/DME | AE | ROI ET | ROT | DVOR/DME | AE |
| PAE | PHRAE | DVOR/DME | AE | ROI ET RWY36 | IROT | ILS/DME | A |
| PCB | PHETCHABUN | DVOR/DME | AE | SAKON NAKHON | SN | NDB | A |
| PCK | PRACHUAP KHIRI KHAN | NDB | A | SAKON NAKHON | SKN | DVOR/DME | AE |
| PH | PHETCHABUN | NDB | A | SAKON NAKHON | ISKN | ILS/LOC/DME/ RWY23 | A |
| PR | PHRAE | NDB | A | SAMUI | SMU | DVOR/DME | AE |
| PSL | PHITSANULOK | DVOR/DME | AE | SONGKHLA | SK | NDB | A |
| | | | | SONGKHLA | SKL | VOR/DME | A |
| PUT | PHUKET | DVOR/DME | AE | SUKHOTHAI RWY36 | ISKT | ILS/DME | A |
| RAN | RANONG | DVOR/DME | AE | SUKHOTHAI | THS | NDB | AE |
| RE | ROI ET | NDB | A | SURAT THANI | STN | DVOR/DME | AE |
| RN | RANONG | NDB | A | SURAT THANI RWY22 | ISTN | ILS/DME | A |
| ROT | ROI ET | DVOR/DME | AE | SUVARNABHUMI | SVB | DVOR/DME | A |
| RYN | RAYONG | DVOR/DME | E | SUVARNABHUMI RWY19 | ISEN | ILS/DME | A |
| SK | SONGKHLA | NDB | A | SUVARNABHUMI RWY01 | ISES | ILS/DME | A |
| SKL | SONGKHLA | VOR/DME | A | SUVARNABHUMI RWY20L | ISWN | ILS/DME | A |
| SKN | SAKON NAKHON | DVOR/DME | AE | SUVARNABHUMI RWY02R | ISWS | ILS/DME | A |
| SMU | SAMUI | DVOR/DME | AE | TAK | TK | NDB | AE |
| SN | SAKON NAKHON | NDB | A | TAKHLI | TL | NDB | AE |
| STN | SURAT THANI | DVOR/DME | AE | TRANG | TRN | DVOR/DME | AE |
| SVB | SUVARNABHUMI | DVOR/DME | A | TRANG RWY08 | ITRN | ILS/DME | A |
| THS | SUKHOTHAI | NDB | AE | TRAT | TRT | NDB/DME | AE |
| TK | TAK | NDB | AE | UBON RATCHATHANI | UB | NDB | A |
| TL | TAKHLI | NDB | AE | UBON RATCHATHANI | UBL | DVOR/DME | AE |
| TRN | TRANG | DVOR/DME | AE | UBON RATCHATHANI RWY23 | IUBL | ILS/DME | A |
| TRT | TRAT | NDB/DME | AE | UDON THANI | UDN | DVOR/DME | AE |
| UB | UBON RATCHATHANI | NDB | A | UDON THANI RWY30 | IUDN | ILS/DME | A |
| UBL | UBON RATCHATHANI | DVOR/DME | AE | U-TAPAO | UP | NDB | A |
| UDN | UDON THANI | DVOR/DME | AE | U-TAPAO | BUT | DVOR/DME | AE |
| UP | U-TAPAO | NDB | A | U-TAPAO RWY18 | IBUT | ILS/DME | A |

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## GEN 2.6 CONVERSION TABLES

| NM to KM<br>1 NM = 1.852 KM | | KM to NM<br>1 KM = 0.54 NM | | FT to M<br>1 FT = 0.3048 M | | M to FT<br>1 M = 3.281 FT | |
|---|---|---|---|---|---|---|---|
| NM | KM | KM | NM | FT | M | M | FT |
| 0.1 | 0.185 | 0.1 | 0.05 | 1 | 0.305 | 1 | 3.28 |
| 0.2 | 0.370 | 0.2 | 0.11 | 2 | 0.610 | 2 | 6.56 |
| 0.3 | 0.556 | 0.3 | 0.16 | 3 | 0.914 | 3 | 9.84 |
| 0.4 | 0.741 | 0.4 | 0.22 | 4 | 1.219 | 4 | 13.12 |
| 0.5 | 0.926 | 0.5 | 0.27 | 5 | 1.524 | 5 | 16.40 |
| 0.6 | 1.111 | 0.6 | 0.32 | 6 | 1.829 | 6 | 19.69 |
| 0.7 | 1.296 | 0.7 | 0.38 | 7 | 2.134 | 7 | 22.97 |
| 0.8 | 1.482 | 0.8 | 0.43 | 8 | 2.438 | 8 | 26.25 |
| 0.9 | 1.667 | 0.9 | 0.49 | 9 | 2.743 | 9 | 29.53 |
| 1 | 1.852 | 1 | 0.54 | 10 | 3.048 | 10 | 32.81 |
| 2 | 3.704 | 2 | 1.08 | 20 | 6.096 | 20 | 65.62 |
| 3 | 5.556 | 3 | 1.62 | 30 | 9.144 | 30 | 98.43 |
| 4 | 7.408 | 4 | 2.16 | 40 | 12.192 | 40 | 131.23 |
| 5 | 9.260 | 5 | 2.70 | 50 | 15.240 | 50 | 164.04 |
| 6 | 11.112 | 6 | 3.24 | 60 | 18.288 | 60 | 196.85 |
| 7 | 12.964 | 7 | 3.78 | 70 | 21.336 | 70 | 229.66 |
| 8 | 14.816 | 8 | 4.32 | 80 | 24.384 | 80 | 262.47 |
| 9 | 16.668 | 9 | 4.86 | 90 | 27.432 | 90 | 295.28 |
| 10 | 18.520 | 10 | 5.40 | 100 | 30.480 | 100 | 328.08 |
| 20 | 37.040 | 20 | 10.80 | 200 | 60.960 | 200 | 656.17 |
| 30 | 55.560 | 30 | 16.20 | 300 | 91.440 | 300 | 984.25 |
| 40 | 74.080 | 40 | 21.60 | 400 | 121.920 | 400 | 1 312.34 |
| 50 | 92.600 | 50 | 27.00 | 500 | 152.400 | 500 | 1 640.42 |
| 60 | 111.120 | 60 | 32.40 | 600 | 182.880 | 600 | 1 968.50 |
| 70 | 129.640 | 70 | 37.80 | 700 | 213.360 | 700 | 2 296.59 |
| 80 | 148.160 | 80 | 43.20 | 800 | 243.840 | 800 | 2 624.67 |
| 90 | 166.680 | 90 | 48.60 | 900 | 274.320 | 900 | 2 952.76 |
| 100 | 185.200 | 100 | 54.00 | 1 000 | 304.800 | 1 000 | 3 280.84 |
| 200 | 370.400 | 200 | 107.99 | 2 000 | 609.600 | 2 000 | 6 561.68 |
| 300 | 555.600 | 300 | 161.99 | 3 000 | 914.400 | 3 000 | 9 842.52 |
| 400 | 740.800 | 400 | 215.98 | 4 000 | 1 219.200 | 4 000 | 13 123.36 |
| 500 | 926.00 | 500 | 269.98 | 5 000 | 1 524.00 | 5 000 | 16 404.20 |
| | | | | 6 000 | 1 828.800 | | |
| | | | | 7 000 | 2 133.600 | | |
| | | | | 8 000 | 2 438.400 | | |
| | | | | 9 000 | 2 743.200 | | |

| NM to KM<br>1 NM = 1.852 KM | | KM to NM<br>1 KM = 0.54 NM | | FT to M<br>1 FT = 0.3048 M | | M to FT<br>1 M = 3.281 FT | |
|---|---|---|---|---|---|---|---|
| **NM** | **KM** | **KM** | **NM** | **FT** | **M** | **M** | **FT** |
| | | | | 10 000 | 3 048.000 | | |

FROM DECIMAL MINUTES OF AN ARC TO SECONDS OF AND ARC

| MIN | SEC | MIN | SEC | MIN | SEC | MIN | SEC |
|---|---|---|---|---|---|---|---|
| 0.01 | 0.6 | 0.26 | 15.6 | 0.51 | 30.6 | 0.76 | 45.6 |
| 0.02 | 1.2 | 0.27 | 16.2 | 0.52 | 31.2 | 0.77 | 46.2 |
| 0.03 | 1.8 | 0.28 | 16.8 | 0.53 | 31.8 | 0.78 | 46.8 |
| 0.04 | 2.4 | 0.29 | 17.4 | 0.54 | 32.4 | 0.79 | 47.4 |
| 0.05 | 3.0 | 0.30 | 18.0 | 0.55 | 33.0 | 0.80 | 48.0 |
| 0.06 | 3.6 | 0.31 | 18.6 | 0.56 | 33.6 | 0.81 | 48.6 |
| 0.07 | 4.2 | 0.32 | 19.2 | 0.57 | 34.2 | 0.82 | 49.2 |
| 0.08 | 4.8 | 0.33 | 19.8 | 0.58 | 34.8 | 0.83 | 49.8 |
| 0.09 | 5.4 | 0.34 | 20.4 | 0.59 | 35.4 | 0.84 | 50.4 |
| 0.10 | 6.0 | 0.35 | 21.0 | 0.60 | 36.0 | 0.85 | 51.0 |
| 0.11 | 6.6 | 0.36 | 21.6 | 0.61 | 36.6 | 0.86 | 51.6 |
| 0.12 | 7.2 | 0.37 | 22.2 | 0.62 | 37.2 | 0.87 | 52.2 |
| 0.13 | 7.8 | 0.38 | 22.8 | 0.63 | 37.8 | 0.88 | 52.8 |
| 0.14 | 8.4 | 0.39 | 23.4 | 0.64 | 38.4 | 0.89 | 53.4 |
| 0.15 | 9.0 | 0.40 | 24.0 | 0.65 | 39.0 | 0.90 | 54.0 |
| 0.16 | 9.6 | 0.41 | 24.6 | 0.66 | 39.6 | 0.91 | 54.6 |
| 0.17 | 10.2 | 0.42 | 25.2 | 0.67 | 40.2 | 0.92 | 55.2 |
| 0.18 | 10.8 | 0.43 | 25.8 | 0.68 | 40.8 | 0.93 | 55.8 |
| 0.19 | 11.4 | 0.44 | 26.4 | 0.69 | 41.4 | 0.94 | 56.4 |
| 0.20 | 12.0 | 0.45 | 27.0 | 0.70 | 42.0 | 0.95 | 57.0 |
| 0.21 | 12.6 | 0.46 | 27.6 | 0.71 | 42.6 | 0.96 | 57.6 |
| 0.22 | 13.2 | 0.47 | 28.2 | 0.72 | 43.2 | 0.97 | 58.2 |
| 0.23 | 13.8 | 0.48 | 28.2 | 0.73 | 43.8 | 0.98 | 58.8 |
| 0.24 | 14.4 | 0.49 | 29.4 | 0.74 | 44.4 | 0.99 | 59.4 |
| 0.25 | 15.0 | 0.50 | 30.0 | 0.75 | 45.0 | | |

FROM SECONDS OF AN ARC TO DECIMAL MINUTES OF AN ARC

| SEC | MIN | SEC | MIN | SEC | MIN | SEC | MIN |
|---|---|---|---|---|---|---|---|
| 1 | 0.02 | 16 | 0.27 | 31 | 0.52 | 46 | 0.77 |
| 2 | 0.03 | 17 | 0.28 | 32 | 0.53 | 47 | 0.78 |
| 3 | 0.05 | 18 | 0.30 | 33 | 0.55 | 48 | 0.80 |
| 4 | 0.07 | 19 | 0.32 | 34 | 0.57 | 49 | 0.82 |
| 5 | 0.08 | 20 | 0.33 | 35 | 0.58 | 50 | 0.83 |
| 6 | 0.10 | 21 | 0.35 | 36 | 0.60 | 51 | 0.85 |

| SEC | MIN | SEC | MIN | SEC | MIN | SEC | MIN |
|---|---|---|---|---|---|---|---|
| 7 | 0.12 | 22 | 0.37 | 37 | 0.62 | 52 | 0.87 |
| 8 | 0.13 | 23 | 0.38 | 38 | 0.63 | 53 | 0.88 |
| 9 | 0.15 | 24 | 0.40 | 39 | 0.65 | 54 | 0.90 |
| 10 | 0.17 | 25 | 0.42 | 40 | 0.67 | 55 | 0.92 |
| 11 | 0.18 | 26 | 0.43 | 41 | 0.68 | 56 | 0.93 |
| 12 | 0.20 | 27 | 0.45 | 42 | 0.70 | 57 | 0.95 |
| 13 | 0.22 | 28 | 0.47 | 43 | 0.72 | 58 | 0.97 |
| 14 | 0.23 | 29 | 0.48 | 44 | 0.73 | 59 | 0.98 |
| 15 | 0.25 | 30 | 0.50 | 45 | 0.75 | | |

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## GEN 2.7 SUNRISE/SUNSET TABLES

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## GEN 3. SERVICES

## GEN 3.1 AERONAUTICAL INFORMATION SERVICES

**1. Responsible service**

**1.1 AIS Headquarters**

The Aeronautical Information Services which forms part of the Aeronautical information Service of The Civil Aviation Authority of Thailand:

Aeronautical Information Management Department
The Civil Aviation Authority of Thailand
222 Soi Vibhavadi Rangsit 28,
Vibhavadi Rangsit Rd., Chatuchak,
Chatuchak

Bangkok
10900
THAILAND

| | |
|---|---|
| AFS: | VTBAYOYX |
| Tel: | (662) 568 8831 |
| | +666 3205 8831 |
| Fax: | +662 576 1903 |
| E-mail: | aisthai@caat.or.th, ais@caat.or.th |
| Website: | ais.caat.or.th |

**1.2 International NOTAM Office (NOF)**

The International NOTAM Office is operated by Aeronautical Radio of Thailand (AEROTHAI) Ltd., and maintains close liaison with the Aeronautical Information Services Headquarters.

Located at:

Aeronautical Radio Of Thailand Company Ltd.
102 Ngamdu-plee, Thung Mahamek
Bangkok 10120, Thailand

Postal address

International NOTAM Office
102 Ngamdu-plee, Tungmahamek
Bangkok 10120, Thailand

| | |
|---|---|
| AFS: | VTBDYNYX |
| Tel: | +662 287 8202 |
| | +662 287 8204 |
| Fax: | +662 287 8205 |
| | +662 287 4695 |
| E-mail: | aisserv@aerothai.co.th, vtbdynyx@aerothai.co.th |

The service is provided in accordance with the provision contained in ICAO Annex 15-Aeronautical Information Services. All AIS material not handled over the AFTN e.q. AIP, AIP Supplement, AIC etc., should however, be addressed to the address given in paragraph 1.1 above.

**2. Area of responsibility**

2.1 The Aeronautical Information Services Headquarters is responsible for the collection, validate, verify and dissemination of information with in Bangkok Flight information Region (BKK FIR) for air navigation services purpose.

2.2 The International NOTAM Office is responsible for the dissemination of NOTAM including its monthly summary in plain language.

**3. Aeronautical publications**

**3.1 The aeronautical information is provided in the form of the integrated Aeronautical Information Package consisting of the following elements:**

- Aeronautical Information Publication (AIP);
- Amendment service to the AIP (AIP AMDT);
- Supplement to the AIP (AIP SUP);
- Aeronautical Information Circulars (AIC);
- NOTAM and Pre-flight Information Bulletins (PIB); and
- Checklists and list of valid NOTAM.

NOTAM and the related monthly checklists are issued via the Aeronautical Fixed Service (AFS), while the PIB are made available at Air Traffic Services Reporting Office (ARO). All other elements of IAIP are provided in ais.caat.or.th.

**3.2 Aeronautical Information Publication (AIP)**

The AIP, issued in one volume available in HTML (Hyper Text Markup Language) in https://ais.caat.or.th/, It is the basic Aeronautical Information document published for Thailand, and contains information of a lasting character essential to air navigation. It is available in English only and is maintained up to date by an amendment service consisting of reprinted pages and, in the case of minor amendments, manuscript corrections.

**3.3 Amendment service to the AIP**

3.3.1 AIP Amendments may contain both AIRAC and Non-AIRAC changes (paragraphs 3.3.2., 3.3.3 and 3.3.4 refer). The HTML will be updated to a specified AIRAC publication date in AIS website.

3.3.2 The AIRAC Amendment (AIRAC AIP AMDT) is used to provide advance notice of the introduction of permanent operationally significant changes on an internationally recognized AIRAC effective date and do not replace the existing AIP pages until the effective date on which the changes take place.

3.3.3 Non-AIRAC Amendments (AIP AMDT) to the AIP comprise permanent operationally significant changes that have received previous notification by NOTAM and other permanent information that is not required to be announced by NOTAM. Non-AIRAC changes to the AIP are published together with AIRAC changes and may be considered to be effective on recognized AIRAC effective date, unless otherwise indicated. AIP pages (AIRAC and Non-AIRAC) should not be replaced before the stated AIRAC effective date.

3.3.4 A brief description of the subjects affected by the amendment, NOTAM and permanent AIP Supplements that have been incorporated is given on the AIP Amendment cover sheet. New and replacement information included on the reprinted AIP pages is annotated or identified by a vertical line and horizontal line for remove of information in the outer margin of the page at the appropriate place.

3.3.5 Each AIP page is dated to reflect the AIRAC AIP AMDT or AIP AMDT effective date and a complete checklist of AIP pages, relating page reference to date, is reissued with each amendment as AIP section GEN 0.4.

3.3.6 Each combined AIP amendment is allocated an AIRAC Cycle serial number that is consecutive and based on the calendar year. The year, indicated by two digits, is a part of the serial number of the amendment, eg. AIRAC AIP AMDT 1/18

3.3.7 If there is no information for publication in an AIP Amendment on an AIRAC effective date, the Amendment shall be issued with a 'NIL' notification.

**3.4 Supplement to the AIP (AIP Sup)**

3.4.1 Temporary changes of long duration (three months and longer) and information of short duration which consists of extensive text and/or graphics, supplementing the permanent information contained in the AIP, are published as AIP Supplements (AIP SUP). Operationally significant temporary changes to the AIP are published in accordance with the AIRAC system and its established effective dates and are identified clearly by the acronym AIRAC AIP SUP. Each AIP Supplement (regular or AIRAC) is assigned a serial number, that is consecutive and based on the calendar year. The year, indicated by two digits, is a part of the serial number of each supplement, eg. AIP SUP A1/18 or AIRAC AIP SUP A1/18.

3.4.2 AIP Supplement is issued in two series as follows:-

Series A - Containing information concerning facilities, services and procedures of interest to international civil aviation, and given general international distribution;

Series B - Containing information of concern only to aircraft other than those engaged in international civil aviation, and given national distribution only.

3.4.3 AIP Supplements are available in HTML and CD-ROM, which are normally issued and published in website on a specified AIRAC publication date recognized in AIRAC cycle which is interval every 28 days. For the necessary, AIP Supplements may be published less than 28 days.

3.4.4 AIP Supplements are to be kept in the AIP for as long as all or some of their contents remain valid. The period of validity of the information contained in the AIP Supplement will normally be given in the supplement itself. Alternatively, NOTAM may be used to indicate changes to the period of validity or to advise of the cancellation of an AIP Supplement.

3.4.5 A checklist of AIP Supplement currently in force is issued every month through the Printed plain-language list of valid NOTAM.

### 3.5 Aeronautical Information Circulars (AIC)

3.5.1 The Aeronautical Information Circulars (AIC) contain information on the long-term forecast of any major change in legislation, regulations, procedures or facilities; information of a purely explanatory or advisory nature liable to affect flight safety; and information or notification of an explanatory of advisory nature concerning technical, legislative or purely administrative matters.

3.5.2 AICs are available in HTML and CD-ROM, which are normally issued and published in website on a specified AIRAC publication date recognized in AIRAC cycle which is interval every 28 days. For the necessary, AIC may be published less than 28 days.

3.5.3 Each AIC is assigned a serial number, that is consecutive and based on the calendar year. The year, indicated by two digits, is a part of the serial number of each supplement, eg. AIC 1/18.

3.5.4 A checklist of AIC currently in force is issued once in a year.

### 3.6 NOTAM and Pre-flight Information Bulletins (PIB)

3.6.1 NOTAM contain information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential for personnel concerned with flight operations. The text of each NOTAM contains the information in the order shown in the ICAO NOTAM Format and is composed of the signification/uniform abbreviated phraseology assigned to the ICAO NOTAM Code complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language. NOTAM are originated and issued for Bangkok FIR and are distributed in five series identified by the letters A, C, J, H and G as follows:

Series A - NOTAM containing information on Thailand International Airports and ATS routes according to circumstances. Distribution: International
Series C - NOTAM containing information on Thailand International Airports, domestic airports and ATS routes according to circumstances. Distribution: Domestic
Series J - NOTAM containing information of concern to scope warning (W) activity near or affecting Controlled Airspace or ATS routes according to circumstances. Distribution: International and Domestic.
Series H - NOTAM containing information of concern VIP Flight in Bangkok FIR. Distribution: International and Domestic.
Series G - NOTAM concerning the status of elements of the global navigation satellite system (GNSS). Distribution: International and Domestic.

3.6.2 Each NOTAM is assigned a serial number preceded by the appropriate letter indicating the series. The serial numbers start with NR 0001 at 0000 UTC on 1 January every year. A checklist of NOTAM currently in force is issued every month over the AFTN, and in addition, a printed plain language summary of their substance is sent by airmail to those who had originally received the NOTAM over the AFTN, as well as to others on request.

3.6.3 NOTAM are published as and when necessary to disseminate information of direct operational significance which:-

- is of an ephemeral nature;
- requires advance distribution; or
- is appropriate to the AIP but immediate dissemination is required.

3.6.4 Each NOTAM is given a serial number, a new series being established for each calendar year. A checklist of NOTAM currently in force is issued at the beginning of each month

3.6.5 NOTAM are exchanged between Bangkok NOF and other NOTAM Offices as follows:

| SENT TO NOF | | | | | |
|---|---|---|---|---|---|
| SERIES A | | SERIES C | SERIES J | SERIES H | SERIES G |
| International | | Domestic | International and Domestic | International and Domestic | International and Domestic |
| Amman | Manila | | | | |
| Amsterdam | Moscow | | | | |
| Ankara | Mumbai | | | | |
| Athens | Muscat | | | | |
| Auckland | Nairobi | | | | |
| Bahrain | Nicosia | | | | |
| Bali | Paris | | | | |
| Beijing | Paro | | | | |
| Brunei | Phnom Penh | | | | |
| Brussel | Praha/ Ruzyne | | | | |
| Bucharest | Qatar | | | | |
| Cairo | Reykjavik | | | | |
| Chennai | Riga | | | | |
| Colombo | Rome | | | | |
| Copenhagen | Seoul | | | | |
| Delhi | Seychelles | | | | |
| Dhaka | Singapore | | | | |
| Dubai | Sofia | | | | |
| Frankfurt | Stockholm | | | | |
| Hanoi | Sydney | | | | |
| Helsinki | Taipei | | | | |
| Heydar allyev | Tashkent | | | | |
| Hong Kong | Tehran | | | | |
| Ibrahim nasir | Tel-aviv | | | | |
| Jakarta | Tokyo | | | | |
| Jeddah | Ulaanbaatar | | | | |
| Kabul | Vienna | | | | |
| Karachi | Vientiane | | | | |
| Kathmandu | Warsaw | | | | |
| Kolkata | Washington | | | | |
| Kuala Lumpur | Xiamen | | | | |
| Kuwait | Yangon | | | | |
| London | Zurich | | | | |
| Macao | | | | | |

### 3.7 Checklist and list of valid of NOTAM

A checklist of valid NOTAM is issued monthly via AFS. The checklist is followed by a printed summary of NOTAM distributed by mail to all recipients of the integrated Aeronautical Information Package. It contains a plain language (in English) presentation of the valid NOTAM and information about the number of the latest issued AIP AMDT, AIP SUP and AIC as well as the numbers of the elements issued under the AIRAC that will become effective or, if none, the NIL AIRAC notification.

### 3.8 Sale of publications

3.8.1 Most AIS publications are available in HTML. The AIP, AIP SUPs and AICs may be obtained from the CD-ROM and, in addition, these documents feature on the AIS Web site https://ais.caat.or.th/

3.8.2 All subscription or purchase requests and enquiries regarding the supply of AIS publications (CD-ROM version) are available on https://ais.caat.or.th/

3.8.3 Details and prices of AIS publications are available in AIS website.

## 4. AIRAC System

4.1 AIRAC Information are originated and distributed by AIS with the objective of reaching data provider and data handlers at least 28 days in advance of the effective date. Data Originator should note that strict adherence to both the AIRAC publication and effective dates is essential if the information is to be incorporated in flight-deck documentation and flight management systems by the effective date of the selected AIRAC Cycle.

4.2 The establishment and withdrawal of, and predetermined significant changes (including operational trials) to the information listed below is required by ICAO to be published and brought into effect in accordance with the AIRAC System**.**

4.2.1 Limits (horizontal and vertical), regulations and procedures applicable to:

a) flight information regions;
b) control areas;
c) control zones;
d) advisory areas;
e) ATS routes;
f) permanent danger, prohibited and restricted areas (including type and periods of activity when known) and ADIZ;
g) permanent areas or routes or portions thereof where the possibility of interception exists;

4.2.2 Positions, frequencies, call signs, identifiers, known irregularities and maintenance periods of radio navigation aids, and communication and surveillance facilities.

4.2.3 Holding and approach procedures, arrival and departure procedures, noise abatement procedures and any other pertinent ATS procedures.

4.2.4 Transition levels, transition altitudes and minimum sector altitudes.

4.2.5 Meteorological facilities (including broadcasts) and procedures.

4.2.6 Runways and stopways.

4.2.7 Taxiways and aprons.

4.2.8 Aerodrome ground operating procedures (including low visibility procedures).

4.2.9 Approach and runway lighting.

4.2.10 Aerodrome operating minima if published by a State.

4.3 In addition, the establishment and withdrawal of, and predetermined significant changes to the information listed below may be published and brought into effect in accordance with the AIRAC System:

4.3.1 Position, height and lighting of navigational obstacles.

4.3.2 Hours of service of aerodromes, facilities and services.

4.3.3 Customs, immigration and health services.

4.3.4 Temporary danger, prohibited and restricted areas and navigational hazards, military exercises and mass movements of aircraft.

4.3.5 Temporary areas or routes or portions thereof where the possibility of interception exists.

4.4 When operationally necessary, the ICAO AIRAC System permits major changes to be promulgated two Cycles (56 days) in advance. Similarly, additional notice is required if the introduction of an intended change cannot be planned to take place on an AIRAC effective date. Publication would then be required no later than the AIRAC Cycle within which the actual effective date falls.

The establishment of, and premeditated major changes to:

4.4.1 New aerodromes for international IFR operations.

4.4.2 New runways for IFR operations at international aerodromes.

4.4.3 Design and structure of the air traffic services route network

4.4.4 Design and structure of a set of terminal procedures (including change of procedure bearings due to magnetic variation change).

4.4.5 Circumstances listed in Part 1 if the entire State or any significant portion thereof is affected or if cross-border coordination is required.

4.5 Data Originators should aware of the schedule for AIRAC cycle which is published annually in an AIC that announce the latest date information reach to AIS, Publication date and effective date schedule to comply with international AIRAC system prescribed by ICAO.

4.6 Schedule of AIRAC effective dates

**Schedule of AIRAC effective dates.**

| AIRAC Cycle number | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|
| 1 | 25 JAN | 23 JAN | 22 JAN | 21 JAN | 20 JAN |
| 2 | 22 FEB | 20 FEB | 19 FEB | 18 FEB | 17 FEB |
| 3 | 21 MAR | 20 MAR | 19 MAR | 18 MAR | 16 MAR |
| 4 | 18 APR | 17 APR | 16 APR | 15 APR | 13 APR |
| 5 | 16 MAY | 15 MAY | 14 MAY | 13 MAY | 11 MAY |
| 6 | 13 JUN | 12 JUN | 11 JUN | 10 JUN | 08 JUN |
| 7 | 11 JUL | 10 JUL | 09 JUL | 08 JUL | 06 JUL |
| 8 | 08 AUG | 07 AUG | 06 AUG | 05 AUG | 03 AUG |
| 9 | 05 SEP | 04 SEP | 03 SEP | 02 SEP | 31 AUG |
| 10 | 03 OCT | 02 OCT | 01 OCT | 30 SEP | 28 SEP |
| 11 | 31 OCT | 30 OCT | 29 OCT | 28 OCT | 26 OCT |
| 12 | 28 NOV | 27 NOV | 26 NOV | 25 NOV | 23 NOV |
| 13 | 26 DEC | 25 DEC | 24 DEC | 23 DEC | 21 DEC |

**5. Pre – flight Information Service at Aerodromes**

5.1 A pre-flight information service unit is available at each of the following listed aerodrome, with the coverage indicated.

| Aerodrome | Briefing coverage |
|---|---|
| BANGKOK/Bangkok International Airport | Bangkok, Bombay Calcutta, Delhi, Jakarta, Hong Kong, Karachi, Manila, Yangon, Singapore and Malaysia FIRs. |
| BANGKOK/Suvarnabhumi International Airport | Bangkok, Bombay Calcutta, Delhi, Jakarta, Hong Kong, Karachi, Manila, Yangon, Singapore and Malaysia FIRs. |
| CHIANG MAI/CHIANG MAI INTERNATIONAL AIRPORT | Bangkok, Hong Kong, Singapore and Malaysia FIRs |
| CHIANG RAI/Mae Fah Luang-Chiang Rai International Airport | Bangkok, Hong Kong, Singapore and Malaysia FIRs. |
| PHUKET/Phuket International Airport | Bangkok, Hong Kong, Singapore and Malaysia FIRs. |
| RAYONG/U-Tapao Rayong Pattaya International Airport | Bangkok, Bombay, Calcutta, Delhi, Jakarta, Hong Kong, Karachi, Manila, Yangon, Singapore and Malaysia FIRs. |
| SONGKHLA / Hat Yai International Airport | Bangkok, Hong Kong, Singapore and Malaysia FIRs. |

5.2 Post-flight information forms, for annotation by aircrews of information concerning the state and operation of air navigation facilities, are available at the information service unit at the aerodromes mentioned above.

**6. Digital data sets**

To be develop

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## GEN 3.2 AERONAUTICALCHARTS

### 1. Responsible services

1.1 The Civil Aviation Authority of Thailand provides a wide range of aeronautical charts for use by all types of civil aviation. The aeronautical information service produces the charts which are part of the AIP.

1.2 The charts are produced in accordance with the provision contained in ICAO documents listed below:

a) Annex 4 - Aeronautical Charts
b) Doc 8697 - Aeronautical Chart Manual

### 2. Maintenance of charts

2.1 The aeronautical charts published in the AIP are kept up to date by amendments to the AIP.

2.2 If incorrect information detected on published charts is of operational significance, will be corrected by NOTAM.

### 3. Purchase arrangements

3.1 The charts as listed in item 5 of this subsection may be obtained from:

Aeronautical Information Management Department
The Civil Aviation Authority of Thailand
222 Soi Vibhavadi Rangsit 28,
Vibhavadi Rangsit Rd., Chatuchak,
Chatuchak Bangkok 10900
Tel: (662) 568 8831, +666 3205 8831
Fax: +662 576 1903
AFS: VTBAYOYX
E-mail: aisthai@caat.or.th, ais@caat.or.th

### 4. Aeronautical chart series available

4.1 The following series of Aeronautical charts are available

a) Aerodrome chart - ICAO
b) Aircraft Parking/Docking Chart - ICAO
c) Aerodrome Ground Movement Chart - ICAO
d) Aerodrome Obstacle Chart - ICAO Type A
e) Aerodrome Obstacle Chart - ICAO Type B
f) Precision Approach Terrain Chart - ICAO
g) Area Chart - ICAO
h) Standard Departure Chart - Instrument (SID) - ICAO
i) Standard Arrival Chart - Instrument (STAR) - ICAO
j) Instrument Approach Chart - ICAO
k) Enroute Chart - ICAO
l) World Aeronautical Chart - ICAO

In addition, AIP Thailand contains other charts as following;

– VFR Entry Procedure Chart
– VFR Exit Procedure Chart
– Bird concentrations

4.2 General description of each series

a) **Aerodrome Chart - ICAO**

This chart contains detailed aerodrome data to provide flight crew with information that will facilitate the ground movement of aircraft:

– from the aircraft stand to the runway; and
– from the runway to the aircraft stand.

It also provides essential operational information at the aerodrome.

b) **Aircraft Parking/Docking Chart - ICAO**

This chart is produced for those aerodromes where, due to the complexity of the terminal facilities, the information to facilitate the ground movement of aircraft between the taxiways and the aircraft stands.

c) **Aerodrome Ground Movement Chart - ICAO**

This chart is produced for those aerodromes where, due to congestion of information, details necessary for the ground movement of aircraft along the taxiways to and from the aircraft stands and for the parking/docking of aircraft cannot be shown with sufficient clarity on the Aerodrome chart - ICAO.

d) **Aerodrome Obstacle Chart - ICAO Type A**

This chart contains detailed information on obstacle in the take-off flight path area of aerodromes. It is shown in plan and profile view. This obstacle information provides the data necessary to enable an operator to comply with the performance operating limitations of ICAO Annex 6, Parts I and II, Chapter 5.

e) **Aerodrome Obstacle Chart - ICAO Type B**

This chart provides information the determination of critical heights, e.g. for circling procedures, or of procedures for use in the event of an emergency during take-off or landing, and of obstacle clearing and marking criteria.

f) **Precision Approach Terrain Chart - ICAO**

This chart provides detailed terrain profile information within a defined portion of the final approach so as to enable aircraft operating agencies to assess the effect of the terrain on decision height determination by the use of radio altimeters.

g) **Area Chart - ICAO**

This chart is a simplified presentation of the air traffic services system, radio navigation aids, significant points and other aeronautical information essential for IFR flights within a certain area.

h) **Standard Departure Chart - Instrument (SID) - ICAO**

This chart provides flight crew with information that will enable them to comply with the designated standard departure route-instrument from the take-off phase to the en-route phase of flight.

i) **Standard Arrival Chart - Instrument (STAR) - ICAO**

This chart provides the flight crew with information that will enable them to comply with the designated standard arrival route - instrument from the en-route phase to the approach phase of flight.

j) **Instrument Approach Chart - ICAO**

This chart is produced for all aerodromes used by civil aviation where instrument approach procedures have been established. A separate Instrument Approach Chart -ICAO has been provided for each approach procedure.

The aeronautical data shown include information on aerodromes, prohibited, restricted and danger areas, radio communication facilities and navigation aids, minimum sector altitude, procedure track portrayed in plan and profile view, aerodrome operating minima, etc. This chart provides flight crew with information that will enable them to perform an approved instrument approach procedure to the runway of intended landing, including the missed approach procedure and where applicable, associated holding patterns.

k) **Enroute Chart - ICAO**

This chart is produced for the entire Bangkok FIR. The aeronautical data include all aerodromes, prohibited, restricted and danger areas and the air traffic services system in detail.

This chart provides the flight crew with information to facilitate navigation along ATS routes in compliance with air traffic services procedures.

l) World Aeronautical Chart - ICAO 1:1 000 000

This series is constructed on Lambert Conformal Conic Projection with two standard parallels at 0 deg 40 min and 3 deg 20 min.The spheroid is Word Geodetic System 1984 (WGS84). The aeronautical data shown have been kept to a minimum, consistent with the use of the chart for visual air navigation.It includes a selection of aerodromes, significant obstacles, elements of the ATS system, prohibited, restricted and danger areas, and radio navigation aids.The chart provides information to satisfy visual air navigation and is also used as a pre-flight planning chart.

## 5. List of Aeronautical Charts Available

5.1 Aerodrome Chart - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Aerodrome Chart - ICAO | | **Don Mueang Intl** | AD 2-VTBD-2-1 | In AIP | 20 FEB 2025 |
| | | **Chiang Mai Intl** | AD 2-VTCC-2-1 | In AIP | 28 NOV 2024 |
| | | **Mae Fah Luang-Chiang Rai Intl** | AD 2-VTCT-2-1 | In AIP | 20 FEB 2025 |
| | | **Phuket Intl** | AD 2-VTSP-2-1 | In AIP | 28 NOV 2024 |
| | | **Suvarnabhumi Intl** | AD 2-VTBS-2-1 | In AIP | 15 MAY 2025 |
| | | **U-Tapao Rayong Pattaya Intl** | AD 2-VTBU-2-1 | In AIP | 16 JUN 2022 |
| | | **Hat Yai Intl** | AD 2-VTSS-2-1 | In AIP | 28 NOV 2024 |
| | | **Buri Ram** | AD 2-VTUO-2-1 | In AIP | 21 MAR 2024 |
| | | **Chumphon** | AD 2-VTSE-2-1 | In AIP | 20 APR 2023 |
| | | **Khon Kaen** | AD 2-VTUK-2-1 | In AIP | 29 DEC 2022 |
| | | **Krabi** | AD 2-VTSG-2-1 | In AIP | 28 NOV 2024 |
| | | **Lampang** | AD 2-VTCL-2-1 | In AIP | 26 DEC 2024 |
| | | **Loei** | AD 2-VTUL-2-1 | In AIP | 2 NOV 2023 |
| | | **Mae Hong Son** | AD 2-VTCH-2-1 | In AIP | 18 JUL 2019 |
| | | **Pai** | AD 2-VTCI-2-1 | In AIP | 18 JUL 2019 |
| | | **Nakhon Phanom** | AD 2-VTUW-2-1 | In AIP | 5 SEP 2024 |
| | | **Nakhon Ratchasima** | AD 2-VTUQ-2-1 | In AIP | 23 MAR 2023 |
| | | **Nakhon Si Thammarat** | AD 2-VTSF-2-1 | In AIP | 18 JUL 2019 |
| | | **Nan Nakhon** | AD 2-VTCN-2-1 | In AIP | 15 JUL 2021 |
| | | **Narathiwat** | AD 2-VTSC-2-1 | In AIP | 8 AUG 2024 |
| | | **Pattani** | AD 2-VTSK-2-1 | In AIP | 18 JUL 2019 |
| | | **Phatchabun** | AD 2-VTPB-2-1 | In AIP | 18 JUL 2019 |
| | | **Phitsanulok** | AD 2-VTPP-2-1 | In AIP | 31 OCT 2024 |
| | | **Phrae** | AD 2-VTCP-2-1 | In AIP | 26 DEC 2024 |
| | | **Hua Hin** | AD 2-VTPH-2-1 | In AIP | 18 JUL 2019 |
| | | **Ranong** | AD 2-VTSR-2-1 | In AIP | 18 JUL 2019 |
| | | **Raoi Et** | AD 2-VTUV-2-1 | In AIP | 7 OCT 2021 |
| | | **Sakon Nakhon** | AD 2-VTUI-2-1 | In AIP | 31 OCT 2024 |
| | | **Songkhla** | AD 2-VTSH-2-1 | In AIP | 18 JUL 2019 |
| | 1 : 20,000 | **Sukhothai** | AD 2-VTPO-2-1 | In AIP | 18 JUL 2019 |
| | | **Surat Thani** | AD 2-VTSB-2-1 | In AIP | 26 DEC 2024 |
| | 1 : 20,000 | **Samui** | AD 2-VTSM-2-1 | In AIP | 18 JUL 2019 |
| | | **Tak** | AD 2-VTPT-2-1 | In AIP | 18 JUL 2019 |
| | | **Mae Sot** | AD 2-VTPM-2-1 | In AIP | 1 DEC 2022 |
| | | **Trang** | AD 2-VTST-2-1 | In AIP | 17 JUN 2021 |
| | | **Trat** | AD 2-VTBO-2-1 | In AIP | 17 APR 2025 |
| | | **Ubon Ratchathani** | AD 2-VTUU-2-1 | In AIP | 10 JUL 2025 |
| | | **Udon Thani** | AD 2-VTUD-2-1 | In AIP | 21 APR 2022 |
| | | **Betong** | AD 2-VTSY-2-1 | In AIP | 21 APR 2022 |

5.2 Aircraft Parking/Docking Chart - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Aircraft Parking/ Docking Chart - ICAO | | **Don Mueang Intl** | AD 2-VTBD-2-3 | In AIP | 20 MAY 2021 |
| | | **Chiang Mai Intl** | AD 2-VTCC-2-3 | In AIP | 28 NOV 2024 |
| | | **Mae Fah Luang-Chiang Rai Intl** | AD 2-VTCT-2-3 | In AIP | 28 NOV 2024 |
| | | **Phuket Intl** | AD 2-VTSP-2-3 | In AIP | 28 NOV 2024 |
| | | **Suvarnabhumi Intl** | AD 2-VTBS-2-3 | In AIP | 15 MAY 2025 |
| | | **Hat Yai Intl** | AD 2-VTSS-2-3 | In AIP | 7 NOV 2019 |
| | | **Buri Ram** | AD 2-VTUO-2-3 | In AIP | 29 DEC 2022 |
| | | **Chumphon** | AD 2-VTSE-2-3 | In AIP | 20 APR 2023 |
| | | **Khon Kaen** | AD 2-VTUK-2-3 | In AIP | 29 DEC 2022 |
| | | **Lampang** | AD 2-VTCL-2-3 | In AIP | 20 MAR 2025 |
| | | **Phitsanulok** | AD 2-VTPP-2-3 | In AIP | 12 JUN 2025 |
| | 1 : 20,000 | **Samui** | AD 2-VTSM-2-3 | In AIP | 18 JUL 2019 |
| | | **Mae Sot** | AD 2-VTPM-2-3 | In AIP | 26 JAN 2023 |
| | | **Ubon Ratchathani** | AD 2-VTUU-2-3 | In AIP | 10 JUL 2025 |
| | | **Udon Thani** | AD 2-VTUD-2-3 | In AIP | 13 JUN 2024 |

5.3 Aerodrome Ground Movement Chart - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Aerodrome Ground Movement Chart - ICAO | | **Don Mueang Intl** | AD 2-VTBD-2-5 | In AIP | 20 FEB 2025 |
| | | **Chiang Mai Intl** | AD 2-VTCC-2-5 | In AIP | 28 NOV 2024 |
| | | **Mae Fah Luang-Chiang Rai Intl** | AD 2-VTCT-2-5 | In AIP | 20 FEB 2025 |
| | | **Phuket Intl** | AD 2-VTSP-2-5 | In AIP | 28 NOV 2024 |
| | 1 : 15,000 | **U-Tapao Rayong Pattaya Intl** | AD 2-VTBU-2-3 | In AIP | 16 JUN 2022 |
| | 1 : 10,000 | **Hat Yai Intl** | AD 2-VTSS-2-5 | In AIP | 28 NOV 2024 |
| | | **Buri Ram** | AD 2-VTUO-2-5 | In AIP | 29 DEC 2022 |
| | | **Chumphon** | AD 2-VTSE-2-5 | In AIP | 20 APR 2023 |
| | | **Lampang** | AD 2-VTCL-2-5 | In AIP | 20 MAR 2025 |
| | 1 : 10,000 | **Sukhothai** | AD 2-VTPO-2-3 | In AIP | 18 JUL 2019 |
| | 1 : 10,000 | **Samui** | AD 2-VTSM-2-5 | In AIP | 18 JUL 2019 |
| | | **Phitsanulok** | AD 2-VTPP-2-5 | In AIP | 12 JUN 2025 |
| | 1 : 10,000 | **Mae Sot** | AD 2-VTPM-2-5 | In AIP | 1 DEC 2022 |
| | | **Ubon Ratchathani** | AD 2-VTUU-2-5 | In AIP | 10 JUL 2025 |

5.4 Aerodrome Obstacle Chart - ICAO Type A

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Aerodrome Obstacle Chart - ICAO Type A | | **Don Mueang Intl** | | | |
| | 1 : 15,000 | RWY 21R/03L | AD 2-VTBD-3-3 | In AIP | 18 JUL 2019 |
| | 1 : 20,000 | RWY 21L/03R | AD 2-VTBD-3-5 | In AIP | 3 OCT 2024 |
| | | **Chiang Mai Intl** | | | |
| | 1 : 20,000 | RWY 18/36 | AD 2-VTCC-3-1 | In AIP | 21 MAR 2024 |
| | | **Mae Fah Luang-Chiang Rai Intl** | | | |
| | 1 : 12,500 | RWY 03/21 | AD 2-VTCT-3-1 | In AIP | 18 JUL 2019 |
| | | **Phuket Intl** | | | |
| | 1 : 20,000 | RWY 09/27 | AD 2-VTSP-3-1 | In AIP | 18 JUL 2019 |
| | | **Suvarnabhumi Intl** | | | |
| | 1 : 20,000 | RWY 01/19 | AD 2-VTBS-3-1 | In AIP | 15 MAY 2025 |
| | 1 : 20,000 | RWY 02R/20L | AD 2-VTBS-3-3 | In AIP | 15 MAY 2025 |
| | 1 : 20,000 | RWY 02L/20R | AD 2-VTBS-3-5 | In AIP | 15 MAY 2025 |
| | | **U-Tapao Rayong Pattaya Intl** | | | |
| | | RWY 18/36 | AD 2-VTBU-3-1 | In AIP | 18 JUL 2019 |
| | | **Hat Yai Intl** | | | |
| | 1 : 20,000 | RWY 08/26 | AD 2-VTSS-3-1 | In AIP | 7 NOV 2019 |
| | | **Lampang** | | | |
| | 1 : 20,000 | RWY 18/36 | AD 2-VTCL-3-1 | In AIP | 26 DEC 2024 |
| | | **Buri Ram** | | | |
| | 1 : 20,000 | RWY 04/22 | AD 2-VTUO-3-1 | in AIP | 29 DEC 2022 |
| | | **Chumphon** | | | |
| | 1 : 20,000 | RWY 06/24 | AD 2-VTSE-3-1 | In AIP | 20 APR 2023 |
| | | **Krabi** | | | |
| | 1 : 2,000 | RWY 14/32 | AD 2-VTSG-3-1 | In AIP | 31 OCT 2024 |
| | | **Sukhothai** | | | |
| | 1 : 15,000 | RWY 18/36 | AD 2-VTPO-3-1 | In AIP | 18 JUL 2019 |
| | | **Surat Thani** | | | |
| | 1 : 2,000 | RWY 04/22 | AD 2-VTSB-3-1 | In AIP | 31 OCT 2024 |
| | | **Samui** | | | |
| | 1 : 15,000 | RWY 17/35 | AD 2-VTSM-3-1 | In AIP | 18 JUL 2019 |
| | | **Betong** | | | |
| | 1 : 20,000 | RWY 07/25 | AD 2-VTSY-3-1 | In AIP | 21 APR 2022 |
| | | **Mae Sot** | | | |
| | 1 : 20,000 | RWY 09/27 | AD 2-VTPM-3-1 | In AIP | 1 DEC 2022 |
| | | | | | |

5.5 Aerodrome Obstacle Chart - ICAO Type B

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Aerodrome Obstacle Chart - ICAO Type B | 1 : 100,000 | **Betong** | AD 2-VTSY-3-1 | In AIP | 21 APR 2022 |

5.6 Precision Approach Terrain Chart - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Precision Approach Terrain Chart - ICAO | | **Don Mueang Intl** | | | |
| | 1 : 2,500 | RWY 21L | AD 2-VTBD-3-1 | In AIP | 18 JUL 2019 |
| | | **Suvarnabhumi Intl** | | | |
| | 1 : 2,500 | RWY 01/19 | AD 2-VTBS-3-7 | In AIP | 31 OCT 2024 |
| | 1 : 2,500 | RWY 02R/20L | AD 2-VTBS-3-9 | In AIP | 31 OCT 2024 |
| | 1 : 2,500 | RWY 02L/20R | AD 2-VTBS-3-11 | In AIP | 31 OCT 2024 |

5.7 Area Chart - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| | | | | | |

5.8 Standard Departure Chart - Instrument (SID) - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Standard Departure Chart - Instrument (SID) - ICAO | | **Don Mueang Intl** | | | |
| | | RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C ROBKA3C SEMBO4C TARED3C UPKUP3C UGUVO3C | AD 2-VTBD-6-1 | In AIP | 10 JUL 2025 |
| | | RNAV RWY21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C | AD 2-VTBD-6-9 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A ROBKA3A SEMBO4A TARED3A UPKUP3A UGUVO3A | AD 2-VTBD-6-15 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A | AD 2-VTBD-6-23 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B ROBKA1B SEMBO2B TARED1B UPKUP1B UGUVO1B | AD 2-VTBD-6-29 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B | AD 2-VTBD-6-35 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D ROBKA1D SEMBO2D TARED1D UPKUP1D UGUVO1D | AD 2-VTBD-6-43 | In AIP | 10 JUL 2025 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| | | RNAV RWY 03R - BONVO1D DOS-BU1D GORSI1D HHN1D KASNI1D KIGOB1D PASTO1D REGOS1D RYN1D SABIS2D UKERA1D | AD 2-VTBD-6-49 | In AIP | 10 JUL 2025 |
| | | **Chiang Mai Intl** | | | |
| | | RWY 18 | AD 2-VTCC-6-1 | In AIP | 18 JUL 2019 |
| | | RWY 36 | AD 2-VTCC-6-5 | In AIP | 18 JUL 2019 |
| | 1 : 750,000 | RNAV RWY 18 - ENBAT2S PANTA2S PUMAM2S | AD 2-VTCC-6-9 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 18 - KABMU2S MONLO2S | AD 2-VTCC-6-11 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 18 - ADLUS2S IGUDA2S LAMUN2S VISES2S | AD 2-VTCC-6-13 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 18 - LAMUN2W VISES2W | AD 2-VTCC-6-17 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 36 - ENBAT2N IGUDA2N KABMU2N MONLO2N PANTA2N PUMAM2N | AD 2-VTCC-6-19 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 36 - ENBAT2C IGUDA2C KABMU2C MONLO2C PANTA2C PUMAM2C | AD 2-VTCC-6-23 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 36 - LAMUN2N VISES2N | AD 2-VTCC-6-27 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 36 - ADLUS2N | AD 2-VTCC-6-29 | In AIP | 26 DEC 2024 |
| Standard Departure Chart - Instrument (SID) - ICAO | | **Mae Fah Luang-Chiang Rai Intl** | | | |
| | 1 : 750,000 | RNAV RWY 03 - BENVI1A DUBEN1A NUMDO1A PONUK1A | AD 2-VTCT-6-1 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 21 - BENVI1B DUBEN1B NUMDO1B PONUK1B | AD 2-VTCT-6-3 | In AIP | 26 DEC 2024 |
| | | **Phuket** | | | |
| | 1 : 800,000 | RNAV RWY 09 - ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A | AD 2-VTSP-6-1 | In AIP | 10 JUL 2025 |
| | 1 : 800,000 | RNAV RWY 27 - ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B | AD 2-VTSP-6-6 | In AIP | 10 JUL 2025 |
| | | **Suvarnabhumi Intl** | | | |
| | | RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUN-LI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K | AD 2-VTBS-6-1 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 02L - ALBOS1F BON-VO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEM-BO2F TARED1F UKERA1F UGUVO1F VANKO1F | AD 2-VTBS-6-15 | In AIP | 10 JUL 2025 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| | | RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H | AD 2-VTBS-6-29 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J | AD 2-VTBS-6-41 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G | AD 2-VTBS-6-55 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E | AD 2-VTBS-6-67 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U S EMBO1U TL1U | AD 2-VTBS-6-79 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 02L(PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q | AD 2-VTBS-6-87 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 02R (PROPELLER) - ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S | AD 2-VTBS-6-95 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 19 (PROPELLER) - ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T | AD 2-VTBS-6-103 | In AIP | 10 JUL 2025 |
| | | RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R | AD 2-VTBS-6-111 | In AIP | 10 JUL 2025 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| | | RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P | AD 2-VTBS-6-119 | In AIP | 10 JUL 2025 |
| | | **U-Tapao Rayong Pattaya Intl** | | | |
| | 1 : 700,000 | RNAV RWY 18 - BKK1A | AD 2-VTBU-6-1 | In AIP | 16 JUN 2022 |
| | 1 : 700,000 | RNAV RWY 36 - BKK1B | AD 2-VTBU-6-3 | In AIP | 16 JUN 2022 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| | | **Hat Yai Intl** | | | |
| Standard Departure Chart - Instrument (SID) - ICAO | 1 : 600,000 | RNAV RWY08 - DANDO1D ELREM1D ENVON1D KARMI1D KENNE1D PAD-PA1D PIMER1D TAXEB1D | AD 2-VTSS-6-1 | In AIP | 10 JUL 2025 |
| | 1 : 600,000 | RNAV RWY26 - DANDO1C ELREM1C ENVON1C KARMI1C KENNE1C PAD-PA1C PIMER1C TAXEB1C | AD 2-VTSS-6-5 | In AIP | 10 JUL 2025 |
| | | **Khon Kaen** | | | |
| | 1 : 600,000 | RNAV RWY 03 - AKRET1A ALGIT1A EMRUT1A NEMTE1A ONUVI1A SED-NO1C | AD 2-VTUK-6-1 | In AIP | 21 APR 2022 |
| | 1 : 600,000 | RNAV RWY 21 - AKRET1B ALGIT1B EMRUT1B NEMTE1B ONUVI1B SED-NO1D | AD 2-VTUK-6-5 | In AIP | 21 APR 2022 |
| | | **Krabi** | | | |
| | 1 : 500,000 | RWY 14 - SURAT2H TRANG2D PHUKET2F | AD 2-VTSG-6-1 | In AIP | 20 MAY 2021 |
| | 1 : 500,000 | RWY 32 - SURAT2G TRANG2C PHUKET2E | AD 2-VTSG-6-3 | In AIP | 20 MAY 2021 |
| | 1 : 600,000 | RNAV RWY 14 - EPGOT1G OSPEX1G SARER1G TUNRA1G | AD 2-VTSG-6-5 | In AIP | 17 JUN 2021 |
| | 1 : 600,000 | RNAV RWY 32 - EPGOT1F LUXIR1F OSPEX1F TUNRA1F | AD 2-VTSG-6-7 | In AIP | 17 JUN 2021 |
| | | **Lampang** | | | |
| | 1 : 500,000 | RNAV RWY 18 - IGNAX1D KABMU1D OMDIL1D OTBAD1D PANTA1D VENAG1D | AD 2-VTCL-6-1 | In AIP | 20 FEB 2025 |
| | 1 : 500,000 | RNAV RWY 36 - IGNAX1C KABMU1C OMDIL1C OTBAD1C VENAG1C | AD 2-VTCL-6-5 | In AIP | 20 FEB 2025 |
| | | **Loei** | | | |
| | 1 : 500,000 | RNAV RWY 01 - ANLUR1A BARCE1A BOVGO1A DUBOL1A NOGAD1A RIBDO1A SWENI1A | AD 2-VTUL-6-1 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNAV RWY 19 - ANLUR1B BARCE1B BOVGO1B DUBOL1B NOGAD1B RIBDO1B SWENI1B | AD 2-VTUL-6-5 | In AIP | 26 DEC 2024 |
| | | **Mae Hong Son** | | | |
| | 1 : 500,000 | RNAV RWY 29 - BOKIB1L BOKIB1R DOMKA1L DOMKA1R | AD 2-VTCH-6-1 | In AIP | 20 FEB 2025 |
| | | **Nakhon Ratchasima** | | | |
| | 1 : 600,000 | RNAV RWY 06 - SAMBY1A SITTA1A VOBOT1A | AD 2-VTUQ-6-1 | In AIP | 21 APR 2022 |
| | 1 : 600,000 | RNAV RWY 24 - BLUVY1B SAMBY1B SITTA1B VOBOT1B | AD 2-VTUQ-6-3 | In AIP | 21 APR 2022 |
| | | **Nakhon Si Thammarat** | | | |
| | 1 : 500,000 | RNAV RWY 01 - GIFBY1A TAWIT1A PEDOR1A PUYOL1A WADEZ1A | AD 2-VTSF-6-1 | In AIP | 13 AUG 2020 |
| | 1 : 500,000 | RNAV RWY 19 - GIFBY1B TAWIT1B PEDOR1B PUYOL1B WADEZ1B | AD 2-VTSF-6-3 | In AIP | 13 AUG 2020 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Standard Departure Chart - Instrument (SID) - ICAO | | **Narathiwat** | | | |
| | 1 : 500,000 | RNAV RWY 02 – ERVES1A NUBKA1A | AD 2-VTSC-6-1 | In AIP | 8 AUG 2024 |
| | 1 : 500,000 | RNAV RWY 20 - ERVES1B NUBKA1B | AD 2VTSC-6-3 | In AIP | 8 AUG 2024 |
| | | **Phitsanulok** | | | |
| | 1 : 700,000 | RNAV RWY 14 - GOKON1A GOSTA1A IGPOP1A NIROP1A PEBLI1A PIBIK1A POLOB1A REMER1A | AD 2-VTPP-6-1 | In AIP | 26 DEC 2024 |
| | 1 : 700,000 | RNAV RWY 32 - GOKON1B GOSTA1B IGPOP1B NIROP1B PEBLI1B PIBIK1B POLOB1B REMER1B | AD 2-VTPP-6-5 | In AIP | 26 DEC 2024 |
| | | **Phrae** | | | |
| | 1 : 600,000 | RNAV RWY 01 - AIZAK1E IDKOR1E OTBAD1E SUNGO1E | AD 2-VTCP-6-1 | In AIP | 10 JUL 2025 |
| | 1 : 600,000 | RNAV RWY 19 - AIZAK1A IDKOR1A OTBAD1A SUNGO1A | AD 2-VTCP-6-3 | In AIP | 26 DEC 2024 |
| | | **Ranong** | | | |
| | 1 : 500,000 | RNAV RWY 02 - PAYUN1A | AD 2-VTSR-6-1 | In AIP | 20 MAY 2021 |
| | 1 : 500,000 | RNAV RWY 02 - KAOYA1A NEETA1A | AD 2-VTSR-6-3 | In AIP | 20 MAY 2021 |
| | 1 : 500,000 | RNAV RWY 20 - PAYUN1B | AD 2-VTSR-6-5 | In AIP | 20 MAY 2021 |
| | 1 : 500,000 | RNAV RWY 20 - KAOYA1B NEETA1B | AD 2-VTSR-6-7 | In AIP | 20 MAY 2021 |
| | | **Roi Et** | | | |
| | 1 : 500,000 | RNAV RWY 18 - ANKID1A BODUR1A DOTUS1A ENTEK1A RURAR1A SED-NO1A | AD 2-VTUV-6-1 | In AIP | 21 APR 2022 |
| | 1 : 500,000 | RNAV RWY 36 - ANKID1B BODUR1B DOTUS1B ENTEK1B RURAR1B SED-NO1B | AD 2-VTUV-6-5 | In AIP | 21 APR 2022 |
| | | **Sukhothai** | | | |
| | 1 : 700,000 | RNAV RWY 18 - PEBLI1C TOPAS1C | AD 2-VTPO-6-1 | In AIP | 26 DEC 2024 |
| | 1 : 700,000 | RNAV RWY 36 - PEBLI1D TOPAS1D | AD 2-VTPO-6-3 | In AIP | 26 DEC 2024 |
| | | **Surat Thani** | | | |
| | 1 : 500,000 | RNAV RWY 04 - ADLAL1D EMVEL1D IDNAR1D LAMUL1D NIXET1D SEG-RA1D TAVAT1D TOGIM1D | AD 2-VTSB-6-1 | In AIP | 18 JUL 2019 |
| | 1 : 500,000 | RNAV RWY 22 - ADLAL1D EMVEL1C IDNAR1C LAMUL1C NIXET1C NIX-ET1X SEGRA1C TAVAT1C TOGIM1C | AD 2-VTSB-6-3 | In AIP | 30 JAN 2020 |
| | | **Samui** | | | |
| | 1 : 550,000 | RNAV RWY 17 - DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UP-NEP1A | AD 2-VTSM-6-1 | In AIP | 18 JUN 2020 |
| | 1 : 550,000 | RNAV RWY 35 - ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B | AD 2-VTSM-6-5 | In AIP | 18 JUN 2020 |
| | | **Mae Sot** | | | |
| | 1 : 400,000 | RNAV RWY 09 - KADAV1A KADAV1B KADAV1C VEGRA1A | AD 2-VTPM-6-1 | In AIP | 26 DEC 2024 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Standard Departure Chart - Instrument (SID) - ICAO | | **Ubon Ratchathani** | | | |
| | 1 : 750,000 | RNAV RWY 05 - ASABO1B ENLEP1B POTEV1B SAGAL1B VENPO1B | AD 2-VTUU-6-1 | In AIP | 10 JUL 2025 |
| | 1 : 750,000 | RNAV RWY 23 - ASABO1A ENLEP1A POTEV1A VENPO1A VESUD1A | AD 2-VTUU-6-3 | In AIP | 10 JUL 2025 |
| | | **Udon Thani** | | | |
| | 1 : 500,000 | RNAV RWY 12 - ANPUS1B ELNET1B ESGIB1B GULNO1B POVEX1B SUR-GU1B TERCO1B | AD 2-VTUD-6-1 | In AIP | 21 APR 2022 |
| | 1 : 500,000 | RNAV RWY 30 - ANPUS1D ELNET1D ESGIB1D GULNO1D POVEX1D SUR-GU1D TERCO1D | AD 2-VTUD-6-5 | In AIP | 21 APR 2022 |
| | | **Betong** | | | |
| | 1 : 500,000 | RNAV RWY 07 - ERVES1A PETAC1A | AD 2-VTSY-6-1 | In AIP | 29 DEC 2022 |
| | 1 : 500,000 | RNAV RWY 25 - ERVES1B PETAC1B | AD 2-VTSY-6-3 | In AIP | 29 DEC 2022 |

5.9 Standard Arrival Chart - Instrument (STAR) - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Standard Arrival Chart - Instrument (STAR) - ICAO | | **Don Mueang Intl** | | | |
| | | RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A | AD 2-VTBD-7-1 | In AIP | 26 DEC 2024 |
| | | RNAV RWY 03L/03R - ENDUU1B NAKON1B SABAI1B SEHNA1B WEHHA1B | AD 2-VTBD-7-9 | In AIP | 26 DEC 2024 |
| | | **Chiang Mai Intl** | | | |
| | 1 : 750,000 | RNAV RWY 18 - ADLUS2B CMA2B ENBAT2B KABMU2B MARNI2B MONLO2B PANTA2B PUMAM2B | AD 2-VTCC-7-1 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 18 - ADLUS2X LAMUN2X VISES2X | AD 2-VTCC-7-7 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 36 - ENBAT2A MARNI2A PANTA2A PUMAM2A | AD 2-VTCC-7-11 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 36 - ADLUS2A CMA2A KABMU2A MONLO2A | AD 2-VTCC-7-15 | In AIP | 26 DEC 2024 |
| | 1 : 750,000 | RNAV RWY 36 - LAMUN2A VISES2A | AD 2-VTCC-7-19 | In AIP | 26 DEC 2024 |
| | | **Phuket Intl** | | | |
| | 1 : 800,000 | RNAV RWY 09 - ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C UR-GAD1C | AD 2-VTSP-7-1 | In AIP | 20 MAY 2021 |
| | 1 : 800,000 | RNAV RWY 27 - ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D UR-GAD1D | AD 2-VTSP-7-7 | In AIP | 20 MAY 2021 |
| | | **Suvarnabhumi Intl** | | | |
| | | RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D | AD 2-VTBS-7-1 | In AIP | 26 DEC 2024 |
| | | RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C | AD 2-VTBS-7-11 | In AIP | 26 DEC 2024 |
| | | **Hat Yai Intl** | | | |
| | 1 : 600,000 | RNAV RWY08 - ELREM1B ENVON1B KENNE1B OBLEX1B PADPA1B PIM-ER1B TAMOS1B TAXEB1B | AD 2-VTSS-7-1 | In AIP | 10 JUL 2025 |
| | 1 : 600,000 | RNAV RWY26 - ELREM1A ENVON1A KENNE1A OBLEX1A PADPA1A PIM-ER1A TAMOS1A TAXEB1A | AD 2-VTSS-7-5 | In AIP | 10 JUL 2025 |
| | | **Krabi** | | | |
| | 1 : 600,000 | RNAV RWY 32 - EMRIT1E NULMA1E TUNRA1E | AD 2-VTSG-7-1 | In AIP | 17 JUN 2021 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Standard Arrival Chart - Instrument (STAR) - ICAO | | **Lampang** | | | |
| | 1 : 500,000 | RNAV RWY 18 - IBIRI1B MEMAN1B OMDIL1B OTBAD1B VENAG1B | AD 2-VTCL-7-1 | In AIP | 20 FEB 2025 |
| | 1 : 500,000 | RNAV RWY 36 - IBIRI1A IGNAX1A OMDIL1A VENAG1A | AD 2-VTCL-7-5 | In AIP | 20 FEB 2025 |
| | | **Surat Thani** | | | |
| | 1 : 500,000 | RNAV RWY 04 - ADLAL1B EMVEL1B IDNAR1B IKERA1B LAMUL1B SEGRA1B TAVAT1B TOGIM1B | AD 2-VTSB-7-1 | In AIP | 18 JUL 2019 |
| | 1 : 500,000 | RNAV RWY 22 - ADLAL1A EMVEL1A IDNAR1A IKERA1A LAMUL1A SEGRA1A TAVAT1A TOGIM1A | AD 2-VTSB-7-5 | In AIP | 18 JUL 2019 |
| | | **Ubon Ratchathani** | | | |
| | 1 : 750,000 | RNAV RWY 05 – ASABO1C ENLEP1C POTEV1C VENPO1C VESUD1C | AD 2-VTUU-7-1 | In AIP | 10 JUL 2025 |
| | 1 : 750,000 | RNAV RWY 23 – ASABO1D ENLEP1D OBKIB1D POTEV1D VENPO1D | AD 2-VTUU-7-3 | In AIP | 10 JUL 2025 |
| | | **Udon Thani** | | | |
| | 1 : 500,000 | RNAV RWY 12 - ANPUS1A ELNET1A ESGIB1A GULNO1A MUGNO1A POVEX1A SURGU1A | AD 2-VTUD-7-1 | In AIP | 28 JAN 2021 |
| | 1 : 500,000 | RNAV RWY 30 - ANPUS1C ELNET1C ESGIB1C GULNO1C MUGNO1C POVEX1C SURGU1C | AD 2-VTUD-7-5 | In AIP | 25 MAR 2021 |
| | | **Mae Sot** | | | |
| | 1 : 400,000 | RNAV RWY 27 - KADAV1W TORAN1W URGUM1W VEGRA1W | AD 2-VTPM-7-1 | In AIP | 26 DEC 2024 |

5.10 Instrument Approach Chart - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Instrument Approach Chart - ICAO | | **Don Mueang Intl** | | | |
| | 1 : 500,000 | VOR RWY 21L | AD 2-VTBD-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR RWY 21R | AD 2-VTBD-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR RWY 03R | AD 2-VTBD-8-5 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC y RWY 03L | AD 2-VTBD-8-7 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC y RWY 21L | AD 2-VTBD-8-9 | In AIP | 18 MAY 2023 |
| | 1 : 500,000 | ILS or LOC y RWY 21R CAT II | AD 2-VTBD-8-11 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC z RWY 21L | AD 2-VTBD-8-13 | In AIP | 18 MAY 2023 |
| | 1 : 500,000 | ILS or LOC z RWY 21R CAT II | AD 2-VTBD-8-17 | In AIP | 18 MAY 2023 |
| | 1 : 500,000 | ILS or LOC z RWY 03L | AD 2-VTBD-8-21 | In AIP | 18 MAY 2023 |
| | 1 : 500,000 | RNP RWY 21L | AD 2-VTBD-8-25 | In AIP | 18 MAY 2023 |
| | 1 : 500,000 | RNP RWY 21R | AD 2-VTBD-8-27 | In AIP | 18 MAY 2023 |
| | 1 : 500,000 | RNP RWY 03L | AD 2-VTBD-8-29 | In AIP | 18 MAY 2023 |
| | 1 : 500,000 | RNP RWY 03R | AD 2-VTBD-8-31 | In AIP | 18 MAY 2023 |
| | | **Chiang Mai Intl** | | | |
| | 1 : 500,000 | VOR a RWY 18 | AD 2-VTCC-8-1 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | VOR RWY 36 | AD 2-VTCC-8-3 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | ILS or LOC y RWY 36 | AD 2-VTCC-8-5 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | ILS or LOC z RWY 36 | AD 2-VTCC-8-7 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 18 | AD 2-VTCC-8-11 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 36 | AD 2-VTCC-8-13 | In AIP | 26 DEC 2024 |
| | | **Mae Fah Luang-Chiang Rai Intl** | | | |
| | 1 : 550,000 | VOR RWY 03 | AD 2-VTCT-8-1 | In AIP | 8 OCT 2020 |
| | 1 : 550,000 | VOR RWY 21 | AD 2-VTCT-8-3 | In AIP | 8 OCT 2020 |
| | 1 : 550,000 | ILS or LOC y RWY 03 | AD 2-VTCT-8-5 | In AIP | 3 DEC 2020 |
| | 1 : 750,000 | ILS or LOC z RWY 03 | AD 2-VTCT-8-7 | In AIP | 8 OCT 2020 |
| | 1 : 750,000 | RNP RWY 03 | AD 2-VTCT-8-11 | In AIP | 8 OCT 2020 |
| | 1 : 750,000 | RNP RWY 21 | AD 2-VTCT-8-13 | In AIP | 8 OCT 2020 |
| | | **Phuket Intl** | | | |
| | 1 : 600,000 | VOR Y RWY 09 | AD 2-VTSP-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 600,000 | VOR Y RWY 27 | AD 2-VTSP-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 700,000 | VOR Z RWY 09 | AD 2-VTSP-8-5 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR Z RWY 27 | AD 2-VTSP-8-7 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LLZ RWY 27 | AD 2-VTSP-8-9 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | RNP z RWY 09 | AD 2-VTSP-8-11 | In AIP | 2 NOV 2023 |
| | 1 : 500,000 | RNP z RWY 27 | AD 2-VTSP-8-13 | In AIP | 2 NOV 2023 |
| | 1 : 500,000 | RNP y RWY 09 (AR) | AD 2-VTSP-8-15 | In AIP | 2 NOV 2023 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Instrument Approach Chart - ICAO | 1 : 500,000 | RNP y RWY 27 (AR) | AD 2-VTSP-8-19 | In AIP | 2 NOV 2023 |
| | | **Suvarnabhumi Intl** | | | |
| | 1 : 500,000 | ILS or LOC z RWY 01 CAT II | AD 2-VTBS-8-1 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | ILS or LOC z RWY 02R CAT II | AD 2-VTBS-8-5 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | ILS or LOC z RWY 19 CAT II | AD 2-VTBS-8-9 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | ILS or LOC z RWY 20L CAT II | AD 2-VTBS-8-13 | In AIP | 31 OCT 2024 |
| | 1 : 500,000 | RNP RWY 01 | AD 2-VTBS-8-17 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 02L | AD 2-VTBS-8-19 | In AIP | 31 OCT 2024 |
| | 1 : 500,000 | RNP RWY 02R | AD 2-VTBS-8-21 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 19 | AD 2-VTBS-8-23 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 20L | AD 2-VTBS-8-25 | In AIP | 31 OCT 2024 |
| | 1 : 500,000 | RNP RWY 20R | AD 2-VTBS-8-27 | In AIP | 31 OCT 2024 |
| | | **U-Tapao Rayong Pattaya Intl** | | | |
| | 1 : 500,000 | NDB RWY 36 | AD 2-VTBU-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR RWY 18 | AD 2-VTBU-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR RWY 36 | AD 2-VTBU-8-5 | In AIP | 23 MAR 2023 |
| | 1 : 500,000 | ILS or LOC y RWY 18 | AD 2-VTBU-8-7 | In AIP | 16 JUN 2022 |
| | 1 : 500,000 | ILS or LOC z RWY 18 | AD 2-VTBU-8-9 | In AIP | 14 JUL 2022 |
| | 1 : 500,000 | RNP RWY 18 | AD 2-VTBU-8-11 | In AIP | 16 JUN 2022 |
| | 1 : 500,000 | RNP RWY 36 | AD 2-VTBU-8-13 | In AIP | 16 JUN 2022 |
| | | **Hat Yai Intl** | | | |
| | 1 : 500,000 | VOR A | AD 2-VTSS-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR RWY 26 | AD 2-VTSS-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC y RWY 26 | AD 2-VTSS-8-5 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC z RWY 26 | AD 2-VTSS-8-7 | In AIP | 16 MAY 2024 |
| | 1 : 500,000 | RNP RWY 08 | AD 2-VTSS-8-9 | In AIP | 16 MAY 2024 |
| | 1 : 500,000 | RNP RWY 26 | AD 2-VTSS-8-11 | In AIP | 16 MAY 2024 |
| | | **Buri Ram** | | | |
| | 1 : 500,000 | NDB RWY 04 | AD 2-VTUO-8-1 | In AIP | 17 JUN 2021 |
| | 1 : 500,000 | VOR RWY 04 | AD 2-VTUO-8-3 | In AIP | 17 JUN 2021 |
| | 1 : 500,000 | VOR RWY 22 | AD 2-VTUO-8-5 | In AIP | 17 JUN 2021 |
| | 1 : 500,000 | RNP RWY 04 | AD 2-VTUO-8-7 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 22 | AD 2-VTUO-8-10 | In AIP | 26 DEC 2024 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| | | **Chumphon** | | | |
| | 1 : 500,000 | NDB RWY 06 | AD 2-VTSE-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | NDB RWY 24 | AD 2-VTSE-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR RWY 06 | AD 2-VTSE-8-5 | In AIP | 17 JUN 2021 |
| | 1 : 500,000 | VOR RWY 24 | AD 2-VTSE-8-7 | In AIP | 17 JUN 2021 |
| | 1 : 500,000 | ILS or LOC y RWY 24 | AD 2-VTSE-8-9 | In AIP | 17 JUN 2021 |
| | 1 : 500,000 | ILS or LOC z RWY 24 | AD 2-VTSE-8-11 | In AIP | 17 JUN 2021 |
| | 1 : 500,000 | RNP RWY 06 | AD 2-VTSE-8-15 | In AIP | 4 NOV 2021 |
| | 1 : 500,000 | RNP RWY 24 | AD 2-VTSE-8-17 | In AIP | 4 NOV 2021 |
| | | **Khon Kaen** | | | |
| | 1 : 500,000 | NDB z RWY 03 | AD 2-VTUK-8-1 | In AIP | 4 NOV 2021 |
| | 1 : 500,000 | NDB RWY 21 | AD 2-VTUK-8-3 | In AIP | 4 NOV 2021 |
| | 1 : 600,000 | VOR RWY 03 | AD 2-VTUK-8-5 | In AIP | 21 APR 2022 |
| | 1 : 600,000 | VOR RWY 21 | AD 2-VTUK-8-7 | In AIP | 21 APR 2022 |
| | 1 : 600,000 | RNP RWY 03 | AD 2-VTUK-8-9 | In AIP | 21 APR 2022 |
| | 1 : 600,000 | RNP RWY 21 | AD 2-VTUK-8-13 | In AIP | 21 APR 2022 |
| | | **Krabi** | | | |
| | 1 : 400,000 | VOR RWY 32 | AD 2-VTSG-8-1 | In AIP | 17 JUN 2021 |
| | 1 : 400,000 | LOC RWY 32 | AD 2-VTSG-8-3 | In AIP | 17 JUN 2021 |
| | 1 : 400,000 | ILS RWY 32 | AD 2-VTSG-8-5 | In AIP | 17 JUN 2021 |
| Instrument Approach Chart - ICAO | 1 : 400,000 | RNP RWY 32 | AD 2-VTSG-8-7 | In AIP | 17 JUN 2021 |
| | | **Lampang** | | | |
| | 1 : 500,000 | VOR RWY 18 | AD 2-VTCL-8-1 | In AIP | 20 FEB 2025 |
| | 1 : 500,000 | VOR RWY 36 | AD 2-VTCL-8-3 | In AIP | 20 FEB 2025 |
| | 1 : 500,000 | LOC y RWY 36 | AD 2-VTCL-8-5 | In AIP | 20 FEB 2025 |
| | 1 : 500,000 | LOC z RWY 36 | AD 2-VTCL-8-7 | In AIP | 20 FEB 2025 |
| | 1 : 500,000 | RNP RWY 18 | AD 2-VTCL-8-11 | In AIP | 20 FEB 2025 |
| | 1 : 500,000 | RNP RWY 36 | AD 2-VTCL-8-15 | In AIP | 20 FEB 2025 |
| | | **Loei** | | | |
| | 1 : 500,000 | VOR RWY 19 | AD 2-VTUL-8-1 | In AIP | 20 MAY 2021 |
| | 1 : 500,000 | RNP RWY 19 | AD 2-VTUL-8-3 | In AIP | 26 DEC 2024 |
| | | **Lop Buri** | | | |
| | 1 : 300,000 | ILS or LOC RWY 05 CAT A, B | AD 2-VTBL-8-1 | In AIP | 17 APR 2025 |
| | | **Mae Hong Son** | | | |
| | 1 : 500,000 | RNP a RWY 11 | AD 2-VTCH-8-1 | In AIP | 20 FEB 2025 |
| | | **Nakhon Phanom** | | | |
| | 1 : 400,000 | VOR RWY 15 | AD 2-VTUW-8-1 | In AIP | 15 MAY 2025 |
| | 1 : 400,000 | VOR RWY 33 | AD 2-VTUW-8-3 | In AIP | 15 MAY 2025 |
| | 1 : 400,000 | ILS or LOC RWY 15 | AD 2-VTUW-8-5 | In AIP | 15 MAY 2025 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Instrument Approach Chart - ICAO | | **Nakhon Ratchasima** | | | |
| | 1 : 500,000 | VOR/DME RWY 06 | AD 2-VTUQ-8-1 | In AIP | 15 MAY 2025 |
| | 1 : 500,000 | VOR/DME RWY 24 | AD 2-VTUQ-8-3 | In AIP | 15 MAY 2025 |
| | 1 : 500,000 | ILS/DME RWY 06 | AD 2-VTUQ-8-5 | In AIP | 15 MAY 2025 |
| | 1 : 500,000 | LLZ/DME RWY 06 | AD 2-VTUQ-8-7 | In AIP | 15 MAY 2025 |
| | 1 : 400,000 | RNP RWY 06 | AD 2-VTUQ-8-9 | In AIP | 21 APR 2022 |
| | 1 : 400,000 | RNP RWY 24 | AD 2-VTUQ-8-11 | In AIP | 21 APR 2022 |
| | | **Khorat** | | | |
| | 1 : 400,000 | ILS or LOC RWY 24 | AD 2-VTUN-8-1 | In AIP | 23 APR 2020 |
| | | **Takhli** | | | |
| | 1 : 500,000 | ILS or LOC y RWY 18 | AD 2-VTPI-8-1 | In AIP | 7 NOV 2019 |
| | 1 : 500,000 | ILS or LOC z RWY 18 | AD 2-VTPI-8-5 | In AIP | 7 NOV 2019 |
| | 1 : 500,000 | RNAV (GNSS) RWY 18 | AD 2-VTPI-8-7 | In AIP | 5 DEC 2019 |
| | 1 : 500,000 | RNAV (GNSS) RWY 36 | AD 2-VTPI-8-9 | In AIP | 5 DEC 2019 |
| | | **Nakhon Si Thammarat** | | | |
| | 1 : 500,000 | VOR RWY 01 | AD 2-VTSF-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR y RWY 19 | AD 2-VTSF-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR z RWY 19 | AD 2-VTSF-8-5 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC y RWY 19 | AD 2-VTSF-8-7 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC z RWY 19 | AD 2-VTSF-8-9 | In AIP | 10 JUL 2025 |
| | | RNP RWY 01 | AD 2-VTSF-8-11 | In AIP | 15 JUL 2021 |
| | 1 : 500,000 | RNP RWY 19 | AD 2-VTSF-8-13 | In AIP | 15 JUL 2021 |
| | | **Nan Nakhon** | | | |
| | 1 : 500,000 | NDB RWY 02 CAT C, D | AD 2-VTCN-8-1 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | VOR RWY 02 | AD 2-VTCN-8-3 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | VOR RWY 20 | AD 2-VTCN-8-5 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 02 | AD 2-VTCN-8-7 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 20 | AD 2-VTCN-8-9 | In AIP | 26 DEC 2024 |
| | | **Narathiwat** | | | |
| | 1 : 500,000 | VOR RWY 02 | AD 2-VTSC-8-1 | In AIP | 5 SEP 2024 |
| | 1 : 500,000 | VOR RWY 20 | AD 2-VTSC-8-3 | In AIP | 8 AUG 2024 |
| | 1 : 500,000 | ILS or LOC y RWY 02 | AD 2-VTSC-8-5 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC z RWY 02 | AD 2-VTSC-8-7 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | RNP RWY 02 | AD 2-VTSC-8-11 | In AIP | 5 SEP 2024 |
| | 1 : 500,000 | RNP RWY 20 | AD 2-VTSC-8-13 | In AIP | 8 AUG 2024 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Instrument Approach Chart - ICAO | | **Pattani** | | | |
| | 1 : 400,000 | RNP RWY 08 CAT A, B | AD 2-VTSK-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 400,000 | RNP RWY 26 CAT A, B | AD 2-VTSK-8-3 | In AIP | 10 JUL 2025 |
| | | **Phetchabun** | | | |
| | 1 : 500,000 | VOR RWY 36 | AD 2-VTPB-8-1 | In AIP | 18 JUL 2019 |
| | 1 : 500,000 | ILS or LOC RWY 36 | AD 2-VTPB-8-3 | In AIP | 18 JUL 2019 |
| | 1 : 500,000 | RNP RWY 18 | AD 2-VTPB-8-6 | In AIP | 8 OCT 2020 |
| | 1 : 500,000 | RNP RWY 36 | AD 2-VTPB-8-8 | In AIP | 8 OCT 2020 |
| | | **Phitsanulok** | | | |
| | 1 : 500,000 | VOR RWY 14 | AD 2-VTPP-8-1 | In AIP | 15 MAY 2025 |
| | 1 : 500,000 | VOR RWY 32 | AD 2-VTPP-8-3 | In AIP | 15 MAY 2025 |
| | 1 : 500,000 | ILS or LOC y RWY 32 | AD 2-VTPP-8-5 | In AIP | 15 MAY 2025 |
| | 1 : 700,000 | ILS or LOC z RWY 32 | AD 2-VTPP-8-7 | In AIP | 15 MAY 2025 |
| | 1 : 700,000 | RNP RWY 14 | AD 2-VTPP-8-11 | In AIP | 15 MAY 2025 |
| | 1 : 700,000 | RNP RWY 32 | AD 2-VTPP-8-15 | In AIP | 15 MAY 2025 |
| | | **Phrae** | | | |
| | 1 : 600,000 | VOR RWY 01 | AD 2-VTCP-8-1 | In AIP | 26 DEC 2024 |
| | 1 : 600,000 | VOR RWY 19 | AD 2-VTCP-8-3 | In AIP | 26 DEC 2024 |
| | 1 : 600,000 | RNP RWY 01 | AD 2-VTCP-8-5 | In AIP | 26 DEC 2024 |
| | 1 : 600,000 | RNP RWY 19 | AD 2-VTCP-8-7 | In AIP | 26 DEC 2024 |
| | | **Hua Hin** | | | |
| | 1 : 400,000 | NDB RWY 16 | AD 2-VTPH-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 400,000 | VOR RWY 16 | AD 2-VTPH-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 400,000 | RNP RWY 16 | AD 2-VTPH-8-5 | In AIP | 12 AUG 2021 |
| | | **Ranong** | | | |
| | 1 : 500,000 | VOR RWY 02 | AD 2-VTSR-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS RWY 02 | AD 2-VTSR-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | LOC RWY 02 | AD 2-VTSR-8-5 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | RNP RWY 02 | AD 2-VTSR-8-7 | In AIP | 2 NOV 2023 |
| | | **Roi Et** | | | |
| | 1 : 500,000 | VOR RWY 18 | AD 2-VTUV-8-1 | In AIP | 21 APR 2022 |
| | 1 : 500,000 | VOR RWY 36 | AD 2-VTUV-8-3 | In AIP | 21 APR 2022 |
| | 1 : 500,000 | ILS or LOC y RWY 36 | AD 2-VTUV-8-5 | In AIP | 21 APR 2022 |
| | 1 : 500,000 | ILS or LOC z RWY 36 | AD 2-VTUV-8-7 | In AIP | 21 APR 2022 |
| | 1 : 500,000 | RNP RWY 18 | AD 2-VTUV-8-11 | In AIP | 21 APR 2022 |
| | 1 : 500,000 | RNP RWY 36 | AD 2-VTUV-8-15 | In AIP | 21 APR 2022 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| | | **Sakon Nakhon** | | | |
| | 1 : 500,000 | VOR RWY 05 | AD 2-VTUI-8-1 | In AIP | 2 NOV 2023 |
| | 1 : 500,000 | VOR RWY 23 | AD 2-VTUI-8-3 | In AIP | 2 NOV 2023 |
| | 1 : 500,000 | ILS RWY 23 | AD 2-VTUI-8-5 | In AIP | 15 MAY 2025 |
| | 1 : 500,000 | LOC RWY 23 | AD 2-VTUI-8-7 | In AIP | 15 MAY 2025 |
| | 1 : 500,000 | RNP RWY 05 | AD 2-VTUI-8-9 | In AIP | 2 NOV 2023 |
| | 1 : 500,000 | RNP RWY 23 | AD 2-VTUI-8-11 | In AIP | 2 NOV 2023 |
| | | **Sukhothai** | | | |
| | 1 : 500,000 | NDB RWY 36 | AD 2-VTPO-8-1 | In AIP | 20 MAR 2025 |
| | 1 : 500,000 | ILS or LOC RWY 36 | AD 2-VTPO-8-3 | In AIP | 26 DEC 2024 |
| | 1 : 600,000 | RNP RWY 18 | AD 2-VTPO-8-7 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 36 | AD 2-VTPO-8-9 | In AIP | 26 DEC 2024 |
| | | **Surat Thani** | | | |
| | 1 : 500,000 | ILS or LOC z RWY 22 | AD 2-VTSB-8-1 | In AIP | 23 MAR 2023 |
| | 1 : 500,000 | RNP RWY 04 | AD 2-VTSB-8-5 | In AIP | 23 MAR 2023 |
| | 1 : 500,000 | RNP RWY 22 | AD 2-VTSB-8-7 | In AIP | 23 MAR 2023 |
| | | **Samui** | | | |
| Instrument Approach Chart - ICAO | 1 : 500,000 | VOR RWY 17 - CAT A, B | AD 2-VTSM-8-1 | In AIP | 18 JUN 2020 |
| | 1 : 500,000 | VOR RWY 17 - CAT C | AD 2-VTSM-8-3 | In AIP | 18 JUN 2020 |
| | 1 : 500,000 | VOR RWY 35 - CAT A, B | AD 2-VTSM-8-5 | In AIP | 18 JUN 2020 |
| | 1 : 500,000 | VOR RWY 35 - CAT C | AD 2-VTSM-8-7 | In AIP | 18 JUN 2020 |
| | 1 : 500,000 | RNP RWY 17 - CAT A, B | AD 2-VTSM-8-9 | In AIP | 15 JUL 2021 |
| | 1 : 500,000 | RNP RWY 17 - CAT C | AD 2-VTSM-8-13 | In AIP | 15 JUL 2021 |
| | 1 : 500,000 | RNP RWY 35 - CAT A, B | AD 2-VTSM-8-17 | In AIP | 15 JUL 2021 |
| | 1 : 500,000 | RNP RWY 35 - CAT C | AD 2-VTSM-8-21 | In AIP | 15 JUL 2021 |
| | | **Tak** | | | |
| | 1 : 300,000 | NDB a | AD 2-VTPT-8-1 | In AIP | 10 JUL 2025 |
| | | **Mae Sot** | | | |
| | 1 : 500,000 | VOR RWY 27 | AD 2-VTPM-8-1 | In AIP | 26 DEC 2024 |
| | 1 : 500,000 | RNP RWY 27 | AD 2-VTPM-8-3 | In AIP | 26 DEC 2024 |
| | | **Trang** | | | |
| | 1 : 500,000 | VOR RWY 08 | AD 2-VTST-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC RWY 08 | AD 2-VTST-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | RNP RWY 08 | AD 2-VTST-8-5 | In AIP | 15 JUN 2023 |
| | | **Trat** | | | |
| | 1 : 400,000 | RNP RWY 23 | AD 2-VTBO-8-1 | In AIP | 23 MAR 2023 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Instrument Approach Chart - ICAO | | **Ubon Ratchathani** | | | |
| | 1 : 500,000 | VOR RWY 05 | AD 2-VTUU-8-1 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | VOR RWY 23 | AD 2-VTUU-8-3 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC y RWY 23 | AD 2-VTUU-8-5 | In AIP | 10 JUL 2025 |
| | 1 : 500,000 | ILS or LOC z RWY 23 | AD 2-VTUU-8-7 | In AIP | 10 JUL 2025 |
| | 1 : 600,000 | RNP RWY 05 | AD 2-VTUU-8-11 | In AIP | 10 JUL 2025 |
| | 1 : 600,000 | RNP RWY 23 | AD 2-VTUU-8-13 | In AIP | 10 JUL 2025 |
| | | **Udon Thani** | | | |
| | 1 : 500,000 | VOR RWY 12 | AD 2-VTUD-8-1 | In AIP | 15 MAY 2025 |
| | 1 : 500,000 | VOR RWY 30 | AD 2-VTUD-8-3 | In AIP | 16 MAY 2024 |
| | 1 : 500,000 | ILS or LOC y RWY 30 | AD 2-VTUD-8-5 | In AIP | 16 MAY 2024 |
| | 1 : 500,000 | ILS or LOC z RWY 30 | AD 2-VTUD-8-7 | In AIP | 28 JAN 2021 |
| | 1 : 500,000 | RNP RWY 12 | AD 2-VTUD-8-11 | In AIP | 28 JAN 2021 |
| | 1 : 500,000 | RNP RWY 30 | AD 2-VTUD-8-13 | In AIP | 28 JAN 2021 |
| | | **Betong** | | | |
| | 1 : 500,000 | VOR a | AD 2-VTSY-8-1 | In AIP | 29 DEC 2022 |
| | 1 : 500,000 | RNP a | AD 2-VTSY-8-3 | In AIP | 29 DEC 2022 |

5.11 Enroute Chart - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| Enroute Chart - ICAO | | ENROUTE CHART | ENR 6-3 | In AIP | 10 JUL 2025 |

5.12 World Aeronautical Chart (WAC) - ICAO

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| World Aeronautical Chart - ICAO | 1: 1,000,000 | WORLD AERONAUTICAL CHART-WAC 2677 | ENR 6-5 | In AIP | 11 JUL 2024 |
| | 1: 1,000,000 | WORLD AERONAUTICAL CHART-WAC 2678 | ENR 6-7 | In AIP | 11 JUL 2024 |
| | 1: 1,000,000 | WORLD AERONAUTICAL CHART-WAC 2799 | ENR 6-9 | In AIP | 11 JUL 2024 |

5.13 Other Charts

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| VFR Entry Procedure Chart | | **Chumphon** | | | |
| | 1 : 400,000 | RWY 06/24 | AD 2-VTSE-9-1 | In AIP | 17 JUN 2021 |
| | | **Khon Kaen** | | | |
| | 1 : 500,000 | RWY 03/21 (NORTH) | AD 2-VTUK-9-1 | In AIP | 13 AUG 2020 |
| | 1 : 500,000 | RWY 03/21 (SOUTH) | AD 2-VTUK-9-3 | In AIP | 13 AUG 2020 |
| | | **Phitsanulok** | | | |
| | 1 : 550,000 | RWY 14/32 | AD 2-VTPP-9-1 | In AIP | 21 APR 2022 |
| | | **Hua Hin** | | | |
| | 1 : 450,000 | RWY 16/34 | AD 2-VTPH-9-1 | In AIP | 27 FEB 2020 |
| | | **Roi Et** | | | |
| | 1 : 600,000 | RWY 18/36 | AD 2-VTUV-9-1 | In AIP | 21 APR 2022 |
| VFR Entry Procedure for Helicopter Chart | | **Hua Hin** | | | |
| | 1 : 450,000 | RWY 16/34 | AD 2-VTPH-9-3 | In AIP | 27 FEB 2020 |
| VFR Exit Procedure Chart | | **Chumphon** | | | |
| | 1 : 400,000 | RWY 06 | AD 2-VTSE-9-3 | In AIP | 17 JUN 2021 |
| | 1 : 400,000 | RWY 24 | AD 2-VTSE-9-5 | In AIP | 17 JUN 2021 |
| | | **Khon Kaen** | | | |
| | 1 : 500,000 | RWY 03 (NORTH) | AD 2-VTUK-9-5 | In AIP | 13 AUG 2020 |
| | 1 : 500,000 | RWY 03 (SOUTH) | AD 2-VTUK-9-7 | In AIP | 13 AUG 2020 |
| | 1 : 500,000 | RWY 21 (NORTH) | AD 2-VTUK-9-9 | In AIP | 13 AUG 2020 |
| | 1 : 500,000 | RWY 21 (SOUTH) | AD 2-VTUK-9-11 | In AIP | 13 AUG 2020 |
| | | **Phitsanulok** | | | |
| | 1 : 550,000 | RWY 14 | AD 2-VTPP-9-3 | In AIP | 21 APR 2022 |
| | 1 : 550,000 | RWY 32 | AD 2-VTPP-9-5 | In AIP | 21 APR 2022 |
| | | **Hua Hin** | | | |
| | 1 : 450,000 | RWY 16 | AD 2-VTPH-9-5 | In AIP | 27 FEB 2020 |
| | 1 : 450,000 | RWY 34 | AD 2-VTPH-9-7 | In AIP | 27 FEB 2020 |
| | | **Roi Et** | | | |
| | 1 : 600,000 | RWY 18/36 | AD 2-VTUV-9-3 | In AIP | 21 APR 2022 |
| VFR Exit Procedure for Helicopter Chart | | **Hua Hin** | | | |
| | 1 : 450,000 | RWY 16 | AD 2-VTPH-9-9 | In AIP | 27 FEB 2020 |
| | 1 : 450,000 | RWY 34 | AD 2-VTPH-9-11 | In AIP | 27 FEB 2020 |
| VFR Entry and Exit Procedure for Light Aircraft Chart | | **Don Mueang Intl** | | | |
| | 1 : 750,000 | RWY 21L/21R | AD 2-VTBD-9-1 | In AIP | 28 NOV 2024 |
| | 1 : 750,000 | RWY 03L/03R | AD 2-VTBD-9-7 | In AIP | 28 NOV 2024 |
| | | **Suvarnabhumi Intl** | | | |
| | 1 : 750,000 | RWY 19/20L/20R 01/02L/02R | AD 2-VTBS-9-1 | In AIP | 28 NOV 2024 |

| Title of series | Scale | Name and/or number | Reference | Price ($US) | Date |
|---|---|---|---|---|---|
| VFR Entry and Exit Procedure for Helicopter Chart | | **Don Mueang Intl** | | | |
| | 1 : 750,000 | RWY 21L/21R | AD 2-VTBD-9-15 | In AIP | 28 NOV 2024 |
| | 1 : 750,000 | RWY 03L/03R | AD 2-VTBD-9-21 | In AIP | 28 NOV 2024 |
| | | **Suvarnabhumi Intl** | | | |
| | 1 : 750,000 | RWY 19/20L/20R 01/02L/02R | AD 2-VTBS-9-7 | In AIP | 28 NOV 2024 |
| VFR Overfly Procedure for Light Aircraft Chart | | **Don Mueang Intl** | | | |
| | 1 : 750,000 | RWY 03L/03R 21L/21R | AD 2-VTBD-9-13 | In AIP | 28 NOV 2024 |
| | | **Suvarnabhumi Intl** | | | |
| | 1 : 750,000 | RWY 19/20L/20R 01/02L/02R | AD 2-VTBS-9-5 | In AIP | 28 NOV 2024 |
| VFR Overfly Procedure for Helicopter Chart | | **Don Mueang Intl** | | | |
| | 1 : 750,000 | RWY 03L/03R 21L/21R | AD 2-VTBD-9-27 | In AIP | 28 NOV 2024 |
| | | **Suvarnabhumi Intl** | | | |
| | 1 : 750,000 | RWY 19/20L/20R 01/02L/02R | AD 2-VTBS-9-11 | In AIP | 28 NOV 2024 |
| Bird Concentrations | | **Don Mueang Intl** | AD 2-VTBD-9-1 | In AIP | 16 MAY 2024 |
| | | **Suvarnabhumi Intl** | AD 2-VTBS-9-13 | In AIP | 15 MAY 2025 |

**6. Index to the World Aeronautical Chart (WAC) - ICAO 1:1 000 000**

NIL

**7. Topographical charts**

NIL

**8. Corrections to charts not contained in the AIP**

NIL

## GEN 3.3 AIR TRAFFIC SERVICES

### 1. Responsible services

1.1 The Civil Aviation Authority of Thailand is the responsible authority for the supervision and maintaining Air Traffic Services in the area of responsibility of the Kingdom of Thailand in accordance with ICAO Standard, Recommended Practices and Procedures.

1.2 The services are provided in accordance with the provisions contained in the following ICAO documents:

| | |
|---|---|
| Annex 2 | - Rules of the Air |
| Annex 11 | - Air Traffic Services |
| Doc 4444 | - Procedures for Air Navigation Services – Air Traffic Management (PANS – ATM) |
| Doc 8168 | - Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) |
| Doc 7030 | - Regional Supplementary Procedures |

1.3 Differences to these provisions are detailed in subsection **GEN 1.7**.

### 2. Area of responsibility

2.1 Air Traffic services are provided for the entire territory of the Kingdom of Thailand, including its territorial waters as well as the airspace over the high seas within the Bangkok FIR.

2.2 In some case, in accordance with the regional air navigation agreement, air traffic services are provided, under the delegated authority, in the airspace within another bordering FIR. Details of such services are provided in section **ENR 2**.

### 3. Types of services

3.1 The following types of services are provided:

- Flight Information Services (FIS) and Alerting Service (ALRS);
- Area control service; and
- Radar service.

3.2 With the exception of services provided at military air bases, the following types of services are provided at aerodromes:

- Aerodrome Control (TWR);
- Aerodrome Flight Information Services (AFIS); and
- Automatic Terminal Information Service (ATIS) at certain aerodromes.

### 4. Coordination between the operator and ATS

4.1 Coordination between the operators and ATS is effected in accordance with ICAO Annex 11. When so requested by an international operator, messages (including position reports) received by ATS units and relating to the operation of aircraft for which operational control service is provided by that operator are, so far as is practicable, made available to the operator.

### 5. Minimum flight altitude

The minimum flight altitudes on the ATS routes listed in section ENR 3, have been determined to ensure at least 1 000 ft (300 m) vertical clearance above the highest known obstacle and the operational capability of the flight support equipment, within the lateral limits of the route within Bangkok FIR and the adjacent areas of adjoining FIRs.

**6. ATS units address list**

| Unit name | Postal address | Telephone NR | Telefax NR | E-mail | AFS address |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Bangkok ACC | Bangkok Area Control Centre 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9111-2 | +662 285 9910 | bacc @aerothai.co.th | VTBBZRZX |
| Bangkok APP | Bangkok Approach Control Centre ATC Complex, Suvarnabhumi Airport, Bang Na-Trad Rd., K.M.15, RajaTheva, Bang-Phli, Samutprakarn 10540 | +662 131 3621 +662 131 3622 | +662 131 3769 +662 131 3771 | bt.safety @aerothai.co.th | - |
| Suvarnabhumi Air Traffic Control Tower | Suvarnabhumi Air Traffic Control Tower ATC Complex, Suvarnabhumi Airport, Bang Na-Trad Rd., K.M.15, RajaTheva, Bang-Phli, Samutprakarn 10540 | +662 131 3610-12 | +662 131 3609 | bt.safety @aerothai.co.th | VTBSZTZX |
| Don Mueang Air Traffic Control Tower | Don Mueang Air Traffic Control Tower, Vibhavadi Rangsit Road, Sanambin, Don Mueang, Bangkok 10210 | +662 515 3282 +662 515 3288 | +662 515 3286 | bt.safety @aerothai.co.th | VTBDZTZX |
| Group of Provincial Approach Air Traffic Control (Chiang Rai Sector) - Chiang Rai Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | chiangraisector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Chiang Rai Sector) - Nan Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | chiangraisector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Chiang Rai Sector) - Phetchabun Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | chiangraisector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Chiang Rai Sector) - Phrae Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | chiangraisector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Khon Kaen Sector) - Khon Kaen Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | khonkaensector @gmail.com | VTBBZAZX |

| Unit name | Postal address | Telephone NR | Telefax NR | E-mail | AFS address |
|---|---|---|---|---|---|
| Group of Provincial Approach Air Traffic Control (Khon Kaen Sector) - Sakon Nakhon Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | khonkaensector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Khon Kaen Sector) - Loei Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | khonkaensector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Khon Kaen Sector) - Udon Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | khonkaensector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Samui Sector) - Chumphon Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | samuisector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Samui Sector) - Nakhon Si Tham-marat Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | samuisector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Samui Sector) - Surat Thani Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | samuisector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Samui Sector) - Samui Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | samuisector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Samui Sector) - Trat Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | samuisector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Ubon Sector) - Buri Ram Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | ubonsector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Ubon Sector) - Roi Et Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | ubonsector @gmail.com | VTBBZAZX |
| Group of Provincial Approach Air Traffic Control (Ubon Sector) - Ubon Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | ubonsector @gmail.com | VTBBZAZX |

| Unit name | Postal address | Telephone NR | Telefax NR | E-mail | AFS address |
|---|---|---|---|---|---|
| Group of Provincial Approach Air Traffic Control (Ubon Sector) - Ratchasima Approach | 102 Ngamduplee, Rama IV, Tungmahamek Bangkok 10120 | +662 285 9695 +668 9787 2831 | +662 285 9610 | ubonsector @gmail.com | VTBBZAZX |
| Chiang Mai APP | Chiang Mai Approach Chiang Mai Air Traffic Control Centre 60 Sanambin Road Suthep Subdistrict Mueang District Chiang Mai 50200 | +665 327 7516 | +665 327 7600 | cmatcapp @gmail.com | VTCCZAZX |
| Chiang Mai APP (Chiang Mai Sector) - Lampang APP | Lampang Approach Chiang Mai Air Traffic Control Centre 60 Sanambin Road Suthep Subdistrict Mueang District Chiang Mai 50200 | +665 327 7516 | +665 327 7600 | cmatcapp @gmail.com | VTCCZAZX |
| Chiang Mai APP (Chiang Mai Sector) - Mae Sot APP | Mae Sot Approach Chiang Mai Air Traffic Control Centre 60 Sanambin Road Suthep Subdistrict Mueang District Chiang Mai 50200 | +665 327 7516 | +665 327 7600 | cmatcapp @gmail.com | VTCCZAZX |
| Chiang Mai APP (Chiang Mai Sector) - Mae Hong Son APP | Mae Hong Son Approach Chiang Mai Air Traffic Control Centre 60 Sanambin Road Suthep Subdistrict Mueang District Chiang Mai 50200 | +665 327 7516 | +665 327 7600 | cmatcapp @gmail.com | VTCCZAZX |
| Chiang Mai Tower | Chiang Mai Air Traffic Control Tower Chiang Mai Air Traffic Control Centre 60 Sanambin Road Suthep Subdistrict Mueang District Chiang Mai 50200 | +665 327 7776 | +665 327 7600 | vtcctwr @gmail.com | VTCCZTZX |
| Mae Sot Tower | Mae Sot Air Traffic Control Tower Mae Sot Airport, Amphoe Mae Sot, Tak 63110 | +665 556 3334 | +665 556 3335 Ext. 4702 | vtpmatc @gmail.com | VTPMZTZX |
| Lampang Tower | Lampang Air Traffic Control Tower 175 Sanambin 1 Road, Phrabat Subdistrict Mueang District, Lampang 52000 | +665 482 1525 | +665 482 1524 Ext. 4405 | vtcltwr @gmail.com | VTCLZTZX |
| Mae Hong Son Tower | Mae Hong Son Air Traffic Control Tower Nivatephisan Road, Jong Kam Subdistrict, Mueang District, Mae Hong Son 58000 | +665 361 2903 | +665 361 2904 Ext. 4201 | vtchtwr @gmail.com | VTCHZTZX |

| Unit name | Postal address | Telephone NR | Telefax NR | E-mail | AFS address |
|---|---|---|---|---|---|
| Chiang Rai Tower | Chiang Rai Air Traffic Control Tower<br>404 Moo 10,<br>Phaholyothin Road<br>Ban Du Subdistrict,<br>Mueang District,<br>Chiang Rai 57100 | +665 379 3972 | +665 379 3973<br>Ext. 4312 | vtcttwr<br>@gmail.com | VTCTZTZX |
| Phrae Tower | Phrae Air Traffic Control Tower<br>Phrae Airport,<br>Chohae Rd,<br>Tambol Nachak,<br>Mueangphrae District,<br>Phrae 54000 | +665 453 1306 | +665 453 1307<br>Ext. 4502 | vtcptwr<br>@gmail.com | VTCPZTZX |
| Nan Tower | Nan Air Traffic Control Tower<br>Nan Nakhon Airport,<br>Nan – Thung Chang Road, Moo2,<br>Tambon Pasing,<br>Amphoe Mueang,<br>Nan 55000 | +665 477 4185-6 | +665 477 4186<br>Ext. 4604 | vtcntwr<br>@gmail.com | VTCNZTZX |
| Hat Yai APP | Hat Yai Approach<br>Hat Yai Air Traffic Control Centre<br>100 Moo 3, Khlong La,<br>Klong Hoi Khong,<br>Songkhla 90115 | +667 425 1073<br>+668 1371 0267 | +667 425 1339 | vtsstwr<br>@gmail.com | VTSSZAZX |
| Hat Yai APP<br>(Hat Yai Sector)<br>- Trang APP | Trang Approach<br>Hat Yai Air Traffic Control Centre<br>100 Moo 3, Khlong La,<br>Klong Hoi Khong,<br>Songkhla 90115 | +667 425 1073<br>+668 1371 0267 | +667 425 1339 | vtsstwr<br>@gmail.com | VTSSZAZX |
| Hat Yai APP<br>(Hat Yai Sector)<br>- Narathiwat APP | Narathiwat Approach<br>Hat Yai Air Traffic Control Centre<br>100 Moo 3, Khlong La,<br>Klong Hoi Khong,<br>Songkhla 90115 | +667 425 1073<br>+668 1371 0267 | +667 425 1339 | vtsstwr<br>@gmail.com | VTSSZAZX |
| Hat Yai APP<br>(Hat Yai Sector)<br>- Pattani APP | Pattani Approach<br>Hat Yai Air Traffic Control Centre<br>100 Moo 3, Khlong La,<br>Klong Hoi Khong,<br>Songkhla 90115 | +667 425 1073<br>+668 1371 0267 | +667 425 1339 | vtsstwr<br>@gmail.com | VTSSZAZX |
| Hat Yai Tower | Hat Yai Air Traffic Control Tower<br>Hat Yai Air Traffic Control Centre<br>100 Moo 3, Khlong La,<br>Klong Hoi Khong,<br>Songkhla 90115 | +667 425 1074<br>+668 9876 4352 | - | vtsstwr<br>@gmail.com | VTSSZTZX |
| Trang Tower | Trang Air Traffic Control Tower<br>Trang Airport<br>Trang-Palian Road<br>Mueang District,<br>Trang 92000 | +667 557 2160<br>+668 1894 7207 | +667 557 2163 | vtsstwr<br>@gmail.com | VTSTZTZX |

| Unit name | Postal address | Telephone NR | Telefax NR | E-mail | AFS address |
|---|---|---|---|---|---|
| Narathiwat Tower | Narathiwat Air Traffic Control Tower<br>Narathiwat Airport<br>Mueang district<br>Narathiwat 96000 | +667 356 5077<br>Ext. 6600<br>+668 1896 9837 | +667 356 5161<br>Ext. 6602 | vtsstwr<br>@gmail.com | VTSCZTZX |
| Betong Tower | Betong Air Traffic Control Tower<br>125 Yarom Subdistrict,<br>Betong District,<br>Yala 95110 | +667 323 4900-1<br>Ext. 6501 | +667 323 4902 | vtsstwr<br>@gmail.com | VTSYZTZX |
| Hua Hin APP | Hua Hin Approach<br>Hua Hin Air Traffic Control Center<br>Aeronautical Radio of Thailand Company Limited<br>Phetkasem Road,<br>Amphoe Hua Hin<br>Phachuapkhirikhan 77110 | +663 252 0830-1 | +663 252 0831<br>Ext. 5291 | aerothaihuahin@<br>gmail.com | VTPHZAZX |
| Hua Hin Tower | Hua Hin Air Traffic Control Tower<br>Hua Hin Air Traffic Control Center<br>Aeronautical Radio of Thailand<br>Company Limited<br>Phetkasem Road,<br>Amphoe Hua Hin<br>Phachuapkhirikhan 77110 | +663 252 0830-1 | +663 252 0831<br>Ext. 5201 | aerothaihuahin@<br>gmail.com | VTPHZTZX |
| Trat Tower | Trat Air Traffic Control Tower<br>Aeronautical Radio of Thailand<br>Company Limited<br>99 Moo3,<br>Tambon Tasom,<br>Khao Saming District<br>Trat 23150 | +663 952 5761<br>+663 952 5763<br>+668 1936 7805 | +663 952 5762<br>Ext. 5291 | aerothaihuahin@<br>gmail.com | VTBOZTZX |
| Phetchabun Tower | Phetchabun Air Traffic Control Tower<br>Phetchabun Airport,<br>Tambon Lanbah,<br>Amphoe Lomsak,<br>Phetchabun 67110 | +665 671 3700 | +665 671 3701<br>Ext. 7302 | vtpbtwr<br>@gmail.com | VTPBZTZX |
| Phuket APP | Phuket Approach<br>Phuket Air Traffic Control Center<br>200 Village No.6,<br>Mai Khao Sub District,<br>Thalang District<br>Phuket 83110 | +667 656 3041-3<br>+668 5123 6253 | +667 656 3038 | phuketatc1<br>@gmail.com | VTSPZAZX |
| Phuket APP<br>(Phuket Sector)<br>- Krabi APP | Krabi Approach<br>Phuket Air Traffic Control Center<br>200 Village No.6,<br>Mai Khao Sub District,<br>Thalang District<br>Phuket 83110 | +667 656 3041-3<br>+668 5123 6253 | +667 656 3038 | phuketatc1<br>@gmail.com | VTSPZAZX |

| Unit name | Postal address | Telephone NR | Telefax NR | E-mail | AFS address |
|---|---|---|---|---|---|
| Phuket APP<br>(Phuket Sector)<br>- Ranong APP | Ranong Approach<br>Phuket Air Traffic Control Center<br>200 Village No.6,<br>Mai Khao Sub District,<br>Thalang District<br>Phuket 83110 | +667 656 3041-3<br>+668 5123 6253 | +667 656 3038 | phuketatc1<br>@gmail.com | VTSPZAZX |
| Phitsanulok APP | Phitsanulok Approach<br>Phitsanulok Air Traffic Control Centre<br>Sanambin Rd,<br>Tambol Aranyik,<br>Mueang District,<br>Phitsanulok 65000 | +665 530 1425 | +665 530 1450 | pslatc<br>@gmail.com | VTPPZAZX |
| Phitsanulok APP<br>(Phitsanulok Sector)<br>- Sukhothai APP | Sukhothai Approach<br>Phitsanulok Air Traffic Control Centre<br>Sanambin Rd,<br>Tambol Aranyik,<br>Mueang District,<br>Phitsanulok 65000 | +665 530 1425 | +665 530 1450 | pslatc<br>@gmail.com | VTPPZAZX |
| Phitsanulok APP<br>(Phitsanulok Sector)<br>- Tak APP | Tak Approach<br>Phitsanulok Air Traffic Control Centre<br>Sanambin Rd,<br>Tambol Aranyik,<br>Mueang District,<br>Phitsanulok 65000 | +665 530 1425 | +665 530 1450 | pslatc<br>@gmail.com | VTPPZAZX |
| Phitsanulok Tower | Phitsanulok Air Traffic Control Tower<br>Phitsanulok Air Traffic Control Centre<br>Sanambin Rd,<br>Tambol Aranyik,<br>Mueang District,<br>Phitsanulok 65000 | +665 526 6381 | +665 530 1450 | pslatc<br>@gmail.com | VTPPZTZX |
| Sukhothai Tower | Sukhothai Air Traffic Control Tower<br>Sukhothai Airport, 99 Moo 4, Klong Krachong,<br>Swankhalok District,<br>Sukhothai 64110 | +665 564 7227 | +665 564 7222 | vtpotwr<br>@gmail.com | VTPOZTZX |
| Tak Tower | Tak Air Traffic Control Tower, Tak Airport,<br>Amphoe Mueang,<br>Tak 63000 | +665 551 5312 | +665 551 5311 | vtpttwr<br>@gmail.com | VTPTZTZX |
| Surat Thani Tower | Surat Thani Tower<br>Surat Thani Air Traffic Control Centre<br>Tambon Huatoei,<br>Amphoe Phunphin<br>Surat Thani 84130 | +667 744 1130<br>+668 9873 9982<br>+668 9874 0768 | +667 744 1130 | surat.tower<br>@gmail.com | VTSBZTZX |
| Samui Tower | Samui Air Traffic Control Tower<br>Samui Airport<br>Amphoe Koh Samui,<br>Surat Thani 84320 | +667 742 8519<br>+668 9874 0964<br>+668 1912 5933 | +667 742 8519 | samui.tower<br>@gmail.com | VTSMZTZX |

| Unit name | Postal address | Telephone NR | Telefax NR | E-mail | AFS address |
|---|---|---|---|---|---|
| Nakhon Si Thammarat Tower | Nakhon Si Thammarat Air Traffic Control Tower<br>Tambon Pak Phun,<br>Amphoe Mueang,<br>Nakhon Si Thammarat 80000 | +667 535 5637<br>+668 9874 1041<br>+669 0980 3475 | +667 535 5637 | nakhon.tower @gmail.com | VTSFZTZX |
| Chumphon Tower | Chumphon Air Traffic Control Tower<br>Chumphon Airport<br>Amphoe Pathiu,<br>Chumphon 86160 | +667 759 1311<br>+668 9874 0776<br>+666 5826 6890 | +667 759 1311 | chumphon.tower @gmail.com | VTSEZTZX |
| Phuket Tower | Phuket Air Traffic Control Tower<br>200 Village No.6,<br>Mai Khao Sub District,<br>Thalang District<br>Phuket 83110 | +667 656 3032-4<br>+668 1832 1826 | +667 656 3029 | vtsptower @gmail.com | VTSPZTZX |
| Krabi Tower | Krabi Air Traffic Control Tower, Krabi Airport,<br>Amphoe Naua Khlong<br>Krabi 81130 | +667 570 1542<br>+668 1829 4972 | +667 570 1541 | kbi.twr @gmail.com | VTSGZTZX |
| Ranong Tower | Ranong Air Traffic Control Tower<br>Ranong Airport<br>Phetchakasem Road,<br>Ranong 85000 | +667 786 2265<br>+668 1935 1275 | +667 782 2264<br>Ext. 5402 | vtsrtwr @gmail.com | VTSRZTZX |
| Udon Thani Tower | Udon Thani Air Traffic Control Tower<br>Udon Thani Airport,<br>Mak Khaeng Subdistrict,<br>Mueang District,<br>Udon Thani 41000 | +664 224 9735 | +664 224 6803<br>Ext. 7109 | udontower @gmail.com | VTUDZTZX |
| Khon Kaen Tower | Khon Kaen Air Traffic Control Tower<br>Khon Kaen Airport,<br>Ban Pet Subdistrict,<br>Mueang District,<br>Khon Kaen 40000 | +664 346 8218 | +664 346 8219 | atc_kkn @hotmail.com | VTUKZTZX |
| Loei Tower | Loei Air Traffic Control Tower<br>Loei Airport,<br>Na An Subdistrict,<br>Mueang District,<br>Loei 42000 | +664 281 4639 | +664 281 5579 | atc_loy @hotmail.com | VTULZTZX |
| Nakhon Phanom Tower | Nakhon Phanom Air Traffic Control Tower, Nakhon Phanom Airport,<br>Nasai Subdistrict,<br>Mueang District,<br>Nakhon Phanom 48000 | +664 253 1588 | +664 253 1589 | atc_nkp @hotmail.com | VTUWZTZX |
| Sakon Nakhon Tower | Sakon Nakhon Air Traffic Control Tower<br>Sakon Nakhon Airport,<br>That Na Weng Subdistrict, Mueang District,<br>Sakon Nakhon 47000 | +664 271 6573 | +664 271 6574<br>Ext. 7602 | atc_skn @hotmail.com | VTUIZTZX |

| Unit name | Postal address | Telephone NR | Telefax NR | E-mail | AFS address |
|---|---|---|---|---|---|
| Ubon Tower | Ubon Air Traffic Control Tower<br>Ubon Ratchathani Air Traffic Control Centre<br>Ubon Ratchathani Airport,<br>Mueang District,<br>Ubon Ratchathani 34000 | +664 524 0460 | +664 525 6553 | vtuutwr @gmail.com | VTUUZTZX |
| Roi Et Tower | Roi Et Air Traffic Control Tower, Roi Et Airport<br>Roi Et-Phonthong Road, Nongphok,<br>Thawatburi,<br>Roi Et 45170 | +664 351 8408 | +664 351 8409 | vtuvtower @gmail.com | VTUVZTZX |
| Ratchasima Tower | Nakhon Ratchasima Air Traffic Control Centre<br>Nakhon Ratchasima Airport<br>Chaloem Phra Kiat,<br>Nakhon Ratchasima 30230 | +664 425 5662 | +664 425 6576 | nr.pm2atc @gmail.com | VTUQZTZX |
| Buri Ram Tower | Buri Ram Air Traffic Control Tower<br>Buri Ram Airport,<br>Satuk, Buri Ram 31150 | +664 466 6360 | +664 466 6361 | nr.pm2atc @gmail.com | VTUOZTZX |

**7. Air Traffic Services**

7.1 The Aeronautical Radio of Thailand Limited provides, operates and maintains the equipment and services for provision of:

- Area control service within Bangkok FIR as detailed in ENR 2.1-1
- Aerodrome control and approach control at all civil airports.

7.2 IFR flights operating into Bangkok International Airport remain under the jurisdiction of the Area Control Centre until reaching a predetermined point agreed by the ATC units, after which Bangkok Approach Control assumes jurisdiction; outbound flights will remain under the jurisdiction of Bangkok Approach Control while in the control zone or until such time as the aircraft has been instructed to change over to the Area Control Centre radiotelephony frequency.

7.3 The airspace of Thai territory, including adjacent territorial waters, comprises a single FIR (Bangkok FIR). Air Traffic Control services are exercised only in controlled airspace.

7.4 The description of the airspace designated for air traffic purposes is found in several tables, all forming part of **ENR 2**.

**8. Special Communication Procedures**

In order to ensure appropriate separation planning by Bangkok Area Control Centre, pilots of all eastbound traffics shall contact Bangkok control at least 15 minutes prior to entering the FIR on the following frequencies;

airways L507, G463, P646, L524, L877, L301 and M502 on frequency 120.95 MHz and airways M626 on frequency 118.35 MHz.

Avoidance of Unnecessary TCAS RA Warning: Aircraft shall strictly use rate of climb or rate of descent at 1500 FPM or less within 2000ft to the assigned altitude or flight level, then use rate of climb or rate of descent at 1000 FPM or less within 1000ft to the assigned altitude or flight level when flight crew is made aware of another aircraft at or approaching an adjacent altitude or flight level, unless otherwise instructed by ATC.

**9. Restricted Airspace and Danger Areas**

Prohibited areas, restricted areas and danger areas within Bangkok FIR are listed in **ENR 5.1**. Activation of areas subject to intermittent activity is notified well in advance by NOTAM giving reference only to the designation of the area.

**10. Thailand Air Defense Identification Zone (TADIZ)**

10.1 The Thailand Air Defense Identification Zone (TADIZ) is hereby established to cover the airspace over the land and sea areas starting on the Thai border at 100000N thence along the national border between the Kingdom of Thailand and Myanmar, Laos, Cambodia to the coast 113900N1025500E then to 094830N1014630E 085200N1021300E 082900N1024300E 074930N1030530E 072200N1034230E 072000N1033900E 070300N1030600E 065300N1023400E 065000N1022112E 062748N1020936E 062730N1021000E 061430N1020536E thence westward along the national border between the Kingdom of Thailand and Malaysia to 062524N100000E 063200N0995300E 062830N0993912E 063012N0993324E 062854N0993042E 061824N0992730E 061618N0991918E 061800N0990642E 071500N0980000E 094500N0963830E 094035N0972636E 093215N0975620E 093015N0980600E 093520N0981300E 094300N0981610E 094910N0981950E 095400N0982430E 095700N0982730E 095510N0983200E 095610N0983305E then to the starting point (see GEN 3.3-4).

10.2 Since Bangkok Area Control Centre (VTBBZRZX) requires flight plans for all aircraft, IFR or VFR, operating into Bangkok FIR, it is compulsory that all aircraft, destined for an aerodrome within TADIZ or overflying TADIZ to submit flight plans at the point of departure for relaying to Bangkok Area Control Centre.

10.3 Aircraft flying along the airways shall report at the normal reporting points. Aircraft approaching TADIZ off airways shall report the estimated time over TADIZ boundary at least 10 minutes in advance.

10.4 If unable to establish and maintain radio communication with appropriate ATC agency, the pilot may contact the nearest Ground Control Intercept (GCI) frequency 127.0 and 331.3 MHz site for positive identification prior to entering TADIZ.

10.5 Aircraft will be intercepted by Royal Thai Air Force interceptors if:

- They do not adhere to the Air Defense Identification Procedures or the Air Traffic Control Regulations and Procedures.
- They deviate from their current flight plan, fail to passing over a point, or operate 10 NM over land or 20 NM over sea from the centre line of the airway assigned.

10.6 The aircraft which is intercepted by RTAF interceptors shall strictly comply with the interception procedure in accordance with Annex 2, Chapter 3 paragraph 3.8. The visual signal in accordance with Appendix 1 paragraph 2 will be used if direct communication between interceptors and intercepted aircraft can not be established. (see ENR 1.12-3).

10.7 Aircraft under interception will be attacked if they fail to obey any instructions given by RTAF interceptors.

10.8 The authority of the RTAF will not be responsible for any damage caused to aircraft by the interceptors of other devices.

10.9 The owner of the aircraft will be charged for expenditures used by the interceptors sent up to investigate and identify.

**11. VIP Flight**

11.1 In order to facilitate the movement of VIP flight into and out of Bangkok and to conform to the times shown in the Ceremonial Reception Schedule, the Air Traffic Service Units concerned are authorized to provide special priority for all VIP flights over all other normal traffic within their spheres of responsibility.

11.2 The term “VIP flight” refers to the flights of the following persons:

- His Majesty the King;
- Her Majesty the Queen;
- The Royal Family; and
- Prime Minister or Heads of Foreign Government.

11.3 A NOTAM showing the schedule of the VIP flight movement will be issued in advance.

11.4 Other flights will be subjected to approximately 15 minutes delay prior to or after, the scheduled movement of the VIP aircraft, “except military escort aircraft which is under RTAF Escort Regulations”.

11.5 When a VIP flight is made within Bangkok FIR either inside or outside controlled airspace, special temporary airway normally 10 NM wide will be established for that part of the route designated as PINK Airways, procedures are as follows:

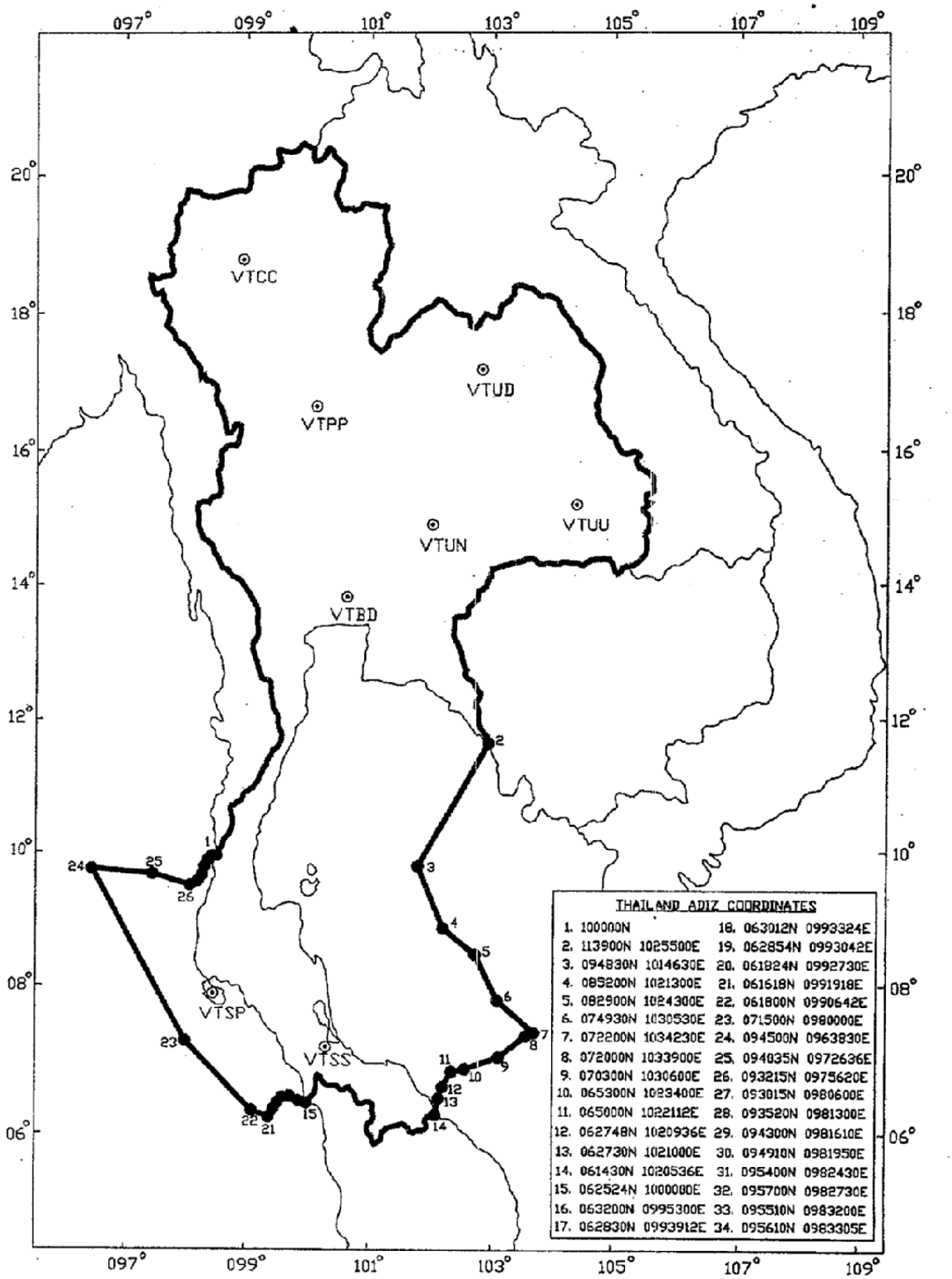
- PINK Airways will be notified by NOTAM consisting of:

  a) Airways expressed the point of departure and destination;
  b) Period of operation 15 minutes before estimated time of departure and 15 minutes after the VIP aircraft has passed the known position on the established route; and
  c) Blocked altitude 2000 ft above and below flight level specified by flight plan.

**Remarks**:“The commander of the escort flight shall have final authority for conduction flight in and out of the PINK Airways as necessary to fulfill the RTAF Escort Regulations”.

- Delay of flight will be notified every 10 minutes by unit concerned.
- Flight plan of VIP flight, irrespective of weather condition, must be filed in IFR as much as practicable.
- No clearance given to aircraft in the vicinity of a VIP flight.

12. **THAILAND AIR DEFENSE IDENTIFICATION ZONE**



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## GEN 3.4 COMMUNICATION AND NAVIGATION SERVICES

### 1. Responsible services

The responsible service for the provision of telecommunication and navigation facility services in Thailand is Aeronautical Radio of Thailand Ltd.

Aeronautical Radio of Thailand Ltd.
102 Ngamduplee, Rama IV,
Tungmahamek, Sathon,
Bangkok 10120
Thailand
Tel: +662 287 3531-41
Fax: +662 287 3131
AFS: VTBBYTYX
The service is provided in accordance with the provisions contained in the following ICAO documents:

| | |
|---|---|
| Annex 10 | - Aeronautical Telecommunications |
| Doc 8400 | - ICAO Abbreviations and Codes (PANS-ABC) |
| Doc 8585 | - Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services |
| Doc 7030 | - Regional Supplementary Procedures |
| Doc 7910 | - Location Indicators |
| Doc 9880 | -Technical Specifications for ATN using ISO/OSI Standards and Protocols |

### 2. Area of responsibility

Aeronautical Radio of Thailand Ltd. is responsible for the aeronautical telecommunication services and navigation services operated within Bangkok FIR.

### 3. Types of services

### 3.1 Radio Navigation Service

The following types of radio navigation aids for air navigation are available;

- Non-directional Beacon (NDB);
- VHF Omni-directional Radio Range (VOR);
- Distance Measuring Equipment (DME); and
- Instrument Landing System (ILS)

### 3.2 Aeronautical Mobile/Fixed Service

– **Aeronautical Mobile Service (Voice Communications)**

The aeronautical stations maintain a continuous watch on their stated frequencies during the published hours of service unless otherwise notified. An aircraft should normally communicate with the air-ground control station which exercises control in the area in which it is flying. Aircraft should maintain continuous watch on the appropriate frequency of the control station and should not abandon watch, except in an emergency, without informing the control radio station.

– **Aeronautical Fixed Service (Voice Communications)**

ATS direct speech circuit (telephone circuit) is provided for direct exchange of information between air traffic services (ATS) units.The detail of information on Aeronautical Fixed Services (Voice Communications) are given in GEN 3.4, TABLE COM-1

– **Aeronautical Fixed Service (Data Communications)**

Messages to be transmitted over the Aeronautical Fixed Service are accepted only if:

a) they satisfy the requirements of Annex 10 Volume II Chapter 3 paragraph 3.3;
b) they are prepared in the form specified in Annex 10 Volume II; and
c) the text of an individual message does not exceed 1800 characters in length and AFTN message entered by the AFTN origin station shall not exceed 2100 characters in length.

General Aircraft Operating Agency messages are only accepted for transmission to countries which have agreed to accept Class “B” traffic. Charges for Class “B” traffic are published in GEN 4.2.

The detail of information on Aeronautical Fixed Services (Data Communications) are given in GEN 3.4, TABLE COM-2

**3.3 Broadcasting Service**

- Automatic terminal information service (ATIS), the automatic provision of current and routine information to arriving and departing aircraft is provided.
- Sub-area Meteorological Broadcasts (VOLMET Radiotelephony Broadcasts) are available for the use of aircraft in flight. Full details are given in GEN 3.5, Table GEN 3.5.7.

**3.4 Language Used**

English

**4. Requirements and conditions**

*Not applicable*

**5. Miscellaneous**

**TABLE COM - 1**
**AERONAUTICAL FIXED SERVICES (VOICE COMMUNICATIONS) - INTERNATIONAL AND DOMESTIC CIRCUIT**

| STATION | | CORRESPONDENT | | TYPE OF CHANNELS | TYPE OF SERVICE | HOURS (UTC) | REMARKS |
|---|---|---|---|---|---|---|---|
| NAME | CALL SIGN | NAME | CALL SIGN | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Bangkok ACC | Bangkok Control | Ho Chi Minh ACC | Ho Chi Minh Control | LTF | ATS | H24 | |
| | | Kuala Lumpur ACC | Lumpur Control | LTF | ATS | H24 | |
| | | Phnom Penh ACC | Phnom Penh Control | LTF | ATS | H24 | |
| | | Vientiane FIC | Vientiane Control | LTF | ATS | H24 | |
| | | Yangon ACC | Yangon Control | LTF | ATS | H24 | |
| | | Bangkok APP | Bangkok APP | LTF | ATS | H24 | |
| | | Bangkok/Suvarnabhumi TWR | Suvarnabhumi TWR | LTF | ATS | H24 | |
| | | Bangkok/Don Mueang TWR | Don Mueang TWR | LTF | ATS | H24 | |
| | | Chiang Mai APP | Chiang Mai APP | LTF | ATS | H24 | |
| | | Chiang Mai Sector | Lampang APP | LTF | ATS | H24 | |
| | | | Mae Hong Son/Mae Sot APP | LTF | ATS | H24 | |
| | | Chiang Rai Sector | Chiang Rai APP | LTF | ATS | As AD OPR HR | |
| | | | Phetchabun APP | LTF | ATS | As AD OPR HR | |
| | | | Phrae APP | LTF | ATS | As AD OPR HR | |
| | | | Nan APP | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok APP | Phitsanulok APP | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok Sector | Sukothai APP | LTF | ATS | As AD OPR HR | |
| | | | Tak APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Khon Kaen APP | LTF | ATS | As AD OPR HR | |
| | | | Loei APP | LTF | ATS | As AD OPR HR | |
| | | | Nakhon Phanom APP | LTF | ATS | As AD OPR HR | |
| | | | Udon APP | LTF | ATS | As AD OPR HR | |
| | | | Sakon Nakhon APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Buri Ram APP | LTF | ATS | As AD OPR HR | |
| | | | Roi Et APP | LTF | ATS | As AD OPR HR | |
| | | | Nakhon Ratchasima APP | LTF | ATS | As AD OPR HR | |
| | | | Ubon APP | LTF | ATS | As AD OPR HR | |
| | | Hua Hin APP | Hua Hin APP | LTF | ATS | 2300-1100 | |
| | | Samui Sector | Samui APP | LTF | ATS | As AD OPR HR | |
| | | | Nakhon Si Thammarat APP | LTF | ATS | As AD OPR HR | |
| | | | Chumphon APP | LTF | ATS | As AD OPR HR | |
| | | | Surat Thani APP | LTF | ATS | As AD OPR HR | |
| | | | Trat APP | LTF | ATS | As AD OPR HR | |
| | | Phuket App | Phuket APP | LTF | ATS | H24 | |
| | | Phuket Sector | Ranong APP | LTF | ATS | As AD OPR HR | |
| | | | Krabi APP | LTF | ATS | H24 | |
| | | Hat Yai APP | Hat Yai APP | LTF | ATS | H24 | |
| | | Hat Yai Sector | Pattani APP | LTF | ATS | 2300-1100 | |
| | | | Narathiwat APP | LTF | ATS | As AD OPR HR | |
| | | | Trang APP | LTF | ATS | As AD OPR HR | |
| | | U-Tapao APP | U-Tapao APP | LTF | ATS | H24 | |
| Chiang Rai Sector | Chiang Rai APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Chiang Rai TWR | Chiang Rai TWR | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok APP | Phitsanulok APP | LTF | ATS | As AD OPR HR | |
| | | Chiang Mai APP | Chiang Mai APP | LTF | ATS | H24 | |
| | | Chiang Mai Sector | Lampang APP | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok TWR | Phitsanulok TWR | LTF | ATS | 0000-1200 | |
| | | Khon Kaen Sector | Khon Kaen APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Udon APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Loei APP | LTF | ATS | As AD OPR HR | |
| | Phetchabun APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Phetchabun TWR | Phetchabun TWR | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok APP | Phitsanulok APP | LTF | ATS | H24 | |
| | | Chiang Mai APP | Chiang Mai APP | LTF | ATS | H24 | |
| | | Chiang Mai Sector | Lampang APP | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok TWR | Phitsanulok TWR | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Khon Kaen APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Udon APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Loei APP | LTF | ATS | As AD OPR HR | |
| | Phrae APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Phrae TWR | Phrae TWR | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok APP | Phitsanulok APP | LTF | ATS | H24 | |
| | | Chiang Mai APP | Chiang Mai APP | LTF | ATS | H24 | |
| | | Chiang Mai Sector | Lampang APP | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok TWR | Phitsanulok TWR | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Khon Kaen APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Udon APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Loei APP | LTF | ATS | As AD OPR HR | |
| | Nan APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Nan TWR | Nan TWR | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok APP | Phitsanulok APP | LTF | ATS | H24 | |
| | | Chiang Mai APP | Chiang Mai APP | LTF | ATS | H24 | |
| | | Chiang Mai Sector | Lampang APP | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok TWR | Phitsanulok TWR | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Khon Kaen APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Udon APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Loei APP | LTF | ATS | As AD OPR HR | |
| Khon Kaen Sector | Khon Kaen APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Vientiane FIC | Vientiane Control | LTF | ATS | H24 | |
| | | Vientiane TWR | Vientiane TWR | LTF | ATS | H24 | |
| | | Vientiane APP | Vientiane APP | LTF | ATS | H24 | |
| | | Khon Kaen TWR | Khon Kaen TWR | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok APP | Phitsanulok APP | LTF | ATS | H24 | |
| | | Ubon Sector | Buri Ram APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Roi Et APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Nakhon Ratchasima APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Ubon APP | LTF | ATS | As AD OPR HR | |
| | | Chiang Rai Sector | Phetchabun APP | LTF | ATS | As AD OPR HR | |
| | Loei APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Vientiane FIC | Vientiane Control | LTF | ATS | H24 | |
| | | Vientiane TWR | Vientiane TWR | LTF | ATS | H24 | |
| | | Vientiane APP | Vientiane APP | LTF | ATS | H24 | |
| | | Loei TWR | Loei TWR | LTF | ATS | As AD OPR HR | |
| | | Phitsanulok APP | Phitsanulok APP | LTF | ATS | H24 | |
| | | Ubon Sector | Buri Ram APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Roi Et APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Nakhon Ratchasima APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Ubon APP | LTF | ATS | As AD OPR HR | |
| | | Chiang Rai Sector | Phetchabun APP | LTF | ATS | As AD OPR HR | |

**AERONAUTICAL FIXED SERVICES (VOICE COMMUNICATIONS) - INTERNATIONAL AND DOMESTIC CIRCUIT**

| STATION | | CORRESPONDENT | | TYPE OF CHANNELS | TYPE OF SERVICE | HOURS (UTC) | REMARKS |
|---|---|---|---|---|---|---|---|
| NAME | CALL SIGN | NAME | CALL SIGN | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Khon Kaen Sector | Udon APP | Udon TWR | Udon TWR | LTF | ATS | As AD OPR HR | |
| | | Vientiane FIC | Vientiane Control | LTF | ATS | H24 | |
| | | Vientiane TWR | Vientiane TWR | LTF | ATS | H24 | |
| | | Vientiane APP | Vientiane APP | LTF | ATS | H24 | |
| | | Phitsanulok APP | Phitsanulok APP | LTF | ATS | H24 | |
| | | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Ubon Sector | Buri Ram APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Roi Et APP | LTF | ATS | As AD OPR HR | |
| | Udon APP | Ubon Sector | Nakhon Ratchasima APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Ubon APP | LTF | ATS | As AD OPR HR | |
| | | Chiang Rai Sector | Phetchabun APP | LTF | ATS | As AD OPR HR | |
| | Sakon Nakhon APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Nakhon Phanom TWR | Nakhon Phanom TWR | LTF | ATS | As AD OPR HR | |
| | | Sakon Nakhon TWR | Sakon Nakhon TWR | LTF | ATS | As AD OPR HR | |
| | | Vientiane FIC | Vientiane Control | LTF | ATS | H24 | |
| | | Vientiane TWR | Vientiane TWR | LTF | ATS | H24 | |
| | | Vientiane APP | Vientiane APP | LTF | ATS | H24 | |
| | | Phitsanulok APP | Phitsanulok APP | LTF | ATS | H24 | |
| | | Ubon Sector | Buri Ram APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Roi Et APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Nakhon Ratchasima APP | LTF | ATS | As AD OPR HR | |
| | | Ubon Sector | Ubon APP | LTF | ATS | As AD OPR HR | |
| | | Chiang Rai Sector | Phetchabun APP | LTF | ATS | As AD OPR HR | |
| Samui Sector | Chumphon APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Chumphon TWR | Chumphon TWR | LTF | ATS | As AD OPR HR | |
| | | Hua Hin TWR | Hua Hin TWR | LTF | ATS | 2300-1100 | |
| | | Hat Yai App | Hat Yai App | LTF | ATS | H24 | |
| | | Phuket App | Phuket App | LTF | ATS | H24 | |
| | | Phuket Sector | Krabi APP | LTF | ATS | H24 | |
| | | Phuket Sector | Ranong APP | LTF | ATS | As AD OPR HR | |
| | | U-Tapao TWR | U-Tapao TWR | LTF | ATS | H24 | |
| | Nakhon Si Thammarat APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Nakhon Si Thammarat TWR | Nakhon Si Thammarat TWR | LTF | ATS | As AD OPR HR | |
| | | Hua Hin TWR | Hua Hin TWR | LTF | ATS | 2300-1100 | |
| | | Hat Yai App | Hat Yai App | LTF | ATS | H24 | |
| | | Phuket App | Phuket App | LTF | ATS | H24 | |
| | | Phuket Sector | Krabi APP | LTF | ATS | H24 | |
| | | Phuket Sector | Ranong APP | LTF | ATS | As AD OPR HR | |
| | | U-Tapao TWR | U-Tapao TWR | LTF | ATS | H24 | |
| | Samui APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Samui TWR | Samui TWR | LTF | ATS | As AD OPR HR | |
| | | Hua Hin TWR | Hua Hin TWR | LTF | ATS | 2300-1100 | |
| | | Hat Yai App | Hat Yai App | LTF | ATS | H24 | |
| | | Phuket App | Phuket App | LTF | ATS | H24 | |
| | | Phuket Sector | Krabi APP | LTF | ATS | H24 | |
| | | Phuket Sector | Ranong APP | LTF | ATS | As AD OPR HR | |
| | | U-Tapao TWR | U-Tapao TWR | LTF | ATS | H24 | |
| | Surat Thani APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Surat Thani TWR | Surat Thani TWR | LTF | ATS | As AD OPR HR | |
| | | Hua Hin TWR | Hua Hin TWR | LTF | ATS | 2300-1100 | |
| | Surat Thani APP | Hat Yai App | Hat Yai App | LTF | ATS | H24 | |
| | | Phuket App | Phuket App | LTF | ATS | H24 | |
| | | Phuket Sector | Krabi APP | LTF | ATS | H24 | |
| | | Phuket Sector | Ranong APP | LTF | ATS | As AD OPR HR | |
| | | U-Tapao TWR | U-Tapao TWR | LTF | ATS | H24 | |
| | Trat APP | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Trat TWR | Trat TWR | LTF | ATS | As AD OPR HR | |
| | | Hua Hin TWR | Hua Hin TWR | LTF | ATS | 2300-1100 | |
| | | Phuket App | Phuket App | LTF | ATS | H24 | |
| | | Phuket Sector | Krabi APP | LTF | ATS | H24 | |
| | | Phuket Sector | Ranong APP | LTF | ATS | As AD OPR HR | |
| | | Hat Yai App | Hat Yai App | LTF | ATS | H24 | |
| | | U-Tapao TWR | U-Tapao TWR | LTF | ATS | H24 | |
| Ubon Sector | Buri Ram APP | Pakse TWR | Pakse TWR | LTF | ATS | H24 | |
| | | Vientiane FIC | Vientiane Control | LTF | ATS | H24 | |
| | | Buri Ram TWR | Buri Ram TWR | LTF | ATS | As AD OPR HR | |
| | | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Khon Kaen Sector | Khon Kaen APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Udon APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Sakon nakhon APP | LTF | ATS | As AD OPR HR | |
| | Roi Et APP | Pakse TWR | Pakse TWR | LTF | ATS | H24 | |
| | | Vientiane FIC | Vientiane Control | LTF | ATS | H24 | |
| | | Roi Et TWR | Roi Et TWR | LTF | ATS | As AD OPR HR | |
| | | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Khon Kaen Sector | Khon Kaen APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Udon APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Sakon Nakhon APP | LTF | ATS | As AD OPR HR | |
| | Nakhon Ratchasima APP | Pakse TWR | Pakse TWR | LTF | ATS | H24 | |
| | | Vientiane FIC | Vientiane Control | LTF | ATS | H24 | |
| | | Nakhon Ratchasima TWR | Nakhon Ratchasima TWR | LTF | ATS | As AD OPR HR | |
| | | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Khon Kaen Sector | Khon Kaen APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Udon APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Sakon Nakhon APP | LTF | ATS | As AD OPR HR | |
| | Ubon APP | Pakse TWR | Pakse TWR | LTF | ATS | H24 | |
| | | Vientiane FIC | Vientiane Control | LTF | ATS | H24 | |
| | | Ubon TWR | Ubon TWR | LTF | ATS | As AD OPR HR | |
| | | Bangkok ACC | Bangkok Control | LTF | ATS | H24 | |
| | | Khon Kaen Sector | Khon Kaen APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Udon APP | LTF | ATS | As AD OPR HR | |
| | | Khon Kaen Sector | Sakon Nakhon APP | LTF | ATS | As AD OPR HR | |
| Chiang Mai Approach Control Centre | Lampang APP | Lampang TWR | Lampang TWR | LTF | ATS | 0030-1100 | |
| | Mae Hong Son APP | Mae Hong Son TWR | Mae Hong Son TWR | LTF | ATS | 2300-1100 | |
| | Mae Sot APP | Mae Sot TWR | Mae Sot TWR | LTF | ATS | 2300-1100 | |
| Hat Yai Approach Control Centre | Pattani APP | Pattani TWR | Pattani TWR | LTF | ATS | 2300-1100* | *Outside this period 1 HR PN to Hat Yai APP |
| | Narathiwat APP | Narathiwat TWR | Narathiwat TWR | LTF | ATS | As AD OPR HR | |
| | Trang APP | Trang TWR | Trang TWR | LTF | ATS | As AD OPR HR | |
| | Narathiwat APP | Betong TWR | Betong TWR | LTF | ATS | As AD OPR HR | |
| Phitsanulok Approach Control Centre | Sukhothai APP | Sukhothai TWR | Sukhothai TWR | LTF | ATS | 2300-1100 | |
| | Tak APP | Tak TWR | Tak TWR | LTF | ATS | As AD OPR HR* | *Available on request 3 hours notice required in - advance to Phitsanulok Approach Control centre |

**AERONAUTICAL FIXED SERVICES (VOICE COMMUNICATIONS) - INTERNATIONAL AND DOMESTIC CIRCUIT**

| STATION | | CORRESPONDENT | | TYPE OF CHANNELS | TYPE OF SERVICE | HOURS (UTC) | REMARKS |
|---|---|---|---|---|---|---|---|
| NAME | CALL SIGN | NAME | CALL SIGN | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Phuket Approach Control Centre | Krabi APP | Krabi TWR | Krabi TWR | LTF | ATS | H24 | |
| | Ranong APP | Ranong TWR | Ranong TWR | LTF | ATS | 2300-1100 | |

**TABLE COM - 2**
**AERONAUTICAL FIXED SERVICES (DATA COMMUNICATIONS) - INTERNATIONAL AND DOMESTIC CIRCUIT**

| STATION | | CORRESPONDENT | | TYPE OF CHANNELS | TYPE OF SERVICE | HOURS (UTC) | REMARKS |
|---|---|---|---|---|---|---|---|
| NAME | CALL SIGN | NAME | CALL SIGN | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Bangkok (VTBB) | - | Mumbai | - | LDD | AMHS | H24 | |
| | | Hong Kong | - | LDD | AMHS | H24 | |
| | | Yangon | - | LDD | AMHS | H24 | |
| | | Kuala Lumpur | - | LDD | AMHS | H24 | |
| | | Vientiane | - | LDD | AMHS | H24 | |
| | | Singapore | - | LDD | AMHS | H24 | |
| | | Dhaka | - | LDD | AMHS | H24 | |
| | | Ho Chi Minh | - | LDD | AFTN | H24 | |
| | | Phnom Penh | - | LDD | AMHS | H24 | |
| | | Rome | - | LDD | AMHS | H24 | |
| | | Beijing | - | LDD | AMHS | H24 | |
| | | Paro | - | LDD | AMHS | H24 | |
| | | Bangkok/ Don Mueang International Airport | - | LDD | AFTN | H24 | |
| | | Chiang Mai/ Chiang Mai Internation Airport | - | LDD | AFTN | H24 | |
| | | Chiang Rai/ Mae Fah Luang-Chiang Rai International Airport | - | LDD | AFTN | H24 | |
| | | Phuket/ Phuket International Airport | - | LDD | AFTN | H24 | |
| | | Bangkok/ Suvarnabhumi International Airport | - | LDD | AFTN | H24 | |
| | | Rayong/ U-Tapao Rayong Pattaya International Airport | - | LDD | AFTN | H24 | |
| | | Songkhla/ Hat Yai International Airport | - | LDD | AFTN | H24 | |
| | | Buri Ram Airport | - | LDD | AFTN | H24 | |
| | | Chumphon | - | LDD | AFTN | H24 | |
| | | Khon Kaen | - | LDD | AFTN | H24 | |
| | | Krabi | - | LDD | AFTN | H24 | |
| | | Lampang | - | LDD | AFTN | H24 | |
| | | Loei | - | LDD | AFTN | H24 | |
| | | Lop Buri/ Sa Pran Nak | - | LDD | AFTN | H24 | |
| | | Mae Hong Son | - | LDD | AFTN | H24 | |
| | | Nakhon Phanom | - | LDD | AFTN | H24 | |
| | | Nakhon Ratchasima | - | LDD | AFTN | H24 | |
| | | Nakhon Sawan | - | LDD | AFTN | H24 | |
| | | Nakhon Si Thammarat | - | LDD | AFTN | H24 | |
| | | Nan/ Nan Nakhon | - | LDD | AFTN | H24 | |
| | | Narathiwat | - | LDD | AFTN | H24 | |
| | | Phetchabun | - | LDD | AFTN | H24 | |
| | | Phitsanulok | - | LDD | AFTN | H24 | |
| | | Phrae | - | LDD | AFTN | H24 | |
| | | Prachuap Khiri Khan/ Hua Hin | - | LDD | AFTN | H24 | |
| | | Ranong | - | LDD | AFTN | H24 | |
| | | Roi Et | - | LDD | AFTN | H24 | |
| | | Sakon Nakhon/ Ban Khai | - | LDD | AFTN | H24 | |
| | | Songkhla | - | LDD | AFTN | H24 | |
| | | Sukhothai | - | LDD | AFTN | H24 | |
| | | Surat Thani | - | LDD | AFTN | H24 | |
| | | Surat Thani/ Samui | - | LDD | AFTN | H24 | |
| | | Tak/ Mae Sot | - | LDD | AFTN | H24 | |
| | | Trang | - | LDD | AFTN | H24 | |
| | | Trat/ Khao Sming | - | LDD | AFTN | H24 | |
| | | Ubon Ratchathani | - | LDD | AFTN | H24 | |
| | | Udon Thani | - | LDD | AFTN | H24 | |
| | | Yala/ Betong | - | LDD | AFTN | H24 | |

## GEN 3.5 METEOROLOGICAL SERVICES

### 1. Responsible services

1.1 The meteorological services for civil aviation are provided by the Meteorological Department of the Ministry of Digital Economy and Society:

Thai Meteorological Department 4353 Sukhumvit Road
Bangkok 10260
Thailand
Tel: +662 399 4566-74
Fax: +662 399 4597-8
AFS: VTBBYMYX

1.2 The meteorological services for civil aviation are provided by the Royal Thai Navy weather Section, Base Operation, Naval Air Staion Subdivision, Royal Thai Naval Air Division:
Rayong 21130 Thailand

Tel: +663 824-5489
Fax: +663 824-5489
AFS: VTBUYMYX

The service is provided in accordance with the provisions contained in the following ICAO documents:

Annex 3 – Meteorological Service for International Air Navigation

Doc 7030 – Regional Supplementary Procedures

Differences to these provisions are detailed in subsection **GEN 1.7**.

### 2. Area of responsibility

Meteorological services are provided within Bangkok FIR.

### 3. Meteorological observations and reports

Table **GEN 3.5.3** Meteorological observations and reports

| Name of Station / Location indicator | Type & frequency of observation/ automatic observation equipment | Type of MET report & Supplementary Information included | Observation System & Site (s) | Hours of operation | Climatological information |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Bangkok/ SUVARNABHUMI International / VTBS | Half hourly routine plus special observations/ Automatic: NIL | METAR, SPECI, MET REPORT, SPECIAL TREND | Complete observation station:<br>- 350 m from THR 01, THR 02R, THR 19 and THR 20L<br>- 371 m from THR 20R, and THR 02L | H24 | Climatological table AVBL |
| Bangkok / DON MUEANG International VTBD | Half hourly routine plus special observations/ Automatic: NIL | METAR, SPECI, MET REPORT, SPECIAL TREND | Complete observation station:<br>390 m from THR 21R and 160 m from THR 03L | H24 | Climatological table AVBL |
| CHIANG MAI International VTCC | Half hourly routine plus special observations/ Automatic: NIL | METAR, SPECI, MET REPORT, SPECIAL TREND | Complete observation station:<br>300 m from THR 18 and 402 m from THR 36 | H24 | Climatological table AVBL |
| CHIANGRAI / MAE FAH LUANG-CHIANG RAI International VTCT | Hourly routine plus special observations/ Automatic: NIL | METAR, SPECI, MET REPORT, SPECIAL TREND | Complete observation station:<br>436 m from THR 03 and 445 m from THR 21 | H24 | Climatological table AVBL |

| Name of Station / Location indicator | Type & frequency of observation/ automatic observation equipment | Type of MET report & Supplementary Information included | Observation System & Site (s) | Hours of operation | Climatological information |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| PHUKET International VTSP | Half hourly routine plus special observations/ Automatic: NIL | METAR, SPECI, MET REPORT, SPECIAL TREND | Complete observation station: 205 m from THR 09 and 405 m from THR 27 | H24 | Climatological table AVBL |
| SONGKHLA / HAT YAI International VTSS | Half hourly routine plus special observations/ Automatic: NIL | METAR, SPECI, MET REPORT, SPECIAL TREND | Complete observation station: 425 m from THR 08 and 399 m from THR 26 | H24 | Climatological table AVBL |
| RAYONG/ U-TAPAO RAYONG PATTAYA INTERNATIONAL AIRPORT VTBU | Half hourly routine plus special observations/ Automatic: NIL | METAR, SPECI, MET REPORT, SPECIAL TREND | Complete observation station: 583 m from THR 18 and 587 m from THR 36 | H24 | Climatological table AVBL |
| KRABI/ VTSG | Hourly routine plus special observations/ Automatic: NIL | METAR, SPECI, MET REPORT, SPECIAL TREND | Complete observation station: 300 m from THR 14 and 360 m from THR 32 | H24 | Climatological table AVBL |
| SURAT THANI / Samui VTSM | Hourly routine plus special observations/ Automatic: NIL | METAR, SPECI TREND | Cup Anemometer: 90 m FM MID RWY Thermometer and Barometer: 130 m FM TDZ 17 | 2200-1500 | NIL |
| SURAT THANI / Surat Thani VTSB | Hourly routine plus special observations/ Automatic: NIL | METAR, SPECI, MET REPORT, SPECIAL TREND | Complete observation station: 300 m FM THR 04 and 370 m FM THR 22 | 2200-1500 | NIL |

**4. Types of services**

Personal briefing and consultation for flight crew members are provided only at the Aerodrome Meteorological Offices as following:

4.1 The Aerodrome Meteorological Offices (BANGKOK / Suvarnabhumi Intl, CHIANG MAI / Chiang Mai Intl, PHUKET / Phuket Intl, SONGKHLA / Hat Yai Intl, UBON RATCHATHANI / Ubon Ratchathani, and KHON KAEN / KhonKaen). For all other international aerodromes, consultation is available by telephone as requested.

4.1.1 The Aerodrome Meteorological Office and Meteorological Watch Office at Bangkok/Suvarnabhumi International Airport operate throughout 24 hours and provide the following services for civil aviation:

a) Flight documentation is provided for domestic flights and international flights, the flight documentation comprises significant weather charts, upper wind and upper air temperature charts and the latest available aerodrome forecasts for the destination and its alternate. Whenever possible the pilot-in-command or his representative is given personal briefing by a forecaster at the Aerodrome Meteorological Office, otherwise briefing may be carried out by telephone;
b) Area meteorological watch over Bangkok FIR with the supply of meteorological information including SIGMET information to aircraft in flight through the Bangkok ATS radio channels; and
c) Meteorological information for Air Traffic Service.

4.1.2 The Aerodrome Meteorological Office at CHIANG MAI International Airport (VTCC), SONGKHLA / HAT YAI International Airport (VTSS), PHUKET International Airport (VTSP), KHON KAEN Airport (VTUK) and UBON RATCHATHANI Airport (VTUU) operate throughout 24 hours and provide the following services for civil aviation:

a) Meteorological documentation for current operational planning for all flights operating out of the international airports, whenever possible the pilot-in-command or his representative is given personal briefing by a forecaster at the Aerodrome Meteorological Office, otherwise briefing may be carried out by telephone;
b) Meteorological information including SIGMET information to aircraft in flight through the Bangkok ATS radio channels; and
c) Meteorological information for Air Traffic Services.

4.1.3 Details of documentation supplied for each flight are determined by agreement between operator and aerodrome meteorological

office. In general, the pilot-in-command is provided with documentation comprising:

a) Forecasts of upper wind and upper-air temperature and SIGWX phenomena;
b) METAR or SPECI (including trend forecasts as issued in accordance with regional air navigation agreement) for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;
c) TAF or amended TAF for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;
d) SIGMET information and appropriate special air-reports relevant to the whole route;
e) volcanic ash and tropical cyclone advisory information relevant to the whole route; and
f) if appropriate, as determined by regional air navigation agreement, area forecasts for low-level flights in chart, and space weather advisory information relevant to the whole route.

The documentation for flights of two hours' duration or less, after a short stop or turn around shall be limited to the information operationally needed, as agreed between the aerodrome meteorological office and the operator concerned, but in all cases, it shall at least comprise information on b), c), d), e) and f).

4.1.4 Routine aerodrome forecasts received from other meteorological offices are included in meteorological documentation without modification.

4.2 Aerodrome Meteorological Offices (RAYONG/U-Tapao Rayong Pattaya International)

4.2.1 The Aerodrome Meteorological Office at RAYONG/U-Tapao Rayong Pattaya International Airport (VTBU) operate throughout 24 hours and provide the following services for civil aviation:

a) Meteorological documentation for current operational planning for all flights operating out of the international airports, whenever possible the pilot-in-command or his representative is given personal briefing by a forecaster at the Aerodrome Meteorological Office, otherwise briefing may be carried out by telephone;
b) Meteorological information for Air Traffic Services.

4.2.2 Details of documentation supplied for each flight are determined by agreement between operator and aerodrome meteorological office. In general, the pilot-in-command is provided with documentation comprising:

a) METAR or SPECI (including trend forecasts as issued in accordance with regional air navigation agreement) for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;
b) TAF or amended TAF for the aerodromes of departure and intended landing, and for take-off, en-route and destination alternate aerodromes;

4.2.3 Routine aerodrome forecasts received from other meteorological offices are included in meteorological documentation without modification.

**5. Notification required from operators**

It is the responsibility of the operator or the pilot-in-command to notify the aerodrome meteorological office of any flight for which meteorological documentation is required (ref. ICAO Annex 3, paragraph 2.3). As much prior notice as possible should be given, and at least 2 hours before the expected time of departure for non-scheduled flight would be required at aerodrome meteorological office.

**6. Aircraft reports**

Special Aircraft Observations and Other Non-routine Aircraft Observations

6.1 Special aircraft observations are required to be issued by aircraft as special air-reports in Bangkok FIR whenever any of the following conditions are encountered or observed:

a) moderate turbulence (MOD TURB) or severe turbulence (SEV TURB);
b) moderate icing (MOD ICE) or severe icing (SEV ICE); or
c) severe mountain wave (SEV MTW); or
d) thunderstorms with or without hail (that are obscured, embedded, widespread or in squall lines) (TSGR or TS); or
e) volcanic ash cloud (VA CLD).

6.2 When other meteorological conditions not listed under 6.1 e.g. wind shear, are encountered and which, in the opinion of the pilot-in-command, may affect the safety or markedly affect the efficiency of other aircraft operations, the pilot-in-command shall advise the appropriate air traffic services unit as soon as practicable.

6.3 Aircraft observations shall be reports as air-reports following the instructions in ICAO–ATM (Doc 4444) Appendix 1.

## 7. VOLMET service

Table GEN 3.5.7 VOLMET Service

| Name of station | CALL SIGN Identification (EM) | Frequency | Broadcast period | Hours Of service | Aerodromes / Heliports included | Content & format of REP and FCST & Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Bangkok | BANGKOK VOLMET (J3E) | 11387 KHZ<br>6676 KHZ<br>2965 KHZ | H+10 to H+15<br>and<br>H+40 to H+45 | 2310 - 1145 Z<br>H24<br>1210 - 2245 Z | BANGKOK FIR | SIGMET (as available) |
| | | | | | YANGON FIR | SIGMET (as available) |
| | | | | | BANGKOK/ SUVARNABHUMI | METAR/ SPECI with TREND |
| | | | | | YANGON/ MINGALADON | METAR/ SPECI with TREND |
| | | | | | HANOI/NOIBAI | METAR/ SPECI with TREND |
| | | | | | HO CHI MINH/ TAN SON NHAT | METAR/ SPECI with TREND |
| | | | | | PHNOM PENH | METAR/ SPECI with TREND |
| | | | | | VIENTIANE/ WATTAY | METAR/ SPECI with TREND |
| | | | | | RAYONG/ U-TAPAO | METAR/ SPECI with TREND |
| | | | | | CHIANG MAI | METAR/ SPECI with TREND |
| | | | | | PHUKET | METAR/ SPECI with TREND |
| | | | | | BANGKOK / DON MUEANG | METAR/ SPECI with TREND |
| | | | | | BANGKOK/ SUVARNABHUMI | TAF (valid for 9 hrs) |

## 8. SIGMET and Aerodrome Warning Service

### 8.1 SIGMET Service

8.1.1 For the safety of air traffic, the meteorological watch office provides round the clock meteorological watch service for the Bangkok FIR. This service consists of a continuous weather watch within the Bangkok FIR and the issuance of SIGMET information for this area.

Table GEN 3.5.8 SIGMET service

| Name of MWO / Location indicators | Hours | FIR or CTA served | Type of SIGMET / validity | Specific procedures | ATS unit served | Additional information |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Bangkok/ VTBS | H24 | Bangkok FIR | - WS SIGMET/ not more than 4 hours<br>- WC SIGMET/ up to 6 hours<br>- WV SIGMET/ up to 6 hours | NIL | Bangkok ACC | NIL |

***Note:*** *WS SIGMET for phenomena other than volcanic ash cloud or tropical cyclone.*

*WC SIGMET for tropical cyclone.*

*WV SIGMET for volcanic ash.*

8.1.2 The meteorological watch office issues SIGMET information in abbreviated plain language concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations, and of the development of those phenomena in time and space, in the Bangkok FIR. The specified en-route weather and other phenomena in the atmosphere are as follows:

- thunderstorms
- severe turbulence
- severe icing
- tropical cyclone
- volcanic ash

8.1.3 Tropical cyclone SIGMET messages issued are based on advisory information provided by Tropical Cyclone Advisory Centres.

8.1.4 Volcanic ash SIGMET messages issued are based on advisory information provided by Volcanic Ash Advisory Centres.

8.1.5 SIGMET information is disseminated via the AFTN and broadcast in VOLMET service during the period of validity of the SIGMET information (see Table GEN 3.5.7 VOLMET Service).

**8.2 Aerodrome Warnings Service**

8.2.1 Aerodrome warnings are issued by the aerodrome meteorological office designated by the meteorological authority concerned and give concise information of meteorological conditions which could adversely affect aircraft on the ground, including parked aircraft, and the aerodrome facilities and services.

8.2.2 The aerodrome meteorological office issues aerodrome warnings in both abbreviated plain language and plain language if one or several of the following phenomena are occurring or expected to occur at the airport:

- tropical cyclone
- thunderstorm
- hail
- fog
- strong surface wind and gusts
- tsunami

**9. Other automated meteorological services**

Table GEN 3.5.9 Other automated meteorological services

| Service name | Information available | Area, route and aerodrome coverage | Telephone, telex and telefax numbers / remarks |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| NIL | NIL | NIL | NIL |

**10. ATS/MET REPORTING POINT CHART**

NIL

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## GEN 3.6 SEARCH AND RESCUE

### 1. Responsible services

The Search and Rescue service in the Kingdom of Thailand are provided by military and civil organizations and coordinate Search and Rescue Group, Office of the Permanent Secretary, Ministry of Transport. Assistance to civil aircraft in distress is provided in accordance with International Standards and Recommended Practices of ICAO Annex 12. The overall responsibility for making the necessary facilities available rests with Search and Rescue Group, Office of the Permanent Secretary, Ministry of Transport and SAR unit.

The postal and telegraphic address of Rescue Co-ordination Centre as follows:

Bangkok Search And Rescue Co-Ordination Centre
Office of the Permanent Secretary, Ministry of Transport
71 Soi Ngarmduplee, Rama IV Road
Thung Mahamek, Sathorn
BANGKOK 10120 THAILAND
Tel: +662 285 5450
+662 285 5451
Fax: +662 286 2925
AFS: VTBAYOYX

### 2. Area of responsibility

Bangkok SRR boundary coincides with Bangkok FIR

### 3. Types of service

The Bangkok Rescue Co-ordination Centre is co-located with the Mission Control Centre (MCC) and controls two LEOLUTs (Low Earth Orbit Local User Terminal). Both LEOLUTs provide full capability processing of 121.5 MHZ, 243.0 MHZ and 406 MHZ frequency bands, including G-SAR processing of the transponded 406 MHZ SARR data. The local coverage area of the LEOLUTs includes the Bay of Bengal, parts of the Indian Ocean, and the South China Sea, as well as the land area of South Asia, including all of the Kingdom of Thailand and the Malaysian Peninsula.

Details of related rescue units are given in Table 3.1 Search and Rescue Units. In addition to the various elements by the Militaries, The Bangkok Radio whose responsible of contacting with merchant marine and the Royal Thai Police (Marine Police) are also available for co-ordinate in Search and Rescue mission, when required.

The aeronautical Bangkok Area Control Centre, all ATS units and COM facilities, maritime and public telecommunication service are also available to the Search and Rescue units.

All SAR aircraft and maritime craft carry survival equipment, capable of being dropped, consisting of inflatable rubber dinghies equipped with medical supplies.

Aircraft and maritime craft are equipped to communicate on 121.5 MHZ, 123.1 MHZ, 243.0 MHZ and 500 KHZ, 2182/5680 KHZ.

HF/SSB: 6215 KHZ/6312 KHZ (DSC)

VHF: CH 16 and CH 70 (DSC)

**Table 3.1 Search and Rescue Units**

| NAME | LOCATION | FACILITIES |
|---|---|---|
| Bangkok | 1355N 10037E | MRG, HEL-M |
| Sattahip Naval Base | 1239N 10058E | MRG, HEL-H,RV |
| Songkhla Naval Base | 0711N 10037E | MRG, HEL-H,RV |
| Suratthani (Air wing 71) | 0808N 09908E | SRG, HEL-M |
| Chiangmal (Air wing 41) | 184618N 0985758E | MRG, HEL-M |
| Ubon Ratchathani (Air wing 21) | 151453N 1045219E | SRG, HEL-M |
| Phuket (Air section 3th fleet) | 0636N 09818E | MRG, HEL-M |

### 4. Search and Rescue agreements

As the neighbouring country and being the member of Association of South East Asian Nation and Annex 12 for the Convention, the government of the Kingdom of Thailand have ratified the agreement for the facilitation of search for aircraft in distress and rescue survivors of aircraft accidents with the government of the Republic of Singapore and the The Civil Aviation Authority of Thailand, Malaysia. This agreement provided for facilitation of the over flight and landing of search and rescue aircraft without prior permission

after dispatch of a flight plan and rescue assistance to aircraft in distress and survivors of aircraft accidents within the common boundary and or respective SAR.

Requests for the entry of aircraft, equipment and personal from other state to engage in the search for aircraft in distress or to rescue survivors of aircraft accident should be transmitted directly to the Bangkok Rescue Co-ordination Centre, in accordance with the standing plan for the conduct of Search and Rescue in its area. Defraying for the costs of accommodation and transportation of crew members and fuelling service are being responsible of the requesting state.

**5. Conditions of availability**

The SAR service and facilities in the Kingdom of Thailand are available without charge to neighboring states upon request to The Civil Aviation Authority of Thailand at all times. For the condition of availability for international use, there are no dedicated SAR aircraft and SAR vessels. All aircraft and vessels of militaries and civil agencies are being provided on request in conducting of SAR mission. The other facilities and personnel of military, such as Royal Thai Police, Department of Forestry and local Administration Organization will also conduct SAR mission as well.

**6. Procedures and signals used**

6.1 Procedures and signals used by aircraft

Procedure for Pilots-in-Command observing an accident or intercepting a distress call/or message are outlined in ICAO Annex 12, Chapter 5.

6.2 Communications

6.2.1 Transmission and reception of distress messages within Bangkok FIR Search and Rescue Area are handled in accordance with ICAO Annex 10, Volume ll, Chapter 5, paragraph 5.3.

6.2.2 For Communications during search and rescue operations, the codes and abbreviations published in ICAO Abbreviations and Codes (Doc 8400/4) are used.

6.2.3 Information concerning positions, call signs, frequencies, and hours of operation of Thai aeronautical stations and navigation aids is published in section **AD 2** and **ENR 2**.

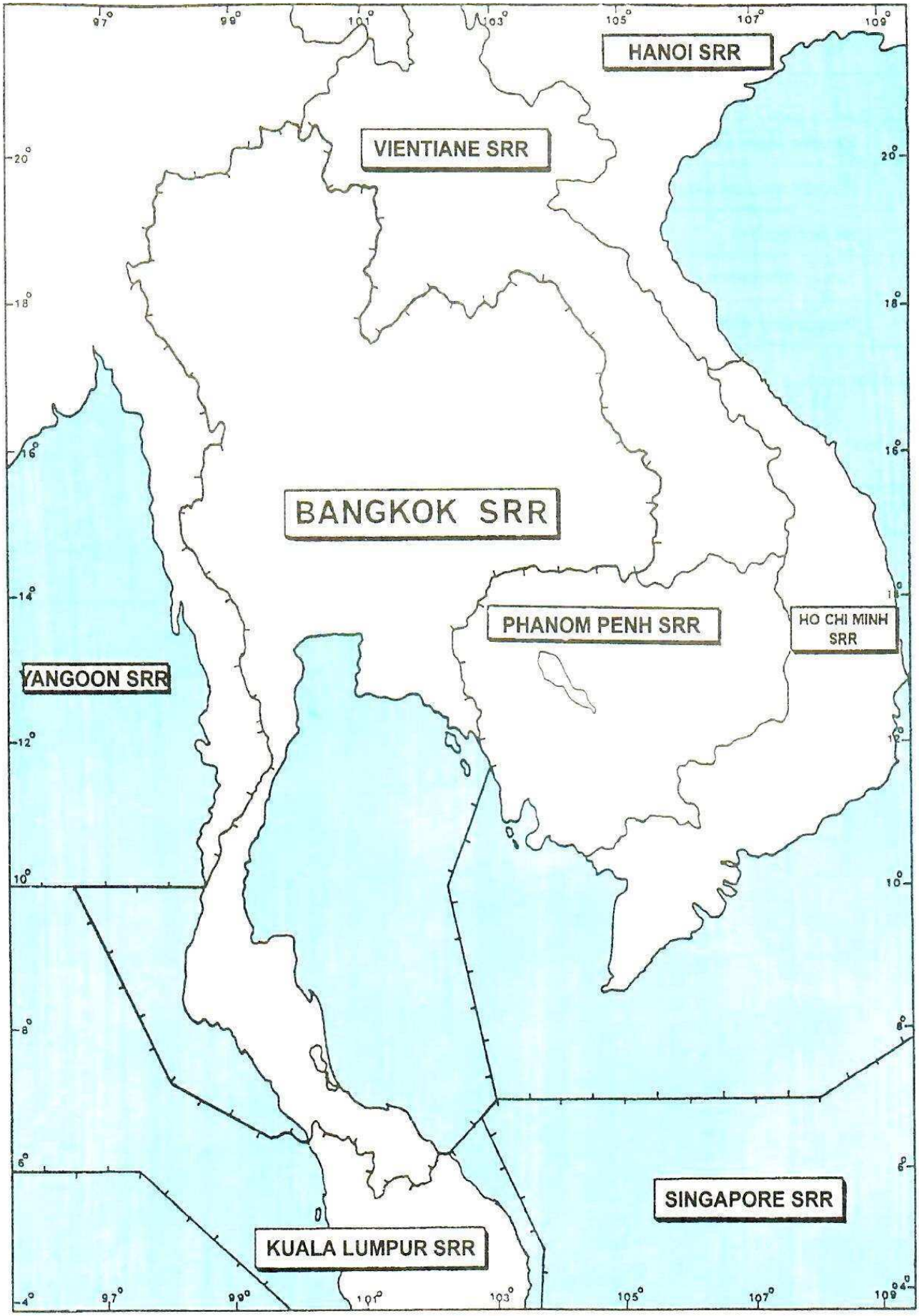
6.2.4 Air Traffic Service Units guard on the international frequencies 121.5 and 243.0 MHZ continuously, during the hours of services. Coastal Radio operates on 24 hours basic and guards on international distress frequencies.

**Search and Rescue signals**

The search and rescue signals to be used are those prescribed in ICAO Annex 12, Chapter 5, Appendix.

| No. | Message | Code symbol |
|---|---|---|
| 1. | Require assistance | **V** |
| 2. | Require medical assistance | **X** |
| 3. | No or Negative | **N** |
| 4. | Yes or Affirmative | **Y** |
| 5. | Proceeding in this direction |  |
| Instructions for use:<br>6.2.4.1 signals not less than 8 FT (2.5 M)<br>6.2.4.2 care to lay out signals exactly as shown.<br>6.2.4.3 as much colour contrast as possible between signals and background<br>6.2.4.4 every effort to attract by other means such as radio, flares, smoke, reflected light. etc. | | <br>Make<br>Take<br>Provide<br>Make |

## 7. THE KINGDOM OF THAILAND AND ADJACENT SEARCH AND RESCUE REGIONS CHART



## GEN 3.7 INFORMATION SERVICES

**1. System-wide Information Management (SWIM) Registry(ies)/Information Service Overviews**

*Not applicable*

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## GEN 4. CHARGES FOR AERODROMES/HELIPORTS AND AIR NAVIGATION SERVICES

## GEN 4.1 AERODROME/HELIPORT CHARGES

### 1. General

The charges set out hereunder are collected in accordance with the Air Navigation Act.B.E. 2497 including the amendments concerned.

### 2. Landing charges

Landing rates is based daily on maximum permissible take-off weight of the aircraft as specified in its Flight Manual as follows:

2.1 Rates for airports of Department of Airports are as follows:

a) First 50 metric tons: not exceeding 85 Baht per metric ton;
b) Over 50 to 100 metric tons: the charge for (a) plus not exceeding 95 Baht for every metric ton in excess of 50 metric tons; and
c) Over 100 metric tons: the charge for (a) and (b) plus not exceeding 105 Baht for every metric ton in excess of 100 metric tons;

2.2 Rates for airport of Airports of Thailand are as follows:

a) First 10 metric tons: not exceeding 1,150 Baht;
b) Over 10 up to 50 metric tons: the charge for (a) plus not exceeding 135 Baht for every metric ton excess of 10 metric tons;
c) Over 50 up to 100 metric tons: the charge for (a) and (b) plus not exceeding 155 Baht for every metric ton in excess of 50 metric tons; and
d) Over 100 metric tons: the charge for (a) and (b) and (c) plus not exceeding 175 Baht for every metric ton in excess of 100 metric tons.

2.3 At Samui airport, Sukhothai airport and Trat airport, rate will be charged not exceeding 100 Baht per metric ton.

2.4 U-Tapao Rayong Pattaya airports, the charges are not exceeding the rates for aerodromes in 2.1.

2.5 Songkhla airports, the charges are not exceeding 50% of the rates for aerodromes in 2.1.

2.6 Other aerodromes not mentioned above and all temporary areas for take-off and landing of aircraft, the charges are not exceeding 25% of the rates for aerodromes in 2.1.

Any fraction of a metric ton (1 000 Kilograms) is counted as a full metric ton.

**Reductions**

a) Landing rates for domestic flights at aerodromes in 2.3, 2.4, 2.5, 2.6, the charges are not exceeding 50%;
b) Landing at U-Tapao Rayong Pattaya exporting of Thai fruits, the charges are not exceeding 50% of the rates for aerodromes in 2.4; and
c) If a landing is made in conjunction with the seasonal festival or for flight training at aerodromes in 2.1, 2.3, 2.4, 2.5, 2.6 the charges are not exceeding 50%.

**Exemptions**

a) Foreign military aircraft of countries that exempt Thai military aircraft from landing charges in a reciprocal manner
b) Foreign government-owned aircraft or aircraft wholly chartered by foreign government in use of carrying heads of their states, guests of their Majesties the King and the Queen of the Kingdom of Thailand or guests of Thai Government to and from the Kingdom of Thailand
c) Aircraft used in International Red Cross services;
d) Aircraft registered on behalf of State; and
e) Aircraft with the permission of the Minister of Transport.

**3. Passenger service charges**

3.1 Passengers departing from any airports for foreign destination will be charged as follows:

3.1.1 Suvarnabhumi, Don Mueang, Chiang Mai, Mae Fah Luang-Chiang Rai, Hat Yai, and Phuket airports: not exceeding 730 Baht

3.1.2 Samui airports: not exceeding 700 Baht

3.1.3 Other airports: not exceeding 400 Baht.

3.2 Passengers departing from domestic destination airports will be charged as follows:

3.2.1 Samui and Sukhothai airports: not exceeding 400 Baht;

3.2.2 Trat airport: not exceeding 200 Baht;

3.2.3 Suvarnabhumi, Don Mueang, Chiang Mai, Mae Fah Luang-Chiang Rai, Hat Yai, and Phuket airports: not exceeding 130 Baht; and

3.2.4 Airports of Department of Airports and other airports: not exceeding 50 Baht.

**Payment**

The owner or possessor of aircraft or his agent is authorized to collect the passenger service charge from passengers boarding his aircraft, if neither of them are in the Kingdom of Thailand, pilot-in-command or an officer appointed by the Minister of Transport is authorized to collect the charge. The collected charge must be handed over to Airport Manager, together with the boarding passenger list certified by an immigration officer, within 7 days of departure except the charge collected by pilot-in-command must be handed over to Airport Manager before departure. The one who fails to comply with the above mentioned regulations shall be punished by fine three times of the collected charge.

**Exemptions**

a) Their Majesties the King and the Queen, all the members of the Royal family and their entourage;
b) His Holiness the Patriarch and his entourage;
c) Heads of foreign States and their entourage;
d) The guests of their Majesties the King and the Queen and their entourage;
e) Government guests and their entourage;
f) Children two years of age and under;
g) Passengers in Thai or foreign government-owned aircraft or in the aircraft chartered wholly by Thai or foreign government with evidence showing that it is in government service;
h) For international flight, transit passengers who do not leave transit area or who have to leave transit area for relaxation because of the delay of flight schedule. For domestic flight, transit passengers who stay within 6 hours or have to stay longer than 6 hours because of the delay of flight schedule; and
i) Passengers with the permission of the Minister of Transport.

**4. Storage charges**

**4.1 Parking Rates**

Parking rates is based daily on maximum permissible take-off weight of the aircraft as specified in its Flight Manual as follows:

4.1.1 The rates of not exceeding 100 Baht per metric ton per day will be charged at Samui airport, Sukhothai airport, and Trat airport .

4.1.2 Rates for airport of Airports of Thailand are as follows

a) First 50 metric tons: not exceeding 880 Baht per day;
b) Over 50 up to 100 metric tons: the charge for (a) plus not exceeding 14 Baht for every metric ton in excess of 50 metric tons; and
c) Over 100 metric tons: the charge for (a) and (b) plus not exceeding 7 Baht for every metric ton in excess of 100 metric tons.

4.1.3 Rates for airports of Department of Airports, other aerodromes, and temporary areas for take-off and landing of aircraft are as follows:

a) First 50 metric tons: not exceeding 650 Baht per day;
b) Over 50 up to 100 metric tons: the charge for (a) plus not exceeding 10 Baht for every metric ton in excess of 50 metric tons; and
c) Over 100 metric tons: the charge for (a) and (b) plus not exceeding 5 Baht for every metric ton in excess of 100 metric tons.
d) From the date 15th onward of aircraft progressive rate for aerodrome in 4.1.1, 4.1.2, 4.1.3 will be as follow;

- From the date 15th – 29th, the charge will be 2 folds of charge rate per day.
- From the date 30th – 44th, the charge will be 3 folds of charge rate per day
- From the date 45th – 59th, the charge will be 4 folds of charge rate per day.
- From the date 60th – 74th, the charge will be 5 folds of charge rate per day.
- From the date 75th – 89th, the charge will be 6 folds of charge rate per day
- From the date 90th – 104th, the charges will be 7 folds of charge rate per day.

– From the date 105th – 119th, the charges will be 8 folds of charge rate per day
– From the date 120th – 134th, the charges will be 9 folds of charge rate per day.
– From the date 135th onward, the charges will be 10 folds of charge rate per day

***Note 1:*** *Any fraction of a metric ton (1,000 Kilograms) is counted as a full metric ton.*

***Note 2:*** *Any fraction of a day (24 hours) is counted as a full day except the first day. The exceeding 3 hours is counted as a full day.*

**Reductions**

a) Aircraft used for domestic flight at aerodromes in **4.1.1**, **4.1.2**, **4.1.3**, the charges are not exceeding 50%
b) Parking rates for private aircraft at aerodromes in **4.1.2** and **4.1.3**, the charges are not exceeding 25%; and
c) Parking rates for Prachuap Khiri Khan/Hua Hin Airport, Khon Kaen Airport, Nakhon Ratchasima Airport and Phitsanulok Airport, the charges are not exceeding 25%.

**Exemptions**

a) Foreign military aircraft of countries that exempt Thai military aircraft from parking charges in a reciprocal manner
b) Foreign government-owned aircraft or aircraft wholly chartered by foreign government in use of carrying heads of their states, guests of their Majesties the King and the Queen of the Kingdom of Thailand or guests of Thai Government to and from the Kingdom of Thailand
c) Aircraft used in International Red Cross services;
d) Aircraft registered on behalf of State; and
e) Aircraft with the permission of the Minister of Transport.

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## GEN 4.2 AIR NAVIGATION SERVICE CHARGES

**Air Navigation Service Charges by Aeronautical Radio of Thailand Ltd.**

For the provision of International and Domestic Communications Services, Area Control, Approach Control and Aerodrome Control Services as described in AIP-Thailand, Aeronautical Radio of Thailand Ltd. (AEROTHAI) will charge operators the Air Navigation Service (ANS) charges at the following rates:

**1. Customers**

1.1 **Member Airlines**

Member airlines are airline companies operating regularly scheduled services into and/or domestic services in the Kingdom of Thailand (Thailand) scheduled in the published timetables, whose applications to become the Company's shareholders have been approved by the Company. They have responsibility for the Company's finance. Eligible airlines can apply to be the Company's member airlines by submitting a letter of application together with a copy of flight schedule as published in the timetable, a letter of permission from the Civil Aviation Authority of Thailand, a copy of the certificate of the airline company's registration and a Power of Attorney (authorizing the person to act on behalf of the airline) with a copy of passport or ID card. For more information, see https://eservice.aerothai.co.th

1.2 **Non-Member Airlines**

Non-member Airlines are airline companies which normally operate scheduled or non-scheduled services into and/or domestic services in Thailand.

1.3 **Charter Flights**

Charter Flights operate for tourists and/or goods into/from Thailand by non-member airlines.

1.4 School Flights

School Flights are operated with small aircraft with maximum take-off weight not exceeding 5.7 tons and are performed by students as trainees or pilots within the frames of training programs of training schools accredited by the Civil Aviation Authority of Thailand.

**2. Structure of Air Navigation Service (ANS) Charges:**

**ANS Charges = En Route Charge + Terminal Charge**

2.1

$$\text{En Route Charge} = \sqrt{\text{MTOW}/X} \times \text{Distance / 250 Km} \times \text{Unit Rate}$$

2.2

$$\text{Terminal Charge} = \sqrt{\text{MTOW}} \times \text{Terminal Multiplier} \times \text{Unit Rate}$$

Where the value of X is:

**MTOW = 0 – 100 Ton, X = 50**
**MTOW = 101 – 200 Ton, X = MTOW/2**
**MTOW > 200 Ton, X = 100**

**Descriptions:**

a) **MTOW**

**MTOW** is the Maximum Take-off Weight of aircraft in 'metric ton' as specified by the factory, rounding up fraction to the next whole number. The calculation of ANS charges will be based on MTOW which is provided by AEROTHAI. (see details in https://eservice.aerothai.co.th)

b) **Distance**

**Distance** is the great circle distance travelled within Bangkok FIR in 'kilometre', rounding up fraction to the next whole number. For each landing and take-off within the Bangkok FIR, 50 kilometres are deducted from the great circle distance. If the great circle distance after being deducted for landing/take-off is less than 250 kilometres, it will be calculated as 250 kilometres (Distance Factor = 1). The calculation of ANS charges will be based on a distance factor which is provided by AEROTHAI. (see details in https://eservice.aerothai.co.th)

c) **Terminal Multiplier**

| Airports | Terminal Multiplier | | |
|---|---|---|---|
| | 2025 | 2026 | 2027 Onwards |
| Suvarnabhumi International Airport | 0.90 | 0.90 | 0.90 |
| Don Mueang International Airport | 0.50 | 0.90 | 0.90 |
| Phuket International Airport<br>Chiang Mai International Airport | 0.50 | 0.50 | 0.90 |
| Hat Yai International Airport<br>Mae Fah Luang - Chiang Rai International Airport | 0.50 | 0.50 | 0.50 |
| Krabi International Airport | 0.05 | 0.05 | 0.50 |
| Other Provincial Airports | 0.05 | 0.05 | 0.05 |

d) **Unit Rate**

| ANS Charges | Member Airline Unit Rate (THB per Unit) | Non-Member Airline Unit Rate (THB per Unit) |
|---|---|---|
| En Route Charge | 3,800 | 11,500 |
| Terminal Charge | 580 | 1,750 |

***Note 1:*** *Domestic flights will be charged at 75% of international flights.*

***Note 2:*** *Overfly flights will be charged 1.45 times of En Route Charges.*

***Note 3:*** *Charter flights operate for tourist and/or goods into/from Thailand will be charged as same as member airlines.*

***Note 4:*** *The specified ANS charges hereunder are applicable to domestic school flights.*

| Part | Types of Charges | 4 Training Hub Airports (Hua Hin, Nakhon Ratchasima, Phitsanulok, Khon Kaen) | Non-Training Hub Airports |
|---|---|---|---|
| 1 | En Route Charge | 10% of Member Airlines' Charge | 20% of Member Airlines' Charge |
| 2 | Terminal Charge (Departure/Arrival (DEP/ARR)) | 50% of Member Airlines' Charge | 100% of Member Airlines' Charge |
| 3 | 3.1 Terminal Charge (Touch & Go Landing (TGL), Low Approach (LA), Missed Approach (MAT)) | – 50% of Member Airlines' Charge<br>– DEP and ARR together counted as 1 flight<br>– Only the final flight charged | – 100% of Member Airlines' Charge<br>– DEP and ARR together counted as 1 flight<br>– Every flight charged |
| | 3.2 Terminal Charge (Stop & Go Landing (SGL)) | – 50% of Member Airlines' Charge<br>– DEP and ARR together counted as 2 flights<br>– Only the final flight charged | – 100% of Member Airlines' Charge<br>– DEP and ARR together counted as 2 flights<br>– Every flight charged |

**3. Payment**

3.1 Settling the payment of ANS charges is the responsibility of the aircraft operator or the owner.

3.2 Payment of ANS Charges can be made by cash at AEROTHAI's offices at either the head office or the airports. Otherwise, the payment can be transferred to the following bank account:

Account name :Aeronautical Radio of Thailand Ltd.
Bank name :Krung Thai Bank PCL.
Branch :FYI Center Building
Account no. :009-1-10246-4
Swift code :KRTHTHBK

3.3 For scheduled flight, invoice will be billed on a monthly basis, and the payment must be made within the due date presented on the invoice.

3.4 For non-scheduled flight, airlines shall have a recognized agent in Thailand, and the payment must be made by the agent to AEROTHAI at the end of the month. Where there is no agent, payment must be made to AEROTHAI at the airports before departure or to our bank account stated above before landing or overflying Thailand.

**4. Exemptions**

4.1 Foreign military aircraft;

4.2 Aircraft used for the operation of the foreign governments which carries the representatives of that government to or through Thailand;

4.3 Aircraft which the Civil Aviation Board considered necessarily to be used in special government services; and

4.4 Aircraft of flying clubs as well as private aircraft with MTOW not exceeding 5.7 tons which operated on a non-commercial or non-profit basis.

**5. Contact**

The President
Aeronautical Radio of Thailand Ltd.,
102 Ngamduplee, Rama IV,
Tungmahamek, Sathon,
Bangkok 10120, Thailand

| | |
|---|---|
| Fax: | +662 285 9203 |
| AFS: | VTBBYFYX |
| Website: | https://eservice.aerothai.co.th |

Director, Revenue and Accounting Department

| | |
|---|---|
| Fax: | +662 285 9203 |
| SITA: | BKKTOYF |
| AFS: | VTBBYFYX |
| E-mail: | accounts@aerothai.co.th |

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## GEN 4.3 REGULATORY FEE

### 1. Regulatory fee by The Civil Aviation Authority of Thailand

The Civil Aviation Authority of Thailand collect an arrival and departure fee to support the performance of regulatory and safety oversight functions.

### 2. Establishment of arrival and departure fee

In order to support the performance of regulatory functions, The Civil Aviation Authority of Thailand will collect the International arrival and departure fee from air operators on the basis of numbers of arriving and departing passenger international flights.

### 3. Charge application

Air operators shall collect and remit the International arrival and departure fee by calculated from the number of arriving and departing passengers on international flights, at the rate of 15 (fifteen) Thai baht (THB) per passenger per flight including transit and transfer passengers.

*In calculating numbers of International Arrival and Departure Fees under paragraph 1, the following passengers shall not be included:

a) A transit passenger who stay in the transit area not more than 12 hours;
b) A transit passenger in an international departure flight, who stay in the transit area more than 12 hours;
c) A transfer passenger in an international departure flight.

The following air operators are required to collect and remit the fee:

a) Operators with Thai Air Operators Certificate providing scheduled and/or non-scheduled air transport services on international routes; and
b) Foreign air operators providing scheduled and/or non-scheduled air transport services on international routes.

### 4. Payment

Information on methods of payment is available on The Civil Aviation Authority of Thailand website at www.caat.or.th. Fees unpaid or not fully paid by the date shall be liable for a surcharge of two percent per month.

### 5. Enquires

Point of Contact
Ms. Kanjana Sirapongpairoj
The Civil Aviation Authority of Thailand
222 Soi Vibhavadi Rangsit 28,
Vibhavadi Rangsit Rd., Chatuchak,
Chatuchak
Bangkok, Thailand 10900
Website: www.caat.or.th
E-mail: regulatoryfee@caat.or.th

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## PART 2 - EN-ROUTE (ENR)

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## ENR 0.1 PREFACE

Not applicable.

## ENR 0.2 RECORD OF AIP AMENDMENTS

Not applicable.

## ENR 0.3 RECORD OF AIP SUPPLEMENTS

Not applicable.

## ENR 0.4 CHECHLIST OF AIP PAGES

Not applicable.

## ENR 0.5 LIST OF HAND AMENDMENTS TO THE AIP

Not applicable.

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# ENR 1. GENERAL RULES AND PROCEDURES

## ENR 1.1 GENERAL RULES

### 1. General

1.1 The air traffic rules and procedures applicable to air traffic in the Kingdom of Thailand territory conform to Annex 2 and Annex 11 to the Convention on International Civil Aviation and to those portions of the Procedures for Air Navigation Services - Rules of the Air and Air Traffic Services applicable to aircraft and of the Regional Supplementary Procedures applicable to the Southeast Asia Region.

1.2 An aircraft operating between the hours of sunset and sunrise, irrespective of weather conditions shall comply with IFR requirement.

1.3 Flights operating within Bangkok FIR shall continuously guard the VHF emergency freq 121.5 MHz for reasons of safety.

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## ENR 1.2 VISUAL FLIGHT RULES

**1. Except when operating as a special VFR flight, VFR flights within Bangkok FIR shall be conducted so that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in the table below:**

| Altitude Band | Airspace Class | Flight Visibility | Distance from Cloud |
|---|---|---|---|
| At and above 3 050 m (10 000 ft) AMSL | A, B, C, D, E, F, G | 8 KM | 1 500 m horizontally<br>300 m (1 000 ft)<br>vertically |
| Below 3 050 m (10 000 ft) AMSL and above 900 m (3 000 ft) AMSL, or above 300 m (1 000 ft) above the terrain, whichever is the higher | A, B, C, D, E, F, G | 5 KM | 1 500 m horizontally<br>300 m (1 000 ft)<br>vertically |
| At and below 900 m (3 000 ft) AMSL, or 300 m (1 000 ft) above the terrain, whichever is the higher | A, B, C, D, E | 5 KM | 1 500 m horizontally<br>300 m (1 000 ft)<br>vertically |
| | F, G | 5 KM | Clear of cloud and with the surface in sight |

**2. Except when clearance is obtained from an air traffic control unit, VFR flights shall not take off or land at an aerodrome within a control zone, or enter the aerodrome traffic zone or traffic pattern:**

2.1 when the ceiling is less than 450 m (1 500 ft); or

2.2 when the ground visibility is less than 5 km.

**3. VFR at Night**

3.1 The time used to determine sunset and sunrise shall be referred to the information published for each province by the Hydrographic Department, the Royal Thai Navy. In case there is no published information for a specific location, the Information from the nearest province shall be used.

3.2 VFR flights are permitted at night in accordance with the following criteria:

3.2.1 Flights shall establish and maintain two-way radio communication on the appropriate ATS communication channel, when available;

3.2.2 The VMC visibility and distance from cloud minima as specified in the rules of the air shall apply except that:

3.2.2.1 the ceiling shall not be less than 450 m (1 500 ft);

3.2.2.2 in airspace classes B, C, D, E, F, and G, at and below 900 m (3 000 ft) AMSL or 300 m (1 000 ft) above the terrain, whichever is the higher, the pilot shall maintain continuous sight of the surface.

3.3 Except when necessary for take-off or landing, or except when specifically authorized by the CAAT, a VFR flight at night shall be flown

3.3.1 over high terrain or in mountainous areas, at a level which is at least 600 m (2 000 ft) above the highest obstacle located within 8 km of the estimated position of the aircraft;

3.3.2 elsewhere than as specified in 3.3.1, at a level which is at least 300 m (1 000 ft) above the highest obstacle located within 8 km of the estimated position of the aircraft.

**4. Special VFR**

4.1 By day, when VMC does not exist, the ATC unit responsible for a Control zone (CTR) or Control area (CTA) may issue, at pilot request, and provided an IFR flight will not be unduly delayed, a Special VFR clearance for flight;

4.1.1 In the Control zone (CTR)

4.1.2 In the Control area (CTA) next to the Control zone (CTR) for the purpose of entering or leaving the Control zone (CTR)

4.2 When operating under a Special VFR clearance, pilots are responsible for ensuring that;

4.2.1 The flight is conducted clear of clouds.

4.2.2 The visibility is not less than 1500 m

4.2.3 A helicopter is operated at such a speed that the pilot has adequate opportunity to observe other traffic or any obstacles in time to avoid a collision.

**5. Except for military operation, unless authorized by the appropriate ATS authority, VFR flights shall not be operated:**

5.1 above FL 200;

5.2 at transonic and supersonic speeds

**6. Except when necessary for take-off or landing, or except by permission from the appropriate ATS authority, a VFR flight shall not be flown:**

6.1 over the congested areas of cities, towns, or settlements or over an open-air assembly of persons at a height less than 300 m (1 000 ft) above the highest obstacle within a radius of 600 m from the aircraft;

6.2 elsewhere than as specified in 6.1, at a height less than 150 m (500 ft) above the ground or water.

**7. Except where otherwise indicated in air traffic control clearances or specified by the appropriate ATS authority, VFR flights in level cruising flight when operated above 900 m (3 000 ft) from the ground or water, or a higher datum as specified by the appropriate ATS authority, shall be conducted at a cruising level appropriate to the track as specified in the tables of cruising levels in ENR 1.7 Para 2.4.**

**8. VFR flights shall comply with the provisions of the Air Traffic Control Service:**

8.1 when operated within Classes B, C, and D airspace;

8.2 when forming part of aerodrome traffic at controlled aerodromes; or

8.3 when operated as special VFR flights

**9. A VFR flight operating within or into areas, or along routes shall maintain continuous air-ground voice communication watch on the appropriate communication channel of, and report its position as necessary to, the air traffic services unit providing flight information service.**

**10. An aircraft operated in accordance with the visual flight rules which wishes to change to comply with the instrument flight rules shall:**

10.1 if a flight plan was submitted, communicate the necessary changes to be effected to its current flight plan; or

10.2 submit a flight plan to the appropriate air traffic services unit and obtain a clearance prior to proceeding IFR when in controlled airspace.

**11. Helicopters may be permitted to operate in less than 1 500 m flight visibility, if maneuvered at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid a collision.**

**12. VFR flights outside controlled airspace**

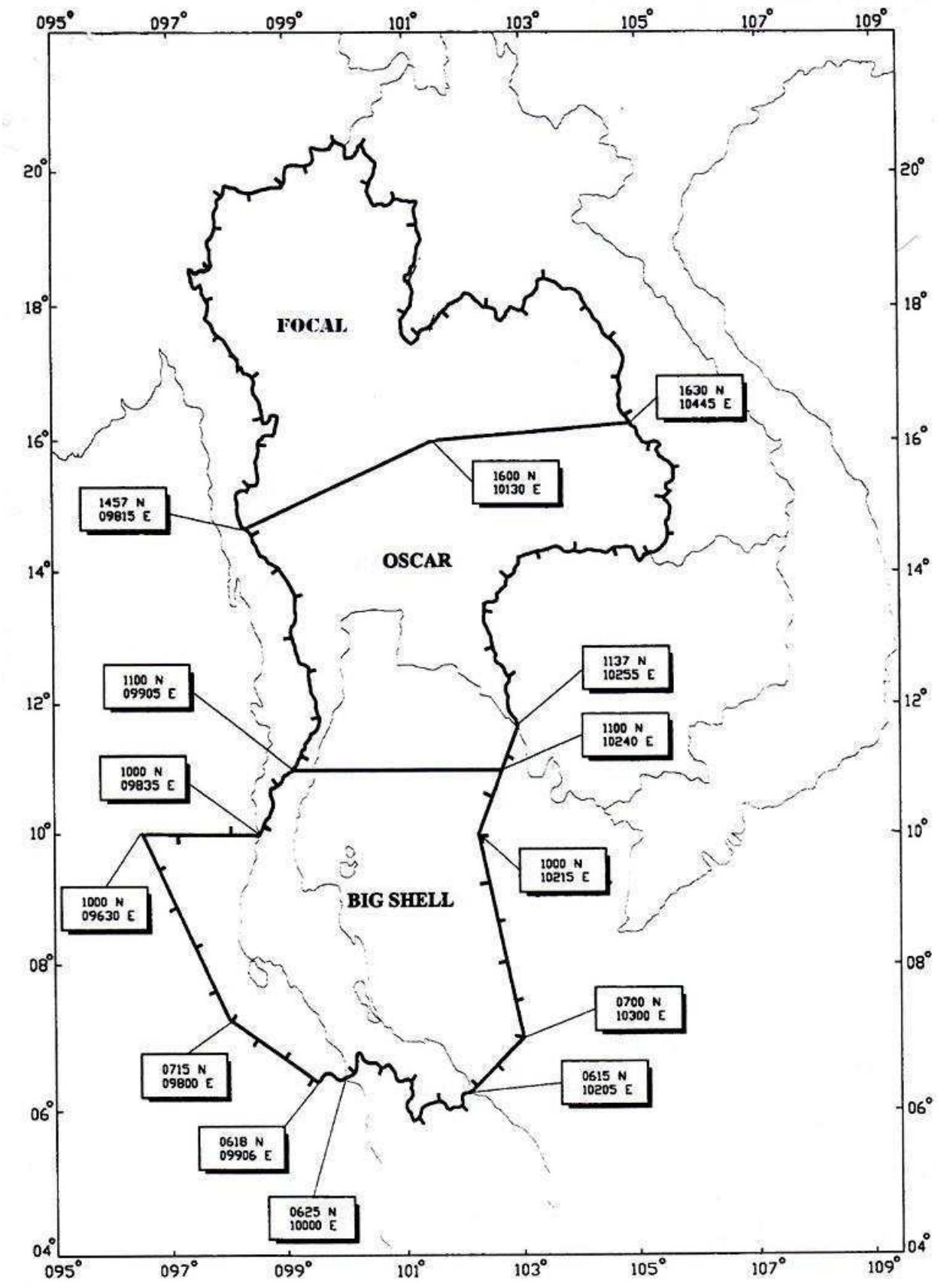
12.1 All VFR flights outside controlled airspace may contact authorities concerned on frequency 127.0 MHz or 331.3 MHz

12.2 Details of call signs and responsible areas of authorities concerned are as the table below:

| CALL SIGNS | RESPONSIBLE AREAS |
|---|---|
| FOCAL | An area bounded by a line joining the following points: 1457N09815E northward along the nation border to 1630N10445E, 1600N10130E then back to the point of origin. |
| OSCAR | An area bounded by a line joining the following points: 1457N 09815E southward along the nation border to 1100N09905E, 1100N10240E, 1137N10255E northward along the nation border to 1630N10445E, 1600N10130E, then back to the point of origin. |
| BIG SHELL | An area bounded by a line joining the following points: 1100N09905E, 1100N10240E, 1000N10215E, 0700N10300E, 0615N10205E westward along the nation border to 0625N 10000E, 0618N09906E, 0715N09800E, 1000N09630E, 1000N 09835E northward along the nation border, then back to the point of origin. |

The aforementioned regulations are to ensure the effectiveness of Air Traffic Services and to improve safety standard.

**RESPONSIBLE AREAS OF AUTHORITIES CONCERNED**



## 13. VFR OPERATING AT AN UNCONTROLLED AERODROME

13.1 General

13.1.1 Uncontrolled aerodrome is an aerodrome without a control tower or an aerodrome that has a tower that is temporarily closed or operated on a part-time basis.

13.1.2 Pilots operating at an uncontrolled aerodrome should use the frequency designated for that aerodrome or 123.0 MHz where there is no designated frequency to self-announce their position and intentions and monitor other traffic.

13.1.3 There is no substitute for alertness while in the vicinity of an airport. It is essential for pilots to be alert and to look for other traffic when approaching or departing an uncontrolled aerodrome.

13.2 Procedure

13.2.1 Arriving aircraft

13.2.1.1 Pilot of arriving aircraft should monitor and communicate on the designated frequency or 123.0 MHz from 10 NM prior to landing unless otherwise specified by the CAAT regulations.

13.2.1.2 Pilot of arriving aircraft should self-announce their position and intentions approximately 10 NM from the aerodrome.

13.2.1.3 Pilot of arriving aircraft should self-announce their position and intentions on downwind, base, and final approach.

13.2.1.4 Pilot of arriving aircraft should self-announce their position on exiting the runway.

13.2.2 Departing aircraft

13.2.2.1 Pilot of departing aircraft should monitor and communicate on the designated frequency or 123.0 MHz from start-up to while within 10 NM from the aerodrome unless otherwise specified by the CAAT regulations.

13.2.2.2 Pilot of departing aircraft should self-announce their position and intentions before taxiing.

13.2.2.3 Pilot of departing aircraft should self-announce their position and intentions before entering the runway.

13.2.2.4 Pilot of departing aircraft should self-announce their position and intentions before taking off from the runway.

13.2.2.5 Pilot of departing aircraft should self-announce their position and intentions on leaving the traffic pattern

13.2.3 Aircraft operating at altitudes used normally by arriving and departing aircraft

13.2.3.1 1.Pilot of the aircraft conducting other than arriving or departing operations at altitudes used normally by arriving and departing aircraft should monitor and communicate on the designated frequency or 123.0 MHz while within 10 NM from the aerodrome unless otherwise specified by the CAAT regulations.

13.2.4 Self-Announce Position and Intentions

13.2.4.1 Self-announce is a procedure whereby pilot broadcast their position and intent on flight activity or ground operation on a designated frequency or 123.0 MHz

13.2.4.2 Aircraft operating at the other nearby airport maybe make self-announce broadcasts on the same frequency. To help identify one airport from the other, the airport name should be spoken at the beginning and the end of each self-announce broadcast.

13.2.4.3 Example of self-announce phraseology

ARRIVING AIRCRAFT

(AIRPORT NAME) TRAFFIC, CALLSIGN, (POSITION), (ALTITUDE), LANDING, (AIRPORT NAME)
(AIRPORT NAME) TRAFFIC, CALLSIGN, ENTERING DOWNWIND RUNWAY (NUMBER), FULL STOP, (AIRPORT NAME)
(AIRPORT NAME) TRAFFIC, CALLSIGN, CLEAR OF RUNWAY (NUMBER), (AIRPORT NAME)

DEPARTING AIRCRAFT

(AIRPORT NAME) TRAFFIC, CALLSIGN, (LOCATION ON AIRPORT), TAXIING TO RUNWAY (NUMBER), (AIRPORT NAME)
(AIRPORT NAME) TRAFFIC, CALLSIGN, DEPARTING RUNWAY (NUMBER), DEPARTING THE PATTERN TO THE SOUTH, CLIMBING TO (ALTITUDE), (AIRPORT NAME)

## ENR 1.3 INSTRUMENT FLIGHT RULES

1. Aircraft shall be equipped with suitable instruments and with navigation equipment appropriate to the route to be flown.

2. Flight shall be conducted in accordance with the Instrument Flight Rules, even when not operating in Instrument Meteorological Conditions, when operated above FL 200.

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## ENR 1.4 ATS AIRSPACE CLASSIFICATION

### 1. Classification of airspaces

1.1 ATS airspaces are classified and designated in accordance with the following:

**Class A**. **IFR** flights are permitted only, all flights are subject to Air Traffic Control service and are separated from each other.
**Class B**. **IFR and VFR** flights are permitted, all flights are subject to Air Traffic Control service and are separated from each other.
**Class C**. **IFR and VFR** flights are permitted, all flights are subject to Air Traffic Control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.
**Class D**. **IFR and VFR** flights are permitted and all flights are subject to Air Traffic Control service, IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights, VFR flights receive traffic information in respect of all other flights.
**Class E**. **IFR and VFR** flights are permitted, IFR flights are subject to Air Traffic Control service and are separated from other IFR flights. ALL flights receive traffic information as far as practical.
**Class F**. **IFR and VFR** flights are permitted, all participating IFR flights receive an Air Traffic Advisory service and all flights receive flight information service if request.
**Class G**. **IFR and VFR** flights are permitted and receive flight information service if request.

1.2 Airspace classification is defined all ATS routes within Bangkok FIR are as follows:

- **Class A from FL285 and above.**
- **Class B from Below FL285.**

The requirements for the flights within each class of airspace are as shown in the table.

**ATS AIRSPACE CLASSIFICATION**

| Class | Type of flight | Separation provided | Service provided | Speed limitation | Radio communication requirement | Subject to an ATC clearance |
|---|---|---|---|---|---|---|
| A | IFR only | All aircraft | Air traffic control service | Not applicable | Continuous two-way | Yes |
| B | IFR | All aircraft | Air traffic control service | Not applicable | Continuous two-way | Yes |
| | VFR | All aircraft | Air traffic control service | Not applicable | Continuous two-way | Yes |
| C | IFR | IFR from IFR<br>IFR from VFR | Air traffic control service | Not applicable | Continuous two-way | Yes |
| | VFR | VFR from IFR | 1. Air traffic control service for separation from IFR<br>2.VFR traffic information (traffic avoidance advice on requet) | 250 kt IAS<br>Below 3050 m (10 000 ft)AMSL | Continuous two-way | Yes |
| D | IFR | IFR from IFR | Air traffic control service including traffic information about VFR flight (and traffic avoid-ance device on request) | 250 kt IAS below 3050 m (10 000 ft)AMSL | Continuous two-way | Yes |
| | VFR | Not provided | Traffic information be-tween VFR and IFR flights (and traffic avoidance advice on request) | 250 kt IAS below 3050 m (10 000 ft)AMSL | Continuous two-way | Yes |
| E | IFR | IFR from IFR | Air traffic control service and traffic information about VFR flights as far as prac-tical | 250 kt IAS below 3050 m (10 000 ft)AMSL | Continuous two-way | Yes |
| | VFR | Not provided | Traffic information as far as practical | 250 kt IAS below 3050 m (10 000 ft)AMSL | Not required | Not required |

| Class | Type of flight | Separation provided | Service provided | Speed limitation | Radio communication requirement | Subject to an ATC clearance |
|---|---|---|---|---|---|---|
| F | IFR | IFR from IFR as far as practical | Air traffic advisory service; flights information service | 250 kt IAS below 3050 m (10 000 ft)AMSL | Continuous two-way | Not required |
| | VFR | Not provided | Flight information service | 250 kt IAS below 3050 m (10 000 ft)AMSL | Not required | Not required |
| G | IFR | Not provided | Flight information service | 250 kt IAS below 3050 m (10 000 ft)AMSL | Continuous two-way | Not required |
| | VFR | Not provided | Flight information service | 250 kt IAS below 3050 m (10 000 ft)AMSL | Not required | Not required |

* When so prescribed by the appropriate ATS authority:
a) lower flight visibilities to 1 500 m may be permitted for flights operating:
   1. at speeds that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or
   2. in circumstance in which the probability of encounters with other traffic would normally below e.g. in areas of low traffic volume an for aerial work at low levels;
b) helicopters may be permitted to operate in less than 1 500 m flights visibility, if manoeuvred at the speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

## ENR 1.5 HOLDING, APPROACH AND DEPARTURE PROCEDURES

### 1. General

1.1 The holding, approach and departure procedures in use are based on those contained in ICAO Doc 8168-OPS/611. (PANS-OPS).

1.2 Airspeeds listed are the maximum Indicated Airspeed (IAS) applicable at the designated holding altitudes and for aircraft types listed. Pilots are expected to hold at/or less than the specified airspeed when practicable.

| LEVEL (1) | NORMAL CONDITIONS | TURBULENCE CONDITIONS |
|---|---|---|
| up to 14 000 feet inclusive | 170 knots (2) 230 knots (3) | 170 knots (2) 280 knots |
| above 14 000 feet to 20 000 feet inclusive | 240 knots (4) | 280 knots or 0.8 Mach whichever is less |
| above 20 000 feet to 34 000 feet inclusive | 265 knots (4) | 280 knots or 0.8 Mach whichever is less |
| above 34 000 feet | 0.83 Mach | 0.83 Mach |

1. The levels tabulated represent "altitudes" or corresponding "flight levels" depending upon the altimeter setting in use;
2. For holdings limited to category A and B aircraft only;
3. When the holding procedure is followed by the initial segment of an instrument approach procedure promulgated at a speed higher than 230 knots, the higher speed should also be used wherever possible; and
4. Where possible, 280 knots should be use for holding procedures associated with airway route structures.

### 2. Arriving flights

2.1 IFR flights entering and landing within a Terminal Control Area will be cleared to a specified holding point and instructed to contact Approach Control at a specified time, level or position. The terms of this clearance shall be adhered to until further instructions are received from Approach Control. If the clearance limit is reached before further instructions have been received, a holding procedure shall be carried out at the level last authorized.

2.2 Due to the limited airspace available, it is important that the approaches to the patterns and the holding procedures are carried out as exactly as possible. Pilots are strongly requested to inform ATC if, for any reason, the approach and/or holding can not be performed as required.

### 3. Departing flights

3.1 IFR flights departing from controlled aerodromes will initially receive ATC clearance from the local aerodrome control tower. The clearance limit will normally be the aerodrome of destination. IFR flights departing from non-controlled aerodromes will not take-off without prior arrangement with Bangkok Area Control Centre.

3.2 Departure instructions are in accordance with ICAO Doc 4444 - ATM/501.

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## ENR 1.6 ATS SURVEILLANCE SERVICES AND PROCEDURES

### 1. ATS SURVEILLANCE SERVICES

#### 1.1 General

1.1.1 ATS Surveillance Services is the predominant means of control at Bangkok Area Control Centre and Approach Control Units at Don Mueang, Suvarnabhumi, Chiang Mai, Hat Yai, Hua Hin, Krabi, Nakhon Si Thammarat, Phitsanulok, Phuket, Sukhothai, Surat Thani, Samui and Ubon Ratchathani provided in accordance with ICAO Doc 4444 Air Traffic Management (PANS-ATM) Chapter 8.

1.1.2 ADS-B is used to complement the existing radars in order to increase the reliability and coverage of the ATS surveillance service. 7 ADS-B stations are located at Ubon Ratchathani_1, Ubon Ratchathani_2, Samui, Doi Inthanon, Hat Yai, Phuket, and Surat Thani. These stations mostly cover the current radar coverage. However, Doi Inthanon station, due to its better location, has a coverage beyond the current Chiang Mai radar site.

1.1.3 In case radar cannot be used by air traffic controllers due to any reasons, ADS-B will be used to provide surveillance service only for the aircraft that have been approved for ADS-B operations.

1.1.4 Radio Communications procedures

| Stations | Service | Callsign |
|---|---|---|
| Bangkok Area Control Centre | Procedural and ATS Surveillance | Bangkok Control |
| Bangkok Approach Control Unit | Procedural and ATS Surveillance | Bangkok Approach |
| Chiang Mai Approach Control Unit | Procedural and ATS Surveillance | Chiang Mai Approach |
| Hat Yai Approach Control Unit | Procedural and ATS Surveillance | Hat Yai Approach |
| Hua Hin Approach Control Unit | Procedural and ATS Surveillance | Hua Hin Approach |
| Krabi Approach Control Unit | Procedural and ATS Surveillance | Krabi Approach |
| Nakhon Si Thammarat Approach Control Unit | Procedural and ATS Surveillance | Nakhon Si Thammarat Approach |
| Phitsanulok Approach Control Unit | Procedural and ATS Surveillance | Phitsanulok Approach |
| Phuket Approach Control Unit | Procedural and ATS Surveillance | Phuket Approach |
| Sukhothai Approach Control Unit | Procedural and ATS Surveillance | Sukhothai Approach |
| Surat Thani Approach Control Unit | Procedural and ATS Surveillance | Surat Thani Approach |
| Samui Approach Control Unit | Procedural and ATS Surveillance | Samui Approach |
| Ubon Ratchathani Approach Control Unit | Procedural and ATS Surveillance | Ubon Approach |

#### 1.2 Application of ATS Surveillance Control Service

1.2.1 ATS Surveillance identification is achieved according to the provisions specified by ICAO Doc 4444 Air Traffic Management (PANS-ATM) Chapter 8.

1.2.2 ATS Surveillance service is provided in controlled airspace to aircraft operating within Bangkok, Chiang Mai, Hat Yai, Hua Hin, Krabi, Nakhon Si Thammarat, Phitsanulok, Phuket, Sukhothai, Surat Thani, Samui and Ubon Ratchathani TMAs/CTRs and along all airways.

1.2.3 ATS Surveillance service in respect of unknown aircraft:

a) In controlled airspace, traffic information will be given when an identified controlled flight is observed to be on a conflicting path with an aircraft which ATC have no specific information deemed to constitute a collision hazard, a course of avoiding action will be suggested, if so requested by the pilot or if in the opinion of ATC the situation warrants.
b) When an identified IFR operating outside controlled airspace is observed to be on a conflicting path with another aircraft, the identified aircraft will be advised of the need for collision avoidance. If so requested by the pilot or if in the opinion of ATC the situation warrants, a course of avoiding action will be suggested.
c) In both cases mentioned in 1.2.3 a) and b) the decision as to whether or not to comply with the ATC suggestion rests solely with the pilot.
d) Whenever suggestion to assist the pilot for avoiding action is given, the consideration will be given if practicable to the rules of the air, but pilot are nevertheless reminded that they are ultimately responsible for the prevention of collision.

1.2.4 Separation Minima (Horizontal) based on ATS Surveillance Systems are:

a) 5 NM en-routes along airways, and
b) 5 NM in Bangkok, Chiang Mai, Hat Yai, Hua Hin, Krabi, Nakhon Si Thammarat, Phitsanulok, Phuket Sukhothai, Surat Thani, Samui and Ubon Ratchathani TMAs/CTRs.

1.2.5 Level assigned by ATC to pilot will provide a minimum terrain clearance according to the phase of flight.

1.2.6 ATS Surveillance approach procedures will be provided within Bangkok, Chiang Mai, Hat Yai, Hua Hin, Krabi, Nakhon Si Thammarat, Phitsanulok, Phuket, Sukhothai, Surat Thani, Samui and Ubon Ratchathani TMAs/CTRs.

a) Inbound aircraft
Inbound on airway
Aircraft flying on the airways system will be cleared into the TMA/CTR without having to request a specific entry clearance.

b) Inbound other than on airways
Aircraft wishing to enter the TMAs/CTRs are required to obtain permission at least 10 minutes before reaching the zone boundary, when they will be advised of the route to be followed consistent with the current traffic situation.

c) Initial approach procedures with ATS Surveillance control

– When inbound traffic is being sequenced by ATS Surveillance, the initial and intermediate approach procedures will be flown under directions from the approach ATC and will consist of the part of the approach between the zone boundary or the terminal holding fix and the final approach path. When holding procedures are not in use, ATS Surveillance sequencing may commence before the terminal holding fix.
– Pilots should plan their flight profile in such a manner as to be able to achieve the minimum holding level at the holding point if so required.
– When an aircraft is under approach ATS Surveillance control, changes of heading or flight level/altitude will be made only on instructions from ATC, except in the case of radio communication failure in the aircraft or at the ATS Surveillance unit.
– Heading and flight levels/altitudes at which to leave the zone boundary or holding areas will be passed by ATC. Vectoring will be given and descent clearance will include an estimate of track distance to touchdown. Further distance information will be given between the initial descent clearance and intercept heading to the ILS.
– Speed control may be applied on a tactical basis to the extent determined necessary by ATC. Aircraft unable to conform to the speeds specified by ATC should inform ATC immediately and state what speeds will be used. In the interests of accurate spacing, pilots are requested to comply with speed adjustment as promptly as is feasible within their own operational constraints and should advise ATC if circumstances necessitate a change of speed for aircraft performance reasons.
– In the event of ATS Surveillance failure, new instructions will be issued to each aircraft under ATC and the procedures as defined for intermediate approach without ATS Surveillance control will be put into effect.

d) Initial approach procedures – without ATS Surveillance control
When inbound traffic is not being sequenced by ATS Surveillance, aircraft will be cleared from the TMA zone boundary to carry out an instrument approach procedure appropriate for the landing direction.

e) Outbound Aircraft

Routes from the airport
– Routes may be varied at ATC discretion according to the prevailing traffic conditions.
– Warning: Pilots are reminded to maintain adequate terrain clearance, except when being vectored under ATS Surveillance control, in which case ATC will ensure that adequate terrain clearance exists prior to issuing vectoring.
– For ATC purposes, outbound aircraft will normally be required to cross a certain point at or above the altitude assigned. Pilots who cannot comply with the necessary climb profile must inform ATC in good time (i.e. before departure) so that an alternative routing can be coordinated.

Visual reporting points
– To facilitate the integration of VFR flights within the controlled airspace, pilots may be required to join/leave the airspace via the specified visual reporting points.
– For the benefit of pilots of VFR flight who prefer to determine their position by radio navigation aids rather than by visual pin-points, the visual reporting points are suitably defined in AIP-Thailand.

1.2.6.1 Missed approaches

a) As directed by ATC.
b) In the absence of instructions from ATC, the procedures are as in the published charts in AIP-Thailand.

1.2.6.2 Special VFR flight

a) Special VFR clearances for flights within the controlled airspace may be given whenever traffic conditions permit. These flights are subject to the general conditions laid down for special VFR flights.
b) Aircraft may be given a ATS Surveillance service whist within the zone if, due to the traffic situation, ATC considers it advisable. It will remain the responsibility of the pilot to remain at all times in flight conditions which will enable pilot to determine his flight path and to keep clear of obstacles, and to ensure that he is able to comply with the relevant low flying restrictions of the rules of the air. For the pilots of fixed-wing aircraft, the pilot must inform ATC if compliance with the above entails a change of heading or height.
c) Clearance for special VFR flight below minimum sector altitude cannot be given, unless at some specific radial or bearing which provides sufficient terrain clearance.

1.2.6.3 Holding point for ATS Surveillance service

Chiang Mai Terminal Control Area

| | |
|---|---|
| Name | : KARAE |
| Position | : 18 DME radial 210 CMA DVOR/DME (183009.07N 0984829.42E) |
| Lower Limit | : 8 000 feet QNH |
| Upper Limit | : 11 000 feet QNH |
| Holding Axis | : 030/210 (Inbound Track 030, Outbound Track 210) |
| Pattern | : 1 minute, left hand race-track pattern |

Phitsanulok Terminal Control Area

| | |
|---|---|
| Name | : UNITE |
| Position | : 20 DME radial 050 PSL DVOR/DME (165907.21N 1003327.88E) |
| Lower Limit | : 6 000 feet QNH |
| Upper Limit | : 11 000 feet QNH |
| Holding Axis | : 050/230 (Inbound Track 230, Outbound Track 050) |
| Pattern | : 1 minute, right hand race-track pattern. |

Hat Yai Terminal Control Area

| | |
|---|---|
| Name | : KOYAW (KYN) |
| Position | : 20 DME radial 040 HTY DVOR/DME (0711.0N 10036.7E) |
| Lower Limit | : 3 000 feet QNH |
| Upper Limit | : 7 000 feet QNH |
| Holding Axis | : 040/220 (Inbound Track 220, Outbound Track 040) |
| Pattern | : 1 minute, right hand race-track pattern. |

**1.3 In order to maximize use of ATS Surveillance Systems located at Don Mueang, Suvarnabhumi, Chiang Mai, Chiang Rai, Chumphon, Hat Yai, Hua Hin, Phuket, Phitsanulok, Roi Et, Surat Thani, Ubon Ratchathani and Udon Thani airport, where available, surveillance is used to maximum extent practicable in the provision of approach control services. Accordingly, when within surveillance cover, identified controlled flights may expect to be under radar control.**

ATC units providing approach radar control service within Bangkok, Chiang Mai, Hat Yai, Hua Hin, Krabi, Nakhon Si Thammarat, Phitsanulok, Phuket, Sukhothai, Surat Thani, Samui and Ubon Ratchathani TMAs/CTRs use the word “Bangkok Approach”, “Chiang Mai Approach”, “Hat Yai Approach”, “Hua Hin Approach”, “Krabi Approach”, “Nakhon Si Thammarat Approach”, “Phitsanulok Approach”, “Phuket Approach”, “Sukhothai Approach”, “Surat Thani Approach”, “Samui Approach” and “Ubon Approach” in his/her callsign respectively.

In addition to the application of Radar Control Service and Procedures as mentioned above, the following procedures also be applied when Secondary Surveillance Radar (SSR) may be used alone in the provision of air traffic services, including in the provision of separation between aircraft provided:

1.3.1 Regardless of weather conditions, an ATC authorization is required prior to operate within the TMAs/CTRs.

1.3.2 Unless otherwise authorized by appropriate approach control units, each aircraft must be equipped as follows:

a) TWO-WAY radio capable of communications with approach control units on appropriate frequency.
b) Operable radar beacon transponder.
c) Request for deviation from the 4096 transponder equipment must be submitted to appropriate approach control units at least one hour before the proposed operation.
d) An operable VOR, ADF or TACAN receiver.

1.3.3 Pilot of arriving aircraft should contact the appropriate approach control units on the publicized frequency and give their position, altitude, radar beacon code and destination; radio contact should be initiated far enough from the TMA boundary to preclude entering the TMA before radio communication is established.

1.3.4 IFR operation: aircraft within the TMAs/CTRs are required to operate in accordance with current IFR procedures as prescribed in Annex 2. AIP-Thailand or NOTAM and Amendment thereto.

1.3.5 VFR operation: Arriving aircraft must obtain authorization prior to entering the TMAs/CTRs and must contact appropriate approach control units on appropriate frequency. Departing aircraft require a clearance to depart the TMA and should advise the appropriate Tower of their intended cruising altitude and route of flight. ATC will normally advise VFR aircraft when leaving the geographical limit of TMA. Radar service is not automatically terminate with this advisory unless specifically state by ATC.

1.3.6 VFR aircraft outside TMAs/CTRs are cautioned against operating to closely to TMA boundaries especially when the floor of that TMA is 3000 ft or less or when VFR cruise altitude are at or near the floor of higher level. Observance at this precaution will reduce the potential for encountering TMA aircraft operation at TMA floor altitude.

1.3.7 This programme is not to be interpreted as a relief to the pilot of their responsibilities to see and avoid other traffic operating in basic VFR weather conditions and to adjust their operating in basic VFR weather conditions and to adjust their operations and flight path as necessary to preclude serious wake encounters and to or better than VMC. The appropriate approach control units should be advised and a revised clearance or instruction obtained when compliance with an assigned route, heading, and or/altitude is likely to compromise pilot responsibilities with respect to terrain and obstruction clearance, VORTEX exposure, and weather minimum.

1.3.8 ATC clearance and separation, an ATC authorization is required to enter and operate within the TMAs/CTRs for the following services:

a) Sequencing of all arriving ATS Surveillance controlled aircraft.
b) 5 NM ATS Surveillance separation between IFR aircraft.
c) 5 NM ATS Surveillance separation between IFR and VFR or Special VFR aircraft.
d) Between VFR aircraft – Traffic advisories and as appropriate safety alert, and also information to enable them to fit into the landing sequence.

1.3.9 ATS Surveillance approach control service to aircraft proceeding to the airports in this programme will be terminated at a sufficient distance to allow time to change to the appropriate tower frequency.

**1.4 Radio Communication Failure**

1.4.1 If two-way communication is lost with an aircraft, ATC should first determine whether or not the aircraft's receiver is functioning by instructing the aircraft on frequency so far used to acknowledge by making a specified manoeuvre and by observing the aircraft's track or by instructing the aircraft to operate the Special Position Identification (SPI) feature or to make the code changes. Where it has been established by the action mentioned above that the aircraft's radio receiver is functioning, ATC will continue to provide radar services to the aircraft.

1.4.2 If the aircraft's radio is completely unserviceable, the pilot should carry out the procedures for radio failure in accordance with ICAO provisions. If radar identification has already been established, ATC will vector other identified aircraft clear of its track until such time as the aircraft leaves radar cover.

**1.5 ATS Surveillance Failure**

1.5.1 In the event of ATS Surveillance failure or loss of ATS Surveillance identification, instructions will be issued to restore standard procedural separation.

1.5.2 The use of fight levels separated by 500 feet below FL290 or 1 000 feet at or above FL290 may be resorted to temporarily if standard procedural separation cannot be provided immediately.

1.5.3 ATC shall continue to control the traffic by using procedural separation.

**2. PRIMARY SURVEILLANCE RADAR**

**2.1 Area of Radar Coverage**

2.1.1 PSRs are located at position with maximum range in accordance with the following table:

| Primary Surveillance Radar Station | Latitude | Longitude | Range |
|---|---|---|---|
| Suvarnabhumi International Airport | 134122.63N | 1004613.05E | 40 nm |

2.1.2 Hours of operation will be 24 hours except for notice for maintenance by NOTAM.

**3. SECONDARY SURVEILLANCE RADAR**

**3.1 Area of Radar Coverage**

3.1.1 SSRs are located at position with maximum range in accordance with the following table:

| Secondary Surveillance Radar Stations | Latitude | Longitude | Range |
|---|---|---|---|
| Don Mueang International Airport | 135532.82N | 1003620.14E | 256 nm |
| Suvarnabhumi International Airport | 134149.90N | 1004615.44E | 256 nm |
| Chiang Mai International Airport | 184534.76N | 0985801.44E | 256 nm |
| Mae Fah Luang-Chiang Rai International Airport | 195734.62N | 0995257.56E | 256 nm |
| Chumphon Airport | 104304.39N | 0992156.76E | 256 nm |
| Phitsanulok Airport | 164559.34N | 1001642.26E | 256 nm |
| Roi Et Airport | 160639.74N | 1034639.87E | 256 nm |
| Surat Thani Airport | 090800.77N | 0990843.50E | 256 nm |
| Ubon Ratchathani Airport | 151441.65N | 1045204.87E | 256 nm |
| Udon Thani Airport | 172315.59N | 1024611.72E | 256 nm |
| Hat Yai International Airport | 065608.15N | 1002300.20E | 256 nm |
| Bang Duk Hill, Phuket | 080801.67N | 0981946.52E | 256 nm |

3.1.2 Hours of operation will be 24 hours except for notice for maintenance by NOTAM.

3.1.3 Graphic portrayal of area of theoretical SSR and/or SSR/ADS-B coverage as shown in Figure ENR 1.6-A to Figure ENR 1.6-O.

**3.2 Emergency Procedures**

3.2.1 If the pilot of an aircraft encountering a state of emergency has previously been directed by ATC to operate the transponder on a specific code, this code setting shall be maintain until otherwise advised. In all other circumstances. The transponder shall be set to mode A/3 code 7700.

3.2.2 Notwithstanding the procedure in 3.2.1 above, a pilot may select mode A/3 code 7700 whenever the nature of the emergency is such

that this appears to him to be the most suitable course of action.

**3.3 Radio Communication Failure Procedures**

3.3.1 In the event of an aircraft radio receiver failure, a pilot shall select mode A/3 code 7600 and follow established procedures; subsequent control of the aircraft will be based on those procedures.

**3.4 Unlawful Interference**

3.4.1 Should an aircraft in flight be subjected to unlawful interference, the pilot shall endeavour to set the transponder to mode A/3 code 7500 to give indication of the situation unless circumstances warrant the use of mode A/3 code 7700.

3.4.2 When a pilot has selected mode A/3 code 7500 and subsequently requested to confirm his code by ATC, he shall, according to circumstances either confirm this or not reply at all.

***Note:*** *The absence of a reply from the pilot will be taken by ATC as an indication that the use of mode A/3 code 7500 is not due to an inadvertent false code selection.*

**3.5 Operating Procedures**

3.5.1 All aircraft flying within Bangkok FIR are required to operate their transponders in accordance with ATC instructions. They should maintain the setting of SSR codes until otherwise instructed except as provided for in 3.6.2 and 3.6.3 below.

3.5.2 Pilots of aircraft equipped with Mode S having an aircraft identification feature shall set the aircraft identification in the transponder. This setting shall correspond to the aircraft identification specified in item 7 of the ICAO flight plan, or, if no flight plan has been filed, the aircraft registration.

**3.6 Code Assignment Method**

3.6.1 All IFR aircraft flying within controlled airspace in Bangkok FIR shall be assigned transponder code as follows.

| Flight Status | SSR codes |
|---|---|
| International flight | 0700-0777, 6100-6177 |
| Domestic flight | 1260-1277, 3301-3377, 4200-4277,<br>4400-4477, 4500-4577, 7200-7277 |

3.6.2 Pilots of aircraft about to enter Bangkok FIR who have not received specific instructions from ATC concerning the setting of the transponder shall operate the transponder on mode A/3 code 3300 before entry and maintain that code setting until otherwise instructed.

3.6.3 VFR Operation

3.6.3.1 VFR flight operating in Bangkok FIR may be assigned SSR codes by ATS unit concerned.

3.6.3.2 VFR flight departing from an aerodrome without SSR code being assigned shall use mode A/3 code 2000 until a specific code is

assigned by an ATS unit.

## 4. AUTOMATIC DEPENDENT SURVEILLANCE-BROADCAST ADS-B

### 4.1 Area of ADS-B Coverage

4.1.1 ADS-B receivers are located at position with maximum range in accordance with the following table:

| Automatic Dependent Surveillance Stations | Latitude | Longitude | Range |
|---|---|---|---|
| Doi Inthanon | 183524.62N | 0982913.78E | 256 NM |
| Samui | 092931.55N | 0995916.76E | 256 NM |
| Ubon Ratchathani_1 | 151446.10N | 1045209.02E | 256 NM |
| Ubon Ratchathani_2 | 151441.65N | 1045204.86E | 256 NM |
| Phuket | 080801.67N | 0981946.51E | 256 NM |
| Surat Thani | 090800.75N | 0990843.52E | 256 NM |
| Hat Yai | 065611.33N | 1002344.44E | 256 NM |

4.1.2 Hours of operation will be 24 hours except for notice for maintenance by NOTAM.

4.1.3 Graphic portrayal of area of theoretical ADS-B coverage as shown in Figure ENR 1.6-P to Figure ENR 1.6-V.

### 4.2 Emergency Procedures

4.2.1 Pilot of aircraft encountering a state of emergency shall set their transponder as stipulated in paragraph 3.2

### 4.3 Radio Communication Failure Procedures

4.3.1 Aircraft experiencing total radio communication failure shall set transponder as stipulated in paragraph 3.3

### 4.4 Unlawful Interference

4.4.1 Pilot of aircraft in flight be subjected to unlawful interference shall set transponder as stipulated in paragraph 3.4

### 4.5 Operating Procedures

4.5.1 ATC will provide the ATS Surveillance service based on the information provided by ATC air situation display, which will show different symbols corresponding to the available surveillance sources. If the surveillance data is not available from any sources due to any reasons, ATC will immediately provide the Procedural separation for the aircraft.

4.5.2 The pilot-in-command, upon awareness of an onboard ADS-B equipment failure, should also inform ATC as soon as possible.

4.5.3 All relevant phraseology should follow those in Doc 4444, Procedures for Air Navigation Services - Air Traffic Management.

4.5.4 All aircraft flying within Bangkok FIR are required to operate their transponders in accordance with ATC instructions. They shall set transponder as stipulated in paragraph 3.5.

4.5.5 Pilots of aircraft equipped with Mode S having an aircraft identification feature shall set transponder as stipulated in paragraph 3.5.

### 4.6 Flight Planning

4.6.1 Aircraft operators intending to receive ATS surveillance service based on ADS-B (Out) when operating within Bangkok FIR should obtain the relevant operations specifications approvals from their respective States and file either “B1” or “B2” in Item 10b of their flight plans.

4.6.2 Aircraft Operators should also ensure that their flight crews are familiar with the operation of the ADS-B equipment on board the aircraft and are aware of any limitations or differences in operation compared to SSR.

4.6.3 If the ADS-B transmitter onboard the aircraft becomes inoperable or does not meet required operational approval standards and if the following actions do not affect the continued operation of the Mode S transponder responses to interrogations, the ADS-B transmitter should either be:

4.6.3.1 Deactivated; or

4.6.3.2 Set to transmit only a value of zero for the Navigation Uncertainty Category (NUCp) or Navigation Integrity Category (NIC) or Navigation Accuracy Category (NAC) or Source Integrity Limit (SIL).

### 4.7 Code Assignment Method

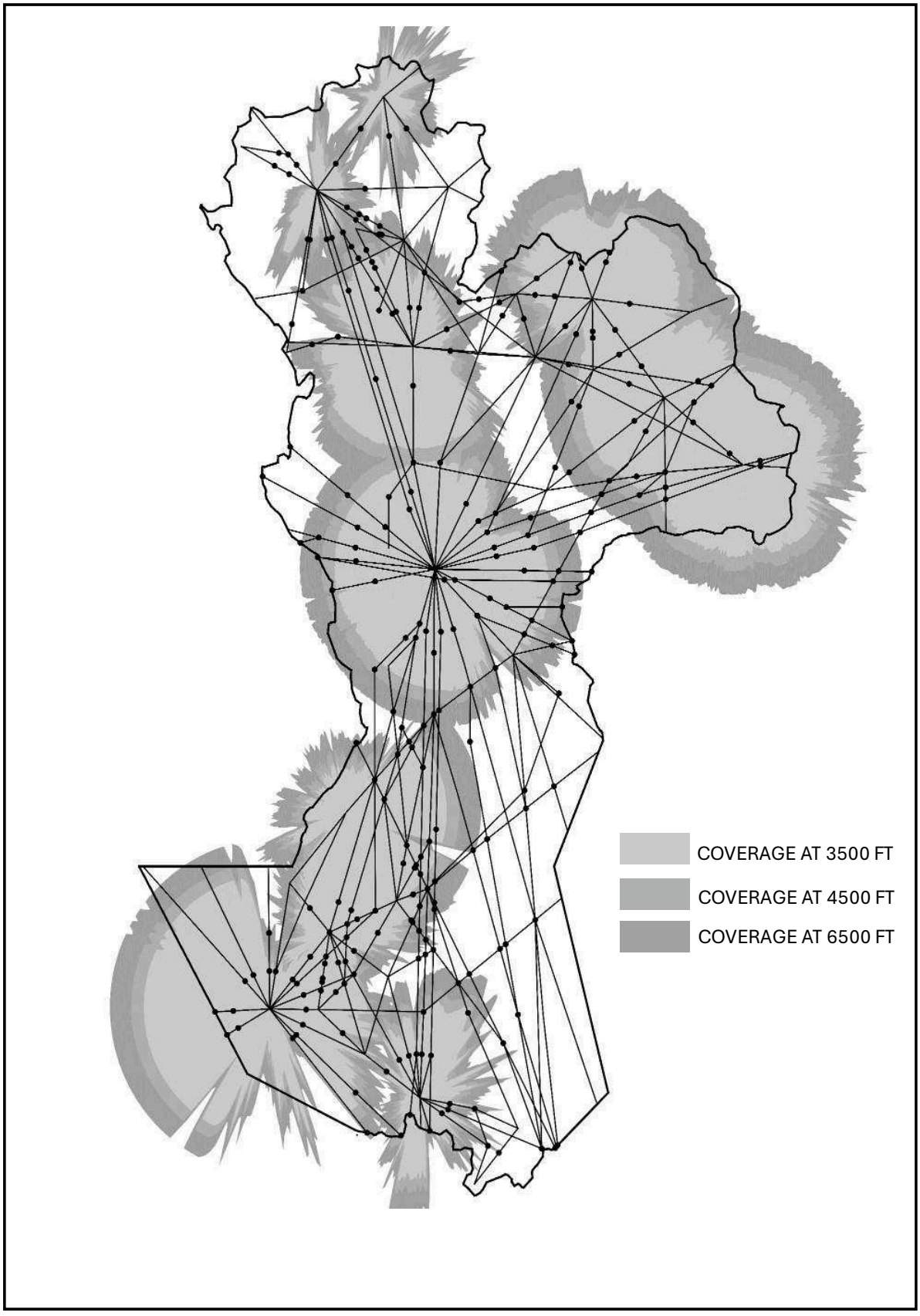
4.7.1 All aircraft flying within controlled airspace in Bangkok FIR shall set transponder as stipulated in paragraph 3.6

## 5. OTHER RELEVANT INFORMATION AND PROCEDURES

NIL

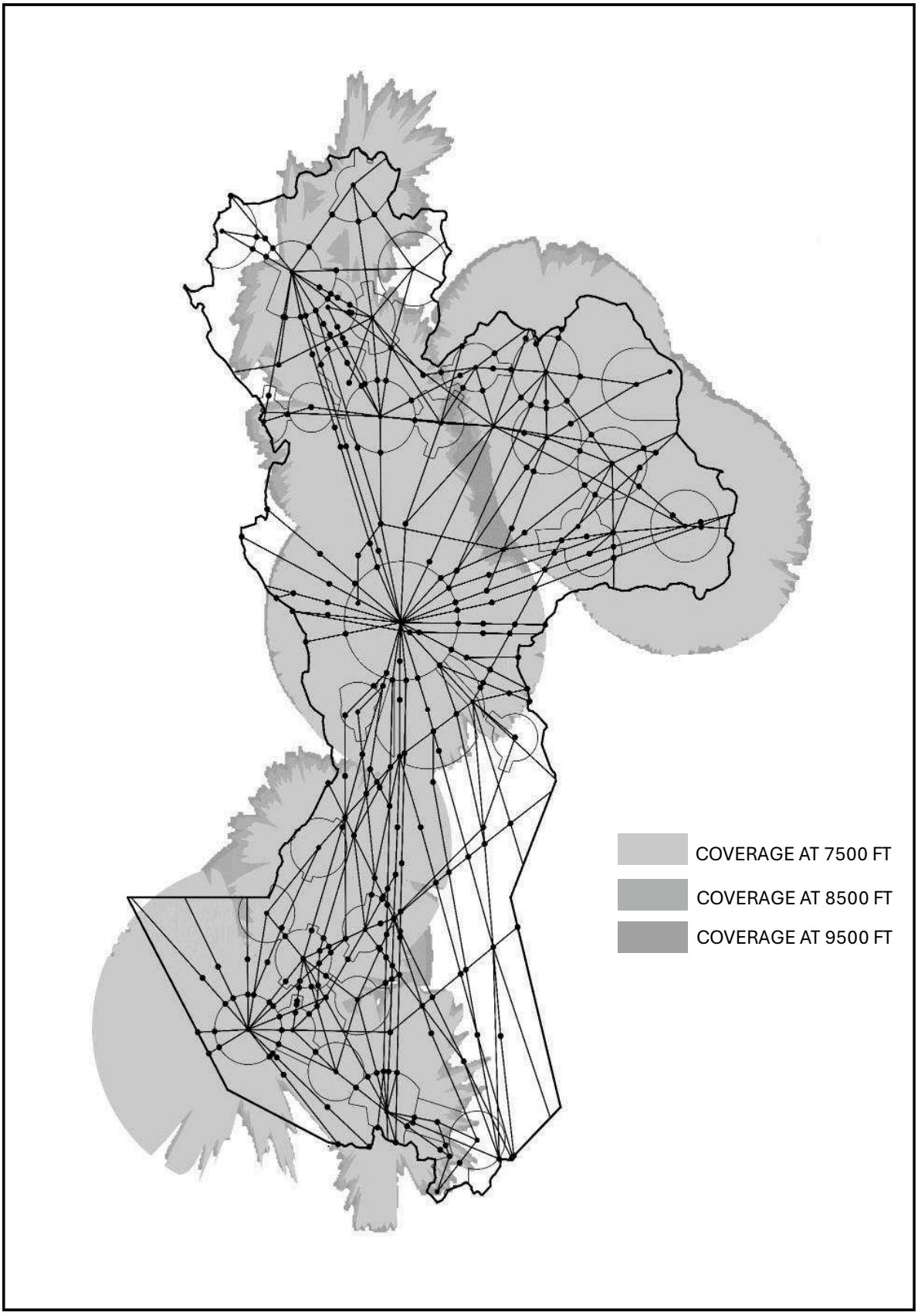
# Area of Theoretical SSR Coverage

## Figure ENR 1.6 -A - Coverage at 3500 FT 4500 FT 6500 FT



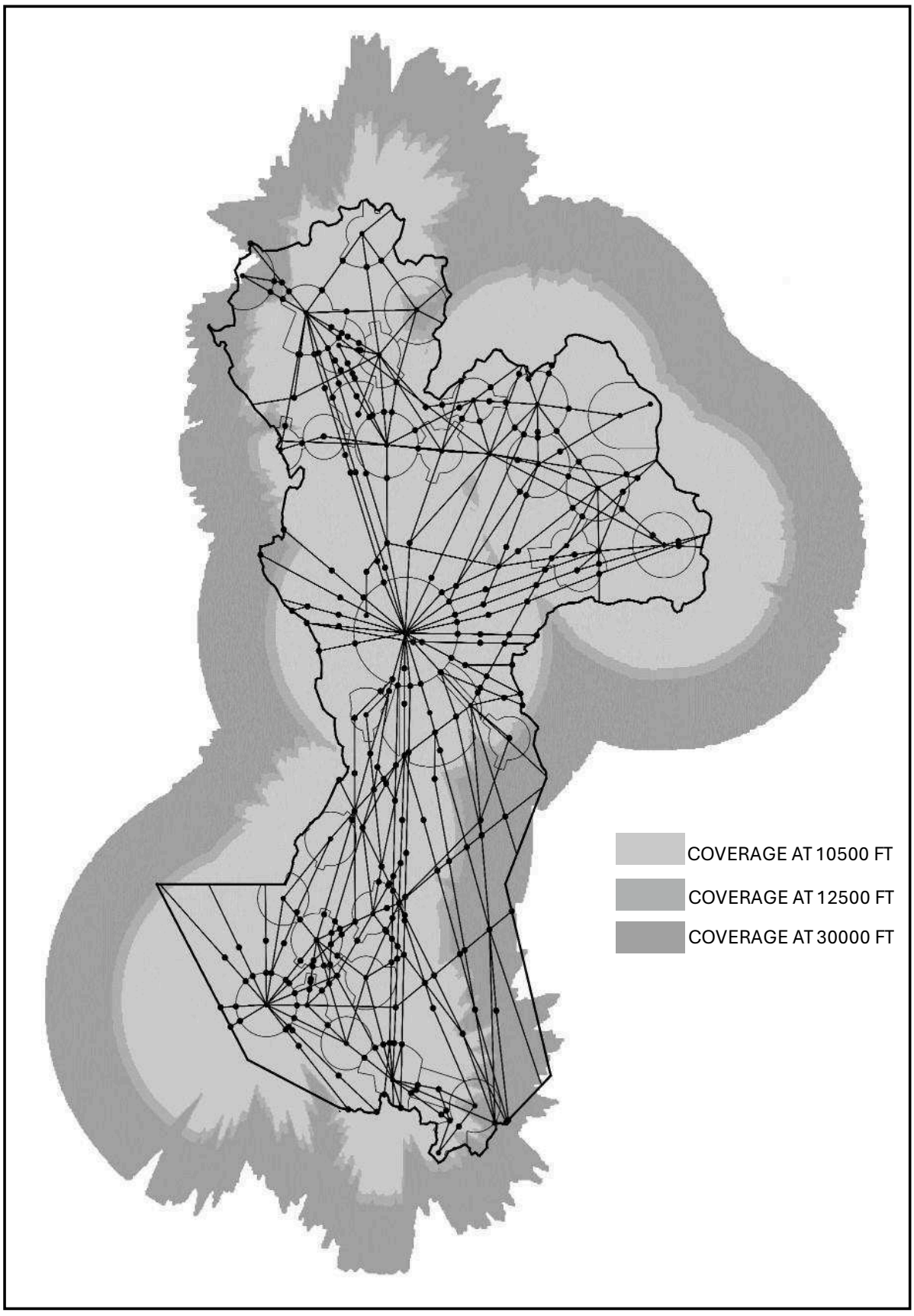
## Area of Theoretical SSR Coverage

## Figure ENR 1.6 -B - Coverage at 7500 FT 8500 FT 9500 FT



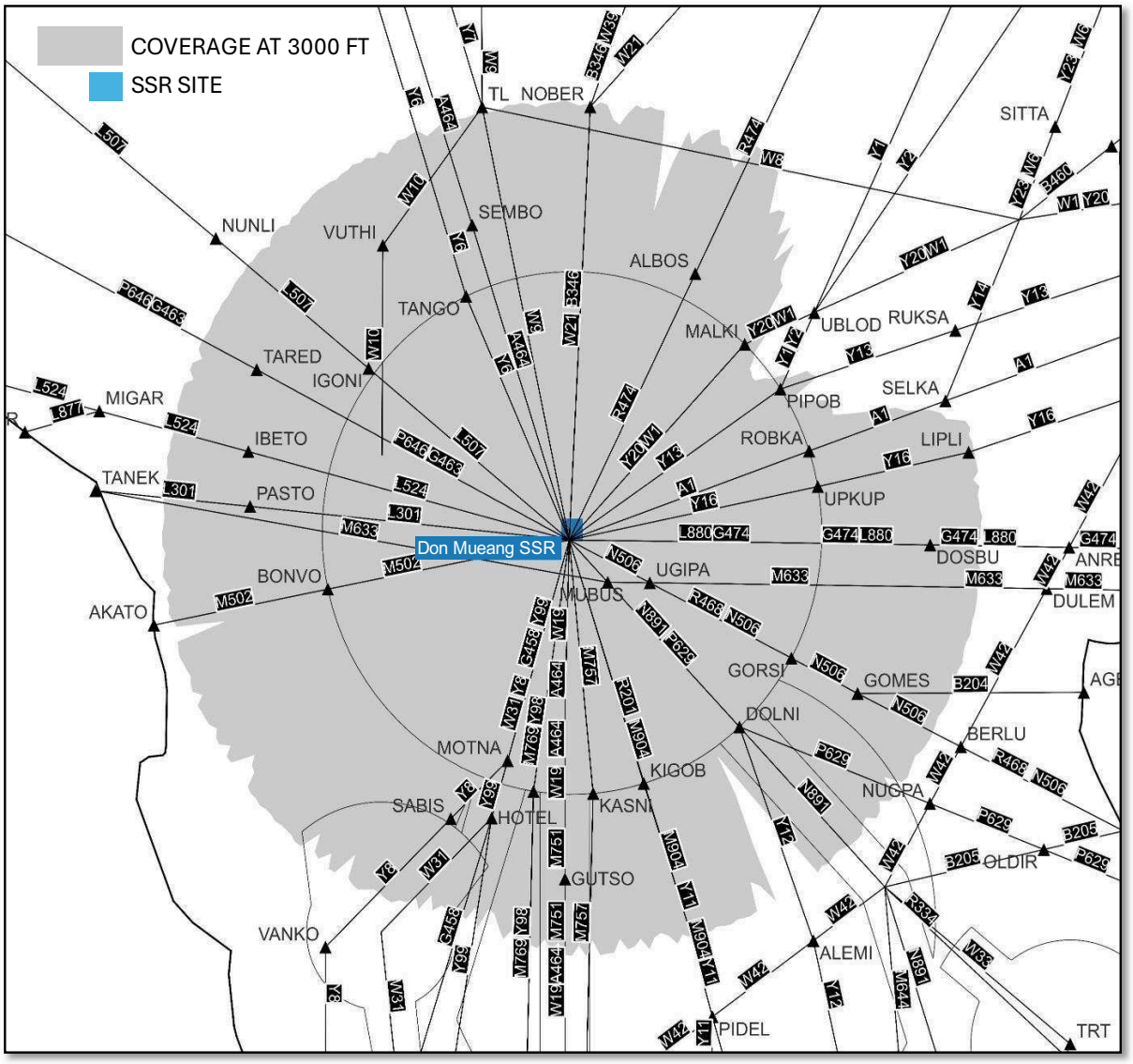
## Area of Theoretical SSR Coverage

## Figure ENR 1.6 -C - Coverage at 10500 FT 12500 FT 30000 FT



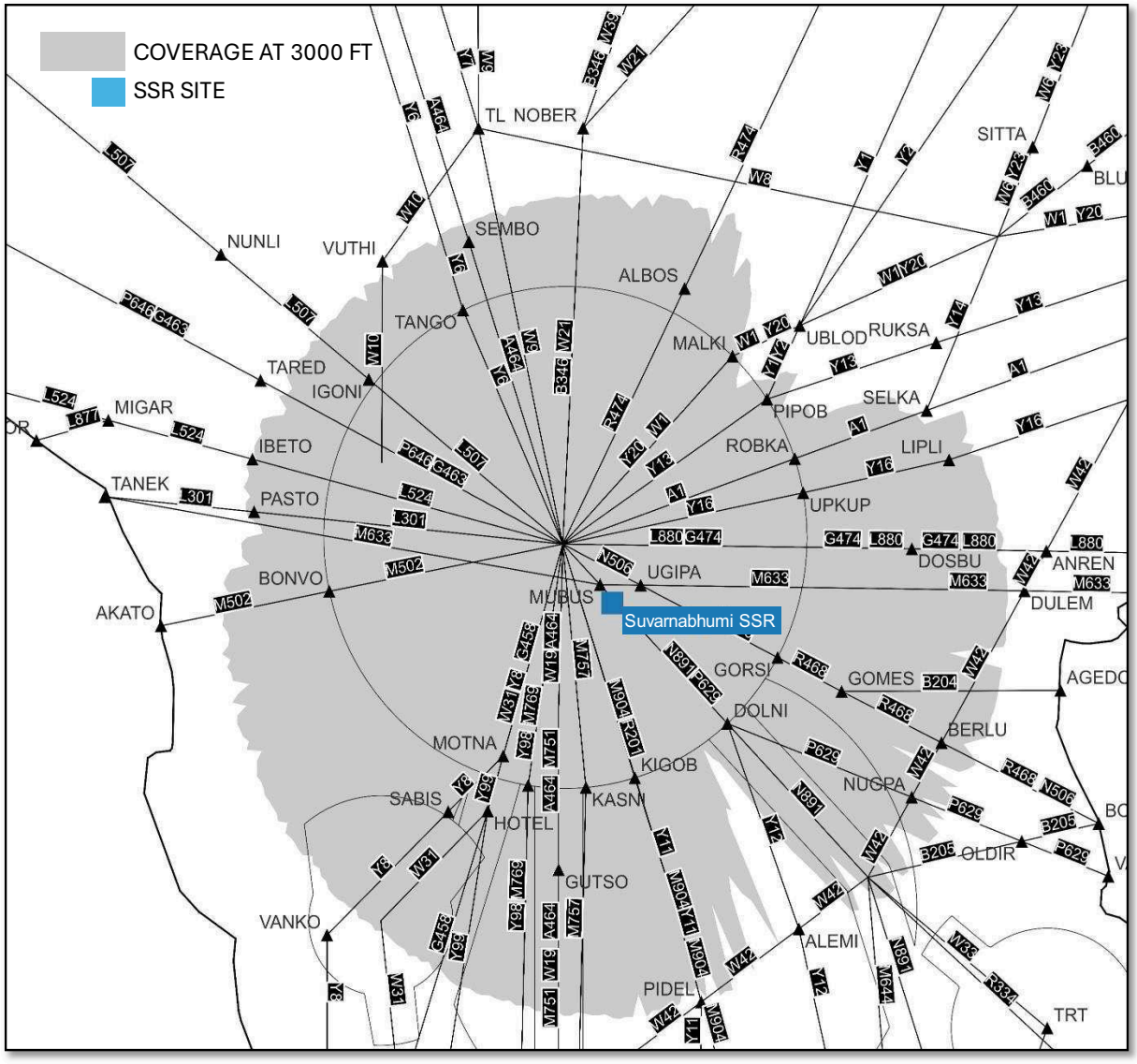
# Area of Theoretical SSR Coverage

## Figure ENR 1.6 -D – Don Mueang SSR Station Coverage at3000 FT



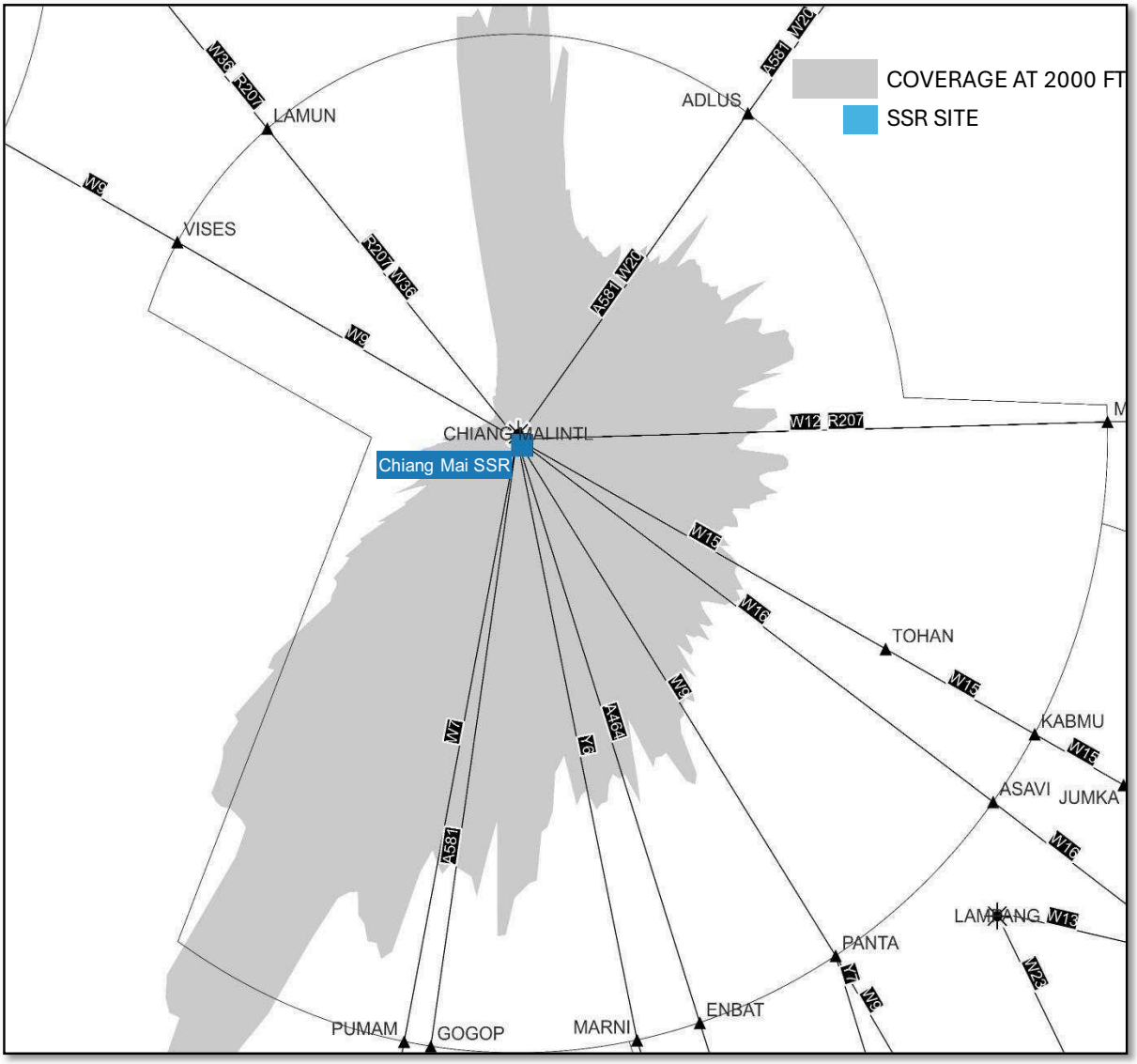
# Area of Theoretical SSR Coverage

## Figure ENR 1.6 -E – Suvarnabhumi SSR Station Coverage at 3000 FT



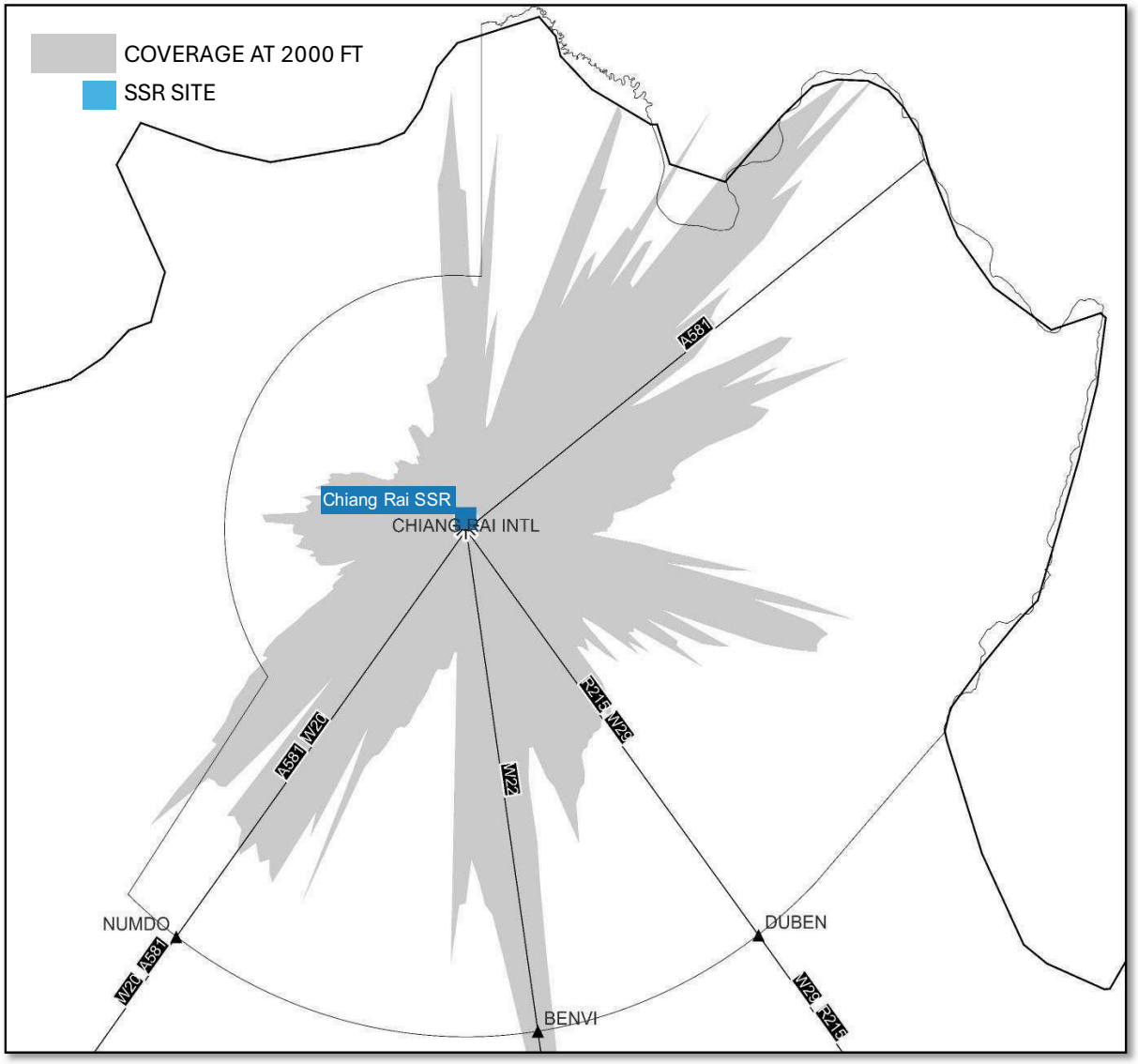
## Area of Theoretical SSR Coverage

## Figure ENR 1.6 -F – Chiang Mai SSR Station Coverage at 2000 FT



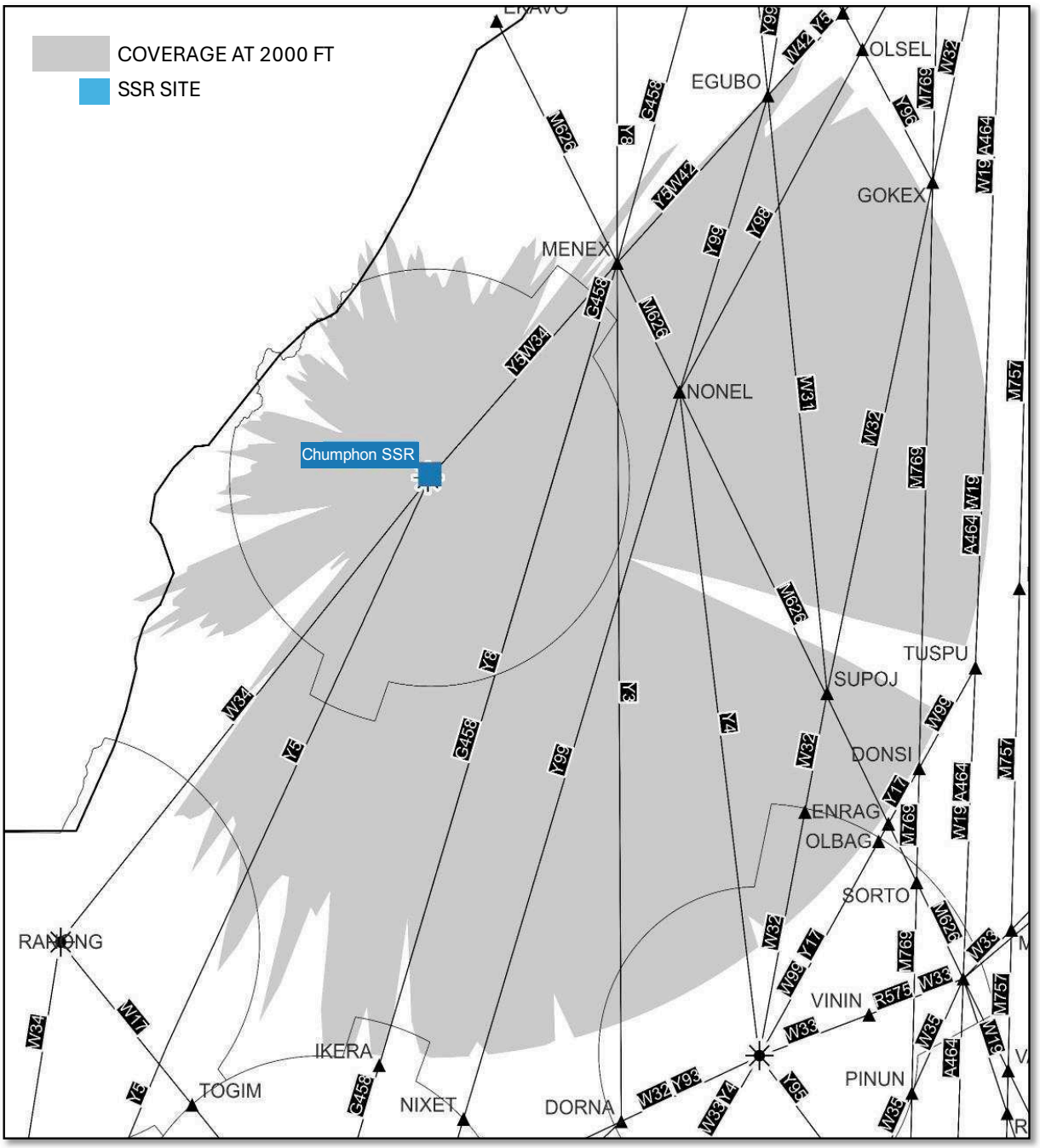
## Area of Theoretical SSR Coverage

## Figure ENR 1.6 -G – Chiang Rai SSR Station Coverage at 2000 FT



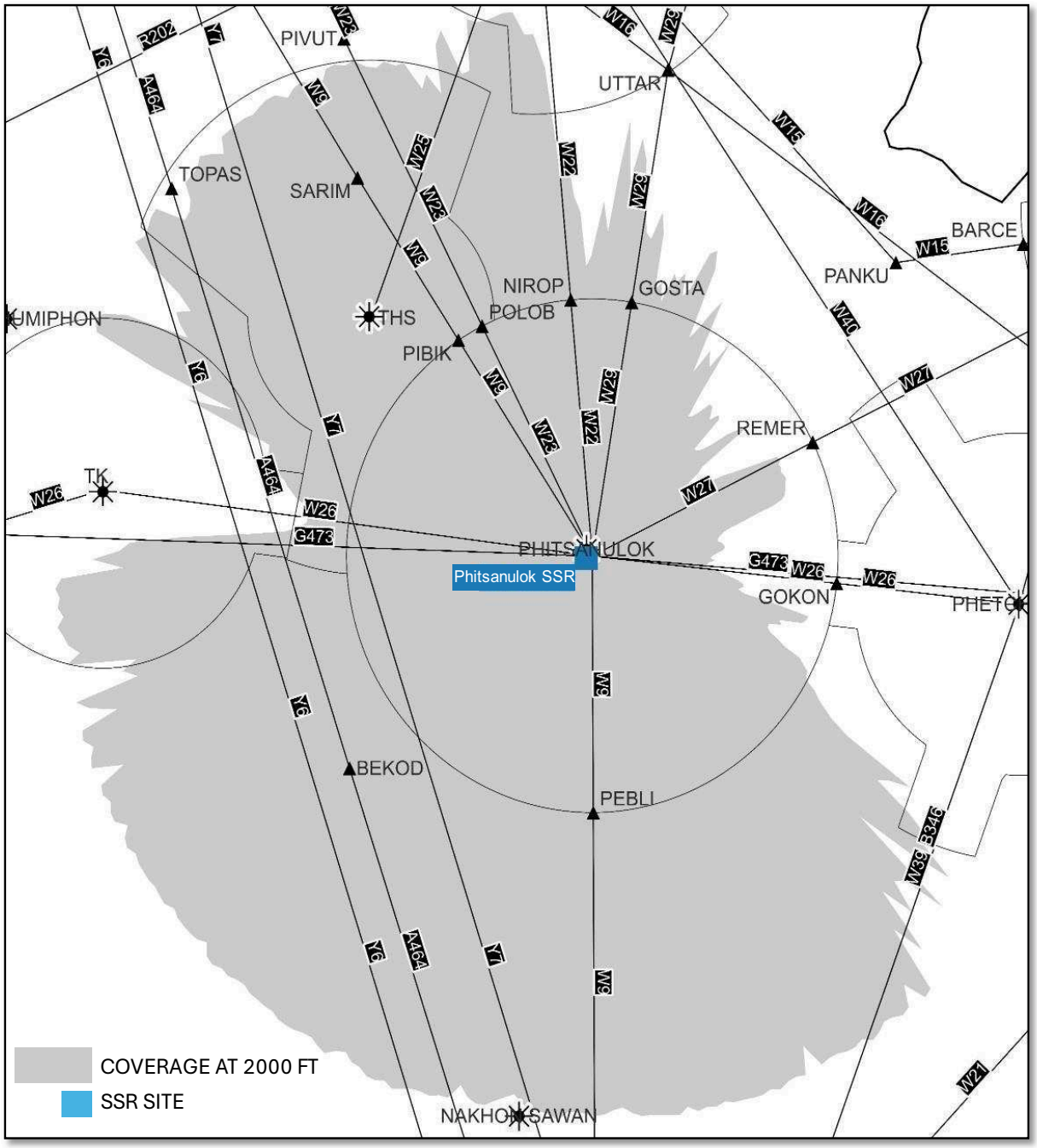
## Area of Theoretical SSR Coverage

## Figure ENR 1.6 -H– Chumphon SSR Station Coverage at 2000 FT



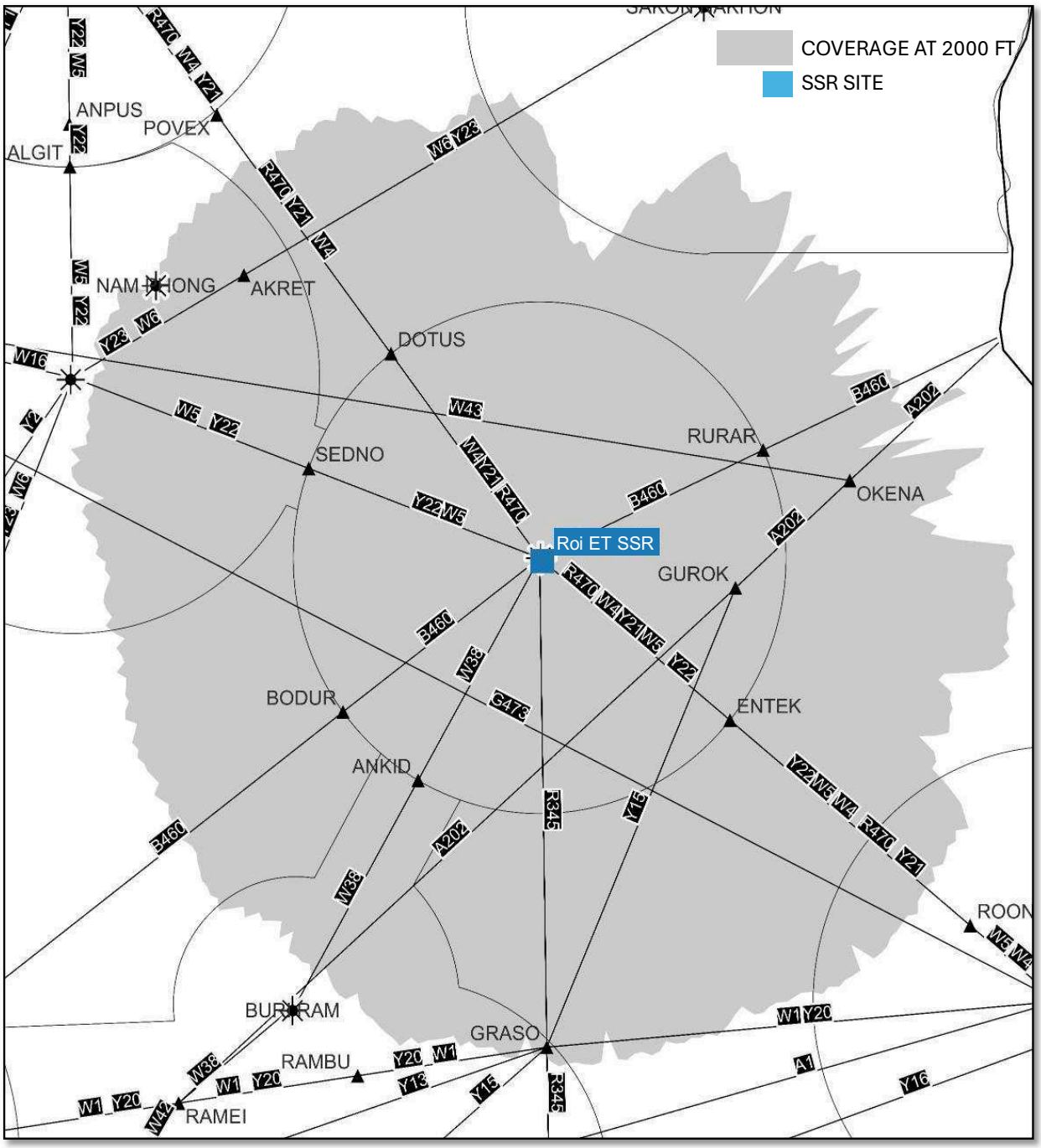
## Area of Theoretical SSR Coverage

## Figure ENR 1.6 -I– Phitsanulok SSR Station Coverage at 2000 FT



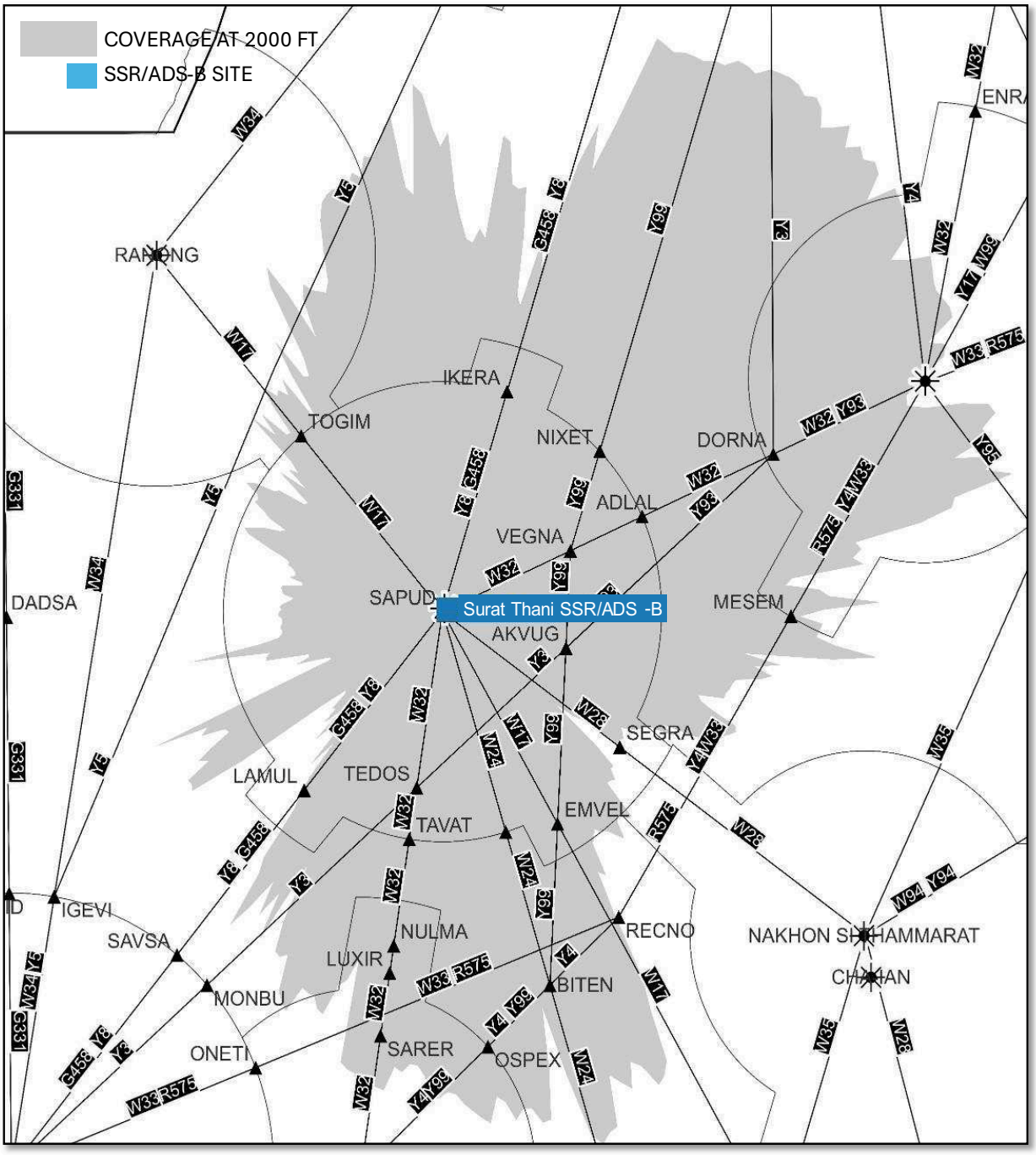
## Area of Theoretical SSR Coverage

## Figure ENR 1.6 -J– Roi Et SSR Station Coverage at 2000 FT



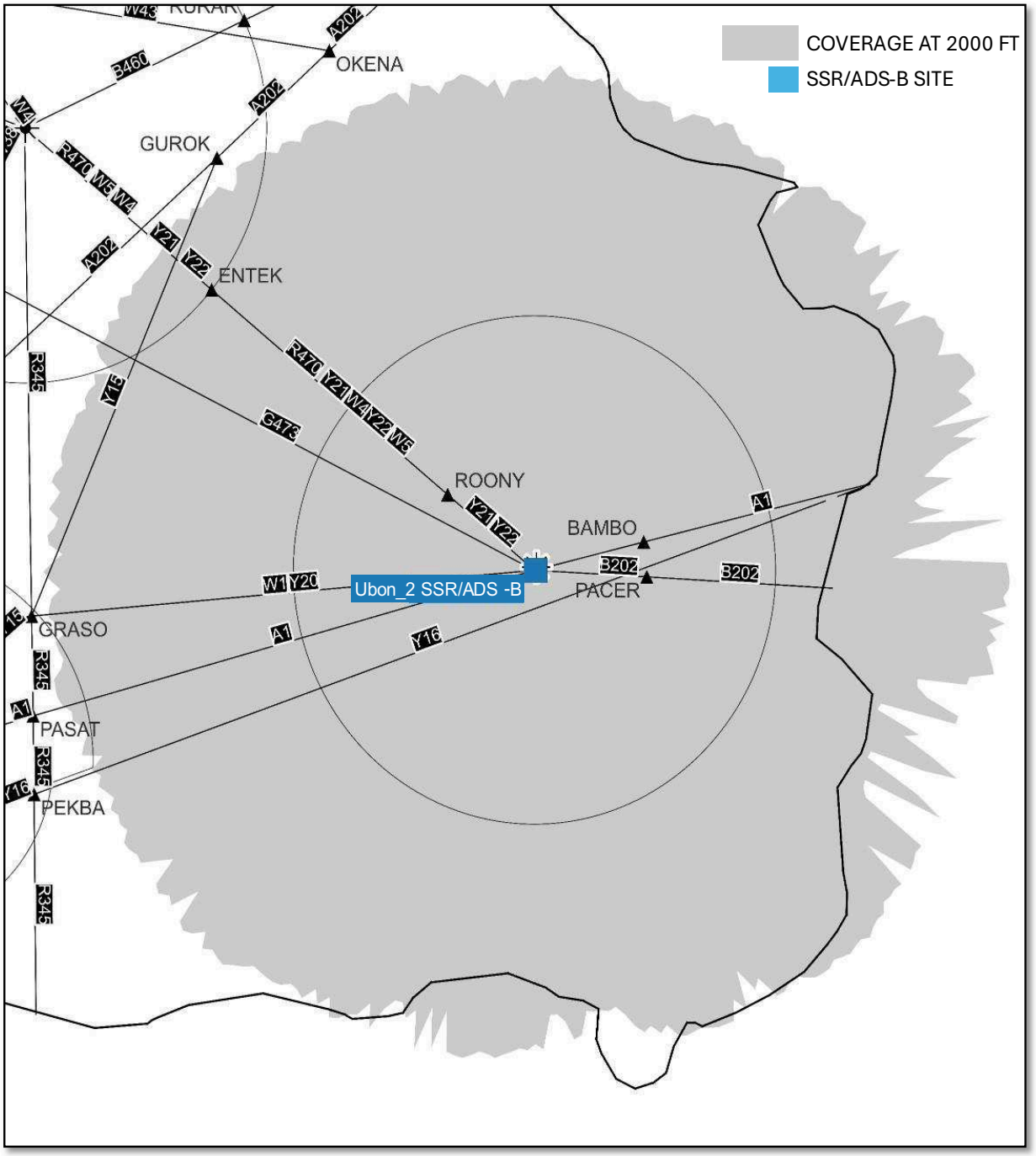
## Area of Theoretical SSR/ADS-B Coverage

## Figure ENR 1.6 -K– Surat Thani SSR/ADS-B Station Coverage at 2000 FT



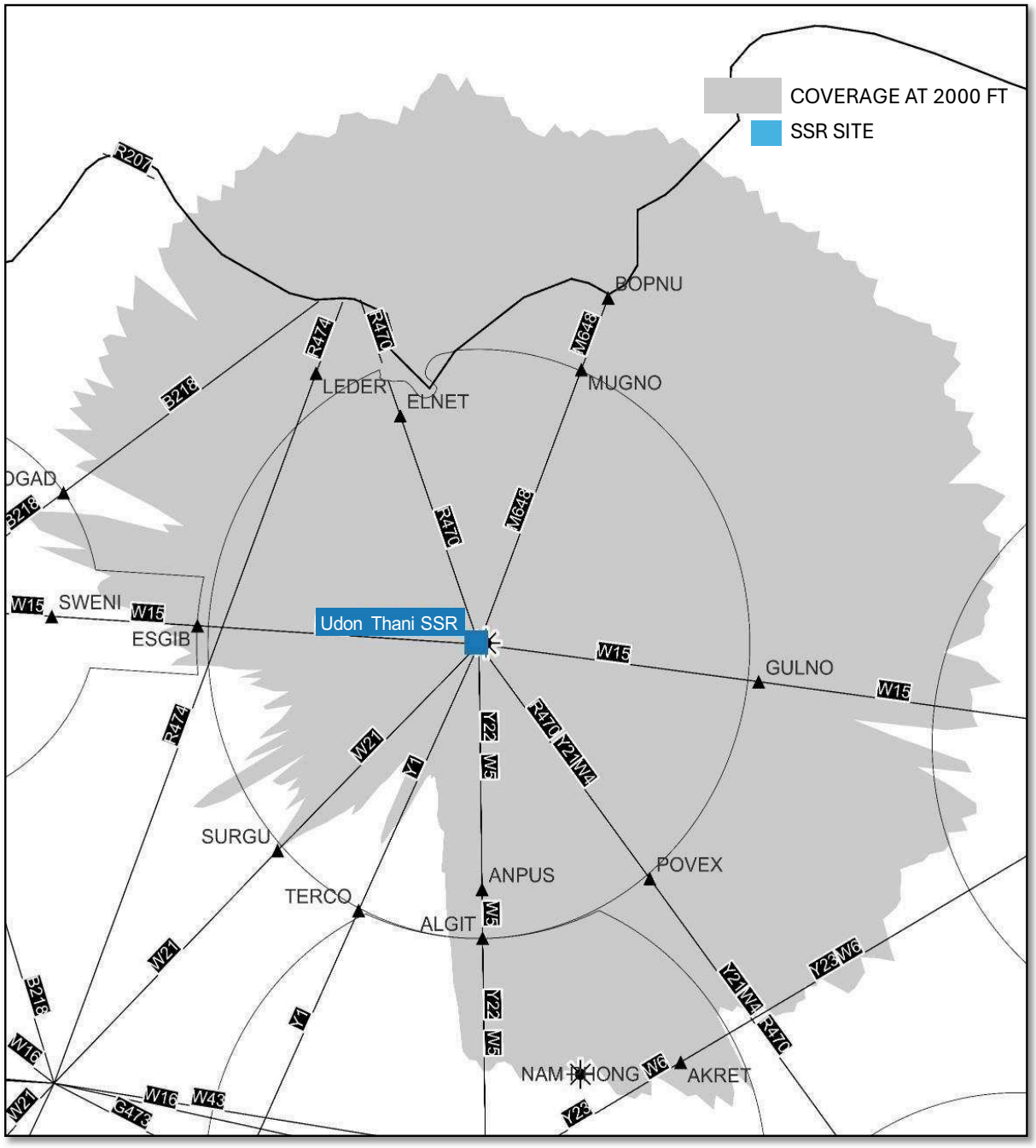
## Area of Theoretical SSR/ADS-B Coverage

## Figure ENR 1.6 -L– Ubon Ratchathani_2 SSR/ADS-B Station Coverage at 2000 FT



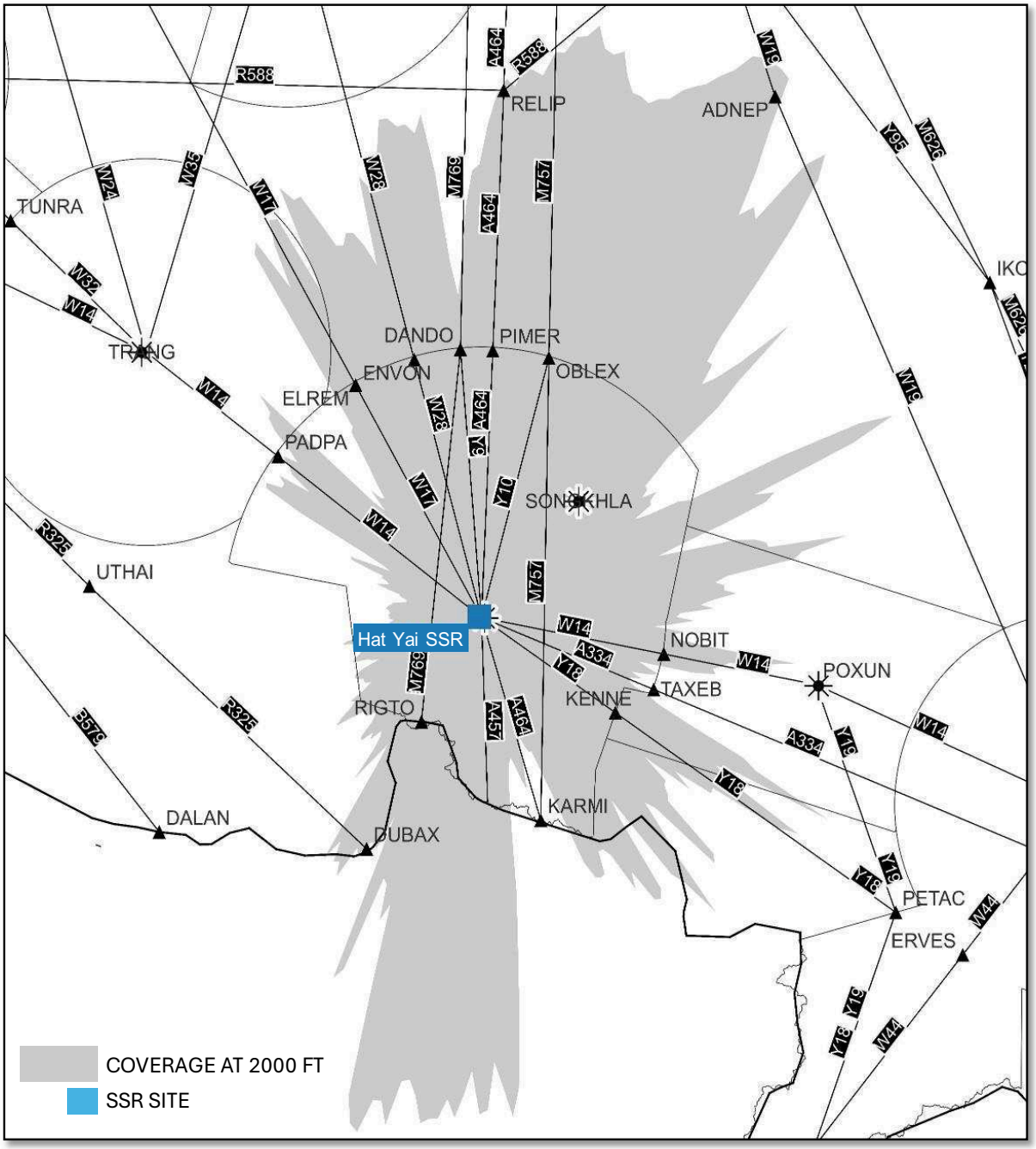
## Area of Theoretical SSR Coverage

## Figure ENR 1.6 -M– Udon Thani SSR Station Coverage at 2000 FT



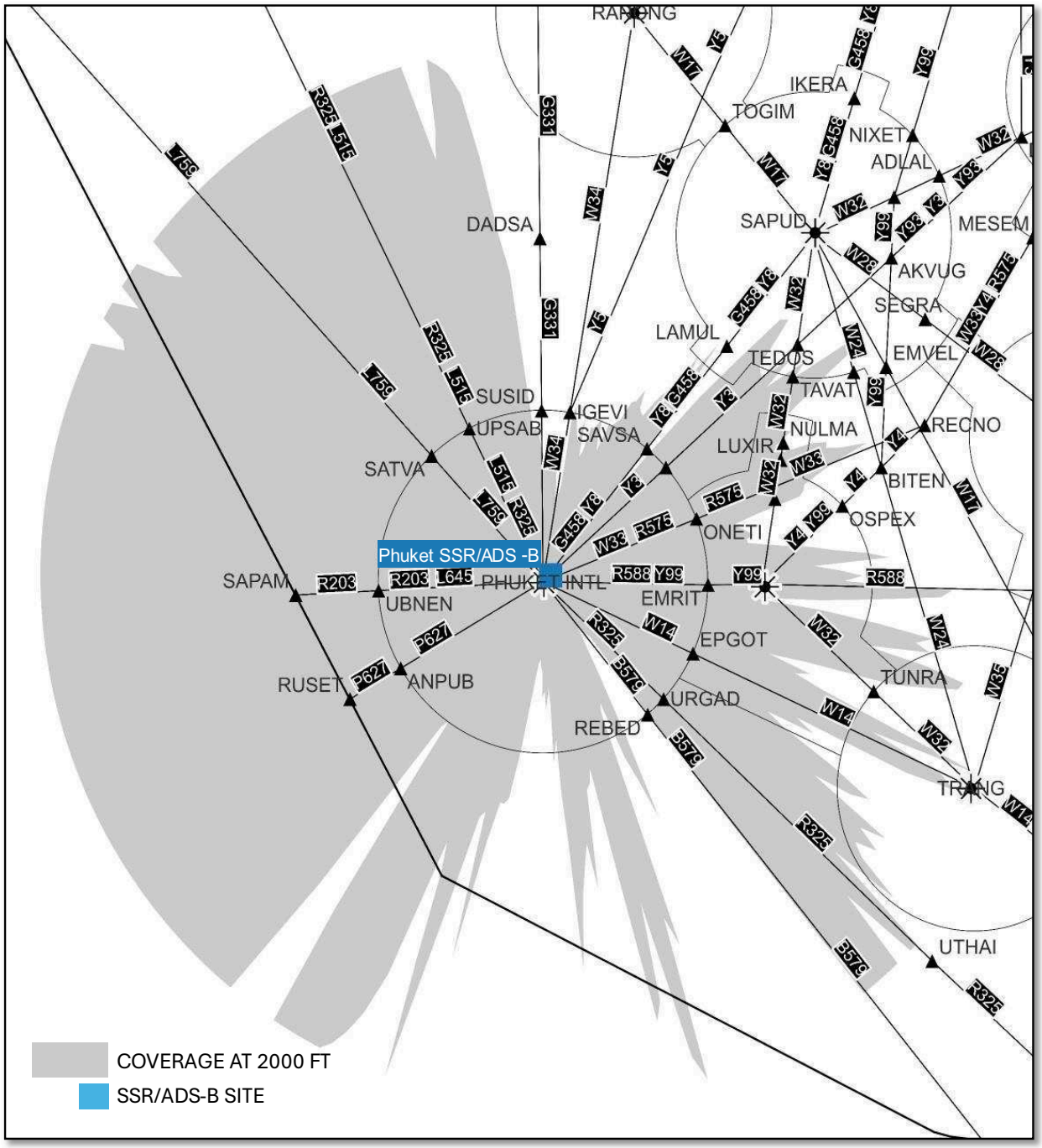
## Area of Theoretical SSR Coverage

## Figure ENR 1.6 -N– Hat Yai SSR Station Coverage at 2000 FT



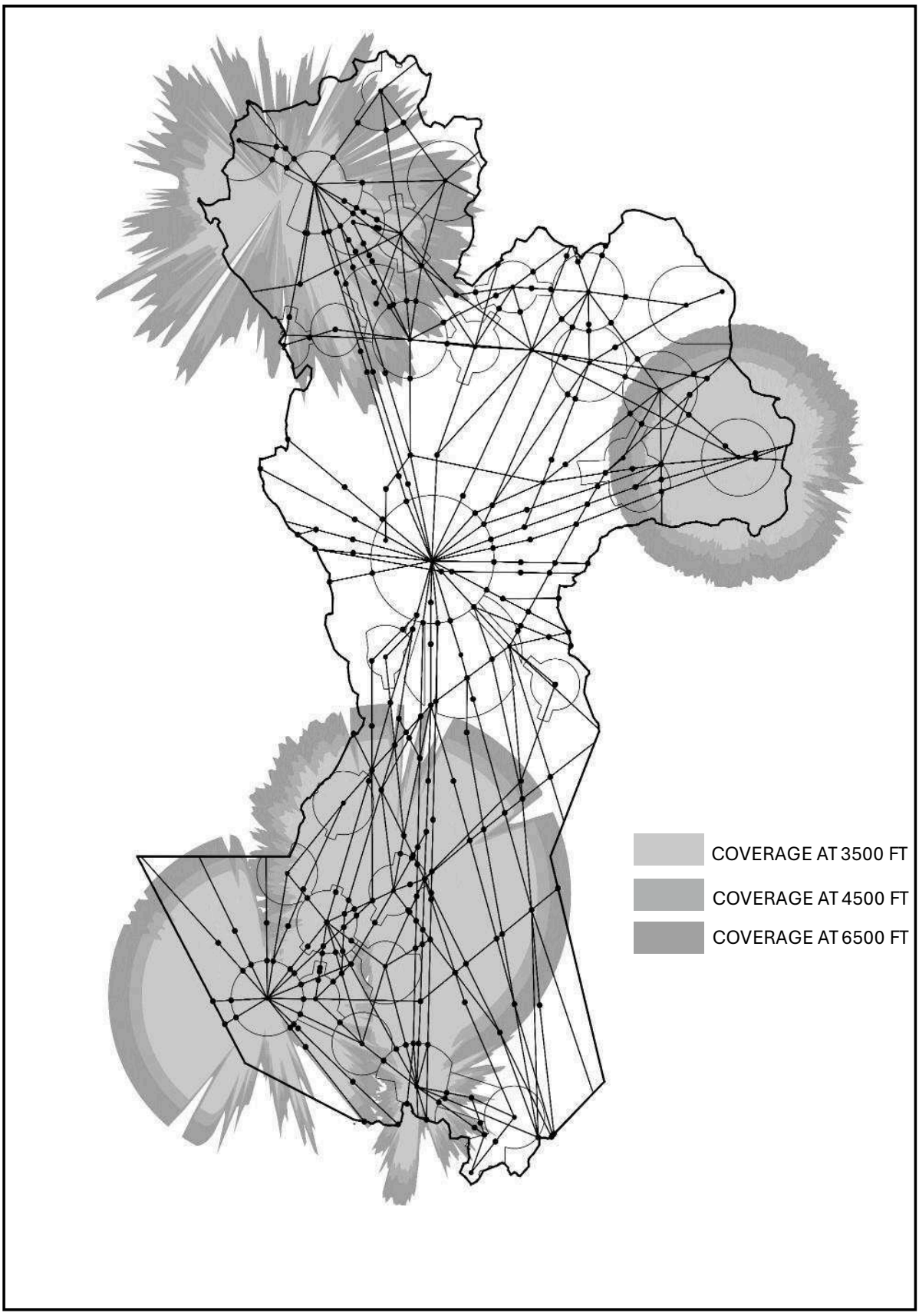
## Area of Theoretical SSR/ADS-B Coverage

## Figure ENR 1.6 -O– Phuket SSR/ADS-B Station Coverage at 2000 FT



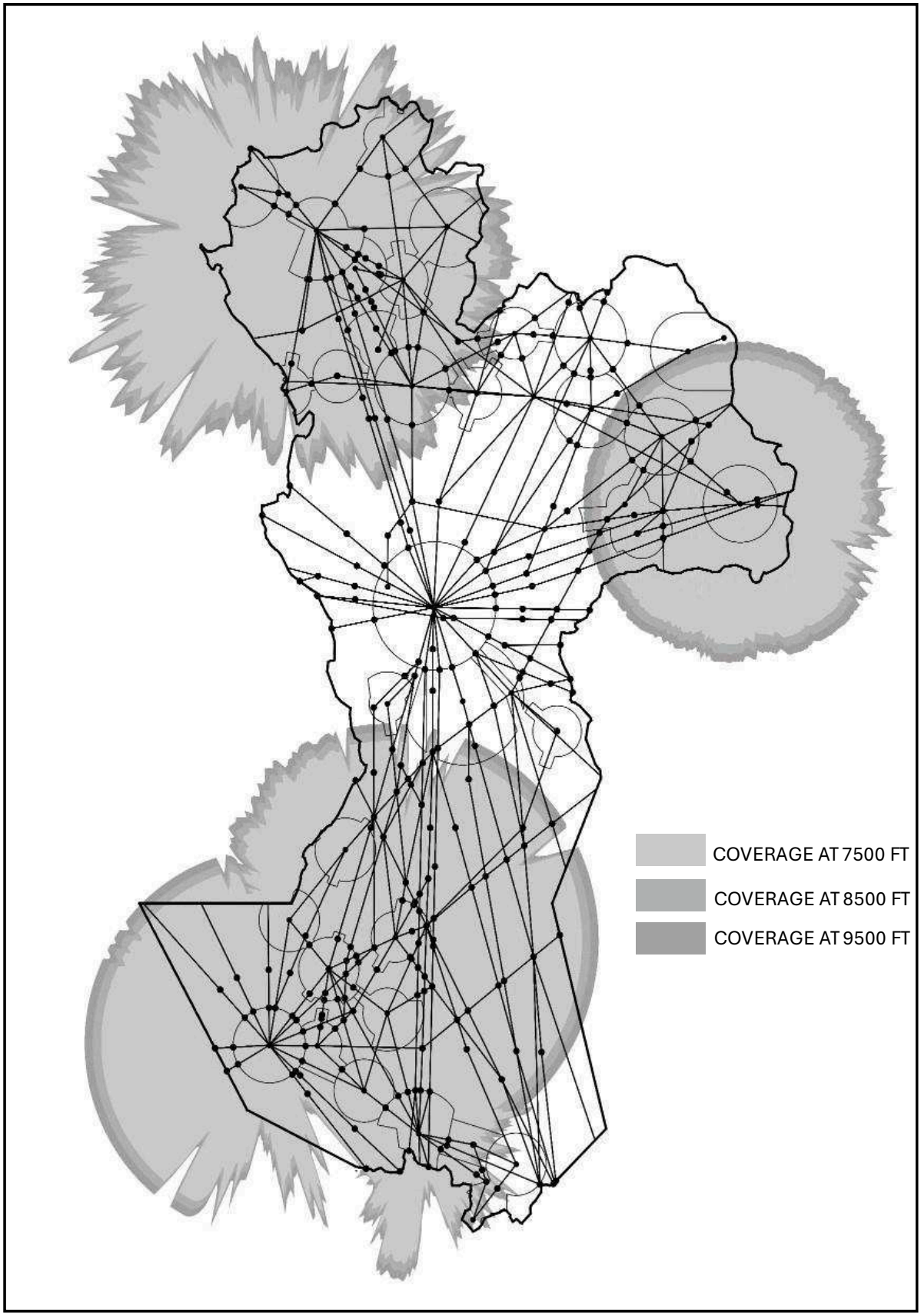
# Area of Theoretical ADS-B Coverage

## Figure ENR 1.6 -P - Coverage at 3500 FT 4500 FT 6500 FT



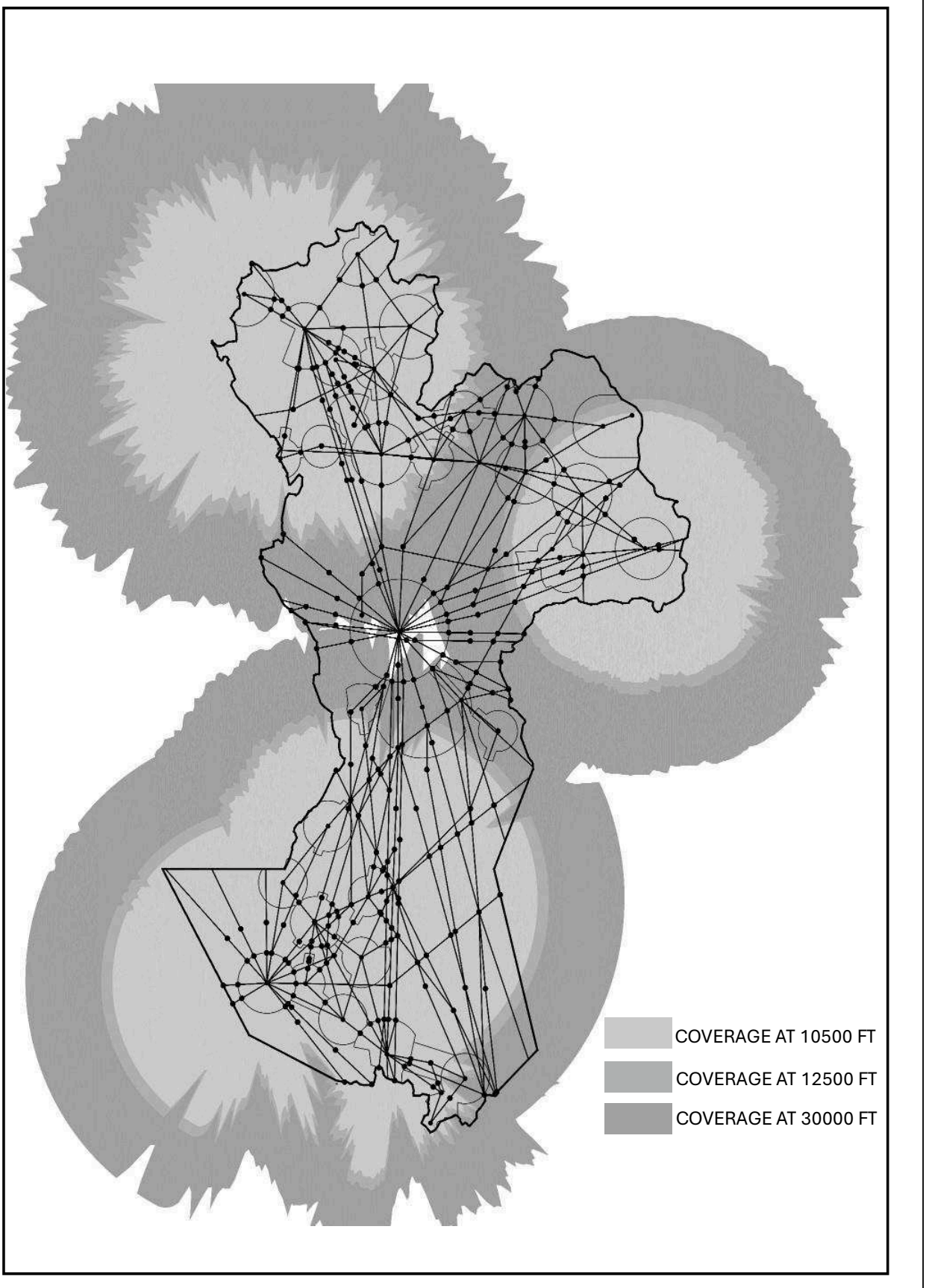
## Area of Theoretical ADS-B Coverage

## Figure ENR 1.6 -Q - Coverage at 7500 FT 8500 FT 9500 FT



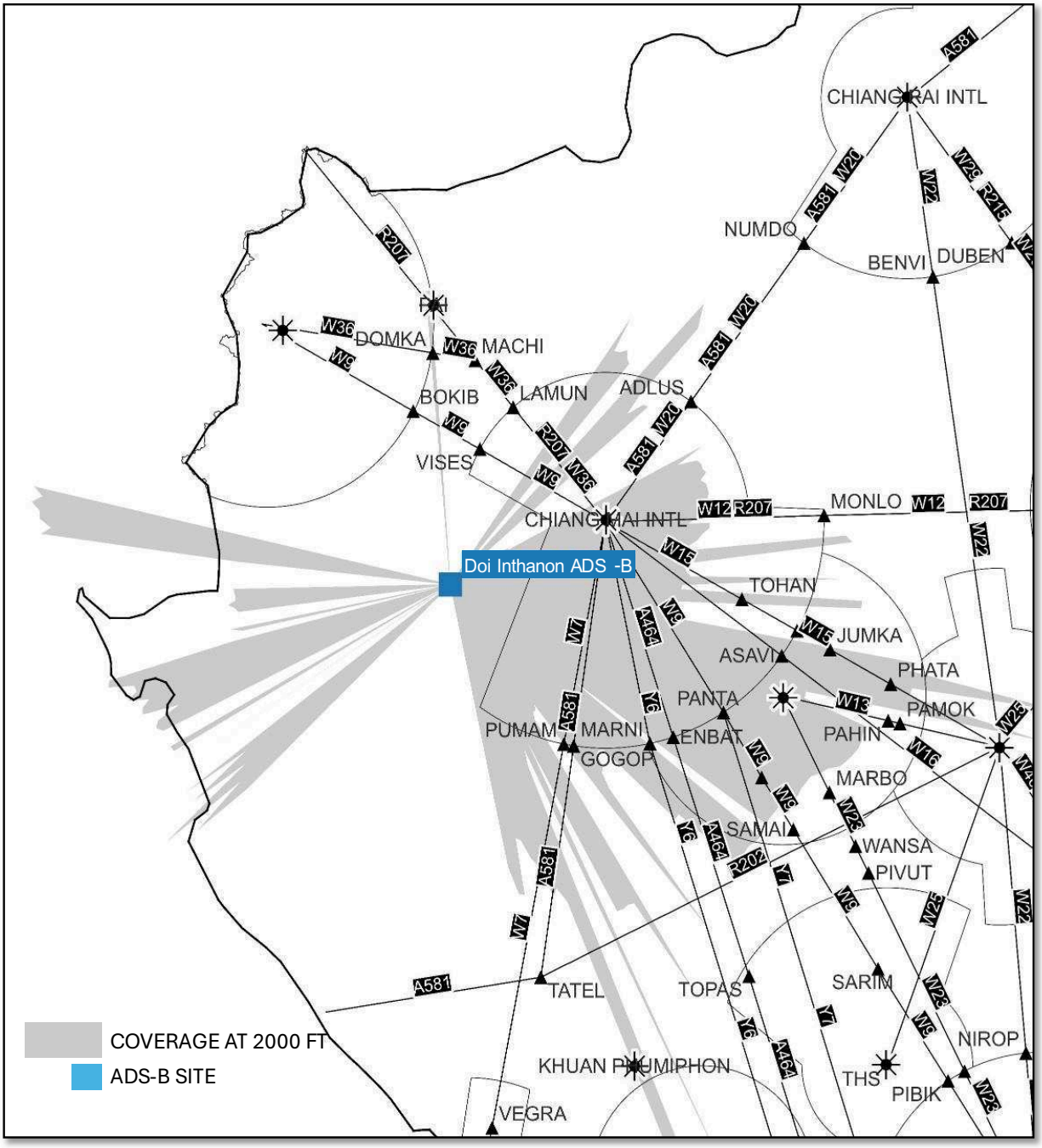
# Area of Theoretical ADS-B Coverage

## Figure ENR 1.6 -R - Coverage at 10500 FT 12500 FT 30000 FT



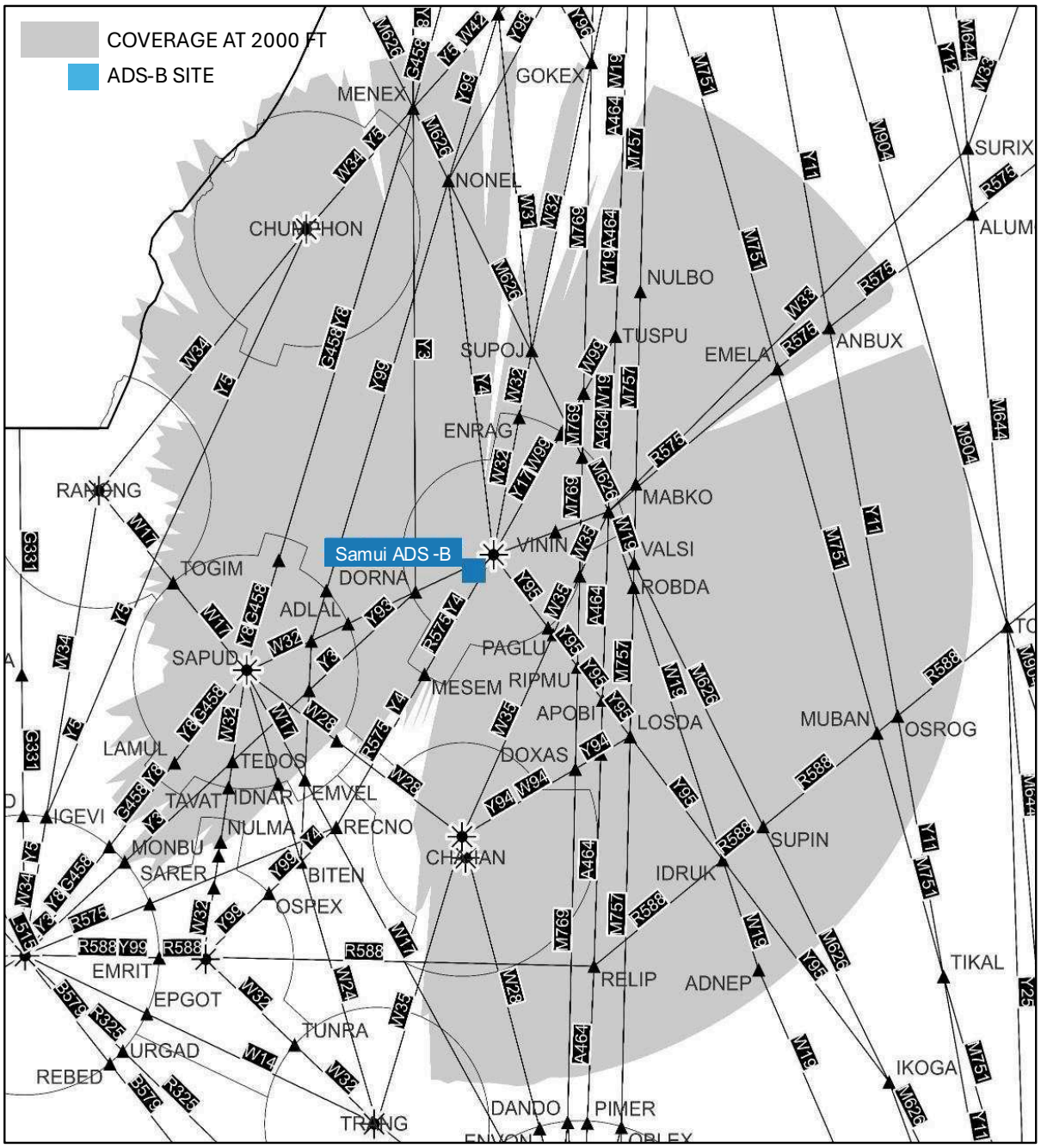
## Area of Theoretical ADS-B Coverage

## Figure ENR 1.6 -S – Doi Inthanon ADS -B Station Coverage at 2000 FT



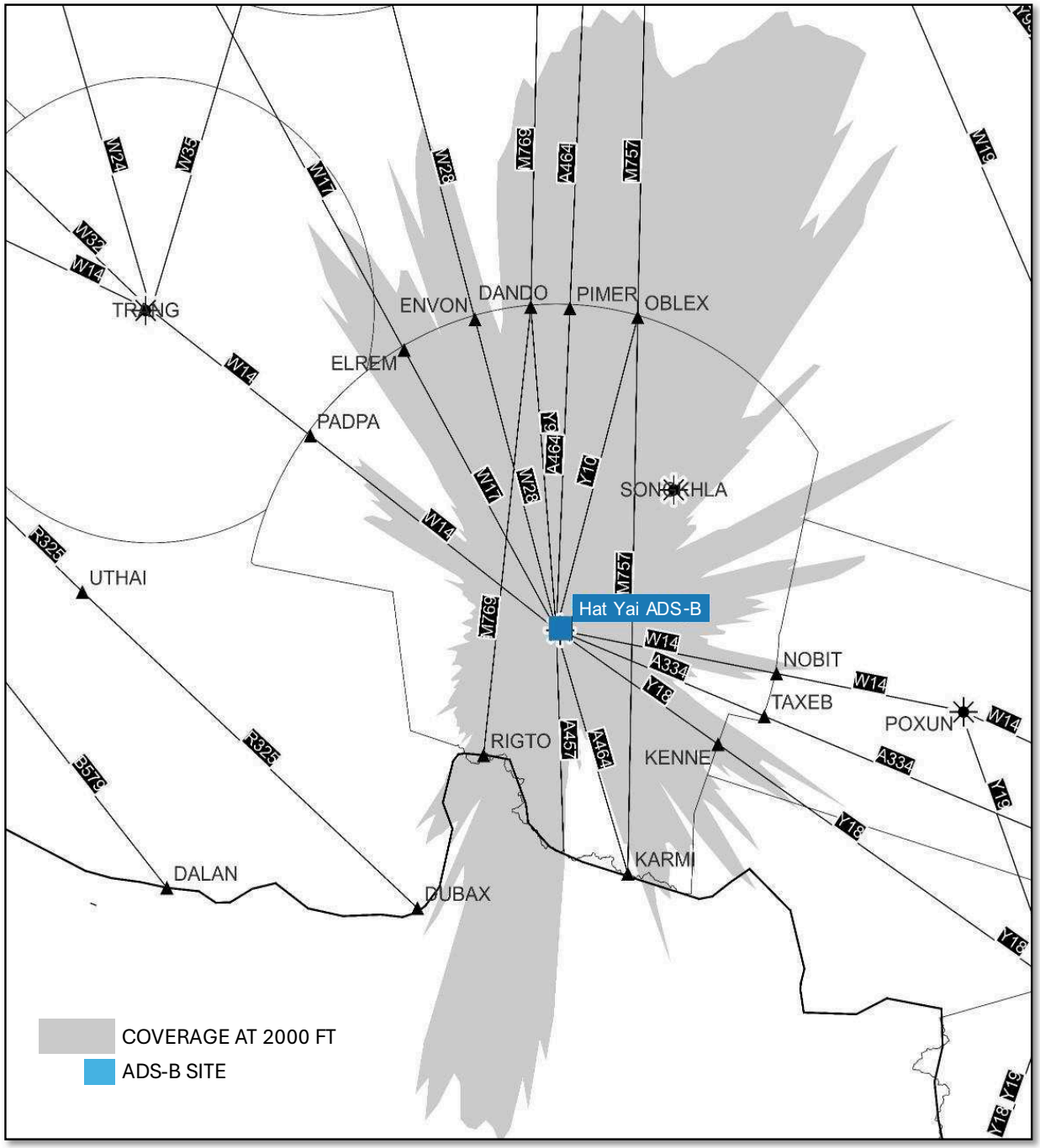
## Area of Theoretical ADS-B Coverage

## Figure ENR 1.6 -T – Samui ADS-B Station Coverage at 2000 FT



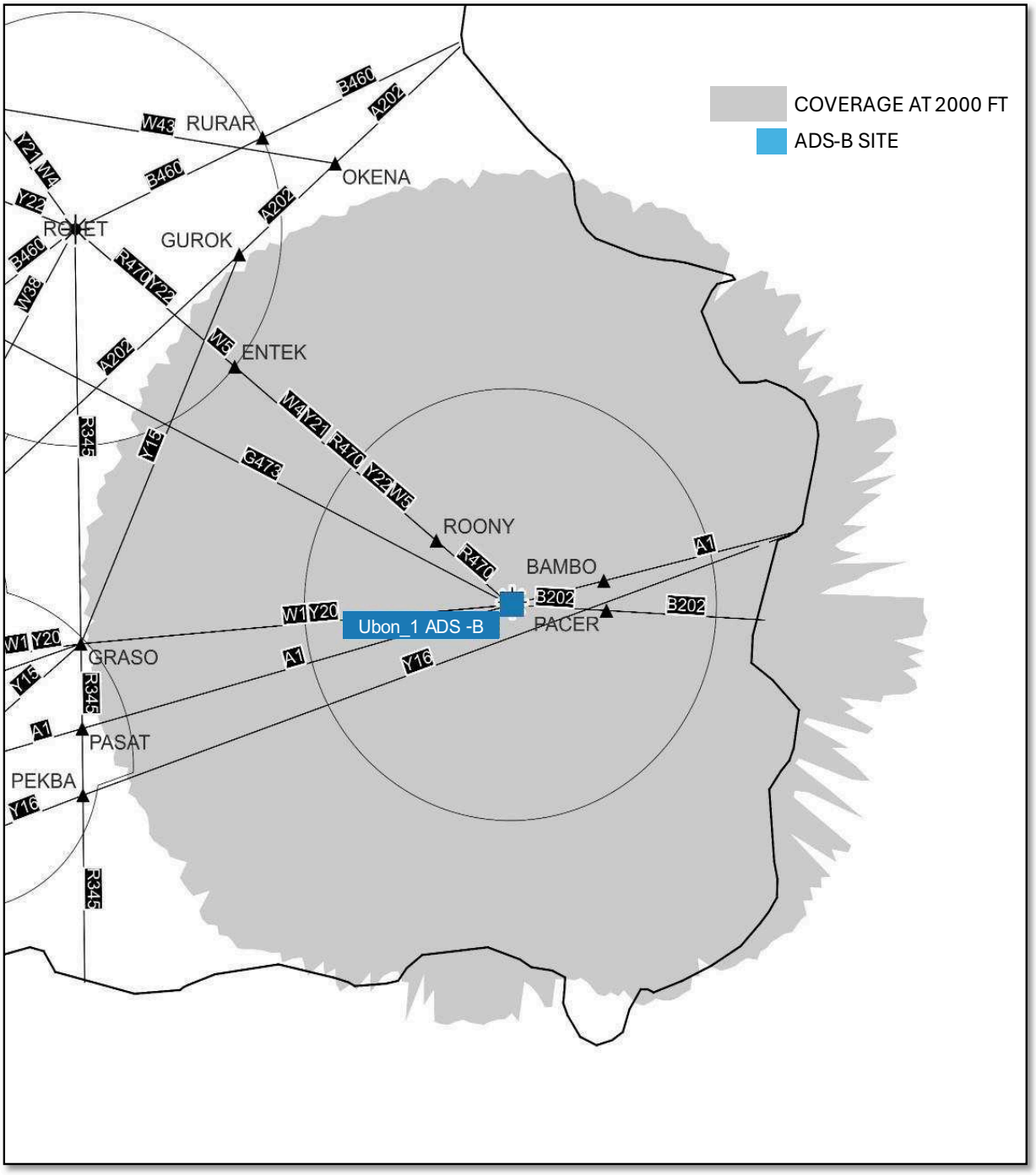
## Area of Theoretical ADS-B Coverage

## Figure ENR 1.6 –U – Hat Yai ADS-B Station Coverage at 2000 FT



## Area of Theoretical ADS-B Coverage

## Figure ENR 1.6 -V – Ubon Ratchathani_1 ADS-B Station Coverage at 2000 FT



## ENR 1.7 ALTIMETER SETTING PROCEDURES

### 1. Introduction

1.1 The following altimeter setting procedures describe the method for providing adequate vertical separation between aircraft and adequate terrain clearance during all phases of flight.

1.2 QNH and QFE values are given in whole hectopascal or inch of mercury, but they will be provided in tenths on request for landing.

### 2. Basic altimeter setting procedures

#### 2.1 General

2.1.1 The transition altitude for Bangkok FIR is 11000 ft.

2.1.2 The transition level for Bangkok FIR is flight level 130 (FL130).

2.1.3 The transition layer is located between the transition altitude and the transition level.

2.1.4 The vertical position of aircraft operating at or below the transition altitude shall be expressed in terms of altitudes, which are determined from an altimeter set to sea level pressure (QNH).

***Note:*** *This does not preclude a pilot using a QFE setting for terrain clearance purposes during the final approach to the runway.*

2.1.5 The vertical position at or above the transition level shall be expressed in terms of flight levels, which are surfaces of constant atmospheric pressure based on an altimeter setting of 1013.2 hPa or 29.92 inHg

2.1.6 While passing through the transition layer, vertical position shall be expressed in terms of:

2.1.6.1 flight levels when climbing; and

2.1.6.2 altitudes when descending.

2.1.7 Cruising within the transition layer is not permitted unless specifically cleared by the ATS unit providing control services for that portion of airspace.

2.1.8 While operating in the transition layer, vertical position shall be expressed in terms of flight levels or altitudes as advised by ATC.

2.1.9 Flight level zero is located at the atmospheric pressure level of 1013.2 hPa (29.92 inHg). Consecutive flight levels are separated by a pressure interval corresponding to 500 ft (152.4 m) in the International Standard Atmosphere.

2.1.10 For all flights operating at or below the transition altitude, altimeter shall be set to the appropriate QNH derived from an available source.

#### 2.2 QNH for aircraft operating at or below the transition altitude

2.2.1 Pilot who operating an aircraft at or below the transition altitude shall set an altimeter to the currently reported QNH of the nearest station along the route of flight, except as provide in **2.2.2** and **2.2.3**.

2.2.2 Pilot who operating an aircraft operating in a terminal control area or a terminal control zone shall set an altimeter to the currently reported QNH of the major aerodrome of that airspace, which will be given by ATC.

2.2.3 When there is no appropriate available station, pilot shall set an altimeter to the elevation of the departure aerodrome until the appropriate QNH can be obtained.

***Note:*** *Pressure-altitude-derived level information displayed to the controller and level received from a pilot by radiotelephony might be vary due to different pressure setting.ATC shall comply with criteria as stated in ICAO doc 4444 paragraph 8.5.5 Level information based on the use of pressure-altitude information.*

#### 2.3 Take-off and climb

2.3.1 Altimeter setting is made available to aircraft in the routine takeoff and climb instructions.

2.3.2 Vertical displacement of aircraft during climb is controlled by reference to altitude until passing the transition altitude above which vertical displacement is controlled by reference to flight level.

***Note:*** *The word "controlled" is used in a composite sense in that a pilot will wish to fly his aircraft on predetermined flight levels or altitudes and ATS will wish to advise a pilot the availability of flight levels or altitudes: both are concerned with vertical position of aircraft.*

**2.4 Vertical Separation - en-route**

2.4.1 Aircraft en-route in the Bangkok FIR (irrespective of whether IFR or VFR) shall be flown at flight levels or altitudes where appropriate.

2.4.2 When complying with the table of cruising levels in Civil Aviation Board (CAB) Regulation on Rules of the air, or for VFR flight above 900 metres (3 000 feet), aircraft shall be flown at levels corresponding to the tracks shown in the following table:

| TRACK | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| From 000 degrees to 179 degrees | | | | | | From 180 degrees to 359 degrees | | | | | |
| IFR Flights | | | VFR Flights | | | IFR Flights | | | VFR Flights | | |
| Level | | | Level | | | Level | | | Level | | |
| FL | Feet | Meters | FL | Feet | Meters | FL | Feet | Meters | FL | Feet | Meters |
| | 1000 | 300 | - | - | - | | 2000 | 600 | - | - | - |
| | 3000 | 900 | | 3500 | 1050 | | 4000 | 1200 | | 4500 | 1350 |
| | 5000 | 1500 | | 5500 | 1700 | | 6000 | 1850 | | 6500 | 2000 |
| | 7000 | 2150 | | 7500 | 2300 | | 8000 | 2450 | | 8500 | 2600 |
| | 9000 | 2750 | | 9500 | 2900 | | 10000 | 3050 | | 10500 | 3200 |
| 110 | 11000 | 3350 | 115 | 11500 | 3500 | 120 | 12000 | 3650 | 125 | 12500 | 3800 |
| 130 | 13000 | 3950 | 135 | 13500 | 4100 | 140 | 14000 | 4250 | 145 | 14500 | 4400 |
| 150 | 15000 | 4550 | 155 | 15500 | 4700 | 160 | 16000 | 4900 | 165 | 16500 | 5050 |
| 170 | 17000 | 5200 | 175 | 17500 | 5350 | 180 | 18000 | 5500 | 185 | 18500 | 5650 |
| 190 | 19000 | 5800 | 195 | 19500 | 5950 | 200 | 20000 | 6100 | 205 | 20500 | 6250 |
| 210 | 21000 | 6400 | 215 | 21500 | 6550 | 220 | 22000 | 6700 | 225 | 22500 | 6850 |
| 230 | 23000 | 7000 | 235 | 23500 | 7150 | 240 | 24000 | 7300 | 245 | 24500 | 7450 |
| 250 | 25000 | 7600 | 255 | 25500 | 7750 | 260 | 26000 | 7900 | 265 | 26500 | 8100 |
| 270 | 27000 | 8250 | 275 | 27500 | 8400 | 280 | 28000 | 8550 | 285 | 28500 | 8700 |
| 290 | 29000 | 8850 | | | | 300 | 30000 | 9150 | | | |
| 310 | 31000 | 9450 | | | | 320 | 32000 | 9750 | | | |
| 330 | 33000 | 10050 | | | | 340 | 34000 | 10350 | | | |
| 350 | 35000 | 10650 | | | | 360 | 36000 | 10950 | | | |
| 370 | 37000 | 11300 | | | | 380 | 38000 | 11600 | | | |
| 390 | 39000 | 11900 | | | | 400 | 40000 | 12200 | | | |
| 410 | 41000 | 12500 | | | | 430 | 43000 | 13100 | | | |
| 450 | 45000 | 13700 | | | | 470 | 47000 | 14350 | | | |
| 490 | 49000 | 14950 | | | | 510 | 51000 | 15550 | | | |
| etc. | etc. | | | | | etc. | etc. | etc. | | | |

**2.5 Approach and landing**

2.5.1 A QNH altimeter setting is made available in the routine approach and landing instructions.

2.5.2 A QFE altimeter setting is made available on request in approach and landing clearance but reports to ATC are to be made in altitude.

2.5.3 Vertical displacement of aircraft during approach is effected by reference to flight level until passing the transition level below which vertical displacement is controlled by reference to altitude, except as provided in **2.5.4**.

2.5.4 After approach clearance has been issued and the descent to land is commenced, the vertical position of an aircraft above the

transition level may be by reference to altitude (QNH) provided that level flight above the transition altitude is not indicated or anticipated.

**2.6 Missed Approach**

2.6.1 The relevant portions of paragraph **2.3**, **2.4** and **2.5** shall be applied in case of a missed approach.

**3. Procedure applicable to operators and pilots**

**3.1 Flight Planning**

3.1.1 The levels at which a flight is to be conducted shall be specified in a flight plan:

3.1.1.1 in terms of flight levels, if the flight is to be conducted at or above the transition level; and

3.1.1.2 in terms of altitudes, if the flight is to be conducted in the vicinity of an aerodrome and at or below the transition altitude.

***Note 1:*** *Short flight in the vicinity of an aerodrome may often be conducted only at altitudes below the transition altitude.*

***Note 2:*** *Flight levels are specified in the flight plan by number, and not in terms of feet in the case of altitudes.*

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## ENR 1.8 REGIONAL SUPPLEMENTARY PROCEDURES

The supplementary procedures in force are given in their entirely; "differences" are printed in capital letters.

### 1. Assignment of cruising level to IFR flights within controlled airspace

Unless otherwise specified in 10.5 or authorized by the area Air Traffic Services Units cruising levels to be assigned to IFR flight within controlled airspace will be as given in the table in Appendix 3 to Annex 2.

### 2. Reporting of position and air-to-ground watch

All aircraft on VFR flights and aircraft on IFR flights outside controlled airspace, must maintain a watch on a radio station furnishing communications for the Bangkok Area Control Centre and file that station information as to their position unless not equipped with suitable two-way radio communications or unless otherwise authorized. The last position reported before passing from Bangkok Flight Information Region to an adjacent Flight Information Region must also be addressed to the Air Traffic Services Unit providing Flight Information Service or Air Traffic Control Service within the Flight Information Region the aircraft is entering.

### 3. Alerting and search and rescue services

The procedures for "Alerting Service" detailed in the PAN-RAC (Doc 4444/RAC 501) Part VII, paragraph 2 are applicable to:

a) flights operated more than 100 NM from the shore line; and
b) all flights with the exception of such local flights as may be exempted by Air Traffic Control.

***Note:*** *For the purpose of sub-para v (b), a local flight is a flight wholly conducted in the immediate vicinity of an aerodrome. Provision must be made in the detailed plan for the conduct of search and rescue to provide, to the extent possible, servicing and refuelling. facilities to aircraft, vessels, and vehicles made available for search and rescue operations for other States upon request.*

### 4. Flight Information Service

In so far as practicable Air Traffic Services units responsible for the provision of Flight Information Service over water areas must include, at the pilot's request, any available information regarding surface vessels such as radio call signs, positions, true track, speed etc. Responsibility for Flight Information Service passes from Centre to Centre at the time the aircraft crosses the Flight Information Region boundary. When adequate point-to-point communications do not exist with adjacent Flight Information Regions, Flight Information Service will be provided as far as practicable by the Centre to an aircraft leaving Bangkok FIR until reliable communication contact has been established with the Centre whose Flight Information Region it is entering

### 5. Air Traffic Service coordination

Coordination procedures are in accordance with Regional Supplementary Procedures, supported by detailed local Letters of Agreement.

### 6. Liaison with operating agencies

All instructions to aircraft from Air Traffic Services units, excluding aerodrome and approach control instructions, are transmitted by a communication network designated by the government. Instructions to aircraft from aerodrome and approach control Air Traffic Services units are routed through a government owned radio network. All area control service information or instructions issued to aircraft are made available to an operator or this designated representative as agreed between the operator and the Air Traffic Services units concerned.

### 7. Air Traffic Service Messages

Flight plan messages are transmitted to the appropriate Air Traffic Services units and communication stations immediately after the flight plan is filed. The flight plan will be combined with the departure message only if it is reasonably certain that it will reach the addresses in good time, in which case it is transmitted immediately after the departure of the aircraft. For a flight through an intermediate stop the flight plan message originated by the Air Traffic Services unit at the aerodrome of initial departure is considered as a single message, i.e. the number of addressees which may be requested by the operator is limited to two in addition to the one at the aerodrome of aircraft departure and to the one at each aerodrome of intended landing.

When the departure of an aircraft is delayed for more than 10% of the scheduled flight time, but in no case less than 30 minutes after the proposed time of departure contained in the flight plan, ATC will originate a delay message addressed to all recipients of the flight plan message. When a flight plan has been filed through intermediate stop, a departure message will be sent, on the departure of the aircraft from each intermediate stop, to the Air Traffic Services unit of next intended point of landing and to all interested area control or flight information centres. NUMBER OF PERSONS ON BOARD AND FUEL ARE NOT GIVEN IN THE FLIGHT PLAN.

When aeronautical communications are available and when an arrival report is received by an ATC Unit serving the aerodrome of destination, an arrival message will be transmitted to the point of departure. Arrival reports may be filed at points where the absence of communication facilities precludes the transmission of arrival messages. It should be noted, however, that Bangkok ACC does not transmit arrival messages except in accordance with paragraph 10.2 Part 1, Doc 7030 - "Regional Supplementary Procedures".

**8. Altimeter setting procedures applicable to Air Traffic Services**

Based on current and anticipated atmospheric pressure distribution, Bangkok ACC coordinates where required the lowest flight level to be used.

**9. Weather deviation procedures for use in Bangkok FIR**

9.1 General

9.1.1 The following procedures are intended to provide guidance in accordance to ICAO Regional Supplementary Procedures (Doc 7030) the pilot's judgment shall ultimately determine the sequence of actions taken and ATC shall render all possible assistance.

9.1.2 If the aircraft is required to deviate from track to avoid weather and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time and in the meantime the aircraft shall broadcast its position (including the ATS route designator or the track code, as appropriate) and intentions, on frequency 121.5 MHz at suitable intervals until ATC clearance is received.

9.1.3 The pilots shall advise ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to the centre line of its cleared route.

9.2 Obtaining priority from ATC when weather deviation is required

9.2.1 When the pilot initiates communications with ATC, rapid response may be obtained by stating that weather deviation is required to indicate that priority is desired on the frequency and for ATC response.

9.2.2 The pilot also retains the option of initiating the communication using the urgency call PAN-PAN 3 times to alert. All listening parties of a special handing condition which will receive ATC priority for issuance of a clearance or assistance.

9.3 Action to be taken when pilot-controller-communications are established

9.3.1 Pilot identifies the necessity to deviate from track.

9.3.2 Pilot notifies ATC and requests clearance to deviate from track, advising where possible the extent of the deviation expected.

9.3.3 ATC takes one of the following actions:

9.3.3.1 If there is no conflicting traffic in the lateral dimension, ATC issue clearance to deviate from track;

9.3.3.2 If there is conflicting traffic in the lateral dimension, ATC separates aircraft by established vertical separation (2 000 feet above FL 290, 1 000 feet below FL 290) and issues clearance to deviate from track;

9.3.3.3 If there is conflicting traffic in the horizontal dimension and ATC is unable to establish vertical separation, ATC shall:

9.3.3.3.1 Advise the pilot that standard vertical separation cannot be applied;

9.3.3.3.2 Provide essential traffic information for all affected aircraft; and

9.3.3.3.3 If possible, suggest a course of action e.g. ATC may suggest that the pilot climb or descend to a contingency altitude (500 feet above or below that assigned)

***Note: suggested phraseology***

*Standard separation not available deviate at pilot's discretion suggest climb to FL 340 parallel traffic 50 miles north at FL 350 report deviation complete.*

9.3.4 Pilot will take the following actions:

9.3.4.1 Comply with ATC clearance issued; or

9.3.4.2 Follow the ATC advisory altitude along with the procedures detailed in paragraph 4; or

9.3.4.3 Execute the procedures detailed in paragraph 4 below. The pilot shall immediately inform ATC of intentions and ATC will issue essential traffic information to all affected aircraft.

9.4 Actions to be taken when pilot-controller communications are not established or revised ATC clearance is not available

9.4.1 If contact cannot be established or revised ATC clearance or advisory is not available and deviation from track is required to avoid weather, the pilot shall take following actions:

9.4.1.1 If possible, deviate away from an organized track or route system;

9.4.1.2 Broadcast aircraft position and intentions on frequency 121.5 MHz at suitable intervals stating: flight identification (operator call sign),

flight level, track code or ATS route designator, and extent of deviation expected;

9.4.1.3 Watch for conflicting traffic both visually and by reference to TCAS (if equipped);

9.4.1.4 Turn on aircraft exterior lights;

9.4.1.5 When the aircraft is approximately 10 NM from track, start a descent to and maintain;

9.4.1.6 If conflicting traffic is identified during the deviation, climb or descend to establish vertical separation from conflicting aircraft;

9.4.1.7 When returning to track, be at assigned flight level or altitude, when the aircraft is within approximately 10 NM of centre line.

9.4.1.8 If contact is not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact is established, continue to keep ATC advised of intentions and obtain essential traffic information.

**10. RVSM Procedures**

10.1 Airworthiness and Operational Approval and Monitoring

10.1.1 APPROVAL PROCESS.

Operators must obtain airworthiness and operational approval from their States of Registry or States of Operator, as appropriate, to conduct RVSM operations.

Information regarding the process for RVSM approval is contained, for commercial air transport operations, in Notification of The Civil Aviation Authority of Thailand publication, Air Certificate Requirements, Issue 02, Revision 00, dated 30 April 2021.

Additionally, The Monitoring Agency for Asia Region (MAAR) details approval requirements for operators and specifies the RVSM approval flow. This information may be found at https://www.aerothai.co.th/maar/

10.1.2 AIRCRAFT MONITORING.

Guidance Material for the Continued Safety Monitoring of the Asia-Pacific RVSM Airspace is published by the Asia and Pacific Office of ICAO. The purpose of this document is to describe safety monitoring activities for RVSM airspace, including the respective roles and responsibilities of States and Regional Monitoring Agencies (RMAs).

With respect to requirements for Thai operators, full details on the monitoring requirements and available monitoring services are available from MAAR at the website listed above.

Operators are required to participate in the RVSM aircraft monitoring program. This is an essential element of the RVSM implementation program in that it confirms that the aircraft altitude-keeping performance standard is being met.

10.1.3 Monitoring accomplished for other regions can be used to fulfill the monitoring requirements for the Asia/Pacific region. There are a number of organizations worldwide who may be able to provide monitoring services in the Asia/Pacific region. Operators should contact MAAR for confirmation that a monitoring contractor is acceptable for the submission of monitoring data.

10.2 Area of Applicability

10.2.1 RVSM shall be applicable in that volume of airspace between FL 290 and FL 410 inclusive in the Bangkok FIR.

10.3 Prior to Departure

10.3.1 An operator shall ensure that, where the flight is intended to operate in Reduced Vertical Separation Minimum (RVSM) airspace, it has the required RVSM approval.

10.3.2 The letter “W” shall be inserted in item 10 (Equipment) of the ICAO standard flight plan to indicate that both the aircraft and operator are RVSM approved.

10.3.3 The aircraft registration shall be inserted in Item 18 of the flight plan.

10.3.4 Operators of formation flights of State aircraft shall not insert the letter W in Item 10 of the ICAO flight plan form, regardless of the RVSM approval status of the aircraft concerned. Operators of formation flights of State aircraft intending to operate within the RVSM airspace specified in 10.2.1 shall include STS/NONRVSM in Item 18 of the ICAO flight plan form.

10.4 In-flight Procedures within RVSM Airspace

10.4.1 Before entering RVSM airspace, the pilot should review the status of required equipment. The following equipment should be operating normally:

a) two primary altimetry systems. A cross-check between the primary altimeters should be made. A minimum of two will need to agree within ±60m (±200FT). Failure to meet this condition will require that the altimetry system be reported as defective and air traffic control (ATC) notified;
b) one automatic altitude-keeping device;
c) one altitude-alerting device; and
d) one altitude operating transponder

10.4.2 The controller-pilot phraseologies used for in-flight RVSM operations are specified in ICAO PANS-ATM Doc 4444 (Chapter 12), as shown in the following table:

| Message | Phraseology |
|---|---|
| For a controller to ascertain the RVSM approval status of an aircraft | (call sign) **CONFIRM RVSM APPROVED** |
| For a pilot to report RVSM approval status | **AFFIRM RVSM** |
| For a pilot to report non-RVSM approval status:<br>i. on the initial call on any frequency within the RVSM airspace (controllers shall provide and readback with this same phrase), and<br>ii. in all requests for flight level changes pertaining to flight levels within the RVSM airspace; and<br>iii. in all read-backs to flight level clearances pertaining to flight levels within the RVSM airspace<br>Additionally, except for State aircraft, pilot shall include this phrase to read back flight level clearances involving the vertical transit through FL 290 or FL 410 | **NEGATIVE RVSM** |
| For a pilot of a non-RVSM approved State aircraft to report non-RVSM approval status, in response to the phrase (call sign) **CONFIRM RVSM APPROVED**. | **NEGATIVE RVSM STATE AIRCRAFT** |
| For a controller to deny of clearance into the RVSM airspace | (call sign) **UNABLE CLEARANCE INTO RVSM AIRSPACE, MAINTAIN [or DESCEND TO, or CLIMB TO] FLIGHT LEVEL** (number) |
| For a pilot to report when severe turbulence affects the aircraft's capability to maintain the height-keeping requirements for RVSM. | **UNABLE RVSM DUE TURBULENCE** |
| For a pilot to report that the aircraft's equipment has degraded en-route below that required for flight within the RVSM airspace. (See Appendix A) *(This phrase is to be used to convey both the initial indication of the non-MASPS compliance, and henceforth, on initial contact on all frequencies within the lateral limits of the RVSM airspace until such time as the problem ceases to exist, or the aircraft has exited the RVSM airspace.)* | **UNABLE RVSM DUE EQUIPMENT** |
| For a controller to request an aircraft to provide information as soon as RVSM-approved status has been regained or the pilot is ready to resume RVSM operations | **REPORT WHEN ABLE TO RESUME RVSM** |
| For a controller to request confirmation that an aircraft has regained RVSM-approved status or a pilot is ready to resume RVSM operations | **CONFIRM ABLE TO RESUME RVSM** |
| For a pilot to report the ability to resume operations within the RVSM airspace after an equipment or weather-related contingency. | **READY TO RESUME RVSM** |

Example 1:

A non-RVSM approved aircraft, maintaining FL 260, subsequently requests a climb to FL 320.
Pilot: (call sign) REQUEST FL 320, NEGATIVE RVSM
Controller: (call sign) CLIMB TO FL 320
Pilot: (call sign) CILMB TO FL 320, NEGATIVE RVSM

Example 2:

A non-RVSM approved aircraft, maintaining FL 260, subsequently requests a climb to FL 430.
Pilot: (call sign) REQUEST FL 430, NEGATIVE RVSM
Controller: (call sign) CLIMB TO FL 430
Pilot: (call sign) CILMB TO FL 430, NEGATIVE RVSM

Example 3:

A non-RVSM approved aircraft, maintaining FL 360, subsequently requests a climb to FL380.
Pilot: (call sign) REQUEST FL 380, NEGATIVE RVSM
Controller: (call sign) CLIMB TO FL 380
Pilot: (call sign) CILMB TO FL 380, NEGATIVE RVSM

Example 4:

A non-RVSM approved civil aircraft, maintaining FL 280, subsequently requests a climb to FL320.
Pilot: (call sign) REQUEST FL 320, NEGATIVE RVSM

Controller: (call sign) UNABLE CLEARANCE INTO RVSM AIRSPACE, MAINTAIN FL 280

10.4.3 During cleared transition between levels, the aircraft should not overshoot or undershoot the assigned FL by more than 150 FT (45m).

10.4.4 The pilot must notify ATC when the aircraft's equipment has degraded below the requirement in 10.4.1.

a) When informed by the pilot of an RVSM-approved aircraft operating in RVSM airspace that the aircraft's equipment no longer meets the RVSM requirements, ATC shall consider the aircraft as non-RVSM-approved.

b) The pilot shall inform ATC, as soon as practicable, of any restoration of the proper functioning of equipment required to meet the RVSM requirements.

c) The first ACC to become aware of a change in an aircraft's RVSM status shall coordinate with adjacent ACCs, as appropriate.

**Scenario 1: All automatic altitude control systems fail (e.g., Automatic Altitude Hold).**

| The Pilot should | ATC can be expected to |
|---|---|
| **Initially**, maintain CFL and evaluate the aircraft's capability to maintain altitude through manual control. | |
| **Subsequently**, watch for conflicting traffic both visually and by reference to ACAS, if equipped. | |
| If considered necessary, alert nearby aircraft by<br>1. Making maximum use of exterior lights;<br>2. Broadcasting position, FL, and intentions on 121.5 MHz (as a back-up, the VHF inter-pilot air-to-air frequency, 123.45 MHz, may be used.) | |
| Notify ATC of the failure and intended course of action. Possible courses of action include: | Obtain pilot's intentions, and pass essential traffic information. |
| 1. Maintaining the CFL and route, provided that the aircraft can maintain level.<br>2. Requesting ATC clearance to climb above or descend below RVSM airspace if the aircraft cannot maintain CFL and ATC cannot establish lateral, longitudinal or conventional vertical separation.<br>3. Executing the contingency manoeuvre shown in 9.4, if ATC clearance cannot be obtained and the aircraft cannot maintain CFL. | 1. If the pilot intends to continue in RVSM airspace, assess traffic situation to determine if the aircraft can be accommodated through the provision of lateral, longitudinal, or conventional vertical separation, and if so, apply the appropriate minimum<br>2. If the pilot requests clearance to exit RVSM airspace, accommodate expeditiously, if possible.<br>3. If adequate separation cannot be established and it is not possible to comply with the pilot's request for clearance to exit RVSM airspace, advise the pilot of essential traffic information, notify other aircraft in the vicinity and continue to monitor the situation.<br>4. Notify adjoining ATC facilities/sectors of the situation. |

**Scenario 2: Loss of redundancy in primary altimetry systems**

| The Pilot should | ATC can be expected to |
|---|---|
| If the remaining altimetry system is functioning normally, couple that system to the automatic altitude control system, notify ATC of the loss of redundancy and maintain vigilance of altitude keeping. | Acknowledge the situation and continue to monitor progress. |

**Scenario 3: All primary altimetry systems are considered unreliable or fail**

| The Pilot should | ATC can be expected to |
|---|---|
| Maintain CFL by reference to the standby altimeter (if the aircraft is so equipped). | |
| Alert nearby aircraft by<br>1. Making maximum use of exterior lights;<br>2. Broadcasting position, FL, and intentions on 121.5 MHz (as a back-up, the VHF inter-pilot air-to-air frequency, 123.45 MHz, may be used.) | |
| Consider declaring an emergency. Notify ATC of the failure and intended course of action. Possible courses of action include: | Obtain pilot's intentions, and pass essential traffic information. |
| 1. Maintaining CFL and route, provided that ATC can provide lateral, longitudinal or conventional vertical separation.<br>2. Requesting ATC clearance to climb above or descend below RVSM airspace if ATC cannot establish adequate separation from other aircraft.<br>3. Executing the contingency manoeuvre shown in 9.4, if ATC clearance cannot be obtained. | 1. If the pilot intends to continue in RVSM airspace, assess traffic situation to determine if the aircraft can be accommodated through the provision of lateral, longitudinal, or conventional vertical separation, and if so, apply the appropriate minimum.<br>2. If the pilot requests clearance to exit RVSM airspace, accommodate expeditiously, if possible.<br>3. If adequate separation cannot be established and it is not possible to comply with the pilot's request for clearance to exit RVSM airspace, advise the pilot of essential traffic information, notify other aircraft in the vicinity and continue to monitor the situation.<br>4. Notify adjoining ATC facilities/sectors of the situation. |

**Scenario 4: The primary altimeters diverge by more than 200 FT (60 m)**

| The Pilot should |
|---|
| Determine the defective system through the normal airplane integrated comparator warning system or in the absence of such a system, establish trouble-shooting procedures comparing the primary altimeters to the standby altimeter (corrected using the correction card) |
| If the defective system can be determined, couple the functioning altimeter to the altitude keeping device in use. |
| If the defective system cannot be determined, follow the guidance in Scenario 3 for failure or unreliable altimeter indications of all primary altimeters |

10.4.5 When the aircraft encounters severe turbulence:

10.4.5.1 Forecast

a) When a meteorological forecast is predicting severe turbulence, ATC shall determine whether RVSM should be suspended and, if so, for how long and for which specific flight level(s) and/or area.
b) In cases where RVSM will be suspended, the ACC suspending RVSM shall coordinate with adjacent ACCs with regard to the flight levels appropriate for the transfer of traffic; unless a contingency flight level allocation scheme has been determined by letter of agreement. The ACC suspending RVSM shall also coordinate applicable sector capabilities with adjacent ACCs as appropriate.

10.4.5.2 Not forecast

a) When an aircraft operating in RVSM airspace encounters severe turbulence due to weather or wake vortex that the pilot believes will impact the aircraft's capability to maintain its cleared flight level, the pilot shall inform ATC. ATC shall establish either an appropriate horizontal separation or an increased minimum vertical separation.
b) ATC shall, to the extent possible, accommodate pilot requests for flight level and/or route changes and shall pass on traffic information as required.
c) ATC shall solicit reports from other aircraft to determine whether RVSM should be suspended entirely or within a specific flight level band and/or area.
d) ACC suspending RVSM shall coordinate such suspension(s) with, and any required adjustments to, sector capabilities with adjacent ACCs, as appropriate, to ensure an orderly progression to the transfer of traffic.

**Scenario 5: Turbulence (greater than moderate), which the pilot believes, will impact the aircraft's capability to maintain flight level.**

| The Pilot should | ATC can be expected to |
|---|---|
| Watch for conflicting traffic both visually and by reference to ACAS, if equipped. | |
| If considered necessary, alert nearby aircraft by<br>1. Making maximum use of exterior lights;<br>2. Broadcasting position, FL, and intentions on 121.5 MHz (as a back-up, the VHF inter-pilot air-to-air frequency, 123.45 MHz, may be used.) | |
| Notify ATC of intended course of action as soon as possible. Possible courses of action include: | |
| 1. Maintaining CFL and route, provided that ATC can provide lateral, longitudinal or conventional vertical separation.<br>2. Requesting flight level change, if necessary.<br>3. Executing the contingency manoeuvre shown in 9.4, if ATC clearance cannot be obtained and the aircraft cannot maintain CFL. | 1. Assess traffic situation to determine if the aircraft can be accommodated through the provision of lateral, longitudinal, or conventional vertical separation, and if so, apply the appropriate minimum.<br>2. If unable to provide adequate separation, advise the pilot of essential traffic information and request pilot's intentions.<br>3. Notify other aircraft in the vicinity and continue to monitor the situation.<br>4. Notify adjoining ATC facilities/sectors of the situation. |

10.5 Procedures for Operation of Non-RVSM Compliant Aircraft in RVSM airspace

10.5.1 RVSM approved aircraft will be given priority for level allocation over non-RVSM approved aircraft.

10.5.2 The vertical separation minimum between non-RVSM compliant aircraft operating in the RVSM stratum and all other aircraft is 2 000 FT.

10.5.3 Non-RVSM compliant aircraft operating in RVSM airspace should use the phraseology contained in ICAO PANS-ATM Doc 4444 (Chapter 12). A pilot of a non-RVSM approved State aircraft to report non-RVSM approval status, in response to the phrase (call sign) CONFIRM RVSM APPROVED, shall respond with "NEGATIVE RVSM, STATE AIRCRAFT."

10.5.4 Non-RVSM compliant aircraft may be cleared to climb to and operate above FL410 or descend to and operate below FL290 provided that they:

a) Do not climb or descend at less than the normal rate for the aircraft; and
b) Do not level off at an intermediate level while passing through the RVSM stratum.

10.5.5 Non-RVSM compliant aircraft may not flight plan between FL290 and FL410 inclusive within RVSM airspace, except for the following situations:

a) The aircraft is being initially delivered to the State of Registry or Operator; or
b) The aircraft was RVSM approved but has experienced an equipment failure and is being flown to a maintenance facility for repair in order to meet RVSM requirements and/or obtain approval; or
c) The aircraft is transporting a spare engine mounted under the wing; or
d) The aircraft is being utilized for mercy or humanitarian purposes; or
e) State aircraft (those aircraft used in military, custom and police services shall be deemed state aircraft)

**Note:** The procedures are intended exclusively for the purposes indicated and not as a means to circumvent the normal RVSM approval process.

10.5.6 The assignment of cruising levels to non-RVSM compliant aircraft shall be subjected to an ATC clearance. Aircraft operators shall include the **"STS/ Category of operations (i.e. FERRY/HUMANITARIAN/MILITARY/CUSTOMS/POLICE)/NONRVSM)"** in Field 18 of the ICAO Flight Plan.

10.6 Procedures for Suspension of RVSM

10.6.1 Air traffic services will consider suspending RVSM procedures within affected areas of the Bangkok FIR when there are pilot reports of greater than moderate turbulence. Within areas where RVSM procedures are suspended, the vertical separation minimum between all aircraft will be 2 000 FT.

10.7 Flight Level Allocation Scheme (FLAS) For South China Sea Area

10.7.1 The following flight levels on the routes listed below can be used without pre-departure clearances from the downstream ATS units

(no-PDC levels):

| ATS Route | No-Pre-Departure Coordination (No-PDC) Flight Levels<br>Other levels available with prior approval |
|---|---|
| L880 / L628 (EB)<br>L628 | EB – FL330, FL370, FL410<br>WB – FL280, FL340 |
| N891 | SB – FL330<br>NB – FL260, FL300, FL380 |
| A1 | EB – FL290, FL330, FL370, FL390, FL410<br>WB – FL280, FL300, FL340, FL380, FL400 |
| N506 / M768 (EB)<br>M768 | EB – FL270, FL330, FL410<br>WB – FL300, FL380 |
| A202 | EB – FL290, FL330, FL370, FL390, FL410<br>WB – FL280, FL300, FL340, FL380, FL400 |

**11. TRAFFIC INFORMATION BROADCASTS BY AIRCRAFT (TIBA) AND RELATED OPERATING PROCEDURES**

11.1 TIBA Procedures

11.1.1 Special procedures have been developed for pilot use in active contingency zones if communications are significantly degraded or unavailable, These TIBA procedures supersede and take the place of lost communication procedures that are outlined in Annex 2 to the Chicago Convention and PANS-ATM (DOC 4444) and will enable traffic information broadcasts by aircraft (TIBA) to be made as well as providing collision hazard information. When aircraft will enter designated airspace in which it is known in advance that normal communication is not available, pilots should maintain a listening watch on the TIBA frequency 10 minutes prior to entering that airspace until leaving the airspace.

11.1.2 For an aircraft taking off from an aerodrome located within the lateral limits of the designated airspace listening watch should start as soon as appropriate after take-off and be maintained until leaving the airspace.

11.2 Times of Broadcast

When a loss of normal communications requires TIBA procedures to be implemented, pilots shall make broadcasts in English on 128.95 MHz as follows:

a) At the time the loss of normal communications is recognized;
b) 10 minutes before entering a designated airspace when it is known in advance that normal communications will not be available within that airspace or, for a pilot taking off from an aerodrome located within the lateral limits of the designated airspace, as soon as appropriate after take-off;
c) 10 minutes prior to crossing a reporting point;
d) 10 minutes prior to crossing or joining an ATS route;
e) at 20 minutes intervals between distant reporting points;
f) 2 to 5 minutes, where possible, before a change in flight level;
g) at the of a change in flight level; and
h) at any other time considered necessary by the pilot.

***Note:*** *Normal position reporting procedures should be continued at all times, regardless of any action taken to initiate or acknowledge a traffic information broadcast.*

11.3 Broadcast Format

TIBA broadcasts should be made using the following phraseology:

a) For other than those indicating changes in flight level:

ALL STATIONS (call sign) FLIGHT LEVEL (number) [of CLIMBING TO FLIGHT LEVEL (number)] (direction) (ATS route) [or DIRECT FROM (position) TO (position) POSITION] (position) AT (time) ESTIMATING (next reporting point, or the point of crossing or joining a designated ATS route) AT (time) (call sign) FLIGHT LEVEL (number) (direction)

**Example:** “ALL STATIONS WINDAR 671 FLIGHT LEVEL 380 NORTHWEST BOUND A464 POSITION 80 MILES SOUTH EAST OF KEVOK AT 2358 ESTIMATING KOBAS AT 0020 WINDAR 671 FLIGHT LEVEL 380 NORTHWEST BOUND OUT”

***Note:*** *For broadcasts made when the aircraft is not near an ATS significant point, the position should be given as accurately as possible and in any case to the nearest 30 minutes of latitude and longitude.*

b) Before a change in flight level:

ALL STATIONS (call sign) (direction) (ATS route) [or DIRECT FROM (position) TO (position)] LEAVING FLIGHT LEVEL (number) FOR FLIGHT LEVEL (number) AT (position and time)

c) At the time of a change in flight level:

ALL STATIONS (call sign) (direction) (ATS route) [or DIRECT FROM (position) TO (position)] LEAVING FLIGHT LEVEL (number) NOW FOR FLIGHT LEVEL (number) followed by: ALL STATIONS (call sign) MAINTAINING FLIGHT LEVEL (number)

d) When reporting a temporary flight level change to avoid an imminent collision risk:

ALL STATIONS (call sign) LEAVING FLIGHT LEVEL (number) NOW FOR FLIGHT LEVEL (number) followed as soon as practicable by: ALL STATIONS (call sign) RETURNING TO FLIGHT LEVEL (number) NOW

11.4 Acknowledgement of the Broadcasts

TIBA broadcasts should not be acknowledged unless a potential collision risk is perceived.

11.5 Cruising Level Changes

11.5.1 Cruising level changes should not be made within the designated airspace, unless considered necessary by pilots to avoid traffic conflicts, to climb to minimum en-route or safe altitudes, to overcome operational limitations, to avoid adverse weather, or in response to an operational emergency

11.5.2 When cruising level changes are unavoidable, all available aircraft lighting which would improve the visual detection of the aircraft should be displayed while changing levels.

11.6 Collision Avoidance

If, on receipt of a traffic information broadcast from another aircraft, a pilot decides that immediate action is necessary to avoid an imminent collision risk, and this cannot be achieved in accordance with the right-of-way provisions of Annex 2 to the Chicago Convention, the pilot should:

a) unless an alternative manoeuvre appears more appropriate, immediately descend 150 m (500 ft), or 300 m (1 000 ft) if above FL 290 in an area where a vertical separation minimum of 600 m (2 000 ft) is applied:
b) display all available aircraft lighting which would improve the visual detection of the aircraft;
c) as soon as possible, reply to the broadcast advising action being taken;
d) notify the action taken on the appropriate ATS frequency and
e) as soon as practicable, resume normal flight level, notifying the action on the appropriate ATS frequency.

11.7 Operation of Transponders

When implementing TIBA procedures, pilots shall operate aircraft transponders on Mode A and C at all time. In the absence of alternative instructions from the appropriate ATS unit, aircraft not assigned a discrete code should squawk code 3300.

11.8 Operation of TCAS

Unless otherwise directed by an appropriate authority, pilots should operate TCAS in TA/RA Mode at maximum range setting during the cruise phase of flight and at a range setting appropriate to the traffic situation when in the departure or terminal phases of flight.

11.9 Special Operations

Specific aircraft may need to be involved in special operations during the period when a FIR is an activated contingency zone. These aircraft may therefore be unable to utilize the contingency route structure for a significant period of their flights, Aircraft that will be classified as special operations are as follows:

a) Special operations of State aircraft
b) Aircraft in emergency situations or operating with significant reduction in operating efficiency
c) Mercy flights and aircraft engaged in search and rescue, medical evacuation, and
d) coastal surveillance operations.

11.10 Activation and Cancellation of TIBA Procedures

This procedure shall be included in AIP Supplements or NOTAM on TIBA procedures and will be cancelled by NOTAM.

**12. OPERATING PROCEDURES FOR WESTBOUND FLIGHTS BETWEEN BANGKOK FIR AND YANGON FIR ON ROUTES L507, P646, N895, L524, L301, L301 DWI P762, M502 LALIT P762, M626, L515 AND L759**

12.1 For a pair of outbound aircraft from the Bangkok FIR and transiting into the Yangon FIR, 50 NM longitudinal separation minima may be applied between suitably equipped aircraft which are approved for RNP10 operations utilizing ADS-C/CPDLC or VHF communications under the following conditions:

12.1.1 50 NM longitudinal separation may be applied between RNP10 approved aircraft with DCPC (VHF or CPDLC) operating on L507.

12.1.2 50 NM longitudinal separation may be applied between RNP10 approved aircraft, equipped with serviceable ADS-C/CPDLC, operating on L507, P646, N895, L524, L301, L301 DWI P762, M502 LALIT P762, M626 L515 AND L759.

a) To ensure ADS-C/CPDLC serviceability before applying 50 NM longitudinal separation, pilot of westbound traffic intending to operate on P646, N895, L524, L301, L301 DWI P762 AND M502 LALIT P762 shall log on to Yangon CPDLC (VYYF) at least 50 NM before entering Yangon FIR and inform Bangkok ATC upon CPDLC is successfully established with VYYF.

b) 50 NM longitudinal separation using ADS-C/CPDLC between a pair of aircraft may be applied, both aircraft shall ensure their ADS-C/CPDLC serviceability and successfully log on to Yangon CPDLC (VYYF).

c) For flights intended to land within Yangon FIR, ADS-C/CPDLC will not be required.

12.2 Pilots are to advise ATC of any deterioration or failure of navigation system below the navigation requirements for RNP10 or unavailability of CPDLC. ATC shall then provide alternate separation and/or alternative routing.

12.3 Aircraft meeting RNP10 navigation requirements shall indicate /R in item 10a and indicate PBN/A1 in item 18 of the ICAO flight plan format.

12.4 CPDLC-equipped aircraft shall indicate data link descriptors (/J1-7) in item 10a of ICAO flight plan format.

## ENR 1.9 AIR TRAFFIC FLOW MANAGEMENT AND AIRSPACE MANAGEMENT

### 1. AIR TRAFFIC FLOW MANAGEMENT (ATFM) SERVICE AND BANGKOK AIR TRAFFIC FLOW MANAGEMENT UNIT (BANGKOK ATFMU)

#### 1.1 Introduction

1.1.1 This introduces an overview of air traffic flow management (ATFM) services within Bangkok FIR by Bangkok ATFM Unit. Content provided includes an introduction to ATFM service, triggering and dissemination of ATFM measures, exemption of flights, Ground Delay Program (GDP) procedure, and important contact information.

1.1.2 Note that content herein provides only a general description of ATFM services, and stakeholders (airspace users, airport operators) should consult associated NOTAM, AIC or ATFM Daily Plan for detailed information whenever an ATFM measure is triggered within the FIR.

#### 1.2 Provision of ATFM Services

1.2.1 ATFM services are services provided to balance air traffic demand against ATM resource (airspace or airport) capacity. This is achieved through issuance of various ATFM measures as defined in ICAO Doc 9971 – Manual on Collaborative ATFM. These ATFM measures include Minutes-in-Trail, Miles-in-Trail, Minimum Departure Interval, Ground Delay Program through issuance of Calculated Take-Off Time (due to airspace or airport constraint), Fix Balancing, Speed / Altitude Control, and other applicable ATFM measures. Planning of ATFM service is conducted by the ATFM Unit, while the provision of the service – such as issuance of ATFM measure – may be provided by the ATFM Unit or the ATS Unit depending on the nature of the ATFM measure in place.

1.2.2 For Bangkok FIR, the ATFM services are provided by Aeronautical Radio of Thailand Ltd (AEROTHAI) from Bangkok Air Traffic Flow Management Unit (Bangkok ATFMU). The services provided comprise preparation and distribution of ATFM Daily Plan (ADP), planning and issuance of ATFM measures to balance demand and capacity in airspace sectors and airports, monitoring and post-operations analysis of ATFM measure compliance, and the provision of ATFM service for westbound flights transiting Kabul FIR between 2000 to 2359 UTC as specified in subsection 2 of this AIP section. Note that while ATFM measure(s) are in effect, both international and domestic flights may be subjected to such ATFM measure(s). As Bangkok ATFMU operates on a 24-hour basis, ATFM measure(s) may be initiated as and when necessary.

1.2.3 Bangkok ATFMU will exercise due diligence to ensure stakeholders - both local and international - are included or kept updated throughout the decision-making process relating to ATFM services.

#### 1.3 Triggering of ATFM measures

1.3.1 An ATFM measure may be triggered when Bangkok ATFMU determines that there will be a demand-capacity imbalance situation at a particular ATM resource. The imbalance may be due to, inter alia, planned airspace or airport closure, special event affecting airport operations, and adverse weather.

1.3.2 Insofar as possible, Bangkok ATFMU will provide advance notification of an ATFM measure to be initiated and its effective period. In the case of pre-planned events, such as annual Children's Day air display or annual joint military air exercise, an AIP Supplement and / or NOTAM will be issued informing stakeholders of ATFM measure to be used. In the case of unplanned events, such as forecast adverse weather, an ATFM Daily Plan (ADP) and / or NOTAM will be issued to provide advance notification. The ADP will be issued via e-mail to stakeholders' key point of contact.

#### 1.4 Flights Exempted from ATFM Services

1.4.1 The following flights are exempted from the ATFM procedures:

a) Flights experiencing an emergency, including aircraft subjected to unlawful interference;
b) Flights in search and rescue or fire-fighting missions;
c) Urgent medical evacuation flights specifically declared by medical authorities where flight delays would put the life of the patients at risk;
d) Flights with "Head of State" status; and
e) Other flights as may be determined by the appropriate authority.

1.4.2 Airspace users uncertain whether their flights should be exempted should contact Bangkok ATFMU for clarification.

#### 1.5 Procedure for Ground Delay Program (GDP) through issuance of Calculated Take-Off Time (CTOT)

One of the key ATFM measures used by Bangkok ATFMU to balance traffic demand against congested resource capacity is Ground Delay Program (GDP) through the issuance of Calculated Take-Off Time (CTOT). CTOTs are calculated based on expected arrival times of flights at the congested resource, adjusted to achieve suitable flow rate, and should provide airspace users with awareness of their departure times. When GDP is activated, all relevant stakeholders (ATS units, airspace users, airport operators, and ground handlers) are requested to adhere to the following procedure:

1.5.1 Flight Plan (FPL) for flights within any portion of the Bangkok FIR, inclusive of overflights and those departing from or landing at airports in Thailand, should be submitted not less than 3 hours prior to the Estimated Off-Block Time (EOBT) except where necessary for operational and technical reasons.

1.5.2 For the flights expected to be subjected to ATFM measures, Delay Message (DLA) should be transmitted when the departure of an aircraft, for which the basic flight plan data (FPL) has been sent, is delayed by more than 15 minutes after the Estimated Off-Block Time contained in the latest submitted basic flight plan data.

1.5.3 Prior to the activation of Ground Delay Program (GDP), an ATFM Daily Plan (ADP) will be distributed to all stakeholders via provided e-mail addresses. Should the address not be updated, stakeholders can contact Bangkok ATFMU to make necessary revision.

1.5.4 On the day of operations, when possible, Bangkok ATFMU will host a web conference to discuss the GDP operations. Following the briefing, the conference room will remain open as a Help Desk to provide assistance and facilitate CTOT management for stakeholders. The web conference address will be included in the ADP.

1.5.5 CTOTs will be distributed to stakeholders via e-mail and AFTN messages. They will also be published at http://atfm.aerothai.aero. No password is required for accessing the CTOT distribution page.

1.5.6 For flights with CTOTs, crews shall plan their flights to be ready for push-back at an appropriate timing such that Take-Off Time (TOT) will be in compliance with CTOT.

1.5.7 For flights with CTOTs and departing from aerodromes within Bangkok FIR, follow additional push-back and start-up clearance delivery requirements as follows:

a) Flights departing from VTBS and VTBD: crews shall contact ATC for push-back and start-up clearance at least 20 minutes prior to CTOTs.
b) Flights departing from other aerodromes: crews shall contact ATC for push-back and start-up clearance at least 15 minutes prior to CTOTs.
c) ATC shall provide best assistance to ensure flights complying with the above timeframe can takeoff within CTOT compliance window. Failure to comply with the above timeframe may result in further gate holding, and ATC may request crews to obtain new CTOT from Bangkok ATFMU (through their flight operations / dispatch).

1.5.8 Flights with CTOTs operating out of an A-CDM airport, where CTOT is integrated into the A-CDM process, are advised to comply with the local A-CDM procedure.

1.5.9 CTOT compliance windows are provided for ATC at the departure airport to accord operational flexibility in handling airport traffic conditions. CTOT compliance windows are defined as:

a) -5/+10 minutes for CTOTs assigned in response to constrained arrival airports;
b) -5/+5 minutes for CTOTs assigned in response to constrained airspace volumes.

Insofar as practicable, ATC shall manage flights to depart as close to the CTOT as possible.

1.5.10 Should there be any change to flight's operating time (CHG, DLA), airspace user shall contact Bangkok ATFMU as soon as possible to obtain a new CTOT prior to ATC Clearance request to avoid excessive delay. As a general rule, airspace users are responsible for new CTOT requests with Bangkok ATFMU while their aircraft are still at the parking bays (before off-block); once the aircraft has been cleared for pushback, ATC shall assist in obtaining new CTOT if needed due to ground movement issues.

1.5.11 For flights originally operating outside of the GDP period but delaying into it, airspace users shall contact Bangkok ATFMU to obtain CTOT as soon as possible and prior to clearance delivery. If uncertain whether the flight should be subjected to GDP, contact Bangkok ATFMU to verify.

**1.6 Bangkok ATFMU Users Manual**

Bangkok ATFMU Users Manual provides details information and procedure regarding ATFM operations. The updated manual can be downloaded at http://atfm.aerothai.aero.

**1.7 Bangkok Air Traffic Flow Management Unit**

1.7.1 Bangkok ATFMU is staffed 24 hours and may be contacted via the following:

| | |
|---|---|
| Unit Name: | Bangkok ATFMU |
| Tel: | +66 2287 8024 |
| | +66 2287 8025 |
| Fax: | +66 2287 8026 |
| Mob: | +668 1829 5256 |
| AFS: | VTBBZDZX |
| E-mail: | atfmu@bobcat.aero |
| Website: | http://atfm.aerothai.aero |

## 2. AIR TRAFFIC FLOW MANAGEMENT PROCEDURES OVER BAY OF BENGAL, SOUTH ASIA AND PAKISTAN THROUGH KABUL FIR

### 2.1 Introduction

2.1.1 The States of the ICAO Asia/Pacific Region within the Bay of Bengal, South Asia and Pakistan airspace implemented an operational trial of an automated Air Traffic Flow Management (ATFM) service under the auspices of the ICAO APANPIRG. Pursuant to comprehensive reviews of the operational trial performance, the BOBCAT ATFM procedure has since been permanently implemented starting 5 July 2007.

2.1.2 Following the reviews of operations, and the publication of ICAO Asia-Pacific Regional Framework for Collaborative ATFM; States in the region has agreed, as per the outcome of the 27th meeting of Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/27), to amend the terminologies and phraseologies used in this BOBCAT ATFM operations to better align with global standards set forth by the regional framework as well as ICAO Doc 9971 – Manual on Collaborative ATFM. The amended procedures and terminologies are contained herein.

### 2.2 Provision of ATFM services for flights transiting Kabul FIR (BOBCAT ATFM)

2.2.1 As one of the ATFM services provided, Bangkok ATFMU provides ATFM service for westbound flights intending to transit Kabul FIR between 2000 UTC and 2359 UTC daily. The service provided includes calculation, promulgation, and management of mandatory Calculated Take-Off Time (CTOT) and flight level, ATS route, and Calculated Time-Over (CTO) at entry waypoint for entry into Kabul FIR for each affected flight.

2.2.2 Air Navigation Service Providers (ANSPs) retain responsibility for the tactical management of flights that are subjected to this ATFM measure. In discharging tactical responsibilities, ANSPs will manage non-ATFM compliant flights using delayed pushback and start clearances, non-preferred routes and/or flight levels, enroute holding and/or diversion around Kabul FIR.

2.2.3 Bangkok ATFMU utilizes the automated, web-based Bay of Bengal Cooperative ATFM System (BOBCAT) in meeting its Kabul FIR ATFM responsibilities. These responsibilities will be managed in coordination with airspace users and ANSPs in the FIRs concerned.

2.2.4 This section describes in greater detail the procedures involved in the BOBCAT ATFM service.
The objectives of this service are to:

a) Reduce ground and enroute delays;
b) Maximize capacity and optimize air traffic flow through Kabul FIR;
c) Provide an informed choice of routing and flight level selection;
d) Alleviate unplanned in-flight re-routing and technical stops; and
e) Assist regional ANSPs in planning for and managing workload in handling increased air traffic flow through Kabul FIR.

### 2.3 BOBCAT ATFM-affected ATS routes, flight levels, and applicable period

2.3.1 All westbound flights intending to enter the Kabul FIR between 2000 UTC and 2359 UTC daily on ATS routes and Flight Level in Table 1 shall comply with the BOBCAT ATFM procedures contained herein. This includes a mandatory requirement for all flights to obtain a specific ATFM slot allocation – CTOT, CTO at Kabul FIR entry waypoint, allocated flight level, and allocated ATS route – from the Bangkok ATFMU for entry into Kabul FIR during the period above mentioned.

**Table 1: ATS Route and Flight Levels Requiring ATFM Slot Allocation**

| Routing through the Kabul FIR | Metering Waypoint(s) | Flight Levels |
|---|---|---|
| L509 - M875<br>P764 | LAJAK | FL280, FL300, FL320, FL340, FL360, FL380, FL400 |
| M875 | SITAX | FL280, FL300, FL320, FL340, FL360, FL380, FL400 |
| N644 | DOBAT | FL280, FL300, FL320, FL340, FL360, FL380, FL400 |
| L750 | BIROS | FL280, FL300, FL320, FL340, FL360, FL380, FL400 |
| P628 - N636 | ASLUM | FL300, FL320, FL340, FL360, FL380, FL400 |
| N636 | SERKA | FL280, FL300, FL320, FL340, FL360, FL380, FL400 |

2.3.2 Flights that plan to enter Kabul FIR without an ATFM slot allocation – CTOT, CTO at Kabul FIR entry fix, allocated flight level, and allocated ATS route – will be accommodated only after flights with slots have been processed. Such flights should expect delayed pushback and start clearances, non-preferred routes and/or flight levels, enroute holding and/or diversion around Kabul FIR.

2.3.3 In order to ensure availability of slots for westbound departures from designated airports in northern India and Pakistan, departures from these airports are given priority for FL280 in the slot allocation. This does not preclude these flights from requesting higher flight levels with initial slot request.

**2.4 Flights exempted from BOBCAT ATFM**

2.4.1 The following flights are exempted from BOBCAT ATFM procedures:

a) Flights experiencing an emergency, including aircraft subjected to unlawful interference;
b) Flights in search and rescue or fire-fighting missions;
c) Urgent medical evacuation flights specifically declared by medical authorities where flight delays would put the life of patients at risk;
d) Flights with “Head of State” status.

***Note:*** *After medical flights have completed their mission; they should be subject to ATFM measures. Scheduled passenger transfer flights are, by nature, non-urgent and should not be given priority under normal operational situation.*

2.4.2 Airspace users uncertain whether their flights should be exempted should contact Bangkok ATFMU for clarification.

**2.5 Mandatory CTOT and KABUL FIR slot allocation**

2.5.1 Affected flights shall obtain the mandatory Kabul FIR slot allocation – CTOT, CTO at Kabul FIR entry fix, and allocated flight level and ATS route from the BOBCAT system. The Kabul FIR slot allocation will enable ANSPs to tactically control westbound flights transiting the Kabul FIR at specified times by assigning minimum spacing requirements at established gateway fix points in the vicinity of the eastern boundary of the Kabul FIR.

2.5.2 The application, calculation, and distribution of CTOT and associated Kabul FIR entry fix slot allocations will be managed via internet access to the BOBCAT system in accordance with the BOBCAT ATFM operating procedure in section 2.6.

**2.6 BOBCAT ATFM operating procedures**

2.6.1 All affected flights are required to submit slot requests to the BOBCAT system by logging into https://www.bobcat.aero between 0001 and 1159 UTC on the day of flight and completing the electronic templates provided.

2.6.2 Affected operators who do not have dedicated BOBCAT username/password access should complete the attached application form in Appendix A and fax the form to the ATFMU as soon as possible.

2.6.3 Slot Allocation Process

The slot allocation is divided into 3 phases, namely; the slot request submission, initial slot allocation, and slot distribution to aircraft operators and ANSPs.

a) Slot Request Submission

– Slot requests including preferred ATS route, flight level and Maximum Acceptable Delay (MAD) should be lodged between 0001 UTC and 1159 UTC on the day of flight. Slot requests may subsequently be amended prior to the cut-off time of 1200UTC. Aircraft operators are encouraged to submit additional slot request options in case their first choice is not available. This may include variations to ATS route, flight level and MADS.
– Slot requests shall be for flight parameters that are able to be met by the flight. For example, flights requesting a slot at FL380 must be able to transit Kabul FIR at FL380. Flight subsequently unable to meet slot parameters (flight level, ATS route, or CTO at entry fix) should expect non-preferred routes and/or flight levels, enroute holding and/or diversion around Kabul FIR.
– As BOBCAT will allocate FL280 on a priority basis to facilitate departures from northern India and Pakistan underneath over-flying traffic, flights departing these airports are encouraged to include FL280 as at least one slot request preference.
– Flights that were not allocated a slot in the initial slot allocation, are not satisfied with the allocated slot or did not submit a slot request should select slots from the listing of remaining unallocated slots available immediately after slot distribution has been completed.

b) Slot Allocation and Distribution

– Slot allocation will commence at the cut-off time of 1200 UTC. BOBCAT will process and generate the slot allocation based on the information submitted in the slot requests. Notification of slot allocation will be made not later than 1230UTC via the BOBCAT ATFM website. Alternative arrangements for notification of slot distribution (e.g. Fax, Telephone, and e-mail) should be coordinated with the Bangkok ATFMU.
– After the slot allocation has been published at https://www.bobcat.aero, airspace users can:

• Use the slot allocation result for ATS flight planning purposes,
• Cancel the allocated slot and/or,
• Change slot allocation to another available slot in the published list of unallocated slots.

c) ATS Units involved within Bangkok FIR (e.g. Bangkok Area Control Centre, Aerodrome Control at the departure airports, AIS Centres, Aerodrome Aeronautical Information Services Units and Base Operations) can also view the slot allocation results at https://www.bobcat.aero.

2.6.4 Submission of ATS Flight Plan

a) Once aircraft operators are in receipt of the slot allocation, they shall submit the ATS flight plan using the time, ATS route and flight level parameters of the BOBCAT allocated slot.
b) In addition to normal AFTN addressees, operators should also address flight plan (FPL) and related ATS messages (e.g. DLA, CNL, CHG) to the ATFMU via AFTN address VTBBZDZX for all flights that have submitted a slot request.

**2.7 Aircraft operator / pilot-in-command and ANSP responsibilities**

Aircraft Operator / Pilot-in-Command

2.7.1 In accordance with ICAO PANS ATM provisions, it is the responsibility of the Pilot-in-Command (PIC) and the airspace user to ensure that the aircraft is ready to taxi in time to meet any required departure time. PIC shall be kept informed by their operators of the CTOT, CTO at Kabul FIR entry fix, and flight parameters (route, flight level) allocated by BOBCAT.

2.7.2 The PIC, in collaboration with ATC, shall arrange take-off as close as possible to CTOT in order to meet the allocated CTO at Kabul FIR entry fix.

Air Navigation Service Providers (ANSPs)

2.7.3 In accordance with ICAO PANS ATM provisions, flights with an ATFM slot allocation should be given priority for take-off to facilitate compliance with CTOT.

2.7.4 CTOT shall be included as part of the initial ATC clearance. In collaboration with the PIC, Aerodrome Control shall ensure that every opportunity and assistance is granted to a flight to meet CTOT and allocated CTO at Kabul FIR entry fix.

2.7.5 AIS Centres (VTBD/VTBS), Aerodrome Aeronautical Information Services Units (VTCC/VTSS/VTSP) or Base Operations (Military) shall forward the flight plan information to the ATFMU at AFTN address VTBBZDZX

**2.8 Coordination procedure between aircraft operator / pilot in command, ANSPS, and Bangkok ATFMU to be applied within the Bangkok FIR**

2.8.1 Bangkok ATFMU (VTBBZDZX) shall be included in the list of AFTN addressees for NOTAMs regarding any planned activities that may affect slot availability (e.g. reservation of airspace / closure of airspace, non-availability of routes, etc).

2.8.2 Bangkok ATFMU (VTBBZDZX) shall be included in the list of AFTN addressees for ATS messages (e.g. FPL, DEP, DLA, CHG, CNL) relating to flights subject to ATFM procedures.

2.8.3 Prior to departure and before obtaining an Airway Clearance, in circumstances where it becomes obvious that the allocated Kabul FIR slot parameters will not be met, a new slot allocation should be obtained as soon as possible. To avoid frequency congestion, this should be obtained primarily via aircraft operators / flight dispatchers; otherwise Ground Control or Clearance Delivery may be asked for assistance in the coordination with Bangkok ATFMU as an alternative. Early advice that the allocated Kabul FIR slot parameters will be missed also enables the slots so vacated to be efficiently reassigned to other flights.

2.8.4 The PIC shall include the CTOT in the initial ATC clearance request.

2.8.5 A missed slot results in considerable increase in coordination workload for ATC and PIC and should be avoided. To minimize coordination workload in obtaining a revised slot allocation, if the flight is still at the gate and an Airway Clearance has been obtained, PIC shall advice Ground Control of the missed slot and obtains new CTOT as specified in 2.8.3. If it becomes essential, the ATC Clearance may be cancelled.

2.8.6 Prior to departure and after the aircraft has left the gate, in the event that the aircraft is unable to meet the allocated Kabul FIR slot parameters, when requested by the PIC, Aerodrome Control shall assist the PIC in coordination with Bangkok ACC and ATFMU for a revised slot allocation.

2.8.7 PIC shall adjust cruise flight to comply with slot parameters at the Kabul FIR entry fix, requesting appropriate ATC clearances including speed variations in accordance with published AIP requirements.

**2.9 BOBCAT ATFM operations for departing aircraft from Bangkok/Suvarnabhumi International (VTBS)**

2.9.1 To increase the effectiveness for departing aircraft from VTBS during the BOBCAT ATFM period and to ensure priority departure in accordance with CTOT, the following procedures are required for all BOBCAT ATFM-related flights:

a) Before obtaining an Airway Clearance, ensure the flight is ready at least 25 minutes prior to the allocated CTOT (the additional 5-minute buffer to CTOT should not be taken into account under this provision);
b) Contact ATC for push-back and start-up clearance at least 20 minutes prior to CTOTs unless instructed otherwise per local A-CDM procedure;
c) Flights that do not adhere to the procedures mentioned in (a) and (b) will be considered not-ready and may result in the withdrawal of Airway Clearance as well as CTOT;
d) Notwithstanding the above; there may be some occasions where, due to the location of the aircraft's parking bay, the aircraft could take less time to taxi than the Standard Taxi Time (STT) used by the BOBCAT system. In these cases, ATC may delay pushback and start-up procedures in order for the aircraft to have a smooth transition to the holding point.

**2.10 Basic Computer Requirement**

2.10.1 Aircraft Operators and ATS units involved are required to have computer equipment capable of connecting to the BOBCAT website https://www.bobcat.aero via the internet and satisfying the following minimum technical requirements:

a) A personal computer of any operating system with the following characteristics
b) Processor: minimum CPU clock speed of 150 MHz
c) Operating System: Any that operates one of the following web browsers – Windows 2000/XP, Linux, Unix or Mac OS
d) Web Browser: Internet Explorer 5.5 or newer, Mozilla 1.0 or newer, Mozilla Firefox 1.0 or newer, Netscape 7 or newer
e) RAM: 64 MB or large (depending on operating system)
f) Hard Disk Space: minimum of 500 MB or larger (depending on operating system)
g) Monitor Display Resolution: Minimum of 800x600 pixels
h) Internet Connection: 56 Kbps Modem or faster

**2.11 ATFM Users Handbook**

2.11.1 Supporting documentation, including detailed information in respect of the BOBCAT ATFM operations described above and other pertinent information has been included in the Bay of Bengal and South Asia ATFM Handbook (the “ATFM Users Handbook”), available at https://www.bobcat.aero.

2.11.2 ANSPs and aircraft operators shall ensure that they are conversant with and able to apply the relevant procedures described in the ATFM Users Handbook.

**2.12 Contingency Procedures**

2.12.1 In the event that an aircraft operator or ATS unit is unable to access the ATFMU website, Bangkok ATFMU shall be contacted via the alternative means (telephone, fax, AFTN) described in 2.14.

2.12.2 Contingency procedures for submission of slot request, including activation of Contingency Slot Request Templates (CSRT), are included in the ATFM Users Handbook.

2.12.3 In the event of BOBCAT system failure, Bangkok ATFMU shall notify all parties concerned and advise that BOBCAT ATFM slot allocation procedures are suspended. In this event, all parties concerned will revert to the existing ATM procedures as applicable outside the daily period of ATFM metering.

**2.13 BOBCAT ATFM System Fault Reporting**

2.13.1 An ATFM system fault is defined as a significant occurrence affecting an ATS unit, an aircraft operator or ATFMU resulting from the application of ATFM procedures.

2.13.2 Aircraft operators and ATS units involved in Bangkok FIR, experiencing an ATFM system fault should complete an ATFM System Fault Report Form from the ATFM Users Handbook (see Appendix B) and forward it to the ATFMU at the address indicated on the form. The ATFMU will analyse all reports, make recommendations/suggestions as appropriate and provide feedback to the parties concerned to enable remedial action.

**2.14 Bangkok ATFMU Contact Information**

Bangkok ATFMU may be contacted via the following:

| | |
|---|---|
| Unit Name: | Bangkok ATFMU |
| Tel: | +662 287 8024, +662 287 8025, +662 287 8026 |
| Fax: | +662 287 8027, +662 287 8026 |
| Mob: | +668 1829 5256 |
| E-mail: | atfmu@bobcat.aero |
| AFS: | VTBBZDZX |

## Appendix A

### BOBCAT USERNAME / CONTACT INFORMATION MODIFICATION FORM

To be submitted to Bangkok ATFMU

SECTION I: ADD NEW USERS

| Prefix | First Name | Last Name | Proposed Username Up to 20 characters | E-mail Address |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

SECTION II: REMOVE USERS

| Prefix | First Name | Last Name | Username | E-mail Address |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

SECTION III: RESET PASSWORD

| Prefix | First Name | Last Name | Username |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

SECTION IV: NOTIFICATION E-MAIL ADDRESS

❒ Change our organization's notification e-mail address to_____

SECTION V: CONTACT INFORMATION

Organization: _____

Full Name: _____

Tel: _____

E-mail: _____

Signature: _____

Date/Time of Request: _____

# Appendix B

## ATFM SYSTEM FAULT AND EVENT REPORT FORM

To be submitted to Bangkok ATFMU

### SECTION I: GENERAL INFORMATION

1. Date and time (UTC) of Occurrence _____ / _____ / _____ / _____ / _____
   yy / mm / dd / hh / mm
2. Type of Event
   - 2.1 Failure of BOBCAT system
   - 2.2 Communication Link failure
   - 2.3 Non compliance with ATFM procedures by Pilot / Airline Operator / ANSP
   - 2.4 Error in FPL and associated messages
   - 2.5 Failure in ATFM Slot Monitoring (i.e. TWR at Aerodrome of Departure)
   - 2.6 Non compliance with slot allocation window
3. Restrictions applicable to the flight: _____

### SECTION II: DETAILED INFORMATION

1. Flight Data (if applicable) – Call Sign: _____

   Attach copies of Flight Progress Strips indicating DEP, EOBT, WUT, DES or Entry Point & ETO over entry point, FL to ATC Unit/sector area of activity as applicable.

2. Other details necessary for analysis of the incident

   Attach copies of FPL or RPL, subsequent ATS modifying messages etc. If appropriate

### SECTION III: SUPPLEMENTARY INFORMATION

1. Actions already initiated: _____

   _____

2. Contact information follow-up action:
   - 2.1 Name : _____
   - 2.2 Designation: _____
   - 2.3 Tel: _____
   - 2.4 E-mail: _____
3. Signature: _____
4. Date/Time of Report: _____

**3. Re-routing Scenarios**

**3.1 Re-routing of westbound flight on L759 to M770 for night time traffic from Southeast Asia to Europe**

3.1.1 ATFM procedure over Bay of Bengal, South Asia and Pakistan through Kabul FIR (Afghanistan) using the BOBCAT system outlined in section 3 mainly addresses Demand-Capacity Balance for westbound flights entering the Kabul FIR.

3.1.2 It is recognized that there may be congestion / aircraft bunching prior to entering the Bay of Bengal on ATS Route L759 as westbound flight towards European destinations would be limited to FL280 - FL340, while available flight levels in Kabul FIR includes all westbound flights from FL280 to FL400.

3.1.3 Accordingly, flights planned on route L759 between PUT-BBS (Chennai FIR) maybe re-routed onto M770 via "PUT L515 OBMOG M770 BUBKO N895 BBS L759" under following conditions:

a) If longitudinal separation cannot be achieved or maintained in relation to preceding traffic on the flight planned route L759 between PUT – BBS over the Bay of Bengal;
b) When, by using the flight planned route L759, an aircraft would suffer an unacceptable lower flight level; and
c) In concurrence with the flight crew, the Bangkok ACC shall assign alternative parallel route M770 or lower acceptable level on L759 to affected flights enabling a better chance of obtaining the ATFM slot allocation in the Kabul FIR.

3.1.4 Flight crews and dispatchers are encouraged to become fully conversant with the L759 re-routing scenario and are advised to take appropriate proceedings to enable affected flights to proceed via M770 when necessary.

**4. Air Traffic Management**

**4.1 Air Traffic Management for flight operating on ATS routes W21 / R474, B346 and R215**

4.1.1 Flight planning for traffic transiting from Bangkok FIR into Vientiane FIR should be as follows:

a) Flight intends to operate on ATS route B218 within Vientiane FIR should flight plan via B346 or R215
b) Flight intends to operate on ATS route R474 between 0100-0900 UTC on Monday-Friday should file flight plan via W21 CMP R474 vice versa
c) R474 Conditional Route (CDR) availability see ENR 3.1.

4.1.2 Flight level assignment will be as follows:

a) B346
   i. All odd flight level (RVSM table)
   ii. Pre-Departure Coordination (PDC): FL270, FL330
b) R215

   i. All odd flight level (RVSM table)
   ii. No-Pre-Departure Coordination (NO-PDC): FL290

c) R474 and W21 CMP R474 northbound:
   i. All odd flight level (RVSM table)
   ii. Pre-Departure Coordination (PDC): FL270, FL330

**5. Procedure for South China Sea ATS Route Network**

**5.1 No-Pre-Departure Coordination Procedures (NO-PDC)**

NO-PDC arrangement will be applied for Eastbound flight outbound from Bangkok FIR: operating on the following ATS routes

| ATS route designator | NO-PDC Flight Level |
|---|---|
| A1 | FL330, FL370, FL410 |
| A202 | FL290, FL330, FL370, FL410 |
| L880 / L628 | FL330, FL370, FL410 |
| N506 / R468 / M768 | FL270, FL330, FL410 |
| N891 | FL330 |

Remarks:
1. Flight levels mentioned above are intended to facilitate air traffic flow and reduce ATC coordination.
2. Availability of flight level shall subject to traffic situation.
3. Other flight levels are available subject to coordination.

**5.2 Procedure for Bay of Bengal ATS route network.**

NO-PDC arrangement will be applied for westbound flight outbound flight from Bangkok FIR operating on the following ATS routes;

| ATS route designator | NO-PDC Flight Level |
|---|---|
| P646, L507 | FL 280 or above are available |
| L301, L301 (P762), P646 (N895), M502 | FL260, FL320 |
| L759, L515 / M770, P628 | FL280, FL300, FL340 |
| L645 | FL260 |
| P627 | FL260 |

Remarks:

1. Flight levels mentioned above are intended to facilitate air traffic flow and reduce ATC coordination.
2. Availability of flight level shall subject to traffic situation.
3. Other flight levels are available subject to coordination.

**6. Airspace Management and Airspace Management Cell (Thailand) (AMC)**

**6.1 Introduction**

Airspace Management Cell (AMC), a joint civil/military operation has been established in Thailand for responsible for day-to-day management of airspace according to Flexible Use of Airspace (FUA) concept. In accordance to DOC 10088 Manual on Civil-Military Cooperation in Air Traffic Management, the basic for the FUA concept is that airspace should no longer be designated as military or civil airspace but should be considered as one continuum and used flexibly on a day-to-day basis. Any necessary airspace segregation is temporary, based on real-time usage within a specific time period. The objectives of AMC are:

a) To enhance civil and military airspace coordination procedure for the application of Flexible Use of Airspace (FUA) level 2 (pre-tactical level) and level 3 (tactical level).
b) To coordinate military training areas and also civil activities areas in order to maximize shared use of airspace through civil/ military coordination.
c) To manage and promulgate the daily allocation of flexible use of airspace structures.
d) To increase the capacity, efficiency and safety of airspace use.
e) To provide Airspace Use Plan (AUP) information and effective coordination with airline operators, Air Traffic Services, Air Traffic Flow Management and other concerned units.

**6.2 The Flexible Use of Airspace (FUA) Concept**

6.2.1 The FUA concept has been developed at the three levels of Airspace Management that correspond to phase and levels of Civil and Military cooperation and coordination.

Level 1: Strategic
Long-term, high-level planning and support to achieve the goals of civil/military collaboration and cooperation, including the development of a national airspace policy providing a framework for airspace management and utilization, and the development of harmonized procedures and mechanisms to be applied during pre-tactical and tactical phases.

Level 2: Pre-tactical
An intermediate preparatory planning phase or timeframe whereby the decisions and objectives made during the strategic phase, as well as the procedures agreed during that timeframe are implemented, leveraging cooperation and collaborative decision making in order to meet the efficiency and safety objectives of the tactical phase.

Level 3: Tactical
The coordination mechanisms and exchanges between civil and military stakeholders, in real-time or within the immediate timeframe of the commencement of activities. It is the execution of actions for a narrow immediate objective.

6.2.2 Conditional Routes

Conditional Routes (CDRs) are designed to supplement the permanent ATS-route network and to allow flights to be planned on ATS routes, or portions thereof, that are not always available. The following types of CDRs are available in Thailand:

– CDR1 will be plannable in the same way as permanent ATS routes for time periods published in the AIP.
– CDR2 routes are non-permanently plannable CDRs whose availability are coordinated between AEROTHAI and military units and disseminated to aircraft operators for flight planning purposes. Flights on a CDR2 can only be flight planned when the CDR is made available.
– CDR3 routes are not available for flight planning; however, ATC Units may issue tactical clearances on such route segments. Aircraft operators are invited to refer to AIP Part ENR 3 ATS routes for additional information regarding latest CDRs published in Thailand. The availability condition of the CDRs will be detailed in the Remarks section.

6.2.3 Temporary Airspace Restriction and Reservation

The Temporary Airspace Allocation (TAA) process consists in the allocation process of airspace of defined dimensions assigned for the temporary reservation/segregation (TRA/TSA) or danger/restricted area (D/R) and identified more generally as a “manageable” area. Two different types of airspace reservation can be established taking into consideration the activity that would take place associated with the transit possibility:

1. Temporary Reserved Area (TRA): An airspace temporarily reserved and allocated for the specific use of a particular user for a determined period of time and through which other traffic may be allowed to transit under ATC clearance.
2. Temporary Segregated Area (TSA): An airspace temporarily segregated and allocated for the exclusive use of a particular user during
a determined period of time and through which other traffic will not be allowed to transit.

AMC Manageable Areas are areas including Prohibited, Restricted and Danger areas, subject to management and allocation by AMC at ASM Level 2.

**6.3 Airspace Request and Planning Procedures**

Airspace users, civil or military, who wish to reserve airspace for use and issue NOTAMs of airspace warning should contact and submit requests to AMC in advance.

6.3.1 For military exercise areas that are published in AIP Thailand manageable by AMC, the daily plan for airspace use shall be submitted to AMC before 0930 UTC or if necessary, by 1430 UTC at the latest, 1 day in advance primarily through AMC website http:// www.thaicmac.aerothai.aero.

Any airspace requests or changes submitted to AMC after 1430 UTC via the website shall be processed during the operating hours next day.

Outside of AMC operating hours, urgent inquiries including airspace requests should be made to responsible ATC units, using contact channels listed in section 6.

6.3.2 For areas temporarily reserved (areas not published in AIP Thailand) for both civil or military uses, requests should be submitted to AMC 7 days in advance primarily through AMC website.

**6.4 Airspace Use Plan (AUP), Updated Airspace Use Plan (UUP)**

6.4.1 Daily plan of airspace use, availability of CDRs and other related information will be summarized and published in daily Airspace Use Plan (AUP) available on the AMC (Thailand) website. http://www.thaicmac.aerothai.aero/app/index.html#/aup. Changes to AUP will be notified via Updated Airspace Use Plan (UUP). Only airspace warnings will be notified by NOTAM Series J.

6.4.2 AUP/UUP will cover 24-hour time period between 1700 UTC to 1659 UTC of next day or 0000 LT to 2359 LT in Thailand. AUP will be published at 1000 UTC the day before AUP is in effect while UUP will be published from 1000 UTC onward during operating hours of AMC.

6.4.3 The contents of AUP/UUP in AMC website available to public are as follows;

a) AUP-A: The list of available CDRs category 2 and Military areas availability
b) AUP-B: The list of closed permanent ATS route and CDRs category 1
c) AUP-C: The list of TSAs and TRAs and AMC manageable P, D and R areas
d) AUP-D: The list of changed airspace restrictions
e) AUP-E: The list of reduced coordination airspace
f) AUP-F: The list of additional information and Series J-NOTAM (warning NOTAM)

6.4.4 Short-notice requests are airspace requests that are not submitted in advance and have activities planned for the same day (Local Time) as when requests are made.

a) For requests submitted less than 3 hours before the start of the activities, airspace users should contact ATS unit directly for approval. Warning NOTAMs will not be issued for activities with duration shorter than 2 hours.
b) For requests submitted to AMC 3 or more hours in advance, NOTAMs will be issued as appropriate and UUP will updated accordingly in 3-hour interval starting from 0030 UTC.

**6.5 Flight Planning for CDR**

6.5.1 Through coordination on airspace use between concerning civil and military units, availability of CDR2 will be notified via AUP/UUP with detailed in previous sections. The airline operators or flight dispatchers should look for CDR2 route availability and file flight plan accordingly. Flights on CDR2 can only be flight planned when the CDRs are made available.

6.5.2 Any foreseen period of non-availability of CDR1 will, whenever practicable, be notified to the operators by NOTAMs and summarized in AUP/UUP.

6.5.3 In the event of tactical changes and short-notice unavailability of a CDR2, flights will be instructed by ATC to use alternative routes. Final use of airspace is subject to real-time civil/military coordination through ATC clearance.

**6.6 AMC (Thailand) Hours of Operation**

6.6.1 Coordination and planning of airspace use are conducted daily between 2330 - 1430 UTC.

6.6.2 Outside operation hours, urgent use of airspace should be coordinated directly with responsible Air Traffic Control units or Military control agencies stated below or other responsible units defined in the AIP Thailand.

Contact channel for ATC units and Military control agencies

| Units | Phone | Position |
|---|---|---|
| Bangkok Area Control Centre (North) | +662 085 9112, +662 307 2329 | A/FIR Manager |
| Bangkok Area Control Centre (South) | +662 285 9111, +662 307 2391 | A/FIR Manager |
| OSCAR Control | +662 534 6000 Ext 24731 | Military Control Agency |
| FOCAL Control | +662 534 6662, +662 532 4142 | Military Control Agency |
| BIG SHELL Control | +662 534 6000 Ext 62507, 2663 or +667 726 8083 | Military Control Agency |

**6.7 Contact Information**

Airspace Management Cell (Thailand)
Aeronautical Radio of Thailand Ltd.
102 Ngamduplee Tungmahamek, Sathon, Bangkok 10120, Thailand

AMC website for submitting airspace request and for AUP/UUP Information: http://www.thaicmac.aerothai.aero

Telephone: +662 307 2040, 2041, 2042, or 2045
Mobile phone: +666 1402 4966
Fax: +662 307 2139 or +662 307 2140
E-mail: thaicmac15@aerothai.co.th
AFTN: VTBBZDZX

## ENR 1.10 FLIGHT PLANNING

### 1. Procedures for the submission of a flight plan

1.1 Requirement to submit a flight plan

1.1.1 Information relative to an intended flight, to be provided to ATS units, shall be in the form of a flight plan.

1.1.2 A flight plan shall be submitted to appropriate ATS unit prior to operating any flight in the Bangkok FIR.

1.2 Time of submission

Unless otherwise prescribed by the appropriate ATS authority, a flight plan for a flight to be provided with air traffic control service or air traffic advisory service shall be submitted at least 1 hour before departure and may be submitted up to 120 hours before departure provided the Date of Flight is included in item 18 of the ICAO flight plan form.

1.3 Place of submission

1.3.1 Flight Plans Submitted via AFTN

AFTN to VTBBZPZX (Flight Data Management Centre).

1.3.2 Flight Plans Submitted by FAX, TEL or in Person

Flight plans can be submitted by FAX, TEL or in person at the ARO at the appropriate ARO.

1.3.3 Flight Plans Submitted by AFIL

ATS unit will accept flight plans from aircraft in the air. This procedure (AFIL) should only be used when no other means of submission is practicable. Flights requesting AFIL may be required to remain clear of controlled airspace until such time as the concerned ATS unit has sufficient time to accept and process the message. The actual or estimated time over the first point of the route shall be notified along with the AFIL to the ATS unit.

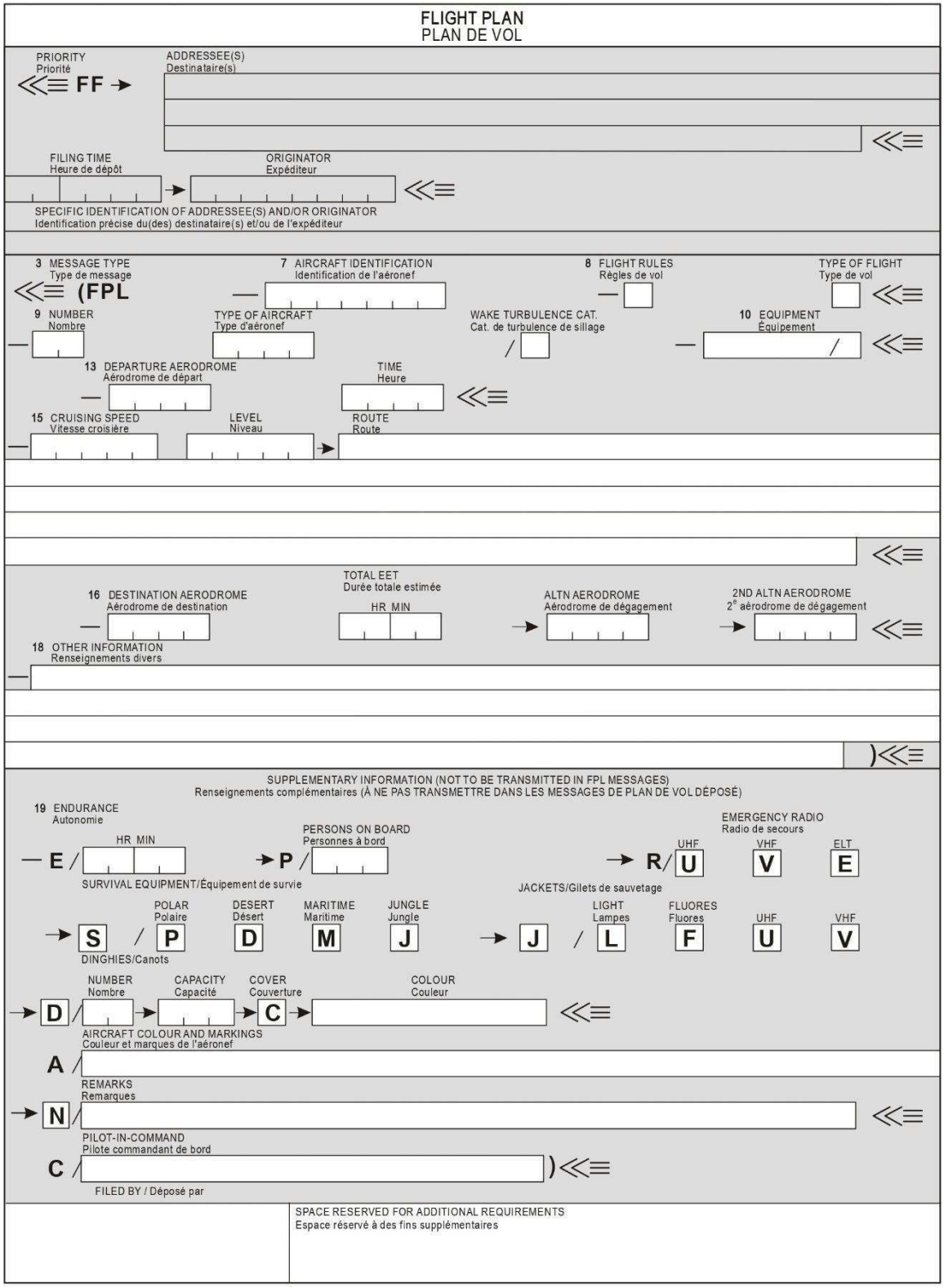
1.4 Contents and form of a flight plan

1.4.1 ICAO flight plan form below shall be used for the purpose of completing flight plans.

1.4.2 A flight plan shall contain information on all items in ICAO flight plan form.

1.4.3 A description of the content and detailed instructions for completion of flight plans are shown below;

ICAO flight plan form




Instructions for completion of an ICAO flight plan form

Note: The term ‘aerodrome’ as used in this table refers to any aerodrome, heliport or landing site which may be used.

**ITEM 7: AIRCRAFT IDENTIFICATION (MAXIMUM 7 CHARACTERS)**

**INSERT** one of the following aircraft identifications:

a) the nationality or common mark and registration mark of the aircraft e.g. ZKNSK, NZ7571, N8735Y. **OR**
b) the designator for the aircraft operating agency followed by the flight identification e.g. ANZ14, QFA145 Approved designators for aircraft operating agencies can be found on the CAA website.

**ITEM 8: FLIGHT RULES AND TYPE OF FLIGHT (ONE OR TWO CHARACTERS)**

**Flight Rules**

**INSERT** a single character denoting the category of flight rules which the pilot intends to comply:

I – if IFR
Y – if the flight initially will be operated IFR, followed by one or more subsequent changes of flight rules
Z – if the flight initially will be operated VFR, followed by one or more subsequent of flight rules
V – VFR

For flight rules Y and Z, it is necessary to specify in the route field (item) 15 the point or points where the change of flight rules is planned.

**Type of Flight**

**INSERT** one of the following letters to denote type of flight:

S – if Scheduled Air Service
N – if Non-scheduled Air Transport Operation
G – if General Aviation
M – if Military
X – if other than any of the above categories

Where necessary specify status of the flight using indicator STS/ in item 18, or when necessary to denote other reasons for specific handling by ATS use indicator RMK/ in item 18.

**ITEM 9: NUMBER AND TYPE OF AIRCRAFT AND WAKE TURBULENCE CATEGORY**

**Number of Aircraft**

**INSERT** the number of aircraft if more than one, otherwise leave blank.

**Aircraft type**

**INSERT** the aircraft type designator — refer to ICAO Doc8643, for type designators and wake turbulence category. If the type of your aircraft does not match anything listed then enter ZZZZ and specify type in item 18 under TYP/.

**Wake Turbulence Category**

**INSERT** the wake turbulence category for the aircraft type. Use J (super) or H (heavy) or M (medium) or L (light).

**ITEM 10: EQUIPMENT AND CAPABILITIES**

Capabilities comprise the following elements:

a) presence of relevant serviceable equipment on board the aircraft;
b) equipment and capabilities commensurate with flight crew qualifications; and
c) where applicable, authorization from the appropriate authority.

**Radio Communication, Navigation and Approach Aid Equipment and Capabilities**

**INSERT** one letter as follows:

N – if no COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is unserviceable.
S – if standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable.

Standard equipment is considered to be VHF RTF, VOR and ILS. **AND/OR one or more of the following to indicate the serviceable COM/NAV/approach aid equipment and capabilities:**

| | |
|---|---|
| A – GBAS landing system | K – MLS |
| B – LPV (APV with SBAS) | L – ILS |
| C – LORAN C | M1 – ATC SATVOICE (INMARSAT) |
| D – DME | M2 – ATC SATVOICE (MTSAT) |
| E1 – FMC WPR ACARS | M3 – ATC SATVOICE (Iridium) |
| E2 – D-FIS ACARS | O – VOR |
| E3 – PDC ACARS | P1 CPDLC RCP 400 |
| F – ADF | P2 CPDLC RCP 240 |
| G – GNSS (see Note 1) | P3 SATVOICE RCP 400 |
| H – HF RTF | P4–P9 Reserved for RCP |
| I – Inertial Navigation | R – PBN approved (see Note 2) |
| J1 – CPDLC ATN VDL Mode 2 | T – TACAN |
| J2 – CPDLC FANS 1/A HFDL | U – UHF |
| J3 – CPDLC FANS 1/A VDL Mode A | V – VHF |
| J4 – CPDLC FANS 1/A VDL Mode 2 | W – RVSM approved |
| J5 – CPDLC FANS 1/A SATCOM (INMARSAT) | X – MNPS approved |
| J6 – CPDLC FANS 1/A SATCOM (MTSAT) | Y – VHF with 8.33 kHz channel spacing |
| J7 – CPDLC FANS 1/A (Iridium) | Z – Other equipment carried or other capabilities (see Note 3) |

Note 1: Inclusion of the letter G indicates that an aircraft meets the conditions and requirements for the use of GNSS (GPS) equipment.Types of external GNSS augmentation, if any, are specified in Item 18 following the indicator NAV/ separated by a space.
Note 2: Inclusion of the letter R indicates that an aircraft meets the RNP type prescribed for the route segment(s), route(s), or area concerned. The performance-based navigation levels that can be met are specified in Item 18 following the indicator PBN/.
Note 3: If the letter Z is used, the other equipment carried or other capabilities are specified in Item 18 following the indicator COM/, NAV/, or DAT/ as appropriate.

**Surveillance Equipment and Capabilities**

**INSERT** N– if no surveillance equipment for the route to be flow is carried, or the equipment is unserviceable, OR

**INSERT** one or more of the following descriptors, to a maximum of 20 characters, to describe the serviceable surveillance equipment and/or capabilities on board:

SSR Modes A and C

A Transponder — Mode A (4 digits — 4 096 codes)
C Transponder — Mode A (4 digits — 4 096 codes) and Mode C

SSR Mode S

E Transponder — Mode S, including aircraft identification, pressure-altitude and extended squitter (ADS-B) capability
H Transponder — Mode S, including aircraft identification, pressure-altitude and enhanced surveillance capability
I Transponder — Mode S, including aircraft identification, but no pressure-altitude capability
L Transponder — Mode S, including aircraft identification, pressure-altitude, extended squitter (ADS-B) and enhanced surveillance capability

Note: Enhanced surveillance capability is the ability of the aircraft to down-link aircraft derived data via a Mode S transponder.

ADS-B

B1 ADS-B with dedicated 1090 MHz ADS-B “out” capability
B2 ADS-B with dedicated 1090 MHz ADS-B “out” and “in” capability
U1 ADS-B “out” capability using UAT
U2 ADS-B “out” and “in” capability using UAT
V1 ADS-B “out” capability using VDL Mode 4
V2 ADS-B “out” and “in” capability using VDL Mode 4

ADS-C

D1 ADS-C with FANS 1/A capabilities
G1 ADS-C with ATN capabilities

Note: Additional surveillance equipment or capabilities are to be listed in Item 18 following the indicator SUR/.

**ITEM 13: DEPARTURE AERODROME AND TIME (8 CHARACTERS)**

**Departure Aerodrome**

**INSERT** the ICAO 4 letter location indicator of the departure aerodrome.

**OR** If no location indicator has been assigned,

**INSERT** ZZZZ and specify in item 18 the name and location of the aerodrome preceded by DEP /

**Time**

**INSERT** the estimated off-block time (EOBT) expressed in UTC hhmm format.

**ITEM 15: ROUTE**

**Cruising Speed (maximum 5 characters)**

**INSERT** the true airspeed for the first or whole portion of the flight, in terms of:
Knots - N followed by 4 figures (e.g. N0485); or
Mach number - M followed by 3 figures (e.g. M086).

**Cruising Level (maximum 5 characters)**

**INSERT** the planned cruising level for the first or whole portion of the flight, in terms of:
Flight Level —F followed by 3 figures (e.g. F240); or
Altitude —A followed by 3 figures (e.g. A090); or
Note: The altitude of VFR flight departing aerodrome shall be given in field 15 of ICAO flight plan form.

**Route (including changes of speed, level and/or flight rules)**

**Flights along designated ATS Routes**

**INSERT** if the departure aerodrome is located on, or connected to the ATS route, the designator of the first ATS route.

**OR** if the departure aerodrome is not on or connected to the ATS route, the letters DCT followed by the point of joining the first ATS route, followed by the designator of the ATS route.

**THEN INSERT** each point at which either a change of speed and/or level is planned to commence, or a change of ATS route, and/or a change of flight rules is planned.

Note: When a transition is planned between a lower and upper ATS route and routes are orientated in the same direction, the point of transition need not be inserted.

**FOLLOWED IN EACH CASE** by the designator of the next ATS route segment, even if the same as the previous one
**OR** by DCT if the flight to the next point will be outside a designated route, unless both points are defined by geographical co-ordinates

**Flights outside designated ATS Routes**

**INSERT** points normally not more than 30 minutes flying time or 370 km (200 NM) apart, including each point where a change of speed or level, a change of track, or a change of flight rules is planned.

**OR** When define by ATS unit,

**DEFINE** the track of the flight by reference to significant points located at half or whole degrees of latitude add/or longitude. Points should be no more than 1 hour flying time apart, and include each point where a change of speed or level, a change of track, or a change of flight rules is planned.

**INSERT** DCT between successive points unless both points are defined by geographical coordinates or by bearing and distance.

USE ONLY the conventions below and separate each sub-item with a space:

a) ATS ROUTE (2 to 7 characters)
The designator assigned to the route or route segment, including the designator assigned to the standard departure or arrival route.

b) SIGNIFICANT POINT
The coded designator (2 to 5 characters) assigned to the point (e.g. TL, BKK, NOBER), or, if no coded designator has been assigned, one of the following ways:

i. Degrees only (7 characters):
2 figures describing latitude in degrees, followed by “N” (North) or “S” (South), followed by 3 figures describing longitude in degrees, followed by “E” (East) or “W” (West). Make up the correct number of figures, where necessary, by insertion of zeros. (e.g. 11N099E)

ii. Degrees and minutes (11 characters):
4 figures describing latitude in degrees and tens and units of minutes followed by “N” (North) or “S” (South), followed by 5 figures describing longitude in degrees and tens and units of minutes, followed by “E” (East) or “W” (West). Make up the correct number of figures, where necessary, by insertion of zeros. (e.g. 1013N09859E)

iii. Bearing and distance from a reference point:
The identification of the reference point, followed by the bearing from the point in the form of 3 figures giving degrees magnetic, followed by the distance from the point in the form of 3 figures expressing nautical miles. In areas of high latitude where it is determined by the appropriate authority that reference to degrees magnetic is impractical, degrees true may be used. Make up the correct number of figures, where necessary, by insertion of zeros — e.g. a point 180° magnetic at a distance of 40 nautical miles from VOR “PUT” should be expressed as PUT180040

c) CHANGE OF SPEED OR LEVEL (maximum 21 characters)
The point at which a change of speed or a change of level is planned to commence, expressed as in (b) above, followed by an oblique stroke and both the cruising speed and cruising level, without a space between them, even when only one of these quantities will be changed, (e.g.MEKEP/N0420F330... or 4602S07805W/N0500F350...)

d) CHANGE OF FLIGHT RULES (maximum 3 characters)
The point at which the change of flight rules is planned, expressed as in (b) or (c) above as appropriate, followed by a space and one of the following:
VFR — if from IFR to VFR
IFR — if from VFR to IFR
(e.g MAMUS VFR TU/N0284A070 IFR)

e) CRUISE CLIMB (maximum 28 characters)
The letter C followed by an oblique stroke; THEN the point at which cruise climb is planned to start, expressed exactly as in (b) above, followed by an oblique stroke; THEN the speed to be maintained during cruise climb, followed by the two levels defining the layer to be occupied during cruise climb; OR the level above which cruise climb is planned followed by the letters PLUS, without a space between them. (e.g. C/APORO/M082F290F350, C/APORO/M083F360PLUS)

**ITEM 16: DESTINATION AERODROME AND TOTAL ESTIMATED ELAPSED TIME, DESTINATION ALTERNATE AERODROME(S)**

Destination aerodrome and total estimated elapsed time (8 characters)

**INSERT** the ICAO 4-letter location indicator of the destination aerodrome, or for intended multi-leg flights, the 4-letter location indicator of the aerodrome at which the first instrument approach will be made.
OR if no location indicator has been assigned,

**INSERT** ZZZZ and specify in item 18 the name and location of the aerodrome preceded by DEST/.

**INSERT** the total estimated elapsed time from take-off to arrive over the destination aerodrome.

**Destination alternate aerodrome(s)**

**INSERT** the ICAO 4 letter location indicator of not more than two destination alternate aerodromes.
OR If no location indicator assigned to one or both destination alternate aerodromes,

**INSERT** ZZZZ and specify in item 18 the name and location of the destination alternate aerodrome(s) preceded by ALTN/.

**ITEM 18: OTHER INFORMATION**

**INSERT** 0 (zero) if no other information,
OR Any other necessary information in the sequence shown hereunder, in the form of the appropriate indicator followed by an oblique stroke and the information to be recorded:

**STS/** Reason for special handling by ATS, e.g. a search and rescue mission, as follows:

ALTRV for a flight operated in accordance with an altitude reservation;
ATFMX for a flight approved for exemption from ATFM measures by the appropriate ATS authority;
FFR fire-fighting;
FLTCK flight check for calibration of Navigation Aids;
HAZMAT for a flight carrying hazardous material;
HEAD for a flight with Head of State status;

HOSP for a medical flight declared by medical authorities;
HUM for a flight operating on a humanitarian mission;
MARSA for a flight for which a military entity assumes responsibility for separation of military aircraft;
MEDEVAC for a life critical medical emergency evacuation;
NONRVSM for a non-RVSM capable flight intending to operate in RVSM airspace;
SAR for a flight engaged in a search and rescue mission; and
STATE for a flight engaged in military, customs or police

Other reasons for special handling by ATS shall be denoted under the designator RMK/.

**PBN/** Indication of RNAV and/or RNP capabilities. Include as many of the descriptors below, as apply to the flight, up to a maximum of 8 entries, i.e. a total of not more than 16 characters.

If there are more than 8 applicable entries, identify those considered least relevant to the flight and insert them within item 18 under NAV/.

| | **RNAV SPECIFICATIONS** |
|---|---|
| A1 | RNAV 10 (RNP 10) |
| B1 | RNAV 5 all permitted sensors |
| B2 | RNAV 5 GNSS |
| B3 | RNAV 5 DME/DME |
| B4 | RNAV 5 VOR/DME |
| B5 | RNAV 5 INS or IRS |
| B6 | RNAV 5 LORANC |
| C1 | RNAV 2 all permitted sensors |
| C2 | RNAV 2 GNSS |
| C3 | RNAV 2 DME/DME |
| C4 | RNAV 2 DME/DME/IRU (C4 = C3 and C4) |
| D1 | RNAV 1 all permitted sensors |
| D2 | RNAV 1 GNSS |
| D3 | RNAV 1 DME/DME |
| D4 | RNAV 1 DME/DME/IRU (D4 = D3 and D4) |
| | **RNP SPECIFICATIONS** |
| L1 | RNP 4 |
| O1 | RNP 1 all permitted sensors |
| O2 | RNP 1 GNSS |
| O3 | RNP 1 DME/DME |
| O4 | RNP 1 DME/DME/IRU (O4 = O3 and O4) |
| S1 | RNP APCH |
| S2 | RNP APCH with BARO-VNAV |
| T1 | RNP AR APCH with RF (special authorization required) |
| T2 | RNP AR APCH without RF (special authorization required) |

**NAV/** Significant data related to navigation equipment, other than specified in PBN/, as required by the appropriate ATS authority. Indicate GNSS augmentation under this indicator, with a space between two or more methods of augmentation, e.g. NAV/GBAS SBAS.

**COM/** Indicate communication equipment and capabilities not specified in Item 10a.

**DAT/** Indicate data communication equipment and capabilities not specified in 10a.

**SUR/** Indicate surveillance applications or capabilities not specified in Item 10b .Indicate as many RSP specification(s) as apply to the flight, using designator (s) with no space. Multiple RSP specifications are separated by a space. Example: RSP180 RSP400

**DEP/** Name and location of departure aerodrome, if ZZZZ is inserted in Item 13, or the ATS unit from which supplementary flight plan data can be obtained, if AFIL is inserted in Item 13 .For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location as follows:

With 4 figures describing latitude in degrees and tens and units of minutes followed by “N” (North) or “S” (South), followed by 5 figures describing longitude in degrees and tens and units of minutes, followed by “E” (East) or “W” (West).Make up the correct number of figures, where necessary, by insertion of zeros.
Example: 4724S17905E (11 characters)
OR,

Bearing and distance from the nearest significant point, as follows:
The identification of the significant point followed by the bearing from the point in the form of 3 figures giving degrees magnetic, followed by the distance from the point in the form of 3 figures expressing nautical miles. In areas of high latitude where it is determined by the appropriate authority that reference to degrees magnetic is impractical, degrees true may be used. Make up the correct number of figures, where necessary, by insertion of zeros, e.g. a point of 160° magnetic at a distance of 40 nautical miles from VOR ‘GS’ should be expressed as GS160040.
OR,

The first point of the route (name or LAT/LONG) or the marker radio beacon, if the aircraft has not taken off from an aerodrome.

**DEST/** Name and location of destination aerodrome, if ZZZZ is inserted in Item 16 .For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described under DEP / above.

**DOF/** The date of flight departure in a six-figure format (YYMMDD, where YY equals the year, MM equals the month and DD equals the day).

**REG/** The nationality or common mark and registration mark of the aircraft, if different from the aircraft identification in Item 7.

**EET/** Significant points or FIR boundary designators and accumulated estimated elapsed times from take-off to such points or FIR boundaries, when so prescribed on the basis of regional air navigation agreements, or by the appropriate ATS authority.
Example: EET/YBBB0010 NZZO0123 NZZC0211

**SEL/** SELCAL Code, for aircraft so equipped

**TYP/** Type(s) of aircraft, preceded if necessary without a space by number(s) of aircraft and separated by one space, if ZZZZ is inserted in Item 9.

Example: TYP/5CT4

**CODE/** Aircraft address (expressed in the form of an alphanumerical code of six hexadecimal characters) when required by the appropriate ATS authority.
Example: “F00001” is the lowest aircraft address contained in the specific block administered by ICAO.
MODE S equipped aircraft must include the MODE S address.
Example: CODE/C81111

**DLE/** Enroute delay or holding, insert the significant point(s) on the route where a delay is planned to occur, followed by the length of delay using four figure time in hours and minutes (hhmm).

**OPR/** ICAO designator or name of the aircraft operating agency, if different from the aircraft identification in item 7.

**ORGN/** The originator’s 8 letter AFTN address or other appropriate contact details, in cases where the originator of the flight plan

**PER/** Aircraft performance data, indicated by a single letter as specified in the Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS, Doc 8168), Volume I — Flight Procedures, if so prescribed by the appropriate ATS authority.

**ALTN/** Name of destination alternate aerodrome(s), if ZZZZ is inserted in Item 16 For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP /above.

**RALT/** ICAO four letter indicator(s) for enroute alternate(s), as specified in Doc 7910, Location Indicators, or name(s) of enroute alternate aerodrome(s), if no indicator is allocated .For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

**TALT/** ICAO four letter indicator(s) for take-off alternate, as specified in Doc 7910, Location Indicators, or name of take-off alternate aerodrome, if no indicator is allocated .For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

**RIF/** The route details to the revised destination aerodrome, followed by the ICAO four letter location indicator of the aerodrome. The revised route is subject to reclearance in flight.
Example: RIF/AA H211 NZHN

**RMK/** Any other plain language remarks when required by the appropriate ATS authority or deemed necessary.

(a) Non-scheduled/private International or overflying flights shall seek permission from the CAAT to enter the Bangkok FIR and shall specify the issued permission number in item 18 of the filed the flight plan as follows;

RMK/PERMIT THAILAND ATD XX/XX/XXXX (NUMBER/MONTH/YEAR)
Note: In case Aircraft Identification (ITEM7) has been changed, the permission shall be revised.

**ITEM 19: SUPPLEMENTARY INFORMATION**

**Endurance**

After **E**/ INSERT a 4 figures group giving the fuel endurance in hours and minutes.

**Persons on Board**

After **P**/ INSERT the total number of persons (passengers and crew) on board.
INSERT TBN if not known at time of filing.

**Emergency and Survival Equipment**

**R/** **(Radio)**
CROSS OUT U if UHF on frequency 243.0 MHz is NOT available.
CROSS OUT V if VHF on frequency 121.5 MHz is NOT available.
CROSS OUT E if emergency locator transmitter (ELT) is NOT available.

**S/** **(Survival Equipment)**
CROSS OUT all indicators if survival equipment is NOT carried.
CROSS OUT P if polar survival equipment is NOT carried.
CROSS OUT D if desert survival equipment is NOT carried.
CROSS OUT M if maritime survival equipment is NOT carried.
CROSS OUT J if jungle survival equipment is NOT carried.

**J/** **(Jackets)**
CROSS OUT all indicators if life jackets are NOT carried.
CROSS OUT L if life jackets are NOT equipped with lights.
CROSS OUT F if life jackets are NOT equipped with fluorescein.
CROSS OUT U or V or both as in R/ above to indicate radio capability of jackets, if any.

**D/** **(Dinghies)**
CROSS OUT indicators D and C if no dinghies carried; or
INSERT number of dinghies carried; and
INSERT total capacity, in persons, of all dinghies carried; and
CROSS OUT C if dinghies are NOT covered; and
INSERT color of dinghies if carried.

**A/** **(Aircraft color and markings)**
INSERT color of aircraft and significant markings.

**N/** **(Remarks)**
CROSS OUT indicator N if no remarks; or
INDICATE any other survival equipment carried and any other remarks regarding survival equipment.

**C/** **(Pilot)**
INSERT name of pilot-in-command.

**Filed by** INSERT name of unit, agency or person filing the flight plan.

**2. Changes to the submitted flight plan**

2.1 All signification changes to submitted flight plan shall be notified to ATS unit at least 30 minutes prior to EOBT.

2.2 ATS Messages related to flight plan changes

2.2.1 Modification Messages (CHG)

All signification changes to flight plan submitted for both IFR, VFR and mixed flight rule flights shall be notified to ATS unit where possible the same procedures used to submit the original flight plan.

Items in the flight plan that cannot be modified by a CHG message

2.2.1.1 Pre-Departure

i. Aircraft Identification (ITEM 7)
ii. Aircraft Type (ITEM 9)

Note: All the changes prior departure as above, submitted flight plan shall be cancelled by CNL Message. The modified flight plan shall be re-submitted as the same procedure as the new flight plan.

2.2.1.2 Post-Departure, all items of submitted flight plan cannot be changed.

2.2.2 Cancellation Messages (CNL)

Flight plan originators shall ensure that flight plans which are no longer required. The cancellation shall be notified at the earliest opportunity by means of a cancellation message (CNL). After departure, the cancellation message (CNL) cannot be submitted.

2.2.3 Delay Messages (DLA)

In the event of a delay in excess of 30 minutes in excess of the estimated off-block time for a controlled flight or a delay of 60 minutes for an uncontrolled flight for which a flight plan has been filed, a Delay message (DLA) must be submitted.

Note 1: In case Flight plan originators require to delay filed flight plan across the day (0000UTC), CHG message shall be submitted.
Note 2: CHG message (instead of DLA message) including the new EOBT and the new date of flight (DOF/) shall be used if a flight is delayed across the day (0000 UTC).

2.3 Termination of Flight Plan (Arrival report)

An arrival report shall be made in person, by radiotelephony, via data link or by other means prescribed by the competent authority at the earliest possible moment after landing, to the appropriate ATS unit at the arrival aerodrome, by any flight for which a fight plan has been submitted covering the entire flight or the remaining portion of a flight to the destination aerodrome.

a) Submission of an arrival report is not required by aircraft after landing on an aerodrome where air traffic services are provided on condition that radio communication or visual signals indicate that the landing has been observed. In this case, arrival report shall be made by ATS units serving arrival aerodrome and flight plan shall be closed automatically.
b) When no ATS unit exists at the arrival aerodrome or operating site, the arrival report, when required, shall be made as soon as practicable after landing and by the quickest means available to the nearest ATS unit.
c) When communication facilities at the arrival aerodrome or operating site are known to be inadequate and alternate arrangements for the handling of arrival reports on the ground are not available, the following action shall be taken.
To an arrival report, where such a report is required. Normally, this transmission shall be made to the aeronautical station serving the ATS unit in charge of the flight information region in which the aircraft is operated.
d) Arrival reports shall contain the following elements of information:

1. aircraft identification;
2. departure aerodrome or operating site;
3. destination aerodrome; and
4. Actual time of arrival.

In the case of diversion, insert the "arrival aerodrome" between "destination aerodrome" and "Actual time of arrival".

**3. Flight Data Management Centre (FDMC)**

Flight Data Management Centre (FDMC) has been established to centralized flight plan and distribution service under Aeronautical Radio of Thailand Ltd. The Services cover all Air Traffic Services within Bangkok Flight Information Region (FIR).

3.1 Flight Plan Filing and Flight Plan Associated Messages with FDMC.

Flight Plans and flight plan associated message filed directly with FDMC will be checked by FDMC as regards syntax format and route structure. The route data outside the Bangkok FIR are not subject to verification. The originator will be informed of the successful processing of Flight plans and Flight plan associated message within FDMC by an Acknowledgement Message (“ACK” message). If not, they will be returned to the originator to be corrected receipt of the message (“REJ” Reject message).

3.2 The flight plan originator is responsible for

a) Complete and correct data.
b) The originator will be informed of the successful processing of flight plan and flight plan associated messages within FDMC by an Acknowledgement Message (ACK message).
c) Checking Flight Plan ensure receipt of the message at FDMC Terminal. FDMC will be informed Acceptance Flight plan list.

3.3 Flight Plans, which cannot be processed by FDMC or not follow ICAO FPL format, will be returned to the originator to be corrected

according to REJECT message (REJ) sending automatically from FDMC system.

**4. Flight planning and operating procedure implemented in Bangkok FIR.**

The implementation of RNAV 2 routes in Bangkok FIR, the defined navigation criteria is GNSS. Flight planning and operating procedure are as follows:

- Aircraft unable to meet the navigation requirements for RNAV2 (GNSS) specification shall not file flight plan on RNAV 2 routes.
- Aircraft meeting RNAV 2 navigation requirements shall indicate /R in Item10a of the ICAO Flight Plan and indicate PBN/ C1 or C2 in Item18.
- Pilots must advise ATC of any deterioration or failure of navigation systems for RNAV 2 capability.
- ATC shall then provide alternative separation and / or routing.

4.1 Operating and flight planning procedures in the south area of the Bangkok FIR.

4.1.1 For air traffic flow on Uni-directional ATS routes: B579, M626, M757, M769, R325, W99, Y3, Y4, Y5, Y8, Y17, Y24, Y93, Y96, Y98 and Y99

4.1.1.1 Operating procedures

| ATS routes | Direction | FL Allocation | Remark |
|---|---|---|---|
| B579 | Eastbound | Odd | From Bangkok FIR to Kuala Lumpur FIR |
| M626 (between KADAX-IKOGA) | Northbound | Even | From Kuala Lumpur FIR to Bangkok FIR |
| M757 | Southbound | Odd | From Bangkok FIR to Kuala Lumpur FIR |
| M769 | Northbound | Even | From Kuala Lumpur FIR to Bangkok FIR |
| R325 (between DUBAX-PUT) | Westbound | Even | From Kuala Lumpur FIR to Bangkok FIR |
| W99/Y17/Y96 | Northbound | Even | |
| Y3 | Southbound | Even | CDR2<br>1. Available when VT D58 is active<br>2. Availability shall be notified by NOTAM or Airspace use plan (AUP) |
| Y4 | Northbound | Odd | |
| Y5 | Northbound | Odd | Available when VT D59 is not active |
| Y8 | Southbound | Even | |
| Y24 | Southbound | Odd | From Bangkok FIR to Kuala Lumpur FIR |
| Y93/Y98/Y99 | Northbound | Odd | |

4.1.1.2 Flight planning procedures for RNAV capable aircraft

a) **RNAV capable aircraft departing and arriving VTBD, VTBS and overflying BKK**

| | FROM | TO | ROUTE |
|---|---|---|---|
| 1 | VTBD | VTSE | SABIS Y8 MENEX W34 CPN |
| 2 | | VTSR | SABIS Y8 MENEX W34 RAN |
| 3 | | VTSB | SABIS Y8 IKERA |
| 4 | | VTSP | SABIS Y8 SAVSA |
| 5 | | Overfly PUT | SABIS Y8 PUT… |
| 6 | | VTSG | SABIS Y8 SAPUD W32 NULMA |
| 7 | | VTST | SABIS Y8 SAPUD W24 TRN |
| 8 | VTBS | VTSE | VANKO Y8 MENEX W34 CPN |
| | | VTSR | VANKO Y8 MENEX W34 RAN |
| 9 | | VTSB | VANKO Y8 IKERA |
| 10 | | VTSP | VANKO Y8 SAVSA |
| | | Overfly PUT | VANKO Y8 PUT… |
| 11 | | VTSG | VANKO Y8 SAPUD W32 NULMA |
| 12 | | VTST | VANKO Y8 SAPUD W24 TRN |
| 13 | VTBD/VTBS | VTSM | KASNI M757 MABKO W33 SMU |
| 14 | | VTSF | (1) KASNI M757 LOSDA Y94 NKS or<br>(2) KASNI M757 MABKO W33 UPNEP W35 NKS<br>(when VT D60 is not active) |
| 15 | | VTSS | KASNI M757 OBLEX |
| 16 | | VTSC | KASNI M757 ROBDA W19 NTW |
| 17 | | Overfly KARMI | KASNI M757 KARMI… |
| 18 | Overfly BKK | VTSP | … BKK Y8 SAVSA |
| 19 | | Overfly PUT | … BKK Y8 PUT … |
| 20 | | VTSB | … BKK Y8 IKERA |
| 21 | | VTSG | … BKK Y8 SAPUD W32 NULMA |
| 22 | | VTST | … BKK Y8 SAPUD W24 TRN |
| 23 | | VTSM | …BKK M757 MABKO W33 SMU |
| 24 | | VTSF | (1) …BKK M757 LOSDA Y94 NKS or<br>(2) …BKK M757 MABKO W33 UPNEP W35 NKS<br>(when VT D60 is not active) |
| 25 | | VTSS | …BKK M757 OBLEX |
| 26 | | Overfly KARMI | …BKK M757 KARMI |
| 27 | VTSE | VTBD | CPN W34 MENEX W42 EGUBO Y99 HOTEL DCT SABAI |
| 28 | | VTBS | CPN W34 MENEX W42 SURMA Y98 LEBIM |
| 29 | VTSR | VTBD | RAN W34 MENEX W42 EGUBO Y99 HOTEL DCT SABAI |
| 30 | | VTBS | RAN W34 MENEX W42 SURMA Y98 LEBIM |

| | FROM | TO | ROUTE |
|---|---|---|---|
| 31 | VTSB | VTBD | NIXET Y99 HOTEL DCT SABAI |
| 32 | | VTBS | NIXET Y99 NONEL Y98 LEBIM |
| 33 | | Overfly BKK | NIXET Y99 BKK… |
| 34 | VTSP | VTBD | (1) IGEVI Y5 EGUBO Y99 HOTEL DCT SABAI<br>(when VT D59 is not active) or<br>(2) EMRIT Y99 HOTEL DCT SABAI (when VT D59 is active) |
| 35 | | VTBS | EMRIT Y99 NONEL Y98 LEBIM |
| 36 | | Overfly BKK | (1) IGEVI Y5 EGUBO Y99 BKK…<br>(when VT D59 is not active) or<br>(2) EMRIT Y99 BKK… (when VT D59 is active) |
| 37 | Overfly PUT | VTBD | … PUT Y99 HOTEL DCT SABAI |
| 38 | | VTBS | … PUT Y99 NONEL Y98 LEBIM |
| 39 | | Overfly BKK | … PUT Y99 BKK … |
| 40 | VTSG | VTBD | OSPEX Y99 HOTEL DCT SABAI |
| 41 | | VTBS | OSPEX Y99 NONEL Y98 LEBIM |
| 42 | | Overfly BKK | OSPEX Y99 BKK… |
| 43 | VTST | VTBD | TRN W24 BITEN Y99 HOTEL DCT SABAI |
| 44 | | VTBS | TRN W24 BITEN Y99 NONEL Y98 LEBIM |
| 45 | | Overfly BKK | TRN W24 BITEN Y99 BKK… |
| 46 | VTSM | VTBD | (1) OLBAG Y17 DONSI M769 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI or<br>(2) ENRAG W32 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI (when VTD60 is not active) |
| 47 | | VTBS | (1) OLBAG Y17 DONSI M769 LEBIM or<br>(2) ENRAG W32 GOKEX M769 LEBIM<br>(when VT D60 is not active) |
| 48 | | Overfly BKK | (1) OLBAG Y17 DONSI M769 BKK…or<br>(2) ENRAG W32 GOKEX M769 BKK…<br>(when VT D60 is not active) |
| 49 | VTSF | VTBD | (1) NKS Y94 DOXAS M769 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI or<br>(2) NKS W35 PINUN M769 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI (when VT D60 is not active) |
| 50 | | VTBS | (1) NKS Y94 DOXAS M769 LEBIM or<br>(2) NKS W35 PINUN M769 LEBIM<br>(when VT D60 is not active) |
| 51 | | Overfly BKK | (1) NKS Y94 DOXAS M769 BKK…or<br>(2) NKS W35 PINUN M769 BKK …<br>(when VT D60 is not active) |
| 52 | VTSS | VTBD | DANDO M769 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI |
| | | VTBS | DANDO M769 LEBIM |
| 53 | | Overfly BKK | DANDO M769 BKK… |
| 54 | VTSC | VTBD | NTW W19 UPNEP M626 SORTO M769 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI |
| 55 | | VTBS | NTW W19 UPNEP M626 SORTO M769 LEBIM |

| | FROM | TO | ROUTE |
|---|---|---|---|
| 56 | Overfly RIGTO | VTBD | RIGTO M769 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI |
| 57 | | VTBS | RIGTO M769 LEBIM |
| 58 | | Overfly BKK | RIGTO M769 BKK … |

b) **RNAV capable aircraft:**

– departing and arriving VTBU, VTPH, VTSB, VTSG, VTSM, VTSP
– overflying PUT, RYN, SAKDA
– transiting between Bangkok FIR and Kuala Lumpur FIR (via B579 and R325)

| | FROM | TO | ROUTE |
|---|---|---|---|
| 1 | VTSP | VTBU | EMRIT Y99 NONEL Y98 SURMA W42 ASEKU DCT BUT |
| 2 | | VTSB | SAVSA Y8 LAMUL |
| 3 | | Overfly RYN | EMRIT Y99 NONEL Y98 SURMA W42 RYN … |
| 4 | | Overfly SAKDA | ONETI R575 SAKDA |
| 5 | | Overfly DALAN | REBED B579 DALAN |
| 6 | VTBU | VTSP | BUT DCT ASEKU W42 MENEX Y8 SAVSA |
| 7 | VTSB | VTSP | LAMUL Y8 SAVSA |
| 8 | Overfly RYN | VTSP | … RYN W42 MENEX Y8 SAVSA |
| 9 | Overfly SAKDA | VTSP | SAKDA R575 SMU W32 SAPUD Y8 SAVSA |
| 10 | Overfly DUBAX | VTSP | …DUBAX R325 URGAD |
| 11 | Overfly DUBAX | Overfly PUT | …DUBAX R325 PUT… |
| 12 | Overfly RYN | Overfly PUT | … RYN W42 MENEX Y8 PUT … |
| 13 | Overfly PUT | Overfly RYN | … PUT Y99 NONEL Y98 SURMA W42 RYN… |
| 14 | | Overfly DALAN | …PUT B579 DALAN |
| 15 | VTSB | Overfly RYN | NIXET Y99 NONEL Y98 SURMA W42 RYN … |
| 16 | VTSG | Overfly RYN | OSPEX Y99 NONEL Y98 SURMA W42 RYN… |
| 17 | Overfly RYN | VTSB | … RYN W42 MENEX Y8 IKERA |
| 18 | Overfly RYN | VTSG | … RYN W42 MENEX Y8 SAPUD W32 NULMA |
| 19 | VTSM | VTBU | (1) OLBAG Y17 DONSI M769 SURMA W42 ASEKU DCT BUT or<br>(2) ENRAG W32 GOKEX M769 SURMA W42 ASEKU DCT BUT (when VT D60 is not active) |
| 20 | | VTPH | (1) OLBAG Y17 DONSI M769 GOKEX DCT HHN or<br>(2) ENRAG W32 GOKEX DCT HHN (when VT D60 is not active) |
| 21 | | VTSG | DORNA W32 NULMA |
| 22 | | VTSP | DORNA W32 SAPUD Y8 SAVSA |
| 23 | | Overfly RYN | (1) OLBAG Y17 DONSI M769 SURMA W42 RYN …or<br>(2) ENRAG W32 GOKEX M769 SURMA W42 RYN… (when VT D60 is not active) |
| 24 | | Overfly PASVA | RUMVA Y95 IKOGA Y24 PASVA |
| 25 | | Overfly KARMI | RUMVA Y95 LOSDA M757 KARMI |
| 26 | VTBU | VTSM | BUT DCT ASEKU M757 MABKO W33 SMU |
| 27 | VTPH | VTSM | HHN DCT ASEKU M757 MABKO W33 SMU |

| | FROM | TO | ROUTE |
|---|---|---|---|
| 28 | VTSG | VTSM | OSPEX Y99 AKVUG Y93 SMU |
| 29 | VTSP | VTSM | (1) EMRIT Y99 AKVUG Y93 SMU or<br>(2) ONETI W33 SMU (when VT D60 is not active) |
| 30 | Overfly RYN | VTSM | … RYN W42 ASEKU M757 MABKO W33 SMU |
| 31 | Overfly KADAX | VTSM | KADAX M626 IKOGA Y95 SMU |
| 32 | Overfly RIGTO | VTSM | RIGTO M769 RIPMU Y95 SMU |

4.1.1.3 Flight planning procedures for Non RNAV capable aircraft

a) Flight plan for Non RNAV capable aircraft departing and arriving VTBD, VTBS and overflying BKK shall be filed as follows, and at FL250 or below.

| | FROM | TO | ROUTE |
|---|---|---|---|
| 1 | VTBD | VTSE | UKERA G458 MENEX W34 CPN |
| 2 | | VTSR | UKERA G458 MENEX W34 RAN |
| 3 | | VTSB | UKERA G458 IKERA |
| 4 | | VTSG | UKERA G458 SAPUD W32 NULMA |
| 5 | | VTSP | UKERA G458 SAVSA |
| 6 | | Overfly PUT | UKERA G458 PUT … |
| 7 | | VTST | UKERA G458 SAPUD W24 TRN |
| 8 | VTBS | VTSE | (1) HOTEL G458 MENEX W34 CPN (for propeller aircraft)<br>(2) UKERA G458 MENEX W34 CPN (for jet aircraft) |
| 9 | | VTSR | (1) HOTEL G458 MENEX W34 RAN (for propeller aircraft)<br>(2) UKERA G458 MENEX W34 RAN (for jet aircraft) |
| 10 | | VTSB | (1) HOTEL G458 IKERA (for propeller aircraft)<br>(2) UKERA G458 IKERA (for jet aircraft) |
| 11 | | VTSG | (1) HOTEL G458 SAPUD W32 NULMA (for propeller aircraft)<br>(2) UKERA G458 SAPUD W32 NULMA (for jet aircraft) |
| 12 | | VTSP | (1) HOTEL G458 SAVSA (for propeller aircraft)<br>(2) UKERA G458 SAVSA (for jet aircraft) |
| 13 | | Overfly PUT | (1) HOTEL G458 PUT… (for propeller aircraft)<br>(2) UKERA G458 PUT… (for jet aircraft) |
| 14 | | VTST | (1) HOTEL G458 SAPUD W24 TRN (for propeller aircraft)<br>(2) UKERA G458 SAPUD W24 TRN (for jet aircraft) |
| 15 | VTBD/VTBS | VTSM | REGOS A464 UPNEP W33 SMU |
| 16 | | VTSF | (1) REGOS A464 GUPMO W94 NKS or<br>(2) REGOS A464 UPNEP W35 NKS ( when VT D60 is not active) |
| 17 | | VTSS | REGOS A464 PIMER |
| 18 | | Overfly HTY | REGOS A464 HTY… |
| 19 | | VTSC | REGOS A464 UPNEP W19 NTW |
| 20 | | Overfly PASVA | REGOS A464 HTY A334 PASVA |

| | FROM | TO | ROUTE |
|---|---|---|---|
| 21 | Overfly BKK | VTSB | … BKK G458 IKERA |
| 22 | | VTSG | … BKK G458 SAPUD W32 NULMA |
| 23 | | VTST | … BKK G458 SAPUD W24 TRN |
| 24 | | VTSP | … BKK G458 SAVSA |
| 25 | | Overfly PUT | … BKK G458 PUT … |
| 26 | | VTSM | … BKK A464 UPNEP W33 SMU |
| 27 | | VTSF | (1) … BKK A464 GUPMO W94 NKS or<br>(2) …BKK A464 UPNEP W35 NKS (when VT D60 is not active) |
| 28 | | VTSS | …BKK A464 PIMER |
| 29 | | Overfly HTY | …BKK A464 HTY… |
| 30 | | Overfly PASVA | …BKK A464 HTY A334 PASVA |
| 31 | VTSE | VTBD | CPN W34 MENEX G458 HOTEL DCT SABAI |
| 32 | VTSR | | RAN W34 MENEX G458 HOTEL DCT SABAI |
| 33 | VTSE | VTBS | CPN W34 MENEX G458 HOTEL DCT LEBIM |
| 34 | VTSR | | RAN W34 MENEX G458 HOTEL DCT LEBIM |
| 35 | VTSB | VTBD | IKERA G458 HOTEL DCT SABAI |
| 36 | | VTBS | IKERA G458 HOTEL DCT LEBIM |
| 37 | | Overfly BKK | IKERA G458 BKK ... |
| 38 | VTSG | VTBD | SARER W32 SAPUD G458 HOTEL DCT SABAI |
| 39 | | VTBS | SARER W32 SAPUD G458 HOTEL DCT LEBIM |
| 40 | | Overfly BKK | SARER W32 SAPUD G458 BKK … |
| 41 | VTST | VTBD | TRN W24 SAPUD G458 HOTEL DCT SABAI |
| 42 | | VTBS | TRN W24 SAPUD G458 HOTEL DCT LEBIM |
| 43 | | Overfly BKK | TRN W24 SAPUD G458 BKK … |
| 44 | VTSP | VTBD | SAVSA G458 HOTEL DCT SABAI |
| 45 | | VTBS | SAVSA G458 HOTEL DCT LEBIM |
| 46 | | Overfly BKK | SAVSA G458 BKK … |
| 47 | Overfly PUT | VTBD | … SAVSA G458 HOTEL DCT SABAI |
| 48 | | VTBS | … SAVSA G458 HOTEL DCT LEBIM |
| 49 | | Overfly BKK | …PUT G458 BKK… |
| 50 | VTSM | VTBD | (1) OLBAG W99 TUSPU A464 GUTSO DCT SABAI or<br>(2) ENRAG W32 REGOS A464 GUTSO DCT SABAI<br>(when VT D60 is not active) |
| 51 | | VTBS | (1) OLBAG W99 TUSPU A464 GUTSO DCT LEBIM or<br>(2) ENRAG W32 REGOS A464 GUTSO DCT LEBIM<br>(when VT D60 is not active) |
| 52 | | Overfly BKK | (1) OLBAG W99 TUSPU A464 BKK …or<br>(2) ENRAG W32 REGOS A464 BKK … |

| | FROM | TO | ROUTE |
|---|---|---|---|
| 53 | VTSF | VTBD | (1) NKS W94 GUPMO A464 GUTSO DCT SABAI or<br>(2) NKS W35 UPNEP A464 GUTSO DCT SABAI<br>(when VT D60 is not active) |
| 54 | | VTBS | (1) NKS W94 GUPMO A464 GUTSO DCT LEBIM or<br>(2) NKS W35 UPNEP A464 GUTSO DCT LEBIM<br>(when VT D60 is not active) |
| 55 | | Overfly BKK | (1) NKS W94 GUPMO A464 …or<br>(2) NKS W35 UPNEP A464 BKK (when VT D60 is not active) |
| 56 | VTSS | VTBD | PIMER A464 GUTSO DCT SABAI |
| 57 | | VTBS | PIMER A464 GUTSO DCT LEBIM |
| 58 | | Overfly BKK | PIMER A464 BKK… |
| 59 | Overfly HTY | VTBD | … HTY A464 GUTSO DCT SABAI |
| 60 | | VTBS | … HTY A464 GUTSO DCT LEBIM |
| 61 | | Overfly BKK | … HTY A464 BKK … |
| 62 | VTSC | VTBD | NTW W19 GUTSO DCT SABAI |
| 63 | | VTBS | NTW W19 GUTSO DCT LEBIM |
| 64 | Overfly PASVA | VTBD | PASVA A334 HTY A464 GUTSO DCT SABAI |
| 65 | | VTBS | PASVA A334 HTY A464 GUTSO DCT LEBIM |
| 66 | | Overfly BKK | PASVA A334 HTY A464 BKK… |

b) Flight plan for Non RNAV capable aircraft departing and arriving VTBU, VTPH, VTSB, VTSG, VTSM, VTSP shall be filed as follows, and at FL250 or below.

| | FROM | TO | ROUTE |
|---|---|---|---|
| 1 | VTSP | VTBU | SAVSA G458 MENEX W42 ASEKU DCT BUT |
| 2 | VTBU | VTSP | BUT DCT ASEKU W42 MENEX G458 SAVSA |
| 3 | VTSP | VTSB | SAVSA G458 LAMUL |
| 4 | VTSB | VTSP | LAMUL G458 SAVSA |
| 5 | VTSP | VTSM | (1) SAVSA G458 SAPUD W32 SMU or<br>(2) ONETI W33 SMU (when VT D60 is not active) |
| 6 | VTSM | VTSP | DORNAW32 SAPUD G458 SAVSA |
| 7 | VTSM | VTBU | (1) OLBAG W99 TUSPU A464 REGOS W42 ASEKU DCT BUT or<br>(2) ENRAG W32 REGOS W42 ASEKU DCT BUT<br>(when VT D60 is not active) |
| 8 | VTBU | VTSM | BUT DCT ASEKU W42 REGOS A464 UPNEP W33 SMU |
| 9 | VTSM | VTPH | (1) OLBAG W99 APUSA DCT SUPOJ W31 HHN or<br>(2) ENRAG W32 SUPOJ W31 HHN<br>(when VT D60 is not active) |
| 10 | VTPH | VTSM | (1) HHN W31 SUPOJ DCT UPNEP W33 SMU or<br>(2) HHN W31 SUPOJ W32 SMU (when VT D60 is not active) |
| 11 | VTSM | VTSG | DORNA W32 NULMA |
| 12 | VTSG | VTSM | SARER W32 SMU |
| 13 | VTSM | Overfly KARMI | RUMVA DCT APOBI A464 KARMI … |
| 14 | Overfly HTY | VTSM | … HTY A464 APOBI DCT SMU |

4.1.2 For air traffic flow on Uni-directional ATS routes: B204, L880, M633, M751, M904, N506, P629, Y11, Y12 and Y25

4.1.2.1 Operating procedures

| ATS routes | Direction | FL Allocation | Remark |
|---|---|---|---|
| B204 | Eastbound | Odd | From Bangkok FIR to Phnom Penh FIR |
| L880 | Eastbound | Odd | From Bangkok FIR to Phnom Penh FIR |
| M633 | Westbound | Even | From Phnom Penh FIR to Bangkok FIR |
| M751<br>(between GOLUD-MUBAN) | Northbound | Even | (1) From Kuala Lumpur FIR to Bangkok FIR<br>(2) Not available for aircraft destination VTBD and VTBS |
| M904<br>(between BKK-TONIK) | Southbound | Odd | Not available when VT D71 is active |
| N506 | Eastbound | Odd | From Bangkok FIR to Phnom Penh FIR |
| P629 | Westbound | Even | From Phnom Penh FIR to Bangkok FIR |
| Y11 | Southbound | Odd | Not available when VT D71 is active |
| Y12 | Northbound | Even | |
| Y25 | Southbound | Odd | From Bangkok FIR to Kuala Lumpur FIR |

4.1.2.2 Flight planning procedures

a) Flight plan for RNAV capable aircraft departing and arriving VTBD, VTBS, overflying BKK and overfly Bangkok FIR

| | FROM | TO | ROUTE |
|---|---|---|---|
| 1 | VTBD | Overfly OMURO | DOSBU L880 OMURO |
| 2 | | Overfly AGEDO | GORSI N506 GOMES B204 AGEDO |
| 3 | | Overfly BOKAK | GORSI N506 BOKAK |
| 4 | | Overfly TIDAR | (1) KIGOB M904 TIDAR or<br>(2) RYN M644 TONIK M904 TIDAR (when VT D71 is active) |
| 5 | | Overfly PASVA | (1) KIGOB Y11 PASVA or<br>(2) RYN M644 TONIK Y25 PASVA (when VT D71 is active) |
| 6 | VTBS | Overfly OMURO | DOSBU L880 OMURO |
| 7 | | Overfly AGEDO | GOMES B204 AGEDO |
| 8 | | Overfly BOKAK | GOMES N506 BOKAK |
| 9 | | Overfly TIDAR | (1) BUT M904 TIDAR or<br>(2) RYN M644 TONIK M904 TIDAR (when VT D71 is active) |
| 10 | | Overfly PASVA | (1) BUT Y11 PASVA or<br>(2) BUT M904 PIDEL Y11 PASVA or<br>(3) RYN M644 TONIK Y25 PASVA (when VT D71 is active) |
| 11 | Overfly BKK | Overfly OMURO | …BKK L880 OMURO |
| 12 | | Overfly AGEDO | …BKK N506 GOMES B204 AGEDO |
| 13 | | Overfly BOKAK | …BKK N506 BOKAK |
| 14 | | Overfly TIDAR | (1) …BKK M904 TIDAR or<br>(2) …BKK N891 RYN M644 TONIK M904 TIDAR (when VT D71 is active) |
| 15 | | Overfly PASVA | (1) …BKK M904 BUT Y11 PASVA or<br>(2) …BKK N891 RYN M644 TONIK Y25 PASVA (when VT D71 is active) |

| | FROM | TO | ROUTE |
|---|---|---|---|
| 16 | Overfly TUPGO | VTBD | TUPGO M633 DULEM DCT SEHNA |
| 17 | | VTBS | TUPGO M633 DULEM DCT GOMES DCT TUMGA |
| 18 | | Overfly BKK | TUPGO M633 MUBUS P629 BKK… |
| 19 | | Overfly Bangkok FIR | (1) TUPGO M633 TANEK L301<br>(2) TUPGO M633 MUBUS DCT BONVO M502 |
| 20 | Overfly VAPVU | VTBD | VAPVU P629 NUGPA DCT SEHNA |
| 21 | | VTBS | VAPVU P629 NUGPA DCT TUMGA |
| 22 | | Overfly BKK | VAPVU P629 BKK… |
| 23 | | Overfly Bangkok FIR | (1) VAPVU P629 MUBUS M633 TANEK L301<br>(2) VAPVU P629 MUBUS DCT BONVO M502 |
| 24 | Overfly TIDAR | VTBD | (1) TIDAR M904 TONIK M644 ALUMO Y12 ALEMI DCT SEHNA or<br>(2) TIDAR M904 TONIK M644 RYN DCT SEHNA (when VT D71 is active) |
| 25 | | VTBS | (1) TIDAR M904 TONIK M644 ALUMO Y12 ALEMI DCT TUMGA or<br>(2) TIDAR M904 TONIK M644 RYN DCT TUMGA (when VT D71 is active) |
| 26 | | Overfly BKK | TIDAR M904 TONIK M644 RYN N891 BKK… |
| 27 | Overfly ABTOK | VTBD | (1) ABTOK M644 ALUMO Y12 ALEMI DCT SEHNA or<br>(2) ABTOK M644 RYN DCT SEHNA (when VT D71 is active) |
| 28 | | VTBS | (1) ABTOK M644 ALUMO Y12 ALEMI DCT TUMGA or<br>(2) ABTOK M644 RYN DCT TUMGA (when VT D71 is active) |
| 29 | | Overfly BKK | ABTOK M644 RYN N891 BKK… |
| 30 | Overflying GOLUD | Overfly BKK | GOLUD M751 BKK… |

b) Flight plan for Non RNAV capable aircraft departing and arriving VTBD, VTBS and overflying BKK shall be filed as follows, and at FL250 or below.

| | FROM | TO | ROUTE |
|---|---|---|---|
| 1 | VTBD | Overfly OMURO | DOSBU G474 OMURO |
| 2 | | Overfly AGEDO | GORSI R468 GOMES B204 AGEDO |
| 3 | | Overfly BOKAK | GORSI R468 BOKAK |
| 4 | VTBS | Overfly OMURO | DOSBU G474 OMURO |
| 5 | | Overfly AGEDO | GOMES B204 AGEDO |
| 6 | | Overfly BOKAK | GOMES R468 BOKAK |
| 7 | Overfly BKK | Overfly OMURO | …BKK G474 OMURO |
| 8 | | Overfly AGEDO | …BKK R468 GOMES B204 AGEDO |
| 9 | | Overfly BOKAK | …BKK R468 BOKAK |
| 10 | Overfly OMURO | VTBD | OMURO G474 ANREN DCT SEHNA |
| 11 | | VTBS | OMURO G474 ANREN DCT GOMES DCT TUMGA |
| 12 | | Overfly BKK | OMURO G474 BKK… |
| 13 | Overfly BOKAK | VTBD | BOKAK R468 GOMES DCT SEHNA |
| 14 | | VTBS | BOKAK R468 GOMES DCT TUMGA |
| 15 | | Overfly BKK | BOKAK R468 BKK... |

4.2 Operating and flight planning procedures in the north area of the Bangkok FIR.

4.2.1 For air traffic flow on uni-directional ATS routes A1, A202, A464, L524, L877, L301, M502, W1, W42, W38, Y1, Y2, Y13, Y14, Y15, Y16, Y20

4.2.1.1 Operating procedures

| ATS routes | Direction | FL Allocation | Remark |
|---|---|---|---|
| A1<br>(Between BKK and UBL) | Eastbound | Odd | - |
| A464 | Bi-directional | - | Available from FL250 and below |
| L524<br>(between KAMKO and BKK) | Eastbound | Odd | See note (3) |
| L877 | Eastbound | Odd | Available for aircraft destination VTBD or VTBS only |
| L301<br>(between DWI and BKK) | Bi-directional(1) | - | - Available for overfly BKK DVOR (Bidirectional) and departing aircraft from VTBD or VTBS (Westbound)<br>- Eastbound aircraft destination VTBD or VTBS shall file DWI L877 MIGAR L524 on flight plan |
| M502<br>(between AKATO and BKK) | Bi-directional(2) | - | |
| W1<br>(between BKK and KRT) | Westbound | Even | Eastbound available for aircraft operating at FL130 or below |
| Y13 | Westbound | Even | Available for aircraft destination VTBS only |
| Y16 | Eastbound | Odd | - |
| Y20<br>(between BKK and KRT) | West bound | Even | - Eastbound available for aircraft operating at FL130 or below |

***Note:*** *(1)Eastbound aircraft operating on L301 destined for VTBD or VTBS shall file DWI L877 MIGAR L524 IBETO on flight plan.*

*(2) Eastbound aircraft operating on M502 destined for VTBD or VTBS shall file LALIT P762 DWI L877 MIGAR L524 IBETO on flight plan.*

*(3) Westbound aircraft on L301 intend to operate on L524 after KAMKO shall file DWI M506 KAMKO on flight plan.*

4.2.1.2 Flight planning procedures

a) Flight planning procedure for RNAV capable aircraft departing and arriving VTBD, VTBS and overfly BKK

| | FROM | TO | ROUTE |
|---|---|---|---|
| 1 | VTBD | Overfly BUTRA | UPKUP Y16 BUTRA A1 … |
| | | Overfly SAV | ROBKA A1 SANOT Y15 GUROK A202 SAV… |
| | | VTUU | ROBKA A1 |
| | | VTUN/VTUK/VTUD/<br>VTUI/VTUW | ROBKA A1 SELKA Y14 KRT Y23 KKN Y23/Y22 |
| | | VTUV/VTUO | ROBKA A1 TOPER W42 RAMEI W38 |
| | | Westbound<br>(traffic joining L524) | PASTO L301 DWI M506 KAMKO L524 |

| | FROM | TO | ROUTE |
|---|---|---|---|
| 2 | VTBS | Overfly BUTRA | LIPLI Y16 BUTRA A1 … |
| | | Overfly SAV | SELKA A1 SANOT Y15 GUROK A202 SAV… |
| | | VTUU | SELKA A1 |
| | | VTUN/VTUK/VTUD/ VTUI/VTUW | SELKA Y14 KRT Y23 KKN Y23/Y22 |
| | | VTUV/VTUO | SELKA A1 TOPER W42 RAMEI W38 |
| | | Westbound (traffic joining L524) | PASTO L301 DWI M506 KAMKO L524 |
| 3 | Overfly BUTRA | VTBD | A1 UBL Y20 UBLOD DCT ENDUU |
| | | Overfly BKK | A1 UBL Y20 |
| | | VTBS | A1 UBL Y20 GRASO Y13 RUKSA DCT EASTE |
| 4 | Overfly SAV | VTBD | A202 RAMEI Y20 UBLOD DCT ENDUU |
| | | Overfly BKK | …SAV A202 RAMEI Y20 BKK… |
| | | VTBS | A202 RAMEI W42 PAKRI Y13 RUKSA DCT EASTE |
| 5 | VTUU | VTBD | Y20 UBLOD DCT ENDUU |
| | | Overfly BKK | Y20 BKK… |
| | | VTBS | Y20 GRASO Y13 RUKSA DCT EASTE |
| 6 | VTUN/VTUK/VTUD/ VTUI/VTUW | VTBD | Y22/Y23 KKN Y23 KRT Y20 UBLOD DCT ENDUU |
| | | Overfly BKK | Y22/Y23 KKN Y23 KRT Y20 BKK… |
| | | VTBS | Y22/Y23 KKN Y23 KRT Y20 UBLOD DCT EASTE |
| 7 | VTUV | VTBD | W38 RAMEI Y20 UBLOD DCT ENDUU |
| | | Overfly BKK | W38 RAMEI Y20 BKK… |
| | | VTBS | W38 RAMEI W42 PAKRI Y13 RUKSA DCT EASTE |
| 8 | VTUO | VTBD | W38 RAMEI Y20 UBLOD DCT ENDUU |
| | | Overfly BKK | W38 RAMEI Y20 BKK… |
| | | VTBS | W38 RAMEI W42 PAKRI Y13 RUKSA DCT EASTE |
| 9 | VTUD | VTBD | Y1 UBLOD DCT ENDUU |
| | | Overfly BKK | Y1 UBLOD Y20 BKK… |
| | | VTBS | Y1 UBLOD DCT EASTE |
| 10 | VTUK | VTBD | Y2 UBLOD DCT ENDUU |
| | | Overfly BKK | Y2 UBLOD Y20 BKK… |
| | | VTBS | Y2 UBLOD DCT EASTE |
| 11 | Overfly DWI | VTBD | L301 DWI L877 MIGAR L524 IBETO DCT WEHHA |
| | | | M502 LALIT P762 DWI L877 MIGAR L524 IBETO DCT WEH-HA |
| | | VTBS | L301 DWI L877 MIGAR L524 IBETO DCT WILLA |
| | | | M502 LALIT P762 DWI L877 MIGAR L524 IBETO DCT WIL-LA |
| | | Overfly BKK | … DWI L301 BKK … |

b) Flight planning procedures for Non-RNAV capable aircraft departing and arriving VTBD, VTBS and overfly BKK.

| | FROM | TO | ROUTE |
|---|---|---|---|
| 1 | VTBS | Overfly BUTRA | SELKA A1 BUTRA… |
| | | Overfly SAV | SELKA A1 TOPER W42 RAMEI A202 SAV… |
| | | VTUU | SELKA A1 |
| | | VTUN/VTUK/VTUD/ VTUI/VTUW | SELKA DCT KRT W6 KKN W6/W5 |
| | | VTUV/VTUO | SELKA A1 TOPER W42 RAMEI W38 |
| 2 | VTBD | Overfly BUTRA | ROBKA A1 BUTRA… |
| | | Overfly SAV | ROBKA A1 TOPER W42 RAMEI A202 SAV… |
| | | VTUU | ROBKA A1 |
| | | VTUN/VTUK/VTUD/ VTUI/VTUW | ROBKA A1 SELKA DCT KRT W6 KKN W6/W5 |
| | | VTUV/VTUO | ROBKA A1 TOPER W42 RAMEI W38 |
| 3 | Overfly BUTRA | VTBD | A1 UBL W1 UBLOD DCT ENDUU |
| | | VTBS | A1 UBL W1 UBLOD DCT EASTE |
| | | Overfly BKK | …BUTRA A1 UBL W1 BKK… |
| 4 | Overfly SAV | VTBD | …SAV A202 RAMEI W1 UBLOD DCT ENDUU |
| | | VTBS | …SAV A202 RAMEI W1 UBLOD DCT EASTE |
| | | Overfly BKK | …SAV A202 RAMEI W1 BKK… |
| 5 | VTUU | VTBD | W1 UBLOD DCT ENDUU |
| | | VTBS | W1 UBLOD DCT EASTE |
| | | Overfly BKK | W1 BKK… |
| 6 | VTUN/VTUK/VTUD/ VTUI/VTUW | VTBD | W5/W6 KKN W6 KRT W1 UBLOD DCT ENDUU |
| | | VTBS | W5/W6 KKN W6 KRT W1 UBLOD DCT EASTE |
| | | Overfly BKK | W5/W6 KKN W6 KRT W1 BKK… |
| 7 | VTUV/VTUO | VTBD | W38 RAMEI W1 UBLOD DCT ENDUU |
| | | VTBS | W38 RAMEI W1 UBLOD DCT EASTE |
| | | Overfly BKK | W38 RAMEI W1 BKK… |

4.2.2 For air traffic flow on uni-directional ATS routes Y26, Y27, Y7, Y28, Y29, Y30, Y31, Y32, Y33, Y34, Y35, Y36, Y37, B346/ W39, W21, R474

4.2.2.1 Operating procedures

| ATS routes | Direction | FL Allocation | Remark |
|---|---|---|---|
| Y26 | Northbound | Even | - |
| Y27 | Northbound | BKK to IKISU – Even | - |
| | | IKISU to DUBEN – Odd | |
| | Bi-directional | - | DUBEN - PONUK |
| Y7 | Southbound | Odd | - |
| Y28 | Southbound | DUBEN to CRIST-EVEN | - |
| | | CRIST- BKK - Odd | - |
| Y29 | North-eastbound | Even | - |

| ATS routes | Direction | FL Allocation | Remark |
|---|---|---|---|
| Y30 | Westbound | Even | - |
| Y31 | South-westbound | Even | CDR |
| Y32 | Northbound | Odd | - |
| Y33 | Northbound | Odd | - |
| Y34 | Northbound | Odd | - |
| Y35 | Bi-directional | - | CDR |
| Y36 | Eastbound | Odd | CDR |
| Y37 | Westbound | Even | CDR |
| B346/W39 | Bi-directional | - | CDR (BTW PCB - NOBER) |
| W21 | Bi-directional | - | - |
| R474 | Bi-directional | - | CDR |

4.2.2.2 Flight planning procedures

a) Flight planning procedures for RNAV capable aircraft

| FROM | TO | ROUTE |
|---|---|---|
| VTBD/VTBS/ Overfly BKK | VTCC/CMA | OLVUK Y26 MARNI |
| | VTCL | OLVUK Y26 BEBUV Y33 IBIRI |
| | Overfly PONUK | .... BKK Y27 IKISU W22 CTR A581 |
| | VTCT/CTR | RIVDU Y27 IKISU W22 BENVI |
| | VTCP | RIVDU Y27 POLOB Y34 IDKOR |
| | VTCN/NAN | RIVDU Y27 IBUBU W25 |
| | VLLB/LPB | (1) NOBER B346 YAKUA (available when VT D34 not active) or<br>(2) ALBOS R474 VTN (available when VT D34 active but VTD 43 not active) or<br>(3) RIVDU Y27 IBUBU W25 NAN R215 TOMIP (when VT D 34 and VT D43 active) |
| | VTPO | OLVUK Y26 ELDAL Y32 KIMET |
| | VTPP | RIVDU Y27 PIBAN |
| | VTPB | (1) NOBER W39 (available when VT D34 not active) or<br>(2) ALBOS R474 CMP W26 (available when VT D34 active but VT D43 not active) or<br>(3) RIVDU Y27 PIBAN Y29 W26 (when VT D 34 and VT D43 active) |
| | VTPM | (1) OLVUK Y26 NUVLU Y30 URGUM or<br>(2) OLVUK Y26 ELDAL Y37 TORAN (available when VT D33 not active) |
| | VTPT | OLVUK Y26 NUVLU DCT |
| | VTUL | (1) NOBER W39 (available when VT D34 not active) or<br>(2) ALBOS R474 CMP B218 (available when VT D34 active but VT D43 not active) or<br>(3) RIVDU Y27 PIBAN Y29 PSL W27 (when VT D 34 and VT D43 active) |
| | VTUD | (1) NOBER W21 SURGU (available when VT D34 not active but VT D43 active) or<br>(2) ALBOS R474 CMP W21 SURGU (available when VT D43 not active) or<br>(3) RIVDU Y27 PIBAN Y29 PSL W26 CMP W21 SURGU (when VT D 34 and VT D43 active) |
| | VLVT/VTN | (1) NOBER W21 CMP R474 (available when VT D34 not active but VT D43 active) or<br>(2) ALBOS R474 (available when VT D43 not active) or<br>(3) RIVDU Y27 PIBAN Y29 PSL W26 CMP R474 (when VT D 34 and VT D43 active) |
| VTCC/CMA | VTBD | PANTA Y7 TL DCT NAKON |
| | VTBS | PANTA Y7 TL DCT NORTA |
| | Overfly BKK | PANTA Y7 |
| VTCL | VTBD | VENAG W23 PSL Y28 TL DCT NAKON |
| | VTBS | VENAG W23 PSL Y28 TL DCT NORTA |
| | Overfly BKK | VENAG W23 PSL Y28 BKK… |
| VTCT/CTR | VTBD | DUBEN Y28 TL DCT NAKON |
| | VTBS | DUBEN Y28 TL DCT NORTA |
| | Overfly BKK | DUBEN Y28 BKK… |

| FROM | TO | ROUTE |
|---|---|---|
| VTCP | VTBD | W22 PSL Y28 TL DCT NAKON |
| | VTBS | W22 PSL Y28 TL DCT NORTA |
| | Overfly BKK | W22 PSL Y28 BKK… |
| VTCN/NAN | VTBD | W29 PSL Y28 TL DCT NAKON |
| | VTBS | W29 PSL Y28 TL DCT NORTA |
| | Overfly BKK | W29 PSL Y28 BKK… |
| VLLB/LPB/SAGAG | VTBD | (1) YAKUA B346 NOBER DCT NAKON (available when VT D34 not active) or<br>(2) VTN R474 CMP W21 NOBER DCT NAKON (when VT D34 active) |
| | VTBS | (1) YAKUA B346 NOBER DCT NORTA (available when VT D34 not active) or<br>(2) VTN R474 CMP W21 NOBER DCT NORTA (when VT D34 active) |
| | Overfly BKK | (1) YAKUA B346 BKK… (available when VT D34 not active) or<br>(2) VTN R474 CMP W21 BKK… (when VT D34 active) |
| VTPP | VTBD | PEBLI Y28 TL DCT NAKON |
| | VTBS | PEBLI Y28 TL DCT NORTA |
| | Overfly BKK | PEBLI Y28 BKK… |
| VTPB | VTBD | W26 PSL Y28 TL DCT NAKON |
| | VTBS | W26 PSL Y28 TL DCT NORTA |
| | Overfly BKK | W26 PSL Y28 BKK… |
| VTPO | VTBD | PEBLI Y28 TL DCT NAKON |
| | VTBS | PEBLI Y28 TL DCT NORTA |
| | Overfly BKK | PEBLI Y28 BKK… |
| VTPT/VTPM | VTBD | KADAV W26 IGPOP Y7 TL DCT NAKON |
| | VTBS | KADAV W26 IGPOP Y7 TL DCT NORTA |
| | Overfly BKK | KADAV W26 IGPOP Y7 BKK… |
| VTUL | VTBD | (1) W39 NAKON (available when VT D34 not active) or<br>(2) B218 CMP W21 NAKON (available when VT D34 active) |
| | VTBS | (1) W39 NORTA (available when VT D34 not active) or<br>(2) B218 CMP W21 NORTA (available when VT D34 active) |
| | Overfly BKK | (1) W39 BKK (available when VT D34 not active) or<br>(2) B218 CMP W21 BKK (available when VT D34 active) |
| VTUD | VTBD | SURGU W21 NOBER DCT NAKON |
| | VTBS | SURGU W21 NOBER DCT NORTA or ANPUS Y22 KKN Y23 KRT Y20 UBLOD DCT EASTE |
| | Overfly BKK | SURGU W21 BKK… |
| VLVT/VTN | VTBD | R474 CMP W21 NOBER DCT NAKON |
| | VTBS | R474 CMP W21 NOBER DCT NORTA |
| | Overfly BKK | R474 CMP W21 BKK... |
| VTCC | VTUD | KABMU W15 ESGIB |
| VTUD | VTCC | ESGIB W15 KABMU |
| VTCC | VTUK | KABMU W15 PANKU W16 |
| VTUK | VTCC | ONUVI W16 PANKU W15 KABMU |

| FROM | TO | ROUTE |
|---|---|---|
| VTCC | VTUU | KABMU W15 PANKU W16 CMP G473 |
| VTUU | VTCC | CHETA G473 CMP W16 PANKU W15 KABMU |

b) Flight planning procedures for Non RNAV capable aircraft

Flight level limitation: FL250 and below are available for flight planning.

| FROM | TO | ROUTE |
|---|---|---|
| VTBD/VTBS/ Overfly BKK | VTCC/CMA | SEMBO A464 ENBAT |
| | VTCL | SEMBO A464 TOPAS DCT |
| | VTPT/ VTPM | SEMBO A464 BEKOD DCT TAK/ W26 |
| | VTCT | SEMBO A464 BEKOD DCT KIMET DCT THS W25 PAE W22 |
| | VTCP | SEMBO A464 BEKOD DCT KIMET DCT THS W25 |
| | VTCN | SEMBO A464 BEKOD DCT KIMET DCT THS W25 |
| | VTPP | SEMBO A464 BEKOD DCT |
| | VTUD | (1) NOBER W21 SURGU (available when VT D34 not active but VT D43 active) or<br>(2) ALBOS R474 CMP W21 SURGU (available when VT D43 not active) or<br>(3) A464 BEKOD PSL W26 CMP W21 SURGU (when VT D 34 and VT D43 active) |
| | VTUL | (1) NOBER W39 (available when VT D34 not active) or<br>(2) ALBOS R474 CMP B218 (available when VT D34 active but VT D43 not active) or<br>(3) A464 BEKOD PSL W27 (when VT D 34 and VT D43 active) |
| | VLVT/VTN | (1) NOBER W21 CMP R474 (available when VT D34 not active but VT D43 active) or<br>(2) ALBOS R474 (available when VT D43 not active) or<br>(3) A464 BEKOD PSL W26 CMP R474 (when VT D 34 and VT D43 active) |
| | VLLB/LPB | (1) NOBER B346 YAKUA (available when VT D34 not active) or<br>(2) ALBOS R474 VTN (available when VT D34 active but VTD 43 not active) or<br>(3) A464 BEKOD KIMET THS W25 NAN R215 TOMIP (when VT D 34 and VT D43 active) |
| | VTPB | (1) NOBER W39 (available when VT D34 not active) or<br>(2) ALBOS R474 CMP W26 (available when VT D34 active but VT D43 not active) or<br>(3) A464 BEKOD PSL W26 (when VT D 34 and VT D43 active) |
| | VTPO | SEMBO A464 BEKOD DCT KIMET DCT |
| VTCC | VTBD | PANTA W9 TL DCT NAKON |
| | VTBS | PANTA W9 TL DCT NORTA |
| | Overfly BKK | PANTA W9 BKK… |
| | VTPP | PANTA W9 |
| VTCL | VTBD | VENAG W23 PSL W9 TL DCT NAKON |
| | VTBS | VENAG W23 PSL W9 TL DCT NORTA |
| | Overfly BKK | VENAG W23 PSL W9 BKK… |

| FROM | TO | ROUTE |
|---|---|---|
| VTPM | VTBD | KADAV W26 PSL W9 TL DCT NAKON |
| | VTBS | KADAV W26 PSL W9 TL DCT NORTA |
| | Overfly BKK | KADAV W26 PSL W9 BKK… |
| VTPT | VTBD | W26 PSL W9 TL DCT NAKON |
| | VTBS | W26 PSL W9 TL DCT NORTA |
| | Overfly BKK | W26 PSL W9 BKK… |
| VTPO | VTBD | PEBLI W9 TL DCT NAKON |
| | VTBS | PEBLI W9 TL DCT NORTA |
| | Overfly BKK | PEBLI W9 BKK… |
| VTCT | VTBD | DUBEN W29 PSL W9 TL DCT NAKON |
| | VTBS | DUBEN W29 PSL W9 TL DCT NORTA |
| | Overfly BKK | DUBEN W29 PSL W9 BKK… |
| VTCN | VTBD | W29 PSL W9 TL DCT NAKON |
| | VTBS | W29 PSL W9 TL DCT NORTA |
| | Overfly BKK | W29 PSL W9 BKK… |
| VTCP | VTBD | IDKOR W22 PSL W9 TL DCT NAKON |
| | VTBS | IDKOR W22 PSL W9 TL DCT NORTA |
| | Overfly BKK | IDKOR W22 PSL W9 BKK… |
| VTPP | VTBD | PEBLI W9 TL DCT NAKON |
| | VTBS | PEBLI W9 TL DCT NORTA |
| | Overfly BKK | PEBLI W9 BKK… |
| | VTCC | PIBIK W9 PANTA |
| | VTCP/VTCT | NIROP W22 |
| VTUL | VTBD | (1) W39 NAKON (available when VT D34 not active) or<br>(2) B218 CMP W21 NAKON (available when VT D34 active) |
| | VTBS | 1) W39 NORTA (available when VT D34 not active) or<br>(2) B218 CMP W21 NORTA (available when VT D34 active) |
| | Overfly BKK | (1) W39 BKK (available when VT D34 not active) or<br>(2) B218 CMP W21 BKK (available when VT D34 active) |
| VLVT/VTN | VTBD | R474 CMP W21 NOBER DCT NAKON |
| | VTBS | R474 CMP W21 NOBER DCT NORTA |
| | Overfly BKK | R474 CMP W21 BKK... |
| VLLB/LPB | VTBD | (1) YAKUA B346 NOBER DCT NAKON (available when VT D34 not active) or<br>(2) VTN R474 CMP W21 NOBER DCT NAKON (when VT D34 active) |
| | VTBS | (1) YAKUA B346 NOBER DCT NORTA (available when VT D34 not active) or<br>(2) VTN R474 CMP W21 NOBER DCT NORTA (when VT D34 active) |
| | Overfly BKK | (1) YAKUA B346 BKK...(available when VT D34 not active) or<br>(2) VTN R474 CMP W21 BKK (when VT D34 active) |

| FROM | TO | ROUTE |
|---|---|---|
| VTPB | VTBD | (1) W39 NAKON (available when VT D34 not active) or(2) W26 CMP W21 NA-KON (available when VT D34 active) |
| | VTBS | (1) W39 NORTA (available when VT D34 not active) or<br>(2) W26 CMP W21 NORTA (available when VT D34 active) |
| VTUD | VTBD | SURGU W21 NOBER DCT NAKON or |
| | VTBS | SURGU W21 NOBER DCT NORTA |
| | Overfly BKK | SURGU W21 BKK… |

4.3 Flight planning procedures for aircraft arriving to VTBD and VTBS

To enhance ATS efficiency for automatically utilization of Air Traffic Control System, aircraft arriving to VTBD and VTBS shall file flight plan as follows:

4.3.1 Flight planning procedures for aircraft arriving to VTBD

| ATS Routes | IAWP | Flight planning |
|---|---|---|
| L524 | WEHHA | …L524 IBETO DCT WEHHA |
| G463/P646 | WEHHA | …G463/P646 TARED DCT WEHHA |
| L507 | WEHHA | …L507 IGONI DCT WEHHA |
| A464 | NAKON | …A464 SEMBO DCT NAKON |
| W9/Y7/Y28 | NAKON | …W9/Y7/Y28 TL DCT NAKON |
| B346/W21 | NAKON | …B346/W21 NOBER DCT NAKON |
| R474 | NAKON | …R474 ALBOS DCT NAKON |
| W1/Y1/Y2/Y20 | ENDUU | …W1/Y1/Y2/Y20 UBLOD DCT ENDUU |
| G474 | SEHNA | …G474 ANREN DCT SEHNA |
| M633 | SEHNA | ... M633 DULEM DCT SEHNA |
| R468 | SEHNA | … R468 GOMES DCT SEHNA |
| P629 | SEHNA | ...P629 NUGPA DCT SEHNA |
| N891 | SEHNA | …N891 RYN DCT SEHNA |
| R334 | SEHNA | …R334 RYN DCT SEHNA |
| M644 | SEHNA | ...M644 RYN DCT SEHNA |
| W33 | SEHNA | ...W33 RYN DCT SEHNA |
| Y12 | SEHNA | ...Y12 ALEMI DCT SEHNA |
| G458/W31 | SABAI | ...G458/W31 HOTEL DCT SABAI |
| M769 | SABAI | ...M769 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI |
| Y99 | SABAI | ...Y99 HOTEL DCT SABAI |
| A464/W19 | SABAI | ...A464/W19 GUTSO DCT SABAI |
| (DEP VTBU) R201 | SABAI | ...BUT DCT SABAI |

4.3.2 Flight planning procedures for aircraft arriving to VTBS

| ATS Routes | IAWP | Flight planning |
|---|---|---|
| L524 | WILLA | ...L524 IBETO DCT WILLA |
| G463/P646 | WILLA | ...G463/P646 TARED DCT WILLA |
| L507 | WILLA | ...L507 IGONI DCT WILLA |
| A464 | NORTA | ...A464 SEMBO DCT NORTA |
| W9/Y7/Y28 | NORTA | ...W9/Y7/Y28 TL DCT NORTA |
| B346/W21 | NORTA | ...B346/W21 NOBER DCT NORTA |
| R474 | NORTA | ...R474 ALBOS DCT NORTA |
| W1 | EASTE | ...W1 UBLOD DCT EASTE |
| Y1/Y2 | EASTE | ...Y1/Y2 UBLOD DCT EASTE |
| Y13 | EASTE | ...Y13 RUKSA DCT EASTE |
| G474 | TUMGA | ...G474 ANREN DCT GOMES DCT TUMGA |
| M633 | TUMGA | ... M633 DULEM DCT GOMES DCT TUMGA |
| R468 | TUMGA | … R468 GOMES DCT TUMGA |
| P629 | TUMGA | …P629 NUGPA DCT TUMGA |
| N891 | TUMGA | ... N891 RYN DCT TUMGA |
| R334 | TUMGA | …R334 RYN DCT TUMGA |
| M644 | TUMGA | ...M644 RYN DCT TUMGA |
| W33 | TUMGA | ...W33 RYN DCT TUMGA |
| Y12 | TUMGA | ...Y12 ALEMI DCT TUMGA |
| G458/W31 | LEBIM | ...G458/W31 HOTEL DCT LEBIM |
| M769 | LEBIM | ...M769 LEBIM |
| Y98 | LEBIM | ...Y98 LEBIM |
| A464/W19 | LEBIM | ...A464/W19 GUTSO DCT LEBIM |
| (DEP VTBU) R201 | TUMGA | ...BUT DCT TUMGA |

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## ENR 1.11 ADDRESSING OF FLIGHT PLAN MESSAGES

### 1. General

**1.1** Flight plans are only submitted to Flight Data Management Centre (FDMC) via AFTN address VTBBZPZX.

**1.2** Flight movement messages relating to traffic into or via Bangkok FIR shall be addressed as stated below in order to warrant correct relay and delivery.

**1.3** Flight movement messages in this context comprise flight plan messages, amendment messages relating thereto and flight cancellation messages ICAO PANS/ATM Doc 4444, Chapter 11, paragraph 11.2.1.1.3 refers.

| CATEGORY OF FLIGHT (IFR,VFR OR BOTH) | ROUTE (INTO OR VIA FIR AND/OR TMA) | MESSAGE ADDRESS |
|---|---|---|
| 1 | 2 | 3 |
| All flights (IFR/VFR) | Into or via Bangkok FIR (VTBB) | VTBBZQZX |
| All flights (IFR/VFR) | Outbound from aerodromes in Bangkok FIR (VTBB) | VTBBZPZX |

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## ENR 1.12 INTERCEPTION OF CIVIL AIRCRAFT

### 1. General

The following procedures and visual signals apply over the territory and territorial waters of the Kingdom of Thailand in the event of interceptions of an aircraft.

### 2. Interception procedures

2.1 An aircraft which is intercepted by another aircraft shall immediately:

a) follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications on page ENR 1.12-3;
b) notify, if possible, the appropriate Air Traffic Services unit;
c) attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight, and if no contact has been established and if practicable, by repeating this call on the emergency frequency 243 MHz; and
d) if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate Air Traffic Services unit.

2.2 If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgment of instructions and essential information by using the phrases and pronunciations in the following table and transmitting each phrase twice:

| PHRASE | PRONUNCIATION | MEANING |
|---|---|---|
| CALL SIGN (call sign) | KOL SA-IN (call sign) | My call sign is (call sign) |
| WILCO | VILL-KO | Understood, will comply |
| CAN NOT | KANN NOTT | Unable to comply |
| REPEAT | REE-PEET | Repeat your instruction |
| AM LOST | AM LOSST | Position unknown |
| MAYDAY | MAYDAY | I am in distress |
| HIJACK | HI-JACK | I have been hijacked |
| LAND (place name) | LAAND (place name) | I request to land at (place name) |
| DESCEND | DEE-SEND | I require descent |

2.2.1 The following phrases shall be used by the intercepting aircraft and transmitted twice in the circumstances described in the preceding paragraph:

| PHRASE | PRONUNCIATION | MEANING |
|---|---|---|
| CALL SIGN | KOL SA-IN | What is your call sign? |
| FOLLOW | FOL-LO | Follow me |
| DESCEND | DEE-SEND | Descend for landing |
| YOU LAND | YOU LAAND | Land at this aerodrome |
| PROCEED | PRO-SEED | You may proceed |

3. If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

4. If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

5. The visual signals are detailed in the table on pages ENR 1.12-3.

***Note:*** *The word "interception" in this context does not include intercept and escort service provided, on request, to an aircraft in distress, in accordance with the Search and Rescue Manual (Doc 7333).*

1. *Syllables to be emphasized are underlined.*
2. *The call sign required to be given is that used in radiotelephony communications with Air Traffic Services units and corresponding to the aircraft identification in the flight plan.*

*3. Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK".*

**SIGNALS INITIATED BY INTERCEPTING AIRCRAFT AND RESPONSES BY INTERCEPTED AIRCRAFT**

| Series | INTERCEPTING Aircraft Signals | Meaning | INTERCEPTED Aircraft Responds | Meaning |
|---|---|---|---|---|
| 1 | DAY or NIGHT - Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading<br>***Note 1:*** *Meteorological conditions or terrain may required the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.*<br>***Note 2:*** *If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of race - track patterns and to rock the aircraft each time it passes the intercepted aircraft.* | You have been intercepted. Follow me. | DAY or NIGHT - Rocking aircraft, flashing navigation lights at irregular intervals and following.<br>***Note:*** *Additional action required to be taken by intercepted aircraft is prescribed in Chapter 3, 3.8,* | Understood will comply. |
| 2 | DAY or NIGHT - An abrupt break-away manoeuvre from the intercepted aircraft consisting of a climbing turn of 90° or more without crossing the line of flight of the intercepted aircraft. | You may proceed. | DAY or NIGHT - Rocking the aircraft | Understood will comply. |
| 3 | DAY or NIGHT - Lowering landing gear (if fitted), showing steady landing lights and over-flying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area. | Land at this aerodrome. | DAY or NIGHT - Lowering landing gear, (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overflying the runway in use or helicopter landing area, landing is considered safe, proceeding to land. | Understood will comply. |

**SIGNALS INITIATED BY INTERCEPTED AIRCRAFT AND RESPONSES BY INTERCEPTING AIRCRAFT**

| Series | INTERCEPTING Aircraft Signals | Meaning | INTERCEPTED Aircraft Responds | Meaning |
|---|---|---|---|---|
| 4 | DAY or NIGHT - Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 m (1 000 ft) but not exceeding 600 m (2 000 ft) [in the case of a helicopter, at a height exceeding 50 m (170 ft) but not exceeding 100 m (330 ft) above the aerodrome level, and continuing to circle run-way in use or helicopter landing area. If unable to flash landing lights, flash any other lights available. | Aerodrome you have designated is inadequate. | DAY or NIGHT - If it is desired that the intercepted aircraft follow the intercepting air-raft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft. If it is decided to release the intercepted air-raft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft. | Understood, follow me. |
| 5 | DAY or NIGHT - Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights. | Cannot comply. | DAY or NIGHT - Use Series 2 signals prescribed for intercepting aircraft | Understood. |

| Series | INTERCEPTING Aircraft Signals | Meaning | INTERCEPTED Aircraft Responds | Meaning |
|---|---|---|---|---|
| 6 | DAY or NIGHT - Irregular flashing of all available lights. | In distress | DAY or NIGHT - Use Series 2 signals prescribed for intercepting aircraft. | Understood. |

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## ENR 1.13 UNLAWFUL INTERFERENCE

1. Should an aircraft in flight be subjected to unlawful interference, the pilot shall endeavour to set the transponder to modeA/3 code 75 (or 7500) to give indication of the situation unless circumstances warrant the use of mode A/3 code 77 (or 7700).

2. When a pilot has selected mode A/3 code 75 (or 7500) and is subsequently requested to confirm his code by ATC he shall, according to circumstances, either confirm this or not reply at all.

***Note:*** *The absence of a reply from the pilot will be taken by ATC as an indication that the use of code 75 (or 7500) is not due to an inadvertent false code selection.*

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## ENR 1.14 AIR TRAFFIC INCIDENTS

### 1. REPORTING OF AIR TRAFFIC INCIDENTS

#### 1.1 Objectives

1.1.1 To provide an efficient and convenient method for all air traffic system and user personnel to document and submit what they considered to be unsafe incident/situations within Bangkok FIR.

1.1.2 To establish internal procedures to ensure efficient and expeditious investigation and processing of all reported incidents and for the prompt notification of results to the reporting person or agency.

#### 1.2 General

It is imperative that accurate and complete information regarding an incident be received by the unit or persons involved as soon as possible after the incident actually occurs. Such information is required before effective investigation and corrective action can begin.

#### 1.3 Procedures

The following procedures are to be utilized by ATS units or User Groups when reporting an Air Traffic Incident or unsatisfactory operation condition that occurs within Bangkok FIR.

1.3.1 ATS units

1. The air traffic controller involved in an incident/situation will advise the pilot/ controller concerned that an incident report is being filed, report it to the unit watch supervisor and, when operational duties permit, enter the facts in the daily log and complete a copy of the Air Traffic Incident Report Form.
2. ATC management personnel will, as soon as possible, conduct an investigation of the incident and forward their findings, documentation and recommendations for corrective action to the office of the Director General, CAAT, Bangkok, with a copy to the ATS units or User Groups concerned.

1.3.2 User Groups

1. Whenever a pilot-in command considers that his aircraft may have been endangered by the proximity of another aircraft during flight within Bangkok FIR to the extent that a definite risk of collision existed, be should make an AIR TRAFFIC INCIDENT REPORT in accordance with the following procedures.
2. The initial report of the incident should be made by radio to the ATS unit with which the aircraft is in communication at the time.

The initial report must be prefixed with the word NEAR COLLISION and should be in the following form:

A – Aircraft Identification
B – Type of Incident
C – The Incident
D – Miscellaneous
E – Supplementary Information by ATS Unit concerned.

3. If it is impossible to report the incident by radio, a report should be made by telephone or other means to any ATS unit immediately after landing.
4. Any report made by radio or telephone must be confirmed WITHIN SEVEN DAYS on Air Traffic Incident Report Form (see ENR 1.14-5 to 1.14-9).
5. In the absence of exceptional circumstances, official action on radio or telephone reports will cease after seven days unless the confirmatory report has been received.
6. Pilot should co-operate by ensuring that the fullest possible information is given in every cast, and by reporting only those incidents that can reasonably be considered to warrant investigation. Some operational ATC records are not retained for longer than thirty days and operators concerned are asked to facilitate action on reports by prompt handling in strict accordance with the procedures described.

#### 1.4 The Civil Aviation Authority of Thailand

1.4.1 CAAT shall be responsible for notifying the concerned ATS unit/User Group as soon as possible of the known facts and ask them to investigate the incident and forward the results along with statement, recommendations, corrective action taken and documentation within 10 days.

1.4.2 CAAT, after receiving the results of the concerned ATS unit/User Group, shall forward the details of the investigation to AIRMISS INVESTIGATION SUB-COMMITTEE for consideration.

1.4.3 CAAT, after receiving the AIRMISS INVESTIGATION SUB-COMMITTEE's considerations, shall notify the originating ATS Unit/User Group of the results of the investigation, and when considered appropriate by the administration processing the investigation, the result should also be sent to the ICAO Asia and Pacific Office.

1.4.4 CAAT shall provide Air Traffic Incident Report Forms to be use both for ATS units/User Groups (see ENR 1.14-4 to 1.14-7) and

download from www.caat.or.th

1.4.5 CAAT shall review all incident report processed for the purpose of identifying unfavourable trends and, when such trends are apparent, notify the ATS unit/User Group concerned accordingly.

## 2. REPORTING OF AIR TRAFFIC INCIDENTS BY PILOTS AND HANDLING OF REPORTS BY ATS

### 2.1 The air traffic incident

2.1.1 "Air traffic incident" is used to mean a serious occurrence involving air traffic, such as:

a) near collision,
b) serious difficulty caused by:

i. faulty procedures or lack of compliance with applicable procedures; or
ii. failure of ground facilities.

2.1.2 Air traffic incidents are designated and identified in reports as follows

| TYPE | DESIGNATION |
|---|---|
| Air traffic incident | INCIDENT |
| as (a) above | - " - : NEAR COLLISION |
| as (b) (i) above | - " - : PROCEDURAL |
| as (b) (ii) above | - " - : FACILITY |

### 2.2 Use of the "Air Traffic Incident Report Form"

2.2.1 The "Air Traffic Incident Report Form" is intended for use:

a) by a pilot for filing a report on an air traffic incident after arrival or to confirm a report made initially by radio during flight:

***Note:*** *The form, if available on board, may also be of use in providing a pattern for making the initial report in flight.*

b) by an ATS Unit for recording an air traffic incident report received by radio, telephone or teleprinter.

***Note:*** *The form may be used as format for the text of a message to be transmitted over the AFTN network.*

### 2.3 Recording of air traffic incidents by pilots

2.3.1 A pilot should proceed as follows regarding an incident in which he is or has been involved:

a) during flight, use the appropriate air/ground frequency for reporting an incident of major significance, particularly if it involves other aircraft, so as to permit the facts to be ascertained immediately; and
b) as promptly as possible after landing, submit a completed “Air Traffic Incident Report Form”:

i. to confirm a report of an incident made initially as in (a) above, or for making the initial report on such an incident if it had not been possible to report it by radio; and
ii. to report an incident which did not require immediate notification at the time of occurrence.

2.3.2 An initial report made by radio should contain the following information:

A - Aircraft identification
B - Type of incident, e.g. aircraft proximity
C - The incident

– General:

a) Date/time of incident; and
b) Position.

– Own aircraft:

a) Heading and routes;
b) True airspeed;
c) Level and altimeter setting;
d) Aircraft climbing or descending; and
e) Avoiding action taken.

– Other aircraft:

a) Type and call sign/registration;
b) Other information, if item a) is unknown;
c) Aircraft climbing or descending;
d) Avoiding action taken

– Distance

a) Closest horizontal distance; and
b) Closest vertical distance.

– Miscellaneous:

a) Aerodrome of first landing.....destination.....

2.3.3 The confirmatory report on an incident of major significance initially reported by radio or the initial report on any other incident should be submitted to the ATS Reporting Office of the aerodrome of first landing on the “Air Traffic Incident Report Form” The pilot should complete Sections 1 and 2 supplementing the details of the initial reports as necessary.

***Note:*** *Where there is no ATS Reporting Office, the report may be submitted to another ATS unit.*

**2.4 Handling of Air Traffic Incident Report Form**

2.4.1 The purpose of the form is to provide investigatory authorities with as complete information on an air traffic incident as possible and to enable them to report back with the least possible delay to the pilot or operator concerned the result of the investigation of the incident and, if appropriate, the remedial action taken.

## AIR TRAFFIC INCIDENT REPORT FORM

*For use when submitting and receiving reports on air traffic incidents. In an initial report by radio, shaded items should be included.*

**A - AIRCRAFT IDENTIFICATION**

**B - TYPE OF INCIDENT**

AIRPROX / OBSTRUCTION ON RUNWAY / RUNWAY INCURSION / PROCEDURE / FACILITY *

**C - THE INCIDENT**

**1. General**

a) Date / time of incident _____ UTC

b) Position _____

**2. Own aircraft**

a) Heading and route _____

b) True airspeed _____ measured in ( ) kt _____ ( ) km/h _____

c) Level and altimeter setting _____

d) Aircraft climbing or descending

( ) Level flight ( ) Climbing ( ) Descending

e) Aircraft bank angle

( ) Wings level ( ) Slight bank ( ) Moderate bank

( ) Steep bank ( ) Inverted ( ) Unknown

f) Aircraft direction of bank

( ) Left ( ) Right ( ) Unknown

g) Restrictions to visibility (select as many as required)

( ) Sunglare ( ) Windscreen pillar ( ) Dirty windscreen

( ) Other cockpit structure ( ) None

h) Use of aircraft lighting (select as many as required)

( ) Navigation lights ( ) Strobe lights ( ) Cabin lights

( ) Red anti - collision lights ( ) Landing / taxi lights ( ) Logo (tail fin) lights

( ) Other ( ) None

i) Traffic avoidance advice issued by ATS

( ) Yes, based on radar ( ) Yes, based on visual sighting ( ) Yes, based on other information

( ) No

j) Traffic information issued

( ) Yes, based on radar ( ) Yes, based on visual sighting ( ) Yes, based on other information

( ) No

k) Airborne Collision Avoidance System – ACAS

( ) Not carried ( ) Type ( ) Traffic advisory issued

( ) Resolution advisory issued ( ) Traffic advisory or resolution advisory not issued

l) Radar identification

( ) No radar available ( ) Radar identification ( ) No radar identification

m) Other aircraft sighted

( ) Yes ( ) No ( ) Wrong aircraft sighted

* Delete as appropriate

.

n) Avoidance action taken
( ) Yes ( ) No

o) Type of flight plan IFR / VFR / none*

**3. Other aircraft**

a) Type and call sign/registration (if known) _____
b) If a) above not known, describe below
( ) High wing ( ) Mid wing ( ) Low wing
( ) Rotorcraft
( ) 1 engine ( ) 2 engines ( ) 3 engines
( ) 4 engines ( ) more than 4 engines
Marking, colour or other available details
_____
_____
_____
_____

c) Aircraft climbing or descending
( ) Level flight ( ) Climbing ( ) Descending
( ) Unknown
d) Aircraft bank angle
( ) Wings level ( ) Slight bank ( ) Moderate bank
( ) Steep bank ( ) Inverted ( ) Unknown
e) Aircraft direction of bank
( ) Left ( ) Right ( ) Unknown
f) Lights displayed
( ) Navigation lights ( ) Strobe lights ( ) Cabin lights
( ) Red anti-collision lights ( ) Landing/taxi lights ( ) Logo (tall fin) lights
( ) Other ( ) None ( ) Unknown
g) Traffic avoidance advice issued by ATS
( ) Yes, based on radar ( ) Yes, based on visual sighting ( ) Yes, based on other information
( ) No ( ) Unknown
h) Traffic information issued
( ) Yes, based on radar ( ) Yes, based on visual sighting ( ) Yes, based on other information
( ) No ( ) Unknown
i) Avoiding action taken
( ) Yes ( ) No ( ) Unknown

**4. Distance**

a) Closest horizontal distance _____

b) Closest vertical distance _____

**5. Flight meteorological conditions**

a) IMC / VMC*

b) Above / below* clouds / fog / haze or between layers*

c) Distance vertically from cloud _____ m / ft* below _____ m / ft* above

d) In cloud / rain / snow / sleet / fog / haze *

e) Flying into / out of* sun

f) Flight visibility _____ m / km*

**6. Any other information considered important by the pilot-in-command**

_____

_____

_____

_____

_____

_____

**D - MISCELLANEOUS**

**1. Information regarding reporting aircraft**

a) Aircraft registration _____

b) Aircraft type _____

c) Operator _____

d) Aerodrome of departure _____

e) Aerodrome of first landing _____ destination _____

f) Reported by radio or other means to _____ (name of ATS unit) at time _____ UTC

g) Date / time / place of completion of form _____

**2. Function, address and signature of person submitting report**

a) Function _____

b) Address _____

c) Signature _____

d) Telephone number _____

**3. Function and signature of person receiving report**

a) Function _____ b) Signature _____

**E - SUPPLEMENTARY INFORMATION BY ATS UNIT CONCERNED**

1. **Receipt of report**

   a) Report received via AFTN / radio / telephone / other (specify) * _____

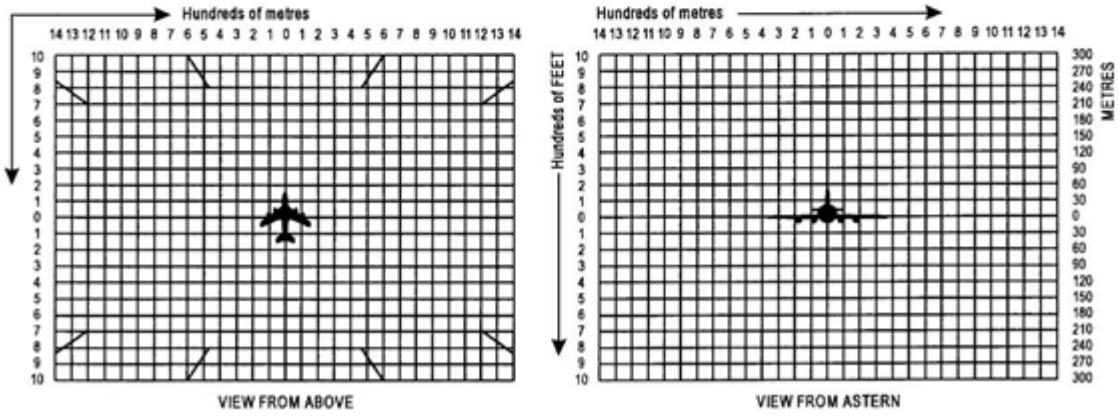
   b) Report received by _____ (name of ATS unit)

2. **Details of ATS action**
   Clearance, incident seen (radar/visually, warning given, result of local enquiry, etc.)

   _____
   _____
   _____
   _____

**DIAGRAMS OF AIRPROX**

Mark passage of other aircraft relative to you, in plan on the left and in elevation on the right, assuming YOU are at the centre of each diagram. Include first sighting and passing distance.




**Instructions for the completion of the air traffic incident report form**

| Item | |
|---|---|
| A | Aircraft identification of the aircraft filing the report. |
| B | An AIRPROX report should be filed immediately by radio. |
| C1 | Date/time in UTC and position in bearing and distance from a navigation aid or in latitude/longitude. |
| C2 | Information regarding aircraft filing the report, tick as necessary. |
| C2 c) | E.g. FL 350/1 013 hPa or 2 500 ft/QNH 1 007 hPa or 1 200 ft/QFE 998 hPa. |
| C3 | Information regarding the other aircraft involved. |
| C4 | Passing distance, state units used. |
| C6 | Attach additional papers as required. The diagrams may be used to show positions of aircraft. |
| D1 f) | State name of ATS unit and date/time in UTC. |
| D1 g) | Date and time in UTC. |
| E2 | Include details of ATS unit such as service provided, radiotelephony frequency, SSR Codes assigned and altimeter setting. Use diagram to show the position of aircraft and attach additional papers as required. |

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## ENR 2. AIR TRAFFIC SERVICES AIRSPACE

### ENR 2.1 FIR, UIR, AND CTA

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **BANGKOK FLIGHT INFORMATION REGION**<br>A point on the Thai border at 100010.2N then along the national border between Thailand and Myanmar/Laos/Cambodia to the coast then to 100007.1N 1021447.6E - 070000N 1030000E - 064500N 1024000E - 061500N 1021500E - then westward along the national border between Thailand and Malaysia to 063007.9N 0992948.9E - 071507.9N 0975949.5E - 100006.9N 0962950.1E then eastward along 100010.2N to the Thai border.<br>UNL / GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | | |
| **WIDTH OF AIRWAYS**<br>**AIRWAYS WITHIN BANGKOK FIR**<br>The lateral limits of airways commences from 5 NM either side of the centre line at the facility funnelling out on a 5 degrees (VOR) or 7.5 degrees (NDB) tolerance to a maximum width of 10 NM either side of the centre line.<br>**AIRWAYS WITHIN BANGKOK AREA OF RESPONSIBILITY**<br>The width of airways within Bangkok area of responsibility (AOR) is 50 NM CONTROL AREAS<br>**ALFA CONTROL AREA**<br>The airspace within a circle of 50 NM radius centred on 135452.0N1003620.0E.<br>FL 460 / FL 285<br>Class of airspace: A<br>BELOW FL 285<br>ABOVE FL 160<br>Class of airspace: B<br>**VFR FLIGHT IN ALFA CONTROL AREA**<br>In order to avoid collision between aircraft in Control Area, all VFR aircraft before entering ALFA Control Area, must contact Bangkok Area Control by reporting position. | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | | Excluding VTD16, VTD19 and VTD47 |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **BANGKOK AREA CONTROL CENTRE SECTOR ORGANIZATION**<br>***BANGKOK AREA CONTROL CENTRE IS DIVIDED INTO 12 SECTORS AS FOLLOWS:***<br>**SECTOR 1N**<br>An area bounded by<br>162305.20N 0985436.80E -<br>then clockwise along Bangkok/Yangon FIR boundary and Bangkok/Vientiane FIR boundary to<br>173356.83N 1010000.00E -<br>170000.00N 1004517.30E -<br>then along the clockwise arc of 30 NM radius centred on PSL DVOR/DME (164613.3N 1001729.0E) to<br>163201.74N 1004502.60E -<br>161748.43N 1004455.31E -<br>162305.20N 0985436.80E<br>FL460<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 124.5 MHZ<br>256.3 MHZ<br>121.5 MHZ/EMERG | |
| **SECTOR 2N**<br>An area bounded by<br>161748.43N 1004455.31E -<br>163201.74N 1004502.60E -<br>then along the clockwise arc of 30 NM radius centred on PSL DVOR/DME (164613.3N 1001729.0E) to<br>170000.00N 1004517.30E -<br>173356.83N 1010000.00E -<br>then clockwise along Bangkok/Vientiane FIR boundary to<br>175851.00N 1030000.00E -<br>160948.00N 1030000.00E -<br>161329.40N 1020259.40E -<br>161748.43N 1004455.31E<br>FL460<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 126.5 MHZ<br>121.5 MHZ/EMERG | |
| **SECTOR 3N**<br>An area bounded by a straight lines joining the following points<br>135506.00N 1003548.10E -<br>162305.20N 0985436.80E -<br>161748.43N 1004455.31E -<br>161329.40N 1020259.40E -<br>135506.00N 1003548.10E<br>FL460<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 128.1 MHZ<br>263.8 MHZ<br>121.5 MHZ/EMERG | |
| **SECTOR 4N**<br>An area bounded by<br>133006.00N 0991248.80E<br>then clockwise along Bangkok/Yangon FIR boundary to<br>162305.20N 0985436.80E -<br>135506.00N 1003548.10E -<br>133006.00N 0991248.80E<br>FL460<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 120.95 MHZ<br>121.5 MHZ/EMERG | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **SECTOR 5N**<br>An area bounded by<br>141302.00N 1030000.00E -<br>160948.00N 1030000.00E -<br>175851.00N 1030000.00E -<br>then clockwise along Bangkok/Vientiane FIR boundary and Bangkok/Phnom Penh FIR boundary to<br>141302.00N 1030000.00E<br>FL460<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 132.1 MHZ<br>268.5 MHZ<br>121.5 MHZ/EMERG | |
| **SECTOR 6N**<br>An area bounded by<br>135506.00N 1003548.10E -<br>161329.40N 1020259.40E -<br>160948.00N 1030000.00E -<br>141302.00N 1030000.00E -<br>135506.00N 1003548.10E<br>FL460<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 133.1 MHZ<br>285.3 MHZ<br>121.5 MHZ/EMERG | |
| **SECTOR 1S**<br>An area bounded by<br>114006.50N 0993448.70E -<br>then clockwise along Bangkok/Yangon FIR boundary to<br>133006.00N 0991248.80E -<br>135506.00N 1003548.10E -<br>132006.10N 1004948.10E -<br>124106.30N 1004948.10E -<br>122500.00N 1005105.00E -<br>104130.00N 1012502.00E -<br>110006.80N 1005948.10E -<br>112906.60N 0995948.50E -<br>114006.50N 0993448.70E<br>FL460<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 120.5 MHZ<br>256.6 MHZ<br>121.5 MHZ/EMERG | |
| **SECTOR 2S**<br>An area bounded by<br>102334.00N 0984513.60E -<br>then clockwise along Bangkok/Yangon FIR boundary to<br>114006.50N 0993448.70E -<br>112906.60N 0995948.50E -<br>110006.80N 1005948.10E -<br>104130.00N 1012502.00E -<br>100244.00N 1013740.60E -<br>090239.80N 1000012.90E -<br>102334.00N 0984513.60E<br>FL460<br>FL270 | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 118.35 MHZ<br>121.5 MHZ/EMERG | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **SECTOR 3S**<br>An area bounded by<br>100006.90N 0974918.00E -<br>100006.90N 0983849.20E -<br>then clockwise along Bangkok/Yangon FIR boundary to<br>102334.00N 0984513.60E -<br>090239.80N 1000012.90E -<br>064716.80N 1000000.00E -<br>080650.3N 0981825.2E (PUT DVOR/DME) -<br>100006.90N 0974918.00E<br><br>FL460<br>GND<br>and an area bounded by<br>102334.00N 0984513.60E -<br>then clockwise along Bangkok/Yangon FIR boundary to<br>114006.50N 0993448.70E -<br>112906.60N 0995948.50E -<br>090239.80N 1000012.90E -<br>102334.00N 0984513.60E<br><br>up to but not including FL270<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 125.7 MHz<br>268.5 MHz<br>121.5 MHz/EMERG | |
| **SECTOR 4S**<br>An area bounded by<br>100006.90N 0962950.10E -<br>100006.90N 0974918.00E -<br>080650.3N 0981825.2E (PUT DVOR/DME) -<br>064716.80N 1000000.00E -<br>063844.42N 1001050.18E -<br>then clockwise along Bangkok/Kuala Lumpur FIR boundary to<br>063007.90N 0992948.90E -<br>071507.70N 0975949.50E -<br>100006.90N 0962950.10E<br><br>FL460<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 133.9 MHz<br>121.5 MHz/EMERG | |
| **SECTOR 5S**<br>An area bounded by<br>100244.00N 1013740.60E -<br>104130.00N 1012502.00E -<br>122500.00N 1005105.00E -<br>124106.30N 1004948.10E -<br>132006.10N 1004948.10E -<br>135506.00N 1003548.10E -<br>141302.00N 1030000.00E -<br>then clockwise along Bangkok/Phnom Penh FIR boundary to<br>113654.00N 1030000.00E -<br>100000.00N 1021500.00E -<br>100244.00N 1013740.60E<br><br>FL460<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 135.5MHz<br>285.5MHz<br>121.5 MHz/EMERG | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **SECTOR 6S**<br>An area bounded by<br>063844.42N 1001050.18E -<br>064716.80N 1000000.00E -<br>090239.80N 1000012.90E -<br>100244.00N 1013740.60E -<br>100000.00N 1021500.00E -<br>070000.00N 1030000.00E -<br>064500.00N 1024000.00E -<br>061500.00N 1021500.00E -<br>then clockwise along Bangkok/Kuala Lumpur FIR boundary to<br>063844.42N 1001050.18E<br><br>FL460<br>GND<br>and an area bounded by<br>112906.60N 0995948.50E -<br>110006.80N 1005948.10E -<br>104130.00N 1012502.00E -<br>100244.00N 1013740.60E -<br>090239.80N 1000012.90E -<br>112906.60N 0995948.50E<br><br>up to but not including FL270<br>GND | Bangkok ACC | Bangkok Control<br>(English, Thai)<br><br>H24 | 123.95 MHZ<br>265.9 MHZ<br>121.5 MHZ/EMERG | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **BANGKOK TERMINAL CONTROL AREA**<br>The airspace within a circle of 50 NM radius centred on VTBD ARP (135451.74N 1003620.49E).<br>FL 160<br>3000 FT<br>Class of airspace: C<br>Sectorization of air traffic the Bangkok TMA is divided into 10 sectors as follows:<br><br>**1. Approach East 1 (APE 1) Sector**<br>The area of responsibility for APE 1 Sector is defined by a straight line joining successively the following points: VTBD ARP, BKK R035/51.3D thence clockwise by the arc of a circle of 50 NM radius centred on VTBD ARP to BKK R100/50.3D thence a straight line back to VTBD ARP excluding ARR sector, DAR sector, DSB sector, DDP sector.<br>This sector encompasses ATS and RNAV routes: W1, A202, A1, Y1, Y2, Y13 and Y16.<br>Aircraft operating in this sector shall contact BAPP on frequency 119.1 MHz or 262.5 MHz.<br><br>**2. Approach East 2 (APE 2) Sector**<br>The area of responsibility of APE 2 Sector is defined by a straight line joining successively the following points: VTBD ARP, BKK R100/50.3D thence clockwise by the arc of a circle of 50 NM radius centred on VTBD ARP to BKK R155/49.1D thence a straight line back to VTBD ARP excluding ARR sector, DAR sector, DSB sector and DDP sector.<br>This sector encompasses ATS and RNAV routes: G474, L880, M633, N506, N891, P629, R468 and Y12.<br>Aircraft operating in this sector shall contact BAPP on frequency 122.35 MHz or 262.5 MHz.<br><br>**3. Approach South 1 (APS 1) Sector**<br>The area of responsibility of APS 1 Sector is defined by a straight line joining successively the following points: VTBD ARP, BKK R155/49.1D thence clockwise by the arc of a circle of 50 NM radius centred on VTBD ARP to BKK R193/48.7D, BKK R250/11.8D thence a straight line back to VTBD ARP excluding ARR sector, DAR sector, DSB sector, DDP sector and VTD47.<br>This sector encompasses ATS and RNAV routes: A464, M751, W19, R201, M904, M757 and Y11.<br>Aircraft operating in this sector shall contact BAPP on frequency 120.3 MHz or 262.5 MHz.<br><br>**4. Approach South 2 (APS 2) Sector**<br>The area of responsibility of APS 2 Sector is defined by a straight line joining successively the following points: BKK R250/11.8D, BKK R193/48.7D thence clockwise by the arc of a circle of 50 NM radius centred on VTBD ARP to BKK R250/49.1D thence a straight line back to BKK R250/11.8D excluding DAR sector, DDP sector, VTD16, VTD19 and VTD47.<br>This sector encompasses ATS and RNAV routes: G458, W31, Y8 and M769.<br>Aircraft operating in this sector shall contact BAPP on frequency 124.35 MHz or 262.5 MHz. | Bangkok APP | Bangkok Approach<br>(English, Thai)<br><br>H24 | 119.1 MHZ<br>119.25 MHZ<br>119.4 MHZ<br>120.3 MHZ<br>121.1 MHZ<br>122.35 MHZ<br>124.35 MHZ<br>125.2 MHZ<br>125.8 MHZ<br>126.3 MHZ<br>133.4 MHZ<br>133.0 MHZ<br>262.5 MHZ<br>121.5 MHZ/EMERG<br>243.0 MHZ/EMERG | Excluding Bangkok CTR,Kamphaeng Saen CTR, VTD16, VTD17, VTD18, VTD19, VTD31, VTD47 and VTD72 |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
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| **5. Approach West (APW) Sector**<br>The area of responsibility of APW Sector is defined by a straight line joining successively the following points: VTBD ARP, BKK R250/49.1D thence clockwise by the arc of a circle of 50 NM radius centred on VTBD ARP to BKK R325/50.7D thence a straight line back to VTBD ARP excluding DAR sector, DDP sector, VTD16, VTD17, VTD18, VTD47 and VTD72.<br>This sector encompasses ATS routes: G463, L301,L507, L524, M502, M524, M633 and P646.<br>Aircraft operating in this sector shall contact BAPP on frequency 125.2 MHz or 262.5 MHz.<br><br>**6. Approach North (APN) Sector**<br>The area of responsibility of APN Sector is defined by a straight line joining successively the following points: VTBD ARP, BKK R325/50.7D thence clockwise by the arc of a circle of 50 NM radius centred on VTBD ARP to BKK R035/51.3D thence a straight line back to VTBD ARP excluding ARR sector, DAR sector, DSB sector, DDP sector, VTD17, VTD18, VTD31 and VTD72.<br>This sector encompasses ATS and RNAV routes: Y26, Y27, A464, Y7, Y28, W9, B346, W21 and R474.Aircraft operating in this sector shall contact BAPP on frequency 133.4 MHz or 262.5 MHz.<br><br>**7. Suvarnabhumi Departure (DSB) Sector**<br>a) When runway 19/20L/20R in use<br>The area of responsibility of DSB Sector (RWY19/ 20L/20R) is defined by a straight line joining successively the following points: 134342.43N 1003526.11E, 133709.97N 1005940.84E, 131625.32N 1005412.02E, 132329.78N 1002757.15E thence a straight line back to 134342.43N 1003526.11E from ground up to altitude 10 000 feet.<br>Aircraft operating in this sector shall contact DSB on frequency 119.25 MHz or 262.5 MHz.<br><br>b) When runway 01/02L/02R in use<br>The area of responsibility of DSB Sector (RWY01/ 02L/02R) is defined by a straight line joining successively the following points: 133639.77N 1010140.11E, 140000.10N 1010751.76E, 140720.69N 1004032.11E, 134200.01N 1004148.33E thence a straight line back to 133639.77N 1010140.11E from ground to altitude 10 000 feet.<br>Aircraft operating in this sector shall contact DSB on frequency 119.25 MHz or 262.5 MHz.<br><br>**8. Suvarnabhumi Arrival (ARR) Sector**<br>a) When runway 19/20L/20R in use<br>The area of responsibility of ARR Sector (19/20L/ 20R) is defined by a straight line joining successively the following points: 141328.51N 1004423.96E, 140857.66N 1010135.14E, 133426.99N 1005206.49E, 133856.23N 1003456.96E thence a straight line back to 141328.51N 1004423.96E from ground to altitude 10 000 ft excluding DSB sector. | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
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| Aircraft operating in this sector shall contact ARR on frequency 121.1 MHz (126.3 MHz if so instructed) or 262.5 MHz.<br><br>b) When runway 01/02L/02R in use<br>The area of responsibility of ARR Sector (RWY 01/ 02L/02R) is defined by a straight line joining successively the following points: 134715.69N 1003713.56E, 134246.49N 1005423.33E, 130815.22N 1004457.24E, 131243.78N 1002749.32E thence a straight line back to 134715.69N 1003713.56E from ground to altitude 10 000 ft excluding DSB sector.<br>Aircraft operating in this sector shall contact ARR on frequency 121.1 MHz (or 126.3 MHz if so instructed) or 262.5 MHz.<br><br>**9. Don Mueang Departure (DDP) Sector**<br>a) When runway 21L/R in use<br>The area of responsibility of DDP Sector (RWY 21L/R) is defined by a straight line joining successively the following points: 135247.80N 1003848.53E, 133022.52N 1003029.78E thence clockwise by the arc of a circle radius 25 NM centred on VTBD ARP to 140011.92N 1001111.05E thence a straight line back to 135247.80N 1003848.53E from ground to altitude 8 000 ft excluding ARR sector, DSB sector, VTD72, VTR2 and VTR80.<br>Aircraft operating in this sector shall contact DDP on frequency 119.4 MHz or 262.5 MHz.<br><br>b) When runway 03L/R in use<br>The area of responsibility of DDP Sector (RWY 03L/R) is defined by a straight line joining successively the following points: 135247.80N 1003848.53E, 141005.10N 1001553.12E thence clockwise by the arc of a circle radius 25 NM centred on VTBD ARP to 141716.86N 1004755.48E thence a straight line back to 135247.80N 1003848.53E from ground to altitude 8 000 ft excluding ARR sector, DSB sector, VTD72 and VTR81.<br>Aircraft operating in this sector shall contact DDP on frequency 119.4 MHz or 262.5 MHz.<br><br>**10. Don Mueang Arrival (DAR) Sector**<br>a) When runway 21L/R in use<br>The area of responsibility of DAR Sector (RWY 21L/R) is defined by a straight line joining successively the following points: 135247.80N 1003848.53E, 140011.92N 1001111.05E thence clockwise by the arc of a circle radius 25 NM centred on VTBD ARP to 141714.56N 1004754.61E thence a straight line back to 135247.80N 1003848.53E from ground to altitude 8 000 ft excluding ARR sector, VTD72 and VTR81.<br>Aircraft operating in this sector shall contact DAR on frequency 133.0 MHz or 262.5 MHz. | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
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| b) When runway 03L/R in use<br>The area of responsibility of DAR Sector (RWY 03L/R) is defined by a straight line joining successively the following points: 135247.80N 1003848.53E, 133027.20N 1003018.77E thence clockwise by the arc of a circle radius 25 NM centred on VTBD ARP to 141005.10N 1001553.12E thence a straight line back to 135247.80N 1003848.53E from ground to altitude 8 000 ft excluding DSB sector, VTD72, VTR80, VTR81 and VTR2.<br>Aircraft operating on this sector shall contact DAR on frequency 133.0 MHz or 262.5 MHz. | | | | |
| **BANGKOK CONTROL ZONE**<br>The airspace within a circle of 35 NM radius centred on VTBD ARP (135451.74N1003620.49E)<br><br>ALT 11000 FT<br>GND<br>Class of airspace: C | Bangkok APP | Bangkok Approach<br>(English, Thai)<br><br>H24 | 119.1 MHz<br>119.25 MHz<br>119.4 MHz<br>120.3 MHz<br>121.1 MHz<br>122.35 MHz<br>124.35 MHz<br>125.2 MHz<br>125.8 MHz<br>126.3 MHz<br>133.4 MHz<br>133.0 MHz<br>262.5 MHz<br>121.5 MHz/EMERG<br>243.0 MHz/EMERG | Excluding Kamphaeng Saen CTR, VTD16, VTD17, VTD18, and VTD72 |
| **BETONG CONTROLLED AIRSPACES** | | | | |
| **A. BETONG CONTROL ZONE**<br>The airspace enclosed by the following boundary: Starting from a point located at<br>055646.66N 1010551.38E<br>then along Bangkok FIR/Kuala Lumpur FIR boundary to<br>054809.13N 1011837.28E<br>and then counter clockwise along 10 NM radius centred on BET DVOR/DME (054707.7N 1010838.7E) to the starting point.<br><br>up to but not including 4000 FT AGL<br>GND<br>Class of airspace: D | Hat Yai APP<br>(Hat Yai Sector) | Narathiwat Approach<br>(English, Thai)<br><br>2300-1100* | 125.55 MHz**<br>121.5 MHz/EMERG | *TWR hours of services: 0130-0930 other than this period and holiday 3 HR PN to Hat Yai Approach Control Centre via AFTN VTSSZAZX<br><br>VTSYZTZX<br>Tel: +667 323 4900<br><br>VTSSZTZX<br>Tel: +667 425 1074<br><br>VTSCZTZX<br>Tel: +667 356 5077<br><br>**RCAG<br>If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
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| **BURI RAM CONTROLLED AIRSPACES**<br>**A. BURI RAM CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on BRM DVOR/DME (151422.4N1031531.6E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Ubon Sector) | Buri Ram Approach (English, Thai)<br><br>As AD OPR HR | 125.55 MHZ<br>121.5 MHZ/EMERG | VTBBZAZX<br>Tel: +662 285 9612<br>Fax: +662 285 9610 |
| **B. BURI RAM TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundaries beginning at a point<br>152840N 1033030E<br>then clockwise along 20 NM arc from BRM DVOR/DME (151422.4N1031531.6E) to<br>151633N 1033522E<br>then clockwise along 25 NM arc radius centred on 145209.4N 1032920.0E to<br>145132N 1035548E - 144953N 1035055E<br>then clockwise along 20 NM arc radius centred on 145209.4N 1032920.0E to<br>143830N 1031416E - 143652N 1030924E<br>then clockwise along 25 NM arc radius centred on 145209.4N 1032920.0E to<br>145620N 1030434E - 145300N 1024000E<br>then counter clockwise along 35 NM arc from KHORAT TACAN (145606.0N1020421.8E)<br>151135N 1023700E - 151224N 1030024E<br>then clockwise along 15 NM arc from BRM DVOR/DME to<br>152918N 1031751E - 154407N 1032620E<br>then counter clockwise along 30 NM arc from ROT DVOR/DME (160700.6N1034619.5E)<br>then direct to starting point.<br><br>ALT 11000 FT<br>2000 FT AGL<br>Class of airspace: C | | | | |
| **CHIANG MAI CONTROLLED AIRSPACES** | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
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| **A. CHIANG MAI CONTROL ZONE**<br>Starting from<br>184604.4N 0984748.7E<br>then clockwise along an arc of 10 NM radius from CMA DVOR/DME (184558.1N 0985740.4E) to<br>185516.4N 0985754.6E -<br>191204.3N 0991048.5E -<br>from this point make an arc of 30 NM radius from CMA DVOR/DME clockwise to<br>190640.4N 0991848.4E -<br>184904.4N 0990718.5E -<br>184958.4N 0991754.4E -<br>from this point make an arc of 20 NM radius from CMA DVOR/DME clockwise to<br>183216.5N 0984248.7E<br>then direct to the starting point.<br>Excluding airspace extending upward from ground to and including 2 000 FT above mean sea level enclosed by boundaries beginning at<br>184206.71N 0990436.34E -<br>184159.10N 0991209.38E -<br>183648.33N 0991108.95E -<br>183645.32N 0990441.37E<br>then direct to starting point.<br><br>UP TO BUT NOT INCLUDING 5000 FT AGL<br>GND<br>Class of airspace: C | Chiang Mai APP | Chiang Mai Approach<br>(English, Thai)<br><br>H24 | 129.6 MHZ<br>305.4 MHZ<br>121.5 MHZ/EMERG<br>243.0 MHZ/EMERG | |
| **B. CHIANG MAI TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundaries, beginning at<br>185355.53N 0983239.89E<br>then clockwise along an arc of 25 NM radius from CMA DVOR/DME (184558.1N 0985740.4E) to<br>184832.29N 0992353.72E -<br>184804.79N 0993740.73E -<br>from this point make an arc of 38 NM radius from CMA DVOR/DME clockwise to<br>181444.64N 0983440.27E -<br>184604.43N 0984748.53E -<br>and direct to the starting point<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Chiang Mai APP | Chiang Mai/Radar Approach<br>(English, Thai)<br><br>H24 | 129.6 MHZ<br>305.4 MHZ<br>121.5 MHZ/EMERG<br>243.0 MHZ/EMERG | |
| **CHIANG RAI CONTROLLED AIRSPACES** | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
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| **A. CHIANG RAI CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on CTR DVOR/DME (195655.9N 0995259.3E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. CHIANG RAI TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>starting from a point<br>194456.49N 1002417.97E -<br>193556.99N 1001551.49E -<br>then clockwise along 30 NM arc radius centred on CTR DVOR/DME (195655.9N 0995259.3E) to<br>193515.48N 0993052.64E -<br>194810.65N 0994001.50E -<br>then clockwise along 15 NM arc radius centred on CTR DVOR/DME to<br>201155.25N 0995400.00E -<br>202611.39N 0995400.00E -<br>and then along BKK FIR to the starting point.<br><br>ALT 11000 FT<br>2000 FT AGL<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Chiang Rai Sector) | Chiang Rai Approach<br>(English, Thai)<br><br>As AD OPR HR | 120.05 MHz<br>257.8 MHz<br>121.5 MHz/EMERG | VTBBZAZX:<br>Tel: +662 285 9614<br>Fax: +662 285 9610 |
| **CHUMPHON CONTROLLED AIRSPACES** | | | | |
| **A. CHUMPHON CONTROL ZONE**<br>A circle of 15 NM radius centred on CPN DVOR/DME (104240.3N0992156.1E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: D<br>**B. CHUMPHON TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>105612.7N 0994154.7E<br>then clockwise along 25 NM arc radius centred on CPN DVOR/DME to<br>101524.9N 0991500.9E -<br>101324.9N 0991500.9E -<br>then clockwise along 30 NM arc radius centred on CPN DVOR/DME to<br>101718.9N 0990701.0E -<br>102154.9N 0990842.9E -<br>then clockwise along 30 NM arc radius centred on CPN DVOR/DME to<br>110124.7N 0994530.6E<br>then direct to the starting point.<br>Excluding the Myanmar territory.<br><br>ALT 7000 FT<br>2000 FT AGL<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Samui Sector) | Chumphon Approach<br>(English, Thai)<br><br>As AD OPR HR | 122.6 MHz<br>121.5 MHz/EMERG | VTBBZAZX<br>Tel: +662 285 9613<br>Fax: +662 285 9610 |
| **HAT YAI CONTROLLED AIRSPACES** | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
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| **A. HAT YAI CONTROL ZONE**<br>A Circle of 15 NM radius cent red on HTY DVOR/ DME (065602.8N1002316.6E)<br><br>up to but not including 3000 FT<br>GND<br>Class of airspace: C<br>**B. HAT YAI TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundaries beginning at<br>070301.7N 0994912.7E<br>then clockwise along 35 NM arc from HTY DVOR/ DME to (065602.8N1002316.6E)<br>071507.7N 1005248.3E -<br>065601.8N 1004836.3E<br>then clockwise along 25 NM arc from HTY DVOR/ DME to<br>064607.8N 0994630.8E -<br>064655.8N 1004242.4E -<br>063607.9N 1003848.4E -<br>062737.9N 1003830.4E -<br>then follow westward along the Bangkok FIR boundary to<br>064331.8N 1001148.6E -<br>064507.8N 1000648.6E -<br>070007.81N 1000448.6E<br>then direct to the starting point.<br><br>ALT 11000FT<br>3000 FT<br>Class of airspace: C | Hat Yai APP | Hat Yai Approach<br>(English, Thai)<br><br>H24 | 126.7 MHz<br>301.5 MHz<br>121.5 MHz/EMERG<br>243.0 MHz/EMERG<br><br>133.2 MHz | Except the airspace overlapped VTD50<br><br>ALT 8000 FT<br>3000 FT<br><br>Backup frequency |
| **HUA HIN CONTROLLED AIRSPACES** | | | | |
| **A. HUA HIN CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centre on HHN DVOR/DME (123803.9N 0995704.2E)<br><br>up to but not including 2000FT<br>GND<br>Class of airspace: D<br>**B. HUA HIN TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary: beginning at a point<br>124200N 1001200E<br>from this point make an arc of 15 NM from HHN DVOR/DME (123803.9N 0995704.2E) clockwise to<br>122444N 1000408E - 121431N 1000515E -<br>then clockwise along 25 NM from HHN DVOR/ DME to<br>121316N 0995533E - 122339N 0995332E -<br>then clockwise along arc 15 NM from HHN DVOR/ DME to<br>124300N 0994310E -<br>then make a straight line north ward<br>125600N 0994100E -<br>then make an arc of 25 NM from HHN DVOR/DME clockwise to<br>125000N 1001830E -<br>then southward to the starting point.<br>Excluding VTR3 and VTR8 and G458.<br><br>ALT 11000FT<br>2000FT<br>Class of airspace: D | Hua Hin APP | Hua Hin Approach<br>(English, Thai)<br><br>As AD OPR HR | 126.2 MHz<br>121.5 MHz/EMERG | RMK / Aircraft inadvertent penetrate R3 (Royal Palace) located at HHN 178R/ 2.7 NM have become a matter of serious concerned to alleviate the situation. All pilot are urged to anticipate his/her flight path and follow ATC instruction to avoid this area.<br><br>VTPHZTZX<br>Tel: +668 1572 4878 |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
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| **KAMPHAENG SAEN CONTROL ZONE**<br>The airspace within a circle of 25 NM radius centred on KPS TACAN (channel 98, 140522N0995456E)<br><br>ALT 6000 FT<br>GND<br>Class of airspace: C | Kamphaeng Saen APP | Kamphaeng Saen Approach<br>(English, Thai)<br><br>H24 | 134.1 MHZ<br>308.6 MHZ | Excluding Bangkok Control Zone |
| **KHON KAEN CONTROLLED AIRSPACES** | | | | |
| **A. KHON KAEN CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on KKN DVOR/DME (162815.3N1024716.8E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. KHON KAEN TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundaries:<br>Starting from a point<br>165549.06N 1025943.25E<br>then clockwise along 30 NM arc radius centred on KKN DVOR/DME (162815.3N1024716.8E) to<br>162237.63N 1031752.28E -<br>162204.42N 1031924.64E -<br>then counter clockwise along 30 NM arc radius centred on ROT DVOR/DME (160700.6N1034619.5E) to<br>161241.05N 1031547.42E -<br>161314.24N 1031415.12E -<br>then clockwise along 30 NM arc radius centred on KKN DVOR/DME to<br>165529.09N 1023401.97E -<br>then counter clockwise along 30 NM arc radius centred on UDN DVOR/DME (172305.2N1024629.8E) to the starting point<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Khon Kaen Sector) | Khon Kaen Approach<br>(English, Thai)<br><br>As AD OPR HR | 123.4 MHZ<br>240.0 MHZ<br>121.5 MHZ/EMERG | VTBBZAZX<br>Tel: +662 285 9611<br>Fax: +662 285 9610 |
| **KHORAT CONTROL ZONE**<br>The airspace enclosed by the following boundaries beginning at a point<br>150735.7N 1022135.3E -<br>151135.7N 1023647.2E -<br>and clockwise along a 35 NM arc radius centred on KRT TACAN (145606.0N1020421.8E) to<br>145305.8N 1023947.2E -<br>145105.8N 1022447.3E -<br>and clockwise along 20 NM arc radius centred on KRT TACAN to<br>143605.8N 1020147.5E -<br>143005.8N 1014047.6E -<br>and clockwise along a 35 NM arc radius centred on KRT TACAN to<br>144705.8N 1012947.7E -<br>145353.7N 1014347.6E -<br>and clockwise along a 20 NM arc radius centred on KRT TACAN to the starting point.<br><br>ALT 11000 FT<br>GND<br>Class of airspace: C | Khorat APP | Khorat Approach<br>(English, Thai)<br><br>H24 | 129.75 MHZ<br>349.0 MHZ | All inbound traffic to Khorat CTR shall contact Khorat APP on freq 349.0 MHz or 129.75 MHZ before entering CTR. |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **KRABI CONTROLLED AIRSPACES** | | | | |
| **A. KRABI CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on KBI DVOR/DME (080627.0N 0985839.0E)<br><br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. KRABI TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundaries:<br>Starting from a point<br>073617.95N 0991303.04E -<br>074956.18N 0984322.54E -<br>then counter clockwise along 30 NM arc radius centred on PUT DVOR/DME<br>(080650.3N 0981825.2E) to<br>082115.49N 0984500.06E -<br>then clockwise along 20 NM arc radius centred on KBI DVOR/DME (080627.0N 0985839.0E) to<br>082623.61N 0985605.57E -<br>083636.11N 0985805.68E -<br>then clockwise along 30 NM arc radius centred on KBI DVOR/DME to<br>083509.81N 0990754.38E -<br>082507.75N 0990607.06E -<br>then clockwise along 20 NM arc radius centred on KBI DVOR/DME to<br>075717.53N 0991636.23E -<br>075117.86N 0992322.29E -<br>then counter clockwise along 25 NM arc radius centred on TRN DVOR/DME<br>(073032.1N 0993733.7E) to the starting point<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Phuket APP (Phuket Sector) | Krabi Approach* (English, Thai)<br><br>As AD OPR HR | 120.05 MHz**<br>121.5 MHz/EMERG | *Approach control unit shall accordingly maintain close co-ordination with the appropriate military unit for activities that may affect controlled flight within the joint-use airspace<br><br>**RCAG<br>If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency. |
| **LAMPANG CONTROLLED AIRSPACES** | | | | |
| **A.LAMPANG CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centre on LPN DVOR/DME (181635.9N 0993008.4E)<br><br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. LAMPANG TERMINAL CONTOL AREA**<br>The airspace enclosed by a circle of 25 NM radius centred on LPN DVOR/DME<br>(181635.9N0993008.4E) excluding CHIANG MAI Terminal Control Area and ATS route A464<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Chiang Mai APP (Chiang Mai Sector) | Lampang Approach (English, Thai)<br><br>As AD OPR HR | 119.3 MHz*<br>121.5 MHz/EMERG | *RCAG<br>If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency. |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **LOEI CONTROLLED AIRSPACES** | | | | |
| **A. LOEI CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on LOY DVOR/DME (172649.4N1014323.2E)<br><br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. LOEI TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundaries:<br>Starting from a point<br>172903.41N 1012236.19E -<br>and then clockwise along 20 NM arc radius centred on LOY DVOR/DME (172649.4N1014323.2E) to<br>173039.85N 1020354.41E -<br>172957.00N 1021559.60E -<br>then counter clockwise along 30 NM arc radius centred on UDN DVOR/DME<br>(172305.2N1024629.8E) to<br>171956.38N 1021520.80E -<br>172039.09N 1020316.26E -<br>then clockwise along 20 NM arc radius centred on LOY DVOR/DME to<br>171341.88N 1012734.57E -<br>170942.48N 1011736.03E -<br>then clockwise along 30 NM arc radius centred on LOY DVOR/DME to<br>172734.43N 1011201.63E -<br>then direct to the starting point<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Khon Kaen Sector) | Loei Approach<br>(English Thai)<br><br>As AD OPR HR | 122.55 MHZ<br>121.5 MHZ/EMERG | VTBBZAZX<br>Tel: +662 285 9611<br>Fax: +662 285 9610 |
| **MAE HONG SON CONTROLLED AIRSPACES** | | | | |
| **A. MAE HONG SON CONTROL ZONE**<br>The airspace within a circle of 10 NM radius on MHS DVOR/DME (191911.1N 0975443.6E)<br><br>Excluding the Myanmar territory.<br><br>up to but not including 2000 FT<br>GND<br>Class of airspace: D<br>**B. MAE HONG SON TERMINAL CONTROL AREA**<br>The airspace enclosed by a circle of 30 NM radius centred on MHS DVOR/DME<br>(191911.1N 0975443.6E)<br><br>Excluding the Myanmar territory.<br>ALT 11000 FT<br>2000 FT<br>Class of airspace: D | Chiang Mai APP (Chiang Mai Sector) | Mae Hong Son Approach<br>(English, Thai)<br><br>As AD OPR HR | 126.2 MHZ*<br>121.5 MHZ/EMERG | *RCAG<br>If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency |
| **MAE SOT CONTROLLED AIRSPACES** | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **A. MAE SOT CONTROL ZONE**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>165147.0N 0983218.9E<br>and then clockwise along 10 NM arc radius centred on MST DVOR/DME (164152.1N 0983229.7E) to<br>163205.1N 0983612.9E<br>and then along BKK FIR to the starting point.<br><br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. MAE SOT TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>170104.9N 098249.0E<br>and then clockwise along 20 NM arc radius centred on MST DVOR/DME (164152.1N 0983229.7E) to<br>170134.9N 0983118.9E -<br>171152.9N 0983300.9E<br>and then clockwise along 30 NM arc radius centred on MST DVOR/DME to<br>170958.9N 0984348.8E -<br>170005.0N 0984148.80E<br>and then clockwise along 20 NM arc radius centred on MST DVOR/DME to<br>165205.0N 0985048.8E -<br>165305.0N 0985348.8E<br>and then counter clockwise along 20 NM arc radius centred on TK NDB (165358.2N 0991508.0E) to<br>064305.1N 0985648.7E -<br>164235.1N 0985348.8E<br>and then clockwise along 20 NM arc radius centred on MST DVOR/DME to<br>162235.1N 0983918.9E<br>and then along BKK FIR to the starting point.<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Chiang Mai APP (Chiang Mai Sector) | Mae Sot Approach*<br>(English, Thai)<br><br>As AD OPR HR | 120.65 MHZ**<br>121.5 MHZ/EMERG | *Approach control unit shall accordingly maintain close co-ordination with the appropriate military unit for activities that may affect controlled flight within the joint-use airspace.<br><br>**RCAG<br>If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency |
| **NARATHIWAT CONTROLLED AIRSPACES** | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **A. NARATHIWAT CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on NTW DVOR/DME (063138.2N 1014442.5E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. NARATHIWAT TERMINAL CONTROL AREA**<br>1. A circle of 25 NM radius centred on NTW DVOR/DME (063138.2N 1014442.5E)<br><br>ALT 11000 FT<br>2000 FT<br>2. The airspace enclosed by the following boundaries: Starting from a point located at<br>061836.84N 1012314.09E -<br>061402.73N 1010630.29E<br>then along Bangkok FIR/Kuala Lumpur FIR boundary to<br>055441.43N 1013651.39E -<br>060745.40N 1013655.15E<br>and then clockwise along 25 NM radius centred on NTW DVOR/DME to the starting point.<br><br>ALT 11000 FT<br>4000 FT<br>Class of airspace: C | Hat Yai APP<br>(Hat Yai Sector) | Narathiwat Approach<br>(English, Thai)<br><br>As AD OPR HR | 125.55 MHz*<br>121.5 MHz/EMERG | *RCAG<br>If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency |
| **NAN CONTROLLED AIRSPACES** | | | | |
| **A. NAN CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on NAN DVOR/DME (184832.8N1004657.4E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. NAN TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary : Starting from a point<br>185713.85N 1011714.96E -<br>182342.02N 1010448.43E<br>then clockwise along 30 NM arc radius centred on NAN DVOR/DME (184832.8N1004657.4E) to<br>182234.95N 1003056.94E -<br>181854.45N 1002738.69E<br>from this point then counter clockwise along 20 NM arc radius centred on PAE DVOR/DME (180802.9N1000958.5E) to<br>182552.98N 1001937.46E -<br>182915.55N 1002241.38E<br>from this point clockwise along 30 NM arc radius centred on NAN DVOR/DME to the starting point. Excluding the Laos territory.<br><br>ALT11000 FT<br>2000 FT<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control<br>(Chiang Rai Sector) | Nan Approach<br>(English, Thai)<br><br>As AD OPR HR | 120.25 MHz<br>121.5 MHz/EMERG | VTBBZAZX<br>Tel: +662 285 9614<br>Fax: +662 285 9610 |
| **NAKHON PHANOM CONTROLLED AIRSPACES** | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **A. NAKHON PHANOM CONTROL ZONE**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>173305.2N 1043846.1E -<br>171905.3N 1044728E<br>and then clockwise along 10 NM arc radius centred on NKP DVOR/DME (172317.9N1043818.1E) to the starting point<br>Excluding the Laos territory.<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Khon Kaen Sector) | Sakon Nakhon Approach*<br>(English, Thai)<br><br>As AD OPR HR | 123.35 MHz<br>284.0 MHz<br>121.5 MHz/EMERG | VTBBZAZX<br>Tel: +662 285 9611<br>Fax: +662 285 9610 |
| **NAKHON SI THAMMARAT CONTROLLED AIR-SPACES** | | | | |
| **A.NAKHON SI THAMMARAT CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on NKS DVOR/DME<br>(083230.0N 0995648.7E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B.NAKHON SI THAMMARAT TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>085315.48N 0993440.19E -<br>084641.65N 0994230.63E -<br>then clockwise along 20 NM arc radius centred on NKS DVOR/DME (083230.0N 0995648.7E) to<br>084227.08N 1001421.39E -<br>084227.57N 1002524.11E -<br>then clockwise along 30 NM arc radius centred on NKS DVOR/DME to<br>080526.44N 0994327.40E -<br>081513.69N 0994629.07E -<br>then clockwise along 20NM arc radius centred on NKS DVOR/DME to<br>083729.54N 0993714.95E -<br>084538.48N 0992840.93E -<br>then counter clockwise along 30 NM arc radius centred on STN DVOR/DME<br>(090746.2N 0990805.1E) to the starting point.<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Samui Sector) | Nakhon Si Thammarat Approach<br>(English, Thai)<br><br>As AD OPR HR | 119.75 MHz<br>121.5 MHz/EMERG | VTBBZAZX<br>Tel: +662 285 9613<br>Fax: +662 285 9610 |
| **PATTANI CONTROLLED AIRSPACES** | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **A. PATTANI CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on 064718.45N1010852.51E<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. PATTANI TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>070819.7N 1005000.3E -<br>065431.8N 1013524.0E -<br>062807.9N 1011936.1E -<br>064019.9N 1004018.4E -<br>then direct to a starting point<br><br>ALT 11000 FT<br>2000 FT<br>Excluding Hat Yai TMA, Narathiwat TMA<br>Class of airspace: C | Hat Yai APP<br>(Hat Yai Sector) | Pattani Approach*<br>(English, Thai)<br><br>2300–1100* | 126.0 MHz** | *Approach control unit shall accordingly maintain close co-ordination with the appropriate military unit for activities that may affect controlled flight within<br>the joint-use airspace<br><br>TWR hours of services:<br>3 HR PN in advance to Hat Yai Approach Control Centre via AFTN VTSSZAZX<br><br>VTSSZTZX<br>Fax: +667 425 1070<br><br>VTSSZTZX<br>Tel: +667 425 1074<br><br>VTSKZTZX<br>Tel: +661 988 3274<br><br>**RCAG<br><br>If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency |
| **PHETCHABUN CONTROLLED AIRSPACES** | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **A. PHETCHABUN CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on PCB DVOR/DME (164033.6N1011147.9E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. PHETCHABUN TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>170242.63N 1004957.84E -<br>then clockwise along 30 NM arc radius from PCB DVOR/DME (164033.6N1011147.9E) to<br>170819.51N 1005837.17E -<br>165959.98N 1010427.29E -<br>from this point clockwise along 20 NM arc radius centred on PCB DVOR/DME to<br>170001.30N 1011857.39E -<br>170823.73N 1012443.06E -<br>then clockwise along 20 NM arc radius centred on PCB DVOR/DME to<br>170255.62N 1013328.43E -<br>165433.23N 1012742.93E -<br>then clockwise along 20 NM arc radius centred on PCB DVOR/DMEto<br>161957.83N 1010934.85E -<br>161031.71N 1010601.45E -<br>then clockwise along 30 NM arc radius centred on PCB DVOR/DMEto<br>161357.78N 1005615.51E -<br>162323.90N 1005948.97E -<br>then clockwise along 20 NM arc radius from PCB DVOR/DME to<br>163745.48N 1005031.20E - 163801.69N 1004759.02E<br>and counter clockwise along 30 NM arc radius centred on PSL DVOR/DME (164613.3N1001729.0E) to<br>164800.50N 1004907.60E -<br>164744.29N 1005139.91E -<br>then clockwise along 20 NM arc radius centred on PCB DVOR/DME to<br>165423.10N 1005547.78E -<br>then direct to the starting point.<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Chiang Rai Sector) | Phetchabun Approach<br>(English, Thai)<br><br>As AD OPR HR | 126.7 MHZ | VTBBZAZX<br>Tel: +662 285 9614<br>Fax: +662 285 9610 |
| **PHITSANULOK CONTROLLED AIRSPACES** | | | | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **A. PHITSANULOK CONTROL ZONE**<br>The airspace within a circle of 15 NM radius centred on PSL DVOR/DME (164613.3N 1001729.0E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. PHITSANULOK TERMINAL CONTROL AREA**<br>The airspace enclosed by a circle of 30 NM radius centred on PSL DVOR/DME (164613.3N 1001729.0E)<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Phitsanulok APP | Phitsanulok Approach<br>(English, Thai)<br><br>As AD OPR HR | 120.7 MHz/284.0MHz<br>121.5 MHz/EMERG<br>243.0 MHz/EMERG | |
| **PHRAE CONTROLLED AIRSPACES**<br>**A. PHRAE CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on PAE DVOR/DME (180802.9N1000958.5E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. PHRAE TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>182634.6N 1000218.1E -<br>183634.6N 0993948.1E -<br>then clockwise along 30 NM arc radius centred on PAE DVOR/DME (180802.9N1000958.5E) to<br>183804.4N 1001048.0E -<br>182804.6N 1001212.0E -<br>then clockwise along 20 NM arc radius centred on PAE DVOR/DME to<br>175704.8N 1002748.0E -<br>174934.8N 1003447.9E -<br>then clockwise along 30 NM arc radius centred on PAE DVOR/DME to<br>173804.9N 1000718.1E -<br>174822.8N 1000642.1E -<br>and then clockwise along 20 NM arc radius the centred on PAE DVOR/DME to the starting point<br><br>ALT 11000 FT<br>2000 FT<br>Excluding LAMPANG TMA<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Chiang Rai Sector) | Phrae Approach<br>(English, Thai)<br><br>As AD OPR HR | 120.1 MHz<br>121.5 MHz/EMERG | VTBBZAZX<br>Tel: +662 285 9614<br>Fax: +662 285 9610 |
| **PHUKET CONTROLLED AIRSPACES**<br>**A. PHUKET CONTROL ZONE**<br>A circle of 10 NM centres on PUT DVOR/DME (080650.3N 0981825.2E)<br><br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. PHUKET TERMINAL CONTROL AREA**<br>The airspace within a circle of 30 NM radius centres on PUT DVOR/DME (080650.3N 0981825.2E)<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Phuket APP | Phuket Approach<br>(English, Thai)<br><br>H24 | 124.7 MHz<br>284.0 MHz<br>120.7 MHz/ARR<br>121.5 MHz/EMERG<br>243.0 MHz/EMERG | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **RANONG CONTROLLED AIRSPACES**<br>**A. RANONG CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on RAN DVOR/DME (094640.7N 0983501.4E)<br><br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. RANONG TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundaries:<br>Starting from a point<br>093117.14N 0985500.96E -<br>092955.95N 0985609.83E -<br>then counter clockwise along 25 NM arc radius centred on STN DVOR/DME (090746.24N0990805.09E) to<br>092313.08N 0984808.19E -<br>092434.24N 0984659.31E -<br>then clockwise along 25 NM arc radius centred on RAN DVOR/DME (094640.7N 0983501.4E) to the starting point. Excluding the portion of area produced in Yangon FIR.<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Phuket APP (Phuket Sector) | Ranong Approach (English, Thai)<br><br>As AD OPR HR* | 125.1 MHz**<br>121.5 MHz/EMERG | *Approach control unit shall accordingly maintain close coordination with the appropriate military unit for activities that may affect controlled flight within the joint-use airspace.<br><br>**RCAG<br>If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency. |
| **ROI ET CONTROLLED AIRSPACES**<br>**A. ROIET CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on ROT DVOR/DME (160700.6N1034619.5E)<br><br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. ROI ET TERMINAL CONTROL AREA**<br>The airspace within a circle of 30 NM radius centred on ROT DVOR/DME (160700.6N1034619.5E)<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Ubon Sector) | Roi Et Approach (English, Thai)<br><br>As AD OPR HR | 125.4 MHz<br>121.5 MHz/EMERG | VTBBZAZX<br>Tel: +662 285 9612<br>Fax: +662 285 9610 |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **SAKON NAKHON CONTROLLED AIRSPACES**<br>**A. SAKON NAKHON CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on SKN DVOR/DME (171250.8N1040812.4E)<br><br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. SAKON NAKHON TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>174253.1N 1040758.4E -<br>174253.1N 1042406.2E -<br>164253.4N 1044446.1E -<br>164253.4N 1040758.4E -<br>then clockwise along 30 NM arc radius centred on SKN DVOR/DME (171250.8N1040812.4E) to the starting point.<br>Excluding the Laos territory.<br><br>ALT 11000 FT<br>2000 FT<br>Excluding Nakhon Phanom Control Zone<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Khon Kaen Sector) | Sakon Nakhon Approach<br>(English, Thai)<br><br>As AD OPR HR | 123.35 MHz / 284.0 MHz<br>121.5 MHz/EMERG | VTBBZAZX<br>Tel: +662 285 9611<br>Fax: +662 285 9610 |
| **SURAT THANI CONTROLLED AIRSPACES**<br>**A. SURAT THANI CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on STN DVOR/DME (090746.2N 0990805.1E)<br><br>up to but not including 3000 FT<br>GND<br>Class of airspace: C<br>**B. SURAT THANI TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>Starting from a point<br>093307.1N 0991101.0E -<br>093737.1N 0991230.9E -<br>then clockwise along 30 NM arc radius centred on STN DVOR/DME (090746.2N 0990805.1E) to<br>093443.1N 0992200.9E -<br>093019.1N 0992030.9E -<br>then clockwise along 25 NM arc radius centred on STN DVOR/DME to<br>085607.3N 0993036.8E -<br>085307.3N 0993418.8E -<br>then clockwise along 30 NM arc radius centred on STN DVOR/DME to<br>084031.3N 0991930.9E -<br>084467.3N 0991706.9E -<br>then clockwise along 25 NM arc radius centred on STN DVOR/DME to<br>084549.3N 0985701.1E -<br>084207.03N 0985349.1E -<br>then clockwise along 30 NM arc radius centred on STN DVOR/DME to<br>084837.3N 0984607.1E -<br>085225.2N 0984925.1E -<br>then clockwise along 25 NM arc radius centred on STN DVOR/DME to the starting point.<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Samui Sector) | Surat Thani Approach<br>(English, Thai)<br><br>As AD OPR HR | 123.35 MHz/ 240.0MHz<br>121.5 MHz/EMERG | VTBBZAZX<br>Tel: +662 285 9613<br>Fax: +662 285 9610 |

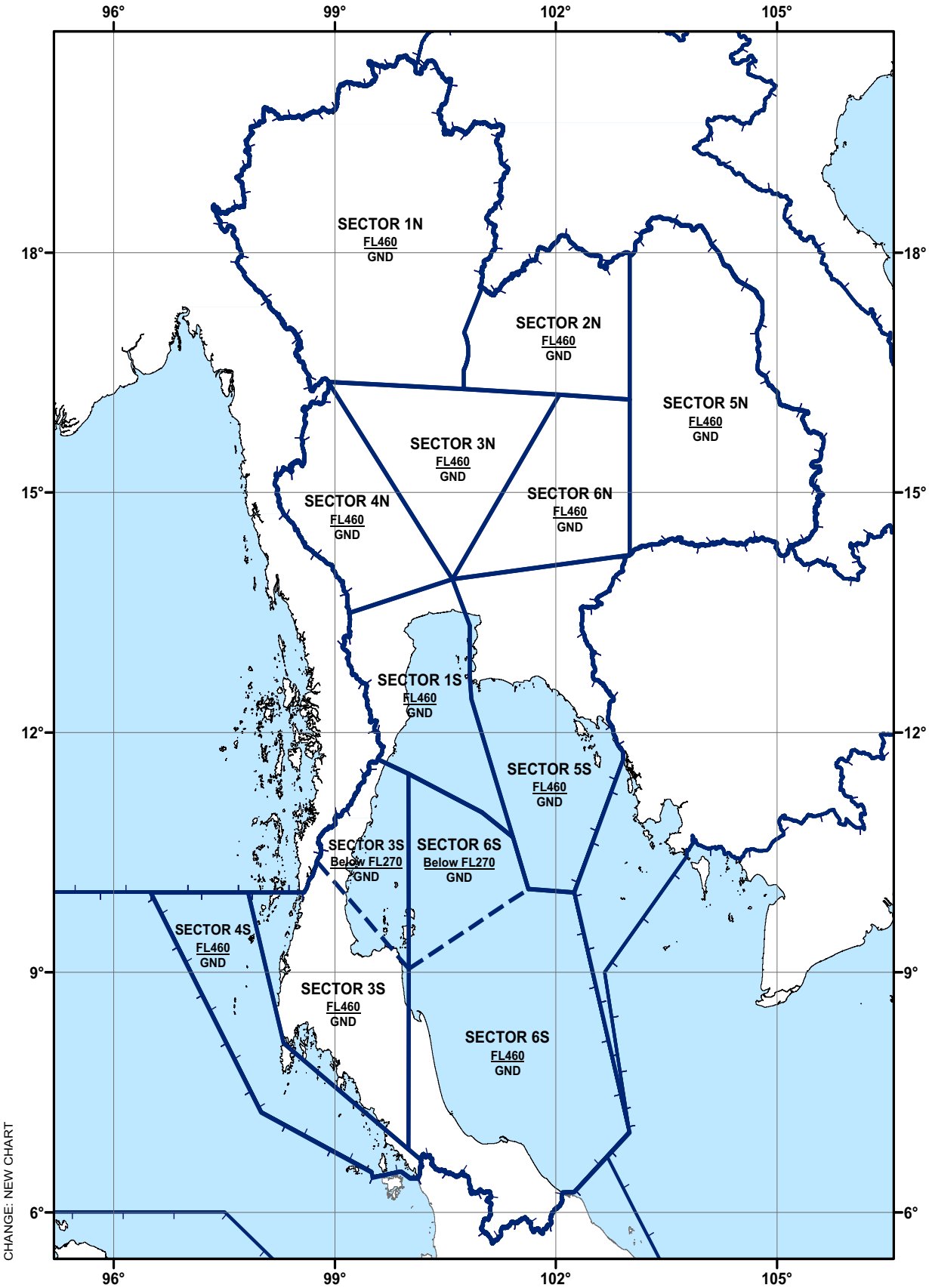
| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **SAMUI CONTROLLED AIRSPACES** | | | | VTBBZAZX<br>Tel: +662 285 9613<br>Fax +662 285 9610 |
| **A.SAMUI CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred of VTSM ARP(093256N 1000345E)<br><br>up to but not including 3000 FT AGL<br>GND<br>Class of airspace: C<br>**B. SAMUI TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundary:<br>starting from a point<br>100256.00N 1000511.00E<br>then clockwise along 30 NM arc radius on VTSM ARP (093256N 1000345E) to<br>093802N 1003338E - 093300N 1002357E<br>then clockwise along 20 NM arc radius on VTSM ARP(093256N 1000345E) to<br>091346.00N 0995834.00E -<br>090459.00N 0995306.00E -<br>clockwise along 30NM arc radius centred on VTSM ARP (093256N 1000345E) to<br>091000.00N 0994428.00E -<br>091851.00N 0994940.00E -<br>then clockwise along 20 NM arc radius centred on VTSM ARP(093256N 1000345E) to<br>095256.00N 1000302.00E -<br>then direct to starting point. Including B463<br><br>11000 FT AGL<br>2000 FT AGL<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Samui Sector) | Samui Approach<br>(English, Thai)<br><br>As AD OPR HR | 129.6 MHZ/305.4 MHZ<br>121.5 MHZ/EMERG | |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **SUKHOTHAI CONTROLLED AIRSPACES**<br>**A. SUKHOTHAI AERODROME TRAFFIC ZONE**<br>A circle of 5 NM radius centred on THS NDB (171406.8N 0994919.3E)<br><br>2000 FT AGL<br>GND<br>Class of airspace: C | Sukhothai TWR | | | |
| **B. SUKHOTHAI CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on THS NDB (171406.8N 0994919.3E)<br>Excluding Phitsanulok TMA.<br><br>up to but not including 2000 FT AGL<br>GND<br>**C. SUKHOTHAI TERMINAL CONTROL AREA**<br>The airspace enclosed by the follow boundaries beginning at<br>174029N 1000432E - 172551N 0995909E<br>then clockwise along 15 NM arc from THS NDB (171406.8N 0994919.3E) to<br>170000N 0995100E - 164454N 0995100E<br>then clockwise along 30 NM arc from THS NDB to<br>164648N 0993848E - 170130N 0994154E<br>then clockwise along 15 NM arc from THS NDB to<br>171348N 0993412E - 172442N 0992006E<br>then clockwise along 30 NM arc from THS NDB to the starting point.<br>Excluding Phitsanulok TMA.<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C<br>**D. Transition Altitude: 11 000 FT** | Phitsanulok APP | Sukhothai Approach<br>(English, Thai)<br><br>As AD OPR HR | 120.7 MHZ<br>121.5 MHZ/EMERG | |
| **TAK CONTROLLED AIRSPACES**<br>**A. TAK CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on TK NDB (165358.2N 0991508.0E)<br><br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. TAK TERMINAL CONTROL AREA**<br>The airspace enclosed by the following boundaries:<br>Starting from a point<br>165629.81N 0993550.14E -<br>165553.24N 0994046.08E -<br>164601.66N 0993836.55E -<br>164632.03N 0993430.61E -<br>then clockwise along 20 NM arc radius centred on TK NDB (165358.2N 0991508.0E) to the starting point<br>Excluding A464, G473, VTD33 and VT D 56<br><br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Phitsanulok APP | Tak Approach*<br>(English, Thai)<br><br>As AD OPR HR | 126.0 MHZ<br>121.5 MHZ/EMERG | * Approach control unit shall accordingly maintain close co-ordination with the appropriate military units for activities that may affect controlled flight within the joint-use airspace. |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **TAKHLI CONTROL ZONE**<br>The airspace enclosed by the following boundaries: beginning at<br>144511.7N 1003309.1E<br>and clockwise along a 35 NM arc radius from TKL TACAN (151629.13N1001756.62E) to<br>145805.7N 1004848.0E<br>then counter clockwise along a 12 NM arc radius from Khok Kathiam (centred on 145228.7N1003948.2E) to the starting point.<br>ALT 11000 FT<br>2000<br>Class of airspace: C | Takhli APP | Takhli Approach<br>(English, Thai)<br><br>H24 | 122.3 MHz<br>236.6 MHz<br>253.5 MHz | Conventional Approach (Secondary)<br>Excluding Alfa Control Area, VTD31 and Nakhon Sawan Aerodrome Traffic Zone. |
| **TRANG CONTROLLED AIRSPACES**<br>**A. TRANG CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on TRN DVOR/DME (073032.1N 0993733.7E)<br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. TRANG TERMINAL CONTROL AREA**<br>The airspace enclosed by a circle of 25 NM radius centred on TRN DVOR/DME (073032.1N 0993733.7E) Excluding Hat Yai TMA.<br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Hat Yai APP (Hat Yai Sector) | Trang Approach<br>(English, Thai)<br><br>As AD OPR HR | 125.3 MHz*<br>121.5 MHz/EMERG | *RCAG<br>If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency. |
| **TRAT CONTROLLED AIRSPACES**<br>**A. TRAT CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred of TRT NDB (121628.1N 1021850.1E)<br>up to but not including 2000 FT<br>GND<br>Class of airspace: C<br>**B. TRAT TERMINAL CONTROL AREA**<br>The airspace enclosed by the follow boundaries beginning at<br>123259.66N 1020609.45E<br>then clockwise along 20 NM arc radius centred on TRT NDB to<br>115552.08N 1021639.12E -<br>114625.74N 1021309.78E -<br>then clockwise along 30 NM arc radius centred on TRT NDB to<br>114951.88N 1020334.90E -<br>115918.21N 1020704.28E -<br>then clockwise along 20 NM arc radius centred on TRT NDB to<br>122511.30N 1015943.07E -<br>123130.69N 1015146.64E -<br>then clockwise along 30 NM arc radius centred on TRT NDB to<br>123919.05N 1015812.68E -<br>then direct to starting point<br>ALT 11000 FT<br>ALT 2000 FT<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Samui Sector) | Trat Approach<br>(English, Thai)<br><br>As AD OPR HR | 120.25 MHz<br>121.5 MHz/EMERG | VTBBZAZX<br>Tel: +662 285 9613<br>Fax: +662 285 9610 |

| Name<br>Lateral limits<br>Vertical limits<br>Class of airspace<br><br>1 | Unit providing service<br><br>2 | Call sign<br>Language<br>Area and conditions of use<br>Hours of service<br><br>3 | Frequency/Purpose<br><br>4 | Remarks<br><br>5 |
|---|---|---|---|---|
| **UBON CONTROLLED AIRSPACES**<br>**A. UBON CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on UBL DVOR/DME (151442.7N 1045157.2E)<br>up to but not including 3000 FT AGL<br>GND<br>Class of airspace: C<br>**B. UBON TERMINAL CONTROL AREA**<br>The airspace enclosed by a circle of 30 NM radius centred on UBL DVOR/DME (151442.7N1045157.2E)<br>FL 200<br>2000FT AGL<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Ubon Sector) | Ubon Approach (English, Thai)<br><br>As AD OPR HR | 123.5 MHZ / 257.8 MHZ<br>121.5 MHZ/EMERG | VTBBZAZX<br>Tel: +662 285 9612<br>Fax: +662 285 9610 |
| **UDON CONTROLLED AIRSPACES**<br>**A. UDON CONTROL ZONE**<br>The airspace within a circle of 10 NM radius centred on UDN DVOR/DME (172305.2N1024629.8E)<br>up to but not including 3000 FT AGL<br>GND<br>Class of airspace: C<br>**B. UDON TERMINAL CONTROL AREA**<br>The airspace enclosed by a circle of 30 NM radius centred on UDN DVOR/DME (172305.2N1024629.8E)<br>Excluding the Laos territory.<br>ALT 11000 FT<br>2000 FT<br>Class of airspace: C | Group of Provincial Approach Air Traffic Control (Khon Kaen Sector) | Udon Approach (English, Thai)<br><br>As AD OPR HR | 126.2 MHZ / 265.9 MHZ<br>119.45 MHZ<br>121.5 MHZ/EMERG | VTBBZAZX<br>Tel: +662 285 9611<br>Fax: +662 285 9610<br><br>Backup frequency |
| **U–TAPAO CONTROLLED AIRSPACES**<br>**A. U-TAPAO CONTROL ZONE**<br>The airspace within a circle of 5 NM radius centred on U-Tapao aerodrome (124046.6N1010017.7E)<br>up to but not including 2000 FT AGL<br>GND<br>Class of airspace: C<br>**B. U-TAPAO TERMINAL CONTROL AREA**<br>The airspace enclosed by a circle of 50 NM radius centred on U-Tapao aerodrome (124046.6N1010017.7E)<br>1. From 5 NM to 15 NM radius measured from the centre of the aerodrome, 700 FT above ground level to unlimited.<br>2. From 15 NM to 50 NM radius measured from the centre of the aerodrome, 2 000 FT above ground level to unlimited with the following exception:<br>(i) U-Tapao Control Zone<br>(ii) That portion overlapped by Bangkok Alfa Control Area and Hua Hin Terminal Control Area.<br>(iii) All airspace on airways A464, R468, G463 and G458 from FL65 to FL460 | U-Tapao APP | U-Tapao Approach (English, Thai)<br><br>H24 | 119.7 MHZ/PRI<br>134.5 MHZ/SEC<br>273.3 MHZ/PRI<br>238.3 MHZ/SEC<br>121.5 MHZ/EMERG<br>243.0 MHZ/EMERG | VTBUZPZX<br>Tel: +663 824 5196 |
| **AREA OUTSIDE CONTROL AIRSPACE**<br>The area outside control airspace (outside airways TMA and CTR), but within Bangkok FIR.<br>Class of airspace: G | Bangkok ACC | Bangkok Control (English, Thai)<br><br>H24 | | See frequency in use at appropriate sectors |

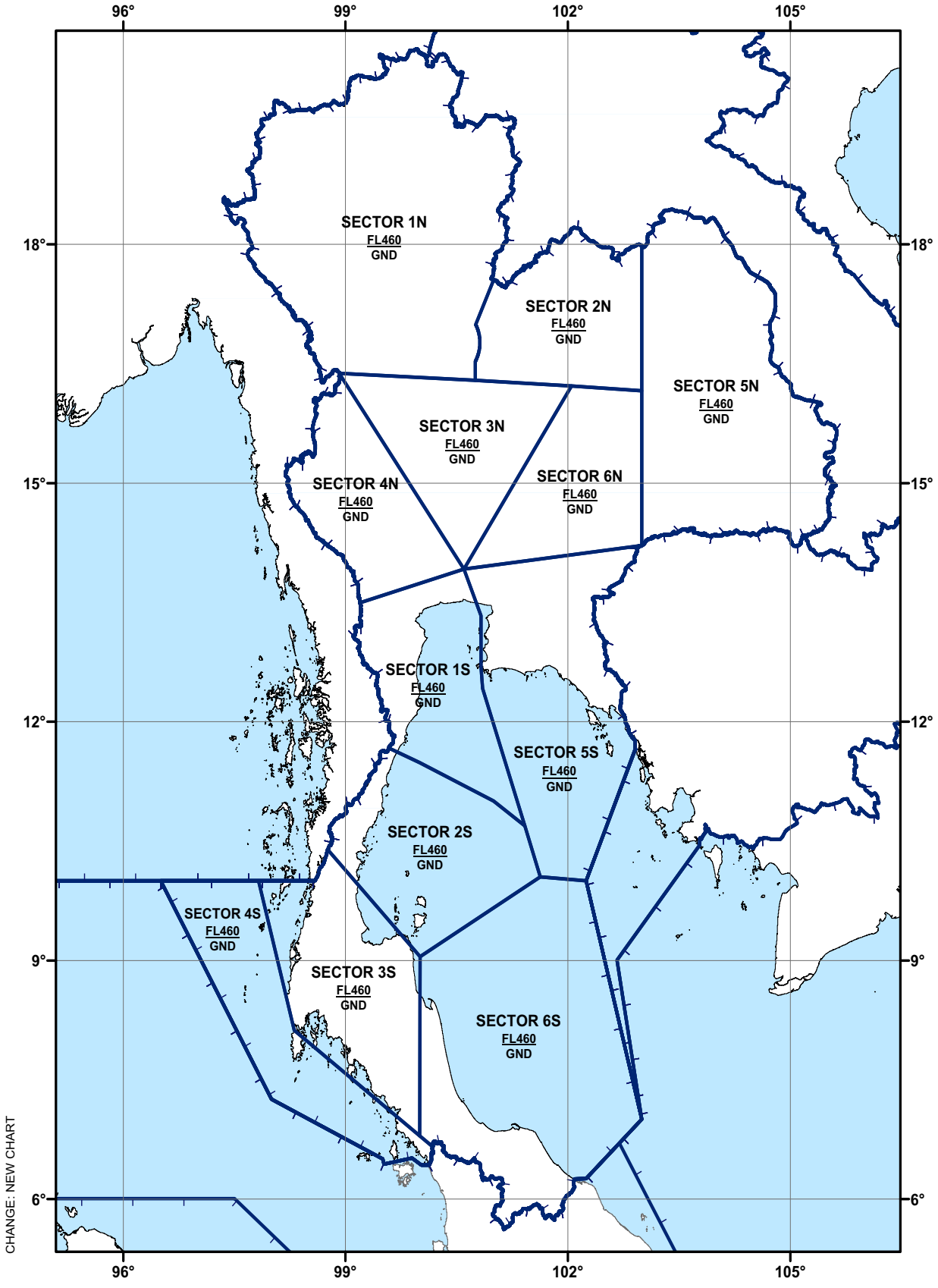
# AREAS OF RESPONSIBILITY AND SECTORIZATION OF BANGKOK AREA CONTROL CENTRE (Below FL270)




CHANGE: NEW CHART

February 2020

# AREAS OF RESPONSIBILITY AND SECTORIZATION OF BANGKOK AREA CONTROL CENTRE (FL 270 - FL 460)




CHANGE: NEW CHART

February 2020

## ENR 2.2 OTHER REGULATED AIRSPACE

NIL

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## ENR 3. ATS ROUTES

### ENR 3.1 LOWER AND UPPER ATS ROUTES

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **A1** | | | | | |
| ▲ BANGKOK DVORDME (BKK)<br>135337N 1003546E | 071° / 251°<br>51.0 NM | FL 460 / 7 500 FT<br>Class A | | ↓ | |
| ▲ ROBKA<br>141043N 1012508E | 071° / 251°<br>29.0 NM | 8 000 FT | | | Uni-directional system will be applied for a portion between BKK DVOR/DME and UBL DVOR/DME as follows:<br>- ATS route A1 will apply for eastbound traffic only<br>- Westbound traffic shall filed flight plan via W1 after UBL<br>- The available for westbound traffic on A1 or direct route will be subject to prior approval from ATC |
| ▲ SELKA<br>142020N 1015311E | 071° / 251°<br>54.0 NM | | | | |
| ▲ TOPER<br>143808N 1024538E | 072° / 252°<br>41.0 NM | | | | |
| △ SANOT<br>145134N 1032548E | 075° / 255°<br>22.0 NM | | 10 | | |
| ▲ PASAT<br>145727N 1034726E | 076° / 256°<br>35.0 NM | | | | |
| ▲ VENPO<br>150645N 1042202E | 076° / 256°<br>30.0 NM | | | | |
| ▲ UBON DVORDME (UBL)<br>151443N 1045157E | 077° / 257°<br>30.0 NM | FL 460 / 9 500 FT<br>Class A | | ↓ | |
| ▲ POTEV<br>152153N 1052206E | 077° / 257°<br>14.0 NM | 10 000 FT | | ↑ | |
| ▲ BUTRA<br>152506N 1053546E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **A202** | | | | | |
| RAMEI<br>▲ 150240N 1030040E | 049°<br>229°<br>91.0 NM | FL 460<br>12 500 FT/FL 125<br>Class A | (*) | ↓ | Pilot may expect ATC instruction to avoid VT D64, VT D54, VT D44 and VT D30<br><br>(*) For width of airways, see ENR 2.1-1 |
| GUROK<br>▲ 160329N 1041106E | 049°<br>229°<br>19.0 NM | 13 000 FT/FL 125 | | | |
| OKENA<br>▲ 161608N 1042533E | 048°<br>228°<br>26.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↑ | |
| SAVANNAKHET DVOR/DME (SAV)<br>▲ 163342N 1044556E | | | | | For continuation, see AIP Lao People's Democratic Republic. |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **A334** | | | | | |
| ▲ HAT YAI DVORDME (HTY)<br>065603N 1002317E | 112°<br>292°<br>25.0 NM | FL 460<br>9 500 FT<br>Class A | 20 | ↓ | |
| ▲ TAXEB<br>064641N 1004645E | 112°<br>292°<br>83.0 NM | 10 000 FT | | ↑ | |
| ▲ PASVA<br>061529N 1020431E | | | | | For continuation, see AIP Malaysia. |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **A457** | | | | | |
| HAT YAI DVOR/DME (HTY)<br>065603N 1002317E | 178°<br>358°<br>24.0 NM | FL 460<br>9 500 FT<br>Class A<br>10 000 FT | 20 | ↓<br>↑ | |
| TAMOS<br>063208N 1002407E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **A464** | | | | | |
| ▲ CHIANG MAI DVORDME (CMA)<br>184558N 0985740E | 163°<br>343° | FL 460<br>6 500 FT | 20 | ↓ | |
| | 38.0 NM | Class A | | | |
| ▲ ENBAT<br>180941N 0991004E | 163°<br>343° | 7 000 FT | | | |
| | 42.0 NM | | | | |
| △ TOPAS<br>172916N 0992358E | 163°<br>343° | | | | |
| | 71.0 NM | | | | |
| ▲ BEKOD<br>162117N 0994636E | 163°<br>343° | | | | |
| | 91.0 NM | | | | |
| ▲ SEMBO<br>145359N 1001548E | 163°<br>343° | | | | |
| | 63.0 NM | | | | |
| ▲ BANGKOK DVORDME (BKK)<br>135337N 1003546E | 182°<br>002° | | | | |
| | 32.0 NM | | | | |
| △ POLAK<br>132106N 1003454E | 181°<br>001° | | | | |
| | 33.0 NM | | | | |
| ▲ GUTSO<br>124820N 1003454E | 181°<br>001° | | | | |
| | 48.0 NM | | | | |
| ▲ REGOS<br>120007N 1003454E | 182°<br>002° | | | | |
| | 60.0 NM | | | | |
| △ DIRAX<br>110007N 1003248E | 183°<br>003° | FL 460<br>3 500 FT | | | |
| | 40.0 NM | Class A | | | |
| ▲ TUSPU<br>101948N 1003108E | 183°<br>003° | 4 000 FT | | | |
| | 37.0 NM | | | | |
| ▲ UPNEP<br>094213N 1002936E | 182°<br>002° | | | | |
| | 40.0 NM | | | | |
| ▲ APOBI<br>090147N 1002814E | 182°<br>002° | | | | |
| | 12.0 NM | | | | |
| ▲ GUPMO<br>085012N 1002750E | 182°<br>002° | | | | |
| | 46.0 NM | | | | |
| ▲ RELIP<br>080432N 1002619E | 183°<br>003° | | | ↑ | |
| | 33.0 NM | | | | |
| ▲ PIMER | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP) | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude | Lateral limits NM | Direction of cruising levels<br>Odd \| Even | Remarks<br>Controlling unit<br>Frequency |
|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** |
| 073045N 1002449E | 183°<br>003°<br>35.0 NM | FL 460<br>3 500 FT<br>Class A<br>4 000 FT | 20 | ↓ | |
| ▲ HAT YAI DVORDME (HTY)<br>065603N 1002317E | 163°<br>343°<br>27.0 NM | FL 460<br>8 500 FT<br>Class A<br>9 000 FT | | | |
| ▲ KARMI<br>062940N 1003121E | | | | ↑ | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **A581** | | | | | For continuation, see AIP Republic of the Union of Myanmar. |
| ▲ BOMAS<br>172305N 0980549E | 082°<br>262°<br>35.0 NM | FL 460<br>10 500 FT<br>Class A | 10 | ↓ | |
| ▲ BIGVO<br>172830N 0984154E | 012°<br>192°<br>41.0 NM | FL 110 | | | |
| ▲ PUMAM<br>180831N 0985001E | 012°<br>192°<br>38.0 NM | | | | |
| ▲ CHIANG MAI DVORDME (CMA)<br>184558N 0985740E | 038°<br>218°<br>25.0 NM | FL 350<br>7 500 FT<br>Class A | | | |
| ▲ ADLUS<br>190610N 0991320E | 038°<br>218°<br>33.0 NM | 8 000 FT | | | |
| ▲ NUMDO<br>193243N 0993402E | 038°<br>218°<br>30.0 NM | | | | |
| ▲ CHIANG RAI DVORDME (CTR)<br>195656N 0995259E | 053°<br>233°<br>36.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↑ | |
| ▲ PONUK<br>201858N 1002306E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **B202** | | | | | |
| ▲ UBON DVOR/DME (UBL)<br>151443N 1045157E | 094°<br>274°<br>51.0 NM | FL 460<br>FL 260<br>Class A<br>FL 270 | (*) | ↓<br>↑ | (*) For width of airways, see ENR 2.1-1. |
| ▲ PAKSE VOR/DME (PAK)<br>151148N 1054417E | | | | | For continuation, see AIP Lao People's Democratic Republic. |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits<br>NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **B204** | | | | | |
| ▲ GOMES<br>132406N 1013506E | 090°<br>270°<br>45.0 NM | FL 460<br>FL 135<br>Class A<br>FL 140 | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ AGEDO<br>132419N 1022139E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **B205** | | | | | |
| ▲ RAYONG DVOR/DME (RYN)<br>124643N 1014035E | 078°<br>258°<br>33.0 NM | FL 460<br>FL 155<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ OLDIR<br>125401N 1021325E | 078°<br>258°<br>16.0 NM | FL 160 | | ↑ | |
| ▲ BOKAK<br>125736N 1022947E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **B218** | | | | | |
| ▲ VIENTIANE DVOR/DME (VTN)<br>180037N 1023226E | 236°<br>056°<br>38.0 NM | FL 460<br>3 500 FT<br>Class A | 20 | ↓ | |
| ▲ NOGAD<br>173834N 1020021E | 236°<br>056°<br>20.0 NM | 4 000 FT | | ↑ | |
| ▲ LOEI DVOR/DME (LOY)<br>172649N 1014323E | 164°<br>344°<br>20.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | |
| ▲ BOVGO<br>170740N 1014935E | 164°<br>344°<br>31.0 NM | 7 000 FT | | ↑ | |
| ▲ CHUM PHAE DVOR/DME (CMP)<br>163807N 1015920E | | | | | For continuation, see AIP Lao People's Democratic Republic. |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **B346** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 004° / 184°<br>83.0 NM | FL 460 / 10 000 FT<br>Class A | 20 | ↓ | Conditional Route (CDR) availability:<br>Portion between NOBER-PCB<br><br>CDR1<br>1. Weekdays, Monday to Friday 1700 - 2200 UTC<br>2. From Friday 1700 UTC to Sunday 2200 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| ▲ NOBER<br>151636N 1004006E | 021° / 201°<br>89.0 NM | 11 000 FT/FL 110 | | | |
| ▲ PHETCHABUN DVOR/DME (PCB)<br>164034N 1011148E | 017° / 197°<br>28.0 NM | | | | |
| ▲ UDIKU<br>170735N 1011952E | 017° / 197°<br>10.0 NM | | | | |
| ▲ OMGIV<br>171709N 1012243E | 017° / 197°<br>28.0 NM | | | ↑ | |
| ▲ YAKUA<br>174415N 1013052E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **B460** | | | | | |
| ▲ KHORAT DVOR/DME (KRT)<br>145502N 1020823E | 054°<br>234°<br>89.0 NM | FL 460<br>6 500 FT<br>Class A | 20 | ↓ | Conditional Route (CDR) Availability;<br>Portion between KRT-ROT |
| ▲ BODUR<br>154853N 1032127E | 054°<br>234°<br>30.0 NM | 7 000 FT | | | CDR1<br>1. Weekdays, Monday to Friday 1000-2300 UTC<br>2. From Friday 1000 UTC to Sunday 2300 UTC<br>3. Public Holidays |
| ▲ ROI-ET DVOR/DME (ROT)<br>160701N 1034620E | 066°<br>246°<br>30.0 NM | | | | CDR2<br>Other periods, Availability will be Notified by Airspace use plan (AUP) Published in www.thaicmac.aerothai.aero |
| ▲ RURAR<br>161943N 1041436E | 066°<br>246°<br>33.0 NM | | | ↑ | |
| ▲ SAVANNAKHET DVOR/DME (SAV)<br>163342N 1044556E | | | | | For continuation, see AIP Lao People's Democratic Republic. |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **B579** | | | | | |
| PHUKET DVOR/DME (PUT) | | | | | |
| ▲ 080650N 0981825E | 141° / 321°<br>30.0 NM | FL 460 / 6 500 FT<br>Class A<br>7 000 FT | 20 | ↓ | |
| REBED | | | | | |
| ▲ 074332N 0983736E | 141° / 321°<br>20.0 NM | FL 460 / 6 500 FT<br>Class A<br>7 000 FT | | | |
| NUTGU | | | | | |
| ▲ 072803N 0985020E | 141° / 321°<br>77.0 NM | FL 460 / 9 500 FT<br>Class A<br>10 000 FT | | ↑ | |
| DALAN | | | | | |
| ▲ 062808N 0993920E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **G331** | | | | | |
| PADET | | | | | |
| ▲ 100007N 0981719E | 180°<br>000°<br>53.0 NM | FL 460<br>9 500 FT<br>Class A<br>10 000 FT | 10 | ↓ | |
| DADSA | | | | | |
| ▲ 090713N 0981749E | 180°<br>000°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | | |
| SUSID | | | | | |
| ▲ 083659N 0981808E | 180°<br>000°<br>30.0 NM | | | ↑ | |
| PHUKET DVOR/DME (PUT) | | | | | |
| ▲ 080650N 0981825E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **G458** | | | | | |
| BANGKOK DVOR/DME (BKK) | | | | | |
| 135337N 1003546E | 197° / 017° | FL 460 / 7 500 FT | 10 | ↓ | |
| MOTNA | 44.0 NM | Class A | | | |
| 131110N 1002306E | 197° / 017° | 8 000 FT | | | |
| HOTEL | 12.0 NM | | | | |
| 130006N 1001948E | 198° / 018° | | | | |
| UKERA | 61.0 NM | | | | |
| 120207N 1000110E | 196° / 016° | | | | |
| MENEX | 56.0 NM | | | | |
| 110831N 0994543E | 197° / 017° | | | | |
| APRIL | 9.0 NM | | | | |
| 110007N 0994307E | 198° / 018° | | | | |
| IKERA | 92.0 NM | | | | |
| 093146N 0991532E | 198° / 018° | | | | |
| SURAT THANI DVOR/DME (STN) | 25.0 NM | | | | |
| 090746N 0990805E | 220° / 040° | FL 460 / 6 500 FT | | | |
| LAMUL | 25.0 NM | Class A | | | |
| 084818N 0985208E | 219° / 039° | 7 000 FT | | | |
| SAVSA | 23.0 NM | | | | |
| 083016N 0983729E | 220° / 040° | | | ↑ | |
| PHUKET DVOR/DME (PUT) | 30.0 NM | | | | |
| 080650N 0981825E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **G463** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 298°<br>118°<br>70.0 NM | FL 460<br>9 500 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ TARED<br>142620N 0993129E | 298°<br>118°<br>86.0 NM | 10 000 FT | | ↑ | |
| ▲ BETNO<br>150554N 0981231E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **G473** | | | | | |
| MAKAS | | | | | |
| ▲ 164947N 0982949E | 093° / 273° | FL 460 / 9 000 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| PHITSANULOK DVORDME (PSL) | 103.0 NM | Class A | | | |
| ▲ 164613N 1001729E | 096° / 276° | 10 000 FT | | | |
| CHUM PHAE DVORDME (CMP) | 98.0 NM | | | | |
| ▲ 163807N 1015920E | 118° / 298° | | | | |
| VESUD | 172.0 NM | | | | |
| ▲ 152108N 1043854E | 118° / 298° | | | | |
| OBKIB | 4.0 NM | | | | |
| ▲ 151913N 1044249E | 118° / 298° | | | | |
| SAGAL | 3.0 NM | | | | |
| ▲ 151757N 1044522E | 118° / 298° | | | ↑ | |
| UBON DVORDME (UBL) | 7.0 NM | | | | |
| ▲ 151443N 1045157E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **G474** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 092°<br>272°<br>51.0 NM | FL 460<br>10 500 FT<br>Class A<br>11 000 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ ANKOS<br>135300N 1012742E | 092°<br>272°<br>22.0 NM | FL 460<br>FL 145<br>Class A<br>FL 150 | | | |
| ▲ DOSBU<br>135240N 1015002E | 092°<br>272°<br>28.0 NM | | | | |
| ▲ ANREN<br>135212N 1021838E | 092°<br>272°<br>27.0 NM | | | ↑ | |
| ▲ OMURO<br>135143N 1024559E | | | | | For continuation, see AIP Kingdom of Cambodia. |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **R201** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 163°<br>343°<br>77.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | 20 | ↓<br>↑ | Excluding area of VTP7 |
| ▲ U-TAPAO DVOR/DME (BUT)<br>124000N 1010002E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **R202** | | | | | |
| ▲ BIGVO<br>172830N 0984154E | 066°<br>246°<br>93.0 NM | FL 460<br>12 500 FT/FL 125<br>Class A<br>FL 130 | 10 | ↓ | |
| ▲ PHRAE DVOR/DME (PAE)<br>180803N 1000958E | 042°<br>222°<br>20.0 NM | | | | |
| ▲ SUNGO<br>182312N 1002346E | 042°<br>222°<br>34.0 NM | | | ↑ | |
| ▲ NAN DVOR/DME (NAN)<br>184833N 1004657E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)*<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **R203** | | | | | |
| PHUKET DVORDME (PUT) | | | | | |
| ▲ 080650N 0981825E | 268°<br>088°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| UBNEN | | | | | |
| ▲ 080520N 0974812E | 268°<br>088°<br>15.0 NM | 7 000 FT | | ↑ | |
| SAPAM | | | | | |
| ▲ 080434N 0973300E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **R207** | | | | | |
| SISUK | | | | | |
| ▲ 194804N 0980243E | 141° / 321° | FL 460 / 8 000 FT | 20 | ↓ | |
| MACHI | 46.0 NM | Class A | | | |
| ▲ 191306N 0983346E | 141° / 321° | 9 000 FT | | | |
| LAMUN | 10.0 NM | | | | |
| ▲ 190513N 0984044E | 141° / 321° | | | | |
| CHIANG MAI DVOR/DME (CMA) | 25.0 NM | | | | |
| ▲ 184558N 0985740E | 090° / 270° | FL 460 / 9 500 FT | | | |
| MONLO | 38.0 NM | Class A | | | |
| ▲ 184702N 0993743E | 090° / 270° | 10 000 FT | | | |
| IKISU | 25.0 NM | | | | |
| △ 184739N 1000349E | 090° / 270° | | | | |
| BENDY | 9.0 NM | | | | |
| △ 184752N 1001334E | 090° / 270° | | | | |
| NAN DVOR/DME (NAN) | 32.0 NM | | | | |
| ▲ 184833N 1004657E | 117° / 297° | | | ↑ | |
| ANBOK | 27.0 NM | | | | |
| ▲ 183635N 1011248E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **R215** | | | | | |
| ▲ CHIANG RAI DVOR/DME (CTR)<br>195656N 0995259E | 144°<br>324°<br>30.0 NM | FL 460<br>9 500 FT<br>Class A | (*) | ↓ | |
| ▲ DUBEN<br>193249N 1001207E | 144°<br>324°<br>55.0 NM | 10 000 FT | | | |
| ▲ NAN DVOR/DME (NAN)<br>184833N 1004657E | 052°<br>232°<br>35.0 NM | | | ↑ | |
| ▲ TOMIP<br>191105N 1011548E | | | | | For continuation, see AIP Lao People's Democratic Republic. |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits<br>NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **R325** | | | | | |
| ▲ IKULA<br>100007N 0972114E | 154°<br>334°<br>66.0 NM | FL 460<br>9 000 FT<br>Class A<br>10 000 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ MUDMA<br>090050N 0975115E | 154°<br>334°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | | |
| ▲ UPSAB<br>083348N 0980452E | 154°<br>334°<br>30.0 NM | | | | |
| ▲ PHUKET DVOR/DME (PUT)<br>080650N 0981825E | 134°<br>314°<br>30.0 NM | | | | |
| ▲ URGAD<br>074615N 0984031E | 133°<br>313°<br>5.0 NM | | | | |
| ▲ OSVIP<br>074253N 0984409E | 134°<br>314°<br>62.0 NM | FL 460<br>9 500 FT<br>Class A<br>10 000 FT | | | |
| ▲ UTHAI<br>070008N 0992949E | 132°<br>312°<br>51.0 NM | | | ↑ | |
| ▲ DUBAX<br>062556N 1000737E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **R334** | | | | | |
| ▲ RAYONG DVOR/DME (RYN)<br>124643N 1014035E | 133°<br>313°<br>103.0 NM | FL 460<br>FL 165<br>Class A<br>FL 170 | 20 | ↓ ↑ | |
| ▲ SAKDA<br>113654N 1030000E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **R345** | | | | | |
| ROI-ET DVOR/DME (ROT) | | | | | |
| ▲ 160701N 1034620E | 180°<br>000° | FL 460<br>FL 215 | 10 | ↓ | |
| GRASO | 58.0 NM | Class A | | | |
| ▲ 150917N 1034714E | 180°<br>000° | FL 220 | | | |
| PASAT | 12.0 NM | | | | |
| ▲ 145727N 1034726E | 180°<br>000° | | | | |
| PEKBA | 9.0 NM | | | | |
| ▲ 144808N 1034733E | 180°<br>000° | | | ↑ | |
| BIDEM | 26.0 NM | | | | |
| ▲ 142154N 1034750E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **R468** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 118° / 298°<br>18.0 NM | FL 460 / 7 500 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ UGIPA<br>134524N 1005221E | 118° / 298°<br>32.0 NM | 8 000 FT | | | |
| ▲ GORSI<br>133055N 1012128E | 118° / 298°<br>15.0 NM | | | | |
| ▲ GOMES<br>132406N 1013506E | 117° / 297°<br>23.0 NM | | | | |
| ▲ BERLU<br>131350N 1015620E | 117° / 297°<br>36.0 NM | FL 460 / FL 155<br>Class A<br>FL 160 | | ↑ | |
| ▲ BOKAK<br>125736N 1022947E | | | | | For continuation, see AIP Kingdom of Cambodia. |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **R470** | | | | | For continuation, see AIP Lao People's Democratic Republic. |
| ▲ VIENTIANE DVORDME (VTN)<br>180037N 1023226E | 162° / 342°<br>15.0 NM | FL 460 / 3 500 FT<br>Class A | | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ ELNET<br>174625N 1023746E | 162° / 342°<br>25.0 NM | 4 000 FT | | | |
| ▲ UDON DVORDME (UDN)<br>172305N 1024630E | 144° / 324°<br>30.0 NM | FL 460 / 6 500 FT<br>Class A | | | |
| ▲ POVEX<br>165905N 1030530E | 144° / 324°<br>35.0 NM | 7 000 FT | | | |
| ▲ DOTUS<br>163103N 1032732E | 144° / 324°<br>30.0 NM | | (*) | | |
| ▲ ROI-ET DVORDME (ROT)<br>160701N 1034620E | 131° / 311°<br>30.0 NM | | | | |
| ▲ ENTEK<br>154755N 1041024E | 131° / 311°<br>22.0 NM | | | | |
| ▲ ENLEP<br>153353N 1042800E | 131° / 311°<br>30.0 NM | | | ↑ | |
| ▲ UBON DVORDME (UBL)<br>151443N 1045157E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **R474** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 027°<br>207°<br>57.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1.<br><br>Conditional Route (CDR) availability:<br>Portion between 7,000 FT to FL350<br><br>CDR1<br>1.Weekdays,Monday to Friday 0900-0100 UTC.<br>2. Friday 0900 UTC to Monday 0100 UTC<br>3.Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| ▲ ALBOS<br>144442N 1010142E | 027°<br>207°<br>126.0 NM | | | | |
| ▲ CHUM PHAE DVOR/DME (CMP)<br>163807N 1015920E | 022°<br>202°<br>78.0 NM | FL 460<br>3 500 FT<br>Class A<br>4 000 FT | | | |
| ▲ LEDER<br>175044N 1022825E | 022°<br>202°<br>11.0 NM | FL 460<br>3 500 FT<br>Class A<br>4 000 FT | | ↑ | |
| ▲ VIENTIANE DVOR/DME (VTN)<br>180037N 1023226E | | | | | For continuation, see AIP Lao People's Democratic Republic. |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **R575** | | | | | |
| ▲ PHUKET DVORDME (PUT)<br>080650N 0981825E | 069° / 249°<br>30.0 NM | FL 460 / 8 500 FT<br>Class A | 10 | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ ONETI<br>081757N 0984633E | 069° / 249°<br>45.0 NM | 9 000 FT | | | |
| ▲ RECNO<br>083425N 0992825E | 031° / 211°<br>38.0 NM | | | | |
| ▲ MESEM<br>090719N 0994816E | 032° / 212°<br>30.0 NM | | | | |
| ▲ SAMUI DVORDME (SMU)<br>093249N 1000342E | 071° / 251°<br>15.0 NM | FL 460 / 6 500 FT<br>Class A | | | |
| △ VININ<br>093754N 1001740E | 070° / 250°<br>13.0 NM | 7 000 FT | | | |
| ▲ UPNEP<br>094213N 1002936E | 051° / 231°<br>48.0 NM | | (*) | | |
| △ EMELA<br>101249N 1010729E | 053° / 233°<br>15.0 NM | FL 460 / FL 155<br>Class A | | | |
| ▲ ANBUX<br>102137N 1011908E | 053° / 233°<br>40.0 NM | FL 160 | | | |
| ▲ ALUMO<br>104554N 1015123E | 053° / 233°<br>29.0 NM | | | | |
| △ ANOBO<br>110323N 1021442E | 054° / 234°<br>56.0 NM | | | ↑ | |
| ▲ SAKDA<br>113654N 1030000E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **R588** | | | | | |
| ▲ PHUKET DVORDME (PUT)<br>080650N 0981825E | 092° / 272°<br>30.0 NM | FL 460 / 9 500 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ EMRIT<br>080621N 0984840E | 090° / 270°<br>10.0 NM | 10 000 FT | | | |
| ▲ KRABI DVORDME (KBI)<br>080627N 0985839E | 092° / 272°<br>87.0 NM | | | | |
| ▲ RELIP<br>080432N 1002619E | 052° / 232°<br>37.0 NM | FL 460 / FL 155<br>Class A | | | |
| ▲ IDRUK<br>082724N 1005513E | 052° / 232°<br>12.0 NM | FL 160 | | | |
| △ SUPIN<br>083435N 1010419E | 052° / 232°<br>32.0 NM | | | | |
| △ MUBAN<br>085441N 1012952E | 052° / 232°<br>6.0 NM | | | | |
| ▲ OSROG<br>085820N 1013431E | 052° / 232°<br>31.0 NM | | | | |
| △ TONIK<br>091736N 1015907E | 052° / 232°<br>28.0 NM | | | ↑ | |
| ▲ BASIT<br>093447N 1022108E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W1** | | | | | |
| ▲ BANGKOK DVORDME (BKK)<br>135337N 1003546E | 044°<br>224°<br>51.0 NM | FL 460<br>6 500 FT<br>Class A | 10 | ↓ | |
| ▲ MALKI<br>143111N 1011153E | 067°<br>247°<br>15.0 NM | 7 000 FT | | | |
| ▲ UBLOD<br>143715N 1012612E | 067°<br>247°<br>45.0 NM | FL 460<br>12 500 FT /FL125<br>Class A | | | |
| ▲ KHORAT DVORDME (KRT)<br>145502N 1020823E | 082°<br>262°<br>51.0 NM | 13 000 FT/ FL130 | | | |
| ▲ RAMEI<br>150240N 1030040E | 082°<br>262°<br>22.0 NM | FL 460<br>6 500 FT<br>Class A | | | |
| △ RAMBU<br>150554N 1032319E | 082°<br>262°<br>23.0 NM | 7 000 FT | | | |
| ▲ GRASO<br>150917N 1034714E | 086°<br>266°<br>33.0 NM | | | | |
| ▲ ASABO<br>151209N 1042102E | 086°<br>266°<br>30.0 NM | | | ↑ | |
| ▲ UBON DVORDME (UBL)<br>151443N 1045157E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits<br>NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W4** | | | | | |
| UDON DVORDME (UDN) | | | | | |
| ▲ 172305N 1024630E | 144°<br>324° | FL 460<br>6 500 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ POVEX | 30.0 NM | Class A | | | |
| 165905N 1030530E | 144°<br>324° | 7 000 FT | | | |
| ▲ DOTUS | 35.0 NM | | | | |
| 163103N 1032732E | 144°<br>324° | | | | |
| ▲ ROI-ET DVORDME (ROT) | 30.0 NM | | | | |
| 160701N 1034620E | 131°<br>311° | | | | |
| ▲ ENTEK | 30.0 NM | | | | |
| 154755N 1041024E | 131°<br>311° | | | | |
| ▲ ENLEP | 22.0 NM | | | | |
| 153353N 1042800E | 131°<br>311° | | | ↑ | |
| ▲ UBON DVORDME (UBL) | 30.0 NM | | | | |
| 151443N 1045157E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W5** | | | | | |
| ▲ UDON DVORDME (UDN)<br>172305N 1024630E | 180° / 000° | FL 460 / 6 500 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ ANPUS<br>165800N 1024651E | 25.0 NM | Class A | | | |
| ▲ ALGIT<br>165300N 1024655E | 180° / 000° | 7 000 FT | | | |
| ▲ KHON KAEN DVORDME (KKN)<br>162815N 1024717E | 5.0 NM | | | | |
| ▲ SEDNO<br>161733N 1031707E | 180° / 000° | | | | |
| ▲ ROI-ET DVORDME (ROT)<br>160701N 1034620E | 25.0 NM | | | | |
| ▲ ENTEK<br>154755N 1041024E | 112° / 292° | | | | |
| ▲ ENLEP<br>153353N 1042800E | 31.0 NM | | | | |
| ▲ UBON DVORDME (UBL)<br>151443N 1045157E | 112° / 292° | | | | |
| | 30.0 NM | | | | |
| | 131° / 311° | | | | |
| | 30.0 NM | | | | |
| | 131° / 311° | | | | |
| | 22.0 NM | | | | |
| | 131° / 311° | | | ↑ | |
| | 30.0 NM | | | | |
| | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification / Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W6** | | | | | |
| ▲ KHORAT DVOR/DME (KRT)<br>145502N 1020823E | 023° / 203°<br>70.0 NM | FL 460 / 6 500 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ EMRUT<br>160020N 1023533E | 023° / 203°<br>30.0 NM | 7 000 FT | | | |
| ▲ KHON KAEN DVOR/DME (KKN)<br>162815N 1024717E | 061° / 241°<br>24.0 NM | | | | |
| ▲ AKRET<br>164016N 1030856E | 061° / 242°<br>65.0 NM | | | | |
| ▲ SAKON NAKHON DVOR/DME (SKN)<br>171251N 1040812E | 071° / 252°<br>31.0 NM | | | ↑ | |
| ▲ NAKHON PHANOM DVOR/DME (NKP)<br>172318N 1043818E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)*<br>Name of significant points<br>Coordinates<br>**1** | Track MAG (GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W7** | | | | | |
| ▲ CHIANG MAI DVORDME (CMA)<br>184558N 0985740E | 192°<br>012°<br>38.0 NM | FL 460<br>8 000 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ PUMAM<br>180831N 0985001E | 192°<br>012°<br>41.0 NM | 9 000 FT | | | |
| ▲ BIGVO<br>172830N 0984154E | 192°<br>012°<br>25.0 NM | | | | |
| ▲ VEGRA<br>170333N 0983653E | 192°<br>012°<br>22.0 NM | | | ↑ | |
| ▲ MAE SOT DVORDME (MST)<br>164152N 0983230E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W8** | | | | | |
| ▲ TAKHLI NDB (TL)<br>151633N 1001751E | 102°<br>282°<br>109.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | (*) | ↓<br>↑ | (*) For width of airways, see ENR 2.1-1. |
| ▲ KHORAT DVOR/DME (KRT)<br>145502N 1020823E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W9** | | | | | |
| MAE HONG SON DVOR/DME (MHS) | | | | | |
| ▲ 191911N 0975444E | 120° / 300° | FL 460 / 8 500 FT | 20 | ↓ | Excluding restricted area VTR5. |
| BOKIB | 30.0 NM | Class A | | | (*) For width of airways, see ENR 2.1-1. |
| ▲ 190434N 0982225E | 120° / 300° | 9 000 FT | | | |
| VISES | 13.0 NM | | | | |
| ▲ 185811N 0983438E | 120° / 300° | | | | |
| CHIANG MAI DVOR/DME (CMA) | 25.0 NM | | | | |
| ▲ 184558N 0985740E | 148° / 328° | FL 460 / 6 500 FT | | | |
| PANTA | 38.0 NM | Class A | | | |
| ▲ 181351N 0991917E | 148° / 328° | 7 000 FT | | | |
| IGNAX | 26.0 NM | | | | |
| ▲ 175144N 0993339E | 148° / 328° | | | | |
| SARIM | 25.0 NM | | | | |
| △ 173030N 0994737E | 148° / 328° | | | | |
| PIBIK | 23.0 NM | | | | |
| ▲ 171130N 1000028E | 148° / 328° | | | | |
| PHITSANULOK DVOR/DME (PSL) | 30.0 NM | | | | |
| ▲ 164613N 1001729E | 181° / 001° | | | | |
| PEBLI | 30.0 NM | | | | |
| ▲ 161606N 1001736E | 181° / 001° | | | | |
| TAKHLI NDB (TL) | 59.0 NM | | | | |
| ▲ 151633N 1001751E | 169° / 349° | | | ↑ | |
| BANGKOK DVOR/DME (BKK) | 84.0 NM | | | | |
| ▲ 135337N 1003546E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W10** | | | | | |
| ▲ KAMPHAENG SAEN DVOR/DME (KPS)<br>140956N 0995715E | 001°<br>181°<br>40.0 NM | FL 260<br>5 500 FT<br>Class A | (*) | ↓ | For Military use only.<br>(*) For width of airways, see ENR 2.1-1. |
| ▲ VUTHI<br>145007N 0995725E | 037°<br>218°<br>33.0 NM | 6 000 FT | | ↑ | |
| ▲ TAKHLI NDB (TL)<br>151633N 1001751E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W12** | | | | | |
| CHIANG MAI DVOR/DME (CMA) | | | | | |
| ▲ 184558N 0985740E | 090° / 270° | FL 460 / 7 000 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| MONLO | 38.0 NM | Class A | | | |
| ▲ 184702N 0993743E | 090° / 270° | 8 000 FT | | | |
| IKISU | 25.0 NM | | | | |
| △ 184739N 1000349E | 090° / 270° | | | | |
| BENDY | 9.0 NM | | | | |
| △ 184752N 1001334E | 090° / 270° | | | | |
| NAN DVOR/DME (NAN) | 32.0 NM | | | ↑ | |
| ▲ 184833N 1004657E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W13** | | | | | |
| ▲ LAMPANG DVOR/DME (LPN)<br>181636N 0993008E | 104°<br>284°<br>25.0 NM | FL 460<br>6 000 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ OMDIL<br>181107N 0995546E | 104°<br>284°<br>14.0 NM | 7 000 FT | | ↑ | |
| ▲ PHRAE DVOR/DME (PAE)<br>180803N 1000958E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br><br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br><br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br><br>3 | Lateral limits<br>NM<br><br>4 | Direction of cruising levels<br><br>Odd \| Even<br><br>5 | Remarks<br>Controlling unit<br>Frequency<br><br>6 |
|---|---|---|---|---|---|
| **W14** | | | | | |
| ▲ PHUKET DVORDME (PUT)<br>080650N 0981825E | 115°<br>295°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | 10 | ↓ | |
| ▲ EPGOT<br>075416N 0984555E | 115°<br>295°<br>57.0 NM | 7 000 FT | | | |
| ▲ TRANG DVORDME (TRN)<br>073032N 0993734E | 128°<br>308°<br>22.0 NM | | | | |
| ▲ PADPA<br>071700N 0995532E | 128°<br>308°<br>35.0 NM | | | ↑ | |
| ▲ HAT YAI DVORDME (HTY)<br>065603N 1002317E | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W15** | | | | | |
| CHIANG MAI DVOR/DME (CMA) | | | | | |
| ▲ 184558N 0985740E | 120° / 300° | FL 460 / 6 500 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| | 23.0 NM | Class A | | | |
| MEMAN | | | | | |
| ▲ 183452N 0991859E | 120° / 300° | 7 000 FT | | | |
| | 15.0 NM | | | | |
| KABMU | | | | | |
| ▲ 182739N 0993247E | 120° / 300° | | | | |
| | 26.0 NM | | | | |
| OTBAD | | | | | |
| ▲ 181514N 0995622E | 120° / 300° | | | | |
| | 15.0 NM | | | | |
| PHRAE DVOR/DME (PAE) | | | | | |
| ▲ 180803N 1000958E | 138° / 318° | | | | |
| | 65.0 NM | | | | |
| PANKU | | | | | |
| △ 172035N 1005606E | 083° / 263° | | | | |
| | 16.0 NM | | | | |
| BARCE | | | | | |
| ▲ 172245N 1011219E | 083° / 264° | | | | |
| | 30.0 NM | | | | |
| LOEI DVOR/DME (LOY) | | | | | |
| ▲ 172649N 1014323E | 095° / 275° | | | | |
| | 15.0 NM | | | | |
| SWENI | | | | | |
| ▲ 172555N 1015903E | 095° / 275° | | | | |
| | 16.0 NM | | | | |
| ESGIB | | | | | |
| ▲ 172458N 1021514E | 095° / 275° | FL 460 / 7 500 FT | | | |
| | 30.0 NM | Class A | | | |
| | | 8 000 FT | | | |
| UDON DVOR/DME (UDN) | | | | | |
| ▲ 172305N 1024630E | 099° / 279° | FL 460 / 6 500 FT | | | |
| | 30.0 NM | Class A | | | |
| GULNO | | | | | |
| ▲ 171915N 1031735E | 099° / 279° | 7 000 FT | | | |
| | 49.0 NM | | | ↑ | |
| SAKON NAKHON DVOR/DME (SKN) | | | | | |
| ▲ 171251N 1040812E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits<br>NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W16** | | | | | |
| △ PANKU<br>172035N 1005606E | 126°<br>306°<br>74.0 NM | FL 460<br>6 500 FT<br>Class A | (*) | ↓ | |
| ▲ CHUM PHAE DVOR/DME (CMP)<br>163807N 1015920E | 103°<br>283°<br>27.0 NM | 7 000 FT | | | |
| ▲ ONUVI<br>163228N 1022655E | 103°<br>283°<br>20.0 NM | | | ↑ | |
| ▲ KHON KAEN DVOR/DME (KKN)<br>162815N 1024717E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates | Track MAG (GEO) VOR RDL DIST(COP) | Upper limits / Lower limits or Airspace classification Minimum flight altitude | Lateral limits NM | Direction of cruising levels Odd \| Even | Remarks Controlling unit Frequency |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **W17** | | | | | |
| RANONG DVORDME (RAN) | | | | | |
| 094641N 0983501E | 140° / 320° | FL 460 / 6 500 FT | 10 | ↓ | |
| | 26.0 NM | Class A | | | |
| TOGIM | | | | | |
| 092659N 0985148E | 141° / 321° | 7 000 FT | | | |
| | 25.0 NM | | | | |
| SURAT THANI DVORDME (STN) | | | | | |
| 090746N 0990805E | 151° / 331° | FL 460 / 7 500 FT | | | |
| | 27.0 NM | Class A | | | |
| EMVEL | | | | | |
| 084438N 0992122E | 151° / 331° | 8 000 FT | | | |
| | 90.0 NM | | | | |
| ELREM | | | | | |
| 072616N 1000607E | 151° / 331° | | | ↑ | |
| | 35.0 NM | | | | |
| HAT YAI DVORDME (HTY) | | | | | |
| 065603N 1002317E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification / Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W19** | | | | | |
| ▲ BANGKOK DVORDME (BKK)<br>135337N 1003546E | 182° / 002°<br>32.0 NM | FL 460 / 6 500 FT<br>Class A<br>7 000 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| △ POLAK<br>132106N 1003454E | 181° / 001°<br>33.0 NM | | | | |
| ▲ GUTSO<br>124820N 1003454E | 181° / 001°<br>48.0 NM | | | | |
| ▲ REGOS<br>120007N 1003454E | 183° / 003°<br>60.0 NM | | | | |
| △ DIRAX<br>110007N 1003248E | 183° / 003°<br>40.0 NM | | | | |
| ▲ TUSPU<br>101948N 1003108E | 183° / 003°<br>37.0 NM | | | | |
| ▲ UPNEP<br>094213N 1002936E | 162° / 342°<br>17.0 NM | | | | |
| ▲ ROBDA<br>092558N 1003511E | 162° / 342°<br>62.0 NM | | | | |
| ▲ IDRUK<br>082724N 1005513E | 162° / 342°<br>25.0 NM | | | | |
| △ ADNEP<br>080344N 1010318E | 156° / 336°<br>75.0 NM | | | | |
| ▲ NUBKA<br>065434N 1013426E | 156° / 336°<br>25.0 NM | | | ↑ | |
| ▲ NARATHIWAT DVORDME (NTW)<br>063138N 1014442E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W20** | | | | | |
| ▲ CHIANG MAI DVOR/DME (CMA) | | | | | |
| 184558N 0985740E | 038°<br>218°<br>25.0 NM | FL 350<br>7 500 FT<br>Class A | 10 | ↓ | |
| ▲ ADLUS | | | | | |
| 190610N 0991320E | 038°<br>218°<br>33.0 NM | 8 000 FT | | | |
| ▲ NUMDO | | | | | |
| 193243N 0993402E | 038°<br>218°<br>30.0 NM | | | ↑ | |
| ▲ CHIANG RAI DVOR/DME (CTR) | | | | | |
| 195656N 0995259E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W21** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 004°<br>184°<br>83.0 NM | FL 460<br>10 000 FT<br>Class A<br>11 000 FT | 10 | ↓ | |
| ▲ NOBER<br>151636N 1004006E | 044°<br>224°<br>111.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | | |
| ▲ CHUM PHAE DVOR/DME (CMP)<br>163807N 1015920E | 046°<br>227°<br>34.0 NM | | | | |
| ▲ SURGU<br>170158N 1022408E | 047°<br>227°<br>30.0 NM | | | ↑ | |
| ▲ UDON DVOR/DME (UDN)<br>172305N 1024630E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W22** | | | | | |
| PHITSANULOK DVOR/DME (PSL) | | | | | |
| ▲ 164613N 1001729E | 356° / 176° | FL 460 / 6 500 FT | 10 | ↓ | |
| NIROP | 30.0 NM | Class A | | | |
| ▲ 171614N 1001444E | 356° / 176° | 7 000 FT | | | |
| IDKOR | 22.0 NM | | | | |
| ▲ 173810N 1001243E | 356° / 176° | | | | |
| PHRAE DVOR/DME (PAE) | 30.0 NM | | | | |
| ▲ 180803N 1000958E | 353° / 173° | | | | |
| IKISU | 40.0 NM | | | | |
| △ 184739N 1000349E | 353° / 173° | | | | |
| BENVI | 40.0 NM | | | | |
| ▲ 192707N 0995741E | 353° / 173° | | | ↑ | |
| CHIANG RAI DVOR/DME (CTR) | 30.0 NM | | | | |
| ▲ 195656N 0995259E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W23** | | | | | |
| ▲ PHITSANULOK DVOR/DME (PSL)<br>164613N 1001729E | 334°<br>154°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ POLOB<br>171309N 1000328E | 334°<br>154°<br>37.0 NM | 7 000 FT | | | |
| △ PIVUT<br>174644N 0994553E | 334°<br>154°<br>8.0 NM | | | | |
| ▲ VENAG<br>175411N 0994158E | 334°<br>154°<br>25.0 NM | | | ↑ | |
| ▲ LAMPANG DVOR/DME (LPN)<br>181636N 0993008E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W24** | | | | | |
| ▲ SURAT THANI DVOR/DME (STN)<br>090746N 0990805E | 164°<br>344°<br>25.0 NM | FL 460<br>7 500 FT<br>Class A | 10 | ↓ | |
| ▲ IDNAR<br>084344N 0991524E | 164°<br>344°<br>17.0 NM | 8 000 FT | | | |
| ▲ BITEN<br>082659N 0992029E | 164°<br>344°<br>59.0 NM | | | ↑ | |
| ▲ TRANG DVOR/DME (TRN)<br>073032N 0993734E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W25** | | | | | |
| ▲ SUKHOTHAI NDB (THS)<br>171407N 0994919E | 021°<br>201°<br>40.0 NM | FL 460<br>6 500 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ IBUBU<br>175128N 1000336E | 021°<br>201°<br>18.0 NM | 9 000 FT | | | |
| ▲ PHRAE DVOR/DME (PAE)<br>180803N 1000958E | 042°<br>222°<br>20.0 NM | FL 460<br>8 000 FT<br>Class A | | | |
| ▲ SUNGO<br>182312N 1002346E | 042°<br>222°<br>34.0 NM | 9 000 FT | | ↑ | |
| ▲ NAN DVOR/DME (NAN)<br>184833N 1004657E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)*<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W26** | | | | | |
| ▲ MAE SOT DVOR/DME (MST)<br>164152N 0983230E | 075°<br>255°<br>21.0 NM | FL 460<br>6 500 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ KADAV<br>164754N 0985341E | 075°<br>255°<br>21.0 NM | 7 000 FT | | | |
| ▲ TAK NDB (TK)<br>165358N 0991508E | 098°<br>278°<br>31.0 NM | | | | |
| △ IGPOP<br>165002N 0994708E | 098°<br>278°<br>29.0 NM | | | | |
| ▲ PHITSANULOK DVOR/DME (PSL)<br>164613N 1001729E | 097°<br>277°<br>30.0 NM | | | | |
| ▲ GOKON<br>164301N 1004834E | 097°<br>277°<br>22.0 NM | | | | |
| ▲ PHETCHABUN DVOR/DME (PCB)<br>164034N 1011148E | 094°<br>274°<br>46.0 NM | | | ↑ | |
| ▲ CHUM PHAE DVOR/DME (CMP)<br>163807N 1015920E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W27** | | | | | |
| ▲ PHITSANULOK DVOR/DME (PSL)<br>164613N 1001729E | 065°<br>245°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ REMER<br>165935N 1004531E | 065°<br>245°<br>40.0 NM | 7 000 FT | | | |
| ▲ OMGIV<br>171709N 1012243E | 065°<br>245°<br>7.0 NM | | | | |
| ▲ RIBDO<br>172014N 1012918E | 065°<br>245°<br>15.0 NM | | | ↑ | |
| ▲ LOEI DVOR/DME (LOY)<br>172649N 1014323E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W28** | | | | | |
| ▲ SURAT THANI DVORDME (STN)<br>090746N 0990805E | 127°<br>307°<br>25.0 NM | FL 460<br>8 500 FT<br>Class A | 10 | ↓ | |
| ▲ SEGRA<br>085300N 0992831E | 127°<br>307°<br>35.0 NM | 9 000 FT | | | |
| ▲ NAKHON SI THAMMARAT DVORDME (NKS)<br>083230N 0995649E | 165°<br>345°<br>65.0 NM | FL 460<br>7 500 FT<br>Class A | | | |
| ▲ ENVON<br>072933N 1001406E | 165°<br>345°<br>35.0 NM | 8 000 FT | | ↑ | |
| ▲ HAT YAI DVORDME (HTY)<br>065603N 1002317E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W29** | | | | | |
| ▲ PHITSANULOK DVOR/DME (PSL)<br>164613N 1001729E | 010°<br>190°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | 10 | ↓ | |
| ▲ GOSTA<br>171557N 1002230E | 010°<br>190°<br>27.0 NM | 7 000 FT | | | |
| ▲ UTTAR<br>174305N 1002706E | 017°<br>197°<br>68.0 NM | | | ↑ | |
| ▲ NAN DVOR/DME (NAN)<br>184833N 1004657E | 324°<br>144°<br>55.0 NM | FL 460<br>8 500 FT<br>Class A | | ↓ | |
| ▲ DUBEN<br>193249N 1001207E | 324°<br>144°<br>30.0 NM | 9 000 FT | | ↑ | |
| ▲ CHIANG RAI DVOR/DME (CTR)<br>195656N 0995259E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W31** | | | | | |
| ▲ SUPOJ<br>101642N 1001220E | 355° / 175°<br>72.0 NM | FL 460 / 3 500 FT<br>Class A | 10 | ↓ | |
| ▲ EGUBO<br>112838N 1000450E | 354° / 174°<br>34.0 NM | 4 000 FT | | | |
| △ UKERA<br>120207N 1000110E | 354° / 174°<br>36.0 NM | | | | |
| ▲ HUA HIN DVOR/DME (HHN)<br>123804N 0995704E | 046° / 226°<br>31.0 NM | FL 150 / 3 500 FT<br>Class A<br>4 000 FT | | | |
| ▲ HOTEL<br>130006N 1001948E | 017° / 197°<br>56.0 NM | FL 150 / 7 500 FT<br>Class A<br>8 000 FT | | ↑ | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification / Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W32** | | | | | |
| ▲ REGOS<br>120007N 1003454E | 193°<br>013°<br>43.0 NM | FL 460<br>3 500 FT<br>Class A<br>4 000 FT | 10 | | Uni-directional northbound from GOKEX to REGOS<br><br>Conditional Route (CDR) availability:<br>Portion between REGOS-SMU |
| ▲ GOKEX<br>111815N 1002544E | 193°<br>013°<br>63.0 NM | | | ↑ | |
| ▲ SUPOJ<br>101642N 1001220E | 191°<br>011°<br>15.0 NM | | | ↓ | CDR1<br>1. Weekdays, Monday to Friday 1700 - 2300 UTC<br>2. From Friday 1700 UTC to Sunday 2300 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| ▲ ENRAG<br>100223N 1000931E | 192°<br>012°<br>30.0 NM | | | | |
| ▲ SAMUI DVOR/DME (SMU)<br>093249N 1000342E | 246°<br>066°<br>19.0 NM | | | | |
| ▲ DORNA<br>092459N 0994614E | 246°<br>066°<br>16.0 NM | | | | |
| △ ADLAL<br>091810N 0993106E | 246°<br>066°<br>9.0 NM | | | | |
| ▲ VEGNA<br>091427N 0992251E | 246°<br>066°<br>16.0 NM | | | | |
| ▲ SURAT THANI DVOR/DME (STN)<br>090746N 0990805E | 189°<br>009°<br>19.0 NM | FL 460<br>7 500 FT<br>Class A<br>8 000 FT | | | |
| ▲ TEDOS<br>084834N 0990507E | 189°<br>009°<br>6.0 NM | | | | |
| ▲ TAVAT<br>084257N 0990416E | 189°<br>009°<br>12.0 NM | | | | |
| ▲ NULMA<br>083118N 0990228E | 189°<br>009°<br>3.0 NM | | | | |
| ▲ LUXIR<br>082819N 0990200E | 189°<br>009°<br>7.0 NM | | | | |
| ▲ SARER<br>082127N 0990057E | 189°<br>009°<br>15.0 NM | | | ↑ | |
| ▲ KRABI DVOR/DME (KBI)<br>080627N 0985839E | 133°<br>313°<br>28.0 NM | | | ↓ | |
| ▲ TUNRA<br>074737N 0991905E | 133°<br>313°<br>25.0 NM | | | ↑ | |
| ▲ TRANG DVOR/DME (TRN)<br>073032N 0993734E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W33** | | | | | |
| PHUKET DVOR/DME (PUT) | | | | | |
| ▲ 080650N 0981825E | 069° / 249° | FL 460 / 9 500 FT | 10 | ↓ | Conditional Route (CDR) availability:<br>Portion between PUT-SMU<br><br>CDR1<br>1. Weekdays, Monday to Friday 1700 - 2300 UTC<br>2. From Friday 1700 UTC to Sunday 2300 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| ONETI | 30.0 NM | Class A | | | |
| ▲ 081757N 0984633E | 069° / 249° | 10 000 FT | | | |
| RECNO | 45.0 NM | | | | |
| ▲ 083425N 0992825E | 031° / 211° | FL 460 / 6 500 FT | | | |
| MESEM | 38.0 NM | Class A | | | |
| ▲ 090719N 0994816E | 032° / 212° | 7 000 FT | | | |
| SAMUI DVOR/DME (SMU) | 30.0 NM | | | | |
| ▲ 093249N 1000342E | 071° / 251° | | | | |
| VININ | 15.0 NM | | | | |
| △ 093754N 1001740E | 070° / 250° | | | | |
| UPNEP | 13.0 NM | | | | |
| ▲ 094213N 1002936E | 046° / 226° | | | | |
| MABKO | 8.0 NM | | | | |
| ▲ 094809N 1003543E | 046° / 226° | | | | |
| SURIX | 103.0 NM | | | | |
| ▲ 105959N 1015015E | 021° / 201° | | | | |
| TRAT NDB (TRT) | 81.0 NM | | | | |
| ▲ 121628N 1021850E | 310° / 130° | | | ↑ | |
| RAYONG DVOR/DME (RYN) | 48.0 NM | | | | |
| ▲ 124643N 1014035E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits<br>NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W34** | | | | | |
| ▲ MENEX<br>110831N 0994543E | 223°<br>043° | FL 460<br>6 500 FT | 10 | ↓ | |
| ▲ CHUM PHON DVOR/DME (CPN)<br>104240N 0992156E | 35.0 NM<br>220°<br>040° | Class A<br>7 000 FT | | | |
| ▲ RANONG DVOR/DME (RAN)<br>094641N 0983501E | 72.0 NM<br>190°<br>010° | | | | |
| ▲ IGEVI<br>083640N 0982320E | 71.0 NM<br>190°<br>010° | | | ↑ | |
| ▲ PHUKET DVOR/DME (PUT)<br>080650N 0981825E | 30.0 NM | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W35** | | | | | |
| UPNEP | | | | | |
| ▲ 094213N 1002936E | 206°<br>026° | FL 460<br>7 500 FT | 10 | ↓ | Conditional Route (CDR) availability:<br>Portion between UPNEP-NKS<br><br>CDR1<br>1. Weekdays, Monday to Friday 1700 - 2300 UTC<br>2. From Friday 1700 UTC to Sunday 2300 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| PINUN | 15.0 NM | Class A | | | |
| ▲ 092825N 1002306E | 205°<br>025° | 8 000 FT | | | |
| PAGLU | 14.0 NM | | | | |
| ▲ 091549N 1001709E | 206°<br>026° | | | | |
| NAKHON SI THAMMARAT DVOR/DME (NKS) | 48.0 NM | | | | |
| ▲ 083230N 0995649E | 198°<br>018° | | | ↑ | |
| TRANG DVOR/DME (TRN) | 65.0 NM | | | | |
| ▲ 073032N 0993734E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W36** | | | | | |
| ▲ CHIANG MAI DVOR/DME (CMA)<br>184558N 0985740E | 321°<br>141°<br>25.0 NM | FL 460<br>8 000 FT<br>Class A | 10 | ↓ | |
| ▲ LAMUN<br>190513N 0984044E | 321°<br>141°<br>10.0 NM | 9 000 FT | | | |
| ▲ MACHI<br>191306N 0983346E | 280°<br>100°<br>7.4 NM | | | | |
| ▲ DOMKA<br>191419N 0982602E | 280°<br>100°<br>30.0 NM | | | ↑ | |
| ▲ MAE HONG SON DVOR/DME (MHS)<br>191911N 0975444E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W38** | | | | | |
| ▲ RAMEI<br>150240N 1030040E | 052°<br>232°<br>19.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | (*) | ↓ | (*) For width of airways, see ENR 2.1-1. |
| ▲ BURI RAM DVOR/DME (BRM)<br>151422N 1031532E | 031°<br>211°<br>30.0 NM | | | | |
| ▲ ANKID<br>154049N 1033057E | 031°<br>211°<br>30.0 NM | | | ↑ | |
| ▲ ROI-ET DVOR/DME (ROT)<br>160701N 1034620E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits<br>NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **W39** | | | | | Conditional Route (CDR) availability: |
| ▲ NOBER<br>151636N 1004006E | 021°<br>201°<br>89.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | (*) | ↓ | CDR1<br>1. Weekdays, Monday to Friday 1700-2200 UTC.<br>2.Friday 1700 UTC to Sunday 2200 UTC<br>3. Public Holidays |
| ▲ PHETCHABUN DVORDME (PCB)<br>164034N 1011148E | 034°<br>214°<br>35.0 NM | | | | CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| ▲ DUBOL<br>171004N 1013154E | 035°<br>215°<br>20.0 NM | | | | (*) For width of airways, see ENR 2.1-1. |
| ▲ LOEI DVOR/DME (LOY)<br>172649N 1014323E | | | | ↑ | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W40** | | | | | |
| PHRAE DVOR/DME (PAE)<br>180803N 1000958E | 147°<br>327°<br>18.0 NM | FL 460<br>7 500 FT<br>Class A | 10 | ↓ | |
| AIZAK<br>175302N 1002040E | 147°<br>327°<br>87.0 NM | 8 000 FT | | ↑ | |
| PHETCHABUN DVOR/DME (PCB)<br>164034N 1011148E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST(COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W42** | | | | | |
| ▲ MENEX<br>110831N 0994543E | 044°<br>224°<br>28.0 NM | FL 460<br>FL 155<br>Class A<br>FL 160 | 20 | ↓ | |
| ▲ EGUBO<br>112838N 1000450E | 044°<br>224°<br>14.0 NM | | | | |
| ▲ UPVIL<br>113836N 1001421E | 044°<br>224°<br>18.0 NM | | | | |
| ▲ SURMA<br>115122N 1002633E | 044°<br>224°<br>12.0 NM | | | | |
| ▲ REGOS<br>120007N 1003454E | 055°<br>235°<br>5.0 NM | | | | |
| ▲ ASEKU<br>120306N 1003905E | 055°<br>235°<br>32.0 NM | FL 460<br>FL 285<br>Class A<br>FL 290 | | | |
| ▲ PIDEL<br>122143N 1010514E | 055°<br>235°<br>25.0 NM | | | | |
| ▲ ALEMI<br>123626N 1012600E | 055°<br>235°<br>18.0 NM | | | | |
| ▲ RAYONG DVOR/DME (RYN)<br>124643N 1014035E | 031°<br>211°<br>14.0 NM | FL 460<br>FL 125<br>Class A<br>FL 130 | | | |
| ▲ RUPTA<br>125839N 1014733E | 030°<br>210°<br>5.0 NM | FL 460<br>FL 155<br>Class A<br>FL 160 | | | |
| ▲ NUGPA<br>130254N 1014959E | 030°<br>210°<br>13.0 NM | | | | |
| ▲ BERLU<br>131350N 1015620E | 030°<br>210°<br>35.0 NM | FL 460<br>FL 205<br>Class A<br>FL 210 | | | |
| ▲ DULEM<br>134416N 1021400E | 030°<br>210°<br>9.0 NM | | | | |
| ▲ ANREN<br>135212N 1021838E | 030°<br>210°<br>35.0 NM | | | | |
| ▲ XIKMA<br>142236N 1023626E | 031°<br>211°<br>18.0 NM | | | | |
| ▲ TOPER<br>143808N 1024538E | 031°<br>211°<br>16.0 NM | | | | |
| ▲ PAKRI<br>145202N 1025409E | 032°<br>212°<br>12.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↑ | |
| ▲ RAMEI<br>150240N 1030040E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W43** | | | | | |
| ▲ CHUM PHAE DVOR/DME (CMP)<br>163807N 1015920E | 099°<br>279°<br>142.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | 20 | ↓<br>↑ | |
| ▲ OKENA<br>161608N 1042533E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)*<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **W44** | | | | | |
| ▲ NARATHIWAT DVOR/DME (NTW)<br>063138N 1014442E | 219°<br>039°<br>25.0 NM | FL 460<br>8 500 FT<br>Class A<br>9 000 FT | 10 | ↓ | |
| ▲ ERVES<br>061208N 1012853E | 219°<br>039°<br>32.0 NM | | | ↑ | |
| ▲ BETONG DVOR/DME (BET)<br>054708N 1010839E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W94** | | | | | |
| NAKHON SI THAMMARAT DVOR/DME (NKS) | | | | | |
| ▲ 083230N 0995649E | 061° / 241°<br>35.0 NM | FL 460 / 4 500 FT<br>Class A | 10 | ↓ ↑ | |
| GUPMO | | 5 000 FT | | | |
| ▲ 085012N 1002750E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **W99** | | | | | |
| SAMUI DVOR/DME (SMU) | | | | | |
| ▲ 093249N 1000342E | 031° / 211°<br>30.0 NM | FL 460 / 4 500 FT<br>Class A | 10 | ↓ | Uni-directional northbound route |
| OLBAG | | | | | |
| ▲ 095849N 1001852E | 030° / 210°<br>2.0 NM | 5 000 FT | | | |
| APUSA | | | | | |
| △ 100057N 1002007E | 031° / 211°<br>8.0 NM | FL 460 / 6 500 FT<br>Class A | | | |
| DONSI | | | | | |
| ▲ 100738N 1002401E | 031° / 211°<br>14.0 NM | 7 000 FT | | | |
| TUSPU | | | | | |
| ▲ 101948N 1003108E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

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## ENR 3.2 UPPER ATS ROUTES

NIL

**INTENTIONALLY BLANK**

## ENR 3.3 AREA NAVIGATION (RNAV) ROUTES

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **L301**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 276°<br>096°<br>64.0 NM | FL 460<br>7 500 FT<br>Class A | | ↓ | Route segment between DWI and BKK available for overfly BKK (Bi-directional) and departing from VTBD or VTBS (Westbound). |
| ▲ PASTO<br>140005N 0993007E | 276°<br>096°<br>31.0 NM | 8 000 FT | | ↑ | |
| ▲ TANEK<br>140306N 0985819E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **L507**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 310°<br>130°<br>52.0 NM | FL 460<br>9 500 FT<br>Class A | | ↓ | |
| ▲ IGONI<br>142633N 0995430E | 310°<br>130°<br>39.0 NM | 10 000 FT | | | |
| ▲ NUNLI<br>145127N 0992304E | 310°<br>130°<br>59.0 NM | FL 460<br>FL 145<br>Class A<br>FL 150 | | ↑ | |
| ▲ LUDVI<br>152849N 0983530E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **L515**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| IKULA | | | | | |
| 100007N 0972114E | 154°<br>334°<br>66.0 NM | FL 460<br>10 500 FT<br>Class A<br>11 000 FT/FL 110 | | ↓ | |
| MUDMA | | | | | |
| 090050N 0975115E | 154°<br>334°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | | |
| UPSAB | | | | | |
| 083348N 0980452E | 154°<br>334°<br>30.0 NM | | | ↑ | |
| PHUKET DVOR/DME (PUT) | | | | | |
| 080650N 0981825E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br><br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br><br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br><br>3 | Lateral limits<br>NM<br><br>4 | Direction of cruising levels<br>Odd \| Even<br><br>5 | Remarks<br>Controlling unit<br>Frequency<br><br>6 |
|---|---|---|---|---|---|
| **L524**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| BANGKOK DVOR/DME (BKK)<br>▲<br>135337N 1003546E | 286°<br>106°<br>66.0 NM | FL 460<br>9 500 FT<br>Class A<br>10 000 FT | | | |
| IBETO<br>▲<br>141036N 0992946E | 285°<br>105°<br>31.0 NM | | | | |
| MIGAR<br>▲<br>141823N 0985907E | 285°<br>105°<br>26.0 NM | | | ↑ | |
| NURDA<br>▲<br>142451N 0983322E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits<br>NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **L645**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| PHUKET DVORDME (PUT)<br>080650N 0981825E | 268°<br>088°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | |
| UBNEN<br>080520N 0974812E | 268°<br>088°<br>15.0 NM | 7 000 FT | | ↑ | |
| SAPAM<br>080434N 0973300E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **L759**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| PHUKET DVOR/DME (PUT) | | | | | |
| ▲ 080650N 0981825E | 318°<br>138°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | |
| SATVA | | | | | |
| ▲ 082902N 0975756E | 318°<br>138°<br>30.0 NM | 7 000 FT | | | |
| ANPAN | | | | | |
| ▲ 085116N 0973720E | 318°<br>138°<br>93.0 NM | FL 460<br>10 500 FT<br>Class A<br>11 000 FT/FL 110 | | ↑ | |
| TAVUN | | | | | |
| ▲ 100000N 0963312E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br><br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br><br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br><br>3 | Lateral limits<br>NM<br><br>4 | Direction of cruising levels<br><br>Odd \| Even<br><br>5 | Remarks<br>Controlling unit<br>Frequency<br><br>6 |
|---|---|---|---|---|---|
| **L877**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| MIGAR<br>▲ 141823N 0985907E | 256°<br>075°<br>15.0 NM | FL 460<br>9 500 FT<br>Class A<br>10 000 FT | | ↑ | Available for aircraft destination VTBD or VTBS only |
| PUMOR<br>▲ 141420N 0984348E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates | Track MAG (GEO) VOR RDL DIST (COP) | Upper limits / Lower limits Airspace Classification | Lateral limits NM | Direction of cruising levels Odd \| Even | Remarks Controlling unit Frequency |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **L880**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| BANGKOK DVOR/DME (BKK) | | | | | |
| ▲ 135337N 1003546E | 092° / 272°<br>51.0 NM | FL 460 / 10 500 FT<br>Class A | | ↓ | |
| ANKOS | | 11 000 FT | | | |
| ▲ 135300N 1012742E | 092° / 272°<br>22.0 NM | FL 460 / FL 145<br>Class A | | | |
| DOSBU | | | | | |
| ▲ 135240N 1015002E | 092° / 272°<br>28.0 NM | FL 150 | | | |
| ANREN | | | | | |
| ▲ 135212N 1021838E | 092° / 272°<br>27.0 NM | | | | |
| OMURO | | | | | |
| ▲ 135143N 1024559E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **M502**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 260°<br>080°<br>49.0 NM | FL 460<br>10 000 FT<br>Class A | | ↓ | Conditional Route (CDR) availability:<br>CDR1<br>1. Weekdays, Monday to Friday 1500 -2300 UTC<br>2. From Friday 1500 UTC to Sunday 2300 UTC<br>3. Public Holidays<br>CDR2<br>Not applicable |
| ▲ BONVO<br>134410N 0994607E | 259°<br>079°<br>36.0 NM | 11 000 FT/FL 110 | | | |
| ▲ AKATO<br>133716N 0991019E | | | | ↑ | Route segment between AKATO and BKK available for overfly BKK (Bi-directional) and departing from VTBD or VTBS (Westbound) |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **M626**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| EKAVO<br>▲ 113737N 0993025E | 153°<br>333°<br>33.0 NM | FL 460<br>9 500 FT<br>Class A | | ↓ | |
| MENEX<br>▲ 110831N 0994543E | 154°<br>334°<br>17.0 NM | 10 000 FT | | | |
| NONEL<br>▲ 105301N 0995337E | 154°<br>334°<br>58.0 NM | | | | |
| APUSA<br>△ 100057N 1002007E | 154°<br>334°<br>8.0 NM | | | | |
| SORTO<br>▲ 095353N 1002342E | 154°<br>334°<br>13.0 NM | | | | |
| UPNEP<br>▲ 094213N 1002936E | 153°<br>333°<br>12.0 NM | | | | |
| VALSI<br>▲ 093108N 1003518E | 153°<br>333°<br>63.0 NM | | | | |
| SUPIN<br>△ 083435N 1010419E | 153°<br>333°<br>61.0 NM | | | ↑ | |
| IKOGA<br>▲ 073935N 1013235E | 153°<br>333°<br>94.0 NM | | | ↑ | Uni-directional northbound, portion between KADAX-IKOGA<br>For continuation, see AIP Malaysia |
| KADAX<br>▲ 061602N 1021542E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type)* Name of significant points Coordinates | Track MAG (GEO) VOR RDL DIST (COP) | Upper limits / Lower limits Airspace Classification | Lateral limits NM | Direction of cruising levels Odd \| Even | Remarks Controlling unit Frequency |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **M633 (RNAV 2) [GNSS]** | | | | | |
| ▲ TANEK | | | | | |
| 140306N 0985819E | 100° / 281° | FL 460 / FL 255 | | | |
| | 104.0 NM | Class A | | | |
| ▲ MUBUS | | FL 260 | | | |
| 134530N 1004342E | 091° / 271° | FL 460 / 10 500 FT | | | |
| ▲ UGIPA | 8.0 NM | Class A | | | |
| 134524N 1005221E | 091° / 272° | 11 000 FT | | | |
| ▲ OLTUM | 56.0 NM | | | | |
| 134439N 1014956E | 092° / 272° | FL 460 / FL 145 | | | |
| ▲ DULEM | 23.0 NM | Class A | | | |
| 134416N 1021400E | 092° / 272° | FL 150 | | ↑ | |
| ▲ TUPGO | 25.0 NM | | | | |
| 134349N 1023918E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **M644**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ RAYONG DVORDME (RYN)<br>124643N 1014035E | 176°<br>356°<br>121.0 NM | FL 460<br>FL 285<br>Class A | | ↓ | |
| ▲ ALUMO<br>104554N 1015123E | 175°<br>355°<br>88.0 NM | FL 290 | | ↑ | |
| △ TONIK<br>091736N 1015907E | 175°<br>355°<br>76.0 NM | | | | Uni-directional northbound route portion between TONIK - ABTOK |
| △ DUGON<br>080125N 1020549E | 174°<br>354°<br>103.0 NM | | | ↑ | |
| ▲ ABTOK<br>061818N 1021744E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **M648**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| UDON DVOR/DME (UDN) | | | | | |
| 172305N 1024630E | 023°<br>203°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | | | Uni-directional southbound<br>Conditional Route (CDR) Availability:<br>CDR1<br>1. Weekdays, Monday to Friday from 1700-2200 UTC<br>2. From Friday 1700 UTC to Sunday 2200 UTC<br>3. Public holidays<br>CDR2<br>Other periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| MUGNO | | | | | |
| 175107N 1025753E | 023°<br>203°<br>8.0 NM | | | | |
| BOPNU | | | | ↑ | |
| 175826N 1030052E | | | | | BOPNU (BKK-VTN FIR BDRY) |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **M751**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| BANGKOK DVORDME (BKK)<br>▲<br>135337N 1003546E | 182°<br>002°<br>32.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | |
| POLAK<br>△<br>132106N 1003454E | 181°<br>001°<br>33.0 NM | 7 000 FT | | | |
| GUTSO<br>▲<br>124820N 1003454E | 181°<br>001°<br>48.0 NM | | | | |
| REGOS<br>▲<br>120007N 1003454E | 163°<br>343°<br>63.0 NM | | | | |
| IDAGA<br>△<br>110007N 1005348E | 164°<br>344°<br>49.0 NM | | | | |
| EMELA<br>▲<br>101249N 1010729E | 164°<br>344°<br>81.0 NM | | | ↑ | |
| MUBAN<br>△<br>085441N 1012952E | 164°<br>344°<br>54.0 NM | | | | Uni-direction northbound route portion between GOLUD - MUBAN |
| TIKAL<br>▲<br>080220N 1014448E | 163°<br>343°<br>109.0 NM | | | ↑ | |
| GOLUD<br>▲<br>061706N 1021639E | | | | | For continuation, see AIP Malaysia |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **M757**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 175°<br>355°<br>49.0 NM | FL 460<br>FL 155<br>Class A | | ↓ | Uni-directional southbound route |
| ▲ KASNI<br>130450N 1004042E | 182°<br>002°<br>61.0 NM | FL 160 | | | |
| ▲ ASEKU<br>120306N 1003905E | 182°<br>002°<br>93.0 NM | | | | |
| ▲ NULBO<br>102919N 1003643E | 182°<br>002°<br>41.0 NM | FL 460<br>6 500 FT<br>Class A | | | |
| ▲ MABKO<br>094809N 1003543E | 182°<br>002°<br>17.0 NM | 7 000 FT | | | |
| ▲ VALSI<br>093108N 1003518E | 182°<br>002°<br>5.0 NM | | | | |
| ▲ ROBDA<br>092558N 1003511E | 182°<br>002°<br>32.0 NM | | | | |
| ▲ LOSDA<br>085356N 1003425E | 182°<br>002°<br>84.0 NM | | | | |
| ▲ OBLEX<br>072948N 1003228E | 181°<br>001°<br>60.0 NM | | | | |
| ▲ KARMI<br>062940N 1003121E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **M769**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| BANGKOK DVOR/DME (BKK)<br>▲ 135337N 1003546E | 189°<br>009°<br>49.0 NM | FL 460<br>FL 155<br>Class A | | | Uni-directional northbound route |
| LEBIM<br>▲ 130515N 1002825E | 182°<br>002°<br>74.0 NM | FL 160 | | | |
| SURMA<br>▲ 115122N 1002633E | 182°<br>002°<br>33.0 NM | | | | |
| GOKEX<br>▲ 111815N 1002544E | 182°<br>002°<br>70.0 NM | | | | |
| DONSI<br>▲ 100738N 1002401E | 182°<br>002°<br>14.0 NM | | | | |
| SORTO<br>▲ 095353N 1002342E | 182°<br>002°<br>25.0 NM | FL 460<br>FL 125<br>Class A | | | |
| PINUN<br>▲ 092825N 1002306E | 182°<br>002°<br>19.0 NM | FL 130 | | | |
| RIPMU<br>▲ 090852N 1002238E | 182°<br>002°<br>22.0 NM | | | | |
| DOXAS<br>▲ 084657N 1002208E | 182°<br>002°<br>76.0 NM | | | | |
| DANDO<br>▲ 073054N 1002024E | 187°<br>007°<br>48.0 NM | | | ↑ | |
| RIGTO<br>▲ 064228N 1001504E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **M904**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | Uni-directional southbound route, portion between BKK - TONIK |
| ▲ BANGKOK DVORDME (BKK)<br>135337N 1003546E | 163°<br>343°<br>49.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | Between BKK and BUT, aircraft shall keep within the lateral limit for the route and close to the centreline as much as possible to avoid entering VT P7.<br>When VT D71 is activated, M904 is not available for flight planning. |
| ▲ KIGOB<br>130646N 1005106E | 163°<br>343°<br>28.0 NM | 7 000 FT | | | |
| ▲ U-TAPAO DVORDME (BUT)<br>124000N 1010002E | 165°<br>345°<br>19.0 NM | FL 460<br>FL 145<br>Class A<br>FL 150 | | | |
| ▲ PIDEL<br>122143N 1010514E | 164°<br>344°<br>17.0 NM | FL 460<br>FL 245<br>Class A | | | |
| △ DIPUN<br>120457N 1011011E | 164°<br>344°<br>93.0 NM | FL 250 | | | |
| △ SIRAT<br>103450N 1013640E | 164°<br>344°<br>80.0 NM | | | | |
| △ TONIK<br>091736N 1015907E | 161°<br>341°<br>153.0 NM | | | ↓ ↑ | |
| ▲ TIDAR<br>065230N 1025000E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **N506**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 118° / 298°<br>18.0 NM | FL 460 / 7 500 FT<br>Class A | | ↓ | Uni-directional eastbound route |
| ▲ UGIPA<br>134524N 1005221E | 118° / 298°<br>32.0 NM | 8 000 FT | | | |
| ▲ GORSI<br>133055N 1012128E | 118° / 298°<br>15.0 NM | | | | |
| ▲ GOMES<br>132406N 1013506E | 117° / 297°<br>23.0 NM | | | | |
| ▲ BERLU<br>131350N 1015620E | 117° / 297°<br>36.0 NM | FL 460 / FL 155<br>Class A | | | |
| ▲ BOKAK<br>125736N 1022947E | | FL160 | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **N891**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 137°<br>317°<br>49.0 NM | FL 460<br>7 000 FT<br>Class A | | ↓ | |
| ▲ DOLNI<br>131740N 1011048E | 137°<br>317°<br>42.0 NM | 8 000 FT | | | |
| ▲ RAYONG DVORDME (RYN)<br>124643N 1014035E | 163°<br>343°<br>108.0 NM | FL 460<br>FL 160<br>Class A | | | |
| △ ANOBO<br>110323N 1021442E | 163°<br>343°<br>38.0 NM | FL 170 | | ↑ | |
| ▲ BENSA<br>102631N 1022630E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **P627**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| PHUKET DVOR/DME (PUT)<br>080650N 0981825E | 240°<br>060°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | |
| ANPUB<br>075141N 0975216E | 240°<br>060°<br>11.0 NM | 7 000 FT | | ↑ | |
| RUSET<br>074616N 0974257E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates | Track MAG (GEO) VOR RDL DIST (COP) | Upper limits / Lower limits Airspace Classification | Lateral limits NM | Direction of cruising levels Odd \| Even | Remarks Controlling unit Frequency |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **P629**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 137°<br>317° | FL 460<br>7 500 FT | | | Uni-directional westbound route |
| MUBUS<br>134530N 1004342E | 11.0 NM<br>137°<br>317° | Class A<br>8 000 FT | | | |
| DOLNI<br>131740N 1011048E | 38.0 NM<br>112°<br>292° | | | | |
| NUGPA<br>130254N 1014959E | 41.0 NM<br>112°<br>292° | | | | |
| OLDIR<br>125401N 1021325E | 25.0 NM<br>112°<br>292° | FL 460<br>FL 155 | | | |
| VAPVU<br>124701N 1023149E | 19.0 NM | Class A<br>FL 160 | | ↑ | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **P646**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 298°<br>118°<br>70.0 NM | FL 460<br>9 500 FT<br>Class A | | ↓ | |
| TARED<br>142620N 0993129E | 298°<br>118°<br>86.0 NM | 10 000 FT | | ↑ | |
| BETNO<br>150554N 0981231E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y1**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ UDON DVORDME (UDN)<br>172305N 1024630E | 206°<br>026°<br>30.0 NM | FL 460<br>12 000 FT<br>Class A | | ↓ | Uni-directional southbound route<br><br>Conditional Route (CDR) availability:<br><br>CDR1<br>1. Weekdays, Monday to Friday 1000 - 2300 UTC<br>2. From Friday 1000 UTC to Sunday 2300 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| ▲ TERCO<br>165550N 1023308E | 206°<br>026°<br>152.0 NM | 13 000 FT | | | |
| ▲ UBLOD<br>143715N 1012612E | 206°<br>026°<br>16.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | | |
| ▲ PIPOB<br>142236N 1011914E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **Y2**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| KHON KAEN DVOR/DME (KKN)<br>▲ 162815N 1024717E | 217°<br>037°<br>30.0 NM | FL 460<br>12 000 FT/FL120<br>Class A | | ↓ | Uni-directional southbound route<br><br>Conditional Route (CDR) availability:<br><br>CDR1<br>1. Weekdays, Monday to Friday 1000 - 2300 UTC<br>2. From Friday 1000 UTC to Sunday 2300 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| NEMTE<br>▲ 160345N 1022913E | 216°<br>036°<br>105.0 NM | 13 000 FT/ FL130 | | | |
| UBLOD<br>▲ 143715N 1012612E | 206°<br>026°<br>16.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | | |
| PIPOB<br>▲ 142236N 1011914E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **Y3**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ MENEX<br>110831N 0994543E | 180°<br>000° | FL 460<br>7 000 FT | | ↓ | Uni-directional southbound route<br>Conditional Route (CDR) availability:<br>CDR1<br>Not applicable<br>CDR2<br>1. Available when VTD58 is activated<br>2. Availability shall be notified by NOTAM or Airspace use plan (AUP) published in www.thaicmac.aerothai.aero<br>Aircraft shall keep within the lateral limit 5 NM either side of the route and close to the centreline as much as possible to avoid entering VTD58 |
| ▲ DORNA<br>092459N 0994614E | 103.0 NM<br>229°<br>049° | Class A<br>8 000 FT | | | |
| ▲ TEDOS<br>084834N 0990507E | 55.0 NM<br>229°<br>049° | | | | |
| ▲ MONBU<br>082659N 0984056E | 32.0 NM<br>229°<br>049° | | | | |
| ▲ PHUKET DVOR/DME (PUT)<br>080650N 0981825E | 30.0 NM | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y4**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| NONEL | | | | | |
| ▲ 105301N 0995337E | 174° / 354° | FL 460 / 7 000 FT | | | Uni-directional northbound route<br>Conditional Route (CDR) availability:<br>CDR1<br>Not applicable<br>CDR2<br>1. Available when VTD58 is activated<br>2. Availability shall be notified by NOTAM or Airspace use plan (AUP) published in www.thaicmac.aerothai.aero<br>Aircraft shall keep within the lateral limit 5 NM either side of the route and close to the centreline as much as possible to avoid entering VTD58 |
| SAMUI DVOR/DME (SMU) | 80.0 NM | Class A | | | |
| ▲ 093249N 1000342E | 211° / 031° | 8 000 FT | | | |
| MESEM | 30.0 NM | | | | |
| ▲ 090719N 0994816E | 211° / 031° | | | | |
| RECNO | 38.0 NM | | | | |
| ▲ 083425N 0992825E | 227° / 047° | | | | |
| BITEN | 11.0 NM | | | | |
| ▲ 082659N 0992029E | 227° / 047° | | | | |
| OSPEX | 10.0 NM | | | | |
| ▲ 082015N 0991319E | 227° / 047° | | | ↑ | |
| KRABI DVOR/DME (KBI) | 20.0 NM | | | | |
| ▲ 080627N 0985839E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **Y5**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ PHUKET DVOR/DME (PUT)<br>080650N 0981825E | 010°<br>190°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | Uni-directional northbound route<br><br>Conditional Route (CDR) availability:<br><br>CDR1<br>1. Weekdays, Monday to Friday 1700 - 2259 UTC<br>2. From Friday 1700 UTC to Sunday 2259 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by NOTAM or Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| ▲ IGEVI<br>083640N 0982320E | 024°<br>204°<br>31.0 NM | 7 000 FT | | | |
| △ ANDAX<br>090441N 0983545E | 024°<br>204°<br>32.0 NM | FL 460<br>12 500 FT/FL 125<br>Class A | | | |
| ▲ NOMEK<br>093404N 0984835E | 026°<br>206°<br>76.0 NM | 13 000 FT/FL 130 | | | |
| ▲ CHUM PHON DVOR/DME (CPN)<br>104240N 0992156E | 043°<br>223°<br>35.0 NM | | | | |
| ▲ MENEX<br>110831N 0994543E | 044°<br>224°<br>28.0 NM | | | | |
| ▲ EGUBO<br>112838N 1000450E | 044°<br>224°<br>14.0 NM | | | | |
| ▲ UPVIL<br>113836N 1001421E | 044°<br>224°<br>18.0 NM | | | | |
| ▲ SURMA<br>115122N 1002633E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y7**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| CHIANG MAI DVOR/ DME (CMA) | | | | | |
| ▲ 184558N 0985740E | 148° / 328° | FL 460 / 6 500 FT | | ↓ | Uni-directional southbound route |
| PANTA | 38.0 NM | Class A | | | |
| ▲ 181351N 0991917E | 163° / 343° | 7 000 FT | | | |
| KEXIL | 33.0 NM | | | | |
| △ 174204N 0992954E | 163° / 343° | | | | |
| IGPOP | 54.0 NM | | | | |
| △ 165002N 0994708E | 163° / 343° | | | | |
| PAKMO | 31.0 NM | | | | |
| ▲ 162013N 0995656E | 163° / 343° | FL 460 / 12 500 FT/FL 125 | | | |
| | 67.0 NM | Class A | | | |
| TAKHLI NDB (TL) | | 13 000 FT/FL 130 | | | |
| ▲ 151633N 1001751E | 169° / 349° | FL 460 / 6 500 FT | | | |
| | 84.0 NM | Class A | | | |
| BANGKOK DVOR/ DME (BKK) | | 7 000 FT | | | |
| ▲ 135337N 1003546E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **Y8**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| BANGKOK DVORDME (BKK) | | | | | Uni-directional southbound route |
| ▲ 135337N 1003546E | 197°<br>017°<br>44.0 NM | FL 460<br>12 500 FT/ FL 125<br>Class A | | ↓ | |
| MOTNA<br>▲ 131110N 1002306E | 226°<br>046°<br>16.0 NM | 13 000 FT/FL 130 | | | |
| SABIS<br>▲ 125959N 1001125E | 226°<br>046°<br>35.0 NM | | | | |
| VANKO<br>▲ 123511N 0994538E | 180°<br>000°<br>51.0 NM | | | | |
| BUXEL<br>▲ 114342N 0994540E | 180°<br>000°<br>35.0 NM | | | | |
| MENEX<br>▲ 110831N 0994543E | 198°<br>018°<br>101.0 NM | FL 460<br>7 500 FT<br>Class A | | | |
| IKERA<br>▲ 093146N 0991532E | 198°<br>018°<br>25.0 NM | 8 000 FT | | | |
| SURAT THANI DVORDME (STN)<br>▲ 090746N 0990805E | 220°<br>040°<br>25.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | Northbound direction between PUT and STN is available for flight departing VTSP and arriving VTSB only |
| LAMUL<br>▲ 084818N 0985208E | 219°<br>039°<br>23.0 NM | 7 000 FT | | | |
| SAVSA<br>▲ 083016N 0983729E | 220°<br>040°<br>30.0 NM | | | ↑ | |
| PHUKET DVORDME (PUT)<br>▲ 080650N 0981825E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y9**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ DANDO<br>073054N 1002024E | 176°<br>356°<br>35.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↑ | Uni-directional northbound route |
| ▲ HAT YAI DVOR/DME (HTY)<br>065603N 1002317E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y10**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ OBLEX<br>072948N 1003228E | 196°<br>015°<br>35.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↓ | Uni-directional southbound route |
| ▲ HAT YAI DVOR/DME (HTY)<br>065603N 1002317E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>1 | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>2 | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels<br>Odd \| Even<br>5 | Remarks<br>Controlling unit<br>Frequency<br>6 |
|---|---|---|---|---|---|
| **Y11**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | Uni-directional southbound route |
| ▲ KIGOB<br>130646N 1005106E | 163°<br>343°<br>28.0 NM | FL 460<br>FL 155<br>Class A | | ↓ | When VTD71 is activated, Y11 is not available for flight planning.<br>Between KIGOB and BUT, aircraft shall fly on the centerline of the route as much as possible to avoid entering VTP7. |
| ▲ U-TAPAO DVORDME (BUT)<br>124000N 1010002E | 165°<br>345°<br>19.0 NM | FL 160 | | | |
| ▲ PIDEL<br>122143N 1010514E | 181°<br>001°<br>43.0 NM | | | | |
| △ NOMEP<br>113830N 1010454E | 170°<br>350°<br>78.0 NM | FL 460<br>FL 245<br>Class A | | | |
| ▲ ANBUX<br>102137N 1011908E | 170°<br>350°<br>84.0 NM | FL 250 | | | |
| ▲ OSROG<br>085820N 1013431E | 170°<br>350°<br>57.0 NM | | | | |
| ▲ TIKAL<br>080220N 1014448E | 170°<br>350°<br>108.0 NM | | | | |
| ▲ PASVA<br>061529N 1020431E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y12**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | Uni-directional northbound route |
| DOLNI<br>▲<br>131740N 1011048E | 161°<br>341°<br>44.0 NM | FL 460<br>FL 155<br>Class A | | | When VTR13 is activated, Y12 is not available for flight planning. |
| ALEMI<br>▲<br>123626N 1012600E | 168°<br>348°<br>113.0 NM | FL 160 | | ↑ | |
| ALUMO<br>▲<br>104554N 1015123E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y13**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | Uni-directional westbound route |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 056°<br>236°<br>51.0 NM | FL 460<br>6 500 FT<br>Class A | | | Available for aircraft with VTBS as destination only. |
| ▲ PIPOB<br>142236N 1011914E | 073°<br>253°<br>37.0 NM | 7 000 FT | | | |
| ▲ RUKSA<br>143351N 1015512E | 073°<br>253°<br>60.0 NM | FL 460<br>FL 205<br>Class A | | | |
| ▲ PAKRI<br>145202N 1025409E | 072°<br>252°<br>54.0 NM | FL 210 | | ↑ | |
| ▲ GRASO<br>150917N 1034714E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y14**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ SELKA<br>142020N 1015311E | 024°<br>204°<br>38.0 NM | FL 460<br>FL 205<br>Class A<br>FL 210 | | ↓ | Uni-directional northbound route |
| ▲ KHORAT DVOR/DME (KRT)<br>145502N 1020823E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y15**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| △ SANOT<br>145134N 1032548E | 050°<br>230°<br>27.0 NM | FL 460<br>FL 205<br>Class A | | ↓ | Uni-directional northbound route |
| ▲ GRASO<br>150917N 1034714E | 024°<br>204°<br>59.0 NM | FL 210 | | | |
| ▲ GUROK<br>160329N 1041106E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels: Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y16**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | 079° / 259°<br>51.0 NM | FL 460 / 7 500 FT<br>Class A | | ↓ | Uni-directional eastbound route |
| ▲ UPKUP<br>140353N 1012655E | 078° / 258°<br>31.0 NM | 8 000 FT | | | |
| ▲ LIPLI<br>141028N 1015756E | 073° / 253°<br>39.0 NM | FL 460 / FL 205<br>Class A | | | |
| ▲ XIKMA<br>142236N 1023626E | 070° / 251°<br>73.0 NM | FL 210 | | | |
| ▲ PEKBA<br>144808N 1034733E | 071° / 252°<br>111.0 NM | | | | |
| ▲ BUTRA<br>152506N 1053546E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y17**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ SAMUI DVORDME (SMU)<br>093249N 1000342E | 031°<br>211°<br>30.0 NM | FL 460<br>4 500 FT<br>Class A | | ↓ | Uni-directional northbound route |
| ▲ OLBAG<br>095849N 1001852E | 030°<br>210°<br>2.0 NM | 5 000 FT | | | |
| △ APUSA<br>100057N 1002007E | 031°<br>211°<br>8.0 NM | | | | |
| ▲ DONSI<br>100738N 1002401E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y18**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ HAT YAI DVORDME (HTY)<br>065603N 1002317E | 125° / 305°<br>22.0 NM | FL 460 / 6 500 FT<br>Class A | | ↓ | ConditionalRoute (CDR) availability;<br>CDR1<br>1. Weekdays, Monday to Friday 1100-2300 UTC<br>2. From Friday 1100 UTC to Sunday 2300 UTC<br>3. Public Holidays<br>CDR2<br>Other period, Availability shall be notified by NOTAM or Airspace use plan (AUP) in www.thaicmac.aerothai.aero |
| ▲ KENNE<br>064340N 1004132E | 124° / 304°<br>36.0 NM | 7 000 FT | | | |
| ▲ TONUV<br>062319N 1011127E | 124° / 304°<br>10.0 NM | | | | |
| ▲ PETAC<br>061740N 1011945E | 200° / 020°<br>32.0 NM | | | ↑ | |
| ▲ BETONG DVORDME (BET)<br>054708N 1010839E | | | | | |

| Route designator<br>(RNP type)*<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>Airspace Classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y19**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ PATTANI NDB (PT)<br>064718N 1010853E | 160°<br>340°<br>21.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↓ | Conditional Route (CDR)availability;<br>CDR1<br>1. Weekdays, Monday to Friday 1100-2300 UTC<br>2. From Friday 1100 UTC to Sunday 2300 UTC<br>3. Public Holidays<br><br>CDR2<br><br>Other period, Availability shall be notified by NOTAM or Airspace use plan (AUP) in www.thaicmac.aerothai.aero |
| ▲ LERNI<br>062706N 1011618E | 160°<br>340°<br>10.0 NM | | | | |
| ▲ PETAC<br>061740N 1011945E | 200°<br>020°<br>32.0 NM | | | ↑ | |
| ▲ BETONG DVOR/DME (BET)<br>054708N 1010839E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates | Track MAG (GEO) VOR RDL DIST (COP) | Upper limits / Lower limits Airspace Classification | Lateral limits NM | Direction of cruising levels Odd \| Even | Remarks Controlling unit Frequency |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **Y20**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ BANGKOK DVORDME (BKK)<br>135337N 1003546E | 044° / 224° | FL 460 / 6 500 FT | | ↓ | |
| ▲ MALKI<br>143111N 1011153E | 51.0 NM<br>067° / 247° | Class A<br>7 000 FT | | | |
| ▲ UBLOD<br>143715N 1012612E | 15.0 NM<br>067° / 247° | FL 460 / 12 500 FT / FL 125 | | | |
| ▲ KHORAT DVORDME (KRT)<br>145502N 1020823E | 45.0 NM<br>082° / 262° | Class A<br>13 000 FT/ FL130 | | | |
| ▲ RAMEI<br>150240N 1030040E | 51.0 NM<br>082° / 262° | FL 460 / 6 500 FT | | | |
| ▲ RAMBU<br>150554N 1032319E | 22.0 NM<br>082° / 262° | Class A<br>7 000 FT | | | |
| ▲ GRASO<br>150917N 1034714E | 23.0 NM<br>086° / 266° | | | | |
| ▲ ASABO<br>151209N 1042102E | 33.0 NM<br>086° / 266° | | | ↑ | |
| ▲ UBON DVORDME (UBL)<br>151443N 1045157E | 30.0 NM | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits or Airspace classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y21**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| UDON DVORDME (UDN) | | | | | |
| ▲ 172305N 1024630E | 144° / 324° | FL 460 / 6 500 FT | | ↓ | |
| POVEX | 30.0 NM | Class A | | | |
| ▲ 165905N 1030530E | 144° / 324° | 7 000 FT | | | |
| DOTUS | 35.0 NM | | | | |
| ▲ 163103N 1032732E | 144° / 324° | | | | |
| ROI-ET DVORDME (ROT) | 30.0 NM | | | | |
| ▲ 160701N 1034620E | 131° / 311° | | | | |
| ENTEK | 30.0 NM | | | | |
| ▲ 154755N 1041024E | 131° / 311° | | | | |
| ENLEP | 22.0 NM | | | | |
| ▲ 153353N 1042800E | 131° / 311° | | | ↑ | |
| UBON DVORDME (UBL) | 30.0 NM | | | | |
| ▲ 151443N 1045157E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type)* Name of significant points Coordinates | Track MAG (GEO) VOR RDL DIST (COP) | Upper limits / Lower limits or Airspace classification Minimum flight altitude | Lateral limits NM | Direction of cruising levels Odd \| Even | Remarks Controlling unit Frequency |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **Y22**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| UDON DVORDME (UDN)<br>▲ 172305N 1024630E | 180°<br>000°<br>25.0 NM | FL 460<br>10 500 FT<br>Class A | | ↓ | |
| ANPUS<br>▲ 165800N 1024651E | 180°<br>000°<br>5.0 NM | 11 000 FT | | | |
| ALGIT<br>▲ 165300N 1024655E | 180°<br>000°<br>25.0 NM | | | | |
| KHON KAEN DVORDME (KKN)<br>▲ 162815N 1024717E | 112°<br>292°<br>31.0 NM | FL 460<br>6 500 FT<br>Class A | | | |
| SEDNO<br>▲ 161733N 1031707E | 112°<br>292°<br>30.0 NM | 7 000 FT | | | |
| ROI-ET DVORDME (ROT)<br>▲ 160701N 1034620E | 131°<br>311°<br>30.0 NM | | | | |
| ENTEK<br>▲ 154755N 1041024E | 131°<br>311°<br>22.0 NM | | | | |
| ENLEP<br>▲ 153353N 1042800E | 131°<br>311°<br>30.0 NM | | | ↑ | |
| UBON DVORDME (UBL)<br>▲ 151443N 1045157E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)*<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>or<br>Airspace classification<br>Minimum flight altitude<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y23**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| KHORAT DVOR/DME (KRT)<br>145502N 1020823E | 023°<br>203°<br>70.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | |
| EMRUT<br>160020N 1023533E | 023°<br>203°<br>30.0 NM | 7 000 FT | | | |
| KHON KAEN DVOR/DME (KKN)<br>162815N 1024717E | 061°<br>241°<br>24.0 NM | | | | |
| AKRET<br>164016N 1030856E | 061°<br>242°<br>65.0 NM | | | | |
| SAKON NAKHON DVOR/DME (SKN)<br>171251N 1040812E | 071°<br>252°<br>31.0 NM | | | ↑ | |
| NAKHON PHANOM DVOR/DME (NKP)<br>172318N 1043818E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)*<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>Airspace Classification<br>**3** | Lateral limits NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y24**<br>**(RNAV 2)** | | | | | |
| IKOGA<br>073935N 1013235E | 160°<br>340°<br>90.0 NM | FL 460<br>FL 245<br>Class A | 10 | ↓ | Uni-direction southbound route |
| PASVA<br>061529N 1020431E | | | | | |

| Route designator<br>(RNP type)*<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>Airspace Classification<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y25**<br>**(RNAV 2)** | | | | | |
| ▲ TONIK<br>091736N 1015907E | 179°<br>359° | FL 460<br>FL 245 | 10 | ↓ | Uni- direction southbound route |
| | 181.0 NM | Class A | | | |
| ▲ PASVA<br>061529N 1020431E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y26**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| BANGKOK DVOR/DME (BKK) | | | | | |
| 135337N 1003546E | 335° / 155° | FL 460 / 12 500 FT/FL 125 | | ↓ | Uni-directional northbound route |
| OLVUK | 51.0 NM | Class A | | | |
| 143928N 1001240E | 343° / 163° | 13 000 FT/FL 130 | | | |
| UPMUT | 22.0 NM | | | | |
| 150043N 1000536E | 343° / 163° | FL 460 / FL 245 | | | |
| ELDAL | 84.0 NM | Class A | | | |
| 162106N 0993839E | 343° / 163° | FL 250 | | | |
| NUVLU | 22.0 NM | | | | |
| 164146N 0993140E | 343° / 163° | | | | |
| BEBUV | 48.0 NM | | | | |
| 172713N 0991613E | 348° / 168° | FL 460 / 6 500 FT | | | |
| MARNI | 42.0 NM | Class A | | | |
| 180836N 0990549E | 349° / 169° | | | | |
| CHIANG MAI DVOR/DME (CMA) | 38.0 NM | 7 000 FT | | | |
| 184558N 0985740E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y27**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| BANGKOK DVOR/DME (BKK) | | | | | |
| ▲ 135337N 1003546E | 344° / 164° | FL 460 / 12 500 FT/FL 125 | | ↓ | Uni-directional northbound route |
| RIVDU | 51.0 NM | Class A | | | |
| ▲ 144236N 1002019E | 343° / 163° | 13 000 FT/FL 130 | | | |
| UGUVO | 27.0 NM | | | | |
| ▲ 150835N 1001141E | 343° / 163° | | | | |
| OVLEN | 52.0 NM | | | | |
| ▲ 155804N 0995509E | 005° / 185° | | | | |
| PAKMO | 22.0 NM | | | | |
| ▲ 162013N 0995656E | 008° / 188° | FL 460 / 6 500 FT | | | |
| PIBAN | 3.0 NM | Class A | | | |
| ▲ 162314N 0995718E | 008° / 188° | 7 000 FT | | | |
| POLOB | 50.0 NM | | | | |
| ▲ 171309N 1000328E | 001° / 181° | | | | |
| IBUBU | 38.0 NM | | | | |
| ▲ 175128N 1000336E | 001° / 181° | | | | |
| IKISU | 56.0 NM | | | | |
| △ 184739N 1000349E | 011° / 191° | | | ↓ | |
| DUBEN | 45.0 NM | | | | |
| ▲ 193249N 1001207E | 014° / 194° | | | ↓ ↑ | |
| PONUK | 47.0 NM | | | | |
| ▲ 201858N 1002306E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y28**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| ▲ DUBEN<br>193249N 1001207E | 179° / 359°<br>45.0 NM | FL 460 / 8 500 FT<br>Class A | | ↓ | Uni-directional southbound route |
| △ CRIST<br>184752N 1001334E | 179° / 359°<br>121.0 NM | 9 000 FT | | ↓ | |
| PHITSANULOK DVOR/DME (PSL)<br>▲ 164613N 1001729E | 181° / 001°<br>30.0 NM | FL 460 / 6 500 FT<br>Class A | | | |
| ▲ PEBLI<br>161606N 1001736E | 181° / 001°<br>59.0 NM | 7 000 FT | | | |
| ▲ TAKHLI NDB (TL)<br>151633N 1001751E | 169° / 349°<br>84.0 NM | | | | |
| BANGKOK DVOR/DME (BKK)<br>▲ 135337N 1003546E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y29**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| PIBAN<br>▲ 162314N 0995718E | 041°<br>221°<br>30.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↓ | Uni-directional northbound route |
| PHITSANULOK DVOR/ DME (PSL)<br>▲ 164613N 1001729E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y30**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| NUVLU<br>164146N 0993140E | 271°<br>091°<br>37.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↓ | Uni-directional westbound route |
| URGUM<br>164154N 0985322E | 271°<br>091°<br>20.0 NM | | | | |
| MAE SOT DVORDME (MST)<br>164152N 0983230E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y31**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| ▲ LOEI DVOR/DME (LOY)<br>172649N 1014323E | 231°<br>051°<br>20.0 NM | FL 460<br>7 500 FT<br>Class A | | ↓ | Uni-directional south-westbound route<br><br>Conditional Route (CDR) availability:<br><br>CDR1<br>1. Weekdays, Monday to Friday from 1700 - 2200 UTC<br>2. From Friday 1700 UTC to Sunday 2200 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| ▲ ANLUR<br>171330N 1012705E | 231°<br>051°<br>9.0 NM | | | | |
| ▲ UDIKU<br>170735N 1011952E | 231°<br>051°<br>39.0 NM | | | | |
| ▲ GOKON<br>164301N 1004834E | 229°<br>049°<br>40.0 NM | | | | |
| ▲ PEBLI<br>161606N 1001736E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates | Track MAG (GEO) VOR RDL DIST (COP) | Upper limits / Lower limits Airspace Classification | Lateral limits NM | Direction of cruising levels Odd \| Even | Remarks Controlling unit Frequency |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| **Y32**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| ELDAL<br>▲ 162106N 0993839E | 012°<br>192°<br>29.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | Uni-directional northbound route |
| KIMET<br>▲ 164928N 0994429E | | 7 000 FT | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y33**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| BEBUV<br>▲ 172713N 0991613E | 016°<br>196°<br>26.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | Uni-directional northbound route |
| IBIRI<br>▲ 175223N 0992317E | | 7 000 FT | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y34**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| ▲ POLOB<br>171309N 1000328E | 021°<br>201°<br>26.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | Uni-directional northbound route |
| ▲ IDKOR<br>173810N 1001243E | | 7 000 FT | | | |

| Route designator (RNP type)* Name of significant points Coordinates | Track MAG (GEO) VOR RDL DIST (COP) | Upper limits / Lower limits Airspace Classification | Lateral limits NM | Direction of cruising levels | | Remarks Controlling unit Frequency |
|---|---|---|---|---|---|---|
| | | | | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | | 6 |
| **Y35**<br>**(RNAV 2)**<br>**GNSS** | | | | | | |
| LOEI DVOR/DME (LOY) | | | | | | |
| ▲ 172649N 1014323E | 327°<br>147°<br>21.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↓ | | Conditional Route (CDR) availability:<br><br>CDR1<br>1. Weekdays, Monday to Friday from 1700 - 2200 UTC<br>2. From Friday 1700 UTC to Sunday 2200 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| YAKUA | | | | ↑ | | |
| ▲ 174415N 1013052E | | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y36**<br>**(RNAV 2)**<br>**GNSS**<br>CHIANG MAI DVOR/ DME (CMA) | | | | | |
| ▲<br>184558N 0985740E | 080°<br>260°<br>25.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↓ | Uni-directional eastbound route<br>Conditional Route (CDR) availability:<br><br>CDR1<br>1. Weekdays, Monday to Friday from 1400 - 0100 UTC<br>2. From Friday 1400 UTC to Sunday 0100 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| IGUDA<br>▲<br>185047N 0992332E | 080°<br>260°<br>108.0 NM | FL 460<br>10 500 FT<br>Class A<br>11 000 FT | | | |
| TOMIP<br>▲<br>191105N 1011548E | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y37**<br>**(RNAV 2)**<br>**GNSS** | | | | | |
| ELDAL<br>▲ 162106N 0993839E | 289°<br>109°<br>47.0 NM | FL 460<br>6 500 FT<br>Class A | | ↓ | Uni-directional westbound route<br>Conditional Route (CDR) availability:<br><br>CDR1<br>1. Weekdays, Monday to Friday from 1700 - 2200 UTC<br>2. From Friday 1700 UTC to Sunday 2200 UTC<br>3. Public Holidays<br><br>CDR2<br>Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero |
| TORAN<br>▲ 163541N 0985219E | 289°<br>109°<br>20.0 NM | 7 000 FT | | | |
| MAE SOT DVOR/DME (MST)<br>▲ 164152N 0983230E | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits; Airspace Classification; Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels: Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y93**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ AKVUG<br>090349N 0992219E | 049° / 229°<br>14.0 NM | FL 460 / 7 500 FT<br>Class A<br>8 000 FT | | ↓ | Uni-directional northbound route |
| △ OTGOL<br>091306N 0993248E | 049° / 229°<br>18.0 NM | FL 460 / 4 500 FT<br>Class A<br>5 000 FT | | | |
| ▲ DORNA<br>092459N 0994614E | 066° / 246°<br>19.0 NM | | | | |
| ▲ SAMUI DVOR/DME (SMU)<br>093249N 1000342E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y94**<br>**(RNAV 2)**<br>**[GNSS]**<br>NAKHON SI THAM-MARAT DVOR/DME (NKS) | | | | | |
| ▲ 083230N 0995649E | 061°<br>241°<br>29.0 NM | FL 460<br>4 500 FT<br>Class A<br>5 000 FT | | ↓ | |
| DOXAS<br>▲ 084657N 1002208E | 061°<br>241°<br>14.0 NM | FL 460<br>6 500 FT<br>Class A<br>7 000 FT | | ↑ | |
| LOSDA<br>▲ 085356N 1003425E | | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type) Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits; Airspace Classification; Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels: Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y95**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ SAMUI DVOR/DME (SMU)<br>093249N 1000342E | 142° / 322° | FL 460 / 4 500 FT | | ↓ | |
| ▲ RUMVA<br>091717N 1001600E | 20.0 NM<br>142° / 322° | Class A<br>5 000 FT | | | |
| △ PAGLU<br>091549N 1001709E | 2.0 NM<br>142° / 322° | FL 460 / 6 500 FT | | | |
| ▲ RIPMU<br>090852N 1002238E | 9.0 NM<br>142° / 322° | Class A<br>7 000 FT | | | |
| ▲ APOBI<br>090147N 1002814E | 9.0 NM<br>142° / 322° | | | | |
| ▲ LOSDA<br>085356N 1003425E | 10.0 NM<br>142° / 322° | | | | |
| ▲ IDRUK<br>082724N 1005513E | 34.0 NM<br>142° / 322° | FL 460 / 9 500 FT | | | |
| ▲ IKOGA<br>073935N 1013235E | 60.0 NM | Class A<br>10 000 FT | | ↑ | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits; Airspace Classification; Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels: Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y96**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ GOKEX<br>111815N 1002544E | 332°<br>152° | FL 460<br>7 500 FT | | ↓ | Uni-directional northbound route |
| ▲ OLSEL<br>113411N 1001649E | 18.0 NM<br>332°<br>152° | Class A<br>8 000 FT | | | |
| ▲ UPVIL<br>113836N 1001421E | 5.0 NM<br>332°<br>152° | | | | |
| ▲ EMTIX<br>114931N 1000814E | 12.0 NM | | | | |
| For flight planning procedure, see ENR 1.10. | | | | | |

| Route designator<br>(RNP type)*<br>Name of significant points<br>Coordinates<br>**1** | Track MAG<br>(GEO)<br>VOR RDL<br>DIST<br>(COP)<br>**2** | Upper limits<br>Lower limits<br>Airspace Classification<br>Minimum flight altitude<br>**3** | Lateral limits<br>NM<br>**4** | Direction of cruising levels<br>Odd \| Even<br>**5** | Remarks<br>Controlling unit<br>Frequency<br>**6** |
|---|---|---|---|---|---|
| **Y98**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ NONEL<br>105301N 0995337E | 030°<br>210°<br>47.0 NM | FL 460<br>7 500 FT<br>Class A | | ↓ | Uni-directional northbound route |
| ▲ OLSEL<br>113411N 1001649E | 030°<br>210°<br>20.0 NM | 8 000 FT | | | |
| ▲ SURMA<br>115122N 1002633E | 002°<br>182°<br>74.0 NM | | | | |
| ▲ LEBIM<br>130515N 1002825E | 009°<br>189°<br>49.0 NM | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | | | | | |

For flight planning procedure, see ENR 1.10.

| Route designator (RNP type)* Name of significant points Coordinates<br>1 | Track MAG (GEO) VOR RDL DIST (COP)<br>2 | Upper limits / Lower limits Airspace Classification Minimum flight altitude<br>3 | Lateral limits NM<br>4 | Direction of cruising levels Odd \| Even<br>5 | Remarks Controlling unit Frequency<br>6 |
|---|---|---|---|---|---|
| **Y99**<br>**(RNAV 2)**<br>**[GNSS]** | | | | | |
| ▲ PHUKET DVOR/DME (PUT)<br>080650N 0981825E | 092° / 272° | FL 460 / 6 500 FT<br>Class A<br>7 000 FT | | ↓ | Uni-directional northbound route |
| 30.0 NM | | | | | |
| ▲ EMRIT<br>080621N 0984840E | 090° / 270° | | | | |
| 10.0 NM | | | | | |
| ▲ KRABI DVORDME (KBI)<br>080627N 0985839E | 047° / 227° | FL 460 / 7 500 FT<br>Class A<br>8 000 FT | | | |
| 20.0 NM | | | | | |
| ▲ OSPEX<br>082015N 0991319E | 047° / 227° | | | | |
| 10.0 NM | | | | | |
| ▲ BITEN<br>082659N 0992029E | 003° / 183° | | | | |
| 18.0 NM | | | | | |
| ▲ EMVEL<br>084438N 0992122E | 003° / 183° | | | | |
| 19.0 NM | | | | | |
| ▲ AKVUG<br>090349N 0992219E | 003° / 183° | | | | |
| 11.0 NM | | | | | |
| ▲ VEGNA<br>091427N 0992251E | 018° / 198° | | | | |
| 11.0 NM | | | | | |
| ▲ NIXET<br>092517N 0992613E | 018° / 198° | | | | |
| 91.0 NM | | | | | |
| ▲ NONEL<br>105301N 0995337E | 018° / 198° | | | | |
| 37.0 NM | | | | | |
| ▲ EGUBO<br>112838N 1000450E | 010° / 190° | | | | |
| 21.0 NM | | | | | |
| ▲ EMTIX<br>114931N 1000814E | 010° / 190° | | | | |
| 71.0 NM | | | | | |
| ▲ HOTEL<br>130006N 1001948E | 017° / 197° | | | | |
| 12.0 NM | | | | | |
| ▲ MOTNA<br>131110N 1002306E | 017° / 197° | | | | |
| 44.0 NM | | | | | |
| ▲ BANGKOK DVOR/DME (BKK)<br>135337N 1003546E | | | | | |

For flight planning procedure, see ENR 1.10.

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## ENR 3.4 HELICOPTER ROUTES

NIL

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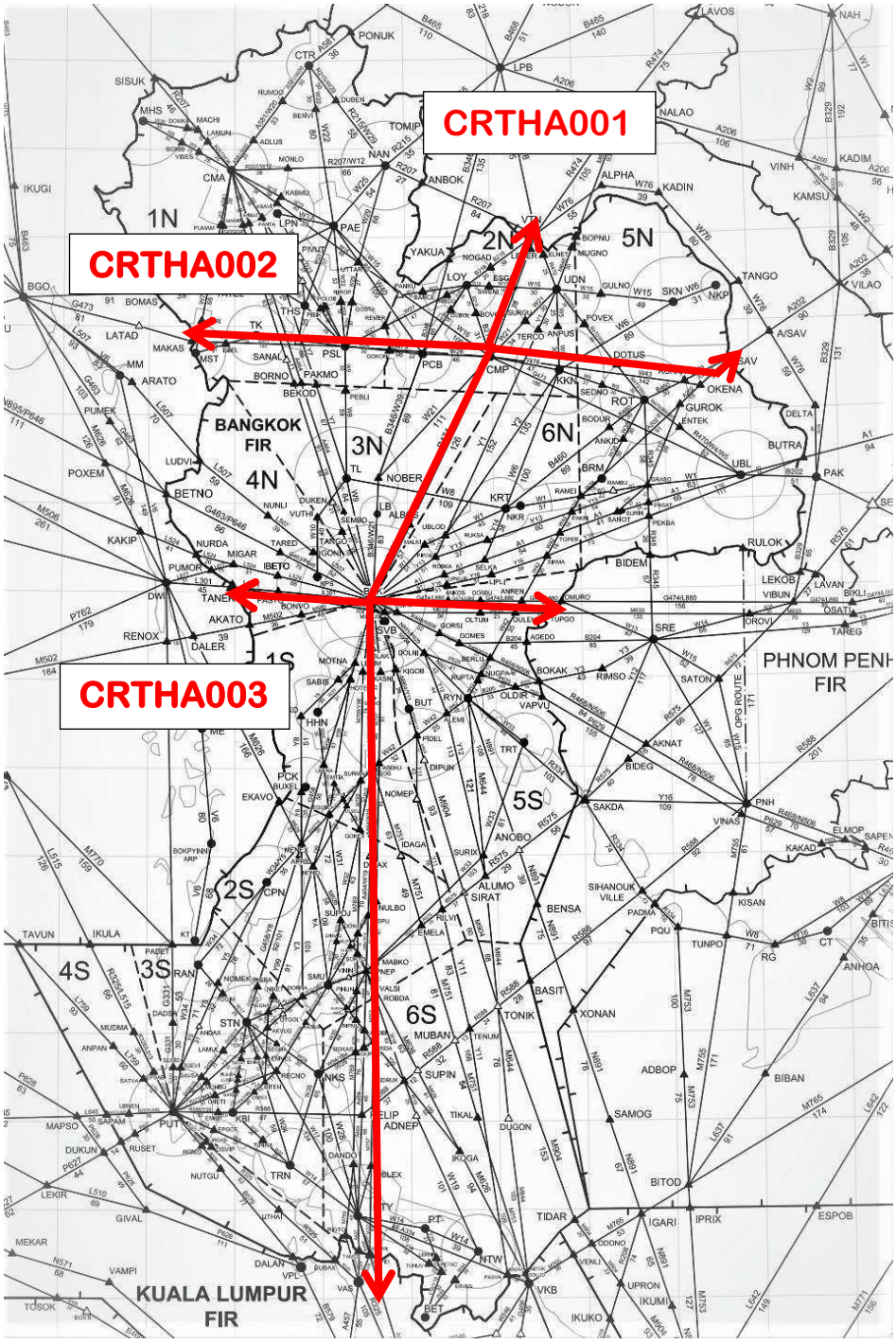
## ENR 3.5 OTHER ATS ROUTES

### 1. BANGKOK FIR CONTINGENCY ATS ROUTES AND FLIGHT LEVEL ALLOCATION SCHEME (FLAS)

International route structure and communications for transit of the Bangkok FIR when no ATS available in Bangkok airspace.

| Contingency Routes Definition | ATS Route | Direction | FL Assignment | ACCs | Frequency (MHz) |
|---|---|---|---|---|---|
| CRTHA001 | VTN R474 BKK A464 KARMI | Northbound | 310 | Vientiane ACC | 124.1 |
| | | Southbound | 390 | Kuala Lumpur ACC | 133.7 |
| CRTHA002 | MAKAS G473 CMP W43 OKENA A202 SAV | Eastbound | 370, 410 | Vientiane ACC | 128.3 |
| | | Westbound | 340 | Yangon ACC | 128.75 |
| CRTHA003 | TANEK L301 BKK G474 OMURO | Eastbound | 330, 410 | Phnom Penh ACC | 127.5 |
| | | Westbound | 360 | Yangon ACC | 124.75 |



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## ENR 3.6 EN-ROUTE HOLDING

NIL

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## ENR 4. RADIO NAVIGATION AIDS/SYSTEMS

### ENR 4.1 RADIO NAVIGATION AIDS - EN-ROUTE

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| BANGKOK DVOR/DME | BKK | 117.7 MHz (CH 124X) | H24 | 135336.8N 1003546.3E | 16.58 M | DVOR/DME restriction due to obstacles surround DVOR/DME station, coverage check does not provide adequate signal 40 NM at required altitude in various areas as follows:<br>– Radial 321°-030° altitude should not below 2 500 FT<br>– Radial 031°-060° altitude should not below 4 000 FT<br>– Radial 061°-120° altitude should not below 3 000 FT<br>– Radial 121°-320° altitude should not below 4 000 FT |
| BETONG DVOR/DME | BET | 113.1 MHz (CH 78X) | H24 | 054707.7N 1010838.7E | | DVOR/DME restrictions,<br>1. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at required altitude and distance in various areas as follows:<br>– Radial 350°-020° altitude should not below 8 000 FT<br>– Radial 021°-040° altitude should not below 6 500 FT<br>– Radial 041°-060° altitude should not below 9 000 FT<br>– Radial 061°-075° altitude should not below 15 000 FT<br>– Radial 076°-349° unable to check due to border limit |
| BURI RAM DVOR/DME | BRM | 117.2 MHz (CH 119X) | H24 | 151422.4N 1031531.6E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit 40 NM at required altitude in various areas as follows:<br>– Radial 091°-140° altitude should not below 3 500 FT<br>– Radial 141°-240° altitude should not below 5 000 FT<br>– Radial 241°-280° altitude should not below 4 000 FT<br>– Radial 281°-090° altitude should not below 2 500 FT |
| CHIANG MAI DVOR/DME | CMA | 116.9 MHz (CH 116X) | H24 | 184558.1N 0985740.4E | 318 M | DVOR/DME restriction due to mountainous terrain surround station coverage check does not provide adequate signal at required altitudes in various areas as follows:<br>1. 40 NM Orbit<br>– Radial 350º-080º altitude should not below 8 000 FT<br>– Radial 081º-180º altitude should not below 7 000 FT<br>– Radial 181º-240º altitude should not below 9 000 FT<br>2. 20 NM Orbit (Due to mountainous terrain)<br>– Radial 241º-349º altitude should not below 12 000 FT |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| CHIANG RAI DVOR/DME | CTR | 116.5MHZ (CH 112X) | H24 | 195655.9N 0995259.3E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal at the required altitude in various areas as follows:<br>1. 40 NM<br>– Radial 141º-180º altitude should not below 5 000 FT<br>– Radial 181º-210º altitude should not below 7 500 FT<br>– Radial 211º-255º altitude should not below 9 000 FT<br>– Radial 256º-265º altitude should not below 10 000 FT<br>– Radial 266º-270º altitude should not below 9 000 FT<br>2. 20 NM (Due to border limited)<br>– Radial 271º-340º altitude should not below 6 500 FT<br>– Radial 341º-140º altitude should not below 5 000 FT |
| CHUM PHAE DVOR/DME | CMP | 112.9MHZ (CH 76X) | | 163807N 1015920E | - | DVOR/DME restrictions,<br>1. Due to mountainous terrain surround DVOR/DME station, during radial check found roughness and bends out of tolerance, DVOR/DME unusable on radial as follows:<br>– Radial 102° distance between 9.5-10.5 DME at altitude 4 500 FT<br>– Radial 223º distance between 11.0-12.0 DME at altitude 5 000 FT<br>– Radial 273º distance between 13.0-14.0 DME at altitude 6 000 FT<br>– Radial 343º distance between 6.0-8.5 DME at altitude 5 500 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at required altitudes and distances in various areas as follows:<br>– Radial 001º-010º altitude should not below 5 500 FT<br>– Radial 011º-080º altitude should not below 4 500 FT<br>– Radial 081º-105º altitude should not below 7 000 FT<br>– Radial 106º-120º altitude should not below 6 000 FT<br>– Radial 121º-190º altitude should not below 5 000 FT<br>– Radial 191º-230º altitude should not below 6 000 FT<br>– Radial 231º-260º altitude should not below 8 000 FT<br>– Radial 261º-310º altitude should not below 7 000 FT<br>– Radial 311º-330º altitude should not below 8 000 FT<br>– Radial 331º-350º altitude should not below 5 500 FT<br>– Radial 351º-360º altitude should not below 6 500 FT |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| CHUM PHON DVOR/DME | CPN | 110MHz (CH 37X) | H24 | 104240.3N 0992156.1E | 5.50 M (18 FT) | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit at the required altitude and distance in various areas as follows:<br>1. 40 NM<br>– Radial 011°-020° altitude should not below 5 000 FT<br>– Radial 021°-050° altitude should not below 4 000 FT<br>– Radial 051°-100° altitude should not below 2 000 FT<br>– Radial 101°-110° altitude should not below 4 000 FT<br>– Radial 111°-190° altitude should not below 2 000 FT<br>– Radial 191°-225° altitude should not below 4 000 FT<br>– Radial 226°-230° altitude should not below 6 000 FT<br>2. 30 NM (Due to border limited)<br>– Radial 231°-270° altitude should not below 5 000 FT<br>3. 20 NM (Due to border limited)<br>– Radial 271°-010° altitude should not below 5 000 FT |
| HAT YAI DVOR/DME | HTY | 115.3MHz (CH 100X) | H24 | 065602.8N 1002316.6E | 37.3 M | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 171º- 240º at 10 NM ALT should not below 5 000 FT<br>– Radial 131º- 170º at 20 NM ALT should not below 4 000 FT<br>– Radial 031º-130º at 40 NM ALT should not below 5 000 FT<br>– Radial 241º- 270º at 40 NM ALT should not below 7 000 FT<br>– Radial 271º- 300º at 40 NM ALT should not below 10 000 FT<br>– Radial 301º- 330º at 40 NM ALT should not below 6 000 FT<br>– Radial 331º- 030º at 40 NM ALT should not below 3 000 FT |
| HUA HIN DVOR/DME | HHN | 113.3MHz (CH 80X) | H24 | 123803.9N 0995704.2E | - | DVOR/DME restriction, due to terrain surround DVOR/DME station coverage check does not provide adequate signal 40 NM at required altitude in various areas as follows:<br>1. 40 NM clockwise orbit<br>– Radial 001°-170° altitude should not below 3 000 FT<br>– Radial 171°-210° altitude should not below 7 000 FT<br>– Radial 301°-340° altitude should not below 10 000 FT<br>– Radial 340°-360° altitude should not below 3 000 FT<br>2. 30 NM clockwise orbit (Due to border limited)<br>– Radial 211°- 300° altitude should not below 10 000 FT<br>3. Radial 341° distance 10.3 DME at altitude 4 000 FT found roughness out of tolerance |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| KAMPHAENG SAEN DVOR/DME | KPS | 114.5 MHz (CH 92X) | 2300-1100 | 140956N 0995715E | - | |
| KHON KAEN DVOR/DME | KKN | 114.9 MHz (CH 96X) | H24 | 162815.3N 1024716.8E | - | DVOR/DME restriction due to terrain surround DVOR/DME station, coverage check does not provide adequate signal 40 NM at required altitude in various areas as follows:<br>– Radial 001°-080° altitude should not below 2 500 FT<br>– Radial 081°-220° altitude should not below 2 000 FT<br>– Radial 221°-360° altitude should not below 3 500 FT |
| KHORAT DVOR/DME | KRT | 113.7 MHz (CH 84X) | H24 | 145502.3N 1020823.3E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit 40 NM at required altitude in various areas as follows:<br>– Radial 081°-280° altitude should not below 5 000 FT<br>– Radial 281°-080° altitude should not below 3 500 FT |
| KRABI DVOR/DME | KBI | 111 MHz (CH 47X) | H24 | 080627.0N 0985839.0E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at required altitude in various areas as follows:<br>– Radial 001º-180º altitude should not below 5 500 FT<br>– Radial 181º-200º altitude should not below 7 000 FT<br>– Radial 201º-340º altitude should not below 10 000 FT<br>– Radial 341º-360º altitude should not below 15 500 FT |
| LAMPANG DVOR/DME | LPN | 114.7 MHz (CH 94X) | H24 | 181635.9N 0993008.4E | - | DVOR/DME restriction, due to terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM at required altitudes in various areas as follows:<br>– Radial 351º-070º beyond 40 NM should not below 6 000 FT<br>– Radial 071º-130º beyond 30 NM should not below 6 000 FT<br>– Radial 131º-320º beyond 40 NM should not below 6 000 FT<br>– Radial 321º-350º beyond 30 NM should not below 6 000 FT |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| LOEI DVOR/DME | LOY | 115.9MHZ (CH 106X) | H24 | 172649.4N 1014323.2E | - | DVOR/DME restriction,<br>1. Unusable due to roughness out of tolerance<br>– Radial 020° between 10-11 DME altitude 3 000 FT<br>– Radial 243° between 7-8 DME altitude 6 000 FT and between 32-33 DME altitude 7 500 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>2.1 40 NM orbit<br>– Radial 030°-050° altitude should not below 10 000 FT<br>– Radial 051°-100° altitude should not below 7 000 FT<br>– Radial 101°-130° altitude should not below 10 000 FT<br>– Radial 131°-200° altitude should not below 5 000 FT<br>– Radial 201°-250° altitude should not below 12 000 FT<br>– Radial 251°-270° altitude should not below 13 000 FT<br>2.2 20 NM orbit (Due to border limited)<br>– Radial 271°-029° altitude should not below 4 500 FT |
| MAE HONG SON DVOR/DME | MHS | 115.5MHZ (CH 102X) | H24 | 191911.1N 0975443.6E | - | DVOR/DME restrictions,<br>1. Unusable due to roughness out of tolerance<br>– Radial 040° distance between 10.5-12.5 DME altitude 5 500 FT<br>– Radial 085° distance between 5.5-7.5 DME altitude 7 000 FT<br>– Radial 100° distance between 9.0-10.0 DME altitude 7 000 FT<br>– Radial 120° distance between 9.5 - 10.5 DME altitude 7 500 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 060°-080° altitude should not below 8 500 FT<br>– Radial 081°-140° altitude should not below 13 000 FT<br>– Radial 141°-190° altitude should not below 9 000 FT<br>– Radial 191°-059° unable to perform due to border limited |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| MAE SOT DVOR/DME | MST | 116.7 MHz (CH 114X) | H24 | 164152.1N 0983229.7E | - | DVOR/DME restrictions,<br>1. Unusable due to roughness out of tolerance<br>– Radial 104° distance between 6.0-13.0 DME altitude 5 500 FT<br>– Radial 012° distance between 22.0-24.0 DME altitude 5 000 FT<br>– Radial 124° distance between 32.0-34.0 DME altitude 6 600 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit 40 NM at the required altitude in various areas as follows:<br>– Radial 000°-030° altitude should not below 7 000 FT<br>– Radial 031°-060° altitude should not below 9 000 FT<br>– Radial 061°-070° altitude should not below 10 000 FT<br>– Radial 071°-120° altitude should not below 9 000 FT<br>– Radial 121°-360° unable to perform due to border limited |
| NAKHON PHANOM DVOR/DME | NKP | 111.6 MHz (CH 53X) | H24 | 172317.9N 1043818.1E | 600 ft | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at required altitudes in various areas as follows:<br>– Radial 181°-190° altitude should not below 2 500 FT<br>– Radial 191°-260° altitude should not below 4 000 FT<br>– Radial 261°-320° altitude should not below 2 500 FT<br>– Radial 321°-180° unable to check (Due to border limited) |
| NAKHON SI THAMMARAT DVOR/DME | NKS | 117.4 MHz (CH 121X) | H24 | 083230.0N 0995648.7E | - | Due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM at required altitudes is various areas:<br>– Radial 001º-190º beyond 40 NM should not below 2 500 FT<br>– Radial 191º-240º beyond 40 NM should not below 7 000 FT<br>– Radial 241º-280º beyond 25 NM should not below 8 000 FT<br>– Radial 281º-320º beyond 40 NM should not below 7 000 FT<br>– Radial 321º-360º beyond 40 NM should not below 5 000 FT |
| NAN DVOR/DME | NAN | 115.7 MHz (CH 104X) | H24 | 184832.8N 1004657.4E | - | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 011º-110º at 20 NM should not below 8 000 FT<br>– Radial 111º-160º at 20 NM should not below 6 000 FT<br>– Radial 161º-180º at 40 NM should not below 6 000 FT<br>– Radial 181º-330º at 40 NM should not below 7 000 FT<br>– Radial 311º-010º at 40 NM should not below 8 000 FT |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NARATHIWAT DVOR/DME | NTW | 116.3 MHz (CH 110X) | H24 | 063138.2N 1014442.5E | - | DVOR/DME restriction,<br>1. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>a) 40 NM clockwise orbit flown from<br>– Radial 271º-290º altitude should not below 9 000 FT<br>– Radial 291º-300º altitude should not below 4 000 FT<br>– Radial 301º-020º altitude should not below 2 000 FT<br>b) 20 NM clockwise orbit flown from<br>– Radial 021º-130º altitude should not below 2 000 FT<br>– Radial 131º-270º altitude should not below 5 000 FT<br>2. Due to the out-of-tolerance 30 Hz FM deviation ratio on radial 294º unusable within 10-40 NM. |
| PHETCHABUN DVOR/DME | PCB | 115.4 MHz (CH 101X) | H24 | 164033.6N 1011147.9E | - | DVOR/DME restrictions,<br>1. Unusable due to roughness out of tolerance on radial 277° distance between 7-9 DME altitude 5 500 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 061°-230° beyond 30 NM altitude should not below 6 500 FT<br>– Radial 231°-320° beyond 30 NM altitude should not below 8 000 FT<br>– Radial 321°-060° beyond 40 NM altitude should not below 7 500 FT |
| PHITSANULOK DVOR/DME | PSL | 114.1 MHz (CH 88X) | H24 | 164613.3N 1001729.0E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 351°-120° altitude should not below 5 500 FT<br>– Radial 121°-270° altitude should not below 3 000 FT<br>– Radial 271°-300° altitude should not below 5 000 FT<br>– Radial 301°-350° altitude should not below 3 500 FT |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| PHRAE DVOR/DME | PAE | 111.8 MHz (CH 55X) | H24 | 180802.9N 1000958.5E | - | DVOR/DME restrictions,<br>1. Unusable due to roughness out of tolerance on radial 146° distance between 7.0-8.0 DME altitude 7 000 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 055º-080º altitude should not below 9 000 FT<br>– Radial 081º-160º altitude should not below 11 000 FT<br>– Radial 161º-180º altitude should not below 8 000 FT<br>– Radial 181º-350º altitude should not below 6 000 FT<br>– Radial 351º-054º altitude should not below 6 500 FT |
| PHUKET DVOR/DME | PUT | 116.9 MHz (CH 116X) | H24 | 080650.3N 0981825.2E | 16.72 M | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 360º-030º altitude should not below 5 500 FT<br>– Radial 031º-170º altitude should not below 9 000 FT<br>– Radial 171º-220º altitude should not below 7 000 FT<br>– Radial 221º-359º altitude should not below 3 000 FT |
| RANONG DVOR/DME | RAN | 113.4 MHz (CH 81X) | H24 | 094640.7N 0983501.4E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/ DME station coverage, check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>20 NM orbit<br>– Radial 020°-040° altitude should not below 6 000 FT<br>– Radial 041°-060° altitude should not below 12 000 FT<br>– Radial 061°-120° altitude should not below 16 000 FT<br>– Radial 151°-170° altitude should not below 9 000 FT<br>40 NM orbit<br>– Radial 121°-150° altitude should not below 16 000 FT<br>– Radial 171°-187° altitude should not below 12 000 FT<br>– Radial 188°-230° altitude should not below 7 000 FT<br>– Radial 231°-019° unable to fly due to border limited. |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| RAYONG DVOR/DME | RYN | 112.5 MHz (CH 72X) | H24 | 124643.1N 1014035.2E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit 40 NM at required altitude in various areas as follows:<br>– Radial 011º-040º altitude should not below 9 000 FT<br>– Radial 041º-050º altitude should not below 4 000 FT<br>– Radial 051º-080º altitude should not below 6 000 FT<br>– Radial 081º-240º altitude should not below 4 000 FT<br>– Radial 240º-010º altitude should not below 5 000 FT |
| ROI-ET DVOR/DME | ROT | 111.2 MHz (CH 49X) | H24 | 160700.6N 1034619.5E | - | Coverage orbit data refer from commissioning checked as follows:<br>– 40 NM clockwise orbit flown from radial 001°-360° altitude should not below 2 000 FT<br>– Airway W5 flown to 40 NM at 2 000 FT was checked and found satisfactory |
| SAKON NAKHON DVOR/DME | SKN | 114.2 MHz (CH 89X) | H24 | 171250.8N 1040812.4E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal at required altitude in various areas as follows:<br>1. 30 NM orbit (Due to border limited)<br>– Radial 000º-130º altitude should not below 2 100 FT<br>2. 40 NM orbit<br>– Radial 131º-280º altitude should not below 5 500 FT<br>– Radial 281º-359º altitude should not below 2 100 FT |
| SONGKHLA DVOR/DME | SKL | 113.5 MHz (CH 82X) | H24 | 071119.65N 1003615.11E | - | Military facility |
| SAMUI DVOR/DME | SMU | 117.6 MHz (CH 123X) | H24 | 093249.3N 1000342.3E | 24 M | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal at required altitude in various areas as follows:<br>– Radial 000º-015º beyond 25 NM altitude should not below 4 000 FT<br>– Radial 016º-040º beyond 25 NM altitude should not below 6 000 FT<br>– Radial 041º-060º beyond 20 NM altitude should not below 11 000 FT<br>– Radial 061º-070º beyond 25 NM altitude should not below 9 000 FT<br>– Radial 071º-120º beyond 40 NM altitude should not below 11 000 FT<br>– Radial 121º-180º beyond 40 NM altitude should not below 5 000 FT<br>– Radial 181º-210º beyond 25 NM altitude should not below 8 000 FT<br>– Radial 211º-260º beyond 20 NM altitude should not below 9 000 FT<br>– Radial 261º-280º beyond 25 NM altitude should not below 7 000 FT<br>– Radial 281º-360º beyond 40 NM altitude should not below 8 000 FT |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| SURAT THANI DVOR/DME | STN | 110.6 MHz (CH 43X) | H24 | 090746.2N 0990805.1E | - | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage orbit 40 NM as follows:<br>– Radial 001º-070º altitude should not below 1 500 FT<br>– Radial 071º-090º altitude should not below 3 500 FT<br>– Radial 091º-150º altitude should not below 5 000 FT<br>– Radial 151º-190º altitude should not below 1 500 FT<br>– Radial 191º-360º altitude should not below 4 000 FT<br>– Radial 227º distance approximate 10-13 DME out of tolerance roughness and scalloping |
| SUKHOTHAI NDB | THS | 292 KHz | H24 | 171406.8N 0994919.3E | - | 1. Route coverage checked on bearing 021° from THS to PR altitude 9 000 FT flown to 57 NM found satisfactory<br>2. Coverage 50 NM clockwise orbit data refer from commissioning checked as follows:<br>– Bearing 041°-100° at altitude 4 000 FT<br>– Bearing 101°-190° at altitude 2 000 FT<br>– Bearing 191°-040° at altitude 5 000 FT |
| TAKHLI NDB | TL | 350 KHz | H24 | 151633.45N 1001751.11E | - | |
| TAK NDB | TK | 332 KHz | H24 | 165358.2N 0991508.0E | | 1. Route coverage checked and result found satisfactory as follows:<br>– Bearing 098° from TK to PSL altitude 7 000 FT flown to 60 NM<br>– Bearing 254° from TK to MST altitude 7 000 FT flown to 43 NM<br>2. Coverage 15 NM clockwise orbit data refer from commissioning checked as follows:<br>– Bearing 001°-360° at altitude 3 500 FT |
| TRANG DVOR/DME | TRN | 116.6 MHz (CH 113X) | H24 | 073032.1N 0993733.7E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal at the required altitude in various areas as follows:<br>1. 20 NM orbit<br>– Radial 081°-130° altitude should not below 6 000 FT<br>2. 40 NM orbit<br>– Radial 131°-350° altitude should not below 4 000 FT<br>– Radial 351°-030° altitude should not below 6 000 FT<br>– Radial 031°-080° altitude should not below 7 000 FT |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| TRAT<br>NDB | TRT | 384 KHz<br>(CH 36X) | H24 | 121628.1N<br>1021850.1E | - | NDB restriction, due to mountainous terrain surround NDB station, coverage check does not provide adequate signal clockwise 50 NM orbit at altitude in various areas as follows:<br>– Bearing 001º-145º unable to performed due to border limited<br>– Bearing 146º-320º altitude should not below 5 000 FT<br>– Bearing 321º-360º altitude should not below 8 000 FT |
| UBON<br>DVOR/DME | UBL | 112.7 MHz<br>(CH 74X) | H24 | 151442.7N<br>1045157.2E | - | DVOR/DME restriction<br>1. Due to obstacles surround DVOR/ DME station, coverage check does not provide adequate signal clockwise orbit at required altitude in various areas as follows:<br>a) 40 NM<br>– Radial 111°-155° altitude should not below 3 000 FT<br>– Radial 156°-165° altitude should not below 7 000 FT<br>– Radial 166°-200° altitude should not below 5 000 FT<br>– Radial 201°-070° altitude should not below 3 000 FT<br>b) 30 NM (Due to border limit)<br>– Radial 071°-110° altitude should not below 2 000 FT<br>2. During 6 NM orbit found 30 Hz. AM modulation is fluctuated within 29%-50% between radial 170°-190°. UBON DVOR/DME unusable between radial 170°-190° (CW) beyond 10 NM altitude 2 000 FT |
| UDON<br>DVOR/DME | UDN | 114.3 MHz<br>(CH 90X) | H24 | 172305.2N<br>1024629.8E | - | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal at required altitudes in various areas as follows:<br>1. 15 NM orbit<br>– RDL 277º-280º ALT should not below 5000 FT<br>2. 20 NM orbit (due to border limited)<br>– RDL 331º- 030º ALT should not below 2500 FT<br>3. 40 NM orbit<br>– RDL 031º- 090º ALT should not below 3000 FT<br>– RDL 091º-190º ALT should not below 4000 FT<br>– RDL 191º- 268º ALT should not below 5000 FT<br>– RDL 269º- 276º ALT should not below 8000 FT<br>– RDL 281º- 330º ALT should not below 5000 FT<br>4. The En-route radial 275 (W15) beyond 20 NM ALT 6500 FT the DVOR/DME signal out of tolerance. |

| Name of station (VAR) VOR: Declination) | ID | FREQ (CH) | Hours of operation | Coordinates | ELEV DME Antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| U-TAPAO DVOR/DME | BUT | 110.8MHZ (CH 45X) | H24 | 124000.02N 1010001.71E | - | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit 40 NM at required altitude and distance in various areas:<br>– Radial 101°-170° altitude should not below 2 000 FT<br>– Radial 171°-250° altitude should not below 6 000 FT<br>– Radial 251°-320° altitude should not below 8 000 FT<br>– Radial 321°-050° altitude should not below 6 000 FT<br>– Radial 051°-100° altitude should not below 4 000 FT |

## ENR 4.2 SPECIAL NAVIGATION SYSTEMS

NIL

**INTENTIONALLY BLANK**

## ENR 4.3 GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)

NIL

**INTENTIONALLY BLANK**

## ENR 4.4 NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS

| Name-code designator | Coordinates | ATS route or other route |
|---|---|---|
| 1 | 2 | 3 |
| ABTOK | 061818.0N 1021744.0E | M644 |
| ADLAL | 091810.00N 0993106.46E | W32 |
| ADLUS | 190610.49N 0991319.89E | A581, W20 |
| ADNEP | 080343.50N 1010318.20E | W19 |
| AGEDO | 132419.40N 1022138.60E | B204 |
| AIZAK | 175302N 1002040E | W40 |
| AKATO | 133715.53N 0991019.19E | M502 |
| AKRET | 164016.00N 1030855.51E | W6, Y23 |
| AKVUG | 090349.18N 0992219.27E | Y93, Y99 |
| ALBOS | 144441.70N 1010141.90E | R474 |
| ALEMI | 123625.55N 1012559.92E | W42, Y12 |
| ALGIT | 165259.94N 1024654.83E | W5, Y22 |
| ALUMO | 104553.89N 1015122.86E | M644, R575, Y12 |
| ANBOK | 183634.60N 1011247.60E | R207 |
| ANBUX | 102137.46N 1011908.25E | R575, Y11 |
| ANDAX | 090441.11N 0983545.19E | Y5 |
| ANKID | 154048.67N 1033057.40E | W38 |
| ANKOS | 135259.65N 1012741.57E | G474, L880 |
| ANLUR | 171330N 1012705E | Y31 |
| ANOBO | 110323.01N 1021441.61E | N891, R575 |
| ANPAN | 085115.59N 0973720.45E | L759 |
| ANPUB | 075140.88N 0975216.38E | P627 |
| ANPUS | 165759.70N 1024651.15E | W5, Y22 |
| ANREN | 135212.48N 1021837.95E | G474, L880, W42 |
| APOBI | 090147.08N 1002813.76E | A464, Y95 |
| APRIL | 110006.70N 0994306.70E | G458 |
| APUSA | 100057.07N 1002006.66E | M626, W99, Y17 |
| ASABO | 151209N 1042102E | W1, Y20 |
| ASAVI | 182325.51N 0992957.88E | |
| ASEKU | 120305.65N 1003905.23E | M757, W42 |
| BARCE | 172244.72N 1011218.80E | W15 |
| BASIT | 093447.46N 1022108.00E | R588 |
| BEBUV | 172713N 0991613E | Y26, Y33 |
| BEKOD | 162117.20N 0994636.40E | A464 |
| BENSA | 102631.00N 1022629.50E | N891 |
| BENVI | 192706.52N 0995741.02E | W22 |
| BERLU | 131350.41N 1015620.49E | N506, R468, W42 |
| BETNO | 150553.50N 0981231.20E | G463, P646 |
| BIDEM | 142153.57N 1034750.07E | R345 |
| BIGVO | 172830N 0984154E | A581, R202, W7 |
| BITEN | 082658.57N 0992028.83E | W24, Y4, Y99 |
| BODUR | 154852.90N 1032127.21E | B460 |
| BOKAK | 125736.30N 1022947.30E | B205, N506, R468 |
| BOKIB | 190433.60N 0982225.20E | W9 |
| BOMAS | 172304.80N 0980549.10E | A581 |
| BONVO | 134410.47N 0994606.72E | M502 |
| BOPNU | 175825.80N 1030052.12E | M648 |

| Name-code designator | Coordinates | ATS route or other route |
|---|---|---|
| 1 | 2 | 3 |
| BORNO | 162057.21N 0994138.88E | Y6 |
| BOVGO | 170739.61N 1014935.15E | B218 |
| BUTRA | 152505.80N 1053545.90E | A1, Y16 |
| BUXEL | 114341.96N 0994540.35E | Y8 |
| CRIST | 184752N 1001334E | R207, W12, Y28 |
| DADSA | 090712.81N 0981749.34E | G331 |
| DALAN | 062808.00N 0993920.00E | B579 |
| DANDO | 073053.98N 1002023.99E | M769, Y9 |
| DIPUN | 120456.93N 1011011.13E | M904 |
| DIRAX | 110006.70N 1003248.30E | A464, W19 |
| DOLNI | 131739.62N 1011048.41E | N891, P629, Y12 |
| DOMKA | 191419.38N 0982601.88E | W36 |
| DONSI | 100738.27N 1002401.22E | M769, W99, Y17 |
| DORNA | 092458.70N 0994614.10E | W32, Y3, Y93 |
| DOSBU | 135240.26N 1015001.98E | G474, L880 |
| DOTUS | 163103.01N 1032731.56E | R470, W4, Y21 |
| DOXAS | 084656.56N 1002207.73E | M769, Y94 |
| DUBAX | 062555.90N 1000736.60E | R325 |
| DUBEN | 193249.42N 1001206.83E | R215, W29, Y27, Y28 |
| DUBOL | 171003.52N 1013153.94E | W39 |
| DUGON | 080124.77N 1020548.57E | M644 |
| DUKEN | 150005.54N 1000807.90E | Y6 |
| DULEM | 134415.58N 1021359.75E | M633, W42 |
| EGUBO | 112837.74N 1000450.15E | W31, W42, Y5, Y99 |
| EKAVO | 113736.50N 0993024.70E | M626 |
| ELDAL | 162106N 0993839E | Y26, Y32, Y37 |
| ELNET | 174625.01N 1023745.95E | R470 |
| ELREM | 072615.66N 1000606.53E | W17 |
| EMELA | 101249.19N 1010729.14E | M751, R575 |
| EMRIT | 080621.05N 0984840.42E | R588, Y99 |
| EMRUT | 160019.64N 1023533.26E | W6, Y23 |
| EMTIX | 114930.73N 1000814.00E | Y96, Y99 |
| EMVEL | 084437.58N 0992121.67E | W17, Y99 |
| ENBAT | 180941.04N 0991004.36E | A464 |
| ENLEP | 153353N 1042800E | R470, W4, W5, Y21, Y22 |
| ENRAG | 100223.31N 1000931.07E | W32 |
| ENTEK | 154754.67N 1041024.31E | R470, W4, W5, Y21, Y22 |
| ENVON | 072933.35N 1001406.25E | W28 |
| EPGOT | 075415.95N 0984554.93E | W14 |
| ERVES | 061207.88N 1012853.20E | W44 |
| ESGIB | 172458.25N 1021513.93E | W15 |
| GOGOP | 180812.79N 0985149.68E | |
| GOKEX | 111814.72N 1002543.59E | M769, W32, Y96 |
| GOKON | 164300.76N 1004833.82E | W26, Y31 |
| GOLUD | 061706.00N 1021639.00E | M751 |

| Name-code designator | Coordinates | | ATS route or other route |
|---|---|---|---|
| 1 | 2 | | 3 |
| GOMES | 132406.10N | 1013505.70E | B204, N506, R468 |
| GORSI | 133054.64N | 1012128.05E | N506, R468 |
| GOSTA | 171557.30N | 1002229.83E | W29 |
| GRASO | 150916.92N | 1034714.07E | R345, W1, Y13, Y15, Y20 |
| GULNO | 171914.93N | 1031735.08E | W15 |
| GUPMO | 085011.56N | 1002750.26E | A464, W94 |
| GUROK | 160329.39N | 1041105.84E | A202, Y15 |
| GUTSO | 124819.94N | 1003454.30E | A464, M751, W19 |
| HOTEL | 130006.20N | 1001948.30E | G458, W31, Y99 |
| IBETO | 141036.14N | 0992945.68E | L524 |
| IBIRI | 175223N | 0992317E | Y33 |
| IBUBU | 175128N | 1000336E | W25, Y27 |
| IDAGA | 110006.80N | 1005348.10E | M751 |
| IDKOR | 173810N | 1001243E | W22, Y34 |
| IDNAR | 084343.73N | 0991523.83E | W24 |
| IDRUK | 082723.86N | 1005513.45E | R588, W19, Y95 |
| IGEVI | 083639.58N | 0982319.78E | W34, Y5 |
| IGNAX | 175144N | 0993339E | W9 |
| IGONI | 142632.73N | 0995430.29E | L507 |
| IGPOP | 165002N | 0994708E | W26, Y7 |
| IGUDA | 185047N | 0992332E | Y36 |
| IKERA | 093146.39N | 0991532.00E | G458, Y8 |
| IKISU | 184739N | 1000349E | R207, W12, W22, Y27 |
| IKOGA | 073935.22N | 1013234.94E | M626, Y24, Y95 |
| IKULA | 100006.90N | 0972114.00E | L515, R325 |
| KABMU | 182738.58N | 0993247.05E | W15 |
| KADAV | 164754.24N | 0985340.89E | W26 |
| KADAX | 061602.00N | 1021541.70E | M626 |
| KARMI | 062940.00N | 1003121.00E | A464, M757 |
| KASNI | 130450.17N | 1004041.88E | M757 |
| KENNE | 064339.82N | 1004131.60E | Y18 |
| KEXIL | 174204.37N | 0992953.55E | Y7 |
| KIGOB | 130646.46N | 1005106.33E | M904, Y11 |
| KIMET | 164928N | 0994429E | Y32 |
| LAMUL | 084817.52N | 0985208.16E | G458, Y8 |
| LAMUN | 190513.14N | 0984044.26E | R207, W36 |
| LEBIM | 130514.81N | 1002824.51E | M769, Y98 |
| LEDER | 175044.48N | 1022824.55E | R474 |
| LERNI | 062705.83N | 1011617.56E | Y19 |
| LIPLI | 141027.65N | 1015756.34E | Y16 |
| LOSDA | 085356.13N | 1003425.08E | M757, Y94, Y95 |
| LUDVI | 152849.23N | 0983530.00E | L507 |
| LUXIR | 082818.59N | 0990200.48E | W32 |
| MABKO | 094808.96N | 1003543.02E | M757, W33 |
| MACHI | 191306.47N | 0983346.32E | R207, W36 |
| MAKAS | 164947.00N | 0982948.90E | G473 |
| MALIP | 111240.07N | 0993155.14E | |
| MALKI | 143110.87N | 1011152.69E | W1, Y20 |
| MARNI | 180836.14N | 0990549.11E | Y26, Y6 |
| MEMAN | 183452N | 0991859E | W15 |
| MENEX | 110830.70N | 0994542.60E | G458, M626, W34, W42, Y3, Y5, Y8 |
| MESEM | 090719.05N | 0994815.85E | R575, W33, Y4 |
| MIGAR | 141822.51N | 0985906.67E | L524, L877 |
| MONBU | 082659.15N | 0984056.41E | Y3 |
| MONLO | 184702.20N | 0993743.35E | R207, W12 |
| MOTNA | 131110.14N | 1002305.69E | G458, Y8, Y99 |
| MUBAN | 085440.87N | 1012952.12E | M751, R588 |
| MUBUS | 134529.73N | 1004342.17E | M633, P629 |
| MUDMA | 090049.90N | 0975115.36E | L515, R325 |
| MUGNO | 175107.17N | 1025753.39E | M648 |
| NEMTE | 160344.79N | 1022912.78E | Y2 |
| NIROP | 171613.74N | 1001444.33E | W22 |
| NIXET | 092517.11N | 0992613.25E | Y99 |
| NOBER | 151635.60N | 1004006.00E | B346, W21, W39 |
| NOBIT | 065117.61N | 1004807.49E | |
| NOGAD | 173833.69N | 1020020.87E | B218 |
| NOMEK | 093404.16N | 0984834.66E | Y5 |
| NOMEP | 113829.80N | 1010454.33E | Y11 |
| NONEL | 105300.93N | 0995337.40E | M626, Y4, Y98, Y99 |
| NUBKA | 065433.58N | 1013425.82E | W19 |
| NUGPA | 130254.16N | 1014959.29E | P629, W42 |
| NULBO | 102919.40N | 1003643.45E | M757 |
| NULMA | 083117.69N | 0990228.03E | W32 |
| NUMDO | 193243.43N | 0993401.89E | A581, W20 |
| NUNLI | 145127.45N | 0992303.60E | L507 |
| NURDA | 142450.65N | 0983322.46E | L524 |
| NUTGU | 072802.94N | 0985019.56E | B579 |
| NUVLU | 164146N | 0993140E | Y26, Y30 |
| OBKIB | 151913N | 1044249E | G473 |
| OBLEX | 072947.50N | 1003227.63E | M757, Y10 |
| OKENA | 161608.19N | 1042532.75E | A202, W43 |
| OLBAG | 095849.36N | 1001852.25E | W99, Y17 |
| OLDIR | 125401.34N | 1021324.77E | B205, P629 |
| OLSEL | 113411.07N | 1001649.03E | Y96, Y98 |
| OLTUM | 134438.56N | 1014956.16E | M633 |
| OLVUK | 143928N | 1001240E | Y26 |
| OMDIL | 181107N | 0995546E | W13 |
| OMGIV | 171709N | 1012243E | B346, W27 |
| OMURO | 135142.77N | 1024559.41E | G474, L880 |
| ONETI | 081757.38N | 0984633.12E | R575, W33 |
| ONUVI | 163228.21N | 1022655.02E | W16 |
| OSPEX | 082015.13N | 0991319.48E | Y4, Y99 |
| OSROG | 085819.63N | 1013430.71E | R588, Y11 |

| Name-code designator | Coordinates | ATS route or other route |
|---|---|---|
| 1 | 2 | 3 |
| OSVIP | 074253.09N 0984408.91E | R325 |
| OTBAD | 181514N 0995622E | W15 |
| OTGOL | 091305.80N 0993247.77E | Y93 |
| OVLEN | 155804N 0995509E | Y27 |
| PADET | 100006.90N 0981719.30E | G331 |
| PADPA | 071659.86N 0995531.86E | W14 |
| PAGLU | 091548.91N 1001709.26E | W35, Y95 |
| PAKMO | 162013.35N 0995655.96E | Y27, Y7 |
| PAKRI | 145202.21N 1025408.69E | W42, Y13 |
| PANKU | 172035.00N 1005605.80E | W15, W16 |
| PANTA | 181351.17N 0991917.05E | W9, Y7 |
| PASAT | 145726.81N 1034726.15E | A1, R345 |
| PASTO | 140004.50N 0993006.94E | L301 |
| PASVA | 061529.00N 1020431.00E | A334, Y11, Y24, Y25 |
| PEBLI | 161605.94N 1001736.21E | W9, Y28, Y31 |
| PEKBA | 144807.73N 1034732.96E | R345, Y16 |
| PETAC | 061739.82N 1011945.08E | Y18, Y19 |
| PIBAN | 162314N 0995718E | Y27, Y29 |
| PIBIK | 171130.33N 1000027.77E | W9 |
| PIDEL | 122142.71N 1010514.27E | M904, W42, Y11 |
| PIMER | 073044.98N 1002448.60E | A464 |
| PINUN | 092825.16N 1002305.61E | M769, W35 |
| PIPOB | 142235.58N 1011913.75E | Y1, Y13, Y2 |
| PIVUT | 174644.25N 0994552.95E | W23 |
| POLAK | 132106.10N 1003454.30E | A464, M751, W19 |
| POLOB | 171309.43N 1000327.80E | W23, Y27, Y34 |
| PONUK | 201858.10N 1002305.80E | A581, Y27 |
| POPID | 062907.90N 1003212.40E | W650 |
| POTEV | 152153N 1052206E | A1 |
| POVEX | 165905.19N 1030529.66E | R470, W4, Y21 |
| PUMAM | 180831N 0985001E | A581, W7 |
| PUMOR | 141420.37N 0984347.85E | L877 |
| RAMBU | 150554.42N 1032318.85E | W1, Y20 |
| RAMEI | 150240.15N 1030040.02E | A202, W1, W38, W42, Y20 |
| REBED | 074331.60N 0983736.19E | B579 |
| RECNO | 083425.30N 0992824.90E | R575, W33, Y4 |
| REGOS | 120006.50N 1003454.30E | A464, M751, W19, W32, W42 |
| RELIP | 080431.5N 1002618.5E | A464, R588 |
| REMER | 165934.56N 1004531.34E | W27 |
| RIBDO | 172013.68N 1012917.58E | W27 |
| RIGTO | 064228.22N 1001504.23E | M769 |
| RILVI | 102333.74N 1012142.32E | |
| RINKA | 173746.23N 0991609.23E | Y6 |
| RIPMU | 090852.33N 1002238.22E | M769, Y95 |
| RIVDU | 144236N 1002019E | Y27 |
| ROBDA | 092558.15N 1003510.91E | M757, W19 |
| ROBKA | 141042.95N 1012507.95E | A1 |
| RUKSA | 143351.00N 1015512.34E | Y13 |
| RUMVA | 091716.93N 1001559.72E | Y95 |
| RUPTA | 125839.32N 1014732.71E | W42 |
| RURAR | 161943.04N 1041435.65E | B460 |
| RUSET | 074616.0N 0974257.0E | P627 |
| SABIS | 125958.53N 1001124.53E | Y8 |
| SAGAL | 151757N 1044522E | G473 |
| SAKDA | 113654.00N 1030000.00E | R334, R575 |
| SANAL | 163704.80N 0993619.48E | Y6 |
| SANOT | 145134.21N 1032547.75E | A1, Y15 |
| SAPAM | 080434.00N 0973300.00E | L645, R203 |
| SARER | 082126.94N 0990057.22E | W32 |
| SARIM | 173029.97N 0994737.09E | W9 |
| SATVA | 082902.07N 0975756.08E | L759 |
| SAVSA | 083016.00N 0983728.53E | G458, Y8 |
| SEDNO | 161733.31N 1031707.18E | W5, Y22 |
| SEGRA | 085300.22N 0992831.31E | W28 |
| SELKA | 142020.06N 1015310.73E | A1, Y14 |
| SEMBO | 145359.16N 1001547.92E | A464 |
| SIRAT | 103450.16N 1013639.87E | M904 |
| SISUK | 194804.10N 0980242.90E | R207 |
| SORTO | 095353.22N 1002341.62E | M626, M769 |
| SUNGO | 182312N 1002346E | R202, W25 |
| SUPIN | 083434.55N 1010419.34E | M626, R588 |
| SUPOJ | 101642.14N 1001220.33E | W31, W32 |
| SURGU | 170157.87N 1022408.06E | W21 |
| SURIX | 105959.08N 1015014.56E | W33 |
| SURMA | 115122.45N 1002632.65E | M769, W42, Y5, Y98 |
| SUSID | 083659.26N 0981807.97E | G331 |
| SWENI | 172555.41N 1015902.73E | W15 |
| TAMOS | 063207.90N 1002406.50E | A457 |
| TANEK | 140305.80N 0985818.90E | L301, M633 |
| TANGO | 144022.25N 1001432.54E | Y6 |
| TARED | 142619.52N 0993128.87E | G463, P646 |
| TATEL | 172904.80N 0984548.80E | |
| TAVAT | 084256.59N 0990415.52E | W32 |
| TAVUN | 1000.0N 09633.2E | L759 |
| TAXEB | 064640.97N 1004644.74E | A334 |
| TEDOS | 084833.61N 0990507.41E | W32, Y3 |
| TENUM | 090228.94N 1013948.44E | |
| TERCO | 165549.66N 1023307.98E | Y1 |
| TIDAR | 065230.15N 1024959.82E | M904 |
| TIKAL | 080219.50N 1014447.90E | M751, Y11 |
| TOGIM | 092659.13N 0985148.08E | W17 |
| TOMIP | 191104.50N 1011547.50E | R215, Y36 |
| TONIK | 091736.12N 1015906.78E | M644, M904, R588, Y25 |

| Name-code designator | Coordinates | ATS route or other route |
|---|---|---|
| 1 | 2 | 3 |
| TONUV | 062319.11N 1011126.98E | Y18 |
| TOPAS | 172916.19N 0992358.16E | A464 |
| TOPER | 143807.60N 1024538.14E | A1, W42 |
| TORAN | 163541N 0985219E | Y37 |
| TUNRA | 074736.74N 0991904.91E | W32 |
| TUPGO | 134348.87N 1023918.22E | M633 |
| TUSPU | 101948.03N 1003108.44E | A464, W19, W99 |
| UBLOD | 143715.43N 1012611.66E | W1, Y1, Y2, Y20 |
| UBNEN | 080520.17N 0974812.19E | L645, R203 |
| UDIKU | 170735N 1011952E | B346, Y31 |
| UGIPA | 134524.06N 1005220.90E | M633, N506, R468 |
| UGUVO | 150835N 1001141E | Y27 |
| UKERA | 120207.25N 1000109.59E | G458, W31 |
| UPKUP | 140352.65N 1012654.84E | Y16 |
| UPMUT | 150043N 1000536E | Y26 |
| UPNEP | 094213.10N 1002936.40E | A464, M626, R575, W19, W33, W35 |
| UPSAB | 083347.80N 0980451.85E | L515, R325 |
| UPVIL | 113836.21N 1001420.66E | W42, Y5, Y96 |
| URGAD | 074614.95N 0984031.04E | R325 |
| URGUM | 164154N 0985322E | Y30 |
| UTHAI | 070007.70N 0992948.90E | R325 |
| UTTAR | 174304.90N 1002706.00E | W29 |
| VALSI | 093108.40N 1003518.37E | M626, M757 |
| VANKO | 123511.05N 0994537.55E | Y8 |
| VAPVU | 124701.07N 1023148.71E | P629 |
| VEGNA | 091426.61N 0992251.21E | W32, Y99 |
| VEGRA | 170333.12N 0983652.59E | W7 |
| VENAG | 175411N 0994158E | W23 |
| VENPO | 150645N 1042202E | A1 |
| VESUD | 152108N 1043854E | G473 |
| VININ | 093753.58N 1001739.94E | R575, W33 |
| VISES | 185811.41N 0983438.14E | W9 |
| VUTHI | 145006.95N 0995725.34E | W10 |
| XIKMA | 142236.09N 1023626.03E | W42, Y16 |
| YAKUA | 174414.79N 1013051.65E | B346, Y35 |

## ENR 4.5 AERONAUTICAL GROUND LIGHTS - EN-ROUTE

NIL

**INTENTIONALLY BLANK**

## ENR 5. NAVIGATION WARNINGS

### ENR 5.1 PROHIBITED, RESTRICTED, DANGER AREAS

1. All airspace in which a potential hazard to aircraft operations may exist and all areas over which the operation of civil aircraft may, for one reason or another, be restricted either temporarily or permanently, are classified, according to the following three types of areas as defined by ICAO.

Prohibited Area

An airspace of defined dimensions above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited. The flight of aircraft within the designated airspace is require prior authorization from appropriate agency.

Restricted Area

An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions. The flight of aircraft within the designated airspace is not absolutely prohibited but require prior authorization from appropriate agency or pilot comply with specified entry criteria.

Danger Area

An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified time. The effect of the creation of danger area is to caution operators or pilots of aircraft that it is necessary for them to assess the dangers in relation to their responsibility for the safety of their aircraft.

2. Each area is numbered and a single series of numbers is used for all areas, regardless of type, to ensure that a number is never duplicated.

3. The type of area involved is indicated by the letter “P” for Prohibited, “R” for Restricted and “D” for Danger, preceded by the nationality letter “VT”. For example, areas are assigned numbers and letters in the following manner VTR1, VTR2, VTR3, VTP4, VTD5, etc.

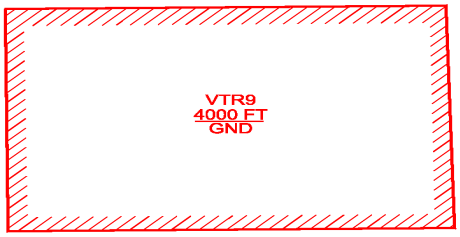
4. Each area is described in the tabulation which indicates its lateral and vertical limits, the type of restriction or hazard involved, the time at which the area is active and any other pertinent information.

5. These areas are also shown on aeronautical chart using the symbols shown in the following examples:

PROHIBITED




RESTRICTED




DANGER




The upper and lower limits are shown in the manner indicated. Altitudes are given in feet.

## 6. PROHIBITED, RESTRICTED AND DANGER AREAS

### 6.1 PROHIBITED AREAS

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTP4 MUANG KOM**<br>Area bounded by lines joining successively the following points:<br>150700N 1005900E -<br>150700N 1005000E -<br>145500N 1005000E -<br>145500N 1005900E -<br>150700N 1005900E | FL 240<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : Bombing / Air Firing Area<br>Time of activity : MON - FRI, H24<br>Permission to entry : Only authorized aircraft<br>Inflight information : Chandy Tower freq. 134.75 MHZ or 285.4 MHZ<br>Contact agency : Chandy Tower, Tel: +662 534 6000 ext. 25884 |
| **VTP7 SATTAHIP**<br>Circle of 4NM radius centred on point<br>123845N 1005300E | UNL<br>GND | Type of restriction : Naval Base<br>Nature of hazard/activity : National security area<br>Time of activity : H24<br>Permission to entry : Only authorized aircraft by RTN<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5600 |
| **VTP36 KHAO SOIDAO TAI**<br>A semi-circle 17 NM radius of<br>125613N 1021250E from 0° to 180° | ALT 5 000 FT<br>GND | Type of restriction : RTN Area<br>Nature of hazard/activity : Military operations<br>Time of activity : Sunset to Sunrise<br>Permission to entry : Only authorized aircraft by RTN<br>Inflight information : Trat Approach freq. 120.25 MHZ<br>Contact agency : Chanthaburi and Trat Border Defense, Tel. +663 931 2334, +663 931 1099 |
| **VTP37 KHAO KHLONG OA**<br>A semi-circle 14 NM radius of<br>123419N 1023635E from 135° to 315° | ALT 5 000 FT<br>GND | Type of restriction : RTN Area<br>Nature of hazard/activity : Military operations<br>Time of activity : Sunset to Sunrise<br>Permission to entry : Only authorized aircraft by RTN<br>Inflight information : Trat Approach freq. 120.25 MHZ<br>Contact agency : Chanthaburi and Trat Border Defense, Tel. +663 931 2334, +663 931 1099 |
| **VTP38 KO CHANG - KO KHUD**<br>Area bounded by lines joining successively the following points:<br>121737N 1021424E -<br>120945N 1023432E -<br>114630N 1025324E -<br>113800N 1025530E -<br>113000N 1023000E -<br>120000N 1021100E -<br>121737N 1021424E | ALT 5 000 FT<br>GND | Type of restriction : RTN Area<br>Nature of hazard/activity : Military operations<br>Time of activity : Sunset to Sunrise<br>Permission to entry : Only authorized aircraft by RTN<br>Inflight information : Trat Approach freq. 120.25 MHZ<br>Contact agency : Chanthaburi and Trat Border Defense, Tel. +663 931 2334, +663 931 1099 |

## 6.2 RESTRICTED AREAS

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTR1 BANGKOK CITY**<br>Circle of 10 NM radius centred on point<br>134554N 1003218E | ALT 3 000 FT<br>GND | Type of restriction : Congested Area<br>Nature of hazard/activity : -<br>Time of acitivity : H24<br>Permission to entry : Only authorized aircraft by CAAT, except any aircraft operated under air traffic control services.<br>CAAT may issue further temporary condition for flight operation within VT R1 by NOTAM.<br>Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ<br>Contact agency : CAAT, Air Navigation Operations Management Department |
| **VTR2 CHITRLADA PALACE**<br>Circle of 1 NM radius centred on point<br>134605.18N 1003116.44E | ALT 6 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : H24<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ<br>Contact agency : CAAT, Air Navigation Service Standards Department |
| **VTR3 HUA HIN PALACE**<br>Circle of 1 NM radius centred on point<br>123522.19N 0995710.69E | ALT 6 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : Notified by NOTAM<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : Hua Hin Approach, AEROTHAI<br>Contact agency : CAAT, Air Navigation Service Standards Department |
| **VTR5 PHU PHING PALACE**<br>Circle of 2 NM radius centred on point<br>184820N 0985357E | ALT 12 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : Notified by NOTAM<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : Chiang Mai Approach, AEROTHAI<br>Contact agency : CAAT, Air Navigation Service Standards Department |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTR6 THAK SIN PALACE**<br>Circle of 5 NM radius centred on point<br>062522.11N 1015218.93E | ALT 6 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : Notified by NOTAM<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : Narathiwat Approach, AEROTHAI<br>Contact agency : CAAT, Air Navigation Service Standards Department |
| **VTR8** KAMPHAENG SAEN JETTISON<br>Area bounded by lines joining successively the following points:<br>125300N 1002000E -<br>125300N 1002500E -<br>123500N 1001700E -<br>123500N 1001130E -<br>125300N 1002000E | ALT 7 000 FT<br>GND | Type of restriction : RTAF Jettison Area<br>Nature of hazard/activity : Jettison Area<br>Time of activity : H24<br>Permission to entry : Only authorized aircraft<br>Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ before entering.<br>Contact agency : Kamphaeng Saen Flying Training School Air Traffic Control branch, Tel.+662 534 6000 ext 37517, 37522 |
| **VTR11 KO HIN CHALAM, SATTAHIP**<br>Circle of 2 NM radius centred on point<br>122753N 1005819E | UNL<br>GND | Type of restriction : RTN Jettison Area / Ground and Air Gunnery Area<br>Nature of hazard/activity : Military operations<br>Time of activity : H24<br>Permission to entry : Only authorized aircraft by U-Tapao<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |
| **VTR12 KO LUAM, PRACHUAP KHIRI KHAN**<br>Circle of 0.5 NM radius centred on point<br>114530N 0995000E | ALT 9 000 FT<br>GND | Type of restriction : RTN Jettison Area<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Permission to entry : Only authorized aircraft by RTN<br>Inflight information : Prachuap Tower freq. 135.9 MHZ or 236.6 MHZ<br>Contact agency : Wing 5, Prachuap Air Force Base Prachuap Khirikhan Province, Tel. +663 260 3919 |
| **VTR13 KO SAMET, RAYONG**<br>Circle of 7.1 NM radius centred on point<br>121200N 1012100E | UNL<br>GND | Type of restriction : RTN Jettison Area / Ground Gunnery Area<br>Nature of hazard/activity : Military operations<br>Time of activity : H24<br>Permission to entry : Only authorized aircraft by U-Tapao<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |
| **VTR15 UBON**<br>Area bounded by lines joining successively the following points:<br>151013N 1045610E -<br>151046N 1045642E -<br>151046N 1045749E -<br>150942N 1045649E -<br>150942N 1045642E -<br>151013N 1045610E | ALT 8 000 FT<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : H24<br>Permission to entry : Only authorized aircraft by RTAF<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ<br>Contact agency : Wing 21 Air Traffic Control branch, Tel. +662 534 6000 ext 43512, 43508 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTR51 SONGKHLA**<br>Area bounded by lines joining successively the following points:<br>0717N 09954E -<br>0717N 09959E -<br>0715N 09959E -<br>0713N 09954E -<br>0717N 09954E | ALT 5 000 FT<br>GND | Type of restriction : RTAF Jettison Area<br>Nature of hazard/activity : Jettison Area<br>Time of activity : Sunrise to Sunset<br>Permission to entry : Only authorized aircraft by RTAF<br>Inflight information : contact BIG SHELL control freq. 127.0 MHZ or 331.3 MHZ<br>Contact agency : Air Defense Sector Operation Control 3, Tel. +667 726 8083 |
| **VTR52 SONGKHLA**<br>Area bounded by lines joining successively the following points:<br>0629N 10032E -<br>0636N 10032E -<br>0636N 10038E -<br>0629N 10038E -<br>0629N 10032E | ALT 8 000 FT<br>GND | Type of restriction : RTAF Jettison Area<br>Nature of hazard/activity : Jettison Area<br>Time of activity : Sunrise to Sunset<br>Permission to entry : Only authorized aircraft by RTAF<br>Inflight information : BIG SHELL control freq. 127.0 MHZ or 331.3 MHZ<br>Contact agency : Air Defense Sector Operation Control 3, Tel. +667 726 8083 |
| **VTR62 EASTERN AREA**<br>Area bounded by lines joining successively the following points:<br>113800N 1025530E -<br>113000N 1023000E -<br>120945N 1023432E -<br>125613N 1021250E -<br>135000N 1021250E -<br>142800N 1031000E -<br>144500N 1040000E -<br>144500N 1044100E -<br>142400N 1045100E -<br>then westward along the Thai-Cambodian border to the starting point. | ALT 13 000 FT<br>GND | Type of restriction : RTN Area<br>Nature of hazard/activity : Military operations<br>Time of activity : Sunset to Sunrise<br>Permission to entry : Only authorized aircraft by RTN<br>Inflight information : Trat Approach freq. 120.25 MHZ<br>Contact agency : Chanthaburi and Trat Border Defense Command, Tel. +663 931 2334, +663 931 1099 |
| **VTR66 PHU PHAN PALACE**<br>Circle of 5 NM radius centred on point<br>170738.10N 1040119.76E | ALT 6 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : Notified by NOTAM<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : Sakon Nakhon Approach, AEROTHAI<br>Contact agency : CAAT, Air Navigation Service Standards Department |
| **VTR68 NAM PHONG**<br>Area bounded by lines joining successively the following points:<br>164048.58N 1025559.19E -<br>163810.90N 1025605.94E -<br>164049.25N 1025706.67E -<br>163814.77N 1025708.31E | FL 150<br>GND | Type of restriction : RTAF Jettison Area<br>Nature of hazard/activity : RTAF Jettison Area<br>Time of activity : MON-FRI, 0000-1000<br>Permission to entry : Only authorized aircraft by RTAF<br>Inflight information : contact Khon Kaen Approach freq. 123.4 MHZ or 236.6 MHZ<br>Contact agency : Wing 23 Air Traffic Control branch Tel. +662 534 6000 ext 45502, 45503 or Nam Phong Tower, Tel. +662 534 6000 ext 42305 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTR79 PHIMANMAS PALACE**<br>Circle of 0.5 NM radius centred on point<br>123908N 1005848E | ALT 6 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : Notified by NOTAM<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : U-Tapao Approach, Royal Thai Navy<br>Contact agency : CAAT, Air Navigation Service Standards Department |
| **VTR80 SRAPATHUM PALACE**<br>Circle of 1 NM radius centred on point<br>134452.69N 1003155.92E | ALT 6 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : H24<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ<br>Contact agency : CAAT, Air Navigation Service Standards Department |
| **VTR81 JAKRIBONGKOT PALACE**<br>Circle of 1 NM radius centred on point<br>135648.31N 1003126.90E | ALT 6 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : H24<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ<br>Contact agency : CAAT, Air Navigation Service Standards Department |
| **VTR82 AMPHORN ROYAL PALACE**<br>Circle of 1 NM radius centred on point<br>134621.50N 1003040.28E | ALT 6 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : H24<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ<br>Contact agency : CAAT, Air Navigation Service Standards Department |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTR83 SUKOTHAI PALACE**<br>Circle of 1 NM radius centred on point<br>134656.66N 1003033.51E | ALT 6 000 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard, activity : -<br>Time of activity : H24<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ<br>Contact agency : CAAT, Air Navigation Service Standards Department |
| VTR84 TIPPIMARN PALACE<br>Circle of 1 NM radius centred on point<br>142929.82N 1013145.88E | ALT 7 500 FT<br>GND | Type of restriction : Royal Residence Area<br>Nature of hazard/activity : -<br>Time of activity : H24<br>Permission to entry : As specified condition:<br>1. Authorized aircraft; or<br>2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required.<br>Any occurrence of entry into restricted area shall be reported to CAAT.<br>Inflight information : OSCAR Control<br>Contact agency : CAAT, Air Navigation Service Standards Department |

## 6.3 DANGER AREAS

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD16 RATCHABURI**<br>Area 1<br>Area bounded by lines joining successively the following points:<br>133200.00N 1001600.00E -<br>then follows the coast line to<br>132555.77N 1000709.33E -<br>135409.97N 0995818.91E -<br>135600.00N 1001100.00E -<br>134800.00N 1001100.00E -<br>133200.00N 1001600.00E | FL 120<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1300<br>Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Kamphaeng Saen Flying Training School Air Traffic Control branch, Tel. +662 534 6000 ext 37517, 37522 |
| Area 2<br>Area bounded by lines joining successively the following points:<br>132555.77N 1000709.33E -<br>then follows the coast line to<br>130000.00N 1000400.00E -<br>130000.00N 0994000.00E -<br>134900.00N 0992300.00E -<br>135409.97N 0995818.91E -<br>132555.77N 1000709.33E | UNL<br>GND | |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD17 KANCHANABURI**<br>Area 1<br>Area bounded by lines joining successively the following points:<br>135600.00N 1001100.00E -<br>135253.16N 0994930.37E -<br>then clockwise along 45NM arc radius centred on BKK VOR/DME (135336.8N 1003546.3E) to<br>140930.15N 0995225.65E -<br>140600.00N 1001100.00E -<br>135600.00N 1001100.00E | ALT 6 000 FT<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1300<br>Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Kamphaeng Saen Flying Training School Air Traffic Control branch, Tel. +662 534 6000 ext 37517, 37522 |
| Area 2<br>Area bounded by lines joining successively the following points:<br>135253.16N 0994930.37E -<br>134900.00N 0992300.00E -<br>141500.00N 0992300.00E -<br>140930.15N 0995225.65E -<br>then counter clockwise along 45 NM arc radius centred on BKK VOR/DME (135336.8N 1003546.3E) to<br>135253.16N 0994930.37E | ALT 9 000 FT<br>GND | |
| **VTD18 SUPHAN BURI**<br>Area 1<br>Area bounded by lines joining successively the following points:<br>140600.00N 1001100.00E -<br>140930.15N 0995225.65E -<br>then clockwise along 45 NM arc radius centred on BKK VOR/DME (135336.8N 1003546.3E) to<br>143304.18N 1001310.02E -<br>141900.00N 1002400.00E -<br>140600.00N 1001100.00E | ALT 6 000 FT<br>GND<br><br>UNL<br>FL 200 | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1300<br>Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Kamphaeng Saen Flying Training School Air Traffic Control branch, Tel. +662 534 6000 ext 37517, 37522<br>Note: Training aircraft at FL200 and above will be authorized by Bangkok ACC. |
| Area 2<br>Area bounded by lines joining successively the following points:<br>140930.15N 0995225.65E -<br>141500.00N 0992300.00E -<br>145400.00N 0995700.00E -<br>143304.18N 1001310.02E -<br>then counter clockwise along 45 NM arc radius centred on BKK VOR/DME (135336.8N 1003546.3E) to<br>140930.15N 0995225.65E | ALT 8 000 FT<br>GND<br><br>UNL<br>FL 200 | |
| **VTD19 MAE KLONG**<br>Area bounded by lines joining successively the following points:<br>1324N 10015E -<br>1322N 10022E -<br>1302N 10012E -<br>1303N 10009E -<br>1324N 10015E | UNL<br>GND | Type of restriction : RTAF Jettison Area<br>Nature of hazard/activity : High altitude Training Area<br>Time of activity : MON - FRI, 0300-0900<br>Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ before entering<br>Pilots are advised to contact prior to entering.<br>Contact agency : Kamphaeng Saen Flying Training School, Air Traffic Control branch, Tel. +662 534 6000 ext 37517, 37522 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD20 HUA HIN**<br>Area bounded by lines joining the following points:<br>1300N 09937E -<br>1300N 10010E -<br>1210N 10010E -<br>then along the arc of 30 NM radius centred on HHN DVOR/DME (123804.04N 0995704.23E)<br>1300N 09937E<br>*Excluding* Hua Hin CTR, Hua Hin TMA and G458 | ALT 11 000 FT<br>GND | Type of restriction : Civil Flight Training Area<br>Nature of hazard/activity : Flight school training<br>Time of activity : Sunrise to Sunset<br>Inflight information : Hua Hin Approach freq. 126.2 MHZ<br>Contact agency : - |
| **VTD21 SATTAHIP BAY**<br>Area 1<br>Area bounded by lines joining successively the following points:<br>1220N 10030E -<br>1240N 10030E -<br>1240N 10040.8E -<br>1220N 10040.8E -<br>1220N 10030E | ALT 6 000 FT<br>GND | Type of restriction : RTN Gun Training Range for surface ships<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |
| Area 2<br>Area bounded by lines joining successively the following points:<br>1220N 10040.8E -<br>1240N 10040.8E -<br>1240N 10058E -<br>1220N 10058E -<br>1220N 10040.8E | FL 150<br>GND | |
| Area 3<br>Area bounded by lines joining successively the following points:<br>1220N 10058E -<br>1237N 10058E -<br>1237N 10115E -<br>1220N 10115E -<br>1220N 10058E | FL 150<br>GND | |
| **VTD22 KO KHRAM, SATTAHIP**<br>Area bounded by lines joining successively the following points:<br>1251.3N 10040E -<br>1251.3N 10051E -<br>1240N 10051E -<br>1240N 10040E -<br>1251.3N 10040E | FL 150<br>GND | Type of restriction : RTN Gun Training Range for surface ships and aircraft<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |
| **VTD23 KO PHAI**<br>Area bounded by lines joining successively the following points:<br>1250N 10030E -<br>1305N 10030E -<br>1305N 10045E -<br>1250N 10045E -<br>1250N 10030E | ALT 6 000 FT<br>GND | Type of restriction : RTN Gun Training Range for surface ships and aircraft<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD24 KO CHANG, TRAT**<br>Circle of 5 NM radius centred on point<br>1203.1N 10214.6E | FL 150<br>GND | Type of restriction : RTN Gun Training Range for surface ships and aircraft<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ, if unable contact Trat Approach freq. 120.25 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |
| **VTD25 KO TAO, CHUMPHON**<br>Circle of 5 NM radius centred on point<br>0956.6N 09959.8E | FL 150<br>GND | Type of restriction : RTN Weapon Training Range for surface ships and aircraft<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : Samui Approach freq. 129.6 MHZ or 305.4 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 7, Surat Thani Air Force Base, Tel. +667 744 1132 |
| **VTD26 CHONG SAMAE SAN, SATTAHIP**<br>Area bounded by lines joining successively the following points:<br>1233.5N 10055.3E -<br>1237.3N 10055.3E -<br>1237.3N 10057.3E -<br>1233.5N 10057.3E -<br>1233.5N 10055.3E | FL 150<br>GND | Type of restriction : RTN Gun Training Range<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |
| **VTD27 PONG NAM RON, CHANTHABURI**<br>Area bounded by lines joining successively the following points:<br>1255.2N 10217.1E -<br>1250.6N 10220.4E -<br>1255.8N 10222.8E -<br>1259.5N 10221.4E -<br>1255.2N 10217.1E | ALT 8 000 FT<br>GND | Type of restriction : RTN Gun Training Range<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |
| **VTD28 SATTAHIP**<br>Area bounded by lines joining successively the following points:<br>1250.5N 10049.7E -<br>1251.3N 10051.7E -<br>1246.8N 10053.5E -<br>1245.8N 10051.6E -<br>1250.5N 10049.7E | FL 150<br>GND | Type of restriction : RTN Gun Training Range<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |
| **VTD29 HIN RAKIT PATTANI**<br>Circle of 3 NM radius centred on point<br>0644N 10144E | FL 150<br>GND | Type of restriction : RTN Weapon Training Range for surface ships and aircraft<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : Narathiwat Approach freq. 125.55 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : 2nd Naval Area Command, Tel. +667 432 5804 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD30**W NAKHON RATCHASIMA<br>Area 1<br>Area bounded by lines joining successively the following points:<br>144905.7N 1011547.8E -<br>162005.4N 1021047.3E -<br>160405.5N 1022847.2E -<br>145935.7N 1015947.5E -<br>144305.8N 1012247.8E | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1000<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Khorat Approach freq. 129.75 MHZ or 349.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 1 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556 |
| VTD30W NAKHON RATCHASIMA<br>Area 2<br>Area bounded by lines joining successively the following points:<br>150905.7N 1021947.3E -<br>160005.5N 1024247.1E -<br>154905.6N 1032146.8E -<br>151305.7N 1032146.8E | UNL<br>GND | |
| **VTD31 LOP BURI**<br>Area bounded by lines joining successively the following points:<br>1503N 10010E -<br>1505N 10100E -<br>1430N 10055E -<br>1437N 10009E -<br>1503N 10010E<br>*Excluding* VTP4 (MUANG KOM) | ALT 5 500 FT<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2200-1700<br>Inflight information : Khok Kathiam Tower freq. 122.6 MHZ or 238.6 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 2 Air Traffic Control branch, Tel. +662 534 6000 ext 50520 |
| **VTD32 NAKHON RATCHASIMA**<br>Circle of 50 NM radius centred on point KRT TACAN (145606.0N 1020421.8E).<br>*Excluding* Khorat Control Zone and Buri Ram Terminal Control Area. | ALT 5 500 FT<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1400<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable Khorat Approach freq. 129.75 MHZ or 349.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 1 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556 |
| **VTD33 NAKHON SAWAN, CHAI NAT**<br>Area1<br>Area bounded by lines joining successively the following points:<br>154125.79N 0994345.28E -<br>154124.14N 0995122.80E -<br>150656.33N 1000238.89E -<br>150006.18N 0995717.24E -<br>154125.79N 0994345.28E | FL 240<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2200-1700<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Takhli Approach freq. 124.0 MHZ or 325.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 4 Air Traffic Control branch, Tel. +662 534 6000 ext 53544, 53546 |
| Area 2<br>Area bounded by lines joining successively the Following points:<br>163705.34N 0992523.13E -<br>154125.79N 0994345.28E -<br>150006.18N 0995717.24E -<br>150012.17N 0992327.39E -<br>153847.73N 0983417.53E -<br>then follow the boundary to<br>163508.84N 0983522.41E -<br>163705.10N 0985248.80E -<br>163705.34N 0992523.13E | UNL<br>GND | |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD34 PHETCHABUN, PHICHIT**<br>Area 1<br>Area bounded by lines joining successively the following points:<br>151305.60N 1010147.90E -<br>151305.60N 1002648.10E -<br>152405.50N 1002148.20E -<br>161623.05N 1002148.10E -<br>then follow the arc 30 NM counter clockwise from PSL DVOR/DME (164613.34N 1001728.70E) to<br>163458.20N 1004628.25E -<br>163205.30N 1012647.60E -<br>151305.60N 1010147.90E<br>*Excluding* Airway W21 | FL 280<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2200-1700<br>Inflight information : FOCAL Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Takhli Approach freq. 124.0 MHZ or 325.0 MHZ or Phetchabun Approach freq. 126 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 4 Air Traffic Control branch, Tel. +662 534 6000 ext 53544, 53546 |
| Area 2<br>Area bounded by lines joining successively the following points:<br>151305.60N 1010147.90E -<br>151305.69N 1002803.35E -<br>153222.66N 1002148.11E -<br>161623.05N 1002148.10E -<br>then follow the arc 30 NM counter clockwise from PSL DVOR/DME (164613.34N 1001728.70E) to<br>163458.20N 1004628.25E -<br>163205.30N 1012647.60E -<br>151305.60N 1010147.90E<br>*Excluding* Airway W21 | UNL<br>GND | |
| **VTD35 PRACHUAP, KHIRI KHAN**<br>Area bounded by lines joining successively the following points:<br>120300N 0993300E -<br>120800N 1000300E -<br>114700N 0995000E -<br>112900N 0993800E -<br>110000N 0993200E -<br>110000N 0990700E -<br>then follow the boundary to<br>120800N 0993300E<br>*Excluding* Chumphon TMA | ALT 6 500 FT<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1100<br>Inflight information : Prachuap Tower freq. 135.9 MHZ or 351.1 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 5 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556 |
| **VTD40 KABIN BURI/WATTANA NAKHON, PRACHIN BURI**<br>Area 1<br>Area bounded by lines joining successively the following points:<br>135900N 1013800E -<br>135900N 1022000E -<br>133000N 1022000E -<br>133000N 1011900E -<br>135900N 1013800E | ALT 10 000 FT<br>ALT 5 000 FT | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1500<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency: Wattana Nakhon Tower, Tel. +662 534 6000 ext 42908, 42909 |
| | ALT 5 000 FT<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1500<br>Inflight information: Wattana nakhon Tower freq. 118.1 MHZ or 236.6 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency: Wattana Nakhon Tower, Tel. +662 534 6000 ext 42908, 42909 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| Area 2<br>Area bounded by lines joining successively the following points:<br>135900N 1015400E -<br>135900N 1022000E -<br>133000N 1022000E -<br>133000N 1015400E -<br>135900N 1015400E | FL 140<br>ALT 10 000 FT | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : Activation period will be notified by NOTAM.<br>Inflight information: OSCAR Control freq. 127.0 MHZ or 331.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency: Wattana Nakhon Tower, Tel. +662 534 6000 ext 42908, 42909 |
| **VTD41 MAE RIM, CHIANG MAI**<br>Area bounded by lines joining successively the following points:<br>202700N 0995400E on Thai-Myanmar border to<br>184700N 0995400E -<br>184700N 0990900E -<br>then follow the arc 10 NM counter clockwise from CHM TACAN (184612N 0985812E)<br>185600N 0985400E -<br>191800N 0984200E -<br>194600N 0984200E on Thai-Myanmar border then follow the boundary to the starting point.<br>*Excluding Airway* W20 between altitude 7500 ft to FL200 Chiang Mai TMA and Chiang Rai TMA. | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 0100-1400<br>Inflight information : FOCAL Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Chiang Mai Approach freq. 129.6 MHZ or 305.4 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency: Wing 41 Air Traffic Control branch, Tel. +662 534 6000 ext 57504, 57503 |
| **VTD42** CHOM THONG, CHIANG MAI<br>Area bounded by lines joining successively the following points:<br>184700N 0974500E on Thai-Myanmar border to<br>184700N 0984800E -<br>182000N 0985800E -<br>173000N 0985800E -<br>173000N 0980000E on Thai-Myanmar border then follow the boundary to the starting point. | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 0100-1400<br>Inflight information : FOCAL Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Chiang Mai Approach freq. 129.6 MHZ or 305.4 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 41 Air Traffic Control branch, Tel. +662 534 6000 ext 57504, 57503 |
| **VTD43 LOP BURI**<br>Area bounded by lines joining successively the following points:<br>151305.6N 1004748.0E -<br>162705.3N 1015547.4E -<br>162005.4N 1021047.3E -<br>144905.7N 1011547.8E | FL 350<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 0100-0900<br>Inflight information : OSCAR Control freq. 127.0 or 331.3 MHZ, if unable contact Khorat Approach freq. 129.75 MHZ or 285.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 1 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556 |
| **VTD44 UBON, YASOTHON**<br>Area bounded by lines joining successively the following points:<br>152100N 1043800E -<br>152100N 1032200E -<br>161500N 1032200E -<br>152100N 1043800E | FL 200<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1000<br>Inflight information : OSCAR Control freq. 127.0 or 331.3 MHZ, if unable contact Khorat Approach freq. 123.5 MHZ or 257.8 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 21 Air Traffic Control branch, Tel. +662 534 6000 ext 43506, 43502 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD45 UBON, SI SA KET**<br>Area bounded by lines joining successively the following points:<br>145800N 1053700E -<br>150400N 1050000E -<br>150200N 1045200E -<br>143800N 1034000E -<br>142500N 1034000E -<br>then follow the boundary to<br>145800N 1053700E | UNL<br>ALT 3 000 FT | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2200-1300<br>Inflight information : OSCAR Control freq. 127.0 or 331.3 MHZ, if unable contact Khorat Approach freq. 123.5 MHZ or 257.8 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 21 Air Traffic Control branch, Tel. +662 534 6000 ext 43506, 43502 |
| **VTD46 NAKHON RATCHASIMA**<br>Area bounded by 20 NM arc from KRT TACAN (145606.0N 1020421.8E)<br>beginning at point<br>143600N 1020200E -<br>then counter clockwise, along the arc to<br>145100N 1022500E -<br>145100N 1032500E -<br>142200N 1032500E -<br>then follow the boundary to<br>135600N 1024700E -<br>135600N 1015600E -<br>143600N 1020200E | FL 200<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1000<br>Inflight information : OSCAR Control freq. 127.0 or 331.3 MHZ, if unable contact Khorat Approach freq. 129.75 MHZ or 349.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 1 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556 |
| **VTD47 SAMUT SAKHON**<br>Area bounded by lines joining successively the following points:<br>134700N 1002700E -<br>133800N 1002700E -<br>132900N 1002100E -<br>then follow the coast line to<br>133200N 1001600E -<br>134800N 1001100E -<br>134700N 1002700E | UNL<br>FL 120 | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 0130-0930<br>Inflight information : Bangkok Approach freq. 124.35 MHZ or 262.5 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : - |
| **VTD48 SONGKHLA**<br>Area bounded by lines joining successively the following points:<br>063600N 1000400E -<br>063000N 0994000E -<br>070600N 0993300E -<br>070000N 1000500E -<br>064500N 1000700E -<br>063600N 1000400E | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 0200-0800<br>Inflight information : BIG SHELL Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Hat Yai Approach freq. 126.7 MHZ or 301.5 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 56 Air Traffic Control branch, Tel. +662 534 6000 ext 63555, 63520 |
| **VTD49 SONGKHLA**<br>Area bounded by lines joining successively the following points<br>063600N 1003900E -<br>065600N 1004600E -<br>065600N 1012500E -<br>062400N 1014300E -<br>061500N 1011000E -<br>063600N 1003900E<br>*Excluding* HAT YAI TMA. | UNL<br>ALT 2 000 FT | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1100<br>Inflight information : BIG SHELL Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Hat Yai Approach freq. 126.7 MHZ or 301.5 MHZ except in Narathiwat TMA contact Narathiwat Tower freq. 122.7 MHZ or 236.6 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 56 Air Traffic Control branch, Tel. +662 534 6000 ext 63555, 63520 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
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| 1 | 2 | 3 |
| **VTD50 SONGKHLA**<br>Area bounded by lines joining successively the following points:<br>0656.0N 10046.0E -<br>0711.0N 10037.0E -<br>0754.0N 10039.0E -<br>then follow the arc 60 NM clockwise from HAT YAI DVOR/DME (065602.75N 1002316.47E)<br>0656.0N 10124.0E -<br>0656.0N 10046.0E | UNL<br>ALT 8 000FT | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1100<br>Inflight information : BIG SHELL Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Hat Yai Approach freq. 126.7 MHZ or 301.5 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 56 Air Traffic Control branch, Tel. +662 534 6000 ext 63555, 63520 |
| | ALT 6 000 FT<br>GND | Type of restriction : RTN Flying Training<br>Nature of hazard/activity : Military operations<br>Time of activity : MON - FRI, 2300-1100<br>Inflight information: Songkhla Tower freq. 126.2 MHZ or 227.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency: 2nd Naval Area Command, Tel. +667 432 5804 |
| **VTD53 PHITSANULOK**<br>Area bounded by lines joining successively the following points:<br>1653.0N 09930.0E -<br>1653.0N 09909.0E -<br>1610.0N 09934.0E -<br>1523.0N 10005.0E -<br>1523.0N 10017.0E -<br>1602.0N 10017.0E -<br>1653.0N 09930.0E | ALT 6 500 FT<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 0200-0500 and 0600-0800<br>Inflight information : FOCAL freq. 127.0 MHZ or 331.3 MHZ, if unable contact Phitsanulok Approach freq. 120.7 MHZ or 284.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 46 Air Traffic Control branch, Tel. +662 534 6000 ext 55164, 55157 |
| **VTD54 UBON**<br>Area bounded by 15 NM arc from UBL TACAN (151544.70N 1045300.00E) beginning at point<br>152900N 1044900E -<br>152900N 1045300E -<br>161400N 1045500E -<br>161400N 1040900E -<br>then along the arc to the starting point. | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2200-1700<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Ubon Approach freq. 123.5 MHZ or 257.8 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 21 Air Traffic Control branch, Tel. +662 534 6000 ext 43506, 43502 |
| **VTD55 UBON**<br>Area bounded by 15 NM arc from UBL TACAN (151544.70N 1045300.00E) beginning at point<br>152900N 1045300E -<br>161400N 1045500E -<br>161400N 1050100E<br>then clockwise along the FIR boundary to<br>153600N 1053700E -<br>152700N 1050000E -<br>then along the arc to the starting point. | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2200-1700<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Ubon Approach freq. 123.5 MHZ or 257.8 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 46 Air Traffic Control branch, Tel. +662 534 6000 ext 55164, 55157 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD57 PHITSANULOK**<br>Area 1<br>Area bounded by lines joining successively the following points:<br>152405.50N 1002148.20E -<br>163005.20N 1000408.30E -<br>163605.20N 0995848.30E -<br>163559.33N 1001648.06E -<br>163458.20N 1004628.25E -<br>then follow the arc 30 NM clockwise from PSL DVOR/DME (164613.34N 1001728.70E) to<br>161623.05N 1002148.10E -<br>152405.50N 1002148.20E<br>*Excluding Airway* W9. | FL 280<br>FL 120 | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 0000-1000<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Takhli Approach freq. 124.0 MHZ or 325.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 46 Air Traffic Control branch, Tel. +662 534 6000 ext 55164, 55157 |
| Area 2<br>Area bounded by lines joining successively the following points:<br>153222.66N 1002148.11E -<br>163604.56N 1000100.74E -<br>163559.33N 1001648.06E -<br>163458.20N 1004628.25E -<br>then follow the arc 30 NM clockwise from PSL DVOR/DME (164613.34N 1001728.70E) to<br>161623.05N 1002148.10E -<br>153222.66N 1002148.11E<br>*Excluding Airway* W9. | UNL<br>FL 120 | |
| **VTD58 SURAT THANI**<br>Area bounded by lines joining successively the following points:<br>112554.32N 0992354.41E Thai-Myanmar border to<br>105129.09N 0994016.74E -<br>092518.00N 0994006.00E -<br>083301.22N 0983331.55E -<br>then follow the arc 30 NM clockwise from PUT DVOR/DME (080654.83N 0981822.69E) to<br>083625.96N 0982432.98E -<br>090818.00N 0975118.00E -<br>092900.00N 0971600.00E -<br>095000.00N 0982500.00E -<br>100004.46N 0983705.87E -<br>then follow the boundary to the starting point. | FL 390<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : Notified by NOTAM<br>Inflight information : BIG SHELL Control freq. 127.0 MHZ or 331.3 MHZ, if unable, contact Surat Approach freq. 119.3 MHZ or 236.6 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD59 SURAT THANI**<br>Area 1<br>Area bounded by lines joining successively the following points:<br>1058.0N 09906.0E Thai-Myanmar border to<br>1058.0N 09934.5E -<br>0933.0N 09911.0E -<br>then follow the arc 25 NM counter clockwise from STN DVOR/DME (090746.24N 0990805.09E) to<br>0852.3N 09849.5E -<br>0833.0N 09833.5E -<br>then follow the arc 30 NM counter clockwise from PUT DVOR/DME (080654.83N 0981822.69E) to<br>0836.0N 09812.0E -<br>0929.0N 09736.0E -<br>0929.0N 09816.0E -<br>0950.0N 09825.0E -<br>0955.0N 09832.0E -<br>then follow the boundary to the starting point.<br>*Excluding* Chumpon TMA and Ranong TMA and CTR. | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1700<br>Inflight information : BIG SHELL control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Surat Approach freq. 123.35 MHZ or 240.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513 |
| Area 2<br>Beginning at<br>0929.0N 09736.0E -<br>0836.0N 09812.0E -<br>then follow the arc 30 NM counter clockwise from PUT DVOR/DME (080654.83N 0981822.69E) to<br>0820.0N 09751.5E -<br>0820.0N 09730.0E -<br>0929.0N 09730.0E -<br>0929.0N 09736.0E | ALT 12 000 FT<br>GND | |
| **VTD60 SURAT THANI**<br>Area 1<br>Area bounded by lines joining successively the following points:<br>092108.45N 0993149.01E -<br>103415.64N 0995439.12E -<br>094830.78N 1001754.79E -<br>081808.39N 1001550.28E -<br>081828.66N 0994352.24E -<br>083107.99N 0993638.33E -<br>085743.18N 0993640.94E -<br>092108.45N 0993149.01E | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1700<br>Inflight information : BIG SHELL control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Samui Approach freq. 129.6 MHZ or 305.4 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513 |
| Area 2<br>Area bounded by lines joining successively the following points:<br>092847.28N 0993411.75E -<br>100005.16N 0994357.26E -<br>100000.95N 0995504.62E -<br>093017.70N 0994547.49E -<br>092847.28N 0993411.75E | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : Notified by NOTAM<br>Inflight information : BIG SHELL control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Samui Approach freq. 129.6 MHZ or 305.4 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD61 SURAT THANI**<br>Area bounded by lines joining successively the following points:<br>0845.0N 09929.0E -<br>0827.0N 09951.0E -<br>0816.0N 09947.0E -<br>0828.0N 09842.0E -<br>0845.7N 09857.2E -<br>then follow the arc 25 NM from STN DVOR/ DME (090746.24N 0990805.09E) counter clockwise to<br>0844.5N 09917.3E -<br>0840.4N 09919.7E -<br>0845.0N 09929.0E | ALT 7 000 FT<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1700<br>Inflight information : BIG SHELL control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Surat Approach freq. 123.35 MHZ or 240.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513 |
| **VTD63 UDON, LOEI**<br>Area 1 Udon, Loei<br>Area bounded by lines joining successively the following points:<br>1750.8N 10235.5E on Thai-Laotian border then follow the arc 30 NM counter clockwise from UDN TACAN (1722.9N 10248.1E) to<br>1700.0N 10228.0E -<br>1700.0N 10130.0E -<br>1744.0N 10130.0E -<br>then eastward along the Thai-Laotian border to the starting point. | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2200-1700<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Udon Approach freq. 126.2 MHZ or 265.9 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 23 Air Traffic Control branch, Tel. +662 534 6000 ext 45512, 45502 |
| Area 2 Udon, Loei, Khon Kaen<br>Beginning at<br>1700.0N 10228.0E -<br>then follow the arc 30 NM counter clockwise from UDN TACAN (1722.9N 10248.1E) to<br>1656.0N 10239.5E -<br>then follow the arc 30 NM counter clockwise from KN NDB (162743.41N 1024704.18E)<br>1630.0N 10217.0E -<br>1630.0N 10130.0E -<br>1700.0N 10130.0E -<br>1700.0N 10228.0E | ALT 10 000 FT<br>GND | |
| **VTD64 UDON, NONG KHAI** (North Area)<br>Area bounded by lines joining successively the following points:<br>1755.0N 10247.0E on Thai-Laotian border to<br>1753.0N 10247.5E -<br>then follow the arc 30 NM clockwise from UDN TACAN (1722.9N 10248.1E) to<br>1725.53N 10319.35E -<br>1731.94N 10441.36E<br>then northward along the Thai-Laotian border to the starting point. | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2200-1700<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Udon Approach freq. 126.2 MHZ or 265.9 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 23 Air Traffic Control branch, Tel. +662 534 6000 ext 45512, 45502 |
| VTD64 UDON, NONG KHAI (South Area)<br>Area bounded by lines joining successively the following points:<br>1725.53N 10319.35E then follow the arc 30 NM clockwise from UDN TACAN (1722.9N 10248.1E) to<br>1709.0N 10315.8E -<br>1630.0N 10409.2E -<br>1630.0N 10440.0E then northward along the Thai-Laotian border to 1731.94N 10441.36E then to the starting point. | UNL<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2200-1700<br>Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable contact Udon Approach freq. 126.2 MHZ or 265.9 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Wing 23 Air Traffic Control branch, Tel. +662 534 6000 ext 45512, 45502 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **NAKHON PHANOM FLYING TRAINING, AREA WITHIN VTD64**<br>Area 1<br>Area bounded by lines joining the following points:<br>172800N 1041500E -<br>174800N 1041500E -<br>173600N 1042600E -<br>172800N 1042200E -<br>172800N 1041500E<br>Area 2<br>Area bounded by lines joining the following points:<br>163000N 1041500E -<br>165600N 1041500E -<br>170800N 1042500E -<br>170800N 1043900E -<br>170000N 1043800E -<br>163000N 1043900E -<br>163000N 1041500E | ALT 6 000 FT<br>GND | Type of restriction : Civil Flight Training Area<br>Nature of hazard/activity : Flight school training<br>Time of activity : Between 2300-1100<br>Inflight information : Sakon Nakhon Approach freq. 123.35 MHZ or 284.0 MHZ, if unable contact Nakhon Phanom Tower freq. 122.5 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Nakhon Phanom Tower, Tel. +668 5911 6562 |
| **VTD65 NORTHEASTERN AREA**<br>A circle 20 NM radius centred on point<br>1639.0N 10258.0E | FL 150<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring Bombing / Air Firing Area<br>Time of activity : MON - FRI, 0000-1000<br>Inflight information : Khon Kaen Approach freq. 123.4 MHZ or 240.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Air Operation Division, Tel. +662 280 2499 |
| **VTD67 KANCHANABURI**<br>Area bounded by lines joining successively the following points:<br>1454.0N 09830.0E -<br>1454.0N 09957.0E -<br>1415.0N 09923.0E -<br>1349.0N 09923.0E -<br>1349.0N 09914.0E -<br>1435.0N 09830.0E -<br>1454.0N 09830.0E | ALT 6 000 FT<br>GND | Type of restriction : RTA Flying Training<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : Kanchanaburi Tower freq. 122.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Air Operation Division, Tel. +662 280 2499 |
| **VTD70 CHANTHANBURI**<br>Area bounded by the line joining the following points<br>1253N 10213E -<br>1253N 10153E -<br>1313N 10153E -<br>1313N 10213E (Banchankhtem Kitchakut District Chanthaburi Province) | FL 150<br>GND | Type of restriction : RTN Flight Training Area<br>Nature of hazard/activity : Millitary flight training area<br>Time of activity : MON - FRI, 0130-0930 except public holidays<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |
| **VTD71 GULF OF THAILAND**<br>Area bounded by the line joining the following points:<br>1100N 10135E -<br>1100N 10105E -<br>1200N 10045E -<br>1200N 10135E | FL 300<br>GND | Type of restriction : RTN Flight Training Area<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196 |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD72** BANGKOK, NONTHABURI, NAKHON PATHOM, SUPHANBURI<br>Area bounded by lines joining successively the following points:<br>Area 1<br>141820.38N 1004014.57E -<br>135819.51N 1002641.46E -<br>140459.67N 1001251.12E -<br>141811.10N 1002501.17E -<br>141820.38N 1004014.57E<br>Area 2<br>135819.54N 1002641.46E -<br>134604.48N 1002225.41E -<br>134630.34N 1001255.05E -<br>140459.67N 1001251.12E -<br>135819.54N 1002641.46E | ALT 5 000 FT<br>GND | Type of restriction : RTAF Flying Training<br>Nature of hazard/activity : High speed combat manoeuvring<br>Time of activity : MON - FRI, 2300-1500<br>Inflight information : Don Mueang Approach freq. 119.4 MHZ or 262.5 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : 604 Squadron, Tel. +662 534 6000 ext 22553 |
| **VTD74 PHANGNGA**<br>Area bounded by the lines joining successively the following points:<br>Area 1<br>091500N 0971500E -<br>091500N 0974000E -<br>084500N 0974000E -<br>084500N 0971500E -<br>091500N 0971500E | FL 150<br>GND | Type of restriction : RTN Weapon Training Range for surface ships<br>Nature of hazard/activity : Military operations<br>Time of activity : Notified by NOTAM<br>Inflight information : Phuket Approach freq. 124.7 MHZ or 284.0 MHZ<br>Pilots are advised to contact prior to entering.<br>Contact agency : 3rd Naval Area Command, Tel. +667 639 1590 |
| Area 2<br>090000N 0975000E -<br>090000N 0980500E -<br>084000N 0980500E -<br>084000N 0975000E -<br>090000N 0975000E | ALT 9 000 FT<br>GND | |
| Area 3<br>083300N 0975000E -<br>083300N 0981400E -<br>082700N 0981400E -<br>082700N 0975000E -<br>083300N 0975000E | ALT 8 000 FT<br>GND | |
| **VTD75 KHON KAEN**<br>Area bounded by the lines joining successively the following points:<br>163000N 1023700E -<br>161300N 1022200E -<br>163000N 1021700E -<br>163000N 1023700E | ALT 6 000 FT<br>GND | Type of restriction : Civil Flight Training Area<br>Nature of hazard/activity : Flight school training<br>Time of activity : SAT and SUN, 2300 - 1400 after this period will be notified by NOTAM<br>Inflight information : Roi Et Approach freq. 125.4MHZ, if unable contact Khon Kaen Tower<br>Pilots are advised to contact prior to entering.<br>Contact agency : - |
| **VTD76 KHON KAEN**<br>Area bounded by the lines joining successively the following point:<br>161700N 1025000E -<br>162000N 1031500E -<br>160000N 1031500E -<br>160000N 1025000E -<br>161700N 1025000E | ALT 6 000 FT<br>GND | Type of restriction : Civil Flight Training Area<br>Nature of hazard/activity : Flight school training<br>Time of activity : SAT and SUN, 2300 - 1400 after this period will be notified by NOTAM<br>Inflight information : Roi Et Approach freq. 125.4MHZ, if unable contact Khon Kaen Tower<br>Pilots are advised to contact prior to entering.<br>Contact agency : - |

| Identification, name and lateral limits | Upper limit<br>Lower limit | Remarks<br>(time of activity, type of restriction, nature of hazard, risk of interception) |
|---|---|---|
| 1 | 2 | 3 |
| **VTD77 KHON KAEN / ROI-ET**<br>Area bounded by the lines joining successively the following point:<br>160000N 1033915E -<br>154615N 1032430E -<br>then along the arc of 30 NM radius centred on ROT DVOR/DME (160700.59N 1034619.45E)<br>162800N 1032430E -<br>161400N 1033915E -<br>then along the arc of 10 NM radius centred on ROT DVOR/DME to starting point. | ALT 6 000 FT<br>GND | Type of restriction : Civil Flight Training Area<br>Nature of hazard/activity : Flight school training<br>Time of activity : SAT and SUN, 2300 - 1400 after this period will be notified by NOTAM<br>Inflight information : Roi Et Approach freq. 125.4MHZ, if unable contact Khon Kaen Tower Pilots are advised to contact prior to entering.<br>Contact agency : - |

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## ENR 5.2 MILITARY EXERCISE AND TRAINING AREAS

Military exercise areas will be notified by NOTAM or AIP-Supplement as necessary.

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## ENR 5.3 OTHER ACTIVITIES OF DANGEROUS NATURE

NIL

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## ENR 5.4 AIR NAVIGATION OBSTACLES - EN-ROUTE

NIL

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## ENR 5.5 AERIAL SPORTING AND RECREATIONAL ACTIVITIES

NIL

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## ENR 5.6 BIRD MIGRATION AND AREAS OF SENSITIVE FAUNA

### 1. Bird Migration

1.1 It has been observed that migratory birds in sizeable numbers appear on the aerodrome mostly during the period of winter months. Whilst the resident birds are presented in variable numbers every month.

1.2 The assessment on bird hazard is continually being carried out to assist in assessment of present deterrent measures and the planning of future activities.

1.3 The method to reduce the bird populations is to make the area unattractive to these birds and this is modification to the environment by closely cutting the grass and other plants.

1.4 All bird strikes on or in the vicinity of aerodromes and enroute shall be reported to the Airport Standards and Air Navigation Facilitating Division, The Civil Aviation Authority of Thailand 222 Soi Vibhavadi Rangsit 28, Vibhavadi Rangsit Rd., Chatuchak, Chatuchak, Bangkok 10900

1.5 Copies of bird strike / incident report form are available on The Civil Aviation Authority of Thailand, website https://www.caat.or.th.

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## ENR 6. EN-ROUTE CHARTS


| Chart name | Page |
|---|---|
| Enroute Chart - ICAO | ENR 6-3 |
| WORLD AERONAUTICAL CHART-WAC-2677 | ENR 6-5 |
| WORLD AERONAUTICAL CHART-WAC 2678 | ENR 6-7 |
| WORLD AERONAUTICAL CHART-WAC 2799 | ENR 6-9 |

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| PROHIBITED, RESTRICTED, DANGER AREAS | | |
|---|---|---|
| Identification | Upper limit<br>Lower limit | Activation time |
| P4 | FL250<br>GND | H24 |
| P7 | UNL<br>GND | H24 |
| P36 | FL1000 MSL<br>FL100 MSL | HN |
| P37 | FL1000 MSL<br>FL100 MSL | HN |
| P38 | FL1000 MSL<br>FL100 MSL | HN |
| R1 | FL1000 MSL<br>GND | H24 |
| R2 | FL1000 MSL<br>GND | H24 |
| R3 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| R5 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| R6 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| R8 | FL1000 MSL<br>GND | H24 |
| R11 | UNL<br>GND | H24 |
| R12 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| R13 | UNL<br>GND | H24 |
| R15 | FL1000 MSL<br>GND | H24 |
| R51 | FL1000 MSL<br>GND | HJ |
| R52 | FL1000 MSL<br>GND | HJ |
| R62 | FL1000 MSL<br>GND | HN |
| R66 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| R68 | UNL<br>GND | MON - FRI 0000-1000 |
| R79 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| R80 | FL1000 MSL<br>GND | H24 |
| R81 | FL1000 MSL<br>GND | H24 |
| R82 | FL1000 MSL<br>GND | H24 |
| R83 | FL1000 MSL<br>GND | H24 |
| R84 | FL1000 MSL<br>GND | H24 |
| D16 AREA1 | FL20<br>GND | MON - FRI 2300-1300 |
| D16 AREA2 | UNL<br>FL20 | MON - FRI 2300-1300 |
| D17 AREA1 | FL1000 MSL<br>GND | MON - FRI 2300-1300 |
| D17 AREA2 | FL1000 MSL<br>FL20 | MON - FRI 2300-1300 |
| D18 AREA1 | FL1000 MSL<br>GND | MON - FRI 2300-1300 |
| D18 AREA2 | FL1000 MSL<br>FL20 | MON - FRI 2300-1300 |
| D19 | UNL<br>GND | MON - FRI 0300-0900 |
| D20 | FL1000 MSL<br>GND | HJ |
| D21 AREA1 | FL1000 MSL<br>FL20 | NOTIFIED BY NOTAM |
| D21 AREA2 | FL20<br>GND | NOTIFIED BY NOTAM |
| D21 AREA3 | FL20<br>GND | NOTIFIED BY NOTAM |
| D22 | FL20<br>GND | NOTIFIED BY NOTAM |
| D23 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| D24 | FL20<br>GND | NOTIFIED BY NOTAM |
| D25 | FL20<br>GND | NOTIFIED BY NOTAM |
| D26 | FL20<br>GND | NOTIFIED BY NOTAM |
| D27 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| D28 | FL20<br>GND | NOTIFIED BY NOTAM |
| D29 | FL20<br>GND | NOTIFIED BY NOTAM |
| D30 AREA1 | UNL<br>FL20 | MON - FRI 2300-1000 |
| D30 AREA2 | UNL<br>FL20 | MON - FRI 2300-1000 |
| D31 | FL1000 MSL<br>GND | MON - FRI 2200-1700 |
| D32 | FL1000 MSL<br>GND | MON - FRI 2300-1400 |
| D33 AREA1 | FL20<br>GND | MON - FRI 2200-1700 |
| D33 AREA2 | UNL<br>FL20 | MON - FRI 2200-1700 |
| D34 AREA1 | FL20<br>GND | MON - FRI 2200-1700 |
| D34 AREA2 | UNL<br>FL20 | MON - FRI 2200-1700 |
| D35 | FL1000 MSL<br>GND | MON - FRI 2300-1100 |
| D40 AREA1 | FL1000 MSL<br>FL1000 MSL | MON - FRI 2300-1500 |
| D40 AREA2 | FL1000 MSL<br>FL1000 MSL | NOTIFIED BY NOTAM |
| D41 | UNL<br>GND | MON - FRI 0100-1400 |
| D42 | UNL<br>GND | MON - FRI 0100-1400 |
| D43 | FL20<br>GND | MON - FRI 0100-0900 |
| D44 | FL20<br>GND | MON - FRI 2300-1000 |
| D45 | FL1000 MSL<br>GND | MON - FRI 2200-1300 |
| D46 | FL20<br>GND | MON - FRI 2300-1000 |
| D47 | FL20<br>GND | MON - FRI 0130-0930 |
| D48 | UNL<br>GND | MON - FRI 0200-0800 |
| D49 | FL1000 MSL<br>GND | MON - FRI 2300-1100 |
| D50 | FL1000 MSL<br>GND | MON - FRI 2300-1100 |
| D53 | FL1000 MSL<br>GND | MON - FRI 0200-0500, MON - FRI 0600-0800 |
| D54 | UNL<br>GND | MON - FRI 2200-1700 |
| D55 | UNL<br>GND | MON - FRI 2200-1700 |
| D57 AREA1 | FL20<br>GND | MON - FRI 0000-1000 |
| D57 AREA2 | FL20<br>GND | MON - FRI 0000-1000 |
| D58 | FL20<br>GND | NOTIFIED BY NOTAM |
| D59 AREA1 | UNL<br>GND | MON - FRI 2300-1700 |
| D59 AREA2 | FL1000 MSL<br>GND | MON - FRI 2300-1700 |
| D60 AREA1 | UNL<br>GND | MON - FRI 2300-1700 |
| D60 AREA2 | UNL<br>GND | NOTIFIED BY NOTAM |
| D61 | FL1000 MSL<br>GND | MON - FRI 2300-1700 |
| D63 AREA1 | UNL<br>GND | MON - FRI 2200-1700 |
| D63 AREA2 | FL1000 MSL<br>GND | MON - FRI 2200-1700 |
| D64 (North Area) | UNL<br>GND | MON - FRI 2200-1700 |
| D64 (South Area) | UNL<br>GND | MON - FRI 2200-1700 |
| D64 AREA1 | FL1000 MSL<br>GND | MON - FRI 2300-1100 |
| D64 AREA2 | FL1000 MSL<br>GND | MON - FRI 2300-1100 |
| D65 | FL1000 MSL<br>GND | MON - FRI 0000-1000 |
| D67 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| D70 | FL20<br>GND | MON - FRI 0130-0930 |
| D71 | FL20<br>GND | NOTIFIED BY NOTAM |
| D72 AREA1 | FL1000 MSL<br>GND | MON - FRI 2300-1500 |
| D72 AREA2 | FL1000 MSL<br>FL20 | MON - FRI 2300-1500 |
| D74 AREA1 | FL20<br>GND | NOTIFIED BY NOTAM |
| D74 AREA2 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| D74 AREA3 | FL1000 MSL<br>GND | NOTIFIED BY NOTAM |
| D75 | FL1000 MSL<br>GND | SAT - SUN 2300-1400 |
| D76 | FL1000 MSL<br>GND | SAT - SUN 2300-1400 |
| D77 | FL1000 MSL<br>GND | SAT - SUN 2300-1400 |

## COMMUNICATION FACILITIES

BACC
SECTOR 1N 124.5 MHz; 256.3 MHz; 121.5 MHz
SECTOR 2N 126.5 MHz; 121.5 MHz
SECTOR 3N 128.1 MHz; 263.8 MHz; 121.5 MHz
SECTOR 4N 120.95 MHz; 121.5 MHz
SECTOR 5N 132.1 MHz; 268.5 MHz; 121.5 MHz
SECTOR 6N 133.1 MHz; 285.3 MHz; 121.5 MHz
SECTOR 1S 120.5 MHz; 256.6 MHz; 121.5 MHz
SECTOR 2S 118.35 MHz; 121.5 MHz
SECTOR 3S 125.7 MHz; 268.5 MHz; 121.5 MHz
SECTOR 4S 133.9 MHz; 121.5 MHz
SECTOR 5S 135.5 MHz; 285.5 MHz; 121.5 MHz
SECTOR 6S 123.95 MHz; 265.9 MHz; 121.5 MHz

DON MUEANG
APP 119.1 MHz; 119.4 MHz;120.3 MHz; 124.35 MHz; 125.2 Hmz;125.8 MHz; 133.4 MHz; 121.5 MHz; 243.0 MHz
CDC 127.7 MHz
DAR 133.0 MHz; 262.5 MHz; 121.5 MHz; 243.0 MHz
TWR 118.1 MHz; 236.6 MHz
SMC 121.9 MHz; 122.5 MHz; 257.8 MHz
ATIS 126.4 MHz; 344.6 MHz; 118.55 MHz

SUVARNABHUMI
APP 122.35 MHz; 124.35 MHz; 125.2 MHz 133.4 MHz; 119.1 MHz; 120.3 MHz; 125.8 MHz; 262.5 MHz; 121.5 MHz; 243.0 MHz
APP(DEP) 119.25 MHz; 262.5 MHz; 121.5 MHz; 243.0 MHz
APP(ARR) 121.1 MHz; 126.3 MHz; 262.5 MHz; 121.5 MHz; 243.0 MHz
TWR 118.2 MHz; 274.5 MHz; 119.0 MHz; 121.5 MHz; 243.0 MHz
SMC 121.65 MHz; 275.8 MHz; 121.7 MHz 121.75 MHz; 121.95 MHz
CDC 128.7 MHz; 133.8 MHz
ATIS 133.6 MHz; 278.6 MHz; 127.65 MHz

CHIANG MAI
APP 129.6 MHz; 305.4 MHz
TWR 118.1 MHz; 121.5 MHz; 236.6 MHz; 243.0 MHz
GND 121.9 MHz; 275.8 MHz
ATIS 127.2 MHz; 301.5 MHz

CHIANG RAI
APP 120.05 MHz; 257.8 MHz
TWR 121.5 MHz; 118.4 MHz; 236.6 MHz
ATIS 127.85 MHz

PHUKET
APP 121.5 MHz; 124.7 MHz; 243.0 MHz; 284.0 MHz
ARR 120.7 MHz;
TWR 118.1 MHz; 121.5 MHz; 236.6 MHz; 243.0 MHz
GND 121.9 MHz
CDC 118.55 MHz
ATIS 128.0 MHz

U-TAPAO
APP 119.7 MHz; 121.5 MHz; 134.5 MHz; 238.3 MHz; 273.3 MHz; 243.0 MHz
TWR 118.1 MHz; 121.5 MHz; 118.3 MHz; 227.0 MHz; 243.0 MHz
GND 121.9 MHz; 275.8 MHz

HAT YAI
APP 126.7 MHz; 301.5 MHz; 133.2 MHz; 121.5 MHz; 243.0 MHz
TWR 118.1 MHz; 121.5 MHz; 275.8 MHz; 243.0 MHz; 133.2 MHz
GND 121.9 MHz; 257.8 MHz; 121.5 MHz; 243.0 MHz
ATIS 128.8 MHz

BURI RAM
APP 125.55 MHz; 121.5 MHz
TWR 118.05 MHz; 236.6 MHz; 121.5 MHz
ATIS 127.05 MHz

CHUMPHON
APP 122.6 MHz; 121.5 MHz;
TWR 122.15 MHz; 236.6 MHz; 121.5 MHz

KHON KAEN
APP 123.4 MHz; 240.0 MHz; 121.5 MHz
TWR 121.5 MHz; 122.25 MHz; 236.6 MHz
GND 121.9 MHz
ATIS 126.85 MHz

KRABI
APP 120.05 MHz; 121.5 MHz
TWR 122.5 MHz; 236.6 MHz; 121.5 MHz
GND 121.9 MHz
ATIS 132.4 MHz

LAMPANG
APP 119.3 MHz; 121.5 MHz
TWR 121.5 MHz; 122.3 MHz; 236.6 MHz
ATIS 128.65 MHz

LOEI
APP 122.55 MHz; 121.5 MHz
TWR 121.5 MHz; 118.35 MHz; 236.6 MHz
ATIS 126.25 MHz

KHOK KATHIAM
TWR 122.6 MHz; 238.6 MHz; 121.5 MHz; 243.0 MHz
GND 121.75 MHz; 257.8 MHz

MAE HONG SON
APP 126.2 MHz; 121.5 MHz
TWR 122.3 MHz; 236.6 MHz
ATIS 127.45 MHz

KAMPHAENG SAEN
APP 347.2 MHz; 127.75 MHz
ASR(ARR) 347.2 MHz
ASR(DEP) 237.0 MHz
TWR 237.5 MHz; 123.3 MHz; 121.5 MHz; 243.0 MHz
GND 257.8 MHz; 121.75 MHz

NAKHON PHANOM
APP 123.35 MHz; 284.0 MHz; 121.5 MHz
TWR 122.5 MHz; 121.5 MHz; 236.6 MHz
GND 121.9 MHz
ATIS 383 KHz

KHORAT
APP 349.0 MHz; 129.75 MHz
ASR(ARR) 349.0 MHz; 129.75 MHz
ASR(DEP) 285.0 MHz; 134.1 MHz
SRA 382.4 MHz
TWR 240.5; 122.2 MHz; 121.5 MHz; 243.0 MHz
GND 257.8 MHz; 121.75 MHz
ATIS 390.6 MHz

NAKHON SAWAN
APP 122.8 MHz; 122.3 MHz; 121.5 MHz; 236.6 MHz
SONGKHLA
TWR 121.5 MHz; 126.2 MHz; 227.0 MHz
AFS USB 7745 KHz; USB 5443 KHz

TAKHLI
APP 325.0 MHz; 124.0 MHz
ASR(ARR) 325.0 MHz; 124.0 MHz
ASR(DEP) 282.5 MHz; 134.1 MHz
SRA 382.4 MHz
TWR 241.5 MHz; 133.25 MHz; 121.5 MHz; 243.0 MHz
GND 236.6 MHz; 257.8 MHz; 121.75 MHz
ATIS 253.0 MHz

NAKHON SI THAMMARAT
APP 119.75 MHz; 121.5 MHz
TWR 122.55 MHz; 236.6 MHz; 121.5 MHz; 243.0 MHz
GND 121.9 MHz
ATIS 123.4 MHz

CHA-IAN
TWR 122.7 MHz; 236.6 MHz; 121.5 MHz
G/A/G 121.9 MHz; 6577 KHz; 5490 KHz

NAN NAKHON
APP 120.25 MHz; 121.5 MHz
TWR 118.55 MHz; 121.5 MHz; 236.6 MHz
ATIS 355 KHz

NARATHIWAT
APP 121.5 MHz; 125.55 MHz
TWR 121.5 MHz; 122.7 MHz; 236.6 MHz
GND 121.9 MHz; 121.5 MHz
ATIS 383 KHz

PATTANI
APP 126.0 MHz
TWR 121.5 MHz; 119.3 MHz; 236.6 MHz

PHETCHABUN
APP 126.7 MHz
TWR 122.3 MHz; 236.6 MHz

PHITSANULOK
APP 120.7 MHz; 284.0 MHz; 121.5 MHz; 243.0 MHz
TWR 121.5 MHz; 118.9 MHz; 236.6 MHz; 243.0 MHz
GND 121.9 MHz
ATIS 127.4 MHz

PHRAE
APP 120.1 MHz; 121.5 MHz
TWR 121.5 MHz; 118.6 MHz; 236.6 MHz
ATIS 340 KHz

PRACHUAP
TWR 351.1 MHz; 135.9 MHz; 236.6 MHz; 121.5 MHz; 243.0 MHz
GND 257.8 MHz; 121.75 MHz

HUA HIN
APP 126.2 MHz; 121.5 MHz
TWR 122.7 MHz; 236.6 MHz; 121.5 MHz; 243.0 MHz
GND 121.9 MHz
ATIS 126.8 MHz

RANONG
APP 121.5 MHz; 125.1 MHz
TWR 121.5 MHz; 122.25 MHz; 236.6 MHz
ATIS 126.475 MHz

ROI-ET
APP 125.4 MHz; 121.5 MHz
TWR 119.75 MHz; 236.6 MHz; 121.5 MHz
ATIS 319 KHz

WATTHANA NAKHON
TWR 121.5 MHz; 243.0 MHz; 118.1 MHz; 236.6 MHz

SAKON NAKHON
APP 123.35 MHz; 284.0 MHz; 121.5 MHz
TWR 121.5 MHz; 119.65 MHz; 236.6 MHz
ATIS 365 KHz

SUKHOTHAI
APP 120.7 MHz; 121.5 MHz
TWR 122.9 MHz; 121.5 MHz

SURAT THANI
APP 123.35 MHz; 240.0 MHz; 121.5 MHz
TWR 121.5 MHz; 122.7 MHz; 274.5 MHz; 243.0 MHz
GND 121.9 MHz; 275.8 MHz
ATIS 125.95 MHz

SAMUI
APP 129.6 MHz; 305.4 MHz; 121.5 MHz
TWR 118.9 MHz; 121.5 MHz
GND 121.9 MHz
ATIS 128.6 MHz

TAK
APP 126.0 MHz; 121.5 MHz
TWR 121.5 MHz; 118.8 MHz; 236.6 MHz

MAE SOT
APP 120.65 MHz; 121.5 MHz
TWR 121.5 MHz; 118.35 MHz; 236.6 MHz
ATIS 316 KHz

TRANG
APP 125.3 MHz; 121.5 MHz
TWR 118.4 MHz; 236.6 MHz
ATIS 134.5 MHz; 121.5 MHz

TRAT
APP 120.25 MHz; 121.5 MHz
TWR 122.9 MHz; 121.5 MHz

UBON RATCHATHANI
APP 123.5 MHz; 257.8 MHz; 121.5 MHz
TWR 121.5 MHz; 119.9 MHz; 243.0 MHz; 274.5 MHz
GND 121.9 MHz; 275.8 MHz
ATIS 128.2 MHz
ASR(ARR) 282.2 MHz; 125.75 MHz
SSR(DEP) 335.5 MHz; 134.1 MHz
SRA 382.4 MHz

UDON THANI
APP 126.2 MHz; 265.9 MHz; 119.45 MHz; 121.5 MHz
TWR 122.5 MHz; 243.0 MHz; 355.4 MHz; 119.45 MHz
GND 121.9 MHz; 275.8 MHz
ATIS 127.6 MHz

BETONG
APP 121.5 MHz; 125.55 MHz
TWR 121.5 MHz; 124.15 MHz; 236.6 MHz; 243.0 MHz
GND 121.5 MHz; 122.15 MHz; 243.0 MHz
ATIS 128.5 MHz

NAKHON RATCHASIMA
APP 123.6 MHz; 121.5 MHz
TWR 119.8 MHz; 236.6 MHz; 121.5 MHz
ATIS 126.6 MHz

## Legend

- Aerodrome
- ATS Route
- ATS and RNAV Route
- RNAV Route
- Control Zone
- Name of CTR; Upper limit; Lower limit; Unit providing approach control service; Class of airspace
- Terminal Control Area
- Name of TMA; Upper limit; Lower limit; Unit providing area control service; Class of airspace
- Identification; Prohibited, Restricted and Danger area
- Name of FIR; Upper limit; Lower limit; Unit providing service
- Compulsory reporting point
- On request reporting point
- Name of Point; Coordinates
- Collocated VOR and DME radio navigation aids
- Non-directional radio beacon - NDB
- Compass rose
- Name; NAVAID,frequency, identification or call sign; Coordinates; Elevation of DME site (to the nearest 30 m)
- Name of Sector; Call Sign; Communication Frequency
- Sector Boundary
- Route designator; Distance in NM between reporting points; Magnetic track; Direction of traffic flow; Upper limit; Lower limit

AERONAUTICAL INFORMATION SERVICES DEPARTMENT
CIVIL AVIATION AUTHORITY OF THAILAND

**ENROUTE CHART - ICAO**

**AIRAC AIP AMENDMENT 07/25**
**EFFECTIVE DATE**
**10 JUL 25**

**CHANGE: VOR/DME COORDINATE; CMP, HTY, PUT, RAN, RYN.**
**MAGNETIC TRACK; A1, G473, G474, R201, R203, R334, R468, R470, R575, W1, W4, W5, W14, W17, W28, W32, W33, W35, W42, W43, W99, L524, L645, L880, M522, M644, M904, N506, Y4, Y17, Y18, Y20, Y21, Y22.**
**ADD WAYPOINT; ASABO, ENLEP, OBKIB, POTEV, SAGAL, VENPO, VESUD.**
**RENAME WAYPOINT; FROM BENDY TO CRIST ON Y28.**

Lambert Conformal Conic Projection

BEARINGS, TRACKS AND RADIALS ARE MAGNETIC
ALTITUDES AND ELEVATIONS ARE IN FEET
DISTANCES IN NAUTICAL MILES

NAUTICAL MILES
KILOMETRES

NOTE : FOR FLIGHT PLANNING PROCEDURE, SEE ENR 1.10

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# WORLD AERONAUTICAL CHART- ICAO
## 1 : 1 000 000

(2677) GULF OF MARTABAN

Lambert Conformal Conic Projection
Standard Parallels 16°40' and 19°20'




HYPSOMETRIC TINTS
FEET
18°48'N
97°03'E

8607 ft
8000 ft
7000 ft
6000 ft
5000 ft
4000 ft
3000 ft
2000 ft
1000 ft
SEA LEVEL

CONVERSION TABLE

| Feet | Metres |
|---|---|
| 10,000 | 3,000 |
| 9,000 | 2,700 |
| 8,000 | 2,400 |
| 7,000 | 2,100 |
| 6,000 | 1,800 |
| 5,000 | 1,500 |
| 4,000 | 1,200 |
| 3,000 | 900 |
| 2,000 | 600 |
| 1,000 | 300 |
| 500 | 150 |
| 0 | 0 |

Published by The Civil Aviation Authority of Thailand, 2020

ELEV IN FEET SCALE : 1 000 000 ELEV IN FEET

Contour basic interval 1000 ft.

26 12.6 0 26 50 75 100 125 160 175 200 226 Kilometres
25 12.5 0 25 50 75 100 125 Nautical Miles

**CAUTION**
Consult respective Aeronautical Information Products of States concerned for the latest aeronautical information
AND
The Civil Aviation Authority of Thailand does not accept responsibility for any errors or omissions in the information shown outside of Thailand Territory

MAGNETIC INFORMATION FOR THE YEAR 2020
Aeronautical Information : Jan 2020

NOTE : THIS MAP IS NOT AN AUTHORITY ON BOUNDARIES

**LEGEND**

Province
District
Railroad
Road
Small river (perennial)
Isogonic line
Highest elevation on chart
Spot elevation

**AIR TRAFFIC SERVICES SYSTEM**

Control zone (CTR)
Terminal control area (TMA)
Restricted airspace (prohibited, restricted or danger area)
Flight information region (FIR)
Air defence identification zone (ADIZ)

**RADIO NAVIGATION AIDS**

Collocated VOR and DME radio navigation aids (VOR/DME)
Non-directional radio beacon (NDB)
Tactical air navigation aid (TACAN)

**AERODROMES**

Civil
Military
Joint Civil and Military

Name of aerodrome
Elevation given in the units of measurement (feet)
Minimum lighting : obstacles, boundary or runway lights and lighted wind indicator or landing direction indicator
Runway hard surfaced, normally all weather
Length of longest runway in hundreds of metres

CHIANG RAI INTL
1260 L H 30

Compiled by the mapping unit from the following sources :
(a) Magnetic Information for the year 2020 , as supplied by the National Oceanic & Atmospheric Administration (NOAA)
(b) Aeronautical information as supplied by Aeronautical Information Service Department (AIS), Thailand

GULF OF MARTABAN (2677)

INDEX TO ADJOINING SHEETS



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# WORLD AERONAUTICAL CHART-ICAO
## 1 : 1 000 000

(2678) CHAOPHRAYA RIVER

Lambert Conformal Conic Projection
Standard Parallels 12° 40' and 15° 20'




HYPSOMETRIC TINTS
FEET
13°28'N
98°49'E

6801 ft
6000 ft
5000 ft
4000 ft
3000 ft
2000 ft
1000 ft
SEA LEVEL

CONVERSION TABLE

| Feet | Metres |
|---|---|
| 10,000 | 3,000 |
| 9,000 | 2,700 |
| 8,000 | 2,400 |
| 7,000 | 2,100 |
| 6,000 | 1,800 |
| 5,000 | 1,500 |
| 4,000 | 1,200 |
| 3,000 | 900 |
| 2,000 | 600 |
| 1,000 | 300 |
| 500 | 150 |
| 0 | 0 |

Published by The Civil Aviation Authority of Thailand, 2020

ELEV IN FEET

SCALE : 1 000 000

ELEV IN FEET

**CAUTION**

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MAGNETIC INFORMATION FOR THE YEAR 2020

Aeronautical Information : Jan 2020

NOTE : THIS MAP IS NOT AN AUTHORITY ON BOUNDARIES

Contour basic interval 1000 ft.

25 12.5 0 25 50 75 100 125 Nautical Miles

25 12.5 0 25 50 75 100 125 150 175 200 225 Kilometres

**LEGEND**

Province
District
Railroad
Road

Small river (perennial)
Isogonic line
Highest elevation on chart
Spot elevation

**AIR TRAFFIC SERVICES SYSTEM**

Control zone (CTR)
Terminal control area (TMA)
Restricted airspace (prohibited, restricted or danger area)
Flight information region (FIR)
Air defence identification zone (ADIZ)

**RADIO NAVIGATION AIDS**

Collocated VOR and DME radio navigation aids (VOR/DME)
Non-directional radio beacon (NDB)
Tactical air navigation aid (TACAN)

**AERODROMES**

Civil
Military
Joint Civil and Military

Name of aerodrome
Elevation given in the units of measurement (feet)
Minimum lighting - obstacles, boundary or runway lights and lighted wind indicator or landing direction indicator
Runway hard surfaced, normally all weather
Length of longest runway in hundreds of metres

CHIANG RAI INTL
1280 L H 30

Compiled by the mapping unit from the following sources :
(a) Magnetic Information for the year 2020 , as supplied by the National Oceanic & Atmospheric Administration (NOAA)
(b) Aeronautical information as supplied by Aeronautical Information Service , Thailand (AIS)

CHAOPHRAYA RIVER (2678)

INDEX TO ADJOINING SHEETS

| | | |
|---|---|---|
| 2676 | 2677 | 2617 |
| 2679 | 2678 | 2738 |
| 2798 | 2799 | 2739 |

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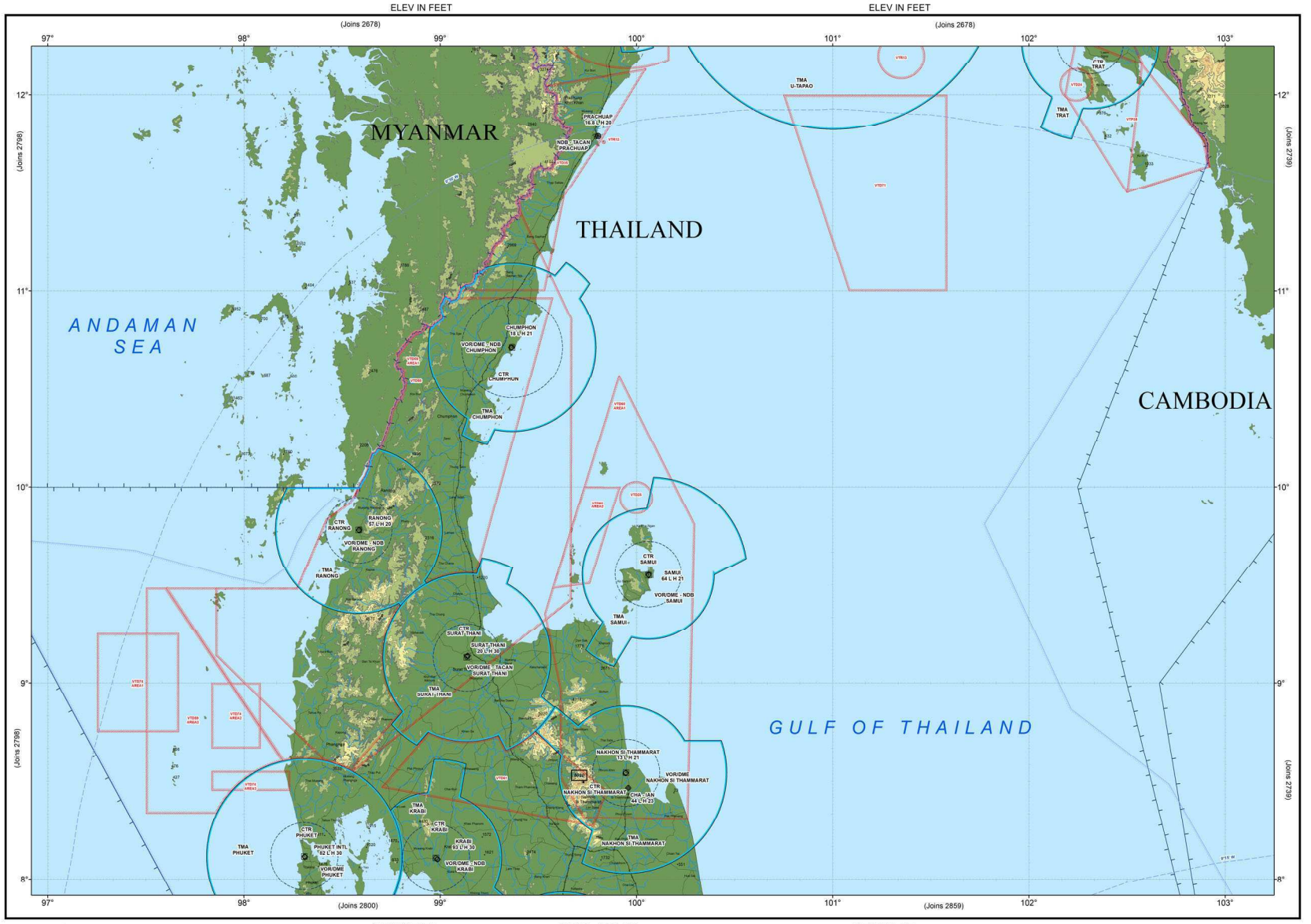
# WORLD AERONAUTICAL CHART-ICAO
## 1 : 1 000 000

(2799) GULF OF THAILAND

Lambert Conformal Conic Projection
Standard Parallels 8°40' and 11°20'




HYPSOMETRIC TINTS
FEET
8°24'N
99°44'E




CONVERSION TABLE

| Feet | Metres |
|---|---|
| 10,000 | 3,000 |
| 9,000 | 2,700 |
| 8,000 | 2,400 |
| 7,000 | 2,100 |
| 6,000 | 1,800 |
| 5,000 | 1,500 |
| 4,000 | 1,200 |
| 3,000 | 900 |
| 2,000 | 600 |
| 1,000 | 300 |
| 500 | 150 |
| 0 | 0 |

Published by The Civil Aviation Authority of Thailand, 2020

ELEV IN FEET

Contour basic interval 1000 ft.

SCALE : 1 000 000

ELEV IN FEET

25 12.5 0 25 50 75 100 125 Kilometres
25 12.5 0 25 50 75 100 125 Nautical Miles

**CAUTION**
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MAGNETIC INFORMATION FOR THE YEAR 2020
Aeronautical Information : Jan 2020

NOTE : THIS MAP IS NOT AN AUTHORITY ON BOUNDARIES

**LEGEND**

- Province
- District
- Railroad
- Road
- Small river (perennial)
- Isogonic line
- Highest elevation on chart
- Spot elevation

**AIR TRAFFIC SERVICES SYSTEM**

- Control zone (CTR)
- Terminal control area (TMA)
- Restricted airspace (prohibited, restricted or danger area)
- Flight information region (FIR)
- Air defence identification zone (ADIZ)

**RADIO NAVIGATION AIDS**

- Collocated VOR and DME radio navigation aids (VOR/DME)
- Non-directional radio beacon (NDB)
- Tactical air navigation aid (TACAN)

**AERODROMES**

- Civil
- Military
- Joint Civil and Military

Name of aerodrome
Elevation given in the units of measurement (feet)
Minimum lighting , obstacles, boundary or runway lights and lighted wind indicator or landing direction indicator
Runway hard surfaced, normally all weather
Length of longest runway in hundreds of metres

CHIANG RAI INTL
1260 L H 30

Compiled by the mapping unit from the following sources :
(a) Magnetic Information for the year 2020 , as supplied by the National Oceanic & Atmospheric Administration (NOAA)
(b) Aeronautical information as supplied by Aeronautical Information Service Department (AIS) , Thailand

GULF OF THAILAND (2799)

INDEX TO ADJOINING SHEETS



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## PART 3 - AERODROMES (AD)

## AD 0.

## AD 0.1 PREFACE

Not applicable.

## AD 0.2 RECORD OF AIP AMENDMENTS

Not applicable.

## AD 0.3 RECORD OF AIP SUPPLEMENTS

Not applicable.

## AD 0.4 CHECKLIST OF AIP PAGES

Not applicable.

## AD 0.5 LIST OF HAND AMENDMENTS TO THE AIP

Not applicable.

## AD 0.6 TABLE OF CONTENTS TO PART 3

| | | Page |
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| **AD 0.** | | |
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| AD 0.3 | RECORD OF AIP SUPPLEMENTS | AD 0.6-1 |
| AD 0.4 | CHECKLIST OF AIP PAGES | AD 0.6-1 |
| AD 0.5 | LIST OF HAND AMENDMENTS TO THE AIP | AD 0.6-1 |
| AD 0.6 | TABLE OF CONTENTS TO PART 3 | AD 0.6-1 |
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| AD 1.2 | RESCUE AND FIRE FIGHTING SERVICES AND SNOW PLAN | AD 1.2-1 |
| AD 1.3 | INDEX TO AERODROMES AND HELIPORTS | AD 1.3-1 |
| AD 1.4 | GROUPING OF AERODROMES | AD 1.4-1 |
| AD 1.5 | STATUS OF CERTIFICATION OF AERODROMES | AD 1.5-1 |
| **AD 2.** | **AERODROMES** | |
| | **BANGKOK/DON MUEANG INTERNATIONAL AIRPORT** | |
| VTBD AD 2.1 | AERODROME LOCATION INDICATOR AND NAME | AD 2-VTBD-1-1 |
| VTBD AD 2.2 | AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA | AD 2-VTBD-1-1 |
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# AD 1. AERODROMES - INTRODUCTION

## AD 1.1 AERODROME/HELIPORT AVAILABILITY

### 1. INTRODUCTION

1.1 This section contains information on all public aerodromes which are available for use in international and domestic aircraft operations. Section AD 1 gives a description relating to the use of aerodromes and the clearance formalities involved. Section AD 2 contains information on the physical characteristics of aerodromes available for international and domestic operations.

As there are no public heliports, section AD 3 has been omitted.

### 2. AERODROMES ADMINISTRATION

2.1 The administration of aerodromes are under the responsibility of the following administrative organisations:

a) Department of Airports: Krabi Airport, Hua Hin Airport, Surat Thani Airport, Buri Ram Airport, Chumphon Airport, Khon Kaen Airport, Lampang Airport, Loei Airport, Mae Hong Son Airport, Mae Sariang Airport, Pai Airport, Nakhon Phanom Airport, Nakhon Ratchasima Airport, Nakhon Si Thammarat Airport, Nan Nakhon Airport, Narathiwat Airport, Pattani Airport, Phitsanulok Airport, Phrae Airport, Phetchabun Airport, Ranong Airport, Roi Et Airport, Sakon Nakhon Airport, Mae Sot Airport, Tak Airport, Trang Airport, Ubon Ratchathani Airport, Udon Thani Airport, Betong Airport (See AD 2 item 2.2 for postal and telegraphic addresses).
b) Airports of Thailand Public Company Limited: Suvarnabhumi International Airport, Don Mueang International Airport, Chiang Mai International Airport, Mae Fah Luang – Chiang Rai International Airport, Hat Yai International Airport and Phuket International Airport (See AD 2 item 2.2 for postal and telegraphic addresses).
c) Bangkok Airways Public Company Limited: Samui Airport, Sukhothai Airport and Trat Airport (See AD 2 item 2.2 for postal and telegraphic addresses).
d) Royal Thai Navy: U – Tapao Rayong Pattaya International Airport (See AD 2 item 2.2 for postal and telegraphic addresses).

### 3. CONDITIONS OF AVAILABILITY

3.1 Civil aircraft are not permitted to land at any aerodrome not listed in this AIP except in cases of real emergency or where special permission has been granted.

### 4. REGULATIONS CONCERNING AIRPORT USE

4.1 Landing, parking or storage of aircraft on aerodromes are subject to standard conditions and availability for use by civil aircraft.

4.1.1 The conditions under which aircraft may land, be parked, housed or otherwise dealt with, at any of the aerodromes available to civil aviation in Thailand are as follows:

a) The fees and charges for the landing, parking or housing of aircraft shall be those prescribed in AIP section GEN 4. The fees and charges referred to in this paragraph shall accrue from day to day and shall be payable on demand;
b) The aerodrome operator shall have the right to delay the aircraft until such fees and charges as aforesaid are paid;
c) Neither the aerodrome operator nor any servant or agent of the Government shall be liable for loss or damage to the aircraft, its parts or accessories or any property contained in the aircraft, however such loss or damage may arise, occurring while the aircraft is on any aerodrome under the control of the aerodrome operator or is in the course of landing or taking – off at any such aerodrome.

4.1.2 LANDING MADE ELSEWHERE THAN AT ALTERNATE AIRPORTS

If a landing is made elsewhere than at an international airport or a designated alternate airport, the pilot-in-command shall report the landing as soon as practicable to the health, customs, immigration and agricultural authorities at the international airport at which the landing was scheduled to take place. This notification may be made through any available communication link, or by telegram.

The pilot-in-command shall be responsible for ensuring that:

a) If pratique has not been granted to the aircraft at the previous landing, contact between other persons on the one hand and the passengers and crew on the other is avoided:
b) That cargo, baggage and mail are not removed from the aircraft unless such action is necessary to avoid loss or destruction;
c) Any foodstuff or overseas origin, or any plant material is not removed from the aircraft except where local food is unobtainable. All food refuse including peelings, cores, stones of fruit, etc., must be collected and returned to the galley refuse container, the contents of which should not be removed from the aircraft except for hygine reasons. In which case they must be destroyed by destroyed by burning or deep burial.

### 5. TRAFFIC OF PERSONS AND VEHICLES ON AERODROMES

5.1 Demarcation of Zone

The ground of each aerodrome is divided into two zones:

a) a public zone Comprising the part of the aerodrome open to the public;
b) a restricted zone, Comprising the rest of the aerodrome.

5.2 Movement of Persons

Access to the restricted zone is authorized only under conditions prescribed by the special rules governing the aerodrome. The customs, immigration and health inspection offices and the premises assigned to transit traffic are normally accessible only to passengers, to staff of the public authorities and airlines and to authorized persons in pursuit of their duty. The movement of persons having access to the restricted zone of the aerodrome is subject to the conditions prescribed by the air traffic regulations and by the special rules laid down by the person responsible for the management of the aerodrome.

5.3 Movement of Vehicles

The movement of vehicles in the restricted zone is strictly limited to vehicles driven or used by persons carrying a traffic permit and an official card of admittance. Drivers of vehicles, of whatever type, driving within the confines of the aerodrome, must respect the direction of the traffic, the traffic signs and the posted speed limits and generally comply with the provisions of the highway code and with instructions given by the competent authorities.

5.4 Policing

Care and protection of aircraft, vehicles, equipment or goods for which the aerodrome facilities are used are not the responsibility of the Government of Thailand, who cannot be responsible for loss or damage which is not incurred through action by them or their agents.

## 6. APPLICABLE ICAO DOCUMENTS

ICAO Standards and Recommended Practices contained in Annex 14 are applied with the exceptions noted in GEN 1.7, Differences from ICAO Standards, Recommended Practices and Procedures.

## 7. RUNWAY FRICTION ASSESSMENT

7.1 Full details of this procedure can be found in RCAAT No. 14 on Aerodrome Standards on Chapter 2 Aerodrome Data Part 9 Condition of the Movement Area and Related Facilities, Chapter 3 Physical Characteristics Part 1 Runways and Chapter 6 Aerodromes Operational Services Part 12 Aerodrome Maintenance.

7.2 Aerodrome operators are required to conduct periodic surveys of the friction characteristics of their runway surfaces. The purpose of these surveys is to predict the need of their maintenance of the runway surface to prevent an unacceptable deterioration of grip as detailed in Table 1. The recognized Continued Friction Measuring Device (CFMD) devices in Thailand are Mu Meter, Skiddometer Trailer, Surface Friction Tester Vehicle, Runway Friction Tester Vehicle, Tatra Friction Tester, Runar Trailer and Griptester Trailer.

Table 1: Continuous Friction Measuring Device (CFMD)

| Continuous Friction Measuring Device (CFMD) | Design Objective for New Surface | Maintenance Planning Level (MPL) | Minimum Friction Level (MFL) |
|---|---|---|---|
| Mu-Meter Trailer | 0.72 or above | 0.52 | 0.42 |
| Skiddometer Trailer | 0.82 or above | 0.60 | 0.50 |
| Surface Friction Tester Vehicle | 0.82 or above | 0.60 | 0.50 |
| Runway Friction Tester Vehicle | 0.82 or above | 0.60 | 0.50 |
| TATRA Friction Tester Vehicle | 0.76 or above | 0.57 | 0.48 |
| RUNAR Trailer | 0.69 or above | 0.52 | 0.45 |
| Griptester Trailer | 0.74 or above | 0.53 | 0.43 |

7.3 If a survey indicates that the runway surface friction characteristics have deteriorated below the specified Minimum Friction Level (MFL), then that runway will be notified by NOTAM as a runway that ‘may be slippery when wet’.

7.4 When a runway is notified as ‘may be slippery when wet’, aircraft operators may request additional information relating to that notification from the aerodrome operator. However, any performance calculations or adjustment made as a result of this information is the responsibility of the aircraft operator.

## 8. DISSEMINATION OF INFORMATION ON RUNWAYS AFFECTED BY STANDING WATER NOT ASSOCIATED WITH SNOW OR ICE.

If a runway is affected by standing water not associated with snow or ice at any time during the approach of an aircraft for landing the depth and location of such standing water is notified by the aerodrome operator direct to ATS for transmission to the aircraft. If the duration of the phenomenon is likely to persist, and the information requires a wider distribution, a NOTAM is issued

## 9. OTHER INFORMATION

9.1 The bearing strength of airport pavement is indicated by ACR-PCR (Aircarft Claaification Rating - Pavement Classification Rating) method.

9.1.1 ACR - Aircraft Classification Rating:

The ACR is number expressing the relative effect of an aircraft type on a given pavement. The ACR is decided based on the total weight of the aircraft, the pavement type and the subgrade category.

The ACR values for the aircraft are listed in the "Aircraft Characteristics" and other documents issued by the aircraft manufacturer.

9.1.2 PCR - Pavement Classification Rating:

The PCR consists of one number and following four code letters. The number indicates the bearing capacity of pavement for unrestricted operations of aircraft.

The PCR for airports are shown at AD1 and AD2

9.1.3 Use of the published Values:

An aircraft which has ACR equal to or less than the reported PCR is allowed without any restriction. In the opposite case, an authorization must be obtained from airport administrator.

Indicative of PCR:

(1) (2) (3) (4)
PCR800 / R / B / W / T

(1) Pavement type
R: Rigid pavement
F: Flexible pavement

(2) Subgrade strength category
A: High strength (150MPa <= E)
B: Medium strength (100MPa <= E < 150MPa)
C: Low strength (60MPa <= E < 100MPa)
D: Ultra low strength (E < 60MPa)

(3) Maximum allowable tire pressure category
W: High (no pressure limit)
X: Medium (<= 1.75MPa)
Y: Low (<= 1.25MPa)
Z: Very low (<=0.50MPa)

(4) Evaluation method
T: Technical evaluation
U: Using aircraft experience

Remark:

E value: An index of the bearing capacity of pavement subgrade.

9.1.4 Remarks

The aerodrome reported the bearing strength of airport pavement by ACR-PCR (Aircraft Classification Rating - Pavement Classification Rating) method:

- BKK (VTBS)

- DMK (VTBD)

- CNX (VTCC)

- CEI (VTCT)

- HKT (VTSP)

- HDY (VTSS)

- KBV (VTSG)

- URT (VTSB)

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## AD 1.2 RESCUE AND FIRE FIGHTING SERVICES AND SNOW PLAN

### 1. Rescue and fire fighting services

Adequate rescue and fire fighting vehicles, equipment and personnel have been provided at all public aerodromes. The levels of rescue and fire fighting are classified by category in accordance with RCAAT No. 14 on Aerodrome Standards. The category for rescue and fire fighting services for each aerodrome is published in AIP – Thailand part AD 2, table AD 2.6 item 1. The aerodrome operator are requires to notify in advance if the aircraft type changes in scheduled traffic. In exceptional circumstances when the aerodrome is unable to maintain the maintain the level of protection for rescue and fire fighting, the temporary category will be published by NOTAM. For weather information is given on the relevant page for each aerodrome.

### 2. Snow plan

A snow plan is not relevant in Thailand

### 3. RUNWAY SURFACE CONDITION ASSESSMENT AND REPORTING

The following information are based on the implementation of the new ICAO methodology for assessing and reporting runway surface conditions, commonly known as the ICAO Global Reporting Format (GRF). Aircraft operators should utilize the information in conjunction with the performance data provided by the aircraft manufacturer to determine if landing or take-off operations can be conducted safely and provide runway braking action special air reports (AIREP) to ATC.

### 3.1 Assessment and Reporting

3.1.1 Runway surface conditions are assessed and reported in the ICAO GRF whenever water is present on an operational runway.

3.1.2 Runway Condition Report (RCR) is disseminated when there are significant changes in the runway surface condition.

3.1.3 The RCR contains Runway Condition Code (RWYCC) and information that describes the runway surface condition, i.e., type of contaminants, depth, coverage for each runway third. Other relevant information is reported in the situational awareness section of the RCR.

3.1.4 The RWYCC is derived from the Runway Condition Assessment Matrix (RCAM), which contains the information that is relevant to the current weather environment in Thailand.

Runway condition assessment matrix (RCAM)

| **Assessment criteria** | | **Downgrade assessment criteria** | |
|---|---|---|---|
| **Runway condition code (RWYCC)** | **Runway surface description** | **Aeroplane deceleration or directional control observation** | **Pilot report of runway braking action** |
| 6 | Dry | - | - |
| 5 | WET<br>(The runway surface is covered by any visible dampness or water up to and including 3 mm depth) | Braking deceleration is normal for the wheel braking effort applied AND directional control is normal. | Good |
| 3 | WET<br>(“slippery wet” runway) | Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced. | Medium |
| 2 | STANDING WATER<br>(more than 3 mm depth) | Braking deceleration OR directional control is between Medium and Poor. | Medium to Poor |

3.1.5 The RCR is disseminated via ATIS, SNOWTAM, and Air-Ground Voice Communications.

Communication Channels for RCR

| Runway condition code (RWYCC) | Air-Ground Voice Communications | ATIS | SNOWTAM |
|---|---|---|---|
| 6<br>(Dry) | Yes* | No | No** |
| 5<br>(Wet) | Yes | Yes | No** |
| 3<br>(Slippery Wet) | Yes | Yes | No** |
| 2<br>(Standing Water) | Yes | Yes | Yes |

* Upon request

** Except when RWYCC 2 was previously reported

**3.2 Dissemination of Runway Condition Report (RCR)**

3.2.1 ATIS

3.2.1.1 The RCR is communicated in addition to the MET REPORT elements. The information is communicated for each runway third in the direction of landing/take-off.

3.2.2 SNOWTAM

3.2.2.1 The SNOWTAM will be promulgated whenever RWYCC 2 is reported. The assessment and reporting of runway surface conditions continue until the runway is no longer contaminated. The RCR is communicated from the lowest runway designation number.

3.2.3 Air-Ground Voice Communications

3.2.3.1 Only the Runway Condition Code (RWYCC) for each runway third will be communicated through the frequency. The contamination type, contamination depth, and coverage will be provided upon request by the pilot. The information is communicated for each runway third in the direction of landing/take-off.

3.2.4 Pilots are to make special air reports (AIREP) whenever worse braking action than previously reported is experienced. Otherwise, the pilots may be asked by the ATC to report their assessment of the braking performance. The terms to describe braking action are provided in the RCAM in para 3.1.4.

## AD 1.3 INDEX TO AERODROMES AND HELIPORTS

| Aerodrome/heliport name<br>Location indicator | Type of traffic permitted to use the aerodrome/heliport | | | Reference to AD Section and remarks |
|---|---|---|---|---|
| | International-National (INTL-NTL) | IFR-VFR | S = scheduled<br>NS = Non-scheduled<br>P = Private | |
| 1 | 2 | 3 | 4 | 5 |
| **Aerodromes** | | | | |
| BANGKOK/DON MUEANG INTERNATIONAL AIRPORT<br>VTBD | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTBD |
| BANGKOK/SUVARNABHUMI INTERNATIONAL<br>VTBS | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTBS |
| BURI RAM/BURI RAM AIRPORT<br>VTUO | NTL | IFR, VFR | S, NS, P | AD 2-VTUO |
| CHIANG MAI/CHIANG MAI INTERNATIONAL AIRPORT<br>VTCC | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTCC |
| CHIANG RAI/MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT<br>VTCT | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTCT |
| CHUMPHON/CHUMPHON AIRPORT<br>VTSE | NTL | IFR, VFR | S, NS, P | AD 2-VTSE |
| PRACHUAP KHIRI KHAN/ HUA HIN AIRPORT<br>VTPH | NTL | IFR, VFR | S, NS, P | AD 2-VTPH |
| LOP BURI/KHOK KATHIAM AIRPORT<br>VTBL | NTL | VFR | NIL | AD 2-VTBL |
| KHON KAEN/KHON KAEN AIRPORT<br>VTUK | NTL | IFR, VFR | S, NS, P | AD 2-VTUK |
| KHON-KAEN / NAM PHONG | NTL | IFR,VFR | NIL | AD 2-VTUZ |
| KRABI/KRABI AIRPORT<br>VTSG | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTSG |
| LAMPANG/LAMPANG AIRPORT<br>VTCL | NTL | IFR, VFR | S, NS, P | AD 2-VTCL |
| LOEI/LOEI AIRPORT<br>VTUL | NTL | IFR, VFR | S, NS, P | AD 2-VTUL |
| MAE HONG SON / PAI AIRPORT<br>VTCI | NTL | VFR | S, NS, P | AD 2-VTCI |
| MAE HONG SON/ MAE HONG SON AIRPORT<br>VTCH | NTL | IFR, VFR | S, NS, P | AD 2-VTCH |
| TAK/MAE SOT AIRPORT<br>VTPM | NTL | IFR, VFR | S, NS, P | AD 2-VTPM |
| NAKHON PATHOM/KAMPHAENG SAEN AIRPORT<br>VTBK | NTL | IFR, VFR | NIL | AD 2-VTBK |
| NAKHON PHANOM/ NAKHON PHANOM AIRPORT<br>VTUW | NTL | IFR, VFR | S, NS, P | AD 2-VTUW |

| Aerodrome/heliport name<br>Location indicator | Type of traffic permitted to use the aerodrome/heliport | | | Reference to AD Section and remarks |
|---|---|---|---|---|
| | International-National (INTL-NTL) | IFR-VFR | S = scheduled<br>NS = Non-scheduled<br>P = Private | |
| 1 | 2 | 3 | 4 | 5 |
| NAKHON RATCHASIMA / KHORAT AIRPORT<br>VTUN | NTL | VFR | S | AD 2-VTUN |
| NAKHON RATCHASIMA/<br>NAKHON RATCHASIMA AIRPORT<br>VTUQ | NTL | IFR, VFR | S, NS, P | AD 2-VTUQ |
| NAKHON SAWAN/<br>NAKHON SAWAN AIRPORT<br>VTPN | NTL | VFR | NIL | AD 2-VTPN |
| NAKHON SAWAN/TAKHLI AIRPORT<br>VTPI | NTL | IFR, VFR | NIL | AD 2-VTPI |
| NAKHON SI THAMMARAT / CHA - IAN AIRPORT<br>VTSN | NTL | VFR | S | AD 2-VTSN |
| NAKHON SI THAMMARAT/<br>NAKHON SI THAMMARAT AIRPORT<br>VTSF | NTL | IFR, VFR | S, NS, P | AD 2-VTSF |
| NAN/NAN NAKHON AIRPORT<br>VTCN | NTL | IFR, VFR | S, NS, P | AD 2-VTCN |
| NARATHIWAT/<br>NARATHIWAT AIRPORT<br>VTSC | NTL | IFR, VFR | S, NS, P | AD 2-VTSC |
| PATTANI/PATTANI AIRPORT<br>VTSK | NTL | VFR | S, NS, P | AD 2-VTSK |
| PHETCHABUN/<br>PHETCHABUN AIRPORT<br>VTPB | NTL | IFR, VFR | S, NS, P | AD 2-VTPB |
| PHITSANULOK/<br>PHITSANULOK AIRPORT<br>VTPP | NTL | IFR, VFR | S, NS, P | AD 2-VTPP |
| PHARE/PHRAE AIRPORT<br>VTCP | NTL | IFR, VFR | S, NS, P | AD 2-VTCP |
| PHUKET/<br>PHUKET INTERNATIONAL AIRPORT<br>VTSP | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTSP |
| PRACHUAP KHIRI KHAN/<br>PRACHUAP AIRPORT<br>VTBP | NTL | VFR | NIL | AD 2-VTBP |
| RANONG/RANONG AIRPORT<br>VTSR | NTL | IFR, VFR | S, NS, P | AD 2-VTSR |
| ROI ET/ROI ET AIRPORT<br>VTUV | NTL | IFR, VFR | S, NS, P | AD 2-VTUV |
| SAKON NAKHON/<br>SAKON NAKHON AIRPORT<br>VTUI | NTL | IFR, VFR | S, NS, P | AD 2-VTUI |
| SURAT THANI/SAMUI AIRPORT<br>VTSM | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTSM |
| SONGKHLA / HAT YAI INTERNATIONAL AIRPORT<br>VTSS | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTSS |

| Aerodrome/heliport name<br>Location indicator | Type of traffic permitted to use the aerodrome/heliport | | | Reference to AD Section and remarks |
|---|---|---|---|---|
| | International-National (INTL-NTL) | IFR-VFR | S = scheduled<br>NS = Non-scheduled<br>P = Private | |
| 1 | 2 | 3 | 4 | 5 |
| SONGKHLA/<br>SONGKHLA AIRPORT<br>VTSH | NTL | VFR | NIL | AD 2-VTSH |
| SUKHOTHAI/SUKHOTHAI AIRPORT<br>VTPO | NTL | IFR, VFR | S, NS, P | AD 2-VTPO |
| SURAT THANI/<br>SURAT THANI AIRPORT<br>VTSB | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTSB |
| TAK/TAK AIRPORT<br>VTPT | NTL | IFR, VFR | S, NS, P | AD 2-VTPT |
| TRANG/TRANG AIRPORT<br>VTST | NTL | IFR, VFR | S, NS, P | AD 2-VTST |
| TRAT/TRAT AIRPORT<br>VTBO | NTL | IFR, VFR | S, NS, P | AD 2-VTBO |
| RAYONH/<br>U-TAPAO RAYONG PATTAYA<br>INTERNATIONAL AIRPORT<br>VTBU | INTL - NTL | IFR, VFR | S, NS, P | AD 2-VTBU |
| UBON RATCHATHANI/<br>UBON RATCHATHANI AIRPORT<br>VTUU | NTL | IFR, VFR | S, NS, P | AD 2-VTUU |
| UDON THANI/<br>UDON THANI AIRPORT<br>VTUD | NTL | IFR, VFR | S, NS, P | AD 2-VTUD |
| SA KAEO/<br>WATTHANA NAKHON AIRPORT<br>VTBW | NTL | IFR, VFR | NIL | AD 2-VTBW |
| YALA/BETONG AIRPORT<br>VTSY | NTL | VFR | S, NS, P | AD 2-VTSY |
| * The location indicators marked with an asterisk (*) cannot be used in the address component of AFS messages. | | | | |

| Aerodrome/heliport name<br>Location indicator | Type of traffic permitted to use the aerodrome/heliport | | | Reference to AD Section and remarks |
|---|---|---|---|---|
| | International-National (INTL-NTL) | IFR-VFR | S = scheduled<br>NS = Non-scheduled<br>P = Private | |
| 1 | 2 | 3 | 4 | 5 |
| **Heliport** | | | | |
| BANGKOK CITY<br>Bang Rak – Changri-La Hotel<br>134317.30N 1003050.90E | NTL | VFR | P | NIL |
| BANGKOK CITY<br>Bang Rak – C.P. Tower 1<br>134733.70N 1003208.60E | NTL | VFR | P | NIL |
| BANGKOK CITY<br>Vadhana – Bam Rung Rad Hospital<br>134444.81N 1003308.37E | NTL | VFR | P | NIL |

| Aerodrome/heliport name<br>Location indicator | Type of traffic permitted to use the aerodrome/heliport | | | Reference to AD Section and remarks |
|---|---|---|---|---|
| | International-National (INTL-NTL) | IFR-VFR | S = scheduled<br>NS = Non-scheduled<br>P = Private | |
| 1 | 2 | 3 | 4 | 5 |
| LAMPANG<br>Mae Mo – Mae Mo Power Plant 4<br>181647.00N 0994410.00E | NTL | VFR | P | NIL |
| PHRA NAKHON SI AYUTHAYA<br>Bang Pa-in – NMB-Minebea Thai Ltd.<br>140910.30N 1003702.90E | NTL | VFR | P | NIL |
| CHONBURI<br>Bang Lamung – Royal Cliff Beach Hotel<br>125601.00N 1005230.00E | NTL | VFR | P | NIL |
| KRABI<br>Ao Nang – Phi Phi Island Village Beach Front Resort<br>074535.56N 0984612.28E | NTL | VFR | P | NIL |

## AD 1.4 GROUPING OF AERODROMES

1. The criteria applied by Thailand in grouping aerodrome for the provision of information in this AIP are as follow:

1.1 Primary/major international aerodrome

1.1.1 The aerodrome of entry and departure for international air traffic, where all formalities concerning customs, immigration, health, animal and plant quarantine and similar procedures are carried out and where air traffic services are available on a regular basis.

1.2 Secondary/other international aerodrome

1.2.1 Another aerodrome available for the entry or departure of international air traffic, where the formalities concerning customs, immigration, health, and similar procedures and air traffic services are made available, on a restricted basis, to flights with prior approval only.

1.3 National aerodrome

1.3.1 An aerodrome available only for domestic air traffic, including those military aerodromes where civil air traffic is allowed under certain condition.

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## AD 1.5 STATUS OF CERTIFICATION OF AERODROMES

| Aerodrome name<br>Location indicator | ICAO Location Indicator | Date of certification | Validity of certification | Remarks |
|---|---|---|---|---|
| BANGKOK/DON MUEANG INTERNATIONAL AIRPORT | VTBD | 17 JUL 2023 | 10 years | Certified by CAAT<br>Refer AD 2.23 for temporary exemptions granted by CAAT. |
| BANGKOK/SUVARNABHUMI INTERNATIONAL AIRPORT | VTBS | 9 NOV 2022 | 10 years | Certified by CAAT |
| CHIANG MAI/CHIANG MAI INTERNATIONAL AIRPORT | VTCC | 9 NOV 2022 | 10 years | Certified by CAAT |
| CHIANG RAI/MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT | VTCT | 30 NOV 2023 | 10 years | Certified by CAAT |
| KRABI/KRABI AIRPORT | VTSG | Not certified | NIL | NIL |
| PHUKET/PHUKET INTERNATIONAL AIRPORT | VTSP | 25 SEP 2024 | 10 years | Certified by CAAT<br>Refer AD 2.23 for temporary exemptions granted by CAAT. |
| RAYONG/U-TAPAO RAYONG PATTAYA INTERNATIONAL AIRPORT | VTBU | 2 MAR 2022 | 10 years | Certified by CAAT |
| SONGKHLA/HAT YAI INTERNATIONAL AIRPORT | VTSS | 25 SEP 2024 | 10 years | Certified by CAAT<br>Refer AD 2.23 for temporary exemptions granted by CAAT. |
| SURAT THANI/SAMUI AIRPORT | VTSM | 20 AUG 2022 | 10 years | Certified by CAAT<br>Refer AD 2.23 for temporary exemptions granted by CAAT. |
| SURAT THANI/SURAT THANI AIRPORT | VTSB | 18 NOV 2024 | 10 years | Certified by CAAT |
| YALA/BETONG AIRPORT | VTSY | 28 JAN 2022 | 10 years | Certified by CAAT |
| BURIRUM/BURIRAM AIRPORT | VTUO | 23 JUL 2024 | 10 years | Certified by CAAT |

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## AD 2. AERODROMES

### VTBD AD 2.1 AERODROME LOCATION INDICATOR AND NAME

### VTBD - BANGKOK/DON MUEANG INTERNATIONAL AIRPORT

### VTBD AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 135451.74N 1003620.49E<br>centre line of RWY 03L/21R, 1510 M from THR RWY 21R |
| 2 | Direction and distance from (city) | 12 NM NE of Bangkok |
| 3 | Elevation/Reference temperature | 2.65 M (9 FT) / 32.6°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0°36'W (2016) /0°0'E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Airports of Thailand Public Company Limited (AOT)<br>Don Mueang International Airport<br>222 Vibhavadi Rangsit Road, Donmueang,<br>Bangkok 10210<br>Thailand<br>Tel: +662 535 1515<br>+662 535 1516<br>Fax: +662 535 1065<br>+662 535 1306<br>E-mail: dmk.dep@airportthai.co.th<br>Website:www.airportthai.co.th<br>AFS: VTBDYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Airports of Thailand Public Company Limited (AOT) |

### VTBD AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | H24 |
| 2 | Customs and immigration | H24 |
| 3 | Health and sanitation | H24 |
| 4 | AIS Briefing Office | H24 |
| 5 | ATS Reporting Office (ARO) | H24 |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | H24 |
| 8 | Fuelling | H24 |
| 9 | Handling | H24 |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | AIS Briefing Office and ATS Reporting Office (ARO):<br>Located at 2nd floor, the central block building, Don Mueang International Airport<br>Tel: +66 2515 3263<br>Fax: +66 2535 1879<br>AFTN: VTBDZPZX<br>E-mail: vtbdzpzx@aerothai.co.th |

## VTBD AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | Available form<br>a) Asia Ground Service Co.,Ltd (AGS)<br>7 Forklifts (7 T - 1 Forklifts, 5 T - 1 Forklifts, 3 T - 1 Forklifts, 2.5 T - 4 Forklifts)<br>3 Electric Hand-lifts (1.5 T - 3 Forklifts), 2 Trucks<br>Handling weight up to 200 T per day.<br>b) Technology Asia Pacific Co.,Ltd (TAP)<br>4 Forklifts (7 T - 1 Forklifts, 2.5 T - 3 Forklifts)<br>Handling weight up to 200 T per day. |
| 2 | Fuel/oil types | Jet A1 and AVGAS |
| 3 | Fuelling facilities/capacity | Bangkok Aviation Fuel Service Public Co.,Ltd. (BAFS)<br>Website:www.bafsthai.com<br>Tel: +662 834 8900<br>Fax: +662 834 8999<br>Fuel Dispenser Truck: 21<br>Fuel Truck: 7, Capacity: 65,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | Private Aircraft operated by Mjets Ltd. |
| 6 | Repair facilities for visiting aircraft | Private Aircraft operated by Mjets Ltd. |

| | | |
|---|---|---|
| 7 | Remarks | The airport has provided ground handling agents as following number:<br>a) AGS CARGO DMK<br>E-mail: dmkfa@asiagroundservice.com<br>Tel: +662 504 3821-3<br>+669 5208 4161-2<br>Fax: +662 504 3825<br><br>b) AOT GROUND AVIATION SERVICES CO., LTD. (AOTGA)<br>Website: www.aotga.com<br>Ground Handling Inquiry:<br>- Marketing Department<br>E-mail: marketing@aotga.com<br>Tel: +666 4182 5396<br>Operation Inquiry:<br>- Ground Operations Control/Operations Department<br>E-mail: dmkopsocc@aotga.com, dmkroc@aotga.com,<br>Tel: +668 2941 7679 (24 hrs.)<br>+666 4182 5391 (24 hrs.)<br>+662 535 3818 (24 hrs.)<br>Radio contact Call sign: Blue Port Don Mueang<br>Frequency:129.350MHZ<br><br>- GA Aviation Channel (Private aircraft) and AOTGA Premium Lounge<br>Ground & Operation Department<br>E-mail: DMKVIP@aotga.com<br>Tel: +666 4182 5389 (24 hrs.)<br><br>c) BANGKOK AIR CATERING DON MUEANG CO., LTD<br>E-mail: dmkhhpg@bangkokaircatering.com<br>Mob: +666 4209 3694<br><br>d) MJETS LIMITED (Private Aircraft only)<br>Handling Service<br>E-mail: ground@mjets.com<br>Tel: +662 034 5622 (24 hrs.)<br>+668 5485 6623 (24 hrs.)<br>VHF FREQ:131.175MHZ " MJets OPS "<br>AOG Support & MRO<br>E-mail: AOG@mjets.com<br>Tel: +668 5484 8722<br><br>e) TAP CARGO DMK<br>E-mail: dmk@tapaircargo.com<br>Tel: +662 157 3539<br>Fax: +662 157 3540<br>SITA: DMKTPXH, DMKTAXH<br><br>f) THAI AIRWAYS INTERNATIONAL PUBLIC CO.,LTD. (TG)<br>E-mail: tg.charter@thaiairways.com<br>Tel: +662 563 8107<br>Fax: +662 563 8106<br>SITA: DMKZMTG<br>AFS: VTBDTHAK |

## VTBD AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | At the 4th floor (Terminal 2)<br>Tel: +662 535 7555-8<br>Also near AD and in the city |
| 2 | Restaurants | At the AD and in the city |
| 3 | Transportation | Public Taxi, Airport Taxi, Limousine service, Airport Shuttle Bus, Limo Bus, Train, Bus and Car rental service. |
| 4 | Medical facilities | First aid at Airport Clinic, H24 |
| 5 | Bank and Post Office | Bank: At Terminal 1 & 2<br>Post office: At the 3rd Floor (Terminal 1 & 2)<br>Tel: +662 504 3070 (Terminal 1)<br>+662 504 3181 (Terminal 2)<br>Open : Daily 0130 - 1200 |
| 6 | Tourist Office | Office at the 1st Floor (Terminal 1)<br>Arrival hall;<br>Tel: +662 535 3433 |
| 7 | Remarks | For further information<br>Tel: +662 535 1192<br>+662 535 2110<br>E-mail: psd_dmk@airportthai.co.th |

## VTBD AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 9 |
| 2 | Rescue equipment | Adequately provided as recommended by ICAO |
| 3 | Capability for removal of disabled aircraft | Available up to B747 |
| 4 | Remarks | For removal of disabled aircraft by contracted external resource please contact aerodrome coordinator:<br>Airport Operations Department<br>- Airside Services Division<br>Tel: +662 535 1283<br>+662 535 1288<br>Rescue and Fire Fighting Department<br>- Aircraft Fire Fighting Division<br>Tel: +662 535 1118 |

## VTBD AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTBD AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | North Apron<br>Surface: Concrete<br>Strength: PCR 830/R/B/W/T<br>Pier 2-3<br>Surface: Concrete<br>Strength: PCR 830/R/B/W/T<br>Pier 3-4<br>Surface: Concrete<br>Strength: PCR 830/R/B/W/T<br>Pier 4-5<br>Surface: Concrete<br>Strength: PCR 830/R/B/W/T<br>Pier 5-6<br>Surface: Concrete<br>Strength: PCR 830/R/B/W/T<br>Pier 6<br>Surface: Concrete<br>Strength: PCR 830/R/B/W/T<br>South Apron<br>Surface: Concrete<br>Strength: PCR 830/R/B/W/T |
| 2 | Taxiway width, surface and strength | Width: 23 M - 50 M<br>Surface: Concrete<br>Strength: See Aerodrome Ground Movement Chart - ICAO for taxiway strength, surface and width. |
| 3 | Altimeter checkpoint location and elevation | Location: At Apron<br>Elevation: 3.25 M/10 FT |
| 4 | VOR checkpoints | Location:<br>- At holding position RWY 21R on TWY B (north) - RDL 023/2.2 NM<br>- At holding position RWY 03L on TWY S (nearby TWY C) - RDL 012/0.6 NM<br>Radio frequency: 117.7 MHZ |
| 5 | INS checkpoints | See Aerodrome Ground Movement Chart - ICAO (Verso) for coordinates of aircraft stand. |
| 6 | Remarks | - Taxilane T between TWY V and TWY S can be used for Aircraft Code Letter A, B, C, D only<br>- TWY Y conditions of use:<br>When RWY 03R/21L is in use by arriving and departing aircraft, TWY Y is not allowed to be used by other aircraft. On the contrary if TWY Y is in use by any aircraft, RWY 03R/21L will not be allowed to be used by other aircraft. |

## VTBD AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxiing guidance signs at all intersections with TWY and RWY at all holding positions.<br>Nose-wheel guide lines at aprons<br>Solid nose-wheel guide lines at aircraft stands<br>Guide lines at apron.<br>Nose-in guidance at aircraft stands. |
| 2 | RWY and TWY markings and LGT | RWY: Designation, THR, TDZ, centre line, RWY Edge, RWY End, SWY as appropriate, marked and lighted.<br>TWY: Holding position at all TWY/RWY Intersections, marked.<br>Edge at all TWY, marked and lighted<br>Centre line at all TWY, marked.<br>Centre line at D, E, F, J, O, R, S, C, C (south), lighted<br>Intermediate holding position light at TWY C between TWY O-R |
| 3 | Stop bars | Stop Bar Lights installed detail as follow:<br>– At holding position RWY 21R on TWY B north, distance 130 M from RCL<br>– At holding position RWY 21R on TWY D, distance 130 M right side of RCL<br>– At holding position RWY 21R on TWY D, distance 210 M left side of RCL<br>– At holding position RWY 21R on TWY E, distance 90 M right side of RCL<br>– At holding position RWY 21R on TWY J, distance 90 M right side of RCL<br>– At holding position RWY 21R on TWY S, distance 90 M right side of RCL<br>– At holding position RWY 21R on TWY S, distance 130 M left side of RCL<br>– At holding position RWY 21R on TWY C south, distance 90 M from RCL |
| 4 | Remarks | Aircraft marshalling and Towing service:<br>The marshalling of scheduled and non-scheduled aircraft into the bays either manually and the pushing out of aircraft for departure shall be under the responsibility of the aircraft operator or its appointed ground handling agency. |

## VTBD AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | | | Radio mast<br>HGT 70 M<br>Marked, Lighted | 135307.86N 1003351.09E | NIL |
| | | | Radio mast<br>HGT 61 M<br>Marked, Lighted | 135452.97N 1003709.84E | NIL |
| | | | Building<br>HGT 78 M<br>Marked, Lighted | 135339.003N 1003341.633E | NIL |
| | | | Building<br>HGT 87.10 M<br>Lighted | 135212.77N 1003403.06E | NIL |
| | | | Building<br>HGT 50 M<br>Lighted | 135711.09N 1003715.04E | NIL |

## VTBD AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorology Division,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Aeronautical Meteorology Division<br>30 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>30 Min |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +662 535 1256<br>Fax: +662 535 1252 |
| 6 | Flight documentation<br>Language(s) used | Charts, Tabular forms and Abbreviated Plain Language Texts.<br>English |
| 7 | Charts and other information available for briefing or consultation | S, U85, SWH, SWM, SWL, P85, P70, P50,P40, P30, P25, P20, P15, satellite and radar pictures |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS),<br>Low Level Windshear Alert System (LLWAS) and Weather Radar |
| 9 | ATS units provided with information | Don Mueang TWR |
| 10 | Additional information (limited of service, etc.) | NIL |

## VTBD AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCR) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 03L | 029° | 3700x60 | PCR 1200/R/C/W/T Asphalt 217 M FM THR and 122 M RWY ends are PCR 670/R/B/W/T Concrete SWY is Asphalt (PCR 910/F/C/X/T) | 135349.24N 1003545.38E | THR 2 M/7 FT |
| 21R | 209° | 3700x60 | PCR 1200/R/C/W/T Asphalt 122 M FM THR and 217 M RWY ends are PCR 670/R/B/W/T Concrete SWY is Asphalt (PCR 910/F/C/X/T) | 135534.87N 1003644.62E | THR 2 M/7 FT |
| 03R | 028° | 3500x45 | PCR 1000/F/C/X/T Asphalt | 135358.45N 1003605.50E | THR 1.49 M/5 FT |
| 21L | 208° | 3500x45 | PCR 1000/F/C/X/T Asphalt | 135528.33N 1003655.97E | THR 1.92 M/6.4 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| -0.05% 0% -0.05%<br>(350M 2 850M 500M) | 150x60 | 150x150 | 4120x260 | 120x90 | NIL | NIL | NIL |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| +0.056% 0% -0.05% (500M 2 850M 350M) | 150x60 | 150x150 | 4120x260 | 120x90 | NIL | NIL | NIL |
| +0.03% -0.036% (2 000M 1 500M) | NIL | 150x150 | 3720x160 | 90x90 | NIL | NIL | NIL |
| +0.036% -0.03% (1 500M 2 000M) | 100x45 | 150x150 | 3720x160 | 90x90 | NIL | NIL | NIL |

## VTBD AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 03L | 3700 | 3850 | 3850 | 3700 | NIL |
| 21R | 3700 | 3850 | 3850 | 3700 | NIL |
| 03R | 3500 | 3650 | 3500 | 3500 | NIL |
| 21L | 3500 | 3650 | 3600 | 3150 | NIL |

## VTBD AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THRLGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 03L | SALS 420 M LIH | Green | PAPI Both 3° (71.85 FT) | NIL | 3700M, 30 M White FM 2800 M-3400 M Red/White; FM 3400 M Red; LIH | 3700 M, 60 M White, FM 3100 M-3700 M Yellow; LIH | Red | 150 M Red | NIL |
| 21R | CAT II 900 M LIH | Green | PAPI Both 3° (65.42 FT) | 900 M | 3700 M, 30 M White FM 2800 M-3400 M Red/White; FM 3400 M Red; LIH | 3700 M, 60 M White, FM 3100 M-3700 M Yellow; LIH | Red | 150 M Red | NIL |
| 03R | SALS (5 BAR) 300 M LIH | Green | PAPI Both 3° (63.35 FT) | NIL | NIL | 3500 M, 60 M White; FM 2900 M-3500 M Yellow; LIH | Red | NIL | NIL |
| 21L | CAT I 900 M LIH | Green | PAPI Both 3° (63.81 FT) | NIL | NIL | 3500 M, 60M Red; FM 350 M-2900 M White FM 2900 M Yellow; LIH | Red | 100 M Red | NIL |

## VTBD AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At the top of TWR-S Building FLG WG EV 3 Sec<br>IBN: NIL<br>HN: IMC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | WDI<br>: 1 WDI 375 M FM THR RWY 21R AND 179 M FM RWY 21R CL, BTN RWY 21R AND 21L illuminated<br>: 1 WDI left side of THR RWY 21L, 158 M FM RWY CL illuminated |
| 3 | TWY edge and centre line lighting | Edge: All TWY<br>Centre Line: TWY D, E, F, J, O, R, S, C, C (south) |
| 4 | Secondary power supply/switch-over time | -Secondary power supply to all lighting at RWY 21L/03R<br>Switch-over time: 0 Sec<br>-Secondary power supply to all lighting at RWY 21R/03L<br>Switch-over time: 0 Sec |
| 5 | Remarks | Stop Bars at TWY B north, D, E, J, S, C (south)<br>Intermediate Holding Position Lights at TWY C between TWY O - R |

## VTBD AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Helicopters to approach using active runway and land as instructed by ATC. |

## VTBD AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | Don Mueang Aerodrome Traffic Zone (ATZ) a circle, radius 5 NM centred on VTBD ARP (135452N 1003620E) |
| 2 | Vertical limits | $\frac{\text{2000FT}}{\text{AGL}}$ |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Don Mueang Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT MSL |
| 6 | Remarks | NIL |

## VTBD AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Don Mueang Approach<br>Bangkok Approach | 119.4 MHz / 262.5 MHz<br>133.4 MHz / 262.5 MHz<br>125.2 MHz / 262.5 MHz<br>124.35 MHz / 262.5 MHz<br>122.35 MHz / 262.5 MHz<br>119.1 MHz / 262.5 MHz<br>120.3 MHz / 262.5 MHz<br>125.8 MHz [2]<br>121.5 MHz [1] / 243.0MHz [1] | H24 | [1] Emergency frequency<br>[2] Clearance delivery for aircraft departing to adjacent aerodromes and helicopters operating within BKK CTR<br>[3] Arrival ATIS<br>[4] Departure ATIS |
| CDC | Don Mueang Delivery | 127.7 MHz | H24 | |
| DAR | Don Mueang Arrival | 133.0 MHz / 262.5 MHz<br>121.5 MHz [1] / 243.0MHz [1] | H24 | |
| TWR | Don Mueang Tower | 118.1 MHz / 236.6 MHz<br>121.5 MHz [1] / 243.0 MHz [1] | H24 | |
| SMC | Don Mueang Ground | 121.9 MHz / 257.8 MHz<br>122.5 MHz / 257.8 MHz | H24 | |
| ATIS | Don Mueang Intl Airport | 126.4 MHz [3] / 344.6 MHz [3] /<br>118.55 MHz [4] | H24 | D-ATIS synthesized voice broadcast |

## VTBD AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give VAR) | ID | Frequency | Hours of operation | Positions of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | BKK | 117.7 MHz CH 124X | H24 | 135336.8N 1003546.3E | 16.58 m | DVOR/DME restriction due to obstacles surround DVOR/DME station, coverage check does not provide adequate signal 40 nm at required altitude in various areas as follows:<br>– Radial 321°-030° altitude should not below 2 500 ft.<br>– Radial 031°-060° altitude should not below 4 000 ft.<br>– Radial 061°-120° altitude should not below 3 000 ft.<br>– Radial 121°-320° altitude should not below 4 000 ft. |
| ILS CAT II LOC-21R | IBKK | 109.3 MHz | H24 | 135340.7N 1003540.6E | | Instrument Landing System<br>- Reference Datum Height (RDH) is 16.46 m (54 ft).<br>A. Localizer<br>- LOC 300 m. (984 ft.) from THR RWY 03L, along RWY centre line. Course width 3°<br>B. Glide Path 3°<br>- GP 333 m. (1,093 ft.) from THR RWY 21R, 120 m. (394 ft.) from RWY centre line.<br>C.DME<br>- Co-located with GP. |
| GP/DME | | 332.0 MHz CH 30X | H24 | 135523.5N 1003642.9E | | |
| ILS CAT I LOC RWY21L | IDMG | 110.3 MHz | H24 | 135351.8N 1003601.8E | | Instrument Landing System<br>– Reference Datum Height (RDH) is 53 ft.<br>A. Localizer<br>– LOC 225 m. from THR RWY 03R, along RWY centre line.<br>– Course width 3.6°<br>B. Glide Path 3°<br>– GP 320 m. from THR RWY 21L, 120 m. from RWY centre line.<br>C. DME<br>– Co-located with GP |
| GP/DME | | 335.0 MHz CH40X | H24 | 135521.3N 1003647.5E | | |
| ILS CAT I LOC RWY03L | IBKD | 109.7 MHz CH34X | H24 | 135543.8N 1003649.7E | | Instrument Landing System<br>– Designated operation coverage 9 DME (IBKD), ALT 6000 ft/AMSL<br>– Reference Datum Height (RDH) is 55 ft.<br>A. Localizer<br>– Course width 3.0°<br>B. Glide Path 3°<br>– GP unusable beyond 6° right side of localizer course<br>C. DME<br>– Co-located with LOC |
| DME | | | H24 | 135544.9N 1003647.5E | 3ft | |
| GP | | 333.2 MHz | H24 | 135356.4N 1003554.0E | | |

## VTBD AD 2.20 LOCAL AERODROME REGULATIONS

**1. Technical Test Flights**

A technical test flight after repair over Don Mueang International Airport can only be performed upon permission given by the Airport Authority at least 24 hours prior to each test flight.

**2. Parking Area for General Aviation**

The parking area for general aviation aircraft is also available.

**3. Removal of Disabled Aircraft**

3.1 When the aircraft is involved in an accident at Don Mueang International Airports, the aircraft operator or the registered owner is responsible for removal of its disabled aircraft. If the accident is likely to cause danger or obstruction to the movement of other aircraft or vehicles, the General Manager of Don Mueang International Airport or his authorized representative may order the aircraft operator or the registered owner to remove its disabled aircraft without delay.

3.2 If the aircraft operator or the registered owner does not comply with such order, the General Manager of Don Mueang International Airport or his authorized representative shall empower to remove the aircraft himself. The expense incurred in removing such aircraft shall be recovered from aircraft operator or the registered owner. The General Manager of Don Mueang International Airport or his authorized representative shall not be responsible for any damage occurring to the aircraft during its removal.

**4. Use of Runways 03R/21L – Don Mueang International Airport**

4.1 The use of Runway 03R/21L at Don Mueang International Airport is normally restricted to military traffic. But they may be made available to civil traffic. The hours of operation is 24 hours daily, all traffic is controlled by Don Mueang Tower.

4.2 The traffic circuit pattern for these runways is as follows:

4.2.1 Outbound - after take-off, turn to east and leave circuit pattern at an angle of 45 º to the cross-wind leg.

4.2.2 Inbound - join circuit pattern at 45 º in the middle of the down - wind leg east of the runway, at the following heights:

a) 1 500 FT for jet aircraft,
b) 1 000 FT for conventional aircraft,
c) 800 FT for light aircraft,
d) 500 FT for helicopter.

4.2.3 No straight in approaches are permitted without prior approval from Don Mueang Tower.

**5. Speed Control**

5.1 All aircraft when flying below 10 000 FT are subject to a speed limitation of 250 KT unless previously removed by ATC.

5.2 Procedures required that aircraft should fly at 210 KT during the intermediate approach phase. ATC will request speed reductions to within the band 160 KT to 180 KT on, or shortly before closing heading to the ILS, and 160 KT when established on the ILS to final approach points; all speeds to be flown as accurately as possible. Aircraft unable to conform to these speeds should inform ATC and state what speed will be used.

5.3 At other times, speed control may be applied on a tactical basis to the extent determined by the Radar Controller. Pilots unable to conform to speed specified by the Radar Controller should immediately inform ATC stating what speeds will be used.

5.4 ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase "**NO (ATC) SPEED RESTRICTIONS**". An instruction to notify that the aircraft need no longer comply with the previously issued speed restriction, the phrase "**RESUME NORMAL SPEED**" will be used.

***Note:*** *An instruction to "resume normal speed" does not delete speed restrictions that are applicable to published procedures of upcoming segments of flight, aircraft shall comply with the speed restrictions specified in 5.1, 5.2 and 5.3.*

5.5 Except as detailed in 5.1, 5.2 and 5.3, all aircraft navigating under conditions of RNAV (GNSS) SIDs/STARs shall conform to speed limitation as published in the procedures.

5.6 En-route holding and Initial Approach Waypoint (IAWP) holding will be in accordance with ICAO standard holding speeds requirement.

***Note 1:*** *En-route holding;* ***MOCHI,BATOK, GOMES, RYN, JASSY, PASTA, TARDY, OSUKA, TL, NOBER.***

***Note 2:*** *IAWP holding;* ***ARONS, CAROS, DANNY, NAUTY, SILVA, CABIN, DAREN, GIPSY, NUMAN, TERRY.***

**6. Starting up Procedures**

6.1 When Flight Formalities have been completed and aircraft is ready to start-up, all IFR aircraft are to call Don Mueang Delivery for

ATC clearance on the frequency 127.7 MHZ, giving parking stand number or location and proposed flight level.

6.2 Pilots are to call Don Mueang Ground on 121.9 MHZ for push back and start up and should give parking stand number or location and ATIS information.

6.2.1 Unless other ATC restriction is imposed, the aircraft must be push back within 5 minutes from the time ATC clearance is received otherwise the ATC clearance will be cancelled.

Additionally, in order to provide a more flexible ground traffic movement, all domestic departures shall no longer be required to push back within 5 minutes after clearance received.

6.2.2 If ATC clearance includes a departure time restriction in order to establish longitudinal separation, pilots shall maintain listening watch on Don Mueang ground in readiness for push back and are to call Don Mueang ground in the appropriate time with the departure time restriction. Pilots who fail to comply with these requirements or amended departure time restriction will result in cancellation of ATC clearance.

**7. Warning for Taxiing Aircraft**

7.1 Pilots should exercise extreme caution when manoeuvring on the apron due to the proximity of other aircraft, ground staff and equipments. In case the point that aircraft assigned to park at terminal contact gates, engine power should be restricted to the absolute minimum required to reduce the adverse effect of jet blast when making the turn to parking bay. Pilots who cannot follow this procedure must stop before making the turn, then request ATC for towing-in. If accident occurred during aircraft taxiing or turning. Pilots and airline operators must take responsible to all of the damages.

7.2 In order to prevent jet blast damage the aircraft parking on area closed to taxiway B (North) all taxiing aircraft have to reduce to minimum power while taxiing along taxiway B (North).

7.3 Aircraft landing RWY 21L, when vacating the RWY to the right on TWY S, must hold short of RWY 21R at the holding PSN and remain on Don Mueang Tower frequency 118.1 MHZ for permission to cross the RWY.Changing of frequency shall not be done unless otherwise advised. The aircraft shall continuously guard the VHF emergency frequency 121.5 MHZ at all times for reasons of safety.

**8. Closure of Runway**

8.1 Aircraft will not be refused permission to land or take off at Don Mueang International Airport solely because of adverse weather conditions. The pilot-in-command of a commercial air transport aircraft shall be responsible for operation in accordance with applicable company weather minima.

8.2 The Runway will be closed

a) When the surface of the runway is unsafe (rough surface of dangerous obstruction on the manoeuvring area) or
b) At such other times and in conditions specified by NOTAM.

8.3 Take off and Landing:

8.3.1 The pilot-in-command shall not take off and landing without a clearance from Don Mueang Tower
8.3.2 After Landing, The pilot-in-command shall vacate the runway as expeditiously as possible, in order to reduce runway occupancy time.

8.4 Disturbance of ILS Glide Path signal

In the interest of maximizing the traffic flow during VMC conditions, Don Mueang Tower may authorize a departing aircraft to cross the Runway 21R to use RWY 21L for departure. This may cause reflection and/or diffraction of the ILS Glide Path signal. The arriving aircraft will be advised accordingly.

**9. Low visibility procedures (LVP)**

9.1 RWY 21R is equipped with ILS and is approved for CAT II operations and low visibility take-off (LVTO)

9.2 Low visibility procedures will be established when a visibility of less than RVR 550 M or a cloud base of less than 200 FT

9.3 RWY exits.

9.3.1 All RWY exits are equipped with GREEN/YELLOW coded taxiway centre line lights to indicate the boundary of the localizer sensitive area.

9.3.2 Pilots should select the first convenient exit and continue on the TWY centre line lead-off lights toward to TWY B for A designated parking stand.

9.3.3 The following route restrictions shall be used during low visibility operations.

a) When vacating on TWY O taxi route is O-B or O-N and B
b) When vacating on TWY R taxi route is R-B
c) When vacating on TWY S taxi route is S-B
d) When vacating on TWY C(S) taxi route is C(S)-B

9.3.4 Pilots are required to make a “RUNWAY VACATED” call giving due allowance for the size of the aircraft to ensure that the entire aircraft has vacated the localizer sensitive area.

9.4 RWY-holding positions.

9.4.1 Departing aircraft are required to use the TWY D and B(N) which are CAT II holding positions.

9.4.2 Intersection take-offs are not permitted.

9.5 CAT II approach and landing.

9.5.1 Pilots will be informed by ATIS or RTF when low visibility procedures are in operation.

9.5.2 Pilots must request an ILS CAT II approach on first contact with Bangkok Approach. Pilots may carry out a practice ILS CAT II approach if traffic conditions permitted.

9.5.3 Aircraft will be vectored to intercept the localizer at least 10 NM from touchdown.

9.5.4 Special procedures and safeguarding will be applied during CAT II operations to protect aircraft operating in low visibility and to avoid interference to the ILS signals in accordance with ICAO DOC 9365: Manual of All-Weather Operations.

9.6 Low visibility take-off.

Pilots wishing to conduct an ILS guided take-off shall inform ATC on start-up in order to ensure that the protection of the localizer sensitive area is provided.

9.7 RWY 21L is not permitted for landing and take-off in low visibility procedures.

**10. Pilot Procedure to Enhance Runway Capacity**

To achieve the highest possible rate/hour for departure and arrival at Don Mueang International Airport, the runway occupancy times shall be reduced to a minimum. Therefore the follow procedure are introduced;

10.1 Departing aircraft

10.1.1 Commensurate with safety and standard operating procedure, one receipt of line up clearance, pilots should ensure that they are able to taxi into the correct hold and line up position on the runway as soon as the preceding aircraft has commenced its take-off roll.

10.1.2 Cockpit checks should be completed before line up, any further checks requiring completion whilst on the runway shall be kept to a minimum. Pilots shall ensure that they are able to commence the take-off roll immediately after a take-off clearance is issued.

10.1.3 Pilots unable to comply with these procedure shall inform ATC prior to passing the runway holding position.

10.1.4 Departures shall normally be cleared in the order in which they are ready for take-off, except that deviations may be made from this order of priority to facilitate the maximum number of departures with the least average delay.

10.2 Arriving aircraft

Pilots are reminded that rapid exit from the landing runway enables ATC to apply minimum spacing on Final Approach that will achieve maximum runway utilization as well as minimize the occurrence of go-arounds.

**11. Aircraft Manoeuvring Procedures**

In order to avoid jet blast damage to the terminal building and to aircraft, equipment and personnel on nearby stands, the following aircraft manoeuvring procedures are to be observed:

11.1 When the pilot is ready for start-up and push-back, he shall seek confirmation from the ground crew that there is on hazard to his aircraft starting up. He shall then notify the ground controller that he is ready for push-back. On being told by Don Mueang Ground that push-back is approved, he shall co-ordinate with the ground crew for the start-up and push-back of the aircraft.

11.2 Ground crew must ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or push-back of aircraft commences.

11.3 Pilots are reminded that they should always use minimum power when starting engine or manoeuvring within the apron area. It is especially important when commencing to taxi that breakaway thrust is kept to an absolute minimum and then reduced to idle thrust as soon as practicable.

11.4 Following push-back from aircraft stands, the points where the tug will be disconnected from the aircraft and breakaway thrust will be applied in these positions:

11.4.1 North and South Remote Apron

11.4.1.1 The intersection of the lead-in line and “taxilane A” or “taxilane B” centre line.

11.4.2 Behind the holding line on “taxilane B” marked as letter “S-TOWBAR” on the ground.

11.4.2.1 Abeam Pier2, Pier3, Pier4, Pier5 and Pier6

11.4.2.2 Abeam stand 73, stand 88 and stand 129

11.4.3 On centre line of aircraft stand taxilane, from cul-de-cac stands, marked as letter “S”

11.4.3.1 Between Pier2 and Pier3

11.4.3.2 Between Pier3 and Pier4

11.4.3.3 Between Pier4 and Pier5

11.4.3.4 Between Pier5 and Pier6

11.4.3.5 Behind stand 68 and stand 130

11.5 Due to aircraft congestion, self-manoeuvring and power back are not permitted at any parking stands, all aircraft must use towbar for push-back procedures except authorized by airport authority.

11.6 The following table describes the procedure for push-back of aircraft from the various aircraft stands. When it becomes necessary to vary a procedure to expedite aircraft movements, Don Mueang Ground will issue specific instructions to the pilots.

| Aircraft Stands | Aircraft Manoeuvring Procedures |
|---|---|
| North Remote Apron<br>Stands 1 2 3 4 5 6 7 8 9 10A 10B 10C 91 92 93 94 95 96 97 98 99 100A 100B 100C | The aircraft (on idle power) shall be pushed back to face either north or south till its nosewheel is at the intersection of the lead-in line and “taxilane A” centre line. Breakaway thrust will be applied when cleared to taxi.<br>Remarks<br>Stand 100B and stand 100C in case of push-back facing north, the aircraft shall then be towed forward until behind stand 100B. |
| Terminal Apron<br>Stands 12 | The aircraft (on idle power) shall be pushed back to face either north or south till its nosewheel is at the intersection of the lead-in line and “taxilane A” centre line. Breakaway thrust will be applied when cleared to taxi. |
| Stand 14 | The aircraft (on idle power) shall be pushed back to face north till its nosewheel is at the intersection of the lead-in line and “taxilane A” centre line, then tow forward until behind stand 14 or to face south till its nosewheel is at the intersection of the lead-in line and “taxilane A” centre line. Breakaway thrust will be applied when cleared to taxi. |
| Stand 15 | The aircraft (on idle power) shall be pushed back to face south till its nosewheel is at the intersection of the lead-in line and “taxilane A” centre line. Breakaway thrust will be applied when cleared to taxi.<br>Alternative<br>The aircraft (on idle power) shall be pushed back onto “taxilane B” to face either north or south behind the holding line. Breakaway thrust will be applied when cleared to taxi. |
| Stand 21 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north or south behind the holding line, where remaining engines may be started. Breakaway thrust will be applied when cleared to taxi. |
| Stands 23 25 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north or south behind the holding line, where remaining engines may be started. Breakaway thrust will be applied when cleared to taxi.<br>Alternative<br>The aircraft may start one engine to idle power. They will be pushed back onto “taxilane A” to face south till aircraft is behind the holding line abeam stand 15, other engines may be started to idle and breakaway thrust will be applied when cleared to taxi. |

| Aircraft Stands | Aircraft Manoeuvring Procedures |
|---|---|
| Stands 22 31 32 41 42 51 52 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north or south behind the holding line. Other engines may be started to idle power and breakaway thrust will be applied when cleared to taxi. |
| Stands 61 62 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north or south behind the holding line, Other engines may be started to idle power and breakaway thrust will be applied when cleared to taxi. |
| Stands 24 26 33 34 35 36 43 44 45 46 53 54 55 56 63 64 65 66 67 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north or south behind the holding line, Other engines may be started to idle power and breakaway thrust will be applied when cleared to taxi.<br>Alternative<br>The aircraft may start one engine to idle power. They will be pushed back onto aircraft stand taxilane to face east and then tow forward till its nosewheel is at “S” mark. Other engines may be started to idle power and breakaway thrust will be applied when cleared to taxi. |
| Stand 68 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north or south behind the holding line, where remaining engines may be started. Breakaway thrust will be applied when cleared to taxi.<br>Alternative<br>Aircraft up to A300 may start one engine to idle power. They will be pushed back onto aircraft stand taxilane to face east and then tow forward till its nosewheel is at “S” mark. Other engines may be started to idle power and breakaway thrust will be applied when cleared to taxi. |
| South Remote Apron<br>Stand 121 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north or south behind the holding line, where remaining engines may be started. Breakaway thrust will be applied when cleared to taxi. |
| Stand 122 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north till its nosewheel is behind the holding line abeam stand 73 or south till the aircraft is on “taxilane B” abeam stand 130. Other engines may be started and breakaway thrust will be applied when cleared to taxi. |
| Stand 123 125 127 129 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north or south behind the holding line, where remaining engines may be started. Breakaway thrust will be applied when cleared to taxi.<br>Alternative<br>The aircraft may start one engine to idle power. They will be pushed back onto aircraft stand taxilane to face east and then tow forward till its nosewheel is at “S” mark. Other engines may be started to idle power and breakaway thrust will be applied when cleared to taxi. |
| Stands 124 126 128 130 | The aircraft may start one engine to idle power. They will be pushed back onto “taxilane B” to face either north till the aircraft is behind the holding line abeam stand 73 or south till the aircraft is on “taxilane B” abeam stand 130. Other engines may be started to idle power and breakaway thrust will be applied when cleared to taxi.<br>Alternative<br>The aircraft may start one engine to idle power. They will be pushed back onto aircraft stand taxilane to face east and then tow forward till its nosewheel is at “S” mark. Other engines may be started to idle power and breakaway thrust will be applied when cleared to taxi. |
| Stands 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 101 102 103 104 105 106 107 109 110 112 113 114 115 | The aircraft (on idle power) shall be pushed back to face either north till its nosewheel is at the intersection of the lead-in line and “taxilane B” centre line or south till its body is aligned with “taxilane B” centre line. Breakaway thrust will be applied when cleared to taxi. |
| Stands 89 90 108 | The aircraft (on idle power) shall be pushed back to face north till its nosewheel is at the intersection of the lead-in line and “taxilane B” centre line. Then tow forward till its nosewheel is at the intersection of the lead-in line and “taxilane B” centre line of stand 89 or south till its nosewheel is at the intersection of the lead-in line and “taxilane B” centre line. Breakaway thrust will be applied when cleared to taxi. |

**12. ALLOCATION OF AIRCRAFT PARKING BAYS**

All aircraft parking bays are allocated by Ground/Apron controller with regard to aircraft type and the prevailing or anticipated traffic situation.

**13. TAXIING PROCEDURES**

13.1 Arriving Aircraft

Aircraft entering the aprons are to follow closely to the taxiway and apron centre line so as to avoid reducing safety distances between them and parking aircraft.

13.2 Departing Aircraft

When start-up clearance is issued by ATC, then pushed out onto apron centre line and/or abeam centre line of taxilane B.

**14. OPERATION OF MODE S TRANSPONDERS ON GROUND**

14.1 Mode S transponder. Aircraft operators intending to use Don Mueang International Airport should ensure that mode S transponders are able to operate when the aircraft is on the ground.

14.2 For aircraft that are capable of reporting aircraft identification (i.e. call signs used in flight), the aircraft identification should also be entered via FMS or control panel. The ICAO defined format for aircraft identification (i.e. same format as used in ICAO flight plan e.g. AIQ3321, TLM634, NOK9820) shall be used.

14.3 Flight crew should select XPDR or the equivalent according to specific installation. It must also be ensured that the transponder is operational/activate (i.e. OUT OF STAND-BY, or OFF POSITION) and the assigned mode A code is selected in accordance with the following.

14.3.1 For a departing flight, upon received pushback clearance.

14.3.2 For an arriving flight, continuously until the aircraft is fully parked at the stand.

14.4 To prevent possible interference to radar surveillance system, TCAS should be functioned;

14.4.1 For departure, when aircraft are entering the runway or line up clearance is received;

14.4.2 For arrival, until aircraft have vacated the runway.

14.5 During on ground, pilot of aircraft not equipped with mode S transponder shall operate the transponder and select mode A code as individually directed by the ATC until:

14.5.1 For departure, when receiving pushback clearance.

14.5.2 For arrival, until aircraft have completely parked.

14.6 Tracking and identifications of airport surface vehicles.

14.6.1 To provide tracking and identification of any authorized movement of vehicle operating on runway(s) at Don Mueang International Airport, authorized vehicle should be equipped with mode S squitter box to inform its position when it is on the runway and the squitter box shall be activated at all time until it vacates the runway. However, the mode S squitter box on vehicle is optional, but for safety reason is highly recommended to install it on every vehicle.

**15. PROVISION OF AERODROME AIR TRAFFIC SERVICES**

15.1 Aerodrome air traffic services are generally sectorized as follows:

15.1.1 AD Control Serviced are provide at Air Traffic Control Tower South (TWR-S).

15.1.2 Air Traffic Control Tower North (TWR-N) will be used as contingency tower.

**16. HOT SPOT (HS) AREAS**

16.1 HS1 - Aircraft taxiing to runway 21R on taxilane B or taxiway C which are instructed to turn right onto taxiway D and to hold short of runway 21R. Use caution when making the right turn onto taxiway D and watch for the holding line surface painted and hold short of runway 21R. Do not cross the holding line surface painted for runway 21R without ATC authorization (including taxiway B north).

16.2 HS2 - Aircraft taxiing to runway 21R on taxiway C which are instructed to turn right onto taxiway E and to hold short of runway 21R. Use caution when making the right turn onto taxiway E and watch for the holding line surface painted and hold short of runway 21R. Do not cross the holding line surface painted for runway 21R without ATC authorization.

16.3 HS3 - Due to several intersections around this area which connect to rapid exit taxiways, aircraft taxiing from taxilane B and taxiway O to join taxiway C can do mistake enter runway 21R-03L while on taxiway O. Use caution when taxiing on taxiway O and approaching the

intersection of taxiway C and do not cross the hold marking for runway 21R-03L without ATC authorization.

16.4 HS4 - Due to several intersections around this area which connect to rapid exit taxiways, aircraft taxiing from taxilane B and taxiway R to join taxiway C can do mistake enter runway 21R-03L while on taxiway R. Use caution when taxiing on taxiway R and approaching the intersection of taxiway C and do not cross the hold marking for runway 21R-03L without ATC authorization.

16.5 HS5 - After vacated runway 21L by right join taxiway S. Use caution when taxiing on taxiway S and watch for the holding line surface painted and hold short of runway 21R. Do not cross the holding line surface painted for runway 21R without ATC authorization.

16.6 HS6 - Aircraft taxiing to runway 03R on taxilane T which are instructed to turn right onto taxiway S and to hold short of runway 03R. Use caution when making the right turn onto taxiway S and watch for the holding line surface painted and hold short of runway 03R. Do not cross the holding line surface painted for runway 03R without ATC authorization.

## VTBD AD 2.21 NOISE ABATEMENT PROCEDURES

In order to alleviate problem of noise within the vicinity of Bangkok international airport. The noise abatement procedures in accordance with ICAO DOC 8168-OPS/611 (PAN-OPS) shall be applied for all take-off and landing, details are as follows:

**1. Departing aircraft**

Pilots are to adopt either one of the two procedures listed below for all take-off

1.1 Procedure for alleviating noise close to the aerodrome.

1.1.1 The noise abatement procedure is not to be initiated at less than 800 FT above aerodrome elevation.

1.1.2 The initial climb speed to the noise abatement initiation point shall not be less than V2 plus 10 KT

1.1.3 On reaching an altitude at or above 800 FT, adjust and maintain engine power/thrust in accordance with the noise abatement power/ thrust schedule, maintain A climb speed of V2 plus 10 to 20 KT with Flaps and Slats in the take-off configuration.

1.1.4 At no more than an altitude equivalent to 3000 FT while maintaining a positive rate of climb, accelerate and retract Flats/Slats on schedule, at 3000 FT accelerate to enroute climb speed.

1.2 Procedure for alleviating noise distant from the aerodrome

1.2.1 The noise abatement procedure is not to be initiated at less than 800 FT above aerodrome elevation.

1.2.2 The initial climbing speed to the noise abatement initiation point is V2 plus 10 to 20 KT

1.2.3 On reaching an altitude equivalent to at least 800 FT decrease aircraft body angle/angle of pitch whilst maintaining a positive rate of climb, accelerate towards VZF and reduce power with the initiation of the first Flaps/Slats retraction.

1.2.4 Maintain a positive rate of climb and accelerate to maintain a climb speed of VZF plus 10 to 20 KT, on reaching 3000 FT transition to normal enroute climb speed.

**2. Arriving aircraft**

Reverse thrust above idle shall not be used between 1800 and 2200 UTC. Except for safety reason.

## VTBD AD 2.22 FLIGHT PROCEDURES

**1. Provision of Radar Services**

1.1 Bangkok Approach is responsible for providing radar service to aircraft operating within Bangkok Terminal Control Area and Bangkok Control Zone (see ENR 2.1-6, ENR 2.1-7).

1.2 Arriving aircraft intending to land at Don Mueang International Airport will be transferred to Don Mueang Arrival on frequency 133.0 MHZ.

**2. Approach Procedures with Radar Control**

2.1 All procedures are designed to maximize departure and arrival capacity in Bangkok Terminal Control Area and minimize noise disturbance in areas overflown.

2.2 The final approach may be carried out by means of ILS or other available instrument approach systems at the discretion of the pilot.

2.3 The spacing provided between aircraft will be designed to achieve maximum runway utilization within the parameters of safe separation minima including vortex effect and runway occupancy. It is important to the validity of the separation provided and the achievement of optimum runway capacity that runway occupancy time is kept to a minimum consistent with the prevailing conditions.

2.4 The horizontal radar separation minimum shall be 5 NM except within Bangkok TMA, Bangkok CTR and Don Mueang ATZ, a reduced

separation of 3 NM may be applied.

2.5 Missed approach procedures

2.5.1 As directed by ATC.

2.5.2 In the absence of instructions from ATC, aircraft shall follow the missed approach procedures which contained on the Instrument Approach Charts (see VTBD AD 2.24).

**3. Standard Instrument Departures/Arrivals (RNAV SIDs/STARs)**

Aircraft departing from or arriving at Don Mueang International Airport will normally be assigned the RNAV SIDs/STARs detailed in VTBD AD 2.24.

***Note:*** *Pilots of Non-RNAV equipped aircraft shall inform ATC and request for radar vectors.*

**4. Speed Control and Altitude Restrictions Promulgation in Bangkok TMA**

In order to facilitate the air traffic flow procedure of departing and arriving aircraft within Bangkok TMA, speed control procedures and altitude restricted must be applied to optimize the spacing between aircraft and reduce the overall delay of traffic.

4.1 Speed control

4.1.1 Speed control shall be in force at all times unless otherwise instructed. Pilots will be individually advised by ATC when speed control is cancelled.

4.1.2 All departing and arriving aircraft are to apply speed of not more than IAS 250 KT when flying at or below altitude of 10 000 FT.

4.1.3 Departing aircraft shall comply with speed control restrictions as published in the RNAV SIDs Procedures unless otherwise advised by ATC.

4.1.4 Arriving aircraft shall comply with speed control restrictions as published on the RNAV STARs Charts and Instrument Approach Procedures unless otherwise advised by ATC.

4.1.5 En route and terminal holding speed shall be in accordance with ICAO standard holding speeds requirement. Pilots shall resume speed control procedures when leaving the holding fix.

4.1.6 ATC may issue further speed adjustment instructions during various flight phases or/and when required by traffic situation.

4.1.7 All speed restrictions are to be flown as accurately as possible. If unable to conform to these procedures, pilots should immediately inform ATC and state the speed to be used so that an alternative action can be taken.

4.2 Altitude restrictions

When a departing aircraft on a SID is cleared to climb to a level higher than the initially cleared level or the level(s) specified in the SID, the aircraft shall nevertheless follow the published vertical profile, unless such restrictions are explicitly cancelled by ATC.

4.2.1 Departing aircraft intending to cruise below the transition level shall follow an appropriate SID track and comply with individual ATC climb instructions.

4.2.2 When an arriving aircraft on a STAR is cleared to descend to a level lower than the level or the level(s) specified in the STAR, the aircraft shall nevertheless follow the published vertical, unless such restrictions are explicitly cancelled by ATC. Published minimum levels based on terrain clearance shall always be strictly applied.

4.2.3 To facilitate safe traffic integration and provide vertical separation between converging traffic in Bangkok TMA, pilots shall plan their descent profile in accordance with the published STAR procedures or their descent profile against distance to touchdown.

4.2.4 All altitude restrictions are to be flown as accurately as possible. If unable to conform to these restrictions, pilots should immediately inform ATC so that an alternative action can be taken.

**5. TCAS RA Warning**

Avoidance of unnecessary TCAS RA warning, aircraft shall strictly use rate of climb or rate of descent at 1 500 FPM or less within 2 000FT to the assigned altitude or flight level, then use rate of climb or rate of descend at 1 000 FPM or less within 1 000 FT to the assigned altitude or flight level when flight crew is made aware of another aircraft at or approaching an adjacent altitude or flight level, unless otherwise instructed by ATC.

**6. Operational for Safety and More Effective Air Traffic Management in Bangkok TMA**

6.1 If practicable, aircraft operating within Bangkok TMA should operate SSR Mode S transponders. The data entered in the Mode S Aircraft Identification must match the three letter ICAO designator for the aircraft operating agency and the flight number to ensure the

correlated flight identity.

6.2 All departing aircraft are strictly required to contact Don Mueang Approach after airborne unless otherwise instructed by ATC.

**7. Delay during Severe Weather**

7.1 All aircraft may be delayed. Departure/arrival interval will be applied as follows:

a) 4 minutes or more between successive departures on the same SID or between aircraft intending to fly in the direction where severe weather is reported.
b) 4 minutes or more between successive arrivals on the same STAR/at the same IAWP or between aircraft intending to fly in the direction where severe weather is reported.

7.2 When severe weather has an effect on landing/ take-off, domestic flights intending to land at Don Mueang International Airport may be requested to delay at airport of departure.

**8. VFR Flight in Bangkok Control Zone**

8.1 By Day (Sunrise/Sunset)

– Unless authorized, VFR flight will not be permitted to land / take-off at Don Mueang International Airport when weather conditions as reported to Don Mueang APP/TWR by an authorized ground observer are LESS than:

| | |
|---|---|
| Ground Visibility | 5 KM; or |
| Ceiling | 450 M (1500 FT) |

Authorization may be granted by ATC for special VFR flight, (see 8.4) to land / take-off at Don Mueang International Airport under conditions LESS than (8.1) above but NOT LESS than

| | |
|---|---|
| Ground Visibility | 1500 M |

8.2 By Night (Sunset/Sunrise)

– Authorization may be granted by ATC for VFR flight to land / take-off at Don Mueang International Airport under conditions reported to be AT or BETTER than (8.1) above; such flight will be treated as special VFR flight (see 8.4) for ATC purposes.

8.3 At All Times

– VFR flight within Bangkok CTR shall be conducted so that the aircraft maintain flight visibility and distance from cloud EQUAL TO or GREATER THAN those specified in ICAO Annex 2, Table 3-1.

| | |
|---|---|
| Flight Visibility | 5 KM below 3050 M (10 000 FT) AMSL and<br>8 KM at and above 3050 M (10 000 FT) AMSL |
| Distance from cloud | 1500 M horizontally and 300 M (1000 FT) vertically |

8.4 Special VFR Flight

8.4.1 Special VFR flight may be permitted when the ground visibility is not less than 1500 M, provided that the aircraft is equipped with functioning radio and the pilot has agreed to guard on the appropriate ATC communications frequency. ATC shall provide IFR separation between all special VFR flights and between such flights and IFR flights.

8.4.2 A pilot wishing to conduct special VFR flight is to call Don Mueang Delivery on frequency 127.7 MHZ for special VFR clearance.

8.5 VFR Entry and Exit Procedures within Bangkok Control Zone

8.5.1 General

a) The VFR entry and exit procedures are designed to enhance the uniformity of light aircraft and helicopter operations under VFR in Bangkok Control Zone.
b) If the communication could not be done through radio frequencies as specified, or the transponder unable to functional operated. The VFR light aircraft and helicopter may not be permitted to operate.
c) VFR entry and exit procedure charts are the recommended flight paths and altitudes for the purpose of air traffic management.
d) Adherence to charted flight paths and altitudes is not mandatory. ATC may assign flight paths and altitudes other than specified in charts, however, pilot has final authority to decide whether he or she would comply with it but shall comply with VFR.

e) There is no substitute for alertness while operating under VFR. Pilots still have full responsibility to see and avoid other traffic and maintain adequate distance from clouds. Separation shall be provided in accordance with VFR in Class C airspace.
f) Under some circumstances, suggest heading or change of altitude may be provided when requested by a pilot or whenever deemed necessary by ATC in the interest of safety and with pilot acceptance. Pilots should, as early as practicable, advise ATC if VMC conditions cannot be maintained. ATC shall request pilot's intentions and revise the instruction as requested or, if unable, issue an alternative clearance as soon as possible.
g) The VFR entry and exit procedures are to be flown only in daylight hours between sunrise to sunset.

8.5.2 VFR entry and exit procedures for light aircraft

h) The procedures for light aircraft are designed for aircraft with speed less than 130 knots.

i) For light aircraft with speed of more than 130 knots, ATC may either authorize the aircraft to follow the prescribed VFR entry and exit procedures or assign flight paths and altitudes. However, pilot has final authorities to decide whether he or she would comply with it but shall always comply with VFR and pilots still have full responsibility to see and avoid other traffic as well as maintain adequate distance from clouds. Separation shall be provided in accordance with VFR in Class C airspace.

j) Table of reporting points for light aircraft

| Reporting Points | Landmark | Radial/DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00" N | 100° 34' 53.00" E |
| BANG BUA THONG | Bang Bua Thong Interchange | R-286 / 10.8D | 13° 56' 30.00" N | 100° 25' 07.00" E |
| BANG KHU WAT | Flora Ville Golf Course | R-313 / 7.3D | 13° 58' 37.00" N | 100° 30' 10.00" E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00" N | 101° 03' 05.00" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BUENG BA | Outdoor Stadium Between Wat Bueng Ba Prapasawat and Nongsua Wittayakom School | R-042 / 19.3D | 14° 07' 51.00" N | 100° 49' 05.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00" N | 100° 20' 38.00" E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00" N | 100° 52' 40.00" E |
| KOH KRET | Wat Poramai Yikawas, Koh Kret | R-280 / 6.5D | 13° 54' 41.00" N | 100° 29' 03.00" E |
| KOH LAN | Koh Lan | R-170 / 59.5D | 12° 54' 53.00" N | 100° 46' 49.00" E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00" N | 100° 48' 40.00" E |
| LAM LUK KA | Bangkok Eastern Outer Ring Rd. Crossing Lamlukka Rd. | R-075 / 7.5D | 13° 56' 02.00" N | 100° 42' 31.00" E |
| LAT BUA LUANG | Singha Beverage Co., Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00" N | 100° 16' 48.00" E |

| Reporting Points | Landmark | Radial/DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| LAT LUM KAEO | Bangkok Western Outer Ring Rd. Crossing Pathumthani-Latlumkaeo Rd. | R-319 / 12.3D | 14° 02' 58.18" N | 100° 27' 35.85" E |
| MUEANG THONG | Impact Arena Building | R-290 / 3.0D | 13° 54' 35.00" N | 100° 32' 35.00" E |
| PATHUMTHANI | Pathumthani Bridge (Crossing Chaopraya River) | R-338 / 8.6D | 14° 01' 33.00" N | 100° 32' 25.00" E |
| PRATUNAM PHRA IN | Bang Pa-in Interchange, Bangkok Western Outer Ring Rd. Crossing Phaholyothin Rd. | R-005 / 16.8D | 14° 12' 05.00" N | 100° 38' 33.00" E |
| SANAP THUEP | PTT Innovation Institute Sanaptueb, Wang Noi | R-028 / 27.0D | 14° 17' 18.00" N | 100° 48' 35.00" E |
| SAMUT SAKHON | Thachalom Roundabout | R-222 / 28.4D | 13° 32' 17.00" N | 100° 16' 20.00" E |
| 3 NM EAST | Sukhaphiban 5, Chalong Rat Expressway Toll Plaza | R-095 / 3.1D | 13° 53' 09.00" N | 100° 38' 58.00" E |
| 3 NM WEST | Armed Forces DevelopmentCommand (Dome shape) Si kan | R-333 / 3.8D | 13° 56' 17.00" N | 100° 34' 13.00" E |
| 5 NM WEST | Riverdale Golf Club, Bangkradee, Pathumthani | R-325 / 5.9D | 13° 58' 51.00" N | 100° 32' 24.00" E |
| 10 NM WEST | Kanchanapisek Rd. Crossing Pra-u-dom canal | R-300 / 10.5D | 13° 58' 43.00" N | 100° 26' 18.00" E |

k) VFR ENTRY AND EXIT PROCEDURES FOR LIGHT AIRCRAFT CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 21L/21R

I) Departure Procedures

NORTHBOUND

– MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - AYUTTHAYA [ALT2500]
– 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG LUK SUA [ALT2500] - HIN KONG [ALT3500] - AYUTTHAYA [ALT2500]

WESTBOUND

– MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG BUA THONG [ALT1000] - BANG LEN [ALT2500] - LAT BUA LUANG [ALT2500] or DON FAEK [ALT2500]

SOUTHBOUND

– MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG BUA THONG [ALT1000] - EKACHAI [ALT2500]- SAMUT SAKHON [ALT2500]

SOUTHEASTBOUND

– MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG BUA THONG [ALT1000] - EKACHAI [ALT2500]- SAMUT SAKHON [ALT2500] - KOH LAN [ALT2500] or KOH SICHANG [ALT3500]
– 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG PAKONG [ALT2500] - KOH SICHANG [ALT3500]

EASTBOUND

– 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500]

NORTHEASTBOUND

– MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - AYUTTHAYA [ALT2500] - HIN KONG [ALT3500]
– 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG LUK SUA [ALT2500] - HIN KONG [ALT3500]

TRAINING VT D72

– MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG BUA THONG [ALT1000] - VT D72

II) Arrival Procedures

NORTHBOUND

– AYUTTHAYA [ALT2000] - PATHUMTHANI [ALT1000] or PRATUNAM PHRA-INN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
– AYUTTHAYA [ALT2000] - HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

WESTBOUND

– BANG LEN [ALT2000] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] -5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

SOUTHBOUND

– SAMUT SAKHON [ALT2000] - EKACHAI [ALT2000] - BANG BUA THONG [ALT1500] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

SOUTHEASTBOUND

– KOH LAN [ALT2000] or KOH SICHANG [ALT2000] - SAMUT SAKHON [ALT2000] - EKACHAI [ALT2000] - BANG BUA THONG [ALT1500] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
– KOH SICHANG [ALT2000] - BANG PAKONG [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

EASTBOUND

– BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

NORTHEASTBOUND

– HIN KONG [ALT4500] - AYUTTHAYA [ALT2000] - PATHUMTHANI [ALT1000] or PRATUNAM PHRA-INN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
– HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

TRAINING VT D72

– LAT LUM KAEO [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
– 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

The details of VFR ENTRY AND EXIT PROCEDURES FOR LIGHT AIRCRAFT CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 21L/21R are given in VTBD AD 2.24 CHARTS RELATED TO AN AERODROME

I) VFR ENTRY AND EXIT PROCEDURES FOR LIGHT AIRCRAFT CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R

I) Departure Procedures

NORTHBOUND

– PATHUMTHANI [ALT1000] - AYUTTHAYA [ALT2500]

WESTBOUND

– PATHUMTHANI [ALT1000] - 10 NM WEST [ALT1000] - BANG LEN [ALT2500] - LAT BUA LUANG [ALT2500] or DON FAEK [ALT2500]

SOUTHBOUND

- PATHUMTHANI [ALT1000] - 10 NM WEST [ALT1000] - BANG BUA THONG [ALT1000] - EKACHAI [ALT2500] - SAMUT SAKHON [ALT2500]

SOUTHEASTBOUND

- PATHUMTHANI [ALT1000] - 10 NM WEST [ALT1000] - BANG BUA THONG [ALT1000] - EKACHAI [ALT2500] - SAMUT SAKHON [ALT2500] - KOH LAN [ALT2500] or KOH SICHANG [ALT3500]
- LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG PAKONG [ALT2500] - KOH SICHANG [ALT3500]

EASTBOUND

- LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG LUK SUA [ALT2500] or BANG PAKONG [ALT2500]

NORTHEASTBOUND

- LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG LUK SUA [ALT2500] - HIN KONG [ALT3500]
- PATHUMTHANI [ALT1000] - AYUTTHAYA [ALT2500] - HIN KONG [ALT3500]

TRAINING VT D72

- PATHUMTHANI [ALT1500] - LAT LUM KAEO [ALT1500] - VT D72

II) Arrival Procedures

NORTHBOUND

- AYUTTHAYA [ALT2000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- AYUTTHAYA [ALT2000] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

WESTBOUND

- BANG LEN [ALT2000] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

SOUTHBOUND

- SAMUT SAKHON [ALT2000] - EKACHAI [ALT2000] - BANG BUA THONG [ALT1500] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

SOUTHEASTBOUND

- KOH LAN [ALT2000] or KOH SICHANG [ALT2000] - SAMUT SAKHON [ALT2000] - EKACHAI [ALT2000] - BANG BUA THONG [ALT1500] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- KOH SICHANG [ALT2000] - BANG PAKONG [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

EASTBOUND

- BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

NORTHEASTBOUND

- HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]
- HIN KONG [ALT4500] - AYUTTHAYA [ALT2000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- HIN KONG [ALT4500] - AYUTTHAYA [ALT2000] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

TRAINING VT D72

- LAT LUM KAEO [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

The details of VFR ENTRY AND EXIT PROCEDURES FOR LIGHT AIRCRAFT CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R are given in VTBD AD 2.24 CHARTS RELATED TO AN AERODROME

m) VFR OVERFLY PROCEDURES FOR LIGHT AIRCRAFT CHART RWY 03L/03R 21L/21R

I) Departure Procedures

HIN KONG [ALT3500] - BANG LUK SUA [ALT2500] - BANG NAM PRIAO [ALT2500] - BANG PAKONG [ALT2500] - KOH SICHANG [ALT3500] - SAMUT SAKHON [ALT2500] - DON FAEK [ALT2500] - BANG LEN [ALT2500] - LAT BUA LUANG [ALT2500] - AYUTTHAYA [ALT2500] - HIN KONG [ALT3500]

II) Arrival Procedures

HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - BANG PAKONG [ALT2000] - KOH SICHANG [ALT2000] - SAMUT SAKHON [ALT2000] - DON FAEK [ALT2000] - BANG LEN [ALT2000] - LAT BUA LUANG [ALT2000] - AYUTTHAYA [ALT2000] - HIN KONG [ALT4500]

Light aircraft within Bangkok Control Zone can join all suitable reporting points in VFR ENTRY AND EXIT PROCEDURES FOR LIGHT AIRCRAFT CHART (BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R 21L/21R and BANGKOK/ SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R

The details of VFR OVERFLY PROCEDURES FOR LIGHT AIRCRAFT CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R 21L/21R are given in VTBD AD 2.24 CHARTS RELATED TO AN AERODROME

8.5.3 VFR entry and exit procedures for helicopter

a) Two-way radio communication shall be established as soon as possible or not later than reaching altitude 500 feet above ground level.
b) Departing helicopters taking off from Don Mueang international airport or other heliports or helipads within Don Mueang ATZ shall be advised to contact Don Mueang Tower on frequency 118.1 MHz for departing instruction except helicopters operate within area of responsibility of Royal Thai Police Aviation Division (Tarang) contact BAPP (VFR & Helicopter Control: VHC) on frequency 125.8 MHz.
c) Arriving helicopters intending to land at Don Mueang international airport or other helipads within Don Mueang ATZ shall be advised to contact Don Mueang Tower on frequency 118.1 MHz for landing instruction. The completion of landing shall be reported or informed to the appropriate ATS unit as soon as practicable.
d) Those taking off from heliports or helipads outside Don Mueang ATZ shall contact BAPP (VHC) on frequency 125.8 MHz. If communication could not be done through radio frequencies as specified, the operator may use other available means such as telephone for departure instruction and necessary information prior to taking off.
e) Adherence to charted flight paths and altitudes is not mandatory. ATC may assign flight paths and altitudes other than specified in charts, however, pilot has final authority to decide whether he or she would comply with it but shall comply with VFR.
f) Table of reporting points for helicopter

| Reporting Points | Landmark | Radial/DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00" N | 100° 34' 53.00" E |
| BANG KHAE | Bang Khae Interchange | R-226 / 15.4D | 13° 42' 48.00" N | 100° 24' 27.00" E |
| BANG KHU WAT | Flora Ville Golf Course | R-313 / 7.3D | 13° 58' 37.00" N | 100° 30' 10.00" E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00" N | 101° 03' 05.00" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |
| BANGPU | Sukta Bridge | R-170 / 23.1D | 13° 30' 44.00" N | 100° 39' 44.00" E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BANGYAI | Kanchanapisek Rd. Crossing Rattanathibet Rd. | R-249 / 11.6D | 13° 49' 25.46" N | 100° 24' 35.89" E |
| BHUMIBOL BRIDGE | Industrial Ring Rd. Interchange between Bhumibol 1-2 Bridge near Lat Pho Canal | R-194 / 14.0D | 13° 40' 03.00" N | 100° 32' 09.00" E |

| Reporting Points | Landmark | Radial/DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| BUENG BA | Outdoor Stadium Between Wat Bueng Ba Prapasawat and Nongsua Wittayakom School | R-042 / 19.3D | 14° 07' 51.00" N | 100° 49' 05.00" E |
| CAVPAD | 2nd Cavalry Division Helipad (Sanam Pao) | R-186 / 7.8D | 13° 46' 20.00" N | 100° 32' 38.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00" N | 100° 20' 38.00" E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00" N | 100° 52' 40.00" E |
| HUAI KHWANG | Train Repairing Center | R-173 / 8.5D | 13° 45' 55.00" N | 100° 35' 13.00" E |
| KHLONG CHAN | Rajamangala National Stadium | R-170 / 8.4D | 13° 45' 17.00" N | 100° 37' 14.00" E |
| KOH KRET | Wat Poramai Yikawas, Koh Kret | R-280 / 6.5D | 13° 54' 41.00" N | 100° 29' 03.00" E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00" N | 100° 48' 40.00" E |
| LAM LUK KA | Bangkok Eastern Outer Ring Rd. Crossing Lamlukka Rd. | R-075 / 7.5D | 13° 56' 02.00" N | 100° 42' 31.00" E |
| LAT BUA LUANG | Singha Beverage Co., Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00" N | 100° 16' 48.00" E |
| MINBURI | Bangkok Eastern Outer Ring Rd. Crossing Ram Inthra Rd. | R-133 / 6.4D | 13° 49' 11.00" N | 100° 40' 35.00" E |
| MUEANG THONG | Impact Arena Building | R-290 / 3.0D | 13° 54' 35.00" N | 100° 32' 35.00" E |
| PAKNAM | Samuthprakarn Learning Park and Tower | R-179 / 17.6D | 13° 35' 53.82" N | 100° 35' 56.21" E |
| PATHUMTHANI | Pathumthani Bridge (Crossing Chaopraya River) | R-338 / 8.6D | 14° 01' 33.00" N | 100° 32' 25.00" E |
| PRATUNAM PHRA IN | Bang Pa-in Interchange, Bangkok Western Outer Ring Rd. Crossing Phaholyothin Rd. | R-005 / 16.8D | 14° 12' 05.00" N | 100° 38' 33.00" E |
| RAMA V BRIDGE | Rama 5 Bridge (Crossing Chaopraya River) | R-237 / 6.6D | 13° 49' 58.00" N | 100° 29' 43.00" E |
| SANAP THUEP | PTT Innovation Institute Sanaptueb, Wang Noi | R-028 / 27.0D | 14° 17' 18.00" N | 100° 48' 35.00" E |
| SAMUT SAKHON | Thachalom Roundabout | R-222 / 28.4D | 13° 32' 17.00" N | 100° 16' 20.00" E |
| TPAD | Royal Thai Police Aviation Division, Tarang | R-131 / 3.1D | 13° 51' 35.00" N | 100° 38' 15.00" E |
| 3 NM EAST | Sukhaphiban 5, Chalong Rat Expressway Toll Plaza | R-095 / 3.1D | 13° 53' 09.00" N | 100° 38' 58.00" E |
| 3 NM WEST | Armed Forces DevelopmentCommand (Dome shape) Si kan | R-333 / 3.8D | 13° 56' 17.00" N | 100° 34' 13.00" E |

| Reporting Points | Landmark | Radial/DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| 5 NM WEST | Riverdale Golf Club, Bangkradee, Pathumthani | R-325 / 5.9D | 13° 58' 51.00'' N | 100° 32' 24.00'' E |
| 10 NM WEST | Kanchanapisek Rd. Crossing Pra-u-dom canal | R-300 / 10.5D | 13° 58' 43.00'' N | 100° 26' 18.00'' E |
| 11TH INFANTRY | 2nd Infantry Battalion, 11th Infantry Regiment, Bangkhen | R-179 / 2.2D | 13° 51' 24.00'' N | 100° 35' 50.00'' E |

g) VFR ENTRY AND EXIT PROCEDURES FOR HELICOPTER CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 21L/21R

I) Departure Procedures

NORTHBOUND

- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - PATHUMTHANI [ALT1000] - PRATUNAM PHRA IN [ALT1000] - AUTTHAYA [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BUENG BA [ALT1000] - SANAP TUEP [ALT1500] - AUTTHAYA [ALT1500]

WESTBOUND

- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANGYAI [ALT1500] - DON FAEK [ALT1500] or BANG LEN [ALT1500]
- 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - RAMA V BRIDGE [ALT1000] - BANGYAI [ALT1500] - DON FAEK [ALT1500] or BANG LEN [ALT1500]

SOUTHBOUND

- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - EKACHAI [ALT1500] - SAMUT SAKHON [ALT1500]
- 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - EKACHAI [ALT1500] - SAMUT SAKHON [ALT1500]

SOUTHEASTBOUND

- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - PAKNAM [ALT1000] - BANGPU [ALT1000] - KOH SICHANG [ALT1500] or BANG PAKONG [ALT1500] - KOH SICHANG [ALT1500]
- 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - PAKNAM [ALT1000] - BANGPU [ALT1000] - KOH SICHANG [ALT1500] or BANG PAKONG [ALT1500] - KOH SICHANG [ALT1500]

EASTBOUND

- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000]- LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT1500]

NORTHEASTBOUND

- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - PATHUMTHANI [ALT1000] - PRATUNAM PHRA IN [ALT1000] - SANAP TUEP [ALT1500] - HIN KONG [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BUENG BA [ALT1000] - SANAP TUEP [ALT1500] - HIN KONG [ALT1500]

II) Arrival Procedures

NORTHBOUND

- AYUTTHAYA [ALT1500] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- AYUTTHAYA [ALT1500] - SANAP TUEP [ALT1500] - BUENG BA [ALT1000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

WESTBOUND

- DON FAEK [ALT1500] - BANGYAI [ALT1500] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

– BANG LEN [ALT1500] - 10 NM WEST [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
– DON FAEK [ALT1500] or BANG LEN [ALT1500] - BANGYAI [ALT1500] - RAMA V BRIDGE [ALT1000] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

SOUTHBOUND

– SAMUT SAKHON [ALT1500] - EKACHAI [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
– SAMUT SAKHON [ALT1500] - EKACHAI [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

SOUTHEASTBOUND

– KOH SICHANG [ALT1500] - BANG PAKONG [ALT1500] or KOH SICHANG [ALT1500] - BANGPU [ALT1000] - PAKNAM [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
– KOH SICHANG [ALT1500] - BANG PAKONG [ALT1500] or KOH SICHANG [ALT1500] - BANGPU [ALT1000] - PAKNAM [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

EASTBOUND

– BANG NAM PRIAO [ALT1500] - LAM LUK KA [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
– BANG NAM PRIAO [ALT1500] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

NORTHEASTBOUND

– HIN KONG [ALT1500] - SANAP TUEP [ALT1500] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
– HIN KONG [ALT1500] - SANAP TUEP [ALT1500] - BUENG BA [ALT1000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

The details of VFR ENTRY AND EXIT PROCEDURES FOR HELICOPTER CHART (BANGKOK/DON MUEANG INTL (VTBD) RWY 21L/21R are given in VTBD AD 2.24 CHARTS RELATED TO AN AERODROME

h) VFR ENTRY AND EXIT PROCEDURES FOR HELICOPTER CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R

I) Departure Procedures

NORTHBOUND

– MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - PATHUMTHANI [ALT1000] - PRATUNAM PHRA IN [ALT1000] - AYUTTHAYA [ALT1500]
– 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BUENG BA [ALT1000] - SANAP TUEP [ALT1500] -AYUTTHAYA [ALT1500]

WESTBOUND

– MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANGYAI [ALT1500] - DON FAEK [ALT1500] or BANG LEN [ALT1500]
– 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - BANG KHAE [ALT1500] - BANGYAI [ALT1500] - DON FAEK [ALT1500] or BANG LEN [ALT1500]

SOUTHBOUND

– MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - EKACHAI [ALT1500] - SAMUT SAKHON [ALT1500]
– 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] -EKACHAI [ALT1500] - SAMUT SAKHON [ALT1500]

SOUTHEASTBOUND

– MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - PAKNAM [ALT1000] - BANGPU [ALT1000] - KOH SICHANG [ALT1500] or BANG PAKONG [ALT1500] - KOH SICHANG [ALT1500]
– 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - PAKNAM [ALT1000] - BANGPU [ALT1000] - KOH SICHANG [ALT1500] or BANG PAKONG [ALT1500] - KOH SICHANG [ALT1500]

EASTBOUND

- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT1500]

NORTHEASTBOUND

- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - PATHUMTHANI [ALT1000] - PRATUNAM PHRA IN [ALT1000] - SANAP TUEP [ALT1500] - HIN KONG [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BUENG BA [ALT1000] - SANAP TUEP [ALT1500] - HIN KONG [A1500]

II) Arrival Procedures

NORTHBOUND

- AYUTTHAYA [ALT1500] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- AYUTTHAYA [ALT1500] - SANAP TUEP [ALT1500] - BUENG BA [ALT1000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

WESTBOUND

- DON FAEK [ALT1500] or BANG LEN [ALT1500] - BANGYAI [ALT1500] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- BANG LEN [ALT1500] - 10 NM WEST [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- DON FAEK [ALT1500] or BANG LEN [ALT1500] - BANGYAI [ALT1500] - BANG KHAE [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

SOUTHBOUND

- SAMUT SAKHON [ALT1500] - EKACHAI [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- SAMUT SAKHON [ALT1500] - EKACHAI [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

SOUTHEASTBOUND

- KOH SICHANG [ALT1500] - BANG PAKONG [ALT1500] or KOH SICHANG [ALT1500] - BANGPU [ALT1000] - PAKNAM [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- KOH SICHANG [ALT1500] - BANG PAKONG [ALT1500] or KOH SICHANG [ALT1500] - BANGPU [ALT1000] - PAKNAM [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

EASTBOUND

- BANG NAM PRIAO [ALT1500] - LAM LUK KA [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] -BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- BANG NAM PRIAO [ALT1500] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

NORTHEASTBOUND

- HIN KONG [ALT1500] - SANAP TUEP [ALT1500] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- HIN KONG [ALT1500] - SANAP TUEP [ALT1500] - BUENG BA [ALT1000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

The details of VFR ENTRY AND EXIT PROCEDURES FOR HELICOPTER CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R are given in VTBD AD 2.24 CHARTS RELATED TO AN AERODROME

i) VFR OVERFLY PROCEDURES FOR HELICOPTER CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R 21L/21R

I) Departure/ Arrival Procedures

HIN KONG [ALT1500] - BANG LUK SUA [ALT1500] - BANG NAM PRIAO [ALT1500] - BANG PAKONG [ALT1500] - BANGPU [ALT1000] - PAK NAM [ALT1000] - EKACHAI [ALT1500] - DON FAEK [ALT1500] - BANG LEN [ALT1500] - LAT BUA LUANG [ALT1500] - AYUTTHAYA [ALT1500] - HIN KONG [ALT1500]

Helicopter within Bangkok Control Zone can join all suitable reporting points in VFR ENTRY AND EXIT PROCEDURES FOR HELICOPTER CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R 21L/21R and BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R

The details of VFR OVERFLY PROCEDURES FOR HELICOPTER CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R 21L/21R are given in VTBD AD 2.24 CHARTS RELATED TO AN AERODROME

8.6 Radio Communication Failure for VFR flights

8.6.1 Departing aircraft

Aircraft will not be permitted to take off unless two-way radio communications can be maintained with the control tower.

8.6.2 Arriving aircraft

a) Report position, distance, heading and altitude as well as departure point when approaching 50 NM from BKK VOR by blind transmission.
b) Observe the direction of traffic in pattern and enter downwind with the flow of traffic.
c) Conform to the altitude for the type of aircraft as listed in Note below.
d) Make a low approach between the runways at an altitude of 500 FT, and rock the wings of the aircraft.
e) Re-enter downwind leg and observe light signals.

8.6.3 Alternative methods for communicating with ATC

Pilots may endeavour to communicate with ATC by telephone network. The telephone numbers are as follows:

a) Don Mueang Tower

Tel: +662 515 3282, +662 515 3288, +668 1710 7449

b) Suvarnabhumi Tower

Tel: +662 131 3610-3, +668 6399 9030

c) Bangkok Approach

Tel: +662 131 3621, +662 131 3622, +668 5150 2288, +668 5150 3300

***Note:*** *Traffic Patterns and Altitude:*
*a) Jet Aircraft 1500 FT*
*b) Conventional Aircraft 1000 FT*
*c) Light Aircraft 800 FT*
*d) Helicopter 500 FT*

Traffic Pattern, Bangkok control zone and Don Mueang aerodrome traffic zone are shown below:

**Illustration of Traffic Pattern**

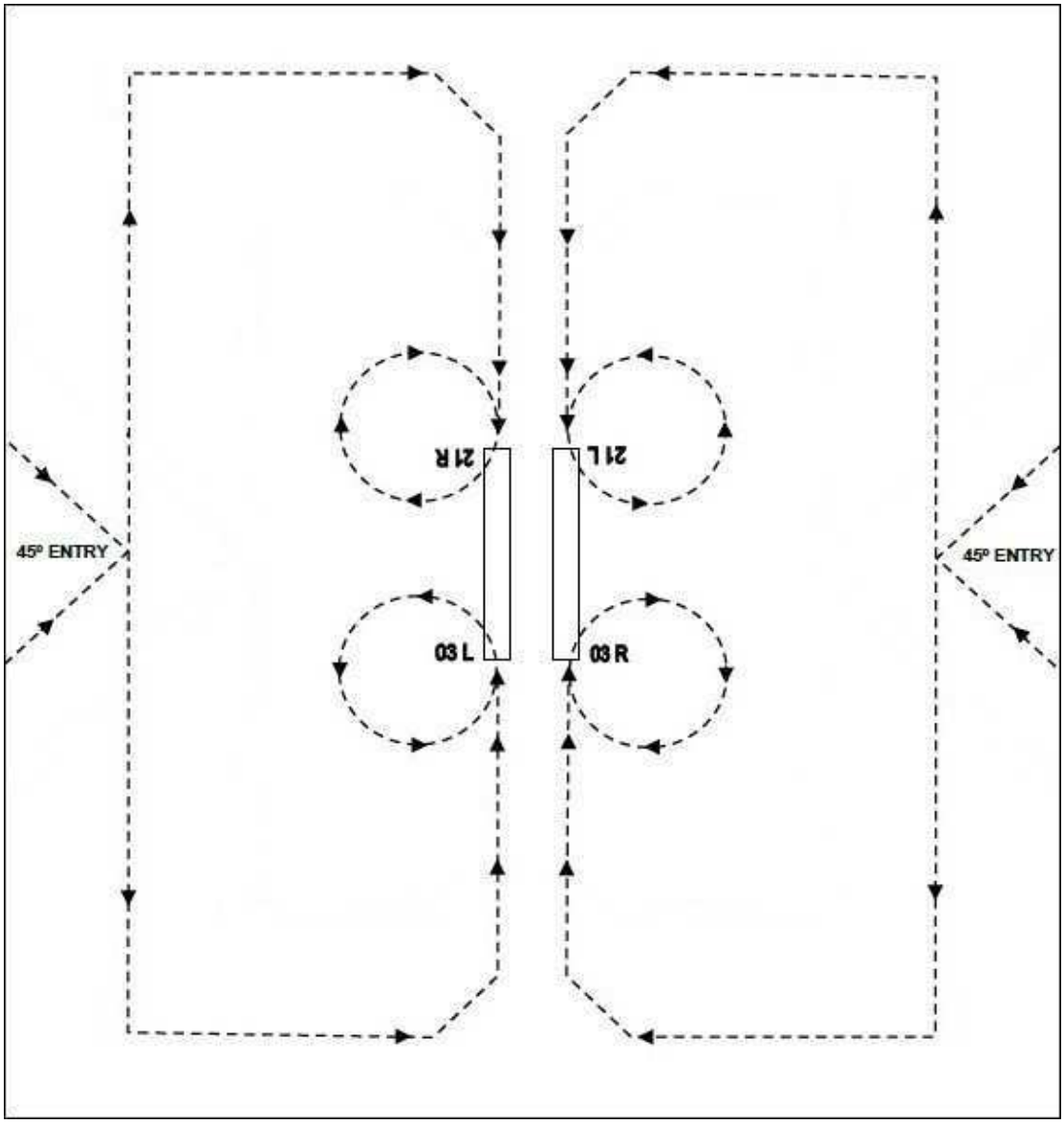
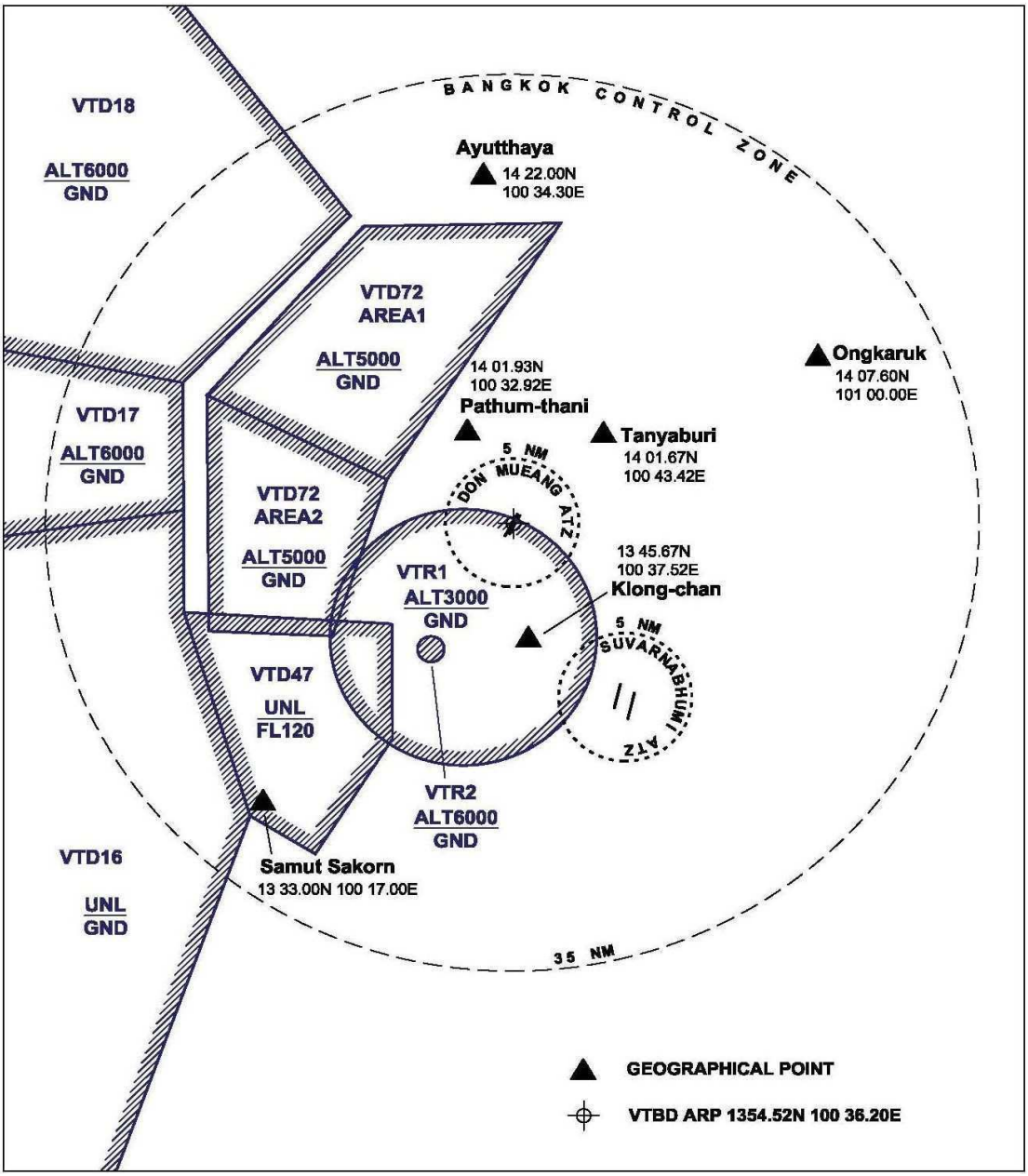


**Illustration of Bangkok control zone and Don Mueang aerodrome traffic zone**

**BANGKOK CONTROL ZONE AND DON MUEANG AERODROME TRAFFIC ZONE**




## 9. TRAINING IN DANGER AREA

9.1 D47

a) Jet / Conventional Aircraft departing from Don Mueang International Airport must contact Don Mueang Approach on frequency 119.4 MHZ
b) Before leaving VTD47 the pilot must report his position, distance and heading to Don Mueang Approach.
c) Test Flights: If the pilot desires to fly outside the area of VTD47, he must maintain two-way radio communications with, and follow instruction from Bangkok Approach/Don Mueang Approach.

9.2 D72

a) Light Aircraft departing form Don Mueang International Airport must contact Don Mueang Approach, the controller will instruct the pilot over Bangbuathong at altitude not above 1000 feet before entering D72.
b) Before leaving VTD72 the pilot must report his position, distance and heading to Don Mueang Approach. The controller will instruct the pilot to report over Ladlumkaew at altitude not above 1000 FT, report Patum-thani, 5 NM West and then report entering downwind for landing RWY 21L/R or RWY 03R/L.

## 10. Fuel Dumping Procedure and In-flight Fuel Management Procedures

10.1 Introduction

An aircraft in emergency or other urgent situations may need to dump fuel so as to reduce to maximum landing mass in order to affect a safe landing.

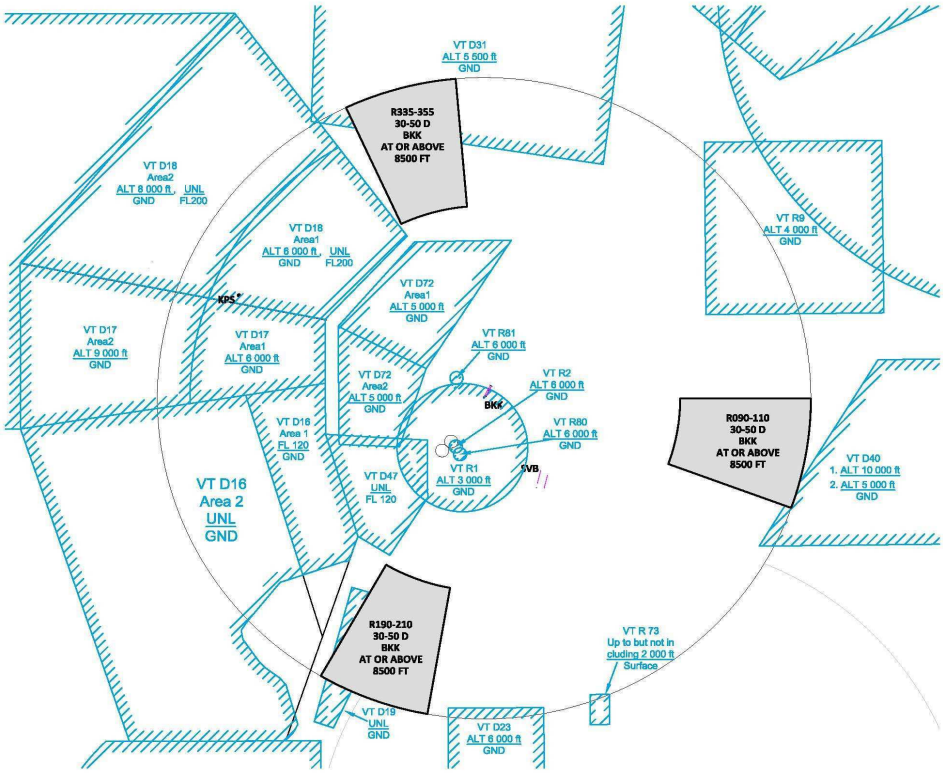
10.2 Fuel Dumping Areas

10.2.1 North fuel dumping area: between R-335 and R-355, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500 FT.

10.2.2 East fuel dumping area: between R-090 and R-110, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500 FT.

10.2.3 South fuel dumping area: between R-190 and R-210, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500 FT.

**Illustration of Fuel dumping areas**




10.3 In-flight Fuel Management Procedures

10.3.1 Definition

Minimum fuel: The term used to describe a situation in which an aircraft's fuel supply has reached a state where the flight is committed to land at a specific aerodrome and no additional delay can be accepted.

Mayday fuel: Describes the nature of the distress conditions when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel.

10.3.2 Actions taken by pilot

10.3.2.1 The pilot-in-command shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome where a safe landing can be made with the planned final reserve fuel remaining upon landing.

10.3.2.2 The pilot-in-command shall request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome with less than the final reserve fuel plus the fuel required either to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome.

10.3.2.3 The pilot-in-command shall advise ATC of a minimum fuel state by declaring "MINIMUM FUEL" when, having committed to land at a specific aerodrome, the pilot calculates that any changes to the existing clearance to that aerodrome may result in landing with less than planned final reserve fuel.

***Note 1:*** *The declaration of "MINIMUM FUEL" informs ATC that all planned aerodrome options have been reduced to a specific aerodrome of intended landing and any changes to the existing clearance may result in landing with less than planned final reserve fuel. This is not an emergency situation but an indication that an emergency situation is possible should any additional delays occur.*

***Note 2:*** *It should be noted that Pilots should not expect any form of priority handling as a result of a "MINIMUM FUEL" declaration. ATC will, however, advise the flight crew of any additional expected delays as well as coordinate when transferring control of the aircraft to ensure that other ATC units are aware of the flight's fuel state.*

10.3.2.4 The pilot-in-command shall declare a situation of distress related to the amount of fuel available on board the aircraft by broadcasting "MAYDAY, MAYDAY, MAYDAY, FUEL" when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel.

***Note 1:*** *The planned final reserve fuel refers to the value calculated in Annex 6 - Operation of Aircraft, Chapter4, item 4.3.6.3 e) 1) or 2) and is the minimum amount of fuel required upon landing at any aerodrome.*

***Note 2:*** *The words "MAYDAY FUEL" describe the nature of the distress conditions as required in Annex 10, Volume II, Chapter 5.3.2.1, b) 3).*

***Note 3:*** *Guidance on procedures for in-flight fuel management is contained in the Fuel Planning Manual (Doc 9976).*

10.3.3 Actions taken by ATC

10.3.3.1 When a pilot reports a state of "MINIMUM FUEL", ATC shall respond to the pilot who indicates or suggests that he is becoming short of fuel or who has declared "MINIMIM FUEL" as follows:

10.3.3.1.1 Inform the pilot of either:

a) The estimated delay, if pilots are en-route to, joining or are established in holding point such as IAWPs; or
b) The estimated track mileage, if pilots are being vectored to an instrument approach; or

10.3.3.1.2 Coordinate when transferring control of the aircraft to ensure other ATC units to be aware of the flight's fuel state.

10.3.3.1.3 Standard phraseology

Pilot transmission: (C/S), MINIMUM FUEL
Controller transmission: (C/S), ROGER [NO DELAY EXPECTED or EXPECT (delay information)]

10.3.3.2 When a pilot reports a state of "MAYDAY, MAYDAY, MAYDAY FUEL". This is an emergency and the aircraft shall be given priority over other traffic in the landing sequence. The aircraft will be committed to a landing, as in the event of any delay or a go-around, there may be insufficient fuel remaining for a safe landing.

10.3.3.2.1 Standard phraseology

Pilot transmission: (C/S) MAYDAY, MAYDAY, MAYDAY FUEL
Controller transmission: (C/S) ROGER MAYDAY

**11. Aircraft Transponder Failure Procedures**

11.1 Control of aircraft experiencing transponder failure procedure.

11.1.1 When a transponder failure is detected to be unserviceable prior to departure, ATC shall confirm with the pilot of his transponder operations using the following phraseologies.

Phraseologies

"C/S, CONFIRM TRANSPONDER ON", or
"C/S, CHECK YOUR TRANSPONDER OPERATED NORMALLY", or
"C/S, TRANSPONDER NOT RECEIVED, CHECK FUNCTIONALITY"

When it has been confirmed that aircraft transponder fails, ATC shall advice the pilot to repair it before departure. However, the surface radar blind spot, where the transponder might not be easily detected, should be taken into consideration.

Phraseologies

"C/S, ADVISE TRANSPONDER REPAIRED BEFORE DEPARTURE", or
"C/S, ADVISE RETURN TO BAY FOR TRANSPONDER REPAIRING"

11.1.2 When transponder appears to be unserviceable after the aircraft is airborne, ATC must inform the pilot of his transponder failure using the following phraseologies.

Phraseologies

"C/S, CONFIRM TRANSPONDER ON", or
"C/S, CHECK YOUR TRANSPONDER OPERATED NORMALLY", or
"C/S, TRANSPONDER NOT RECEIVED, CHECK FUNCTIONALITY"

When it has been confirmed that the aircraft transponder fails, ATC shall advice the pilot to return to his departure airport as well as relay all necessary information to Aerodrome Control Tower and all concerned units.

Phraseologies

"C/S, ADVISE RETURN TO LAND AT (DEPARTURE AERODROME) FOR TRANSPONDER REPAIRING, REQUEST YOUR INTENTION",
"C/S, ADVISE RETURN TO BAY FOR TRANSPONDER REPAIRING"

In case pilot decide to proceed to first intended landing or nearest suitable aerodrome, primary radar separation shall be provided. However, the pilot shall be reminded that delays can be expected and some requests might not be granted e.g. route to be flown, cruising altitude/level.

11.2 Control of aircraft overflying Bangkok FIR or aircraft intending to land at Don Mueang International Airport with its failed transponder procedure

11.2.1 ATC must immediately inform the pilot of his transponder failure so that he could check its operations and repair it.

11.2.2 ATC shall control, according to the filed flight plan, the aircraft experiencing transponder failure to land safely at Don Mueang International Airport.

11.2.3 ATC shall control, according to the filed flight plan, the over-fly aircraft experiencing transponder failure to land safely at the destination aerodrome.

11.2.4 Approach Control shall coordinate closely with Don Mueang Tower and/or other concerned units regarding the problem.

11.3 The above procedures shall be applied to all aircraft except state aircraft and military aircraft.

11.4 Aircraft intending to land at Don Mueang International Airport with its failed transponder might be assigned to fly along an RNAV STAR and controlled solely by Suvarnabhumi PSR which normally covers up to 40 nm.

**12. Radio Communication Failure Procedure**

12.1 General

12.1.1 Radio communication is considered to be failed, if during two minutes that the pilot or the ATC unit doesn't answer the repeated calls through all available communication channels.

12.1.2 The transponder is set to be Mode A/C code 7600 as soon as the pilot has detected communication failure.

12.1.3 The pilot shall use all available facilities to re-establish communication with ATC unit directly or by means of the other aircraft. If necessary, the emergency frequency 121.5 MHz may be used.

12.1.4 In any case of radio communication failure, the pilot shall continue listening on the appropriate radio frequency and transmitting the position reports, actions and flight conditions. The pilot shall comply with one of the following procedures.

12.2 Total radio communication failure for arriving aircraft

12.2.1 If in VMC, continue to fly in VMC and land at the nearest suitable aerodrome.

12.2.2 If in IMC or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with para 12.2.1 above, the pilot shall:

12.2.2.1 If a specific STAR procedure has been designated and acknowledged prior to the occurrence of radio communication failure, comply with the radio communication failure procedures.

Proceed according to the STAR route to the termination point AROKA for RWY 21L/21R or DOTLI for RWY 03L/03R and descend in accordance with the published all speed and altitude restrictions of the relevant STAR procedure, thence:

a) For RWY 21L/21R: at AROKA and maintain altitude 3000 ft. The pilot shall make a right holding pattern as published and carry out the appropriate approach procedure.
b) For RWY 03L/03R: At DOTLI, carry out the appropriate approach procedure.

12.2.2.2 If no specific STAR procedure has been designated or acknowledged prior to the occurrence of radio communication failure, endeavor to ascertain the landing direction from any available means in para 12.5 below. The pilot then should proceed in accordance with the STAR procedure appropriate to its ATS route and landing direction and comply with the radio communication failure procedures.

12.2.3 When an arriving aircraft is being radar vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure. Pilot should proceed in the most direct manner possible to rejoin the STAR procedure appropriate to its ATS route and landing direction.

12.2.4 Pilots should ensure that they remain at or above the minimum sector altitude. If the aircraft is below the minimum sector altitude, pilots shall immediately climb to the minimum sector altitude.

12.3 Total radio communication failure for missed approach aircraft

12.3.1 The pilot shall set the aircraft transponder to Mode A/C code 7600 and fly to or proceed direct to (in case of radar vector) the

appropriate missed approach holding point at 3 000 FT (For RWY 21L/RWY 21R) or 4 000 FT (For RWY 03L/RWY 03R) and hold.

12.3.2 The pilot then shall climb and maintain 4 000 FT (For RWY21L/RWY 21R) or 5 000 FT (For RWY 03L/RWY 03R) in the holding pattern and complete one holding then start commencing an appropriate approach procedure and landing direction in accordance with para 12.5 below, thence

a) For RWY 21L/21R: maintain altitude 4 000 FT and proceed direct to BKK VOR then transition to IAF and carry out an appropriate approach procedure.
b) For RWY 03L/03R: maintain altitude 5 000 FT and proceed direct to DOTLI, carry out the appropriate approach procedure. Except ILS or LOC y RWY03L and VOR RWY03R: maintain altitude 5 000 FT and proceed direct to BKK VOR then transition to IAF and carry out an appropriate approach procedure.

12.4 Partial radio communication failure for arriving aircraft

12.4.1 Aircraft unable to receive: pilots shall adopt the total radio communication failure procedures specified in para 12.2 above.

12.4.2 Aircraft able to receive: following verification that aircraft is able to receive ground transmissions by squawk ident, ATC will continue to issue and repeat instructions and/or clearance to the pilot.

12.5 Identification of runway in use

12.5.1 A pilot endeavours to obtain information on the landing runway from the following sources: ATIS, D-ATIS, ACARS, satellite phone, etc. If unable, the pilot should rely on the best available information such as aerodrome weather forecasts, meteorological reports or any other relevant information obtained prior to the communication failure and should decide on the most appropriate landing direction.

12.5.2 To assist the pilot in ascertaining the landing direction, the ILS and approach lighting for the runway in use will be switched on. If the approach lights for the runway-in-use are sighted but the ILS signal is not received, the pilot shall assume that the ILS is inoperative and shall proceed to land on the runway on which the approach lights have been sighted.

12.6 Total radio communication failure for departing aircraft

12.6.1 The pilot shall set the aircraft transponder to Mode A/C code 7600 and comply with the last acknowledged clearance up to the next reporting point on the SID, then climb to the planned cruising level in accordance with the published all speed and altitude restrictions of the relevant SID procedure. Thereafter, the pilot shall comply with the flight planned routing.

12.6.2 Whenever a pilot experiences total radio communication failure immediately after departure and it is deemed unsafe for the flight to continue to its destination, the pilot shall adhere to the procedures below:

12.6.2.1 The pilot shall set the aircraft transponder to Mode A/C code 7600.

12.6.2.2 The pilot shall comply with the last assigned altitude in accordance with the published all speed and altitude restrictions of the relevant SID procedure.

12.6.2.3 The pilot shall climb/descend to maintain 8 500 FT for 2 minutes then proceed direct to BKK VOR and hold. If fuel dumping is necessarily required before making an approach to land, after maintaining altitude at 8 500 FT for 2 minutes, the pilot shall proceed to the nearest suitable fuel dumping area and start dumping fuel. When it is completed, the pilot must fly direct to BKK VOR and hold.

12.6.2.4 The pilot is required to make a left holding pattern over BKK VOR with inbound course 120 and one-minute-leg to complete one holding then start commencing an appropriate approach procedure and landing direction in accordance with para 12.5 above.

12.7 Partial radio communication failure for departing aircraft

12.7.1 Aircraft unable to receive: pilots shall adopt the total radio failure procedures specified in para 12.6.2 above.

12.7.2 Aircraft able to receive: following verification that aircraft is able to receive ground transmissions by squawk ident, ATC will continue to issue and repeat instructions and/or clearances to the pilot.

12.8 Aircraft overflying Bangkok TMA

12.8.1 The pilot shall set the aircraft transponder to Mode A/C code 7600.

12.8.2 If in VMC, the pilot shall continue to fly in VMC and land at the nearest suitable aerodrome.

12.8.3 If in IMC, or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with para 12.8.2 above, the pilot shall maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of ten minutes following the aircraft's failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan.

12.9 Departing or overflying aircraft under radar control

12.9.1 The pilot shall set the aircraft transponder to Mode A/C code 7600.

12.9.2 The pilot shall maintain the last assigned heading, speed and level, or minimum flight altitude if higher, for a period of two minutes following:

12.9.2.1 The time the last assigned level or minimum flight altitude is reached; or

12.9.2.2 The time the transponder is set to 7600; or

12.9.2.3 The aircraft's failure to report its position over a compulsory reporting point. Whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan.

12.9.3 After a period of two minutes, the pilot shall proceed in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight planned route no later than the next significant point, taking into consideration to the applicable minimum flight altitude.

12.10 Alternative methods for communicating with ATC

Pilots may endeavour to communicate with ATC by telephone network.

The telephone numbers are as follows:

- Don Mueang Tower — Tel: +662 515 3282, +662 515 3288, +6681 710 7449
- Suvarnabhumi Tower — Tel: +662 131 3610-3, +6686 399 9030
- Bangkok Approach — Tel: +662 131 3621, +662131 2622, +6685 150 2288 and +6685 150 3300

## VTBD AD 2.23 ADDITIONAL INFORMATION

### 1. Bird concentrations

1.1 Bird concentrations in the vicinity of Don Mueang International Airport.

1.1.1 It has been observed that migratory and resident birds in remarkable numbers appear on or in the vicinity of Don Mueang International Airport and they are present in variable numbers every month. Mostly during rainy season (June to October). Pilots are essentially requested to report bird strikes to the General Manager of the airport via

Wildlife Hazard Control Unit
Phone +66 2535 2636
Email: birdcontroldmk@airportthai.co.th
Bird Species that has potential hazard to aircraft are as follows:

| Species | Weight (KG) | Period |
|---|---|---|
| Open-bill Stork | 1.90 - 2.30 | All year (mostly in July) |
| Cattle Egret | 0.27 - 0.51 | All year (mostly in November) |
| Purple Heron | 0.53 - 1.35 | All year (mostly in December) |
| Lesser Whistling Duck | 0.55 - 0.60 | All year (mostly in June) |
| Intermediate Egret | 0.40 - 0.50 | All year (mostly in January) |
| Large - billed Crow | 0.45 - 1.00 | All year (mostly in September) |
| Great Myna | 0.09 - 0.10 | All year (mostly in August) |
| Rock Pigeon | 0.24 - 0.38 | All year (mostly in October) |
| Red Collared Dove | 0.10 | All year (mostly in August) |

Surveillance Bird Species are as follows:

| Species | Weight (KG) | Period |
|---|---|---|
| Great Egret | 0.7 - 1.5 | December - May (mostly in December - January) |
| Grey Heron | 1.5 - 2.0 | December - January |
| African Sacred Ibis | 1.3 - 1.5 | July - August (mostly in August) |
| Osprey | 1.3 - 1.8 | December |

1.1.2 Don Mueang International Airport has many measures and activities to reduce wildlife hazard by managing the environment to make the area unattractive for wildlife hazard and safe for the aircraft operations. Also, Environmental management such as grass mowing, chemicals Using (reduce bird's food resources), waste managing (refuse collection and garbage dumps), Tree trimming or cutting down, weeds

dredging (in drainage ditch, water pond and lowland), Sail grading and reducing bird's potential breeding and roosting area in airside.

**2. Requirement for Airbus A380 and Boeing 747-8 aircraft to use Don Mueang International Airport as an alternate airport is obligated is obligated to comply with the following regulations:**

a) Before Airbus A380 and Boeing 747-8 aircraft may use Don Mueang International Airport, all airlines must comprehend and agree with the requirement, thence shall inform airport authority and received approval prior to any operations.
b) Runway 03L/21R has been approved for the designated primary arrivals and departures runway for Airbus A380 and Boeing 747-8 aircraft ONLY.
c) The parking position is assigned at the aircraft stand No.80 and the alternate parking positions are at aircraft stand No.90 and Taxiway B North.
d) The maneuvering area designation system is illustrated on VTBD aerodrome – Airbus A380 and Boeing 747-8 ground movement chart.
e) Upon operating to and from the aircraft stand, the Airbus A380 and Boeing 747-8 aircraft are required to strictly follow the "Follow me" guidance and be ensure that aircraft clearances and wingtips are escorted by wingman.
f) Taxi and ground movement procedures are prescribed as follow:

- Taxi aid camera system is used for aircraft taxiing and ground operation. (If applicable)
- The Airbus A380 and Boeing 747-8 aircraft are required to taxi within the speed limit.
- While the Airbus A380 or Boeing 747-8 aircraft is operating on Taxiway C, the aircraft operating on Taxiway B shall be restricted up to the aircraft code C (aircraft with a maximum wingspan of 36 M).
- While other aircraft is taking off or landing on the runway 03L/21R, the Airbus A380 or Boeing 747-8 aircraft entering the runway 03L/21R is required to hold on Taxiway C.
- The aircraft gross weight of any Airbus A380 or Boeing 747-8 operating at Don Mueang International Airport must not be over 420 T

g) All ground service equipments needed by the Airbus A380 or Boeing 747-8 aircraft at Don Mueang International Airport must be provided by an airline operating the Airbus A380 or Boeing 747-8 aircraft or provided by any ground service equipment company at Don Mueang International Airport.
h) In case of the Airbus A380 or Boeing 747-8 aircraft accident or incident on the Airport, an aircraft owner operating the Airbus A380 or Boeing 747-8 shall be responsibility of disable aircraft removal as soon as possible.

**A380 AND B747-8 ARRIVAL FLIGHT ON 21R RUNWAY**




- Turn right on taxiway S to aircraft stand number 80 or
- Turn right on taxiway C South to aircraft stand number 90
- Turn right to taxiway S then turn right and taxi on taxiway C facing to north till taxiway D then turn left to taxiway D and turn right to park on taxiway B north

**A380 AND B747-8 ARRIVAL FLIGHT ON 03L RUNWAY**



- Turn left on taxiway D and turn right to park on taxiway B north or
- Turn left on taxiway E or taxiway D to taxiway D to taxiway C then taxi to south and
- Turn right on taxiway S to aircraft stand number 80 or
- Turn left on taxiway S to runway and taxi to taxiway C south to aircraft stand number 90

**A380 AND B747-8 DEPARTURE FLIGHT ON 21R RUNWAY**




**AIRCRAFT STAND NO 80:**

- The aircraft shall be pushed back onto taxilane B (to face either north or south) and tow forward till the aircraft is on taxiway S.
- Turn left to taxiway C and taxing toward north after that turn right onto taxiway D and prepare to take-off on runway.

**AIRCRAFT STAND NO 90:**

- The aircraft shall be pushed back onto taxilane B (to face south only) and tow the aircraft on to taxilane B to stop beside aircraft stand number 108 and release the tow bar.
- The aircraft shall be taxied on taxiway C south and turn left to runway.
- The aircraft shall be taxied on runway forward north.
- Turn left on taxiway E and turn right on taxiway C after that turn on taxiway D to the runway.

**B NORTH**

- The aircraft shall be taxied to runway 21R.

**A380 AND B747-8 DEPARTURE FLIGHT ON 03L RUNWAY**




**AIRCRAFT STAND NO 80:**

- The aircraft shall be pushed back onto taxilane B (to face either north or south) and tow forward till the aircraft is on taxiway S.
- Turn left to runway (distance for take-off ~2,900 M.)

**AIRCRAFT STAND NO 90:**

- The aircraft shall be pushed back onto taxilane B (to face south only) and tow the aircraft on to taxiway C south on runway holding position.
- Turn left on runway 03L.

**B NORTH**

- The aircraft shall be taxied to runway 21R.
- Turn right on taxiway E and turn left on taxiway C, taxing toward south.
- Turn left on taxiway S to runway 21R (distance for take-off ~2,900 M) (In case of low visibility, not allow to use runway 03L)

## VTBD AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTBD-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTBD-2-3 |
| Aircraft Parking/Docking Chart - ICAO (Verso) | AD 2-VTBD-2-4 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTBD-2-5 |
| Precision Approach Terrain Chart - ICAO - RWY 21R | AD 2-VTBD-3-1 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY21R/03L | AD 2-VTBD-3-3 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY21L/03R | AD 2-VTBD-3-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C ROBKA3C SEMBO4C TARED3C UPKUP3C UGUVO3C | AD 2-VTBD-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C ROBKA3C SEMBO4C TARED3C UPKUP3C UGUVO3C (Radio communication failure table) | AD 2-VTBD-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C ROBKA3C SEMBO4C TARED3C UPKUP3C UGUVO3C (Tabular description 1) | AD 2-VTBD-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C ROBKA3C SEMBO4C TARED3C UPKUP3C UGUVO3C (Tabular description 2) | AD 2-VTBD-6-4 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C ROBKA3C SEMBO4C TARED3C UPKUP3C UGUVO3C (Tabular description 3) | AD 2-VTBD-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C ROBKA3C SEMBO4C TARED3C UPKUP3C UGUVO3C (Tabular description 4) | AD 2-VTBD-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C ROBKA3C SEMBO4C TARED3C UPKUP3C UGUVO3C (Waypoint list table) | AD 2-VTBD-6-7 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C | AD 2-VTBD-6-9 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C (Radio communication failure table) | AD 2-VTBD-6-10 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C (Tabular description 1) | AD 2-VTBD-6-11 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C (Tabular description 2) | AD 2-VTBD-6-12 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C (Tabular description 3) | AD 2-VTBD-6-13 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C (Waypoint list table) | AD 2-VTBD-6-14 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A ROBKA3A SEMBO4A TARED3A UPKUP3A UGUVO3A | AD 2-VTBD-6-15 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R -ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A ROBKA3A SEMBO4A TARED3A UPKUP3A UGUVO3A (Radio communication failure table) | AD 2-VTBD-6-16 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A ROBKA3A SEMBO4A TARED3A UPKUP3A UGUVO3A (Tabular description 1) | AD 2-VTBD-6-17 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A ROBKA3A SEMBO4A TARED3A UPKUP3A UGUVO3A (Tabular description 2) | AD 2-VTBD-6-18 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A ROBKA3A SEMBO4A TARED3A UPKUP3A UGUVO3A (Tabular description 3) | AD 2-VTBD-6-19 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A ROBKA3A SEMBO4A TARED3A UPKUP3A UGUVO3A (Tabular description 4) | AD 2-VTBD-6-20 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A ROBKA3A SEMBO4A TARED3A UPKUP3A UGUVO3A (Waypoint list table) | AD 2-VTBD-6-21 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A | AD 2-VTBD-6-23 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A (Radio communication failure table) | AD 2-VTBD-6-24 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A (Tabular description 1) | AD 2-VTBD-6-25 |

| Chart name | Page |
|---|---|
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A (Tabular description 2) | AD 2-VTBD-6-26 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A (Tabular description 3) | AD 2-VTBD-6-27 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A (Waypoint list table) | AD 2-VTBD-6-28 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B ROBKA1B SEMBO2B TARED1B UPKUP1B UGUVO1B | AD 2-VTBD-6-29 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L -ALBOS1B NOBER2B NUNLI1B OLVUK1B ROBKA1B SEMBO2B TARED1B UPKUP1B UGUVO1B (Radio communication failure table) | AD 2-VTBD-6-30 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B ROBKA1B SEMBO2B TARED1B UPKUP1B UGUVO1B (Tabular description 1) | AD 2-VTBD-6-31 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B ROBKA1B SEMBO2B TARED1B UPKUP1B UGUVO1B (Tabular description 2) | AD 2-VTBD-6-32 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B ROBKA1B SEMBO2B TARED1B UPKUP1B UGUVO1B (Tabular description 3) | AD 2-VTBD-6-33 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B ROBKA1B SEMBO2B TARED1B UPKUP1B UGUVO1B (Waypoint list table) | AD 2-VTBD-6-34 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B | AD 2-VTBD-6-35 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B (Radio communication failure table) | AD 2-VTBD-6-36 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B (Tabular description 1) | AD 2-VTBD-6-37 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B (Tabular description 2) | AD 2-VTBD-6-38 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B (Tabular description 3) | AD 2-VTBD-6-39 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B (Tabular description 4) | AD 2-VTBD-6-40 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B (Waypoint list table) | AD 2-VTBD-6-41 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D ROBKA1D SEMBO2D TARED1D UPKUP1D UGUVO1D | AD 2-VTBD-6-43 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D ROBKA1D SEMBO2D TARED1D UPKUP1D UGUVO1D (Radio communication failure table) | AD 2-VTBD-6-44 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D ROBKA1D SEMBO2D TARED1D UPKUP1D UGUVO1D (Tabular description 1) | AD 2-VTBD-6-45 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D ROBKA1D SEMBO2D TARED1D UPKUP1D UGUVO1D (Tabular description 2) | AD 2-VTBD-6-46 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D ROBKA1D SEMBO2D TARED1D UPKUP1D UGUVO1D (Tabular description 3) | AD 2-VTBD-6-47 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D ROBKA1D SEMBO2D TARED1D UPKUP1D UGUVO1D (Waypoint list table) | AD 2-VTBD-6-48 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - BONVO1D DOSBU1D GORSI1D HHN1D KASNI1D KIGOB1D PASTO1D REGOS1D RYN1D SABIS2D UKERA1D | AD 2-VTBD-6-49 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - BONVO1D DOSBU1D GORSI1D HHN1D KASNI1D KIGOB1D PASTO1D REGOS1D RYN1D SABIS2D UKERA1D (Radio communication failure table) | AD 2-VTBD-6-50 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - BONVO1D DOSBU1D GORSI1D HHN1D KASNI1D KIGOB1D PASTO1D REGOS1D RYN1D SABIS2D UKERA1D (Tabular description 1) | AD 2-VTBD-6-51 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - BONVO1D DOSBU1D GORSI1D HHN1D KASNI1D KIGOB1D PASTO1D REGOS1D RYN1D SABIS2D UKERA1D (Tabular description 2) | AD 2-VTBD-6-52 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - BONVO1D DOSBU1D GORSI1D HHN1D KASNI1D KIGOB1D PASTO1D REGOS1D RYN1D SABIS2D UKERA1D (Tabular description 3) | AD 2-VTBD-6-53 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - BONVO1D DOSBU1D GORSI1D HHN1D KASNI1D KIGOB1D PASTO1D REGOS1D RYN1D SABIS2D UKERA1D (Tabular description 4) | AD 2-VTBD-6-54 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - BONVO1D DOSBU1D GORSI1D HHN1D KASNI1D KIGOB1D PASTO1D REGOS1D RYN1D SABIS2D UKERA1D (Waypoint list table) | AD 2-VTBD-6-55 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A | AD 2-VTBD-7-1 |

| Chart name | Page |
|---|---|
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A (Radio communication failure table) | AD 2-VTBD-7-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A (Tabular description 1) | AD 2-VTBD-7-3 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A (Tabular description 2) | AD 2-VTBD-7-4 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A (Tabular description 3) | AD 2-VTBD-7-5 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A (Tabular description 4) | AD 2-VTBD-7-6 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A (Tabular description 5) | AD 2-VTBD-7-7 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A (Waypoint list table) | AD 2-VTBD-7-8 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 03L/03R - ENDUU1B NAKON1B SABAI1B SEHNA1B WEHHA1B | AD 2-VTBD-7-9 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 03L/03R - ENDUU1B NAKON1B SABAI1B SEHNA1B WEHHA1B (Radio communication failure table) | AD 2-VTBD-7-10 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 03L/03R - ENDUU1B NAKON1B SABAI1B SEHNA1B WEHHA1B (Tabular description 1) | AD 2-VTBD-7-11 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 03L/03R - ENDUU1B NAKON1B SABAI1B SEHNA1B WEHHA1B (Tabular description 2) | AD 2-VTBD-7-12 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 03L/03R - ENDUU1B NAKON1B SABAI1B SEHNA1B WEHHA1B (Tabular description 3) | AD 2-VTBD-7-13 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 03L/03R - ENDUU1B NAKON1B SABAI1B SEHNA1B WEHHA1B (Tabular description 4) | AD 2-VTBD-7-14 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 03L/03R - ENDUU1B NAKON1B SABAI1B SEHNA1B WEHHA1B (Tabular description 5) | AD 2-VTBD-7-15 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 03L/03R - ENDUU1B NAKON1B SABAI1B SEHNA1B WEHHA1B (Waypoint list table) | AD 2-VTBD-7-16 |
| Instrument Approach Chart - ICAO - VOR RWY 21L | AD 2-VTBD-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 21R | AD 2-VTBD-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 03R | AD 2-VTBD-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 03L | AD 2-VTBD-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 21L | AD 2-VTBD-8-9 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 21L (Fix and point list table) | AD 2-VTBD-8-10 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 21R CAT II | AD 2-VTBD-8-11 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 21L | AD 2-VTBD-8-13 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 21L (Tabular description) | AD 2-VTBD-8-14 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 21L (Fix and point list table) | AD 2-VTBD-8-15 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 21R CAT II | AD 2-VTBD-8-17 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 21R CAT II (Tabular description) | AD 2-VTBD-8-18 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 21R CAT II (Fix and point list table) | AD 2-VTBD-8-19 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 03L | AD 2-VTBD-8-21 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 03L (Tabular description) | AD 2-VTBD-8-22 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 03L (Fix and point list table) | AD 2-VTBD-8-23 |
| Instrument Approach Chart - ICAO - RNP RWY 21L | AD 2-VTBD-8-25 |
| Instrument Approach Chart - ICAO - RNP RWY 21L (Tabular description) | AD 2-VTBD-8-26 |
| Instrument Approach Chart - ICAO - RNP RWY 21R | AD 2-VTBD-8-27 |
| Instrument Approach Chart - ICAO - RNP RWY 21R (Tabular description) | AD 2-VTBD-8-28 |
| Instrument Approach Chart - ICAO - RNP RWY 03L | AD 2-VTBD-8-29 |
| Instrument Approach Chart - ICAO - RNP RWY 03L (Tabular description) | AD 2-VTBD-8-30 |
| Instrument Approach Chart - ICAO - RNP RWY 03R | AD 2-VTBD-8-31 |
| Instrument Approach Chart - ICAO - RNP RWY 03R (Tabular description) | AD 2-VTBD-8-32 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 21L/21R | AD 2-VTBD-9-1 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 21L/21R (Verso) | AD 2-VTBD-9-2 |

| Chart name | Page |
|---|---|
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 21L/21R (Tabular description 1) | AD 2-VTBD-9-3 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 21L/21R (Tabular description 2) | AD 2-VTBD-9-4 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 21L/21R (Tabular description 3) | AD 2-VTBD-9-5 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 03L/03R | AD 2-VTBD-9-7 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 03L/03R (Verso) | AD 2-VTBD-9-8 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 03L/03R (Tabular description 1) | AD 2-VTBD-9-9 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 03L/03R (Tabular description 2) | AD 2-VTBD-9-10 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 03L/03R (Tabular description 3) | AD 2-VTBD-9-11 |
| VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 03L/03R 21L/21R | AD 2-VTBD-9-13 |
| VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 03L/03R 21L/21R (Tabular description) | AD 2-VTBD-9-14 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 21L/21R | AD 2-VTBD-9-15 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 21L/21R (Verso) | AD 2-VTBD-9-16 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 21L/21R (Tabular description 1) | AD 2-VTBD-9-17 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 21L/21R (Tabular description 2) | AD 2-VTBD-9-18 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 21L/21R (Tabular description 3) | AD 2-VTBD-9-19 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 21L/21R (Tabular description 4) | AD 2-VTBD-9-20 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 03L/03R | AD 2-VTBD-9-21 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 03L/03R (Verso) | AD 2-VTBD-9-22 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 03L/03R (Tabular description 1) | AD 2-VTBD-9-23 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 03L/03R (Tabular description 2) | AD 2-VTBD-9-24 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 03L/03R (Tabular description 3) | AD 2-VTBD-9-25 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 03L/03R (Tabular description 4) | AD 2-VTBD-9-26 |
| VFR OVERFLY PROCEDURE FOR HELICOPTER CHART - RWY 03L/03R 21L/21R | AD 2-VTBD-9-27 |
| VFR OVERFLY PROCEDURE FOR HELICOPTER CHART - RWY 03L/03R 21L/21R (Tabular description) | AD 2-VTBD-9-28 |
| BIRD CONCENTRATION AND MOVEMENT | AD 2-VTBD-9-29 |

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# AERODROME CHART - ICAO

13 54 52 N
100 36 20 E

ELEV 9 FT

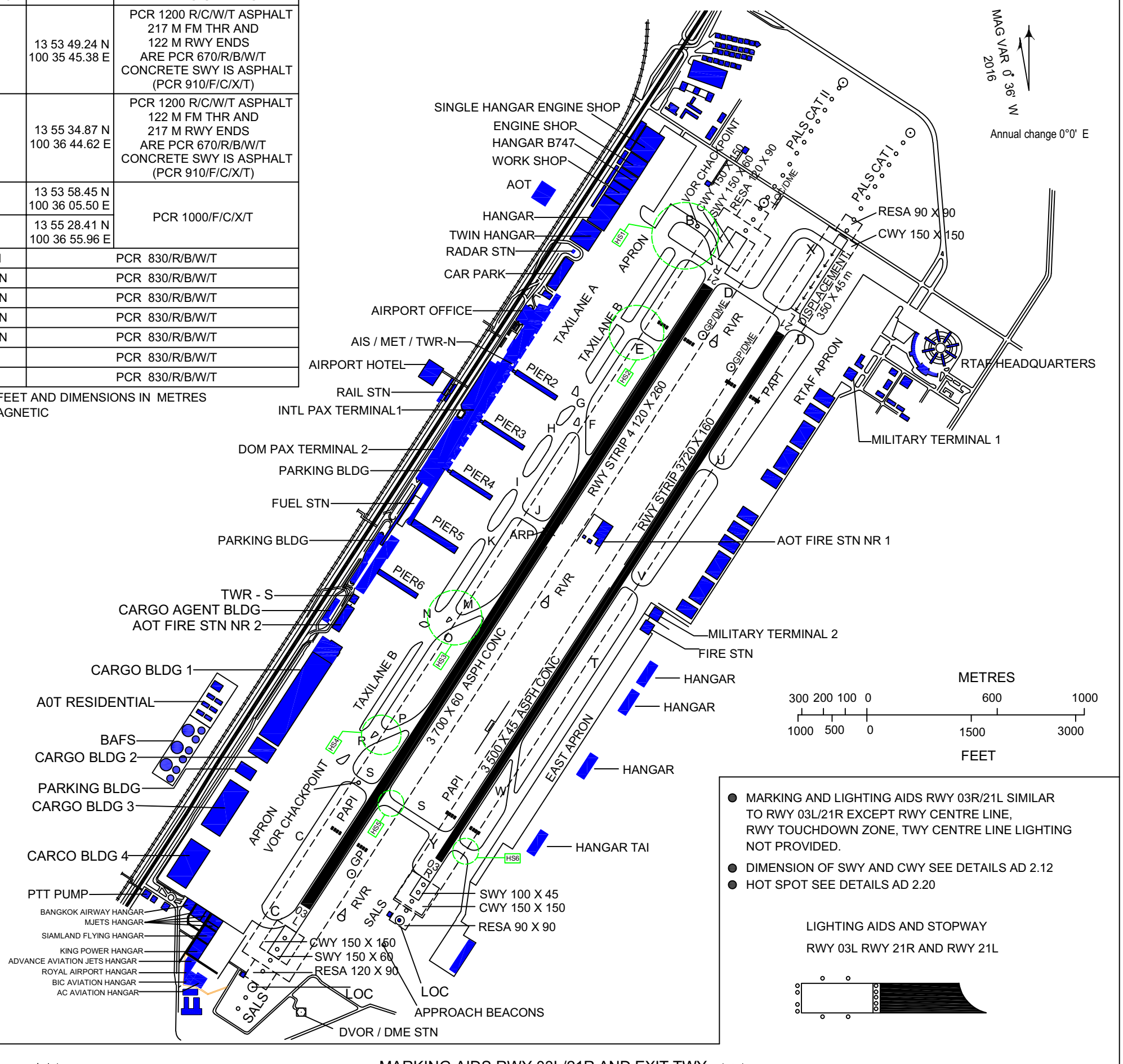
TWR 118.1
GND 121.9
122.5

# BANGKOK / DON MUEANG INTL.

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 03L | 029 | 13 53 49.24 N<br>100 35 45.38 E | PCR 1200 R/C/W/T ASPHALT<br>217 M FM THR AND<br>122 M RWY ENDS<br>ARE PCR 670/R/B/W/T<br>CONCRETE SWY IS ASPHALT<br>(PCR 910/F/C/X/T) |
| 21R | 209 | 13 55 34.87 N<br>100 36 44.62 E | PCR 1200 R/C/W/T ASPHALT<br>122 M FM THR AND<br>217 M RWY ENDS<br>ARE PCR 670/R/B/W/T<br>CONCRETE SWY IS ASPHALT<br>(PCR 910/F/C/X/T) |
| 03R | 028 | 13 53 58.45 N<br>100 36 05.50 E | PCR 1000/F/C/X/T |
| 21L | 208 | 13 55 28.41 N<br>100 36 55.96 E | |

| | |
|---|---|
| NORTH APRON | PCR 830/R/B/W/T |
| PIER 2-3 APRON | PCR 830/R/B/W/T |
| PIER 3-4 APRON | PCR 830/R/B/W/T |
| PIER 4-5 APRON | PCR 830/R/B/W/T |
| PIER 5-6 APRON | PCR 830/R/B/W/T |
| PIER 6 APRON | PCR 830/R/B/W/T |
| SOUTH APRON | PCR 830/R/B/W/T |

ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC




- MARKING AND LIGHTING AIDS RWY 03R/21L SIMILAR TO RWY 03L/21R EXCEPT RWY CENTRE LINE, RWY TOUCHDOWN ZONE, TWY CENTRE LINE LIGHTING NOT PROVIDED.
- DIMENSION OF SWY AND CWY SEE DETAILS AD 2.12
- HOT SPOT SEE DETAILS AD 2.20

LIGHTING AIDS AND STOPWAY
RWY 03L RWY 21R AND RWY 21L



MARKING AIDS RWY 03L/21R AND EXIT TWY




LIGHTING AIDS RWY 03L/21R AND EXIT TWY






CHANGE : PCR

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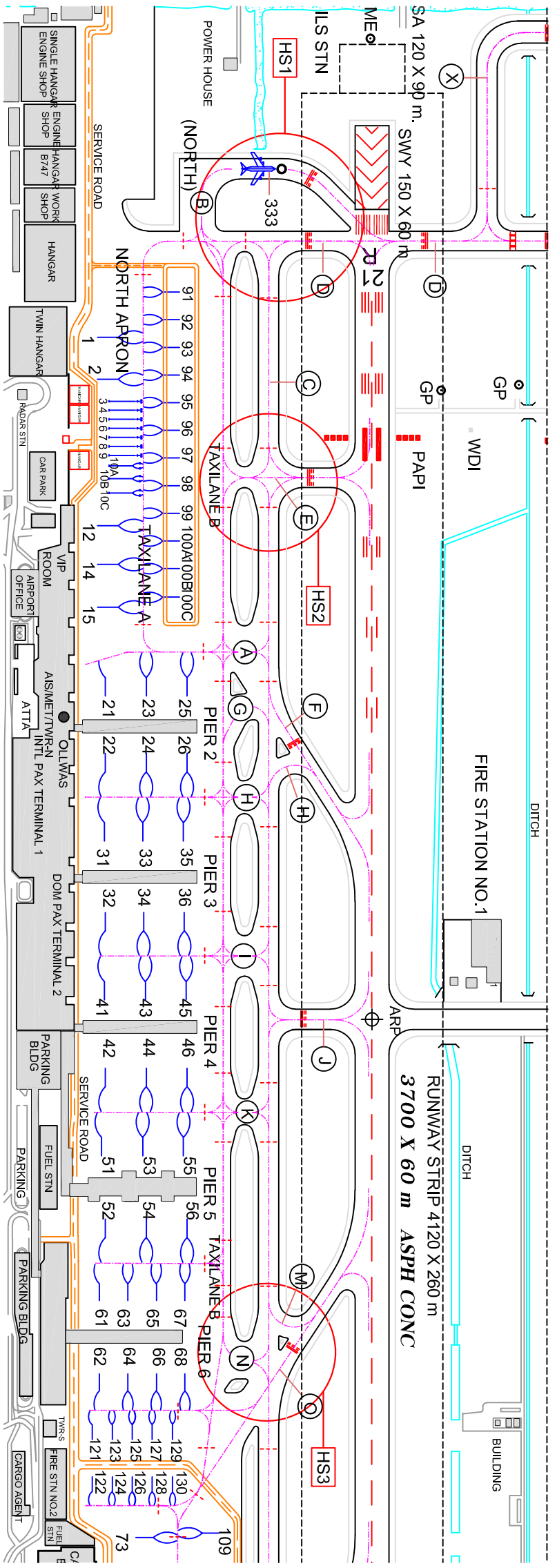
**AIRCRAFT PARKING DOCKING CHART - ICAO**

**APRON ELEV 10 FT**

| | |
|---|---|
| TWR | 118.1 |
| GND | 121.9 |

**BANGKOK / Don Mueang Intl**

MAG VAR 0º 36' W (2016)
ANNUAL CHANGE 0º 0' E




NOT TO SCALE

CHANGE: LEGEND. HOT SPOT.

| LEGEND | |
|---|---|
| • AIRCRAFT STAND | 56 |
| • INTERMEDIATE HOLDING POSITION | --- |
| **REMARKS** | |
| • HOT SPOT SEE DETAILS AD 2.20 | |
| • INS COORDINATES FOR AIRCRAFT STAND SEE VERSO PAGE | |
| • ARP 13 54 52 N 100 36 20 E | |

## AIRCRAFT PARKING/ DOCKING CHART - ICAO

## BANGKOK/Don Mueang Intl

**INS COORDINATES AND ACCOMMODATION FOR AIRCRAFT STAND**

| LOCATION | STAND NR | COORDINATES | | ACFT UP TO |
|---|---|---|---|---|
| NORTH APRON | 1 | 13 55 36.05N | 100 36 25.74E | E (B744) |
| | 2 | 13 55 34.00N | 100 36 24.59E | E (B744) |
| | 3 | 13 55 32.15N | 100 36 24.73E | CODE A |
| | 4 | 13 55 31.64N | 100 36 24.45E | CODE A |
| | 5 | 13 55 31.12N | 100 36 24.16E | CODE A |
| | 6 | 13 55 30.61N | 100 36 23.87E | CODE A |
| | 7 | 13 55 30.10N | 100 36 23.58E | CODE A |
| | 8 | 13 55 29.58N | 100 36 23.29E | CODE A |
| | 9 | 13 55 29.07N | 100 36 23.00E | CODE A |
| | 10A | 13 55 28.44N | 100 36 22.65E | CODE B |
| | 10B | 13 55 27.66N | 100 36 22.21E | CODE B |
| | 10C | 13 55 26.89N | 100 36 21.78E | CODE B |
| | 91 | 13 55 35.74N | 100 36 33.31E | D (B762) |
| | 92 | 13 55 34.16N | 100 36 32.42E | D (B762) |
| | 93 | 13 55 32.58N | 100 36 31.54E | D (B762) |
| | 94 | 13 55 30.99N | 100 36 30.65E | D (B762) |
| | 95 | 13 55 29.41N | 100 36 29.76E | D (B762) |
| | 96 | 13 55 27.82N | 100 36 28.87E | D (B762) |
| | 97 | 13 55 26.33N | 100 36 27.93E | CODE C |
| | 98 | 13 55 24.83N | 100 36 27.09E | CODE C |
| | 99 | 13 55 23.33N | 100 36 26.25E | CODE C |
| | 100A | 13 55 21.83N | 100 36 25.41E | CODE C |
| | 100B | 13 55 20.33N | 100 36 24.57E | CODE C |
| | 100C | 13 55 18.84N | 100 36 23.73E | CODE C |
| NORTH CORRIDOR | 12 | 13 55 25.84N | 100 36 19.81E | E (B744) |
| | 14 | 13 55 23.78N | 100 36 18.65E | E (B744) |
| | 15 | 13 55 21.72N | 100 36 17.49E | E (B744) |
| PIER 2 | 21 | 13 55 16.18N | 100 36 15.70E | E (B772) |
| | 22 | 13 55 14.11N | 100 36 14.53E | E (B744) |
| | 23 | 13 55 15.02N | 100 36 17.81E | E (B772) |
| | 24 | 13 55 12.96N | 100 36 16.66E | E (B744) |
| | 25 | 13 55 13.86N | 100 36 19.91E | E (B772) |
| | 26 | 13 55 11.82N | 100 36 18.78E | E (B744) |
| PIER 3 | 31 | 13 55 08.19N | 100 36 11.22E | E (B772) |
| | 32 | 13 55 06.09N | 100 36 10.03E | E (B744) |
| | 33 | 13 55 07.06N | 100 36 13.34E | E (B772) |
| | 34 | 13 55 04.95N | 100 36 12.16E | E (B744) |
| | 35 | 13 55 05.92N | 100 36 15.46E | E (B772) |
| | 36 | 13 55 03.81N | 100 36 14.28E | E (B744) |
| PIER 4 | 41 | 13 55 00.17N | 100 36 06.80E | E (B772) |
| | 42 | 13 54 58.15N | 100 36 05.54E | E (B744) |
| | 43 | 13 54 59.04N | 100 36 08.92E | E (B772) |
| | 44 | 13 54 57.01N | 100 36 07.67E | E (B744) |
| | 45 | 13 54 57.89N | 100 36 11.02E | E (B772) |
| | 46 | 13 54 55.88N | 100 36 09.78E | E (B744) |
| PIER 5 | 51 | 13 54 51.67N | 100 36 02.03E | E (B744) |
| | 52 | 13 54 50.17N | 100 36 01.19E | E (B744) |
| | 53 | 13 54 50.53N | 100 36 04.14E | E (B744) |
| | 54 | 13 54 49.03N | 100 36 03.30E | E (B744) |
| | 55 | 13 54 49.44N | 100 36 06.28E | E (B744) |
| | 56 | 13 54 47.87N | 100 36 05.40E | E (B744) |
| PIER 6 | 61 | 13 54 44.04N | 100 35 57.18E | C (B739) |
| | 62 | 13 54 41.88N | 100 35 55.74E | C (B739) |
| | 63 | 13 54 43.22N | 100 35 58.71E | C (B739) |
| | 64 | 13 54 41.05N | 100 35 57.28E | C (B739) |
| | 65 | 13 54 42.40N | 100 36 00.25E | C (B739) |
| | 66 | 13 54 40.23N | 100 35 58.81E | C (B734) |
| | 67 | 13 54 42.04N | 100 36 01.74E | C (B734) |
| | 68 | 13 54 39.39N | 100 36 00.37E | E (B744) |
| SOUTH APRON | 73 | 13 54 31.67N | 100 35 51.77E | E (B744) |
| | 74 | 13 54 29.61N | 100 35 50.61E | E (B744) |
| | 75 | 13 54 27.54N | 100 35 49.45E | E (B744) |
| | 76 | 13 54 25.47N | 100 35 48.29E | E (B744) |
| | 77 | 13 54 23.40N | 100 35 47.13E | E (B744) |
| | 78 | 13 54 21.33N | 100 35 45.97E | E (B744) |
| | 79 | 13 54 19.26N | 100 35 44.81E | E (B744) |
| | 80 | 13 54 17.19N | 100 35 43.64E | E (B744) |
| | 81 | 13 54 14.68N | 100 35 42.23E | E (B744) |
| | 82 | 13 54 12.62N | 100 35 41.08E | E (B744) |
| | 83 | 13 54 10.54N | 100 35 39.92E | E (B744) |
| | 84 | 13 54 08.47N | 100 35 38.76E | E (B744) |
| | 85 | 13 54 06.40N | 100 35 37.60E | E (B744) |
| | 86 | 13 54 04.33N | 100 35 36.44E | E (B744) |
| | 87 | 13 54 02.26N | 100 35 35.28E | E (B744) |
| | 88 | 13 54 00.20N | 100 35 34.12E | E (B744) |
| | 89 | 13 53 58.12N | 100 35 32.96E | E (B744) |
| | 90 | 13 53 56.05N | 100 35 31.79E | E (B744) |
| | 101 | 13 54 11.26N | 100 35 48.83E | E (B744) |
| | 102 | 13 54 08.97N | 100 35 47.50E | E (B744) |
| | 103 | 13 54 06.66N | 100 35 46.20E | E (B744) |
| | 104 | 13 54 04.34N | 100 35 44.90E | E (B744) |
| | 105 | 13 54 02.03N | 100 35 43.61E | E (B744) |
| | 106 | 13 53 59.72N | 100 35 42.31E | E (B744) |
| | 107 | 13 53 57.29N | 100 35 41.22E | E (B744) |
| | 108 | 13 53 55.07N | 100 35 39.76E | E (B744) |
| | 109 | 13 54 28.72N | 100 35 58.44E | E (B772) |
| | 110 | 13 54 26.77N | 100 35 57.34E | E (B772) |
| | 112 | 13 54 24.61N | 100 35 56.13E | E (B772) |
| | 113 | 13 54 22.47N | 100 35 54.93E | E (B772) |
| | 114 | 13 54 20.45N | 100 35 53.80E | E (B772) |
| | 115 | 13 54 18.41N | 100 35 52.65E | D (B767) |
| SOUTH APRON | 121 | 13 54 37.04N | 100 35 52.59E | C (B734) |
| | 122 | 13 54 36.26N | 100 35 52.15E | C (B734) |
| | 123 | 13 54 36.47N | 100 35 53.66E | C (B734) |
| | 124 | 13 54 35.69N | 100 35 53.22E | C (B734) |
| | 125 | 13 54 35.90N | 100 35 54.73E | C (B734) |
| | 126 | 13 54 35.12N | 100 35 54.29E | C (B734) |
| | 127 | 13 54 35.40N | 100 35 55.83E | C (B734) |
| | 128 | 13 54 34.62N | 100 35 55.39E | C (B734) |
| | 129 | 13 54 34.83N | 100 35 56.90E | C (B734) |
| | 130 | 13 54 33.98N | 100 35 56.42E | C (B734) |

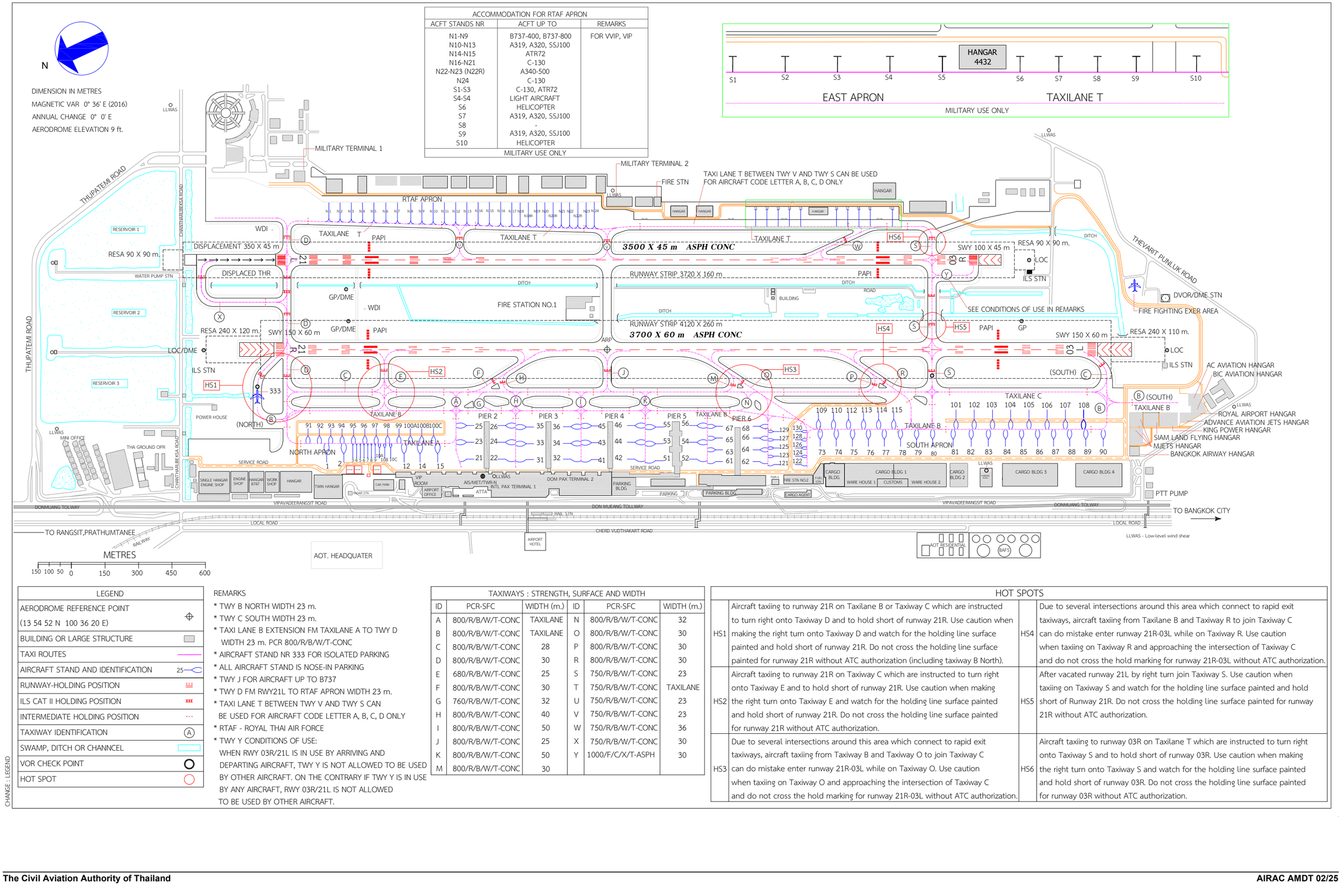
CHANGE: . TEMPLATE. COORDINATES STAND NR 101, 107, 108 AND 121

AERODROME GROUND
MOVEMENT CHART - ICAO

APRON ELEV
10 ft

TWR 118.1 | GND 121.9 122.5

BANGKOK / DONMUEANG INTL




| LEGEND | |
|---|---|
| AERODROME REFERENCE POINT (13 54 52 N 100 36 20 E) | ⊕ |
| BUILDING OR LARGE STRUCTURE | ▭ |
| TAXI ROUTES | |
| AIRCRAFT STAND AND IDENTIFICATION | 25 |
| RUNWAY-HOLDING POSITION | |
| ILS CAT II HOLDING POSITION | |
| INTERMEDIATE HOLDING POSITION | |
| TAXIWAY IDENTIFICATION | A |
| SWAMP, DITCH OR CHANNCEL | |
| VOR CHECK POINT | |
| HOT SPOT | |

CHANGE : LEGEND

REMARKS

* TWY B NORTH WIDTH 23 m.
* TWY C SOUTH WIDTH 23 m.
* TAXI LANE B EXTENSION FM TAXILANE A TO TWY D WIDTH 23 m. PCR 800/R/B/W/T-CONC
* AIRCRAFT STAND NR 333 FOR ISOLATED PARKING
* ALL AIRCRAFT STAND IS NOSE-IN PARKING
* TWY J FOR AIRCRAFT UP TO B737
* TWY D FM RWY21L TO RTAF APRON WIDTH 23 m.
* TAXI LANE T BETWEEN TWY V AND TWY S CAN BE USED FOR AIRCRAFT CODE LETTER A, B, C, D ONLY
* RTAF - ROYAL THAI AIR FORCE
* TWY Y CONDITIONS OF USE:
  WHEN RWY 03R/21L IS IN USE BY ARRIVING AND DEPARTING AIRCRAFT, TWY Y IS NOT ALLOWED TO BE USED BY OTHER AIRCRAFT. ON THE CONTRARY IF TWY Y IS IN USE BY ANY AIRCRAFT, RWY 03R/21L IS NOT ALLOWED TO BE USED BY OTHER AIRCRAFT.

TAXIWAYS : STRENGTH, SURFACE AND WIDTH

| ID | PCR-SFC | WIDTH (m.) | ID | PCR-SFC | WIDTH (m.) |
|---|---|---|---|---|---|
| A | 800/R/B/W/T-CONC | TAXILANE | N | 800/R/B/W/T-CONC | 32 |
| B | 800/R/B/W/T-CONC | TAXILANE | O | 800/R/B/W/T-CONC | 30 |
| C | 800/R/B/W/T-CONC | 28 | P | 800/R/B/W/T-CONC | 30 |
| D | 800/R/B/W/T-CONC | 30 | R | 800/R/B/W/T-CONC | 30 |
| E | 680/R/B/W/T-CONC | 25 | S | 750/R/B/W/T-CONC | 23 |
| F | 800/R/B/W/T-CONC | 30 | T | 750/R/B/W/T-CONC | TAXILANE |
| G | 760/R/B/W/T-CONC | 32 | U | 750/R/B/W/T-CONC | 23 |
| H | 800/R/B/W/T-CONC | 40 | V | 750/R/B/W/T-CONC | 23 |
| I | 800/R/B/W/T-CONC | 50 | W | 750/R/B/W/T-CONC | 36 |
| J | 800/R/B/W/T-CONC | 25 | X | 750/R/B/W/T-CONC | 30 |
| K | 800/R/B/W/T-CONC | 50 | Y | 1000/F/C/X/T-ASPH | 30 |
| M | 800/R/B/W/T-CONC | 30 | | | |

HOT SPOTS

| | | | |
|---|---|---|---|
| HS1 | Aircraft taxiing to runway 21R on Taxilane B or Taxiway C which are instructed to turn right onto Taxiway D and to hold short of runway 21R. Use caution when making the right turn onto Taxiway D and watch for the holding line surface painted and hold short of runway 21R. Do not cross the holding line surface painted for runway 21R without ATC authorization (including taxiway B North). | HS4 | Due to several intersections around this area which connect to rapid exit taxiways, aircraft taxiing from Taxilane B and Taxiway R to join Taxiway C can do mistake enter runway 21R-03L while on Taxiway R. Use caution when taxiing on Taxiway R and approaching the intersection of Taxiway C and do not cross the hold marking for runway 21R-03L without ATC authorization. |
| HS2 | Aircraft taxiing to runway 21R on Taxiway C which are instructed to turn right onto Taxiway E and to hold short of runway 21R. Use caution when making the right turn onto Taxiway E and watch for the holding line surface painted and hold short of runway 21R. Do not cross the holding line surface painted for runway 21R without ATC authorization. | HS5 | After vacated runway 21L by right turn join Taxiway S. Use caution when taxiing on Taxiway S and watch for the holding line surface painted and hold short of Runway 21R. Do not cross the holding line surface painted for runway 21R without ATC authorization. |
| HS3 | Due to several intersections around this area which connect to rapid exit taxiways, aircraft taxiing from Taxiway B and Taxiway O to join Taxiway C can do mistake enter runway 21R-03L while on Taxiway O. Use caution when taxiing on Taxiway O and approaching the intersection of Taxiway C and do not cross the hold marking for runway 21R-03L without ATC authorization. | HS6 | Aircraft taxiing to runway 03R on Taxilane T which are instructed to turn right onto Taxiway S and to hold short of runway 03R. Use caution when making the right turn onto Taxiway S and watch for the holding line surface painted and hold short of runway 03R. Do not cross the holding line surface painted for runway 03R without ATC authorization. |

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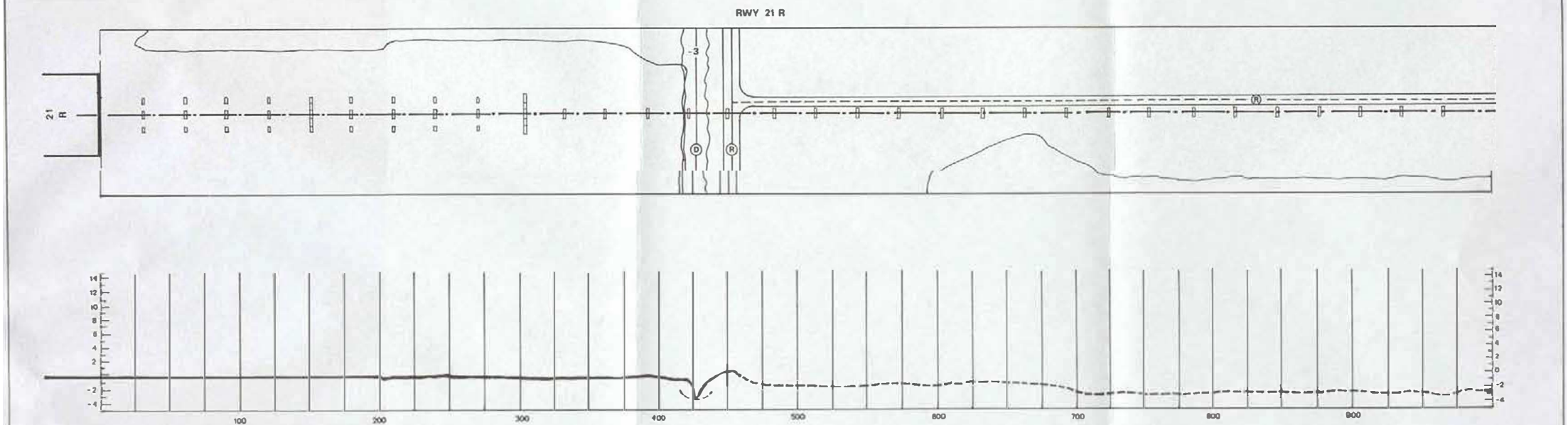
BANGKOK INTL
RWY 21 R

PRECISION APPROACH TERRAIN CHART - ICAO

DIMENSIONS AND HEIGHTS IN METRES




| LEGEND | |
|---|---|
| ROAD - DITCH | |
| CONTOUR | |
| CENTRE - LINE PROFILE | |
| DEVIATION AT LEAST ±3m FROM CENTRE-LINE PROFILE | |
| APPROACH | |
| ORIGINAL GROUND | |

VERTICAL SCALE 1:500

CONTOURS ARE HEIGHTS ARE RELATED TO ELEVATION OF RWY THR

HORIZONTAL SCALE 1:2500

25 0 50 100 200 300

METRES

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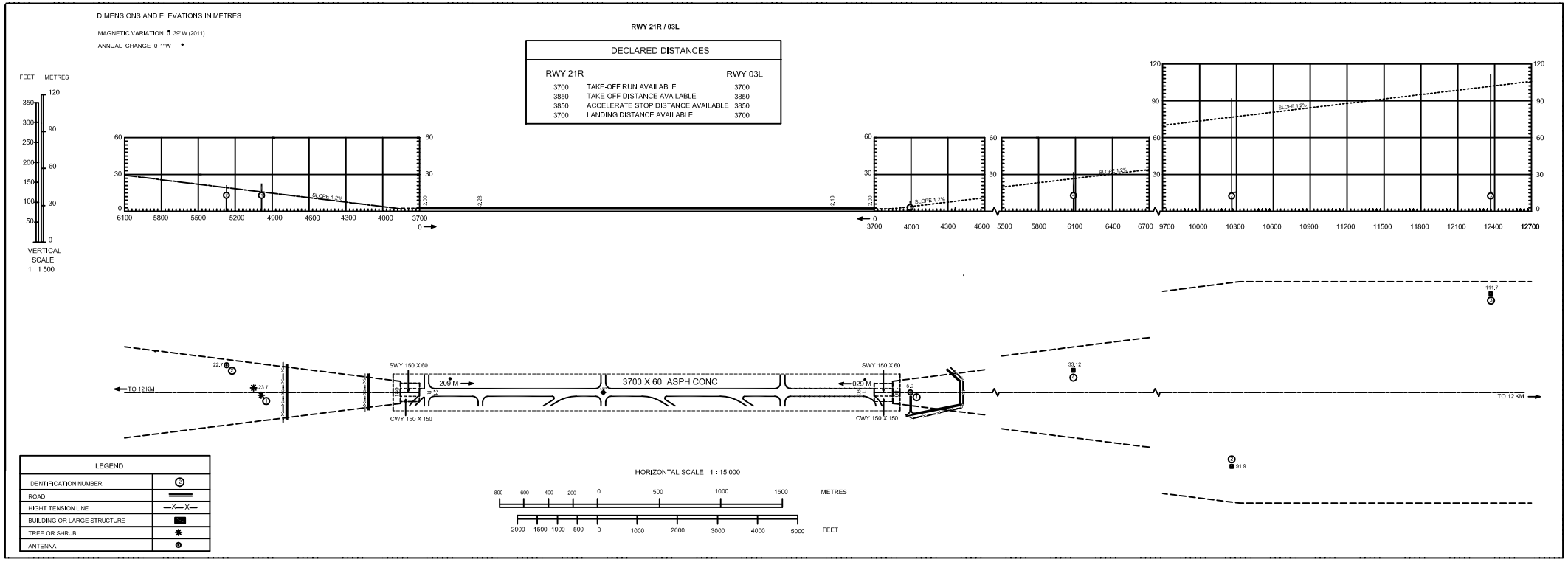
**AERODROME OBSTACLE CHART - ICAO**
TYPE A (OPERATING LIMITATIONS)

Don Mueang International Airport



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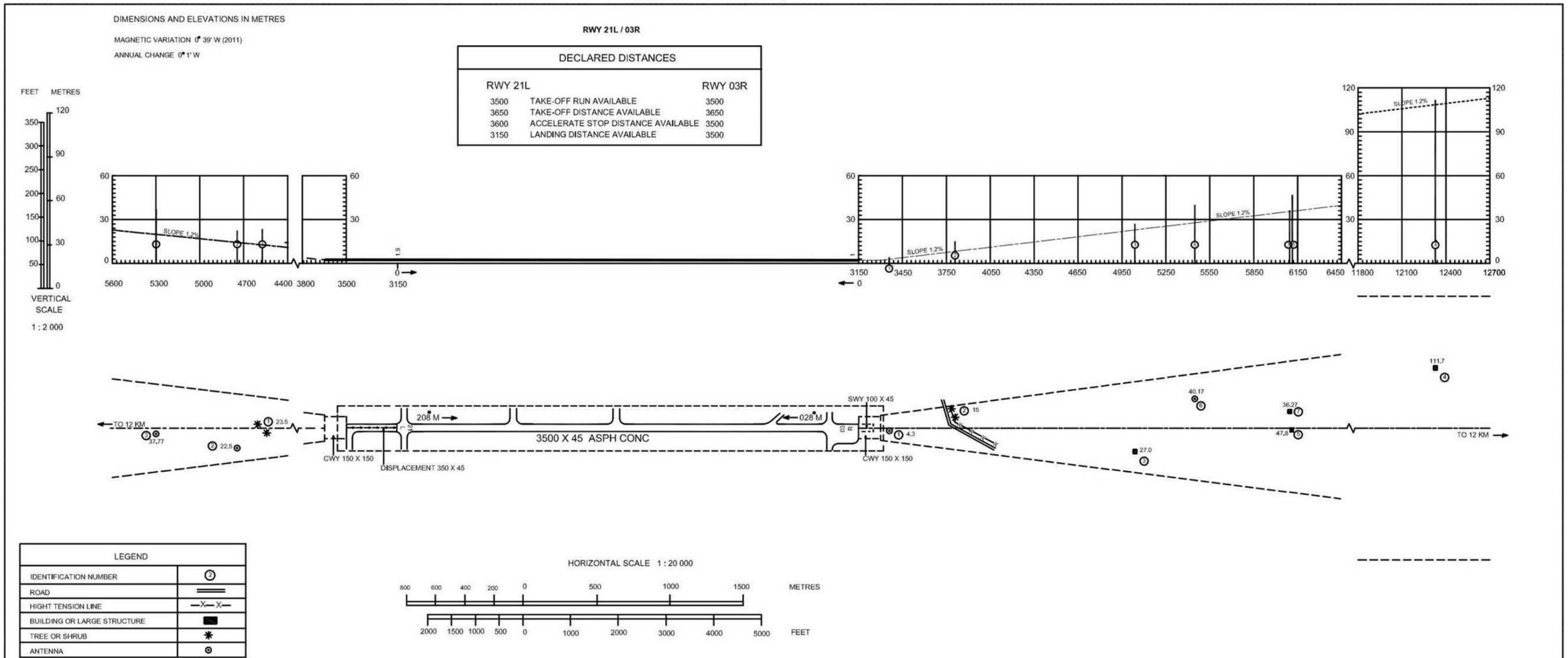
# AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

## Don Mueang International Airport




CHANGE : RWY ELEV

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## STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

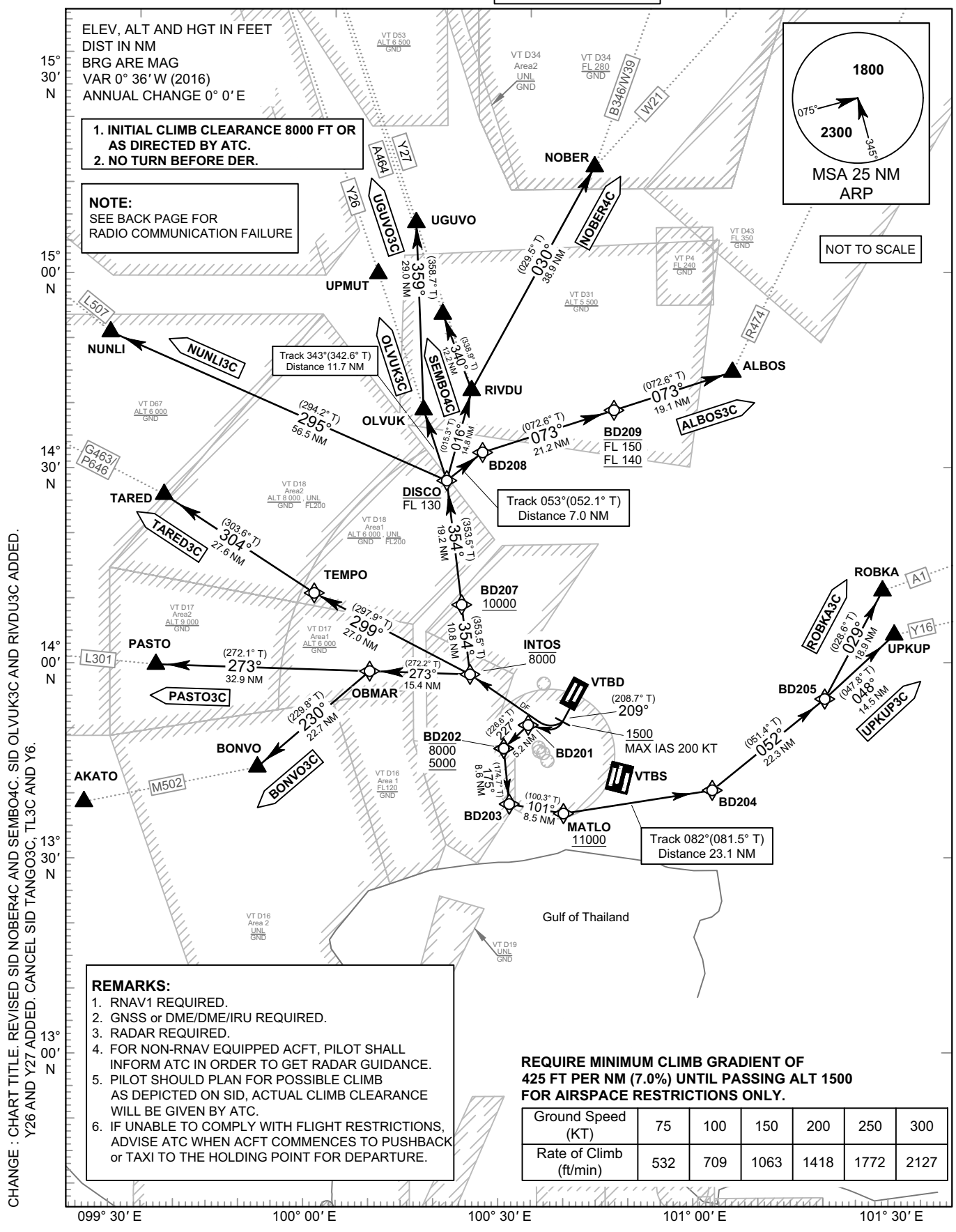
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| DEP ATIS | : 118.55 |

## BANGKOK/Don Mueang Intl (VTBD)
## RNAV RWY21L

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
ROBKA3C SEMBO4C TARED3C
UPKUP3C UGUVO3C




CHANGE : CHART TITLE. REVISED SID NOBER4C AND SEMBO4C. SID OLVUK3C AND RIVDU3C ADDED. Y26 AND Y27 ADDED. CANCEL SID TANGO3C, TL3C AND Y6.

**REMARKS:**
1. RNAV1 REQUIRED.
2. GNSS or DME/DME/IRU REQUIRED.
3. RADAR REQUIRED.
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE.
5. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK or TAXI TO THE HOLDING POINT FOR DEPARTURE.

**REQUIRE MINIMUM CLIMB GRADIENT OF 425 FT PER NM (7.0%) UNTIL PASSING ALT 1500 FOR AIRSPACE RESTRICTIONS ONLY.**

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb (ft/min) | 532 | 709 | 1063 | 1418 | 1772 | 2127 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
ROBKA3C SEMBO4C TARED3C
UPKUP3C UGUVO3C

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGE CLEARANCE **UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL** IN ACCORDANCE WITH THE PUBLISHED SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL |
| 3 | WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF **TWO MINUTES**, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE, THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF **TWO MINUTES**, THE PILOT SHALL PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES, REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
ROBKA3C SEMBO4C TARED3C
UPKUP3C UGUVO3C

CHANGE : CHART TITLE.

**TABULAR DESCRIPTION (1)**

| RNAV RWY21L | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ALBOS3C TO R474 | | | | | | | | | | | |
| 010 | - | DER RWR21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | BD208 | - | 053°(052.1°) | + 0.6 | 7.0 | - | - | - | - | RNAV 1 |
| 070 | TF | BD209 | - | 073°(072.6°) | + 0.6 | 21.2 | - | -FL150 ; +FL140 | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 073°(072.6°) | + 0.6 | 19.1 | - | - | - | - | RNAV 1 |
| BONVO3C TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 15.4 | - | - | - | - | RNAV 1 |
| 050 | TF | BONVO | - | 230°(229.8°) | + 0.6 | 22.7 | - | - | - | - | RNAV 1 |
| NOBER4C TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | RIVDU | - | 016°(015.3°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 070 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |
| NUNLI3C TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | NUNLI | - | 295°(294.2°) | + 0.6 | 56.5 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
ROBKA3C SEMBO4C TARED3C
UPKUP3C UGUVO3C

**TABULAR DESCRIPTION (2)**

**RNAV RWY21L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OLVUK3C TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | OLVUK | - | 343°(342.6°) | + 0.6 | 11.7 | - | - | - | - | RNAV 1 |
| PASTO3C TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 15.4 | - | - | - | - | RNAV 1 |
| 050 | TF | PASTO | - | 273°(272.1°) | + 0.6 | 32.9 | - | - | - | - | RNAV 1 |
| ROBKA3C TO A1 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | + 0.6 | - | R | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | + 0.6 | 5.2 | - | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | + 0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | + 0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BD204 | - | 082°(081.5°) | + 0.6 | 23.1 | - | - | - | - | RNAV 1 |
| 080 | TF | BD205 | - | 052°(051.4°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | ROBKA | - | 029°(028.6°) | + 0.6 | 18.9 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
ROBKA3C SEMBO4C TARED3C
UPKUP3C UGUVO3C

**TABULAR DESCRIPTION (3)**

**RNAV RWY21L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SEMBO4C TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | RIVDU | - | 016°(015.3°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 070 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| TARED3C TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | TEMPO | - | 299°(297.9°) | + 0.6 | 27.0 | - | - | - | - | RNAV 1 |
| 050 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |
| UPKUP3C TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | + 0.6 | - | R | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | + 0.6 | 5.2 | - | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | + 0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | + 0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BD204 | - | 082°(081.5°) | + 0.6 | 23.1 | - | - | - | - | RNAV 1 |
| 080 | TF | BD205 | - | 052°(051.4°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | UPKUP | - | 048°(047.8°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
ROBKA3C SEMBO4C TARED3C
UPKUP3C UGUVO3C

**TABULAR DESCRIPTION (4)**

**RNAV RWY21L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UGUVO3C TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | OLVUK | - | 343°(342.6°) | + 0.6 | 11.7 | - | - | - | - | RNAV 1 |
| 070 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE. SID UGUVO3C ADDED.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
ROBKA3C SEMBO4C TARED3C
UPKUP3C UGUVO3C

WAYPOINT LIST

| RNAV RWY21L | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY21L | 13° 53' 58.45" N 100° 36' 05.50" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| BD201 | 13° 50' 25.66" N 100° 28' 55.88" E |
| BD202 | 13° 46' 50.22" N 100° 25' 03.03" E |
| BD203 | 13° 38' 14.77" N 100° 25' 51.67" E |
| BD204 | 13° 40' 09.08" N 100° 57' 55.50" E |
| BD205 | 13° 54' 05.08" N 101° 15' 49.64" E |
| BD207 | 14° 09' 04.22" N 100° 18' 31.77" E |
| BD208 | 14° 32' 34.87" N 100° 21' 58.82" E |
| BD209 | 14° 38' 57.06" N 100° 42' 51.47" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E |
| DISCO | 14° 28' 15.59" N 100° 16' 17.24" E |
| INTOS | 13° 58' 18.55" N 100° 19' 47.12" E |
| MATLO | 13° 36' 43.58" N 100° 34' 25.09" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| ROBKA | 14° 10' 42.95" N 101° 25' 07.95" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| UPKUP | 14° 03' 52.65" N 101° 26' 54.84" E |
| UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |

CHANGE : CHART TITLE. UGUVO ADDED.

**INTENTIONALLY BLANK**

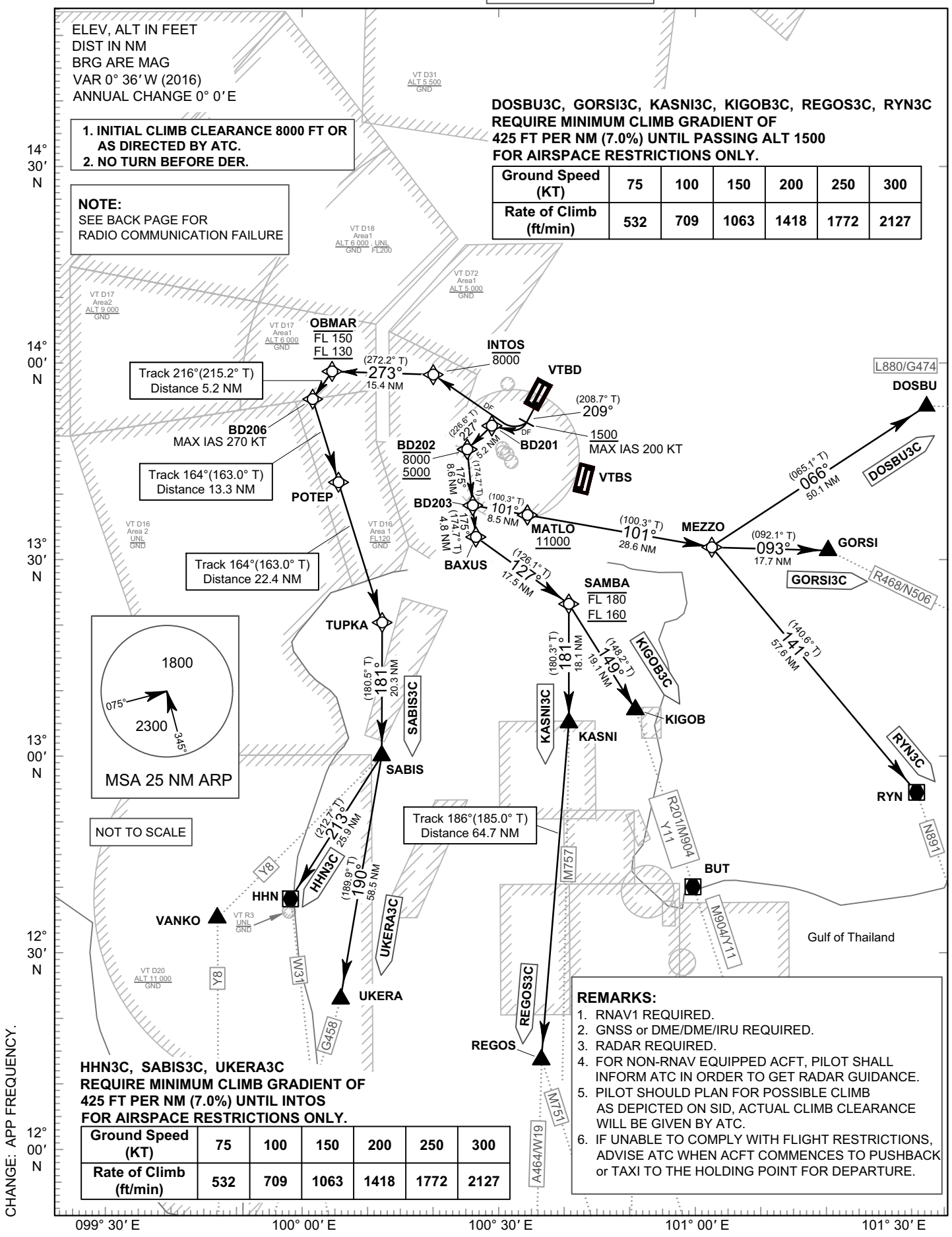
## STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

| TRANSITION ALTITUDE |
|---|
| 11000 FT |
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| DEP ATIS | : 118.55 |

## BANGKOK/Don Mueang Intl (VTBD)
## RNAV RWY21L

DOSBU3C GORSI3C HHN3C
KASNI3C KIGOB3C REGOS3C
RYN3C SABIS3C UKERA3C



**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

DOSBU3C GORSI3C HHN3C
KASNI3C KIGOB3C REGOS3C
RYN3C SABIS3C UKERA3C

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

WAYPOINT PRONUNCIATION

| Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation |
|---|---|---|---|
| DER RWY21L | - | KIGOB | KEE - GOB |
| BAXUS | BACKS - SUS | MATLO | MAT - LOH |
| BD201 | - | MEZZO | MES - SOH |
| BD202 | - | OBMAR | OB - MAR |
| BD203 | - | POTEP | POH - TEP |
| BD206 | - | REGOS | REE - GOSS |
| DOSBU | DOS - BU | RYN | RA - YONG |
| GORSI | GOR - SEE | SABIS | SAH - BISS |
| HHN | HUA - HIN | SAMBA | SAM - BAH |
| INTOS | IN - TOSS | TUPKA | TUP - KAH |
| KASNI | KAS - NEE | UKERA | U - KEY - RAH |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)**
**RNAV RWY21L**

DOSBU3C GORSI3C HHN3C
KASNI3C KIGOB3C REGOS3C
RYN3C SABIS3C UKERA3C

TABULAR DESCRIPTION (1)

| **RNAV RWY21L** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course °M (°T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| **DOSBU3C** TO L880/G474 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | L | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | +0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 101°(100.3°) | +0.6 | 28.6 | L | - | - | - | RNAV 1 |
| 080 | TF | DOSBU | - | 066°(065.1°) | +0.6 | 50.1 | - | - | - | - | RNAV 1 |
| **GORSI3C** TO R468/N506 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | L | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | +0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 101°(100.3°) | +0.6 | 28.6 | L | - | - | - | RNAV 1 |
| 080 | TF | GORSI | - | 093°(092.1°) | +0.6 | 17.7 | - | - | - | - | RNAV 1 |
| **HHN3C** TO W31 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | +0.6 | - | - | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | +0.6 | 15.4 | L | -FL150 ; +FL130 | - | - | RNAV 1 |
| 050 | TF | BD206 | - | 216°(215.2°) | +0.6 | 5.2 | L | - | -270 | - | RNAV 1 |
| 060 | TF | POTEP | - | 164°(163.0°) | +0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 070 | TF | TUPKA | - | 164°(163.0°) | +0.6 | 22.4 | R | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.5°) | +0.6 | 20.3 | R | - | - | - | RNAV 1 |
| 090 | TF | HHN | - | 213°(212.7°) | +0.6 | 25.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)**
**RNAV RWY21L**

DOSBU3C GORSI3C HHN3C
KASNI3C KIGOB3C REGOS3C
RYN3C SABIS3C UKERA3C

TABULAR DESCRIPTION (2)

**RNAV RWY21L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **KASNI3C** TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | BAXUS | - | 175°(174.7°) | +0.6 | 4.8 | L | - | - | - | RNAV 1 |
| 070 | TF | SAMBA | - | 127°(126.1°) | +0.6 | 17.5 | R | -FL180 ; +FL160 | - | - | RNAV 1 |
| 080 | TF | KASNI | - | 181°(180.3°) | +0.6 | 18.1 | - | - | - | - | RNAV 1 |
| **KIGOB3C** TO R201/M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | BAXUS | - | 175°(174.7°) | +0.6 | 4.8 | L | - | - | - | RNAV 1 |
| 070 | TF | SAMBA | - | 127°(126.1°) | +0.6 | 17.5 | R | -FL180 ; +FL160 | - | - | RNAV 1 |
| 080 | TF | KIGOB | - | 149°(148.2°) | +0.6 | 19.1 | - | - | - | - | RNAV 1 |
| **REGOS3C** TO A464/W19, M751 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | BAXUS | - | 175°(174.7°) | +0.6 | 4.8 | L | - | - | - | RNAV 1 |
| 070 | TF | SAMBA | - | 127°(126.1°) | +0.6 | 17.5 | R | -FL180 ; +FL160 | - | - | RNAV 1 |
| 080 | TF | KASNI | - | 181°(180.3°) | +0.6 | 18.1 | R | - | - | - | RNAV 1 |
| 090 | TF | REGOS | - | 186°(185.0°) | +0.6 | 64.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

DOSBU3C GORSI3C HHN3C
KASNI3C KIGOB3C REGOS3C
RYN3C SABIS3C UKERA3C

TABULAR DESCRIPTION (3)

**RNAV RWY21L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RYN3C** TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | L | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | +0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 101°(100.3°) | +0.6 | 28.6 | R | - | - | - | RNAV 1 |
| 080 | TF | RYN | - | 141°(140.6°) | +0.6 | 57.6 | - | - | - | - | RNAV 1 |
| **SABIS3C** TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | +0.6 | - | - | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | +0.6 | 15.4 | L | -FL150 ; +FL130 | - | - | RNAV 1 |
| 050 | TF | BD206 | - | 216°(215.2°) | +0.6 | 5.2 | L | - | -270 | - | RNAV 1 |
| 060 | TF | POTEP | - | 164°(163.0°) | +0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 070 | TF | TUPKA | - | 164°(163.0°) | +0.6 | 22.4 | R | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.5°) | +0.6 | 20.3 | - | - | - | - | RNAV 1 |
| **UKERA3C** TO G458 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | +0.6 | - | - | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | +0.6 | 15.4 | L | -FL150 ; +FL130 | - | - | RNAV 1 |
| 050 | TF | BD206 | - | 216°(215.2°) | +0.6 | 5.2 | L | - | -270 | - | RNAV 1 |
| 060 | TF | POTEP | - | 164°(163.0°) | +0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 070 | TF | TUPKA | - | 164°(163.0°) | +0.6 | 22.4 | R | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.5°) | +0.6 | 20.3 | R | - | - | - | RNAV 1 |
| 090 | TF | UKERA | - | 190°(189.9°) | +0.6 | 58.5 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

DOSBU3C GORSI3C HHN3C
KASNI3C KIGOB3C REGOS3C
RYN3C SABIS3C UKERA3C

## WAYPOINT LIST

| RNAV RWY21L | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY21L | 13° 53' 58.45" N 100° 36' 05.50" E |
| BAXUS | 13° 33' 24.28" N 100° 26' 19.08" E |
| BD201 | 13° 50' 25.66" N 100° 28' 55.88" E |
| BD202 | 13° 46' 50.22" N 100° 25' 03.03" E |
| BD203 | 13° 38' 14.77" N 100° 25' 51.67" E |
| BD206 | 13° 54' 39.59" N 100° 00' 50.96" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GORSI | 13° 30' 54.64" N 101° 21' 28.05" E |
| HHN | 12° 38' 04.04" N 099° 57' 04.23" E |
| INTOS | 13° 58' 18.55" N 100° 19' 47.12" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| KIGOB | 13° 06' 46.46" N 100° 51' 06.33" E |
| MATLO | 13° 36' 43.58" N 100° 34' 25.09" E |
| MEZZO | 13° 31' 33.78" N 101° 03' 16.41" E |
| OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| POTEP | 13° 41' 54.24" N 100° 04' 50.87" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| SAMBA | 13° 23' 02.66" N 100° 40' 48.12" E |
| TUPKA | 13° 20' 22.25" N 100° 11' 34.96" E |
| UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |

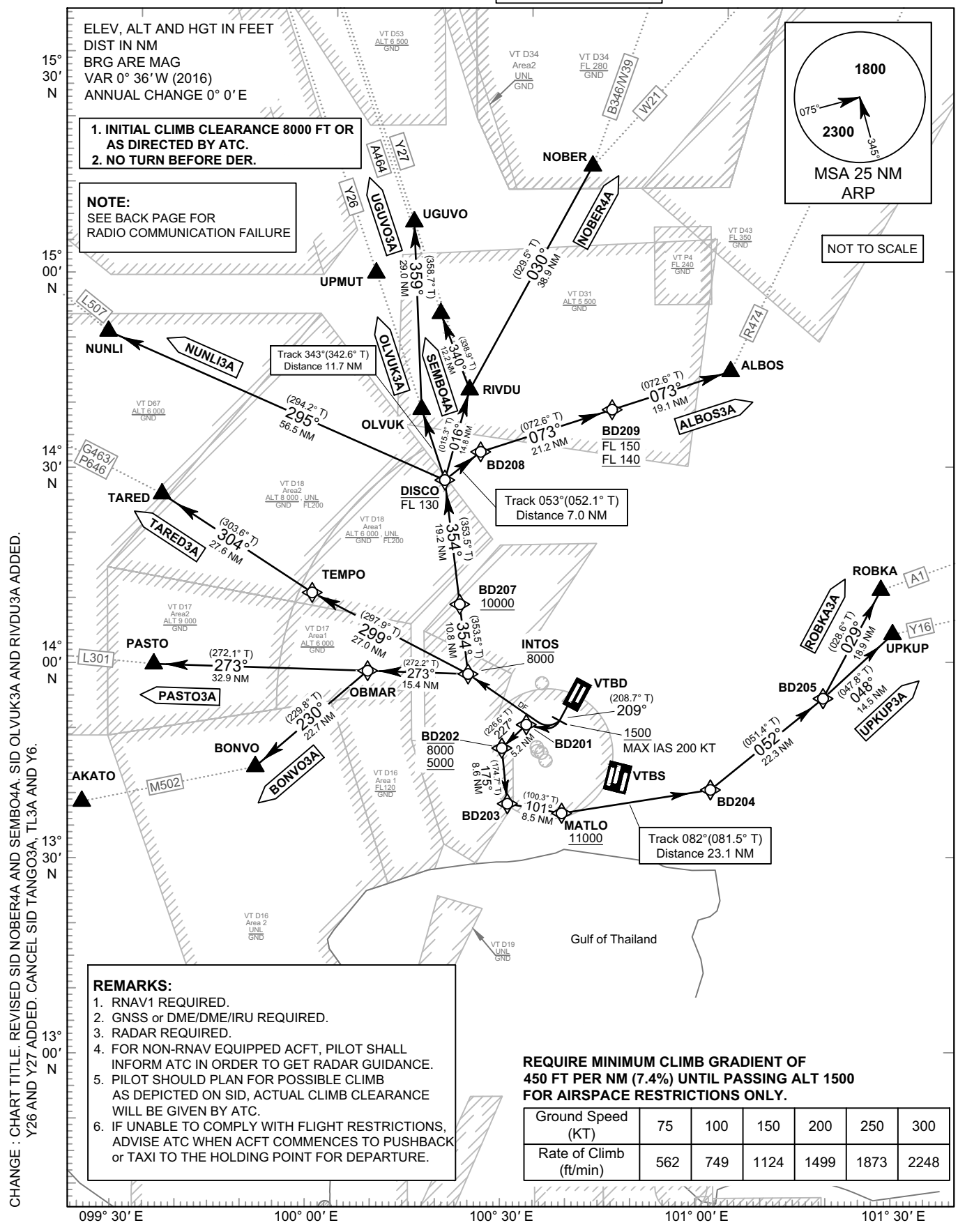
## STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

| TRANSITION ALTITUDE 11000 FT |
|---|
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| DEP ATIS | : 118.55 |

## BANGKOK/Don Mueang Intl (VTBD)
## RNAV RWY21R

ALBOS3A BONVO3A NOBER4A
NUNLI3A OLVUK3A PASTO3A
ROBKA3A SEMBO4A TARED3A
UPKUP3A UGUVO3A




**REMARKS:**

1. RNAV1 REQUIRED.
2. GNSS or DME/DME/IRU REQUIRED.
3. RADAR REQUIRED.
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE.
5. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK or TAXI TO THE HOLDING POINT FOR DEPARTURE.

**REQUIRE MINIMUM CLIMB GRADIENT OF 450 FT PER NM (7.4%) UNTIL PASSING ALT 1500 FOR AIRSPACE RESTRICTIONS ONLY.**

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb (ft/min) | 562 | 749 | 1124 | 1499 | 1873 | 2248 |

CHANGE : CHART TITLE. REVISED SID NOBER4A AND SEMBO4A. SID OLVUK3A AND RIVDU3A ADDED.
Y26 AND Y27 ADDED. CANCEL SID TANGO3A, TL3A AND Y6.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

ALBOS3A BONVO3A NOBER4A
NUNLI3A OLVUK3A PASTO3A
ROBKA3A SEMBO4A TARED3A
UPKUP3A UGUVO3A

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGE CLEARANCE **UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL** IN ACCORDANCE WITH THE PUBLISHED SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL |
| 3 | WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF **TWO MINUTES**, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE, THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF **TWO MINUTES**, THE PILOT SHALL PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES, REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

ALBOS3A BONVO3A NOBER4A
NUNLI3A OLVUK3A PASTO3A
ROBKA3A SEMBO4A TARED3A
UPKUP3A UGUVO3A

CHANGE : CHART TITLE.

**TABULAR DESCRIPTION (1)**

**RNAV RWY21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS3A TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | BD208 | - | 053°(052.1°) | + 0.6 | 7.0 | - | - | - | - | RNAV 1 |
| 070 | TF | BD209 | - | 073°(072.6°) | + 0.6 | 21.2 | - | -FL150 ; +FL140 | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 073°(072.6°) | + 0.6 | 19.1 | - | - | - | - | RNAV 1 |
| BONVO3A TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 15.4 | - | - | - | - | RNAV 1 |
| 050 | TF | BONVO | - | 230°(229.8°) | + 0.6 | 22.7 | - | - | - | - | RNAV 1 |
| NOBER4A TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | RIVDU | - | 016°(015.3°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 070 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |
| NUNLI3A TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | NUNLI | - | 295°(294.2°) | + 0.6 | 56.5 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

ALBOS3A BONVO3A NOBER4A
NUNLI3A OLVUK3A PASTO3A
ROBKA3A SEMBO4A TARED3A
UPKUP3A UGUVO3A

**TABULAR DESCRIPTION (2)**

**RNAV RWY21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OLVUK3A TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL1300 | - | - | RNAV 1 |
| 060 | TF | OLVUK | - | 343°(342.6°) | + 0.6 | 11.7 | - | - | - | - | RNAV 1 |
| PASTO3A TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 15.4 | - | - | - | - | RNAV 1 |
| 050 | TF | PASTO | - | 273°(272.1°) | + 0.6 | 32.9 | - | - | - | - | RNAV 1 |
| ROBKA3A TO A1 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | + 0.6 | - | R | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | + 0.6 | 5.2 | - | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | + 0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | + 0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BD204 | - | 082°(081.5°) | + 0.6 | 23.1 | - | - | - | - | RNAV 1 |
| 080 | TF | BD205 | - | 052°(051.4°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | ROBKA | - | 029°(028.6°) | + 0.6 | 18.9 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

ALBOS3A BONVO3A NOBER4A
NUNLI3A OLVUK3A PASTO3A
ROBKA3A SEMBO4A TARED3A
UPKUP3A UGUVO3A

CHANGE : CHART TITLE.

**TABULAR DESCRIPTION (3)**

**RNAV RWY21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SEMBO4A TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | RIVDU | - | 016°(015.3°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 070 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| TARED3A TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | TEMPO | - | 299°(297.9°) | + 0.6 | 27.0 | - | - | - | - | RNAV 1 |
| 050 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |
| UPKUP3A TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | + 0.6 | - | R | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | + 0.6 | 5.2 | - | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | + 0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | + 0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BD204 | - | 082°(081.5°) | + 0.6 | 23.1 | - | - | - | - | RNAV 1 |
| 080 | TF | BD205 | - | 052°(051.4°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | UPKUP | - | 048°(047.8°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

ALBOS3A BONVO3A NOBER4A
NUNLI3A OLVUK3A PASTO3A
ROBKA3A SEMBO4A TARED3A
UPKUP3A UGUVO3A

**TABULAR DESCRIPTION (4)**

| RNAV RWY21R | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| UGUVO3A TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | + 0.6 | - | - | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | + 0.6 | - | R | -8000 | - | - | RNAV 1 |
| 040 | TF | BD207 | - | 354°(353.5°) | + 0.6 | 10.8 | - | +10000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 354°(353.5°) | + 0.6 | 19.2 | - | -FL1300 | - | - | RNAV 1 |
| 060 | TF | OLVUK | - | 343°(342.6°) | + 0.6 | 11.7 | - | - | - | - | RNAV 1 |
| 070 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE. SID UGUVO3A ADDED.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

ALBOS3A BONVO3A NOBER4A
NUNLI3A OLVUK3A PASTO3A
ROBKA3A SEMBO4A TARED3A
UPKUP3A UGUVO3A

WAYPOINT LIST

| RNAV RWY21R | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY21R | 13° 53' 49.24" N 100° 35' 45.38" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| BD201 | 13° 50' 25.66" N 100° 28' 55.88" E |
| BD202 | 13° 46' 50.22" N 100° 25' 03.03" E |
| BD203 | 13° 38' 14.77" N 100° 25' 51.67" E |
| BD204 | 13° 40' 09.08" N 100° 57' 55.50" E |
| BD205 | 13° 54' 05.08" N 101° 15' 49.64" E |
| BD207 | 14° 09' 04.22" N 100° 18' 31.77" E |
| BD208 | 14° 32' 34.87" N 100° 21' 58.82" E |
| BD209 | 14° 38' 57.06" N 100° 42' 51.47" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E |
| DISCO | 14° 28' 15.59" N 100° 16' 17.24" E |
| INTOS | 13° 58' 18.55" N 100° 19' 47.12" E |
| MATLO | 13° 36' 43.58" N 100° 34' 25.09" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| ROBKA | 14° 10' 42.95" N 101° 25' 07.95" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| UPKUP | 14° 03' 52.65" N 101° 26' 54.84" E |
| UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |

CHANGE : CHART TITLE. UGUVO ADDED.

**INTENTIONALLY BLANK**

## STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

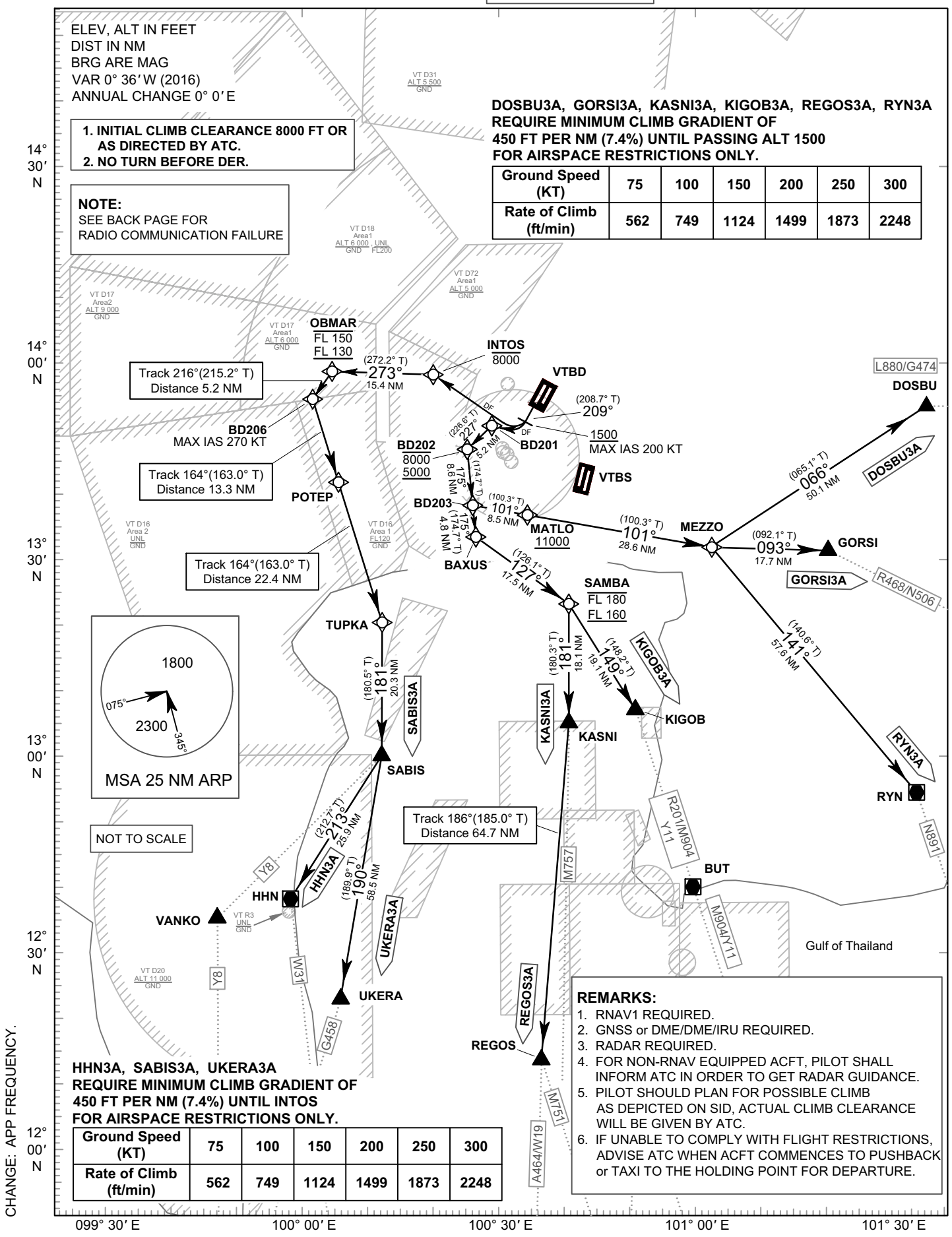
| TRANSITION ALTITUDE |
|---|
| 11000 FT |

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| DEP ATIS | : 118.55 |

## BANGKOK/Don Mueang Intl (VTBD)
## RNAV RWY21R

DOSBU3A GORSI3A HHN3A
KASNI3A KIGOB3A REGOS3A
RYN3A SABIS3A UKERA3A



**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

DOSBU3A GORSI3A HHN3A
KASNI3A KIGOB3A REGOS3A
RYN3A SABIS3A UKERA3A

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

WAYPOINT PRONUNCIATION

| Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation |
|---|---|---|---|
| DER RWY21R | - | KIGOB | KEE - GOB |
| BAXUS | BACKS - SUS | MATLO | MAT - LOH |
| BD201 | - | MEZZO | MES - SOH |
| BD202 | - | OBMAR | OB - MAR |
| BD203 | - | POTEP | POH - TEP |
| BD206 | - | REGOS | REE - GOSS |
| DOSBU | DOS - BU | RYN | RA - YONG |
| GORSI | GOR - SEE | SABIS | SAH - BISS |
| HHN | HUA - HIN | SAMBA | SAM - BAH |
| INTOS | IN - TOSS | TUPKA | TUP - KAH |
| KASNI | KAS - NEE | UKERA | U - KEY - RAH |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)**
**RNAV RWY21R**

DOSBU3A GORSI3A HHN3A
KASNI3A KIGOB3A REGOS3A
RYN3A SABIS3A UKERA3A

TABULAR DESCRIPTION (1)

| **RNAV RWY21R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course °M (°T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| **DOSBU3A** TO L880/G474 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | L | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | +0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 101°(100.3°) | +0.6 | 28.6 | L | - | - | - | RNAV 1 |
| 080 | TF | DOSBU | - | 066°(065.1°) | +0.6 | 50.1 | - | - | - | - | RNAV 1 |
| **GORSI3A** TO R468/N506 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | L | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | +0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 101°(100.3°) | +0.6 | 28.6 | L | - | - | - | RNAV 1 |
| 080 | TF | GORSI | - | 093°(092.1°) | +0.6 | 17.7 | - | - | - | - | RNAV 1 |
| **HHN3A** TO W31 | | | | | | | | | | | |
| 010 | - | DER RWY21L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | +0.6 | - | - | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | +0.6 | 15.4 | L | -FL150 ; +FL130 | - | - | RNAV 1 |
| 050 | TF | BD206 | - | 216°(215.2°) | +0.6 | 5.2 | L | - | -270 | - | RNAV 1 |
| 060 | TF | POTEP | - | 164°(163.0°) | +0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 070 | TF | TUPKA | - | 164°(163.0°) | +0.6 | 22.4 | R | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.5°) | +0.6 | 20.3 | R | - | - | - | RNAV 1 |
| 090 | TF | HHN | - | 213°(212.7°) | +0.6 | 25.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

DOSBU3A GORSI3A HHN3A
KASNI3A KIGOB3A REGOS3A
RYN3A SABIS3A UKERA3A

TABULAR DESCRIPTION (2)

**RNAV RWY21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **KASNI3A** TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | BAXUS | - | 175°(174.7°) | +0.6 | 4.8 | L | - | - | - | RNAV 1 |
| 070 | TF | SAMBA | - | 127°(126.1°) | +0.6 | 17.5 | R | -FL180 ; +FL160 | - | - | RNAV 1 |
| 080 | TF | KASNI | - | 181°(180.3°) | +0.6 | 18.1 | - | - | - | - | RNAV 1 |
| **KIGOB3A** TO R201/M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | BAXUS | - | 175°(174.7°) | +0.6 | 4.8 | L | - | - | - | RNAV 1 |
| 070 | TF | SAMBA | - | 127°(126.1°) | +0.6 | 17.5 | R | -FL180 ; +FL160 | - | - | RNAV 1 |
| 080 | TF | KIGOB | - | 149°(148.2°) | +0.6 | 19.1 | - | - | - | - | RNAV 1 |
| **REGOS3A** TO A464/W19, M751 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | - | - | - | - | RNAV 1 |
| 060 | TF | BAXUS | - | 175°(174.7°) | +0.6 | 4.8 | L | - | - | - | RNAV 1 |
| 070 | TF | SAMBA | - | 127°(126.1°) | +0.6 | 17.5 | R | -FL180 ; +FL160 | - | - | RNAV 1 |
| 080 | TF | KASNI | - | 181°(180.3°) | +0.6 | 18.1 | R | - | - | - | RNAV 1 |
| 090 | TF | REGOS | - | 186°(185.0°) | +0.6 | 64.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

DOSBU3A GORSI3A HHN3A
KASNI3A KIGOB3A REGOS3A
RYN3A SABIS3A UKERA3A

TABULAR DESCRIPTION (3)

**RNAV RWY21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RYN3A** TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | BD201 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 040 | TF | BD202 | - | 227°(226.6°) | +0.6 | 5.2 | L | -8000 ; +5000 | - | - | RNAV 1 |
| 050 | TF | BD203 | - | 175°(174.7°) | +0.6 | 8.6 | L | - | - | - | RNAV 1 |
| 060 | TF | MATLO | - | 101°(100.3°) | +0.6 | 8.5 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 101°(100.3°) | +0.6 | 28.6 | R | - | - | - | RNAV 1 |
| 080 | TF | RYN | - | 141°(140.6°) | +0.6 | 57.6 | - | - | - | - | RNAV 1 |
| **SABIS3A** TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | +0.6 | - | - | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | +0.6 | 15.4 | L | -FL150 ; +FL130 | - | - | RNAV 1 |
| 050 | TF | BD206 | - | 216°(215.2°) | +0.6 | 5.2 | L | - | -270 | - | RNAV 1 |
| 060 | TF | POTEP | - | 164°(163.0°) | +0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 070 | TF | TUPKA | - | 164°(163.0°) | +0.6 | 22.4 | R | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.5°) | +0.6 | 20.3 | - | - | - | - | RNAV 1 |
| **UKERA3A** TO G458 | | | | | | | | | | | |
| 010 | - | DER RWY21R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 209°(208.7°) | +0.6 | - | R | +1500 | -200 | - | RNAV 1 |
| 030 | DF | INTOS | - | - | +0.6 | - | - | -8000 | - | - | RNAV 1 |
| 040 | TF | OBMAR | - | 273°(272.2°) | +0.6 | 15.4 | L | -FL150 ; +FL130 | - | - | RNAV 1 |
| 050 | TF | BD206 | - | 216°(215.2°) | +0.6 | 5.2 | L | - | -270 | - | RNAV 1 |
| 060 | TF | POTEP | - | 164°(163.0°) | +0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 070 | TF | TUPKA | - | 164°(163.0°) | +0.6 | 22.4 | R | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.5°) | +0.6 | 20.3 | R | - | - | - | RNAV 1 |
| 090 | TF | UKERA | - | 190°(189.9°) | +0.6 | 58.5 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

DOSBU3A GORSI3A HHN3A
KASNI3A KIGOB3A REGOS3A
RYN3A SABIS3A UKERA3A

## WAYPOINT LIST

| RNAV RWY21R | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY21R | 13° 53' 49.24" N 100° 35' 45.38" E |
| BAXUS | 13° 33' 24.28" N 100° 26' 19.08" E |
| BD201 | 13° 50' 25.66" N 100° 28' 55.88" E |
| BD202 | 13° 46' 50.22" N 100° 25' 03.03" E |
| BD203 | 13° 38' 14.77" N 100° 25' 51.67" E |
| BD206 | 13° 54' 39.59" N 100° 00' 50.96" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GORSI | 13° 30' 54.64" N 101° 21' 28.05" E |
| HHN | 12° 38' 04.04" N 099° 57' 04.23" E |
| INTOS | 13° 58' 18.55" N 100° 19' 47.12" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| KIGOB | 13° 06' 46.46" N 100° 51' 06.33" E |
| MATLO | 13° 36' 43.58" N 100° 34' 25.09" E |
| MEZZO | 13° 31' 33.78" N 101° 03' 16.41" E |
| OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| POTEP | 13° 41' 54.24" N 100° 04' 50.87" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| SAMBA | 13° 23' 02.66" N 100° 40' 48.12" E |
| TUPKA | 13° 20' 22.25" N 100° 11' 34.96" E |
| UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |

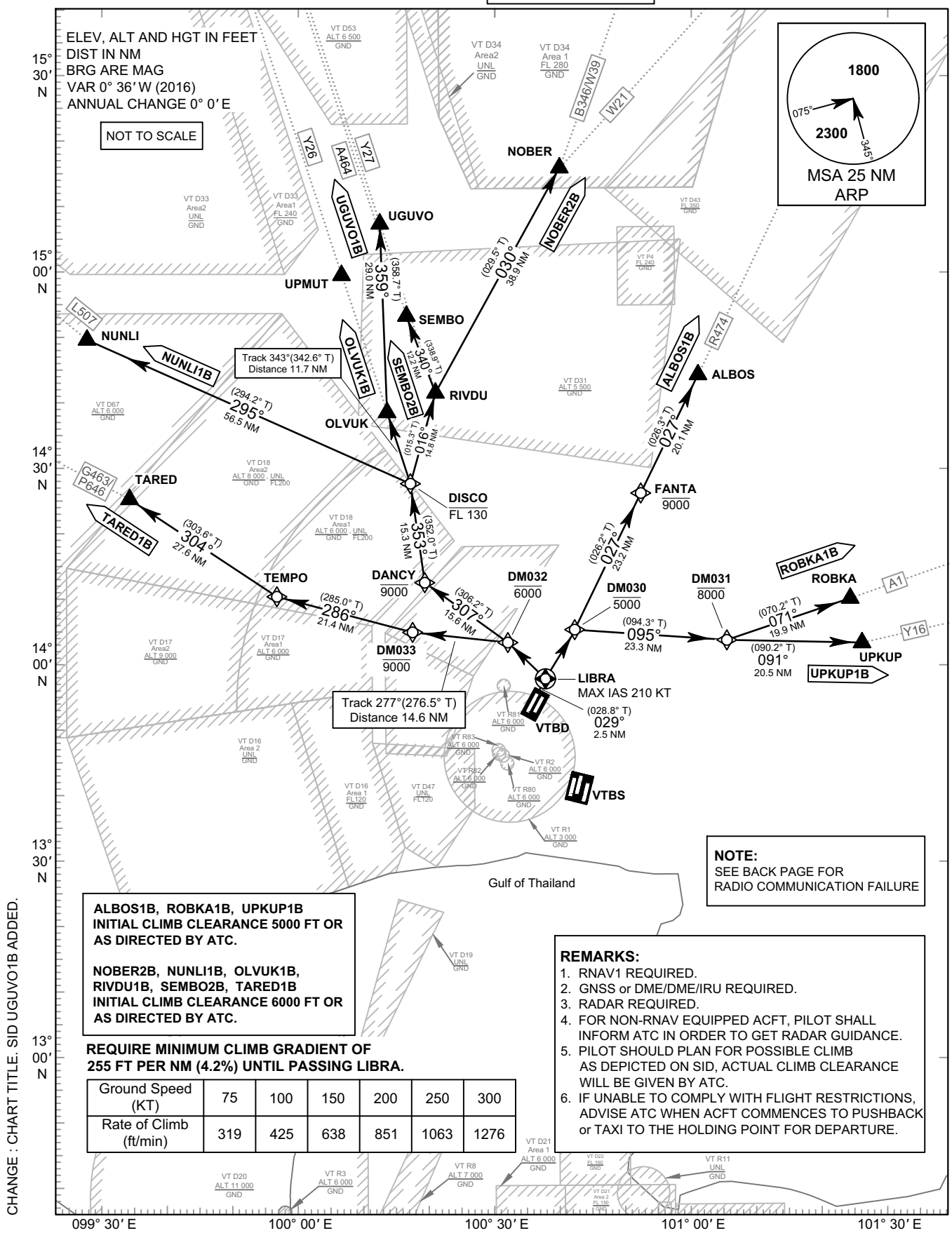
**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

| TRANSITION ALTITUDE 11000 FT |
|---|
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| DEP ATIS | : 118.55 |

**BANGKOK/Don Mueang Intl (VTBD)**
**RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B ROBKA1B SEMBO2B
TARED1B UPKUP1B UGUVO1B




| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb (ft/min) | 319 | 425 | 638 | 851 | 1063 | 1276 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B ROBKA1B SEMBO2B
TARED1B UPKUP1B UGUVO1B

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGE CLEARANCE **UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL** IN ACCORDANCE WITH THE PUBLISHED SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL |
| 3 | WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF **TWO MINUTES**, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE, THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF **TWO MINUTES**, THE PILOT SHALL PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES, REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B ROBKA1B SEMBO2B
TARED1B UPKUP1B UGUVO1B

**TABULAR DESCRIPTION (1)**

**RNAV RWY03L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1B TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM030 | - | - | + 0.6 | - | R | -5000 | - | - | RNAV 1 |
| 040 | TF | FANTA | - | 027°(026.2°) | + 0.6 | 23.2 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | ALBOS | - | 027°(026.3°) | + 0.6 | 20.1 | - | - | - | - | RNAV 1 |
| NOBER2B TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | RIVDU | - | 016°(015.3°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 070 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |
| NUNLI1B TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | NUNLI | - | 295°(294.2°) | + 0.6 | 56.5 | - | - | - | - | RNAV 1 |
| OLVUK1B TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | OLVUK | - | 343°(342.6°) | + 0.6 | 11.7 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B ROBKA1B SEMBO2B
TARED1B UPKUP1B UGUVO1B

**TABULAR DESCRIPTION (2)**

**RNAV RWY03L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ROBKA1B TO A1 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM030 | - | - | + 0.6 | - | R | -5000 | - | - | RNAV 1 |
| 040 | TF | DM031 | - | 095°(094.3°) | + 0.6 | 23.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | ROBKA | - | 071°(070.2°) | + 0.6 | 19.9 | - | - | - | - | RNAV 1 |
| SEMBO2B TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | RIVDU | - | 016°(015.3°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 070 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| TARED1B TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DM033 | - | 277°(276.5°) | + 0.6 | 14.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | TEMPO | - | 286°(285.0°) | + 0.6 | 21.4 | - | - | - | - | RNAV 1 |
| 060 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |
| UPKUP1B TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM030 | - | - | + 0.6 | - | R | -5000 | - | - | RNAV 1 |
| 040 | TF | DM031 | - | 095°(094.3°) | + 0.6 | 23.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | UPKUP | - | 091°(090.2°) | + 0.6 | 20.5 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B ROBKA1B SEMBO2B
TARED1B UPKUP1B UGUVO1B

**TABULAR DESCRIPTION (3)**

| RNAV RWY03L | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| UGUVO1B TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | OLVUK | - | 343°(342.6°) | + 0.6 | 11.7 | - | - | - | - | RNAV 1 |
| 070 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE. SID UGUVO1B ADDED.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B ROBKA1B SEMBO2B
TARED1B UPKUP1B UGUVO1B

WAYPOINT LIST

| RNAV RWY03L | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY03L | 13° 55' 34.87" N 100° 36' 44.62" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| DANCY | 14° 13' 03.50" N 100° 18' 28.40" E |
| DISCO | 14° 28' 15.59" N 100° 16' 17.24" E |
| DM030 | 14° 05' 42.64" N 100° 41' 58.72" E |
| DM031 | 14° 03' 57.44" N 101° 05' 51.80" E |
| DM032 | 14° 03' 48.15" N 100° 31' 27.81" E |
| DM033 | 14° 05' 26.89" N 100° 16' 30.52" E |
| FANTA | 14° 26' 35.97" N 100° 52' 31.60" E |
| LIBRA | 13° 57' 49.35" N 100° 38' 00.38" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| ROBKA | 14° 10' 42.95" N 101° 25' 07.95" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| UPKUP | 14° 03' 52.65" N 101° 26' 54.84" E |
| UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |

CHANGE : CHART TITLE. UGUVO ADDED.

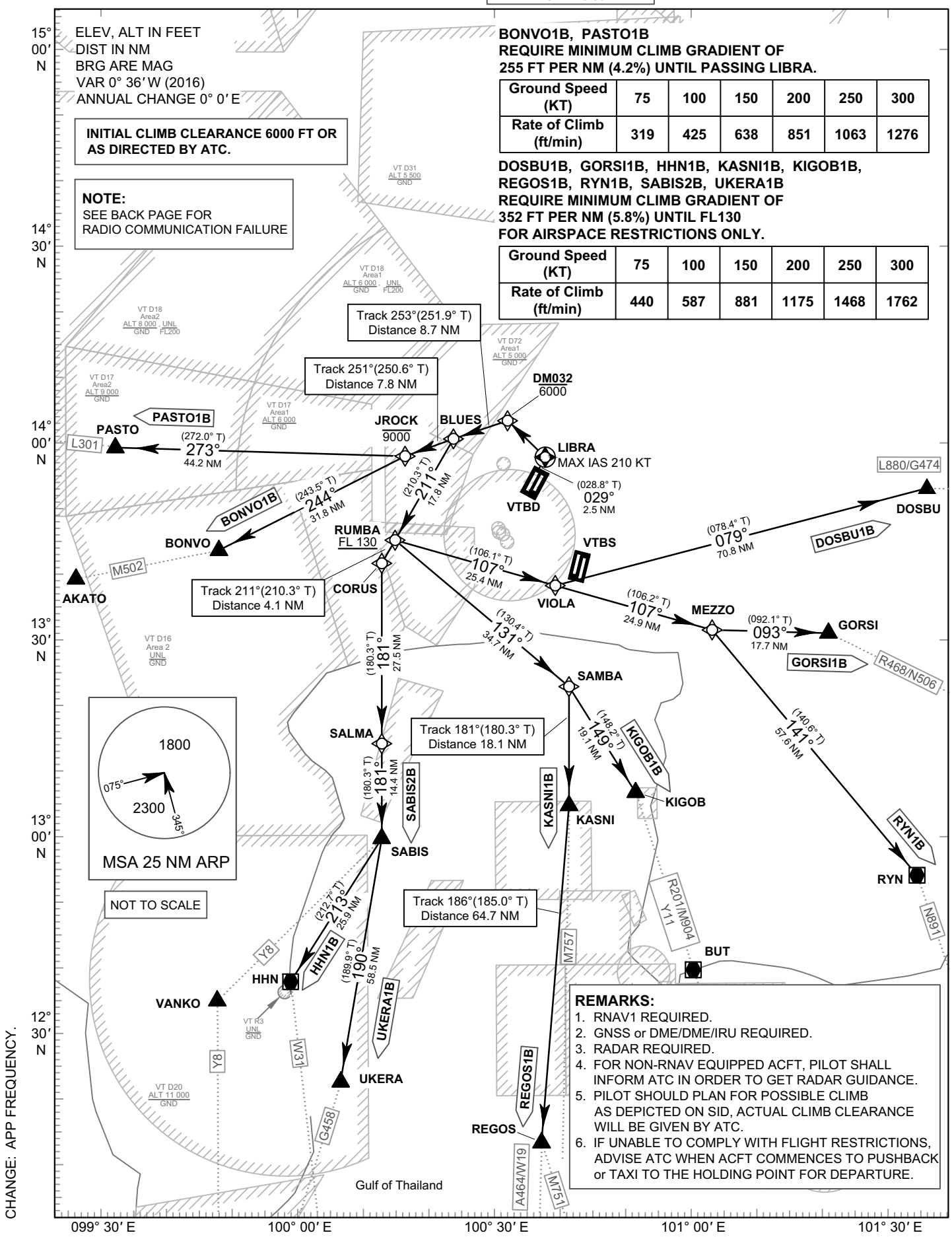
## STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

| TRANSITION ALTITUDE 11000 FT |
|---|
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| DEP ATIS | : 118.55 |

## BANGKOK/Don Mueang Intl (VTBD) RNAV RWY03L

BONVO1B DOSBU1B GORSI1B
HHN1B KASNI1B KIGOB1B
PASTO1B REGOS1B
RYN1B SABIS2B UKERA1B



**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

BONVO1B DOSBU1B GORSI1B
HHN1B KASNI1B KIGOB1B
PASTO1B REGOS1B
RYN1B SABIS2B UKERA1B

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

WAYPOINT PRONUNCIATION

| Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation |
|---|---|---|---|
| DER RWY03L | - | LIBRA | LAI - BRAH |
| BLUES | BLUES | MEZZO | MES - SOH |
| BONVO | BONG - VOH | PASTO | PAS - TOW |
| CORUS | KOR - RUSS | REGOS | REE - GOSS |
| DM032 | - | RUMBA | ROOM - BAH |
| DOSBU | DOS - BU | RYN | RA - YONG |
| GORSI | GOR - SEE | SABIS | SAH - BISS |
| HHN | HUA - HIN | SALMA | SAL - MAH |
| JROCK | JAY - ROCK | SAMBA | SAM - BAH |
| KASNI | KAS - NEE | UKERA | U - KEY - RAH |
| KIGOB | KEE - GOB | VIOLA | VEE - OH - LAH |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)**
**RNAV RWY03L**

BONVO1B DOSBU1B GORSI1B
HHN1B KASNI1B KIGOB1B
PASTO1B REGOS1B
RYN1B SABIS2B UKERA1B

TABULAR DESCRIPTION (1)

| **RNAV RWY03L** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course °M (°T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| **BONVO1B** TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | JROCK | - | 251°(250.6°) | +0.6 | 7.8 | L | -9000 | - | - | RNAV 1 |
| 060 | TF | BONVO | - | 244°(243.5°) | +0.6 | 31.8 | - | - | - | - | RNAV 1 |
| **DOSBU1B** TO L880/G474 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | VIOLA | - | 107°(106.1°) | +0.6 | 25.4 | L | - | - | - | RNAV 1 |
| 070 | TF | DOSBU | - | 079°(078.4°) | +0.6 | 70.8 | - | - | - | - | RNAV 1 |
| **GORSI1B** TO R468/N506 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | VIOLA | - | 107°(106.1°) | +0.6 | 25.4 | - | - | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 107°(106.2°) | +0.6 | 24.9 | L | - | - | - | RNAV 1 |
| 080 | TF | GORSI | - | 093°(092.1°) | +0.6 | 17.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

BONVO1B DOSBU1B GORSI1B
HHN1B KASNI1B KIGOB1B
PASTO1B REGOS1B
RYN1B SABIS2B UKERA1B

TABULAR DESCRIPTION (2)

**RNAV RWY03L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HHN1B** | TO W31 | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | - | +FL130 | - | - | RNAV 1 |
| 060 | TF | CORUS | - | 211°(210.3°) | +0.6 | 4.1 | L | - | - | - | RNAV 1 |
| 070 | TF | SALMA | - | 181°(180.3°) | +0.6 | 27.5 | - | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.3°) | +0.6 | 14.4 | R | - | - | - | RNAV 1 |
| 090 | TF | HHN | - | 213°(212.7°) | +0.6 | 25.9 | - | - | - | - | RNAV 1 |
| **KASNI1B** | TO M757 | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | SAMBA | - | 131°(130.4°) | +0.6 | 34.7 | R | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 181°(180.3°) | +0.6 | 18.1 | - | - | - | - | RNAV 1 |
| **KIGOB1B** | TO R201/M904/Y11 | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | SAMBA | - | 131°(130.4°) | +0.6 | 34.7 | R | - | - | - | RNAV 1 |
| 070 | TF | KIGOB | - | 149°(148.2°) | +0.6 | 19.1 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

BONVO1B DOSBU1B GORSI1B
HHN1B KASNI1B KIGOB1B
PASTO1B REGOS1B
RYN1B SABIS2B UKERA1B

TABULAR DESCRIPTION (3)

**RNAV RWY03L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PASTO1B** TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | JROCK | - | 251°(250.6°) | +0.6 | 7.8 | R | -9000 | - | - | RNAV 1 |
| 060 | TF | PASTO | - | 273°(272.0°) | +0.6 | 44.2 | - | - | - | - | RNAV 1 |
| **REGOS1B** TO A464/W19, M751 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | SAMBA | - | 131°(130.4°) | +0.6 | 34.7 | R | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 181°(180.3°) | +0.6 | 18.1 | R | - | - | - | RNAV 1 |
| 080 | TF | REGOS | - | 186°(185.0°) | +0.6 | 64.7 | - | - | - | - | RNAV 1 |
| **RYN1B** TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | VIOLA | - | 107°(106.1°) | +0.6 | 25.4 | - | - | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 107°(106.2°) | +0.6 | 24.9 | R | - | - | - | RNAV 1 |
| 080 | TF | RYN | - | 141°(140.6°) | +0.6 | 57.6 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

BONVO1B DOSBU1B GORSI1B
HHN1B KASNI1B KIGOB1B
PASTO1B REGOS1B
RYN1B SABIS2B UKERA1B

TABULAR DESCRIPTION (4)

**RNAV RWY03L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SABIS2B** TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | - | +FL130 | - | - | RNAV 1 |
| 060 | TF | CORUS | - | 211°(210.3°) | +0.6 | 4.1 | L | - | - | - | RNAV 1 |
| 070 | TF | SALMA | - | 181°(180.3°) | +0.6 | 27.5 | - | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.3°) | +0.6 | 14.4 | - | - | - | - | RNAV 1 |
| **UKERA1B** TO G458 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | LIBRA | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | - | +FL130 | - | - | RNAV 1 |
| 060 | TF | CORUS | - | 211°(210.3°) | +0.6 | 4.1 | L | - | - | - | RNAV 1 |
| 070 | TF | SALMA | - | 181°(180.3°) | +0.6 | 27.5 | - | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.3°) | +0.6 | 14.4 | R | - | - | - | RNAV 1 |
| 090 | TF | UKERA | - | 190°(189.9°) | +0.6 | 58.5 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

BONVO1B DOSBU1B GORSI1B
HHN1B KASNI1B KIGOB1B
PASTO1B REGOS1B
RYN1B SABIS2B UKERA1B

## WAYPOINT LIST

| RNAV RWY03L | |
|---|---|
| | |
| Waypoint Identifier | Coordinates |
| DER RWY03L | 13° 55' 34.87" N 100° 36' 44.62" E |
| BLUES | 14° 01' 05.07" N 100° 22' 57.50" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E |
| CORUS | 13° 42' 05.43" N 100° 11' 36.93" E |
| DM032 | 14° 03' 48.15" N 100° 31' 27.81" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GORSI | 13° 30' 54.64" N 101° 21' 28.05" E |
| HHN | 12° 38' 04.04" N 099° 57' 04.23" E |
| JROCK | 13° 58' 28.40" N 100° 15' 21.61" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| KIGOB | 13° 06' 46.46" N 100° 51' 06.33" E |
| LIBRA | 13° 57' 49.35" N 100° 38' 00.38" E |
| MEZZO | 13° 31' 33.78" N 101° 03' 16.41" E |
| PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RUMBA | 13° 45' 36.97" N 100° 13' 43.08" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| SALMA | 13° 14' 28.89" N 100° 11' 28.72" E |
| SAMBA | 13° 23' 02.66" N 100° 40' 48.12" E |
| UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |
| VIOLA | 13° 38' 32.30" N 100° 38' 45.54" E |

**INTENTIONALLY BLANK**

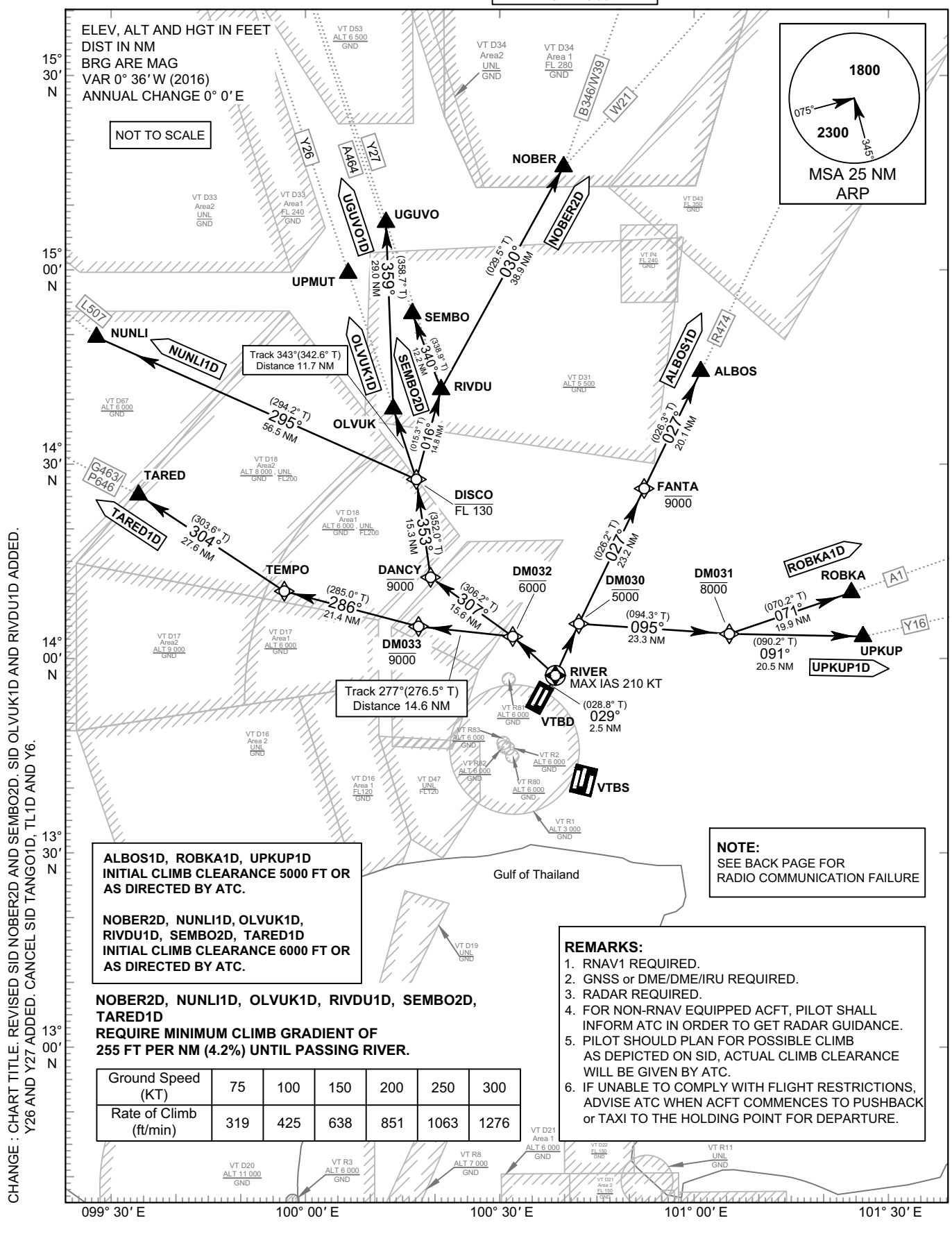
## STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

| TRANSITION ALTITUDE 11000 FT |
|---|
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| DEP ATIS | : 118.55 |

## BANGKOK/Don Mueang Intl (VTBD)
## RNAV RWY03R

ALBOS1D NOBER2D NUNLI1D
OLVUK1D ROBKA1D SEMBO2D
TARED1D UPKUP1D UGUVO1D




**ALBOS1D, ROBKA1D, UPKUP1D**
**INITIAL CLIMB CLEARANCE 5000 FT OR AS DIRECTED BY ATC.**

**NOBER2D, NUNLI1D, OLVUK1D, RIVDU1D, SEMBO2D, TARED1D**
**INITIAL CLIMB CLEARANCE 6000 FT OR AS DIRECTED BY ATC.**

**NOBER2D, NUNLI1D, OLVUK1D, RIVDU1D, SEMBO2D, TARED1D**
**REQUIRE MINIMUM CLIMB GRADIENT OF 255 FT PER NM (4.2%) UNTIL PASSING RIVER.**

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb (ft/min) | 319 | 425 | 638 | 851 | 1063 | 1276 |

**NOTE:**
SEE BACK PAGE FOR RADIO COMMUNICATION FAILURE

**REMARKS:**
1. RNAV1 REQUIRED.
2. GNSS or DME/DME/IRU REQUIRED.
3. RADAR REQUIRED.
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE.
5. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK or TAXI TO THE HOLDING POINT FOR DEPARTURE.

CHANGE : CHART TITLE. REVISED SID NOBER2D AND SEMBO2D. SID OLVUK1D AND RIVDU1D ADDED. Y26 AND Y27 ADDED. CANCEL SID TANGO1D, TL1D AND Y6.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

ALBOS1D NOBER2D NUNLI1D
OLVUK1D ROBKA1D SEMBO2D
TARED1D UPKUP1D UGUVO1D

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGE CLEARANCE **UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL** IN ACCORDANCE WITH THE PUBLISHED SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL |
| 3 | WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF **TWO MINUTES**, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE, THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF **TWO MINUTES**, THE PILOT SHALL PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES, REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

ALBOS1D NOBER2D NUNLI1D
OLVUK1D ROBKA1D SEMBO2D
TARED1D UPKUP1D UGUVO1D

**TABULAR DESCRIPTION (1)**

**RNAV RWY03R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1D TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM030 | - | - | + 0.6 | - | L | -5000 | - | - | RNAV 1 |
| 040 | TF | FANTA | - | 027°(026.2°) | + 0.6 | 23.2 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | ALBOS | - | 027°(026.3°) | + 0.6 | 20.1 | - | - | - | - | RNAV 1 |
| NOBER2D TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | RIVDU | - | 016°(015.3°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 070 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |
| NUNLI1D TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | NUNLI | - | 295°(294.2°) | + 0.6 | 56.5 | - | - | - | - | RNAV 1 |
| OLVUK1D TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | OLVUK | - | 343°(342.6°) | + 0.6 | 11.7 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

ALBOS1D NOBER2D NUNLI1D
OLVUK1D ROBKA1D SEMBO2D
TARED1D UPKUP1D UGUVO1D

TABULAR DESCRIPTION (2)

**RNAV RWY03R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ROBKA1D TO A1 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM030 | - | - | + 0.6 | - | L | -5000 | - | - | RNAV 1 |
| 040 | TF | DM031 | - | 095°(094.3°) | + 0.6 | 23.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | ROBKA | - | 071°(070.2°) | + 0.6 | 19.9 | - | - | - | - | RNAV 1 |
| SEMBO2D TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | RIVDU | - | 016°(015.3°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 070 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| TARED1D TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DM033 | - | 277°(276.5°) | + 0.6 | 14.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | TEMPO | - | 286°(285.0°) | + 0.6 | 21.4 | - | - | - | - | RNAV 1 |
| 060 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |
| UPKUP1D TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM030 | - | - | + 0.6 | - | L | -5000 | - | - | RNAV 1 |
| 040 | TF | DM031 | - | 095°(094.3°) | + 0.6 | 23.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | UPKUP | - | 091°(090.2°) | + 0.6 | 20.5 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

ALBOS1D NOBER2D NUNLI1D
OLVUK1D ROBKA1D SEMBO2D
TARED1D UPKUP1D UGUVO1D

**TABULAR DESCRIPTION (3)**

| RNAV RWY03R | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| UGUVO1D TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | + 0.6 | 2.5 | - | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | + 0.6 | - | L | -6000 | - | - | RNAV 1 |
| 040 | TF | DANCY | - | 307°(306.2°) | + 0.6 | 15.6 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | DISCO | - | 353°(352.0°) | + 0.6 | 15.3 | - | -FL130 | - | - | RNAV 1 |
| 060 | TF | OLVUK | - | 343°(342.6°) | + 0.6 | 11.7 | - | - | - | - | RNAV 1 |
| 070 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE : CHART TITLE. SID UGUVO1D ADDED.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

ALBOS1D NOBER2D NUNLI1D
OLVUK1D ROBKA1D SEMBO2D
TARED1D UPKUP1D UGUVO1D

WAYPOINT LIST

| RNAV RWY03R | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY03R | 13° 55' 28.41" N 100° 36' 55.96" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| DANCY | 14° 13' 03.50" N 100° 18' 28.40" E |
| DISCO | 14° 28' 15.59" N 100° 16' 17.24" E |
| DM030 | 14° 05' 42.64" N 100° 41' 58.72" E |
| DM031 | 14° 03' 57.44" N 101° 05' 51.80" E |
| DM032 | 14° 03' 48.15" N 100° 31' 27.81" E |
| DM033 | 14° 05' 26.89" N 100° 16' 30.52" E |
| FANTA | 14° 26' 35.97" N 100° 52' 31.60" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| RIVER | 13° 57' 43.17" N 100° 38' 11.88" E |
| ROBKA | 14° 10' 42.95" N 101° 25' 07.95" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| UPKUP | 14° 03' 52.65" N 101° 26' 54.84" E |
| UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |

CHANGE : CHART TITLE. UGUVO ADDED.

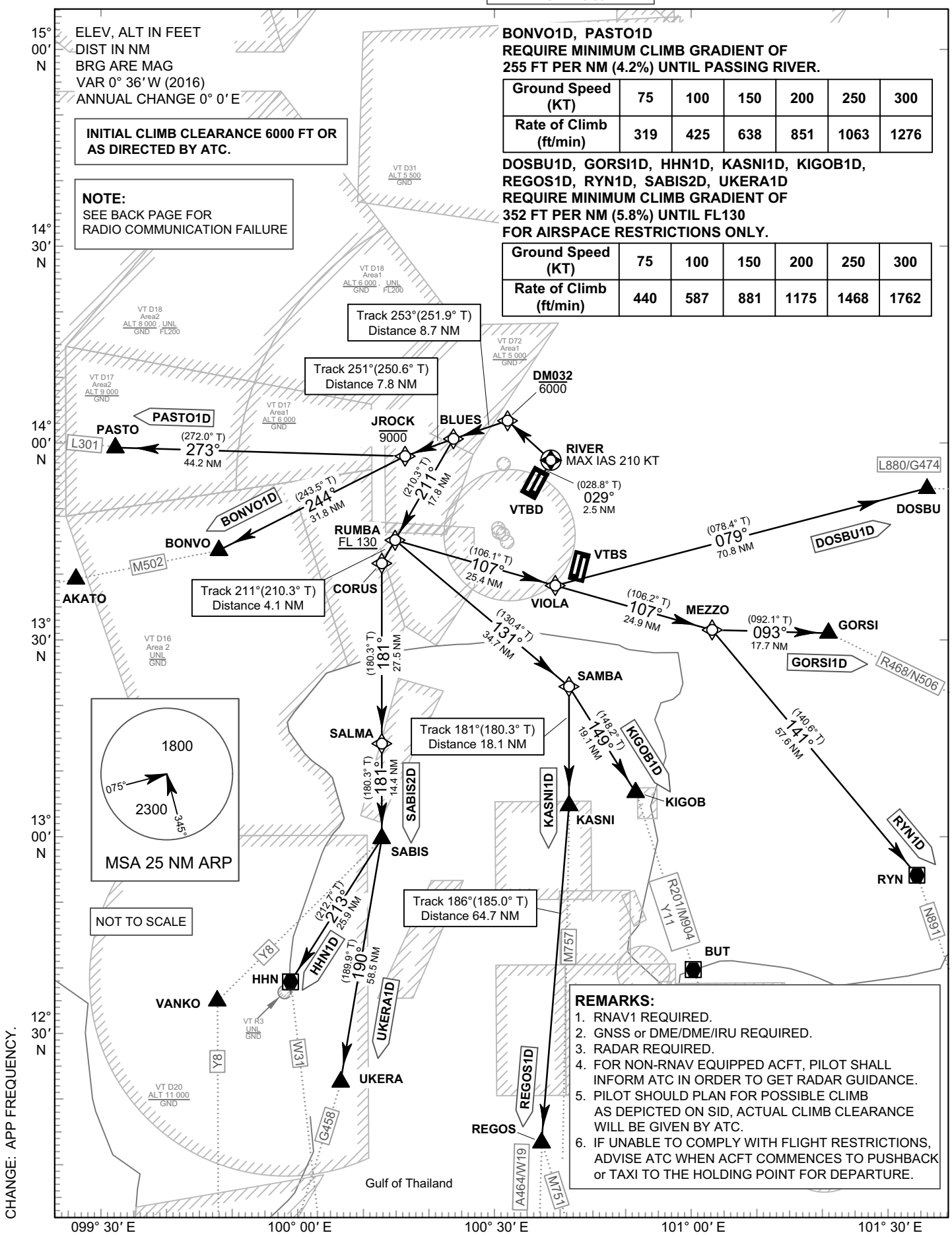
## STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

| TRANSITION ALTITUDE 11000 FT |
|---|
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| DEP ATIS | : 118.55 |

## BANGKOK/Don Mueang Intl (VTBD) RNAV RWY03R

BONVO1D DOSBU1D GORSI1D
HHN1D KASNI1D KIGOB1D
PASTO1D REGOS1D
RYN1D SABIS2D UKERA1D



**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

BONVO1D DOSBU1D GORSI1D
HHN1D KASNI1D KIGOB1D
PASTO1D REGOS1D
RYN1D SABIS2D UKERA1D

## RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

## WAYPOINT PRONUNCIATION

| Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation |
|---|---|---|---|
| DER RWY03R | - | MEZZO | MES - SOH |
| BLUES | BLUES | PASTO | PAS - TOW |
| BONVO | BONG - VOH | REGOS | REE - GOSS |
| CORUS | KOR - RUSS | RIVER | REE - VER |
| DM032 | - | RUMBA | ROOM - BAH |
| DOSBU | DOS - BU | RYN | RA - YONG |
| GORSI | GOR - SEE | SABIS | SAH - BISS |
| HHN | HUA - HIN | SALMA | SAL - MAH |
| JROCK | JAY - ROCK | SAMBA | SAM - BAH |
| KASNI | KAS - NEE | UKERA | U - KEY - RAH |
| KIGOB | KEE - GOB | VIOLA | VEE - OH - LAH |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)**
**RNAV RWY03R**

BONVO1D DOSBU1D GORSI1D
HHN1D KASNI1D KIGOB1D
PASTO1D REGOS1D
RYN1D SABIS2D UKERA1D

TABULAR DESCRIPTION (1)

| **RNAV RWY03R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course °M (°T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| **BONVO1B** TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | JROCK | - | 251°(250.6°) | +0.6 | 7.8 | L | -9000 | - | - | RNAV 1 |
| 060 | TF | BONVO | - | 244°(243.5°) | +0.6 | 31.8 | - | - | - | - | RNAV 1 |
| **DOSBU1B** TO L880/G474 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | VIOLA | - | 107°(106.1°) | +0.6 | 25.4 | L | - | - | - | RNAV 1 |
| 070 | TF | DOSBU | - | 079°(078.4°) | +0.6 | 70.8 | - | - | - | - | RNAV 1 |
| **GORSI1B** TO R468/N506 | | | | | | | | | | | |
| 010 | - | DER RWY03L | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | VIOLA | - | 107°(106.1°) | +0.6 | 25.4 | - | - | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 107°(106.2°) | +0.6 | 24.9 | L | - | - | - | RNAV 1 |
| 080 | TF | GORSI | - | 093°(092.1°) | +0.6 | 17.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

BONVO1D DOSBU1D GORSI1D
HHN1D KASNI1D KIGOB1D
PASTO1D REGOS1D
RYN1D SABIS2D UKERA1D

TABULAR DESCRIPTION (2)

**RNAV RWY03R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HHN1D** TO W31 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | - | +FL130 | - | - | RNAV 1 |
| 060 | TF | CORUS | - | 211°(210.3°) | +0.6 | 4.1 | L | - | - | - | RNAV 1 |
| 070 | TF | SALMA | - | 181°(180.3°) | +0.6 | 27.5 | - | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.3°) | +0.6 | 14.4 | R | - | - | - | RNAV 1 |
| 090 | TF | HHN | - | 213°(212.7°) | +0.6 | 25.9 | - | - | - | - | RNAV 1 |
| **KASNI1D** TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | SAMBA | - | 131°(130.4°) | +0.6 | 34.7 | R | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 181°(180.3°) | +0.6 | 18.1 | - | - | - | - | RNAV 1 |
| **KIGOB1D** TO R201/M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | SAMBA | - | 131°(130.4°) | +0.6 | 34.7 | R | - | - | - | RNAV 1 |
| 070 | TF | KIGOB | - | 149°(148.2°) | +0.6 | 19.1 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

BONVO1D DOSBU1D GORSI1D
HHN1D KASNI1D KIGOB1D
PASTO1D REGOS1D
RYN1D SABIS2D UKERA1D

TABULAR DESCRIPTION (3)

**RNAV RWY03R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PASTO1D** TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | JROCK | - | 251°(250.6°) | +0.6 | 7.8 | R | -9000 | - | - | RNAV 1 |
| 060 | TF | PASTO | - | 273°(272.0°) | +0.6 | 44.2 | - | - | - | - | RNAV 1 |
| **REGOS1D** TO A464/W19, M751 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | SAMBA | - | 131°(130.4°) | +0.6 | 34.7 | R | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 181°(180.3°) | +0.6 | 18.1 | R | - | - | - | RNAV 1 |
| 080 | TF | REGOS | - | 186°(185.0°) | +0.6 | 64.7 | - | - | - | - | RNAV 1 |
| **RYN1D** TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | L | +FL130 | - | - | RNAV 1 |
| 060 | TF | VIOLA | - | 107°(106.1°) | +0.6 | 25.4 | - | - | - | - | RNAV 1 |
| 070 | TF | MEZZO | - | 107°(106.2°) | +0.6 | 24.9 | R | - | - | - | RNAV 1 |
| 080 | TF | RYN | - | 141°(140.6°) | +0.6 | 57.6 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

BONVO1D DOSBU1D GORSI1D
HHN1D KASNI1D KIGOB1D
PASTO1D REGOS1D
RYN1D SABIS2D UKERA1D

TABULAR DESCRIPTION (4)

**RNAV RWY03R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SABIS2D** TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | - | +FL130 | - | - | RNAV 1 |
| 060 | TF | CORUS | - | 211°(210.3°) | +0.6 | 4.1 | L | - | - | - | RNAV 1 |
| 070 | TF | SALMA | - | 181°(180.3°) | +0.6 | 27.5 | - | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.3°) | +0.6 | 14.4 | - | - | - | - | RNAV 1 |
| **UKERA1D** TO G458 | | | | | | | | | | | |
| 010 | - | DER RWY03R | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | RIVER | Y | 029°(028.8°) | +0.6 | 2.5 | L | - | -210 | - | RNAV 1 |
| 030 | DF | DM032 | - | - | +0.6 | - | - | -6000 | - | - | RNAV 1 |
| 040 | TF | BLUES | - | 253°(251.9°) | +0.6 | 8.7 | L | - | - | - | RNAV 1 |
| 050 | TF | RUMBA | - | 211°(210.3°) | +0.6 | 17.8 | - | +FL130 | - | - | RNAV 1 |
| 060 | TF | CORUS | - | 211°(210.3°) | +0.6 | 4.1 | L | - | - | - | RNAV 1 |
| 070 | TF | SALMA | - | 181°(180.3°) | +0.6 | 27.5 | - | - | - | - | RNAV 1 |
| 080 | TF | SABIS | - | 181°(180.3°) | +0.6 | 14.4 | R | - | - | - | RNAV 1 |
| 090 | TF | UKERA | - | 190°(189.9°) | +0.6 | 58.5 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

BONVO1D DOSBU1D GORSI1D
HHN1D KASNI1D KIGOB1D
PASTO1D REGOS1D
RYN1D SABIS2D UKERA1D

## WAYPOINT LIST

| RNAV RWY03R | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY03R | 13° 55' 28.41" N 100° 36' 55.96" E |
| BLUES | 14° 01' 05.07" N 100° 22' 57.50" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E |
| CORUS | 13° 42' 05.43" N 100° 11' 36.93" E |
| DM032 | 14° 03' 48.15" N 100° 31' 27.81" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GORSI | 13° 30' 54.64" N 101° 21' 28.05" E |
| HHN | 12° 38' 04.04" N 099° 57' 04.23" E |
| JROCK | 13° 58' 28.40" N 100° 15' 21.61" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| KIGOB | 13° 06' 46.46" N 100° 51' 06.33" E |
| MEZZO | 13° 31' 33.78" N 101° 03' 16.41" E |
| PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RIVER | 13° 57' 43.17" N 100° 38' 11.88" E |
| RUMBA | 13° 45' 36.97" N 100° 13' 43.08" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| SALMA | 13° 14' 28.89" N 100° 11' 28.72" E |
| SAMBA | 13° 23' 02.66" N 100° 40' 48.12" E |
| UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |
| VIOLA | 13° 38' 32.30" N 100° 38' 45.54" E |

**INTENTIONALLY BLANK**

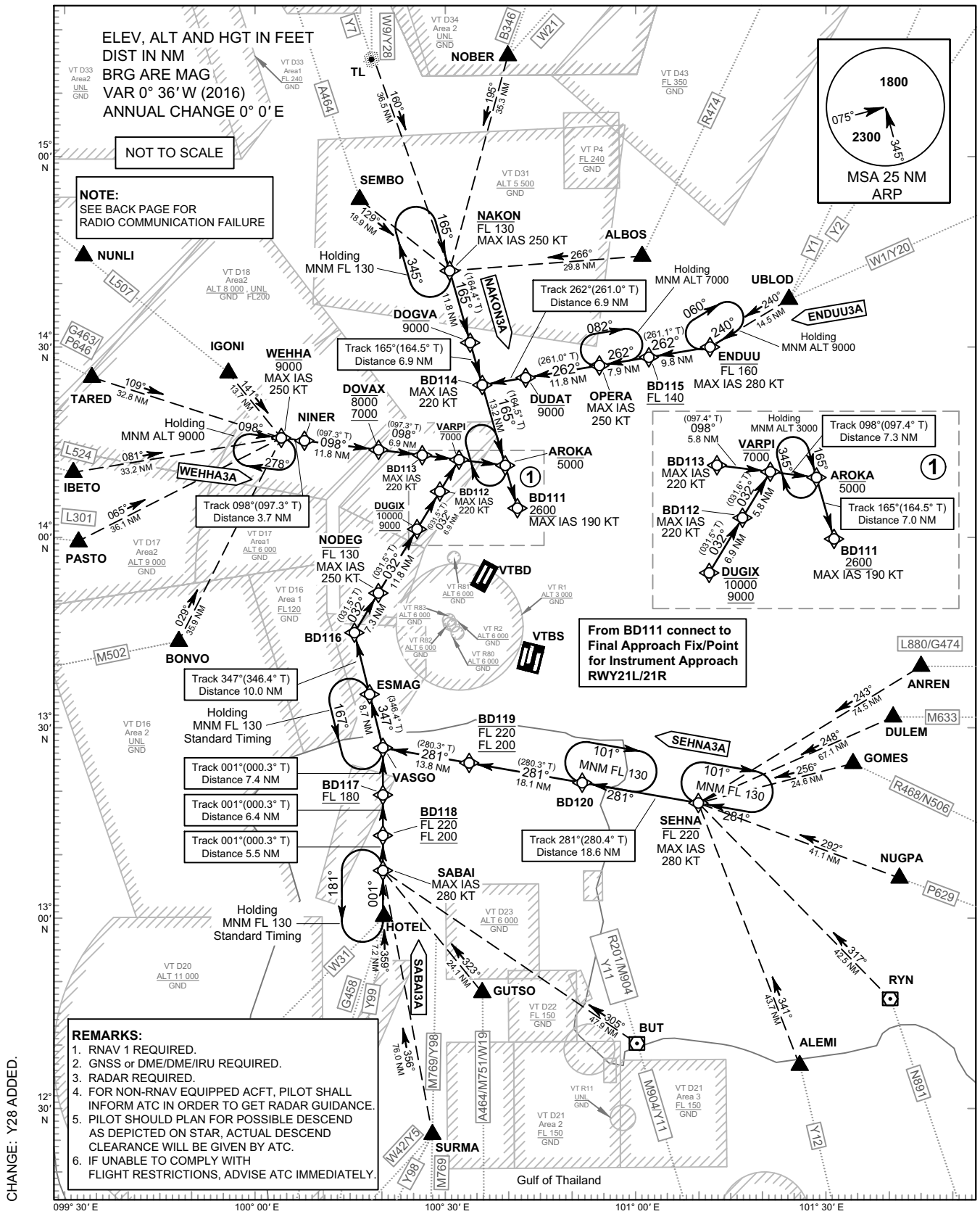
**STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO**

| TRANSITION ALTITUDE |
|---|
| 11000 FT |
| **SPEED RESTRICTION** |
| MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | | |
|---|---|---|
| APP | : | 119.1, 262.5 |
| | : | 119.4, 262.5 |
| | : | 120.3, 262.5 |
| | : | 133.4, 262.5 |
| | : | 122.35, 262.5 |
| | : | 124.35, 262.5 |
| | : | 125.2, 262.5 |
| DAR | : | 133.0, 262.5 |
| TWR | : | 118.1, 236.6 |
| ATIS | : | 126.4, 344.6 |

**BANGKOK/Don Mueang Intl (VTBD)**
**RNAV RWY21L/21R**

ENDUU3A NAKON3A
SABAI3A SEHNA3A WEHHA3A



**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L/21R**

ENDUU3A NAKON3A
SABAI3A SEHNA3A WEHHA3A

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | PROCEED ACCORDING TO THE STAR ROUTE TO AROKA FOR RWY 21L/RWY 21R, DESCEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, THENCE AT AROKA MAKE A HOLD AS PUBLISHED AND MAINTAIN ALTITUDE 3000 FT, THEN CARRY OUT THE APPROPRIATE INSTRUMENT APPROACH PROCEDURE. |
| 3 | WHEN **AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. PILOT SHOULD PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

WAYPOINT PRONUNCIATION

| Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation |
|---|---|---|---|---|---|
| ALBOS | AL - BOSS | DOGVA | DOG - WAH | NODEG | NO - DEGG |
| ALEMI | AH - LAY - MEE | DOVAX | DOH - VAKS | NUGPA | NUK - PAH |
| ANREN | AN - REN | DUDAT | DOO - DAT | OPERA | OH - PE - RAH |
| AROKA | AH - ROW - KAH | DUGIX | DOO - GIKS | PASTO | PAS - TOW |
| BD111 | - | DULEM | DU - LEM | RYN | RA - YONG |
| BD112 | - | ENDUU | EN - DOO | SABAI | SAH - BAI |
| BD113 | - | ESMAG | ESS - MAG | SEHNA | SAY - NAH |
| BD114 | - | GOMES | GO - MESS | SEMBO | SEM - BO |
| BD115 | - | GUTSO | GUTT - SOH | SURMA | SUR - MAR |
| BD116 | - | HOTEL | HO - TEL | TARED | TAH - RED |
| BD117 | - | IBETO | YI - BAY - TOH | TL | TA - KLEE |
| BD118 | - | IGONI | YI - GO - NEE | UBLOD | UB - LOD |
| BD119 | - | NAKON | NA - KORN | VARPI | VAH - PEE |
| BD120 | - | NINER | NAI - NER | VASGO | VAS - GO |
| BONVO | BONG - VOH | NOBER | NO - BER | WEHHA | WEH - HAH |
| BUT | U - TAH - PAO | | | | |

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L/21R**

ENDUU3A NAKON3A
SABAI3A SEHNA3A WEHHA3A

TABULAR DESCRIPTION (1)

**RNAV RWY21L/21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **ENDUU3A** | | | | | | | | | | | |
| TRANSITION UBLOD FROM W1, Y1, Y2, Y20 | | | | | | | | | | | |
| 010 | IF | UBLOD | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | ENDUU | - | 240°(239.4°) | +0.6 | 14.5 | - | -FL160 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | ENDUU | - | - | +0.6 | - | - | -FL160 | -280 | - | RNAV 1 |
| 020 | TF | BD115 | - | 262°(261.1°) | +0.6 | 9.8 | - | +FL140 | - | - | RNAV 1 |
| 030 | TF | OPERA | - | 262°(261.1°) | +0.6 | 7.9 | - | - | -250 | - | RNAV 1 |
| 040 | TF | DUDAT | - | 262°(261.0°) | +0.6 | 11.8 | - | -9000 | - | - | RNAV 1 |
| 050 | TF | BD114 | - | 262°(261.0°) | +0.6 | 6.9 | L | - | -220 | - | RNAV 1 |
| 060 | TF | AROKA | - | 165°(164.5°) | +0.6 | 13.2 | - | -5000 | - | - | RNAV 1 |
| 070 | TF | BD111 | - | 165°(164.5°) | +0.6 | 7.0 | - | +2600 | -190 | - | RNAV 1 |

CHANGE: ROUTE Y20 ADDED.

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L/21R**

ENDUU3A NAKON3A
SABAI3A SEHNA3A WEHHA3A

CHANGE: CANCEL DOGVA SPEED RESTRICTION. BD114 SPEED RESTRICTION ADDED.

**TABULAR DESCRIPTION (2)**

| **RNAV RWY21L/21R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course ° M (° T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| **NAKON3A** | | | | | | | | | | | |
| TRANSITION SEMBO | | FROM A464 | | | | | | | | | |
| 010 | IF | SEMBO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NAKON | - | 129°(128.3°) | + 0.6 | 18.9 | - | -FL130 | -250 | - | RNAV 1 |
| TRANSITION TL | | FROM W9/Y28, Y7 | | | | | | | | | |
| 010 | IF | TL | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NAKON | - | 160°(159.5°) | + 0.6 | 36.5 | - | -FL130 | -250 | - | RNAV 1 |
| TRANSITION NOBER | | FROM B346/W39, W21 | | | | | | | | | |
| 010 | IF | NOBER | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NAKON | - | 195°(194.4°) | + 0.6 | 35.3 | - | -FL130 | -250 | - | RNAV 1 |
| TRANSITION ALBOS | | FROM R474 | | | | | | | | | |
| 010 | IF | ALBOS | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NAKON | - | 266°(265.3°) | + 0.6 | 29.8 | - | -FL130 | -250 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | NAKON | - | - | + 0.6 | - | - | -FL130 | -250 | - | RNAV 1 |
| 020 | TF | DOGVA | - | 165°(164.4°) | + 0.6 | 11.8 | - | -9000 | - | - | RNAV 1 |
| 030 | TF | BD114 | - | 165°(164.5°) | + 0.6 | 6.9 | - | - | -220 | - | RNAV 1 |
| 040 | TF | AROKA | - | 165°(164.5°) | + 0.6 | 13.2 | - | -5000 | - | - | RNAV 1 |
| 050 | TF | BD111 | - | 165°(164.5°) | + 0.6 | 7.0 | - | +2600 | -190 | - | RNAV 1 |

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L/21R**

ENDUU3A NAKON3A
SABAI3A SEHNA3A WEHHA3A

TABULAR DESCRIPTION (3)

**RNAV RWY21L/21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SABAI3A** | | | | | | | | | | | |
| TRANSITION BUT | | FROM M904/Y11 | | | | | | | | | |
| 010 | IF | BUT | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SABAI | - | 305°(304.7°) | +0.6 | 47.9 | - | - | -280 | - | RNAV 1 |
| TRANSITION GUTSO | | FROM A464/M751/W19 | | | | | | | | | |
| 010 | IF | GUTSO | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SABAI | - | 323°(321.9°) | +0.6 | 24.1 | - | - | -280 | - | RNAV 1 |
| TRANSITION SURMA | | FROM M769/Y98 | | | | | | | | | |
| 010 | IF | SURMA | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SABAI | - | 356°(354.9°) | +0.6 | 76.0 | - | - | -280 | - | RNAV 1 |
| TRANSITION HOTEL | | FROM G458 ,W31, Y99 | | | | | | | | | |
| 010 | IF | HOTEL | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SABAI | - | 359°(358.8°) | +0.6 | 7.2 | - | - | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | SABAI | - | - | +0.6 | - | - | - | -280 | - | RNAV 1 |
| 020 | TF | BD118 | - | 001°(000.3°) | +0.6 | 5.5 | - | -FL220 ; +FL200 | - | - | RNAV 1 |
| 030 | TF | BD117 | - | 001°(000.3°) | +0.6 | 6.4 | - | +FL180 | - | - | RNAV 1 |
| 040 | TF | VASGO | - | 001°(000.3°) | +0.6 | 7.4 | L | - | - | - | RNAV 1 |
| 050 | TF | ESMAG | - | 347°(346.4°) | +0.6 | 8.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BD116 | - | 347°(346.4°) | +0.6 | 10.0 | R | - | - | - | RNAV 1 |
| 070 | TF | NODEG | - | 032°(031.5°) | +0.6 | 7.3 | - | -FL130 | -250 | - | RNAV 1 |
| 080 | TF | DUGIX | - | 032°(031.5°) | +0.6 | 11.8 | - | -10000 ; +9000 | - | - | RNAV 1 |
| 090 | TF | BD112 | - | 032°(031.5°) | +0.6 | 6.9 | - | - | -220 | - | RNAV 1 |
| 100 | TF | VARPI | - | 032°(031.6°) | +0.6 | 5.8 | R | -7000 | - | - | RNAV 1 |
| 110 | TF | AROKA | - | 098°(097.4°) | +0.6 | 7.3 | R | -5000 | - | - | RNAV 1 |
| 120 | TF | BD111 | - | 165°(164.5°) | +0.6 | 7.0 | - | +2600 | -190 | - | RNAV 1 |

**STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)**
**RNAV RWY21L/21R**

ENDUU3A NAKON3A
SABAI3A SEHNA3A WEHHA3A

TABULAR DESCRIPTION (4)

**RNAV RWY21L/21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SEHNA3A** | | | | | | | | | | | |
| TRANSITION ANREN FROM L880/G474 | | | | | | | | | | | |
| 010 | IF | ANREN | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 243°(242.7°) | +0.6 | 74.5 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION DULEM FROM M633 | | | | | | | | | | | |
| 010 | IF | DULEM | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 248°(246.9°) | +0.6 | 67.1 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION NUGPA FROM P629 | | | | | | | | | | | |
| 010 | IF | NUGPA | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 292°(291.1°) | +0.6 | 41.1 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION GOMES FROM R468/N506 | | | | | | | | | | | |
| 010 | IF | GOMES | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 256°(255.0°) | +0.6 | 24.6 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION RYN FROM N891 | | | | | | | | | | | |
| 010 | IF | RYN | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 317°(316.5°) | +0.6 | 42.5 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION ALEMI FROM Y12 | | | | | | | | | | | |
| 010 | IF | ALEMI | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 341°(340.1°) | +0.6 | 43.7 | - | -FL220 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | SEHNA | - | - | +0.6 | - | - | -FL220 | -280 | - | RNAV 1 |
| 020 | TF | BD120 | - | 281°(280.4°) | +0.6 | 18.6 | - | - | - | - | RNAV 1 |
| 030 | TF | BD119 | - | 281°(280.3°) | +0.6 | 18.1 | - | -FL220 ; +FL200 | - | - | RNAV 1 |
| 040 | TF | VASGO | - | 281°(280.3°) | +0.6 | 13.8 | R | - | - | - | RNAV 1 |
| 050 | TF | ESMAG | - | 347°(346.4°) | +0.6 | 8.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BD116 | - | 347°(346.4°) | +0.6 | 10.0 | R | - | - | - | RNAV 1 |
| 070 | TF | NODEG | - | 032°(031.5°) | +0.6 | 7.3 | - | -FL130 | -250 | - | RNAV 1 |
| 080 | TF | DUGIX | - | 032°(031.5°) | +0.6 | 11.8 | - | -10000 ; +9000 | - | - | RNAV 1 |
| 090 | TF | BD112 | - | 032°(031.5°) | +0.6 | 6.9 | - | - | -220 | - | RNAV 1 |
| 100 | TF | VARPI | - | 032°(031.6°) | +0.6 | 5.8 | R | -7000 | - | - | RNAV 1 |
| 110 | TF | AROKA | - | 098°(097.4°) | +0.6 | 7.3 | R | -5000 | - | - | RNAV 1 |
| 120 | TF | BD111 | - | 165°(164.5°) | +0.6 | 7.0 | - | +2600 | -190 | - | RNAV 1 |

**STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)**
**RNAV RWY21L/21R**

ENDUU3A NAKON3A
SABAI3A SEHNA3A WEHHA3A

TABULAR DESCRIPTION (5)

**RNAV RWY21L/21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **WEHHA3A** | | | | | | | | | | | |
| TRANSITION IGONI | | FROM L507 | | | | | | | | | |
| 010 | IF | IGONI | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 141°(140.3°) | +0.6 | 13.7 | - | -9000 | -250 | - | RNAV 1 |
| TRANSITION TARED | | FROM G463/P646 | | | | | | | | | |
| 010 | IF | TARED | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 109°(108.3°) | +0.6 | 32.8 | - | -9000 | -250 | - | RNAV 1 |
| TRANSITION IBETO | | FROM L524 | | | | | | | | | |
| 010 | IF | IBETO | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 081°(080.8°) | +0.6 | 33.2 | - | -9000 | -250 | - | RNAV 1 |
| TRANSITION PASTO | | FROM L301 | | | | | | | | | |
| 010 | IF | PASTO | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 065°(064.0°) | +0.6 | 36.1 | - | -9000 | -250 | - | RNAV 1 |
| TRANSITION BONVO | | FROM M502 | | | | | | | | | |
| 010 | IF | BONVO | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 029°(028.2°) | +0.6 | 35.9 | - | -9000 | -250 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | WEHHA | - | - | +0.6 | - | - | -9000 | -250 | - | RNAV 1 |
| 020 | TF | NINER | - | 098°(097.3°) | +0.6 | 3.7 | - | - | - | - | RNAV 1 |
| 030 | TF | DOVAX | - | 098°(097.3°) | +0.6 | 11.8 | - | -8000 ; +7000 | - | - | RNAV 1 |
| 040 | TF | BD113 | - | 098°(097.3°) | +0.6 | 6.9 | - | - | -220 | - | RNAV 1 |
| 050 | TF | VARPI | - | 098°(097.4°) | +0.6 | 5.8 | - | -7000 | - | - | RNAV 1 |
| 060 | TF | AROKA | - | 098°(097.4°) | +0.6 | 7.3 | R | -5000 | - | - | RNAV 1 |
| 070 | TF | BD111 | - | 165°(164.5°) | +0.6 | 7.0 | - | +2600 | -190 | - | RNAV 1 |

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L/21R**

ENDUU3A NAKON3A
SABAI3A SEHNA3A WEHHA3A

WAYPOINT LIST

**RNAV RWY21L/21R**

| Waypoint Identifier | Coordinates |
|---|---|
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| ALEMI | 12° 36' 25.55" N 101° 25' 59.92" E |
| ANREN | 13° 52' 12.48" N 102° 18' 37.95" E |
| AROKA | 14° 11' 22.16" N 100° 39' 51.89" E |
| BD111 | 14° 04' 35.38" N 100° 41' 47.72" E |
| BD112 | 14° 07' 18.70" N 100° 29' 13.67" E |
| BD113 | 14° 13' 04.18" N 100° 26' 24.43" E |
| BD114 | 14° 24' 07.42" N 100° 36' 13.73" E |
| BD115 | 14° 28' 18.12" N 101° 03' 19.47" E |
| BD116 | 13° 45' 02.47" N 100° 15' 14.67" E |
| BD117 | 13° 19' 19.83" N 100° 19' 43.11" E |
| BD118 | 13° 12' 54.90" N 100° 19' 41.02" E |
| BD119 | 13° 24' 19.02" N 100° 33' 42.08" E |
| BD120 | 13° 21' 03.97" N 100° 51' 57.43" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E |
| DOGVA | 14° 30' 50.27" N 100° 34' 18.74" E |
| DOVAX | 14° 13' 57.59" N 100° 19' 19.23" E |
| DUDAT | 14° 25' 13.08" N 100° 43' 17.41" E |
| DUGIX | 14° 01' 22.31" N 100° 25' 29.56" E |
| DULEM | 13° 44' 15.58" N 102° 13' 59.75" E |
| ENDUU | 14° 29' 49.38" N 101° 13' 16.75" E |
| ESMAG | 13° 35' 16.64" N 100° 17' 39.62" E |

**RNAV RWY21L/21R**

| Waypoint Identifier | Coordinates |
|---|---|
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E |
| GUTSO | 12° 48' 19.94" N 100° 34' 54.30" E |
| HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |
| IBETO | 14° 10' 36.14" N 099° 29' 45.68" E |
| IGONI | 14° 26' 32.73" N 099° 54' 30.29" E |
| NAKON | 14° 42' 13.90" N 100° 31' 03.39" E |
| NINER | 14° 15' 27.72" N 100° 07' 17.77" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NODEG | 13° 51' 17.55" N 100° 19' 09.83" E |
| NUGPA | 13° 02' 54.16" N 101° 49' 59.29" E |
| OPERA | 14° 27' 03.99" N 100° 55' 16.50" E |
| PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SABAI | 13° 07' 22.13" N 100° 19' 39.23" E |
| SEHNA | 13° 17' 42.18" N 101° 10' 42.55" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| SURMA | 11° 51' 22.45" N 100° 26' 32.65" E |
| TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| UBLOD | 14° 37' 15.43" N 101° 26' 11.66" E |
| VARPI | 14° 12' 19.01" N 100° 32' 22.71" E |
| VASGO | 13° 26' 47.06" N 100° 19' 45.57" E |
| WEHHA | 14° 15' 55.67" N 100° 03' 33.01" E |

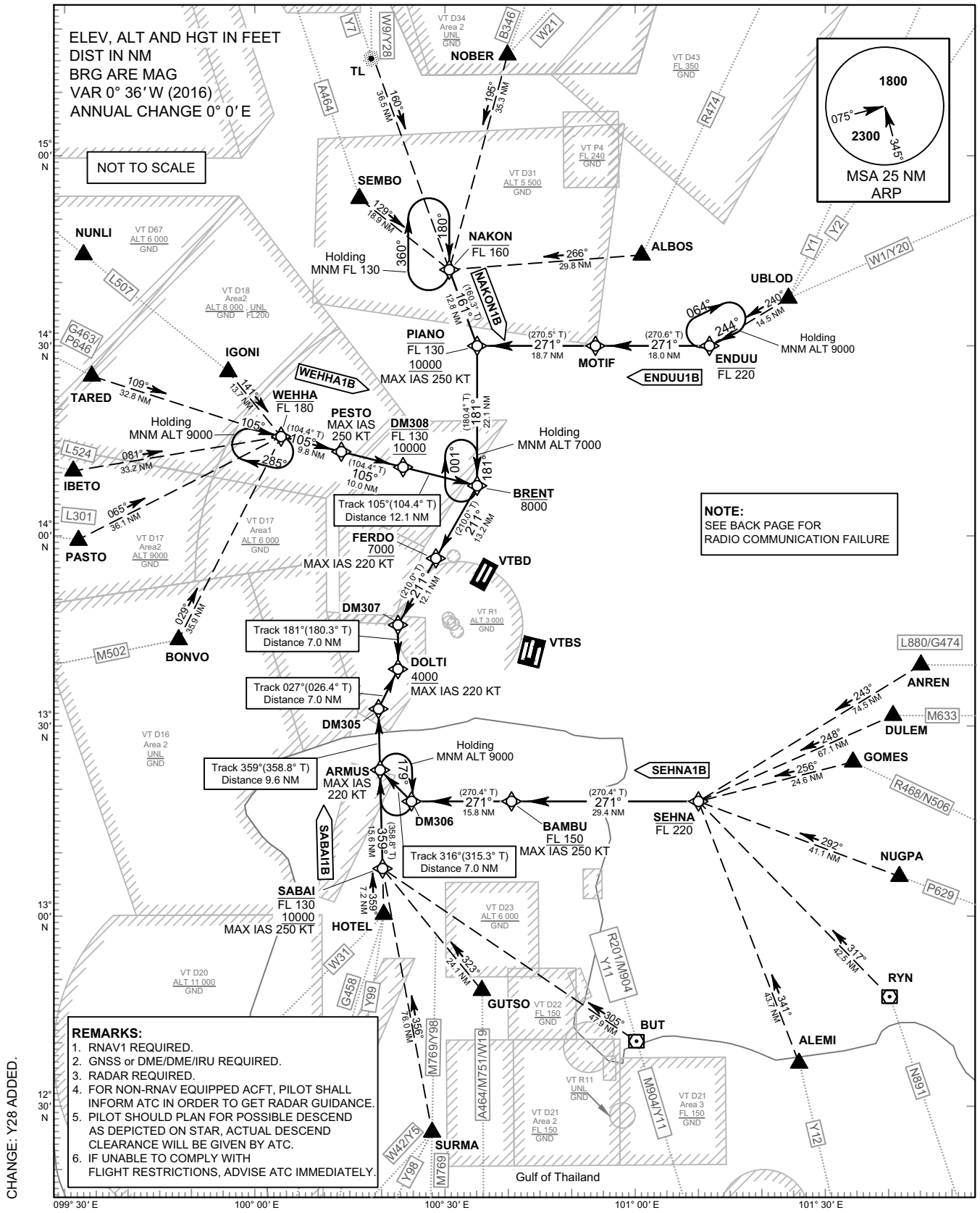
## STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

| TRANSITION ALTITUDE 11000 FT |
|---|
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | | |
|---|---|---|
| APP | : | 119.1, 262.5 |
| | : | 119.4, 262.5 |
| | : | 120.3, 262.5 |
| | : | 133.4, 262.5 |
| | : | 122.35, 262.5 |
| | : | 124.35, 262.5 |
| | : | 125.2, 262.5 |
| DAR | : | 133.0, 262.5 |
| TWR | : | 118.1, 236.6 |
| ATIS | : | 126.4, 344.6 |

## BANGKOK/Don Mueang Intl (VTBD)
## RNAV RWY03L/03R

ENDUU1B NAKON1B
SABAI1B SEHNA1B WEHHA1B



**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L/03R**

ENDUU1B NAKON1B
SABAI1B SEHNA1B WEHHA1B

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | PROCEED ACCORDING TO THE STAR ROUTE TO DOTLI FOR RWY 03L/RWY 03R, DESCEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, THENCE AT DOTLI CARRY OUT THE APPROPRIATE INSTRUMENT APPROACH PROCEDURE. |
| 3 | WHEN **AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF **TWO MINUTES**, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. PILOT SHOULD PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBD AD 2.22, RADIO COMMUNICATION FAILURE. |

WAYPOINT PRONUNCIATION

| Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation |
|---|---|---|---|---|---|
| ALBOS | AL - BOSS | DULEM | DU - LEM | PASTO | PAS - TOW |
| ALEMI | AH - LAY - MEE | ENDUU | EN - DOO | PESTO | PES - TOW |
| ANREN | AN - REN | FERDO | FER - DOH | PIANO | PEE - AH - NO |
| ARMUS | AR - MOOS | GOMES | GO - MESS | RYN | RA - YONG |
| BAMBU | BAM - BOO | GUTSO | GUTT - SOH | SABAI | SAH - BAI |
| BONVO | BONG - VOH | HOTEL | HO - TEL | SEHNA | SAY - NAH |
| BRENT | BRENT | IBETO | YI - BAY - TOH | SEMBO | SEM - BO |
| BUT | U - TAH - PAO | IGONI | YI - GO - NEE | SURMA | SUR - MAR |
| DOTLI | DOT - LI | MOTIF | MOH - TEEF | TARED | TAH - RED |
| DM305 | - | NAKON | NA - KORN | TL | TA - KLEE |
| DM306 | - | NOBER | NO - BER | BLOD | UB - LOD |
| DM307 | - | NUGPA | NUK - PAH | WEHHA | WEH - HAH |
| DM308 | - | | | | |

CHANGE: DOTLI ADDED. CANCEL DM301, DM302, DM303. COM FAILURE INSTRUCTION.

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L/03R**

ENDUU1B NAKON1B
SABAI1B SEHNA1B WEHHA1B

TABULAR DESCRIPTION (1)

| **RNAV RWY03L/03R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| **ENDUU1B** | | | | | | | | | | | |
| TRANSITION UBLOD | | FROM W1, Y1, Y2, Y20 | | | | | | | | | |
| 010 | IF | UBLOD | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | ENDUU | - | 240°(239.4°) | + 0.6 | 14.5 | - | -FL220 | - | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | ENDUU | - | - | + 0.6 | - | - | -FL220 | - | - | RNAV 1 |
| 020 | TF | MOTIF | - | 271°(270.6°) | + 0.6 | 18.0 | - | - | - | - | RNAV 1 |
| 030 | TF | PIANO | - | 271°(270.6°) | + 0.6 | 18.7 | L | -FL130; +10000 | -250 | - | RNAV 1 |
| 040 | TF | BRENT | - | 181°(180.4°) | + 0.6 | 22.1 | R | -8000 | - | - | RNAV 1 |
| 050 | TF | FERDO | - | 211°(210.0°) | + 0.6 | 13.2 | - | +7000 | -220 | - | RNAV 1 |
| 060 | TF | DM307 | - | 211°(210.0°) | + 0.6 | 12.1 | L | - | - | - | RNAV 1 |
| 070 | TF | DOTLI | - | 181°(180.3°) | + 0.6 | 7.0 | - | +4000 | -220 | - | RNAV 1 |

CHANGE: ROUTE Y20 ADDED.

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L/03R**

ENDUU1B NAKON1B
SABAI1B SEHNA1B WEHHA1B

**TABULAR DESCRIPTION (2)**

**RNAV RWY03L/03R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NAKON1B** | | | | | | | | | | | |
| TRANSITION SEMBO | | FROM A464 | | | | | | | | | |
| 010 | IF | SEMBO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NAKON | - | 129°(128.3°) | + 0.6 | 18.9 | - | -FL160 | - | - | RNAV 1 |
| TRANSITION TL | | FROM W9/Y28, Y7 | | | | | | | | | |
| 010 | IF | TL | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NAKON | - | 160°(159.5°) | + 0.6 | 36.5 | - | -FL160 | - | - | RNAV 1 |
| TRANSITION NOBER | | FROM B346, W21 | | | | | | | | | |
| 010 | IF | NOBER | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NAKON | - | 195°(194.4°) | + 0.6 | 35.3 | - | -FL160 | - | - | RNAV 1 |
| TRANSITION ALBOS | | FROM R474 | | | | | | | | | |
| 010 | IF | ALBOS | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NAKON | - | 266°(265.3°) | + 0.6 | 29.8 | - | -FL160 | - | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | NAKON | - | - | + 0.6 | - | - | -FL160 | - | - | RNAV 1 |
| 020 | TF | PIANO | - | 161°(160.3°) | + 0.6 | 12.8 | - | -FL130; +10000 | -250 | - | RNAV 1 |
| 030 | TF | BRENT | - | 181°(180.4°) | + 0.6 | 22.1 | - | -8000 | - | - | RNAV 1 |
| 040 | TF | FERDO | - | 211°(210.0°) | + 0.6 | 13.2 | - | +7000 | -220 | - | RNAV 1 |
| 050 | TF | DM307 | - | 211°(210.0°) | + 0.6 | 12.1 | - | - | - | - | RNAV 1 |
| 060 | TF | DOTLI | - | 181°(180.3°) | + 0.6 | 7.0 | - | +4000 | -220 | - | RNAV 1 |

CHANGE: Y28 ADDED.

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L/03R**

ENDUU1B NAKON1B
SABAI1B SEHNA1B WEHHA1B

TABULAR DESCRIPTION (3)

| **RNAV RWY03L/03R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| **SABAI1B** | | | | | | | | | | | |
| TRANSITION BUT | | FROM M904/Y11 | | | | | | | | | |
| 010 | IF | BUT | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SABAI | - | 305°(304.7°) | + 0.6 | 47.9 | - | -FL130; +10000 | -250 | - | RNAV 1 |
| TRANSITION GUTSO | | FROM A464/M751/W19 | | | | | | | | | |
| 010 | IF | GUTSO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SABAI | - | 323°(321.9°) | + 0.6 | 24.1 | - | -FL130; +10000 | -250 | - | RNAV 1 |
| TRANSITION SURMA | | FROM W42/Y5/M769/Y98 | | | | | | | | | |
| 010 | IF | SURMA | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SABAI | - | 356°(354.9°) | + 0.6 | 76.0 | - | -FL130; +10000 | -250 | - | RNAV 1 |
| TRANSITION HOTEL | | FROM G458 ,W31, Y99 | | | | | | | | | |
| 010 | IF | HOTEL | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SABAI | - | 359°(358.8°) | + 0.6 | 7.2 | - | -FL130; +10000 | -250 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | SABAI | - | - | + 0.6 | - | - | -FL130; +10000 | -250 | - | RNAV 1 |
| 020 | TF | ARMUS | - | 359°(358.8°) | + 0.6 | 15.6 | - | - | -220 | - | RNAV 1 |
| 030 | TF | DM305 | - | 359°(358.8°) | + 0.6 | 9.6 | R | - | - | - | RNAV 1 |
| 040 | TF | DOTLI | - | 027°(026.4°) | + 0.6 | 7.0 | - | +4000 | -220 | - | RNAV 1 |

CHANGE: DOTLI ADDED. CANCEL DM301, DM302, DM303.

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L/03R**

ENDUU1B NAKON1B
SABAI1B SEHNA1B WEHHA1B

TABULAR DESCRIPTION (4)

| **RNAV RWY03L/03R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| **SEHNA1B** | | | | | | | | | | | |
| TRANSITION ANREN | | FROM L880/G474 | | | | | | | | | |
| 010 | IF | ANREN | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 243°(242.7°) | + 0.6 | 74.5 | - | -FL220 | - | - | RNAV 1 |
| TRANSITION DULEM | | FROM M633 | | | | | | | | | |
| 010 | IF | DULEM | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 248°(246.9°) | + 0.6 | 67.1 | - | -FL220 | - | - | RNAV 1 |
| TRANSITION NUGPA | | FROM P629 | | | | | | | | | |
| 010 | IF | NUGPA | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 292°(291.1°) | + 0.6 | 41.1 | - | -FL220 | - | - | RNAV 1 |
| TRANSITION GOMES | | FROM R468/N506 | | | | | | | | | |
| 010 | IF | GOMES | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 256°(255.0°) | + 0.6 | 24.6 | - | -FL220 | - | - | RNAV 1 |
| TRANSITION RYN | | FROM N891 | | | | | | | | | |
| 010 | IF | RYN | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 317°(316.5°) | + 0.6 | 42.5 | - | -FL220 | - | - | RNAV 1 |
| TRANSITION ALEMI | | FROM Y12 | | | | | | | | | |
| 010 | IF | ALEMI | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SEHNA | - | 341°(340.1°) | + 0.6 | 43.7 | - | -FL220 | - | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | SEHNA | - | - | + 0.6 | - | - | -FL220 | - | - | RNAV 1 |
| 020 | TF | BAMBU | - | 271°(270.4°) | + 0.6 | 29.4 | - | +FL150 | -250 | - | RNAV 1 |
| 030 | TF | DM306 | - | 271°(270.4°) | + 0.6 | 15.8 | R | - | - | - | RNAV 1 |
| 040 | TF | ARMUS | - | 316°(315.3°) | + 0.6 | 7.0 | R | - | -220 | - | RNAV 1 |
| 050 | TF | DM305 | - | 359°(358.8°) | + 0.6 | 9.6 | R | - | - | - | RNAV 1 |
| 060 | TF | DOTLI | - | 027°(026.4°) | + 0.6 | 7.0 | - | +4000 | -220 | - | RNAV 1 |

CHANGE: DOTLI ADDED. CANCEL DM301, DM302, DM303.

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L/03R**

ENDUU1B NAKON1B
SABAI1B SEHNA1B WEHHA1B

TABULAR DESCRIPTION (5)

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **RNAV RWY03L/03R** | | | | | | | | | | | |
| | | | | | | | | | | | |
| **WEHHA1B** | | | | | | | | | | | |
| TRANSITION IGONI | | FROM L507 | | | | | | | | | |
| 010 | IF | IGONI | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 141°(140.3°) | + 0.6 | 13.7 | - | -FL180 | - | - | RNAV 1 |
| TRANSITION TARED | | FROM G463/P646 | | | | | | | | | |
| 010 | IF | TARED | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 109°(108.3°) | + 0.6 | 32.8 | - | -FL180 | - | - | RNAV 1 |
| TRANSITION IBETO | | FROM L524 | | | | | | | | | |
| 010 | IF | IBETO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 081°(080.8°) | + 0.6 | 33.2 | - | -FL180 | - | - | RNAV 1 |
| TRANSITION PASTO | | FROM L301 | | | | | | | | | |
| 010 | IF | PASTO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 065°(064.0°) | + 0.6 | 36.1 | - | -FL180 | - | - | RNAV 1 |
| TRANSITION BONVO | | FROM M502 | | | | | | | | | |
| 010 | IF | BONVO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WEHHA | - | 029°(028.2°) | + 0.6 | 35.9 | - | -FL180 | - | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | WEHHA | - | - | + 0.6 | - | - | -FL180 | - | - | RNAV 1 |
| 020 | TF | PESTO | - | 105°(104.4°) | + 0.6 | 9.8 | - | - | -250 | - | RNAV 1 |
| 030 | TF | DM308 | - | 105°(104.4°) | + 0.6 | 10.0 | - | -FL130; +10000 | - | - | RNAV 1 |
| 040 | TF | BRENT | - | 105°(104.4°) | + 0.6 | 12.1 | R | -8000 | - | - | RNAV 1 |
| 050 | TF | FERDO | - | 211°(210.0°) | + 0.6 | 13.2 | - | +7000 | -220 | - | RNAV 1 |
| 060 | TF | DM307 | - | 211°(210.0°) | + 0.6 | 12.1 | L | - | - | - | RNAV 1 |
| 070 | TF | DOTLI | - | 181°(180.3°) | + 0.6 | 7.0 | - | +4000 | -220 | - | RNAV 1 |

CHANGE: DOTLI ADDED. CANCEL DM301, DM302, DM303.

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L/03R**

ENDUU1B NAKON1B
SABAI1B SEHNA1B WEHHA1B

WAYPOINT LIST

| RNAV RWY03L/03R | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| ALEMI | 12° 36' 25.55" N 101° 25' 59.92" E |
| ANREN | 13° 52' 12.48" N 102° 18' 37.95" E |
| ARMUS | 13° 22' 59.79" N 100° 19' 19.76" E |
| BAMBU | 13° 17' 53.37" N 100° 40' 34.38" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E |
| BRENT | 14° 07' 57.26" N 100° 35' 21.11" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E |
| DM305 | 13° 32' 40.32" N 100° 19' 07.74" E |
| DM306 | 13° 17' 59.26" N 100° 24' 23.32" E |
| DM307 | 13° 45' 58.12" N 100° 22' 22.14" E |
| DM308 | 14° 10' 58.58" N 100° 23' 20.12" E |
| DOTLI | 13° 38' 58.09" N 100° 22' 19.70" E |
| DULEM | 13° 44' 15.58" N 102° 13' 59.75" E |
| ENDUU | 14° 29' 49.38" N 101° 13' 16.75" E |
| FERDO | 13° 56' 29.13" N 100° 28' 34.36" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E |
| GUTSO | 12° 48' 19.94" N 100° 34' 54.30" E |
| HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |

| RNAV RWY03L/03R | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| IBETO | 14° 10' 36.14" N 099° 29' 45.68" E |
| IGONI | 14° 26' 32.73" N 099° 54' 30.29" E |
| MOTIF | 14° 29' 59.17" N 100° 54' 44.81" E |
| NAKON | 14° 42' 13.90" N 100° 31' 03.39" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NUGPA | 13° 02' 54.16" N 101° 49' 59.29" E |
| PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| PESTO | 14° 13' 28.92" N 100° 13' 20.31" E |
| PIANO | 14° 30' 07.78" N 100° 35' 30.48" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SABAI | 13° 07' 22.13" N 100° 19' 39.23" E |
| SEHNA | 13° 17' 42.18" N 101° 10' 42.55" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| SURMA | 11° 51' 22.45" N 100° 26' 32.65" E |
| TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| UBLOD | 14° 37' 15.43" N 101° 26' 11.66" E |
| WEHHA | 14° 15' 55.67" N 100° 03' 33.01" E |

CHANGE: DOTLI ADDED. CANCEL DM301, DM302, DM303.

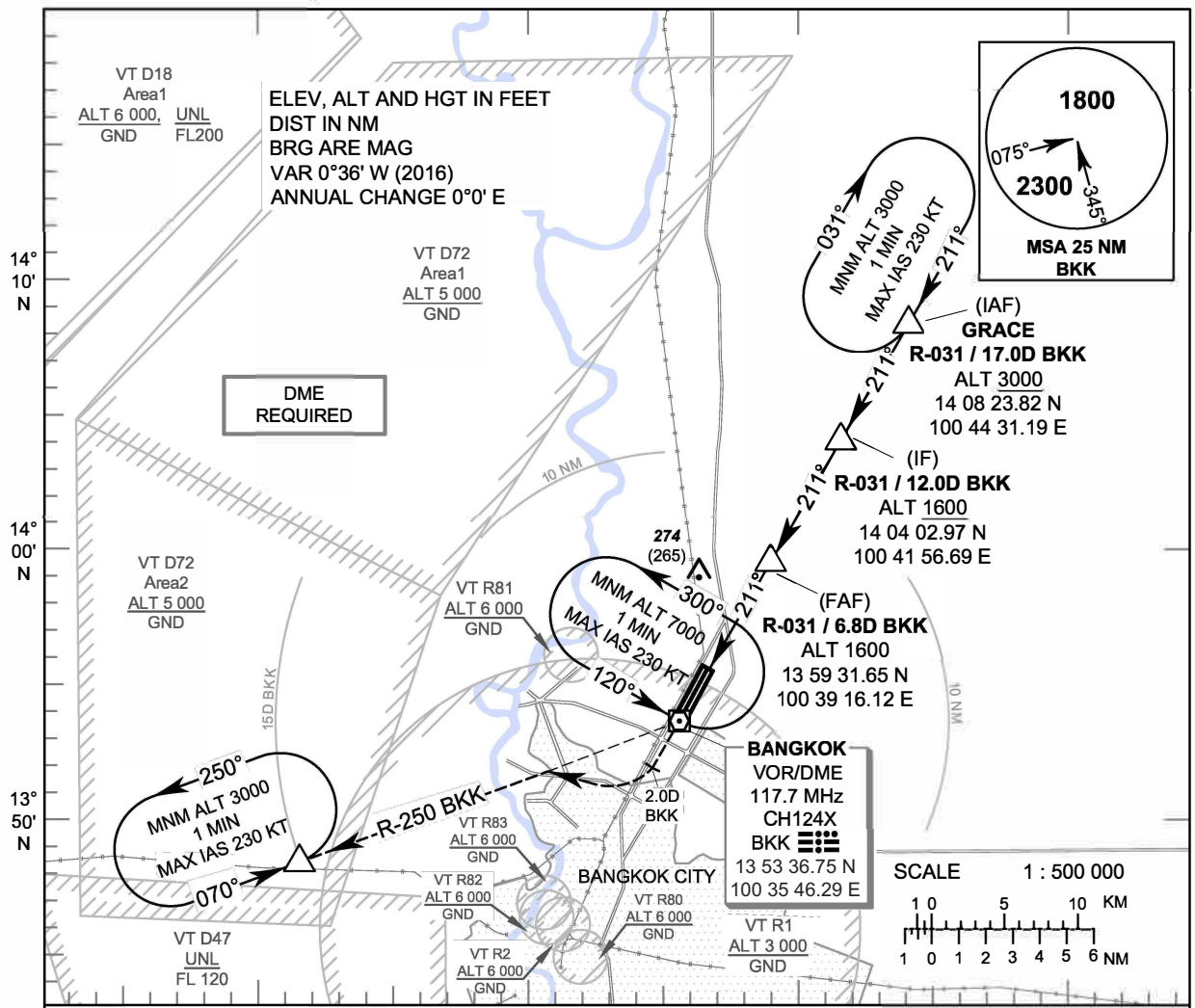
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | |
|---|---|
| APP | : 119.1, 262.5<br>: 119.4, 262.5<br>: 120.3, 262.5<br>: 133.4, 262.5<br>: 122.35, 262.5<br>: 124.35, 262.5<br>: 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**VOR RWY21L**

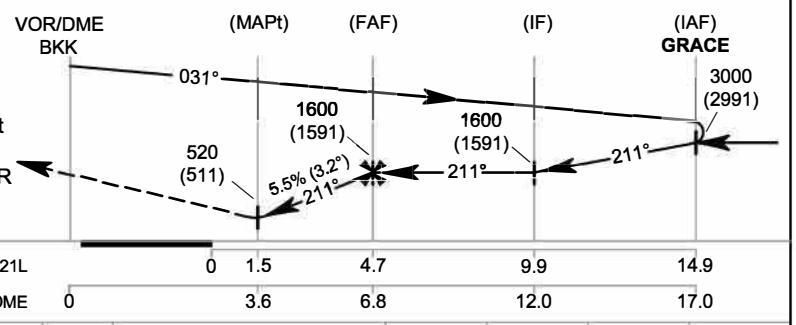



Descent gradient not coincident with PAPI

**MISSED APPROACH :**
**No turn before MAPt.**
Climb straight ahead to VOR/DME BKK until 2 DME BKK outbound then turn right continue climb on R-250 BKK VOR to 3000 FT and hold at 15 DME BKK VOR or as directed by ATC.

ELEV 7 FT
(THR RWY21L)

TA 11000




CHANGE: VOR/DME COORDINATE.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 520 (511) | | | |
| Circling (OCH AAL) | 800 (791) | | | 1100 (1091) |

| Distance (BKK) | | 3.6 DME | 4 DME | 5 DME | 6 DME |
|---|---|---|---|---|---|
| Altitude (Height) | | 520 (511) | 700 (691) | 1040 (1031) | 1370 (1361) |
| Ground speed | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| FAF-MAPt 3.2 NM | (min:s) | 1:55 | 1:36 | 1:22 | 1:12 | 1:04 | 0:58 |
| Rate of descent | (ft/min) | 557 | 668 | 780 | 891 | 1003 | 1114 |

**INTENTIONALLY BLANK**

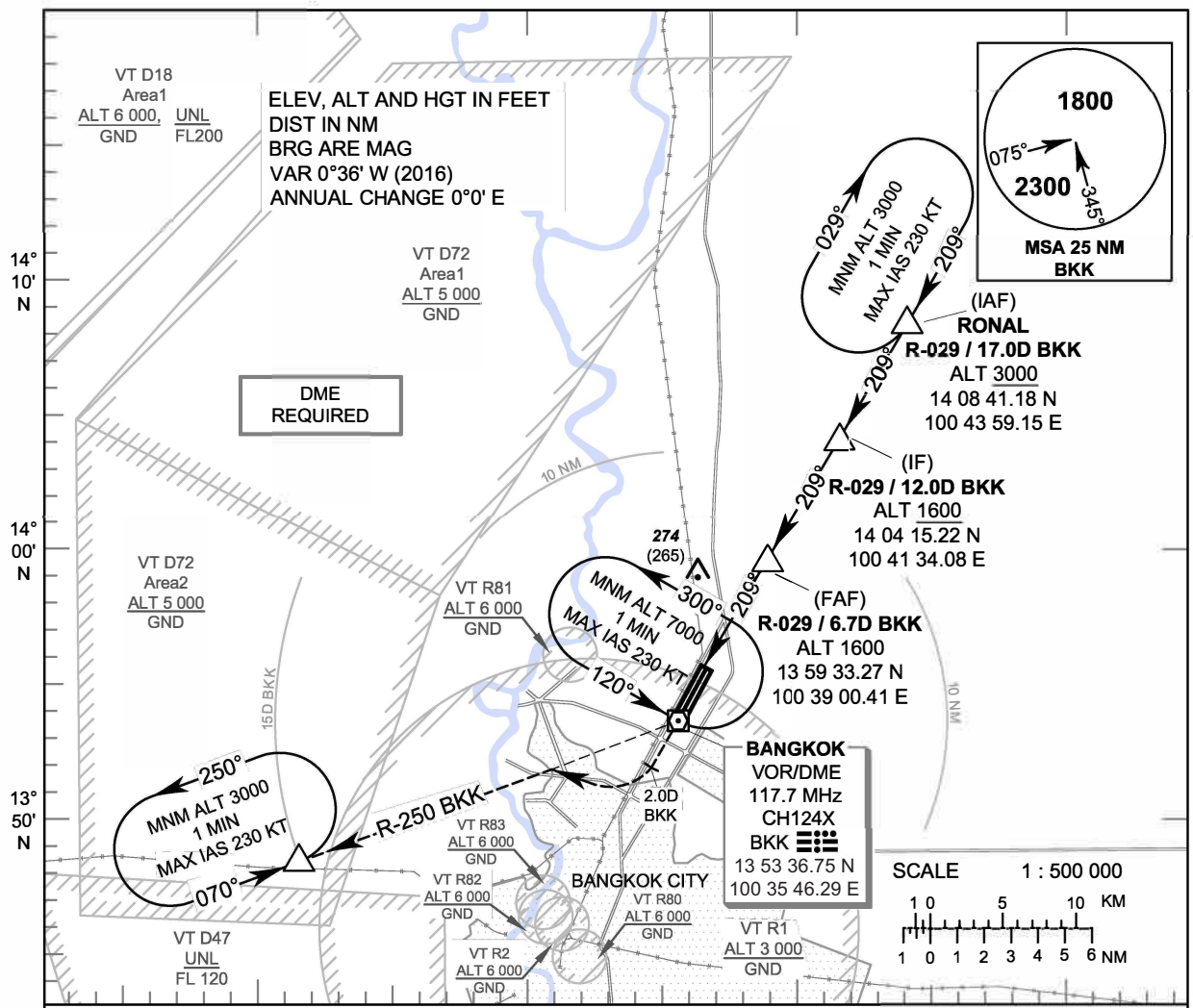
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

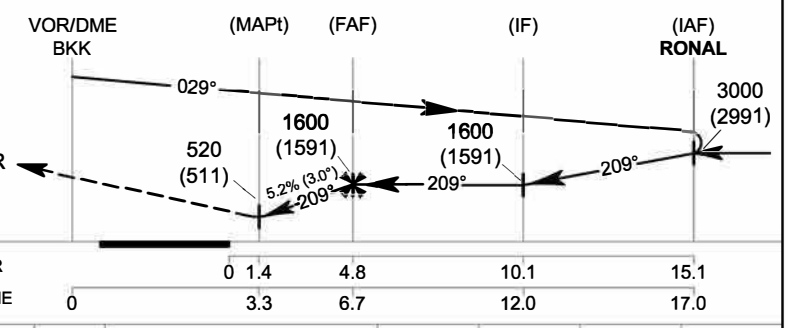
| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**VOR RWY21R**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb straight ahead to VOR/DME BKK until 2 DME BKK outbound then turn right continue climb on R-250 BKK VOR to 3000 FT and hold at 15 DME BKK VOR or as directed by ATC.




ELEV 7 FT
(THR RWY21R)

TA 11000

CHANGE: VOR/DME COORDINATE.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 520 (511) | | | |
| Circling (OCH AAL) | 800 (791) | | | 1100 (1091) |

| Distance (BKK) | | 3.3 DME | 4 DME | 5 DME | 6 DME |
|---|---|---|---|---|---|
| Altitude (Height) | | 520 (511) | 730 (721) | 1050 (1041) | 1360 (1351) |
| Ground speed | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| FAF-MAPt 3.4 NM | (min:s) | 2:02 | 1:42 | 1:27 | 1:17 | 1:08 | 1:01 |
| Rate of descent | (ft/min) | 531 | 637 | 743 | 849 | 955 | 1061 |

**INTENTIONALLY BLANK**

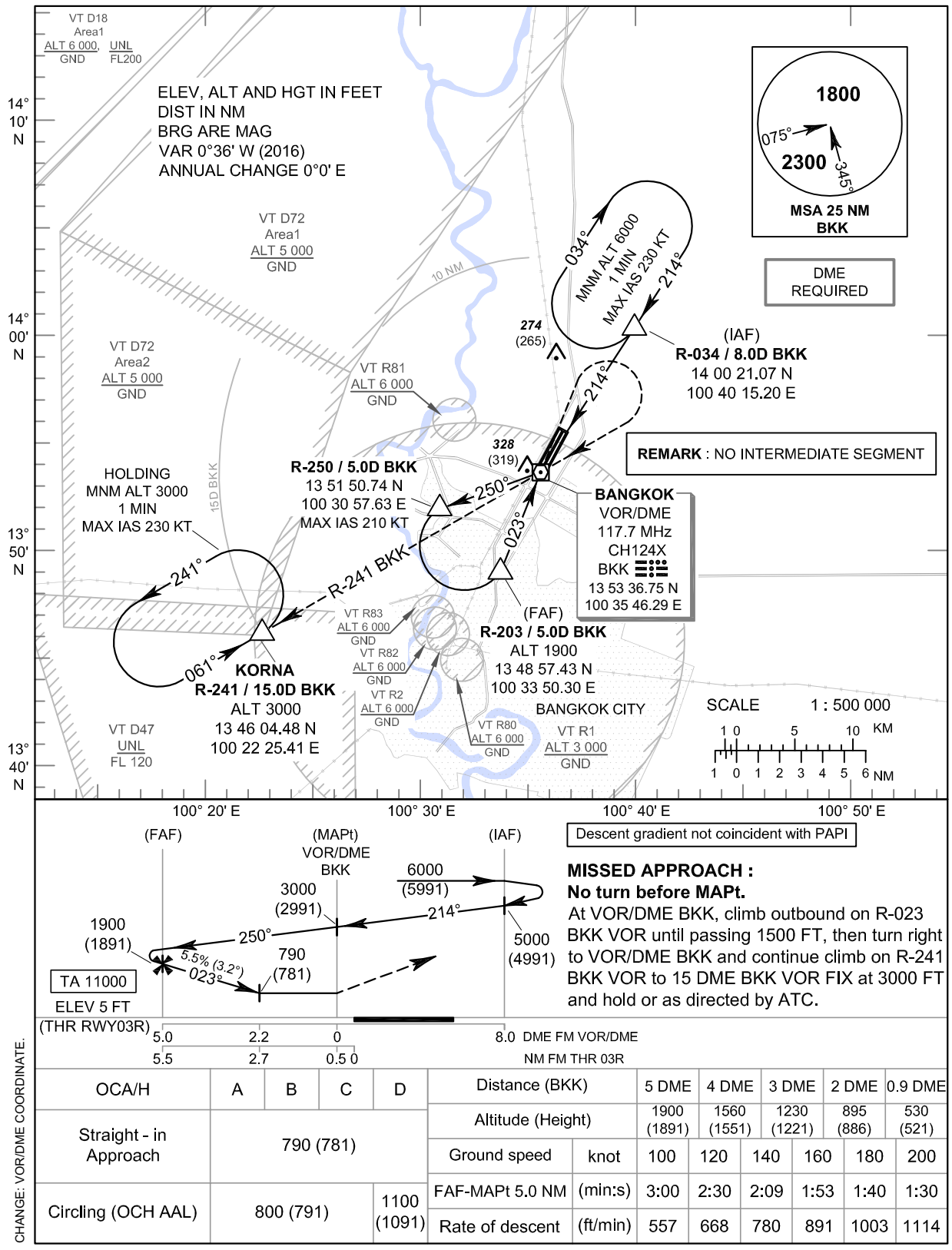
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**VOR RWY03R**







**MISSED APPROACH :**
**No turn before MAPt.**
At VOR/DME BKK, climb outbound on R-023 BKK VOR until passing 1500 FT, then turn right to VOR/DME BKK and continue climb on R-241 BKK VOR to 15 DME BKK VOR FIX at 3000 FT and hold or as directed by ATC.

CHANGE: VOR/DME COORDINATE.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 790 (781) | | | |
| Circling (OCH AAL) | 800 (791) | | | 1100 (1091) |

| Distance (BKK) | | 5 DME | 4 DME | 3 DME | 2 DME | 0.9 DME |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1900 (1891) | 1560 (1551) | 1230 (1221) | 895 (886) | 530 (521) |
| Ground speed | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| FAF-MAPt 5.0 NM | (min:s) | 3:00 | 2:30 | 2:09 | 1:53 | 1:40 | 1:30 |
| Rate of descent | (ft/min) | 557 | 668 | 780 | 891 | 1003 | 1114 |

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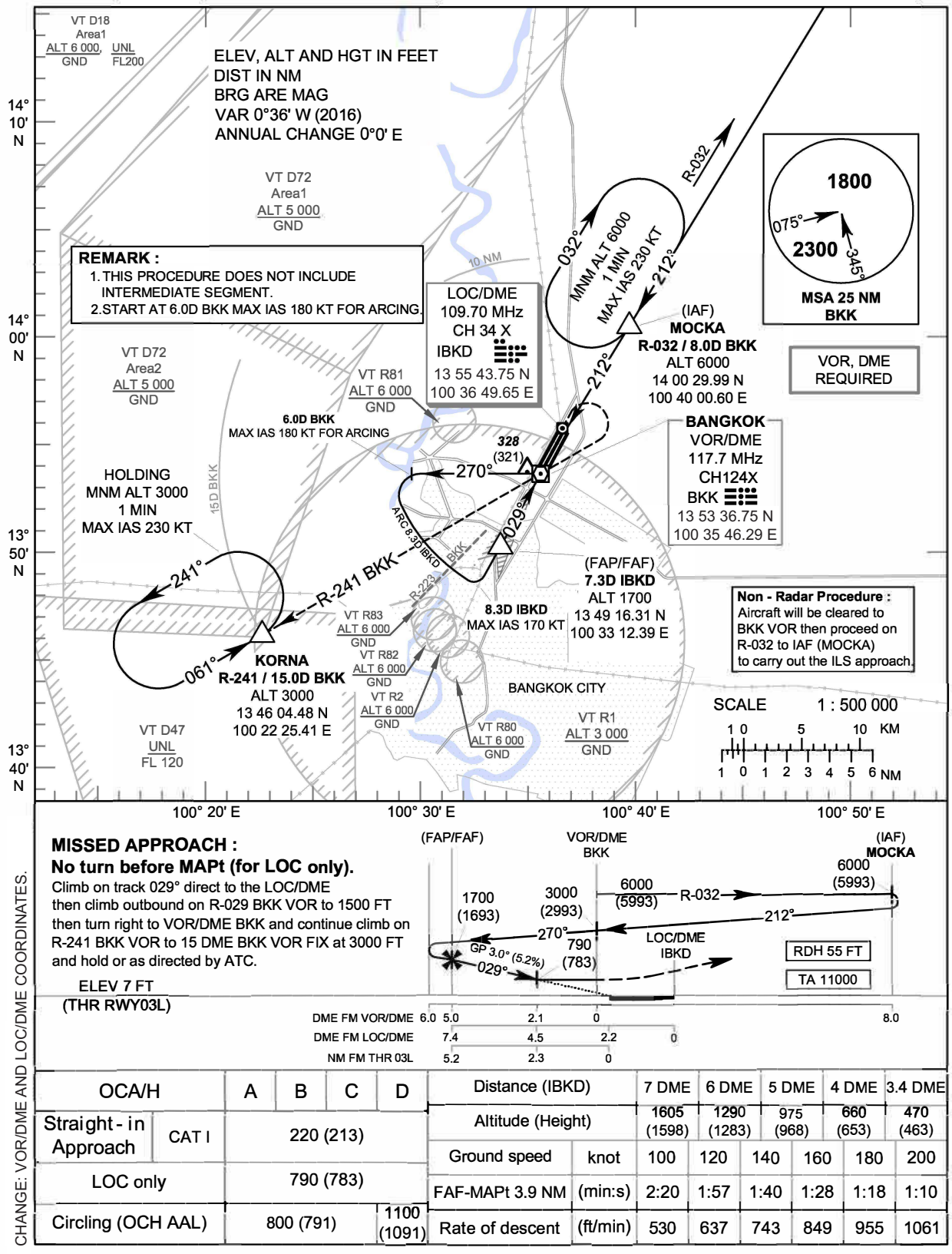
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY03L - ELEV 7 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC y RWY03L**




**MISSED APPROACH :**
**No turn before MAPt (for LOC only).**
Climb on track 029° direct to the LOC/DME then climb outbound on R-029 BKK VOR to 1500 FT then turn right to VOR/DME BKK and continue climb on R-241 BKK VOR to 15 DME BKK VOR FIX at 3000 FT and hold or as directed by ATC.

ELEV 7 FT
(THR RWY03L)




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 220 (213) | | | |
| LOC only | | 790 (783) | | | |
| Circling (OCH AAL) | | 800 (791) | | | 1100 (1091) |

| Distance (IBKD) | | 7 DME | 6 DME | 5 DME | 4 DME | 3.4 DME |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1605 (1598) | 1290 (1283) | 975 (968) | 660 (653) | 470 (463) |
| Ground speed | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| FAF-MAPt 3.9 NM | (min:s) | 2:20 | 1:57 | 1:40 | 1:28 | 1:18 | 1:10 |
| Rate of descent | (ft/min) | 530 | 637 | 743 | 849 | 955 | 1061 |

CHANGE: VOR/DME AND LOC/DME COORDINATES.

**INTENTIONALLY BLANK**

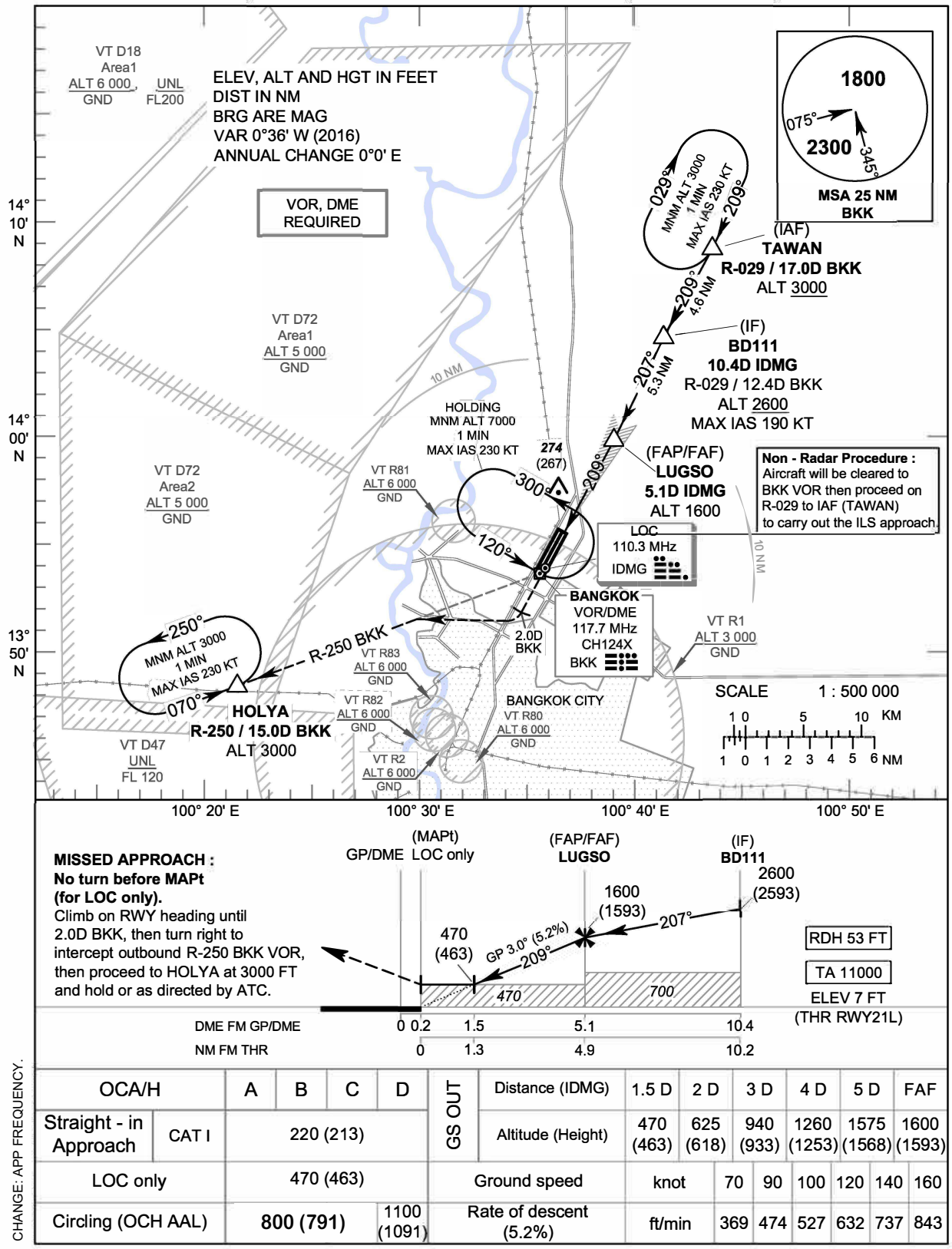
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21L - ELEV 7 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC y RWY21L**




| OCA/H | | A | B | C | D | GS OUT | Distance (IDMG) | 1.5 D | 2 D | 3 D | 4 D | 5 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 220 (213) | | | | | Altitude (Height) | 470 (463) | 625 (618) | 940 (933) | 1260 (1253) | 1575 (1568) | 1600 (1593) |
| LOC only | | 470 (463) | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | | **800 (791)** | | | 1100 (1091) | | Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: APP FREQUENCY.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21L - ELEV 7 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC y RWY21L**

CHANGE: VOR, LOC AND GP/DME COORDINATES.

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) TAWAN | R-029 / 17.0D BKK | 14° 08' 38.35" N | 100° 44' 04.62" E |
| (IF) BD111 | 10.4D IDMG | 14° 04' 35.38' N | 100° 41' 47.72" E |
| (FAP/FAF) LUGSO | 5.1D IDMG | 13° 59' 47.35" N | 100° 39' 21.27" E |
| MAPt (LOC only) @ RW21L | 0.2D IDMG | 13° 55' 28.41" N | 100° 36' 55.96" E |
| LOC | IDMG | 13° 53' 51.83" N | 100° 36' 01.83" E |
| GP/DME | IDMG | 13° 55' 21.28" N | 100° 36' 47.46" E |
| HOLYA | R-250 / 15.0D BKK | 13° 48' 16.86" N | 100° 21' 21.08" E |
| VOR | BKK | 13° 53' 36.75" N | 100° 35' 46.29" E |

**INSTRUMENT APPROACH CHART - ICAO**

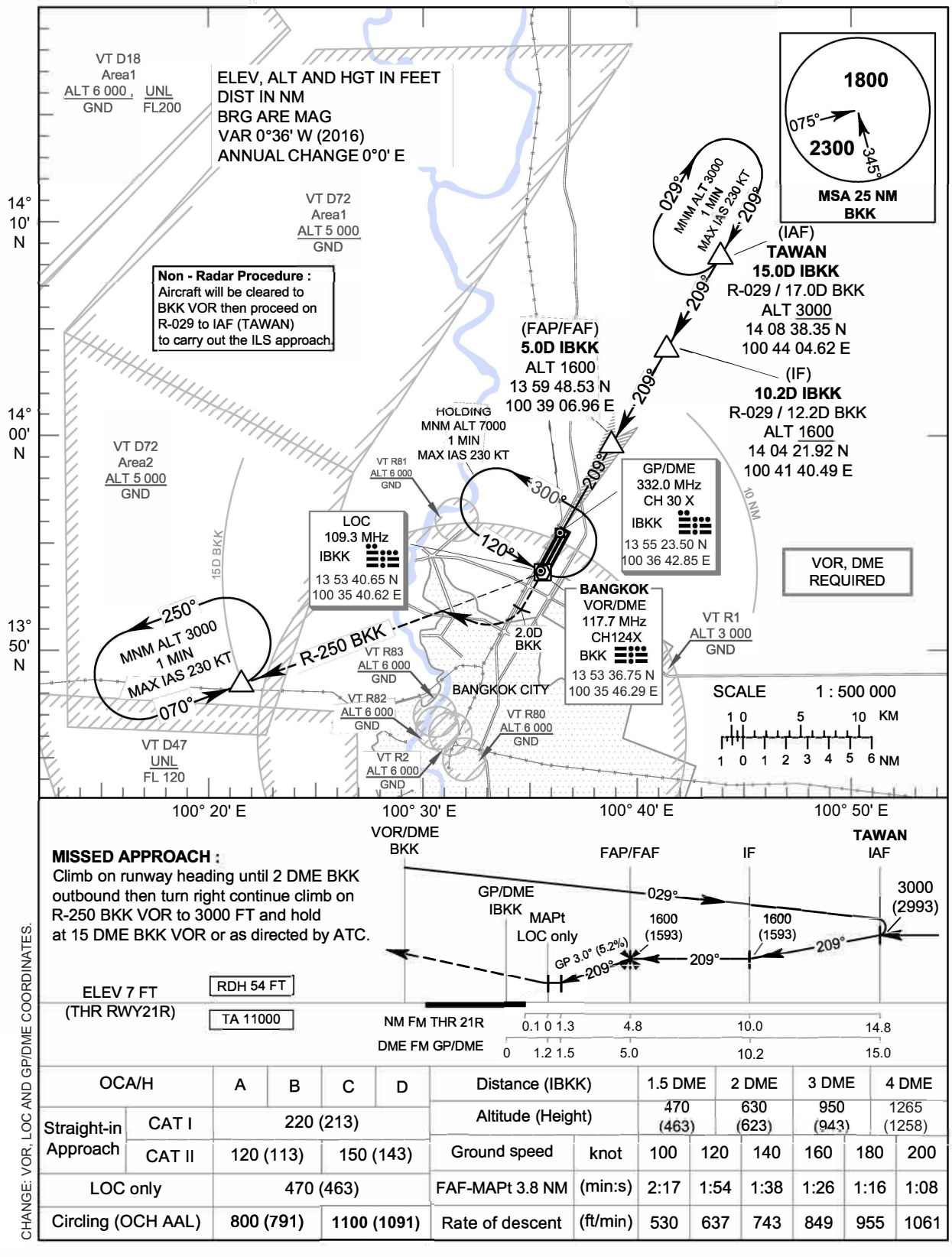
**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21R - ELEV 7 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC y RWY21R**

**CAT II**




**MISSED APPROACH :**
Climb on runway heading until 2 DME BKK outbound then turn right continue climb on R-250 BKK VOR to 3000 FT and hold at 15 DME BKK VOR or as directed by ATC.




ELEV 7 FT
(THR RWY21R)

RDH 54 FT

TA 11000

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 220 (213) | | | |
| | CAT II | 120 (113) | | 150 (143) | |
| LOC only | | 470 (463) | | | |
| Circling (OCH AAL) | | 800 (791) | | 1100 (1091) | |

| Distance (IBKK) | | 1.5 DME | 2 DME | 3 DME | 4 DME | | |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | | 470 (463) | 630 (623) | 950 (943) | 1265 (1258) | | |
| Ground speed | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| FAF-MAPt 3.8 NM | (min:s) | 2:17 | 1:54 | 1:38 | 1:26 | 1:16 | 1:08 |
| Rate of descent | (ft/min) | 530 | 637 | 743 | 849 | 955 | 1061 |

CHANGE: VOR, LOC AND GP/DME COORDINATES.

**INTENTIONALLY BLANK**

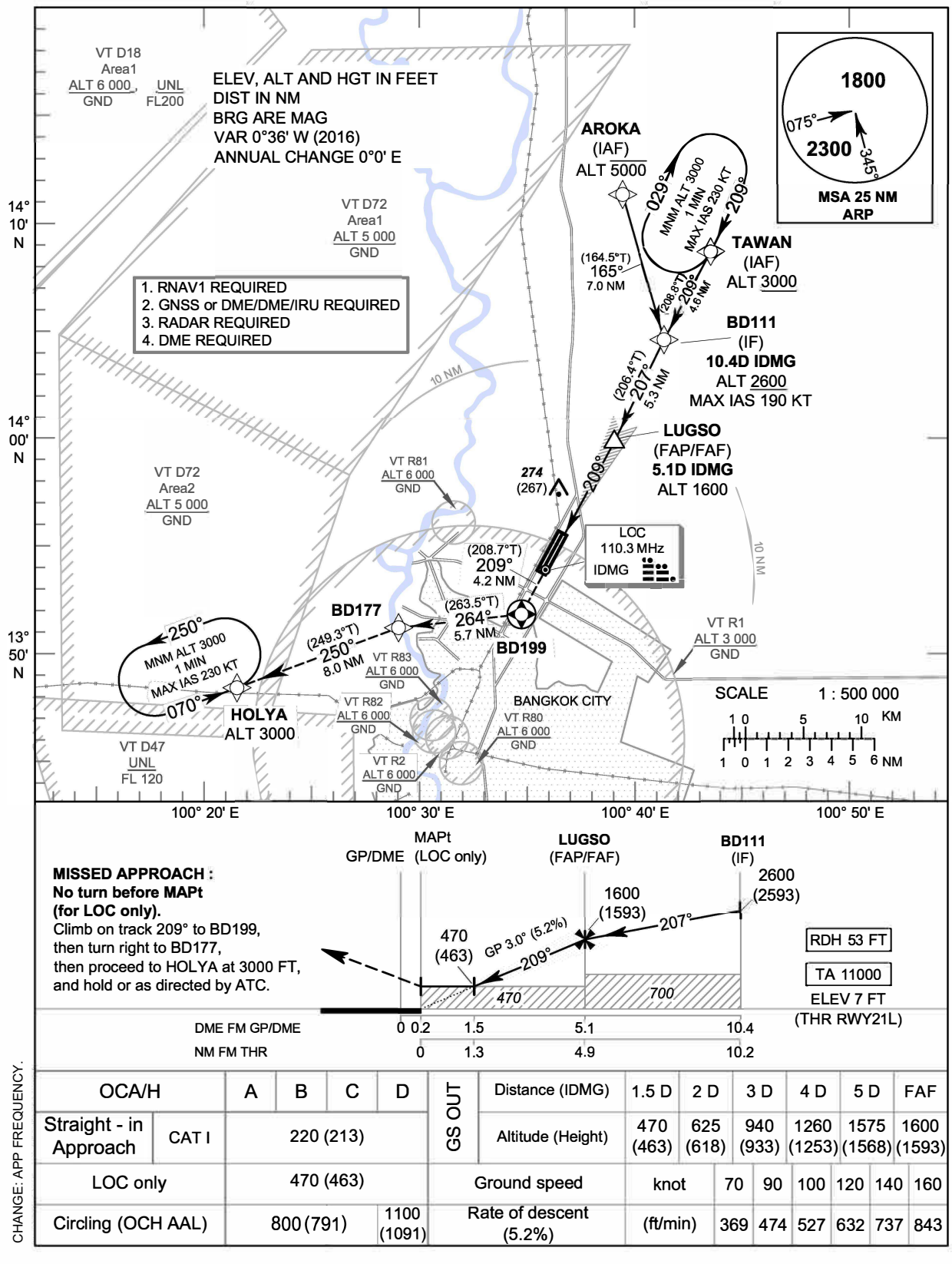
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21L - ELEV 7 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC z RWY21L**




**MISSED APPROACH :**
**No turn before MAPt**
**(for LOC only).**
Climb on track 209° to BD199,
then turn right to BD177,
then proceed to HOLYA at 3000 FT,
and hold or as directed by ATC.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 220 (213) | | | |
| LOC only | | 470 (463) | | | |
| Circling (OCH AAL) | | 800 (791) | | | 1100 (1091) |

GS OUT

| Distance (IDMG) | 1.5 D | 2 D | 3 D | 4 D | 5 D | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | 470 (463) | 625 (618) | 940 (933) | 1260 (1253) | 1575 (1568) | 1600 (1593) |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: APP FREQUENCY.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21L - ELEV 7 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC z RWY21L**

## TABULAR DESCRIPTION

| ILS or LOC z RWY21L | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
| 010 | IF | AROKA (IAF) | - | - | + 0.6 | - | - | - 5000 | - | - | RNAV 1 |
| 020 | TF | BD111 (IF) | - | 165°(164.5°) | + 0.6 | 7.0 | - | + 2600 | -190 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | TAWAN (IAF) | - | - | + 0.6 | - | - | + 3000 | - | - | RNAV 1 |
| 020 | TF | BD111 (IF) | - | 209°(208.8°) | + 0.6 | 4.6 | - | + 2600 | -190 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | BD111 (IF) | - | - | + 0.6 | - | - | + 2600 | -190 | - | RNAV 1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | LUGSO (FAF) | - | 207°(206.4°) | + 0.6 | 5.3 | R | @ 1600 | - | - | ILS |
| 030 | TF | MAPt (LOC only) @ RW21L | Y | 209°(208.7°) | + 0.6 | 4.9 | - | @ 60 | - | -3.0/53 | ILS |
| 040 | TF | BD199 | Y | 209°(208.7°) | + 0.6 | 4.2 | R | - | - | - | RNAV 1 |
| 050 | TF | BD177 | - | 264°(263.5°) | + 0.6 | 5.7 | L | - | - | - | RNAV 1 |
| 060 | TF | HOLYA | - | 250°(249.3°) | + 0.6 | 8.0 | - | + 3000 | - | - | RNAV 1 |
| 070 | HM | HOLYA | Y | 070°(069.3°) | + 0.6 | 1 minute | L | + 3000 | - 230 | - | RNAV 1 |

## WAYPOINT LIST

| ILS or LOC z RWY21L | | | |
|---|---|---|---|
| Waypoint Identifier | Coordinates | | Pronunciation |
| AROKA | 14° 11' 22.16" N | 100° 39' 51.89" E | AH - ROW - KAH |
| TAWAN | 14° 08' 38.35" N | 100° 44' 04.62" E | TAH - WAN |
| BD111 | 14° 04' 35.38" N | 100° 41' 47.72" E | - |
| LUGSO | 13° 59' 47.35" N | 100° 39' 21.27" E | LUG - SOH |
| RW21L | 13° 55' 28.41" N | 100° 36' 55.96" E | - |
| BD199 | 13° 51' 46.32" N | 100° 34' 51.41" E | - |
| BD177 | 13° 51' 07.60" N | 100° 29' 02.45" E | - |
| HOLYA | 13° 48' 16.86" N | 100° 21' 21.08" E | HOL - YAH |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21L - ELEV 7 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC z RWY21L**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IF) BD111 | 10.4D IDMG | 14° 04' 35.38' N | 100° 41' 47.72" E |
| (FAP/FAF) LUGSO | 5.1D IDMG | 13° 59' 47.35" N | 100° 39' 21.27" E |
| MAPt (LOC only) @ RW21L | 0.2D IDMG | 13° 55' 28.41" N | 100° 36' 55.96" E |
| LOC | IDMG | 13° 53' 51.83" N | 100° 36' 01.83" E |
| GP/DME | IDMG | 13° 55' 21.28" N | 100° 36' 47.46" E |

CHANGE: LOC AND GP/DME COORDINATES.

**INTENTIONALLY BLANK**

**INSTRUMENT APPROACH CHART - ICAO**

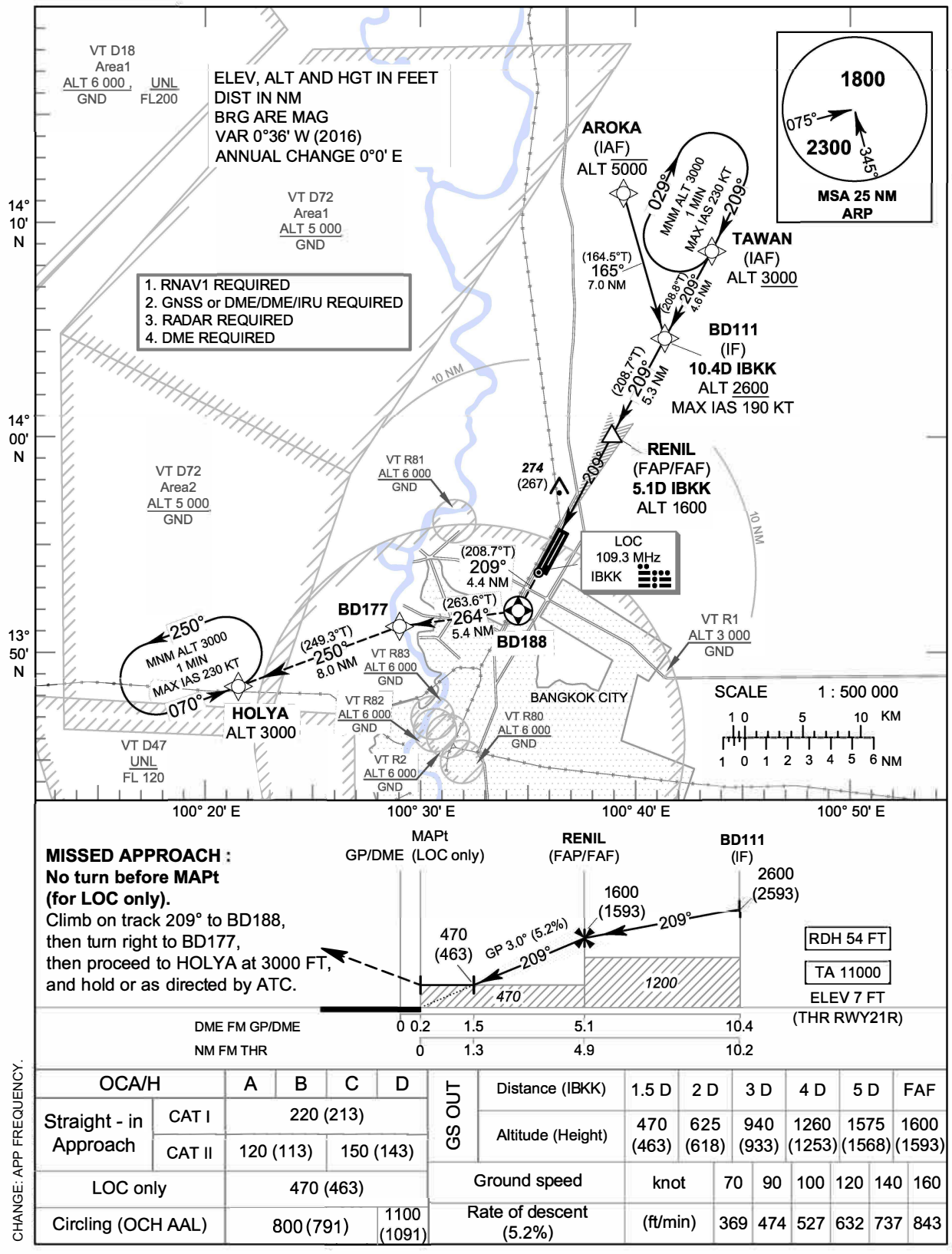
**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21R - ELEV 7 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC z RWY21R**

**CAT II**




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 220 (213) | | | |
| | CAT II | 120 (113) | | 150 (143) | |
| LOC only | | 470 (463) | | | |
| Circling (OCH AAL) | | 800 (791) | | | 1100 (1091) |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (IBKK) | 1.5 D | 2 D | 3 D | 4 D | 5 D | FAF | |
| Altitude (Height) | 470 (463) | 625 (618) | 940 (933) | 1260 (1253) | 1575 (1568) | 1600 (1593) | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21R - ELEV 7 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC z RWY21R**

**CAT II**

## TABULAR DESCRIPTION

**ILS or LOC z RWY21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | AROKA (IAF) | - | - | + 0.6 | - | - | - 5000 | - | - | RNAV 1 |
| 020 | TF | BD111 (IF) | - | 165°(164.5°) | + 0.6 | 7.0 | - | + 2600 | -190 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | TAWAN (IAF) | - | - | + 0.6 | - | - | + 3000 | - | - | RNAV 1 |
| 020 | TF | BD111 (IF) | - | 209°(208.8°) | + 0.6 | 4.6 | - | + 2600 | -190 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | BD111 (IF) | - | - | + 0.6 | - | - | + 2600 | -190 | - | RNAV 1 |
| **TRANSITION TO ILS or LOC** | | | | | | | | | | | |
| 020 | TF | RENIL (FAF) | - | 209°(208.7°) | + 0.6 | 5.3 | - | @ 1600 | - | - | ILS |
| 030 | TF | MAPt (LOC only) @ RW21R | Y | 209°(208.7°) | + 0.6 | 4.9 | - | @ 61 | - | -3.0/54 | ILS |
| 040 | TF | BD188 | Y | 209°(208.7°) | + 0.6 | 4.4 | R | - | - | - | RNAV 1 |
| 050 | TF | BD177 | - | 264°(263.6°) | + 0.6 | 5.4 | L | - | - | - | RNAV 1 |
| 060 | TF | HOLYA | - | 250°(249.3°) | + 0.6 | 8.0 | - | + 3000 | - | - | RNAV 1 |
| 070 | HM | HOLYA | Y | 070°(069.3°) | + 0.6 | 1 minute | L | + 3000 | - 230 | - | RNAV 1 |

## WAYPOINT LIST

**ILS or LOC z RWY21R**

| Waypoint Identifier | Coordinates | | Pronunciation |
|---|---|---|---|
| AROKA | 14° 11' 22.16" N | 100° 39' 51.89" E | AH - ROW - KAH |
| TAWAN | 14° 08' 38.35" N | 100° 44' 04.62" E | TAH - WAN |
| BD111 | 14° 04' 35.38" N | 100° 41' 47.72" E | - |
| RENIL | 13° 59' 53.84" N | 100° 39' 09.93" E | RE - NILL |
| RW21R | 13° 55' 34.87" N | 100° 36' 44.62" E | - |
| BD188 | 13° 51' 43.93" N | 100° 34' 35.12" E | - |
| BD177 | 13° 51' 07.60" N | 100° 29' 02.45" E | - |
| HOLYA | 13° 48' 16.86" N | 100° 21' 21.08" E | HOL - YAH |

**INSTRUMENT APPROACH CHART - ICAO** **AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21R - ELEV 7 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC z RWY21R**

**CAT II**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IF) BD111 | 10.4D IBKK | 14° 04' 35.38' N | 100° 41' 47.72" E |
| (FAP/FAF) RENIL | 5.1D IBKK | 13° 59' 53.84" N | 100° 39' 09.93" E |
| MAPt (LOC only) @ RW21R | 0.2D IBKK | 13° 55' 34.87" N | 100° 36' 44.62" E |
| LOC | IBKK | 13° 53' 40.65" N | 100° 35' 40.62" E |
| GP/DME | IBKK | 13° 55' 23.50" N | 100° 36' 42.85" E |

CHANGE: LOC AND GP/DME COORDINATES.

**INTENTIONALLY BLANK**

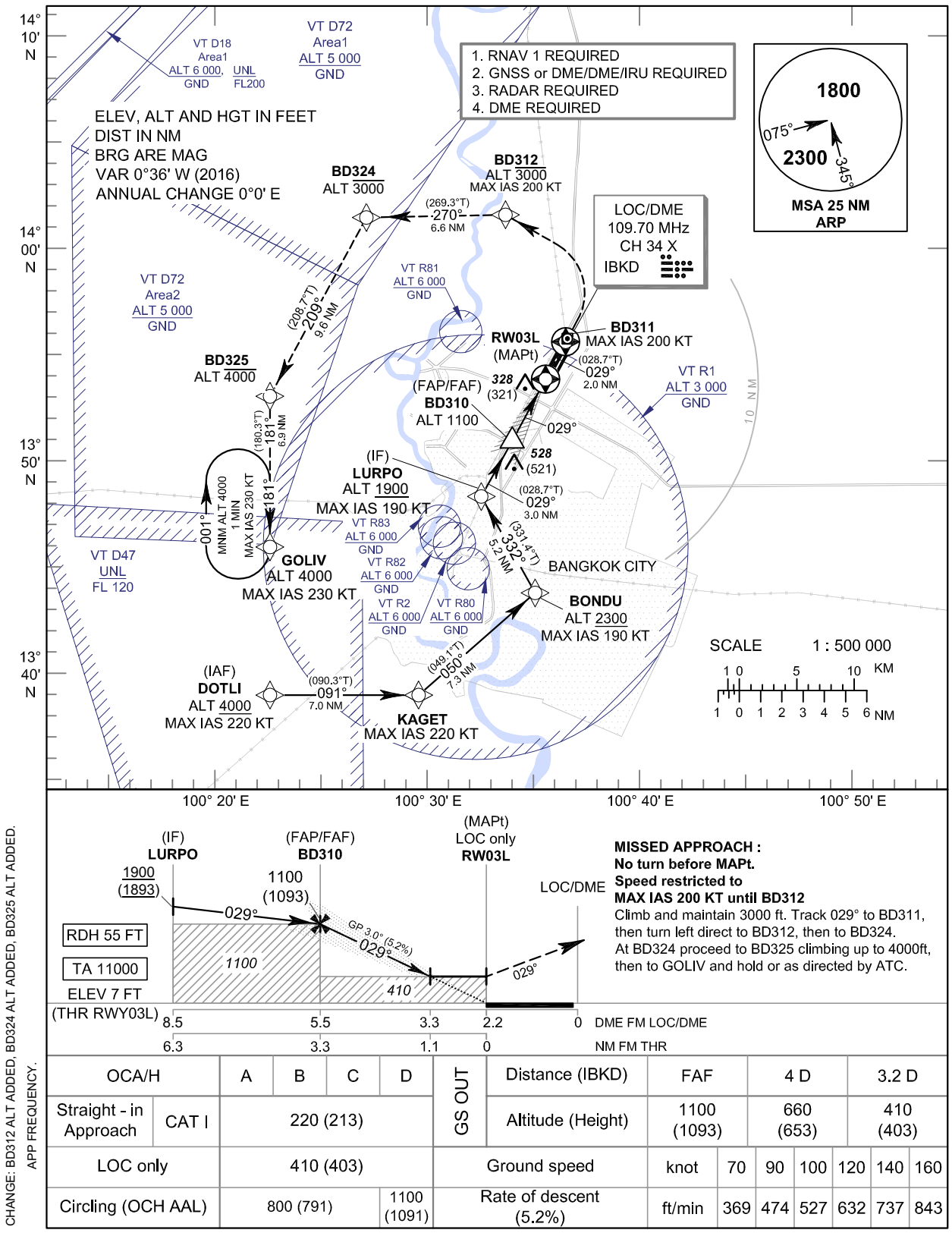
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY03L - ELEV 7 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC z RWY03L**







| OCA/H | | A | B | C | D | GS OUT | Distance (IBKD) | FAF | 4 D | 3.2 D |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 220 (213) | | | | | Altitude (Height) | 1100 (1093) | 660 (653) | 410 (403) |
| LOC only | | 410 (403) | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | | 800 (791) | | | 1100 (1091) | | Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: BD312 ALT ADDED, BD324 ALT ADDED, BD325 ALT ADDED.
APP FREQUENCY.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY03L - ELEV 7 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC z RWY03L**

## TABULAR DESCRIPTION

**ILS or LOC z RWY03L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) DOTLI | - | - | + 0.6 | - | - | +4000 | -220 | - | RNAV1 |
| 020 | TF | KAGET | | 091°(090.3°) | + 0.6 | 7.0 | - | - | -220 | - | RNAV1 |
| 030 | TF | BONDU | | 050°(049.1°) | + 0.6 | 7.3 | - | +2300 | -190 | - | RNAV1 |
| 040 | TF | (IF) LURPO | - | 332°(331.4°) | + 0.6 | 5.2 | - | +1900 | -190 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) LURPO | - | 029°(028.7°) | + 0.6 | - | - | +1900 | -190 | - | RNAV1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | (FAP/FAF) BD310 | - | 029°(028.7°) | + 0.6 | 3.0 | | @1100 | - | - | ILS |
| 030 | TF | (MAPt) LOC only @ RWY03L | Y | 029°(028.7°) | + 0.6 | 3.3 | - | @62 | - | -3.0/55 | ILS |
| 040 | TF | BD311 | Y | 029°(028.7°) | + 0.6 | 2.0 | - | - | -200 | - | RNAV1 |
| 050 | DF | BD312 | - | - | + 0.6 | - | L | -3000 | -200 | - | RNAV1 |
| 060 | TF | BD324 | - | 270°(269.3°) | + 0.6 | 6.6 | - | -3000 | - | - | RNAV1 |
| 070 | TF | BD325 | - | 209°(208.7°) | + 0.6 | 9.6 | - | -4000 | - | - | RNAV1 |
| 080 | TF | GOLIV | - | 181°(180.3°) | + 0.6 | 6.9 | - | @4000 | -230 | - | RNAV1 |
| 090 | HM | GOLIV | Y | 181°(180.3°) | + 0.6 | 1 minute | R | @4000 | -230 | - | RNAV1 |

## WAYPOINT LIST

**ILS or LOC z RWY03L**

| Waypoint Identifier | Coordinates | Pronunciation |
|---|---|---|
| DOTLI | 13° 38' 58.09" N 100° 22' 19.70" E | DOT - LI |
| KAGET | 13° 38' 55.60" N 100° 29' 31.05" E | KA - GET |
| BONDU | 13° 43' 43.15" N 100° 35' 10.82" E | BON - DU |
| LURPO | 13° 48' 16.25" N 100° 32' 38.75" E | LER - PO |
| BD310 | 13° 50' 54.83" N 100° 34' 07.60" E | - |
| RW03L | 13° 53' 49.24" N 100° 35' 45.38" E | - |
| BD311 | 13° 55' 34.87" N 100° 36' 44.62" E | - |
| BD312 | 14° 01' 36.32" N 100° 33' 52.11" E | - |
| BD324 | 14° 01' 31.22" N 100° 27' 07.81" E | - |
| BD325 | 13° 53' 05.45" N 100° 22' 24.62" E | - |
| GOLIV | 13° 46' 09.80" N 100° 22' 22.21" E | KO - LIP |

CHANGE: BD312 ALT ADDED, BD324 ALT ADDED, BD325 ALT ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY03L - ELEV 7 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**ILS or LOC z RWY03L**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IF) LURPO | 8.5D IBKD | 13° 48' 16.25" N | 100° 32' 38.75" E |
| (FAP/FAF) BD310 | 5.5D IBKD | 13° 50' 54.83" N | 100° 34' 07.60" E |
| MAPt (LOC only) @ RWY03L | 2.2D IBKD | 13° 53' 49.24" N | 100° 35' 45.38" E |
| LOC/DME | IBKD | 13° 55' 43.75" N | 100° 36' 49.65" E |

CHANGE:LOC/DME COORDINATE.

**INTENTIONALLY BLANK**

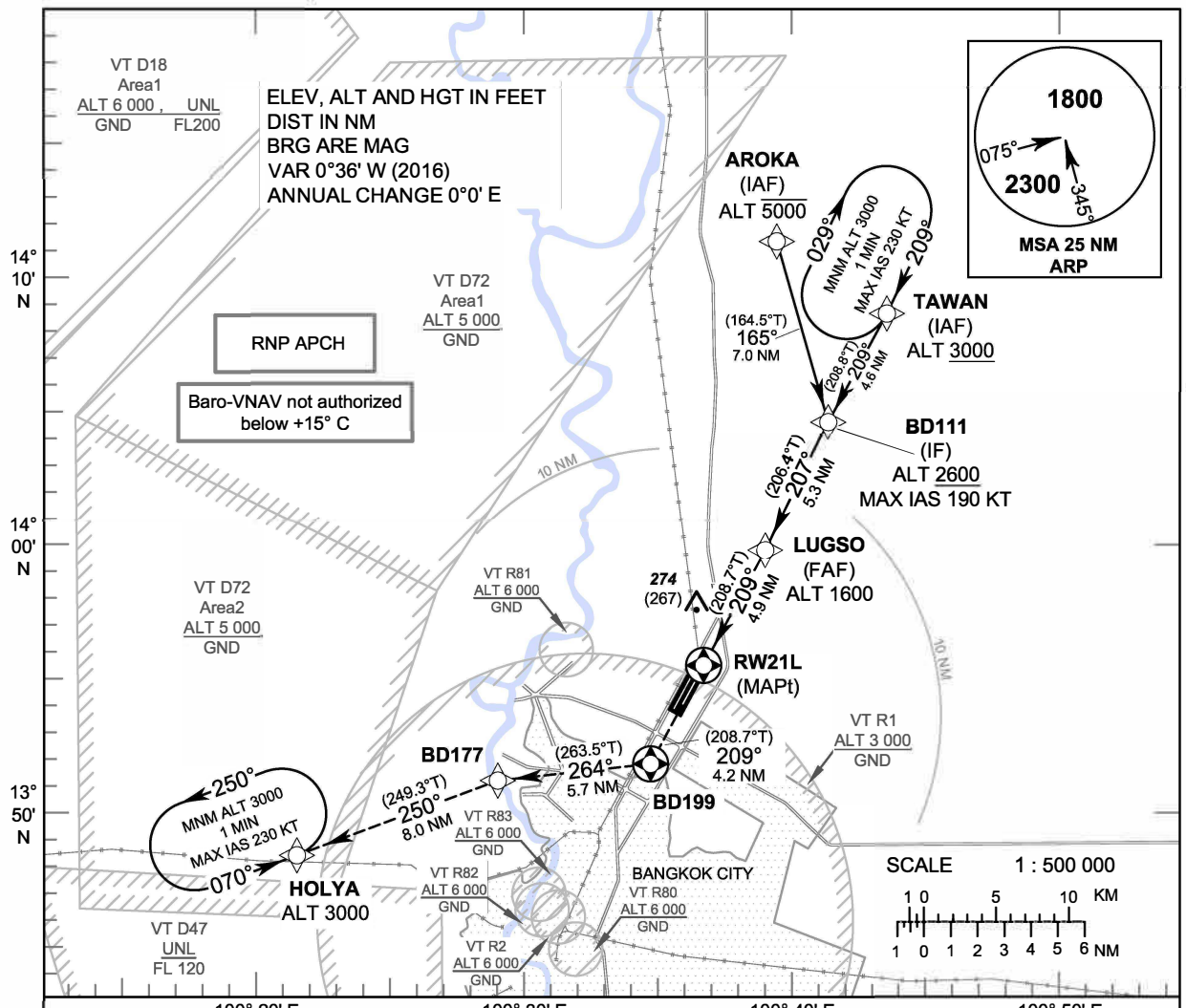
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21L - ELEV 7 FT

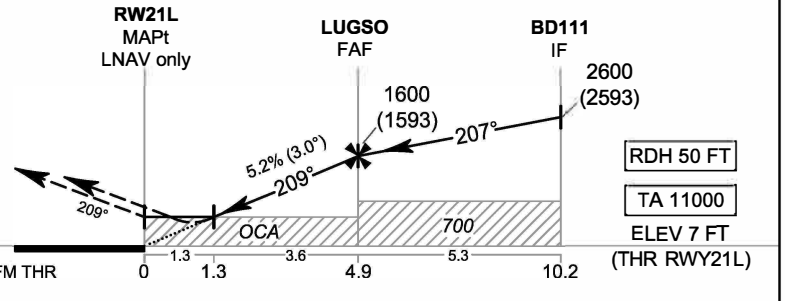
| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**RNP RWY21L**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 209° to BD199,
then turn right to BD177,
then proceed to HOLYA at 3000 FT,
and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 350 (343) | | | |
| LNAV | 470 (463) | | | |
| Circling (OCH AAL) | 800 (791) | | | 1100 (1091) |

| NM to NEXT WPT | 1.3 NM | 2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|
| Altitude (Height) | 470 (463) | 690 (683) | 1005 (998) | 1320 (1313) | 1600 (1593) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent FAF-MAPt (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: APP FREQUENCY.

**INSTRUMENT APPROACH CHART - ICAO** **AERODROME ELEV 9 FT** HEIGHTS RELATED TO THR RWY21L - ELEV 7 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**RNP RWY21L**

## TABULAR DESCRIPTION

**RNP RWY21L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | AROKA (IAF) | - | - | + 0.6 | - | - | - 5000 | - | - | RNP APCH |
| 020 | TF | BD111 (IF) | - | 165°(164.5°) | + 0.6 | 7.0 | - | + 2600 | -190 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | TAWAN (IAF) | - | - | + 0.6 | - | - | + 3000 | - | - | RNP APCH |
| 020 | TF | BD111 (IF) | - | 209°(208.8°) | + 0.6 | 4.6 | - | + 2600 | -190 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | BD111 (IF) | - | - | + 0.6 | - | - | + 2600 | -190 | - | RNP APCH |
| 020 | TF | LUGSO (FAF) | - | 207°(206.4°) | + 0.6 | 5.3 | R | @ 1600 | - | - | RNP APCH |
| 030 | TF | RW21L (MAPt) | Y | 209°(208.7°) | + 0.6 | 4.9 | - | @ 57 | - | -3.0/50 | RNP APCH |
| 040 | TF | BD199 | Y | 209°(208.7°) | + 0.6 | 4.2 | R | - | - | - | RNP APCH |
| 050 | TF | BD177 | - | 264°(263.5°) | + 0.6 | 5.7 | L | - | - | - | RNP APCH |
| 060 | TF | HOLYA | - | 250°(249.3°) | + 0.6 | 8.0 | - | + 3000 | - | - | RNP APCH |
| 070 | HM | HOLYA | Y | 070°(069.3°) | + 0.6 | 1 minute | L | + 3000 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY21L**

| Waypoint Identifier | Coordinates | | Pronunciation |
|---|---|---|---|
| AROKA | 14° 11' 22.16" N | 100° 39' 51.89" E | AH - ROW - KAH |
| TAWAN | 14° 08' 38.35" N | 100° 44' 04.62" E | TAH - WAN |
| BD111 | 14° 04' 35.38" N | 100° 41' 47.72" E | - |
| LUGSO | 13° 59' 47.35" N | 100° 39' 21.27" E | LUG - SOH |
| RW21L | 13° 55' 28.41" N | 100° 36' 55.96" E | - |
| BD199 | 13° 51' 46.32" N | 100° 34' 51.41" E | - |
| BD177 | 13° 51' 07.60" N | 100° 29' 02.45" E | - |
| HOLYA | 13° 48' 16.86" N | 100° 21' 21.08" E | HOL - YAH |

CHANGE: CHART TITLE.

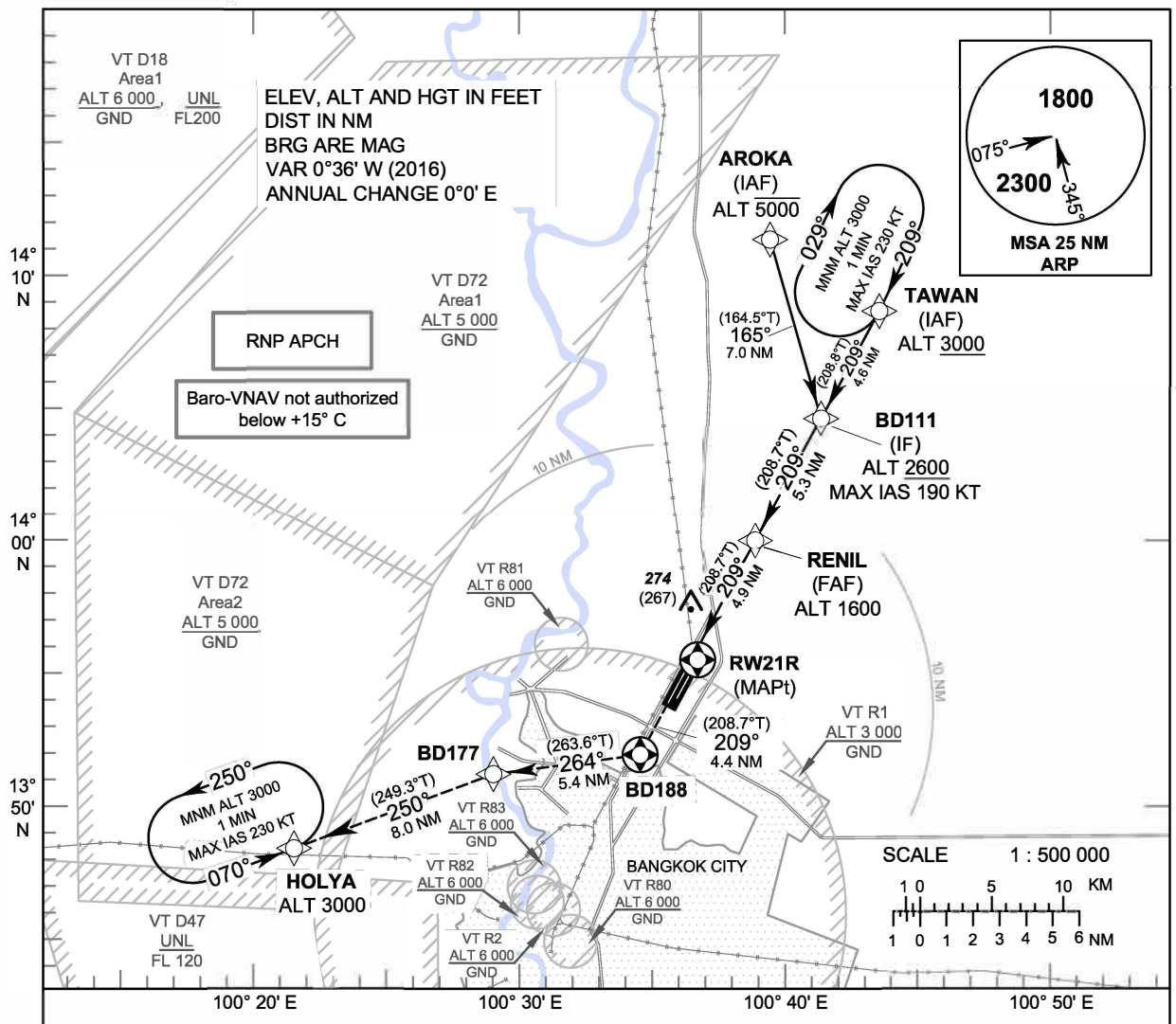
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21R - ELEV 7 FT

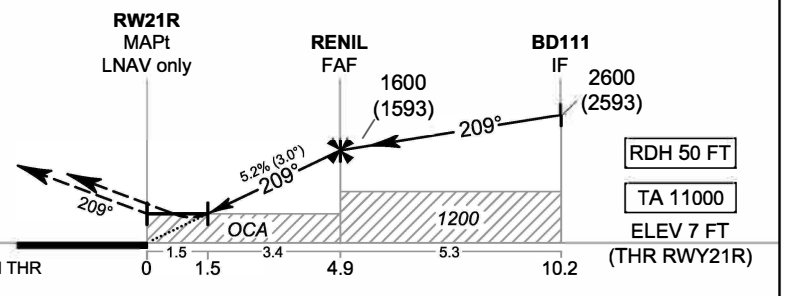
| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4,262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**RNP RWY21R**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 209° to BD188,
then turn right to BD177,
then proceed to HOLYA at 3000 FT,
and hold or as directed by ATC.




CHANGE: APP FREQUENCY.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 370 (363) | | | |
| LNAV | 530 (523) | | | |
| Circling (OCH AAL) | 800 (791) | | | 1100 (1091) |

| NM to NEXT WPT | 1.5 NM | 2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|
| Altitude (Height) | 530 (523) | 690 (683) | 1005 (998) | 1320 (1313) | 1600 (1593) |

| Ground speed knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|
| Rate of descent FAF-MAPt (5.2%) ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY21R - ELEV 7 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**RNP RWY21R**

## TABULAR DESCRIPTION

**RNP RWY21R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | AROKA (IAF) | - | - | + 0.6 | - | - | - 5000 | - | - | RNP APCH |
| 020 | TF | BD111 (IF) | - | 165°(164.5°) | + 0.6 | 7.0 | - | + 2600 | -190 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | TAWAN (IAF) | - | - | + 0.6 | - | - | + 3000 | - | - | RNP APCH |
| 020 | TF | BD111 (IF) | - | 209°(208.8°) | + 0.6 | 4.6 | - | + 2600 | -190 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | BD111 (IF) | - | - | + 0.6 | - | - | + 2600 | -190 | - | RNP APCH |
| 020 | TF | RENIL (FAF) | - | 209°(208.7°) | + 0.6 | 5.3 | - | @ 1600 | - | - | RNP APCH |
| 030 | TF | RW21R (MAPt) | Y | 209°(208.7°) | + 0.6 | 4.9 | - | @ 57 | - | -3.0/50 | RNP APCH |
| 040 | TF | BD188 | Y | 209°(208.7°) | + 0.6 | 4.4 | R | - | - | - | RNP APCH |
| 050 | TF | BD177 | - | 264°(263.6°) | + 0.6 | 5.4 | L | - | - | - | RNP APCH |
| 060 | TF | HOLYA | - | 250°(249.3°) | + 0.6 | 8.0 | - | + 3000 | - | - | RNP APCH |
| 070 | HM | HOLYA | Y | 070°(069.3°) | + 0.6 | 1 minute | L | + 3000 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY21R**

| Waypoint Identifier | Coordinates | | Pronunciation |
|---|---|---|---|
| AROKA | 14° 11' 22.16" N | 100° 39' 51.89" E | AH - ROW - KAH |
| TAWAN | 14° 08' 38.35" N | 100° 44' 04.62" E | TAH - WAN |
| BD111 | 14° 04' 35.38" N | 100° 41' 47.72" E | - |
| RENIL | 13° 59' 53.84" N | 100° 39' 09.93" E | RE - NILL |
| RW21R | 13° 55' 34.87" N | 100° 36' 44.62" E | - |
| BD188 | 13° 51' 43.93" N | 100° 34' 35.12" E | - |
| BD177 | 13° 51' 07.60" N | 100° 29' 02.45" E | - |
| HOLYA | 13° 48' 16.86" N | 100° 21' 21.08" E | HOL - YAH |

CHANGE: CHART TITLE.

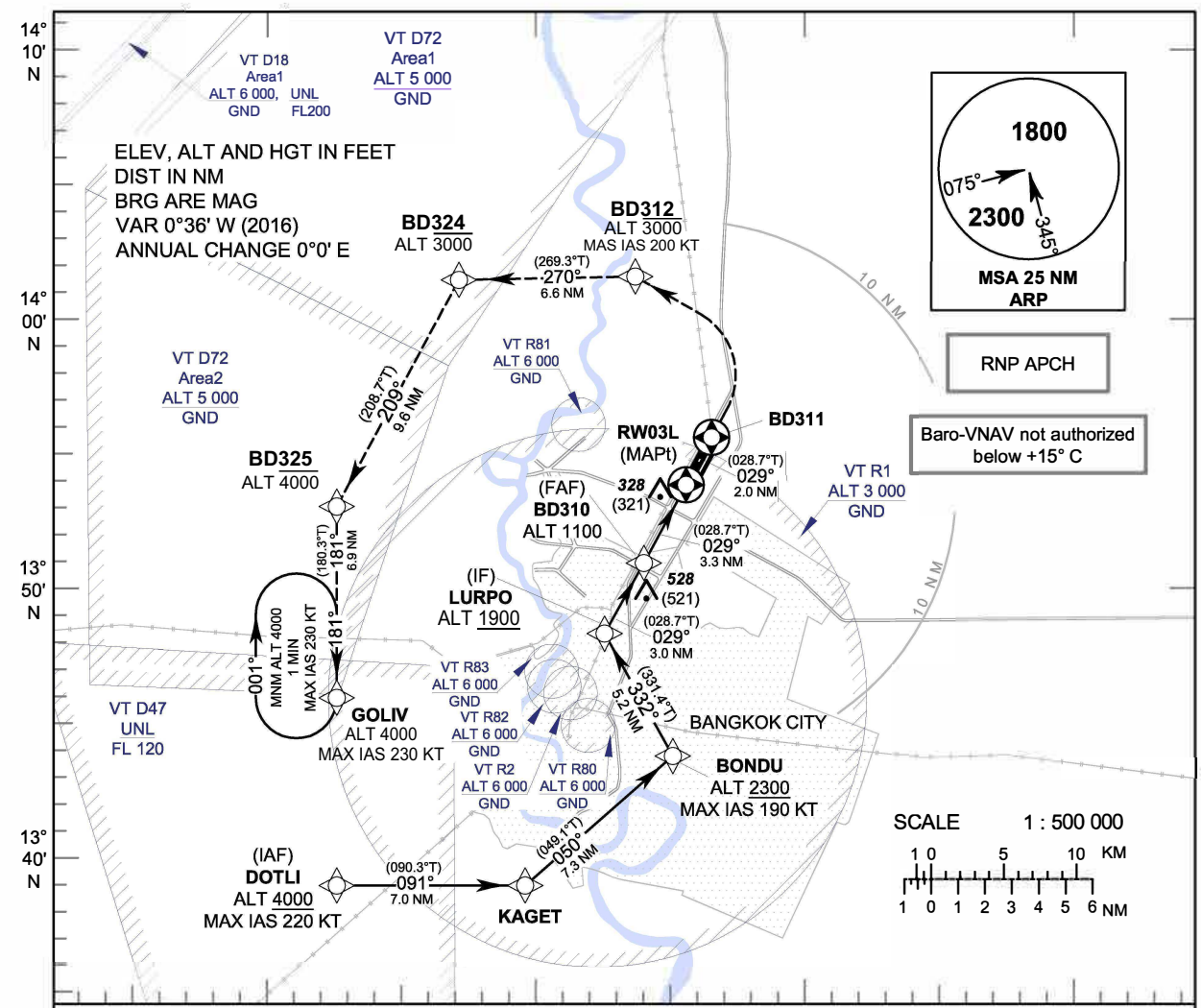
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY03L - ELEV 7 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**RNP RWY03L**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until BD312**
Climb and maintain 3000 ft. Track 029° to BD311, then turn left direct to BD312, then to BD324.
At BD324 proceed to BD325 climbing up to 4000ft, then to GOLIV and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 490 (483) | | | |
| LNAV | 590 (583) | | | |
| Circling (OCH AAL) | 800 (791) | | | 1100 (1091) |

| NM to NEXT WPT | FAF | 2 NM | 1.7 NM |
|---|---|---|---|
| Altitude (Height) | 1100 (1093) | 690 (683) | 590 (583) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent FAF-MAPt (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: BD312 ALT ADDED, BD324 ALT ADDED, BD325 ALT ADDED, APP FREQUENCY.

**INSTRUMENT APPROACH CHART - ICAO**

**BANGKOK / Don Mueang Intl (VTBD)**

**RNP RWY03L**

CHANGE: BD312 ALT ADDED, BD324 ALT ADDED, BD325 ALT ADDED,

## TABULAR DESCRIPTION

**RNP RWY03L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) DOTLI | - | - | + 0.6 | - | - | +4000 | -220 | - | RNP APCH |
| 020 | TF | KAGET | | 091°(090.3°) | + 0.6 | 7.0 | - | - | -220 | - | RNP APCH |
| 030 | TF | BONDU | | 050°(049.1°) | + 0.6 | 7.3 | - | +2300 | -190 | - | RNP APCH |
| 040 | TF | (IF) LURPO | - | 332°(331.4°) | + 0.6 | 5.2 | - | +1900 | -190 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) LURPO | - | 029°(028.7°) | + 0.6 | - | - | +1900 | -190 | - | RNP APCH |
| 020 | TF | (FAF) BD310 | - | 029°(028.7°) | + 0.6 | 3.0 | | @1100 | - | - | RNP APCH |
| 030 | TF | (MAPt @THR03L) RW03L | Y | 029°(028.7°) | + 0.6 | 3.3 | - | @57 | - | -3.0/50 | RNP APCH |
| 040 | TF | BD311 | Y | 029°(028.7°) | + 0.6 | 2.0 | - | - | -200 | - | RNP APCH |
| 050 | DF | BD312 | - | - | + 0.6 | - | L | -3000 | -200 | - | RNP APCH |
| 060 | TF | BD324 | - | 270°(269.3°) | + 0.6 | 6.6 | - | -3000 | - | - | RNP APCH |
| 070 | TF | BD325 | - | 209°(208.7°) | + 0.6 | 9.6 | - | -4000 | - | - | RNP APCH |
| 080 | TF | GOLIV | - | 181°(180.3°) | + 0.6 | 6.9 | - | @4000 | -230 | - | RNP APCH |
| 090 | HM | GOLIV | Y | 181°(180.3°) | + 0.6 | 1 minute | R | @4000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY03L**

| Waypoint Identifier | Coordinates | Pronunciation |
|---|---|---|
| DOTLI | 13° 38' 58.09" N 100° 22' 19.70" E | DOT - LI |
| KAGET | 13° 38' 55.60" N 100° 29' 31.05" E | KA - GET |
| BONDU | 13° 43' 43.15" N 100° 35' 10.82" E | BON - DU |
| LURPO | 13° 48' 16.25" N 100° 32' 38.75" E | LER - PO |
| BD310 | 13° 50' 54.83" N 100° 34' 07.60" E | - |
| RW03L | 13° 53' 49.24" N 100° 35' 45.38" E | - |
| BD311 | 13° 55' 34.87" N 100° 36' 44.62" E | - |
| BD312 | 14° 01' 36.32" N 100° 33' 52.11" E | - |
| BD324 | 14° 01' 31.22" N 100° 27' 07.81" E | - |
| BD325 | 13° 53' 05.45" N 100° 22' 24.62" E | - |
| GOLIV | 13° 46' 09.80" N 100° 22' 22.21" E | KO - LIP |

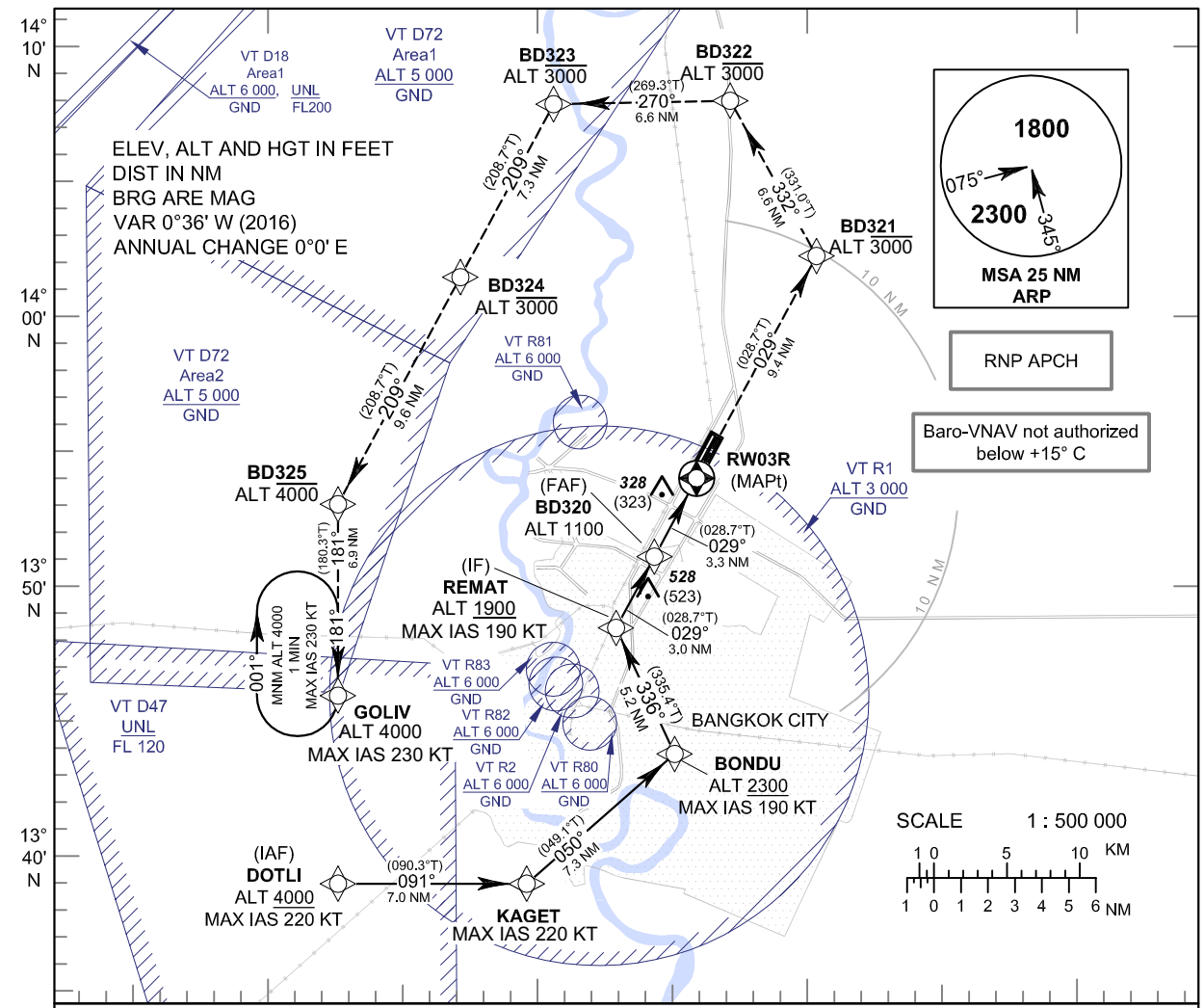
**INSTRUMENT APPROACH CHART - ICAO**

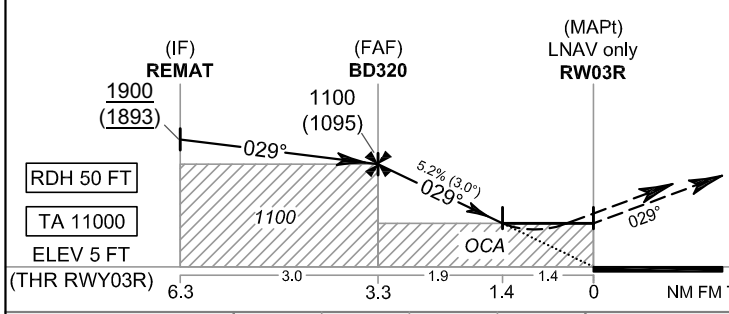
**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY03R - ELEV 5 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 119.4, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| DAR | : 133.0, 262.5 |
| TWR | : 118.1, 236.6 |
| ATIS | : 126.4, 344.6 |

**BANGKOK / Don Mueang Intl (VTBD)**

**RNP RWY03R**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb and maintain 3000 ft. Track 029° to BD321, then to BD322, then to BD323, then to BD324.
At BD324 proceed to BD325 climbing up to 4000ft, then to GOLIV and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 490 (485) | | | |
| LNAV | 500 (495) | | | |
| Circling (OCH AAL) | 800 (791) | | | 1100 (1091) |

| NM to NEXT WPT | FAF | 2 NM | 1.4 NM |
|---|---|---|---|
| Altitude (Height) | 1100 (1095) | 685 (680) | 500 (495) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent FAF-MAPt (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: BD321 ALT ADDED, BD322 ALT ADDED, BD323 ALT ADDED, BD324 ALT ADDED, BD325 ALT ADDED, APP FREQUENCY.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO
THR RWY03R - ELEV 5 FT

**BANGKOK / Don Mueang Intl (VTBD)**

**RNP RWY03R**

## TABULAR DESCRIPTION

**RNP RWY03R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) DOTLI | - | - | + 0.6 | - | - | +4000 | -220 | - | RNP APCH |
| 020 | TF | KAGET | | 091°(090.3°) | + 0.6 | 7.0 | - | - | -220 | - | RNP APCH |
| 030 | TF | BONDU | | 050°(049.1°) | + 0.6 | 7.3 | - | +2300 | -190 | - | RNP APCH |
| 040 | TF | (IF) REMAT | - | 336°(335.4°) | + 0.6 | 5.2 | - | +1900 | -190 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) REMAT | - | 029°(028.7°) | + 0.6 | - | - | +1900 | -190 | - | RNP APCH |
| 020 | TF | (FAF) BD320 | - | 029°(028.7°) | + 0.6 | 3.0 | | @1100 | - | - | RNP APCH |
| 030 | TF | (MAPt @THR03R) RW03R | Y | 029°(028.7°) | + 0.6 | 3.3 | - | @57 | - | -3.0/50 | RNP APCH |
| 040 | TF | BD321 | - | 029°(028.7°) | + 0.6 | 9.4 | - | -3000 | - | - | RNP APCH |
| 050 | TF | BD322 | - | 332°(331.0°) | + 0.6 | 6.6 | - | -3000 | - | - | RNP APCH |
| 060 | TF | BD323 | - | 270°(269.3°) | + 0.6 | 6.6 | - | -3000 | - | - | RNP APCH |
| 070 | TF | BD324 | - | 209°(208.7°) | + 0.6 | 7.3 | - | -3000 | - | - | RNP APCH |
| 080 | TF | BD325 | - | 209°(208.7°) | + 0.6 | 9.6 | - | -4000 | - | - | RNP APCH |
| 090 | TF | GOLIV | - | 181°(180.3°) | + 0.6 | 6.9 | - | @4000 | -230 | - | RNP APCH |
| 100 | HM | GOLIV | Y | 181°(180.3°) | + 0.6 | 1 minute | R | @4000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY03R**

| Waypoint Identifier | Coordinates | Pronunciation |
|---|---|---|
| DOTLI | 13° 38' 58.09" N 100° 22' 19.70" E | DOT - LI |
| KAGET | 13° 38' 55.60" N 100° 29' 31.05" E | KA - GET |
| BONDU | 13° 43' 43.15" N 100° 35' 10.82" E | BON - DU |
| REMAT | 13° 48' 25.56" N 100° 32' 58.68" E | REE - MAT |
| BD320 | 13° 51' 04.09" N 100° 34' 27.63" E | - |
| RW03R | 13° 53' 58.45" N 100° 36' 05.50" E | - |
| BD321 | 14° 02' 15.77" N 100° 40' 44.48" E | - |
| BD322 | 14° 08' 01.19" N 100° 37' 28.12" E | - |
| BD323 | 14° 07' 56.19" N 100° 30' 43.63" E | - |
| BD324 | 14° 01' 31.22" N 100° 27' 07.81" E | - |
| BD325 | 13° 53' 05.45" N 100° 22' 24.62" E | - |
| GOLIV | 13° 46' 09.80" N 100° 22' 22.21" E | KO - LIP |

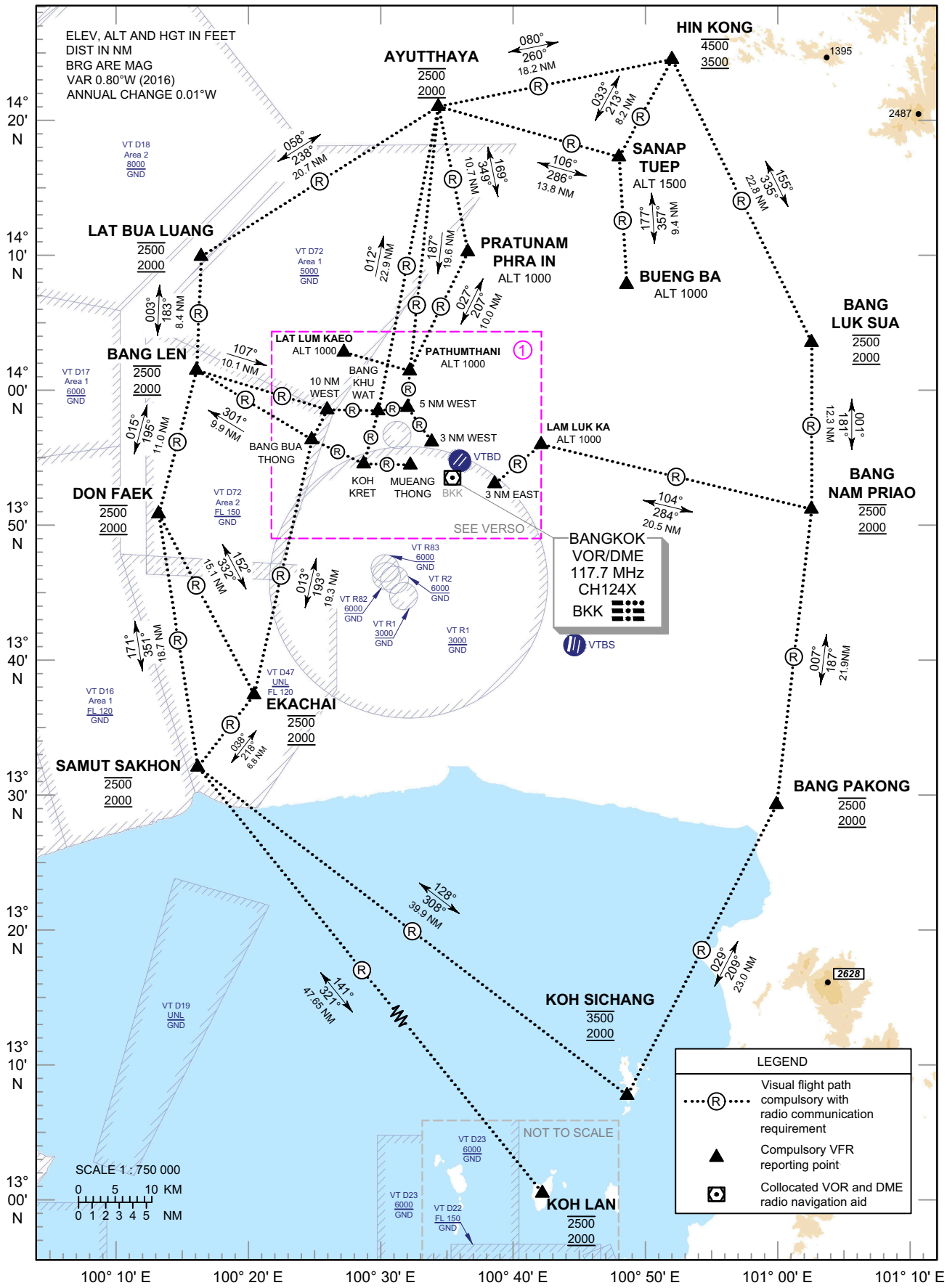
CHANGE: BD321 ALT ADDED, BD322 ALT ADDED, BD323 ALT ADDED, BD324 ALT ADDED, BD325 ALT ADDED.

**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 119.4 , 274.5 |
| | | 133.4 , 274.5 |
| | | 125.2 , 274.5 |
| | | 124.35 , 274.5 |
| | | 122.35 , 274.5 |
| | | 119.1 , 274.5 |
| | | 120.3 , 274.5 |
| | | 125.8 |
| DAR | : | 133.0 , 274.5 |
| TWR | : | 118.1 , 236.6 |
| ATIS | : | 126.4 , 344.6 |

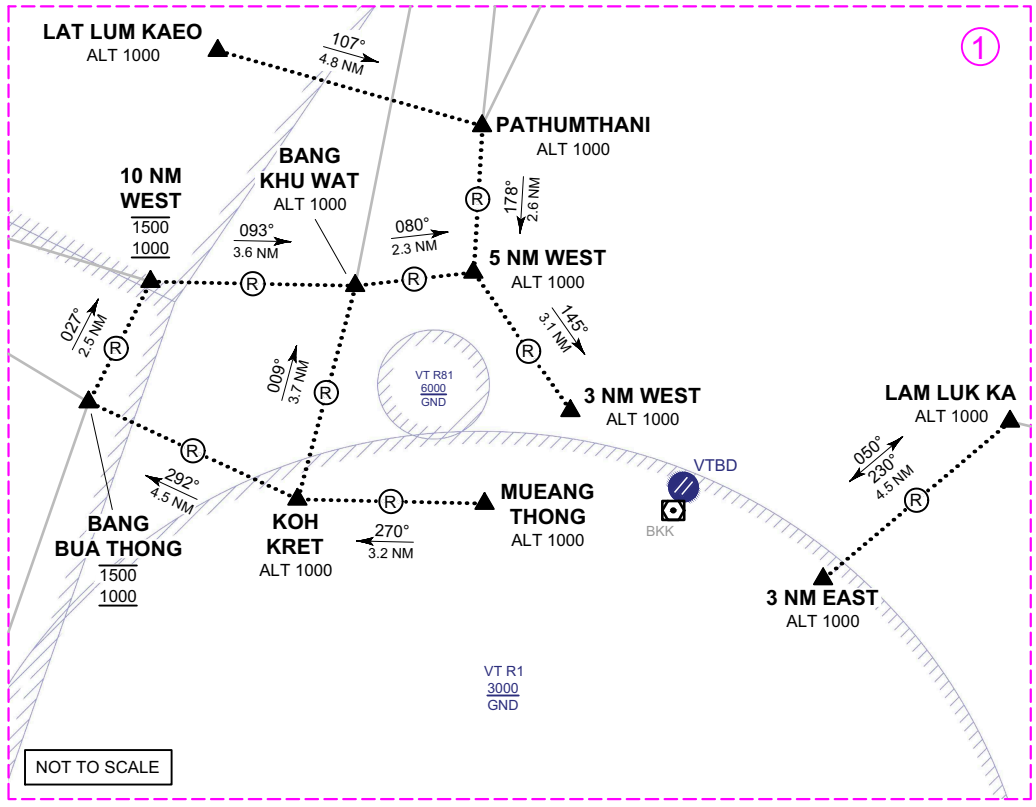
**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**



**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**



**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**

**DEPARTURE**

**NORTHBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - AYUTTHAYA [ALT2500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG LUK SUA [ALT2500] - HIN KONG [ALT3500] - AYUTTHAYA [ALT2500]

**WESTBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG BUA THONG [ALT1000] - BANG LEN [ALT2500] - LAT BUA LUANG [ALT2500] or DON FAEK [ALT2500]

**SOUTHBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG BUA THONG [ALT1000] - EKACHAI [ALT2500] - SAMUT SAKHON [ALT2500]

**SOUTHEASTBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG BUA THONG [ALT1000] - EKACHAI [ALT2500] - SAMUT SAKHON [ALT2500] - KOH LAN [ALT2500] or KOH SICHANG [ALT3500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG PAKONG [ALT2500] - KOH SICHANG [ALT3500]

**EASTBOUND**
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000]- BANG NAM PRIAO [ALT2500]

**NORTHEASTBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - AYUTTHAYA [ALT2500] - HIN KONG [ALT3500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG LUK SUA [ALT2500] - HIN KONG [ALT3500]

**TRAINING VT D72**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG BUA THONG [ALT1000] - VT D72

**ARRIVAL**

**NORTHBOUND**
- AYUTTHAYA [ALT2000] - PATHUMTHANI [ALT1000] or PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- AYUTTHAYA [ALT2000] - HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

**WESTBOUND**
- BANG LEN [ALT2000] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

**SOUTHBOUND**
- SAMUT SAKHON [ALT2000] - EKACHAI [ALT2000] - BANG BUA THONG [ALT1500] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

**SOUTHEASTBOUND**
- KOH LAN [ALT2000] or KOH SICHANG [ALT2000] - SAMUT SAKHON [ALT2000] - EKACHAI [ALT2000] - BANG BUA THONG [ALT1500] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- KOH SICHANG [ALT2000] - BANG PAKONG [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

**EASTBOUND**
- BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**

**NORTHEASTBOUND**
- HIN KONG [ALT4500] - AYUTTHAYA [ALT2000] - PATHUMTHANI [ALT1000] or PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

**TRAINING VT D72**
- LAT LUM KAEO [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| MUEANG THONG | Impact Arena Building | R-290 / 3.0D | 13° 54' 35.00'' N | 100° 32' 35.00'' E |
| KOH KRET | Wat Poramai Yikawas, Koh Kret | R-280 / 6.5D | 13° 54' 41.00'' N | 100° 29' 03.00'' E |
| BANG BUA THONG | Bang Bua Thong Interchange | R-286 / 10.8D | 13° 56' 30.00'' N | 100° 25' 07.00'' E |
| 10 NM WEST | Kanchanapisek Rd. Crossing Pra-u-dom canal | R-300 / 10.5D | 13° 58' 43.00'' N | 100° 26' 18.00'' E |
| BANG KHU WAT | Flora Ville Golf Course | R-313 / 7.3D | 13° 58' 37.00'' N | 100° 30' 10.00'' E |
| PATHUMTHANI | Pathumthani Bridge (Crossing Chaopraya River) | R-338 / 8.6D | 14° 01' 33.00'' N | 100° 32' 25.00'' E |
| 5 NM WEST | Riverdale Golf Club, Bangkradee, Pathumthani | R-325 / 5.9D | 13° 58' 51.00'' N | 100° 32' 24.00'' E |
| 3 NM WEST | Armed Forces Development Command (Dome shape) Si kan | R-333 / 3.8D | 13° 56' 17.00'' N | 100° 34' 13.00'' E |
| 3 NM EAST | Sukhaphiban 5, Chalong Rat Expressway Toll Plaza | R-095 / 3.1D | 13° 53' 09.00'' N | 100° 38' 58.00'' E |
| LAM LUK KA | Bangkok Eastern Outer Ring Rd. Crossing Lamlukka Rd. | R-075 / 7.5D | 13° 56' 02.00'' N | 100° 42' 31.00'' E |
| BUENG BA | Outdoor Stadium Between Wat Bueng Ba Prapasawat and Nongsua Wittayakorn School | R-042 / 19.3D | 14° 07' 51.00'' N | 100° 49' 05.00'' E |
| SANAP THUEP | PTT Innovation Institute Sanaptueb, Wang Noi | R-028 / 27.0D | 14° 17' 18.00'' N | 100° 48' 35.00'' E |
| PRATUNAM PHRA IN | Bang Pa-in Interchange, Bangkok Western Outer Ring Rd. Crossing Phaholyothin Rd. | R-005 / 16.8D | 14° 12' 05.00'' N | 100° 38' 33.00'' E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00'' N | 100° 52' 40.00'' E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00'' N | 100° 34' 53.00'' E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00'' N | 100° 16' 48.00'' E |

**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00" N | 100° 20' 38.00" E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00" N | 101° 03' 05.00" E |
| SAMUT SAKHON | Thachalom Roundabout | R-222 / 28.4D | 13° 32' 17.00" N | 100° 16' 20.00" E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00" N | 100° 48' 40.00" E |
| KOH LAN | Koh Lan | R-170 / 59.5D | 12° 54' 53.00" N | 100° 46' 49.00" E |
| LAT LUM KAEO | Bangkok Western Outer Ring Rd. Crossing Pathumthani-Ladlumkaew Rd. | R-319 / 12.3D | 14° 02' 58.18" N | 100° 27' 35.85" E |

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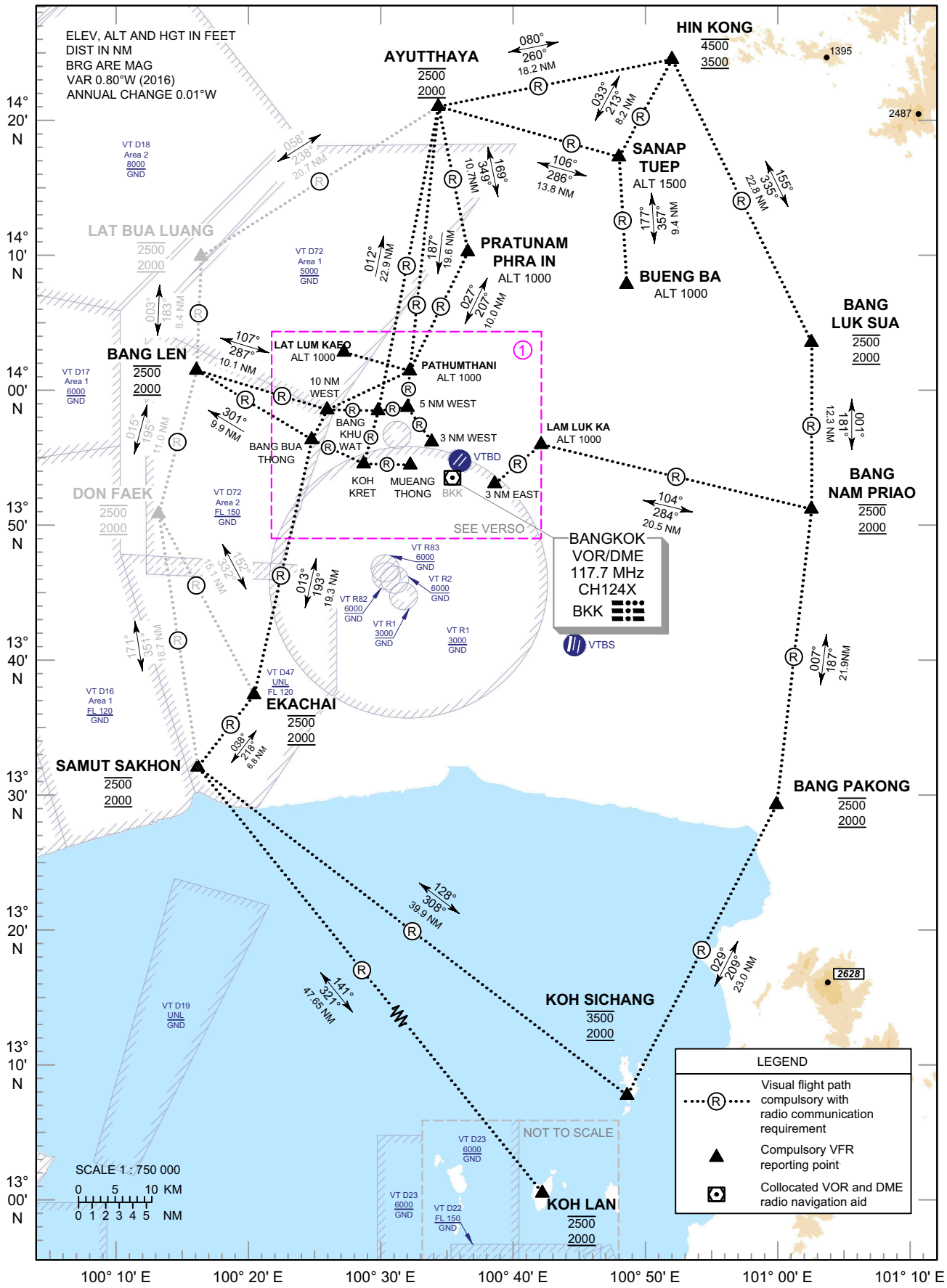
**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 119.4 , 274.5 |
| | | 133.4 , 274.5 |
| | | 125.2 , 274.5 |
| | | 124.35 , 274.5 |
| | | 122.35 , 274.5 |
| | | 119.1 , 274.5 |
| | | 120.3 , 274.5 |
| | | 125.8 |
| DAR | : | 133.0 , 274.5 |
| TWR | : | 118.1 , 236.6 |
| ATIS | : | 126.4 , 344.6 |

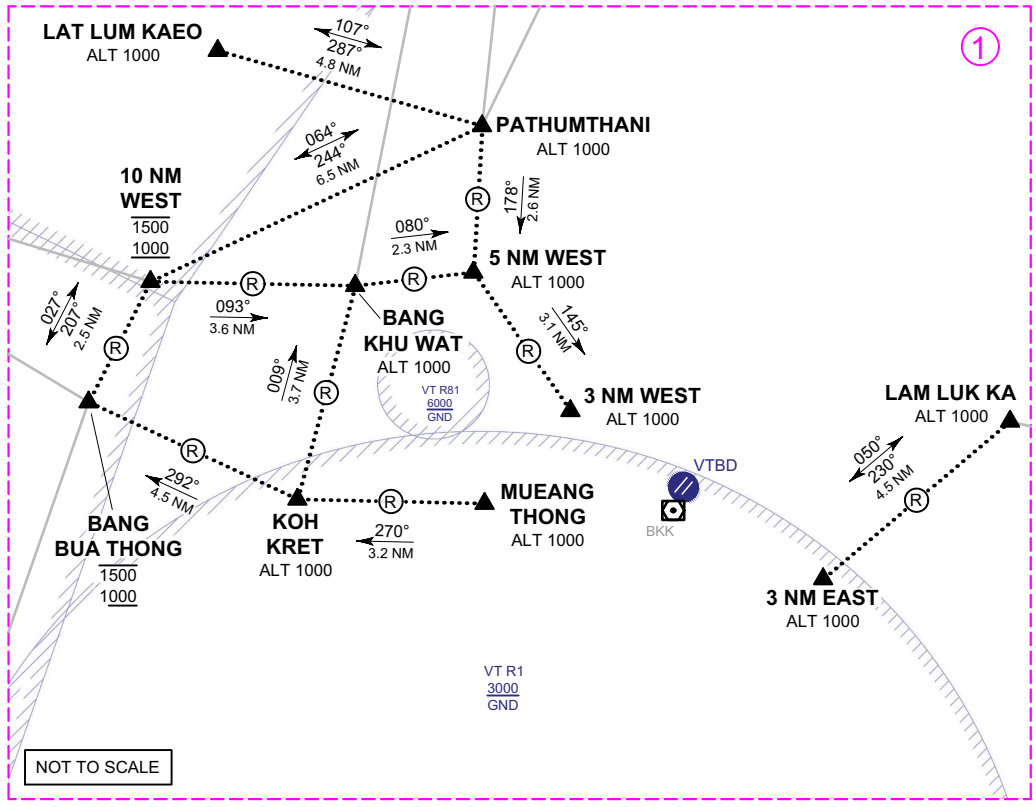
**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**



**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**



**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**

**DEPARTURE**

**NORTHBOUND**
- PATHUMTHANI [ALT1000] - AYUTTHAYA [ALT2500]

**WESTBOUND**
- PATHUMTHANI [ALT1000] - 10 NM WEST [ALT1000] - BANG LEN [ALT2500] - LAT BUA LUANG [ALT2500] or DON FAEK [ALT2500]

**SOUTHBOUND**
- PATHUMTHANI [ALT1000] - 10 NM WEST [ALT1000] - BANG BUA THONG [ALT1000] - EKACHAI [ALT2500] - SAMUT SAKHON [ALT2500]

**SOUTHEASTBOUND**
- PATHUMTHANI [ALT1000] - 10 NM WEST [ALT1000] - BANG BUA THONG [ALT1000] - EKACHAI [ALT2500] - SAMUT SAKHON [ALT2500] - KOH LAN [ALT2500] or KOH SICHANG [ALT3500]
- LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG PAKONG [ALT2500] - KOH SICHANG [ALT3500]

**EASTBOUND**
- LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG LUK SUA [ALT2500] or BANG PAKONG [ALT2500]

**NORTHEASTBOUND**
- LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT2500] - BANG LUK SUA [ALT2500] - HIN KONG [ALT3500]
- PATHUMTHANI [ALT1000] - AYUTTHAYA [ALT2500] - HIN KONG [ALT3500]

**TRAINING VT D72**
- PATHUMTHANI [ALT1500] - LAT LUM KAEO [ALT1500] - VT D72

**ARRIVAL**

**NORTHBOUND**
- AYUTTHAYA[ALT2000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- AYUTTHAYA [ALT2000] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

**WESTBOUND**
- BANG LEN [ALT2000] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

**SOUTHBOUND**
- SAMUT SAKHON [ALT2000] - EKACHAI [ALT2000] - BANG BUA THONG [ALT1500] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

**SOUTHEASTBOUND**
- KOH LAN [ALT2000] or KOH SICHANG [ALT2000] - SAMUT SAKHON [ALT2000] - EKACHAI [ALT2000] - BANG BUA THONG [ALT1500] - 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- KOH SICHANG [ALT2000] - BANG PAKONG [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

**EASTBOUND**
- BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

**NORTHEASTBOUND**
- HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]
- HIN KONG [ALT4500] - AYUTTHAYA [ALT2000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- HIN KONG [ALT4500] - AYUTTHAYA [ALT2000] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**

**TRAINING VT D72**

- LAT LUM KAEO [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- 10 NM WEST [ALT1500] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| MUEANG THONG | Impact Arena Building | R-290 / 3.0D | 13° 54' 35.00" N | 100° 32' 35.00" E |
| KOH KRET | Wat Poramai Yikawas, Koh Kret | R-280 / 6.5D | 13° 54' 41.00" N | 100° 29' 03.00" E |
| BANG BUA THONG | Bang Bua Thong Interchange | R-286 / 10.8D | 13° 56' 30.00" N | 100° 25' 07.00" E |
| 10 NM WEST | Kanchanapisek Rd. Crossing Pra-u-dom canal | R-300 / 10.5D | 13° 58' 43.00" N | 100° 26' 18.00" E |
| BANG KHU WAT | Flora Ville Golf Course | R-313 / 7.3D | 13° 58' 37.00" N | 100° 30' 10.00" E |
| PATHUMTHANI | Pathumthani Bridge (Crossing Chaopraya River) | R-338 / 8.6D | 14° 01' 33.00" N | 100° 32' 25.00" E |
| 5 NM WEST | Riverdale Golf Club, Bangkradee, Pathumthani | R-325 / 5.9D | 13° 58' 51.00" N | 100° 32' 24.00" E |
| 3 NM WEST | Armed Forces Development Command (Dome shape) Si kan | R-333 / 3.8D | 13° 56' 17.00" N | 100° 34' 13.00" E |
| 3 NM EAST | Sukhaphiban 5, Chalong Rat Expressway Toll Plaza | R-095 / 3.1D | 13° 53' 09.00" N | 100° 38' 58.00" E |
| LAM LUK KA | Bangkok Eastern Outer Ring Rd. Crossing Lamlukka Rd. | R-075 / 7.5D | 13° 56' 02.00" N | 100° 42' 31.00" E |
| BUENG BA | Outdoor Stadium Between Wat Bueng Ba Prapasawat and Nongsua Wittayakorn School | R-042 / 19.3D | 14° 07' 51.00" N | 100° 49' 05.00" E |
| SANAP THUEP | PTT Innovation Institute Sanaptueb, Wang Noi | R-028 / 27.0D | 14° 17' 18.00" N | 100° 48' 35.00" E |
| PRATUNAM PHRA IN | Bang Pa-in Interchange, Bangkok Western Outer Ring Rd. Crossing Phaholyothin Rd. | R-005 / 16.8D | 14° 12' 05.00" N | 100° 38' 33.00" E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00" N | 100° 52' 40.00" E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00" N | 100° 34' 53.00" E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00" N | 100° 16' 48.00" E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |

**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00" N | 100° 20' 38.00" E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00" N | 101° 03' 05.00" E |
| SAMUT SAKHON | Thachalom Roundabout | R-222 / 28.4D | 13° 32' 17.00" N | 100° 16' 20.00" E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00" N | 100° 48' 40.00" E |
| KOH LAN | Koh Lan | R-170 / 59.5D | 12° 54' 53.00" N | 100° 46' 49.00" E |
| LAT LUM KAEO | Bangkok Western Outer Ring Rd. Crossing Pathumthani-Ladlumkaew Rd. | R-319 / 12.3D | 14° 02' 58.18" N | 100° 27' 35.85" E |

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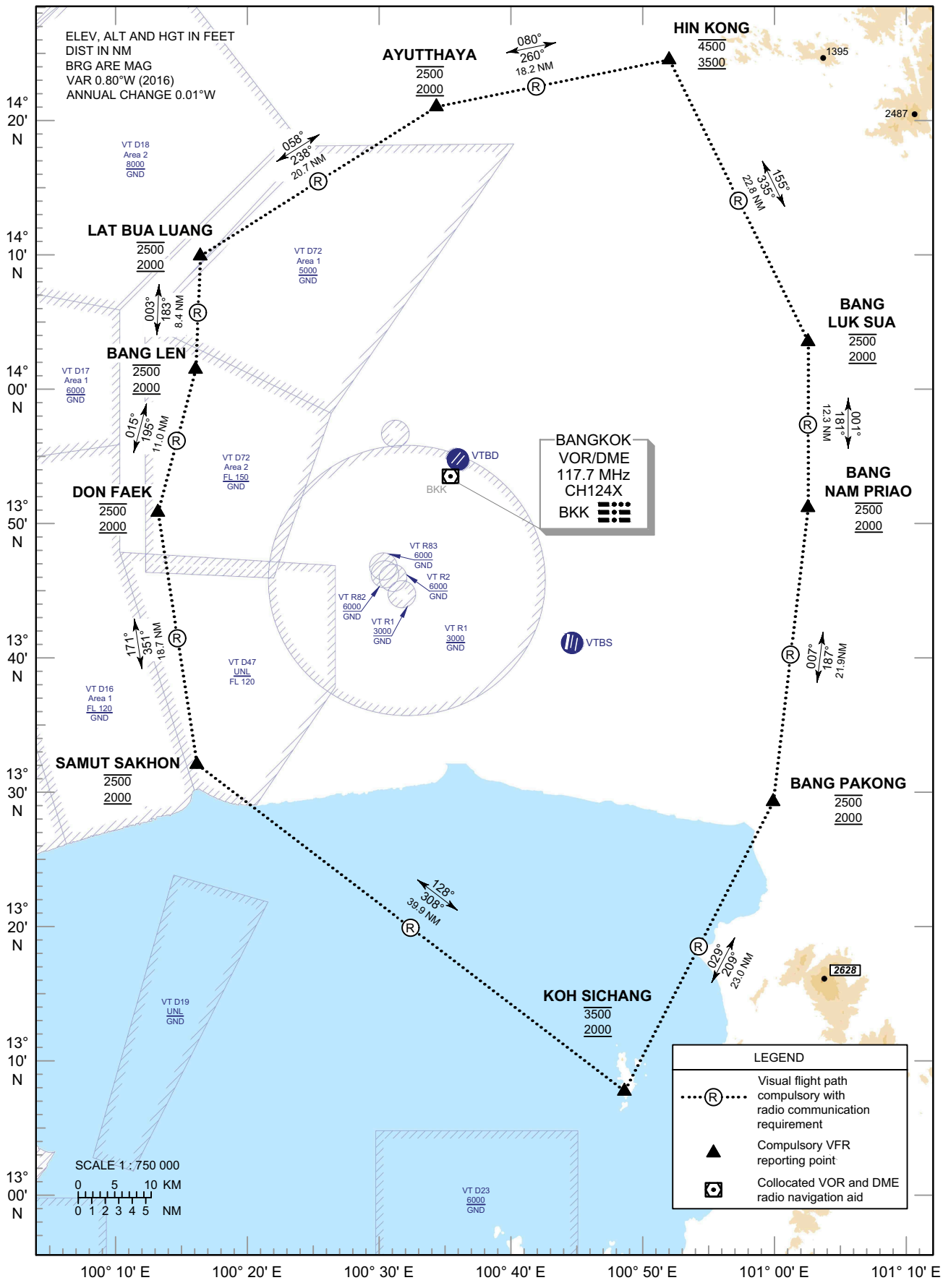
**VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 119.4 , 274.5 |
| | | 133.4 , 274.5 |
| | | 125.2 , 274.5 |
| | | 124.35 , 274.5 |
| | | 122.35 , 274.5 |
| | | 119.1 , 274.5 |
| | | 120.3 , 274.5 |
| | | 125.8 |
| DAR | : | 133.0 , 274.5 |
| TWR | : | 118.1 , 236.6 |
| ATIS | : | 126.4 , 344.6 |

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R 21L/21R**



**VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R 21L/21R**

**VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART**

BANGKOK/Don Mueang Intl (VTBD) RWY 03L/03R 21L/21R

**OUTBOUND**

- HIN KONG [ALT3500] - BANG LUK SUA [ALT2500] - BANG NAM PRIAO [ALT2500] - BANG PAKONG [ALT2500] - KOH SICHANG [ALT3500] - SAMUT SAKHON [ALT2500] - DON FAEK [ALT2500] - BANG LEN [ALT2500] - LAT BUA LUANG [ALT2500] - AYUTTHAYA [ALT2500] - HIN KONG [ALT3500]

**INBOUND**

- HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - BANG PAKONG [ALT2000] - KOH SICHANG [ALT2000] - SAMUT SAKHON [ALT2000] - DON FAEK [ALT2000] - BANG LEN [ALT2000] - LAT BUA LUANG [ALT2000] - AYUTTHAYA [ALT2000] - HIN KONG [ALT4500]

LIGHT AIRCRAFT WITHIN BKK CTR CAN JOIN ALL SUITABLE REPORTING POINT IN VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART (BANGKOK/Don Mueang Intl (VTBD) RWY 03L/03R 21L/21R AND BANGKOK/Suvarnabhumi Intl (VTBS) RWY 19/01 02L/20R 20L/02R

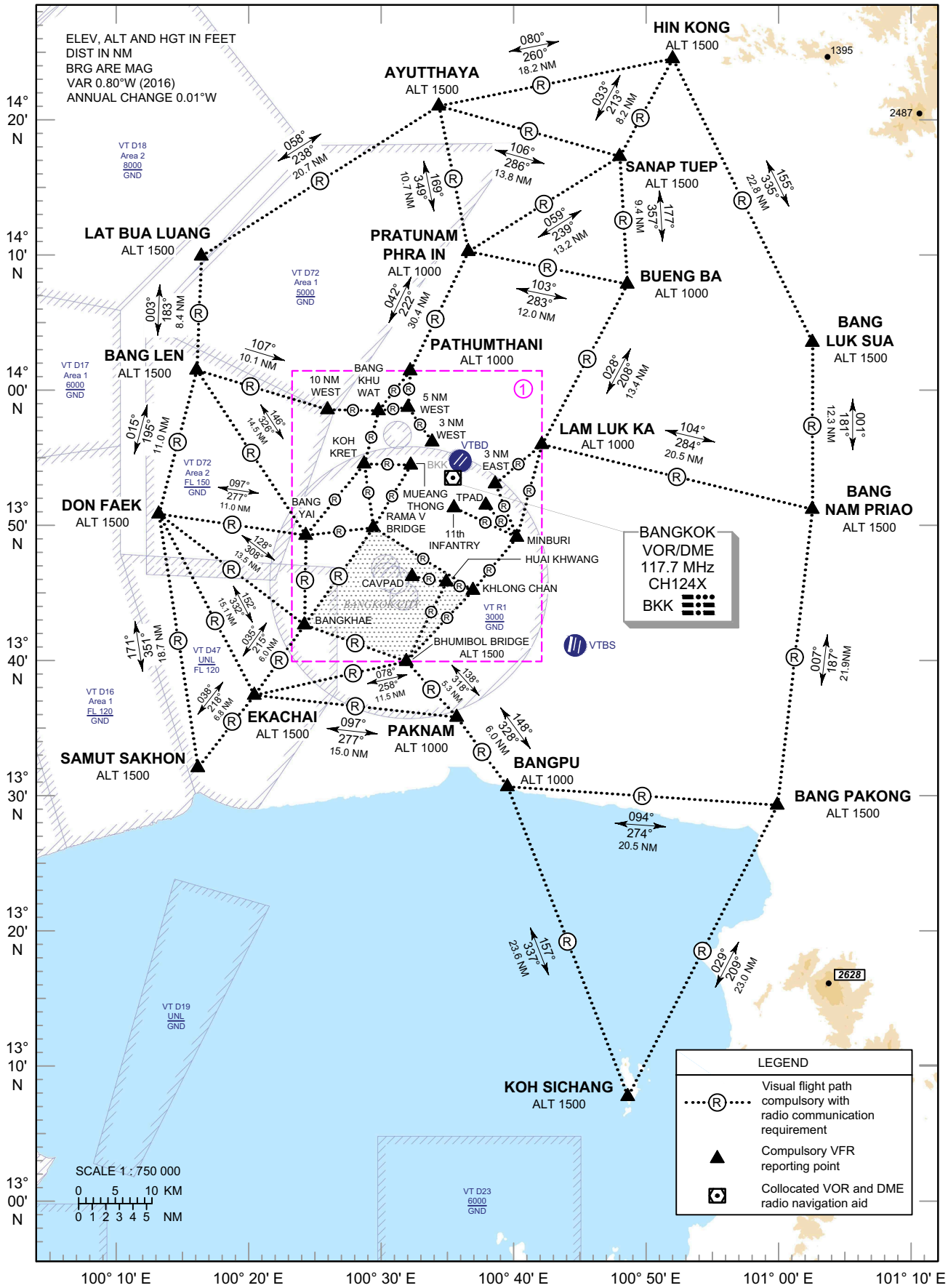
| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00" N | 100° 52' 40.00" E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00" N | 100° 34' 53.00" E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00" N | 100° 16' 48.00" E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |
| SAMUT SAKHON | Thachalom Roundabout | R-222 / 28.4D | 13° 32' 17.00" N | 100° 16' 20.00" E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00" N | 100° 48' 40.00" E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00" N | 101° 03' 05.00" E |

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 119.4 , 274.5 |
| | | 133.4 , 274.5 |
| | | 125.2 , 274.5 |
| | | 124.35 , 274.5 |
| | | 122.35 , 274.5 |
| | | 119.1 , 274.5 |
| | | 120.3 , 274.5 |
| | | 125.8 |
| DAR | : | 133.0 , 274.5 |
| TWR | : | 118.1 , 236.6 |
| ATIS | : | 126.4 , 344.6 |

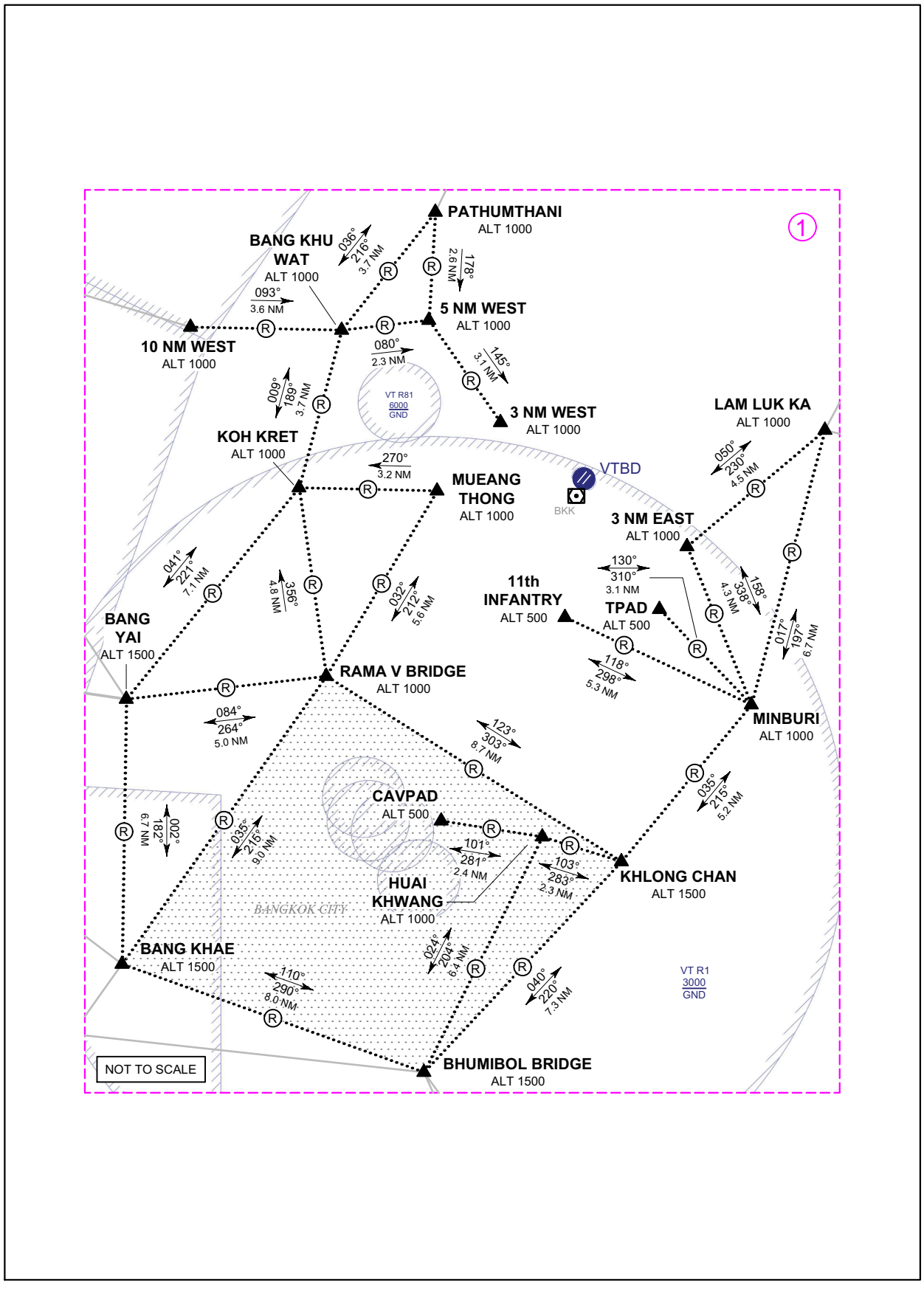
**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**



**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**



**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**

**DEPARTURE**

**NORTHBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - PATHUMTHANI [ALT1000] - PRATUNAM PHRA IN [ALT1000] - AYUTTHAYA [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BUENG BA [ALT1000] - SANAP TUEP [ALT1500] - AYUTTHAYA [ALT1500]

**WESTBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANGYAI [ALT1500] - DON FAEK [ALT1500] or BANG LEN [ALT1500]
- 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - RAMA V BRIDGE [ALT1000] - BANGYAI [ALT1500] - DON FAEK [ALT1500] or BANG LEN [ALT1500]

**SOUTHBOUND**
- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - EKACHAI [ALT1500] - SAMUT SAKHON [ALT1500]
- 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - EKACHAI [ALT1500] - SAMUT SAKHON [ALT1500]

**SOUTHEASTBOUND**
- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - PAKNAM [ALT1000] - BANGPU [ALT1000] - KOH SICHANG [ALT1500] or BANG PAKONG [ALT1500] - KOH SICHANG [ALT1500]
- 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - PAKNAM [ALT1000] - BANGPU [ALT1000] - KOH SICHANG [ALT1500] or BANG PAKONG [ALT1500] - KOH SICHANG [ALT1500]

**EASTBOUND**
- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT1500]

**NORTHEASTBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - PATHUMTHANI [ALT1000] - PRATUNAM PHRA IN [ALT1000] - SANAP TUEP [ALT1500] - HIN KONG [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BUENG BA [ALT1000] - SANAP TUEP [ALT1500] - HIN KONG [ALT1500]

**ARRIVAL**

**NORTHBOUND**
- AYUTTHAYA [ALT1500] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- AYUTTHAYA [ALT1500] - SANAP TUEP [ALT1500] - BUENG BA [ALT1000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

**WESTBOUND**
- DON FAEK [ALT1500] - BANGYAI [ALT1500] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- BANG LEN [ALT1500] - 10 NM WEST [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- DON FAEK [ALT1500] or BANG LEN [ALT1500] - BANGYAI [ALT1500] - RAMA V BRIDGE [ALT1000] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

**SOUTHBOUND**
- SAMUT SAKHON [ALT1500] - EKACHAI [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- SAMUT SAKHON [ALT1500] - EKACHAI [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**

**SOUTHEASTBOUND**
- KOH SICHANG [ALT1500] - BANG PAKONG [ALT1500] or KOH SICHANG [ALT1500] - BANGPU [ALT1000] - PAKNAM [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- KOH SICHANG [ALT1500] - BANG PAKONG [ALT1500] or KOH SICHANG [ALT1500] - BANGPU [ALT1000] - PAKNAM [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

**EASTBOUND**
- BANG NAM PRIAO [ALT1500] - LAM LUK KA [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- BANG NAM PRIAO [ALT1500] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

**NORTHEASTBOUND**
- HIN KONG [ALT1500] - SANAP TUEP [ALT1500] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- HIN KONG [ALT1500] - SANAP TUEP [ALT1500] - BUENG BA [ALT1000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| MUEANG THONG | Impact Arena Building | R-290 / 3.0D | 13° 54' 35.00'' N | 100° 32' 35.00'' E |
| KOH KRET | Wat Poramai Yikawas, Koh Kret | R-280 / 6.5D | 13° 54' 41.00'' N | 100° 29' 03.00'' E |
| 10 NM WEST | Kanchanapisek Rd. Crossing Pra-u-dom canal | R-300 / 10.5D | 13° 58' 43.00'' N | 100° 26' 18.00'' E |
| BANG KHU WAT | Flora Ville Golf Course | R-313 / 7.3D | 13° 58' 37.00'' N | 100° 30' 10.00'' E |
| PATHUMTHANI | Pathumthani Bridge (Crossing Chaopraya River) | R-338 / 8.6D | 14° 01' 33.00'' N | 100° 32' 25.00'' E |
| 5 NM WEST | Riverdale Golf Club, Bangkradee, Pathumthani | R-325 / 5.9D | 13° 58' 51.00'' N | 100° 32' 24.00'' E |
| 3 NM WEST | Armed Forces Development Command (Dome shape) Si kan | R-333 / 3.8D | 13° 56' 17.00'' N | 100° 34' 13.00'' E |
| BANGYAI | Kanchanapisek Rd. Crossing Rattanathibet Rd. | R-249 / 11.6D | 13° 49' 25.46'' N | 100° 24' 35.89'' E |
| RAMA V BRIDGE | Rama 5 Bridge (Crossing Chaopraya River) | R-237 / 6.6D | 13° 49' 58.00'' N | 100° 29' 43.00'' E |
| BANG KHAE | Bang Khae Interchange | R-226 / 15.4D | 13° 42' 48.00'' N | 100° 24' 27.00'' E |
| BHUMIBOL BRIDGE | Industrial Ring Rd. Interchange between Bhumibol 1-2 Bridge near Lat Pho Canal | R-194 / 14.0D | 13° 40' 03.00'' N | 100° 32' 09.00'' E |
| HUAI KHWANG | Train Repairing Center | R-173 / 8.5D | 13° 45' 55.00'' N | 100° 35' 13.00'' E |
| CAVPAD | 2nd Cavalry Division Helipad (Sanam Pao) | R-186 / 7.8D | 13° 46' 20.00'' N | 100° 32' 38.00'' E |

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| KHLONG CHAN | Rajamangala National Stadium | R-170 / 8.4D | 13° 45' 17.00" N | 100° 37' 14.00" E |
| MINBURI | Bangkok Eastern Outer Ring Rd. Crossing Ram Inthra Rd. | R-133 / 6.4D | 13° 49' 11.00" N | 100° 40' 35.00" E |
| 11TH INFANTRY | 2nd Infantry Battalion, 11th Infantry Regiment, Bangkhen | R-179 / 2.2D | 13° 51' 24.00" N | 100° 35' 50.00" E |
| TPAD | Royal Thai Police Aviation Division, Tarang | R-131 / 3.1D | 13° 51' 35.00" N | 100° 38' 15.00" E |
| 3 NM EAST | Sukhaphiban 5, Chalong Rat Expressway Toll Plaza | R-095 / 3.1D | 13° 53' 09.00" N | 100° 38' 58.00" E |
| LAM LUK KA | Bangkok Eastern Outer Ring Rd. Crossing Lamlukka Rd. | R-075 / 7.5D | 13° 56' 02.00" N | 100° 42' 31.00" E |
| BUENG BA | Outdoor Stadium Between Wat Bueng Ba Prapasawat and Nongsua Wittayakorn School | R-042 / 19.3D | 14° 07' 51.00" N | 100° 49' 05.00" E |
| SANAP THUEP | PTT Innovation Institute Sanaptueb, Wang Noi | R-028 / 27.0D | 14° 17' 18.00" N | 100° 48' 35.00" E |
| PRATUNAM PHRA IN | Bang Pa-in Interchange, Bangkok Western Outer Ring Rd. Crossing Phaholyothin Rd. | R-005 / 16.8D | 14° 12' 05.00" N | 100° 38' 33.00" E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00" N | 100° 52' 40.00" E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00" N | 100° 34' 53.00" E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00" N | 100° 16' 48.00" E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00" N | 100° 20' 38.00" E |
| PAKNAM | Samuthprakarn Learning Park and Tower | R-179 / 17.6D | 13° 35' 53.82" N | 100° 35' 56.21" E |
| BANGPU | Sukta Bridge | R-170 / 23.1D | 13° 30' 44.00" N | 100° 39' 44.00" E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 21L/21R**

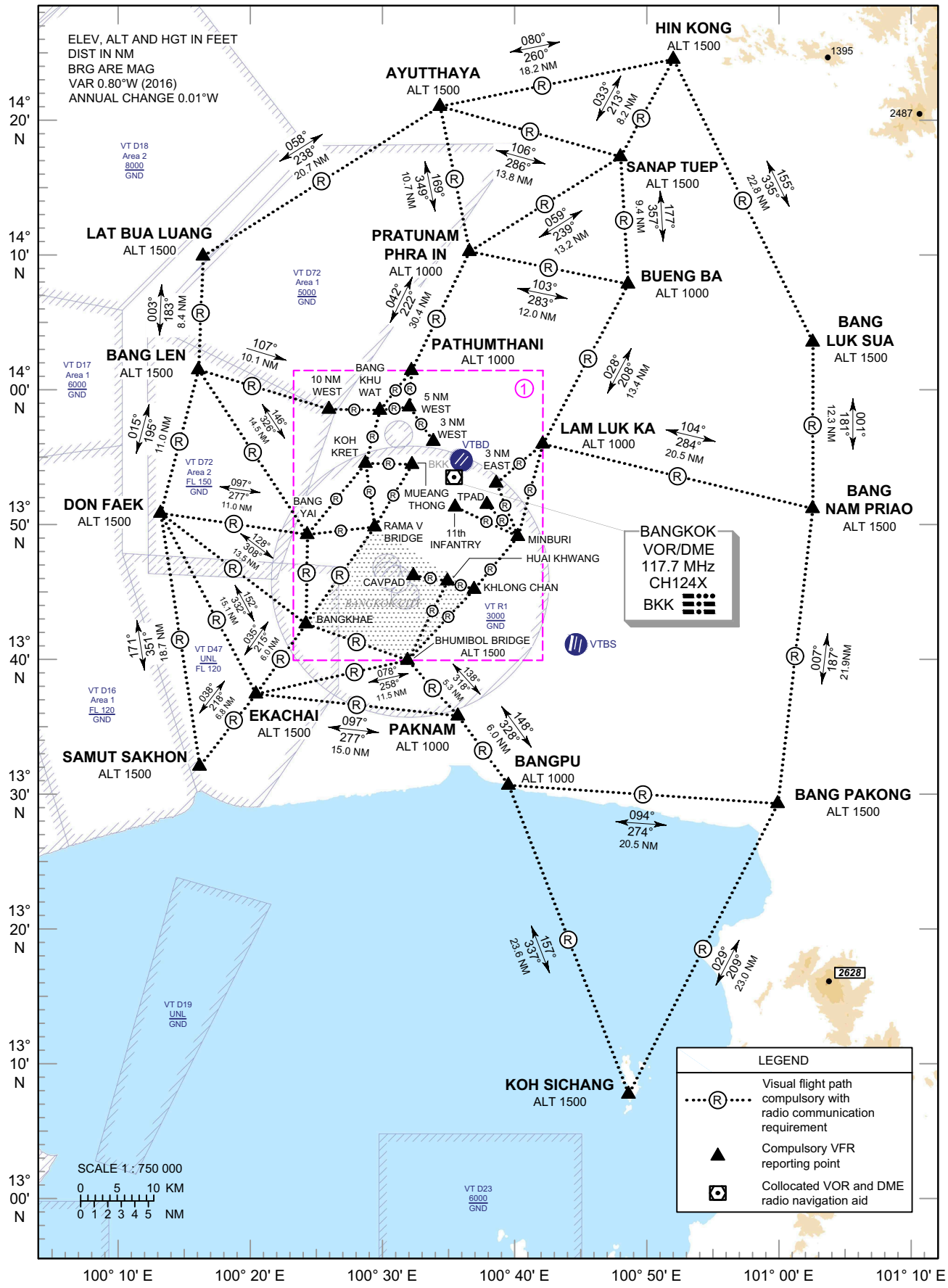
| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00'' N | 101° 03' 05.00'' E |
| SAMUT SAKHON | Thachalom Roundabout | R-222 / 28.4D | 13° 32' 17.00'' N | 100° 16' 20.00'' E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00'' N | 100° 48' 40.00'' E |

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 119.4 , 274.5 |
| | | 133.4 , 274.5 |
| | | 125.2 , 274.5 |
| | | 124.35 , 274.5 |
| | | 122.35 , 274.5 |
| | | 119.1 , 274.5 |
| | | 120.3 , 274.5 |
| | | 125.8 |
| DAR | : | 133.0 , 274.5 |
| TWR | : | 118.1 , 236.6 |
| ATIS | : | 126.4 , 344.6 |

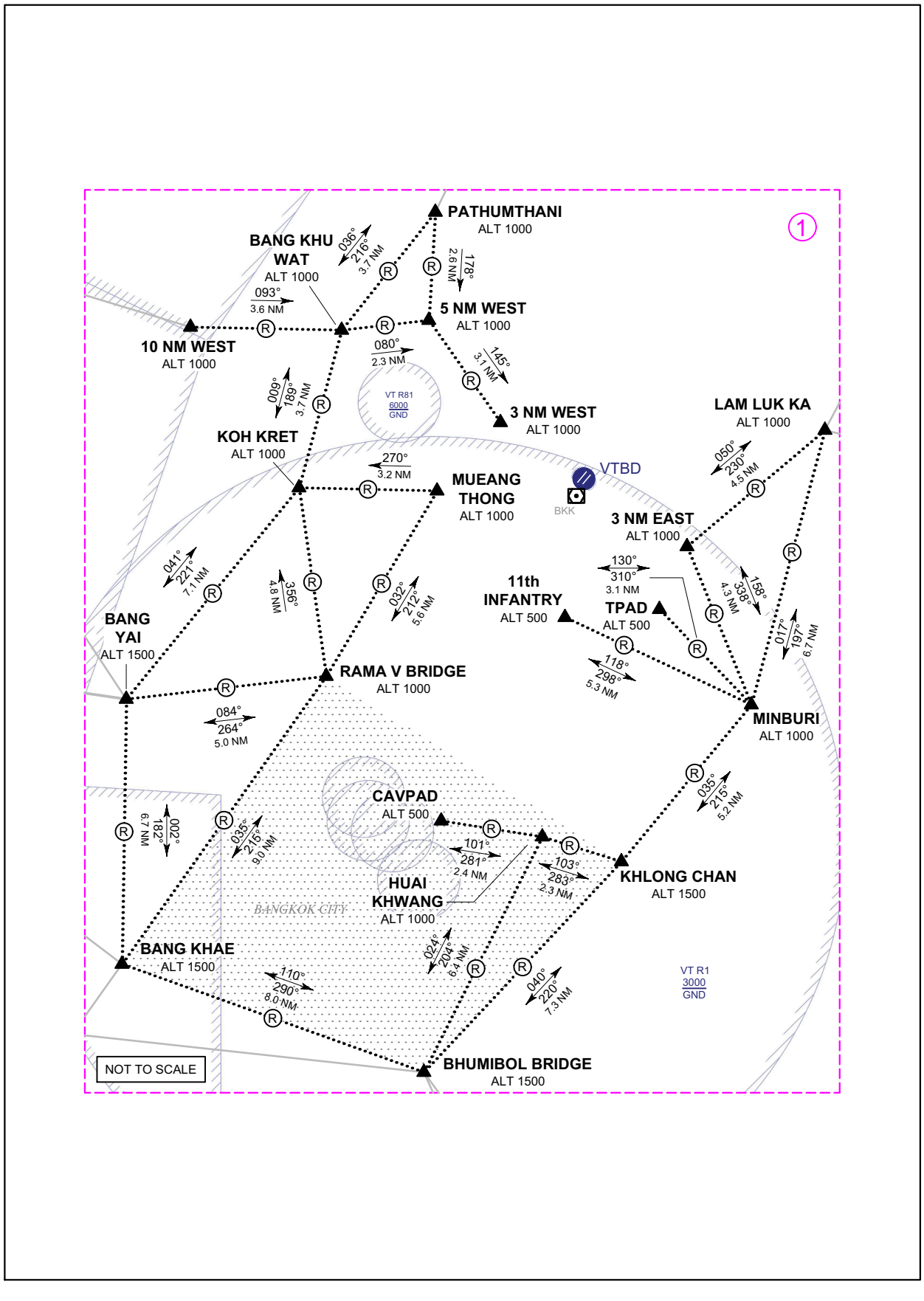
**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**



**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**



**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**

**DEPARTURE**

**NORTHBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - PATHUMTHANI [ALT1000] - PRATUNAM PHRA IN [ALT1000] - AYUTTHAYA [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BUENG BA [ALT1000] - SANAP TUEP [ALT1500] - AYUTTHAYA [ALT1500]

**WESTBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANGYAI [ALT1500] - DON FAEK [ALT1500] or BANG LEN [ALT1500]
- 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - BANG KHAE [ALT1500] - BANGYAI [ALT1500] - DON FAEK [ALT1500] or BANG LEN [ALT1500]

**SOUTHBOUND**
- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - EKACHAI [ALT1500] - SAMUT SAKHON [ALT1500]
- 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - EKACHAI [ALT1500] - SAMUT SAKHON [ALT1500]

**SOUTHEASTBOUND**
- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - PAKNAM [ALT1000] - BANGPU [ALT1000] - KOH SICHANG [ALT1500] or BANG PAKONG [ALT1500] - KOH SICHANG [ALT1500]
- 3 NM EAST [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - PAKNAM[ALT1000]- BANGPU [ALT1000] - KOH SICHANG [ALT1500] or BANG PAKONG [ALT1500] - KOH SICHANG [ALT1500]

**EASTBOUND**
- MUEANG THONG [ALT1000] - RAMA V BRIDGE [ALT1000] - BANG KHAE [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BANG NAM PRIAO [ALT1500]

**NORTHEASTBOUND**
- MUEANG THONG [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - PATHUMTHANI [ALT1000] - PRATUNAM PHRA IN [ALT1000] - SANAP TUEP [ALT1500] - HIN KONG [ALT1500]
- 3 NM EAST [ALT1000] - LAM LUK KA [ALT1000] - BUENG BA [ALT1000] - SANAP TUEP [ALT1500] - HIN KONG [ALT1500]

**ARRIVAL**

**NORTHBOUND**
- AYUTTHAYA [ALT1500] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST[ALT1000]
- AYUTTHAYA [ALT1500] - SANAP TUEP [ALT1500] - BUENG BA [ALT1000] - LAM LUK KA[ALT1000] - 3 NM EAST [ALT1000]

**WESTBOUND**
- DON FAEK [ALT1500] or BANG LEN [ALT1500] - BANGYAI [ALT1500] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- BANG LEN [ALT1500] - 10 NM WEST [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- DON FAEK [ALT1500] or BANG LEN [ALT1500] - BANGYAI [ALT1500] - BANG KHAE [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

**SOUTHBOUND**
- SAMUT SAKHON [ALT1500] - EKACHAI [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- SAMUT SAKHON [ALT1500] - EKACHAI [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**

**SOUTHEASTBOUND**
- KOH SICHANG [ALT1500] - BANG PAKONG [ALT1500] or KOH SICHANG [ALT1500] - BANGPU [ALT1000] - PAKNAM [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- KOH SICHANG [ALT1500] - BANG PAKONG [ALT1500] or KOH SICHANG [ALT1500] - BANGPU [ALT1000] - PAKNAM [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - KHLONG CHAN [ALT1500] - MINBURI [ALT1000] - 3 NM EAST [ALT1000]

**EASTBOUND**
- BANG NAM PRIAO [ALT1500] - LAM LUK KA [ALT1000] - MINBURI [ALT1000] - KHLONG CHAN [ALT1500] - BHUMIBOL BRIDGE [ALT1500] - BANG KHAE [ALT1500] - RAMA V BRIDGE [ALT1000] - KOH KRET [ALT1000] - BANG KHU WAT [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- BANG NAM PRIAO [ALT1500] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

**NORTHEASTBOUND**
- HIN KONG [ALT1500] - SANAP TUEP [ALT1500] - PRATUNAM PHRA IN [ALT1000] - PATHUMTHANI [ALT1000] - 5 NM WEST [ALT1000] - 3 NM WEST [ALT1000]
- HIN KONG [ALT1500] - SANAP TUEP [ALT1500] - BUENG BA [ALT1000] - LAM LUK KA [ALT1000] - 3 NM EAST [ALT1000]

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| MUEANG THONG | Impact Arena Building | R-290 / 3.0D | 13° 54' 35.00'' N | 100° 32' 35.00'' E |
| KOH KRET | Wat Poramai Yikawas, Koh Kret | R-280 / 6.5D | 13° 54' 41.00'' N | 100° 29' 03.00'' E |
| 10 NM WEST | Kanchanapisek Rd. Crossing Pra-u-dom canal | R-300 / 10.5D | 13° 58' 43.00'' N | 100° 26' 18.00'' E |
| BANG KHU WAT | Flora Ville Golf Course | R-313 / 7.3D | 13° 58' 37.00'' N | 100° 30' 10.00'' E |
| PATHUMTHANI | Pathumthani Bridge (Crossing Chaopraya River) | R-338 / 8.6D | 14° 01' 33.00'' N | 100° 32' 25.00'' E |
| 5 NM WEST | Riverdale Golf Club, Bangkradee, Pathumthani | R-325 / 5.9D | 13° 58' 51.00'' N | 100° 32' 24.00'' E |
| 3 NM WEST | Armed Forces Development Command (Dome shape) Si kan | R-333 / 3.8D | 13° 56' 17.00'' N | 100° 34' 13.00'' E |
| BANGYAI | Kanchanapisek Rd. Crossing Rattanathibet Rd. | R-249 / 11.6D | 13° 49' 25.46'' N | 100° 24' 35.89'' E |
| RAMA V BRIDGE | Rama 5 Bridge (Crossing Chaopraya River) | R-237 / 6.6D | 13° 49' 58.00'' N | 100° 29' 43.00'' E |
| BANG KHAE | Bang Khae Interchange | R-226 / 15.4D | 13° 42' 48.00'' N | 100° 24' 27.00'' E |
| BHUMIBOL BRIDGE | Industrial Ring Rd. Interchange between Bhumibol 1-2 Bridge near Lat Pho Canal | R-194 / 14.0D | 13° 40' 03.00'' N | 100° 32' 09.00'' E |
| HUAI KHWANG | Train Repairing Center | R-173 / 8.5D | 13° 45' 55.00'' N | 100° 35' 13.00'' E |
| CAVPAD | 2nd Cavalry Division Helipad (Sanam Pao) | R-186 / 7.8D | 13° 46' 20.00'' N | 100° 32' 38.00'' E |

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| KHLONG CHAN | Rajamangala National Stadium | R-170 / 8.4D | 13° 45' 17.00" N | 100° 37' 14.00" E |
| MINBURI | Bangkok Eastern Outer Ring Rd. Crossing Ram Inthra Rd. | R-133 / 6.4D | 13° 49' 11.00" N | 100° 40' 35.00" E |
| 11TH INFANTRY | 2nd Infantry Battalion, 11th Infantry Regiment, Bangkhen | R-179 / 2.2D | 13° 51' 24.00" N | 100° 35' 50.00" E |
| TPAD | Royal Thai Police Aviation Division, Tarang | R-131 / 3.1D | 13° 51' 35.00" N | 100° 38' 15.00" E |
| 3 NM EAST | Sukhaphiban 5, Chalong Rat Expressway Toll Plaza | R-095 / 3.1D | 13° 53' 09.00" N | 100° 38' 58.00" E |
| LAM LUK KA | Bangkok Eastern Outer Ring Rd. Crossing Lamlukka Rd. | R-075 / 7.5D | 13° 56' 02.00" N | 100° 42' 31.00" E |
| BUENG BA | Outdoor Stadium Between Wat Bueng Ba Prapasawat and Nongsua Wittayakorn School | R-042 / 19.3D | 14° 07' 51.00" N | 100° 49' 05.00" E |
| SANAP THUEP | PTT Innovation Institute Sanaptueb, Wang Noi | R-028 / 27.0D | 14° 17' 18.00" N | 100° 48' 35.00" E |
| PRATUNAM PHRA IN | Bang Pa-in Interchange, Bangkok Western Outer Ring Rd. Crossing Phaholyothin Rd. | R-005 / 16.8D | 14° 12' 05.00" N | 100° 38' 33.00" E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00" N | 100° 52' 40.00" E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00" N | 100° 34' 53.00" E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00" N | 100° 16' 48.00" E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00" N | 100° 20' 38.00" E |
| PAKNAM | Samuthprakarn Learning Park and Tower | R-179 / 17.6D | 13° 35' 53.82" N | 100° 35' 56.21" E |
| BANGPU | Sukta Bridge | R-170 / 23.1D | 13° 30' 44.00" N | 100° 39' 44.00" E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R**

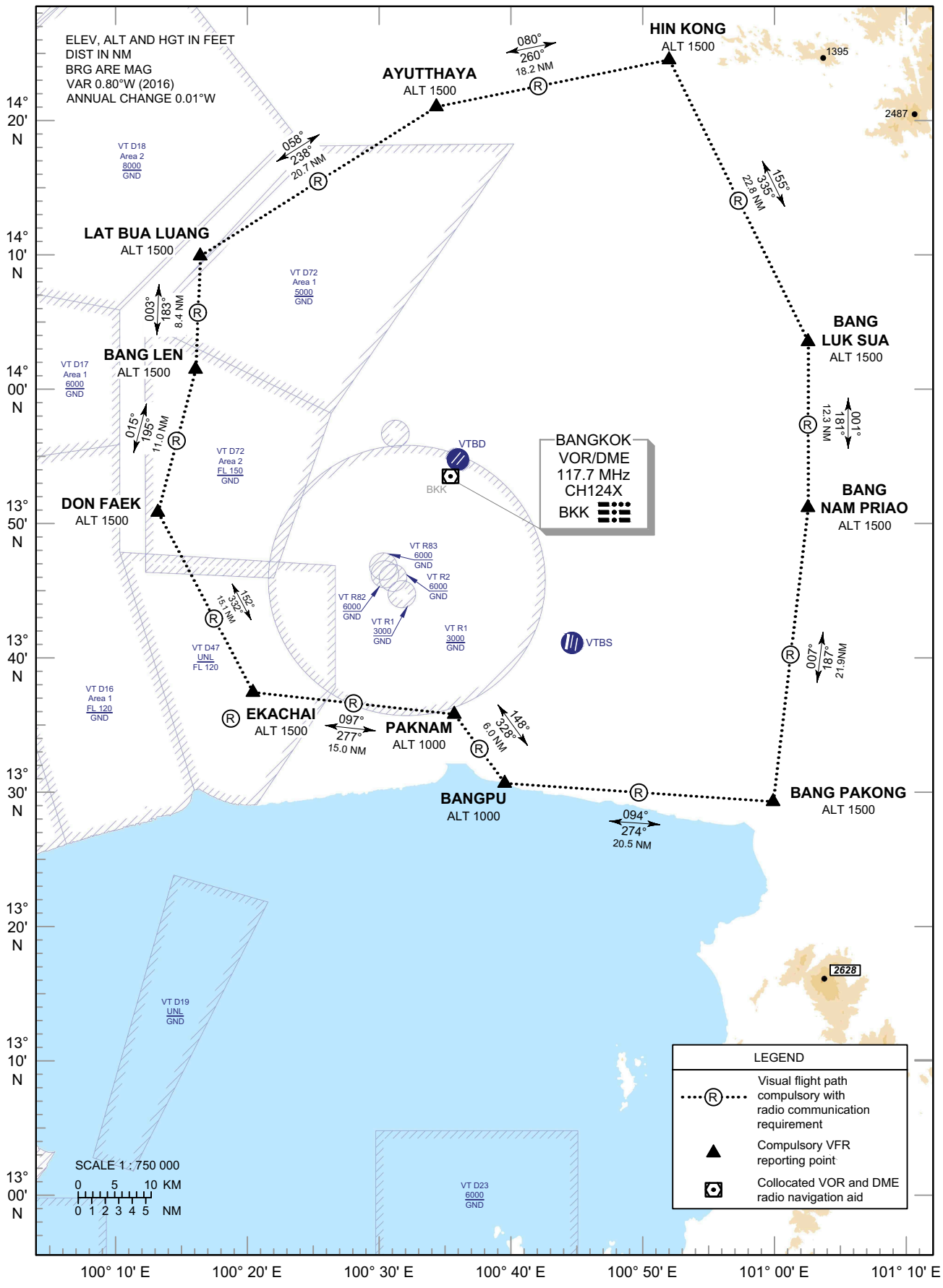
| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00'' N | 101° 03' 05.00'' E |
| SAMUT SAKHON | Thachalom Roundabout | R-222 / 28.4D | 13° 32' 17.00'' N | 100° 16' 20.00'' E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00'' N | 100° 48' 40.00'' E |

**VFR OVERFLY PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 119.4 , 274.5 |
| | | 133.4 , 274.5 |
| | | 125.2 , 274.5 |
| | | 124.35 , 274.5 |
| | | 122.35 , 274.5 |
| | | 119.1 , 274.5 |
| | | 120.3 , 274.5 |
| | | 125.8 |
| DAR | : | 133.0 , 274.5 |
| TWR | : | 118.1 , 236.6 |
| ATIS | : | 126.4 , 344.6 |

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R 21L/21R**



**VFR OVERFLY PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 9 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Don Mueang Intl (VTBD)**
**RWY 03L/03R 21L/21R**

**VFR OVERFLY PROCEDURE FOR HELICOPTER CHART**

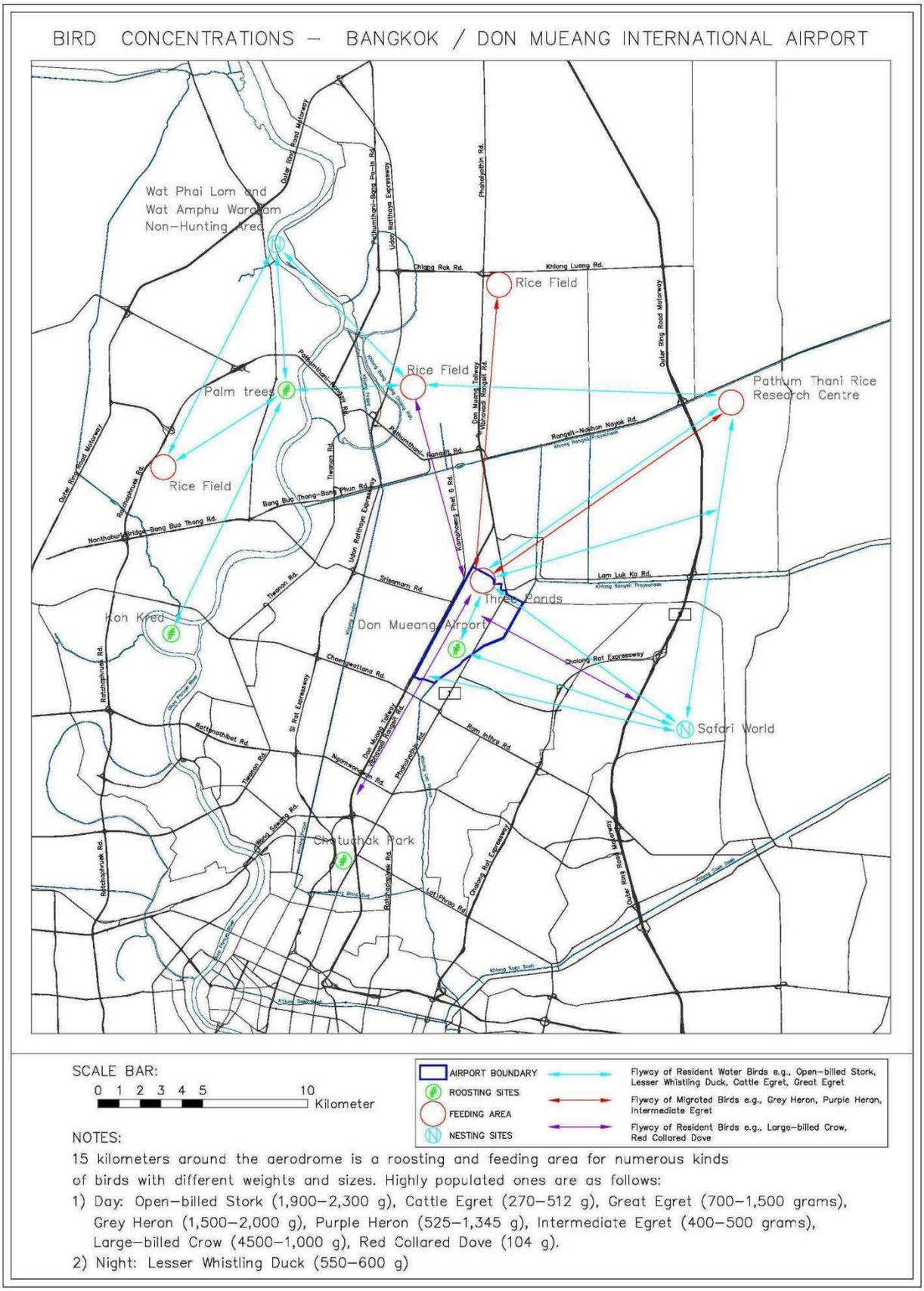
- HIN KONG [ALT1500] - BANG LUK SUA [ALT1500] - BANG NAM PRIAO [ALT1500] - BANG PAKONG [ALT1500] - BANGPU [ALT1000] - PAK NAM [ALT1000] - EKACHAI [ALT1500] - DON FAEK [ALT1500] - BANG LEN [ALT1500] - LAT BUA LUANG [ALT1500] - AYUTTHAYA [ALT1500] - HIN KONG [ALT1500]

HELICOPTER WITHIN BKK CTR CAN JOIN ALL SUITABLE REPORTING POINT IN VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART (BANGKOK/Don Mueang Intl (VTBD) RWY 03L/03R 21L/21R

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00'' N | 100° 52' 40.00'' E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00'' N | 100° 34' 53.00'' E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00'' N | 100° 16' 48.00'' E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00'' N | 100° 16' 24.00'' E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00'' N | 100° 13' 28.00'' E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00'' N | 100° 20' 38.00'' E |
| PAKNAM | Samuthprakarn Learning Park and Tower | R-179 / 17.6D | 13° 35' 53.82'' N | 100° 35' 56.21'' E |
| BANGPU | Sukta Bridge | R-170 / 23.1D | 13° 30' 44.00'' N | 100° 39' 44.00'' E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20'' N | 101° 00' 07.80'' E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00'' N | 101° 02' 58.00'' E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00'' N | 101° 03' 05.00'' E |

## BIRD CONCENTRATIONS AND MOVEMENT

## BANGKOK/DON MUEANG (VTBD)




NOTES:

15 kilometers around the aerodrome is a roosting and feeding area for numerous kinds of birds with different weights and sizes. Highly populated ones are as follows:

1) Day: Open-billed Stork (1,900–2,300 g), Cattle Egret (270–512 g), Great Egret (700–1,500 grams), Grey Heron (1,500–2,000 g), Purple Heron (525–1,345 g), Intermediate Egret (400–500 grams), Large-billed Crow (4500–1,000 g), Red Collared Dove (104 g).
2) Night: Lesser Whistling Duck (550–600 g)

**INTENTIONALLY BLANK**

## VTCC AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTCC - CHIANG MAI/CHIANG MAI INTERNATIONAL AIRPORT

## VTCC AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 184617N 0985746E<br>Centre of RWY 18/36 1050 M from THR RWY 18 |
| 2 | Direction and distance from (city) | 4 KM SW |
| 3 | Elevation/Reference temperature | 316 M (1036 FT)/36°C |
| 4 | Geoid Undulation at AD ELEV PSN | -39.4 M (-129 FT) |
| 5 | MAG VAR/Annual change | 0°46'W (2016)/0°1'E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Chiang Mai International Airport<br>Airport of Thailand Public Company Limited<br>60 Mahidol Road Suthep Subdistrict Mueang District<br>Chiang Mai<br>50200 Thailand<br>Tel: +665 392 2000<br>Fax: +665 392 2020<br>AFS: VTCCYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Airports of Thailand Public Company Limited (AOT) |

## VTCC AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | H24 |
| 2 | Customs and immigration | H24 |
| 3 | Health and sanitation | H24 |
| 4 | AIS Briefing Office | H24 |
| 5 | ATS Reporting Office (ARO) | H24 |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | H24 |
| 8 | Fuelling | H24 |
| 9 | Handling | H24 |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Chiang Mai Air Traffic Control Center (1st floor of tower building)<br>Tel: +669 1818 5798<br>Fax:+66 5327 7897 |

## VTCC AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | Trucks 1.5-3.5 T up to 10 T<br>Handling/Possible |
| 2 | Fuel/oil types | JET A-1: Hydrant System |
| 3 | Fuelling facilities/capacity | JET A-1 Refueller Storage Tank 2 Tank @ 350,000 L<br>1 JET A-1 Refueller @ 25,000 L<br>2 JET A-1 Refueller @ 12,000 L<br>1 AVGAS 100LL Trailer @ 3,000 L |
| 4 | De-icing facilities | NIL |

| | | |
|---|---|---|
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | Chiang Mai International Airport has provided ground handling agents as the following number:<br>a) Thai Airways International Public Co.,ltd (TG)<br>Website:www.thaiairways.com<br>Tel: +662 593 2264<br>+662 539 2284<br>b) BAGS Ground Services Co.,Ltd<br>Website:www.bags-groundservices.com<br>Tel: +665 392 2461<br>c) Chiang Mai Ground Handling Services Co., Ltd.<br>Tel: +668 1472 2335<br>d) Hs Aviation Co., Ltd.<br>Tel: +661 901 2070<br>Website:www.hsavia.aero/home<br>E-mail: ops@hsavia.aero<br>e) Thai Ground Handling<br>Website:www.thai-handling.com<br>Tel: +668 0502 5184<br>E-mail: groundops@thai-handling.com |

## VTCC AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | Near AD and in the city |
| 2 | Restaurants | At the AD and in the city |
| 3 | Transportation | Public Bus, Airport Taxi and Limousines |
| 4 | Medical facilities | Medical clinic at AD (Domestic terminal, level 1)<br>and ambulance service is available H24.<br>Emergency number is +665 392 2222 |
| 5 | Bank and Post Office | Bank: Currency Exchange service: Available at AD Daily 0000-1600<br>Post Office: Available at AD Daily 0130 – 1300 |
| 6 | Tourist Office | Tourist Assistance Center Chiangmai (TAC):<br>Available at AD Daily 0000 – 1700 |
| 7 | Remarks | NIL |

## VTCC AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 9 |
| 2 | Rescue equipment | Adequately provided as recommended by ICAO |
| 3 | Capability for removal of disabled aircraft | Available - Up to B-747 |
| 4 | Remarks | For removal of disabled aircraft, please contact :<br>- Rescue and Fire Fighting Division and Maintenance Department<br>Tel: +665 392 2342, +665 392 2379<br>- Thai Airways International PLC<br>Tel: +665 392 2262<br>- Royal Thai Air Force<br>Tel: +665 328 1012 ext.5-7422, 5-7410<br>+665 328 1012-15 |

## VTCC AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons |

## VTCC AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | South Apron Aircraft Stand NR 1-19<br>Surface: Concrete<br>Strength: PCR 660/R/A/W/T<br>South Apron Aircraft Stand NR 20L, 20 And 20R<br>Surface: Concrete<br>Strength: PCR 660/R/A/W/T |
| 2 | Taxiway width, surface and strength | – Taxiway A<br>Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T<br>– Taxiway B, G<br>Width: 23 M, Surface: Asphalt, PCR 660/R/A/W/T<br>– Taxiway C<br>Width: 23 M, Surface: Asphalt, PCR 700/F/C/X/T<br>– Taxiway D Rapid exit taxiway<br>Width: 28 M, Surface: Asphalt, PCR 700/F/C/X/T<br>– Taxiway E<br>Width: 28 M, Surface: Asphalt, PCR 1350/R/D/W/T<br>– Taxiway F<br>Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T<br>– Taxiway H<br>Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T<br>– Taxiway P<br>Width: 23 M, Surface: Asphalt, PCR 950/F/D/X/T<br>Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T<br>– Taxiway P5, P6<br>Width: 35 M, Surface: Concrete, PCR 660/R/A/W/T<br>– Taxiway Q<br>Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T |
| 3 | Altimeter checkpoint location and elevation | Location: At Apron<br>Elevation: 307.2 M/1008 FT |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTCC AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxiing guidance signs at all intersections with TWY and RWY and at all holding positions.<br>Nose-Wheel guide lines at apron.<br>Solid Nose-Wheel guide lines at aircraft stands.<br>Nose-in guidance at aircraft stands.<br>Safegate Docking System at stand number 3, 4, 5, 6, 7 and 8. |
| 2 | RWY and TWY markings and LGT | RWY marking: DESIG, THR, TDZ, CL, AIM and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End lights<br>TWY marking: Centre line, Edge, RWY Holding Positions and Intermediate Holding Positions<br>TWY LGT: TWY Edge lights |
| 3 | Stop bars | NIL |
| 4 | Other runway protection measures | NIL |
| 5 | Remarks | NIL |

## VTCC AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| TKOF RWY 36/ APCH RWY 18 | Building HGT 370 M. MSL | 184818.45N 0985744.53E | Mountain North West of Aerodrome | | |
| | Building HGT 372.7 M. MSL | 184824.68N 0985748.49E | Building HGT 381.18 M. MSL | 184722.21N 0985827.25E | |
| See Aerodrome Obstacle Chart Type A | | | Building HGT 382.29 M. MSL | 184744.83N 0985709.86E | |
| | | | See Aerodrome Obstacle Chart Type B | | |

## VTCC AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Northern Meteorological Center,<br>30 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>30 Min |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 320 3801<br>Fax: +665 320 3801 |
| 6 | Flight documentation<br>Language(s) used | Charts, Tabular forms and Abbreviated Plain Language Texts.<br>English |
| 7 | Charts and other information available for briefing or consultation | S, U85, U70, U50, U40, U30, U25, U20, SWH, SWM, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS),<br>Low Level Windshear Alert System (LLWAS) and Weather Radar |
| 9 | ATS units provided with information | Chiang Mai TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTCC AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCR) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 180° | 3400x45 | PCR 650/F/B/X/T Asphalt<br>300 M BFR THR (Displacement) and 100 M RWY ENDS are PCR 660/R/A/W/T Concrete | 184651.80N 0985746.52E<br>-39 M (-129 FT) | THR 316 M/ 1036 FT |
| 36 | 360° | 3100x45 | PCR 660/F/B/X/T Asphalt<br>100 M FM THR36 is PCR 660/R/A/W/T Concrete | 184510.94N 0985746.26E<br>-39.4 M (-129 FT) | THR 306.9 M/ 1007 FT<br>TDZ 307.5 M/ 1009 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 0% -0.05% -0.50% -0.34% -0.49% -0.10% -0.02% -0.06% (300M 669M 1200M 1750M 2479M 2875M 3300M 3400M) | NIL | NIL | 3520x300 | 240x90 | NIL | NIL | NIL |
| +0.06% +0.02% +0.10% +0.49% +0.34% +0.50% +0.05% (100M 525M 921M 1650M 2200M 2731M 3100M) | NIL | NIL | 3220x300 | 240x150 | NIL | Yes | NIL |

## VTCC AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 3400 | 3400 | 3400 | 3100 | NIL |
| 36 | 3100 | 3100 | 3100 | 3100 | NIL |

## VTCC AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18 | SALS<br>420 M<br>LIH | Green | PAPI<br>Both<br>3° (61 FT) | NIL | NIL | 3100 M<br>60 M<br>White;LIH | Red | NIL | NIL |

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 36 | SALS<br>420 M<br>LIH | Green | PAPI<br>Both<br>3° (63 FT) | NIL | NIL | 3100 M<br>60 M<br>White;LIH | Red | NIL | NIL |

**VTCC AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY**

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower building, FLG W G EV 2.5 SEC<br>IBN: NIL<br>As AD Administration |
| 2 | LDI location and LGT<br>Anemometer location and LGT | Wind Cone near right PAPI 36, illuminated<br>Anemometer: NIL |
| 3 | TWY edge and centre line lighting | EDGE: All TWY<br>Centre Line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting At AD<br>switch-overtime : 15 SEC |
| 5 | Remarks | NIL |

**VTCC AD 2.16 HELICOPTER LANDING AREA**

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

**VTCC AD 2.17 ATS AIRSPACE**

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on CMA DVOR/DME<br>(184558.06N 0985740.38E) |
| 2 | Vertical limits | 5000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Chiang Mai Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTCC AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Chiang Mai Approach | 129.6 MHZ<br>305.4 MHZ<br>121.5 MHZ [1)]<br>243.0 MHZ [1)] | H24 | [1)] Emergency frequency |
| TWR | Chiang Mai Tower | 118.1 MHZ<br>236.6 MHZ<br>121.5 MHZ [1)]<br>243.0 MHZ [1)] | H24 | |
| GND | Chiang Mai Ground | 121.9 MHZ<br>275.8 MHZ | H24 | |
| ATIS | Chiang Mai Int Airport | 127.2 MHZ<br>301.5 MHZ | H24 | |

## VTCC AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/ MLS (For VOR/ILS/ MLS, give VAR) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | CMA | 116.9 MHZ<br>CH 116X | H24 | 184558.1N<br>0985740.4E | 318 M | DVOR/DME restriction due to mountainous terrain surround station coverage check does not provide adequate signal at required altitudes in various area as follows:<br>1. 40 NM Orbit<br>– Radial 350º-080º altitude should not below 8 000 FT<br>– Radial 081º-180º altitude should not below 7 000 FT<br>– Radial 181º-240º altitude should not below 9 000 FT<br>2. 20 NM Orbit (Due to mountainous terrain)<br>– Radial 241º-349º altitude should not below 12 000 FT |

| Type of aid, MAG VAR CAT of ILS/ MLS (For VOR/ILS/ MLS, give VAR) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| ILS CAT I LOC RWY 36 | ICMA | 109.9 MHZ | H24 | 184707.4N 0985746.6E (LOC) | | Instrument landing system (ILS)<br>– Reference Datum Height (RDH) is 16.5 M.<br>A. Localizer<br>– Coverage 18 NM within ± 10° and 10 NM between ± 10° and ± 35° from the front course line.<br>– The localizer antenna array is located on the extended runway centre line at distance 478.4 M from THR of RWY 18.<br>– Height of the array is 2.3 M.<br>B. Glide path 3°<br>– Coverage in sectors of 8° in azimuth on each side of the centre line of the ILS glide path to a distance of 10 NM up to 1.75 times the glide angle and down to 0.45 times the glide angle above the horizontal or down to 0.30 times the glide angle as required.<br>– Location 327.6 M (1,075 FT) from THR RWY 36, 120.3 M (395 FT) west side from RWY centre line.<br>C. DME<br>– Paired with Glide Slope.<br>– Power output 100 watts.<br>– Bi-directional antenna.<br>– Location 1447.4 M (4749 FT) from THR RWY 36, 176.3 M (579 FT) west side from RWY centre line |
| GP/ DME | | 333.8 MHZ CH36X | | 184521.6N 0985742.2E | | |
| TACAN | CHM | CH 109 | | 184631.9N 985738.7E | | PN to ATC |

## VTCC AD 2.20 LOCAL AERODROME REGULATIONS

### 1. VFR REPORTING POINTS AND LOCAL PROCEDURES

1.1 CHIANG MAI INTERNATIONAL AIRPORT

1.1.1 Reporting points for VFR flight

In order to expedite and maintain and orderly flow of air traffic into Chiang Mai International Airport, the procedures of the inbound traffic of VFR flight, conventional and prop-jet aircraft, be set up as follow:

a) Aircraft entering to land from north of Chiang Mai International Airport, shall report over Mae Rim District, designated as MIKE ROMEO (1855.0N 9857.1E), Which is approximately 9 NM on R-353 of CMA VOR. When reaching MR the aircraft will be instructed to join aerodrome traffic circuit accordingly.
b) Aircraft entering to land from northeast of Chiang Mai International Airport, shall report over Doi Saket District, designated as DELTA SIERRA (1852.5N 9908.5E) and San Sai District, designated as SIERRA SIERRA (1851.5N 9903.0E) Which are approximately 12 NM on R-057 and 7 NM on R-043 of CMA VOR respectively. When reaching DS the aircraft will be instructed to join aerodrome traffic circuit accordingly.
c) Aircraft entering to land from east of Chiang Mai International Airport, shall report over San Kampaeng District, designated as SIERRA KILO (1844.5N 9907.5E) Which is approximately 9 NM on R-099 of CMA VOR. When reaching SK the aircraft will be instructed to join aerodrome traffic circuit accordingly.
d) Aircraft entering to land from south of Chiang Mai International Airport, shall report over Mae Tha District, designated as MIKE TANGO (1827.5N 9908.0E) and Sarapi District as SIERRA INDIA (1843.0N 9902.0E) Which are approximately 21 NM on R-152 and 5 NM on R-130 of CMA VOR respectively. When reaching SI the aircraft will be instructed to join aerodrome traffic circuit accordingly.

1.1.2 Aerodrome traffic circuit

a) Using runway 18 by entering left traffic circuit only.
b) Using runway 36 by entering right traffic circuit only.

1.1.3 Overhead approach pattern

a) Using runway 18 by left turn pattern.
b) Using runway 36 by right turn pattern.

**2. STARTING UP PROCEDURE**

2.1 Chiang Mai International Airport

2.1.1 All IFR aircraft are to call “Ground Control” 5 minutes prior to start up request for ATC clearance.

2.1.2 Pilot are to inform “Ground Control” their call signs, and proposed flight level if it is different from the flight plan when they make the call as item 2.1.1 above.

2.1.3 In order to provide a more flexible ground traffic movement all domestic departures shall on longer be required to be ready to taxi within 5 minutes after clearance received.

**3. LOW VISIBILITY PROCEDURES (LVP)**

3.1 RWY 36 is equipped with ILS and approved for CAT I operations.

3.2 Low visibility procedures will be activated when visibility is less than RVR 800 m.

3.3 Airport low visibility procedures will be enforced based on 3 Phases of Low Visibility Conditions (LVC) as following.

3.3.1 **LVC Warning**

3.3.1.1 LVC Warning will be activated when RVR is less than 800 m but not less than 550 m (RVR 550 – less than 800 m)

3.3.1.2 All ground operators will be informed by voice broadcasting.

3.3.1.3 All Operations near taxiway and runway will be restricted in accordance with the conditions set out in the aerodrome manual and airline’s SOPs until low visibility condition is terminated.

3.3.1.4 Vehicles operating on service road shall maintain a speed within 20 km/hr and vehicles operating in movement area shall maintain a speed within 10 km/hr. All vehicles shall be ascertained that their headlamps and obstacle lights are turned on throughout the whole area of operations.

3.3.2 **LVC Phase A** (RVR 200 – less than 550 m)

3.3.2.1 LVP Phase A will be activated when RVR is less than 550 m but not less than 200 m.

3.3.2.2 All ground operators will be informed by both flashing-orange lights which located at the airside entrance gate number 1, aircraft parking stand number 3,5,7,12,17 and by voice broadcasting.

3.3.2.3 Vehicles operating on service road shall maintain a speed within 20 km/hr and vehicles operating in Apron shall maintain a speed within 10 km/hr.All vehicles shall be ascertained that their headlamps and obstacle lights are turned on throughout the whole area of operations. All operations on taxiway and runway shall be terminated and vacated from the area.

3.3.3 **LVC Phase B** (RVR less than 200 m)

3.3.3.1 LVP Phase B will be activated when RVR is less than 200 m.

3.3.3.2 All ground operators will be informed by both flashing-white lights which located at the airside entrance gate number 1, aircraft parking stand number 3,5,7,12,17 and by voice broadcasting.

3.3.3.3 All ground operations will be restricted in accordance with the conditions set out in the aerodrome manual and airline’s SOPs. All ground equipment brakes shall be on a lock position and the chock shall be put to the wheel of that equipment.

3.3.3.4 All operations and vehicles in apron area are restricted in accordance with the conditions set out in the aerodrome manual and airline’s SOPs.

3.4 **Termination of low visibility procedures** (RVR more than 800 m)

3.4.1 All ground operators will be informed when low visibility conditions are terminated by voice broadcasting and all warning lights are turned off.

3.4.2 After low visibility condition termination notification, all ground operators shall resume normal operations.

Remark: RVR = Runway Visual Range

## 4. SAFEGATE DOCKING SYSTEM – IN SYSTEM AT CHIANG MAI INTL AIRPORT

4.1 INTRODUCTION

4.1.1 The SAFEGATE Docking System – in system is install at bay 3, 4, 5, 6, 7 and 8

4.1.2 The system enables the pilots seated on the left of the cockpit to position his aircraft on the correct stand centre line and stop position

4.2 PILOT OPERATING INSTRUCTION

4.2.1 Safety procedure

a) General warning

The DGS system has a built-in error detection program to inform the aircraft pilot of impending dangers during the docking procedure.

If the pilot is unsure of the information, being shown on the DGS display unit, he must immediate stop the aircraft and obtain further information for clearance.

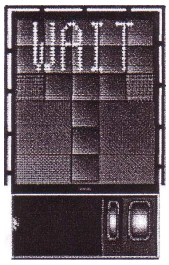
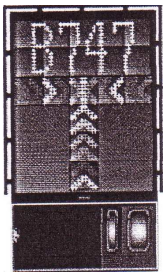
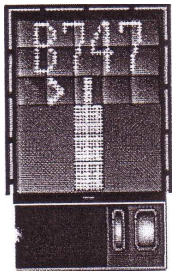
b) Item to check before entering the stand area

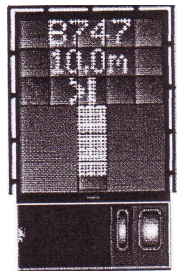
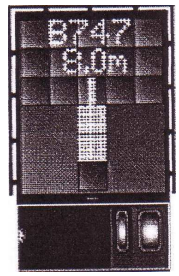
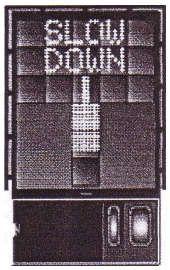
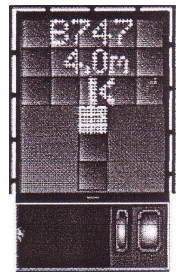
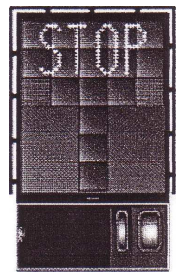
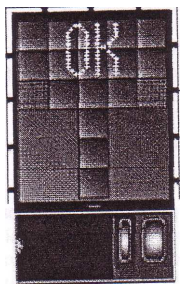
Warning: The pilot shall not enter the stand area, unless the docking system first is showing the vertical running arrows. The pilot must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

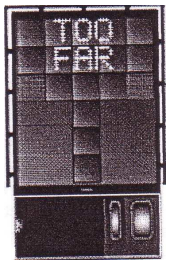
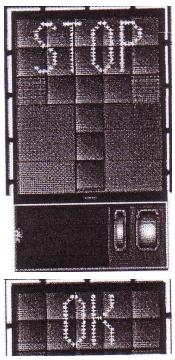
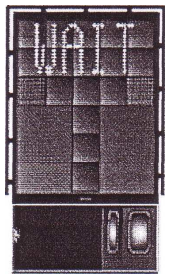
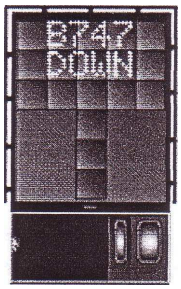
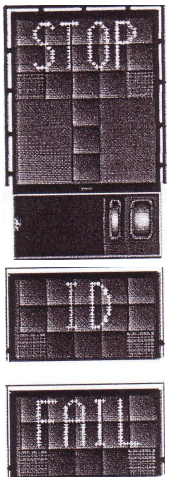
Warning: The pilot shall not enter the stand area, unless the aircraft type displayed is equal to the approaching aircraft/ The Correctness of other information, such as ‘door 2’, shall also be checked.

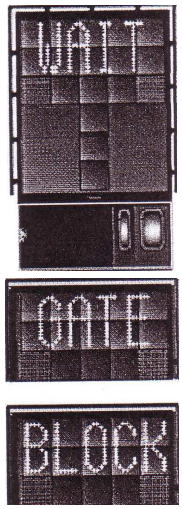
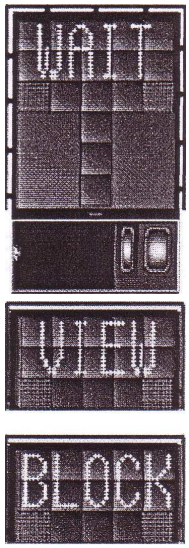
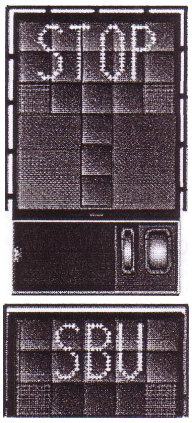
c) The SBU message

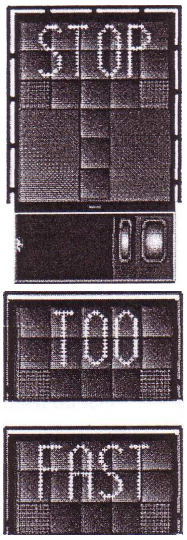
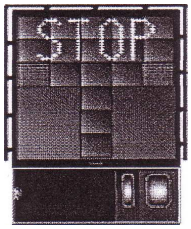
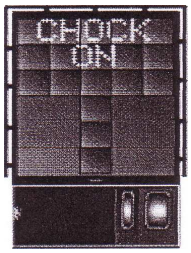
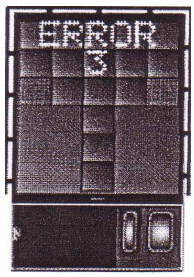
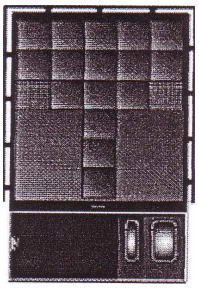
The message STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance. Do not try to resume docking without manual guidance.

| | |
|---|---|
|  | 4.2.2 START-OF-DOCKING<br><br>The system is started by pressing one of the aircraft type buttons on the operator panel. When the button has been pressed, WAIT will be displayed. |
|  | 4.2.3 CAPTURE<br><br>The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft.<br>If shall be checked that the correct aircraft type is displayed. The lead-in line shall be followed.<br>The pilot must not proceed beyond the bridge, unless the arrows have been superseded by closing rate bar. |
|  | 4.2.4TRACKING<br><br>When the aircraft has been caught by the laser, the floating arrow is replaced by the yellow centre line indicator.<br>A flashing red arrow indicates the direction to turn.<br>The vertical yellow arrow shows position in relation to the centre line. This indicator give correct position and azimuth guidance. |

| | |
|---|---|
|  | 4.2.5CLOSING RATE<br><br>Display of digital countdown will start when the aircraft is 20 M from stop position.<br>When the aircraft is less than 12 M from the stop position, the closing rate is indicated by turning off one row of the centre line symbol per 0.5 M, covered by the aircraft. Thus, when the last row is turned off, 0.5 M remains to stop. |
|  | 4.2.6 ALIGNED TO CENTRE<br><br>The aircraft is 8 M from the stop position. The absence of any direction arrow indicates an aircraft on the centre line. |
|  | 4.2.7 SLOW DOWN.<br><br>If the aircraft is approaching faster than the accepted speed, the system will show SLOW DOWN as a warning to the pilot |
|  | 4.2.8 AZIMUTH GUIDANCE.<br><br>The aircraft is 4 M from the stop-position. The yellow arrow indicates an aircraft to the right of the centre line, and the red flashing arrow indicates the direction to turn. |
|  | 4.2.9 STOP POSITION REACHED.<br><br>When the correct stop-position is reached, the display will show STOP and red lights will be lit. |
|  | 4.2.10 DOCKING COMPLETE.<br><br>When the aircraft has parked, OK will be displayed. |

| | |
|---|---|
|  | 4.2.11 OVERSHOOT.<br><br>If the aircraft overshoot the stop-position, TOO FAR will be displayed. |
|  | 4.2.12 STOP SHORT.<br><br>If the aircraft is found standing still but has not reached the intended stop position, the message STOP OK will be shown after a while. |
|  | 4.2.13 WAIT.<br><br>If some object is blocking the view toward the approaching aircraft or the detected aircraft is lost during docking, before 12 M to STOP, the display will show WAIT. The docking will continue as soon as the blocking object has disappeared or the system detects the aircraft again.<br>As the aircraft is approaching the stop position, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 12 M before the stop-position, the display will show WAIT, STOP and ID FAIL. The text will be alternating on the upper two row of the display.<br>The pilot must not proceed beyond the bridge, unless the “WAIT” message has been superseded by the closing rate bar. |
|  | 4.2.14 BAD WEATHER CONDITION.<br><br>During heavy fog, rain or snow, the visibility for the docking system can be reduced.<br>When the system is activated and in capture mode, the display will deactivate the floating arrows and show DOWN GRADE.<br>This message will be superseded by the closing rate bar, as soon as the System detects the approaching aircraft.<br>The pilot must not proceed beyond the bridge, unless the DOWN GRADE text has been superseded by the closing rate bar. |
|  | 4.2.15 AIRCRAFT VERIFICATION FAILURE.<br><br>During entry into the stand, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 40 FT metres before the stop-position, the display will first show WAIT and make a second verification check. If this fails STOP and ID FAIL will be displayed. The text will be alternating on the upper two rows of the display.<br>The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar. |

| | |
|---|---|
|  | 4.2.16 GATE BLOCKED.<br><br>If an object is found blocking the view from the DGS to the planned stop position for the aircraft, the docking procedure will be halted with a GATE BLOCK message. The docking procedure will resume as soon as the blocking object has been removed.<br>The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar. |
|  | 4.2.17 VIEW BLOCKED<br><br>If the view towards the approaching aircraft is hindered for instance by dirt on the window, the DGS will report a view block condition. Once the system is able to see the aircraft through the dirt, the message will be replaced with a closing rate display.<br>The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar |
|  | 4.2.18 SBU-STOP<br><br>Any unrecoverable error during the docking procedure will generate an SBU condition. The display will show red stop bar and the text STOP SBU.<br>A manual backup procedure must be used for docking guidance. |

| | |
|---|---|
|  | 4.2.19 TOO FAST<br><br>If the aircraft approaches with a speed higher than the docking system can handle, the message STOP (with red squares) and TOO FAST will be displayed.<br>The docking system must be re-started or docking procedure completed by manual guidance. |
|  | 4.2.20 EMERGENCY STOP<br><br>When the emergency stop button is pressed, STOP is displayed. |
|  | 4.2.21 CHOCKS ON<br><br>CHOCK ON will be displayed, when the ground staff has put the chocks in front of the nose wheel and pressed the “Chocks On” button on the operator panel. |
|  | 4.2.22 ERROR<br><br>If a system error occurs, the message ERROR is display with an error code. The code is used for maintenance purposes and explained else where. |
|  | 4.2.23 SYSTEM BREAKDOWN<br><br>In case of a severe system failure, the display will go black, except for a red stop indicator. A manual backup procedure must be used for docking guidance.<br>POWER FAILURE<br>In case of a power failure, the display will be completely black. A manual backup procedure must be used for docking guidance. |

**5. OPERATION PROCEDURES OF AIRCRAFT STAND NR 20R FOR GROUND HANDLING AGENTS**

5.1 All vehicles and ground equipment shall not move passing the right-wing tip of the aircraft.

5.2 When operating at the front-right of aircraft, all vehicles and ground equipment shall go in-out at the front only.

5.3 When operating at the rear of aircraft, all vehicles and ground equipment shall go in-out at the rear only.

**6. PUSH BACK PROCEDURE**

6.1 When flight formalities have been completed and the aircraft is ready for push back, the pilot shall contact ATC for start-up and push back clearance.

6.2 All aircraft shall start-up with only one engine at idle power during push back from the stand at a safe position for taxiing by push-back tug and shall taxi with minimum breakaway thrust.

6.3 In order to avoid jet blast damage to the other aircraft, equipment and personnel on nearby stands, the following aircraft maneuvering procedures are to be observed:

6.3.1 When the pilot is ready for start-up and push back, he shall seek confirmation from the ground crew that there is no hazard to his aircraft starting up.

6.3.2 Ground crew must ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or push back of aircraft commences.

6.3.3 Pilots are reminded that they should always use minimum power when starting engine on the apron and when taxiing. It is especially important when starting to taxi that breakaway thrust is kept to a minimum.

6.3.4 When the anti-collision beacons of the aircraft have been switched on, no vehicular movement is permitted behind the aircraft.

6.4 Aircraft shall be parked nose-in either to the terminal building on a stand attached to a passenger loading bridge or on a remote stand.

6.5 Aircraft above code letter A and B will need to be pushed back from the stand towards the Taxiway Center Line considering the Standard Taxi Routes by using push-back tug.

6.6 The procedures of push back aircraft will vary when it becomes necessary to expedite the flow of traffic. ATC will issue specific instructions to the pilots and make sure that the pilots also understand the instructions.

6.7 Power-back is not permitted at any parking stands.

**7. SELF- MANEUVERING**

7.1 Self-maneuvering is permitted only for aircraft code letter A, B, or aircraft with wingspan up to 24 meters (79 feet).

7.2 Marshalling service shall be provided and shall have wing walker personnel guiding on both side of the aircraft wing tips.

7.3 Self-maneuvering can be conducted when the next adjacent aircraft parking stand is vacant.

7.4 Pilots are reminded that they should always use minimum power during self- maneuvering operations.

## VTCC AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTCC AD 2.22 FLIGHT PROCEDURE

**1. VFR HELICOPTER ROUTES WITHIN CHIANG MAI INTERNATIONAL AIRPORT AREA**

Helicopter Operating Procedures as follow;

1.1 Helicopters flying VFR shall operate on the VFR helicopter routes under VMC while entering, leaving or transiting over Chiang Mai controlled airspace, in accordance with the attached chart, except when directed by air traffic controllers.

1.2 Helicopters shall maintain 500 FT above ground level when following the VFR helicopter routes and make position reports of each reporting point on the VFR helicopter routes, unless otherwise advised by air traffic controllers.

1.3 Helicopters intending to fly via positions/points which not prescribed on the VFR helicopter routes shall advise air traffic controllers.

1.4 ATC instructions for helicopters operating on the VFR helicopter routes shall be issued as follows: (aircraft call sign) CLEARED TO (destination or point) VIA HELICOPTER ROUTES, MAINTAIN (altitude) REPORT ESTABLISHED [or REPORT OVER (point)]

1.5 Helicopters are responsible for obstacle and terrain clearance, if any manoeuvres deviate from the assigned VFR helicopter routes, regarding obstacle or terrain, the helicopter pilots shall advise air traffic controllers for such manoeuvres and, afterwards, resume on the VFR

helicopter routes as soon as practicable.

1.6 Helicopters shall maintain own separation from other VFR traffic within Chiang Mai International Airport area, including Class G airspace. Air traffic controllers will provide traffic information, regarding known traffic, when available.

1.7 Air traffic controllers may instruct helicopters to fly via published VFR reporting points or instruct the helicopters to hold over any positions/points deemed necessary, depending on traffic conditions.

1.8 If helicopters encounter visibility below VMC minima during flight, the helicopter pilots shall advise air traffic controllers without delay

1.9 Helicopters shall maintain two-way communication with Chiang Mai Tower or Chiang Mai Approach while in Chiang Mai controlled airspace and shall change over to other units only when instructed to do so by the controllers.

1.10 Before taking off from heliports or helipads within Chiang Mai controlled airspace, helicopters shall contact Chiang Mai Tower on frequency 118.1 MHZ or Chiang Mai Approachon frequency 129.6 MHZ. If such communication could not be done, helicopter pilots/operators shall use other available means, e.g. telephones, to receive departure instructions and necessary information prior to take-off.

1.11 After take-off, two-way radio communication shall be established as soon as possible. If helicopters are unable to contact the ATC units before reaching altitude 500 FT above ground level, e.g. due to communication equipment failure, the helicopters shall return to land for solving the problem and notify Chiang Mai Tower by telephone.

1.12 In case where helicopters departing from outside Chiang Mai controlled airspace are unable to contact Chiang Mai Approach or Chiang Mai Tower before entering Chiang Mai controlled airspace, the helicopters shall enter the VFR helicopter routes via the nearest reporting point and fly on the VFR helicopter routes to the destination as filed in the flight plan or as latest notified to air traffic controllers.

1.13 The completion of landings at heliports or helipads within Chiang Mai controlled airspace shall be notified to Chiang Mai Tower by radio or telephone as soon as practicable.

1.14 Table of VFR reporting points for helicopters within Chiang Mai Control Zone

| No. | Reporting Point | Landmark | Radial/DME from CMA VOR | Lat/Long |
|---|---|---|---|---|
| 1. | MAE RIM | Dararassamee Police Camp | R-354/9.0D | 185456.84N 985631.35E |
| 2. | MAE JO | Mae Jo Junction | R-021/8.1D | 185334.55N 990037.99E |
| 3. | PA LAN | Bor Hin Intersection | R-039/8.3D | 185228.96N 990305.72E |
| 4. | SAN NA MENG | West of the 8 Building | R-055/6.4D | 184945.62N 990305.78E |
| 5. | SAN KLANG | San Klang Village | R-088/5.2D | 184611.43N 990305.67E |
| 6. | BO SANG | Bo Sang Intersection | R-092/6.8D | 184550.47N 990452.92E |
| 7. | TOT | TOT Office Building | R-131/6.7D | 184139.58N 990305.75E |
| 8. | DOI TI | Doi Ti Junction | R-159/13.9D | 183259.96N 990305.68E |
| 9. | TON TONG | South of School | R-185/13.6D | 183220.64N 985639.70E |
| 10. | THA WANG PRAO | Tha Wang Prao Intersection | R-203/15.1D | 183150.66N 985146.99E |
| 11. | NAM PRAE | Reservoir | R-228/6.8D | 184121.00N 985226.00E |
| 12. | ROYAL FLORA | Royal Park Rajapruek | R-242/2.3D | 184449.59N 985531.47E |

1.15 VFR helicopter routes for departure and arrival at Chiang Mai International Airport (VTCC)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|
| VTCC – NORTHWEST BOUND AND NORTHBOUND | SAN KLANG | SAN NA MENG | PA LAN | MAE JO | MAE RIM |
| VTCC – NORTHEAST BOUND | SAN KLANG | SAN NA MENG | | | |
| VTCC – EASTBOUND | SAN KLANG | | | | |
| VTCC – SOUTHEAST BOUND AND SOUTHBOUND | SAN KLANG | TOT | DOI TI | | |

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|
| VTCC – WESTBOUND AND SOUTHWEST BOUND | ROYAL FLO-RA | NAM PRAE | THA WANG PRAO | | |

1.16 VFR helicopter routes for departure and arrival at Dararassamee Police Camp (HDR) and Ban Rim Tai

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|---|
| HDR – EASTBOUND | MAE JO | PA LAN | SAN NA MENG | BO SANG | | |
| HDR – SOUTHEAST BOUND AND SOUTH-BOUND | MAE JO | PA LAN | SAN NA MENG | SAN KLANG | TOT | DOI TI |
| HDR – SOUTHWEST BOUND | MAE JO | PA LAN | SAN NA MENG | SAN KLANG | TOT | DOI TI |
| | TON TONG | THA WANG PRAO | | | | |

1.17 VFR helicopter routes for departure and arrival at Khun Nane (HKN) and Three King RTA Camp (HTK)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|---|
| HKN – NORTHEAST BOUND | PA LAN | | | | | |
| HKN – EASTBOUND | PA LAN | SAN NA MENG | BO SANG | | | |
| HKN – SOUTHEAST BOUND AND SOUTHBOUND | PA LAN | SAN NA MENG | SAN KLANG | TOT | DOI TI | |
| HDR – SOUTHWEST BOUND | PA LAN | SAN NA MENG | SAN KLANG | TOT | DOI TI | TON TONG |
| | THA WANG PRAO | | | | | |

1.18 VFR helicopter routes for departure and arrival at Pra Pin Klao RTA Camp (HPK) and Battalion Development 3 (HPN)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|---|
| HPK – NORTHWEST BOUND AND NORTH-BOUND | PA LAN | MAE JO | MAE RIM | | | |
| HPK – NORTHEAST BOUND | PA LAN | | | | | |
| HPK – EASTBOUND | PA LAN | SAN NA MENG | BO SANG | | | |
| HPK – SOUTHEAST BOUND AND SOUTH-BOUND | PA LAN | SAN NA MENG | SAN KLANG | TOT | DOI TI | |

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|---|
| HPK – SOUTHWEST BOUND | PA LAN | SAN NA MENG | SAN KLANG | TOT | DOI TI | TON TONG |
| | THA WANG PRAO | | | | | |

1.19 VFR helicopter routes for departure and arrival at Phamuang Force, Nong Hor (HNH)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|---|
| HNH – WESTBOUND NORTHWEST BOUND AND NORTHBOUND | SAN NA MENG | PA LAN | MAE JO | MAE RIM | | |
| HNH – NORTHEAST BOUND | SAN NA MENG | | | | | |
| HNH – EASTBOUND | SAN NA MENG | BO SANG | | | | |
| HNH – SOUTHEAST BOUND AND SOUTH-BOUND | SAN NA MENG | SAN KLANG | TOT | DOI TI | | |
| HNH – SOUTHWEST BOUND | SAN NA MENG | SAN KLANG | TOT | DOI TI | TON TONG | THA WANG PRAO |

1.20 VFR helicopter routes for departure and arrival at Kawila RTA Camp (HKW) and Pa Dad helipad (HPD)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|
| HKW – NORTHWEST BOUND AND NORTH-BOUND | SAN KLANG | SAN NA MENG | PA LAN | MAE JO | MAE RIM |
| HKW – NORTHEAST BOUND | SAN KLANG | SAN NA MENG | | | |
| HKW – EASTBOUND | SAN KLANG | | | | |
| HKW – SOUTHEAST BOUND AND SOUTH-BOUND | SAN KLANG | TOT | DOI TI | | |
| HKW – SOUTHWEST BOUND | SAN KLANG | TOT | DOI TI | TON TONG | THA WANG PRAO |

1.21 VFR helicopter routes for departure and arrival at Rue See Base (HRS)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|
| HRS –NORTHBOUND | SAN KLANG | SAN NA MENG | PA LAN | MAE JO | MAE RIM |
| HRS – NORTHEAST BOUND | SAN KLANG | SAN NA MENG | | | |
| HRS – EASTBOUND | SAN KLANG | | | | |
| HRS – SOUTHBOUND SOUTHEAST BOUND AND SOUTHWEST BOUND | NAM PRAE | THA WANG PRAO | | | |

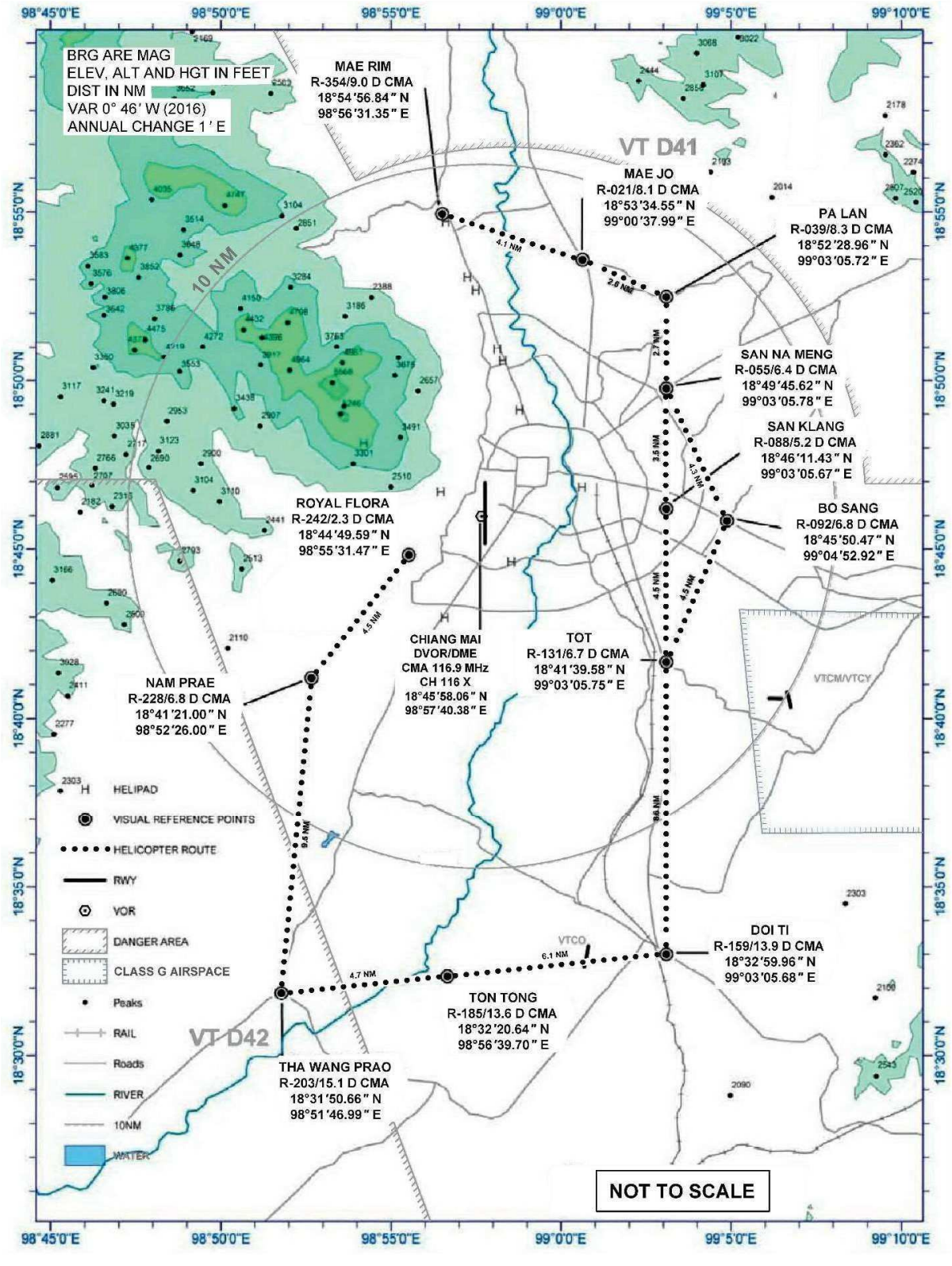
1.22 VFR helicopter routes for departure and arrival at EGAT Hang Dong (HEG)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|---|---|
| HEG – NORTHBOUND | TOT | SAN KLANG | SAN NA MENG | PA LAN | MAE JO | MAE RIM |
| HEG – NORTHEAST BOUND | TOT | SAN KLANG | SAN NA MENG | | | |
| HEG – EASTBOUND | TOT | SAN KLANG | | | | |
| HEG – SOUTHBOUND SOUTHEAST BOUND AND SOUTHWEST BOUND | NAM PRAE | THA WANG PRAO | | | | |

**HELICOPTER AERODROME ELEV 1036 ft**
**ROUTES**

APP : 129.6 , 305.4
TWR : 118.1 , 236.6

**CHIANG MAI / Chiang mai Intl (VTCC)**
**VMC ONLY**



**2. SPEED CONTROL PROCEDURE IN CHIANG MAI TMA**

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

## VTCC AD 2.23 ADDITIONAL INFORMATION

**1. OPERATION OF ALL NON-SCHEDULED FLIGHT AT CHIANG MAI INTERNATIONAL AIRPORT**

1.1 All aircrafts wishing to operate at Chiang Mai International Airport shall adhere to the following procedures

1.1.1 All flights, including flight selecting Chiang Mai International Airport as alternate aerodromes shall have handling agent at Chiang Mai International Airport.

1.1.2 Nose-in parking is applicable to all aircrafts.

1.1.3 All aircrafts ready to taxi out shall prepare their own tow bars.

**Remark :** Aircraft below letter “C” is allowed to self-manoeuvre but must inform to Chiang Mai International Airport before doing so. Moreover, aircraft below letter “C” shall be correctly bonded and correct earthing procedure shall be employed.

**2. BIRD CONCENTRATIONS**

Chiang Mai International Airport has implemented various kinds of wildlife management programme to prevent the attraction of birds on its boundary along with dispersal tasks to tackle the number of birds that may potentially endanger the operating aircraft. Nevertheless, due to the factors that are beyond the airport capability or authority, certain types of birds are present below.

2.1 Bird concentrations in the vicinity of an aerodrome.

2.1.1 The number of varieties of birds are found in Chiang Mai International Airport throughout the year. The larger number of birds commonly found, and highly endangered kinds are as follows:

| Common name | Weight (KG) | Period |
|---|---|---|
| Black-eared Kite | 0.56 - 0.94 | October – February (Winter Migration) |
| Common Rock Dove | 0.18 – 0.36 | All year (Particularly in April - September) |
| Red-Wattled Lapwing | 0.11-0.23 | All year |

2.1.2 There could be an increase in bird activities during the usual migratory months of September to April and November to June. During this period, migratory birds may use the airport as their feeding ground.

2.1.3 Various active dispersal devices generating lights, sound or cracking effects are used for bird dispersal to mitigate wildlife hazards where necessary within Chiang Mai International Airport (such as pyrotechnic, horn, etc.).

2.1.4 There could be some activities to reduce birds and make the area unattractive for birds such as mowing the grass and other plants, removing aquatic weeds from drainage.

2.2 Grass mowing program

2.2.1 Grass mowing in the airside may take place daily during 0100 - 1000 UTC (Daytime) and 1400 – 2300 (Nighttime)

2.2.2 The mowing work is carried out in the following areas:

- grass areas outside the boundary of runways strip and the critical area

- grass areas outside the boundary of taxiways strip. For safety reasons, the work will stop when taxiing aircraft approaches.

2.2.3 Presence of workers and machines are under ATC and AOT staff supervision.

2.2.4 All grass mowing activities will attract birds; therefore, pilots are advised to exercise with caution.

## VTCC AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome chart - ICAO | AD 2-VTCC-2-1 |
| Aircraft Parking/Docking Chart – ICAO | AD 2-VTCC-2-3 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTCC-2-5 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 18/36 | AD 2-VTCC-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RWY 18 | AD 2-VTCC-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RWY 18 (Tabular description 1) | AD 2-VTCC-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RWY 18 (Tabular description 2) | AD 2-VTCC-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RWY 36 | AD 2-VTCC-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RWY 36 (Tabular description 1) | AD 2-VTCC-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RWY 36 (Tabular description 2) | AD 2-VTCC-6-7 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - ENBAT2S PANTA2S PUMAM2S | AD 2-VTCC-6-9 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - ENBAT2S PANTA2S PUMAM2S (Tabular description) | AD 2-VTCC-6-10 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - KABMU2S MONLO2S | AD 2-VTCC-6-11 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - KABMU2S MONLO2S (Tabular description) | AD 2-VTCC-6-12 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - ADLUS2S IGUDA2S LAMUN2S VISES2S | AD 2-VTCC-6-13 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - ADLUS2S IGUDA2S LAMUN2S VISES2S (Tabular description) | AD 2-VTCC-6-14 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - ADLUS2S IGUDA2S LAMUN2S VISES2S (Waypoint list table) | AD 2-VTCC-6-15 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - LAMUN2W VISES2W | AD 2-VTCC-6-17 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - LAMUN2W VISES2W (Tabular description) | AD 2-VTCC-6-18 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ENBAT2N IGUDA2N KABMU2N MONLO2N PANTA2N PUMAM2N | AD 2-VTCC-6-19 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ENBAT2N IGUDA2N KABMU2N MONLO2N PANTA2N PUMAM2N (Tabular description 1) | AD 2-VTCC-6-20 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ENBAT2N IGUDA2N KABMU2N MONLO2N PANTA2N PUMAM2N (Tabular description 2) | AD 2-VTCC-6-21 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ENBAT2N IGUDA2N KABMU2N MONLO2N PANTA2N PUMAM2N (Waypoint list table) | AD 2-VTCC-6-22 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ENBAT2C IGUDA2C KABMU2C MONLO2C PANTA2C PUMAM2C | AD 2-VTCC-6-23 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ENBAT2C IGUDA2C KABMU2C MONLO2C PANTA2C PUMAM2C (Tabular description 1) | AD 2-VTCC-6-24 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ENBAT2C IGUDA2C KABMU2C MONLO2C PANTA2C PUMAM2C (Tabular description 2) | AD 2-VTCC-6-25 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ENBAT2C IGUDA2C KABMU2C MONLO2C PANTA2C PUMAM2C (Waypoint list table) | AD 2-VTCC-6-26 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - LAMUN2N VISES2N | AD 2-VTCC-6-27 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - LAMUN2N VISES2N (Tabular description) | AD 2-VTCC-6-28 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ADLUS2N | AD 2-VTCC-6-29 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ADLUS2N (Tabular description) | AD 2-VTCC-6-30 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - ADLUS2B CMA2B ENBAT2B KABMU2B MARNI2B MONLO2B PANTA2B PUMAM2B | AD 2-VTCC-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - ADLUS2B CMA2B ENBAT2B KABMU2B MARNI2B MONLO2B PANTA2B PUMAM2B (Radio communication failure table) | AD 2-VTCC-7-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - ADLUS2B CMA2B ENBAT2B KABMU2B MARNI2B MONLO2B PANTA2B PUMAM2B (Tabular description 1) | AD 2-VTCC-7-3 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - ADLUS2B CMA2B ENBAT2B KABMU2B MARNI2B MONLO2B PANTA2B PUMAM2B (Tabular description 2) | AD 2-VTCC-7-4 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - ADLUS2B CMA2B ENBAT2B KABMU2B MARNI2B MONLO2B PANTA2B PUMAM2B (Tabular description 3) | AD 2-VTCC-7-5 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - ADLUS2B CMA2B ENBAT2B KABMU2B MARNI2B MONLO2B PANTA2B PUMAM2B (Waypoint list table) | AD 2-VTCC-7-6 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - ADLUS2X LAMUN2X VISES2X | AD 2-VTCC-7-7 |

| Chart name | Page |
|---|---|
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - ADLUS2X LAMUN2X VISES2X (Radio communication failure table) | AD 2-VTCC-7-8 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - ADLUS2X LAMUN2X VISES2X (Tabular description) | AD 2-VTCC-7-9 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - ENBAT2A MARNI2A PANTA2A PUMAM2A | AD 2-VTCC-7-11 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - ENBAT2A MARNI2A PANTA2A PUMAM2A (Radio communication failure table) | AD 2-VTCC-7-12 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - ENBAT2A MARNI2A PANTA2A PUMAM2A (Tabular description) | AD 2-VTCC-7-13 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - ENBAT2A MARNI2A PANTA2A PUMAM2A (Waypoint list table) | AD 2-VTCC-7-14 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - ADLUS2A CMA2A KABMU2A MONLO2A | AD 2-VTCC-7-15 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - ADLUS2A CMA2A KABMU2A MONLO2A (Radio communication failure table) | AD 2-VTCC-7-16 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - ADLUS2A CMA2A KABMU2A MONLO2A (Tabular description 1) | AD 2-VTCC-7-17 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - ADLUS2A CMA2A KABMU2A MONLO2A (Tabular description 2) | AD 2-VTCC-7-18 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - LAMUN2A VISES2A | AD 2-VTCC-7-19 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - LAMUN2A VISES2A (Radio communication failure table) | AD 2-VTCC-7-20 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - LAMUN2A VISES2A (Tabular description) | AD 2-VTCC-7-21 |
| Instrument Approach Chart - ICAO - VOR a RWY 18 | AD 2-VTCC-8-1 |
| Instrument Approach Chart - ICAO - VOR a RWY 18 (Fix and point list table) | AD 2-VTCC-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 36 | AD 2-VTCC-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 36 (Fix and point list table) | AD 2-VTCC-8-4 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 36 | AD 2-VTCC-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 36 (Fix and point list table) | AD 2-VTCC-8-6 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 36 | AD 2-VTCC-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 36 (Tabular description) | AD 2-VTCC-8-8 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 36 (Fix and point list table) | AD 2-VTCC-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 18 | AD 2-VTCC-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 18 (Tabular description) | AD 2-VTCC-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 36 | AD 2-VTCC-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 36 (Tabular description) | AD 2-VTCC-8-14 |

# AERODROME CHART - ICAO

**18 46 17N**
**098 57 46E**

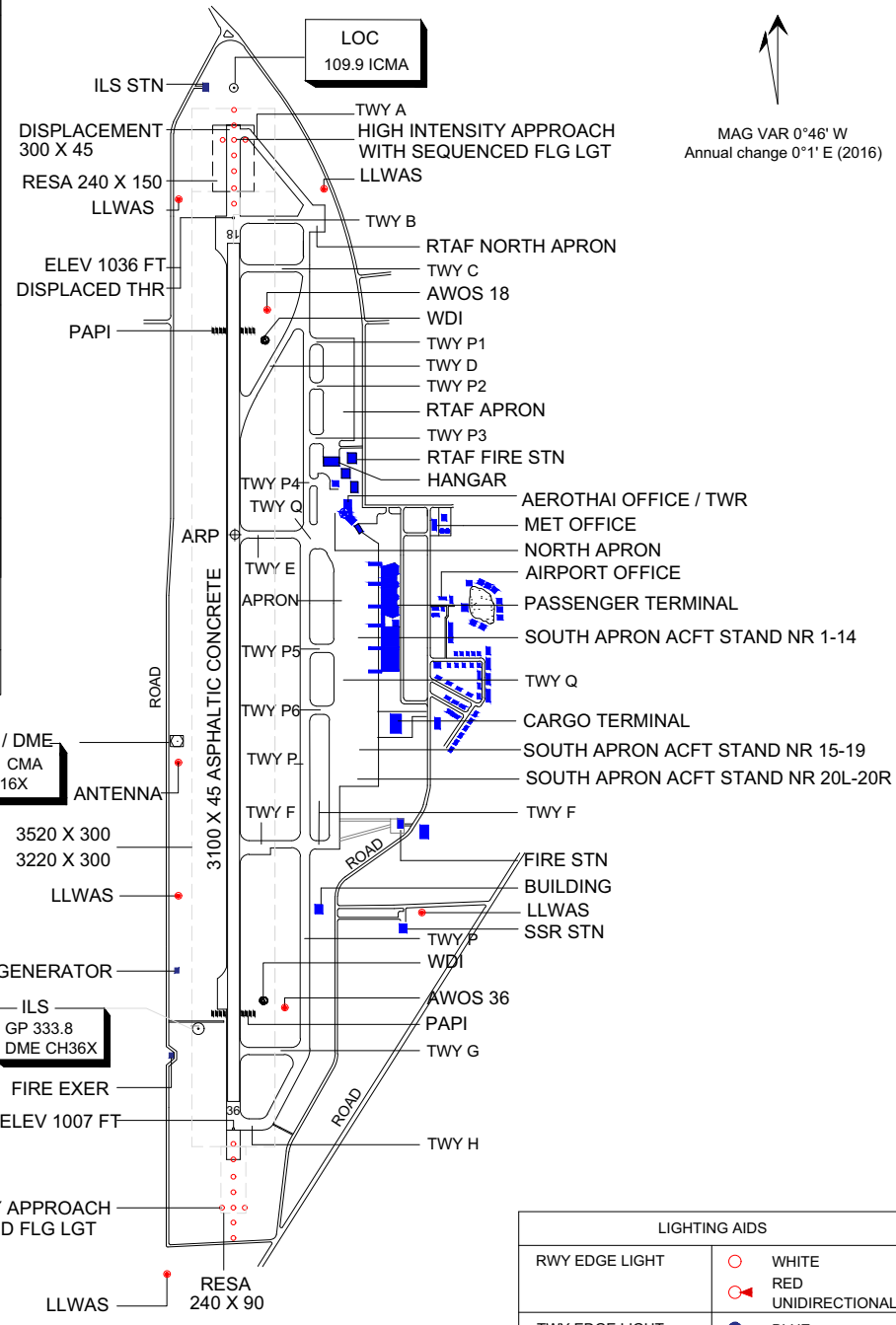
**ELEV 1036 FT**

**TWR 118.1**

# CHIANG MAI / Chiang Mai Intl

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 18 | 180 | 18 46 51.80 N<br>98 57 46.52 E | PCR 650/F/B/X/T Asphalt 300 M BFR THR (Displacement) and 100 M RWY ENDS are PCR 660/R/A/W/T Concrete |
| 36 | 360 | 18 45 10.94 N<br>98 57 46.26 E | PCR 650/F/B/X/T Asphalt 100 M FM THR36) is PCR 660/R/A/W/T Concrete |
| TAXIWAY A,F,H,P5,P6,Q | | | PCR 660/R/A/W/T |
| TAXIWAY B | | | PCR 660/R/A/W/T |
| TAXIWAY G | | | PCR 660/R/A/W/T |
| TAXIWAY C,D (RAPID EXIT TAXIWAY) | | | PCR 700/F/C/X/T |
| TAXIWAY E | | | PCR 1350/R/D/W/T |
| TAXIWAY P | | | PCR 660/R/A/W/T<br>PCR 950/F/D/X/T |
| NORTH APRON (MILITARY USE ONLY) | | | PCN 29/R/D/Y/T |
| SOUTH APRON ACFT STAND | | | |
| NR 1-19 | | | PCR 660/R/A/W/T |
| NR 20L-20R | | | PCR 660/R/A/W/T |
| RTAF NORTH APRON | | | 672 000 lbs |

ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC

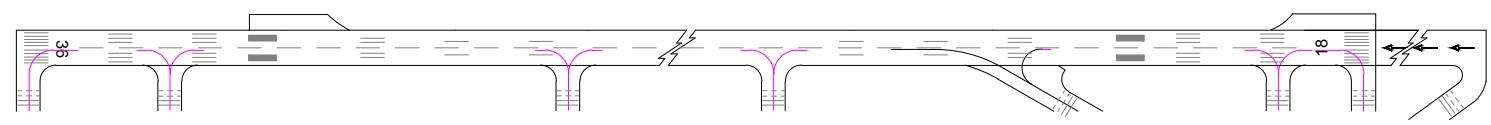



| LIGHTING AIDS | |
|---|---|
| RWY EDGE LIGHT | WHITE<br>RED UNIDIRECTIONAL |
| TWY EDGE LIGHT | BLUE |
| THR/END LIGHT | RED/GREEN BIDIRECTIONAL |

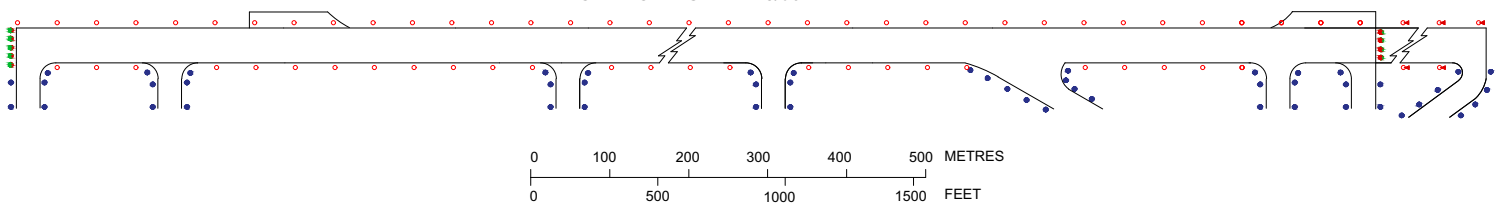
REMARKS

- LLWAS is Low-Level Wind Shear Alert System
- AWOS is Automated Weather Observation System

MARKING AIDS RWY 18/36 AND EXIT TWY




LIGHTING AIDS RWY 18/36 AND EXIT TWY




Change : PCR Runway Taxiway & Apron Changed

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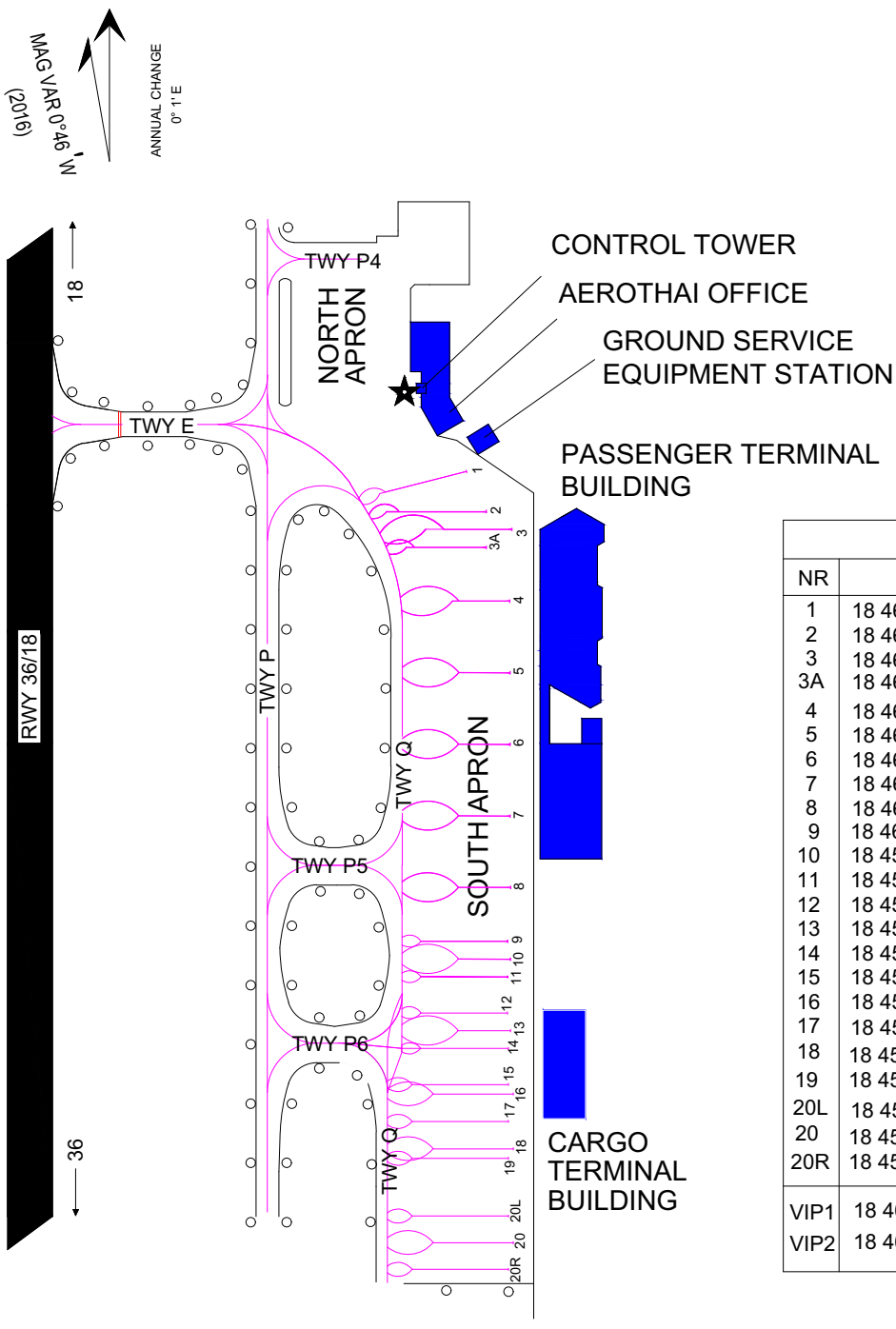
# AIRCRAFT PARKING / DOCKING CHART - ICAO

**SOUTH APRON**
**ELEV 1008 ft**

**TWR 118.1**
**GND 121.9**

**CHIANG MAI**
**CHIANG MAI / INTL**




| AIRCRAFT STAND COORDINATES | | | |
|---|---|---|---|
| NR | LAT (N) | LONG (E) | UP TO |
| 1 | 18 46 15.50 | 98 58 01.50 | ATR72 |
| 2 | 18 46 14.18 | 98 58 02.17 | B737-400 |
| 3 | 18 46 13.59 | 98 58 03.05 | B747-400 |
| 3A | 18 46 13.00 | 98 58 02.17 | B737-400 |
| 4 | 18 46 11.23 | 98 58 03.05 | B747-400 |
| 5 | 18 46 08.82 | 98 58 03.05 | B747-400 |
| 6 | 18 46 06.51 | 98 58 03.04 | B747-400 |
| 7 | 18 46 04.16 | 98 58 03.03 | B747-400 |
| 8 | 18 46 01.81 | 98 58 03.03 | B747-400 |
| 9 | 18 46 00.03 | 98 58 02.92 | B737-900 |
| 10 | 18 45 59.44 | 98 58 03.02 | B747-400 |
| 11 | 18 45 58.86 | 98 58 02.91 | ATR72 |
| 12 | 18 45 57.68 | 98 58 02.90 | 737-900 |
| 13 | 18 45 57.09 | 98 58 03.02 | B747-400 |
| 14 | 18 45 56.50 | 98 58 02.91 | ATR72 |
| 15 | 18 45 55.32 | 98 58 02.98 | B737-900 |
| 16 | 18 45 55.01 | 98 58 03.00 | A300 |
| 17 | 18 45 54.11 | 98 58 02.98 | DH8D |
| 18 | 18 45 53.21 | 98 58 02.99 | A300 |
| 19 | 18 45 52.90 | 98 58 02.98 | B737-900 |
| 20L | 18 45 50.99 | 98 58 02.78 | A320-NEO |
| 20 | 18 45 50.11 | 98 58 02.92 | B747-400 |
| 20R | 18 45 49.23 | 98 58 02.77 | A320-NEO |
| VIP1 | 18 46 18.54 | 98 57 56.76 | |
| VIP2 | 18 46 18.54 | 98 57 57.56 | |

Remarks : Coordinate is WGS-84

*REMARKS*

- SOUTH APRON ACFT STAND NR 1-20R SURFACE AND STRENGTH : CONCRETE , PCR 660/R/A/W/T
- NORTH APRON ACFT STAND VIP1,VIP2 MILITARY USE ONLY
- ACFT STAND NR 3, 4, 5, 6, 7 AND 8 AVBL WITH SINGLE-END PASSENGER LOADING BRIDGES.
- ACFT STAND NR 3, 4, 5, 6, 7 AND 8 AVBL WITH SAFEGATE DOCKING SYSTEM
- ACFT STAND NR 3-20 AVBL WITH FUEL HYDRANT SYSTEM (JET A-1)
- TAXIWAY AND APPRON BEARING STRENGTH SEE VTCC AD 2.24 AERODROME CHART - ICAO

Change : AIRCRAFT STAND UP TO AIRCRAFT TYPE

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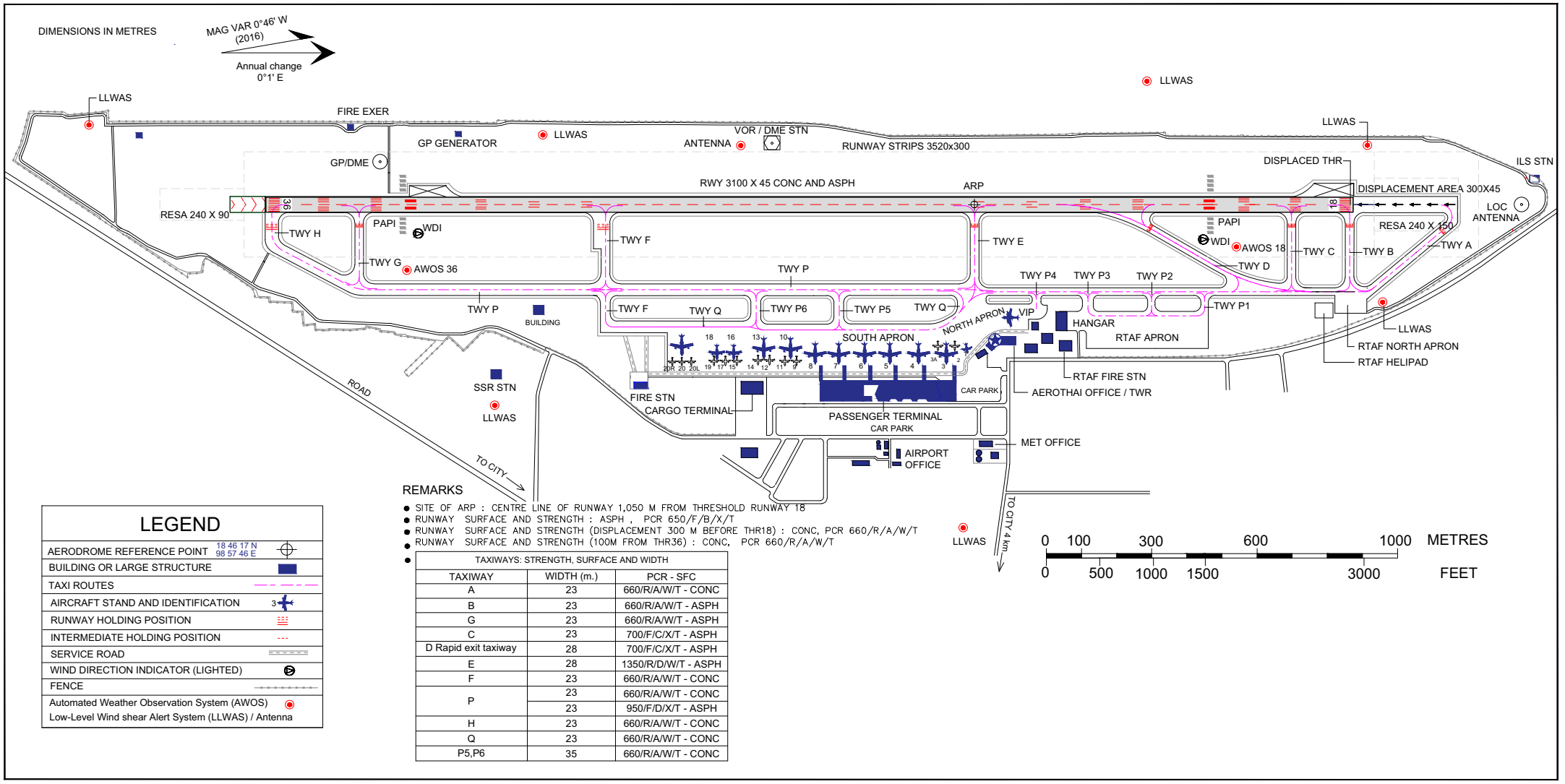
# AERODROME GROUND MOVEMENT CHART - ICAO

**TWR 118.1**
**GND 121.9**

## CHIANG MAI / Chiang Mai Intl




### LEGEND

| | |
|---|---|
| AERODROME REFERENCE POINT 18 46 17 N 98 57 46 E | ⊕ |
| BUILDING OR LARGE STRUCTURE | ■ |
| TAXI ROUTES | — — — — |
| AIRCRAFT STAND AND IDENTIFICATION | 3 |
| RUNWAY HOLDING POSITION | ≡ |
| INTERMEDIATE HOLDING POSITION | --- |
| SERVICE ROAD | |
| WIND DIRECTION INDICATOR (LIGHTED) | |
| FENCE | |
| Automated Weather Observation System (AWOS) | ◉ |
| Low-Level Wind shear Alert System (LLWAS) / Antenna | |

### REMARKS

- SITE OF ARP : CENTRE LINE OF RUNWAY 1,050 M FROM THRESHOLD RUNWAY 18
- RUNWAY SURFACE AND STRENGTH : ASPH , PCR 650/F/B/X/T
- RUNWAY SURFACE AND STRENGTH (DISPLACEMENT 300 M BEFORE THR18) : CONC, PCR 660/R/A/W/T
- RUNWAY SURFACE AND STRENGTH (100M FROM THR36) : CONC, PCR 660/R/A/W/T

TAXIWAYS: STRENGTH, SURFACE AND WIDTH

| TAXIWAY | WIDTH (m.) | PCR - SFC |
|---|---|---|
| A | 23 | 660/R/A/W/T - CONC |
| B | 23 | 660/R/A/W/T - ASPH |
| G | 23 | 660/R/A/W/T - ASPH |
| C | 23 | 700/F/C/X/T - ASPH |
| D Rapid exit taxiway | 28 | 700/F/C/X/T - ASPH |
| E | 28 | 1350/R/D/W/T - ASPH |
| F | 23 | 660/R/A/W/T - CONC |
| P | 23 | 660/R/A/W/T - CONC |
| | 23 | 950/F/D/X/T - ASPH |
| H | 23 | 660/R/A/W/T - CONC |
| Q | 23 | 660/R/A/W/T - CONC |
| P5,P6 | 35 | 660/R/A/W/T - CONC |

CHANGE : PCR Changed

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## AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

# CHIANG MAI / Chiang Mai Intl

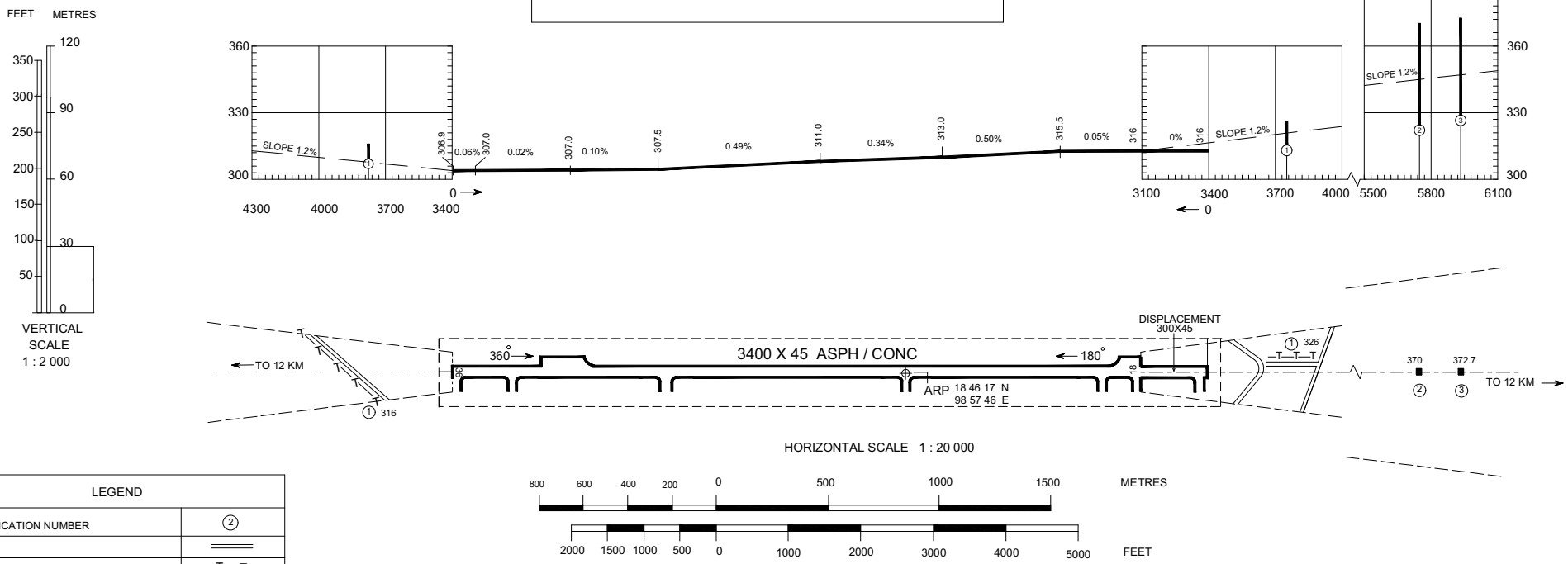
DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 0° 50' W (2011)

Annual Change 0° 1' E

**RWY 18 / 36**

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 18 | | RWY 36 |
| 3400 | TAKE-OFF RUN AVAILABLE | 3100 |
| 3400 | TAKE-OFF DISTANCE AVAILABLE | 3100 |
| 3400 | ACCELERATE STOP DISTANCE AVAILABLE | 3100 |
| 3100 | LANDING DISTANCE AVAILABLE | 3100 |




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ② |
| ROAD | ═══ |
| HIGHT TENSION LINE | —T— T— |
| BUILDING OR LARGE STUCTURE | ■ |

CHANGE : RWY SLOPE,RWY ELEV,SURFACE RWY CHANGED

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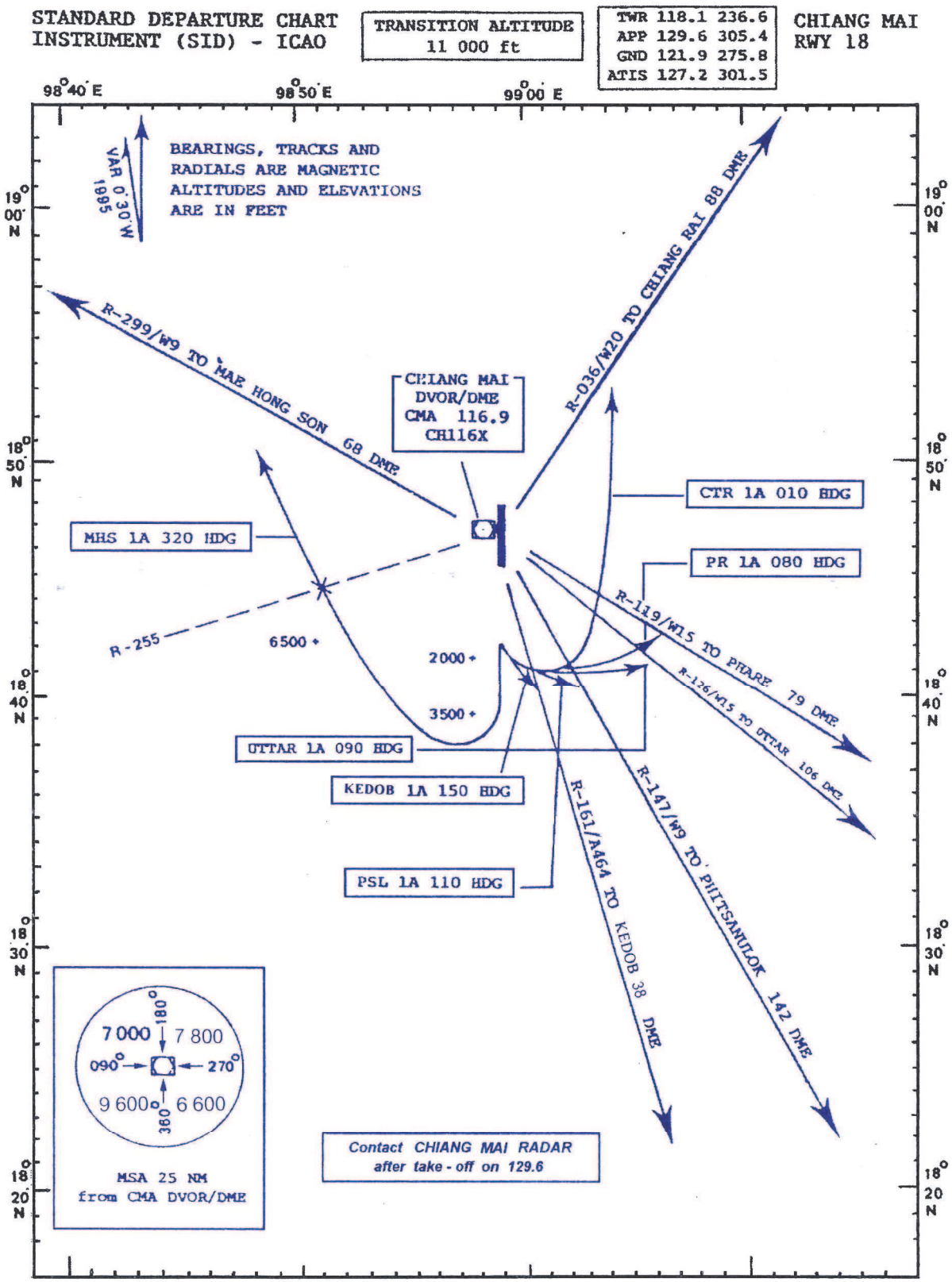
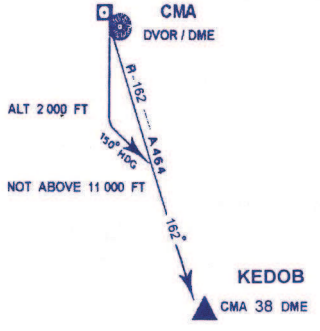

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO
TRANSITION ALTITUDE
11 000 ft
TWR 118.1 236.6
APP 129.6 305.4
GND 121.9 275.8
ATIS 127.2 301.5
CHIANG MAI
RWY 18
98°40' E
98°50' E
99°00' E
19°00' N
18°50' N
18°40' N
18°30' N
18°20' N
VAR 0°30'W 1995
BEARINGS, TRACKS AND RADIALS ARE MAGNETIC
ALTITUDES AND ELEVATIONS ARE IN FEET
R-299/W9 TO MAE HONG SON 68 DME
R-036/W20 TO CHIANG RAI 88 DME
CHIANG MAI DVOR/DME CMA 116.9 CH116X
CTR 1A 010 HDG
MHS 1A 320 HDG
PR 1A 080 HDG
R-119/W15 TO PHARE 79 DME
R-126/W15 TO UTTAR 106 DME
R-255
6500 +
2000 +
3500 +
UTTAR 1A 090 HDG
KEDOB 1A 150 HDG
PSL 1A 110 HDG
R-161/A464 TO KEDOB 38 DME
R-147/W9 TO PHITSANULOK 142 DME
180°
7 000
7 800
090°
270°
9 600
6 600
360°
MSA 25 NM
from CMA DVOR/DME
Contact CHIANG MAI RADAR
after take-off on 129.6

## STANDARD INSTRUMENT DEPARTURE (SID) CHIANG MAI INTERNATIONAL AIRPORT

### STANDARD INSTRUMENT DEPARTURE RUNWAY 18

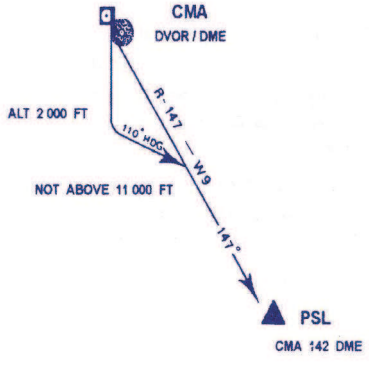
#### KEDOB ONE ALFA (KEDOB 1 A)

Take off, climb runway heading until 2 000 FT, or above, then turn left heading 150° to intercept and proceed on CMA R-162 not above 11 000 FT.
Expect radar control.
Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take off.



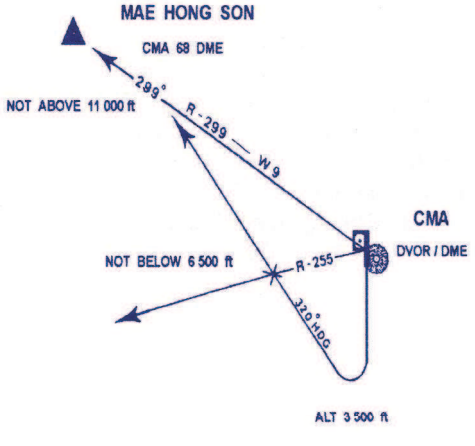

#### PHITSANULOK ONE ALFA (PSL 1 A)

Take off, climb runway heading until 2 000 ft, or above, then turn left heading 110° to intercept and proceed on CMA R-147 not above 11 000 ft. Expect radar control.
Contact Chiang Mai Radar on 129.6, 305.4 MHz after take-off.




#### MAE HONG SON ONE ALFA (MHS 1 A)

Take off, climb runway heading until 3 500 ft, or above, then turn right heading 320° to cross CMA R-255 not below 6 500 ft, and intercept and proceed on CMA R-299 not above 11 000 ft.
Expect radar control.
Contact Chiang Mai Radar on 129.6, 305.4 MHz after take-off.

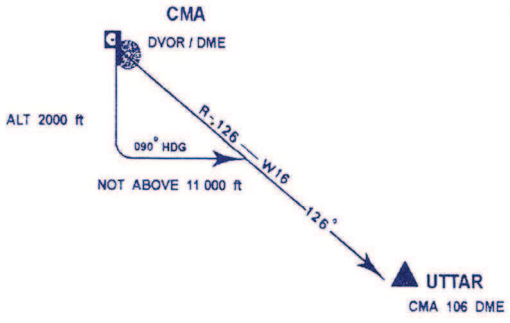


## STANDARD INSTRUMENT DEPARTURE (SID) CHIANG MAI INTERNATIONAL AIRPORT

### STANDARD INSTRUMENT DEPARTURE RUNWAY 18

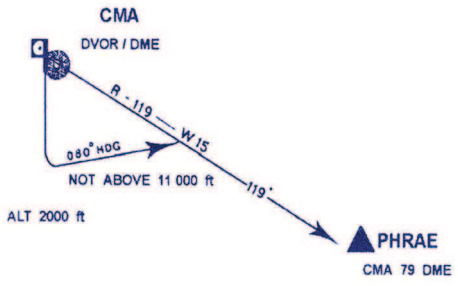
#### UTTAR ONE ALFA (UTTAR 1 A)

Take off, climb runway heading until 2 000 FT, or above, then turn left heading 090° to intercept and proceed on CMA R-126 not above 11 000 FT.
Expect radar control.
Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take-off.



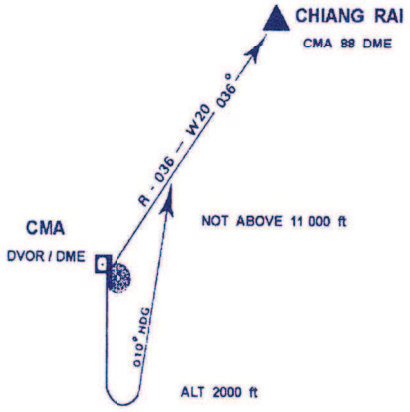

#### PHRAE ONE ALFA (PR 1 A)

Take off, climb runway heading until 2 000 FT, or above, then turn left heading 080° to intercept and proceed on CMA R-119 not above 11 000 FT.
Expect radar control.
Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take-off.




#### CHIANG RAI ONE ALFA (CTR 1 A)

Take off, climb runway heading until 2 000 FT, or above, then turn left heading 010° to intercept and proceed on CMA R-036 not above 11 000 FT.
Expect radar control.
Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take-off.



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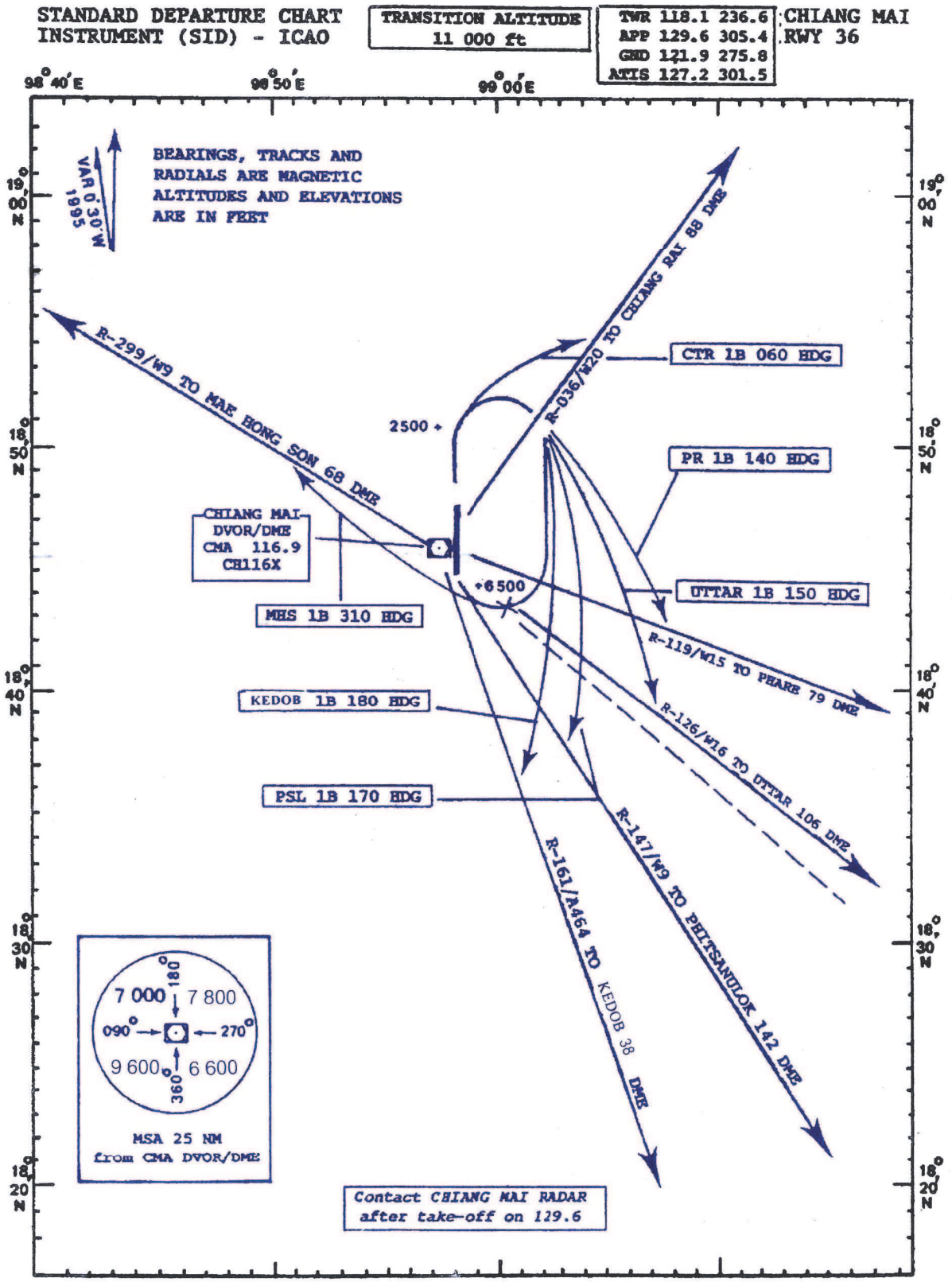
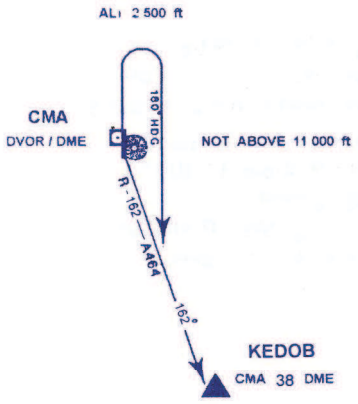

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO
TRANSITION ALTITUDE
11 000 ft
TWR 118.1 236.6
APP 129.6 305.4
GND 121.9 275.8
ATIS 127.2 301.5
CHIANG MAI
RWY 36
98° 40' E
98° 50' E
99° 00' E
19° 00' N
18° 50' N
18° 40' N
18° 30' N
18° 20' N
VAR 0°30' W
1995
BEARINGS, TRACKS AND
RADIALS ARE MAGNETIC
ALTITUDES AND ELEVATIONS
ARE IN FEET
R-299/W9 TO MAE HONG SON 68 DME
R-036/W20 TO CHIANG RAI 68 DME
CTR 1B 060 HDG
2500 +
PR 1B 140 HDG
CHIANG MAI
DVOR/DME
CMA 116.9
CH116X
+6500
UTTAR 1B 150 HDG
MHS 1B 310 HDG
R-119/W15 TO PHARE 79 DME
KEDOB 1B 180 HDG
R-126/W16 TO UTTAR 106 DME
PSL 1B 170 HDG
R-147/W9 TO PHITSANULOK 142 DME
R-161/R464 TO KEDOB 38 DME
180°
7 000
7 800
090°
270°
9 600
6 600
360°
MSA 25 NM
from CMA DVOR/DME
Contact CHIANG MAI RADAR
after take-off on 129.6

## STANDARD INSTRUMENT DEPARTURE (SID) CHIANG MAI INTERNATIONAL AIRPORT

### STANDARD INSTRUMENT DEPARTURE RUNWAY 36

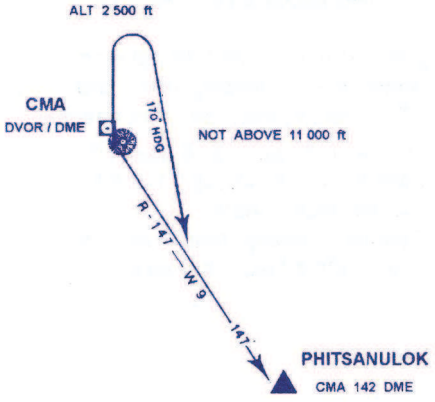
#### KEDOB ONE BRAVO (KEDOB 1 B)

Departure gradient 3.3% take off, climb runway heading until 2 500 FT, or above, then turn right heading 180° to intercept and proceed on CMA R-162 not above 11 000 FT.
Expect radar control.
Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take-off.



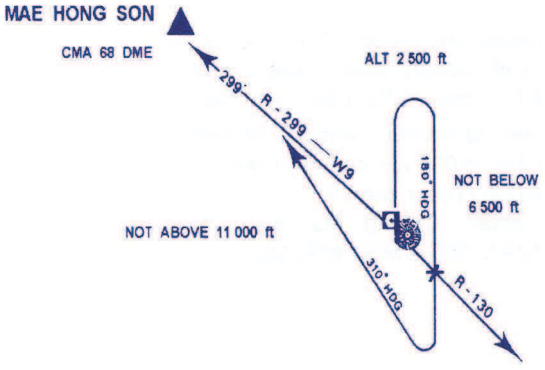

#### PHITSANULOK ONE BRAVO (PSL 1 B)

Departure gradient 3.3% take off, climb runway heading until 2 500 FT, or above, then turn right heading 170° to intercept and proceed on CMA R-147 not above 11 000 FT.
Expect radar control.
Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take-off.




#### MAE HONG SON ONE BRAVO (MHS 1 B)

Departure gradient 3.3% take off, climb runway heading until 2 500 FT, or above, then turn right heading 180° to cross CMA R-130 not below 6 500 FT turn right heading 310° to intercept and proceed on CMA R-147 not above 11 000 FT.
Expect radar control.
Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take-off.

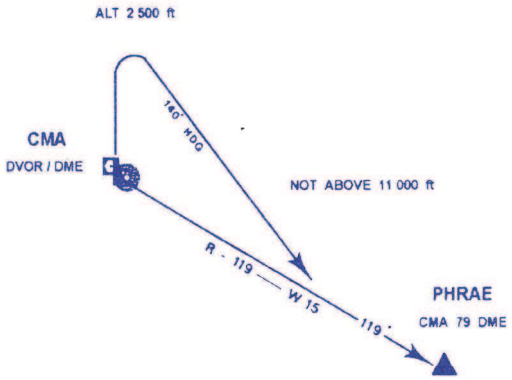


## STANDARD INSTRUMENT DEPARTURE (SID) CHIANG MAI INTERNATIONAL AIRPORT

### STANDARD INSTRUMENT DEPARTURE RUNWAY 36

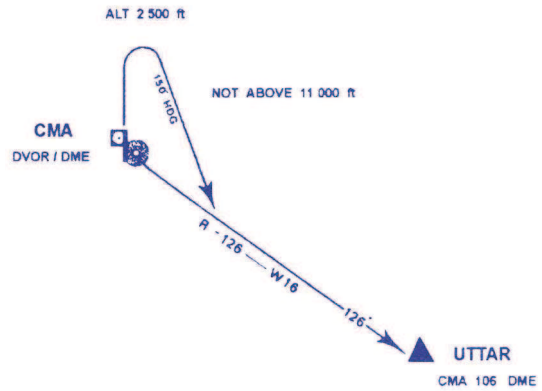
#### PHRAE ONE BRAVO (PR 1 B)

Departure gradient 3.3% take off, climb runway heading until 2 500 FT, or above, then turn right heading 140° to intercept and proceed on CMA R-119 not above 11 000 FT. Expect radar control. Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take-off.



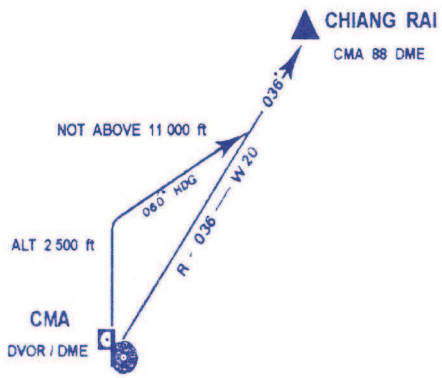

#### UTTAR ONE BRAVO (UTTAR 1 B)

Departure gradient 3.3% take off, climb runway heading until 2 500 FT, or above, then turn right heading 150° to intercept and proceed on CMA R-126 not above 11 000 FT. Expect radar control. Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take-off.




#### CHIANG RAI ONE BRAVO (CTR 1 B)

Departure gradient 3.3% take off, climb runway heading until 2 500 FT, or above, then turn right heading 060° to intercept and proceed on CMA R-036 not above 11 000 FT. Expect radar control. Contact Chiang Mai Radar on 129.6, 305.4 MHZ after take-off.



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**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

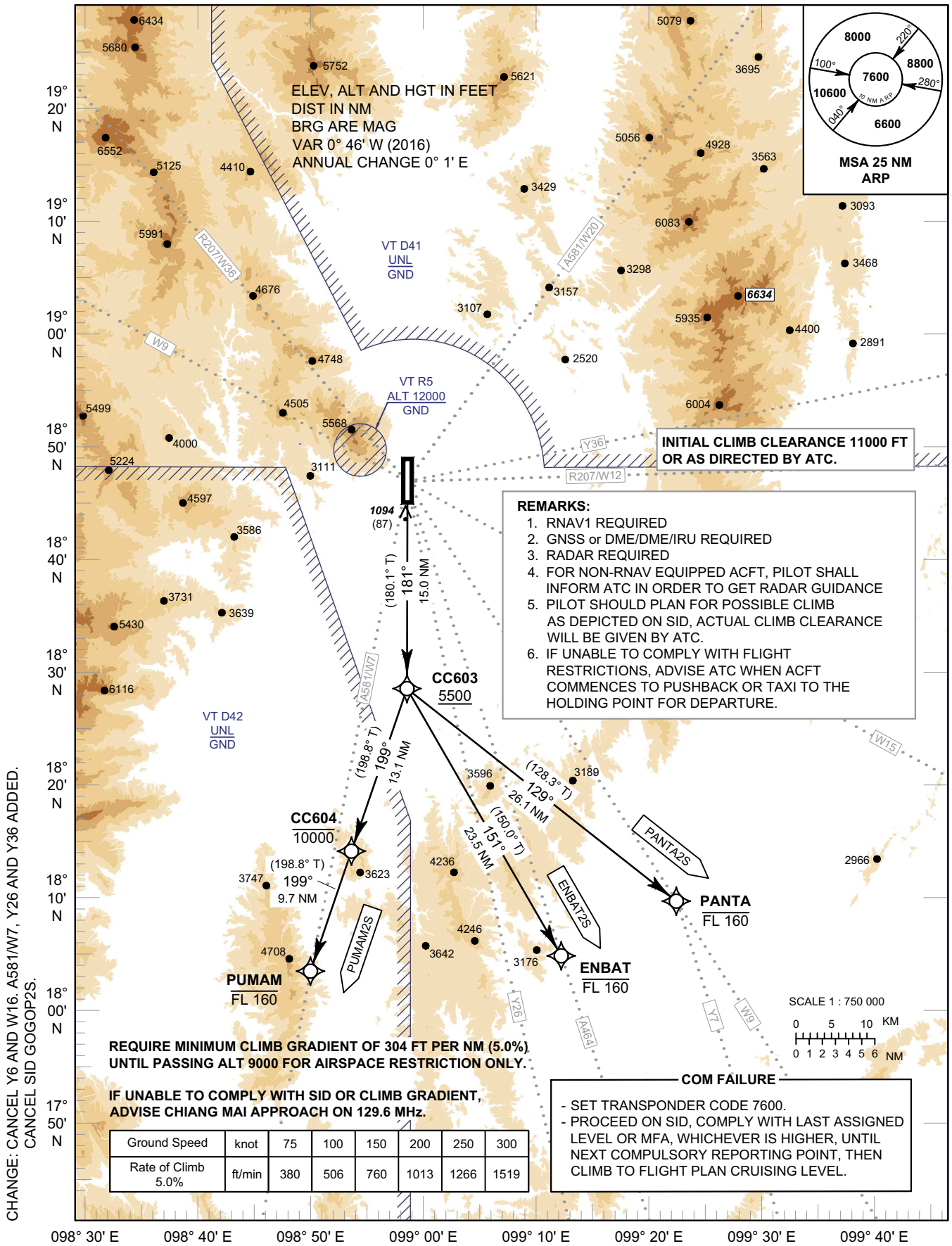
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ENBAT2S PANTA2S PUMAM2S




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.0% | ft/min | 380 | 506 | 760 | 1013 | 1266 | 1519 |

CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED.
CANCEL SID GOGOP2S.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ENBAT2S PANTA2S PUMAM2S

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION**

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ENBAT2S TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC603 | - | 181° (180.1°) | +0.6 | 15.0 | - | +5500 | - | - | RNAV 1 |
| 030 | TF | ENBAT | - | 151° (150.0°) | +0.6 | 23.5 | - | -FL160 | - | - | RNAV 1 |
| PANTA2S TO W9, Y7 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC603 | - | 181° (180.1°) | +0.6 | 15.0 | - | +5500 | - | - | RNAV 1 |
| 030 | TF | PANTA | - | 129° (128.3°) | +0.6 | 26.1 | - | -FL160 | - | - | RNAV 1 |
| PUMAM2S TO A581/W7 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC603 | - | 181° (180.1°) | +0.6 | 15.0 | - | +5500 | - | - | RNAV 1 |
| 030 | TF | CC604 | - | 199° (198.8°) | +0.6 | 13.1 | - | -10000 | - | - | RNAV 1 |
| 040 | TF | PUMAM | - | 199° (198.8°) | +0.6 | 9.7 | - | -FL160 | - | - | RNAV 1 |

**WAYPOINT LIST**

| RNAV RWY18 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | Pronunciation |
| DER RWY18 | 18° 45' 10.94" N 098° 57' 46.26" E | - |
| CC603 | 18° 30' 07.44" N 098° 57' 44.02" E | - |
| CC604 | 18° 17' 41.37" N 098° 53' 17.46" E | - |
| ENBAT | 18° 09' 41.04" N 099° 10' 04.36" E | EN - BAT |
| PANTA | 18° 13' 51.17" N 099° 19' 17.05" E | PAN - TA |
| PUMAM | 18° 08' 30.55" N 098° 50' 01.09" E | PU - MAM |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

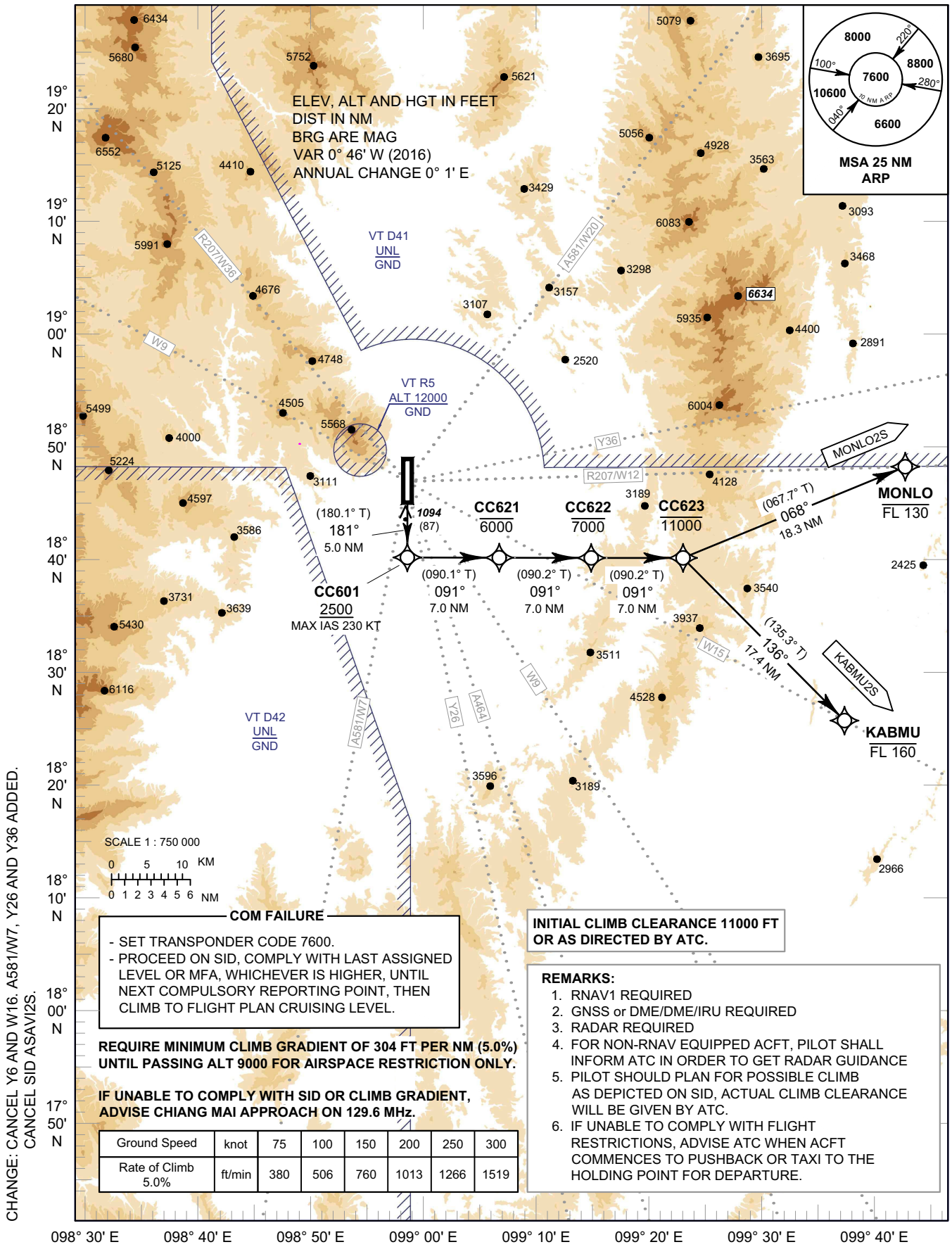
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

KABMU2S MONLO2S




CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED.
CANCEL SID ASAVI2S.

**COM FAILURE**

- SET TRANSPONDER CODE 7600.
- PROCEED ON SID, COMPLY WITH LAST ASSIGNED LEVEL OR MFA, WHICHEVER IS HIGHER, UNTIL NEXT COMPULSORY REPORTING POINT, THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

**REQUIRE MINIMUM CLIMB GRADIENT OF 304 FT PER NM (5.0%) UNTIL PASSING ALT 9000 FOR AIRSPACE RESTRICTION ONLY.**

**IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE CHIANG MAI APPROACH ON 129.6 MHz.**

| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.0% | ft/min | 380 | 506 | 760 | 1013 | 1266 | 1519 |

**INITIAL CLIMB CLEARANCE 11000 FT OR AS DIRECTED BY ATC.**

**REMARKS:**

1. RNAV1 REQUIRED
2. GNSS or DME/DME/IRU REQUIRED
3. RADAR REQUIRED
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE
5. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK OR TAXI TO THE HOLDING POINT FOR DEPARTURE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

KABMU2S MONLO2S

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION**

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| KABMU2S TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC601 | - | 181° (180.1°) | +0.6 | 5.0 | - | +2500 | -230 | - | RNAV 1 |
| 030 | TF | CC621 | - | 091° (090.1°) | +0.6 | 7.0 | - | -6000 | - | - | RNAV 1 |
| 040 | TF | CC622 | - | 091° (090.2°) | +0.6 | 7.0 | - | -7000 | - | - | RNAV 1 |
| 050 | TF | CC623 | - | 091° (090.2°) | +0.6 | 7.0 | - | -11000 | - | - | RNAV 1 |
| 060 | TF | KABMU | - | 136° (135.3°) | +0.6 | 17.4 | - | -FL 160 | - | - | RNAV 1 |
| MONLO2S TO R207/W12 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC601 | - | 181° (180.1°) | +0.6 | 5.0 | - | +2500 | -230 | - | RNAV 1 |
| 030 | TF | CC621 | - | 091° (090.1°) | +0.6 | 7.0 | - | -6000 | - | - | RNAV 1 |
| 040 | TF | CC622 | - | 091° (090.2°) | +0.6 | 7.0 | - | -7000 | - | - | RNAV 1 |
| 050 | TF | CC623 | - | 091° (090.2°) | +0.6 | 7.0 | - | -11000 | - | - | RNAV 1 |
| 060 | TF | MONLO | - | 068° (067.7°) | +0.6 | 18.3 | - | -FL 130 | - | - | RNAV 1 |

**WAYPOINT LIST**

| RNAV RWY18 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | Pronunciation |
| DER RWY18 | 18° 45' 10.94" N 098° 57' 46.26" E | - |
| CC601 | 18° 40' 09.78" N 098° 57' 45.52" E | - |
| CC621 | 18° 40' 08.64" N 099° 05' 07.89" E | - |
| CC622 | 18° 40' 07.21" N 099° 12' 30.27" E | - |
| CC623 | 18° 40' 05.49" N 099° 19' 52.64" E | - |
| KABMU | 18° 27' 38.58" N 099° 32' 47.05" E | KAB - MU |
| MONLO | 18° 47' 02.20" N 099° 37' 43.35" E | MON - LOH |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

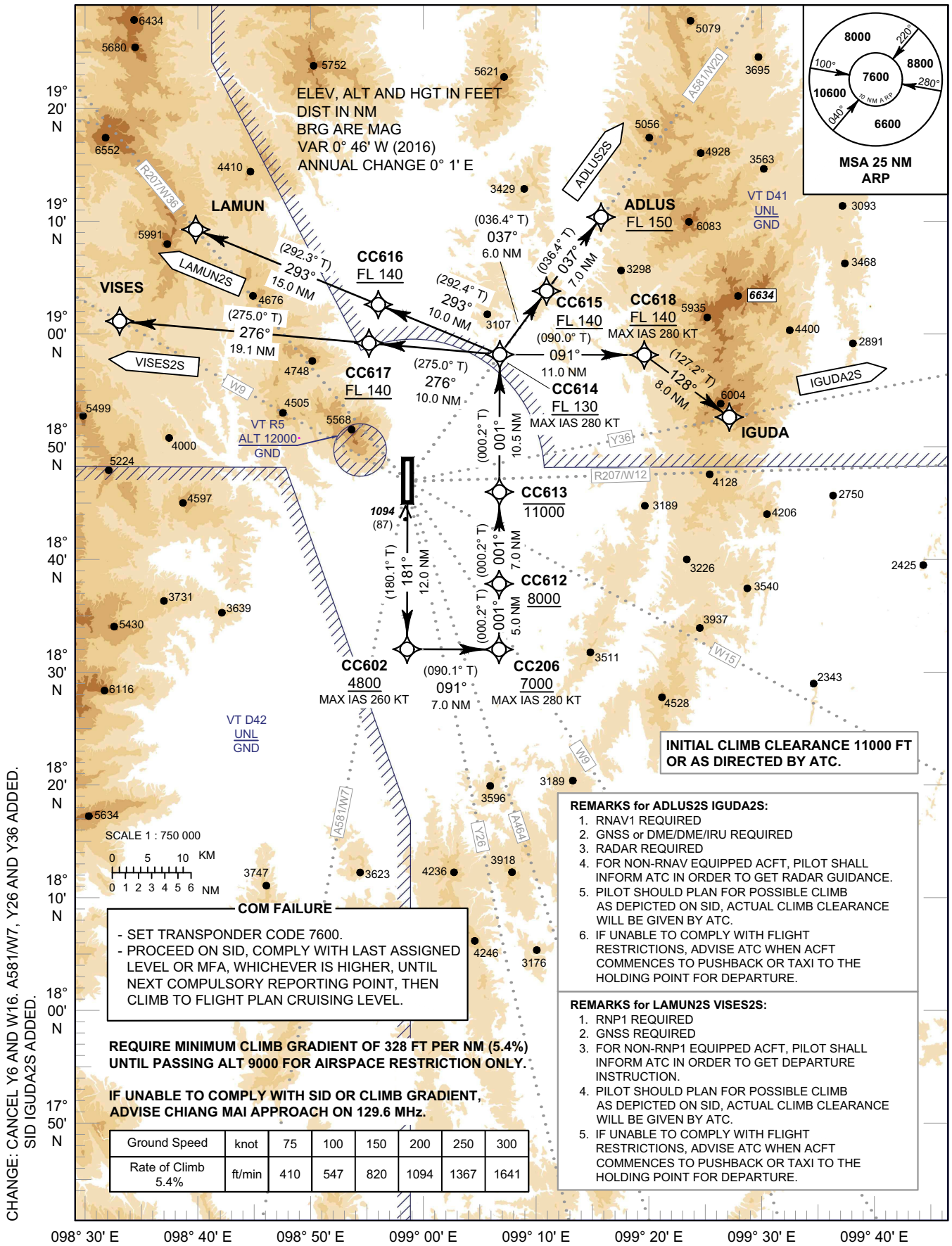
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2S IGUDA2S LAMUN2S VISES2S




**INITIAL CLIMB CLEARANCE 11000 FT OR AS DIRECTED BY ATC.**

**REMARKS for ADLUS2S IGUDA2S:**

1. RNAV1 REQUIRED
2. GNSS or DME/DME/IRU REQUIRED
3. RADAR REQUIRED
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE.
5. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK OR TAXI TO THE HOLDING POINT FOR DEPARTURE.

**REMARKS for LAMUN2S VISES2S:**

1. RNP1 REQUIRED
2. GNSS REQUIRED
3. FOR NON-RNP1 EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET DEPARTURE INSTRUCTION.
4. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
5. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK OR TAXI TO THE HOLDING POINT FOR DEPARTURE.

**COM FAILURE**

- SET TRANSPONDER CODE 7600.
- PROCEED ON SID, COMPLY WITH LAST ASSIGNED LEVEL OR MFA, WHICHEVER IS HIGHER, UNTIL NEXT COMPULSORY REPORTING POINT, THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

**REQUIRE MINIMUM CLIMB GRADIENT OF 328 FT PER NM (5.4%) UNTIL PASSING ALT 9000 FOR AIRSPACE RESTRICTION ONLY.**

**IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE CHIANG MAI APPROACH ON 129.6 MHz.**

| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.4% | ft/min | 410 | 547 | 820 | 1094 | 1367 | 1641 |

CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED. SID IGUDA2S ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2S IGUDA2S LAMUN2S VISES2S

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION**

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ADLUS2S TO A581/W20 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC602 | - | 181° (180.1°) | +0.6 | 12.0 | - | +4800 | -260 | - | RNAV 1 |
| 030 | TF | CC206 | - | 091° (090.1°) | +0.6 | 7.0 | - | +7000 | -280 | - | RNAV 1 |
| 040 | TF | CC612 | - | 001° (000.2°) | +0.6 | 5.0 | - | +8000 | - | - | RNAV 1 |
| 050 | TF | CC613 | - | 001° (000.2°) | +0.6 | 7.0 | - | -11000 | - | - | RNAV 1 |
| 060 | TF | CC614 | - | 001° (000.2°) | +0.6 | 10.5 | - | +FL 130 | -280 | - | RNAV 1 |
| 070 | TF | CC615 | - | 037° (036.4°) | +0.6 | 6.0 | - | +FL 140 | - | - | RNAV 1 |
| 080 | TF | ADLUS | - | 037° (036.4°) | +0.6 | 7.0 | - | +FL 150 | - | - | RNAV 1 |
| LAMUN2S TO R207/W36 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNP 1 |
| 020 | CF | CC602 | - | 181° (180.1°) | +0.6 | 12.0 | - | +4800 | -260 | - | RNP 1 |
| 030 | TF | CC206 | - | 091° (090.1°) | +0.6 | 7.0 | - | +7000 | -280 | - | RNP 1 |
| 040 | TF | CC612 | - | 001° (000.2°) | +0.6 | 5.0 | - | +8000 | - | - | RNP 1 |
| 050 | TF | CC613 | - | 001° (000.2°) | +0.6 | 7.0 | - | -11000 | - | - | RNP 1 |
| 060 | TF | CC614 | - | 001° (000.2°) | +0.6 | 10.5 | - | +FL 130 | -280 | - | RNP 1 |
| 070 | TF | CC616 | - | 293° (292.4°) | +0.6 | 10.0 | - | +FL 140 | - | - | RNP 1 |
| 080 | TF | LAMUN | - | 293° (292.3°) | +0.6 | 15.0 | - | - | - | - | RNP 1 |
| VISES2S TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNP 1 |
| 020 | CF | CC602 | - | 181° (180.1°) | +0.6 | 12.0 | - | +4800 | -260 | - | RNP 1 |
| 030 | TF | CC206 | - | 091° (090.1°) | +0.6 | 7.0 | - | +7000 | -280 | - | RNP 1 |
| 040 | TF | CC612 | - | 001° (000.2°) | +0.6 | 5.0 | - | +8000 | - | - | RNP 1 |
| 050 | TF | CC613 | - | 001° (000.2°) | +0.6 | 7.0 | - | -11000 | - | - | RNP 1 |
| 060 | TF | CC614 | - | 001° (000.2°) | +0.6 | 10.5 | - | +FL 130 | -280 | - | RNP 1 |
| 070 | TF | CC617 | - | 276° (275.0°) | +0.6 | 10.0 | - | +FL 140 | - | - | RNP 1 |
| 080 | TF | VISES | - | 276° (275.0°) | +0.6 | 19.1 | - | - | - | - | RNP 1 |
| IGUDA2S TO Y36 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNP 1 |
| 020 | CF | CC602 | - | 181° (180.1°) | +0.6 | 12.0 | - | +4800 | -260 | - | RNP 1 |
| 030 | TF | CC206 | - | 091° (090.1°) | +0.6 | 7.0 | - | +7000 | -280 | - | RNP 1 |
| 040 | TF | CC612 | - | 001° (000.2°) | +0.6 | 5.0 | - | +8000 | - | - | RNP 1 |
| 050 | TF | CC613 | - | 001° (000.2°) | +0.6 | 7.0 | - | -11000 | - | - | RNP 1 |
| 060 | TF | CC614 | - | 001° (000.2°) | +0.6 | 10.5 | - | +FL 130 | -280 | - | RNP 1 |
| 070 | TF | CC618 | - | 091° (090.0°) | +0.6 | 11.0 | - | +FL 140 | -280 | - | RNP 1 |
| 080 | TF | IGUDA | - | 128° (127.1°) | +0.6 | 8.0 | - | - | - | - | RNP 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2S IGUDA2S LAMUN2S VISES2S

**WAYPOINT LIST**

| RNAV RWY18 | | | |
|---|---|---|---|
| | | | |
| **Waypoint Identifier** | **Coordinates** | **Waypoint Identifier** | **Coordinates** |
| DER RWY18 | 18° 45' 10.94" N 098° 57' 46.26" E | CC614 | 18° 55' 40.20" N 099° 05' 10.88" E |
| ADLUS | 19° 06' 10.49" N 099° 13' 19.89" E | CC615 | 19° 00' 31.28" N 099° 08' 56.55" E |
| CC602 | 18° 33' 08.14" N 098° 57' 44.47" E | CC616 | 18° 59' 29.43" N 098° 55' 25.46" E |
| CC611 | 18° 33' 07.00" N 099° 05' 06.54" E | CC617 | 18° 56' 32.81" N 098° 54' 40.34" E |
| CC612 | 18° 38' 08.18" N 099° 05' 07.51" E | LAMUN | 19° 05' 13.14" N 098° 40' 44.26" E |
| CC613 | 18° 45' 09.81" N 099° 05' 08.85" E | VISES | 18° 58' 11.41" N 098° 34' 38.14" E |
| CC618 | 18° 55' 39.84" N 099° 16' 47.11" E | IGUDA | 18° 50' 47.29" N 099° 23' 32.14" E |

**WAYPOINT PRONUNCIATION**

| Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation |
|---|---|---|---|
| DER RWY18 | - | CC614 | - |
| ADLUS | ADD - LUS | CC615 | - |
| CC602 | - | CC616 | - |
| CC611 | - | CC617 | - |
| CC612 | - | LAMUN | LA - MUN |
| CC613 | - | VISES | VI - SES |
| CC618 | - | IGUDA | I-GU-DA |

CHANGE: CC618 AND IGUDA WAYPOINT ADDED.

**INTENTIONALLY BLANK**

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

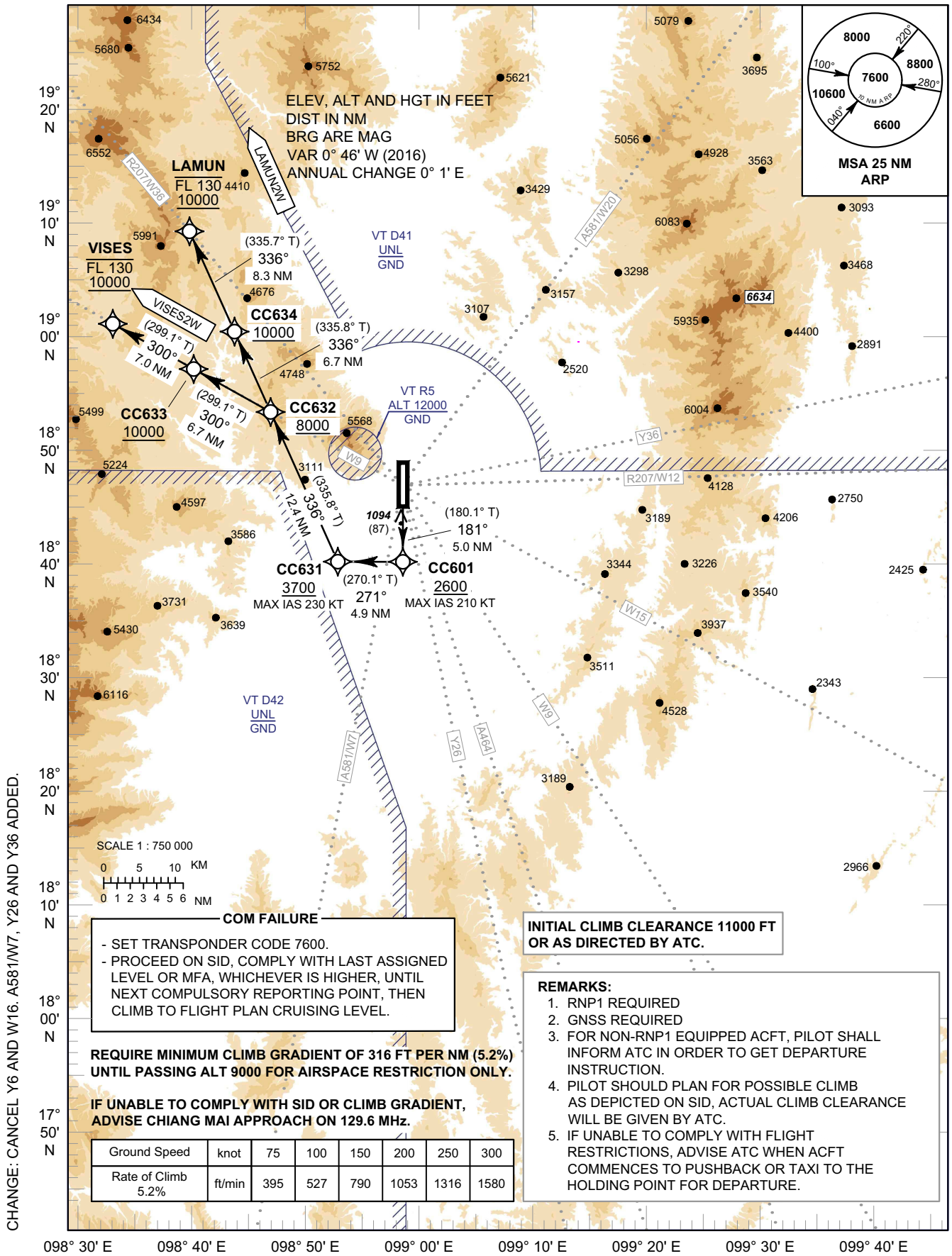
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

LAMUN2W VISES2W




**COM FAILURE**

- SET TRANSPONDER CODE 7600.
- PROCEED ON SID, COMPLY WITH LAST ASSIGNED LEVEL OR MFA, WHICHEVER IS HIGHER, UNTIL NEXT COMPULSORY REPORTING POINT, THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

**REQUIRE MINIMUM CLIMB GRADIENT OF 316 FT PER NM (5.2%) UNTIL PASSING ALT 9000 FOR AIRSPACE RESTRICTION ONLY.**

**IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE CHIANG MAI APPROACH ON 129.6 MHz.**

| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.2% | ft/min | 395 | 527 | 790 | 1053 | 1316 | 1580 |

**INITIAL CLIMB CLEARANCE 11000 FT OR AS DIRECTED BY ATC.**

**REMARKS:**

1. RNP1 REQUIRED
2. GNSS REQUIRED
3. FOR NON-RNP1 EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET DEPARTURE INSTRUCTION.
4. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
5. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK OR TAXI TO THE HOLDING POINT FOR DEPARTURE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

LAMUN2W VISES2W

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION**

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| LAMUN2W TO R207/W36 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNP 1 |
| 020 | CF | CC601 | - | 181° (180.1°) | +0.6 | 5.0 | - | +2600 | -210 | - | RNP 1 |
| 030 | TF | CC631 | - | 271° (270.1°) | +0.6 | 4.9 | - | +3700 | -230 | - | RNP 1 |
| 040 | TF | CC632 | - | 336° (335.8°) | +0.6 | 12.4 | - | +8000 | - | - | RNP 1 |
| 050 | TF | CC634 | - | 336° (335.8°) | +0.6 | 6.7 | - | +10000 | - | - | RNP 1 |
| 060 | TF | LAMUN | - | 336° (335.7°) | +0.6 | 8.3 | - | -FL 130 +10000 | - | - | RNP 1 |
| VISES2W TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.6 | - | - | - | - | - | RNP 1 |
| 020 | CF | CC601 | - | 181° (180.1°) | +0.6 | 5.0 | - | +2600 | -210 | - | RNP 1 |
| 030 | TF | CC631 | - | 271° (270.1°) | +0.6 | 4.9 | - | +3700 | -230 | - | RNP 1 |
| 040 | TF | CC632 | - | 336° (335.8°) | +0.6 | 12.4 | - | +8000 | - | - | RNP 1 |
| 050 | TF | CC633 | - | 300° (299.1°) | +0.6 | 6.7 | - | +10000 | - | - | RNP 1 |
| 060 | TF | VISES | - | 300° (299.1°) | +0.6 | 7.0 | - | -FL 130 +10000 | - | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY18 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | Pronunciation |
| DER RWY18 | 18° 45' 10.94" N 098° 57' 46.62" E | - |
| CC601 | 18° 40' 09.78" N 098° 57' 45.52" E | - |
| CC631 | 18° 40' 10.39" N 098° 52' 35.01" E | - |
| CC632 | 18° 51' 31.24" N 098° 47' 13.47" E | - |
| CC633 | 18° 54' 46.44" N 098° 41' 05.35" E | - |
| CC634 | 18° 57' 36.98" N 098° 44' 20.42" E | - |
| LAMUN | 19° 05' 13.14" N 098° 40' 44.26" E | LA - MUN |
| VISES | 18° 58' 11.41" N 098° 34' 38.14" E | VE - SES |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

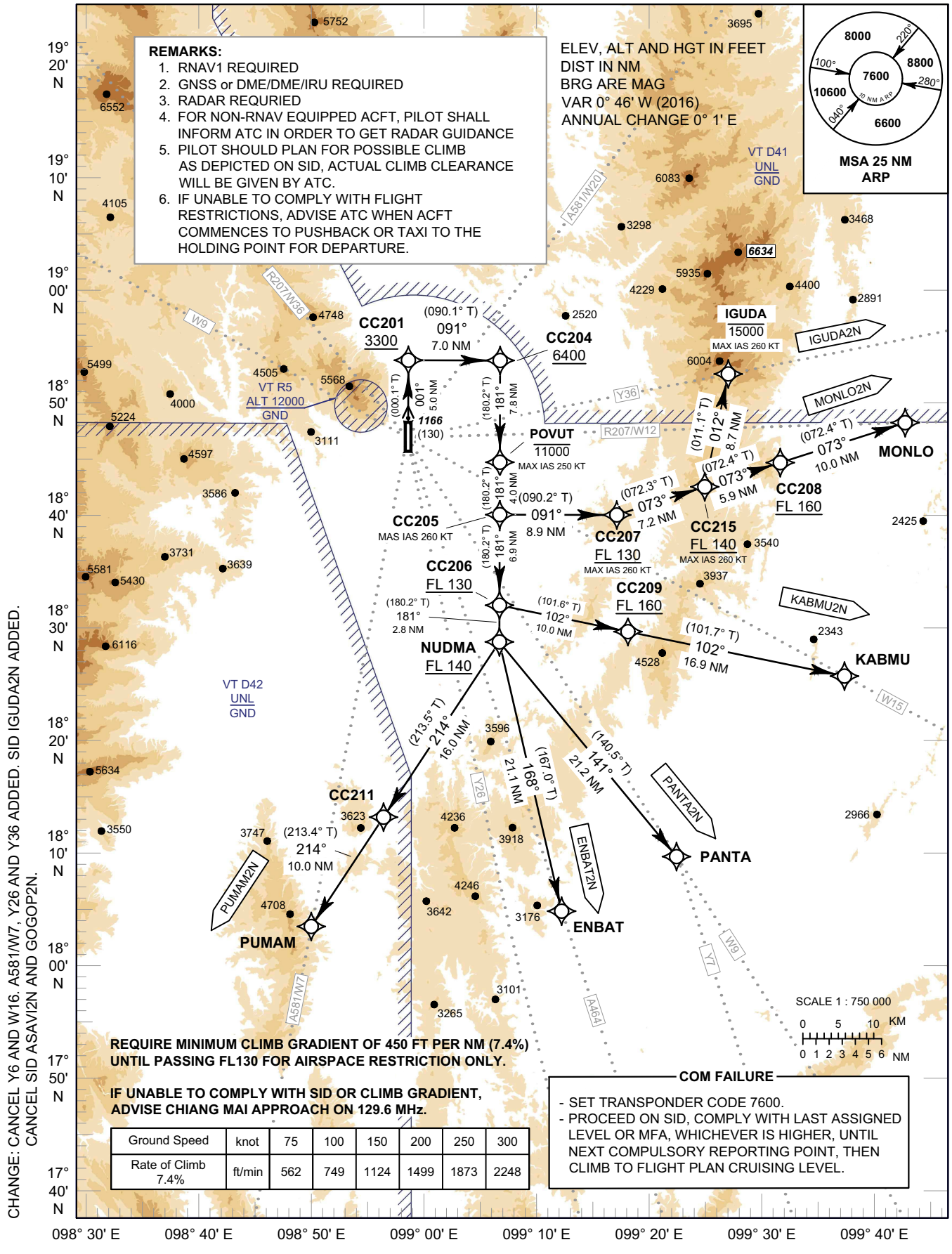
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2N IGUDA2N KABMU2N
MONLO2N PANTA2N PUMAM2N




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 7.4% | ft/min | 562 | 749 | 1124 | 1499 | 1873 | 2248 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2N IGUDA2N KABMU2N
MONLO2N PANTA2N PUMAM2N

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION (1)**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ENBAT2N TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC201 | - | 001° (000.1°) | +0.6 | 5.0 | - | +3300 | - | - | RNAV 1 |
| 030 | TF | CC204 | - | 091° (090.1°) | +0.6 | 7.0 | - | +6400 | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 7.8 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC206 | - | 181° (180.2°) | +0.6 | 6.9 | - | +FL 130 | - | - | RNAV 1 |
| 070 | TF | NUDMA | - | 181° (180.2°) | +0.6 | 2.8 | - | +FL 140 | - | - | RNAV 1 |
| 080 | TF | ENBAT | - | 168° (167.0°) | +0.6 | 21.1 | - | - | - | - | RNAV 1 |
| KABMU2N TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC201 | - | 001° (000.1°) | +0.6 | 5.0 | - | +3300 | - | - | RNAV 1 |
| 030 | TF | CC204 | - | 091° (090.1°) | +0.6 | 7.0 | - | +6400 | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 7.8 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC206 | - | 181° (180.2°) | +0.6 | 6.9 | - | +FL 130 | - | - | RNAV 1 |
| 070 | TF | CC209 | - | 102° (101.6°) | +0.6 | 10.0 | - | +FL 160 | - | - | RNAV 1 |
| 080 | TF | KABMU | - | 102° (101.7°) | +0.6 | 16.9 | - | - | - | - | RNAV 1 |
| MONLO2N TO R207/W12 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC201 | - | 001° (000.1°) | +0.6 | 5.0 | - | +3300 | - | - | RNAV 1 |
| 030 | TF | CC204 | - | 091° (090.1°) | +0.6 | 7.0 | - | +6400 | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 7.8 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC207 | - | 091° (090.2°) | +0.6 | 8.9 | - | +FL 130 | -260 | - | RNAV 1 |
| 070 | TF | CC215 | - | 073° (072.3°) | +0.6 | 7.2 | - | FL 140 | -260 | - | RNAV 1 |
| 080 | TF | CC208 | - | 073° (072.4°) | +0.6 | 5.9 | - | +FL 160 | - | - | RNAV 1 |
| 090 | TF | MONLO | - | 073° (072.4°) | +0.6 | 10.0 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2N IGUDA2N KABMU2N
MONLO2N PANTA2N PUMAM2N

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION (2)**

**RNAV RWY36**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PANTA2N TO W9, Y7 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC201 | - | 001° (000.1°) | +0.6 | 5.0 | - | +3300 | - | - | RNAV 1 |
| 030 | TF | CC204 | - | 091° (090.1°) | +0.6 | 7.0 | - | +6400 | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 7.8 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC206 | - | 181° (180.2°) | +0.6 | 6.9 | - | +FL 130 | - | - | RNAV 1 |
| 070 | TF | NUDMA | - | 181° (180.2°) | +0.6 | 2.8 | - | +FL 140 | - | - | RNAV 1 |
| 080 | TF | PANTA | - | 141° (140.5°) | +0.6 | 21.2 | - | - | - | - | RNAV 1 |
| PUMAM2N TO A581/W7 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC201 | - | 001° (000.1°) | +0.6 | 5.0 | - | +3300 | - | - | RNAV 1 |
| 030 | TF | CC204 | - | 091° (090.1°) | +0.6 | 7.0 | - | +6400 | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 7.8 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC206 | - | 181° (180.2°) | +0.6 | 6.9 | - | +FL 130 | - | - | RNAV 1 |
| 070 | TF | NUDMA | - | 181° (180.2°) | +0.6 | 2.8 | - | +FL 140 | - | - | RNAV 1 |
| 080 | TF | CC211 | - | 214° (213.5°) | +0.6 | 16.0 | - | - | - | - | RNAV 1 |
| 090 | TF | PUMAM | - | 214° (213.4°) | +0.6 | 10.0 | - | - | - | - | RNAV 1 |
| IGUDA2N TO Y36 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC201 | - | 001° (000.1°) | +0.6 | 5.0 | - | +3300 | - | - | RNAV 1 |
| 030 | TF | CC204 | - | 091° (090.1°) | +0.6 | 7.0 | - | +6400 | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 7.8 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC207 | - | 091° (090.2°) | +0.6 | 8.9 | - | +FL 130 | -260 | - | RNAV 1 |
| 070 | TF | CC215 | - | 073° (072.3°) | +0.6 | 7.2 | - | +FL 140 | -260 | - | RNAV 1 |
| 080 | TF | IGUDA | - | 012° (011.1°) | +0.6 | 8.7 | - | - | -260 | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2N IGUDA2N KABMU2N
MONLO2N PANTA2N PUMAM2N

CHANGE: CC215 AND IGUDA WAYPOINT ADDED.
CANCEL CC210, ASAVI AND GOGOP WAYPOINT.

**WAYPOINT LIST**

| RNAV RWY36 | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | **Pronunciation** |
| DER RWY36 | 18° 46' 51.80" N 098° 57' 46.52" E | - |
| CC201 | 18° 51' 52.97" N 098° 57' 47.26" E | - |
| CC204 | 18° 51' 51.83" N 099° 05' 10.14" E | - |
| CC205 | 18° 40' 03.31" N 099° 05' 07.85" E | - |
| CC206 | 18° 33' 07.00" N 099° 05' 06.54" E | - |
| CC207 | 18° 40' 01.42" N 099° 14' 32.15" E | - |
| CC208 | 18° 44' 00.31" N 099° 27' 40.56" E | - |
| CC209 | 18° 31' 05.20" N 099° 15' 24.98" E | - |
| CC211 | 18° 16' 53.26" N 098° 55' 48.33" E | - |
| CC215 | 18° 42' 12.95" N 099° 21' 45.79" E | - |
| ENBAT | 18° 09' 41.04" N 099° 10' 04.36" E | EN - BAT |
| KABMU | 18° 27' 38.58" N 099° 32' 47.05" E | KAB - MU |
| MONLO | 18° 47' 02.20" N 099° 37' 43.35" E | MON - LOH |
| NUDMA | 18° 30' 18.55" N 099° 05' 06.00" E | NUD - MA |
| PANTA | 18° 13' 51.17" N 099° 19' 17.05" E | PAN - TA |
| POVUT | 18° 44' 04.24" N 099° 05' 08.63" E | PO - VUT |
| PUMAM | 18° 08' 30.55" N 098° 50' 01.09" E | PU - MAM |
| IGUDA | 18° 50' 47.29" N 099° 23' 32.14" E | I-GU-DA |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

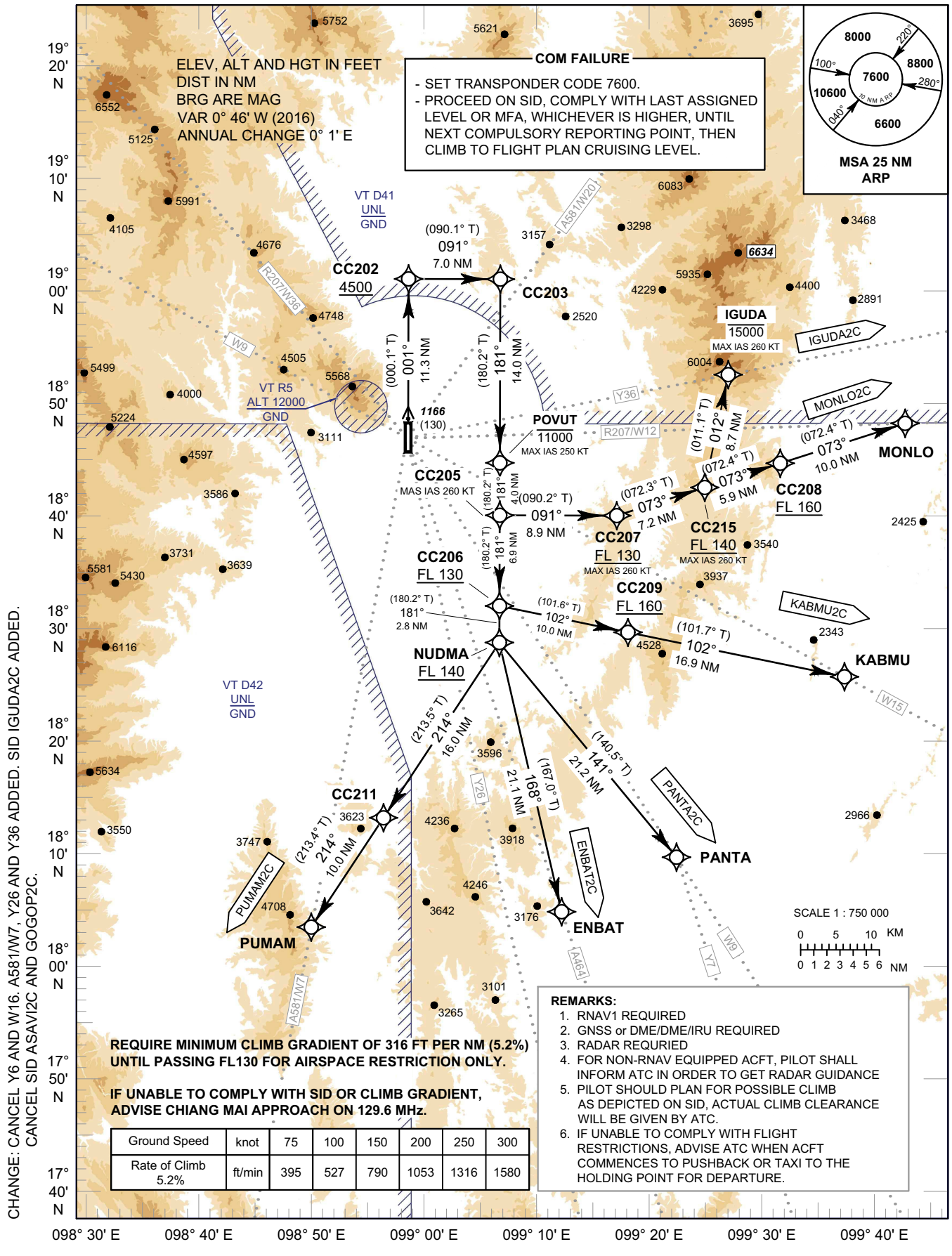
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2C IGUDA2C KABMU2C
MONLO2C PANTA2C PUMAM2C




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.2% | ft/min | 395 | 527 | 790 | 1053 | 1316 | 1580 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2C IGUDA2C KABMU2C
MONLO2C PANTA2C PUMAM2C

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION (1)**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ENBAT2C TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC202 | - | 001° (000.1°) | +0.6 | 11.3 | - | +4500 | - | - | RNAV 1 |
| 030 | TF | CC203 | - | 091° (090.1°) | +0.6 | 7.0 | - | - | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 14.0 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC206 | - | 181° (180.2°) | +0.6 | 6.9 | - | +FL 130 | - | - | RNAV 1 |
| 070 | TF | NUDMA | - | 181° (180.2°) | +0.6 | 2.8 | - | +FL 140 | | - | RNAV 1 |
| 080 | TF | ENBAT | - | 168° (167.0°) | +0.6 | 21.1 | - | - | - | - | RNAV 1 |
| KABMU2C TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC202 | - | 001° (000.1°) | +0.6 | 11.3 | - | +4500 | - | - | RNAV 1 |
| 030 | TF | CC203 | - | 091° (090.1°) | +0.6 | 7.0 | - | - | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 14.0 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC206 | - | 181° (180.2°) | +0.6 | 6.9 | - | +FL 130 | - | - | RNAV 1 |
| 070 | TF | CC209 | - | 102° (101.6°) | +0.6 | 10.0 | - | +FL 160 | - | - | RNAV 1 |
| 080 | TF | KABMU | - | 102° (101.7°) | +0.6 | 16.9 | - | - | - | - | RNAV 1 |
| MONLO2C TO R207/W12 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC202 | - | 001° (000.1°) | +0.6 | 11.3 | - | +4500 | - | - | RNAV 1 |
| 030 | TF | CC203 | - | 091° (090.1°) | +0.6 | 7.0 | - | - | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 14.0 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC207 | - | 091° (090.2°) | +0.6 | 8.9 | - | +FL 130 | -260 | - | RNAV 1 |
| 070 | TF | CC215 | - | 073° (072.3°) | +0.6 | 7.2 | - | +FL 140 | -260 | - | RNAV 1 |
| 080 | TF | CC208 | - | 073° (072.4°) | +0.6 | 5.9 | - | +FL 160 | - | - | RNAV 1 |
| 090 | TF | MONLO | - | 073° (072.4°) | +0.6 | 10.0 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2C IGUDA2C KABMU2C
MONLO2C PANTA2C PUMAM2C

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION (2)**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| PANTA2C TO W9, Y7 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC202 | - | 001° (000.1°) | +0.6 | 11.3 | - | +4500 | - | - | RNAV 1 |
| 030 | TF | CC203 | - | 091° (090.1°) | +0.6 | 7.0 | - | - | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 14.0 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC206 | - | 181° (180.2°) | +0.6 | 6.9 | - | +FL 130 | - | - | RNAV 1 |
| 070 | TF | NUDMA | - | 181° (180.2°) | +0.6 | 2.8 | - | +FL 140 | - | - | RNAV 1 |
| 080 | TF | PANTA | - | 141° (140.5°) | +0.6 | 21.2 | - | - | - | - | RNAV 1 |
| PUMAM2C TO A581/W7 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC202 | - | 001° (000.1°) | +0.6 | 11.3 | - | +4500 | - | - | RNAV 1 |
| 030 | TF | CC203 | - | 091° (090.1°) | +0.6 | 7.0 | - | - | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 14.0 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC206 | - | 181° (180.2°) | +0.6 | 6.9 | - | +FL 130 | - | - | RNAV 1 |
| 070 | TF | NUDMA | - | 181° (180.2°) | +0.6 | 2.8 | - | +FL 140 | - | - | RNAV 1 |
| 080 | TF | CC211 | - | 214° (213.5°) | +0.6 | 16.0 | - | - | - | - | RNAV 1 |
| 090 | TF | PUMAM | - | 214° (213.4°) | +0.6 | 10.0 | - | - | - | - | RNAV 1 |
| IGUDA2C TO Y36 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC202 | - | 001° (000.1°) | +0.6 | 11.3 | - | +4500 | - | - | RNAV 1 |
| 030 | TF | CC203 | - | 091° (090.1°) | +0.6 | | - | - | - | - | RNAV 1 |
| 040 | TF | POVUT | - | 181° (180.2°) | +0.6 | 14.0 | - | -11000 | -250 | - | RNAV 1 |
| 050 | TF | CC205 | - | 181° (180.2°) | +0.6 | 4.0 | - | - | -260 | - | RNAV 1 |
| 060 | TF | CC207 | - | 091° (090.2°) | +0.6 | 8.9 | - | +FL 130 | -260 | - | RNAV 1 |
| 070 | TF | CC215 | - | 073° (072.3°) | +0.6 | 7.2 | - | +FL 140 | -260 | - | RNAV 1 |
| 080 | TF | IGUDA | - | 012° (011.1°) | +0.6 | 8.7 | - | -FL150 | -260 | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2C IGUDA2C KABMU2C
MONLO2C PANTA2C PUMAM2C

**WAYPOINT LIST**

| RNAV RWY36 | | |
|---|---|---|
| **Waypoint Identifier** | **Coordinates** | **Pronunciation** |
| DER RWY36 | 18° 46' 51.80" N 098° 57' 46.52" E | - |
| CC202 | 18° 58' 09.72" N 098° 57' 48.20" E | - |
| CC203 | 18° 58' 08.58" N 099° 05' 11.36" E | - |
| CC205 | 18° 40' 03.31" N 099° 05' 07.85" E | - |
| CC206 | 18° 33' 07.00" N 099° 05' 06.54" E | - |
| CC207 | 18° 40' 01.42" N 099° 14' 32.15" E | - |
| CC208 | 18° 44' 00.31" N 099° 27' 40.56" E | - |
| CC209 | 18° 31' 05.20" N 099° 15' 24.98" E | - |
| CC211 | 18° 16' 53.26" N 098° 55' 48.33" E | - |
| CC215 | 18° 42' 12.95" N 099° 21' 45.79" E | - |
| ENBAT | 18° 09' 41.04" N 099° 10' 04.36" E | EN - BAT |
| KABMU | 18° 27' 38.58" N 099° 32' 47.05" E | KAB - MU |
| MONLO | 18° 47' 02.20" N 099° 37' 43.35" E | MON - LOH |
| NUDMA | 18° 30' 18.55" N 099° 05' 06.00" E | NUD - MA |
| PANTA | 18° 13' 51.17" N 099° 19' 17.05" E | PAN - TA |
| POVUT | 18° 44' 04.24" N 099° 05' 08.63" E | PO - VUT |
| PUMAM | 18° 08' 30.55" N 098° 50' 01.09" E | PU - MAM |
| IGUDA | 18° 50' 47.29" N 099° 23' 32.14" E | I-GU-DA |

CHANGE: CC215 AND IGUDA WAYPOINT ADDED.
CANCEL ASAVI, CC210 AND GOGOP WAYPOINT.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

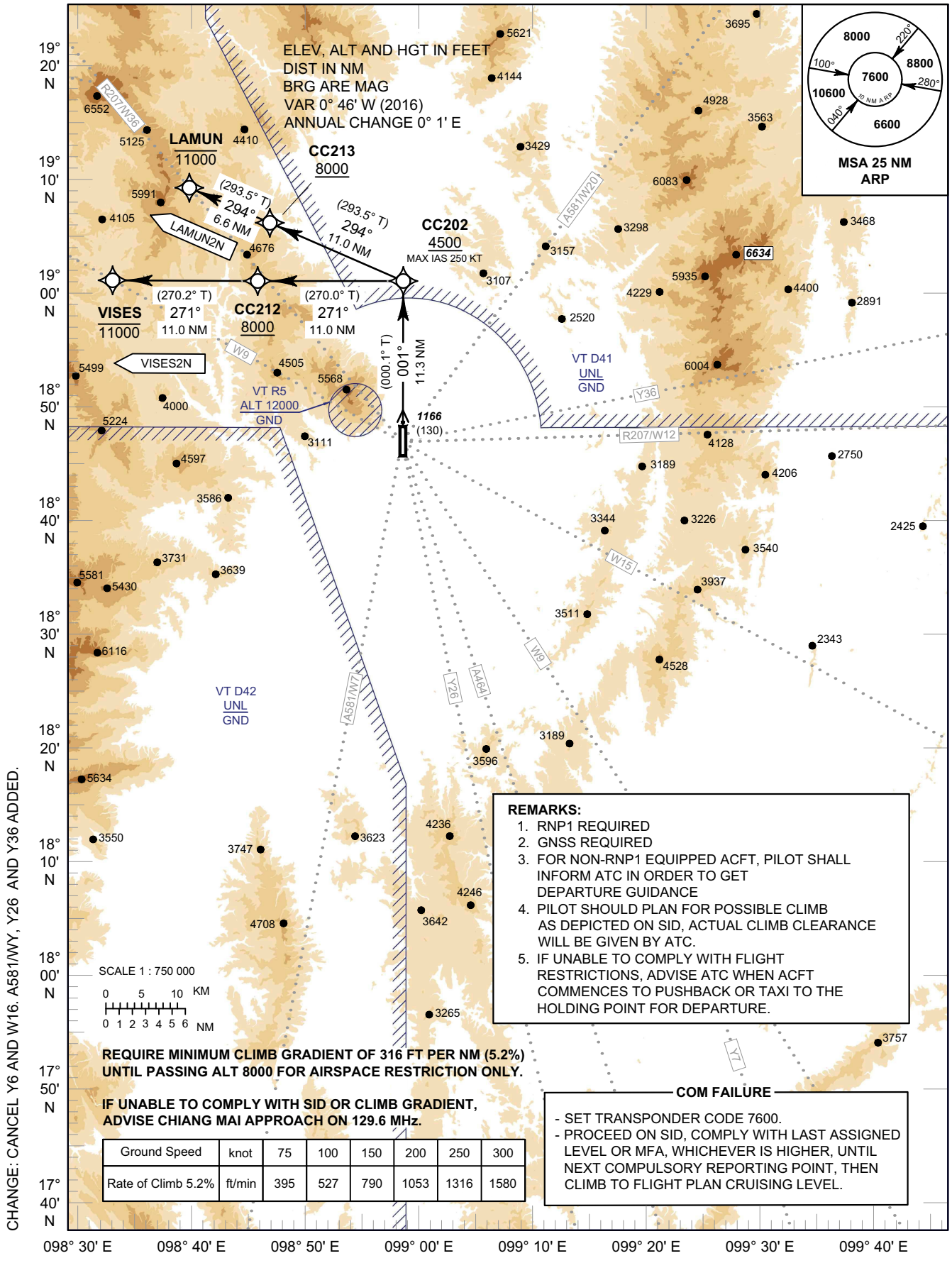
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

LAMUN2N VISES2N




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.2% | ft/min | 395 | 527 | 790 | 1053 | 1316 | 1580 |

CHANGE: CANCEL Y6 AND W16. A581/WY, Y26 AND Y36 ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

LAMUN2N VISES2N

**TABULAR DESCRIPTION**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| LAMUN2N TO R207/W36 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNP 1 |
| 020 | CF | CC202 | - | 001° (000.1°) | +0.6 | 11.3 | - | +4500 | -250 | - | RNP 1 |
| 030 | TF | CC213 | - | 294° (293.5°) | +0.6 | 11.0 | - | +8000 | - | - | RNP 1 |
| 040 | TF | LAMUN | - | 294° (293.5°) | +0.6 | 6.6 | - | -11000 | - | - | RNP 1 |
| VISES2N TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNP 1 |
| 020 | CF | CC202 | - | 001° (000.1°) | +0.6 | 11.3 | - | +4500 | -250 | - | RNP 1 |
| 030 | TF | CC212 | - | 271° (270.0°) | +0.6 | 11.0 | - | +8000 | - | - | RNP 1 |
| 040 | TF | VISES | - | 271° (270.2°) | +0.6 | 11.0 | - | -11000 | - | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY36 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | Pronunciation |
| DER RWY36 | 18° 46' 51.81" N 098° 57' 46.51" E | - |
| CC202 | 18° 58' 09.72" N 098° 57' 48.20" E | - |
| CC212 | 18° 58' 09.36" N 098° 46' 11.79" E | - |
| CC213 | 19° 02' 34.10" N 098° 47' 09.49" E | - |
| LAMUN | 19° 05' 13.14" N 098° 40' 44.26" E | LA - MUN |
| VISES | 18° 58' 11.41" N 098° 34' 38.14" E | VI - SESS |

CHANGE: REVISED TABULAR DESCRIPTION.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

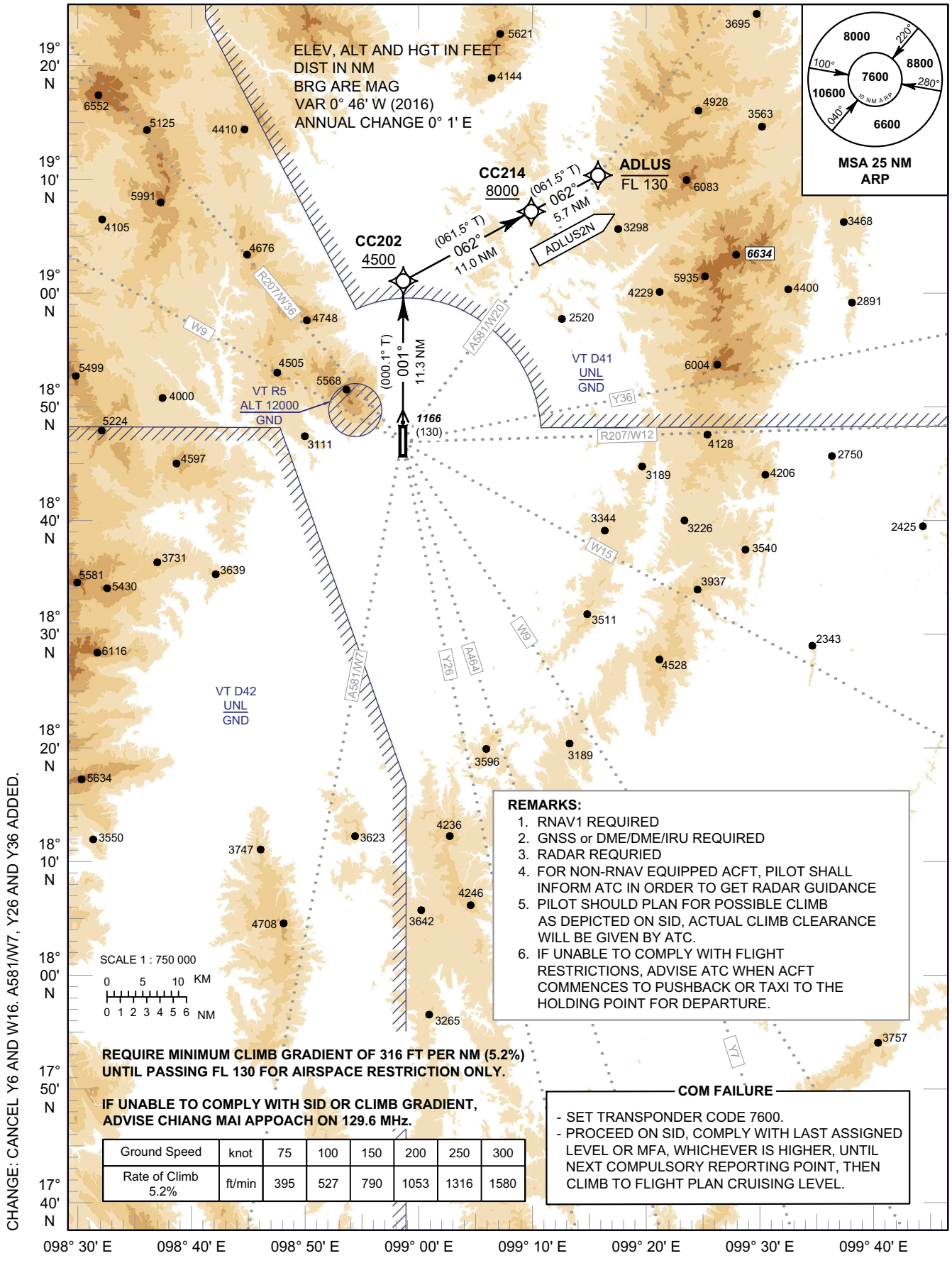
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ADLUS2N




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.2% | ft/min | 395 | 527 | 790 | 1053 | 1316 | 1580 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ADLUS2N

**TABULAR DESCRIPTION**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ADLUS2N TO A581/W20 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | CC202 | - | 001° (000.1°) | +0.6 | 11.3 | - | +4500 | - | - | RNAV 1 |
| 030 | TF | CC214 | - | 062° (061.5°) | +0.6 | 11.0 | - | +8000 | - | - | RNAV 1 |
| 040 | TF | ADLUS | - | 062° (061.5°) | +0.6 | 5.7 | - | -FL 130 | - | - | RNAV 1 |

**WAYPOINT LIST**

| RNAV RWY36 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | Pronunciation |
| DER RWY36 | 18° 46' 51.81" N 098° 57' 46.51" E | - |
| ADLUS | 19° 06' 10.49" N 099° 13' 19.89" E | ADD - LUS |
| CC202 | 18° 58' 09.72" N 098° 57' 48.20" E | - |
| CC214 | 19° 03' 25.85" N 099° 08' 00.38" E | - |

CHANGE: REVISED TABULAR DESCRIPTION.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

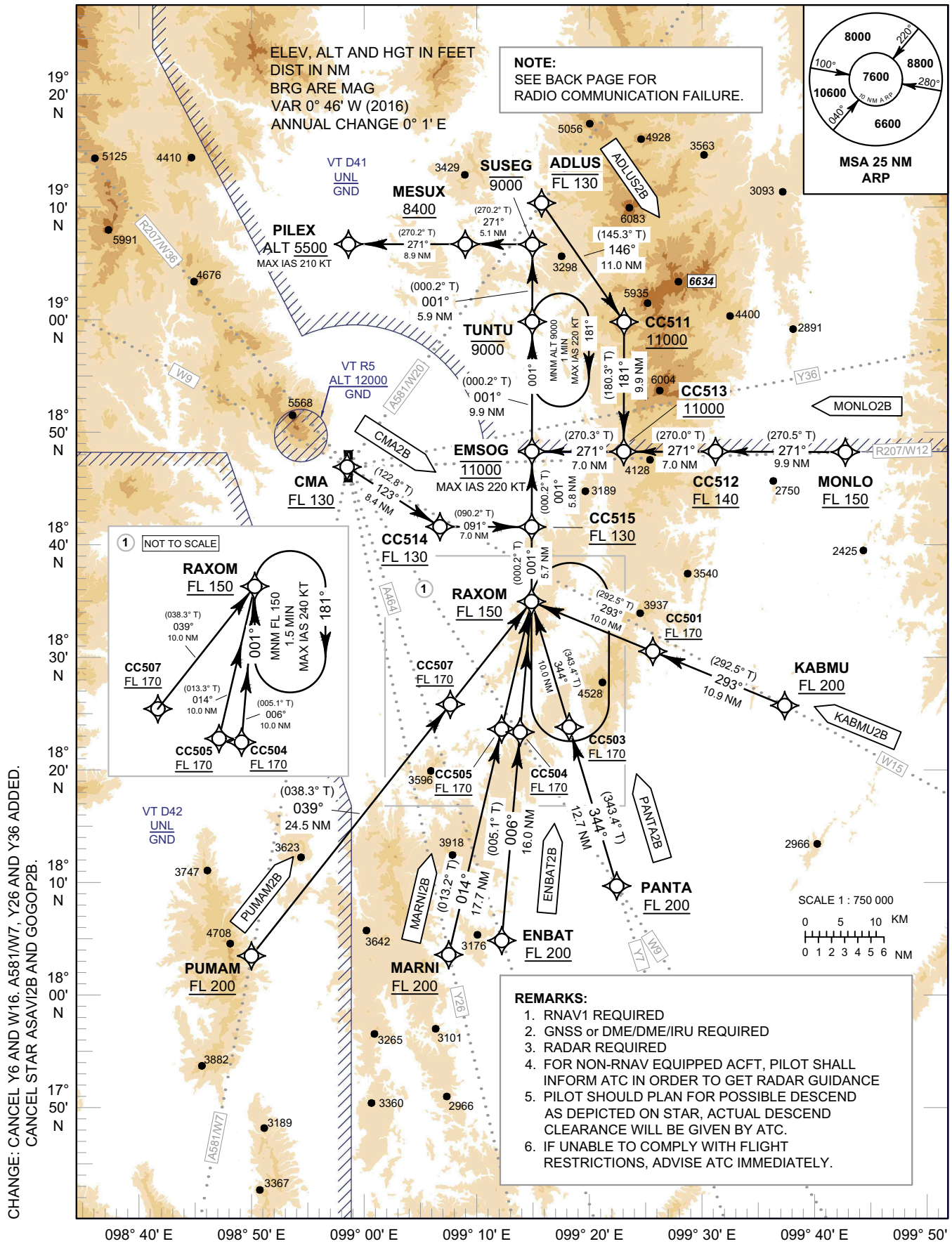
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2B CMA2B ENBAT2B KABMU2B
MARNI2B MONLO2B PANTA2B PUMAM2B




**REMARKS:**

1. RNAV1 REQUIRED
2. GNSS or DME/DME/IRU REQUIRED
3. RADAR REQUIRED
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE
5. PILOT SHOULD PLAN FOR POSSIBLE DESCEND AS DEPICTED ON STAR, ACTUAL DESCEND CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC IMMEDIATELY.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2B CMA2B ENBAT2B KABMU2B
MARNI2B MONLO2B PANTA2B PUMAM2B

**RADIO COMMUNICATION FAILURE**

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | PROCEED ACCORDING TO THE STAR ROUTE TO **PILEX**,<br>DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND<br>ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE,<br>**THENCE CONNECT TO INTERMEDIATE APPROACH FIX PILEX FOR RNP APPROACH RWY18.** |
| 3 | WHEN AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED,<br>IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE<br>FOR A PERIOD OF TWO MINUTES, A RADIO FREQUENCY CHECK IS TO BE MADE.<br>IF THE RADIO FREQUENCY CHECK INDICATES A RADIO<br>COMMUNICATION FAILURE, PILOT SHOULD PROCEED IN<br>THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE<br>APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND<br>THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE. |

CHANGE: REVISED.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2B CMA2B ENBAT2B KABMU2B
MARNI2B MONLO2B PANTA2B PUMAM2B

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION (1)**

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ADLUS2B FROM A581/W20 | | | | | | | | | | | |
| 010 | IF | ADLUS | - | - | +0.6 | - | - | -FL 130 | - | - | RNAV 1 |
| 020 | TF | CC511 | - | 146° (145.3°) | +0.6 | 11.0 | - | +11000 | - | - | RNAV 1 |
| 030 | TF | CC513 | - | 181° (180.3°) | +0.6 | 9.9 | - | +11000 | - | - | RNAV 1 |
| 040 | TF | EMSOG | - | 271° (270.3°) | +0.6 | 7.0 | - | @11000 | -220 | - | RNAV 1 |
| 050 | TF | TUNTU | - | 001° (000.2°) | +0.6 | 9.9 | - | -9000 | - | - | RNAV 1 |
| 060 | TF | SUSEG | - | 001° (000.2°) | +0.6 | 5.9 | - | -9000 | - | - | RNAV 1 |
| 070 | TF | MESUX | - | 271° (270.2°) | +0.6 | 5.1 | - | +8400 | - | - | RNAV 1 |
| 080 | TF | PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNAV 1 |
| CMA2B FROM R207/W36, W9 | | | | | | | | | | | |
| 010 | IF | CMA | - | - | +0.6 | - | - | +FL 130 | - | - | RNAV 1 |
| 020 | TF | CC514 | - | 123° (122.8°) | +0.6 | 8.4 | - | +FL 130 | - | - | RNAV 1 |
| 030 | TF | CC515 | - | 091° (090.2°) | +0.6 | 7.0 | - | +FL 130 | - | - | RNAV 1 |
| 040 | TF | EMSOG | - | 001° (000.2°) | +0.6 | 5.8 | - | @11000 | -220 | - | RNAV 1 |
| 050 | TF | TUNTU | - | 001° (000.2°) | +0.6 | 9.9 | - | -9000 | - | - | RNAV 1 |
| 060 | TF | SUSEG | - | 001° (000.2°) | +0.6 | 5.9 | - | -9000 | - | - | RNAV 1 |
| 070 | TF | MESUX | - | 271° (270.2°) | +0.6 | 5.1 | - | +8400 | - | - | RNAV 1 |
| 080 | TF | PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNAV 1 |
| ENBAT2B FROM A464 | | | | | | | | | | | |
| 010 | IF | ENBAT | - | - | +0.6 | - | - | +FL 200 | - | - | RNAV 1 |
| 020 | TF | CC504 | - | 006° (005.1°) | +0.6 | 16.0 | - | +FL 170 | - | - | RNAV 1 |
| 030 | TF | RAXOM | - | 006° (005.1°) | +0.6 | 10.0 | - | +FL 150 | - | - | RNAV 1 |
| 040 | TF | CC515 | - | 001° (000.2°) | +0.6 | 5.7 | - | +FL 130 | - | - | RNAV 1 |
| 050 | TF | EMSOG | - | 001° (000.2°) | +0.6 | 5.8 | - | @11000 | -220 | - | RNAV 1 |
| 060 | TF | TUNTU | - | 001° (000.2°) | +0.6 | 9.9 | - | -9000 | - | - | RNAV 1 |
| 070 | TF | SUSEG | - | 001° (000.2°) | +0.6 | 5.9 | - | -9000 | - | - | RNAV 1 |
| 080 | TF | MESUX | - | 271° (270.2°) | +0.6 | 5.1 | - | +8400 | - | - | RNAV 1 |
| 090 | TF | PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2B CMA2B ENBAT2B KABMU2B
MARNI2B MONLO2B PANTA2B PUMAM2B

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION (2)**

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| KABMU2B FROM W15 | | | | | | | | | | | |
| 010 | IF | KABMU | - | - | +0.6 | - | - | +FL 200 | - | - | RNAV 1 |
| 020 | TF | CC501 | - | 293° (292.5°) | +0.6 | 10.9 | - | +FL 170 | - | - | RNAV 1 |
| 030 | TF | RAXOM | - | 293° (292.5°) | +0.6 | 10.0 | - | +FL 150 | - | - | RNAV 1 |
| 040 | TF | CC515 | - | 001° (000.2°) | +0.6 | 5.7 | - | +FL 130 | - | - | RNAV 1 |
| 050 | TF | EMSOG | - | 001° (000.2°) | +0.6 | 5.8 | - | @11000 | -220 | - | RNAV 1 |
| 060 | TF | TUNTU | - | 001° (000.2°) | +0.6 | 9.9 | - | -9000 | - | - | RNAV 1 |
| 070 | TF | SUSEG | - | 001° (000.2°) | +0.6 | 5.9 | - | -9000 | - | - | RNAV 1 |
| 080 | TF | MESUX | - | 271° (270.2°) | +0.6 | 5.1 | - | +8400 | - | - | RNAV 1 |
| 090 | TF | PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNAV 1 |
| MARNI2B FROM Y26 | | | | | | | | | | | |
| 010 | IF | MARNI | - | - | +0.6 | - | - | +FL 200 | - | - | RNAV 1 |
| 020 | TF | CC505 | - | 014° (013.2°) | +0.6 | 17.7 | - | +FL 170 | - | - | RNAV 1 |
| 030 | TF | RAXOM | - | 014° (013.3°) | +0.6 | 10.0 | - | +FL 150 | - | - | RNAV 1 |
| 040 | TF | CC515 | - | 001° (000.2°) | +0.6 | 5.7 | - | +FL 130 | - | - | RNAV 1 |
| 050 | TF | EMSOG | - | 001° (000.2°) | +0.6 | 5.8 | - | @11000 | -220 | - | RNAV 1 |
| 060 | TF | TUNTU | - | 001° (000.2°) | +0.6 | 9.9 | - | -9000 | - | - | RNAV 1 |
| 070 | TF | SUSEG | - | 001° (000.2°) | +0.6 | 5.9 | - | -9000 | - | - | RNAV 1 |
| 080 | TF | MESUX | - | 271° (270.2°) | +0.6 | 5.1 | - | +8400 | - | - | RNAV 1 |
| 090 | TF | PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNAV 1 |
| MONLO2B FROM R207/W12 | | | | | | | | | | | |
| 010 | IF | MONLO | - | - | +0.6 | - | - | +FL 150 | - | - | RNAV 1 |
| 020 | TF | CC512 | - | 271° (270.5°) | +0.6 | 9.9 | - | +FL 140 | - | - | RNAV 1 |
| 030 | TF | CC513 | - | 271° (270.0°) | +0.6 | 7.0 | - | +11000 | - | - | RNAV 1 |
| 040 | TF | EMSOG | - | 271° (270.3°) | +0.6 | 7.0 | - | @11000 | -220 | - | RNAV 1 |
| 050 | TF | TUNTU | - | 001° (000.2°) | +0.6 | 9.9 | - | -9000 | - | - | RNAV 1 |
| 060 | TF | SUSEG | - | 001° (000.2°) | +0.6 | 5.9 | - | -9000 | - | - | RNAV 1 |
| 070 | TF | MESUX | - | 271° (270.2°) | +0.6 | 5.1 | - | +8400 | - | - | RNAV 1 |
| 080 | TF | PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2B CMA2B ENBAT2B KABMU2B
MARNI2B MONLO2B PANTA2B PUMAM2B

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION (3)**

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| PANTA2B FROM W9, Y7 | | | | | | | | | | | |
| 010 | IF | PANTA | - | - | +0.6 | - | - | +FL 200 | - | - | RNAV 1 |
| 020 | TF | CC503 | - | 344° (343.4°) | +0.6 | 12.7 | - | +FL 170 | - | - | RNAV 1 |
| 030 | TF | RAXOM | - | 344° (343.4°) | +0.6 | 10.0 | - | +FL 150 | - | - | RNAV 1 |
| 040 | TF | CC515 | - | 001° (000.2°) | +0.6 | 5.7 | - | +FL 130 | - | - | RNAV 1 |
| 050 | TF | EMSOG | - | 001° (000.2°) | +0.6 | 5.8 | - | @11000 | -220 | - | RNAV 1 |
| 060 | TF | TUNTU | - | 001° (000.2°) | +0.6 | 9.9 | - | -9000 | - | - | RNAV 1 |
| 070 | TF | SUSEG | - | 001° (000.2°) | +0.6 | 5.9 | - | -9000 | - | - | RNAV 1 |
| 080 | TF | MESUX | - | 271° (270.2°) | +0.6 | 5.1 | - | +8400 | - | - | RNAV 1 |
| 090 | TF | PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNAV 1 |
| PUMAM2B FROM A581/W7 | | | | | | | | | | | |
| 010 | IF | PUMAM | - | - | +0.6 | - | - | +FL 200 | - | - | RNAV 1 |
| 020 | TF | CC507 | - | 039° (038.3°) | +0.6 | 24.5 | - | +FL 170 | - | - | RNAV 1 |
| 030 | TF | RAXOM | - | 039° (038.3°) | +0.6 | 10.0 | - | +FL 150 | - | - | RNAV 1 |
| 040 | TF | CC515 | - | 001° (000.2°) | +0.6 | 5.7 | - | +FL 130 | - | - | RNAV 1 |
| 050 | TF | EMSOG | - | 001° (000.2°) | +0.6 | 5.8 | - | @11000 | -220 | - | RNAV 1 |
| 060 | TF | TUNTU | - | 001° (000.2°) | +0.6 | 9.9 | - | -9000 | - | - | RNAV 1 |
| 070 | TF | SUSEG | - | 001° (000.2°) | +0.6 | 5.9 | - | -9000 | - | - | RNAV 1 |
| 080 | TF | MESUX | - | 271° (270.2°) | +0.6 | 5.1 | - | +8400 | - | - | RNAV 1 |
| 090 | TF | PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2B CMA2B ENBAT2B KABMU2B
MARNI2B MONLO2B PANTA2B PUMAM2B

CHANGE: CMA COORDINATE. CANCEL ASAVI, CC502, CC506 AND GOGOP WAYPOINT.

**WAYPOINT LIST**

| RNAV RWY18 | | | |
|---|---|---|---|
| | | | |
| **Waypoint Identifier** | **Coordinates** | **Waypoint Identifier** | **Coordinates** |
| ADLUS | 19° 06' 10.49" N 099° 13' 19.89" E | EMSOG | 18° 47' 08.85" N 099° 12' 31.92" E |
| CC501 | 18° 31' 49.08" N 099° 22' 12.98" E | ENBAT | 18° 09' 41.04" N 099° 10' 04.36" E |
| CC503 | 18° 26' 01.71" N 099° 15' 29.46" E | KABMU | 18° 27' 38.58" N 099° 32' 47.05" E |
| CC504 | 18° 25' 39.01" N 099° 11' 33.35" E | MARNI | 18° 08' 36.14" N 099° 05' 49.11" E |
| CC505 | 18° 25' 52.70" N 099° 10' 04.42" E | MESUX | 19° 03' 00.48" N 099° 07' 10.64" E |
| CC507 | 18° 27' 46.72" N 099° 05' 57.28" E | MONLO | 18° 47' 02.20" N 099° 37' 43.35" E |
| CC511 | 18° 57' 03.28" N 099° 19' 57.39" E | PANTA | 18° 13' 51.17" N 099° 19' 17.05" E |
| CC512 | 18° 47' 06.97" N 099° 27' 17.28" E | PUMAM | 18° 08' 30.55" N 098° 50' 01.09" E |
| CC513 | 18° 47' 07.11" N 099° 19' 54.60" E | RAXOM | 18° 35' 39.00" N 099° 12' 29.22" E |
| CC514 | 18° 41' 23.18" N 099° 05' 08.12" E | SUSEG | 19° 02' 59.39" N 099° 12' 35.68" E |
| CC515 | 18° 41' 21.69" N 099° 12' 30.56" E | TUNTU | 18° 57' 05.01" N 099° 12' 34.27" E |
| CMA | 18° 45' 58.05" N 098° 57' 40.40" E | PILEX | 19° 03' 01.98" N 098° 57' 48.92" E |

**WAYPOINT LIST**

| Waypoint Identifier | Pronunciation | Waypoint Identifier | Pronunciation |
|---|---|---|---|
| ADLUS | ADD - LUS | EMSOG | EM - SOCK |
| CC501 | - | ENBAT | EN - BAT |
| CC503 | - | KABMU | KAB - MU |
| CC504 | - | MARNI | MAR - NEE |
| CC505 | - | MESUX | ME - SUX |
| CC507 | - | MONLO | MON - LOH |
| CC511 | - | PANTA | PAN - TA |
| CC512 | - | PUMAM | PU - MAM |
| CC513 | - | RAXOM | RAH - SOM |
| CC514 | - | SUSEG | SU - SECK |
| CC515 | - | TUNTU | TUN - TU |
| CMA | - | PILEX | PE - LEX |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

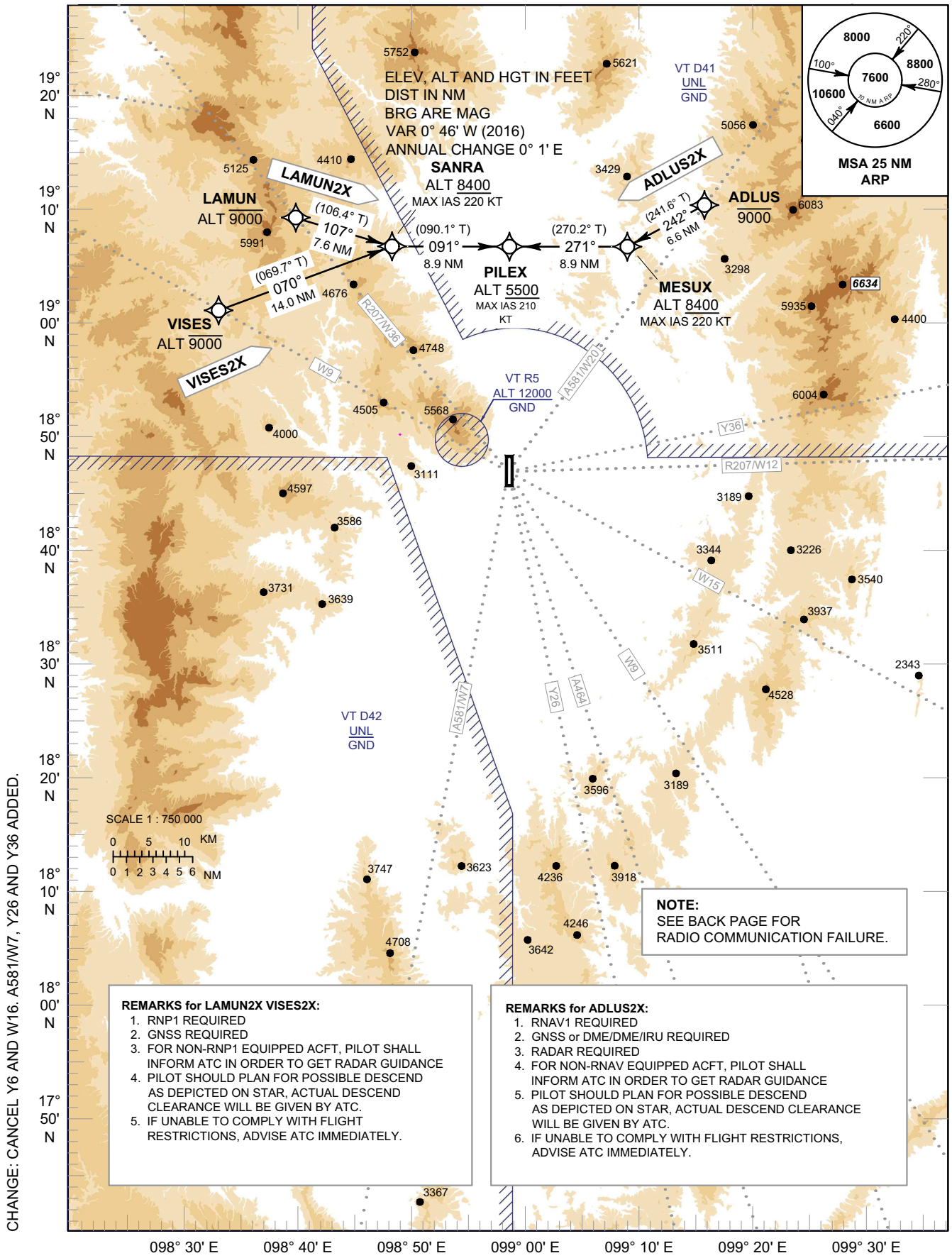
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2X LAMUN2X VISES2X




**REMARKS for LAMUN2X VISES2X:**

1. RNP1 REQUIRED
2. GNSS REQUIRED
3. FOR NON-RNP1 EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE
4. PILOT SHOULD PLAN FOR POSSIBLE DESCEND AS DEPICTED ON STAR, ACTUAL DESCEND CLEARANCE WILL BE GIVEN BY ATC.
5. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC IMMEDIATELY.

**REMARKS for ADLUS2X:**

1. RNAV1 REQUIRED
2. GNSS or DME/DME/IRU REQUIRED
3. RADAR REQUIRED
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE
5. PILOT SHOULD PLAN FOR POSSIBLE DESCEND AS DEPICTED ON STAR, ACTUAL DESCEND CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC IMMEDIATELY.

**NOTE:**
SEE BACK PAGE FOR
RADIO COMMUNICATION FAILURE.

CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2X LAMUN2X VISES2X

**RADIO COMMUNICATION FAILURE**

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | PROCEED ACCORDING TO THE STAR ROUTE TO **PILEX,**<br>DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND<br>ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE,<br>**THENCE CONNECT TO INTERMEDIATE APPROACH FIX PILEX FOR RNP APPROACH RWY18.** |
| 3 | WHEN AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED,<br>IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE<br>FOR A PERIOD OF TWO MINUTES, A RADIO FREQUENCY CHECK IS TO BE MADE.<br>IF THE RADIO FREQUENCY CHECK INDICATES A RADIO<br>COMMUNICATION FAILURE, PILOT SHOULD PROCEED IN<br>THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE<br>APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND<br>THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE. |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY18**

ADLUS2X LAMUN2X VISES2X

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION**

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADLUS2X FROM A581/W20 | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | ADLUS | - | - | +0.6 | - | - | -9000 | - | - | RNAV 1 |
| 020 | TF | MESUX | - | 242° (241.6°) | +0.6 | 6.6 | - | +8400 | -220 | - | RNAV 1 |
| 030 | TF | PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNAV 1 |
| LAMUN2X FROM R207/W36 | | | | | | | | | | | |
| 010 | IF | LAMUN | - | - | +0.6 | - | - | -9000 | - | - | RNP 1 |
| 020 | TF | SANRA | - | 107° (106.4°) | +0.6 | 7.6 | - | +8400 | -220 | - | RNP 1 |
| 030 | TF | PILEX | - | 091° (090.1°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNP 1 |
| VISES2X FROM W9 | | | | | | | | | | | |
| 010 | IF | VISES | - | - | +0.6 | - | - | -9000 | - | - | RNP 1 |
| 020 | TF | SANRA | - | 070° (069.7°) | +0.6 | 14.0 | - | +8400 | -220 | - | RNP 1 |
| 030 | TF | PILEX | - | 091° (090.1°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY18 | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | Pronunciation |
| ADLUS | 19° 06' 10.49" N 099° 13' 19.89" E | ADD - LUS |
| LAMUN | 19° 05' 13.14" N 098° 40' 44.26" E | LA - MUN |
| MESUX | 19° 03' 00.48" N 099° 07' 10.64" E | ME - SUX |
| PILEX | 19° 03' 01.98" N 098° 57' 48.92" E | PE - LEX |
| SANRA | 19° 03' 03.01" N 098° 48' 27.19" E | SAN - RAH |
| VISES | 18° 58' 11.41" N 098° 34' 38.14" E | VE - SESS |

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**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

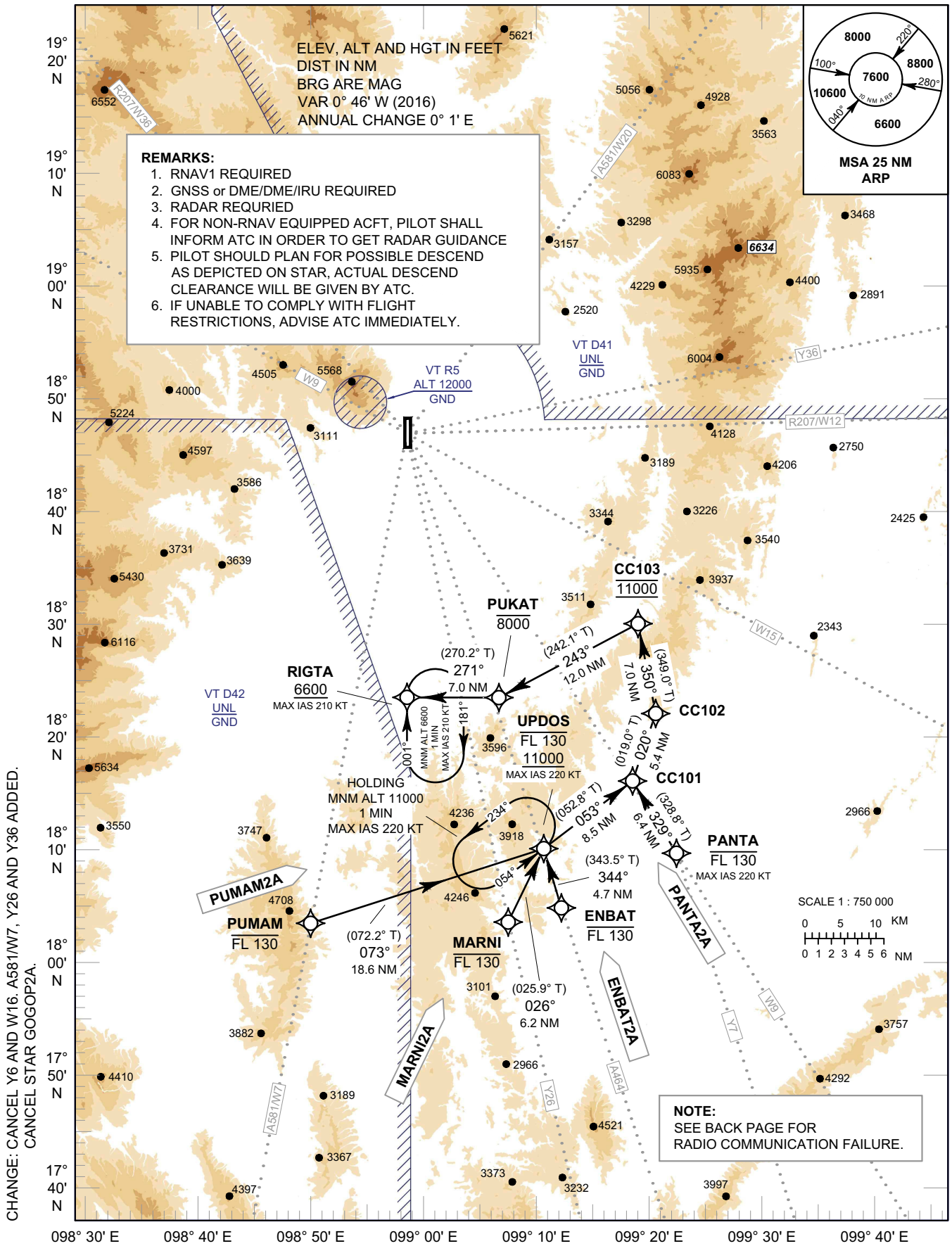
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2A MARNI2A PANTA2A PUMAM2A



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2A MARNI2A PANTA2A PUMAM2A

**RADIO COMMUNICATION FAILURE**

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | PROCEED ACCORDING TO THE STAR ROUTE TO **RIGTA**,<br>DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND<br>ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE,<br>**THENCE CARRY OUT THE APPROPRIATE INSTRUMENT APPROACH PROCEDURE RWY36.** |
| 3 | WHEN AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED,<br>IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE<br>FOR A PERIOD OF TWO MINUTES, A RADIO FREQUENCY CHECK IS TO BE MADE.<br>IF THE RADIO FREQUENCY CHECK INDICATES A RADIO<br>COMMUNICATION FAILURE, PILOT SHOULD PROCEED IN<br>THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE<br>APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND<br>THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE. |

CHANGE: REVISED.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2A MARNI2A PANTA2A PUMAM2A

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ENBAT2A FROM A464 | | | | | | | | | | | |
| 010 | IF | ENBAT | - | - | +0.6 | - | - | -FL 130 | - | - | RNAV 1 |
| 020 | TF | UPDOS | - | 344° (343.5°) | +0.6 | 4.7 | - | -FL 130 +11000 | -220 | - | RNAV 1 |
| 030 | TF | CC101 | - | 053° (052.8°) | +0.6 | 8.5 | - | - | - | - | RNAV 1 |
| 040 | TF | CC102 | - | 020° (019.0°) | +0.6 | 5.4 | - | - | - | - | RNAV 1 |
| 050 | TF | CC103 | - | 350° (349.0°) | +0.6 | 7.0 | - | @11000 | - | - | RNAV 1 |
| 060 | TF | PUKAT | - | 243° (242.1°) | +0.6 | 12.0 | - | -8000 | - | - | RNAV 1 |
| 070 | TF | (IF) RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |
| MARNI2A FROM Y26 | | | | | | | | | | | |
| 010 | IF | MARNI | - | - | +0.6 | - | - | -FL 130 | - | - | RNAV 1 |
| 020 | TF | UPDOS | - | 026° (025.9°) | +0.6 | 6.2 | - | -FL 130 +11000 | -220 | - | RNAV 1 |
| 030 | TF | CC101 | - | 053° (052.8°) | +0.6 | 8.5 | - | - | - | - | RNAV 1 |
| 040 | TF | CC102 | - | 020° (019.0°) | +0.6 | 5.4 | - | - | - | - | RNAV 1 |
| 050 | TF | CC103 | - | 350° (349.0°) | +0.6 | 7.0 | - | @11000 | - | - | RNAV 1 |
| 060 | TF | PUKAT | - | 243° (242.1°) | +0.6 | 12.0 | - | -8000 | - | - | RNAV 1 |
| 070 | TF | RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |
| PANTA2A FROM W9, Y7 | | | | | | | | | | | |
| 010 | IF | PANTA | - | - | +0.6 | - | - | -FL 130 | -220 | - | RNAV 1 |
| 020 | TF | CC101 | - | 329° (328.8°) | +0.6 | 6.4 | - | - | - | - | RNAV 1 |
| 030 | TF | CC102 | - | 020° (019.0°) | +0.6 | 5.4 | - | - | - | - | RNAV 1 |
| 040 | TF | CC103 | - | 350° (349.0°) | +0.6 | 7.0 | - | @11000 | - | - | RNAV 1 |
| 050 | TF | PUKAT | - | 243° (242.1°) | +0.6 | 12.0 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |
| PUMAM2A FROM A581/W7 | | | | | | | | | | | |
| 010 | IF | PUMAM | - | - | +0.6 | - | - | -FL 130 | - | - | RNAV 1 |
| 020 | TF | UPDOS | - | 073° (072.2°) | +0.6 | 18.6 | - | -FL 130 +11000 | -220 | - | RNAV 1 |
| 030 | TF | CC101 | - | 053° (052.8°) | +0.6 | 8.5 | - | - | - | - | RNAV 1 |
| 040 | TF | CC102 | - | 020° (019.0°) | +0.6 | 5.4 | - | - | - | - | RNAV 1 |
| 050 | TF | CC103 | - | 350° (349.0°) | +0.6 | 7.0 | - | @11000 | - | - | RNAV 1 |
| 060 | TF | PUKAT | - | 243° (242.1°) | +0.6 | 12.0 | - | -8000 | - | - | RNAV 1 |
| 070 | TF | RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ENBAT2A MARNI2A PANTA2A PUMAM2A

**WAYPOINT LIST**

| RNAV RWY36 | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | **Pronunciation** |
| CC101 | 18° 19' 22.85" N 099° 15' 46.88" E | - |
| CC102 | 18° 24' 32.38" N 099° 17' 38.32" E | - |
| CC103 | 18° 31' 24.87" N 099° 16' 14.24" E | - |
| ENBAT | 18° 09' 41.04" N 099° 10' 04.36" E | EN - BAT |
| MARNI | 18° 08' 36.14" N 099° 05' 49.11" E | MAR - NEE |
| PANTA | 18° 13' 51.17" N 099° 19' 17.05" E | PAN - TA |
| PUKAT | 18° 25' 46.17" N 099° 05' 05.03" E | PU - KAT |
| PUMAM | 18° 08' 30.55" N 098° 50' 01.09" E | PU - MAM |
| RIGTA | 18° 25' 47.35" N 098° 57' 43.27" E | RIG - TAH |
| UPDOS | 18° 14' 13.13" N 099° 08' 40.07" E | UP - DOS |

CHANGE: CANCEL GOGOP WAYPOINT.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

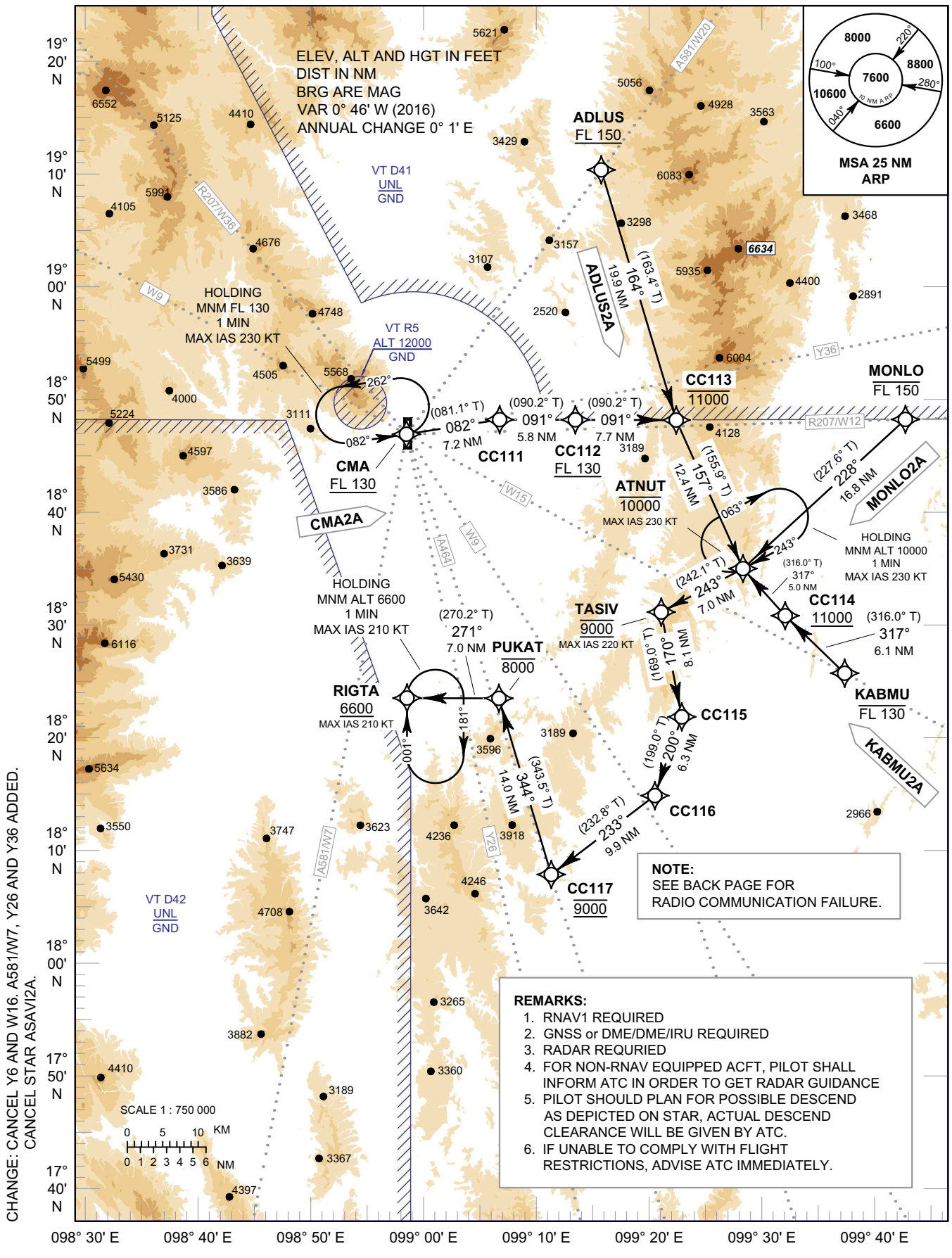
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ADLUS2A CMA2A KABMU2A MONLO2A



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ADLUS2A CMA2A KABMU2A MONLO2A

**RADIO COMMUNICATION FAILURE**

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | PROCEED ACCORDING TO THE STAR ROUTE TO **RIGTA**,<br>DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND<br>ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE,<br>**THENCE CARRY OUT THE APPROPRIATE INSTRUMENT APPROACH PROCEDURE RWY36.** |
| 3 | WHEN AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED,<br>IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE<br>FOR A PERIOD OF TWO MINUTES, A RADIO FREQUENCY CHECK IS TO BE MADE.<br>IF THE RADIO FREQUENCY CHECK INDICATES A RADIO<br>COMMUNICATION FAILURE, PILOT SHOULD PROCEED IN<br>THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE<br>APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND<br>THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE. |

CHANGE: REVISED.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ADLUS2A CMA2A KABMU2A MONLO2A

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION (1)**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ADLUS2A FROM A581/W20 | | | | | | | | | | | |
| 010 | IF | ADLUS | - | - | +0.6 | - | - | +FL 150 | - | - | RNAV 1 |
| 020 | TF | CC113 | - | 164° (163.4°) | +0.6 | 19.9 | - | -11000 | - | - | RNAV 1 |
| 030 | TF | ATNUT | - | 157° (155.9°) | +0.6 | 12.4 | - | -10000 | -230 | - | RNAV 1 |
| 040 | TF | TASIV | - | 243° (242.1°) | +0.6 | 7.0 | - | @9000 | -220 | - | RNAV 1 |
| 050 | TF | CC115 | - | 170° (169.0°) | +0.6 | 8.1 | - | - | - | - | RNAV 1 |
| 060 | TF | CC116 | - | 200° (199.0°) | +0.6 | 6.3 | - | - | - | - | RNAV 1 |
| 070 | TF | CC117 | - | 233° (232.8°) | +0.6 | 9.9 | - | @9000 | - | - | RNAV 1 |
| 080 | TF | PUKAT | - | 344° (343.5°) | +0.6 | 14.0 | - | -8000 | - | - | RNAV 1 |
| 090 | TF | RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |
| CMA2A FROM R207/W36, W9 | | | | | | | | | | | |
| 010 | IF | CMA | - | - | +0.6 | - | - | +FL 130 | - | - | RNAV 1 |
| 020 | TF | CC111 | - | 082° (081.1°) | +0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 030 | TF | CC112 | - | 091° (090.2°) | +0.6 | 5.8 | - | +FL 130 | - | - | RNAV 1 |
| 040 | TF | CC113 | - | 091° (090.2°) | +0.6 | 7.7 | - | -11000 | - | - | RNAV 1 |
| 050 | TF | ATNUT | - | 157° (155.9°) | +0.6 | 12.4 | - | -10000 | -230 | - | RNAV 1 |
| 060 | TF | TASIV | - | 243° (242.1°) | +0.6 | 7.0 | - | @9000 | -220 | - | RNAV 1 |
| 070 | TF | CC115 | - | 170° (169.0°) | +0.6 | 8.1 | - | - | - | - | RNAV 1 |
| 080 | TF | CC116 | - | 200° (199.0°) | +0.6 | 6.3 | - | - | - | - | RNAV 1 |
| 090 | TF | CC117 | - | 233° (232.8°) | +0.6 | 9.9 | - | @9000 | - | - | RNAV 1 |
| 100 | TF | PUKAT | - | 344° (343.5°) | +0.6 | 14.0 | - | -8000 | - | - | RNAV 1 |
| 110 | TF | RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |
| KABMU2A FROM W15 | | | | | | | | | | | |
| 010 | IF | KABMU | - | - | +0.6 | - | - | -FL 130 | - | - | RNAV 1 |
| 020 | TF | CC114 | - | 317° (316.0°) | +0.6 | 6.1 | - | +11000 | - | - | RNAV 1 |
| 030 | TF | ATNUT | - | 317° (316.0°) | +0.6 | 5.0 | - | -10000 | -230 | - | RNAV 1 |
| 040 | TF | TASIV | - | 243° (242.1°) | +0.6 | 7.0 | - | @9000 | -220 | - | RNAV 1 |
| 050 | TF | CC115 | - | 170° (169.0°) | +0.6 | 8.1 | - | - | - | - | RNAV 1 |
| 060 | TF | CC116 | - | 200° (199.0°) | +0.6 | 6.3 | - | - | - | - | RNAV 1 |
| 070 | TF | CC117 | - | 233° (232.8°) | +0.6 | 9.9 | - | @9000 | - | - | RNAV 1 |
| 080 | TF | PUKAT | - | 344° (343.5°) | +0.6 | 14.0 | - | -8000 | - | - | RNAV 1 |
| 090 | TF | RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

ADLUS2A CMA2A KABMU2A MONLO2A

**TABULAR DESCRIPTION (2)**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| MONLO2A FROM R207/W12 | | | | | | | | | | | |
| 010 | IF | MONLO | - | - | +0.6 | - | - | -FL 150 | - | - | RNAV 1 |
| 020 | TF | ATNUT | - | 228° (227.6°) | +0.6 | 16.8 | - | -10000 | -230 | - | RNAV 1 |
| 030 | TF | TASIV | - | 243° (242.1°) | +0.6 | 7.0 | - | @9000 | -220 | - | RNAV 1 |
| 040 | TF | CC115 | - | 170° (169.0°) | +0.6 | 8.1 | - | - | - | - | RNAV 1 |
| 050 | TF | CC116 | - | 200° (199.0°) | +0.6 | 6.3 | - | - | - | - | RNAV 1 |
| 060 | TF | CC117 | - | 233° (232.8°) | +0.6 | 9.9 | - | @9000 | - | - | RNAV 1 |
| 070 | TF | PUKAT | - | 344° (343.5°) | +0.6 | 14.0 | - | -8000 | - | - | RNAV 1 |
| 080 | TF | RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |

**WAYPOINT LIST**

| RNAV RWY36 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | Pronunciation |
| ADLUS | 19° 06' 10.49" N 099° 13' 19.89" E | ADD - LUS |
| ATNUT | 18° 35' 39.79" N 099° 24' 39.25" E | AT - NUT |
| CC111 | 18° 47' 04.94" N 099° 05' 09.21" E | - |
| CC112 | 18° 47' 03.78" N 099° 11' 13.71" E | - |
| CC113 | 18° 47' 01.92" N 099° 19' 19.55" E | - |
| CC114 | 18° 32' 03.32" N 099° 28' 18.82" E | - |
| CC115 | 18° 24' 20.00" N 099° 19' 43.87" E | - |
| CC116 | 18° 18' 18.90" N 099° 17' 33.78" E | - |
| CC117 | 18° 12' 17.61" N 099° 09' 15.87" E | - |
| CMA | 18° 45' 58.05" N 098° 57' 40.40" E | - |
| KABMU | 18° 27' 38.58" N 099° 32' 47.05" E | KAB - MU |
| MONLO | 18° 47' 02.20" N 099° 37' 43.35" E | MON - LOH |
| PUKAT | 18° 25' 46.17" N 099° 05' 05.03" E | PU - KAT |
| RIGTA | 18° 25' 47.35" N 098° 57' 43.27" E | RIG - TAH |
| TASIV | 18° 32' 21.26" N 099° 18' 05.84" E | TA - SIV |

CHANGE: CMA COORDINATE. CANCEL ASAVI WAYPOINT.
REVISED TABULAR DESCRIPTION.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

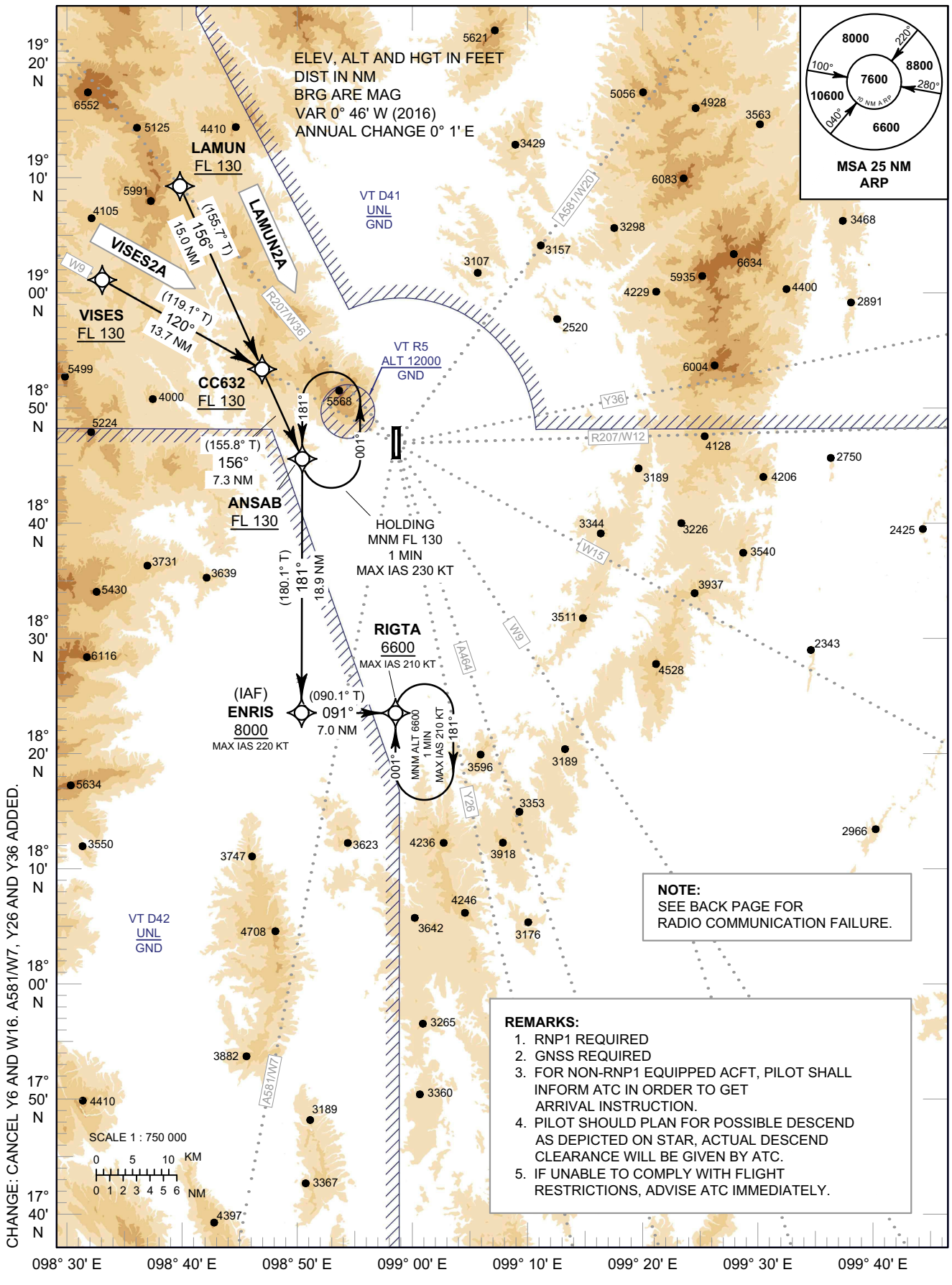
TRANSITION ALTITUDE
11000 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

LAMUN2A VISES2A



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

LAMUN2A VISES2A

**RADIO COMMUNICATION FAILURE**

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | PROCEED ACCORDING TO THE STAR ROUTE TO **RIGTA**,<br>DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND<br>ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE,<br>**THENCE CARRY OUT THE APPROPRIATE INSTRUMENT APPROACH PROCEDURE RWY36.** |
| 3 | WHEN AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED,<br>IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE<br>FOR A PERIOD OF TWO MINUTES, A RADIO FREQUENCY CHECK IS TO BE MADE.<br>IF THE RADIO FREQUENCY CHECK INDICATES A RADIO<br>COMMUNICATION FAILURE, PILOT SHOULD PROCEED IN<br>THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE<br>APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND<br>THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE. |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNAV RWY36**

LAMUN2A VISES2A

**TABULAR DESCRIPTION**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| LAMUN2A FROM R207/W36 | | | | | | | | | | | |
| 010 | IF | LAMUN | - | - | +0.6 | - | - | +FL 130 | - | - | RNP 1 |
| 020 | TF | CC632 | - | 156° (155.7°) | +0.6 | 15.0 | - | +FL 130 | - | - | RNP 1 |
| 030 | TF | ANSAB | - | 156° (155.8°) | +0.6 | 7.3 | - | +FL 130 | - | - | RNP 1 |
| 040 | TF | ENRIS | - | 181° (180.1°) | +0.6 | 18.9 | - | +8000 | -220 | - | RNP 1 |
| 050 | TF | RIGTA | - | 091° (090.1°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNP 1 |
| VISES2A FROM W9 | | | | | | | | | | | |
| 010 | IF | VISES | - | - | +0.6 | - | - | +FL 130 | - | - | RNP 1 |
| 020 | TF | CC632 | - | 120° (119.1°) | +0.6 | 13.7 | - | +FL 130 | - | - | RNP 1 |
| 030 | TF | ANSAB | - | 156° (155.8°) | +0.6 | 7.3 | - | +FL 130 | - | - | RNP 1 |
| 040 | TF | ENRIS | - | 181° (180.1°) | +0.6 | 18.9 | - | +8000 | -220 | - | RNP 1 |
| 050 | TF | RIGTA | - | 091° (090.1°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY36 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | Pronunciation |
| ANSAB | 18° 44' 48.83" N 098° 50' 23.61" E | AN - SAB |
| CC632 | 18° 51' 31.24" N 098° 47' 13.47" E | - |
| ENRIS | 18° 25' 48.24" N 098° 50' 21.51" E | EN - RIS |
| LAMUN | 19° 05' 13.14" N 098° 40' 44.26" E | LA - MUN |
| RIGTA | 18° 25' 47.35" N 098° 57' 43.27" E | RIG - TAH |
| VISES | 18° 58' 11.41" N 098° 34' 38.14" E | VE - SESS |

CHANGE: REVISED TABULAR DESCRIPTION.

**INTENTIONALLY BLANK**

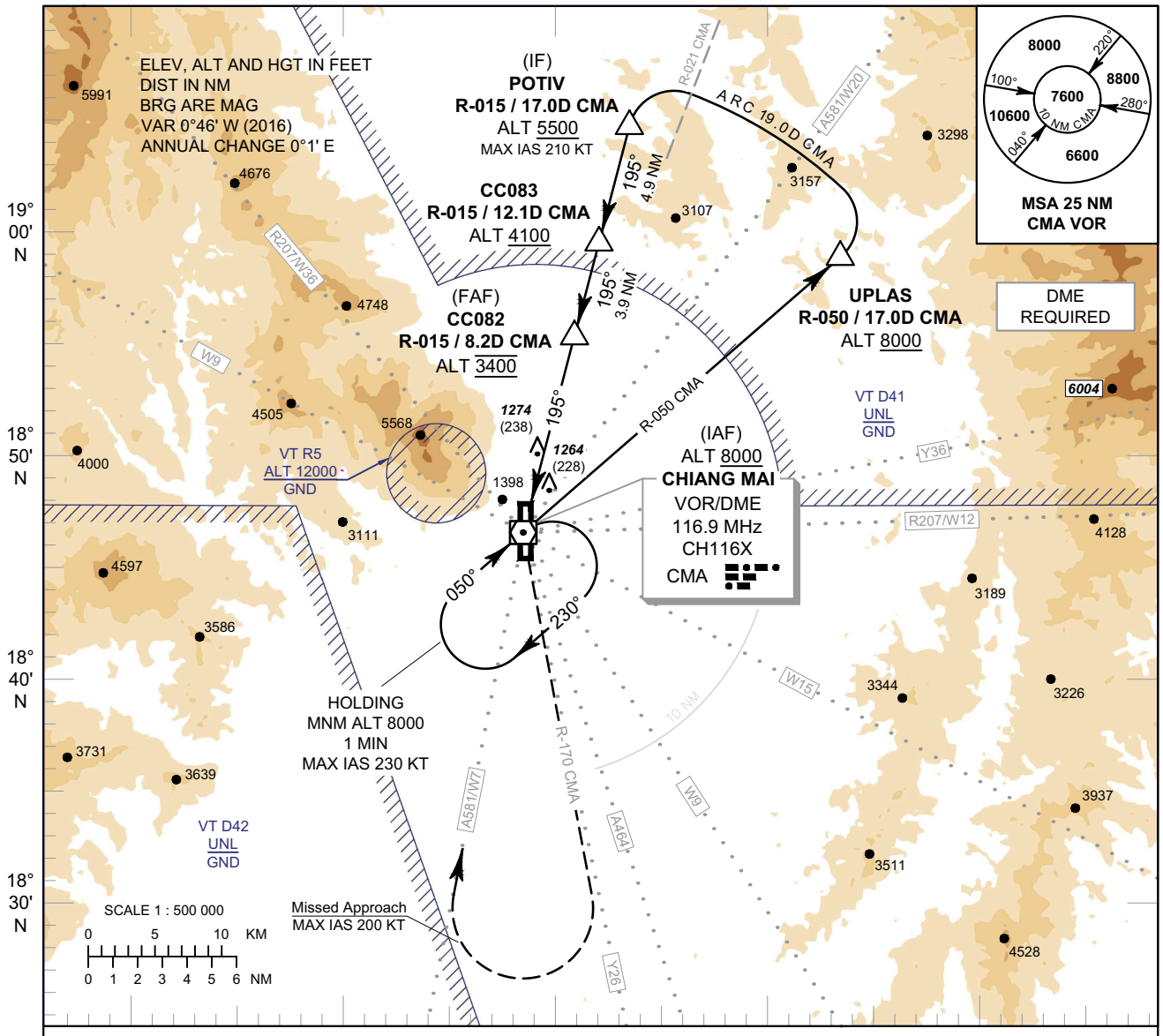
**INSTRUMENT APPROACH CHART - ICAO**

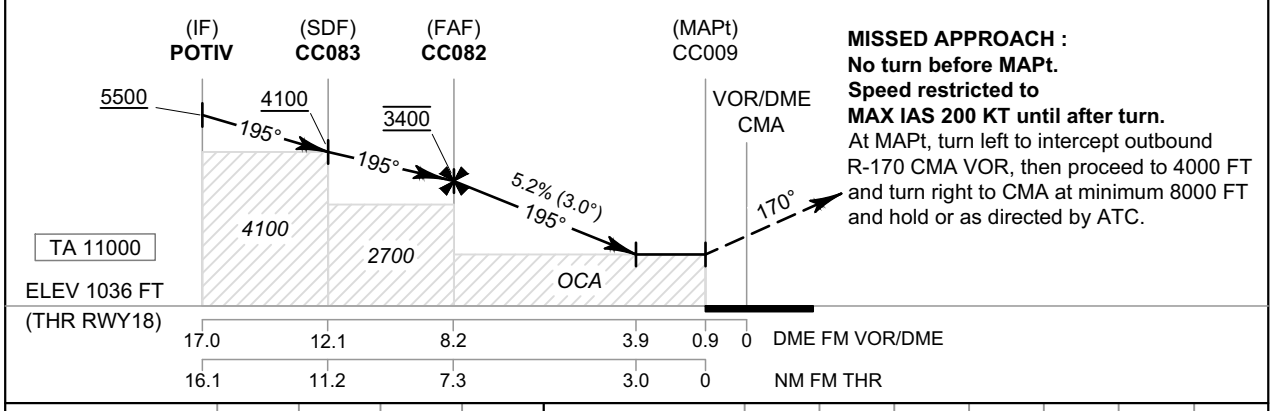
**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**VOR a RWY18**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
At MAPt, turn left to intercept outbound R-170 CMA VOR, then proceed to 4000 FT and turn right to CMA at minimum 8000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | NOT AUTHORIZED | | | |
| Circling* (OCH AAL) | 2030 (994) | | 2220 (1184) | 2420 (1384) |

* FOR CIRCLING RESTRICTION SEE VERSO

| Distance (CMA) | FAF | 8 D | 7 D | 6 D | 5 D | 4 D | 3.9 D |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 3400 (2364) | 3330 (2294) | 3015 (1979) | 2695 (1659) | 2380 (1344) | 2065 (1029) | 2030 (994) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED.

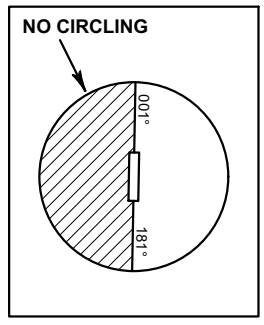
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO AERODROME ELEV

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**VOR a RWY18**

| Fix / Point | | Coordinates | | Pronunciation |
|---|---|---|---|---|
| UPLAS | R-050 / 17.0D CMA | 18° 57' 07.92" N | 099° 11' 13.86" E | UP - LAS |
| (IF) POTIV | R-015 / 17.0D CMA | 19° 02' 28.74" N | 099° 02' 12.41" E | POH - TIF |
| CC083 | R-015 / 12.1D CMA | 18° 57' 43.20" N | 099° 00' 53.92" E | - |
| (FAF) CC082 | R-015 / 8.2D CMA | 18° 53' 55.93" N | 098° 59' 51.49" E | - |
| (MAPt) CC009 | R-015 / 0.9D CMA | 18° 46' 50.50" N | 098° 57' 54.78" E | - |
| (IAF) VOR | CMA | 18° 45' 58.05" N | 098° 57' 40.40" E | - |




CHANGE: VOR, POTIV, CC083, CC082 AND CC009 COORDINATES.

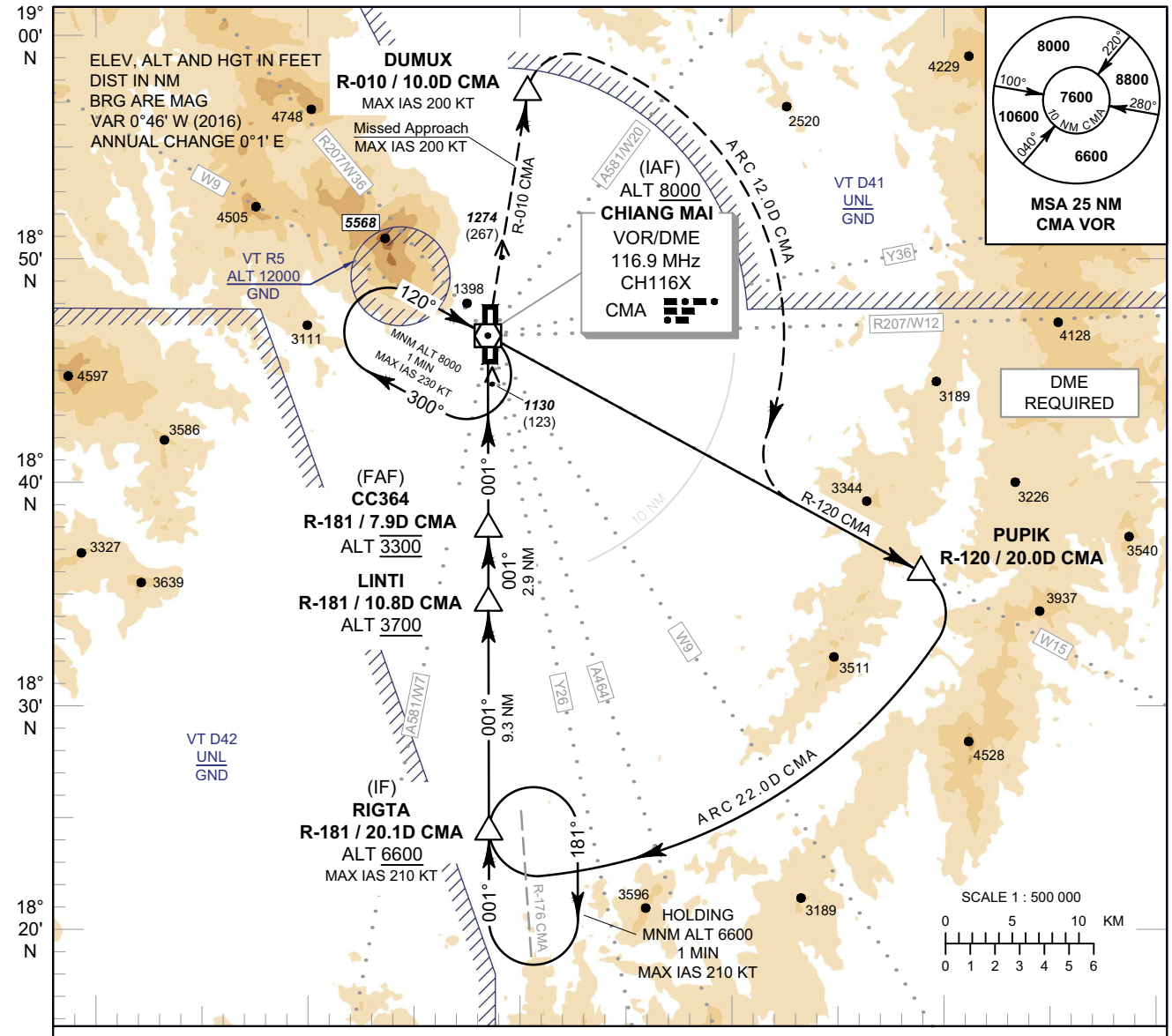
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

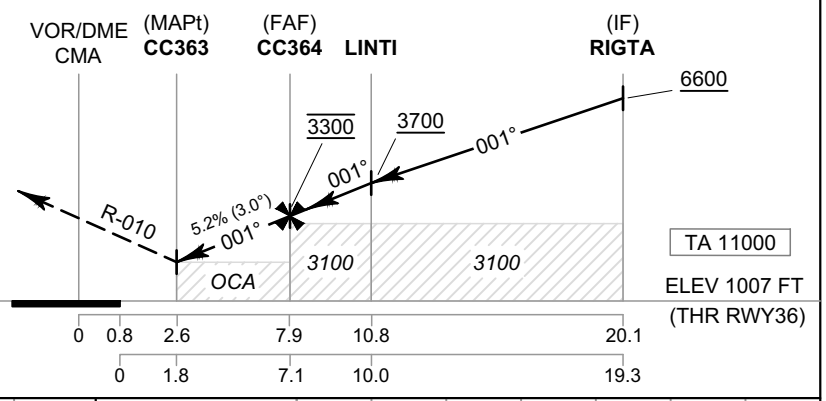
APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**VOR RWY36**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb straight ahead to CMA VOR,
then turn right to intercept outbound
R-010 CMA VOR to DUMUX,
then follow ARC 12.0D CMA VOR until
intercept outbound R-120 CMA VOR and
proceed to PUPIK,
then follow ARC 22.0D CMA VOR to RIGTA
at minimum 6600 FT and hold or
as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | 1630 (623) | | | |
| Circling* (OCH AAL) | 2030 (994) | | 2220 (1184) | 2420 (1384) |

* FOR CIRCLING RESTRICTION SEE VERSO

| Distance (CMA) | 2.6 D | 3 D | 4 D | 5 D | 6 D | 7 D | FAF |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 1630 (623) | 1750 (743) | 2070 (1063) | 2385 (1378) | 2700 (1693) | 3015 (2008) | 3300 (2293) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED.

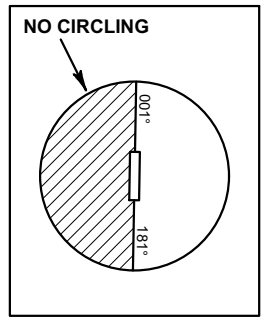
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**VOR RWY36**

| Fix / Point | | Coordinates | | Pronunciation |
|---|---|---|---|---|
| PUPIK | R-120 / 20.0D CMA | 18° 36' 00.66" N | 099° 15' 58.06" E | PU - PICK |
| (IF)<br>RIGTA | R-181 / 20.1D CMA | 18° 25' 47.35" N | 098° 57' 43.27" E | RIG - TA |
| LINTI | R-181 / 10.8D CMA | 18° 35' 07.52" N | 098° 57' 41.94" E | LIN - TI |
| (FAF)<br>CC364 | R-181 / 7.9D CMA | 18° 38' 02.20" N | 098° 57' 41.53" E | - |
| (MAPt)<br>CC363 | R-181 / 2.6D CMA | 18° 43' 21.44" N | 098° 57' 40.77" E | - |
| DUMUX | R-010 / 10.0D CMA | 18° 55' 52.56" N | 098° 59' 22.08" E | DU - MUX |
| (IAF)<br>VOR | CMA | 18° 45' 58.05" N | 098° 57' 40.40" E | - |




CHANGE: LINTI, CC364, CC363 AND VOR COORDINATES.

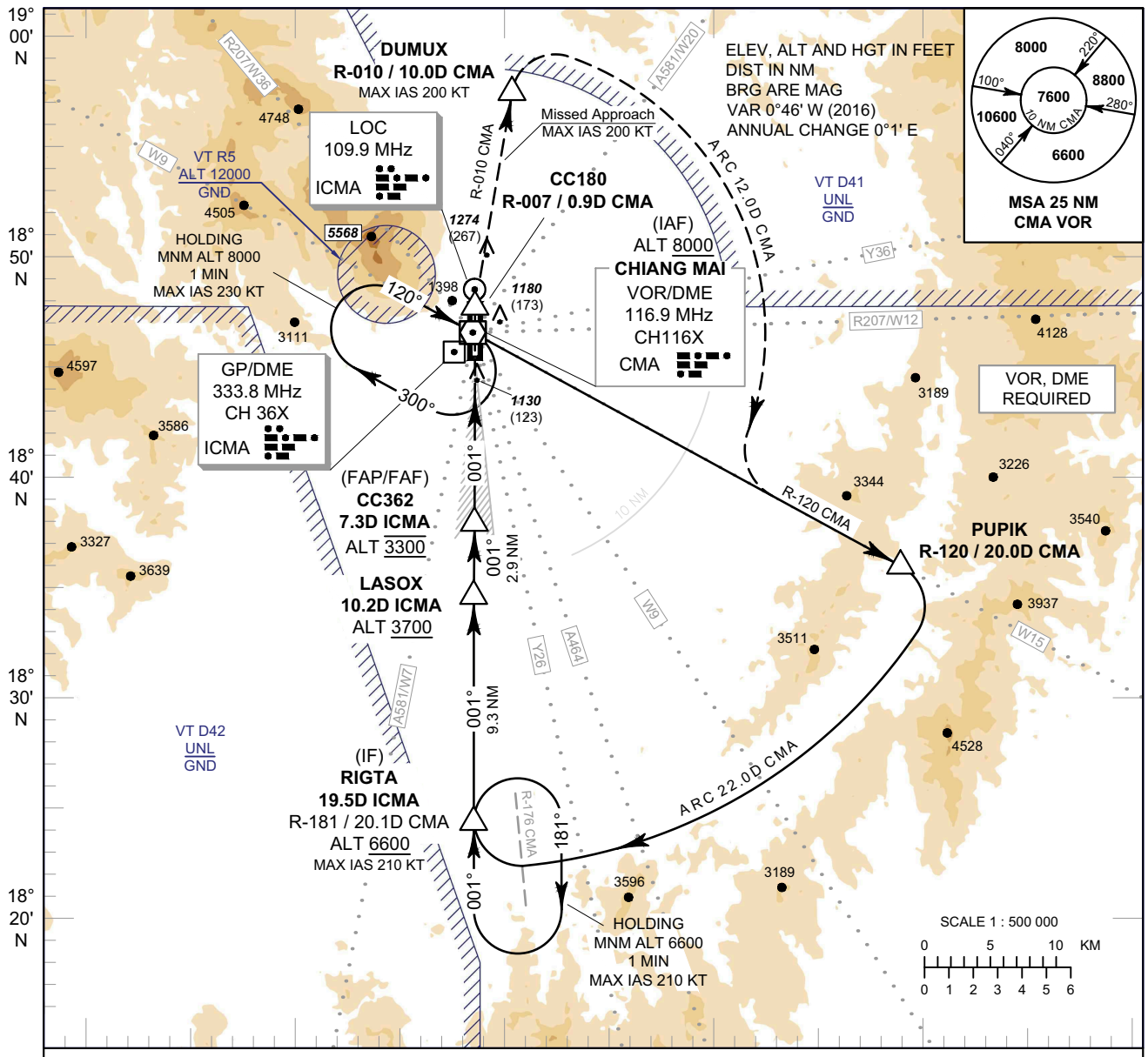
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

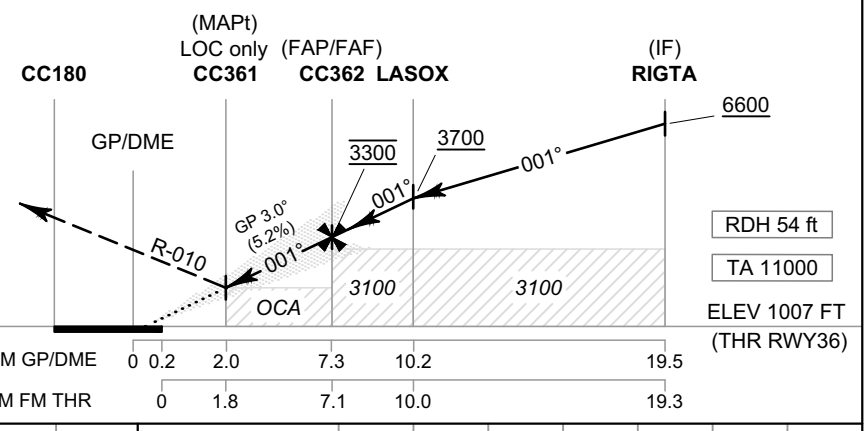
APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**ILS or LOC y RWY36**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb straight ahead to CC180,
then turn right to intercept outbound
R-010 CMA VOR to DUMUX,
then follow ARC 12.0D CMA VOR until
intercept outbound R-120 CMA VOR and
proceed to PUPIK,
then follow ARC 22.0D CMA VOR to RIGTA
at minimum 6600 FT and hold or
as directed by ATC.




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 1420 (413) | | | |
| LOC only | | 1630 (623) | | | |
| Circling* (OCH AAL) | | 2030 (994) | | 2220 (1184) | 2420 (1384) |

* FOR CIRCLING RESTRICTION SEE VERSO

| Distance (ICMA) | 2.0 D | 3 D | 4 D | 5 D | 6 D | 7 D | FAF |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 1630 (623) | 1945 (938) | 2260 (1253) | 2575 (1568) | 2895 (1888) | 3210 (2203) | 3300 (2293) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

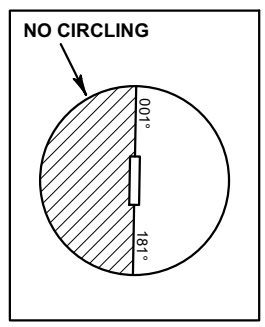
**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**ILS or LOC y RWY36**

CHANGE: LOC, GP/DME AND VOR COORDINATES.

| Fix / Point | | Coordinates | | Pronunciation |
|---|---|---|---|---|
| PUPIK | R-120 / 20.0D CMA | 18° 36' 00.66" N | 099° 15' 58.06" E | PU - PICK |
| (IF)<br>RIGTA | 19.5D ICMA | 18° 25' 47.35" N | 098° 57' 43.27" E | RIG - TAH |
| LASOX | 10.2D ICMA | 18° 35' 05.97" N | 098° 57' 44.70" E | LA - SOX |
| (FAP/FAF)<br>CC362 | 7.3D ICMA | 18° 38' 03.29" N | 098° 57' 45.16" E | - |
| (MAPt)<br>CC361 | 2.0D ICMA | 18° 43' 22.53" N | 098° 57' 45.98" E | - |
| CC180 | R-007 / 0.9D CMA | 18° 46' 51.81" N | 098° 57' 46.51" E | - |
| DUMUX | R-010 / 10.0D CMA | 18° 55' 52.56" N | 098° 59' 22.08" E | DU - MUX |
| LOC | ICMA | 18° 47' 07.39" N | 098° 57' 46.57" E | - |
| GP/DME | ICMA | 18° 45' 21.61" N | 098° 57' 42.19" E | - |
| (IAF)<br>VOR | CMA | 18° 45' 58.05" N | 098° 57' 40.40" E | - |



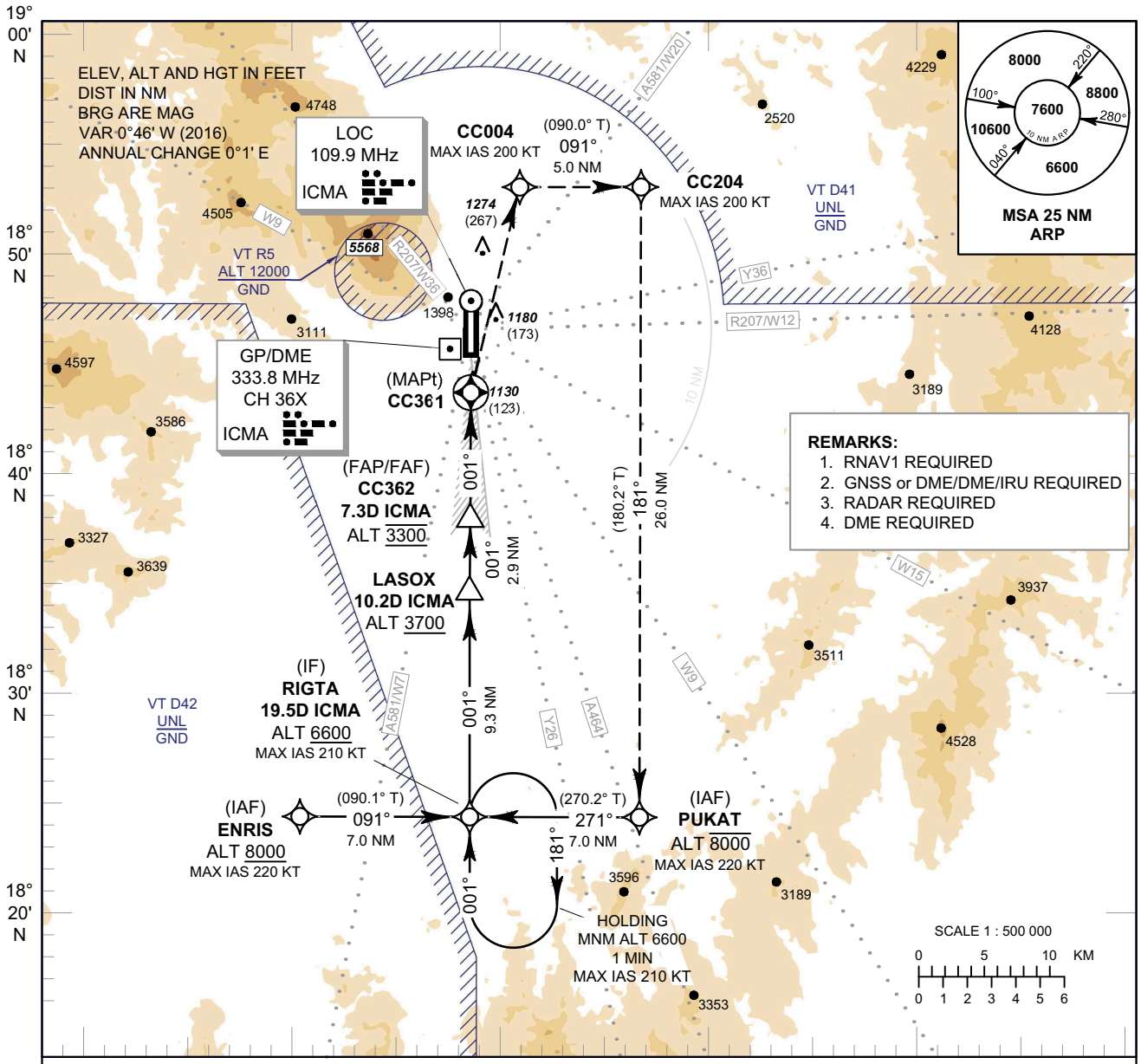
**INSTRUMENT APPROACH CHART - ICAO**

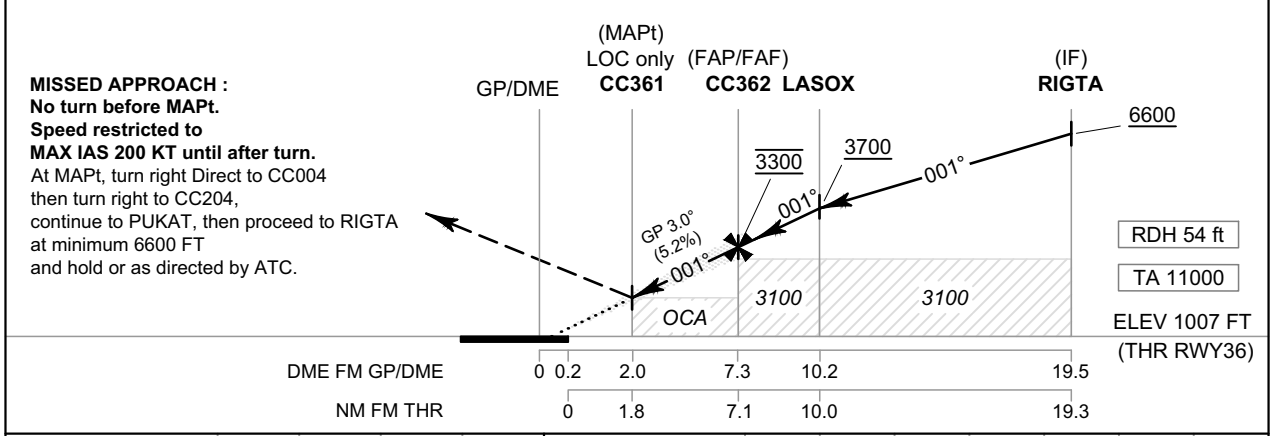
**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**ILS or LOC z RWY36**




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 1420 (413) | | | |
| LOC only | | 1630 (623) | | | |
| Circling* (OCH AAL) | | 2030 (994) | | 2220 (1184) | 2420 (1384) |

* FOR CIRCLING RESTRICTION SEE VERSO

| Distance (ICMA) | 2 D | 3 D | 4 D | 5 D | 6 D | 7 D | FAF |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 1630 (623) | 1940 (933) | 2260 (1253) | 2575 (1568) | 2890 (1883) | 3205 (2198) | 3300 (2293) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED.
PROFILE VIEW.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**ILS or LOC z RWY36**

CHANGE: REVISED TABULAR DESCRIPTION.

**TABULAR DESCRIPTION**

| ILS or LOC z RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IAF) ENRIS | - | - | +0.6 | - | - | +8000 | -220 | - | RNAV 1 |
| 020 | TF | (IF) RIGTA | - | 091° (090.1°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PUKAT | - | - | +0.6 | - | - | -8000 | -220 | - | RNAV 1 |
| 020 | TF | (IF) RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) RIGTA | - | - | +0.6 | - | - | +6600 | -210 | - | RNAV 1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | LASOX | - | 001° (000.1°) | +0.6 | 9.3 | - | +3700 | - | - | ILS |
| 030 | TF | (FAP/FAF) CC362 | - | 001° (000.1°) | +0.6 | 2.9 | - | @3300 | - | - | ILS |
| 040 | CF | (MAPt) CC361 | Y | 001° (000.1°) | +0.6 | 5.3 | - | @1630 | - | -3.0/54 | ILS |
| 050 | DF | CC004 | - | - | +0.6 | - | R | - | -200 | - | RNAV 1 |
| 060 | TF | CC204 | - | 091° (090.0°) | +0.6 | 5.0 | - | - | -200 | - | RNAV 1 |
| 070 | TF | (IAF) PUKAT | - | 181° (180.2°) | +0.6 | 26.0 | - | -8000 | -220 | - | RNAV 1 |
| 080 | TF | (IF) RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNAV 1 |
| 090 | HM | (IF) RIGTA | Y | 001° (000.1°) | +0.6 | 1 minute | R | +6600 | -210 | - | RNAV 1 |

**WAYPOINT LIST**

| ILS or LOC z RWY36 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | Pronunciation |
| CC004 | 18° 51' 51.73" N 098° 59' 53.79" E | - |
| CC204 | 18° 51' 51.83" N 099° 05' 10.14" E | - |
| CC361 | 18° 43' 22.53" N 098° 57' 45.98" E | - |
| CC362 | 18° 38' 03.29" N 098° 57' 45.16" E | - |
| ENRIS | 18° 25' 48.24" N 098° 50' 21.51" E | EN - RIS |
| LASOX | 18° 35' 05.97" N 098° 57' 44.70" E | LA - SOX |
| PUKAT | 18° 25' 46.17" N 099° 05' 05.03" E | PU - KAT |
| RIGTA | 18° 25' 47.35" N 098° 57' 43.27" E | RIG - TA |

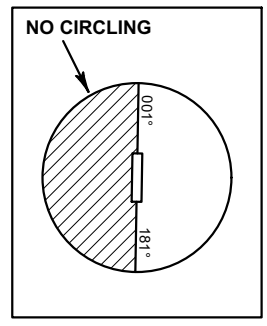
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**ILS or LOC z RWY36**

| Fix / Point | | Coordinates | | Pronunciation |
|---|---|---|---|---|
| (IF)<br>RIGTA | 19.5D ICMA | 18° 25' 47.35" N | 098° 57' 43.27" E | RIG - TAH |
| LASOX | 10.2D ICMA | 18° 35' 05.97" N | 098° 57' 44.70" E | LA - SOX |
| (FAP/FAF)<br>CC362 | 7.3D ICMA | 18° 38' 03.29" N | 098° 57' 45.16" E | - |
| (MAPt)<br>CC361 | 2.0D ICMA | 18° 43' 22.53" N | 098° 57' 45.98" E | - |
| LOC | ICMA | 18° 47' 07.39" N | 098° 57' 46.57" E | - |
| GP/DME | ICMA | 18° 45' 21.61" N | 098° 57' 42.19" E | - |




CHANGE: LOC AND GP/DME COORDINATES.

**INTENTIONALLY BLANK**

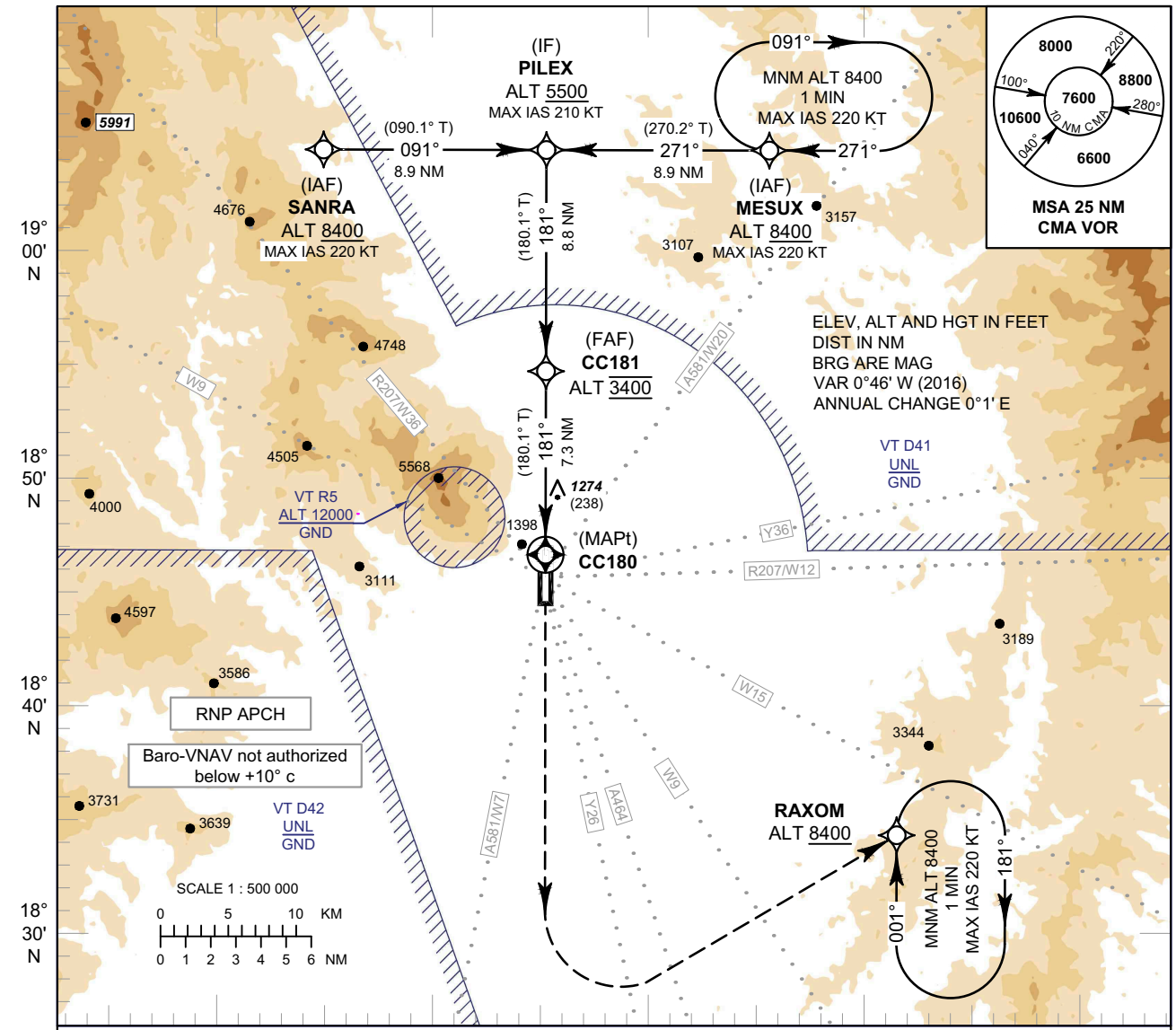
**INSTRUMENT APPROACH CHART - ICAO**

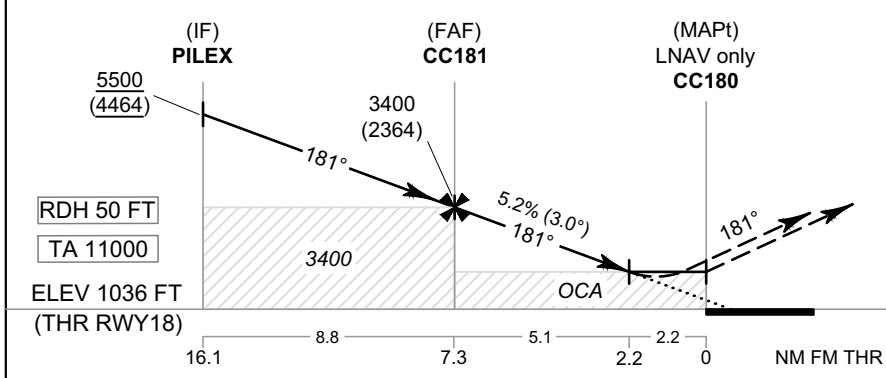
**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 1036 FT

APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai (VTCC)**

**RNP RWY18**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb on track 181° to 5000 FT, then turn left direct to RAXOM at minimum 8400 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV / VNAV | 1560 (524) | | | |
| LNAV | 1780 (744) | | | |
| Circling (OCH AAL) | 2030 (994) | | 2220 (1184) | 2420 (1384) |

* FOR CIRCLING RESTRICTION SEE VERSO

| NM to NEXT WPT | FAF | 7 NM | 6 NM | 5 NM | 4 NM | 3 NM | 2.2 NM |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 3400 (2364) | 3300 (2264) | 2980 (1944) | 2665 (1629) | 2350 (1314) | 2035 (999) | 1780 (744) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 1036 FT

**CHIANG MAI / Chiang Mai (VTCC)**

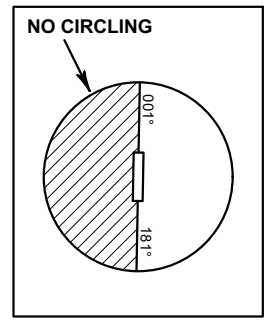
**RNP RWY18**

**TABULAR DESCRIPTION**

| RNP RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | TF | (IAF) SANRA | - | - | +0.6 | - | - | +8400 | -220 | - | RNP APCH |
| 020 | TF | (IF) PILEX | - | 091° (090.1°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) MESUX | - | - | +0.6 | - | - | +8400 | -220 | - | RNP APCH |
| 020 | TF | (IF) PILEX | - | 271° (270.2°) | +0.6 | 8.9 | - | +5500 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) PILEX | - | - | +0.6 | - | - | +5500 | - | - | RNP APCH |
| 020 | TF | (FAF) CC181 | - | 181° (180.1°) | +0.6 | 8.8 | - | @3400 | - | - | RNP APCH |
| 030 | TF | (MAPt @ THR18) CC180 | Y | 181° (180.1°) | +0.6 | 7.3 | - | @1086 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 181° (180.1°) | +0.6 | - | - | +5000 | -200 | - | RNP APCH |
| 050 | DF | RAXOM | - | - | +0.6 | - | L | +8400 | -200 | - | RNP APCH |
| 060 | HM | RAXOM | Y | 001° (000.1°) | +0.6 | 1 minute | R | +8400 | -220 | - | RNP APCH |

**WAYPOINT LIST**

| RNP RWY18 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | Pronunciation |
| CC180 | 18° 46' 51.81" N 098° 57' 46.51" E | - |
| CC181 | 18° 54' 11.51" N 098° 57' 47.60" E | - |
| MESUX | 19° 03' 00.48" N 099° 07' 10.64" E | ME - SUX |
| PILEX | 19° 03' 01.98" N 098° 57' 48.92" E | PE - LEX |
| RAXOM | 18° 35' 39.00" N 099° 12' 29.22" E | RAH - SOM |
| SANRA | 19° 03' 03.01" N 098° 48' 27.19" E | SAN - RAH |




CHANGE: REVISED TABULAR DESCRIPTION.

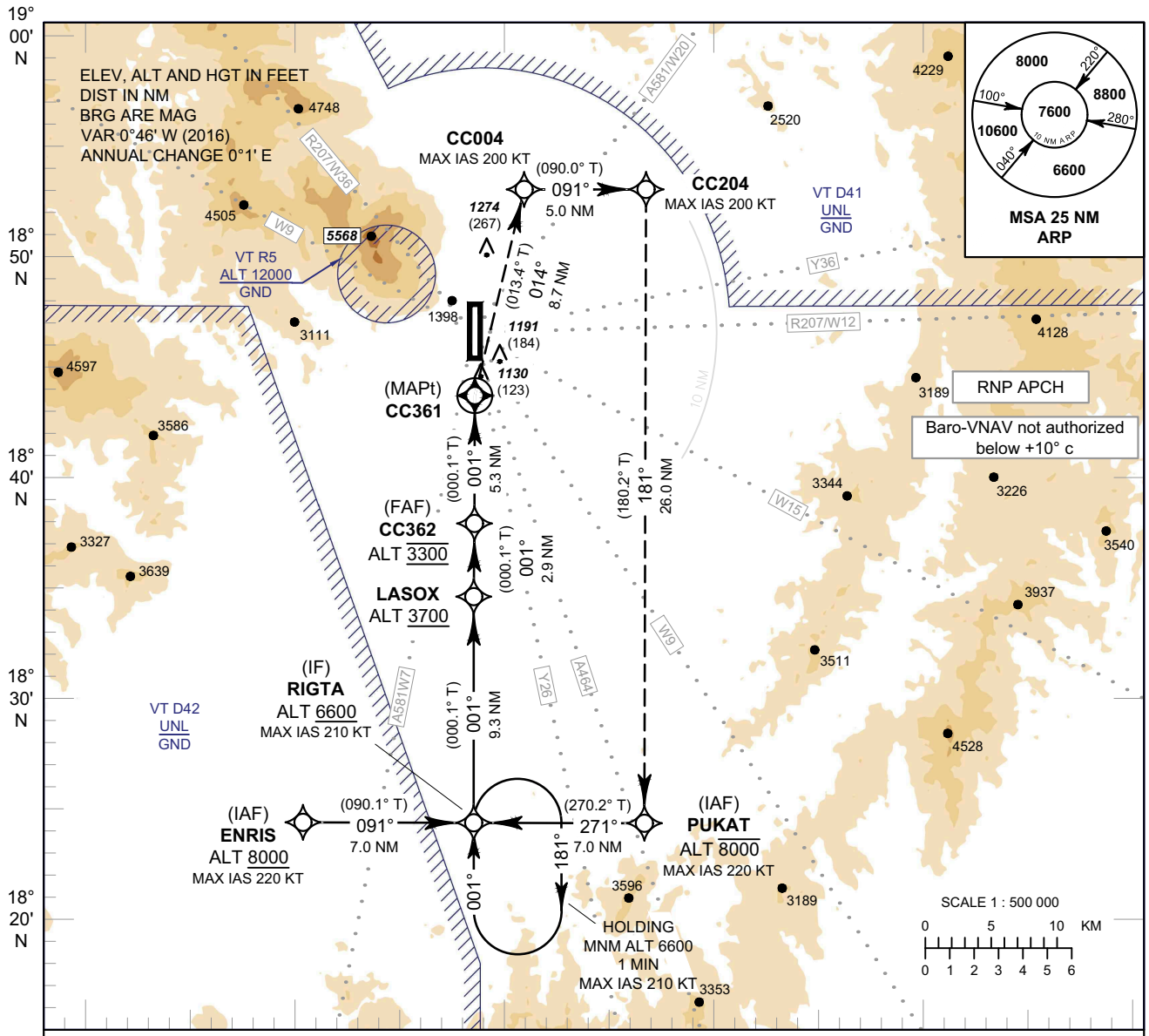
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

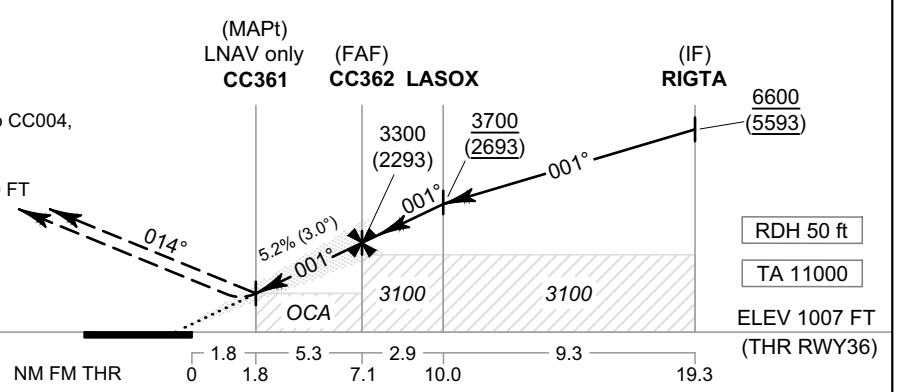
APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

**CHIANG MAI / Chiang Mai Intl (VTCC)**

**RNP RWY36**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
At MAPt, turn right Climb on track 014° to CC004,
then turn right to CC204,
continue to PUKAT,
then proceed to RIGTA at minimum 6600 FT
and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV / VNAV | 1500 (493) | | | |
| LNAV | 1630 (623) | | | |
| Circling* (OCH AAL) | 2030 (994) | | 2220 (1184) | 2420 (1384) |

* FOR CIRCLING RESTRICTION SEE VERSO

| NM to NEXT WPT | 1.8 NM | 2 NM | 3 NM | 4 NM | 5 NM | 6 NM | FAF |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 1630 (623) | 1690 (683) | 2005 (998) | 2320 (1313) | 2635 (1628) | 2955 (1948) | 3300 (2293) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CANCEL Y6 AND W16. A581/W7, Y26 AND Y36 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1036 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

**CHIANG MAI / Chiang Mai Intl (VTCC)**

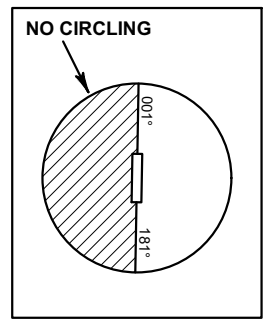
**RNP RWY36**

**TABULAR DESCRIPTION**

| RNP RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IAF) ENRIS | - | - | +0.6 | - | - | +8000 | -220 | - | RNP ARCH |
| 020 | TF | (IF) RIGTA | - | 091° (090.1°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNP ARCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PUKAT | - | - | +0.6 | - | - | -8000 | -220 | - | RNP ARCH |
| 020 | TF | (IF) RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNP ARCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) RIGTA | - | - | +0.6 | - | - | +6600 | -210 | - | RNP ARCH |
| 020 | TF | LASOX | - | 001° (000.1°) | +0.6 | 9.3 | - | +3700 | - | - | RNP ARCH |
| 030 | TF | (FAP/FAF) CC362 | - | 001° (000.1°) | +0.6 | 2.9 | - | @3300 | - | - | RNP ARCH |
| 040 | TF | (MAPt) CC361 | Y | 001° (000.1°) | +0.6 | 5.3 | - | @1630 | - | -3.0/50 | RNP ARCH |
| 050 | TF | CC004 | - | 014° (013.4°) | +0.6 | 8.7 | - | - | -200 | - | RNP ARCH |
| 060 | TF | CC204 | - | 091° (090.0°) | +0.6 | 5.0 | - | - | -200 | - | RNP ARCH |
| 070 | TF | (IAF) PUKAT | - | 181° (180.2°) | +0.6 | 26.0 | - | -8000 | -220 | - | RNP ARCH |
| 080 | TF | (IF) RIGTA | - | 271° (270.2°) | +0.6 | 7.0 | - | +6600 | -210 | - | RNP ARCH |
| 090 | HM | (IF) RIGTA | Y | 001° (000.1°) | +0.6 | 1 minute | R | +6600 | -210 | - | RNP ARCH |

**WAYPOINT LIST**

| RNP RWY36 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | Pronunciation |
| CC004 | 18° 51' 51.73" N 098° 59' 53.79" E | - |
| CC204 | 18° 51' 51.83" N 099° 05' 10.14" E | - |
| CC361 | 18° 43' 22.53" N 098° 57' 45.98" E | - |
| CC362 | 18° 38' 03.29" N 098° 57' 45.16" E | - |
| ENRIS | 18° 25' 48.24" N 098° 50' 21.51" E | EN - RIS |
| LASOX | 18° 35' 05.97" N 098° 57' 44.70" E | LA - SOX |
| PUKAT | 18° 25' 46.17" N 099° 05' 05.03" E | PU - KAT |
| RIGTA | 18° 25' 47.35" N 098° 57' 43.27" E | RIG - TAH |




CHANGE: REVISED TABULAR DESCRIPTION.

## VTCT AD 2.1 AERODROME LOCATION INDICATOR AND NAME

**VTCT - CHIANG RAI / Mae Fah Luang-CHIANG RAI INTERNATIONAL AIRPORT**

## VTCT AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 195708.46N 0995258.64E<br>Centre Line of RWY, 1500 M from THR RWY21 |
| 2 | Direction and distance from (city) | 9 KM, NE from city |
| 3 | Elevation/Reference temperature | 390.23 M (1280 FT) / 35.8°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0°51'W (2016)/ 0°0'E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Mae Fah Luang-Chiang Rai International Airport<br>Mae Fah Luang-Chiang Rai International Airport<br>404 Chiang Rai-Maechan Road<br>Rimkok-Baan Doo Sub-District<br>Amphoe Mueang<br>Chiang Rai 57100<br>Thailand<br>Tel: +665 379 8000<br>+665 379 8999<br>Fax: +665 379 8049<br>AFS: VTCTYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Airports of Thailand Public Company Limited (AOT) |

## VTCT AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | H24 |
| 2 | Customs and immigration | Customs: 0130-0930 or available on request<br>Immigration: Available with AD hours |
| 3 | Health and sanitation | Available on request |
| 4 | AIS Briefing Office | 2300-1400 |
| 5 | ATS Reporting Office (ARO) | H24 |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | 2300 – 1430, Other than this period 1 HR PN to ATC |
| 8 | Fuelling | H24 |
| 9 | Handling | Available with AD hours |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO): Located at Chiang Mai Air Traffic Control Center (1st floor of tower building)<br>Tel: +669 1818 5798<br>Fax:+66 5327 7897 |

## VTCT AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | Thai Airways International Public Co.,Ltd. (TG)<br>Website: www.thaicargo.com<br>E-mail: ceifw@thaiairways.com<br>xbd3chiangraistation@thaiairways.com<br>Tel: +665 379 8242<br>+665 379 8243<br>2 Hand pallet trucks<br>Handling weights up to 8 T per day. |
| 2 | Fuel/oil types | JET A-1 |
| 3 | Fuelling facilities/capacity | PTT Oil and Retail Business Public Company Limited<br>Website: www.pttor.com/en/product/commercial/Aviation-Fuel<br>Tel: +665 379 3700<br>Fax: +665 379 3701<br>Fuel Refueller Truck: 2<br>- 1 Capacity: 22,000 L<br>- 1 Capacity: 22,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | Not available |
| 6 | Repair facilities for visiting aircraft | Not available |
| 7 | Remarks | The Airport has provided ground handling agents as following:<br>a. BAGS Ground Services Co.,Ltd.<br>Website: www.bags-groundservices.com<br>E-mail: cei-stationmanager@bags-groundservices.com<br>Tel: +669 5524 4914<br>+669 3575 1133<br>b. Chiang Mai Ground Handling Services Co.,Ltd.<br>E-mail: ground.cgs@yahoo.com<br>Tel: +668 3914 6495<br>+668 0495 9391<br>c. H.S. Aviation Co.,Ltd.<br>Website: www.hsavia.aero<br>E-mail: ops@hsavia.aero<br>Tel: +668 1901 2070<br>+668 1916 6294<br>Fax: +662 531 0509<br>d. Thai Airways International Public Co.,Ltd. (TG)<br>Website: www.thaigroundservices.com<br>E-mail: ceikk@thaiairways.com<br>ceikloffice@thaiairways.com<br>Tel: +665 379 8212<br>+668 9555 2901<br>+665 379 8205<br>Fax: +665 379 3060 |

## VTCT AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | Available at the AD and in the city |
| 3 | Transportation | Taxi limousine, Taxi meter, Car rental service and public bus |
| 4 | Medical facilities | First aid at AD and hospitals in the city |
| 5 | Bank and Post Office | In the city / At AD<br>Bank open: 0200-1300<br>Post Office open: 0130-1400 |
| 6 | Tourist Office | In the city |
| 7 | Remarks | NIL |

## VTCT AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 9 |
| 2 | Rescue equipment | Adequately provided as recommended by ICAO |
| 3 | Capability for removal of disabled aircraft | Available up to B747 |
| 4 | Remarks | The registered owner or aircraft operator will always retain complete responsibilities for the removal of disabled aircraft. |

## VTCT AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTCT AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Apron Aircraft Stand NR 1-7<br>Surface: Concrete<br>Strength: PCR 1040/R/D/W/T |
| 2 | Taxiway width, surface and strength | TWY A: 27.5 M, Concrete surface, PCR 1500/R/D/W/T<br>TWY B: 30 M, Concrete surface, PCR 1500/R/D/W/T<br>TWY C: 35 M, Concrete surface, PCR 1500/R/D/W/T<br>TWY D: 23 M, Concrete surface, PCR 1500/R/D/W/T<br>TWY P: 23 M, Concrete surface, PCR 1500/R/D/W/T |
| 3 | Altimeter checkpoint location and elevation | Location: At Apron<br>Elevation: 388.55 M (1274 FT) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | Aircraft stand NR 6-7 are allowed to be used from sunrise to sunset only. |

## VTCT AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | 1. Taxiway center line is painted in yellow.<br>2. Taxiway Edge is provided<br>3. Illuminated guidance signs are provided at various intersections<br>4. Intermediate holding positions are provided on Taxiway P (At the intersections with Taxiway A, B, C and D), Taxiway B and Taxiway D (At the intersections with Taxiway P).<br>5. Nose-Wheel guidelines at apron.<br>6. Visual Docking Guidance System at aircraft stand number 3 and 4. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, Centre line, Aiming Point and Side Strip<br>RWY LGT: THR, RWY EDGE and RWY End lights<br>TWY marking: Centre line, Edge and RWY Holding Position<br>TWY LGT: TWY EDGE lights |
| 3 | Stop bars | Stop bars are installed at Taxiway A, B and C. It is controlled individually by ATC. |
| 4 | Other runway protection measures | 1. Runway Guard Lights are installed on either side of Taxiways A, B, and C at 90 M off the runway centerline.<br>2. The use of an Intermediate holding position on TWY B is allowed only for aircraft sizes up to Code Letter D. |
| 5 | Remarks | See AIP Page AD 2-VTCT-2-2 |

## VTCT AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTCT AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station - Chiang Rai,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>30 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 379 3062-3, +665 379 3698-9<br>Fax: +665 379 3061 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS),<br>Low Level Windshear Alert System (LLWAS) and Weather Radar |
| 9 | ATS units provided with information | Chiang Rai TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTCT AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 03 | 030° | 3000x45 | PCR 1000/F/A/X/T Asphalt | 195625.74N 0995233.61E | 390.23 M (1280 FT AMSL) |
| 21 | 210° | 3000x45 | PCR 1000/F/A/X/T Asphalt | 195751.09N 0995323.63E | 388.77 M (1275 FT AMSL) |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| -0.05% | NIL | NIL | 3120x300 | 240x150 | NIL | YES | The Runway blast pad are provided beyond both Runway end; the width is 60 M and the length is 120 M. each. |
| 0.05% | NIL | NIL | 3120x300 | 300x150 | NIL | NIL | |

## VTCT AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 03 | 3000 | 3000 | 3000 | 3000 | NIL |
| 21 | 3000 | 3000 | 3000 | 3000 | NIL |

## VTCT AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 03 | CAT1<br>900 M<br>LIH | Green | PAPI 3°<br>Located either side of RWY, 420 M behind RWY THR (63.9 FT) | NIL | NIL | 3000 M<br>60 M<br>White<br>Last 600 M<br>60 M<br>Amber<br>LIH | Red | NIL | NIL |
| 21 | SALS<br>420 M<br>LIH | Green | PAPI 3°<br>Located either side of RWY, 377 M behind RWY THR (59.2 FT) | NIL | NIL | 3000 M<br>60 M<br>White<br>Last 600 M<br>60 M<br>Amber<br>LIH | Red | NIL | NIL |

## VTCT AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Buidling, FLG WG EV 3 SEC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | 2WDIs at 300 M from THR 03 offset to the left side 120 M from RWY centre line, at 450 M from THR 21 offset to the left side 105 M from RWY centre line. All are illuminated. |
| 3 | TWY edge and centre line lighting | EDGE: All TWY |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at AD.<br>Switch-over time 12 SEC. |
| 5 | Remarks | NIL |

## VTCT AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Helicopters using active runway to take off and land as instructed by ATC. See AD 2-VTCT-1-11 for the Helicopter Operation. |

## VTCT AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on CTR DVOR/DME (195653.65N 0995300.12E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |

| | | |
|---|---|---|
| 4 | ATS unit call sign<br>Language(s) | Chiang Rai Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTCT AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Chiang Rai Approach | 120.05 MHZ<br>257.8 MHZ<br>121.5 MHZ [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Chiang Rai Tower | 118.4 MHZ<br>236.6 MHZ<br>121.5 MHZ [1)] | As AD OPR HR | |
| ATIS | Chiang Rai Intl Airport | 127.85 MHZ | As AD OPR HR | |

## VTCT AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | CT | 277 KHZ | H24 | 195735.1N 0995259.1E | | The coverage clockwise orbit data refer to commissioning due to mountainous terrain and border limit as follows:<br>1. 25 NM<br>– Bearing 001º-140º at altitude 5 500 FT<br>– Bearing 281º-360º at altitude 7 500 FT<br>2. 40 NM<br>– Bearing 141°-180° at altitude 6 000 FT<br>– Bearing 181°-280° at altitude 7 500 FT |
| DVOR/DME | CTR | 116.5 MHZ CH 112X | H24 | 195655.9N 0995259.3E | | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal at the required altitude in various areas as follows:<br>1. 40 NM<br>– Radial 141º-180º altitude should not below 5 000 FT<br>– Radial 181º-210º altitude should not below 7 500 FT<br>– Radial 211º-255º altitude should not below 9 000 FT<br>– Radial 256º-265º altitude should not below 10 000 FT<br>– Radial 266º-270º altitude should not below 9 000 FT<br>2. 20 NM (Due to border limited)<br>– Radial 271º-340º altitude should not below 6 500 FT<br>– Radial 341º-140º altitude should not below 5 000 FT |

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| ILS CAT I LOC/ DME RWY03 | ICTR | 109.5 MHZ CH 32X | H24 | 195759.50N 0995328.50E | | a) Instrument Landing System (ILS) coverage over a sector of 35 either side of the runway centre line, no back course. The antenna array is located on the extended runway centre line at the distance of 300 M from the threshold of RWY 21, height of the array is 2 M<br>b) Glide Path 3º.<br>c) DME co - located with localizer, power output 100 watts omnidirectional. |
| GP | | 332.6 MHZ | H24 | 195632.60N 0995242.60E | | |

## VTCT AD 2.20 LOCAL AERODROME REGULATIONS

**1. 180 degrees turn on the runway**

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, aircraft code letter C or higher shall make a 180 degrees turn at the runway turn pads located on both end of runway. Any breach done by the aircraft operator shall be recorded and reported to the The Civil Aviation Authority Of Thailand/ the Headquarters of that operator and shall be liable for the compensation caused by such violation.

**2. APRON MANAGEMENT**

2.1 In case of B737-800 parked at aircraft stand NR 2, aircrafts code E are not allowed to taxi behind this stand.

2.2 In case of B747-400 parked at aircraft stand NR 2, aircrafts code C,D,E are not allowed to taxi behind this stand.

2.3 In case of A300-600 parked at aircraft stand NR 2, aircrafts code D with wing span exceed 45 M. and code E are not allowed to taxi behind this stand.

2.4 In case of B747-400 parked at aircraft stand NR 3, aircrafts code C with wing span exceed 30 M. and code D, E are not allowed to taxi behind this stand.

2.5 In case of B777-300 parked at aircraft stand NR 3, aircrafts code C, D, E are not allowed to taxi behind this stand.

2.6 Aircraft stand NR 6 and NR 7 are allowed to be used from sunrise to sunset only.

**3. OPERATION OF ALL NON-SCHEDULED FLIGHT AT MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT**

3.1 All aircraft wishing to operate at Mae Fah Luang-Chiang Rai International Airport shall adhere to the following procedures;

3.1.1 All flights, including flight selecting Mae Fah Luang-Chiang Rai International Airport as an alternate aerodrome, shall have handling agent at Mae Fah Luang-Chiang Rai International Airport.

3.1.2 Nose-in parking is applicable to all aircraft.

3.1.3 All aircraft ready to taxi out shall prepare their own tow bars.

**4. LOW VISIBILITY PROCEDURES (LVP)**

4.1 RWY 03 is equipped with ILS and is approved for CAT I operations.

4.2 Low visibility procedures will be activated when visibility is less than RVR 800 M, and all ground operators shall strictly follow.

4.3 Airport's low visibility procedures will be enforced based on 4 Phases of Low Visibility Conditions (LVC) as follows:

4.3.1 LVC Warning Phase

4.3.1.1 LVC Warning will be activated when RVR is less than 800 M but not less than 550 M.

4.3.1.2 All ground operators will be informed by voice announcement at the sorting area or by Follow-me vehicle broadcasting.

4.3.1.3 Vehicles shall leave taxiways or the runway immediately, and no vehicles are allowed to enter taxiways or the runway.

4.3.1.4 Vehicles wishing to operate on a service road and aprons shall maintain a speed of not more than 20 KM/HR and vehicles operating in the sorting area shall maintain a speed of not more than 10 KM/HR. All vehicles shall be ascertained that their headlamps and obstacle lights are turned on throughout the whole area of operations.

4.3.1.5 During LVC Warning Phase, aircraft towing will be restricted unless receiving permission from ATC and shall strictly follow Follow-me vehicle guidance.

4.3.2 LVC Phase A

4.3.2.1 LVC Phase A will be activated when RVR is less than 550 M but not less than 350 M.

4.3.2.2 All ground operators will be informed by both flashing-orange lights; in front of the parking stands and control post 1, and voice announcements at the sorting area or Follow-me broadcasting.

4.3.2.3 Vehicles shall leave taxiways or the runway immediately, and no vehicles are allowed to enter taxiways or the runway.

4.3.2.4 Vehicles wishing to operate on a service road and aprons shall maintain a speed of not more than 20 KM/HR and vehicles operating in the sorting area shall maintain a speed of not more than 10 KM/HR. All vehicles shall be ascertained that their headlamps and obstacle lights are turned on throughout the whole area of operations.

4.3.2.5 During LVC Phase A, aircraft towing will be restricted unless receiving permission from ATC and shall strictly follow Follow-me vehicle guidance.

4.3.3 LVC Phase B

4.3.3.1 LVC Phase B will be activated when RVR is less than 350 M but not less than 200 M.

4.3.3.2 All ground operators will be informed by both flashing-white lights; in front of the parking stands and control post 1, and voice announcements at the sorting area or Follow-me broadcasting.

4.3.3.3 Vehicles shall leave taxiways or the runway immediately, and no vehicles are allowed to enter taxiways or the runway.

4.3.3.4 Vehicles wishing to operate on a service road and aprons shall maintain a speed of not more than 20 KM/HR and vehicles operating in the sorting area shall maintain a speed of not more than 10 KM/HR. All vehicles shall be ascertained that their headlamps and obstacle lights are turned on throughout the whole area of operations.

4.3.3.5 During LVC Phase B, aircraft towing will be restricted unless receiving permission from ATC and shall strictly follow Follow-me vehicle guidance.

4.3.4 LVC Phase C

4.3.4.1 LVC Phase C will be activated when RVR is less than 200 M.

4.3.4.2 All ground operators will be informed by both flashing-white lights; in front of the parking stands and control post 1, and voice announcements at the sorting area or Follow-me broadcasting.

4.3.4.3 All ground operations will be restricted except for an aircraft taxiing to the parking stand, which shall continue taxiing by following the marshaller until completely stopped.

4.3.4.4 Embarkation and disembarkation of passengers will be prohibited during LVC Phase C.

4.3.4.5 Aircraft fueling will be prohibited during LVC Phase C.

4.3.5 Termination of low visibility procedures

4.3.5.1 Low Visibility Procedures will be terminated when RVR is greater than or equal to 800 M.

4.3.5.2 All ground operators will be informed by voice announcements at the sorting area or by Follow-me broadcasting. All warning lights

are turned off.

4.3.5.3 All ground operators shall resume normal operations.

**5. SELF-MANOEUVRING PROCEDURES**

5.1 Self-manoeuvring may be permitted and is limited by airport authority.

5.2 Air Operator or Handling Agent shall get permission from airport authority before operate.

5.3 Power back are not permitted at any parking stands.

5.4 The following table describes self- manoeuvring procedures for remote stands:

| **Stand 1** | **Max aircraft size: GL5T or aircraft with wingspan not exceeded 29 meters.** |
|---|---|
| Self-manoeuvring Procedure | The Aircraft (at idle power) shall be turned east (facing North) until its nose-wheel reaches the stand taxi-lane centre line. |
| Remark | Self-manoeuvring operation will be available if stand 2 is vacant. |

| **Stand 5** | **Max aircraft size: CRJ2 or aircraft with wingspan not exceeded 22 meters.** |
|---|---|
| Self-manoeuvring Procedure | The Aircraft (at idle power) shall be turned east (facing North or South) until its nose-wheel reaches stand taxi-lane centre line. |
| Remark | 1.In case of facing North: Self-manoeuvring operation will be available if stand 6 is vacant.<br>2.In case of facing South: Self-manoeuvring operation will be available if stand 4 is vacant.<br>3.In case of the aircraft size is bigger than CRJ2 shall be followed aerodrome recommendations. |

| **Stand 6** | **Max aircraft size: CRJ2 or aircraft with wingspan not exceeded 22 meters.** |
|---|---|
| Self-manoeuvring Procedure | The Aircraft (at idle power) shall be turned east (facing North or South) until its nose-wheel reaches the stand taxi-lane centre line. |
| Remark | 1.In case of facing North: Self-manoeuvring operation will be available if stand 7 is vacant.<br>2.In case of facing South: Self-manoeuvring operation will be available if stand 5 is vacant.<br>3.In case of the aircraft size is bigger than CRJ2 shall be followed aerodrome recommendations. |

| **Stand 7** | **Max aircraft size: CRJ2 or aircraft with wingspan not exceeded 22 meters.** |
|---|---|
| Self-manoeuvring Procedure | The Aircraft (at idle power) shall be turned east (facing South) until its nose-wheel reaches stand taxi-lane centre line. |
| Remark | 1.Self-manoeuvring operation will be available if stand 6 is vacant.<br>2.In case of the aircraft size is bigger than CRJ2 shall be followed aerodrome recommendations. |

**6. HELICOPTER OPERATIONS**

6.1 Helicopter to approach using active Runway, take off and land as instructed by ATC.

6.2 Helicopter to use the helipads shall not have a rotor diameter more than 22 meters and MTOW no more than 13,600 KG.

6.3 Inbound operation

6.3.1 After Runway vacated, air-taxi follow taxiway center line then turn left and continue air-taxi until abeam aircraft stand number 1.

6.3.2 Air-taxi heading South until ensure the rotor downwash will not affect to the other parked helicopters (If any), then turn right until abeam assigned helipad. Turn right and land on assigned helipad follow marshaller.

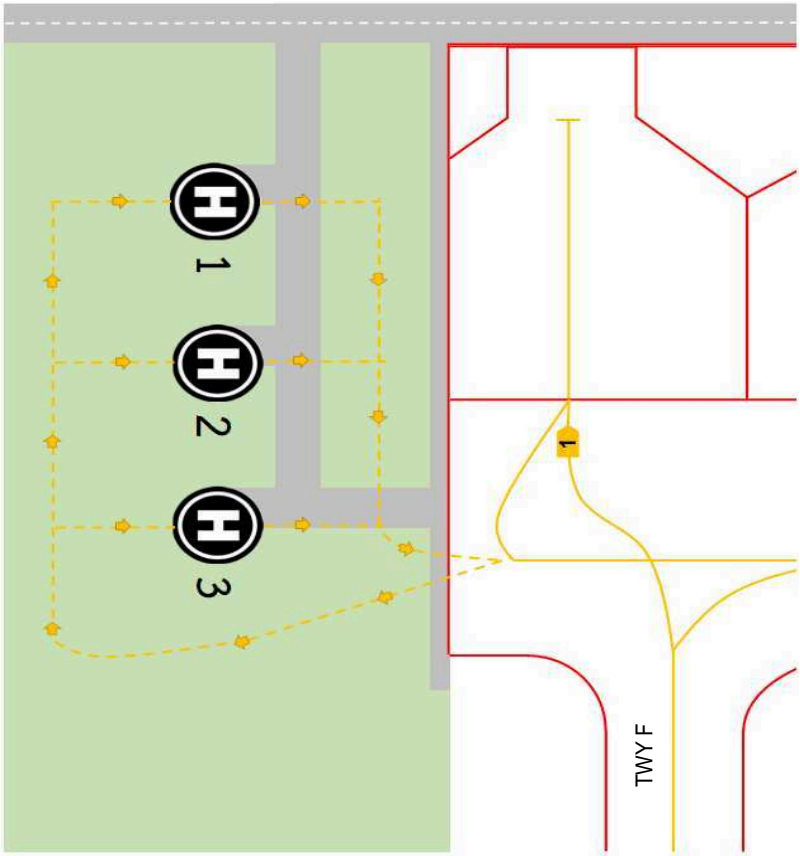
6.4 Outbound operation

6.4.1 When ready to departure contract Chiang Rai Tower on frequency 118.4/236.6 MHZ.

6.4.2 Lift off and hover then move ahead follow marshaller until ensure the rotor downwash will not affect to the other parked helicopters (If any).

6.4.3 Turn right and continue air-taxi until abeam helipad number 3. Turn left into apron and air-taxi follow taxiway center line to active runway.

6.5 Helicopter ground movement pattern shows as below:




**VTCT AD 2.21 NOISE ABATEMENT PROCEDURES**

Between 1500-2259 UTC, departing aircraft shall use runway 03 avoid the residential area, unless it would affect the safety of flight.

**VTCT AD 2.22 FLIGHT PROCEDURES**

**1. IFR DEPARTURES OTHER THAN VIA SID**

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

**2. VISUAL DEPARTURES**

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback.

**3. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 03:

CHIANG RAI OMNI 03 Departure: Required climb gradient 365 ft per NM (6.0%) until 7,000 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 912 | 1216 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 4,000 ft (or altitude assigned by ATC between 4,000 ft - 6,000 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 21:

CHIANG RAI OMNI 21 Departure: Required climb gradient 365 ft per NM (6.0%) until 7,000 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 912 | 1216 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 4,000 ft (or altitude assigned by ATC between 4,000 ft - 6,000 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTCT AD 2.23 ADDITIONAL INFORMATION

### 1. AERODROME CONFUSION

Aircraft landing at Mae Fah Luang-Chiang Rai International Airport (VTCT) shall be aware of another operative aerodrome, Rob Wiang Airport (VTCR) located 5 NM Southwest of Mae Fah Luang-Chiang Rai International Airport (radial 220 from CTR VOR).

## VTCT AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome chart - ICAO | AD 2-VTCT-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTCT-2-3 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTCT-2-5 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 03/21 | AD 2-VTCT-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03 - BENVI1A DUBEN1A NUMDO1A PONUK1A | AD 2-VTCT-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03 - BENVI1A DUBEN1A NUMDO1A PONUK1A (Tabular description) | AD 2-VTCT-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21 - BENVI1B DUBEN1B NUMDO1B PONUK1B | AD 2-VTCT-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21 - BENVI1B DUBEN1B NUMDO1B PONUK1B (Tabular description) | AD 2-VTCT-6-4 |
| Instrument Approach Chart - ICAO - VOR RWY 03 | AD 2-VTCT-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 03 (Fix and point list table) | AD 2-VTCT-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 21 | AD 2-VTCT-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 21 (Fix and point list table) | AD 2-VTCT-8-4 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 03 | AD 2-VTCT-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 03 (Fix and point list table) | AD 2-VTCT-8-6 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 03 | AD 2-VTCT-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 03 (Fix and point list table) | AD 2-VTCT-8-8 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 03 (Tabular description) | AD 2-VTCT-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 03 | AD 2-VTCT-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 03 (Tabular description) | AD 2-VTCT-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 21 | AD 2-VTCT-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 21 (Tabular description) | AD 2-VTCT-8-14 |

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# AERODROME CHART - ICAO

19 57 08.46 N
099 52 58.64 E

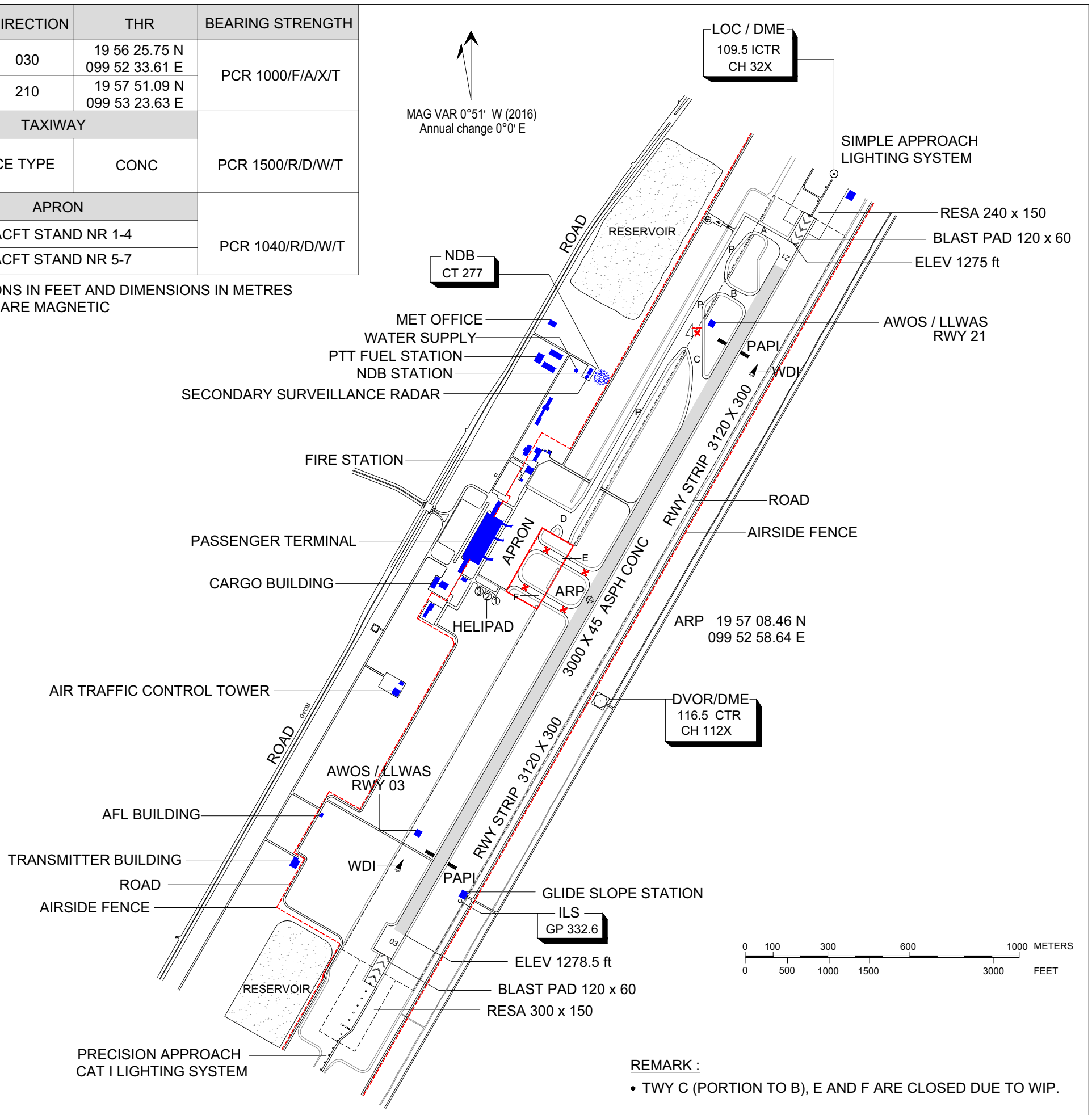
ELEV 1280 ft

TWR 118.4

# CHIANG RAI / MAE FAH
# Luang-Chiang Rai Intl.

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 03 | 030 | 19 56 25.75 N<br>099 52 33.61 E | PCR 1000/F/A/X/T |
| 21 | 210 | 19 57 51.09 N<br>099 53 23.63 E | |
| TAXIWAY | | | PCR 1500/R/D/W/T |
| SURFACE TYPE | CONC | | |
| APRON | | | PCR 1040/R/D/W/T |
| APRON ACFT STAND NR 1-4 | | | |
| APRON ACFT STAND NR 5-7 | | | |

ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC




REMARK :

- TWY C (PORTION TO B), E AND F ARE CLOSED DUE TO WIP.

MARKING AIDS RWY 03/21 AND EXIT TWY




LIGHTING AIDS RWY 03/21 AND EXIT TWY




CHANGE : MM WITHDRAWN.

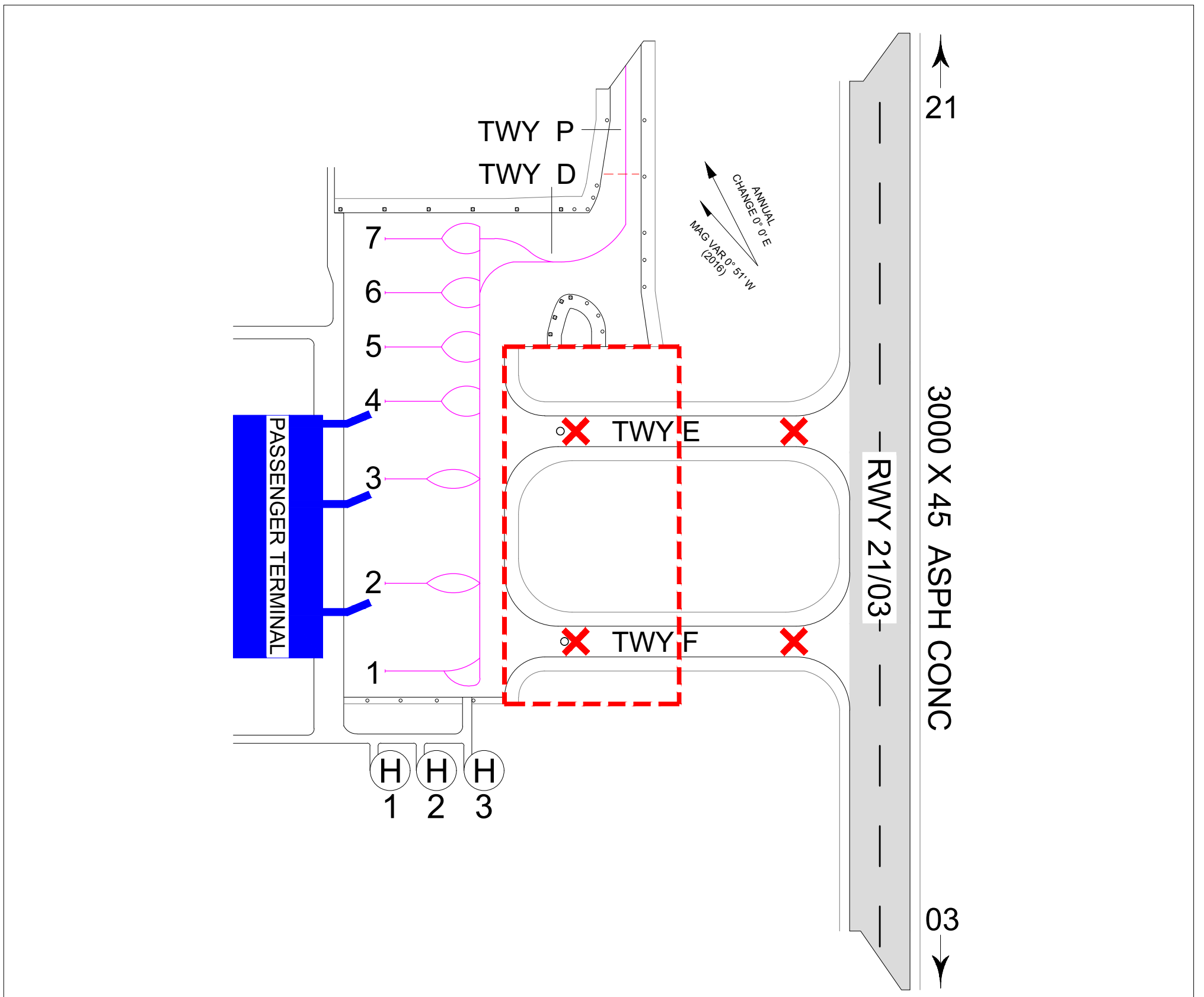
**INTENTIONALLY BLANK**

AIRCRAFT PARKING/
DOCKING CHART - ICAO

APRON ELEV
1274 ft

TWR 118.4

CHIANG RAI / MAE FAH
Luang-Chiang Rai Intl.




REMARK

1. AIRCRAFT STAND NR 2, 3 AND 4 AVAILABLE WITH SINGLE END PASSENGER LOADING BRIDGES
2. APRON ACFT STAND NR 1-4 SURFACE, STRENGTH : CONCRETE , PCR 1040/R/D/W/T
3. APRON ACFT STAND NR 5-7 SURFACE, STRENGTH : CONCRETE , PCR 1040/R/D/W/T
4. VISUAL DOCKING GUIDANCE SYSTEM AVAILABLE AT AIRCRAFT STAND NUMBER 3 AND 4

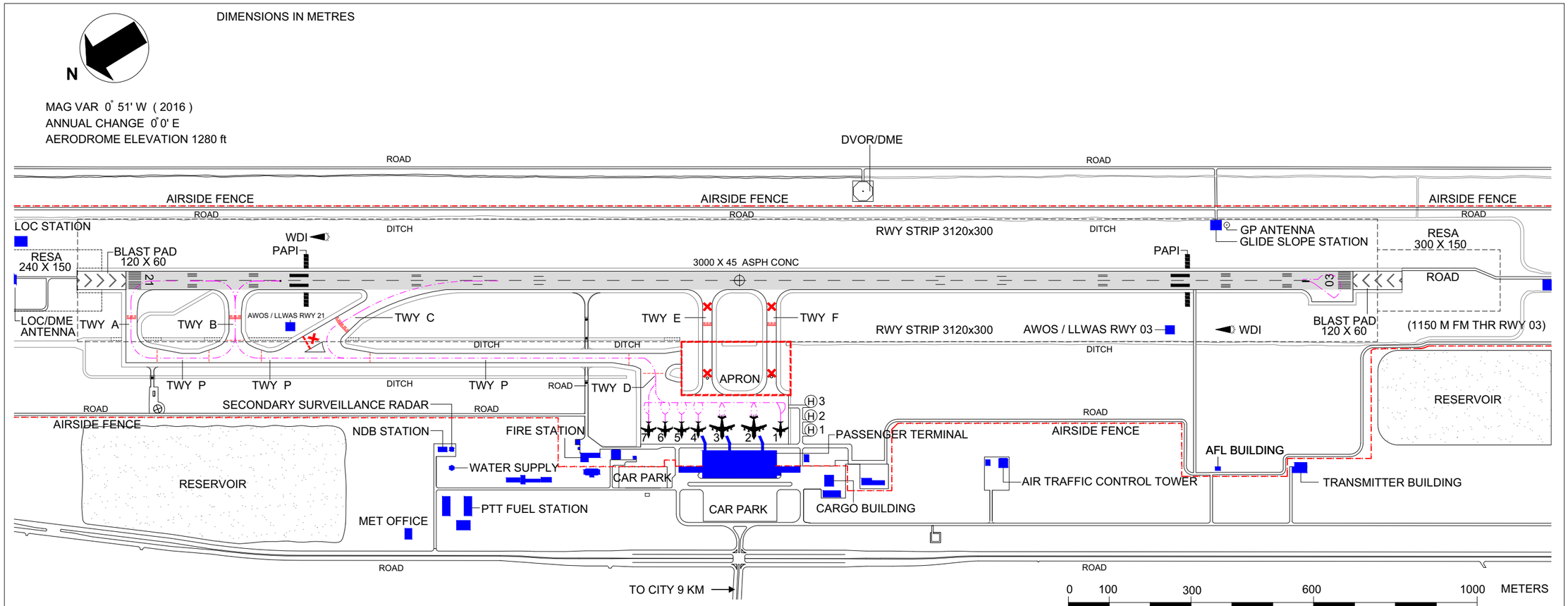
| LEGEND | |
|---|---|
| AIRCRAFT STAND AND IDENTIFICATION | 1 - 7 |
| HELICOPTER STAND AND IDENTIFICATION | H 1-3 |
| TAXI ROUTES | |
| TAXIWAY AND APRON LIGHT | |
| VOR CHECK POINT | |
| RUNWAY HOLDING POSITION | |
| INTERMEDIATE HOLDING POSITION | |
| BUILDING OR LARGE STRUCTURE | |
| CLOSED TAXIWAY | |
| CONSTRUCTION BARRIERS | |

| AIRCRAFT STAND COORDINATES | | | |
|---|---|---|---|
| NR | LAT (N) | LONG (E) | UP TO |
| 1 | 19 57 11.64 N | 99 52 45.34 E | B737 |
| 2 | 19 57 13.42 N | 99 52 46.57 E | B747 |
| 3 | 19 57 15.72 N | 99 52 47.70 E | B747 |
| 4 | 19 57 17.16 N | 99 52 49.09 E | B739 |
| 5 | 19 57 18.53 N | 99 52 49.34 E | A321 |
| 6 | 19 57 19.69 N | 99 52 50.02 E | A321 |
| 7 | 19 57 20.84 N | 99 52 50.69 E | A321 |
| H1 | 19 57 09.44 N | 99 52 44.64 E | |
| H2 | 19 57 08.90 N | 99 52 45.68 E | |
| H3 | 19 57 08.34 N | 99 52 46.76 E | |

CHANGE : TWY D AND TWY P ADDED. FORMER TWY A REVISED NAME AS TWY F AND FORMER TWY B REVISED NAME AS TWY E. PCN CHANGED TO PCR

**INTENTIONALLY BLANK**

# Mae Fah Laung-Chiang Rai International Airport / Aerodrome Ground Movement Chart




## LEGEND

| | |
|---|---|
| AERODROME REFERENCE POINT | 19 57 08 N 99 52 59 E |
| BUILDING OR LARGE STRUCTURE | |
| TAXI ROUTES | |
| HELICOPTER STAND AND IDENTIFICATION | H1 |
| AIRCRAFT STAND AND IDENTIFICATION | 1 |
| RUNWAY HOLDING POSITION | |
| INTERMEDIATE HOLDING POSITION | |
| WIND DIRECTION INDICATOR (LIGHTED) | |
| ANTENNA | |
| VOR CHECK POINT | |
| CLOSED TAXIWAY | |
| CONSTRUCTION BARRIERS | |

## TAXIWAYS ; STRENGTH, SURFACE AND WIDTH

| ID | PCN-SFC | WIDTH (M) |
|---|---|---|
| A | PCR 1500/R/D/W/T | 27.5 |
| B | PCR 1500/R/D/W/T | 30 |
| C | PCR 1500/R/D/W/T | 35 |
| D | PCR 1500/R/D/W/T | 23 |
| P | PCR 1500/R/D/W/T | 23 |

REMARK :

- SITE OF ARP CENTER LINE OF RUNWAY 1500 M FM THR RWY 21
- RUNWAY SURFACE : ASPH CONC STRENGTH : PCR 1000/F/A/X/T
- ACFT STAND NR 2,3 AND 4 AVAILABLE WITH SINGLE-END PASSENGER LOADING BRIDGES
- ALL ACFT STAND IS NOSE-IN PARKING
- ENGINE RUN-UP AREA LOCATED ON THE BEGINNING OF RWY 21 (FACE SOUTH)
- ISOLATE AIRCRAFT PARKING POSITION LOCATED AT THE NORTH END OF TWY P BETWEEN TWY A AND TWY B
- ACFT CODE LETTER C AND D MUST BACKTRACK ON RWY TURN PAD ONLY WHEN RWY 21 IS IN USE FOR ARRIVING
- RWY TURN PAD AT THE END OF RWY 21 USED ONLY FOR ACFT WITH OUTER MAIN GEAR WHEEL SPAN (OMGWS) LESS THAN 9M
- TWY C USED FOR EXIT FROM RWY ONLY
- TWY C (PORTION TO B), E AND F ARE CLOSED DUE TO WIP.
- TURN PAD AT THE END OF RWY 03 IS TERMINATED, DO NOT USE.

CHANGE : MM WITHDRAWN.

**INTENTIONALLY BLANK**

## AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

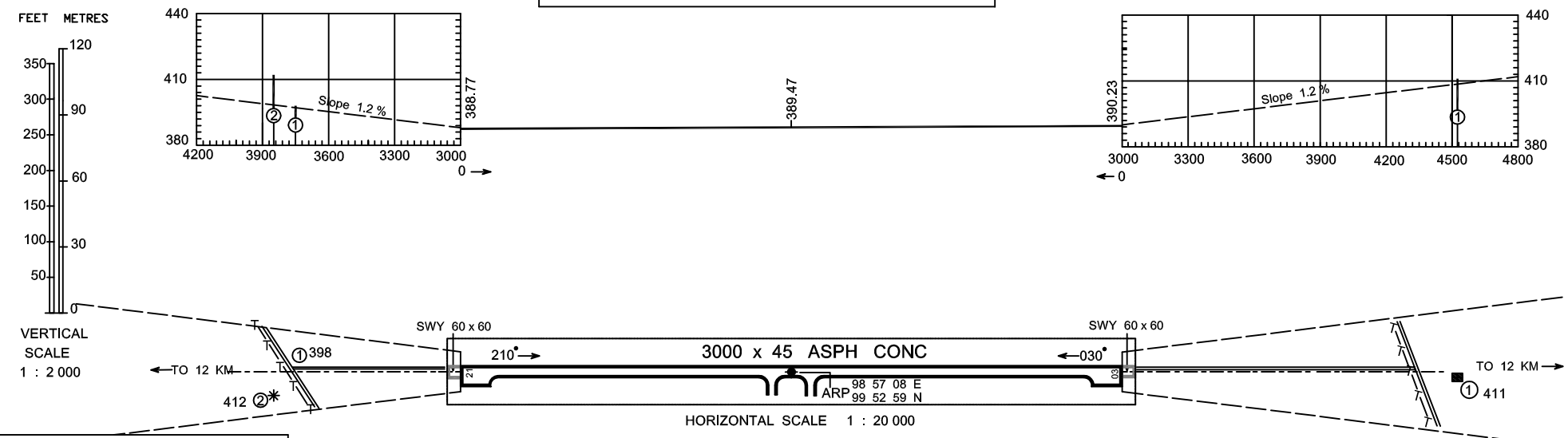
Mae Fah Luang-Chiang Rai International Airport

DIMENSION AND ELEVATION IN METERS

MAGNETIC VARIATION 0° 54′ W (2011)

RWY 03 / 21

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 21 | | RWY 03 |
| 3000 | TAKE - OFF RUN AVAILABLE | 3000 |
| 3000 | TAKE - OFF DISTANCE AVAILABLE | 3000 |
| 3060 | ACCELERATE STOP DISTANCE AVAILABLE | 3060 |
| 3000 | LANDING DISTANCE AVAILABLE | 3000 |




| LEGEND | |
|---|---|
| IDENITIFICATION NUMBER | ② |
| ROAD | ═══ |
| HIGHT TENSION LINE | —T—T— |
| BUILDING OR LARGE STUCTURE | ■ |
| TREE OR SHRUB | ✳ |
| | |

**INTENTIONALLY BLANK**

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

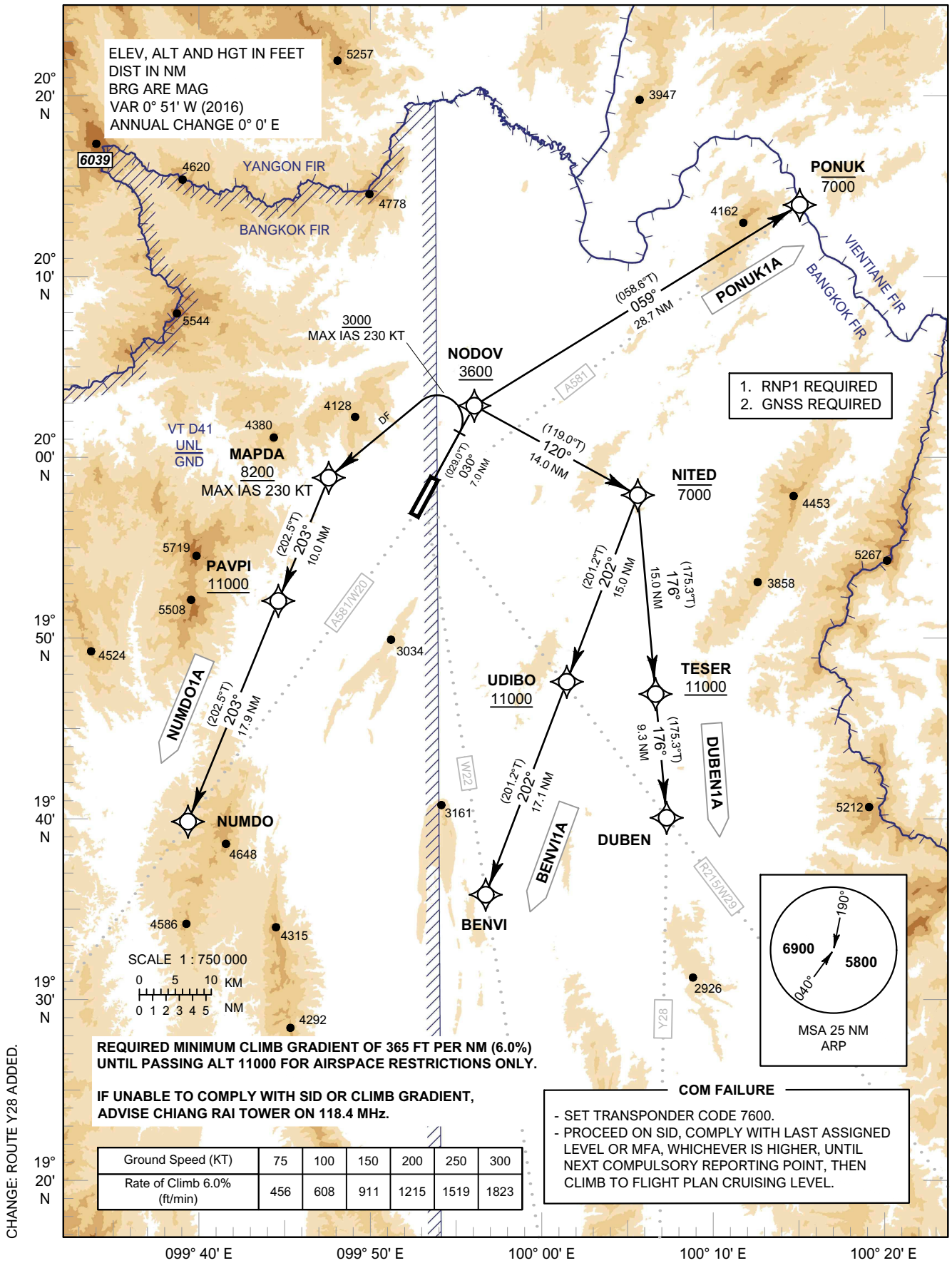
TRANSITION ALTITUDE
11000 FT

APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**RNAV RWY03**

BENVI1A DUBEN1A NUMDO1A PONUK1A




**REQUIRED MINIMUM CLIMB GRADIENT OF 365 FT PER NM (6.0%) UNTIL PASSING ALT 11000 FOR AIRSPACE RESTRICTIONS ONLY.**

**IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE CHIANG RAI TOWER ON 118.4 MHz.**

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 6.0% (ft/min) | 456 | 608 | 911 | 1215 | 1519 | 1823 |

**COM FAILURE**

- SET TRANSPONDER CODE 7600.
- PROCEED ON SID, COMPLY WITH LAST ASSIGNED LEVEL OR MFA, WHICHEVER IS HIGHER, UNTIL NEXT COMPULSORY REPORTING POINT, THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

CHANGE: ROUTE Y28 ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG RAI / Mae Fah Luang-Chiang Rai Intl (VTCT)**

**RNAV RWY03**

BENVI1A DUBEN1A NUMDO1A PONUK1A

**TABULAR DESCRIPTION**

**RNAV RWY03**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BENVI1A | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | +0.85 | - | - | - | - | - | RNP 1 |
| 020 | TF | NODOV | - | 030° (029.0°) | +0.85 | 7.0 | R | +3600 | - | - | RNP 1 |
| 030 | TF | NITED | - | 120° (119.0°) | +0.85 | 14.0 | R | -7000 | - | - | RNP 1 |
| 040 | TF | UDIBO | - | 202° (201.2°) | +0.85 | 15.0 | - | +11000 | - | - | RNP 1 |
| 050 | TF | BENVI | - | 202° (201.2°) | +0.85 | 17.1 | - | - | - | - | RNP 1 |
| DUBEN1A | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | +0.85 | - | - | - | - | - | RNP 1 |
| 020 | TF | NODOV | - | 030° (029.0°) | +0.85 | 7.0 | R | +3600 | - | - | RNP 1 |
| 030 | TF | NITED | - | 120° (119.0°) | +0.85 | 14.0 | R | -7000 | - | - | RNP 1 |
| 040 | TF | TESER | - | 176° (175.3°) | +0.85 | 15.0 | - | +11000 | - | - | RNP 1 |
| 050 | TF | DUBEN | - | 176° (175.3°) | +0.85 | 9.3 | - | - | - | - | RNP 1 |
| NUMDO1A | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | +0.85 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | | 030° (029.0°) | +0.85 | - | - | +3000 | -230 | - | RNP 1 |
| 030 | DF | MAPDA | - | - | +0.85 | - | L | +8200 | -230 | - | RNP 1 |
| 040 | TF | PAVPI | - | 203° (202.5°) | +0.85 | 10.0 | - | +11000 | - | - | RNP 1 |
| 050 | TF | NUMDO | - | 203° (202.5°) | +0.85 | 17.9 | - | - | - | - | RNP 1 |
| PONUK1A | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | +0.85 | - | - | - | - | - | RNP 1 |
| 020 | TF | NODOV | - | 030° (029.0°) | +0.85 | 7.0 | R | +3600 | - | - | RNP 1 |
| 030 | TF | PONUK | - | 059° (058.6°) | +0.85 | 28.7 | - | -7000 | - | - | RNP 1 |

**WAYPOINT LIST**

**RNAV RWY03**

| Waypoint Identifier | Coordinates |
|---|---|
| DER RWY03 | 19° 57' 51.09'' N 099° 53' 23.63'' E |
| BENVI | 19° 27' 06.52'' N 099° 57' 41.02'' E |
| DUBEN | 19° 32' 49.42'' N 100° 12' 06.83'' E |
| MAPDA | 19° 58' 37.25'' N 099° 45' 20.92'' E |
| NITED | 19° 57' 10.08'' N 100° 09' 59.64'' E |
| NODOV | 20° 03' 59.77'' N 099° 56' 59.90'' E |
| NUMDO | 19° 32' 43.43'' N 099° 34' 01.89'' E |
| PAVPI | 19° 49' 20.82'' N 099° 41' 17.30'' E |
| PONUK | 20° 18' 58.10'' N 100° 23' 05.80'' E |
| TESER | 19° 42' 09.74'' N 100° 11' 18.11'' E |
| UDIBO | 19° 43' 07.93'' N 100° 04' 14.12'' E |

CHANGE: DER RWY03 COORDINATE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

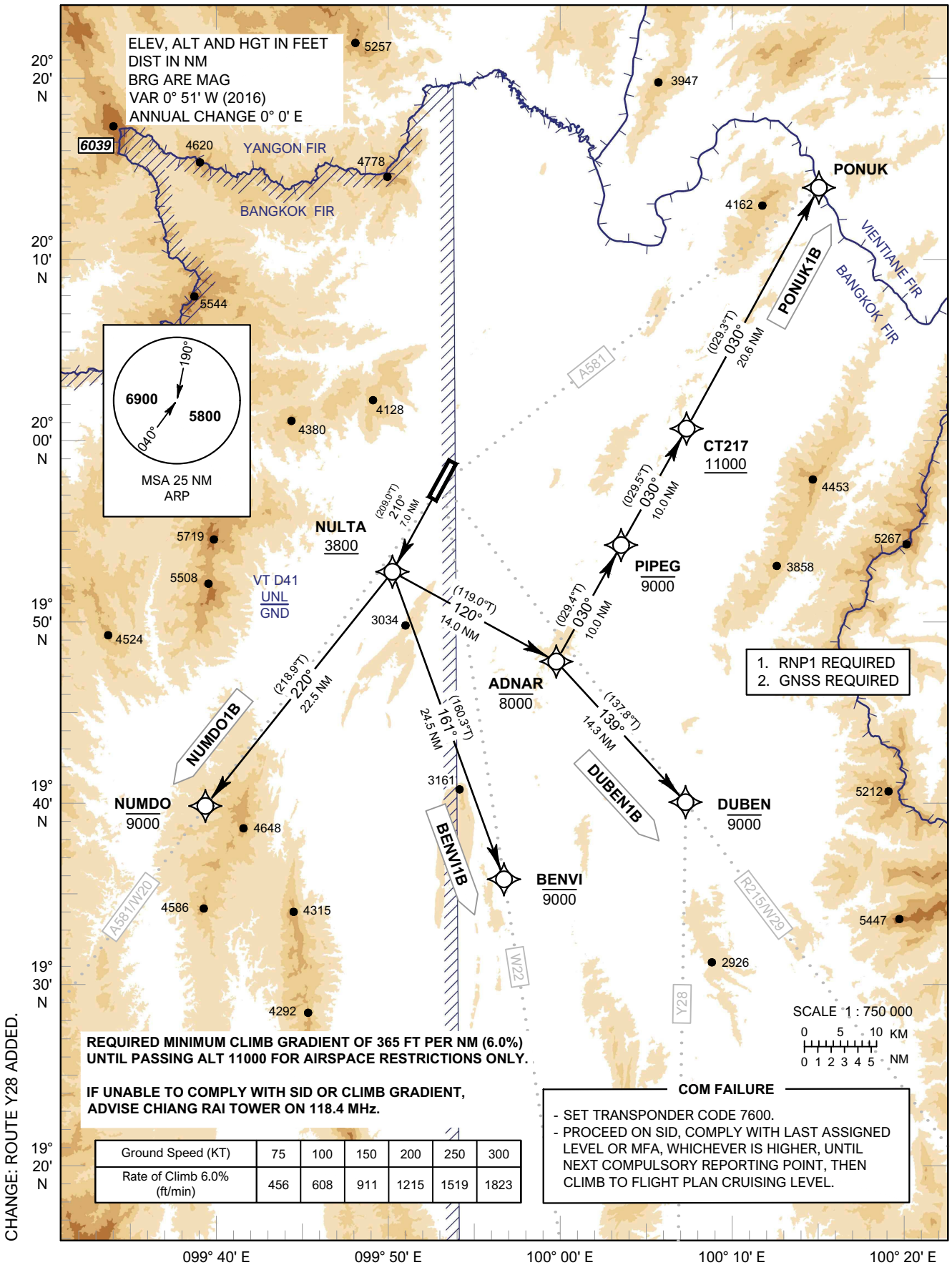
TRANSITION ALTITUDE
11000 FT

APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**RNAV RWY21**

BENVI1B DUBEN1B NUMDO1B PONUK1B




| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 6.0% (ft/min) | 456 | 608 | 911 | 1215 | 1519 | 1823 |

CHANGE: ROUTE Y28 ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**CHIANG RAI / Mae Fah Luang-Chiang Rai Intl (VTCT)**

**RNAV RWY21**

BENVI1B DUBEN1B NUMDO1B PONUK1B

**TABULAR DESCRIPTION**

**RNAV RWY21**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BENVI1B | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | +0.85 | - | - | - | - | - | RNP 1 |
| 020 | TF | NULTA | - | 210° (209.0°) | +0.85 | 7.0 | L | +3800 | - | - | RNP 1 |
| 030 | TF | BENVI | - | 161° (160.3°) | +0.85 | 24.5 | - | -9000 | - | - | RNP 1 |
| DUBEN1B | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | +0.85 | - | - | - | - | - | RNP 1 |
| 020 | TF | NULTA | - | 210° (209.0°) | +0.85 | 7.0 | L | +3800 | - | - | RNP 1 |
| 030 | TF | ADNAR | - | 120° (119.0°) | +0.85 | 14.0 | R | -8000 | - | - | RNP 1 |
| 040 | TF | DUBEN | - | 139° (137.8°) | +0.85 | 14.3 | - | -9000 | - | - | RNP 1 |
| NUMDO1B | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | +0.85 | - | - | - | - | - | RNP 1 |
| 020 | TF | NULTA | - | 210° (209.0°) | +0.85 | 7.0 | R | +3800 | - | - | RNP 1 |
| 030 | TF | NUMDO | - | 220° (218.9°) | +0.85 | 22.5 | - | -9000 | - | - | RNP 1 |
| PONUK1B | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | +0.85 | - | - | - | - | - | RNP 1 |
| 020 | TF | NULTA | - | 210° (209.0°) | +0.85 | 7.0 | L | +3800 | - | - | RNP 1 |
| 030 | TF | ADNAR | - | 120° (119.0°) | +0.85 | 14.0 | L | -8000 | - | - | RNP 1 |
| 040 | TF | PIPEG | - | 030° (029.4°) | +0.85 | 10.0 | - | -9000 | - | - | RNP 1 |
| 050 | TF | CT217 | - | 030° (029.5°) | +0.85 | 10.0 | - | +11000 | - | - | RNP 1 |
| 060 | TF | PONUK | - | 030° (029.3°) | +0.85 | 20.6 | - | - | - | - | RNP 1 |

**WAYPOINT LIST**

**RNAV RWY21**

| Waypoint Identifier | Coordinates |
|---|---|
| DER RWY21 | 19° 56' 25.74" N 099° 52' 33.61" E |
| ADNAR | 19° 43' 27.89" N 100° 01' 56.29" E |
| BENVI | 19° 27' 06.52" N 099° 57' 41.02" E |
| CT217 | 20° 00' 56.46" N 100° 12' 22.85" E |
| DUBEN | 19° 32' 49.42" N 100° 12' 06.83" E |
| NULTA | 19° 50' 17.04" N 099° 48' 57.42" E |
| NUMDO | 19° 32' 43.43" N 099° 34' 01.89" E |
| PIPEG | 19° 52' 12.36" N 100° 07' 09.09" E |
| PONUK | 20° 18' 58.10" N 100° 23' 05.80" E |

CHANGE: DER RWY21 COORDINATE.

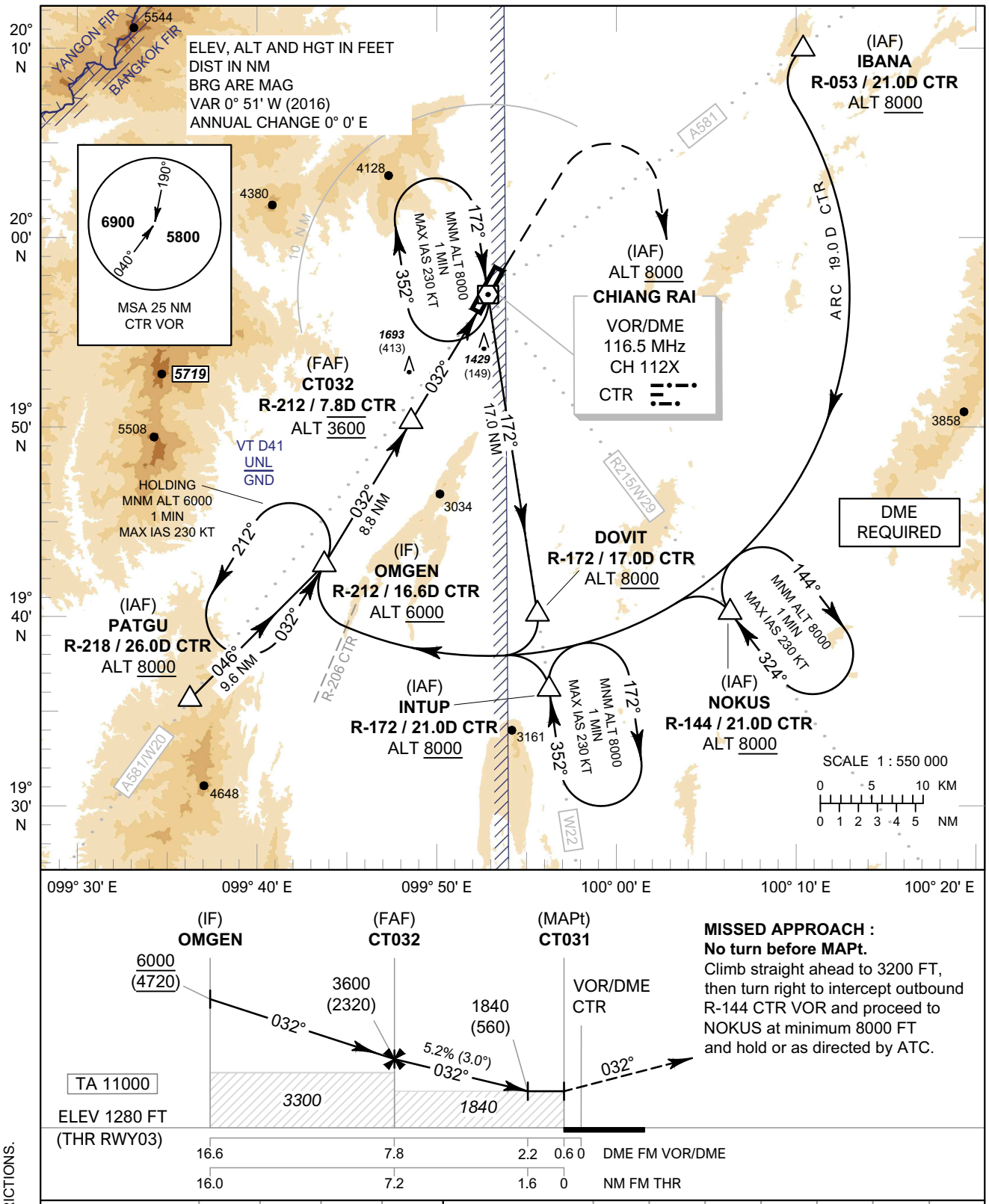
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**VOR RWY03**







**MISSED APPROACH :**
**No turn before MAPt.**
Climb straight ahead to 3200 FT, then turn right to intercept outbound R-144 CTR VOR and proceed to NOKUS at minimum 8000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | 1840 (560) | | | |
| Circling (OCH AAL) | 1900 (620) | | 3070 (1790) | |

| Distance (CTR) | FAF | 7 D | 6 D | 5 D | 4 D | 3 D | 2.2 D |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 3600 (2320) | 3350 (2070) | 3035 (1755) | 2720 (1440) | 2405 (1125) | 2090 (810) | 1840 (560) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED CHART.
INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM
DUE TO TERRAIN RESTRICTIONS.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO AERODROME ELEV

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**
**VOR RWY03**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) PATGU | R-218 / 26.0D CTR | 19° 35' 56.91" N | 099° 36' 33.32" E |
| (IAF) IBANA | R-053 / 21.0D CTR | 20° 09' 45.26" N | 100° 10' 40.57" E |
| (IAF) NOKUS | R-144 / 21.0D CTR | 19° 40' 02.91" N | 100° 06' 23.41" E |
| (IAF) INTUP | R-172 / 21.0D CTR | 19° 36' 02.68" N | 099° 56' 16.93" E |
| DOVIT | R-172 / 17.0D CTR | 19° 40' 00.97" N | 099° 55' 39.51" E |
| (IF) OMGEN | R-212 / 16.6D CTR | 19° 42' 40.73" N | 099° 43' 47.92" E |
| (FAF) CT032 | R-212 / 7.8D CTR | 19° 50' 14.94" N | 099° 48' 40.53" E |
| (MAPt) CT031 | R-212 / 0.6D CTR | 19° 56' 25.05" N | 099° 52' 39.30" E |
| (IAF) VOR | CTR | 19° 56' 55.89" N | 099° 52' 59.30" E |

CHANGE: VOR, CT031, AND CT032 COORDINATES.

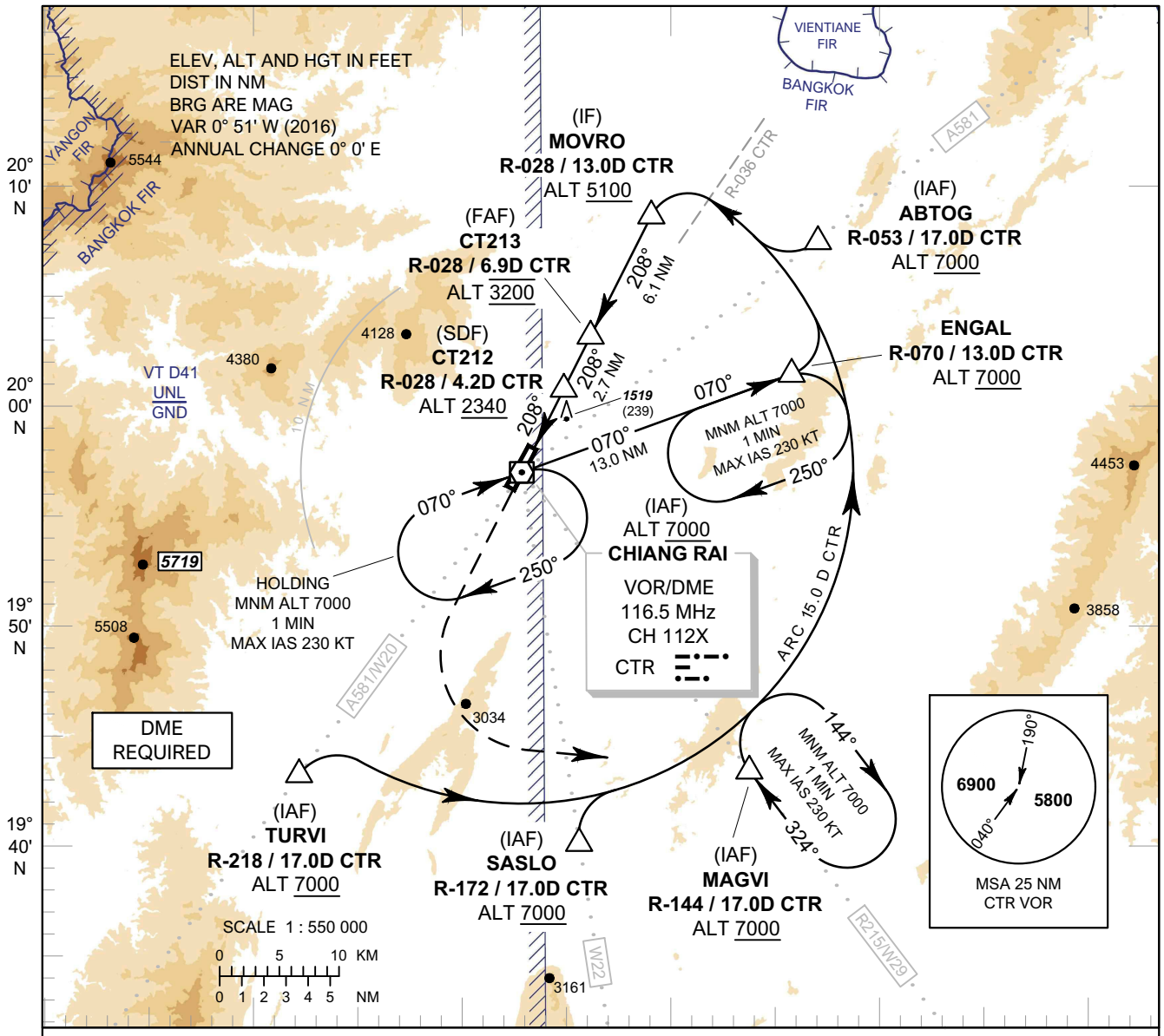
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO AERODROME ELEV

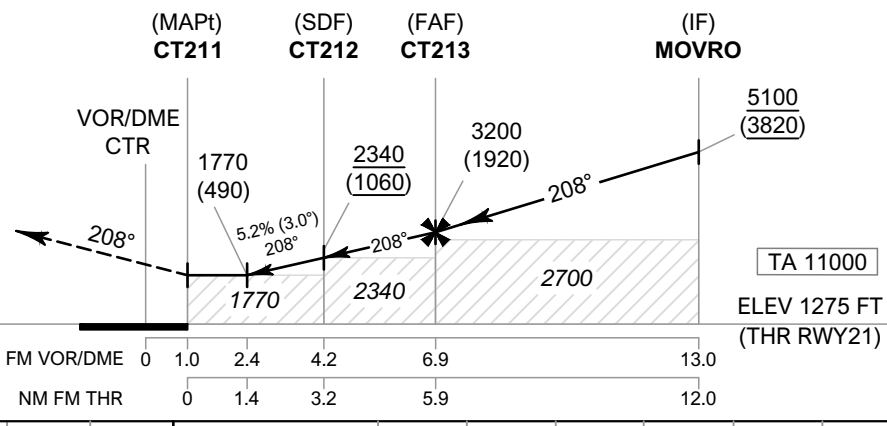
APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**VOR RWY21**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb straight ahead to 4000 FT, then turn left to intercept outbound R-144 CTR VOR and proceed to MAGVI at minimum 7000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | 1770 (490) | | | |
| Circling (OCH AAL) | 1900 (620) | | 3070 (1790) | |

| Distance (CTR) | 2.4 D | 3 D | 4 D | 5 D | 6 D | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | 1770 (490) | 1960 (680) | 2280 (1000) | 2595 (1315) | 2910 (1630) | 3200 (1920) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED CHART.
INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM
DUE TO TERRAIN RESTRICTIONS.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO AERODROME ELEV

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**
**VOR RWY21**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) TURVI | R-218 / 17.0D CTR | 19° 43' 12.11" N | 099° 42' 14.42" E |
| (IAF) SASLO | R-172 / 17.0D CTR | 19° 40' 00.97" N | 099° 55' 39.51" E |
| (IAF) MAGVI | R-144 / 17.0D CTR | 19° 43' 15.51" N | 100° 03' 50.62" E |
| (IAF) ABTOG | R-053 / 17.0D CTR | 20° 07' 18.42" N | 100° 07' 18.36" E |
| ENGAL | R-070 / 13.0D CTR | 20° 01' 33.76" N | 100° 05' 53.48" E |
| (IF) MOVRO | R-028 / 13.0D CTR | 20° 08' 31.36" N | 099° 59' 17.89" E |
| (FAF) CT213 | R-028 / 6.9D CTR | 20° 03' 05.44" N | 099° 56' 20.34" E |
| (SDF) CT212 | R-028 / 4.2D CTR | 20° 00' 40.84" N | 099° 55' 01.64" E |
| (MAPt) CT211 | R-028 / 1.0D CTR | 19° 57' 49.45" N | 099° 53' 28.42" E |
| (IAF) VOR | CTR | 19° 56' 55.89" N | 099° 52' 59.30" E |

CHANGE: VOR, CT213, CT212, AND CT211 COORDINATES.

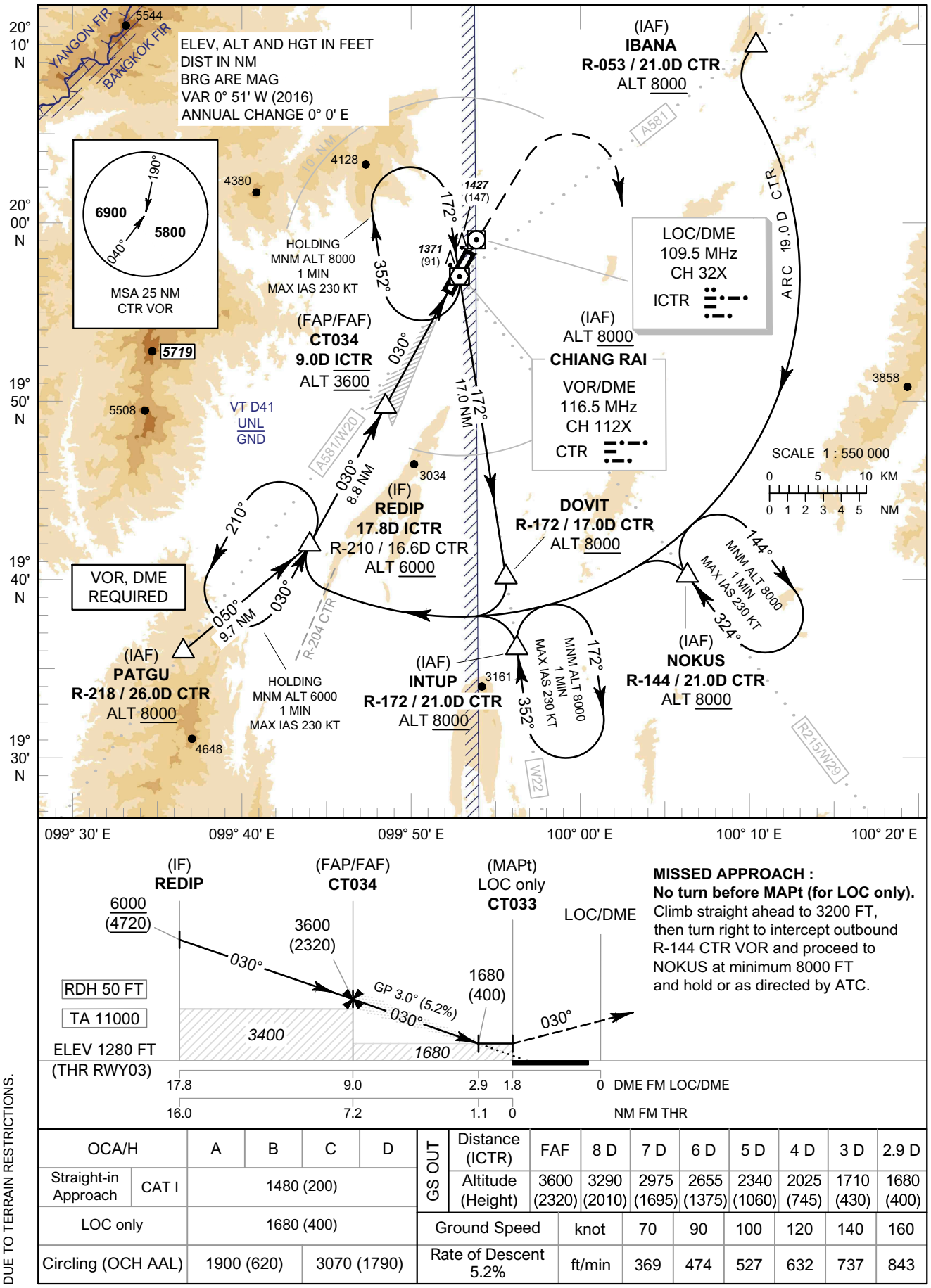
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**ILS or LOC y RWY03**







**MISSED APPROACH :**
**No turn before MAPt (for LOC only).**
Climb straight ahead to 3200 FT, then turn right to intercept outbound R-144 CTR VOR and proceed to NOKUS at minimum 8000 FT and hold or as directed by ATC.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 1480 (200) | | | |
| LOC only | | 1680 (400) | | | |
| Circling (OCH AAL) | | 1900 (620) | | 3070 (1790) | |

| GS OUT | Distance (ICTR) | FAF | 8 D | 7 D | 6 D | 5 D | 4 D | 3 D | 2.9 D |
|---|---|---|---|---|---|---|---|---|---|
| | Altitude (Height) | 3600 (2320) | 3290 (2010) | 2975 (1695) | 2655 (1375) | 2340 (1060) | 2025 (745) | 1710 (430) | 1680 (400) |
| | Ground Speed knot | | 70 | 90 | 100 | 120 | 140 | 160 | |
| | Rate of Descent 5.2% ft/min | | 369 | 474 | 527 | 632 | 737 | 843 | |

CHANGE: CTR VOR HOLDING MNM ALT.
INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM
DUE TO TERRAIN RESTRICTIONS.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO
THR RWY03 - 1280 FT

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**ILS or LOC y RWY03**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>PATGU | R-218 / 26.0D CTR | 19° 35' 56.91" N | 099° 36' 33.32" E |
| (IAF)<br>IBANA | R-053 / 21.0D CTR | 20° 09' 45.26" N | 100° 10' 40.57" E |
| (IAF)<br>NOKUS | R-144 / 21.0D CTR | 19° 40' 02.91" N | 100° 06' 23.41" E |
| (IAF)<br>INTUP | R-172 / 21.0D CTR | 19° 36' 02.68" N | 099° 56' 16.93" E |
| DOVIT | R-172 / 17.0D CTR | 19° 40' 00.97" N | 099° 55' 39.51" E |
| (IF)<br>REDIP | 17.8D ICTR | 19° 42' 22.84" N | 099° 44' 20.05" E |
| (FAP/FAF)<br>CT034 | 9.0D ICTR | 19° 50' 06.49" N | 099° 48' 51.27" E |
| (MAPt @ THR03)<br>CT033 | 1.8D ICTR | 19° 56' 25.74" N | 099° 52' 33.61" E |
| LOC/DME | ICTR | 19° 57' 59.55" N | 099° 53' 28.59" E |
| GP | - | 19° 56' 32.54" N | 099° 52' 42.63" E |
| (IAF)<br>VOR | CTR | 19° 56' 55.89" N | 099° 52' 59.30" E |

CHANGE: VOR, LOC/DME, AND GP COORDINATES.

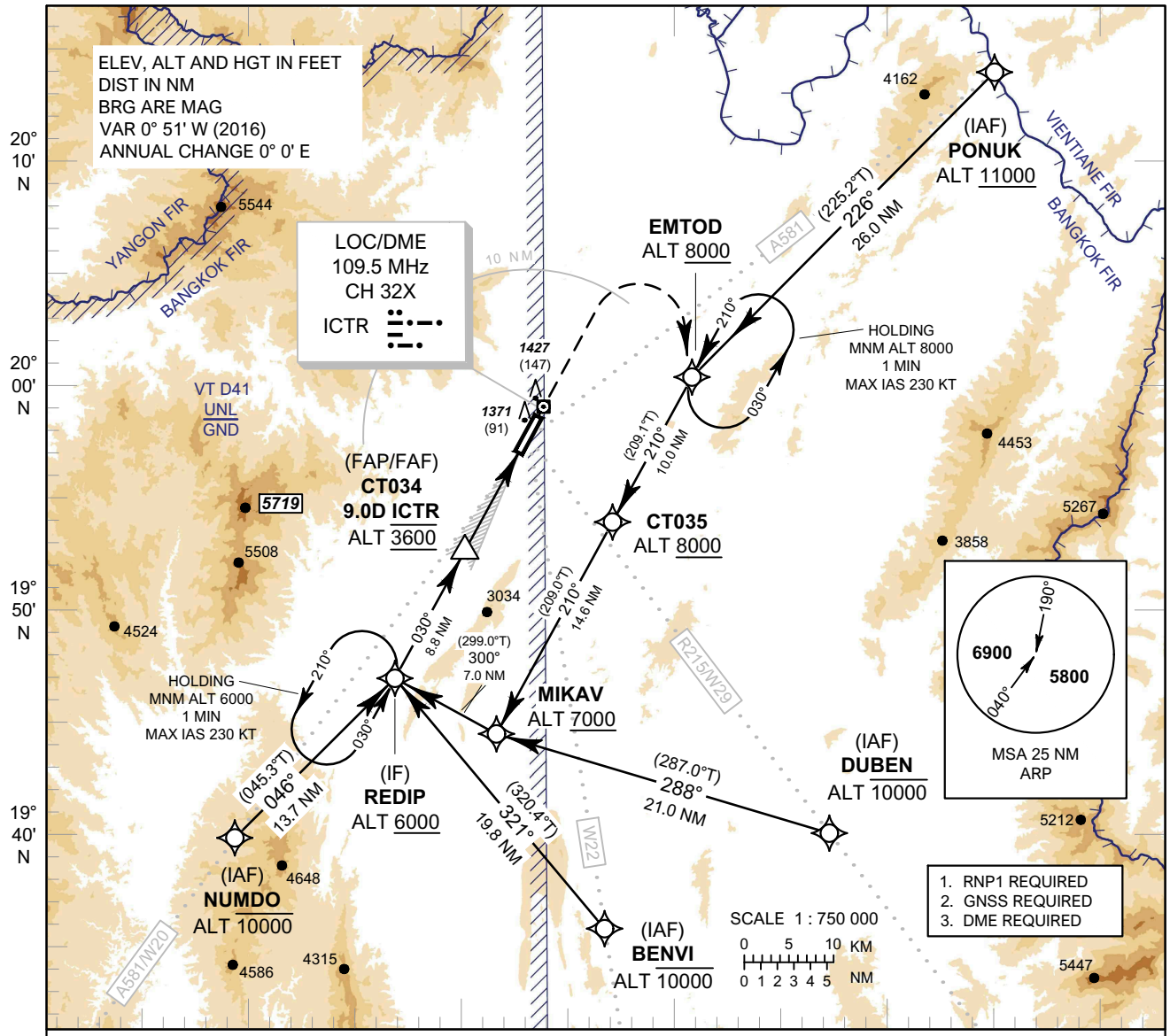
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**ILS or LOC z RWY03**




**MISSED APPROACH :**
**No turn before MAPt (for LOC only).**
Climb on track 030° to 4500 FT, then turn right direct to EMTOD at minimum 8000 FT and hold or as directed by ATC.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 1800 (520) | | | |
| LOC only | | | | | |
| Circling (OCH AAL) | | 1900 (620) | | 3070 (1790) | |

| GS OUT | Distance (ICTR) | FAF | 8 D | 7 D | 6 D | 5 D | 4 D | 3.3 D |
|---|---|---|---|---|---|---|---|---|
| | Altitude (Height) | 3600 (2320) | 3290 (2010) | 2975 (1695) | 2655 (1375) | 2340 (1060) | 2025 (745) | 1800 (520) |
| | Ground Speed knot | 70 | 90 | 100 | 120 | 140 | 160 | |
| | Rate of Descent 5.2% ft/min | 369 | 474 | 527 | 632 | 737 | 843 | |

NOTE :
1. **OCA/H 1480 (200) FT of ILS procedure** can be achieved for all aircraft categories which can commence a missed approach climb gradient of **3.5% (213 FT/NM)** until after turn.
2. **OCA/H 1680 (400) FT of LOC only procedure** can be achieved for all aircraft categories which can commence a missed approach climb gradient of **3.5% (213 FT/NM)** until after turn.

CHANGE: NEW CHART.
INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM
DUE TO TERRAIN RESTRICTIONS.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**ILS or LOC z RWY03**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IF)<br>REDIP | 17.8D ICTR | 19° 42' 22.84" N | 099° 44' 20.05" E |
| (FAP/FAF)<br>CT034 | 9.0D ICTR | 19° 50' 06.49" N | 099° 48' 51.27" E |
| (MAPt @ THR03)<br>CT033 | 1.8D ICTR | 19° 56' 25.74" N | 099° 52' 33.61" E |
| LOC/DME | ICTR | 19° 57' 59.55" N | 099° 53' 28.59" E |
| GP | - | 19° 56' 32.54" N | 099° 52' 42.63" E |

CHANGE: LOC/DME AND GP COORDINATES.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**ILS or LOC z RWY03**

**TABULAR DESCRIPTION**

| ILS or LOC z RWY03 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
| 010 | IF | (IAF) PONUK | - | - | +0.85 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | EMTOD | - | 226° (225.2°) | +0.85 | 26.0 | L | +8000 | - | - | RNP 1 |
| 030 | TF | CT035 | - | 210° (209.1°) | +0.85 | 10.0 | - | +8000 | - | - | RNP 1 |
| 040 | TF | MIKAV | - | 210° (209.0°) | +0.85 | 14.6 | R | +7000 | - | - | RNP 1 |
| 050 | TF | (IF) REDIP | - | 300° (299.0°) | +0.85 | 7.0 | - | +6000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) DUBEN | - | - | +0.85 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | MIKAV | - | 288° (287.0°) | +0.85 | 21.0 | R | +7000 | - | - | RNP 1 |
| 030 | TF | (IF) REDIP | - | 300° (299.0°) | +0.85 | 7.0 | - | +6000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) BENVI | - | - | +0.85 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | (IF) REDIP | - | 321° (320.4°) | +0.85 | 19.8 | - | +6000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) NUMDO | - | - | +0.85 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | (IF) REDIP | - | 046° (045.3°) | +0.85 | 13.7 | - | +6000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) REDIP | - | - | +0.85 | - | - | +6000 | - | - | RNP 1 |
| **TRANSITION TO ILS or LOC** | | | | | | | | | | | |
| 020 | TF | (FAF/FAP) CT034 | - | 030° (029.0°) | +0.85 | 8.8 | - | @3600 | - | - | ILS |
| 030 | TF | (MAPt @THR03) CT033 | Y | 030° (029.0°) | +0.85 | 7.2 | - | @1330 | - | -3.0/50 | ILS |
| 040 | CA | - | - | 030° (029.0°) | +0.85 | - | - | +4500 | - | - | RNP 1 |
| 050 | DF | EMTOD | - | - | +0.85 | - | R | +8000 | - | - | RNP 1 |
| 060 | HM | EMTOD | Y | 210° (209.1°) | +0.85 | 1 minute | L | +8000 | -230 | - | RNP 1 |

**WAYPOINT LIST**

| ILS or LOC z RWY03 | |
|---|---|
| | |
| Waypoint Identifier | Coordinates |
| BENVI | 19° 27' 06.52" N 099° 57' 41.02" E |
| CT033 | 19° 56' 25.74" N 099° 52' 33.61" E |
| CT034 | 19° 50' 06.49" N 099° 48' 51.27" E |
| CT035 | 19° 51' 48.57" N 099° 58' 20.63" E |
| DUBEN | 19° 32' 49.42" N 100° 12' 06.83" E |
| EMTOD | 20° 00' 35.03" N 100° 03' 29.95" E |
| MIKAV | 19° 38' 58.56" N 099° 50' 49.39" E |
| NUMDO | 19° 32' 43.43" N 099° 34' 01.89" E |
| PONUK | 20° 18' 58.10" N 100° 23' 05.80" E |
| REDIP | 19° 42' 22.84" N 099° 44' 20.05" E |

CHANGE: THR RWY03 COORDINATE.

**INTENTIONALLY BLANK**

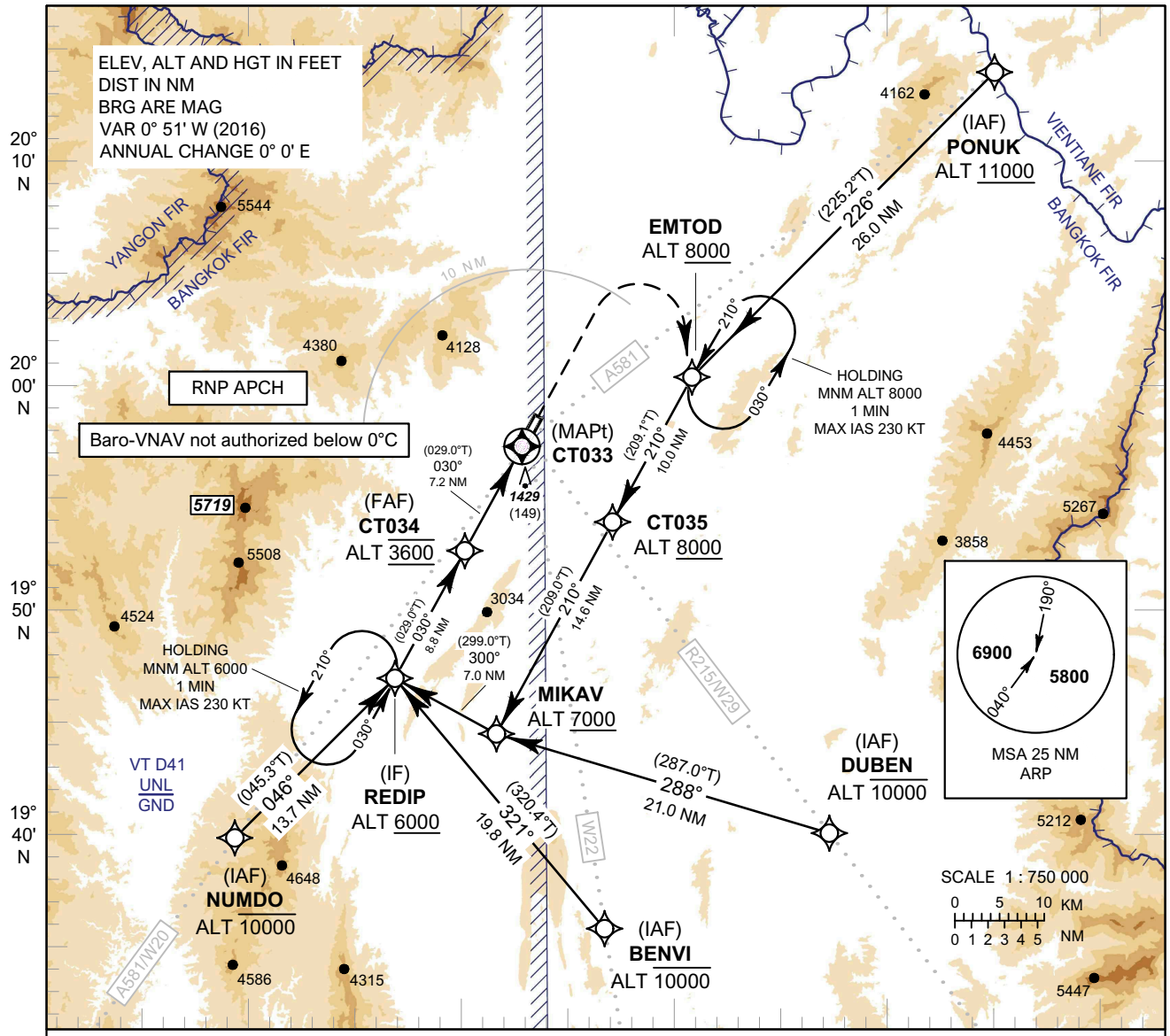
**INSTRUMENT APPROACH CHART - ICAO**

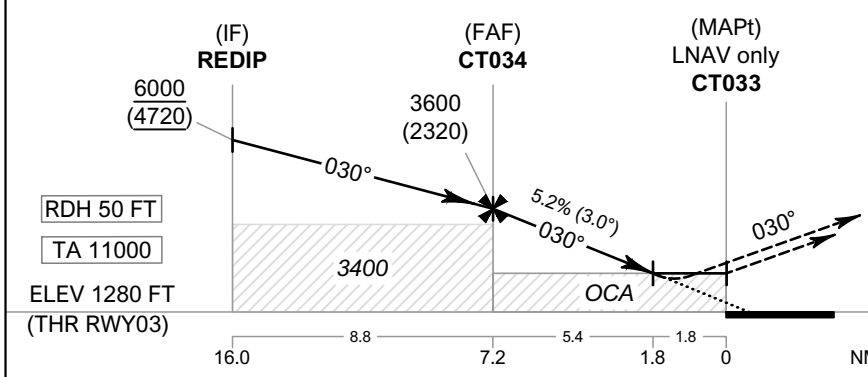
**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**

**RNP RWY03**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 030° to 4500 FT, then turn right direct to EMTOD at minimum 8000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV / VNAV | 1900 (620) | | | |
| LNAV | | | | |
| Circling (OCH AAL) | 1900 (620) | | 3070 (1790) | |

| NM to NEXT WPT | FAF | 7 NM | 6 NM | 5 NM | 4 NM | 3 NM | 2 NM | 1.8 NM |
|---|---|---|---|---|---|---|---|---|
| Altitude (Height) | 3600 (2320) | 3540 (2260) | 3225 (1945) | 2910 (1630) | 2595 (1315) | 2280 (1000) | 1960 (680) | 1900 (620) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 | |
| Rate of Descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 | |

NOTE :
1. **OCA/H 1600 (320) FT of LNAV/VNAV procedure** can be achieved for all aircraft categories which can commence a missed approach climb gradient of **3.5% (213 FT/NM)** until after turn.
2. **OCA/H 1680 (400) FT of LNAV procedure** can be achieved for all aircraft categories which can commence a missed approach climb gradient of **3.5% (213 FT/NM)** until after turn.

CHANGE: REVISED CHART.
INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM
DUE TO TERRAIN RESTRICTIONS.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**
**RNP RWY03**

**TABULAR DESCRIPTION**

**RNP RWY03**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) PONUK | - | - | +0.85 | - | - | +11000 | - | - | RNP APCH |
| 020 | TF | EMTOD | - | 226° (225.2°) | +0.85 | 26.0 | L | +8000 | - | - | RNP APCH |
| 030 | TF | CT035 | - | 210° (209.1°) | +0.85 | 10.0 | - | +8000 | - | - | RNP APCH |
| 040 | TF | MIKAV | - | 210° (209.0°) | +0.85 | 14.6 | R | +7000 | - | - | RNP APCH |
| 050 | TF | (IF) REDIP | - | 300° (299.0°) | +0.85 | 7.0 | - | +6000 | - | - | RNP APCH |
| 010 | IF | (IAF) DUBEN | - | - | +0.85 | - | - | -10000 | - | - | RNP APCH |
| 020 | TF | MIKAV | - | 288° (287.0°) | +0.85 | 21.0 | R | +7000 | - | - | RNP APCH |
| 030 | TF | (IF) REDIP | - | 300° (299.0°) | +0.85 | 7.0 | - | +6000 | - | - | RNP APCH |
| 010 | IF | (IAF) BENVI | - | - | +0.85 | - | - | -10000 | - | - | RNP APCH |
| 020 | TF | (IF) REDIP | - | 321° (320.4°) | +0.85 | 19.8 | - | +6000 | - | - | RNP APCH |
| 010 | IF | (IAF) NUMDO | - | - | +0.85 | - | - | -10000 | - | - | RNP APCH |
| 020 | TF | (IF) REDIP | - | 046° (045.3°) | +0.85 | 13.7 | - | +6000 | - | - | RNP APCH |
| 010 | IF | (IF) REDIP | - | - | +0.85 | - | - | +6000 | - | - | RNP APCH |
| 020 | TF | (FAF) CT034 | - | 030° (029.0°) | +0.85 | 8.8 | - | @3600 | - | - | RNP APCH |
| 030 | TF | (MAPt @THR03) CT033 | Y | 030° (029.0°) | +0.85 | 7.2 | - | @1330 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 030° (029.0°) | +0.85 | - | - | +4500 | - | - | RNP APCH |
| 050 | DF | EMTOD | - | - | +0.85 | - | R | +8000 | - | - | RNP APCH |
| 060 | HM | EMTOD | Y | 210° (209.1°) | +0.85 | 1 minute | L | +8000 | -230 | - | RNP APCH |

**WAYPOINT LIST**

**RNP RWY03**

| Waypoint Identifier | Coordinates |
|---|---|
| BENVI | 19° 27' 06.52" N 099° 57' 41.02" E |
| CT033 | 19° 56' 25.74" N 099° 52' 33.61" E |
| CT034 | 19° 50' 06.49" N 099° 48' 51.27" E |
| CT035 | 19° 51' 48.57" N 099° 58' 20.63" E |
| DUBEN | 19° 32' 49.42" N 100° 12' 06.83" E |
| EMTOD | 20° 00' 35.03" N 100° 03' 29.95" E |
| MIKAV | 19° 38' 58.56" N 099° 50' 49.39" E |
| NUMDO | 19° 32' 43.43" N 099° 34' 01.89" E |
| PONUK | 20° 18' 58.10" N 100° 23' 05.80" E |
| REDIP | 19° 42' 22.84" N 099° 44' 20.05" E |

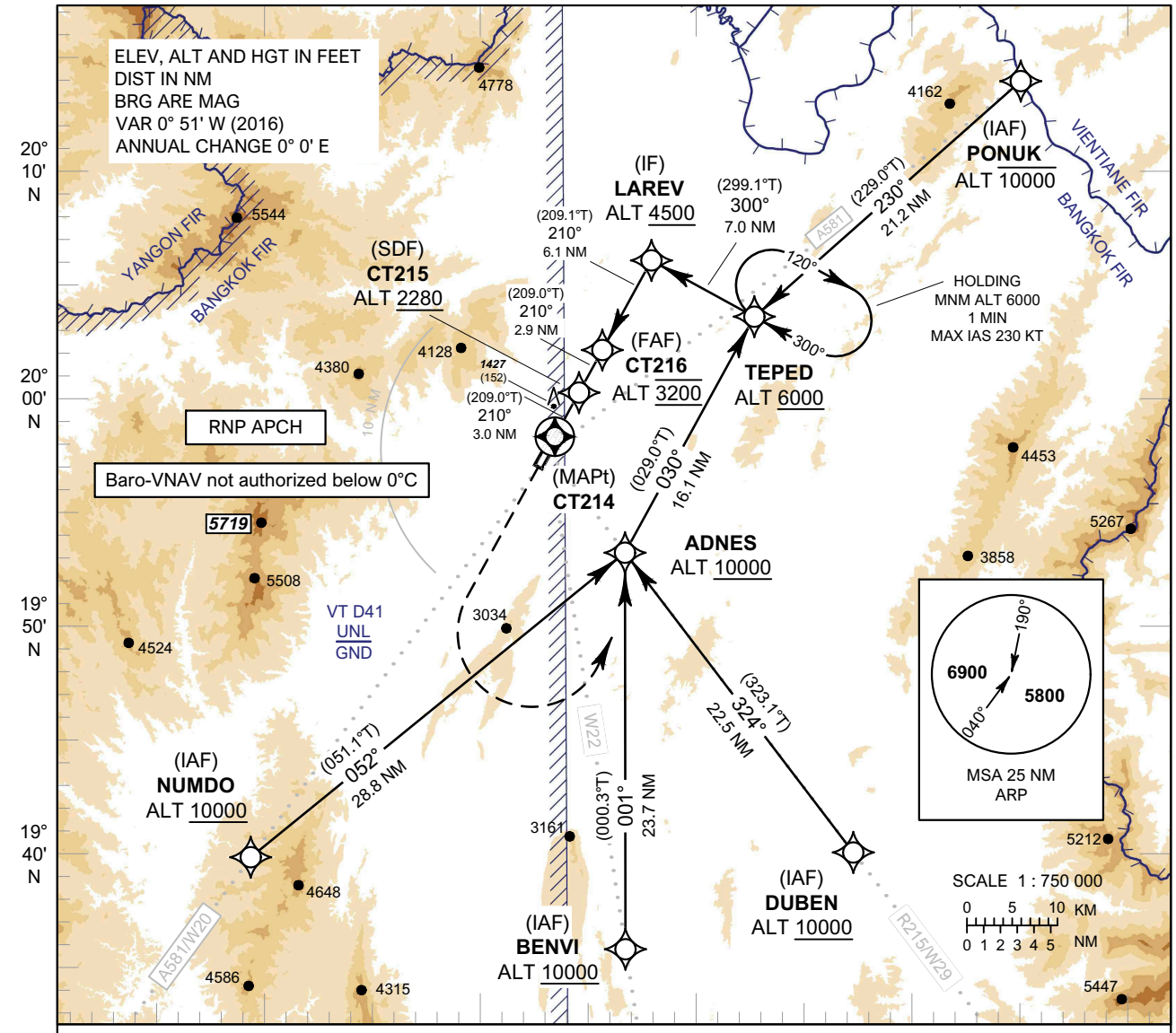
CHANGE: THR RWY03 COORDINATE.

**INSTRUMENT APPROACH CHART - ICAO**

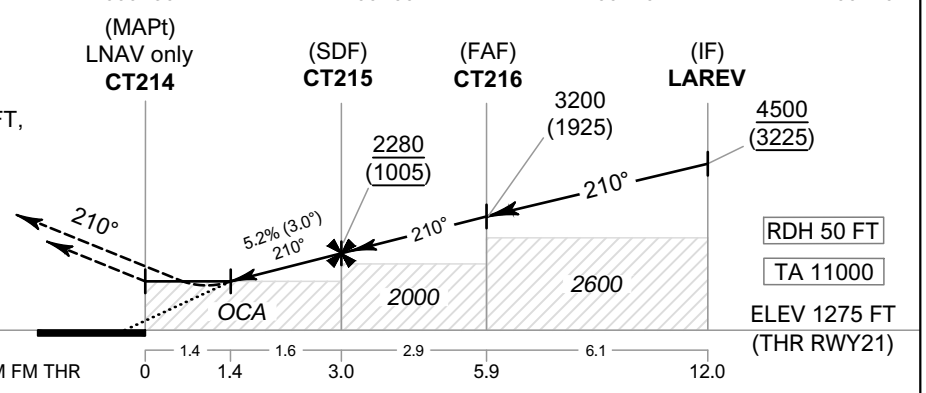
**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO
THR RWY21 - ELEV 1275 FT

APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

**CHIANG RAI / Mae Fah Luang-Chiang Rai Intl (VTCT)**
**RNP RWY21**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 210° to 3200 FT, then turn left direct to TEPED at minimum 6000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV / VNAV | 1600 (325) | | | |
| LNAV | 1770 (475) | | | |
| Circling (OCH AAL) | 1900 (620) | | 3070 (1790) | |

| NM to NEXT WPT | 1.4 NM | 2 NM | 3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | 1770 (475) | 1955 (680) | 2275 (1000) | 2590 (1315) | 2905 (1630) | 3200 (1925) |

| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of Descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 1280 FT**
HEIGHTS RELATED TO
THR RWY21 - ELEV 1275 FT

**CHIANG RAI /**
**Mae Fah Luang-Chiang Rai Intl (VTCT)**
**RNP RWY21**

TABULAR DESCRIPTION

**RNP RWY21**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) PONUK | - | - | +0.85 | - | - | -10000 | - | - | RNP APCH |
| 020 | TF | TEPRD | - | 230° (229.0°) | +0.85 | 21.2 | R | +6000 | - | - | RNP APCH |
| 030 | TF | (IF) LAREV | - | 300° (299.1°) | +0.85 | 7.0 | - | +4500 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) NUMDO | - | - | +0.85 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | ADNES | - | 052° (051.1°) | +0.85 | 28.8 | L | +10000 | - | - | RNP APCH |
| 030 | TF | TEPED | - | 030° (029.0°) | +0.85 | 16.1 | L | +6000 | - | - | RNP APCH |
| 040 | TF | (IF) LAREV | - | 300° (299.1°) | +0.85 | 7.0 | - | +4500 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) BENVI | - | - | +0.85 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | ADNES | - | 001° (000.3°) | +0.85 | 23.7 | R | +10000 | - | - | RNP APCH |
| 030 | TF | TEPED | - | 030° (029.0°) | +0.85 | 16.1 | - | +6000 | - | - | RNP APCH |
| 040 | TF | (IF) LAREV | - | 300° (299.1°) | +0.85 | 7.0 | - | +4500 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) DUBEN | - | - | +0.85 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | ADNES | - | 324° (323.1°) | +0.85 | 22.5 | R | +10000 | - | - | RNP APCH |
| 030 | TF | TEPED | - | 030° (029.0°) | +0.85 | 16.1 | L | +6000 | - | - | RNP APCH |
| 040 | TF | (IF) LAREV | - | 300° (299.1°) | +0.85 | 7.0 | - | +4500 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) LAREV | - | - | +0.85 | | - | +4500 | - | - | RNP APCH |
| 020 | TF | (FAF) CT216 | - | 210° (209.1°) | +0.85 | 6.1 | - | @3200 | - | - | RNP APCH |
| 030 | TF | (SDF) CT215 | - | 210° (209.0°) | +0.85 | 2.9 | - | +2280 | - | - | RNP APCH |
| 040 | TF | (MAPt@THR21) CT214 | Y | 210° (209.0°) | +0.85 | 3.0 | - | @1325 | - | -3.0/50 | RNP APCH |
| 050 | CA | - | - | 210° (209.0°) | +0.85 | - | - | +3200 | - | - | RNP APCH |
| 060 | DF | TEPED | - | - | +0.85 | - | L | +6000 | - | - | RNP APCH |
| 070 | HM | TEPED | Y | 300° (299.1°) | +0.85 | 1 minute | R | +6000 | -230 | - | RNP APCH |

WAYPOINT LIST

**RNP RWY21**

| Waypoint Identifier | Coordinates |
|---|---|
| ADNES | 19° 50' 52.39" N 099° 57' 47.65" E |
| BENVI | 19° 27' 06.52" N 099° 57' 41.02" E |
| CT214 | 19° 57' 51.09" N 099° 53' 23.63" E |
| CT215 | 20° 00' 29.09" N 099° 54' 56.28" E |
| CT216 | 20° 03' 01.81" N 099° 56' 25.95" E |
| DUBEN | 19° 32' 49.42" N 100° 12' 06.83" E |
| LAREV | 20° 08' 22.99" N 099° 59' 34.73" E |
| NUMDO | 19° 32' 43.43" N 099° 34' 01.89" E |
| PONUK | 20° 18' 58.10" N 100° 23' 05.80" E |
| TEPED | 20° 04' 58.14" N 100° 06' 04.80" E |

CHANGE: THR RWY21 COORDINATE.

## VTSP AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSP - PHUKET / PHUKET INTERNATIONAL AIRPORT

## VTSP AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 080645N 0981833E<br>Centre of runway 660 M from THR RWY 09 |
| 2 | Direction and distance from (city) | 32 KM (NW) |
| 3 | Elevation/Reference temperature | 25.6 M (84 FT) 36.10°C |
| 4 | Geoid undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0° 29' W (2016) / 0° 1' E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Phuket International Airport<br>Airports of Thailand Public Company Limited (AOT)<br>222 Village No.6, Mai Khao Sub District, Thalang District<br>Phuket 83110, Thailand<br>Tel: +667 632 7230-6<br>Fax: +667 632 7478<br>AFS: VTSPYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Airports of Thailand Public Company Limited (AOT) |

## VTSP AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | H24 |
| 2 | Customs and immigration | H24 |
| 3 | Health and sanitation | H24 |
| 4 | AIS Briefing Office | H24 |
| 5 | ATS Reporting Office (ARO) | H24 |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | H24 |
| 8 | Fuelling | H24 |
| 9 | Handling | H24 |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phuket International Airport (3rd floor of domestic terminal building)<br>Tel: +66 7656 3045<br>Mobile: +669 2262 2141<br>Fax: +66 7632 7205 |

## VTSP AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | AOT Ground Aviation Services Co., Ltd. (AOTGA)<br>2 Forklifts (5 T - 1 Forklift, 3 T - 1 Forklift)<br>3 Hand Pallet Trucks (2.5 T)<br>1 Tractor<br>Handling weight up to 22 T per day. |
| 2 | Fuel/oil types | JET A-1, AVGAS 100LL |
| 3 | Fuelling facilities/capacity | PTT Oil and Retail Business Public Company Limited<br>Tel: +667 632 8220<br>+667 632 7190<br>Jet A-1 Storage Tank: 3 Tanks Total Volume 12,000,000 L<br>Jet A-1 Refueller: 3<br>- 1 Refueller Capacity: 22,000 L<br>- 2 Refueller Capacity: 12,000 L<br>Jet A-1 Hydrant Dispensers: 10<br>AVGAS 100LL:<br>- 5 Drums Capacity: 1,000 L<br>- 1 Trailer Capacity: 3,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | Siam Land Private Jet Terminal (Private Aircraft only) |
| 6 | Repair facilities for visiting aircraft | Line/Light Maintenance by arrangement with local operators |
| 7 | Remarks | The Airport has provided ground handling agents as following:<br>a) AOT Ground Aviation Services Co., Ltd. (AOTGA)<br>Website: www.aotga.com<br>Ground Handling & Private Aircraft Handling Inquiry:<br>- Marketing Department<br>E-mail: marketing@aotga.com<br>Tel: +666 4182 5396<br>Operation Inquiry:<br>- Ground & Operation Department<br>E-mail: hktroc@aotga.com<br>hktopsocc@aotga.com<br>Tel: +666 4707 7515 (24 hrs.)<br>+666 4707 7918 (24 hrs.)<br>Air To Ground Communication Frequency: 129.350 MHZ<br>Call sign: Blue Port Phuket<br>- Cargo Department<br>E-mail: hktcargo@aotga.com<br>Tel: +667 635 1355<br>+668 4202 3372<br>b) Siam Land Flying Co.,Ltd (Private Aircraft only)<br>Ground Handling and Operations Inquiry:<br>E-mail: ops@siamlandpjt.com<br>Tel: +667 668 8801-3<br>Fax: +667 668 8805<br>AFS: VTSPSLFX<br>Air To Ground Communication Frequency: 131.325 MHZ<br>Call sign: Siamland PJT<br>c) Bangkok Air Catering Phuket Co.,Ltd (BAC)<br>Sales and Customer Services:<br>E-mail: sm.hkt@bangkokaircatering.com<br>Operations Department:<br>E-mail: hkthhpg@bangkokaircatering.com<br>Tel: +667 632 8080<br>+666 3082 9886<br>Fax: +667 632 8081<br>SITA: hkthhpg |

## VTSP AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | Adjacent to airport terminal and in the city |
| 2 | Restaurants | At AD and in the city |
| 3 | Transportation | Limousines, Airport bus, Taxis and Car rental service are available<br>At International and Domestic terminal arrival hall, level 1 |
| 4 | Medical facilities | Medical clinic at the airport, located at the International and Domestic terminal, level 1 and ambulance service is available H24.<br>Emergency number is +667 635 1113 |
| 5 | Bank and Post Office | Bank: At the International and Domestic terminal<br>Post office: At the International terminal, level 1 |
| 6 | Tourist Office | Office at the International terminal level 1<br>Tel: +667 621 9878<br>Fax: +667 632 7100<br>Office in the city<br>Tel: +667 622 2177<br>Fax: +667 635 4139 |
| 7 | Remarks | Website:http://www.airportthai.co.th/phuket<br>for airport and flight information |

## VTSP AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 9 |
| 2 | Rescue equipment | Adequately provided as recommended by ICAO<br>Boat of 6 people, Rescue truck, Ambulance |
| 3 | Capability for removal of disabled aircraft | Available – Up to B747 |
| 4 | Remarks | NIL |

## VTSP AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons |

## VTSP AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | -Apron A,B,D<br>Surface: Concrete<br>Strength: PCR 780/R/A/W/T<br>-Apron C<br>Surface: Concrete<br>Strength: PCR 570/R/A/W/T<br>Surface: Asphalt<br>Strength: PCR 380/F/A/X/T<br>Apron E<br>Surface: Concrete<br>Strength: PCR 580/R/C/W/T |
| 2 | Taxiway width, surface and strength | – Taxiway A, B, E, F and G<br>Width: 30 M.<br>Surface: Concrete<br>Strength: PCR 710/R/A/W/T<br>– Taxiway C<br>Width: 30 M.<br>Surface: Asphalt<br>Strength: PCR 380/F/A/X/T<br>– Taxiway D<br>Width: 23 M.<br>Surface: Asphalt<br>Strength: PCR 380/F/A/X/T<br>– Taxiway P<br>Width: 23 M.<br>Surface: Asphalt<br>Strength: PCR 800/F/C/X/T<br>Surface: Concrete<br>Strength: PCR 710/R/A/W/T<br>– Taxiway K<br>Width: 20 M.<br>Surface: Asphalt<br>Strength: PCR 550/F/D/X/T<br>– Taxiway H and J<br>Width: 29.5 M.<br>Surface: Concrete<br>Strength: PCR 1240/R/C/W/T<br>– Taxilane T1<br>Width from taxilane centre line to taxilane shouder: 13.42 M,<br>Surface: Concrete, PCR 780/R/A/W/T<br>– Taxilane T2<br>Width from taxilane centre line to taxilane shouder: 13.67 M.,<br>Surface: Concrete, PCR 780/R/A/W/T<br>– Taxilane T3, T4, T5, T6, T7<br>Surface: Concrete, PCR 780/R/A/W/T |
| 3 | Altimeter checkpoint location and elevation | Location: At Apron<br>Elevation: 5.18 M / 17 FT |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | See AD2-VTSP-2-4 /Chart for coordinates of aircraft stand |
| 6 | Remarks | NIL |

## VTSP AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxiing guidance signs at all intersections with TWY and RWY<br>Nose-Wheel guide lines at apron.<br>Solid Nose-Wheel guide lines at aircraft stands.<br>Nose-in guidance at aircraft stands.<br>Visual Docking System (VDGS)<br>Apron A at stand number 7-16 (not included the Multi-Aircraft Ramp System (MARS) stand)<br>Apron B at stand number 1-6<br>Apron D at stand number 31-40 (included Multi-Aircraft Ramp System (MARS) stands 32L, 32R, 33L, 33R, 34L, 34R) |

| | | |
|---|---|---|
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, Centre line, Aiming Point Side Strip, and Displace THR<br>RWY LGT: THR, RWY Edge and RWY End lights<br>TWY marking: Centre line, Edge and RWY Holding Position and Intermediate Holding Position<br>TWY LGT: TWY Edge lights, TWY Centre line lights (TWY P, H and J) |
| 3 | Stop bars | Stop bars TWY A, B, G, H, J and K available. |
| 4 | Remarks | If VDGS is out of service, marshaller shall guide the aircraft to the parking position. No pilot shall taxi an aircraft on its own into the aircraft stand without the aid of docking system or a marshaller. |

## VTSP AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| TKOF RWY 09/<br>APCH RWY 27 | Mountain<br>HGT 138 M.MSL | See Aerodrome Obstacle Chart Type A | Mountains<br>HGT 130, 268 and 210 M.MSL (North)<br>(Inner Horizontal Surface) | NIL | NIL |
| | | | Mountains<br>HGT 141, 120, 139 and 225 M.MSL (South)<br>(Inner Horizontal Surface) | NIL | NIL |
| | | | Mountains<br>HGT 295 and 335 M.MSL<br>(Conical Surface) | NIL | NIL |
| | | | Mountains<br>HGT 141 M.MSL (North)<br>(Transitional Surface) | NIL | NIL |
| | | | LLWAS<br>HGT 68.71 M.MSL<br>LGTD<br>(Transitional Surface) | 08 06 41.79N<br>098 19 23.91E | NIL |

## VTSP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Southern West-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Southern West-Coast Meteorological Center<br>30 HR |
| 4 | Trend forecast<br>Interval of issuance | TREND<br>30 Min |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 632 8149<br>Fax: +667 632 8148 |
| 6 | Flight documentation<br>Language(s) used | Charts, Tabular forms and Abbreviated Plain Language Texts<br>English |
| 7 | Charts and other information available for briefing or consultation | S, U85, U70, U50, U40, U30, U25, U20, SWH, SWM, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar images |

| | | |
|---|---|---|
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS), Low Level Windshear Alert System (LLWAS) and Weather Radar |
| 9 | ATS units provided with information | Phuket TWR<br>Phuket APP |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSP AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCR) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 09 | 085°<br>085° (MAG) | 3000x45 | PCR 800/F/A/X/T<br>Asphalt | 080643.05N<br>0981811.90E | THR 7.0 M/22 FT |
| 27 | 265°<br>265° (MAG) | 3100x45 | PCR 800/F/A/X/T<br>Asphalt<br>100 M BFR THR<br>(Displacement)<br>Is PCR 1240/R/C/W/T<br>Concrete | 080652.23N<br>0981949.46E | THR 25.6 M/84.0 FT<br>TDZ 25.6 M/84.0 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| +0.12% +0.01%+1.0%+0.70%<br>(500M 1000M 2500M 3000M) | NIL | NIL | 3120x150 | NIL | NIL |
| -0.70% -1.0% -0.01% -0.12%<br>(500M 2000M 2500M 3000M) | NIL | NIL | 3220x150 | NIL | NIL |

## VTSP AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 09 | 3000 | 3000 | 3000 | 3000 | NIL |
| 27 | 3100 | 3100 | 3100 | 3000 | NIL |

## VTSP AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 09 | NIL | Green | PAPI<br>Both<br>3°<br>64.07 FT | NIL | NIL | 3000 M, 60 M<br>White<br>FM 2400 M - 3000 M<br>Yellow<br>LIH | Red | NIL | RTIL |
| 27 | SALS<br>(7 Barrettes)<br>420M<br>LIH | Green | PAPI<br>Both<br>3.2°<br>64.96 FT | NIL | NIL | 3000 M, 60 M<br>White<br>FM 2400 M - 3000 M<br>Yellow<br>LIH | Red | NIL | NIL |

## VTSP AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: On the top of control tower FLG W G EV 2.5 sec. / IBN: NIL, H24 |
| 2 | LDI location and LGT<br>Anemometer location and LGT | WDI<br>: 1 Wind Direction Indicator near left PAPI 09<br>: 1 Wind Direction Indicator 350 M. left side FM THR 27, 100 M FM RCL, illuminated<br>Anemometer: See AD Ground Movement Chart |
| 3 | TWY edge and centre line lighting | EDGE: All TWY<br>CENTRE LINE: TWY H,J and P |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at RWY 27/09<br>Switch over time : 0 sec.(UPS) |
| 5 | Remarks | NIL |

## VTSP AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Helicopters using active runway to take off and land as instructed by ATC. See VTSP AD 2.20 for the Helicopter Operation |

## VTSP AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centre on 080650.26N 0981825.22E |
| 2 | Vertical limits | 2000 ft/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Phuket Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSP AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Phuket Approach | 124.7 MHz<br>284.0 MHz<br>121.5 MHz [1)]<br>243.0 MHz [1) 2)] | H24 | [1)] Emergency frequency<br>[2)] On radial 130, radial 170 and radial 210 at distance 15 NM altitude 2 500 FT are blind spot. |
| ARR | Phuket Arrival | 120.7 MHz | H24 | |
| TWR | Phuket Tower | 118.1 MHz<br>236.6 MHz [2)]<br>121.5 MHz [1)]<br>243.0 MHz [1) 2)] | H24 | |
| GND | Phuket Ground | 121.9 MHz | H24 | |
| CDC | Phuket Delivery | 118.55 MHz | H24 | |
| ATIS | Phuket Intl Airport | 128.0 MHz | H24 | |

## VTSP AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | PUT | 116.9 MHz<br>CH 116X | H24 | 080650.3N<br>0981825.2E | 16.72 m | DVOR/DME restriction due to mountainous terrain surround station coverage check does not provide adequate signal 40 nm at required altitudes in various area as follows:<br>1. Radial 360º-030º altitude should not below 5 500 ft.<br>2. Radial 031º-170º altitude should not below 9 000 ft.<br>3. Radial 171º-220º altitude should not below 7 000 ft.<br>4. Radial 221º-359º altitude should not below 3 000 ft. |

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| ILS CAT I<br>LOC/DME<br>RWY 27 | IPKT | 109.9 MHz<br>CH 36X | H24 | 080647.7N<br>0981819.7E | | a) ILS with non-standard localizer alignment, offset 1.4° from runway centre line, coverage over a sector of 35° either side of course, no back course and voice feature, the antenna array is located 245 M from end of RWY 27 120 M from runway centre line.<br>b) Front course 266 Mag. Width 4.4°.<br>c) Glide Path angle 3.2°.<br>d) Middle Marker (MM without compass locator) distance 804 m. from approach end of RWY 27.<br>e) DME co-located with localizer<br>f) Glide slope unusable starting at the middle marker (2.0 DME) to RWY THR. Glide slope shall not be used when DME out of service. |
| GP | | 333.8 MHz | H24 | 080647.2N<br>0981940.3E | | |
| MM | | 75 MHz | H24 | 080654.9N<br>0982014.9E | | |

## VTSP AD 2.20 LOCAL AERODROME REGULATIONS

### 1. SURFACE MOVEMENT PROCEDURE

1.1 Ground Movement

The supplementary of surface movement procedures has been established at Phuket International Airport as follows:

1.1.1 Manoeuvring on movement area :

a) Area of apron D and Almost of the area between apron A to apron C is the blind spot area, when ATC instruction is issued, aircraft are to manoeuvre by pilot discretion.
b) Special manoeuvring procedure at Phuket Aerodrome on TWY P, When visibility below 3,000 M., due to minimum distance between RWY centre line is 150 M. aircraft code letter C, D and E that taxiing on TWY P shall be instructed to hold, under the following conditions :

– Before departing aircraft code C,D, and E enters the runway for take-off or
– Before arriving aircraft code C, D and E crossing 4 NM final for landing.

c) Taxiing on TWY P in connection with TWY E due to the minimum separation distance between TWY centre line and objects is 39.5 M wide body aircraft to taxi with extreme caution.

### 2. USE OF RUNWAY

To achieve the highest possible rate/hour for departure and arrival at Phuket International Airport, the runway occupancy times shall be reduced to a minimum. Therefore, the follow procedures are introduced;

2.1 Departing aircraft

a) Commensurate with safety and standard operating procedure, when in receipt of a line up clearance, pilots should ensure that they are able to taxi into the correct hold and line up position on the runway as soon as the preceding aircraft has commenced its take-off roll.
b) Cockpit checks should be completed before line up, any further checks requiring completion whilst on the runway shall be kept to a minimum. Pilots should ensure that they are able to commence the take-off roll immediately after a take-off clearance is issued.
c) Pilots unable to comply with these procedures shall inform ATC prior to passing the runway holding position.

2.2 Arriving aircraft

Pilots are reminded that runway occupancy time should be kept to the minimum on the landing runway enables ATC to apply minimum spacing on Final Approach that will achieve maximum runway utilization as well as minimize the occurrence of go-arounds.

### 3. START-UP PROCEDURE

3.1 When Flight Formalities have been completed, Pilot of all aircraft, other than VFR domestic flight, shall contact Phuket Delivery Control on frequency 118.55 MHZ 5 minutes before start up engine for request ATC Clearance, as appropriate information, of the following :

a) Aircraft call sign
b) Type of aircraft and category, if HEAVY
c) Parking stand number / Location
d) Identified of the latest ATIS received
e) Destination
f) Proposed flight level, if it is different from the filed flight plan

3.2 After received ATC Clearance, Pilot shall read back the following information :

a) Call sign
b) Destination
c) SID and route
d) Level
e) Transponder Code, and
f) Any restriction

3.3 Pilot shall contact Phuket Ground Control on frequency 121.9 MHZ for push back and start-up, after ATC Clearance has been received.

3.4 Unless other ATC restriction is imposed, the aircraft must be push back within 5 minutes from the time ATC clearance is received otherwise the ATC clearance will be cancelled. Additionally, in order to provide a more flexible ground traffic movement, all domestic departures shall no longer be required to push back within 5 minutes after clearance received.

3.5 If ATC clearance includes a departure time restriction in order to establish longitudinal separation, pilots shall maintain listening watch on Phuket ground in readiness for push back and are to call Phuket Ground in the appropriate time with the departure time restriction. Pilots who fail to comply with these requirements or amended departure time restriction will result in cancellation of ATC clearance.

3.6 When the weather condition below VMC, all of VFR operations on and in the vicinity of the Phuket aerodrome shall be suspended by Phuket Tower or Phuket Approach, if the pilot request SVFR, shall contact Phuket Delivery Control for SVFR clearance.

3.7 Communication failure procedure: If unable to contact Phuket Delivery Control, Pilot of all aircraft shall contact Phuket Ground Control on frequency 121.9 MHZ for request ATC clearance.

3.8 All aircraft shall start-up and push back with minimum power.

3.9 Pilot are reminded they shall start-up only one engine with minimum power (on idle power) when parking at aircraft stand or during push back. The other engines shall be allowed to start-up when push back procedure is complete (tow bar has been disconnected) and aircraft is aligned with the taxilane.

3.10 In case the pilot needs to start-up engine more than minimum power (such as Cross-Bleed Start Up), an approval must be received from ATC before push back. Pilots shall start-up engine more than minimum power within the taxilane only, a delay may result in requesting for such operation.

3.11 In case the pilot needs to test engine after repairing or replace new engines to the aircraft. Testing shall be conduct during the hours of 2300-1400 UTC at stand No.99 on taxiway A, heading of the aircraft to east.

3.12 For the purpose of noise and carbon emission reduction on the apron area, any aircraft that is designated to park at the stand served with passenger loading bridges shall utilize the fixed ground power supply(400HZ) and fixed pre-conditioned air supply provides by the airport if airport if serviceable.

a) Fixed ground power supply(400HZ)-Operators are recommended to reduce electric load immediately after parking. May be used but not more than 5 minutes after the aircraft has parked. If fixed ground power supply is out of service, mobile GPU may be used.
b) Fixed Pre-Conditioned Air (PCA) supply-Operators are recommended to turn off the cabin air re-circulation system to prevent outside air mixing with PC-Air. If fixed PCA is out of service, mobile ACU may be used.
c) In the event of an aircraft needs to run an APU, it could be done only when park on the remote parking stands which are far from the concourse buildings.

**4. PUSH BACK PROCEDURE**

APRON A

4.1 Push back (Face to North or Face to South) procedures for an aircraft parking at stand number 7 through 16 will be advised by ATC.

| Aircraft stand | Taxi out | Push Back Instruction |
|---|---|---|
| 10 and 11 | T3 | Aircraft shall be pushed back face to north then further to the tow-bar release on marking (6) behind aircraft stand number 12L. |
| 10 and 11 | T5 | Aircraft shall be pushed back face to south then further to the tow-bar release on marking (3) behind aircraft stand number 9. |
| 15 | T2 | Aircraft shall be pushed back face to north then towed forward and the tow-bar released behind aircraft stand number 14. |
| 15 | T7 | Aircraft shall be pushed back face to south then further to the tow-bar release on marking (7) behind aircraft stand number 15. |
| 16 | T7 | Aircraft shall be pushed back face to south then further to the tow-bar release on marking (7) behind aircraft stand number 15. |

APRON B

4.2 Push back (Face to East or Face to West) procedures for an aircraft parking at stand number 1 through 6 will be advised by ATC.

Apron D

4.3 Push back (Face to North or Face to South) procedures for an aircraft parking at stand number 31 through 40 will be advised by ATC.

| Aircraft stand | Taxi out | Push Back Instruction |
|---|---|---|
| 33L, 33, 34L, 34, 34R and 35 | T5 | Aircraft shall pushed back face to south then further to the tow-bar release on marking (1) behind aircraft stand number 33R. |
| 34L, 34, 34R and 35 | T4 | Aircraft shall pushed back face to north then further to the tow-bar release on marking (4) behind aircraft stand number 36. |
| 39 | T1 | Aircraft shall pushed back face to north towed forward and the tow-bar released behind aircraft stand number 38. |
| 39 | T7 | Aircraft shall pushed back face to south then further to the tow-bar release on marking (5) behind aircraft stand number 39. |
| 40 | T7 | Aircraft shall pushed back face to south then further to the tow-bar release on marking (5) behind aircraft stand number 39. |

Apron E

4.4 Push back procedures for an aircraft parking at stand number 51 through 54 will be as follows:

| Apron | Aircraft Stand | Taxi out | Push Back Instruction |
|---|---|---|---|
| E | 51<br>(for private aircraft only) | Taxiway K | Aircraft shall be pushed back in south direction until nose gear is on “apron safety line” then swing aircraft nose forward in easterly direction facing south and tow to a release point at Taxiway “K”. |
| | 52, 52L, 52R, 53, 53L,53R and 54<br>(for private aircraft only) | Taxiway K | Aircraft shall be pushed back face to east until nose gear is on "apron safety line” of parking stand number 51 then tow to a release point at Taxiway “K”. |

Remarks

- Pilots shall contact ATC for engine start-up when aircraft is at a release point.
- Pilots are reminded that no engine start-up is permitted on Apron E. The engines shall be allowed to start-up when push back procedure is completed (tow bar has been disconnected) and aircraft is aligned with the taxiway “K”.

4.5 Due to aircraft congestion, self-manoeuvring is not permitted at any parking stand, all aircraft must use tow-bar or towbar-less tractor for push back procedure.

4.6 Area of Apron D, E and almost of the area between apron A to apron C are the blind spot area. Aircraft have to manoeuvre by push back procedures and pilot discretion.

**5. PARKING PROCEDURE**

5.1 Apron A: Use Taxilane T1, T2, T3, T4, T5, T6 and T7 to enter or exit aircraft stand number 7 – 16 as advised by ATC.

5.2 Apron B: Use Taxiway P to enter or exit aircraft stand number 1 – 6 as advised by ATC.

5.3 Apron C: Use Taxiway C, D or P to enter or exit aircraft stand number 21 – 28 as advised by ATC.

5.4 Apron D: Use Taxilane T1, T2, T3, T4, T5, T6 and T7 to enter or exit aircraft stand number 31-40 as advised by ATC.

5.5 Apron E

5.5.1 Parking procedures

| Aircraft Stand | Parking Instruction |
|---|---|
| 51 | Aircraft shall enter aircraft parking stand via taxiway “K” by using idle power and follow marshaller. |
| 52, 52L, 52R, 53, 53L, 53R and 54 | Aircraft shall taxi to “basic marshaller and towing stop line” via taxiway “K” by follow marshaller then shut down engine and enter to aircraft parking stand by towing only. |

Remarks: For aircraft that taxiing into Apron E, pilot shall be reminded that engine power is not permitted after “Basic Marshaller and Towing Stop Line” for parking at aircraft parking stand number 52 – 54. Idle power can be used for aircraft taxiing into aircraft parking stand number 51 only.

5.6 The area between aircraft stands safety line belonging to aircraft stands number 1 through 6, 7 through 16 and 31 through 40 can be used as a temporary parking (during aircraft being in service only) for vehicles and ground service equipment.

**6. PROCEDURES FOR PRIVATE JET TAKING OFF AND LANDING AT PHUKET INTERNATIONAL AIRPORT**

(Except private jet aircraft operated at Siam Land Private Jet Terminal (Apron E)

6.1 All private jet aircraft which has the permission granted by The Civil Aviation Authority of Thailand (CAAT) concerned to take off and land at Phuket International Airport, shall have Ground Handling Agent.

6.2 Procedures for private jet aircraft wishing to stay overnight.

6.2.1 Aircraft owner/operator or PIC shall prepare the information as following:

a) Passengers information (First name, last name, position, and overnight parking purposed);
b) Aircraft nationality and registration marks;
c) Aircraft type, weight, and height of aircraft;
d) Date and time of arrival and departure;
e) Route of Flight;
f) Owner of the aircraft.

6.2.2 Aircraft owner/operator or PIC shall inform The Airports of Thailand Public Company Limited (AOT) at least three (3) workdays before the arrival aircraft

6.3 The aircraft shall be pushed back by using the tow-bar or towbar-less tractor only. If the aircraft does not have such equipment, it will not be allowed to self-maneuver.

6.4 The Private jet aircraft that is granted to operate at Phuket International Airport shall commence the flight in accordance with the approved time slot by the Slot Coordination Committee. If the flight is delay or arrive early, it should not more than 2 hours. In addition, when there is a change in the approved time slots, the aircraft shall notify the airport before flight commencement.

6.5 For further information, contact the following
Unit: Airside Operation Department, Phuket International Airport
Tel: +667 635 1887
Fax: +667 632 7478
E-mail: vtsp.privatejet@airportthai.co.th

**7. 180 DEGREES TURN ON THE RUNWAY**

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, aircraft with wingspan of 24 M and greater are not allowed to make 180 degrees turn on the runway. The turn shall be made on the runway turn pad located near the threshold of runway 27. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator and shall be liable for the compensation caused by such violation.

## 8. SAFEGATE DOCKING SYSTEM – IN SYSTEM AT PHUKET INTERNATIONAL AIRPORT

8.1 INTRODUCTIONS

8.1.1 The SAFEGATE Docking System – in system is install at aircraft stand identification no. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16 and 31, 32L, 32, 32R, 33L, 33, 33R, 34L, 34, 34R, 35, 36, 37, 38, 39 and 40

8.1.2 The system enables the pilots seated on the left of the cockpit to position his aircraft on the correct stand centre line and stop position

8.2 PILOT OPERATING INSTRUCTION

8.2.1 Safety procedure

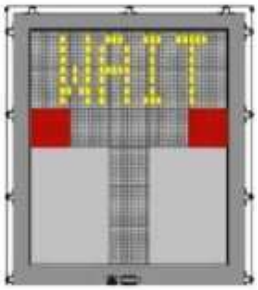
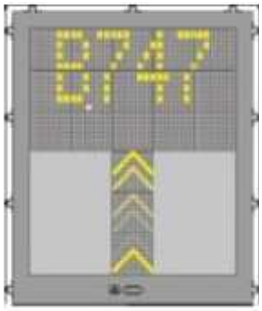
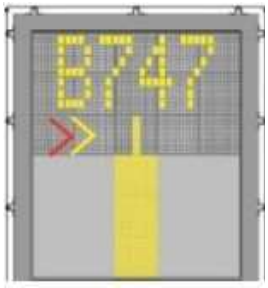
a. General warning
The VDGS system has a built-in error detection program to inform the aircraft pilot of impending dangers during the docking procedure. If the pilot is unsure of the information, being shown on the VDGS display unit, he must immediate stop the aircraft and obtain further information for clearance.

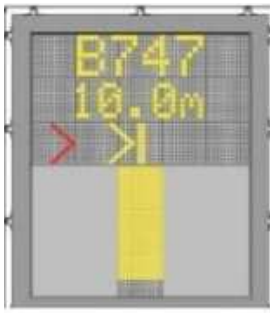
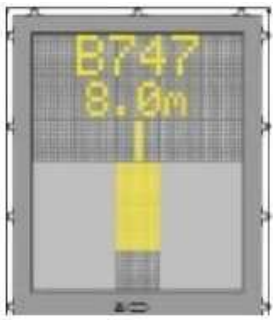
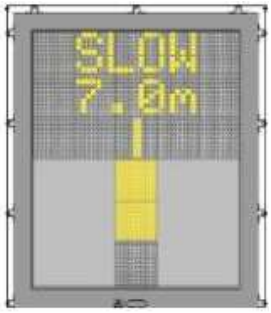
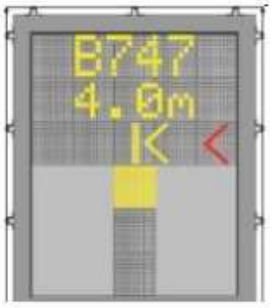
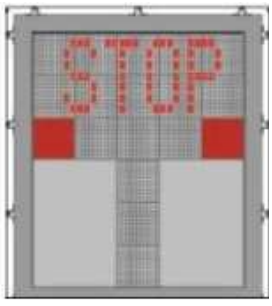
b. Item to check before entering the stand area
Warning : The pilot shall not enter the stand area, unless the docking system first is showing the vertical running arrows. The pilot must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

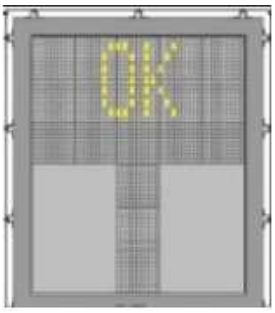
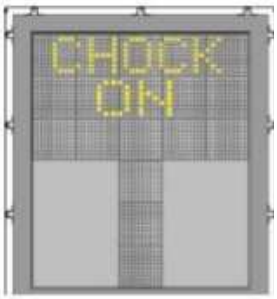
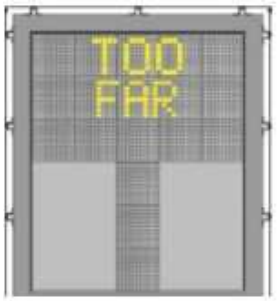
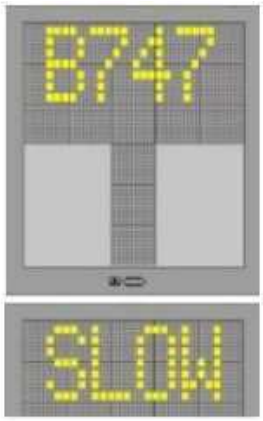
Warning : The pilot shall not enter the stand area, unless the aircraft type displayed is equal to the approaching aircraft/ The Correctness of other information, such as ‘door 2’, shall also be checked.

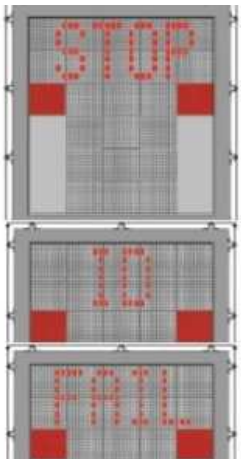
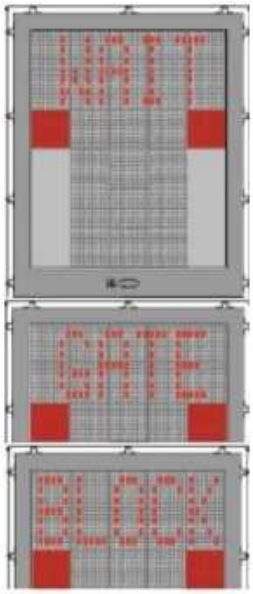
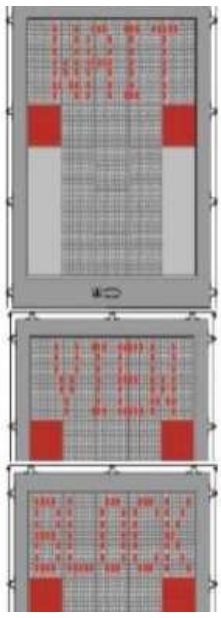
3. Safety Back Up (SBU) message

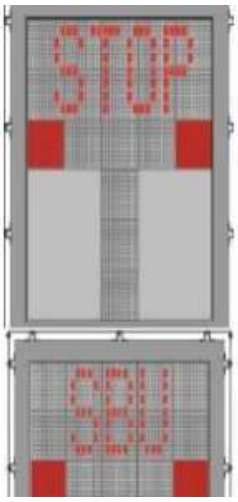
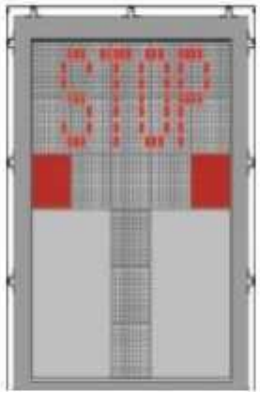
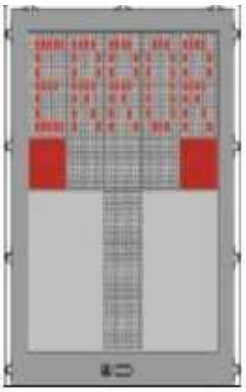
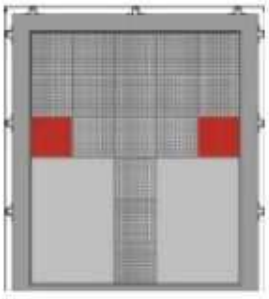
The message STOP Safety Back Up (SBU) means that docking has been interrupted and has to be resumed only by manual guidance. Do not try to resume docking without manual guidance.

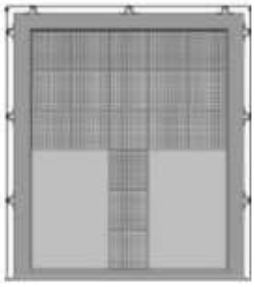
| | |
|---|---|
|   | 8.2.2 START-OF-DOCKING<br><br>When the system is ready to operate, WAIT will be displayed. |
|   | 8.2.3 CAPTURE<br><br>The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft. It shall be checked that the correct aircraft type is displayed. The lead-in line shall be followed. The pilot must not proceed beyond the bridge, unless the arrows have been superseded by closing rate bar. |
|   | 8.2.4 TRACKING<br><br>When the aircraft has been caught by the laser, the floating arrow is replaced by the yellow centre line indicator. A flashing red arrow indicates the direction to turn. The vertical yellow arrow shows position in relation to the centre line. This indicator gives correct position and azimuth guidance. |

| | |
|---|---|
|  | 8.2.5 CLOSING RATE.<br><br>Display of digital countdown will start when the aircraft is 20 M from stop position.When the aircraft is less than 12 M from the stop position, the closing rate is indicated by turning off one row of the centre line symbol per 0.5 M, covered by the aircraft. Thus, when the last row is turned off, 0.5 M remains to stop. |
|  | 8.2.6 ALIGNED TO CENTRE.<br><br>The aircraft is 8 M from the stop position. The absence of any direction arrow indicates an aircraft on the centre line. |
|  | 8.2.7 SLOW DOWN.<br><br>If the aircraft is approaching faster than the accepted speed, the system will show SLOW DOWN as a warning to the pilot. |
|  | 8.2.8 AZIMUTH GUIDANCE.<br><br>The aircraft is 4 M from the stop-position. The yellow arrow indicates an aircraft to the right of the centre line, and the red flashing arrow indicates the direction to turn. |
|  | 8.2.9 STOP POSITION REACHED.<br><br>When the correct stop-position is reached, the display will show STOP and red lights will be lit. |

| | |
|---|---|
|  | 8.2.10 DOCKING COMPLETE.<br><br>When the aircraft has parked, OK will be displayed. |
|  | 8.2.11 CHOCKS ON.<br>CHOCK ON will be displayed, when the ground staff has put the chocks in front of the nose wheel and pressed the “Chocks On” button on the operator panel. |
|  | 8.2.12 OVERSHOOT.<br><br>If the aircraft overshoot the stop-position, TOO FAR will be displayed. |
|  | 8.2.13 BAD WEATHER CONDITION.<br><br>During heavy fog, rain or snow, the visibility for the docking system can be reduced. When the system is activated and in capture mode, the display will deactivate the floating arrows and show DOWN GRADE. This message will be superseded by the closing rate bar, as soon as the System detects the approaching aircraft. The pilot must not proceed beyond the bridge, unless the DOWN GRADE text has been superseded by the closing rate bar. |

| | |
|---|---|
|  | 8.2.14 AIRCRAFT VERIFICATION FAILURE.<br><br>During entry into the stand, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 15 M before the stop-position, the display will first show WAIT and make a second verification check. If this fails STOP and ID FAIL will be displayed. The text will be alternating on the upper two rows of the display. The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar. |
|  | 8.2.15 GATE BLOCKED.<br><br>If an object is found blocking the view from the VDGS to the planned stop position for the aircraft, the docking procedure will be halted with a GATE BLOCK message. The docking procedure will resume as soon as the blocking object has been removed. The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar. |
|  | 8.2.16 VIEW BLOCKED.<br><br>If the view towards the approaching aircraft is hindered for instance by dirt on the window, the VDGS will report a view block condition. Once the system is able to see the aircraft through the dirt, the message will be replaced with a closing rate display. The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar. |

| | |
|---|---|
|  | 8.2.17 Safety Back Up (SBU)-STOP<br><br>Any unrecoverable error during the docking procedure will generate a Safety Back Up (SBU) condition. The display will show red stop bar and the text STOP SBU. A manual backup procedure must be used for docking guidance. |
|  | 8.2.18 EMERGENCY STOP<br><br>When the emergency stop button is pressed, STOP is displayed. |
|  | 8.2.19 ERROR<br><br>If a system error occurs, the message ERROR is display with an error code. The code is used for maintenance purposes and explained else where. |
|  | 8.2.20 SYSTEM BREAKDOWN<br><br>In case of a severe system failure, the display will go black, except for a red stop indicator. A marshalling service will be used for docking guidance. |

| | |
|---|---|
|  | 8.2.21 POWER FAILURE<br><br>In case of a power failure, the display will be completely black. A marshalling service will be used for docking guidance. |

**9. General Information**

The supplementary of general information has been established at Phuket International Airport as follows :-

9.1 APRON A and B

a) Type of apron : Remote parking and Passenger boarding bridge parking.
b) Aircraft can be parked for overnight parking and layover.
c) Nose-in parking system
d) Visual Docking Guidance System-VDGS is provided at stand 1-6 for apron B and stand 7-16 for apron A. If VDGS is out of service, a marshaller shall guide the aircraft to the parking position.
e) Visual Docking Guidance System-VDGS is not provided for Multi-Aircraft Ramp System (MARS) stand (12L,12R,14L,14R), a marshaller shall guide the aircraft to the parking position.
f) Refuel JET A-1 and AVGAS by trailer and hydrant system.

9.2 APRON C

a) Type of apron : Remote parking
b) Visual Docking Guidance System-VDGS is not provided
c) Refuel JET A-1 and AVGAS by trailer.

9.3 APRON D

a) Type of apron : Remote parking
b) Aircraft can be parked for overnight parking and layover.
c) Nose – in parking system
d) Visual Docking Guidance System-VDGS is provided at each stand (included Multi-Aircraft Ramp System (MARS) stands 32L, 32R, 33L, 33R, 34L, 34R). If VDGS is out of service, a marshaller shall guide the aircraft to the parking position.
e) Refuel JET A-1 and AVGAS by trailer and hydrant system.

9.4 APRON E

a) Type of Apron: Remote parking (for private aircraft only)
b) Aircraft can be parked for overnight parking and layover.
c) Nose-in aircraft parking.
d) Visual Docking Guidance System-VDGS is not provided. Marshaller shall guide aircraft to the parking position.
e) The aircraft parking stand number 52 (including 52L, 52R) and 53 (including 53L, 53R) are Multiple Aircraft Ramp System (MARS) stand.
f) Refuel JET A-1 and AVGAS by trailer.

9.5 Aircraft stand taxilane

a) Taxilane T1 is the parallel to Taxilane T2. (Taxilane T1 located behind aircraft stand 31-40 and Taxilane T2 located behind aircraft stand 7-16)
b) The distance between centre lines of T1 and T2 is 80 M.
c) The distance between centre line of Taxilane T1 and aircraft tail limit line is 47.50 M.
d) The distance between centre line of Taxilane T2 and aircraft tail limit line is 47.40 M.
e) Taxilane T3, T4, T5, T6 and T7 connected with Taxilane T1 and T2 can accommodate aircraft code letter E and below
f) The distance between centre line of taxilane and aircraft tail limit line of aircraft stand number 52 - 54 is 23 M.

9.6 Ground services are provided by aircraft operating agency, for non-agency aircraft are persuaded to contact Blue Port Phuket (AOTGA) on VHF 129.350 MHZ 15 minutes prior to arrival or notify by Flight Plan.

**10. REMOVAL OF DISABLED AIRCRAFT**

10.1 When the aircraft is involved in an accident at Phuket International airport, the aircraft operator or the registered owner is responsible for removal of its disabled aircraft. If the accident is likely to cause danger or obstruction to the movement of other aircraft or vehicles, the General Manager of Phuket International airport or his authorized representative may order the aircraft operator or the registered owner to remove its disabled aircraft without delay.

10.2 If the aircraft operator or the registered owner does not comply with such order, the General Manager of Phuket International airport or authorized representative shall empower to remove the aircraft himself. The expense incurred in removing such aircraft shall be recovered from aircraft operator or the registered owner. The General Manager of Phuket International airport or authorized representative shall not be responsible for any damage occurring to the aircraft during its removal.

**11. HELICOPTER OPERATIONS**

11.1 All helicopter operate in Phuket International Airport shall be treated as fixed wing aircraft and shall strictly follow ATC instruction.

11.2 There are no helicopter alighting areas at the airport. All inbound and outbound helicopters must use the runways.

11.3 Helicopter handling agents are to obtain slot allocation for all flights.

11.4 Helicopters may not carry out direct approaches to or take-off from apron areas or taxiways.

11.5 After landing, helicopters will ground taxi or air taxi to an allocated parking area (usually an adjacent stand). A leader vehicle will normally be in attendance.

11.6 While helicopters are operating on the manoeuvring area extreme caution must be exercised regarding wingtip clearance and turbulence.

## VTSP AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSP AD 2.22 FLIGHT PROCEDURES

**1. VFR REPORTING POINTS AND LOCAL PROCEDURES**

PHUKET INTERNATIONAL AIRPORT

1. Reporting points for VFR flight

In order to expedite and maintain an orderly flow of air traffic into airport, the procedure of the inbound traffic of VFR flights, conventional and prop-jet aircraft, be set up as follow:

a) Aircraft entering to land from north of Phuket International Airport, shall report over Thai Muang District, designated as TANGO MIKE (0823.5N 09816.0E) and Ban Khok Kloi designated as KILO KILO (0816.0N 9819.0E) which are approximately 17 NM on R-352 and 9 NM on R-360 of PUT VOR/DME respectively. When reaching KK the aircraft will be instructed to join aerodrome traffic circuit accordingly.
b) Aircraft entering to land from northeast of Phuket International Airport, shall report over Phang Nga City, designated as PAPA NOVEMBER (0826.5N 09831.5E) which is 24 NM on R-033 of PUT VOR/DME. When reaching PN the aircraft will be instructed to join aerodrome traffic circuit accordingly.
c) Aircraft entering to land from east of Phuket International Airport, shall report over Ko Yao Noi, designated as YANKEE NOVEMBER (0807.0N 09837.0E) which is 18 NM on R-089 of PUT VOR/DME. When reaching YN the aircraft will be instructed to join aerodrome traffic circuit accordingly.
d) Aircraft entering to land from south of Phuket International Airport, shall report over Ko Racha Yai, designated as ROMEO CHARLIE (0736.0N 09822.0E) and Phuket City, designated as PAPA KILO (0753.0N 9823.5E) which are

approximately 31 NM on R-174 and 15 NM on R-160 of PUT VOR/DME respectively. When reach PK the aircraft will be instructed to join aerodrome traffic circuit accordingly.

2. Aerodrome traffic circuit

Using both sides of traffic circuit.

3. Overhead approach pattern

a) Using runway 09 by left turn pattern.
b) Using runway 27 by left turn pattern.

**2. SPEED CONTROL PROCEDURE IN PHUKET TMA**

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 230 knots unless authorized by ATC.
b) Speed will be reduced to 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
c) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
d) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
e) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction,the phrase “RESUME NORMAL SPEED” will be used.
f) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
g) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) and c)

## VTSP AD 2.23 ADDITIONAL INFORMATION

**1. Bird concentrations in the vicinity of Phuket International Airport**

It has been observed that migratory birds in sizeable number appear on or in the vicinity of Phuket International Airport mostly depends on the time of year and geographical conditions which may divided into Rainy season (May to October), Winter season (October to February) and Summer season (March to April), while the resident birds are present in variable number every month.

Pilots are requested to report bird strikes to the General Manager of the airport via
Wildlife Hazard Control staff
Phone +667 635 1216
E-mail: aabsvtsp@airportthai.co.th, supanat.c@airportthai.co.th, chaiphattana.r@airportthai.co.th

Species which account for high to very high to bird strike risk are as follows:

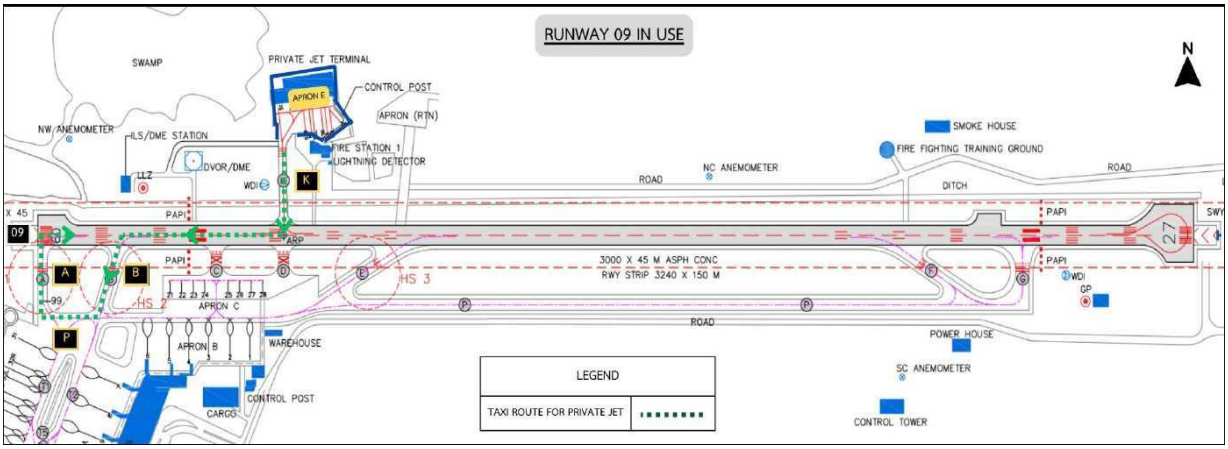
| Species | Weight (KG) | Period |
|---|---|---|
| Haliastur indus (Brahminy Kite) | 0.32 - 0.67 | All year (mostly in April - October) |
| Milvus migrans (Black Kite) | 0.56 - 0.94 | All year (mostly in April - October) |
| Spilornis cheela (Crested Serpent Eagle) | 0.42 - 1.8 | All year (mostly in April - October) |
| Tyto alba (Barn Owl) | 0.43 - 0.62 | All year (at night time) |
| Bubulcus ibis (Cattle Eagle) | 0.27 - 0.51 | All year (mostly in May - October) |
| Ardea intermedia (Intermediate Egret) | 0.4 - 0.5 | All year (mostly in May - October) |
| Ardeola sp. (Pond Heron sp.) | 0.3 - 0.4 | August - April |
| Vanellus indicus (Red-Wattled Lapwing) | 0.11 - 0.23 | All year (mostly in February - August) |
| Glareola maldivarum (Oriental Pratincole) | 0.059 - 0.095 | February - October |
| Charadrius sp. (Plover sp.) | 0.030 - 0.060 | All year (mostly in October - February) |
| Hirundo tahitica (Pacific Swallow) | 0.011 - 0.060 | All year (mostly at dawn and twilight) |

**2. Taxiing procedures for Apron E**

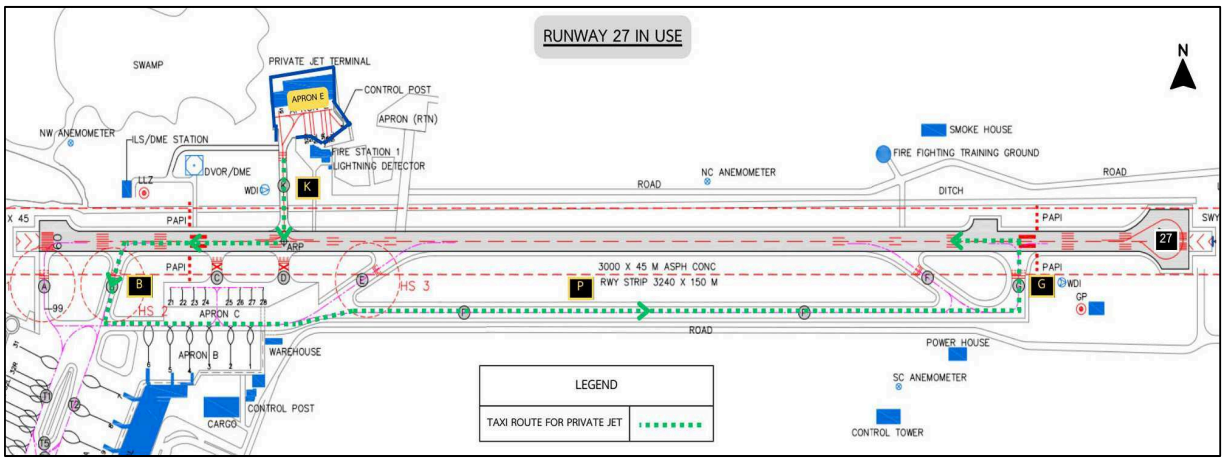
Taxiing procedures to/from Apron E for departing and arriving private jet are prescribed as follow:

2.1 Departures

a. Runway 09 in use: aircraft shall taxi via Taxiway K then enter and taxi down on runway to vacate at Taxiway B and taxi via Taxiway P, A to holding point runway 09 or as directed by ATC. (For aircraft departure from intersection Taxiway K, runway remaining distance is 2340 M)

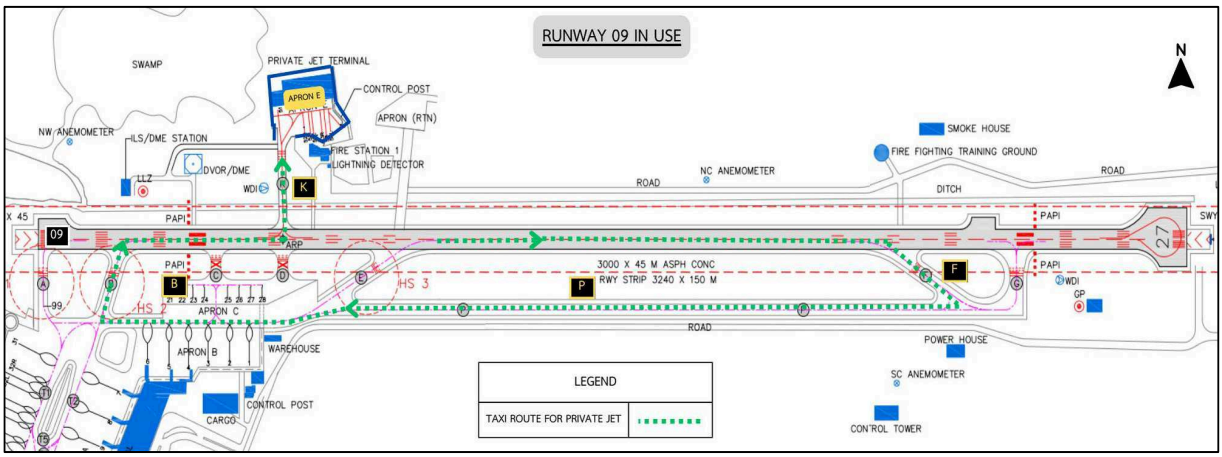



b. Runway 27 in use: aircraft shall taxi via Taxiway K then enter and taxi down on runway to vacate at Taxiway B and taxi via Taxiway P, G to holding point runway 27 or as directed by ATC. (For aircraft departure from intersection Taxiway G, runway remaining distance is 2500 M)

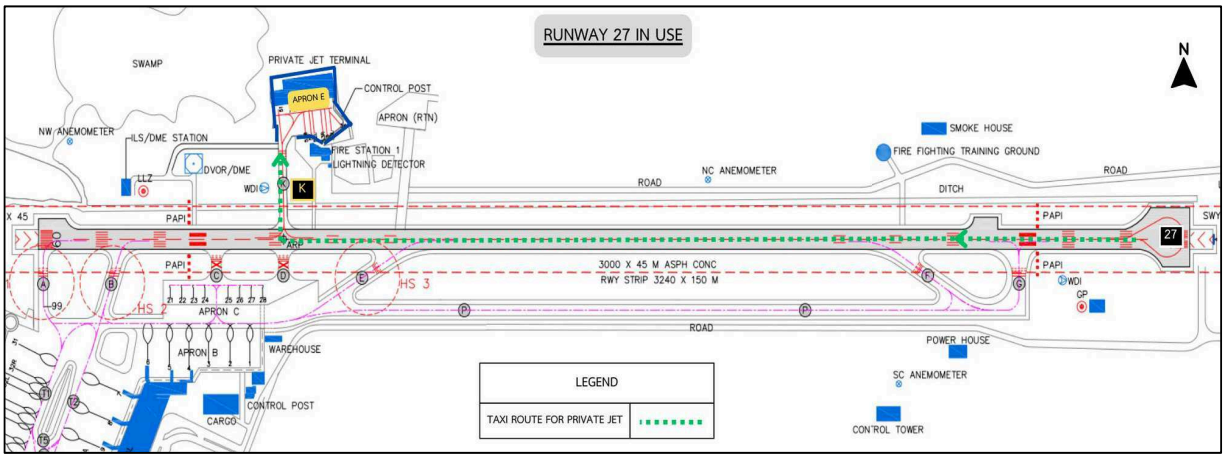



2.2 Arrivals

a. Runway 09 in use: aircraft shall be vacating runway via Taxiway F and taxi via Taxiway P, B then enter and taxi down on runway to vacate at Taxiway K or as directed by ATC.



b. Runway 27 in use: aircraft shall be vacating runway via Taxiway K or as directed by ATC.



## VTSP AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSP-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTSP-2-3 |
| Aircraft Parking/Docking Chart - ICAO (Verso) | AD 2-VTSP-2-4 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTSP-2-5 |
| Aerodrome Obstacle Chart - ICAO - Type A - RWY 09/27 | AD 2-VTSP-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 09 - ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A | AD 2-VTSP-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 09 - ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A (Tabular description 1) | AD 2-VTSP-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 09 - ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A (Tabular description 2) | AD 2-VTSP-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 09 - ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A (Waypoint list table) | AD 2-VTSP-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 27 - ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B | AD 2-VTSP-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 27 - ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B (Tabular description 1) | AD 2-VTSP-6-7 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 27 - ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B (Tabular description 2) | AD 2-VTSP-6-8 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 27 - ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B (Waypoint list table) | AD 2-VTSP-6-9 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 09 - ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C | AD 2-VTSP-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 09 - ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C (Tabular description 1) | AD 2-VTSP-7-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 09 - ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C (Tabular description 2) | AD 2-VTSP-7-3 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 09 - ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C (Tabular description 3) | AD 2-VTSP-7-4 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 09 - ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C (Waypoint list table) | AD 2-VTSP-7-5 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 27 - ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D | AD 2-VTSP-7-7 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 27 - ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D (Tabular description 1) | AD 2-VTSP-7-8 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 27 - ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D (Tabular description 2) | AD 2-VTSP-7-9 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 27 - ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D (Tabular description 3) | AD 2-VTSP-7-10 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 27 - ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D (Waypoint list table) | AD 2-VTSP-7-11 |
| Instrument Approach Chart - ICAO - VOR Y RWY 09 | AD 2-VTSP-8-1 |
| Instrument Approach Chart - ICAO - VOR Y RWY 27 | AD 2-VTSP-8-3 |
| Instrument Approach Chart - ICAO - VOR Z RWY 09 | AD 2-VTSP-8-5 |
| Instrument Approach Chart - ICAO - VOR Z RWY 27 | AD 2-VTSP-8-7 |
| Instrument Approach Chart - ICAO - ILS or LLZ RWY 27 | AD 2-VTSP-8-9 |
| Instrument Approach Chart - ICAO - RNP z RWY 09 | AD 2-VTSP-8-11 |
| Instrument Approach Chart - ICAO - RNP z RWY 09 (Tabular description) | AD 2-VTSP-8-12 |
| Instrument Approach Chart - ICAO - RNP z RWY 27 | AD 2-VTSP-8-13 |
| Instrument Approach Chart - ICAO - RNP z RWY 27 (Tabular description) | AD 2-VTSP-8-14 |
| Instrument Approach Chart - ICAO - RNP y RWY 09 (AR) | AD 2-VTSP-8-15 |
| Instrument Approach Chart - ICAO - RNP y RWY 09 (AR) (Tabular description) | AD 2-VTSP-8-16 |
| Instrument Approach Chart - ICAO - RNP y RWY 09 (AR) (Waypoint list table) | AD 2-VTSP-8-17 |
| Instrument Approach Chart - ICAO - RNP y RWY 27 (AR) | AD 2-VTSP-8-19 |

| Chart name | Page |
| --- | --- |
| Instrument Approach Chart - ICAO - RNP y RWY 27 (AR) (Tabular description) | AD 2-VTSP-8-20 |
| Instrument Approach Chart - ICAO - RNP y RWY 27 (AR) (Waypoint list table) | AD 2-VTSP-8-21 |

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# AERODROME CHART - ICAO

08 06 45 N
098 18 33 E

ELEV 84 FT

TWR : 118.1 236.6

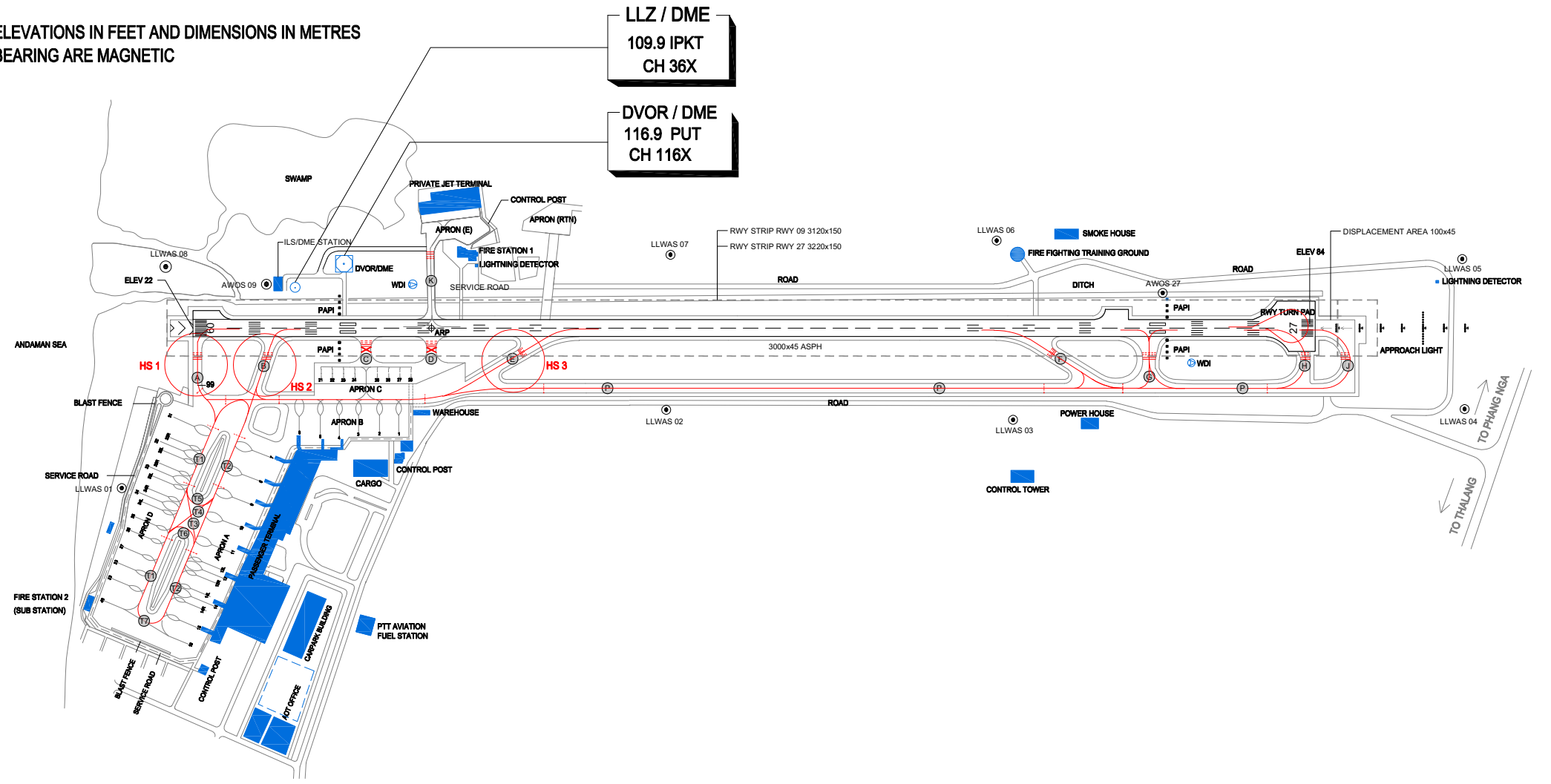
# PHUKET / Phuket Intl

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 09 | 85 | 08 06 43.05 N<br>098 18 11.90 E | PCR 800/F/A/X/T |
| 27 | 265 | 08 06 52.23 N<br>098 19 49.46 E | PCR 800/F/A/X/T<br>PCR 1240/R/C/W/T(100 M BFR THR 27) |
| TAXIWAYS A,B,E,F,G | | | PCR 710/R/A/W/T |
| TAXIWAYS C, D | | | PCR 380/F/A/X/T |
| TAXIWAYS H,J | | | PCR 1240/R/C/W/T |
| TAXIWAY K | | | PCR 550/F/D/X/T |
| TAXIWAY P | | | PCR 710/R/A/W/T, PCR 800/F/C/X/T |
| TAXILANES T1, T2, T3, T4, T5, T6, T7 | | | PCR 780/R/A/W/T |
| APRONS A, B, D | | | PCR 780/R/A/W/T |
| APRON C | | | PCR 570/R/A/W/T, PCR 380/F/A/X/T |
| APRON E | | | PCR 580/R/C/W/T |

MAG VAR 0° 29' W
(2016)

ANNUAL CHANGE 0° 1' E

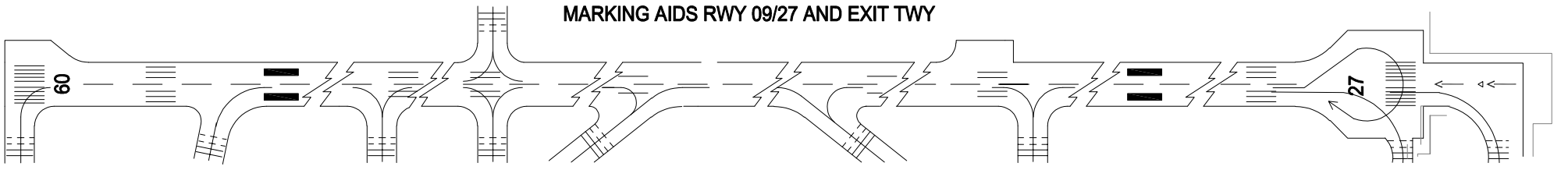
ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC



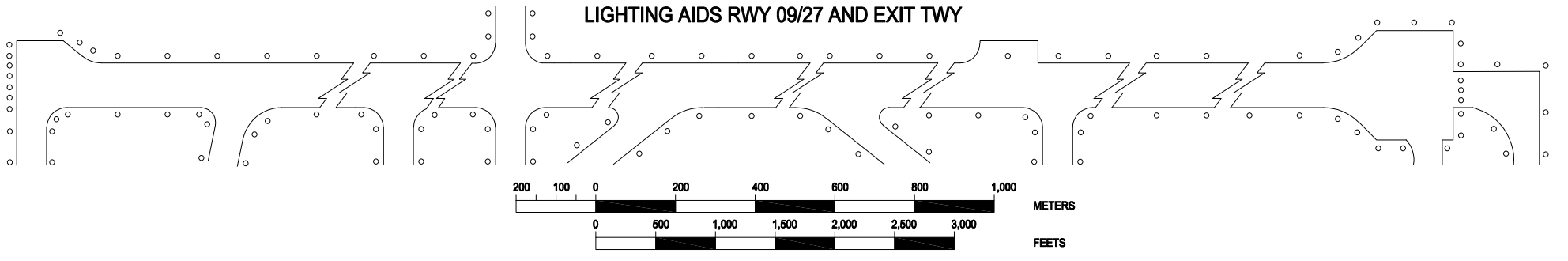

| LEGEND | |
|---|---|
| CLOSED | |
| HOT SPOT | |
| BUILDING | |
| TAXIWAY AND TAXILANE IDENTIFICATION | A OR T1 |
| INTERMEDIATE HOLDING POSITION | |
| | |

| LIGHTING AIDS | |
|---|---|
| RWY EDGE LIGHT | WHITE |
| RWY EDGE LIGHT AT DISPLACE THR | RED UNIDIRECTIONAL |
| TWY EDGE LIGHT | BLUE |
| THR / END LIGHT | GREEN / RED BIDIRECTIONAL |

MARKING AIDS RWY 09/27 AND EXIT TWY




LIGHTING AIDS RWY 09/27 AND EXIT TWY




CHANGE :TWY H AND J ADDED, TWY P EXTENSION ADDED, DISPLACEMENT AREA ADDED, SWY DIMENSION REMOVED, BEARING STRENGTH UPDATED, ANEMOMETERS REMOVED, GP BUILDING REMOVED LLWAS AND AWOS ADDED, MARKING AND LIGHTING AIDS UPDATED, AERODROME AND THR ELEVATION UPDATED, RWY STRIP DIMENSION ADDED

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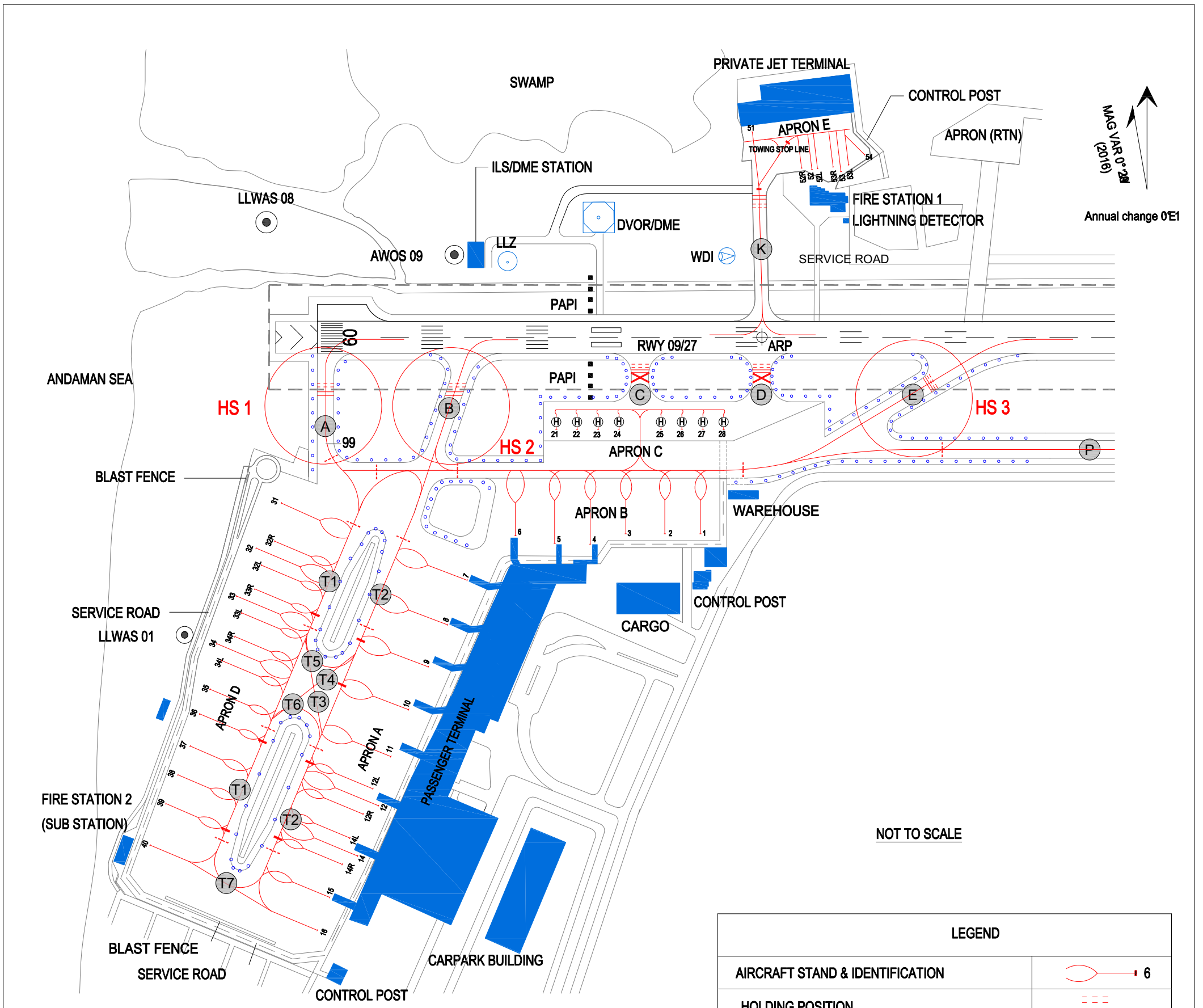
# AIRCRAFT PARKING/ DOCKING CHART - ICAO

## APRON A ELEV 17 FT

TWR : 118.1 236.6
GND : 121.9

## PHUKET / Phuket Intl




NOT TO SCALE

| LEGEND | |
|---|---|
| AIRCRAFT STAND & IDENTIFICATION | 6 |
| HOLDING POSITION | |
| SERVICE ROAD | |
| TAXI ROUTES | |
| CLOSED | |
| HOTSPOT | |
| RELEASED TOW BAR / TOWING STOP LINE | |
| TAXIWAY AND TAXILANE IDENTIFICATION | A OR T1 |
| TAXIWAY LIGHT | |
| INTERMEDIATE HOLDING POSITION | |
| | |

REMARKS

ARP 08 06 45N 098 18 33E

| APRON | SURFACE | STRENGTH |
|---|---|---|
| A (ACFT STAND NR 7-16) | CONCRETE | PCR 780/R/A/W/T |
| B (ACFT STAND NR 1-6) | CONCRETE | PCR 780/R/A/W/T |
| C (ACFT STAND NR 21-28) | CONCRETE,ASPHALT | PCR 570/R/A/W/T, PCR 380/F/A/X/T |
| D (ACFT STAND NR 31-40) | CONCRETE | PCR 780/R/A/W/T |
| E (ACFT STAND NR 51-54) | CONCRETE | PCR 580/R/C/W/T |

- DUE TO THE SLOPE OF ACFT STAND NR 6 IN APRON B IS 1 PERCENT HIGHER THAN OTHER STAND NEARBY ACFT SHOULD TAKE CAUTION WHILE PARKING ON THE STAND
- ACFT STAND NR 4 - 15 AVAILABLE WITH AEROBRIDGES
- ACFT STAND NR 1 - 16, 31 - 40 FUEL HYDRANT SYSTEM (JET A-1) AVAILABLE
- INS COORDINATES FOR AIRCRAFT STAND SEE AIRCRAFT PARKING / DOCKING CHART - ICAO VERSO

CHANGE : SWY DIMENSION REMOVED, APRON STRENGTH UPDATED, ANEMOMETER REMOVED, LLWAS AND AWOS ADDED

| AIRCRAFT STAND COORDINATES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LOCATION | STAND NR | COORDINATES | | ACFT UP TO | LOCATION | STAND NR | COORDINATES | | ACFT UP TO |
| APRON B | 1 | 08 06 35.67 | 098 18 29.75 | CODE D | APRON D | 31 | 08 06 35.59 | 098 18 10.53 | CODE E |
| | 2 | 08 06 35.51 | 098 18 28.05 | CODE D | | 32L | 08 06 32.42 | 098 18 09.97 | CODE C |
| | 3 | 08 06 35.35 | 098 18 26.36 | CODE D | | 32 | 08 06 33.12 | 098 18 09.89 | CODE E |
| | 4 | 08 06 34.77 | 098 18 24.69 | CODE D | | 32R | 08 06 33.69 | 098 18 10.31 | CODE C |
| | 5 | 08 06 34.68 | 098 18 22.97 | CODE D | | 33L | 08 06 29.87 | 098 18 09.30 | CODE C |
| | 6 | 08 06 34.23 | 098 18 20.97 | B747-300 | | 33 | 08 06 30.57 | 098 18 09.21 | CODE E |
| APRON A | 7 | 08 06 32.39 | 098 18 20.42 | CODE E | | 33R | 08 06 31.14 | 098 18 09.63 | CODE C |
| | 8 | 08 06 30.13 | 098 18 19.81 | CODE E | | 34L | 08 06 27.32 | 098 18 08.63 | CODE C |
| | 9 | 08 06 27.86 | 098 18 19.21 | CODE E | | 34 | 08 06 28.02 | 098 18 08.54 | CODE E |
| | 10 | 08 06 25.60 | 098 18 18.62 | CODE E | | 34R | 08 06 28.59 | 098 18 08.96 | CODE C |
| | 11 | 08 06 23.30 | 098 18 18.02 | CODE E | | 35 | 08 06 25.95 | 098 18 08.64 | CODE C |
| | 12L | 08 06 21.70 | 098 18 16.58 | CODE C | | 36 | 08 06 24.68 | 098 18 08.31 | CODE C |
| | 12 | 08 06 20.83 | 098 18 17.39 | CODE E | | 37 | 08 06 23.11 | 098 18 07.66 | CODE D |
| | 12R | 08 06 20.59 | 098 18 17.07 | CODE C | | 38 | 08 06 21.24 | 098 18 07.17 | CODE D |
| | 14L | 08 06 19.24 | 098 18 15.93 | CODE C | | 39 | 08 06 19.37 | 098 18 06.67 | CODE D |
| | 14 | 08 06 18.37 | 098 18 16.75 | CODE E | | 40 | 08 06 17.49 | 098 18 06.18 | CODE D |
| | 14R | 08 06 18.13 | 098 18 16.42 | CODE C | APRON E | 51 | 08 06 54.61 | 098 18 32.10 | Max wingspan 30.5M |
| | 15 | 08 06 16.14 | 098 18 16.23 | CODE D | | 52L | 08 06 53.18 | 098 18 35.30 | Max wingspan 19.4M |
| | 16 | 08 06 14.27 | 098 18 15.74 | CODE D | | 52 | 08 06 53.12 | 098 18 35.04 | Max wingspan 31M |
| APRON C | 21 | 08 06 39.92 | 098 18 24.00 | CESSNA 404 | | 52R | 08 06 53.14 | 098 18 34.55 | Max wingspan 19.4M |
| | 22 | 08 06 40.01 | 098 18 24.97 | CESSNA 404 | | 53L | 08 06 53.49 | 098 18 36.73 | Max wingspan 19.4M |
| | 23 | 08 06 40.11 | 098 18 25.95 | CESSNA 404 | | 53 | 08 06 53.13 | 098 18 36.31 | Max wingspan 35.9M |
| | 24 | 08 06 40.20 | 098 18 26.92 | CESSNA 404 | | 53R | 08 06 53.33 | 098 18 36.02 | Max wingspan 19.4M |
| | 25 | 08 06 40.38 | 098 18 28.88 | CESSNA 404 | | 54 | 08 06 54.04 | 098 18 37.44 | Max wingspan 16.8M |
| | 26 | 08 06 40.48 | 098 18 29.86 | CESSNA 404 | | 99 | 08 06 38.20 | 098 18 12.78 | CODE E |
| | 27 | 08 06 40.57 | 098 18 30.83 | CESSNA 404 | | | | | |
| | 28 | 08 06 40.65 | 098 18 31.80 | CESSNA 404 | | | | | |

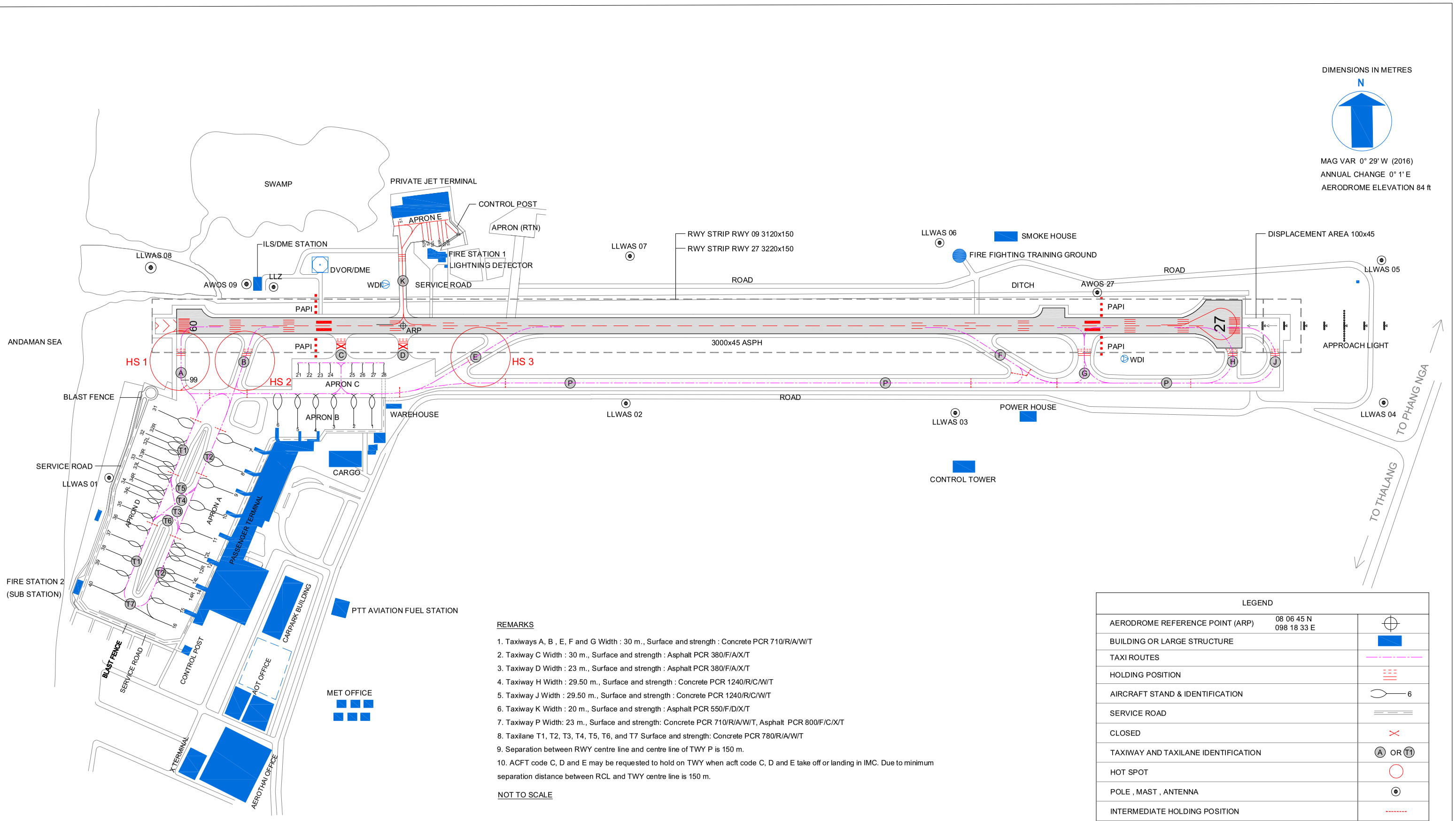
# AERODROME GROUND MOVEMENT CHART - ICAO

APRON ELEV
17 FT

| | |
|---|---|
| TWR | : 118.1 236.6 |
| APP | : 124.7 284.0 |
| GND | : 121.9 |
| ATIS | : 128.0 |

# PHUKET/ Phuket Intl






REMARKS

1. Taxiways A, B , E, F and G Width : 30 m., Surface and strength : Concrete PCR 710/R/A/W/T
2. Taxiway C Width : 30 m., Surface and strength : Asphalt PCR 380/F/A/X/T
3. Taxiway D Width : 23 m., Surface and strength : Asphalt PCR 380/F/A/X/T
4. Taxiway H Width : 29.50 m., Surface and strength : Concrete PCR 1240/R/C/W/T
5. Taxiway J Width : 29.50 m., Surface and strength : Concrete PCR 1240/R/C/W/T
6. Taxiway K Width : 20 m., Surface and strength : Asphalt PCR 550/F/D/X/T
7. Taxiway P Width: 23 m., Surface and strength: Concrete PCR 710/R/A/W/T, Asphalt PCR 800/F/C/X/T
8. Taxilane T1, T2, T3, T4, T5, T6, and T7 Surface and strength: Concrete PCR 780/R/A/W/T
9. Separation between RWY centre line and centre line of TWY P is 150 m.
10. ACFT code C, D and E may be requested to hold on TWY when acft code C, D and E take off or landing in IMC. Due to minimum separation distance between RCL and TWY centre line is 150 m.

NOT TO SCALE

| LEGEND | |
|---|---|
| AERODROME REFERENCE POINT (ARP) 08 06 45 N 098 18 33 E | |
| BUILDING OR LARGE STRUCTURE | |
| TAXI ROUTES | |
| HOLDING POSITION | |
| AIRCRAFT STAND & IDENTIFICATION | 6 |
| SERVICE ROAD | |
| CLOSED | |
| TAXIWAY AND TAXILANE IDENTIFICATION | A OR T1 |
| HOT SPOT | |
| POLE , MAST , ANTENNA | |
| INTERMEDIATE HOLDING POSITION | |
| | |

REMARKS : COORDINATE IS WGS-84

THR RWY 09: 08 06 43.05N 098 18 11.90E

THR RWY 27: 08 06 52.23N 098 19 49.46E

CHANGE : TWY H AND TWY J ADDED, TWY P EXTENSION ADDED, DISPLACEMENT AREA ADDED, TWY SURFACE AND STRENGTH UPDATED, SWY DIMENSION REMOVED, ANEMOMETER REMOVED, GP BUILDING REMOVED, LLWAS AND AWOS ADDED, AERODROME ELEVATION CHANGED,RWY STRIP DIMENSION ADDED

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# AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

## Phuket International Airport

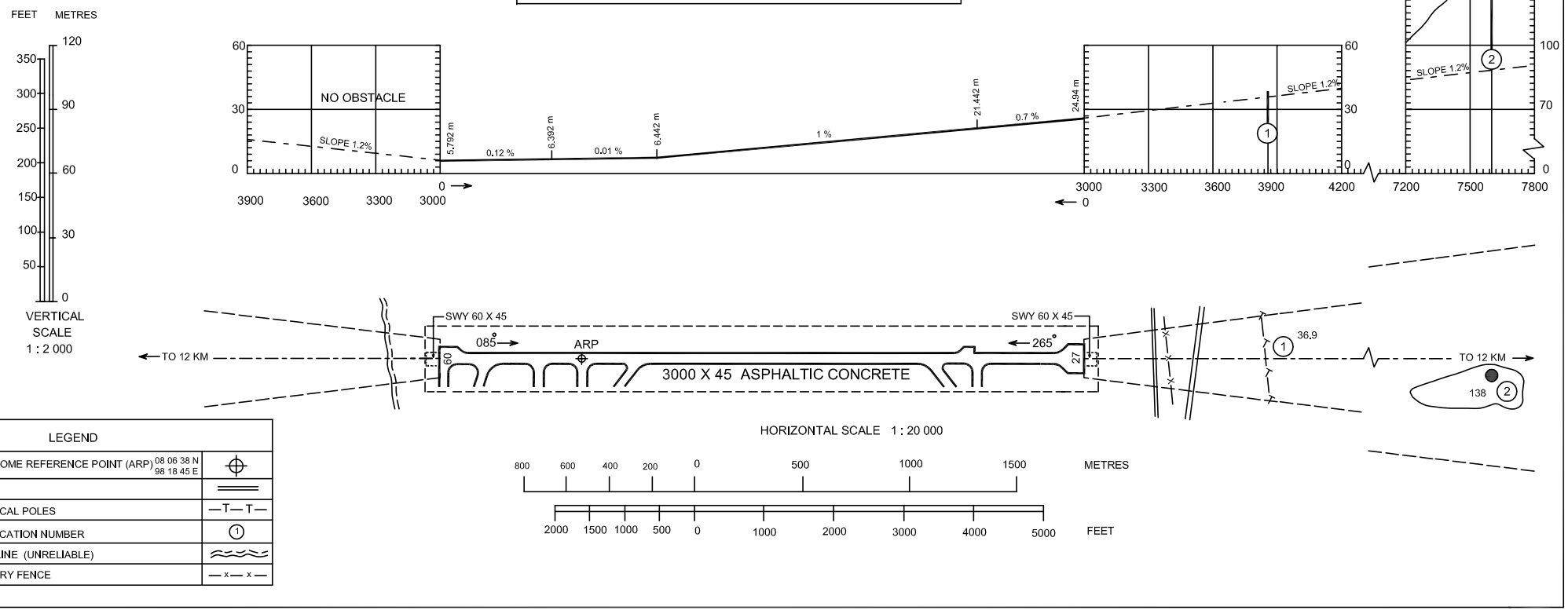
DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 0° 25' W (2016)

Annual change 0° 1' E

**RWY 09 / 27**

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 09 | | RWY 27 |
| 3000 | TAKE-OFF RUN AVAILABLE | 3000 |
| 3000 | TAKE-OFF DISTANCE AVAILABLE | 3000 |
| 3060 | ACCELERATE STOP DISTANCE AVAILABLE | 3060 |
| 3000 | LANDING DISTANCE AVAILABLE | 3000 |




| LEGEND | |
|---|---|
| AERODROME REFERENCE POINT (ARP) 08 06 38 N 98 18 45 E | ⊕ |
| ROAD | ═══ |
| ELECTRICAL POLES | —T— T— |
| IDENTIFICATION NUMBER | ① |
| SHORE LINE (UNRELIABLE) | ≈≈≈≈≈ |
| BOUNDARY FENCE | — x — x — |

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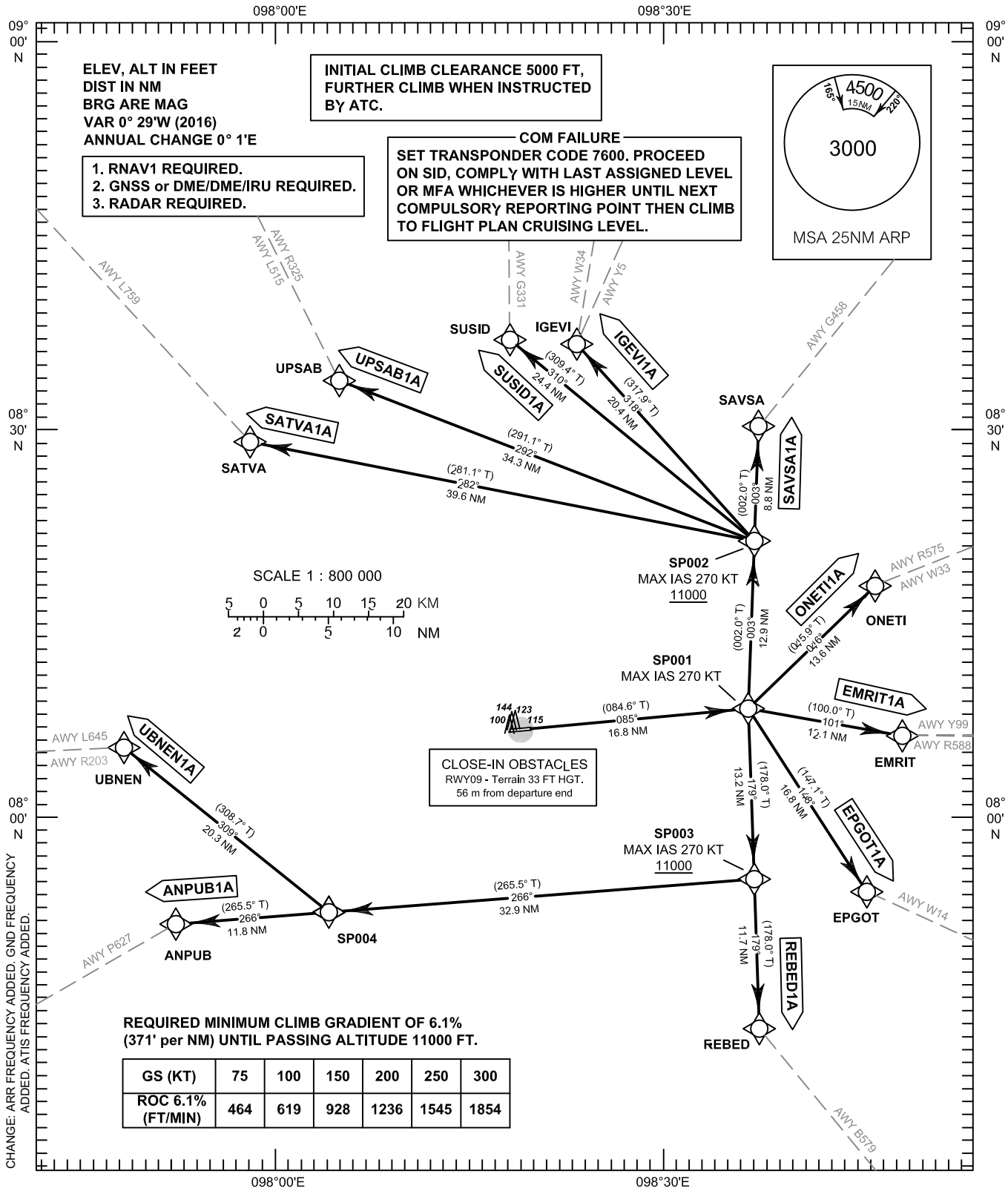
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 124.7, 284.0 GND : 121.9
ARR : 120.7 ATIS : 128.0
TWR : 118.1, 236.6

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY09**

ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A
SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A




**REQUIRED MINIMUM CLIMB GRADIENT OF 6.1%**
**(371' per NM) UNTIL PASSING ALTITUDE 11000 FT.**

| GS (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| ROC 6.1% (FT/MIN) | 464 | 619 | 928 | 1236 | 1545 | 1854 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY09**

ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A
SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A

## TABULAR DESCRIPTION (1)

## RNAV RWY09

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | L | - | -270 | - | RNAV1 |
| 030 | TF | SP002 | - | 003°(002.0°) | +0.5 | 12.9 | L | +11000 | -270 | - | RNAV1 |
| 040 | TF | SATVA | - | 282°(281.1°) | +0.5 | 39.6 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | L | - | -270 | - | RNAV1 |
| 030 | TF | SP002 | - | 003°(002.0°) | +0.5 | 12.9 | L | +11000 | -270 | - | RNAV1 |
| 040 | TF | UPSAB | - | 292°(291.1°) | +0.5 | 34.3 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | L | - | -270 | - | RNAV1 |
| 030 | TF | SP002 | - | 003°(002.0°) | +0.5 | 12.9 | L | +11000 | -270 | - | RNAV1 |
| 040 | TF | SUSID | - | 310°(309.4°) | +0.5 | 24.4 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | L | - | -270 | - | RNAV1 |
| 030 | TF | SP002 | - | 003°(002.0°) | +0.5 | 12.9 | L | +11000 | -270 | - | RNAV1 |
| 040 | TF | IGEVI | - | 318°(317.9°) | +0.5 | 20.4 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | L | - | -270 | - | RNAV1 |
| 030 | TF | SP002 | - | 003°(002.0°) | +0.5 | 12.9 | - | +11000 | -270 | - | RNAV1 |
| 040 | TF | SAVSA | - | 003°(002.0°) | +0.5 | 8.8 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | L | - | -270 | - | RNAV1 |
| 030 | TF | ONETI | - | 046°(045.9°) | +0.5 | 13.6 | - | - | - | - | RNAV1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY09**

ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A
SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A

## TABULAR DESCRIPTION (2)

## RNAV RWY09

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | R | - | -270 | - | RNAV1 |
| 030 | TF | EMRIT | - | 101°(100.0°) | +0.5 | 12.1 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | R | - | -270 | - | RNAV1 |
| 030 | TF | EPGOT | - | 148°(147.1°) | +0.5 | 16.8 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | R | - | -270 | - | RNAV1 |
| 030 | TF | SP003 | - | 179°(178.0°) | +0.5 | 13.2 | - | +11000 | -270 | - | RNAV1 |
| 040 | TF | REBED | - | 179°(178.0°) | +0.5 | 11.7 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | R | - | -270 | - | RNAV1 |
| 030 | TF | SP003 | - | 179°(178.0°) | +0.5 | 13.2 | R | +11000 | -270 | - | RNAV1 |
| 040 | TF | SP004 | - | 266°(265.5°) | +0.5 | 32.9 | - | - | - | - | RNAV1 |
| 050 | TF | ANPUB | - | 266°(265.5°) | +0.5 | 11.8 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CF | SP001 | - | 085°(084.6°) | +0.5 | 16.8 | R | - | -270 | - | RNAV1 |
| 030 | TF | SP003 | - | 179°(178.0°) | +0.5 | 13.2 | R | +11000 | -270 | - | RNAV1 |
| 040 | TF | SP004 | - | 266°(265.5°) | +0.5 | 32.9 | R | - | - | - | RNAV1 |
| 050 | TF | UBNEN | - | 309°(308.7°) | +0.5 | 20.3 | - | - | - | - | RNAV1 |

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**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY09**

ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A
SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A

## WAYPOINT LIST

## RNAV RWY09

| Waypoint Identifier | Coordinates |
|---|---|
| DER RWY09 | 08° 06' 52.23" N 098° 19' 49.46" E |
| ANPUB | 07° 51' 40.88" N 097° 52' 16.38" E |
| EMRIT | 08° 06' 21.05" N 098° 48' 40.42" E |
| EPGOT | 07° 54' 15.95" N 098° 45' 54.93" E |
| IGEVI | 08° 36' 39.58" N 098° 23' 19.78" E |
| ONETI | 08° 17' 57.38" N 098° 46' 33.12" E |
| REBED | 07° 43' 31.60" N 098° 37' 36.19" E |
| SATVA | 08° 29' 02.07" N 097° 57' 56.08" E |
| SAVSA | 08° 30' 16.00" N 098° 37' 28.53" E |
| SP001 | 08° 08' 27.12" N 098° 36' 41.99" E |
| SP002 | 08° 21' 26.12" N 098° 37' 09.69" E |
| SP003 | 07° 55' 14.57" N 098° 37' 10.78" E |
| SP004 | 07° 52' 37.85" N 098° 04' 08.89" E |
| SUSID | 08° 36' 59.26" N 098° 18' 07.97" E |
| UBNEN | 08° 05' 20.17" N 097° 48' 12.19" E |
| UPSAB | 08° 33' 47.80" N 098° 04' 51.85" E |

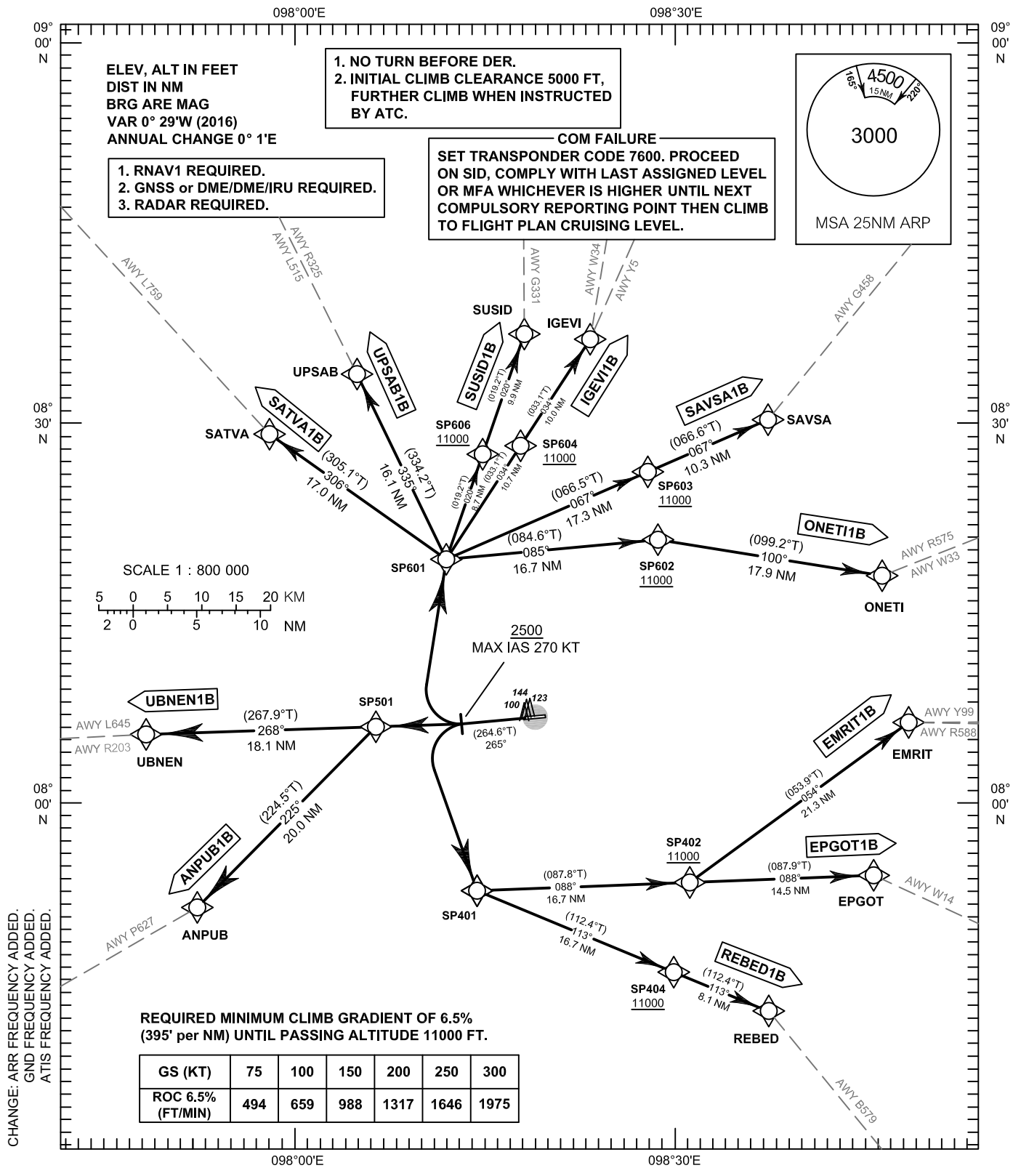
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 124.7, 284.0
ARR : 120.7
TWR: 118.1, 236.6
GND: 121.9
ATIS: 128.0

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY27**

ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B
SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B




| GS (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| ROC 6.5% (FT/MIN) | 494 | 659 | 988 | 1317 | 1646 | 1975 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY27**

ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B
SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B

## TABULAR DESCRIPTION (1)

## RNAV RWY27

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | L | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP401 | - | - | +0.5 | - | L | - | - | - | RNAV1 |
| 040 | TF | SP404 | - | 113°(112.4°) | +0.5 | 16.7 | - | +11000 | - | - | RNAV1 |
| 050 | TF | REBED | - | 113°(112.4°) | +0.5 | 8.1 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | L | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP401 | - | - | +0.5 | - | L | - | - | - | RNAV1 |
| 040 | TF | SP402 | - | 088°(087.8°) | +0.5 | 16.7 | - | +11000 | - | - | RNAV1 |
| 050 | TF | EPGOT | - | 088°(087.9°) | +0.5 | 14.5 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | L | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP401 | - | - | +0.5 | - | L | - | - | - | RNAV1 |
| 040 | TF | SP402 | - | 088°(087.8°) | +0.5 | 16.7 | L | +11000 | - | - | RNAV1 |
| 050 | TF | EMRIT | - | 054°(053.9°) | +0.5 | 21.3 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | - | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP501 | - | - | +0.5 | - | R | - | - | - | RNAV1 |
| 040 | TF | UBNEN | - | 268°(267.9°) | +0.5 | 18.1 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | - | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP501 | - | - | +0.5 | - | L | - | - | - | RNAV1 |
| 040 | TF | ANPUB | - | 225°(224.5°) | +0.5 | 20.0 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | R | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP601 | - | - | +0.5 | - | L | - | - | - | RNAV1 |
| 040 | TF | SATVA | - | 306°(305.1°) | +0.5 | 17.0 | - | - | - | - | RNAV1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY27**

ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B
SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B

## TABULAR DESCRIPTION (2)

## RNAV RWY27

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | R | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP601 | - | - | +0.5 | - | L | - | - | - | RNAV1 |
| 040 | TF | UPSAB | - | 335°(334.2°) | +0.5 | 16.1 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | R | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP601 | - | - | +0.5 | - | R | - | - | - | RNAV1 |
| 040 | TF | SP606 | - | 020°(019.2°) | +0.5 | 8.7 | - | +11000 | - | - | RNAV1 |
| 050 | TF | SUSID | - | 020°(019.2°) | +0.5 | 9.9 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | R | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP601 | - | - | +0.5 | - | R | - | - | - | RNAV1 |
| 040 | TF | SP604 | - | 034°(033.1°) | +0.5 | 10.7 | - | +11000 | - | - | RNAV1 |
| 050 | TF | IGEVI | - | 034°(033.1°) | +0.5 | 10.0 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | R | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP601 | - | - | +0.5 | - | R | - | - | - | RNAV1 |
| 040 | TF | SP603 | - | 067°(066.5°) | +0.5 | 17.3 | - | +11000 | - | - | RNAV1 |
| TF | TF | SAVSA | - | 067°(066.6°) | +0.5 | 10.3 | - | - | - | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY27 | - | - | +0.5 | - | - | - | - | - | RNAV1 |
| 020 | CA | - | - | 265°(264.6°) | +0.5 | - | R | +2500 | -270 | - | RNAV1 |
| 030 | DF | SP601 | - | - | +0.5 | - | R | - | - | - | RNAV1 |
| 040 | TF | SP602 | - | 085°(084.6°) | +0.5 | 16.7 | R | +11000 | - | - | RNAV1 |
| 050 | TF | ONETI | - | 100°(099.2°) | +0.5 | 17.9 | - | - | - | - | RNAV1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY27**

ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B
SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B

## WAYPOINT LIST

## RNAV RWY27

| Waypoint Identifier | Coordinates |
|---|---|
| DER RWY27 | 08° 06' 43.05" N 098° 18' 11.90" E |
| ANPUB | 07° 51' 40.88" N 097° 52' 16.38" E |
| EMRIT | 08° 06' 21.05" N 098° 48' 40.42" E |
| EPGOT | 07° 54' 15.95" N 098° 45' 54.93" E |
| IGEVI | 08° 36' 39.58" N 098° 23' 19.78" E |
| ONETI | 08° 17' 57.38" N 098° 46' 33.12" E |
| REBED | 07° 43' 31.60" N 098° 37' 36.19" E |
| SATVA | 08° 29' 02.07" N 097° 57' 56.08" E |
| SAVSA | 08° 30' 16.00" N 098° 37' 28.53" E |
| SP401 | 07° 53' 04.09" N 098° 14' 25.72" E |
| SP402 | 07° 53' 43.32" N 098° 31' 17.28" E |
| SP404 | 07° 46' 39.05" N 098° 30' 01.36" E |
| SP501 | 08° 05' 59.99" N 098° 06' 23.06" E |
| SP601 | 08° 19' 15.10" N 098° 11' 56.49" E |
| SP602 | 08° 20' 49.84" N 098° 28' 43.98" E |
| SP603 | 08° 26' 10.64" N 098° 27' 58.19" E |
| SP604 | 08° 28' 14.30" N 098° 17' 49.09" E |
| SP606 | 08° 27' 33.18" N 098° 14' 50.29" E |
| SUSID | 08° 36' 59.26" N 098° 18' 07.97" E |
| UBNEN | 08° 05' 20.17" N 097° 48' 12.19" E |
| UPSAB | 08° 33' 47.80" N 098° 04' 51.85" E |

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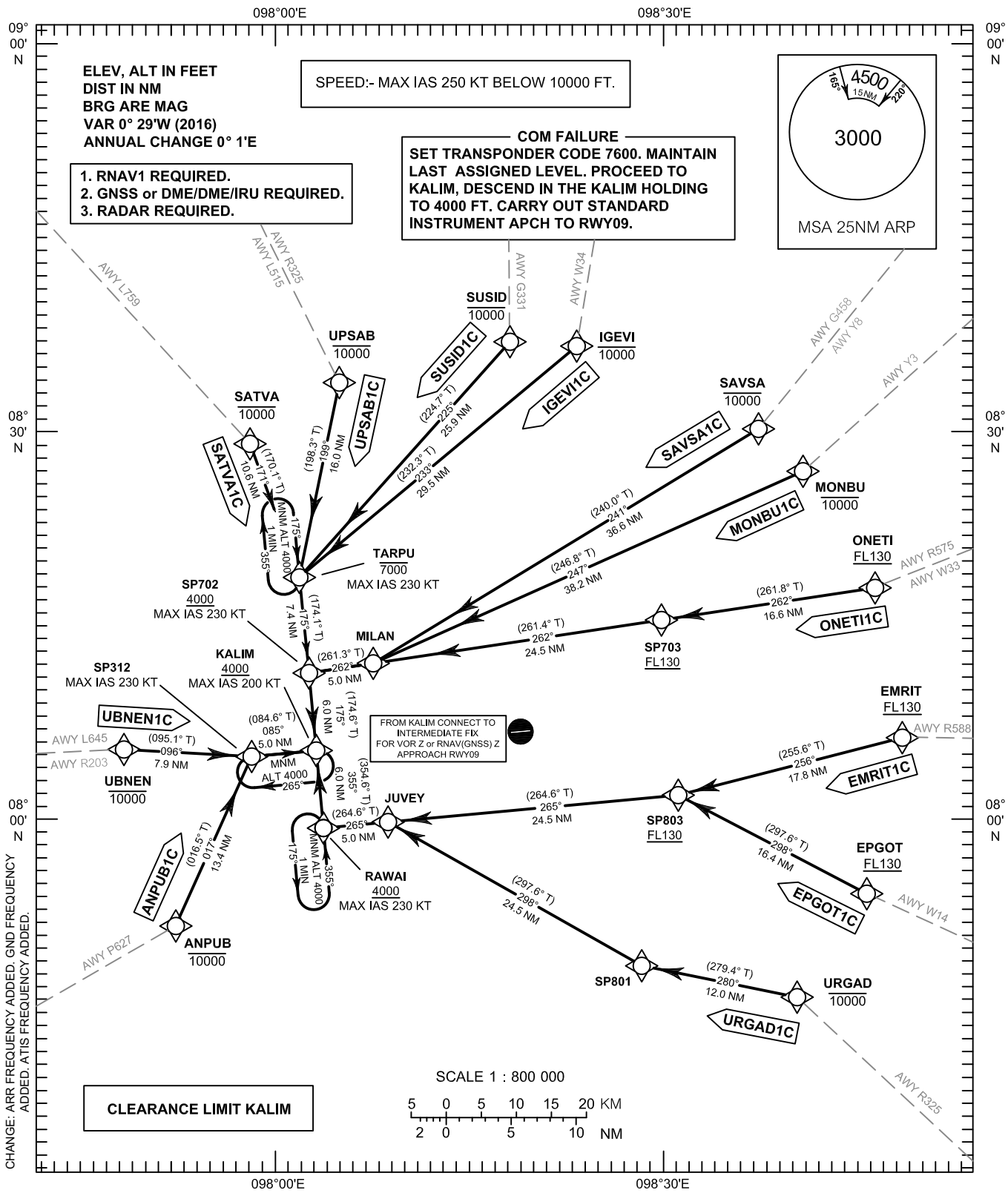
**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 124.7, 284.0 GND : 121.9
ARR : 120.7 ATIS : 128.0
TWR : 118.1, 236.6

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY09**

ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C
SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY09**

ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C
SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C

## TABULAR DESCRIPTION (1)

## RNAV RWY09

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | ONETI | - | - | +0.5 | - | - | +FL130 | - | - | RNAV1 |
| 020 | TF | SP703 | - | 262°(261.8°) | +0.5 | 16.6 | - | +FL130 | - | - | RNAV1 |
| 030 | TF | MILAN | - | 262°(261.4°) | +0.5 | 24.5 | - | - | - | - | RNAV1 |
| 040 | TF | SP702 | - | 262°(261.3°) | +0.5 | 5.0 | L | +4000 | -230 | - | RNAV1 |
| 050 | TF | KALIM | - | 175°(174.6°) | +0.5 | 6.0 | L | +4000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | MONBU | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | MILAN | - | 247°(246.8°) | +0.5 | 38.2 | R | - | - | - | RNAV1 |
| 030 | TF | SP702 | - | 262°(261.3°) | +0.5 | 5.0 | L | +4000 | -230 | - | RNAV1 |
| 040 | TF | KALIM | - | 175°(174.6°) | +0.5 | 6.0 | L | +4000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | SAVSA | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | MILAN | - | 241°(240.0°) | +0.5 | 36.6 | R | - | - | - | RNAV1 |
| 030 | TF | SP702 | - | 262°(261.3°) | +0.5 | 5.0 | L | +4000 | -230 | - | RNAV1 |
| 040 | TF | KALIM | - | 175°(174.6°) | +0.5 | 6.0 | L | +4000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | IGEVI | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | TARPU | - | 233°(232.3°) | +0.5 | 29.5 | L | -7000 | -230 | - | RNAV1 |
| 030 | TF | SP702 | - | 175°(174.1°) | +0.5 | 7.4 | - | +4000 | -230 | - | RNAV1 |
| 040 | TF | KALIM | - | 175°(174.6°) | +0.5 | 6.0 | L | +4000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | SUSID | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | TARPU | - | 225°(224.7°) | +0.5 | 25.9 | L | -7000 | -230 | - | RNAV1 |
| 030 | TF | SP702 | - | 175°(174.1°) | +0.5 | 7.4 | - | +4000 | -230 | - | RNAV1 |
| 040 | TF | KALIM | - | 175°(174.6°) | +0.5 | 6.0 | L | +4000 | -200 | - | RNAV1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY09**

ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C
SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C

## TABULAR DESCRIPTION (2)

### RNAV RWY09

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | UPSAB | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | TARPU | - | 199°(198.3°) | +0.5 | 16.0 | L | -7000 | -230 | - | RNAV1 |
| 030 | TF | SP702 | - | 175°(174.1°) | +0.5 | 7.4 | - | +4000 | -230 | - | RNAV1 |
| 040 | TF | KALIM | - | 175°(174.6°) | +0.5 | 6.0 | L | +4000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | SATVA | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | TARPU | - | 171°(170.1°) | +0.5 | 10.6 | R | -7000 | -230 | - | RNAV1 |
| 030 | TF | SP702 | - | 175°(174.1°) | +0.5 | 7.4 | - | +4000 | -230 | - | RNAV1 |
| 040 | TF | KALIM | - | 175°(174.6°) | +0.5 | 6.0 | L | +4000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | UBNEN | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | SP312 | - | 096°(095.1°) | +0.5 | 7.9 | L | - | -230 | - | RNAV1 |
| 030 | TF | KALIM | - | 085°(084.6°) | +0.5 | 5.0 | - | +4000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | ANPUB | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | SP312 | - | 017°(016.5°) | +0.5 | 13.4 | R | - | -230 | - | RNAV1 |
| 030 | TF | KALIM | - | 085°(084.6°) | +0.5 | 5.0 | - | +4000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | EMRIT | - | - | +0.5 | - | - | +FL130 | - | - | RNAV1 |
| 020 | TF | SP803 | - | 256°(255.6°) | +0.5 | 17.8 | R | +FL130 | - | - | RNAV1 |
| 030 | TF | JUVEY | - | 265°(264.6°) | +0.5 | 24.5 | - | - | - | - | RNAV1 |
| 040 | TF | RAWAI | - | 265°(264.6°) | +0.5 | 5.0 | R | +4000 | -230 | - | RNAV1 |
| 050 | TF | KALIM | - | 355°(354.6°) | +0.5 | 6.0 | R | +4000 | -200 | - | RNAV1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY09**

ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C
SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C

## TABULAR DESCRIPTION (3)

### RNAV RWY09

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | EPGOT | - | - | +0.5 | - | - | +FL130 | - | - | RNAV1 |
| 020 | TF | SP803 | - | 298°(297.6°) | +0.5 | 16.4 | L | +FL130 | - | - | RNAV1 |
| 030 | TF | JUVEY | - | 265°(264.6°) | +0.5 | 24.5 | - | - | - | - | RNAV1 |
| 040 | TF | RAWAI | - | 265°(264.6°) | +0.5 | 5.0 | R | +4000 | -230 | - | RNAV1 |
| 050 | TF | KALIM | - | 355°(354.6°) | +0.5 | 6.0 | R | +4000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | URGAD | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | SP801 | - | 280°(279.4°) | +0.5 | 12.0 | R | - | - | - | RNAV1 |
| 030 | TF | JUVEY | - | 298°(297.6°) | +0.5 | 24.5 | L | - | - | - | RNAV1 |
| 040 | TF | RAWAI | - | 265°(264.6°) | +0.5 | 5.0 | R | +4000 | -230 | - | RNAV1 |
| 050 | TF | KALIM | - | 355°(354.6°) | +0.5 | 6.0 | R | +4000 | -200 | - | RNAV1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY09**

ANPUB1C EMRIT1C EPGOT1C IGEVI1C MONBU1C ONETI1C
SATVA1C SAVSA1C SUSID1C UBNEN1C UPSAB1C URGAD1C

## WAYPOINT LIST

## RNAV RWY09

| Waypoint Identifier | Coordinates |
|---|---|
| ANPUB | 07° 51' 40.88" N 097° 52' 16.38" E |
| EMRIT | 08° 06' 21.05" N 098° 48' 40.42" E |
| EPGOT | 07° 54' 15.95" N 098° 45' 54.93" E |
| IGEVI | 08° 36' 39.58" N 098° 23' 19.78" E |
| JUVEY | 07° 59' 34.61" N 098° 06' 43.50" E |
| KALIM | 08° 05' 06.26" N 098° 01' 08.02" E |
| MILAN | 08° 11' 51.99" N 098° 05' 32.75" E |
| MONBU | 08° 26' 59.15" N 098° 40' 56.41" E |
| ONETI | 08° 17' 57.38" N 098° 46' 33.12" E |
| RAWAI | 07° 59' 06.09" N 098° 01' 42.40" E |
| SATVA | 08° 29' 02.07" N 097° 57' 56.08" E |
| SAVSA | 08° 30' 16.00" N 098° 37' 28.53" E |
| SP312 | 08° 04' 37.67" N 097° 56' 06.86" E |
| SP702 | 08° 11' 06.43" N 098° 00' 33.62" E |
| SP703 | 08° 15' 33.90" N 098° 29' 55.87" E |
| SP801 | 07° 48' 13.31" N 098° 28' 34.94" E |
| SP803 | 08° 01' 53.23" N 098° 31' 16.14" E |
| SUSID | 08° 36' 59.26" N 098° 18' 07.97" E |
| TARPU | 08° 18' 30.73" N 097° 59' 47.32" E |
| UBNEN | 08° 05' 20.17" N 097° 48' 12.19" E |
| UPSAB | 08° 33' 47.80" N 098° 04' 51.85" E |
| URGAD | 07° 46' 14.95" N 098° 40 31.04" E |

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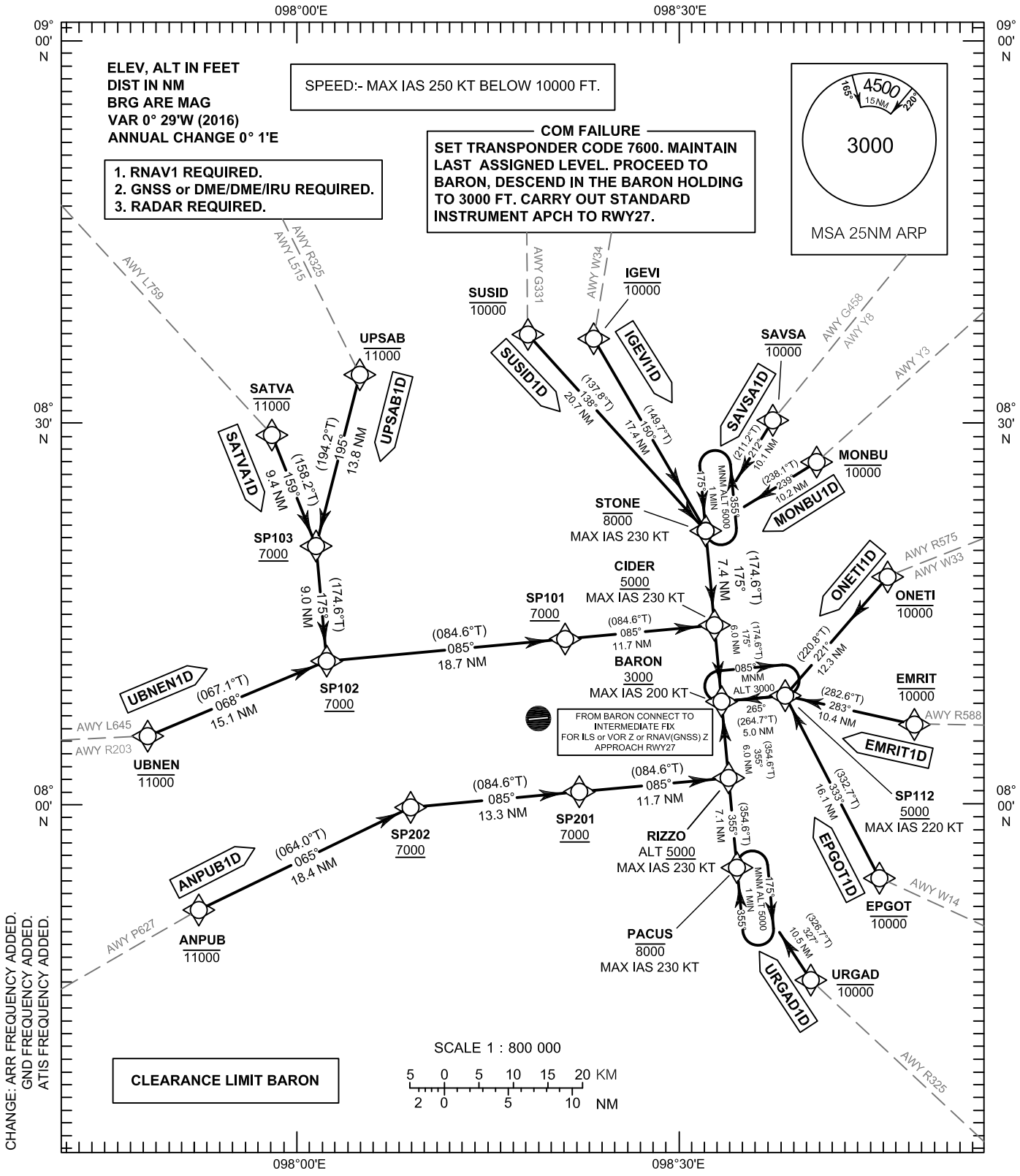
**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 124.7, 284.0
ARR : 120.7
TWR: 118.1, 236.6
GND: 121.9
ATIS: 128.0

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY27**

ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D
SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY27**

ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D
SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D

## TABULAR DESCRIPTION (1)

## RNAV RWY27

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | ONETI | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | SP112 | - | 221°(220.8°) | +0.5 | 12.3 | R | +5000 | -220 | - | RNAV1 |
| 030 | TF | BARON | - | 265°(264.7°) | +0.5 | 5.0 | - | +3000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | EMRIT | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | SP112 | - | 283°(282.6°) | +0.5 | 10.4 | L | +5000 | -220 | - | RNAV1 |
| 030 | TF | BARON | - | 265°(264.7°) | +0.5 | 5.0 | - | +3000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | EPGOT | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | SP112 | - | 333°(332.7°) | +0.5 | 16.1 | L | +5000 | -220 | - | RNAV1 |
| 030 | TF | BARON | - | 265°(264.7°) | +0.5 | 5.0 | - | +3000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | URGAD | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | PACUS | - | 327°(326.7°) | +0.5 | 10.5 | R | -8000 | -230 | - | RNAV1 |
| 030 | TF | RIZZO | - | 355°(354.6°) | +0.5 | 7.1 | - | +5000 | -230 | - | RNAV1 |
| 040 | TF | BARON | - | 355°(354.6°) | +0.5 | 6.0 | L | +3000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | ANPUB | - | - | +0.5 | - | - | -11000 | - | - | RNAV1 |
| 020 | TF | SP202 | - | 065°(064.0°) | +0.5 | 18.4 | R | +7000 | - | - | RNAV1 |
| 030 | TF | SP201 | - | 085°(084.6°) | +0.5 | 13.3 | - | +7000 | - | - | RNAV1 |
| 040 | TF | RIZZO | - | 085°(084.6°) | +0.5 | 11.7 | L | +5000 | -230 | - | RNAV1 |
| 050 | TF | BARON | - | 355°(354.6°) | +0.5 | 6.0 | L | +3000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | UBNEN | - | - | +0.5 | - | - | -11000 | - | - | RNAV1 |
| 020 | TF | SP102 | - | 068°(067.1°) | +0.5 | 15.1 | R | +7000 | - | - | RNAV1 |
| 030 | TF | SP101 | - | 085°(084.6°) | +0.5 | 18.7 | - | +7000 | - | - | RNAV1 |
| 040 | TF | CIDER | - | 085°(084.6°) | +0.5 | 11.7 | R | +5000 | -230 | - | RNAV1 |
| 050 | TF | BARON | - | 175°(174.6°) | +0.5 | 6.0 | R | +3000 | -200 | - | RNAV1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY27**

ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D
SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D

## TABULAR DESCRIPTION (2)

### RNAV RWY27

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | SATVA | - | - | +0.5 | - | - | -11000 | - | - | RNAV1 |
| 020 | TF | SP103 | - | 159°(158.2°) | +0.5 | 9.4 | R | +7000 | - | - | RNAV1 |
| 030 | TF | SP102 | - | 175°(174.6°) | +0.5 | 9.0 | L | +7000 | - | - | RNAV1 |
| 040 | TF | SP101 | - | 085°(084.6°) | +0.5 | 18.7 | - | +7000 | - | - | RNAV1 |
| 050 | TF | CIDER | - | 085°(084.6°) | +0.5 | 11.7 | R | +5000 | -230 | - | RNAV1 |
| 060 | TF | BARON | - | 175°(174.6°) | +0.5 | 6.0 | R | +3000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | UPSAB | - | - | +0.5 | - | - | -11000 | - | - | RNAV1 |
| 020 | TF | SP103 | - | 195°(194.2°) | +0.5 | 13.8 | L | +7000 | - | - | RNAV1 |
| 030 | TF | SP102 | - | 175°(174.6°) | +0.5 | 9.0 | L | +7000 | - | - | RNAV1 |
| 040 | TF | SP101 | - | 085°(084.6°) | +0.5 | 18.7 | - | +7000 | - | - | RNAV1 |
| 050 | TF | CIDER | - | 085°(084.6°) | +0.5 | 11.7 | R | +5000 | -230 | - | RNAV1 |
| 060 | TF | BARON | - | 175°(174.6°) | +0.5 | 6.0 | R | +3000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | SUSID | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | STONE | - | 138°(137.8°) | +0.5 | 20.7 | R | -8000 | -230 | - | RNAV1 |
| 030 | TF | CIDER | - | 175°(174.6°) | +0.5 | 7.4 | - | +5000 | -230 | - | RNAV1 |
| 040 | TF | BARON | - | 175°(174.6°) | +0.5 | 6.0 | R | +3000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | IGEVI | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | STONE | - | 150°(149.7°) | +0.5 | 17.4 | R | -8000 | -230 | - | RNAV1 |
| 030 | TF | CIDER | - | 175°(174.6°) | +0.5 | 7.4 | - | +5000 | -230 | - | RNAV1 |
| 040 | TF | BARON | - | 175°(174.6°) | +0.5 | 6.0 | R | +3000 | -200 | - | RNAV1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY27**

ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D
SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D

## TABULAR DESCRIPTION (3)

### RNAV RWY27

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | SAVSA | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | STONE | - | 212°(211.2°) | +0.5 | 10.1 | L | -8000 | -230 | - | RNAV1 |
| 030 | TF | CIDER | - | 175°(174.6°) | +0.5 | 7.4 | - | +5000 | -230 | - | RNAV1 |
| 040 | TF | BARON | - | 175°(174.6°) | +0.5 | 6.0 | R | +3000 | -200 | - | RNAV1 |
| | | | | | | | | | | | |
| 010 | IF | MONBU | - | - | +0.5 | - | - | -10000 | - | - | RNAV1 |
| 020 | TF | STONE | - | 239°(238.1°) | +0.5 | 10.2 | L | -8000 | -230 | - | RNAV1 |
| 030 | TF | CIDER | - | 175°(174.6°) | +0.5 | 7.4 | - | +5000 | -230 | - | RNAV1 |
| 040 | TF | BARON | - | 175°(174.6°) | +0.5 | 6.0 | R | +3000 | -200 | - | RNAV1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**PHUKET/Phuket Intl (VTSP)**
**RNAV RWY27**

ANPUB1D EMRIT1D EPGOT1D IGEVI1D MONBU1D ONETI1D
SATVA1D SAVSA1D SUSID1D UBNEN1D UPSAB1D URGAD1D

## WAYPOINT LIST

## RNAV RWY27

| Waypoint Identifier | Coordinates |
|---|---|
| ANPUB | 07° 51' 40.88" N 097° 52' 16.38" E |
| BARON | 08° 08' 08.94" N 098° 33' 27.39" E |
| CIDER | 08° 14' 09.19" N 098° 32' 53.46" E |
| EMRIT | 08° 06' 21.05" N 098° 48' 40.42" E |
| EPGOT | 07° 54' 15.95" N 098° 45' 54.93" E |
| IGEVI | 08° 36' 39.58" N 098° 23' 19.78" E |
| MONBU | 08° 26' 59.15" N 098° 40' 56.41" E |
| ONETI | 08° 17' 57.38" N 098° 46' 33.12" E |
| PACUS | 07° 55' 05.24" N 098° 34' 41.14" E |
| RIZZO | 08° 02' 08.68" N 098° 34' 01.31" E |
| SATVA | 08° 29' 02.07" N 097° 57' 56.08" E |
| SAVSA | 08° 30' 16.00" N 098° 37' 28.53" E |
| SP101 | 08° 13' 02.93" N 098° 21' 06.77" E |
| SP102 | 08° 11' 16.42" N 098° 02' 18.41" E |
| SP103 | 08° 20' 19.10" N 098° 01' 26.55" E |
| SP112 | 08° 08' 37.07" N 098° 38' 28.69" E |
| SP201 | 08° 01' 02.48" N 098° 22' 14.95" E |
| SP202 | 07° 59' 47.27" N 098° 08' 56.90" E |
| STONE | 08° 21' 33.96" N 098° 32' 11.54" E |
| SUSID | 08° 36' 59.26" N 098° 18' 07.97" E |
| UBNEN | 08° 05' 20.17" N 097° 48' 12.19" E |
| UPSAB | 08° 33' 47.80" N 098° 04' 51.85" E |
| URGAD | 07° 46' 14.95" N 098° 40 31.04" E |

**INTENTIONALLY BLANK**

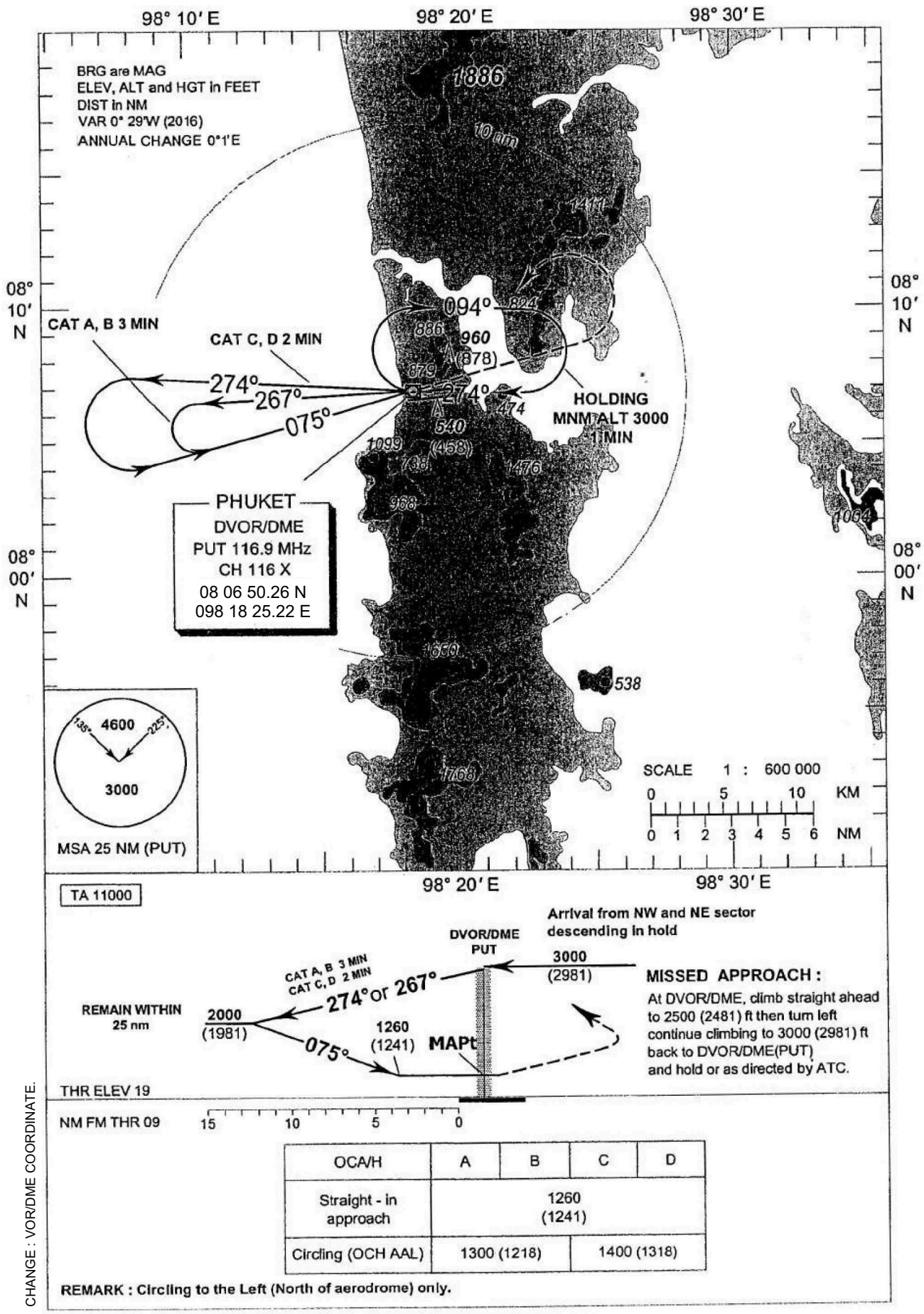
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 82 ft**
HEIGHTS RELATED TO
THR RWY 09 ELEV **19** ft

APP : 124.7, 284.0
ARR : 120.7
TWR : 118.1, 236.6
GND : 121.9
ATIS : 128.0

**PHUKET / Phuket Intl (VTSP)**

**VOR Y RWY 09**




TA 11000




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in approach | 1260 (1241) | | | |
| Circling (OCH AAL) | 1300 (1218) | | 1400 (1318) | |

**REMARK : Circling to the Left (North of aerodrome) only.**

CHANGE : VOR/DME COORDINATE.

**INTENTIONALLY BLANK**

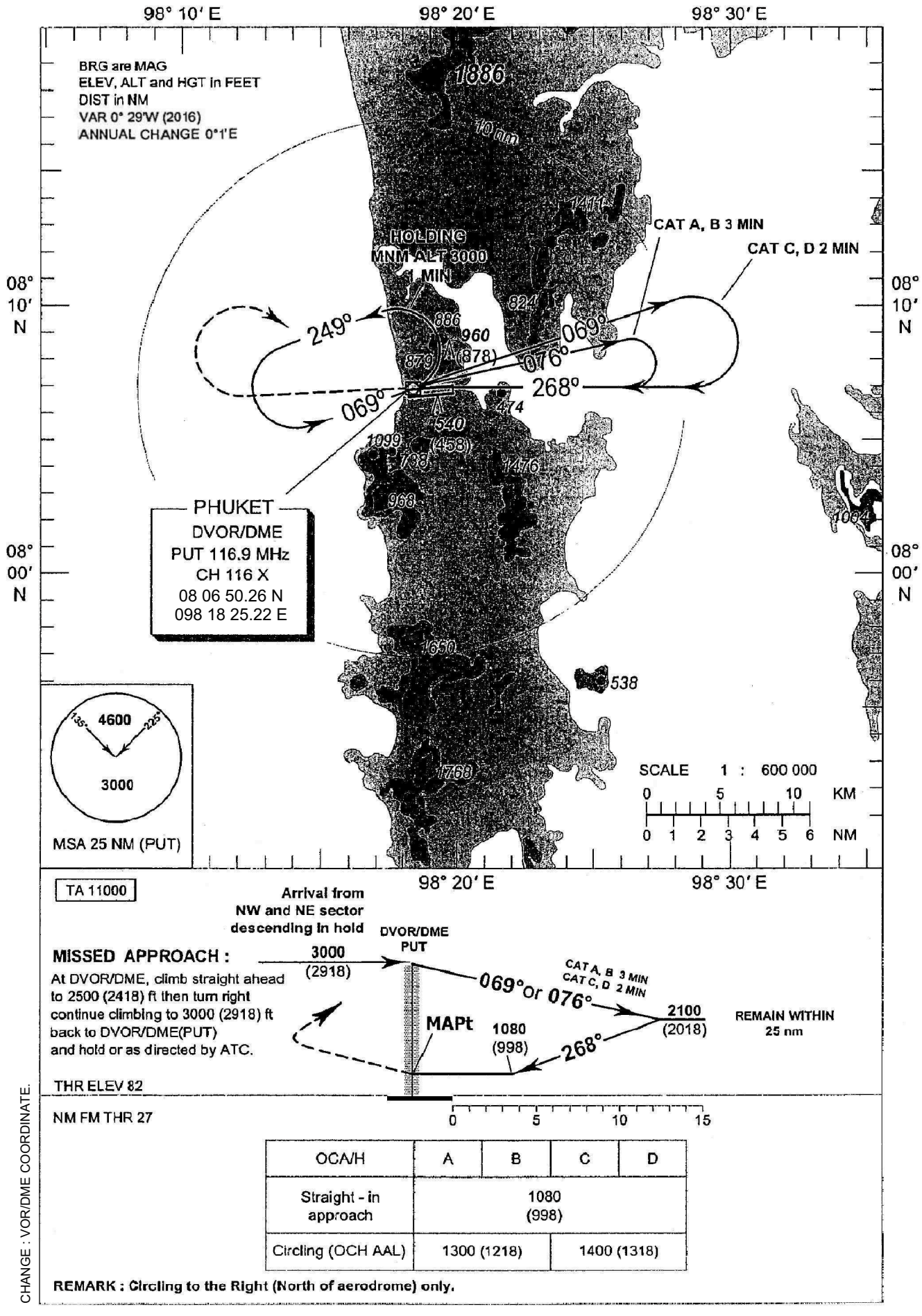
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 82 ft**
HEIGHTS RELATED TO AERODROME ELEV.

| | |
|---|---|
| APP | : 124.7, 284.0 |
| ARR | : 120.7 |
| TWR | : 118.1, 236.6 |
| GND | : 121.9 |
| ATIS | : 128.0 |

**PHUKET / Phuket Intl (VTSP)**

**VOR Y RWY 27**




TA 11000

Arrival from NW and NE sector descending in hold

DVOR/DME PUT

**MISSED APPROACH :**

At DVOR/DME, climb straight ahead to 2500 (2418) ft then turn right continue climbing to 3000 (2918) ft back to DVOR/DME(PUT) and hold or as directed by ATC.

3000 (2918)

069° or 076°

CAT A, B 3 MIN
CAT C, D 2 MIN

2100 (2018)

REMAIN WITHIN 25 nm

MAPt

1080 (998)

268°

THR ELEV 82

NM FM THR 27

0 5 10 15

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in approach | 1080 (998) | | | |
| Circling (OCH AAL) | 1300 (1218) | | 1400 (1318) | |

**REMARK : Circling to the Right (North of aerodrome) only.**

CHANGE : VOR/DME COORDINATE.

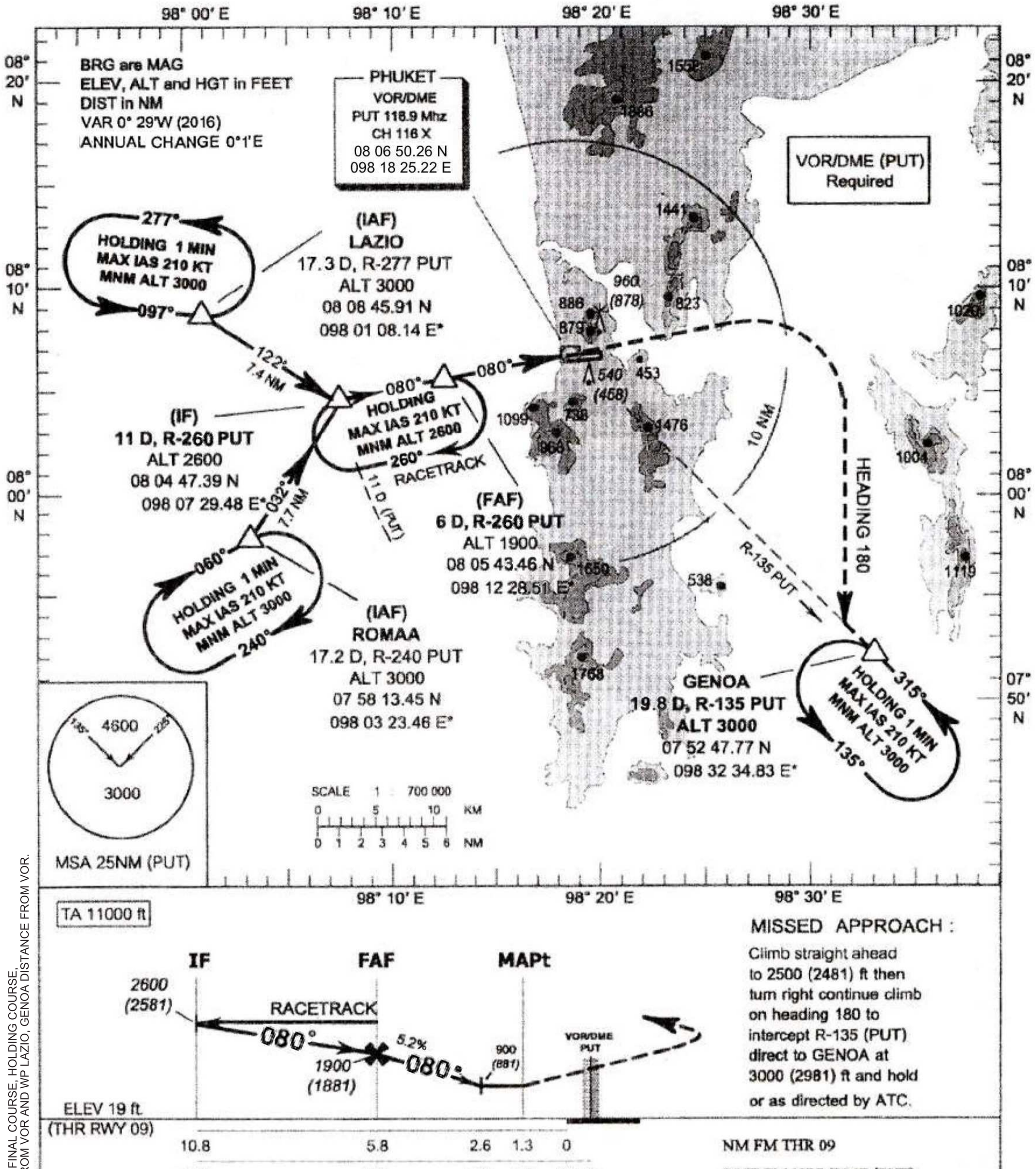
**INTENTIONALLY BLANK**

# INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 82 ft
HEIGHTS RELATED TO
THR RWY 09 ELEV 19 ft

APP : 124.7, 284.0
ARR : 120.7
TWR : 118.1, 236.6
GND : 121.9
ATIS : 128.0

# PHUKET / Phuket INTL (VTSP)
# VOR Z RWY 09




TA 11000 ft




MISSED APPROACH :
Climb straight ahead to 2500 (2481) ft then turn right continue climb on heading 180 to intercept R-135 (PUT) direct to GENOA at 3000 (2981) ft and hold or as directed by ATC.

| | | | | |
|---|---|---|---|---|
| 10.8 | | 5.8 | 2.6 1.3 | 0 NM FM THR 09 |
| 11.0 | | 6.0 | 2.8 1.5 | 0.2 0 DME FM VOR/DME (PUT) |

| | | | | | Distance (PUT) | FAF | 5 D | 4 D | 3 D | 2.8 D |
|---|---|---|---|---|---|---|---|---|---|---|
| OCA/H | A | B | C | D | Altitude (Height) | 1900 (1881) | 1600 (1581) | 1280 (1261) | 960 (941) | 900 (881) |
| Straight-in approach | 900 (881) | | | | Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Circling (OCH AAL) | 1300 (1218) | | 1400 (1318) | | Rate of descent | (ft/min) | 530 | 635 | 745 | 850 | 955 | 1060 |
| REMARK : Circling to the Left (North of aerodrome) only. | | | | | FAF-MAPt 4.5 NM | (min:s) | 2:42 | 2:15 | 1:56 | 1:42 | 1:30 | 1:21 |

CHANGE : COURSE FROM WP LAZIO TO IF, FINAL COURSE, HOLDING COURSE, VOR , FAF COORDINATE, IF, FAF RADIAL FROM VOR AND WP LAZIO, GENOA DISTANCE FROM VOR.

**INTENTIONALLY BLANK**

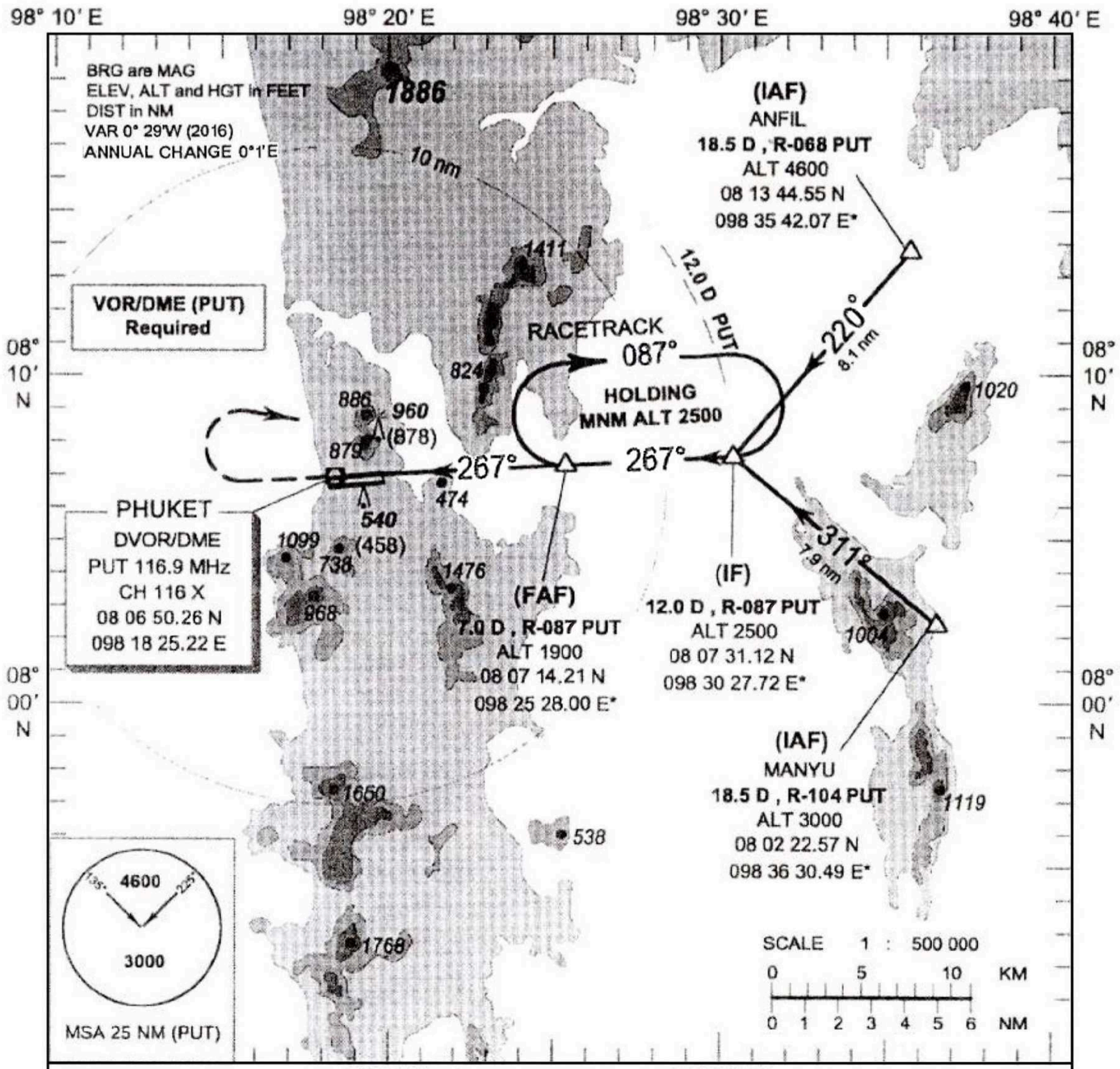
# INSTRUMENT APPROACH CHART - ICAO

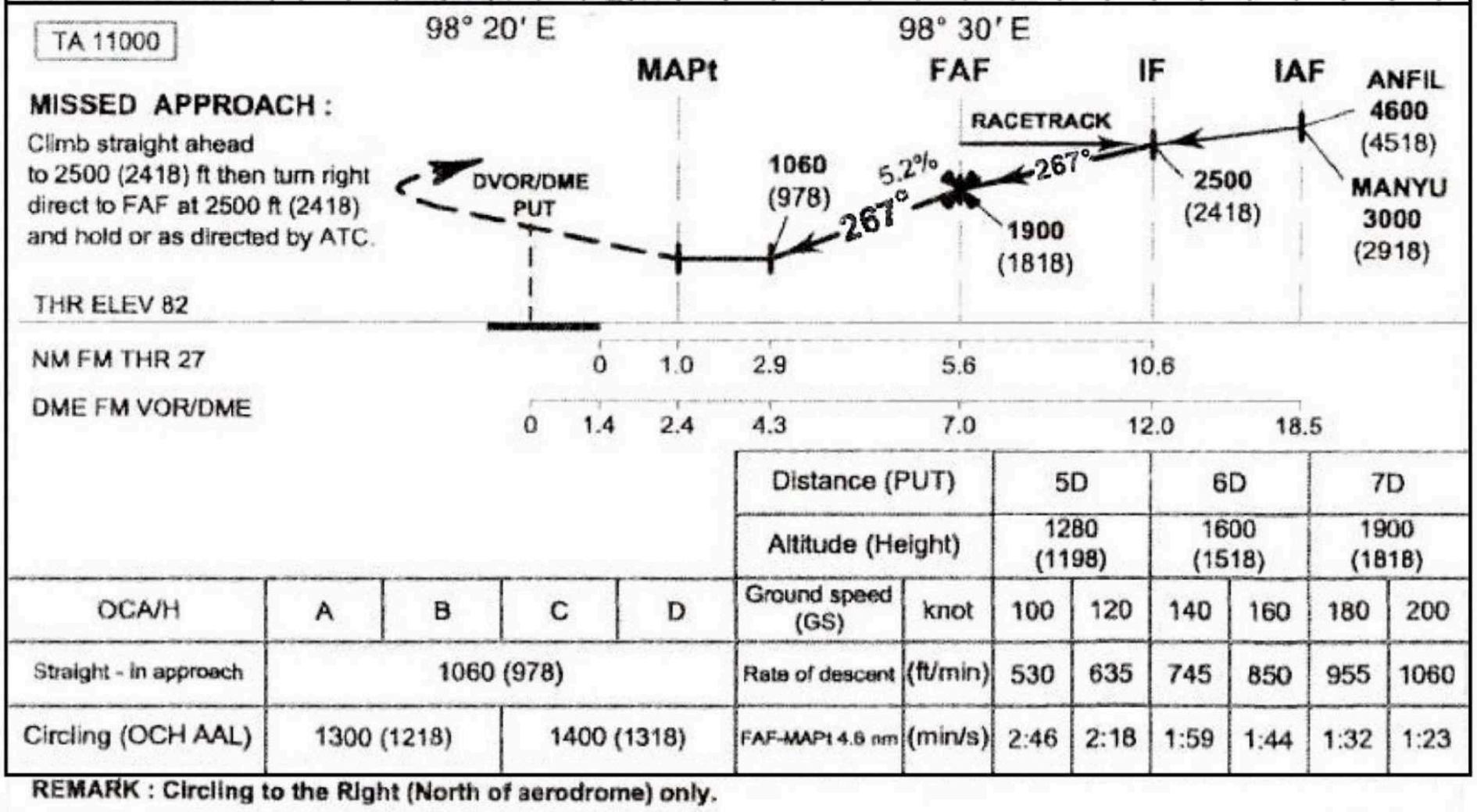
**AERODROME ELEV 82 ft**
HEIGHTS RELATED TO AERODROME ELEV.

APP : 124.7, 284.0
ARR : 120.7
TWR : 118.1, 236.6
GND : 121.9
ATIS : 128.0

## PHUKET / Phuket Intl (VTSP)

## VOR Z RWY 27




| Distance (PUT) | | 5D | | 6D | | 7D | |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | | 1280 (1198) | | 1600 (1518) | | 1900 (1818) | |
| Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Rate of descent | (ft/min) | 530 | 635 | 745 | 850 | 955 | 1060 |
| FAF-MAPt 4.6 nm | (min/s) | 2:46 | 2:18 | 1:59 | 1:44 | 1:32 | 1:23 |

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in approach | 1060 (978) | | | |
| Circling (OCH AAL) | 1300 (1218) | | 1400 (1318) | |

**REMARK : Circling to the Right (North of aerodrome) only.**

CHANGE : COURSE FROM WP ANFIL TO IF, FINAL COURSE, HOLDING COURSE VOR, FAF COORDINATE AND WP ANFIL, MANYU, IF, FAF RADIAL FROM VOR.

**INTENTIONALLY BLANK**

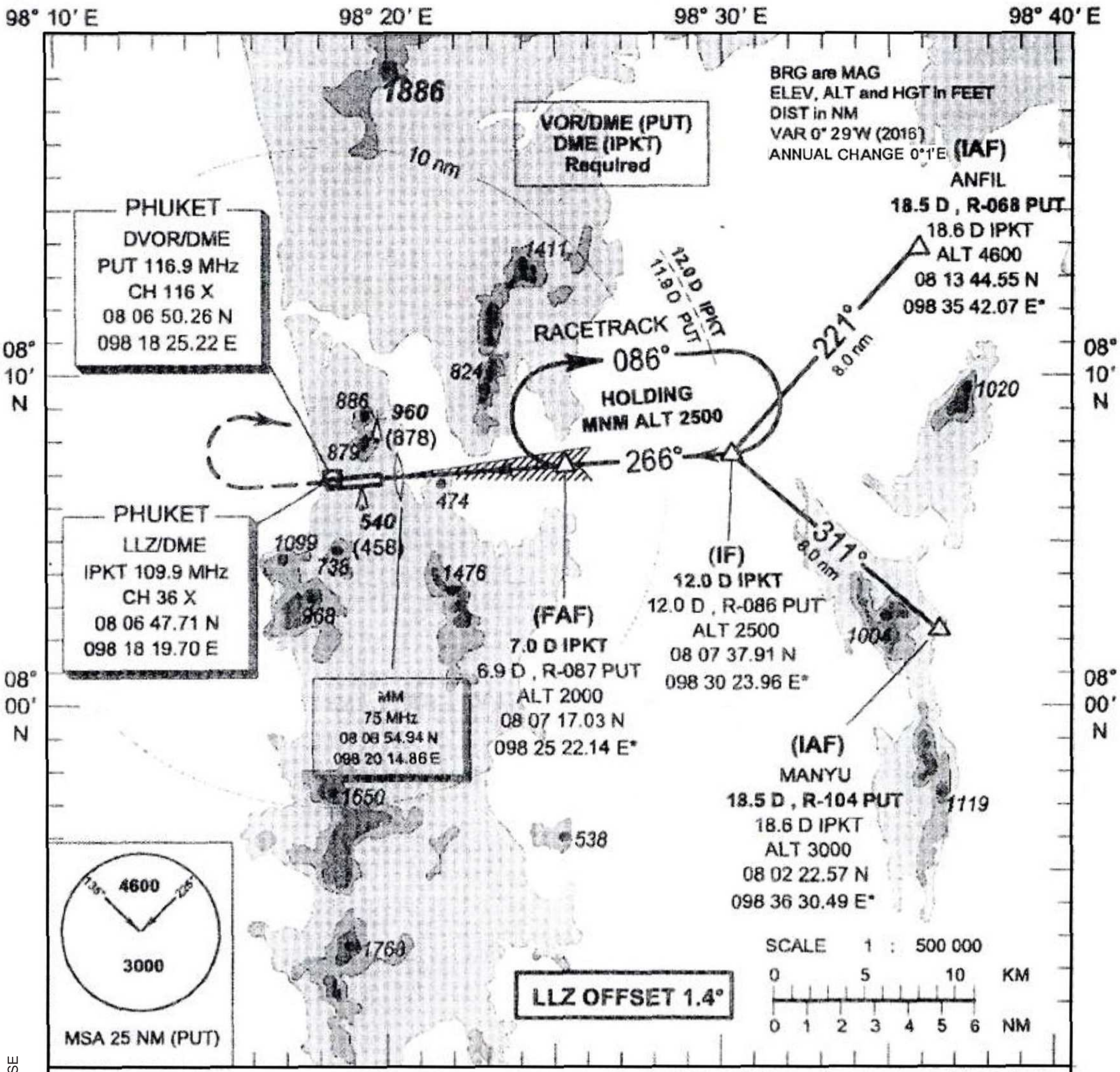
**INSTRUMENT APPROACH CHART - ICAO**

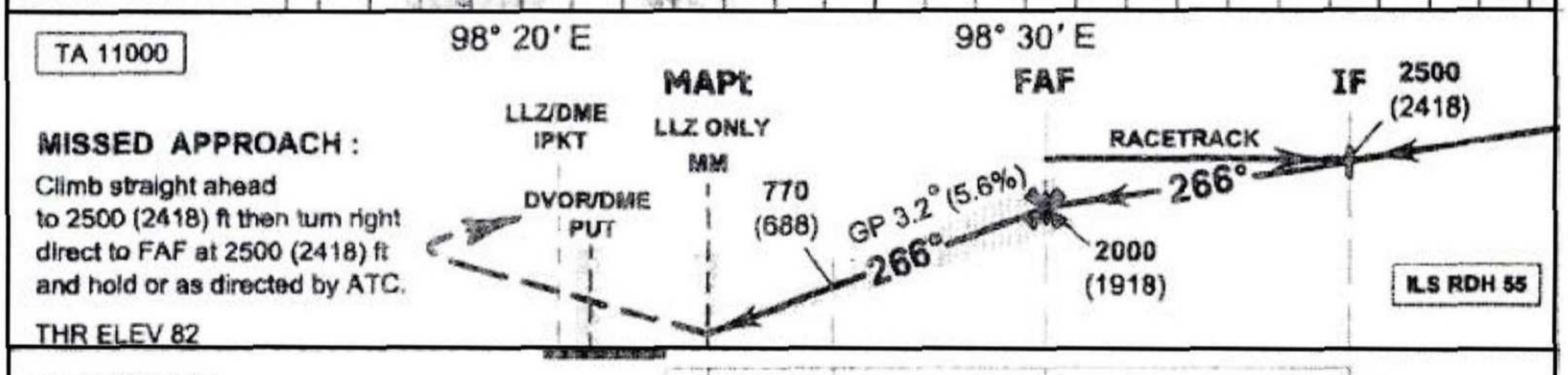
**AERODROME ELEV 82 ft**
HEIGHTS RELATED TO
THR RWY 27 ELEV **82** ft

APP : 124.7, 284.0
ARR : 120.7
TWR : 118.1, 236.6
GND : 121.9
ATIS : 128.0

# PHUKET / Phuket Intl (VTSP)

## ILS or LLZ RWY 27




| NM FM THR 27 | | | | | 0 | 0.5 | 1.9 | 5.5 | | 10.5 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DME FM LLZ/DME | | | | | 0 | 1.5 | 2.0 | 3.4 | 7.0 | | 12.0 | |
| OCA/H | | A | B | C | D | Distance (IPKT) | | 4D | 5D | 6D | 7D | |
| Straight - in approach | CAT I | 550 (468) | | | 560 (478) | Altitude (Height) | | 985 (903) | 1325 (1243) | 1665 (1583) | 2000 (1918) | |
| | | | | | | Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| LLZ Only | | 770 (688) | | | | Rate of descent | (ft/min) | 570 | 680 | 795 | 910 | 1020 | 1135 |
| Circling (OCH AAL) | | 1300 (1218) | | 1400 (1318) | | FAF-MAPt 5.0 nm | (min/s) | 3:00 | 2:30 | 2:09 | 1:53 | 1:40 | 1:30 |

**REMARK : Circling to the Right (North of aerodrome) only.**

CHANGE : COURSE FROM WP ANFIL, MANYU TO IF, FINAL COURSE, HOLDING COURSE
ILS, VOR, MM, FAF COORDINATE AND WP ANFIL, MANYU, FAF RADIAL FROM VOR.

**INTENTIONALLY BLANK**

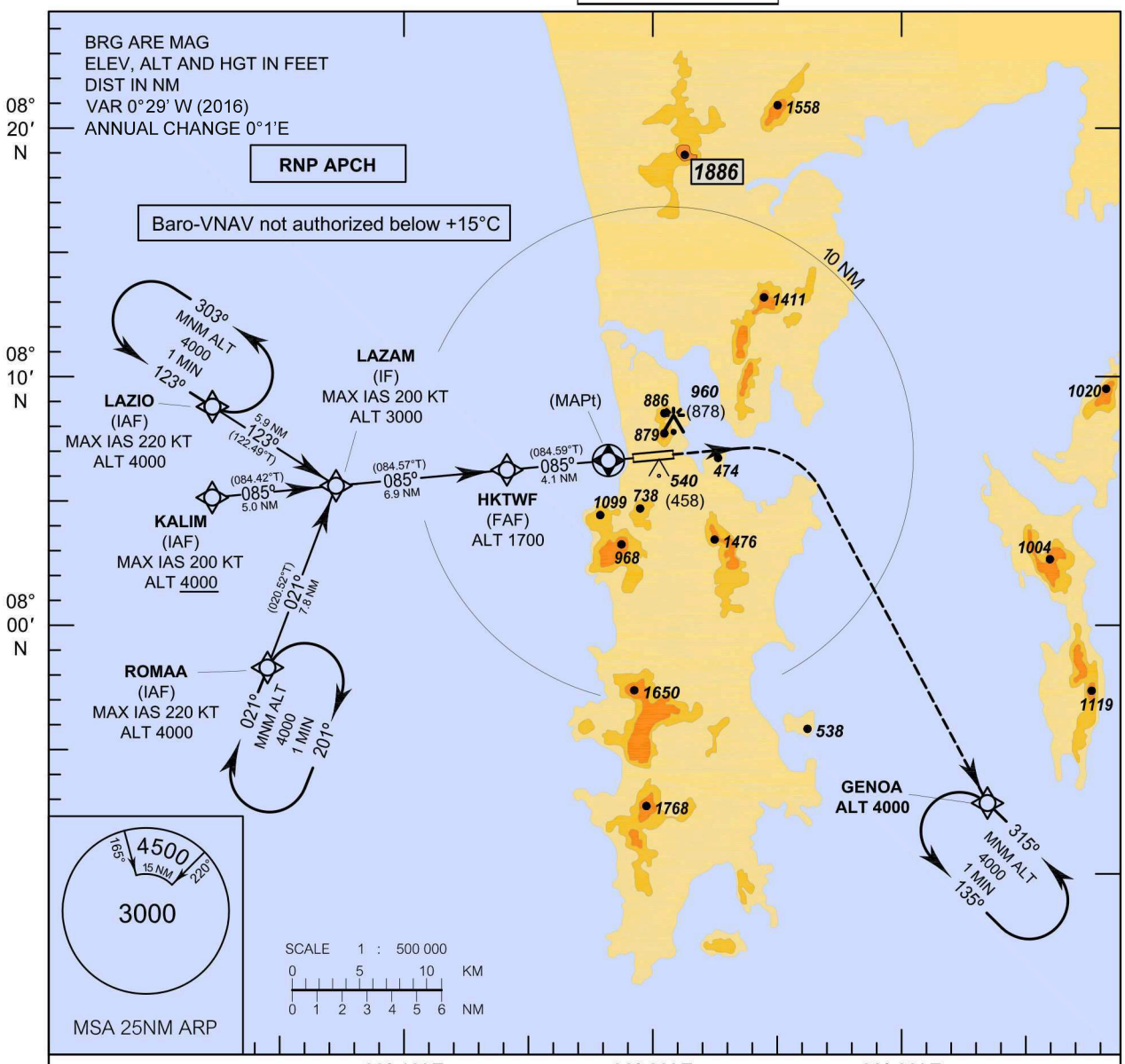
**INSTRUMENT APPROACH CHART - ICAO**

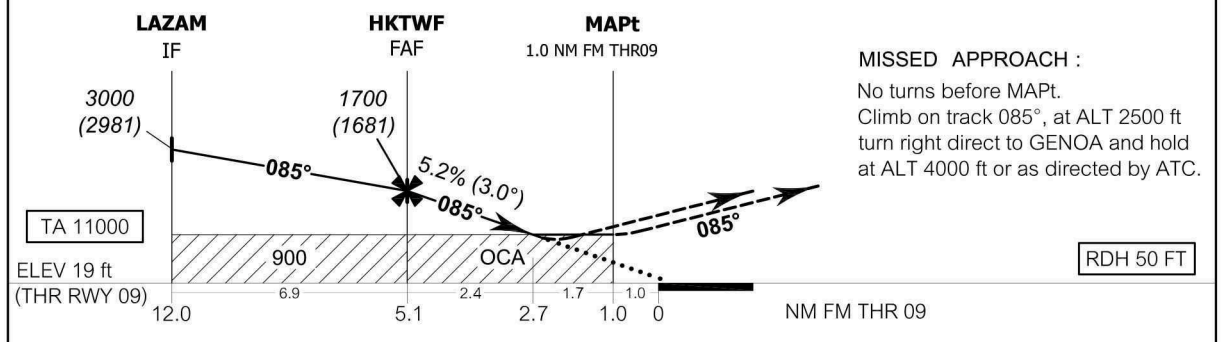
**AERODROME ELEV 82 FT**
HEIGHTS RELATED TO
THR RWY09 - ELEV 19 FT

APP : 124.7, 284.0
ARR : 120.7
TWR : 118.1, 236.6
GND : 121.9
ATIS : 128.0

**PHUKET / Phuket INTL (VTSP)**

**RNP z RWY09**




CHANGE : MAG VAR.

| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 4 NM | 3 NM | 2.7 NM |
|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 870 (851) | | | | Altitude (Height) | 1700 (1681) | 1345 (1326) | 1025 (1006) | 920 (901) |
| LNAV | 920 (901) | | | | Ground Speed | knots | 100 | 120 | 140 | 160 | 180 | 200 |
| Circling (OCH AAL) | 1500 (1418) * | | | | Rate of Descent FAF-MAPt 3.0° (5.2%) | (ft/min) | 530 | 630 | 740 | 845 | 950 | 1055 |

* For circling restrictions see verso.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 84 FT**
HEIGHTS RELATED TO
THR RWY09 - ELEV 22 FT

**PHUKET / Phuket INTL (VTSP)**

**RNP z RWY09**

## TABULAR DESCRIPTION

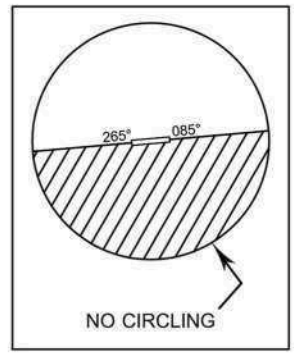
**RNP z RWY09**

| Serial Number | Path Descriptor | Waypoint Indentifier | Fly-Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (ft) | Speed limit (knots) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | LAZIO | - | - | +0.37 | - | - | @4000 | -220 | - | RNP APCH |
| 020 | TF | LAZAM | - | 123(122.49) | +0.37 | 5.9 | - | @3000 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | KALIM | - | - | +0.37 | - | - | +4000 | -200 | - | RNP APCH |
| 020 | TF | LAZAM | - | 085(084.42) | +0.37 | 5.0 | - | @3000 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ROMAA | - | - | +0.37 | - | - | @4000 | -220 | - | RNP APCH |
| 020 | TF | LAZAM | - | 021(020.52) | +0.37 | 7.8 | - | @3000 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | LAZAM | - | - | +0.37 | - | - | @3000 | -200 | - | RNP APCH |
| 020 | TF | HKTWF | - | 085(084.57) | +0.37 | 6.9 | - | @1700 | - | - | RNP APCH |
| 030 | TF | MAPt (1.0 NM FM THR09) | Y | 085(084.59) | +0.37 | 4.1 | - | @390 | - | -3.0/50 | RNP APCH |
| 040 | FA | MAPt (1.0 NM FM THR09) | - | 085(084.59) | +0.37 | - | - | +2500 | - | - | RNP APCH |
| 050 | DF | GENOA | - | - | +0.37 | - | R | +4000 | - | - | RNP APCH |
| 060 | HM | GENOA | - | 315(314.38) | +0.37 | - | L | +4000 | -230 | - | RNP APCH |

## WAYPOINT LIST

RNP z RWY09

| Waypoint Indentifier | Coordinates |
|---|---|
| LAZIO | 08° 08' 45.91"N 098° 01' 08.14"E |
| KALIM | 08° 05' 06.26"N 098° 01' 08.02"E |
| ROMAA | 07° 58' 13.45"N 098° 03' 23.46"E |
| LAZAM | 08° 05' 35.53"N 098° 06' 09.12"E |
| HKTWF | 08° 06' 14.08"N 098° 13' 04.76"E |
| MAPt (1.0 NM FM THR09) | 08° 06' 37.38"N 098° 17' 11.68"E |
| GENOA | 07° 52' 47.77"N 098° 32' 34.83"E |




CHANGE : MAG VAR.

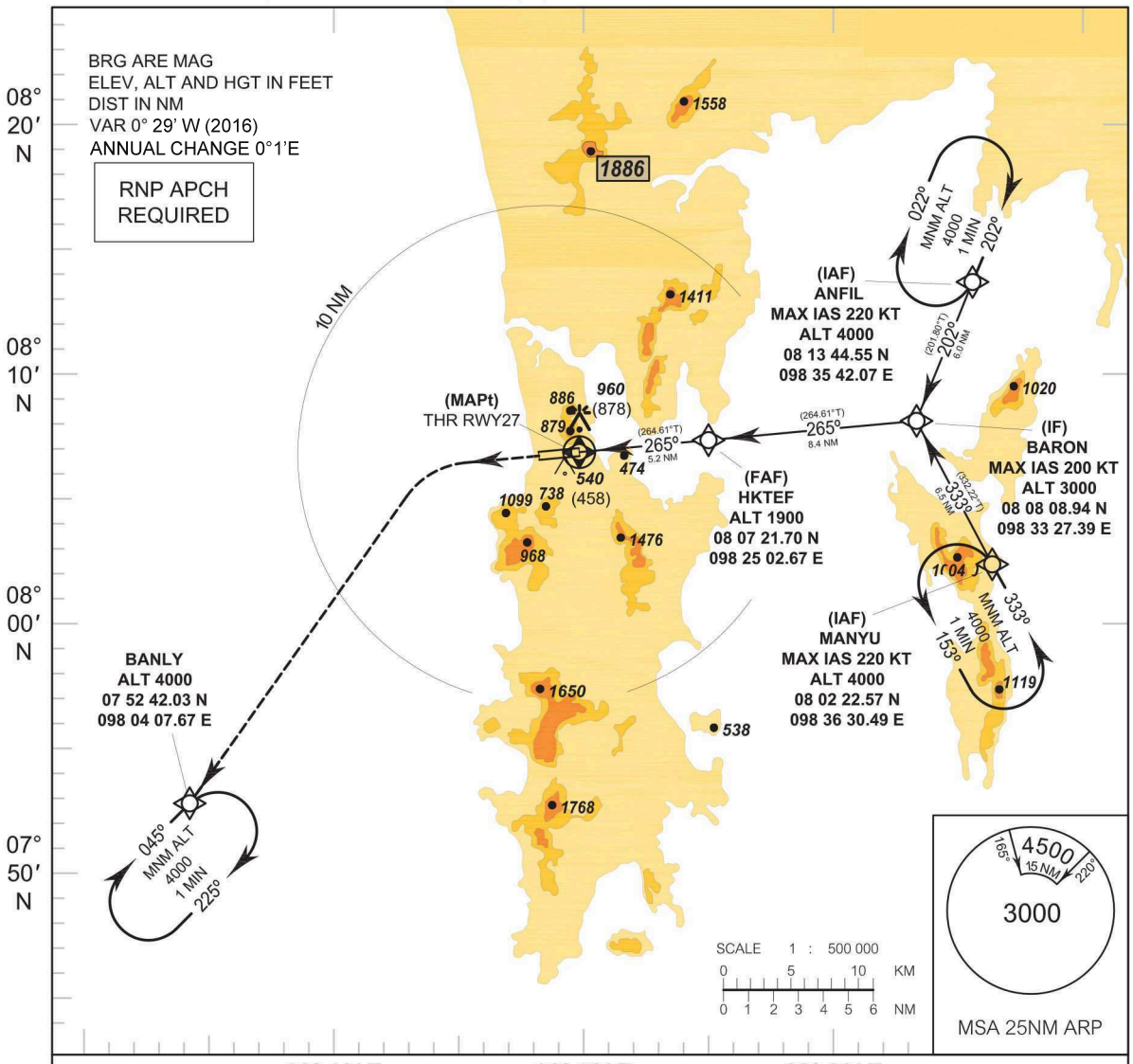
**INSTRUMENT APPROACH CHART - ICAO**

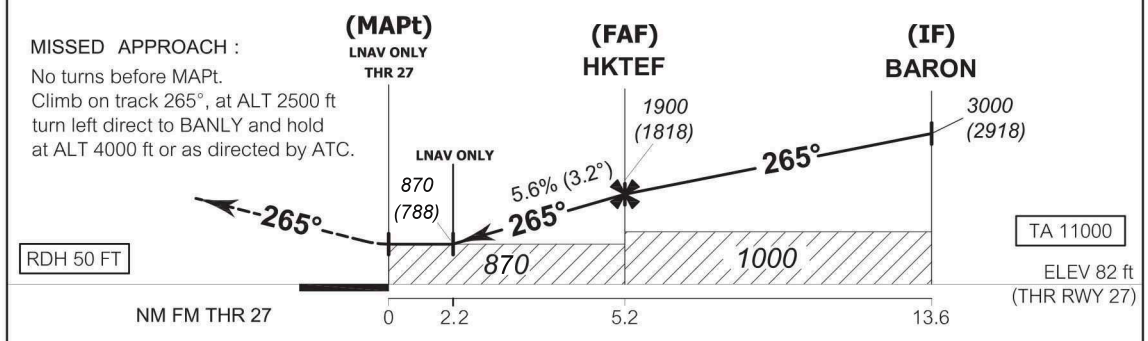
**AERODROME ELEV 82 FT**
HEIGHTS RELATED TO AERODROME ELEV
BARO-VNAV NA BELOW +15°C

| | |
|---|---|
| APP | 124.7, 284.0 |
| ARR | 120.7 |
| TWR | 118.1, 236.6 |
| GND | 121.9 |
| ATIS | 128.0 |

**PHUKET / Phuket INTL (VTSP)**

**RNP z RWY27**



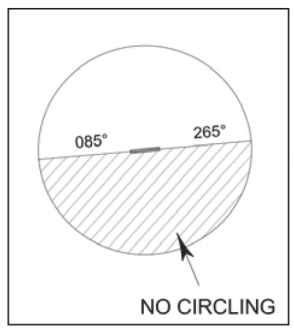

| OCA/H | A | B | C | D | NM to MAPt | 2.2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 870 (788) | | | | Altitude (Height) | 870 (788) | 1160 (1078) | 1500 (1418) | 1900 (1818) |
| LNAV | 870 (788) | | | | Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Circling (OCH AAL) | 1500 (1418) | | | | Rate of descent | (ft/min) | 565 | 680 | 795 | 905 | 1020 | 1135 |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

CHANGE : MAG VAR.

**RNP z RWY27**

| Fix Identifier (Waypoint name) | WGS-84 Coordinates | | Path descriptor | Flyover | Course ° M (° T) | Turn direction | Altitude | Speed limit | Magnetic Variation | Navigation Performance |
|---|---|---|---|---|---|---|---|---|---|---|
| | Latitude | Longitude | | | | | | | | |
| ANFIL | 08 13 44.55 N | 098 35 42.07 E | IF | - | 202° (201.80°) | - | 4000 | 220 | + 0.37 | RNP1 |
| MANYU | 08 02 22.57 N | 098 36 30.49 E | IF | - | 333° (332.22°) | - | 4000 | 220 | + 0.37 | RNP1 |
| BARON | 08 08 08.94 N | 098 33 27.39 E | TF | - | 265° (264.61°) | R, L | 3000 | 200 | + 0.37 | RNP1 |
| HKTEF | 08 07 21.70 N | 098 25 02.67 E | TF | - | 265° (264.61°) | - | 1900 | - | + 0.37 | RNP0.3 |
| Mapt (THR27) | 08 06 52.23 N | 098 19 49.46 E | - | Y | 265° (264.61°) | - | @132 | - | + 0.37 | RNP0.3 |
| - | - | - | CA | - | 265° (264.61°) | L | +2500 | - | + 0.37 | RNP1 |
| BANLY | 07 52 42.03 N | 098 04 07.67 E | DF | - | - | - | 4000 | - | + 0.37 | RNP1 |
| BANLY | 07 52 42.03 N | 098 04 07.67 E | HM | - | 045° (044.40°) | R | 4000 | - | + 0.37 | RNP1 |




CHANGE : MAG VAR .

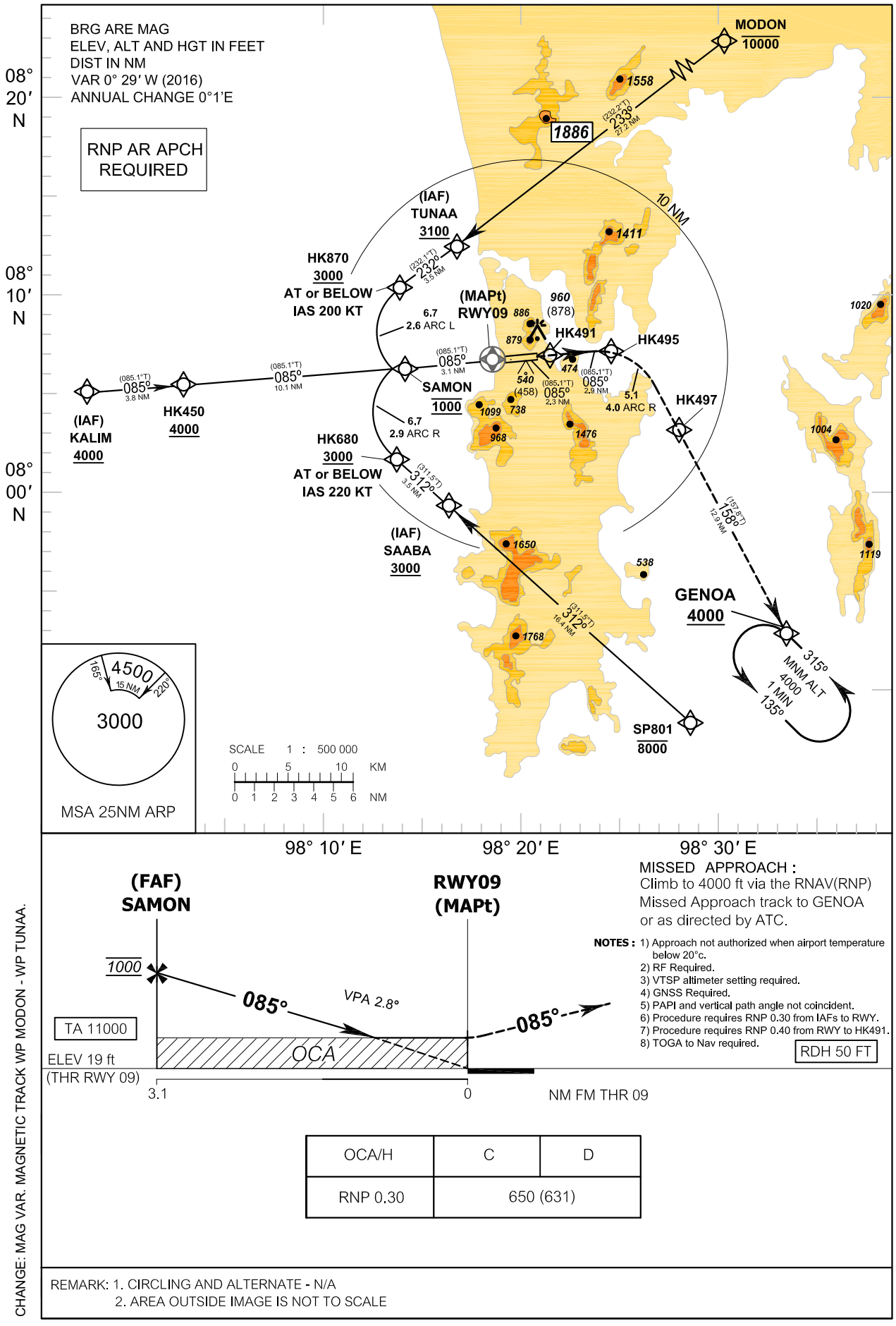
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 82 FT**
HEIGHTS RELATED TO
THR RWY09 - ELEV 19 FT

APP : 124.7, 284.0
ARR : 120.7
TWR : 118.1, 236.6
GND : 121.9
ATIS : 128.0

**PHUKET / Phuket INTL (VTSP)**

**RNP y RWY09 (AR)**




| OCA/H | C | D |
|---|---|---|
| RNP 0.30 | 650 (631) | |

CHANGE: MAG VAR. MAGNETIC TRACK WP MODON - WP TUNAA.

REMARK: 1. CIRCLING AND ALTERNATE - N/A
2. AREA OUTSIDE IMAGE IS NOT TO SCALE

**INSTRUMENT APPROACH CHART - ICAO** AERODROME ELEV 82 FT
HEIGHTS RELATED TO
THR RWY09 - ELEV 19 FT

**PHUKET / Phuket INTL (VTSP)**

**RNP y RWY09 (AR)**

## TABULAR DESCRIPTION

**RNP y RWY09 (AR)**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course/Track °M(°T) | Magnetic Variation | Distance (NM) | Arc Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | RNP | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | IF | KALIM(IAF) | - | - | +0.37 | - | - | +4000 | - | - | - | RNP AR APCH |
| 002 | TF | HK 450 | - | 85°(85.1°) | +0.37 | 3.8 | - | +4000 | - | - | 0.3 | RNP AR APCH |
| 003 | TF | SAMON | - | 85°(85.1°) | +0.37 | 10.1 | - | 1000 | - | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | MODON | - | - | +0.37 | - | - | -10000 | - | - | - | RNP AR APCH |
| 002 | TF | TUNAA(IAF) | - | 233°(232.2°) | +0.37 | 27.2 | - | +3100 | - | - | 2.0 | RNP AR APCH |
| 003 | TF | HK 870 | - | 232°(232.1°) | +0.37 | 3.5 | - | +3000 | -200 | - | 0.3 | RNP AR APCH |
| 004 | RF RHK87 r=2.6 NM | SAMON | - | - | +0.37 | 6.7 | L | 1000 | - | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | SAABA(IAF) | - | - | +0.37 | - | - | +3000 | - | - | - | RNP AR APCH |
| 002 | TF | HK 680 | - | 312°(311.5°) | +0.37 | 3.5 | - | +3000 | -220 | - | 0.3 | RNP AR APCH |
| 003 | RF RHK68 r=2.9 NM | SAMON | - | - | +0.37 | 6.7 | R | 1000 | - | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | SP 801 | - | - | +0.37 | - | - | -8000 | - | - | - | RNP AR APCH |
| 002 | TF | SAABA(IAF) | - | 312°(311.5°) | +0.37 | 16.4 | - | +3000 | - | - | 2.0 | RNP AR APCH |
| 003 | TF | HK 680 | - | 312°(311.5°) | +0.37 | 3.5 | - | +3000 | -220 | - | 0.3 | RNP AR APCH |
| 004 | RF RHK68 r=2.9 NM | SAMON | - | - | +0.37 | 6.7 | R | 1000 | - | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | TUNAA | - | - | +0.37 | - | - | +3100 | - | - | - | RNP AR APCH |
| 002 | TF | HK 870 | - | 232°(232.1°) | +0.37 | 3.5 | - | +3000 | -200 | - | 0.3 | RNP AR APCH |
| 003 | RF RHK87 r=2.6 NM | SAMON | - | - | +0.37 | 6.7 | L | 1000 | - | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | SAMON(FAF) | - | - | +0.37 | - | - | 1000 | - | - | - | RNP AR APCH |
| 002 | TF | RWY09(MAPt) | Y | 85°(85.1°) | +0.37 | 3.1 | - | 69 | - | -2.8 | 0.3 | RNP AR APCH |
| 003 | TF | HK491 | - | 85°(85.1°) | +0.37 | 2.3 | - | - | - | - | 0.4 | RNP AR APCH |
| 004 | TF | HK495 | - | 85°(85.1°) | +0.37 | 2.9 | - | - | - | - | 1.0 | RNP AR APCH |
| 005 | RF RHK49 r=4.0 NM | HK497 | - | - | +0.37 | 5.1 | R | - | - | - | 1.0 | RNP AR APCH |
| 006 | TF | GENOA | - | 158°(157.8°) | +0.37 | 12.9 | - | +4000 | - | - | 1.0 | RNP AR APCH |
| 007 | HM | GENOA | Y | 315°(315.0°) | +0.37 | 1 minute | L | +4000 | - | - | - | RNP AR APCH |

CHANGE : MAG VAR. MAGNETIC TRACK WP MODON - WP TUNAA.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 82 FT**
HEIGHTS RELATED TO
THR RWY09 - ELEV 19 FT

**PHUKET / Phuket INTL (VTSP)**

**RNP y RWY09 (AR)**

## WAYPOINT LIST

**RNP y RWY09 (AR)**

| Waypoint Identifier | Coordinates | | RF Arc Centre Identifier | Coordinates | |
|---|---|---|---|---|---|
| KALIM | 08° 05' 06.26" N | 098° 01' 08.02" E | RHK87 | 08° 09' 02.66" N | 098° 14' 48.29" E |
| HK 450 | 08° 05' 27.85" N | 098° 04' 55.35" E | RHK68 | 08° 03' 32.13" N | 098° 15' 19.66" E |
| SAMON | 08° 06' 25.28" N | 098° 15' 03.23" E | RHK49 | 08° 03' 12.65" N | 098° 23' 50.18" E |
| MODON | 08° 30' 16.00" N | 098° 37' 28.53" E | | | |
| TUNAA | 08° 13' 17.58" N | 098° 15' 55.81" E | | | |
| HK 870 | 08° 11' 06.60" N | 098° 13' 09.79" E | | | |
| SAABA | 07° 59' 02.48" N | 098° 16' 05.16" E | | | |
| HK 680 | 08° 01' 20.77" N | 098° 13' 25.29" E | | | |
| SP 801 | 07° 48' 13.31" N | 098° 28' 34.94" E | | | |
| HK 680 | 08° 01' 20.77" N | 098° 13' 25.29" E | | | |
| RWY09 (THR09) | 08° 06' 43.05" N | 098° 18' 11.90" E | | | |
| HK491 | 08° 06' 56.34" N | 098° 20' 33.13" E | | | |
| HK495 | 08° 07' 12.72" N | 098° 23' 27.48" E | | | |
| HK497 | 08° 04' 45.79" N | 098° 27' 33.35" E | | | |
| GENOA | 07° 52' 47.77" N | 098° 32' 34.83" E | | | |

CHANGE : CHART TITLE.

**INTENTIONALLY BLANK**

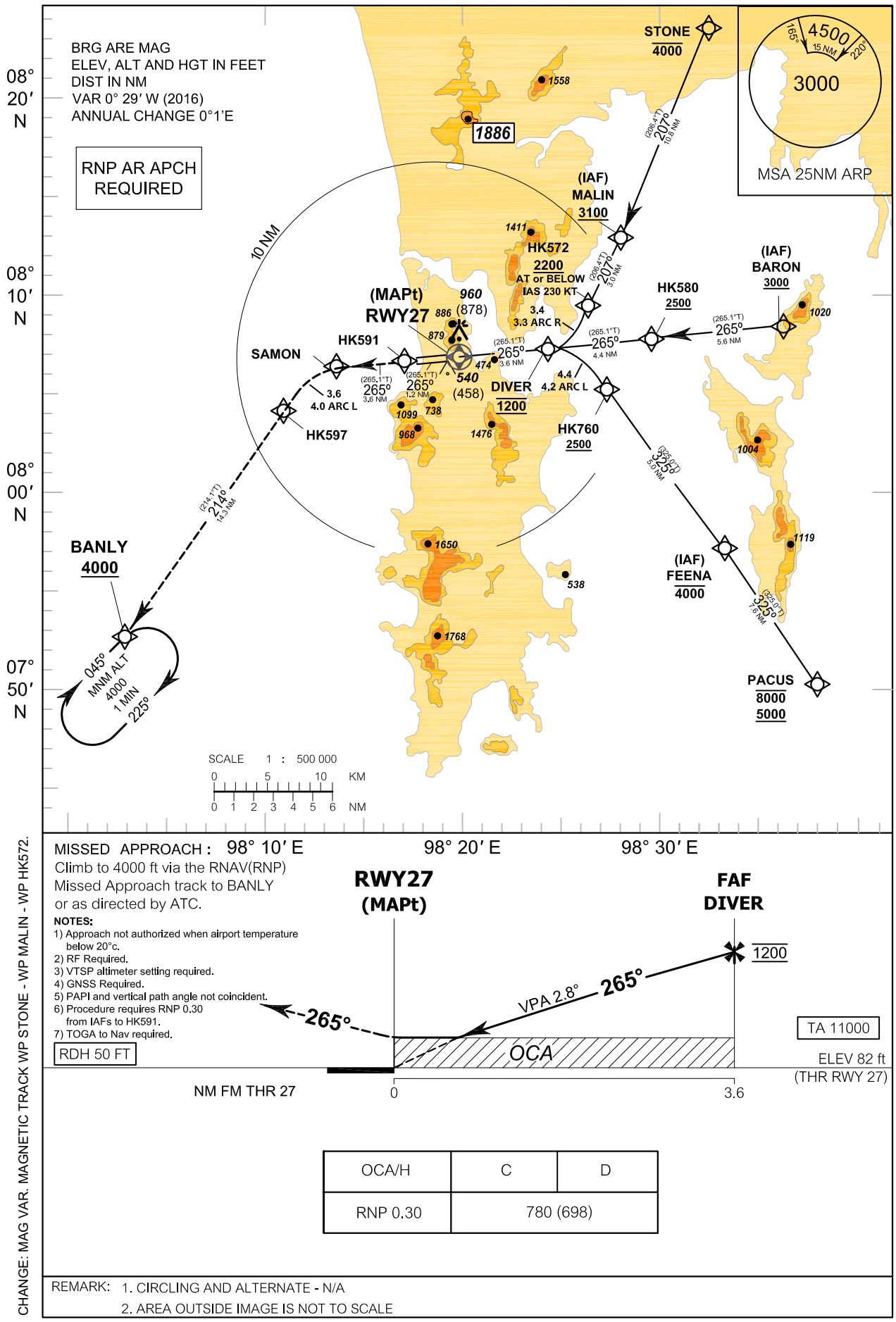
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 82 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 124.7, 284.0
ARR : 120.7
TWR : 118.1, 236.6
GND : 121.9
ATIS : 128.0

**PHUKET / Phuket INTL (VTSP)**

**RNP y RWY27 (AR)**




MISSED APPROACH : 98° 10′ E
Climb to 4000 ft via the RNAV(RNP)
Missed Approach track to BANLY
or as directed by ATC.

**NOTES:**
1) Approach not authorized when airport temperature below 20°c.
2) RF Required.
3) VTSP altimeter setting required.
4) GNSS Required.
5) PAPI and vertical path angle not coincident.
6) Procedure requires RNP 0.30 from IAFs to HK591.
7) TOGA to Nav required.

RDH 50 FT




| OCA/H | C | D |
|---|---|---|
| RNP 0.30 | 780 (698) | |

REMARK: 1. CIRCLING AND ALTERNATE - N/A
2. AREA OUTSIDE IMAGE IS NOT TO SCALE

CHANGE: MAG VAR. MAGNETIC TRACK WP STONE - WP MALIN - WP HK572.

**INSTRUMENT APPROACH CHART - ICAO** **AERODROME ELEV 82 FT**
HEIGHTS RELATED TO
THR RWY09 - ELEV 19 FT

**PHUKET / Phuket INTL (VTSP)**

**RNP y RWY27 (AR)**

## TABULAR DESCRIPTION

**RNP y RWY27 (AR)**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course/Track °M(°T) | Magnetic Variation | Distance (NM) | Arc Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | RNP | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | IF | BARON (IAF) | - | - | +0.37 | - | - | +3000 | - | - | - | RNP AR APCH |
| 002 | TF | HK580 | - | 265°(265.1°) | +0.37 | 5.6 | - | +2500 | - | - | 0.3 | RNP AR APCH |
| 003 | TF | DIVER | - | 265°(265.1°) | +0.37 | 4.4 | - | 1200 | - | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | FEENA (IAF) | - | - | +0.37 | - | - | -4000 | - | - | - | RNP AR APCH |
| 002 | TF | HK760 | - | 325°(325.0°) | +0.37 | 5.0 | - | +2500 | - | - | 0.3 | RNP AR APCH |
| 003 | RF RHK76 r= 4.2 NM | DIVER | - | - | +0.37 | 4.4 | L | 1200 | - | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | MALIN(IAF) | - | - | +0.37 | - | - | +3100 | - | - | - | RNP AR APCH |
| 002 | TF | HK572 | - | 207°(206.4°) | +0.37 | 3.0 | - | +2200 | -230 | - | 0.3 | RNP AR APCH |
| 003 | RF RHK57 r= 3.3 NM | DIVER | - | - | +0.37 | 3.4 | R | 1200 | - | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | PACUS | - | - | +0.37 | - | - | -8000 +5000 | - | - | - | RNP AR APCH |
| 002 | TF | FEENA (IAF) | - | 325°(325.0°) | +0.37 | 7.6 | - | -4000 | - | - | 2.0 | RNP AR APCH |
| 003 | TF | HK760 | - | 325°(325.0°) | +0.37 | 5.0 | - | +2500 | - | - | 0.3 | RNP AR APCH |
| 004 | RF RHK76 r= 4.2 NM | DIVER | - | - | +0.37 | 4.4 | L | 1200 | - | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | STONE | - | - | +0.37 | - | - | -4000 | - | - | - | RNP AR APCH |
| 002 | TF | MALIN(IAF) | - | 207°(206.4°) | +0.37 | 10.8 | - | +3100 | - | - | 2.0 | RNP AR APCH |
| 003 | TF | HK572 | - | 207°(206.4°) | +0.37 | 3.0 | - | +2200 | -230 | - | 0.3 | RNP AR APCH |
| 004 | RF RHK57 r= 3.3 NM | DIVER | | - | +0.37 | 3.4 | R | 1200 | | -2.8 | 0.3 | RNP AR APCH |
| | | | | | | | | | | | | |
| 001 | IF | DIVER (FAF) | - | - | +0.37 | - | - | 1200 | - | - | - | RNP AR APCH |
| 002 | TF | RWY27 (MAPt) | Y | 265°(265.1°) | +0.37 | 3.6 | - | 132 | - | -2.8 | 0.3 | RNP AR APCH |
| 003 | TF | HK591 | - | 265°(265.1°) | +0.37 | 1.2 | - | - | - | - | 0.3 | RNP AR APCH |
| 004 | TF | SAMON | - | 265°(265.1°) | +0.37 | 3.6 | - | - | - | - | 1.0 | RNP AR APCH |
| 005 | RF RHK59 r= 4.0 NM | HK597 | - | - | +0.37 | 3.6 | L | - | - | - | 1.0 | RNP AR APCH |
| 006 | TF | BANLY | - | 214°(214.1°) | +0.37 | 14.3 | - | +4000 | - | - | 1.0 | RNP AR APCH |
| 007 | HM | BANLY | Y | 45°(45.0°) | +0.37 | 1 minute | R | +4000 | - | - | - | RNP AR APCH |

CHANGE : MAG VAR. MAGNETIC TRACK WP STONE - WP MALIN - WP HK572.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 82 FT**
HEIGHTS RELATED TO
THR RWY09 - ELEV 19 FT

**PHUKET / Phuket INTL (VTSP)**

**RNP y RWY27 (AR)**

## WAYPOINT LIST

**RNP y RWY27 (AR)**

| Waypoint Identifier | Coordinates | | RF Arc Centre Identifier | Coordinates | |
|---|---|---|---|---|---|
| BARON | 08° 08' 08.94" N | 098° 33' 27.39" E | RHK76 | 08° 03' 01.37" N | 098° 23' 49.70" E |
| HK580 | 08° 07' 37.29" N | 098° 27' 49.40" E | RHK57 | 08° 10' 29.52" N | 098° 23' 07.32" E |
| DIVER | 08° 07' 12.58" N | 098° 23' 25.94" E | RHK59 | 08° 02' 25.21" N | 098° 15' 26.01" E |
| FEENA | 08° 01' 20.18" N | 098° 30' 13.03" E | | | |
| HK760 | 08° 05' 27.89" N | 098° 27' 15.81" E | | | |
| MALIN | 08° 11' 47.47" N | 098° 27' 25.90" E | | | |
| HK572 | 08° 09' 03.21" N | 098° 26' 05.95" E | | | |
| PACUS | 07° 55' 05.24" N | 098° 34' 41.14" E | | | |
| STONE | 08° 21' 33.96" N | 098° 32' 11.54" E | | | |
| RWY27 (THR27) | 08° 06' 52.23" N | 098° 19' 49.46" E | | | |
| HK591 | 08° 06' 45.51" N | 098° 18' 38.06" E | | | |
| SAMON | 08° 06' 25.28" N | 098° 15' 03.23" E | | | |
| HK597 | 08° 04' 38.55" N | 098° 12' 04.42" E | | | |
| BANLY | 07° 52' 42.03" N | 098° 04' 07.67" E | | | |

CHANHE : CHART TITLE.

**INTENTIONALLY BLANK**

## VTBS AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTBS - BANGKOK/SUVARNABHUMI INTERNATIONAL AIRPORT

## VTBS AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 134109N 1004456E<br>Midpoint between taxiways G, H, H2 and H3 |
| 2 | Direction and distance from (city) | 25 KM East of Bangkok |
| 3 | Elevation/Reference temperature | 8 FT (2 M) / 32.4°C |
| 4 | Geoid undulation at AD ELEV PSN | -94 FT (-29 M) |
| 5 | MAG VAR/Annual change | 0° 42' W (2025) / 0° 2' E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | 999 Moo 1 Nong Prue, Bangphli, Samut Prakan 10540, Thailand<br>Tel: +662 132 1888<br>Fax: +662 132 1889<br>Website: https://suvarnabhumi.airportthai.co.th<br>AFS: VTBSYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR / Authorized VFR |
| 8 | Remarks | Operator: Airports of Thailand Public Company Limited (AOT) |

## VTBS AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome operator | H24 |
| 2 | Customs and immigration | H24 |
| 3 | Health and sanitation | H24 |
| 4 | AIS Briefing Office | H24 |
| 5 | ATS Reporting Office (ARO) | H24 |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | H24 |
| 8 | Fuelling | H24 |
| 9 | Handling | H24 |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | AIS Briefing Office and ATS Reporting Office (ARO):<br>Located at 2nd floor, the central block building, Don Mueang International Airport<br>Tel: +66 2131 3901-3<br>Fax: +66 2131 3904<br>AFTN: VTBSZPZX<br>E-mail: vtbszpzx@aerothai.co.th |

## VTBS AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | Available from Thai Airways International Plc.and WFS-PG Cargo Co., Ltd. (BFS Cargo) |
| 2 | Fuel/oil types | Jet A1 |
| 3 | Fuelling facilities/capacity | a) Bangkok Aviation Fuel Service Public Company Limited (BAFS)<br>Website:www.bafsthai.com<br>E-mail: poomravit@bafs.co.th<br>wanijcha@bafs.co.th<br>Tel: +662 834 8959<br>Fax: +662 929 5480<br>Fuel Dispenser Truck: 42<br>Fuel Refueller Truck: 4<br>- 2 Capacity: 65,000 L<br>- 1 Capacity: 40,000 L<br>- 1 Capacity: 35,000 L<br>b) Aircraft Service International Group (THAILAND) CO.,LTD. (ASIG)<br>Website:www.menziesaviation.com<br>E-mail: n.boonpithaksap@johnmenzies.aero<br>natthaphong.boonpithaksap@menziesaviation.com<br>Tel: +662 327 3293-7<br>Fax: +662 327 3298<br>Fuel Dispenser Truck: 10<br>Fuel Refueller Truck: 2 Capacity: 35,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | Limited, operated by Thai Airways International Plc.<br>For Hangar space, please contact:<br>Mrs. Apicha Runglapho<br>Administrative Secretary,SBIA MRO Operations Department<br>E-mail: apicha.r@thaiairways.com<br>Tel: +662 137 5031 |
| 6 | Repair facilities for visiting aircraft | Major and minor repair available from Thai Airways International Plc. and line maintenance from International Airlines Technical Pool.<br>For Repair facilities, please contact:<br>Mrs. Apicha Runglapho<br>Administrative Secretary,SBIA MRO Operations Department<br>E-mail: apicha.r@thaiairways.com<br>Tel: +662 137 5031 |

| | | |
|---|---|---|
| 7 | Remarks | The Airport has provided ground handling agents as following:<br>a) Worldwide Flight Services Bangkok Air Ground Handling Co., Ltd. (BFS Ground)<br>Website:www.bangkokflightservices.com<br><br>**Schedule Airlines and Seasonal Charter:**<br>Ekpol Mekvishai, Contracts Manager<br>E-mail: EkpolM@BFSASIA.com<br>Tel: +668 5055 7671<br>**Ad Hoc Charter and Corporate Jet:**<br>Ekpol Mekvishai, Contracts Manager<br>E-mail: EkpolM@BFSASIA.com<br>Tel: +668 5055 7671<br>Fax: +662 131 5099<br>**General Inquiry:**<br>E-mail: marketing@bfsasia.com<br>Tel: +662 131 5000<br>Fax: +662 131 5077<br>+662 131 5099<br><br>b) Thai Airways International Public Co.Ltd. (TG)<br>Website:www.thaiairways.com<br>**Ground Handling Services:**<br>E-mail: thaigroundservices@thaiairways.com<br>SITA: BKKKATG<br>Tel: +662 137 1610<br>Fax: +662 137 1675<br>**Ad Hoc Charter Handling Services:**<br>E-mail: tg.charter@thaiairways.com<br>SITA: BKKZMTG<br>Tel: +662 134 5067-8<br>**Catering Services:**<br>Website: www.thaicatering.com<br>E-mail: cat.info@thaiairways.com<br>SITA: BKKDCTG<br>Tel: +662 137 2101-5<br>+662 137 2410<br>Fax: +662 137 2450<br><br>c) LSG SKY CHEFS<br>Website:www.lsgskychefs.com<br>E-mail: DL.APAC.BKK.CustomerServices@lsgskychefs.com<br>Tel: +662 131 1900<br>+662 131 1952 (24 hrs)<br>+668 7970 3884 (24 hrs)<br><br>d) Bangkok Air Catering Co, Ltd. (BAC)<br>Website:www.bangkokaircatering.com<br>E-mail: sales@bangkokaircatering.com<br>Tel: +662 131 7500<br>Fax: +662 131 7599 |

## VTBS AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | At AD and in the city. |
| 2 | Restaurants | At AD and in the city. |
| 3 | Transportation | Airport Rail Link, buses, taxis and car hire from the AD. |
| 4 | Medical facilities | Medical clinic which provides first aid and emergency response at AD is open 24 hours.<br>Emergency number is +662 132 7777. |
| 5 | Bank and Post Office | At AD. |
| 6 | Tourist Office | At AD. |
| 7 | Remarks | For further information visit Internet address :<br>https://suvarnabhumi.airportthai.co.th |

## VTBS AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 10 |
| 2 | Rescue equipment | Adequately provided as recommended by ICAO |
| 3 | Capability for removal of disabled aircraft | Capable of handling all aircraft up to B744 dimensions & weight, operated by Thai Airways International Plc. |
| 4 | Remarks | For removal of disabled aircraft, please contact:<br>Airside Operations Department<br>Tel: +662 132 6801<br>+668 9202 0341 (24 hrs)<br>Fax: +662 132 6819<br>E-mail: airside06.vtbs@airportthai.co.th |

## VTBS AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The AD is available all seasons. |

## VTBS AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br><br>Main Apron, East Apron and West Apron<br>Strength: PCR 1360/R/D/W/T<br><br>SAT-1 Apron<br>Strength: PCR 1010/R/A/W/T |

| | | |
|---|---|---|
| 2 | Taxiway width, surface and strength | Minimum Width: 25 M<br>Taxiways: B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12 and B13<br>Taxiways: C, C1, C2, C8, C9 and C10<br>Taxiways: D1, D2, D3, D4, D5, D6, D7, D8 and D9<br>Taxiways: E, E1, E2, E3, E5, E6, E7, E8, E9, E10, E12, E13, E15, E17, E19 and E21<br>H, H1 and H2<br>Taxilanes: T1, T2, T3, T4, T5, T10, T11, T12, T13 and T14<br>Surface: Asphalt<br>Strength: PCR 1730/F/D/X/T<br><br>Taxiways: F3, F5, F6, F7, F9, F10 and F15<br>Surface: Asphalt<br>Strength: PCR 870/F/C/X/T<br><br>Taxiways: B1<br>Taxilanes: T6, T7, T8, T9, T15, T16 and T17<br>Surface: Concrete<br>Strength: PCR 1660/R/D/W/T<br><br>Taxiways: D10 and D11Surface: Concrete<br>Strength: PCR 1220/R/C/W/T<br><br>Taxiways: J, J1, J2, J3 and J4<br>Taxiways: K<br>Taxilanes: T18 and T19<br>Surface: Concrete<br>Strength: PCR 900/R/A/W/T<br><br>Taxiways: B<br>Taxiways: C3, C4, C5, C6 and C7<br>Taxiways: G<br>Taxiways: H3 and H4<br>Taxilanes: T12<br>Surface: Asphalt<br>Strength: PCR 1730/F/D/X/T<br>Surface: Concrete<br>Strength: PCR 1660/R/D/W/T<br><br>Taxiways: D<br>Surface: Asphalt<br>Strength: PCR 1730/F/D/X/T<br>Surface: Concrete<br>Strength: PCR 1220/R/C/W/T<br><br>Taxiways: H5 and H6<br>Surface: Asphalt<br>Strength: PCR 1730/F/D/X/T<br>Surface: Concrete<br>Strength: PCR 900/R/A/W/T<br><br>Taxiways: F, F1, F2, F4, F8, F11 and F12<br>Taxiways: W, Y and Z<br>Surface: Asphalt<br>Strength: PCR 870/F/C/X/T<br>Surface: Concrete<br>Strength: PCR 1220/R/C/W/T |
| 3 | Altimeter checkpoint location and elevation | Location : At Apron<br>Elevation : 4 FT |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | See Aircraft Parking/Docking Chart - ICAO (Versos) for coordinates of aircraft stand. |
| 6 | Remarks | NIL |

## VTBS AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guidelines and visual docking/parking guidance system of aircraft stands | Taxiing guidance signs at all intersections with TWY and RWY and at all holding positions.<br>Guidelines at apron.<br>Nose-in guidance at aircraft stands. |
| 2 | RWY and TWY markings and LGT | RWY: Designation, THR, TDZ, Centre line, edge and runway end marked and lighted.<br>TWY: Centre line and edge marked and lighted. |
| 3 | Stop bars | Stop bars are installed at following locations:<br>RWY 01/19<br>- Taxiway B1, B2, B3, B11, B12, B13<br><br>RWY 02R/20L<br>- Taxiway E1, E2, E3, E5, E10, E15, E17, E19, E21<br>- Taxiway W, Y, Z<br><br>RWY 02L/20R<br>-Taxiway F1, F2, F3, F10, F11, F12, F15 |
| 4 | Remarks | Intermediate holding positions are provided at some TWY/TWY intersections. |

## VTBS AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 19/TKOF | CCTV Pole 24.4 FT (7.4 M) | 133858.4N 1004457.3E | Antenna on top of Building 197.5 FT (60.2 M) | 134338.8N 1004633.5E | |
| 19/TKOF | CCTV Pole 20.8 FT (6.3 M) | 133900.5N 1004457.2E | Institute Building 203.9 FT (62.1 M) LGTD | 134339.2N 1004618.8E | |
| 19/TKOF | Vegetation 41.1 FT (12.5 M) | 133849.6N 1004456.6E | Communication Tower 153.0 FT (46.6 M) | 134104.1N 1004330.9E | |
| 19/TKOF | Sub-distribution Building 23.4 FT (7.1 M) | 133858.4N 1004503.6E | Pole on top of Control Tower Building 466.4 FT (142.1 M) LGTD | 134147.2N 1004458.5E | |
| | | | Antenna on top of East Apron Control Tower Building 171.5 FT (52.3 M) | 134124.0N 1004516.1E | |
| | | | Antenna on top of West Apron Control Tower Building 170.4 FT (51.9 M) | 134131.4N 1004446.5E | |
| | | | Antenna on top of Building 169.2 FT (51.6 M) | 134142.8N 1004511.2E | NIL |
| | | | Industrial Stack 166.5 FT (50.8 M) marked | 133957.3N 1004719.8E | |
| | | | Industrial Stack 185.9 FT (56.7 M) marked | 133958.2N 1004720.1E | |
| | | | Industrial Stack 169.0 FT (51.5 M) marked | 133955.8N 1004719.1E | |
| | | | Industrial Stack 169.3 FT (51.6 M) marked | 133954.7N 1004718.6E | |
| | | | Advertising Sign Board 178.2 FT (54.3 M) | 134123.9N 1004346.0E | |
| | | | Residential Building 165.2 FT (50.4 M) LGTD | 133753.4N 1004347.5E | |
| | | | Residential Building 158.8 FT (48.4 M) LGTD | 133802.8N 1004342.9E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Residential Building 158.1 FT (48.2 M) LGTD | 133803.4N 1004340.8E | |
| | | | Residential Building 157.3 FT (47.9 M) LGTD | 133805.4N 1004339.4E | |
| | | | Residential Building 157.7 FT (48.1 M) LGTD | 133807.7N 1004339.4E | |
| | | | Residential Building 156.7 FT (47.8 M) LGTD | 133809.8N 1004339.5E | |
| | | | Residential Building 158.2 FT (48.2 M) LGTD | 133812.0N 1004340.1E | |
| | | | Residential Building 153.8 FT (46.9 M) LGTD | 134332.3N 1004618.1E | |
| | | | Terminal Building 170.7 FT (52.0 M) | 134127.1N 1004510.9E | |
| | | | Office Building 151.5 FT (46.2 M) LGTD | 134239.7N 1004530.1E | |
| | | | Office Building 162.4 FT (49.5 M) LGTD | 134227.1N 1004530.7E | NIL |
| | | | Secondary Surveillance Radar (SSR) Tower Building 168.6 FT (51.4 M) LGTD | 134149.8N 1004615.7E | |
| | | | Primary Surveillance Radar (PSR) Tower Building 156.8 FT (47.8 M) | 134122.9N 1004613.2E | |
| | | | Surface Movement Radar (SMR) Tower Building 152.8 FT (46.6 M) | 134105.4N 1004433.6E | |
| | | | Residential Building 163.6 FT (49.9 M) LGTD | 133751.4N 1004358.0E | |
| | | | Residential Building 161.1 FT (49.1 M) LGTD | 133751.9N 1004356.0E | |
| | | | Residential Building 160.5 FT (48.9 M) LGTD | 133752.2N 1004353.8E | |

| In approach/TKOF areas | | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|---|
| 1 | | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | | a | b | |
| | | | | Residential Building 162.4 FT (49.5 M) LGTD | 133752.5N 1004351.8E | |
| | | | | Residential Building 163.8 FT (49.9 M) LGTD | 133753.0N 1004349.6E | |
| | | | | Terminal Building 170.7 FT (52.0 M) LGTD | 134127.5N 1004511.0E | |
| | | | | Hangar Building 162.4 FT (49.5 M) LGTD | 134223.6N 1004539.4E | |
| 02R/TKOF | Lighting Pole 34.8 FT (10.6 M) | 134258.3N | 1004443.1E | Institute Building 203.9 FT (62.1 M) LGTD | 134339.2N 1004618.8E | |
| 02R/TKOF | High Mast Lighting Pole 116.2 FT (35.4 M) | 134335.4N | 1004447.9E | Communication Tower 153.0 FT (46.6 M) | 134104.1N 1004330.9E | |
| 02R/TKOF | High Mast Lighting Pole 69.6 FT (21.2 M) | 134255.6N | 1004449.9E | Pole on top of Control Tower Building 466.4 FT (142.1 M) LGTD | 134147.2N 1004458.5E | |
| 02R/TKOF | High Mast Lighting Pole 73.4 FT (22.4 M) | 134257.5N | 1004448.4E | Antenna on top of East Apron Control Tower Building 171.5 FT (52.3 M) | 134124.0N 1004516.1E | NIL |
| 02R/TKOF | High Mast Lighting Pole 87.5 FT (26.7 M) | 134303.8N | 1004447.0E | Antenna on top of West Apron Control Tower Building 170.4 FT (51.9 M) | 134131.4N 1004446.5E | |
| 02R/TKOF | High Mast Lighting Pole 73.0 FT (22.2 M) | 134306.8N | 1004447.6E | Antenna on top of Building 169.2 FT (51.6 M) | 134142.8N 1004511.2E | |
| 02R/TKOF | High Mast Lighting Pole 73.7 FT (22.5 M) | 134309.4N | 1004447.8E | Advertising Sign Board 178.2 FT (54.3 M) | 134123.9N 1004346.0E | |
| 02R/TKOF | High Mast Lighting Pole 90.0 FT (27.4 M) | 134301.5N | 1004444.2E | Residential Building 157.7 FT (48.1 M) LGTD | 133807.7N 1004339.4E | |
| 02R/TKOF | High Mast Lighting Pole 85.7 FT (26.1 M) | 134300.4N | 1004447.0E | Residential Building 156.7 FT (47.8 M) LGTD | 133809.8N 1004339.5E | |
| 02R/TKOF | High Mast Lighting Pole 91.9 FT (28.0 M) | 134305.3N | 1004450.0E | Residential Building 158.2 FT (48.2 M) LGTD | 133812.0N 1004340.1E | |
| 02R/TKOF | High Mast Lighting Pole 88.5 FT (27.0 M) | 134301.3N | 1004449.9E | Residential Building 153.8 FT (46.9 M) LGTD | 134332.3N 1004618.1E | |
| 02R/TKOF | Tree 29.6 FT (9.0 M) | 134300.0N | 1004444.3E | Terminal Building 170.7 FT (52.0 M) | 134127.1N 1004510.9E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 02R/TKOF | Tree 25.0 FT (7.6 M) | 134256.0N 1004443.0E | Office Building 162.4 FT (49.5 M) LGTD | 134227.1N 1004530.7E | NIL |
| 02R/TKOF | Tree 44.1 FT (13.5 M) | 134302.1N 1004449.0E | Secondary Surveillance Radar (SSR) Tower Building 168.6 FT (51.4 M) LGTD | 134149.8N 1004615.7E | |
| 02R/TKOF | Tree 38.4 FT (11.7 M) | 134302.7N 1004449.0E | Primary Surveillance Radar (PSR) Tower Building 156.8 FT (47.8 M) | 134122.9N 1004613.2E | |
| 02R/TKOF | High Mast Lighting Pole 57.7 FT (17.6 M) | 134307.3N 1004452.6E | Surface Movement Radar (SMR) Tower Building 152.8 FT (46.6 M) | 134105.4N 1004433.6E | |
| 02R/TKOF | High Mast Lighting Pole 91.9 FT (28.0 M) | 134304.3N 1004451.3E | Hangar Building 162.4 FT (49.5 M) LGTD | 134223.6N 1004539.4E | |
| 02R/TKOF | High Mast Lighting Pole 88.5 FT (27.0 M) | 134301.2N 1004449.0E | Transmission Tower 204.8 FT (62.4 M) | 134058.2N 1004147.7E | |
| 02R/TKOF | High Mast Lighting Pole 73.4 FT (22.4 M) | 134312.0N 1004447.8E | Transmission Tower 204.3 FT (62.3 M) | 134044.8N 1004151.6E | |
| 02R/TKOF | High Mast Lighting Pole 75.3 FT (23.0 M) | 134314.6N 1004447.8E | Transmission Tower 207.0 FT (63.1 M) | 134035.9N 1004154.2E | |
| 02R/TKOF | High Mast Lighting Pole 75.3 FT (23.0 M) | 134317.2N 1004447.8E | Transmission Tower 204.1 FT (62.2 M) | 134027.7N 1004159.6E | |
| 02R/TKOF | High Mast Lighting Pole 75.3 FT (23.0 M) | 134319.8N 1004447.8E | Transmission Tower 204.1 FT (62.2 M) | 134017.7N 1004159.4E | |
| 02R/TKOF | High Mast Lighting Pole 108.5 FT (33.1 M) | 134322.7N 1004448.7E | Transmission Tower 225.2 FT (68.6 M) | 133955.6N 1004139.6E | |
| 02R/TKOF | High Mast Lighting Pole 108.5 FT (33.1 M) | 134328.9N 1004448.6E | Transmission Tower 225.8 FT (68.8 M) | 134007.0N 1004149.8E | |
| 02R/TKOF | Tree 44.8 FT (13.7 M) | 134308.0N 1004445.3E | Hospital Building 190.2 FT (58.0 M) | 134303.8N 1004222.8E | |
| 02R/TKOF | Transmission Pole 71.6 FT (21.8 M) | 134320.9N 1004450.5E | | | |
| 02R/TKOF | Transmission Pole 71.6 FT (21.8 M) | 134320.9N 1004450.3E | | | |
| 02R/TKOF | Transmission Pole 78.0 FT (23.8 M) | 134322.6N 1004449.0E | | | |
| 02R/TKOF | Transmission Pole 77.9 FT (23.7 M) | 134322.3N 1004449.3E | | | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 02R/TKOF | High Mast Lighting Pole 87.7 FT (26.7 M) | 134326.0N 1004446.7E | | | |
| 02R/TKOF | Communication Tower 136.8 FT (41.7 M) | 134351.2N 1004502.5E | | | |
| 02R/TKOF | Traffic Sign Board 62.2 FT (19.0 M) | 134257.2N 1004448.5E | | | |
| 02R/TKOF | Traffic Sign Board 59.9 FT (18.2 M) | 134302.2N 1004446.2E | | | |
| 02R/TKOF | Traffic Sign Board 64.1 FT (19.5 M) | 134314.9N 1004448.0E | | | |
| 02R/TKOF | Traffic Sign Board 70.3 FT (21.4 M) | 134320.5N 1004446.9E | | | |
| 02R/TKOF | Overpass 51.9 FT (15.8 M) | 134307.6N 1004451.6E | | | |
| 02R/TKOF | Overpass 50.8 FT (15.5 M) | 134306.1N 1004449.2E | | | |
| 02R/TKOF | Overpass 35.3 FT (10.7 M) | 134301.3N 1004447.6E | | | |
| 02R/TKOF | Overpass 33.4 FT (10.2 M) | 134301.4N 1004448.6E | | | |
| 02R/TKOF | Vegetation 33.2 FT (10.1 M) | 134256.7N 1004445.0E | | | NIL |
| 02R/TKOF | Vegetation 35.2 FT (10.7 M) | 134255.7N 1004442.7E | | | |
| 02R/TKOF | Vegetation 39.0 FT (11.9 M) | 134302.8N 1004445.5E | | | |
| 02R/TKOF | Vegetation 43.8 FT (13.4 M) | 134302.3N 1004444.1E | | | |
| 02R/TKOF | Vegetation 51.5 FT (15.7 M) | 134303.6N 1004451.5E | | | |
| 02R/TKOF | Vegetation 40.4 FT (12.3 M) | 134304.8N 1004447.7E | | | |
| 02R/TKOF | Vegetation 115.7 FT (35.3 M) | 134312.0N 1004447.8E | | | |
| 02R/TKOF | Vegetation 60.9 FT (18.6 M) | 134313.4N 1004457.5E | | | |
| 02R/TKOF | Residential Building 65.9 FT (20.1 M) | 134315.8N 1004453.4E | | | |
| 02R/TKOF | Residential Building 56.6 FT (17.3 M) | 134306.7N 1004444.6E | | | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 02R/TKOF | Residential Building 54.0 FT (16.5 M) | 134309.9N 1004444.2E | | | NIL |
| 02R/TKOF | Residential Building 53.1 FT (16.2 M) | 134312.6N 1004446.4E | | | |
| 02R/TKOF | College Building 60.2 FT (18.3 M) | 134314.9N 1004445.5E | | | |
| 02R/TKOF | Vegetation 47.5 FT (14.5 M) | 134309.4N 1004446.7E | | | |
| 02R/TKOF | Vegetation 64.4 FT (19.6 M) | 134307.3N 1004444.6E | | | |
| 02R/TKOF | Vegetation 37.6 FT (11.5 M) | 134304.7N 1004446.0E | | | |
| 02R/TKOF | Vegetation 49.1 FT (15.0 M) | 134310.1N 1004445.9E | | | |
| 20L/APCH 02R/TKOF | Buildings 115.4 FT (35.2 M) | 134305.9N 1004444.6E | | | |
| 20L/APCH | Resort Building 97.2 FT (29.6 M) | 134259.1N 1004439.7E | | | |
| 20R/APCH 02L/TKOF | Meteorological Tower 65.1 FT (19.8 M) marked and LGTD | 134228.0N 1004425.1E | Meteorological Tower 70.5 FT (21.5 M) marked and LGTD | 134126.4N 1004401.6E | |
| 20R/APCH | Vegetation 59.4 FT (18.1 M) | 134220.9N 1004417.2E | Office Building 53.8 FT (16.4 M) | 134221.1N 1004415.0E | |
| 20R/APCH | Office Building 55.7 FT (17.0 M) | 134220.0N 1004415.3E | Communication Tower 303.8 FT (92.6 M) marked and LGTD | 133747.5N 1004226.1E | |
| 20R/APCH | Factory Building 147.2 FT (44.9 M) LGTD | 134247.6N 1004413.8E | Transmission Tower 204.4 FT (62.3 M) | 134111.3N 1004143.9E | |
| | | | Transmission Tower 226.4 FT (69.0 M) | 133944.6N 1004129.7E | |
| | | | Communication Tower 163.4 FT (49.8 M) marked and LGTD | 133806.3N 1004237.6E | |
| | | | Residential Building 168.4 FT (51.3 M) LGTD | 133809.4N 1004232.8E | |
| | | | Industrial Building 164.8 FT (50.2 M) LGTD | 133812.3N 1004226.6E | |
| | | | Pole on top of Control Tower Building 466.4 FT (142.1 M) LGTD | 134147.2N 1004458.5E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Antenna on top of East Apron Control Tower Building 171.5 FT (52.3 M) | 134124.0N 1004516.1E | |
| | | | Antenna on top of West Apron Control Tower Building 170.4 FT (51.9 M) | 134131.4N 1004446.5E | |
| | | | Antenna on top of Building 169.2 FT (51.6 M) | 134142.8N 1004511.2E | |
| | | | Advertising Sign Board 178.2 FT (54.3 M) | 134123.9N 1004346.0E | |
| | | | Residential Building 165.2 FT (50.4 M) LGTD | 133753.4N 1004347.5E | |
| | | | Residential Building 158.8 FT (48.4 M) LGTD | 133802.8N 1004342.9E | |
| | | | Residential Building 158.1 FT (48.2 M) LGTD | 133803.4N 1004340.8E | |
| | | | Residential Building 157.3 FT (47.9 M) LGTD | 133805.4N 1004339.4E | NIL |
| | | | Residential Building 157.7 FT (48.1 M) LGTD | 133807.7N 1004339.4E | |
| | | | Residential Building 156.7 FT (47.8 M) LGTD | 133809.8N 1004339.5E | |
| | | | Residential Building 158.2 FT (48.2 M) LGTD | 133812.0N 1004340.1E | |
| | | | Terminal Building 170.7 FT (52.0 M) | 134127.1N 1004510.9E | |
| | | | Office Building 162.4 FT (49.5 M) LGTD | 134227.1N 1004530.7E | |
| | | | Secondary Surveillance Radar (SSR) Tower Building 168.6 FT (51.4 M) LGTD | 134149.8N 1004615.7E | |
| | | | Primary Surveillance Radar (PSR) Tower Building 156.8 FT (47.8 M) | 134122.9N 1004613.2E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Residential Building 163.6 FT (49.9 M) LGTD | 133751.4N 1004358.0E | |
| | | | Residential Building 161.1 FT (49.1 M) LGTD | 133751.9N 1004356.0E | |
| | | | Residential Building 160.5 FT (48.9 M) LGTD | 133752.2N 1004353.8E | |
| | | | Residential Building 162.4 FT (49.5 M) LGTD | 133752.5N 1004351.8E | |
| | | | Residential Building 163.8 FT (49.9 M) LGTD | 133753.0N 1004349.6E | |
| | | | Terminal Building 170.7 FT (52.0 M) LGTD | 134127.5N 1004511.0E | |
| | | | Hangar Building 162.4 FT (49.5 M) LGTD | 134223.6N 1004539.4E | NIL |
| | | | Transmission Tower 204.8 FT (62.4 M) | 134058.2N 1004147.7E | |
| | | | Transmission Tower 204.3 FT (62.3 M) | 134044.8N 1004151.6E | |
| | | | Transmission Tower 207.0 FT (63.1 M) | 134035.9N 1004154.2E | |
| | | | Transmission Tower 204.1 FT (62.2 M) | 134027.7N 1004159.6E | |
| | | | Transmission Tower 204.1 FT (62.2 M) | 134017.7N 1004159.4E | |
| | | | Transmission Tower 225.2 FT (68.6 M) | 133955.6N 1004139.6E | |
| | | | Transmission Tower 225.8 FT (68.8 M) | 134007.0N 1004149.8E | |
| | | | Hospital Building 190.2 FT (58.0 M) | 134303.8N 1004222.8E | |

## VTBS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorology Division,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Aeronautical Meteorology Division<br>30 HR |
| 4 | Trend forecast<br>Interval of issuance | TREND<br>30 Min |

| | | |
|---|---|---|
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +662 134 0006-07<br>Fax: +662 134 0009 |
| 6 | Flight documentation<br>Language(s) used | Charts, Tabular Forms and Abbreviated Plain Language Texts<br>English |
| 7 | Charts and other information available for briefing or consultation | S, U85, U70, U50, U40, U30, U25, U20, SWH, SWM, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar pictures |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS),<br>Low Level Wind Shear Alert System (LLWAS),<br>WeatherRadar, Local Lightning Warning System (LLWS),<br>and Light Detection and Ranging (LIDAR) |
| 9 | ATS units provided with information | Suvarnabhumi TWR<br>Bangkok APP<br>Bangkok ACC |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTBS AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCR) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02R | 014.42° | 3700x60 | PCR 1650/F/D/X/T Asphalt | 134016.60N 1004404.79E -97.5 FT (-29.7 M) | THR/TDZ 4.2 FT (1.3 M) |
| 20L | 194.42° | 3700x60 | PCR 1650/F/D/X/T Asphalt | 134213.21N 1004435.44E -97.5 FT (-29.7 M) | THR/TDZ 4.0 FT (1.2 M) |
| 01 | 014.42° | 4000x60 | PCR 1650/F/D/X/T Asphalt | 133924.11N 1004506.59E -97.1 FT (-29.6 M) | THR/TDZ 3.7 FT (1.1 M) |
| 19 | 194.42° | 4000x60 | PCR 1650/F/D/X/T Asphalt | 134130.17N 1004539.72E -97.1 FT (-29.6 M) | THR/TDZ 3.7 FT (1.1 M) |
| 02L | 014.00° | 4000x60 | PCR 840/F/C/X/T Asphalt | 133954.63N 1004345.28E -94 FT (-29 M) | THR 8 FT (2 M) |
| 20R | 194.00° | 4000x60 | PCR 840/F/C/X/T Asphalt | 134200.68N 1004418.41E -94 FT (-29 M) | THR 8 FT (2 M) |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 0% | NIL | 1100x150 | 3820x300 | 240x150 | NIL | Yes | Runway 01/19 and 02R/20L, paved jet blast protection areas at runway ends; 120 M long and 75 M wide.<br>Runway 02L/20R, pave jet blast protection areas at runway ends; 120 M long and 60 M wide.<br><br>Runway 02R/20L surface is grooved;<br>Runway 01/19 and 02L/20R surface is not grooved.<br><br>Concrete drainage channels are located in the strips of runway 01/19 and 02R/20L, parallel to and at 120 M offset from the runway centre lines. No open drainage channel is located in the runway strip of runway 02L/20R. |
| 0% | NIL | 700x150 | 3820x300 | 240x150 | NIL | Yes | |
| 0% | NIL | NIL | 4120x300 | 240x150 | NIL | Yes | |
| 0% | NIL | 550x150 | 4120x300 | 240x150 | NIL | Yes | |
| 0% | NIL | NIL | 4120x300 | 240x120 | NIL | Yes | |
| 0% | NIL | NIL | 4120x300 | 240x120 | NIL | Yes | |

## VTBS AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02R | 3700 | 4800 | 3700 | 3700 | The TORA/ASDA when entering RWY from TWY E19 is 3590 M. |
| 20L | 3700 | 4400 | 3700 | 3700 | The TORA/ASDA when entering RWY from TWY E2 is 3590 M. |

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 4000 | 4000 | 4000 | 4000 | The TORA/ASDA when entering RWY from TWY B12 is 3890 M. |
| 19 | 4000 | 4550 | 4000 | 4000 | The TORA/ASDA when entering RWY from TWY B2 is 3870 M. |
| 02L | 4000 | 4000 | 4000 | 4000 | The TORA/ASDA when entering RWY from TWY F11 is 3890 M. |
| 20R | 4000 | 4000 | 4000 | 4000 | The TORA/ASDA when entering RWY from TWY F2 is 3900 M. |

**VTBS AD 2.14 APPROACH AND RUNWAY LIGHTING**

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 02R | CAT II<br>900 M<br>5 steps<br>LIH;<br>with FLG | Green | PAPI<br>LEFT/3°<br>(63.82 FT) | 900 M | 3700 M, 30 M<br>White,<br>FM 2800 M<br>Red / White<br>FM 3400 M<br>Red<br>5 steps<br>LIH | 3700 M, 60 M<br>White,<br>FM 3100 M<br>Yellow<br>5 steps<br>LIH | Red | NIL | NIL |
| 20L | CAT II<br>900 M<br>5 steps<br>LIH;<br>with FLG | Green | PAPI<br>LEFT/3°<br>(63.82 FT) | 900 M | 3700 M, 30 M<br>White,<br>FM 2800 M<br>Red / White<br>FM 3400 M<br>Red<br>5 steps<br>LIH | 3700 M, 60 M<br>White,<br>FM 3100 M<br>Yellow<br>5 steps<br>LIH | Red | NIL | NIL |
| 01 | CAT II<br>900 M<br>5 steps<br>LIH;<br>with FLG | Green | PAPI<br>LEFT/3°<br>(63.82 FT) | 900 M | 4000 M, 30 M<br>White,<br>FM 3100 M<br>Red/White<br>FM 3700 M,<br>Red<br>5 steps<br>LIH | 4000 M, 60 M<br>White,<br>FM 3400 M<br>Yellow<br>5 steps<br>LIH | Red | NIL | NIL |
| 19 | CAT II<br>900 M<br>5 steps<br>LIH;<br>with FLG | Green | PAPI<br>LEFT/3°<br>(63.82 FT) | 900 M | 4000 M, 30 M<br>White,<br>FM 3100 M<br>Red/White<br>FM 3700 M,<br>Red<br>5 steps<br>LIH | 4000 M, 60 M<br>White,<br>FM 3400 M<br>Yellow<br>5 steps<br>LIH | Red | NIL | NIL |

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 02L | CAT II<br>900 M<br>5 steps<br>LIH | Green | PAPI<br>LEFT/3°<br>(63.82 FT) | 900 M | 4000 M, 30 M<br>White,<br>FM 3100 M<br>Red/White<br>FM 3700 M,<br>Red<br>5 steps<br>LIH | 4000 M, 60 M<br>White,<br>FM 3400 M<br>Yellow<br>5 steps<br>LIH | Red | NIL | NIL |
| 20R | CAT II<br>900 M<br>5 steps<br>LIH | Green | PAPI<br>LEFT/3°<br>(63.82 FT) | 900 M | 4000 M, 30 M<br>White,<br>FM 3100 M<br>Red/White<br>FM 3700 M,<br>Red<br>5 steps<br>LIH | 4000 M, 60 M<br>White,<br>FM 3400 M<br>Yellow<br>5 steps<br>LIH | Red | NIL | NIL |

## VTBS AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: On top of ATC tower (134147N 1004458E), H24, Flashing White/ Green every 2 - 3 seconds<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | 6 WDIs are lighted and installed at following locations:<br>- 4 WDIs 300 M from THR 01, THR 19, THR 02R, THR 20L, 115 M off-set from RWY Centre Line.<br>- 1 WDI 280 M from THR 02L, 120 M off-set from RWY Centre Line.<br>- 1 WDI 300 M from THR 20R, 120 M off-set from RWY Centre Line.<br><br>6 Anemometers are lighted and installed at following locations:<br>- 4 Anemometers 350 M from THR 01, THR 19, THR 02R, THR 20L.<br>- 2 Anemometers 421 M from THR 02L, THR 20R. |
| 3 | TWY edge and centre line lighting | All Taxiways |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all airfield lighting at AD<br>Switch-over time: Lights Associated to Runway 0 sec (UPS) include<br>- Approach Lights Systems<br>- Runway Edge Lights<br>- Runway Touchdown Zone Lights<br>- Runway Centre Line Lights<br>- Precision Approach Path Indicator Systems<br>- Stop Bars<br>- Runway Guard Lights<br>- Runway End Lights<br>- Runway Threshold Lights<br>: Other lighting 15 sec |
| 5 | Remarks | NIL |

## VTBS AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTBS AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | Suvarnabhumi Aerodrome Traffic Zone (ATZ) a circle, radius 5 NM centred on 134108.59N 1004456.24E (ARP) |
| 2 | Vertical limits | SFC to 2000 FT. MSL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Suvarnabhumi Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT MSL |
| 6 | Remarks | See VTBS AD 2.20 section 1 |

## VTBS AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Bangkok Approach | 122.35 MHz / 262.5 MHz<br>124.35 MHz / 262.5 MHz<br>125.2 MHz / 262.5 MHz<br>133.4 MHz / 262.5 MHz<br>119.1 MHz / 262.5 MHz<br>120.3 MHz / 262.5 MHz<br>125.8 MHz [2]<br>121.5 MHz [1] / 243.0 MHz [1] | H24 | [1] Emergency frequency<br>[2] Clearance delivery for aircraft departing to adjacent aerodromes and helicopters operating within BKK CTR<br>[3] For RWY 01/19<br>[4] For RWY 02R/20L and RWY 02L/20R<br>[5] Arrival ATIS<br>[6] Departure ATIS |
| APP | Suvarnabhumi Departure | 119.25 MHz / 262.5 MHz<br>121.5 MHz [1] / 243.0 MHz [1] | H24 | |
| ARR | Suvarnabhumi Arrival | 121.1 MHz / 262.5 MHz<br>126.3 MHz / 262.5 MHz<br>121.5 MHz [1] / 243.0MHz [1] | H24 | |
| TWR | Suvarnabhumi Tower | 118.2 MHz [3] / 274.5 MHz<br>119.0 MHz [4]<br>121.5 MHz [1] / 243.0 MHz [1] | H24 | |
| SMC | Suvarnabhumi Ground | 121.65 MHz / 275.8 MHz<br>121.7 MHz<br>121.75 MHz<br>121.95 MHz | H24 | |
| CDC | Suvarnabhumi Delivery | 128.7 MHz<br>133.8 MHz | H24 | |
| ATIS | Suvarnabhumi Airport | 133.6 MHz [5] / 278.6 MHz [5] /<br>127.65 MHz [6] | H24 | D-ATIS<br>Synthesis Voice Broadcast |

## VTBS AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | SVB | 111.4 MHz<br>CH 51X | H24 | 133932.5N<br>1004353.2E | - | DVOR/DME restriction due to terrain surround DVOR/DME station, coverage check does not provide adequate signal 40 nm at required altitude in various areas as follows:<br>– Radial 131°-150° altitude should not below 4 000 ft.<br>– Radial 151°-250° altitude should not below 2 000 ft.<br>– Radial 251°-130° altitude should not below 2 500 ft. |
| ILS CAT II<br>LOC<br>RWY 02R | | 109.1 MHz | H24 | 134222.3N<br>1004437.8E | - | RWY02R ILS LOC coverage expanded service volume up to 25 DME altitude not below 2 500 ft. AMSL. |
| DME | I-SWS | CH 28X | H24 | 134221.6N<br>1004440.8E | 6 m. | |
| GP | | 331.4 MHz | H24 | 134027.8N<br>1004403.6E | - | |

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| ILS CAT II LOC RWY 20L | | 109.5 MHz | H24 | 134007.5N 1004402.4E | - | RWY 20L ILS LOC coverage expanded service volume up to 25 DME altitude not below 2 500 ft. AMSL. |
| DME | I-SWN | CH 32X | H24 | 134006.7N 1004405.4E | 6 m. | |
| GP | | 332.6 MHz | H24 | 134204.0N 1004428.9E | - | |
| ILS CAT II LOC RWY 01 | | 110.1 MHz | H24 | 134139.3N 1004542.1E | - | RWY01 ILS LOC coverage expanded service volume up to 25 DME altitude not below 2 500 ft. AMSL. |
| DME | I-SES | CH 38X | H24 | 134140.0N 1004539.1E | 6 m. | |
| GP | | 334.4 MHz | H24 | 133933.4N 1004513.1E | - | |
| ILS CAT II LOC RWY 19 | | 110.5 MHz CH 42X | H24 | 133915.0N 1004504.2E | - | RWY 19 ILS LOC coverage expanded service volume up to 25 DME altitude not below 2 500 ft. AMSL. |
| DME | I-SEN | CH 42X | H24 | 133915.7N 1004501.2E | 6 m. | |
| GP | | 329.6 MHz | H24 | 134119.0N 1004540.9E | - | |

## VTBS AD 2.20 LOCAL AERODROME REGULATIONS

### 1. Airport Regulations

1.1 Suvarnabhumi Aerodrome Traffic Zone (ATZ) airspace is classified as class C.

1.2 IFR and only authorized VFR flights are permitted. All flights are provided with air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.

1.3 To retain the defined value of runway capacity at Suvarnabhumi International Airport, and to provide efficient separation between aircraft for the safety of flight and orderly flow of air traffic, only aircraft category B or above with the minimum final approach speed of 110 KT. are permitted to use Suvarnabhumi International Airport. However, other aircraft may be authorized to operate within Suvarnabhumi ATZ if:

1.3.1 The aircraft is being used for or in connection with:

a) a search and rescue operation;
b) a medical emergency; or
c) a flight inspection of air navigation facilities.

1.3.2 The pilot of the aircraft has declared an in-flight emergency.

1.3.3 The aircraft constitutes VIP flight.

1.3.4 The aircraft is as may be determined by the appropriate authority.

1.4 The following school and training flights are not permitted:

a) school and training flights;
b) continuous take-off and landing exercises;
c) solo flight during basic flight training.

**2. Provision of Aerodrome Air Traffic Services**

2.1 Aerodrome control services are generally sectorized as follows:

2.1.1 Tower Control on frequency 118.20 MHz for the operations on the following areas:

a) Runway 01/19

2.1.2 Tower Control on frequency 119.00 MHz for the operations on the following areas:

a) Runway 02R/20L
b) Runway 02L/20R

Including:

c) Taxiway F, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12, F15
d) Taxiway W, Y, Z

2.1.3 Ground Control on frequency 121.65 MHZ for operations on the following areas:

a) Aircraft parking stands:

A1, A2, A3, A4, A5, A6
B1, B3, B5,
101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134

Including:

b) Taxiway B, B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13
c) Taxiway C, C1, C2, C3, C4, C5, C6, C7, C8, C9, C10
d) Aircraft stand taxilane T1, T2, T3, T4, T5

2.1.4 Ground Control on frequency 121.75 MHz for operations on the following areas:

a) Aircraft parking stands:

B2, B4, B6
C1, C2, C3, C4, C5, C6, C7, C8, C9, C10
D1, D2, D3, D4, D5, D6, D7, D8
E1, E2, E3, E4, E5, E6, E7, E8, E9, E10
F1, F3, F5
201, 202, 203
301, 302, 303, 304, 305, 306, 307, 308
401, 402, 403

Including:

b) Taxiway G
c) Taxiway H, H1, H2, H3, H4, H5, H6
d) Aircraft stand taxilane T6, T7, T8, T9, T10, T11, T12, T13, T14

2.1.5 Ground Control on frequency 121.95 MHz for operations on the following areas:

a) Aircraft parking stands:

F2, F4, F6
G1, G2, G3, G4, G5
401, 402, 403
501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525

Including:

b) Taxiway D, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11
c) Taxiway E, E1, E2, E3, E5, E6, E7, E8, E9, E10, E12, E13, E15, E17, E19, E21
d) Aircraft stand taxilane T15, T16, T17

2.1.6 Ground Control on frequency 121.7 MHz for operations on the following areas:

a) Aircraft parking stands:

S101, S102, S103, S104, S105, S106, S107, S108, S109, S110, S111, S112, S113, S114, S115, S116, S117, S118, S119, S120, S121, S122, S123, S124, S125, S126, S127, S128

Including:

b) Taxiway J, J1, J2, J3, J4
c) Taxiway K
d) Aircraft stand taxilane T18, T19

**3. Ground Movement**

3.1 General

3.1.1 All surface movement of aircraft, vehicles and personnel on the manoeuvring area is subject to prior permission from ATC.

3.1.2 Within the movement area, pilots will be cleared to and from the aircraft stands under general direction from Ground Control. Pilots are reminded of the extreme importance of maintaining a careful look out at all times.

3.1.3 Directions issued by ATC should be followed specifically. RTF transmissions shall be brief, concise and kept to the minimum number.

3.2 Operation of mode S transponders on the ground

3.2.1 Suvarnabhumi International Airport is equipped with an Advanced Surface Movement Radar utilizing mode S multilateration. Aircraft operators intending to use Suvarnabhumi International Airport should ensure that mode S transponders are able to operate when the aircraft is on the ground.

3.2.2 For aircraft that are capable of reporting aircraft identification (i.e. call signs used in flight), the aircraft identification should also be entered via FMS or control panel. The ICAO defined format for aircraft identification (i.e. same format as used in ICAO flight plan e.g. THA640, CPA701, SIA068) shall be used.

3.2.3 Flight crew should select XPDR or the equivalent according to specific installation. It shall also be ensured that the transponder is operating (i.e. OUT OF STAND-BY or OFF POSITION) and the assigned mode A code is selected in accordance with the following:

a) for a departing flight, upon received airway clearance; except that subject to ATFM measures or departure time restrictions, the action should be done when starting up engine.
b) for an arriving flight, continuously until the aircraft is fully parked at the stand.

3.2.4 To prevent possible interference to radar surveillance systems, TCAS should be functioned:

a) for departure, when aircraft are entering the runway or line up clearance is received;
b) for arrival, until aircraft have vacated the runway.

3.2.5 During on ground, pilot of aircraft not equipped with mode S transponder shall operate the transponder and select mode A code as individually directed by the ATC unit:

a) for departure, when starting up engine;
b) for arrival, until aircraft have completely parked.

3.2.6 Tracking and identifications of airport surface vehicles

To provide tracking and identification of authorized movements, any authorized vehicle intended to be used on the manoeuvring area at Suvarnabhumi International Airport shall be equipped with mode S squitter box to inform mode S multilateration system of its position.

**4. Push Back Procedures**

4.1 Scope

The procedure covers and details the activities to be carried out by ATC staff, AOT staff and airport agencies staff when involved in the process of an aircraft start up and push back at Suvarnabhumi International Airport.

4.2 Objective

4.2.1 The procedure “Aircraft start up and push back” applies to all persons involved in handling the process of aircraft start up and push back.

4.2.2 The procedure also implies conditions for operations during low visibility conditions at the airport.

4.3 General

4.3.1 Aircraft which are parked either nose in to the terminal building on a stand attached to a Passenger Loading Bridge or nose in on a remote stand will need to be pushed back from the stand towards the taxilane centre line taking into account the standard taxiway routing.

4.3.2 Once the pilot-in-command of an aircraft has decided that the aircraft is fully ready for departure he/she will contact Ground Control for start-up, stating the parking position and after that for push back permission.

***Note:*** *fully ready in this sense means all passengers, hold and cargo doors are closed, the Passenger Loading Bridge is disconnected and back in its rest position, the tug is connected to the aircraft and the ground engineer is in position and in contact with the pilot-in-command.*

4.3.3 When the anti-collision beacons of the aircraft have been switched on no vehicular movement is permitted behind the aircraft.

4.3.4 ATC may deviate from the standard push back procedure as stated below for reasons such as traffic or work in progress. The deviation will be given in the push back permission and the pilot-in-command has to make sure that the ground engineer fully understands the deviation.

4.3.5 The pilot-in-command shall use minimum break away power and minimum taxi power when operating on the aprons and taxilanes.

4.3.6 Nose wheel positions have been marked on the taxilane centre line to indicate to the tug/tractor driver where the push or pull manoeuvre has to be stopped and the tug can be disconnected.

4.3.7 A340-600 aircraft may only be pushed back using a towbarless tow tractor. This is to avoid blocking the road in front of the aircraft by a tractor with towbar.

4.3.8 To avoid jet blast in the apron areas pilots are urgently requested to adhere strictly to the start-up and push back procedures and to use minimum break away power and taxi power when operating on the aprons and taxilanes. Furthermore, the aircraft shall be pushed back and towed forward on the yellow taxilane centre line marking.

4.4 Push Back Procedures

4.4.1 Aircraft parking at East Apron (54 stands)

| Aircraft stands | Ground Control Frequency | Push Back Instructions |
|---|---|---|
| A1, A2 | 121.65 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T5 until nose wheel is on marking 1. |
| A3, A4, A5, A6 | 121.65 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T5. |
| 101 | 121.65 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T5 then towed forward until nose wheel is on marking 2. |
| 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114 | 121.65 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T5. |
| 115, 116, 117 | 121.65 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T5. |
| 118 | 121.65 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T5 then towed forward until nose wheel is on marking 2. |
| 119, 120,121, 122, 123, 124, 125, 126, 127, 128, 129 | 121.65 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T5. |
| 130 | 121.65 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T1. |
| 131, 132, 133 | 121.65 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T1, towed forward until abeam stand 131. |
| 134 | 121.65 MHz | Aircraft shall be pushed back to face north onto aircraft stand taxilane T5. |
| B1, B3 | 121.65 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T5 until nose wheel is on marking 1. |
| B5 | 121.65 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T4 then towed forward until nose wheel is on marking on taxilane. |
| B2, B4 | 121.75 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T6 until nose wheel is on marking on taxilane. |
| B6 | 121.75 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T6 then towed forward until nose wheel is on marking on taxilane. |
| C1 | 121.75 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T6 then towed forward until nose wheel is on marking on taxilane. |
| C3, C5 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T7 then towed forward until nose wheel is on marking 2. |
| C7, C9 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T7 then towed forward until nose wheel is on marking 1. |
| 201, 202 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T7 then towed forward until nose wheel is on marking 2. |
| 203 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T7 then towed forward until nose wheel is on marking 1. |

4.4.2 Aircraft parking at Main Apron (26 stands)

| Aircraft stands | Ground Control Frequency | Push Back Instructions |
|---|---|---|
| C2 | 121.75 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 until nose wheel is on marking 1. |
| C4, C6 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T8 then towed forward until nose wheel is on marking 2. |
| C8, C10 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T8 then towed forward until nose wheel is on marking 1. |
| 301 | 121.75 MHz | Aircraft shall be pushed back to face north onto aircraft stand taxilane T9 until nose wheel is on marking 1. |
| 302 | 121.75 MHz | Aircraft shall be pushed back to face north onto aircraft stand taxilane T9 then towed forward until nose wheel is on marking 1. |
| 303 | 121.75 MHz | Aircraft shall be pushed back to face north onto aircraft stand taxilane T9 until nose wheel is on marking 2. |
| 304 | 121.75 MHz | Aircraft shall be pushed back to face north onto aircraft stand taxilane T9 then towed forward until nose wheel is on marking 2. |
| 305 | 121.75 MHz | Aircraft shall be pushed back to face north onto aircraft stand taxilane T10 until nose wheel is on marking 1. |
| 306 | 121.75 MHz | Aircraft shall be pushed back to face north onto aircraft stand taxilane T10 then towed forward until nose wheel is on marking 1. |
| 307 | 121.75 MHz | Aircraft shall be pushed back to face north onto aircraft stand taxilane T10 until nose wheel is on marking 2. |
| 308 | 121.75 MHz | Aircraft shall be pushed back to face north onto aircraft stand taxilane T10 then towed forward until nose wheel is on marking 2. |
| D1 | 121.75 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 until nose wheel is on marking 1. |
| D2 | 121.75 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 then towed forward until nose wheel is on marking 1. |
| D3 | 121.75 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 until nose wheel is on marking 2. |
| D4 | 121.75 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 then towed forward until nose wheel is on marking 2. |
| D5 | 121.75 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 then towed forward until nose wheel is on marking 3. |
| D6 | 121.75 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 until nose wheel is on marking 3. |
| D7 | 121.75 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 then towed forward until nose wheel is on marking 4. |
| D8 | 121.75 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 until nose wheel is on marking 4. |
| E1 | 121.75 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 until nose wheel is on marking 4. |
| E3, E5 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T11 then towed forward until nose wheel is on marking 2. |
| E7, E9 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T11 then towed forward until nose wheel is on marking 1. |

4.4.3 Aircraft parking at West Apron (44 stands)

| Aircraft stands | Ground Control Frequency | Push Back Instructions |
|---|---|---|
| E2 | 121.75 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T14 until nose wheel is on marking on taxilane. |
| E4, E6 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T13 then towed forward until nose wheel is on marking 2. |
| E8, E10 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T13 then towed forward until nose wheel is on marking 1. |
| 401, 402 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T13 until nose wheel is on marking 2. |
| 403 | 121.75 MHz | Aircraft shall be pushed back to face south onto aircraft stand taxilane T13 then towed forward until nose wheel is on marking 1. |
| F1, F3 | 121.75 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T14 until nose wheel is on marking on taxilane. |
| F5 | 121.75 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T14 then towed forward until nose wheel is on marking on taxilane. |
| F2, F4 | 121.95 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T15 until nose wheel is on marking on taxilane. |
| F6 | 121.95 MHZ | Aircraft shall be pushed back to face east onto aircraft stand taxilane T15 then towed forward until nose wheel is on marking on taxilane. |
| G1, G2 | 121.95 MHZ | Aircraft shall be pushed back to face east onto aircraft stand taxilane T15 until nose wheel is on marking on taxilane. |
| G3, G4 | 121.95 MHZ | Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 2. |
| G5 | 121.95 MHZ | Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 1. |
| 501 | 121.95 MHZ | Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 1. |
| 502, 503 | 121.95 MHZ | Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 2. |
| 504, 505 | 121.95 MHZ | Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 1. |
| 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521 | 121.95 MHZ | Aircraft shall be pushed back to face south onto taxiway D. |
| 522, 523, 524, 525 | 121.95 MHZ | Aircraft shall be pushed back to face south onto taxiway D, then towed forward until abeam stand 522 with nose wheel is on marking on taxiway. |

4.4.4 Aircraft parking at SAT-1 Apron (28 stands)

| Aircraft Stands | Ground Control Frequency | Push Back Instructions |
|---|---|---|
| S101 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T18. |
| S102 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T19. |
| S103 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T18. |
| S104 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T19. |
| S105 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T18. |
| S106 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T19. |
| S107 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T18. |
| S108 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T19. |
| S109 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T18. |
| S110 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T19. |
| S111 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T18. |
| S112 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T19. |
| S113 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T18. |
| S114 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T19. |
| S115 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T18. |
| S116 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T19. |
| S117 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T18. |
| S118 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T19. |
| S119 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T18. |
| S120 | 121.7 MHz | Aircraft shall be pushed back to face west onto aircraft stand taxilane T19. |
| S121 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T18. |
| S122 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T19. |
| S123 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T18. |
| S124 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T19. |
| S125 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T18. |
| S126 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T19. |
| S127 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T18. |
| S128 | 121.7 MHz | Aircraft shall be pushed back to face east onto aircraft stand taxilane T19. |

4.5 Responsibilities

4.5.1 Responsibilities of the pilot-in-command

When the aircraft is fully ready the pilot-in-command is responsible to obtain the start-up and push back permission, stating the parking position.

4.5.2 Responsibilities of the ground engineer

The ground engineer of the Airline or Ground Handling Agent is responsible for a safe process of aircraft start up and push back and to report to the pilot-in-command when he/she and the tug are clear of the taxiway in the event of low visibility condition.

4.5.3 Responsibilities of the tug driver

The tug driver is responsible to ensure that the aircraft is pushed back (and pulled forward if required) toward the right direction onto the taxilane.

4.5.4 Responsibilities of the Apron Control Tower

The Apron Controller is responsible to monitor the engine start up and push back activities and to ensure that the aircraft will be pushed back toward the right direction onto the taxilane.

4.6 Actions to be taken

4.6.1 Actions to be taken by the pilot-in-command

When the aircraft is fully ready the pilot-in-command shall:

a) Ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or push back of aircraft commences. This is to be done using standard phraseology in communication with the ground operations headset operator.
b) Ensure that prior to the start-up, the pilot shall be certain that the propellers or the air flows caused by the engine cannot cause injuries or damage to persons or properties on ground. This is to be done by using standard phraseology in communication with the ground operations headset operator.
c) Contact Ground Control for permission to start up the engine(s). In normal operations, the engine start-up at the aircraft parking position is not allowed.
d) Ensure that the ground engineer, or the person responsible for ground to cockpit communications who is in direct intercom-radio contact with the pilot-in-command, acknowledges the start-up permission. In the event intercom-radio contact is not available, the use of standard hand signals will be used.
e) Ensure that the anti-collision beacons of the aircraft have been switched on before pushing back or starting the engine and to obtain an “all-clear” signal from the ground operations headset operator.
f) During push back operations, all aircraft shall be pushed back with its fuselage longitudinally centred over, and parallel to, a taxiway centre line before commencing the engine start. Should the engine start be performed at the aircraft parking positions, ensure that the requirements for such engine start up conditions are met.
g) Ensure that the ground engineer or ground operations headset operator acknowledges the permission.
h) Ensure that the aircraft is being pushed back in the right direction onto the taxilane.
i) Request permission from Ground Control to taxi when the tug has been disconnected as confirmed by the ground engineer and the ground engineer or ground operations headset operator has given the “all clear” signal.

4.6.2 Actions to be taken by the ground engineer

The ground engineer of the Airline or Handling Agent shall:

a) Ensure that the stand area is clear of any obstacle and FOD.
b) Ensure that the tug is connected to the aircraft and that the tug driver is completely ready to perform the push-back.
c) Acknowledge the Ground Control permission to start up the engine(s) to the pilot-in-command.
d) Ensure that the anti-collision beacons of the aircraft are switched on.
e) Monitor the engine(s) start up sequence.
f) Acknowledge the Ground Control permission for push back to the pilot-in-command.
g) Ensure that the tug driver understood the push back permission (by hand -signaling to the tug driver) and starting the push back manoeuvre.
h) Ensure that the aircraft is pushed back toward the right direction onto the taxilane.
i) Make sure that during the push back manoeuvre he/she will be in contact with the pilot-in-command at all times.
j) Ensure that the tug has been disconnected from the aircraft on the taxilane stop position and confirm so to the pilot-in-command.
k) When disconnected from the radio contact with the pilot-in-command, give the “all clear” signal to the pilot-in-command, being well clear of the aircraft’s path of taxiing.
l) Return to the stand area.

During low visibility conditions (CAT II) the ground engineer will, together with the tug driver, return behind the double white marking line on the apron surface as soon as possible and will indicate to the pilot-in-command that both of them are clear of the taxiway.

***Note:*** *CAT II: Runway Visual Range of less than 550 M or cloud base of less than 200 FT.*

4.6.3 Actions to be taken by the tug driver

The tug driver of the Airline or Handling Agent shall:

a) Ensure that the tug is properly connected to the aircraft
b) Start the push back manoeuvre when permission to do so has been given by the ground engineer.
c) Make sure that the aircraft is pushed back toward the right direction onto the taxilane stop position.
d) Disconnect the tug from the aircraft when in position on the taxilane.
e) Return to the stand area.

During low visibility conditions (CAT II) the tug driver will, together with the ground engineer, return behind the red clearance line marking on the apron surface as soon as possible.

***Note:*** *CAT II: Runway Visual Range of less than 550 M or cloud base of less than 200 FT.*

4.6.4 Actions to be taken by the Apron Control Tower

The Apron Controller will:

a) Monitor the engine(s) start up and push back activities.
b) Ensure that the aircraft will be pushed back toward the right direction onto the taxilane.

**5. Taxi Procedures**

5.1 Taxi Instructions

5.1.1 For departing aircraft, Ground Controller shall issue taxi instructions containing the following items in the order listed:

a) holding position;
b) runway designator;
c) taxi routes;
d) any other pertinent information.

For example:

"…C/S… TAXI TO HOLDING POINT RUNWAY ONE NINE VIA TANGO FOUR, CHARLIE, CHARLIE THREE, BRAVO ONE."

5.1.2 For arriving aircraft, Ground Controller shall issue taxi instructions containing the following items in the order listed:

a) taxi routes;
b) parking stand;
c) any other pertinent information.

For example:

"…C/S… TAXI VIA ECHO, DELTA SEVEN, GOLF, TANGO ONE ZERO, TANGO ONE TWO, YOUR STAND DELTA SIX."

5.2 Extra caution is required when crossing service roads in the manoeuvring area.

5.3 On the main apron where additional 180 degrees turn markings are established. The markings T9A and T9B connect taxilane T9 with taxilane T8 and the markings T10A and T10B connect taxilane T10 with taxilane T11 are provided. The routes may only be used when instructed to do so by ATC (ATC discretion).

5.4 Taxilanes T8, T9, T10, T11 and T12 are able to accommodate aircraft up to code E (wingspan less than 65 M).

**6. Runway Utilization Procedures**

6.1 Runway-in-use

The runway-in-use is selected by Suvarnabhumi Control Tower as the best for general purpose. If it is unsuitable for a particular operation, the pilot can obtain permission from ATC to use another but must accept that he may thereby incur a delay.

6.2 Runway Friction Measurement

6.2.1 The friction coefficient of runway surface is measured periodically by the use of a Surface Friction Tester (SFT) Vehicle, SAAB or VOLVO. This tester which is equipped with self wetting features uses the fifth wheel with a tire that meets the requirements of ASTM E1551 incorporating with measuring system and computerized data processing and records.

6.2.2 The test will be performed on the surface at a speed of 95 KM/HR with 1 MM thick water depth underneath the testing wheel, it will be carried out in two directions over the usable length of runway at approximately 3 and 6 M each side of the runway centre line. The test results provide average of friction values of 100 M segments along the length of the runway. Should the friction value fall to 0.34 or less, NOTAM will be promulgated to notify that the runway may be slippery when wet.

| Friction Value | Determination of the value |
|---|---|
| >0.34 | Normal |
| ≤0.34 | (NOTAM will be promulgated)<br>May be slippery when wet |

6.3 Departure sequence

6.3.1 Departure shall normally be cleared in the order in which they are ready for take-off, except that deviations may be made from this order of priority to facilitate the maximum number of departures with the least average delay.

6.3.2 To increase runway capacity and to comply with slot times if required, ATC may re-order departure sequence at any time. In addition, intersections will be assigned for departure. Pilots unable to accept the reduced take-off run available for the assigned intersection, shall inform ATC directly.

6.4 Departure clearance

6.4.1 The order in which aircraft are given take-off clearances will be determined on the basis of normal traffic priorities, the application of wake turbulence standard separation and departure slot allocations and management.

6.4.2 Under normal circumstances all departing aircraft will be issued with SIDs. If, for traffic management reason, a SID has to be cancelled, the pilot will be given a specific departure instruction.

6.5 Intersection departure

Departing aircraft will normally be directed by ATC to use the full length of the runway for take-off. Pilots-in-command may request or ATC may propose an intersection departure to resolve a particular runway or manoeuvring area conflict. The final decision whether to make an intersection departure rests with the pilot-in-command.

6.6 Clearance for immediate take-off

A pilot receiving an immediate take-off instruction is required to act as follows:

a) if waiting clear of the runway, taxi immediately on to it and begin his take off run without stopping his aircraft;
b) if already lined up on the runway, take off without delay;
c) if unable to comply with the instruction, inform ATC immediately.

6.7 Departures – Minimum Runway Occupancy Time

6.7.1 On receipt of line-up clearance pilots should ensure, commensurate with safety and standard operation procedures, that they are able to taxi into the correct position at the hold and line up on the runway as soon as the preceding aircraft has commenced its take off roll.

6.7.2 Whenever possible, cockpit checks should be completed prior to line up and any checks requiring completion whilst on the runway should be kept to the minimum required. Pilots should ensure that they are able to commence the take off roll immediately after take off clearance is issued.

6.7.3 Pilots not able to comply with these requirements should notify ATC as soon as possible.

6.7.4 Pilots shall prepare for the following take-off run available (TORA):

| RUNWAY 01 | TORA (M) |
|---|---|
| B13 | 4 000 |
| B12 | 3 890 |

| RUNWAY 19 | TORA (M) |
|---|---|
| B1 | 4 000 |
| B2 | 3 870 |

| RUNWAY 02R | TORA (M) |
|---|---|
| E21 | 3 700 |
| E19 | 3 590 |

| RUNWAY 20L | TORA (M) |
|---|---|
| E1 | 3 700 |
| E2 | 3 590 |

| RUNWAY 02L | TORA (M) |
|---|---|
| F12 | 4 000 |
| F11 | 3 890 |

| RUNWAY 20R | TORA (M) |
|---|---|
| F1 | 4 000 |
| F2 | 3 900 |

6.7.5 In order to expedite departure traffic, the runway declared distance at each additional available departing point when entering from taxiway, are as follows:

| RUNWAY 01 | TORA (M) |
|---|---|
| B11 | 2780 |

| RUNWAY 19 | TORA (M) |
|---|---|
| B3 | 2970 |

| RUNWAY 02R | TORA (M) |
|---|---|
| E15 | 2670 |
| E17 | 3220 |

| RUNWAY 20L | TORA (M) |
|---|---|
| E5 | 2780 |
| E3 | 3220 |

| RUNWAY 02L | TORA (M) |
|---|---|
| F10 | 3220 |

| RUNWAY 20R | TORA (M) |
|---|---|
| F3 | 3080 |

*Remarks: The aircraft take-off from these points shall be approved when traffic permitted in VMC only.*

6.8 Arrivals – Minimum Runway Occupancy Time

6.8.1 Pilots are reminded that rapid exit from the landing runway enables ATC to apply minimum spacing on final approach that will achieve maximum runway utilization and will minimize the occurrence of 'go-arounds'.

6.8.2 The procedures for Minimum Runway Occupancy Time shall be strictly applied in order to achieve the highest possible rate for arrivals and departures.

6.9 High Intensity Runway Operation

6.9.1 To achieve the highest possible rate/hour for arrivals and departures, runway occupancy times are to be reduced to a minimum, as a rule. Runways shall be vacated via high speed turn-offs.

6.9.2 Whenever runway conditions permit, pilots should prepare their landing so as to vacate the runways via the following high speed turn-offs.

| RUNWAY 01 | DISTANCE TO TURN OFF (M) |
|---|---|
| B7 | 1770 |
| B5 | 2350 |
| B3 | 2740 |

| RUNWAY 19 | DISTANCE TO TURN OFF (M) |
|---|---|
| B8 | 1640 |
| B10 | 2050 |
| B11 | 2560 |

| RUNWAY 02R | DISTANCE TO TURN OFF (M) |
|---|---|
| E12 | 1360 |
| E7 | 2050 |
| E5 | 2560 |

| RUNWAY 20L | DISTANCE TO TURN OFF (M) |
|---|---|
| E9 | 1470 |
| E13 | 2050 |
| E15 | 2440 |

| RUNWAY 02L | DISTANCE TO TURN OFF (M) |
|---|---|
| F6 | 1700 |
| F4 | 2210 |
| F3 | 2860 |

| RUNWAY 20R | DISTANCE TO TURN OFF (M) |
|---|---|
| F5 | 1650 |
| F7 | 2100 |
| F9 | 2500 |
| F10 | 3000 |

*Remarks: Distance to turn off is the distance of the respective runway to turn-off intersection.*

6.9.3 Taxi procedures for arriving aircraft runway 02L/20R

After landing runway 02L/20R, aircraft are not to stop on rapid exit taxiway to awaiting instructions from ATC, but should continue taxi via the following taxi procedures, unless otherwise instructed by ATC.

6.9.3.1 Runway 02L: All landing aircraft should continue taxi to TWY F and W then hold short of RWY 02R. Remain on the TWR FREQ (119.0 MHz). Explicit runway crossing clearance required.

6.9.3.2 Runway 20R: All landing aircraft should continue taxi to TWY F and Z then hold short of RWY 20L. Remain on the TWR FREQ (119.0 MHz). Explicit runway crossing clearance required.

6.9.4 The procedures for Minimum Runway Occupancy Time shall be strictly applied in order to achieve the highest possible rate for arrivals and departures.

**7. Low Visibility Operations**

7.1 General

7.1.1 Low visibility procedures will be established for operation in a visibility of less than RVR 550 M or a cloud base of less than 200 FT.

7.1.2 Special ATC procedures and safeguarding will be applied during CAT II operations to protect aircraft operating in low visibility and to avoid interference to the ILS signals in accordance with ICAO Doc 9365: Manual of all-weather operations. Pilots will be informed when these procedures are in operation by ATIS or RTF.

7.1.3 Runway 19/01 and runway 20L/02R, subject to serviceability of the required facilities, are suitable for Cat II operations by operators whose minima have been accepted by The Civil Aviation Authority of Thailand (CAAT).

7.1.4 Due to ILS system runway 20R/02L not available, runway 20R/02L shall be used for departure only.

7.2 Arrival

7.2.1 Cat II approach and landing

7.2.1.1 Pilots who wish to carry out an ILS Cat II approach shall inform Bangkok Approach on initial contact.

7.2.1.2 Pilots may carry out a practice ILS Cat II approach at any time. But the full safeguarding procedures will not be applied and pilots should anticipate the possibility of ILS signal interference.

7.2.1.3 When low visibility procedures are in operation, a much reduced landing rate can be expected due to the requirement for increased spacing between arriving aircraft.

7.2.1.4 Aircraft will be vectored to intercept the ILS localizer at least 10 NM from touchdown.

7.2.2 Runway exits

7.2.2.1 All runway exits are equipped with green/yellow coded taxiway centre line lights to indicate the boundary of the localizer sensitive area.

7.2.2.2 Pilots are required to make a “RUNWAY VACATED” call giving due allowance for the size of the aircraft to ensure that the entire aircraft has vacated the localizer sensitive area.

7.2.2.3 Aircraft shall vacate the runway via the first convenient exist taxiways which are designated as follows:

- Runway 19 via B8, B10, B11,B12, B13
- Runway 01 via B7, B5, B3, B2, B1
- Runway 20L via E9, E13, E15, E17, E19, E21
- Runway 02R via, E12, E7, E5, E2, E1

Pilots not able to comply with these requirements should notify ATC immediately.

7.3 Departure

7.3.1 Runway holding positions

7.3.1.1 ATC will require departing aircraft to use the Cat II holding positions listed below:

- Runway 19: B1, B2
- Runway 01: B13, B12
- Runway 20L: E1, E2
- Runway 02R: E21, E19
- Runway 20R: F1, F2
- Runway 02L: F12, F11

7.3.1.2 Except as described above, other intersection take-offs are not permitted.

7.3.2 Low visibility take-off

7.3.2.1 Pilots wishing to conduct an ILS guided take-off shall inform ATC on start up in order to ensure that the protection of the localizer sensitive area is provided.

7.4 Taxiing aircraft

7.4.1 Taxiing aircraft must follow the lighted taxiway centre line in relation to the standard taxi route provided by ATC. The deviation from the standard taxi route may be approved for traffic reason.

7.4.2 When low visibility operating procedures are in operation pilots-in-command shall adjust aircraft taxiing speeds to ensure that they are able to comply with ATC instructions.

7.5 Towing of aircraft

7.5.1 Aircraft towing will be restricted when the RVR down to less than 550 M.

7.6 Aircraft guidance under all-weather operations category II

7.6.1 Taxiway centre line lights

7.6.1.1 As soon as the operation of category II low visibility procedures is announced, aircraft will be only permitted to taxi on taxiways with operating centre line lights.

7.6.1.2 Taxiway centre line lights within the ILS sensitive area are colour-coded (Green/Yellow) from runway 19/01 to taxiway B and from runway 20L/02R to taxiway E. To indicate that the aircraft has vacated the ILS sensitive area, pilots are to delay the call “RUNWAY VACATED” until the aircraft has completely passed the end of the Green/Yellow colour–coded taxiway centre line lights.

7.6.2 Stop bars

7.6.2.1 Taxiing across stop bars is strictly prohibited as long as they are in operation. No kind of clearance includes permission to taxi across a stop bar in operation.

7.6.2.2 Stop bar is provided to assist in preventing inadvertent incursions of aircraft and vehicles onto the runway.

7.6.2.3 Stop bars are installed at following locations:

- Taxiway B1, B2, B3, B11, B12, B13
- Taxiway E1, E2, E3, E5, E10, E15, E17, E19, E21
- Taxiway F1, F2, F3, F10, F11, F12, F15
- Taxiway W, Y, Z

7.6.3 No-entry bar

7.6.3.1 No-entry bar is provided across a taxiway which is intended to be used as an exit only taxiway to assist in preventing inadvertent access of traffic to that taxiway.

7.6.3.2 No-entry bar is provided to prevent traffic from entering the taxiway in the wrong direction.

7.6.3.3 No-entry bars are installed at following locations:

- Taxiway B5, B7, B8, B10
- Taxiway E7, E9, E12, E13
- Taxiway F4, F5, F6, F7, F8, F9

7.6.4 Intermediate holding position lights

7.6.4.1 Taxiing across intermediate holding position lights is allowed.

7.6.4.2 Intermediate holding position lights are installed at some intermediate holding position.

7.6.4.3 Intermediate holding position lights consist of three fixed unidirectional lights showing yellow in the direction of approach to intermediate holding position.

7.7 Adverse weather warning

7.7.1 Aircraft will not be refused permission to land or take off at Suvarnabhumi International Airport solely because of adverse weather conditions. The pilot-in-command of a commercial air transport aircraft shall be responsible for operation in accordance with applicable company weather minima.

**8. Adverse Weather Condition & Procedures**

Adverse Weather Condition Warning at Suvarnabhumi International Airport : Adverse weather condition that causes thunderstorms and/or strong wind and even lightning may endanger airside operation to a large extent. Therefore, when it is predicted to occur, the effective warning system shall be deployed for airside workers and vehicle operators. The objective of this warning is to elaborate

how the situations of each phase are and to alert all the airside personnel to work more carefully and safely in the airfield. Adverse Weather Condition Warning at Suvarnabhumi International airport can be defined into 3 levels;

Level 1 Thunderstorms Observations Reporting: The report is used when thunderstorms are detected within 50 KM from Aerodrome Reference Point (ARP) and their directions are heading Suvarnabhumi International airport.

Level 2 Thunderstorms and/or Strong Wind Warning: This warning is used when thunderstorms and/or strong wind are more than 25 KT within 16 KM from Aerodrome Reference Point (ARP) and their directions are towards or over Suvarnabhumi International airport.

Level 3 Lightning Warning: The warning is employed when thunderstorms are over Suvarnabhumi International airport and lightning characteristic is obviously detected.

8.1 Level 1 : Thunderstorms Observation Reporting

- Suvarnbhumi International airport will notify all concerned units by announcing “Thunderstorms Warning” when adverse weather condition level 1 takes place. The details how the announcement is made has already distributed to the operators concerned by means of official letter.
- When the condition of adverse weather condition level 1 terminates, Suvarnabhumi International airport will announce “Thunderstorms Warning Terminated”.

Airlines, Ground Service Providers, and Airside Operator’s Procedures

When receive the adverse weather condition level 1;

- Report the situation to their staff.
- Operate with carefulness, be alert of the aircraft and vehicle’ safety and tightly secure all ground service equipments.

8.2 Level 2 : Thunderstorm and/or strong wind warning

- When thunderstorms and/or strong wind are more than 25 KT within 16 KM from Aerodrome Reference Point (ARP) and their direction are towards or over the aerodrome, Suvarnabhumi International airport will notify all concerned units by announcing “Thunderstorms and Strong Wind Warning”
- And when receive the cancellation of adverse weather condition, Suvarnabhumi International airport will announce as “Thunderstorms and Strong Wind Warning Terminated”

Airlines, Ground Service providers, and Airside Operator’s Procedures

When receive the adverse weather condition level 2;

- Report the situation to their staff.
- Remove the stair from the aircraft and tie the gantry securely to the ground and also close the front part of stair.
- Ensure aircraft parking brake is applied during on the parking stand.
- Ensure aerobridge is parked on the assigned markings and close the front part of it.
- Bond the aircraft ground receptacle.
- Ensure that light aircraft are parked facing head wind and secured to the ground.

8.3 Level 3 : Lightning warning

- When thunderstorms are over Suvarnabhumi International airport and may likely cause lightning, Suvarnabhumi International airport will notify all concerned units by announcing “Lightning Warning” and instantly turn on the red warning light and siren.
- And when receive the cancellation of adverse weather condition, turn off the red warning light and siren and announce as “Lightning Warning Terminated”.

Suvarnabhumi Air Traffic Control Center’s Procedures

When receive the adverse weather condition warning level 3 from Airside Operations Control Center (AOCC), keep monitoring the situation and inform Flight Operation of the airlines concerned about the adverse weather condition warning level 3 at Suvarnabhumi International airport and/or announce through Automatic Terminal Information Service (ATIS).

Airlines, Ground Service Providers, and Airside Operator’s Procedures

When receive the adverse weather condition level 3;

- Restrain from operating and stay in the nearby buildings, or vehicles, or lightning shelters, or high mass light poles within 22.60 M, or under aircraft with ground receptacle bonded and monitor the weather conditions outside periodically.
- Avoid contacting or staying near the aircraft without ground receptacle connected.
- When receive the lightning warning while being outside the building, do not lie down on the floor. Do sit on feet together with knees up in order to least contact with the ground and decrease the overall body height which might induce electricity through the body from the lightning currents.
- Refrain from refueling the aircraft.

– Airlines informs ground service providers the adverse weather condition warning level 3 and recommend them the temporary suspension of ground operations and cease the communication with pilot.

Arrival Aircraft

a) Aircraft designated to park at parking bay with Visual Docking Guidance System: VDGS;

– While the aircraft is approaching to the parking bay, the License Mechanic who is responsible for aircraft conveyance shall monitor the aircraft movement in order to make sure the moving aircraft is safe. This should be done while he/she is in the safe area.
– When the aircraft reaches the parking bay and is in the right position of stand markings, the License Mechanic shall coordinate with pilots to apply parking brake and bond the aircraft's nose gear and aircraft ground receptacle. Also, wait for the cancellation of adverse weather condition warning from Suvarnabhumi International airport. Then, the operations could be done as normal.

b) Aircraft arranged to park at parking bay without Visual Docking Guidance System: VDGS;

– Airlines and ground service providers must provide the License Mechanic who is responsible for aircraft conveyance to perform as Marshaller leading the aircraft to its parking bay.
– When the aircraft reaches the parking bay and is in the right position of stand markings, the License Mechanic shall coordinate with pilots to apply parking brake and bond the aircraft's nose gear and aircraft ground receptacle. And also, wait for the cancellation of adverse weather condition warning from Suvarnabhumi International airport. Then, the operations should be done as normal.

Departure Aircraft

Departure aircraft operating at parking bay should be done as follows;

a) While the aircraft is being pushed back from parking bay and/or being on the taxilane ready to take off with all engines started, operate a normal procedures until they are completed and the aircraft has taken off.
b) In case the aircraft is being pushed back but the engine is not started yet. If the ground service providers consider bringing the aircraft back to its parking bay and wait for the cancellation of adverse weather condition warning from Suvarnabhumi International airport, airline or ground service providers must inform AOCC of that decision. This is because the airport is needed to rearrange the parking bay for another arriving aircraft.
c) For the aircraft in no.2 which arranged to park at the Contact Gate that has passenger loading bridges, while waiting for the adverse weather condition warning to be cancelled and airline or ground service provider considers that the aircraft bridge is needed again, inform the Airside Operations Control Center (AOCC) accordingly. Also, follow the procedures for facility request from Suvarnabhumi International airport properly.

Suspending the operations of airlines and/or ground service providers is conducted solely for the sake of safety of all operators which was mutually decided between airline members/ ground service providers and the airport operator. Therefore, in case of flight delays, airlines and ground service providers shall not claim any compensation from Suvarnabhumi International airport or concerned units.

**9. Operations on parallel runways**

There are three runways at Suvarnabhumi International Airport. When all runways are available, the operations of parallel runways are as follows:

9.1 South Flow (Runway 19, Runway 20)

a) Runway 19 is used for departures and arrivals
b) Runway 20L is used for departures
c) Runway 20R is used for arrivals

9.2 North Flow (Runway 01, Runway 02)

a) Runway 01 is used for departures and arrivals
b) Runway 02R is used for departures
c) Runway 02L is used for arrivals

**10. Removal of disabled aircraft.**

10.1 When the aircraft is involved in an accident at Suvarnabhumi International Airport, the aircraft operator or the registered owner is responsible for removal of its disabled aircraft. If the accident is likely to cause danger or obstruction to the movement of other aircraft or vehicles, the General Manager of Suvarnabhumi International Airport or his authorized representative may order the aircraft operator or the registered owner to remove its disabled aircraft without delay.

10.2 If the aircraft operator or the registered owner does not comply with such order, the General Manager of Suvarnabhumi International Airport or authorized representative shall empower to remove the aircraft himself. The expense incurred in removing such aircraft shall be recovered from aircraft operator or the registered owner. The General Manager of Suvarnabhumi International Airport or authorized representative shall not be responsible for any damage occurring to the aircraft during its removal.

**11. Hot Spot (HS) Areas.**

11.1 HS1 – Due to several intersections around this area which connect to rapid exit taxiways, all aircraft are required to hold, as instructed by ATC, at intermediate holding position marking/lights. As taxiing from taxiway D8 to E for runway 02R is 90 degrees turn, pilot should be aware of unintentionally executing runway incursion through taxiway E12.

11.2 HS2 – Due to several intersections around this area which connect to rapid exit taxiways, all aircraft are required to hold, as instructed by ATC, at intermediate holding position marking/lights. As taxiing from taxiway C7 to B for runway 01 is 90 degrees turn, pilot should be aware of unintentionally executing runway incursion through taxiway B5.

11.3 HS3 - Caution: Possible misidentification of rapid exit taxiway. When instructed by ATC to vacate runway 20L via taxiway E13, pilot should ensure that vacating on correct rapid exit taxiway.

11.4 HS4 - Caution: Aircraft on taxiway W from taxiway F after landing runway 02L do not cross the runway holding position marking/lights without a clearance. Explicit runway crossing clearance required.

11.5 HS5 - In case of vacating runway 02L via taxiway F4, aircraft shall turn left to taxiway F toward northbound, unless otherwise instructed by ATC.

11.6 HS6 - Caution: Aircraft on taxiway Z from taxiway F after landing runway 20R do not cross the runway holding position marking/lights without a clearance. Explicit runway clearance required.

**12. Starting and Running of Aircraft Engine Procedures.**

12.1 Starting or Running of Aircraft Engine(s)

12.1.1 In normal operations, engine start up at the aircraft parking position is not allowed. Aircraft operators wishing to start or run aircraft engine at the aircraft parking positions, shall ensure that the following conditions are met:

12.1.1.1 The aircraft engine(s) are running at minimum idle power.

12.1.1.2 The aircraft is properly parked with its fuselage longitudinally centred over the lead line and nose gear on top of the parking position painted nose block marking.

12.1.1.3 The aircraft operator shall provide additional ground staff as wing walkers to lookout on both sides of the aircraft; he/she shall keep an eye on specific parts of the aircraft when it is moving and safeguard the rear movement of the aircraft to ensure safe clearance and to prevent collision. He/she shall be in constant communications with the person in charge of the operation.

12.1.1.4 The aircraft operator seeks permission from the Ground Control prior to starting the engine(s).

12.1.1.5 No other aircraft despite ground crew in attendance is on the taxiway centre line or about to push back from an adjacent stand on to the centre line behind the aircraft waiting to start.

12.1.1.6 The pilot-in-command receives an “all-clear” visual and audible signal from the ground engineer or the ground operations headset operator that it is safe to start the engine(s). The pilot-in-command shall bear in mind that even though the start engine permission is received from the Ground Control, the ground engineer or the ground operations headset operator has the final authority that the environment around the aircraft is safe for the engine(s) to be started.

12.1.1.7 The ground crew shall ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or push back of aircraft commences.

12.1.1.8 Minimum power idle engine runs are limited to ten (10) minutes in duration. Otherwise, the operations shall be done at the run up area or aircraft parking position with no operations conducted in the adjacent area, or as stipulated/directed by the Airside Operations Control Center (AOCC) Tel: +66 2 132 4110.

12.1.2 For the purpose of noise and carbon emission reduction on the apron area, any aircraft that is designated to park at the stand served with passenger loading bridges shall utilize the fixed ground power supply (400HZ) and fixed pre-conditioned air supply provided by the airport if serviceable.

12.1.2.1 Fixed ground power supply (400HZ) - Operators are recommended to reduce electric load immediately after parking. If fixed ground power supply is out of service, mobile GPU or APU may be used with consent from AOCC.

12.1.2.2 APU shall not be used more than 10 minutes before off-block time and 5 minutes after parking.

12.1.2.3 If the operator needs to run an APU more than the mentioned time length, they shall seek approval from the AOCC. Any acts of non-compliance by the aircraft operator will result in actions being taken by the airport authority, including the assignment of parking stand to a remote area.

12.1.2.4 Aircraft operators that would like to run an APU for an extended period of time shall notify the ground staff to ensure that they are prepared for the effect of extra ground noise or exhaust fumes.

12.1.2.5 Fixed Pre-Conditioned Air (PCA) supply -Operators are recommended to turn off the cabin air re-circulation system to prevent outside air mixing with PC-Air. If fixed PCA is out of service, mobile ACU may be used with consent from AOCC.

12.1.3 No aircraft engine shall be started or run unless a licensed pilot or certified mechanic is attending the aircraft controls. Wheel blocks equipped with ropes or other suitable means of chocking the wheels of an aircraft to deter movement shall always be placed in front of the main landing wheels before starting the engine(s), unless the aircraft is locked into position by functioning locking brakes.

12.1.4 All aircraft shall be started and run-up in locations, including leased premises, designated for such purposes by the AOCC (Tel. +662 132 4110). Maintenance run of aircraft engines shall not be performed in the passenger ramp, apron, cargo and public parking areas.

12.1.5 During push back operations, all aircraft should be pushed back with its fuselage longitudinally centred over, and parallel to a taxiway centre line before commencing engine start. If the pilot-in-command wishes to start the engine(s) during push-back, he/she shall coordinate with the ground crew.

12.1.6 Running an aircraft engine is prohibited unless reasonably necessary for maintenance purposes, testing or repairing of such engine. The instruction of mechanics or pilots, or the movement/flight operation of such aircraft shall be done with strict compliance to Suvarnabhumi International Airport Noise Abatement and safety procedures.

12.1.7 Turbo jet and turbo fan cross-bleed engine air-start of multi-engine jet aircraft may be conducted on taxiways, provided that the following conditions are met:

12.1.7.1 The aircraft Auxiliary Power Units (APU) is inoperative.

12.1.7.2 The aircraft operator seeks permission from the Ground Control prior to starting engines.

12.1.7.3 Cross-bleed engine start procedure is conducted while the aircraft is longitudinally centred over and parallel to a taxiway centre line while the engine start is being performed.

12.1.8 Aircraft of departing flights on aircraft parking positions that are subject to delay are prohibited from running the engine(s). Aircraft power supply shall be provided by either: the Passenger Boarding Bridge, APU, or other Ground Power Unit (GPU).

12.1.9 The starting or operating of aircraft engines inside any hangar or within 7.5 M radius of any building or other structures is prohibited.

12.1.10 No aircraft engine exhaust, blast, and/or propeller wash shall be directed in such a manner that may cause injury, damage, or hazard to any person, aircraft, vehicles, equipment, or structure. If it is impossible to taxi the aircraft without compliance with the above, the engine(s) shall be shut off and the aircraft shall be towed.

12.1.11 Aircraft engines shall not be operated during refueling or defueling operations; or, during a fuel spill unless otherwise approved by the Aircraft Rescue and Fire Fighting (ARFF) Officer in Charge.

**12.2 Run-Up of Aircraft Engines**

12.2.1 High power run of aircraft engines is strictly prohibited at all aircraft parking positions.

12.2.2 All preflight engine run-ups shall be conducted during the hours of 07.00 – 22.00 local time at the run up area located at the north end of Taxiway E between D1 – D2.

12.2.3 Aircraft engines shall not be run in hangars, except in approved engine test areas. Aircraft engines shall be run-up only in designated areas. At no times shall engines be run-up when aircraft is inside any hangar or within 7.5 M radius of any building or other structures, or when persons in observation areas are in the proximity of the propeller slipstream or jet blast.

12.2.4 Aircraft operators shall obtain location approval and instructions from AOCC (Tel. +662 132 4110), before conducting an extended run of any aircraft engine above minimum idle power; high power engine operation, or engine run.

12.2.5 Leak checks, one (1) engine power at idle thrust only per start, may be performed at aircraft parking areas that is limited to ten (10) minutes, provided that the operator provides adequate measures to protect personnel and equipment operating behind the aircraft, and the leak check does not interfere with the use of adjacent gate operations.

12.2.6 Idle engine checks and auxiliary power units are to be operated at the minimum time required to accomplish the necessary maintenance or preflight check.

**13. VISUAL DOCKING GUIDANCE SYSTEM**

13.1 Introduction

13.1.1 Suvarnabhumi International Airport is equipped with 3 types of Visual Docking Guidance System (VDGS), installed at aircraft parking stands as follow:

13.1.1.1 A1, A2, A3, A4, A5, A6
B1, B2, B3, B4, B5, B6
C1, C2, C3, C4, C5, C6, C7, C8, C9, C10
D1, D2, D3, D4, D5, D6, D7, D8
E1, E2, E3, E4, E5, E6, E7, E8, E9, E10
F1, F2, F3, F4, F5, F6
G1, G2, G3, G4, G5
115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129

201, 202, 203
301, 302, 303, 304, 305, 306, 307, 308
401, 402, 403
501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
Description of system see VTBS AD 2.20 item 13.2.1

13.1.1.2 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114
Description of system see VTBS AD 2.20 item 13.2.2

13.1.1.3 S101, S102, S103, S104, S105, S106, S107, S108, S109, S110, S111L, S111, S111R, S112L, S112, S112R, S113L, S113, S113R, S114L, S114, S114R, S115L, S115, S115R, S116L, S116, S116R, S117L, S117, S117R, S118L, S118, S118R
S119, S120, S121, S122, S123, S124, S125, S126, S127, S128
Description of system see VTBS AD 2.20 item 13.2.3

13.2 Description of system

13.2.1 The Advanced Visual Docking Guidance System (A-VDGS) is provided at aircraft parking stands A1-A6, B1-B6, C1-C10, D1-D8, E1-E10, F1-F6, G1-G5, 115-129, 201-203, 301-308, 401-403 and 501-525.

13.2.1.1 System Overview

The RLG GIS206-2 Laser Guided Docking System is a fully automatic aircraft docking guidance system for various types of modern aircraft.

The system utilises 2-axis laser scanning technique to track both the lateral and longitudinal positions of the incoming aircraft and guide the aircraft to the programmed stopping position. In addition, the system also has aircraft ID verification feature to identify the incoming aircraft and check it against the one selected by the operator. If the incoming aircraft fails to match the expected aircraft, an 'ID FAIL' indication is immediately issued via display information.

Aircraft type, continuous closing distance, and azimuth guidance, etc., are presented on a single console clearly visible to both the pilot and co-pilot, simultaneously. Figure A shows the Aircraft Display console, mounted on the terminal in front of the aircraft stand.

The system is operated only in the automatic mode. If the system fails, the aircraft must then be marshalled into the stand manually.

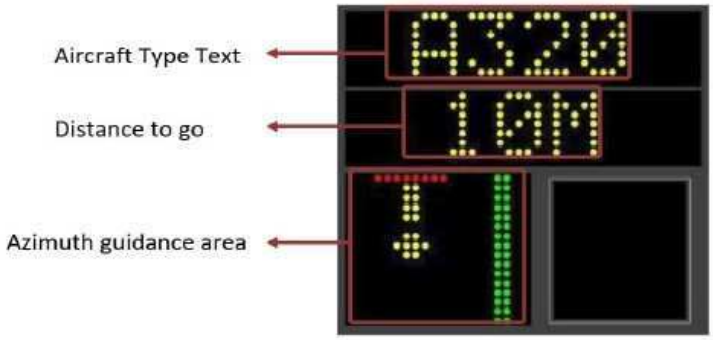



Figure A

13.2.1.2 General warning

Pilot must stop the aircraft immediately if he or she sees that:

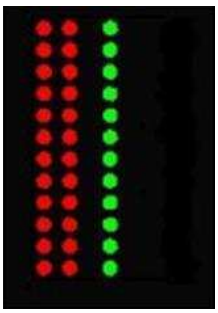
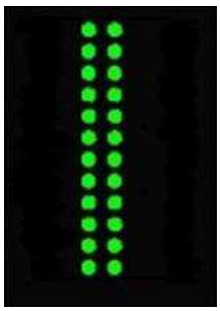
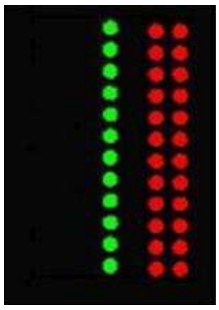
a) The docking system is not activated.
b) A wrong aircraft type is displayed.
c) The word STOP is displayed.
d) A wrong type of aircraft indicates 'ID FAIL' is displayed.

13.2.1.3 Docking Procedure

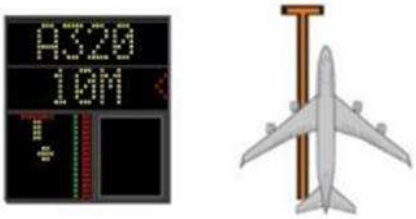
During the docking process, pilot shall confirm that the correct aircraft is displayed on the LED Display Console and proceed slowly forward to parking position.

The following Display Guide shows the azimuth guidance bars at the lower centre of VDGS LED Display Console and interprets the guidance as shown.

Caution: Always steer and follow to the GREEN AZIMUTH CENTRE BAR.

| Aircraft left of centre line, steer towards GREEN | Aircraft on centre line | Aircraft right of centre line, steer towards GREEN |
|---|---|---|
|  |  |  |

The figure below shows the azimuth guidance status on the LED Display Console indicating the aircraft azimuth position when an aircraft approaching to parking position.

| | |
|---|---|
|  | Green light bar illuminates, the aircraft is on centre line. Keep straight ahead. |
|  | If red light bar appears on the left side of the green light bar, the aircraft is off centre line to left. It should be moved rightwards. |
|  | If red light bar appears on the right side of the green light bar, the aircraft is off centre line to right. It should be moved leftwards. |

The pilot display of the Advanced Visual Docking Guidance System (A-VDGS) is shown below:

PARKING SEQUENCE:

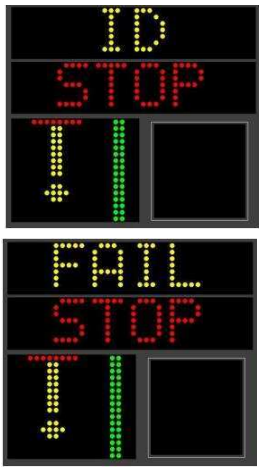
| | |
|---|---|
|  | In this picture the aircraft is at a distance greater than 30 M from the stop position and is directly at the centre line.<br><br>Note that the digital close-in distance is not displayed when the aircraft is greater than 30 M away from the stop position.<br><br>An Airbus A320 aircraft is expected. |
|  | In this picture the aircraft is at exactly 30 M from the stop position, but is off to the right of the centre line.<br><br>Starting at 30 M, the digital close-in distance (second line of display) is displayed, in 1 M decrements.<br><br>The progress meter (lower left) will also be activated at this distance. |
|  | The aircraft is at 20 M from the stop position and has returned to the centre line.<br><br>Note: the position of progress meter. The arrow will advance one position every 2.5 M. |
|  | In this picture the aircraft is at 10 M and is on the centre line. |
|  | The aircraft is now at 3.2 M from the stop position and is on the centre line.<br><br>Note that at below 5 M, the close-in distance is displayed in 0.2 M decrements. |
|  | Finally the aircraft is perfectly parked at the stop position, and perfectly centred.<br><br>The word “STOP” is displayed in red.<br><br>Note also the merging of the arrow and the stop line on the progress meter. |

| | |
|---|---|
|  | The word “OK” is displayed in yellow.<br><br>Docking is successful. |

SLOW:

| | |
|---|---|
|  | During the docking process, the pilot must taxi into the aircraft stand at minimum speed. If the system detects that the aircraft is moving too quickly, exceeding the preset speed limit for accurate detection, it will display "SLOW".<br><br>Once the aircraft's speed is reduced to the acceptable range, the "SLOW" message will be switched back to the numerical close-in distance. |

ID FAIL:

| | |
|---|---|
|  | For this aircraft type ID verification features, the incoming aircraft must be identified and verified at least 12 M before the stop position or otherwise, the system will display “ID FAIL” alternating ID/FAIL on the first row of the display.<br><br>The second row of the docking screen will indicate “STOP”. At this point, the aircraft must be manually guided in by a marshaller. |

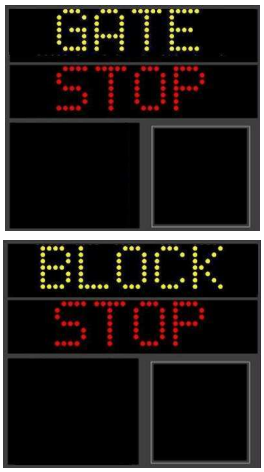
TOO FAR:

| | |
|---|---|
|  | If the aircraft overshoots the preset range (more than 1 M), the word “TooFar” will be displayed on the first row of the display.<br><br>The second row of the docking screen will indicate “STOP”.<br><br>The aircraft shall stop immediately. |

ERROR STOP:

| | |
|---|---|
|  | The system will display "ERROR" on the first row of the display as indicated if the system detects any hardware error that might affect the normal docking process.<br><br>The second row of the display will indicate “STOP”.<br><br>At this point, the aircraft must be manually guided in by a marshaller. |

GATE BLOCKED:

| | |
|---|---|
|  | If an object is found blocking the view from the VDGS to the planned stop position for the aircraft, the docking procedure will be halted with "GATE BLOCK" message.<br><br>The second row of the display will indicate "STOP".<br><br>At this point, the aircraft must be manually guided in by a marshaller. |

EMERGENCY STOP:

| | |
|---|---|
|  | The first and second row of the display will show “STOP”.<br><br>The docking is aborted and aircraft must be manually guided in by a marshaller. |

13.2.2 The Visual Docking Guidance System (VDGS) is provided at aircraft parking stands 101-114.

13.2.2.1 System Overview

13.2.2.2 General Warning

The VDGS System has built in error detection program to inform the aircraft pilot of impending dangers during the docking procedure.

Warning: If the pilot is unsure of the information, being shown on the VDGS display unit, he must immediately stop the aircraft and obtain further information for clearance.

13.2.2.3 Items to check before entering the stand area

Warning: The pilot shall not enter the stand area unless the docking system first is showing the vertical running arrows. The pilot must not proceed beyond the bridge unless these arrows have been superseded by the closing rate bar.

Warning: The pilot shall not enter the stand area unless the aircraft type displayed is equal to the approaching aircraft. The correctness of other information, such as “Door 2” shall also be checked.

13.2.2.4 Docking Procedure

START-OF-DOCKING:

| | |
|---|---|
|  | Pressing one of the aircraft type buttons on the Operator Panel starts the system. When the button has been pressed, "WAIT" will be displayed. |

CAPTURE:

| | |
|---|---|
|  | The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft.<br><br>The pilot shall check that the correct aircraft type is displayed. The lead-in line shall be followed.<br><br>The flight number for the approaching aircraft is displayed on the second line of the display if the information is available.<br><br>The pilot must not proceed without manual guidance (aircraft marshalling) unless the arrows have been superseded by the closing rate bar. |

TRACKING:

| | |
|---|---|
|  | When the laser has caught the aircraft, the floating arrows are replaced by the yellow centre line indicator.<br><br>A flashing red arrow indicates the direction to turn.<br><br>The vertical yellow arrow shows position in relation to the centre line. This indicator gives correct position and azimuth guidance. |

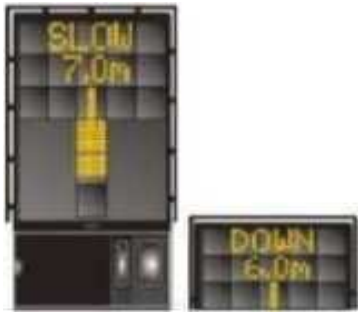
CLOSING RATE:

| | |
|---|---|
|  | Display of digital countdown will start when the aircraft is 20 M from stop position. This information is shown instead of the flight number.<br><br>When the aircraft is less than 12 M from the stop position, the closing rate is indicated by turning off one row of the centre line symbol per 0.5 M of the remaining distance, covered by the aircraft toward the stop position of the stand.<br><br>The picture illustrates the aircraft 10 M from stop position, slightly left of the centre line. The red arrow indicates the direction to steer. |

ALIGNED TO CENTRE:

| | |
|---|---|
|  | The aircraft is 8 M from the stop position. The absence of direction arrow indicates an aircraft on the centre line. |

SLOW DOWN:

| | |
|---|---|
|  | If the aircraft is approaching faster than the accepted speed, the system will show "SLOW DOWN" alternating SLOW/DOWN as a warning to the pilot. |

AZIMUTH GUIDANCE:

| | |
|---|---|
|  | The yellow arrow indicates an aircraft to the right of the centre line, and the red flashing arrow indicates the direction to turn.<br><br>The aircraft is 4 M from the stop position in this example. |

STOP POSITION REACHED:

| | |
|---|---|
|  | When the correct stop position is reached, the display will show STOP and red lights will be lit. |

DOCKING COMPLETED:

| | |
|---|---|
|  | When the aircraft has parked, "OK" will be displayed. |

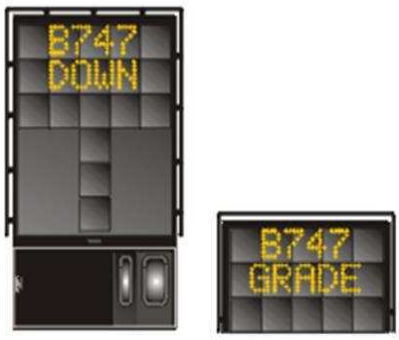
OVERSHOOT:

| | |
|---|---|
|  | If the aircraft has overshot the stop position more than 1 M, "TOO FAR" will be displayed.<br><br>The aircraft shall stop immediately. |

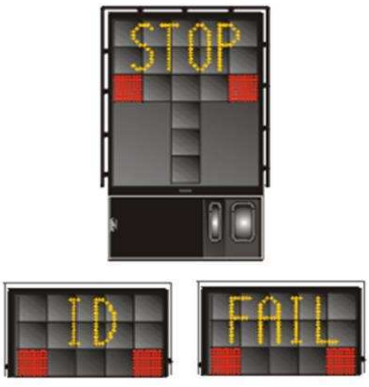
STOP SHORT:

| | |
|---|---|
|  | If the aircraft is found standing still but has not reached the intended stop position, the message "STOP OK" will be shown after a while.<br><br>Also the red lights are lit. |

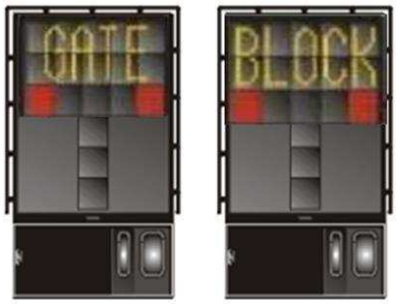
BAD WEATHER CONDITION:

| | |
|---|---|
|  | During heavy fog or rain, the visibility for the docking system can be reduced.<br><br>When the system is activated and in capture mode, and a downgrade condition is detected, the pilot display will start flashing the aircraft type, show a " DOWN GRADE " alternating DOWN/GRADE and replace the rolling arrows with a blank lead-in display.<br><br>The blank lead-in display will be replaced with the normal lead-in bar, once Safedock has been able to acquire a lock onto the aircraft. The DOWN GRADE message and the flashing aircraft type will remain in the display throughout the docking procedure.<br><br>The pilot must immediately stop the aircraft and follow manual guidance (aircraft marshalling). |

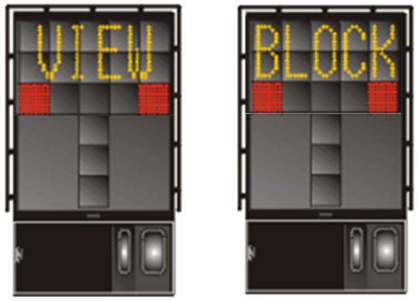
AIRCRAFT VERIFICATION FAILURE:

| | |
|---|---|
|  | During entry into the stand, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 12 M before the stop position, a second verification check will be conducted. If this check fails, "STOP" and "ID FAIL" will be displayed. The text will be alternating on the upper two rows of the display.<br><br>The pilot must immediately stop the aircraft and follow manual guidance (aircraft marshalling). |

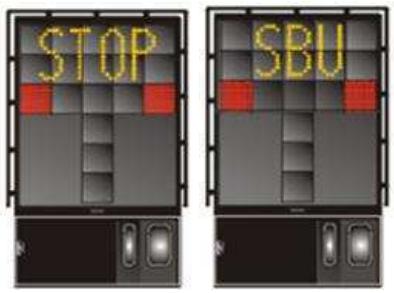
GATE BLOCKED:

| | |
|---|---|
|  | If an object is found blocking the view from the VDGS to the planned stop position for the aircraft, the docking procedure will be halted with "GATE BLOCK" alternating GATE/BLOCK.<br><br>The pilot must immediately stop the aircraft and follow manual guidance (aircraft marshalling). |

VIEW BLOCKED:

| | |
|---|---|
|  | If the view towards the approaching aircraft is hindered for instance by dirt on the window, the VDGS will display "VIEW BLOCK" alternating VIEW/BLOCK to report a view block condition.<br><br>The pilot must immediately stop the aircraft and follow manual guidance (aircraft marshalling). |

SBU-STOP:

| | |
|---|---|
|  | Any unrecoverable error during the docking procedure will generate an SBU (safety backup) condition.<br>The display will show red stop bar and the text "STOP SBU" alternating STOP/SBU.<br><br>The pilot must immediately stop the aircraft and follow manual guidance (aircraft marshalling). |

EMERGENCY STOP:

| | |
|---|---|
|  | When the Emergency Stop button is pressed, "STOP" is displayed with red squares.<br><br>The pilot must immediately stop the aircraft and follow manual guidance (aircraft marshalling). |

CHOCK ON:

| | |
|---|---|
|  | "CHOCK ON" will be displayed, when the ground staff has completed chocking the wheel of the aircraft and pressed the Chocks On button on the Operator Panel. |

ERROR:

| | |
|---|---|
|  | If a system error occurs, the message "ERROR" is displayed with a code. The code is used for maintenance purposes and explained elsewhere.<br><br>The pilot must immediately stop the aircraft and follow manual guidance (aircraft marshalling). |

SYSTEM BREAKDOWN:

| | |
|---|---|
|  | In case of a severe system failure, the display will go black except for a red stop indicator. A manual guidance (aircraft marshalling) must be used for docking guidance. |

POWER FAILURE:

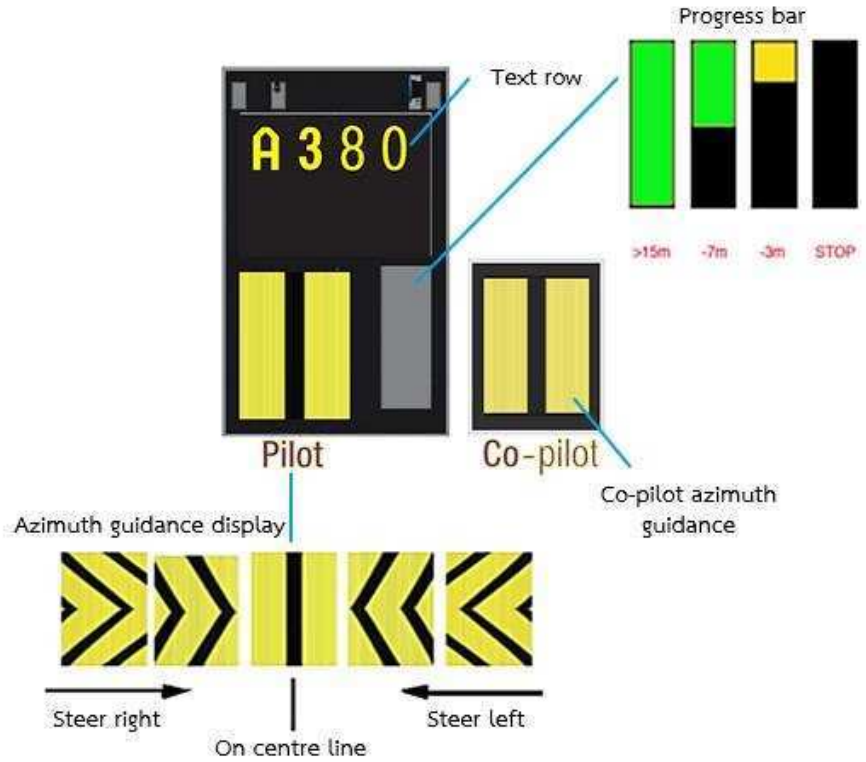
| | |
|---|---|
|  | In case of a power failure, the display will be completely black. A manual guidance (aircraft marshalling) must be used for docking guidance. |

13.2.3 The Advanced Visual Docking Guidance System (A-VDGS) is provided at aircraft parking stands S101-S128.

13.2.3.1 System Overview

The display unit provides textual and numerical information, including the continuous real-time azimuth guidance based on the Moiré technique, along with the progress bar and numerical close-in distance to the parking position based on the LADAR (Laser Detection and Ranging) sensor with extending up to 200 M operational range, however, it may be affected by weather conditions.

The sub-display (co-pilot azimuth guidance) is solely intended for use by the co-pilot.



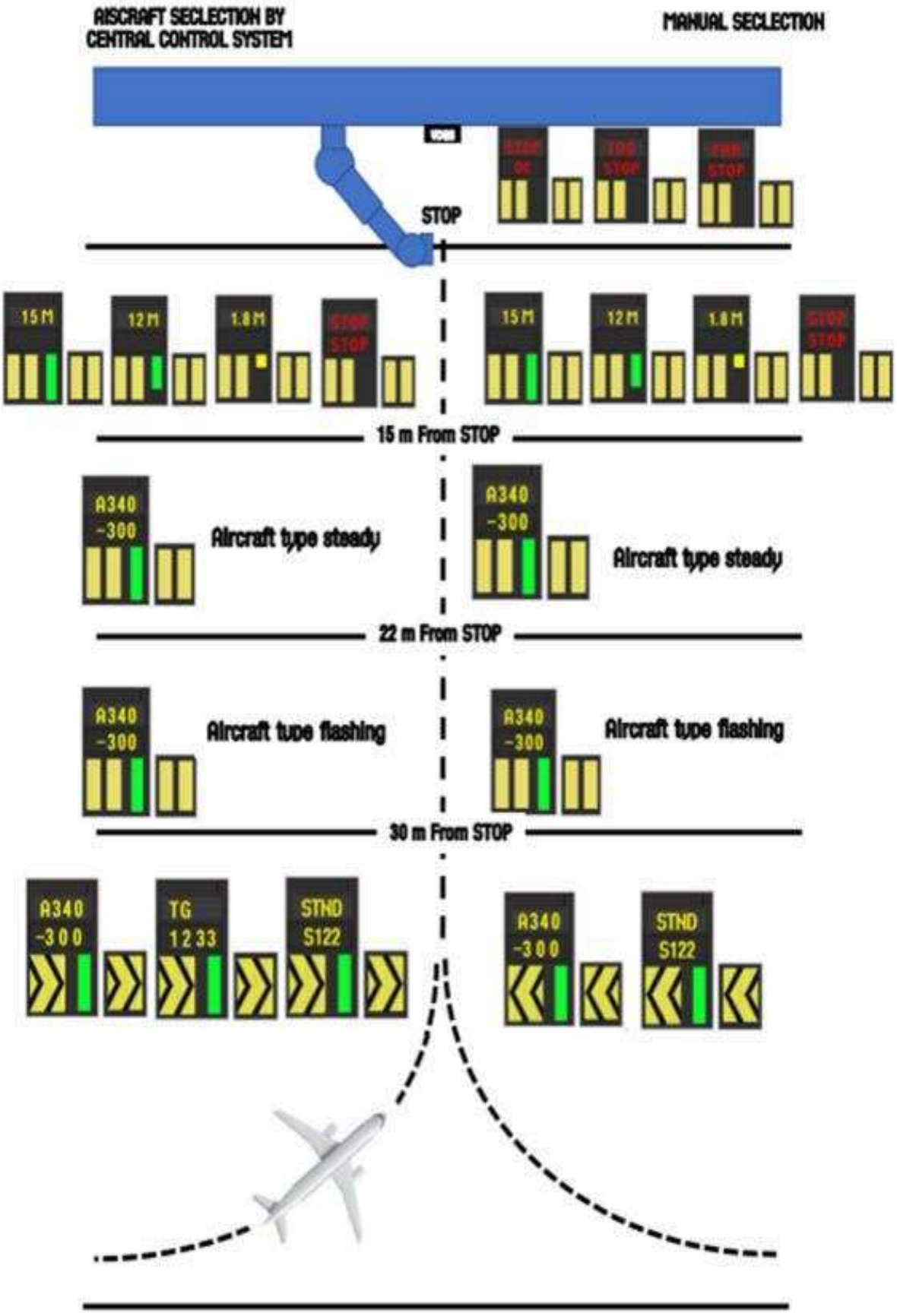

When approaching the centre line, the pilot adjusts the steering in accordance with the direction indicated by the arrow pattern on the azimuth guidance display. When the arrow aligns into a straight line, it confirms that the aircraft is correctly positioned on the centre line.

13.2.3.2 General Warning

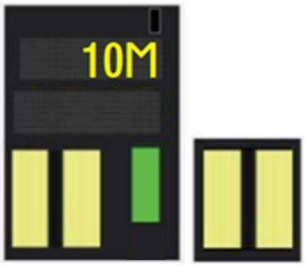
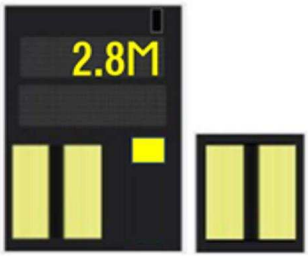
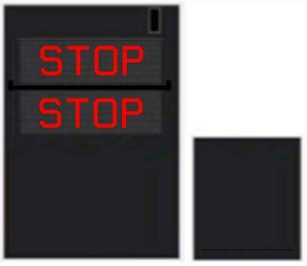
Pilot must stop the aircraft immediately if the display shows:

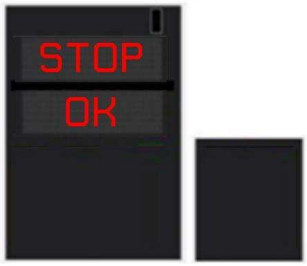
a) Stop
b) Wrong aircraft type/series
c) Azimuth guidance and/or LED display is deactivated

13.2.3.3 Docking Procedures

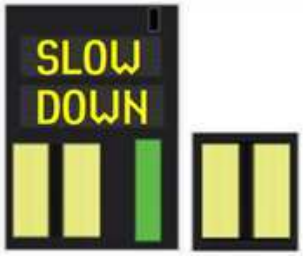


PARKING SEQUENCE:

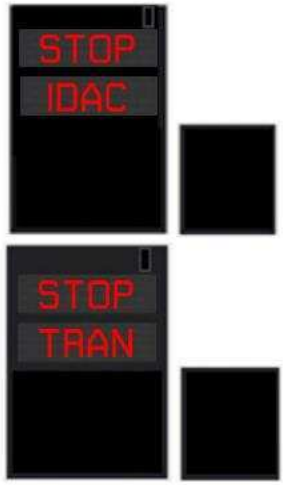
| | |
|---|---|
|  | In this picture the aircraft is at a distance greater than 30 M from the stop position and is directly at the centre line.<br><br>Note that the digital close-in distance is not displayed when the aircraft is greater than 30 M away from the docking position.<br><br>Airbus A320 aircraft is expected. |
|  | In this picture the aircraft is at exactly 15 M from the stop position and is on the centre line. |
|  | In this picture the aircraft is at 10 M and is on the centre line. |
|  | The aircraft is now at 2.8 M from the stop position and is on the centre line.<br><br>Note that at below 3 M, the close-in distance is displayed in 0.2 M decrements. |
|  | Finally, the aircraft is perfectly parked at the stop position, and perfectly centred.<br><br>The word "STOP" is displayed on the first and the second line of the display. |

| | |
|---|---|
|  | When docking is successful.<br><br>The word "STOP" is displayed on the first line and "OK" displayed on the second line |

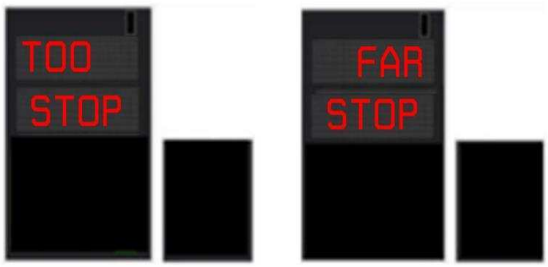
SLOW DOWN:

| | |
|---|---|
|  | During the docking process, the pilot must taxi into the aircraft stand at the minimum speed. If the system detects that the aircraft is moving too quickly, exceeding the preset speed limit for accurate detection, it will display "SLOW" on the first line and "DOWN" on the second line.<br><br>Once the aircraft's speed is reduced to the acceptable range, the "SLOW DOWN" message will be switched back to the numerical close-in distance. |

AIRCRAFT VERIFICATION FAIL:

| | |
|---|---|
|  | For this aircraft verification features, the incoming aircraft must be identified and verified at least 12 M before the stop position or otherwise, the system will display "STOP IDAC" or "STOP TRAN".<br><br>At this point, the aircraft must be manually guided in by a marshaller. |

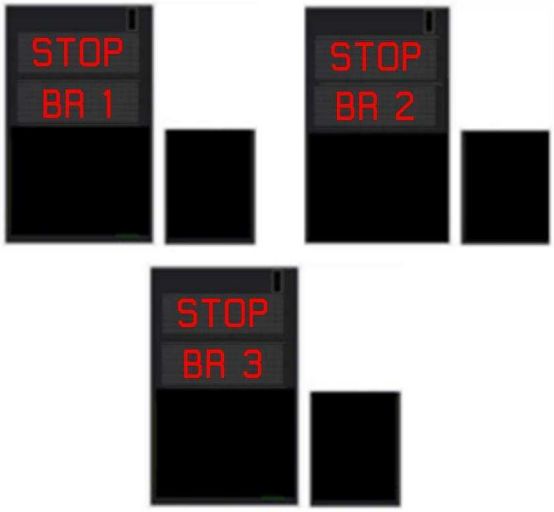
TOO FAR:

| | |
|---|---|
|  | If the aircraft overshoots the preset range (more than 1 M, or 0.5 M for Airbus A380), the system will display "TOO" and "FAR" alternately on the first row of the display.<br><br>The second row of the docking screen will indicate "STOP".<br><br>The aircraft shall stop immediately. |

EMERGENCY STOP:

| | |
|---|---|
|  | When the emergency stop button is activated, the system will display "STOP" on the first row and display "STOP" and "ESTP" alternately on the second row until the button is released.<br><br>When the emergency stop button is released the display will revert to the status it had before the emergency stop was activated. |

BRIDGE IN STOP:

| | |
|---|---|
|  | If the bridge is not in a safe position, the system will display "STOP" on the first row and display "BR1" or "BR2" or "BR3" on the second row.<br><br>Note that "BR1" or "BR2" or "BR3" indicate the mispositioned bridge.<br><br>The aircraft must be stopped until the bridge has been moved to the safe position. |

OBSTACLE STOP:

| | |
|---|---|
|  | If an object is found blocking the view from the VDGS to the planned stop position for the aircraft, the system will display "STOP" on the first row and display "OBST" on the second row.<br><br>When the object is removed, the display will revert to the status it had before. |

ERROR CODE:

| | |
|---|---|
|  | If there is any fault or error, it will stop the docking, and the system will display "STOP" on the first row and display the corresponding error code on the second row.<br><br>At this point, the aircraft must be manually guided in by a marshaller. |

13.3 Overshoot Procedure

Passenger loading bridges will be activated in the range as follows:

a) between 0.01 - 1.50 M are normally serviceable.
b) between 1.51 - 2.00 M, passenger loading bridge (PLB) called "L1" is only serviceable, if the PLB called "L2" is required, the aircraft shall push back to correct stop-position.
c) the distance over 2.00 M, passenger loading bridges are unserviceable, if required the aircraft shall pushed back to correct stop-position.
d) Any overshoot distance is made by A380, push back to correct stop position is needed when passenger loading bridges are required.

Remark: The identification of passenger loading bridge (L1 or L2) is followed by aircraft door positions.

13.4 Emergency Stop Button Information

Emergency stop buttons are available at both of contact gates and remote parking stand. When unsafe situation is considered, the emergency stop button shall be pressed by bridge driver, marshaller or the ground engineer of the airline or handling agent.

Emergency stop buttons are installed in the locations as follows:

a) At the control panel in the bridge cab
b) At the bridge rotunda
c) At the stand identification posts

13.5 For the aircraft parking stands where VDGS are not available or unserviceable, Airlines or Ground service providers shall provide a License Mechanic performed as Marshaller to guide the aircraft from taxilane to the parking position (on stand).

13.6 No pilot shall taxi an aircraft on its own into the parking bay without aid of docking system or a marshaller.

## VTBS AD 2.21 NOISE ABATEMENT PROCEDURES

**1. NOISE ABATEMENT PROCEDURES AT SUVARNABHUMI INTERNATIONAL AIRPORT DETAIL AS FOLLOW:**

1.1 Take-off

All departing aircraft are required to apply noise abatement procedure with thrust reduction at 1 500 FT AGL, And acceleration at 3 000 FT AGL.

1.2 Landing

1.2.1 Flap setting: Set minimum certified landing flaps according to the airplane flight manual for the applicable condition.

1.2.2 Thrust reverser: After landing, limit the use of reverse thrust to idle between 1900 to 2300 UTC, unless it adversely affects the safety of aircraft operation.

1.3 All take-off/landing aircraft are required to adhere noise abatement procedures at Suvarnabhumi International airport strictly.

## VTBS AD 2.22 FLIGHT PROCEDURES

**1. Provision of ATS Surveillance Services**

1.1 Bangkok Approach is responsible for providing ATS Surveillance services to aircraft operating within Bangkok Terminal Control Area and Bangkok Control Zone (see ENR 2.1 BANGKOK TERMINAL CONTROL AREA/CONTROL ZONE)

1.2 Arriving aircraft intending to land at Suvarnabhumi International Airport (VTBS) will be transferred to Suvarnabhumi Arrival on frequency 121.1 MHz.

**2. Approach Procedures**

2.1 All procedures are designed to maximize departure and arrival capacity in Bangkok TMA and to minimize noise disturbance in areas overflown.

2.2 The final approach may be carried out by means of ILS or other available instrument approach system at the discretion of the pilot.

2.3 The spacing provided between aircraft will be designed to achieve maximum runway utilization within the parameters of safe separation minima including vortex effect and runway occupancy. It is important to validity of the separation provide, and to the achievement of optimum runway capacity, that runway occupancy time is kept to a minimum consistent with the prevailing conditions.

2.4 Under the ATS surveillance system, the horizontal separation minimum shall be 5 NM except within Bangkok TMA, Bangkok CTR and Suvarnabhumi ATZ a reduced horizontal separation minimum of 3 NM may be applied.

2.5 Missed approach

2.5.1 As directed by ATC.

2.5.2 In the absence of instructions from ATC, aircraft shall follow the missed approach procedures which contained on the Instrument Approach Charts. (see VTBS AD 2.24)

**3. Standard Instrument Departures/Arrivals (RNAV SIDs/STARs)**

3.1 Aircraft departing from Suvarnabhumi International Airport will normally be assigned the RNAV SIDs detailed as in the table and additional information in VTBS AD 2.24.

| OUTBOUND ROUTES | SIDs NAME | SID VTBS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JET | | | | | | PROPELLER | | | | | |
| | | 20R | 02L | 20L | 02R | 19 | 01 | 20R | 02L | 20L | 02R | 19 | 01 |
| A1, Y14 | SELKA | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |
| Y16 | LIPLI | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |
| G474, L880 | DOSBU | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |
| B204, N506, R468 | GOMES | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |
| N891 | RYN | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |
| R201, M904, Y11 | BUT | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |

| OUTBOUND ROUTES | SIDs NAME | SID VTBS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | JET | | | | | | PROPELLER | | | | | |
| | | 20R | 02L | 20L | 02R | 19 | 01 | 20R | 02L | 20L | 02R | 19 | 01 |
| M757 | KASNI | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |
| A464, M751, W19 | REGOS | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |
| G458 | UKERA | 1E | 1F | 1G | 1H | 1J | 1K | | | | | | |
| | HOTEL | | | | | | | 1P | 1Q | 1R | 1S | 1T | 1U |
| W31 | HHN | 1E | 1F | 1G | 1H | 1J | 1K | | | | | | |
| | HOTEL | | | | | | | 1P | 1Q | 1R | 1S | 1T | 1U |
| Y8 | VANKO | 1E | 1F | 1G | 1H | 1J | 1K | | | | | | |
| M502 | BONVO | 1E | 1F | 1G | 1H | 1J | 1K | | | | | | |
| L301 | PASTO | 1E | 1F | 1G | 1H | 1J | 1K | | | | | | |
| G463, P646 | TARED | 1E | 1F | 1G | 1H | 1J | 1K | | | | | | |
| L507 | NUNLI | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |
| Y26 | OLVUK | 1E | 1F | 1G | 1H | 1J | 1K | | | | | | |
| Y27 | UGUVO | 1E | 1F | 1G | 1H | 1J | 1K | | | | | | |
| A464 | SEMBO | 2E | 2F | 2G | 2H | 2J | 2K | 1P | 1Q | 1R | 1S | 1T | 1U |
| W9 | TL | | | | | | | 1P | 1Q | 1R | 1S | 1T | 1U |
| B346, W21, W39 | NOBER | 2E | 2F | 2G | 2H | 2J | 2K | 1P | 1Q | 1R | 1S | 1T | 1U |
| R474 | ALBOS | 1E | 1F | 1G | 1H | 1J | 1K | 1P | 1Q | 1R | 1S | 1T | 1U |

***Note:*** *Pilots of Non-RNAV equipped aircraft shall inform ATC and request for vectors.*

3.2 Aircraft arriving at Suvarnabhumi International Airport will normally be assigned the RNAV STARs detailed as in the table and additional information in VTBS AD 2.24.

| INBOUND ROUTES | TRANSITION WAYPOINT | STAR VTBS | |
|---|---|---|---|
| | | 19/20L/20R | 01/02L/02R |
| W1, Y1, Y2 | UBLOD | EASTE 1C | EASTE 1D |
| Y13 | RUKSA | | |
| G474, L880 | ANREN | TUMGA 1C | TUMGA 1D |
| M633 | DULEM | | |
| N506, R468 | GOMES | | |
| P629 | NUGPA | | |
| N891 | RYN | | |
| Y12 | ALEMI | | |
| R201 | BUT | | |
| A464, M751, W19 | GUTSO | LEBIM 1C | LEBIM 1D |
| M769, Y98 | SURMA | | |
| G458, W31, Y99 | HOTEL | | |

| INBOUND ROUTES | TRANSITION WAYPOINT | STAR VTBS | |
|---|---|---|---|
| | | 19/20L/20R | 01/02L/02R |
| M502 | BONVO | WILLA 1C | WILLA 1D |
| L301 | PASTO | | |
| L524 | IBETO | | |
| G463, P646 | TARED | | |
| L507 | IGONI | | |
| A464 | SEMBO | NORTA 1C | NORTA 1D |
| W9, Y7, Y28 | TL | | |
| B346, W21, W39 | NOBER | | |
| R474 | ALBOS | | |

***Note:*** *Pilots of Non-RNAV equipped aircraft shall inform ATC and request for vectors.*

**4. Speed Control and Altitude Restrictions Promulgation in Bangkok TMA**

In order to facilitate the air traffic flow procedure of departing and arriving aircraft within Bangkok TMA, speed control procedures and altitude restrictions must be applied to optimize the spacing between aircraft and reduce the overall delay of traffic.

4.1 Speed control

4.1.1 Speed control shall be in force at all times unless otherwise instructed. Pilots will be individually advised by ATC when speed control is cancelled.

4.1.2 All departing and arriving aircraft are to apply speed of not more than IAS 250 KT when flying at or below altitude of 10000 FT.

4.1.3 Departing aircraft shall comply with speed control restrictions as published in the RNAV SIDs Procedures unless otherwise advised by ATC.

4.1.4 Arriving aircraft shall comply with speed control restrictions as published on the RNAV STARs Charts and Instrument Approach Procedures unless otherwise advised by ATC.

4.1.5 En route and terminal holding speed shall be in accordance with ICAO standard holding speeds requirement. Pilots shall resume speed control procedures when leaving the holding fix.

4.1.6 ATC may issue further speed adjustment instructions during various flight phases or/and when required by traffic situation.

4.1.7 All speed restrictions are to be flown as accurately as possible. If unable to conform to these procedures, pilots should immediately inform ATC and state the speed to be used so that an alternative action can be taken.

4.2 Altitude restrictions

When a departing aircraft on a SID is cleared to climb to a level higher than the initially cleared level or the level(s) specified in the SID, the aircraft shall nevertheless follow the published vertical profile, unless such restrictions are explicitly cancelled by ATC.

4.2.1 Departing aircraft intending to cruise below the transition level shall follow an appropriate SID track and comply with individual ATC climb instructions.

4.2.2 When an arriving aircraft on a STAR is cleared to descend to a level lower than the level or the level(s) specified in the STAR, the aircraft shall nevertheless follow the published vertical, unless such restrictions are explicitly cancelled by ATC. Published minimum levels based on terrain clearance shall always be strictly applied.

4.2.3 To facilitate safe traffic integration and provide vertical separation between converging traffic in Bangkok TMA, pilots shall plan their descent profile in accordance with the published STAR procedures or their descent profile against distance to touchdown.

4.2.4 All altitude restrictions are to be flown as accurately as possible. If unable to conform to these restrictions, pilots should immediately inform ATC so that an alternative action can be taken.

**5. TCAS RA Warning**

Avoidance of unnecessary TCAS RA warning, aircraft shall strictly use rate of climb or rate of descent at 1500 FPM or less within 2000 FT to the assigned altitude or flight level, then use rate of climb or rate of descend at 1000 FPM or less within 1000 FT to the

assigned altitude or flight level when flight crew is made aware of another aircraft at or approaching an adjacent altitude or flight level, unless otherwise instructed by ATC.

**6. Operational for safety and more effective Air Traffic Management in Bangkok TMA.**

Suvarnabhumi Departure shall be established to provide Air Traffic Control Service at Suvarnabhumi International airport, the operational procedures shall be as follows:

6.1 All departing aircraft, before transferring to relevant approach sectors, are strictly required to contact Suvarnabhumi Departure on frequency 119.25 MHz immediately after airborne unless otherwise instructed by ATC.

6.2 Pilot shall be reminded that, to reduce communication workload, the departure frequency shall not be included in take off clearance.

**7. Reduce communication workload**

7.1 To reduce communication workload, additional Arrival Control Frequency 126.30 MHz shall be established and used during the congested traffic periods. The control of arriving aircraft shall be transferred from Arrival Control frequency 121.1 MHz to Arrival Control frequency 126.30 MHz.

**8. Delay during severe weather**

8.1 All aircraft may be delayed. Departure/arrival interval will be applied as follows:

a) 4 minutes or more between successive departures on the same SID or between aircraft intending to fly in the direction where severe weather is reported
b) 4 minutes or more between successive arrivals on the same STAR/at the same IAWP or between aircraft intending to fly in the direction where severe weather is reported

8.2 When severe weather has an effect on landing/ take-off, domestic flights intending to land at Suvarnabhumi International Airport may be requested to delay at airport of departure.

**9. VFR Flights at VTBS**

9.1 Special VFR Flight

A pilot wishing to conduct special VFR flight is to call Bangkok Approach on frequency 125.8 MHz for special VFR clearance.

9.2 VFR Entry and Exit Procedures within Bangkok Control Zone

9.2.1 General

a) The VFR entry and exit procedures are designed to enhance the uniformity of light aircraft and helicopter operations under VFR in Bangkok Control Zone.
b) If the communication could not be done through radio frequencies as specified, or the transponder unable to functional operated. The VFR light aircraft and helicopter may not permit to operate.
c) VFR entry and exit procedure charts are the recommended flight paths and altitudes for the purpose of air traffic management.
d) Adherence to charted flight paths and altitudes is not mandatory. ATC may assign flight paths and altitudes other than specified in charts, however, pilot has final authorities to decide whether he or she would comply with it but shall comply with VFR.
e) There is no substitute for alertness while operating under VFR. Pilots still have full responsibility to see and avoid other traffic and maintain adequate distance from clouds. Separation shall be provided in accordance with VFR in Class C airspace.
f) Under some circumstances, suggest heading or change of altitude may be provided when requested by a pilot or whenever deemed necessary by ATC in the interest of safety and with pilot acceptance. Pilots should, as early as practicable, advise ATC if VMC conditions cannot be maintained. ATC shall request pilot’s intentions and revise the instruction as requested or, if unable, issue an alternative clearance as soon as possible.
g) The VFR entry and exit procedures are to be flown only in daylight hours between sunrise to sunset.

9.2.2 VFR entry and exit procedures for light aircraft

a) The procedures for light aircraft are designed for aircraft with speed less than 130 knots.
b) For light aircraft with speed of more than 130 knots, ATC may either authorize the aircraft to follow the prescribed VFR entry and exit procedures or assign flight paths and altitudes. However, pilot has final authorities to decide whether he or she would comply with it but shall always comply with VFR and pilots still have full responsibility to see and avoid other traffic as well as maintain adequate distance from clouds. Separation shall be provided in accordance with VFR in Class C airspace.

c) Table of reporting points for light aircraft

| Reporting Points | Landmark | Radial/DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00" N | 100° 34' 53.00" E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00" N | 101° 03' 05.00" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |
| BANGPU | Sukta Bridge | R-170 / 23.1D | 13° 30' 44.00" N | 100° 39' 44.00" E |
| BANG SAO THONG | Assumption University Suvarnabhumi Campus, Bang Sao Thong | R-141 / 22.0D | 13° 36' 44.00" N | 100° 50' 17.00" E |
| BANG PAKONG | Devahastin Bridge, Bang-na-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BHUMIBOL BRIDGE | Industrial Ring Rd. Interchange between Bhumibol 1-2 Bridge near Lat Pho Canal | R-194 / 14.0D | 13° 40' 03.00" N | 100° 32' 09.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00" N | 100° 20' 38.00" E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00" N | 100° 52' 40.00" E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00" N | 100° 48' 40.00" E |
| LAT BUA LUANG | Singha Beverage Co., Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00" N | 100° 16' 48.00" E |
| PAKNAM | Samuthprakarn Learning Park and Tower | R-179 / 17.6D | 13° 35' 53.82" N | 100° 35' 56.21" E |
| SAMUT SAKHON | Thachalom Roundabout | R-222 / 28.4D | 13° 32' 17.00" N | 100° 16' 20.00" E |
| SUAN LUANG | Rama 9th Park | R-158 / 11.7D | 13° 41' 19.00" N | 100° 39' 48.00" E |

d) VFR ENTRY AND EXIT PROCEDURES FOR LIGHT AIRCRAFT CHART BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R

I) Departure Procedures

EASTBOUND

- BANG SAO THONG [ALT1000] - BANG NAM PRIAO [ALT2500] THEN JOIN VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R 21L/21R
- BANG SAO THONG [ALT1000] - BANG PAKONG [ALT2500] THEN JOIN VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R 21L/21R

SOUTHEASTBOUND

- SUAN LUANG [ALT1000] - PAK NAM [ALT1000] - BANGPU [ALT1000] - KOH SICHANG [ALT3500] or - BANGPAKONG [ALT2500] - KOH SICHANG [ALT3500]
- SUAN LUANG [ALT1000] - PAK NAM [ALT1000] - BANGPU [ALT1000] - BANGPAKONG [ALT2500] - KOH SICHANG [ALT3500]

WESTBOUND

– SUAN LUANG [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - EKACHAI [ALT2500] THEN JOIN VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART BANGKOK/Don Mueang Intl (VTBD) RWY 03L/03R 21L/21R

II) Arrival Procedures

EASTBOUND

– BANG NAM PRIAO [ALT2000] - BANG SAO THONG [ALT1000]
– BANG PAKONG [ALT2000] - BANG SAO THONG [ALT1000]

SOUTHEASTBOUND

– KOH SICHANG [ALT2000] - BANGPU [ALT1000] - PAK NAM [ALT1000] - SUAN LUANG [ALT1000]
– KOH SICHANG [ALT2000] - BANGPAKONG [ALT2000] - BANGPU [ALT1000] - PAK NAM [ALT1000] - SUAN LUANG [ALT1000]

WESTBOUND

– EKACHAI [ALT2000] - BHUMIBOL BRIDGE [ALT1500] - SUAN LUANG [ALT1000]

The details of VFR ENTRY AND EXIT PROCEDURES FOR LIGHT AIRCRAFT CHART BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R are given in VTBS AD 2.24 CHARTS RELATED TO AN AERODROME

e) VFR OVERFLY PROCEDURES FOR LIGHT AIRCRAFT CHART BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R

I) Departure Procedures

HIN KONG [ALT3500] - BANG LUK SUA [ALT2500] - BANG NAM PRIAO [ALT2500] - BANG PAKONG [ALT2500] –KOH SICHANG [ALT3500] – SAMUT SAKHON [ALT2500] - DON FAEK [ALT2500] - BANG LEN [ALT2500] - LAT BUA LUANG [ALT2500] - AYUTTHAYA [ALT2500] - HIN KONG [ALT3500]

II) Arrival Procedures

HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - BANG PAKONG [ALT2000] –KOH SICHANG [ALT2000] – SAMUT SAKHON [ALT2000] - DON FAEK [ALT2000] - BANG LEN [ALT2000] - LAT BUA LUANG [ALT2000] - AYUTTHAYA [ALT2000] - HIN KONG [ALT4500]

The details of VFR OVERFLY PROCEDURES FOR LIGHT AIRCRAFT CHART BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R are given in VTBS AD 2.24 CHARTS RELATED TO AN AERODROME

9.2.3 VFR entry and exit procedures for helicopter

a) Two-way radio communication shall be established as soon as possible or not later than reaching altitude 500 feet above ground level.
b) Departing helicopters taking off from Suvarnabhumi international airport or other heliports or helipads within Suvarnabhumi ATZ shall be advised to contact Suvarnabhumi Tower Control on frequency 118.2 MHz or 119.0 MHz for departing instruction. except helicopters operate within area of responsibility of Royal Thai Police Aviation Division (Tarang) contact BAPP (VFR & Helicopter Control: VHC) on frequency 125.8 MHz.
c) Arriving helicopters intending to land at Suvarnabhumi international airport or other helipads within Suvarnabhumi ATZ shall be advised to contact Suvarnabhumi Tower Control on frequency 118.2 MHz or 119.0 MHz for landing instruction. The completion of landing shall be reported or informed to the appropriate ATS unit as soon as practicable.
d) Those taking off from heliports or helipads within Bangkok Control Zone outside Don Mueang ATZ and Suvarnabhumi ATZ shall contact BAPP (VHC) on frequency 125.8 MHz.
e) Adherence to charted flight paths and altitudes is not mandatory. ATC may assign flight paths and altitudes other than specified in charts, however, pilot has final authority to decide whether he or she would comply with it but shall comply with VFR.
f) Reporting points for helicopter

| Reporting Points | Landmark | Radial/DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00" N | 100° 34' 53.00" E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |

| Reporting Points | Landmark | Radial/DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00" N | 101° 03' 05.00" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |
| BANGPU | Sukta Bridge | R-170 / 23.1D | 13° 30' 44.00" N | 100° 39' 44.00" E |
| BANG SAO THONG | Assumption University Suvarnabhumi Campus, Bang Sao Thong | R-141 / 22.0D | 13° 36' 44.00" N | 100° 50' 17.00" E |
| BANG PAKONG | Devahastin Bridge, Bang-na-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BHUMIBOL BRIDGE | Industrial Ring Rd. Interchange between Bhumibol 1-2 Bridge near Lat Pho Canal | R-194 / 14.0D | 13° 40' 03.00" N | 100° 32' 09.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00" N | 100° 20' 38.00" E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00" N | 100° 52' 40.00" E |
| KHLONG CHAN | Rajamangala National Stadium | R-170 / 8.4D | 13° 45' 17.00" N | 100° 37' 14.00" E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00" N | 100° 48' 40.00" E |
| LAT BUA LUANG | Singha Beverage Co., Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00" N | 100° 16' 48.00" E |
| MINBURI | Bangkok Eastern Outer Ring Rd. Crossing Ram Inthra Rd. | R-133 / 6.4D | 13° 49' 11.00" N | 100° 40' 35.00" E |
| PAKNAM | Samuthprakarn Learning Park and Tower | R-179 / 17.6D | 13° 35' 53.82" N | 100° 35' 56.21" E |
| SUAN LUANG | Rama 9th Park | R-158 / 11.7D | 13° 41' 19.00" N | 100° 39' 48.00" E |

g) VFR ENTRY AND EXIT PROCEDURES FOR HELICOPTER CHART BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R

I) Departure Procedures

WESTBOUND

- SUAN LUANG [ALT1000] - MINBURI [ALT1000] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R
- SUAN LUANG [ALT1000] - KLONGCHAN [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R
- SUAN LUANG [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R
- SUAN LUANG [ALT1000] - PAKNAM [ALT1000] - EKACHAI [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R
- SUAN LUANG [ALT1000] - PAKNAM [ALT1000] - BANGPU [ALT1000] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R

EASTBOUND

- BANG SAO THONG [ALT1000] - BANG NAM PRIAO [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R

– BANG SAO THONG [ALT1000] - BANG PAKONG [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R

II) Arrival Procedures

WESTBOUND

– MINBURI [ALT1000] or KLONGCHAN [ALT1500] or BHUMIBOL BRIDGE [ALT1500] or PAKNAM [ALT1000] - SUAN LUANG [ALT1000]

EASTBOUND

– BANG NAM PRIAO [ALT1500] or BANG PAKONG [ALT1500] - BANG SAO THONG [ALT1000]

The details of VFR ENTRY AND EXIT PROCEDURES FOR HELICOPTER CHART BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R are given in VTBS AD 2.24 CHARTS RELATED TO AN AERODROME

h) VFR OVERFLY PROCEDURES FOR HELICOPTER CHART BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R

I) Departure/Arrival Procedures

HIN KONG [ALT1500] - BANG LUK SUA [ALT1500] - BANG NAM PRIAO [ALT1500] - BANG PAKONG [ALT1500] -BANGPU [ALT1000] - PAK NAM [ALT1000] - EKACHAI [ALT1500] - DON FAEK [ALT1500] - BANG LEN [ALT1500] - LAT BUA LUANG [ALT1500] - AYUTTHAYA [ALT1500] - HIN KONG [ALT1500]

Helicopter within Bangkok Control Zone can join all suitable reporting points in VFR ENTRY AND EXIT PROCEDURES FOR HELICOPTER CHART (BANGKOK/DON MUEANG INTL (VTBD) RWY 03L/03R 21L/21R and BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R

The details of VFR ENTRY AND EXIT PROCEDURES FOR HELICOPTER CHART BANGKOK/SUVARNABHUMI INTL (VTBS) RWY 19/20L/20R 01/02L/02R are given in VTBS AD 2.24 CHARTS RELATED TO AN AERODROME

9.3 Radio Communication Failure for VFR flights

9.3.1 Departing aircraft

Aircraft will not be permitted to take off unless two-way radio communications can be maintained with the control tower.

9.3.2 Arriving aircraft

a) Report their position, distance, heading and altitude as well as departure point when approaching 50 NM from BKK VOR by blind transmission.
b) Observe the direction of traffic in pattern and enter downwind with the flow of traffic.
c) Conform to the altitude for the type of aircraft as listed in Note below.
d) Make a low approach along the runways at an altitude of 500 FT, and rock the wings of the aircraft.
e) Re-enter downwind leg and observe light signals.

***Note:***

*a) Jet aircraft 1500 FT*
*b) Light aircraft 1000 FT*
*c) Helicopter 500 FT*

**10. ATC Clearance Procedures**

10.1 Issuance of en route clearance

10.1.1 When flight formalities have been completed and aircraft is ready for departure (all doors are closed), all aircraft are to call Suvarnabhumi Clearance Delivery Control (CDC) for ATC clearance on the following frequencies:

| Frequency | Outbound routes |
|---|---|
| 128.7 MHz | A464 (Northbound), A464 (Southbound), B346, G458, G463, L301, L507, M502, M751, M757, P646, R474, W9, W19, W21, W31, W39, Y8, Y26, Y27 |
| 133.8 MHz | A1, B204, G474, L880, M904, N506, N891, R201, R468, Y11, Y14, Y16 |

Remark: IFR aircraft departing to VTBD, VTBU, VTBK, VTBL, VTPI and VTPH at or below FL160 are to call Bangkok Approach on 125.8 MHz

10.1.2 When requesting ATC Clearance, Pilots are to inform the following information:

a) Call sign
b) Type of aircraft
c) Destination
d) Route
e) Proposed flight level, if different from the filed flight plan and,
f) When applicable, special requirements (e.g. inability to comply with SID climb profile).

10.1.3 To improve tactical management of air traffic, minimize delay, as well as reduce controllers and pilots workload, the following procedure will be applied:

a) Under normal circumstances, altitude 6000 FT shall be initially assigned.
b) First airborne first flight level selection principle.
c) No on-ground flight level negotiation and reservations.
d) Cruising level shall be assigned by Bangkok Control after airborne.

10.2 Departure Time Restriction

10.2.1 Departure time restrictions may be imposed for Air Traffic Management when so required.

10.2.2 When ATC clearance includes departure time restrictions, pilots shall:

a) Keep listening watch on relevant Suvarnabhumi Ground Control frequency at all times for additional or revised ATC clearance and in readiness for push back; and
b) Call Ground Control in the appropriate time with the departure time restriction.

10.3 Cancellation of en route clearance

10.3.1 Once an ATC clearance has been received, unless there is a departure time restriction included in ATC clearance or other restriction resulting from Air Traffic Management, the aircraft must be push back within 5 minutes from the time ATC clearance is received otherwise the ATC clearance will be cancelled. Additionally, in order to provide a more flexible ground traffic movement, all domestic departures shall no longer be required to push back within 5 minutes after clearance received.

10.3.2 Pilot who fail to comply with para. 10.2.2 will result in cancellation of ATC clearance.

10.4 After ATC clearance received, pilot shall contact defined ground control frequency according to the parking stand for start-up and push back.

**11. Departure Clearance (DCL) via Data Link**

11.1 Application of DCL Service

11.1.1 The DCL Service will be applied to flights departing from Suvarnabhumi Airport on the following ATS Routes:

a) Southbound: A464, M751, M757, R201, M904, W19, W31, G458, Y8, Y11

b) North-Eastbound: A1, Y16, Y14

c) Eastbound: G474, R468, N891, B204, N506, L880

d) Northbound: A464, R474, W9, W21, W39, B346, Y26, Y27

e) Westbound: G463, L301, L507, M502, P646

11.1.2 The DCL Service will be applied under the following principles:

a) Under normal circumstances, 6 000 ft shall be initially assigned.

b) First airborne, first flight level selection principle.

c) No on-ground flight level negotiation and reservations.

d) Cruising level shall be assigned by Bangkok Control after airborne.

11.1.3 With DCL operations, the request for departure clearance will be initiated by the pilot. After satisfactory verification of the request, the DCL system will respond with the departure clearance message.

11.1.4 All DCL messages (such as departure clearance request, departure clearance response and departure clearance read back) between aircraft and DCL system will be exchanged in accordance with the Airlines Electronic Engineering Committee (AEEC) Specification 623 (AEEC623: Character-Oriented Air Traffic Service Applications) for departure clearance and transmitted via data link service providers, between the aircraft and the DCL system directly.

11.1.5 The DCL service does not provide clearance revisions. Any revision to the clearance issued via Data Link will be made by ATC through voice communications.

11.1.6 Clearance request through VHF using the existing voice communications is still available for application under the DCL service.

11.2 Operators' Equipment

11.2.1 Aircraft need to be equipped with Aircraft Communications Addressing and Reporting System (ACARS) equipment and compliant with AEEC623 may utilize the DCL via Data Link.

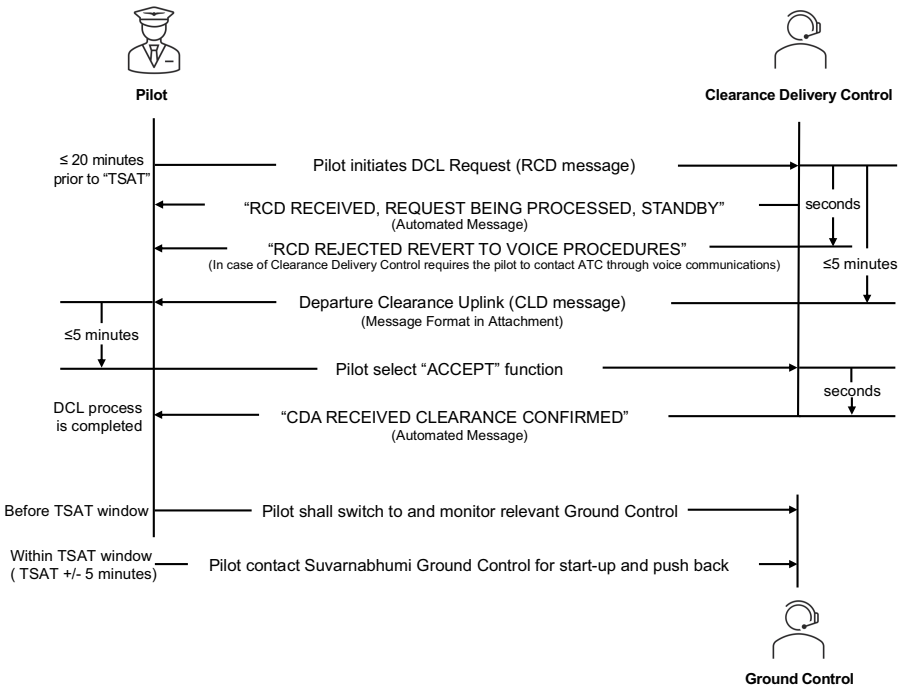
11.3 DCL via Data Link Procedures

11.3.1 Pilot should initiate a Departure clearance request (RCD) no earlier than 20 minutes prior to Target Start-up Approval Time (TSAT), using ICAO call sign as filed flight plan and select the departure airport as "VTBS".

11.3.2 Pilot will receive a message ("RCD RECEIVED, REQUEST BEING PROCESSED, STANDBY") to inform that DCL uplink message (CLD) will be delivered shortly.

11.3.3 Within 5 minutes after receiving the DCL uplink message (CLD), pilot shall select the "ACCEPT" function on the flight deck to acknowledge the departure clearance via Data Link.

11.3.4 Upon reception of clearance acceptance, pilot will receive a confirmation message ("CDA RECEIVED CLEARANCE CONFIRMED") completing en-route clearance.




Visualization of DCL

11.3.5 Examples of message formats:

1) Departure Clearance Request (RCD):

DCL Request Message from the aircraft for the initiation of departure clearance process.

```
RCD 000
THA475-VTBS-GATE C3-YSSY
ATIS C
-TYP/A359
```

- Flight System Message (FSM): An automated message from the system.

```
FSM 0306 240724 VTBS
THA475 RCD RECEIVED
REQUEST BEING PROCESSED
STANDBY
```

- Flight System Message (FSM): In case of Clearance Delivery Control requires the pilot to contact ATC through voice communications.

```
FSM 0306 240724 VTBS
THA475 RCD REJECTED
REVERT TO VOICE PROCEDURES
```

2) Departure Clearance Uplink (CLD):

Departure Clearance Uplink Message from ground system (by Clearance Delivery Control) containing departure clearance.

```
CLD 0152 240705 VTBS PDC 918
THA475 CLRD TO YSSY OFF 20L VIA BUT1G M904 ALT060
SQUAWK 0734
```

or

```
CLD 0152 240705 VTBS PDC 918
THA475 CLRD TO YSSY OFF 20L VIA BUT1G M904 ALT060
SQUAWK 0734
CTOT 0210
```

3) Departure Clearance Readback Downlink (CDA):

DCL Readback Message from aircraft.

```
CDA 0152 240705 VTBS PDC 918
THA475 CLRD TO YSSY OFF 20L VIA BUT1G M904 ALT060
SQUAWK 0734
```

Flight System Message (FSM): An automated message from the system indicating the DCL process is completed.

```
FSM 0732 240724 VTBS
THA475 CDA RECEIVED
CLEARANCE CONFIRMED
```

11.4 Contingency Procedure

If there is any problem with the data link exchanges, pilot shall request the clearance through voice communications using the frequencies specified in Section 10.1.1.

## 12. Fuel Dumping Procedure and In-flight Management Procedures

12.1 Introduction

An aircraft in emergency or other urgent situations may need to dump fuel so as to reduce to maximum landing mass in order to affect a safe landing.

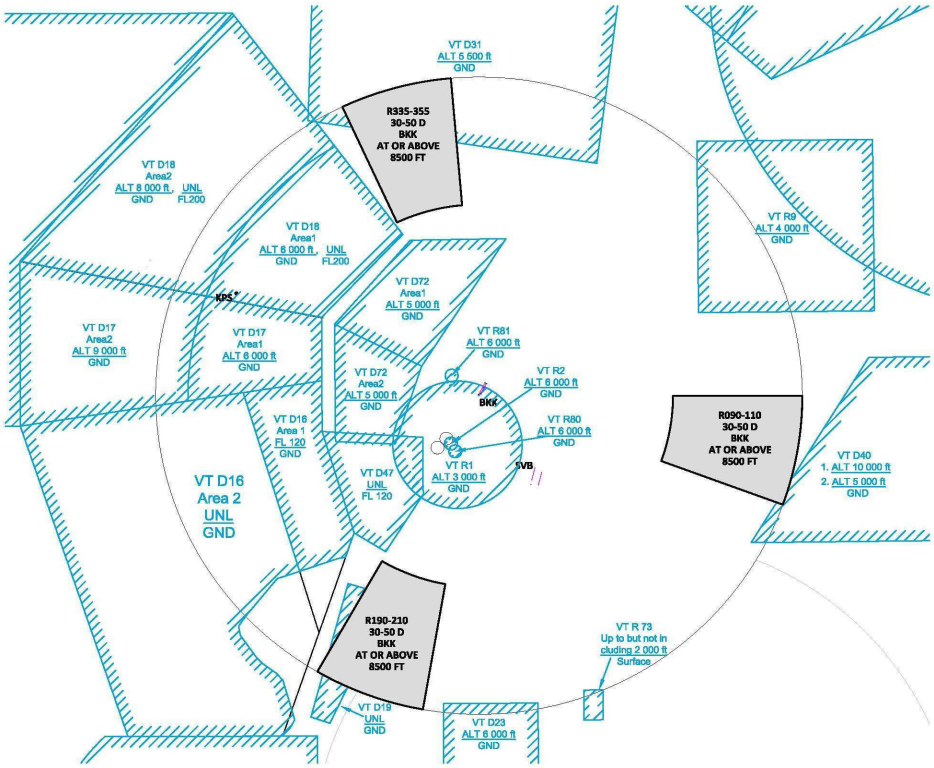
12.2 Fuel dumping areas

12.2.1 North fuel dumping area: between R-335 and R-355, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500 FT.

12.2.2 East fuel dumping area: between R-090 and R-110, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500 FT.

12.2.3 South fuel dumping area: between R-190 and R-210, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500 FT.

**Illustration of Fuel dumping areas**




12.3 In-flight fuel management procedures

12.3.1 Definition

Minimum fuel: The term used to describe a situation in which an aircraft's fuel supply has reached a state where the flight is committed to land at a specific aerodrome and no additional delay can be accepted.

Mayday fuel: Describes the nature of the distress conditions when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel

12.3.2 Actions taken by pilot

12.3.2.1 The pilot-in-command shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome where a safe landing can be made with the planned final reserve fuel remaining upon landing.

12.3.2.2 The pilot-in-command shall request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome with less than the final reserve fuel plus the fuel required either to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome.

12.3.2.3 The pilot-in-command shall advise ATC of a minimum fuel state by declaring "MINIMUM FUEL" when, having committed to land at a specific aerodrome, the pilot calculates that any changes to the existing clearance to that aerodrome may result in landing with less than planned final reserve fuel.

***Note 1:*** *The declaration of "MINIMUM FUEL" informs ATC that all planned aerodrome options have been reduced to a specific aerodrome of intended landing and any changes to the existing clearance may result in landing with less than planned final reserve fuel. This is not an emergency situation but an indication that an emergency situation is possible should any additional delays occur.*

***Note 2:*** *It should be noted that Pilots should not expect any form of priority handling as a result of a "MINIMUM FUEL" declaration. ATC will, however, advise the flight crew of any additional expected delays as well as coordinate when transferring control of the aircraft to ensure that other ATC units are aware of the flight's fuel state.*

12.3.2.4 The pilot-in-command shall declare a situation of distress related to the amount of fuel available on board the aircraft by broadcasting "MAYDAY, MAYDAY, MAYDAY, FUEL" when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel.

***Note 1:*** *The planned final reserve fuel refers to the value calculated in Annex 6 - Operation of Aircraft, Chapter4, item 4.3.6.3 e) 1) or 2) and is the minimum amount of fuel required upon landing at any aerodrome.*

***Note 2:*** *The words "MAYDAY FUEL" describe the nature of the distress conditions as required in Annex 10, Volume II, Chapter 5, Item 5.3.2.1, b) 3).*

***Note 3:*** *Guidance on procedures for in-flight fuel management is contained in the Fuel Planning Manual (Doc 9976).*

12.3.3 Actions taken by ATC

12.3.3.1 When a pilot reports a state of "MINIMUM FUEL", ATC shall respond to the pilot who indicates or suggests that he is becoming short of fuel or who has declared "MINIMIM FUEL" as follows:

12.3.3.1.1 Inform the pilot of either:

a) The estimated delay, if pilots are en-route to, joining or are established in holding point such as IAWPs; or
b) The estimated track mileage, if pilots are being vectored to an instrument approach; or

12.3.3.1.2 Coordinate when transferring control of the aircraft to ensure other ATC units to be aware of the flight's fuel state.

12.3.3.1.3 Standard phraseology

Pilot transmission: (C/S), MINIMUM FUEL
Controller transmission: (C/S), ROGER [NO DELAY EXPECTED or EXPECT (delay information)]

12.3.3.2 When a pilot reports a state of "MAYDAY, MAYDAY, MAYDAY FUEL". This is an emergency and the aircraft shall be given priority over other traffic in the landing sequence. The aircraft will be committed to a landing, as in the event of any delay or a go-around, there may be insufficient fuel remaining for a safe landing.

12.3.3.2.1 Standard phraseologies

Pilot Transmission: (C/S) MAYDAY, MAYDAY, MAYDAY FUEL
Controller transmission: (C/S) ROGER MAYDAY

**13. Aircraft Transponder Failure Procedures**

13.1 Control of aircraft experiencing transponder failure procedure.

13.1.1 When a transponder failure is detected to be unserviceable prior to departure, ATC shall confirm with the pilot of his transponder operations using the following phraseologies.

Phraseologies
"C/S, CONFIRM TRANSPONDER ON", or
"C/S, CHECK YOUR TRANSPONDER OPERATED NORMALLY", or
"C/S, TRANSPONDER NOT RECEIVED, CHECK FUNCTIONALITY"

When it has been confirmed that aircraft transponder fails, ATC shall advice the pilot to repair it before departure. However, the surface surveillance blind spot, where the transponder might not be easily detected, should be taken into consideration.

Phraseologies
"C/S, ADVISE TRANSPONDER REPAIRED BEFORE DEPARTURE", or
"C/S, ADVISE RETURN TO BAY FOR TRANSPONDER REPAIRING"

13.1.2 When transponder appears to be unserviceable after the aircraft is airborne, ATC must inform the pilot of his transponder failure using the following phraseologies.

Phraseologies
"C/S, CONFIRM TRANSPONDER ON", or
"C/S, CHECK YOUR TRANSPONDER OPERATED NORMALLY", or
"C/S, TRANSPONDER NOT RECEIVED, CHECK FUNCTIONALITY"

When it has been confirmed that the aircraft transponder fails, ATC shall advice the pilot to return to his departure airport as well as relay all necessary information to Aerodrome Control Tower and all concerned units.

Phraseologies

"C/S, ADVISE RETURN TO LAND AT (DEPARTURE AERODROME) FOR TRANSPONDER REPAIRING, REQUEST YOUR INTENTION",
"C/S, ADVISE RETURN TO BAY FOR TRANSPONDER REPAIRING"

In case pilot decide to proceed to first intended landing or nearest suitable aerodrome, primary radar separation shall be provided. However, the pilot shall be reminded that delays can be expected and some requests might not be granted e.g. route to be flown, cruising altitude/level.

13.2 Control of aircraft overflying Bangkok FIR or aircraft intending to land at Suvarnabhumi International Airport with its failed transponder procedure

13.2.1 ATC must immediately inform the pilot of his transponder failure so that he could check its operations and repair it.

13.2.2 ATC shall control, according to the filed flight plan, the aircraft experiencing transponder failure to land safely at Suvarnabhumi International Airport.

13.2.3 ATC shall control, according to the filed flight plan, the over-fly aircraft experiencing transponder failure to land safely at the destination aerodrome.

13.2.4 Approach Control shall coordinate closely with Suvarnabhumi Tower and/or other concerned units regarding the problem.

13.3 The above procedures shall be applied to all aircraft except state aircraft and military aircraft.

13.4 Aircraft intending to land at Suvarnabhumi International Airport with its failed transponder might be assigned to fly along an RNAV STAR and controlled solely by Suvarnabhumi PSR which normally covers up to 40 nm.

**14. Radio communication failure procedure**

14.1 General

14.1.1 Radio communication is considered to be failed, if during two minutes that the pilot or the ATC unit doesn't answer the repeated calls through all available communication channels.

14.1.2 The transponder is set to be Mode A code 7600 as soon as the pilot has detected communication failure.

14.1.3 The pilot shall use all available facilities to re-establish communication with ATC unit directly or by means of the other aircraft. If necessary, the emergency frequency 121.5 MHz may be used.

14.1.4 In any case of radio communication failure, the pilot shall continue listening on the appropriate radio frequency and transmitting the position reports, actions and flight conditions. The pilot shall comply with one of the following procedures.

14.2 Total radio communication failure for arriving aircraft

14.2.1 If in VMC, continue to fly in VMC and land at the nearest suitable aerodrome.

14.2.2 If in IMC or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with para 13.2.1 above, the pilot shall:

14.2.2.1 If a specific STAR procedure has been designated and acknowledged prior to the occurrence of radio communication failure, comply with the radio communication failure procedures.

Proceed according to the STAR route to the termination point (ATKIN/ESGEN for RWY 19/20L/20R or BOGAS/ENKAA for RWY 01/02L/02R) and descend in accordance with the published all speed and altitude restrictions of the relevant STAR procedure, thence:

a) For RWY 19/20L/20R:

- After passing ATKIN, the pilot shall fly heading 015 and maintain altitude 6 000 FT for next 10 NM, then turn right and descend to 1 600 FT and carry out the appropriate approach procedure.

- After passing ESGEN, the pilot shall fly heading 015 and maintain altitude 6 000 FT for next 10 NM, then turn left and descend to 1 600 FT and carry out the appropriate approach procedure.

b) For RWY 01/02L/02R:

- After passing BOGAS, the pilot shall fly heading 195 and maintain altitude 6 000 FT for next 10 NM, then turn left and descend to 1 600 FT and carry out the appropriate approach procedure.

- After passing ENKAA, the pilot shall fly heading 195 and maintain altitude 6 000 FT for next 10 NM, then turn right and descend to 1 600 FT and carry out the appropriate approach procedure.

14.2.2.2 If no specific STAR procedure has been designated or acknowledged prior to the occurrence of radio communication failure, endeavor to ascertain the landing direction from any available means in para 13.5 below. The pilot then should proceed in accordance with

the STAR procedure appropriate to its ATS route and landing direction and comply with the radio communication failure procedures.

14.2.3 When an arriving aircraft is being vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure. Pilot should proceed in the most direct manner possible to rejoin the STAR procedure appropriate to its ATS route and landing direction.

14.2.4 Pilots should ensure that they remain at or above the minimum sector altitude. If the aircraft is below the minimum sector altitude, pilots shall immediately climb to the minimum sector altitude.

14.3 Total radio communication failure for missed approach aircraft

14.3.1 The pilot shall set the aircraft transponder to Mode A code 7600 and fly to or proceed direct to (in case of vectoring) the appropriate approach holding point at the minimum holding altitude and hold.

14.3.2 The pilot then shall complete one holding then start commencing an appropriate approach procedure and landing direction in accordance with para 14.5 below.

14.3.3 The pilot shall descend and maintain 3 500 FT and proceed direct to Intermediate Fix (IF), after IF continue to commence an appropriate approach procedure.

14.4 Partial radio communication failure for arriving aircraft

14.4.1 Aircraft unable to receive: pilots shall adopt the total radio communication failure procedures specified in para 14.2 above.

14.4.2 Aircraft able to receive: following verification that aircraft is able to receive ground transmissions by squawk ident, ATC will continue to issue and repeat instructions and/or clearance to the pilot.

14.5 Identification of Runway in use

14.5.1 A pilot endeavors to obtain information on the landing runway from the following sources: ATIS, D-ATIS, ACARS, satellite phone, etc.If unable, the pilot should rely on the best available information such as aerodrome weather forecasts, meteorological reports or any other relevant information obtained prior to the communication failure and should decide on the most appropriate landing direction.

14.5.2 To assist the pilot in ascertaining the landing direction, the ILS and approach lighting for the runway in use will be switched on. If the approach lights for the runway-in-use are sighted but the ILS signal is not received, the pilot shall assume that the ILS is inoperative and shall proceed to land on the runway on which the approach lights have been sighted.

14.6 Total radio communication failure for departing aircraft

14.6.1 The pilot shall set the aircraft transponder to Mode A Code 7600 and comply with the last acknowledged clearance up to the next reporting point on the SID, then climb to the planned cruising level in accordance with the published speed and altitude restrictions of the relevant SID procedure. Thereafter, the pilot shall comply with the flight planned routing.

14.6.2 Whenever a pilot experiences total radio communication failure immediately after departure and it is deemed unsafe for the flight to continue to its destination, the pilot shall adhere to the procedures below:

14.6.2.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

14.6.2.2 The pilot shall comply with the last assigned altitude in accordance with the published speed and altitude restrictions of the relevant SID procedure.

14.6.2.3 The pilot shall climb/descend to maintain 8 500 FT for 2 minutes then proceed direct to BKK VOR and hold. If fuel dumping is necessarily required before making an approach to land, after maintaining altitude at 8 500 FT for 2 minutes, the pilot shall proceed to the nearest suitable fuel dumping area and start dumping fuel. When it is completed, the pilot must fly direct to BKK VOR and hold.

14.6.2.4 The pilot is required to make a left holding pattern over BKK VOR with inbound course 120 and one minute leg to complete one holding then start commencing an appropriate approach procedure and landing direction in accordance with para 14.5 above.

14.7 Partial radio communication failure for departing aircraft

14.7.1 Aircraft unable to receive: pilots shall adopt the total radio failure procedures specified in para 14.6.2 above.

14.7.2 Aircraft able to receive: following verification that aircraft is able to receive ground transmissions by squawk ident, ATC will continue to issue and repeat instructions and/or clearances to the pilot.

14.8 Aircraft overflying Bangkok TMA

14.8.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

14.8.2 If in VMC, the pilot shall continue to fly in VMC and land at the nearest suitable aerodrome.

14.8.3 If in IMC, or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with para 14.8.2 above, the pilot shall maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of ten minutes following the aircraft's

failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan.

14.9 Departing or overflying aircraft

14.9.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

14.9.2 The pilot shall maintain the last assigned heading, speed and level, or minimum flight altitude if higher, for a period of two minutes following:

14.9.2.1 The time the last assigned level or minimum flight altitude is reached; or

14.9.2.2 The time the transponder is set to 7600; or

14.9.2.3 The aircraft's failure to report its position over a compulsory reporting point. Whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan.

14.9.3 After a period of two minutes, the pilot shall proceed in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight planned route no later than the next significant point, taking into consideration to the applicable minimum flight altitude.

14.10 Alternative methods for communicating with ATC
Pilots may endeavour to communicate with ATC by telephone network.
The telephone numbers are as follows:

- Don Mueang Tower Tel: +662 515 3282, +662 515 3288, +6681710 7449
- Suvarnabhumi Tower Tel: +662 131 3612, +6681 920 5107
- Bangkok Approach Tel: +662 131 3621-2, +6685 150 2288 and +6685 150 3300

**15. SIMULTANEOUS PARALLEL RUNWAY OPERATIONS**

15.1 Introduction

15.1.1 Simultaneous parallel runway operations, including Simultaneous Dependent Parallel Approaches (SDPA), Simultaneous Independent Parallel Approaches (SIPA), and Simultaneous Independent Parallel Departures (SIPD), aim to optimize runway utilization and enhance air traffic efficiency.

15.2 Simultaneous Dependent Parallel Approaches – SDPA

15.2.1 SDPA are simultaneous approaches to parallel or near-parallel instrument runways where separation minima, based on ATS surveillance systems, are prescribed between aircraft on adjacent extended runway centerlines.

15.2.2 SDPA shall be implemented at all times except during periods when the SIPA procedure is in operation. No notification will be provided via ATIS.

15.3 Simultaneous Independent Parallel Approaches – SIPA

15.3.1 To ensure safe operations between aircraft on parallel approaches, Normal Operating Zones (NOZ) are established for each extended runway centerline, and a No Transgression Zone (NTZ) is established between the NOZs.

15.3.2 The applicable instrument approach procedures for SIPA at Suvarnabhumi International Airport are as follows.

| | |
|---|---|
| ILS z RWY01 | RNP RWY01 |
| - | RNP RWY02L |
| ILS z RWY02R | RNP RWY02R |
| ILS z RWY19 | RNP RWY19 |
| ILS z RWY20L | RNP RWY20L |
| - | RNP RWY20R |

15.3.3 RNP approach procedures.

a) RNP APCH (LNAV) procedures are NOT authorized during simultaneous operations.
b) The use of Flight Director (FD) or Autopilot (AP) providing RNP track guidance is required during simultaneous operations. FMS functionality to intercept the runway centerline after radar vectoring is also required.

15.3.4 Air Traffic Control Officer (ATCO) will vector arriving flights from the last waypoint of the respective STARs to the corresponding NOZs.

15.3.5 Within the NOZ, ATCO shall provide a minimum vertical separation of 1,000 feet or 3 NM surveillance separation between pairs of

aircraft until both aircraft are established on the ILS localizer course or RNP final approach course.

15.3.6 All approaches will be monitored by a Flight Monitoring Controller (FMC) to ensure that, when 1,000 feet separation or 3 NM surveillance separation is reduced, arriving aircraft do not penetrate the NTZ towards another aircraft on the adjacent ILS localizer course or RNP final approach course.

15.3.7 Each pair of parallel approaches has a "high side" and a "low side" to maintain vertical separation until both aircraft are established inbound on their respective instrument approach procedures. Aircraft must be established at the designated "high side" or "low side" altitude before receiving vectors for the ILS localizer course or RNP final approach course.

15.3.8 Aircraft can expect the following radiotelephony phraseologies:

a) Radar vector to intercept and follow the ILS localizer course or RNP final approach course:
**"TURN LEFT (RIGHT) HEADING (three digits), DESCEND AND MAINTAIN (altitude), REPORT ESTABLISHED** ON THE LOCALIZER (or FINAL APPROACH COURSE) RUNWAY (number)"
b) Radar vector to intercept and clear for the ILS approach or RNP approach:
**"TURN LEFT (RIGHT) HEADING (three digits), DESCEND AND MAINTAIN (altitude), CLEARED FOR ILS z APPROACH (or RNP APPROACH) RUNWAY (number)"**

15.3.9 Breakout maneuver

15.3.9.1 When an aircraft is observed deviating from the ILS localizer course or RNP final approach course toward the NTZ but remains within the NOZ, ATCO will instruct the aircraft to return immediately to the correct course using the following phraseology:
**"OBSERVING YOU ARE LEFT (or RIGHT) OF THE LOCALIZER (or FINAL APPROACH COURSE), TURN RIGHT (or LEFT) IMMEDIATELY AND REJOIN THE LOCALIZER (or FINAL APPROACH COURSE)"**

15.3.9.2 When an aircraft is observed penetrating or at risk of penetrating the NTZ:

a) Firstly, ATCO will instruct the aircraft on the adjacent ILS localizer course or RNP final approach course to alter its course to avoid the deviating aircraft with the following phraseology:
**"TRAFFIC ALERT, TURN RIGHT (or LEFT) IMMEDIATELY HEADING (degrees), CLIMB AND MAINTAIN** (altitude) TO AVOID TRAFFIC"
b) Secondly, ATCO will instruct the deviating aircraft to turn away from NTZ immediately for avoidance action, with the following phraseology:
**"YOU HAVE CROSSED THE LOCALIZER (or FINAL APPROACH COURSE), TURN RIGHT (or LEFT) IMMEDIATELY HEADING (three digits), CLIMB AND MAINTAIN (altitude) TO AVOID TRAFFIC"**
**Or**
**"TURN RIGHT (or LEFT) IMMEDIATELY HEADING (three digits), CLIMB AND MAINTAIN (altitude) TO AVOID TRAFFIC"**

15.3.10 No heading instructions will be issued to an aircraft below 400 feet above the threshold elevation.

15.3.11 The operation of SIPA to parallel runways and expected instrument approach procedures will be broadcast on Arrival ATIS (133.6 MHz) during active period.

15.4 Simultaneous Independent Parallel Departures – SIPD

15.4.1 The design of RNAV SIDs permits SIPD in compliance with DOC 9613 requirements.

15.4.2 SIPD will be conducted from runways 19 & 20L/20R or 01 & 02L/02R. Pilots must strictly adhere to the published initial climb segments, whether using conventional navigation or RNAV1.

15.4.3 The operation of SIPD from parallel runways will be broadcast on Departure ATIS (127.65 MHz) during active period.

15.5 Conditions for operations

15.5.1 The simultaneous parallel runway operations may be suspended in the event of adverse weather conditions, potentially causing a missed approach, or any other conditions that affect the safe conduct of SDPA or SIPA to parallel runways or SIPD from parallel runways.

## VTBS AD 2.23 ADDITIONAL INFORMATION

**1. Pilot Advisory**

When landing on Runway 19 with winds from the west, aircraft may be affected by turbulence in the vicinity of the building structures (Ground Run-Up Enclosure: GRE). The geographic coordinates of GRE are as follows: 134216.9N 1004552.0E.

**2. Bird concentrations**

2.1 Bird concentrations in the vicinity of Suvarnabhumi International Airport.

2.1.1 It has been observed that migratory birds in sizeable numbers appear on or in the vicinity of Suvarnabhumi International Airport mostly during the rainy season (May to October) and the winter season (October to February), while the resident birds are present in variable

numbers every month. Pilots are requested to report bird strikes to the General Manager of the airport via

Wildlife Hazard Control staff contact information as below:

Phone +666 3234 4009, +662 132 6981, +662 132 6982
E-mail: birdstrikevtbs@airportthai.co.th

Species which account for high to very high to bird strike risk are as follows:

| Species | Weight (KG) | Period |
|---|---|---|
| Rock Pigeon (Columba livia) | 0.270 - 0.380 | All year |
| Little Cormorant (Phalacrocorax niger) | 0.360 – 0.530 | All year (mostly in January and December) |
| Open-billed Stork (Anastomus oscitans) | 2.300 – 4.400 | All year (mostly in March – December) |
| Black-winged Stilt (Himantopus Himantopus) | 0.250 – 0.300 | All year (mostly in April – September) |
| Red Collared Dove (Streptopelia tranquebarica) | 0.080 – 0.100 | All year (mostly in June – October) |
| Little Egret (Egretta garzetta) | 0.500 – 0.630 | All year (mostly in July – October) |
| Red-wattled Lapwing (Vanellus indicus) | 0.110 – 0.230 | All year (mostly in July – October) |
| Cattle Egret (Bubulcus ibis) | 0.300 – 0.400 | All year (mostly in July – November) |
| Painted Stork (Mycteria leucocephala) | 2.000 – 3.000 | All year (mostly in October) |
| Oriental Pratincole (Glareola maldivarum) | 0.070 – 0.095 | All year (Mostly in March - October) |

Remark: Bird concentrations chart is shown in page AD2-VTBS-9-13

2.1.2 There could be some activities to reduce birds and make the area unattractive for birds such as mowing the grass and other plants, removing aquatic weeds from drainage canals and using chemical substances to eliminate snails.

2.2 Grass mowing program

2.2.1 Grass mowing in the airside may take place daily during 0100-1000 UTC

2.2.2 The mowing work is carried out in the following areas:

- Grass areas outside the boundary of runways strip and the critical area.
- Grass areas outside the boundary of taxiways strip. For safety reason, the work will temporary stop when taxiing aircraft approaches.

2.2.3 Presence of workers and machines are under ATC and AOT staff supervision.

2.2.4 All grass mowing activities will attract birds, therefore, pilots are advised to exercise with caution.

## VTBS AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome/Heliport Chart - ICAO | AD 2-VTBS-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTBS-2-3 |
| Aircraft Parking/Docking Chart - ICAO (Verso 1) | AD 2-VTBS-2-4 |
| Aircraft Parking/Docking Chart - ICAO (Verso 2) | AD 2-VTBS-2-5 |
| Aircraft Parking/Docking Chart - ICAO (Verso 3) | AD 2-VTBS-2-6 |
| Aerodrome Obstacle Chart - ICAO - Type A - RWY 01/19 | AD 2-VTBS-3-1 |
| Aerodrome Obstacle Chart - ICAO - Type A - RWY 02R/20L | AD 2-VTBS-3-3 |
| Aerodrome Obstacle Chart - ICAO - Type A - RWY 02L/20R | AD 2-VTBS-3-5 |
| Precision Approach Terrain Chart - ICAO - RWY 01/19 | AD 2-VTBS-3-7 |
| Precision Approach Terrain Chart - ICAO - RWY 02R/20L | AD 2-VTBS-3-9 |
| Precision Approach Terrain Chart - ICAO - RWY 02L/20R | AD 2-VTBS-3-11 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K | AD 2-VTBS-6-1 |

| Chart name | Page |
|---|---|
| Standard Departure Chart - Instrument (SID) - ICAO – RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Verso) | AD 2-VTBS-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Radio communication failure table) | AD 2-VTBS-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Tabular description1) | AD 2-VTBS-6-4 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Tabular description2) | AD 2-VTBS-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Tabular description3) | AD 2-VTBS-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Tabular description4) | AD 2-VTBS-6-7 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Tabular description5) | AD 2-VTBS-6-8 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Tabular description6) | AD 2-VTBS-6-9 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Tabular description7) | AD 2-VTBS-6-10 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Tabular description8) | AD 2-VTBS-6-11 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Tabular description9) | AD 2-VTBS-6-12 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K (Waypoint list table) | AD 2-VTBS-6-13 |
| Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F | AD 2-VTBS-6-15 |
| Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Verso) | AD 2-VTBS-6-16 |
| Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Radio communication failure table) | AD 2-VTBS-6-17 |
| Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Tabular description1) | AD 2-VTBS-6-18 |
| Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Tabular description2) | AD 2-VTBS-6-19 |
| Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Tabular description3) | AD 2-VTBS-6-20 |
| Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Tabular description4) | AD 2-VTBS-6-21 |
| Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Tabular description5) | AD 2-VTBS-6-22 |
| Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Tabular description6) | AD 2-VTBS-6-23 |

| Chart name | Page |
|---|---|
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Tabular description7) | AD 2-VTBS-6-24 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Tabular description8) | AD 2-VTBS-6-25 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Tabular description9) | AD 2-VTBS-6-26 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F (Waypoint list table) | AD 2-VTBS-6-27 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H | AD 2-VTBS-6-29 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Verso) | AD 2-VTBS-6-30 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Radio communication failure table) | AD 2-VTBS-6-31 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Tabular description1) | AD 2-VTBS-6-32 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Tabular description2) | AD 2-VTBS-6-33 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Tabular description3) | AD 2-VTBS-6-34 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Tabular description4) | AD 2-VTBS-6-35 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Tabular description5) | AD 2-VTBS-6-36 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Tabular description6) | AD 2-VTBS-6-37 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Tabular description7) | AD 2-VTBS-6-38 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Tabular description8) | AD 2-VTBS-6-39 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H (Waypoint list table) | AD 2-VTBS-6-40 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J | AD 2-VTBS-6-41 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Verso) | AD 2-VTBS-6-42 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Radio communication failure table) | AD 2-VTBS-6-43 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description1) | AD 2-VTBS-6-44 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description2) | AD 2-VTBS-6-45 |

| Chart name | Page |
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| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description3) | AD 2-VTBS-6-46 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description4) | AD 2-VTBS-6-47 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description5) | AD 2-VTBS-6-48 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description6) | AD 2-VTBS-6-49 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description7) | AD 2-VTBS-6-50 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description8) | AD 2-VTBS-6-51 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description9) | AD 2-VTBS-6-52 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Tabular description10) | AD 2-VTBS-6-53 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J (Waypoint list table) | AD 2-VTBS-6-54 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G | AD 2-VTBS-6-55 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Verso) | AD 2-VTBS-6-56 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Radio communication failure table) | AD 2-VTBS-6-57 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Tabular description1) | AD 2-VTBS-6-58 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Tabular description2) | AD 2-VTBS-6-59 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Tabular description3) | AD 2-VTBS-6-60 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Tabular description4) | AD 2-VTBS-6-61 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Tabular description5) | AD 2-VTBS-6-62 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Tabular description6) | AD 2-VTBS-6-63 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Tabular description7) | AD 2-VTBS-6-64 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Tabular description8) | AD 2-VTBS-6-65 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G (Waypoint list table) | AD 2-VTBS-6-66 |

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| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E | AD 2-VTBS-6-67 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Verso) | AD 2-VTBS-6-68 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Radio communication failure table) | AD 2-VTBS-6-69 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Tabular description 1) | AD 2-VTBS-6-70 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Tabular description 2) | AD 2-VTBS-6-71 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Tabular description 3) | AD 2-VTBS-6-72 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Tabular description 4) | AD 2-VTBS-6-73 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Tabular description 5) | AD 2-VTBS-6-74 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Tabular description 6) | AD 2-VTBS-6-75 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Tabular description 7) | AD 2-VTBS-6-76 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Tabular description 8) | AD 2-VTBS-6-77 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E (Waypoint list table) | AD 2-VTBS-6-78 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U | AD 2-VTBS-6-79 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U (Radio communication failure table) | AD 2-VTBS-6-80 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U (Tabular description 1) | AD 2-VTBS-6-81 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U (Tabular description 2) | AD 2-VTBS-6-82 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U (Tabular description 3) | AD 2-VTBS-6-83 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U (Tabular description 4) | AD 2-VTBS-6-84 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U (Tabular description 5) | AD 2-VTBS-6-85 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U (Waypoint list table) | AD 2-VTBS-6-86 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L (PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q | AD 2-VTBS-6-87 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L (PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q (Radio communication failyre table) | AD 2-VTBS-6-88 |

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| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L (PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q (Tabular description 1) | AD 2-VTBS-6-89 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L (PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q (Tabular description 2) | AD 2-VTBS-6-90 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L (PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q (Tabular description 3) | AD 2-VTBS-6-91 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L (PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q (Tabular description 4) | AD 2-VTBS-6-92 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L (PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q (Tabular description 5) | AD 2-VTBS-6-93 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L (PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q (Waypoint list table) | AD 2-VTBS-6-94 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R (PROPELLER) -ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S | AD 2-VTBS-6-95 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R(PROPELLER) -ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S (Radio communication failure table) | AD 2-VTBS-6-96 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R (PROPELLER) - ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S (Tabular description 1) | AD 2-VTBS-6-97 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R (PROPELLER) -ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S (Tabular description 2) | AD 2-VTBS-6-98 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R (PROPELLER) -ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S (Tabular description 3) | AD 2-VTBS-6-99 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R (PROPELLER) -ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S (Tabular description 4) | AD 2-VTBS-6-100 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R (PROPELLER) -ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S (Tabular description 5) | AD 2-VTBS-6-101 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R (PROPELLER) -ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S (Waypoint list table) | AD 2-VTBS-6-102 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 (PROPELLER) -ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T | AD 2-VTBS-6-103 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 (PROPELLER) -ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T (Radio communication failure table) | AD 2-VTBS-6-104 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 (PROPELLER) -ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T (Tabular description 1) | AD 2-VTBS-6-105 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 (PROPELLER) -ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T (Tabular description 2) | AD 2-VTBS-6-106 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 (PROPELLER) -ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T (Tabular description 3) | AD 2-VTBS-6-107 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 (PROPELLER) -ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T (Tabular description 4) | AD 2-VTBS-6-108 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 (PROPELLER) -ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T (Tabular description 5) | AD 2-VTBS-6-109 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 (PROPELLER) -ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T (Waypiont list table) | AD 2-VTBS-6-110 |

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|---|---|
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R | AD 2-VTBS-6-111 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R (Radio communication failure table) | AD 2-VTBS-6-112 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R (Tabular description 1) | AD 2-VTBS-6-113 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R (Tabular description 2) | AD 2-VTBS-6-114 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R (Tabular description 3) | AD 2-VTBS-6-115 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R (Tabular description 4) | AD 2-VTBS-6-116 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R (Tabular description 5) | AD 2-VTBS-6-117 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R (Waypoint list table) | AD 2-VTBS-6-118 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P | AD 2-VTBS-6-119 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P (Radio communication failure table) | AD 2-VTBS-6-120 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P (Tabular description 1) | AD 2-VTBS-6-121 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P (Tabular description 2) | AD 2-VTBS-6-122 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P (Tabular description 3) | AD 2-VTBS-6-123 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P (Tabular description 4) | AD 2-VTBS-6-124 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P (Tabular description 5) | AD 2-VTBS-6-125 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P (Waypoint list table) | AD 2-VTBS-6-126 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D | AD 2-VTBS-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D (Verso) | AD 2-VTBS-7-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D (Radio communication failure table) | AD 2-VTBS-7-3 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D (Tabular description 1) | AD 2-VTBS-7-4 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D (Tabular description 2) | AD 2-VTBS-7-5 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D (Tabular description 3) | AD 2-VTBS-7-6 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D (Tabular description 4) | AD 2-VTBS-7-7 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D (Tabular description 5) | AD 2-VTBS-7-8 |

| Chart name | Page |
|---|---|
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D (Tabular description 6) | AD 2-VTBS-7-9 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D (Waypoint list table) | AD 2-VTBS-7-10 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C | AD 2-VTBS-7-11 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C (Verso) | AD 2-VTBS-7-12 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C (Radio communication failure table) | AD 2-VTBS-7-13 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C (Tabular description 1) | AD 2-VTBS-7-14 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C (Tabular description 2) | AD 2-VTBS-7-15 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C (Tabular description 3) | AD 2-VTBS-7-16 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C (Tabular description 4) | AD 2-VTBS-7-17 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C (Tabular description 5) | AD 2-VTBS-7-18 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C (Tabular description 6) | AD 2-VTBS-7-19 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 19/20L/20R - EASTE1C LEBIM1C NORTA1C TUMGA1C WILLA1C (Waypoint list table) | AD 2-VTBS-7-20 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 01 CAT II | AD 2-VTBS-8-1 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 01 CAT II (Tabular description) | AD 2-VTBS-8-2 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 01 CAT II (Fix and point list table) | AD 2-VTBS-8-3 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 02R CAT II | AD 2-VTBS-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 02R CAT II (Tabular description) | AD 2-VTBS-8-6 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 02R CAT II (Fix and point list table) | AD 2-VTBS-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 19 CAT II | AD 2-VTBS-8-9 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 19 CAT II (Tabular description) | AD 2-VTBS-8-10 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 19 CAT II (Fix and point list table) | AD 2-VTBS-8-11 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 20L CAT II | AD 2-VTBS-8-13 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 20L CAT II (Tabular description) | AD 2-VTBS-8-14 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 20L CAT II (Fix and point list table) | AD 2-VTBS-8-15 |
| Instrument Approach Chart - ICAO - RNP RWY 01 | AD 2-VTBS-8-17 |
| Instrument Approach Chart - ICAO - RNP RWY 01 (Tabular description) | AD 2-VTBS-8-18 |
| Instrument Approach Chart - ICAO - RNP RWY 02L | AD 2-VTBS-8-19 |
| Instrument Approach Chart - ICAO - RNP RWY 02L (Tabular description) | AD 2-VTBS-8-20 |
| Instrument Approach Chart - ICAO - RNP RWY 02R | AD 2-VTBS-8-21 |
| Instrument Approach Chart - ICAO - RNP RWY 02R (Tabular description) | AD 2-VTBS-8-22 |
| Instrument Approach Chart - ICAO - RNP RWY 19 | AD 2-VTBS-8-23 |
| Instrument Approach Chart - ICAO - RNP RWY 19 (Tabular description) | AD 2-VTBS-8-24 |
| Instrument Approach Chart - ICAO - RNP RWY 20L | AD 2-VTBS-8-25 |
| Instrument Approach Chart - ICAO - RNP RWY 20L (Tabular description) | AD 2-VTBS-8-26 |
| Instrument Approach Chart - ICAO - RNP RWY 20R | AD 2-VTBS-8-27 |
| Instrument Approach Chart - ICAO - RNP RWY 20R (Tabular description) | AD 2-VTBS-8-28 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 19/20L/20R 01/02L/02R | AD 2-VTBS-9-1 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 19/20L/20R 01/02L/02R (Tabular description 1) | AD 2-VTBS-9-2 |
| VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 19/20L/20R 01/02L/02R (Tabular description 2) | AD 2-VTBS-9-3 |
| VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 19/20L/20R 01/02L/02R | AD 2-VTBS-9-5 |
| VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART - RWY 19/20L/20R 01/02L/02R (Tabular description) | AD 2-VTBS-9-6 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 19/20L/20R 01/02L/02R | AD 2-VTBS-9-7 |

| Chart name | Page |
|---|---|
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 19/20L/20R 01/02L/02R (Tabular description 1) | AD 2-VTBS-9-8 |
| VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART - RWY 19/20L/20R 01/02L/02R (Tabular description 2) | AD 2-VTBS-9-9 |
| VFR OVERFLY PROCEDURE FOR HELICOPTER CHART - RWY 19/20L/20R 01/02L/02R | AD 2-VTBS-9-11 |
| VFR OVERFLY PROCEDURE FOR HELICOPTER CHART - RWY 19/20L/20R 01/02L/02R (Tabular description 1) | AD 2-VTBS-9-12 |
| Bird concentrations in the vicinity of aerodromes | AD 2-VTBS-9-13 |

AERODROME CHART - ICAO

13 41 09 N
100 44 56 E

ELEV 8 FT

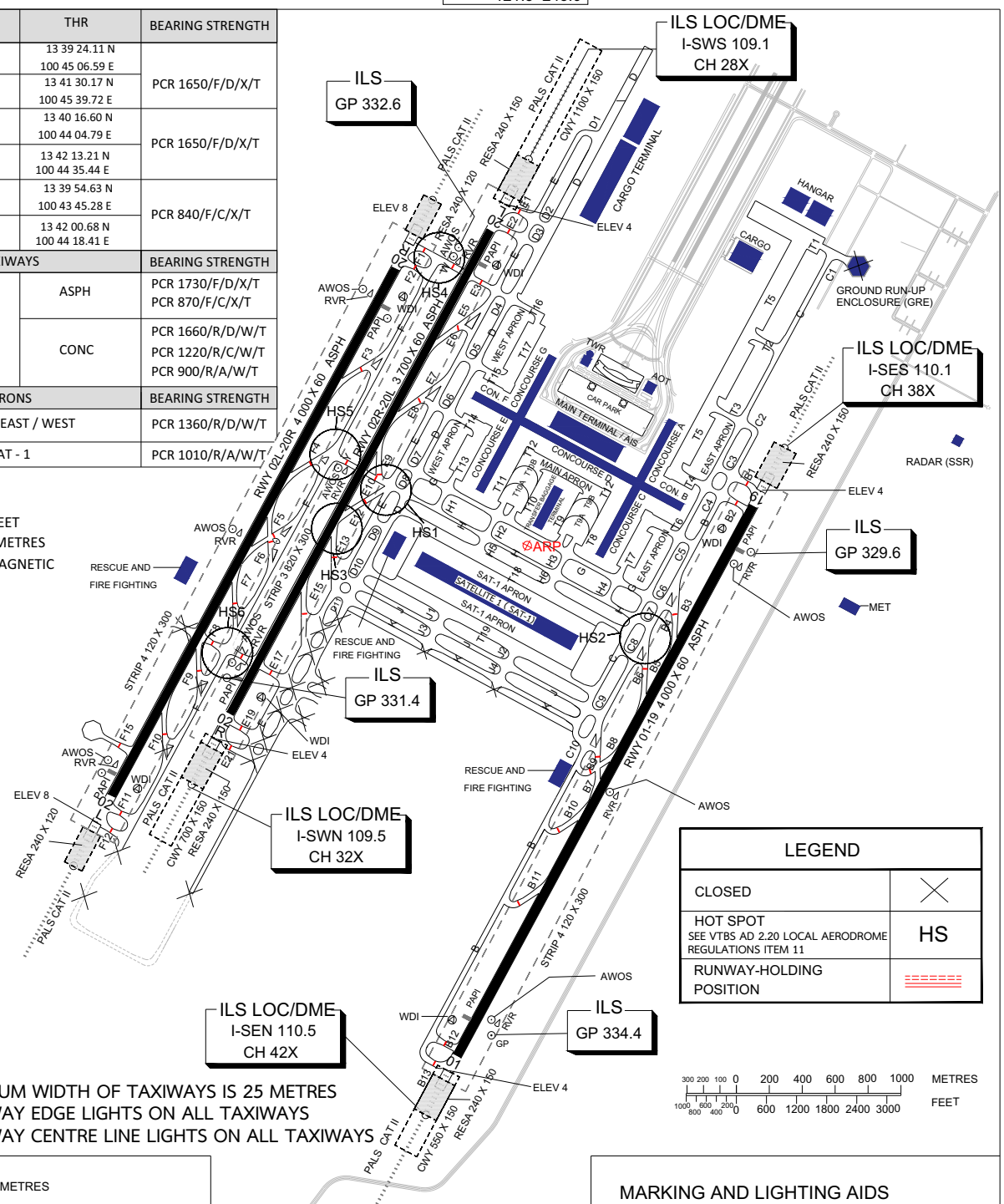
TWR 118.2 274.5
119.0
121.5 243.0

BANGKOK / Suvarnabhumi Intl

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 01 | 14 | 13 39 24.11 N<br>100 45 06.59 E | PCR 1650/F/D/X/T |
| 19 | 194 | 13 41 30.17 N<br>100 45 39.72 E | |
| 02R | 14 | 13 40 16.60 N<br>100 44 04.79 E | PCR 1650/F/D/X/T |
| 20L | 194 | 13 42 13.21 N<br>100 44 35.44 E | |
| 02L | 14 | 13 39 54.63 N<br>100 43 45.28 E | PCR 840/F/C/X/T |
| 20R | 194 | 13 42 00.68 N<br>100 44 18.41 E | |

| TAXIWAYS | | BEARING STRENGTH |
|---|---|---|
| SURFACE TYPE | ASPH | PCR 1730/F/D/X/T<br>PCR 870/F/C/X/T |
| | CONC | PCR 1660/R/D/W/T<br>PCR 1220/R/C/W/T<br>PCR 900/R/A/W/T |

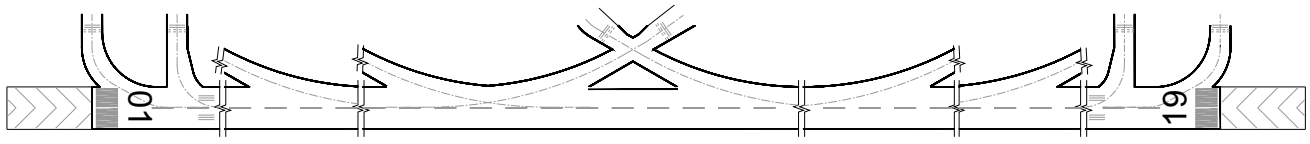
| APRONS | BEARING STRENGTH |
|---|---|
| MAIN / EAST / WEST | PCR 1360/R/D/W/T |
| SAT - 1 | PCR 1010/R/A/W/T |



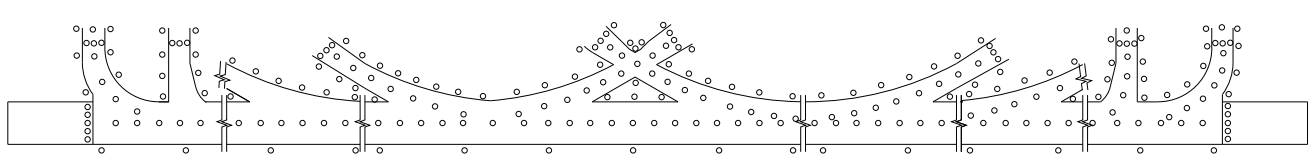

REMARKS :
- MINIMUM WIDTH OF TAXIWAYS IS 25 METRES
- TAXIWAY EDGE LIGHTS ON ALL TAXIWAYS
- TAXIWAY CENTRE LINE LIGHTS ON ALL TAXIWAYS

MARKING AND LIGHTING AIDS
OF ALL RUNWAYS SIMILAR TO RWY 01/19

MARKING AIDS RWY 01/19 AND EXIT TWY




LIGHTING AIDS RWY 01/19 AND EXIT TWY



CHANGE : MAG VAR / ANNUAL CHANGE

**INTENTIONALLY BLANK**

# AIRCRAFT PARKING / DOCKING CHART-ICAO

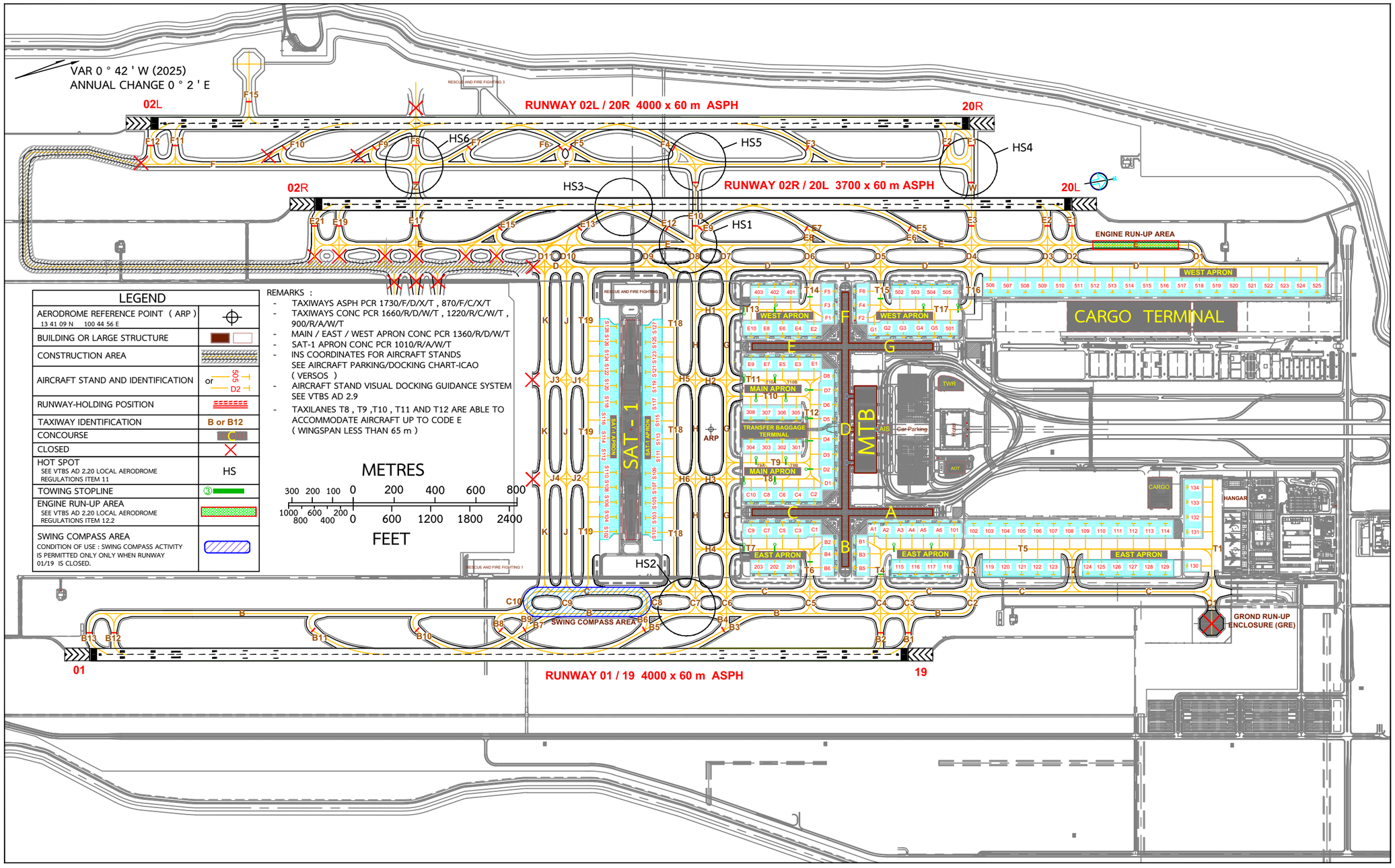
13 41 09 N
100 44 56 E

APRON ELEV 4 FT

TWR FREQ 118.2 ( RWY 19 / 01 )
TWR FREQ 119.0 ( RWY 20L / 02R , 20R / 02L )

GND FREQ 121.65 , 121.7 , 121.75 , 121.95

BANGKOK / Suvarnabhumi Intl




## LEGEND

| | |
|---|---|
| AERODROME REFERENCE POINT ( ARP ) 13 41 09 N 100 44 56 E | ⊕ |
| BUILDING OR LARGE STRUCTURE | |
| CONSTRUCTION AREA | |
| AIRCRAFT STAND AND IDENTIFICATION | or 505 / D2 |
| RUNWAY-HOLDING POSITION | |
| TAXIWAY IDENTIFICATION | B or B12 |
| CONCOURSE | C |
| CLOSED | |
| HOT SPOT SEE VTBS AD 2.20 LOCAL AERODROME REGULATIONS ITEM 11 | HS |
| TOWING STOPLINE | |
| ENGINE RUN-UP AREA SEE VTBS AD 2.20 LOCAL AERODROME REGULATIONS ITEM 12.2 | |
| SWING COMPASS AREA CONDITION OF USE : SWING COMPASS ACTIVITY IS PERMITTED ONLY ONLY WHEN RUNWAY 01/19 IS CLOSED. | |

REMARKS :

- TAXIWAYS ASPH PCR 1730/F/D/X/T , 870/F/C/X/T
- TAXIWAYS CONC PCR 1660/R/D/W/T , 1220/R/C/W/T , 900/R/A/W/T
- MAIN / EAST / WEST APRON CONC PCR 1360/R/D/W/T
- SAT-1 APRON CONC PCR 1010/R/A/W/T
- INS COORDINATES FOR AIRCRAFT STANDS SEE AIRCRAFT PARKING/DOCKING CHART-ICAO ( VERSOS )
- AIRCRAFT STAND VISUAL DOCKING GUIDANCE SYSTEM SEE VTBS AD 2.9
- TAXILANES T8 , T9 ,T10 , T11 AND T12 ARE ABLE TO ACCOMMODATE AIRCRAFT UP TO CODE E ( WINGSPAN LESS THAN 65 m )

METRES
300 200 100 0 200 400 600 800
1000 600 200 0 600 1200 1800 2400
FEET

**AIRCRAFT PARKING/
DOCKING CHART - ICAO**

**BANGKOK/Suvarnabhumi International**

## INS COORDINATES FOR AIRCRAFT STANDS

| LOCATION | STAND NR | COORDINATES | |
|---|---|---|---|
| EAST APRON | A1 | 13 41 30.11N | 100 45 17.81E |
| | A2 | 13 41 31.95N | 100 45 18.44E |
| | A3 | 13 41 34.19N | 100 45 18.72E |
| | A4 | 13 41 35.91N | 100 45 19.54E |
| | A5 | 13 41 37.77N | 100 45 19.77E |
| | A6 | 13 41 40.11N | 100 45 20.27E |
| | B1 | 13 41 26.73N | 100 45 19.83E |
| | B3 | 13 41 26.38N | 100 45 21.79E |
| | B5 | 13 41 25.74N | 100 45 23.97E |
| | 101L | 13 41 41.76N | 100 45 21.25E |
| | 101 | 13 41 42.44N | 100 45 20.82E |
| | 101R | 13 41 42.92N | 100 45 21.56E |
| | 102L | 13 41 44.78N | 100 45 21.73E |
| | 102 | 13 41 45.40N | 100 45 21.89E |
| | 102R | 13 41 46.01N | 100 45 22.05E |
| | 103L | 13 41 47.24N | 100 45 22.37E |
| | 103 | 13 41 47.86N | 100 45 22.54E |
| | 103R | 13 41 48.47N | 100 45 22.70E |
| | 104L | 13 41 49.70N | 100 45 23.02E |
| | 104 | 13 41 50.31N | 100 45 23.18E |
| | 104R | 13 41 50.93N | 100 45 23.34E |
| | 105L | 13 41 52.16N | 100 45 23.67E |
| | 105 | 13 41 52.77N | 100 45 23.83E |
| | 105R | 13 41 53.39N | 100 45 23.99E |
| | 106L | 13 41 54.62N | 100 45 24.31E |
| | 106 | 13 41 55.23N | 100 45 24.48E |
| | 106R | 13 41 55.85N | 100 45 24.64E |
| | 107L | 13 41 57.07N | 100 45 24.96E |
| | 107 | 13 41 57.69N | 100 45 25.12E |
| | 107R | 13 41 58.30N | 100 45 25.28E |
| | 108L | 13 41 59.53N | 100 45 25.61E |
| | 108 | 13 42 00.15N | 100 45 25.77E |
| | 108R | 13 42 00.76N | 100 45 25.93E |
| | 109L | 13 42 01.99N | 100 45 26.25E |
| | 109 | 13 42 02.61N | 100 45 26.41E |

| LOCATION | STAND NR | COORDINATES | |
|---|---|---|---|
| EAST APRON | 109R | 13 42 03.22N | 100 45 26.58E |
| | 110L | 13 42 04.45N | 100 45 26.90E |
| | 110 | 13 42 05.06N | 100 45 27.06E |
| | 110R | 13 42 05.68N | 100 45 27.22E |
| | 111L | 13 42 06.91N | 100 45 27.55E |
| | 111 | 13 42 07.52N | 100 45 27.71E |
| | 111R | 13 42 08.14N | 100 45 27.87E |
| | 112L | 13 42 09.36N | 100 45 28.19E |
| | 112 | 13 42 09.98N | 100 45 28.35E |
| | 112R | 13 42 10.59N | 100 45 28.51E |
| | 113L | 13 42 11.82N | 100 45 28.84E |
| | 113 | 13 42 12.44N | 100 45 29.00E |
| | 113R | 13 42 13.05N | 100 45 29.16E |
| | 114L | 13 42 14.28N | 100 45 29.48E |
| | 114 | 13 42 14.90N | 100 45 29.65E |
| | 114R | 13 42 15.51N | 100 45 29.81E |
| | 115L | 13 41 32.69N | 100 45 26.76E |
| | 115 | 13 41 32.06N | 100 45 26.65E |
| | 115R | 13 41 31.46N | 100 45 26.44E |
| | 116L | 13 41 35.15N | 100 45 27.41E |
| | 116 | 13 41 34.52N | 100 45 27.30E |
| | 116R | 13 41 33.92N | 100 45 27.09E |
| | 117L | 13 41 37.60N | 100 45 28.05E |
| | 117 | 13 41 36.98N | 100 45 27.94E |
| | 117R | 13 41 36.37N | 100 45 27.73E |
| | 118L | 13 41 40.06N | 100 45 28.70E |
| | 118 | 13 41 39.43N | 100 45 28.59E |
| | 118R | 13 41 38.83N | 100 45 28.38E |
| | 119L | 13 41 46.52N | 100 45 30.46E |
| | 119 | 13 41 45.91N | 100 45 30.30E |
| | 119R | 13 41 45.29N | 100 45 30.13E |
| | 120L | 13 41 48.98N | 100 45 31.10E |
| | 120 | 13 41 48.36N | 100 45 30.94E |
| | 120R | 13 41 47.75N | 100 45 30.78E |
| | 121L | 13 41 51.44N | 100 45 31.75E |

| LOCATION | STAND NR | COORDINATES | |
|---|---|---|---|
| EAST APRON | 121 | 13 41 50.82N | 100 45 31.59E |
| | 121R | 13 41 50.21N | 100 45 31.43E |
| | 122L | 13 41 53.90N | 100 45 32.40E |
| | 122 | 13 41 53.28N | 100 45 32.24E |
| | 122R | 13 41 52.67N | 100 45 32.07E |
| | 123L | 13 41 56.35N | 100 45 33.04E |
| | 123 | 13 41 55.74N | 100 45 32.88E |
| | 123R | 13 41 55.12N | 100 45 32.72E |
| | 124 | 13 42 01.03N | 100 45 34.27E |
| | 125L | 13 42 03.73N | 100 45 34.98E |
| | 125 | 13 42 03.11N | 100 45 34.82E |
| | 125R | 13 42 02.57N | 100 45 34.68E |
| | 126L | 13 42 06.19N | 100 45 35.63E |
| | 126 | 13 42 05.57N | 100 45 35.47E |
| | 126R | 13 42 04.96N | 100 45 35.31E |
| | 127L | 13 42 08.64N | 100 45 36.28E |
| | 127 | 13 42 08.03N | 100 45 36.11E |
| | 127R | 13 42 07.41N | 100 45 35.95E |
| | 128L | 13 42 11.10N | 100 45 36.92E |
| | 128 | 13 42 10.49N | 100 45 36.76E |
| | 128R | 13 42 09.87N | 100 45 36.60E |
| | 129L | 13 42 13.56N | 100 45 37.57E |
| | 129 | 13 42 12.95N | 100 45 37.41E |
| | 129R | 13 42 12.33N | 100 45 37.24E |
| | 130 | 13 42 16.57N | 100 45 37.23E |
| | 131 | 13 42 18.24N | 100 45 31.74E |
| | 132 | 13 42 18.83N | 100 45 29.41E |
| | 133 | 13 42 18.87N | 100 45 27.33E |
| | 134 | 13 42 19.55N | 100 45 24.62E |
| | B2 | 13 41 22.94N | 100 45 18.94E |
| | B4 | 13 41 22.65N | 100 45 20.91E |
| | B6 | 13 41 22.24N | 100 45 23.16E |
| | C1 | 13 41 20.86N | 100 45 15.21E |
| | C3 | 13 41 18.45N | 100 45 14.58E |
| | C5 | 13 41 16.04N | 100 45 13.94E |

**CHANGE : REVISED CHART**

**AIRCRAFT PARKING/
DOCKING CHART - ICAO**

**BANGKOK/Suvarnabhumi International**

## INS COORDINATES FOR AIRCRAFT STANDS

| LOCATION | STAND NR | COORDINATES | |
|---|---|---|---|
| EAST APRON | C7 | 13 41 13.62N | 100 45 13.31E |
| | C9 | 13 41 11.17N | 100 45 12.85E |
| | 201L | 13 41 15.92N | 100 45 22.35E |
| | 201 | 13 41 15.30N | 100 45 22.24E |
| | 201R | 13 41 14.69N | 100 45 22.03E |
| | 202L | 13 41 13.46N | 100 45 21.71E |
| | 202 | 13 41 12.84N | 100 45 21.60E |
| | 202R | 13 41 12.23N | 100 45 21.38E |
| | 203L | 13 41 11.01N | 100 45 21.06E |
| | 203 | 13 41 10.38N | 100 45 20.95E |
| | 203R | 13 41 09.78N | 100 45 20.74E |
| MAIN APRON | C2 | 13 41 21.71N | 100 45 11.83E |
| | C4 | 13 41 19.29N | 100 45 11.20E |
| | C6 | 13 41 16.88N | 100 45 10.57E |
| | C8 | 13 41 14.47N | 100 45 09.93E |
| | C10 | 13 41 12.06N | 100 45 09.30E |
| | D1 | 13 41 25.32N | 100 45 09.71E |
| | D2 | 13 41 26.16N | 100 45 07.54E |
| | D3 | 13 41 26.76N | 100 45 05.17E |
| | D4 | 13 41 27.37N | 100 45 02.76E |
| | D5 | 13 41 27.83N | 100 44 59.52E |
| | D6 | 13 41 28.69N | 100 44 57.48E |
| | D7 | 13 41 29.29N | 100 44 55.11E |
| | D8 | 13 41 29.58N | 100 44 52.80E |
| | E1 | 13 41 27.42N | 100 44 49.11E |
| | E3 | 13 41 25.01N | 100 44 48.47E |
| | E5 | 13 41 22.59N | 100 44 47.84E |
| | E7 | 13 41 20.18N | 100 44 47.20E |
| | E9 | 13 41 17.73N | 100 44 46.74E |
| | 301 | 13 41 21.43N | 100 45 01.43E |
| | 302 | 13 41 19.29N | 100 45 00.78E |
| | 303 | 13 41 16.93N | 100 45 00.16E |
| | 304 | 13 41 14.47N | 100 44 59.52E |
| | 305 | 13 41 22.27N | 100 44 58.08E |
| | 306 | 13 41 20.09N | 100 44 57.60E |

| LOCATION | STAND NR | COORDINATES | |
|---|---|---|---|
| MAIN APRON | 307 | 13 41 17.73N | 100 44 56.97E |
| | 308 | 13 41 15.27N | 100 44 56.33E |
| WEST APRON | E2 | 13 41 28.27N | 100 44 45.73E |
| | E4 | 13 41 25.86N | 100 44 45.09E |
| | E6 | 13 41 23.45N | 100 44 44.46E |
| | E8 | 13 41 21.03N | 100 44 43.83E |
| | E10 | 13 41 18.62N | 100 44 43.19E |
| | F1 | 13 41 32.04N | 100 44 43.65E |
| | F3 | 13 41 32.37N | 100 44 41.65E |
| | F5 | 13 41 33.03N | 100 44 39.50E |
| | 401 | 13 41 26.72N | 100 44 36.79E |
| | 402 | 13 41 24.26N | 100 44 36.15E |
| | 403 | 13 41 21.80N | 100 44 35.50E |
| | F2 | 13 41 35.77N | 100 44 44.53E |
| | F4 | 13 41 36.26N | 100 44 42.57E |
| | F6 | 13 41 36.53N | 100 44 40.32E |
| | G1 | 13 41 37.62N | 100 44 48.03E |
| | G2 | 13 41 39.74N | 100 44 48.49E |
| | G3 | 13 41 42.02N | 100 44 49.34E |
| | G4 | 13 41 44.43N | 100 44 49.98E |
| | G5 | 13 41 46.95N | 100 44 50.19E |
| | 501 | 13 41 49.24N | 100 44 51.31E |
| | 502 | 13 41 43.48N | 100 44 41.20E |
| | 503 | 13 41 45.94N | 100 44 41.85E |
| | 504 | 13 41 48.40N | 100 44 42.49E |
| | 505 | 13 41 50.86N | 100 44 43.14E |
| | 506L | 13 41 57.99N | 100 44 45.65E |
| | 506 | 13 41 57.17N | 100 44 46.07E |
| | 506R | 13 41 56.65N | 100 44 45.30E |
| | 507L | 13 42 00.67N | 100 44 46.36E |
| | 507 | 13 41 59.85N | 100 44 46.78E |
| | 507R | 13 41 59.33N | 100 44 46.00E |
| | 508L | 13 42 03.35N | 100 44 47.06E |
| | 508 | 13 42 02.53N | 100 44 47.48E |
| | 508R | 13 42 02.01N | 100 44 46.71E |

| LOCATION | STAND NR | COORDINATES | |
|---|---|---|---|
| WEST APRON | 509L | 13 42 06.03N | 100 44 47.76E |
| | 509 | 13 42 05.21N | 100 44 48.18E |
| | 509R | 13 42 04.69N | 100 44 47.41E |
| | 510L | 13 42 08.71N | 100 44 48.47E |
| | 510 | 13 42 07.89N | 100 44 48.89E |
| | 510R | 13 42 07.37N | 100 44 48.12E |
| | 511L | 13 42 11.38N | 100 44 49.17E |
| | 511 | 13 42 10.61N | 100 44 49.40E |
| | 511R | 13 42 10.05N | 100 44 48.82E |
| | 512L | 13 42 14.06N | 100 44 49.88E |
| | 512 | 13 42 13.29N | 100 44 50.10E |
| | 512R | 13 42 12.73N | 100 44 49.52E |
| | 513L | 13 42 16.74N | 100 44 50.58E |
| | 513 | 13 42 15.97N | 100 44 50.81E |
| | 513R | 13 42 15.40N | 100 44 50.23E |
| | 514L | 13 42 19.42N | 100 44 51.29E |
| | 514 | 13 42 18.65N | 100 44 51.51E |
| | 514R | 13 42 18.08N | 100 44 50.93E |
| | 515L | 13 42 22.10N | 100 44 51.99E |
| | 515 | 13 42 21.33N | 100 44 52.22E |
| | 515R | 13 42 20.76N | 100 44 51.64E |
| | 516L | 13 42 24.78N | 100 44 52.69E |
| | 516 | 13 42 24.01N | 100 44 52.92E |
| | 516R | 13 42 23.44N | 100 44 52.34E |
| | 517L | 13 42 27.46N | 100 44 53.40E |
| | 517 | 13 42 26.69N | 100 44 53.63E |
| | 517R | 13 42 26.12N | 100 44 53.05E |
| | 518L | 13 42 30.14N | 100 44 54.10E |
| | 518 | 13 42 29.37N | 100 44 54.33E |
| | 518R | 13 42 28.80N | 100 44 53.75E |
| | 519L | 13 42 32.81N | 100 44 54.81E |
| | 519 | 13 42 32.04N | 100 44 55.03E |
| | 519R | 13 42 31.48N | 100 44 54.45E |
| | 520L | 13 42 35.49N | 100 44 55.51E |
| | 520 | 13 42 34.72N | 100 44 55.74E |

**CHANGE : REVISED CHART**

**AIRCRAFT PARKING/
DOCKING CHART - ICAO**

**BANGKOK/Suvarnabhumi International**

**INS COORDINATES FOR AIRCRAFT STANDS**

| LOCATION | STAND NR | COORDINATES | |
|---|---|---|---|
| WEST APRON | 520R | 13 42 34.15N | 100 44 55.16E |
| | 521L | 13 42 38.17N | 100 44 56.22E |
| | 521 | 13 42 37.40N | 100 44 56.44E |
| | 521R | 13 42 36.83N | 100 44 55.86E |
| | 522L | 13 42 40.85N | 100 44 56.92E |
| | 522 | 13 42 40.08N | 100 44 57.15E |
| | 522R | 13 42 39.51N | 100 44 56.57E |
| | 523 | 13 42 42.54N | 100 44 57.80E |
| | 524 | 13 42 45.00N | 100 44 58.44E |
| | 525 | 13 42 47.42N | 100 44 59.08E |
| SAT-1 APRON | S101 | 13 40 54.76N | 100 45 09.93E |
| | S102 | 13 40 49.88N | 100 45 08.51E |
| | S103 | 13 40 55.35N | 100 45 07.60E |
| | S104 | 13 40 50.47N | 100 45 06.18E |
| | S105 | 13 40 55.94N | 100 45 05.26E |
| | S106 | 13 40 51.05N | 100 45 03.84E |
| | S107 | 13 40 56.53N | 100 45 02.92E |
| | S108 | 13 40 51.64N | 100 45 01.50E |
| | S109 | 13 40 57.11N | 100 45 00.59E |
| | S110 | 13 40 52.23N | 100 44 59.17E |
| | S111L | 13 40 58.38N | 100 44 58.81E |
| | S111 | 13 40 57.71N | 100 44 58.00E |
| | S111R | 13 40 57.51N | 100 44 57.81E |
| | S112L | 13 40 52.27N | 100 44 55.73E |
| | S112 | 13 40 52.92N | 100 44 56.60E |
| | S112R | 13 40 53.13N | 100 44 56.83E |
| | S113L | 13 40 59.08N | 100 44 56.04E |
| | S113 | 13 40 58.42N | 100 44 55.18E |
| | S113R | 13 40 58.22N | 100 44 54.94E |

| LOCATION | STAND NR | COORDINATES | |
|---|---|---|---|
| SAT-1 APRON | S114L | 13 40 52.97N | 100 44 52.91E |
| | S114 | 13 40 53.63N | 100 44 53.78E |
| | S114R | 13 40 53.83N | 100 44 54.01E |
| | S115L | 13 40 59.79N | 100 44 53.22E |
| | S115 | 13 40 59.13N | 100 44 52.36E |
| | S115R | 13 40 58.92N | 100 44 52.12E |
| | S116L | 13 40 53.68N | 100 44 50.09E |
| | S116 | 13 40 54.34N | 100 44 50.96E |
| | S116R | 13 40 54.54N | 100 44 51.19E |
| | S117L | 13 41 00.49N | 100 44 50.40E |
| | S117 | 13 40 59.84N | 100 44 49.54E |
| | S117R | 13 40 59.63N | 100 44 49.30E |
| | S118L | 13 40 54.38N | 100 44 47.32E |
| | S118 | 13 40 55.05N | 100 44 48.14E |
| | S118R | 13 40 55.25N | 100 44 48.32E |
| | S119 | 13 41 00.53N | 100 44 46.97E |
| | S120 | 13 40 55.65N | 100 44 45.55E |
| | S121 | 13 41 01.12N | 100 44 44.63E |
| | S122 | 13 40 56.24N | 100 44 43.21E |
| | S123 | 13 41 01.71N | 100 44 42.30E |
| | S124 | 13 40 56.82N | 100 44 40.87E |
| | S125 | 13 41 02.29N | 100 44 39.96E |
| | S126 | 13 40 57.41N | 100 44 38.54E |
| | S127 | 13 41 02.88N | 100 44 37.62E |
| | S128 | 13 40 58.00N | 100 44 36.20E |

Remark :

1. Special general, corporate, private, government and military aviation operations are subject to authorization from AEROTHAI and AOT. Aircraft may be assigned parking positions on Stands 124 – 129 or 521 – 525.
2. Coordinates are provided for forward most nose-wheel stopping position.
3. Aircraft parking stand 131-134 are the maintenance aprons operated by Thai Airways International Plc. under the supervision of AOT and AEROTHAI.

**CHANGE : REVISED CHART**

# AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

BANGKOK / Suvarnabhumi International
RWY 01 / 19

DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 0°42'W(2025)

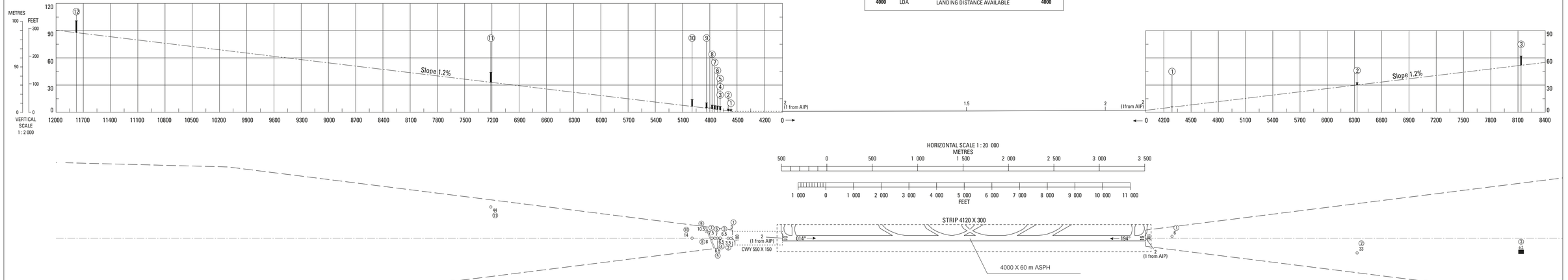
ANNUAL CHANGE 0°2'E

REFERENCE HEIGHT EGM96

CHANGE: MAG VAR / ANNUAL CHANGE

## RWY 01 / 19

| RWY 01 | DECLARED DISTANCES | | RWY 19 |
|---|---|---|---|
| 4000 | TORA | TAKE-OFF RUNWAY AVAILABLE | 4000 |
| 4000 | TODA | TAKE-OFF DISTANCE AVAILABLE | 4550 |
| 4000 | ASDA | ACCELERATE STOP DISTANCE AVAILABLE | 4000 |
| 4000 | LDA | LANDING DISTANCE AVAILABLE | 4000 |




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ⑤ |
| TREE OR FOREST | ★ ⑤ |
| BUILDING OR LARGE STRUCTURE | ■ |
| ANTENNA | ⦿ |
| TERRAIN PENETRATING OBSTACLE PLANE | Plan / Profile |
| ROAD | |

ORDER OF ACCURACY
HORIZONTAL 5 m
VERTICAL 0.5 m

| AMENDMENT RECORD | | |
|---|---|---|
| No. | DATE | ENTERED BY |
| 01 | 5 JUL 2024 | Airports of Thailand Public Company Limited (AOT) |
| 02 | 17 AUG 2024 | Airports of Thailand Public Company Limited (AOT) |
| 03 | 5 MAR 2025 | Airports of Thailand Public Company Limited (AOT) |

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# AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

BANGKOK / Suvarnabhumi International
RWY 02R / 20L

DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 0° 42′ W (2025)

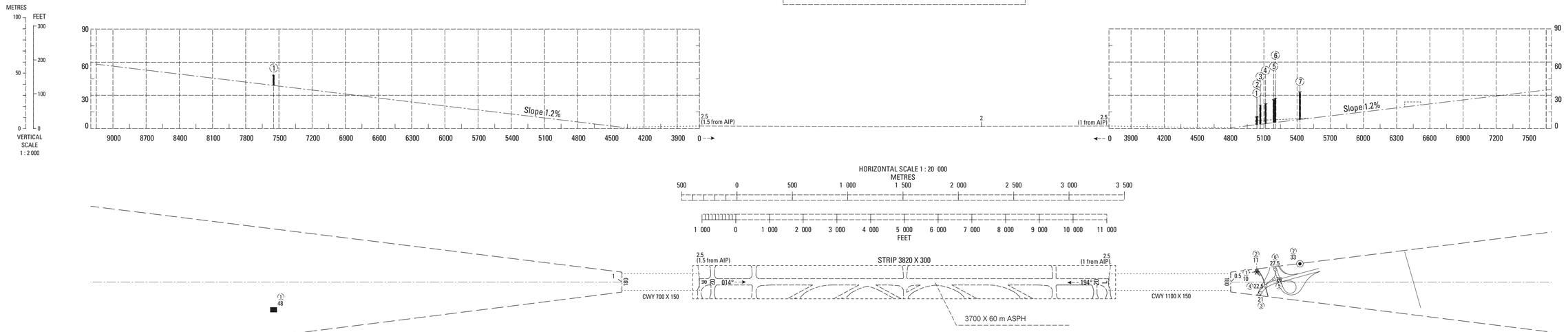
ANNUAL CHANGE 0°2′ E

REFERENCE HEIGHT EGM96

CHANGE: MAG VAR / ANNUAL CHANGE

## RWY 02R / 20L

| RWY 02R | DECLARED DISTANCES | | RWY 20L |
|---|---|---|---|
| 3700 | TORA | TAKE-OFF RUNWAY AVAILABLE | 3700 |
| 4800 | TODA | TAKE-OFF DISTANCE AVAILABLE | 4400 |
| 3700 | ASDA | ACCELERATE STOP DISTANCE AVAILABLE | 3700 |
| 3700 | LDA | LANDING DISTANCE AVAILABLE | 3700 |




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ⑤ |
| TREE OR FOREST | * ⑤ |
| BUILDING OR LARGE STRUCTURE | ■ |
| ANTENNA | ⑤ |
| TERRAIN PENETRATING OBSTACLE PLANE | Plan ○ Profile ⑤ |
| ROAD | |

ORDER OF ACCURACY
HORIZONTAL 5 m
VERTICAL 0.5 m

AMENDMENT RECORD

| No. | DATE | ENTERED BY |
|---|---|---|
| 01 | 5 JUL 2024 | Airports of Thailand Public Company Limited (AOT) |
| 02 | 17 AUG 2024 | Airports of Thailand Public Company Limited (AOT) |
| 03 | 5 MAR 2025 | Airports of Thailand Public Company Limited (AOT) |

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# AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

BANGKOK / Suvarnabhumi international
RWY 02L/20R

DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 0° 42′ W (2025)

ANNUAL CHANGE 0°2′ E

REFERENCE HEIGHT EGM96

## RWY 02 L / 20 R

| RWY 02L | | DECLARED DISTANCES | RWY 20R |
|---|---|---|---|
| 4000 | TORA | TAKE-OFF RUNWAY AVAILABLE | 4000 |
| 4000 | TODA | TAKE-OFF DISTANCE AVAILABLE | 4000 |
| 4000 | ASDA | ACCELERATE STOP DISTANCE AVAILABLE | 4000 |
| 4000 | LDA | LANDING DISTANCE AVAILABLE | 4000 |




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ⑤ |
| TREE OR FOREST | * (*) |
| BUILDING OR LARGE STRUCTURE | ▬ |
| ANTENNA | ⊙ |

ORDER OF ACCURACY
HORIZONTAL 5 m
VERTICAL 0.5 m

| AMENDMENT RECORD | | |
|---|---|---|
| No. | DATE | ENTERED BY |
| 01 | 05 JUL 2024 | Airports of Thailand Public Company Limited (AOT) |
| 02 | 17 AUG 2024 | Airports of Thailand Public Company Limited (AOT) |
| 03 | 5 MAR 2025 | Airports of Thailand Public Company Limited (AOT) |

CHANGE: MAG VAR / ANNUAL CHANGE

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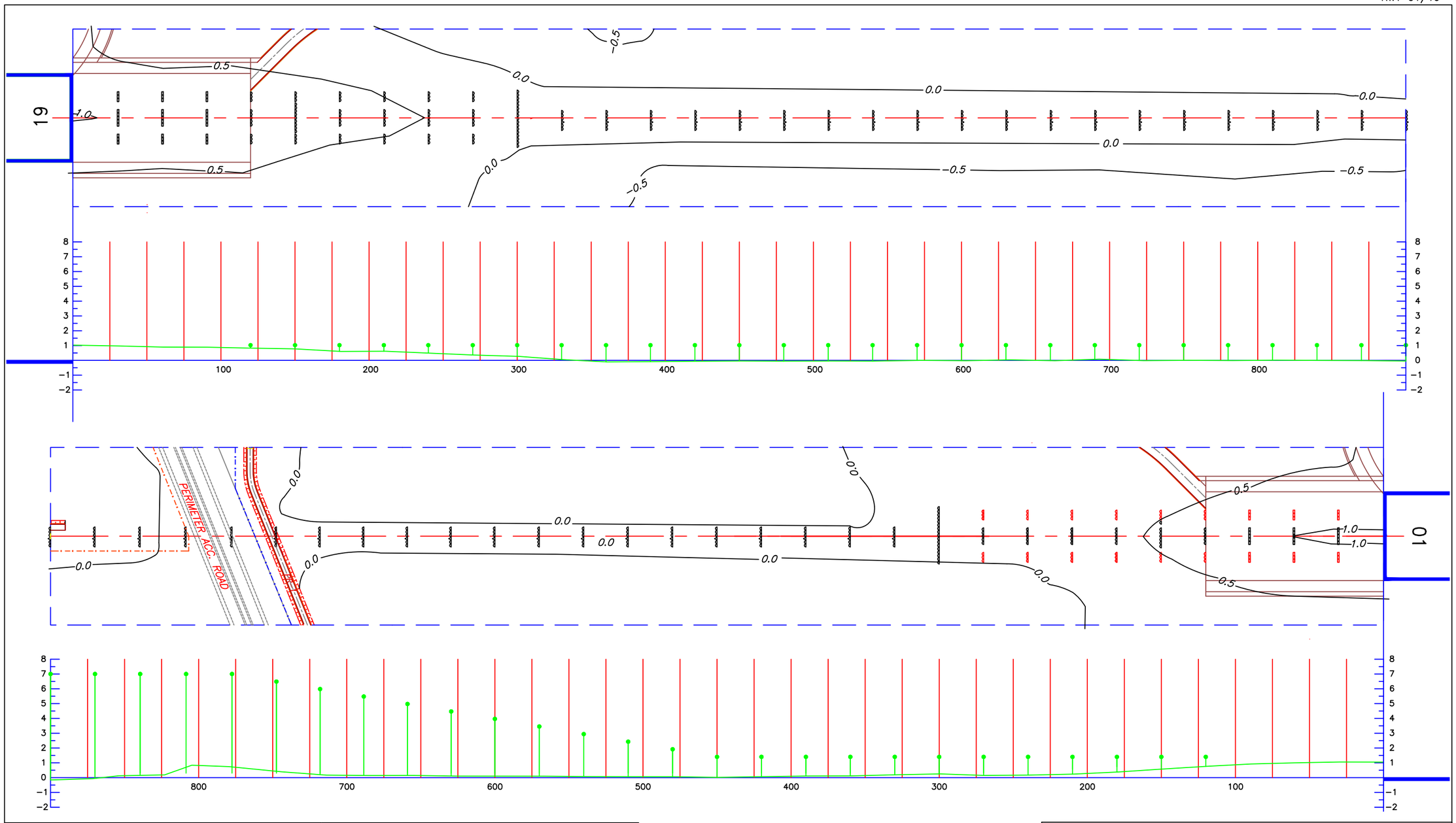
DIMENSIONS AND ELEVATIONS IN METRES

# PRECISION APPROACH TERRAIN CHART – ICAO

BANGKOK/Suvarnabhumi International
RWY 01/19




CHANGE : REVISED CHART

| LEGEND | | | |
|---|---|---|---|
| BUILDING OR LARGE STRUCTURE | | CENTRE–LINE PROFILE | |
| ROAD | | DEVIATION AT LEAST ±3m FROM CENTRE–LINE PROFILE | |
| CONTOUR | 0.5 | APPROACH LIGHTS | |

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:250

CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR

| AMENDMENT RECORD | | |
|---|---|---|
| NO. | DATE | ENTERED BY |
| 01 | 16 FEB 2024 | Airports of Thailand Public Company Limited (AOT) |
| | | |
| | | |

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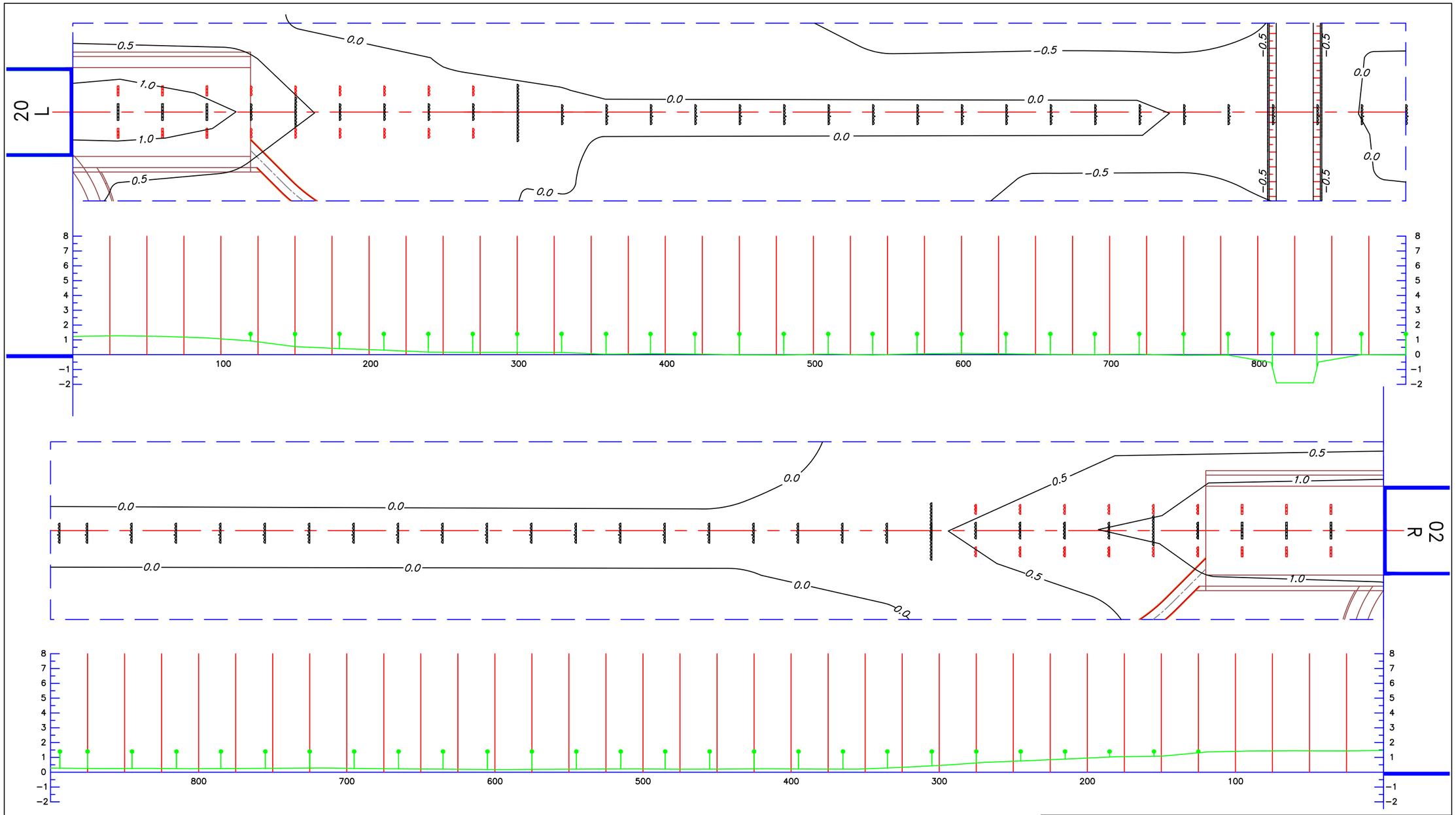
DIMENSIONS AND ELEVATIONS IN METRES

# PRECISION APPROACH TERRAIN CHART – ICAO

BANGKOK/Suvarnabhumi International Airport
RWY02R/20L




CHANGE : REVISED CHART

| LEGEND | | | |
|---|---|---|---|
| BUILDING OR LARGE STRUCTURE | | CENTRE–LINE PROFILE | |
| ROAD | | DEVIATION AT LEAST ±3m FROM CENTRE–LINE PROFILE | |
| CONTOUR | 0.5 | APPROACH LIGHTS | |

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:250

CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR

| AMENDMENT RECORD | | |
|---|---|---|
| NO. | DATE | ENTERED BY |
| 01 | 16 FEB 2024 | Airports of Thailand Public Company Limited (AOT) |
| | | |
| | | |

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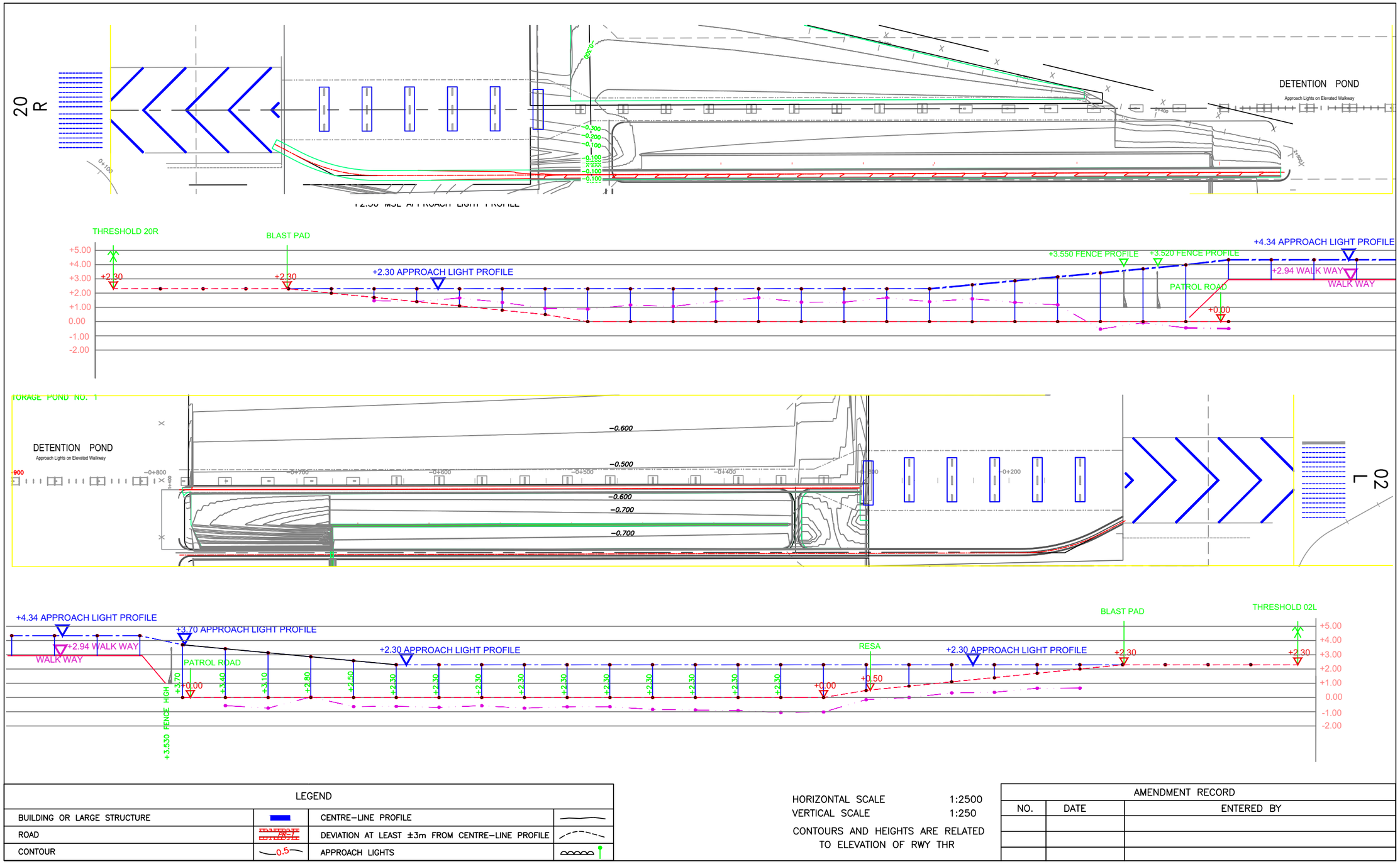
DIMENSIONS AND ELEVATIONS IN METRES

# PRECISION APPROACH TERRAIN CHART – ICAO

BANGKOK/Suvarnabhumi International Airport
RWY02L/20R




| LEGEND | | | |
|---|---|---|---|
| BUILDING OR LARGE STRUCTURE | | CENTRE–LINE PROFILE | |
| ROAD | | DEVIATION AT LEAST ±3m FROM CENTRE–LINE PROFILE | |
| CONTOUR | 0.5 | APPROACH LIGHTS | |

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:250
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR

| AMENDMENT RECORD | | |
|---|---|---|
| NO. | DATE | ENTERED BY |
| | | |
| | | |
| | | |

CHANGE :

**INTENTIONALLY BLANK**

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

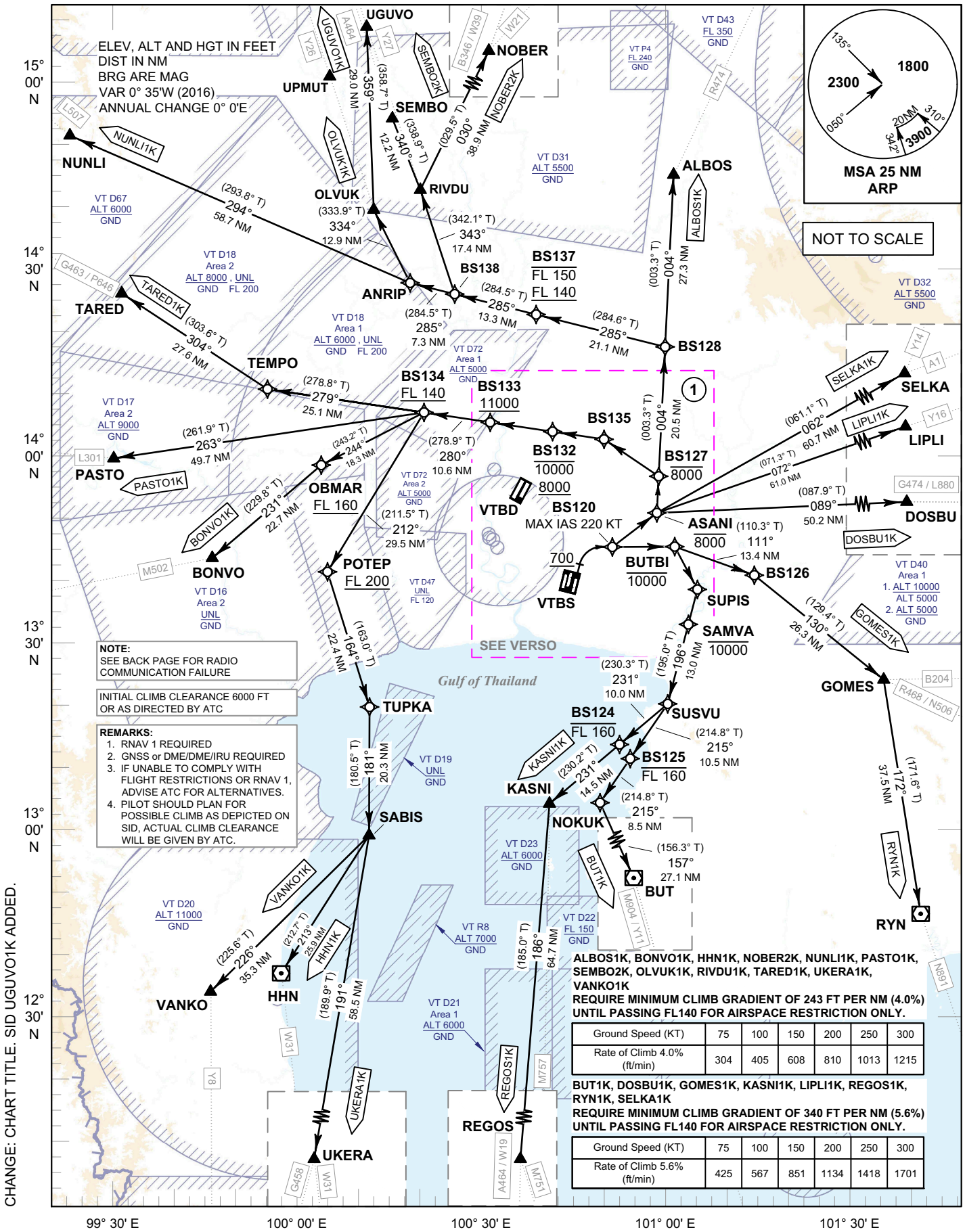
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)
## RNAV RWY01

ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K UGUVO1K VANKO1K




**NOTE:**
SEE BACK PAGE FOR RADIO COMMUNICATION FAILURE

INITIAL CLIMB CLEARANCE 6000 FT OR AS DIRECTED BY ATC

**REMARKS:**
1. RNAV 1 REQUIRED
2. GNSS or DME/DME/IRU REQUIRED
3. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS OR RNAV 1, ADVISE ATC FOR ALTERNATIVES.
4. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.

**ALBOS1K, BONVO1K, HHN1K, NOBER2K, NUNLI1K, PASTO1K, SEMBO2K, OLVUK1K, RIVDU1K, TARED1K, UKERA1K, VANKO1K**
**REQUIRE MINIMUM CLIMB GRADIENT OF 243 FT PER NM (4.0%) UNTIL PASSING FL140 FOR AIRSPACE RESTRICTION ONLY.**

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 4.0% (ft/min) | 304 | 405 | 608 | 810 | 1013 | 1215 |

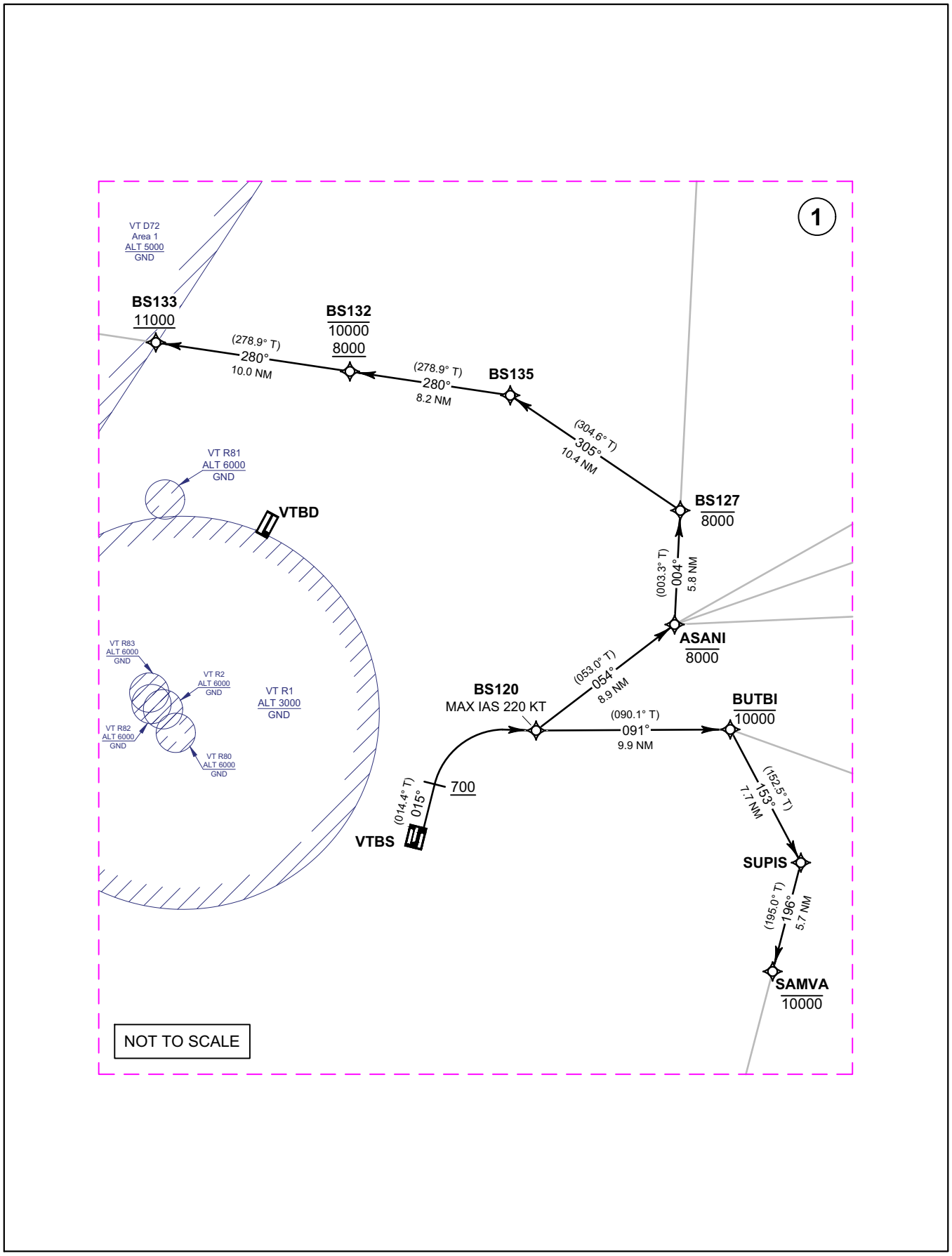
**BUT1K, DOSBU1K, GOMES1K, KASNI1K, LIPLI1K, REGOS1K, RYN1K, SELKA1K**
**REQUIRE MINIMUM CLIMB GRADIENT OF 340 FT PER NM (5.6%) UNTIL PASSING FL140 FOR AIRSPACE RESTRICTION ONLY.**

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 5.6% (ft/min) | 425 | 567 | 851 | 1134 | 1418 | 1701 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K




CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

**TABULAR DESCRIPTION (1)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1K TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS128 | - | 004°(003.3°) | + 0.6 | 20.5 | - | - | - | - | RNAV 1 |
| 070 | TF | ALBOS | - | 004°(003.3°) | + 0.6 | 27.3 | - | - | - | - | RNAV 1 |
| BONVO1K TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 305°(304.6°) | + 0.6 | 10.4 | - | - | - | - | RNAV 1 |
| 070 | TF | BS132 | - | 280°(278.9°) | + 0.6 | 8.2 | - | -10000; +8000 | - | - | RNAV 1 |
| 080 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 090 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 100 | TF | OBMAR | - | 244°(243.2°) | + 0.6 | 18.3 | - | +FL160 | - | - | RNAV 1 |
| 110 | TF | BONVO | - | 231°(229.8°) | + 0.6 | 22.7 | - | - | - | - | RNAV 1 |
| BUT1K TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | BUTBI | - | 091°(090.1°) | + 0.6 | 9.9 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | SUPIS | - | 153°(152.5°) | + 0.6 | 7.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SAMVA | - | 196°(195.0°) | + 0.6 | 5.7 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 080 | TF | BS125 | - | 215°(214.8°) | + 0.6 | 10.5 | - | -FL160 | - | - | RNAV 1 |
| 090 | TF | NOKUK | - | 215°(214.8°) | + 0.6 | 8.5 | - | - | - | - | RNAV 1 |
| 100 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

CHANGE: CHART TITLE.

**TABULAR DESCRIPTION (2)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DOSBU1K TO G474, L880 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | DOSBU | - | 089°(087.9°) | + 0.6 | 50.2 | - | - | - | - | RNAV 1 |
| GOMES1K TO R468/N506, B204 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | BUTBI | - | 091°(090.1°) | + 0.6 | 9.9 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS126 | - | 111°(110.3°) | + 0.6 | 13.4 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 130°(129.4°) | + 0.6 | 26.3 | - | - | - | - | RNAV 1 |
| HHN1K TO W31 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 305°(304.6°) | + 0.6 | 10.4 | - | - | - | - | RNAV 1 |
| 070 | TF | BS132 | - | 280°(278.9°) | + 0.6 | 8.2 | - | -10000; +8000 | - | - | RNAV 1 |
| 080 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 090 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 100 | TF | POTEP | - | 212°(211.5°) | + 0.6 | 29.5 | - | +FL200 | - | - | RNAV 1 |
| 110 | TF | TUPKA | - | 164°(163.0°) | + 0.6 | 22.4 | - | - | - | - | RNAV 1 |
| 120 | TF | SABIS | - | 181°(180.5°) | + 0.6 | 20.3 | - | - | - | - | RNAV 1 |
| 130 | TF | HHN | - | 213°(212.7°) | + 0.6 | 25.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

**TABULAR DESCRIPTION (3)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KASNI1K TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | BUTBI | - | 091°(090.1°) | + 0.6 | 9.9 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | SUPIS | - | 153°(152.5°) | + 0.6 | 7.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SAMVA | - | 196°(195.0°) | + 0.6 | 5.7 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 080 | TF | BS124 | - | 231°(230.3°) | + 0.6 | 10.0 | - | -FL160 | - | - | RNAV 1 |
| 090 | TF | KASNI | - | 231°(230.2°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |
| LIPLI1K TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | LIPLI | - | 072°(071.3°) | + 0.6 | 61.0 | - | - | - | - | RNAV 1 |
| NOBER2K TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS128 | - | 004°(003.3°) | + 0.6 | 20.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 21.1 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | RIVDU | - | 343°(342.1°) | + 0.6 | 17.4 | - | - | - | - | RNAV 1 |
| 100 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

**TABULAR DESCRIPTION (4)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NUNLI1K TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS128 | - | 004°(003.3°) | + 0.6 | 20.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 21.1 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 285°(284.5°) | + 0.6 | 7.3 | - | - | - | - | RNAV 1 |
| 100 | TF | NUNLI | - | 294°(293.8°) | + 0.6 | 58.7 | - | - | - | - | RNAV 1 |
| OLVUK1K TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS128 | - | 004°(003.3°) | + 0.6 | 20.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 21.1 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 285°(284.5°) | + 0.6 | 7.3 | - | - | - | - | RNAV 1 |
| 100 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

**TABULAR DESCRIPTION (5)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PASTO1K TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 305°(304.6°) | + 0.6 | 10.4 | - | - | - | - | RNAV 1 |
| 070 | TF | BS132 | - | 280°(278.9°) | + 0.6 | 8.2 | - | -10000; +8000 | - | - | RNAV 1 |
| 080 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 090 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 100 | TF | PASTO | - | 263°(261.9°) | + 0.6 | 49.7 | - | - | - | - | RNAV 1 |
| REGOS1K TO M751, A464/W19 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | BUTBI | - | 091°(090.1°) | + 0.6 | 9.9 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | SUPIS | - | 153°(152.5°) | + 0.6 | 7.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SAMVA | - | 196°(195.0°) | + 0.6 | 5.7 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 080 | TF | BS124 | - | 231°(230.3°) | + 0.6 | 10.0 | - | -FL160 | - | - | RNAV 1 |
| 090 | TF | KASNI | - | 231°(230.2°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |
| 100 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

**TABULAR DESCRIPTION (6)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RYN1K TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | BUTBI | - | 091°(090.1°) | + 0.6 | 9.9 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS126 | - | 111°(110.3°) | + 0.6 | 13.4 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 130°(129.4°) | + 0.6 | 26.3 | - | - | - | - | RNAV 1 |
| 070 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |
| SELKA1K TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | SELKA | - | 062°(061.1°) | + 0.6 | 60.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

**TABULAR DESCRIPTION (7)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SEMBO2K TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS128 | - | 004°(003.3°) | + 0.6 | 20.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 21.1 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | RIVDU | - | 343°(342.1°) | + 0.6 | 17.4 | - | - | - | - | RNAV 1 |
| 100 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| TARED1K TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 030 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 040 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS135 | - | 305°(304.6°) | + 0.6 | 10.4 | - | - | - | - | RNAV 1 |
| 060 | TF | BS132 | - | 280°(278.9°) | + 0.6 | 8.2 | - | -10000; +8000 | - | - | RNAV 1 |
| 070 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 080 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 090 | TF | TEMPO | - | 279°(278.8°) | + 0.6 | 25.1 | - | - | - | - | RNAV 1 |
| 100 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

**TABULAR DESCRIPTION (8)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UKERA1K TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 305°(304.6°) | + 0.6 | 10.4 | - | - | - | - | RNAV 1 |
| 070 | TF | BS132 | - | 280°(278.9°) | + 0.6 | 8.2 | - | -10000; +8000 | - | - | RNAV 1 |
| 080 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 090 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 100 | TF | POTEP | - | 212°(211.5°) | + 0.6 | 29.5 | - | +FL200 | - | - | RNAV 1 |
| 110 | TF | TUPKA | - | 164°(163.0°) | + 0.6 | 22.4 | - | - | - | - | RNAV 1 |
| 120 | TF | SABIS | - | 181°(180.5°) | + 0.6 | 20.3 | - | - | - | - | RNAV 1 |
| 130 | TF | UKERA | - | 191°(189.9°) | + 0.6 | 58.5 | - | - | - | - | RNAV 1 |
| VANKO1K TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 305°(304.6°) | + 0.6 | 10.4 | - | - | - | - | RNAV 1 |
| 070 | TF | BS132 | - | 280°(278.9°) | + 0.6 | 8.2 | - | -10000; +8000 | - | - | RNAV 1 |
| 080 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 090 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 100 | TF | POTEP | - | 212°(211.5°) | + 0.6 | 29.5 | - | +FL200 | - | - | RNAV 1 |
| 110 | TF | TUPKA | - | 164°(163.0°) | + 0.6 | 22.4 | - | - | - | - | RNAV 1 |
| 120 | TF | SABIS | - | 181°(180.5°) | + 0.6 | 20.3 | - | - | - | - | RNAV 1 |
| 130 | TF | VANKO | - | 226°(225.6°) | + 0.6 | 35.3 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

**TABULAR DESCRIPTION (9)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UGUVO1K TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 015°(014.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS120 | - | - | + 0.6 | - | R | - | -220 | - | RNAV 1 |
| 040 | TF | ASANI | - | 054°(053.0°) | + 0.6 | 8.9 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS127 | - | 004°(003.3°) | + 0.6 | 5.8 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS128 | - | 004°(003.3°) | + 0.6 | 20.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 21.1 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 285°(284.5°) | + 0.6 | 7.3 | - | - | - | - | RNAV 1 |
| 100 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |
| 110 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE. SID UGUVO1K ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**

ALBOS1K BONVO1K BUT1K DOSBU1K
GOMES1K HHN1K KASNI1K LIPLI1K
NOBER2K NUNLI1K OLVUK1K PASTO1K
REGOS1K RYN1K SELKA1K SEMBO2K
TARED1K UKERA1K UGUVO1K VANKO1K

CHANGE: CHART TITLE. UGUVO ADDED.

## WAYPOINT LIST

**RNAV RWY01**

| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
|---|---|---|---|
| DER RWY01 | 13° 41' 30.17" N 100° 45' 39.72" E | NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E | NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| ANRIP | 14° 27' 48.15" N 100° 18' 33.08" E | NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| ASANI | 13° 50' 56.59" N 100° 58' 29.21" E | OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E | OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| BS120 | 13° 45' 35.12" N 100° 51' 12.24" E | PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| BS124 | 13° 14' 09.80" N 100° 52' 07.86" E | POTEP | 13° 41' 54.24" N 100° 04' 50.87" E |
| BS125 | 13° 11' 54.24" N 100° 53' 50.73" E | REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| BS126 | 13° 40' 53.94" N 101° 14' 15.09" E | RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| BS127 | 13° 56' 45.99" N 100° 58' 49.99" E | RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| BS128 | 14° 17' 20.29" N 101° 00' 03.68" E | SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| BS132 | 14° 04' 00.08" N 100° 41' 36.52" E | SAMVA | 13° 33' 10.56" N 101° 03' 27.30" E |
| BS133 | 14° 05' 32.89" N 100° 31' 27.62" E | SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| BS134 | 14° 07' 10.86" N 100° 20' 41.56" E | SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| BS135 | 14° 02' 43.11" N 100° 49' 59.32" E | SUPIS | 13° 38' 43.46" N 101° 04' 58.79" E |
| BS137 | 14° 22' 38.81" N 100° 39' 04.16" E | SUSVU | 13° 20' 33.99" N 100° 59' 59.73" E |
| BS138 | 14° 25' 58.19" N 100° 25' 48.74" E | TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E | TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| BUTBI | 13° 45' 33.49" N 101° 01' 20.98" E | TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E | TUPKA | 13° 20' 22.25" N 100° 11' 34.96" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E | UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |
| HHN | 12° 38' 04.04" N 099° 57' 04.23" E | UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E | VANKO | 12° 35' 11.05" N 099° 45' 37.55" E |
| LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E | | |

**INTENTIONALLY BLANK**

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

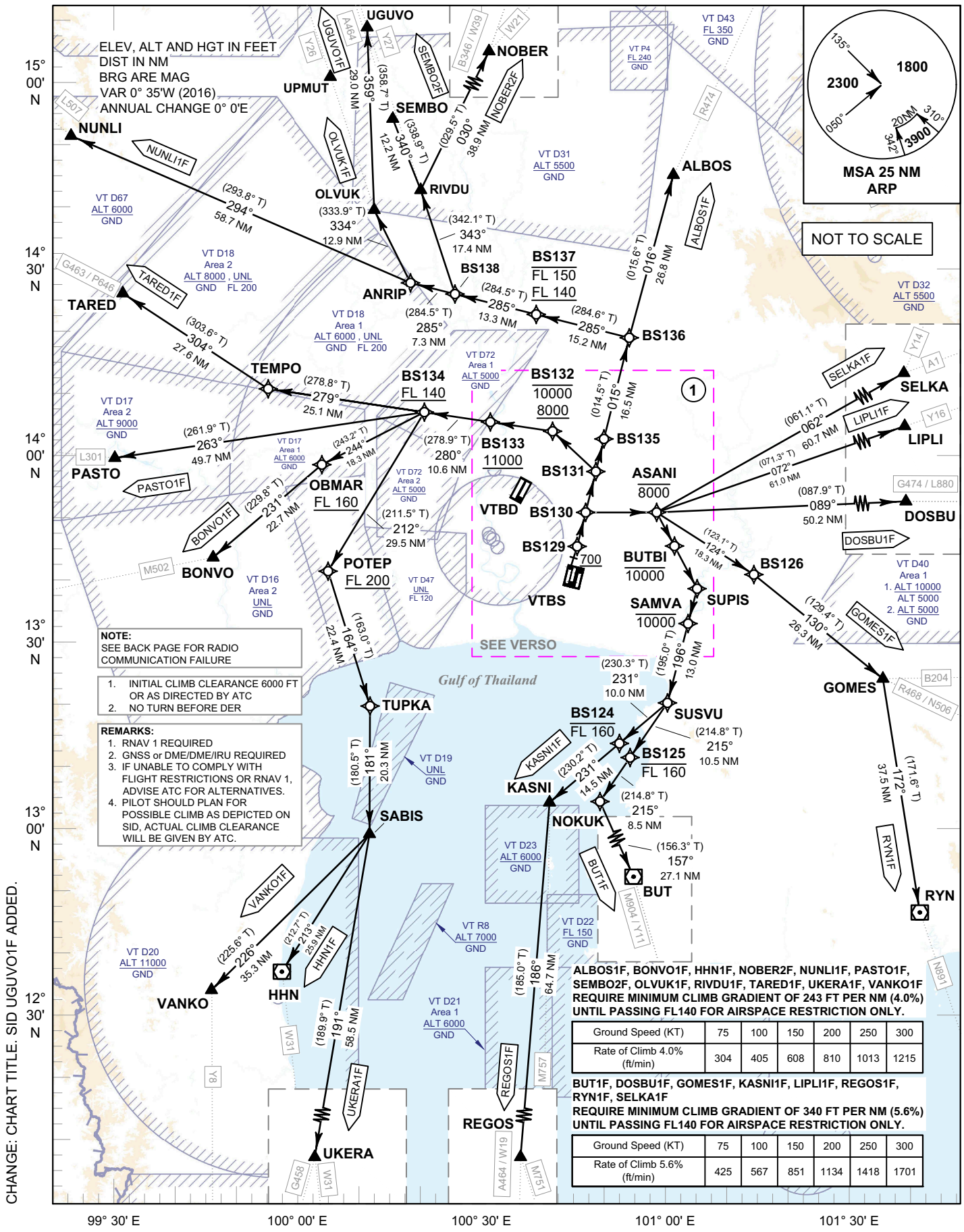
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)
## RNAV RWY02L

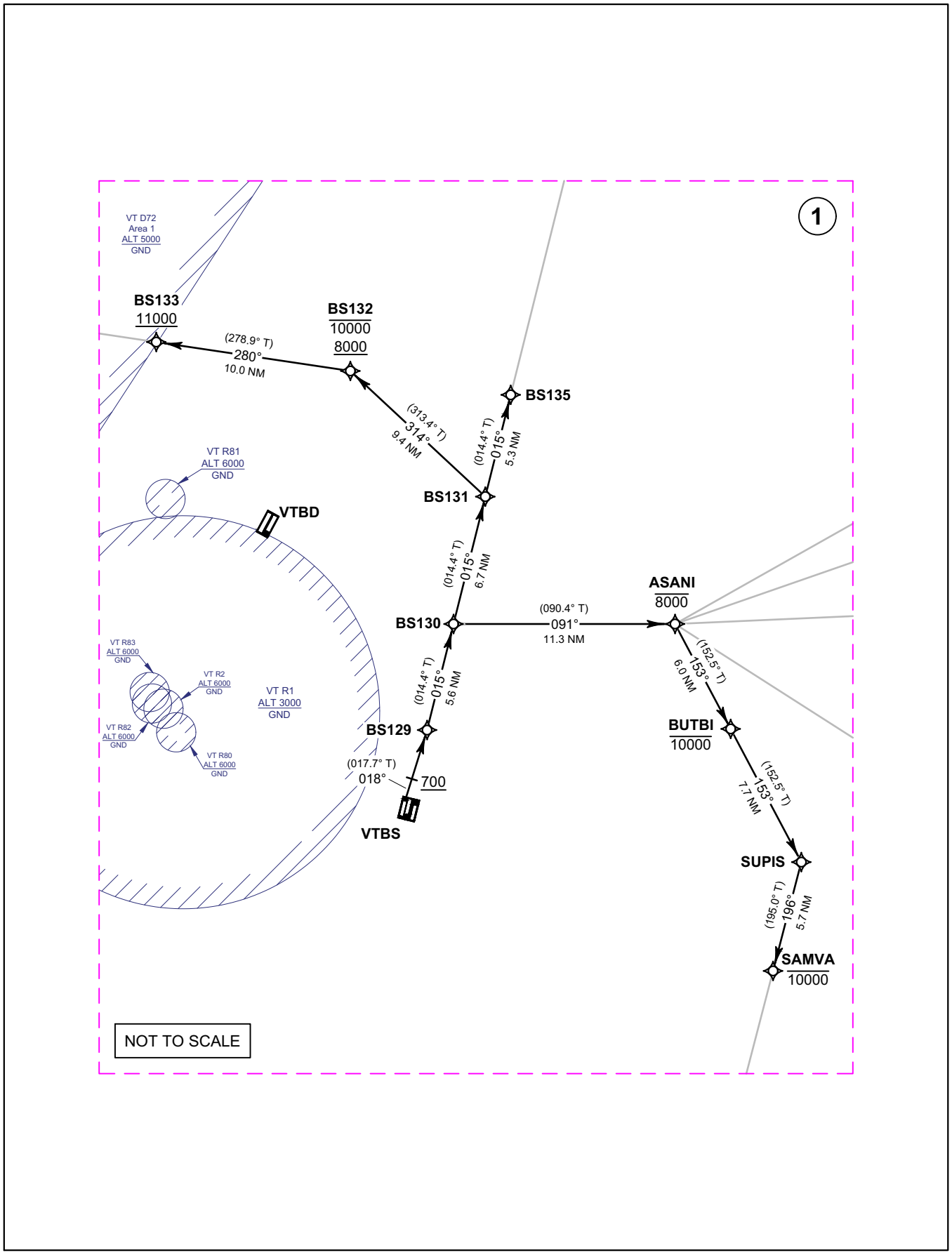
ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F UGUVO1F VANKO1F



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F




CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

**TABULAR DESCRIPTION (1)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1F TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 070 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 016°(015.6°) | + 0.6 | 26.8 | - | - | - | - | RNAV 1 |
| BONVO1F TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 070 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 080 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 090 | TF | OBMAR | - | 244°(243.2°) | + 0.6 | 18.3 | - | +FL160 | - | - | RNAV 1 |
| 100 | TF | BONVO | - | 231°(229.8°) | + 0.6 | 22.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

**TABULAR DESCRIPTION (2)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BUT1F TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BUTBI | - | 153°(152.5°) | + 0.6 | 6.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | SUPIS | - | 153°(152.5°) | + 0.6 | 7.7 | - | - | - | - | RNAV 1 |
| 080 | TF | SAMVA | - | 196°(195.0°) | + 0.6 | 5.7 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 100 | TF | BS125 | - | 215°(214.8°) | + 0.6 | 10.5 | - | -FL160 | - | - | RNAV 1 |
| 110 | TF | NOKUK | - | 215°(214.8°) | + 0.6 | 8.5 | - | - | - | - | RNAV 1 |
| 120 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |
| DOSBU1F TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | DOSBU | - | 089°(087.9°) | + 0.6 | 50.2 | - | - | - | - | RNAV 1 |
| GOMES1F TO R468/N506, B204 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS126 | - | 124°(123.1°) | + 0.6 | 18.3 | - | - | - | - | RNAV 1 |
| 070 | TF | GOMES | - | 130°(129.4°) | + 0.6 | 26.3 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

**TABULAR DESCRIPTION (3)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HHN1F TO W31 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | | - | RNAV 1 |
| 060 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 070 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 080 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 090 | TF | POTEP | - | 212°(211.5°) | + 0.6 | 29.5 | - | +FL200 | - | - | RNAV 1 |
| 100 | TF | TUPKA | - | 164°(163.0°) | + 0.6 | 22.4 | - | - | - | - | RNAV 1 |
| 110 | TF | SABIS | - | 181°(180.5°) | + 0.6 | 20.3 | - | - | - | - | RNAV 1 |
| 120 | TF | HHN | - | 213°(212.7°) | + 0.6 | 25.9 | - | - | - | - | RNAV 1 |
| KASNI1F TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BUTBI | - | 153°(152.5°) | + 0.6 | 6.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | SUPIS | - | 153°(152.5°) | + 0.6 | 7.7 | - | - | - | - | RNAV 1 |
| 080 | TF | SAMVA | - | 196°(195.0°) | + 0.6 | 5.7 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 100 | TF | BS124 | - | 231°(230.3°) | + 0.6 | 10.0 | - | -FL 160 | - | - | RNAV 1 |
| 110 | TF | KASNI | - | 231°(230.2°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

**TABULAR DESCRIPTION (4)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LIPLI1F TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | LIPLI | - | 072°(071.3°) | + 0.6 | 61.0 | - | - | - | - | RNAV 1 |
| NOBER2F TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 070 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 080 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 090 | TF | BS138 | - | 285°(284.4°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 100 | TF | RIVDU | - | 343°(342.1°) | + 0.6 | 17.4 | - | - | - | - | RNAV 1 |
| 110 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |
| NUNLI1F TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 070 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 080 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 090 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 100 | TF | ANRIP | - | 285°(284.5°) | + 0.6 | 7.3 | - | - | - | - | RNAV 1 |
| 110 | TF | NUNLI | - | 294°(293.8°) | + 0.6 | 58.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

**TABULAR DESCRIPTION (5)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OLVUK1F TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 070 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 080 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 090 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 100 | TF | ANRIP | - | 285°(284.5°) | + 0.6 | 7.3 | - | - | - | - | RNAV 1 |
| 110 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |
| PASTO1F TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 070 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 080 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 090 | TF | PASTO | - | 263°(261.9°) | + 0.6 | 49.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

**TABULAR DESCRIPTION (6)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| REGOS1F TO M751, A464/W19 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BUTBI | - | 153°(152.5°) | + 0.6 | 6.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | SUPIS | - | 153°(152.5°) | + 0.6 | 7.7 | - | - | - | - | RNAV 1 |
| 080 | TF | SAMVA | - | 196°(195.0°) | + 0.6 | 5.7 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 100 | TF | BS124 | - | 231°(230.3°) | + 0.6 | 10.0 | - | -FL 160 | - | - | RNAV 1 |
| 110 | TF | KASNI | - | 231°(230.2°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |
| 120 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |
| RYN1F TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS126 | - | 124°(123.1°) | + 0.6 | 18.3 | - | - | - | - | RNAV 1 |
| 070 | TF | GOMES | - | 130°(129.4°) | + 0.6 | 26.3 | - | - | - | - | RNAV 1 |
| 080 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

**TABULAR DESCRIPTION (7)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SELKA1F TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | SELKA | - | 062°(061.1°) | + 0.6 | 60.7 | - | - | - | - | RNAV 1 |
| SEMBO2F TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 070 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 080 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 090 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 100 | TF | RIVDU | - | 343°(342.1°) | + 0.6 | 17.4 | - | - | - | - | RNAV 1 |
| 110 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| TARED1F TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 070 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 080 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 090 | TF | TEMPO | - | 279°(278.8°) | + 0.6 | 25.1 | - | - | - | - | RNAV 1 |
| 100 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

**TABULAR DESCRIPTION (8)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UKERA1F TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 070 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 080 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 090 | TF | POTEP | - | 212°(211.5°) | + 0.6 | 29.5 | - | +FL200 | - | - | RNAV 1 |
| 100 | TF | TUPKA | - | 164°(163.0°) | + 0.6 | 22.4 | - | - | - | - | RNAV 1 |
| 110 | TF | SABIS | - | 181°(180.5°) | + 0.6 | 20.3 | - | - | - | - | RNAV 1 |
| 120 | TF | UKERA | - | 191°(189.9°) | + 0.6 | 58.5 | - | - | - | - | RNAV 1 |
| VANKO1F TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 070 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 080 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 090 | TF | POTEP | - | 212°(211.5°) | + 0.6 | 29.5 | - | +FL200 | - | - | RNAV 1 |
| 100 | TF | TUPKA | - | 164°(163.0°) | + 0.6 | 22.4 | - | - | - | - | RNAV 1 |
| 110 | TF | SABIS | - | 181°(180.5°) | + 0.6 | 20.3 | - | - | - | - | RNAV 1 |
| 120 | TF | VANKO | - | 226°(225.6°) | + 0.6 | 35.3 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

**TABULAR DESCRIPTION (9)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UGUVO1F TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 018°(017.7°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS129 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 060 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 070 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 080 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 090 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 100 | TF | ANRIP | - | 285°(284.5°) | + 0.6 | 7.3 | - | - | - | - | RNAV 1 |
| 110 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |
| 120 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE. SID UGUVO1F ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**

ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RYN1F SELKA1F SEMBO2F
TARED1F UKERA1F UGUVO1F VANKO1F

## WAYPOINT LIST

**RNAV RWY02L**

| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
|---|---|---|---|
| DER RWY02L | 13° 42' 00.68" N 100° 44' 18.41" E | LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E | NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| ANRIP | 14° 27' 48.15" N 100° 18' 33.08" E | NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| ASANI | 13° 50' 56.59" N 100° 58' 29.21" E | NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E | OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| BS124 | 13° 14' 09.80" N 100° 52' 07.86" E | OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| BS125 | 13° 11' 54.24" N 100° 53' 50.73" E | PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| BS126 | 13° 40' 53.94" N 101° 14' 15.09" E | POTEP | 13° 41' 54.24" N 100° 04' 50.87" E |
| BS129 | 13° 45' 37.37" N 100° 45' 29.11" E | REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| BS130 | 13° 51' 01.92" N 100° 46' 54.51" E | RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| BS131 | 13° 57' 31.70" N 100° 48' 37.19" E | RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| BS132 | 14° 04' 00.08" N 100° 41' 36.52" E | SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| BS133 | 14° 05' 32.89" N 100° 31' 27.62" E | SAMVA | 13° 33' 10.56" N 101° 03' 27.30" E |
| BS134 | 14° 07' 10.86" N 100° 20' 41.56" E | SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| BS135 | 14° 02' 43.11" N 100° 49' 59.32" E | SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| BS136 | 14° 18' 48.67" N 100° 54' 15.03" E | SUPIS | 13° 38' 43.46" N 101° 04' 58.79" E |
| BS137 | 14° 22' 38.81" N 100° 39' 04.16" E | SUSVU | 13° 20' 33.99" N 100° 59' 59.73" E |
| BS138 | 14° 25' 58.19" N 100° 25' 48.74" E | TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E | TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| BUTBI | 13° 45' 33.49" N 101° 01' 20.98" E | TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E | TUPKA | 13° 20' 22.25" N 100° 11' 34.96" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E | UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |
| HHN | 12° 38' 04.04" N 099° 57' 04.23" E | UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E | VANKO | 12° 35' 11.05" N 099° 45' 37.55" E |

CHANGE: CHART TITLE. UGUVO ADDED.

**INTENTIONALLY BLANK**

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

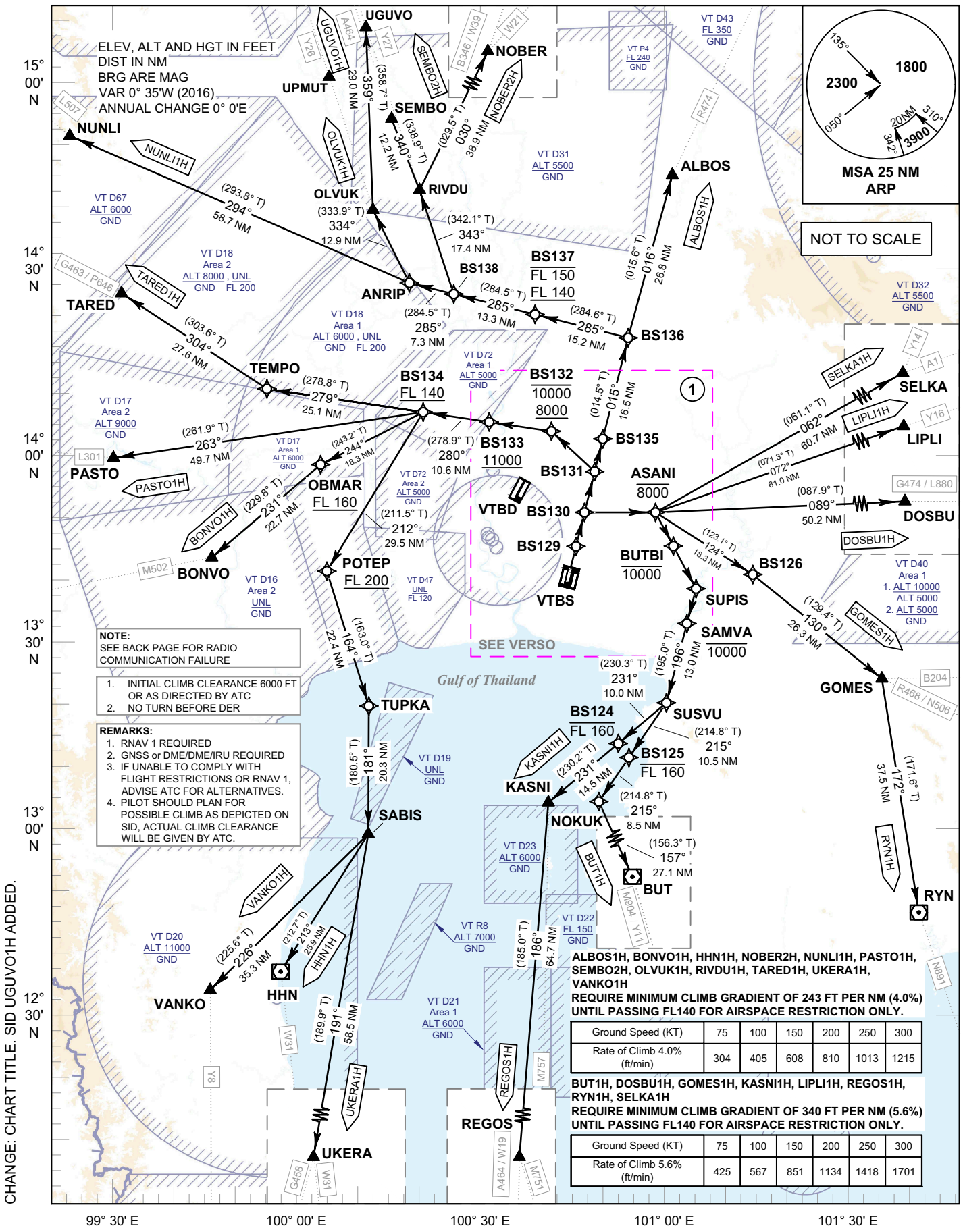
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)
## RNAV RWY02R

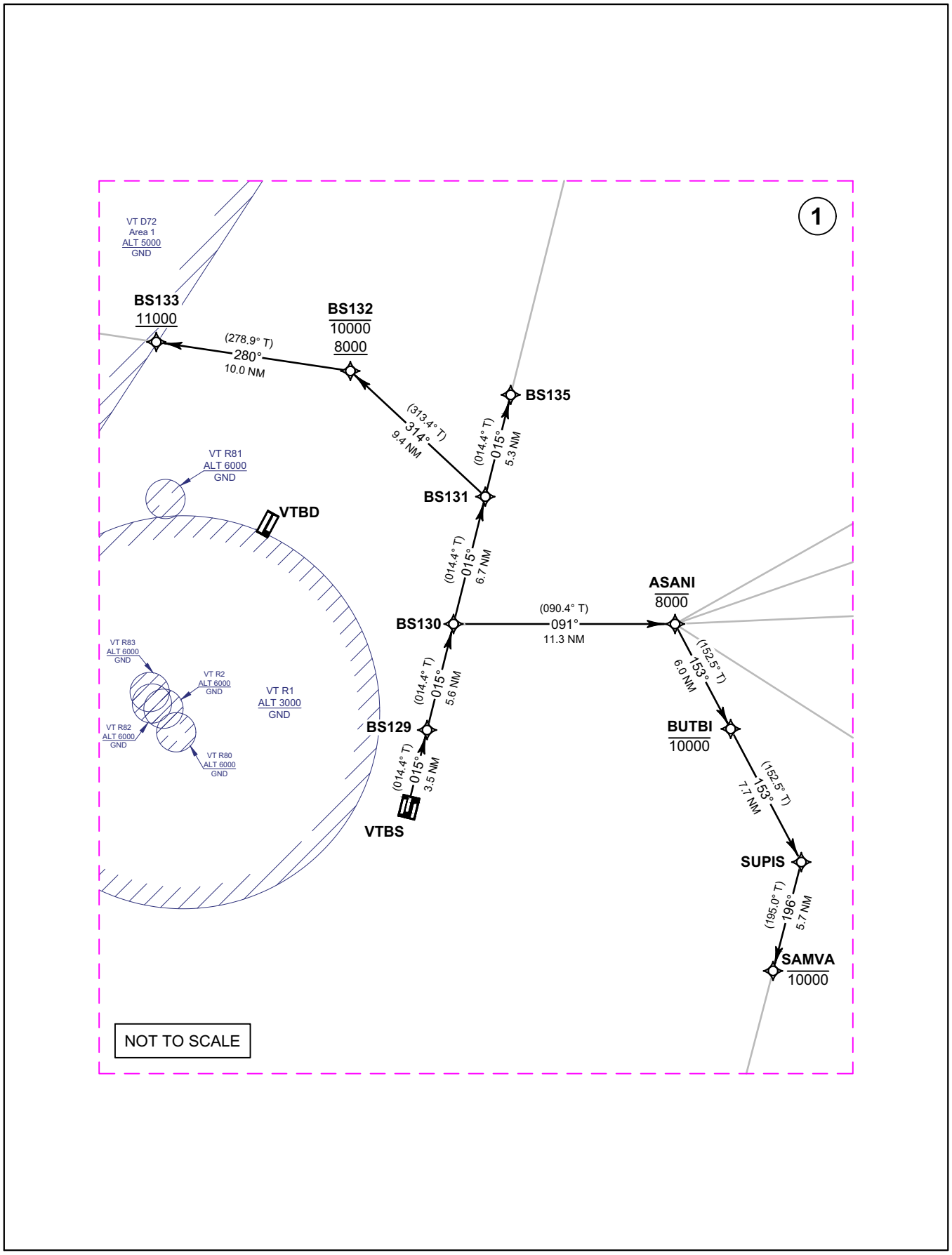
ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H
GOMES1H HHN1H KASNI1H LIPLI1H
NOBER2H NUNLI1H OLVUK1H PASTO1H
REGOS1H RYN1H SELKA1H SEMBO2H
TARED1H UKERA1H UGUVO1H VANKO1H




CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H
GOMES1H HHN1H KASNI1H LIPLI1H
NOBER2H NUNLI1H OLVUK1H PASTO1H
REGOS1H RYN1H SELKA1H SEMBO2H
TARED1H UKERA1H UGUVO1H VANKO1H

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H
GOMES1H HHN1H KASNI1H LIPLI1H
NOBER2H NUNLI1H OLVUK1H PASTO1H
REGOS1H RYN1H SELKA1H SEMBO2H
TARED1H UKERA1H UGUVO1H VANKO1H

**TABULAR DESCRIPTION (1)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1H TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 060 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 070 | TF | ALBOS | - | 016°(015.6°) | + 0.6 | 26.8 | - | - | - | - | RNAV 1 |
| BONVO1H TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 060 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | OBMAR | - | 244°(243.2°) | + 0.6 | 18.3 | - | +FL160 | - | - | RNAV 1 |
| 090 | TF | BONVO | - | 231°(229.8°) | + 0.6 | 22.7 | - | - | - | - | RNAV 1 |
| BUT1H TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BUTBI | - | 153°(152.5°) | + 0.6 | 6.0 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | SUPIS | - | 153°(152.5°) | + 0.6 | 7.7 | - | - | - | - | RNAV 1 |
| 070 | TF | SAMVA | - | 196°(195.0°) | + 0.6 | 5.7 | - | -10000 | - | - | RNAV 1 |
| 080 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 090 | TF | BS125 | - | 215°(214.8°) | + 0.6 | 10.5 | - | -FL160 | - | - | RNAV 1 |
| 100 | TF | NOKUK | - | 215°(214.8°) | + 0.6 | 8.5 | - | - | - | - | RNAV 1 |
| 110 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H
GOMES1H HHN1H KASNI1H LIPLI1H
NOBER2H NUNLI1H OLVUK1H PASTO1H
REGOS1H RYN1H SELKA1H SEMBO2H
TARED1H UKERA1H UGUVO1H VANKO1H

**TABULAR DESCRIPTION (2)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DOSBU1H TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | DOSBU | - | 089°(087.9°) | + 0.6 | 50.2 | - | - | - | - | RNAV 1 |
| GOMES1H TO R468/N506, B204 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS126 | - | 124°(123.1°) | + 0.6 | 18.3 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 130°(129.4°) | + 0.6 | 26.3 | - | - | - | - | RNAV 1 |
| HHN1H TO W31 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 060 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | POTEP | - | 212°(211.5°) | + 0.6 | 29.5 | - | +FL200 | - | - | RNAV 1 |
| 090 | TF | TUPKA | - | 164°(163.0°) | + 0.6 | 22.4 | - | - | - | - | RNAV 1 |
| 100 | TF | SABIS | - | 181°(180.5°) | + 0.6 | 20.3 | - | - | - | - | RNAV 1 |
| 110 | TF | HHN | - | 213°(212.7°) | + 0.6 | 25.9 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H

**TABULAR DESCRIPTION (3)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KASNI1H TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BUTBI | - | 153°(152.5°) | + 0.6 | 6.0 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | SUPIS | - | 153°(152.5°) | + 0.6 | 7.7 | - | - | - | - | RNAV 1 |
| 070 | TF | SAMVA | - | 196°(195.0°) | + 0.6 | 5.7 | - | -10000 | - | - | RNAV 1 |
| 080 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 090 | TF | BS124 | - | 231°(230.3°) | + 0.6 | 10.0 | - | -FL 160 | - | - | RNAV 1 |
| 100 | TF | KASNI | - | 231°(230.2°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |
| LIPLI1H TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | LIPLI | - | 072°(071.3°) | + 0.6 | 61.0 | - | - | - | - | RNAV 1 |
| NOBER2H TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 060 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | RIVDU | - | 343°(342.1°) | + 0.6 | 17.4 | - | - | - | - | RNAV 1 |
| 100 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H UGUVO1H VANKO1H

CHANGE: CHART TITLE.

**TABULAR DESCRIPTION (4)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NUNLI1H TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 060 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 285°(284.4°) | + 0.6 | 7.3 | - | - | - | - | RNAV 1 |
| 100 | TF | NUNLI | - | 294°(293.8°) | + 0.6 | 58.7 | - | - | - | - | RNAV 1 |
| OLVUK1H TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 060 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 285°(284.5°) | + 0.6 | 7.3 | - | - | - | - | RNAV 1 |
| 100 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |
| PASTO1H TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 060 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | PASTO | - | 263°(261.9°) | + 0.6 | 49.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H
GOMES1H HHN1H KASNI1H LIPLI1H
NOBER2H NUNLI1H OLVUK1H PASTO1H
REGOS1H RYN1H SELKA1H SEMBO2H
TARED1H UKERA1H UGUVO1H VANKO1H

**TABULAR DESCRIPTION (5)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| REGOS1H TO M751, A464/W19 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BUTBI | - | 153°(152.5°) | + 0.6 | 6.0 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | SUPIS | - | 153°(152.5°) | + 0.6 | 7.7 | - | - | - | - | RNAV 1 |
| 070 | TF | SAMVA | - | 196°(195.0°) | + 0.6 | 5.7 | - | -10000 | - | - | RNAV 1 |
| 080 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 090 | TF | BS124 | - | 231°(230.3°) | + 0.6 | 10.0 | - | -FL 160 | - | - | RNAV 1 |
| 100 | TF | KASNI | - | 231°(230.2°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |
| 110 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |
| RYN1H TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS126 | - | 124°(123.1°) | + 0.6 | 18.3 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 130°(129.4°) | + 0.6 | 26.3 | - | - | - | - | RNAV 1 |
| 070 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |
| SELKA1H TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | ASANI | - | 091°(090.4°) | + 0.6 | 11.3 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | SELKA | - | 062°(061.1°) | + 0.6 | 60.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H
GOMES1H HHN1H KASNI1H LIPLI1H
NOBER2H NUNLI1H OLVUK1H PASTO1H
REGOS1H RYN1H SELKA1H SEMBO2H
TARED1H UKERA1H UGUVO1H VANKO1H

**TABULAR DESCRIPTION (6)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SEMBO2H TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 060 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | RIVDU | - | 343°(342.1°) | + 0.6 | 17.4 | - | - | - | - | RNAV 1 |
| 100 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| TARED1H TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 060 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | TEMPO | - | 279°(278.8°) | + 0.6 | 25.1 | - | - | - | - | RNAV 1 |
| 090 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H
GOMES1H HHN1H KASNI1H LIPLI1H
NOBER2H NUNLI1H OLVUK1H PASTO1H
REGOS1H RYN1H SELKA1H SEMBO2H
TARED1H UKERA1H UGUVO1H VANKO1H

**TABULAR DESCRIPTION (7)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UKERA1H TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 060 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | POTEP | - | 212°(211.5°) | + 0.6 | 29.5 | - | +FL200 | - | - | RNAV 1 |
| 090 | TF | TUPKA | - | 164°(163.0°) | + 0.6 | 22.4 | - | - | - | - | RNAV 1 |
| 100 | TF | SABIS | - | 181°(180.5°) | + 0.6 | 20.3 | - | - | - | - | RNAV 1 |
| 110 | TF | UKERA | - | 191°(189.9°) | + 0.6 | 58.5 | - | - | - | - | RNAV 1 |
| VANKO1H TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS132 | - | 314°(313.4°) | + 0.6 | 9.4 | - | -10000; +8000 | - | - | RNAV 1 |
| 060 | TF | BS133 | - | 280°(278.9°) | + 0.6 | 10.0 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BS134 | - | 280°(278.9°) | + 0.6 | 10.6 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | POTEP | - | 212°(211.5°) | + 0.6 | 29.5 | - | +FL200 | - | - | RNAV 1 |
| 090 | TF | TUPKA | - | 164°(163.0°) | + 0.6 | 22.4 | - | - | - | - | RNAV 1 |
| 100 | TF | SABIS | - | 181°(180.5°) | + 0.6 | 20.3 | - | - | - | - | RNAV 1 |
| 110 | TF | VANKO | - | 226°(225.6°) | + 0.6 | 35.3 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H
GOMES1H HHN1H KASNI1H LIPLI1H
NOBER2H NUNLI1H OLVUK1H PASTO1H
REGOS1H RYN1H SELKA1H SEMBO2H
TARED1H UKERA1H UGUVO1H VANKO1H

**TABULAR DESCRIPTION (8)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UGUVO1H TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS129 | - | 015°(014.4°) | + 0.6 | 3.5 | - | - | - | - | RNAV 1 |
| 030 | TF | BS130 | - | 015°(014.4°) | + 0.6 | 5.6 | - | - | - | - | RNAV 1 |
| 040 | TF | BS131 | - | 015°(014.4°) | + 0.6 | 6.7 | - | - | - | - | RNAV 1 |
| 050 | TF | BS135 | - | 015°(014.4°) | + 0.6 | 5.3 | - | - | - | - | RNAV 1 |
| 060 | TF | BS136 | - | 015°(014.5°) | + 0.6 | 16.5 | - | - | - | - | RNAV 1 |
| 070 | TF | BS137 | - | 285°(284.6°) | + 0.6 | 15.2 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 080 | TF | BS138 | - | 285°(284.5°) | + 0.6 | 13.3 | - | - | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 285°(284.5°) | + 0.6 | 7.3 | - | - | - | - | RNAV 1 |
| 100 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |
| 110 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE. SID UGUVO1H ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**

ALBOS1H BONVO1H BUT1H DOSBU1H
GOMES1H HHN1H KASNI1H LIPLI1H
NOBER2H NUNLI1H OLVUK1H PASTO1H
REGOS1H RYN1H SELKA1H SEMBO2H
TARED1H UKERA1H UGUVO1H VANKO1H

## WAYPOINT LIST

**RNAV RWY02R**

| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
|---|---|---|---|
| DER RWY02R | 13° 42' 13.21" N 100° 44' 35.44" E | LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E | NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| ANRIP | 14° 27' 48.15" N 100° 18' 33.08" E | NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| ASANI | 13° 50' 56.59" N 100° 58' 29.21" E | NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E | OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| BS124 | 13° 14' 09.80" N 100° 52' 07.86" E | OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| BS125 | 13° 11' 54.24" N 100° 53' 50.73" E | PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| BS126 | 13° 40' 53.94" N 101° 14' 15.09" E | POTEP | 13° 41' 54.24" N 100° 04' 50.87" E |
| BS129 | 13° 45' 37.37" N 100° 45' 29.11" E | REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| BS130 | 13° 51' 01.92" N 100° 46' 54.51" E | RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| BS131 | 13° 57' 31.70" N 100° 48' 37.19" E | RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| BS132 | 14° 04' 00.08" N 100° 41' 36.52" E | SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| BS133 | 14° 05' 32.89" N 100° 31' 27.62" E | SAMVA | 13° 33' 10.56" N 101° 03' 27.30" E |
| BS134 | 14° 07' 10.86" N 100° 20' 41.56" E | SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| BS135 | 14° 02' 43.11" N 100° 49' 59.32" E | SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| BS136 | 14° 18' 48.67" N 100° 54' 15.03" E | SUPIS | 13° 38' 43.46" N 101° 04' 58.79" E |
| BS137 | 14° 22' 38.81" N 100° 39' 04.16" E | SUSVU | 13° 20' 33.99" N 100° 59' 59.73" E |
| BS138 | 14° 25' 58.19" N 100° 25' 48.74" E | TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E | TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| BUTBI | 13° 45' 33.49" N 101° 01' 20.98" E | TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E | TUPKA | 13° 20' 22.25" N 100° 11' 34.96" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E | UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |
| HHN | 12° 38' 04.04" N 099° 57' 04.23" E | UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E | VANKO | 12° 35' 11.05" N 099° 45' 37.55" E |

CHANGE: CHART TITLE. UGUVO ADDED.

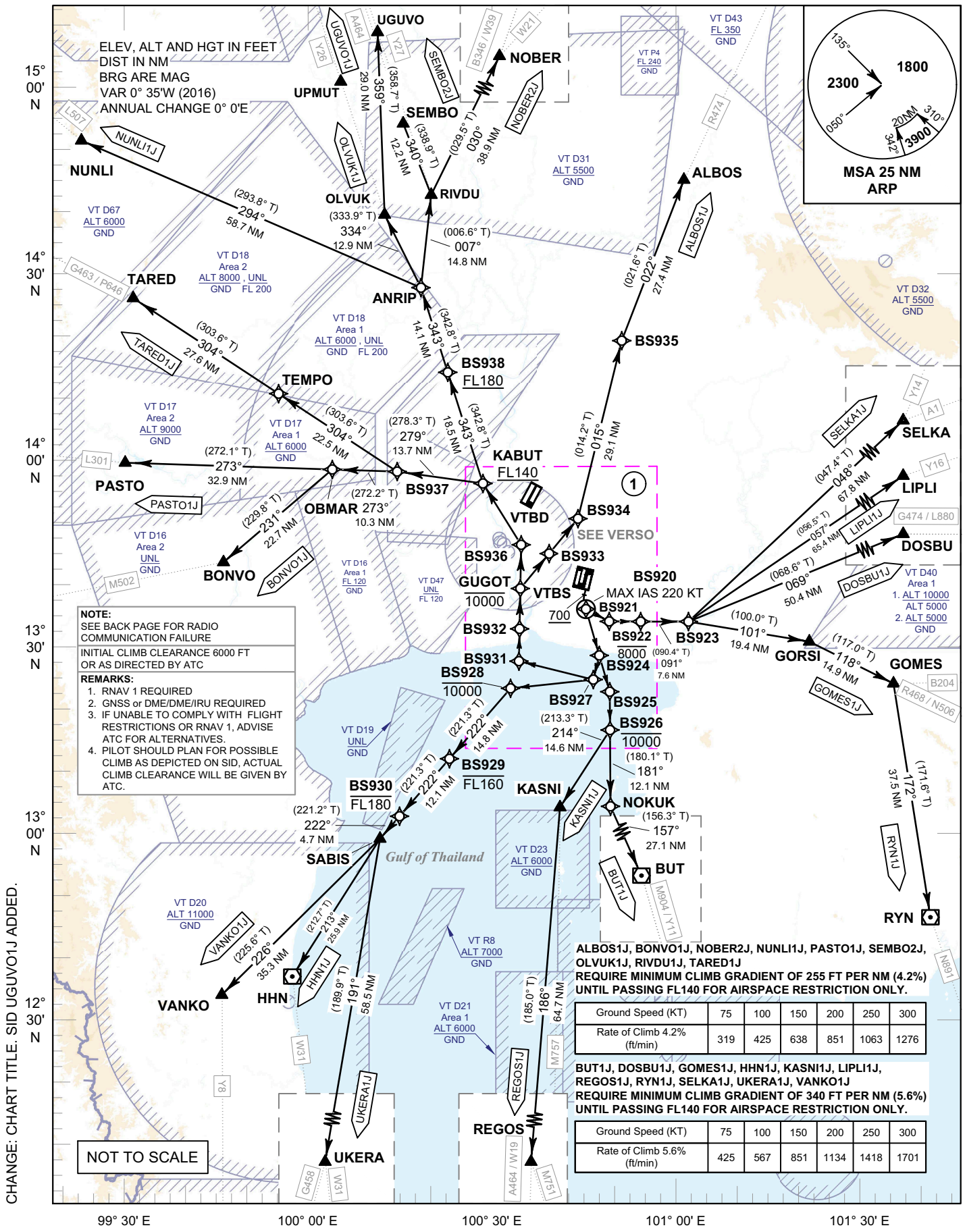
## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

| |
|---|
| TRANSITION ALTITUDE 11000 FT |
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)
## RNAV RWY19

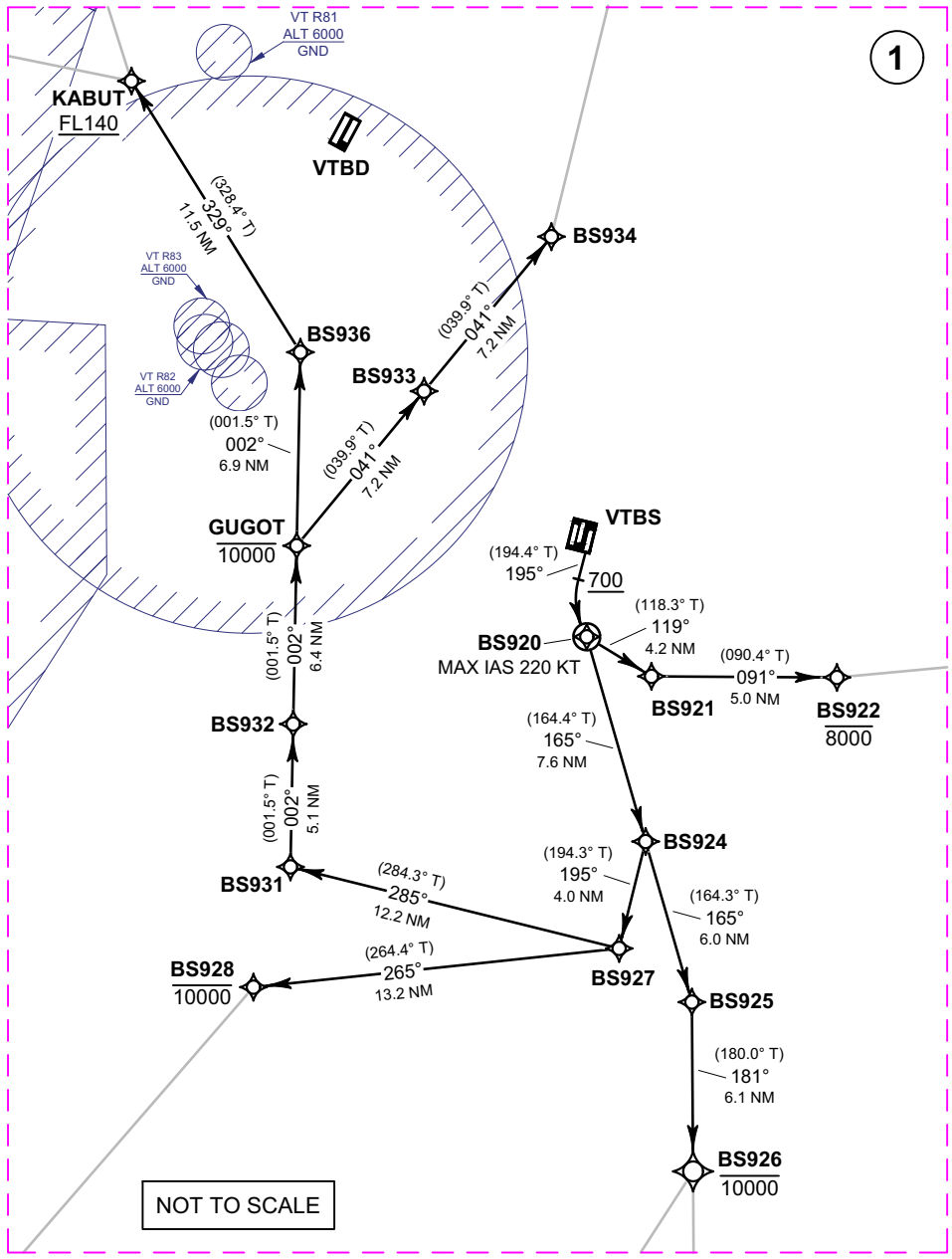
ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J UGUVO1J VANKO1J



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J




CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (1)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1J TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | | - | RNAV 1 |
| 060 | TF | BS931 | - | 285°(284.3°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS932 | - | 002°(001.5°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 080 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 100 | TF | BS934 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 110 | TF | BS935 | - | 015°(014.2°) | + 0.6 | 29.1 | - | - | - | - | RNAV 1 |
| 120 | TF | ALBOS | - | 022°(021.6°) | + 0.6 | 27.4 | - | - | - | - | RNAV 1 |
| BONVO1J TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | | - | RNAV 1 |
| 060 | TF | BS931 | - | 285°(284.3°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS932 | - | 002°(001.5°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 080 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 100 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 110 | TF | BS937 | - | 279°(278.3°) | + 0.6 | 13.7 | - | - | - | - | RNAV 1 |
| 120 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 10.3 | - | - | - | - | RNAV 1 |
| 130 | TF | BONVO | - | 231°(229.8°) | + 0.6 | 22.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (2)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BUT1J TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS925 | - | 165°(164.3°) | + 0.6 | 6.0 | - | - | - | - | RNAV 1 |
| 060 | TF | BS926 | - | 181°(180.0°) | + 0.6 | 6.1 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | NOKUK | - | 181°(180.1°) | + 0.6 | 12.1 | - | - | - | - | RNAV 1 |
| 080 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |
| DOSBU1J TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS921 | - | 119°(118.3°) | + 0.6 | 4.2 | - | - | - | - | RNAV 1 |
| 050 | TF | BS922 | - | 091°(090.4°) | + 0.6 | 5.0 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS923 | - | 091°(090.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 070 | TF | DOSBU | - | 069°(068.6°) | + 0.6 | 50.4 | - | - | - | - | RNAV 1 |
| GOMES1J TO R468/N506, B204 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS921 | - | 119°(118.3°) | + 0.6 | 4.2 | - | - | - | - | RNAV 1 |
| 050 | TF | BS922 | - | 091°(090.4°) | + 0.6 | 5.0 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS923 | - | 091°(090.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 070 | TF | GORSI | - | 101°(100.0°) | + 0.6 | 19.4 | - | - | - | - | RNAV 1 |
| 080 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (3)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HHN1J TO W31 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | - | - | RNAV 1 |
| 060 | TF | BS928 | - | 265°(264.4°) | + 0.6 | 13.2 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | BS929 | - | 222°(221.3°) | + 0.6 | 14.8 | - | -FL160 | - | - | RNAV 1 |
| 080 | TF | BS930 | - | 222°(221.3°) | + 0.6 | 12.1 | - | -FL180 | - | - | RNAV 1 |
| 090 | TF | SABIS | - | 222°(221.2°) | + 0.6 | 4.7 | - | - | - | - | RNAV 1 |
| 100 | TF | HHN | - | 213°(212.7°) | + 0.6 | 25.9 | - | - | - | - | RNAV 1 |
| KASNI1J TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS925 | - | 165°(164.3°) | + 0.6 | 6.0 | - | - | - | - | RNAV 1 |
| 060 | TF | BS926 | - | 181°(180.0°) | + 0.6 | 6.1 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 214°(213.3°) | + 0.6 | 14.6 | - | - | - | - | RNAV 1 |
| LIPLI1J TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS921 | - | 119°(118.3°) | + 0.6 | 4.2 | - | - | - | - | RNAV 1 |
| 050 | TF | BS922 | - | 091°(090.4°) | + 0.6 | 5.0 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS923 | - | 091°(090.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 070 | TF | LIPLI | - | 057°(056.5°) | + 0.6 | 65.4 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (4)**

| **RNAV RWY19** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| NOBER2J TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | | - | RNAV 1 |
| 060 | TF | BS931 | - | 285°(284.3°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS932 | - | 002°(001.5°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 080 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 100 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 110 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 120 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 130 | TF | RIVDU | - | 007°(006.6°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 140 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |
| NUNLI1J TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | | - | RNAV 1 |
| 060 | TF | BS931 | - | 285°(284.3°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS932 | - | 002°(001.5°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 080 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 100 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 110 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 120 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 130 | TF | NUNLI | - | 294°(293.8°) | + 0.6 | 58.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (5)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OLVUK1J TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | | - | RNAV 1 |
| 060 | TF | BS931 | - | 285°(284.3°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS932 | - | 002°(001.5°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 080 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 100 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 110 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 120 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 130 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |
| PASTO1J TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | | - | RNAV 1 |
| 060 | TF | BS931 | - | 285°(284.3°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS932 | - | 002°(001.5°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 080 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 100 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 110 | TF | BS937 | - | 279°(278.3°) | + 0.6 | 13.7 | - | - | - | - | RNAV 1 |
| 120 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 10.3 | - | - | - | - | RNAV 1 |
| 130 | TF | PASTO | - | 273°(272.1°) | + 0.6 | 32.9 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (6)**

| **RNAV RWY19** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| REGOS1J TO M751, A464/W19 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS925 | - | 165°(164.3°) | + 0.6 | 6.0 | - | - | - | - | RNAV 1 |
| 060 | TF | BS926 | - | 181°(180.0°) | + 0.6 | 6.1 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 214°(213.3°) | + 0.6 | 14.6 | - | - | - | - | RNAV 1 |
| 080 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (7)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RYN1J TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS921 | - | 119°(118.3°) | + 0.6 | 4.2 | - | - | - | - | RNAV 1 |
| 050 | TF | BS922 | - | 091°(090.4°) | + 0.6 | 5.0 | - | -8000 | - | - | RNAV 1 |
| 060 | TF | BS923 | - | 091°(090.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 070 | TF | GORSI | - | 101°(100.0°) | + 0.6 | 19.4 | - | - | - | - | RNAV 1 |
| 080 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| 090 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |
| SELKA1J TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS921 | - | 119°(118.3°) | + 0.6 | 4.2 | - | - | - | - | RNAV 1 |
| 050 | TF | BS922 | - | 091°(090.4°) | + 0.6 | 5.0 | - | -8000 | - | - | RNAV 1 |
| 050 | TF | BS923 | - | 091°(090.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 060 | TF | SELKA | - | 048°(047.4°) | + 0.6 | 67.8 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (8)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SEMBO2J TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | | - | RNAV 1 |
| 060 | TF | BS931 | - | 285°(284.3°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS932 | - | 002°(001.5°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 080 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 100 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 110 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 120 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 130 | TF | RIVDU | - | 007°(006.6°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 140 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| TARED1J TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | | - | RNAV 1 |
| 060 | TF | BS931 | - | 285°(284.3°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS932 | - | 002°(001.5°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 080 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 100 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 110 | TF | BS937 | - | 279°(278.3°) | + 0.6 | 13.7 | - | - | - | - | RNAV 1 |
| 120 | TF | TEMPO | - | 304°(303.6°) | + 0.6 | 22.5 | - | - | - | - | RNAV 1 |
| 130 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (9)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UKERA1J TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | - | - | RNAV 1 |
| 060 | TF | BS928 | - | 265°(264.4°) | + 0.6 | 13.2 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | BS929 | - | 222°(221.3°) | + 0.6 | 14.8 | - | -FL160 | - | - | RNAV 1 |
| 080 | TF | BS930 | - | 222°(221.3°) | + 0.6 | 12.1 | - | -FL180 | - | - | RNAV 1 |
| 090 | TF | SABIS | - | 222°(221.2°) | + 0.6 | 4.7 | - | - | - | - | RNAV 1 |
| 100 | TF | UKERA | - | 191°(189.9°) | + 0.6 | 58.5 | - | - | - | - | RNAV 1 |
| VANKO1J TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | - | - | RNAV 1 |
| 060 | TF | BS928 | - | 265°(264.4°) | + 0.6 | 13.2 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | BS929 | - | 222°(221.3°) | + 0.6 | 14.8 | - | -FL160 | - | - | RNAV 1 |
| 080 | TF | BS930 | - | 222°(221.3°) | + 0.6 | 12.1 | - | -FL180 | - | - | RNAV 1 |
| 090 | TF | SABIS | - | 222°(221.2°) | + 0.6 | 4.7 | - | - | - | - | RNAV 1 |
| 100 | TF | VANKO | - | 226°(225.6°) | + 0.6 | 35.3 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

**TABULAR DESCRIPTION (10)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UGUVO1J TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 195°(194.4°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS920 | Y | - | + 0.6 | - | L | - | -220 | - | RNAV 1 |
| 040 | TF | BS924 | - | 165°(164.4°) | + 0.6 | 7.6 | - | - | - | - | RNAV 1 |
| 050 | TF | BS927 | - | 195°(194.3°) | + 0.6 | 4.0 | - | - | | - | RNAV 1 |
| 060 | TF | BS931 | - | 285°(284.3°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS932 | - | 002°(001.5°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 080 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 090 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 100 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 110 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 120 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 130 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |
| 140 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE. SID UGUVO1J ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**

ALBOS1J BONVO1J BUT1J DOSBU1J
GOMES1J HHN1J KASNI1J LIPLI1J
NOBER2J NUNLI1J OLVUK1J PASTO1J
REGOS1J RYN1J SELKA1J SEMBO2J
TARED1J UKERA1J UGUVO1J VANKO1J

## WAYPOINT LIST

**RNAV RWY19**

| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
|---|---|---|---|
| DER RWY19 | 13° 39' 24.11" N 100° 45' 06.59" E | GOMES | 13° 24' 06.10" N 101° 35' 05.70" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E | GORSI | 13° 30' 54.64" N 101° 21' 28.05" E |
| ANRIP | 14° 27' 48.15" N 100° 18' 33.08" E | GUGOT | 13° 39' 44.61" N 100° 34' 28.14" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E | HHN | 12° 38' 04.04" N 099° 57' 04.23" E |
| BS920 | 13° 36' 23.33" N 100° 45' 08.38" E | KABUT | 13° 56' 31.73" N 100° 28' 28.99" E |
| BS921 | 13° 34' 24.18" N 100° 48' 54.57" E | KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| BS922 | 13° 34' 21.88" N 100° 54' 02.54" E | LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| BS923 | 13° 34' 18.21" N 101° 01' 49.29" E | NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| BS924 | 13° 28' 59.60" N 100° 47' 15.28" E | NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| BS925 | 13° 23' 11.66" N 100° 48' 54.98" E | NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| BS926 | 13° 17' 05.62" N 100° 48' 54.82" E | OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| BS927 | 13° 25' 08.88" N 100° 46' 14.99" E | OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| BS928 | 13° 23' 50.45" N 100° 32' 46.34" E | PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| BS929 | 13° 12' 40.10" N 100° 22' 45.50" E | REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| BS930 | 13° 03' 32.80" N 100° 14' 35.95" E | RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| BS931 | 13° 28' 10.07" N 100° 34' 09.89" E | RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| BS932 | 13° 33' 19.01" N 100° 34' 18.00" E | SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| BS933 | 13° 45' 16.92" N 100° 39' 12.21" E | SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| BS934 | 13° 50' 49.11" N 100° 43' 56.45" E | SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| BS935 | 14° 19' 07.99" N 100° 51' 18.41" E | TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| BS936 | 13° 46' 42.88" N 100° 34' 39.23" E | TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| BS937 | 13° 58' 30.32" N 100° 14' 29.65" E | TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| BS938 | 14° 14' 16.72" N 100° 22' 51.08" E | UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E | UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E | VANKO | 12° 35' 11.05" N 099° 45' 37.55" E |

CHANGE: CHART TITLE. UGUVO ADDED.

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

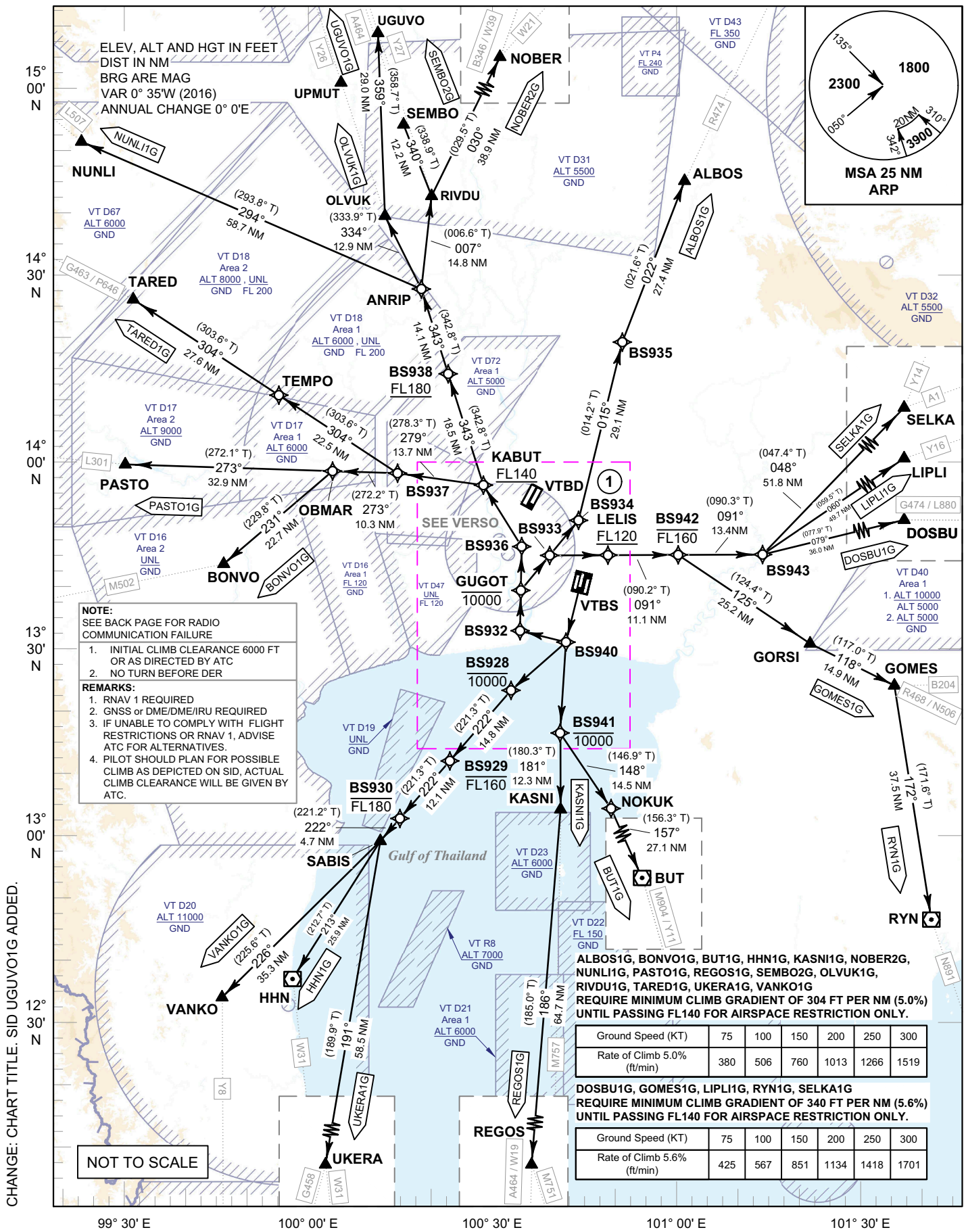
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)
## RNAV RWY20L

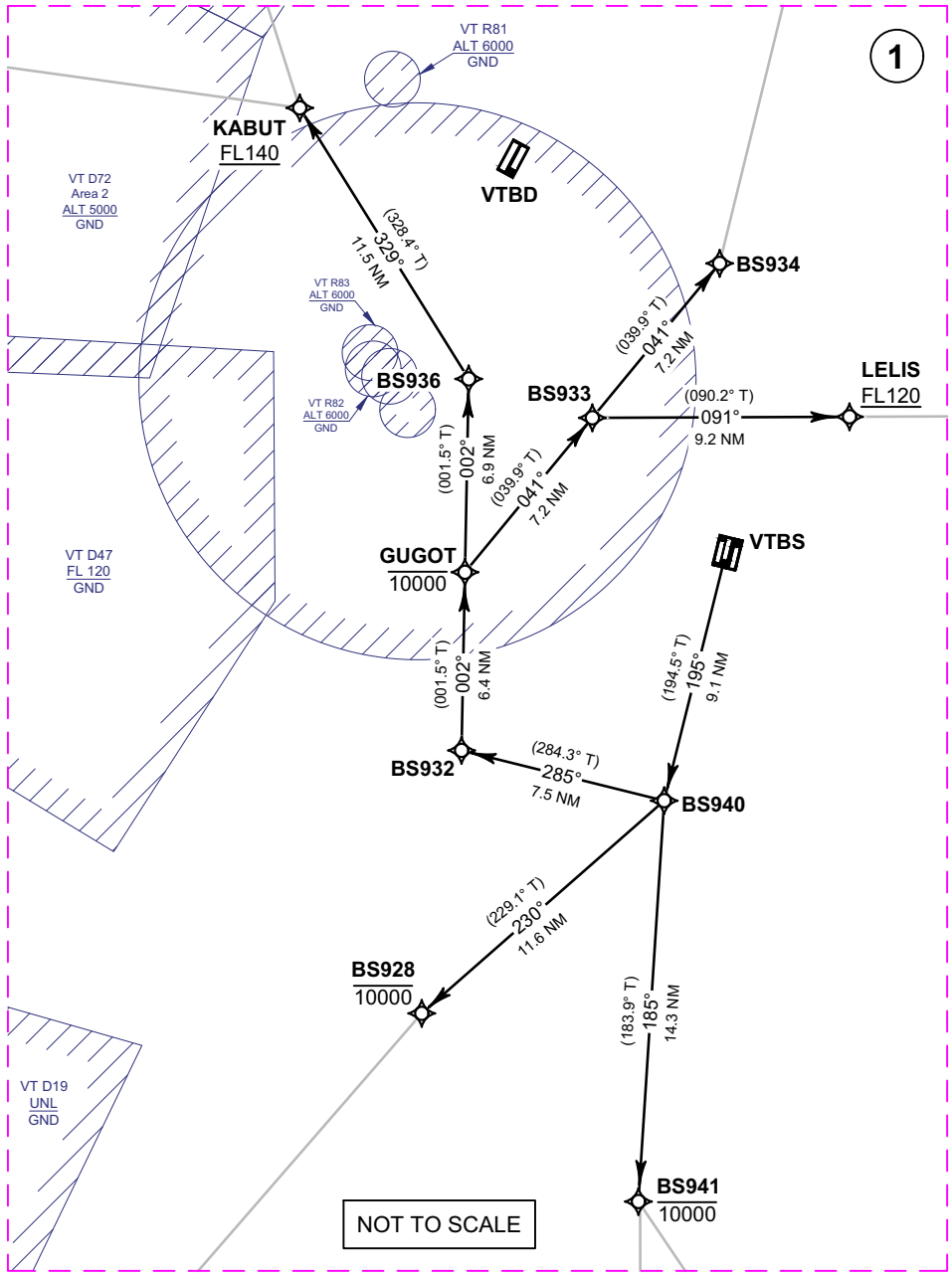
ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G
GOMES1G HHN1G KASNI1G LIPLI1G
NOBER2G NUNLI1G OLVUK1G PASTO1G
REGOS1G RYN1G SELKA1G SEMBO2G
TARED1G UKERA1G UGUVO1G VANKO1G




CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G
GOMES1G HHN1G KASNI1G LIPLI1G
NOBER2G NUNLI1G OLVUK1G PASTO1G
REGOS1G RYN1G SELKA1G SEMBO2G
TARED1G UKERA1G UGUVO1G VANKO1G

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G
GOMES1G HHN1G KASNI1G LIPLI1G
NOBER2G NUNLI1G OLVUK1G PASTO1G
REGOS1G RYN1G SELKA1G SEMBO2G
TARED1G UKERA1G UGUVO1G VANKO1G

**TABULAR DESCRIPTION (1)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1G TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 060 | TF | BS934 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS935 | - | 015°(014.2°) | + 0.6 | 29.1 | - | - | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 022°(021.6°) | + 0.6 | 27.4 | - | - | - | - | RNAV 1 |
| BONVO1G TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 060 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 070 | TF | BS937 | - | 279°(278.3°) | + 0.6 | 13.7 | - | - | - | - | RNAV 1 |
| 080 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 10.3 | - | - | - | - | RNAV 1 |
| 090 | TF | BONVO | - | 231°(229.8°) | + 0.6 | 22.7 | - | - | - | - | RNAV 1 |
| BUT1G TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS941 | - | 185°(183.9°) | + 0.6 | 14.3 | - | -10000 | - | - | RNAV 1 |
| 040 | TF | NOKUK | - | 148°(146.9°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |
| 050 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G
GOMES1G HHN1G KASNI1G LIPLI1G
NOBER2G NUNLI1G OLVUK1G PASTO1G
REGOS1G RYN1G SELKA1G SEMBO2G
TARED1G UKERA1G UGUVO1G VANKO1G

**TABULAR DESCRIPTION (2)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DOSBU1G TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 060 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 070 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 080 | TF | BS943 | - | 091°(090.3°) | + 0.6 | 13.4 | - | - | - | - | RNAV 1 |
| 090 | TF | DOSBU | - | 079°(077.9°) | + 0.6 | 36.0 | - | - | - | - | RNAV 1 |
| GOMES1G TO R468/N506, B204 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 060 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 070 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 080 | TF | GORSI | - | 125°(124.4°) | + 0.6 | 25.2 | - | - | - | - | RNAV 1 |
| 090 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G

**TABULAR DESCRIPTION (3)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HHN1G TO W31 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS928 | - | 230°(229.1°) | + 0.6 | 11.6 | - | -10000 | - | - | RNAV 1 |
| 040 | TF | BS929 | - | 222°(221.3°) | + 0.6 | 14.8 | - | -FL160 | - | - | RNAV 1 |
| 050 | TF | BS930 | - | 222°(221.3°) | + 0.6 | 12.1 | - | -FL180 | - | - | RNAV 1 |
| 060 | TF | SABIS | - | 222°(221.2°) | + 0.6 | 4.7 | - | - | - | - | RNAV 1 |
| 070 | TF | HHN | - | 213°(212.7°) | + 0.6 | 25.9 | - | - | - | - | RNAV 1 |
| KASNI1G TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS941 | - | 185°(183.9°) | + 0.6 | 14.3 | - | -10000 | - | - | RNAV 1 |
| 040 | TF | KASNI | - | 181°(180.3°) | + 0.6 | 12.3 | - | - | - | - | RNAV 1 |
| LIPLI1G TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 060 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 070 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 080 | TF | BS943 | - | 091°(090.3°) | + 0.6 | 13.4 | - | - | - | - | RNAV 1 |
| 090 | TF | LIPLI | - | 060°(059.5°) | + 0.6 | 49.7 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G
GOMES1G HHN1G KASNI1G LIPLI1G
NOBER2G NUNLI1G OLVUK1G PASTO1G
REGOS1G RYN1G SELKA1G SEMBO2G
TARED1G UKERA1G UGUVO1G VANKO1G

CHANGE: CHART TITLE.

**TABULAR DESCRIPTION (4)**

| **RNAV RWY20L** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| NOBER2G TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 060 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 070 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 080 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 090 | TF | RIVDU | - | 007°(006.6°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 100 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |
| NUNLI1G TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 060 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 070 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 080 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 090 | TF | NUNLI | - | 294°(293.8°) | + 0.6 | 58.7 | - | - | - | - | RNAV 1 |
| OLVUK1G TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 060 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 070 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 080 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 090 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G
GOMES1G HHN1G KASNI1G LIPLI1G
NOBER2G NUNLI1G OLVUK1G PASTO1G
REGOS1G RYN1G SELKA1G SEMBO2G
TARED1G UKERA1G UGUVO1G VANKO1G

**TABULAR DESCRIPTION (5)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PASTO1G TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 060 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 070 | TF | BS937 | - | 279°(278.3°) | + 0.6 | 13.7 | - | - | - | - | RNAV 1 |
| 080 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 10.3 | - | - | - | - | RNAV 1 |
| 090 | TF | PASTO | - | 273°(272.1°) | + 0.6 | 32.9 | - | - | - | - | RNAV 1 |
| REGOS1G TO M751, A464/W19 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS941 | - | 185°(183.9°) | + 0.6 | 14.3 | - | -10000 | - | - | RNAV 1 |
| 040 | TF | KASNI | - | 181°(180.3°) | + 0.6 | 12.3 | - | - | - | - | RNAV 1 |
| 050 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |
| RYN1G TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 060 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 070 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 080 | TF | GORSI | - | 125°(124.4°) | + 0.6 | 25.2 | - | - | - | - | RNAV 1 |
| 090 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| 100 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G
GOMES1G HHN1G KASNI1G LIPLI1G
NOBER2G NUNLI1G OLVUK1G PASTO1G
REGOS1G RYN1G SELKA1G SEMBO2G
TARED1G UKERA1G UGUVO1G VANKO1G

**TABULAR DESCRIPTION (6)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SELKA1G TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 060 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 070 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 080 | TF | BS943 | - | 091°(090.3°) | + 0.6 | 13.4 | - | - | - | - | RNAV 1 |
| 090 | TF | SELKA | - | 048°(047.4°) | + 0.6 | 51.8 | - | - | - | - | RNAV 1 |
| SEMBO2G TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 060 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 070 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 080 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 090 | TF | RIVDU | - | 007°(006.6°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 100 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G
GOMES1G HHN1G KASNI1G LIPLI1G
NOBER2G NUNLI1G OLVUK1G PASTO1G
REGOS1G RYN1G SELKA1G SEMBO2G
TARED1G UKERA1G UGUVO1G VANKO1G

**TABULAR DESCRIPTION (7)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TARED1G TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 060 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 070 | TF | BS937 | - | 279°(278.3°) | + 0.6 | 13.7 | - | - | - | - | RNAV 1 |
| 080 | TF | TEMPO | - | 304°(303.6°) | + 0.6 | 22.5 | - | - | - | - | RNAV 1 |
| 090 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |
| UKERA1G TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS928 | - | 230°(229.1°) | + 0.6 | 11.6 | - | -10000 | - | - | RNAV 1 |
| 040 | TF | BS929 | - | 222°(221.3°) | + 0.6 | 14.8 | - | -FL160 | - | - | RNAV 1 |
| 050 | TF | BS930 | - | 222°(221.3°) | + 0.6 | 12.1 | - | -FL180 | - | - | RNAV 1 |
| 060 | TF | SABIS | - | 222°(221.2°) | + 0.6 | 4.7 | - | - | - | - | RNAV 1 |
| 070 | TF | UKERA | - | 191°(189.9°) | + 0.6 | 58.5 | - | - | - | - | RNAV 1 |
| VANKO1G TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS928 | - | 230°(229.1°) | + 0.6 | 11.6 | - | -10000 | - | - | RNAV 1 |
| 040 | TF | BS929 | - | 222°(221.3°) | + 0.6 | 14.8 | - | -FL160 | - | - | RNAV 1 |
| 050 | TF | BS930 | - | 222°(221.3°) | + 0.6 | 12.1 | - | -FL180 | - | - | RNAV 1 |
| 060 | TF | SABIS | - | 222°(221.2°) | + 0.6 | 4.7 | - | - | - | - | RNAV 1 |
| 070 | TF | VANKO | - | 226°(225.5°) | + 0.6 | 35.3 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G
GOMES1G HHN1G KASNI1G LIPLI1G
NOBER2G NUNLI1G OLVUK1G PASTO1G
REGOS1G RYN1G SELKA1G SEMBO2G
TARED1G UKERA1G UGUVO1G VANKO1G

**TABULAR DESCRIPTION (8)**

| **RNAV RWY20L** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| UGUVO1G TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CF | BS940 | - | 195°(194.5°) | + 0.6 | 9.1 | - | - | - | - | RNAV 1 |
| 030 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 040 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 060 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 070 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 080 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 090 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |
| 100 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE. SID UGUVO1G ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**

ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G UGUVO1G VANKO1G

## WAYPOINT LIST

**RNAV RWY20L**

| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
|---|---|---|---|
| DER RWY20L | 13° 40' 16.60" N 100° 44' 04.79" E | HHN | 12° 38' 04.04" N 099° 57' 04.23" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E | KABUT | 13° 56' 31.73" N 100° 28' 28.99" E |
| ANRIP | 14° 27' 48.15" N 100° 18' 33.08" E | KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E | LELIS | 13° 45' 15.13" N 100° 48' 41.34" E |
| BS928 | 13° 23' 50.45" N 100° 32' 46.34" E | LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| BS929 | 13° 12' 40.10" N 100° 22' 45.50" E | NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| BS930 | 13° 03' 32.80" N 100° 14' 35.95" E | NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| BS932 | 13° 33' 19.01" N 100° 34' 18.00" E | NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| BS933 | 13° 45' 16.92" N 100° 39' 12.21" E | OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| BS934 | 13° 50' 49.11" N 100° 43' 56.45" E | OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| BS935 | 14° 19' 07.99" N 100° 51' 18.41" E | PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| BS936 | 13° 46' 42.88" N 100° 34' 39.23" E | REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| BS937 | 13° 58' 30.32" N 100° 14' 29.65" E | RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| BS938 | 14° 14' 16.72" N 100° 22' 51.08" E | RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| BS940 | 13° 31' 27.28" N 100° 41' 45.36" E | SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| BS941 | 13° 17' 08.40" N 100° 40' 46.10" E | SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| BS942 | 13° 45' 12.49" N 101° 00' 07.41" E | SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| BS943 | 13° 45' 08.61" N 101° 13' 51.73" E | TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E | TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E | TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E | UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |
| GORSI | 13° 30' 54.64" N 101° 21' 28.05" E | UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |
| GUGOT | 13° 39' 44.61" N 100° 34' 28.14" E | VANKO | 12° 35' 11.05" N 099° 45' 37.55" E |

CHANGE: CHART TITLE. UGUVO ADDED".

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

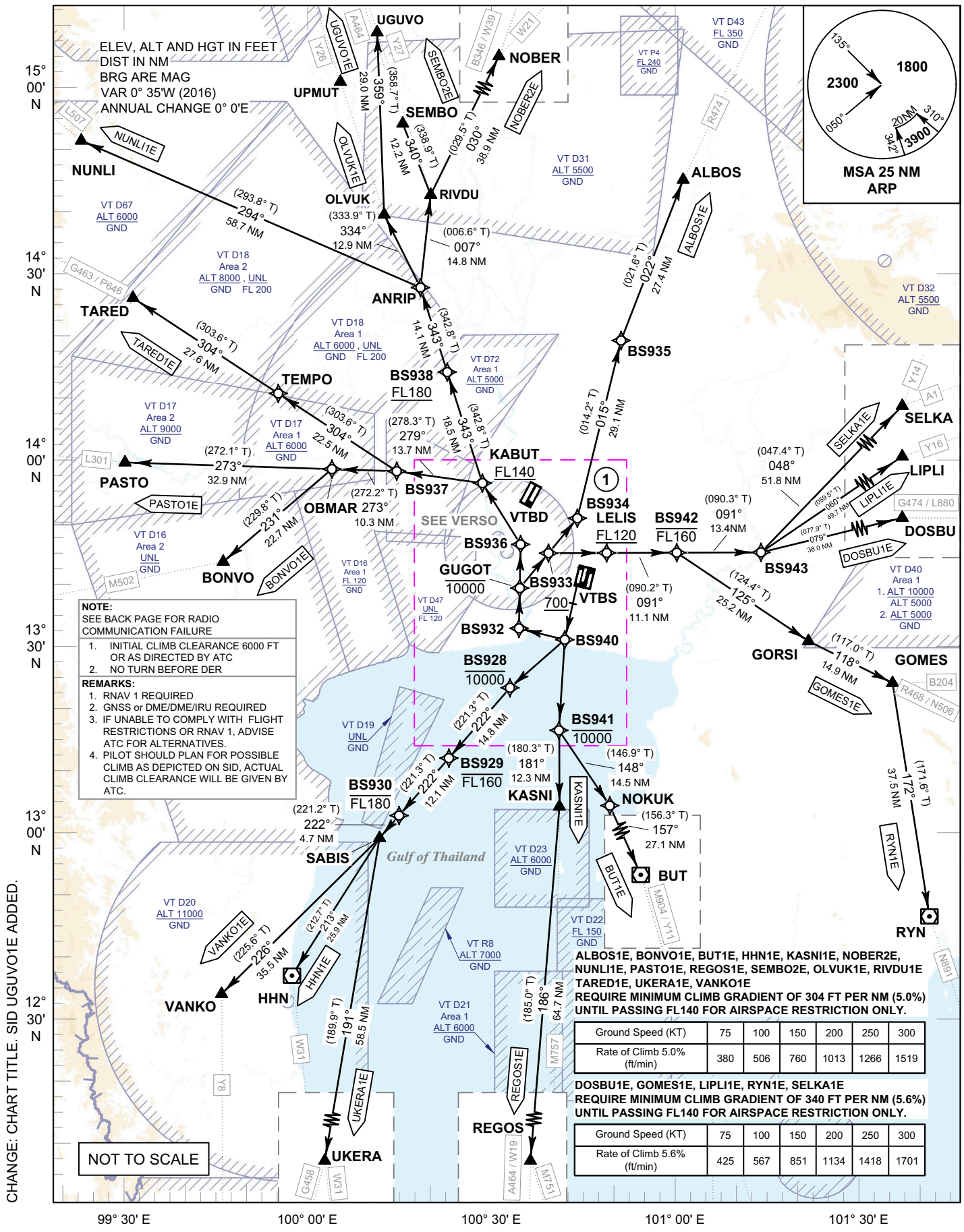
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)
## RNAV RWY20R

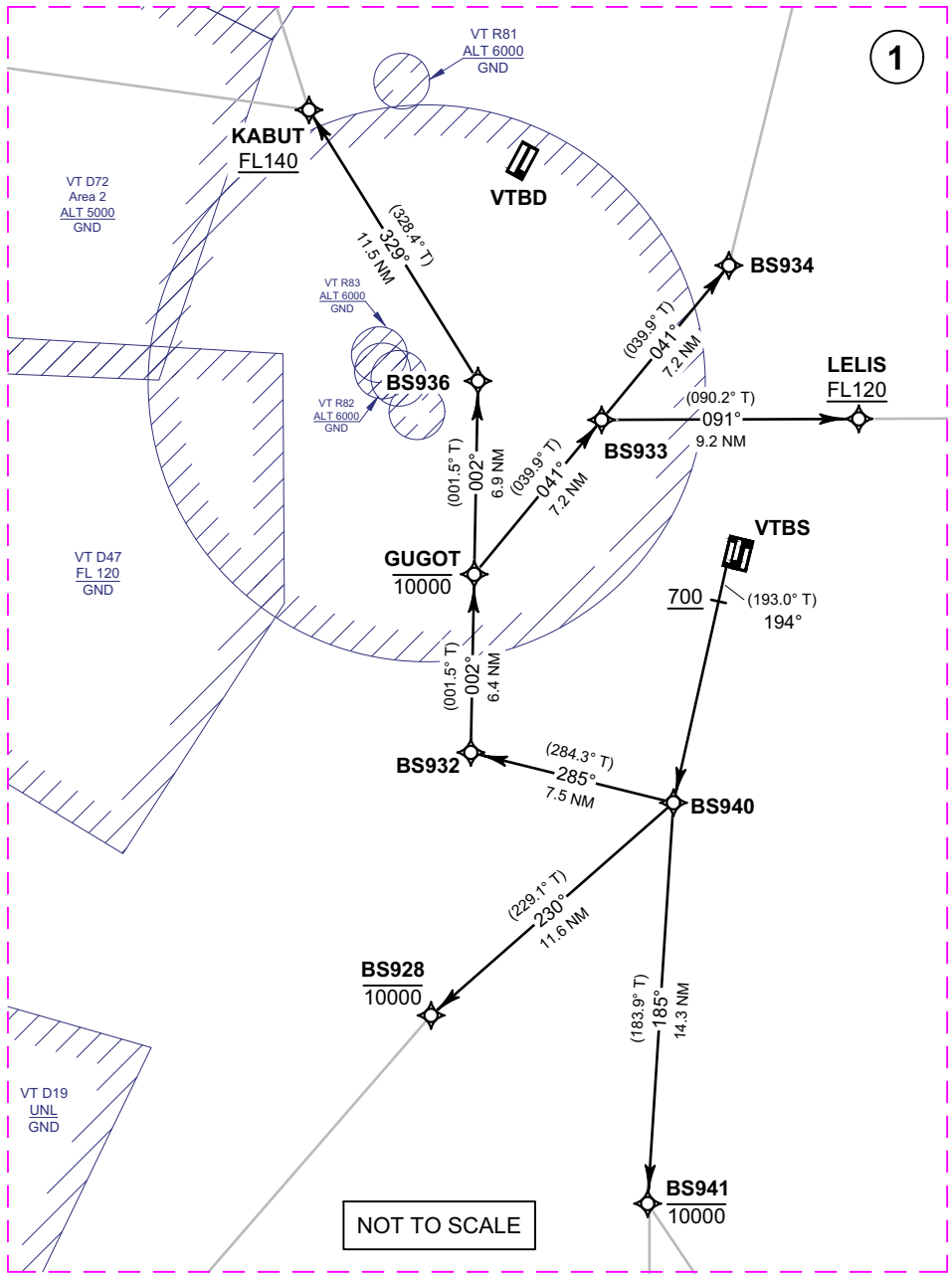
ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E UGUVO1E VANKO1E



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E




CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

**TABULAR DESCRIPTION (1)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1E TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 070 | TF | BS934 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 080 | TF | BS935 | - | 015°(014.2°) | + 0.6 | 29.1 | - | - | - | - | RNAV 1 |
| 090 | TF | ALBOS | - | 022°(021.6°) | + 0.6 | 27.4 | - | - | - | - | RNAV 1 |
| BONVO1E TO M502 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 070 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | BS937 | - | 279°(278.3°) | + 0.6 | 13.7 | - | - | - | - | RNAV 1 |
| 090 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 10.3 | - | - | - | - | RNAV 1 |
| 100 | TF | BONVO | - | 231°(229.8°) | + 0.6 | 22.7 | - | - | - | - | RNAV 1 |
| BUT1E TO M904/ Y11 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS941 | - | 185°(183.9°) | + 0.6 | 14.3 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | NOKUK | - | 148°(146.9°) | + 0.6 | 14.5 | - | - | - | - | RNAV 1 |
| 060 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

CHANGE: CHART TITLE.

**TABULAR DESCRIPTION (2)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DOSBU1E TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 070 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 080 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 090 | TF | BS943 | - | 091°(090.3°) | + 0.6 | 13.4 | - | - | - | - | RNAV 1 |
| 100 | TF | DOSBU | - | 079°(077.9°) | + 0.6 | 36.0 | - | - | - | - | RNAV 1 |
| GOMES1E TO R468/N506, B204 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 070 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 080 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 090 | TF | GORSI | - | 125°(124.4°) | + 0.6 | 25.2 | - | - | - | - | RNAV 1 |
| 100 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| HHN1E TO W31 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS928 | - | 230°(229.1°) | + 0.6 | 11.6 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS929 | - | 222°(221.3°) | + 0.6 | 14.8 | - | -FL160 | - | - | RNAV 1 |
| 060 | TF | BS930 | - | 222°(221.3°) | + 0.6 | 12.1 | - | -FL180 | - | - | RNAV 1 |
| 070 | TF | SABIS | - | 222°(221.2°) | + 0.6 | 4.7 | - | - | - | - | RNAV 1 |
| 080 | TF | HHN | - | 213°(212.7°) | + 0.6 | 25.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

**TABULAR DESCRIPTION (3)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KASNI1E TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS941 | - | 185°(183.9°) | + 0.6 | 14.3 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | KASNI | - | 181°(180.3°) | + 0.6 | 12.3 | - | - | - | - | RNAV 1 |
| LIPLI1E TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 070 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 080 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 090 | TF | BS943 | - | 091°(090.3°) | + 0.6 | 13.4 | - | - | - | - | RNAV 1 |
| 100 | TF | LIPLI | - | 060°(059.5°) | + 0.6 | 49.7 | - | - | - | - | RNAV 1 |
| NOBER2E TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 070 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 100 | TF | RIVDU | - | 007°(006.6°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 110 | TF | NOBER | - | 030°(029.5°) | + 0.6 | 38.9 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

**TABULAR DESCRIPTION (4)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NUNLI1E TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 070 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 100 | TF | NUNLI | - | 294°(293.8°) | + 0.6 | 58.7 | - | - | - | - | RNAV 1 |
| OLVUK1E TO Y26 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 070 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 100 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

**TABULAR DESCRIPTION (5)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PASTO1E TO L301 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 070 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | BS937 | - | 279°(278.3°) | + 0.6 | 13.7 | - | - | - | - | RNAV 1 |
| 090 | TF | OBMAR | - | 273°(272.2°) | + 0.6 | 10.3 | - | - | - | - | RNAV 1 |
| 100 | TF | PASTO | - | 273°(272.1°) | + 0.6 | 32.9 | - | - | - | - | RNAV 1 |
| REGOS1E TO M751, A464/W19 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS941 | - | 185°(183.9°) | + 0.6 | 14.3 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | KASNI | - | 181°(180.3°) | + 0.6 | 12.3 | - | - | - | - | RNAV 1 |
| 060 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |
| RYN1E TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 070 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 080 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 090 | TF | GORSI | - | 125°(124.4°) | + 0.6 | 25.2 | - | - | - | - | RNAV 1 |
| 100 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| 110 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

**TABULAR DESCRIPTION (6)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SELKA1E TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS933 | - | 041°(039.9°) | + 0.6 | 7.2 | - | - | - | - | RNAV 1 |
| 070 | TF | LELIS | - | 091°(090.2°) | + 0.6 | 9.2 | - | +FL120 | - | - | RNAV 1 |
| 080 | TF | BS942 | - | 091°(090.2°) | + 0.6 | 11.1 | - | -FL160 | - | - | RNAV 1 |
| 090 | TF | BS943 | - | 091°(090.3°) | + 0.6 | 13.4 | - | - | - | - | RNAV 1 |
| 100 | TF | SELKA | - | 048°(047.4°) | + 0.6 | 51.8 | - | - | - | - | RNAV 1 |
| SEMBO2E TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 070 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 100 | TF | RIVDU | - | 007°(006.6°) | + 0.6 | 14.8 | - | - | - | - | RNAV 1 |
| 110 | TF | SEMBO | - | 340°(338.9°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

**TABULAR DESCRIPTION (7)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TARED1E TO G463/P646 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 070 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | BS937 | - | 279°(278.3°) | + 0.6 | 13.7 | - | - | - | - | RNAV 1 |
| 090 | TF | TEMPO | - | 304°(303.6°) | + 0.6 | 22.5 | - | - | - | - | RNAV 1 |
| 100 | TF | TARED | - | 304°(303.6°) | + 0.6 | 27.6 | - | - | - | - | RNAV 1 |
| UKERA1E TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS928 | - | 230°(229.1°) | + 0.6 | 11.6 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS929 | - | 222°(221.3°) | + 0.6 | 14.8 | - | -FL160 | - | - | RNAV 1 |
| 060 | TF | BS930 | - | 222°(221.3°) | + 0.6 | 12.1 | - | -FL180 | - | - | RNAV 1 |
| 070 | TF | SABIS | - | 222°(221.2°) | + 0.6 | 4.7 | - | - | - | - | RNAV 1 |
| 080 | TF | UKERA | - | 191°(189.9°) | + 0.6 | 58.5 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

**TABULAR DESCRIPTION (8)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VANKO1E TO Y8 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS928 | - | 230°(229.1°) | + 0.6 | 11.6 | - | -10000 | - | - | RNAV 1 |
| 050 | TF | BS929 | - | 222°(221.3°) | + 0.6 | 14.8 | - | -FL160 | - | - | RNAV 1 |
| 060 | TF | BS930 | - | 222°(221.3°) | + 0.6 | 12.1 | - | -FL180 | - | - | RNAV 1 |
| 070 | TF | SABIS | - | 222°(221.2°) | + 0.6 | 4.7 | - | - | - | - | RNAV 1 |
| 080 | TF | VANKO | - | 226°(225.6°) | + 0.6 | 35.3 | - | - | - | - | RNAV 1 |
| UGUVO1E TO Y27 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | VA | - | - | 194°(193.0°) | + 0.6 | - | - | +700 | - | - | RNAV 1 |
| 030 | DF | BS940 | - | - | + 0.6 | - | L | - | - | - | RNAV 1 |
| 040 | TF | BS932 | - | 285°(284.3°) | + 0.6 | 7.5 | - | - | - | - | RNAV 1 |
| 050 | TF | GUGOT | - | 002°(001.5°) | + 0.6 | 6.4 | - | -10000 | - | - | RNAV 1 |
| 060 | TF | BS936 | - | 002°(001.5°) | + 0.6 | 6.9 | - | - | - | - | RNAV 1 |
| 070 | TF | KABUT | - | 329°(328.4°) | + 0.6 | 11.5 | - | +FL140 | - | - | RNAV 1 |
| 080 | TF | BS938 | - | 343°(342.8°) | + 0.6 | 18.5 | - | +FL180 | - | - | RNAV 1 |
| 090 | TF | ANRIP | - | 343°(342.8°) | + 0.6 | 14.1 | - | - | - | - | RNAV 1 |
| 100 | TF | OLVUK | - | 334°(333.9°) | + 0.6 | 12.9 | - | - | - | - | RNAV 1 |
| 110 | TF | UGUVO | - | 359°(358.7°) | + 0.6 | 29.0 | - | - | - | - | RNAV 1 |

CHANGE: CHART TITLE. SID UGUVO1E ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**

ALBOS1E BONVO1E BUT1E DOSBU1E
GOMES1E HHN1E KASNI1E LIPLI1E
NOBER2E NUNLI1E OLVUK1E PASTO1E
REGOS1E RYN1E SELKA1E SEMBO2E
TARED1E UKERA1E UGUVO1E VANKO1E

## WAYPOINT LIST

**RNAV RWY20R**

| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
|---|---|---|---|
| DER RWY20R | 13° 39' 54.63" N 100° 43' 45.28" E | HHN | 12° 38' 04.04" N 099° 57' 04.23" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E | KABUT | 13° 56' 31.73" N 100° 28' 28.99" E |
| ANRIP | 14° 27' 48.15" N 100° 18' 33.08" E | KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E | LELIS | 13° 45' 15.13" N 100° 48' 41.34" E |
| BS928 | 13° 23' 50.45" N 100° 32' 46.34" E | LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| BS929 | 13° 12' 40.10" N 100° 22' 45.50" E | NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| BS930 | 13° 03' 32.80" N 100° 14' 35.95" E | NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| BS932 | 13° 33' 19.01" N 100° 34' 18.00" E | NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| BS933 | 13° 45' 16.92" N 100° 39' 12.21" E | OBMAR | 13° 58' 53.52" N 100° 03' 54.64" E |
| BS934 | 13° 50' 49.11" N 100° 43' 56.45" E | OLVUK | 14° 39' 28.38" N 100° 12' 40.23" E |
| BS935 | 14° 19' 07.99" N 100° 51' 18.41" E | PASTO | 14° 00' 04.50" N 099° 30' 06.94" E |
| BS936 | 13° 46' 42.88" N 100° 34' 39.23" E | REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| BS937 | 13° 58' 30.32" N 100° 14' 29.65" E | RIVDU | 14° 42' 35.67" N 100° 20' 18.57" E |
| BS938 | 14° 14' 16.72" N 100° 22' 51.08" E | RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| BS940 | 13° 31' 27.28" N 100° 41' 45.36" E | SABIS | 12° 59' 58.53" N 100° 11' 24.53" E |
| BS941 | 13° 17' 08.40" N 100° 40' 46.10" E | SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| BS942 | 13° 45' 12.49" N 101° 00' 07.41" E | SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| BS943 | 13° 45' 08.61" N 101° 13' 51.73" E | TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E | TEMPO | 14° 11' 00.89" N 099° 55' 11.97" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E | TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E | UKERA | 12° 02' 07.25" N 100° 01' 09.59" E |
| GORSI | 13° 30' 54.64" N 101° 21' 28.05" E | UGUVO | 15° 08' 34.84" N 100° 11' 40.60" E |
| GUGOT | 13° 39' 44.61" N 100° 34' 28.14" E | VANKO | 12° 35' 11.05" N 099° 45' 37.55" E |

CHANGE: CHART TITLE. UGUVO ADDED.

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

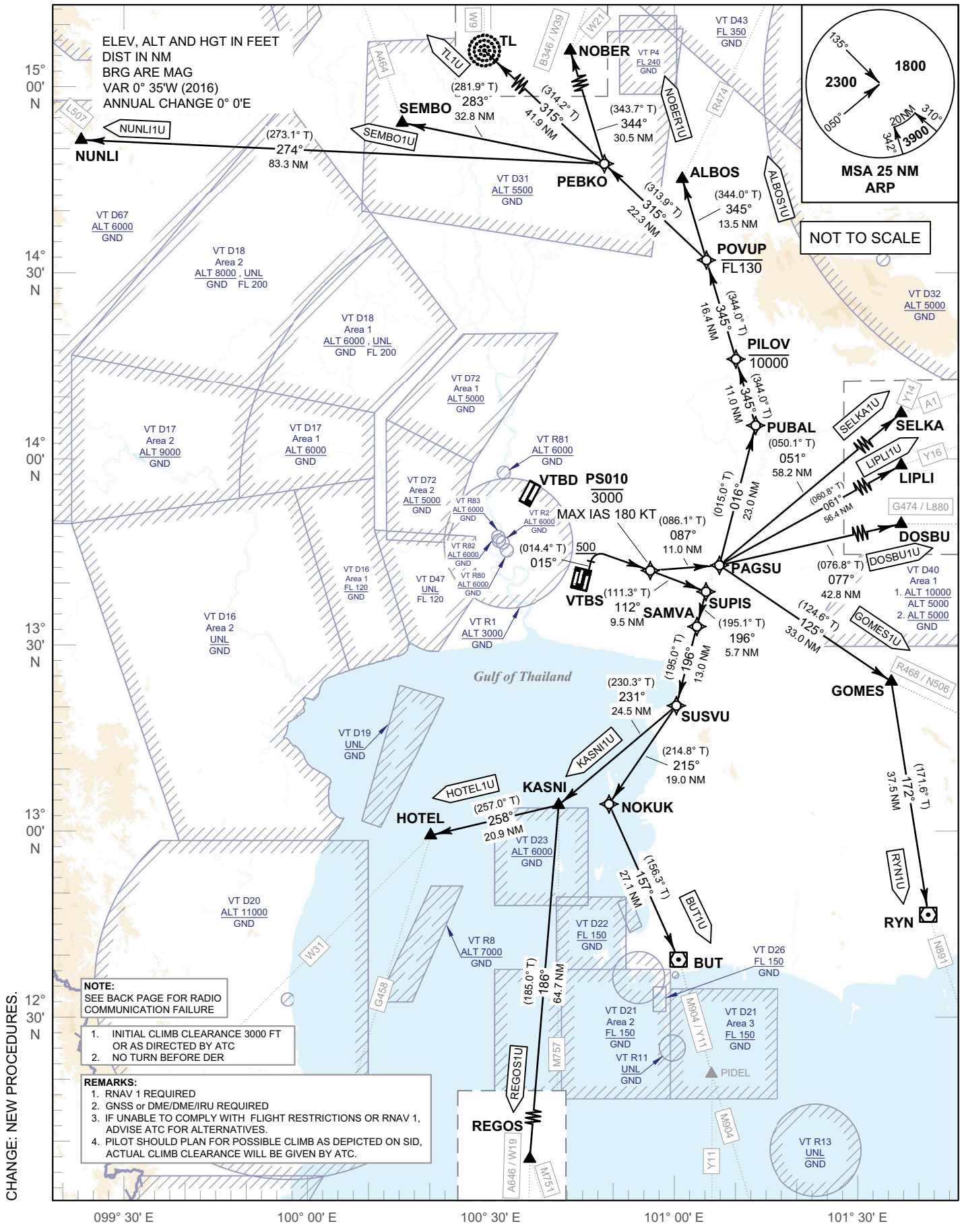
| |
|---|
| TRANSITION ALTITUDE 11000 FT |
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 119.25 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)

**RNAV RWY01**
**(PROPELLER)**

ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**
**(PROPELLER)**

ALBOS1U BUT1U DOSBU1U GOMES1U
HOTEL1U KASNI1U LIPLI1U NOBER1U
NUNLI1U REGOS1U RYN1U SELKA1U
SEMBO1U TL1U

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**
**(PROPELLER)**

ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U

**TABULAR DESCRIPTION (1)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1U TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 345°(344.0°) | + 0.6 | 13.5 | - | - | - | - | RNAV 1 |
| BUT1U TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | NOKUK | - | 215°(214.8°) | + 0.6 | 19.0 | - | - | - | - | RNAV 1 |
| 080 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |
| DOSBU1U TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | DOSBU | - | 077°(076.8°) | + 0.6 | 42.8 | - | - | - | - | RNAV 1 |
| GOMES1U TO R468, N506 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | GOMES | - | 125°(124.6°) | + 0.6 | 33.0 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**
**(PROPELLER)**

ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U

**TABULAR DESCRIPTION (2)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HOTEL1U TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 231°(230.3°) | + 0.6 | 24.5 | - | - | - | - | RNAV 1 |
| 080 | TF | HOTEL | - | 258°(257.0°) | + 0.6 | 20.9 | - | - | - | - | RNAV 1 |
| KASNI1U TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 231°(230.3°) | + 0.6 | 24.5 | - | - | - | - | RNAV 1 |
| LIPLI1U TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | LIPLI | - | 061°(060.8°) | + 0.6 | 56.4 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**
**(PROPELLER)**

ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U

**TABULAR DESCRIPTION (3)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOBER1U TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NOBER | - | 344°(343.7°) | + 0.6 | 30.5 | - | - | - | - | RNAV 1 |
| NUNLI1U TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NUNLI | - | 274°(273.1°) | + 0.6 | 83.3 | - | - | - | - | RNAV 1 |
| REGOS1U TO M751, A646/W19 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 231°(230.3°) | + 0.6 | 24.5 | - | - | - | - | RNAV 1 |
| 080 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**
**(PROPELLER)**

ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U

**TABULAR DESCRIPTION (4)**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RYN1U TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | GOMES | - | 125°(124.6°) | + 0.6 | 33.0 | - | - | - | - | RNAV 1 |
| 060 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |
| SELKA1U TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | SELKA | - | 051°(050.1°) | + 0.6 | 58.2 | - | - | - | - | RNAV 1 |
| SEMBO1U TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | SEMBO | - | 283°(281.9°) | + 0.6 | 32.8 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**
**(PROPELLER)**

ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U

**TABULAR DESCRIPTION (5)**

| **RNAV RWY01** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| TL1U TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | TL | - | 315°(314.2°) | + 0.6 | 41.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01**
**(PROPELLER)**

ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U

## WAYPOINT LIST

**RNAV RWY01**

| Waypoint Identifier | Coordinates |
|---|---|
| DER RWY01 | 13° 41' 30.17" N 100° 45' 39.72" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E |
| HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| PAGSU | 13° 42' 55.95" N 101° 07' 13.22" E |
| PEBKO | 14° 47' 13.17" N 100° 48' 55.91" E |
| PILOV | 14° 15' 49.64" N 101° 10' 13.23" E |
| POVUP | 14° 31' 41.46" N 101° 05' 32.47" E |
| PS010 | 13° 42' 11.18" N 100° 55' 54.57" E |
| PUBAL | 14° 05' 12.31" N 101° 13' 20.95" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SAMVA | 13° 33' 10.56" N 101° 03' 27.30" E |
| SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| SUPIS | 13° 38' 43.46" N 101° 04' 58.79" E |
| SUSVU | 13° 20' 33.99" N 100° 59' 59.73" E |
| TL | 15° 16' 33.45" N 100° 17' 51.11" E |

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

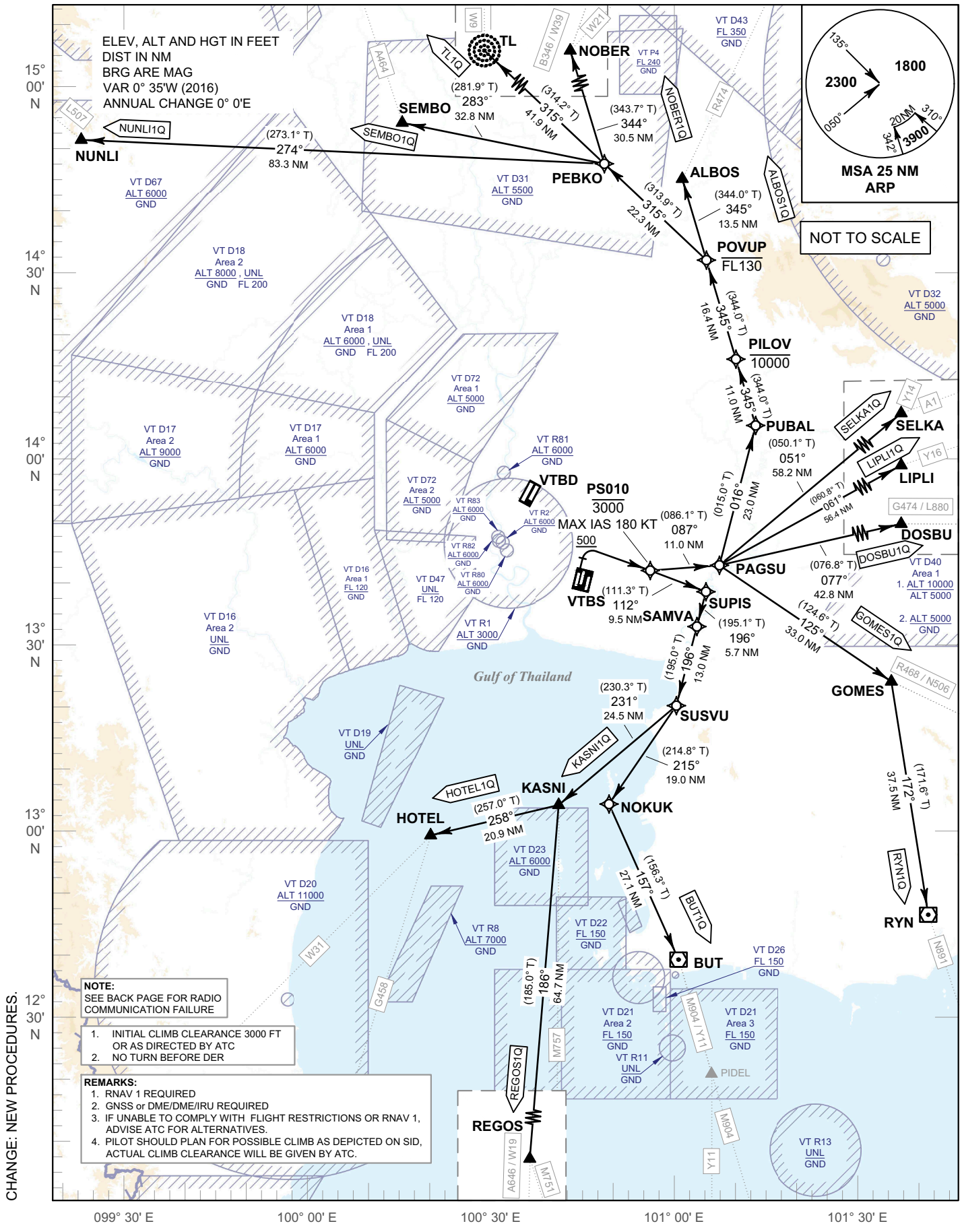
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 119.25 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)
## RNAV RWY02L
## (PROPELLER)

ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**
**(PROPELLER)**

ALBOS1Q BUT1Q DOSBU1Q GOMES1Q
HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q
NUNLI1Q REGOS1Q RYN1Q SELKA1Q
SEMBO1Q TL1Q

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**
**(PROPELLER)**

ALBOS1Q BUT1Q DOSBU1Q GOMES1Q
HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q
NUNLI1Q REGOS1Q RYN1Q SELKA1Q
SEMBO1Q TL1Q

**TABULAR DESCRIPTION (1)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1Q TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 345°(344.0°) | + 0.6 | 13.5 | - | - | - | - | RNAV 1 |
| BUT1Q TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | NOKUK | - | 215°(214.8°) | + 0.6 | 19.0 | - | - | - | - | RNAV 1 |
| 080 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |
| DOSBU1Q TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | DOSBU | - | 077°(076.8°) | + 0.6 | 42.8 | - | - | - | - | RNAV 1 |
| GOMES1Q TO R468/N506 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | GOMES | - | 125°(124.6°) | + 0.6 | 33.0 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**
**(PROPELLER)**

ALBOS1Q BUT1Q DOSBU1Q GOMES1Q
HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q
NUNLI1Q REGOS1Q RYN1Q SELKA1Q
SEMBO1Q TL1Q

**TABULAR DESCRIPTION (2)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HOTEL1Q TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 231°(230.3°) | + 0.6 | 24.5 | - | - | - | - | RNAV 1 |
| 080 | TF | HOTEL | - | 258°(257.0°) | + 0.6 | 20.9 | - | - | - | - | RNAV 1 |
| KASNI1Q TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 231°(230.3°) | + 0.6 | 24.5 | - | - | - | - | RNAV 1 |
| LIPLI1Q TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | LIPLI | - | 061°(060.8°) | + 0.6 | 56.4 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**
**(PROPELLER)**

ALBOS1Q BUT1Q DOSBU1Q GOMES1Q
HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q
NUNLI1Q REGOS1Q RYN1Q SELKA1Q
SEMBO1Q TL1Q

**TABULAR DESCRIPTION (3)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOBER1Q TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NOBER | - | 344°(343.7°) | + 0.6 | 30.5 | - | - | - | - | RNAV 1 |
| NUNLI1Q TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NUNLI | - | 274°(273.1°) | + 0.6 | 83.3 | - | - | - | - | RNAV 1 |
| REGOS1Q TO M751, A646/W19 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 231°(230.3°) | + 0.6 | 24.5 | - | - | - | - | RNAV 1 |
| 080 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**
**(PROPELLER)**

ALBOS1Q BUT1Q DOSBU1Q GOMES1Q
HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q
NUNLI1Q REGOS1Q RYN1Q SELKA1Q
SEMBO1Q TL1Q

**TABULAR DESCRIPTION (4)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RYN1Q TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | GOMES | - | 125°(124.6°) | + 0.6 | 33.0 | - | - | - | - | RNAV 1 |
| 060 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |
| SELKA1Q TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | SELKA | - | 051°(050.1°) | + 0.6 | 58.2 | - | - | - | - | RNAV 1 |
| SEMBO1Q TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | SEMBO | - | 283°(281.9°) | + 0.6 | 32.8 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**
**(PROPELLER)**

ALBOS1Q BUT1Q DOSBU1Q GOMES1Q
HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q
NUNLI1Q REGOS1Q RYN1Q SELKA1Q
SEMBO1Q TL1Q

**TABULAR DESCRIPTION (5)**

**RNAV RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TL1Q TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY02L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | TL | - | 315°(314.2°) | + 0.6 | 41.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02L**
**(PROPELLER)**

ALBOS1Q BUT1Q DOSBU1Q GOMES1Q
HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q
NUNLI1Q REGOS1Q RYN1Q SELKA1Q
SEMBO1Q TL1Q

## WAYPOINT LIST

**RNAV RWY02L**

| Waypoint Identifier | Coordinates |
|---|---|
| DER RWY02L | 13° 42' 00.68" N 100° 44' 18.41" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E |
| HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| PAGSU | 13° 42' 55.95" N 101° 07' 13.22" E |
| PEBKO | 14° 47' 13.17" N 100° 48' 55.91" E |
| PILOV | 14° 15' 49.64" N 101° 10' 13.23" E |
| POVUP | 14° 31' 41.46" N 101° 05' 32.47" E |
| PS010 | 13° 42' 11.18" N 100° 55' 54.57" E |
| PUBAL | 14° 05' 12.31" N 101° 13' 20.95" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SAMVA | 13° 33' 10.56" N 101° 03' 27.30" E |
| SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| SUPIS | 13° 38' 43.46" N 101° 04' 58.79" E |
| SUSVU | 13° 20' 33.99" N 100° 59' 59.73" E |
| TL | 15° 16' 33.45" N 100° 17' 51.11" E |

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

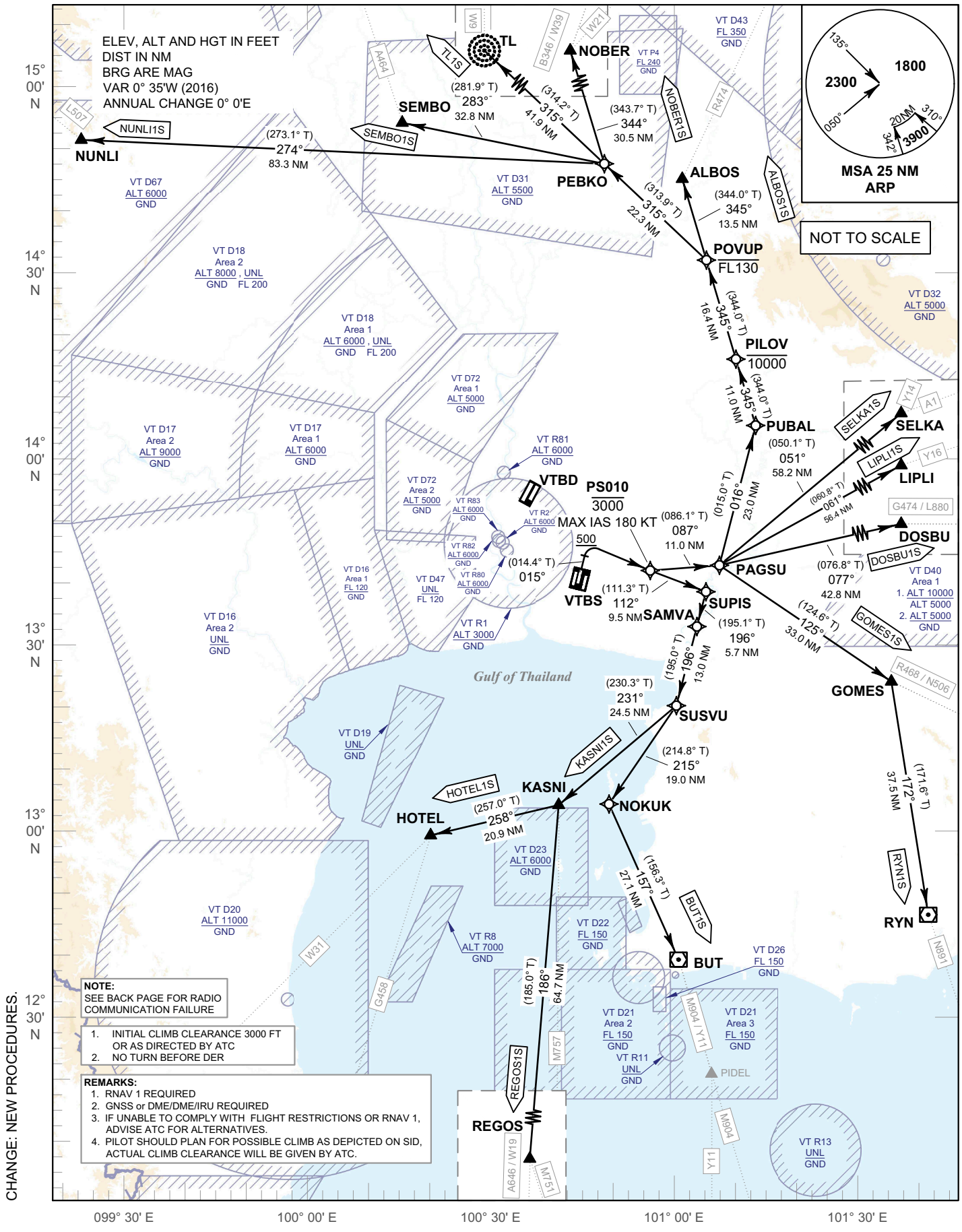
**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 119.25 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)

**RNAV RWY02R**
**(PROPELLER)**

ALBOS1S BUT1S DOSBU1S GOMES1S
HOTEL1S KASNI1S LIPLI1S NOBER1S
NUNLI1S REGOS1S RYN1S SELKA1S
SEMBO1S TL1S



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**
**(PROPELLER)**

ALBOS1S BUT1S DOSBU1S GOMES1S
HOTEL1S KASNI1S LIPLI1S NOBER1S
NUNLI1S REGOS1S RYN1S SELKA1S
SEMBO1S TL1S

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**
**(PROPELLER)**

ALBOS1S BUT1S DOSBU1S GOMES1S
HOTEL1S KASNI1S LIPLI1S NOBER1S
NUNLI1S REGOS1S RYN1S SELKA1S
SEMBO1S TL1S

**TABULAR DESCRIPTION (1)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1S TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 345°(344.0°) | + 0.6 | 13.5 | - | - | - | - | RNAV 1 |
| BUT1S TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | NOKUK | - | 215°(214.8°) | + 0.6 | 19.0 | - | - | - | - | RNAV 1 |
| 080 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |
| DOSBU1S TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | DOSBU | - | 077°(076.8°) | + 0.6 | 42.8 | - | - | - | - | RNAV 1 |
| GOMES1S TO R468/N506 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | GOMES | - | 125°(124.6°) | + 0.6 | 33.0 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**
**(PROPELLER)**

ALBOS1S BUT1S DOSBU1S GOMES1S
HOTEL1S KASNI1S LIPLI1S NOBER1S
NUNLI1S REGOS1S RYN1S SELKA1S
SEMBO1S TL1S

**TABULAR DESCRIPTION (2)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| HOTEL1S TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 231°(230.3°) | + 0.6 | 24.5 | - | - | - | - | RNAV 1 |
| 080 | TF | HOTEL | - | 258°(257.0°) | + 0.6 | 20.9 | - | - | - | - | RNAV 1 |
| KASNI1S TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 231°(230.3°) | + 0.6 | 24.5 | - | - | - | - | RNAV 1 |
| LIPLI1S TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | LIPLI | - | 061°(060.8°) | + 0.6 | 56.4 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**
**(PROPELLER)**

ALBOS1S BUT1S DOSBU1S GOMES1S
HOTEL1S KASNI1S LIPLI1S NOBER1S
NUNLI1S REGOS1S RYN1S SELKA1S
SEMBO1S TL1S

**TABULAR DESCRIPTION (3)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOBER1S TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NOBER | - | 344°(343.7°) | + 0.6 | 30.5 | - | - | - | - | RNAV 1 |
| NUNLI1S TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NUNLI | - | 274°(273.1°) | + 0.6 | 83.3 | - | - | - | - | RNAV 1 |
| REGOS1S TO M751, A646/W19 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | SUPIS | - | 112°(111.3°) | + 0.6 | 9.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SAMVA | - | 196°(195.1°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 060 | TF | SUSVU | - | 196°(195.0°) | + 0.6 | 13.0 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 231°(230.3°) | + 0.6 | 24.5 | - | - | - | - | RNAV 1 |
| 080 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**
**(PROPELLER)**

ALBOS1S BUT1S DOSBU1S GOMES1S
HOTEL1S KASNI1S LIPLI1S NOBER1S
NUNLI1S REGOS1S RYN1S SELKA1S
SEMBO1S TL1S

**TABULAR DESCRIPTION (4)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RYN1S TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | GOMES | - | 125°(124.6°) | + 0.6 | 33.0 | - | - | - | - | RNAV 1 |
| 060 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |
| SELKA1S TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | SELKA | - | 051°(050.1°) | + 0.6 | 58.2 | - | - | - | - | RNAV 1 |
| SEMBO1S TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | SEMBO | - | 283°(281.9°) | + 0.6 | 32.8 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**
**(PROPELLER)**

ALBOS1S BUT1S DOSBU1S GOMES1S
HOTEL1S KASNI1S LIPLI1S NOBER1S
NUNLI1S REGOS1S RYN1S SELKA1S
SEMBO1S TL1S

**TABULAR DESCRIPTION (5)**

**RNAV RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TL1S TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY02R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 015°(014.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS010 | - | - | + 0.6 | - | R | -3000 | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 087°(086.1°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | TL | - | 315°(314.2°) | + 0.6 | 41.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY02R**
**(PROPELLER)**

ALBOS1S BUT1S DOSBU1S GOMES1S
HOTEL1S KASNI1S LIPLI1S NOBER1S
NUNLI1S REGOS1S RYN1S SELKA1S
SEMBO1S TL1S

## WAYPOINT LIST

**RNAV RWY02R**

| Waypoint Identifier | Coordinates |
|---|---|
| DER RWY02R | 13° 42' 13.21" N 100° 44' 35.44" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E |
| HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| PAGSU | 13° 42' 55.95" N 101° 07' 13.22" E |
| PEBKO | 14° 47' 13.17" N 100° 48' 55.91" E |
| PILOV | 14° 15' 49.64" N 101° 10' 13.23" E |
| POVUP | 14° 31' 41.46" N 101° 05' 32.47" E |
| PS010 | 13° 42' 11.18" N 100° 55' 54.57" E |
| PUBAL | 14° 05' 12.31" N 101° 13' 20.95" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SAMVA | 13° 33' 10.56" N 101° 03' 27.30" E |
| SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| SUPIS | 13° 38' 43.46" N 101° 04' 58.79" E |
| SUSVU | 13° 20' 33.99" N 100° 59' 59.73" E |
| TL | 15° 16' 33.45" N 100° 17' 51.11" E |

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

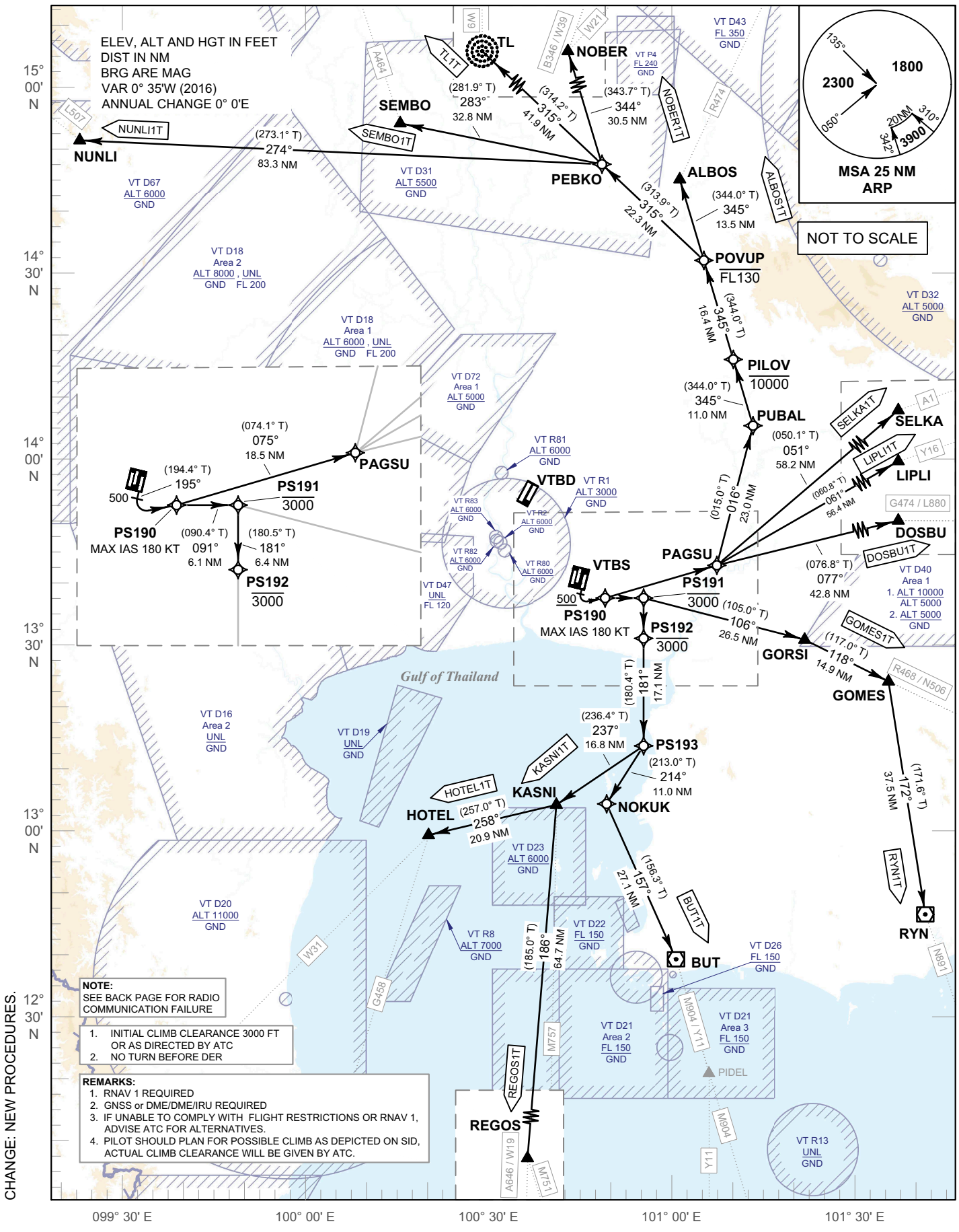
| |
|---|
| TRANSITION ALTITUDE 11000 FT |
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 119.25 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)

**RNAV RWY19**
**(PROPELLER)**

ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**
**(PROPELLER)**

ALBOS1T BUT1T DOSBU1T GOMES1T
HOTEL1T KASNI1T LIPLI1T NOBER1T
NUNLI1T REGOS1T RYN1T SELKA1T
SEMBO1T TL1T

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**
**(PROPELLER)**

ALBOS1T BUT1T DOSBU1T GOMES1T
HOTEL1T KASNI1T LIPLI1T NOBER1T
NUNLI1T REGOS1T RYN1T SELKA1T
SEMBO1T TL1T

**TABULAR DESCRIPTION (1)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1T TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 345°(344.0°) | + 0.6 | 13.5 | - | - | - | - | RNAV 1 |
| BUT1T TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | NOKUK | - | 214°(213.0°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 080 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |
| DOSBU1T TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | DOSBU | - | 077°(076.8°) | + 0.6 | 42.8 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**
**(PROPELLER)**

ALBOS1T BUT1T DOSBU1T GOMES1T
HOTEL1T KASNI1T LIPLI1T NOBER1T
NUNLI1T REGOS1T RYN1T SELKA1T
SEMBO1T TL1T

**TABULAR DESCRIPTION (2)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GOMES1T TO R468/N506 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | GORSI | - | 106°(105.0°) | + 0.6 | 26.5 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| HOTEL1T TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 237°(236.4°) | + 0.6 | 16.8 | - | - | - | - | RNAV 1 |
| 080 | TF | HOTEL | - | 258°(257.0°) | + 0.6 | 20.9 | - | - | - | - | RNAV 1 |
| KASNI1T TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 237°(236.4°) | + 0.6 | 16.8 | - | - | - | - | RNAV 1 |
| LIPLI1T TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | LIPLI | - | 061°(060.8°) | + 0.6 | 56.4 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**
**(PROPELLER)**

ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T

**TABULAR DESCRIPTION (3)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOBER1T TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NOBER | - | 344°(343.7°) | + 0.6 | 30.5 | - | - | - | - | RNAV 1 |
| NUNLI1T TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NUNLI | - | 274°(273.1°) | + 0.6 | 83.3 | - | - | - | - | RNAV 1 |
| REGOS1T TO M751, A646/W19 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 237°(236.4°) | + 0.6 | 16.8 | - | - | - | - | RNAV 1 |
| 080 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**
**(PROPELLER)**

ALBOS1T BUT1T DOSBU1T GOMES1T
HOTEL1T KASNI1T LIPLI1T NOBER1T
NUNLI1T REGOS1T RYN1T SELKA1T
SEMBO1T TL1T

**TABULAR DESCRIPTION (4)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RYN1T TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | GORSI | - | 106°(105.0°) | + 0.6 | 26.5 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| 070 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |
| SELKA1T TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SELKA | - | 051°(050.1°) | + 0.6 | 58.2 | - | - | - | - | RNAV 1 |
| SEMBO1T TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | SEMBO | - | 283°(281.9°) | + 0.6 | 32.8 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**
**(PROPELLER)**

ALBOS1T BUT1T DOSBU1T GOMES1T
HOTEL1T KASNI1T LIPLI1T NOBER1T
NUNLI1T REGOS1T RYN1T SELKA1T
SEMBO1T TL1T

**TABULAR DESCRIPTION (5)**

**RNAV RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TL1T TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | TL | - | 315°(314.2°) | + 0.6 | 41.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19**
**(PROPELLER)**

ALBOS1T BUT1T DOSBU1T GOMES1T
HOTEL1T KASNI1T LIPLI1T NOBER1T
NUNLI1T REGOS1T RYN1T SELKA1T
SEMBO1T TL1T

## WAYPOINT LIST

**RNAV RWY19**

| Waypoint Identifier | Coordinates |
|---|---|
| DER RWY19 | 13° 39' 24.11" N 100° 45' 06.59" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E |
| GORSI | 13° 30' 54.64" N 101° 21' 28.05" E |
| HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| PAGSU | 13° 42' 55.95" N 101° 07' 13.22" E |
| PEBKO | 14° 47' 13.17" N 100° 48' 55.91" E |
| PILOV | 14° 15' 49.64" N 101° 10' 13.23" E |
| POVUP | 14° 31' 41.46" N 101° 05' 32.47" E |
| PS190 | 13° 37' 50.94" N 100° 48' 53.90" E |
| PS191 | 13° 37' 48.11" N 100° 55' 11.64" E |
| PS192 | 13° 31' 20.61" N 100° 55' 08.53" E |
| PS193 | 13° 14' 09.73" N 100° 55' 00.37" E |
| PUBAL | 14° 05' 12.31" N 101° 13' 20.95" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| TL | 15° 16' 33.45" N 100° 17' 51.11" E |

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

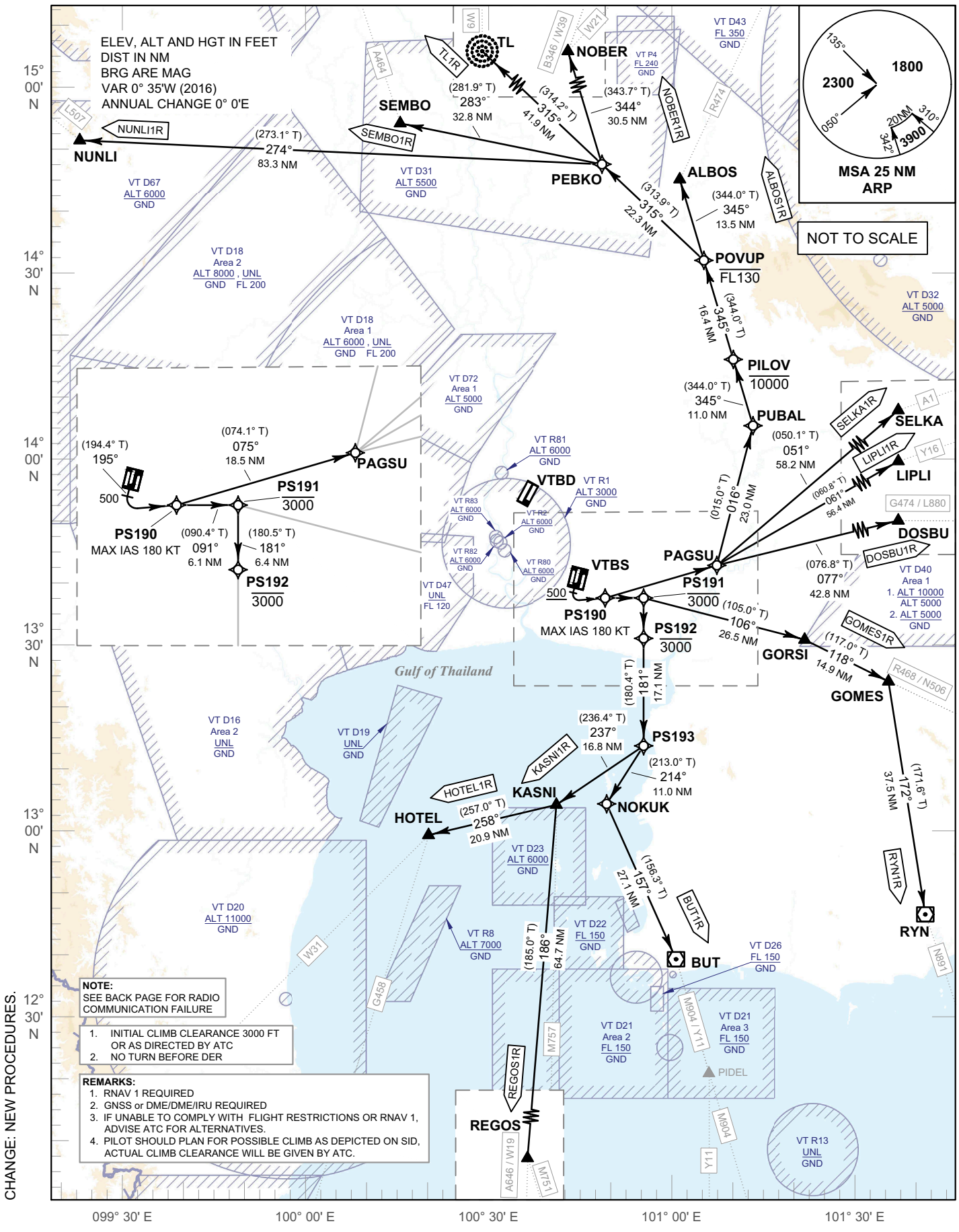
**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 119.25 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)

**RNAV RWY20L**
**(PROPELLER)**

ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R




**NOTE:**
SEE BACK PAGE FOR RADIO COMMUNICATION FAILURE

1. INITIAL CLIMB CLEARANCE 3000 FT OR AS DIRECTED BY ATC
2. NO TURN BEFORE DER

**REMARKS:**
1. RNAV 1 REQUIRED
2. GNSS or DME/DME/IRU REQUIRED
3. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS OR RNAV 1, ADVISE ATC FOR ALTERNATIVES.
4. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**
**(PROPELLER)**

ALBOS1R BUT1R DOSBU1R GOMES1R
HOTEL1R KASNI1R LIPLI1R NOBER1R
NUNLI1R REGOS1R RYN1R SELKA1R
SEMBO1R TL1R

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**
**(PROPELLER)**

ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R

**TABULAR DESCRIPTION (1)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1R TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 345°(344.0°) | + 0.6 | 13.5 | - | - | - | - | RNAV 1 |
| BUT1R TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | NOKUK | - | 214°(213.0°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 080 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |
| DOSBU1R TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | DOSBU | - | 077°(076.8°) | + 0.6 | 42.8 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**
**(PROPELLER)**

ALBOS1R BUT1R DOSBU1R GOMES1R
HOTEL1R KASNI1R LIPLI1R NOBER1R
NUNLI1R REGOS1R RYN1R SELKA1R
SEMBO1R TL1R

**TABULAR DESCRIPTION (2)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GOMES1R TO R468, N506 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | GORSI | - | 106°(105.0°) | + 0.6 | 26.5 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| HOTEL1R TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 237°(236.4°) | + 0.6 | 16.8 | - | - | - | - | RNAV 1 |
| 080 | TF | HOTEL | - | 258°(257.0°) | + 0.6 | 20.9 | - | - | - | - | RNAV 1 |
| KASNI1R TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 237°(236.4°) | + 0.6 | 16.8 | - | - | - | - | RNAV 1 |
| LIPLI1R TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | LIPLI | - | 061°(060.8°) | + 0.6 | 56.4 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**
**(PROPELLER)**

ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R

**TABULAR DESCRIPTION (3)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOBER1R TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NOBER | - | 344°(343.7°) | + 0.6 | 30.5 | - | - | - | - | RNAV 1 |
| NUNLI1R TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NUNLI | - | 274°(273.1°) | + 0.6 | 83.3 | - | - | - | - | RNAV 1 |
| REGOS1R TO M751, A646/W19 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 237°(236.4°) | + 0.6 | 16.8 | - | - | - | - | RNAV 1 |
| 080 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**
**(PROPELLER)**

ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R

**TABULAR DESCRIPTION (4)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RYN1R TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | GORSI | - | 106°(105.0°) | + 0.6 | 26.5 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| 070 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |
| SELKA1R TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SELKA | - | 051°(050.1°) | + 0.6 | 58.2 | - | - | - | - | RNAV 1 |
| SEMBO1R TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | SEMBO | - | 283°(281.9°) | + 0.6 | 32.8 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**
**(PROPELLER)**

ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R

**TABULAR DESCRIPTION (5)**

**RNAV RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TL1R TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY20L | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | TL | - | 315°(314.2°) | + 0.6 | 41.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20L**
**(PROPELLER)**

ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R

## WAYPOINT LIST

**RNAV RWY20L**

| Waypoint Identifier | Coordinates |
|---|---|
| DER RWY20L | 13° 40' 16.60" N 100° 44' 04.79" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E |
| GORSI | 13° 30' 54.64" N 101° 21' 28.05" E |
| HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| PAGSU | 13° 42' 55.95" N 101° 07' 13.22" E |
| PEBKO | 14° 47' 13.17" N 100° 48' 55.91" E |
| PILOV | 14° 15' 49.64" N 101° 10' 13.23" E |
| POVUP | 14° 31' 41.46" N 101° 05' 32.47" E |
| PS190 | 13° 37' 50.94" N 100° 48' 53.90" E |
| PS191 | 13° 37' 48.11" N 100° 55' 11.64" E |
| PS192 | 13° 31' 20.61" N 100° 55' 08.53" E |
| PS193 | 13° 14' 09.73" N 100° 55' 00.37" E |
| PUBAL | 14° 05' 12.31" N 101° 13' 20.95" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| TL | 15° 16' 33.45" N 100° 17' 51.11" E |

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

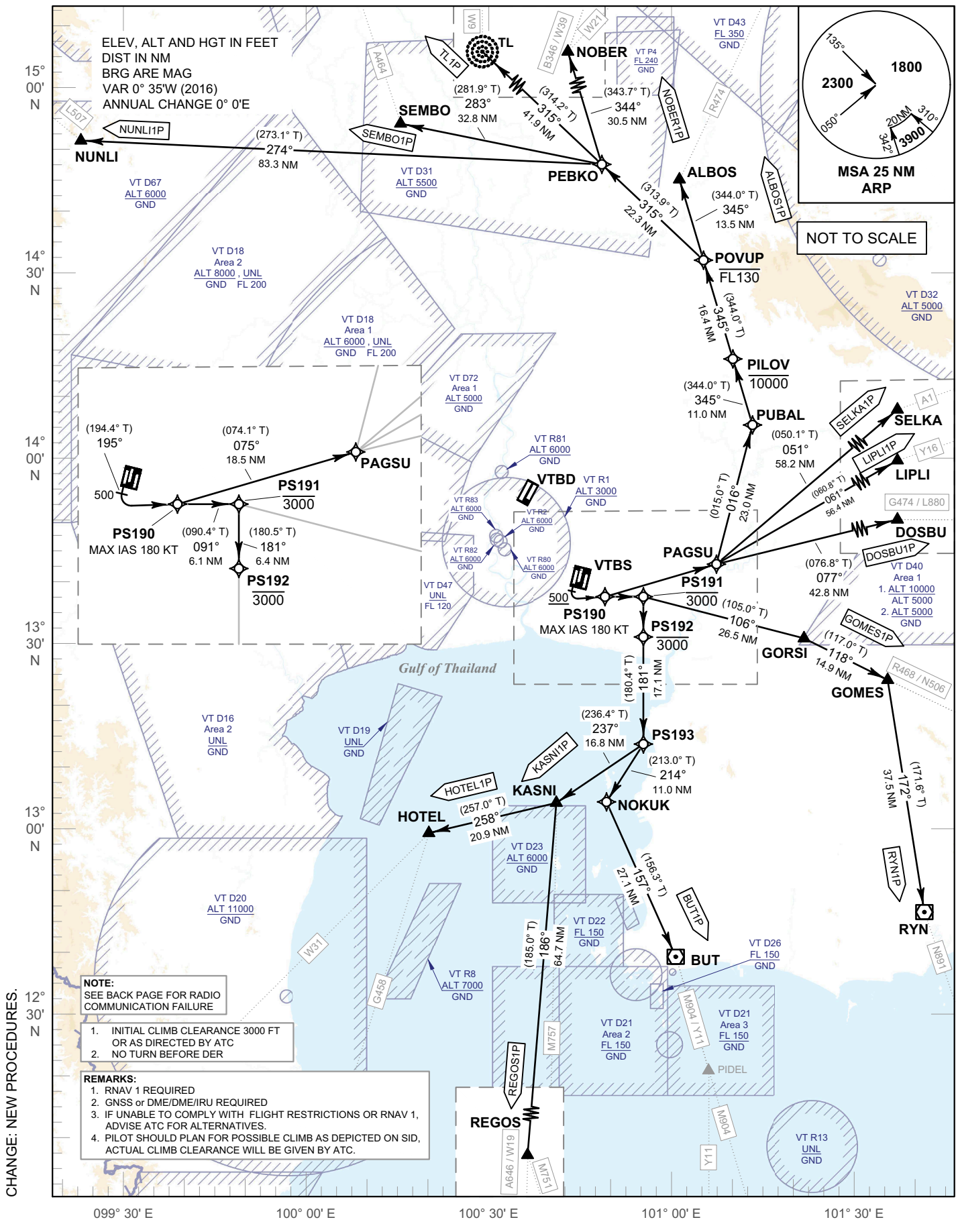
**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 119.25 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| DEP ATIS | : 127.65 |

## BANGKOK/Suvarnabhumi Intl (VTBS)

**RNAV RWY20R**
**(PROPELLER)**

ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**
**(PROPELLER)**

ALBOS1P BUT1P DOSBU1P GOMES1P
HOTEL1P KASNI1P LIPLI1P NOBER1P
NUNLI1P REGOS1P RYN1P SELKA1P
SEMBO1P TL1P

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 3 | WHEN ***A DEPARTING AIRCRAFT IS BEING RADAR VECTORED***, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**
**(PROPELLER)**

ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P

**TABULAR DESCRIPTION (1)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALBOS1P TO R474 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | ALBOS | - | 345°(344.0°) | + 0.6 | 13.5 | - | - | - | - | RNAV 1 |
| BUT1P TO M904/Y11 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | NOKUK | - | 214°(213.0°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 080 | TF | BUT | - | 157°(156.3°) | + 0.6 | 27.1 | - | - | - | - | RNAV 1 |
| DOSBU1P TO G474/L880 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | DOSBU | - | 077°(076.8°) | + 0.6 | 42.8 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**
**(PROPELLER)**

ALBOS1P BUT1P DOSBU1P GOMES1P
HOTEL1P KASNI1P LIPLI1P NOBER1P
NUNLI1P REGOS1P RYN1P SELKA1P
SEMBO1P TL1P

**TABULAR DESCRIPTION (2)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GOMES1P TO R468/N506 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | GORSI | - | 106°(105.0°) | + 0.6 | 26.5 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| HOTEL1P TO G458, W31 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 237°(236.4°) | + 0.6 | 16.8 | - | - | - | - | RNAV 1 |
| 080 | TF | HOTEL | - | 258°(257.0°) | + 0.6 | 20.9 | - | - | - | - | RNAV 1 |
| KASNI1P TO M757 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.5°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.4°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 237°(236.4°) | + 0.6 | 16.8 | - | - | - | - | RNAV 1 |
| LIPLI1P TO Y16 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | LIPLI | - | 061°(060.8°) | + 0.6 | 56.4 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**
**(PROPELLER)**

ALBOS1P BUT1P DOSBU1P GOMES1P
HOTEL1P KASNI1P LIPLI1P NOBER1P
NUNLI1P REGOS1P RYN1P SELKA1P
SEMBO1P TL1P

**TABULAR DESCRIPTION (3)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NOBER1P TO B346/W39, W21 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NOBER | - | 344°(343.7°) | + 0.6 | 30.5 | - | - | - | - | RNAV 1 |
| NUNLI1P TO L507 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | NUNLI | - | 274°(273.1°) | + 0.6 | 83.3 | - | - | - | - | RNAV 1 |
| REGOS1P TO M751, A646/W19 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | PS192 | - | 181°(180.4°) | + 0.6 | 6.4 | - | -3000 | - | - | RNAV 1 |
| 060 | TF | PS193 | - | 181°(180.5°) | + 0.6 | 17.1 | - | - | - | - | RNAV 1 |
| 070 | TF | KASNI | - | 237°(236.4°) | + 0.6 | 16.8 | - | - | - | - | RNAV 1 |
| 080 | TF | REGOS | - | 186°(185.0°) | + 0.6 | 64.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**
**(PROPELLER)**

ALBOS1P BUT1P DOSBU1P GOMES1P
HOTEL1P KASNI1P LIPLI1P NOBER1P
NUNLI1P REGOS1P RYN1P SELKA1P
SEMBO1P TL1P

**TABULAR DESCRIPTION (4)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RYN1P TO N891 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PS191 | - | 091°(090.4°) | + 0.6 | 6.1 | - | -3000 | - | - | RNAV 1 |
| 050 | TF | GORSI | - | 106°(105.0°) | + 0.6 | 26.5 | - | - | - | - | RNAV 1 |
| 060 | TF | GOMES | - | 118°(117.0°) | + 0.6 | 14.9 | - | - | - | - | RNAV 1 |
| 070 | TF | RYN | - | 172°(171.6°) | + 0.6 | 37.5 | - | - | - | - | RNAV 1 |
| SELKA1P TO A1, Y14 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | SELKA | - | 051°(050.1°) | + 0.6 | 58.2 | - | - | - | - | RNAV 1 |
| SEMBO1P TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | SEMBO | - | 283°(281.9°) | + 0.6 | 32.8 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**
**(PROPELLER)**

ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P

**TABULAR DESCRIPTION (5)**

**RNAV RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TL1P TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY20R | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | CA | - | - | 195°(194.4°) | + 0.6 | - | - | +500 | - | - | RNAV 1 |
| 030 | DF | PS190 | - | - | + 0.6 | - | L | - | -180 | - | RNAV 1 |
| 040 | TF | PAGSU | - | 075°(074.1°) | + 0.6 | 18.5 | - | - | - | - | RNAV 1 |
| 050 | TF | PUBAL | - | 016°(015.0°) | + 0.6 | 23.0 | - | - | - | - | RNAV 1 |
| 060 | TF | PILOV | - | 345°(344.0°) | + 0.6 | 11.0 | - | -10000 | - | - | RNAV 1 |
| 070 | TF | POVUP | - | 345°(344.0°) | + 0.6 | 16.4 | - | -FL130 | - | - | RNAV 1 |
| 080 | TF | PEBKO | - | 315°(313.9°) | + 0.6 | 22.3 | - | - | - | - | RNAV 1 |
| 090 | TF | TL | - | 315°(314.2°) | + 0.6 | 41.9 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY20R**
**(PROPELLER)**

ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P

## WAYPOINT LIST

| RNAV RWY20R | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY20R | 13° 39' 54.63" N 100° 43' 45.28" E |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E |
| DOSBU | 13° 52' 40.26" N 101° 50' 01.98" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E |
| GORSI | 13° 30' 54.64" N 101° 21' 28.05" E |
| HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |
| KASNI | 13° 04' 50.17" N 100° 40' 41.88" E |
| LIPLI | 14° 10' 27.65" N 101° 57' 56.34" E |
| NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| NOKUK | 13° 04' 55.65" N 100° 48' 53.99" E |
| NUNLI | 14° 51' 27.45" N 099° 23' 03.60" E |
| PAGSU | 13° 42' 55.95" N 101° 07' 13.22" E |
| PEBKO | 14° 47' 13.17" N 100° 48' 55.91" E |
| PILOV | 14° 15' 49.64" N 101° 10' 13.23" E |
| POVUP | 14° 31' 41.46" N 101° 05' 32.47" E |
| PS190 | 13° 37' 50.94" N 100° 48' 53.90" E |
| PS191 | 13° 37' 48.11" N 100° 55' 11.64" E |
| PS192 | 13° 31' 20.61" N 100° 55' 08.53" E |
| PS193 | 13° 14' 09.73" N 100° 55' 00.37" E |
| PUBAL | 14° 05' 12.31" N 101° 13' 20.95" E |
| REGOS | 12° 00' 06.50" N 100° 34' 54.30" E |
| RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| SELKA | 14° 20' 20.06" N 101° 53' 10.73" E |
| SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| TL | 15° 16' 33.45" N 100° 17' 51.11" E |

## STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

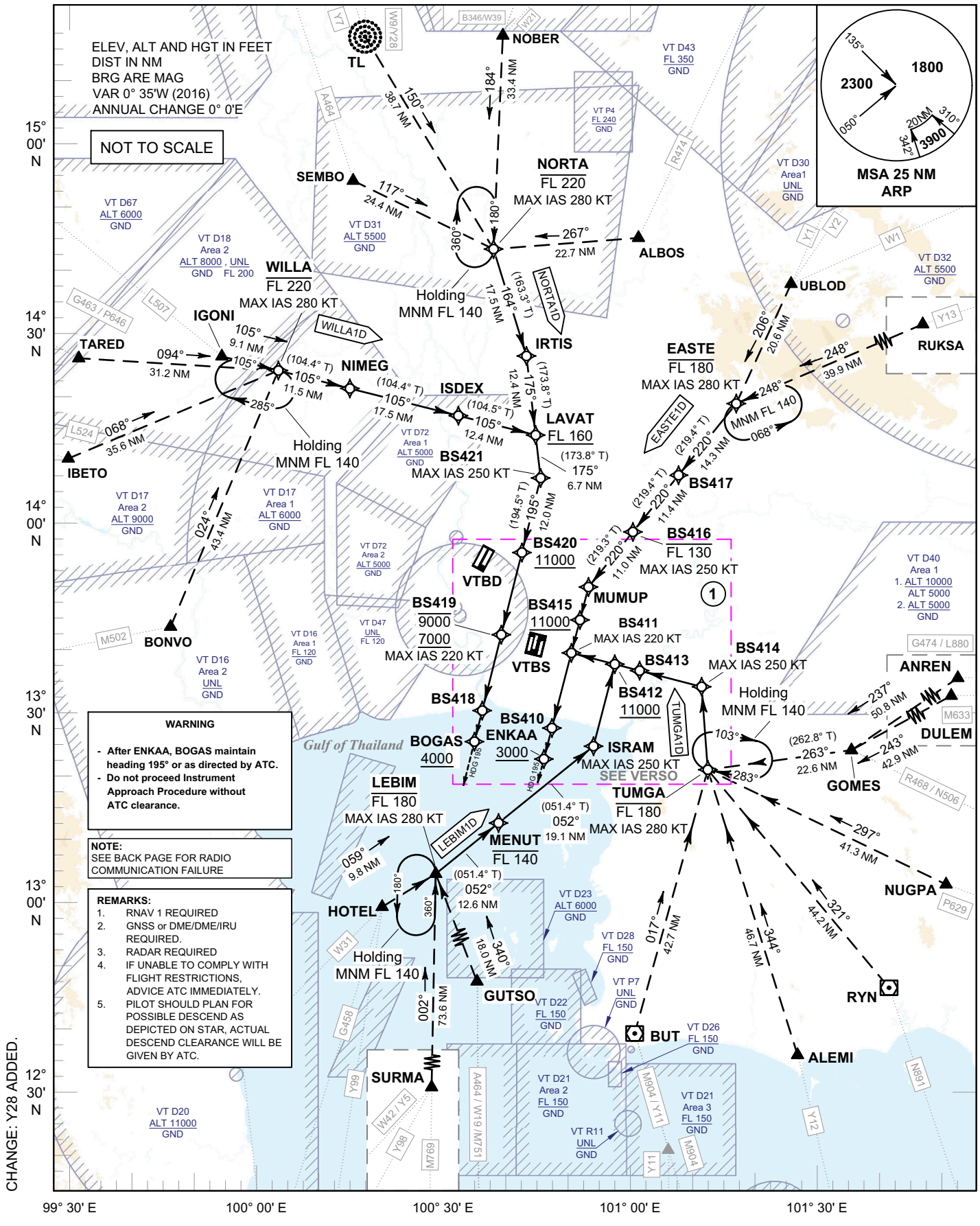
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 274.5 |
| | : 120.3 , 274.5 |
| | : 133.4 , 274.5 |
| | : 122.35 , 274.5 |
| | : 124.35 , 274.5 |
| | : 125.2 , 274.5 |
| ARR | : 121.1 , 274.5 |
| | : 126.3 , 274.5 |
| TWR | : 118.2 , 262.5 |
| | : 119.0 |
| ARR ATIS | : 133.6 , 278.6 |

## BANGKOK/Suvarnabhumi Intl (VTBS)
## RNAV RWY01/02L/02R

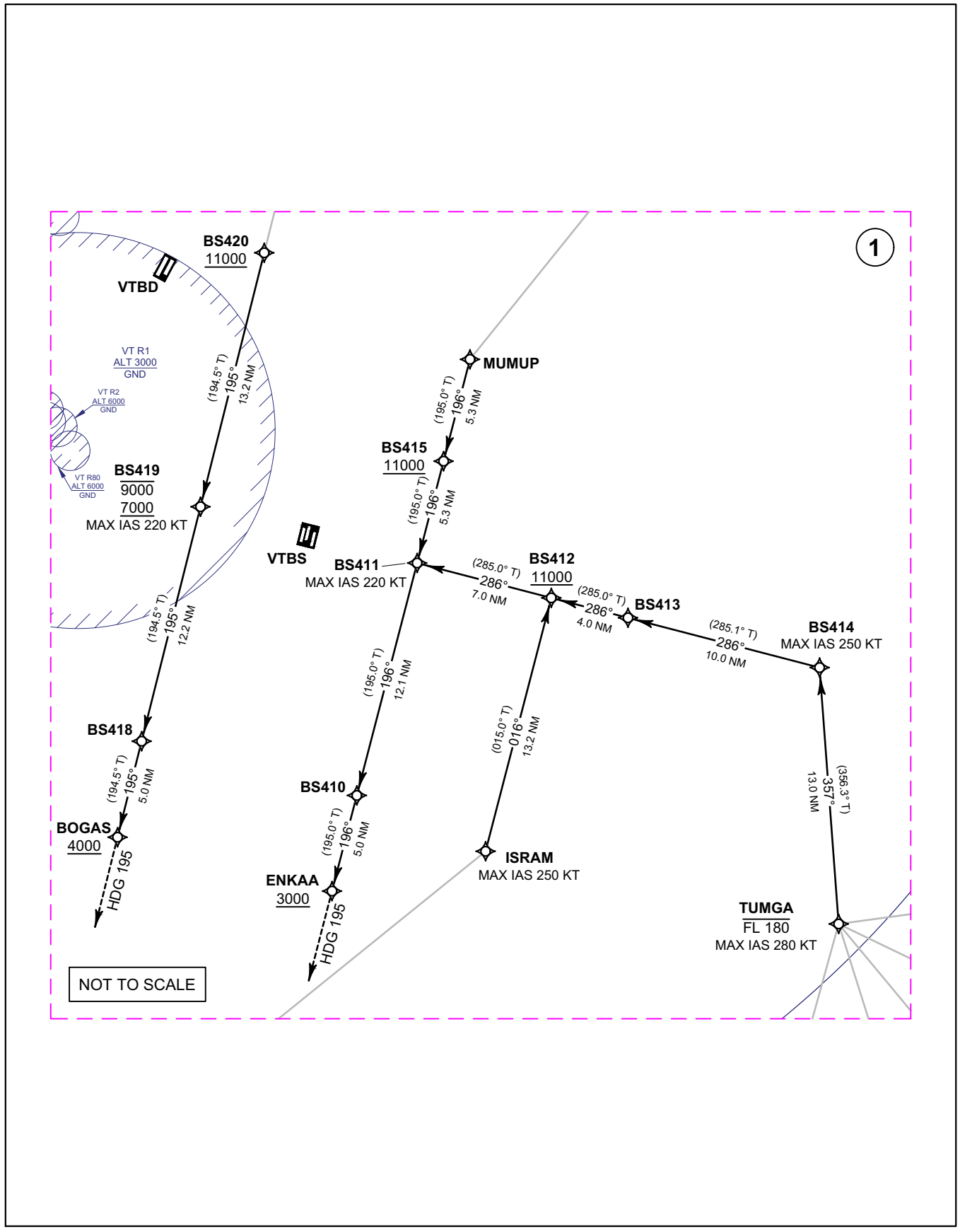
EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D



**STANDARD ARRIVAL CHART -
INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01/02L/02R**

EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D




CHANGE: NEW PROCEDURES.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01/02L/02R**

EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | PROCEED ACCORDING TO THE STAR ROUTE TO THE TERMINATION POINT BOGAS/ENKAA, DESCEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, THENCE: AFTER PASSING BOGAS/ENKAA FLY HEADING 195 AND MAINTAIN ALTITUDE 6000 FT FOR NEXT 10 NM, THEN TURN RIGHT/LEFT AND DESCEND TO 1600 FT AND CARRY OUT THE APPROPRIATE APPROACH PROCEDURE. |
| 3 | WHEN **AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF **TWO MINUTES**, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. PILOT SHOULD PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01/02L/02R**

EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D

**TABULAR DESCRIPTION (1)**

**RNAV RWY01/02L/02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EASTE1D** | | | | | | | | | | | |
| TRANSITION RUKSA FROM Y13 | | | | | | | | | | | |
| 010 | IF | RUKSA | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | EASTE | - | 248°(247.7°) | + 0.6 | 39.9 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION UBLOD FROM Y1,Y2,W1 | | | | | | | | | | | |
| 010 | IF | UBLOD | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | EASTE | - | 206°(205.2°) | + 0.6 | 20.6 | - | -FL180 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | EASTE | - | - | + 0.6 | - | - | -FL180 | -280 | - | RNAV 1 |
| 020 | TF | BS417 | - | 220°(219.4°) | + 0.6 | 14.3 | - | - | - | - | RNAV 1 |
| 030 | TF | BS416 | - | 220°(219.4°) | + 0.6 | 11.4 | - | -FL130 | -250 | - | RNAV 1 |
| 040 | TF | MUMUP | - | 220°(219.3°) | + 0.6 | 11.0 | - | - | - | - | RNAV 1 |
| 050 | TF | BS415 | - | 196°(195.0°) | + 0.6 | 5.3 | - | +11000 | - | - | RNAV 1 |
| 060 | TF | BS411 | - | 196°(195.0°) | + 0.6 | 5.3 | - | - | -220 | - | RNAV 1 |
| 070 | TF | BS410 | - | 196°(195.0°) | + 0.6 | 12.1 | - | - | - | - | RNAV 1 |
| 080 | TF | ENKAA | - | 196°(195.0°) | + 0.6 | 5.0 | - | +3000 | - | - | RNAV 1 |
| 090 | VM | - | - | 195°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01/02L/02R**

EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D

**TABULAR DESCRIPTION (2)**

| **RNAV RWY01/02L/02R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| **LEBIM1D** | | | | | | | | | | | |
| TRANSITION GUTSO FROM A464/M751/W19 | | | | | | | | | | | |
| 010 | IF | GUTSO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | LEBIM | - | 340°(339.4°) | + 0.6 | 18.0 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION HOTEL FROM G458, W31, Y99 | | | | | | | | | | | |
| 010 | IF | HOTEL | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | LEBIM | - | 059°(058.6°) | + 0.6 | 9.8 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION SURMA FROM M769, Y98 | | | | | | | | | | | |
| 010 | IF | SURMA | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | LEBIM | - | 002°(001.4°) | + 0.6 | 73.6 | - | -FL180 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | LEBIM | - | - | + 0.6 | - | - | -FL180 | -280 | - | RNAV 1 |
| 020 | TF | MENUT | - | 052°(051.4°) | + 0.6 | 12.6 | - | -FL140 | - | - | RNAV 1 |
| 030 | TF | ISRAM | - | 052°(051.4°) | + 0.6 | 19.1 | - | - | -250 | - | RNAV 1 |
| 040 | TF | BS412 | - | 016°(015.0°) | + 0.6 | 13.2 | - | +11000 | - | - | RNAV 1 |
| 050 | TF | BS411 | - | 286°(285.0°) | + 0.6 | 7.0 | - | - | -220 | - | RNAV 1 |
| 060 | TF | BS410 | - | 196°(195.0°) | + 0.6 | 12.1 | - | - | - | - | RNAV 1 |
| 070 | TF | ENKAA | - | 196°(195.0°) | + 0.6 | 5.0 | - | +3000 | - | - | RNAV 1 |
| 080 | VM | - | - | 195°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01/02L/02R**

EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D

**TABULAR DESCRIPTION (3)**

**RNAV RWY01/02L/02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NORTA1D** | | | | | | | | | | | |
| TRANSITION ALBOS FROM R474 | | | | | | | | | | | |
| 010 | IF | ALBOS | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NORTA | - | 267°(266.1°) | + 0.6 | 22.7 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION NOBER FROM B346/W39/W21 | | | | | | | | | | | |
| 010 | IF | NOBER | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NORTA | - | 184°(182.9°) | + 0.6 | 33.4 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION SEMBO FROM A464 | | | | | | | | | | | |
| 010 | IF | SEMBO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NORTA | - | 117°(116.3°) | + 0.6 | 24.4 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION TL FROM W9/Y28, Y7 | | | | | | | | | | | |
| 010 | IF | TL | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NORTA | - | 150°(149..2°) | + 0.6 | 38.7 | - | -FL220 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | NORTA | - | - | + 0.6 | - | - | -FL220 | -280 | - | RNAV 1 |
| 020 | TF | IRTIS | - | 164°(163.1°) | + 0.6 | 17.5 | - | - | - | - | RNAV 1 |
| 030 | TF | LAVAT | - | 175°(174.1°) | + 0.6 | 12.4 | - | +FL160 | - | - | RNAV 1 |
| 040 | TF | BS421 | - | 175°(173.8°) | + 0.6 | 6.7 | - | - | -250 | - | RNAV 1 |
| 050 | TF | BS420 | - | 195°(194.5°) | + 0.6 | 12.0 | - | +11000 | - | - | RNAV 1 |
| 060 | TF | BS419 | - | 195°(194.5°) | + 0.6 | 13.2 | - | -9000; +7000 | -220 | - | RNAV 1 |
| 070 | TF | BS418 | - | 195°(194.5°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 080 | TF | BOGAS | - | 195°(194.5°) | + 0.6 | 5.0 | - | +4000 | - | - | RNAV 1 |
| 090 | VM | - | - | 195°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

CHANGE: Y28 ADDED.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01/02L/02R**

EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D

**TABULAR DESCRIPTION (4)**

| **RNAV RWY01/02L/02R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| **TUMGA1D** | | | | | | | | | | | |
| TRANSITION ALEMI FROM Y12 | | | | | | | | | | | |
| 010 | IF | ALEMI | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 344°(343.1°) | + 0.6 | 46.7 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION ANREN FROM G474/L880 | | | | | | | | | | | |
| 010 | IF | ANREN | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | GOMES | - | 237°(236.7°) | + 0.6 | 50.8 | - | - | - | - | RNAV 1 |
| 030 | TF | TUMGA | - | 263°(262.8°) | + 0.6 | 22.6 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION BUT FROM R201 | | | | | | | | | | | |
| 010 | IF | BUT | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 017°(015.9°) | + 0.6 | 42.7 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION DULEM FROM M633 | | | | | | | | | | | |
| 010 | IF | DULEM | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | GOMES | - | 243°(242.2°) | + 0.6 | 42.9 | - | - | - | - | RNAV 1 |
| 030 | TF | TUMGA | - | 263°(262.8°) | + 0.6 | 22.6 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION GOMES FROM R468/N506 | | | | | | | | | | | |
| 010 | IF | GOMES | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 263°(262.8°) | + 0.6 | 22.6 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION NUGPA FROM P629 | | | | | | | | | | | |
| 010 | IF | NUGPA | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 297°(296.4°) | + 0.6 | 41.3 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION RYN FROM N891 | | | | | | | | | | | |
| 010 | IF | RYN | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 322°(320.9°) | + 0.6 | 44.2 | - | -FL180 | -280 | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01/02L/02R**

EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D

**TABULAR DESCRIPTION (5)**

**RNAV RWY01/02L/02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TUMGA1D** | | | | | | | | | | | |
| 010 | IF | TUMGA | - | - | + 0.6 | - | - | -FL180 | -280 | - | RNAV 1 |
| 020 | TF | BS414 | - | 357°(356.3°) | + 0.6 | 13.0 | - | - | -250 | - | RNAV 1 |
| 030 | TF | BS413 | - | 286°(285.1°) | + 0.6 | 10.0 | - | - | - | - | RNAV 1 |
| 040 | TF | BS412 | - | 286°(285.0°) | + 0.6 | 4.0 | - | +11000 | - | - | RNAV 1 |
| 050 | TF | BS411 | - | 286°(285.0°) | + 0.6 | 7.0 | - | - | -220 | - | RNAV 1 |
| 060 | TF | BS410 | - | 196°(195.0°) | + 0.6 | 12.1 | - | - | - | - | RNAV 1 |
| 070 | TF | ENKAA | - | 196°(195.0°) | + 0.6 | 5.0 | - | +3000 | - | - | RNAV 1 |
| 080 | VM | - | - | 195°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01/02L/02R**

EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D

**TABULAR DESCRIPTION (6)**

| **RNAV RWY01/02L/02R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| **WILLA1D** | | | | | | | | | | | |
| TRANSITION BONVO FROM M502 | | | | | | | | | | | |
| 010 | IF | BONVO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WILLA | - | 024°(023.0°) | + 0.6 | 43.4 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION IBETO FROM L524 | | | | | | | | | | | |
| 010 | IF | IBETO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WILLA | - | 068°(067.4°) | + 0.6 | 35.6 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION IGONI FROM L507 | | | | | | | | | | | |
| 010 | IF | IGONI | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WILLA | - | 105°(104.3°) | + 0.6 | 9.1 | - | -FL220 | -280 | - | RNAV 1 |
| TRANSITION TARED FROM G463/P646 | | | | | | | | | | | |
| 010 | IF | TARED | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WILLA | - | 094°(093.7°) | + 0.6 | 31.2 | - | -FL220 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | WILLA | - | - | + 0.6 | - | - | -FL220 | -280 | - | RNAV 1 |
| 020 | TF | NIMEG | - | 105°(104.4°) | + 0.6 | 11.5 | - | - | - | - | RNAV 1 |
| 030 | TF | ISDEX | - | 105°(104.4°) | + 0.6 | 17.5 | - | - | - | - | RNAV 1 |
| 040 | TF | LAVAT | - | 105°(104.5°) | + 0.6 | 12.4 | - | +FL160 | - | - | RNAV 1 |
| 050 | TF | BS421 | - | 174°(173.8°) | + 0.6 | 6.7 | - | - | -250 | - | RNAV 1 |
| 060 | TF | BS420 | - | 195°(194.5°) | + 0.6 | 12.0 | - | +11000 | - | - | RNAV 1 |
| 070 | TF | BS419 | - | 195°(194.5°) | + 0.6 | 13.2 | - | -9000 +7000 | -220 | | RNAV 1 |
| 080 | TF | BS418 | - | 195°(194.5°) | + 0.6 | 12.2 | - | - | - | - | RNAV 1 |
| 090 | TF | BOGAS | - | 195°(194.5°) | + 0.6 | 5.0 | - | +4000 | - | - | RNAV 1 |
| 100 | VM | - | - | 195°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY01/02L/02R**

EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D

## WAYPOINT LIST

| RNAV RWY01/02L/02R | | RNAV RWY01/02L/02R | |
|---|---|---|---|
| | | | |
| **Waypoint Identifier** | **Coordinates** | **Waypoint Identifier** | **Coordinates** |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E | HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |
| ALEMI | 12° 36' 25.55" N 101° 25' 59.92" E | IBETO | 14° 10' 36.14" N 099° 29' 45.68" E |
| ANREN | 13° 52' 12.48" N 102° 18' 37.95" E | IGONI | 14° 26' 32.73" N 099° 54' 30.29" E |
| BOGAS | 13° 25' 55.66" N 100° 34' 43.97" E | IRTIS | 14° 26' 19.82" N 100° 43' 30.68" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E | ISDEX | 14° 17' 02.47" N 100° 32' 29.78" E |
| BS410 | 13° 27' 58.46" N 100° 47' 09.14" E | ISRAM | 13° 25' 04.96" N 100° 53' 48.03" E |
| BS411 | 13° 39' 43.78" N 100° 50' 22.03" E | LAVAT | 14° 13' 55.01" N 100° 44' 53.56" E |
| BS412 | 13° 37' 54.54" N 100° 57' 18.71" E | LEBIM | 13° 05' 14.81" N 100° 28' 24.51" E |
| BS413 | 13° 36' 52.02" N 101° 01' 16.79" E | MENUT | 13° 13' 08.60" N 100° 38' 30.11" E |
| BS414 | 13° 34' 15.54" N 101° 11' 11.58" E | MUMUP | 13° 50' 02.27" N 100° 53' 11.48" E |
| BS415 | 13° 44' 53.04" N 100° 51' 46.71" E | NIMEG | 14° 21' 24.76" N 100° 15' 04.64" E |
| BS416 | 13° 58' 37.16" N 101° 00' 23.26" E | NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| BS417 | 14° 07' 26.63" N 101° 07' 48.01" E | NORTA | 14° 43' 07.64" N 100° 38' 20.46" E |
| BS418 | 13° 30' 47.44" N 100° 36' 00.87" E | NUGPA | 13° 02' 54.16" N 101° 49' 59.29" E |
| BS419 | 13° 42' 39.80" N 100° 39' 08.89" E | RUKSA | 14° 33' 51.00" N 101° 55' 12.34" E |
| BS420 | 13° 55' 31.25" N 100° 42' 32.96" E | RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| BS421 | 14° 07' 11.16" N 100° 45' 38.52" E | SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E | SURMA | 11° 51' 22.45" N 100° 26' 32.65" E |
| DULEM | 13° 44' 15.58" N 102° 13' 59.75" E | TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| EASTE | 14° 18' 34.80" N 101° 17' 10.48" E | TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| ENKAA | 13° 23' 07.66" N 100° 45' 49.41" E | TUMGA | 13° 21' 15.01" N 101° 12' 03.77" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E | UBLOD | 14° 37' 15.43" N 101° 26' 11.66" E |
| GUTSO | 12° 48' 19.94" N 100° 34' 54.30" E | WILLA | 14° 24' 16.98" N 100° 03' 35.36" E |

## STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

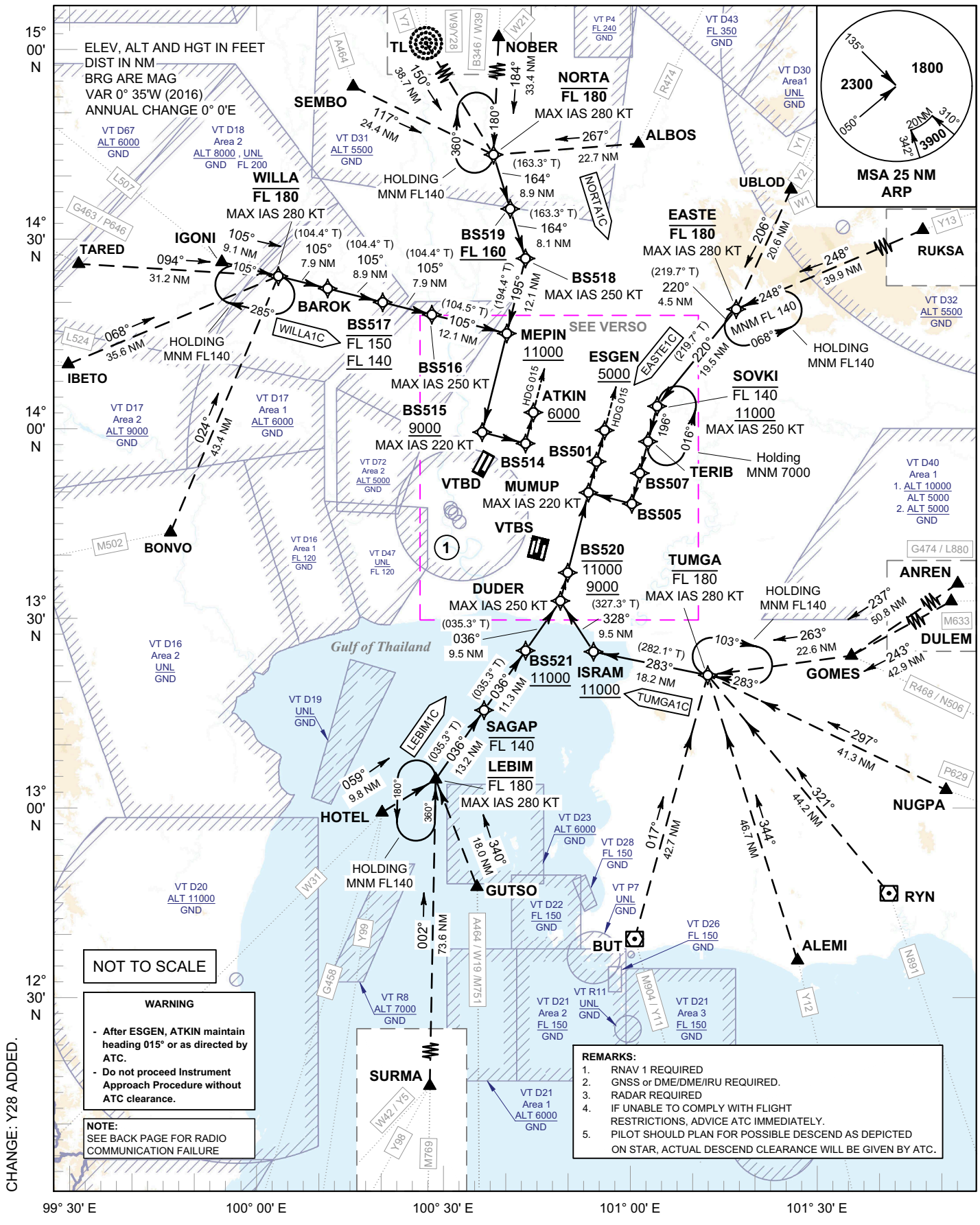
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

| | |
|---|---|
| APP | : 119.1 , 262.5 |
| | : 120.3 , 262.5 |
| | : 133.4 , 262.5 |
| | : 122.35 , 262.5 |
| | : 124.35 , 262.5 |
| | : 125.2 , 262.5 |
| ARR | : 121.1 , 262.5 |
| | : 126.3 , 262.5 |
| TWR | : 118.2 , 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6 , 278.6 |

## BANGKOK/Suvarnabhumi Intl (VTBS)
## RNAV RWY19/20L/20R

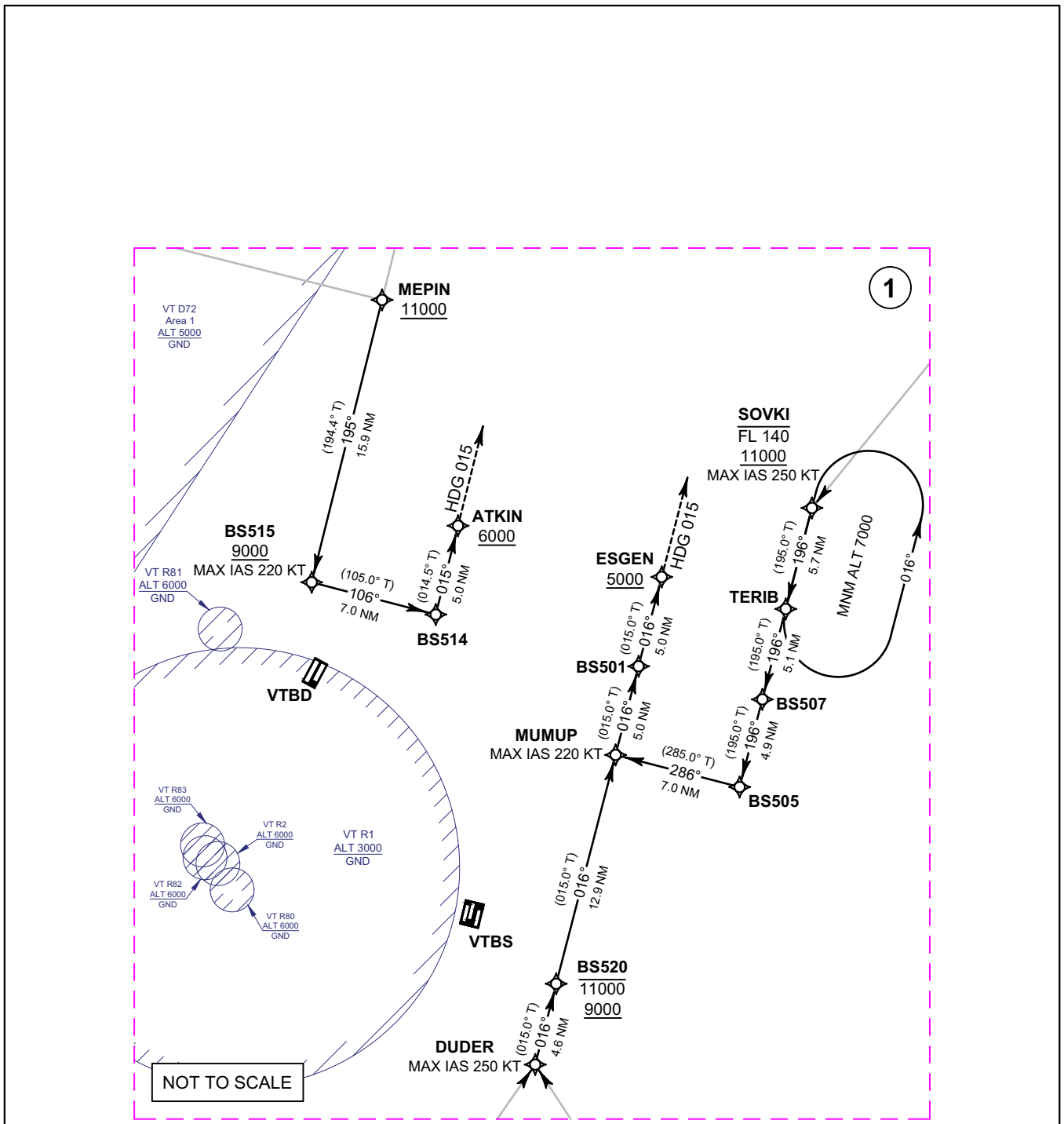
EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19/20L/20R**

EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C




CHANGE: NEW PROCEDURES.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19/20L/20R**

EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C

RADIO COMMUNICATION FAILURE

| | |
|---|---|
| 1 | SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600 |
| 2 | PROCEED ACCORDING TO THE STAR ROUTE TO THE TERMINATION POINT ATKIN/ESGEN, DESCEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, THENCE: AFTER PASSING ATKIN/ESGEN FLY HEADING 015 AND MAINTAIN ALTITUDE 6000 FT FOR NEXT 10 NM, THEN TURN RIGHT/LEFT AND DESCEND TO 1600 FT AND CARRY OUT THE APPROPRIATE APPROACH PROCEDURE. |
| 3 | WHEN **AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF **TWO MINUTES**, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. PILOT SHOULD PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE. |
| 4 | FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE. |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19/20L/20R**

EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C

**TABULAR DESCRIPTION (1)**

**RNAV RWY19/20L/20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EASTE1C** | | | | | | | | | | | |
| TRANSITION RUKSA FROM Y13 | | | | | | | | | | | |
| 010 | IF | RUKSA | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | EASTE | - | 248°(247.7°) | + 0.6 | 39.9 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION UBLOD FROM Y1, Y2, W1 | | | | | | | | | | | |
| 010 | IF | UBLOD | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | EASTE | - | 206°(205.2°) | + 0.6 | 20.6 | - | -FL180 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | EASTE | - | - | + 0.6 | - | - | -FL180 | -280 | - | RNAV 1 |
| 020 | TF | SOVKI | - | 220°(219.7°) | + 0.6 | 19.5 | - | -FL140; +11000 | -250 | - | RNAV 1 |
| 030 | TF | TERIB | - | 196°(195.0°) | + 0.6 | 5.7 | - | - | - | - | RNAV 1 |
| 040 | TF | BS507 | - | 196°(195.0°) | + 0.6 | 5.1 | - | - | - | - | RNAV 1 |
| 050 | TF | BS505 | - | 196°(195.0°) | + 0.6 | 4.9 | - | - | - | - | RNAV 1 |
| 060 | TF | MUMUP | - | 286°(285.0°) | + 0.6 | 7.0 | - | - | -220 | - | RNAV 1 |
| 070 | TF | BS501 | - | 016°(015.0°) | + 0.6 | 5.0 | - | - | - | - | RNAV 1 |
| 080 | TF | ESGEN | - | 016°(015.0°) | + 0.6 | 5.0 | - | +5000 | - | - | RNAV 1 |
| 090 | VM | - | - | 015°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19/20L/20R**

EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C

**TABULAR DESCRIPTION (2)**

| **RNAV RWY19/20L/20R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| **LEBIM1C** | | | | | | | | | | | |
| TRANSITION GUTSO FROM A464/M751/W19 | | | | | | | | | | | |
| 010 | IF | GUTSO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | LEBIM | - | 340°(339.4°) | + 0.6 | 18.0 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION HOTEL FROM G458, W31, Y99 | | | | | | | | | | | |
| 010 | IF | HOTEL | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | LEBIM | - | 059°(058.6°) | + 0.6 | 9.8 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION SURMA FROM M769, Y98 | | | | | | | | | | | |
| 010 | IF | SURMA | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | LEBIM | - | 002°(001.4°) | + 0.6 | 73.6 | - | -FL180 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | LEBIM | - | - | + 0.6 | - | - | -FL180 | -280 | - | RNAV 1 |
| 020 | TF | SAGAP | - | 036°(035.3°) | + 0.6 | 13.2 | - | -FL140 | - | - | RNAV 1 |
| 030 | TF | BS521 | - | 036°(035.3°) | + 0.6 | 11.3 | - | +11000 | - | - | RNAV 1 |
| 040 | TF | DUDER | - | 036°(035.3°) | + 0.6 | 9.5 | - | - | -250 | - | RNAV 1 |
| 050 | TF | BS520 | - | 016°(015.0°) | + 0.6 | 4.6 | - | -11000; +9000 | - | - | RNAV 1 |
| 060 | TF | MUMUP | - | 016°(015.0°) | + 0.6 | 12.9 | - | - | -220 | - | RNAV 1 |
| 070 | TF | BS501 | - | 016°(015.0°) | + 0.6 | 5.0 | - | - | - | - | RNAV 1 |
| 080 | TF | ESGEN | - | 016°(015.0°) | + 0.6 | 5.0 | - | +5000 | - | - | RNAV 1 |
| 090 | VM | - | - | 015°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19/20L/20R**

EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C

**TABULAR DESCRIPTION (3)**

**RNAV RWY19/20L/20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **NORTA1C** | | | | | | | | | | | |
| TRANSITION ALBOS FROM R474 | | | | | | | | | | | |
| 010 | IF | ALBOS | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NORTA | - | 267°(266.1°) | + 0.6 | 22.7 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION NOBER FROM B346/W39, W21 | | | | | | | | | | | |
| 010 | IF | NOBER | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NORTA | - | 184°(182.9°) | + 0.6 | 33.4 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION SEMBO FROM A464 | | | | | | | | | | | |
| 010 | IF | SEMBO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NORTA | - | 117°(116.3°) | + 0.6 | 24.4 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION TL FROM W9/Y28, Y7 | | | | | | | | | | | |
| 010 | IF | TL | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | NORTA | - | 150°(149.2°) | + 0.6 | 38.7 | - | -FL180 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | NORTA | - | - | + 0.6 | - | - | -FL180 | -280 | - | RNAV 1 |
| 020 | TF | BS519 | - | 164°(163.3°) | + 0.6 | 8.9 | - | +FL160 | - | - | RNAV 1 |
| 030 | TF | BS518 | - | 164°(163.3°) | + 0.6 | 8.1 | - | - | -250 | - | RNAV 1 |
| 040 | TF | MEPIN | - | 195°(194.4°) | + 0.6 | 12.1 | - | +11000 | - | - | RNAV 1 |
| 050 | TF | BS515 | - | 195°(194.4°) | + 0.6 | 15.9 | - | +9000 | -220 | - | RNAV 1 |
| 060 | TF | BS514 | - | 106°(105.0°) | + 0.6 | 7.0 | - | - | - | - | RNAV 1 |
| 070 | TF | ATKIN | - | 015°(014.5°) | + 0.6 | 5.0 | - | +6000 | - | - | RNAV 1 |
| 080 | VM | - | - | 015°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

CHANGE: Y28 ADDED.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19/20L/20R**

EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C

**TABULAR DESCRIPTION (4)**

| **RNAV RWY19/20L/20R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| **TUMGA1C** | | | | | | | | | | | |
| TRANSITION ALEMI FROM Y12 | | | | | | | | | | | |
| 010 | IF | ALEMI | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 344°(343.1°) | + 0.6 | 46.7 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION ANREN FROM G474/L880 | | | | | | | | | | | |
| 010 | IF | ANREN | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | GOMES | - | 237°(236.7°) | + 0.6 | 50.8 | - | - | - | - | RNAV 1 |
| 030 | TF | TUMGA | - | 263°(262.8°) | + 0.6 | 22.6 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION BUT FROM R201 | | | | | | | | | | | |
| 010 | IF | BUT | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 017°(015.9°) | + 0.6 | 42.7 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION DULEM FROM M633 | | | | | | | | | | | |
| 010 | IF | DULEM | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | GOMES | - | 243°(242.2°) | + 0.6 | 42.9 | - | - | - | - | RNAV 1 |
| 030 | TF | TUMGA | - | 263°(262.8°) | + 0.6 | 22.6 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION GOMES FROM R468/N506 | | | | | | | | | | | |
| 010 | IF | GOMES | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 263°(262.8°) | + 0.6 | 22.6 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION NUGPA FROM P629 | | | | | | | | | | | |
| 010 | IF | NUGPA | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 297°(296.4°) | + 0.6 | 41.3 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION RYN FROM N891 | | | | | | | | | | | |
| 010 | IF | RYN | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | TUMGA | - | 322°(320.9°) | + 0.6 | 44.2 | - | -FL180 | -280 | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19/20L/20R**

EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C

**TABULAR DESCRIPTION (5)**

**RNAV RWY19/20L/20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TUMGA1C** | | | | | | | | | | | |
| 010 | IF | TUMGA | - | - | + 0.6 | - | - | -FL180 | -280 | - | RNAV 1 |
| 020 | TF | ISRAM | - | 283°(282.1°) | + 0.6 | 18.2 | - | +11000 | - | - | RNAV 1 |
| 030 | TF | DUDER | - | 328°(327.3°) | + 0.6 | 9.5 | - | - | -250 | - | RNAV 1 |
| 040 | TF | BS520 | - | 016°(015.0°) | + 0.6 | 4.6 | - | -11000; +9000 | - | - | RNAV 1 |
| 050 | TF | MUMUP | - | 016°(015.0°) | + 0.6 | 12.9 | - | - | -220 | - | RNAV 1 |
| 060 | TF | BS501 | - | 016°(015.0°) | + 0.6 | 5.0 | - | - | - | - | RNAV 1 |
| 070 | TF | ESGEN | - | 016°(015.0°) | + 0.6 | 5.0 | - | +5000 | - | - | RNAV 1 |
| 080 | VM | - | - | 015°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19/20L/20R**

EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C

**TABULAR DESCRIPTION (6)**

| **RNAV RWY19/20L/20R** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| **WILLA1C** | | | | | | | | | | | |
| TRANSITION BONVO FROM M502 | | | | | | | | | | | |
| 010 | IF | BONVO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WILLA | - | 024°(023.0°) | + 0.6 | 43.4 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION IBETO FROM L524 | | | | | | | | | | | |
| 010 | IF | IBETO | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WILLA | - | 068°(067.4°) | + 0.6 | 35.6 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION IGONI FROM L507 | | | | | | | | | | | |
| 010 | IF | IGONI | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WILLA | - | 105°(104.3°) | + 0.6 | 9.1 | - | -FL180 | -280 | - | RNAV 1 |
| TRANSITION TARED FROM G463/P646 | | | | | | | | | | | |
| 010 | IF | TARED | - | - | + 0.6 | - | - | - | - | - | RNAV 1 |
| 020 | TF | WILLA | - | 094°(093.7°) | + 0.6 | 31.2 | - | -FL180 | -280 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | WILLA | - | - | + 0.6 | - | - | -FL180 | -280 | - | RNAV 1 |
| 020 | TF | BAROK | - | 105°(104.4°) | + 0.6 | 7.9 | - | - | - | - | RNAV 1 |
| 030 | TF | BS517 | - | 105°(104.4°) | + 0.6 | 8.9 | - | -FL150; +FL140 | - | - | RNAV 1 |
| 040 | TF | BS516 | - | 105°(104.4°) | + 0.6 | 7.9 | - | - | -250 | - | RNAV 1 |
| 050 | TF | MEPIN | - | 105°(104.5°) | + 0.6 | 12.1 | - | +11000 | - | - | RNAV 1 |
| 060 | TF | BS515 | - | 195°(194.4°) | + 0.6 | 15.9 | - | +9000 | -220 | - | RNAV 1 |
| 070 | TF | BS514 | - | 106°(105.0°) | + 0.6 | 7.0 | - | - | - | - | RNAV 1 |
| 080 | TF | ATKIN | - | 015°(014.5°) | + 0.6 | 5.0 | - | +6000 | - | - | RNAV 1 |
| 090 | VM | - | - | 015°(-) | + 0.6 | - | - | - | - | - | RNAV 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RNAV RWY19/20L/20R**

EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C

## WAYPOINT LIST

| RNAV RWY19/20L/20R | | RNAV RWY19/20L/20R | |
|---|---|---|---|
| | | | |
| **Waypoint Identifier** | **Coordinates** | **Waypoint Identifier** | **Coordinates** |
| ALBOS | 14° 44' 41.70" N 101° 01' 41.90" E | GUTSO | 12° 48' 19.94" N 100° 34' 54.30" E |
| ALEMI | 12° 36' 25.55" N 101° 25' 59.92" E | HOTEL | 13° 00' 06.20" N 100° 19' 48.30" E |
| ANREN | 13° 52' 12.48" N 102° 18' 37.95" E | IBETO | 14° 10' 36.14" N 099° 29' 45.68" E |
| ATKIN | 14° 02' 40.10" N 100° 44' 26.59" E | IGONI | 14° 26' 32.73" N 099° 54' 30.29" E |
| BAROK | 14° 22' 18.30" N 100° 11' 30.61" E | ISRAM | 13° 25' 04.96" N 100° 53' 48.03" E |
| BONVO | 13° 44' 10.47" N 099° 46' 06.72" E | LEBIM | 13° 05' 14.81" N 100° 28' 24.51" E |
| BS501 | 13° 54' 49.86" N 100° 54' 30.27" E | MEPIN | 14° 15' 05.00" N 100° 40' 16.00" E |
| BS505 | 13° 48' 13.24" N 101° 00' 08.22" E | MUMUP | 13° 50' 02.27" N 100° 53' 11.48" E |
| BS507 | 13° 53' 00.98" N 101° 01' 27.19" E | NOBER | 15° 16' 35.60" N 100° 40' 06.00" E |
| BS514 | 13° 57' 48.41" N 100° 43' 09.29" E | NORTA | 14° 43' 07.64" N 100° 38' 20.46" E |
| BS515 | 13° 59' 37.52" N 100° 36' 12.01" E | NUGPA | 13° 02' 54.16" N 101° 49' 59.29" E |
| BS516 | 14° 18' 06.73" N 100° 28' 14.21" E | RUKSA | 14° 33' 51.00" N 101° 55' 12.34" E |
| BS517 | 14° 20' 05.55" N 100° 20' 20.83" E | RYN | 12° 46' 48.30" N 101° 40' 41.70" E |
| BS518 | 14° 26' 49.05" N 100° 43' 21.68" E | SAGAP | 13° 16' 02.07" N 100° 36' 12.59" E |
| BS519 | 14° 34' 36.53" N 100° 40' 57.86" E | SEMBO | 14° 53' 59.16" N 100° 15' 47.92" E |
| BS520 | 13° 37' 30.82" N 100° 49' 45.63" E | SOVKI | 14° 03' 29.32" N 101° 04' 19.78" E |
| BS521 | 13° 25' 19.78" N 100° 42' 55.54" E | SURMA | 11° 51' 22.45" N 100° 26' 32.65" E |
| BUT | 12° 40' 00.02" N 101° 00' 01.71" E | TARED | 14° 26' 19.52" N 099° 31' 28.87" E |
| DUDER | 13° 33' 05.42" N 100° 48' 33.04" E | TERIB | 13° 57' 57.63" N 101° 02' 48.61" E |
| DULEM | 13° 44' 15.58" N 102° 13' 59.75" E | TL | 15° 16' 33.45" N 100° 17' 51.11" E |
| EASTE | 14° 18' 34.80" N 101° 17' 10.48" E | TUMGA | 13° 21' 15.01" N 101° 12' 03.77" E |
| ESGEN | 13° 59' 46.52" N 100° 55' 51.74" E | UBLOD | 14° 37' 15.43" N 101° 26' 11.66" E |
| GOMES | 13° 24' 06.10" N 101° 35' 05.70" E | WILLA | 14° 24' 16.98" N 100° 03' 35.36" E |

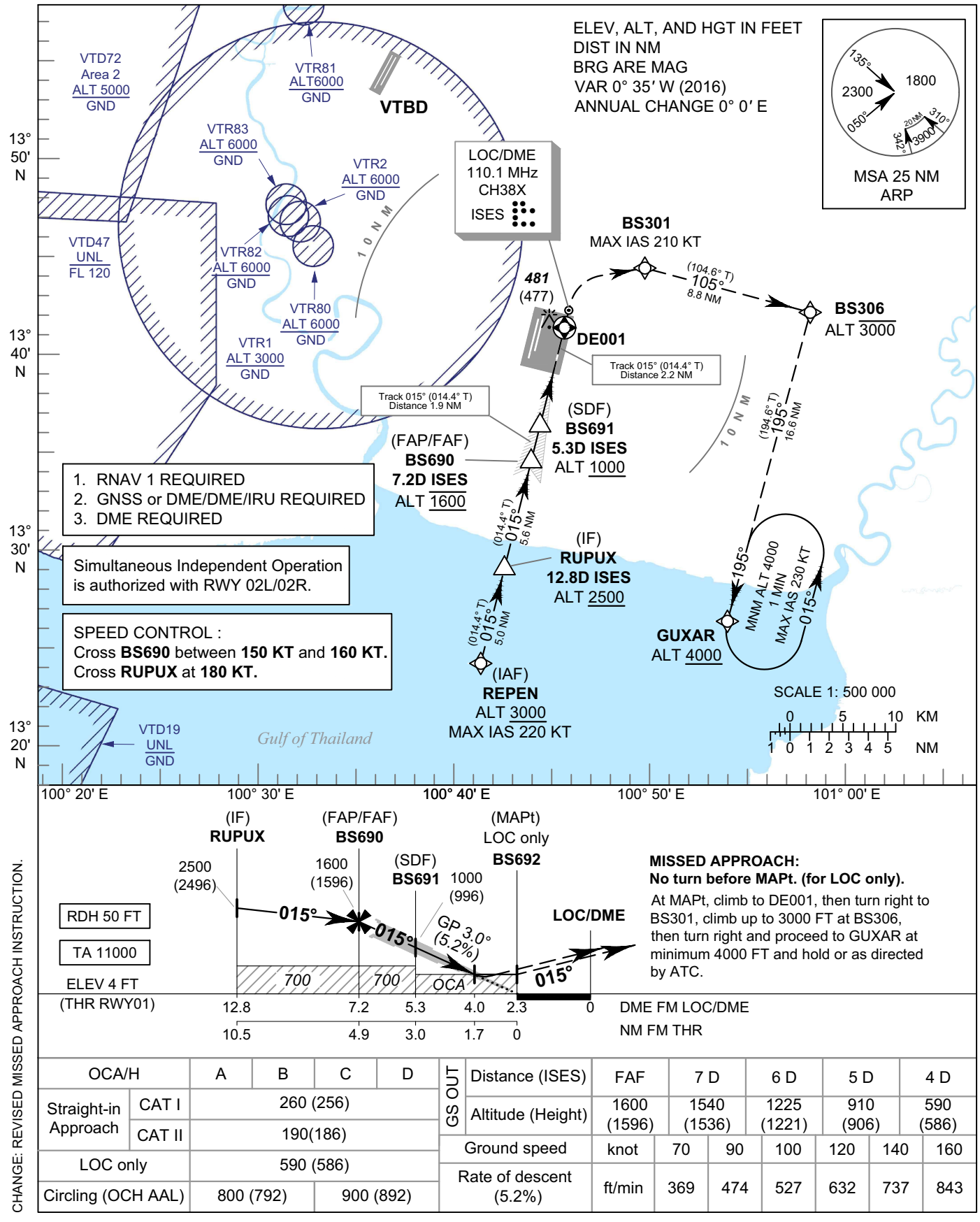
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY01 - ELEV 4 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY01**
**CAT II**




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 260 (256) | | | |
| | CAT II | 190(186) | | | |
| LOC only | | 590 (586) | | | |
| Circling (OCH AAL) | | 800 (792) | | 900 (892) | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (ISES) | FAF | 7 D | 6 D | 5 D | 4 D | | |
| Altitude (Height) | 1600 (1596) | 1540 (1536) | 1225 (1221) | 910 (906) | 590 (586) | | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED MISSED APPROACH INSTRUCTION.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY01 - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY01**
**CAT II**

## TABULAR DESCRIPTION

**ILS or LOC z RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) REPEN | - | - | +0.60 | - | - | +3000 | -220 | - | RNAV 1 |
| 020 | TF | (IF) RUPUX | - | 015°(014.4°) | +0.60 | 5.0 | - | +2500 | - | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) RUPUX | - | - | +0.60 | - | - | +2500 | - | - | RNAV 1 |
| **TRANSITION TO ILS or LOC** | | | | | | | | | | | |
| 020 | TF | (FAP/FAF) BS690 | - | 015°(014.4°) | +0.60 | 5.6 | - | @1600 | - | - | ILS |
| 030 | TF | (SDF) BS691 | - | 015°(014.4°) | +0.60 | 1.9 | - | +1000 | - | - | ILS |
| 040 | TF | (MAPt @ THR01) BS692 | Y | 015°(014.4°) | +0.60 | 3.0 | - | @54 | - | -3.0/50 | ILS |
| 050 | CF | DE001 | Y | 015°(014.4°) | +0.60 | 2.2 | - | - | - | - | RNAV 1 |
| 060 | DF | BS301 | - | - | +0.60 | - | R | - | -210 | - | RNAV 1 |
| 070 | TF | BS306 | - | 105°(104.6°) | +0.60 | 8.8 | - | -3000 | - | - | RNAV 1 |
| 080 | TF | GUXAR | - | 195°(194.6°) | +0.60 | 16.6 | - | +4000 | - | - | RNAV 1 |
| 090 | HM | GUXAR | Y | 195°(194.6°) | +0.60 | 1 minute | L | +4000 | -230 | - | RNAV 1 |

## WAYPOINT LIST

**ILS or LOC z RWY01**

| Waypoint Identifier | Coordinates |
|---|---|
| REPEN | 13° 24' 19.39" N 100° 41' 09.12" E |
| RUPUX | 13° 29' 11.25" N 100° 42' 25.67" E |
| BS690 | 13° 34' 39.85" N 100° 43' 51.99" E |
| BS691 | 13° 36' 30.21" N 100° 44' 20.89" E |
| BS692 | 13° 39' 24.11" N 100° 45' 06.59" E |
| DE001 | 13° 41' 30.17" N 100° 45' 39.72" E |
| BS301 | 13° 44' 35.06" N 100° 49' 50.66" E |
| BS306 | 13° 42' 21.17" N 100° 58' 36.57" E |
| GUXAR | 13° 26' 13.00" N 100° 54' 19.34" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY01 - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY01**
**CAT II**

CHANGE: LOC/DME AND GP COORDINATES.

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| (IF)<br>RUPUX | 12.8D ISES | 13° 29' 11.25" N | 100° 42' 25.67" E |
| (FAP/FAF)<br>BS690 | 7.2D ISES | 13° 34' 39.85" N | 100° 43' 51.99" E |
| (SDF)<br>BS691 | 5.3D ISES | 13° 36' 30.21" N | 100° 44' 20.89" E |
| (MAPt @ THR01)<br>BS692 | 2.3D ISES | 13° 39' 24.11" N | 100° 45' 06.59" E |
| LOC/DME | ISES | 13° 41' 39.31" N | 100° 45' 42.13" E |
| GP | ISES | 13° 39' 33.35" N | 100° 45' 13.14" E |

**INTENTIONALLY BLANK**

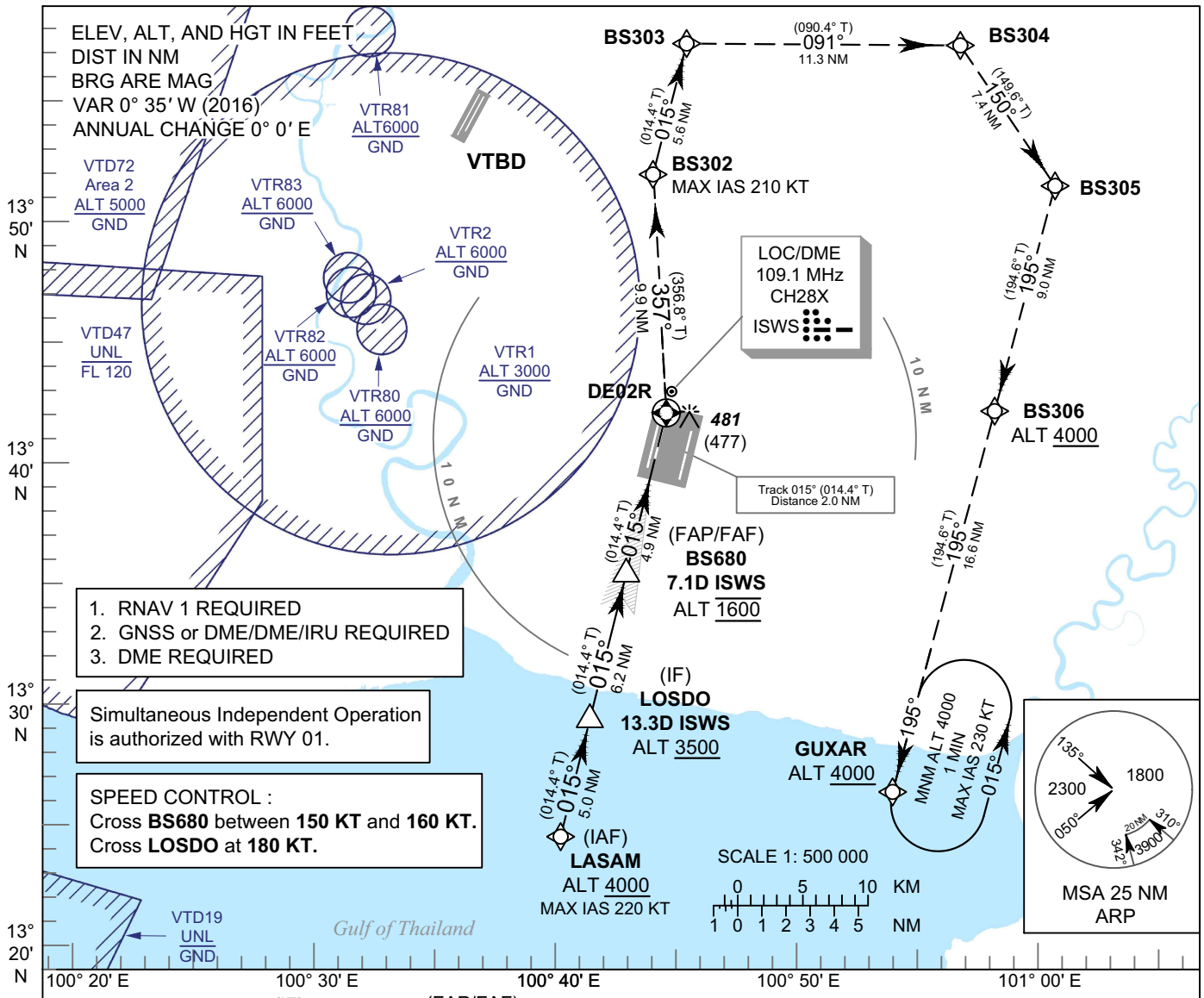
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY02R - ELEV 4 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY02R**
**CAT II**




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I* | 370 (366) | | | |
| | CAT II** | 310 (306) | | | |
| LOC only | | 530 (526) | | | |
| Circling (OCH AAL) | | 800 (792) | | 900 (892) | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (ISWS) | FAF | 7 D | 6 D | 5 D | 4 D | 3.7 D |
| Altitude (Height) | 1600 (1596) | 1570 (1566) | 1255 (1251) | 940 (936) | 625 (621) | 530 (526) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

NOTE: *OCA (OCH) CAT I : 250 (246) FT of ILS procedures can be achieved for all aircraft categories which can commence a missed approach climb gradient of 5% (304 FT/NM) until passing ALT 1000 FT.
**OCA (OCH) CAT II : 150 (146) FT of ILS procedures can be achieved for all aircraft categories which can commence a missed approach climb gradient of 4% (243 FT/NM) until passing ALT 1000 FT.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY02R - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY02R**
**CAT II**

## TABULAR DESCRIPTION

**ILS or LOC z RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) LASAM | - | - | +0.60 | - | - | +4000 | -220 | - | RNAV 1 |
| 020 | TF | (IF) LOSDO | - | 015°(014.4°) | +0.60 | 5 | - | +3500 | - | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) LOSDO | - | - | +0.60 | - | - | +3500 | - | - | RNAV 1 |
| **TRANSITION TO ILS or LOC** | | | | | | | | | | | |
| 020 | TF | (FAP/FAF) BS680 | - | 015°(014.4°) | +0.60 | 6.2 | - | @1600 | - | - | ILS |
| 030 | TF | (MAPt @ THR02R) BS681 | Y | 015°(014.4°) | +0.60 | 4.9 | - | @54 | - | -3.0/50 | ILS |
| 040 | TF | DE02R | Y | 015°(014.4°) | +0.60 | 2.0 | - | - | - | - | RNAV 1 |
| 050 | TF | BS302 | - | 357°(356.8°) | +0.60 | 9.9 | - | - | -210 | - | RNAV 1 |
| 060 | TF | BS303 | - | 015°(014.4°) | +0.60 | 5.6 | - | - | - | - | RNAV 1 |
| 070 | TF | BS304 | - | 091°(090.4°) | +0.60 | 11.3 | - | - | - | - | RNAV 1 |
| 080 | TF | BS305 | - | 150°(149.6°) | +0.60 | 7.4 | - | - | - | - | RNAV 1 |
| 090 | TF | BS306 | - | 195°(194.6°) | +0.60 | 9.0 | - | +4000 | - | - | RNAV 1 |
| 100 | TF | GUXAR | - | 195°(194.6°) | +0.60 | 16.6 | - | +4000 | - | - | RNAV 1 |
| 110 | HM | GUXAR | Y | 195°(194.6°) | +0.60 | 1 minute | L | +4000 | -230 | - | RNAV 1 |

## WAYPOINT LIST

**ILS or LOC z RWY02R**

| Waypoint Identifier | Coordinates |
|---|---|
| LASAM | 13° 24' 36.87" N 100° 39' 58.11" E |
| LOSDO | 13° 29' 28.72" N 100° 41' 14.66" E |
| BS680 | 13° 35' 30.85" N 100° 42' 49.82" E |
| BS681 | 13° 40' 16.60" N 100° 44' 04.79" E |
| DE02R | 13° 42' 13.21" N 100° 44' 35.44" E |
| BS302 | 13° 52' 08.34" N 100° 44' 00.95" E |
| BS303 | 13° 57' 33.10" N 100° 45' 26.43" E |
| BS304 | 13° 57' 27.77" N 100° 57' 05.85" E |
| BS305 | 13° 51' 04.56" N 101° 00' 55.88" E |
| BS306 | 13° 42' 21.17" N 100° 58' 36.57" E |
| GUXAR | 13° 26' 13.00" N 100° 54' 19.34" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY02R - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY02R**
**CAT II**

CHANGE: LOC/DME AND GP COORDINATES.

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| (IF)<br>LOSDO | 13.3D ISWS | 13° 29' 28.72" N | 100° 41' 14.66" E |
| (FAP/FAF)<br>BS680 | 7.1D ISWS | 13° 35' 30.85" N | 100° 42' 49.82" E |
| (MAPt @ THR02R)<br>BS681 | 2.2D ISWS | 13° 40' 16.60" N | 100° 44' 04.79" E |
| LOC/DME | ISWS | 13° 42' 22.34" N | 100° 44' 37.84" E |
| GP | ISWS | 13° 40' 27.78" N | 100° 44' 03.62" E |

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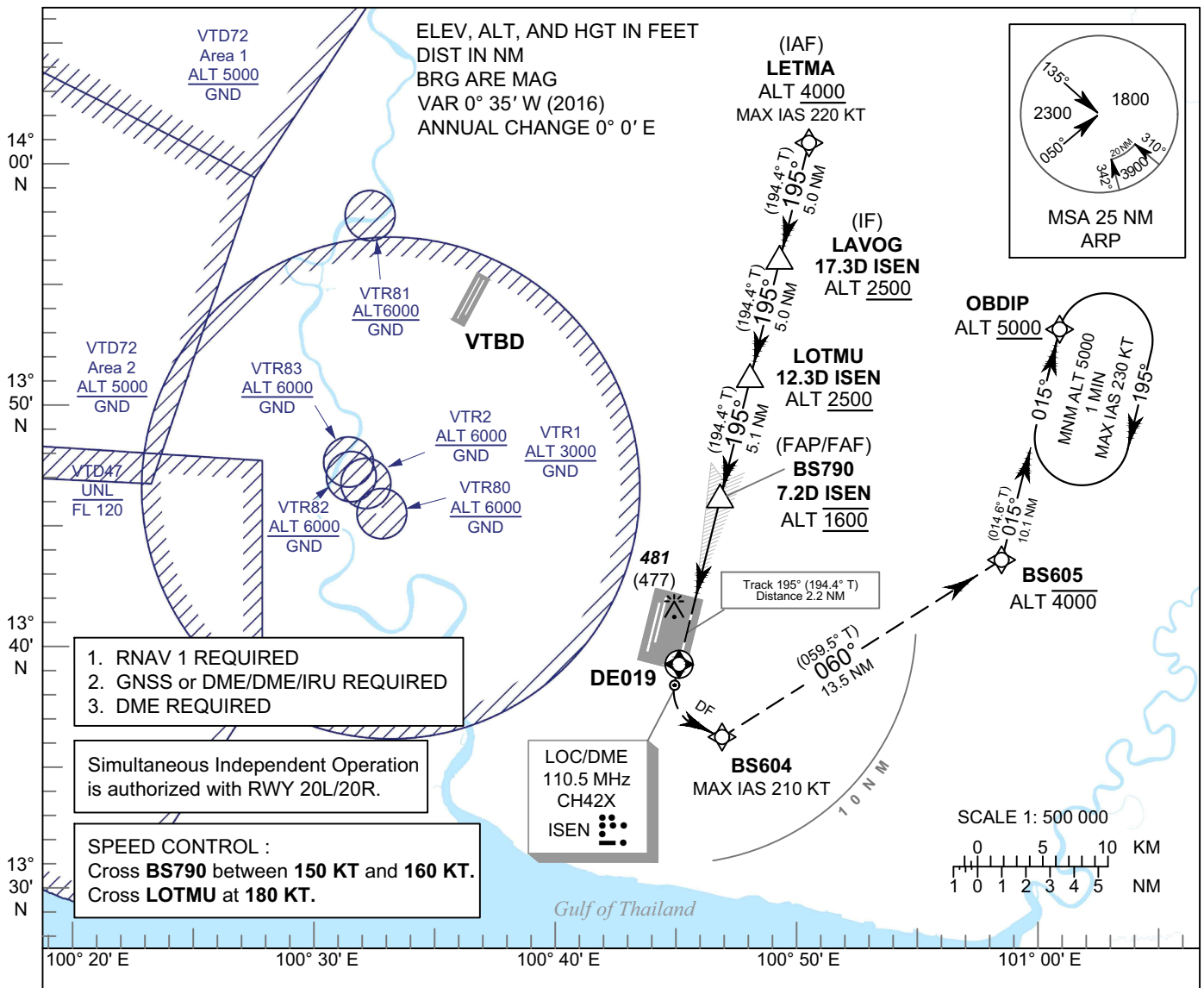
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY19 - ELEV 4 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY19**
**CAT II**




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 250 (246) | | | |
| | CAT II | 140 (136) | | | |
| LOC only | | 590 (586) | | | |
| Circling (OCH AAL) | | 800 (792) | | 900 (892) | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (ISEN) | 4 D | 5 D | 6 D | 7 D | FAF | | |
| Altitude (Height) | 590 (586) | 910 (906) | 1225 (1221) | 1540 (1536) | 1600 (1596) | | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED MISSED APPROACH INSTRUCTION.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY19 - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY19**
**CAT II**

## TABULAR DESCRIPTION

**ILS or LOC z RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) LETMA | - | - | +0.60 | - | - | +4000 | -220 | - | RNAV 1 |
| 020 | TF | (IF) LAVOG | - | 195°(194.4°) | +0.60 | 5.0 | - | +2500 | - | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) LAVOG | - | - | +0.60 | - | - | +2500 | - | - | RNAV 1 |
| **TRANSITION TO ILS or LOC** | | | | | | | | | | | |
| 020 | TF | LOTMU | - | 195°(194.4°) | +0.60 | 5.0 | - | +2500 | - | - | ILS |
| 030 | TF | (FAP/FAF) BS790 | - | 195°(194.4°) | +0.60 | 5.1 | - | @1600 | - | - | ILS |
| 040 | TF | (MAPt @ THR19) BS791 | Y | 195°(194.4°) | +0.60 | 4.9 | - | @54 | - | -3.0/50 | ILS |
| 050 | CF | DE019 | Y | 195°(194.4°) | +0.60 | 2.2 | - | - | - | - | RNAV 1 |
| 060 | DF | BS604 | - | - | +0.60 | - | L | - | -210 | - | RNAV 1 |
| 070 | TF | BS605 | - | 060°(059.5°) | +0.60 | 13.5 | - | -4000 | - | - | RNAV 1 |
| 080 | TF | OBDIP | - | 015°(014.6°) | +0.60 | 10.1 | - | +5000 | - | - | RNAV 1 |
| 090 | HM | OBDIP | Y | 015°(014.4°) | +0.60 | 1 minute | R | +5000 | -230 | - | RNAV 1 |

## WAYPOINT LIST

**ILS or LOC z RWY19**

| Waypoint Identifier | Coordinates |
|---|---|
| LETMA | 14° 00' 57.99" N 100° 50' 47.13" E |
| LAVOG | 13° 56' 06.19" N 100° 49' 30.23" E |
| LOTMU | 13° 51' 14.39" N 100° 48' 13.38" E |
| BS790 | 13° 46' 14.41" N 100° 46' 54.45" E |
| BS791 | 13° 41' 30.17" N 100° 45' 39.72" E |
| DE019 | 13° 39' 24.11" N 100° 45' 06.59" E |
| BS604 | 13° 36' 23.96" N 100° 46' 55.46" E |
| BS605 | 13° 43' 15.45" N 100° 58' 51.48" E |
| OBDIP | 13° 53' 03.74" N 101° 01' 28.52" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY19 - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY19**
**CAT II**

CHANGE: LOC/DME AND GP COORDINATES.

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| (IF)<br>LAVOG | 17.3D ISEN | 13° 56' 06.19" N | 100° 49' 30.23" E |
| LOTMU | 12.3D ISEN | 13° 51' 14.39" N | 100° 48' 13.38" E |
| (FAP/FAF)<br>BS790 | 7.2D ISEN | 13° 46' 14.41" N | 100° 46' 54.45" E |
| (MAPt @ THR19)<br>BS791 | 2.3D ISEN | 13° 41' 30.17" N | 100° 45' 39.72" E |
| LOC/DME | ISEN | 13° 39' 14.96" N | 100° 45' 04.19" E |
| GP | ISEN | 13° 41' 18.99" N | 100° 45' 40.91" E |

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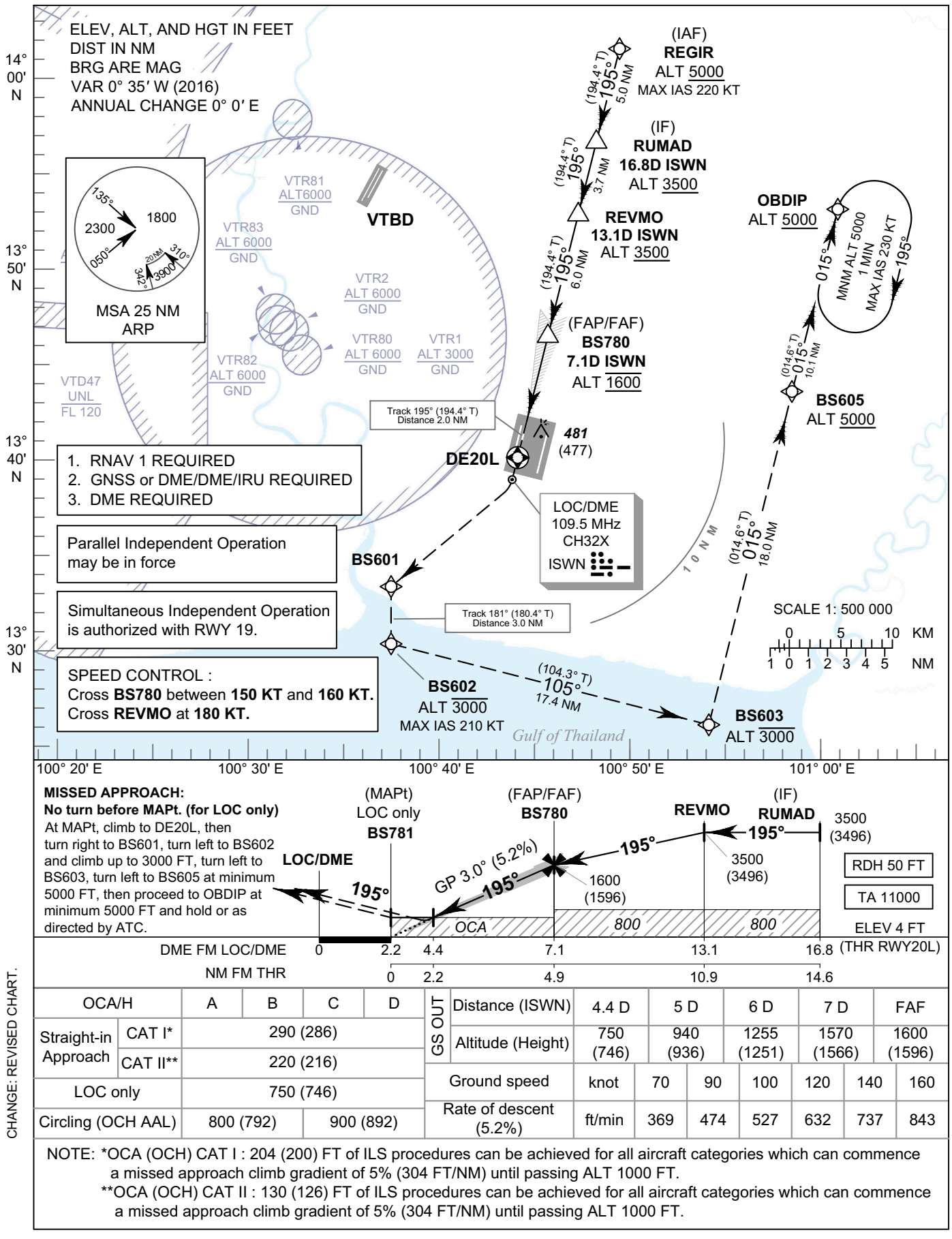
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY20L - ELEV 4 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY20L**
**CAT II**







CHANGE: REVISED CHART.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I* | 290 (286) | | | |
| | CAT II** | 220 (216) | | | |
| LOC only | | 750 (746) | | | |
| Circling (OCH AAL) | | 800 (792) | | 900 (892) | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (ISWN) | 4.4 D | 5 D | 6 D | 7 D | FAF | | |
| Altitude (Height) | 750 (746) | 940 (936) | 1255 (1251) | 1570 (1566) | 1600 (1596) | | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

NOTE: *OCA (OCH) CAT I : 204 (200) FT of ILS procedures can be achieved for all aircraft categories which can commence a missed approach climb gradient of 5% (304 FT/NM) until passing ALT 1000 FT.
**OCA (OCH) CAT II : 130 (126) FT of ILS procedures can be achieved for all aircraft categories which can commence a missed approach climb gradient of 5% (304 FT/NM) until passing ALT 1000 FT.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY20L - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY20L**
**CAT II**

## TABULAR DESCRIPTION

**ILS or LOC z RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) REGIR | - | - | +0.60 | - | - | +5000 | -220 | - | RNAV 1 |
| 020 | TF | (IF) RUMAD | - | 195°(194.4°) | +0.60 | 5.0 | - | +3500 | - | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) RUMAD | - | - | +0.60 | - | - | +3500 | - | - | RNAV 1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | REVMO | - | 195°(194.4°) | +0.60 | 3.7 | - | +3500 | - | - | ILS |
| 030 | TF | (FAP/FAF) BS780 | - | 195°(194.4°) | +0.60 | 6.0 | - | @1600 | - | - | ILS |
| 040 | TF | (MAPt @ THR20L) BS781 | Y | 195°(194.4°) | +0.60 | 4.9 | - | @54 | - | -3.0/50 | ILS |
| 050 | CF | DE20L | Y | 195°(194.4°) | +0.60 | 2.0 | - | - | - | - | RNAV 1 |
| 060 | DF | BS601 | - | - | +0.60 | - | R | - | - | - | RNAV 1 |
| 070 | TF | BS602 | - | 181°(180.4°) | +0.60 | 3.0 | - | -3000 | -210 | - | RNAV 1 |
| 080 | TF | BS603 | - | 105°(104.3°) | +0.60 | 17.4 | - | -3000 | - | - | RNAV 1 |
| 090 | TF | BS605 | - | 015°(014.6°) | +0.60 | 18.0 | - | +5000 | - | - | RNAV 1 |
| 100 | TF | OBDIP | - | 015°(014.6°) | +0.60 | 10.1 | - | +5000 | - | - | RNAV 1 |
| 110 | HM | OBDIP | Y | 015°(014.6°) | +0.60 | 1 minute | R | +5000 | -230 | - | RNAV 1 |

## WAYPOINT LIST

**ILS or LOC z RWY20L**

| Waypoint Identifier | Coordinates |
|---|---|
| REGIR | 14° 01' 17.67" N 100° 49' 36.72" E |
| RUMAD | 13° 56' 25.87" N 100° 48' 19.81" E |
| REVMO | 13° 52' 48.77" N 100° 47' 22.64" E |
| BS780 | 13° 46' 59.12" N 100° 45' 50.66" E |
| BS781 | 13° 42' 13.21" N 100° 44' 35.44" E |
| DE20L | 13° 40' 16.60" N 100° 44' 04.79" E |
| BS601 | 13° 33' 07.17" N 100° 36' 56.80" E |
| BS602 | 13° 30' 06.39" N 100° 36' 55.58" E |
| BS603 | 13° 25' 46.90" N 100° 54' 12.14" E |
| BS605 | 13° 43' 15.45" N 100° 58' 51.48" E |
| OBDIP | 13° 53' 03.74" N 101° 01' 28.52" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY20L - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**ILS or LOC z RWY20L**
**CAT II**

CHANGE: LOC/DME AND GP COORDINATES.

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| (IF)<br>RUMAD | 16.8D ISWN | 13° 56' 25.87" N | 100° 48' 19.81" E |
| REVMO | 13.1D ISWN | 13° 52' 48.77" N | 100° 47' 22.64" E |
| (FAP/FAF)<br>BS780 | 7.1D ISWN | 13° 46' 59.12" N | 100° 45' 50.66" E |
| (MAPt @ THR20L)<br>BS781 | 2.2D ISWN | 13° 42' 13.21" N | 100° 44' 35.44" E |
| LOC/DME | ISWN | 13° 40' 07.45" N | 100° 44' 02.40" E |
| GP | ISWN | 13° 42' 03.95" N | 100° 44' 28.89" E |

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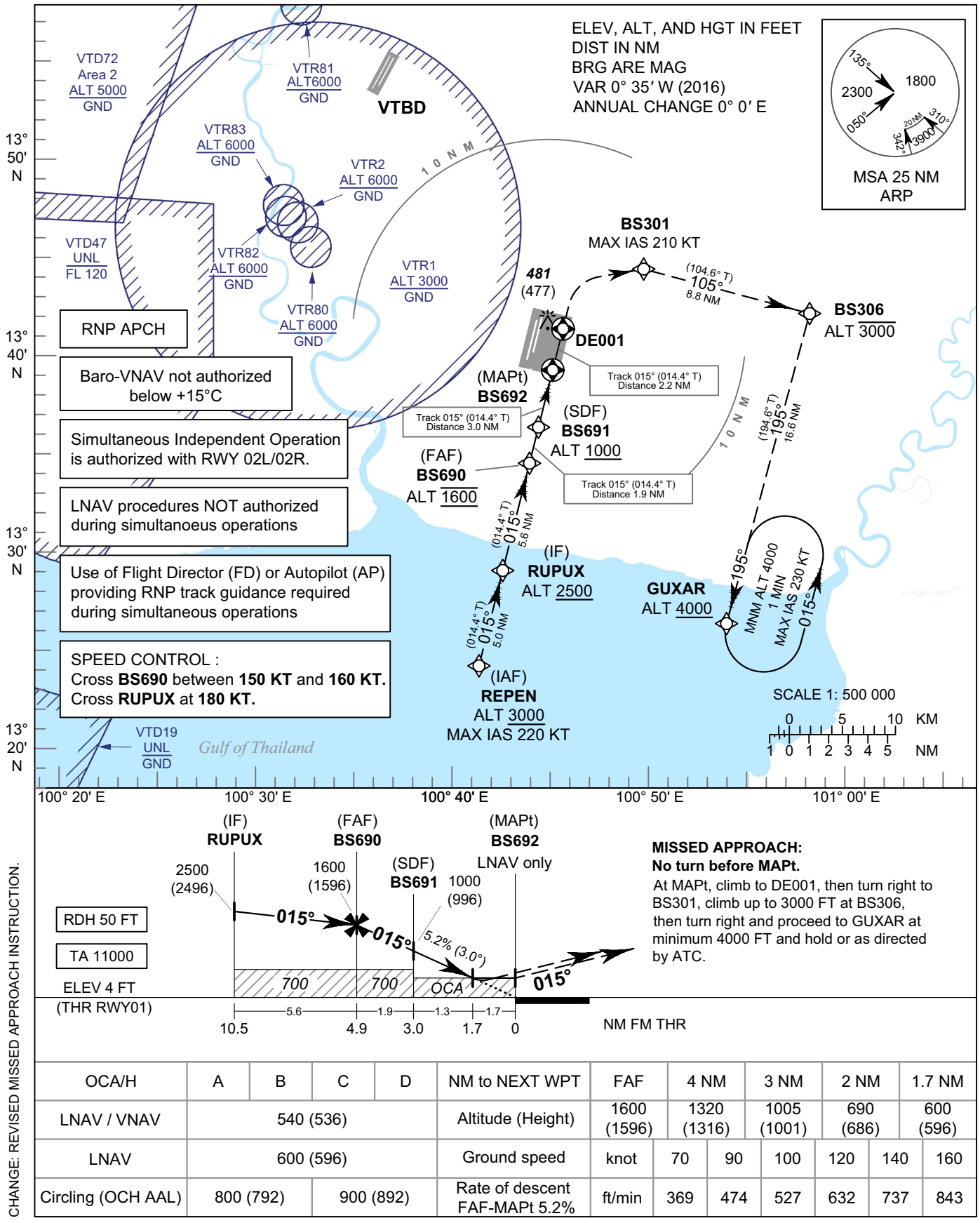
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY01 - ELEV 4 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY01**




| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 4 NM | 3 NM | 2 NM | 1.7 NM |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 540 (536) | | | | Altitude (Height) | 1600 (1596) | 1320 (1316) | 1005 (1001) | 690 (686) | 600 (596) |
| LNAV | 600 (596) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 800 (792) | | 900 (892) | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED MISSED APPROACH INSTRUCTION.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY01 - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY01**

## TABULAR DESCRIPTION

**RNP RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) REPEN | - | - | +0.60 | - | - | +3000 | -220 | - | RNP APCH |
| 020 | TF | (IF) RUPUX | - | 015°(014.4°) | +0.60 | 5.0 | - | +2500 | - | - | RNP APCH |
| 030 | TF | (FAF) BS690 | - | 015°(014.4°) | +0.60 | 5.6 | - | @1600 | - | - | RNP APCH |
| 040 | TF | (SDF) BS691 | - | 015°(014.4°) | +0.60 | 1.9 | - | +1000 | - | - | RNP APCH |
| 050 | TF | (MAPt @THR01) BS692 | Y | 015°(014.4°) | +0.60 | 3.0 | - | @54 | - | -3.0/50 | RNP APCH |
| 060 | CF | DE001 | Y | 015°(014.4°) | +0.60 | 2.2 | - | - | - | - | RNP APCH |
| 070 | DF | BS301 | - | - | +0.60 | - | R | - | -210 | - | RNP APCH |
| 080 | TF | BS306 | - | 105°(104.6°) | +0.60 | 8.8 | - | -3000 | - | - | RNP APCH |
| 090 | TF | GUXAR | - | 195°(194.6°) | +0.60 | 16.6 | - | +4000 | - | - | RNP APCH |
| 100 | HM | GUXAR | Y | 195°(194.6°) | +0.60 | 1 minute | L | +4000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY01**

| Waypoint Identifier | Coordinates |
|---|---|
| REPEN | 13° 24' 19.39" N 100° 41' 09.12" E |
| RUPUX | 13° 29' 11.25" N 100° 42' 25.67" E |
| BS690 | 13° 34' 39.85" N 100° 43' 51.99" E |
| BS691 | 13° 36' 30.21" N 100° 44' 20.89" E |
| BS692 | 13° 39' 24.11" N 100° 45' 06.59" E |
| DE001 | 13° 41' 30.17" N 100° 45' 39.72" E |
| BS301 | 13° 44' 35.06" N 100° 49' 50.66" E |
| BS306 | 13° 42' 21.17" N 100° 58' 36.57" E |
| GUXAR | 13° 26' 13.00" N 100° 54' 19.34" E |

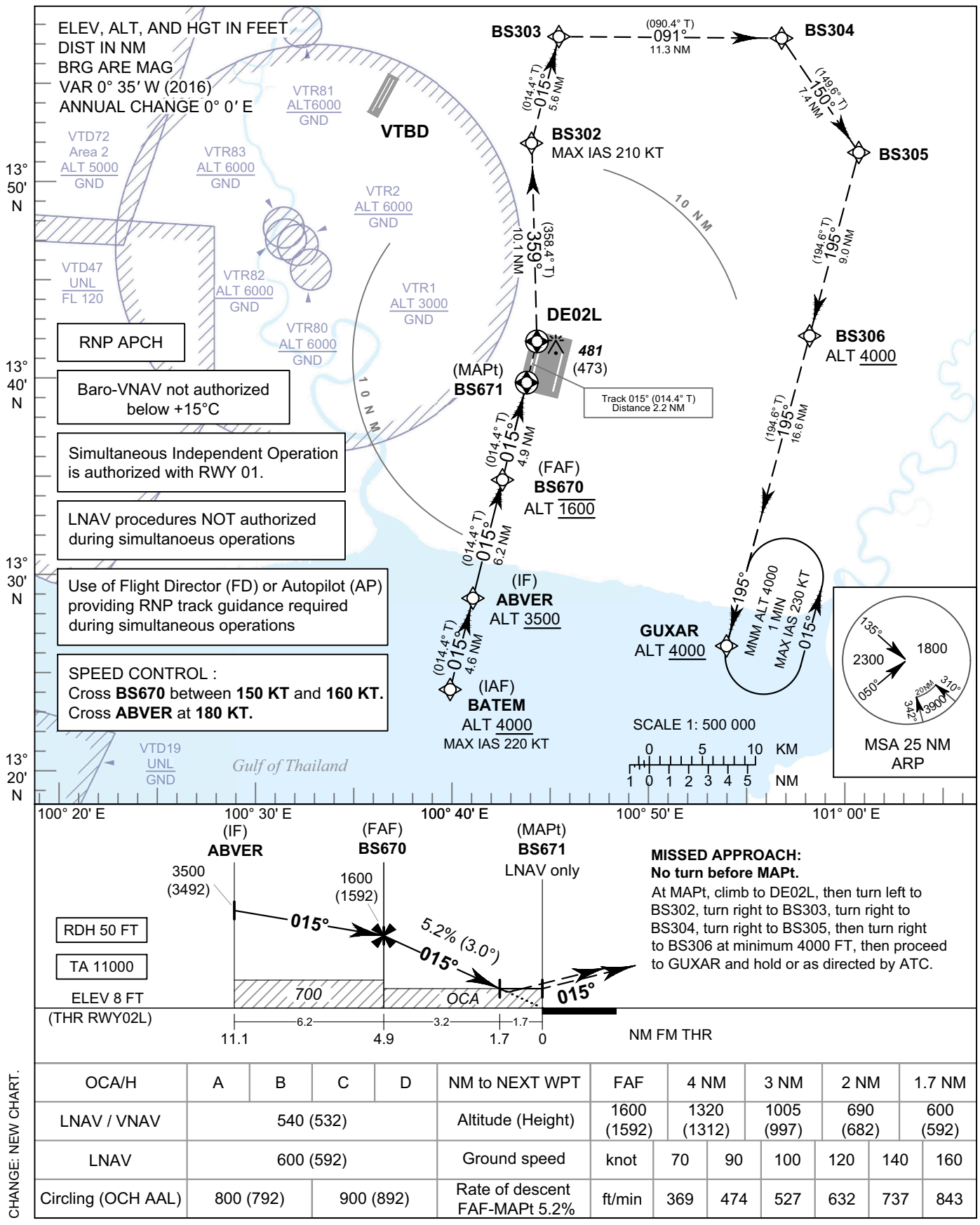
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY02L - ELEV 8 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY02L**




CHANGE: NEW CHART.

| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 4 NM | 3 NM | 2 NM | 1.7 NM |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 540 (532) | | | | Altitude (Height) | 1600 (1592) | 1320 (1312) | 1005 (997) | 690 (682) | 600 (592) |
| LNAV | 600 (592) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 800 (792) | | 900 (892) | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY02L - ELEV 8 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY02L**

## TABULAR DESCRIPTION

**RNP RWY02L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) BATEM | - | - | +0.60 | - | - | +4000 | -220 | - | RNP APCH |
| 020 | TF | (IF) ABVER | - | 015°(014.4°) | +0.60 | 4.6 | - | +3500 | - | - | RNP APCH |
| 030 | TF | (FAF) BS670 | - | 015°(014.4°) | +0.60 | 6.2 | - | @1600 | - | - | RNP APCH |
| 040 | TF | (MAPt @ RWY02L) BS671 | Y | 015°(014.4°) | +0.60 | 4.9 | - | @58 | - | -3.0/50 | RNP APCH |
| 050 | TF | DE02L | Y | 015°(014.4°) | +0.60 | 2.2 | - | - | - | - | RNP APCH |
| 060 | TF | BS302 | - | 359°(358.4°) | +0.60 | 10.1 | - | - | -210 | - | RNP APCH |
| 070 | TF | BS303 | - | 015°(014.4°) | +0.60 | 5.6 | - | - | - | - | RNP APCH |
| 080 | TF | BS304 | - | 091°(090.4°) | +0.60 | 11.3 | - | - | - | - | RNP APCH |
| 090 | TF | BS305 | - | 150°(149.6°) | +0.60 | 7.4 | - | - | - | - | RNP APCH |
| 100 | TF | BS306 | - | 195°(195.0°) | +0.60 | 9.0 | - | +4000 | - | - | RNP APCH |
| 110 | TF | GUXAR | - | 195°(195.0°) | +0.60 | 16.6 | - | +4000 | - | - | RNP APCH |
| 120 | HM | GUXAR | Y | 195°(195.0°) | +0.60 | 1 minute | L | +4000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY02L**

| Waypoint Identifier | Coordinates |
|---|---|
| BATEM | 13° 24' 40.14" N 100° 39' 45.18" E |
| ABVER | 13° 29' 07.93" N 100° 40' 55.46" E |
| BS670 | 13° 35' 10.37" N 100° 42' 30.67" E |
| BS671 | 13° 39' 54.63" N 100° 43' 45.28" E |
| DE02L | 13° 42' 00.68" N 100° 44' 18.41" E |
| BS302 | 13° 52' 08.34" N 100° 44' 00.95" E |
| BS303 | 13° 57' 33.10" N 100° 45' 26.43" E |
| BS304 | 13° 57' 27.77" N 100° 57' 05.85" E |
| BS305 | 13° 51' 04.56" N 101° 00' 55.88" E |
| BS306 | 13° 42' 21.17" N 100° 58' 36.57" E |
| GUXAR | 13° 26' 13.00" N 100° 54' 19.34" E |

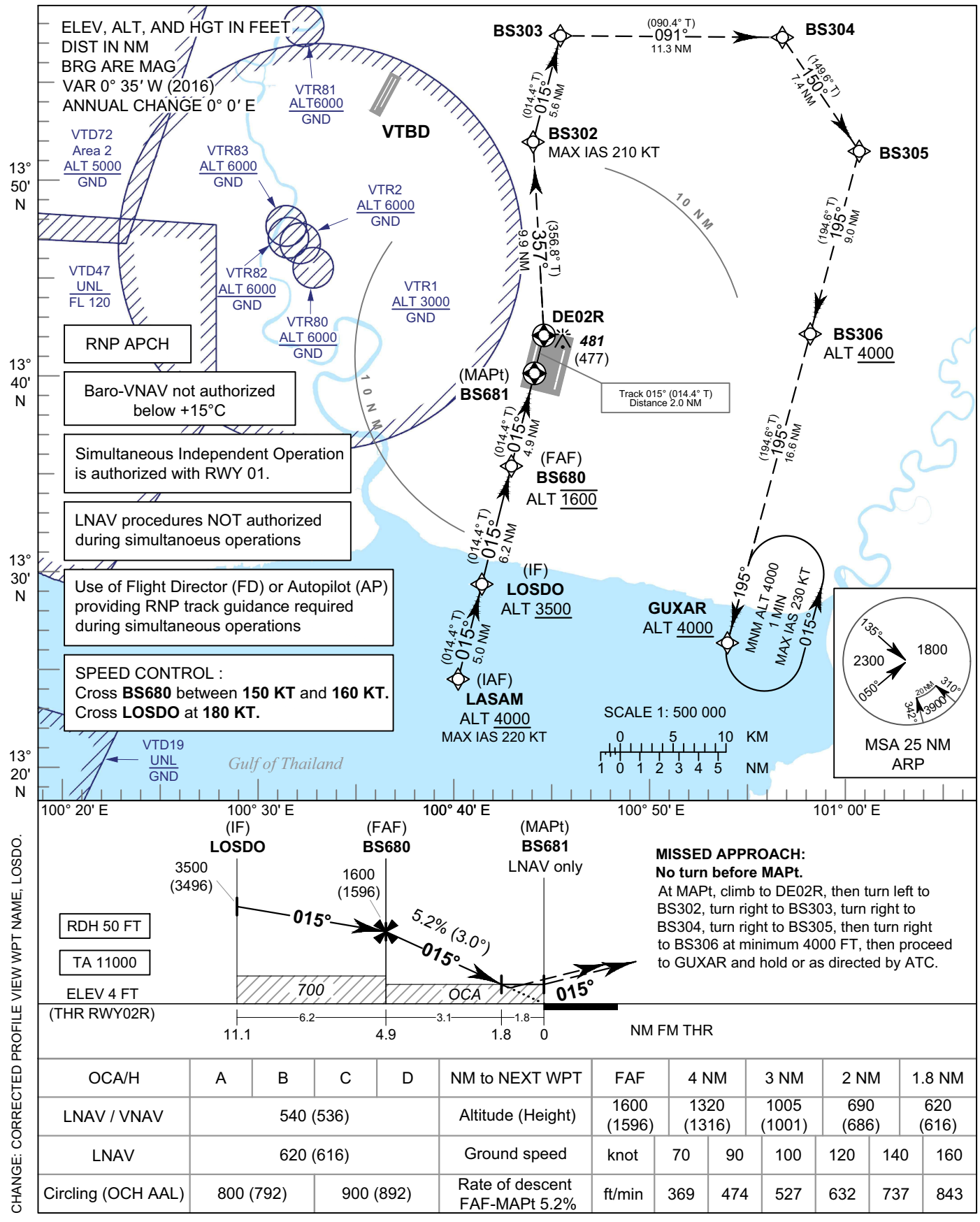
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY02R - ELEV 4 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY02R**




| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 4 NM | 3 NM | 2 NM | 1.8 NM |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 540 (536) | | | | Altitude (Height) | 1600 (1596) | 1320 (1316) | 1005 (1001) | 690 (686) | 620 (616) |
| LNAV | 620 (616) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 800 (792) | | 900 (892) | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY02R - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY02R**

## TABULAR DESCRIPTION

**RNP RWY02R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) LASAM | - | - | +0.60 | - | - | +4000 | -220 | - | RNP APCH |
| 020 | TF | (IF) LOSDO | - | 015°(014.4°) | +0.60 | 5.0 | - | +3500 | - | - | RNP APCH |
| 030 | TF | (FAF) BS680 | - | 015°(014.4°) | +0.60 | 6.2 | - | @1600 | - | - | RNP APCH |
| 040 | TF | (MAPt @ THR02R) BS681 | Y | 015°(014.4°) | +0.60 | 4.9 | - | @54 | - | -3.0/50 | RNP APCH |
| 050 | TF | DE02R | Y | 015°(014.4°) | +0.60 | 2.0 | - | - | - | - | RNP APCH |
| 060 | TF | BS302 | - | 357°(356.8°) | +0.60 | 9.9 | - | - | -210 | - | RNP APCH |
| 070 | TF | BS303 | - | 015°(014.4°) | +0.60 | 5.6 | - | - | - | - | RNP APCH |
| 080 | TF | BS304 | - | 091°(090.4°) | +0.60 | 11.3 | - | - | - | - | RNP APCH |
| 090 | TF | BS305 | - | 150°(149.6°) | +0.60 | 7.4 | - | - | - | - | RNP APCH |
| 100 | TF | BS306 | - | 195°(194.6°) | +0.60 | 9.0 | - | +4000 | - | - | RNP APCH |
| 110 | TF | GUXAR | - | 195°(194.6°) | +0.60 | 16.6 | - | +4000 | - | - | RNP APCH |
| 120 | HM | GUXAR | Y | 195°(194.6°) | +0.60 | 1 minute | L | +4000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY02R**

| Waypoint Identifier | Coordinates |
|---|---|
| LASAM | 13° 24' 36.87" N 100° 39' 58.11" E |
| LOSDO | 13° 29' 28.72" N 100° 41' 14.66" E |
| BS680 | 13° 35' 30.85" N 100° 42' 49.82" E |
| BS681 | 13° 40' 16.60" N 100° 44' 04.79" E |
| DE02R | 13° 42' 13.21" N 100° 44' 35.44" E |
| BS302 | 13° 52' 08.34" N 100° 44' 00.95" E |
| BS303 | 13° 57' 33.10" N 100° 45' 26.43" E |
| BS304 | 13° 57' 27.77" N 100° 57' 05.85" E |
| BS305 | 13° 51' 04.56" N 101° 00' 55.88" E |
| BS306 | 13° 42' 21.17" N 100° 58' 36.57" E |
| GUXAR | 13° 26' 13.00" N 100° 54' 19.34" E |

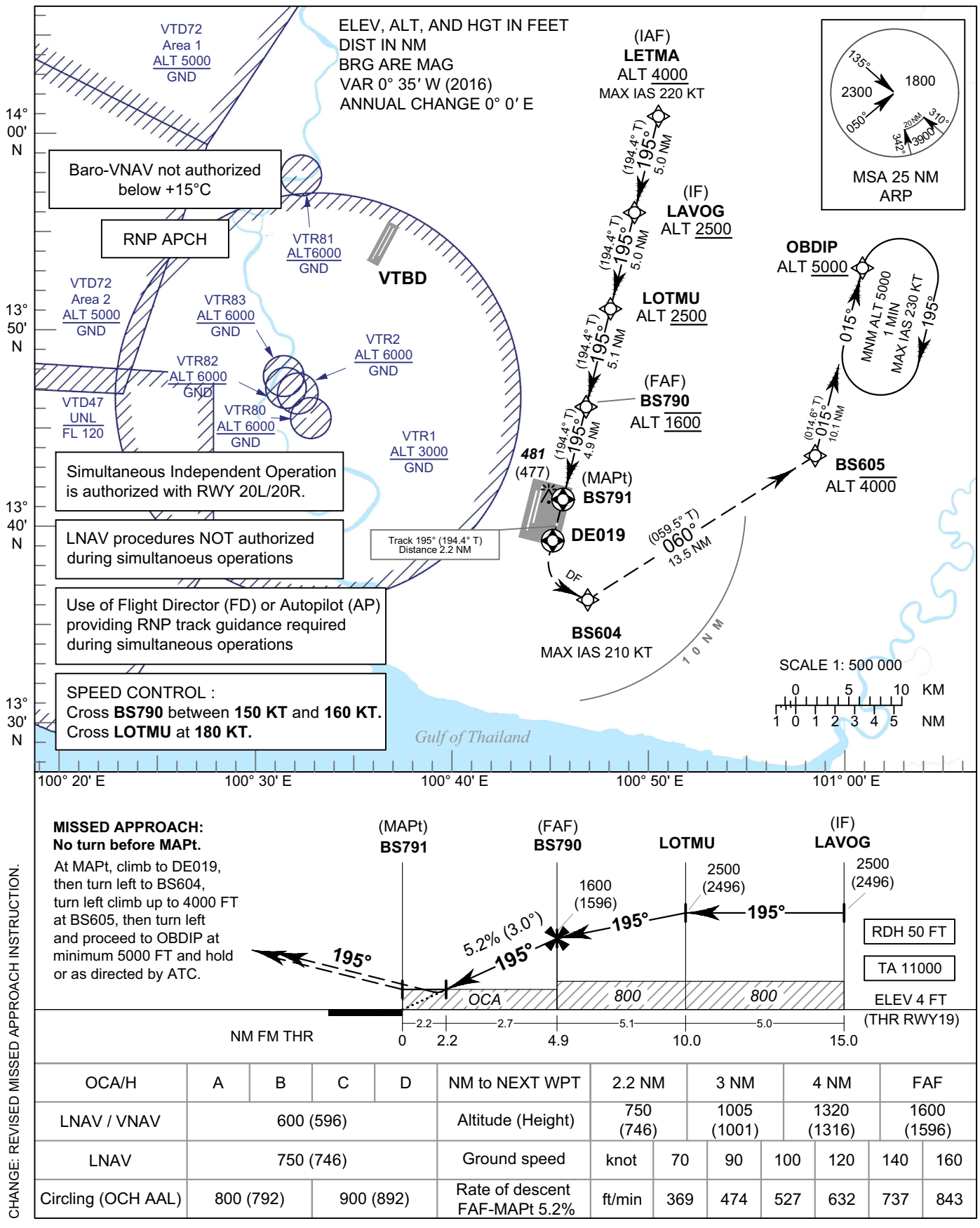
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY19 - ELEV 4 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY19**




**MISSED APPROACH:**
**No turn before MAPt.**
At MAPt, climb to DE019, then turn left to BS604, turn left climb up to 4000 FT at BS605, then turn left and proceed to OBDIP at minimum 5000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D | NM to NEXT WPT | 2.2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 600 (596) | | | | Altitude (Height) | 750 (746) | 1005 (1001) | 1320 (1316) | 1600 (1596) |
| LNAV | 750 (746) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 800 (792) | | 900 (892) | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED MISSED APPROACH INSTRUCTION.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY19 - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY19**

## TABULAR DESCRIPTION

**RNP RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) LETMA | - | - | +0.60 | - | - | +4000 | -220 | - | RNP APCH |
| 020 | TF | (IF) LAVOG | - | 195°(194.4°) | +0.60 | 5.0 | - | +2500 | - | - | RNP APCH |
| 030 | TF | LOTMU | - | 195°(194.4°) | +0.60 | 5.0 | - | +2500 | - | - | RNP APCH |
| 040 | TF | (FAF) BS790 | - | 195°(194.4°) | +0.60 | 5.1 | - | @1600 | - | - | RNP APCH |
| 050 | TF | (MAPt @ THR19) BS791 | Y | 195°(194.4°) | +0.60 | 4.9 | - | @54 | - | -3.0/50 | RNP APCH |
| 060 | CF | DE019 | Y | 195°(194.4°) | +0.60 | 2.2 | - | - | - | - | RNP APCH |
| 070 | DF | BS604 | - | - | +0.60 | - | L | - | -210 | - | RNP APCH |
| 080 | TF | BS605 | - | 060°(059.5°) | +0.60 | 13.5 | - | -4000 | - | - | RNP APCH |
| 090 | TF | OBDIP | - | 015°(014.6°) | +0.60 | 10.1 | - | +5000 | - | - | RNP APCH |
| 100 | HM | OBDIP | Y | 015°(014.6°) | +0.60 | 1 minute | R | +5000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY19**

| Waypoint Identifier | Coordinates |
|---|---|
| LETMA | 14° 00' 57.99" N 100° 50' 47.13" E |
| LAVOG | 13° 56' 06.19" N 100° 49' 30.23" E |
| LOTMU | 13° 51' 14.39" N 100° 48' 13.38" E |
| BS790 | 13° 46' 14.41" N 100° 46' 54.45" E |
| BS791 | 13° 41' 30.17" N 100° 45' 39.72" E |
| DE019 | 13° 39' 24.11" N 100° 45' 06.59" E |
| BS604 | 13° 36' 23.96" N 100° 46' 55.46" E |
| BS605 | 13° 43' 15.45" N 100° 58' 51.48" E |
| OBDIP | 13° 53' 03.74" N 101° 01' 28.52" E |

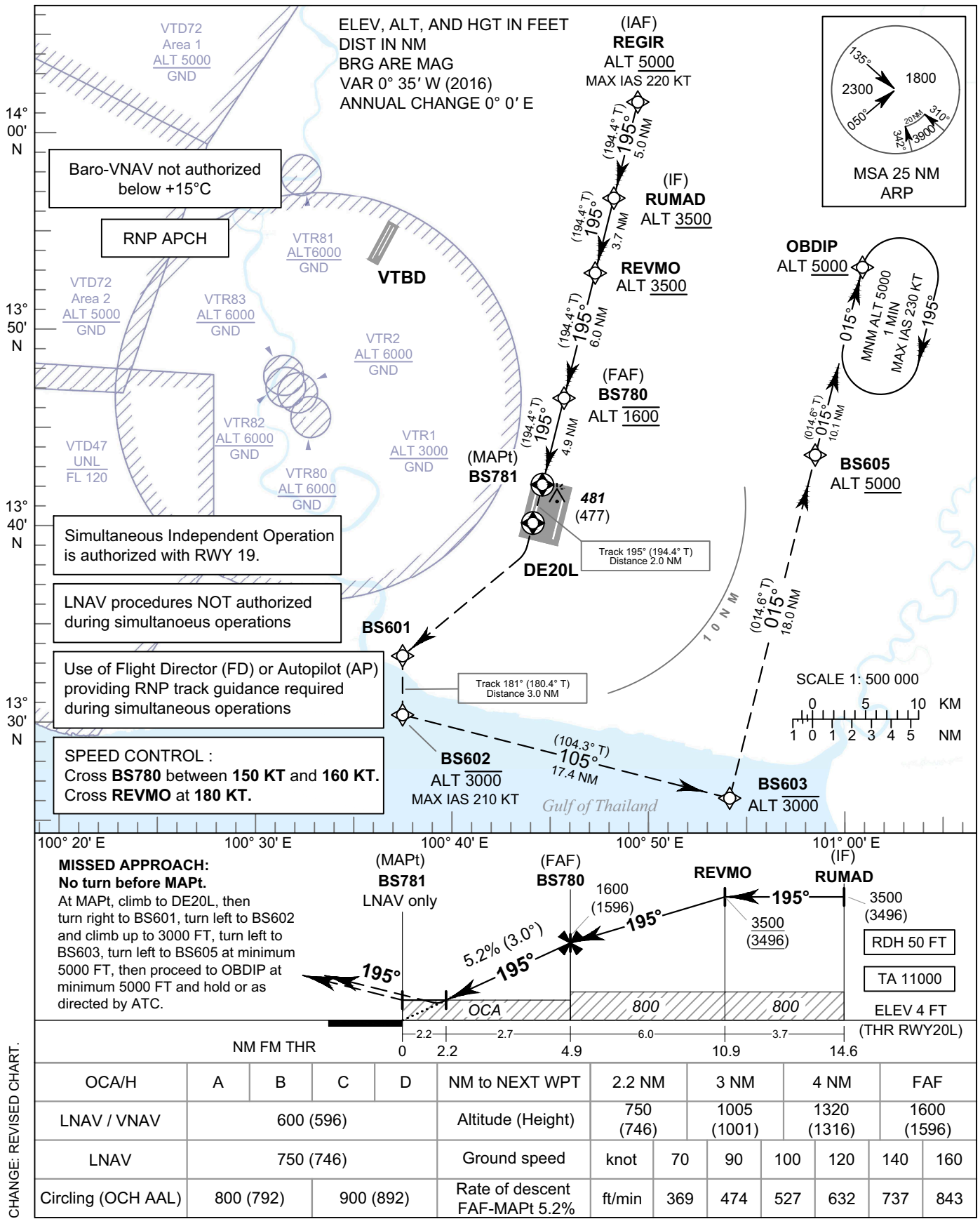
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY20L - ELEV 4 FT

| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY20L**




| OCA/H | A | B | C | D | NM to NEXT WPT | 2.2 NM | | 3 NM | | 4 NM | | FAF | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 600 (596) | | | | Altitude (Height) | 750 (746) | | 1005 (1001) | | 1320 (1316) | | 1600 (1596) | |
| LNAV | 750 (746) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 | |
| Circling (OCH AAL) | 800 (792) | | 900 (892) | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 | |

CHANGE: REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY20L - ELEV 4 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY20L**

## TABULAR DESCRIPTION

**RNP RWY20L**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) REGIR | - | - | +0.60 | - | - | +5000 | -220 | - | RNP APCH |
| 020 | TF | (IF) RUMAD | - | 195°(194.4°) | +0.60 | 5.0 | - | +3500 | - | - | RNP APCH |
| 030 | TF | REVMO | - | 195°(194.4°) | +0.60 | 3.7 | - | +3500 | - | - | RNP APCH |
| 040 | TF | (FAF) BS780 | - | 195°(194.4°) | +0.60 | 6.0 | - | @1600 | - | - | RNP APCH |
| 050 | TF | (MAPt @ THR20L) BS781 | Y | 195°(194.4°) | +0.60 | 4.9 | - | @54 | - | -3.0/50 | RNP APCH |
| 060 | CF | DE20L | Y | 195°(194.4°) | +0.60 | 2.0 | - | - | - | - | RNP APCH |
| 070 | DF | BS601 | - | - | +0.60 | - | R | - | - | - | RNP APCH |
| 080 | TF | BS602 | - | 181°(180.4°) | +0.60 | 3.0 | - | -3000 | -210 | - | RNP APCH |
| 090 | TF | BS603 | - | 105°(104.3°) | +0.60 | 17.4 | - | -3000 | - | - | RNP APCH |
| 100 | TF | BS605 | - | 015°(014.6°) | +0.60 | 18.0 | - | +5000 | - | - | RNP APCH |
| 110 | TF | OBDIP | - | 015°(014.6°) | +0.60 | 10.1 | - | +5000 | - | - | RNP APCH |
| 120 | HM | OBDIP | Y | 015°(014.6°) | +0.60 | 1 minute | R | +5000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY20L**

| Waypoint Identifier | Coordinates |
|---|---|
| REGIR | 14° 01' 17.67" N 100° 49' 36.72" E |
| RUMAD | 13° 56' 25.87" N 100° 48' 19.81" E |
| REVMO | 13° 52' 48.77" N 100° 47' 22.64" E |
| BS780 | 13° 46' 59.12" N 100° 45' 50.66" E |
| BS781 | 13° 42' 13.21" N 100° 44' 35.44" E |
| DE20L | 13° 40' 16.60" N 100° 44' 04.79" E |
| BS601 | 13° 33' 07.17" N 100° 36' 56.80" E |
| BS602 | 13° 30' 06.39" N 100° 36' 55.58" E |
| BS603 | 13° 25' 46.90" N 100° 54' 12.14" E |
| BS605 | 13° 43' 15.45" N 100° 58' 51.48" E |
| OBDIP | 13° 53' 03.74" N 101° 01' 28.52" E |

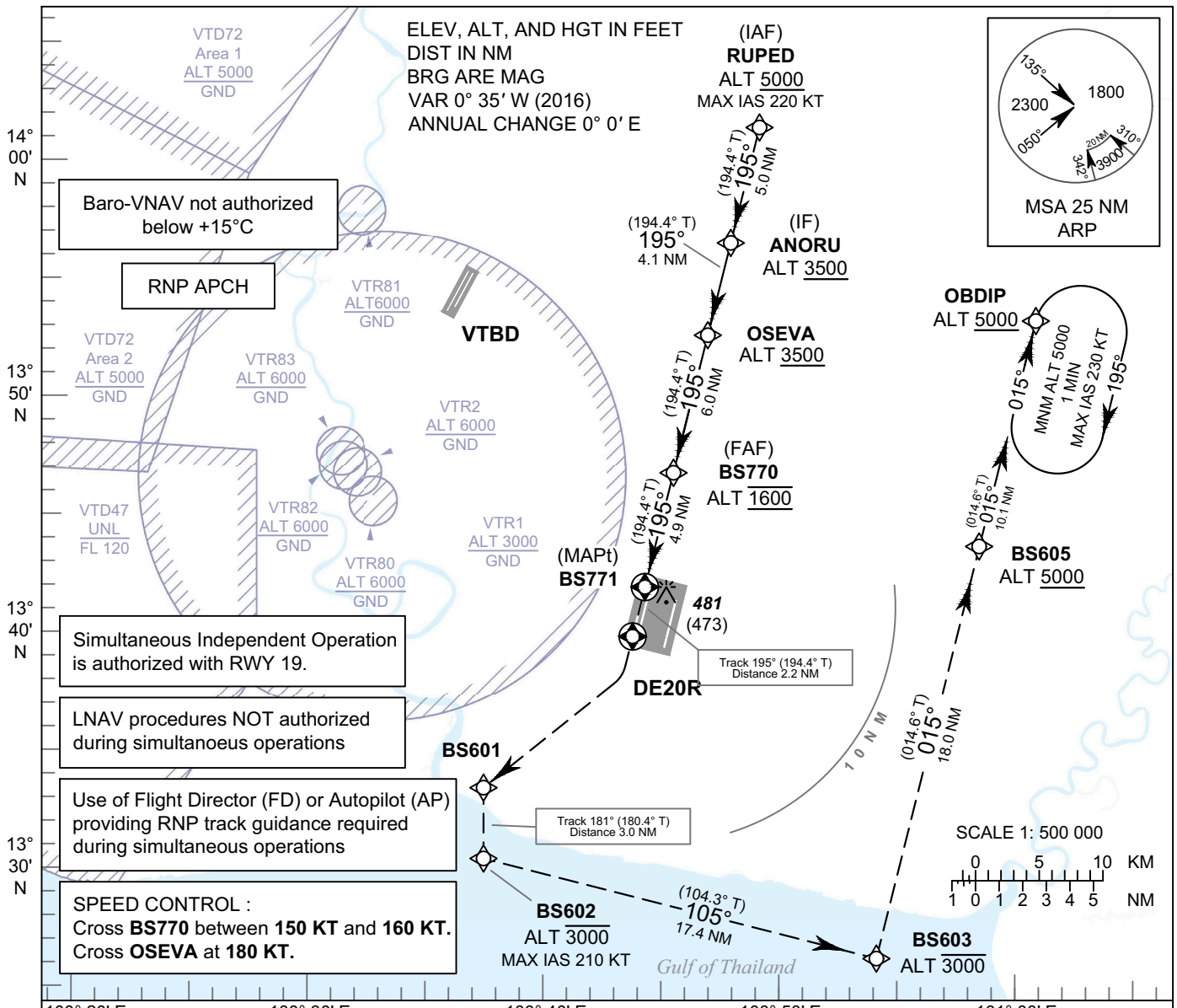
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY20R - ELEV 8 FT

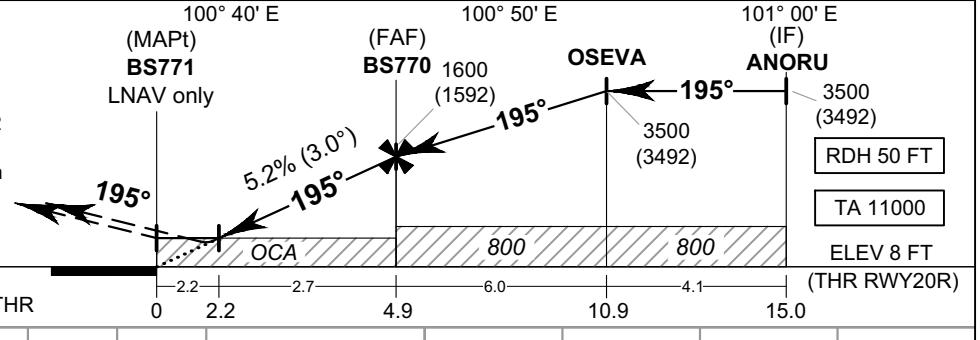
| | |
|---|---|
| APP | : 119.1, 262.5 |
| | : 120.3, 262.5 |
| | : 133.4, 262.5 |
| | : 122.35, 262.5 |
| | : 124.35, 262.5 |
| | : 125.2, 262.5 |
| ARR | : 121.1, 262.5 |
| | : 126.3, 262.5 |
| TWR | : 118.2, 274.5 |
| | : 119.0 |
| ARR ATIS | : 133.6, 278.6 |

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY20R**




**MISSED APPROACH:**
**No turn before MAPt.**
At MAPt, climb to DE20R, then turn right to BS601, turn left to BS602 and climb up to 3000 FT, turn left to BS603, turn left to BS605 at minimum 5000 FT, then proceed to OBDIP at minimum 5000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D | NM to NEXT WPT | 2.2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 600 (592) | | | | Altitude (Height) | 750 (742) | 1005 (997) | 1320 (1312) | 1600 (1592) |
| LNAV | 750 (742) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 800 (792) | | 900 (892) | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: NEW CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO
THR RWY20R - ELEV 8 FT

**BANGKOK / Suvarnabhumi Intl (VTBS)**

**RNP RWY20R**

## TABULAR DESCRIPTION

**RNP RWY20R**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) RUPED | - | - | +0.60 | - | - | +5000 | -220 | - | RNP APCH |
| 020 | TF | (IF) ANORU | - | 195°(194.4°) | +0.60 | 5.0 | - | +3500 | - | - | RNP APCH |
| 030 | TF | OSEVA | - | 195°(194.4°) | +0.60 | 4.1 | - | +3500 | - | - | RNP APCH |
| 040 | TF | (FAF) BS770 | - | 195°(194.4°) | +0.60 | 6.0 | - | @1600 | - | - | RNP APCH |
| 050 | TF | (MAPt @ THR20R) BS771 | Y | 195°(194.4°) | +0.60 | 4.9 | - | @58 | - | -3.0/50 | RNP APCH |
| 060 | CF | DE20R | Y | 195°(194.4°) | +0.60 | 2.2 | - | - | - | - | RNP APCH |
| 070 | DF | BS601 | - | - | +0.60 | - | R | - | - | - | RNP APCH |
| 080 | TF | BS602 | - | 181°(180.4°) | +0.60 | 3.0 | - | -3000 | -210 | - | RNP APCH |
| 090 | TF | BS603 | - | 105°(104.3°) | +0.60 | 17.4 | - | -3000 | - | - | RNP APCH |
| 100 | TF | BS605 | - | 015°(014.6°) | +0.60 | 18.0 | - | +5000 | - | - | RNP APCH |
| 110 | TF | OBDIP | - | 015°(014.6°) | +0.60 | 10.1 | - | +5000 | - | - | RNP APCH |
| 120 | HM | OBDIP | Y | 015°(014.6°) | +0.60 | 1 minute | R | +5000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY20R**

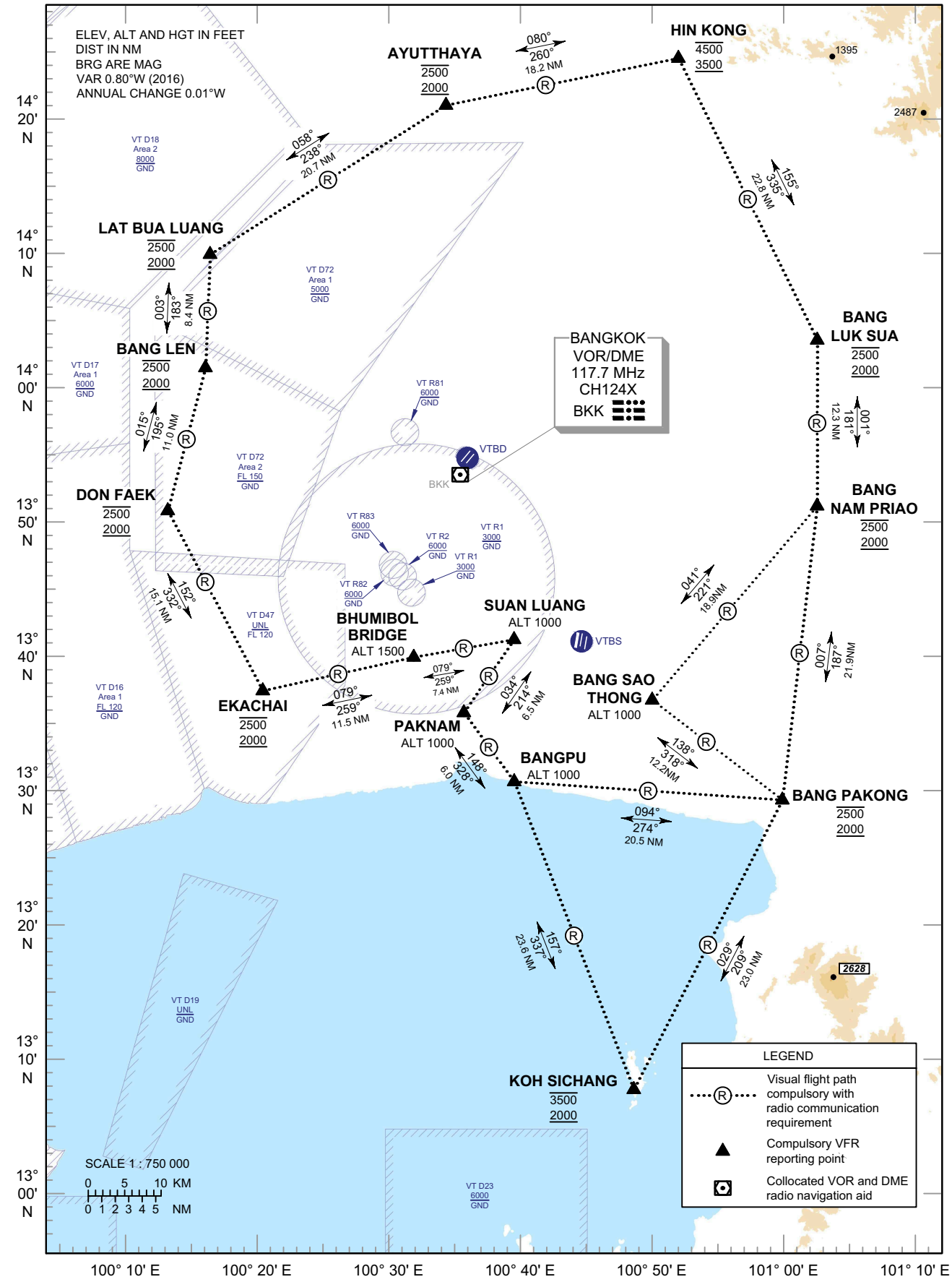
| Waypoint Identifier | Coordinates |
|---|---|
| RUPED | 14° 01' 23.89" N 100° 49' 24.59" E |
| ANORU | 13° 56' 32.10" N 100° 48' 07.70" E |
| OSEVA | 13° 52' 35.66" N 100° 47' 05.44" E |
| BS770 | 13° 46' 44.92" N 100° 45' 33.15" E |
| BS771 | 13° 42' 00.68" N 100° 44' 18.41" E |
| DE20R | 13° 39' 54.63" N 100° 43' 45.28" E |
| BS601 | 13° 33' 07.17" N 100° 36' 56.80" E |
| BS602 | 13° 30' 06.39" N 100° 36' 55.58" E |
| BS603 | 13° 25' 46.90" N 100° 54' 12.14" E |
| BS605 | 13° 43' 15.45" N 100° 58' 51.48" E |
| OBDIP | 13° 53' 03.74" N 101° 01' 28.52" E |

**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP : | 119.4 | , 274.5 |
| | 133.4 | , 274.5 |
| | 125.2 | , 274.5 |
| | 124.35 | , 274.5 |
| | 122.35 | , 274.5 |
| | 119.1 | , 274.5 |
| | 120.3 | , 274.5 |
| | 125.8 | |
| ARR 1: | 121.1 | |
| ARR 2: | 126.3 | |
| TWR : | 118.2 | |
| | 119.0 | |
| ATIS : | DEP 127.65 | , 278.6 |
| | ARR 133.6 | |

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**



**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**

**DEPARTURE**

**EASTBOUND**
- BANG SAO THONG [ALT1000] - BANG NAM PRIAO [ALT2500] THEN JOIN VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART BANGKOK/Don Mueang Intl (VTBD) RWY 03L/03R 21L/21R
- BANG SAO THONG [ALT1000] - BANG PAKONG [ALT2500] THEN JOIN VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART BANGKOK/Don Mueang Intl (VTBD) RWY 03L/03R 21L/21R

**SOUTHEASTBOUND**
- SUAN LUANG [ALT1000] - PAK NAM [ALT1000] - BANGPU [ALT1000] - KOH SICHANG [ALT3500]
- SUAN LUANG [ALT1000] - PAK NAM [ALT1000] - BANGPU [ALT1000] - BANGPAKONG [ALT2500] - KOH SICHANG [ALT3500]

**WESTBOUND**
- SUAN LUANG [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - EKACHAI [ALT2500] THEN JOIN VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART BANGKOK/Don Mueang Intl (VTBD) RWY 03L/03R 21L/21R

**ARRIVAL**

**EASTBOUND**
- BANG NAM PRIAO [ALT2000] - BANG SAO THONG [ALT1000]
- BANG PAKONG [ALT2000] - BANG SAO THONG [ALT1000]

**SOUTHEASTBOUND**
- KOH SICHANG [ALT2000] - BANGPU [ALT1000] - PAK NAM [ALT1000] - SUAN LUANG [ALT1000]
- KOH SICHANG [ALT2000] - BANGPAKONG [ALT2000] - BANGPU [ALT1000] - PAK NAM [ALT1000] - SUAN LUANG [ALT1000]

**WESTBOUND**
- EKACHAI [ALT2000] - BHUMIBOL BRIDGE [ALT1500] - SUAN LUANG [ALT1000]

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| SUAN LUANG | Rama 9th Park | R-158 / 11.7D | 13° 41' 19.00'' N | 100° 39' 48.00'' E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00'' N | 100° 52' 40.00'' E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00'' N | 100° 34' 53.00'' E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00'' N | 100° 16' 48.00'' E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00'' N | 100° 16' 24.00'' E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00'' N | 100° 13' 28.00'' E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00'' N | 100° 20' 38.00'' E |
| PAKNAM | Samuthprakarn Learning Park and Tower | R-179 / 17.6D | 13° 35' 53.82'' N | 100° 35' 56.21'' E |

**VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| BANG SAO THONG | Assumption University Suvarnabhumi Campus, Bang Sao Thong | R-141 / 22.0D | 13° 36' 44.00" N | 100° 50' 17.00" E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00" N | 101° 03' 05.00" E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00" N | 100° 48' 40.00" E |
| BHUMIBOL BRIDGE | Industrial Ring Rd. Interchange between Bhumibol 1-2 Bridge near Lat Pho Canal | R-194 / 14.0D | 13° 40' 03.00" N | 100° 32' 09.00" E |
| BANGPU | Sukta Bridge | R-170 / 23.1D | 13° 30' 44.00" N | 100° 39' 44.00" E |

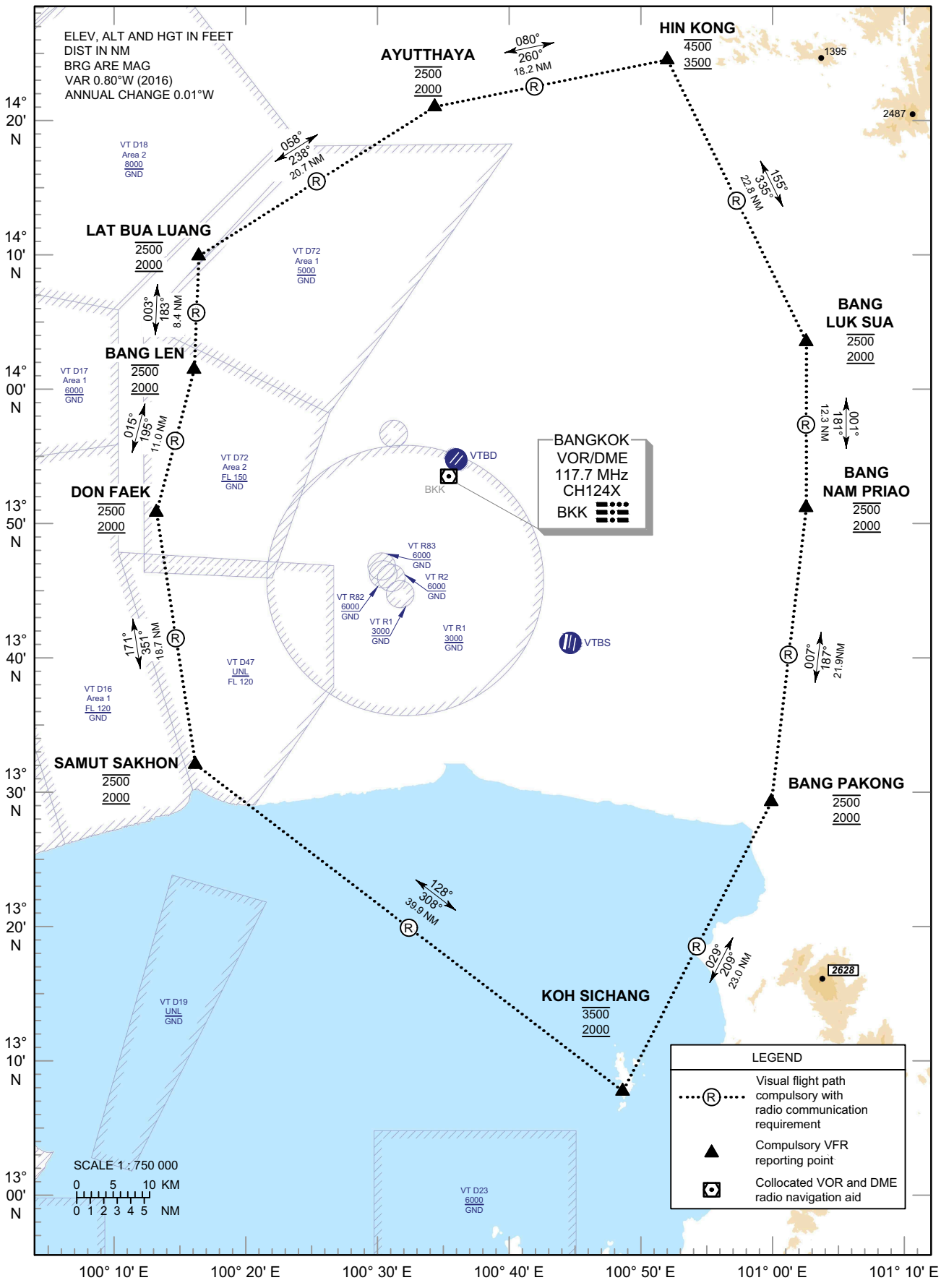
**INTENTIONALLY BLANK**

**VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 119.4 , 274.5 |
| | | 133.4 , 274.5 |
| | | 125.2 , 274.5 |
| | | 124.35 , 274.5 |
| | | 122.35 , 274.5 |
| | | 119.1 , 274.5 |
| | | 120.3 , 274.5 |
| | | 125.8 |
| ARR 1: | | 121.1 |
| ARR 2: | | 126.3 |
| TWR | : | 118.2 |
| | | 119.0 |
| ATIS | : | DEP 127.65 , 278.6 |
| | | ARR 133.6 |

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**



**VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**

**VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART**

BANGKOK/Suvarnabhumi Intl (VTBS) RWY 19/20L/20R 01/02L/02R

**OUTBOUND**

- HIN KONG [ALT3500] - BANG LUK SUA [ALT2500] - BANG NAM PRIAO [ALT2500] - BANG PAKONG [ALT2500] - KOH SICHANG [ALT3500] - SAMUT SAKHON [ALT2500] - DON FAEK [ALT2500] - BANG LEN [ALT2500] - LAT BUA LUANG [ALT2500] - AYUTTHAYA [ALT2500] - HIN KONG [ALT3500]

**INBOUND**

- HIN KONG [ALT4500] - BANG LUK SUA [ALT2000] - BANG NAM PRIAO [ALT2000] - BANG PAKONG [ALT2000] - KOH SICHANG [ALT2000] - SAMUT SAKHON [ALT2000] - DON FAEK [ALT2000] - BANG LEN [ALT2000] - LAT BUA LUANG [ALT2000] - AYUTTHAYA [ALT2000] - HIN KONG [ALT4500]

LIGHT AIRCRAFT WITHIN BKK CTR CAN JOIN ALL SUITABLE REPORTING POINT IN VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART BANGKOK/Suvarnabhumi Intl (VTBS) RWY 19/20L/20R 01/02L/02R)

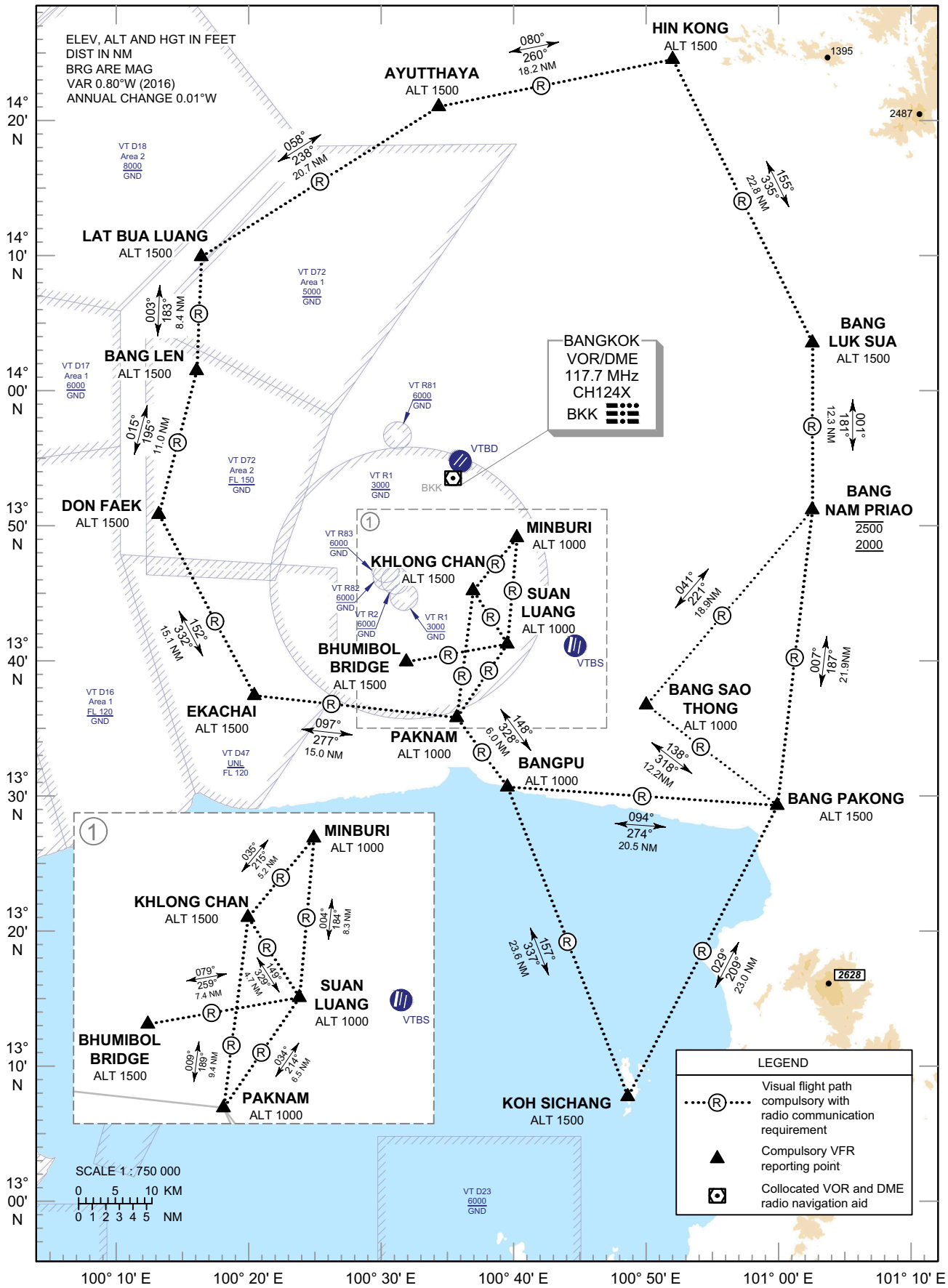
| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00'' N | 100° 52' 40.00'' E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00'' N | 100° 34' 53.00'' E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00'' N | 100° 16' 48.00'' E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00'' N | 100° 16' 24.00'' E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00'' N | 100° 13' 28.00'' E |
| SAMUT SAKHON | Thachalom Roundabout | R-222 / 28.4D | 13° 32' 17.00'' N | 100° 16' 20.00'' E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00'' N | 100° 48' 40.00'' E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20'' N | 101° 00' 07.80'' E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00'' N | 101° 02' 58.00'' E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00'' N | 101° 03' 05.00'' E |

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP : | 119.4 | , 274.5 |
| | 133.4 | , 274.5 |
| | 125.2 | , 274.5 |
| | 124.35 | , 274.5 |
| | 122.35 | , 274.5 |
| | 119.1 | , 274.5 |
| | 120.3 | , 274.5 |
| | 125.8 | |
| ARR 1: | 121.1 | |
| ARR 2: | 126.3 | |
| TWR : | 118.2 | |
| | 119.0 | |
| ATIS : | DEP 127.65 | , 278.6 |
| | ARR 133.6 | |

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**



**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**

**DEPARTURE**

**WESTBOUND**
- SUAN LUANG [ALT1000] - MINBURI [ALT1000] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R
- SUAN LUANG [ALT1000] - KHLONG CHAN [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R
- SUAN LUANG [ALT1000] - BHUMIBOL BRIDGE [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R
- SUAN LUANG [ALT1000] - PAKNAM [ALT1000] - EKACHAI [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R
- SUAN LUANG [ALT1000] - PAKNAM [ALT1000] - BANGPU [ALT1000] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R

**EASTBOUND**
- BANG SAO THONG [ALT1000] - BANG NAM PRIAO [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R
- BANG SAO THONG [ALT1000] - BANG PAKONG [ALT1500] - THEN PROCEED ON VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Don Mueang Intl (VTBD) RWY 21L/21R or RWY 03L/03R

**ARRIVAL**

**WESTBOUND**
- MINBURI [ALT1000] or KHLONG CHAN [ALT1500] or BHUMIBOL BRIDGE [ALT1500] or PAKNAM [ALT1000] - SUAN LUANG [ALT1000]

**EASTBOUND**
- BANG NAM PRIAO [ALT1500] or BANG PAKONG [ALT1500] - BANG SAO THONG [ALT1000]

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| BHUMIBOL BRIDGE | Industrial Ring Rd. Interchange between Bhumibol 1-2 Bridge near Lat Pho Canal | R-194 / 14.0D | 13° 40' 03.00" N | 100° 32' 09.00" E |
| SUAN LUANG | Rama 9th Park | R-158 / 11.7D | 13° 41' 19.00" N | 100° 39' 48.00" E |
| KHLONG CHAN | Rajamangala National Stadium | R-170 / 8.4D | 13° 45' 17.00" N | 100° 37' 14.00" E |
| MINBURI | Bangkok Eastern Outer Ring Rd. Crossing Ram Inthra Rd. | R-133 / 6.4D | 13° 49' 11.00" N | 100° 40' 35.00" E |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00" N | 100° 52' 40.00" E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00" N | 100° 34' 53.00" E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00" N | 100° 16' 48.00" E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00" N | 100° 16' 24.00" E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00" N | 100° 13' 28.00" E |

**VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00" N | 100° 20' 38.00" E |
| PAKNAM | Samuthprakarn Learning Park and Tower | R-179 / 17.6D | 13° 35' 53.82" N | 100° 35' 56.21" E |
| BANGPU | Sukta Bridge | R-170 / 23.1D | 13° 30' 44.00" N | 100° 39' 44.00" E |
| BANG SAO THONG | Assumption University Suvarnabhumi Campus, Bang Sao Thong | R-141 / 22.0D | 13° 36' 44.00" N | 100° 50' 17.00" E |
| BANG PAKONG | Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River | R-136 / 33.9D | 13° 29' 13.20" N | 101° 00' 07.80" E |
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00" N | 101° 02' 58.00" E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00" N | 101° 03' 05.00" E |
| KOH SICHANG | Koh Sichang | R-165 / 47.4D | 13° 07' 45.00" N | 100° 48' 40.00" E |

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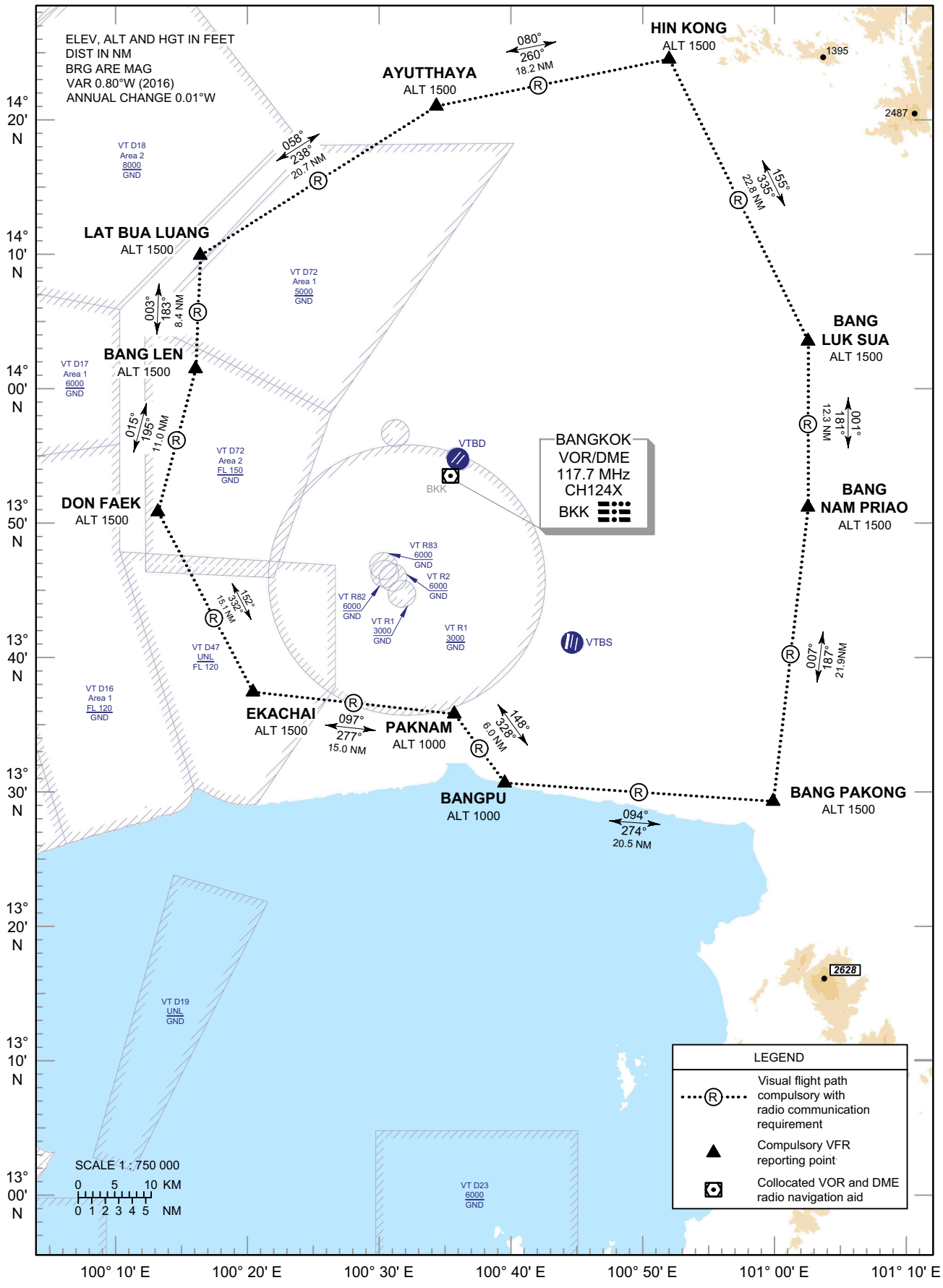
**VFR OVERFLY PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP : | 119.4 | , 274.5 |
| | 133.4 | , 274.5 |
| | 125.2 | , 274.5 |
| | 124.35 | , 274.5 |
| | 122.35 | , 274.5 |
| | 119.1 | , 274.5 |
| | 120.3 | , 274.5 |
| | 125.8 | |
| ARR 1: | 121.1 | |
| ARR 2: | 126.3 | |
| TWR : | 118.2 | |
| | 119.0 | |
| ATIS : | DEP 127.65 | , 278.6 |
| | ARR 133.6 | |

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**



**VFR OVERFLY PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 5 FT**
HEIGHTS RELATED TO AERODROME ELEV

**BANGKOK/Suvarnabhumi Intl (VTBS)**
**RWY 19/20L/20R 01/02L/02R**

**VFR OVERFLY PROCEDURE FOR HELICOPTER CHART**

- HIN KONG [ALT1500] - BANG LUK SUA [ALT1500] - BANG NAM PRIAO [ALT1500] - BANG PAKONG [ALT1500] - BANGPU [ALT1000] - PAK NAM [ALT1000] - EKACHAI [ALT1500] - DON FAEK [ALT1500] - BANG LEN [ALT1500] - LAT BUA LUANG [ALT1500] - AYUTTHAYA [ALT1500] - HIN KONG [ALT1500]

HELICOPTER WITHIN BKK CTR CAN JOIN ALL SUITABLE REPORTING POINT IN VFR ENTRY AND EXIT PROCEDURE FOR HELICOPTER CHART BANGKOK/Suvarnabhumi Intl (VTBS) RWY 19/20L/20R 01/02L/02R)
AND BANGKOK/Don Mueang Intl (VTBD) RWY 03L/03R 21L/21R

| Reporting points | Landmark | Radial / DME from BKK VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| HIN KONG | Hin Kong Interchange, Phahonyothin Rd. | R-030 / 35.2D | 14° 24' 30.00'' N | 100° 52' 40.00'' E |
| AYUTTHAYA | Preedee-Thamrong Bridge Crossing Pasak River | R-359 / 27.5D | 14° 21' 08.00'' N | 100° 34' 53.00'' E |
| LAT BUA LUANG | Singha Beverage Co.,Ltd. Ladbualuang | R-312 / 24.5D | 14° 10' 08.00'' N | 100° 16' 48.00'' E |
| BANG LEN | Scan Inter Solar Power Plant, Bang Phasi, Bang len | R-293 / 20.3D | 14° 01' 42.00'' N | 100° 16' 24.00'' E |
| DON FAEK | Motorway Bang Yai-Kanchanaburi Bridge Crossing Tha Chin River 4 | R-263 / 21.7D | 13° 51' 04.00'' N | 100° 13' 28.00'' E |
| EKACHAI | Ekachai Golf and Country Club | R-223 / 21.7D | 13° 37' 37.00'' N | 100° 20' 38.00'' E |
| PAKNAM | Samuthprakarn Learning Park and Tower | R-179 / 17.6D | 13° 35' 53.82'' N | 100° 35' 56.21'' E |
| BANGPU | Sukta Bridge | R-170 / 23.1D | 13° 30' 44.00'' N | 100° 39' 44.00'' E |
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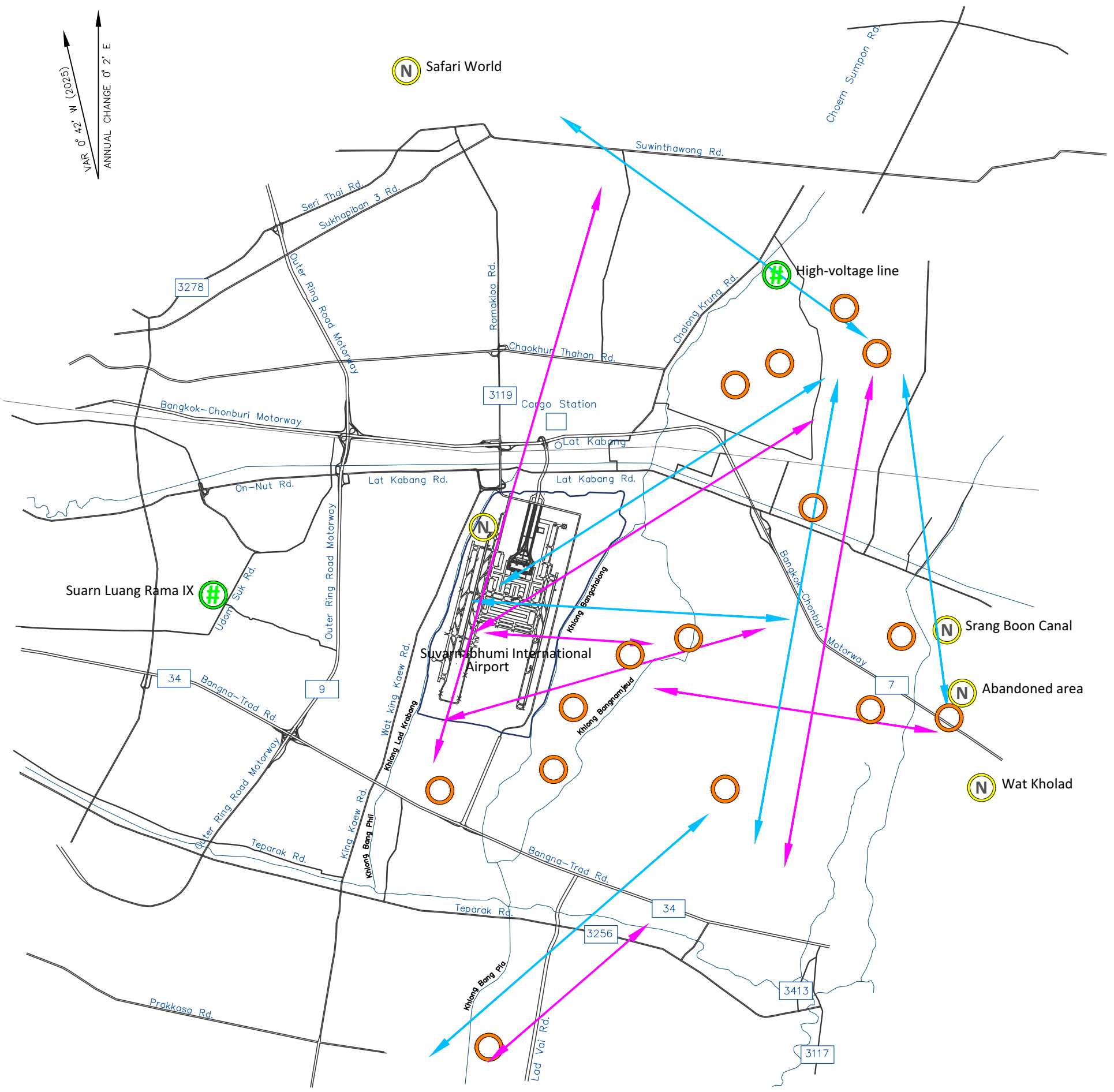
| BANG NAM PRIAO | Bang Nam Priao Intersection | R-095 / 26.6D | 13° 51' 05.00'' N | 101° 02' 58.00'' E |
| BANG LUK SUA | Pradhana Vanalai Studio | R-070 / 28.3D | 14° 03' 26.00'' N | 101° 03' 05.00'' E |

# BIRD CONCENTRATIONS - BANGKOK / SUVARNABHUMI INTERNATIONAL




NOTE :

15 kilometers around the aerodrome is a resting and feeding area including nesting sites for numerous kinds of birds with difference weights and sizes.

1) Birds Tend To Cause High Risk : There are 10 bird species which tend to cause high risk, including
   (1) Rock Pigeon (2) Red Collared Dove (3) Black-winged stilt (4) Oriental Pratincole (5) Red-wattled Lapwing
   (6) Little Cormorant (7) Little Egret (8) Cattle Egret (9) Painted Stork and (10) Open-billed Stork.
2) Bird Foraging At Night : Black-crowned Night Heron

NOT TO SCALE

LEGEND

- # Resting Area
- Feeding Area
- N Nesting Sites

Resident e.g., Little cormorant, Casttle Egret, Open-billed stork, Black-crowned Night Heron

Winter visitor (August-April) e.g., Spot-billed pelican , Painted Stork, Purple Heron, Grey Heron

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## VTBU AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTBU - RAYONG / U-TAPAO RAYONG PATTAYA INTERNATIONAL AIRPORT

## VTBU AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 124046.6N 1010017.7E<br>Centre of the runway, 1752.5 M from THR RWY18 |
| 2 | Direction and distance from (city) | 34 KM W of Rayong |
| 3 | Elevation/Reference temperature | 18 M (59 FT) / 34°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.55°W (2016) / 0.00°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Military: Base Operations Division Naval Air Station<br>Royal Thai Naval Air Division<br>70 moo.2 Phala Banchang Rayong<br>21130<br>Thailand<br>Tel: +663 824 5193 (Dispatcher)<br>+663 824 5190, +668 8669 9221 (TWR)<br>+663 824 5196 (APP)<br>Fax: +663 824 5193 (Dispatcher)<br>Civil: U-Tapao Airport Authority<br>U-Tapao Rayong Pattaya International Airport<br>70 moo.2 Phala Banchang Rayong<br>21130<br>Thailand<br>Tel: +663 824 5600 (Airport Authority)<br>Fax: +663 824 5600 (Airport Authority)<br>AFS: VTBUZPZX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Royal Thai Navy |

## VTBU AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | H24 |
| 2 | Customs and immigration | H24 |
| 3 | Health and sanitation | H24 |
| 4 | AIS Briefing Office | H24 |
| 5 | ATS Reporting Office (ARO) | H24 |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | H24 |
| 8 | Fuelling | H24 |
| 9 | Handling | H24 |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTBU AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | Handling weights up to 3 T |
| 2 | Fuel/oil types | Jet A-1, AVGAS, JP8 |
| 3 | Fuelling facilities/capacity | 1 JET A-1 Refueller @ 40,000 L<br>2 JET A-1 Refueller @ 12,000 L<br>1 Hydrant Dispenser for JET A-1<br>1 JET A-1 Refueller @ 45,000 L<br>1 JET A-1 Refueller @ 12,000 L<br>3 Hydrant Cart for JP-8<br>1 AVGAS DC Motor dispenser from drum 200 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTBU AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | 5 KM from AD and in the city |
| 2 | Restaurants | In Pattaya city and Banchang |
| 3 | Transportation | Airport buses and limousines |
| 4 | Medical facilities | First aid station and queen Sirikit Hospital in the AD |
| 5 | Bank and Post Office | 2 KM from AD |
| 6 | Tourist Office | In Pattaya city |
| 7 | Remarks | NIL |

## VTBU AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | 24 HR: Category 10 |
| 2 | Rescue equipment | 2 boats of 10 people, Rescue truck, Ambulance |
| 3 | Capability for removal of disabled aircraft | Available up to A320 |
| 4 | Remarks | U-Tapao Airport Authority<br>Tel: +669 7326 6074 |

## VTBU AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTBU AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Apron A and B<br>Surface: Concrete<br>Strength: PCN 39/R/B/X/T<br>Apron C<br>Surface: Concrete<br>Strength: PCN 40/R/B/X/T<br>Apron D<br>Surface: Concrete<br>Strength: PCN 77/R/B/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Concrete and asphalt<br>Strength: TWY A, B, C, D, E, F, G, H: PCN 65/R/B/W/T<br>TWY I: PCN 9/R/B/W/T |
| 3 | Altimeter checkpoint location and elevation | Location at Apron<br>Elevation 18 M (59 FT) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTBU AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxi guidance signs, all RWY and TWY intersections and holding positions. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, CL, Aiming Point and Edge<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: NIL<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTBU AD 2.10 AERODROME OBSTACLES

| **In approach/TKOF areas** | | | **In circling areas and at AD** | | **Remarks** |
|---|---|---|---|---|---|
| **1** | | | **2** | | **3** |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| RWY 18 Left base | Hill 2.2 NM NNE, 896 FT. from VOR no marking/LGT | NIL | NIL | NIL | NIL |
| High tension line distance 840 M. from RWY THR 18, elevation of the high tension line 18 M. | | | | | |

## VTBU AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Base Operation Section Naval Air Station<br>Subdivision Royal Thai Naval Air Division |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Weather Section<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>30 Min |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +663 824 5489<br>E-mail: weather.utapao@gmail.com |
| 6 | Flight documentation<br>Language(s) used | Charts, Tabular Forms and Abbreviated Plain Language Texts<br>English |
| 7 | Charts and other information available for briefing or consultation | S, U85, U70, U50, U40, U30, U25, U20, SWH, SWM, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar pictures |
| 8 | Supplementary equipment available for providing information | Doppler<br>Weather Radar (DWR) X-band |
| 9 | ATS units provided with information | U-Tapao TWR<br>U-Tapao APP |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTBU AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 184°(MAG) | 3505x60 | PCN 59/F/B/X/T<br>Concrete and asphalt | 124144.26N 1010022.66E | THR 18 M (59 FT) |
| 36 | 004°(MAG) | 3505x60 | PCN 59/F/B/X/T<br>Concrete and asphalt | 123950.42N 1010013.26E | THR 7.6 M (24 FT) |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| 0.3% | 305x60 | 305x300 | 4235x300 | NIL | NIL |
| -0.3% | 305x60 | 305x300 | 4235x300 | NIL | NIL |

## VTBU AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 3505 | 3810 | 3810 | 3505 | NIL |
| 36 | 3505 | 3810 | 3810 | 3505 | NIL |

## VTBU AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18 | CAT1<br>(570 M) | Green | PAPI<br>BI-Latteral<br>3° | NIL | NIL | 3505 M<br>60 M<br>White<br>LIH | Red | NIL | NIL |
| 36 | SALS | Green | PAPI<br>Left<br>3° | NIL | NIL | 3505 M<br>60 M<br>LIH | Red | NIL | NIL |

## VTBU AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: On top of control tower, FLG WG EV 2 SEC. Sunset to sunrise and daylight when low visibility.<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | WDI<br>- 1 WDI left side of THR RWY 36 (500 M from RWY THR)<br>- 1 WDI right side of THR RWY 18 (500 M from RWY THR) |
| 3 | TWY edge and centre line lighting | TWY edge lights (blue) |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at RWY 18/36<br>Switch-over time: 0 SEC |
| 5 | Remarks | NIL |

## VTBU AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Landing on TWY E. |

## VTBU AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | U-Tapao Aerodrome Traffic Zone (ATZ) a circle, radius 5 NM centred on 124046.6N 1010017.7E (ARP) |
| 2 | Vertical limits | up to but not including 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | U-Tapao Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT MSL |
| 6 | Remarks | NIL |

## VTBU AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | U-Tapao Approach | 119.7 MHZ/PRI<br>121.5 MHZ/EMERG<br>134.5 MHZ/SEC<br>238.3 MHZ/SEC<br>273.3 MHZ/PRI<br>243.0 MHZ/EMERG | H24 | UHF reserved for military use |
| TWR | U-Tapao Tower | 118.3 MHZ<br>121.5 MHZ/EMERG<br>227.0 MHZ<br>243.0 MHZ/EMERG | H24 | UHF reserved for military use |
| GND | U-Tapao Ground | 121.9 MHZ<br>275.8 MHZ | H24 | UHF reserved for military use |
| ATIS | U-Tapao Int Airport | 127.2 MHZ | H24 | |

## VTBU AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | UP | 414 KHZ | H24 | 123943.02N<br>1005941.96E | | The coverage 50 NM orbit clockwise data refer from commissioning shall be as follows<br>-Bearing 321-020 degree altitude 3,000 feet.<br>-Bearing 021-050 degree altitude 7,000 feet.<br>-Bearing 051-100 degree altitude 6,000 feet.<br>-Bearing 101-320 degree altitude 2,000 feet. |
| DVOR/DME | BUT | 110.8 MHZ<br>CH 45X | H24 | 124000.02N<br>1010001.71E | - | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit 40 NM at required altitude and distance in various areas:<br>– Radial 101°-170° altitude should not below 2 000 FT<br>– Radial 171°-250° altitude should not below 6 000 FT<br>– Radial 251°-320° altitude should not below 8 000 FT<br>– Radial 321°-050° altitude should not below 6 000 FT<br>– Radial 051°-100° altitude should not below 4 000 FT |
| ILS CAT I LOC RWY 18 | IBUT | 111.9 MHZ | H24 | 123937.26N<br>1010012.17E | | DME transponder provide minimum signal strength at 17 NM altitude 2 000 FT between 22-35 degrees (90Hz) of localizer course. Meanwhile DME signal has lock-on presented throughout the ILS/DME coverage. |
| GP/DME | | 331.1 MHZ<br>CH 56X | H24 | 124132.95N<br>1010025.78E | | |

## VTBU AD 2.20 LOCAL AERODROME REGULATIONS

### 1. U-TAPAO VFR LOCAL PROCEDURES

1.1 Aerodrome Traffic Pattern

Traffic pattern shown in diagram. The unlighted 896 feet hill, 2.2 NM NNE from runway 18 constitutes a hazard to VFR operation:

1.1.1 Rectangular

- Altitude 1 400 ft MSL
- Left traffic for runway 18
- Right traffic for runway 36
- Enter downwind leg at a 45 Degree

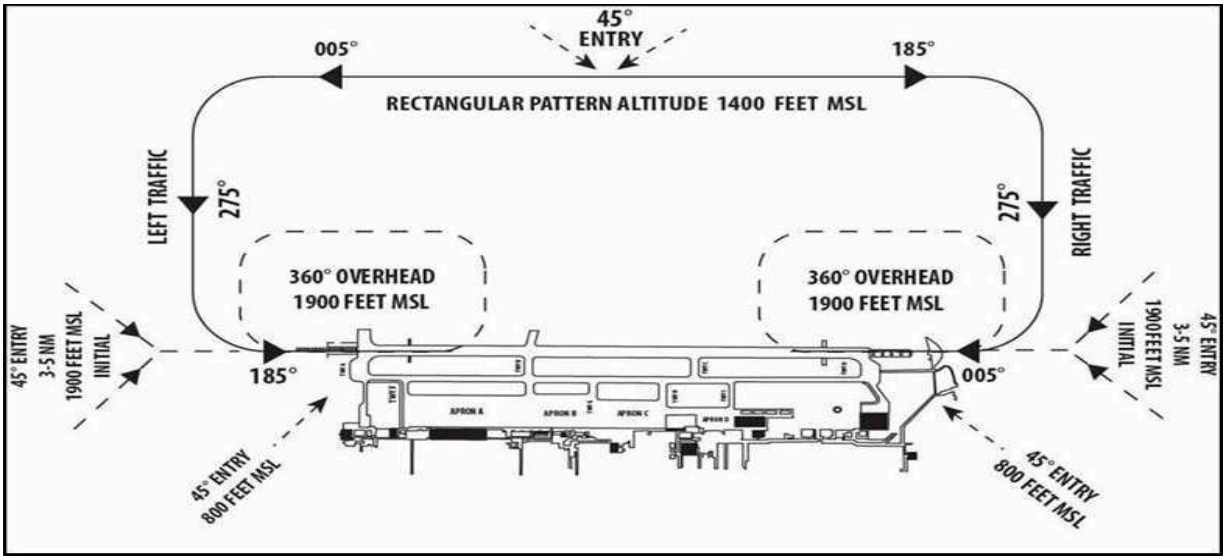
1.1.2 Overhead approach

- Altitude 1 900 ft MSL
- Runway 18 left turns
- Runway 36 right turns
- Enter final at a 45 degree.

1.1.3 Helicopter

- Altitude 800 ft MSL
- Right traffic for runway 18
- Left traffic for runway 36
- Landing on taxiway E
- Enter downwind leg at a 45 Degree

**VFR TRAFFIC PATTERNS FIELD ELEVATION 59 FT**




1.2 HELICOPTER OPERATIONS

1.2.1 Departure

- Normally, ATC may issue take off clearance on Taxiway E. If traffic not permit Pilots-in-command of Departing helicopters will be issued take off clearance on the runway.
- After taking off helicopter shall continue climbing straight ahead until passing the departure end of The runway or Taxiway E Unless safety dictates otherwise or when specifically authorized by the tower.

1.2.2 Arrival

- Pilots-in-command of VFR arriving helicopters or IFR wishing to make an Visual Approach for landing will be issued landing clearance on Taxiway E.
- Pilots-in-command of arriving helicopters wishing to make an Instrument Approach for landing will be issued landing clearance on The runway.
- For traffic management or Pilot-in-command of arriving helicopters request for landing position ATC may issue Landing clearance on the runway or taxiway E depend on traffics situation.

**2. AIRCRAFT START UP AND / OR PUSH BACK**

2.1 The pilot-in-command of a departing aircraft shall contact U-TAPAO GROUND ON FRQ. 121.9 MHz for ATC clearance 5 minutes before engine start.

2.2 All aircraft shall obtain approval from air traffic control for engine start and/or push back.

2.3 The pilot in-command and aircraft marshaller shall be responsible for the safety of the aircraft with respect to all other aircraft, vehicles, persons and other obstruction during engine start-up power-out and taxiing, and also ensuring appropriate blast zones are clear during engine start-up.

**3. RADIO COMMUNICATIONS FAILURE**

3.1 Departing Aircraft

3.1.1 Aircraft shall not be permitted to take-off unless two-way radio communication can be maintained with the control tower.

3.1.2 If an aircraft experiences radio communications failure after departure, the pilot shall comply with the VFR cruising altitude.

3.2 Arriving Aircraft

3.2.1 When aircraft radio receiver inoperative, report their position, distance, heading, altitude and departure point when approaching 5O NM from U-Tapao Rayong Pattaya International Airport by transmitting in the blind.

3.2.2 When two-way communications failure, radio transmitter or receiver inoperative, observe the direction of traffic in the pattern, and enter downwind with the flow of traffic.

3.2.2.1 Day time

- Joining the traffic pattern of the landing runway be conformed to the altitude for the type of aircraft as listed in item 1, then make a low approach along the runway at 500 FT above the terrain, rocking wings of the aircraft until it reaches end of the runway.
- Re-enter downwind leg and observe light signals from the control tower for light signal on base leg and final approach.

3.2.2.2 Night time

- Joining the traffic pattern of the landing runway be conformed to the altitude for the type of aircraft as listed in item 1, then make a low approach along the runway at 500 FT above the terrain, and blinking the landing light until it reaches end of runway.
- Re-enter downwind leg and observe light signals from the control tower for light signal on base leg and final approach.

**4. LOCAL FLYING RESTRICTION**

Flying over The gas separation plant in Rayong (Ban Map Ta Phut) is hazardous. Aircraft are to avoid areas starting from 12 41 12.00 N 101 08 00.00 E then clockwise along an arc of 2 NM radius from 12 43 00.00 N 101 09 00.00 E to 12 43 00.00 N 101 11 00.00 E then direct to 12 38 30.00 N 101 11 00.00 E from this point make an arc of 5 NM radius from 12 43 00.00 N 101 09 00.00 E clockwise to 12 38 12.00 N 101 08 00.00 E then direct to the starting point, altitude 2 000 FT.

## VTBU AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTBU AD 2.22 FLIGHT PROCEDURES

**1. GENERAL PROCEDURES**

1.1 All aircraft flying within U-TAPAO Controlled airspaces shall be provided Approach Control procedural Service.

1.2 All Aircraft shall obtain appropriate ATC Clearance before penetrating the affected airspace.

1.3 Except when necessary for take-off or landing, or except when specifically authorized by the U-tapao Approach Control, an IFR flight shall be flown at a level which is not below the Minimum Altitude for the aircraft operating IFR flight within BUT TMA or, minimum flight altitude has been established, descend below this level is only permitted in accordance with published Instrument Approach Procedures or ATS Routes Structure or Minimum Sector Altitude or when the aircraft having reported the terrain in-sight and has been cleared for the visual approach.

1.4 Transition level is FL 130 and transition altitude is altitude 11 000 FT.

**2. OPERATING PROCEDURES AND ESTABLISHMENT OF STANDARD DEPARTURE CHART – INSTRUMENT (SID)**

In order to enhance ATS efficiency, Air Traffic safety and avoiding congested area in Bangkok Terminal Control Area, operational implementation to enhance Air Traffic Flow Management and Safety for aircraft intending to depart at U-TAPAO Rayong Pattaya International airport (VTBU) via R201 will be applied as follows:

DEPARTURE PROCEDURES FOR IFR AIRCRAFT WITH RNP1 CAPABILITY
FLIGHT PLAN FILING : BUT R201 BKK ...FPL RTE...

a) RNAV SID FOR RWY 18 : BKK1A
b) RNAV SID FOR RWY 36 : BKK1B

## VTBU AD 2.23 ADDITIONAL INFORMATION

### 1. BIRD CONCENTRATIONS IN THE VICINITY OF U-TAPAO RAYONG PATTAYA INTERNATIONAL AIRPORT

It has been observed that migratory birds appear on or in the vicinity of U-Tapao Rayong Pattaya International Airport mostly depends on the time of year and geographical conditions which may divided into Rainy season (May to October), Winter season (October to February) and Summer season (March to April), while the resident or presumed resident birds are present in variable number every month.

Pilots are requested to report bird strikes to the staff of the airport via
Airside Operations:
Phone +663 824 5040
E-mail: airsideops.utp@gmail.com
Aerodrome and Aviation Standards Division:
Phone +663 824 4524
E-mail: standard@utapao.com, standardutp@gmail.com

Species which account for high to very high to bird strike risk are as follows:

| SPECIES | WEIGHT (KG) | PERIOD |
|---|---|---|
| Glareola maldivarum (Oriental Pratincole) | 0.05 - 0.2 | April - September |
| Vanellus indicus (Red-wattled Lapwing) | 0.15 | All year (Mostly in April - September) |
| Charadrius alexandrius (Kentish Plover) | 0.06 | All yaer (Mostly in October - February) |
| Columba livia (Rock Pigeon) | 0.4 | All year (Mostly in April - October) |
| Acridotheres grandis (White -vented Myna) | 0.1 | All year (Mostly in April - September) |
| Acridotheres tristis (Common Myna) | 0.1 | All year (Mostly in April - September) |
| Coracias affinis (Indochinese Roller) | 0.2 | All year |
| Anastomus oscitans (Asian Openbill) | 1.0 - 1.3 | All year (Mostly in May - August) |
| Ardea intermedia (Intermediate Egret) | 0.4 - 1.0 | All year |
| Pernis ptilorhynchus (Oriental Honey-buzzard) | 0.75 - 1.49 | All year (Mostly in August - January) |
| Streptopelia tranquebarica (Red Collared Dove) | 0.09 | All year (Mostly in June - September) |
| Geopelia striata (Zebra Dove) | 0.08 | All year (Mostly in May - August) |
| Apus nipalensis (House Swift) | 0.015 | All year (Mostly in October - January) |
| Cypsiurus balasiensis (Asian Palm Swift) | 0.012 | October - January |
| Hirundo rustica (Barn Swollow) | 0.02 | November - February |
| Anthus rufulus (Paddyfield Pipit) | 0.02 | All year |
| Haliastur indus (Brahminy Kite) | 0.3 - 0.6 | All year (Mostly in July - December) |
| Tyto alba (Barn owl) | 0.9 | All year |

## VTBU AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTBU-2-1 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTBU-2-3 |
| Aerodrome Ground Movement Chart - ICAO (Verso) | AD 2-VTBU-2-4 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 18/36 | AD 2-VTBU-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - BKK1A | AD 2-VTBU-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - BKK1A (Tabular description) | AD 2-VTBU-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - BKK1B | AD 2-VTBU-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - BKK1B (Tabular description) | AD 2-VTBU-6-4 |
| Instrument Approach Chart - ICAO - NDB RWY 36 | AD 2-VTBU-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 18 | AD 2-VTBU-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 18 (Fix and point list table) | AD 2-VTBU-8-4 |
| Instrument Approach Chart - ICAO - VOR RWY 36 | AD 2-VTBU-8-5 |
| Instrument Approach Chart - ICAO - VOR RWY 36 (Fix and point list table) | AD 2-VTBU-8-6 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY18 | AD 2-VTBU-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY18 (Tabular description) | AD 2-VTBU-8-8 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 18 | AD 2-VTBU-8-9 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY18 (Tabular description) | AD 2-VTBU-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 18 | AD 2-VTBU-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 18 (Tabular description) | AD 2-VTBU-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 36 | AD 2-VTBU-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 36 (Tabular description) | AD 2-VTBU-8-14 |

AERODROME CHART - ICAO

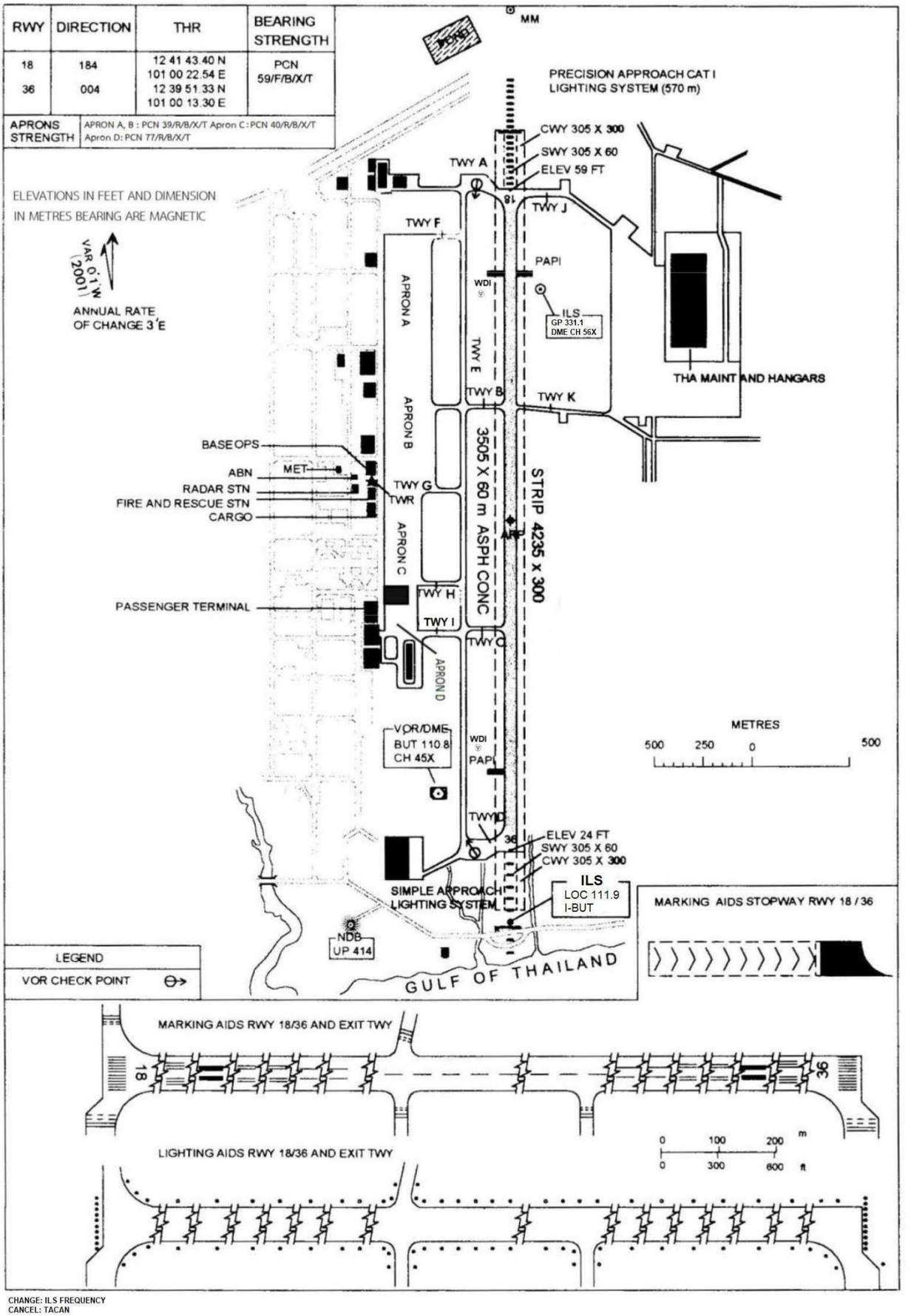
12 40 46.6 N
101 00 17.7 E

ELEV 59 ft

TWR 118.3
GND 121.9

# RAYONG / U-TAPHAO INTL AIRPORT

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 18 | 184 | 12 41 43.40 N<br>101 00 22.54 E | PCN<br>59/F/B/X/T |
| 36 | 004 | 12 39 51.33 N<br>101 00 13.30 E | |
| APRONS STRENGTH | APRON A, B : PCN 39/R/B/X/T Apron C : PCN 40/R/B/X/T<br>Apron D: PCN 77/R/B/X/T | | |




CHANGE: ILS FREQUENCY
CANCEL: TACAN

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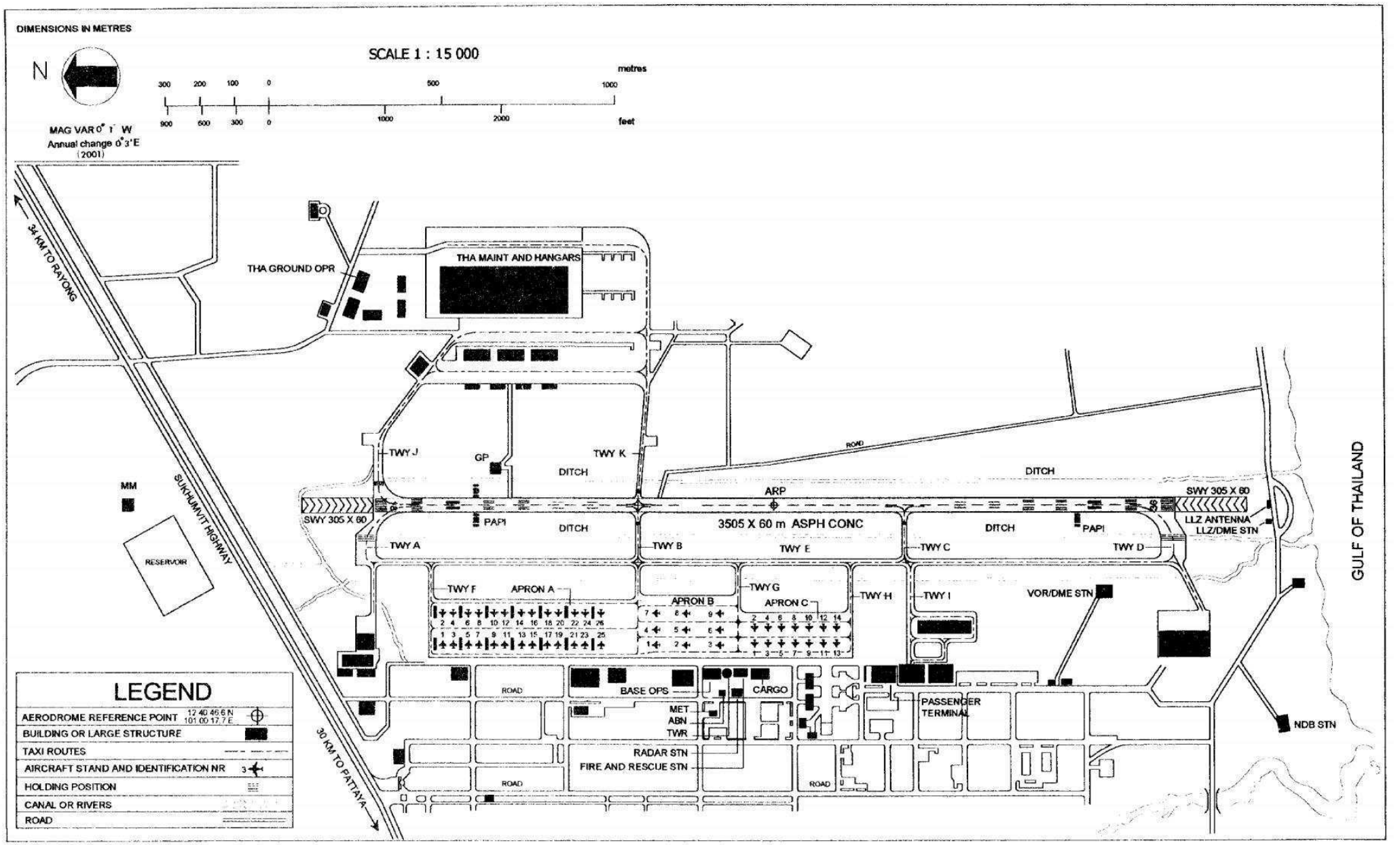
## AERODROME GROUND MOVEMENT CHART

## Rayong / U-Taphao International Airport



APRON A (B747-400)

| NR | COORDINATES | NR | COORDINATES |
|---|---|---|---|
| A1 | 12 41 34.01 N 101 00 02.38 E | A14 | 12 41 21.75 N 101 00 04.41 E |
| A2 | 12 41 33.58 N 101 00 05.90 E | A15 | 12 41 20.20 N 101 00 01.79 E |
| A3 | 12 41 32.13 N 101 00 02.23 E | A16 | 12 41 19.79 N 101 00 04.25 E |
| A4 | 12 41 31.60 N 101 00 05.73 E | A17 | 12 41 18.21 N 101 00 01.58 E |
| A5 | 12 41 30.08 N 101 00 02.60 E | A18 | 12 41 17.81 N 101 00 04.59 E |
| A6 | 12 41 29.62 N 101 00 05.56 E | A19 | 12 41 16.30 N 101 00 00.91 E |
| A7 | 12 41 28.14 N 101 00 02.39 E | A20 | 12 41 15.77 N 101 00 04.42 E |
| A8 | 12 41 27.69 N 101 00 05.01 E | A21 | 12 41 14.30 N 101 00 01.14 E |
| A9 | 12 41 26.22 N 101 00 01.74 E | A22 | 12 41 13.80 N 101 00 04.26 E |
| A10 | 12 41 25.81 N 101 00 04.69 E | A23 | 12 41 12.28 N 101 00 01.08 E |
| A11 | 12 41 24.22 N 101 00 01.57 E | A24 | 12 41 11.86 N 101 00 04.10 E |
| A12 | 12 41 23.73 N 101 00 04.48 E | A25 | 12 41 10.33 N 101 00 00.42 E |
| A13 | 12 41 22.10 N 101 00 01.95 E | A26 | 12 41 09.87 N 101 00 03.93 E |

APRON B (B747-400)

| NR | COORDINATES |
|---|---|
| B1 | 12 41 05.77 N 100 59 58.91 E |
| B2 | 12 41 00.82 N 100 59 58.50 E |
| B3 | 12 40 56.86 N 100 59 58.16 E |
| B4 | 12 41 05.58 N 101 00 01.17 E |
| B5 | 12 41 00.64 N 101 00 00.76 E |
| B6 | 12 40 56.69 N 101 00 00.44 E |
| B7 | 12 41 05.40 N 101 00 03.44 E |
| B8 | 12 41 00.47 N 101 00 03.05 E |
| B9 | 12 40 56.50 N 101 00 02.70 E |

APRON C (B747-400)

| NR | COORDINATES |
|---|---|
| C1 | 12 40 52.07 N 100 59 58.85 E |
| C2 | 12 40 52.12 N 101 00 02.59 E |
| C3 | 12 40 50.10 N 100 59 58.68 E |
| C4 | 12 40 50.24 N 101 00 02.44 E |
| C5 | 12 40 48.22 N 100 59 58.52 E |
| C6 | 12 40 48.26 N 101 00 02.28 E |
| C7 | 12 40 46.24 N 100 59 58.36 E |
| C8 | 12 40 46.28 N 101 00 02.12 E |
| C9 | 12 40 44.28 N 100 59 58.19 E |
| C10 | 12 40 44.31 N 101 00 01.95 E |
| C11 | 12 40 42.28 N 100 59 58.03 E |
| C12 | 12 40 42.32 N 101 00 01.79 E |
| C13 | 12 40 40.21 N 100 59 57.87 E |
| C14 | 12 40 40.34 N 101 00 01.62 E |

## AERODROME OBSTRUCTION CHART - ICAO

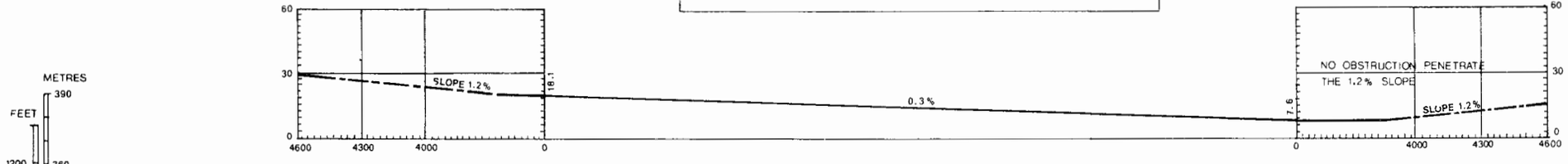
### TYPE A - OPERATION LIMITATIONS

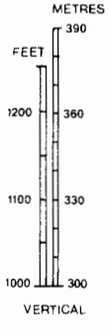
### RAYONG/U-Tapao International Airport

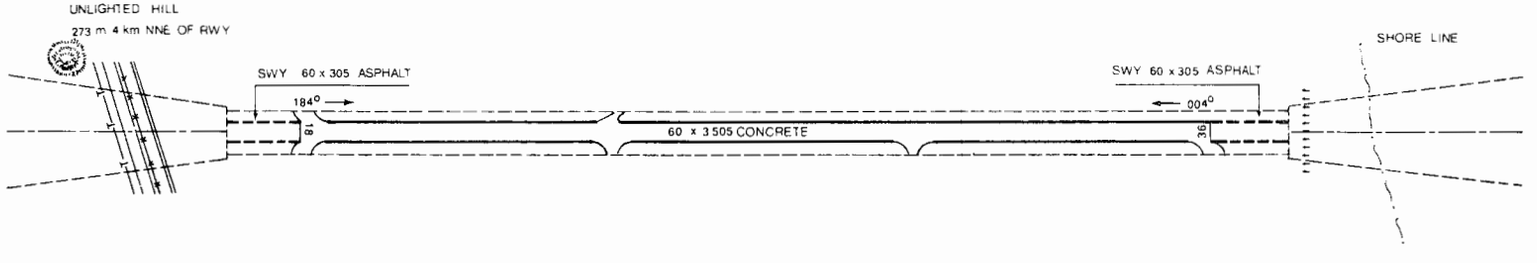
DIMENSIONS AND ELEVATIONS IN METERS

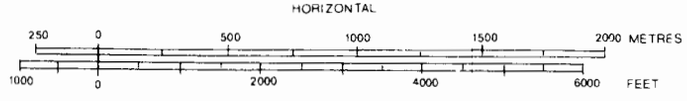
MAGNETIC VARIATION 0° 1'W (2001)

| OPERATIONAL DATA | | |
|---|---|---|
| RWY 18 | | RWY 36 |
| 3 505 | TAKE - OFF RUN AVAILABLE | 3 505 |
| 3 810 | TAKE - OFF DISTANCE AVAILABLE | 3 810 |
| 3 810 | ACCELERATE STOP DISTANCE AVAILABLE | 3 810 |
| 3 505 | LANDING DISTANCE AVAILABLE | 3 505 |




| LEGEND | |
|---|---|
| BOUNDARY FENCE | |
| HIGH WAY | |
| HIGH TENSION LINE | |

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**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

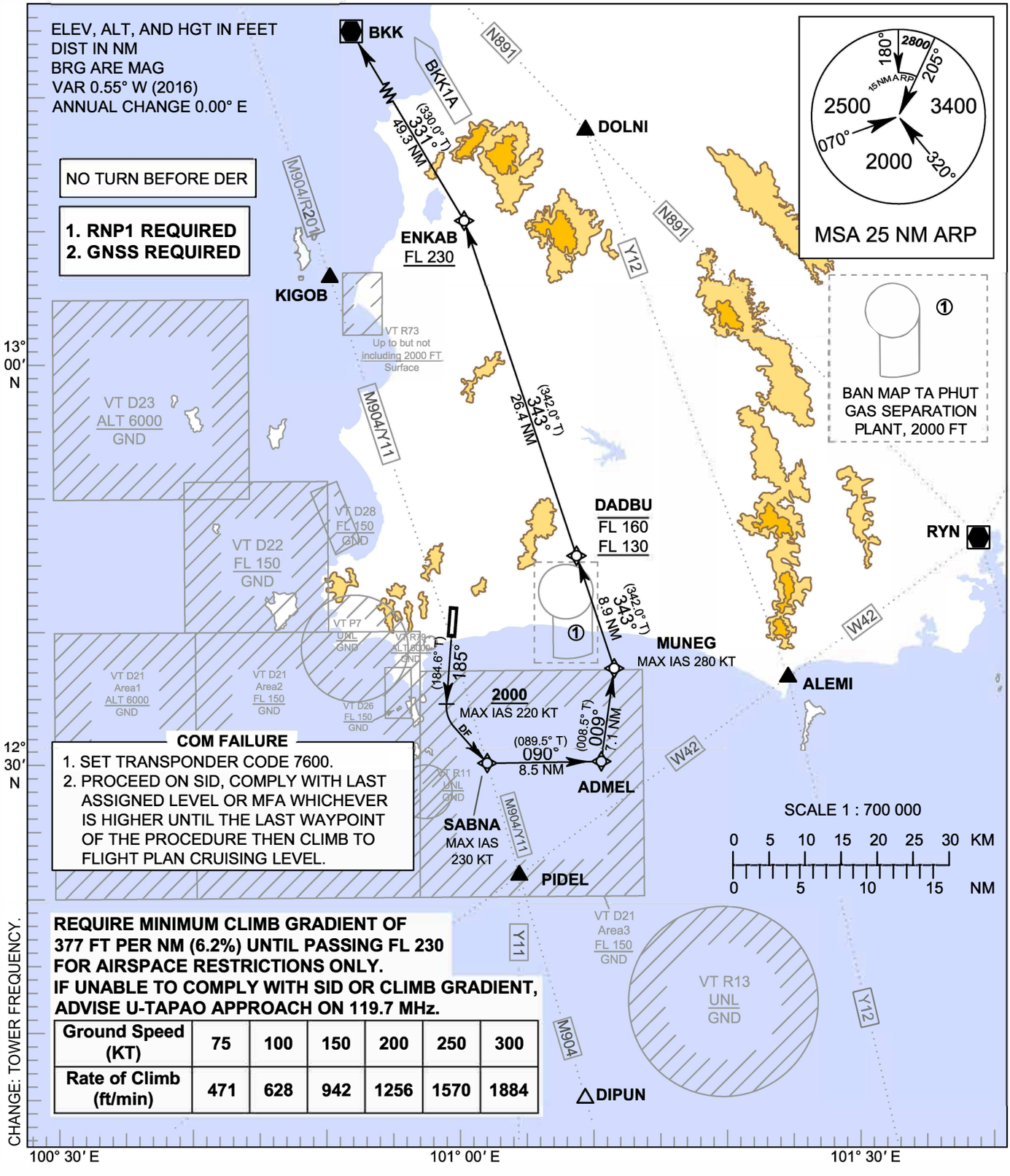
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP : 119.7 , 134.5
238.3 , 273.3
TWR : 118.3 , 227.0
GND : 121.9 , 275.8
ATIS : 127.2

**RAYONG / U-TAPAO RAYONG**
**PATTAYA Intl (VTBU)**
**RNAV RWY18**

BKK1A




| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb (ft/min) | 471 | 628 | 942 | 1256 | 1570 | 1884 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**RAYONG / U-TAPAO RAYONG
PATTAYA Intl (VTBU)
RNAV RWY18**

BKK1A

## TABULAR DESCRIPTION

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| BKK1A | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.55 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 185°(184.6°) | +0.55 | - | - | +2000 | -220 | - | RNP 1 |
| 030 | DF | SABNA | - | - | +0.55 | - | L | - | -230 | - | RNP 1 |
| 040 | TF | ADMEL | - | 090°(089.5°) | +0.55 | 8.5 | L | - | - | - | RNP 1 |
| 050 | TF | MUNEG | - | 009°(008.5°) | +0.55 | 7.1 | L | - | -280 | - | RNP 1 |
| 060 | TF | DADBU | - | 343°(342.0°) | +0.55 | 8.9 | - | -FL160 ; +FL130 | - | - | RNP 1 |
| 070 | TF | ENKAB | - | 343°(342.0°) | +0.55 | 26.4 | L | +FL230 | - | - | RNP 1 |
| 080 | TF | BKK | - | 331°(330.0°) | +0.55 | 49.3 | - | - | - | - | RNP 1 |

## WAYPOINT LIST

| RNAV RWY18 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | |
| DER RWY18 | 12° 39' 50.42" N | 101° 00' 13.26" E |
| ADMEL | 12° 30' 09.67" N | 101° 11' 34.85" E |
| BKK | 13° 53' 36.80" N | 100° 35' 46.30" E |
| DADBU | 12° 45' 41.72" N | 101° 09' 50.05" E |
| ENKAB | 13° 10' 57.00" N | 101° 01' 26.00" E |
| MUNEG | 12° 37' 12.93" N | 101° 12' 38.89" E |
| SABNA | 12° 30' 04.87" N | 101° 02' 51.33" E |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

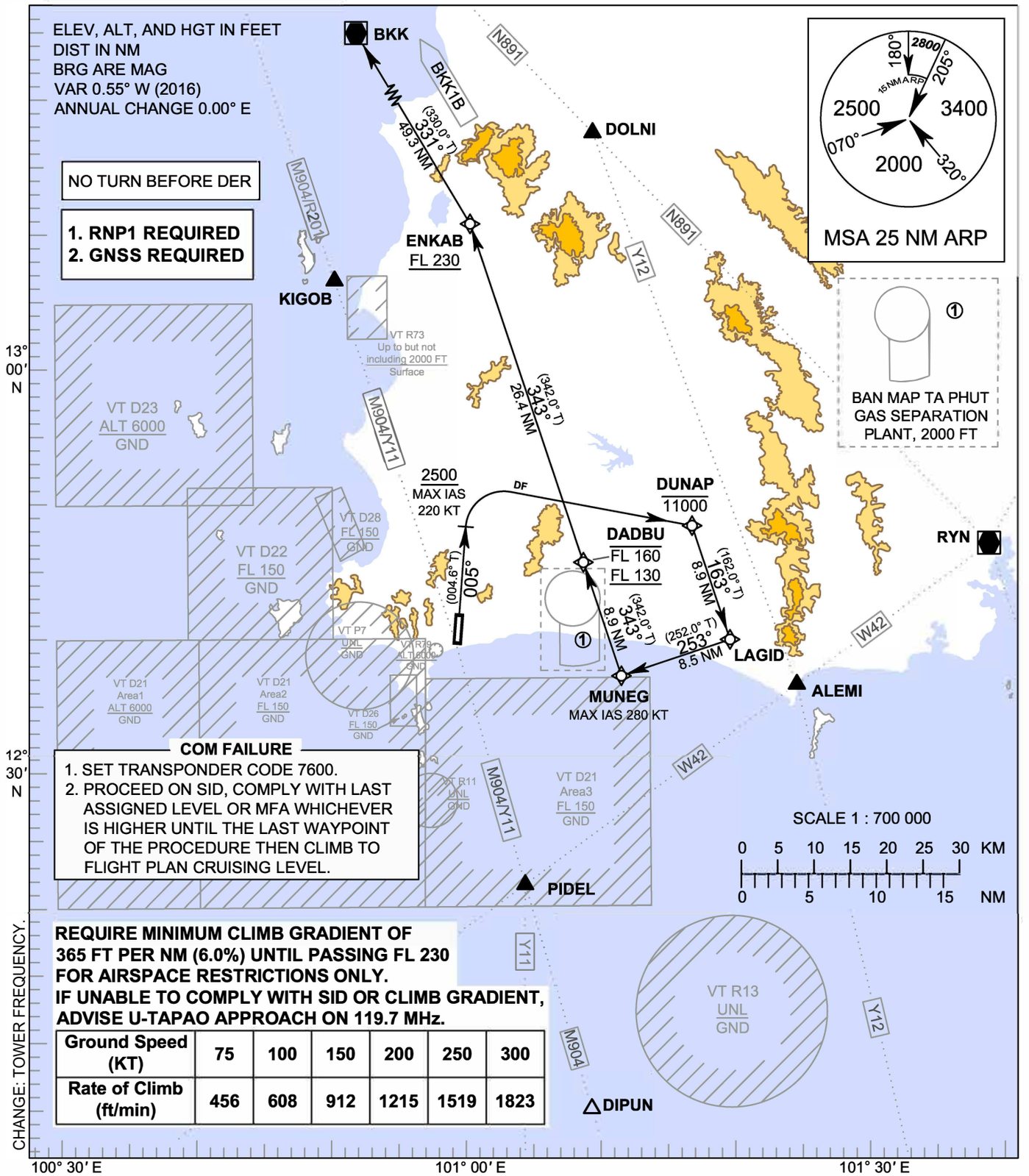
TRANSITION ALTITUDE
11000 FT

**SPEED RESTRICTION**
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP : 119.7 , 134.5
238.3 , 273.3
TWR : 118.3 , 227.0
GND : 121.9 , 275.8
ATIS : 127.2

**RAYONG / U-TAPAO RAYONG**
**PATTAYA Intl (VTBU)**
**RNAV RWY36**

BKK1B




**COM FAILURE**

1. SET TRANSPONDER CODE 7600.
2. PROCEED ON SID, COMPLY WITH LAST ASSIGNED LEVEL OR MFA WHICHEVER IS HIGHER UNTIL THE LAST WAYPOINT OF THE PROCEDURE THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

**REQUIRE MINIMUM CLIMB GRADIENT OF 365 FT PER NM (6.0%) UNTIL PASSING FL 230 FOR AIRSPACE RESTRICTIONS ONLY.**
**IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE U-TAPAO APPROACH ON 119.7 MHz.**

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb (ft/min) | 456 | 608 | 912 | 1215 | 1519 | 1823 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**RAYONG / U-TAPAO RAYONG
PATTAYA Intl (VTBU)
RNAV RWY36**

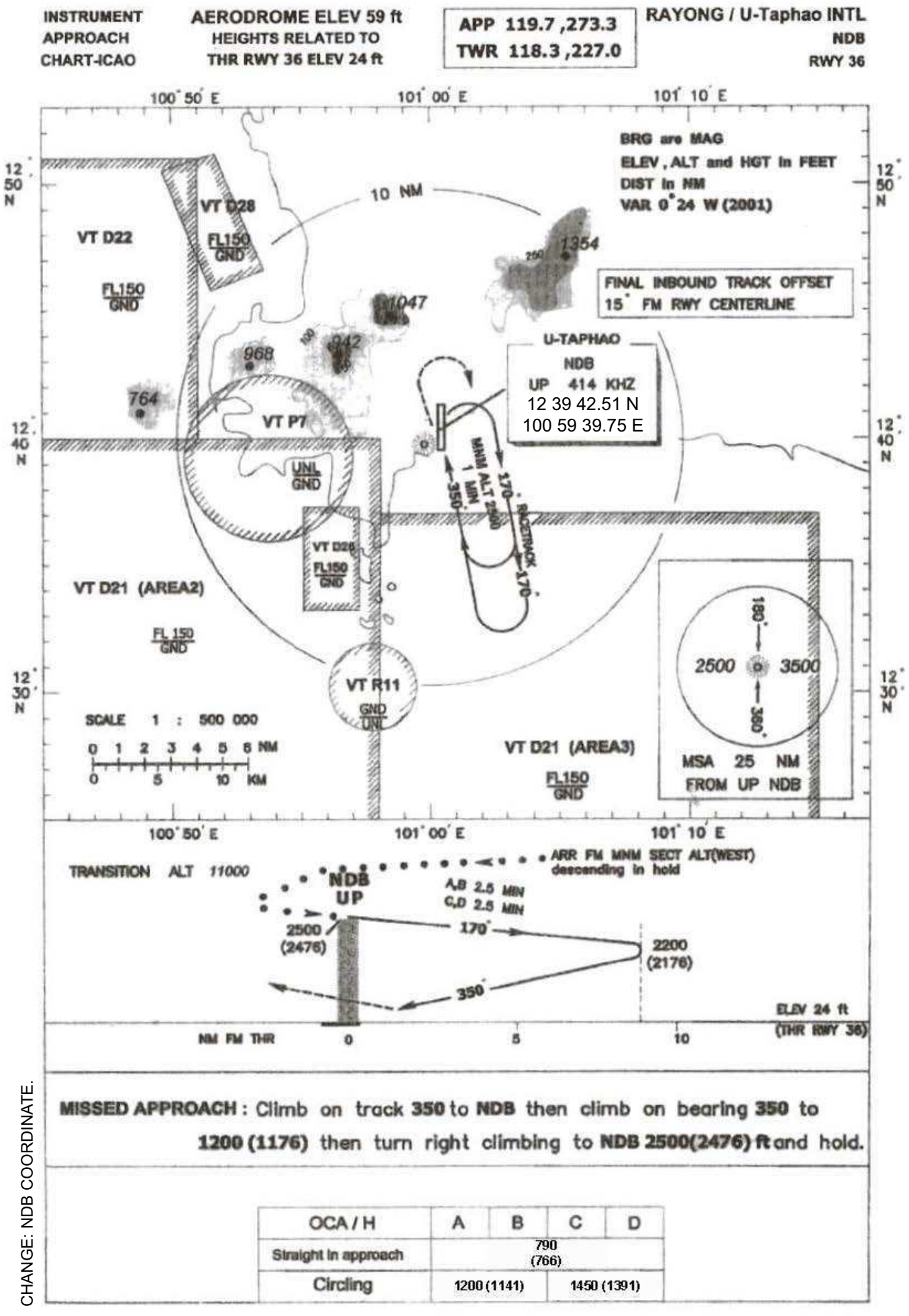
BKK1B

## TABULAR DESCRIPTION

| **RNAV RWY36** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| BKK1B | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.55 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 005°(004.6°) | +0.55 | - | - | +2500 | -220 | - | RNP 1 |
| 030 | DF | DUNAP | - | - | +0.55 | - | R | -11000 | - | - | RNP 1 |
| 040 | TF | LAGID | - | 163°(162.0°) | +0.55 | 8.9 | R | - | - | - | RNP 1 |
| 050 | TF | MUNEG | - | 253°(252.0°) | +0.55 | 8.5 | R | - | -280 | - | RNP 1 |
| 060 | TF | DADBU | - | 343°(342.0°) | +0.55 | 8.9 | - | -FL160 ; +FL130 | - | - | RNP 1 |
| 070 | TF | ENKAB | - | 343°(342.0°) | +0.55 | 26.4 | L | +FL230 | - | - | RNP 1 |
| 080 | TF | BKK | - | 331°(330.0°) | +0.55 | 49.3 | - | - | - | - | RNP 1 |

## WAYPOINT LIST

| **RNAV RWY36** | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY36 | 12° 41' 44.26" N 101° 00' 22.66" E |
| BKK | 13° 53' 36.80" N 100° 35' 46.30" E |
| DADBU | 12° 45' 41.72" N 101° 09' 50.05" E |
| DUNAP | 12° 48' 20.33" N 101° 18' 06.34" E |
| ENKAB | 13° 10' 57.00" N 101° 01' 26.00" E |
| LAGID | 12° 39' 51.46" N 101° 20' 54.94" E |
| MUNEG | 12° 37' 12.93" N 101° 12' 38.89" E |




**MISSED APPROACH** : Climb on track **350** to **NDB** then climb on bearing **350** to **1200 (1176)** then turn right climbing to **NDB 2500(2476) ft** and hold.

| OCA / H | A | B | C | D |
|---|---|---|---|---|
| Straight in approach | 790 (766) | | | |
| Circling | 1200 (1141) | | 1450 (1391) | |

CHANGE: NDB COORDINATE.

**INTENTIONALLY BLANK**

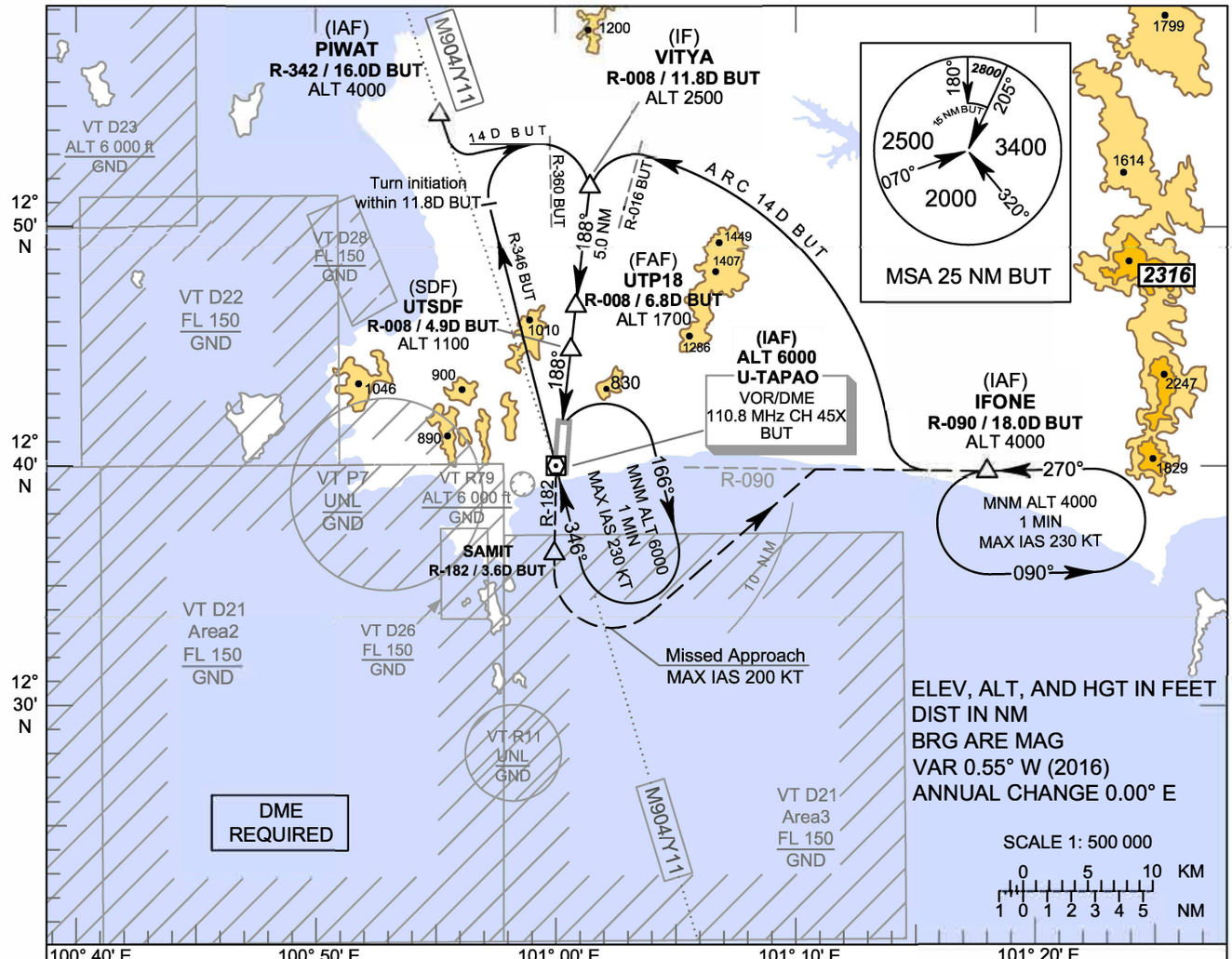
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 119.7 , 134.5
238.3 , 273.3
TWR : 118.3 , 227.0
GND : 121.9 , 275.8
ATIS : 127.2

**RAYONG / U-TAPAO RAYONG PATTAYA INTL (VTBU)**

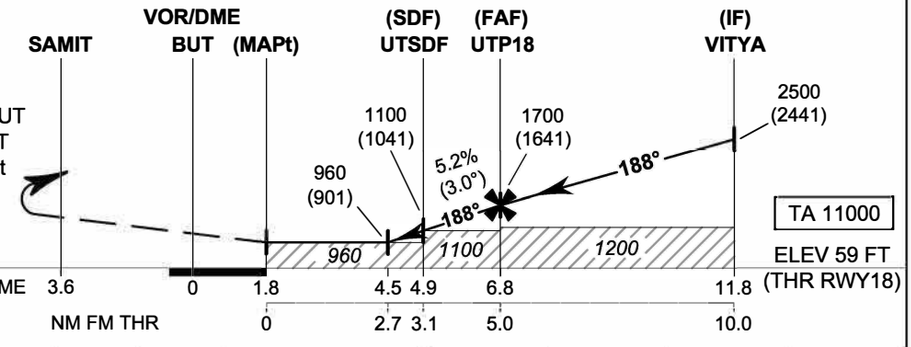
**VOR RWY18**




**CAUTION: Aircraft shall avoid entering VT R11**

**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**

Climb to intercept outbound R-182 BUT VOR to SAMIT. After SAMIT and ALT passing 1500 FT, turn left to intercept outbound R-090 BUT VOR, then proceed to IFONE and hold or as directed by ATC




CHANGE: TOWER FREQUENCY.

| OCA/H | A | B | C | D | Distance (BUT) | 4.5 D | 5 D | 6 D | FAF |
|---|---|---|---|---|---|---|---|---|---|
| Straight-in Approach | 960 (901) | | | | Altitude (Height) | 960 (901) | 1120 (1061) | 1435 (1376) | 1700 (1641) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1200 (1141) | | 1450 (1391) | | Rate of descent | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO AERODROME ELEV

**RAYONG / U-TAPAO RAYONG**
**PATTAYA INTL (VTBU)**

**VOR RWY18**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| PIWAT (IAF) | R-342 / 16.0D BUT | 12 55 16.58 N | 100 54 56.50 E |
| VITYA (IF) | R-008 / 11.8D BUT | 12 51 42.99 N | 101 01 30.24 E |
| UTP18 (FAF) | R-008 / 6.8D BUT | 12 46 43.34 N | 101 00 52.49 E |
| UTSDF (SDF) | R-008 / 4.9D BUT | 12 44 49.70 N | 101 00 38.17 E |
| MAPt | 1.8D BUT | 12 41 45.04 N | 101 00 14.93 E |
| THR RWY18 | - | 12 41 44.26 N | 101 00 22.66 E |
| VOR (IAF) | BUT | 12 40 00.00 N | 101 00 01.70 E |
| SAMIT | R-182 / 3.6D BUT | 12 36 20.17 N | 100 59 55.90 E |
| IFONE (IAF) | R-090 / 18.0D BUT | 12 40 11.24 N | 101 18 26.44 E |

CHANGE: VOR COORDINATE.

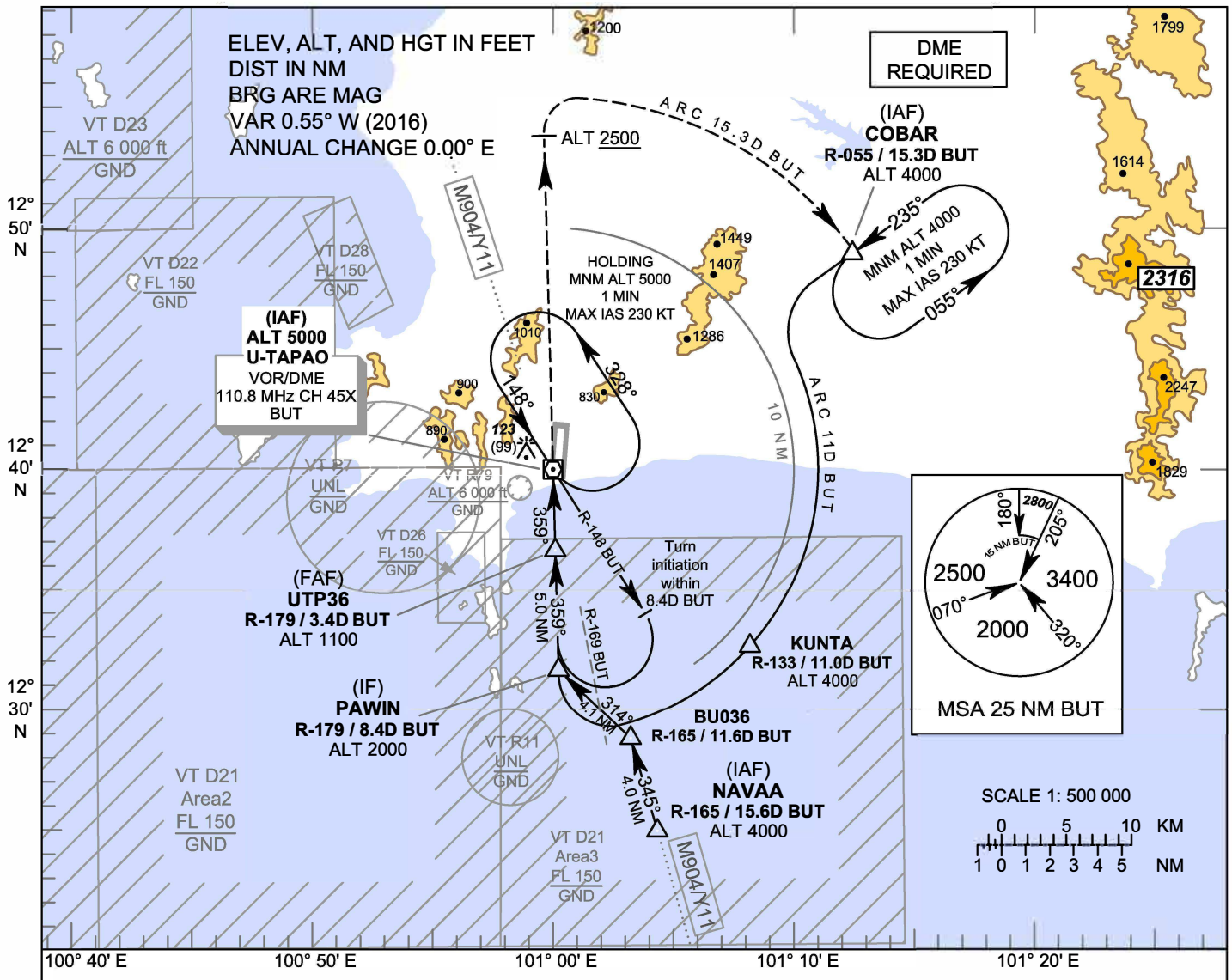
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 24 FT

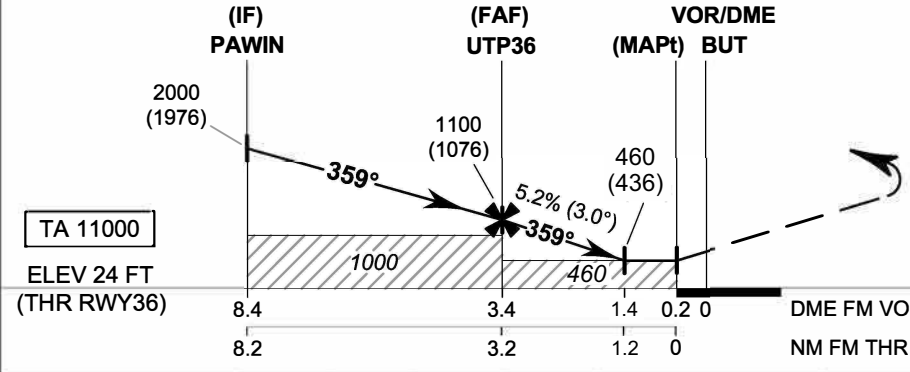
| | |
|---|---|
| APP | : 119.7 , 134.5<br>238.3 , 273.3 |
| TWR | : 118.3 , 227.0 |
| GND | : 121.9 , 275.8 |
| ATIS | : 127.2 |

**RAYONG / U-TAPAO RAYONG PATTAYA INTL (VTBU)**

**VOR RWY36**




**CAUTION: Aircraft shall avoid entering VT R11**




**MISSED APPROACH:**
**No turn before MAPt.**
Climb to COBAR at 4000 FT via ARC 15.3 D BUT VOR and hold or as directed by ATC (ALT at least 2500 FT before follow ARC).

CHANGE: OCA.

| OCA/H | A | B | C | D | Distance (BUT) | FAF | 3 D | 2 D | 1.4 D |
|---|---|---|---|---|---|---|---|---|---|
| Straight-in Approach | 460 (436) | | | | Altitude (Height) | 1100 (1076) | 960 (936) | 645 (621) | 460 (436) |
| | | | | | Ground speed | knot 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1200 (1141) | | 1450 (1391) | | Rate of descent | (ft/min) 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 24 FT

**RAYONG / U-TAPAO RAYONG
PATTAYA INTL (VTBU)**

**VOR RWY36**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| NAVAA (IAF) | R-165 / 15.6D BUT | 12 24 52.49 N | 101 04 20.27 E |
| BU036 | R-165 / 11.6D BUT | 12 28 44.64 N | 101 03 14.18 E |
| PAWIN (IF) | R-179 / 8.4D BUT | 12 31 37.12 N | 101 00 11.72 E |
| UTP36 (FAF) | R-179 / 3.4D BUT | 12 36 37.94 N | 101 00 05.73 E |
| MAPt | 0.2D BUT | 12 39 50.76 N | 101 00 01.89 E |
| THR RWY36 | - | 12 39 50.42 N | 101 00 13.26 E |
| VOR (IAF) | BUT | 12 40 00.00 N | 101 00 01.70 E |
| COBAR (IAF) | R-055 / 15.3D BUT | 12 48 53.69 N | 101 12 49.13 E |
| KUNTA | R-133 / 11.0D BUT | 12 32 33.09 N | 101 08 20.24 E |

CHANGE: VOR COORDINATE.

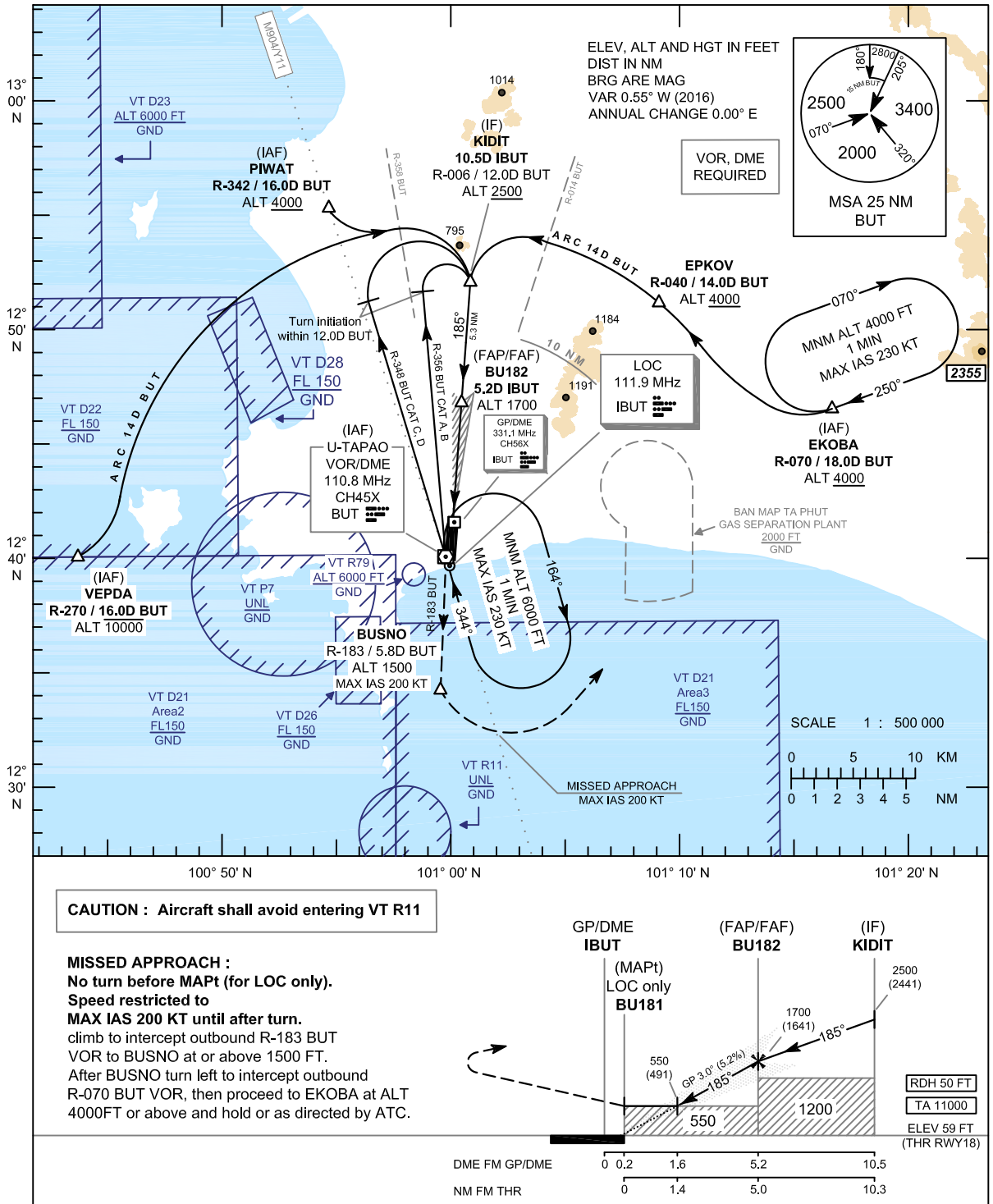
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 59 FT

APP : 119.7 , 134.5
238.3 , 273.3
TWR : 118.3 , 227.0
GND : 121.9 , 275.8
ATIS : 127.2

**RAYONG / U-TAPAO RAYONG PATTAYA INTL (VTBU)**

**ILS or LOC y RWY18**




**CAUTION : Aircraft shall avoid entering VT R11**

**MISSED APPROACH :**
**No turn before MAPt (for LOC only).**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
climb to intercept outbound R-183 BUT
VOR to BUSNO at or above 1500 FT.
After BUSNO turn left to intercept outbound
R-070 BUT VOR, then proceed to EKOBA at ALT
4000FT or above and hold or as directed by ATC.




CHANGE:NEW CHART.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 300 (241) | | | |
| LOC only | | 550 (491) | | | |
| Circling (OCH AAL) | | 1200 (1141) | | 1450 (1391) | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (IBUT) | 1.6 D | 2 D | 3 D | 4 D | 5 D | FAF | |
| Altitude (Height) | 550 (491) | 680 (621) | 995 (936) | 1310 (1251) | 1625 (1566) | 1700 (1641) | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 59 FT

**RAYONG / U-TAPAO RAYONG
PATTAYA INTL (VTBU)**

**ILS or LOC y RWY18**

| FIX / POINT | | Coordinates | | Pronunciation |
|---|---|---|---|---|
| (IAF) VEPDA | R-270 / 16.0D BUT | 12° 39' 50.78" N | 100° 43' 39.73" E | VEP-DA |
| (IAF) PIWAT | R-342 / 16.0D BUT | 12° 55'16.58" N | 100° 54' 56.50" E | PHI-WAT |
| (IAF) EKOBA | R-070 / 18.0D BUT | 12° 46' 19.70" N | 101° 17' 16.82" E | E-KO-BA |
| EPKOV | R-040 / 14.0D BUT | 12° 50' 51.09" N | 101° 09' 08.44" E | EB-KOV |
| (IF) KIDIT | 10.5D IBUT | 12° 51' 59.80" N | 101° 01' 13.26" E | KI-DIT |
| (FAF/FAP) BU182 | 5.2D IBUT | 12° 46' 43.76" N | 101° 00' 47.25" E | - |
| (MAPt@THR18) BU181 | 0.2D IBUT | 12° 41' 43.40" N | 101° 00' 22.54" E | - |
| BUSNO | R-183 / 5.8D BUT | 12° 34' 10.84" N | 100° 59' 45.24" E | BUS-NO |
| LOC | IBUT | 12° 39' 37.26" N | 101° 00' 12.16" E | - |
| GP/DME | IBUT | 12° 41' 32.95" N | 101° 00' 25.78" E | - |
| (IAF) VOR | BUT | 12° 40' 00.00" N | 101° 00' 01.70" E | - |

CHANGE: VOR, LOC AND GP/DME COORDINATES.

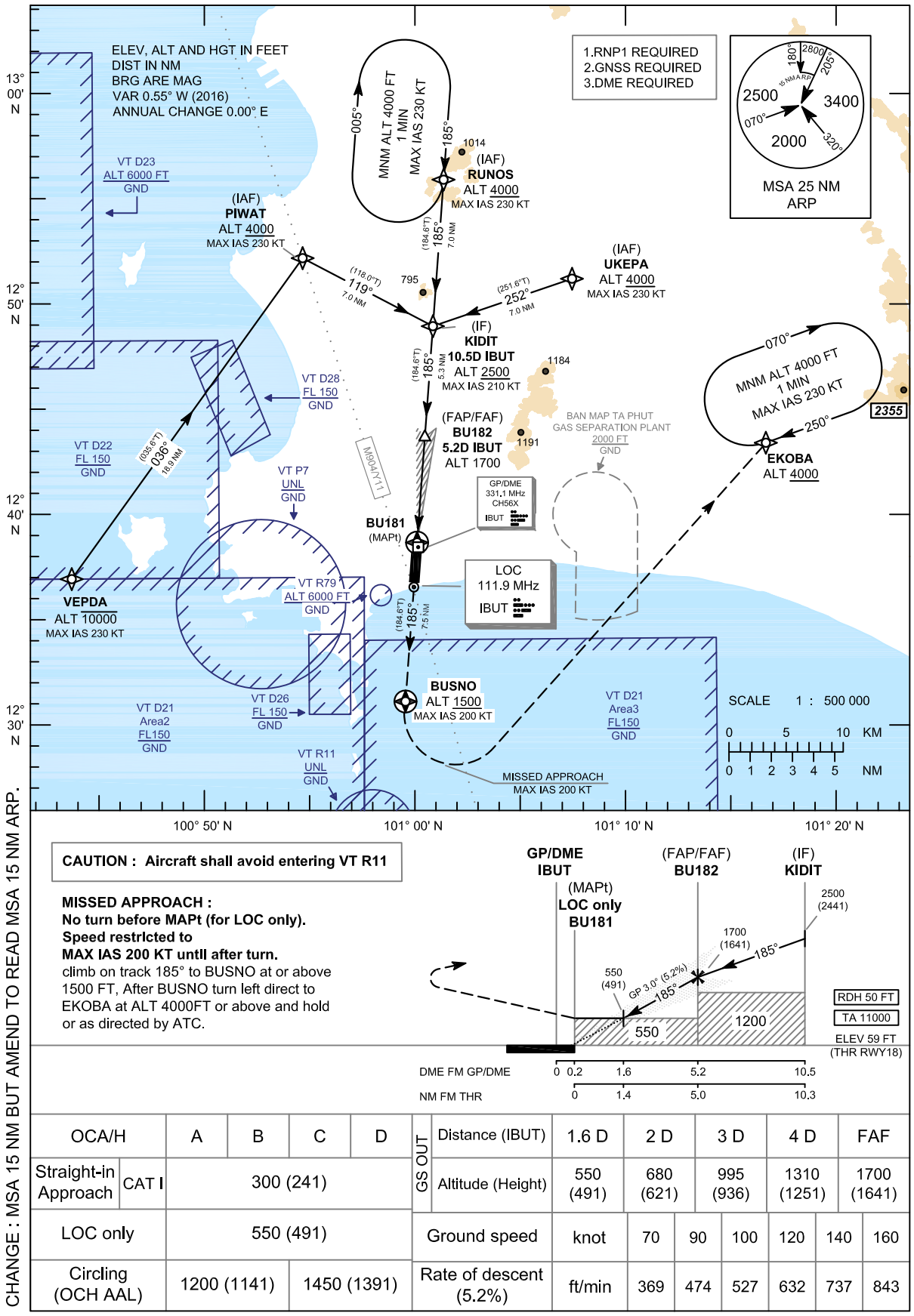
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 59 FT

APP : 119.7 , 134.5
238.3 , 273.3
TWR : 118.3 , 227.0
GND : 121.9 , 275.8
ATIS : 127.2

**RAYONG / U-TAPAO RAYONG PATTAYA INTL (VTBU)**

**ILS or LOC z RWY18**




**CAUTION : Aircraft shall avoid entering VT R11**

**MISSED APPROACH :**
**No turn before MAPt (for LOC only).**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
climb on track 185° to BUSNO at or above 1500 FT, After BUSNO turn left direct to EKOBA at ALT 4000FT or above and hold or as directed by ATC.




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 300 (241) | | | |
| LOC only | | 550 (491) | | | |
| Circling (OCH AAL) | | 1200 (1141) | | 1450 (1391) | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (IBUT) | 1.6 D | 2 D | 3 D | 4 D | FAF | | |
| Altitude (Height) | 550 (491) | 680 (621) | 995 (936) | 1310 (1251) | 1700 (1641) | | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 59 FT

**RAYONG / U-TAPAO RAYONG
PATTAYA INTL (VTBU)**

**ILS or LOC z RWY18**

CHANGE: LOC AND GP/DME COORDINATES.

**TABULAR DESCRIPTION**

**ILS or LOC z RWY18**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | VEPDA | - | - | +0.6 | - | - | -10000 | -230 | - | RNP1 |
| 020 | TF | PIWAT (IAF) | - | 036°(035.6°) | +0.6 | 18.9 | - | +4000 | -230 | - | RNP1 |
| 030 | TF | KIDIT (IF) | - | 119°(118.0°) | +0.6 | 7.0 | - | +2500 | -210 | - | RNP1 |
| | | | | | | | | | | | |
| 010 | IF | PIWAT (IAF) | - | - | +0.6 | - | - | +4000 | -230 | - | RNP1 |
| 020 | TF | KIDIT (IF) | - | 119°(118.0°) | +0.6 | 7.0 | - | +2500 | -210 | - | RNP1 |
| | | | | | | | | | | | |
| 010 | IF | RUNOS (IAF) | - | - | +0.6 | - | - | +4000 | -230 | - | RNP1 |
| 020 | TF | KIDIT (IF) | - | 185°(184.6°) | +0.6 | 7.0 | - | +2500 | -210 | - | RNP1 |
| | | | | | | | | | | | |
| 010 | IF | UKEPA (IAF) | - | - | +0.6 | - | - | +4000 | -230 | - | RNP1 |
| 020 | TF | KIDIT (IF) | - | 252°(251.6°) | +0.6 | 7.0 | - | +2500 | -210 | - | RNP1 |
| | | | | | | | | | | | |
| 010 | IF | KIDIT (IF) | - | - | +0.6 | - | - | +2500 | - | - | RNP1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | BU182 (FAF/FAP) | - | 185°(184.6°) | +0.6 | 5.3 | - | @1700 | - | - | ILS |
| 030 | TF | BU181 (MAPt) | Y | 185°(184.6°) | +0.6 | 5.0 | - | @109 | - | -3.0/50 | ILS |
| 040 | CF | BUSNO | Y | 185°(184.6°) | +0.6 | 7.5 | - | +1500 | -200 | - | RNP1 |
| 050 | DF | EKOBA | - | - | +0.6 | - | - | +4000 | -200 | - | RNP1 |
| 060 | HM | EKOBA | Y | 250°(249.5°) | +0.6 | 1 Minute | R | +4000 | -230 | - | RNP1 |

**WAYPOINT LIST**

| **ILS or LOC z RWY18** | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | **Pronunciation** |
| VEPDA | 12° 39' 50.78" N 100° 43' 39.73" E | VEP-DA |
| (IAF) PIWAT | 12° 55' 16.58" N 100° 54' 56.50" E | PHI-WAT |
| (IAF) RUNOS | 12° 58' 57.17" N 101° 01' 47.64" E | RU-NOS |
| (IAF) UKEPA | 12° 54' 11.87" N 101° 07' 58.29" E | EU-KE-PA |
| (IF) KIDIT | 12° 51' 59.80" N 101° 01' 13.26" E | KI-DIT |
| (FAF/FAP) BU182 | 12° 46' 43.76" N 101° 00' 47.25" E | - |
| (MAPt) BU181 | 12° 41' 43.40" N 101° 00' 22.54" E | - |
| BUSNO | 12° 34' 10.84" N 100° 59' 45.24" E | BUS-NO |
| EKOBA | 12° 46' 19.70" N 101° 17' 16.82" E | E-KO-BA |

| **FIX / POINT** | | **Coordinates** | | **Pronunciation** |
|---|---|---|---|---|
| (IF) KIDIT | 10.5D IBUT | 12° 51' 59.80" N | 101° 01' 13.26" E | KI-DIT |
| (FAF/FAP) BU182 | 5.2D IBUT | 12° 46' 43.76" N | 101° 00' 47.25" E | - |
| (MAPt@THR18) BU181 | 0.2D IBUT | 12° 41' 43.40" N | 101° 00' 22.54" E | - |
| LOC | IBUT | 12° 39' 37.26" N | 101° 00' 12.16" E | - |
| GP/DME | IBUT | 12° 41' 32.95" N | 101° 00' 25.78" E | - |

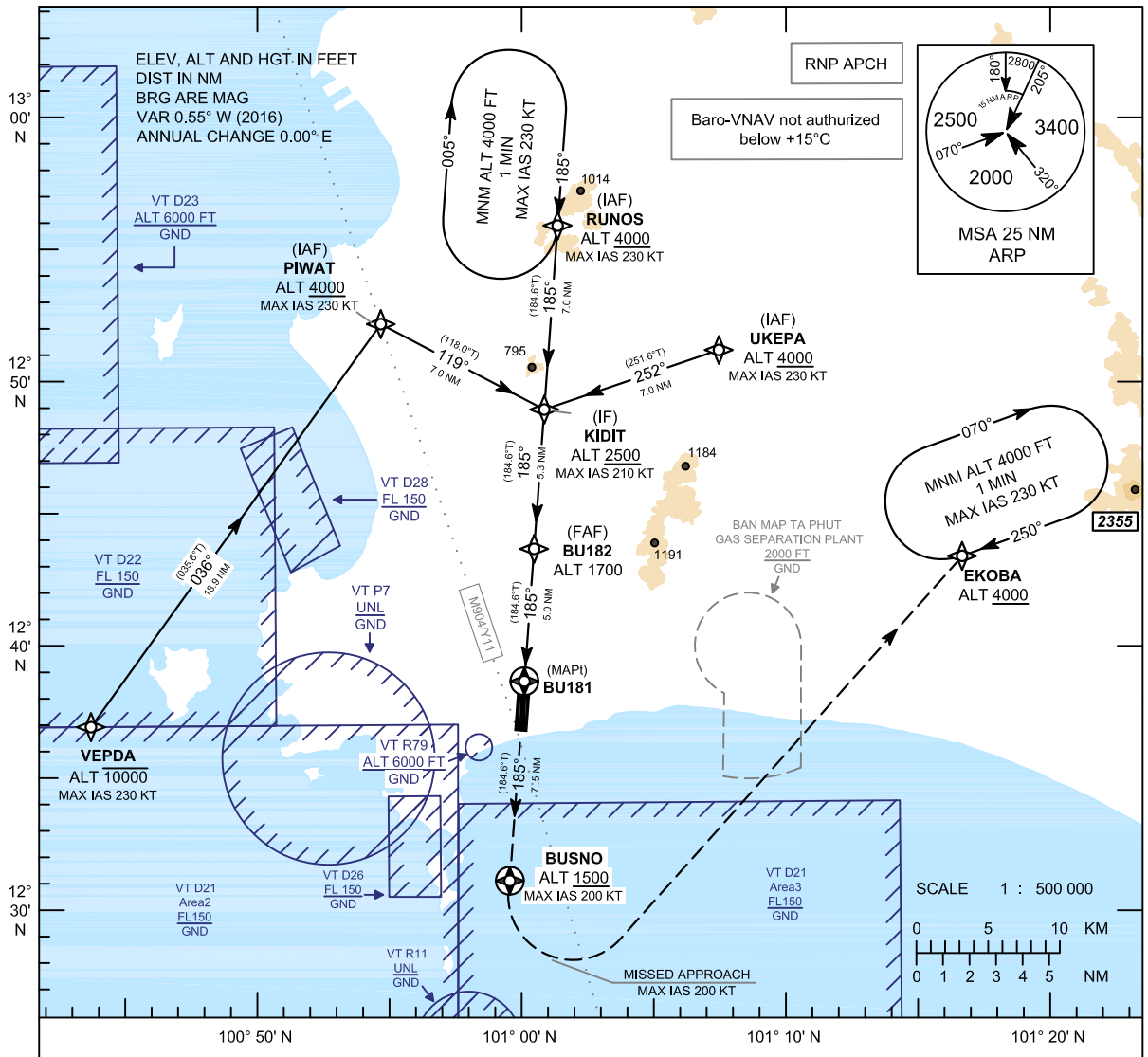
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 59 FT

| | |
|---|---|
| APP | : 119.7 , 134.5 |
| | 238.3 , 273.3 |
| TWR | : 118.3 , 227.0 |
| GND | : 121.9 , 275.8 |
| ATIS | : 127.2 |

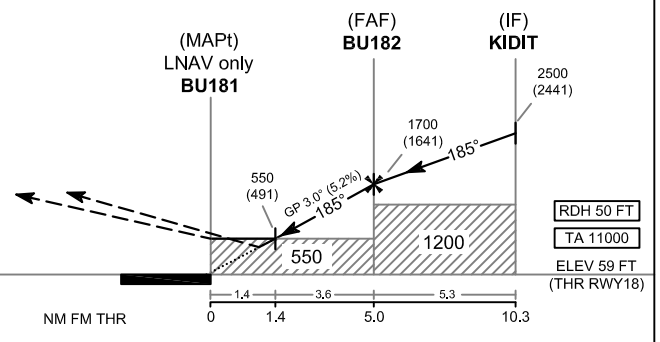
**RAYONG / U-TAPAO RAYONG PATTAYA INTL (VTBU)**

**RNP RWY18**




**CAUTION : Aircraft shall avoid entering VT R11**

**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
climb on track 185° to BUSNO at or above 1500 FT, After BUSNO turn left direct to EKOBA at ALT 4000FT or above and hold or as directed by ATC.




CHANGE:REVISE CHART.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 410 (351) | | | |
| LNAV | 550 (491) | | | |
| Circling (OCH AAL) | 1200 (1141) | | 1450 (1391) | |

| NM to NEXT WPT | 1.4 NM | 2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|
| Altitude (Height) | 550 (491) | 680 (621) | 995 (936) | 1310 (1251) | 1700 (1641) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 59 FT

**RAYONG / U-TAPAO RAYONG**
**PATTAYA INTL (VTBU)**

**RNP RWY18**

**TABULAR DESCRIPTION**

**RNP RWY18**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | VEPDA | - | - | +0.6 | - | - | -10000 | -230 | - | RNP APCH |
| 020 | TF | PIWAT (IAF) | - | 036°(035.6°) | +0.6 | 18.9 | - | +4000 | -230 | - | RNP APCH |
| 030 | TF | KIDIT (IF) | - | 119°(118.0°) | +0.6 | 7.0 | - | +2500 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | PIWAT (IAF) | - | - | +0.6 | - | - | +4000 | -230 | - | RNP APCH |
| 020 | TF | KIDIT (IF) | - | 119°(118.0°) | +0.6 | 7.0 | - | +2500 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RUNOS (IAF) | - | - | +0.6 | - | - | +4000 | -230 | - | RNP APCH |
| 020 | TF | KIDIT (IF) | - | 185°(184.6°) | +0.6 | 7.0 | - | +2500 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | UKEPA (IAF) | - | - | +0.6 | - | - | +4000 | -230 | - | RNP APCH |
| 020 | TF | KIDIT (IF) | - | 252°(251.6°) | +0.6 | 7.0 | - | +2500 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | KIDIT (IF) | - | - | +0.6 | - | - | +2500 | - | - | RNP APCH |
| 020 | TF | BU182 (FAF) | - | 185°(184.6°) | +0.6 | 5.3 | - | @1700 | - | - | RNP APCH |
| 030 | TF | BU181 (MAPt) | Y | 185°(184.6°) | +0.6 | 5.0 | - | @109 | - | -3.0/50 | RNP APCH |
| 040 | CF | BUSNO | Y | 185°(184.6°) | +0.6 | 7.5 | - | +1500 | -200 | - | RNP APCH |
| 050 | DF | EKOBA | - | - | +0.6 | - | - | +4000 | -200 | - | RNP APCH |
| 060 | HM | EKOBA | Y | 250°(249.5°) | +0.6 | 1 Minute | R | +4000 | -230 | - | RNP APCH |

**WAYPOINT LIST**

| RNP RWY18 | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | **Pronunciation** |
| VEPDA | 12° 39' 50.78" N 100° 43' 39.73" E | VEP-DA |
| (IAF) PIWAT | 12° 55' 16.58" N 100° 54' 56.50" E | PHI-WAT |
| (IAF) RUNOS | 12° 58' 57.17" N 101° 01' 47.64" E | RU-NOS |
| (IAF) UKEPA | 12° 54' 11.87" N 101° 07' 58.29" E | EU-KE-PA |
| (IF) KIDIT | 12° 51' 59.80" N 101° 01' 13.26" E | KI-DIT |
| (FAF) BU182 | 12° 46' 43.76" N 101° 00' 47.25" E | - |
| (MAPt) BU181 | 12° 41' 43.40" N 101° 00' 22.54" E | - |
| BUSNO | 12° 34' 10.84" N 100° 59' 45.24" E | BUS-NO |
| EKOBA | 12° 46' 19.70" N 101° 17' 16.82" E | E-KO-BA |

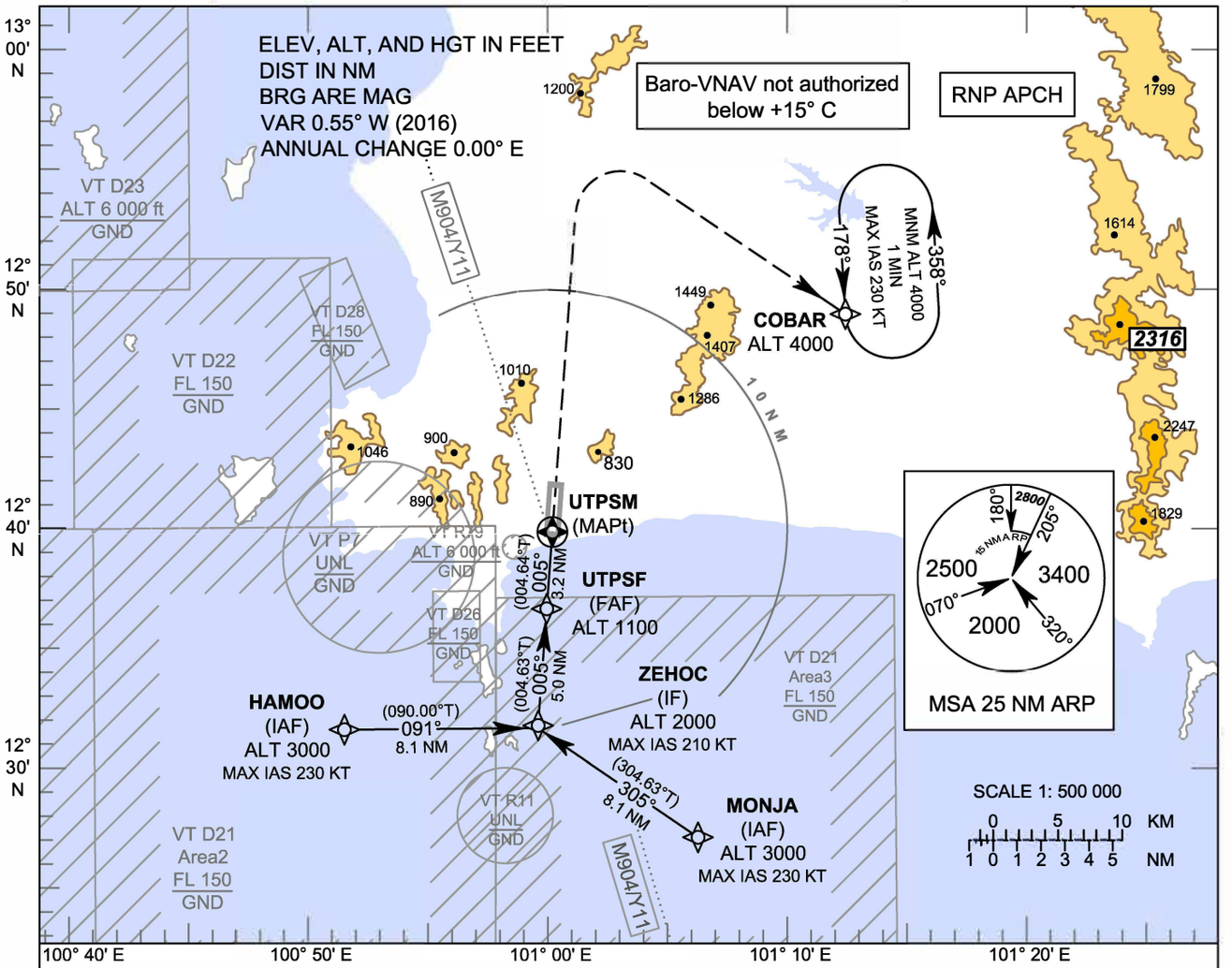
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 24 FT

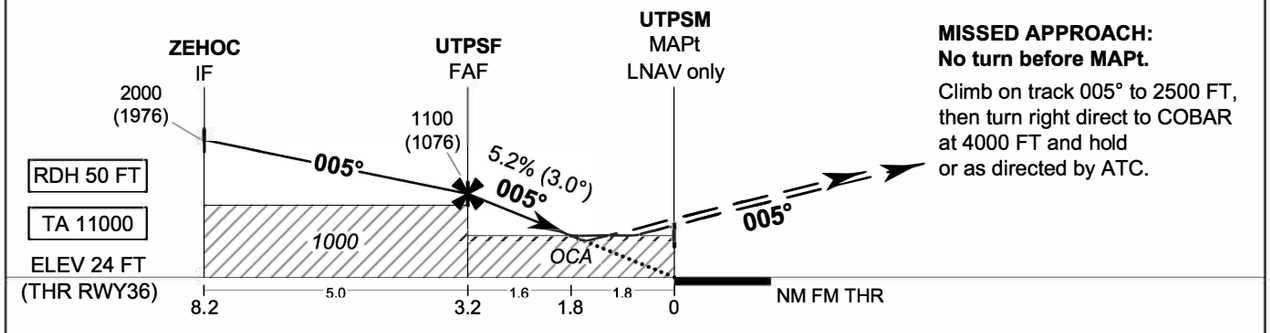
APP : 119.7 , 134.5
238.3 , 273.3
TWR : 118.3 , 227.0
GND : 121.9 , 275.8
ATIS : 127.2

**RAYONG / U-TAPAO RAYONG PATTAYA INTL (VTBU)**

**RNP RWY36**




**CAUTION: Aircraft shall avoid entering VT R11**




**MISSED APPROACH:**
**No turn before MAPt.**
Climb on track 005° to 2500 FT, then turn right direct to COBAR at 4000 FT and hold or as directed by ATC.

CHANGE: TOWER FREQUENCY.

| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 3 NM | 2 NM | 1.5 NM |
|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 480 (456) | | | | Altitude (Height) | 1100 (1076) | 1020 (996) | 705 (681) | 560 (536) |
| LNAV | 640 (616) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1200 (1141) | | 1450 (1391) | | Rate of descent FAF-MAPt 5.2% | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 59 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 24 FT

**RAYONG / U-TAPAO RAYONG
PATTAYA INTL (VTBU)**

**RNP RWY36**

## TABULAR DESCRIPTION

**RNP RWY36**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | HAMOO (IAF) | - | - | +0.55 | - | - | @3000 | -230 | - | RNP APCH |
| 020 | TF | ZEHOC (IF) | - | 091°(090.00°) | +0.55 | 8.1 | - | @2000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MONJA (IAF) | - | - | +0.55 | - | - | @3000 | -230 | - | RNP APCH |
| 020 | TF | ZEHOC (IF) | - | 305°(304.63°) | +0.55 | 8.1 | - | @2000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ZEHOC (IF) | - | - | +0.55 | - | - | @2000 | -210 | - | RNP APCH |
| 020 | TF | UTPSF (FAF) | - | 005°(004.63°) | +0.55 | 5.0 | - | @1100 | - | - | RNP APCH |
| 030 | TF | UTPSM (MAPt) | Y | 005°(004.64°) | +0.55 | 3.2 | - | @74 | - | -3.0/50 | RNP APCH |
| 050 | CA | - | - | 005°(004.64°) | +0.55 | - | - | +2500 | - | - | RNP APCH |
| 060 | DF | COBAR | - | - | +0.55 | - | R | +4000 | - | - | RNP APCH |
| 080 | HM | COBAR | Y | 178°(176.97°) | +0.55 | 1 minute | L | +4000 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY36**

| Waypoint Identifier | Coordinates |
|---|---|
| HAMOO | 12° 31' 37.71" N 100° 51' 16.77" E |
| MONJA | 12° 27' 00.89" N 101° 06' 20.46" E |
| ZEHOC | 12° 31' 37.84" N 100° 59' 32.61" E |
| UTPSF | 12° 36' 38.20" N 100° 59' 57.39" E |
| UTPSM (THR36) | 12° 39' 50.42" N 101° 00' 13.26" E |
| COBAR | 12° 48' 53.69" N 101° 12' 49.13" E |

CHANGE: CHART TITLE.

## VTSS AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSS - SONGKHLA / HAT YAI INTERNATIONAL AIRPORT

## VTSS AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 065558N 1002342E<br>Centre of runway 1600 M from THR RWY 08 |
| 2 | Direction and distance from (city) | 12 KM SW |
| 3 | Elevation/Reference temperature | 27.5 M (90 FT) / 26.8°C |
| 4 | Geoid undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0° 17' W (2016) / 0° 1' E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Hat Yai International Airport<br>Airports of Thailand Public Company Limited<br>Hat Yai, Songkhla 90115, Thailand<br>Tel: +667 422 7000<br>Fax: +667 425 1334<br>AFS: VTSSYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Airports of Thailand Public Company Limited (AOT) |

## VTSS AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1700 |
| 2 | Customs and immigration | Available within AD hours |
| 3 | Health and sanitation | Available within AD hours |
| 4 | AIS Briefing Office | H24 |
| 5 | ATS Reporting Office (ARO) | H24 |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | H24 |
| 8 | Fuelling | AD 0000-1300, from 1300-2359 shall be requested 1 hrs. prior landing,In case of emergency from 1300-2359 service within 45 min. |
| 9 | Handling | AD 2300-1400, from 1400-1700 shall be requested 3 hrs. prior landing. |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Hat Yai Air Traffic Control Center (1st floor of tower building)<br>Mobile: +669 2262 2436<br>Fax: +66 7425 1050 |

## VTSS AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | 1 Folks lifts 1.5 T, 1 Tractor. Handling weights up to 18 T per day.<br>Provided by Thai Airways International Public Co.,Ltd. |
| 2 | Fuel/oil types | Jet A-1, AVGAS 100 LL |
| 3 | Fuelling facilities/capacity | Fuelling provide by PTT Public Company Limited.<br>Tel: +667 422 7248<br>Fax: +667 422 7247<br>3 JET A-1 Refueller @ 12,000+22,000+18,000 L<br>AVGAS 100LL Drum tank 50 L @ 1,000 L<br>-JET A-1: 4 tank.TTK 960,000 L<br>-AVGAS 100 LL: Drum tank 50 L @ 1,000 L |

| | | |
|---|---|---|
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | The airport has provided ground handling agents as following:<br>Thai Airways International Public Co.,ltd<br>E-mail: hdykk@thaiairways.com<br>Tel: +667 422 7273<br>Fax: +667 425 1335<br>BAGS Ground Services Co.,Ltd<br>E-mail: hdy-stationmanager@bags-groundservices.com<br>hdy-seniorteam@bags-groundservices.com<br>Tel: +667 422 7264 (23.30-14.30 UTC)<br>+666 1172 2177(24 HR)<br>Fax: +667 425 1558 |

## VTSS AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | At AD and in the city |
| 3 | Transportation | Limousines and Taxis |
| 4 | Medical facilities | First aid at AD. Hospitals in the city |
| 5 | Bank and Post Office | In the city/ At AD open within AD HR. |
| 6 | Tourist Office | Office in the city<br>Tel: +667 424 3747<br>Fax: +667 424 5986 |
| 7 | Remarks | NIL |

## VTSS AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 9 |
| 2 | Rescue equipment | Adequately provided as recommended by ICAO |
| 3 | Capability for removal of disabled aircraft | Available – Up to B747 |
| 4 | Remarks | For removal of disabled aircraft please contact aerodrome coordinator:<br>- Airside Operation Division<br>Tel: +667 422 7765<br>+667 422 7766<br>- Rescue and Fire Fighting Division<br>Tel: +667 422 7021 |

## VTSS AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTSS AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCR 950/R/B/W/T |
| 2 | Taxiway width, surface and strength | Taxiway A: 23 M, Concrete PCR 950/R/A/W/T Asphalt, PCR 950/F/A/X/T<br>Taxiway B: 26 M, Concrete PCR 950/R/A/W/T Asphalt, PCR 950/F/A/X/T<br>Taxiway C: 26 M, Concrete PCR 950/R/A/W/T Asphalt, PCR 950/F/A/X/T<br>Taxiway D: 26 M, Concrete, PCR 950/R/A/W/T<br>Taxiway E: 30 M, Concrete, PCR 780/R/A/W/T<br>Taxiway F: 27 M, Concrete, PCR 950/R/A/W/T<br>Taxiway G: 24 M, Asphalt, PCR 950/F/D/X/T<br>Taxiway H: 24 M, Asphalt, PCR 950/F/C/X/T<br>Taxiway J: 26 M, Concrete, Asphalt<br>Taxiway K: 26 M, Asphalt<br>Taxiway L: 23 M, Asphalt<br>Taxiway M: 23 M, Asphalt<br>Taxilane N: Concrete, PCR 950/R/B/W/T<br>Taxiway Q: 30 M, Concrete, PCR 950/R/B/W/T<br>Taxiway R: 27 M, Concrete, PCR 950/R/B/W/T |
| 3 | Altimeter checkpoint location and elevation | Location: At Apron<br>Elevation: 27.5 M/90 FT |
| 4 | VOR checkpoints | Location:<br>- At holding position RWY 08 on TWY R - RDL 254/0.6 NM<br>- At holding position RWY 26 on TWY F - RDL 086/1.2 NM<br>Radio frequency: 115.3 MHZ |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | Taxiway J, K, L and M are the responsibility of RTAF.<br>Taxiway A not available when the aircraft code C, D, E take-off and landing.<br>Taxilane N not available for aircraft code E taxi or tow behind aircraft stand number 5, 6 when aircraft code E parked at aircraft stand number 5, 6 |

## VTSS AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxiing guidance signs at all intersections with TWY and RWY.<br>Nose-in guidance at aircraft stands.<br>Nose-Wheel guide lines at apron.<br>Solid Nose-Wheel guide lines at aircraft stands.<br>VISUAL DOCKING SYSTEM at aircraft stand number 4, 5 and 6. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, Centre line, Aiming Point and Side Strip.<br>RWY LGT: THR, RWY Edge and RWY End lights<br>TWY marking: Centre line, Edge, RWY Holding Positions and Intermediate Holding Positions.<br>TWY LGT: TWY Edge light. |
| 3 | Stop bars | NIL |
| 4 | Other runway protection measures | NIL |
| 5 | Remarks | NIL |

## VTSS AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | | | Radio mast<br>254 ft (77.54 m) AMSL<br>Marked, Lighted | 065614.8 N<br>1002330.2 E | NIL |

## VTSS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Southern East-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Southern East-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>30 Min |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 425 1884<br>Fax: +667 425 1083 |
| 6 | Flight documentation<br>Language(s) used | Charts, Tabular forms and Abbreviated Plain Language Texts<br>English |
| 7 | Charts and other information available for briefing or consultation | S, U85, U70, U50, U40, U30, U25, U20, SWH, SWM, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS),<br>Low Level Windshear Alert System (LLWAS) and Weather Radar |
| 9 | ATS units provided with information | Hat Yai TWR<br>Hat Yai APP |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSS AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCR) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 08 | 082° | 3050x45 | PCR 950/R/B/W/T Concrete (600 M) and PCR 950/F/B/X/T asphalt (2450 M) | 065551.50N<br>1002249.91E | THR 19.81 M / 65 FT |
| 26 | 262° | 3050x45 | PCR 950/R/B/W/T Concrete (600 M) and PCR 950/F/B/X/T asphalt (2450 M) | 065603.89N<br>1002428.52E | THR 17.81 M/ 58 FT<br>TDZ 23.21 M/ 76 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 0.60% +0.30% -0.13% -0.80%<br>(1110 M 1460 M 1910 M 3050 M) | 60x45 | NIL | 3290x300 | 90x90 | NIL | NIL | NIL |
| +0.80% +0.13% -0.30% -0.60%<br>(1140 M 1590 M 1940 M 3050 M ) | 60x45 | NIL | 3290x300 | 90x90 | NIL | YES | NIL |

**VTSS AD 2.13 DECLARED DISTANCES**

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 08 | 3050 | 3050 | 3110 | 3050 | NIL |
| 26 | 3050 | 3050 | 3110 | 3050 | NIL |

**VTSS AD 2.14 APPROACH AND RUNWAY LIGHTING**

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 08 | SALS<br>420 M<br>LIH | Green | PAPI<br>Both<br>3°<br>(64.06 FT) | NIL | NIL | 3050 M<br>60 M<br>White<br>FM2450-3050 M<br>Yellow: LIH | Red | 60<br>Red | NIL |
| 26 | SALS<br>420 M<br>LIH | Green | PAPI<br>Both<br>3°<br>(61.09 FT) | NIL | NIL | 3050 M<br>60 M<br>White<br>FM 2450-3050 M<br>Yellow: LIH | Red | 60<br>Red | NIL |

**VTSS AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY**

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: On top of control tower, FLG WG EV 3 Sec / IBN: NIL<br>H24 |
| 2 | LDI location and LGT<br>Anemometer location and LGT | WDI: 2 Wind Cones, illuminated at<br>1. 450 M from THR RWY 26 : offset to the left side from RCL 105 M., and<br>2. 450 M from THR RWY 08 : offset to the left side from RCL 65 M.<br>Anemometer: see AD Chart. |
| 3 | TWY edge and centre line lighting | EDGE: All TWY<br>Centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all airfield lighting at AD switch-over time : Lights associated to runway 0 sec.(UPS) other lighting 15 sec. |
| 5 | Remarks | NIL |

## VTSS AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Helicopters to approach using active runway, take off and land as instructed by ATC. |

## VTSS AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centred on HTY (065602.78N 1002316.60E) |
| 2 | Vertical limits | 3000 ft/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Hat Yai Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSS AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Hat Yai Approach | 126.7 MHz<br>301.5 MHz<br>121.5 MHz [1)]<br>243.0 MHz [1)]<br>133.2 MHz [2)] | H24 | [1)]Emergency frequency<br>[2)]Backup frequency |
| TWR | Hat Yai Tower | 118.1 MHz<br>275.8 MHz<br>121.5 MHz [1)]<br>243.0 MHz [1)]<br>133.2 MHz [2)] | H24 | |
| GND | Hat Yai Ground | 121.9 MHz<br>257.8 MHz<br>121.5 MHz [1)]<br>243.0 MHz [1)] | H24 | |
| ATIS | Hat Yai Intl. Airport | 128.8 MHz | H24 | |

## VTSS AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | HTY | 115.3 MHz CH100X | H24 | 065602.8N 1002316.6E | 37.3 m | DVOR/DME restriction, due to mountainous terrain surround DVOR/ DME station coverage check does not provide adequate signal to 40 nm at the required altitude in various areas as following:<br>– RDL 171-240 DEG at 10 nm ALT should not below 5,000 ft.<br>– RDL 131-170 DEG at 20 nm ALT should not below 4,000 ft.<br>– RDL 031-130 DEG at 40 nm ALT should not below 5,000 ft.<br>– RDL 241-270 DEG at 40 nm ALT should not below 7,000 ft.<br>– RDL 271-300 DEG at 40 nm ALT should not below 10,000 ft.<br>– RDL 301-330 DEG at 40 nm ALT should not below 6,000 ft.<br>– RDL 331-030 DEG at 40 nm ALT should not below 3,000 ft. |
| ILS CAT I LOC RWY 26 | IHTY | 109.9 MHz | H24 | 065549.0N 1002230.1E | 37.7 m | RWY 26 ILS Glide slope not coincident with PAPI starting at 0.7 DME |
| GP/DME | | 333.8 MHz 36X | | 065558.8N 1002419.3E | | |
| TACAN | HTY | 115.70 MHz CH104X | 2300-1100 Daily | 065541N 1002344E | | HR service 30 Min PN to ATC |

## VTSS AD 2.20 LOCAL AERODROME REGULATIONS

### 1. VFR REPORTING POINTS AND LOCAL PROCEDURES

1.1 Reporting points for VFR flight

In order to expedite and maintain an orderly flow of air traffic into airport, the procedure of the inbound traffic of VFR flights, conventional and prop-jet aircraft, be set up as follow:

a) Aircraft entering to land from North of Hat Yai International Airport, shall report over Pak Phayun District, designated as PAPA PAPA (0722.0N 10022.0E) which is approximately 26 nm on R-356 of HTY VOR/DME. When reaching PP the aircraft will be instructed to join aerodrome traffic circuit accordingly.
b) Aircraft entering to land from East of Hat Yai International Airport, shall report over Chana District, designated as CHARLIE NOVEMBER (0655.0E 10044.5E) which is approximately 20 nm on R-094 of HTY VOR/DME. When reaching CN the aircraft will be instructed to join aerodrome traffic circuit accordingly.
c) Aircraft entering to land from South of Hat Yai International Airport, shall report over Sadao District, designated as SIERRA DELTA (0639.0N 10027.0E) which is approximately 18 nm on R-175 of HTY VOR/DME. When reaching SD the aircraft will be instructed to join aerodrome traffic circuit accordingly.
d) Aircraft entering to land from North-west of Hat Yai International Airport, shall report over Khao Hua Chang, designated as KILO CHARLIE (0718.0N 10002.0E) and Rattaphum District, designated as ROMEO PAPA (0708.0N 10016.0E) which are approximately 31 nm on R-315 and 14 nm on R-322 of HTY VOR/DME respectively, when reaching RP the aircraft will be instructed to join aerodrome traffic circuit accordingly.

1.2 Aerodrome traffic circuit

Using both sides of traffic circuit.

1.3 Overhead approach pattern

a) Using runway 08 by right turn pattern
b) Using runway 26 by left turn pattern.

## 2. STARTING UP PROCEDURE

2.1 All IFR aircraft are to call "Ground Control" 5 minutes prior to start up to request for ATC clearance.

2.2 Pilot are to inform "Ground Control" their call signs, and proposed flight level if it is different from the flight plan when they make the call as item 2.1 above.

2.3 In order to provide a more flexible ground traffic movement all domestic departures shall on longer be required to be ready to taxi within 5 minutes after clearance received.

## 3. PUSH BACK PROCEDURE

**3.1 Procedures for Push-back of aircraft in Apron described on paragraph as follows:**

3.1.1 Ground crew must ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or push-back of aircraft commences.

3.1.2 When the pilot is ready for start-up and push-back, Pilots shall seek confirmation from the ground crew that there is on hazard to his aircraft starting up. Pilots shall then notify the ground controller that he is ready for push-back. On being told by Hat Yai Ground that push-back is approved, Pilots shall co-ordinate with the ground crew for the start-up and push-back of the aircraft.

3.1.3 Pilots are reminded that they shall always use minimum power when starting engine or manoeuvring within the apron area. It is especially important when commencing to taxi that breakaway thrust is kept to an absolute minimum and then reduced to idle thrust as soon as practicable.

3.1.4 The points where the tug will be disconnected from the aircraft and breakaway thrust will be applied on “taxilane N”

3.1.5 Due to aircraft congestion, self-maneuvering is not permitted at any parking stands, all aircraft must use tow bar for push-back procedures except aircraft code letter C or below that permitted from Hat Yai International Airport.

**3.2 The following table describes the procedure for push-back of aircraft from the aircraft stands. When it becomes necessary to vary a procedure to expedite aircraft movements, Hat Yai Ground will issue specific instructions to the pilots.**

| Aircraft stand | Aircraft push back procedure |
|---|---|
| Stand 1,2 | The aircraft (on idle power) shall be pushed back on yellow guideline to face East until its nosewheel on safe positioned at the taxilane N,<br>the tug will be disconnected on this position. Breakaway thrust will be applied when cleared to taxi. |
| Stand 3,4,5,6,7 | The aircraft (on idle power) shall be pushed back on yellow guideline to face either East or West until its nosewheel on safe positioned at the taxilane N, the tug will be disconnected on this position. Breakaway thrust will be applied when cleared to taxi. |
| Stand 8,9 | The aircraft (on idle power) shall be pushed back on yellow guideline to face west until its nosewheel on safe positioned at the taxilane N,<br>the tug will be disconnected on this position. Breakaway thrust will be applied when cleared to taxi. |
| Remarks | Stand 1 and 9 capacity up to code C MAX wingspan 29 M.<br>Stand 2,3,4,7,8 capacity up to code C.<br>Stand 5 capacity up to code E.<br>Stand 6 up to code E MAX wingspan 64 M.<br>Taxi lane N not available for aircraft code E taxi or tow behind stand no. 5,6 When aircraft code E parked at stand 5,6. |

## 4. SAFEGATE DOCKING SYSTEM – IN SYSTEM AT HAT YAI INTERNATIONAL AIRPORT

4.1 INTRODUCTION

4.1.1 The SAFEGATE Docking System – in system is install at bay No. 4, 5 and 6

4.1.2 The system enables the pilots seated on the left of the cockpit to position his aircraft on the correct stand centre line and stop position

4.2 PILOT OPERATING INSTRUCTION

4.2.1 Safety procedure

a) General warning

The DGS system has a built-in error detection program to inform the aircraft pilot of impending dangers during the docking procedure.

If the pilot is unsure of the information, being shown on the DGS display unit, he must immediate stop the aircraft and obtain further information for clearance.

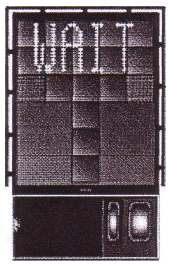
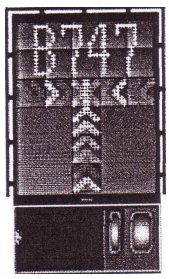
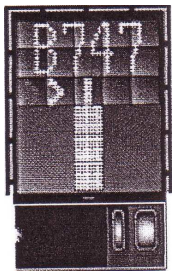
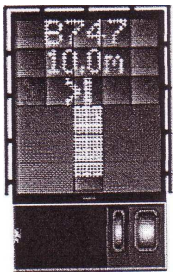
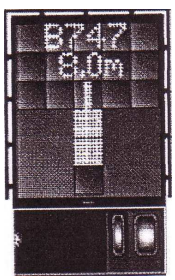
b) Item to check before entering the stand area

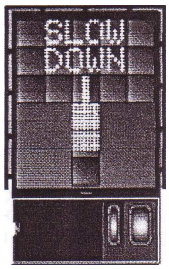
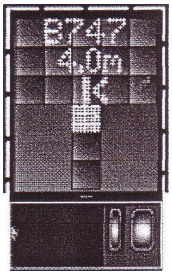
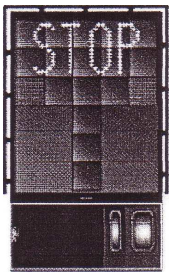
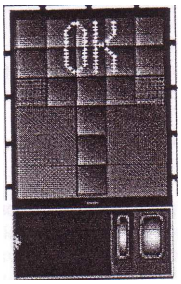
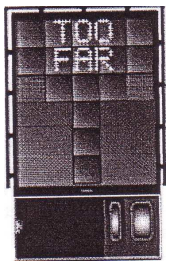
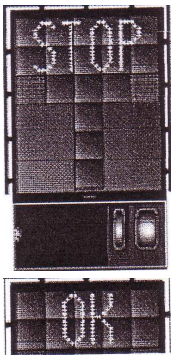
Warning : The pilot shall not enter the stand area, unless the docking system first is showing the vertical running arrows. The pilot must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

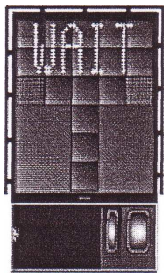
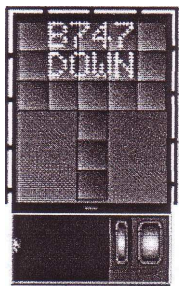
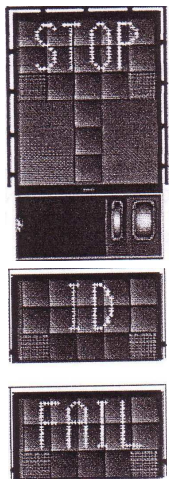
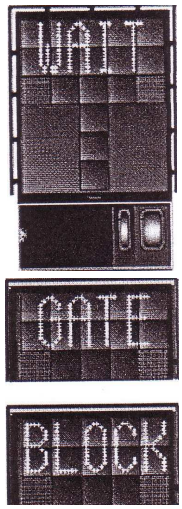
Warning : The pilot shall not enter the stand area, unless the aircraft type displayed is equal to the approaching aircraft/ The Correctness of other information, such as 'door 2', shall also be checked.

c) The SBU message

The message STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance. Do not try to resume docking without manual guidance.

| | |
|---|---|
|  | START-OF-DOCKING<br>The system is started by pressing one of the aircraft type buttons on the operator panel. When the button has been pressed, WAIT will be displayed. |
|  | CAPTURE<br>The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft.<br>If shall be checked that the correct aircraft type is displayed. The lead-in line shall be followed.<br>The pilot must not proceed beyond the bridge, unless the arrows have been superseded by closing rate bar. |
|  | TRACKING.<br>When the aircraft has been caught by the laser, the floating arrow is replaced by the yellow centre line indicator.<br>A flashing red arrow indicates the direction to turn.<br>The vertical yellow arrow shows position in relation to the centre line. This indicator give correct position and azimuth guidance. |
|  | CLOSING RATE.<br>Display of digital countdown will start when the aircraft is 20 M from stop position.<br>When the aircraft is less than 12 M from the stop position, the closing rate is indicated by turning off one row of the center line symbol per 0.5 M, covered by the aircraft. Thus, when the last row is turned off, 0.5 M remains to stop. |
|  | ALIGNED TO CENTRE<br>The aircraft is eight meters from the stop position. The absence of any direction arrow indicates an aircraft on the centre line. |

| | |
|---|---|
|  | SLOW DOWN<br>If the aircraft is approaching faster than the accepted speed, the system will show SLOW DOWN as a warning to the pilot. |
|  | AZIMUTH GUIDANCE<br>The aircraft is 4 M from the stop-position. The yellow arrow indicates an aircraft to the right of the centre line, and the red flashing arrow indicates the direction to turn. |
|  | STOP POSITION REACHED.<br>When the correct stop-position is reached, the display will show STOP and red lights will be lit. |
|  | DOCKING COMPLETE.<br>When the aircraft has parked, OK will be displayed. |
|  | OVERSHOOT<br>If the aircraft overshoot the stop-position, TOO FAR will be displayed. |
|  | STOP SHORT<br>If the aircraft is found standing still but has not reached the intended stop position, the message STOP OK will be shown after a while. |

| | |
|---|---|
|  | WAIT<br>If some object is blocking the view toward the approaching aircraft or the detected aircraft is lost during docking, before 12 M to STOP, the display will show WAIT. The docking will continue as soon as the blocking object has disappeared or the system detects the aircraft again.<br>As the aircraft is approaching the stop position, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 12 M before the stop-position, the display will show WAIT, STOP and ID FAIL. The text will be alternating on the upper two row of the display.<br>The pilot must not proceed beyond the bridge, unless the “WAIT” message has been superseded by the closing rate bar. |
|  | BAD WEATHER CONDITION<br>During heavy fog, rain or snow, the visibility for the docking system can be reduced.<br>When the system is activated and in capture mode, the display will deactivate the floating arrows and show DOWN GRADE.<br>This message will be superseded by the closing rate bar, as soon as the System detects the approaching aircraft.<br>The pilot must not proceed beyond the bridge, unless the DOWN GRADE text has been superseded by the closing rate bar. |
|  | AIRCRAFT VERIFICATION FAILURE<br>During entry into the stand, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 40 FT metres before the stop-position, the display will first show WAIT and make a second verification check. If this fails STOP and ID FAIL will be displayed. The text will be alternating on the upper two rows of the display.<br>The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar. |
|  | GATE BLOCKED<br>If an object is found blocking the view from the DGS to the planned stop position for the aircraft, the docking procedure will be halted with a GATE BLOCK message. The docking procedure will resume as soon as the blocking object has been removed.<br>The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar. |

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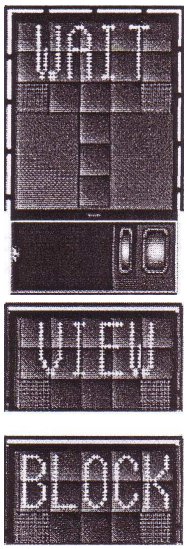
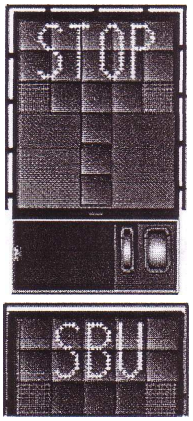
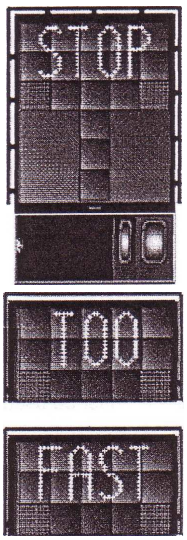
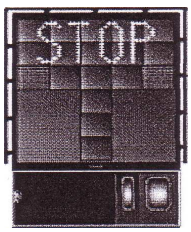
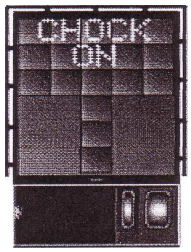
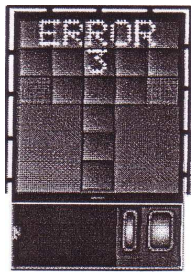
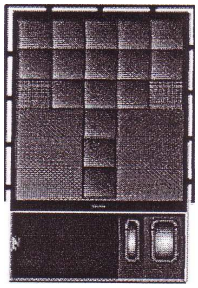
|  | VIEW BLOCKED<br>If the view towards the approaching aircraft is hindered for instance by dirt on the window, the DGS will report a view block condition. Once the system is able to see the aircraft through the dirt, the message will be replaced with a closing rate display.<br>The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar. |
|  | SBU-STOP.<br>Any unrecoverable error during the docking procedure will generate an SBU condition. The display will show red stop bar and the text STOP SBU.<br>A manual backup procedure must be used for docking guidance. |
|  | TOO FAST<br>If the aircraft approaches with a speed higher than the docking system can handle, the message STOP (with red squares) and TOO FAST will be displayed.<br>The docking system must be re-started or docking procedure completed by manual guidance. |
|  | EMERGENCY STOP.<br>When the emergency stop button is pressed, STOP is displayed. |

| | |
|---|---|
|  | CHOCKS ON.<br>CHOCK ON will be displayed, when the ground staff has put the chocks in front of the nose wheel and pressed the “Chocks On” button on the operator panel. |
|  | ERROR.<br>If a system error occurs, the message ERROR is display with an error code. The code is used for maintenance purposes and explained else where. |
|  | SYSTEM BREAKDOWN<br>In case of a severe system failure, the display will go black, except for a red stop indicator. A manual backup procedure must be used for docking guidance.<br>POWER FAILURE<br>In case of a power failure, the display will be completely black. A manual backup procedure must be used for docking guidance. |

4.3 ALLOCATION OF AIRCRAFT PARKING BAYS.

All aircraft parking bays are allocated by Ground / Apron. Controller with regard to aircraft type involved and the prevailing or anticipated traffic situation.

4.4 AIRCRAFT MARSHALLING AND TOWING SERVICES.

The marshalling of scheduled, non-scheduled, and general aviation aircraft into the bays either manually or by the VDGS Guide-In system, and the pushing out of aircraft for departure with a maximum takeoff weight of 5,700 kilograms, shall be under the responsibility of the aircraft operator or its appointed ground handling agency that has passed Marshalling Signals training as required by Annex 2 and has a certificate from the airline or company that has a duty to provide Marshalling Service.
General aviation aircraft with a maximum takeoff weight below 5,700 kilograms and without a ground handling agent shall notify the ATC to coordinate the Airside Operations Division to provide Marshalling Signal Service.

4.5 TAXIING PROCEDURES

Due to the distance between the centerline of runway and centerline of taxiway A is 120 m. and centerline of taxiway J is 150 m. That does not conform to the requirement of The Civil Aviation Authority of Thailand. Operational Restrictions procedure on taxiway A and J as follow
- Taxiway A and J not available to other aircraft when aircraft with code C, D or E taking off or landing on the runway, aircraft may be requested to hold on apron.

4.5.1 Arriving Aircraft

4.5.1.1 Aircraft entering the aprons are to follow closely to the taxiing and apron centre line so as to avoid reducing safety distance between them and parking aircraft.

4.5.2 Departing Aircraft

4.5.2.1 When start-up clearance is issued by ATC, and then pushed out onto apron centre line.

**5. 180 DEGREES TURN ON RUNWAY**

To prevent runway pavement damage, all aircraft code letter “C” and higher are not allowed to make 180 degrees turn on Runway.

## VTSS AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSS AD 2.22 FLIGHT PROCEDURES

### 1. LOW VISIBILITY PROCEDURES (LVP)

1.1 RWY 26 is equipped with ILS and is approved for CAT I operations.

1.2 Low visibility procedures will be established when a visibility of less than RVR 550M.

1.3 Low visibility procedures will be enforced based on 3 Phases of Low visibility conditions (LVC) as following.

1.3.1 LVC warning (RVR 800-550M)

1.3.1.1 LVC warning or preparation phase will be established when RVR is less than 800M but not less than 550M.

1.3.1.2 All ground operators will be informed by flashing-orange lights.

1.3.1.3 Standard Operating Procedures (SOPs) for low visibility condition shall be strictly applied by all ground operators.

1.3.2 LVP In Operation (RVR 550M-100M)

1.3.2.1 LVP In Operation will be established when RVR is less than 550M but not less than 100M.

1.3.2.2 All ground operators will be informed by flashing-white lights.

1.3.2.3 Standard Operating Procedures (SOPs) for low visibility condition shall be strictly applied by all ground operators.

1.3.2.4 All the vehicles must have their obstruction light “ON” and comply with speed limit of vehicles on Service road and the Apron area as mentioned in the airport rules and regulations.

1.3.2.5 A Follow-me car is available on stand by to assist pilot during taxi upon request.

1.3.2.6 The number of vehicles on the manoeuvring area shall be restricted. No vehicle enters the ILS sensitive area.

1.3.3 STOP work phase (RVR < 100M)

1.3.3.1 When RVR is less than 100M all ground operators will be informed by flashing-white lights with sound (siren).

1.3.3.2 Standard Operating Procedures (SOPs) for low visibility condition shall be strictly applied by all ground operators.

1.3.3.3 STOP All operations in the apron area.

1.4 Termination of low visibility procedures (RVR > 800M)

1.4.1 LVP will be terminated when RVR is greater than 800M and a continuing improvement in these condition is expected.

1.4.2 All ground operators will be informed when LVP is terminated by telephone and all warning lights are turned off.

1.4.3 All ground operators shall resume normal operations.

### 2. SPEED CONTROL PROCEDURE IN HAT YAI TMA

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

**3. IFR DEPARTURES OTHER THAN VIA SID**

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

**4. VISUAL DEPARTURES**

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**5. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 08:

HAT YAI OMNI 08 Departure: Required climb gradient 365 ft per NM (6.0%) until 4,400 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 911 | 1215 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 2,000 ft (or altitude assigned by ATC between 2,000 ft – 3,900 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 26:

HAT YAI OMNI 26 Departure: Required climb gradient 395 ft per NM (6.5%) until 4,400 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.5% | (ft/min) | 428 | 494 | 658 | 987 | 1316 | 1646 | 1975 |

No turn before DER.
After departure climb straight ahead until 2,000 ft (or altitude assigned by ATC between 2,000 ft – 3,900 ft), then comply with ATC clearance issued (or as directed by ATC).

**VTSS AD 2.23 ADDITIONAL INFORMATION**

**1. Operations of aircraft at Hat Yai International Airport outside Airport's hours of operation.**

1.1 All aircraft wishing to operate outside specified hours of operations at Hat Yai International Airport shall adhere to the following procedures:

1.1.1 Inform the airport authority, and approval must be received before such operation.

1.1.2 All scheduled and non-scheduled flights, including flight selecting Hat Yai International Airport as alternate aerodrome shall have handling agent at Hat Yai International Airport.

1.1.3 Nose-in parking is applicable to all aircraft.

1.1.4 Aircraft ready to taxi out shall prepare their own tow bars.

Remark: Aircraft below code letter “C” is allowed to seft-maneuver. Inform Hat Yai before seft-maneuver.

**2. BIRD CONCENTRATIONS**

2.1 BIRD CONCENTRATIONS IN THE VICINITY OF AN AERODROME
The existence of birds at Hat Yai International Airport varies throughout the year. The large birds and migratory birds commonly found at Hat Yai International Airport includes the following:

- Asian Openbill or Open-billed Stork (Weighting approximately 1000g - 1300g each)
- Cattle Egret (Weighting approximately 250g - 500g each)
- Oriental Pratincole (Weighting approximately 59g-95g each)

2.2 There could be an increase in bird activities during the usual migratory months of March to July. During this period, migratory birds may use an aerodrome as their feeding and nesting ground.

2.3 There could be some activities to reduce birds such as mowing the grass and plants. Grass mowing takes place in various areas. between 0200-0900 and 1600-2100 UTC. This activity will attract birds during sunrise to sunset. Pilots are advised to exercise with caution. The grass cutting on runway strip and taxiway strip will be carried out at night after last flight operated.

**VTSS AD 2.24 CHARTS RELATED TO AN AERODROME**


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSS-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTSS-2-3 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTSS-2-5 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 08/26 | AD 2-VTSS-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 08 - DANDO1D ELREM1D ENVON1D KARMI1D KENNE1D PADPA1D PIMER1D TAXEB1D | AD 2-VTSS-6-1 |
| Standard Departure Chart - Instrument (SID) -ICAO - RNAV RWY 08 - DANDO1D ELREM1D ENVON1D KARMI1D KENNE1D PADPA1D PIMER1D TAXEB1D (Tabular description 1) | AD 2-VTSS-6-2 |
| Standard Departure Chart - Instrument (SID) -ICAO - RNAV RWY 08 - DANDO1D ELREM1D ENVON1D KARMI1D KENNE1D PADPA1D PIMER1D TAXEB1D (Tabular description 2) | AD 2-VTSS-6-3 |
| Standard Departure Chart - Instrument (SID) -ICAO - RNAV RWY 26 - DANDO1C ELREM1C ENVON1C KARMI1C KENNE1C PADPA1C PIMER1C TAXEB1C | AD 2-VTSS-6-5 |
| Standard Departure Chart - Instrument (SID) -ICAO - RNAV RWY 26 - DANDO1C ELREM1C ENVON1C KARMI1C KENNE1C PADPA1C PIMER1C TAXEB1C (Tabular description 1) | AD 2-VTSS-6-6 |
| Standard Departure Chart - Instrument (SID) -ICAO - RNAV RWY 26 - DANDO1C ELREM1C ENVON1C KARMI1C KENNE1C PADPA1C PIMER1C TAXEB1C (Tabular description 2) | AD 2-VTSS-6-7 |
| Standard Departure Chart - Instrument (SID) -ICAO - RNAV RWY 26 - DANDO1C ELREM1C ENVON1C KARMI1C KENNE1C PADPA1C PIMER1C TAXEB1C (Waypoint list table) | AD 2-VTSS-6-8 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 08 - ELREM1B ENVON1B KENNE1B OBLEX1B PADPA1B PIMER1B TAMOS1B TAXEB1B | AD 2-VTSS-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 08 - ELREM1B ENVON1B KENNE1B OBLEX1B PADPA1B PIMER1B TAMOS1B TAXEB1B (Tabular description 1) | AD 2-VTSS-7-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 08 - ELREM1B ENVON1B KENNE1B OBLEX1B PADPA1B PIMER1B TAMOS1B TAXEB1B (Tabular description 2) | AD 2-VTSS-7-3 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 26 - ELREM1A ENVON1A KENNE1A OBLEX1A PADPA1A PIMER1A TAMOS1A TAXEB1A | AD 2-VTSS-7-5 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 26 - ELREM1A ENVON1A KENNE1A OBLEX1A PADPA1A PIMER1A TAMOS1A TAXEB1A (Tabular description 1) | AD 2-VTSS-7-6 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 26 - ELREM1A ENVON1A KENNE1A OBLEX1A PADPA1A PIMER1A TAMOS1A TAXEB1A (Tabular description 2) | AD 2-VTSS-7-7 |
| Instrument Approach Chart - ICAO - VOR a | AD 2-VTSS-8-1 |
| Instrument Approach Chart - ICAO - VOR a (Fix and point list table) | AD 2-VTSS-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 26 | AD 2-VTSS-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY26 (Fix and point list table) | AD 2-VTSS-8-4 |
| Instrument Approach Chart – ICAO - ILS or LOC y RWY26 | AD 2-VTSS-8-5 |
| Instrument Approach Chart – ICAO - ILS or LOC y RWY26 (Fix and point list table) | AD 2-VTSS-8-6 |

| Chart name | Page |
|---|---|
| Instrument Approach Chart – ICAO - ILS or LOC z RWY 26 | AD 2-VTSS-8-7 |
| Instrument Approach Chart – ICAO - ILS or LOC z RWY 26 (Tabular description) | AD 2-VTSS-8-8 |
| Instrument Approach Chart – ICAO - ILS or LOC z RWY 26 (Fix and point list table) | AD 2-VTSS-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 08 | AD 2-VTSS-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 08 (Tabular description) | AD 2-VTSS-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 26 | AD 2-VTSS-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 26 (Tabular description) | AD 2-VTSS-8-14 |

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# AERODROME CHART - ICAO

06 55 58 N
100 23 42 E

ELEV 90 FT

TWR 118.1

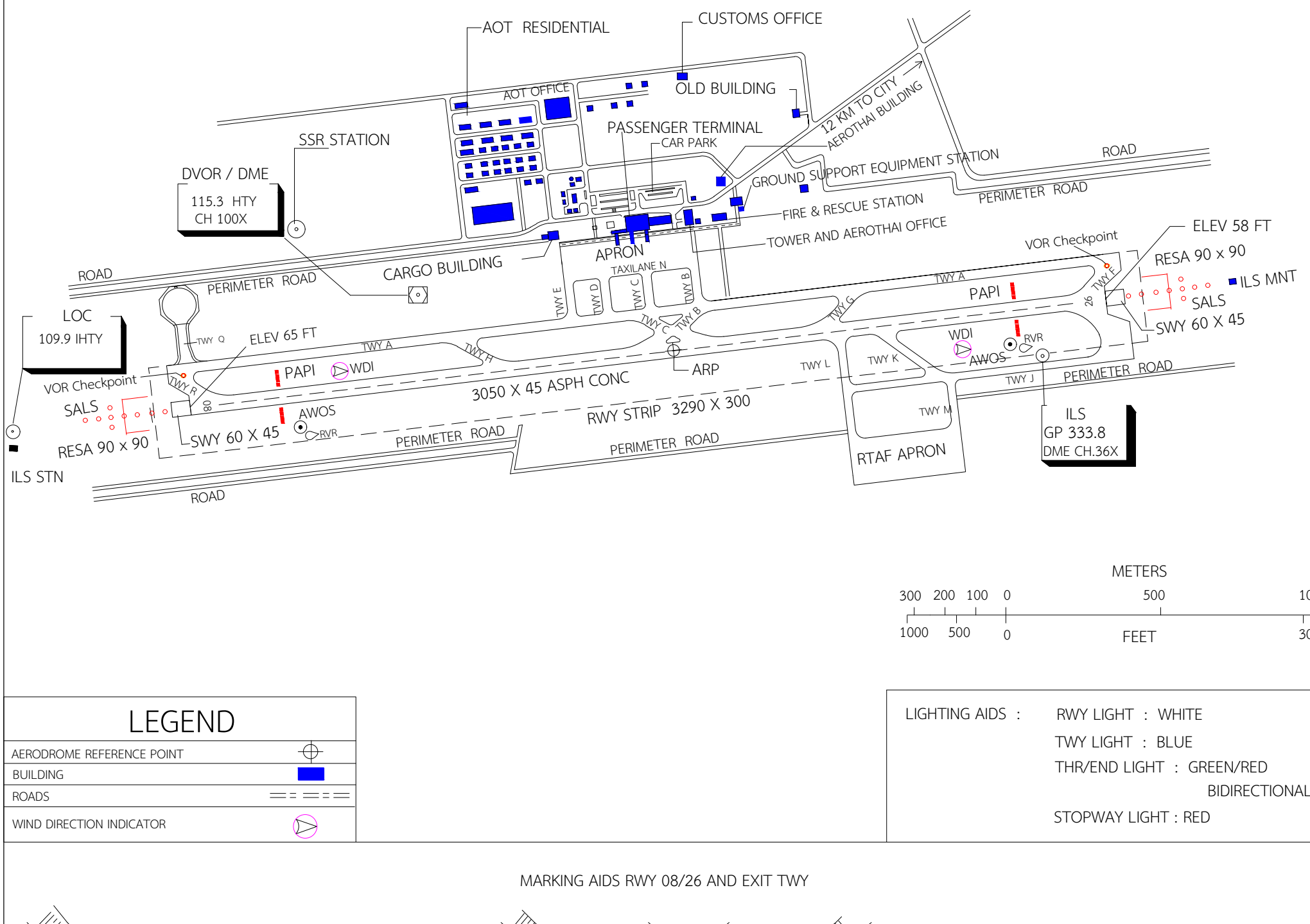
# SONGKHLA / Hat Yai Intl

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 08 | 082 | 06 55 51.50 N<br>100 22 49.91 E | PCR 950/R/B/W/T 600 M, SWY IS ASPHALT<br>PCR 950/F/B/X/T 2450 M |
| 26 | 262 | 06 56 03.89 N<br>100 24 28.52 E | PCR 950/R/B/W/T 600 M, SWY IS ASPHALT<br>PCR 950/F/B/X/T 2450 M |
| TAXIWAY A,B,C | | | PCR 950/F/A/X/T ( Asphalt )<br>PCR 950/R/A/W/T ( Concrete ) |
| TAXIWAY D,F | | | PCR 950/R/A/W/T ( Concrete ) |
| TAXIWAY E | | | PCR 780/R/A/W/T ( Concrete ) |
| TAXIWAY G | | | PCR 950/F/D/X/T ( Asphalt ) |
| TAXIWAY H | | | PCR 950/F/C/X/T ( Asphalt ) |
| APRON , TAXILANE N , TAXIWAY Q,R | | | PCR 950/R/B/W/T ( Concrete ) |

MAG VAR 0°17' W (2016)
Annual change 0°1' E

ELEVATIONS IN FEET AND DIMENSIONS IN METRES

BEARING ARE MAGNETIC



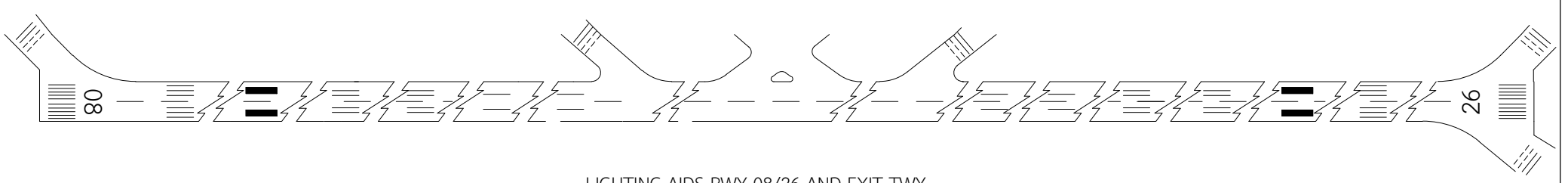

## LEGEND

| | |
|---|---|
| AERODROME REFERENCE POINT | |
| BUILDING | |
| ROADS | |
| WIND DIRECTION INDICATOR | |

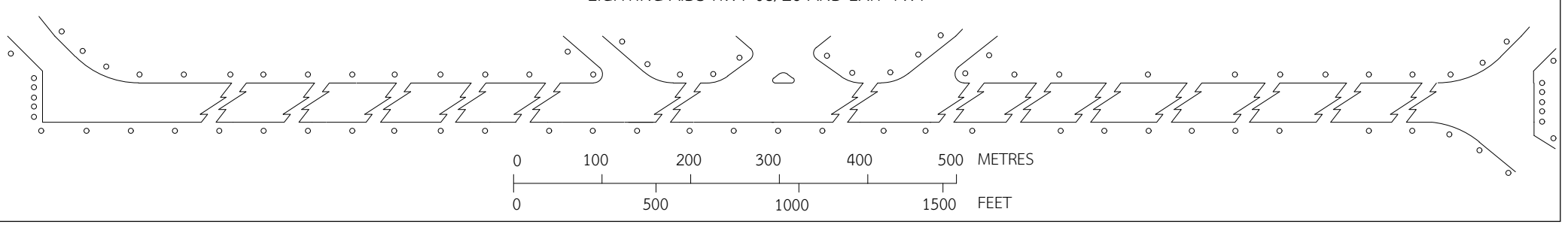
LIGHTING AIDS :
RWY LIGHT : WHITE
TWY LIGHT : BLUE
THR/END LIGHT : GREEN/RED
BIDIRECTIONAL
STOPWAY LIGHT : RED

CHANGE : PCN TO PCR

MARKING AIDS RWY 08/26 AND EXIT TWY




LIGHTING AIDS RWY 08/26 AND EXIT TWY



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## AIRCRAFT PARKING / DOCKING CHART - ICAO

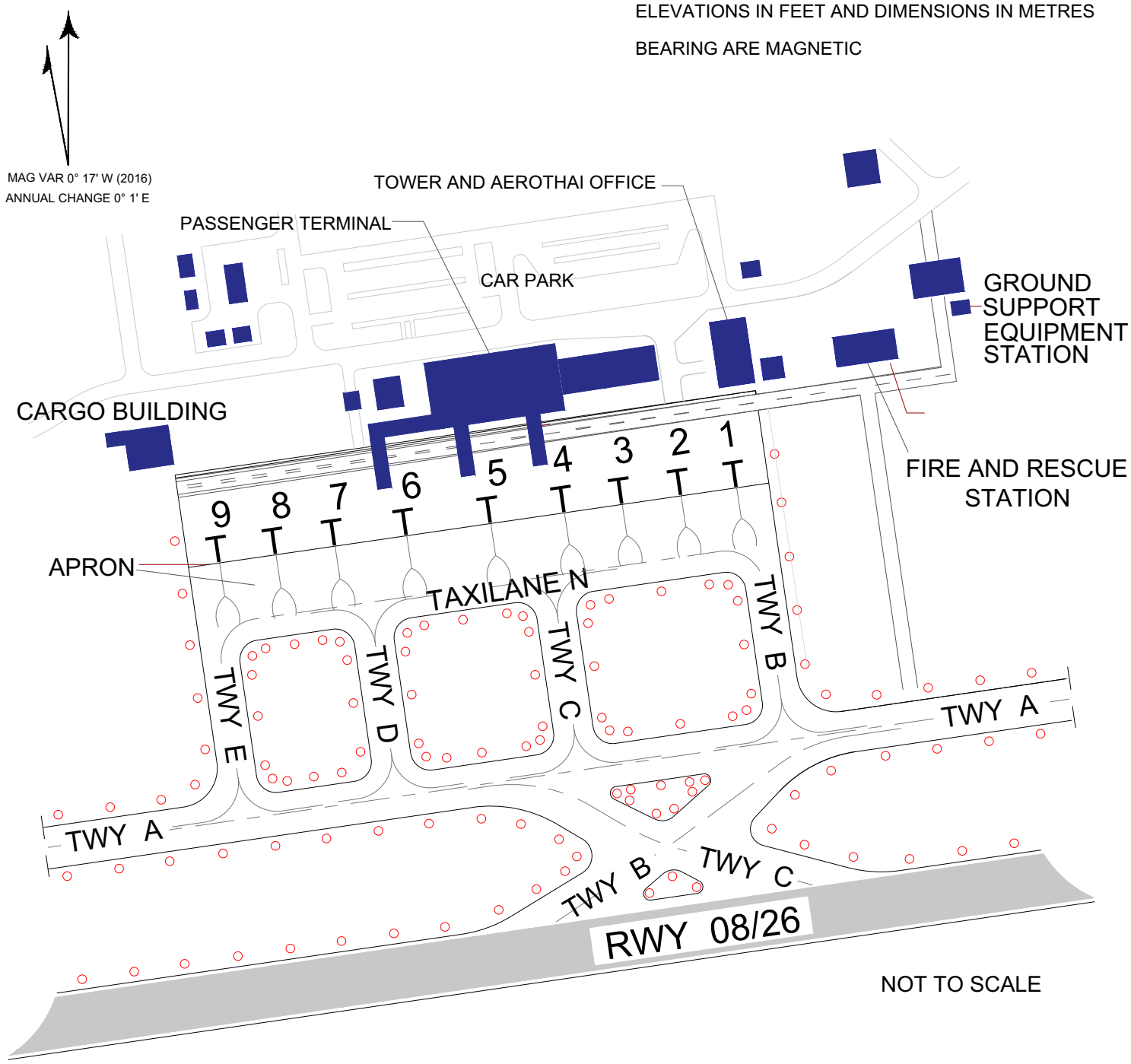
**APRON ELEV 90 FT**

**TWR 118.1**
**GND 121.9**

## SONGKHLA / Hat Yai Intl

ELEVATIONS IN FEET AND DIMENSIONS IN METRES

BEARING ARE MAGNETIC




| LEGEND | |
|---|---|
| AIRCRAFT STAND AND IDENTIFICATION | 2 T |
| BUILDING OF LARGE STRUCTURE | |
| TAXI ROUTE | |
| SERVICE ROAD | |
| TAXIWAY EDGE LIGHT | |

**REMARKS**
- ARP 06 55 58N 100 23 42E
- AIRCRAFT STAND NR4, 5 AND 6 VDGS EQUIPPED.
- TAXIWAY AND APRON SURFACE AND STRENGTH SEE AERODROME CHART-ICAO

| ACFT STAND NR | COORDINATES(WGS-84) LAT | LONG |
|---|---|---|
| 1 | 06 56 09.30 N | 100 23 43.25 E |
| 2 | 06 56 09.15 N | 100 23 42.04 E |
| 3 | 06 56 08.99 N | 100 23 40.73 E |
| 4 | 06 56 08.83 N | 100 23 39.42 E |
| 5 | 06 56 08.82 N | 100 23 37.10 E |
| 6 | 06 56 08.56 N | 100 23 34.74 E |
| 7 | 06 56 08.02 N | 100 23 32.92 E |
| 8 | 06 56 07.86 N | 100 23 31.61 E |
| 9 | 06 56 07.71 N | 100 23 30.40 E |

**CHANGE : ACFT STAND AND COORDINATES. ACFT STAND SAFEGATE EQUIPPED. REMARKS UPDATED.**

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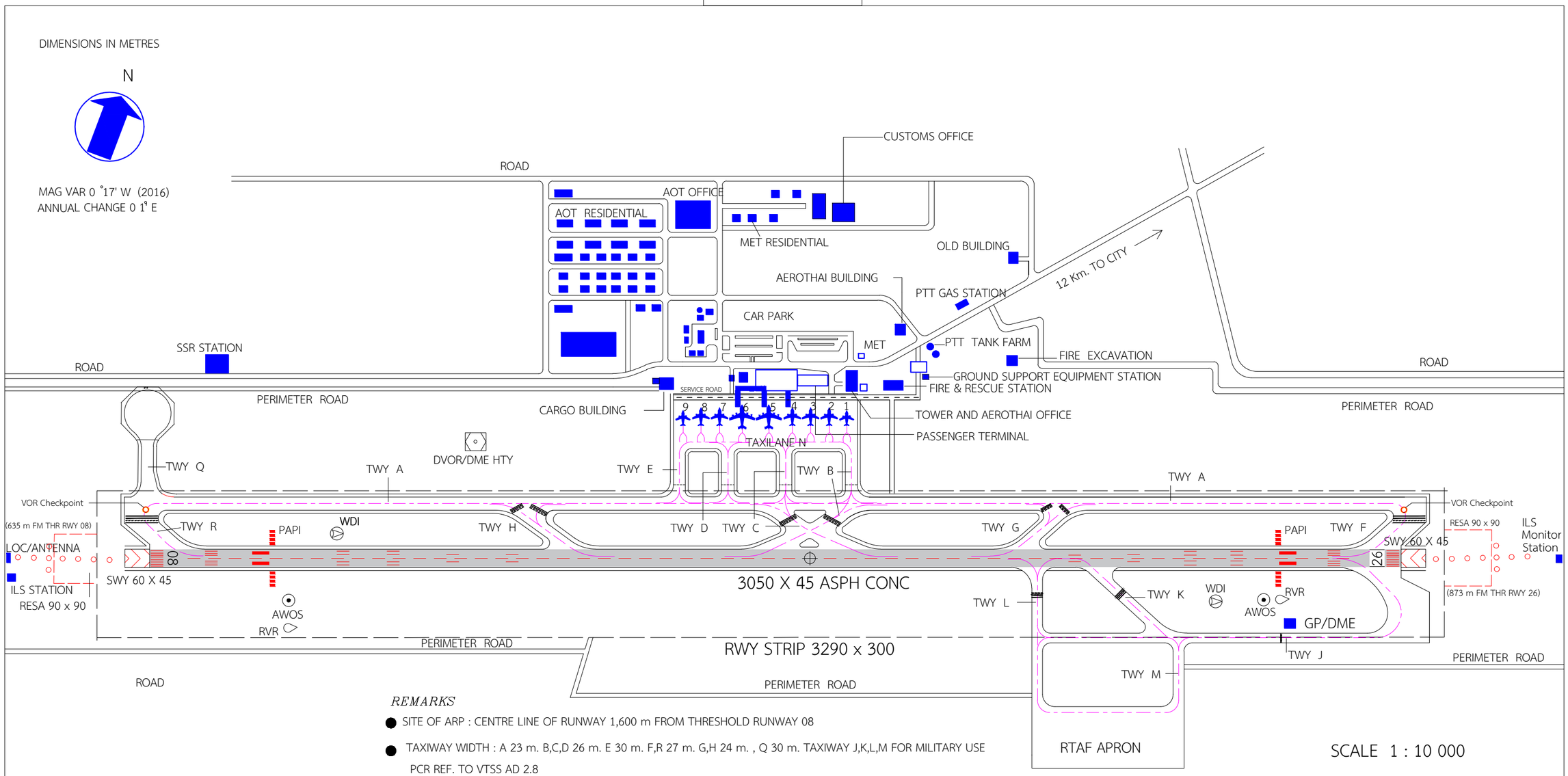
# AERODROME GROUND MOVEMENT CHART-ICAO

## APRON ELEV 90 FT

| | | |
|---|---|---|
| TWR | : | 118.1, 275.8 |
| APP | : | 126.7, 301.5 |
| GND | : | 121.9, 257.8 |
| EMERGENCY | : | 121.5, 243.0 |
| ATIS | : | 128.8 |

## SONGKHLA / Hat Yai Intl




SCALE 1 : 10 000

CHANGE : PCN TO PCR

## LEGEND

| | |
|---|---|
| AERODROME REFERENCE POINT | 06 55 58 N 100 23 42 E |
| BUILDING OR LARGE STRUCTURE | |
| TAXI ROUTES | |
| AIRCRAFT STAND AND IDENTIFICATION | 3 |
| HOLDING POSITION | |

*REMARKS*

- SITE OF ARP : CENTRE LINE OF RUNWAY 1,600 m FROM THRESHOLD RUNWAY 08
- TAXIWAY WIDTH : A 23 m. B,C,D 26 m. E 30 m. F,R 27 m. G,H 24 m. , Q 30 m. TAXIWAY J,K,L,M FOR MILITARY USE PCR REF. TO VTSS AD 2.8
- APRON SURFACE / STRENGTH : CONCRETE / PCR 950/R/B/W/T
- AIRCRAFT STAND NR 1,9 FOR ACFT UP TO CODE C MAX WINGSPAN 29 M.
- AIRCRAFT STAND NR 2, 3, 4, 7, 8 FOR ACFT UP TO CODE C MAX WINGSPAN < 36 M.
- AIRCRAFT STAND NR 5 FOR ACFT UP TO CODE E MAX WINGSPAN < 65 M.
- AIRCRAFT STAND NR 6 FOR ACFT UP TO CODE E MAX WINGSPAN 64 M.
- AIRCRAFT STAND NR 4,5 and 6 PASSENGER-LOADING BRIDGES AND VDGS AVAILABLE
- TAXIWAY A AND J NOT AVAILABLE WHEN AIRCRAFT WITH CODE LETTER C, D OR E TAKE-OFF OR LANDING , DUE TO THE DISTANCE BETWEEN THE RUNWAY CENTRE LINE AND THE TAXIWAY CENTRE LINES ARE LESS THAN MINIMUM REQUIRED
- TAXILANE N NOT AVIALABLE FOR AIRCRAFT CODE E TAXI BEHIND AIRCRAFT STAND NR 5,6 WHEN AIRCRAFT CODE E PARKED AT STAND NR 5,6

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## AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

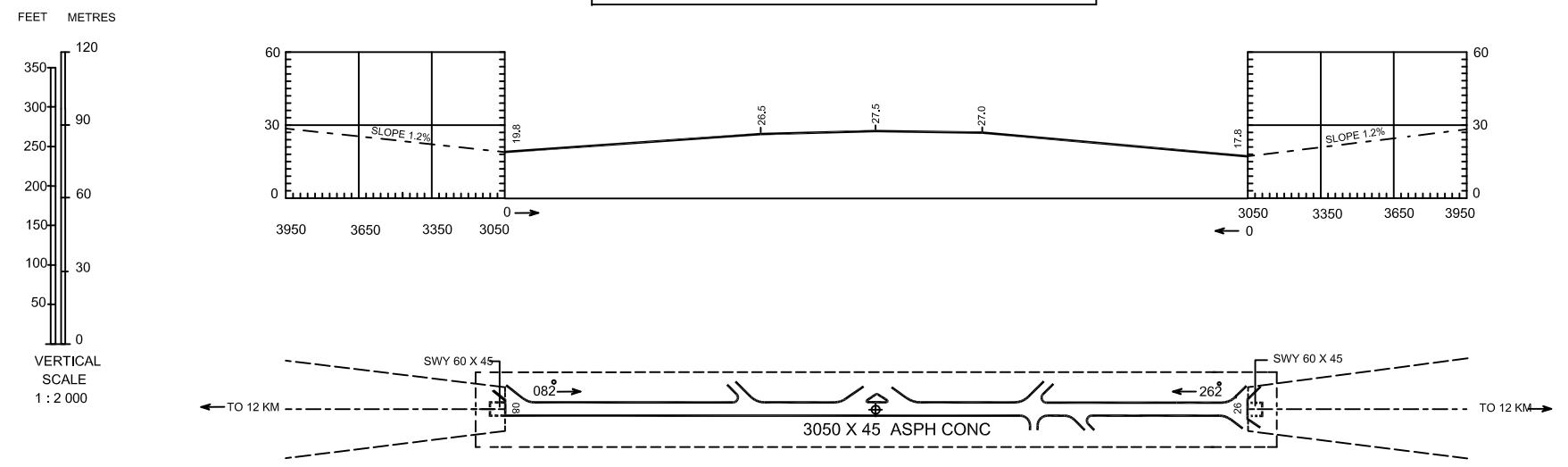
# Songkhla / Hat Yai IInternational Airport

DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION °0 22' W (2011)

**RWY 08 / 26**

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 08 | | RWY 26 |
| 3050 | TAKE-OFF RUN AVAILABLE | 3050 |
| 3050 | TAKE-OFF DISTANCE AVAILABLE | 3050 |
| 3110 | ACCELERATE STOP DISTANCE AVAILABLE | 3110 |
| 3050 | LANDING DISTANCE AVAILABLE | 3050 |




| LEGEND | |
|---|---|
| AERODROME REFERENCE POINT (ARP) 06 55 58 N 100 23 42 E | ⊕ |
| | |
| | |
| | |
| | |

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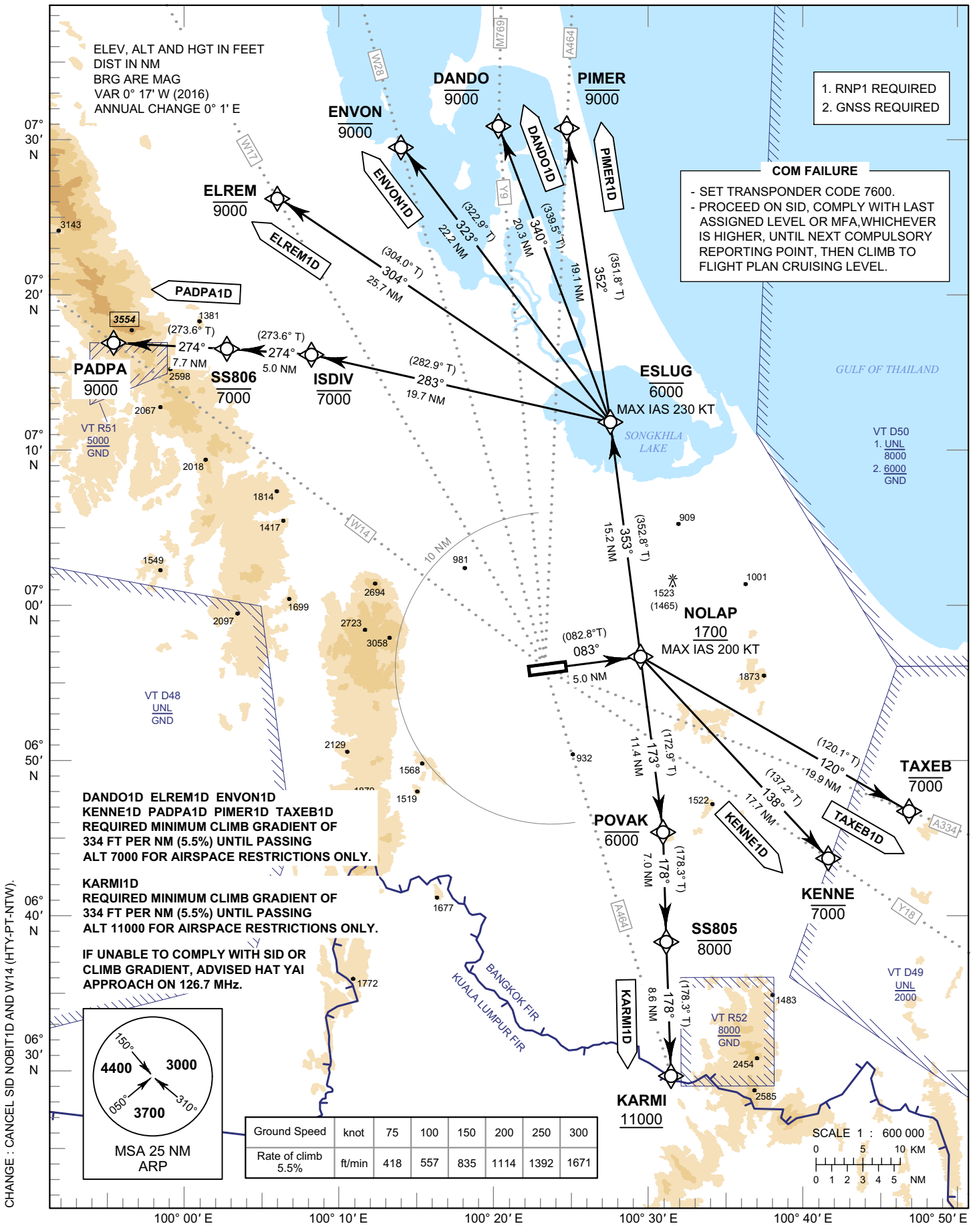
## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

## SONGKHLA / Hat Yai Intl (VTSS)
## RNAV RWY08

DANDO1D ELREM1D
ENVON1D KARMI1D KENNE1D
PADPA1D PIMER1D TAXEB1D



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY08**

DANDO1D ELREM1D
ENVON1D KARMI1D KENNE1D
PADPA1D PIMER1D TAXEB1D

**TABULAR DESCRIPTION (1)**

| RNAV RWY08 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| DANDO1D TO M769 | | | | | | | | | | | |
| 010 | - | DER RWY08 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | NOLAP | - | 083° (082.8°) | +0.20 | 5.0 | - | +1700 | -200 | - | RNP 1 |
| 030 | TF | ESLUG | - | 353° (352.8°) | +0.20 | 15.2 | - | -6000 | -230 | - | RNP 1 |
| 040 | TF | DANDO | - | 340° (339.5°) | +0.20 | 20.3 | - | -9000 | - | - | RNP 1 |
| ELREM1D TO W17 | | | | | | | | | | | |
| 010 | - | DER RWY08 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | NOLAP | - | 083° (082.8°) | +0.20 | 5.0 | - | +1700 | -200 | - | RNP 1 |
| 030 | TF | ESLUG | - | 353° (352.8°) | +0.20 | 15.2 | - | -6000 | -230 | - | RNP 1 |
| 040 | TF | ELREM | - | 304° (304.0°) | +0.20 | 25.7 | - | -9000 | - | - | RNP 1 |
| ENVON1D TO W28 | | | | | | | | | | | |
| 010 | - | DER RWY08 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | NOLAP | - | 083° (082.8°) | +0.20 | 5.0 | - | +1700 | -200 | - | RNP 1 |
| 030 | TF | ESLUG | - | 353° (352.8°) | +0.20 | 15.2 | - | -6000 | -230 | - | RNP 1 |
| 040 | TF | ENVON | - | 323° (322.9°) | +0.20 | 22.2 | - | -9000 | - | - | RNP 1 |
| KARMI1D TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY08 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | NOLAP | - | 083° (082.8°) | +0.20 | 5.0 | - | +1700 | -200 | - | RNP 1 |
| 030 | TF | POVAK | - | 173° (172.9°) | +0.20 | 11.4 | - | -6000 | - | - | RNP 1 |
| 040 | TF | SS805 | - | 178° (178.3°) | +0.20 | 7.0 | - | -8000 | - | - | RNP 1 |
| 050 | TF | KARMI | - | 178° (178.3°) | +0.20 | 8.6 | - | +11000 | - | - | RNP 1 |
| KENNE1D TO Y18 | | | | | | | | | | | |
| 010 | - | DER RWY08 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | NOLAP | - | 083° (082.8°) | +0.20 | 5.0 | - | +1700 | -200 | - | RNP 1 |
| 030 | TF | KENNE | - | 138° (137.2°) | +0.20 | 17.7 | - | -7000 | - | - | RNP 1 |
| PIMER1D TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY08 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | NOLAP | - | 083° (082.8°) | +0.20 | 5.0 | - | +1700 | -200 | - | RNP 1 |
| 030 | TF | ESLUG | - | 353° (352.8°) | +0.20 | 15.2 | - | -6000 | -230 | - | RNP 1 |
| 040 | TF | PIMER | - | 352° (351.8°) | +0.20 | 19.1 | - | -9000 | - | - | RNP 1 |

CHANGE : CANCEL SID NOBIT1D.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY08**

DANDO1D ELREM1D
ENVON1D KARMI1D KENNE1D
PADPA1D PIMER1D TAXEB1D

**TABULAR DESCRIPTION (2)**

| RNAV RWY08 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| PADPA1D TO W14 | | | | | | | | | | | |
| 010 | - | DER RWY08 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | NOLAP | - | 083° (082.8°) | +0.20 | 5.0 | - | +1700 | -200 | - | RNP 1 |
| 030 | TF | ESLUG | - | 353° (352.8°) | +0.20 | 15.2 | - | -6000 | -230 | - | RNP 1 |
| 040 | TF | ISDIV | - | 283° (282.9°) | +0.20 | 19.7 | - | -7000 | - | - | RNP 1 |
| 050 | TF | SS806 | - | 274° (273.6°) | +0.20 | 5.0 | - | -7000 | - | - | RNP 1 |
| 060 | TF | PADPA | - | 274° (273.6°) | +0.20 | 7.7 | - | -9000 | - | - | RNP 1 |
| TAXEB1D TO A334 | | | | | | | | | | | |
| 010 | - | DER RWY08 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | NOLAP | - | 083° (082.8°) | +0.20 | 5.0 | - | +1700 | -200 | - | RNP 1 |
| 030 | TF | TAXEB | - | 120° (120.1°) | +0.20 | 19.9 | - | -7000 | - | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY08 | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY08 | 06° 56' 03.89" N 100° 24' 28.52" E |
| DANDO | 07° 30' 53.98" N 100° 20' 23.99" E |
| ELREM | 07° 26' 15.66" N 100° 06' 06.53" E |
| ENVON | 07° 29' 33.35" N 100° 14' 06.25" E |
| ESLUG | 07° 11' 48.09" N 100° 27' 33.63" E |
| ISDIV | 07° 16' 12.19" N 100° 08' 17.10" E |
| KARMI | 06° 29' 40.00" N 100° 31' 21.00" E |
| KENNE | 06° 43' 39.82" N 100° 41' 31.60" E |
| NOLAP | 06° 56' 41.46" N 100° 29' 27.83" E |
| PADPA | 07° 16' 59.86" N 099° 55' 31.86" E |
| PIMER | 07° 30' 44.98" N 100° 24' 48.60" E |
| POVAK | 06° 45' 22.57" N 100° 30' 52.86" E |
| SS805 | 06° 38' 20.75" N 100° 31' 05.46" E |
| SS806 | 07° 16' 31.00" N 100° 03' 15.82" E |
| TAXEB | 06° 46' 40.97" N 100° 46' 44.74" E |

CHANGE : CANCEL NOBIT.

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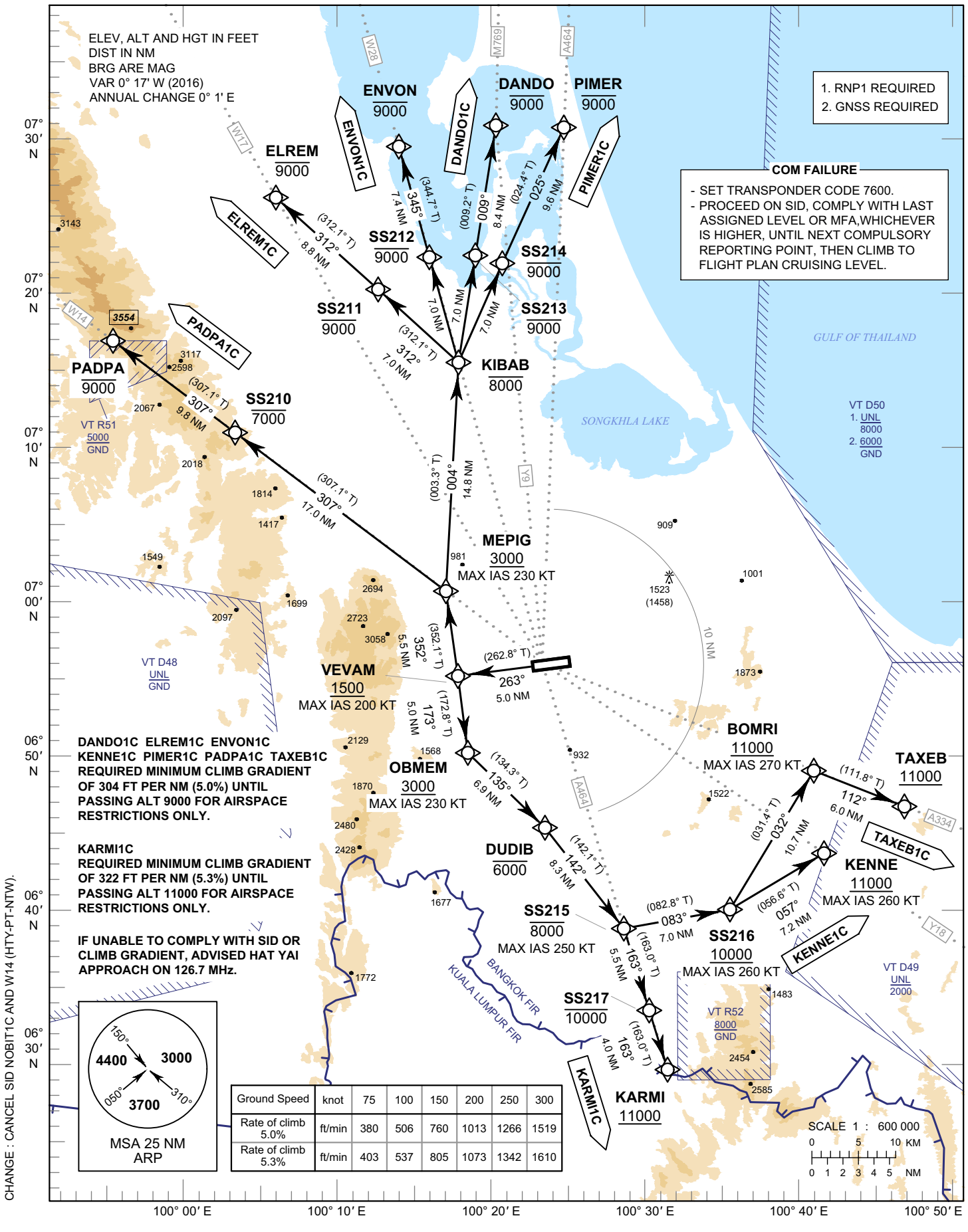
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

## SONGKHLA / Hat Yai Intl (VTSS)
## RNAV RWY26

DANDO1C ELREM1C
ENVON1C KARMI1C KENNE1C
PADPA1C PIMER1C TAXEB1C



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY26**

DANDO1C ELREM1C
ENVON1C KARMI1C KENNE1C
PADPA1C PIMER1C TAXEB1C

**TABULAR DESCRIPTION (1)**

| **RNAV RWY26** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course ° M (° T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| DANDO1C TO M769 | | | | | | | | | | | |
| 010 | - | DER RWY26 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | VEVAM | - | 263° (262.8°) | +0.20 | 5.0 | - | +1500 | -200 | - | RNP 1 |
| 030 | TF | MEPIG | - | 352° (352.1°) | +0.20 | 5.5 | - | +3000 | -230 | - | RNP 1 |
| 040 | TF | KIBAB | - | 004° (003.3°) | +0.20 | 14.8 | - | -8000 | - | - | RNP 1 |
| 050 | TF | SS213 | - | 009° (009.2°) | +0.20 | 7.0 | - | -9000 | - | - | RNP 1 |
| 060 | TF | DANDO | - | 009° (009.2°) | +0.20 | 8.4 | - | -9000 | - | - | RNP 1 |
| ELREM1C TO W17 | | | | | | | | | | | |
| 010 | - | DER RWY26 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | VEVAM | - | 263° (262.8°) | +0.20 | 5.0 | - | +1500 | -200 | - | RNP 1 |
| 030 | TF | MEPIG | - | 352° (352.1°) | +0.20 | 5.5 | - | +3000 | -230 | - | RNP 1 |
| 040 | TF | KIBAB | - | 004° (003.3°) | +0.20 | 14.8 | - | -8000 | - | - | RNP 1 |
| 050 | TF | SS211 | - | 312° (312.1°) | +0.20 | 7.0 | - | -9000 | - | - | RNP 1 |
| 060 | TF | ELREM | - | 312° (312.1°) | +0.20 | 8.8 | - | -9000 | - | - | RNP 1 |
| ENVON1C TO W28 | | | | | | | | | | | |
| 010 | - | DER RWY26 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | VEVAM | - | 263° (262.8°) | +0.20 | 5.0 | - | +1500 | -200 | - | RNP 1 |
| 030 | TF | MEPIG | - | 352° (352.1°) | +0.20 | 5.5 | - | +3000 | -230 | - | RNP 1 |
| 040 | TF | KIBAB | - | 004° (003.3°) | +0.20 | 14.8 | - | -8000 | - | - | RNP 1 |
| 050 | TF | SS212 | - | 345° (344.7°) | +0.20 | 7.0 | - | -9000 | - | - | RNP 1 |
| 060 | TF | ENVON | - | 345° (344.7°) | +0.20 | 7.4 | - | -9000 | - | - | RNP 1 |
| KARMI1C TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY26 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | VEVAM | - | 263° (262.8°) | +0.20 | 5.0 | - | +1500 | -200 | - | RNP 1 |
| 030 | TF | OBMEM | - | 173° (172.8°) | +0.20 | 5.0 | - | +3000 | -230 | - | RNP 1 |
| 040 | TF | DUDIB | - | 135° (134.3°) | +0.20 | 6.9 | - | -6000 | - | - | RNP 1 |
| 050 | TF | SS215 | - | 142° (142.1°) | +0.20 | 8.3 | - | -8000 | -250 | - | RNP 1 |
| 060 | TF | SS217 | - | 163° (163.0°) | +0.20 | 5.5 | - | -10000 | - | - | RNP 1 |
| 070 | TF | KARMI | - | 163° (163.0°) | +0.20 | 4.0 | - | +11000 | - | - | RNP 1 |
| KENNE1C TO Y18 | | | | | | | | | | | |
| 010 | - | DER RWY26 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | VEVAM | - | 263° (262.8°) | +0.20 | 5.0 | - | +1500 | -200 | - | RNP 1 |
| 030 | TF | OBMEM | - | 173° (172.8°) | +0.20 | 5.0 | - | +3000 | -230 | - | RNP 1 |
| 040 | TF | DUDIB | - | 135° (134.3°) | +0.20 | 6.9 | - | -6000 | - | - | RNP 1 |
| 050 | TF | SS215 | - | 142° (142.1°) | +0.20 | 8.3 | - | -8000 | -250 | - | RNP 1 |
| 060 | TF | SS216 | - | 083° (082.8°) | +0.20 | 7.0 | - | +10000 | -260 | - | RNP 1 |
| 070 | TF | KENNE | - | 057° (056.6°) | +0.20 | 7.2 | - | +11000 | -260 | - | RNP 1 |

CHANGE : REVISE TABULAR DESCRIPTION.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY26**

DANDO1C ELREM1C
ENVON1C KARMI1C KENNE1C
PADPA1C PIMER1C TAXEB1C

CHANGE : CANCEL SID NOBIT1C.

**TABULAR DESCRIPTION (2)**

| **RNAV RWY26** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course ° M (° T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| PADPA1C TO W14 | | | | | | | | | | | |
| 010 | - | DER RWY26 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | VEVAM | - | 263° (262.8°) | +0.20 | 5.0 | - | +1500 | -200 | - | RNP 1 |
| 030 | TF | MEPIG | - | 352° (352.1°) | +0.20 | 5.5 | - | +3000 | -230 | - | RNP 1 |
| 040 | TF | SS210 | - | 307° (307.1°) | +0.20 | 17.0 | - | -7000 | - | - | RNP 1 |
| 050 | TF | PADPA | - | 307° (307.1°) | +0.20 | 9.8 | - | -9000 | - | - | RNP 1 |
| PIMER1C TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY26 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | VEVAM | - | 263° (262.8°) | +0.20 | 5.0 | - | +1500 | -200 | - | RNP 1 |
| 030 | TF | MEPIG | - | 352° (352.1°) | +0.20 | 5.5 | - | +3000 | -230 | - | RNP 1 |
| 040 | TF | KIBAB | - | 004° (003.3°) | +0.20 | 14.8 | - | -8000 | - | - | RNP 1 |
| 050 | TF | SS214 | - | 025° (024.4°) | +0.20 | 7.0 | - | -9000 | - | - | RNP 1 |
| 060 | TF | PIMER | - | 025° (024.4°) | +0.20 | 9.6 | - | -9000 | - | - | RNP 1 |
| TAXEB1C TO A334 | | | | | | | | | | | |
| 010 | - | DER RWY26 | - | - | +0.20 | - | - | - | - | - | RNP 1 |
| 020 | CF | VEVAM | - | 263° (262.8°) | +0.20 | 5.0 | - | +1500 | -200 | - | RNP 1 |
| 030 | TF | OBMEM | - | 173° (172.8°) | +0.20 | 5.0 | - | +3000 | -230 | - | RNP 1 |
| 040 | TF | DUDIB | - | 135° (134.3°) | +0.20 | 6.9 | - | -6000 | - | - | RNP 1 |
| 050 | TF | SS215 | - | 142° (142.1°) | +0.20 | 8.3 | - | -8000 | -250 | - | RNP 1 |
| 060 | TF | SS216 | - | 083° (082.8°) | +0.20 | 7.0 | - | +10000 | -260 | - | RNP 1 |
| 070 | TF | BOMRI | - | 032° (031.4°) | +0.20 | 10.7 | - | +11000 | -270 | - | RNP 1 |
| 080 | TF | TAXEB | - | 112° (111.8°) | +0.20 | 6.0 | - | +11000 | - | - | RNP 1 |
| | | | | | | | | | | | |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY26**

DANDO1C ELREM1C
ENVON1C KARMI1C KENNE1C
PADPA1C PIMER1C TAXEB1C

**WAYPOINT LIST**

| RNAV RWY26 | | |
|---|---|---|
| **Waypoint Identifier** | **Coordinates** | |
| DER RWY26 | 06° 55' 51.50" N | 100° 22' 49.91" E |
| BOMRI | 06° 48' 55.17" N | 100° 41' 08.68" E |
| DANDO | 07° 30' 53.98" N | 100° 20' 23.99" E |
| DUDIB | 06° 45' 22.75" N | 100° 23' 27.25" E |
| ELREM | 07° 26' 15.66" N | 100° 06' 06.53" E |
| ENVON | 07° 29' 33.35" N | 100° 14' 06.25" E |
| KARMI | 06° 29' 40.00" N | 100° 31' 21.00" E |
| KENNE | 06° 43' 39.82" N | 100° 41' 31.60" E |
| KIBAB | 07° 15' 35.92" N | 100° 17' 55.59" E |
| MEPIG | 07° 00' 43.85" N | 100° 17' 04.66" E |
| OBMEM | 06° 50' 14.83" N | 100° 18' 28.25" E |
| PADPA | 07° 16' 59.86" N | 099° 55' 31.86" E |
| PIMER | 07° 30' 44.98" N | 100° 24' 48.60" E |
| SS210 | 07° 11' 01.95" N | 100° 03' 26.27" E |
| SS211 | 07° 20' 18.91" N | 100° 12' 42.05" E |
| SS212 | 07° 22' 22.99" N | 100° 16' 04.14" E |
| SS213 | 07° 22' 32.54" N | 100° 19' 02.91" E |
| SS214 | 07° 22' 00.26" N | 100° 20' 50.14" E |
| SS215 | 06° 38' 49.97" N | 100° 28' 32.74" E |
| SS216 | 06° 39' 42.51" N | 100° 35' 31.53" E |
| SS217 | 06° 33' 30.60" N | 100° 30' 10.46" E |
| TAXEB | 06° 46' 40.97" N | 100° 46' 44.74" E |
| VEVAM | 06° 55' 13.86" N | 100° 17' 50.62" E |

CHANGE : CANCEL NOBIT.

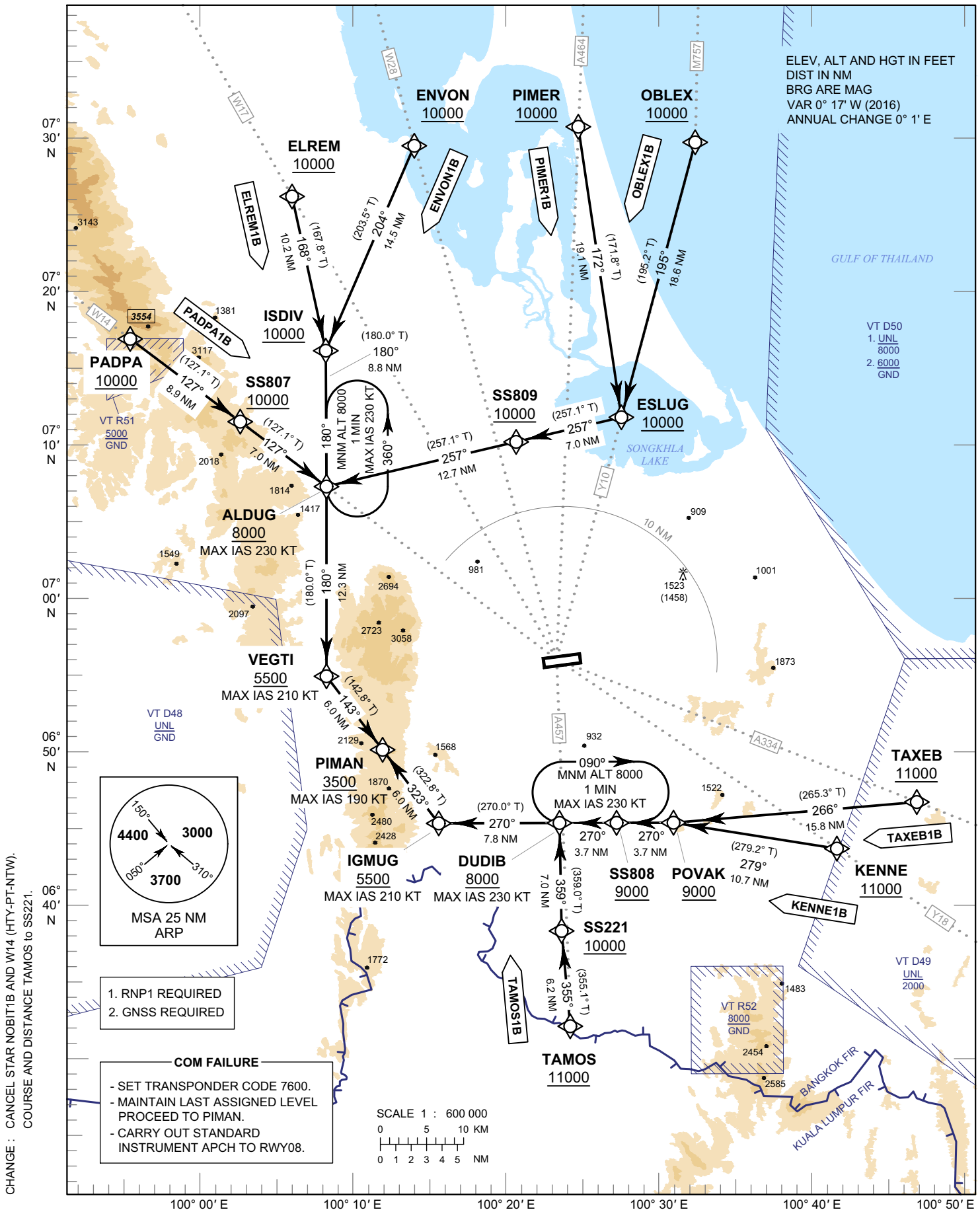
**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

| TRANSITION ALTITUDE |
|---|
| 11000 FT |
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY08**

ELREM1B ENVON1B
KENNE1B OBLEX1B PADPA1B
PIMER1B TAMOS1B TAXEB1B



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY08**

ELREM1B ENVON1B
KENNE1B OBLEX1B PADPA1B
PIMER1B TAMOS1B TAXEB1B

CHANGE : CANCEL STAR NOBIT1B.

**TABULAR DESCRIPTION (1)**

| RNAV RWY08 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ELREM1B FROM W17 | | | | | | | | | | | |
| 010 | IF | ELREM | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | ISDIV | - | 168° (167.8°) | +0.20 | 10.2 | - | +10000 | - | - | RNP 1 |
| 030 | TF | ALDUG | - | 180° (180.0°) | +0.20 | 8.8 | - | +8000 | -230 | - | RNP 1 |
| 040 | TF | VEGTI | - | 180° (180.0°) | +0.20 | 12.3 | - | +5500 | -210 | - | RNP 1 |
| 050 | TF | PIMAN | - | 143° (142.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP 1 |
| ENVON1B FROM W28 | | | | | | | | | | | |
| 010 | IF | ENVON | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | ISDIV | - | 204° (203.5°) | +0.20 | 14.5 | - | +10000 | - | - | RNP 1 |
| 030 | TF | ALDUG | - | 180° (180.0°) | +0.20 | 8.8 | - | +8000 | -230 | - | RNP 1 |
| 040 | TF | VEGTI | - | 180° (180.0°) | +0.20 | 12.3 | - | +5500 | -210 | - | RNP 1 |
| 050 | TF | PIMAN | - | 143° (142.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP 1 |
| KENNE1B FROM Y18 | | | | | | | | | | | |
| 010 | IF | KENNE | - | - | +0.20 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | POVAK | - | 279° (279.2°) | +0.20 | 10.7 | - | +9000 | - | - | RNP 1 |
| 030 | TF | SS808 | - | 270° (270.0°) | +0.20 | 3.7 | - | +9000 | - | - | RNP 1 |
| 040 | TF | DUDIB | - | 270° (270.1°) | +0.20 | 3.7 | - | +8000 | -230 | - | RNP 1 |
| 050 | TF | IGMUG | - | 270° (270.0°) | +0.20 | 7.8 | - | +5500 | -210 | - | RNP 1 |
| 060 | TF | PIMAN | - | 323° (322.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP 1 |
| OBLEX1B FROM M757 | | | | | | | | | | | |
| 010 | IF | OBLEX | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | ESLUG | - | 195° (195.2°) | +0.20 | 18.6 | - | +10000 | - | - | RNP 1 |
| 030 | TF | SS809 | - | 257° (257.1°) | +0.20 | 7.0 | - | +10000 | - | - | RNP 1 |
| 040 | TF | ALDUG | - | 257° (257.1°) | +0.20 | 12.7 | - | +8000 | -230 | - | RNP 1 |
| 050 | TF | VEGTI | - | 180° (180.0°) | +0.20 | 12.3 | - | +5500 | -210 | - | RNP 1 |
| 060 | TF | PIMAN | - | 143° (142.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP 1 |
| PADPA1B FROM W14 | | | | | | | | | | | |
| 010 | IF | PADPA | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | SS807 | - | 127° (127.1°) | +0.20 | 8.9 | - | +10000 | - | - | RNP 1 |
| 030 | TF | ALDUG | - | 127° (127.1°) | +0.20 | 7.0 | - | +8000 | -230 | - | RNP 1 |
| 040 | TF | VEGTI | - | 180° (180.0°) | +0.20 | 12.3 | - | +5500 | -210 | - | RNP 1 |
| 050 | TF | PIMAN | - | 143° (142.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP 1 |

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY08**

ELREM1B ENVON1B
KENNE1B OBLEX1B PADPA1B
PIMER1B TAMOS1B TAXEB1B

**TABULAR DESCRIPTION (2)**

| RNAV RWY08 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| PIMER1B FROM A464 | | | | | | | | | | | |
| 010 | IF | PIMER | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | ESLUG | - | 172° (171.8°) | +0.20 | 19.1 | - | +10000 | - | - | RNP 1 |
| 030 | TF | SS809 | - | 257° (257.1°) | +0.20 | 7.0 | - | +10000 | - | - | RNP 1 |
| 040 | TF | ALDUG | - | 257° (257.1°) | +0.20 | 12.7 | - | +8000 | -230 | - | RNP 1 |
| 050 | TF | VEGTI | - | 180° (180.0°) | +0.20 | 12.3 | - | +5500 | -210 | - | RNP 1 |
| 060 | TF | PIMAN | - | 143° (142.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP 1 |
| TAMOS1B FROM A457 | | | | | | | | | | | |
| 010 | IF | TAMOS | - | - | +0.20 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | SS221 | - | 355° (355.1°) | +0.20 | 6.2 | - | +10000 | - | - | RNP 1 |
| 030 | TF | DUDIB | - | 359° (359.0°) | +0.20 | 7.0 | - | +8000 | -230 | - | RNP 1 |
| 040 | TF | IGMUG | - | 270° (270.0°) | +0.20 | 7.8 | - | +5500 | -210 | - | RNP 1 |
| 050 | TF | PIMAN | - | 323° (322.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP 1 |
| TAXEB1B FROM A334 | | | | | | | | | | | |
| 010 | IF | TAXEB | - | - | +0.20 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | POVAK | - | 266° (265.3°) | +0.20 | 15.8 | - | +9000 | - | - | RNP 1 |
| 030 | TF | SS808 | - | 270° (270.0°) | +0.20 | 3.7 | - | +9000 | - | - | RNP 1 |
| 040 | TF | DUDIB | - | 270° (270.1°) | +0.20 | 3.7 | - | +8000 | -230 | - | RNP 1 |
| 050 | TF | IGMUG | - | 270° (270.0°) | +0.20 | 7.8 | - | +5500 | -210 | - | RNP 1 |
| 060 | TF | PIMAN | - | 323° (322.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP 1 |
| | | | | | | | | | | | |

CHANGE : CANCEL NOBIT. COURSE AND DISTANCE TAMOS to SS221.

**WAYPOINT LIST**

| RNAV RWY08 | | | |
|---|---|---|---|
| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
| ALDUG | 07° 07' 22.40" N 100° 08' 17.10" E | PIMAN | 06° 50' 10.99" N 100° 11' 55.91" E |
| DUDIB | 06° 45' 22.75" N 100° 23' 27.25" E | PIMER | 07° 30' 44.98" N 100° 24' 48.60" E |
| ELREM | 07° 26' 15.66" N 100° 06' 06.53" E | POVAK | 06° 45' 22.57" N 100° 30' 52.86" E |
| ENVON | 07° 29' 33.35" N 100° 14' 06.25" E | SS221 | 06° 38' 20.79" N 100° 23' 34.36" E |
| ESLUG | 07° 11' 48.09" N 100° 27' 33.63" E | SS807 | 07° 11' 36.85" N 100° 02' 40.03" E |
| IGMUG | 06° 45' 22.81" N 100° 15' 34.64" E | SS808 | 06° 45' 22.56" N 100° 27' 09.72" E |
| ISDIV | 07° 16' 12.19" N 100° 08' 17.10" E | SS809 | 07° 10' 13.59" N 100° 20' 41.82" E |
| KENNE | 06° 43' 39.82" N 100° 41' 31.60" E | TAMOS | 06° 32' 07.90" N 100° 24' 06.50" E |
| OBLEX | 07° 29' 47.50" N 100° 32' 27.63" E | TAXEB | 06° 46' 40.97" N 100° 46' 44.74" E |
| PADPA | 07° 16' 59.86" N 099° 55' 31.86" E | VEGTI | 06° 54' 59.13" N 100° 08' 17.10" E |

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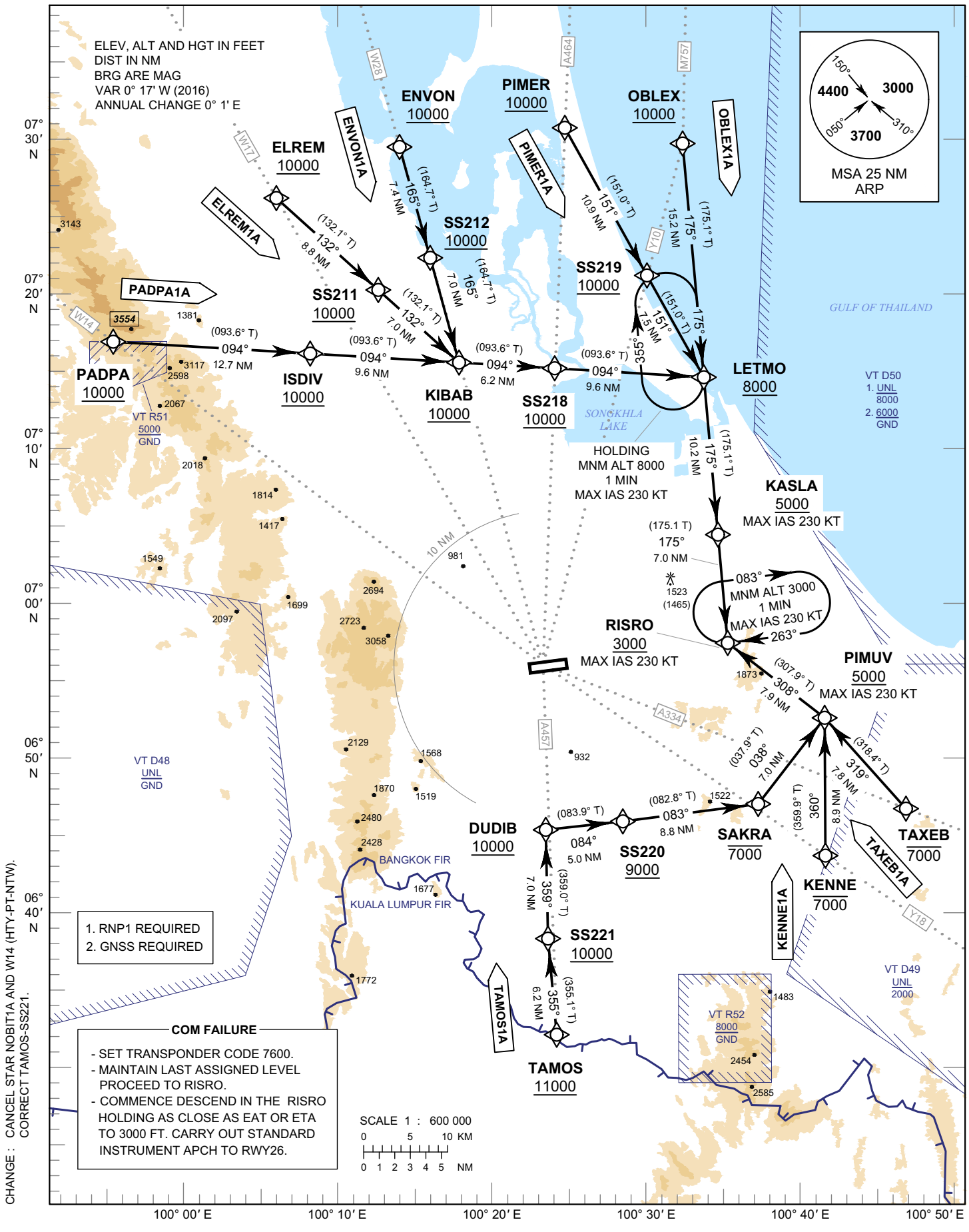
## STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

| TRANSITION ALTITUDE |
|---|
| 11000 FT |
| **SPEED RESTRICTION** MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC. |

| |
|---|
| APP : 126.7, 301.5 |
| TWR : 118.1, 275.8 |
| GND : 121.9, 257.8 |
| ATIS : 128.8 |

## SONGKHLA / Hat Yai Intl (VTSS)
## RNAV RWY26

ELREM1A ENVON1A
KENNE1A OBLEX1A PADPA1A
PIMER1A TAMOS1A TAXEB1A



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY26**

ELREM1A ENVON1A
KENNE1A OBLEX1A PADPA1A
PIMER1A TAMOS1A TAXEB1A

**TABULAR DESCRIPTION (1)**

| RNAV RWY26 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ELREM1A FROM W17 | | | | | | | | | | | |
| 010 | IF | ELREM | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | SS211 | - | 132° (132.1°) | +0.20 | 8.8 | - | +10000 | - | - | RNP 1 |
| 030 | TF | KIBAB | - | 132° (132.1°) | +0.20 | 7.0 | - | +10000 | - | - | RNP 1 |
| 040 | TF | SS218 | - | 094° (093.6°) | +0.20 | 6.2 | - | +10000 | - | - | RNP 1 |
| 050 | TF | LETMO | - | 094° (093.6°) | +0.20 | 9.6 | - | +8000 | - | - | RNP 1 |
| 060 | TF | KASLA | - | 175° (175.1°) | +0.20 | 10.2 | - | +5000 | -230 | - | RNP 1 |
| 070 | TF | RISRO | - | 175° (175.1°) | +0.20 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| ENVON1A FROM W28 | | | | | | | | | | | |
| 010 | IF | ENVON | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | SS212 | - | 165° (164.7°) | +0.20 | 7.4 | - | +10000 | - | - | RNP 1 |
| 030 | TF | KIBAB | - | 165° (164.7°) | +0.20 | 7.0 | - | +10000 | - | - | RNP 1 |
| 040 | TF | SS218 | - | 094° (093.6°) | +0.20 | 6.2 | - | +10000 | - | - | RNP 1 |
| 050 | TF | LETMO | - | 094° (093.6°) | +0.20 | 9.6 | - | +8000 | - | - | RNP 1 |
| 060 | TF | KASLA | - | 175° (175.1°) | +0.20 | 10.2 | - | +5000 | -230 | - | RNP 1 |
| 070 | TF | RISRO | - | 175° (175.1°) | +0.20 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| KENNE1A FROM Y18 | | | | | | | | | | | |
| 010 | IF | KENNE | - | - | +0.20 | - | - | -7000 | - | - | RNP 1 |
| 020 | TF | PIMUV | - | 360° (359.9°) | +0.20 | 8.9 | - | +5000 | -230 | - | RNP 1 |
| 030 | TF | RISRO | - | 308° (307.9°) | +0.20 | 7.9 | - | +3000 | -230 | - | RNP 1 |
| OBLEX1A FROM M757 | | | | | | | | | | | |
| 010 | IF | OBLEX | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | LETMO | - | 175° (175.1°) | +0.20 | 15.2 | - | +8000 | - | - | RNP 1 |
| 030 | TF | KASLA | - | 175° (175.1°) | +0.20 | 10.2 | - | +5000 | -230 | - | RNP 1 |
| 040 | TF | RISRO | - | 175° (175.1°) | +0.20 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| PADPA1A FROM W14 | | | | | | | | | | | |
| 010 | IF | PADPA | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | ISDIV | - | 094° (093.6°) | +0.20 | 12.7 | - | +10000 | - | - | RNP 1 |
| 030 | TF | KIBAB | - | 094° (093.6°) | +0.20 | 9.6 | - | +10000 | - | - | RNP 1 |
| 040 | TF | SS218 | - | 094° (093.6°) | +0.20 | 6.2 | - | +10000 | - | - | RNP 1 |
| 050 | TF | LETMO | - | 094° (093.6°) | +0.20 | 9.6 | - | +8000 | - | - | RNP 1 |
| 060 | TF | KASLA | - | 175° (175.1°) | +0.20 | 10.2 | - | +5000 | -230 | - | RNP 1 |
| 070 | TF | RISRO | - | 175° (175.1°) | +0.20 | 7.0 | - | +3000 | -230 | - | RNP 1 |

CHANGE : CANCEL STAR NOBIT1A.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

**SONGKHLA / Hat Yai Intl (VTSS)**
**RNAV RWY26**

ELREM1A ENVON1A
KENNE1A OBLEX1A PADPA1A
PIMER1A TAMOS1A TAXEB1A

**TABULAR DESCRIPTION (2)**

| RNAV RWY26 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| PIMER1A FROM A464 | | | | | | | | | | | |
| 010 | IF | PIMER | - | - | +0.20 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | SS219 | - | 151° (151.0°) | +0.20 | 10.9 | - | +10000 | - | - | RNP 1 |
| 030 | TF | LETMO | - | 151° (151.0°) | +0.20 | 7.5 | - | +8000 | - | - | RNP 1 |
| 040 | TF | KASLA | - | 175° (175.1°) | +0.20 | 10.2 | - | +5000 | -230 | - | RNP 1 |
| 050 | TF | RISRO | - | 175° (175.1°) | +0.20 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| TAMOS1A FROM A457 | | | | | | | | | | | |
| 010 | IF | TAMOS | - | - | +0.20 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | SS221 | - | 355° (355.1°) | +0.20 | 6.2 | - | +10000 | - | - | RNP 1 |
| 030 | TF | DUDIB | - | 359° (359.0°) | +0.20 | 7.0 | - | +10000 | - | - | RNP 1 |
| 040 | TF | SS220 | - | 084° (083.9°) | +0.20 | 5.0 | - | +9000 | - | - | RNP 1 |
| 050 | TF | SAKRA | - | 083° (082.8°) | +0.20 | 8.8 | - | -7000 | - | - | RNP 1 |
| 060 | TF | PIMUV | - | 038° (037.9°) | +0.20 | 7.0 | - | +5000 | -230 | - | RNP 1 |
| 070 | TF | RISRO | - | 308° (307.9°) | +0.20 | 7.9 | - | +3000 | -230 | - | RNP 1 |
| TAXEB1A FROM A334 | | | | | | | | | | | |
| 010 | IF | TAXEB | - | - | +0.20 | - | - | -7000 | - | - | RNP 1 |
| 020 | TF | PIMUV | - | 319° (318.4°) | +0.20 | 7.8 | - | +5000 | -230 | - | RNP 1 |
| 030 | TF | RISRO | - | 308° (307.9°) | +0.20 | 7.9 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |

**WAYPOINT LIST**

| RNAV RWY26 | | | | |
|---|---|---|---|---|
| Waypoint Identifier | Coordinates | | Waypoint Identifier | Coordinates |
| DUDIB | 06° 45' 22.75" N | 100° 23' 27.25" E | PIMUV | 06° 52' 33.56" N 100° 41' 31.05" E |
| ELREM | 07° 26' 15.66" N | 100° 06' 06.53" E | RISRO | 06° 57' 25.07" N 100° 35' 15.76" E |
| ENVON | 07° 29' 33.35" N | 100° 14' 06.25" E | SAKRA | 06° 47' 00.40" N 100° 37' 11.89" E |
| ISDIV | 07° 16' 12.19" N | 100° 08' 17.10" E | SS211 | 07° 20' 18.91" N 100° 12' 42.05" E |
| KASLA | 07° 04' 25.58" N | 100° 34' 39.39" E | SS212 | 07° 22' 22.99" N 100° 16' 04.14" E |
| KENNE | 06° 43' 39.82" N | 100° 41' 31.60" E | SS218 | 07° 15' 12.50" N 100° 24' 07.31" E |
| KIBAB | 07° 15' 35.92" N | 100° 17' 55.59" E | SS219 | 07° 21' 11.51" N 100° 30' 07.03" E |
| LETMO | 07° 14' 35.84" N | 100° 33' 46.59" E | SS220 | 06° 45' 54.52" N 100° 28' 26.54" E |
| OBLEX | 07° 29' 47.50" N | 100° 32' 27.63" E | SS221 | 06° 38' 20.79" N 100° 23' 34.36" E |
| PADPA | 07° 16' 59.86" N | 099° 55' 31.86" E | TAMOS | 06° 32' 07.90" N 100° 24' 06.50" E |
| PIMER | 07° 30' 44.98" N | 100° 24' 48.60" E | TAXEB | 06° 46' 40.97" N 100° 46' 44.74" E |

CHANGE : CANCEL NOBIT. CORRECT TAMOS-SS221.

**INTENTIONALLY BLANK**

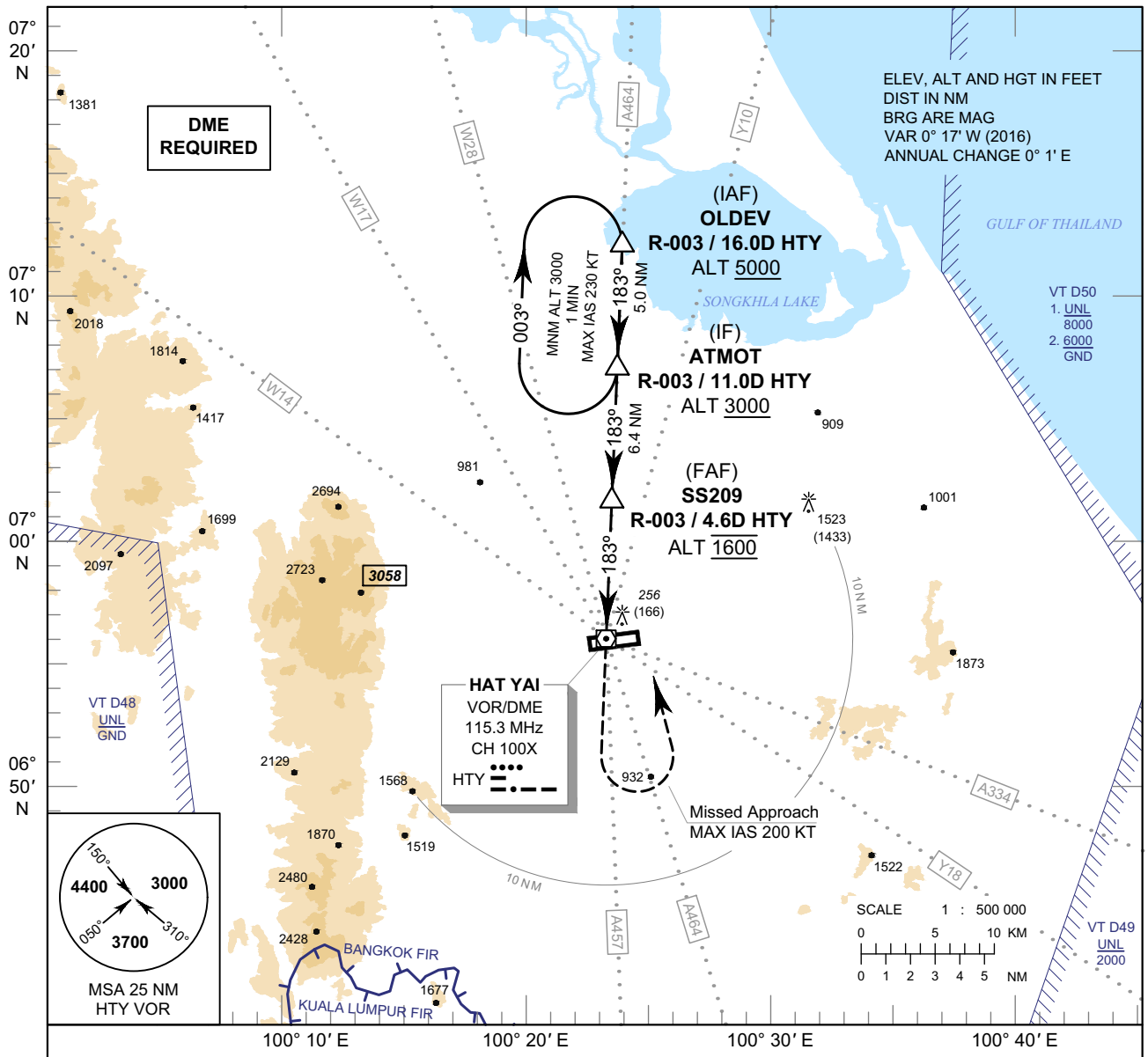
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO AERODROME ELEV

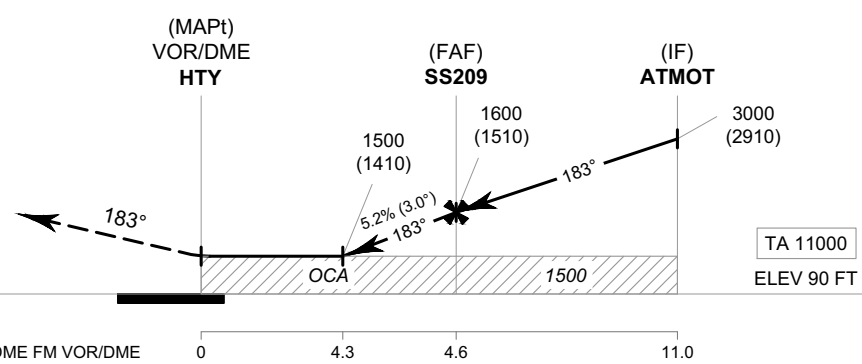
APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

**SONGKHLA / Hat Yai Intl (VTSS)**

**VOR a**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb straight ahead to 2000 FT, then turn left to intercept outbound R-003 HTY VOR and proceed to ATMOT at minimum 3000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | Not authorized | | | |
| Circling (OCH AAL) | 900 (810) | | 1500 (1410) | |

| Distance (HTY) | | 4.3D | | | FAF | | |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | | 1500 (1410) | | | 1600 (1510) | | |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : CANCEL W14 (HTY-PT-NTW).

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO AERODROME ELEV

**SONGKHLA / Hat Yai Intl (VTSS)**

**VOR a**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>OLDEV | R-003 / 16.0D HTY | 07° 12' 06.40" N | 100° 23' 59.08" E |
| (IF)<br>ATMOT | R-003 / 11.0D HTY | 07° 07' 05.26" N | 100° 23' 45.76" E |
| (FAF)<br>SS209 | R-003 / 4.6D HTY | 07° 00' 39.80" N | 100° 23' 28.71" E |
| (MAPt)<br>VOR | HTY | 06° 56' 02.78" N | 100° 23' 16.60" E |

CHANGE : VOR COORDINATES.

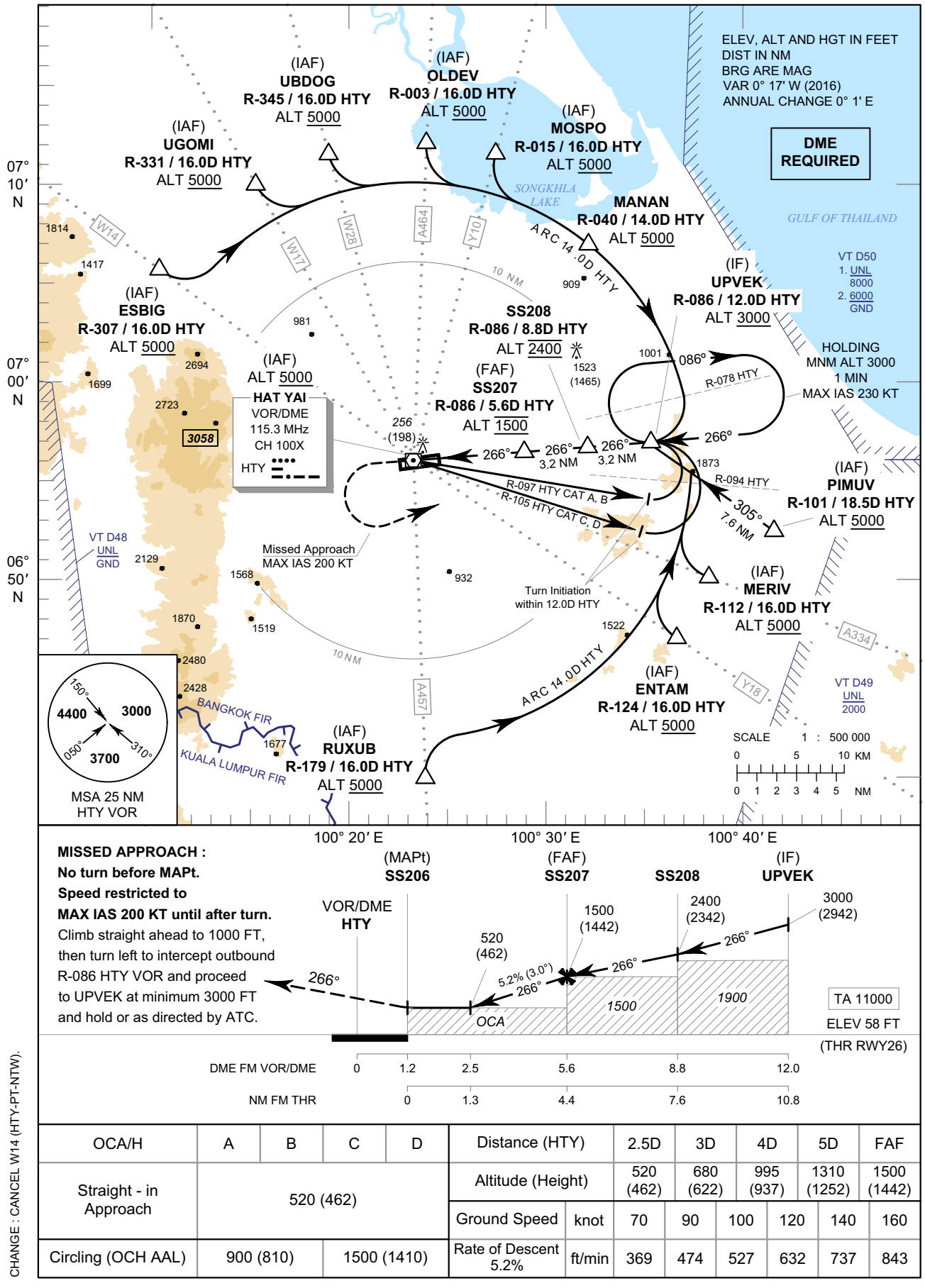
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

**SONGKHLA / Hat Yai Intl (VTSS)**

**VOR RWY26**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb straight ahead to 1000 FT, then turn left to intercept outbound R-086 HTY VOR and proceed to UPVEK at minimum 3000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 520 (462) | | | |
| Circling (OCH AAL) | 900 (810) | | 1500 (1410) | |

| Distance (HTY) | | 2.5D | 3D | 4D | 5D | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 520 (462) | 680 (622) | 995 (937) | 1310 (1252) | 1500 (1442) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : CANCEL W14 (HTY-PT-NTW).

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

**SONGKHLA / Hat Yai Intl (VTSS)**

**VOR RWY26**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>ESBIG | R-307 / 16.0D HTY | 07° 05' 44.68" N | 100° 10' 26.50" E |
| (IAF)<br>UGOMI | R-331 / 16.0D HTY | 07° 10' 01.79" N | 100° 15' 20.13" E |
| (IAF)<br>UBDOG | R-345 / 16.0D HTY | 07° 11' 33.24" N | 100° 19' 02.01" E |
| (IAF)<br>OLDEV | R-003 / 16.0D HTY | 07° 12' 06.40" N | 100° 23' 59.08" E |
| (IAF)<br>MOSPO | R-015 / 16.0D HTY | 07° 11' 33.58" N | 100° 27' 29.68" E |
| MANAN | R-040 / 14.0D HTY | 07° 06' 52.90" N | 100° 32' 15.17" E |
| (IAF)<br>RUXUB | R-179 / 16.0D HTY | 06° 39' 58.28" N | 100° 23' 32.72" E |
| (IAF)<br>ENTAM | R-124 / 16.0D HTY | 06° 47' 01.10" N | 100° 36' 35.09" E |
| (IAF)<br>MERIV | R-112 / 16.0D HTY | 06° 50' 05.31" N | 100° 38' 12.95" E |
| (IAF)<br>PIMUV | R-101 / 18.5D HTY | 06° 52' 33.56" N | 100° 41' 31.05" E |
| (IF)<br>UPVEK | R-086 / 12.0D HTY | 06° 56' 55.46" N | 100° 35' 18.78" E |
| SS208 | R-086 / 8.8D HTY | 06° 56' 41.42" N | 100° 32' 05.99" E |
| (FAF)<br>SS207 | R-086 / 5.6D HTY | 06° 56' 27.33" N | 100° 28' 52.72" E |
| (MAPt)<br>SS206 | R-086 / 1.2D HTY | 06° 56' 07.99" N | 100° 24' 28.12" E |
| (IAF)<br>VOR | HTY | 06° 56' 02.78" N | 100° 23' 16.60" E |

CHANGE: VOR COORDINATES.

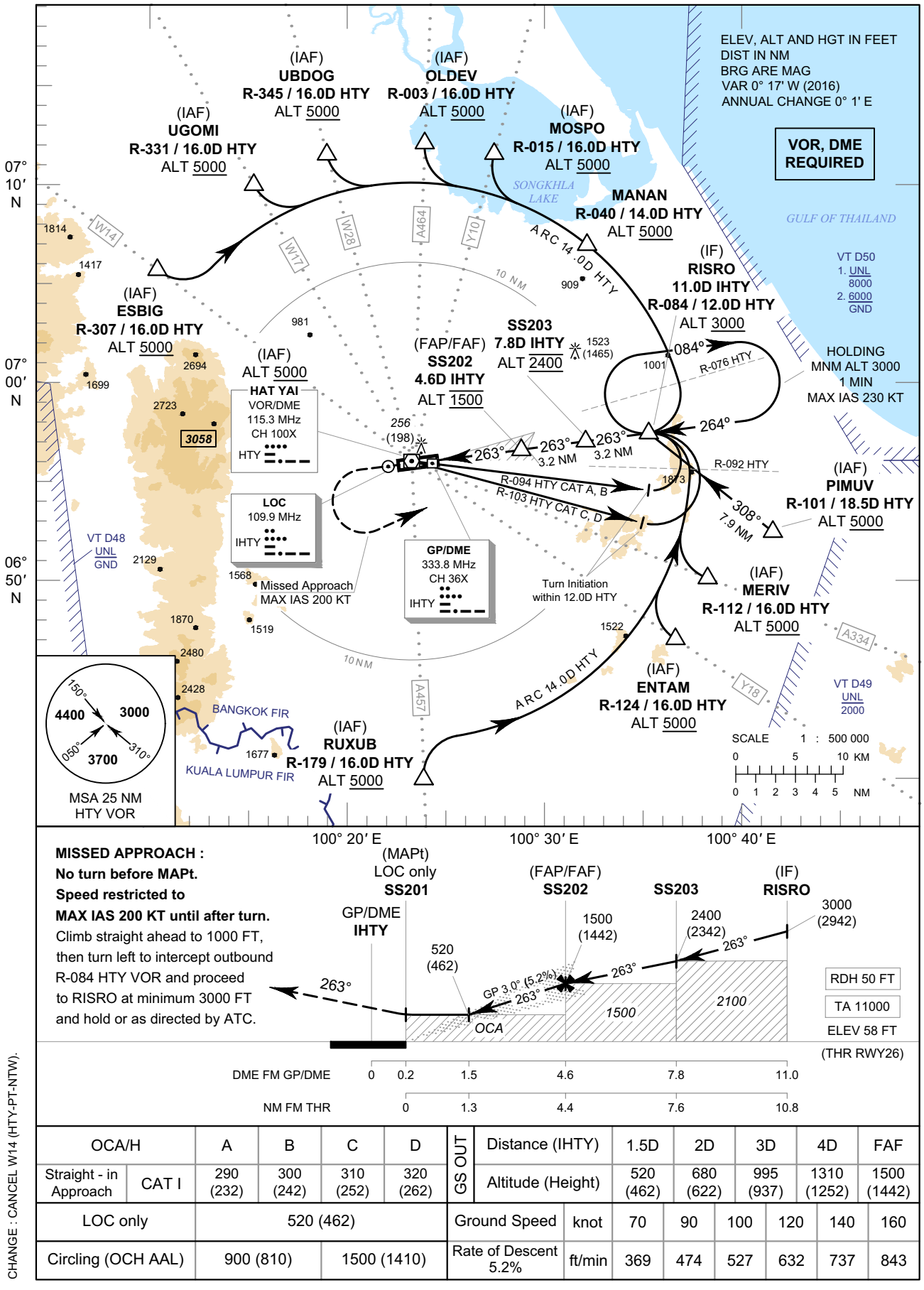
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

**SONGKHLA / Hat Yai Intl (VTSS)**

**ILS or LOC y RWY26**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb straight ahead to 1000 FT, then turn left to intercept outbound R-084 HTY VOR and proceed to RISRO at minimum 3000 FT and hold or as directed by ATC.




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 290 (232) | 300 (242) | 310 (252) | 320 (262) |
| LOC only | | 520 (462) | | | |
| Circling (OCH AAL) | | 900 (810) | | 1500 (1410) | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (IHTY) | 1.5D | 2D | 3D | 4D | FAF | | |
| Altitude (Height) | 520 (462) | 680 (622) | 995 (937) | 1310 (1252) | 1500 (1442) | | |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : CANCEL W14 (HTY-PT-NTW).

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

**SONGKHLA / Hat Yai Intl (VTSS)**

**ILS or LOC y RWY26**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>ESBIG | R-307 / 16.0D HTY | 07° 05' 44.68" N | 100° 10' 26.50" E |
| (IAF)<br>UGOMI | R-331 / 16.0D HTY | 07° 10' 01.79" N | 100° 15' 20.13" E |
| (IAF)<br>UBDOG | R-345 / 16.0D HTY | 07° 11' 33.24" N | 100° 19' 02.01" E |
| (IAF)<br>OLDEV | R-003 / 16.0D HTY | 07° 12' 06.40" N | 100° 23' 59.08" E |
| (IAF)<br>MOSPO | R-015 / 16.0D HTY | 07° 11' 33.58" N | 100° 27' 29.68" E |
| MANAN | R-040 / 14.0D HTY | 07° 06' 52.90" N | 100° 32' 15.17" E |
| (IAF)<br>RUXUB | R-179 / 16.0D HTY | 06° 39' 58.28" N | 100° 23' 32.72" E |
| (IAF)<br>ENTAM | R-124 / 16.0D HTY | 06° 47' 01.10" N | 100° 36' 35.09" E |
| (IAF)<br>MERIV | R-112 / 16.0D HTY | 06° 50' 05.31" N | 100° 38' 12.95" E |
| (IAF)<br>PIMUV | R-101 / 18.5D HTY | 06° 52' 33.56" N | 100° 41' 31.05" E |
| (IF)<br>RISRO | 11.0D IHTY | 06° 57' 25.07" N | 100° 35' 15.76" E |
| SS203 | 7.8D IHTY | 06° 57' 01.07" N | 100° 32' 04.19" E |
| (FAP/FAF)<br>SS202 | 4.6D IHTY | 06° 56' 36.96" N | 100° 28' 51.91" E |
| (MAPt@THR26)<br>SS201 | 0.2D IHTY | 06° 56' 03.89" N | 100° 24' 28.52" E |
| LOC | IHTY | 06° 55' 49.01" N | 100° 22' 30.05" E |
| GP/DME | IHTY | 06° 55' 58.75" N | 100° 24' 19.31" E |
| (IAF)<br>VOR | HTY | 06° 56' 02.78" N | 100° 23' 16.60" E |

CHANGE: VOR LOC GP/DME COORDINATES.

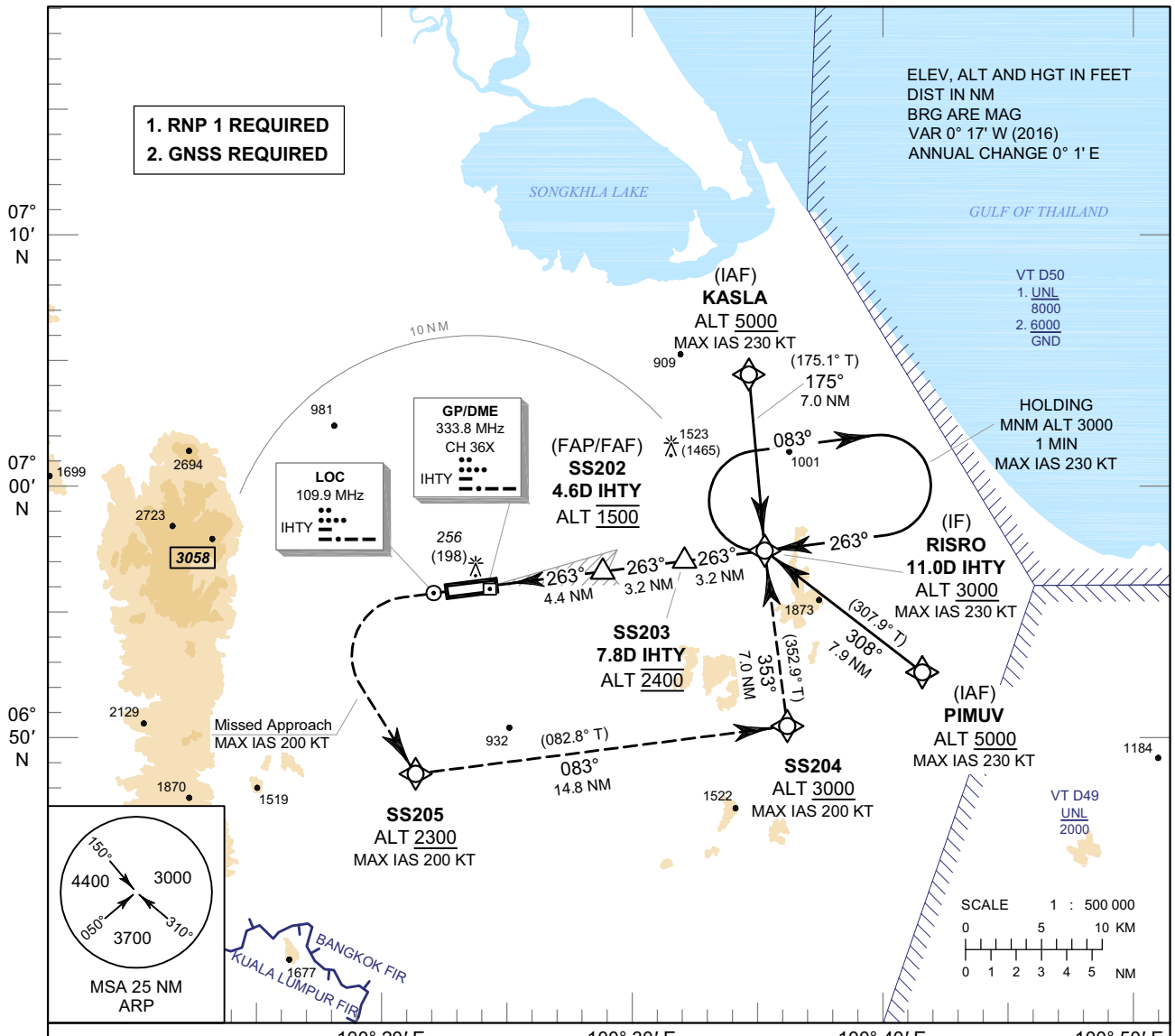
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

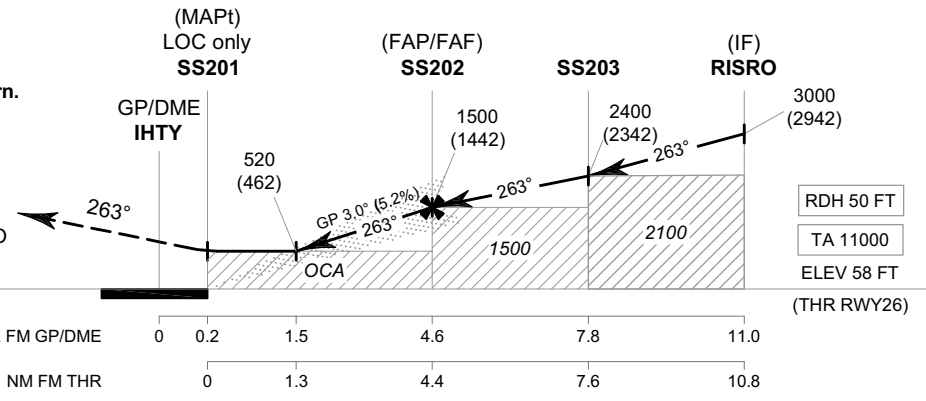
APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

**SONGKHLA / Hat Yai Intl (VTSS)**

**ILS or LOC z RWY26**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb on track 263° to 1000 FT, then turn left direct to SS205 at minimum 2300 FT and continue to SS204 at minimum 3000 FT then proceed to RISRO and hold or as directed by ATC.




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 290 (232) | 300 (242) | 310 (252) | 320 (262) |
| LOC only | | 520 (462) | | | |
| Circling (OCH AAL) | | 900 (810) | | 1500 (1410) | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (IHTY) | | 1.5D | 2D | 3D | 4D | FAF | |
| Altitude (Height) | | 520 (462) | 680 (622) | 995 (937) | 1310 (1252) | 1500 (1442) | |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : NEW CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

**SONGKHLA / Hat Yai Intl (VTSS)**

**ILS or LOC z RWY26**

**TABULAR DESCRIPTION**

| ILS or LOC z RWY26 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IAF) PIMUV | - | - | +0.20 | - | - | +5000 | -230 | - | RNP 1 |
| 020 | TF | (IF) RISRO | - | 308°(307.9°) | +0.20 | 7.9 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) KASLA | - | - | +0.20 | - | - | +5000 | -230 | - | RNP 1 |
| 020 | TF | (IF) RISRO | - | 175°(175.1°) | +0.20 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) RISRO | - | - | +0.20 | - | - | +3000 | -230 | - | RNP 1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | SS203 | - | 263°(262.9°) | +0.20 | 3.2 | - | @2400 | - | - | ILS |
| 030 | TF | (FAF) SS202 | - | 263°(262.9°) | +0.20 | 3.2 | - | @1500 | - | - | ILS |
| 040 | TF | (MAPt@THR26) SS201 | Y | 263°(262.9°) | +0.20 | 4.4 | - | @108 | - | -3.0/50 | ILS |
| 050 | CA | - | - | 263°(262.9°) | +0.20 | - | - | +1000 | -200 | - | RNP 1 |
| 060 | DF | SS205 | - | - | +0.20 | - | L | +2300 | -200 | - | RNP 1 |
| 070 | TF | SS204 | - | 083°(082.8°) | +0.20 | 14.8 | - | +3000 | -200 | - | RNP 1 |
| 080 | TF | (IF) RISRO | - | 353°(352.9°) | +0.20 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| 090 | HM | (IF) RISRO | Y | 263°(262.9°) | +0.20 | 1 minute | R | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |

**WAYPOINT LIST**

| ILS or LOC z RWY26 | |
|---|---|
| Waypoint Identifier | Coordinates |
| KASLA | 07° 04' 25.58" N 100° 34' 39.39" E |
| PIMUV | 06° 52' 33.56" N 100° 41' 31.05" E |
| RISRO | 06° 57' 25.07" N 100° 35' 15.76" E |
| SS201 | 06° 56' 03.89" N 100° 24' 28.52" E |
| SS202 | 06° 56' 36.96" N 100° 28' 51.91" E |
| SS203 | 06° 57' 01.07" N 100° 32' 04.19" E |
| SS204 | 06° 50' 26.30" N 100° 36' 08.25" E |
| SS205 | 06° 48' 34.95" N 100° 21' 20.76" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

**SONGKHLA / Hat Yai Intl (VTSS)**

**ILS or LOC z RWY26**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IF)<br>RISRO | 11.0D IHTY | 06° 57' 25.07" N | 100° 35' 15.76" E |
| SS203 | 7.8D IHTY | 06° 57' 01.07" N | 100° 32' 04.19" E |
| (FAP/FAF)<br>SS202 | 4.6D IHTY | 06° 56' 36.96" N | 100° 28' 51.91" E |
| (MAPt@THR26)<br>SS201 | 0.2D IHTY | 06° 56' 03.89" N | 100° 24' 28.52" E |
| LOC | IHTY | 06° 55' 49.01" N | 100° 22' 30.05" E |
| GP/DME | IHTY | 06° 55' 58.75" N | 100° 24' 19.31" E |

CHANGE: GP/DME LOC COORDINATES.

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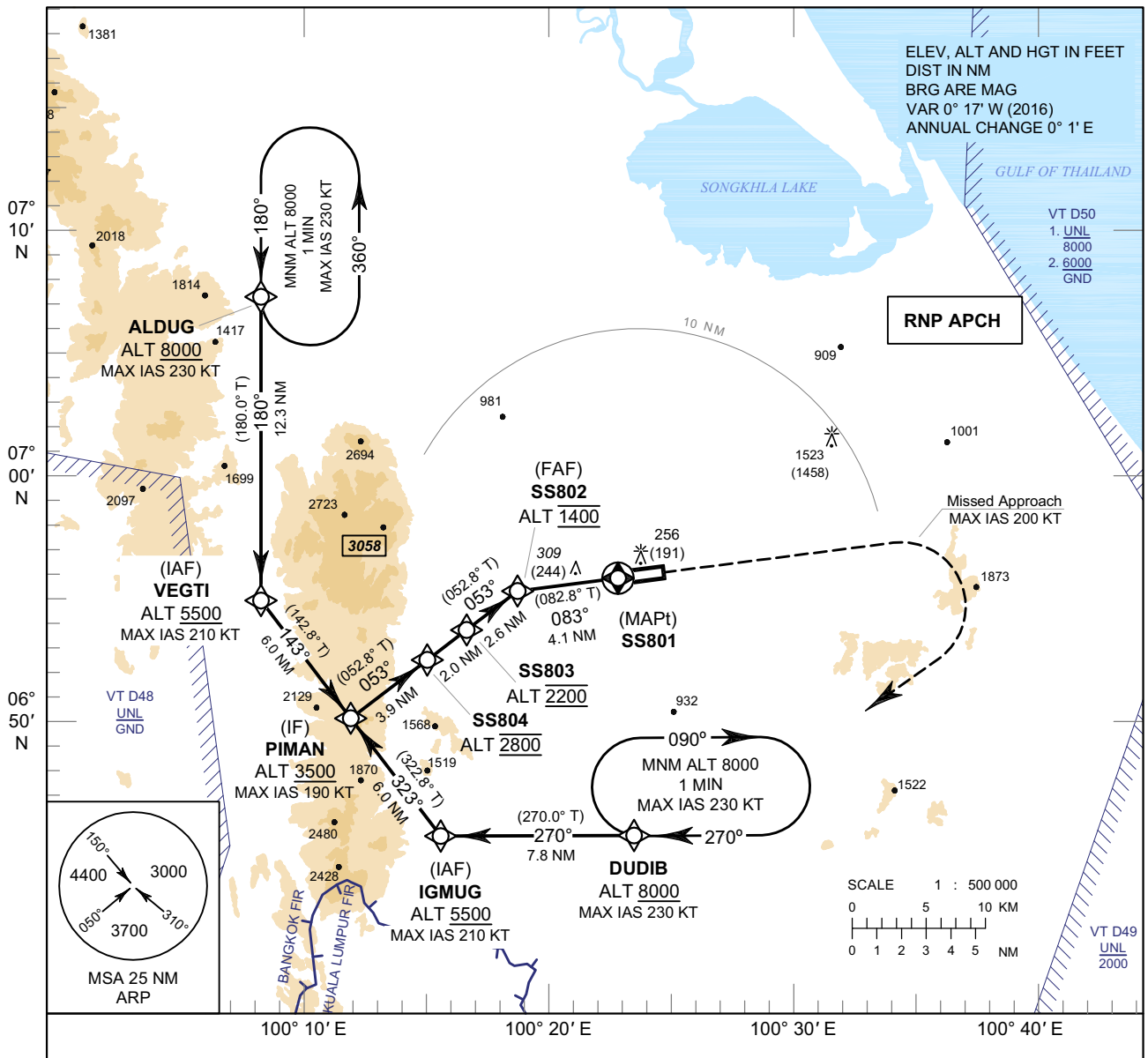
**INSTRUMENT APPROACH CHART - ICAO**

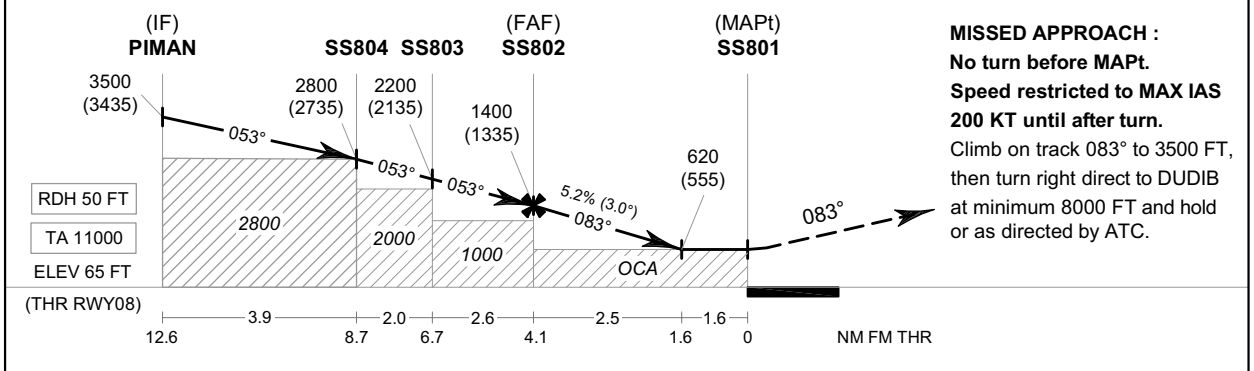
**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY08 - ELEV 65 FT

APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

**SONGKHLA / Hat Yai Intl (VTSS)**

**RNP RWY08**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 200 KT until after turn.**
Climb on track 083° to 3500 FT, then turn right direct to DUDIB at minimum 8000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV | 620 (555) | | | |
| Circling (OCH AAL) | 900 (810) | | 1500 (1410) | |

**REMARK** : NO DIRECT TO IF AND FAF DUE TO HIGH TERRAIN AND PROXIMITY OF KUALA LUMPUR FIR.

| NM to NEXT WPT | | FAF | 4 NM | 3 NM | 2 NM | 1.6 NM |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1400 (1335) | 1380 (1315) | 1065 (1000) | 750 (685) | 620 (555) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY08 - ELEV 65 FT

**SONGKHLA / Hat Yai Intl (VTSS)**

**RNP RWY08**

**TABULAR DESCRIPTION**

| RNP RWY08 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | ALDUG | - | - | +0.20 | - | - | +8000 | -230 | - | RNP APCH |
| 020 | TF | (IAF) VEGTI | - | 180°(180.0°) | +0.20 | 12.3 | - | +5500 | -210 | - | RNP APCH |
| 030 | TF | (IF) PIMAN | - | 143°(142.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | DUDIB | - | - | +0.20 | - | - | +8000 | -230 | - | RNP APCH |
| 020 | TF | (IAF) IGMUG | - | 270°(270.0°) | +0.20 | 7.8 | - | +5500 | -210 | - | RNP APCH |
| 030 | TF | (IF) PIMAN | - | 323°(322.8°) | +0.20 | 6.0 | - | +3500 | -190 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | TF | (IF) PIMAN | - | - | +0.20 | - | - | +3500 | -190 | - | RNP APCH |
| 020 | TF | SS804 | - | 053°(052.8°) | +0.20 | 3.9 | - | @2800 | - | - | RNP APCH |
| 030 | TF | SS803 | - | 053°(052.8°) | +0.20 | 2.0 | - | @2200 | - | - | RNP APCH |
| 040 | TF | (FAF) SS802 | - | 053°(052.8°) | +0.20 | 2.6 | - | @1400 | - | - | RNP APCH |
| 050 | TF | (MAPt@THR08) SS801 | Y | 083°(082.8°) | +0.20 | 4.1 | - | @115 | - | -3.0/50 | RNP APCH |
| 060 | CA | - | - | 083°(082.8°) | +0.20 | - | - | +3500 | -200 | - | RNP APCH |
| 070 | DF | DUDIB | - | - | +0.20 | - | R | +8000 | -200 | - | RNP APCH |
| 080 | HM | DUDIB | Y | 270°(270.0°) | +0.20 | 1 minute | R | +8000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |

**WAYPOINT LIST**

| RNP RWY08 | |
|---|---|
| Waypoint Identifier | Coordinates |
| ALDUG | 07° 07' 22.40" N 100° 08' 17.10" E |
| DUDIB | 06° 45' 22.75" N 100° 23' 27.25" E |
| IGMUG | 06° 45' 22.81" N 100° 15' 34.64" E |
| PIMAN | 06° 50' 10.99" N 100° 11' 55.91" E |
| SS801 | 06° 55' 51.50" N 100° 22' 49.91" E |
| SS802 | 06° 55' 20.64" N 100° 18' 44.49" E |
| SS803 | 06° 53' 45.92" N 100° 16' 39.48" E |
| SS804 | 06° 52' 33.07" N 100° 15' 03.35" E |
| VEGTI | 06° 54' 59.13" N 100° 08' 17.10" E |

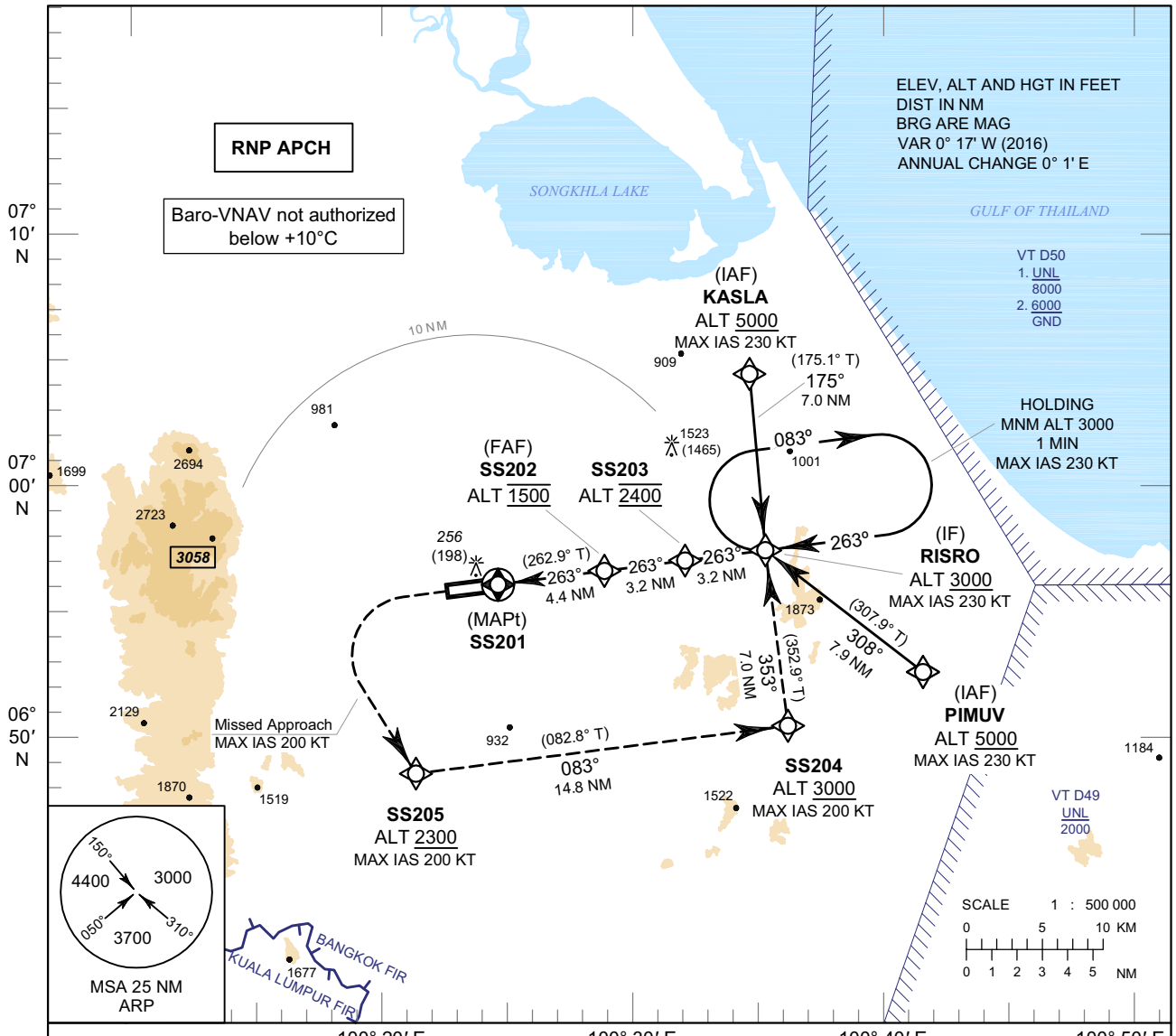
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

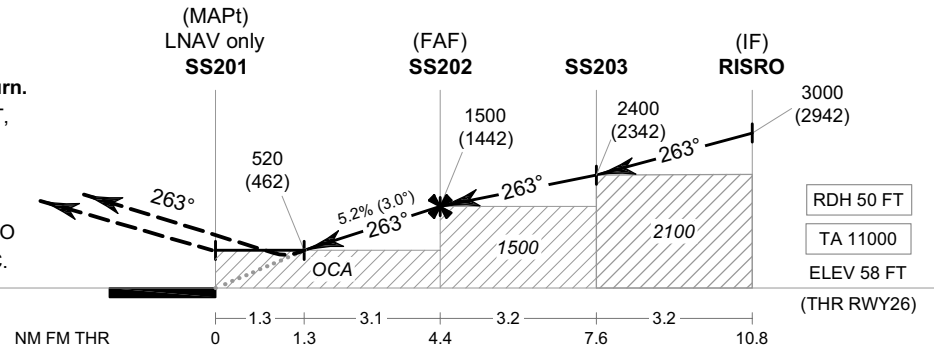
APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

**SONGKHLA / Hat Yai Intl (VTSS)**

**RNP RWY26**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 200 KT until after turn.**
Climb on track 263° to 1000 FT, then turn left direct to SS205 at minimum 2300 FT and continue to SS204 at minimum 3000 FT then proceed to RISRO and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 420 (362) | | | |
| LNAV | 520 (462) | | | |
| Circling (OCH AAL) | 900 (810) | | 1500 (1410) | |

| NM to NEXT WPT | | 1.3 NM | 2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 520 (462) | 740 (682) | 1055 (997) | 1370 (1312) | 1500 (1442) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 90 FT**
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

**SONGKHLA / Hat Yai Intl (VTSS)**

**RNP RWY26**

**TABULAR DESCRIPTION**

| RNP RWY26 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IAF) PIMUV | - | - | +0.20 | - | - | +5000 | -230 | - | RNP APCH |
| 020 | TF | (IF) RISRO | - | 308°(307.9°) | +0.20 | 7.9 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) KASLA | - | - | +0.20 | - | - | +5000 | -230 | - | RNP APCH |
| 020 | TF | (IF) RISRO | - | 175°(175.1°) | +0.20 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) RISRO | - | - | +0.20 | - | - | +3000 | -230 | - | RNP APCH |
| 020 | TF | SS203 | - | 263°(262.9°) | +0.20 | 3.2 | - | @2400 | - | - | RNP APCH |
| 030 | TF | (FAF) SS202 | - | 263°(262.9°) | +0.20 | 3.2 | - | @1500 | - | - | RNP APCH |
| 040 | TF | (MAPt@THR26) SS201 | Y | 263°(262.9°) | +0.20 | 4.4 | - | @108 | - | -3.0/50 | RNP APCH |
| 050 | CA | - | - | 263°(262.9°) | +0.20 | - | - | +1000 | -200 | - | RNP APCH |
| 060 | DF | SS205 | - | - | +0.20 | - | L | +2300 | -200 | - | RNP APCH |
| 070 | TF | SS204 | - | 083°(082.8°) | +0.20 | 14.8 | - | +3000 | -200 | - | RNP APCH |
| 080 | TF | (IF) RISRO | - | 353°(352.9°) | +0.20 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| 090 | HM | (IF) RISRO | Y | 263°(262.9°) | +0.20 | 1 minute | R | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |

**WAYPOINT LIST**

| RNP RWY26 | |
|---|---|
| Waypoint Identifier | Coordinates |
| KASLA | 07° 04' 25.58" N 100° 34' 39.39" E |
| PIMUV | 06° 52' 33.56" N 100° 41' 31.05" E |
| RISRO | 06° 57' 25.07" N 100° 35' 15.76" E |
| SS201 | 06° 56' 03.89" N 100° 24' 28.52" E |
| SS202 | 06° 56' 36.96" N 100° 28' 51.91" E |
| SS203 | 06° 57' 01.07" N 100° 32' 04.19" E |
| SS204 | 06° 50' 26.30" N 100° 36' 08.25" E |
| SS205 | 06° 48' 34.95" N 100° 21' 20.76" E |

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## VTUO AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUO - BURIRAM / BURI RAM AIRPORT

## VTUO AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 151336.33N 1031504.46E |
| 2 | Direction and distance from (city) | 30 KM from city |
| 3 | Elevation/Reference temperature | 594 FT / 28°C |
| 4 | Geoid Undulation at AD ELEV PSN | -89 FT |
| 5 | MAG VAR/Annual change | 1°01' W (2022) / 0°05' W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Buri Ram Airport<br>Buri Ram Airport<br>143 Moo 12, Tambon Ronthong,<br>Amphoe Satuk, Buri Ram Province<br>31150 Thailand<br>Tel: +664 466 6341<br>Fax: +664 466 6340<br>AFS: VTUOYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTUO AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1300 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1300 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1300 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Nakhon Ratchasima<br>Air Traffic Control Centre<br>(1st floor of Building)<br>Tel: +664 425 8855 Ext. 7272, +668 9845 1649<br>Fax: +664425 8952 Ext. 7273<br>E-mail: vtuqzpzx@aerothai.co.th<br>Hours of services: 2300-1100 after this period contact<br>Tel: +664 525 6407, +668 9488 2157<br>Fax: +664 524 0798 Ext. 7874 |

## VTUO AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |

| | | |
|---|---|---|
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTUO AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Limousine and Car rental from the airport |
| 4 | Medical facilities | First aid at AD and hospital in the city |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTUO AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUO AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUO AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 64/R/C/X/T |
| 2 | Taxiway width, surface and strength | Taxiway A<br>Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 59/F/C/X/T<br>Taxiway B<br>Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 42/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 599 FT (182.46 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUO AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>Taxiway guide lines: Yes<br>Nose-wheel guide lines at apron<br>VDGS of aircraft stands: NIL<br>Aircraft parking shall follow marshaller strictly |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY markings: CL, Edge and RWY Holding Position<br>TWY LGT: Taxiway Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUO AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | Apron Flood Light (1)<br>HGT 210 M MSL<br>LGTD | 151336.30N<br>1031451.20E | NIL |
| | | | Apron Flood Light (2)<br>HGT 210 M MSL<br>LGTD | 151337.90N<br>1031452.40E | |
| | | | Apron Flood Light (3)<br>HGT 206 M MSL<br>LGTD | 151339.50N<br>1031453.50E | |
| | | | Apron Flood Light (4)<br>HGT 206 M MSL<br>LGTD | 151341.10N<br>1031454.70E | |
| | | | Aron Flood Light (5)<br>HGT 206 M MSL<br>LGTD | 151342.70N<br>1031455.80E | |
| | | | Apron Flood Light (6)<br>HGT 208 M MSL<br>LGTD | 151344.40N<br>1031457.00E | |
| | | | Apron Flood Light (7)<br>HGT 206 M MSL<br>LGTD | 151346.10N<br>1031458.20E | |

## VTUO AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Buri Ram,<br>Lower Northeastern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1300<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Lower Northeastern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |

| | | |
|---|---|---|
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +669 8282 4412 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Buri Ram TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUO AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 04 | 035.10° | 2100x45 | PCN 59/F/C/X/T<br>Asphaltic concrete | 151318.37N 1031451.46E<br>-89 FT | THR 594 FT |
| 22 | 215.10° | 2100x45 | PCN 59/F/C/X/T<br>Asphaltic concrete | 151414.27N 1031531.92E<br>-90 FT | THR 566 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 1.5% | NIL | NIL | 2220x300 | 430x90 | NIL | NIL | NIL |
| 1.5% | NIL | NIL | 2220x300 | 630x90 | NIL | NIL | NIL |

## VTUO AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 04 | 2100 | 2100 | 2100 | 2100 | NIL |
| 22 | 2100 | 2100 | 2100 | 2100 | NIL |

## VTUO AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 04 | SALS<br>420 M<br>LIH | Green<br>WBAR | PAPI<br>LEFT 3°<br>(50.67<br>FT) | NIL | NIL | 2100 M<br>60 M White,<br>FM 1500 M -<br>2100 M Yellow,<br>5 steps<br>LIH | Red<br>NIL | NIL | NIL |

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 22 | NIL | Green<br>NIL | PAPI<br>LEFT 3°<br>(60.09<br>FT) | NIL | NIL | 2100 M<br>60 M White,<br>FM 1500 M -<br>2100 M Yellow,<br>5 steps<br>LIH | Red<br>NIL | NIL | RTIL |

**VTUO AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY**

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building, FLG W G EV 3 SEC.<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI:<br>1. Wind cone at 300 M from THR 04 off set right side 80 M from RCL, illuminated.<br>2. Wind cone at 830 M from THR 04 off set left side 80 M from RCL, illuminated.<br>3. Wind cone at 300 M from THR 22 off set left side 80 M from RCL, illuminated. |
| 3 | TWY edge and centre line lighting | TWY edge: All TWY<br>TWY centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the Air Field Lighting (AFL) building.<br>Switch-over time: 15 SEC. |
| 5 | Remarks | NIL |

**VTUO AD 2.16 HELICOPTER LANDING AREA**

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTUO AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM Radius centred on BRM DVOR/DME (151422.4N 1031531.6E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Buri Ram Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTUO AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Buri Ram Approach | 125.55 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Buri Ram Tower | 118.05 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Buri Ram Airport | 127.05 MHz | As AD OPR HR | |

## VTUO AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | BR | 303 KHz | H24 | 151419.2N 1031509.2E | | Coverage 50 NM clockwise orbit data refer from commissioning checked as follows:<br>– Bearing 001°-360° at altitude 1 700 FT |
| DVOR/DME | BRM | 117.2 MHz CH119X | H24 | 151422.4N 1031531.6E | | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit 40 NM at required altitude in various areas as follows:<br>– Radial 091°-140° altitude should not below 3 500 FT<br>– Radial 141°-240° altitude should not below 5 000 FT<br>– Radial 241°-280° altitude should not below 4 000 FT<br>– Radial 281°-090° altitude should not below 2 500 FT |

## VTUO AD 2.20 LOCAL AERODROME REGULATIONS

All aircraft code letter C and higher are not allowed to turn on runway. The turn shall be made on the runway turn pad only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand/The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTUO AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUO AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

### 3. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 04:

BURIRAM OMNI 04 Departure: Required climb gradient 201 ft per NM (3.3%) until 2,100 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,000 ft (or altitude assigned by ATC between 1,000 ft - 1,900 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 22:

BURIRAM OMNI 22 Departure: Required climb gradient 201 ft per NM (3.3%) until 2,100 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 1,900 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTUO AD 2.23 ADDITIONAL INFORMATION

- Birds concentration on and in the vicinity of an aerodrome.

## VTUO AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTUO-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTUO-2-3 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTUO-2-5 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 04/22 | AD 2-VTUO-3-1 |
| Instrument Approach Chart - ICAO - NDB RWY 04 | AD 2-VTUO-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 04 | AD 2-VTUO-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 04 (Fix and point list table) | AD 2-VTUO-8-4 |
| Instrument Approach Chart - ICAO - VOR RWY 22 | AD 2-VTUO-8-5 |
| Instrument Approach Chart - ICAO - VOR RWY 22 (Fix and point list table) | AD 2-VTUO-8-6 |
| Instrument Approach Chart - ICAO - RNP RWY 04 | AD 2-VTUO-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 04 (Tabular description) | AD 2-VTUO-8-8 |
| Instrument Approach Chart - ICAO - RNP RWY 04 (Waypoint list table) | AD 2-VTUO-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 22 | AD 2-VTUO-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 22 (Tabular description) | AD 2-VTUO-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 22 (Waypoint list table) | AD 2-VTUO-8-12 |

## AERODROME CHART - ICAO

**15 13 36.33N**
**103 15 04.46E**

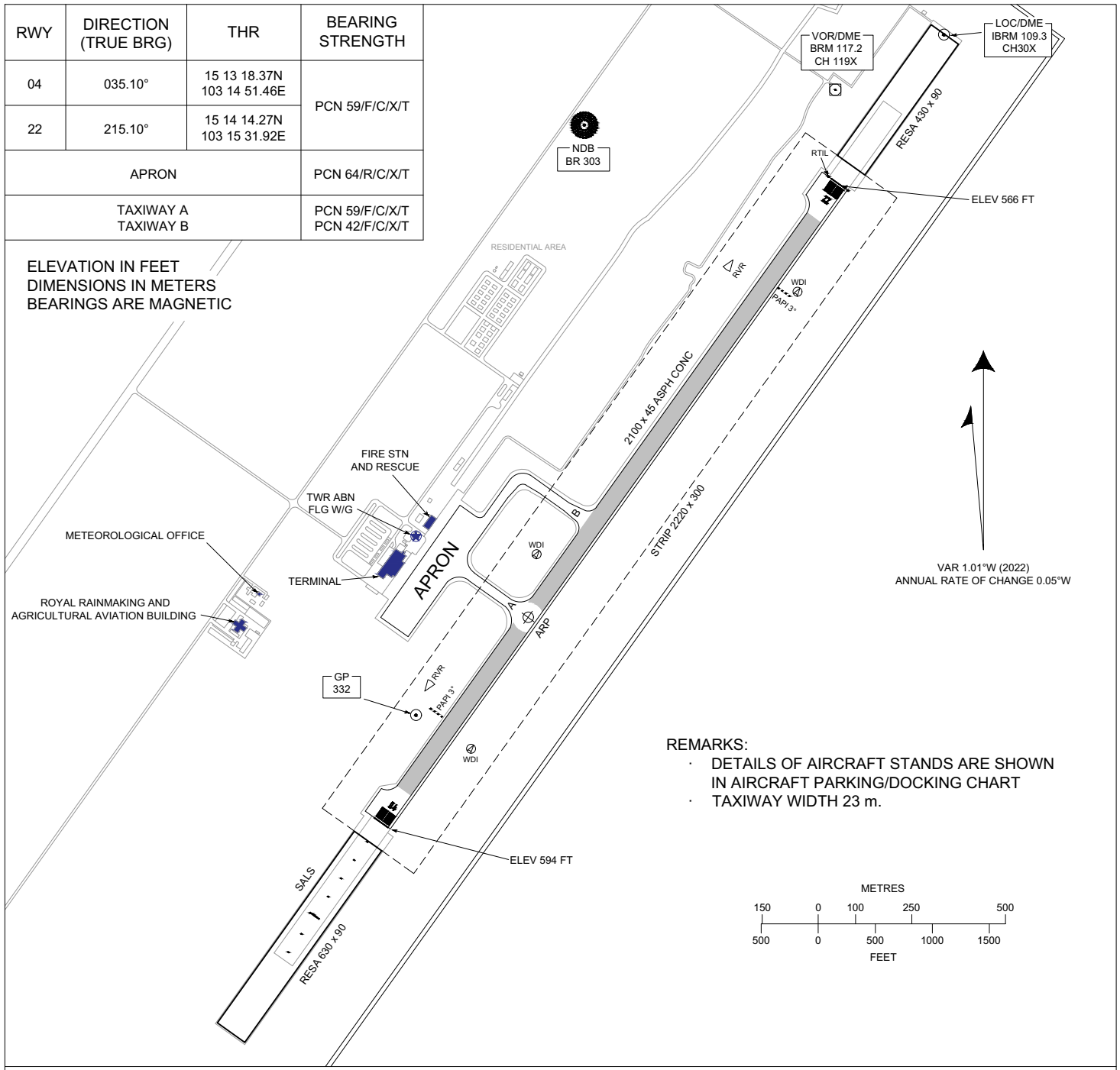
**ELEV 594 FT**

**TWR 118.05**
**236.6**

## BURI RAM / Buri Ram

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 04 | 035.10° | 15 13 18.37N<br>103 14 51.46E | PCN 59/F/C/X/T |
| 22 | 215.10° | 15 14 14.27N<br>103 15 31.92E | |
| APRON | | | PCN 64/R/C/X/T |
| TAXIWAY A<br>TAXIWAY B | | | PCN 59/F/C/X/T<br>PCN 42/F/C/X/T |

ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

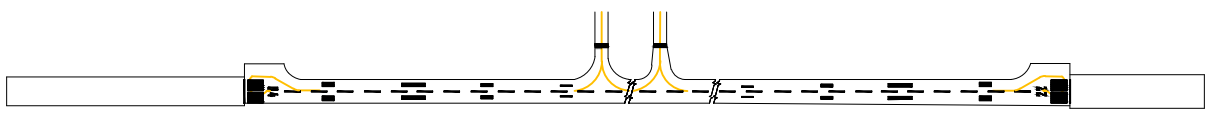



REMARKS:

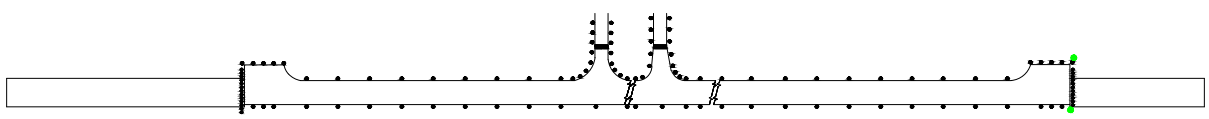
- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- TAXIWAY WIDTH 23 m.

METRES
150 0 100 250 500
500 0 500 1000 1500
FEET

MARKING AIDS RWY 04/22 AND EXIT TWY



LIGHTING AIDS RWY 04/22 AND EXIT TWY



METRES
150 0 100 250 500
500 0 500 1000 1500
FEET

CHANGE: REVISED CHART. CANCELLED SWY LGT RWY 04/22.

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# AIRCRAFT PARKING/ DOCKING CHART - ICAO

**APRON ELEV 599 FT**

**TWR 118.05 236.6**

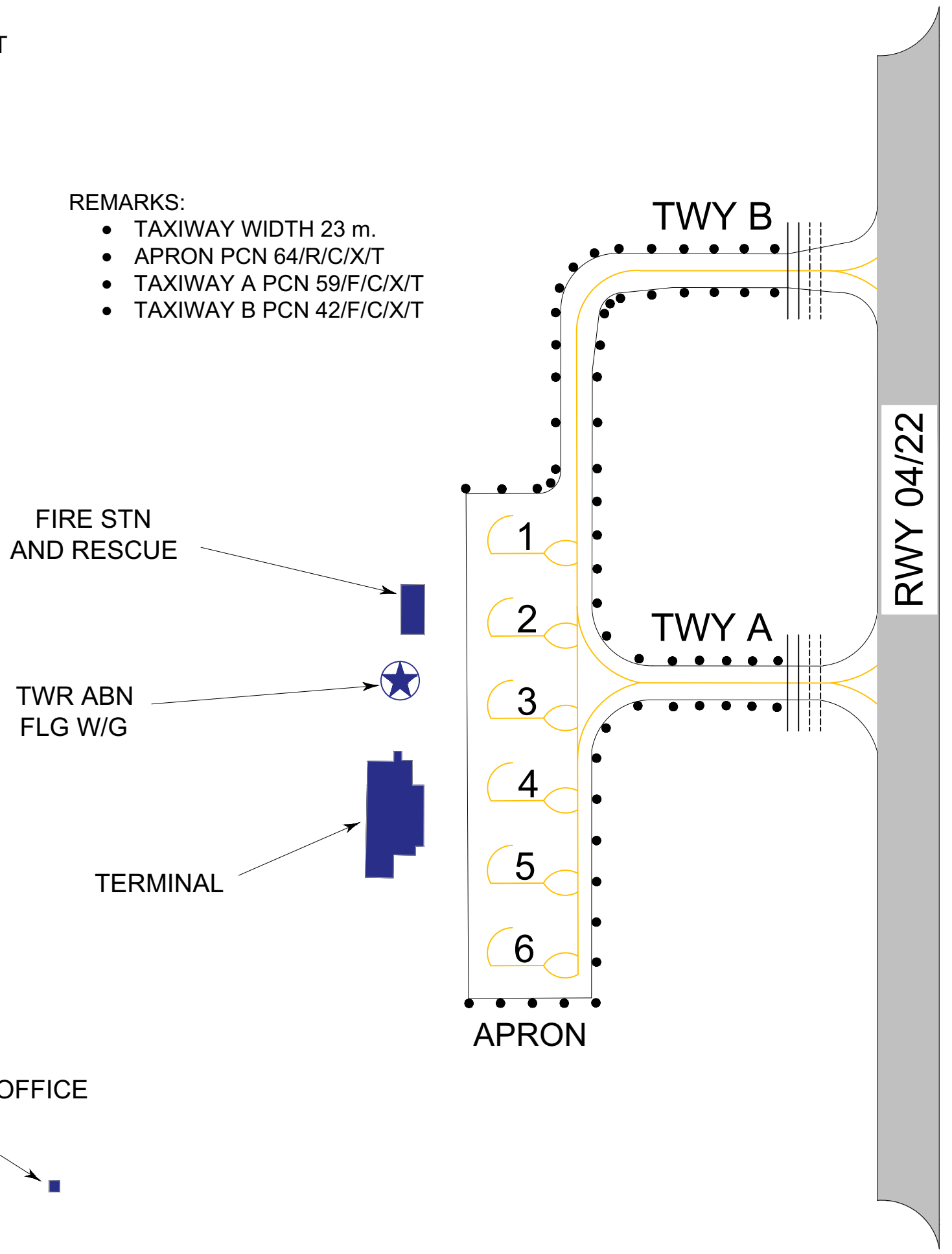
# BURI RAM / Buri Ram

ELEVATIONS IN FEET

VAR 1.01°W (2022)
ANNUAL RATE OF CHANGE 0.05°W

REMARKS:

- TAXIWAY WIDTH 23 m.
- APRON PCN 64/R/C/X/T
- TAXIWAY A PCN 59/F/C/X/T
- TAXIWAY B PCN 42/F/C/X/T




| LEGEND | |
|---|---|
| RUNWAY - HOLDING POSITION<br>NON-PRECISION APCH RWY | |

INS COORDINATES FOR AIRCRAFT STANDS

| STAND NR | COORDINATES | |
|---|---|---|
| 1 | 15 13 44.53N | 103 14 57.95E |
| 2 | 15 13 42.93N | 103 14 56.79E |
| 3 | 15 13 41.34N | 103 14 55.64E |
| 4 | 15 13 39.74N | 103 14 54.48E |
| 5 | 15 13 38.15N | 103 14 53.32E |
| 6 | 15 13 36.55N | 103 14 52.17E |

CHANGE: NEW CHART.

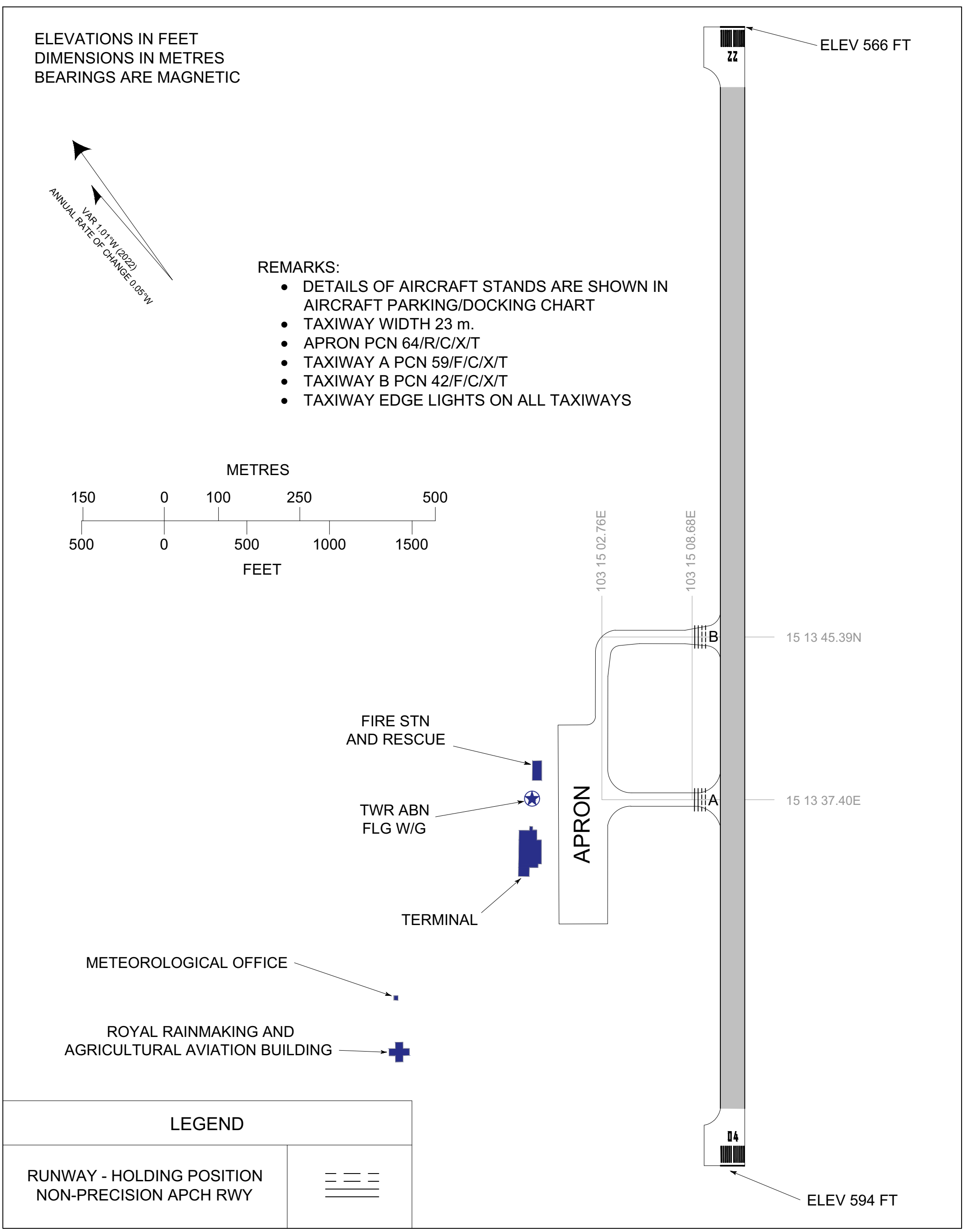
**INTENTIONALLY BLANK**

# AERODROME GROUND MOVEMENT CHART - ICAO

**APRON ELEV 599 FT**

**TWR 118.05 236.6**

# BURI RAM / Buri Ram



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# AERODROME OBSTACLE CHART - ICAO

**TYPE A (OPERATING LIMITATIONS)**

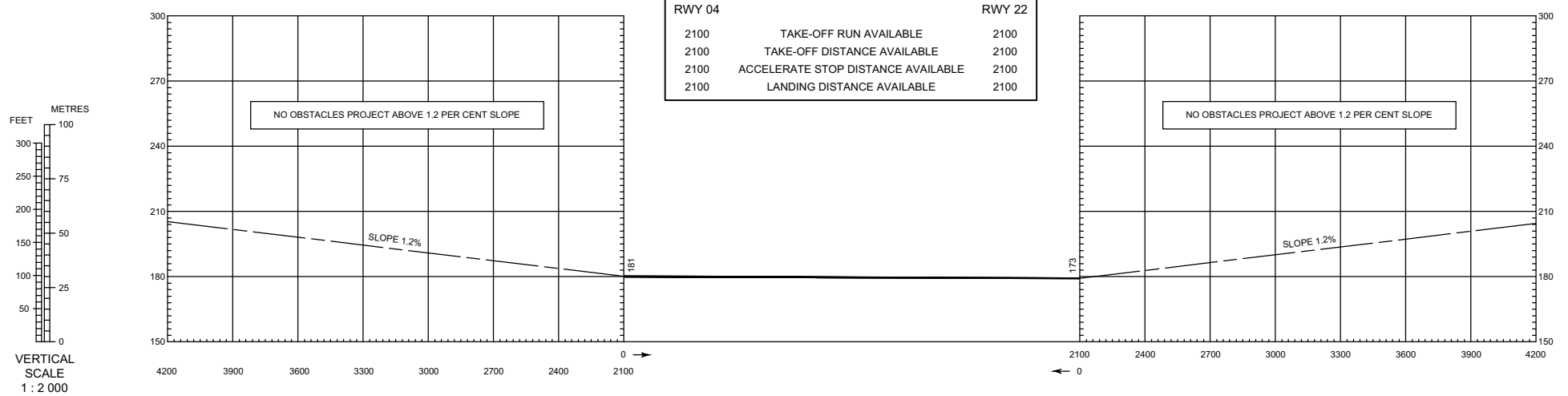
**DIMENSIONS AND ELEVATIONS IN METRES**

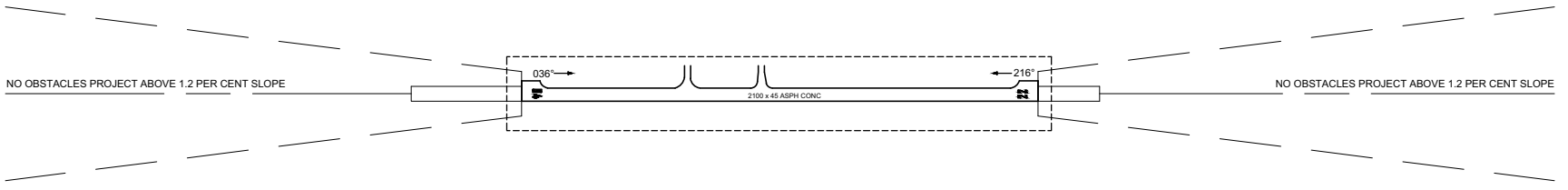
**BURI RAM / Buri Ram Airport**

MAGNETIC VARIATION 1.01°W (2022)
ANNUAL RATE OF CHANGE 0.05°W

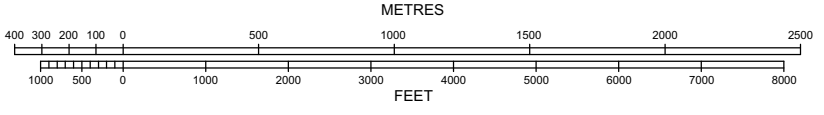
RWY 04 / 22

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 04 | | RWY 22 |
| 2100 | TAKE-OFF RUN AVAILABLE | 2100 |
| 2100 | TAKE-OFF DISTANCE AVAILABLE | 2100 |
| 2100 | ACCELERATE STOP DISTANCE AVAILABLE | 2100 |
| 2100 | LANDING DISTANCE AVAILABLE | 2100 |




HORIZONTAL SCALE 1 : 20 000




ORDER OF ACCURACY
HORIZONTAL 0.5 m
VERTICAL 0.5 m

CHANGE: NEW CHART.

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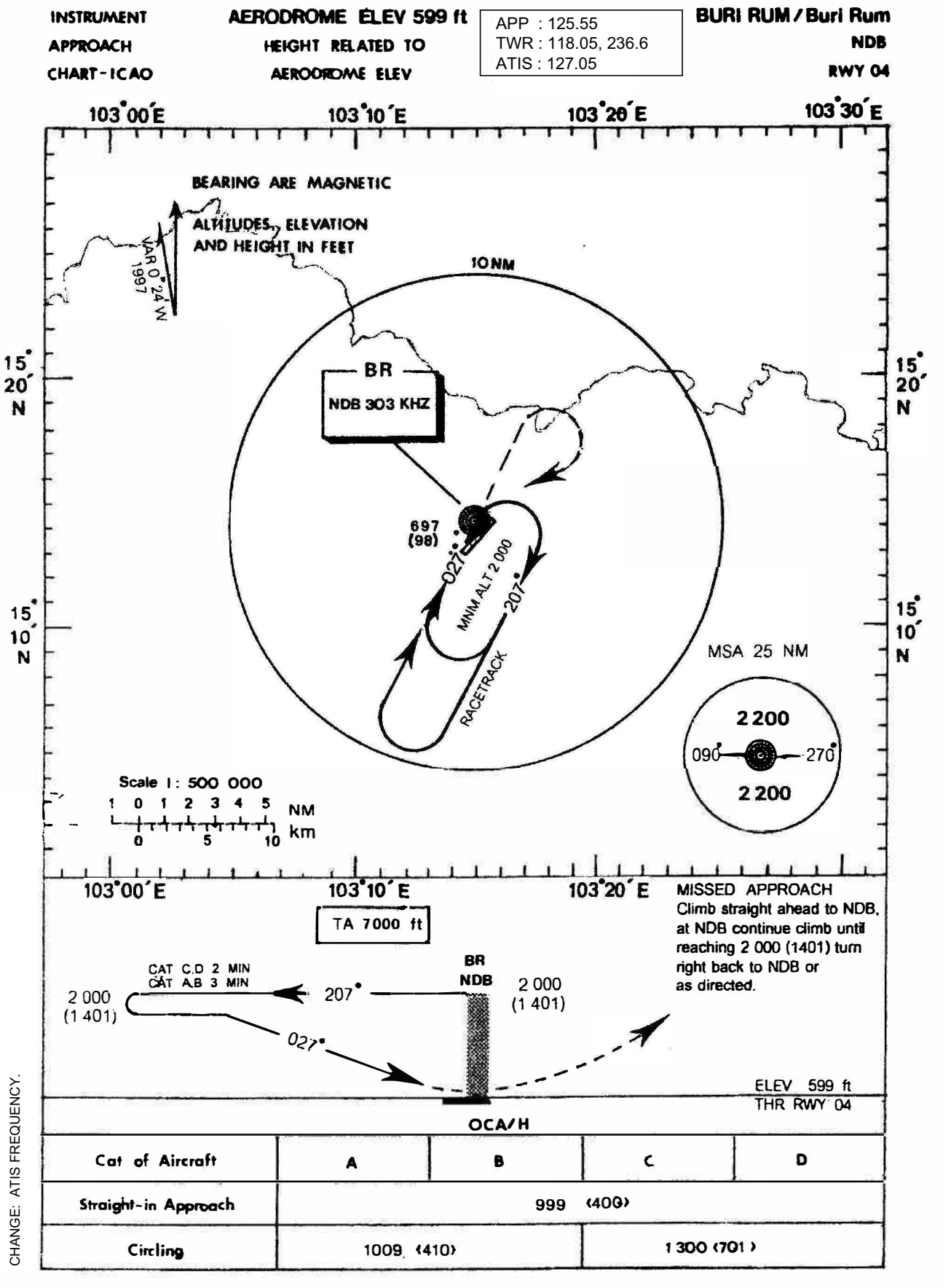


| Cat of Aircraft | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | 999 (400) | | | |
| Circling | 1009 (410) | | 1 300 (701) | |

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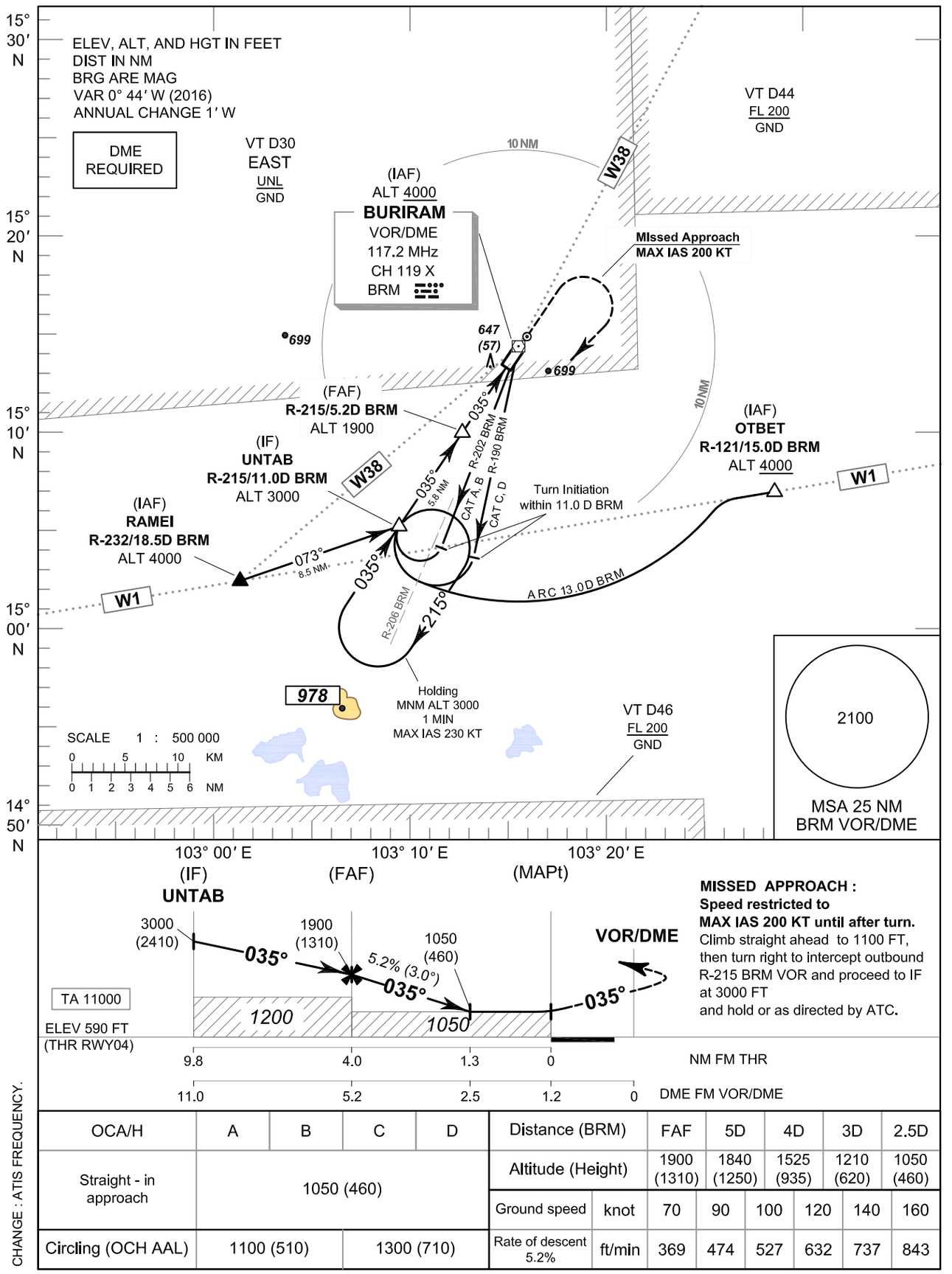
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY04 - ELEV 590 FT

APP : 125.55
TWR : 118.05, 236.6
ATIS : 127.05

# BURI RAM / Buri ram (VTUO)

## VOR RWY04




CHANGE : ATIS FREQUENCY.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in approach | 1050 (460) | | | |
| Circling (OCH AAL) | 1100 (510) | | 1300 (710) | |

| Distance (BRM) | | FAF | 5D | 4D | 3D | 2.5D |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1900 (1310) | 1840 (1250) | 1525 (935) | 1210 (620) | 1050 (460) |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY04 - ELEV 590 FT

**BURI RAM / Buri ram (VTUO)**

**VOR RWY04**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) VOR | BRM | 15° 14′ 22.40″ N | 103° 15′ 31.64″ E |
| (IAF) RAMEI | R-232 / 18.5 D BRM | 15° 02′ 40.15″ N | 103° 00′ 40.02″ E |
| (IAF) OTBET | R-121 / 15.0 D BRM | 15° 06′ 41.69″ N | 103° 28′ 52.23″ E |
| (IF) UNTAB | R-215 / 11.0 D BRM | 15° 05′ 17.27″ N | 103° 09′ 03.46″ E |
| (FAF) | R-215 / 5.2 D BRM | 15° 10′ 02.55″ N | 103° 12′ 26.48″ E |
| (MAPt) | R-215 / 1.2 D BRM | 15° 13′ 20.79″ N | 103° 14′ 47.67″ E |

CHANGE : VOR COORDINATE.

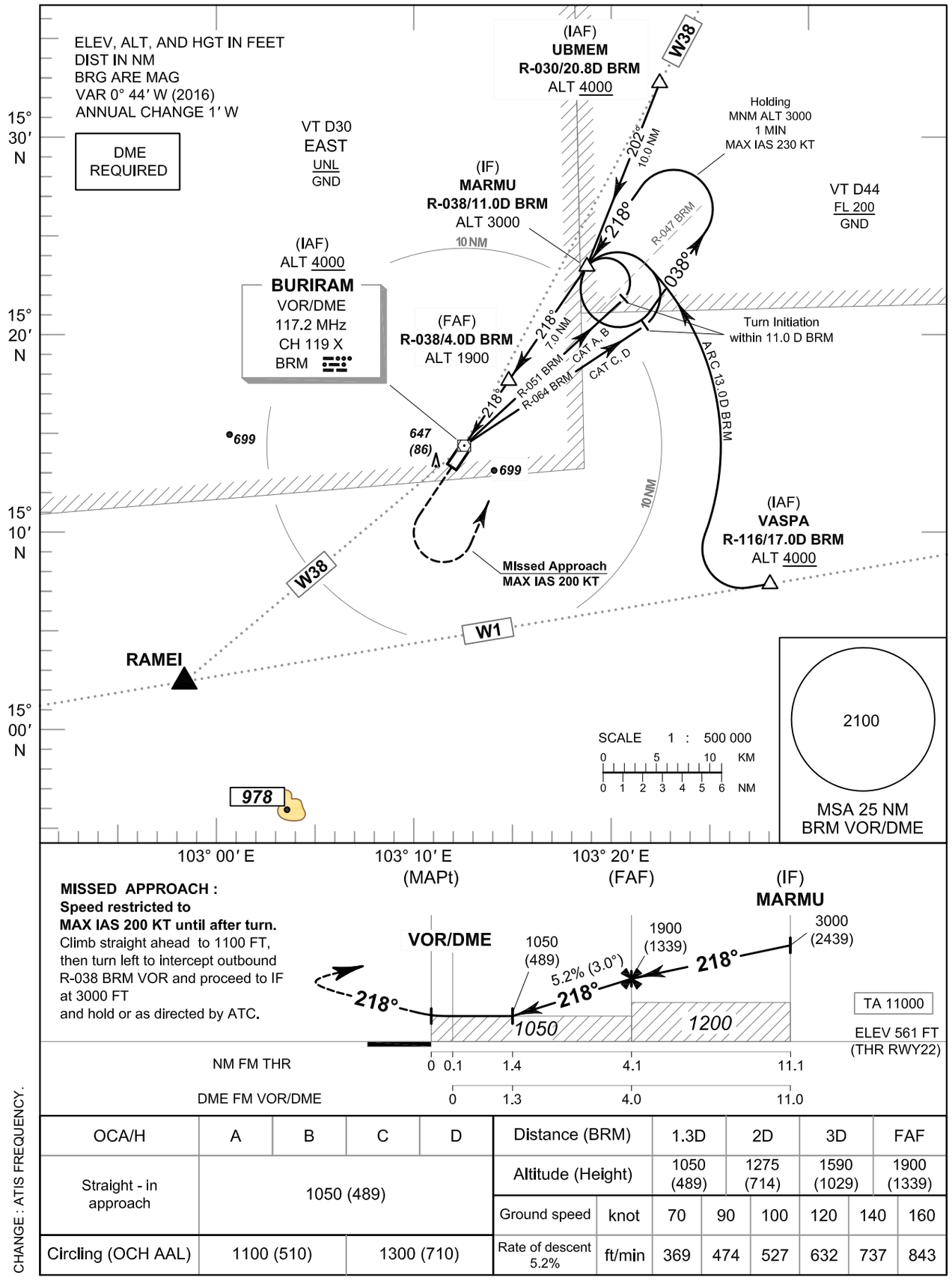
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 561 FT

APP : 125.55
TWR : 118.05, 236.6
ATIS : 127.05

**BURI RAM / Buri ram (VTUO)**

**VOR RWY22**




**MISSED APPROACH :**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb straight ahead to 1100 FT,
then turn left to intercept outbound
R-038 BRM VOR and proceed to IF
at 3000 FT
and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in approach | 1050 (489) | | | |
| Circling (OCH AAL) | 1100 (510) | | 1300 (710) | |

| Distance (BRM) | | 1.3D | 2D | 3D | FAF |
|---|---|---|---|---|---|
| Altitude (Height) | | 1050 (489) | 1275 (714) | 1590 (1029) | 1900 (1339) |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ATIS FREQUENCY.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 561 FT

**BURI RAM / Buri ram (VTUO)**

**VOR RWY22**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF)<br>VOR | BRM | 15° 14′ 22.40″ N | 103° 15′ 31.64″ E |
| (IAF)<br>VASPA | R-116 / 17.0 D BRM | 15° 07′ 03.23″ N | 103° 31′ 24.45″ E |
| (IAF)<br>UBMEM | R-030 / 20.8 D BRM | 15° 32' 32.62" N | 103° 26′ 07.39″ E |
| (IF)<br>MARMU | R-038 / 11.0 D BRM | 15° 23′ 10.05″ N | 103° 22′ 24.90″ E |
| (FAF) | R-038 / 4.0 D BRM | 15° 17′ 34.32″ N | 103° 18′ 01.82″ E |
| (MAPt) | R-038 / 0.1 D BRM | 15° 14′ 17.63″ N | 103° 15′ 27.84″ E |

CHANGE : VOR COORDINATE, MAPt RADIAL.

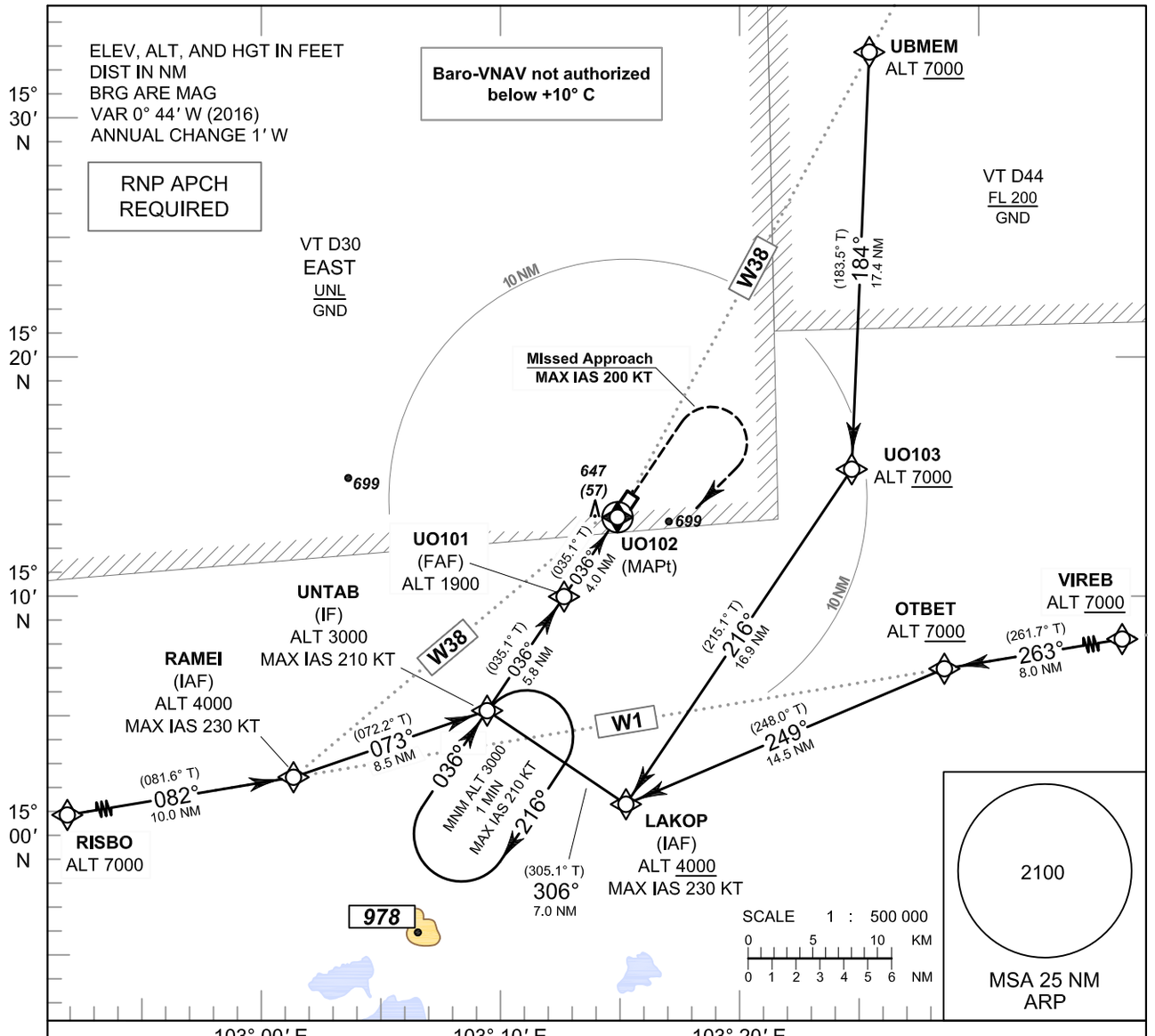
**INSTRUMENT APPROACH CHART - ICAO**

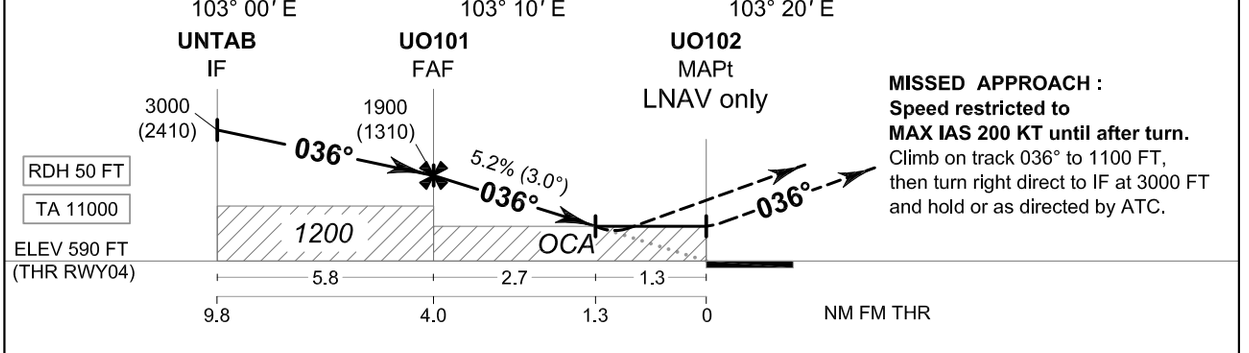
**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY04 - ELEV 590 FT

APP : 125.55
TWR : 118.05, 236.6
ATIS : 127.05

# BURI RAM / Buri ram (VTUO)

**RNP RWY04**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 900 (310) | | | |
| LNAV | 1050 (460) | | | |
| Circling (OCH AAL) | 1100 (510) | | 1300 (710) | |

| NM to NEXT WPT | | FAF | 3NM | 2NM | 1.3NM | | |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | | 1900 (1310) | 1590 (1000) | 1270 (680) | 1050 (460) | | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ATIS FREQUENCY.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY04 - ELEV 590 FT

**BURI RAM / Buri ram (VTUO)**

**RNP RWY04**

**TABULAR DESCRIPTION**

| **RNP RWY04** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | RISBO | - | - | +0.77 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | RAMEI (IAF) | - | 082°(081.6°) | +0.77 | 10.0 | L | @4000 | -230 | - | RNP APCH |
| 030 | TF | UNTAB (IF) | - | 073°(072.2°) | +0.77 | 8.5 | - | @3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | VIREB | - | - | +0.77 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | OTBET | - | 263°(261.7°) | +0.77 | 8.0 | L | +7000 | - | - | RNP APCH |
| 030 | TF | LAKOP (IAF) | - | 249°(248.0°) | +0.77 | 14.5 | R | +4000 | -230 | - | RNP APCH |
| 040 | TF | UNTAB (IF) | - | 306°(305.1°) | +0.77 | 7.0 | - | @3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | UBMEM | - | - | +0.77 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | UO103 | - | 184°(183.5°) | +0.77 | 17.4 | R | +7000 | - | - | RNP APCH |
| 030 | TF | LAKOP (IAF) | - | 216°(215.1°) | +0.77 | 16.9 | R | +4000 | -230 | - | RNP APCH |
| 040 | TF | UNTAB (IF) | - | 306°(305.1°) | +0.77 | 7.0 | - | @3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | UNTAB (IF) | - | - | +0.77 | - | - | @3000 | -210 | - | RNP APCH |
| 020 | TF | UO101 (FAF) | - | 036°(035.1°) | +0.77 | 5.8 | - | @1900 | - | - | RNP APCH |
| 030 | TF | UO102 (MAPt) | Y | 036°(035.1°) | +0.77 | 4.0 | - | @640 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 036°(035.1°) | +0.77 | - | - | +1100 | -200 | - | RNP APCH |
| 050 | DF | UNTAB (IF) | - | - | +0.77 | - | R | +3000 | -200 | - | RNP APCH |
| 060 | HM | UNTAB (IF) | Y | 036°(035.1°) | +0.77 | 1 minute | R | +3000 | -210 | - | RNP APCH |

CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY04 - ELEV 590 FT

**BURI RAM / Buri ram (VTUO)**

**RNP RWY04**

## WAYPOINT LIST

| RNP RWY04 | |
|---|---|
| Waypoint Identifier | Coordinates |
| RISBO | 15° 01' 11.70" N 102° 50' 26.73" E |
| RAMEI | 15° 02' 40.15" N 103° 00' 40.02" E |
| VIREB | 15° 07' 51.06" N 103° 37' 03.27" E |
| OTBET | 15° 06' 41.69" N 103° 28' 52.23" E |
| UBMEM | 15° 32' 32.62" N 103° 26' 07.39" E |
| UO103 | 15° 15' 07.45" N 103° 25' 01.52" E |
| LAKOP | 15° 01' 14.86" N 103° 14' 58.67" E |
| UNTAB | 15° 05' 17.27" N 103° 09' 03.46" E |
| UO101 | 15° 10' 01.26" N 103° 12' 28.77" E |
| UO102 | 15° 13' 18.31" N 103° 14' 51.34" E |

CHANGE: CHART TITLE.

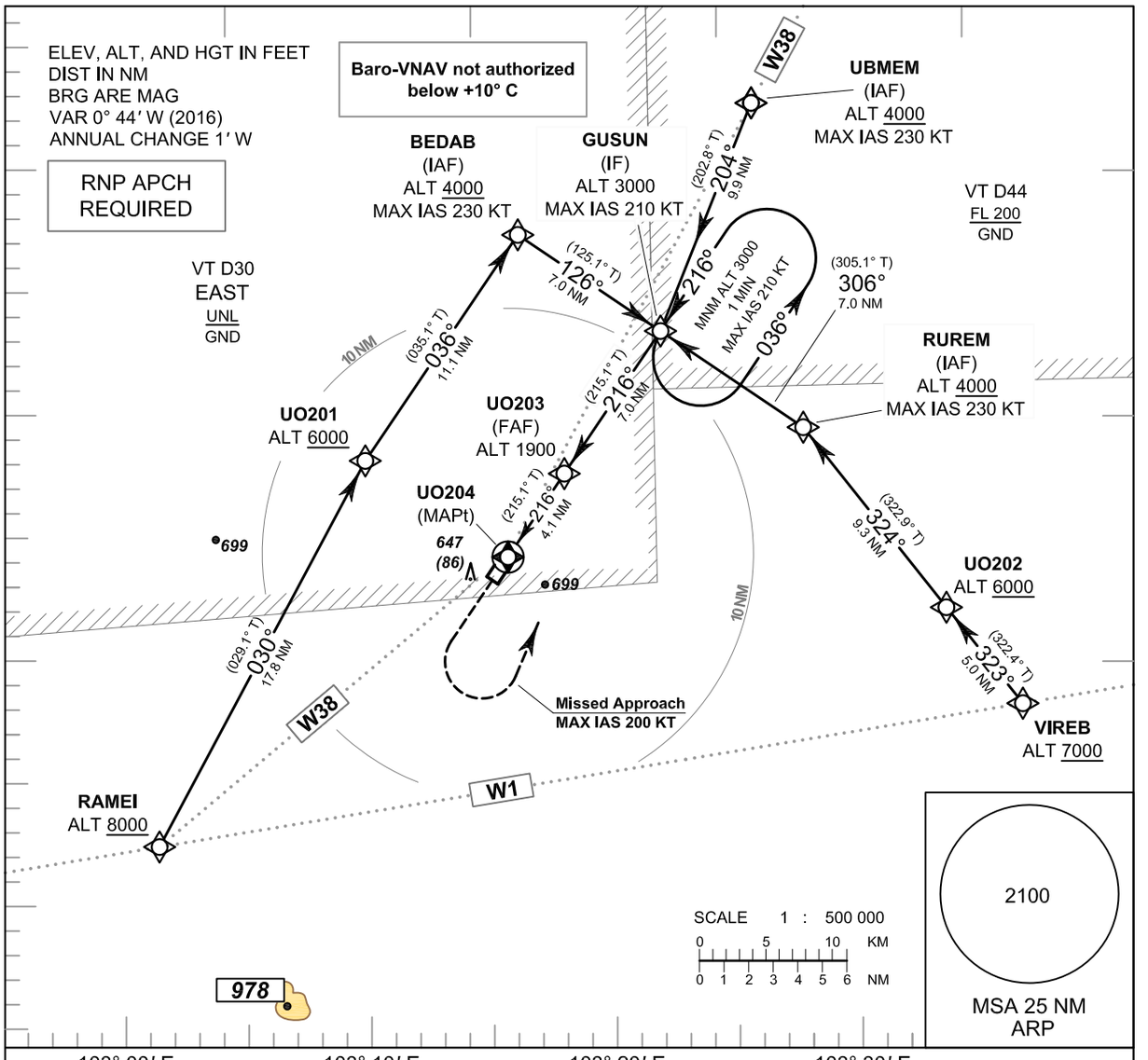
**INSTRUMENT APPROACH CHART - ICAO**

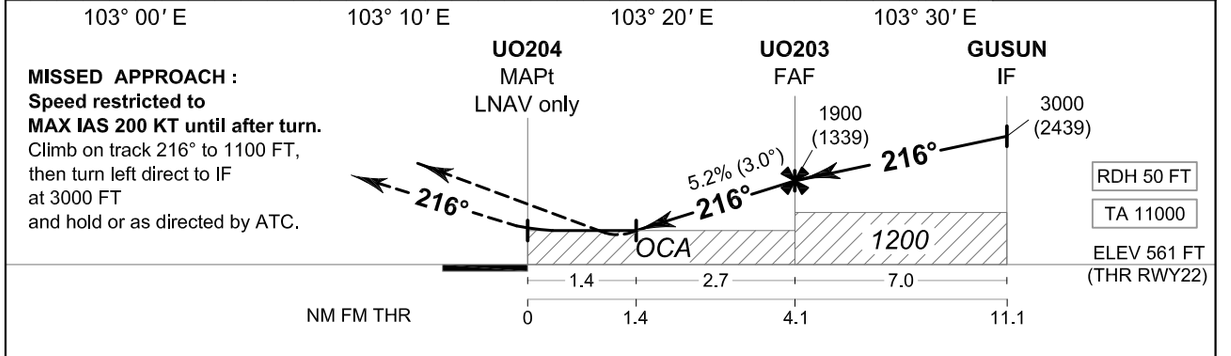
**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 561 FT

APP : 125.55
TWR : 118.05, 236.6
ATIS : 127.05

# BURI RAM / Buri ram (VTUO)

**RNP RWY22**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 850 (289) | | | |
| LNAV | 1050 (489) | | | |
| Circling (OCH AAL) | 1100 (510) | | 1300 (710) | |

| NM to NEXT WPT | | 1.4 NM | 2 NM | 3 NM | FAF | |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1050 (489) | 1245 (684) | 1560 (999) | 1900 (1339) | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ATIS FREQUENCY.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 561 FT

**BURI RAM / Buri ram (VTUO)**

**RNP RWY22**

**TABULAR DESCRIPTION**

| RNP RWY22 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | UBMEM (IAF) | - | - | +0.77 | - | - | +4000 | -230 | - | RNP APCH |
| 020 | TF | GUSUN (IF) | - | 204°(202.8°) | +0.77 | 9.9 | - | @3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RAMEI | - | - | +0.77 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UO201 | - | 030°(029.1°) | +0.77 | 17.8 | R | +6000 | - | - | RNP APCH |
| 030 | TF | BEDAB (IAF) | - | 036°(035.1°) | +0.77 | 11.1 | R | +4000 | -230 | - | RNP APCH |
| 040 | TF | GUSUN (IF) | - | 126°(125.1°) | +0.77 | 7.0 | - | @3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | VIREB | - | - | +0.77 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | UO202 | - | 323°(322.4°) | +0.77 | 5.0 | R | +6000 | - | - | RNP APCH |
| 030 | TF | RUREM (IAF) | - | 324°(322.9°) | +0.77 | 9.3 | L | +4000 | -230 | - | RNP APCH |
| 040 | TF | GUSUN (IF) | - | 306°(305.1°) | +0.77 | 7.0 | - | @3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | GUSUN (IF) | - | - | +0.77 | - | - | @3000 | -210 | - | RNP APCH |
| 020 | TF | UO203 (FAF) | - | 216°(215.1°) | +0.77 | 7.0 | - | @1900 | - | - | RNP APCH |
| 030 | TF | UO204 (MAPt) | Y | 216°(215.1°) | +0.77 | 4.1 | - | @611 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 216°(215.1°) | +0.77 | - | - | +1100 | -200 | - | RNP APCH |
| 050 | DF | GUSUN (IF) | - | - | +0.77 | - | L | +3000 | -200 | - | RNP APCH |
| 060 | HM | GUSUN (IF) | Y | 216°(215.1°) | +0.77 | 1 minute | L | +3000 | -210 | - | RNP APCH |

CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 590 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 561 FT

**BURI RAM / Buri ram (VTUO)**

**RNP RWY22**

## WAYPOINT LIST

| RNP RWY22 | |
|---|---|
| Waypoint Identifier | Coordinates |
| UBMEM | 15° 32' 32.62" N 103° 26' 07.39" E |
| RAMEI | 15° 02' 40.15" N 103° 00' 40.02" E |
| UO201 | 15° 18' 16.76" N 103° 09' 36.36" E |
| BEDAB | 15° 27' 24.34" N 103° 16' 12.84" E |
| VIREB | 15° 07' 51.06" N 103° 37' 03.27" E |
| UO202 | 15° 11' 50.96" N 103° 33' 53.10" E |
| RUREM | 15° 19' 19.03" N 103° 28' 04.00" E |
| GUSUN | 15° 23' 21.76" N 103° 22' 08.54" E |
| UO203 | 15° 17' 36.46" N 103° 17' 58.27" E |
| UO204 | 15° 14' 14.36" N 103° 15' 31.92" E |

CHANGE: CHART TITLE.

## VTSE AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSE - CHUMPHON / CHUMPHON AIRPORT

## VTSE AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 104240.30N 0992142.17E<br>Centre RWY 1050 M from THR 06/24 |
| 2 | Direction and distance from (city) | 35 KM N |
| 3 | Elevation/Reference temperature | 22 FT/35°C |
| 4 | Geoid Undulation at AD ELEV PSN | -95 FT |
| 5 | MAG VAR/Annual change | 0.66°W (2022) / 0.03°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Chumphon Airport<br>Chumphon Airport<br>Amphoe Pathiu<br>Chumphon Thailand 86160<br>Tel: +667 759 1263-9<br>Fax: +667 759 1272<br>AFS: VTSEYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTSE AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0000-1100 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 0000-1100 |
| 6 | MET Briefing Office | On request |
| 7 | ATS | 0000-1100 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Surat Thani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +667 744 1008<br>+669 1010 1837<br>Fax: +667 744 1009 |

## VTSE AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |

| | | |
|---|---|---|
| 7 | Remarks | NIL |

**VTSE AD 2.5 PASSENGER FACILITIES**

| | | |
|---|---|---|
| 1 | Hotels | Near AD and in the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Available |
| 4 | Medical facilities | First aid at AD, hospital in town and in the city |
| 5 | Bank and Post Office | In town and in the city |
| 6 | Tourist Office | In the city |
| 7 | Remarks | NIL |

**VTSE AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

**VTSE AD 2.7 SEASONAL AVAILABILITY - CLEARING**

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

**VTSE AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/ POSITIONS DATA**

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 45/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 42/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 21 FT (6.43 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSE AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>VDGS of aircraft stands: NIL, aircraft parking shall follow marshaller strictly. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR,TDZ,RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: CL, Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSE AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| | | | Strip | | NIL |
| APCH RWY 06/<br>TKOF RWY 24 | DME<br>40 FT (11.98 M)<br>Painted red/white, LGTD | 104220.36N<br>0992102.42E | AWOS (RWY 24)<br>46 FT (14 M)<br>NIL/Red LGT on top | 104255.04N<br>0992200.21E | |
| | Tree<br>67 FT (20.34 M)<br>NIL/NIL | 104220.49N<br>0992100.65E | AWOS (RWY 06)<br>49 FT (14.90 M)<br>NIL/Red LGT on top | 104255.15N<br>0992200.36E | |
| APCH RWY 24/<br>TKOF RWY 06 | Chimney<br>97 FT (29.52 M)<br>NIL/NIL | 104303.24N<br>0992244.02E | GP<br>72 FT (21.93 M)<br>NIL/Red LGT on top | 104249.25N<br>0992205.82E | |
| | | | Tree<br>52 FT (15.85 M)<br>NIL/NIL | 104226.98N<br>0992113.12E | |
| | | | Tree<br>57 FT (17.19 M)<br>NIL/NIL | 104232.04N<br>0992119.38E | |
| | | | Tree<br>60 FT (18.13 M)<br>NIL/NIL | 104237.04N<br>0992128.03E | |
| | | | Tree<br>60 FT (18.29 M)<br>NIL/NIL | 104255.63N<br>0992200.32E | |
| | | | Transitional | | |
| | | | RADAR<br>153 FT (46.40 M)<br>NIL/Red LGT on top | 104304.39N<br>0992156.76E | |
| | | | Tree<br>141 FT (42.91 M)<br>NIL/NIL | 104223.65N<br>0992125.33E | |
| | | | Inner Horizontal | | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Mobile Phone Mast 234 FT (71.13 M) Painted red/white LGTD | 104311.13N 0992101.69E | |
| | | | Mobile Phone Mast 172 FT (52.62 M) Painted red/white LGTD | 104222.19N 0991906.92E | |
| | | | Mobile Phone Mast 227 FT (68.99 M) Painted red/white LGTD | 104223.15N 0991910.35E | |
| | | | Top of Pagoda 242 FT (73.60 M) NIL/Red LGT on top | 104246.37N 0991923.32E | |
| | | | Conical | | |
| | | | Mobile Phone Mast 242 FT (73.68 M) Painted red/white LGTD | 104241.36N 0991850.79E | |

## VTSE AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Chumphon,<br>Southern East-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2300-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern East-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 759 1311 ext. 6408 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) and Weather Radar |
| 9 | ATS units provided with information | Chumphon TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSE AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 06 | 060.06° | 2100x45 | PCN 42/F/C/X/T Asphaltic concrete | 104223.22N 0992112.19E -95 FT | THR 22 FT |
| 24 | 240.06° | 2100x45 | PCN 42/F/C/X/T Asphaltic concrete | 104257.38N 0992212.16E -94 FT | THR 22 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 0% | 60x60 | NIL | 2340x300 | 240x90 | NIL | NIL | NIL |
| 0% | 60x60 | NIL | 2340x300 | 240x90 | NIL | NIL | NIL |

## VTSE AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 06 | 2100 | 2100 | 2160 | 2100 | NIL |
| 24 | 2100 | 2100 | 2160 | 2100 | NIL |

## VTSE AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 06 | NIL | Green | PAPI Left 3° (48.30 FT) | NIL | NIL | 2100 M 60 M White, FM 1500 M-2100 M Yellow, 5 steps, LIH | Red NIL | 60 M Red | NIL |
| 24 | SALS 420 M | Green | PAPI Left 3° (46.76 FT) | NIL | NIL | 2100 M 60 M White, FM 1500 M-2100 M Yellow, 5 steps, LIH | Red NIL | 60 M Red | NIL |

## VTSE AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building FLG W G EV 3 SEC<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI: 1. Wind cone at 290 M from THR 24 off set to the left side 90 M from RCL, illuminated.<br>2. Wind cone at 180 M from RCL, illuminated.<br>3. Wind cone at 315 M from THR 06 off set to the left side 75 M from RCL, illuminated. |
| 3 | TWY edge and centre line lighting | TWY edge: All TWY<br>TWY centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply at tower and air field lighting (AFL) building.<br>Switch-over time: 15 SEC. |
| 5 | Remarks | NIL |

## VTSE AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | In front of tower |
| 2 | TLOF and/or FATO elevation M/FT | 6 m. (18 ft.) |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | Dimensions: 20 x 22 M.<br>Surface: Concrete Marked / No.1, 2 |
| 4 | True and MAG BRG of FATO | 240º |
| 5 | Declared distance available | Clear |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Landing area on both side of apron |

## VTSE AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centred on CPN DVOR/DME (104240.3N 0992156.1E) |
| 2 | Vertical limits | 2000 ft /AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Chumphon Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSE AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Chumphon Approach | 122.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)]Emergency frequency |
| TWR | Chumphon Tower | 122.15 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Chumphon Airport | 128.45 MHz | As AD OPR HR | |

## VTSE AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | CP | 279 KHz | H24 | 104303.9N 0992158.0E | | 50 nm coverage was check and found as follow:<br>– Bearing 016-200 degrees ALT should not below 1,500 ft.<br>– Bearing 201-225 degrees ALT should not below 5,000 ft.<br>– Bearing 226-015 degrees unable to perform flight inspection due to border limited |
| DVOR/DME | CPN | 110 MHz CH37X | H24 | 104240.3N 0992156.1E | 5.50 m (18 ft.) | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit at the required altitude and distance in various areas as follows:<br>1. 40 nm<br>– Radial 011°-020° altitude should not below 5 000 ft.<br>– Radial 021°-050° altitude should not below 4 000 ft.<br>– Radial 051°-100° altitude should not below 2 000 ft.<br>– Radial 101°-110° altitude should not below 4 000 ft.<br>– Radial 111°-190° altitude should not below 2 000 ft.<br>– Radial 191°-225° altitude should not below 4 000 ft.<br>– Radial 226°-230° altitude should not below 6 000 ft.<br>2. 30 nm (Due to border limited)<br>– Radial 231°-270° altitude should not below 5 000 ft.<br>3. 20 nm (Due to border limited)<br>– Radial 271°-010° altitude should not below 5 000 ft. |
| LOC RWY 24 ILS CAT I | ICPN | 109.9 MHz | H24 | 104218.3N 0992103.6E | | LOC: Designated operation coverage 18 NM, ALT 6300 FT AMSL |
| GP | | 333.8 MHz | H24 | 104249.3N 0992200.9E | | GP: 3 DEG, RDH 50 ft |
| DME | ICPN | CH36X (109.9 MHz) | H24 | 104220.3N 0992102.4E | 15 ft | DME: Paired with LOC FREQ. |

## VTSE AD 2.20 LOCAL AERODROME REGULATIONS

1.180 Degrees turn on the runway

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, aircraft code letter C or higher shall make 180 degrees turn at the runway turn pad located at the end of runway 24 and 06 only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTSE AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSE AD 2.22 FLIGHT PROCEDURES

### 1. VFR PROCEDURES

Details of VFR entry and exit procedures, see charts.

### 2. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 3. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

### 4. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 06:

CHUMPHON OMNI 06 Departure: Required climb gradient 201 ft per NM (3.3%) until 3,700 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,000 ft (or altitude assigned by ATC between 1,000 ft – 3,000 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 24:

CHUMPHON OMNI 24 Departure: Required climb gradient 335 ft per NM (5.5%) until 3,700 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 5.5% | (ft/min) | 363 | 418 | 557 | 835 | 1114 | 1392 | 1671 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft – 3,000 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTSE AD 2.23 ADDITIONAL INFORMATION

### 1. BIRD CONCENTRATIONS

- Bird concentrations in the vicinity of an aerodrome.

## VTSE AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSE-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTSE-2-3 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTSE-2-5 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 06/24 | AD 2-VTSE-3-1 |
| Instrument Approach Chart - ICAO - NDB RWY 06 | AD 2-VTSE-8-1 |
| Instrument Approach Chart - ICAO - NDB RWY 24 | AD 2-VTSE-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 06 | AD 2-VTSE-8-5 |
| Instrument Approach Chart - ICAO - VOR RWY 06 (Fix and point list table) | AD 2-VTSE-8-6 |
| Instrument Approach Chart - ICAO - VOR RWY 24 | AD 2-VTSE-8-7 |
| Instrument Approach Chart - ICAO - VOR RWY 24 (Fix and point list table) | AD 2-VTSE-8-8 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 24 | AD 2-VTSE-8-9 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 24 (Fix and point list table) | AD 2-VTSE-8-10 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 24 | AD 2-VTSE-8-11 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 24 (Tabular description) | AD 2-VTSE-8-12 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 24 (Fix and point list table) | AD 2-VTSE-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 06 | AD 2-VTSE-8-15 |
| Instrument Approach Chart - ICAO - RNP RWY 06 (Tabular description) | AD 2-VTSE-8-16 |
| Instrument Approach Chart - ICAO - RNP RWY 24 | AD 2-VTSE-8-17 |
| Instrument Approach Chart - ICAO - RNP RWY 24 (Tabular description) | AD 2-VTSE-8-18 |
| VFR ENTRY PROCEDURE CHART - RWY 06/24 | AD 2-VTSE-9-1 |
| VFR ENTRY PROCEDURE CHART - RWY 06/24 (Tabular description) | AD 2-VTSE-9-2 |
| VFR EXIT PROCEDURE CHART - RWY 06 | AD 2-VTSE-9-3 |
| VFR EXIT PROCEDURE CHART - RWY 06 (Tabular description) | AD 2-VTSE-9-4 |
| VFR EXIT PROCEDURE CHART - RWY 24 | AD 2-VTSE-9-5 |
| VFR EXIT PROCEDURE CHART - RWY 24 (Tabular description) | AD 2-VTSE-9-6 |

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# AERODROME CHART - ICAO

**10 42 40.30N
099 21 42.17E**

**ELEV 22 FT**

**TWR 122.15
236.6**

# CHUMPHON / Chumphon

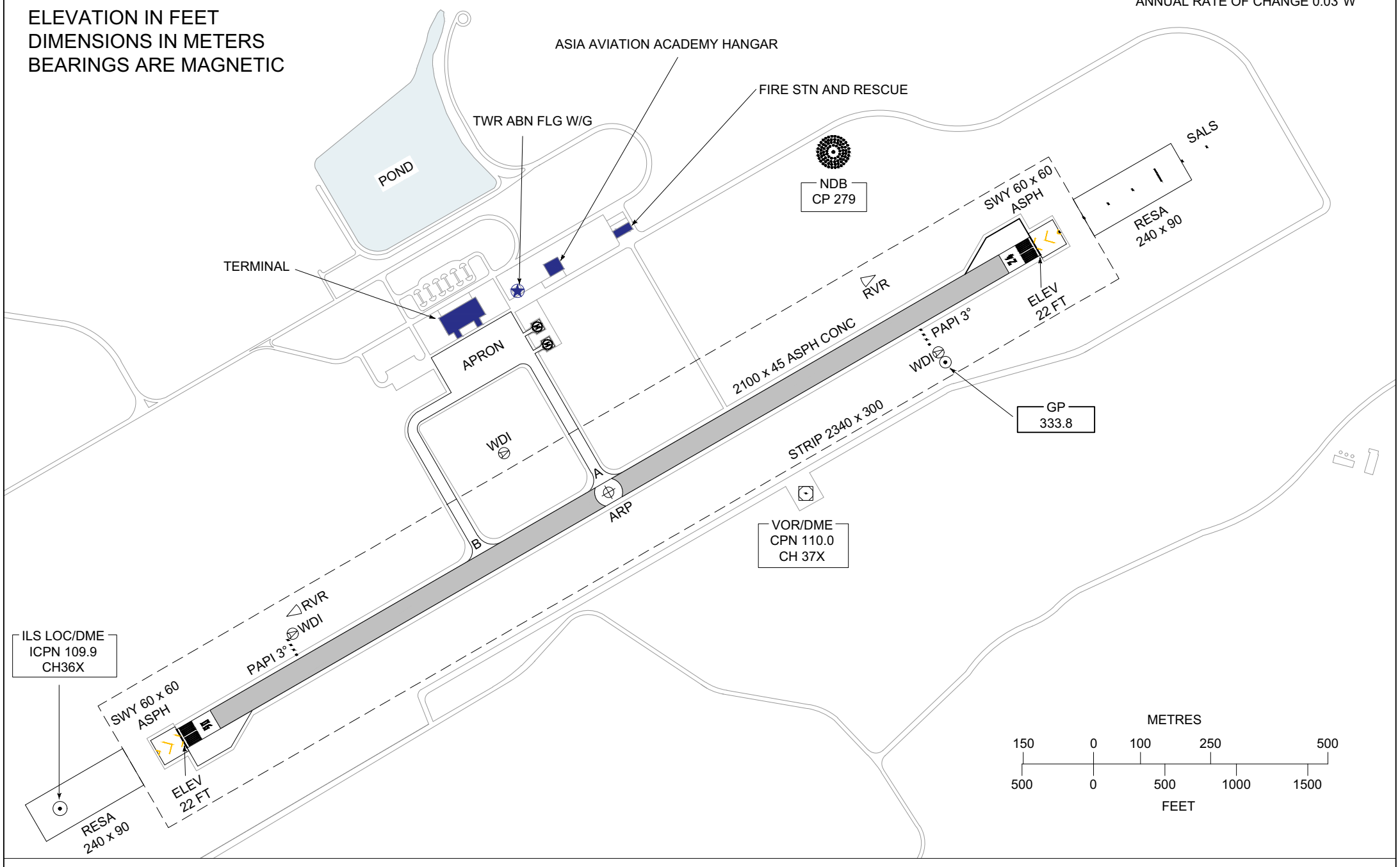
| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 06 | 060.06° | 10 42 23.22N 099 21 12.19E | PCN 42/F/C/X/T |
| 24 | 240.06° | 10 42 57.38N 099 22 12.16E | |
| APRON | | | PCN 45/R/C/X/T |
| TAXIWAY A AND B | | | PCN 42/F/C/X/T |

REMARKS:

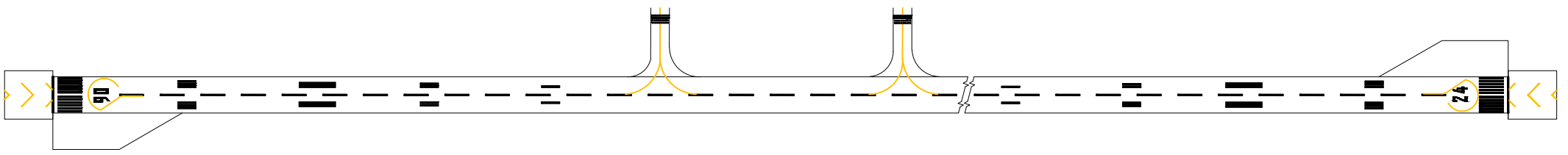
- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- HOT SPOTS SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY WIDTH 23 m.

VAR 0.66°W (2022)
ANNUAL RATE OF CHANGE 0.03°W

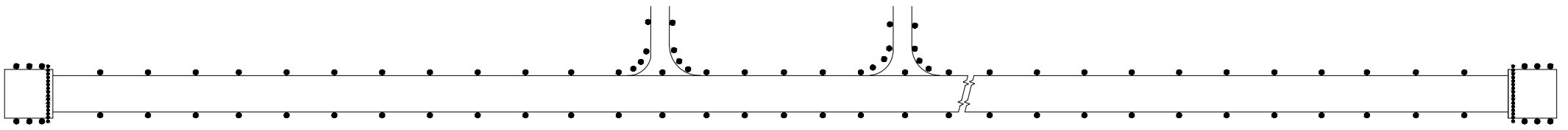
ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC




## MARKING AIDS RWY 06/24 AND EXIT TWY




## LIGHTING AIDS RWY 06/24 AND EXIT TWY




CHANGE: REVISED CHART. MAG VAR. ANNUAL RATE OF CHANGE. RWY COORDINATES. AD AND THR ELEV.

# INTENTIONALLY BLANK

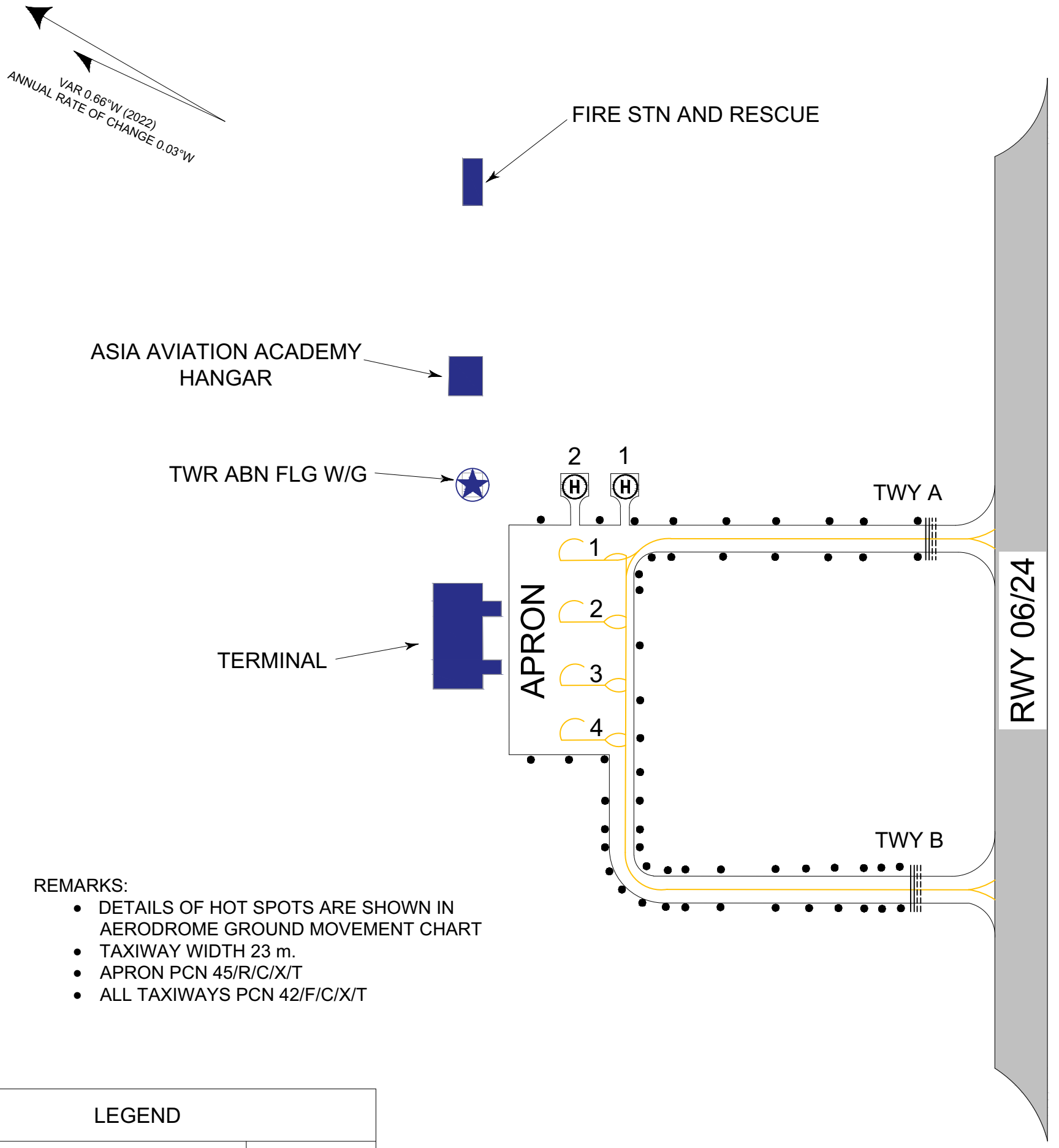
# AIRCRAFT PARKING/ DOCKING CHART - ICAO

APRON ELEV
21 FT

TWR 122.15
236.6

# CHUMPHON / Chumphon

ELEVATIONS IN FEET




REMARKS:

- DETAILS OF HOT SPOTS ARE SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY WIDTH 23 m.
- APRON PCN 45/R/C/X/T
- ALL TAXIWAYS PCN 42/F/C/X/T

| LEGEND | |
|---|---|
| RUNWAY- HOLDING POSITION<br>NON-PRECISION APCH RWY | |

| INS COORDINATES FOR AIRCRAFT STANDS | | |
|---|---|---|
| STAND NR | COORDINATES | |
| 1 | 10 42 50.84N | 099 21 35.95E |
| 2 | 10 42 49.99N | 099 21 34.45E |
| 3 | 10 42 49.08N | 099 21 32.91E |
| 4 | 10 42 48.32N | 099 21 31.58E |
| TLOF 1 | 10 42 50.33N | 099 21 37.94E |
| TLOF 2 | 10 42 51.53N | 099 21 37.24E |




CHANGE: NEW CHART.

# INTENTIONALLY BLANK

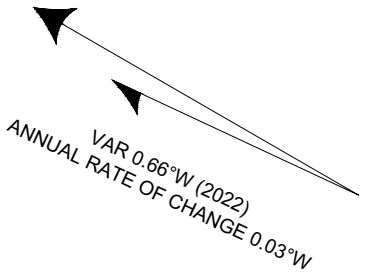
# AERODROME GROUND MOVEMENT CHART - ICAO

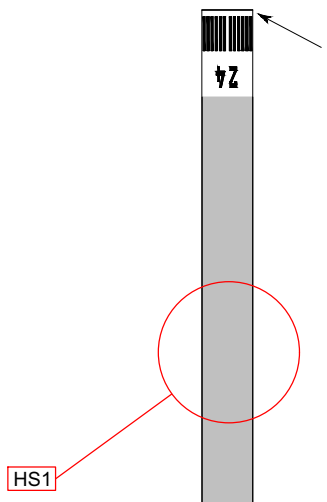
**APRON ELEV 21 FT**

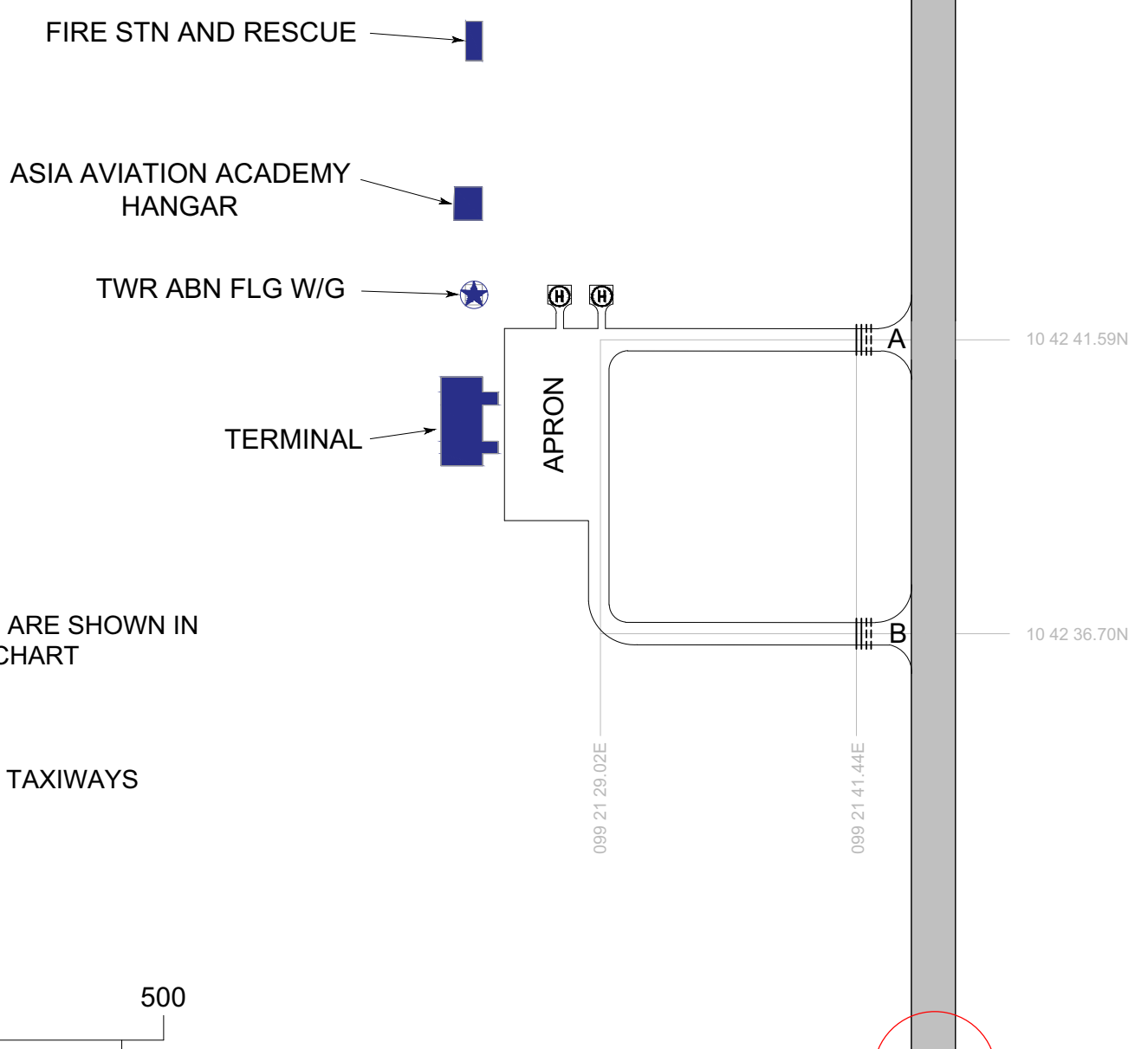
**TWR 122.15 236.6**

## CHUMPHON / Chumphon

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC



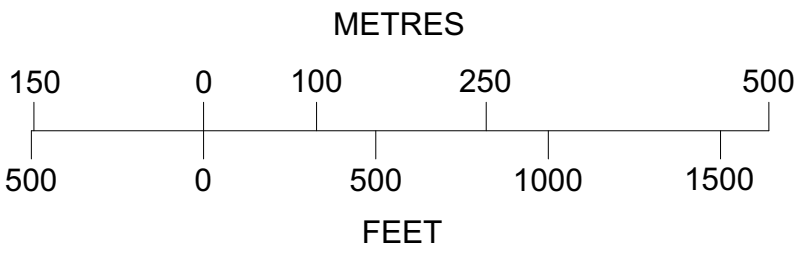







REMARKS:

- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- TAXIWAY WIDTH 23 m.
- APRON PCN 45/R/C/X/T
- ALL TAXIWAYS PCN 42/F/C/X/T
- TAXIWAY EDGE LIGHTS ON ALL TAXIWAYS




| LEGEND | |
|---|---|
| RUNWAY - HOLDING POSITION<br>NON-PRECISION APCH RWY | |
| HS1, HS2 - PARTIALLY INVISIBLE BY TWR | |

CHANGE: NEW CHART.

# INTENTIONALLY BLANK

# AERODROME OBSTACLE CHART - ICAO
## TYPE A (OPERATING LIMITATIONS)

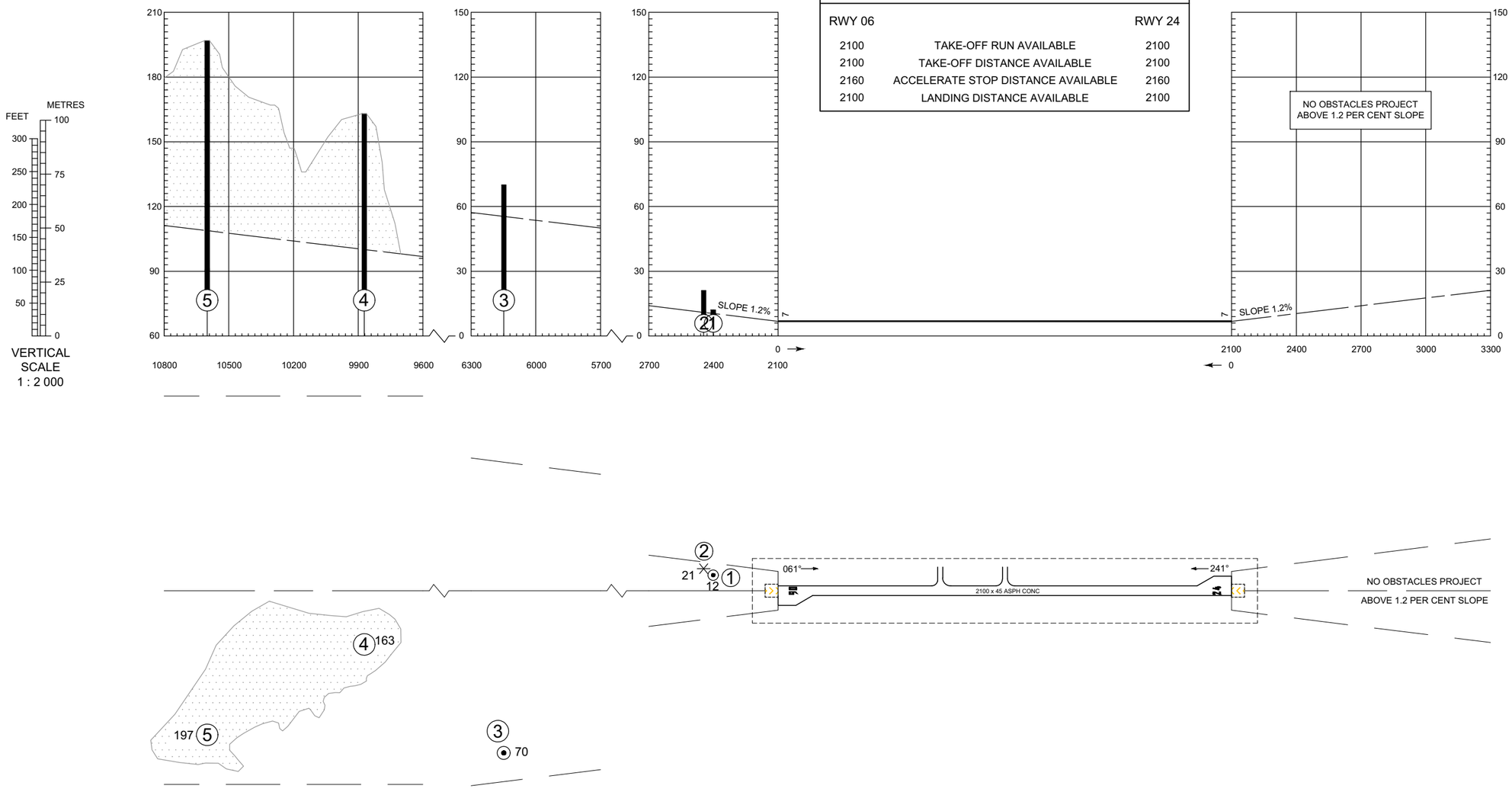
**DIMENSIONS AND ELEVATIONS IN METRES**

**CHUMPHON / Chumphon Airport**

MAGNETIC VARIATION 0.66°W (2022)
ANNUAL RATE OF CHANGE 0.03°W

RWY 06 / 24

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 06 | | RWY 24 |
| 2100 | TAKE-OFF RUN AVAILABLE | 2100 |
| 2100 | TAKE-OFF DISTANCE AVAILABLE | 2100 |
| 2160 | ACCELERATE STOP DISTANCE AVAILABLE | 2160 |
| 2100 | LANDING DISTANCE AVAILABLE | 2100 |




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ① |
| POLE, TOWER, SPIRE, ANTENNA, ETC | ⊙ |
| TREE OR SHRUB | ✳ |
| TERRAIN PENETRATING OBSTACLE PLANE | |

HORIZONTAL SCALE 1 : 20 000

METRES 400 300 200 100 0 500 1000 1500 2000 2500

FEET 1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000

ORDER OF ACCURACY
HORIZONTAL 0.5 m
VERTICAL 0.5 m

CHANGE: NEW CHART.

**INTENTIONALLY BLANK**

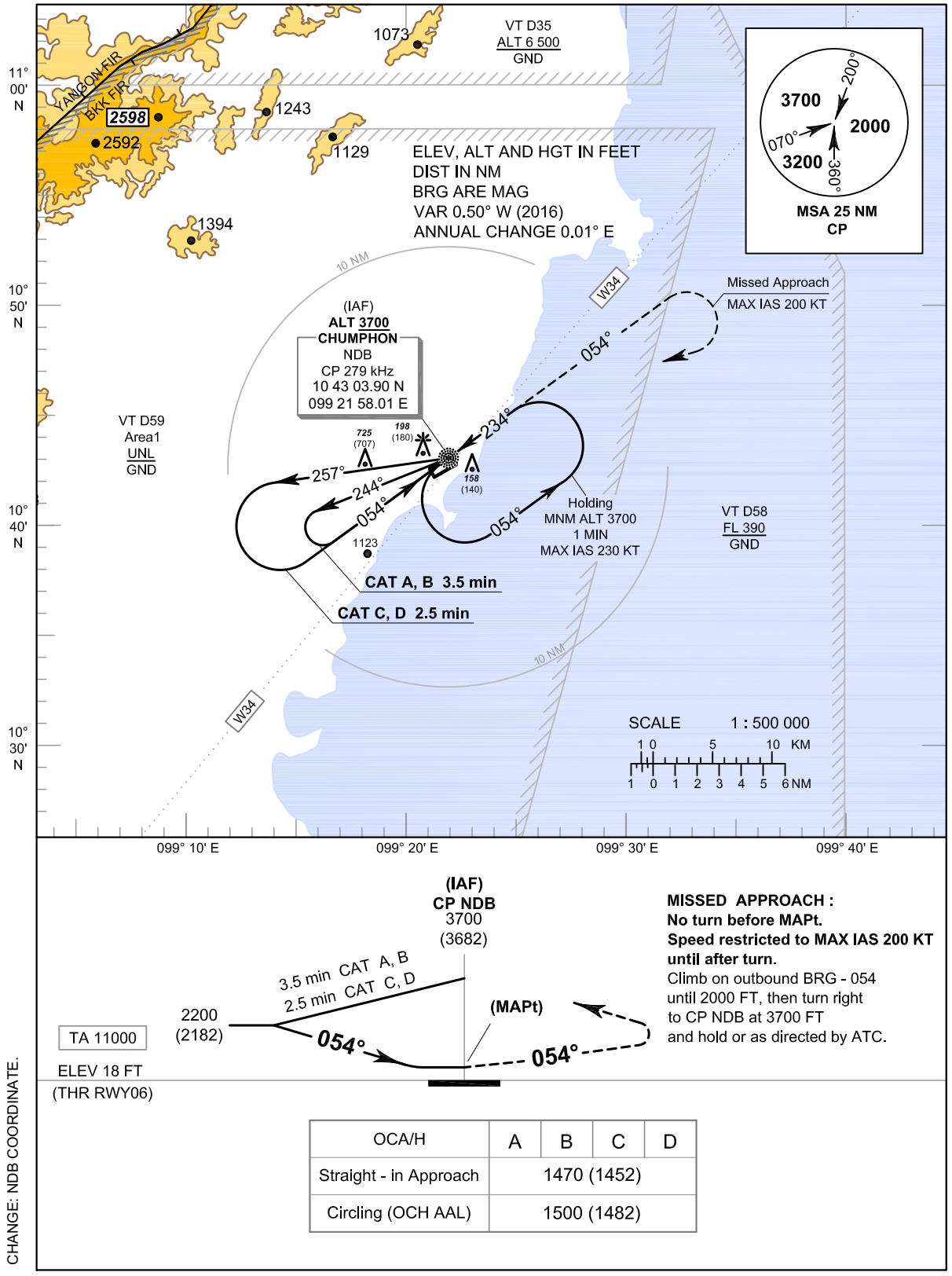
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

**CHUMPHON / Chumphon (VTSE)**

**NDB RWY06**




CHANGE: NDB COORDINATE.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 1470 (1452) | | | |
| Circling (OCH AAL) | 1500 (1482) | | | |

**INTENTIONALLY BLANK**

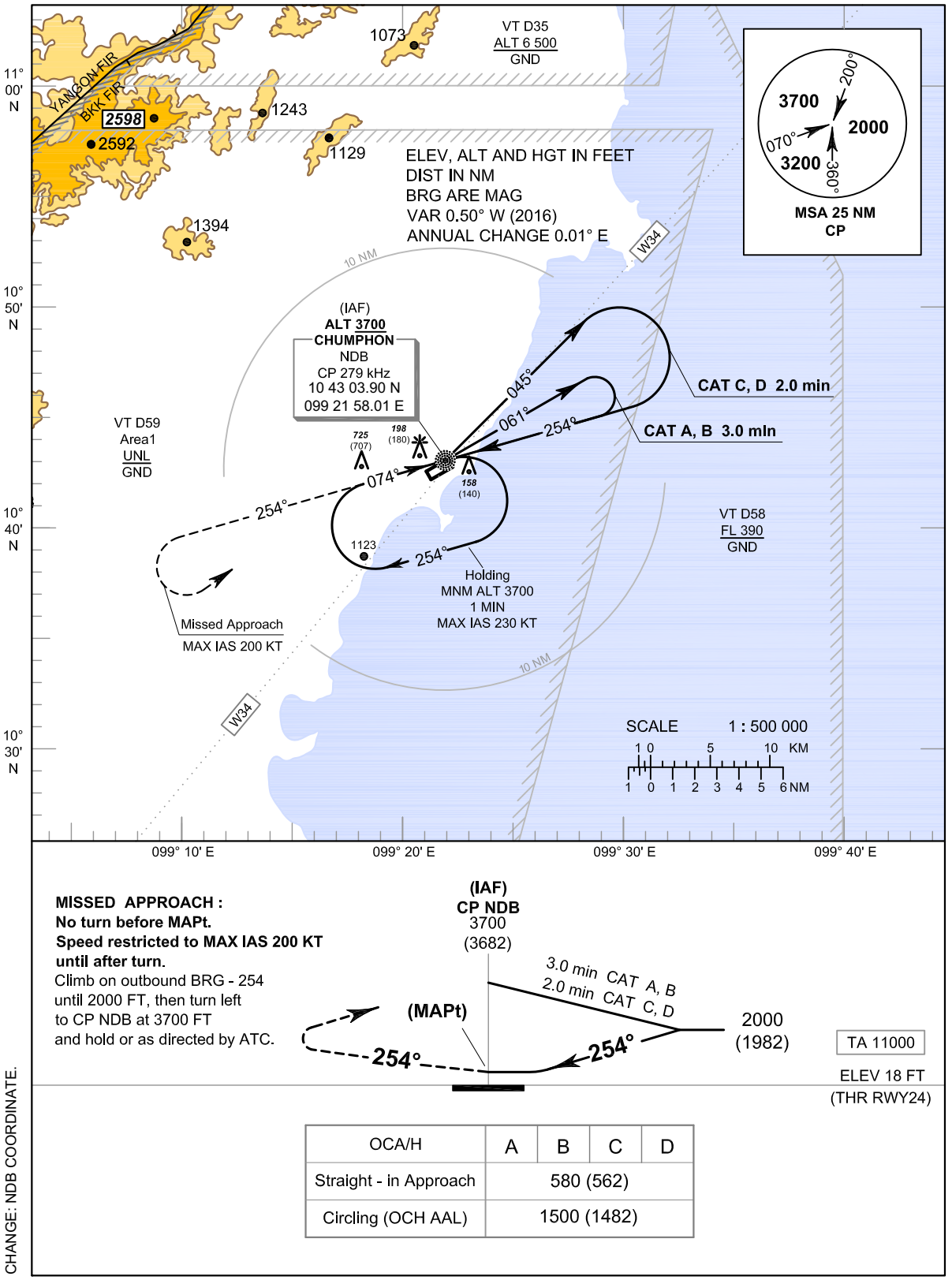
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

**CHUMPHON / Chumphon (VTSE)**

**NDB RWY24**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 200 KT until after turn.**
Climb on outbound BRG - 254
until 2000 FT, then turn left
to CP NDB at 3700 FT
and hold or as directed by ATC.




TA 11000

ELEV 18 FT
(THR RWY24)

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 580 (562) | | | |
| Circling (OCH AAL) | 1500 (1482) | | | |

CHANGE: NDB COORDINATE.

**INTENTIONALLY BLANK**

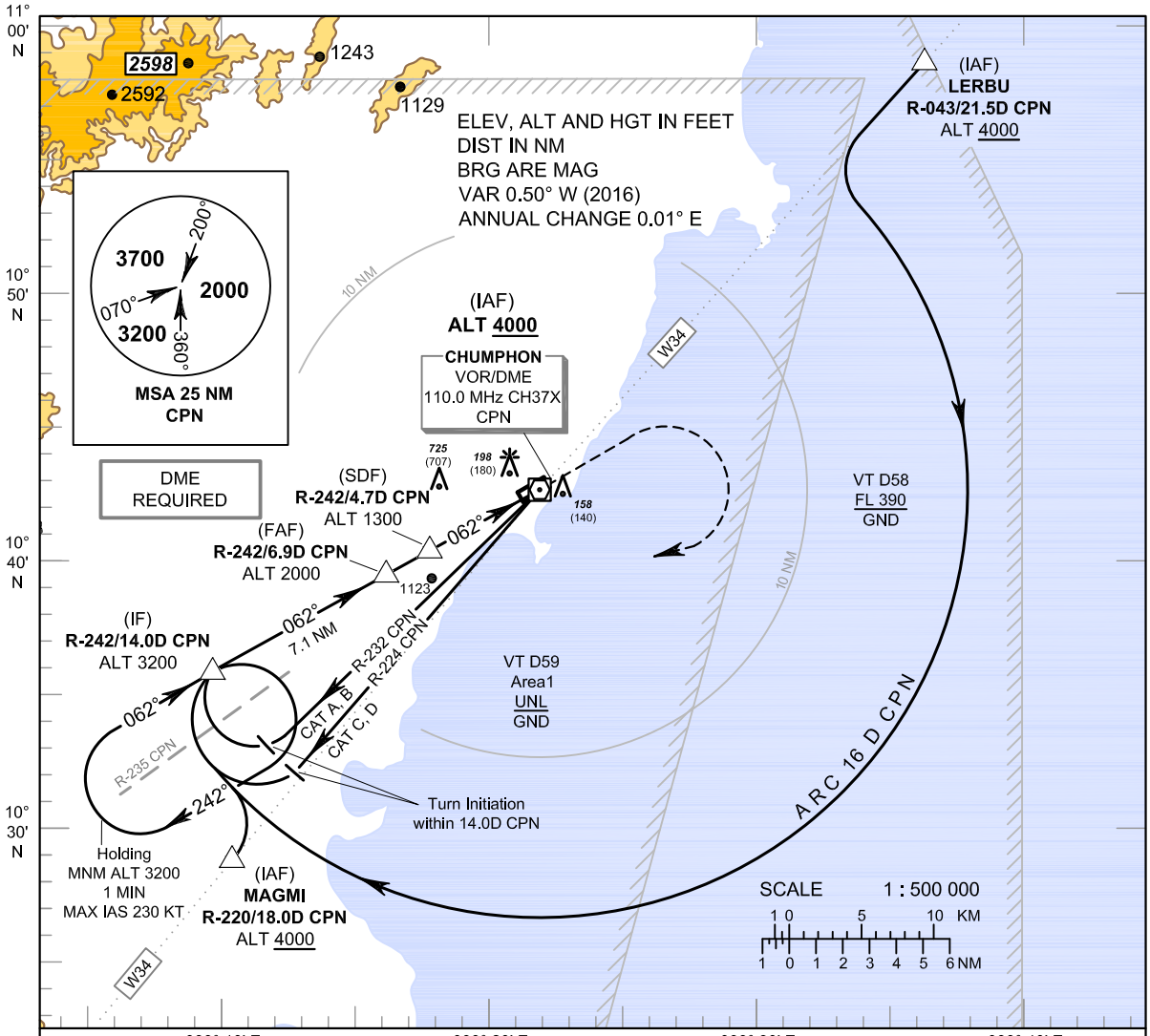
**INSTRUMENT APPROACH CHART - ICAO**

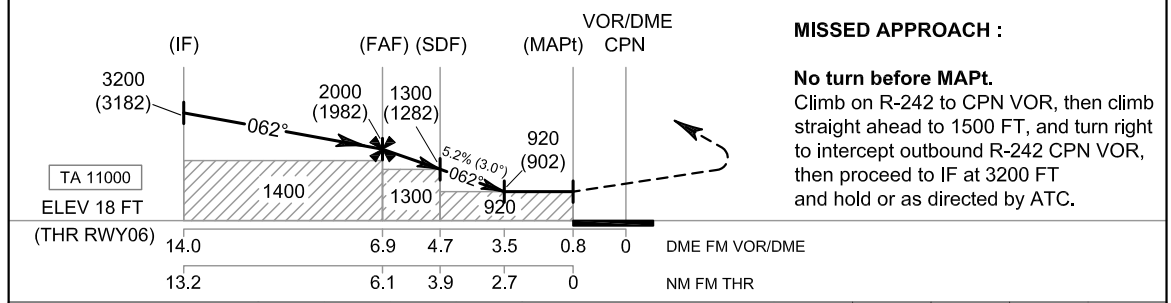
**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

**CHUMPHON / Chumphon (VTSE)**

**VOR RWY06**




**MISSED APPROACH :**

**No turn before MAPt.**
Climb on R-242 to CPN VOR, then climb straight ahead to 1500 FT, and turn right to intercept outbound R-242 CPN VOR, then proceed to IF at 3200 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | Distance to CPN | FAF | 6 D | SDF | 4 D | 3.5 D |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 920 (902) | | | | Altitude (Height) | 2000 (1982) | 1710 (1692) | 1300 (1282) | 1080 (1062) | 920 (902) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1500 (1482) | | | | Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ATIS FREQUENCY ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

**CHUMPHON / Chumphon (VTSE)**

**VOR RWY06**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) LERBU | R-043 / 21.5D CPN | 10° 58' 37.01" N | 099° 36' 35.66" E |
| (IAF) MAGMI | R-220 / 18.0D CPN | 10° 28' 46.08" N | 099° 10' 14.75" E |
| (IF) | R-242 / 14.0D CPN | 10° 35' 55.39" N | 099° 09' 27.50" E |
| (FAF) | R-242 / 6.9D CPN | 10° 39' 20.76" N | 099° 15' 47.04" E |
| (SDF) | R-242 / 4.7D CPN | 10° 40' 24.36" N | 099° 17' 44.68" E |
| (MAPt) | R-242 / 0.8D CPN | 10° 42' 18.08" N | 099° 21' 15.06" E |
| VOR | CPN | 10° 42' 40.25" N | 099° 21' 56.06" E |

CHANGE: VOR/DME COORDINATE.

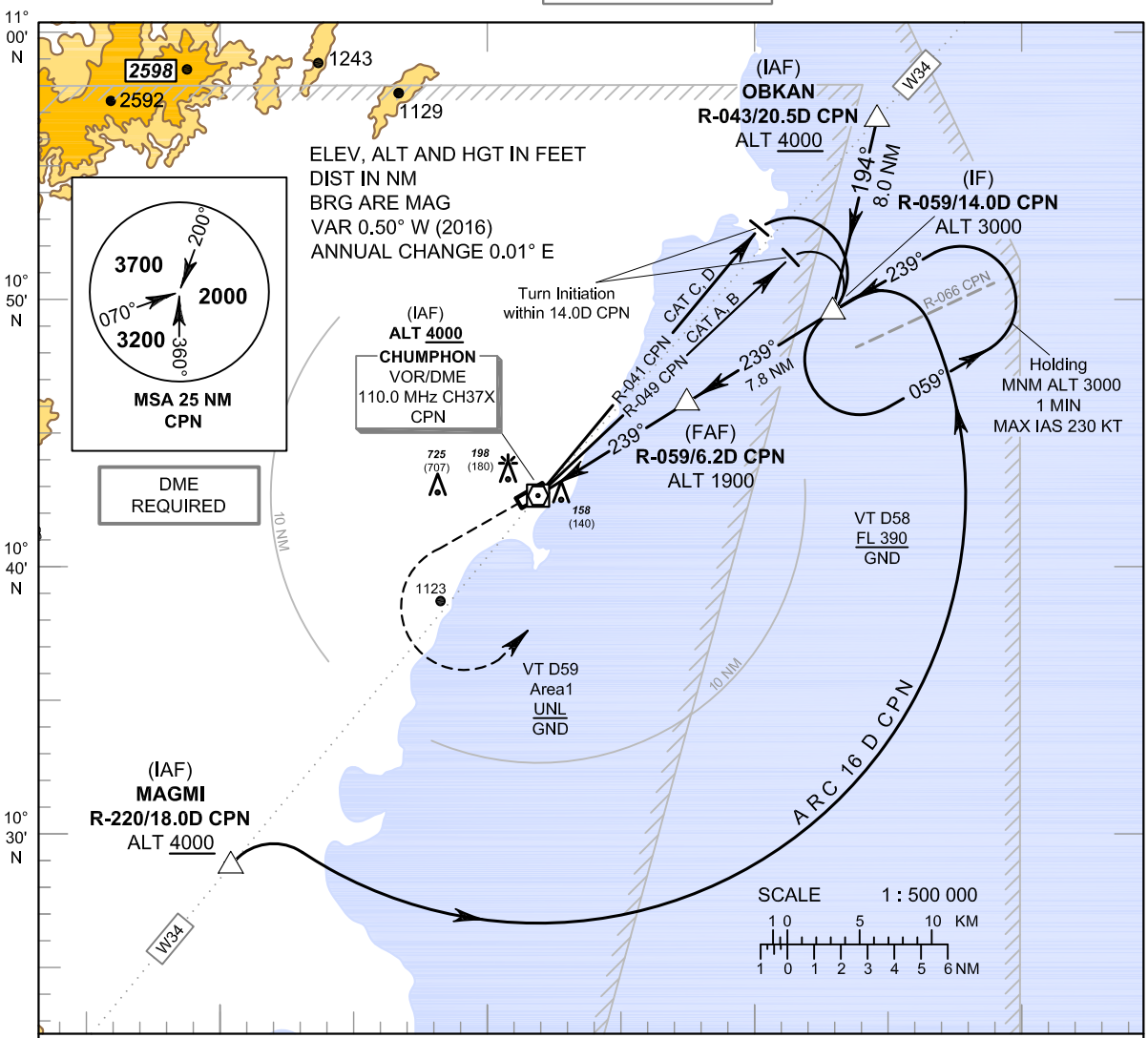
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

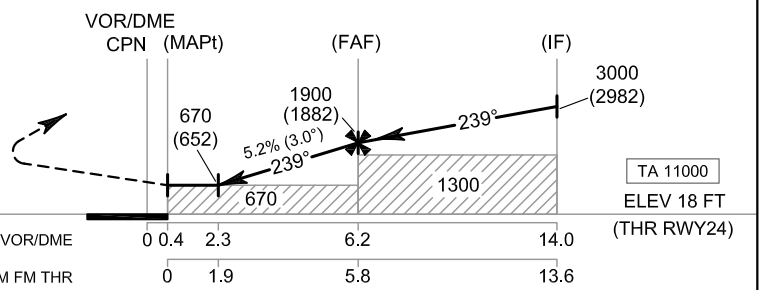
**CHUMPHON / Chumphon (VTSE)**

**VOR RWY24**




**MISSED APPROACH :**

**No turn before MAPt.**
Climb on R-059 to CPN VOR, then climb straight ahead to 1500 FT, and turn left to intercept outbound R-059 CPN VOR, then proceed to IF at 3000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D | Distance to CPN | 2.3 D | 3 D | 4 D | 5 D | 6 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 670 (652) | | | | Altitude (Height) | 670 (652) | 890 (872) | 1205 (1187) | 1520 (1502) | 1840 (1822) | 1900 (1882) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1500 (1482) | | | | Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ATIS FREQUENCY ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

**CHUMPHON / Chumphon (VTSE)**

**VOR RWY24**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) OBKAN | R-043 / 20.5D CPN | 10° 57' 52.72" N | 099° 35' 54.90" E |
| (IAF) MAGMI | R-220 / 18.0D CPN | 10° 28' 46.08" N | 099° 10' 14.75" E |
| (IF) | R-059 / 14.0D CPN | 10° 50' 03.39" N | 099° 34' 02.29" E |
| (FAF) | R-059 / 6.2D CPN | 10° 45' 56.54" N | 099° 27' 17.59" E |
| (MAPt) | R-059 / 0.4D CPN | 10° 42' 52.03" N | 099° 22' 15.38" E |
| VOR | CPN | 10° 42' 40.25" N | 099° 21' 56.06" E |

CHANGE: VOR/DME COORDINATE.

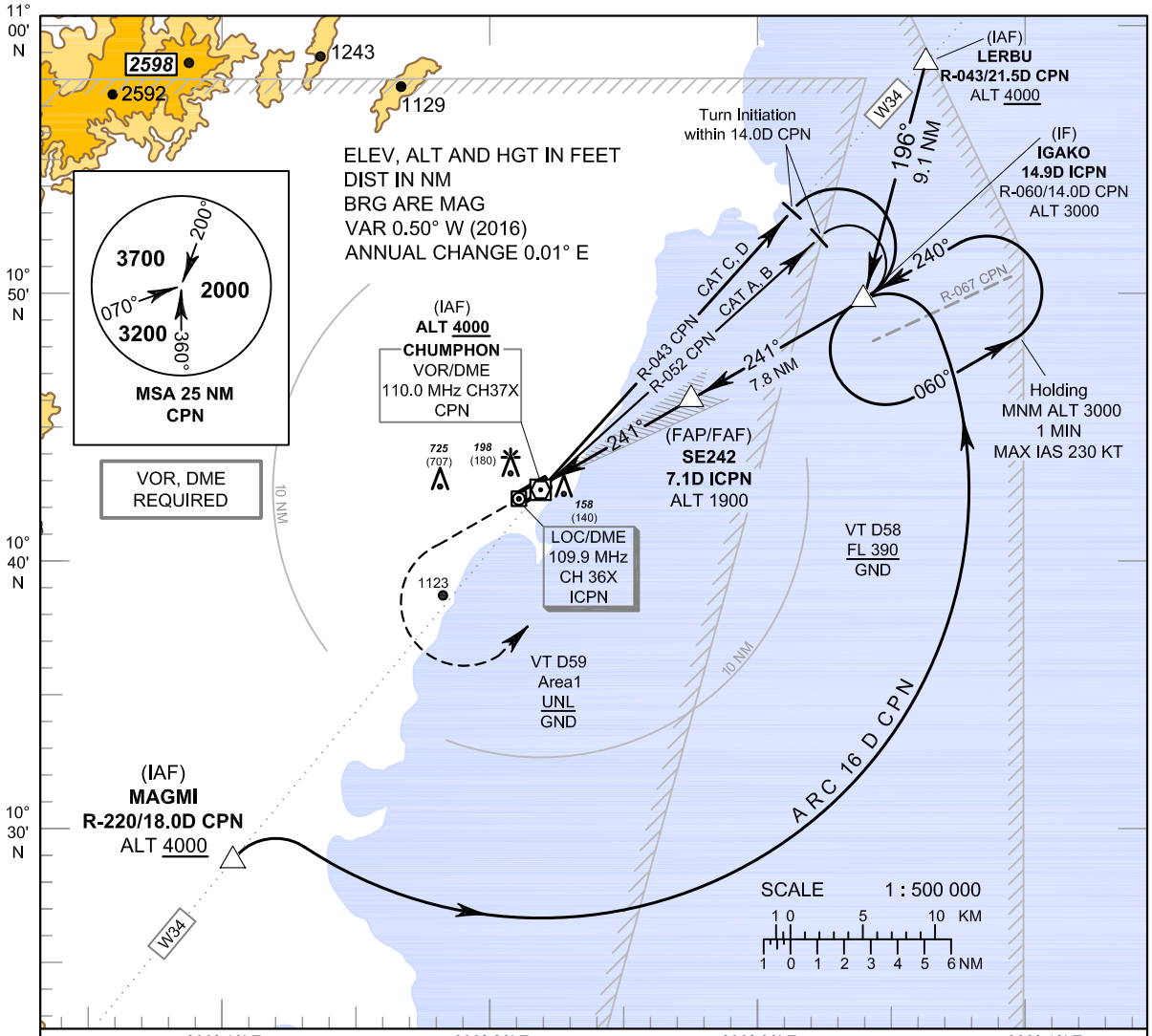
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO
THR RWY24 - ELEV 18 FT

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

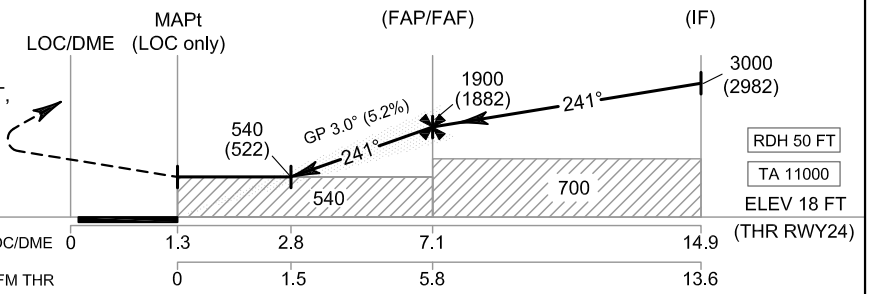
**CHUMPHON / Chumphon (VTSE)**

**ILS or LOC y RWY24**




**MISSED APPROACH :**

**No turn before MAPt.**
Climb straight ahead to 1500 FT, then turn left to intercept outbound R-060 CPN VOR, then proceed to IF at 3000 FT and hold or as directed by ATC.




| OCA/H | | A | B | C | D | GS out | Distance to ICPN | 2.8 D | 3 D | 4 D | 5 D | 6 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 390 (372) | | | | | Altitude (Height) | 540 (522) | 605 (587) | 920 (902) | 1235 (1217) | 1550 (1532) | 1900 (1882) |
| LOC only | | 540 (522) | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | | 1500 (1482) | | | | | Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ATIS FREQUENCY ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO
THR RWY24 - ELEV 18 FT

**CHUMPHON / Chumphon (VTSE)**

**ILS or LOC y RWY24**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) LERBU | R-043 / 21.5D CPN | 10° 58' 37.01" N | 099° 36' 35.66" E |
| (IAF) MAGMI | R-220 / 18.0D CPN | 10° 28' 46.08" N | 099° 10' 14.75" E |
| (IF) IGAKO | 14.9D ICPN | 10° 49' 46.39" N | 099° 34' 10.81" E |
| (FAP/FAF) SE242 | 7.1D ICPN | 10° 45' 51.86" N | 099° 27' 18.51" E |
| (MAPt) THR RWY24 | 1.3D ICPN | 10° 42' 57.41" N | 099° 22' 12.14" E |
| LOC/DME | ICPN | 10° 42' 18.33" N | 099° 21' 03.61" E |
| GP | ICPN | 10° 42' 49.28" N | 099° 22' 05.86" E |
| VOR | CPN | 10° 42' 40.25" N | 099° 21' 56.06" E |

CHANGE: LOC/DME AND GP COORDINATES.

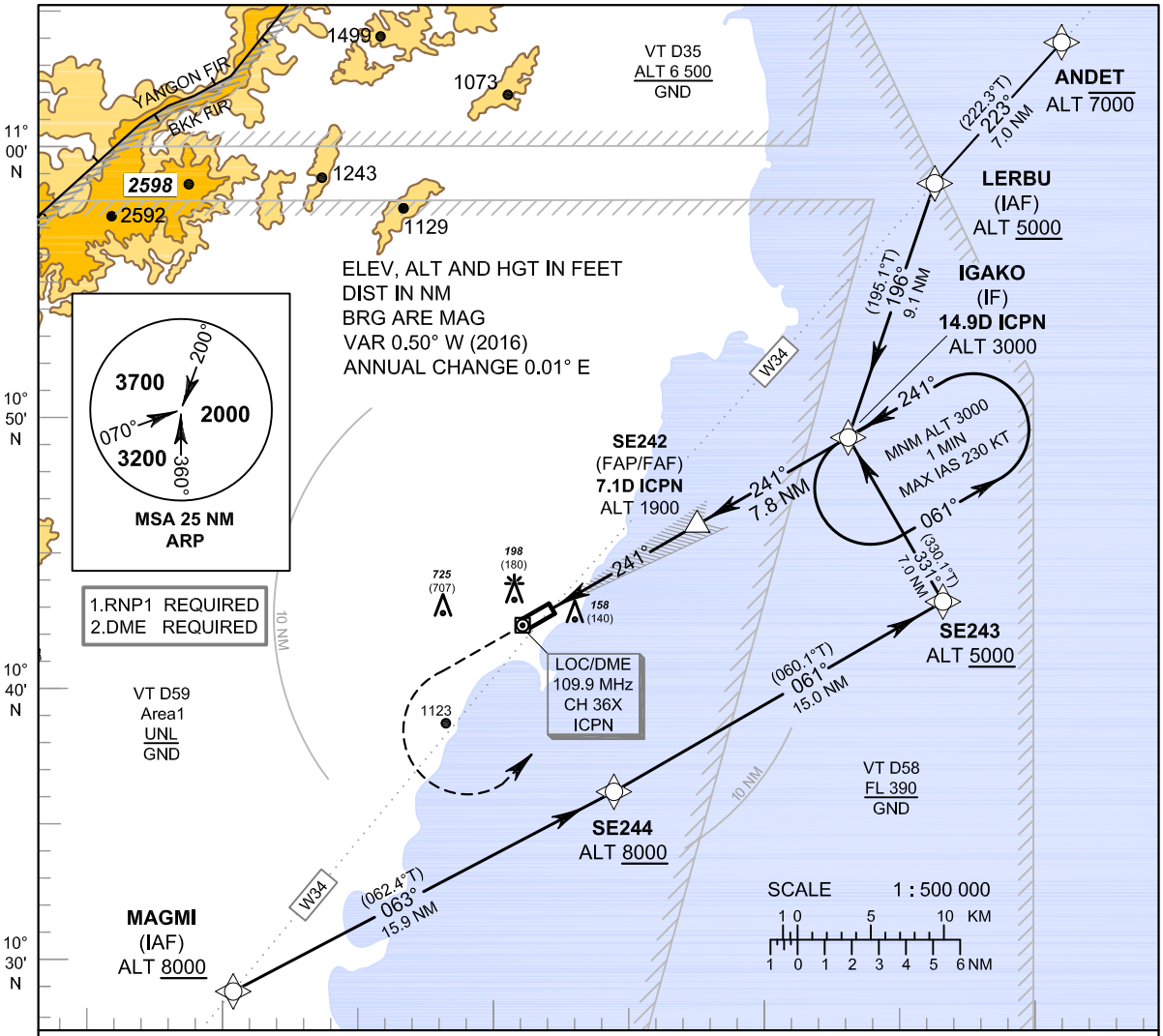
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO
THR RWY24 - ELEV 18 FT

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

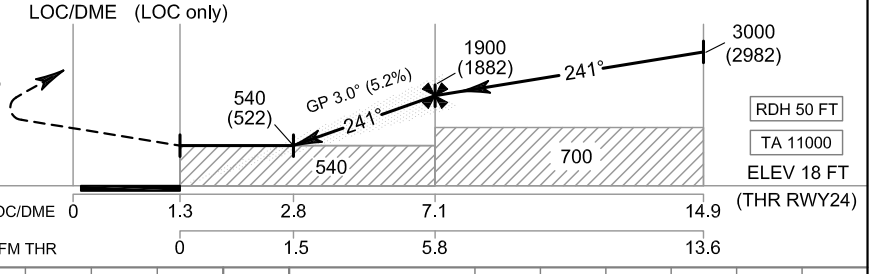
**CHUMPHON / Chumphon (VTSE)**

**ILS or LOC z RWY24**




**MISSED APPROACH :**

**No turn before MAPt (for LOC Only).**
Climb on track 241° to 1500 FT, then turn left direct to IF at 3000 FT and hold or as directed by ATC.




| OCA/H | | A | B | C | D | GS out | Distance to ICPN | 2.8 D | 3 D | 4 D | 5 D | 6 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 390 (372) | | | | | Altitude (Height) | 540 (522) | 605 (587) | 920 (902) | 1235 (1217) | 1550 (1532) | 1900 (1882) |
| LOC only | | 540 (522) | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | | 1500 (1482) | | | | | Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ATIS FREQUENCY ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO
THR RWY24 - ELEV 18 FT

**CHUMPHON / Chumphon (VTSE)**

**ILS or LOC z RWY24**

## TABULAR DESCRIPTION

| ILS or LOC z RWY24 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | ANDET | - | - | +0.48 | - | - | -7000 | - | - | RNP1 |
| 020 | TF | LERBU (IAF) | - | 223° (222.3°) | +0.48 | 7.0 | L | +5000 | - | - | RNP1 |
| 030 | TF | IGAKO (IF) | - | 196° (195.1°) | +0.48 | 9.1 | - | @3000 | - | - | RNP1 |
| | | | | | | | | | | | |
| 010 | IF | MAGMI (IAF) | - | - | +0.48 | - | - | +8000 | - | - | RNP1 |
| 020 | TF | SE244 | - | 063° (062.4°) | +0.48 | 15.9 | L | +8000 | - | - | RNP1 |
| 030 | TF | SE243 | - | 061° (060.1°) | +0.48 | 15.0 | L | +5000 | - | - | RNP1 |
| 040 | TF | IGAKO (IF) | - | 331° (330.1°) | +0.48 | 7.0 | - | @3000 | - | - | RNP1 |
| | | | | | | | | | | | |
| 010 | IF | IGAKO (IF) | - | - | +0.48 | - | - | @3000 | - | - | RNP1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | SE242 (FAF) | - | 241° (240.1°) | +0.48 | 7.8 | - | @1900 | - | - | ILS |
| 030 | TF | SE241 (MAPt) | Y | 241° (240.1°) | +0.48 | 5.8 | - | @68 | - | -3.0/50 | ILS |
| 040 | CA | - | - | 241° (240.1°) | +0.48 | - | - | +1500 | - | - | RNP1 |
| 050 | DF | IGAKO (IF) | - | - | +0.48 | - | L | +3000 | - | - | RNP1 |
| 060 | HM | IGAKO (IF) | Y | 241° (240.1°) | +0.48 | 1 minute | L | +3000 | -230 | - | RNP1 |

## WAYPOINT LIST

| ILS or LOC z RWY24 | |
|---|---|
| | |
| Waypoint Identifier | Coordinates |
| ANDET | 11° 03' 49.09" N 099° 41' 23.06" E |
| LERBU | 10° 58' 37.01" N 099° 36' 35.66" E |
| MAGMI | 10° 28' 46.08" N 099° 10' 14.75" E |
| SE244 | 10° 36' 09.74" N 099° 24' 31.21" E |
| SE243 | 10° 43' 40.62" N 099° 37' 43.51" E |
| IGAKO | 10° 49' 46.39" N 099° 34' 10.81" E |
| SE242 | 10° 45' 51.86" N 099° 27' 18.51" E |
| SE241 | 10° 42' 57.41" N 099° 22' 12.14" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO
THR RWY24 - ELEV 18 FT

**CHUMPHON / Chumphon (VTSE)**

**ILS or LOC z RWY24**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IF) IGAKO | 14.9D ICPN | 10° 49' 46.39" N | 099° 34' 10.81" E |
| (FAP/FAF) SE242 | 7.1D ICPN | 10° 45' 51.86" N | 099° 27' 18.51" E |
| (MAPt) THR RWY24 | 1.3D ICPN | 10° 42' 57.41" N | 099° 22' 12.14" E |
| LOC/DME | ICPN | 10° 42' 18.33" N | 099° 21' 03.61" E |
| GP | ICPN | 10° 42' 49.28" N | 099° 22' 05.86" E |

CHANGE: LOC/DME AND GP COORDINATES.

**INTENTIONALLY BLANK**

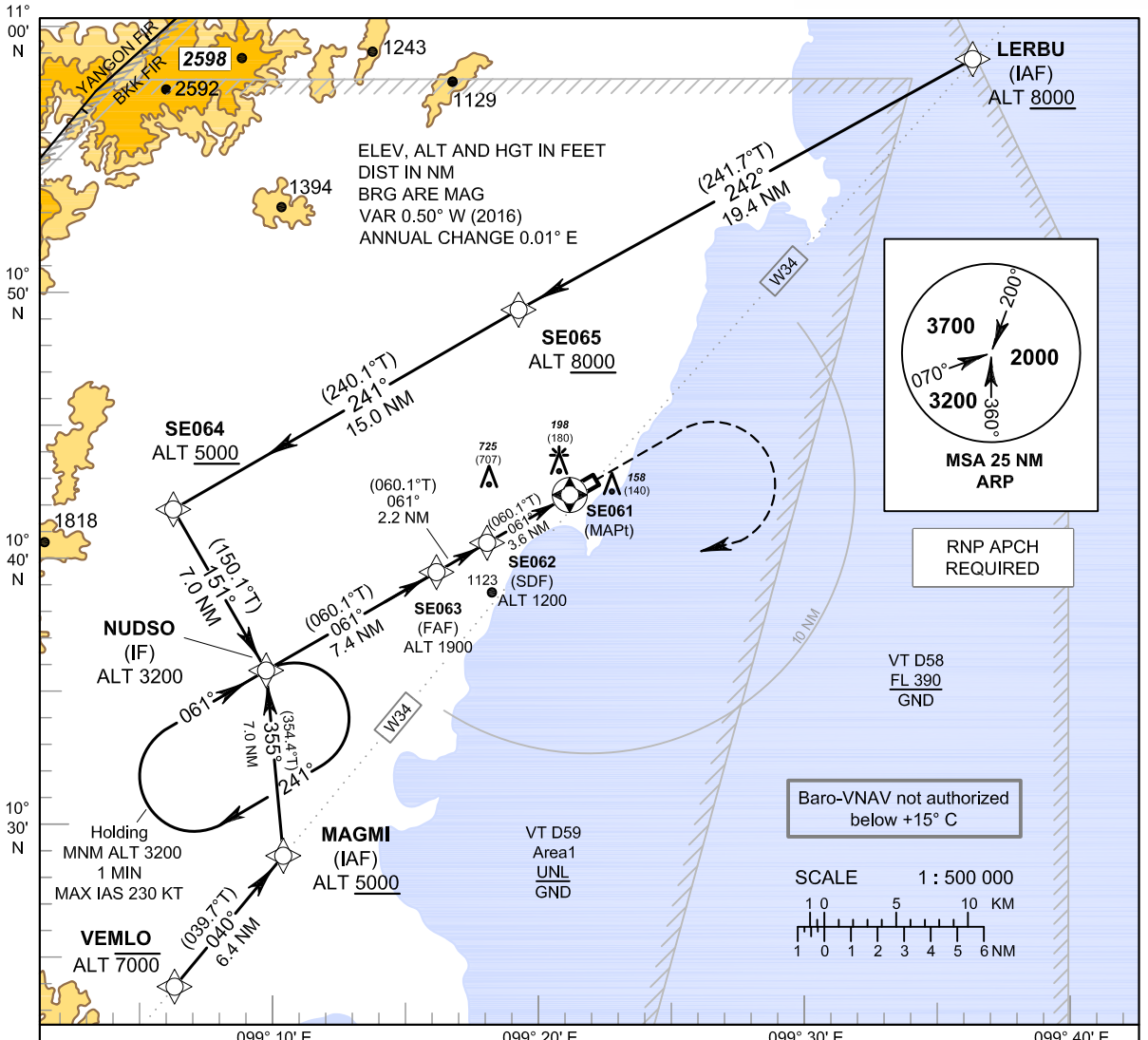
**INSTRUMENT APPROACH CHART - ICAO**

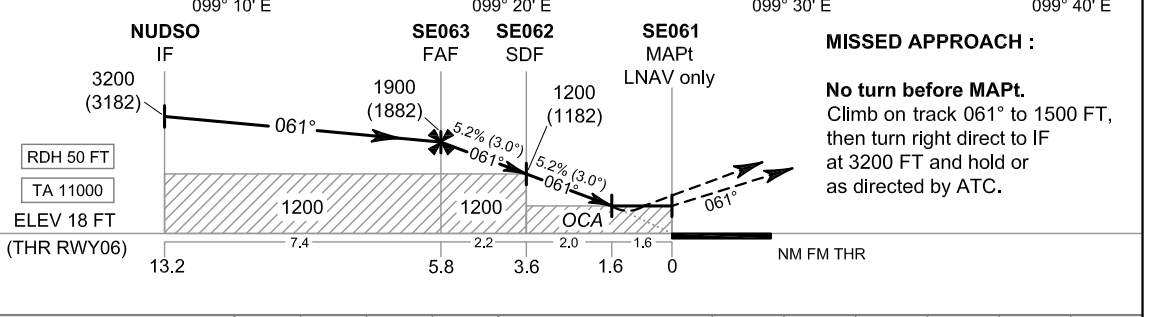
**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

**CHUMPHON / Chumphon (VTSE)**

**RNP RWY06**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 430 (412) | | | |
| LNAV | 570 (552) | | | |
| Circling (OCH AAL) | 1500 (1482) | | | |

| NM to NEXT WPT | FAF | 5 NM | SDF | 3 NM | 2 NM | 1.6 NM |
|---|---|---|---|---|---|---|
| Altitude (Height) | 1900 (1882) | 1650 (1632) | 1200 (1182) | 1015 (997) | 700 (682) | 570 (552) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ATIS FREQUENCY ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

**CHUMPHON / Chumphon (VTSE)**

**RNP RWY06**

## TABULAR DESCRIPTION

**RNP RWY06**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | VEMLO | - | - | +0.48 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | MAGMI (IAF) | - | 040° (039.7°) | +0.48 | 6.4 | L | +5000 | - | - | RNP APCH |
| 030 | TF | NUDSO (IF) | - | 355° (354.4°) | +0.48 | 7.0 | - | @3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | LERBU (IAF) | - | - | +0.48 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | SE065 | - | 242° (241.7°) | +0.48 | 19.4 | L | +8000 | - | - | RNP APCH |
| 030 | TF | SE064 | - | 241° (240.1°) | +0.48 | 15.0 | L | +5000 | - | - | RNP APCH |
| 040 | TF | NUDSO (IF) | - | 151° (150.1°) | +0.48 | 7.0 | - | @3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | NUDSO (IF) | - | - | +0.48 | - | - | @3200 | - | - | RNP APCH |
| 020 | TF | SE063 (FAF) | - | 061° (060.1°) | +0.48 | 7.4 | - | @1900 | - | - | RNP APCH |
| 030 | TF | SE062 (SDF) | - | 061° (060.1°) | +0.48 | 2.2 | - | @1200 | - | - | RNP APCH |
| 040 | TF | SE061 (MAPt) | Y | 061° (060.1°) | +0.48 | 3.6 | - | @68 | - | -3.0/50 | RNP APCH |
| 050 | CA | - | - | 061° (060.1°) | +0.48 | - | - | +1500 | - | - | RNP APCH |
| 060 | DF | NUDSO (IF) | - | - | +0.48 | - | R | +3200 | - | - | RNP APCH |
| 070 | HM | NUDSO (IF) | Y | 061° (060.1°) | +0.48 | 1 minute | R | +3200 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY06**

| Waypoint Identifier | Coordinates |
|---|---|
| VEMLO | 10° 23' 48.85" N 099° 06' 05.20" E |
| MAGMI | 10° 28' 46.08" N 099° 10' 14.75" E |
| LERBU | 10° 58' 37.01" N 099° 36' 35.66" E |
| SE065 | 10° 49' 21.98" N 099° 19' 12.44" E |
| SE064 | 10° 41' 50.31" N 099° 06' 00.35" E |
| NUDSO | 10° 35' 44.86" N 099° 09' 33.53" E |
| SE063 | 10° 39' 28.68" N 099° 16' 05.89" E |
| SE062 | 10° 40' 34.90" N 099° 18' 02.04" E |
| SE061 | 10° 42' 23.23" N 099° 21' 12.14" E |

CHANGE : CHART TITLE.

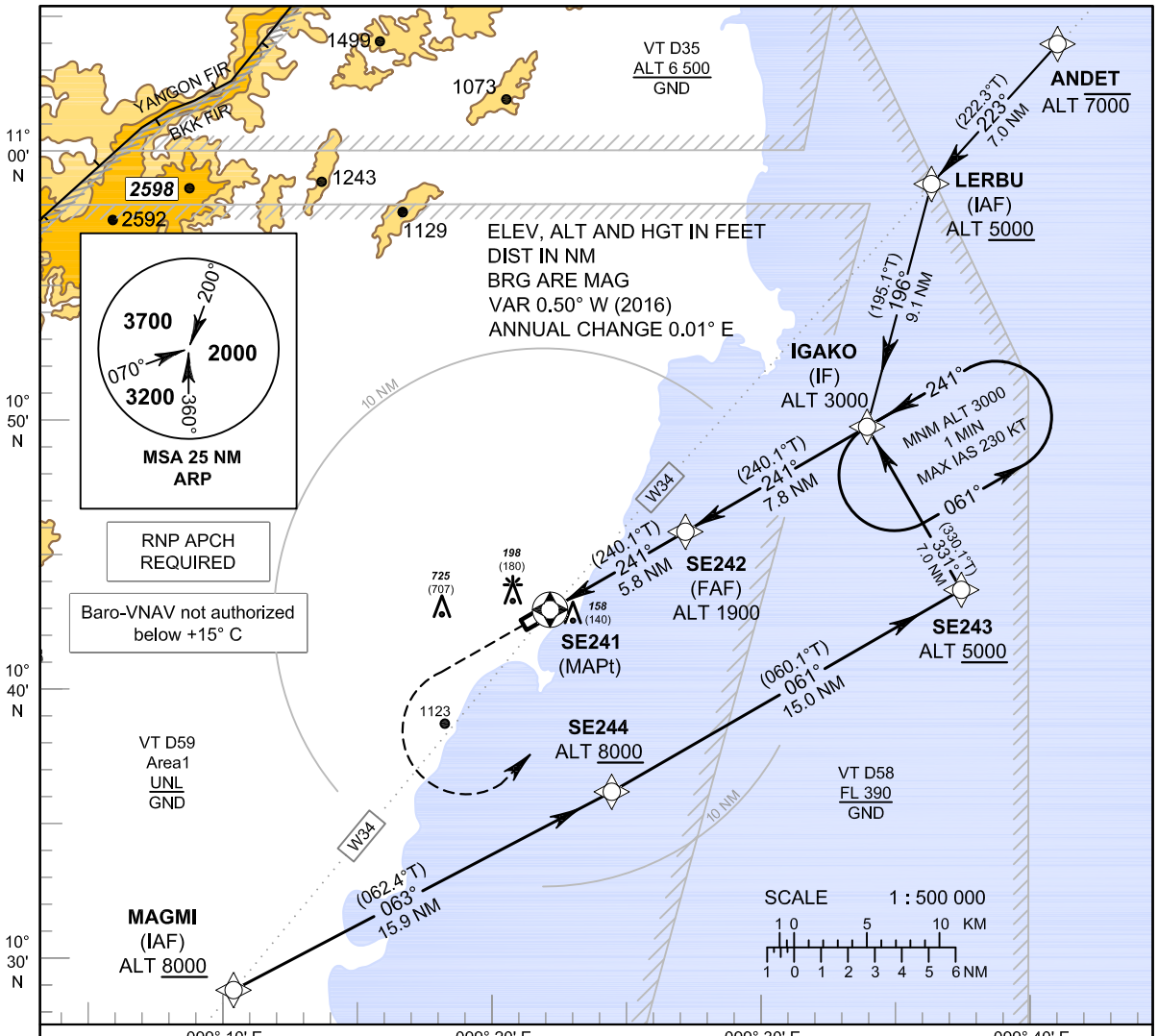
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

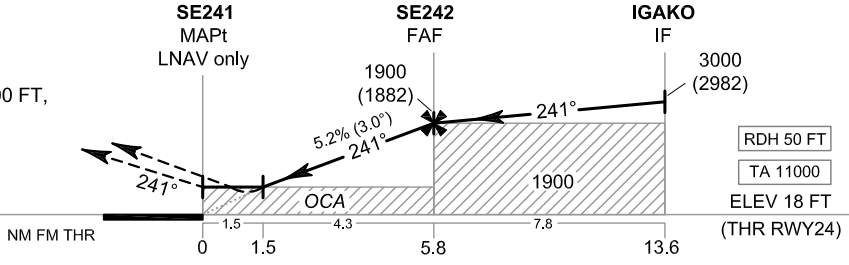
**CHUMPHON / Chumphon (VTSE)**

**RNP RWY24**




**MISSED APPROACH :**

**No turn before MAPt.**
Climb on track 241° to 1500 FT, then turn left direct to IF at 3000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 400 (382) | | | |
| LNAV | 540 (522) | | | |
| Circling (OCH AAL) | 1500 (1482) | | | |

| NM to NEXT WPT | 1.5 NM | 2 NM | 3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | 540 (522) | 700 (682) | 1015 (997) | 1330 (1312) | 1650 (1632) | 1900 (1882) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ATIS FREQUENCY ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 18 FT**
HEIGHTS RELATED TO AERODROME ELEV

**CHUMPHON / Chumphon (VTSE)**

**RNP RWY24**

## TABULAR DESCRIPTION

**RNP RWY24**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | ANDET | - | - | +0.48 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | LERBU (IAF) | - | 223° (222.3°) | +0.48 | 7.0 | L | +5000 | - | - | RNP APCH |
| 030 | TF | IGAKO (IF) | - | 196° (195.1°) | +0.48 | 9.1 | - | @3000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MAGMI (IAF) | - | - | +0.48 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | SE244 | - | 063° (062.4°) | +0.48 | 15.9 | L | +8000 | - | - | RNP APCH |
| 030 | TF | SE243 | - | 061° (060.1°) | +0.48 | 15.0 | L | +5000 | - | - | RNP APCH |
| 040 | TF | IGAKO (IF) | - | 331° (330.1°) | +0.48 | 7.0 | - | @3000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | IGAKO (IF) | - | - | +0.48 | - | - | @3000 | - | - | RNP APCH |
| 020 | TF | SE242 (FAF) | - | 241° (240.1°) | +0.48 | 7.8 | - | @1900 | - | - | RNP APCH |
| 030 | TF | SE241 (MAPt) | Y | 241° (240.1°) | +0.48 | 5.8 | - | @68 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 241° (240.1°) | +0.48 | - | - | +1500 | - | - | RNP APCH |
| 050 | DF | IGAKO (IF) | - | - | +0.48 | - | L | +3000 | - | - | RNP APCH |
| 060 | HM | IGAKO (IF) | Y | 241° (240.1°) | +0.48 | 1 minute | L | +3000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY24**

| Waypoint Identifier | Coordinates |
|---|---|
| ANDET | 11° 03' 49.09" N 099° 41' 23.06" E |
| LERBU | 10° 58' 37.01" N 099° 36' 35.66" E |
| MAGMI | 10° 28' 46.08" N 099° 10' 14.75" E |
| SE244 | 10° 36' 09.74" N 099° 24' 31.21" E |
| SE243 | 10° 43' 40.62" N 099° 37' 43.51" E |
| IGAKO | 10° 49' 46.39" N 099° 34' 10.81" E |
| SE242 | 10° 45' 51.86" N 099° 27' 18.51" E |
| SE241 | 10° 42' 57.41" N 099° 22' 12.14" E |

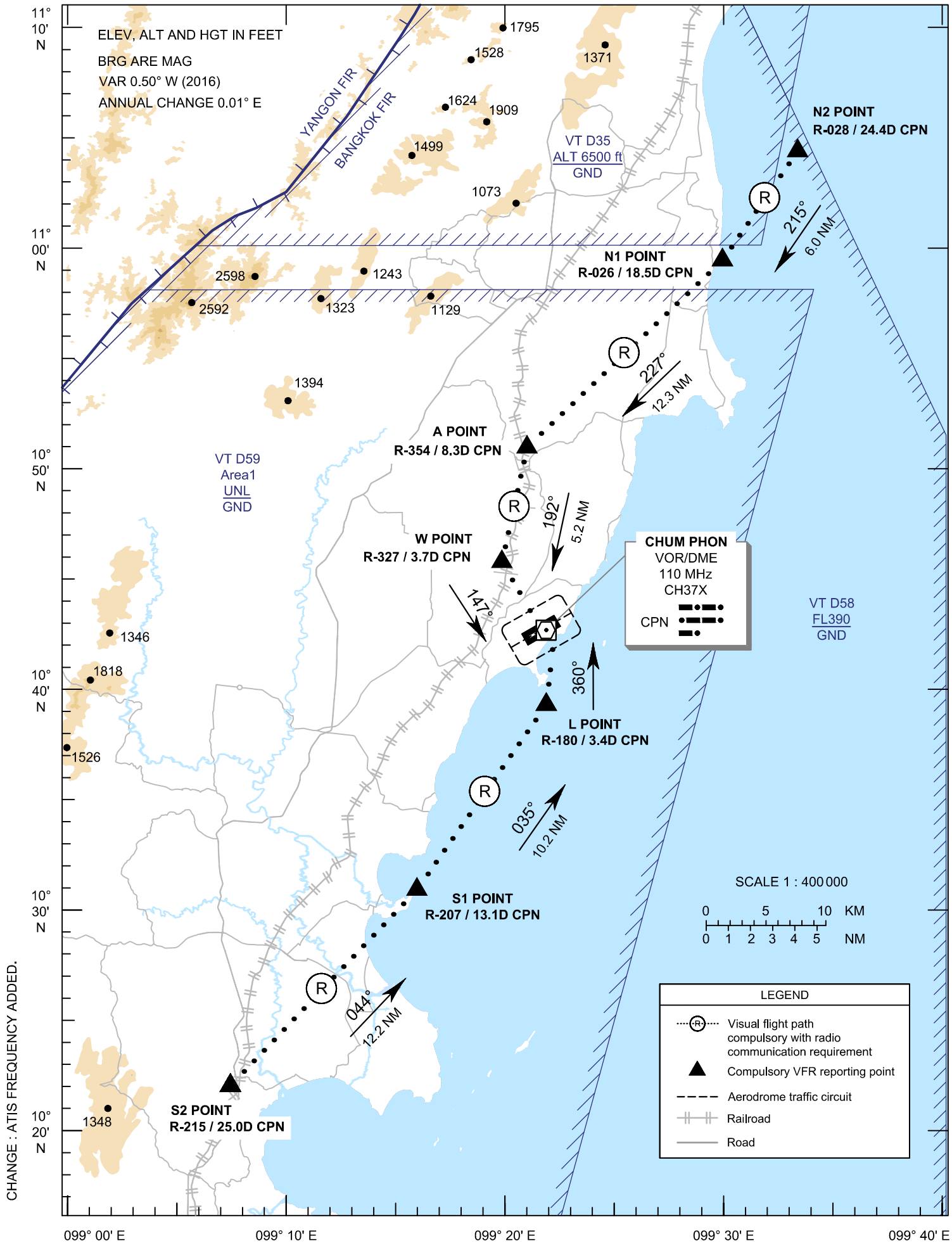
CHANGE : CHART TITLE.

**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 18 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

**CHUMPHON / Chumphon (VTSE) RWY 06/24**



**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 18 FT**
HEIGHT RELATED TO AERODROME ELEV

**CHUMPHON / Chumphon (VTSE) RWY 06/24**

ARR-RWY06/24 (**From North**)
Enter via most direct route through the N2 POINT, then heading 215° to N1 POINT, heading 227° to A POINT then heading 192° to W POINT, then join aerodrome traffic circuit when direct by ATC.

ARR-RWY06/24 (**From South**)
Enter via most direct route through the S2 POINT, then heading 044° to S1 POINT, heading 035° to L POINT, then join aerodrome traffic circuit when direct by ATC.

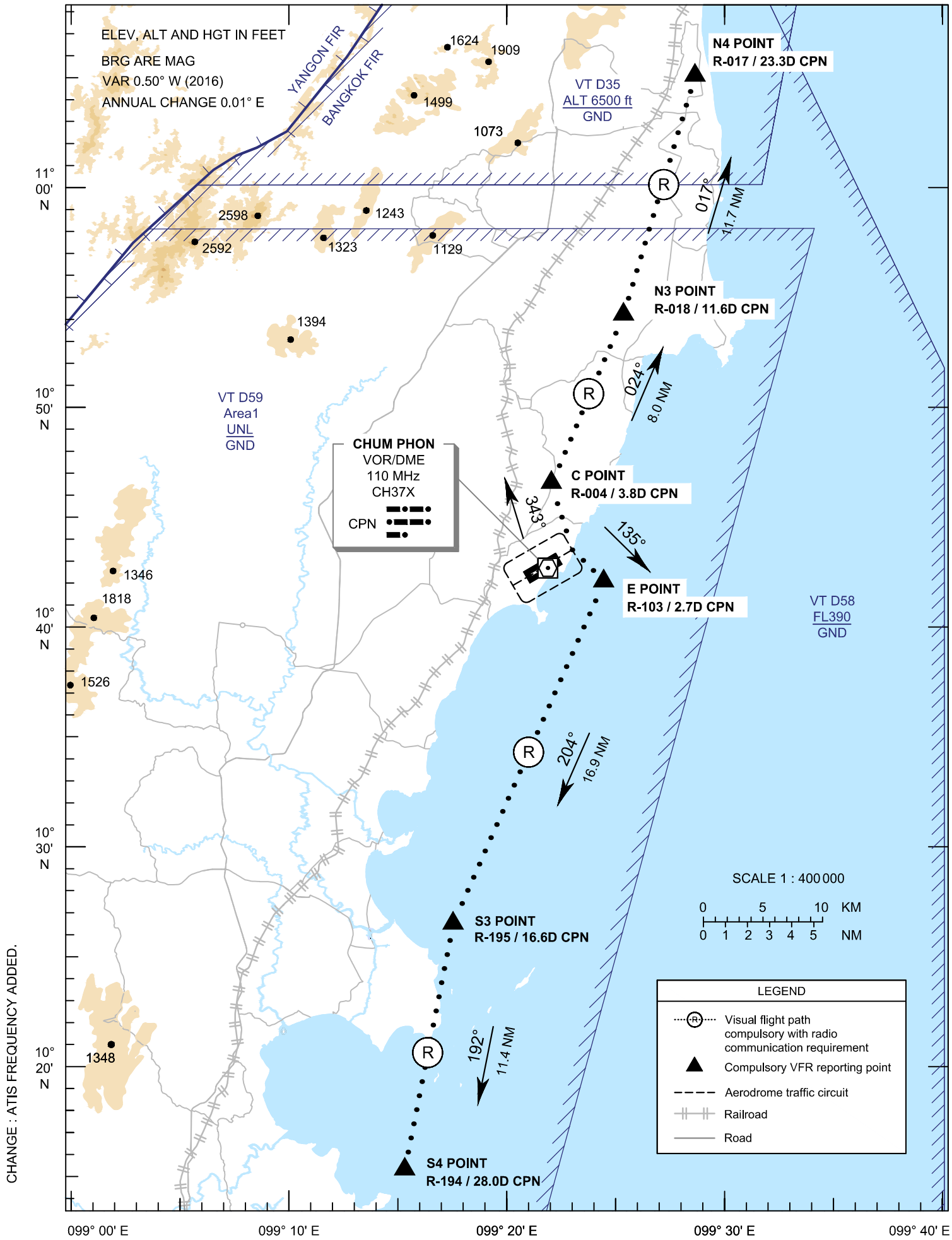
| Reporting points | Visual Reference | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| A POINT | Ban Map Ammarit | R-354 / 8.3D CPN | 10° 50' 55.10" N | 099° 21' 00.20" E |
| L POINT | Lam Tan Cape | R-180 / 3.4D CPN | 10° 39' 17.80" N | 099° 21' 56.20" E |
| N1 POINT | Khao Bang Berd | R-026 / 18.5D CPN | 10° 59' 26.02" N | 099° 30' 02.59" E |
| N2 POINT | Koh Talu Island | R-028 / 24.4D CPN | 11° 04' 22.70" N | 099° 33' 30.00" E |
| S1 POINT | Lam Kor Kwang (Hua Mong) Cape | R-207 / 13.1D CPN | 10° 30' 55.41" N | 099° 16' 00.27" E |
| S2 POINT | Khao Chedi Temple | R-215 / 25.0D CPN | 10° 22' 01.97" N | 099° 07' 27.43" E |
| W POINT | Erawan Nantiyaram Temple | R-327 / 3.7D CPN | 10° 45' 46.50" N | 099° 19' 54.50" E |
| CPN VOR/DME | - | - | 10° 42' 40.21" N | 099° 21' 56.03" E |

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 18 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

**CHUMPHON / Chumphon (VTSE) RWY 06**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 18 FT**
HEIGHT RELATED TO AERODROME ELEV

**CHUMPHON / Chumphon (VTSE) RWY 06**

DEP-RWY06 (**To North**)
After departure left turn heading 343° to C POINT, then heading 024° to N3 POINT, then heading 017° to N4 POINT, then proceed to destination.

DEP-RWY06 (**To South**)
After departure right turn heading 135° to E POINT, then heading 204° to S3 POINT, then heading 192° to S4 POINT, then proceed to destination.

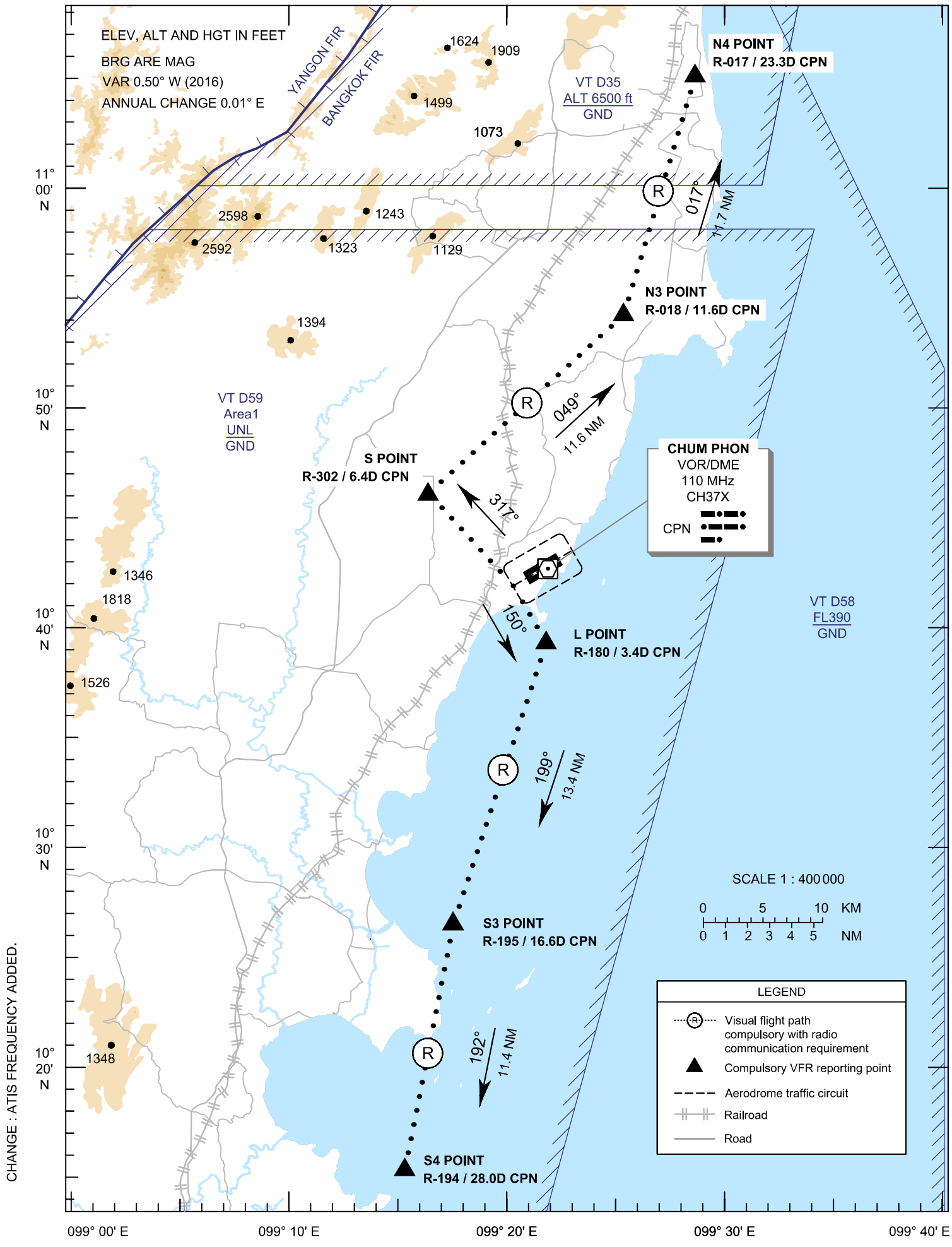
| Reporting points | Landmark | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| C POINT | Chum Kho (Office of subdistrict Municipality) | R-004 / 3.8D CPN | 10° 46' 28.00" N | 099° 22' 11.00" E |
| E POINT | Koh Kai Island | R-103 / 2.7D CPN | 10° 42' 04.70" N | 099° 24' 36.50" E |
| N3 POINT | Bang Waen (Road Intersection) | R-018 / 11.6D CPN | 10° 53' 47.98" N | 099° 25' 26.66" E |
| N4 POINT | Bang Saphan Noi | R-017 / 23.3D CPN | 11° 05' 04.86" N | 099° 28' 49.98" E |
| S3 POINT | Koh Samed Chumphon Island | R-195 / 16.6D CPN | 10° 26' 30.72" N | 099° 17' 39.01" E |
| S4 POINT | Koh Kula Island | R-194 / 28.0D CPN | 10° 15' 19.50" N | 099° 15' 24.90" E |
| CPN VOR/DME | - | - | 10° 42' 40.21" N | 099° 21' 56.03" E |

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 18 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

**CHUMPHON / Chumphon (VTSE) RWY 24**




CHANGE : ATIS FREQUENCY ADDED.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 18 FT**
HEIGHT RELATED TO AERODROME ELEV

**CHUMPHON / Chumphon (VTSE) RWY 24**

DEP-RWY24 (**To North**)
After departure right turn heading 317° to S POINT, then heading 049° to N3 POINT, then heading 017° to N4 POINT, then proceed to destination.

DEP-RWY24 (**To South**)
After departure left turn heading 150° to L POINT, then heading 199° to S3 POINT, then heading 192° to S4 POINT, then proceed to destination.

| Reporting points | Landmark | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| L POINT | Lam Tan Cape | R-180 / 3.4D CPN | 10° 39' 17.80" N | 099° 21' 56.20" E |
| N3 POINT | Bang Waen (Road Intersection) | R-018 / 11.6D CPN | 10° 53' 47.98" N | 099° 25' 26.66" E |
| N4 POINT | Bang Saphan Noi | R-017 / 23.3D CPN | 11° 05' 04.86" N | 099° 28' 49.98" E |
| S POINT | Sahakorn Prachanukul School | R-303 / 6.3D CPN | 10° 46' 06.90" N | 099° 16' 31.90" E |
| S3 POINT | Koh Samed Chumphon Island | R-195 / 16.6D CPN | 10° 26' 30.72" N | 099° 17' 39.01" E |
| S4 POINT | Koh Kula Island | R-194 / 28.0D CPN | 10° 15' 19.50" N | 099° 15' 24.90" E |
| CPN VOR/DME | - | - | 10° 42' 40.21" N | 099° 21' 56.03" E |

## VTUK AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUK - KHON KAEN / KHON KAEN AIRPORT

## VTUK AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 162759.86N 1024701.26E |
| 2 | Direction and distance from (city) | APRX 8 KM SE from the city |
| 3 | Elevation/Reference temperature | 681 FT/37°C |
| 4 | Geoid Undulation at AD ELEV PSN | -99 FT |
| 5 | MAG VAR/Annual change | 1.10°W(2022)/0.05°W |
| 5 | AD Administration, address, telephone, telefax, telex, AFS | Director of Khon Kaen Airport<br>Khon Kaen Airport<br>68/24 Moo 5, Tambon Banped<br>Amphoe Muang<br>Khon Kaen Province 40000, Thailand<br>Tel: +664 346 8170-5<br>Fax: +664 346 8186<br>AFS: VTUKYDYX |
| 6 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 7 | Remarks | Operator: Department of Airports |

## VTUK AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1500 |
| 2 | Customs and immigration | 2300-1500 Other than this period on request |
| 3 | Health and sanitation | 2300-1500 Other than this period on request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1500 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1500 |
| 8 | Fuelling | 2400-1300 Other than this period on request |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Udon Thani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +664 223 0124<br>+669 2262 3477<br>Fax: +664 224 2797 |

## VTUK AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1 |
| 3 | Fuelling facilities/capacity | 1 JET A-1 Refueller @ 12,000 L<br>1 JET A-1 Refueller @ 8,000 L<br>1 AVGAS Refueller @ 3,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTUK AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | Available at the airport and in the city |
| 3 | Transportation | Taxi and Car Rental and Bus |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | Bank: open from 0030-1300<br>Post office: open from 0330-1330 |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTUK AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 8 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUK AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUK AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 65/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 65/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUK AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>Nose-wheel guide lines at apron<br>VDGS of aircraft stand: Stand number 2 and 3 |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: CL, Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUK AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTUK AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Upper Northeastern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Upper Northeastern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +664 346 8224<br>Fax: +664 346 8086 |
| 6 | Flight documentation<br>Language(s) used | Charts, Tabular forms and Abbreviated Plain Language Texts<br>English |
| 7 | Charts and other information available for briefing or consultation | S, U85, U70, U50, U40, U30, U25, U20, SWH, SWM, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS),<br>Low Level Windshear Alert System (LLWAS) and Weather Radar |
| 9 | ATS units provided with information | Khon Kaen TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUK AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 03 | 032.83° | 3050x45 | PCN 65/F/C/X/T Asphaltic concrete | 162722.22N 1024636.09E -99 FT | THR 604 FT |
| 21 | 212.83° | 3050x45 | PCN 65/F/C/X/T Asphaltic concrete | 162837.47N 1024726.40E -99 FT | THR 674 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| +0.80% | NIL | NIL | 3170x280 | NIL | NIL | NIL | THR displaced by 150 M |
| -0.60% | NIL | NIL | 3170x280 | NIL | NIL | NIL | THR displaced by 150 M |

## VTUK AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 03 | 3050 | 3050 | 3050 | 2900 | THR displaced by 150 M |
| 21 | 3050 | 3050 | 3050 | 2900 | THR displaced by 150 M |

## VTUK AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 03 | RTIL | Green WBAR | PAPI Left 3° | NIL | NIL | 3050 M 60 M White, LIH | Red | NIL | NIL |
| 21 | RTIL | Green WBAR | PAPI Left 3° | NIL | NIL | 3050 M 60 M White, LIH | Red | NIL | NIL |

## VTUK AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W G EV 7 SEC<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL |
| 3 | TWY edge and centre line lighting | TWY Edge: All TWY<br>TWY Centre Line: NIL |

| | | |
|---|---|---|
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the Air Field Lighting (AFL) building.<br>Switch-over time: 15 SEC |
| 5 | Remarks | Flares 2 HR PN |

**VTUK AD 2.16 HELICOPTER LANDING AREA**

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

**VTUK AD 2.17 ATS AIRSPACE**

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on KKN DVOR/DME (162815.3N 1024716.8E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | KHON KAEN TOWER<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

**VTUK AD 2.18 ATS COMMUNICATION FACILITIES**

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Khon Kaen Approach | 123.4 MHz<br>240.0 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)]Emergency frequency |
| TWR | Khon Kaen Tower | 122.25 MHz<br>236.6 MHz<br>121.5 MHz[1)] | As AD OPR HR | |
| GND | Khon Kaen Ground | 121.9 MHz | As AD OPR HR | |
| ATIS | Khon Kaen Airport | 126.85 MHz | As AD OPR HR | |

## VTUK AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | KN | 393 KHz | H24 | 162743.41N<br>1024704.18E | NIL | NIL |
| DVOR/DME | KKN | 114.9 MHz<br>CH96X | H24 | 162815.3N<br>1024716.8E | NIL | DVOR/DME restriction due to terrain surround DVOR/DME station, coverage check does not provide adequate signal 40 nm. at required altitude in various areas as follows:<br>– Radial 001°-080° altitude should not below 2 500 ft.<br>– Radial 081°-220° altitude should not below 2 000 ft.<br>– Radial 221°-360° altitude should not below 3 500 ft. |

## VTUK AD 2.20 LOCAL AERODROME REGULATIONS

### 1. 180 DEGREES TURN ON THE RUNWAY

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, aircraft code letter C or higher shall make 180 degrees turn at the runway turn pads located on both end of runway. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTUK AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUK AD 2.22 FLIGHT PROCEDURES

### 1. VFR Procedures

Details of VFR entry and exit procedures, see charts.

### 2. Take-off and Landing when VTD65 Active

During military air exercise taking place on exercise area Nam Phong Range (VTD65), all aircraft departing/arriving VTUK shall comply with the following instructions:

a) Pilot might be requested to take-off RWY 21 and landing RWY 03.
b) If unable to comply with RWY restriction, pilot shall inform ATC immediately and expect delay.

### 3. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 4. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**5. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 03:

KHONKAEN OMNI 03 Departure: Required climb gradient 201 ft per NM (3.3%) until 3,400 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 3,000 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 21:

KHONKAEN OMNI 21 Departure: Required climb gradient 201 ft per NM (3.3%) until 3,400 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 3,000 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTUK AD 2.23 ADDITIONAL INFORMATION

**1. BIRD CONCENTRATIONS**

Bird concentrations in the vicinity of an aerodrome.

## VTUK AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTUK-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTUK-2-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03 - AKRET1A ALGIT1A EMRUT1A NEMTE1A ONUVI1A SEDNO1C | AD 2-VTUK-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03 - AKRET1A ALGIT1A EMRUT1A NEMTE1A ONUVI1A SEDNO1C (Tabular description) | AD 2-VTUK-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03 - AKRET1A ALGIT1A EMRUT1A NEMTE1A ONUVI1A SEDNO1C (Waypoint list table) | AD 2-VTUK-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21 - AKRET1B ALGIT1B EMRUT1B NEMTE1B ONUVI1B SEDNO1D | AD 2-VTUK-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21 - AKRET1B ALGIT1B EMRUT1B NEMTE1B ONUVI1B SEDNO1D (Tabular description) | AD 2-VTUK-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21 - AKRET1B ALGIT1B EMRUT1B NEMTE1B ONUVI1B SEDNO1D (Waypoint list table) | AD 2-VTUK-6-7 |
| Instrument Approach Chart - ICAO - NDB z RWY 03 | AD 2-VTUK-8-1 |
| Instrument Approach Chart - ICAO - NDB RWY 21 | AD 2-VTUK-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 03 | AD 2-VTUK-8-5 |
| Instrument Approach Chart - ICAO - VOR RWY 03 (Fix and point list table) | AD 2-VTUK-8-6 |
| Instrument Approach Chart - ICAO - VOR RWY 21 | AD 2-VTUK-8-7 |
| Instrument Approach Chart - ICAO - VOR RWY 21 (Fix and point list table) | AD 2-VTUK-8-8 |
| Instrument Approach Chart - ICAO - RNP RWY 03 | AD 2-VTUK-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 03 (Tabular description) | AD 2-VTUK-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 03 (Waypoint list table) | AD 2-VTUK-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 21 | AD 2-VTUK-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 21 (Tabular description) | AD 2-VTUK-8-14 |
| Instrument Approach Chart - ICAO - RNP RWY 21 (Waypoint list table) | AD 2-VTUK-8-15 |
| VFR ENTRY PROCEDURE CHART - RWY 03/21 (NORTH) | AD 2-VTUK-9-1 |
| VFR ENTRY PROCEDURE CHART - RWY 03/21 (NORTH) (Tabular description) | AD 2-VTUK-9-2 |
| VFR ENTRY PROCEDURE CHART - RWY 03/21 (SOUTH) | AD 2-VTUK-9-3 |
| VFR ENTRY PROCEDURE CHART - RWY 03/21 (SOUTH) (Tabular description) | AD 2-VTUK-9-4 |
| VFR EXIT PROCEDURE CHART - RWY 03 (NORTH) | AD 2-VTUK-9-5 |
| VFR EXIT PROCEDURE CHART - RWY 03 (NORTH) (Tabular description) | AD 2-VTUK-9-6 |
| VFR EXIT PROCEDURE CHART - RWY 03 (SOUTH) | AD 2-VTUK-9-7 |
| VFR EXIT PROCEDURE CHART - RWY 03 (SOUTH) (Tabular description) | AD 2-VTUK-9-8 |
| VFR EXIT PROCEDURE CHART - RWY 21 (NORTH) | AD 2-VTUK-9-9 |
| VFR EXIT PROCEDURE CHART - RWY 21 (NORTH) (Tabular description) | AD 2-VTUK-9-10 |
| VFR EXIT PROCEDURE CHART - RWY 21 (SOUTH) | AD 2-VTUK-9-11 |
| VFR EXIT PROCEDURE CHART - RWY 21 (SOUTH) (Tabular description) | AD 2-VTUK-9-12 |

# AERODROME CHART - ICAO

**16 27 59.86N**
**102 47 01.26E**

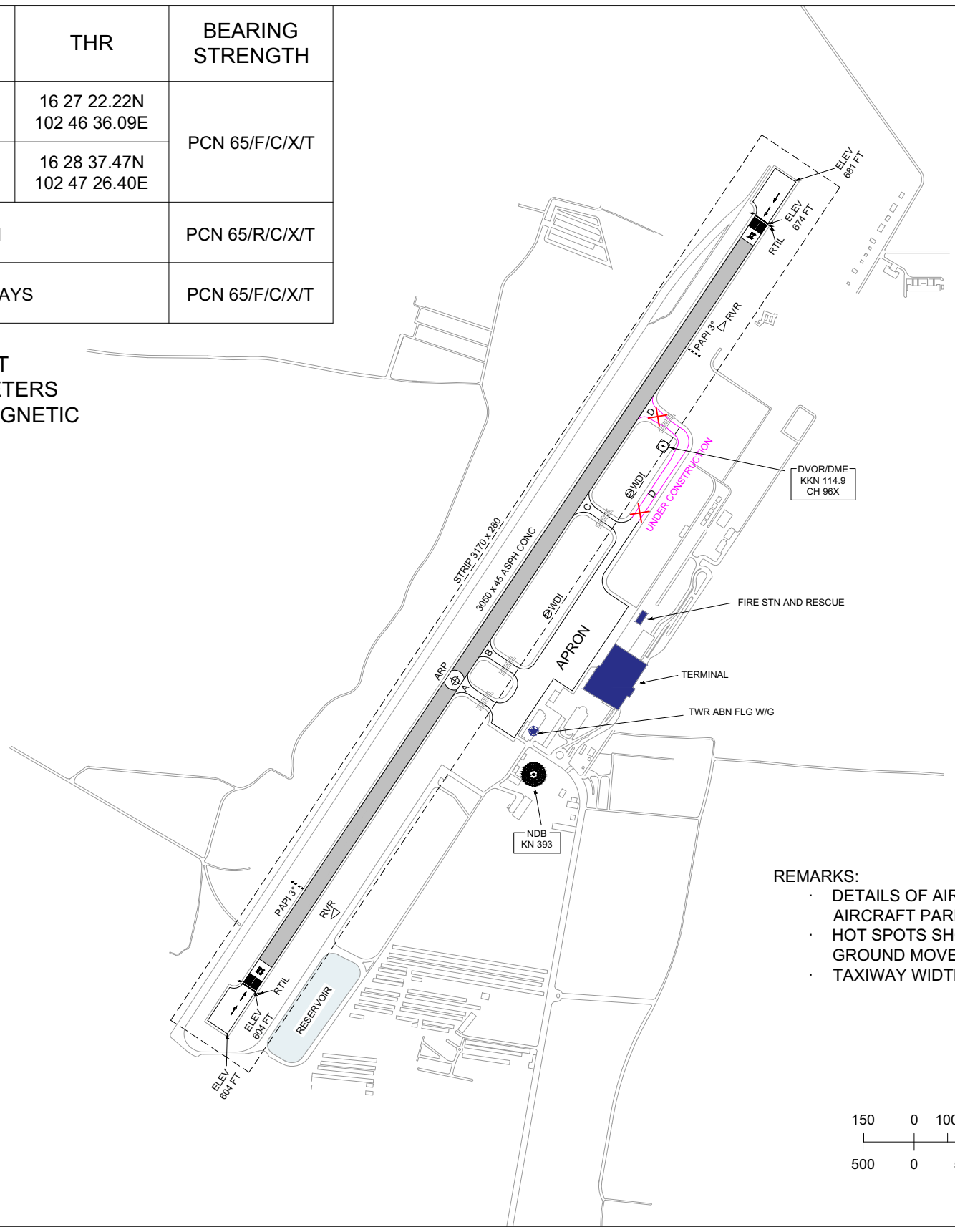
**ELEV 681 FT**

**TWR 122.25, 236.6**
**GND 121.9**

# KHON KAEN / Khon Kaen

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 03 | 032.83° | 16 27 22.22N<br>102 46 36.09E | PCN 65/F/C/X/T |
| 21 | 212.83° | 16 28 37.47N<br>102 47 26.40E | |
| APRON | | | PCN 65/R/C/X/T |
| ALL TAXIWAYS | | | PCN 65/F/C/X/T |

ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

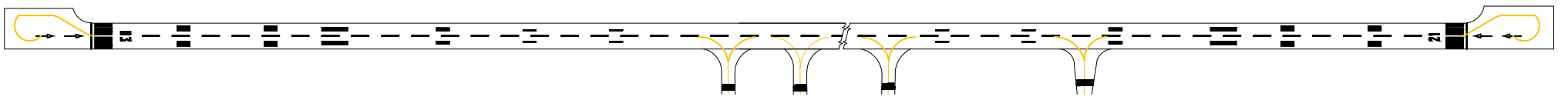



VAR 1.10°W (2022)
ANNUAL RATE OF CHANGE 0.05°W

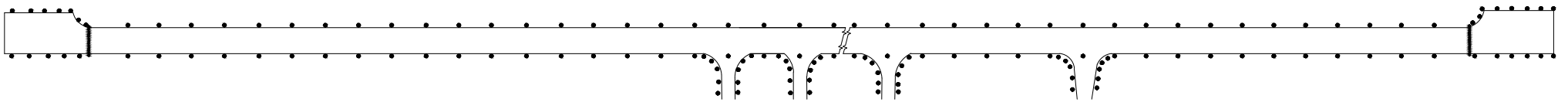
REMARKS:
- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- HOT SPOTS SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY WIDTH 23 m.

METRES
150 0 100 250 500 750
500 0 500 1000 1500 2000
FEET

## MARKING AIDS RWY 03/21 AND EXIT TWY




## LIGHTING AIDS RWY 03/21 AND EXIT TWY



METRES
150 0 100 250 500 750
500 0 500 1000 1500 2000
FEET

CHANGE: REVISED CHART. MAG VAR. ANNUAL RATE OF CHANGE. RWY COORDINATES. AD AND THR ELEV.

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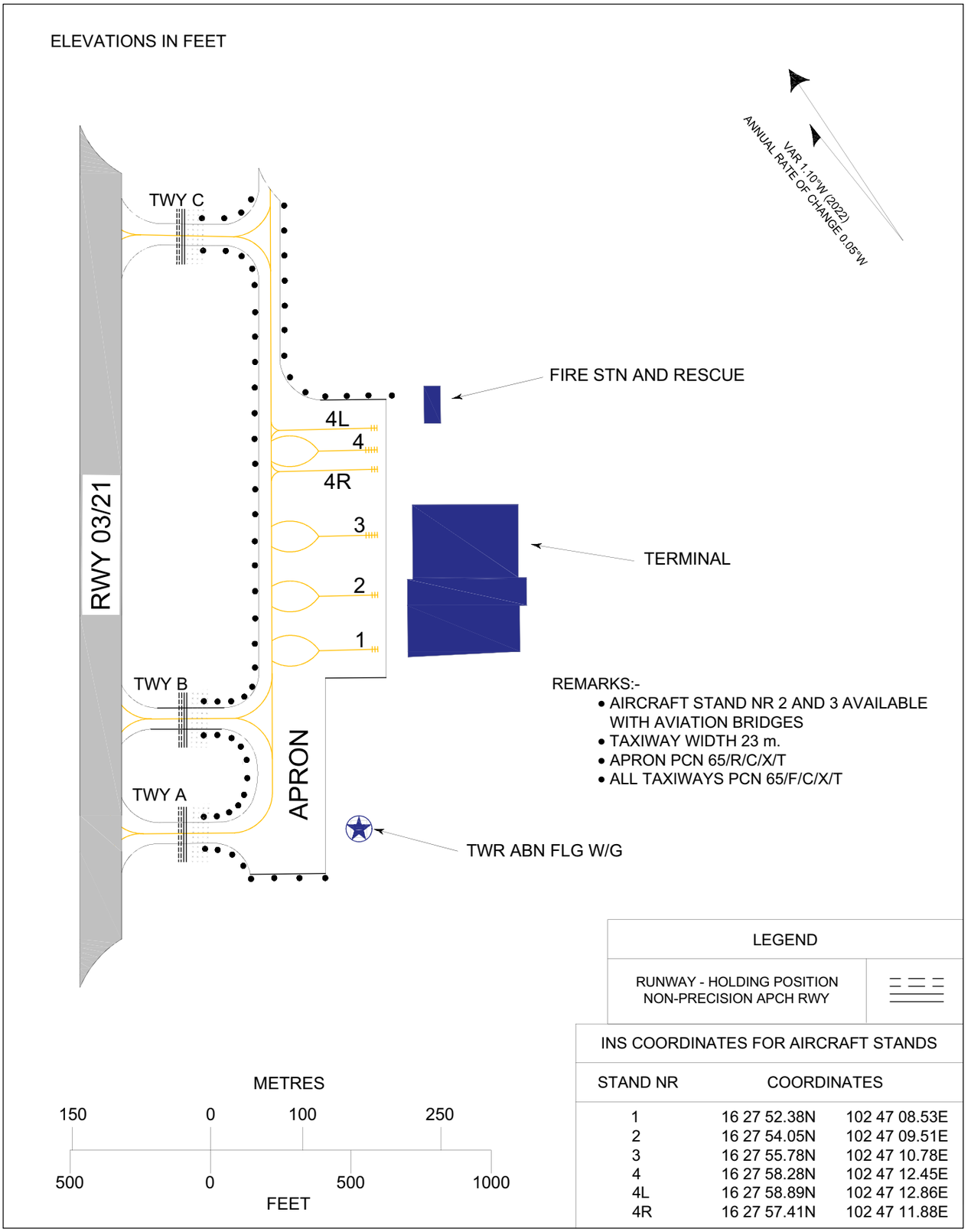
**AIRCRAFT PARKING/ DOCKING CHART - ICAO**

**APRON ELEV 638 FT**

**TWR 122.25, 236.6**
**GND 121.9**

## KHON KAEN / Khon Kaen




INS COORDINATES FOR AIRCRAFT STANDS

| STAND NR | COORDINATES | |
|---|---|---|
| 1 | 16 27 52.38N | 102 47 08.53E |
| 2 | 16 27 54.05N | 102 47 09.51E |
| 3 | 16 27 55.78N | 102 47 10.78E |
| 4 | 16 27 58.28N | 102 47 12.45E |
| 4L | 16 27 58.89N | 102 47 12.86E |
| 4R | 16 27 57.41N | 102 47 11.88E |

CHANGE: NEW CHART.

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**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

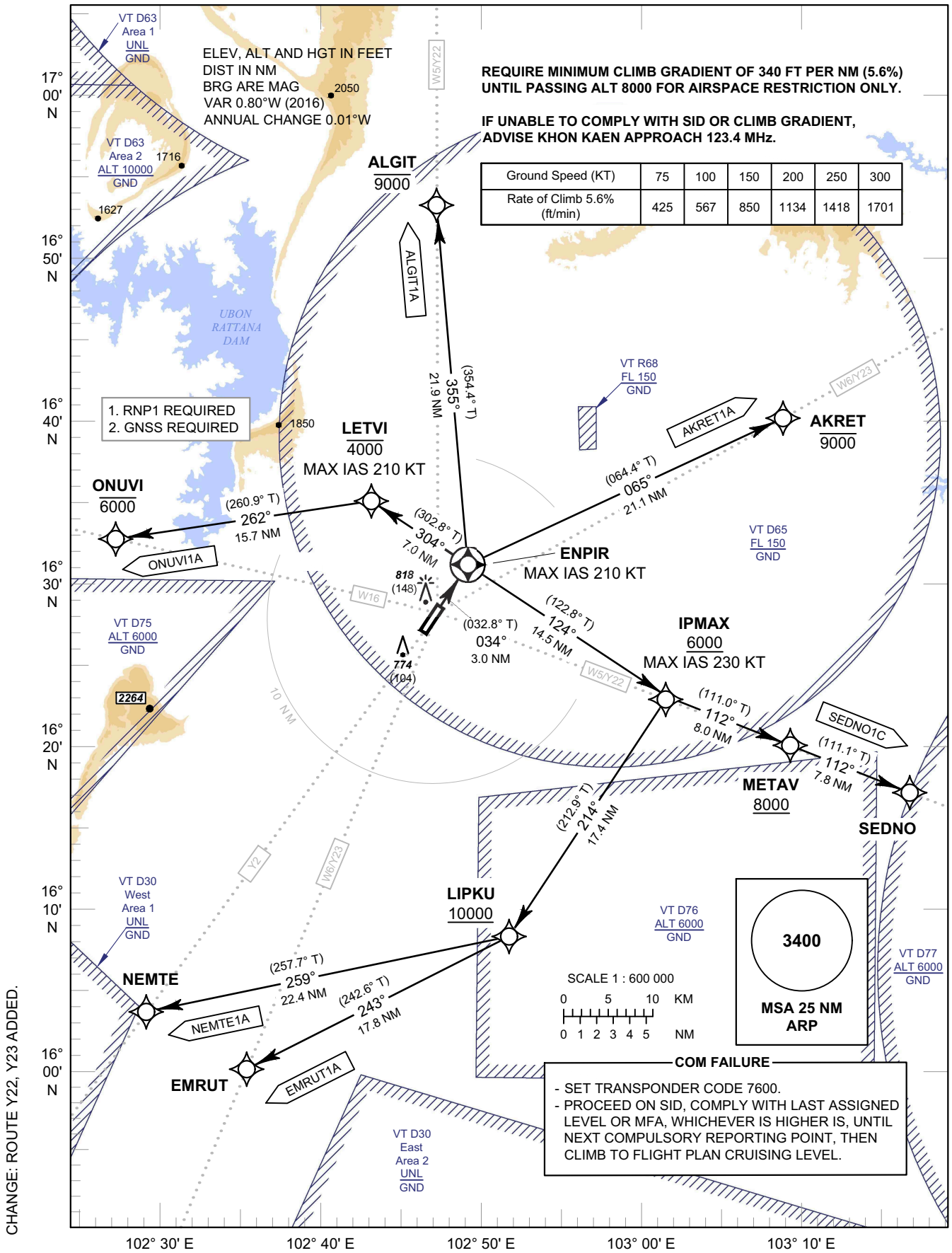
TRANSITION ALTITUDE
11000 FT

APP : 123.4 , 240.0
TWR : 122.25 , 236.6
GND : 121.9
ATIS : 126.85

**KHON KAEN /**
**Khon Kaen (VTUK)**

**RNAV RWY03**

AKRET1A ALGIT1A EMRUT1A
NEMTE1A ONUVI1A SEDNO1C




CHANGE: ROUTE Y22, Y23 ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**KHON KAEN / Khon Kaen (VTUK)**

**RNAV RWY03**

AKRET1A ALGIT1A EMRUT1A
NEMTE1A ONUVI1A SEDNO1C

CHANGE: REVISED CHART.

## TABULAR DESCRIPTION

**RNAV RWY03**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALGIT1A | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | ENPIR | Y | 034°(032.8°) | + 0.84 | 3.0 | - | - | - 210 | - | RNP1 |
| 030 | TF | ALGIT | - | 355°(354.4°) | + 0.84 | 21.9 | - | -9000 | - | - | RNP1 |
| AKRET1A | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | ENPIR | Y | 034°(032.8°) | + 0.84 | 3.0 | - | - | - 210 | - | RNP1 |
| 030 | TF | AKRET | - | 065°(064.4°) | + 0.84 | 21.1 | - | -9000 | - | - | RNP1 |
| EMRUT1A | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | ENPIR | Y | 034°(032.8°) | + 0.84 | 3.0 | R | - | - 210 | - | RNP1 |
| 030 | TF | IPMAX | - | 124°(122.8°) | + 0.84 | 14.5 | R | +6000 | - 230 | - | RNP1 |
| 040 | TF | LIPKU | - | 214°(212.9°) | + 0.84 | 17.4 | R | +10000 | - | | RNP1 |
| 050 | TF | EMRUT | - | 243°(242.6°) | + 0.84 | 17.8 | - | - | - | - | RNP1 |
| NEMTE1A | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | ENPIR | Y | 034°(032.8°) | + 0.84 | 3.0 | R | - | - 210 | - | RNP1 |
| 030 | TF | IPMAX | - | 124°(122.8°) | + 0.84 | 14.5 | R | +6000 | - 230 | - | RNP1 |
| 040 | TF | LIPKU | - | 214°(212.9°) | + 0.84 | 17.4 | R | +10000 | - | | RNP1 |
| 050 | TF | NEMTE | - | 259°(257.7°) | + 0.84 | 22.4 | - | - | - | | RNP1 |
| SEDNO1C | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | ENPIR | Y | 034°(032.8°) | + 0.84 | 3.0 | - | - | - 210 | - | RNP1 |
| 030 | TF | IPMAX | - | 124°(122.8°) | + 0.84 | 14.5 | - | +6000 | - 230 | - | RNP1 |
| 040 | TF | METAV | - | 112°(111.0°) | + 0.84 | 8.0 | - | +8000 | - | | RNP1 |
| 050 | TF | SEDNO | - | 112°(111.1°) | + 0.84 | 7.8 | - | - | - | | RNP1 |
| ONUVI1A | | | | | | | | | | | |
| 010 | - | DER RWY03 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | ENPIR | Y | 034°(032.8°) | + 0.84 | 3.0 | - | - | - 210 | - | RNP1 |
| 030 | TF | LETVI | - | 304°(302.8°) | + 0.84 | 7.0 | - | -4000 | - 210 | - | RNP1 |
| 040 | TF | ONUVI | - | 262°(260.9°) | + 0.84 | 15.7 | - | -6000 | - | | RNP1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**KHON KAEN / Khon Kaen (VTUK)**

**RNAV RWY03**

AKRET1A ALGIT1A EMRUT1A
NEMTE1A ONUVI1A SEDNO1C

**WAYPOINT LIST**

| **RNAV RWY03** | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY03 | 16° 28' 37.46" N 102° 47' 26.33" E |
| AKRET | 16° 40' 16.00" N 103° 08' 55.51" E |
| ALGIT | 16° 52' 59.94" N 102° 46' 54.83" E |
| EMRUT | 16° 00' 19.64" N 102° 35' 33.26" E |
| ENPIR | 16° 31' 09.32" N 102° 49' 07.92" E |
| IPMAX | 16° 23' 15.12" N 103° 01' 48.22" E |
| LETVI | 16° 34' 57.96" N 102° 43' 00.52" E |
| LIPKU | 16° 08' 34.73" N 102° 51' 59.03" E |
| METAV | 16° 20' 22.00" N 103° 09' 34.14" E |
| NEMTE | 16° 03' 44.79" N 102° 29' 12.78" E |
| ONUVI | 16° 32' 28.21" N 102° 26' 55.02" E |
| SEDNO | 16° 17' 33.31" N 103° 17' 07.18" E |

CHANGE: NEW CHART.

**INTENTIONALLY BLANK**

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

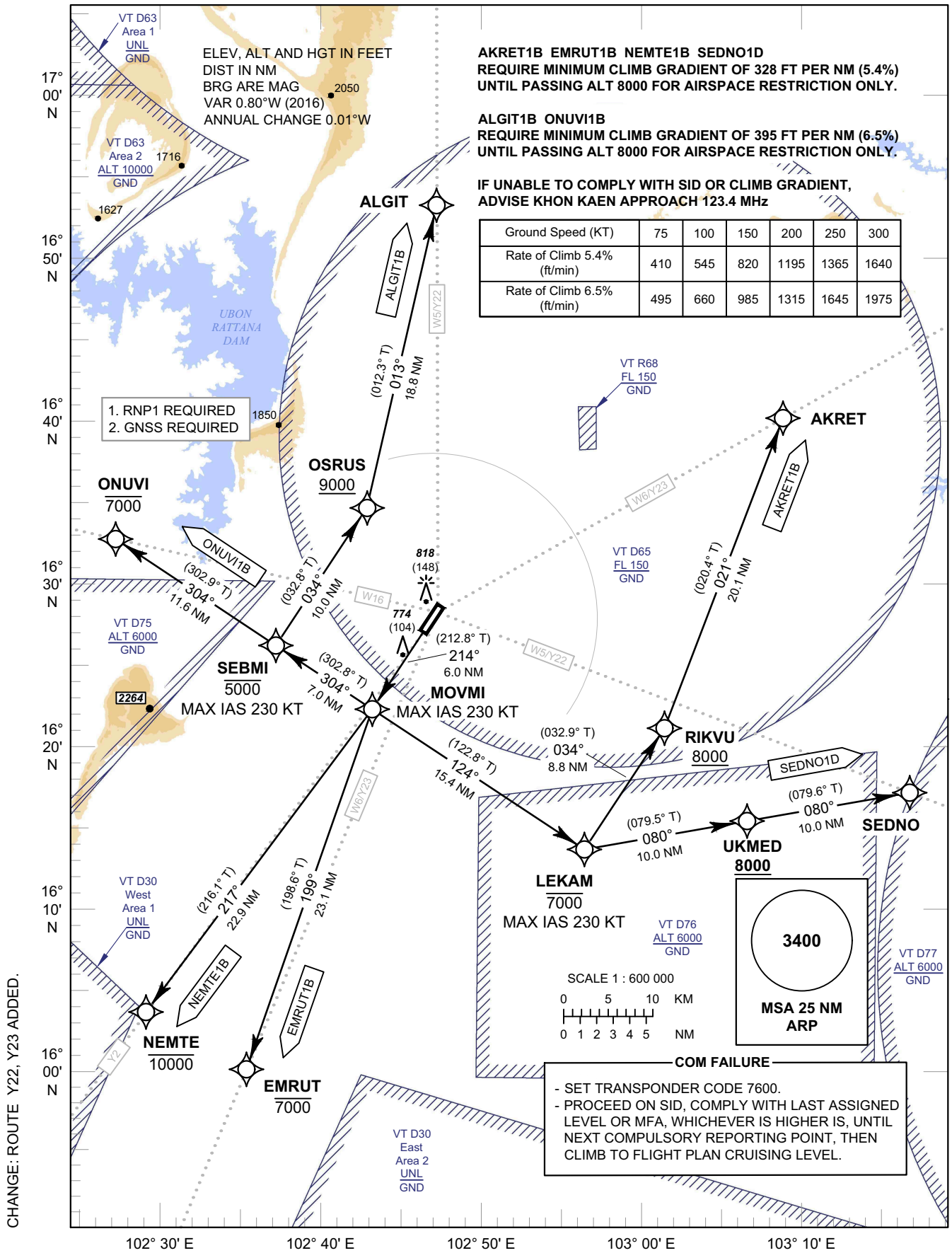
TRANSITION ALTITUDE
11000 FT

APP : 123.4 , 240.0
TWR : 122.25 , 236.6
GND : 121.9
ATIS : 126.85

**KHON KAEN /**
**Khon Kaen (VTUK)**

**RNAV RWY21**

AKRET1B ALGIT1B EMRUT1B
NEMTE1B ONUVI1B SEDNO1D



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**KHON KAEN / Khon Kaen (VTUK)**

**RNAV RWY21**

AKRET1B ALGIT1B EMRUT1B
NEMTE1B ONUVI1B SEDNO1D

## TABULAR DESCRIPTION

**RNAV RWY21**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AKRET1B | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | MOVMI | - | 214°(212.8°) | + 0.84 | 6.0 | - | - | - 230 | - | RNP1 |
| 030 | TF | LEKAM | - | 124°(122.8°) | + 0.84 | 15.4 | - | -7000 | - 230 | - | RNP1 |
| 040 | TF | RIKVU | - | 034°(032.9°) | + 0.84 | 8.8 | - | +8000 | - | - | RNP1 |
| 050 | TF | AKRET | - | 021°(020.4°) | + 0.84 | 20.1 | - | - | - | - | RNP1 |
| ALGIT1B | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | MOVMI | - | 214°(212.8°) | + 0.84 | 6.0 | - | - | - 230 | - | RNP1 |
| 030 | TF | SEBMI | - | 304°(302.8°) | + 0.84 | 7.0 | - | -5000 | - 230 | - | RNP1 |
| 040 | TF | OSRUS | - | 034°(032.8°) | + 0.84 | 10.0 | - | +9000 | - | - | RNP1 |
| 040 | TF | ALGIT | - | 013°(012.3°) | + 0.84 | 18.8 | - | - | - | | RNP1 |
| EMRUT1B | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | MOVMI | - | 214°(212.8°) | + 0.84 | 6.0 | - | - | - 230 | - | RNP1 |
| 030 | TF | EMRUT | - | 199°(198.6°) | + 0.84 | 23.1 | - | -7000 | - | - | RNP1 |
| NEMTE1B | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | MOVMI | - | 214°(212.8°) | + 0.84 | 6.0 | - | - | - 230 | - | RNP1 |
| 030 | TF | NEMTE | - | 217°(216.1°) | + 0.84 | 22.9 | - | -10000 | - | - | RNP1 |
| ONUVI1B | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | MOVMI | - | 214°(212.8°) | + 0.84 | 6.0 | - | - | - 230 | - | RNP1 |
| 030 | TF | SEBMI | - | 304°(302.8°) | + 0.84 | 7.0 | - | -5000 | - 230 | | RNP1 |
| 040 | TF | ONUVI | - | 304°(302.9°) | + 0.84 | 11.6 | - | -7000 | - | - | RNP1 |
| SEDNO1D | | | | | | | | | | | |
| 010 | - | DER RWY21 | - | - | + 0.84 | - | - | - | - | - | RNP1 |
| 020 | CF | MOVMI | - | 214°(212.8°) | + 0.84 | 6.0 | - | - | - 230 | - | RNP1 |
| 030 | TF | LEKAM | - | 124°(122.8°) | + 0.84 | 15.4 | - | -7000 | - 230 | - | RNP1 |
| 040 | TF | UKMED | - | 080°(079.5°) | + 0.84 | 10.0 | - | +8000 | - | | RNP1 |
| 050 | TF | SEDNO | - | 080°(079.6°) | + 0.84 | 10.0 | - | - | - | | RNP1 |

CHANGE : SEBMI ALT.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**KHON KAEN / Khon Kaen (VTUK)**

**RNAV RWY21**

AKRET1B ALGIT1B EMRUT1B
NEMTE1B ONUVI1B SEDNO1D

**WAYPOINT LIST**

| **RNAV RWY21** | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY21 | 16° 27' 22.26" N 102° 46' 36.04" E |
| AKRET | 16° 40' 16.00" N 103° 08' 55.51" E |
| ALGIT | 16° 52' 59.94" N 102° 46' 54.83" E |
| EMRUT | 16° 00' 19.64" N 102° 35' 33.26" E |
| LEKAM | 16° 13' 55.19" N 102° 56' 40.12" E |
| MOVMI | 16° 22' 18.49" N 102° 43' 13.03" E |
| NEMTE | 16° 03' 44.79" N 102° 29' 12.78" E |
| ONUVI | 16° 32' 28.21" N 102° 26' 55.02" E |
| OSRUS | 16° 34' 33.39" N 102° 42' 44.08" E |
| RIKVU | 16° 21' 20.39" N 103° 01' 38.23" E |
| SEBMI | 16° 26' 06.97" N 102° 37' 05.78" E |
| SEDNO | 16° 17' 33.31" N 103° 17' 07.18" E |
| UKMED | 16° 15' 44.50" N 103° 06' 53.56" E |

CHANGE: NEW CHART.

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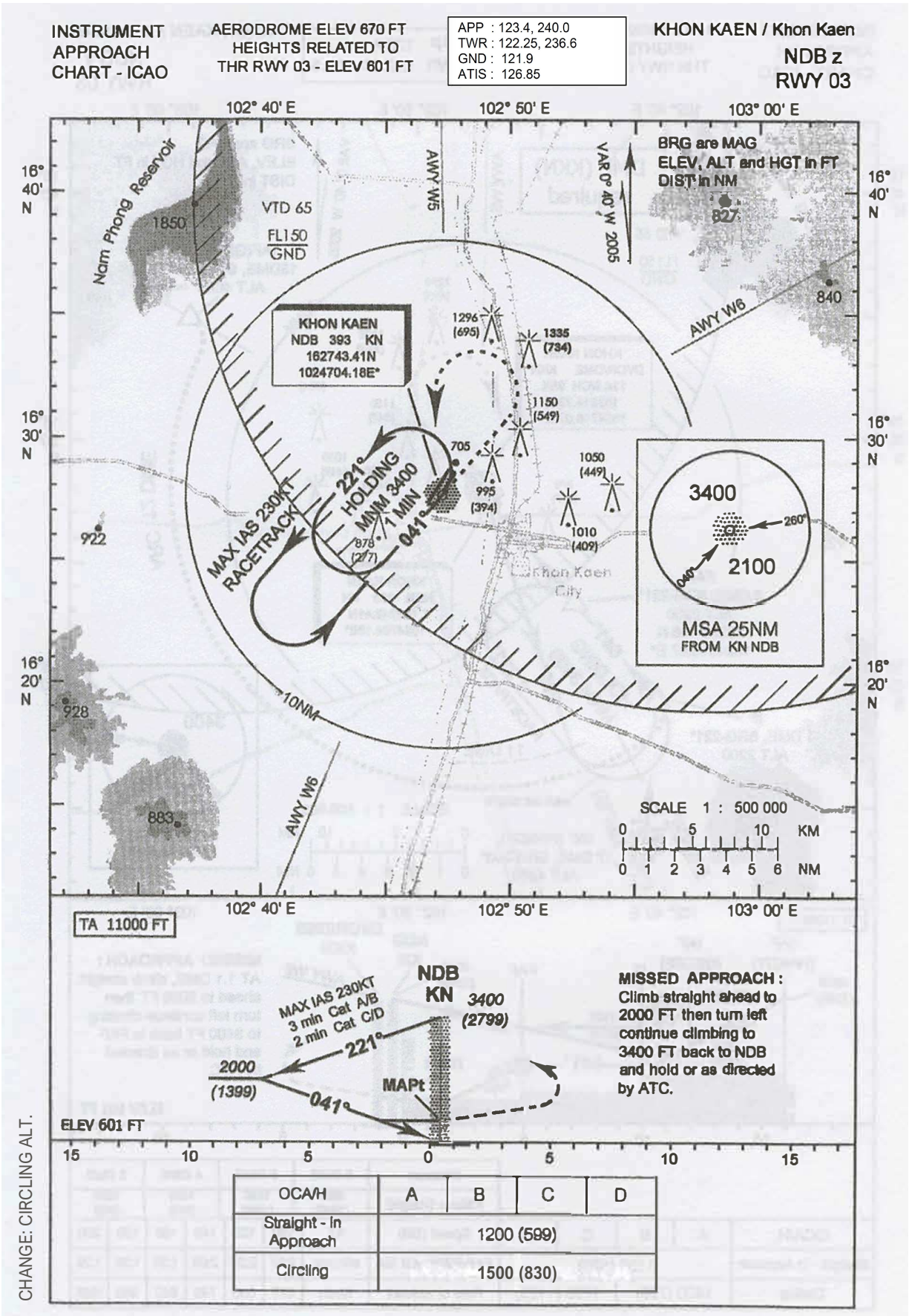
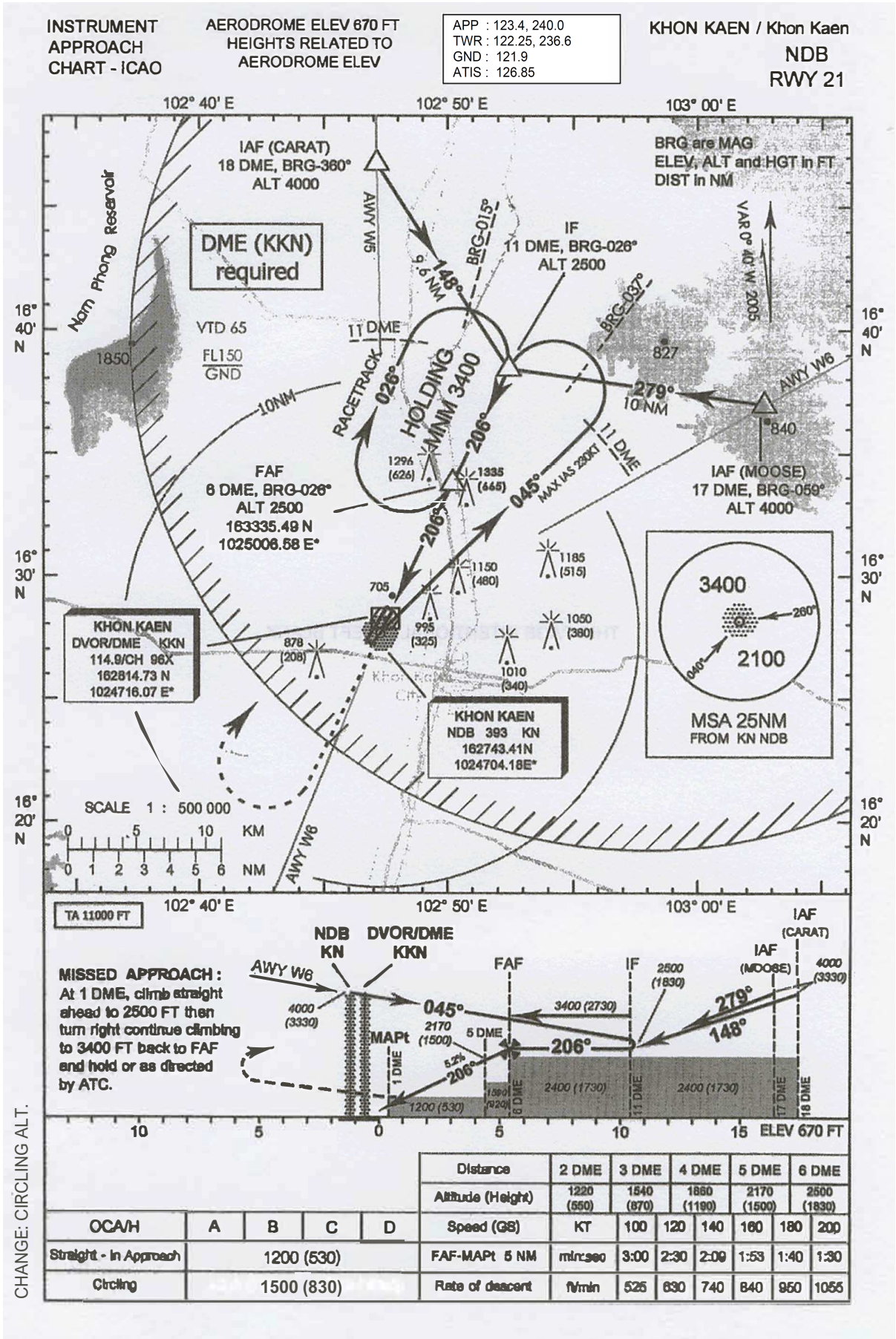



| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - In Approach | 1200 (599) | | | |
| Circling | 1500 (830) | | | |

**INTENTIONALLY BLANK**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 1200 (530) | | | |
| Circling | 1500 (830) | | | |

| Distance | | 2 DME | 3 DME | 4 DME | 5 DME | 6 DME |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1220 (550) | 1540 (870) | 1860 (1190) | 2170 (1500) | 2500 (1830) |
| Speed (GS) | KT | 100 | 120 | 140 | 160 | 180 | 200 |
| FAF-MAPt 5 NM | min:sec | 3:00 | 2:30 | 2:09 | 1:53 | 1:40 | 1:30 |
| Rate of descent | ft/min | 525 | 630 | 740 | 840 | 950 | 1055 |

**INTENTIONALLY BLANK**

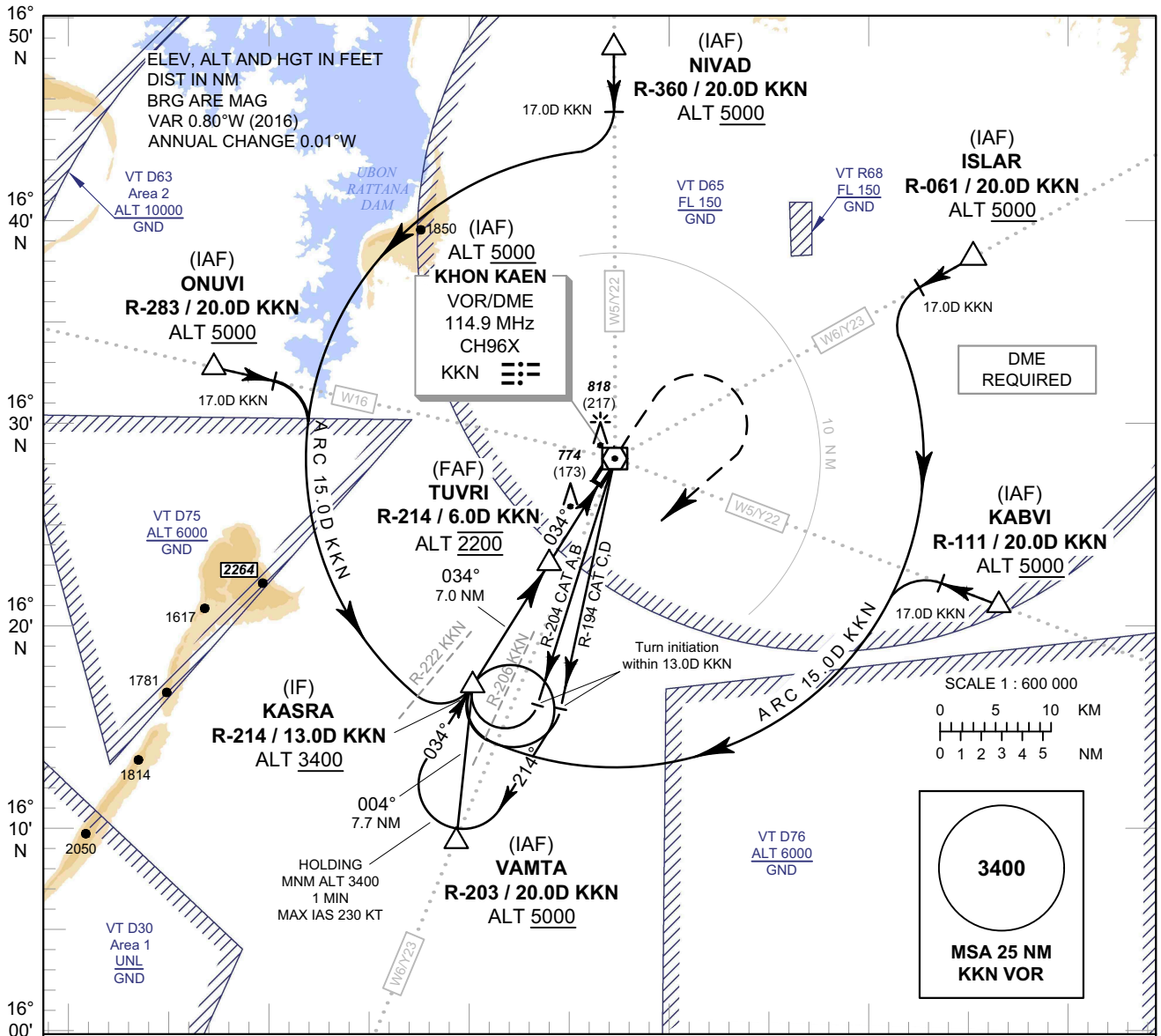
**INSTRUMENT APPROACH CHART - ICAO**

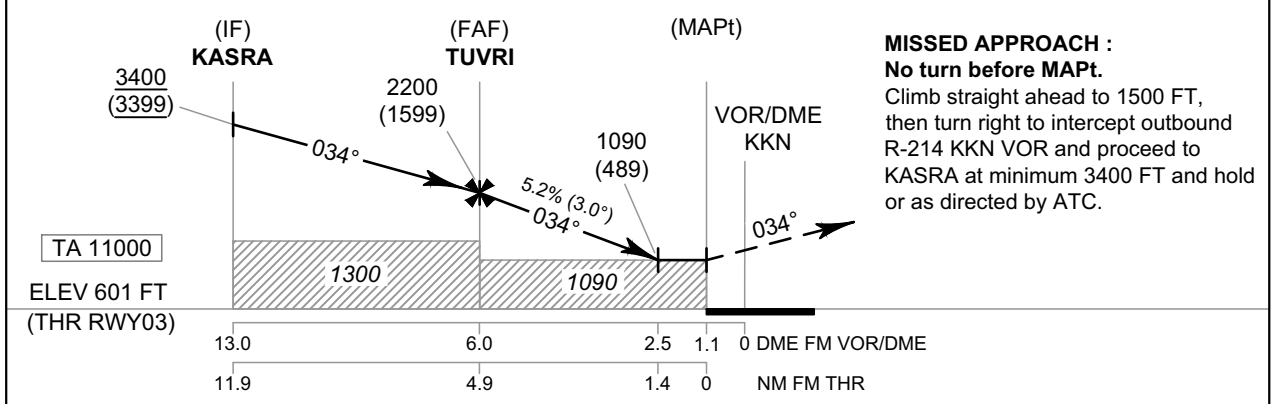
**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 601 FT

APP : 123.4 , 240.0
TWR : 122.25 , 236.6
GND : 121.9
ATIS : 126.85

**KHON KAEN / Khon Kaen (VTUK)**

**VOR RWY03**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | 1090 (489) | | | |
| Circling (OCH AAL) | 1500 (830) | | | |

| Distance (KKN) | FAF | 5 D | 4 D | 3 D | 2.5 D |
|---|---|---|---|---|---|
| Altitude (Height) | 2200 (1599) | 1885 (1284) | 1565 (964) | 1250 (649) | 1090 (489) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y22, Y23 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 601 FT

**KHON KAEN /
Khon Kaen (VTUK)**
**VOR RWY03**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) ISLAR | R-061 / 20.0D KKN | 16° 38' 15.95" N | 103° 05' 18.75" E |
| (IAF) KABVI | R-111 / 20.0D KKN | 16° 21' 16.12" N | 103° 06' 46.71" E |
| (IAF) NIVAD | R-360 / 20.0D KKN | 16° 48' 19.55" N | 102° 46' 59.27" E |
| (IAF) ONUVI | R-283 / 20.0D KKN | 16° 32' 28.21" N | 102° 26' 55.02" E |
| (IAF) VAMTA | R-203 / 20.0D KKN | 16° 09' 38.08" N | 102° 39' 27.17" E |
| (IF) KASRA | R-214 / 13.0D KKN | 16° 17' 18.69" N | 102° 39' 52.88" E |
| (FAF) TUVRI | R-214 / 6.0D KKN | 16° 23' 11.98" N | 102° 43' 51.41" E |
| (MAPt) UK903 | R-214 / 1.1D KKN | 16° 27' 20.26" N | 102° 46' 39.23" E |
| (IAF) VOR | KKN | 16° 28' 15.29" N | 102° 47' 16.79" E |

CHANGE: VOR COORDINATE.

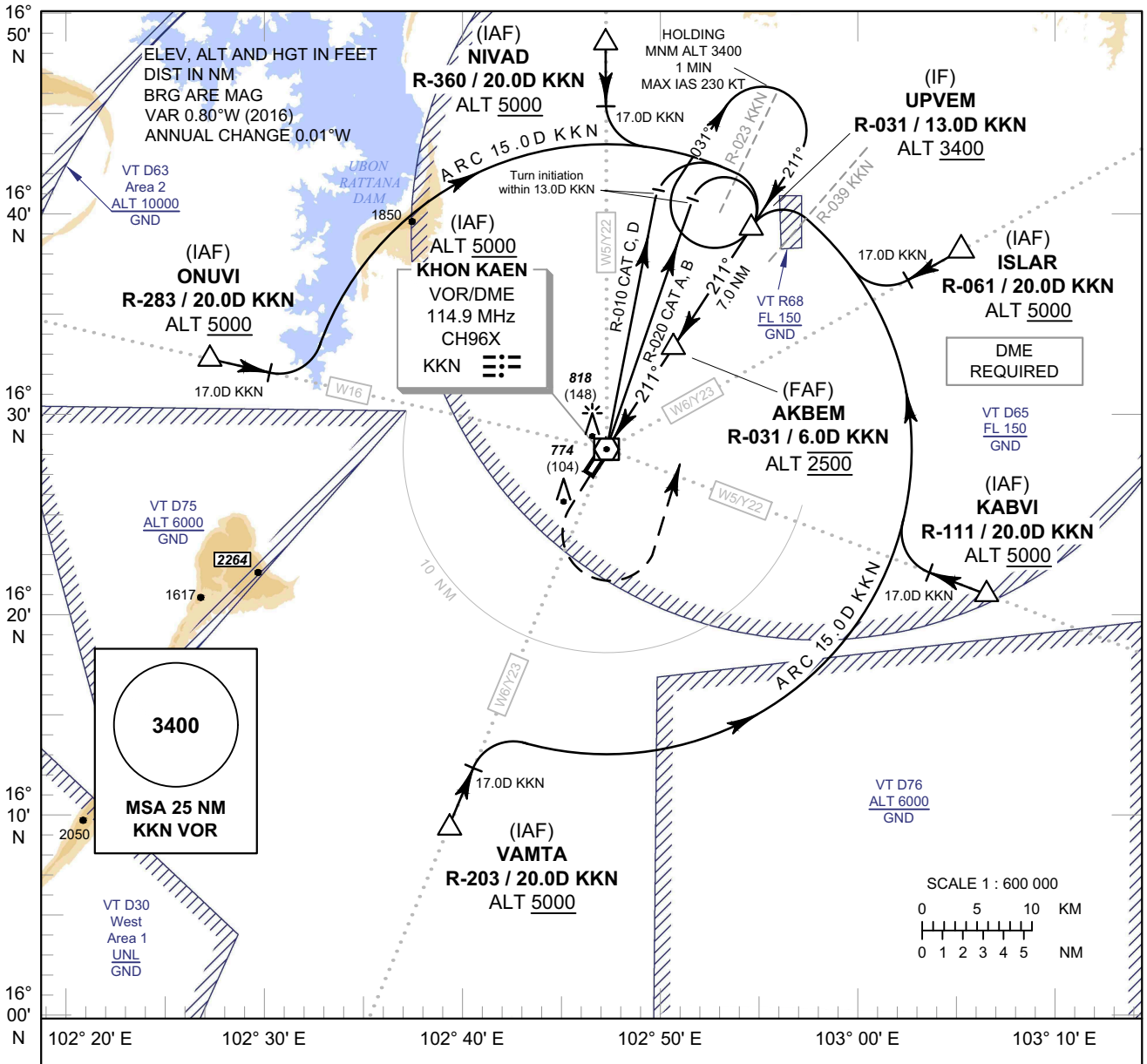
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY21 - ELEV 670 FT

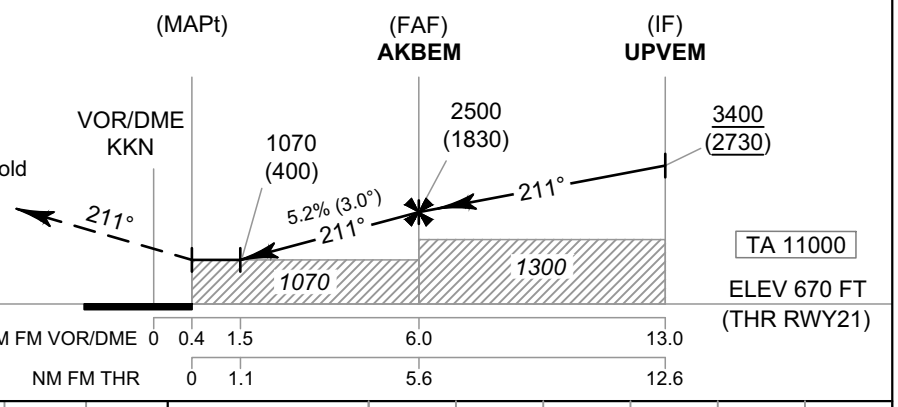
APP : 123.4 , 240.0
TWR : 122.25 , 236.6
GND : 121.9
ATIS : 126.85

**KHON KAEN / Khon Kaen (VTUK)**

**VOR RWY21**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb straight ahead to 1500 FT, then turn left to intercept outbound R-031 KKN VOR and proceed to UPVEM at minimum 3400 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | 1070 (400) | | | |
| Circling (OCH AAL) | 1500 (830) | | | |

| Distance (KKN) | 1.5 D | 2 D | 3 D | 4 D | 5 D | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | 1070 (400) | 1225 (555) | 1540 (870) | 1855 (1185) | 2175 (1505) | 2500 (1830) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y22, Y23 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY21 - ELEV 670 FT

**KHON KAEN /
Khon Kaen (VTUK)**
**VOR RWY21**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) ISLAR | R-061 / 20.0D KKN | 16° 38' 15.95" N | 103° 05' 18.75" E |
| (IAF) KABVI | R-111 / 20.0D KKN | 16° 21' 16.12" N | 103° 06' 46.71" E |
| (IAF) VAMTA | R-203 / 20.0D KKN | 16° 09' 38.08" N | 102° 39' 27.17" E |
| (IAF) ONUVI | R-283 / 20.0D KKN | 16° 32' 28.21" N | 102° 26' 55.02" E |
| (IAF) NIVAD | R-360 / 20.0D KKN | 16° 48' 19.55" N | 102° 46' 59.27" E |
| (IF) UPVEM | R-031 / 13.0D KKN | 16° 39' 33.86" N | 102° 54' 00.59" E |
| (FAF) AKBEM | R-031 / 6.0D KKN | 16° 33' 28.20" N | 102° 50' 22.67" E |
| (MAPt) UK921 | R-031 / 0.4D KKN | 16° 28' 35.98" N | 102° 47' 28.71" E |
| (IAF) VOR | KKN | 16° 28' 15.29" N | 102° 47' 16.79" E |

CHANGE: VOR COORDINATE.

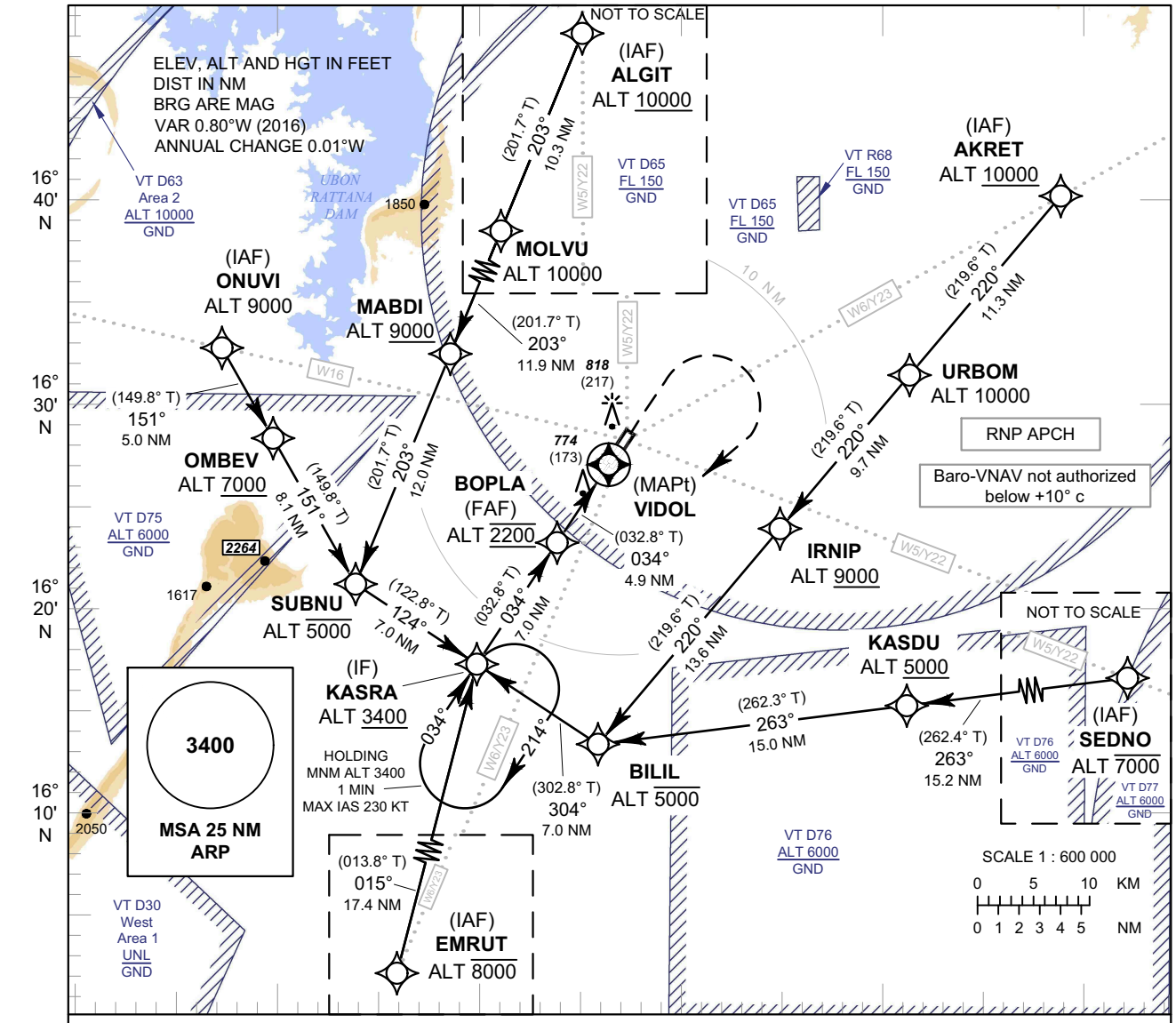
**INSTRUMENT APPROACH CHART - ICAO**

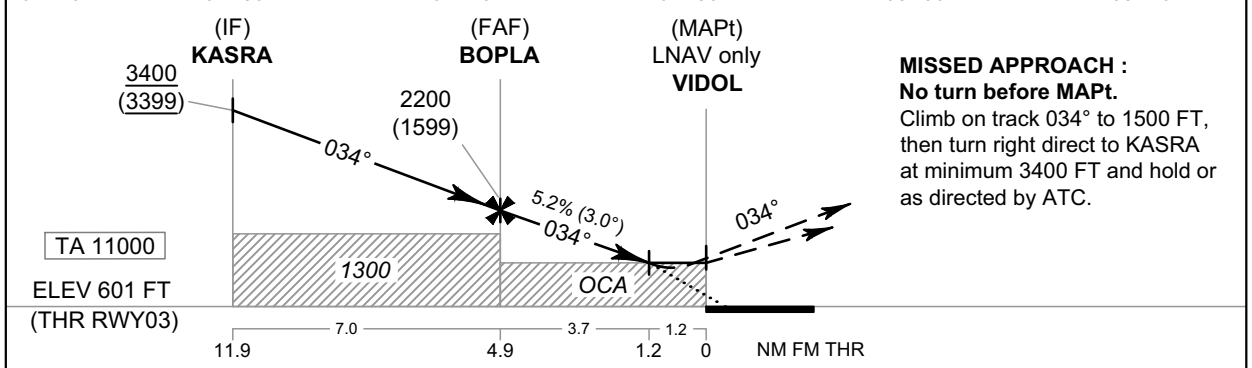
**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 601 FT

| | |
|---|---|
| APP | : 123.4 , 240.0 |
| TWR | : 122.25 , 236.6 |
| GND | : 121.9 |
| ATIS | : 126.85 |

**KHON KAEN / Khon Kaen (VTUK)**

**RNP RWY03**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV / VNAV | 960 (359) | | | |
| LNAV | 1090 (489) | | | |
| Circling (OCH AAL) | 1500 (830) | | | |

| NM to NEXT WPT | FAF | 4 NM | 3 NM | 2 NM | 1.2NM |
|---|---|---|---|---|---|
| Altitude (Height) | 2200 (1599) | 1915 (1314) | 1600 (999) | 1280 (679) | 1030 (429) |

| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y22, Y23 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 601 FT

**KHON KAEN /
Khon Kaen (VTUK)**
**RNP RWY03**

## TABULAR DESCRIPTION

**RNP RWY03**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) AKRET | - | - | + 0.84 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | URBOM | - | 220°(219.6°) | + 0.84 | 11.3 | - | @10000 | - | - | RNP APCH |
| 030 | TF | IRNIP | - | 220°(219.6°) | + 0.84 | 9.7 | - | +9000 | - | - | RNP APCH |
| 040 | TF | BILIL | - | 220°(219.6°) | + 0.84 | 13.6 | - | -5000 | - | - | RNP APCH |
| 050 | TF | (IF) KASRA | - | 304°(302.8°) | + 0.84 | 7.0 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) SEDNO | - | - | + 0.84 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | KASDU | - | 263°(262.4°) | + 0.84 | 15.2 | - | +5000 | - | - | RNP APCH |
| 030 | TF | BILIL | - | 263°(262.3°) | + 0.84 | 15.0 | - | -5000 | - | - | RNP APCH |
| 040 | TF | (IF) KASRA | - | 304°(302.8°) | + 0.84 | 7.0 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) EMRUT | - | - | + 0.84 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IF) KASRA | - | 015°(013.8°) | + 0.84 | 17.4 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) ONUVI | - | - | + 0.84 | - | - | @9000 | - | - | RNP APCH |
| 020 | TF | OMBEV | - | 151°(149.8°) | + 0.84 | 5 | - | + 7000 | - | - | RNP APCH |
| 030 | TF | SUBNU | - | 151°(149.8°) | + 0.84 | 8.1 | - | -5000 | - | - | RNP APCH |
| 040 | TF | (IF) KASRA | - | 124°(122.8°) | + 0.84 | 7.0 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) ALGIT | - | - | + 0.84 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | MOLVU | - | 203°(201.7°) | + 0.84 | 10.3 | | @10000 | | | |
| 030 | TF | MABDI | - | 203°(201.7°) | + 0.84 | 11.9 | - | + 9000 | - | - | RNP APCH |
| 040 | TF | SUBNU | - | 203°(201.7°) | + 0.84 | 12.0 | - | -5000 | - | - | RNP APCH |
| 050 | TF | (IF) KASRA | - | 124°(122.8°) | + 0.84 | 7.0 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) KASRA | - | - | + 0.84 | - | - | +3400 | - | - | RNP APCH |
| 020 | TF | (FAF) BOPLA | - | 034°(032.8°) | + 0.84 | 7.0 | - | @2200 | - | - | RNP APCH |
| 030 | TF | (MAPt @ THR03) VIDOL | Y | 034°(032.8°) | + 0.84 | 4.9 | - | @651 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | - | + 0.84 | - | - | +1500 | - | - | RNP APCH |
| 050 | DF | (IF) KASRA | - | 034°(032.8°) | + 0.84 | - | R | +3400 | - | - | RNP APCH |
| 060 | HM | (IF) KASRA | Y | 034°(032.8°) | + 0.84 | 1 minute | R | +3400 | - | - | RNP APCH |

CHANGE : KASRA ALT.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY03 - ELEV 601 FT

**KHON KAEN / Khon Kaen (VTUK)**
**RNP RWY03**

CHANGE: NEW CHART.

**WAYPOINT LIST**

| **RNP RWY03** | |
|---|---|
| Waypoint Identifier | Coordinates |
| AKRET | 16° 40' 16.00" N 103° 08' 55.51" E |
| ALGIT | 16° 52' 59.94" N 102° 46' 54.83" E |
| BILIL | 16° 13' 30.10" N 102° 45' 59.70" E |
| BOPLA | 16° 23' 14.18" N 102° 43' 50.23" E |
| EMRUT | 16° 00' 19.64" N 102° 35' 33.26" E |
| IRNIP | 16° 24' 01.90" N 102° 55' 00.02" E |
| KASDU | 16° 15' 31.42" N 103° 01' 26.79" E |
| KASRA | 16° 17' 18.69" N 102° 39' 52.88" E |
| MABDI | 16° 32' 18.99" N 102° 38' 22.37" E |
| MOLVU | 16° 43' 23.43" N 102° 42' 56.51" E |
| OMBEV | 16° 28' 07.88" N 102° 29' 32.12" E |
| ONUVI | 16° 32' 28.21" N 102° 26' 55.02" E |
| SEDNO | 16° 17' 33.31" N 103° 17' 07.18" E |
| SUBNU | 16° 21' 07.11" N 102° 33' 45.75" E |
| URBOM | 16° 31' 31.58" N 103° 01' 25.31" E |
| VIDOL | 16° 27' 22.26" N 102° 46' 36.04" E |

**INTENTIONALLY BLANK**

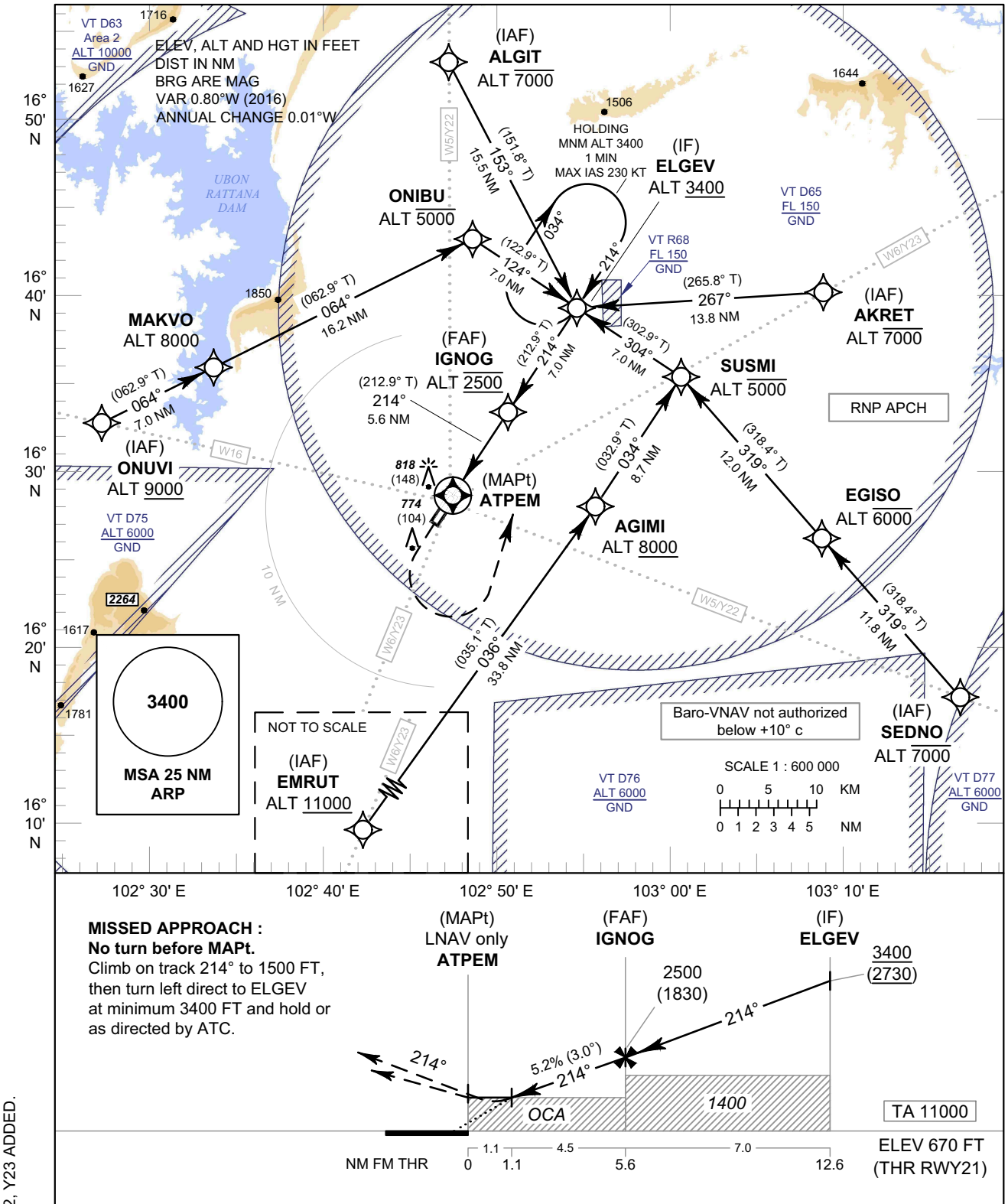
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY21 - ELEV 670 FT

| | |
|---|---|
| APP | : 123.4 , 240.0 |
| TWR | : 122.25 , 236.6 |
| GND | : 121.9 |
| ATIS | : 126.85 |

**KHON KAEN / Khon Kaen (VTUK)**

**RNP RWY21**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 214° to 1500 FT, then turn left direct to ELGEV at minimum 3400 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV / VNAV | 1000 (330) | | | |
| LNAV | 1070 (400) | | | |
| Circling (OCH AAL) | 1500 (830) | | | |

| NM to NEXT WPT | 1.1 NM | 2 NM | 3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | 1070 (400) | 1350 (680) | 1665 (995) | 1985 (1315) | 2300 (1630) | 2500 (1830) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y22, Y23 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY21 - ELEV 670 FT

**KHON KAEN /
Khon Kaen (VTUK)**
**RNP RWY21**

## TABULAR DESCRIPTION

**RNP RWY21**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) EMRUT | - | - | + 0.84 | - | - | +11000 | - | - | RNP APCH |
| 020 | TF | AGIMI | - | 036°(035.1°) | + 0.84 | 33.8 | - | +8000 | - | - | RNP APCH |
| 030 | TF | SUSMI | - | 034°(032.9°) | + 0.84 | 8.7 | - | -5000 | - | - | RNP APCH |
| 040 | TF | (IF) ELGEV | - | 304°(302.9°) | + 0.84 | 7.0 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) SEDNO | - | - | + 0.84 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | EGISO | - | 319°(318.4°) | + 0.84 | 11.8 | - | -6000 | - | - | RNP APCH |
| 030 | TF | SUSMI | - | 319°(318.4°) | + 0.84 | 12.0 | - | -5000 | - | - | RNP APCH |
| 040 | TF | (IF) ELGEV | - | 304°(302.9°) | + 0.84 | 7.0 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) AKRET | - | - | + 0.84 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | (IF) ELGEV | - | 267°(265.8°) | + 0.84 | 13.8 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) ALGIT | - | - | + 0.84 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | (IF) ELGEV | - | 153°(151.8°) | + 0.84 | 15.5 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) ONUVI | - | - | + 0.84 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | MAKVO | - | 064°(064.9°) | + 0.84 | 7.0 | - | @8000 | - | - | RNP APCH |
| 030 | TF | ONIBU | - | 064°(062.9°) | + 0.84 | 16.2 | - | -5000 | - | - | RNP APCH |
| 040 | TF | (IF) ELGEV | - | 124°(122.9°) | + 0.84 | 7.0 | - | +3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) ELGEV | - | - | + 0.84 | - | - | +3400 | - | - | RNP APCH |
| 020 | TF | (FAF) IGNOG | - | 214°(212.9°) | + 0.84 | 7.0 | - | @2500 | - | - | RNP APCH |
| 030 | TF | (MAPt @ THR21) ATPEM | Y | 214°(212.9°) | + 0.84 | 5.6 | - | @720 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | - | + 0.84 | - | - | +1500 | - | - | RNP APCH |
| 050 | DF | (IF) ELGEV | - | 214°(212.9°) | + 0.84 | - | L | +3400 | - | - | RNP APCH |
| 060 | HM | (IF) ELGEV | Y | 214°(212.9°) | + 0.84 | 1 minute | R | +3400 | - | - | RNP APCH |

CHANGE: REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO
THR RWY21 - ELEV 670 FT

**KHON KAEN /
Khon Kaen (VTUK)**
**RNP RWY21**

CHANGE: NEW CHART.

**WAYPOINT LIST**

| **RNP RWY21** | |
|---|---|
| Waypoint Identifier | Coordinates |
| AGIMI | 16° 28' 05.65" N 102° 55' 45.34" E |
| AKRET | 16° 40' 16.00" N 103° 08' 55.51" E |
| ALGIT | 16° 52' 59.94" N 102° 46' 54.83" E |
| ATPEM | 16° 28' 37.46" N 102° 47' 26.33" E |
| EGISO | 16° 26' 25.36" N 103° 08' 58.18" E |
| ELGEV | 16° 39' 14.85" N 102° 54' 33.11" E |
| EMRUT | 16° 00' 19.64" N 102° 35' 33.26" E |
| IGNOG | 16° 33' 20.92" N 102° 50' 36.01" E |
| MAKVO | 16° 35' 40.27" N 102° 33' 24.33" E |
| ONIBU | 16° 43' 03.71" N 102° 48' 25.59" E |
| ONUVI | 16° 32' 28.21" N 102° 26' 55.02" E |
| SEDNO | 16° 17' 33.31" N 103° 17' 07.18" E |
| SUSMI | 16° 35' 25.80" N 103° 00' 40.39" E |

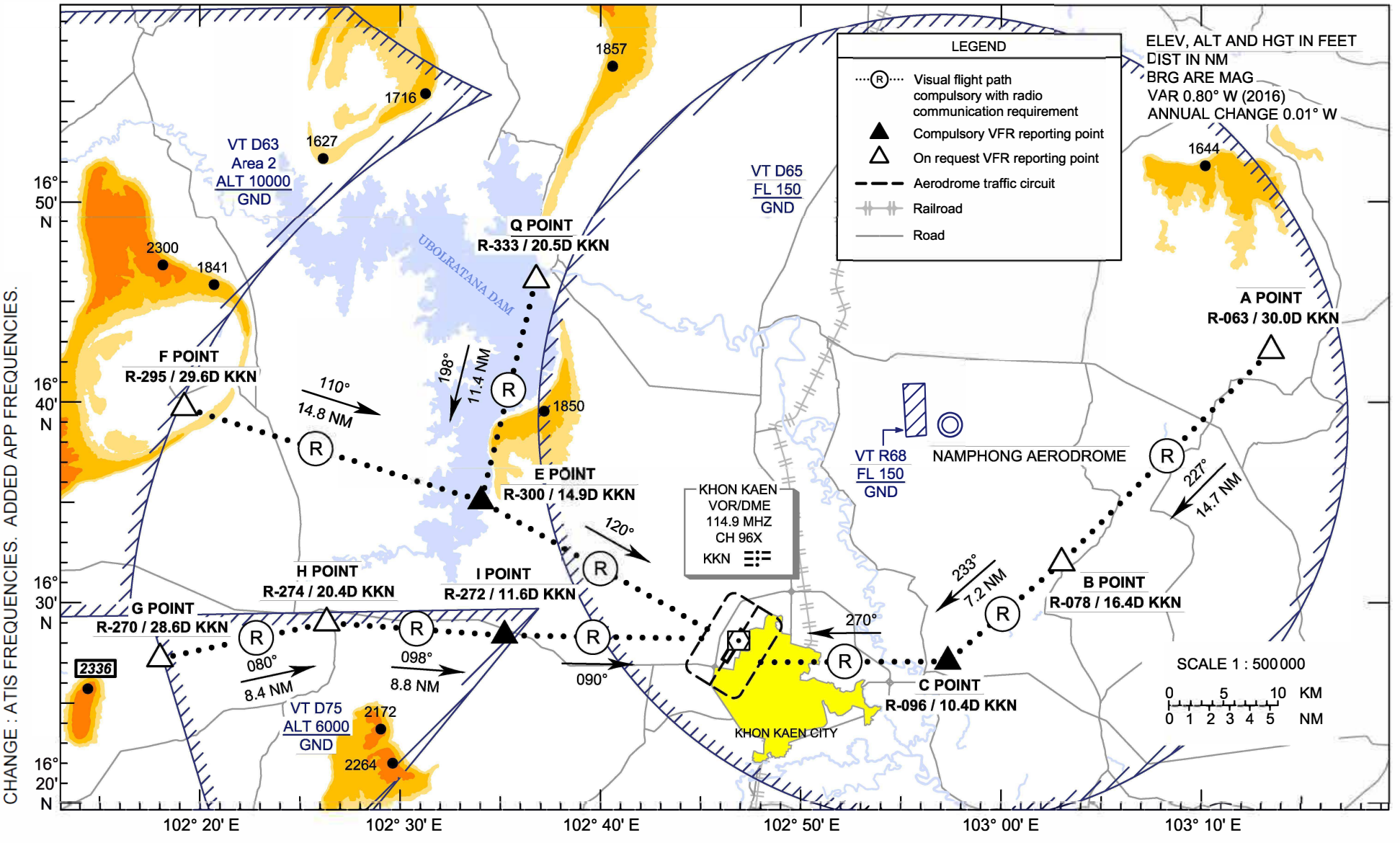
**INTENTIONALLY BLANK**

**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.4, 240.0
TWR : 122.25, 236.6
GND : 121.9
ATIS : 126.85

**KHON KAEN / Khon Kaen (VTUK) RWY03/21 (NORTH)**



**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

**KHON KAEN / Khon Kaen (VTUK) RWY03/21 (NORTH)**

ARR-RWY03/21 (**From North**)
Inbound via Q POINT then heading 198° to E POINT and heading 120° to over aerodrome. Join aerodrome traffic circuit when directed by ATC.

ARR-RWY03/21 (**From North-West**)
Inbound via F POINT then heading 110° to E POINT and heading 120° to over aerodrome. Join aerodrome traffic circuit when directed by ATC.

ARR-RWY03/21 (**From West**)
Inbound via G POINT then heading 080° to H POINT, heading 098° to I POINT, and heading 090° to over aerodrome. Join aerodrome traffic circuit when directed by ATC.

ARR-RWY03/21 (**From North-East**)
Inbound via A POINT with recommended altitude at or above 2000 ft then heading 227° to B POINT, heading 233° to C POINT, and heading 270° to over aerodrome. Join aerodrome traffic circuit when directed by ATC.

| Reporting points | Landmark | Radial / DME from KKN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "A" or ALPHA Point | Ban Nong Chum Sang Temple | R-063 / 30.0D | 16° 42' 06.00" N | 103° 14' 58.00" E |
| "B" or BRAVO Point | Sam Sung Police Station | R-078 / 16.4D | 16° 31' 47.02" N | 103° 03' 58.55" E |
| "C" or CHARLIE Point | White Pagoda | R-096 / 10.4D | 16° 27' 19.00" N | 102° 58' 03.40" E |
| "E" or ECHO Point | Sa Wang Cherng Khao Temple | R-300 / 14.9D | 16° 35' 27.07" N | 102° 33' 41.30" E |
| "F" or FOXTROT Point | Phu Wiang Hill | R-295 / 29.6D | 16° 40' 20.37" N | 102° 19' 07.91" E |
| "G" or GOLF Point | Ei San Temple (Road Intersection) | R-270 / 28.6D | 16° 27' 51.90" N | 102° 17' 29.80" E |
| "H" or HOTEL Point | Nhong Reua (Road Intersection) | R-274 / 20.4D | 16° 29' 29.60" N | 102° 26' 06.20" E |
| "I" or INDIA Point | Khon Kaen 4 Power Plant | R-272 / 11.6D | 16° 28' 26.70" N | 102° 35' 12.40" E |
| "Q" or QUEBEC Point | Au Bon Rat Dam | R-333 / 20.5D | 16° 46' 20.20" N | 102° 37' 11.90" E |
| KHON KAEN VOR/DME (KKN) | KHON KAEN VOR/DME Station | - | 16° 28' 15.29" N | 102° 47' 16.79" E |

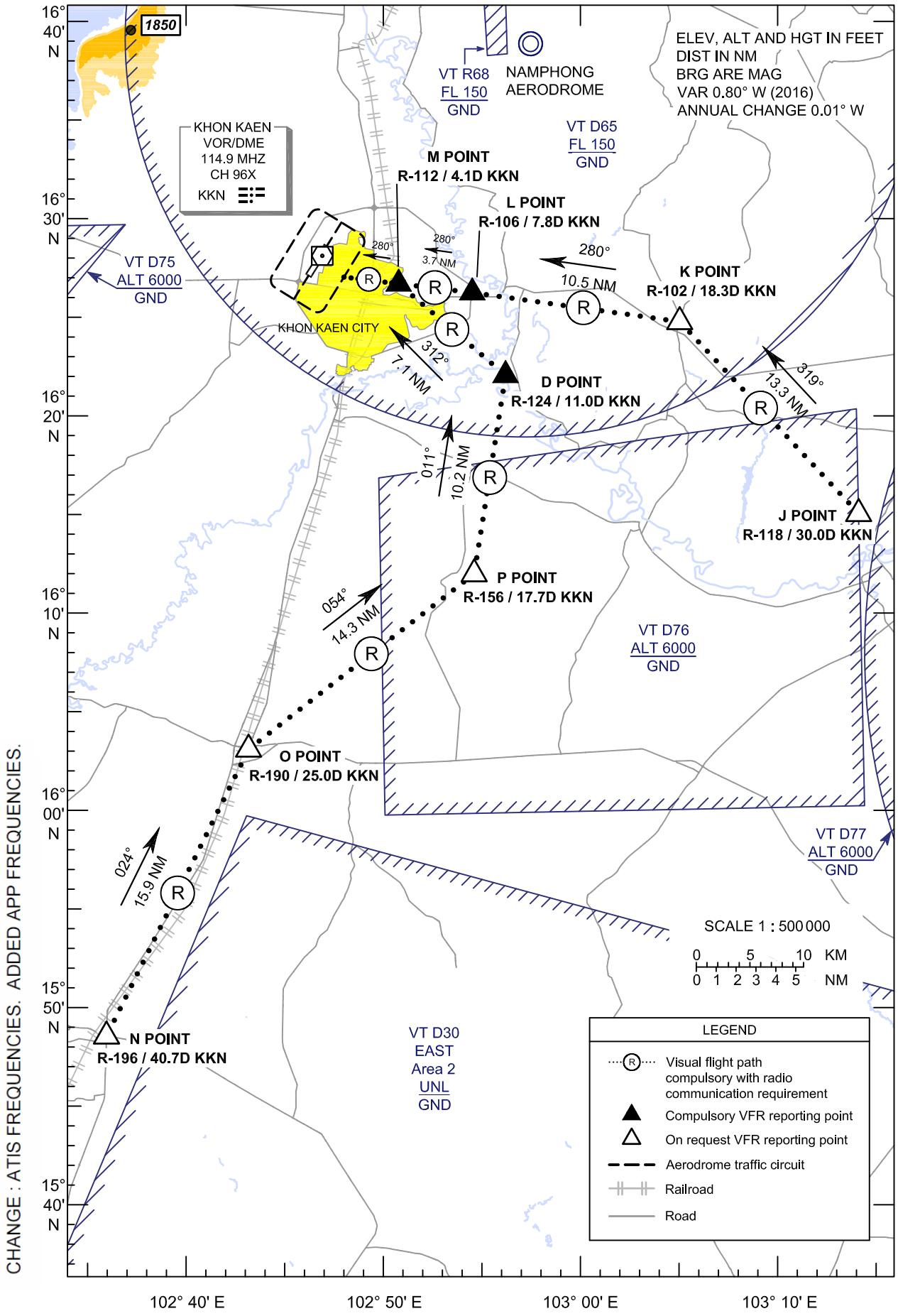
CHANGE: VOR COORDINATE.

**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.4, 240.0
TWR : 122.25, 236.6
GND : 121.9
ATIS : 126.85

**KHON KAEN / Khon Kaen (VTUK) RWY03/21 (SOUTH)**



**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

**KHON KAEN / Khon Kaen (VTUK) RWY03/21 (SOUTH)**

ARR-RWY03/21 (**From East**)
Inbound via J POINT then heading 319° to K POINT, heading 280° to L POINT, heading 280° to M POINT, and heading 280° to over aerodrome. Join aerodrome traffic circuit when directed by ATC.

ARR-RWY03/21 (**From South**)
Inbound via N POINT then heading 024° to O POINT, heading 054° to P POINT, heading 011° to D POINT, heading 312° to M POINT, and heading 280° to over aerodrome. Join aerodrome traffic circuit when directed by ATC.

| Reporting points | Landmark | Radial / DME from KKN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "D" or DELTA Point | Wang Yang Weir | R-124 / 11.0D | 16° 22' 07.00" N | 102° 56' 50.60" E |
| "J" or JULIETT Point | Ma Ha Sa Ra Kham University | R-118 / 30.0D | 16° 14' 33.17" N | 103° 15' 03.57" E |
| "K" or KILO Point | Chiang Yeun | R-102 / 18.3D | 16° 24' 35.30" N | 103° 05' 53.00" E |
| "L" or LIMA Point | Bridge | R-106 / 7.8D | 16° 26' 13.03" N | 102° 55' 04.32" E |
| "M" or MIKE Point | Beung Thung Sang Park | R-112 / 4.1D | 16° 26' 47.42" N | 102° 51' 15.09" E |
| "N" or NOVEMBER Point | Mueang Pol | R-196 / 40.7D | 15° 48' 44.90" N | 102° 36' 26.90" E |
| "O" or OSCAR Point | Ban Phai (Road Intersection) | R-190 / 25.0D | 16° 03' 27.30" N | 102° 42' 57.50" E |
| "P" or PAPA Point | Khon Sak Creek | R-156 / 17.7D | 16° 12' 04.70" N | 102° 54' 53.80" E |
| KHON KAEN VOR/DME (KKN) | KHON KAEN VOR/DME Station | - | 16° 28' 15.29" N | 102° 47' 16.79" E |

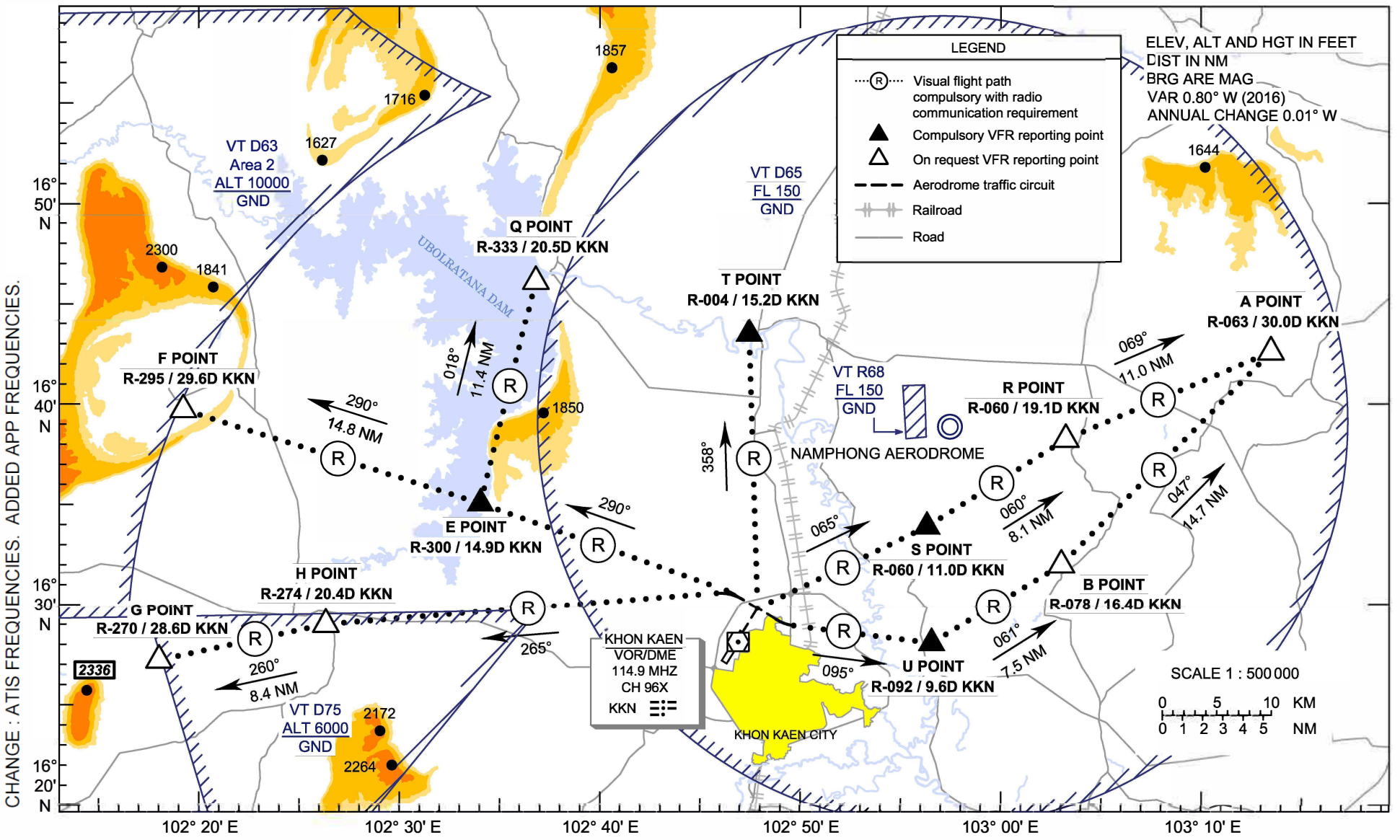
CHANGE: VOR COORDINATE.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.4, 240.0
TWR : 122.25, 236.6
GND : 121.9
ATIS : 126.85

**KHON KAEN / Khon Kaen (VTUK) RWY03 (NORTH)**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

**KHON KAEN / Khon Kaen (VTUK) RWY03 (NORTH)**

DEP-RWY03 (**North**)
After departure climb to altitude 500 ft then heading 358° to T POINT.

DEP-RWY03 (**North**)
After departure turn left proceed westbound (heading 300°) until 2.5 DME then heading 290° to E POINT, and heading 018° to Q POINT.

DEP-RWY03 (**North-East**)
After departure turn right proceed eastbound (heading 120°) until 2.5 DME then heading 095° to U POINT, heading 061° to B POINT, and heading 047° to A POINT with recommended altitude at or above 2000 ft.

DEP-RWY03 (**North-East**)
After departure climb to altitude 500 ft then heading 065° to S POINT, heading 060° to R POINT, and heading 069° to A POINT with recommended altitude at or above 2000 ft.

DEP-RWY03 (**North-West**)
After departure turn left proceed westbound (heading 300°) until 2.5 DME then heading 290° to E POINT, and heading 290° to F POINT.

DEP-RWY03 (**West**)
After departure turn left proceed westbound (heading 300°) until 2.5 DME then heading 265° to H POINT, and heading 260° to G POINT.

| Reporting points | Landmark | Radial / DME from KKN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "A" or ALPHA Point | Ban Nong Chum Sang Temple | R-063 / 30.0D | 16° 42' 06.00" N | 103° 14' 58.00" E |
| "B" or BRAVO Point | Sam Sung Police Station | R-078 / 16.4D | 16° 31' 47.02" N | 103° 03' 58.55" E |
| "E" or ECHO Point | Sa Wang Cherng Khao Temple | R-300 / 14.9D | 16° 35' 27.07" N | 102° 33' 41.30" E |
| "F" or FOXTROT Point | Phu Wiang Hill | R-295 / 29.6D | 16° 40' 20.37" N | 102° 19' 07.91" E |
| "G" or GOLF Point | Ei San Temple (Road Intersection) | R-270 / 28.6D | 16° 27' 51.90" N | 102° 17' 29.80" E |
| "H" or HOTEL Point | Nhong Reua (Road Intersection) | R-274 / 20.4D | 16° 29' 29.60" N | 102° 26' 06.20" E |
| "Q" or QUEBEC Point | Au Bon Rat Dam | R-333 / 20.5D | 16° 46' 20.20" N | 102° 37' 11.90" E |
| "U" or UNIFORM Point | Pho Tha Ram Temple | R-092 / 9.6D | 16° 28' 01.00" N | 102° 57' 13.00" E |
| "R" or ROMEO Point | Nhong Krung Yai Village | R-060 / 19.1D | 16° 37' 59.60" N | 103° 04' 19.60" E |
| "S" or SIERRA Point | Phra That Kham Kaen | R-060 / 11.0D | 16° 33' 49.00" N | 102° 57' 06.00" E |
| "T" or TANGO Point | Bridge | R-004 / 15.2D | 16° 43' 31.00" N | 102° 48' 09.00" E |
| KHON KAEN VOR/DME (KKN) | KHON KAEN VOR/DME Station | - | 16° 28' 15.29" N | 102° 47' 16.79" E |

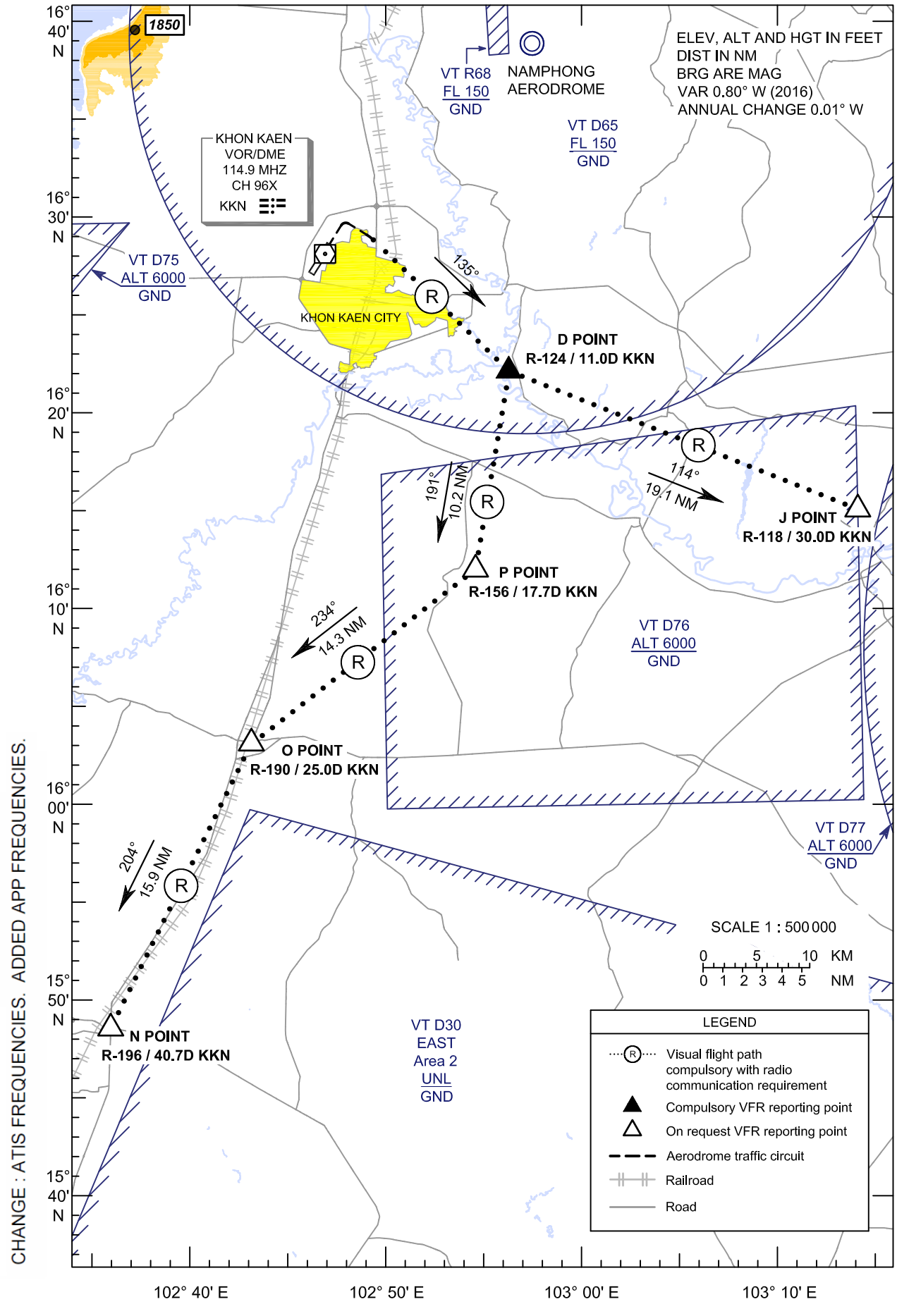
CHANGE: VOR COORADINATE.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.4, 240.0
TWR : 122.25, 236.6
GND : 121.9
ATIS : 126.85

**KHON KAEN / Khon Kaen (VTUK) RWY03 (SOUTH)**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

**KHON KAEN / Khon Kaen (VTUK) RWY03 (SOUTH)**

DEP-RWY03 (**South-East**)
After departure turn right proceed eastbound (heading 120°) until 2.5 DME then heading 135° to D POINT, and heading 114° to J POINT.

DEP-RWY03 (**South**)
After departure turn right proceed eastbound (heading 120°) until 2.5 DME then heading 135° to D POINT, heading 191° to P POINT, heading 234° to O POINT, and heading 204° to N POINT.

| Reporting points | Landmark | Radial / DME from KKN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "D" or DELTA Point | Wang Yang Weir | R-124 / 11.0D | 16° 22' 07.00" N | 102° 56' 50.60" E |
| "J" or JULIETT Point | Ma Ha Sa Ra Kham University | R-118 / 30.0D | 16° 14' 33.17" N | 103° 15' 03.57" E |
| "N" or NOVEMBER Point | Mueang Pol | R-196 / 40.7D | 15° 48' 44.90" N | 102° 36' 26.90" E |
| "O" or OSCAR Point | Ban Phai (Road Intersection) | R-190 / 25.0D | 16° 03' 27.30" N | 102° 42' 57.50" E |
| "P" or PAPA Point | Khon Sak Creek | R-156 / 17.7D | 16° 12' 04.70" N | 102° 54' 53.80" E |
| KHON KAEN VOR/DME (KKN) | KHON KAEN VOR/DME Station | - | 16° 28' 15.29" N | 102° 47' 16.79" E |

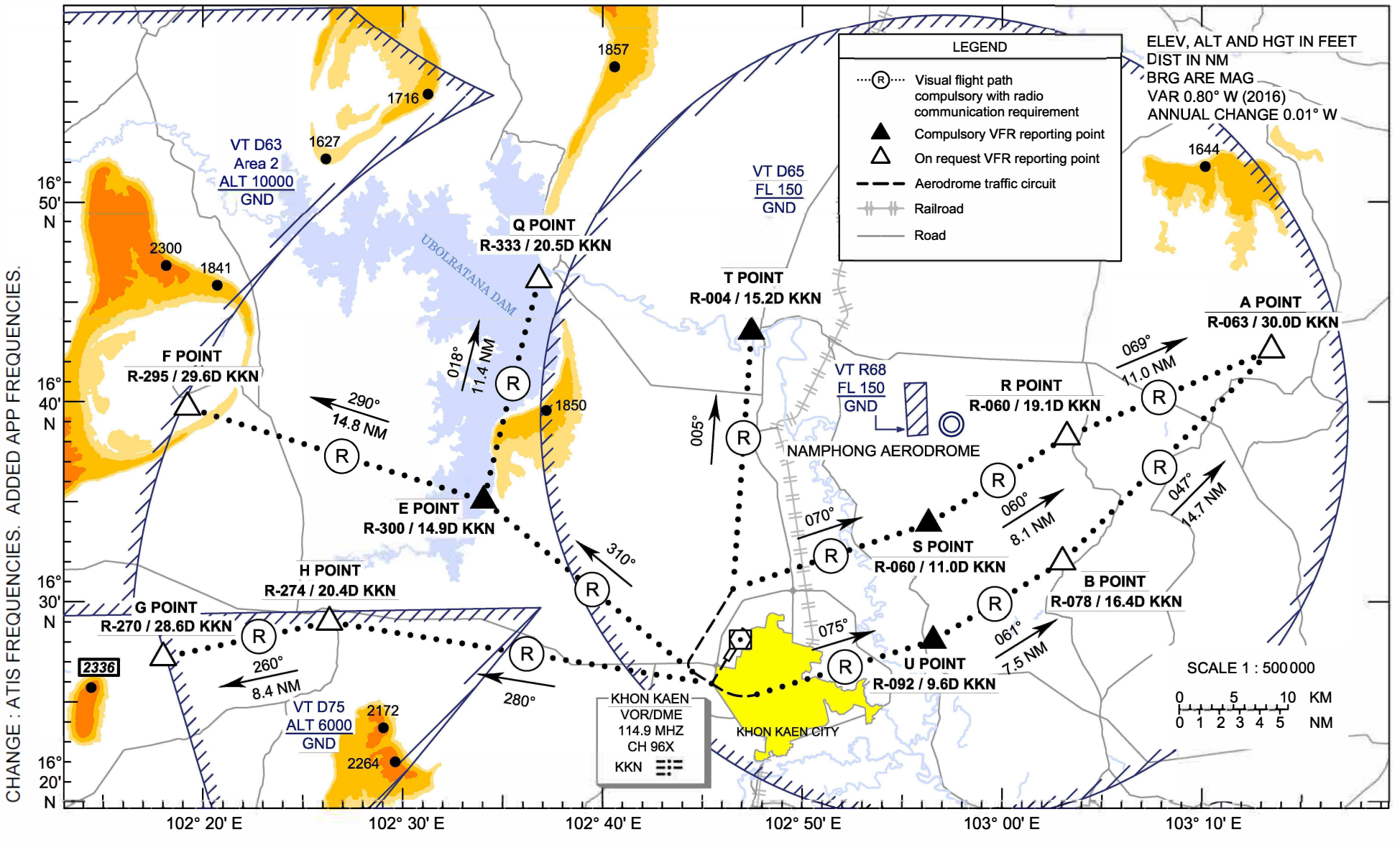
CHANGE: VOR COORDINATE.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.4, 240.0
TWR : 122.25, 236.6
GND : 121.9
ATIS : 126.85

**KHON KAEN / Khon Kaen (VTUK) RWY21 (NORTH)**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

**KHON KAEN / Khon Kaen (VTUK) RWY21 (NORTH)**

DEP-RWY21 (**North**)
After departure turn right proceed westbound (heading 300°) until 2.5 DME then turn right to join right downwind then heading 005° to T POINT.

DEP-RWY21 (**North**)
After departure turn right proceed westbound (heading 300°) until 2.5 DME then heading 310° to E POINT, and heading 018° to Q POINT.

DEP-RWY21 (**North-East**)
After departure turn left proceed eastbound (heading 120°) until 2.5 DME then heading 075° to U POINT, heading 061° to B POINT, and heading 047° to A POINT with recommended altitude at or above 2000 ft.

DEP-RWY21 (**North-East**)
After departure turn right proceed westbound (heading 300°) until 2.5 DME then turn right to join right downwind then heading 070° to S POINT, heading 060° to R POINT, and heading 069° to A POINT with recommended altitude at or above 2000 ft.

DEP-RWY21 (**North-West**)
After departure turn right proceed westbound (heading 300°) until 2.5 DME then heading 310° to E POINT, and heading 290° to F POINT.

DEP-RWY21 (**West**)
After departure climb to altitude 500 ft then heading 280° to H POINT, and heading 260° to G POINT.

| Reporting points | Landmark | Radial / DME from KKN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "A" or ALPHA Point | Ban Nong Chum Sang Temple | R-063 / 30.0D | 16° 42' 06.00" N | 103° 14' 58.00" E |
| "B" or BRAVO Point | Sam Sung Police Station | R-078 / 16.4D | 16° 31' 47.02" N | 103° 03' 58.55" E |
| "E" or ECHO Point | Sa Wang Cherng Khao Temple | R-300 / 14.9D | 16° 35' 27.07" N | 102° 33' 41.30" E |
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| "G" or GOLF Point | Ei San Temple (Road Intersection) | R-270 / 28.6D | 16° 27' 51.90" N | 102° 17' 29.80" E |
| "H" or HOTEL Point | Nhong Reua (Road Intersection) | R-274 / 20.4D | 16° 29' 29.60" N | 102° 26' 06.20" E |
| "Q" or QUEBEC Point | Au Bon Rat Dam | R-333 / 20.5D | 16° 46' 20.20" N | 102° 37' 11.90" E |
| "U" or UNIFORM Point | Pho Tha Ram Temple | R-092 / 9.6D | 16° 28' 01.00" N | 102° 57' 13.00" E |
| "R" or ROMEO Point | Nhong Krung Yai Village | R-060 / 19.1D | 16° 37' 59.60" N | 103° 04' 19.60" E |
| "S" or SIERRA Point | Phra That Kham Kaen | R-060 / 11.0D | 16° 33' 49.00" N | 102° 57' 06.00" E |
| "T" or TANGO Point | Bridge | R-004 / 15.2D | 16° 43' 31.00" N | 102° 48' 09.00" E |
| KHON KAEN VOR/DME (KKN) | KHON KAEN VOR/DME Station | - | 16° 28' 15.29" N | 102° 47' 16.79" E |

CHANGE: VOR COORDINATE.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.4, 240.0
TWR : 122.25, 236.6
GND : 121.9
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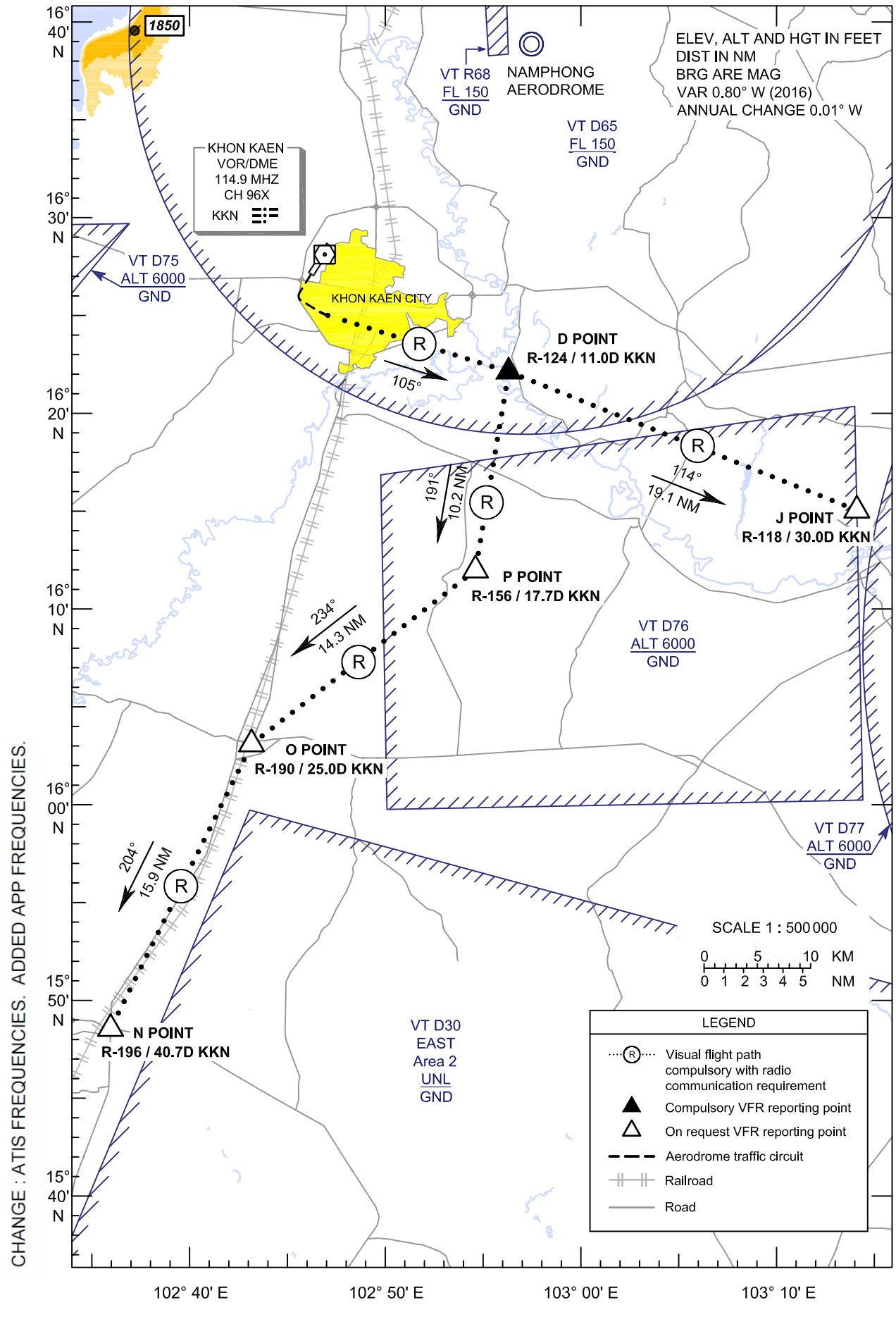
**KHON KAEN / Khon Kaen (VTUK) RWY21 (SOUTH)**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 670 FT**
HEIGHTS RELATED TO AERODROME ELEV

**KHON KAEN / Khon Kaen (VTUK) RWY21 (SOUTH)**

DEP-RWY21 (**South-East**)
After departure turn left proceed eastbound (heading 120°) until 2.5 DME then heading 105° to D POINT, and heading 114° to J POINT.

DEP-RWY21 (**South**)
After departure turn left proceed eastbound (heading 120°) until 2.5 DME then heading 105° to D POINT, heading 191° to P POINT, heading 234° to O POINT, and heading 204° to N POINT.

| Reporting points | Landmark | Radial / DME from KKN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "D" or DELTA Point | Wang Yang Weir | R-124 / 11.0D | 16° 22' 07.00" N | 102° 56' 50.60" E |
| "J" or JULIETT Point | Ma Ha Sa Ra Kham University | R-118 / 30.0D | 16° 14' 33.17" N | 103° 15' 03.57" E |
| "N" or NOVEMBER Point | Mueang Pol | R-196 / 40.7D | 15° 48' 44.90" N | 102° 36' 26.90" E |
| "O" or OSCAR Point | Ban Phai (Road Intersection) | R-190 / 25.0D | 16° 03' 27.30" N | 102° 42' 57.50" E |
| "P" or PAPA Point | Khon Sak Creek | R-156 / 17.7D | 16° 12' 04.70" N | 102° 54' 53.80" E |
| KHON KAEN VOR/DME (KKN) | KHON KAEN VOR/DME Station | - | 16° 28' 15.29" N | 102° 47' 16.79" E |

CHANGE: VOR COORDINATE.

## VTSG AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSG - KRABI / KRABI AIRPORT

## VTSG AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 080600.59N 0985907.13E<br>1500 M FM THR RWY14 |
| 2 | Direction and distance from (city) | 10 KM NE from city |
| 3 | Elevation/Reference temperature | 93 FT/30°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0°26'W (2016)/0.1°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Krabi Airport<br>Krabi Airport<br>Amphoe Naua Khlong<br>Krabi Province<br>Thailand 81130<br>Tel: +667 570 1468-9<br>Fax: +667 570 1470<br>AFS: VTSGYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTSG AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | H24 |
| 2 | Customs and immigration | 0130-0930, On demand |
| 3 | Health and sanitation | 0130-0930, On demand |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | H24 |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | H24 |
| 8 | Fuelling | H24 |
| 9 | Handling | On request |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phuket International Airport (3rd floor of domestic terminal building)<br>Tel: +667 632 7205<br>+669 2262 2141<br>Fax: +667 656 3048 |

## VTSG AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1 |
| 3 | Fuelling facilities/capacity | 1 JET A-1 Refueller @ 60,000 L<br>1 JET A-1 Refueller @ 45,000 L<br>1 JET A-1 Refueller @ 18,000 L<br>2 JET A-1 Refueller @ 12,000 L |
| 4 | De-icing facilities | NIL |

| | | |
|---|---|---|
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTSG AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | Near the AD and in the city |
| 2 | Restaurants | At AD and in the city |
| 3 | Transportation | Limousines, car rent and shuttle bus |
| 4 | Medical facilities | First Aid at AD and hospital in the city |
| 5 | Bank and Post Office | Money exchange service available between 0200-1100 UTC,<br>but postal services not available |
| 6 | Tourist Office | At AD open<br>1) 0000 - 0800<br>2) 0700 - 1500 |
| 7 | Remarks | NIL |

## VTSG AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 9 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTSG AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTSG AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCR 1200/R/C/X/T |
| 2 | Taxiway width, surface and strength | Taxiway A, B, C<br>Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCR 800/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSG AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Marked |

| | | |
|---|---|---|
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSG AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| RWY 32 | Chimney<br>HGT 171 M<br>LGTD | 075930N 0990306E | NIL | NIL | NIL |

## VTSG AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Krabi,<br>Southern West-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern West-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 570 1576 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS)<br>and Low Level Windshear Alert System (LLWAS) |
| 9 | ATS units provided with information | Krabi TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSG AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCR) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 14 | 140.60° | 3000x45 | PCR 800/F/C/X/T<br>Asphaltic concrete | 080623.28N 0985848.43E | THR 82 FT<br>TDZ 82 FT |
| 32 | 320.60° | 3000x45 | PCR 800/F/C/X/T<br>Asphaltic concrete | 080507.74N 0985950.66E | THR 93 FT<br>TDZ 93 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location & description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| -0.4% 0% +0.5% +0.8% 0%<br>(1050M 1575M 2250M 2750M 3000M) | 60x60 | NIL | 3240x300 | 240 x 90 | NIL | NIL | Concrete drainage channels are located in the Runway strips, parallel to and at 150 M. offset from the Runway centre lines. |
| 0% -0.8% -0.5% 0% +0.4%<br>(250M 750M 1425M 1950M 3000M) | 60x60 | NIL | 3240x300 | 240 x 90 | NIL | NIL | |

## VTSG AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 14 | 3000 | 3000 | 3060 | 3000 | NIL |
| 32 | 3000 | 3000 | 3060 | 3000 | NIL |

## VTSG AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 14 | SALS<br>420 M | Green | PAPI<br>Left 3.6°<br>(28.24 M) | NIL | NIL | 3000 M<br>60 M<br>White, LIH | Red | NIL | NIL |
| 32 | SALS<br>420 M | Green | PAPI<br>Left 3.2°<br>(25.25 M) | NIL | NIL | 3000 M<br>60 M<br>White, LIH | Red | NIL | NIL |

## VTSG AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building FLG W G EV 7 SEC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | EDGE: All Taxiways |
| 4 | Secondary power supply/switch-over time | Secondary power supply at tower and Air Field Lighting (AFL). |
| 5 | Remarks | NIL |

## VTSG AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |

| | | |
|---|---|---|
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTSG AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centred on KBI DVOR/DME(080627.0N 0985839.0E) |
| 2 | Vertical limits | 2000 ft/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Krabi Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSG AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Krabi Approach | 120.05 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Krabi Tower | 122.5 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| GND | Krabi Ground | 121.9 MHz | As AD OPR HR | |
| ATIS | Krabi Airport | 132.4 MHz | As AD OPR HR | |

## VTSG AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | KB | 299 KHz | H24 | 080619.5N<br>0985828.3E | | 50 nm coverage restricted as follow:<br>– BRG 090-160 DEG ALT should not below 4000 ft.<br>– BRG 161-270 DEG ALT should not below 1500 ft.<br>– BRG 271-300 DEG ALT should not below 5000 ft.<br>– BRG 351-089 DEG ALT should not below 7000 ft.<br>– BRG 301-350 DEG excessive needle oscillation out of tolerances. |

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | KBI | 111 MHz CH47X | H24 | 080627.0N 0985839.0E | | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 nm at required altitude in various areas as follows:<br>– Radial 001°-180° altitude should not below 5 500 ft.<br>– Radial 181°-200° altitude should not below 7 000 ft.<br>– Radial 201°-340° altitude should not below 10 000 ft.<br>– Radial 341°-360° altitude should not below 15 500 ft. |
| ILS CAT I LOC/DME RWY 32 | IKBI | 110.1 MHz CH38X | H24 | 080630.6N 0985842.4E | | Designated operation coverage 18 nm, ALT 6300 ft/AMSL. |
| GP | | 334.4 MHz | H24 | 080518.9N 0985946.5E | | 3.2 DEG, RDH 56.5 ft. |

## VTSG AD 2.20 LOCAL AERODROME REGULATIONS

1. For preventing runway pavement structural damage, aircraft with weight equivalent to or heavier than B737 or A319 are not allowed to make 180 degree turn on the runway. The turn shall be made on the runway turn pad located near the threshold of runway 32.

2. Traffic departing runway 14 may be delayed in the apron or on the appropriate taxiway in case there is a landing traffic on runway 32.

3. USE OF RUNWAYS

Runway landing restriction for aircraft requiring the use of aerodrome:

– Runway 14/32: For AOC holder, minimum RVR by MET is 750 m. or minimum visibility by MET is 1,000 m. Less are not permitted.

## VTSG AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSG AD 2.22 FLIGHT PROCEDURES

### 1. SPEED CONTROL PROCEDURE IN KRABI TMA

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 230 knots unless authorized by ATC.
b) Speed will be reduced to 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
c) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
d) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
e) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
f) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
g) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) and c)

## VTSG AD 2.23 ADDITIONAL INFORMATION

### 1. BIRD CONCENTRATIONS

- Bird concentrations in the vicinity of an aerodrome.

## VTSG AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSG-2-1 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY14/32 | AD 2-VTSG-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RWY 14 - SURAT2H TRANG2D PHUKET2F | AD 2-VTSG-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RWY 32 - SURAT2G TRANG2C PHUKET2E | AD 2-VTSG-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 14 - EPGOT1G OSPEX1G SARER1G TUNRA1G | AD 2-VTSG-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 14 - EPGOT1G OSPEX1G SARER1G TUNRA1G (Tabular description) | AD 2-VTSG-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 32 - EPGOT1F LUXIR1F OSPEX1F TUNRA1F | AD 2-VTSG-6-7 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 32 - EPGOT1F LUXIR1F OSPEX1F TUNRA1F (Tabular description) | AD 2-VTSG-6-8 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 32 - EPGOT1F LUXIR1F OSPEX1F TUNRA1F (Waypoint list table) | AD 2-VTSG-6-9 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 32 - EMRIT1E NULMA1E TUNRA1E | AD 2-VTSG-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 32 - EMRIT1E NULMA1E TUNRA1E (Tabular description) | AD 2-VTSG-7-2 |
| Instrument Approach Chart - ICAO - VOR RWY 32 | AD 2-VTSG-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 32 (Fix and point list table) | AD 2-VTSG-8-2 |
| Instrument Approach Chart - ICAO - LOC RWY 32 | AD 2-VTSG-8-3 |
| Instrument Approach Chart - ICAO - LOC RWY 32 (Fix and point list table) | AD 2-VTSG-8-4 |
| Instrument Approach Chart - ICAO - ILS RWY 32 | AD 2-VTSG-8-5 |
| Instrument Approach Chart - ICAO - ILS RWY 32 (Fix and point list table) | AD 2-VTSG-8-6 |
| Instrument Approach Chart - ICAO - RNP RWY 32 | AD 2-VTSG-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 32 (Tabular description) | AD 2-VTSG-8-8 |

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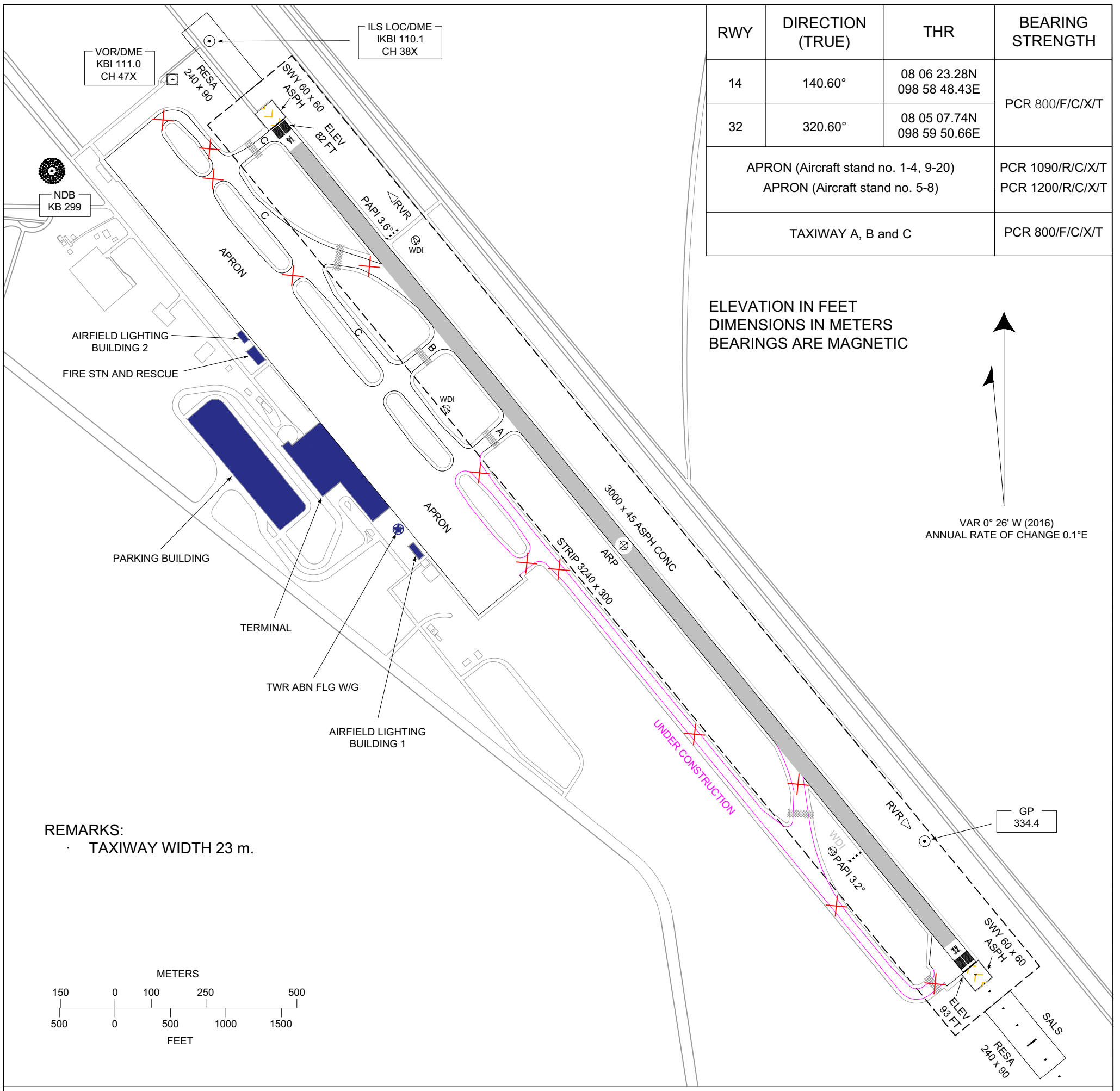
# AERODROME CHART - ICAO

**080600.59N**
**0985907.13E**

**ELEV 93 FT**

**TWR 122.5, 236.6**
**GND 121.9**

# KRABI / Krabi

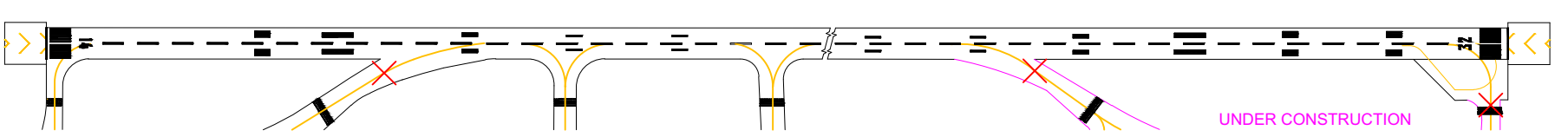



| RWY | DIRECTION (TRUE) | THR | BEARING STRENGTH |
|---|---|---|---|
| 14 | 140.60° | 08 06 23.28N<br>098 58 48.43E | PCR 800/F/C/X/T |
| 32 | 320.60° | 08 05 07.74N<br>098 59 50.66E | |
| APRON (Aircraft stand no. 1-4, 9-20)<br>APRON (Aircraft stand no. 5-8) | | | PCR 1090/R/C/X/T<br>PCR 1200/R/C/X/T |
| TAXIWAY A, B and C | | | PCR 800/F/C/X/T |

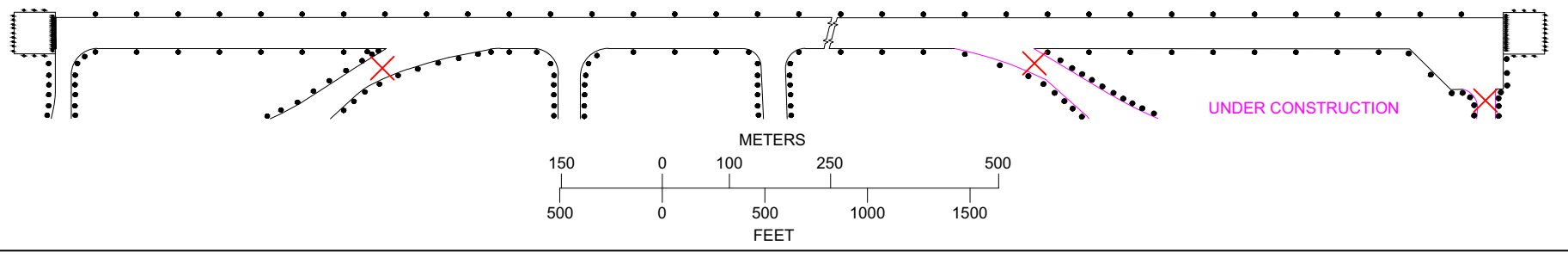
REMARKS:

- TAXIWAY WIDTH 23 m.

MARKING AIDS RWY 14/32 AND EXIT TWY




LIGHTING AIDS RWY 14/32 AND EXIT TWY




CHANGE: REVISED CHART. MAG VAR. ANNUAL RATE OF CHANGE. ARP COORDINATES. DELETED TDZ ELEV. ADDED RESA 14/32. EXTENDED APRON AREA. BEARING STRENGTH (PCR).

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# AERODROME OBSTACLE CHART - ICAO
## TYPE A (OPERATING LIMITATIONS)

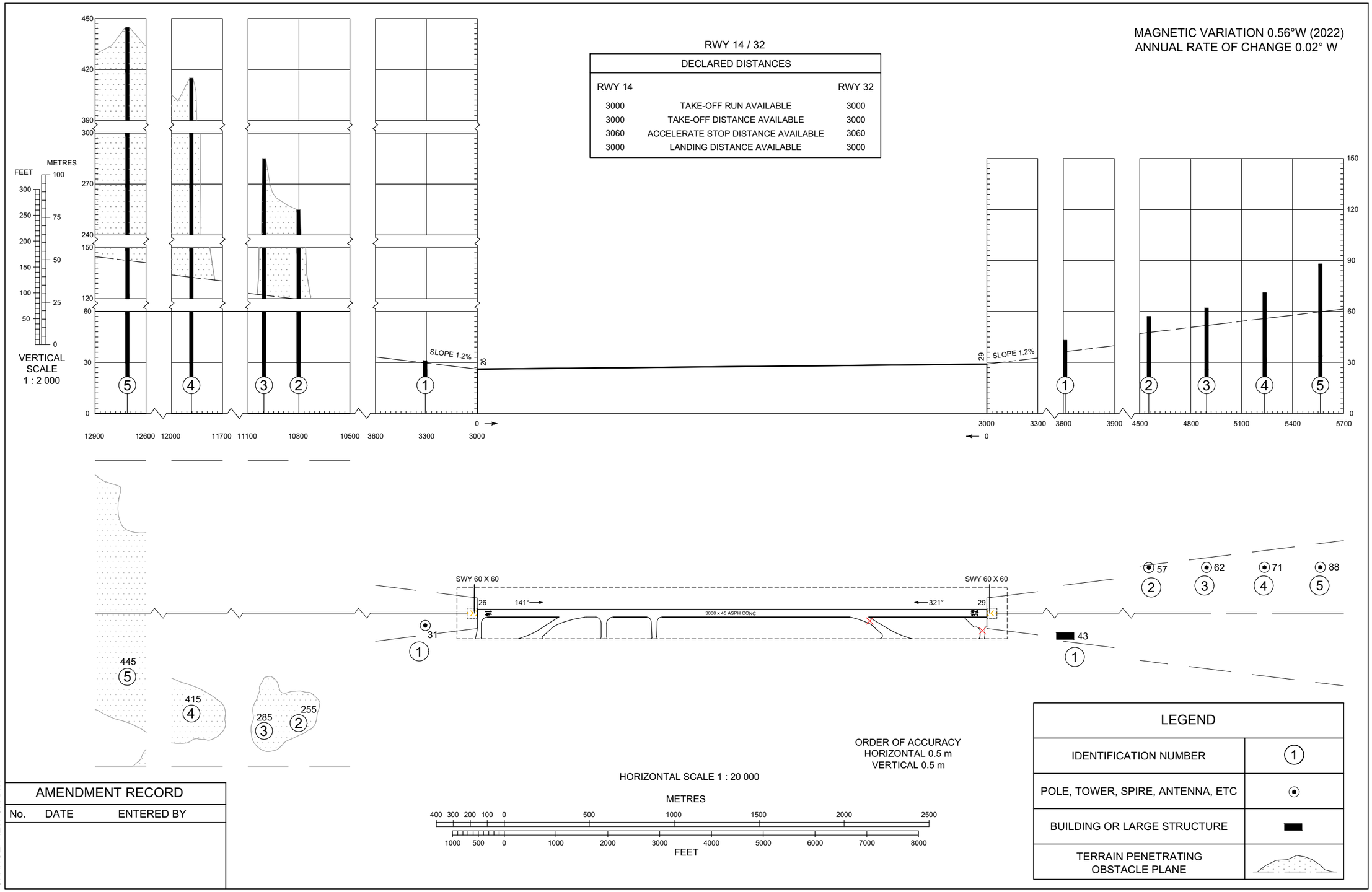
**DIMENSIONS AND ELEVATIONS IN METRES**

**KRABI / Krabi Airport**

MAGNETIC VARIATION 0.56°W (2022)
ANNUAL RATE OF CHANGE 0.02° W

RWY 14 / 32

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 14 | | RWY 32 |
| 3000 | TAKE-OFF RUN AVAILABLE | 3000 |
| 3000 | TAKE-OFF DISTANCE AVAILABLE | 3000 |
| 3060 | ACCELERATE STOP DISTANCE AVAILABLE | 3060 |
| 3000 | LANDING DISTANCE AVAILABLE | 3000 |




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ① |
| POLE, TOWER, SPIRE, ANTENNA, ETC | ⊙ |
| BUILDING OR LARGE STRUCTURE | ■ |
| TERRAIN PENETRATING OBSTACLE PLANE | |

CHANGE: NEW CHART.

| AMENDMENT RECORD | | |
|---|---|---|
| No. | DATE | ENTERED BY |
| | | |

DEPARTMENT OF AIRPORTS

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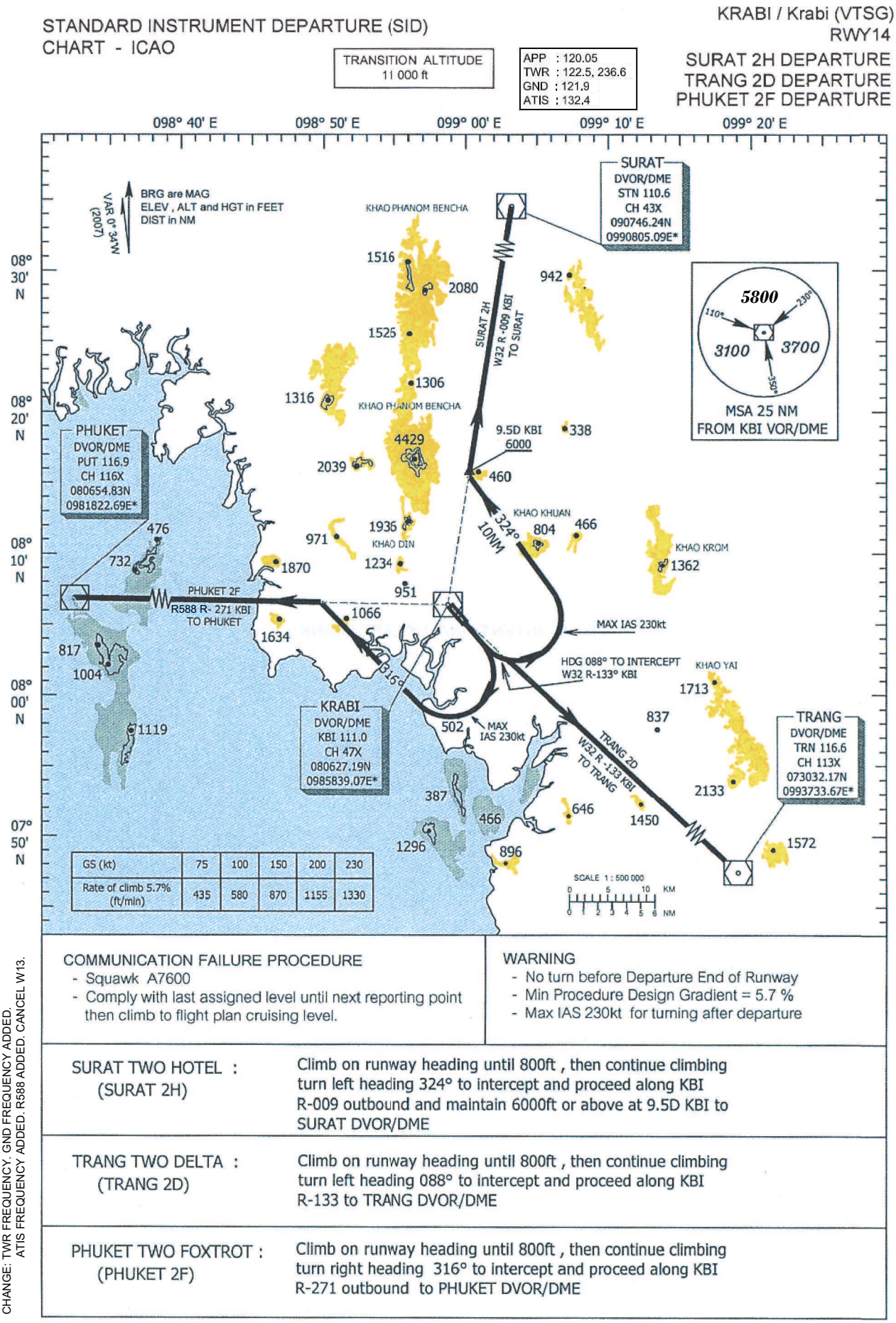


CHANGE: TWR FREQUENCY. GND FREQUENCY ADDED.
ATIS FREQUENCY ADDED. R588 ADDED. CANCEL W13.

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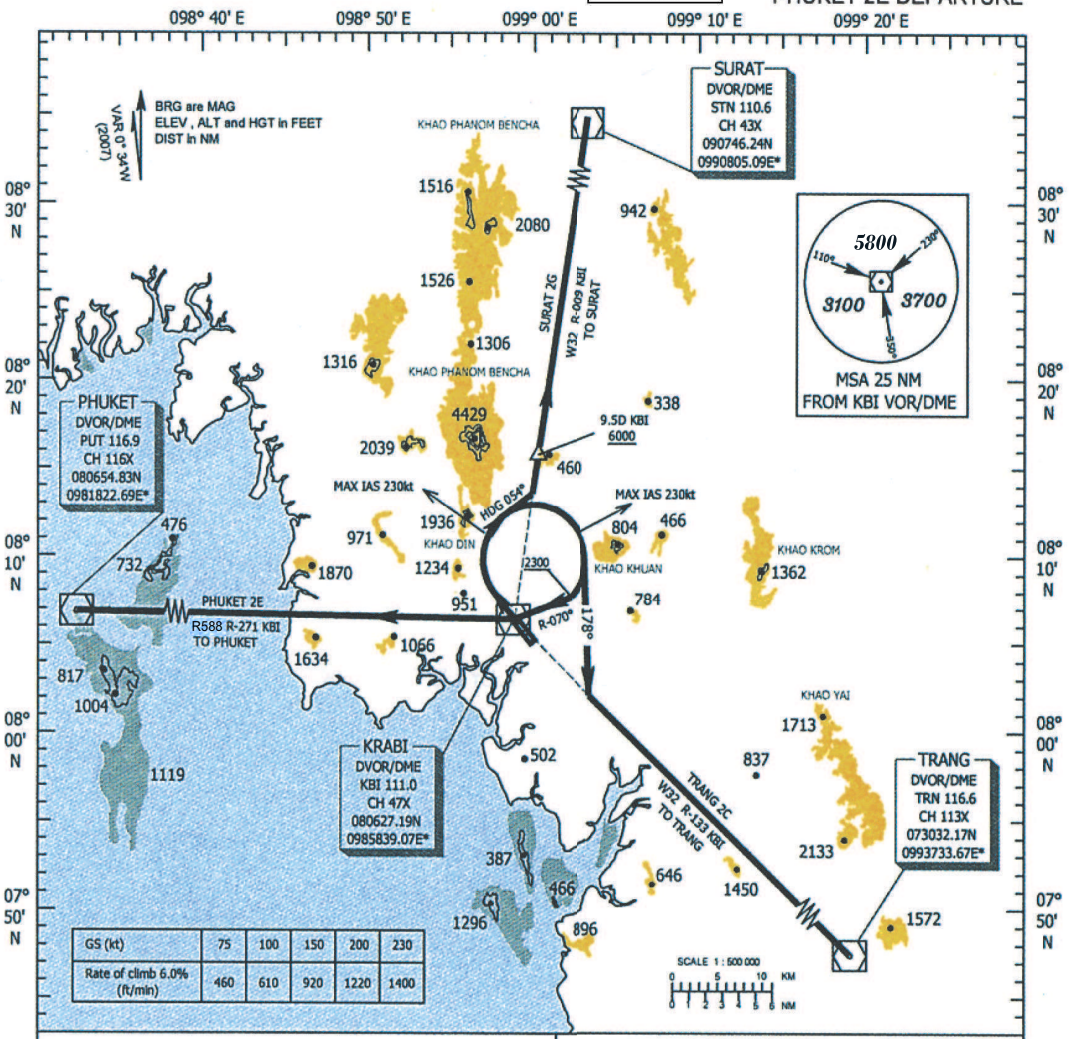
STANDARD INSTRUMENT DEPARTURE (SID)
CHART - ICAO

KRABI / Krabi (VTSG)
RWY32
SURAT 2G DEPARTURE
TRANG 2C DEPARTURE
PHUKET 2E DEPARTURE

TRANSITION ALTITUDE
11 000 ft

APP : 120.05
TWR : 122.5, 236.6
GND : 121.9
ATIS : 132.4




**COMMUNICATION FAILURE PROCEDURE**
- Squawk A7600
- Comply with last assigned level until next reporting point then climb to flight plan cruising level.

**WARNING**
- No turn before Departure End of Runway
- Min Procedure Design Gradient = 6.0 %
- Max IAS 230kt for turning after departure

| | |
|---|---|
| SURAT TWO GOLF : (SURAT 2G) | Climb on runway heading until 800ft , then continue climbing turn right heading 054° to intercept and proceed along KBI R-009 outbound and maintain 6000ft or above at 9.5D KBI to SURAT DVOR/DME |
| TRANG TWO CHALIE : (TRANG 2C) | Climb on runway heading until 800ft , then continue climbing turn right heading 178° to intercept and proceed along KBI R-133 to TRANG DVOR/DME |
| PHUKET TWO ECHO : (PHUKET 2E) | Climb on runway heading until 800ft , then continue climbing turn right to intercept KBI R-070 at 2300ft or above to KBI and proceed along KBI R-271 outbound to PHUKET DVOR/DME |

CHANGE: TWR FREQUENCY, GND FREQUENCY ADDED.
ATIS FREQUENCY ADDED. R588 ADDED.
CANCEL W13.

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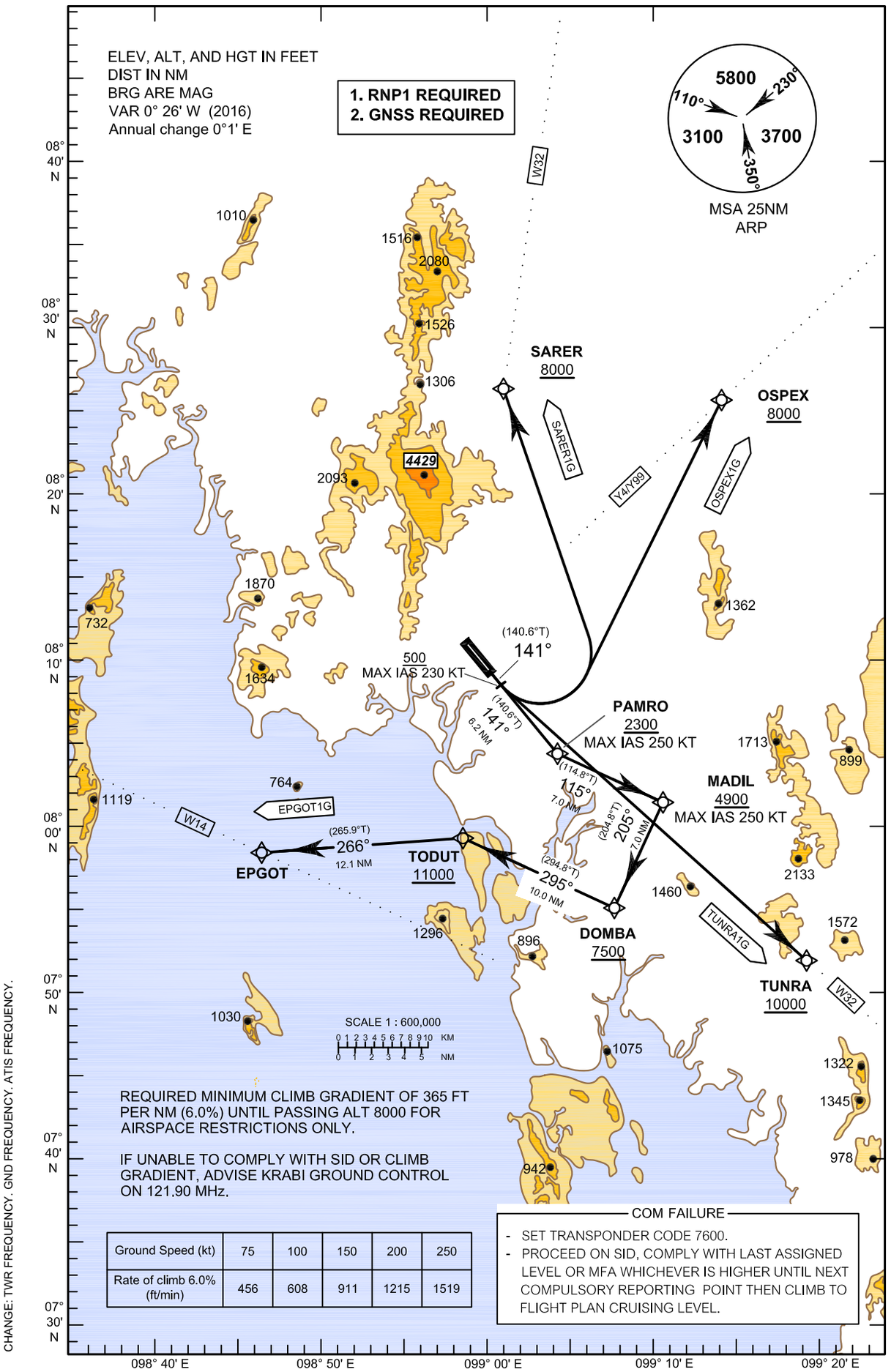
# STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000

APP : 120.05
TWR : 122.5, 236.6
GND : 121.9
ATIS : 132.4

## KRABI/Krabi (VTSG)
## RNAV RWY14

EPGOT1G OSPEX1G
SARER1G TUNRA1G




REQUIRED MINIMUM CLIMB GRADIENT OF 365 FT PER NM (6.0%) UNTIL PASSING ALT 8000 FOR AIRSPACE RESTRICTIONS ONLY.

IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE KRABI GROUND CONTROL ON 121.90 MHz.

| Ground Speed (kt) | 75 | 100 | 150 | 200 | 250 |
|---|---|---|---|---|---|
| Rate of climb 6.0% (ft/min) | 456 | 608 | 911 | 1215 | 1519 |

**COM FAILURE**

- SET TRANSPONDER CODE 7600.
- PROCEED ON SID, COMPLY WITH LAST ASSIGNED LEVEL OR MFA WHICHEVER IS HIGHER UNTIL NEXT COMPULSORY REPORTING POINT THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

CHANGE: TWR FREQUENCY. GND FREQUENCY. ATIS FREQUENCY.

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

## KRABI/Krabi (VTSG)
## RNAV RWY14

EPGOT1G OSPEX1G
SARER1G TUNRA1G

### TABULAR DESCRIPTION

**RNAV RWY14**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | - | DER RWY 14 | - | - | +0.4 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 141°(140.6°) | +0.4 | - | - | +500 | -230 | - | RNP 1 |
| 030 | DF | SARER | - | - | +0.4 | - | L | +8000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY 14 | - | - | +0.4 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 141°(140.6°) | +0.4 | - | - | +500 | -230 | - | RNP 1 |
| 030 | DF | OSPEX | - | - | +0.4 | - | L | +8000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY 14 | - | - | +0.4 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 141°(140.6°) | +0.4 | - | - | +500 | -230 | - | RNP 1 |
| 030 | DF | TUNRA | - | - | +0.4 | - | L | +10000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY 14 | - | - | +0.4 | - | - | - | - | - | RNP 1 |
| 020 | CF | PAMRO | - | 141°(140.6°) | +0.4 | 6.2 | L | +2300 | -250 | | RNP 1 |
| 030 | TF | MADIL | - | 115°(114.8°) | +0.4 | 7.0 | R | +4900 | -250 | | RNP 1 |
| 040 | TF | DOMBA | - | 205°(204.8°) | +0.4 | 7.0 | R | +7500 | - | - | RNP 1 |
| 050 | TF | TODUT | - | 295°(294.8°) | +0.4 | 10.0 | L | +11000 | - | | RNP 1 |
| 060 | TF | EPGOT | - | 266°(265.9°) | +0.4 | 12.1 | - | - | - | - | RNP 1 |
| | | | | | | | | | | | |

### WAYPOINT LIST

**RNAV RWY14**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| DER RWY 14 | 08° 05' 07.74" N | 098° 59' 50.66" E |
| SARER | 08° 21' 26.94" N | 099° 00' 57.22" E |
| OSPEX | 08° 20' 15.13" N | 099° 13' 19.48" E |
| TUNRA | 07° 47' 36.74" N | 099° 19' 04.91" E |
| PAMRO | 08° 00' 18.81" N | 099° 03' 48.61" E |
| MADIL | 07° 57' 22.10" N | 099° 10' 13.03" E |
| DOMBA | 07° 50' 58.91" N | 099° 07' 15.77" E |
| TODUT | 07° 55' 12.34" N | 098° 58' 04.72" E |
| EPGOT | 07° 54' 15.95" N | 098° 45' 54.93" E |
| | | |

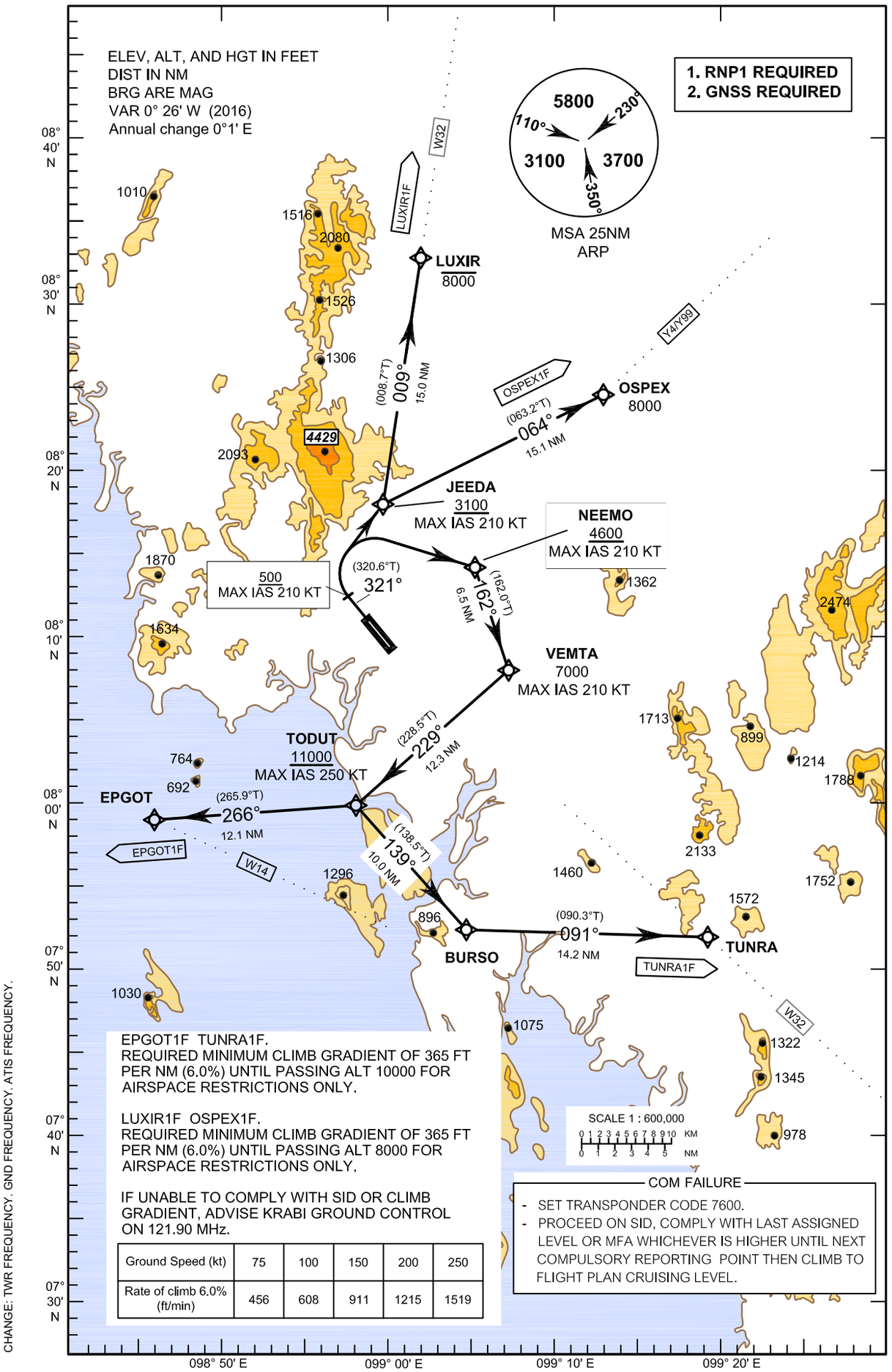
# STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000

APP : 120.05
TWR : 122.5, 236.6
GND : 121.9
ATIS : 132.4

## KRABI/Krabi (VTSG)
## RNAV RWY32

EPGOT1F LUXIR1F
OSPEX1F TUNRA1F




EPGOT1F TUNRA1F.
REQUIRED MINIMUM CLIMB GRADIENT OF 365 FT PER NM (6.0%) UNTIL PASSING ALT 10000 FOR AIRSPACE RESTRICTIONS ONLY.

LUXIR1F OSPEX1F.
REQUIRED MINIMUM CLIMB GRADIENT OF 365 FT PER NM (6.0%) UNTIL PASSING ALT 8000 FOR AIRSPACE RESTRICTIONS ONLY.

IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE KRABI GROUND CONTROL ON 121.90 MHz.

| Ground Speed (kt) | 75 | 100 | 150 | 200 | 250 |
|---|---|---|---|---|---|
| Rate of climb 6.0% (ft/min) | 456 | 608 | 911 | 1215 | 1519 |

**COM FAILURE**

- SET TRANSPONDER CODE 7600.
- PROCEED ON SID, COMPLY WITH LAST ASSIGNED LEVEL OR MFA WHICHEVER IS HIGHER UNTIL NEXT COMPULSORY REPORTING POINT THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

CHANGE: TWR FREQUENCY. GND FREQUENCY. ATIS FREQUENCY.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**KRABI/Krabi (VTSG)**
**RNAV RWY32**

EPGOT1F LUXIR1F
OSPEX1F TUNRA1F

## TABULAR DESCRIPTION

**RNAV RWY32**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | - | DER RWY 32 | - | - | +0.4 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 321°(320.6°) | +0.4 | - | - | +500 | -210 | - | RNP 1 |
| 030 | DF | JEEDA | - | - | +0.4 | - | R | +3100 | -210 | - | RNP 1 |
| 040 | TF | LUXIR | - | 009°(008.7°) | +0.4 | 15.0 | - | -8000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY 32 | - | - | +0.4 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 321°(320.6°) | +0.4 | - | - | +500 | -210 | - | RNP 1 |
| 030 | DF | JEEDA | - | - | +0.4 | - | R | +3100 | -210 | - | RNP 1 |
| 040 | TF | OSPEX | - | 064°(063.2°) | +0.4 | 15.1 | - | 8000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY 32 | - | - | +0.4 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 321°(320.6°) | +0.4 | - | - | +500 | -210 | - | RNP 1 |
| 030 | DF | NEEMO | - | - | +0.4 | - | R | +4600 | -210 | - | RNP 1 |
| 040 | TF | VEMTA | - | 162°(162.0°) | +0.4 | 6.5 | R | 7000 | -210 | | RNP 1 |
| 050 | TF | TODUT | - | 229°(228.5°) | +0.4 | 12.3 | L | +11000 | -250 | - | RNP 1 |
| 060 | TF | BURSO | - | 139°(138.5°) | +0.4 | 10.0 | L | - | - | | RNP 1 |
| 070 | TF | TUNRA | - | 091°(090.3°) | +0.4 | 14.2 | - | - | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY 32 | - | - | +0.4 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 321°(320.6°) | +0.4 | - | - | +500 | -210 | - | RNP 1 |
| 030 | DF | NEEMO | - | - | +0.4 | - | R | +4600 | -210 | - | RNP 1 |
| 040 | TF | VEMTA | - | 162°(162.0°) | +0.4 | 6.5 | R | 7000 | -210 | | RNP 1 |
| 050 | TF | TODUT | - | 229°(228.5°) | +0.4 | 12.3 | R | +11000 | -250 | - | RNP 1 |
| 060 | TF | EPGOT | - | 266°(265.9°) | +0.4 | 12.1 | - | - | - | | RNP 1 |
| | | | | | | | | | | | |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**KRABI/Krabi (VTSG)**
**RNAV RWY32**

EPGOT1F LUXIR1F
OSPEX1F TUNRA1F

**WAYPOINT LIST**

| RNAV RWY32 | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | |
| DER RWY 32 | 08° 06' 23.28" N | 098° 58' 48.43" E |
| JEEDA | 08° 13' 24.32" N | 098° 59' 43.10" E |
| LUXIR | 08° 28' 18.59" N | 099° 02' 00.48" E |
| OSPEX | 08° 20' 15.13" N | 099° 13' 19.48" E |
| NEEMO | 08° 09' 35.42" N | 099° 05' 17.80" E |
| VEMTA | 08° 03' 22.42" N | 099° 07' 19.70" E |
| TODUT | 07° 55' 12.34" N | 098° 58' 04.72" E |
| BURSO | 07° 47' 41.11" N | 099° 04' 45.63" E |
| TUNRA | 07° 47' 36.74" N | 099° 19' 04.91" E |
| EPGOT | 07° 54' 15.95" N | 098° 45' 54.93" E |
| | | |

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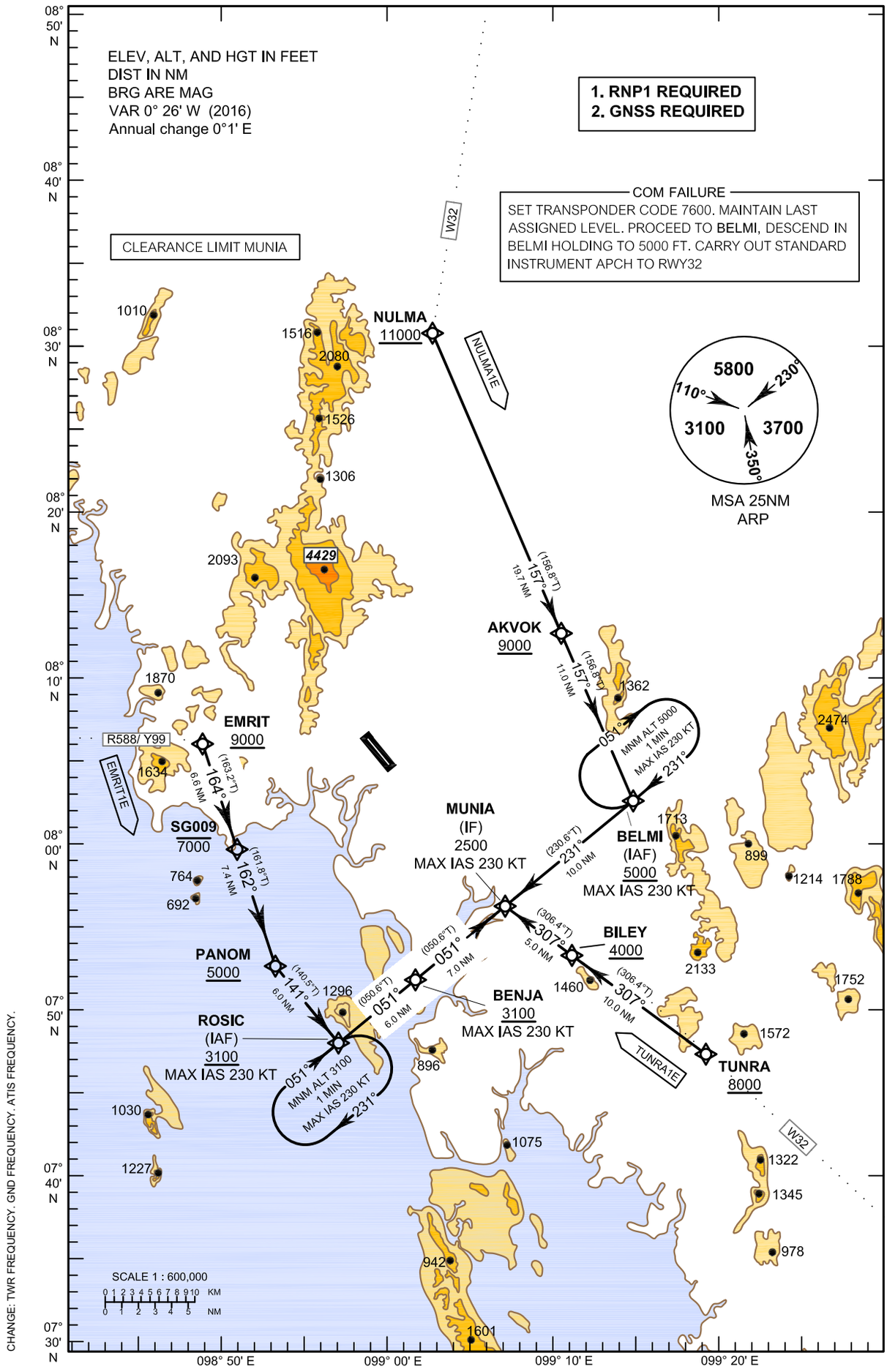
# STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11000

APP : 120.05
TWR : 122.5, 236.6
GND : 121.9
ATIS : 132.4

## KRABI/Krabi (VTSG)
## RNAV RWY32

EMRIT1E NULMA1E TUNRA1E



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**KRABI/Krabi (VTSG)**
**RNAV RWY32**

EMRIT1E NULMA1E TUNRA1E

## TABULAR DESCRIPTION

**RNAV RWY32**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | NULMA | - | - | +0.4 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | AKVOK | - | 157°(156.8°) | +0.4 | 19.7 | - | +9000 | - | - | RNP 1 |
| 030 | TF | BELMI | - | 157°(156.8°) | +0.4 | 11.0 | R | +5000 | -230 | - | RNP 1 |
| 040 | TF | MUNIA | - | 231°(230.6°) | +0.4 | 10.0 | - | 2500 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | EMRIT | - | - | +0.4 | - | - | +9000 | - | - | RNP 1 |
| 020 | TF | SG009 | - | 164°(163.2°) | +0.4 | 6.6 | L | -7000 | - | - | RNP 1 |
| 030 | TF | PANOM | - | 162°(161.8°) | +0.4 | 7.4 | L | +5000 | - | - | RNP 1 |
| 040 | TF | ROSIC | - | 141°(140.5°) | +0.4 | 6.0 | L | +3100 | -230 | - | RNP 1 |
| 050 | TF | BENJA | - | 051°(050.6°) | +0.4 | 6.0 | - | +3100 | -230 | - | RNP 1 |
| 060 | TF | MUNIA | - | 051°(050.6°) | +0.4 | 7.0 | - | 2500 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | TUNRA | - | - | +0.4 | - | - | +8000 | - | - | RNP 1 |
| 020 | TF | BILEY | - | 307°(306.4°) | +0.4 | 10.0 | - | +4000 | - | - | RNP 1 |
| 030 | TF | MUNIA | - | 307°(306.4°) | +0.4 | 5.0 | - | 2500 | -230 | | RNP 1 |
| | | | | | | | | | | | |

## WAYPOINT LIST

**RNAV RWY32**

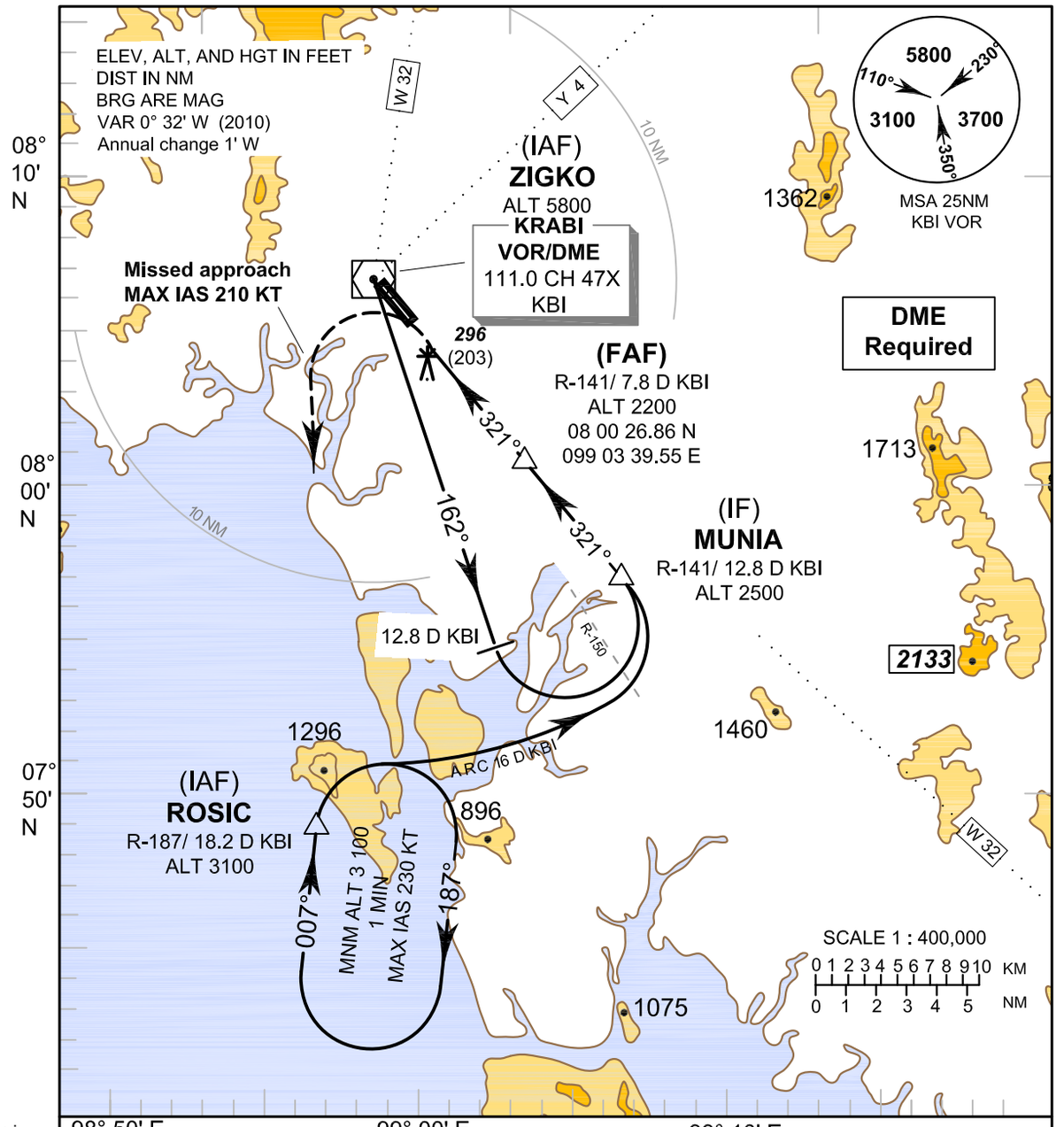
| Waypoint Identifier | Coordinates | |
|---|---|---|
| NULMA | 08° 31' 17.69" N | 099° 02' 28.03" E |
| AKVOK | 08° 13' 06.88" N | 099° 10' 18.04" E |
| BELMI | 08° 02' 57.62" N | 099° 14' 40.22" E |
| TUNRA | 07° 47' 36.74" N | 099° 19' 04.91" E |
| BILEY | 07° 53' 36.00" N | 099° 10' 56.31" E |
| EMRIT | 08° 06' 21.05" N | 098° 48' 40.42" E |
| SG009 | 08° 00' 01.05" N | 098° 50' 35.24" E |
| PANOM | 07° 52' 57.18" N | 098° 52' 54.76" E |
| ROSIC | 07° 48' 17.81" N | 098° 56' 45.33" E |
| BENJA | 07° 52' 07.39" N | 099° 01' 25.62" E |
| MUNIA | 07° 56' 35.16" N | 099° 06' 52.74" E |

**INSTRUMENT APPROACH CHART-ICAO**

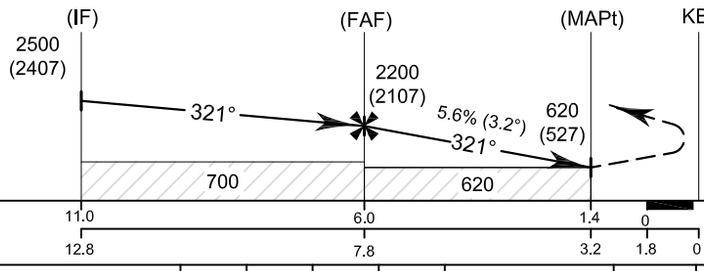
**AERODROME ELEV 93 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 120.05
TWR : 122.5, 236.6
GND : 121.9
ATIS : 132.4

**KRABI/Krabi (VTSG)**
**VOR RWY 32**




**TA 11 000**




**Missed Approach :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 210 KT until after turn.**
At MAPt, turn left climb to intercept outbound R-187 KBI VOR then proceed to **ROSIC** at 3100 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | Distance(KBI) | FAF | 7 D | 6 D | 5 D | 4 D | 3.2 D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| straight-in approach | 620 (527) | | | | Altitude (Height) | 2200 (2107) | 1910 (1817) | 1570 (1477) | 1230 (1137) | 890 (797) | 620 (527) |
| | | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling | Not Authorized | | | | Rate of descent (5.6%) | (ft/min) | 397 | 510 | 567 | 681 | 794 | 907 |

CHANGE: TWR FREQUENCY. GND FREQUENCY. ATIS FREQUENCY.

**KRABI/Krabi (VTSG)**
**VOR RWY 32**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| ZIGKO (IAF) | KBI | 08 06 27.19 N | 098 58 39.07 E |
| ROSIC (IAF) | R - 187 / 18.2 D KBI | 07 48 17.81 N | 098 56 45.33 E |
| MUNIA (IF) | R - 141 / 12.8 D KBI | 07 56 35.16 N | 099 06 52.74 E |
| FAF | R - 141 / 7.8 D KBI | 08 00 26.86 N | 099 03 39.55 E |
| MAPt | R - 141 / 3.2 D KBI | 08 04 00.17 N | 099 00 41.60 E |
| VOR | KBI | 08 06 26.99 N | 098 58 39.02 E |

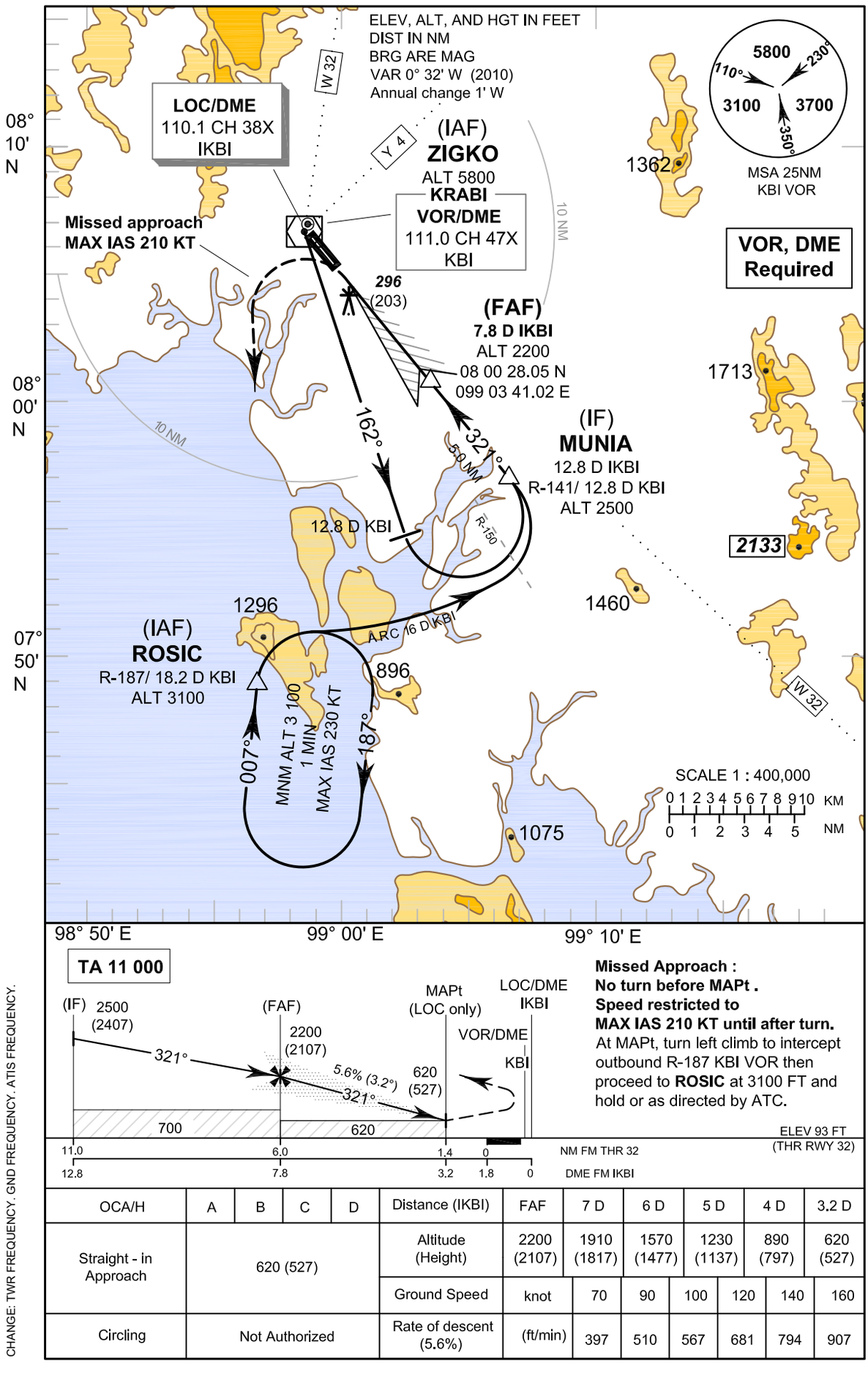
CHANGE : VOR COORDINATE.

**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 93 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 120.05
TWR : 122.5, 236.6
GND : 121.9
ATIS : 132.4

**KRABI/Krabı (VTSG)**
**LOC RWY 32**







**Missed Approach :**
**No turn before MAPt .**
**Speed restricted to**
**MAX IAS 210 KT until after turn.**
At MAPt, turn left climb to intercept outbound R-187 KBI VOR then proceed to **ROSIC** at 3100 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | Distance (IKBI) | FAF | 7 D | 6 D | 5 D | 4 D | 3.2 D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 620 (527) | | | | Altitude (Height) | 2200 (2107) | 1910 (1817) | 1570 (1477) | 1230 (1137) | 890 (797) | 620 (527) |
| | | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling | Not Authorized | | | | Rate of descent (5.6%) | (ft/min) | 397 | 510 | 567 | 681 | 794 | 907 |

CHANGE: TWR FREQUENCY. GND FREQUENCY. ATIS FREQUENCY.

**KRABI/Krabi (VTSG)**
**LOC RWY 32**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| ZIGKO (IAF) | KBI | 08 06 27.19 N | 098 58 39.07 E |
| ROSIC (IAF) | R - 187 / 18.2 D KBI | 07 48 17.81 N | 098 56 45.33 E |
| MUNIA (IF) | 12.8 D IKBI | 07 56 35.16 N | 099 06 52.74 E |
| FAF | 7.8 D IKBI | 08 00 28.05 N | 099 03 41.02 E |
| MAPt | 3.2 D IKBI | 08 04 02.48 N | 099 00 44.43 E |
| LOC / DME | IKBI | 08 06 30.59 N | 098 58 42.39 E |
| VOR | KBI | 08 06 26.99 N | 098 58 39.02 E |

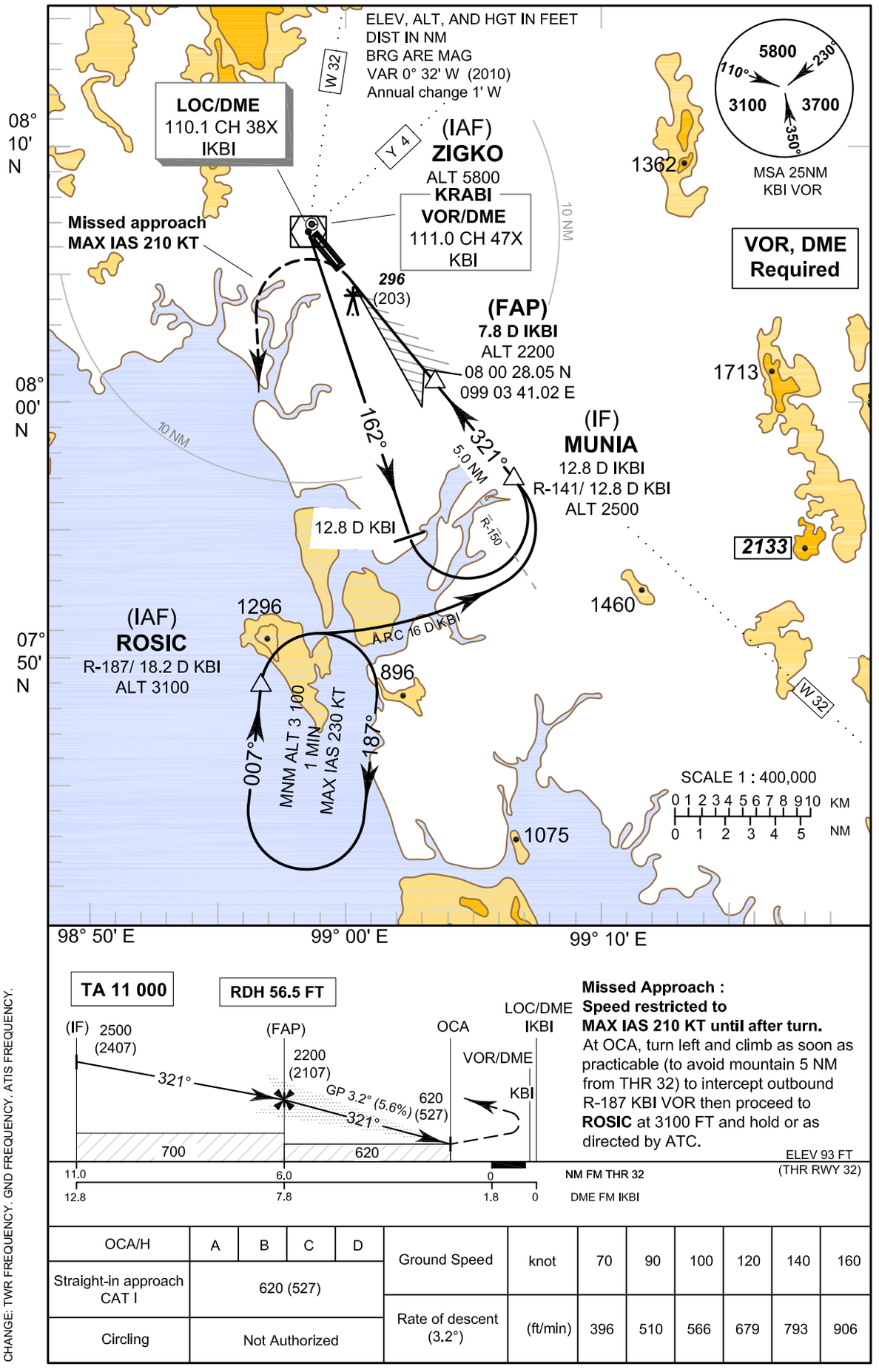
CHANGE: VOR, LOC/DME COORDINATE.

**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 93 FT**
HEIGHTS RELATED TO
AERODROME ELEV

| | |
|---|---|
| APP | : 120.05 |
| TWR | : 122.5, 236.6 |
| GND | : 121.9 |
| ATIS | : 132.4 |

**KRABI/Krabi (VTSG)**
**ILS RWY 32**







**Missed Approach :**
**Speed restricted to**
**MAX IAS 210 KT until after turn.**
At OCA, turn left and climb as soon as practicable (to avoid mountain 5 NM from THR 32) to intercept outbound R-187 KBI VOR then proceed to **ROSIC** at 3100 FT and hold or as directed by ATC.

ELEV 93 FT
(THR RWY 32)

| OCA/H | A | B | C | D | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight-in approach CAT I | 620 (527) | | | | Rate of descent (3.2°) | (ft/min) | 396 | 510 | 566 | 679 | 793 | 906 |
| Circling | Not Authorized | | | | | | | | | | | |

CHANGE: TWR FREQUENCY. GND FREQUENCY. ATIS FREQUENCY.

**KRABI/Krabi (VTSG)**
**ILS RWY 32**

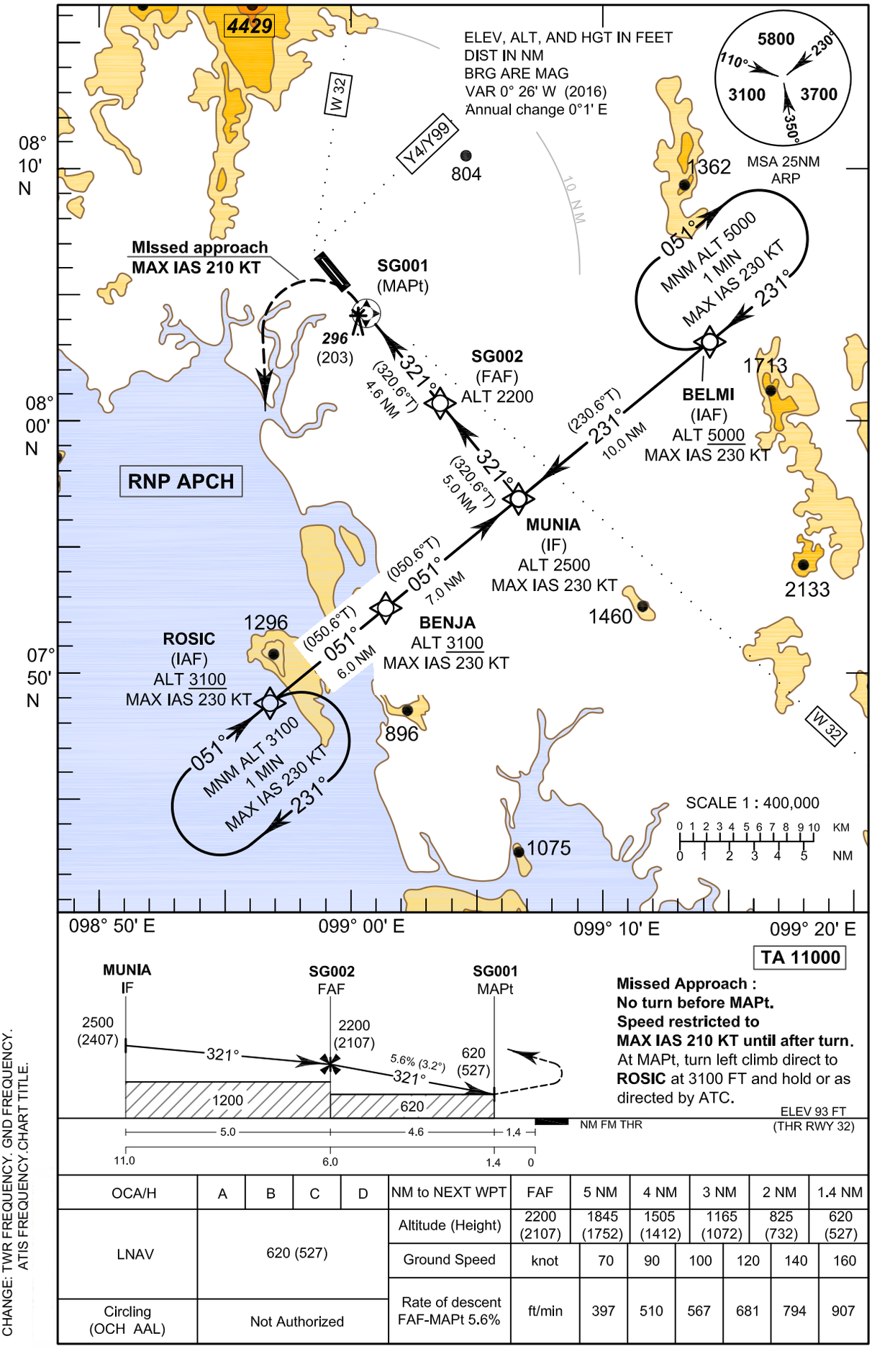
| Fix / Point | | Coordinates | |
|---|---|---|---|
| ZIGKO (IAF) | KBI | 08 06 27.19 N | 098 58 39.07 E |
| ROSIC (IAF) | R - 187 / 18.2 D KBI | 07 48 17.81 N | 098 56 45.33 E |
| MUNIA (IF) | 12.8 D IKBI | 07 56 35.16 N | 099 06 52.74 E |
| FAF | 7.8 D IKBI | 08 00 28.05 N | 099 03 41.02 E |
| LOC / DME | IKBI | 08 06 30.59 N | 098 58 42.39 E |
| VOR | KBI | 08 06 26.99 N | 098 58 39.02 E |

CHANGE: VOR, LOC/DME COORDINATE..

**INSTRUMENT APPROACH CHART-ICAO** — **AERODROME ELEV 93 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 120.05
TWR : 122.5, 236.6
GND : 121.9
ATIS : 132.4

**KRABI/Krabi (VTSG)**
**RNP RWY32**







**TA 11000**

**Missed Approach :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 210 KT until after turn.**
At MAPt, turn left climb direct to **ROSIC** at 3100 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 5 NM | 4 NM | 3 NM | 2 NM | 1.4 NM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV | 620 (527) | | | | Altitude (Height) | 2200 (2107) | 1845 (1752) | 1505 (1412) | 1165 (1072) | 825 (732) | 620 (527) |
| | | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | Not Authorized | | | | Rate of descent FAF-MAPt 5.6% | ft/min | 397 | 510 | 567 | 681 | 794 | 907 |

CHANGE: TWR FREQUENCY. GND FREQUENCY.
ATIS FREQUENCY.CHART TITLE.

**INSTRUMENT AERODROME ELEV 93 FT**
**APPROACH** HEIGHTS RELATED TO
**CHART-ICAO** AERODROME ELEV

**KRABI/Krabi (VTSG)**
**RNP RWY32**

## TABULAR DESCRIPTION

**RNP RWY32**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | BELMI (IAF) | - | - | +0.4 | - | - | +5000 | -230 | - | RNP APCH |
| 020 | TF | MUNIA (IF) | - | 231°(230.6°) | +0.4 | 10.0 | - | 2500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ROSIC (IAF) | - | - | +0.4 | - | - | +3100 | -230 | - | RNP APCH |
| 020 | TF | BENJA | - | 051°(050.6°) | +0.4 | 6.0 | - | +3100 | -230 | - | RNP APCH |
| 030 | TF | MUNIA (IF) | - | 051°(050.6°) | +0.4 | 7.0 | - | 2500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MUNIA (IF) | - | - | +0.4 | - | - | 2500 | -230 | - | RNP APCH |
| 020 | TF | SG002 (FAF) | - | 321°(320.6°) | +0.4 | 5.0 | - | @2200 | - | - | RNP APCH |
| 030 | TF | SG001 (MAPt) | Y | 321°(320.6°) | +0.4 | 4.6 | L | @620 | - | -3.2 / 50 | RNP APCH |
| 040 | DF | ROSIC (IAF) | - | - | +0.4 | - | L | +3100 | -210 | - | RNP APCH |
| 050 | HM | ROSIC (IAF) | Y | 051°(050.6°) | +0.4 | 1 minute | R | +3100 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY32**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| BELMI | 08° 02' 57.62" N | 099° 14' 40.22" E |
| ROSIC | 07° 48' 17.81" N | 098° 56' 45.33" E |
| BENJA | 07° 52' 07.39" N | 099° 01' 25.62" E |
| MUNIA | 07° 56' 35.16" N | 099° 06' 52.74" E |
| SG002 | 08° 00' 28.17" N | 099° 03' 40.92" E |
| SG001 | 08° 04' 02.51" N | 099° 00' 44.40" E |
| | | |

CHANGE : CHART TITLE.

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## VTCL AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTCL - LAMPANG / LAMPANG AIRPORT

## VTCL AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 181615N 0993015E |
| 2 | Direction and distance from (city) | 2 km., S from city |
| 3 | Elevation/Reference temperature | 815 ft/37°C |
| 4 | Geoid Undulation at AD ELEV PSN | -126 ft |
| 5 | MAG VAR/Annual change | 1°W(2022) / 0.04°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Lampang Airport<br>Lampang Airport<br>175 Thanon Sanambin 1, Tambon Phrabaht<br>Amphoe Muang<br>Lampang Province 52000<br>Thailand<br>Tel: +665 482 1505<br>Fax: +665 482 1509<br>AFS: VTCLYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTCL AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0030-1230 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 0030-1230 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 0030-1230 |
| 8 | Fuelling | 0100-1000<br>Lampang Petroleum Terminal<br>59 Highway Lampang-Ngaow Rd.,<br>Chompoo, Muang, Lampang, 52100<br>Tel: +665 422 6111<br>+668 9850 8974<br>+668 9850 8977 |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Chiang Mai Air Traffic Control Centre (1st floor of tower building)<br>Tel: +669 1818 5798<br>Fax: +665 327 7897 |

## VTCL AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1 |
| 3 | Fuelling facilities/capacity | 2 JET A-1 Refueller @ 12,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTCL AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | Near the AD and in the city |
| 2 | Restaurants | Near the AD and in the city |
| 3 | Transportation | Car rental at AD |
| 4 | Medical facilities | Hospital in the city |
| 5 | Bank and Post Office | Bank: In the city<br>Post Office: In the city |
| 6 | Tourist Office | In the city |
| 7 | Remarks | NIL |

## VTCL AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTCL AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTCL AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 48/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Asphaltic concrete<br>Strength PCN 45/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 794 FT (242.08 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTCL AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID sign: Marked<br>TWY guide lines: Yes<br>Nose-wheel guide lines at apron<br>VDGS of aircraft stands: NIL, aircraft parking shall follow marshaller strictly. |
| 2 | RWY and TWY markings and LGT | RWY markings: RWY Designation, THR, TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY markings: CL, Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTCL AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| APCH RWY 18 / TKOF RWY 36 | Telecommunication mast<br>882 FT (269 M)<br>Painted red/white<br>LGTD | 181719.7N<br>0993003.6E | AWOS 1<br>838 FT (256 M)<br>Painted red/white<br>LGTD | 181557.5N<br>0993019.4E | NIL |
| | Building<br>843 FT (257 M)<br>NIL / NIL | 181701.7N<br>0993008.0E | AWOS 2<br>841 FT (256 M)<br>Painted red/white<br>LGTD | 181557.4N<br>0993019.3E | |
| | LLZ<br>800 FT (244 M)<br>Painted red/white<br>LGTD | 181651.7N<br>0993012.5E | Tree<br>851 FT (259 M)<br>NIL / NIL | 181628.2N<br>0993017.8E | |
| | Building<br>817 FT (249 M)<br>NIL / NIL | 181652.7N<br>0993014.7E | Tree<br>863 FT (263 M)<br>NIL / NIL | 181616.8N<br>0993019.2E | |
| APCH RWY 36 / TKOF RWY 18 | High voltage pole<br>1064 FT (324 M)<br>NIL / NIL | 181301.1N<br>0993020.2E | Telecommunication mast<br>985 FT (300 M)<br>Painted red/white<br>LGTD | 181701.1N<br>0992924.3E | |
| | | | Telecommunication mast<br>976 FT (298 M)<br>Painted red/white<br>LGTD | 181816.7N<br>0993105.1E | |
| | | | Telecommunication mast<br>971 FT (296 M)<br>Painted red/white<br>LGTD | 181432.3N<br>0992918.4E | |
| | | | Telecommunication mast<br>1029 FT (314 M)<br>Painted red/white<br>LGTD | 181412.3N<br>0992929.9E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Radio mast<br>1062 FT (324 M)<br>Painted red/white<br>LGTD | 181822.1N<br>0992821.4E | |
| | | | Radio mast<br>983 FT (300 M)<br>Painted red/white<br>LGTD | 181506.9N<br>0993050.3E | |
| | | | Radio mast<br>1187 FT (362 M)<br>Painted red/white<br>LGTD | 181530.6N<br>0993239.6E | |
| | | | Radio mast<br>1172 FT (357 M)<br>Painted red/white<br>LGTD | 181529.0N<br>0993242.5E | |
| | | | Radio mast<br>1002 FT (306 M)<br>Painted red/white<br>LGTD | 181752.9N<br>0993108.1E | |
| | | | Apron flood light pole<br>881 FT (269 M)<br>NIL / LGTD | 181641.2N<br>0993019.4E | |
| | | | Apron flood light pole<br>883 FT (269 M)<br>NIL / LGTD | 181639.5N<br>0993019.6E | |
| | | | Apron flood light pole<br>884 FT (269 M)<br>NIL / LGTD | 181637.9N<br>0993019.7E | |
| | | | Apron flood light pole<br>884 FT (269 M)<br>NIL / LGTD | 181636.3N<br>0993019.8E | |
| | | | Apron flood light pole<br>883 FT (269 M)<br>NIL / LGTD | 181634.7N<br>0993020.0E | |
| | | | High voltage pole<br>1035 FT (315 M)<br>NIL / NIL | 181329.5N<br>0992923.9E | |
| | | | High voltage pole<br>1053 FT (321 M)<br>Painted red/white<br>LGTD | 181323.1N<br>0992943.8E | |
| | | | High voltage pole<br>1119 FT (341 M)<br>Painted red/white<br>NIL | 181322.0N<br>0993117.0E | |
| | | | High voltage pole<br>1096 FT (334 M)<br>Painted red/white<br>NIL | 181338.9N<br>0993131.8E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | High voltage pole<br>1138 FT (347 M)<br>NIL / NIL | 181349.1N<br>0993155.0E | |
| | | | High voltage pole<br>1207 FT (368 M)<br>NIL / NIL | 181405.4N<br>0993209.1E | |
| | | | High voltage pole<br>1251 FT (381 M)<br>NIL / NIL | 181423.0N<br>0993224.3E | |
| | | | High voltage pole<br>1267 FT (386 M)<br>NIL / NIL | 181437.7N<br>0993237.1E | |
| | | | High voltage pole<br>1291 FT (393 M)<br>NIL / NIL | 181454.9N<br>0993252.0E | |
| | | | High voltage pole<br>1328 FT (405 M)<br>NIL / NIL | 181513.9N<br>0993308.4E | |
| | | | Telecommunication mast<br>1862 FT (568 M)<br>NIL / LGTD | 181500.9N<br>0993335.4E | |
| | | | Building<br>938 FT (286 M)<br>NIL / NIL | 181710.1N<br>0993022.6E | |
| | | | Building<br>989 FT (301 M)<br>NIL / NIL | 181356.3N<br>0992908.8E | |
| | | | Building<br>1114 FT (339 M)<br>NIL / NIL | 181526.6N<br>0993246.8E | |
| | | | Building<br>1098 FT (335 M)<br>NIL / NIL | 181526.9N<br>0993241.3E | |

## VTCL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Lampang,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2300-1300<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 482 1517<br>Fax: +665 431 5788 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Lampang TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTCL AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 175.44° | 1975x45 | PCN 45/F/C/X/T Asphaltic concrete | 181641.85N 0993012.82E -126 ft | THR 792 ft |
| 36 | 355.44° | 1975x45 | PCN 45/F/C/X/T Asphaltic concrete | 181547.65N 0993017.35E -126 ft | THR 814 ft |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location & description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| NIL | NIL | NIL | 2095x106 | NIL | NIL | NIL | THR displaced by 200 M southwards |
| NIL | NIL | NIL | 2095x106 | NIL | NIL | NIL | THR displaced by 100 M northwards |

## VTCL AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 1975 | 1975 | 1975 | 1775 | THR displaced by 200 M southwards |
| 36 | 1975 | 1975 | 1975 | 1875 | THR displaced by 100 M northwards |

## VTCL AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18 | NIL | Green NIL | PAPI Right 3° (45.02 ft) | NIL | NIL | 1975 m 60 m FM 0 m - 200 m Red, FM 200 m - 1375 m White FM 1375 m - 1975 m Yellow, LIH | Red NIL | NIL | RTIL |
| 36 | NIL | Green NIL | PAPI Left 3° (44.91 ft) | NIL | NIL | 1975 m 60 m FM 0 m - 100 m Red, FM 100 m - 1375 m White FM 1375 m - 1975 m Yellow, LIH | Red NIL | NIL | RTIL |

## VTCL AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower building, FLG W G EV 3 SEC.<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI: 1. Wind cone at 120 M from RWY End 36 off set to left side 80 M from RCL, illuminated<br>2. Wind cone at 348 M from THR 36 off set to left side 80 M from RCL, illuminated. |
| 3 | TWY edge and centre line lighting | TWY Edge: All TWY<br>TWY Centre Line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the Air Field Lighting (AFL) building.<br>Switch-over time: 15 SEC |
| 5 | Remarks | NIL |

## VTCL AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTCL AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on LPN DVOR/DME (181635.87N 0993008.40E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Lampang Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTCL AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Lampang Approach | 119.3 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Lampang Tower | 122.3 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Lampang Airport | 128.65 MHz | As AD OPR HR | |

## VTCL AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give VAR) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | LP | 395 KHZ | H24 | 181640.88N 0993026.88E | | Coverage 25 NM clockwise orbit data refer from commissioning checked as follows:<br>– Bearing 001°-360° at altitude 5 500 FT |
| DVOR/DME | LPN | 114.7 MHZ CH94X | H24 | 181635.9N 0993008.4E | | DVOR/DME restriction due to Terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at required altitudes in various areas as follows:<br>– Radial 351°-070° beyond 40 NM should not below 6 000 FT<br>– Radial 071°-130° beyond 30 NM should not below 6 000 FT<br>– Radial 131°-320° beyond 40 NM should not below 6 000 FT<br>– Radial 321°-350° beyond 30 NM should not below 6 000 FT |
| LOC RWY 36 | I-LPN | 109.7 MHZ | H24 | 181651.63N 0993011.99E | 782.58 FT | LOC: Designated operation coverage 18 NM, ALT 7000 FT AMSL |
| DME | | CH34X (109.7 MHZ) | H24 | 181651.86N 0993014.43E | | DME: Paired with LOC Freq.<br>GP: Not installation |

## VTCL AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTCL AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTCL AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure:
- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

### 3. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:
- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,

- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- **Runway 18:**

LAMPANG OMNI 18 Departure: Required climb gradient 365 ft per NM (6.0%) until 6,000 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 911 | 1215 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 2,500 ft (or altitude assigned by ATC between 2,500 ft – 4,500 ft), then comply with ATC clearance issued (or as directed by ATC).

- **Runway 36:**

LAMPANG OMNI 36 Departure: Required climb gradient 383 ft per NM (6.3%) until 6,000 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.3% | (ft/min) | 415 | 479 | 638 | 957 | 1276 | 1595 | 1914 |

No turn before DER.
After departure climb straight ahead until 2,500 ft (or altitude assigned by ATC between 2,500 ft – 4,500 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTCL AD 2.23 ADDITIONAL INFORMATION

### 1. BIRD CONCENTRATIONS

- Bird concentrations in the vicinity of an aerodrome.

Type of birds: Red-wattled, Starling, Coucals, Bat, Dove, Tailorbird, Heron and Martin.

Bird weight: From 0.06 - 0.375 KG.

Max. flock size: 15 birds.

## VTCL AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTCL-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTCL-2-3 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTCL-2-5 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 18/36 | AD 2-VTCL-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - IGNAX1D KABMU1D OMDIL1D OTBAD1D PANTA1D VENAG1D | AD 2-VTCL-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - IGNAX1D KABMU1D OMDIL1D OTBAD1D PANTA1D VENAG1D (Tabular description) | AD 2-VTCL-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - IGNAX1D KABMU1D OMDIL1D OTBAD1D PANTA1D VENAG1D (Waypoint list table) | AD 2-VTCL-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - IGNAX1C KABMU1C OMDIL1C OTBAD1C VENAG1C | AD 2-VTCL-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - IGNAX1C KABMU1C OMDIL1C OTBAD1C VENAG1C (Tabular description) | AD 2-VTCL-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - IGNAX1C KABMU1C OMDIL1C OTBAD1C VENAG1C (Waypoint list table) | AD 2-VTCL-6-7 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - IBIRI1B MEMAN1B OMDIL1B OTBAD1B VENAG1B | AD 2-VTCL-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - IBIRI1B MEMAN1B OMDIL1B OTBAD1B VENAG1B (Tabular description) | AD 2-VTCL-7-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 18 - IBIRI1B MEMAN1B OMDIL1B OTBAD1B VENAG1B (Waypoint list table) | AD 2-VTCL-7-3 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - IBIRI1A IGNAX1A OMDIL1A VENAG1A | AD 2-VTCL-7-5 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 36 - IBIRI1A IGNAX1A OMDIL1A VENAG1A (Tabular description) | AD 2-VTCL-7-6 |
| Standard Arrival Chart - Instrument (STAR) - ICAO RNAV RWY 36 - IBIRI1A IGNAX1A OMDIL1A VENAG1A (Waypoint list table) | AD 2-VTCL-7-7 |
| Instrument Approach Chart - ICAO - VOR RWY 18 | AD 2-VTCL-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 18 (Fix and point list table) | AD 2-VTCL-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 36 | AD 2-VTCL-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 36 (Fix and point list table) | AD 2-VTCL-8-4 |
| Instrument Approach Chart - ICAO - LOC y RWY 36 | AD 2-VTCL-8-5 |
| Instrument Approach Chart - ICAO - LOC y RWY 36 (Fix and point list table) | AD 2-VTCL-8-6 |
| Instrument Approach Chart - ICAO - LOC z RWY 36 | AD 2-VTCL-8-7 |
| Instrument Approach Chart - ICAO - LOC z RWY 36 (Tabular description) | AD 2-VTCL-8-8 |
| Instrument Approach Chart - ICAO - LOC z RWY 36 (Fix and point list table) | AD 2-VTCL-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 18 | AD 2-VTCL-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 18 (Tabular description) | AD 2-VTCL-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 18 (Waypoint list table) | AD 2-VTCL-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 36 | AD 2-VTCL-8-15 |
| Instrument Approach Chart - ICAO - RNP RWY 36 (Tabular description) | AD 2-VTCL-8-16 |
| Instrument Approach Chart - ICAO - RNP RWY 36 (Waypoint list table) | AD 2-VTCL-8-17 |

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## AERODROME CHART - ICAO

18 16 15N
099 30 15E

ELEV 815 FT

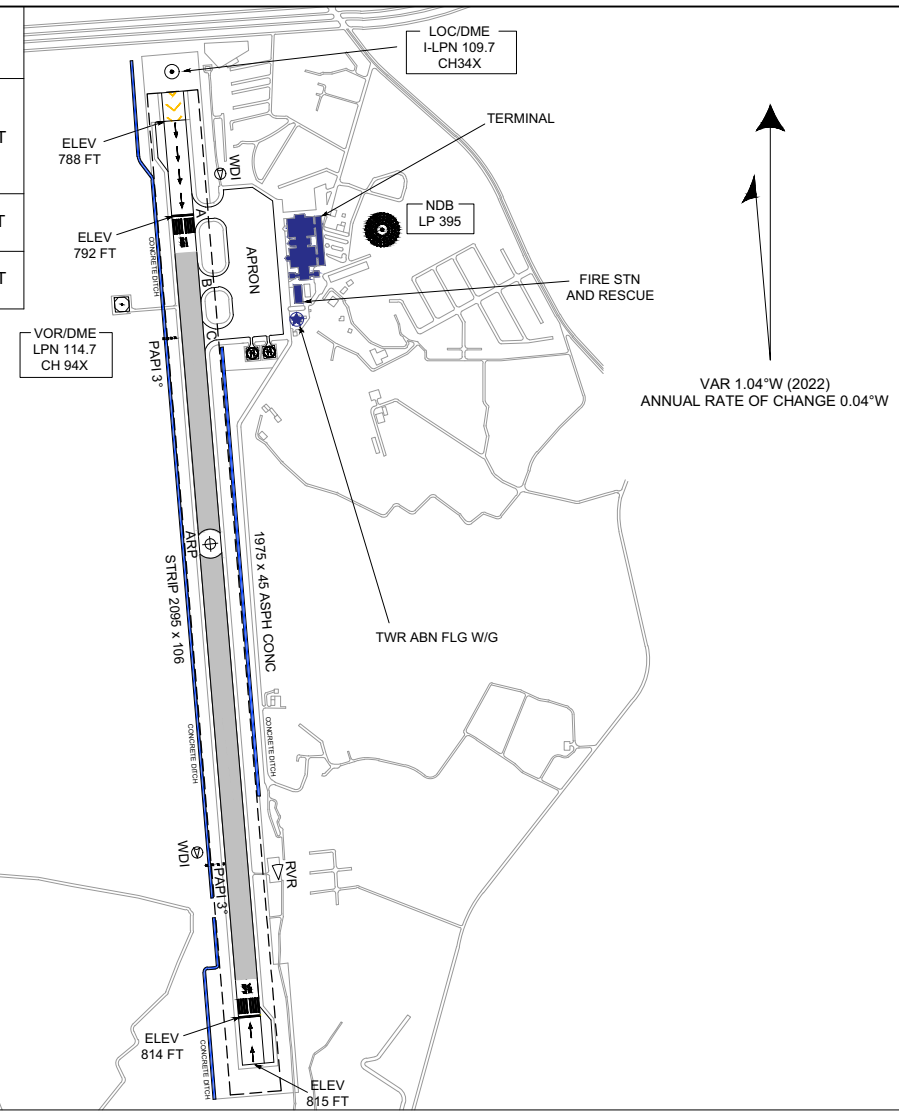
TWR 122.3
236.6

## LAMPANG / Lampang

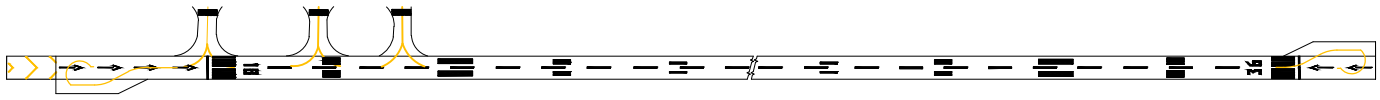
| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 18 | 175° | 18 16 42N 099 30 13E | PCN 45/F/C/X/T |
| 36 | 355° | 18 15 48N 099 30 17E | |
| TWY A, B AND C | | | PCN 45/F/C/X/T |
| APRON | | | PCN 48/R/C/X/T |

ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

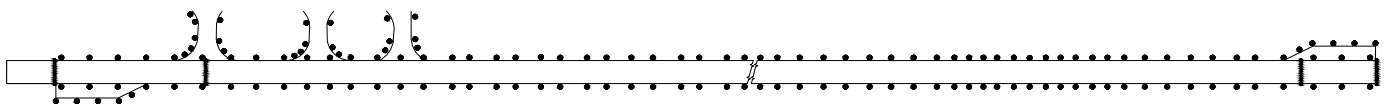
REMARKS:
· TAXIWAY WIDTH 23 m.




MARKING AIDS RWY 18/36 AND EXIT TWY



LIGHTING AIDS RWY 18/36 AND EXIT TWY




CHANGE: REVISED CHART. MAG VAR. ANNUAL RATE OF CHANGE. ARP COOR. THR COOR (TABULAR). TRUE BRG RWY 18/36. AD AND THR ELEV. PAPI RWY 18.

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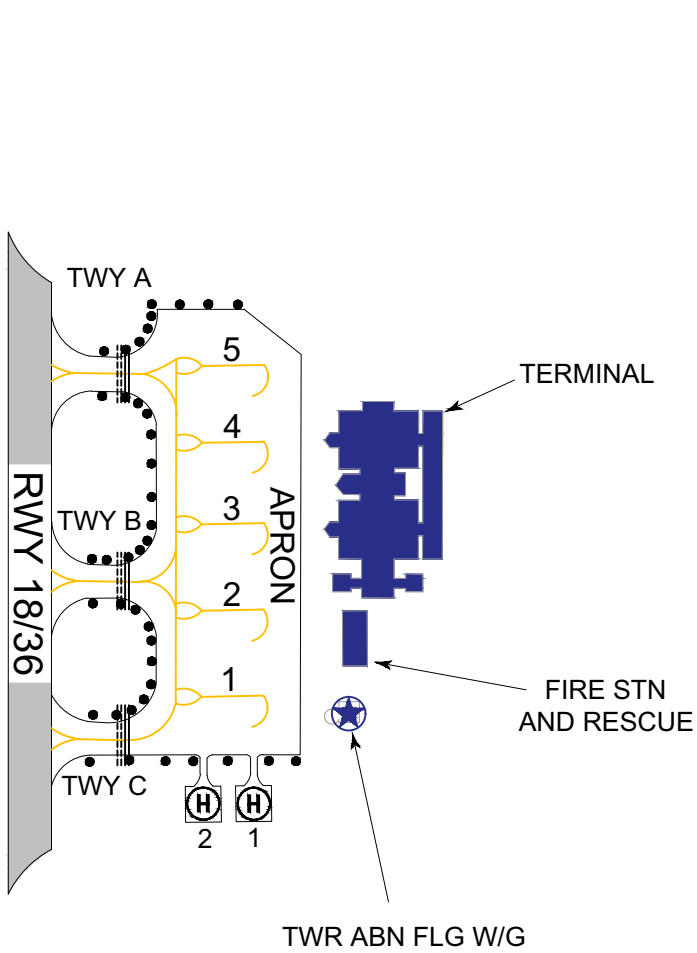
## AIRCRAFT PARKING/ DOCKING CHART - ICAO

**APRON ELEV 794 FT**

TWR 122.3
236.6

## LAMPANG / Lampang

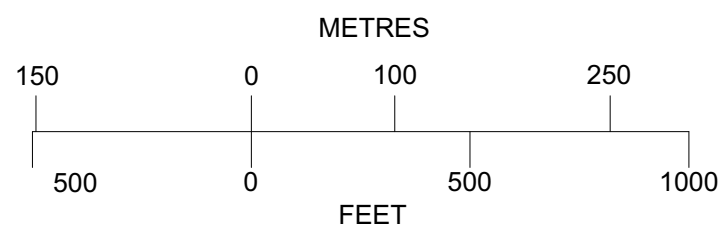
ELEVATIONS IN FEET




REMARKS:

- HOT SPOTS ARE SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY WIDTH 23 m.
- APRON PCN 48/R/C/X/T
- TWY A, B AND C PCN 45/F/C/X/T

| LEGEND | |
|---|---|
| RUNWAY - HOLDING POSITION<br>NON-PRECISION APCH RWY | |




| INS COORDINATES FOR AIRCRAFT STANDS | | |
|---|---|---|
| STAND NR | COORDINATES | |
| 1 | 18 16 34.13N | 099 30 18.58E |
| 2 | 18 16 36.07N | 099 30 18.41E |
| 3 | 18 16 38.02N | 099 30 18.25E |
| 4 | 18 16 39.96N | 099 30 18.08E |
| 5 | 18 16 41.84N | 099 30 18.04E |
| TLOF 1 | 18 16 32.61N | 099 30 18.91E |
| TLOF 2 | 18 16 32.52N | 099 30 17.72E |

CHANGE: NEW CHART.

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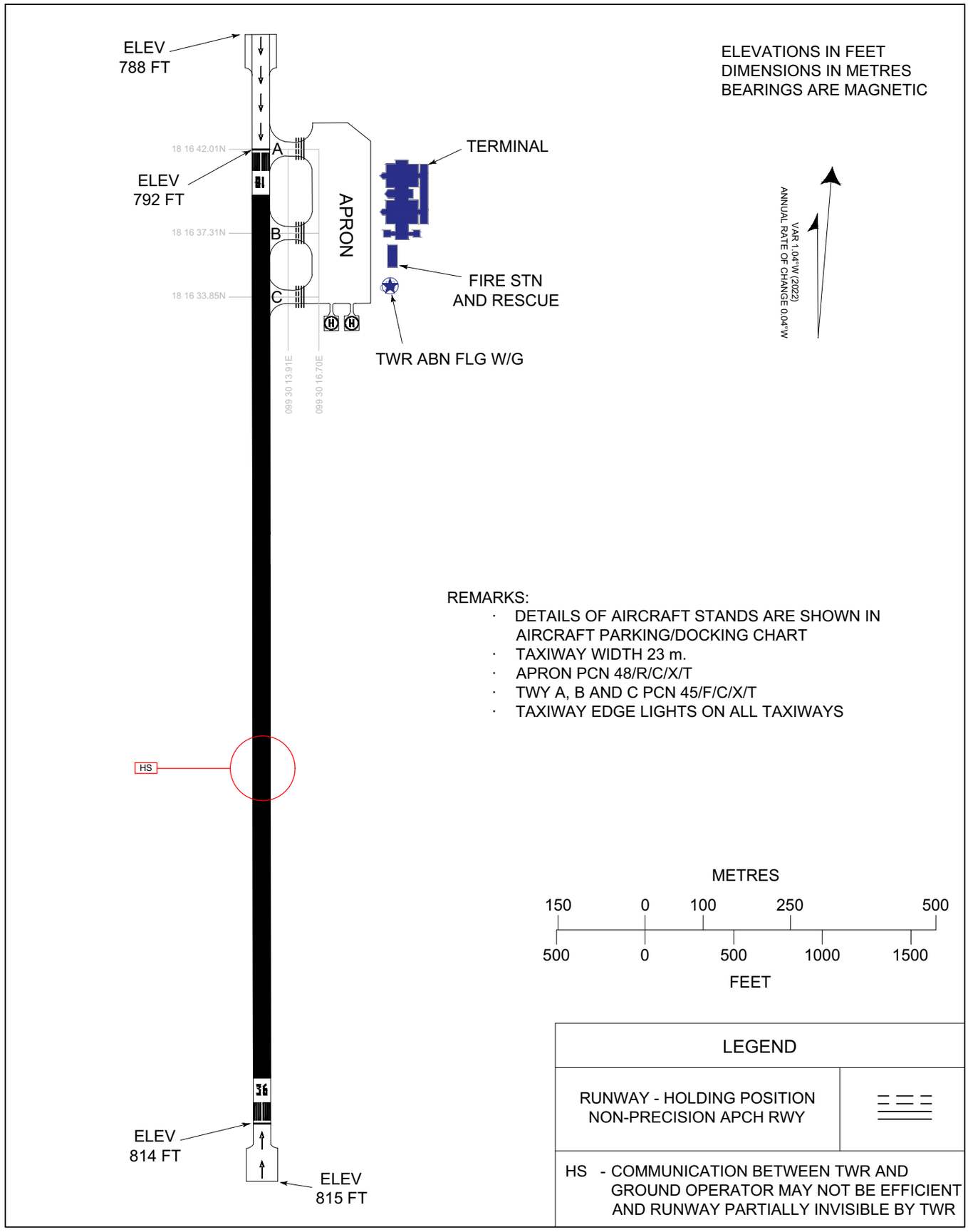
## AERODROME GROUND MOVEMENT CHART - ICAO

**APRON ELEV 794 FT**

TWR 122.3
236.6

## LAMPANG / Lampang




REMARKS:

- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- TAXIWAY WIDTH 23 m.
- APRON PCN 48/R/C/X/T
- TWY A, B AND C PCN 45/F/C/X/T
- TAXIWAY EDGE LIGHTS ON ALL TAXIWAYS

METRES
150 0 100 250 500
500 0 500 1000 1500
FEET

| LEGEND | |
|---|---|
| RUNWAY - HOLDING POSITION<br>NON-PRECISION APCH RWY | |
| HS - COMMUNICATION BETWEEN TWR AND GROUND OPERATOR MAY NOT BE EFFICIENT AND RUNWAY PARTIALLY INVISIBLE BY TWR | |

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# AERODROME OBSTACLE CHART - ICAO

**DIMENSIONS AND ELEVATIONS IN METRES**

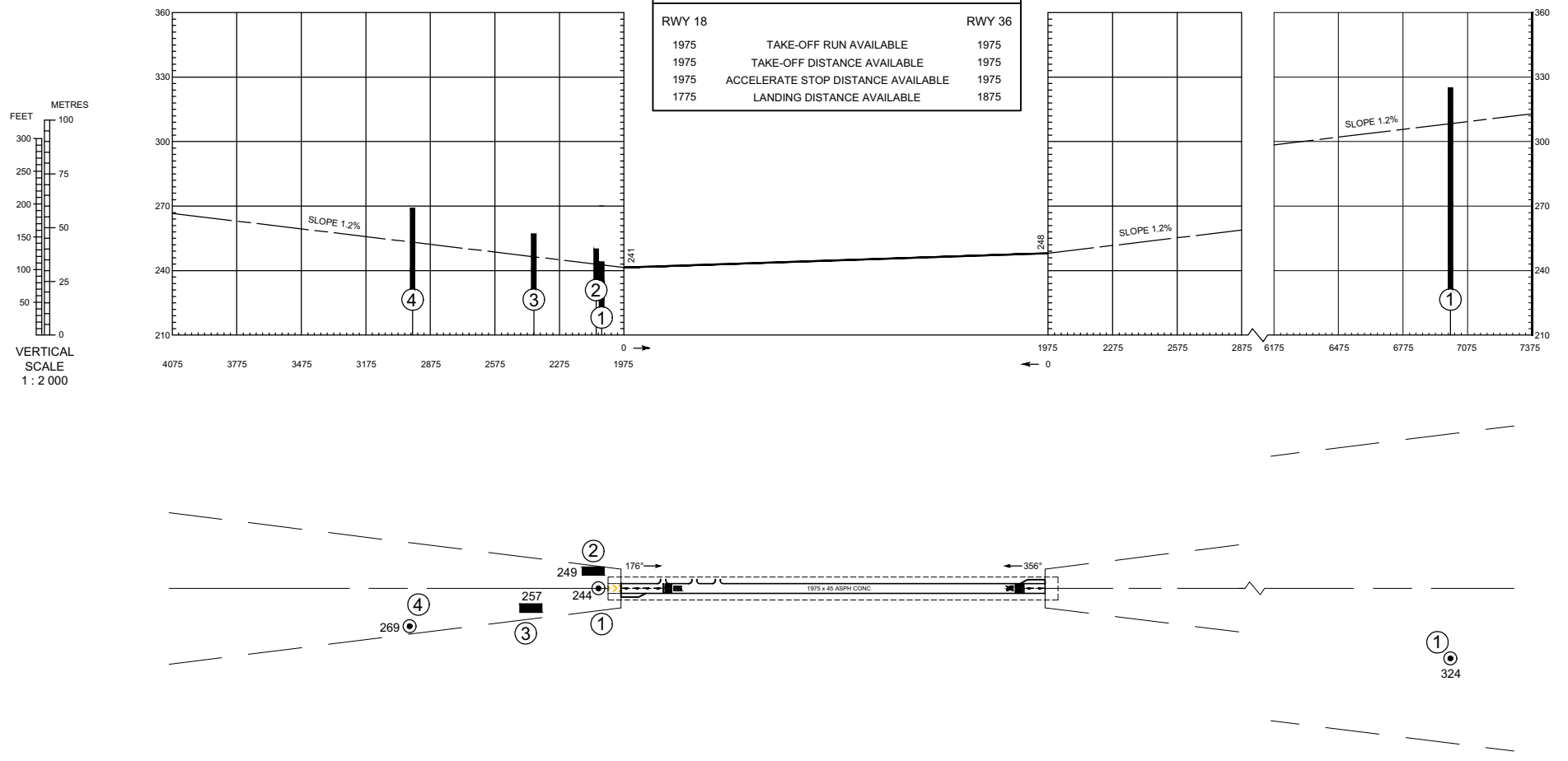
**TYPE A (OPERATING LIMITATIONS)**

**LAMPANG / Lampang Airport**

MAGNETIC VARIATION 1.04°W (2022)
ANNUAL RATE OF CHANGE 0.04°W

RWY 18 / 36

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 18 | | RWY 36 |
| 1975 | TAKE-OFF RUN AVAILABLE | 1975 |
| 1975 | TAKE-OFF DISTANCE AVAILABLE | 1975 |
| 1975 | ACCELERATE STOP DISTANCE AVAILABLE | 1975 |
| 1775 | LANDING DISTANCE AVAILABLE | 1875 |




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ① |
| POLE, TOWER, SPIRE, ANTENNA, ETC | ⊙ |
| BUILDING OR LARGE STRUCTURE | ▬ |

HORIZONTAL SCALE 1 : 20 000

METRES
400 300 200 100 0 500 1000 1500 2000 2500

FEET
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000

ORDER OF ACCURACY
HORIZONTAL 0.5 m
VERTICAL 0.5 m

CHANGE: NEW CHART.

**INTENTIONALLY BLANK**

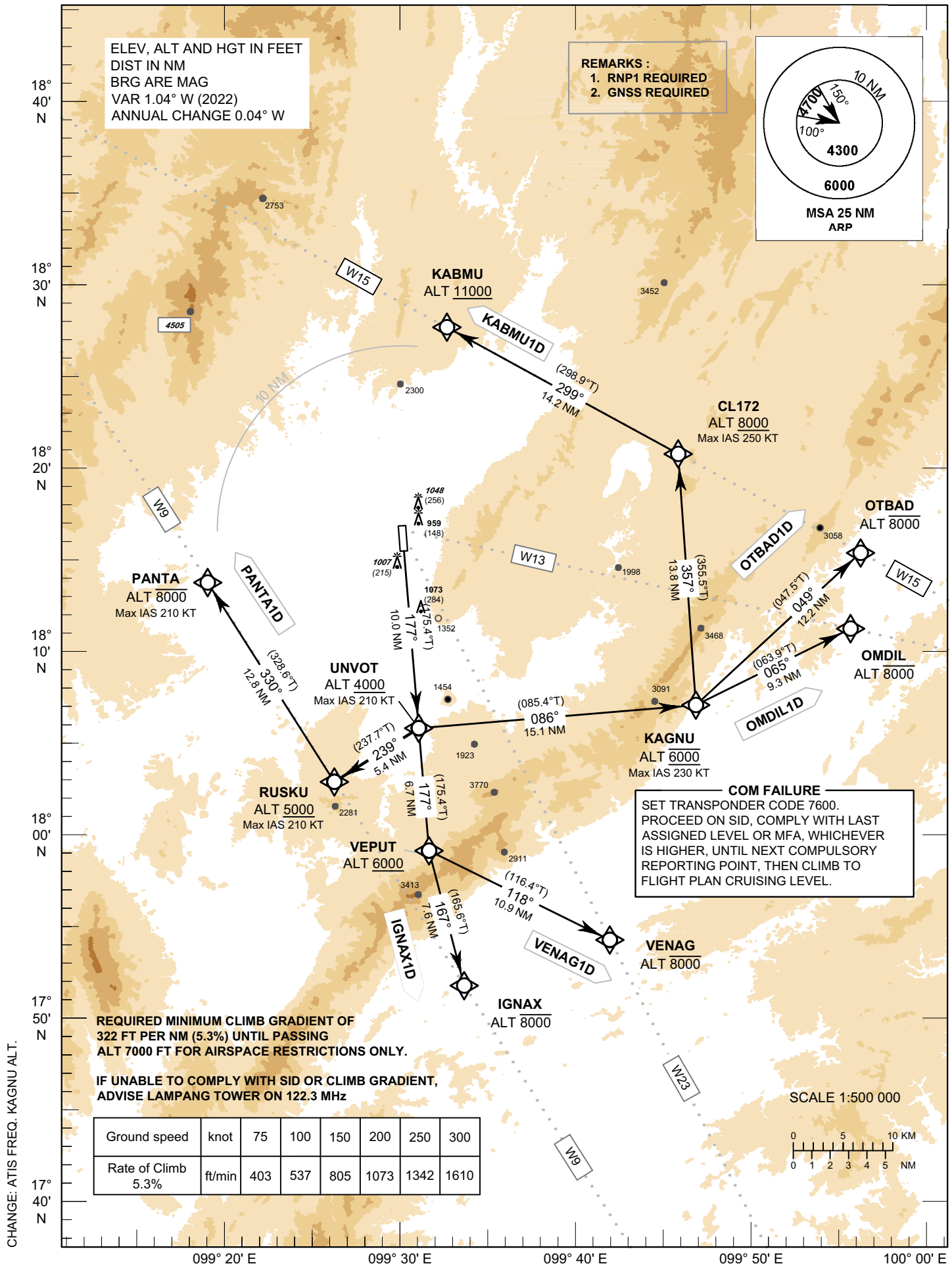
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

**LAMPANG / Lampang (VTCL)**
**RNAV RWY18**

IGNAX1D KABMU1D
OMDIL1D OTBAD1D
PANTA1D VENAG1D




| Ground speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.3% | ft/min | 403 | 537 | 805 | 1073 | 1342 | 1610 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**LAMPANG / Lampang (VTCL)**
**RNAV RWY18**
IGNAX1D KABMU1D
OMDIL1D OTBAD1D
PANTA1D VENAG1D

**TABULAR DESCRIPTION**

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course °M (°T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| IGNAX1D TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | UNVOT | - | 177° (175.4°) | +1.1 | 10.0 | - | +4000 | -210 | - | RNP1 |
| 030 | TF | VEPUT | - | 177° (175.4°) | +1.1 | 6.7 | - | +6000 | - | - | RNP1 |
| 040 | TF | IGNAX | - | 167° (165.6°) | +1.1 | 7.6 | - | -8000 | - | - | RNP1 |
| KABMU1D TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | UNVOT | - | 177° (175.4°) | +1.1 | 10.0 | - | +4000 | -210 | - | RNP1 |
| 030 | TF | KAGNU | - | 086° (085.4°) | +1.1 | 15.1 | - | @6000 | -230 | - | RNP1 |
| 040 | TF | CL172 | - | 357° (355.5°) | +1.1 | 13.8 | - | +8000 | -250 | - | RNP1 |
| 050 | TF | KABMU | - | 299° (298.9°) | +1.1 | 14.2 | - | +11000 | - | - | RNP1 |
| OMDIL1D TO W13 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | UNVOT | - | 177° (175.4°) | +1.1 | 10.0 | - | +4000 | -210 | - | RNP1 |
| 030 | TF | KAGNU | - | 086° (085.4°) | +1.1 | 15.1 | - | @6000 | -230 | - | RNP1 |
| 040 | TF | OMDIL | - | 065° (063.9°) | +1.1 | 9.3 | - | -8000 | - | - | RNP1 |
| OTBAD1D TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | UNVOT | - | 177° (175.4°) | +1.1 | 10.0 | - | +4000 | -210 | - | RNP1 |
| 030 | TF | KAGNU | - | 086° (085.4°) | +1.1 | 15.1 | - | @6000 | -230 | - | RNP1 |
| 040 | TF | OTBAD | - | 049° (047.5°) | +1.1 | 12.2 | - | -8000 | - | - | RNP1 |
| PANTA1D TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | UNVOT | - | 177° (175.4°) | +1.1 | 10.0 | - | +4000 | -210 | - | RNP1 |
| 030 | TF | RUSKU | - | 239° (237.7°) | +1.1 | 5.4 | - | +5000 | -210 | - | RNP1 |
| 040 | TF | PANTA | - | 330° (328.6°) | +1.1 | 12.8 | - | -8000 | -210 | - | RNP1 |
| VENAG1D TO W23 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | UNVOT | - | 177° (175.4°) | +1.1 | 10.0 | - | +4000 | -210 | - | RNP1 |
| 030 | TF | VEPUT | - | 177° (175.4°) | +1.1 | 6.7 | - | +6000 | - | - | RNP1 |
| 040 | TF | VENAG | - | 118° (116.4°) | +1.1 | 10.9 | - | -8000 | - | - | RNP1 |

CHANGE: SPEED.

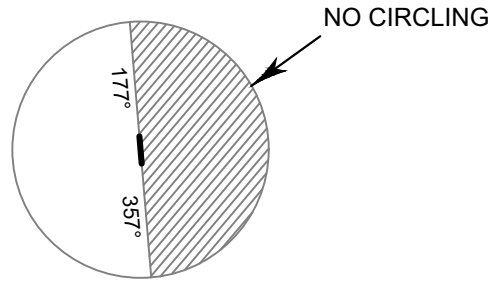
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**LAMPANG / Lampang (VTCL)**
**RNAV RWY18**

IGNAX1D KABMU1D
OMDIL1D OTBAD1D
PANTA1D VENAG1D

**WAYPOINT LIST**

| **RNAV RWY18** | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY18 | 18° 15' 47.65" N 099° 30' 17.35" E |
| CL172 | 18° 20' 47.64" N 099° 45' 49.49" E |
| IGNAX | 17° 51' 43.51" N 099° 33' 39.45" E |
| KABMU | 18° 27' 38.58" N 099° 32' 47.05" E |
| KAGNU | 18° 06' 59.82" N 099° 46' 57.51" E |
| OMDIL | 18° 11' 06.76" N 099° 55' 46.23" E |
| OTBAD | 18° 15' 14.17" N 099° 56' 22.32" E |
| PANTA | 18° 13' 51.17" N 099° 19' 17.05" E |
| RUSKU | 18° 02' 52.16" N 099° 26' 18.07" E |
| UNVOT | 18° 05' 47.12" N 099° 31' 07.54" E |
| VEPUT | 17° 59' 05.22" N 099° 31' 41.11" E |
| VENAG | 17° 54' 11.39" N 099° 41' 57.78" E |



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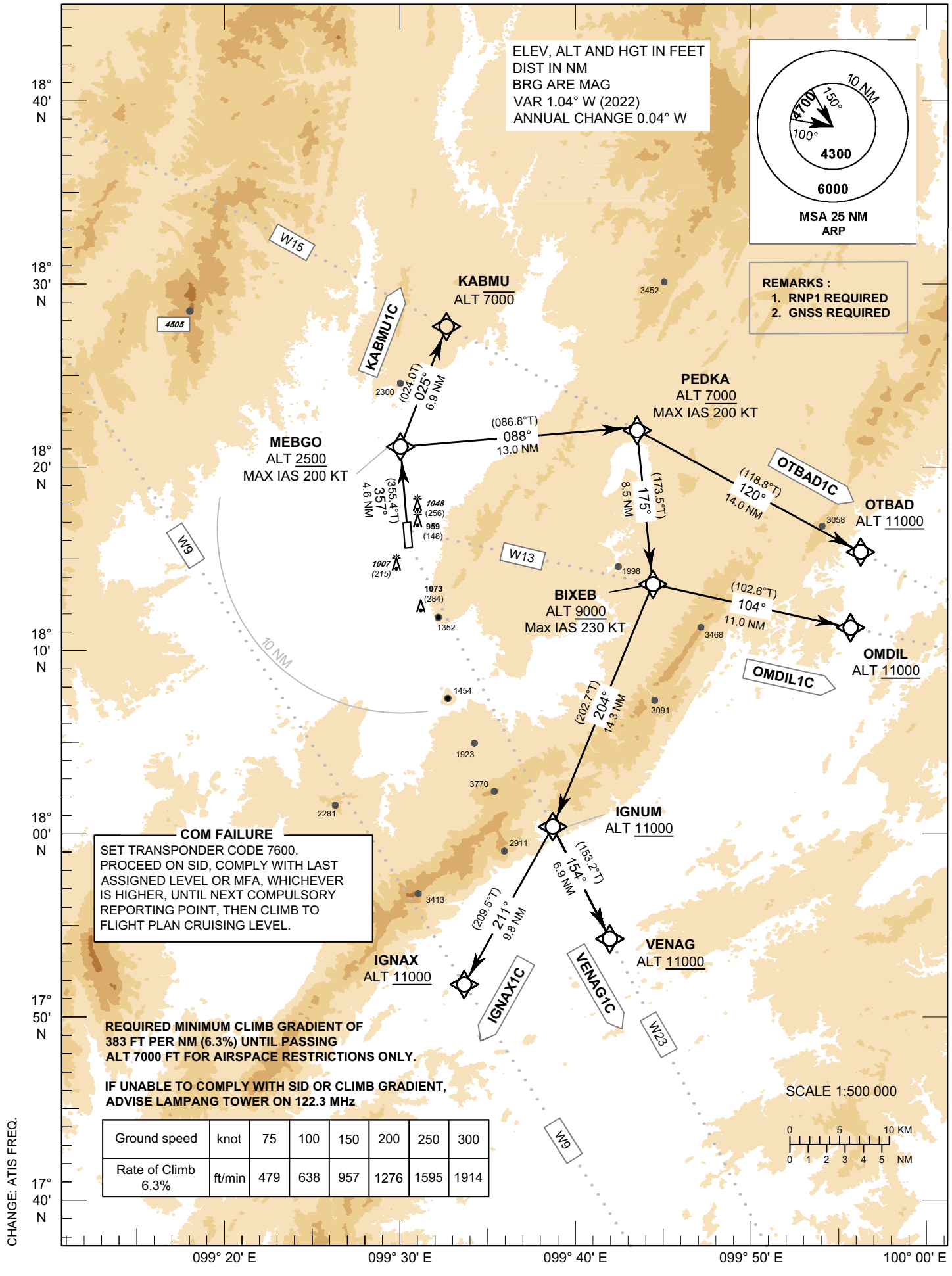
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

**LAMPANG / Lampang (VTCL)**
**RNAV RWY36**

IGNAX1C KABMU1C
OMDIL1C OTBAD1C
VENAG1C




| Ground speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 6.3% | ft/min | 479 | 638 | 957 | 1276 | 1595 | 1914 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**LAMPANG / Lampang (VTCL)**
**RNAV RWY36**

IGNAX1C KABMU1C
OMDIL1C OTBAD1C
VENAG1C

**TABULAR DESCRIPTION**

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| IGNAX1C TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | TF | MEBGO | - | 357° (355.5°) | +1.1 | 4.6 | - | +2500 | -200 | - | RNP1 |
| 030 | TF | PEDKA | - | 088° (086.8°) | +1.1 | 13.0 | - | +7000 | -200 | - | RNP1 |
| 040 | TF | BIXEB | - | 175° (173.5°) | +1.1 | 8.5 | - | +9000 | -230 | - | RNP1 |
| 050 | TF | IGNUM | - | 204° (202.7°) | +1.1 | 14.3 | - | +11000 | - | - | RNP1 |
| 060 | TF | IGNAX | - | 211° (209.5°) | +1.1 | 9.8 | - | +11000 | - | - | RNP1 |
| KABMU1C TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | TF | MEBGO | - | 357° (355.4°) | +1.1 | 4.6 | - | +2500 | -200 | - | RNP1 |
| 030 | TF | KABMU | - | 025° (024.0°) | +1.1 | 6.9 | - | -7000 | - | - | RNP1 |
| OMDIL1C TO W13 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | TF | MEBGO | - | 357° (355.4°) | +1.1 | 4.6 | - | +2500 | -200 | - | RNP1 |
| 030 | TF | PEDKA | - | 088° (086.8°) | +1.1 | 13.0 | - | +7000 | -200 | - | RNP1 |
| 040 | TF | BIXEB | - | 175° (173.5°) | +1.1 | 8.5 | - | +9000 | -230 | - | RNP1 |
| 050 | TF | OMDIL | - | 104° (102.6°) | +1.1 | 11.0 | - | +11000 | - | - | RNP1 |
| OTBAD1C TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | TF | MEBGO | - | 357° (355.4°) | +1.1 | 4.6 | - | +2500 | -200 | - | RNP1 |
| 030 | TF | PEDKA | - | 088° (086.8°) | +1.1 | 13.0 | - | +7000 | -200 | - | RNP1 |
| 040 | TF | OTBAD | - | 120° (118.8°) | +1.1 | 14.0 | - | +11000 | - | - | RNP1 |
| VENAG1C TO W23 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | TF | MEBGO | - | 357° (355.4°) | +1.1 | 4.6 | - | +2500 | -200 | - | RNP1 |
| 030 | TF | PEDKA | - | 088° (086.8°) | +1.1 | 13.0 | - | +7000 | -200 | - | RNP1 |
| 040 | TF | BIXEB | - | 175° (173.5°) | +1.1 | 8.5 | - | +9000 | -230 | - | RNP1 |
| 050 | TF | IGNUM | - | 204° (202.7°) | +1.1 | 14.3 | - | +11000 | - | - | RNP1 |
| 060 | TF | VENAG | - | 154° (153.2°) | +1.1 | 6.8 | - | +11000 | - | - | RNP1 |

CHANGE: SPEED.

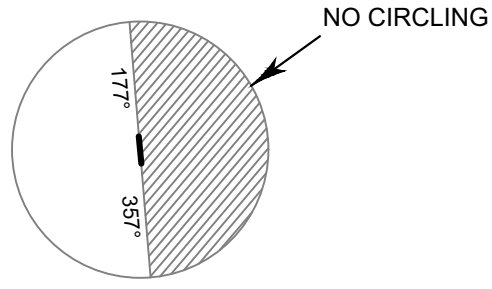
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**LAMPANG / Lampang (VTCL)**
**RNAV RWY36**

IGNAX1C KABMU1C
OMDIL1C OTBAD1C
VENAG1C

**WAYPOINT LIST**

| RNP RWY36 | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| DER RWY36 | 18° 16' 41.85" N 099° 30' 12.82" E |
| BIXEB | 18° 13' 31.99" N 099° 44' 29.79" E |
| IGNAX | 17° 51' 43.51" N 099° 33' 39.45" E |
| IGNUM | 18° 00' 19.42" N 099° 38' 43.93" E |
| KABMU | 18° 27' 38.58" N 099° 32' 47.05" E |
| MEBGO | 18° 21' 17.83" N 099° 29' 49.67" E |
| OMDIL | 18° 11' 06.76" N 099° 55' 46.23" E |
| OTBAD | 18° 15' 14.17" N 099° 56' 22.32" E |
| PEDKA | 18° 22' 01.72" N 099° 43' 28.66" E |
| VENAG | 17° 54' 11.39" N 099° 41' 57.78" E |



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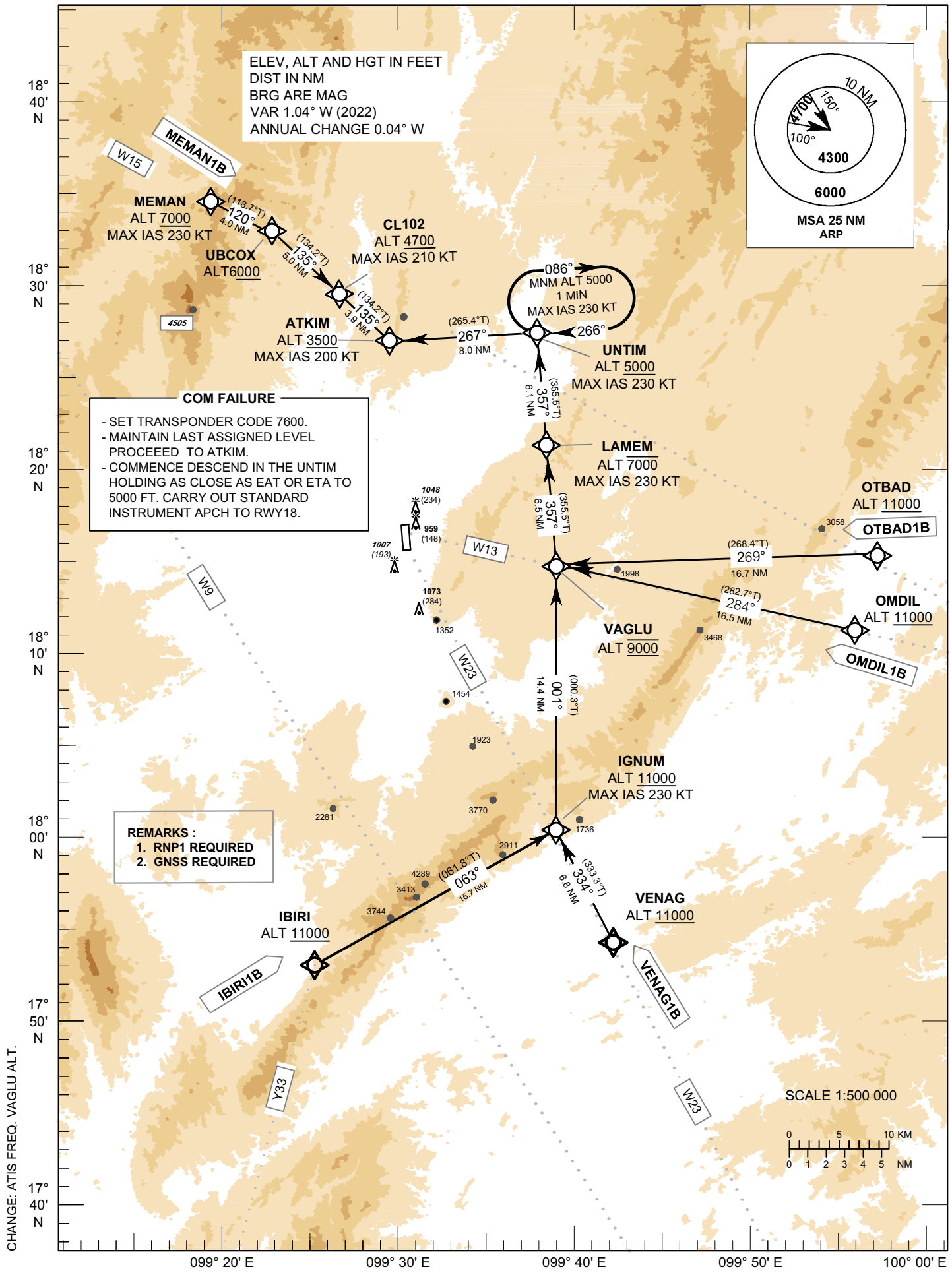
## STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 119.3
TWR : 122.3 , 236.6
ATIS : 128.65

**LAMPANG / Lampang (VTCL)**
**RNAV RWY18**

IBIRI1B MEMAN1B
OMDIL1B OTBAD1B
VENAG1B



## STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

**LAMPANG / Lampang (VTCL)**
**RNAV RWY18**

IBIRI1B MEMAN1B
OMDIL1B OTBAD1B
VENAG1B

**TABULAR DESCRIPTION**

| RNP RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| IBIRI1B FROM Y33 | | | | | | | | | | | |
| 010 | IF | IBIRI | - | - | +1.1 | - | - | +11000 | - | - | RNP APCH |
| 020 | TF | IGNUM | - | 063° (061.7°) | +1.1 | 16.7 | - | +11000 | -230 | - | RNP APCH |
| 030 | TF | VAGLU | - | 001° (000.3°) | +1.1 | 14.4 | - | @9000 | - | - | RNP APCH |
| 040 | TF | LAMEM | - | 357° (355.5°) | +1.1 | 6.5 | - | -7000 | -230 | - | RNP APCH |
| 050 | TF | UNTIM | - | 357° (355.5°) | +1.1 | 6.1 | - | +5000 | -230 | - | RNP APCH |
| 060 | TF | ATKIM | - | 267° (265.4°) | +1.1 | 8.0 | - | +3500 | -200 | - | RNP APCH |
| MEMAN1B FROM W15 | | | | | | | | | | | |
| 010 | IF | MEMAN | - | - | +1.1 | - | - | +7000 | -230 | - | RNP APCH |
| 020 | TF | UBCOX | - | 120° (118.7°) | +1.1 | 4.0 | - | +6000 | - | - | RNP APCH |
| 030 | TF | CL102 | - | 135° (134.2°) | +1.1 | 5.0 | - | +4700 | -210 | - | RNP APCH |
| 040 | TF | ATKIM | - | 135° (134.2°) | +1.1 | 3.9 | - | +3500 | -200 | - | RNP APCH |
| OMDIL1B FROM W13 | | | | | | | | | | | |
| 010 | IF | OMDIL | - | - | +1.1 | - | - | +11000 | - | - | RNP APCH |
| 020 | TF | VAGLU | - | 284° (282.7°) | +1.1 | 16.5 | - | @9000 | - | - | RNP APCH |
| 030 | TF | LAMEM | - | 357° (355.5°) | +1.1 | 6.5 | - | -7000 | -230 | - | RNP APCH |
| 040 | TF | UNTIM | - | 357° (355.5°) | +1.1 | 6.1 | - | +5000 | -230 | - | RNP APCH |
| 050 | TF | ATKIM | - | 267° (265.4°) | +1.1 | 8.0 | - | +3500 | -200 | - | RNP APCH |
| OTBAD1B FROM W15 | | | | | | | | | | | |
| 010 | IF | OTBAD | - | - | +1.1 | - | - | +11000 | - | - | RNP APCH |
| 020 | TF | VAGLU | - | 269° (268.4°) | +1.1 | 16.7 | - | @9000 | - | - | RNP APCH |
| 030 | TF | LAMEM | - | 357° (355.5°) | +1.1 | 6.5 | - | -7000 | -230 | - | RNP APCH |
| 040 | TF | UNTIM | - | 357° (355.5°) | +1.1 | 6.1 | - | +5000 | -230 | - | RNP APCH |
| 050 | TF | ATKIM | - | 267° (265.4°) | +1.1 | 8.0 | - | +3500 | -200 | - | RNP APCH |
| VENAG1B FROM W23 | | | | | | | | | | | |
| 010 | IF | VENAG | - | - | +1.1 | - | - | +11000 | - | - | RNP APCH |
| 020 | TF | IGNUM | - | 334° (333.3°) | +1.1 | 6.8 | - | +11000 | -230 | - | RNP APCH |
| 030 | TF | VAGLU | - | 001° (000.3°) | +1.1 | 14.4 | - | @9000 | - | - | RNP APCH |
| 040 | TF | LAMEM | - | 357° (355.5°) | +1.1 | 6.5 | - | -7000 | -230 | - | RNP APCH |
| 050 | TF | UNTIM | - | 357° (355.5°) | +1.1 | 6.1 | - | +5000 | -230 | - | RNP APCH |
| 060 | TF | ATKIM | - | 267° (265.4°) | +1.1 | 8.0 | - | +3500 | -200 | - | RNP APCH |

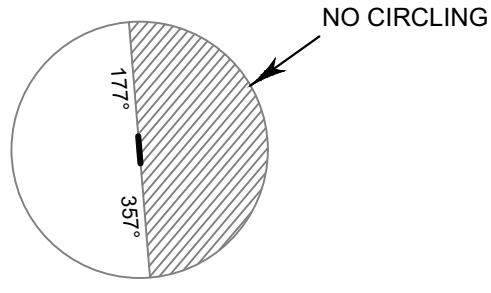
**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**LAMPANG / Lampang (VTCL)**
**RNAV RWY18**

IBIRI1B MEMAN1B
OMDIL1B OTBAD1B
VENAG1B

**WAYPOINT LIST**

| **RNP RWY18** | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| ATKIM | 18° 26' 42.35" N 099° 29' 22.42" E |
| CL102 | 18° 29' 25.64" N 099° 26' 27.11" E |
| IBIRI | 17° 52 22.15" N 099° 23' 17.32" E |
| IGNUM | 18° 00' 19.42" N 099° 38' 43.93" E |
| LAMEM | 18° 21' 14.67" N 099° 38' 16.16" E |
| MEMAN | 18° 34' 52.03" N 099° 18' 59.01" E |
| OMDIL | 18° 11' 06.76" N 099° 55' 46.23" E |
| OTBAD | 18° 15' 14.17" N 099° 56' 22.32" E |
| UBCOX | 18° 32' 56.23" N 099° 22' 40.56" E |
| UNTIM | 18° 27' 20.95" N 099° 37' 45.73" E |
| VAGLU | 18° 14' 44.99" N 099° 38' 48.49" E |
| VENAG | 17° 54' 11.39" N 099° 41' 57.78" E |



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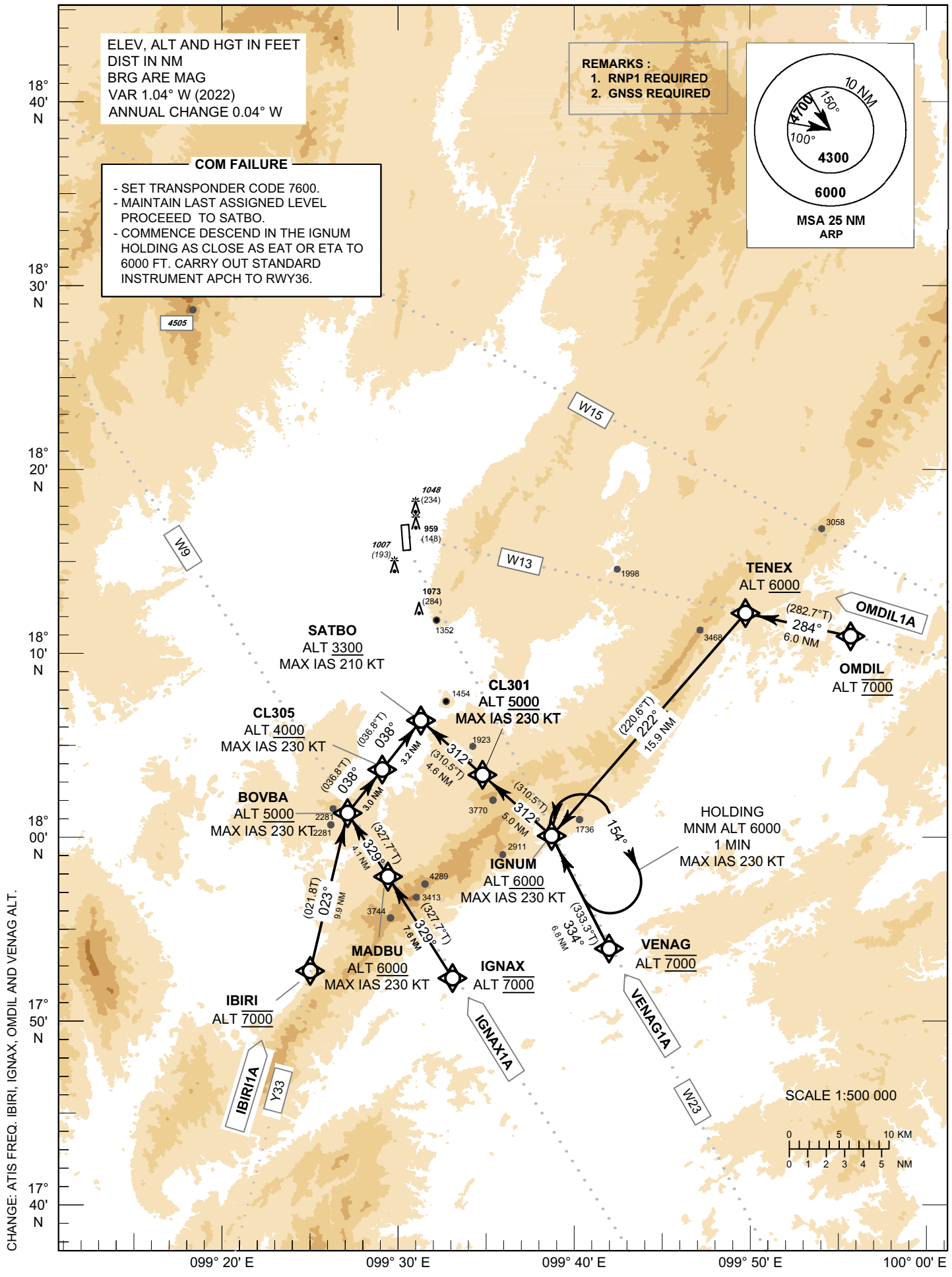
## STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 119.3
TWR : 122.3 , 236.6
ATIS : 128.65

## LAMPANG / Lampang (VTCL)
## RNAV RWY36

IBIRI1A IGNAX1A
OMDIL1A VENAG1A



## STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

**LAMPANG / Lampang (VTCL)**
**RNAV RWY36**
IBIRI1A IGNAX1A
OMDIL1A VENAG1A

**TABULAR DESCRIPTION**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| IBIRI1A FROM Y33 | | | | | | | | | | | |
| 010 | IF | IBIRI | - | - | +1.1 | - | - | @7000 | - | - | RNP1 |
| 020 | TF | BOVBA | - | 023° (021.8) | +1.1 | 9.8 | - | +5000 | -230 | - | RNP1 |
| 030 | TF | CL305 | - | 038° (036.8°) | +1.1 | 3.0 | - | +4000 | -230 | - | RNP1 |
| 040 | TF | SATBO | - | 038° (036.8°) | +1.1 | 3.2 | - | +3300 | -210 | - | RNP1 |
| IGNAX1A FROM W9 | | | | | | | | | | | |
| 010 | IF | IGNAX | - | - | +1.1 | - | - | @7000 | - | - | RNP1 |
| 020 | TF | MADBU | - | 329° (327.7°) | +1.1 | 7.6 | - | +6000 | -230 | - | RNP1 |
| 030 | TF | BOVBA | - | 329° (327.7°) | +1.1 | 4.1 | - | +5000 | -230 | - | RNP1 |
| 040 | TF | CL305 | - | 038° (036.8°) | +1.1 | 3.0 | - | +4000 | -230 | - | RNP1 |
| 050 | TF | SATBO | - | 038° (036.8°) | +1.1 | 3.2 | - | +3300 | -210 | - | RNP1 |
| OMDIL1A FROM W13 | | | | | | | | | | | |
| 010 | IF | OMDIL | - | - | +1.1 | - | - | @7000 | - | - | RNP1 |
| 020 | TF | TENEX | - | 284° (282.7°) | +1.1 | 6.0 | - | +6000 | - | - | RNP1 |
| 030 | TF | IGNUM | - | 222° (220.6°) | +1.1 | 15.9 | - | +6000 | -230 | - | RNP1 |
| 040 | TF | CL301 | - | 312° (310.5°) | +1.1 | 5.0 | - | +5000 | -230 | - | RNP1 |
| 050 | TF | SATBO | - | 312° (310.5°) | +1.1 | 4.6 | - | +3300 | -210 | - | RNP1 |
| VENAG1A FROM W23 | | | | | | | | | | | |
| 010 | IF | VENAG | - | - | +1.1 | - | - | @7000 | - | - | RNP1 |
| 020 | TF | IGNUM | - | 334° (333.3°) | +1.1 | 6.8 | - | +6000 | -230 | - | RNP1 |
| 030 | TF | CL301 | - | 312° (310.5°) | +1.1 | 5.0 | - | +5000 | -230 | - | RNP1 |
| 040 | TF | SATBO | - | 312° (310.5°) | +1.1 | 4.6 | - | +3300 | -210 | - | RNP1 |

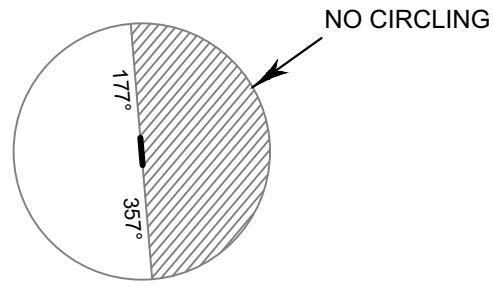
CHANGE: SPEED. IBIRI, IGNAX, OMDIL AND VENAG ALT.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**LAMPANG / Lampang (VTCL)**
**RNAV RWY36**
IBIRI1A IGNAX1A
OMDIL1A VENAG1A

**WAYPOINT LIST**

| RNP RWY36 | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| BOVBA | 18° 01' 35.74" N 099° 27' 08.57" E |
| CL301 | 18° 03' 35.02" N 099° 34' 44.52" E |
| CL305 | 18° 04' 01.12" N 099° 29' 02.17" E |
| IBIRI | 17° 52' 22.15" N 099° 23' 17.31" E |
| IGNAX | 17° 51' 43.51" N 099° 33' 39.45" E |
| IGNUM | 18° 00' 19.42" N 099° 38' 43.93" E |
| MADBU | 17° 58' 08.36" N 099° 29' 25.55 E |
| OMDIL | 18° 11' 06.76" N 099° 55' 46.23" E |
| SATBO | 18° 06' 35.78" N 099° 31' 03.10" E |
| TENEX | 18° 12' 26.69" N 099° 49' 34.46" E |
| VENAG | 17° 54' 11.39" N 099° 41' 57.78" E |



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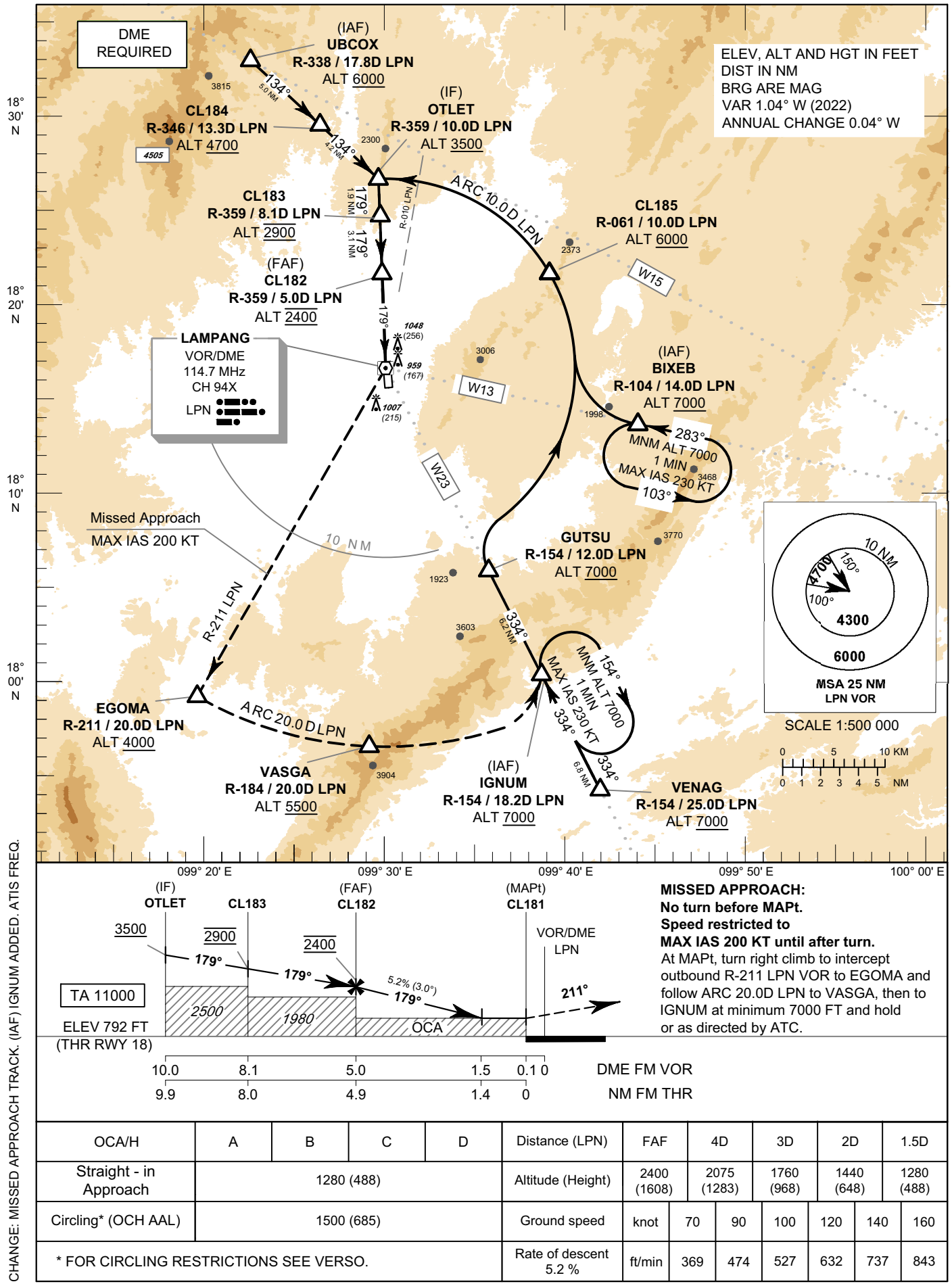
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 18 ELEV 792 FT

APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

**LAMPANG / Lampang (VTCL)**

**VOR RWY18**




| OCA/H | A | B | C | D | Distance (LPN) | FAF | 4D | 3D | 2D | 1.5D |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 1280 (488) | | | | Altitude (Height) | 2400 (1608) | 2075 (1283) | 1760 (968) | 1440 (648) | 1280 (488) |
| Circling* (OCH AAL) | 1500 (685) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| * FOR CIRCLING RESTRICTIONS SEE VERSO. | | | | | Rate of descent 5.2 % | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: MISSED APPROACH TRACK. (IAF) IGNUM ADDED. ATIS FREQ.

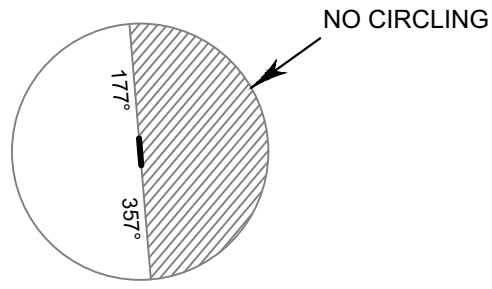
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 18 ELEV 792 FT

**LAMPANG / Lampang (VTCL)**

**VOR RWY18**

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) UBCOX | R-338 / 17.8D LPN | 18° 32' 56.23" N | 099° 22' 40.56" E |
| (IAF) BIXEB | R-104 / 14.0D LPN | 18° 13' 31.99" N | 099° 44' 29.79" E |
| VENAG | R-154 / 25.0D LPN | 17° 54' 11.39" N | 099° 41' 57.78" E |
| (IAF) IGNUM | R-154 / 18.2D LPN | 18° 00' 19.42" N | 099° 38' 43.93" E |
| GUTSU | R-154 / 12.0D LPN | 18° 05' 50.62" N | 099° 35' 49.28" E |
| CL184 | R-346 / 13.3D LPN | 18° 29' 30.65" N | 099° 26' 32.13" E |
| CL185 | R-061 / 10.0D LPN | 18° 21' 36.83" N | 099° 39' 14.72" E |
| (IF) OTLET | R-359 / 10.0D LPN | 18° 26' 37.86" N | 099° 29' 46.37" E |
| CL183 | R-359 / 8.1D LPN | 18° 24' 43.49" N | 099° 29' 50.56" E |
| (FAF) CL182 | R-359 / 5.0D LPN | 18° 21' 36.87" N | 099° 29' 57.39" E |
| (MAPt) CL181 | R-359 / 0.1D LPN | 18° 16' 41.66" N | 099° 30' 08.19" E |
| EGOMA | R-211 / 20.0D LPN | 17° 59' 12.24" N | 099° 19' 38.98" E |
| VASGA | R-184 / 20.0D LPN | 17° 56' 32.39" N | 099° 29' 10.39" E |
| VOR/DME | LPN | 18° 16' 35.86" N | 099° 30' 08.42" E |




CHANGE: (IAF) IGNUM ADDED.

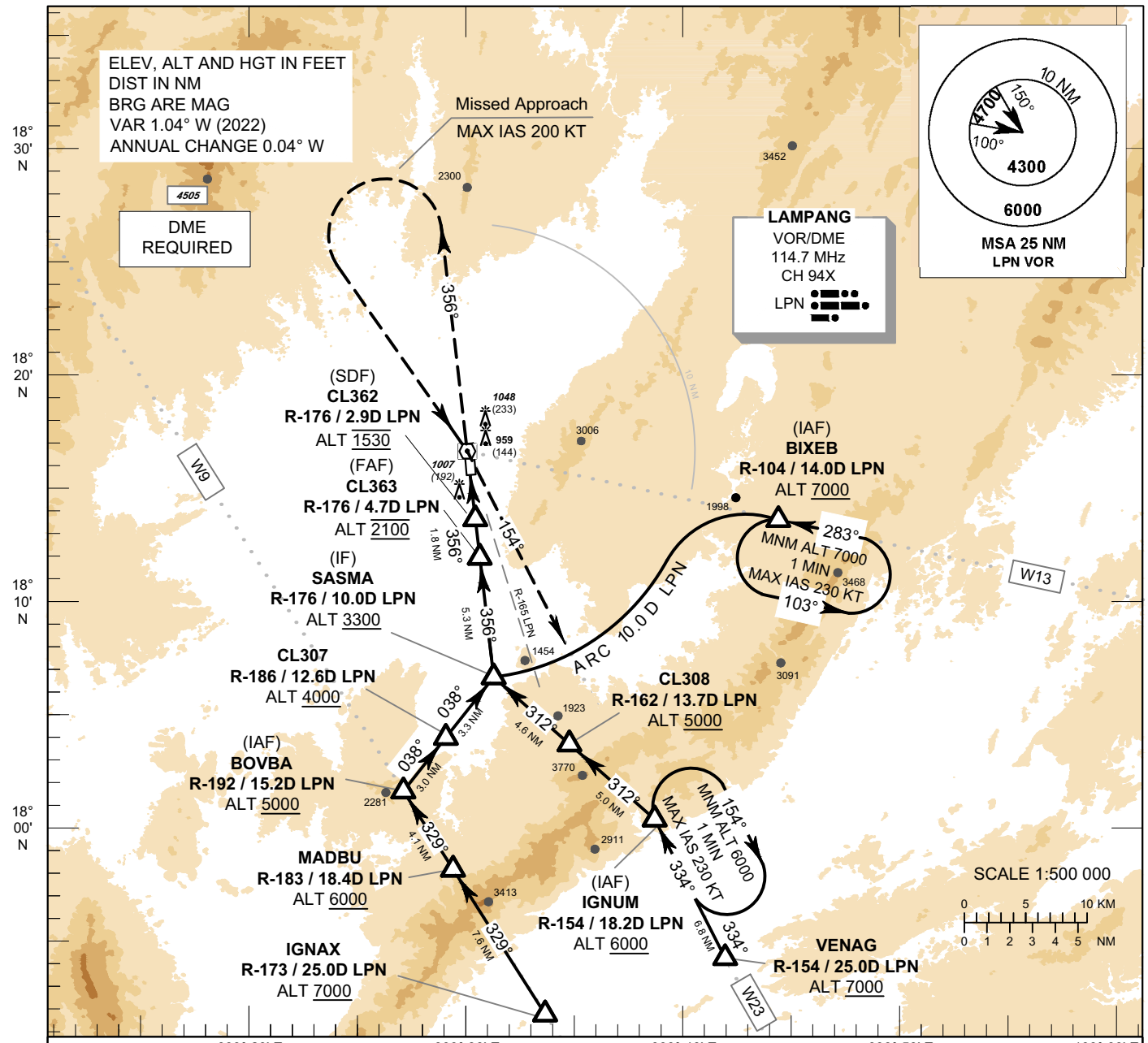
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO AERODROME ELEV

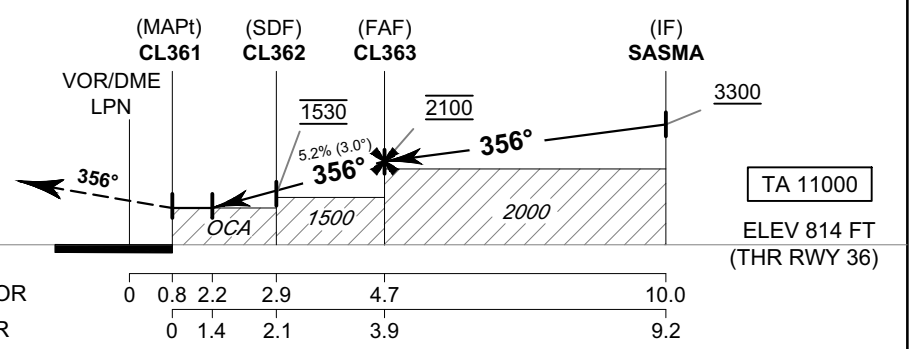
APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

**LAMPANG / Lampang (VTCL)**

**VOR RWY36**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.** Climb straight ahead to 2500 FT
then turn left and continue climb to LPN VOR then turn right to intercept R-154 LPN VOR and continue climb to IGNUM at 6000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D | Distance (LPN) | 2D | 3D | 4D | FAF |
|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 1310 (495) | | | | Altitude (Height) | 1310 (495) | 1560 (745) | 1875 (1060) | 2100 (1285) |
| Circling* (OCH AAL) | 1500 (685) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| * FOR CIRCLING RESTRICTIONS SEE VERSO. | | | | | Rate of descent 5.2 % | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ATIS FREQ.

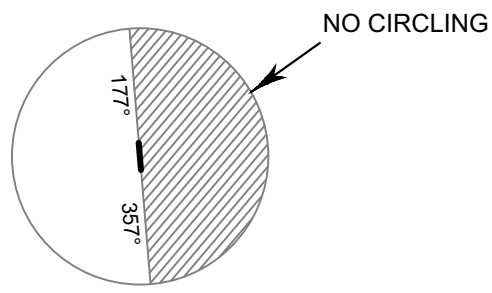
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO AERODROME ELEV

**LAMPANG / Lampang (VTCL)**

**VOR RWY36**

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) BIXEB | R-104 / 14.0D LPN | 18° 13' 31.99" N | 099° 44' 29.79" E |
| VENAG | R-154 / 25.0D LPN | 17° 54' 11.39" N | 099° 41' 57.78" E |
| (IAF) IGNUM | R-154 / 18.2D LPN | 18° 00' 19.42" N | 099° 38' 43.93" E |
| CL308 | R-162 / 13.7D LPN | 18° 03' 36.47" N | 099° 34' 45.94" E |
| IGNAX | R-173 / 25.0D LPN | 17° 51' 43.51" N | 099° 33' 39.45" E |
| MADBU | R-183 / 18.4D LPN | 17° 58' 08.36" N | 099° 29' 25.55" E |
| (IAF) BOVBA | R-192 / 15.2D LPN | 18° 01' 35.74" N | 099° 27' 08.57" E |
| CL307 | R-186 / 12.6D LPN | 18° 03' 59.86" N | 099° 29' 03.64" E |
| (IF) SASMA | R-176 / 10.0D LPN | 18° 06' 36.25" N | 099° 31' 08.58" E |
| (FAF) CL363 | R-176 / 4.7D LPN | 18° 11' 53.35" N | 099° 30' 36.77" E |
| (SDF) CL362 | R-176 / 2.9D LPN | 18° 13' 41.28" N | 099° 30' 25.93" E |
| (MAPt) CL361 | R-176 / 0.8D LPN | 18° 15' 47.20" N | 099° 30' 13.29" E |
| VOR/DME | LPN | 18° 16' 35.86" N | 099° 30' 08.42" E |



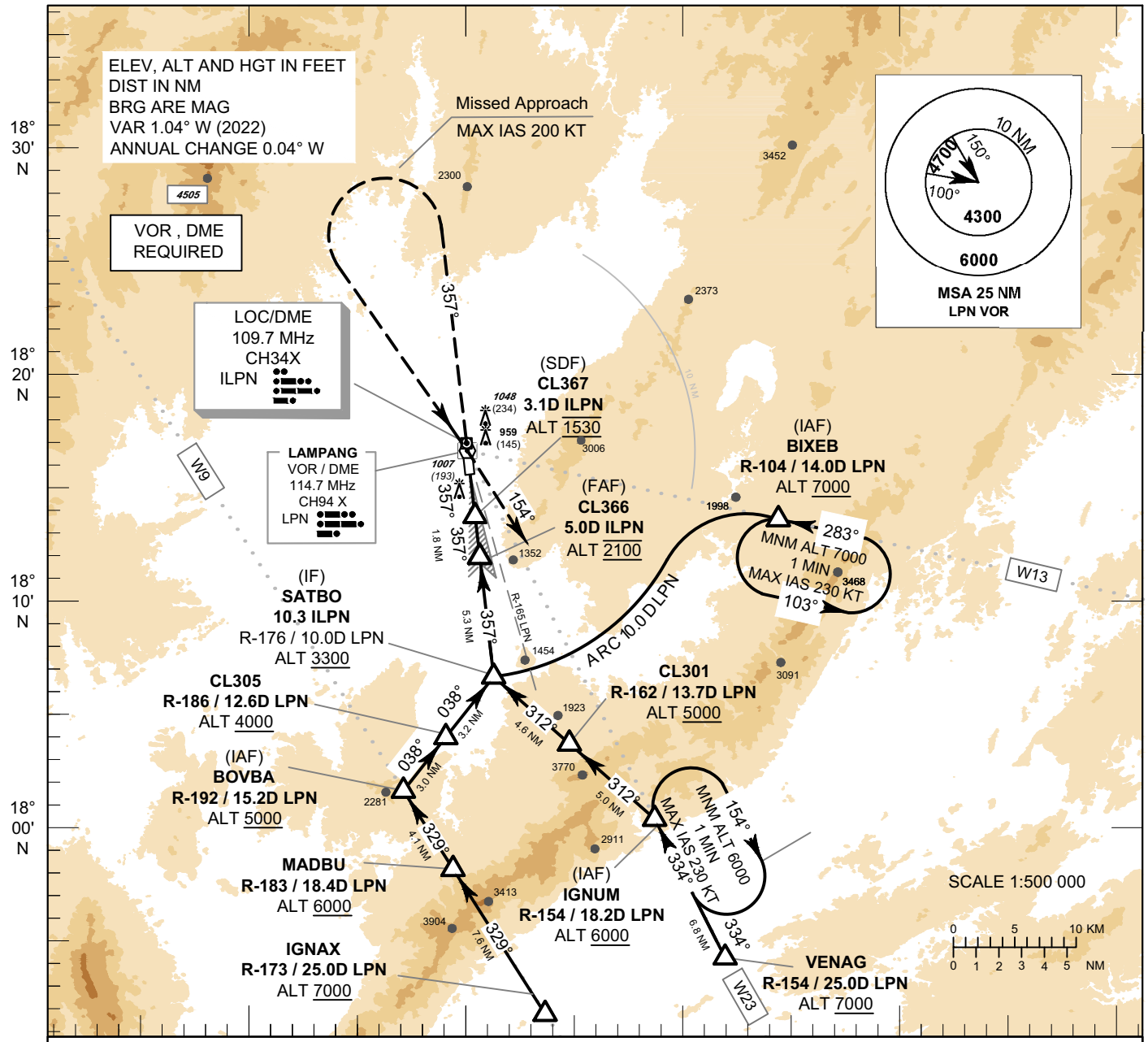
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 814 FT

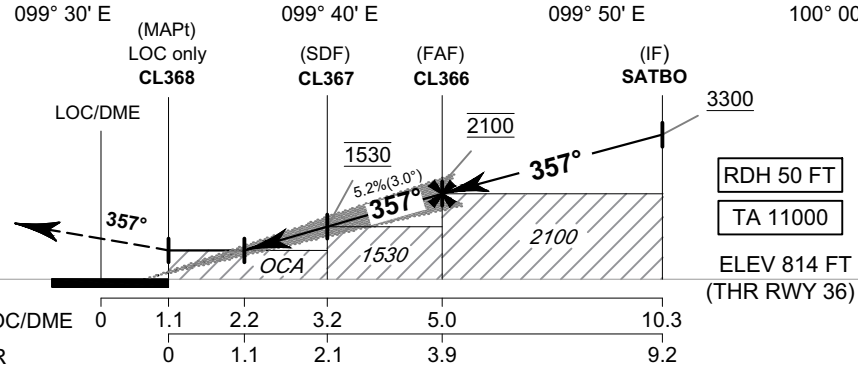
APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

**LAMPANG / Lampang (VTCL)**

**LOC y RWY36**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb straight ahead to 2500 FT
then turn left and continue climb to LPN
VOR then turn right to intercept R-154 LPN
VOR and continue climb to IGNUM
at 6000 FT and hold or as directed by ATC.




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | LOC only | 1210 (396) | | | |
| Circling* (OCH AAL) | | 1500 (685) | | | |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (ILPN) | 2.2D | 3D | 4D | FAF | | | |
| Altitude (Height) | 1210 (396) | 1465 (651) | 1780 (965) | 2100 (1286) | | | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ATIS FREQ.

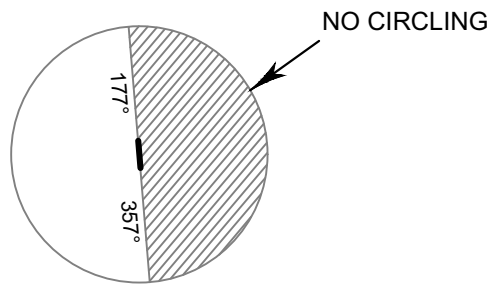
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 814 FT

**LAMPANG / Lampang (VTCL)**

**LOC y RWY36**

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| VENAG | R-154 / 25.0D LPN | 17° 54' 11.39" N | 099° 41' 57.78" E |
| MADBU | R-183 / 18.4D LPN | 17° 58' 08.36" N | 099° 29' 25.55" E |
| IGNAX | R-173 / 25.0D LPN | 17° 51' 43.51" N | 099° 33' 39.45" E |
| (IAF) BOVBA | R-192 / 15.2D LPN | 18° 01' 35.74" N | 099° 27' 08.57" E |
| (IAF) IGNUM | R-154 / 18.2D LPN | 18° 00' 19.42" N | 099° 38' 43.93" E |
| (IAF) BIXEB | R-104 / 14.0D LPN | 18° 13' 31.99" N | 099° 44' 29.79" E |
| CL305 | R-186 / 12.6D LPN | 18° 04' 01.12" N | 099° 29' 02.17" E |
| CL301 | R-162 / 13.7D LPN | 18° 03' 35.02" N | 099° 34' 44.52" E |
| (IF) SATBO | 10.3D ILPN | 18° 06' 35.78" N | 099° 31' 03.10" E |
| (FAF) CL366 | 5.0D ILPN | 18° 11' 53.92" N | 099° 30' 36.71" E |
| (SDF) CL367 | 3.1D ILPN | 18° 13' 42.92" N | 099° 30' 27.74" E |
| (MAPt @ THR36) CL368 | 1.1D ILPN | 18° 15' 47.65" N | 099° 30' 17.35 E |
| LERSU | R-026 / 20.0D LPN | 18° 34' 47.50" N | 099° 39' 02.28" E |
| LOC/DME | ILPN | 18° 16' 51.63" N | 099° 30' 11.99" E |
| VOR | LPN | 18° 16' 35.86" N | 099° 30' 08.42" E |




CHANGE: FAF.

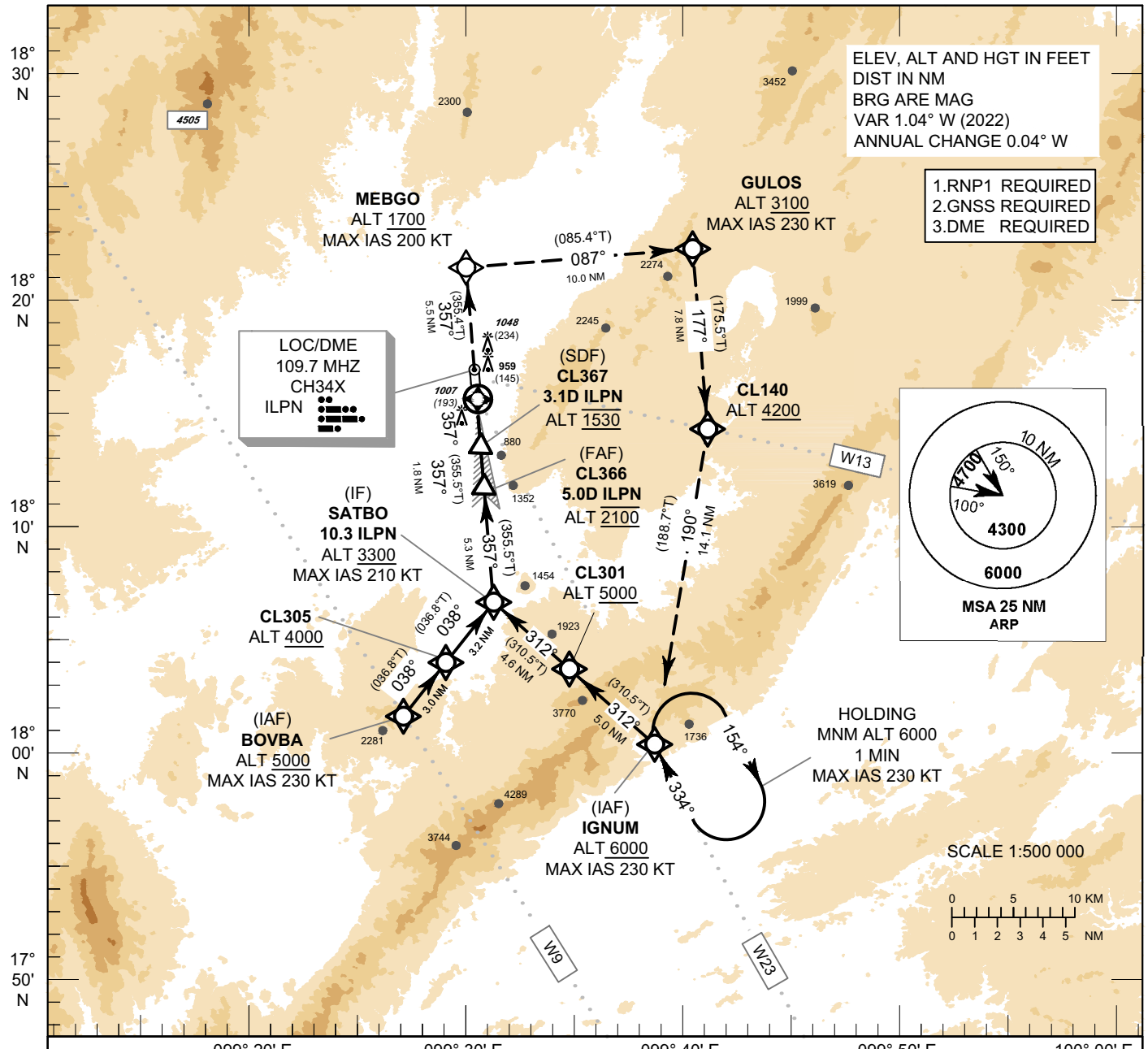
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 36 ELEV 814 FT

APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

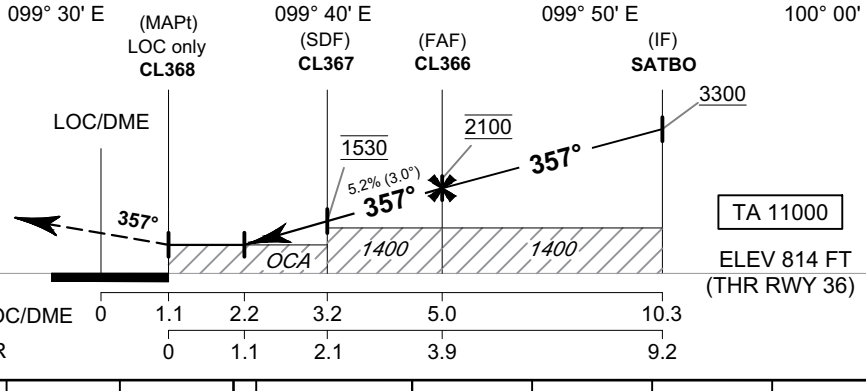
**LAMPANG / Lampang (VTCL)**

**LOC z RWY36**




**MISSED APPROACH:**

**Speed restricted to MAX IAS 200 KT until after turn.**
Climb on track 357° to MEBGO at minimum ALT 1700 ft,then turn right to GULOS at minimum ALT 3100 ft, then turn right to CL140 at minimum ALT 4200 ft, then proceed to IGNUM at minimum ALT 6000 ft and hold or as directed by ATC.




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | LOC only | 1210 (396) | | | |
| Circling* (OCH AAL) | | 1500 (685) | | | |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (ILPN) | 2.2D | 3D | 4D | FAF | | | |
| Altitude (Height) | 1210 (396) | 1465 (651) | 1780 (965) | 2100 (1286) | | | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 5.2 % | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ATIS FREQ. MAG TRACK SATBO TO CL366.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 36 ELEV 814 FT

**LAMPANG / Lampang (VTCL)**

**LOC z RWY36**

**TABULAR DESCRIPTION**

| LOC z RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course °M (°T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| 030 | TF | (IAF) BOVBA | - | | +1.1 | - | - | +5000 | -230 | - | RNP1 |
| 040 | TF | CL305 | - | 038° (036.8°) | +1.1 | 3.0 | - | +4000 | - | - | RNP1 |
| 050 | TF | (IF) SATBO | - | 038° (036.8°) | +1.1 | 3.2 | - | +3300 | -210 | - | RNP1 |
| | | | | | | | | | | | |
| 020 | TF | (IAF) IGNUM | - | | +1.1 | - | - | +6000 | -230 | - | RNP1 |
| 030 | TF | CL301 | - | 312° (310.5°) | +1.1 | 5.0 | - | +5000 | - | - | RNP1 |
| 040 | TF | (iF) SATBO | - | 312° (310.5°) | +1.1 | 4.6 | - | +3300 | -210 | - | RNP1 |
| **TRANSITION TO LOC** | | | | | | | | | | | |
| 010 | TF | (FAF) CL366 | - | 357° (355.5°) | +1.1 | 5.3 | - | @2100 | - | - | ILS |
| 020 | TF | (SDF) CL367 | - | 357° (355.5°) | +1.1 | 1.8 | - | @1530 | - | - | ILS |
| 030 | TF | (MAPt @ THR36) CL368 | Y | 357° (355.4°) | +1.1 | 2.1 | - | @1210 | - | - | ILS |
| 040 | TF | MEBGO | - | 357° (355.5°) | +1.1 | 5.5 | - | +1700 | -200 | - | RNP1 |
| 050 | TF | GULOS | - | 087° (085.4°) | +1.1 | 10.0 | - | +3100 | -230 | - | RNP1 |
| 060 | TF | CL140 | - | 177° (175.5°) | +1.1 | 7.8 | - | +4200 | - | - | RNP1 |
| 070 | TF | (IAF) IGNUM | - | 190° (188.7°) | +1.1 | 14.1 | - | +6000 | -230 | - | RNP1 |
| 080 | HM | (IAF) IGNUM | Y | 334° (333.4°) | +1.1 | 1 minute | R | +6000 | -230 | - | RNP1 |

**WAYPOINT LIST**

| LOC z RWY36 | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| CL140 | 18° 14' 17.48" N 099° 40' 57.20" E |
| CL301 | 18° 03' 35.02" N 099° 34' 44.52" E |
| CL305 | 18° 04' 01.12" N 099° 29' 02.17" E |
| CL366 | 18° 11' 53.92" N 099° 30' 36.71" E |
| CL367 | 18° 13' 42.92" N 099° 30' 27.74" E |
| CL368 | 18° 15' 47.65" N 099° 30' 17.35" E |
| GULOS | 18° 22' 05.55" N 099° 40' 18.53" E |
| BOVBA | 18° 01' 35.74" N 099° 27' 08.57" E |
| MEBGO | 18° 21' 17.83" N 099° 29' 49.67" E |
| IGNUM | 18° 00' 19.42" N 099° 38' 43.93" E |
| SATBO | 18° 06' 35.78" N 099° 31' 03.10" E |

CHANGE: SPEED. CL366 COORDINATE.

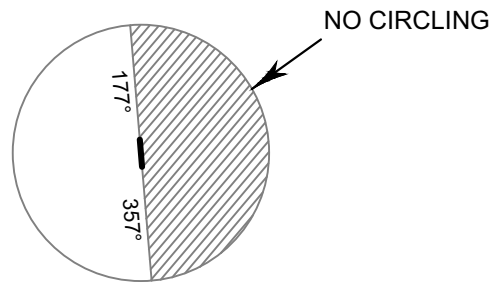
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 36 ELEV 814 FT

**LAMPANG / Lampang (VTCL)**

**LOC z RWY36**

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| (IF)<br>SATBO | 10.3D ILPN | 18° 06' 35.78" N | 099° 31' 03.10" E |
| (FAF)<br>CL366 | 5.0D ILPN | 18° 11' 53.92" N | 099° 30' 36.71" E |
| (SDF)<br>CL367 | 3.1D ILPN | 18° 13' 42.92" N | 099° 30' 27.74" E |
| (MAPt)<br>CL368 | 1.1D ILPN | 18° 15' 47.58" N | 099° 30' 17.31" E |
| LOC/DME | ILPN | 18° 16' 51.63" N | 099° 30' 11.99" E |




CHANGE: FAF.

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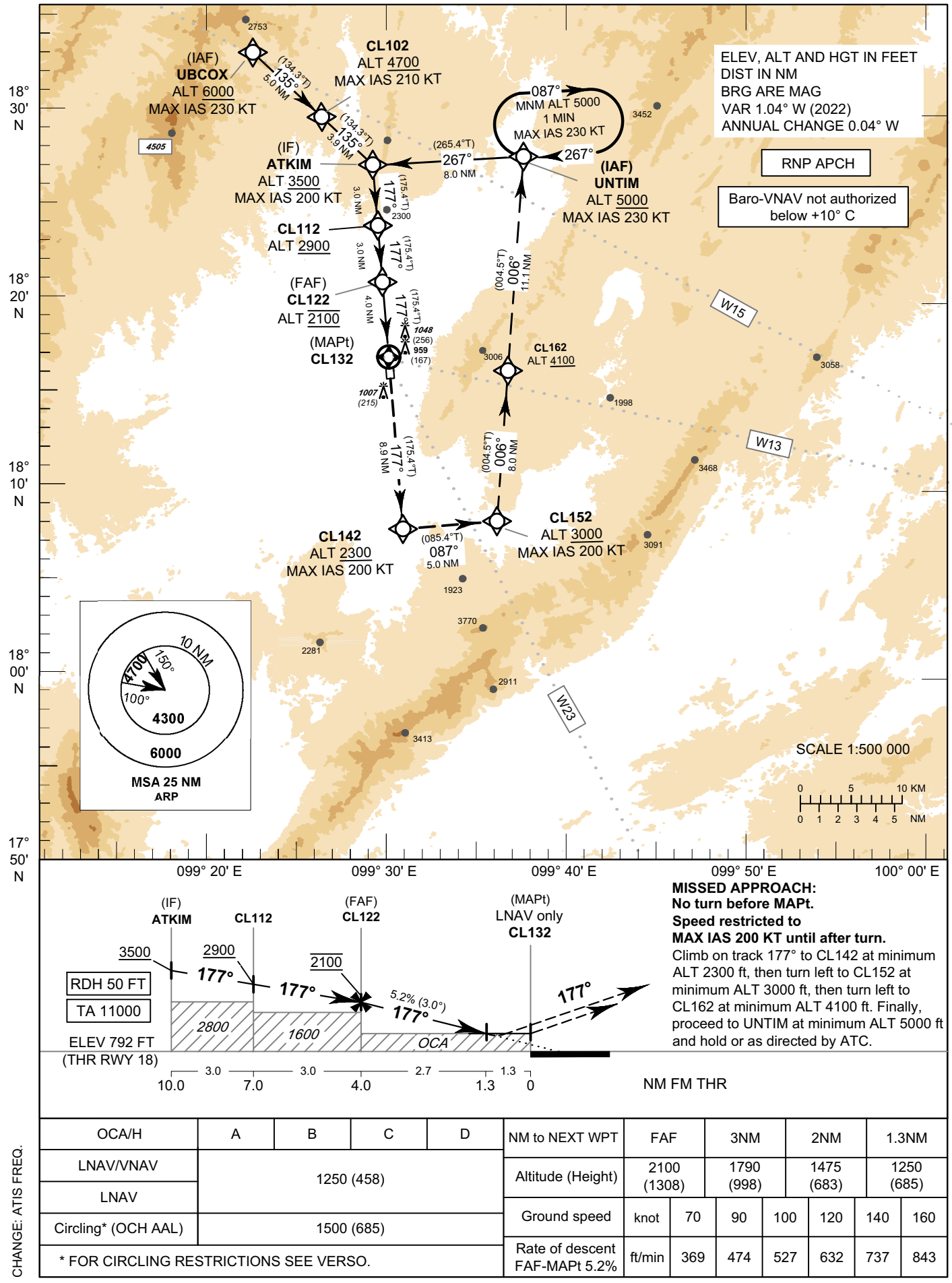
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 18 ELEV 792 FT

APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

**LAMPANG / Lampang (VTCL)**

**RNP RWY18**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 1250 (458) | | | |
| LNAV | | | | |
| Circling* (OCH AAL) | 1500 (685) | | | |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

| NM to NEXT WPT | FAF | 3NM | 2NM | 1.3NM |
|---|---|---|---|---|
| Altitude (Height) | 2100 (1308) | 1790 (998) | 1475 (683) | 1250 (685) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ATIS FREQ.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 18 ELEV 792 FT

**LAMPANG / Lampang (VTCL)**

**RNP RWY18**

**TABULAR DESCRIPTION**

| RNP RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IAF) UBCOX | - | - | +1.1 | - | - | +6000 | -230 | - | RNP APCH |
| 020 | TF | CL102 | - | 135° (134.3°) | +1.1 | 5.0 | - | +4700 | -210 | - | RNP APCH |
| 030 | TF | (IF) ATKIM | - | 135° (134.3°) | +1.1 | 3.9 | - | +3500 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | TF | (IAF) UNTIM | - | - | +1.1 | - | - | +5000 | -230 | - | RNP APCH |
| 020 | TF | (IF) ATKIM | - | 267° (265.4°) | +1.1 | 8.0 | - | +3500 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) ATKIM | - | - | +1.1 | - | - | +3500 | -200 | - | RNP APCH |
| 020 | TF | CL112 | - | 177° (175.4°) | +1.1 | 3.0 | - | +2900 | - | - | RNP APCH |
| 020 | TF | (FAF) CL122 | - | 177° (175.4°) | +1.1 | 3.0 | - | @2100 | - | - | RNP APCH |
| 030 | TF | (MAPt @ THR18) CL132 | Y | 177° (175.4°) | +1.1 | 4.0 | - | @842 | - | -3.0/50 | RNP APCH |
| 040 | TF | CL142 | - | 177° (175.4°) | +1.1 | 8.9 | - | +2300 | -200 | - | RNP APCH |
| 050 | TF | CL152 | - | 084° (085.4°) | +1.1 | 5.0 | - | +3000 | -200 | - | RNP APCH |
| 060 | TF | CL162 | - | 006° (004.5°) | +1.1 | 8.0 | - | +4100 | - | - | RNP APCH |
| 070 | TF | UNTIM | - | 006° (004.5°) | +1.1 | 11.1 | - | +5000 | -230 | - | RNP APCH |
| 080 | HM | UNTIM | Y | 267° (265.4°) | +1.1 | 1 minute | R | +5000 | -230 | - | RNP APCH |

CHANGE: CL142 AND CL152 SPEED ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

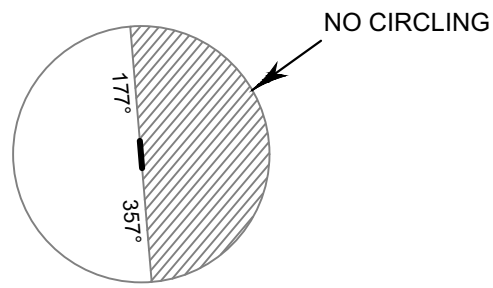
**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 18 ELEV 792 FT

**LAMPANG / Lampang (VTCL)**

**RNP RWY18**

**WAYPOINT LIST**

| **RNP RWY18** | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| ATKIM | 18° 26' 42.35" N 099° 29' 22.42" E |
| CL102 | 18° 29' 25.64" N 099° 26' 27.11" E |
| CL112 | 18° 23' 42.22" N 099° 29' 37.53" E |
| CL122 | 18° 20' 42.09" N 099° 29' 52.64" E |
| CL132 | 18° 16' 41.85" N 099° 30' 12.82" E |
| CL142 | 18° 07' 47.22" N 099° 30' 57.50" E |
| CL152 | 18° 08' 11.15" N 099° 36' 11.50" E |
| CL162 | 18° 16' 11.58" N 099° 36' 50.83" E |
| LAMEM | 18° 21' 14.67" N 099° 38' 16.16" E |
| UBCOX | 18° 32' 56.23" N 099° 22' 40.56" E |
| UNTIM | 18° 27' 20.95" N 099° 37' 45.73" E |



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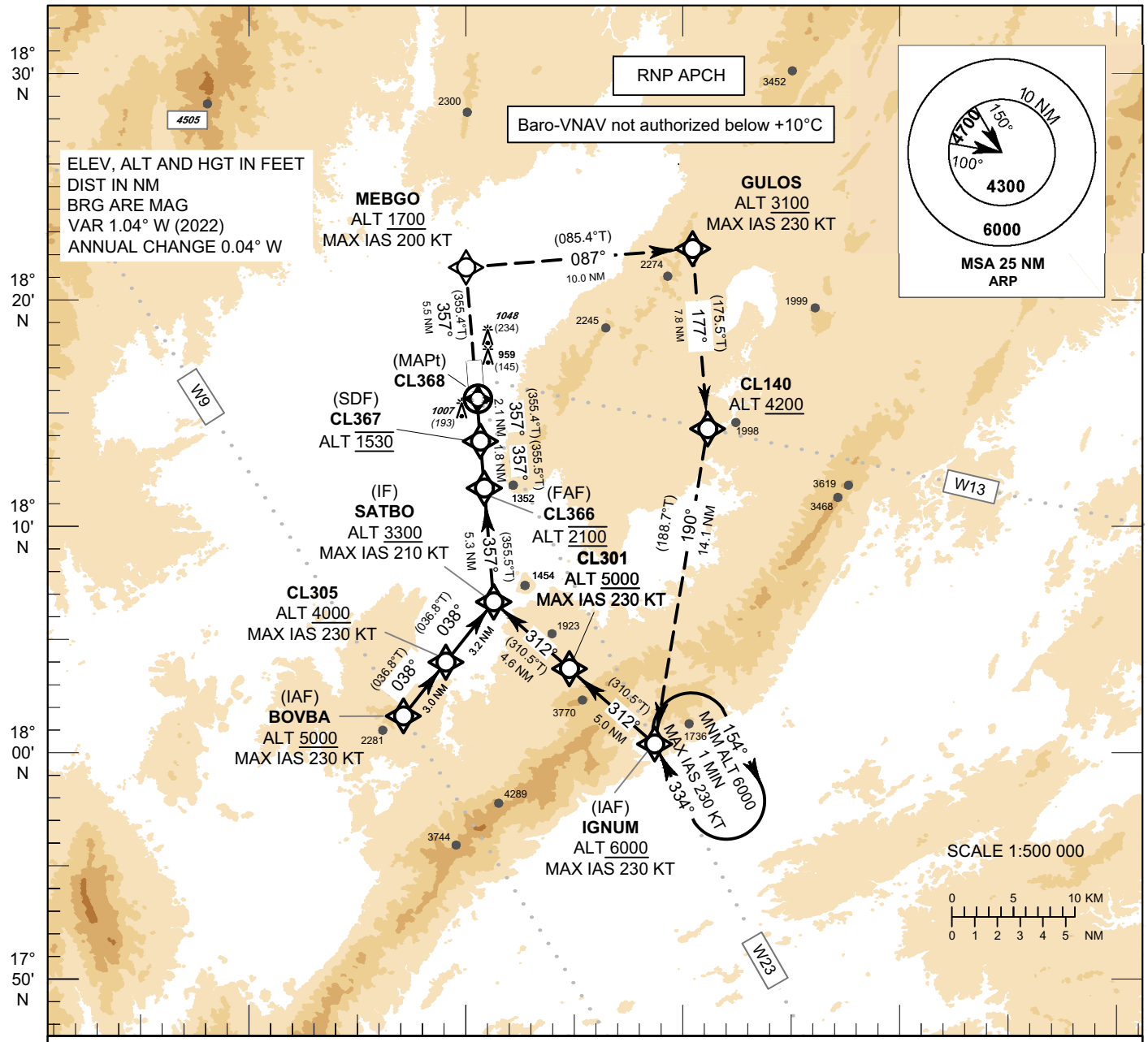
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 36 ELEV 814 FT

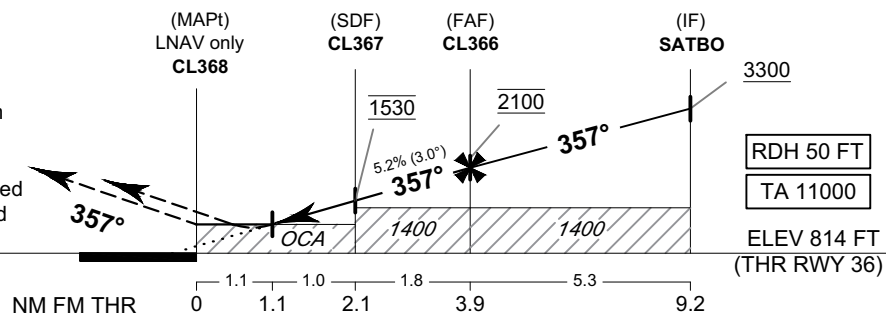
APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

**LAMPANG / Lampang (VTCL)**

**RNP RWY36**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb on track 357° to MEBGO at minimum ALT 1700 ft, then turn right to GULOS at minimum ALT 3100 ft, then turn right to CL140 at minimum ALT 4200 ft, then proceed to IGNUM at minimum ALT 6000 ft and hold or as directed by ATC.




CHANGE: ATIS FREQ.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 1210 (396) | | | |
| LNAV | | | | |
| Circling* (OCH AAL) | 1500 (685) | | | |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

| NM to NEXT WPT | 1.1 NM | 2 NM | 3 NM | FAF |
|---|---|---|---|---|
| Altitude (Height) | 1210 (396) | 1495 (681) | 1810 (996) | 2100 (1286) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 36 ELEV 814 FT

**LAMPANG / Lampang (VTCL)**

**RNP RWY36**

CHANGE: SPEED.

**TABULAR DESCRIPTION**

**RNP RWY36**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | TF | (IAF) BOVBA | - | | +1.1 | - | - | +5000 | -230 | - | RNP APCH |
| 020 | TF | CL305 | - | 038° (036.8°) | +1.1 | 3.0 | - | +4000 | - | - | RNP APCH |
| 030 | TF | (IF) SATBO | - | 038° (036.8°) | +1.1 | 3.2 | - | +3300 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | TF | (IAF) IGNUM | - | - | +1.1 | - | - | +6000 | -230 | - | RNP APCH |
| 020 | TF | CL301 | - | 312° (310.5°) | +1.1 | 5.0 | - | +5000 | - | - | RNP APCH |
| 030 | TF | (iF) SATBO | - | 312° (310.5°) | +1.1 | 4.6 | - | +3300 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) SATBO | - | - | +1.1 | - | - | +3300 | -210 | - | RNP APCH |
| 020 | TF | (FAF) CL366 | - | 357° (355.5°) | +1.1 | 5.3 | - | @2100 | - | - | RNP APCH |
| 030 | TF | (SDF) CL367 | - | 357° (355.5°) | +1.1 | 1.8 | - | @1530 | - | - | RNP APCH |
| 040 | TF | (MAPt @ THR36) CL368 | Y | 357° (355.4°) | +1.1 | 2.1 | - | @864 | - | -3.0/50 | RNP APCH |
| 050 | TF | MEBGO | - | 357° (355.4°) | +1.1 | 5.5 | - | +1700 | -200 | - | RNP APCH |
| 060 | TF | GULOS | - | 089° (085.4°) | +1.1 | 10.0 | - | +3100 | -230 | - | RNP APCH |
| 070 | TF | CL140 | - | 177° (175.5°) | +1.1 | 7.8 | - | +4200 | - | - | RNP APCH |
| 080 | TF | (IAF) IGNUM | - | 190° (188.7°) | +1.1 | 14.1 | - | +6000 | -230 | - | RNP APCH |
| 090 | HM | (IAF) IGNUM | Y | 334° (333.4°) | +1.1 | 1 minute | R | +6000 | -230 | - | RNP APCH |

**INSTRUMENT APPROACH CHART - ICAO**

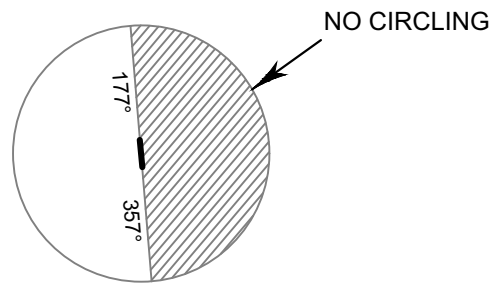
**AERODROME ELEV 815 FT**
HEIGHTS RELATED TO
THR RWY 36 ELEV 814 FT

**LAMPANG / Lampang (VTCL)**

**RNP RWY36**

**WAYPOINT LIST**

| RNP RWY36 | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| CL140 | 18° 14' 17.48" N 099° 40' 57.20" E |
| CL301 | 18° 03' 35.02" N 099° 34' 44.52" E |
| CL305 | 18° 04' 01.12" N 099° 29' 02.17" E |
| CL366 | 18° 11' 53.92" N 099° 30' 36.71" E |
| CL367 | 18° 13' 42.92" N 099° 30' 27.74" E |
| CL368 | 18° 15' 47.65" N 099° 30' 17.35" E |
| GULOS | 18° 22' 05.55" N 099° 40' 18.53" E |
| BOVBA | 18° 01' 35.74" N 099° 27' 08.57" E |
| MEBGO | 18° 21' 17.83" N 099° 29' 49.67" E |
| IGNUM | 18° 00' 19.42" N 099° 38' 43.93" E |
| SATBO | 18° 06' 35.78" N 099° 31' 03.10" E |



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## VTUL AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUL - LOEI / LOEI AIRPORT

## VTUL AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 172620.88N 1014319.43E |
| 2 | Direction and distance from (city) | 5 KM, from city |
| 3 | Elevation/Reference temperature | 860 FT/30°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.82°W (2016)/0.0°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Loei Airport<br>Loei Airport<br>Loei Province<br>42000<br>Thailand<br>Tel: +664 281 2654<br>+664 281 1521<br>Fax: +664 281 2654<br>AFS: VTULYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTUL AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Udon Thani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +664 223 0124<br>+669 2262 3477<br>Fax: +664 224 2797 |

## VTUL AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTUL AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | NIL |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTUL AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUL AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUL AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 45/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 42/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 854 FT (260.36 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUL AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>VDGS of aircraft stands: NIL,<br>aircraft parking shall follow marshaller strictly. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: TWY CL, TWY Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUL AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| RWY 19 /<br>APCH area<br>RWY 01 /<br>TKOF area | NDB<br>895 FT (272.70 M)<br>Painted red/white<br>LGTD | 172656.04N<br>1014336.15E | AWOS<br>842 FT (256.55 M)<br>Painted red/white<br>LGTD | 172558.51N<br>1014315.27E | NIL |
| | Billboard<br>887 FT (270.50 M)<br>NIL / NIL | 172722.12N<br>1014345.43E | AWOS<br>839 FT (255.78 M)<br>Painted red/white<br>LGTD | 172558.70N<br>1014315.31E | |
| | Radio mast<br>953 FT (290.62 M)<br>Painted red/white<br>LGTD | 172711.03N<br>1014345.85E | NDB<br>895 FT (272.90 M)<br>Painted red/white<br>LGTD | 172654.08N<br>1014334.85E | |
| | Radio mast<br>950 FT (289.49 M)<br>Painted red/white<br>LGTD | 172749.59N<br>1014342.73E | Water tank<br>908 FT (276.88 M)<br>Painted red/white<br>LGTD | 172646.66N<br>1014338.31E | |
| | Telecommunication mast<br>951 FT (289.76 M)<br>Painted red/white<br>LGTD | 172749.95N<br>1014340.24E | Radio mast<br>1,011 FT (308.23 M)<br>Painted red/white<br>LGTD | 172605.39N<br>1014336.40E | |
| | Telecommunication mast<br>959 FT (292.32 M)<br>Painted red/white<br>LGTD | 172749.16N<br>1014342.65E | Radio mast<br>978 FT (298.02 M)<br>Painted red/white<br>LGTD | 172611.09N<br>1014338.99E | |
| | | | Radio mast<br>901 FT (274.57 M)<br>NIL / NIL | 172643.69N<br>1014336.74E | |
| | | | Radio mast<br>1,174 FT (357.92 M)<br>Painted red/white<br>LGTD | 172831.80N<br>1014323.91E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Radio mast<br>1,229 FT (374.61 M)<br>Painted red/white<br>LGTD | 172332.84N<br>1014417.61E | |
| | | | Telecommunication mast<br>1,002 FT (305.35 M)<br>Painted red/white<br>LGTD | 172549.63N<br>1014339.64E | |
| | | | Telecommunication mast<br>976 FT (297.58 M)<br>NIL / NIL | 172551.36N<br>1014337.45E | |
| | | | Telecommunication mast<br>974 FT (296.89 M)<br>Painted red/white<br>LGTD | 172659.38N<br>1014352.17E | |
| | | | Telecommunication mast<br>1,076 FT (328.07 M)<br>NIL / LGTD | 172726.74N<br>1014221.36E | |
| | | | Telecommunication mast<br>1,026 FT (312.62 M)<br>Painted red/white<br>LGTD | 172734.24N<br>1014216.47E | |
| | | | Telecommunication mast<br>1,046 FT (318.78 M)<br>Painted red/white<br>LGTD | 172733.58N<br>1014233.92E | |
| | | | Telecommunication mast<br>1,077 FT (328.24 M)<br>Painted red/white<br>LGTD | 172353.67N<br>1014412.43E | |
| | | | Lightning rod on top of building<br>918 FT (279.76 M)<br>NIL / NIL | 172612.28N<br>1014326.63E | |
| | | | Apron flood light pole<br>942 FT (287.18 M)<br>NIL / LGTD | 172641.80N<br>1014335.10E | |
| | | | Apron flood light pole<br>941 FT (286.74 M)<br>NIL / LGTD | 172643.84N<br>1014335.75E | |
| | | | Apron flood light pole<br>940 FT (286.40 M)<br>NIL / LGTD | 172646.49N<br>1014336.57E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | ATC tower<br>945 FT (287.90 M)<br>Painted red/white<br>LGTD | 172643.51N<br>1014335.96E | |

**VTUL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED**

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Loei,<br>Upper Northeastern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1200<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Upper Northeastern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +664 281 4639 ext. 6715 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Loei TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUL AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 016.47° | 2100x45 | PCN 42/F/C/X/T Asphaltic concrete | 172548.12N 1014309.10E | THR 817 FT |
| 19 | 196.47° | 2100x45 | PCN 42/F/C/X/T Asphaltic concrete | 172653.63N 1014329.77E | THR 860 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location & description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| -0.60% | NIL | NIL | 2280x280 | 160x90 | NIL | NIL | NIL |
| -0.90% | 60x45 | NIL | 2280x280 | 240x90 | NIL | NIL | NIL |

## VTUL AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 2100 | 2100 | 2100 | 2100 | NIL |
| 19 | 2100 | 2100 | 2160 | 2100 | NIL |

## VTUL AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 01 | SALS 420 M LIH | Green NIL | PAPI Left 3° (48.61 FT) | NIL | NIL | 2100 M 60 M FM 0 M - 1500 M White, FM 1500 M -2100 M Yellow, 5 steps, LIH | Red NIL | NIL | NIL |
| 19 | NIL | Green NIL | PAPI Left 3° (52.65 FT) | NIL | NIL | 2100 M 60 M FM 0 M - 1500 M White, FM 1500 M -2100 M Yellow, 5 steps, LIH | Red NIL | 60 M Red | RTIL |

## VTUL AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building FLG W G EV 7 SEC<br>IBN: NIL |

| | | |
|---|---|---|
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI: 1. Wind cone at 300 M from THR 01 off set to the left side 80 M from RCL, illuminated.<br>2. Wind cone at 300 M from THR 19 off set to the left side 110 M from RCL, illuminated. |
| 3 | TWY edge and centre line lighting | TWY edge: All TWY<br>TWY centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at Airfield Lighting (AFL) building. |
| 5 | Remarks | NIL |

## VTUL AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTUL AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on Loei DVOR/DME (172649.4N 1014323.2E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Loei Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTUL AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Loei Approach | 122.55 MHz<br>121.5 MHz[1)] | As AD OPR HR | [1)]Emergency frequency |
| TWR | Loei Tower | 118.35 MHz<br>236.6 MHz<br>121.5 MHz[1)] | As AD OPR HR | |
| ATIS | Loei Airport | 126.25 MHz | As AD OPR HR | |

## VTUL AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | LY | 325 KHz | H24 | 172655.1N<br>1014335.5E | NIL | NDB: unusable due to excessive needle swing bearing 255 to 205 degrees, counter clockwise below 8000 ft. |
| DVOR/DME | LOY | 115.9 MHz<br>CH106X | H24 | 172649.4N<br>1014323.2E | | DVOR/DME restriction,<br>1. Unusable due to roughness out of tolerance<br>– Radial 020° between 10-11 DME altitude 3 000 ft.<br>– Radial 243° between 7-8 DME altitude 6 000 FT and between 32-33 DME altitude 7 500 ft.<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>1. 40 nm orbit<br>– Radial 030°-050° altitude should not below 10 000 ft.<br>– Radial 051°-100° altitude should not below 7 000 ft.<br>– Radial 101°-130° altitude should not below 10 000 ft.<br>– Radial 131°-200° altitude should not below 5 000 ft.<br>– Radial 201°-250° altitude should not below 12 000 ft.<br>– Radial 251°-270° altitude should not below 13 000 ft.<br>2.1 20 nm orbit (Due to border limited)<br>– Radial 271°-029° altitude should not below 4 500 ft. |

## VTUL AD 2.20 LOCAL AERODROME REGULATIONS

### 1. 180 DEGREE TURN ON THE RUNWAY

To prevent runway pavement damage, all aircraft code letter C or higher are not allowed to make 180 degree turn on the runway. The turn shall be made on the runway turn pad at the end of runway 01 and 19 only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand/The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTUL AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUL AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**3. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 01:

LOEI OMNI 01 Departure: Required climb gradient 365 ft per NM (6.0%) until 6,400 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 912 | 1216 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 3,000 ft (or altitude assigned by ATC between 3,000 ft – 5,700 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 19:

LOEI OMNI 19 Departure: Required climb gradient 414 ft per NM (6.8%) until 6,400 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.8% | (ft/min) | 448 | 516 | 689 | 1033 | 1377 | 1722 | 2066 |

No turn before DER.
After departure climb straight ahead until 3,000 ft (or altitude assigned by ATC between 3,000 ft – 5,700 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTUL AD 2.23 ADDITIONAL INFORMATION

**1. BIRD CONCENTRATIONS**

1.1 Bird Concentrations in the vicinity of the aerodrome

1.1.1 A number of varieties of birds are found in Loei Airport mostly during the rainy season (May to October) and the winter season (November to February), the very small to moderate medium birds commonly found in Loei Airport include the following:

- Hirundo rustica weighting: 0.07-0.2 KG Period: November-February

(2300-0300 UTC)

- Vanellus indicus weighting: 0.2-0.5 KG Period: May to October

1.1.2 There could be some activities to reduce birds and make the area unattractive for birds such as devices generating sound, mowing the grass and other plants.

## VTUL AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTUL-2-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ANLUR1A BARCE1A BOVGO1A DUBOL1A NOGAD1A RIBDO1A SWENI1A | AD 2-VTUL-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ANLUR1A BARCE1A BOVGO1A DUBOL1A NOGAD1A RIBDO1A SWENI1A (Tabular description) | AD 2-VTUL-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - ANLUR1A BARCE1A BOVGO1A DUBOL1A NOGAD1A RIBDO1A SWENI1A (Waypoint list table) | AD 2-VTUL-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ANLUR1B BARCE1B BOVGO1B DUBOL1B NOGAD1B RIBDO1B SWENI1B | AD 2-VTUL-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ANLUR1B BARCE1B BOVGO1B DUBOL1B NOGAD1B RIBDO1B SWENI1B (Tabular description) | AD 2-VTUL-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ANLUR1B BARCE1B BOVGO1B DUBOL1B NOGAD1B RIBDO1B SWENI1B (Waypiont list table) | AD 2-VTUL-6-7 |
| Instrument Approach Chart - ICAO - VOR RWY 19 | AD 2-VTUL-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 19 (Fix and point list table) | AD 2-VTUL-8-2 |
| Instrument Approach Chart - ICAO - RNP RWY 19 | AD 2-VTUL-8-3 |
| Instrument Approach Chart - ICAO - RNP RWY 19 (Tabular description) | AD 2-VTUL-8-4 |
| Instrument Approach Chart - ICAO - RNP RWY 19 (Waypoint list table) | AD 2-VTUL-8-5 |

# AERODROME CHART - ICAO

17 26 20.88 N
101 43 19.43 E

**ELEV 860 FT**

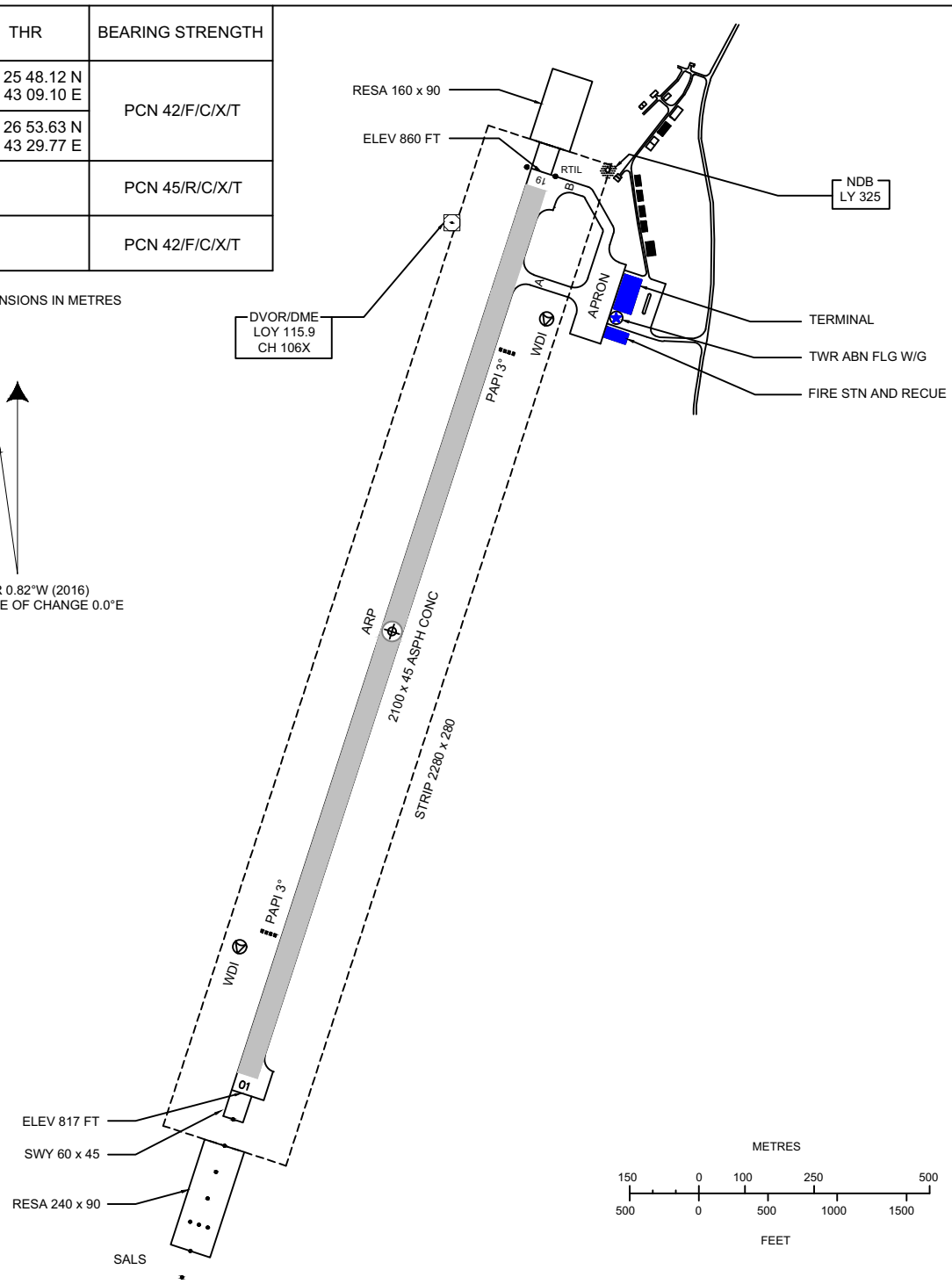
| TWR | 118.35 |
|---|---|
| | 236.6 |

**LOEI / Loei**

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 01 | 016.47° | 17 25 48.12 N<br>101 43 09.10 E | PCN 42/F/C/X/T |
| 19 | 196.47° | 17 26 53.63 N<br>101 43 29.77 E | |
| APRON | | | PCN 45/R/C/X/T |
| TWY A AND B | | | PCN 42/F/C/X/T |

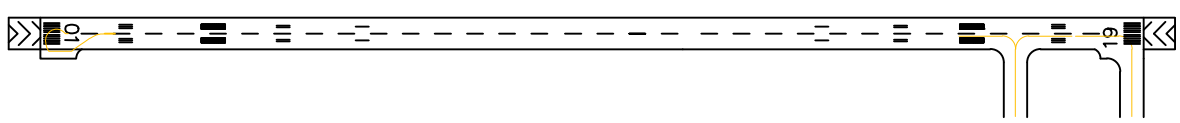
ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

MAG VAR 0.82°W (2016)
ANNUAL RATE OF CHANGE 0.0°E

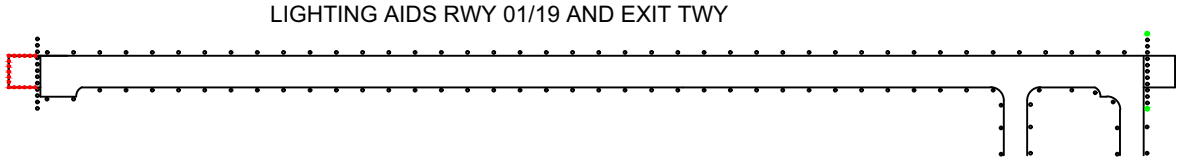



Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 01/19 AND EXIT TWY




LIGHTING AIDS RWY 01/19 AND EXIT TWY



CHANGE : REVISED CHART. TWR FREQ. TABULAR INFO. MAG VAR. ANNUAL RATE OF CHANGE. TDZ ELEV CANCELLED.
RESA 01/19 DIMS. RTIL RWY 19. SALS RWY 01. DVOR/DME FREQ. WDI. RIGHT PAPI 01/19 CANCELLED. SWY 01 CANCELLED.

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## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

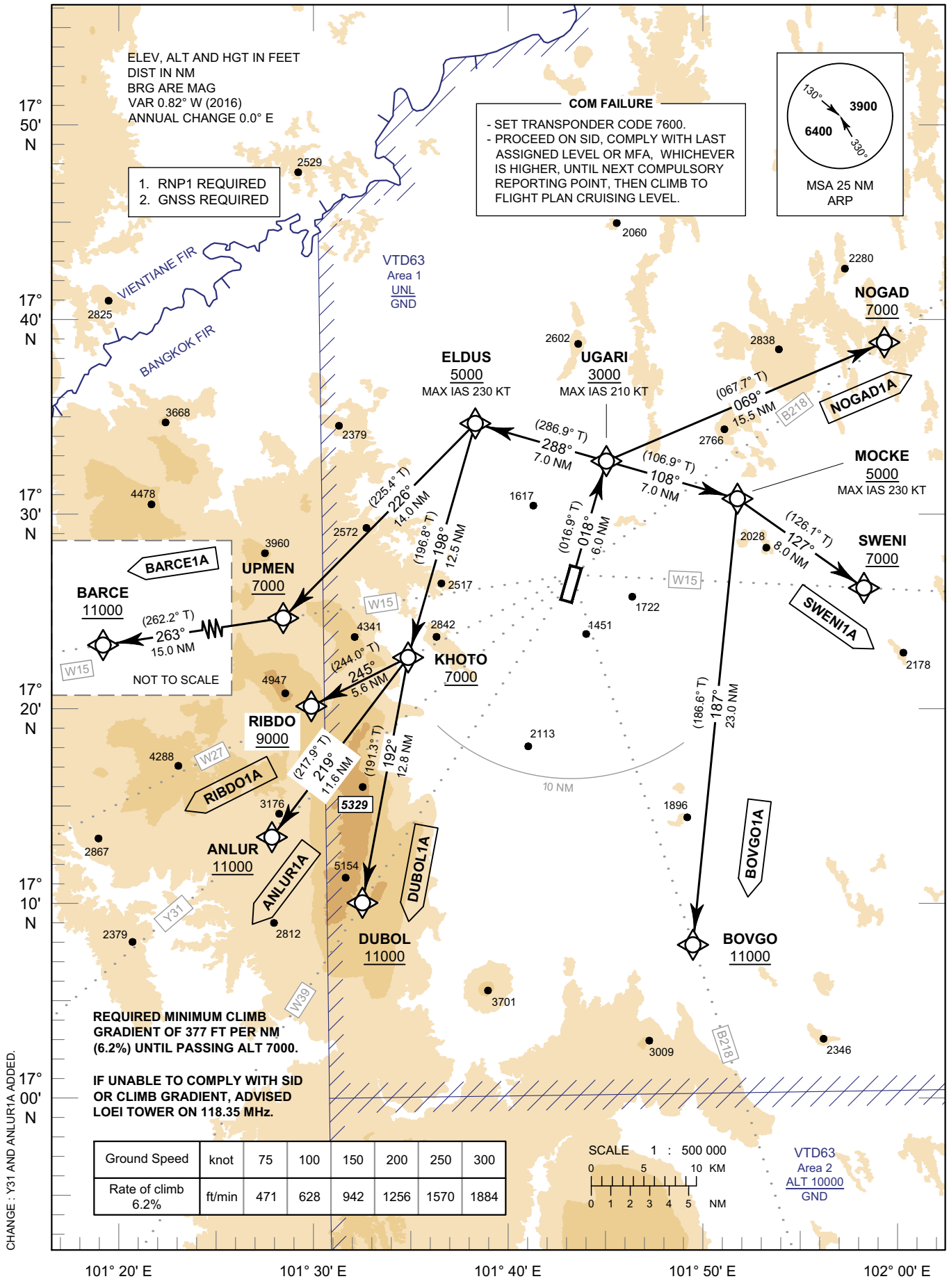
TRANSITION ALTITUDE
11000 FT

APP : 122.55
TWR : 118.35 , 236.6
ATIS : 126.25

## LOEI / Loei (VTUL)

## RNAV RWY01

ANLUR1A BARCE1A BOVGO1A
DUBOL1A NOGAD1A RIBDO1A SWENI1A




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of climb 6.2% | ft/min | 471 | 628 | 942 | 1256 | 1570 | 1884 |

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

## LOEI / Loei (VTUL)

### RNAV RWY01

ANLUR1A BARCE1A BOVGO1A
DUBOL1A NOGAD1A RIBDO1A SWENI1A

**TABULAR DESCRIPTION**

**RNAV RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ANLUR1A TO Y31 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | UGARI | - | 018° (016.9°) | +0.82 | 6.0 | - | +3000 | -210 | - | RNP 1 |
| 030 | TF | ELDUS | - | 288° (286.9°) | +0.82 | 7.0 | - | +5000 | -230 | - | RNP 1 |
| 040 | TF | KHOTO | - | 198° (196.8°) | +0.82 | 12.5 | - | +7000 | - | - | RNP 1 |
| 050 | TF | ANLUR | - | 219° (217.9°) | +0.82 | 11.6 | - | +11000 | - | - | RNP 1 |
| BARCE1A TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | UGARI | - | 018° (016.9°) | +0.82 | 6.0 | - | +3000 | -210 | - | RNP 1 |
| 030 | TF | ELDUS | - | 288° (286.9°) | +0.82 | 7.0 | - | +5000 | -230 | - | RNP 1 |
| 040 | TF | UPMEN | - | 226° (225.4°) | +0.82 | 14.0 | - | +7000 | - | - | RNP 1 |
| 050 | TF | BARCE | - | 263° (262.2°) | +0.82 | 15.0 | - | +11000 | - | - | RNP 1 |
| BOVGO1A TO B218 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | UGARI | - | 018° (016.9°) | +0.82 | 6.0 | - | +3000 | -210 | - | RNP 1 |
| 030 | TF | MOCKE | - | 108° (106.9°) | +0.82 | 7.0 | - | +5000 | -230 | - | RNP 1 |
| 040 | TF | BOVGO | - | 187° (186.6°) | +0.82 | 23.0 | - | +11000 | - | - | RNP 1 |
| DUBOL1A TO W39 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | UGARI | - | 018° (016.9°) | +0.82 | 6.0 | - | +3000 | -210 | - | RNP 1 |
| 030 | TF | ELDUS | - | 288° (286.9°) | +0.82 | 7.0 | - | +5000 | -230 | - | RNP 1 |
| 040 | TF | KHOTO | - | 198° (196.8°) | +0.82 | 12.5 | - | +7000 | - | - | RNP 1 |
| 050 | TF | DUBOL | - | 192° (191.3°) | +0.82 | 12.8 | - | +11000 | - | - | RNP 1 |
| NOGAD1A TO B218 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | UGARI | - | 018° (016.9°) | +0.82 | 6.0 | - | +3000 | -210 | - | RNP 1 |
| 030 | TF | NOGAD | - | 069° (067.7°) | +0.82 | 15.5 | - | +7000 | - | - | RNP 1 |
| RIBDO1A TO W27 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | UGARI | - | 018° (016.9°) | +0.82 | 6.0 | - | +3000 | -210 | - | RNP 1 |
| 030 | TF | ELDUS | - | 288° (286.9°) | +0.82 | 7.0 | - | +5000 | -230 | - | RNP 1 |
| 040 | TF | KHOTO | - | 198° (196.8°) | +0.82 | 12.5 | - | +7000 | - | - | RNP 1 |
| 050 | TF | RIBDO | - | 245° (244.0°) | +0.82 | 5.6 | - | +9000 | - | - | RNP 1 |
| SWENI1A TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | UGARI | - | 018° (016.9°) | +0.82 | 6.0 | - | +3000 | -210 | - | RNP 1 |
| 030 | TF | MOCKE | - | 108° (106.9°) | +0.82 | 7.0 | - | +5000 | -230 | - | RNP 1 |
| 040 | TF | SWENI | - | 127° (126.1°) | +0.82 | 8.0 | - | +7000 | - | - | RNP 1 |

CHANGE : ANLUR1A ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**LOEI / Loei (VTUL)**

**RNAV RWY01**

ANLUR1A BARCE1A BOVGO1A
DUBOL1A NOGAD1A RIBDO1A SWENI1A

**WAYPOINT LIST**

| RNAV RWY01 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| DER RWY01 | 17° 26' 53.63" N 101° 43' 29.77" E |
| ANLUR | 17° 13' 30.25" N 101° 27' 05.46" E |
| BARCE | 17° 22' 44.72" N 101° 12' 18.80" E |
| BOVGO | 17° 07' 39.61" N 101° 49' 35.15" E |
| DUBOL | 17° 10' 03.52" N 101° 31' 53.94" E |
| ELDUS | 17° 34' 41.66" N 101° 38' 18.21" E |
| KHOTO | 17° 22' 40.76" N 101° 34' 31.47" E |
| MOCKE | 17° 30' 37.19" N 101° 52' 19.60" E |
| NOGAD | 17° 38' 33.69" N 102° 00' 20.87" E |
| RIBDO | 17° 20' 13.68" N 101° 29' 17.58" E |
| SWENI | 17° 25' 55.41" N 101° 59' 02.73" E |
| UGARI | 17° 32' 39.55" N 101° 45' 18.98" E |
| UPMEN | 17° 24' 47.68" N 101° 27' 50.87" E |

CHANGE : ANLUR WAYPOINT ADDED.

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## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

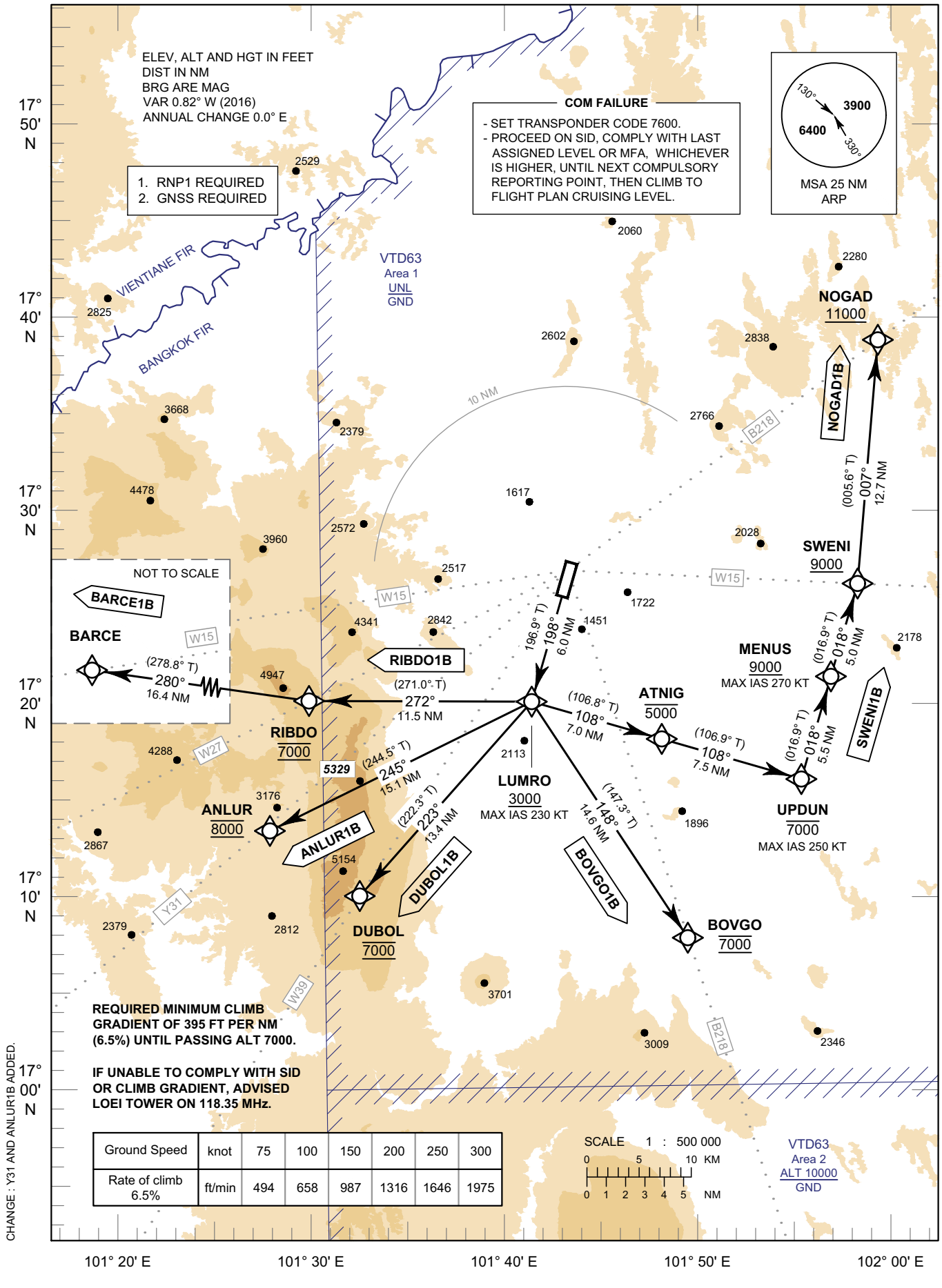
TRANSITION ALTITUDE
11000 FT

APP : 122.55
TWR : 118.35 , 236.6
ATIS : 126.25

## LOEI / Loei (VTUL)

## RNAV RWY19

ANLUR1B BARCE1B BOVGO1B
DUBOL1B NOGAD1B RIBDO1B SWENI1B




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of climb 6.5% | ft/min | 494 | 658 | 987 | 1316 | 1646 | 1975 |

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

## LOEI / Loei (VTUL)

### RNAV RWY19

ANLUR1B BARCE1B BOVGO1B
DUBOL1B NOGAD1B RIBDO1B SWENI1B

**TABULAR DESCRIPTION**

| RNAV RWY19 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ANLUR1B TO Y31 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | LUMRO | - | 198° (196.9°) | +0.82 | 6.0 | - | +3000 | -230 | - | RNP 1 |
| 030 | TF | ANLUR | - | 245° (244.5°) | +0.82 | 15.1 | - | @8000 | - | - | RNP 1 |
| BARCE1B TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | LUMRO | - | 198° (196.9°) | +0.82 | 6.0 | - | +3000 | -230 | - | RNP 1 |
| 030 | TF | RIBDO | - | 272° (271.0°) | +0.82 | 11.5 | - | @7000 | - | - | RNP 1 |
| 040 | TF | BARCE | - | 280° (278.8°) | +0.82 | 16.4 | - | - | - | - | RNP 1 |
| BOVGO1B TO B218 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | LUMRO | - | 198° (196.9°) | +0.82 | 6.0 | - | +3000 | -230 | - | RNP 1 |
| 030 | TF | BOVGO | - | 148° (147.3°) | +0.82 | 14.6 | - | @7000 | - | - | RNP 1 |
| DUBOL1B TO W39 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | LUMRO | - | 198° (196.9°) | +0.82 | 6.0 | - | +3000 | -230 | - | RNP 1 |
| 030 | TF | DUBOL | - | 223° (222.3°) | +0.82 | 13.4 | - | @7000 | - | - | RNP 1 |
| NOGAD1B TO B218 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | LUMRO | - | 198° (196.9°) | +0.82 | 6.0 | - | +3000 | -230 | - | RNP 1 |
| 030 | TF | ATNIG | - | 108° (106.8°) | +0.82 | 7.0 | - | -5000 | - | - | RNP 1 |
| 040 | TF | UPDUN | - | 108° (106.9°) | +0.82 | 7.5 | - | -7000 | -250 | - | RNP 1 |
| 050 | TF | MENUS | - | 018° (016.9°) | +0.82 | 5.5 | - | +9000 | -270 | - | RNP 1 |
| 060 | TF | SWENI | - | 018° (016.9°) | +0.82 | 5.0 | - | +9000 | - | - | RNP 1 |
| 070 | TF | NOGAD | - | 007° (005.6°) | +0.82 | 12.7 | - | +11000 | - | - | RNP 1 |
| RIIBDO1B TO W27 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | LUMRO | - | 198° (196.9°) | +0.82 | 6.0 | - | +3000 | -230 | - | RNP 1 |
| 030 | TF | RIBDO | - | 272° (271.0°) | +0.82 | 11.5 | - | @7000 | - | - | RNP 1 |
| SWENI1B TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +0.82 | - | - | - | - | - | RNP 1 |
| 020 | CF | LUMRO | - | 198° (196.9°) | +0.82 | 6.0 | - | +3000 | -230 | - | RNP 1 |
| 030 | TF | ATNIG | - | 108° (106.8°) | +0.82 | 7.0 | - | -5000 | - | - | RNP 1 |
| 040 | TF | UPDUN | - | 108° (106.9°) | +0.82 | 7.5 | - | -7000 | -250 | - | RNP 1 |
| 050 | TF | MENUS | - | 018° (016.9°) | +0.82 | 5.5 | - | +9000 | -270 | - | RNP 1 |
| 060 | TF | SWENI | - | 018° (016.9°) | +0.82 | 5.0 | - | +9000 | - | - | RNP 1 |

CHANGE : ANLUR1B ADDED.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**LOEI / Loei (VTUL)**

**RNAV RWY19**

ANLUR1B BARCE1B BOVGO1B
DUBOL1B NOGAD1B RIBDO1B SWENI1B

**WAYPOINT LIST**

| RNAV RWY19 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| DER RWY19 | 17° 25' 48.12" N 101° 43' 09.10" E |
| ANLUR | 17° 13' 30.25" N 101° 27' 05.46" E |
| ATNIG | 17° 18' 00.22" N 101° 48' 19.99" E |
| BARCE | 17° 22' 44.72" N 101° 12' 18.80" E |
| BOVGO | 17° 07' 39.61" N 101° 49' 35.15" E |
| DUBOL | 17° 10' 03.52" N 101° 31' 53.94" E |
| LUMRO | 17° 20' 02.18" N 101° 41' 20.01" E |
| MENUS | 17° 21' 07.25" N 101° 57' 31.40" E |
| NOGAD | 17° 38' 33.69" N 102° 00' 20.87" E |
| RIBDO | 17° 20' 13.68" N 101° 29' 17.58" E |
| SWENI | 17° 25' 55.41" N 101° 59' 02.73" E |
| UPDUN | 17° 15' 48.74" N 101° 55' 50.55" E |

CHANGE : ANLUR WAYPOINT ADDED.

**INTENTIONALLY BLANK**

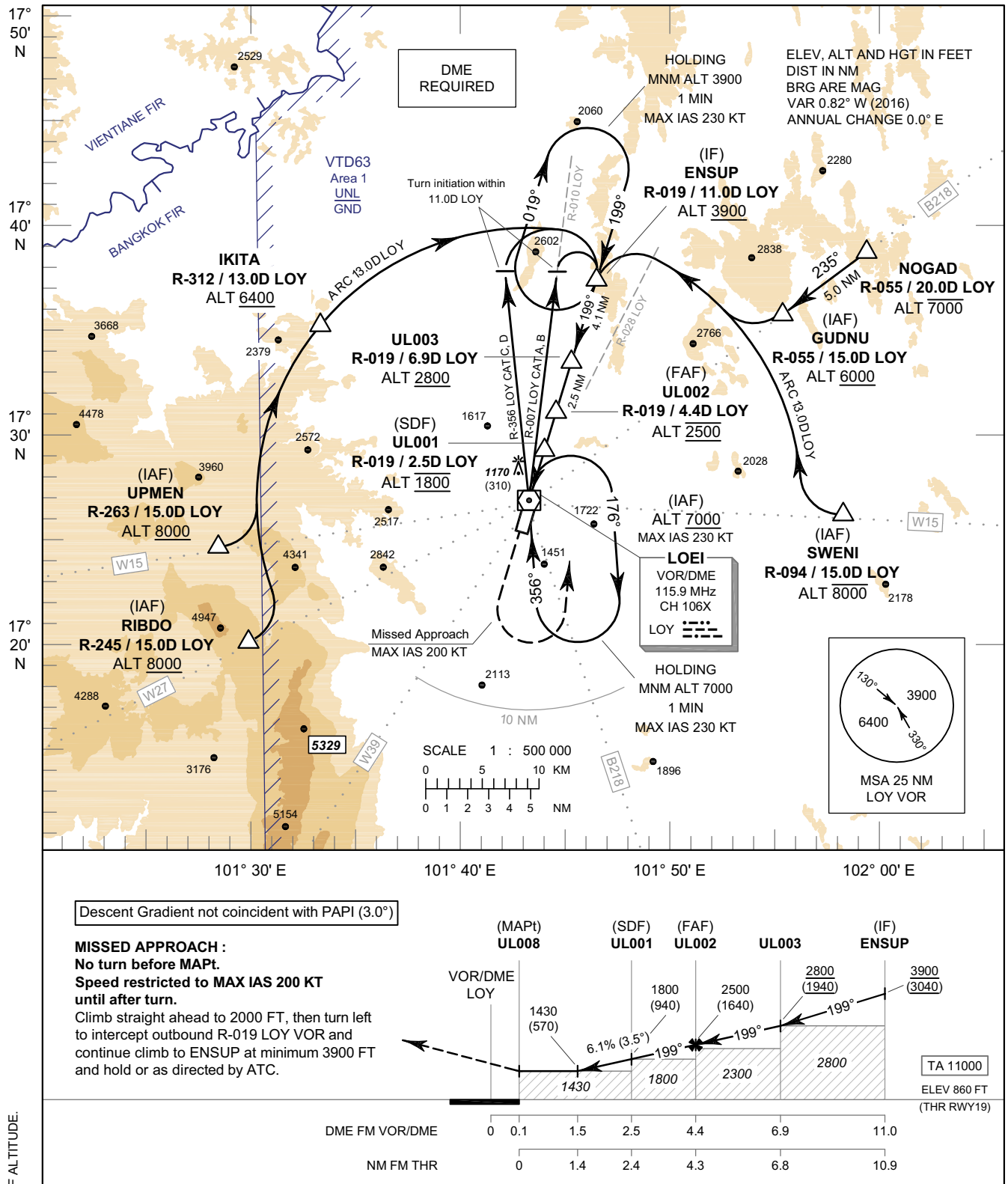
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 860 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 122.55
TWR : 118.35 , 236.6
ATIS : 126.25

**LOEI / Loei (VTUL)**

**VOR RWY19**




Descent Gradient not coincident with PAPI (3.0°)

**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 200 KT until after turn.**
Climb straight ahead to 2000 FT, then turn left to intercept outbound R-019 LOY VOR and continue climb to ENSUP at minimum 3900 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 1430 (570) | | | |
| Circling (OCH AAL) | 2400 (1540) | | | |

| Distance (LOY) | | 1.5D | 2D | 3D | 4D | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1430 (570) | 1615 (755) | 1985 (1125) | 2355 (1495) | 2500 (1640) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 6.1% | ft/min | 432 | 556 | 618 | 741 | 865 | 988 |

CHANGE : MAPt NAME. SDF ALTITUDE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 860 FT**
HEIGHT RELATED TO AERODROME ELEV

**LOEI / Loei (VTUL)**

**VOR RWY19**

| Fix / Point | | Corrdinates | |
|---|---|---|---|
| (IAF) VOR | LOY | 17° 26' 49.35" N | 101° 43' 23.18" E |
| (IAF) RIBDO | R-245 / 15.0D LOY | 17° 20' 13.68" N | 101° 29' 17.58" E |
| (IAF) UPMEN | R-263 / 15.0D LOY | 17° 24' 47.68" N | 101° 27' 50.87" E |
| IKITA | R-312 / 13.0D LOY | 17° 35' 20.75" N | 101° 33' 05.54" E |
| (IAF) SWENI | R-094 / 15.0D LOY | 17° 25' 55.41" N | 101° 59' 02.73" E |
| NOGAD | R-055 / 20.0D LOY | 17° 38' 33.69" N | 102° 00' 20.87" E |
| (IAF) GUDNU | R-055 / 15.0D LOY | 17° 35' 37.80" N | 101° 56' 06.27" E |
| (IAF) ENSUP | R-019 / 11.0D LOY | 17° 37' 19.65" N | 101° 46' 54.81" E |
| UL003 | R-019 / 6.9D LOY | 17° 33' 25.00" N | 101° 45' 35.97" E |
| (FAF) UL002 | R-019 / 4.4D LOY | 17° 31' 01.65" N | 101° 44' 47.84" E |
| (SDF) UL001 | R-019 / 2.5D LOY | 17° 29' 12.71" N | 101° 44' 11.28" E |
| (MAPt) UL008 | R-019 / 0.1D LOY | 17° 26' 55.08" N | 101° 43' 25.10" E |

CHANGE : VOR, WP UL003, FAF, SDF AND MAPt COORDINATE.

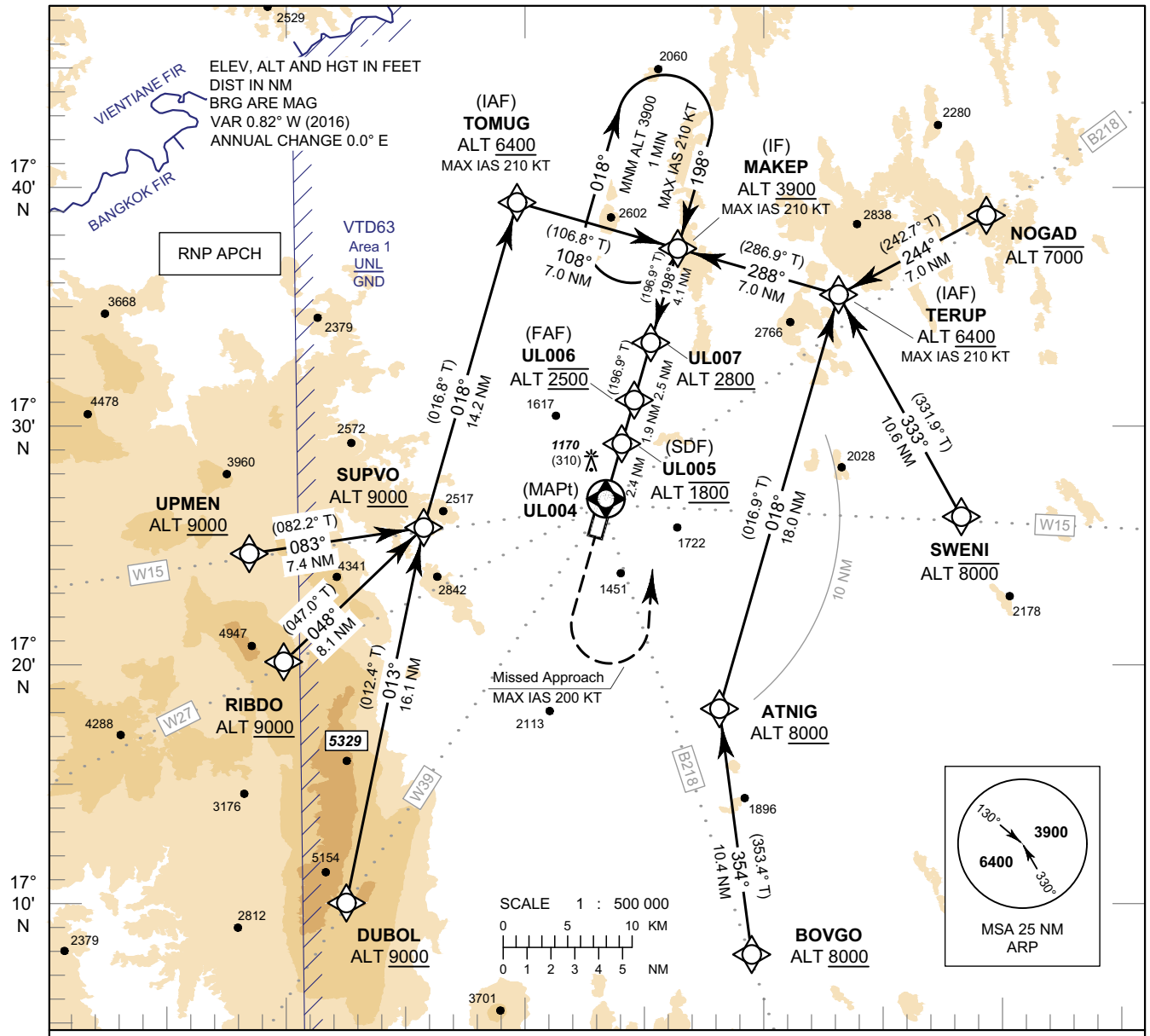
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 860 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 122.55
TWR : 118.35 , 236.6
ATIS : 126.25

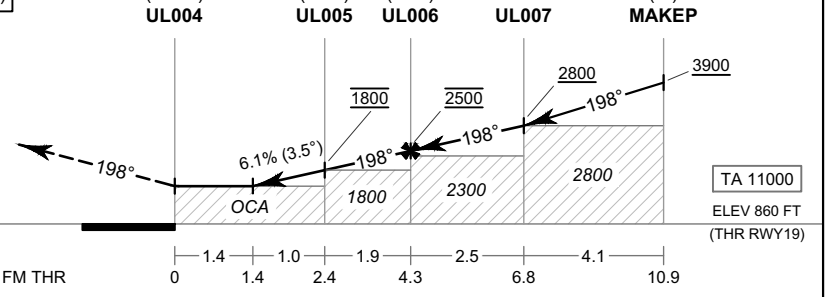
**LOEI / Loei (VTUL)**

**RNP RWY19**




Descent Gradient not coincident with PAPI (3.0°)

**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 200 KT until after turn.**
Climb on track 198° to 2000 FT, then turn left direct to MAKEP at minimum 3900 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV | 1430 (570) | | | |
| Circling (OCH AAL) | 2400 (1540) | | | |

| NM to NEXT WPT | | 1.4 NM | 2 NM | 3 NM | 4D | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1430 (570) | 1650 (790) | 2020 (1160) | 2395 (1535) | 2500 (1640) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 6.1% | ft/min | 432 | 556 | 618 | 741 | 865 | 988 |

CHANGE : DUBOL, RIBDO, SUPVO AND UPMEN ALTITUDE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 860 FT**
HEIGHT RELATED TO
AERODROME ELEV

**LOEI / Loei (VTUL)**

**RNP RWY19**

**TABULAR DESCRIPTION**

**RNP RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | DUBOL | - | - | +0.82 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | SUPVO | - | 013°(012.4°) | +0.82 | 16.1 | - | +9000 | - | - | RNP APCH |
| 030 | TF | (IAF) TOMUG | - | 018°(016.8°) | +0.82 | 14.2 | - | +6400 | -210 | - | RNP APCH |
| 040 | TF | (IF) MAKEP | - | 108°(106.8°) | +0.82 | 7.0 | - | +3900 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RIBDO | - | - | +0.82 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | SUPVO | - | 048°(047.0°) | +0.82 | 8.1 | - | +9000 | - | - | RNP APCH |
| 030 | TF | (IAF) TOMUG | - | 018°(016.8°) | +0.82 | 14.2 | - | +6400 | -210 | - | RNP APCH |
| 040 | TF | (IF) MAKEP | - | 108°(106.8°) | +0.82 | 7.0 | - | +3900 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | UPMEN | - | - | +0.82 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | SUPVO | - | 083°(082.2°) | +0.82 | 7.4 | - | +9000 | - | - | RNP APCH |
| 030 | TF | (IAF) TOMUG | - | 018°(016.8°) | +0.82 | 14.2 | - | +6400 | -210 | - | RNP APCH |
| 040 | TF | (IF) MAKEP | - | 108°(106.8°) | +0.82 | 7.0 | - | +3900 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | BOVGO | - | - | +0.82 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | ATNIG | - | 354°(353.4°) | +0.82 | 10.4 | - | +8000 | - | - | RNP APCH |
| 030 | TF | (IAF) TERUP | - | 018°(016.9°) | +0.82 | 18.0 | - | +6400 | -210 | - | RNP APCH |
| 040 | TF | (IF) MAKEP | - | 288°(286.9°) | +0.82 | 7.0 | - | +3900 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SWENI | - | - | +0.82 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IAF) TERUP | - | 333°(331.9°) | +0.82 | 10.6 | - | +6400 | -210 | - | RNP APCH |
| 030 | TF | (IF) MAKEP | - | 288°(286.9°) | +0.82 | 7.0 | - | +3900 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | NOGAD | - | - | +0.82 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | (IAF) TERUP | - | 244°(242.7°) | +0.82 | 7.0 | - | +6400 | -210 | - | RNP APCH |
| 030 | TF | (IF) MAKEP | - | 288°(286.9°) | +0.82 | 7.0 | - | +3900 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | TF | (IF) MAKEP | - | - | +0.82 | - | - | +3900 | -210 | - | RNP APCH |
| 020 | TF | UL007 | - | 198°(196.9°) | +0.82 | 4.1 | - | +2800 | - | - | RNP APCH |
| 030 | TF | (FAF) UL006 | - | 198°(196.9°) | +0.82 | 2.5 | - | @2500 | - | - | RNP APCH |
| 040 | TF | (SDF) UL005 | - | 198°(196.9°) | +0.82 | 1.9 | - | @1800 | - | - | RNP APCH |
| 050 | TF | (MAPt@THR19) UL004 | Y | 198°(196.9°) | +0.82 | 2.4 | - | @1430 | - | - | RNP APCH |
| 060 | CA | - | - | 198°(196.9°) | +0.82 | - | - | +2000 | -200 | - | RNP APCH |
| 070 | DF | (IF) MAKEP | - | - | +0.82 | - | L | - | -200 | - | RNP APCH |
| 080 | HM | (IF) MAKEP | Y | 198°(196.9°) | +0.82 | 1 minute | R | +3900 | -210 | - | RNP APCH |

CHANGE : DUBOL, RIBDO, SUPVO AND UPMEN ALTITUDE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 860 FT**
HEIGHT RELATED TO
AERODROME ELEV

**LOEI / Loei (VTUL)**

**RNP RWY19**

**WAYPOINT LIST**

| RNP RWY19 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| ATNIG | 17° 18' 00.22" N 101° 48' 19.99" E |
| BOVGO | 17° 07' 39.61" N 101° 49' 35.15" E |
| DUBOL | 17° 10' 03.52" N 101° 31' 53.94" E |
| MAKEP | 17° 37' 22.06" N 101° 46' 48.19" E |
| NOGAD | 17° 38' 33.69" N 102° 00' 20.87" E |
| RIBDO | 17° 20' 13.68" N 101° 29' 17.58" E |
| SUPVO | 17° 25' 47.60" N 101° 35' 30.10" E |
| SWENI | 17° 25' 55.41" N 101° 59' 02.73" E |
| TERUP | 17° 35' 19.70" N 101° 53' 48.99" E |
| TOMUG | 17° 39' 24.17" N 101° 39' 47.24" E |
| UL004 | 17° 26' 53.63" N 101° 43' 29.77" E |
| UL005 | 17° 29' 12.00" N 101° 44' 13.44" E |
| UL006 | 17° 31' 01.54" N 101° 44' 48.02" E |
| UL007 | 17° 33' 25.68" N 101° 45' 33.53" E |
| UPMEN | 17° 24' 47.68" N 101° 27' 50.87" E |

CHANGE : REVISED CHART.

**INTENTIONALLY BLANK**

## VTBL AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTBL - LOP BURI / KHOK KATHIAM AIRPORT

## VTBL AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 145228.7N 1003948.2E |
| 2 | Direction and distance from (city) | 10 KM NE of City |
| 3 | Elevation/Reference temperature | 133 FT/34° C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0°39'W (2015) / 0°0' E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Wing 2, Khok Kathiam Air Force Base<br>Mueang District<br>Lop Buri Province<br>Tel: +663 677 6736<br>Fax: NIL<br>AFS: VTBLYXYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Royal Thai Air Force |

## VTBL AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 DAILY or on Request |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | 2300-1100 DAILY or on Request |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | 2300-1100 DAILY or on Request |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTBL AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JP8, Octane 100/130 |
| 3 | Fuelling facilities/capacity | 2 truck 8,000 L, 2 truck 12,000 L, 100 L/Min |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTBL AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |

| | | |
|---|---|---|
| 2 | Restaurants | In the city |
| 3 | Transportation | Buses |
| 4 | Medical facilities | First aid at airport, Hospital in the city |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTBL AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | Fire fighting service H 24 |

## VTBL AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTBL AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Apron (201) (Flight line1)<br>Surface: Asphalt<br>Strength: PCN 28/F/A/Y/T<br><br>Apron (201) (Flight line2)<br>Surface: Concrete<br>Strength: NIL<br><br>Apron (201) (Flight line3)<br>Surface: Concrete<br>Strength: NIL<br><br>Apron (202)<br>Surface: Concrete<br>Strength: PCN 35/R/C/W/T<br><br>Apron (203)<br>Surface: Concrete<br>Strength: PCN 35/R/C/W/T<br><br>Base Operation Apron<br>Surface: Asphalt<br>Strength: PCN 28/FA/Y/T |

| | | |
|---|---|---|
| 2 | Taxiway width, surface and strength | TWY A<br>Width: 30 m<br>Surface: Concrete and asphalt<br>Strength: PCN 11/F/C/Y/T<br><br>TWY B, F, G<br>Width: 25 m<br>Surface: Concrete<br>Strength: PCN 35/R/C/W/T<br><br>TWY C<br>Width: 24 m<br>Surface: Concrete<br>Strength: PCN 38/R/C/W/T<br><br>TWY D<br>Width: 24 m<br>Surface: Concrete<br>Strength: PCN 40/R/D/W/T<br><br>TWY E<br>Width: 30 m<br>Surface: Concrete<br>Strength: PCN 35/R/C/W/T<br><br>TWY H<br>Width: 15 m<br>Surface: Asphalt<br>Strength: NIL |
| 3 | Altimeter checkpoint location and elevation | Location : Apron 201 (Flight line1) Elevation : 27.45 m / 90.05 ft<br>Location : Apron 203 Elevation : 29.73 m / 97.53 ft<br>Location : Base operation apron Elevation : 27.10 m / 88.92 ft |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

**VTBL AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS**

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | NIL |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTBL AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| - | Radio Mast<br>HGT 158 m | 144935.0N 1004035.0E | Radio Mast<br>HGT 115 m<br>Painted red/white | 145235.9N 1003824.5E | NIL |
| - | Radio Mast<br>HGT 130 m<br>Painted red/white<br>LGTD on top | 144801.3N 1003833.9E | Radio Mast<br>HGT 65 m<br>Painted red/white<br>LGTD on top | 145218.3N 1003824.6E | |
| - | Radio Mast<br>HGT 60 m<br>Painted red/white<br>LGTD on top | 145057.7N 1003955.6E | Phu-kha Mountain<br>HGT 430 m | 145537.4N 1004038.6E | |
| - | Radio Mast<br>HGT 60 m<br>Painted red/white<br>LGTD on top | 144809.1N 1003911.3E | Wong Phrachan Mountain<br>HGT 644 m | 145741.7N 1004237.0E | |
| - | Radio Mast 74.05 m (MSL)<br>Painted red/white<br>LGTD on top | 145104.9N 1003837.5 E | Phu-Lon Mountain<br>HGT 290 m | 145448.1N 1004150.2E | |
| | Sam Yot Mountain<br>HGT 432 m | 145119.8N 1004058.1E | Sung Nam Mountain<br>HGT 270 m | 145237.8N 1004151.8E | |
| | | | Phra Ngam Mountain<br>HGT 282 m | 145415.7N 1003718.7E | |

## VTBL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | NIL |
| 2 | Hours of service<br>MET Office outside hours | H24 |
| 3 | Office responsible for TAF preparation<br>Periods of validity | NIL |
| 4 | Type of landing forecast<br>Interval of issuance | NIL |
| 5 | Briefing/consultation provided | NIL |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | NIL |
| 8 | Supplementary equipment available for providing information | NIL |
| 9 | ATS units provided with information | Khok Kathiam TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTBL AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 16 | 160° | 2200x45 | PCN 35/F/C/Y/T Asphalt | 145301.99N 1003936.08E | 103 ft |
| 34 | 340° | 2200x45 | PCN 35/F/C/Y/T Asphalt | 145154.47N 1004000.75E | 133 ft |
| 05 | 047° | 1340x45 | PCN 38/R/C/W/T Concrete and asphalt | 145209.96N 1003927.82E | 106 ft |
| 23 | 227° | 1340x45 | PCN 38/R/C/W/T Concrete and asphalt | 145239.88N 1004000.49E | 125 ft |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | NIL | NIL | NIL | NIL | NIL |
| NIL | NIL | NIL | NIL | NIL | NIL |
| NIL | 225x45 | NIL | NIL | NIL | NIL |
| NIL | 225x45 | NIL | NIL | NIL | NIL |

## VTBL AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 16 | 2200 | 2200 | 2200 | 2200 | NIL |
| 34 | 2200 | 2200 | 2200 | 2200 | NIL |
| 05 | 1340 | 1340 | 1565 | 1340 | NIL |
| 23 | 1340 | 1340 | 1565 | 1340 | NIL |

## VTBL AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 16 | NIL | Green | PAPI Left 3° | NIL | NIL | 2200 m 60 m White | Red | NIL | NIL |
| 34 | NIL | Green | PAPI Left 3° | NIL | NIL | 2200 m 60 m White | Red | NIL | NIL |
| 05 | NIL | Green | PAPI Left 3° | NIL | NIL | 1340 m 60 m White | Red | NIL | NIL |

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 23 | NIL | Green | PAPI<br>Left 3° | NIL | NIL | 1340 m<br>60 m<br>White | Red | NIL | NIL |

**VTBL AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY**

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: at Tower building |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | EDGE: TWY A, B, C, D, E<br>Centre Line: NIL |
| 4 | Secondary power supply/switch-over time | By Generator |
| 5 | Remarks | NIL |

**VTBL AD 2.16 HELICOPTER LANDING AREA**

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

**VTBL AD 2.17 ATS AIRSPACE**

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 12 NM radius centred on 145228.7N 1003948.2E |
| 2 | Vertical limits | 5500 FT/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Khok Kathiam Tower<br>English, Thai |
| 5 | Transition altitude | NIL |
| 6 | Remarks | NIL |

## VTBL AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Khok Kathiam Tower | 122.6 MHz<br>238.6 MHz<br>*121.5 MHz<br>*243.0 MHz | 23:00-11:00 | *Emergency Freq. |
| GND | Khok Kathiam Ground | 121.75 MHz<br>257.8 MHz | 23:00-11:00 | |

## VTBL AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | LB | 280 KHz | 23:00-11:00 | 145236.27N 1003926.45E | NIL | NIL |
| TACAN | LOB | CH115X | 01:00-09:00 | 145234.33N 1003935.49E | NIL | *EXC SAT-SUN and Public holiday or on request |
| ILS CAT I LOC RWY05 | ILOB | 108.3 MHz | 2300-1100 | 145246.56N 1004007.78E | NIL | |
| GP/DME | | 334.1 MHz CH 20X | 2300-1100 | 145213.64N 1003937.70E | NIL | |
| MM | | 75 MHz | 2300-1100 | 145143.0N 1003900.3E | NIL | Instrument Landing System<br>- Reference datum Height(RDH) is 15.24 M (50 FT)<br>A. Localizer<br>- LOC 300 M (984 FT) from THR RWY23, along RWY centre line. Course width 6º<br>B. Glide Path 3º<br>- GP 300 M (984 FT) from THR RWY05, 120 M (394FT) from RWY centre line.<br>C. DME<br>- Co-located with GP. |

## VTBL AD 2.20 LOCAL AERODROME REGULATIONS

**1. VFR flight**

1.1 By Day (Sunrise/Sunset)

a) unless otherwise specifically authorized VFR flights shall not be permitted to land/take-off at Khok Kathiam Aerodrome when weather conditions as reported by ground observer are less than.

Ground visibility: 5 km or
Ceiling: 450 M (1 500 ft)

b) Except for the helicopters may be permitted to operated when the flight visibility are less than 1.5 km if maneuvered at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

1.2 By Night (Sunset/Sunrise)

VFR flights shall be operated in the night time when otherwise specifically authorized only.

1.3 At all time as authorized

VFR flight within the Khok Kathiam Aerodrome traffic zone and local flights in VTD31 shall be conducted so that the aircraft maintain flight visibility and distance from cloud equal to of greater than.

- Flight visibility - 8 km when at and above 3 050 m (10 000 ft)

- 5 km when below 3 050 m (10 000 ft)

- Distance from cloud - 1 500 m horizontally and 300 m (1 000 ft) vertically

1.4 No authorization for special VFR flights.

**2. VFR departure procedures**

2.1 after take-off, aircraft shall continue climbing straight ahead until passing the departure end of runway unless safety or when specifically authorized by the control tower.

- RMK/ Fix wings shall start turn when passing 500 ft.

- Helicopter shall start turn when passing 200 ft.

2.2 Take-off from RWY16 shall right turn for leaved traffic.

2.3 Take-off from RWY34, RWY05 shall left turn for leaved traffic.

2.4 Take-off from RWY23 shall left or right turn as pilot requested.

2.5 VFR departure to others aerodrome

2.5.1 Aircraft shall be reported of their the following information to the control tower prior to taxi for departure.

- aircraft call signs
- type of aircraft
- Destination
- Cruising level
- Radial outbound or Route
- Transponder code
- Intention of the pilot if necessary

2.5.2 Aircraft shall be reported to the control tower when passing 12 nm or 5500 ft. which is earlier.

2.6 VFR departure to VTD31 (local flight)

a) After departure climbing to 5 nm West of the airfield at an altitude 1500 ft. (500 ft. for Helicopter) initially then proceeding to area 1 (GND - 5500 ft.)
b) After departure, climbing to Lima point (about 5 nm south of the airfield) at an altitude 1500 ft. (500 ft. for Helicopter) initially then proceeding to area 2, area 3 and area 4 (GND - 5500 ft.)
c) All aircrafts are operating in VTD31 should be reported altitude and the words “operation normal” every 30 minutes to the control tower for traffic advised.

**3. IFR flight**

3.1 Starting up procedure

a) IFR aircrafts are to call Khok Kathiam Tower 5 minutes prior to start up to request for ATC clearance.
b) Pilots are to inform to the control tower of the call sign and proposed flight level if it is different from the flight plan.

3.2 IFR departure procedure

a) No SID for IFR aircraft
b) After take-off, climb to flight plan route or as directed by ATC.

**4. Reporting points for VFR flight**

4.1 Arriving aircraft shall be reported to the control tower of their call sign, type of aircraft, point of departure, position, altitude, track or intention of the pilot before Estimate Time of Arrival (ETA) about 10 minutes or at least 15 nm from aerodrome.

4.2 Aircraft are entering to land from north of Khok Kathiam Aerodrome, shall be reported over amphure Banmi, designated as BRAVO

point (150230N 1003230E) which is approximately 12 nm on RDL 325 of LB NDB altitude 2000 ft. (1000 ft. for Helicopter) then proceeding to Ban Khok kathiam, designated as KILO point (145359N 1003537E) 4 nm on BRG 290 of LB NDB altitude 2000 ft. (1000 ft. for Helicopter) the aircraft will be instructed to join aerodrome traffic circuit accordingly.

4.3 Aircraft are entering to land from East and South east of Khok Kathiam Aerodrome, shall be reported over amphure Phra Phutthabat designated as PAPA point (144300N 1004700E) which is approximately 12 nm on BRG 141 of LB NDB altitude 2000 ft. (1000 ft. for Helicopter) then proceeding to Lopburi province designated as LIMA point (144758N 1003803E) which is approximately 5 nm on BRG 196 of LB NDB altitude 2000 ft. (1000 ft. for Helicopter) when reaching LIMA point the aircraft will be instructed to join aerodrome traffic circuit accordingly.

4.4 Aircraft are entering to land from south of Khok Kathiam Aerodrome shall be reported over Lopburi province designated as LIMA point (144758N 1003803E) which is approximately 5 nm on BRG 196 of LB NDB altitude 2000 ft. (1000 ft. for Helicopter) when reaching LIMA point the aircraft will be instructed to join aerodrome traffic circuit accordingly.

**5. Aerodrome Traffic Pattern**

Traffic pattern shown in diagram, The unlighted a range of mountains approximately 919 ft., 0.5 - 1.9 nm and 2.5 - 4.4 nm on the west to NNW and 1,418 ft., 1.2 - 5.3 nm on the north to SSE from the runway intersection of Khok Kathiam Aerodrome constitutes a hazard to VFR operation.

5.1 Rectangular

- Using runway 16 by entering right traffic circuit.
- Using runway 34 by entering left traffic circuit.
- Using runway 05 by entering left traffic circuit.
- Using runway 23 by entering right traffic circuit.

5.2 Overhead approach pattern

- Using runway 16 by left turn pattern.
- Using runway 34 by left turn pattern.
- Using runway 05 by left turn pattern.
- Using runway 23 by right turn pattern.

5.3 An altitude in the Traffic Pattern

- Jet or Turboprop 1500 ft.
- Conventional 1000 ft.
- Helicopter 800 ft.

**6. Simulated emergency by helicopters**

The helicopters shall be simulated emergency conditions on the runway in use only. Except for safety reason the pilot shall operate on taxiway, if necessary. There are as followed;

- Simulated single emergency failure.
- Simulated hydraulic system failure.
- Simulated fuel control unit failure.
- Simulated tail rotor failure.
- Simulated forced landing.
- Simulated run on running landing.
- Simulated basic auto rotation.
- Simulated hovering auto rotation.

**7. Submission of a flight plan**

7.1 A flight plan shall be submitted to Khok Kathiam Aerodrome control tower or base operations at least 1 hour before departure and may be submitted up to 120 hours.

7.2 In the even of a delay of 30 minutes in excess of the estimated off block time for a controlled flight or a delay of one hour for an uncontrolled flight. The flight plan shall be automatically cancelled unless the estimated time of departure is revised by notification of the pilot in command or designated representative.

**8. Radio communication failure**

8.1 Departing aircraft

a) Aircraft will not be permitted to take-off unless two-way communication can be maintained with the control tower.
b) If an aircraft experiences radio communications failure after departure, the pilot will follow the procedures for VFR in the table of cruising altitudes. (Track from 000° – 179° = ODD thousand + 500 ft. and 180° – 359° = EVEN thousand + 500 ft.)

8.2 Arriving aircraft

Day time

a) Operated transponder mode A code 7600
b) Report their position, distance, heading, altitude and departure point when approaching about 15 nm or at least 10 minutes before estimated time arrival from aerodrome by transmitting in the blind.
c) Observe the direction of traffic in the pattern and enter downwind with the flow of traffic.
d) Make a low approach between the runway and taxiway at an altitude 1000 ft. (500 ft. for helicopters) and rock the wings of the aircraft.
e) Re-enter downwind leg and observe light signals pyrotechnic or signals light gun from the control tower.

Night time

a) Make a low approach between the runway and taxiway at an altitude 1000 ft. (500 ft. for helicopters) and rock the wings of the aircraft and flashing on and off landing light for 3 times except for the helicopters by flashing on and off search light for 3 times.
b) Re-enter downwind leg and observe light signals pyrotechnic or signals light gun from the control tower.

## VTBL AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTBL AD 2.22 FLIGHT PROCEDURES

NIL

## VTBL AD 2.23 ADDITIONAL INFORMATION

NIL

## VTBL AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Instrument Approach Chart - ICAO - ILS or LOC RWY 05 CAT A, B | AD 2-VTBL-8-1 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 05 CAT A, B (Fix and point list table) | AD 2-VTBL-8-2 |

**INTENTIONALLY BLANK**

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 133 FT**
HEIGHTS RELATED TO
THR RWY05 - ELEV 106 FT

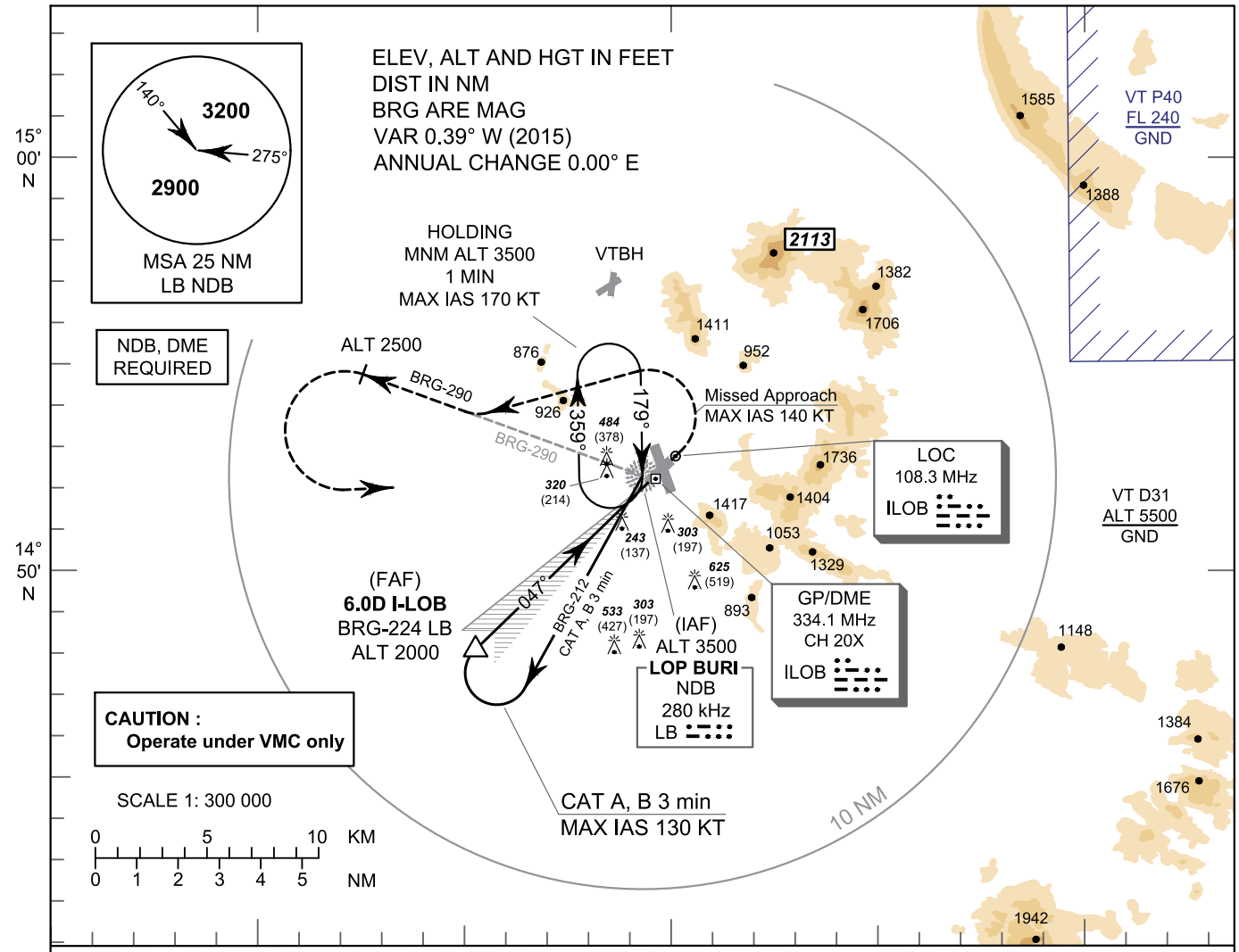
TWR : 122.6 , 238.6
GND : 121.75 , 257.8

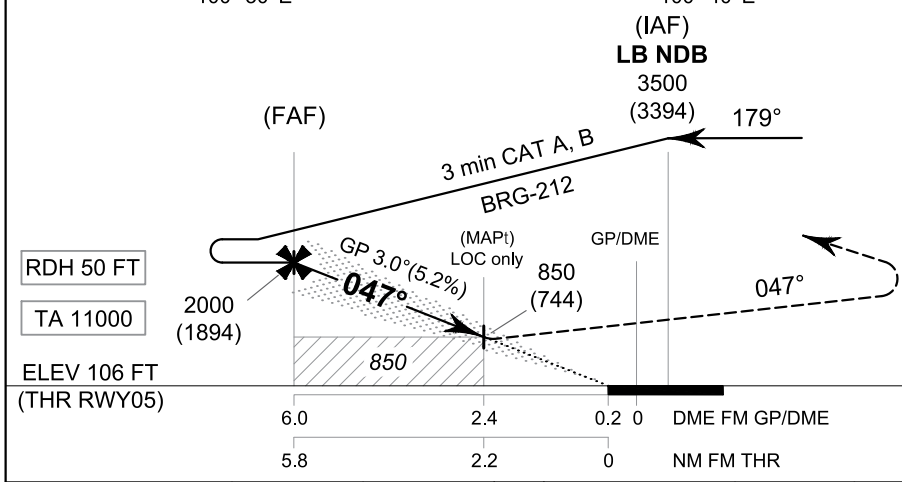
**LOP BURI / KHOK KATHIAM (VTBL)**

**ILS or LOC RWY05**

**CAT A, B**

## Military Use only




**MISSED APPROACH:**
**No turn before MAPt (for LOC only). Speed restricted to MAX IAS 140 KT until after turn.**

Climb straight ahead to 1000 FT, then turn left to intercept outbound BRG-290 LB NDB and continue climb until 2500 FT, then turn left direct to LB NDB at 3500 FT and hold or as directed by ATC.

CHANGE: NEW CHART.

| OCA/H | | A | B |
|---|---|---|---|
| Straight - in Approach | CAT I | 790 (684) | |
| LOC only | | 850 (744) | |
| Circling (OCH AAL) | | Not Authorized | |

| GS OUT | Distance (ILOB) | FAF | 5 D | 4 D | 3 D | 2.4 D |
|---|---|---|---|---|---|---|
| | Alititude (Height) | 2000 (1894) | 1670 (1564) | 1355 (1249) | 1040 (934) | 850 (744) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 133 FT**
HEIGHTS RELATED TO
THR RWY05 - ELEV 106 FT

**LOP BURI / KHOK KATHIAM (VTBL)**

**ILS or LOC RWY05**

**CAT A, B**

## Military Use only

| Fix / Point | | Coordinates | |
|---|---|---|---|
| FAF | BRG-224 / 6.0D ILOB | 14° 48' 06.71" N | 100° 35' 06.24" E |
| MAPt | 2.4D ILOB | 14° 50' 38.37" N | 100° 37' 49.29" E |
| LOC | ILOB | 14° 52' 46.56" N | 100° 40' 07.78" E |
| GP/DME | ILOB | 14° 52' 13.64" N | 100° 39' 37.70" E |
| NDB | LB | 14° 52' 36.28" N | 100° 39' 26.45" E |

CHANGE: NEW CHART.

## VTCH AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTCH - MAE HONG SON / MAE HONG SON AIRPORT

## VTCH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 191806.18N 0975830.20E |
| 2 | Direction and distance from (city) | 2 KM NE, from city |
| 3 | Elevation/Reference temperature | 929 FT/30°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.75°W (2016)/0.01°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Mae Hong Son Airport<br>Mae Hong Son Airports<br>Niwet Pisan Road<br>Amphoe Muang<br>Mae Hong Son 58000<br>Thailand<br>Tel: +665 361 2057<br>+665 361 1499<br>Fax: +665 361 1499<br>AFS: VTCHYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTCH AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0130-1100 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 0130-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 0130-1100 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Chiang Mai Air Traffic Control Centre (1st floor of tower building)<br>Tel: +669 1818 5798<br>Fax: +665 327 7897 |

## VTCH AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTCH AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Taxis |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTCH AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTCH AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTCH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Asphalt<br>Strength: PCN 41/F/C/X/T (Apron 1)<br>Surface: Concrete<br>Strength: PCN 45/R/C/X/T (Apron 2) |
| 2 | Taxiway width, surface and strength | Taxiway A<br>Width: 17.5 M<br>Surface: Asphalt<br>Strength: PCN 41/F/C/X/T<br>Taxiway B<br>Width: 20 M<br>Surface: Asphalt<br>Strength: PCN 41 F/C/X/T<br>Taxiway C<br>Width: 20 M<br>Surface: Asphalt<br>Strength: PCN 41 F/C/X/T |

| | | |
|---|---|---|
| 3 | Altimeter checkpoint location and elevation | Location: At Apron<br>Elevation: 270.616 M (887.85 FT) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTCH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxiway centre-line are painted in yellow and illuminated guidance signs are provided at various intersections.<br>TWY edge and TWY holding position are provided.<br>Guide lines at apron. |
| 2 | RWY and TWY markings and LGT | RWY and TWY Marked and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTCH AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **-** |
| **a** | **b** | **c** | **a** | **b** | |
| RWY11/<br>Approach area | DVOR/DME<br>1814 FT (553 M)<br>Paint red/white<br>LGTD | 191911.11N<br>0975443.63E | AWOS<br>960 FT (293 M)<br>Paint red/white<br>LGTD | 191756.47N<br>0975852.13E | NIL |
| RWY11/<br>Approach area | Radar<br>1694 FT (516 M)<br>Paint red/white<br>NIL | 191917.72N<br>0975457.91E | AWOS<br>956 FT (291 M)<br>Paint red/white<br>LGTD | 191756.42N<br>0975852.33E | NIL |
| RWY11/<br>Approach area | Monitor pole<br>1819 FT (555 M)<br>Paint red/white<br>NIL | 191913.03N<br>0975440.58E | Tree<br>965 FT (294 M)<br>NIL/NIL | 191758.39N<br>0975843.12E | NIL |
| RWY29/<br>Approach area | Mountain<br>4423 FT (1348 M)<br>NIL/NIL | 191742.82N<br>0980225.29E | Tree<br>975 FT (297 M)<br>NIL/NIL | 191758.09N<br>0975841.50E | NIL |
| | | | Tree<br>1058 FT (322 M)<br>NIL/NIL | 191752.72N<br>0975908.58E | NIL |
| | | | Tree<br>955 FT (291 M)<br>NIL/NIL | 191813.95N<br>0975827.71E | NIL |
| | | | Tree<br>1036 FT (316 M)<br>NIL/NIL | 191812.76N<br>0975731.75E | NIL |
| | | | Tree<br>1001 FT (305 M)<br>NIL/NIL | 191814.01N<br>0975816.66E | NIL |
| | | | Water tank<br>1001 FT (305 M)<br>NIL/NIL | 191818.95N<br>0975817.69E | NIL |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | - |
| a | b | c | a | b | |
| | | | Mountain<br>4682 FT (1427 M)<br>NIL/NIL | 191549.49N<br>0980157.50E | NIL |
| | | | Radar (MET station)<br>981 FT (299 M)<br>Painted red/white<br>Red LGT on top | 191800.47N<br>0975831.60E | NIL |
| | | | Radio mast<br>1546 FT (471 M)<br>Paint red/white<br>LGTD | 191751.41N<br>0975728.50E | NIL |
| | | | Radio mast<br>1056 FT (322 M)<br>Paint red/white<br>LGTD | 191815.41N<br>0975839.13E | NIL |
| | | | Radio mast<br>1126 FT (343 M)<br>Paint red/white<br>NIL | 191818.40N<br>0975845.44E | NIL |
| | | | Radio mast<br>1045 FT (318 M)<br>Painted red/white<br>NIL | 191724.62N<br>0975755.20E | NIL |
| | | | Electricity pole<br>1002 FT (306 M)<br>NIL/NIL | 191756.81N<br>0975909.22E | NIL |
| | | | Radio mast<br>1515 FT (462 M)<br>Paint red/white<br>LGTD | 191756.10N<br>0975731.88E | NIL |
| | | | Radio mast<br>1553 FT (473 M)<br>Paint red/white<br>LGTD | 191757.05N<br>0975732.24E | NIL |
| | | | Radio mast<br>1176 FT (358 M)<br>Paint red/white<br>LGTD | 191721.62N<br>0975934.05E | NIL |
| | | | Apron flood light pole<br>971 FT (296 M)<br>Paint red/white<br>LGTD | 191803.35N<br>0975824.07E | NIL |
| | | | Apron flood light pole<br>973 FT (297 M)<br>Paint red/white<br>LGTD | 191802.39N<br>0975827.20E | NIL |
| | | | Apron flood light pole<br>976 FT (297 M)<br>Paint red/white<br>LGTD | 191801.40N<br>0975830.42E | NIL |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | - |
| a | b | c | a | b | |
| | | | Apron flood light pole<br>978 FT (298 M)<br>Paint red/white<br>LGTD | 191800.49N<br>0975833.35E | NIL |
| | | | Lightning rod of building<br>998 FT (304 M)<br>Paint red/white<br>LGTD | 191759.88N<br>0975831.67E | NIL |
| | | | ATC tower (Old)<br>968 FT (295 M)<br>Paint red/white<br>NIL | 191801.84N<br>0975827.08E | NIL |
| | | | ATC tower<br>1007 FT (307 M)<br>Paint red/white<br>LGTD | 191800.60N<br>0975829.25E | NIL |

## VTCH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Mae Hong Son,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 361 2903 ext. 4210 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) and Weather Radar |
| 9 | ATS units provided with information | Mae Hong Son TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTCH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 11 | 108.75° | 2000x30 | PCN 41/F/C/X/T Asphalt | 191815.29N 0975800.56E | THR 865 FT TDZ 872 FT |
| 29 | 288.75° | 2000x30 | PCN 41/F/C/X/T Asphalt | 191755.28N 0975905.72E | THR 929 FT TDZ 929 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | NIL | NIL | 2060x80 | NIL | NIL |
| NIL | NIL | NIL | 2060x80 | NIL | NIL |

## VTCH AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 11 | NIL | NIL | NIL | 1850 | NIL |
| 29 | 1910 | 1910 | 1910 | NIL | NIL |

## VTCH AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | NIL | Green NIL | PAPI Both 3° (44.63 FT) | NIL | NIL | 2000 M 50 M FM 0 M - 1400 M White, FM 1400 M - 2000 M Yellow, LIH | Red NIL | NIL | RTIL |
| 29 | NIL | NIL | NIL | NIL | NIL | 2000 M 50 M FM 0 M - 1400 M White, Yellow, LIH | Red NIL | NIL | NIL |

## VTCH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building FLG W G EV 3 SEC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI:<br>1. Wind cone at 145 M from THR 11 offset to the side 60 M from RCL, illuminated<br>2. Wind cone at 800 M from THR 29 offset to the side 95.5 M from RCL, illuminated |
| 3 | TWY edge and centre line lighting | TWY edge: All TWY<br>TWY centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the airfield lighting (AFL) building.<br>Switch-over time: 15 SEC |
| 5 | Remarks | NIL |

## VTCH AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTCH AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on MHS DVOR/DME (191910.73N 0975443.50E).<br>Excluding the Myanmar territory. |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Mae Hong Son Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTCH AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Mae Hong Son Approach | 126.2 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Mae Hong Son Tower | 122.3 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Mae Hong Son Airport | 127.45 MHz | As AD OPR HR | |

## VTCH AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | MH | 384 KHZ | H24 | 191755.84N<br>0975830.59E | NIL | 1. Data refer to commissioning checked as follows:<br>a) 40 NM orbit flown from bearing 071°-180° clockwise orbit at altitude 8 500 FT. Result found satisfactory.<br>b) Bearing 181°-070° clockwise unable to performed due to border limited.<br>2. Facility performance classified as “Restricted” due to item b) above as per commissioning checked. |
| DVOR/DME | MHS | 115.5 MHZ<br>CH102X | H24 | 191911.1N<br>0975443.6E | | DVOR/DME restrictions,<br>1. Unusable due to roughness out of tolerance<br>– Radial 040° distance between 10.5-12.5 DME altitude 5 500 FT<br>– Radial 085° distance between 5.5-7.5 DME altitude 7 000 FT<br>– Radial 100° distance between 9.0-10.0 DME altitude 7 000 FT<br>– Radial 120° distance between 9.5 - 10.5 DME altitude 7 500 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 060°-080° altitude should not below 8 500 FT<br>– Radial 081°-140° altitude should not below 13 000 FT<br>– Radial 141°-190° altitude should not below 9 000 FT<br>– Radial 191°-059° unable to perform due to border limited |

## VTCH AD 2.20 LOCAL AERODROME REGULATIONS

**1. The declared distances of Runway 11/29 at Mae Hong Son Airport are as indicated below:**

| RWY | TORA | TODA | ASDA | LDA |
|---|---|---|---|---|
| 11 | NIL | NIL | NIL | 1850 |
| 29 | 1910 | 1910 | 1910 | NIL |

1.1 Aircraft landing on RWY 11 shall stop before 150 meters from the threshold of RWY29.

1.2 Aircraft taking off from RWY 29 shall be airborne before 150 meters from the threshold of RWY 11.

1.3 All Code C aircraft are not allowed to make a 180-degree turn on the runway, but shall make the turn on the turn pad at the threshold of RWY 29 before takeoff.

**2. The local aerodrome regulations for airlines operating ATR72 aircraft are as indicated below:**

2.1 All ATR72 aircraft are not allowed to take off and land at the airport under conditions of low visibility, low aircraft performance or reduced aircraft directional control.

2.2 Pilots of ATR72 aircraft shall reduce the maximum crosswind by 10 knots (from 35 knots to 25 knots).

2.3 Pilots shall not conduct takeoff and landing operations if the runway surface has contaminants and its condition assessment is lower than GRF Code 3.

2.4 Pilots shall have training in flight simulator to operate at Mae Hong Son Airport.

2.5 Only the pilot- in- command shall conduct takeoff and landing operations at Mae Hong Son Airport.

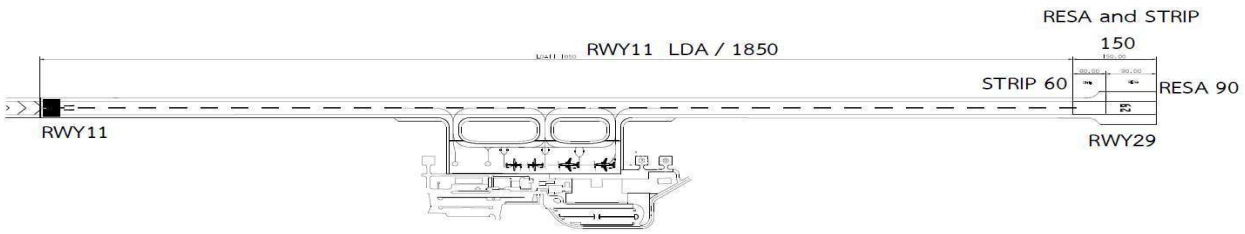
2.6 Pilots shall check the actual takeoff wind and temperature before takeoff in order to calculate the maximum speed and weight of aircraft in takeoff.

2.7 Pilots shall exercise caution when landing on RWY11 and only under good visibility conditions.

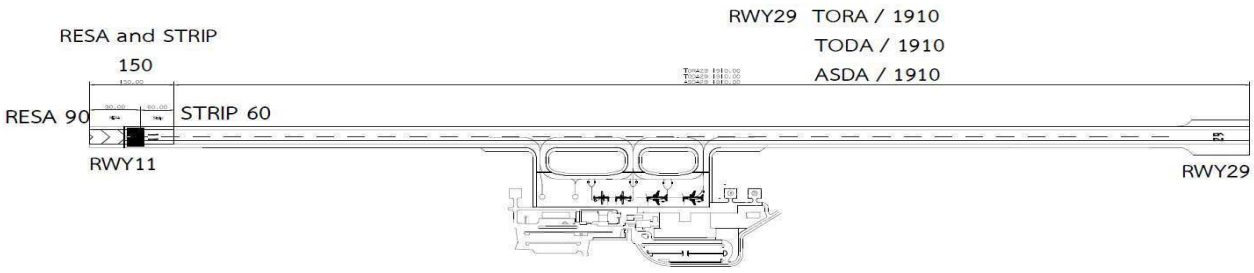
2.8 In the event that landing is not feasible, pilots shall execute a go-around procedure or divert to an alternate aerodrome.

**3. The chart related to the declared distances and local aerodrome regulations of Mae Hong Son Airport is attached herewith.**

DECLARED DISTANCES OF RUNWAY11/29 AND LOCAL AERODROME REGULATIONS OF MAE HONG SON AIRPORT
(not to scale)




DECLARED DISTANCES OF RUNWAY11/29 AND LOCAL AERODROME REGULATIONS OF MAE HONG SON AIRPORT
(Not to scale)



## VTCH AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTCH AD 2.22 FLIGHT PROCEDURES

NIL

## VTCH AD 2.23 ADDITIONAL INFORMATION

NIL

## VTCH AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTCH-2-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 29 - BOKIB1L BOKIB1R DOMKA1L DOMKA1R | AD 2-VTCH-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 29 - BOKIB1L BOKIB1R DOMKA1L DOMKA1R (Tabular description) | AD 2-VTCH-6-2 |
| Instrument Approach Chart - ICAO - RNP a RWY 11 | AD 2-VTCH-8-1 |
| Instrument Approach Chart - ICAO - RNP a RWY 11 (Tabular description) | AD 2-VTCH-8-2 |

AERODROME CHART-ICAO 19° 18' 06" N 97° 58' 30" E ELEV 929 ft 283 m TWR 122.3 236.6 MAE HONG SON/Mae Hong Son

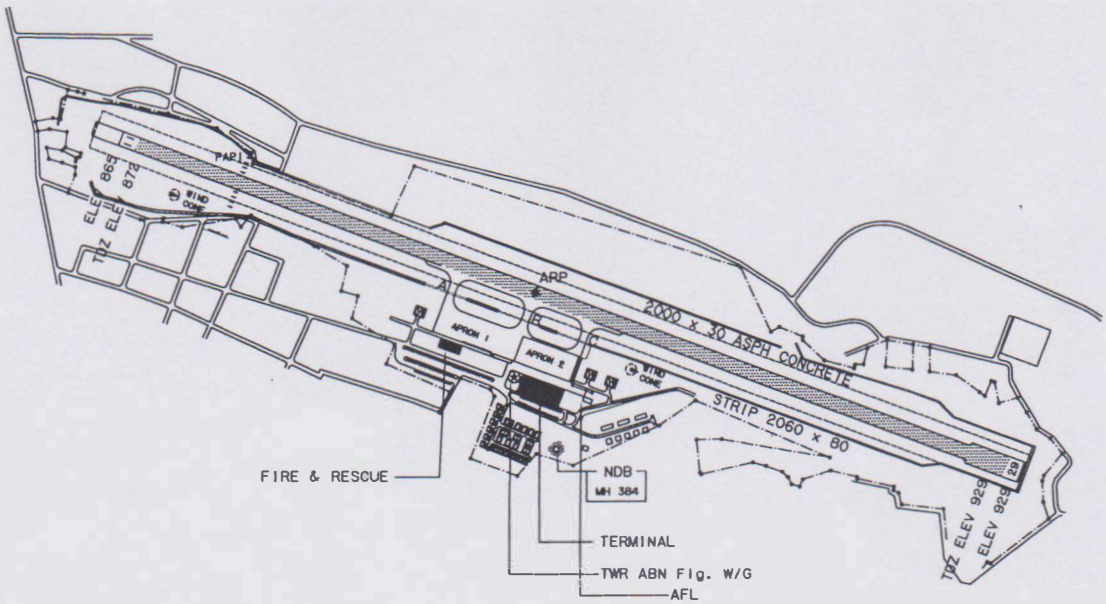
| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 11 | 108.26° | 19° 18' 15.29" N 97° 58' 00.56" E | PCN 41/F/C/X/T |
| 29 | 288.26° | 19° 18' 55.28" N 97° 58' 05.72" E | |
| APRON 1 | | | PCN 41/F/C/X/T |
| APRON 2 | | | PCN 45/R/C/X/T |

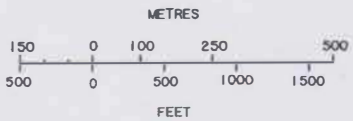
VAR 0° 44' W (2005)

ANNUAL RATE OF CHANGE 4' W

ELEVATIONS IN FEET AND DIMENSIONS IN METRES

BEARINGS ARE MAGNETIC

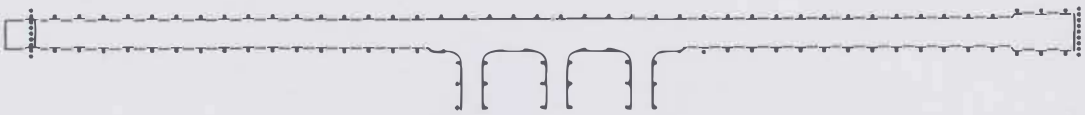



MARKING AIDS RWY 11/29 AND EXIT TWY




LIGHTING AIDS RWY 11/29 AND EXIT TWY



Remark : COORDINATE ARE WGS-84

**INTENTIONALLY BLANK**

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

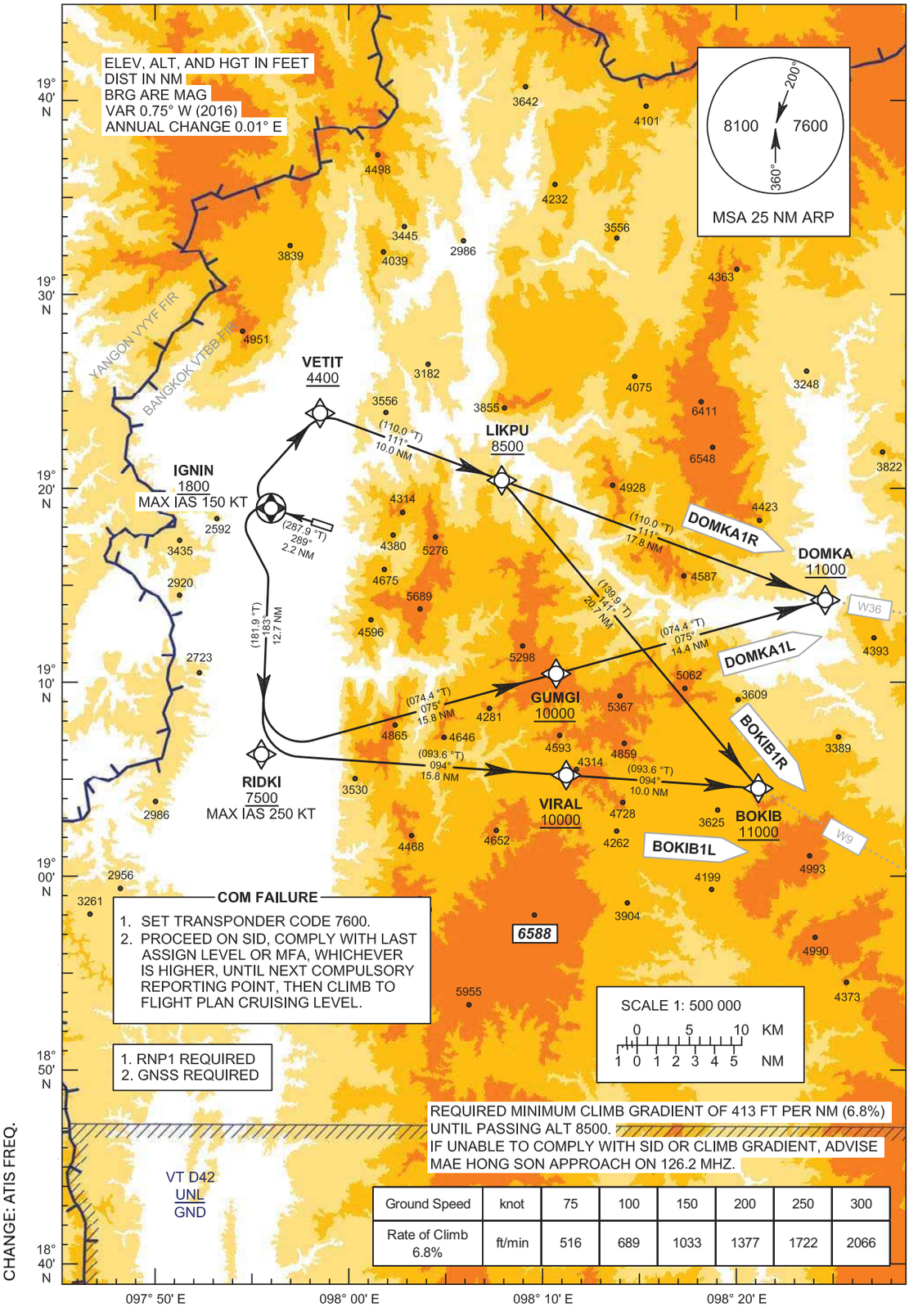
TRANSITION ALTITUDE
11000 FT

APP : 126.2
TWR : 122.3 , 236.6
ATIS : 127.45

**MAE HONG SON / Mae Hong Son (VTCH)**

**RNAV RWY29**

BOKIB1L BOKIB1R
DOMKA1L DOMKA1R




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 6.8% | ft/min | 516 | 689 | 1033 | 1377 | 1722 | 2066 |

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**MAE HONG SON / Mae Hong Son (VTCH)**

**RNAV RWY29**

BOKIB1L BOKIB1R
DOMKA1L DOMKA1R

**TABULAR DESCRIPTION**

**RNAV RWY29**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | - | DER RWY29 | - | - | +0.71 | - | - | - | - | - | RNP 1 |
| 020 | CF | IGNIN | Y | 289°(287.9°) | +0.71 | 2.2 | L | +1800 | -150 | - | RNP 1 |
| 030 | TF | RIDKI | - | 183°(181.9°) | +0.71 | 12.7 | L | +7500 | -250 | - | RNP 1 |
| 040 | TF | VIRAL | - | 094°(093.6°) | +0.71 | 15.8 | - | +10000 | - | - | RNP 1 |
| 050 | TF | BOKIB | - | 094°(093.6°) | +0.71 | 10.0 | - | +11000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY29 | - | - | +0.71 | - | - | - | - | - | RNP 1 |
| 020 | CF | IGNIN | Y | 289°(287.9°) | +0.71 | 2.2 | - | +1800 | -150 | - | RNP 1 |
| 030 | DF | VETIT | - | - | +0.71 | - | R | +4400 | - | - | RNP 1 |
| 040 | TF | LIKPU | - | 111°(110.0°) | +0.71 | 10.0 | R | +8500 | - | - | RNP 1 |
| 050 | TF | BOKIB | - | 141°(139.9°) | +0.71 | 20.7 | - | +11000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY29 | - | - | +0.71 | - | - | - | - | - | RNP 1 |
| 020 | CF | IGNIN | Y | 289°(287.9°) | +0.71 | 2.2 | L | +1800 | -150 | - | RNP 1 |
| 030 | TF | RIDKI | - | 183°(181.9°) | +0.71 | 12.7 | L | +7500 | -250 | - | RNP 1 |
| 040 | TF | GUMGI | - | 075°(074.4°) | +0.71 | 15.8 | - | +10000 | - | - | RNP 1 |
| 050 | TF | DOMKA | - | 075°(074.4°) | +0.71 | 14.4 | - | +11000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | - | DER RWY29 | - | - | +0.71 | - | - | - | - | - | RNP 1 |
| 020 | CF | IGNIN | Y | 289°(287.9°) | +0.71 | 2.2 | - | +1800 | -150 | - | RNP 1 |
| 030 | DF | VETIT | - | - | +0.71 | - | R | +4400 | - | - | RNP 1 |
| 040 | TF | LIKPU | - | 111°(110.0°) | +0.71 | 10.0 | - | +8500 | - | - | RNP 1 |
| 050 | TF | DOMKA | - | 111°(110.0°) | +0.71 | 17.8 | - | +11000 | - | - | RNP 1 |

**WAYPOINT LIST**

**RNAV RWY29**

| Waypoint Identifier | Coordinates | | Pronunciation |
|---|---|---|---|
| DER RWY29 | 19° 18' 15.29" N | 097° 58' 00.56" E | - |
| BOKIB | 19° 04' 33.60" N | 098° 22' 25.20" E | BO - KIB |
| DOMKA | 19° 14' 19.38" N | 098° 26' 01.88" E | DOM - KA |
| GUMGI | 19° 10' 27.38" N | 098° 11' 21.92" E | GUM - GI |
| IGNIN | 19° 18' 56.58" N | 097° 55' 46.03" E | IG - NIN |
| LIKPU | 19° 20' 27.15" N | 098° 08' 20.95" E | LIK - PU |
| RIDKI | 19° 06' 12.00" N | 097° 55' 19.20" E | RID - KI |
| VETIT | 19° 23' 52.95" N | 097° 58' 24.52" E | VIT - TIT |
| VIRAL | 19° 05' 12.13" N | 098° 11' 56.46" E | VI - RAL |

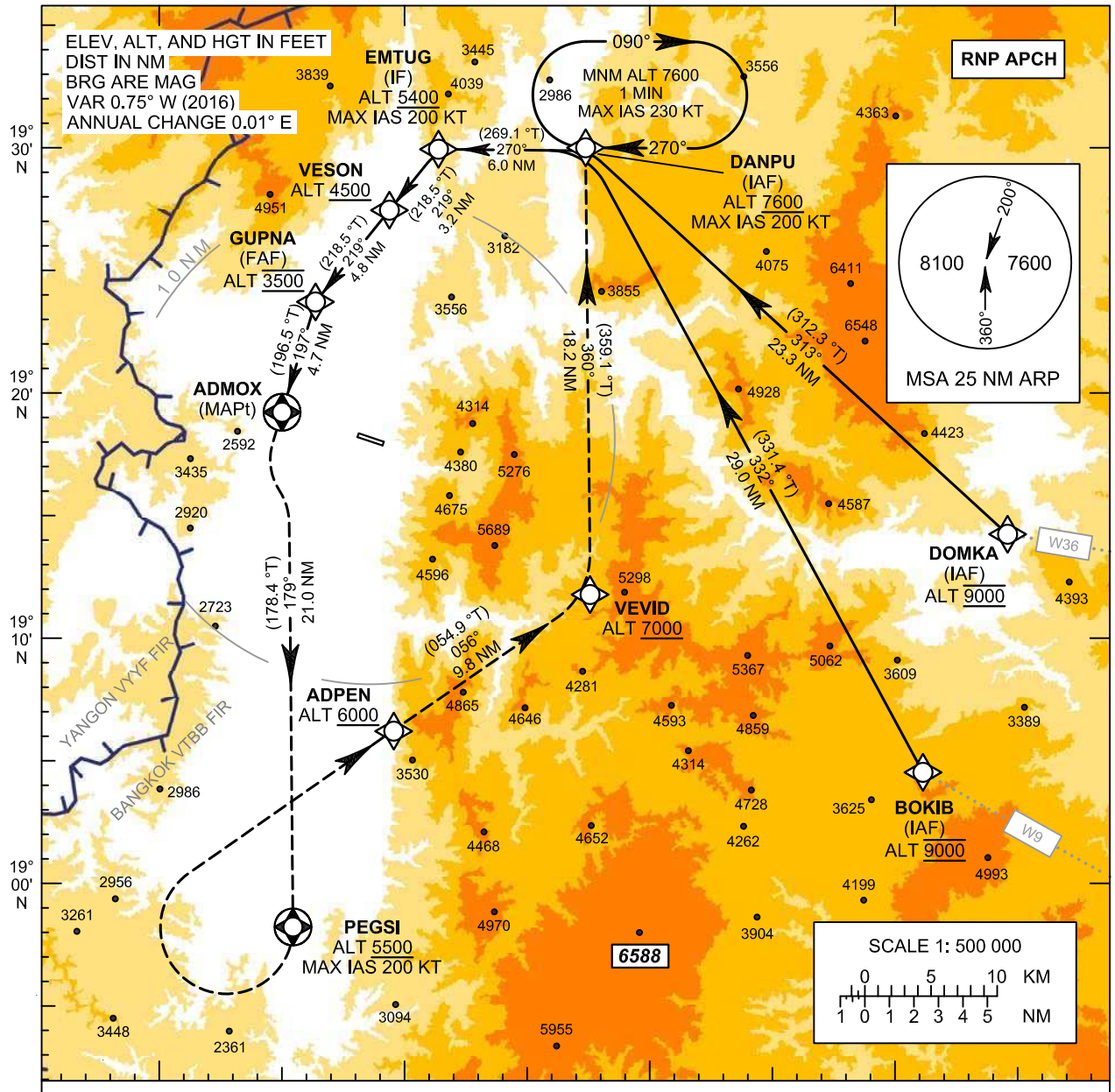
**INSTRUMENT APPROACH CHART - ICAO**

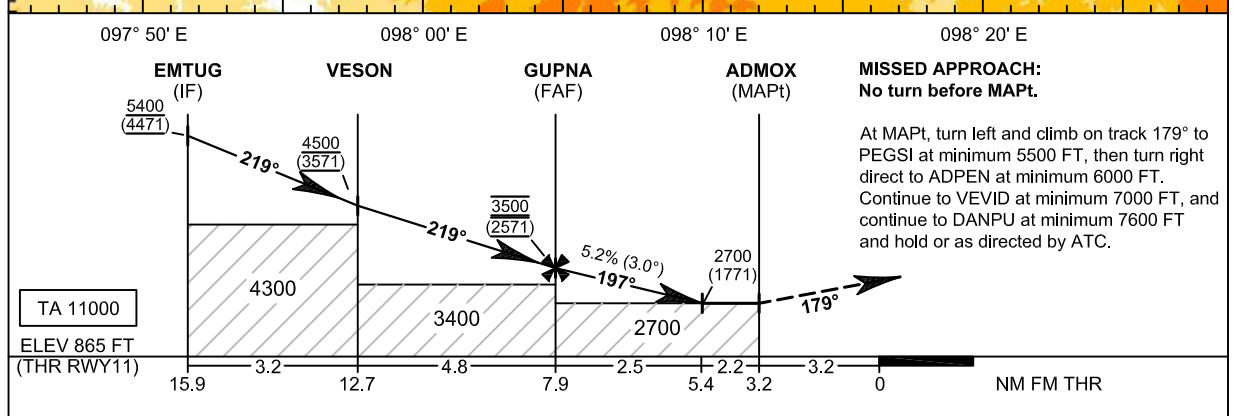
**AERODROME ELEV 929 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | |
|---|---|
| APP | : 126.2 |
| TWR | : 122.3 , 236.6 |
| ATIS | : 127.45 |

## MAE HONG SON / Mae Hong Son (VTCH)

**RNP a RWY11**




CHANGE: ATIS FREQ.

| OCA/H | A | B | C | NM to NEXT WPT | FAF | 7 NM | 6 NM | 5.4 NM |
|---|---|---|---|---|---|---|---|---|
| LNAV | NOT AUTHORIZED | | | Altitude (Height) | 3500 (2571) | 3190 (2261) | 2875 (1946) | 2700 (1771) |
| Circling (OCH AAL) | 2700 (1771) | | | Ground Speed | knot 70 | 90 | 100 | 120 | 140 | 160 |
| * FOR CIRCLING RESTRICTIONS SEE VERSO | | | | Rate of Descent FAF-MAPt 5.2% | ft/min 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 929 FT**
HEIGHTS RELATED TO AERODROME ELEV

**MAE HONG SON / Mae Hong Son (VTCH)**

**RNP a RWY11**

## TABULAR DESCRIPTION

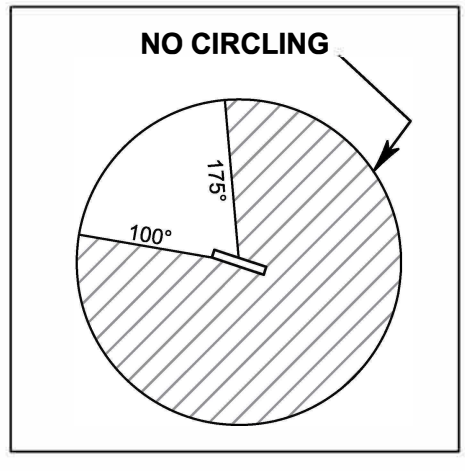
**RNP a RWY11**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | BOKIB (IAF) | - | - | +0.71 | - | - | @9000 | - | - | RNP APCH |
| 020 | TF | DANPU | - | 332°(331.4°) | +0.71 | 29.0 | L | +7600 | -200 | - | RNP APCH |
| 030 | TF | EMTUG ( IF) | - | 270°(269.1°) | +0.71 | 6.0 | - | +5400 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | DOMKA (IAF) | - | - | +0.71 | - | - | @9000 | - | - | RNP APCH |
| 020 | TF | DANPU | - | 313°(312.3°) | +0.71 | 23.3 | L | +7600 | -200 | - | RNP APCH |
| 030 | TF | EMTUG ( IF) | - | 270°(269.1°) | +0.71 | 6.0 | - | +5400 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | DANPU (IAF) | - | - | +0.71 | - | - | +7600 | -200 | - | RNP APCH |
| 020 | TF | EMTUG ( IF) | - | 270°(269.1°) | +0.71 | 6.0 | - | +5400 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | EMTUG ( IF) | - | - | +0.71 | - | - | +5400 | -200 | - | RNP APCH |
| 020 | TF | VESON | - | 219°(218.5°) | +0.71 | 3.2 | - | +4500 | - | - | RNP APCH |
| 030 | TF | GUPNA (FAF) | - | 219°(218.5°) | +0.71 | 4.8 | L | @3500 | - | - | RNP APCH |
| 040 | TF | ADMOX (MAPt) | Y | 197°(196.5°) | +0.71 | 4.7 | L | @1998 | - | - | RNP APCH |
| 050 | CF | PEGSI | Y | 179°(178.4°) | +0.71 | 21.0 | - | +5500 | -200 | - | RNP APCH |
| 060 | DF | ADPEN | - | - | +0.71 | - | R | +6000 | - | - | RNP APCH |
| 070 | TF | VEVID | - | 056°(054.9°) | +0.71 | 9.8 | - | +7000 | - | - | RNP APCH |
| 080 | TF | DANPU (IAF) | - | 360°(359.1°) | +0.71 | 18.2 | - | +7600 | -200 | - | RNP APCH |
| 090 | HM | DANPU (IAF) | Y | 270°(269.1°) | +0.71 | 1 minute | R | +7600 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP a RWY11**

| Waypoint Identifier | Coordinates | Pronunciation |
|---|---|---|
| ADMOX | 19° 19' 10.73" **N** 097° 54' 43.50" E | ADD - MOX |
| ADPEN | 19° 06' 08.78" **N** 097° 59' 37.25" E | ADD - PEN |
| BOKIB | 19° 04' 33.60" **N** 098° 22' 25.20" E | BO - KIB |
| DANPU | 19° 30' 04.72" **N** 098° 07' 45.48" E | DAN - PU |
| DOMKA | 19° 14' 19.38" **N** 098° 26' 01.88" E | DOM - KA |
| EMTUG | 19° 29' 59.22" **N** 098° 01' 24.44" E | EM - TUK |
| GUP NA | 19° 23' 42.15" N 097° 56' 08.21" E | GUP - NA |
| PEGSI | 18° 58' 06.16" **N** 097° 55' 19.99" E | PEG - SI |
| VESON | 19° 27' 28.72" **N** 097° 59' 18.17" E | VE - SON |
| VEVID | 19° 11' 46.96" **N** 098° 08' 03.48" E | VE - VID |




CHANGE: CHART TITLE.

## VTCI AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTCI - MAE HONG SON / PAI AIRPORT

## VTCI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 192219.23N 0982609.11E |
| 2 | Direction and distance from (city) | 1 KM. from town. |
| 3 | Elevation/Reference temperature | 1676 FT/38°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0°46'W (2016)/0°1'E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director Of Mae Hong Son Airport<br>Mae Hong Son Airports<br>Niwet Pisan Road<br>Amphoe Muang<br>Mae Hong Son 58000<br>Thailand<br>Tel: +665 361 2057<br>+665 361 1499<br>Fax: +665 361 1499 |
| 7 | Types of traffic permitted (IFR/VFR) | VFR only |
| 8 | Remarks | Operator: Department of Airports |

## VTCI AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | NIL |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | The aircrafts that plan to operate at Pai airport must inform the airport in advanced by telephone number +665 369 9209 or +668 9956 2709 before taking off from the airport of departure. |

## VTCI AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTCI AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | Available at the city |
| 3 | Transportation | NIL |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTCI AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | NIL |
| 2 | Rescue equipment | NIL |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTCI AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTCI AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete and asphalt<br>Strength: 5700 KG / 0.50 MPA |
| 2 | Taxiway width, surface and strength | Width: 10 M<br>Surface: Concrete and asphalt<br>Strength: 5700 KG / 0.50 MPA |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTCI AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | NIL |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTCI AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 01/APP | NIL | NIL | MAST (C)<br>524.60 M | 192208.98N 0982603.99E | NIL |
| | | | TREE (D)<br>533.60 M | 192204.38N 0982607.86E | |
| | | | MAST (E)<br>524.60 M | 192205.19N 0982603.05E | |
| | | | MAST (F)<br>524.60 M | 192206.45N 0982603.39E | |
| | | | MAST (G)<br>524.60 M | 192207.70N 0982603.75E | |
| | | | MAST (H)<br>524.60 M | 192210.28N 0982604.04E | |
| | | | MAST (I)<br>524.60 M | 192211.58N 0982603.94E | |
| | | | MAST (J)<br>524.60 M | 192212.88N 0982603.91E | |
| | | | MAST (O)<br>524.60 M | 192226.48N 0982608.19E | |
| | | | MAST (P)<br>524.60 M | 192227.69N 0982608.70E | |
| | | | MAST (Q)<br>524.60 M | 192228.97N 0982608.92E | |

## VTCI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | NIL |
| 2 | Hours of service<br>MET Office outside hours | NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | NIL |
| 4 | Type of landing forecast<br>Interval of issuance | NIL |
| 5 | Briefing/consultation provided | NIL |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | NIL |
| 8 | Supplementary equipment available for providing information | NIL |
| 9 | ATS units provided with information | NIL |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTCI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 014.397° | 710x18 | 5700 KG / 0.50 MPA Asphalt | 192207.80N 0982605.90E | NIL |
| 19 | 194.397° | 710x18 | 5700 KG / 0.50 MPA Asphalt | 192230.30N 0982612.40E | NIL |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| 0.69% | NIL | NIL | 770x60 | NIL | NIL |
| 0.69% | NIL | NIL | 770x60 | NIL | NIL |

## VTCI AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 710 | 710 | 710 | 625 | NIL |
| 19 | 625 | 625 | 710 | 710 | NIL |

## VTCI AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |

## VTCI AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | NIL |
| 4 | Secondary power supply/switch-over time | NIL |
| 5 | Remarks | NIL |

## VTCI AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTCI AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | NIL |
| 2 | Vertical limits | NIL |
| 3 | Airspace classification | G |
| 4 | ATS unit call sign<br>Language(s) | NIL |
| 5 | Transition altitude | NIL |
| 6 | Remarks | NIL |

## VTCI AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| NIL | NIL | NIL | NIL | NIL |

## VTCI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NIL | NIL | NIL | NIL | NIL | NIL | NIL |

## VTCI AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTCI AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTCI AD 2.22 FLIGHT PROCEDURES

**Departure and arrival procedure**

Pai Airport is an uncontrolled aerodrome. Operations at Pai Airport shall comply with procedure for VFR operating at uncontrolled aerodrome established in ENR 1.2

**Traffic pattern**

All aircraft arriving to and departing from Pai Airport should use left-hand traffic pattern only

**Designated frequency**

Designated frequency for pilot to self-announce their position and intentions at Pai Airport is 123.0 MHZ

**Reporting point for VFR flight**

In order to maintain safety of flight at Pai Airport, all aircraft arriving to and departing from Pai Airport shall broadcast self-announce on frequency 123.0 MHZ over Wat Jan designated as Juliett Point (191306.0N 0982552.0E) or Doi Mae Ya designated as Yankee Point (191459.0N 0983736.0E)

## VTCI AD 2.23 ADDITIONAL INFORMATION

NIL

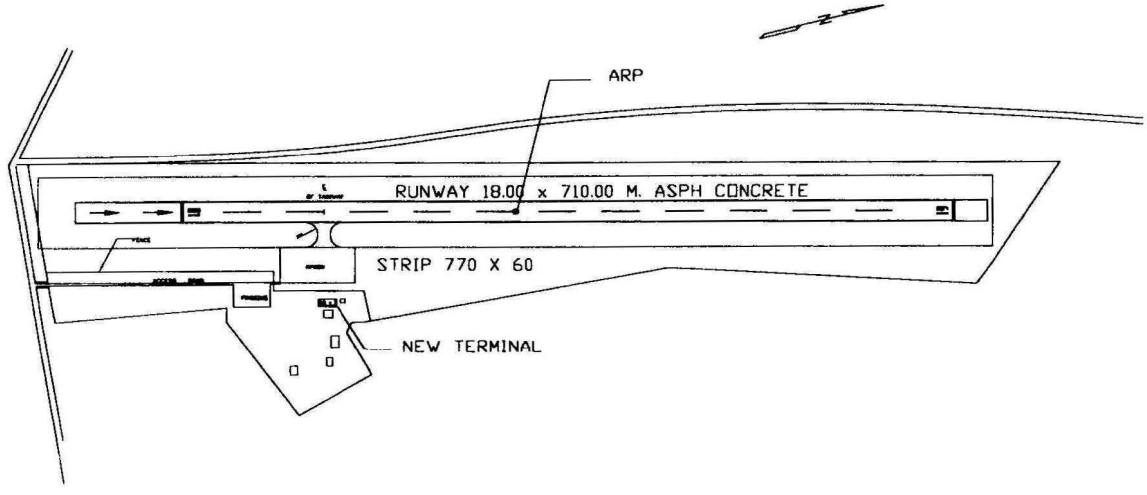
## VTCI AD 2.24 CHARTS RELATED TO AN AERODROME

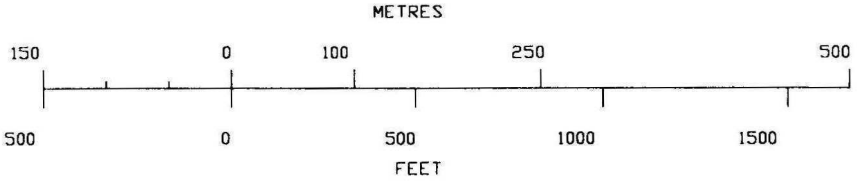
| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTCI-2-1 |

AERODROME CHART - ICAO 19° 22' 19" N 98° 26' 9.2" E ELEV. 1663 ft. 506.96 m. MAEHONGSON/pa

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 01 | 14° | 19° 22' 10.5" N 98° 26' 6.6" E | 5,700 Kg./0.50Mpa |
| 19 | 194° | 19° 22' 30.3" N 98° 26' 12.4" E | |
| APRON | | | 5,700 Kg./0.50Mpa |

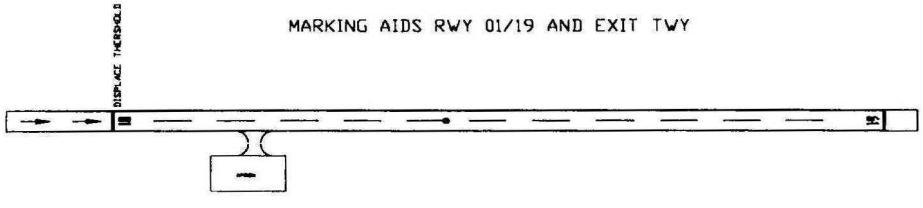
ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC




Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 01/19 AND EXIT TWY



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## VTBK AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTBK - NAKHON PATHOM/KAMPHAENG SAEN AIRPORT

## VTBK AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 140607.23N 0995502.13E |
| 2 | Direction and distance from (city) | 7 NM NW of Kamphaeng Saen District |
| 3 | Elevation/Reference temperature | 32 FT/28.2°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0 35' W (2017)/ 1'E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Flying Training School, Kamphaeng Saen AFB, Kamphaeng Saen District<br>Nakhon Pathom Province<br>Thailand<br>Tel: +662 534 5201<br>Fax: +662 534 5603<br>AFS: VTBKYXYX<br>VTBKZTZX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Royal Thai Air Force |

## VTBK AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0100-0900 MON-FRI |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | 0100-0900 MON-FRI |
| 4 | AIS Briefing Office | 0100-0900 MON-FRI |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | 0100-0900 MON-FRI |
| 7 | ATS | 0000-1000 MON-FRI |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | Except public holiday |

## VTBK AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JP8, Octane 100/130 |
| 3 | Fuelling facilities/capacity | Truck 30,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTBK AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city (Nakhonpathom city) |
| 2 | Restaurants | In the city (Kamphaeng Saen city) |
| 3 | Transportation | Buses |
| 4 | Medical facilities | Hospital at AD |
| 5 | Bank and Post Office | Bank in the city, Post Office at AD |
| 6 | Tourist Office | NIL |
| 7 | Remarks | Post Office open during official hour |

## VTBK AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTBK AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTBK AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 48/R/D/X/T |
| 2 | Taxiway width, surface and strength | Width: 22.5 M<br>Surface: Concrete<br>Strength: PCN 45/R/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: Close to the apron<br>Elevation: 9 M(30 FT) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTBK AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxiing Guidance Signs at all intersection with TWY and RWY and holding positions.<br>Guidelines at aprons NOSE-IN guidance at aircraft stand. |
| 2 | RWY and TWY markings and LGT | RWY: RWY edge light, THR/END light,distance marker<br>TWY: TWY edge light, TWY guidance sign |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTBK AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 21/APP<br>03/TKOF | Radio mast HGT 18 M painted red/white LGTD on top | 140629N 0995533E | Microwave tower HGT 85 M LGTD on top.<br><br>Chimney HGT 37 M | 140936N 0995852E<br><br>140828N 0995713E | NIL |

## VTBK AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Kamphaeng Saen |
| 2 | Hours of service<br>MET Office outside hours | H24 |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Kamphaeng Saen<br>00, 13, 18 HR |
| 4 | Type of landing forecast<br>Interval of issuance | Trend<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation |
| 6 | Flight documentation<br>Language(s) used | Chart<br>Thai, English |
| 7 | Charts and other information available for briefing or consultation | NIL |
| 8 | Supplementary equipment available for providing information | Telefax<br>Self - Briefing Terminal |
| 9 | ATS units provided with information | Kamphaeng Saen TWR<br>Kamphaeng Saen APP |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTBK AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 03 | NIL | 2743x45 | PCN 45/R/C/X/T<br>Concrete | 140528.37N<br>0995439.56E | THR 32 FT<br>TDZ 32 FT |
| 21 | NIL | 2743x45 | PCN 45/R/C/X/T<br>Concrete | 140646.1N<br>0995524.72E | THR 32 FT<br>TDZ 32 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | 225x45 | NIL | NIL | NIL | NIL |
| NIL | 225x45 | NIL | NIL | NIL | NIL |

## VTBK AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 03 | 2700 | 2700 | 2925 | 2700 | NIL |
| 21 | 2700 | 2700 | 2925 | 2700 | NIL |

## VTBK AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 03 | NIL | Green | PAPI<br>Left 3° | NIL | NIL | 2700 M<br>60 M<br>White, LIH | Red | NIL | NIL |
| 21 | NIL | Green | PAPI<br>Both 3° | NIL | NIL | 2700 M<br>60 M<br>White,LIH | Red | NIL | NIL |

## VTBK AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Parachute Tower AVBL ON REQ |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL<br>Anemometer : 1 850 M from THR 21, no LGT<br>Windsock : 240 M from THR 21, 267 M from THR 03, LGT |
| 3 | TWY edge and centre line lighting | Edge: All TWY<br>Centre Line: NIL |
| 4 | Secondary power supply/switch-over time | All LGT at AD/ 3 SEC |
| 5 | Remarks | NIL |

## VTBK AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTBK AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on KPS TACAN (140600.82N 0995443.77E) |
| 2 | Vertical limits | 2000 FT/ AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Kamphaeng Saen Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTBK AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Kamphaeng Saen Approach | 127.75 MHZ | 0000-0900 MON-FRI (Except public holiday) | Primary Operation for Radar Approach |
| ASR | Arrival | 347.2 MHZ | | Secondary Operation. |
| | Departure | 237.0 MHZ | | |
| TWR | Kamphaeng Saen Tower | 237.5 MHZ<br>123.3 MHZ<br>*121.5 MHZ<br>*243.0 MHZ | | Primary Operation<br>Secondary Operation<br>*Emergency Freq. |
| GND | Kamphaeng Saen Ground | 257.8 MHZ<br>121.75 MHZ | | |

## VTBK AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| VOR/DME (0° 17'W) | KPS | 114.5 MHZ CH 92X | 23:00-11:00 | 140956.71N 0995715.52E | NIL | Operation during weekdays MON-FRI (Except public holiday) |
| NDB (0° 17'W) | KPS | 251 KHZ | 23:00-11:00 | 141013.24N 0995724.71E | NIL | |
| ILS CAT I LOC/DME 21 (0° 35'W) | IKPS | 109.9 MHZ CH 36X | 01:00-09:00 | 140519.82N 0995434.59E | NIL | |
| GP 21 | | 333.8 MHZ | 01:00-09:00 | 140634.52N 0995522.59E | NIL | |
| MM 21 | | 75 KHZ | 01:00-09:00 | 140716.27N 0995542.25E | NIL | |
| OM 21 | | 75 KHZ | 01:00-09:00 | 141013.43N 0995724.50E | NIL | |
| TACAN | KPS | CH98X | 23:00-11:00 | 140600.82N 0995443.77E | NIL | |

## VTBK AD 2.20 LOCAL AERODROME REGULATIONS

The Royal Thai Air Force notifies that Kamphaeng Saen Air Force Base (Kamphaeng Saen AFB) air traffic services (ATS) are basically available for military aircraft and government owned aircraft. Therefore, the Kamphaeng Saen AFB is not allowed to use as an alternate aerodrome for civilian aircraft.

## VTBK AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTBK AD 2.22 FLIGHT PROCEDURES

NIL

## VTBK AD 2.23 ADDITIONAL INFORMATION

NIL

## VTBK AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

## VTUW AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUW - NAKHON PHANOM / NAKHON PHANOM AIRPORT

## VTUW AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 172307.22N 1043830.80E |
| 2 | Direction and distance from (city) | 15 KM W from city |
| 3 | Elevation/Reference temperature | 587 FT / 40 °C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.98°W (2016)/0.02°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Nakhon Phanom Airport<br>Nakhon Phanom Airport<br>Tambon Photak, Amphoe Muang<br>Nakhon Phanom Province 48000<br>Thailand<br>Tel: +664 253 1586<br>Fax: +664 253 1587<br>AFS: VTUWYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTUW AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1400 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1400 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1400 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Udon Thani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +664 223 0124<br>+669 2262 3477<br>Fax: +664 224 2797 |

## VTUW AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTUW AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Limousine, Car Rental |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTUW AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 7 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUW AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUW AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 61/R/C/X/T |
| 2 | Taxiway width, surface and strength | TWY A, B, C, D and P<br>Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 41/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 571 FT (174.15 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUW AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>Nose-wheel guide lines at apron<br>VDGS of aircraft stands: NIL, aircraft parking shall follow marshaller strictly. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: TWY CL, TWY Edge, RWY Holding Position and Intermediate Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUW AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| RWY 33/APCH area<br>RWY 15/TKOF area | DME<br>576 FT (175.68 M)<br>Painted red/white<br>LGTD | 172219.31N<br>1043903.03E | AWOS 1<br>613 FT (186.93 M)<br>Painted red/white<br>LGTD | 172322.13N<br>1043814.91E | NIL |
| | Telecommunication mast<br>685 FT (208.79 M)<br>NIL / LGTD | 172202.44N<br>1043931.36E | AWOS 2<br>616 FT (187.71 M)<br>Painted red/white<br>LGTD | 172322.32N<br>1043814.67E | |
| | | | AWOS 3<br>587 FT (178.77 M)<br>Painted red/white<br>LGTD | 172238.98N<br>1043846.66E | |
| | | | AWOS 4<br>588 FT (179.17 M)<br>Painted red/white<br>LGTD | 172239.08N<br>1043846.60E | |
| | | | AWOS 5<br>622 FT (189.66 M)<br>Painted red/white<br>LGTD | 172322.03N<br>1043815.20E | |
| | | | AWOS 6<br>622 FT (189.66 M)<br>Painted red/white<br>LGTD | 172322.12N<br>1043815.10E | |
| | | | DVOR/DME<br>620 FT (188.97 M)<br>Painted red/white<br>LGTD | 172317.87N<br>1043818.11E | |
| | | | Glide slope<br>637 FT (194.24 M)<br>Painted red/white<br>LGTD | 172324.46N<br>1043813.95E | |

## VTUW AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Nakhon Phanom,<br>Upper Northeastern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1400<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Upper Northeastern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +664 253 1532 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Nakhon Phanom TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUW AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 15 | 144.96° | 2500x45 | PCN 61/F/C/X/T Asphaltic concrete | 172334.95N 1043810.44E | THR 587 FT |
| 33 | 324.96° | 2500x45 | PCN 61/F/C/X/T Asphaltic concrete | 172228.37N 1043859.32E | THR 555 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location & description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| NIL | 60x60 | NIL | 2740x280 | 180x90 | NIL | NIL | NIL |
| NIL | 60x60 | NIL | 2740x280 | 240x90 | NIL | NIL | NIL |

## VTUW AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 15 | 2500 | 2500 | 2560 | 2500 | NIL |
| 33 | 2500 | 2500 | 2560 | 2500 | NIL |

## VTUW AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 15 | CAT1 900 M LIH | Green WBAR | PAPI Left 3° (53.61 FT) | NIL | NIL | 2500 M, 60 M, FM 0 M-1900 M White, FM 1900 M-2500 M Yellow, 5 steps, LIH | Red | 60 M RED | NIL |
| 33 | SALS 420 M LIH | Green WBAR | PAPI Left 3° (60.43 FT) | NIL | NIL | 2500 M, 60 M, FM 0 M-1900 M White, FM 1900 M-2500 M Yellow, 5 steps, LIH | Red | 60 M RED | NIL |

## VTUW AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W G EV 3 SEC<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI: 1. Wind cone at 350 M from THR 15 off set to the left side 90 M from RCL, illuminated.<br>2. Wind cone at 350 M from THR 33 off set to the left side 90 M from RCL, illuminated. |
| 3 | TWY edge and centre line lighting | TWY edge: All TWY<br>TWY centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the air field lighting (AFL).<br>Switch over time : 15 sec. |
| 5 | Remarks | NIL |

## VTUW AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTUW AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on Nakhon Phanom DVOR/DME (172317.9N 1043818.1E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Nakhon Phanom Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTUW AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Sakon Nakhon Approach | 123.35 MHz<br>284.0 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Nakhon Phanom Tower | 122.5 MHz<br>121.5 MHz [1)]<br>236.6 MHz | As AD OPR HR | |
| GND | Nakhon Phanom Ground | 121.9 MHz | As AD OPR HR | |
| ATIS | Nakhon Phanom Airport | 383 KHz | As AD OPR HR | |

## VTUW AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | NP | 383 KHz | H24 | 172332.7N 1043833.6E | | 50 nm Coverage clockwise orbit data refer from commissioning checked as follow:<br>-Bearing 170-350 degree at 2100 ft<br>-Bearing 351-169 degree unable to check due to border limited. |
| DVOR/DME | NKP | 111.6 MHz CH53X | H24 | 172317.9N 1043818.1E | 600 ft | DVOR/DME restriction due to mountainous terrain surround DVOR/ DME station, coverage check does not provide adequate signal to 40 nm at required altitudes in various areas as follows:<br>– Radial 181°-190° altitude should not below 2 500 ft<br>– Radial 191°-260° altitude should not below 4 000 ft<br>– Radial 261°-320° altitude should not below 2 500 ft<br>– Radial 321°-180° unable to check (Due to border limited) |
| LOC RWY15 ILS CAT I | INKP | 109.7 MHz | H24 | 172220.6N 1043905.1E | | LOC: Localizer coverage unable to perform<br>10 DEG/ 90 Hz 18 nm and<br>35 DEG/ 90 Hz 10 nm due to LAOS PDR border. |
| GP | | 333.2 MHz | H24 | 172324.5N 1043814.1E | | GP: 3 DEG, RDH 50 ft |
| DME | INKP | CH 34X (109.7 MHz) | H24 | 172219.3N 1043903.0E | 600 ft | Paired with LOC FREQ. |

## VTUW AD 2.20 LOCAL AERODROME REGULATIONS

**NAKHON PHANOM FLYING TRAINING AREA**

**VFR Departure/Arrival route flying training area within VTD64 in BANGKOK FIR**

**DEPARTURE ROUTES:**

**Runway 15 (To Training Area 1)**

Climb straight ahead until ALT 500 FT AGL. Turn right to crosswind leg, and climb on crosswind leg until ALT 1500 FT. Then proceed direct to point TANGO (172724.77N 1042630.25E / NKP R-290/12D), continue climbing to not above ALT 2000 FT at point TANGO. After point TANGO climb to final altitude and enter training area 1.

**Runway 15 (To Training Area 2)**

Climb straight ahead until ALT 1500 FT. Turn right proceed direct to point SIERRA (170833.95N 1043502.60E / NKP R-192/15D), continue climbing to not above ALT 2000 FT at point SIERRA. After point SIERRA climb to final altitude and enter training area 2

**Runway 33 (To Training Area 1)**

Climb straight ahead until ALT 1500 FT. Then turn left to point TANGO (172724.77N 1042630.25E / NKP R-290/12D), continue climbing to not above ALT 2000 FT at point TANGO. After point TANGO climb to final altitude and enter training area 1

**Runway 33 (To Training Area 2)**

Climb straight ahead until ALT 1100 FT. Turn left to crosswind leg and downwind leg, continue climbing on downwind until ALT 2000 FT. Then maintain ALT 2000 FT proceed direct to point SIERRA (170833.95N 1043502.60E / NKP R-192/15D). After point SIERRA climb to final altitude and enter training area 2.

**ARRIVAL ROUTES:**

**Runway 15/33 (From Training Area 1)**

Leaving training area 1, climb or descend, as appropriate, to ALT 3000 FT proceed to point PAPA (171714.81E 1042726.80E / NKP R-240/12D). Then proceed to point UNIFORM (172036.61N 1043511.55E / NKP R-228/4D) descending to ALT 1500 FT, and join downwind to the active runway as cleared by ATC. In case of PFL, from point PAPA, proceed to point UNIFORM descending to ALT 2500 FT and carry out PFL as cleared by ATC.

**Runway 15/33 (From Training Area 2)**

Leaving training area 2, climb or descend, as appropriate, to ALT 3000 FT proceed to point PAPA (171714.81E 1042726.80E / NKP R-240/12D). Then proceed to point UNIFORM (172036.61N 1043511.55E / NKP R-228/4D) descending to ALT 1500 FT, and join downwind to the active runway as cleared by ATC. In case of PFL, from point PAPA, proceed to point UNIFORM descending to ALT 2500 FT and carry out PFL as cleared by ATC.

**CIRCUIT PROCEDURES:**

Standard circuits shall be flown at ALT 1500 FT. Patterns shall be flown to the West of airfield (i.e. RWY15 RH, RWY33 LH circuits). Any deviation of this procedure is upon approval by ATC.

**HOLDING POINTS IN TRAINING AREA**

If required, you may be instructed to hold in the training area. The following are the points designated for holding:

Area 1 Point KILO (173547.38N 1041536.09E / NKP R-300/25D)

Area 2 Point NOVEMBER (165705.22N 1043103.47E / NKP R-195/27D)

Point CHARLIE (165652.14N 1042533.65E / NKP R-205/29D)

**180 DEGREES TURN ON THE RUNWAY**

To prevent runway pavement damage, all aircraft code letter C or higher are not allowed to make 180 degrees turn on the runway. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand/ The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTUW AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUW AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

### 3. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 15:

NAKHON PHANOM OMNI 15 Departure: Required climb gradient 244 ft per NM (4.0%) until 4,200 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 4.0% | (ft/min) | 263 | 304 | 405 | 608 | 810 | 1013 | 1215 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 3,700 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 33:

NAKHON PHANOM OMNI 33 Departure: Required climb gradient 201 ft per NM (3.3%) until 4,200 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 3,700 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTUW AD 2.23 ADDITIONAL INFORMATION

### 1. Bird Concentrations

Bird Concentrations on and in the vicinity of an aerodrome.

## VTUW AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTUW-2-1 |
| Instrument Approach Chart - ICAO - VOR RWY 15 | AD 2-VTUW-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 15 (Fix and point list table) | AD 2-VTUW-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 33 | AD 2-VTUW-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 33 (Fix and point list table) | AD 2-VTUW-8-4 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 15 | AD 2-VTUW-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 15 (Fix and point list table) | AD 2-VTUW-8-6 |
| Instrument Approach Chart - ICAO - RNP RWY 15 | AD 2-VTUW-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 15 (Tabular description) | AD 2-VTUW-8-8 |
| Instrument Approach Chart - ICAO - RNP RWY 33 | AD 2-VTUW-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 33 (Tabular description) | AD 2-VTUW-8-10 |

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## AERODROME CHART - ICAO

17 23 07.22N
104 38 30.80E

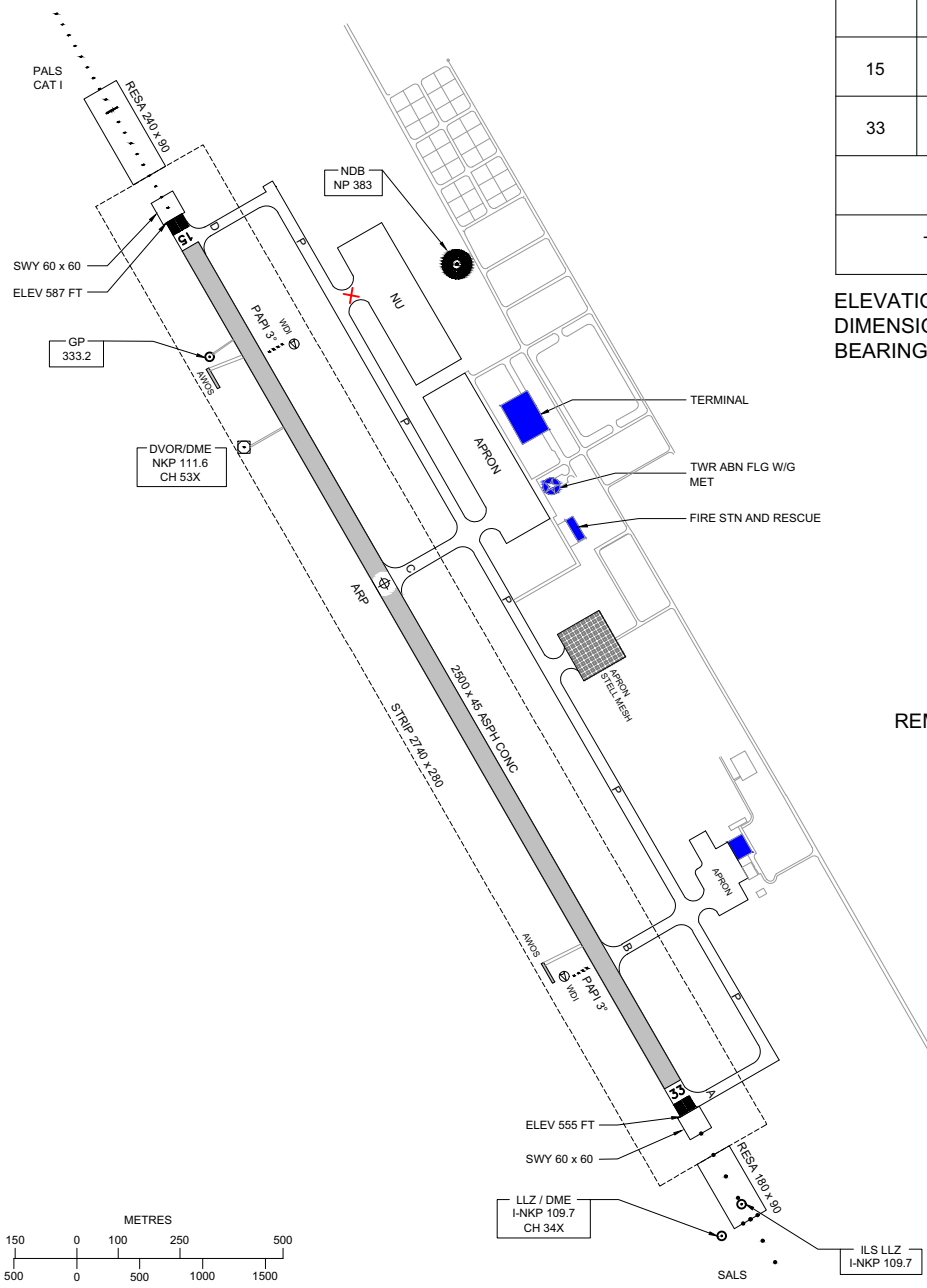
ELEV 587 FT

**TWR 122.5, 236.6**
**GND 121.9**

## NAKHON PHANOM / Nakhon Phanom

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 15 | 144.96° | 17 23 34.95N<br>104 38 10.44E | PCN 61/F/C/X/T |
| 33 | 324.96° | 17 22 28.37N<br>104 38 59.32E | |
| APRON | | | PCN 61/R/C/X/T |
| TAXIWAY A, B, C, D AND P | | | PCN 41/F/C/X/T |

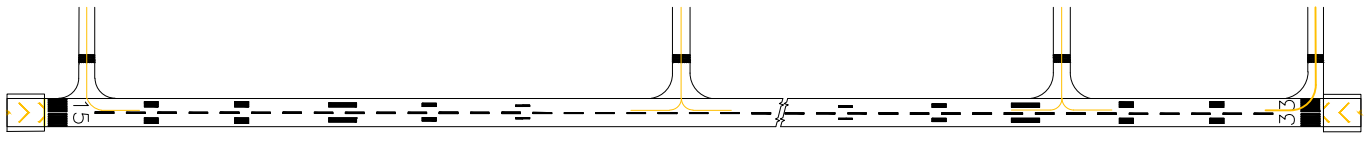
ELEVATION IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC



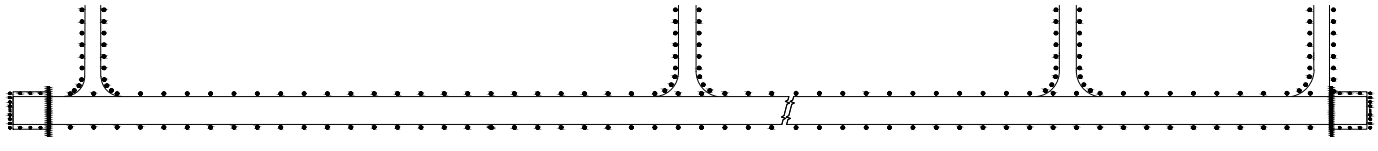

MAG VAR 0.98°W (2016)
ANNUAL RATE OF CHANGE 0.02°W

REMARKS:
- TAXIWAY A, B, C, D AND P WIDTH 23 m.

MARKING AIDS RWY 15/33 AND EXIT TWY




LIGHTING AIDS RWY 15/33 AND EXIT TWY



METRES
150 0 100 250 500
500 0 500 1000 1500
FEET

CHANGE: REVISED CHART. WDI.

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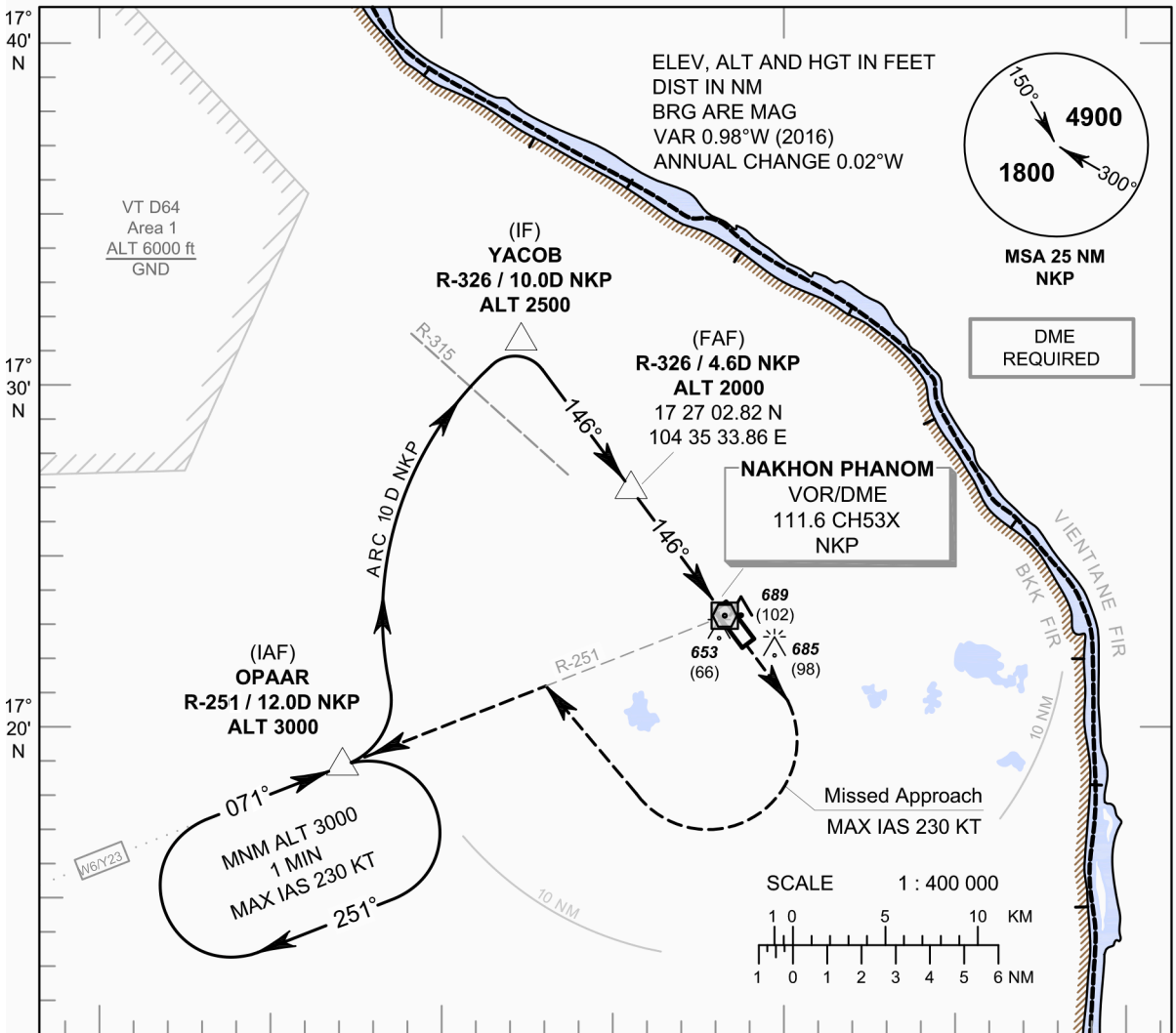
**INSTRUMENT APPROACH CHART - ICAO**

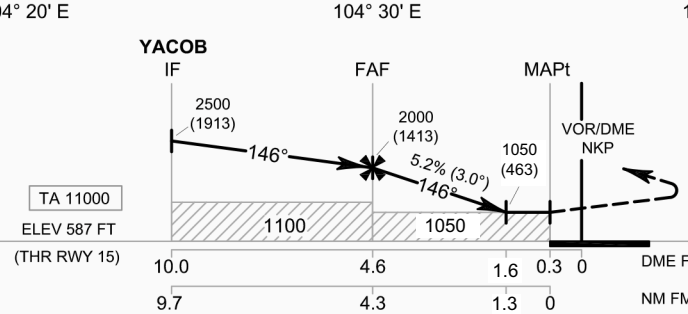
**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35 , 284.0
TWR : 122.5
GND : 121.9

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**VOR RWY15**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 230 KT until after turn.**
Climb straight ahead to 2400 FT then turn right to intercept outbound R-251 NKP VOR then proceed to OPAAR at 3000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 1050 (463) | | | |
| Circling (OCH AAL) | 1100 (513) | | 1300 (713) | |

| Distance to NKP | FAF | 4 D | 3 D | 2 D | 1.6 D |
|---|---|---|---|---|---|
| Altitude (Height) | 2000 (1413) | 1805 (1218) | 1490 (903) | 1175 (588) | 1050 (463) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: (IAF) OPAAR RADIAL. HOLDING COURSE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO AERODROME ELEV

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**VOR RWY15**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) OPAAR | R-251 / 12.0D NKP | 17 19 12.67 N | 104 26 29.87 E |
| (IF) YACOB | R-326 / 10.0D NKP | 17 31 32.46 N | 104 32 19.51 E |
| (FAF) | R-326 / 4.6D NKP | 17 27 02.82 N | 104 35 33.86 E |
| (MAPt) | R-326 / 0.3D NKP | 17 23 32.77 N | 104 38 07.22 E |
| VOR/DME | NKP | 17 23 17.87 N | 104 38 18.05 E |

CHANGE : (IAF) OPAAR RADIAL. VOR/DME ADDED.

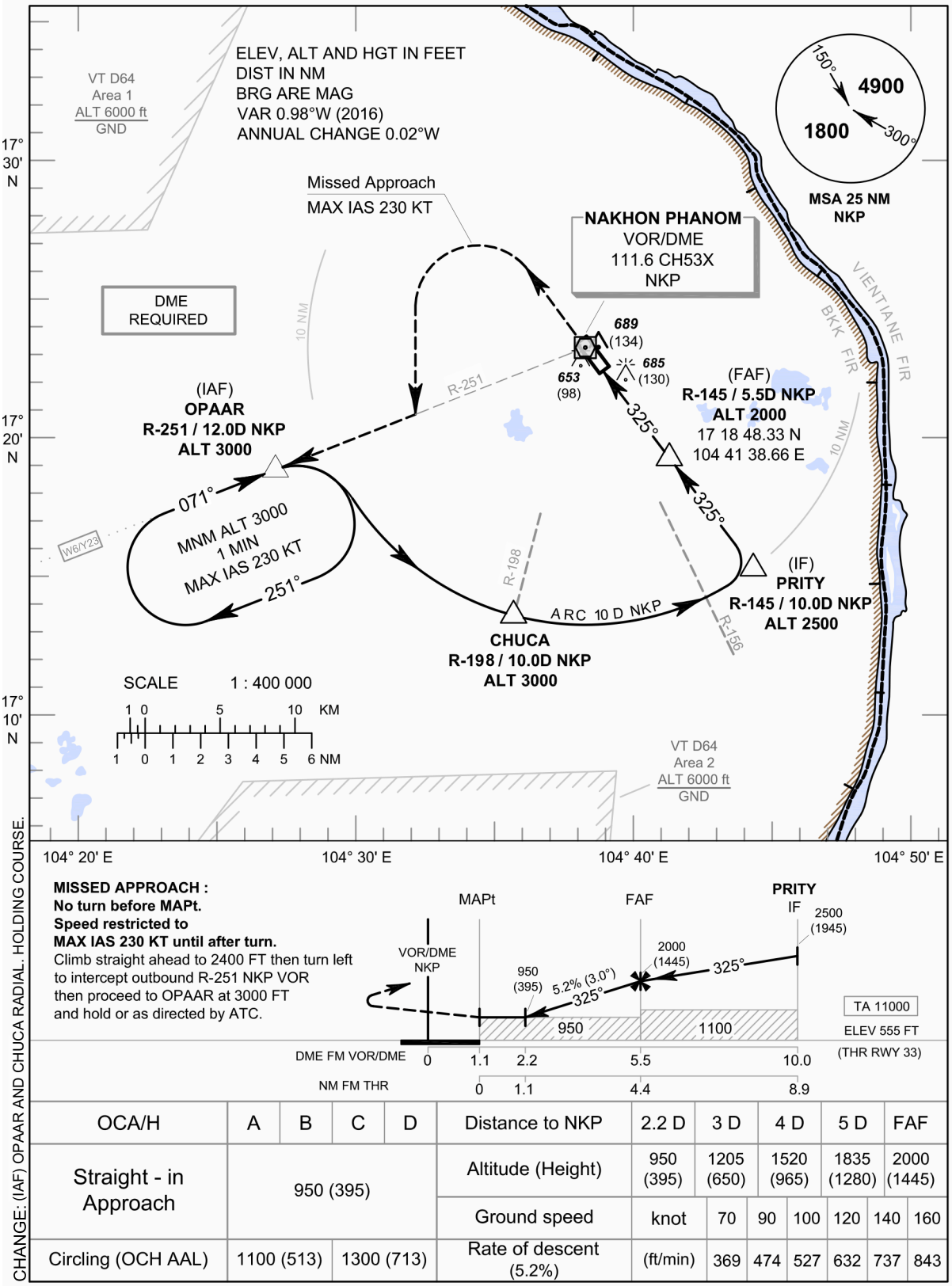
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO
THR RWY33 - ELEV 555 FT

APP : 123.35 , 284.0
TWR : 122.5
GND : 121.9

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**VOR RWY33**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 230 KT until after turn.**
Climb straight ahead to 2400 FT then turn left to intercept outbound R-251 NKP VOR then proceed to OPAAR at 3000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D | Distance to NKP | 2.2 D | 3 D | 4 D | 5 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 950 (395) | | | | Altitude (Height) | 950 (395) | 1205 (650) | 1520 (965) | 1835 (1280) | 2000 (1445) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1100 (513) | | 1300 (713) | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: (IAF) OPAAR AND CHUCA RADIAL. HOLDING COURSE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO
THR RWY33 - ELEV 555 FT

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**VOR RWY33**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) OPAAR | R-251 / 12.0D NKP | 17 19 12.67 N | 104 26 29.87 E |
| CHUCA | R-198 / 10.0D NKP | 17 13 43.41 N | 104 35 18.32 E |
| (IF) PRITY | R-145 / 10.0D NKP | 17 15 10.07 N | 104 44 20.80 E |
| (FAF) | R-145 / 5.5D NKP | 17 18 48.33 N | 104 41 38.66 E |
| (MAPt) | R-145 / 1.1D NKP | 17 22 26.35 N | 104 38 56.36 E |
| VOR/DME | NKP | 17 23 17.87 N | 104 38 18.05 E |

CHANGE : (IAF) OPAAR AND CHUCA RADIAL. VOR/DME ADDED

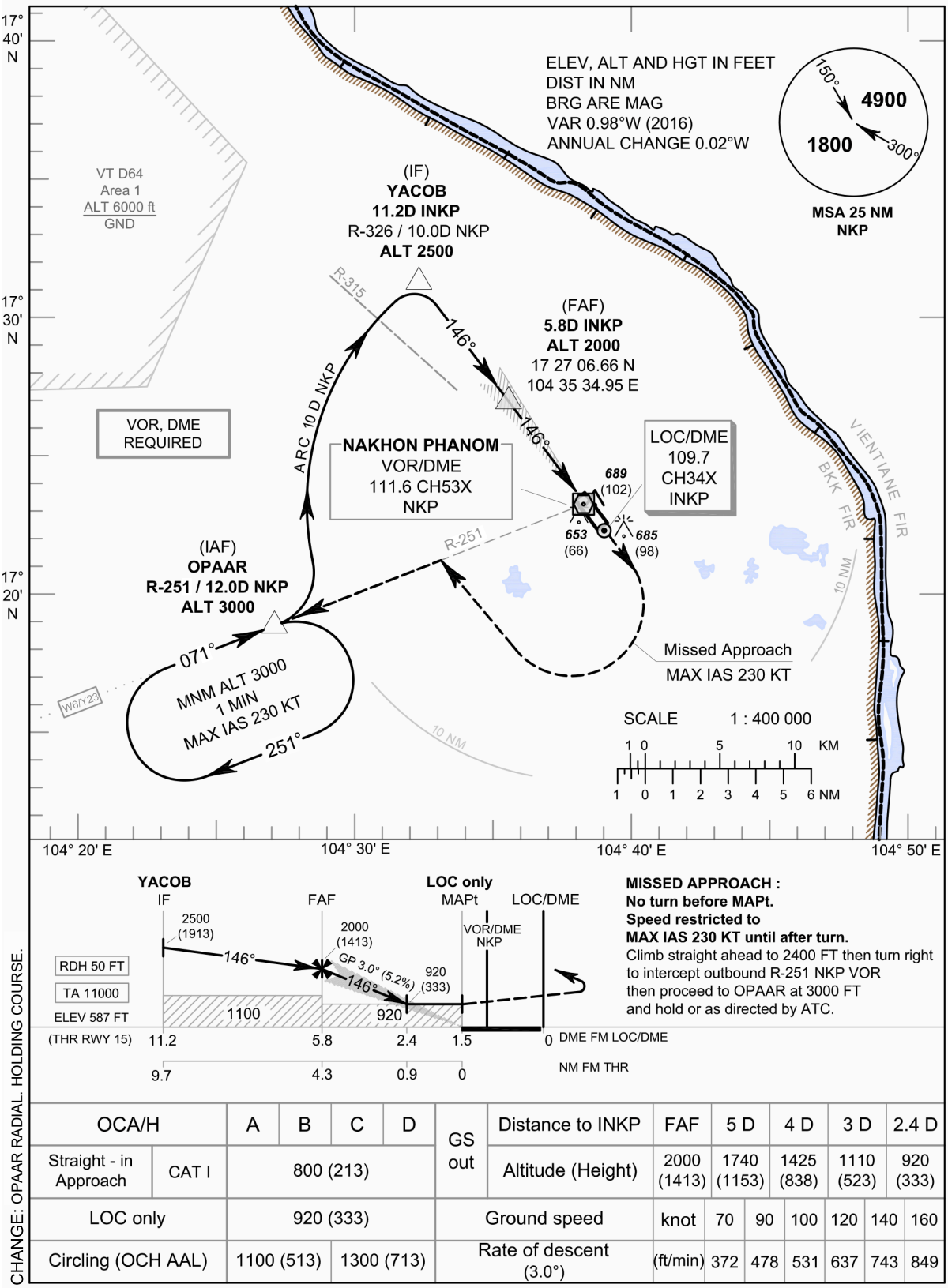
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO
THR RWY15 - ELEV 587 FT

APP : 123.35 , 284.0
TWR : 122.5
GND : 121.9

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**ILS or LOC RWY15**







**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 230 KT until after turn.**
Climb straight ahead to 2400 FT then turn right to intercept outbound R-251 NKP VOR then proceed to OPAAR at 3000 FT and hold or as directed by ATC.

CHANGE: OPAAR RADIAL. HOLDING COURSE.

| OCA/H | | A | B | C | D | GS out | Distance to INKP | FAF | 5 D | 4 D | 3 D | 2.4 D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 800 (213) | | | | | Altitude (Height) | 2000 (1413) | 1740 (1153) | 1425 (838) | 1110 (523) | 920 (333) |
| LOC only | | 920 (333) | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | | 1100 (513) | | 1300 (713) | | | Rate of descent (3.0°) | (ft/min) | 372 | 478 | 531 | 637 | 743 | 849 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO
THR RWY15 - ELEV 587 FT

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**ILS or LOC RWY15**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) OPAAR | R-251 / 12.0D NKP | 17 19 12.67 N | 104 26 29.87 E |
| (IF) YACOB | 11.2D INKP | 17 31 32.46 N | 104 32 19.51 E |
| (FAF) | 5.8D INKP | 17 27 06.66 N | 104 35 34.95 E |
| MAPt (LOC only) | 1.5D INKP | 17 23 34.95 N | 104 38 10.44 E |
| LOC/DME | INKP | 17 22 20.61 N | 104 39 05.05 E |
| VOR/DME | NKP | 17 23 17.87 N | 104 38 18.05 E |

CHANGE : (IAF) OPAAR RADIAL. LOC/DME AND VOR/DME ADDED.

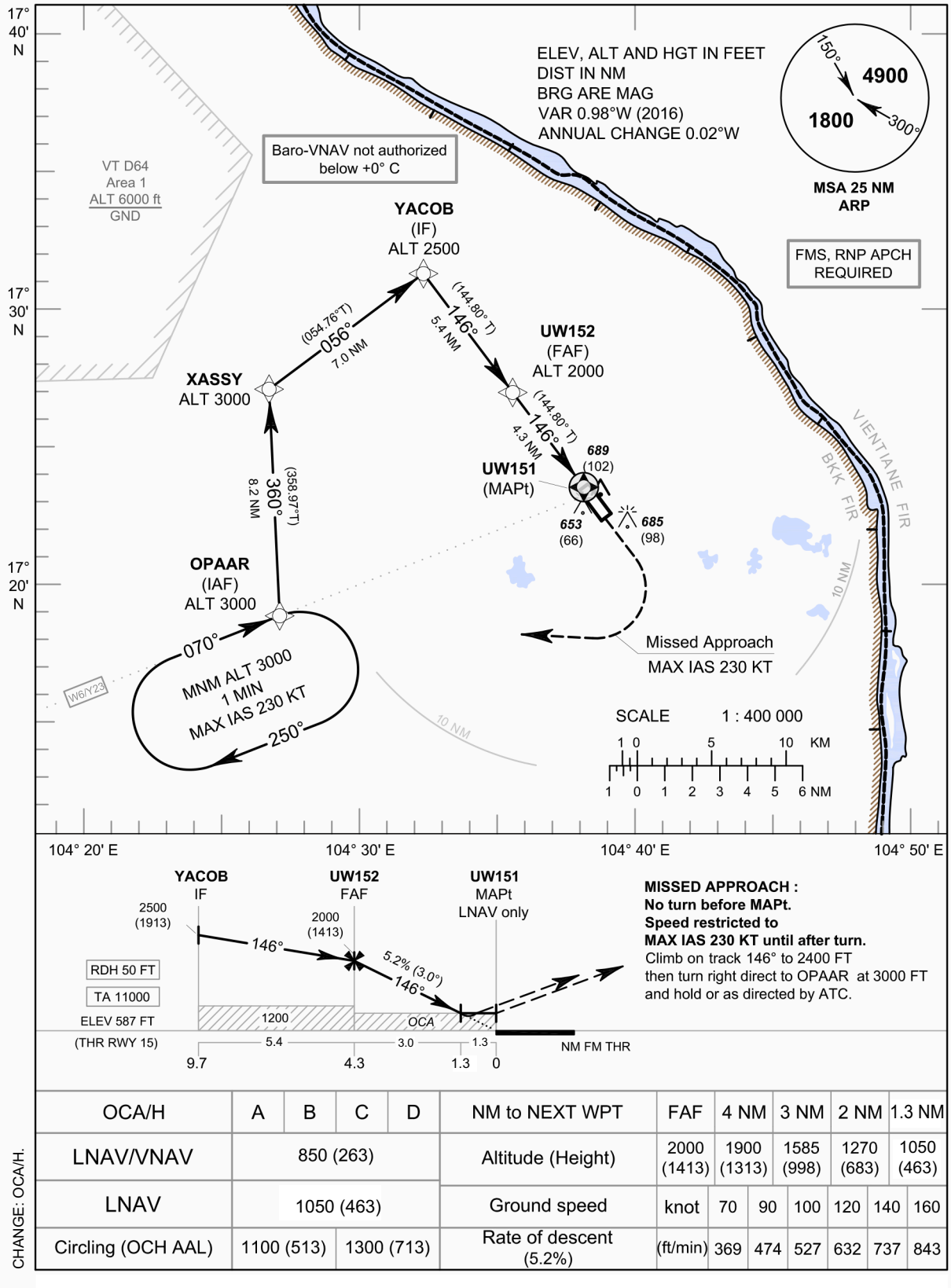
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35 , 284.0
TWR : 122.5
GND : 121.9

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**RNP RWY15**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 850 (263) | | | |
| LNAV | 1050 (463) | | | |
| Circling (OCH AAL) | 1100 (513) | | 1300 (713) | |

| NM to NEXT WPT | FAF | 4 NM | 3 NM | 2 NM | 1.3 NM |
|---|---|---|---|---|---|
| Altitude (Height) | 2000 (1413) | 1900 (1313) | 1585 (998) | 1270 (683) | 1050 (463) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: OCA/H.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO AERODROME ELEV

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**RNP RWY15**

## TABULAR DESCRIPTION

**RNP RWY15**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | OPAAR (IAF) | - | - | +1.0 | - | - | @3000 | - | - | RNP APCH |
| 020 | TF | XASSY | - | 360°(358.97°) | +1.0 | 8.2 | R | @3000 | - | - | RNP APCH |
| 030 | TF | YACOB (IF) | - | 056°(054.76°) | +1.0 | 7.0 | - | @2500 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | YACOB (IF) | - | - | +1.0 | - | - | @2500 | - | - | RNP APCH |
| 020 | TF | UW152 (FAF) | - | 146°(144.80°) | +1.0 | 5.4 | - | @2000 | - | - | RNP APCH |
| 030 | TF | UW151 (MAPt) | Y | 146°(144.80°) | +1.0 | 4.3 | - | @637 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 146°(144.80°) | +1.0 | - | - | +2400 | - | - | RNP APCH |
| 050 | DF | OPAAR (IAF) | - | - | +1.0 | - | R | @3000 | -230 | - | RNP APCH |
| 060 | HM | OPAAR (IAF) | Y | 070°(068.52°) | +1.0 | 1 minute | R | @3000 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY15**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| OPAAR | 17° 19' 12.67" N | 104° 26' 29.87" E |
| XASSY | 17° 27' 29.23" N | 104° 26' 20.55" E |
| YACOB | 17° 31' 32.46" N | 104° 32' 19.51" E |
| UW152 | 17° 27' 06.66" N | 104° 35' 34.95" E |
| UW151 (THR15) | 17° 23' 34.95" N | 104° 38' 10.44" E |

CHANGE: OPAAR ALT.

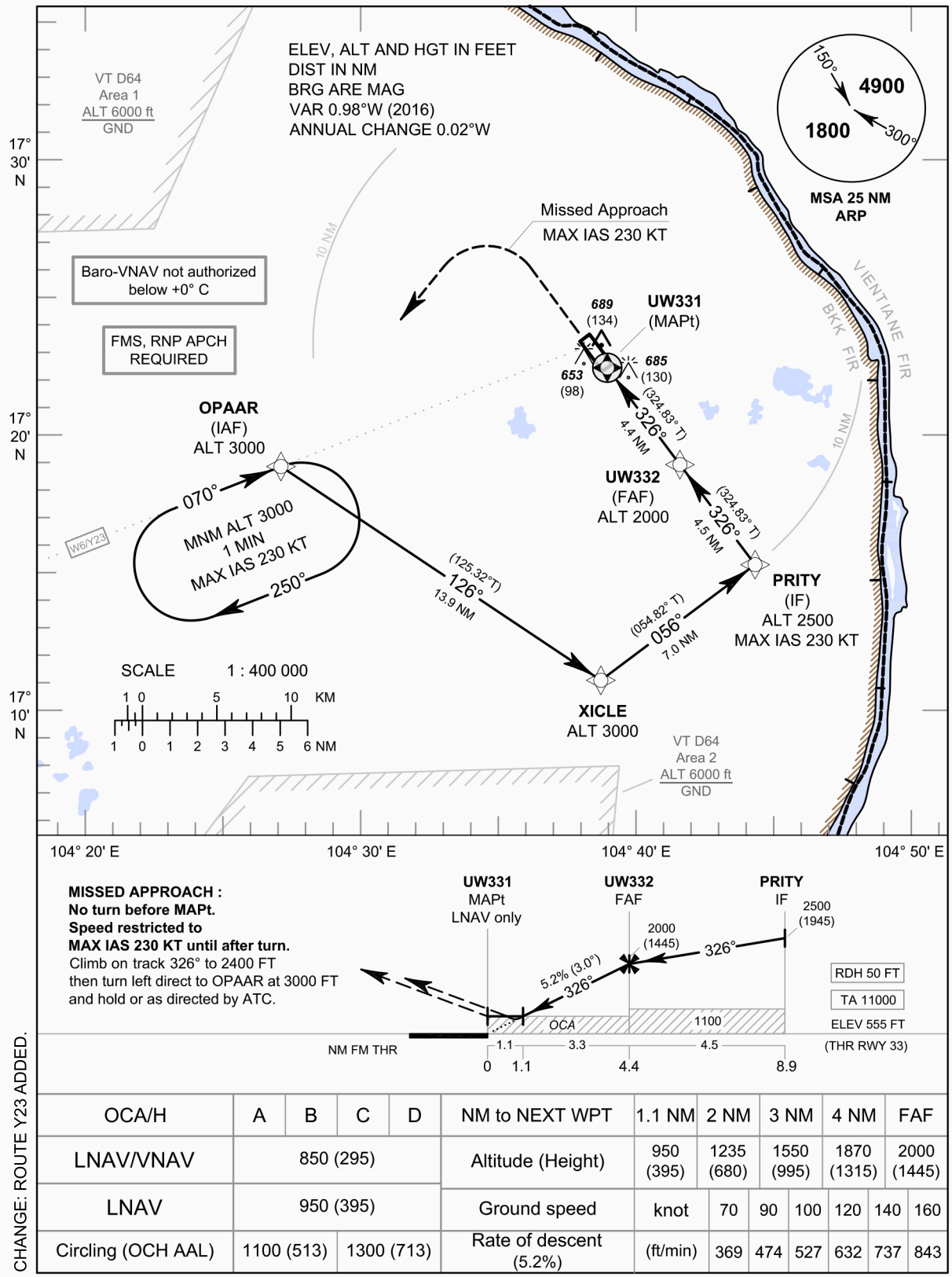
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO
THR RWY33 - ELEV 555 FT

APP : 123.35 , 284.0
TWR : 122.5
GND : 121.9

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**RNP RWY33**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 230 KT until after turn.**
Climb on track 326° to 2400 FT
then turn left direct to OPAAR at 3000 FT
and hold or as directed by ATC.




| OCA/H | A | B | C | D | NM to NEXT WPT | 1.1 NM | 2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 850 (295) | | | | Altitude (Height) | 950 (395) | 1235 (680) | 1550 (995) | 1870 (1315) | 2000 (1445) |
| LNAV | 950 (395) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1100 (513) | | 1300 (713) | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y23 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 587 FT**
HEIGHTS RELATED TO
THR RWY33 - ELEV 555 FT

**NAKHON PHANOM / Nakhon Phanom (VTUW)**

**RNP RWY33**

## TABULAR DESCRIPTION

**RNP RWY33**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | OPAAR (IAF) | - | - | +1.0 | - | - | @3000 | - | - | RNP APCH |
| 020 | TF | XICLE | - | 126°(125.32°) | +1.0 | 13.9 | L | @3000 | - | - | RNP APCH |
| 030 | TF | PRITY (IF) | - | 056°(054.82°) | +1.0 | 7.0 | - | @2500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | PRITY (IF) | - | - | +1.0 | - | - | @2500 | -230 | - | RNP APCH |
| 020 | TF | UW332 (FAF) | - | 326°(324.83°) | +1.0 | 4.5 | - | @2000 | - | - | RNP APCH |
| 030 | TF | UW331 (MAPt) | Y | 326°(324.83°) | +1.0 | 4.4 | - | @605 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 326°(324.83°) | +1.0 | - | - | + 2400 | - | - | RNP APCH |
| 050 | DF | OPAAR (IAF) | - | - | +1.0 | - | L | @3000 | -230 | - | RNP APCH |
| 060 | HM | OPAAR (IAF) | Y | 070°(068.52°) | +1.0 | 1 minute | R | @3000 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY33**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| OPAAR | 17° 19' 12.67" N | 104° 26' 29.87" E |
| XICLE | 17° 11' 07.18" N | 104° 38' 22.09" E |
| PRITY | 17° 15' 10.07" N | 104° 44' 20.80" E |
| UW332 | 17° 18' 51.70" N | 104° 41' 38.31" E |
| UW331 (THR33) | 17° 22' 28.37" N | 104° 38' 59.32" E |

CHANGE: OPAAR ALT.

## VTUQ AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUQ - NAKHON RATCHASIMA / NAKHON RATCHASIMA AIRPORT

## VTUQ AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 145658.19N 1021845.86E<br>Centre of RWY 1050 M from THR RWY06 |
| 2 | Direction and distance from (city) | 26 KM N |
| 3 | Elevation/Reference temperature | 765 FT/41°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.41°W (2016)/0°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Nakhon Ratchasima Airport<br>Nakhon Ratchasima Airport<br>Amphoe Chalermprakiat<br>Nakhon Ratchasima Province Thailand<br>Tel: +664 425 5899<br>+664 425 9534<br>+664 425 9686-8<br>Fax: +664 425 9689<br>AFS: VTUQYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTUQ AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Nakhon Ratchasima<br>Air Traffic Control Centre (1st floor of building)<br>Tel: +664 425 8855 Ext 7272, +668 9845 1649<br>Fax: +664 425 8952 Ext. 7273<br>E-mail: vtuqzpzx@aerothai.co.th |

## VTUQ AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTUQ AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Limousine |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTUQ AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUQ AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUQ AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 45/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Concrete and asphalt<br>Strength PCN 42/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUQ AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Marked and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUQ AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTUQ AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Nakhon Ratchasima,<br>Lower Northeastern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1400<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Lower Northeastern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +664 425 8532 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Nakhon Ratchasima TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUQ AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 06 | 062.42° | 2100x45 | PCN 42/F/C/X/T Concrete and asphalt | 145641.79N 1021815.01E | THR 765 FT TDZ 765 FT |
| 24 | 242.42° | 2100x45 | PCN 42/F/C/X/T Concrete and asphalt | 145714.58N 1021916.70E | THR 740 FT TDZ 748 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| -0.4% | 60x60 | NIL | 2340x300 | NIL | NIL |
| +0.4% | 60x60 | NIL | 2340x300 | NIL | NIL |

## VTUQ AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 06 | 2100 | 2100 | 2160 | 2100 | NIL |
| 24 | 2100 | 2100 | 2160 | 2100 | NIL |

## VTUQ AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 06 | CAT I 900 M LIH | Green Green | PAPI LEFT 3° (52.87 FT) | NIL | NIL | 2100 M 60 M White FM 1500 M- 2100 M Yellow; LIH | Red NIL | 60 M Red | NIL |
| 24 | NIL | Green NIL | PAPI LEFT 3° (48.82 FT) | NIL | NIL | 2100 M 60 M White FM 1500 M - 2100 M Yellow; LIH | Red NIL | 60 M Red | RTIL |

## VTUQ AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG WG EV 7 SEC.<br>IBN: NIL |

| | | |
|---|---|---|
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI: 1. Wind cone at 350 M from THR 06 off set Left side 80 M, illuminated<br>2. Wind cone at 350 M from THR 24 Off set Left side 80 M, illuminated<br>3. Wind cone at 240 M from RCL off set between TWY A and TWY B, illuminated |
| 3 | TWY edge and centre line lighting | TWY Edge: All TWY<br>TWY Centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the Airfield Lighting (AFL) building.<br>Switch-over time: 15 SEC. |
| 5 | Remarks | NIL |

## VTUQ AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTUQ AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | Beginning at 1501.2N 10222.1E then clockwise along 5 NM arc from Ratchasima DVOR/DME (145647.6N 1021840.4E) to 1454.5N 10214.6E then counter clockwise from Khorat Aerodrome Traffic Zone to 1457.1N 10214.4E then direct to the starting point. |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Ratchasima Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTUQ AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Ratchasima Approach | 123.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)]Emergency frequency |
| TWR | Ratchasima Tower | 119.8 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Ratchasima Airport | 126.6 MHz | As AD OPR HR | |

## VTUQ AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | KR | 399 KHz | H24 | 145723.3N 1021853.0E | | Coverage 50 nm clockwise data refer from commissioning as follows:<br>– Bearing 271°-160° at altitude 2 000 ft.<br>– Bearing 161°-270° at altitude 3 500 ft. |
| DVOR/DME | NKR | 110.2 MHz CH39X | H24 | 145647.6N 1021840.4E | | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 nm at required altitude in various areas as follows:<br>– Radial 271°-110° altitude should not below 3 000 ft.<br>– Radial 111°-160° altitude should not below 3 500 ft.<br>– Radial 161°-270° altitude should not below 4 500 ft. |
| LOC RWY 06 ILS CAT I | INKR | 109.7 MHz | H24 | 145719.2N 1021925.6E | | LOC: Designated operation coverage 18 nm, ALT 7000 ft. AMSL |
| GP | | 333.2 MHz | H24 | 145643.2N 1021826.1E | | GP: 3 DEG, RDH 54 ft. |
| DME | INKR | CH34X (109.7 MHz) | H24 | 145717.2N 1021926.7E | 732 ft | DME: Paired with LOC Freq. |

## VTUQ AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTUQ AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUQ AD 2.22 FLIGHT PROCEDURES

### 1. VFR REPORTING POINTS AND LOCAL PROCEDURES

1.1 Aerodrome traffic circuit

a) Using RWY 24 by entering left traffic circuit only.
b) Using RWY 06 by entering right traffic circuit only.

1.2 Details of VFR entry and exit procedures, see charts.

### 2. NAKHON RATCHASIMA CORRIDOR (NTC)

In order to facilitate all aircraft to/from Nakhon Ratchasima Airport Temporary Transition Corridor is established within Khorat Control Zone as follow:
Nakhon Ratchasima Transition Corridor (NTC) an area bounded by a line joining the following points: 143746.50N 1013621.56E to 144624.59N 1014902.48E to 145944.02N 1021819.43E to 150243.62N 1024312.81E then along a 35 NM arc clockwise from KRT VOR/DME (145502.35N 1020823.32E) to 145644.78N 1024358.14E to 145345.19N 1021905.45E to 144128.44N 1015235.14E to 143250.36N 1013954.53E then along a 35 NM arc clockwise from KRT VOR/DME (145502.35N 1020823.32E) to the starting point.

Vertical Limit : 3 000 FT / 11 000 FT
Period of Activity : To be notified by ATC
Type of Airspace : Temporary Airspace delegated turning point Nakhon Ratchasima Approach
Class of Airspace : C
Controlling Unit : Nakhon Ratchasima Approach

Frequency : 123.6 MHZ
Remark : NTC may be activated during low traffic period within Khorat Control Zone, Nakhon Ratchasima Approach shall accordingly maintain close co-ordination with Khorat Approach for intended activities within NTC.

**3. IFR DEPARTURES OTHER THAN VIA SID**

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

**4. VISUAL DEPARTURES**

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**5. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 06:

RATCHASIMA OMNI 06 Departure: Required climb gradient 201 ft per NM (3.3%) until 2,800 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 2,500 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 24:

RATCHASIMA OMNI 24 Departure: Required climb gradient 201 ft per NM (3.3%) until 2,800 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 2,500 ft), then comply with ATC clearance issued (or as directed by ATC).

**VTUQ AD 2.23 ADDITIONAL INFORMATION**

NIL

## VTUQ AD 2.24 CHARTS RELATED TO AN AERODROME

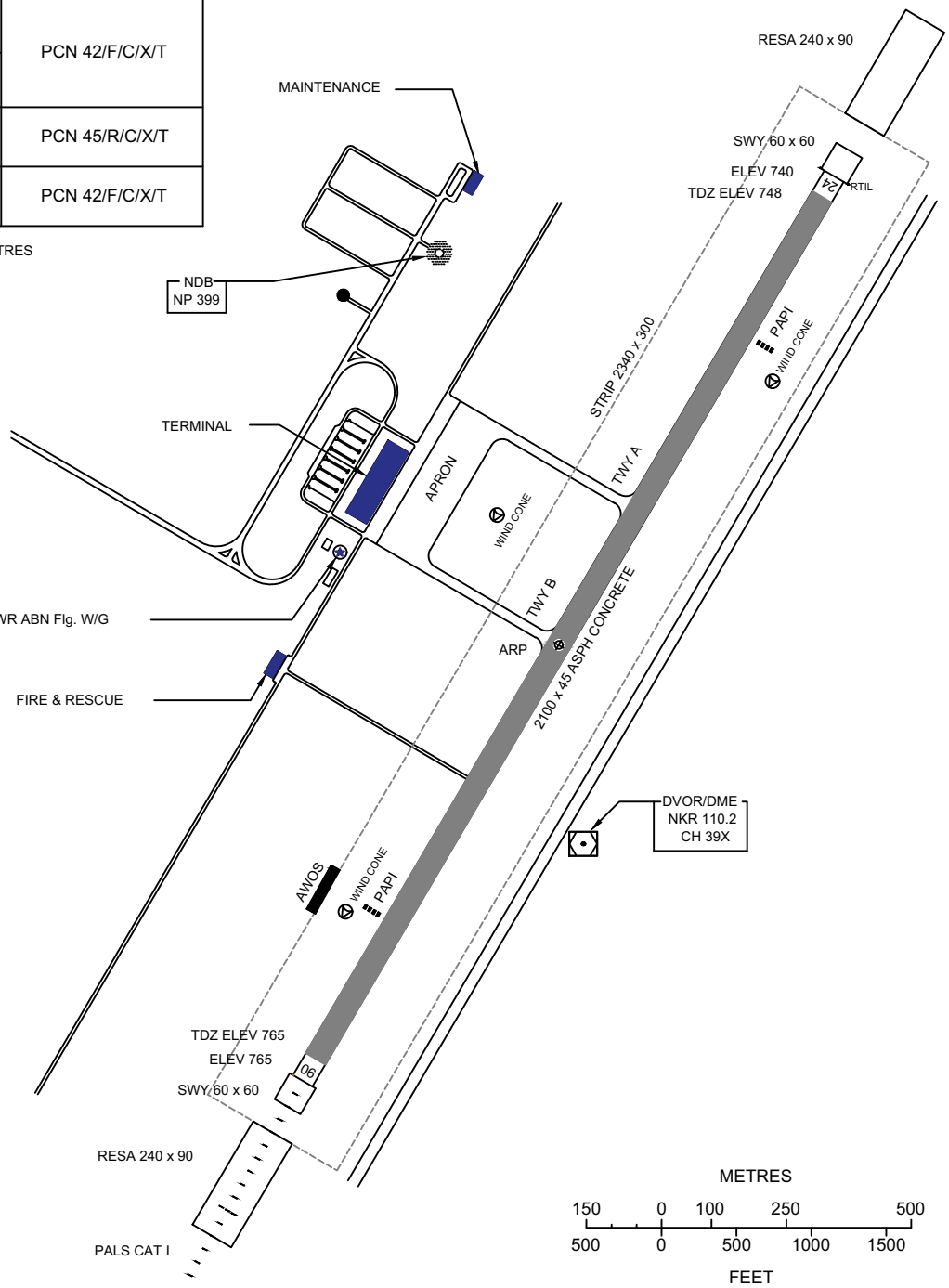

| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTUQ-2-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 06 - SAMBY1A SITTA1A VOBOT1A | AD 2-VTUQ-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 06 - SAMBY1A SITTA1A VOBOT1A (Tabular description) | AD 2-VTUQ-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 24 - BLUVY1B SAMBY1B SITTA1B VOBOT1B | AD 2-VTUQ-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 24 - BLUVY1B SAMBY1B SITTA1B VOBOT1B (Tabular description) | AD 2-VTUQ-6-4 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 24 - BLUVY1B SAMBY1B SITTA1B VOBOT1B (Waypoint list table) | AD 2-VTUQ-6-5 |
| Instrument Approach Chart - ICAO - VOR/DME RWY 06 | AD 2-VTUQ-8-1 |
| Instrument Approach Chart - ICAO - VOR/DME RWY 24 | AD 2-VTUQ-8-3 |
| Instrument Approach Chart - ICAO - ILS/DME RWY 06 | AD 2-VTUQ-8-5 |
| Instrument Approach Chart - ICAO - LLZ/DME RWY 06 | AD 2-VTUQ-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 06 | AD 2-VTUQ-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 06 (Tabular description) | AD 2-VTUQ-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 24 | AD 2-VTUQ-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 24 (Tabular description) | AD 2-VTUQ-8-12 |
| VFR ENTRY PROCEDURE CHART - RWY 06/24 | AD 2-VTUQ-9-1 |
| VFR ENTRY PROCEDURE CHART - RWY 06/24 (Tabular description) | AD 2-VTUQ-9-2 |
| VFR EXIT PROCEDURE CHART - RWY 06/24 | AD 2-VTUQ-9-3 |
| VFR EXIT PROCEDURE CHART - RWY 06/24 (Tabular description) | AD 2-VTUQ-9-4 |

AERODROME CHART-ICAO 14 56 58 N 102 18 46 E ELEV 765 FT 233 M TWR 119.8 236.6 NAKHON RATCHASIMA / Nakhon Ratchasima

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 06 | 062.42° | 14 56 41.79 N 102 18 15.01 E | PCN 42/F/C/X/T |
| 24 | 242.42° | 14 57 14.58 N 102 19 16.70 E | |
| APRON | | | PCN 45/R/C/X/T |
| TWY A and B | | | PCN 42/F/C/X/T |

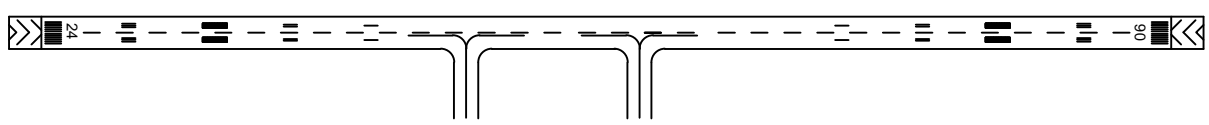
ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

MAG VAR 0.41°W (2016)
ANNUAL RATE OF CHANGE 0°W

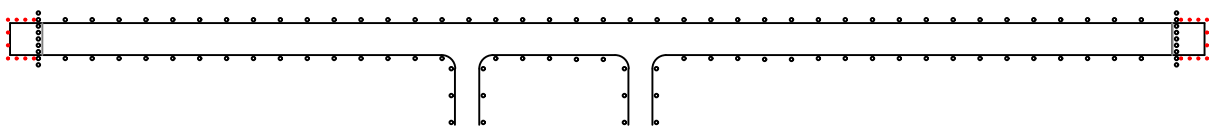



Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 06/24 AND EXIT TWY




LIGHTING AIDS RWY 06/24 AND EXIT TWY



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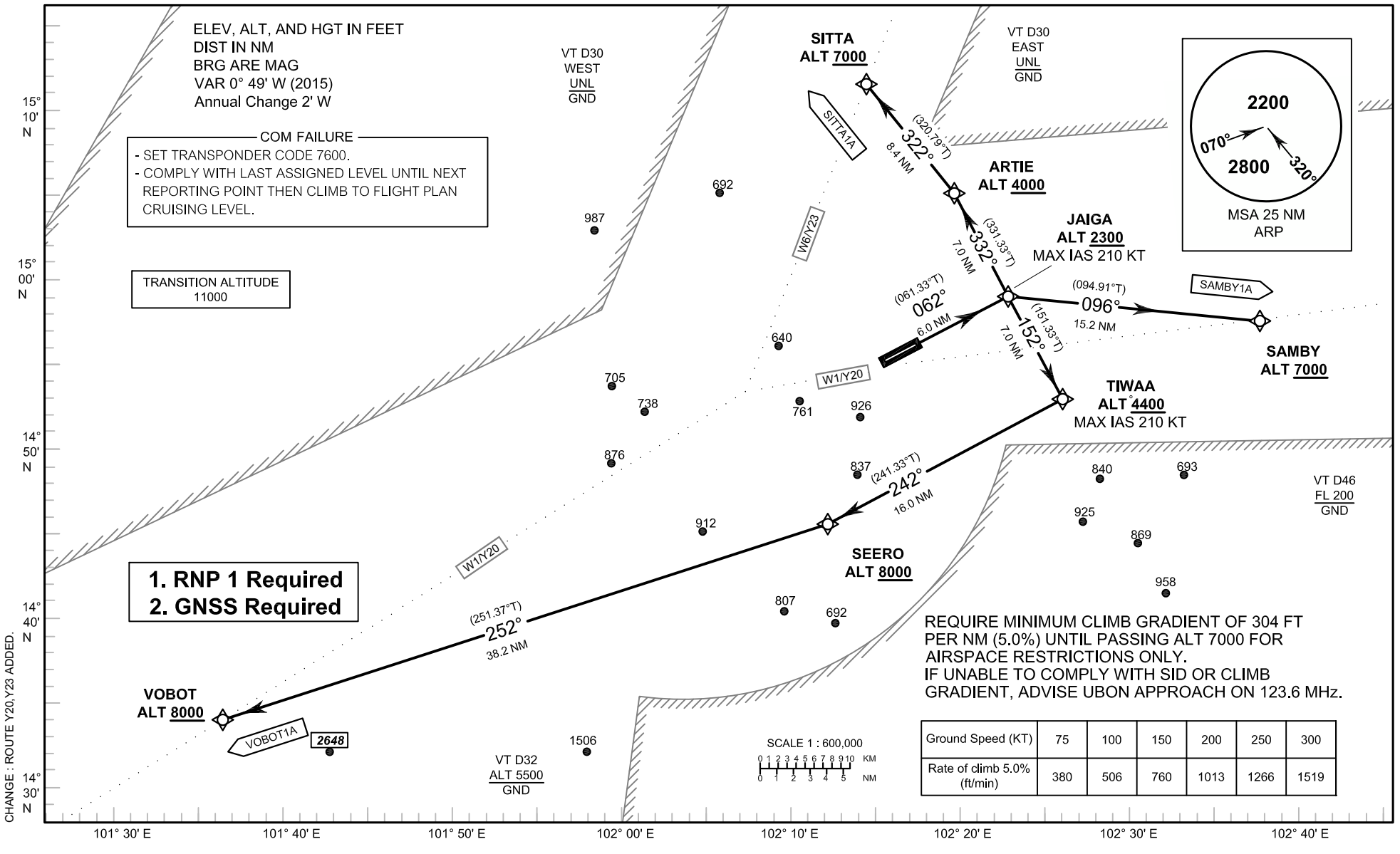
## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

APP : 123.6
TWR : 119.8, 236.6
ATIS : 126.6

## NAKHON RATCHASIMA/ Nakhon Ratchasima (VTUQ) RNAV RWY06

## SAMBY1A SITTA1A VOBOT1A




| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of climb 5.0% (ft/min) | 380 | 506 | 760 | 1013 | 1266 | 1519 |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**NAKHON RATCHASIMA/ Nakhon Ratchasima (VTUQ)**
**RNAV RWY06**
**SAMBY1A**
**SITTA1A VOBOT1A**

## TABULAR DESCRIPTION

**RNAV RWY06**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| 010 | - | DER RWY 06 | - | - | +0.8 | - | - | - | - | - | RNP 1 |
| 020 | CF | JAIGA | - | 062°(061.33°) | +0.8 | 6.0 | R | +2300 | - 210 | - | RNP 1 |
| 030 | TF | TIWAA | - | 152°(151.33°) | +0.8 | 7.0 | R | +4400 | - 210 | - | RNP 1 |
| 040 | TF | SEERO | - | 242°(241.33°) | +0.8 | 16.0 | R | +8000 | - | - | RNP 1 |
| 050 | TF | VOBOT | - | 252°(251.37°) | +0.8 | 38.2 | - | +8000 | - | | RNP 1 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 010 | - | DER RWY 06 | - | - | +0.8 | - | - | - | - | - | RNP 1 |
| 020 | CF | JAIGA | - | 062°(061.33°) | +0.8 | 6.0 | R | +2300 | - 210 | - | RNP 1 |
| 030 | TF | SAMBY | - | 096°(094.91°) | +0.8 | 15.2 | - | +7000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 010 | - | DER RWY 06 | - | - | +0.8 | - | - | - | - | - | RNP 1 |
| 020 | CF | JAIGA | - | 062°(061.33°) | +0.8 | 6.0 | L | +2300 | - 210 | - | RNP 1 |
| 030 | TF | ARTIE | - | 332°(331.33°) | +0.8 | 7.0 | L | +4000 | - | - | RNP 1 |
| 040 | TF | SITTA | - | 322°(320.79°) | +0.8 | 8.4 | - | +7000 | - | - | RNP 1 |
| | | | | | | | | | | | |

## WAYPOINT LIST

**RNAV RWY06**

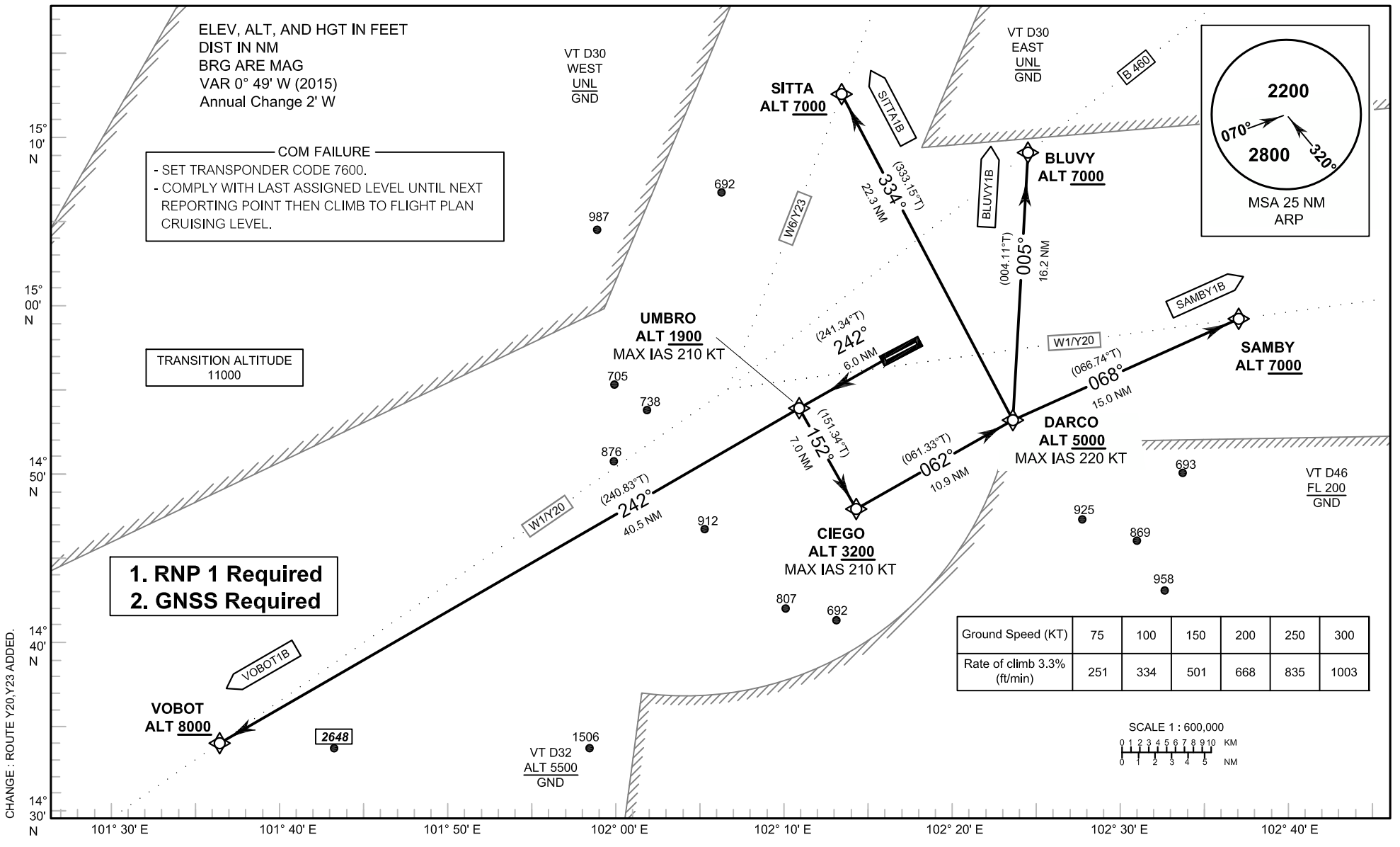
| Waypoint Identifier | Coordinates | |
|---|---|---|
| DER RWY 06 | 14 57 14.58 N | 102 19 16.70 E |
| JAIGA | 15 00 07.96 N | 102 24 43.06 E |
| TIWAA | 14 53 57.84 N | 102 28 11.13 E |
| SEERO | 14 46 14.87 N | 102 13 41.78 E |
| VOBOT | 14 33 56.57 N | 101 36 21.77 E |
| SAMBY | 14 58 49.02 N | 102 40 22.21 E |
| ARTIE | 15 06 18.01 N | 102 21 14.78 E |
| SITTA | 15 12 50.38 N | 102 15 45.08 E |
| | | |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

APP : 123.6
TWR : 119.8, 236.6
ATIS : 126.6

**NAKHON RATCHASIMA/
Nakhon Ratchasima (VTUQ)
RNAV RWY24**

**BLUVY1B SAMBY1B
SITTA1B VOBOT1B**



**STANDARD DEPARTURE CHART-**
**INSTRUMENT (SID) - ICAO**

**NAKHON RATCHASIMA/ Nakhon Ratchasima (VTUQ)**
**RNAV RWY24**
**BLUVY1B SAMBY1B**
**SITTA1B VOBOT1B**

**TABULAR DESCRIPTION**

**RNAV RWY24**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| 010 | - | DER RWY 24 | - | - | +0.8 | - | - | - | - | - | RNP 1 |
| 020 | CF | UMBRO | - | 242°(241.34°) | +0.8 | 6.0 | L | +1900 | - 210 | - | RNP 1 |
| 030 | TF | CIEGO | - | 152°(151.34°) | +0.8 | 7.0 | L | +3200 | - 210 | - | RNP 1 |
| 040 | TF | DARCO | - | 062°(061.33°) | +0.8 | 10.9 | L | +5000 | - 220 | - | RNP 1 |
| 050 | TF | SITTA | - | 334°(333.15°) | +0.8 | 22.3 | - | +7000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 010 | - | DER RWY 24 | - | - | +0.8 | - | - | - | - | - | RNP 1 |
| 020 | CF | UMBRO | - | 242°(241.34°) | +0.8 | 6.0 | L | +1900 | - 210 | - | RNP 1 |
| 030 | TF | CIEGO | - | 152°(151.34°) | +0.8 | 7.0 | L | +3200 | - 210 | - | RNP 1 |
| 040 | TF | DARCO | - | 062°(061.33°) | +0.8 | 10.9 | R | +5000 | - 220 | - | RNP 1 |
| 050 | TF | SAMBY | - | 068°(066.74°) | +0.8 | 15.0 | - | +7000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 010 | - | DER RWY 24 | - | - | +0.8 | - | - | - | - | - | RNP 1 |
| 020 | CF | UMBRO | - | 242°(241.34°) | +0.8 | 6.0 | L | +1900 | - 210 | - | RNP 1 |
| 030 | TF | CIEGO | - | 152°(151.34°) | +0.8 | 7.0 | L | +3200 | - 210 | - | RNP 1 |
| 040 | TF | DARCO | - | 062°(061.33°) | +0.8 | 10.9 | L | +5000 | - 220 | - | RNP 1 |
| 050 | TF | BLUVY | - | 005°(004.11°) | +0.8 | 16.2 | - | +7000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 010 | - | DER RWY 24 | - | - | +0.8 | - | - | - | - | - | RNP 1 |
| 020 | CF | UMBRO | - | 242°(241.34°) | +0.8 | 6.0 | - | +1900 | - 210 | - | RNP 1 |
| 030 | TF | VOBOT | - | 242°(240.83°) | +0.8 | 40.5 | - | +8000 | - | - | RNP 1 |
| | | | | | | | | | | | |

## WAYPOINT LIST

| RNAV RWY24 | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | |
| DER RWY 24 | 14 56 41.79 N | 102 18 15.01 E |
| UMBRO | 14 53 48.31 N | 102 12 48.80 E |
| CIEGO | 14 47 38.17 N | 102 16 16.72 E |
| DARCO | 14 52 53.07 N | 102 26 09.33 E |
| SITTA | 15 12 50.38 N | 102 15 45.08 E |
| SAMBY | 14 58 49.02 N | 102 40 22.21 E |
| BLUVY | 15 09 06.93 N | 102 27 21.37 E |
| VOBOT | 14 33 56.57 N | 101 36 21.77 E |
| | | |

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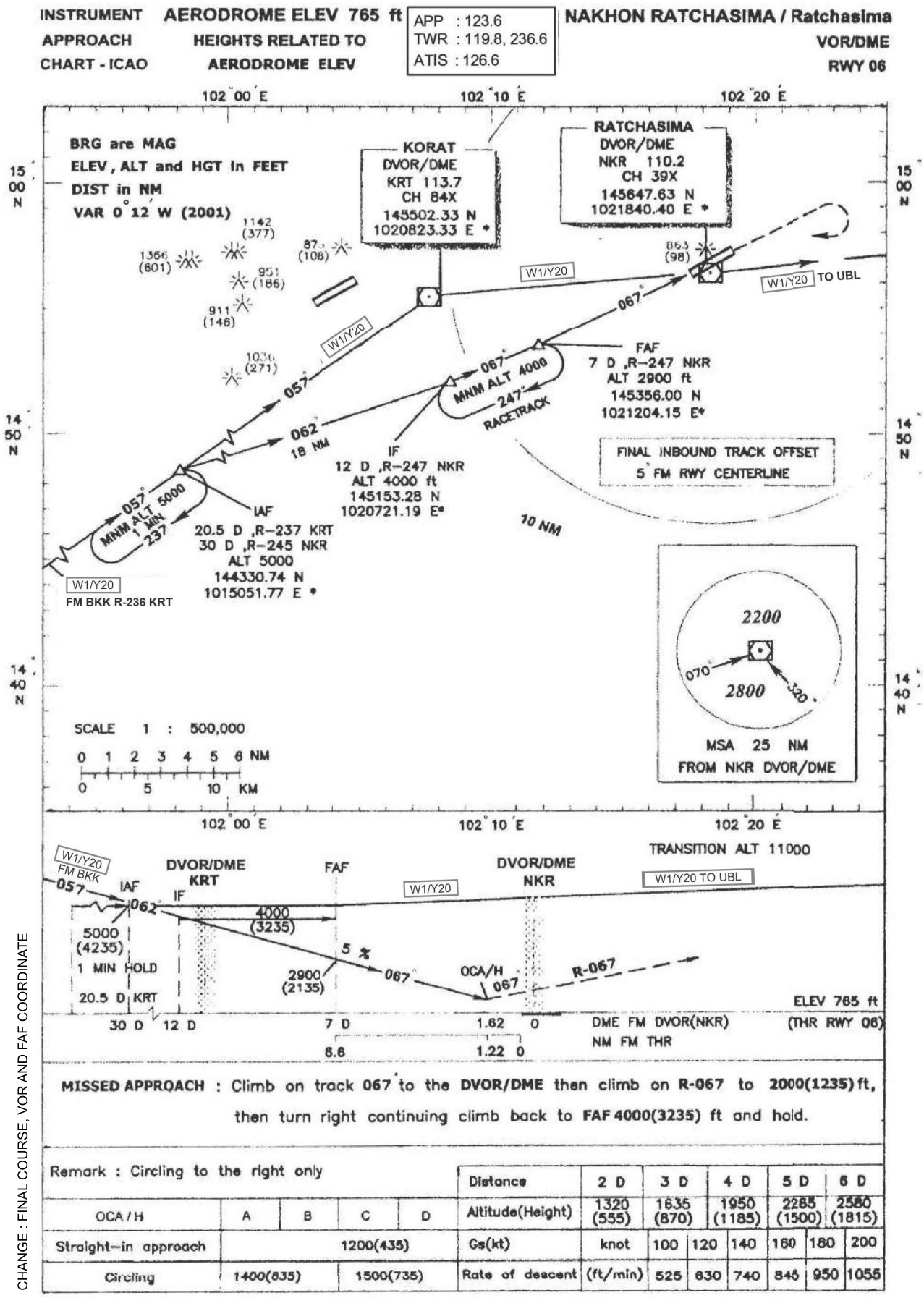


**MISSED APPROACH** : Climb on track **067** to the **DVOR/DME** then climb on **R-067** to **2000(1235)** ft, then turn right continuing climb back to **FAF 4000(3235)** ft and hold.

| Remark : Circling to the right only | | | | | Distance | 2 D | 3 D | 4 D | 5 D | 6 D |
|---|---|---|---|---|---|---|---|---|---|---|
| OCA / H | A | B | C | D | Altitude(Height) | 1320 (555) | 1635 (870) | 1950 (1185) | 2285 (1500) | 2580 (1815) |
| Straight–in approach | 1200(435) | | | | Gs(kt) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Circling | 1400(835) | | 1500(735) | | Rate of descent | (ft/min) | 525 | 630 | 740 | 845 | 950 | 1055 |

CHANGE : FINAL COURSE, VOR AND FAF COORDINATE

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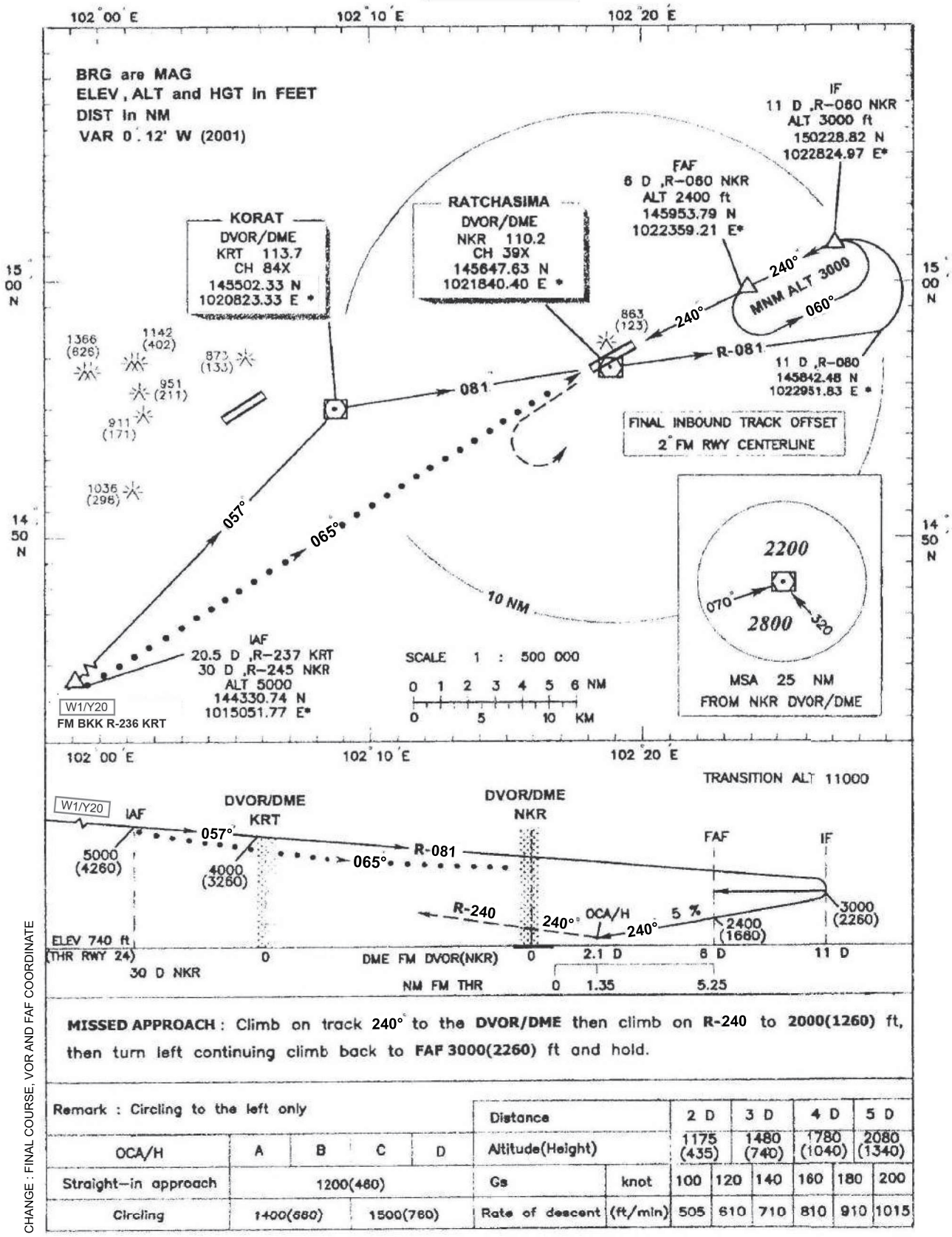
INSTRUMENT APPROACH CHART - ICAO

**AERODROME ELEV 765 ft**
HEIGHTS RELATED TO
THR RWY 24 ELEV 740 ft

APP : 123.6
TWR : 119.8, 236.6
ATIS : 126.6

**NAKHON RATCHASIMA / Ratchasima**
VOR/DME
RWY 24




**MISSED APPROACH** : Climb on track **240°** to the **DVOR/DME** then climb on **R-240** to **2000(1260)** ft, then turn left continuing climb back to **FAF 3000(2260)** ft and hold.

| Remark : Circling to the left only | | | | | Distance | | 2 D | 3 D | 4 D | 5 D |
|---|---|---|---|---|---|---|---|---|---|---|
| OCA/H | A | B | C | D | Altitude(Height) | | 1175 (435) | 1480 (740) | 1780 (1040) | 2080 (1340) |
| Straight-in approach | 1200(460) | | | | Gs | knot | 100 120 140 | 160 | 180 | 200 |
| Circling | 1400(660) | | 1500(760) | | Rate of descent | (ft/min) | 505 610 710 | 810 | 910 | 1015 |

CHANGE : FINAL COURSE, VOR AND FAF COORDINATE

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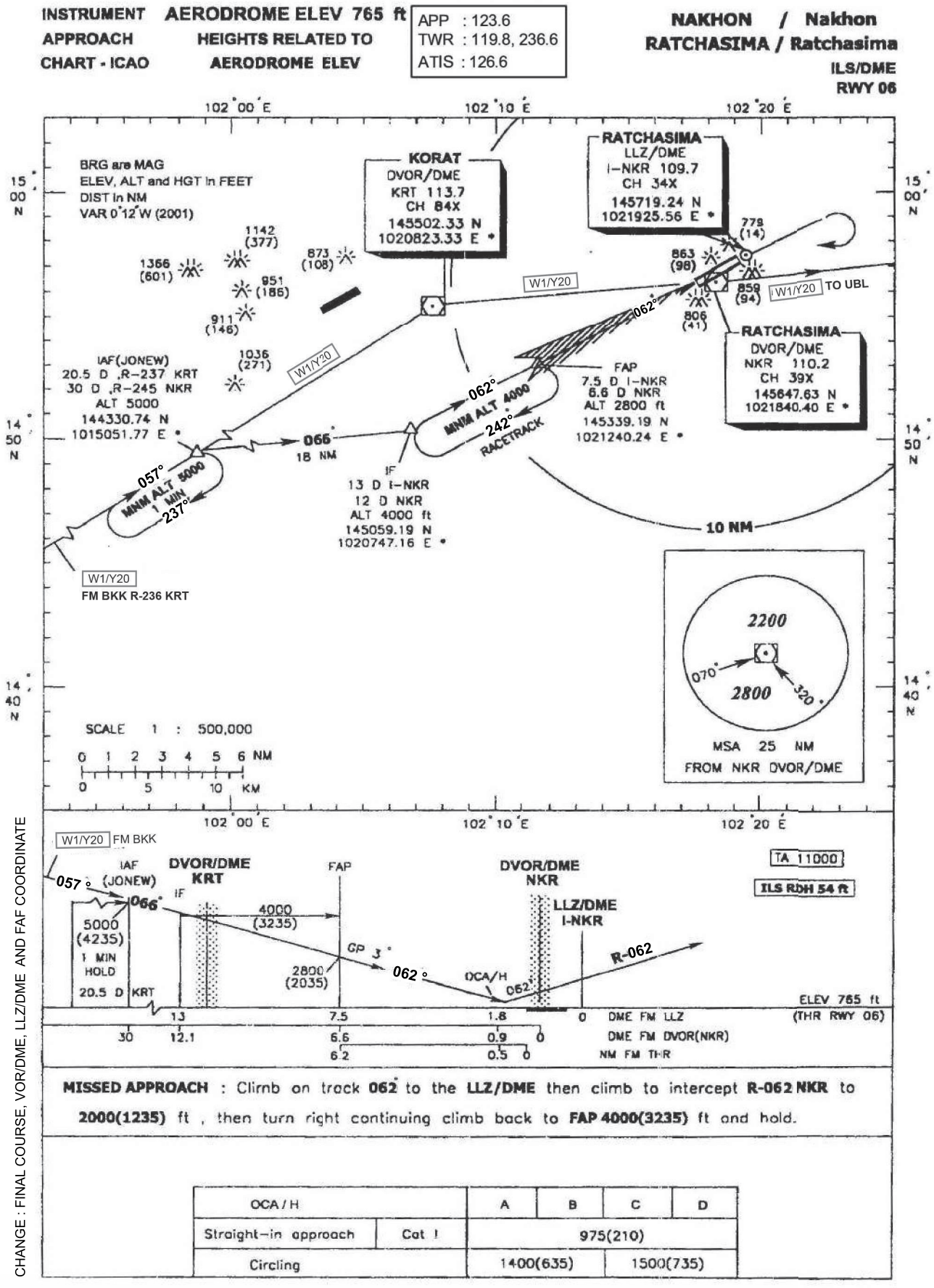
INSTRUMENT APPROACH CHART - ICAO
AERODROME ELEV 765 ft
HEIGHTS RELATED TO AERODROME ELEV
APP : 123.6
TWR : 119.8, 236.6
ATIS : 126.6
NAKHON / Nakhon
RATCHASIMA / Ratchasima
ILS/DME
RWY 06
102 00 E
102 10 E
102 20 E
15 00 N
14 50 N
14 40 N
BRG are MAG
ELEV, ALT and HGT in FEET
DIST in NM
VAR 0°12'W (2001)
KORAT
DVOR/DME
KRT 113.7
CH 84X
145502.33 N
1020823.33 E
RATCHASIMA
LLZ/DME
I-NKR 109.7
CH 34X
145719.24 N
1021925.56 E
RATCHASIMA
DVOR/DME
NKR 110.2
CH 39X
145647.63 N
1021840.40 E
1142 (377)
1366 (601)
873 (108)
951 (186)
911 (146)
1036 (271)
779 (14)
863 (98)
859 (94)
806 (41)
W1/Y20
TO UBL
062°
IAF(JONEW)
20.5 D ,R-237 KRT
30 D ,R-245 NKR
ALT 5000
144330.74 N
1015051.77 E
066°
18 NM
IF
13 D I-NKR
12 D NKR
ALT 4000 ft
145059.19 N
1020747.16 E
MNM ALT 4000
242°
RACETRACK
FAP
7.5 D I-NKR
6.6 D NKR
ALT 2800 ft
145339.19 N
1021240.24 E
057°
MNM ALT 5000
1 MIN
237°
10 NM
W1/Y20
FM BKK R-236 KRT
2200
070°
320°
2800
MSA 25 NM
FROM NKR DVOR/DME
SCALE 1 : 500,000
0 1 2 3 4 5 6 NM
0 5 10 KM
W1/Y20 FM BKK
IAF (JONEW)
DVOR/DME KRT
IF
FAP
DVOR/DME NKR
LLZ/DME I-NKR
TA 11000
ILS RDH 54 ft
057°
066°
5000 (4235)
1 MIN HOLD
20.5 D KRT
4000 (3235)
GP 3°
2800 (2035)
062°
OCA/H
062°
R-062
ELEV 765 ft
(THR RWY 06)
13
7.5
1.8
0
DME FM LLZ
30
12.1
6.6
0.9
0
DME FM DVOR(NKR)
6.2
0.5
0
NM FM THR
MISSED APPROACH : Climb on track 062° to the LLZ/DME then climb to intercept R-062 NKR to 2000(1235) ft , then turn right continuing climb back to FAP 4000(3235) ft and hold.
OCA / H
A
B
C
D
Straight-in approach
Cat I
975(210)
Circling
1400(635)
1500(735)
CHANGE : FINAL COURSE, VOR/DME, LLZ/DME AND FAP COORDINATE

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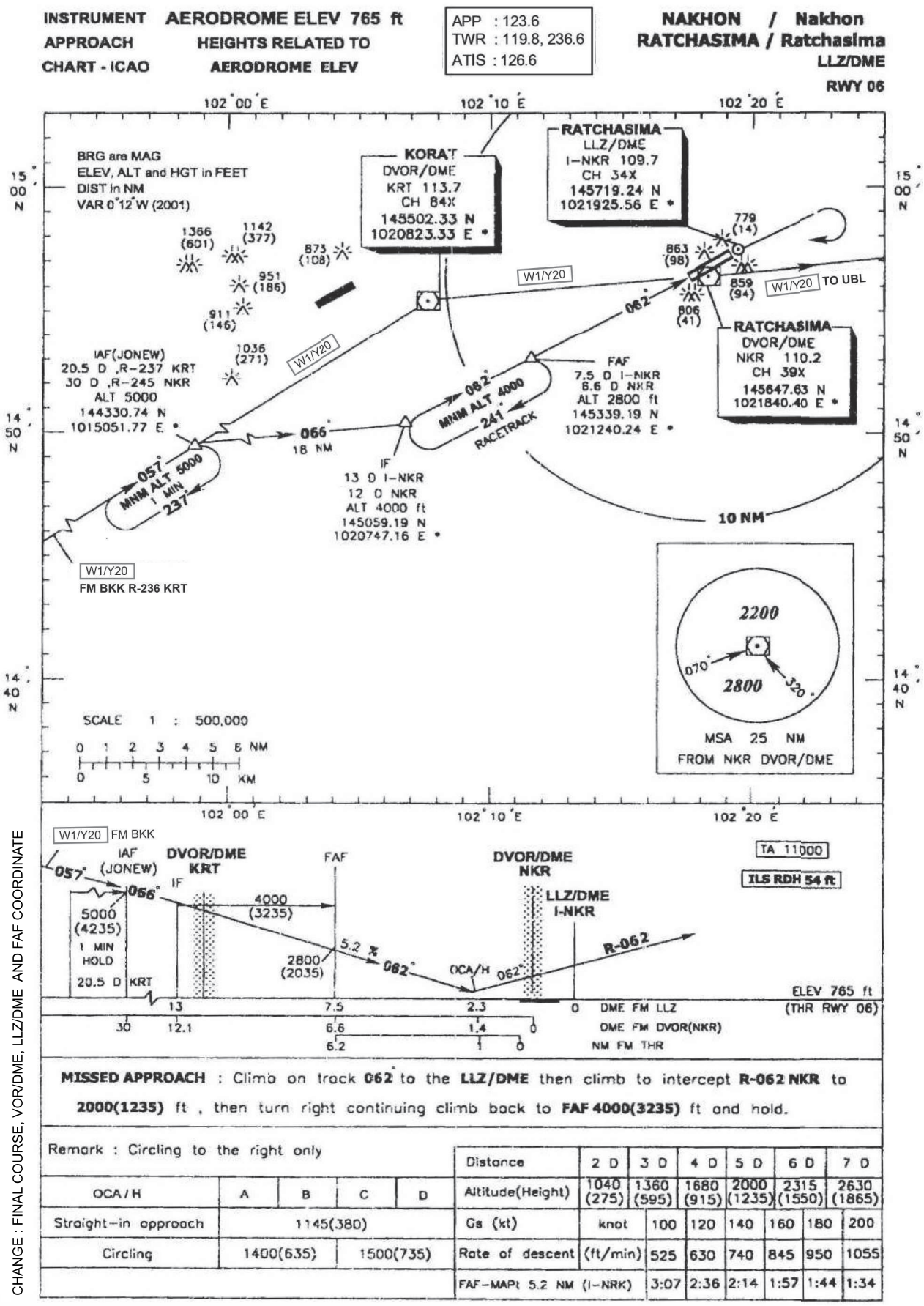


**MISSED APPROACH** : Climb on track **062°** to the **LLZ/DME** then climb to intercept **R-062 NKR** to **2000(1235)** ft , then turn right continuing climb back to **FAF 4000(3235)** ft and hold.

Remark : Circling to the right only

| OCA / H | A | B | C | D |
|---|---|---|---|---|
| Straight-in approoch | 1145(380) | | | |
| Circling | 1400(635) | | 1500(735) | |

| Distance | 2 D | 3 D | 4 D | 5 D | 6 D | 7 D |
|---|---|---|---|---|---|---|
| Altitude(Height) | 1040 (275) | 1360 (595) | 1680 (915) | 2000 (1235) | 2315 (1550) | 2630 (1865) |
| Gs (kt) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Rate of descent | (ft/min) | 525 | 630 | 740 | 845 | 950 | 1055 |
| FAF-MAPt 5.2 NM (I-NRK) | | 3:07 | 2:36 | 2:14 | 1:57 | 1:44 | 1:34 |

CHANGE : FINAL COURSE, VOR/DME, LLZ/DME AND FAF COORDINATE

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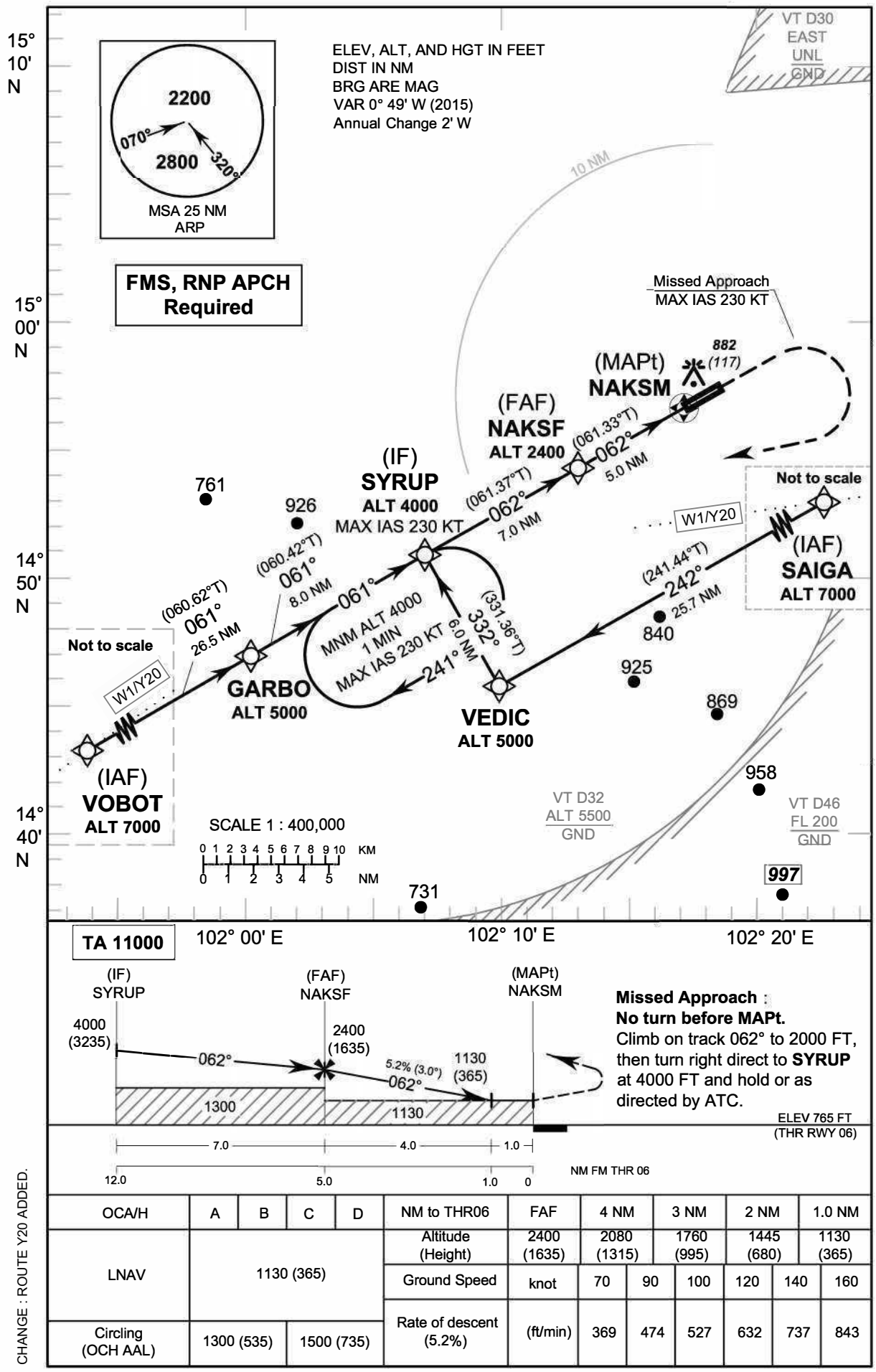
**INSTRUMENT APPROACH CHART-ICAO** — **AERODROME ELEV 765 FT** HEIGHTS RELATED TO AERODROME ELEV

APP : 123.6
TWR : 119.8, 236.6
ATIS : 126.6

**NAKHON RATCHASIMA/ Nakhon Ratchasima (VTUQ) RNP RWY06**







| OCA/H | A | B | C | D | NM to THR06 | FAF | 4 NM | 3 NM | 2 NM | 1.0 NM |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV | 1130 (365) | | | | Altitude (Height) | 2400 (1635) | 2080 (1315) | 1760 (995) | 1445 (680) | 1130 (365) |
| | | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1300 (535) | | 1500 (735) | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ROUTE Y20 ADDED.

**INSTRUMENT APPROACH CHART - ICAO** — **AERODROME ELEV 765 FT** — **HEIGHTS RELATED TO AERODROME ELEV** — **NAKHON RATCHASIMA/ Nakhon Ratchasima (VTUQ)** — **RNP RWY06**

## TABULAR DESCRIPTION

**RNP RWY06**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | VOBOT (IAF) | - | - | +0.8 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | GARBO | - | 061°(060.62°) | +0.8 | 26.5 | - | @5000 | - | - | RNP APCH |
| 030 | TF | SYRUP (IF) | - | 061°(060.42°) | +0.8 | 8.0 | - | @4000 | - 230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SAIGA (IAF) | - | - | +0.8 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | VEDIC | - | 242°(241.44°) | +0.8 | 25.7 | R | @5000 | - | - | RNP APCH |
| 030 | TF | SYRUP (IF) | - | 332°(331.36°) | +0.8 | 6.0 | - | @4000 | - 230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SYRUP (IF) | - | - | +0.8 | - | - | @4000 | - 230 | - | RNP APCH |
| 020 | TF | NAKSF (FAF) | - | 062°(061.37°) | +0.8 | 7.0 | - | @2400 | - | - | RNP APCH |
| 030 | TF | NAKSM (MAPt) | Y | 062°(061.33°) | +0.8 | 5.0 | - | @1130 | - | - | RNP APCH |
| 040 | CA | - | - | 062°(061.33°) | +0.8 | - | - | +2000 | - | - | RNP APCH |
| 050 | DF | SYRUP (IF) | - | - | +0.8 | - | R | +4000 | - | - | RNP APCH |
| 060 | HM | SYRUP (IF) | Y | 061°(060.42°) | +0.8 | 1 minute | R | +4000 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY06**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| VOBOT | 14 33 56.57 N | 101 36 21.77 E |
| GARBO | 14 46 57.33 N | 102 00 11.51 E |
| SAIGA | 14 57 59.51 N | 102 33 38.53 E |
| VEDIC | 14 45 37.89 N | 102 10 20.60 E |
| SYRUP | 14 50 55.18 N | 102 07 22.46 E |
| NAKSF | 14 54 17.23 N | 102 13 43.16 E |
| NAKSM (THR06) | 14 56 41.79 N | 102 18 15.01 E |
| | | |

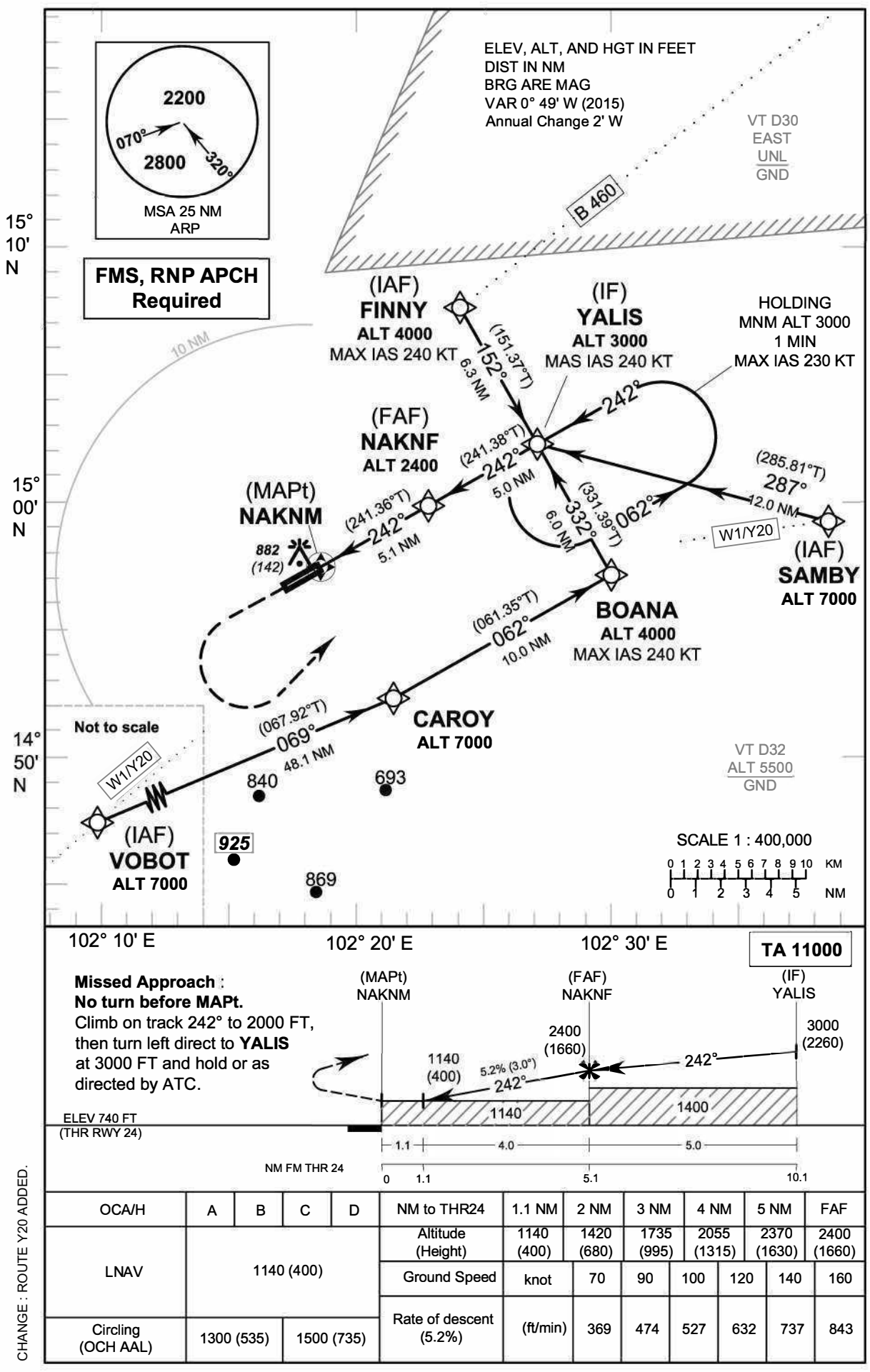
CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 765 FT**
HEIGHTS RELATED TO
THR RWY24 - ELEV 740 FT

APP : 123.6
TWR : 119.8, 236.6
ATIS : 126.6

**NAKHON RATCHASIMA/ Nakhon Ratchasima (VTUQ)**
**RNP RWY24**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV | 1140 (400) | | | |
| Circling (OCH AAL) | 1300 (535) | | 1500 (735) | |

| NM to THR24 | 1.1 NM | 2 NM | 3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | 1140 (400) | 1420 (680) | 1735 (995) | 2055 (1315) | 2370 (1630) | 2400 (1660) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : ROUTE Y20 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 765 FT**
**HEIGHTS RELATED TO**
**THR RWY24 - ELEV 740 FT**

**NAKHON RATCHASIMA/ Nakhon Ratchasima (VTUQ)**
**RNP RWY24**

## TABULAR DESCRIPTION

**RNP RWY24**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | VOBOT (IAF) | - | - | +0.8 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | CAROY | - | 069°(067.92°) | +0.8 | 48.1 | L | @7000 | - | - | RNP APCH |
| 030 | TF | BOANA | - | 062°(061.35°) | +0.8 | 10.0 | L | @4000 | - 240 | - | RNP APCH |
| 040 | TF | YALIS (IF) | - | 332°(331.39°) | +0.8 | 6.0 | - | @3000 | - 240 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | FINNY (IAF) | - | - | +0.8 | - | - | @4000 | - 240 | - | RNP APCH |
| 020 | TF | YALIS (IF) | - | 152°(151.37°) | +0.8 | 6.3 | - | @3000 | - 240 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SAMBY (IAF) | - | - | +0.8 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | YALIS (IF) | - | 287°(285.81°) | +0.8 | 12.0 | - | @3000 | - 240 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | YALIS (IF) | - | - | +0.8 | - | - | @3000 | - 240 | - | RNP APCH |
| 020 | TF | NAKNF (FAF) | - | 242°(241.38°) | +0.8 | 5.0 | - | @2400 | - | - | RNP APCH |
| 030 | TF | NAKNM (MAPt) | Y | 242°(241.36°) | +0.8 | 5.1 | - | @1140 | - | - | RNP APCH |
| 040 | CA | - | - | 242°(241.36°) | +0.8 | - | - | +2000 | - | - | RNP APCH |
| 050 | DF | YALIS (IF) | - | | +0.8 | - | L | +3000 | - | - | RNP APCH |
| 060 | HM | YALIS (IF) | Y | 242°(241.36°) | +0.8 | 1 minute | L | +3000 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY24**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| VOBOT | 14 33 56.57 N | 101 36 21.77 E |
| CAROY | 14 52 00.64 N | 102 22 20.23 E |
| BOANA | 14 56 48.98 N | 102 31 23.39 E |
| SAMBY | 14 58 49.02 N | 102 40 22.21 E |
| FINNY | 15 07 36.79 N | 102 25 19.66 E |
| YALIS | 15 02 05.92 N | 102 28 25.50 E |
| NAKNF | 14 59 41.75 N | 102 23 53.77 E |
| NAKNM (THR24) | 14 57 14.58 N | 102 19 16.70 E |
| | | |

CHANGE: CHART TITLE.

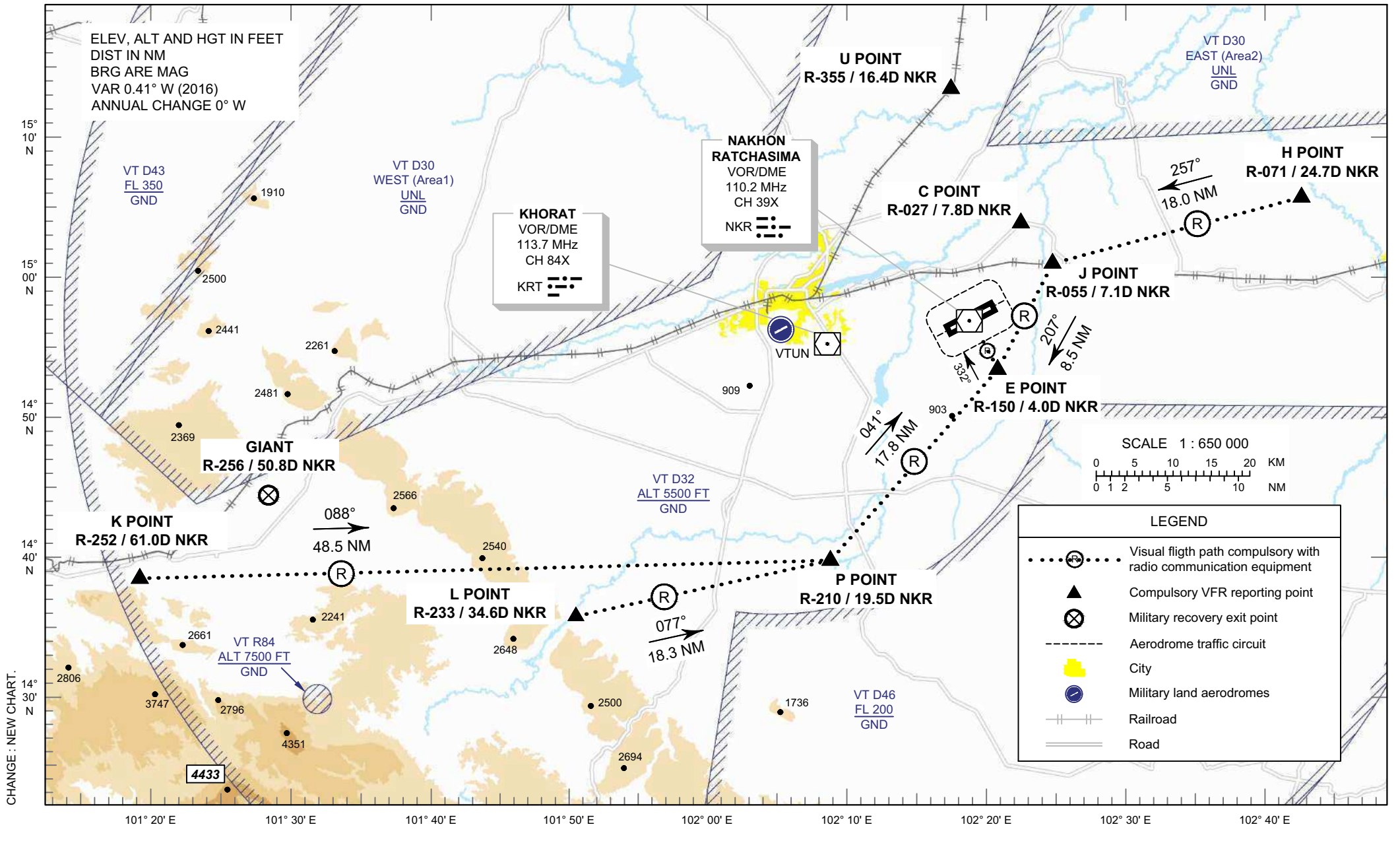
**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 765 FT**
HEIGHTS RELATED TO AERODROME ELEV

| RATCHASIMA |
|---|
| APP : 123.6 |
| TWR : 119.8, 236.6 |
| ATIS : 126.6 |

| KHORAT |
|---|
| APP : 129.75, 349.0 |
| TWR : 122.2, 240.5 |
| GND : 121.75, 257.8 |
| ATIS : 390.6 |

**NAKHON RATCHASIMA/**
**Nakhon Ratchasima (VTUQ)**
**RWY 06/24**



**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 765 FT**
HEIGHTS RELATED TO AERODROME ELEV

**NAKHON RATCHASIMA/ Nakhon Ratchasima (VTUQ) RWY 06/24**

ARR - RWY06/24 (From North)
ATC instruction only.

ARR - RWY06/24 (From East)
Inbound via H POINT then heading 257° to J POINT. Heading 207° to E POINT, then join aerodrome traffic circuit when directed by ATC.

ARR - RWY06/24 (From South)
Inbound via L POINT then heading 077° to P POINT. Heading 041° to E POINT, then join aerodrome traffic circuit when directed by ATC.

ARR - RWY06/24 (From West)
Inbound via K POINT then heading 088° to P POINT. Heading 041° to E POINT, then join aerodrome traffic circuit when directed by ATC.

| Reporting points | Landmark | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longtitude |
| E POINT | Ponds | R-150 / 4.0D NKR | 14° 53' 20.05" N | 102° 20' 43.80" E |
| J POINT | Jakkarat district | R-055 / 7.1D NKR | 15° 00' 55.13" N | 102° 24' 39.86" E |
| C POINT | Curve road | R-027 / 7.8D NKR | 15° 03' 44.31" N | 102° 22' 19.49" E |
| U POINT | U-turn bridge on railway and road | R-355 / 16.4D NKR | 15° 13' 09.41" N | 102° 17' 08.09" E |
| H POINT | Huai Tha Laeng City | R-071 / 24.7D NKR | 15° 05' 06.60" N | 102° 42' 42.50" E |
| P POINT | Bueng Phra ponds | R-210 / 19.5D NKR | 14° 39' 45.87" N | 102° 08' 48.08" E |

| Reporting points | Landmark | Radial / DME from NKR VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longtitude |
| L POINT | Lam Phra Phloeng ridge | R-233 / 34.6D NKR | 14° 35' 35.43" N | 101° 50' 24.39" E |
| K POINT | Mine | R-252 / 61.0D NKR | 14° 37' 47.39" N | 101° 18' 45.82" E |
| GIANT | Military Recovery Exit point procedure | R-256 / 50.8D NKR (R-254 / 41.0D KRT) | 14° 43' 48.00" N | 101° 28' 00.00" E |
| NKR VOR/DME | | - | 14° 56' 47.66" N | 102° 18' 40.35" E |
| KRT VOR/DME | | R-260 / 10.1D NKR | 14° 55' 02.35" N | 102° 08' 23.32" E |

CHANGE : NEW CHART.

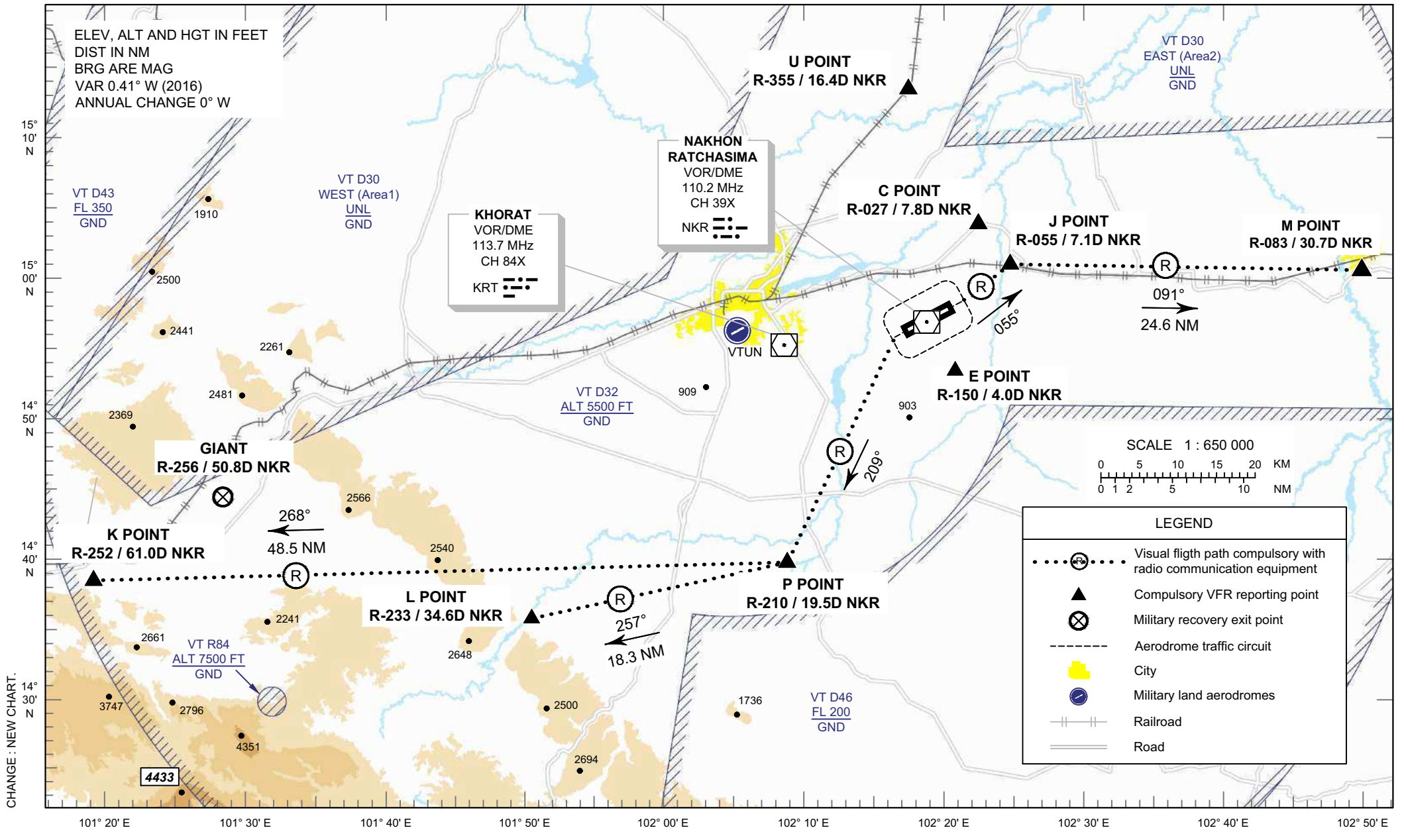
**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 765 FT**
HEIGHTS RELATED TO AERODROME ELEV

| RATCHASIMA |
|---|
| APP : 123.6 |
| TWR : 119.8, 236.6 |
| ATIS : 126.6 |

| KHORAT |
|---|
| APP : 129.75, 349.0 |
| TWR : 122.2, 240.5 |
| GND : 121.75, 257.8 |
| ATIS : 390.6 |

**NAKHON RATCHASIMA/**
**Nakhon Ratchasima (VTUQ)**
**RWY 06/24**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 765 FT**
HEIGHTS RELATED TO AERODROME ELEV

**NAKHON RATCHASIMA/ Nakhon Ratchasima (VTUQ) RWY 06/24**

CHANGE : NEW CHART.

DEP - RWY06/24 (To North)
ATC instruction only.

DEP - RWY06/24 (To East)
Outbound to J POINT, then Heading 091° to M POINT.

DEP - RWY06/24 (To South)
Outbound to P POINT, then heading 257° to L POINT.

DEP - RWY06/24 (To West)
Outbound to P POINT, then heading 268° to K POINT.

| Reporting points | Landmark | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longtitude |
| E POINT | Ponds | R-150 / 4.0D NKR | 14° 53' 20.05" N | 102° 20' 43.80" E |
| J POINT | Jakkarat district | R-055 / 7.1D NKR | 15° 00' 55.13" N | 102° 24' 39.86" E |
| C POINT | Curve road | R-027 / 7.8D NKR | 15° 03' 44.31" N | 102° 22' 19.49" E |
| U POINT | U-turn bridge on railway and road | R-355 / 16.4D NKR | 15° 13' 09.41" N | 102° 17' 08.09" E |
| M POINT | Lam Prai Mas City | R-083 / 30.7D NKR | 15° 00' 46.24" N | 102° 50' 05.95" E |
| P POINT | Bueng Phra ponds | R-210 / 19.5D NKR | 14° 39' 45.87" N | 102° 08' 48.08" E |

| Reporting points | Landmark | Radial / DME from NKR VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longtitude |
| L POINT | Lam Phra Phloeng ridge | R-233 / 34.6D NKR | 14° 35' 35.43" N | 101° 50' 24.39" E |
| K POINT | Mine | R-252 / 61.0D NKR | 14° 37' 47.39" N | 101° 18' 45.82" E |
| GIANT | Military Recovery Exit point procedure | R-256 / 50.8D NKR (R-254 / 41.0D KRT) | 14° 43' 48.00" N | 101° 28' 00.00" E |
| NKR VOR/DME | | - | 14° 56' 47.66" N | 102° 18' 40.35" E |
| KRT VOR/DME | | R-260 / 10.1D NKR | 14° 55' 02.35" N | 102° 08' 23.32" E |

## VTUN AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUN - NAKHON RATCHASIMA / KHORAT AIRPORT

## VTUN AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 145604N 1020443E |
| 2 | Direction and distance from (city) | 020/5 KM from Nakhon Ratchasima |
| 3 | Elevation/Reference temperature | 222 M(729) /35°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | NIL |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Wing 1, Khorat AFB<br>Royal Thai Air Force<br>Nakhon Ratchasima Province<br>Thailand<br>Tel: +662 534 6000 Ext. 40554-5<br>+668 7248 6083<br>Fax: NIL<br>AFS: VTUNYXYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Royal Thai Air Force |

## VTUN AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0100-0900 MON-FRI |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | 0100-0900 MON-FRI |
| 4 | AIS Briefing Office | 0100-0900 MON-FRI |
| 5 | ATS Reporting Office (ARO) | 0100-0900 MON-FRI |
| 6 | MET Briefing Office | 0100-0900 MON-FRI |
| 7 | ATS | H24 |
| 8 | Fuelling | 0100-0900 MON-FRI |
| 9 | Handling | 0100-0900 MON-FRI |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO): Located at Base Operation Office.<br>(1st floor of Flight support unit building)<br>Tel: +664 435 8110 Ext 40515-6<br>E-mail: korat_tower2011@hotmail.com |

## VTUN AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JP-8 |
| 3 | Fuelling facilities/capacity | - 5 JP-8 Refueller @ 20,000 L<br>- 2 JP-8 Refueller @ 24,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |

| | | |
|---|---|---|
| 7 | Remarks | NIL |

## VTUN AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | Near the AD and in the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Car hire from and to the city |
| 4 | Medical facilities | First aid at Aerodrome, hospital in the city |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | Office in the city |
| 7 | Remarks | NIL |

## VTUN AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | YES |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUN AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUN AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 50/R/B/W/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Concrete<br>Strength:<br>TWY A: PCN 46/R/B/W/T<br>TWY B: PCN 46/R/B/W/T<br>TWY C: PCN 53/R/B/W/T<br>TWY D: PCN 47/R/B/W/T<br>TWY E: PCN 47/R/B/W/T<br>TWY J: PCN 39/R/B/W/T<br>TWY G: PCN 39/R/B/W/T |
| 3 | Altimeter checkpoint location and elevation | Elevation: 221 M (727 FT) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUN AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Marked and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUN AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | Radio mast<br>HGT 183 M<br>painted red/white<br>LGTD on top | 145610N 1020020E | Radio mast<br>HGT 131 M<br>painted red/white<br>LGTD on top | 145640N 1020820E | NIL |
| | | | Radio mast<br>HGT 86 M<br>painted red/white<br>LGTD on top | 145237N 1020435E | |

## VTUN AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Khorat |
| 2 | Hours of service<br>MET Office outside hours | H24 |
| 3 | Office responsible for TAF preparation<br>Periods of validity | 00, 065, 12 |
| 4 | Type of landing forecast<br>Interval of issuance | Trend<br>2 HR |
| 5 | Briefing/consultation provided | Personal Consultation |
| 6 | Flight documentation<br>Language(s) used | English |
| 7 | Charts and other information available for briefing or consultation | NIL |
| 8 | Supplementary equipment available for providing information | Telefax<br>Self-Briefing Terminal |
| 9 | ATS units provided with information | Khorat TWR<br>Khorat APP |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUN AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 06 | 062.5° | 3000x45 | PCN 59/R/B/W/T Concrete | 145541.63N 1020358.39E | 222 M/729 FT |
| 24 | 242.5° | 3000x45 | PCN 59/R/B/W/T Concrete | 145627.20N 1020527.42E | 210 M/686 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| 0.498% | 300x45 | NIL | 3120x140 | NIL | NIL |
| 0.498% | 300x45 | NIL | 3120x140 | NIL | NIL |

## VTUN AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 06 | 3000 | 3000 | 3300 | 3000 | - The TORA When entering RWY from TWY G is 2,552 M.<br>- The ASDA When entering RWY from TWY G is 2,852 M.<br>- The TORA When entering RWY from TWY D is 1,950 M.<br>- The ASDA When entering RWY from TWY D is 2,250 M. |
| 24 | 3000 | 3000 | 3300 | 3000 | - The TORA When entering RWY from TWY J is 2,582 M.<br>- The ASDA When entering RWY from TWY J is 2,882 M.<br>- The TORA When entering RWY from TWY C is 2,222 M.<br>- The ASDA When entering RWY from TWY C is 2,522 M. |

## VTUN AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 06 | CAT1<br>900 M | Green | PAPI<br>Both 3°<br>53.19 FT | NIL | NIL | 3000 M<br>45 M<br>White, LIH | Red | NIL | NIL |
| 24 | CAT1<br>900 M | Green | PAPI<br>Both 3°<br>66.11 FT | NIL | NIL | 3000 M<br>45 M<br>White, LIH | Red | NIL | NIL |

## VTUN AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: Alternating white and green lights installed on The top of water tank tower.<br>ABN: Installed at location 145543N1020505E |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>3 WDIs are lighted and installed at following locations:<br>- 1 WDI 320 M from THR 06, 109 M off-set to the right from RWY Centre Line.illuminated.<br>- 1 WDI 1,112 M from THR 24, 140 M off-set to the left from RWY Centre Line.illuminated.<br>- 1 WDI 292 M from THR 24, 117 M off-set to the left from RWY Centre Line.illuminated.<br><br>2 Anemometers are lighted and installed at following locations:<br>- 1 Anemometer 441 M. from RWY Centre Line locations at 145557.71N 1020501.55E.<br>- 1 Anemometer 144 M. from RWY Centre Line locations at 145606.70N 1020457.88E. |
| 3 | TWY edge and centre line lighting | EDGE: ALL TWY<br>TWY Centre line lighting: NIL |
| 4 | Secondary power supply/switch-over time | - Secondary power supply at tower automatic within 15 Sec. limited to RDO/COM only.<br>- Secondary power supply all air field lighting (AFL). automatic Switch-over time: 0 Sec. |
| 5 | Remarks | NIL |

## VTUN AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Helicopter LDG/TKOF by using runways |

## VTUN AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 10 NM radius centred on 1456.1N 10204.8E |
| 2 | Vertical limits | 3000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Khorat Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTUN AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Khorat Approach | 349.0 MHZ<br>129.75 MHZ | H24 | Secondary Operation |
| ASR | Khorat Arrival | 349.0 MHZ<br>129.75 MHZ | 0100-0900<br>MON-FRI | Weekend and Public holiday on request at least 1 hour prior required to Radar Approach. |
| ASR | Khorat Departure | 285.0 MHZ<br>134.1 MHZ | | |
| SRA | Final Controller | 382.4 MHZ | | |
| TWR | Khorat Tower | 240.5 MHZ<br>122.2 MHZ<br>*121.5 MHZ<br>*243.0 MHZ | H24 | *Emergency Freq. |
| GND | Khorat Ground | 257.8 MHZ<br>121.75 MHZ | | |
| ATIS | Khorat AD | 134.8 MHZ<br>390.6 MHZ | 0100-0900<br>MON-FRI | |

## VTUN AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| TACAN | KRT | CH125X | 2300-1100 | 145606.0N 1020421.8E | NIL | 315 M (Centre line of RWY) |
| DVOR/DME | KRT | 113.7 MHz CH84X | H24 | 145502.3N 1020823.3E | | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit 40 NM at required altitude in various areas as follows:<br>– Radial 081°-280° altitude should not below 5 000 FT<br>– Radial 281°-080° altitude should not below 3 500 FT |
| ILS (CAT I)<br>LOC<br>GP/DME | IKRT | 109.9 MHz CH36X | MON-FRI 2300-1100 | 145535.31N 1020346.04E | | PAPI, runway 24 not coincident with ILS glide slope starting from 0.6 DME or 960 ft (MSL) |
| GP | | 333.8 MHz | MON-FRI 2300-1100 | 145620.02N 1020522.05E | | Military used and/or civil aircraft used in military services only |
| LLZ | | 109.9 MHz CH36X | MON-FRI 2300-1100 | 145533.78N 1020346.80E | | |

## VTUN AD 2.20 LOCAL AERODROME REGULATIONS

### 1. VFR REPORTING POINTS AND LOCAL PROCEDURES

Reporting points for VFR flight

In order to expedite and maintain an orderly flow of air traffic into Khorat Airport, the procedures of inbound traffic for VFR flight, conventional and prop-jet aircraft be set up as follows

a) Aircraft entering to land from northwest or northeast of Khorat Airport, shall report over MIKE Point (151100.0 N 1020400.00 E, approximately R360/15 NM from KRT TACAN) and/or NOVEMBER Point (150600.00 N 1020400.00 E, approximately R360/10 NM from KRT TACAN) When reaching NOVEMBER Point the aircraft will be instructed to join aerodrome traffic pattern accordingly.
b) Aircraft entering to land from southwest or southeast of Khorat Airport, shall report over YANKEE Point (143500.00 N 1020400.00 E, approximately R180/20 NMfrom KRT TACAN) and/or Sierra Point (144500.00 N 1020400.00 E, approximately R180/10 NMfrom KRT TACAN) When reaching SIERRA Point the aircraft will be instructed to join aerodrome traffic pattern accordingly.

### 2. Inbound - join circuit pattern at 45 º in the middle of the down at the following heights:

a. 1 500 FT for jet aircraft,
b. 1 000 FT for conventional aircraft,
c. 800 FT for light aircraft,
d. 500 FT for helicopter.

## VTUN AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUN AD 2.22 FLIGHT PROCEDURES

### 1. VFR HELICOPTER ROUTES WITHIN KHORAT AIRPORT

Helicopter Operating Procedures as follow;

1.1 Helicopters flying VFR shall operate on the VFR helicopter routes under VMC while entering,leaving or transiting over Khorat controlled airspace, in accordance with the attached chart, except when directed by air traffic controllers.

1.2 Helicopters shall maintain 500 FT above ground level when following the VFR helicopter routes and make position reports of each reporting point on the VFR helicopter routes, unless otherwise advised by air traffic controllers.

1.3 Helicopters intending to fly via positions/points which not prescribed on the VFR helicopter routes shall advise air traffic controllers.

1.4 ATC instructions for helicopters operating on the VFR helicopter routes shall be issued as follows: (aircraft call sign) CLEARED TO (destination or point) VIA HELICOPTER ROUTES, MAINTAIN (altitude) REPORT ESTABLISHED [or REPORT OVER (point)]

1.5 Helicopters are responsible for obstacle and terrain clearance, if any manoeuvres deviate from the assigned VFR helicopter routes, regarding obstacle or terrain, the helicopter pilots shall advise air traffic controllers for such manoeuvres and, afterwards, resume on the VFR helicopter routes as soon as practicable.

1.6 Helicopters shall maintain own separation from other VFR traffic within Khorat controlled airspace, including Class C airspace. Air traffic controllers will provide traffic information, regarding known traffic, when available.

1.7 Air traffic controllers may instruct helicopters to fly via published VFR reporting points or instruct the helicopters to hold over any positions/points deemed necessary, depending on traffic conditions..

1.8 If helicopters encounter visibility below VMC minima during flight, the helicopter pilots shall advise air traffic controllers without delay.

1.9 Helicopters shall maintain two-way communication with Khorat Tower or khorat Approach while in Khorat control airspace and shall change over to other units only when instructed to do so by the controllers.

1.10 Before taking off from heliports or helipads within Khorat controlled airspace, helicopters shall contact Khorat Tower on frequency 122.2 MHZ or Khorat Approach on frequency 129.75 MHZ. If such communication could not be done, helicopter pilots/operators shall use other available means, e.g. telephones, to receive departure instructions and necessary information prior to take-off.

1.11 After take-off, two-way radio communication shall be established as soon as possible. If helicopters are unable to contact the ATC units before reaching altitude 500 FT above ground level, e.g. due to communication equipment failure, the helicopters shall return to land for solving the problem and notify Khorat Tower by telephone.

1.12 In case where helicopters departing from outside Khorat controlled airspace are unable to contact Khorat Approach or Khorat Tower before entering Khorat controlled airspace, the helicopters shall enter the VFR helicopter routes via the nearest reporting point and fly on the VFR helicopter routes to the destination as filed in the flight plan or as latest notified to air traffic controllers..

1.13 The completion of landings at heliports or helipads within Khorat controlled airspace shall be notified to Khorat Tower by radio or telephone as soon as practicable.

1.14 Table of VFR reporting points for helicopters within Khorat controlled airspace.

| No. | Reporting Point | Landmark | Redial/DME from KRT VOR | Lat/Long |
|---|---|---|---|---|
| 1. | PHOL SONG KRAM | Railway Station | R-021/27D KRT | 152053.72N 1021813.06E |
| 2. | NONG PRUE | Pond | R-072/30D KRT | 150456.00N 1023747.00E |
| 3. | DON WAI | Pond | R-038/15D KRT | 150659.62N 1021733.66E |
| 4. | JOR HOR | Bridge | R-360/7D KRT | 150138.02N 1020817.00E |
| 5 | SURANAREE RTA CAMP | Intersection | R-301/5D KRT | 145729.00N 1020357.00E |
| 6. | LAM SAM LAI | Pond | R-227/22D KRT | 144004.45N 1015134.47E |
| 7. | KUT CHIK | Railway Station | R-268/15D KRT | 145419.00N 1015253.00E |
| 8. | LAM TAK KONG | Railway Station | R-262/38D KRT | 144851.00 1012936.00E |
| 9. | SI KHIU | Bridge | R-264/26D KRT | 145145.00N 1014154.00E |
| 10. | MIKE 6 | Bridge | R-295/11D KRT | 145935.38N 1015755.17E |
| | KRT VOR/DME | | - | 145502.35N 1020823.32E |

1.15 VFR helicopter routes for departure and arrival at Khorat Airport (VTUN)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|
| VTUN - NORTHEAST BOUND | PHOL SONG KRAM | | | |
| VTUN - EAST BOUND | DON WAI | NONG PRUE | | |
| VTUN - SOUTHWEST BOUND | MIKE 6 | SI KHIU | LAM TAK KONG | |
| VTUN - SOUTH BOUND | MIKE 6 | KUT CHIK | LAM SAM LAI | |

1.16 VFR helicopter routes for departure and arrival at SURANAREE (RTA CAMP)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|
| RTA CAMP - NORTHEAST BOUND | PHOL SONG KRAM | | | |
| RTA CAMP - EAST BOUND | DON WAI | NONG PRUE | | |
| RTA CAMP - SOUTHWEST BOUND | MIKE 6 | SI KHIU | LAM TAK KONG | |
| RTA CAMP - SOUTH BOUND | MIKE 6 | KUT CHIK | LAM SAM LAI | |

1.17 VFR helicopter routes for departure and arrival at JOR HOR (RTP CAMP)

| Direction of Flight | Reporting Point | Reporting Point | Reporting Point | Reporting Point |
|---|---|---|---|---|
| RTP CAMP - NORTHEAST BOUND | PHOL SONG KRAM | | | |
| RTP CAMP - EAST BOUND | DON WAI | NONG PRUE | | |
| RTP CAMP - SOUTHWEST BOUND | MIKE 6 | SI KHIU | LAM TAK KONG | |
| RTP CAMP - SOUTH BOUND | MIKE 6 | KUT CHIK | LAM SAM LAI | |

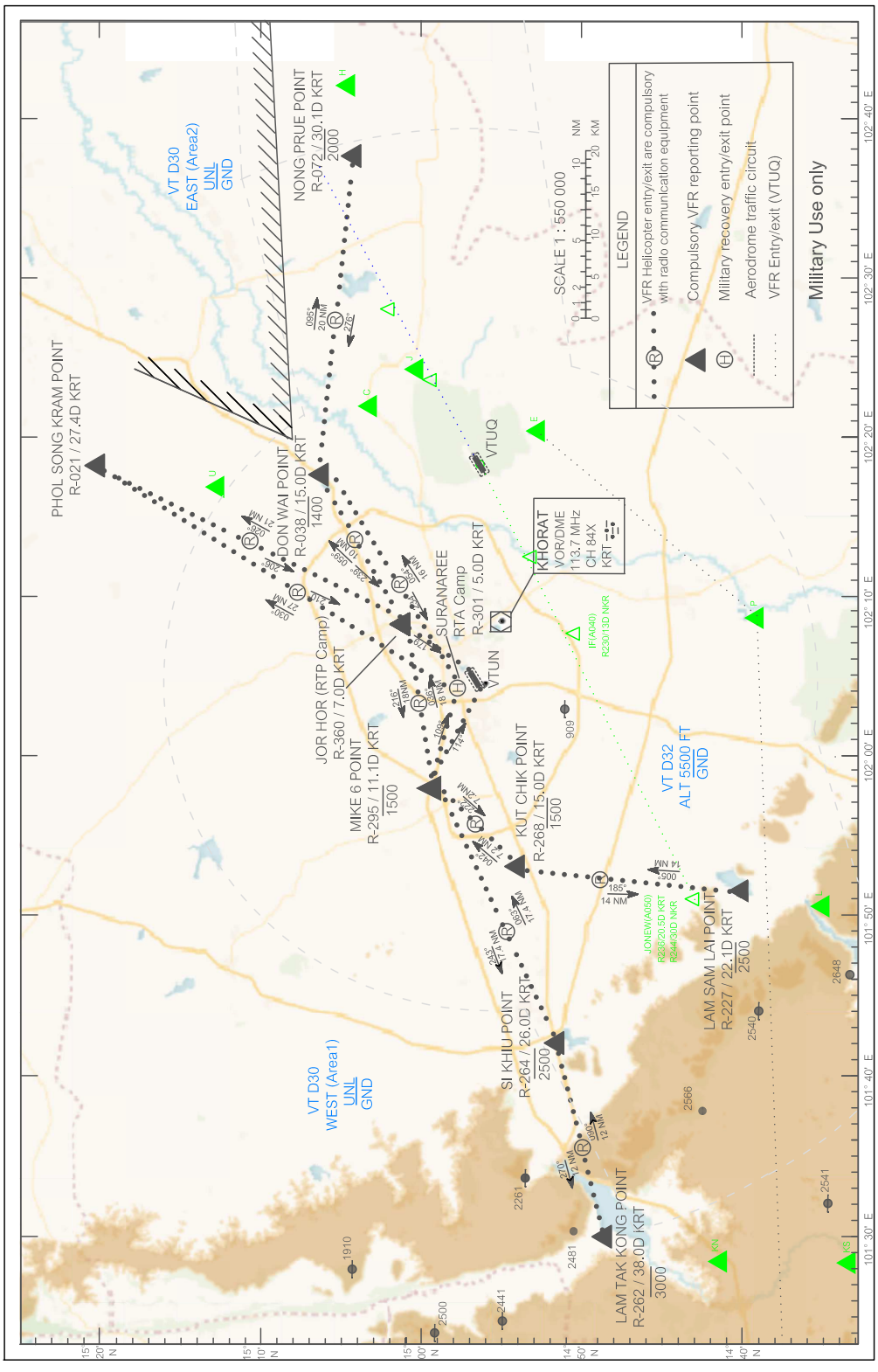
VFR ENTRY/EXIT PROCEDURE FOR HELICOPTER CHART

AERODROME ELEV 729 FT
HEIGHTS RELATED TO AERODROME ELEV

| RATCHASIMA | |
|---|---|
| APP | : 123.6 |
| TWR | : 119.8, 236.6 |
| ATIS | : 126.6 |

| KHORAT | |
|---|---|
| APP | : 129.75, 349.0 |
| TWR | : 122.2, 240.5 |
| GND | : 121.75, 275.8 |
| ATIS | : 390.6, 134.8 |

NAKHON RATCHASIMA/
Khorat (VTUN)
RWY 06/24



**2. Aerodrome traffic circuit**

- Using both sides of traffic circuit.

2.1 Overhead Pattern

Fly initial at 300 KIAS. Pattern and Break altitude is 2,200 ft. MSL. The standard break is:

- Using runway 06 by Right turn pattern.
- Using runway 24 by left turn pattern.

2.2 Straight-In Pattern

Request a straight-in upon contact with Korat Approach and reiterate your request with Korat Tower when transferred to the tower frequency. Be at 1,700 ft. MSL by 6 NM.

2.3 Re-entry Pattern

The re-entry pattern altitude is 2,700 ft. MSL. Proceed to the 6 NM initial or closed traffic pattern as directed by Korat Tower.

2.4 Closed Traffic Pattern

Do not climb above 1,700 ft. MSL before the turn to downwind. Mid-field and present position closed patterns are authorized with Korat Tower approval.

**3. Radio Communication Failure Procedure**

All attempts should be made to have radio-capable aircraft bring/chase NORDO aircraft home. If no chase ship is available, follow the single-ship recovery procedures below:

- Intercept KRT R-330 or R-150 at 10 DME 1,700 ft. MSL then proceeded inbound.
- Hold at 3-5 DME until the active runway can be determined.
- Join appropriate downwind at 7 NM initial.
- Fly low approach between runway and taxiway at 500 ft. AGL, rock wings.
- Pitchout at departure end, establish landing configuration, and check mobile control or tower for the green light on downwind and/or on final.
- After landing, taxi clears off the runway and waits for the “Follow Me” vehicle.

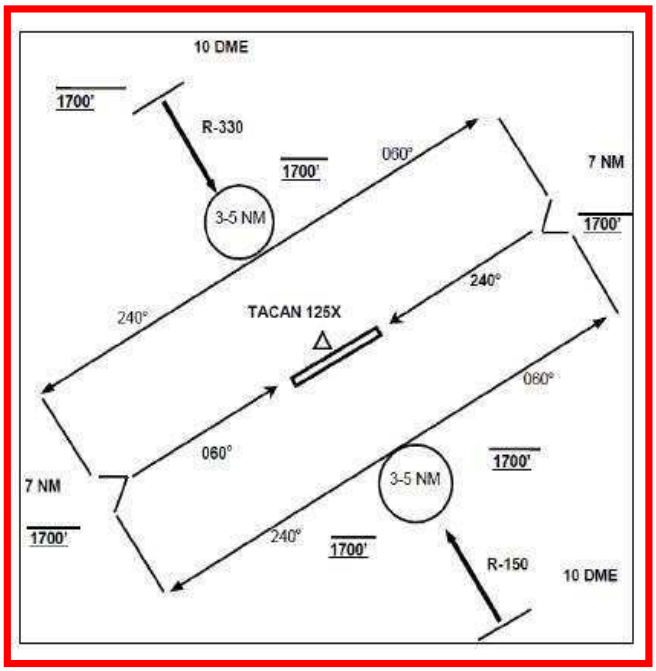



Figure : RADIO COMMUNICATION FAILURE PROCEDURE

## VTUN AD 2.23 ADDITIONAL INFORMATION

- Runway 06/24 RAG installed details as follows:

BAK14: 1,415 FT from threshold runway 06 / 1,252 FT from threshold runway 24 Operating cable height above runway 3 inches.

NET BARRIER: 115 FT from threshold into overrun runway 06 / 82 FT from threshold into overrun runway 24 height 3.70 M.

- Bird concentrations in the vicinity of an aerodrome.

## VTUN AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Instrument Approach Chart - ICAO - ILS or LOC RWY 24 | AD 2-VTUN-8-1 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 24 (Fix and point list table) | AD 2-VTUN-8-2 |

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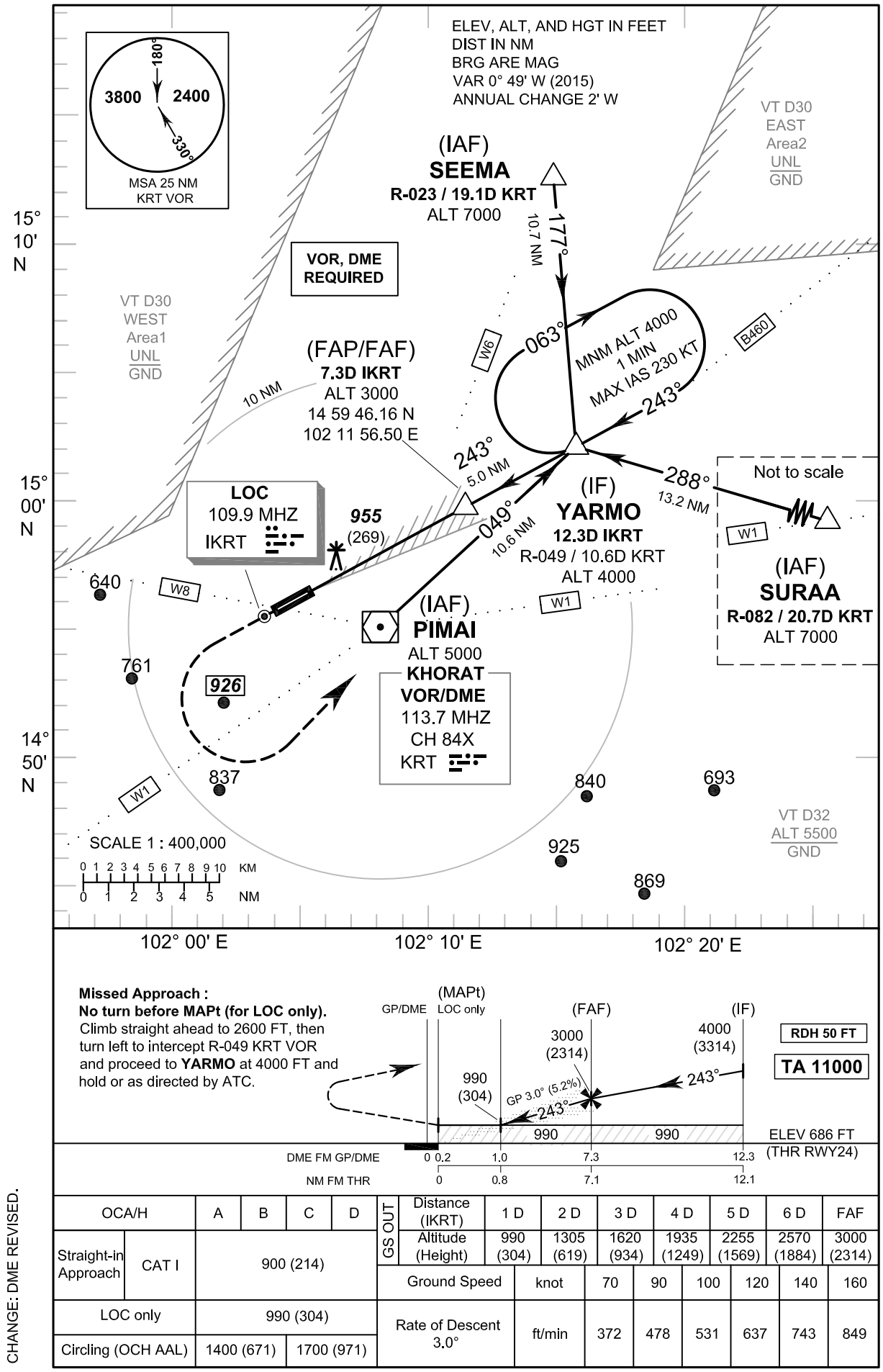
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 729 FT**
HEIGHTS RELATED TO
THR RWY24 - ELEV 686 FT

| | |
|---|---|
| APP | : 129.75, 349.0 |
| TWR | : 122.2, 240.5 |
| GND | : 121.75, 257.8 |
| ATIS | : 390.6 |

**NAKHON RATCHASIMA / Khorat (VTUN)**
**ILS or LOC RWY24**




**Missed Approach :**
**No turn before MAPt (for LOC only).**
Climb straight ahead to 2600 FT, then turn left to intercept R-049 KRT VOR and proceed to **YARMO** at 4000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach — CAT I | 900 (214) | | | |
| LOC only | 990 (304) | | | |
| Circling (OCH AAL) | 1400 (671) | | 1700 (971) | |

| GS OUT | Distance (IKRT) | 1 D | 2 D | 3 D | 4 D | 5 D | 6 D | FAF |
|---|---|---|---|---|---|---|---|---|
| | Altitude (Height) | 990 (304) | 1305 (619) | 1620 (934) | 1935 (1249) | 2255 (1569) | 2570 (1884) | 3000 (2314) |
| | Ground Speed knot | 70 | 90 | 100 | 120 | 140 | 160 | |
| | Rate of Descent 3.0° ft/min | 372 | 478 | 531 | 637 | 743 | 849 | |

CHANGE: DME REVISED.

MILITARY USE ONLY

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 729 FT**
HEIGHTS RELATED TO
THR RWY24 - ELEV 686 FT

**NAKHON RATCHASIMA / Khorat (VTUN)**
**ILS or LOC RWY24**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) PIMAI | KRT | 14° 55' 02.35" N | 102° 08' 23.32" E |
| (IAF) SEEMA | R-023 / 19.1 D KRT | 15° 12' 50.38" N | 102° 15' 45.08" E |
| (IAF) SURAA | R-082 / 20.7 D KRT | 14° 58' 09.11" N | 102° 29' 32.61" E |
| (IF) YARMO | 12.3D IKRT | 15° 02' 06.14" N | 102° 16' 30.61" E |
| (FAP/FAF) | 7.3D IKRT | 14° 59' 46.16" N | 102° 11' 56.50" E |
| MAPt (LOC only) @ THR RWY24 | 0.2D IKRT | 14° 56' 27.20" N | 102° 05' 27.42" E |
| LOC | IKRT | 14° 55' 35.31" N | 102° 03' 46.04" E |
| GP/DME | IKRT | 14° 56' 20.02" N | 102° 05' 22.05" E |
| VOR | KRT | 14° 55' 02.35" N | 102° 08' 23.32" E |

CHANGE: DME REVISED.

MILITARY USE ONLY

## VTPN AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTPN - NAKHON SAWAN /NAKHON SAWAN AIRPORT

## VTPN AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 154020.90N 1000809.75E |
| 2 | Direction and distance from (city) | 5 KM, from city |
| 3 | Elevation/Reference temperature | 34 M (113 FT) /33°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | NIL |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Nakhon Sawan Airport<br>Nakhon Sawan Airport<br>Amphoe Muang<br>Nakhon Sawan Province 60000<br>Thailand<br>Tel: +665 625 6571<br>Fax: +665 625 6570<br>AFS: VTPNZTZX |
| 7 | Types of traffic permitted (IFR/VFR) | VFR |
| 8 | Remarks | Operator: Department of Royal Rainmaking And Agricultural Aviation |

## VTPN AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0130-0930 MON-FRI |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 0130-0930 MON-FRI |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | Other this period and holiday 48 HRS PN to airport |

## VTPN AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1 |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTPN AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | NIL |
| 2 | Restaurants | NIL |
| 3 | Transportation | NIL |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTPN AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | NIL |
| 2 | Rescue equipment | NIL |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTPN AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | NIL |

## VTPN AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | NIL |
| 2 | Taxiway width, surface and strength | NIL |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTPN AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | NIL |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTPN AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 05/APP<br>23/TKOF | Radio mast HGT18.18 M painted red/white LGTD on top | 154033N 100727E | NIL | NIL | NIL |

## VTPN AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | NIL |
| 2 | Hours of service<br>MET Office outside hours | NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | NIL |
| 4 | Type of landing forecast<br>Interval of issuance | NIL |
| 5 | Briefing/consultation provided | NIL |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | NIL |
| 8 | Supplementary equipment available for providing information | NIL |
| 9 | ATS units provided with information | NIL |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTPN AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | NIL | 1370x30 | PCN 22/F/D/Y/T<br>Asphalt | 154009.69991N<br>1000854.36355E | 1.541 M |
| 23 | NIL | 1370x30 | PCN 22/F/D/Y/T<br>Asphalt | 154036.29390N<br>1000830.88758E | -5.044 M |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | NIL | NIL | NIL | NIL | NIL |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTPN AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | 1370 | 1370 | 1370 | 1370 | NIL |
| 23 | 1370 | 1370 | 1370 | 1370 | NIL |

## VTPN AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 05 | NIL | Green | PAPI Left 3.7° | NIL | NIL | 1370 M 30 M White,LIH | Red | NIL | NIL |
| 23 | NIL | Green | PAPI Left 3° | NIL | NIL | 1370 M 30 M White,LIH | Red | NIL | NIL |

## VTPN AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | NIL |
| 4 | Secondary power supply/switch-over time | NIL |
| 5 | Remarks | NIL |

## VTPN AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTPN AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on Nakhon Sawan aerodrome (1540.2N 10008.3E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Nakhon Sawan Tower<br>English, Thai |
| 5 | Transition altitude | NIL |
| 6 | Remarks | NIL |

## VTPN AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Nakhon Sawan Tower | 122.8 MHZ<br>236.6 MHZ<br>122.3 MHZ<br>121.5 MHZ | 0130-0930 MON-FRI | Primary Freq<br>Secondary Freq<br><br>Emergency Freq. |

## VTPN AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NIL | NIL | NIL | NIL | NIL | NIL | NIL |

## VTPN AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTPN AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTPN AD 2.22 FLIGHT PROCEDURES

NIL

## VTPN AD 2.23 ADDITIONAL INFORMATION

NIL

## VTPN AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

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## VTPI AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTPI - NAKHON SAWAN/TAKHLI AIRPORT

## VTPI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 151638.35N 1001745.10E |
| 2 | Direction and distance from (city) | 3NM WNW of Takhli |
| 3 | Elevation/Reference temperature | 103 FT/28.2°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.67°W (2017) |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Wing 4, Takhli Air Force Base, Takhli District<br>Nakhon Sawan Province<br>Tel: +665 626 1071-2 Ext. 53540-5 (Tower)<br>+665 626 1071-2 Ext. 53546-7<br>+665 626 1071-2 Ext.54366 (ASR)<br>+665 626 1071-2 Ext.53548-9 (BaseOps)<br>AFS: VTPIYXYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Royal Thai Air Force |

## VTPI AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0100-0900 MON-FRI |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | 0100-0900 MON-FRI |
| 4 | AIS Briefing Office | 0100-0900 MON-FRI |
| 5 | ATS Reporting Office (ARO) | 0100-0900 MON-FRI |
| 6 | MET Briefing Office | 0100-0900 MON-FRI |
| 7 | ATS | H24 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTPI AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JP8, Octane100/130, Oil |
| 3 | Fuelling facilities/capacity | 5JP8 trucks 20 000 L and 2 Octain trucks 6 000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTPI AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city (Takhli, Chainat) |
| 2 | Restaurants | Near Base and in downtown |
| 3 | Transportation | Bus and train |
| 4 | Medical facilities | Base dispensary and three ambulances |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | In the city |
| 7 | Remarks | NIL |

## VTPI AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 7 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | Crane 24 T |
| 4 | Remarks | NIL |

## VTPI AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTPI AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 80/R/D/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Concrete<br>Strength: PCN 80/R/D/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: North or South holding area<br>Elevation: 103 FT/65 FT |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTPI AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Yellow guide line are painted |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Marked and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTPI AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | Radio Mast on Top of ATC Tower HGT 189 FT Painted red/white LGTD on top | 151644.41N 1001731.63E | NIL |

## VTPI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Takhli |
| 2 | Hours of service<br>MET Office outside hours | H24 |
| 3 | Office responsible for TAF preparation<br>Periods of validity | 00, 06, 12 |
| 4 | Type of landing forecast<br>Interval of issuance | Trend<br>2 HR |
| 5 | Briefing/consultation provided | Personal Consultation |
| 6 | Flight documentation<br>Language(s) used | English |
| 7 | Charts and other information available for briefing or consultation | Personal Consultation |
| 8 | Supplementary equipment available for providing information | Telefax<br>Self - Briefing Terminal |
| 9 | ATS units provided with information | Takhli TWR<br>Takhli APP |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTPI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 181.28° | 3000x45 | PCN 80/R/D/X/T Concrete | 151727.00N 1001746.22E | 103 FT |
| 36 | 001.28° | 3000x45 | PCN 80/R/D/X/T Concrete | 151549.66N 1001743.98E | 65 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| 53% | 300x45 | NIL | NIL | NIL | NIL |
| 53% | 300x45 | NIL | NIL | NIL | NIL |

## VTPI AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 3000 | 3000 | 3300 | 3000 | NIL |
| 36 | 3000 | 3000 | 3300 | 3000 | NIL |

## VTPI AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18 | NIL | Green | PAPI Both 3˚ | NIL | NIL | 3000 M 45 M White, LIH | Red | NIL | NIL |
| 36 | NIL | Green | PAPI Both 3˚ | NIL | NIL | 3000 M 45 M White, LIH | Red | NIL | NIL |

## VTPI AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | Alternating white and green lights installed on top of ATC Tower. |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | TWY edge light |
| 4 | Secondary power supply/switch-over time | RWY, TWY, APP AND PAPI light |
| 5 | Remarks | NIL |

## VTPI AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTPI AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on 151638.35N 1001745.10E |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Takhli Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTPI AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Takhli Approach | 325.0 MHZ<br>124.0 MHZ | H24 | Secondary Operation |
| ASR | Takhli Arrival | 325.0 MHZ<br>124.0 MHZ | 0100-0900 weekdays MON-FRI (Except public holiday or on request 1 HR prior notice required to ATC) | Radar Approach Primary Operation during weekdays |
| ASR | Takhli Departure | 282.5 MHZ<br>134.1 MHZ | | |
| SRA | Final Controller | 382.4 MHZ | | |
| TWR | Takhli Tower | 241.5 MHZ<br>133.25 MHZ<br>*121.5 MHZ<br>*243.0 MHZ | H24 | *Emergency Freq |
| GND | Takhli Ground | 236.6 MHZ<br>257.8 MHZ<br>121.75 MHZ | H24 | |
| ATIS | | 253.0 MHZ | 0100-0900, MON-FRI (Exception, SAT-SUN) | |

## VTPI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | TL | 350 KHZ | H24 | 151633.45N 1001751.11E | NIL | Military used and/or civil aircrafts used in military services only |
| TACAN | TKL | CH 95X | 23:00-11:00 | 151629.13N 1001756.62E | | |
| ILS CAT I LOC | ITKL | 108.7 MHZ | MON-FRI 01:00-09:00 | 151539.28N 1001743.75E | | |
| GP/DME | | 330.5 MHZ CH 24X | MON-FRI 01:00-09:00 | 151715.60N 1001751.09E | | |
| MM | | 75 MHZ | MON-FRI 01:00-09:00 | 151759.72N 1001746.97E | | |

## VTPI AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTPI AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTPI AD 2.22 FLIGHT PROCEDURES

NIL

## VTPI AD 2.23 ADDITIONAL INFORMATION

- Runway18/36 RAG installed and in operations details as follows:

BAK14: 396 M from threshold cable height 3 inches.

NET BARRIER: height 3.7 M position 25 M from end of runway

## VTPI AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 18 | AD 2-VTPI-8-1 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 18 (Tabular description) | AD 2-VTPI-8-2 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 18 (Fix and point list table) | AD 2-VTPI-8-3 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 18 | AD 2-VTPI-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 18 (Tabular description) | AD 2-VTPI-8-6 |
| Instrument Approach Chart - ICAO - RNAV (GNSS) RWY 18 | AD 2-VTPI-8-7 |
| Instrument Approach Chart - ICAO - RNAV (GNSS) RWY 18 (Tabular description) | AD 2-VTPI-8-8 |
| Instrument Approach Chart - ICAO - RNAV (GNSS) RWY 36 | AD 2-VTPI-8-9 |
| Instrument Approach Chart - ICAO - RNAV (GNSS) RWY 36 (Tabular description) | AD 2-VTPI-8-10 |

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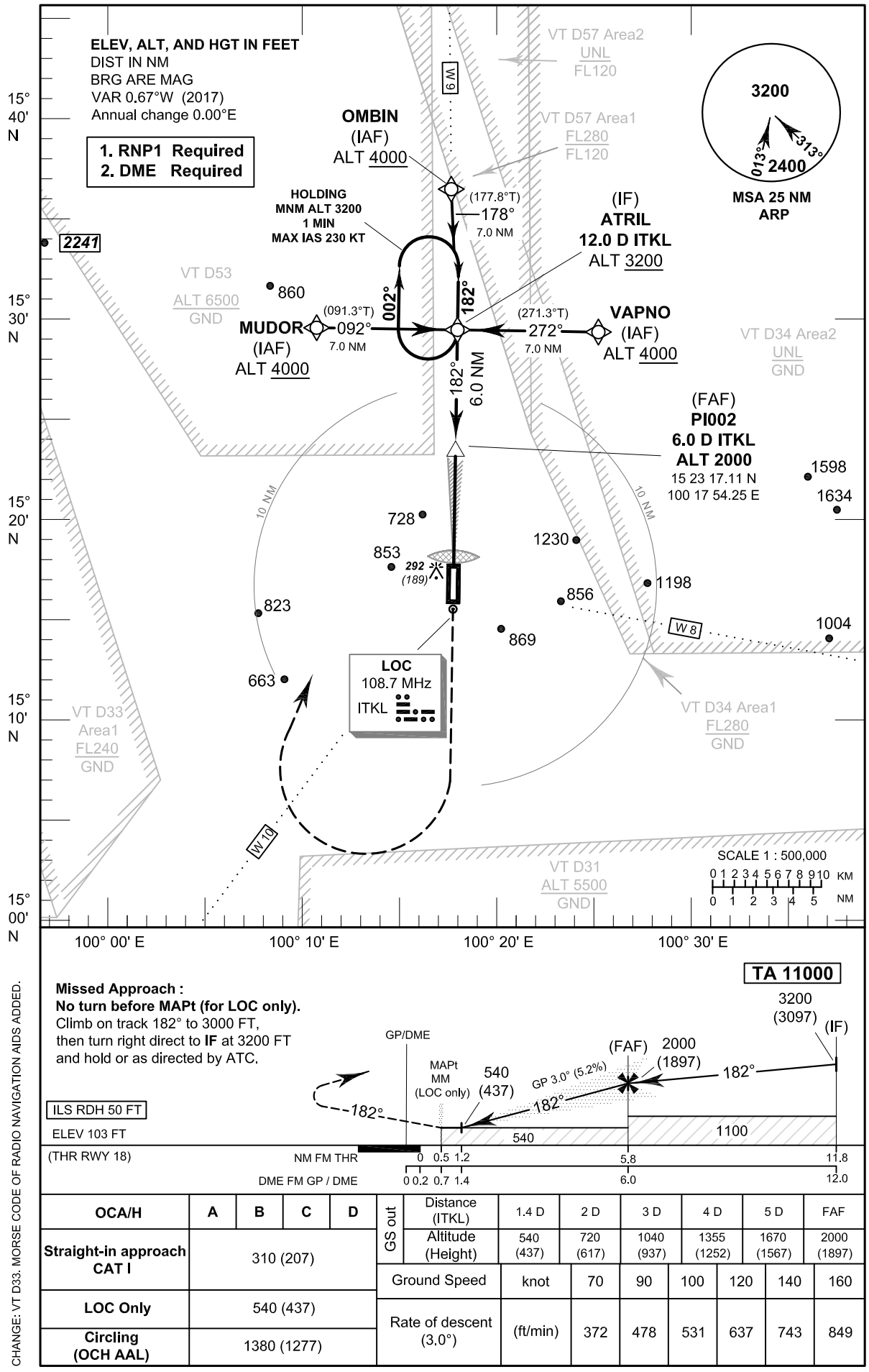
**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 103 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 103 FT

APP : 124.0, 325.0
TWR : 133.25, 241.5
GND : 121.75, 257.8

**NAKHON SAWAN/Takhli (VTPI)**
**ILS or LOC y RWY18**




**Missed Approach :**
**No turn before MAPt (for LOC only).**
Climb on track 182° to 3000 FT,
then turn right direct to **IF** at 3200 FT
and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in approach CAT I | 310 (207) | | | |
| LOC Only | 540 (437) | | | |
| Circling (OCH AAL) | 1380 (1277) | | | |

| GS out | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (ITKL) | 1.4 D | 2 D | 3 D | 4 D | 5 D | FAF | |
| Altitude (Height) | 540 (437) | 720 (617) | 1040 (937) | 1355 (1252) | 1670 (1567) | 2000 (1897) | |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (3.0°) | (ft/min) | 372 | 478 | 531 | 637 | 743 | 849 |

CHANGE: VT D33. MORSE CODE OF RADIO NAVIGATION AIDS ADDED.

October 2018

**MILITARY USE ONLY**

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 103 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 103 FT

**NAKHON SAWAN/Takhli (VTPI)**
**ILS or LOC y RWY18**

## TABULAR DESCRIPTION

| ILS or LOC y RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
| 010 | IF | MUDOR (IAF) | - | - | +0.67 | - | - | +4000 | - | - | RNP 1 |
| 020 | TF | ATRIL (IF) | - | 092°(091.3°) | +0.67 | 7.0 | - | +3200 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | OMBIN (IAF) | - | - | +0.67 | - | - | +4000 | - | - | RNP 1 |
| 020 | TF | ATRIL (IF) | - | 178°(177.8°) | +0.67 | 7.0 | - | +3200 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | VAPNO (IAF) | - | - | +0.67 | - | - | +4000 | - | - | RNP 1 |
| 020 | TF | ATRIL (IF) | - | 272°(271.3°) | +0.67 | 7.0 | - | +3200 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | ATRIL (IF) | - | - | +0.67 | - | - | +3200 | | - | RNP 1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | PI002 (FAF) | - | 182°(181.3°) | +0.67 | 6.0 | - | @2000 | - | - | ILS |
| 030 | TF | PI001 (MAPt) | Y | 182°(181.3°) | +0.67 | 5.3 | - | @312 | - | - 3.0 / 50 | ILS |
| 040 | CA | - | - | 182°(181.3°) | +0.67 | - | - | +3000 | - | - | RNP 1 |
| 050 | DF | ATRIL (IF) | - | - | +0.67 | - | R | +3200 | - | - | RNP 1 |
| 060 | HM | ATRIL (IF) | Y | 182°(181.3°) | +0.67 | 1 minute | R | +3200 | - 230 | - | RNP 1 |

## WAYPOINT LIST

| ILS or LOC y RWY18 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | |
| MUDOR | 15° 29' 27.84" N | 100° 10' 47.71" E |
| OMBIN | 15° 36' 20.02" N | 100° 17' 46.07" E |
| VAPNO | 15° 29' 09.03" N | 100° 25' 17.38" E |
| ATRIL | 15° 29' 18.56" N | 100° 18' 02.55" E |
| PI002 | 15° 23' 17.11" N | 100° 17' 54.25" E |
| PI001 | 15° 17' 59.72" N | 100° 17' 46.97" E |
| THR18 | 15° 17' 27.00" N | 100° 17' 46.22" E |
| | | |

**MILITARY USE ONLY**

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 103 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 103 FT

**NAKHON SAWAN/Takhli (VTPI)**
**ILS or LOC y RWY18**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IF) ATRIL | 12.0 D ITKL | 15 29 18.56 N | 100 18 02.55 E |
| (FAF) PI002 | 6.0 D ITKL | 15 23 17.11 N | 100 17 54.25 E |
| MAPt (LOC only) @ MM | 0.7 D ITKL | 15 17 59.72 N | 100 17 46.97 E |
| LOC | ITKL | 15 15 39.28 N | 100 17 43.75 E |
| GP/DME | ITKL | 15 17 15.60 N | 100 17 51.09 E |

**MILITARY USE ONLY**

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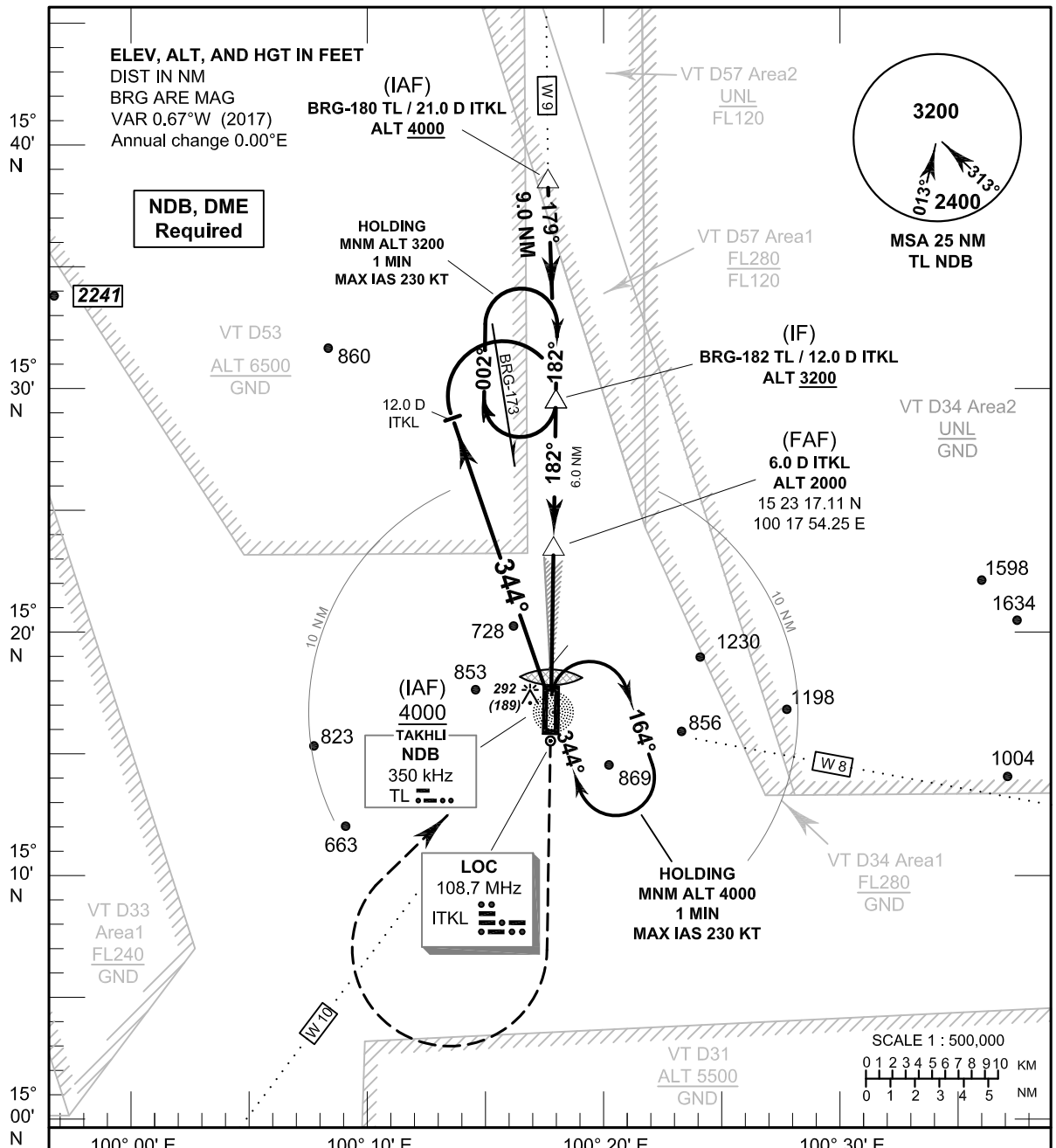
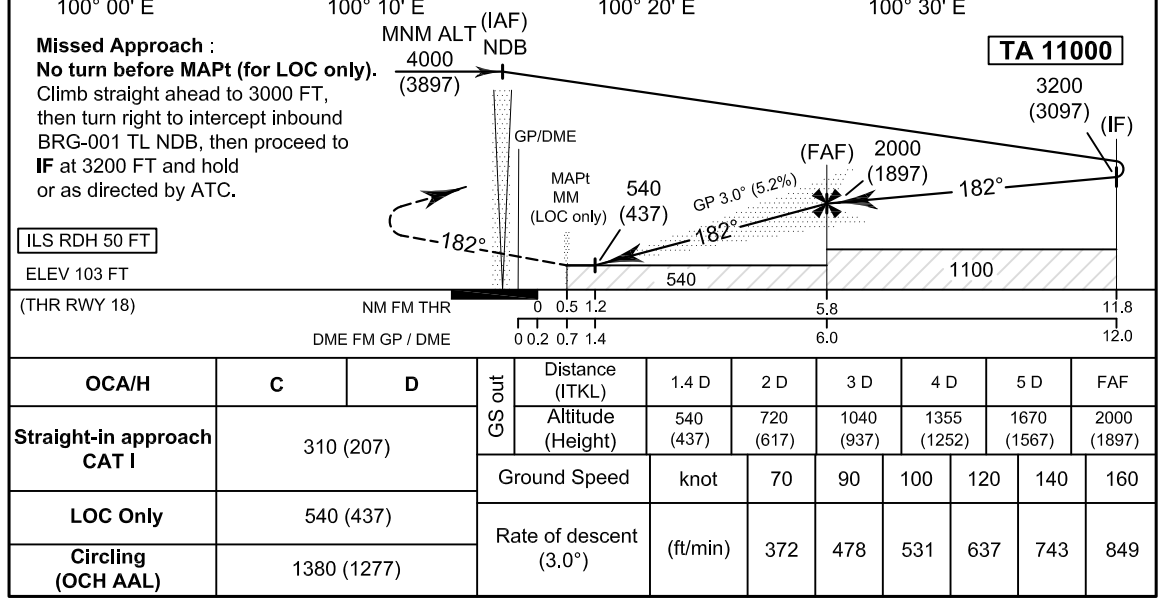
**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 103 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 103 FT

APP : 124.0, 325.0
TWR : 133.25, 241.5
GND : 121.75, 257.8

**NAKHON SAWAN/Takhli (VTPI)**
**ILS or LOC z RWY18**




| OCA/H | C | D |
|---|---|---|
| Straight-in approach CAT I | 310 (207) | |
| LOC Only | 540 (437) | |
| Circling (OCH AAL) | 1380 (1277) | |

| GS out | Distance (ITKL) | 1.4 D | 2 D | 3 D | 4 D | 5 D | FAF |
|---|---|---|---|---|---|---|---|
| | Altitude (Height) | 540 (437) | 720 (617) | 1040 (937) | 1355 (1252) | 1670 (1567) | 2000 (1897) |
| | Ground Speed knot | 70 | 90 | 100 | 120 | 140 | 160 |
| | Rate of descent (3.0°) (ft/min) | 372 | 478 | 531 | 637 | 743 | 849 |

CHANGE: VT D33. MORSE CODE OF RADIO NAVIGATION AIDS ADDED.

**October 2018**

**MILITARY USE ONLY**

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 103 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 103 FT

**NAKHON SAWAN/Takhli (VTPI)**
**ILS or LOC z RWY18**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| NDB (IAF) | TL | 15 16 33.45 N | 100 17 51.11 E |
| (IAF) | BRG - 180 TL / 21.0 D ITKL | 15 38 20.90 N | 100 17 45.57 E |
| (IF) | BRG - 182 TL / 12.0 D ITKL | 15 29 18.56 N | 100 18 02.55 E |
| (FAF) | 6.0 D ITKL | 15 23 17.11 N | 100 17 54.25 E |
| MAPt (LOC only) @ MM | 0.7 D ITKL | 15 17 59.72 N | 100 17 46.97 E |
| LOC | ITKL | 15 15 39.28 N | 100 17 43.75 E |
| GP/DME | ITKL | 15 17 15.60 N | 100 17 51.09 E |

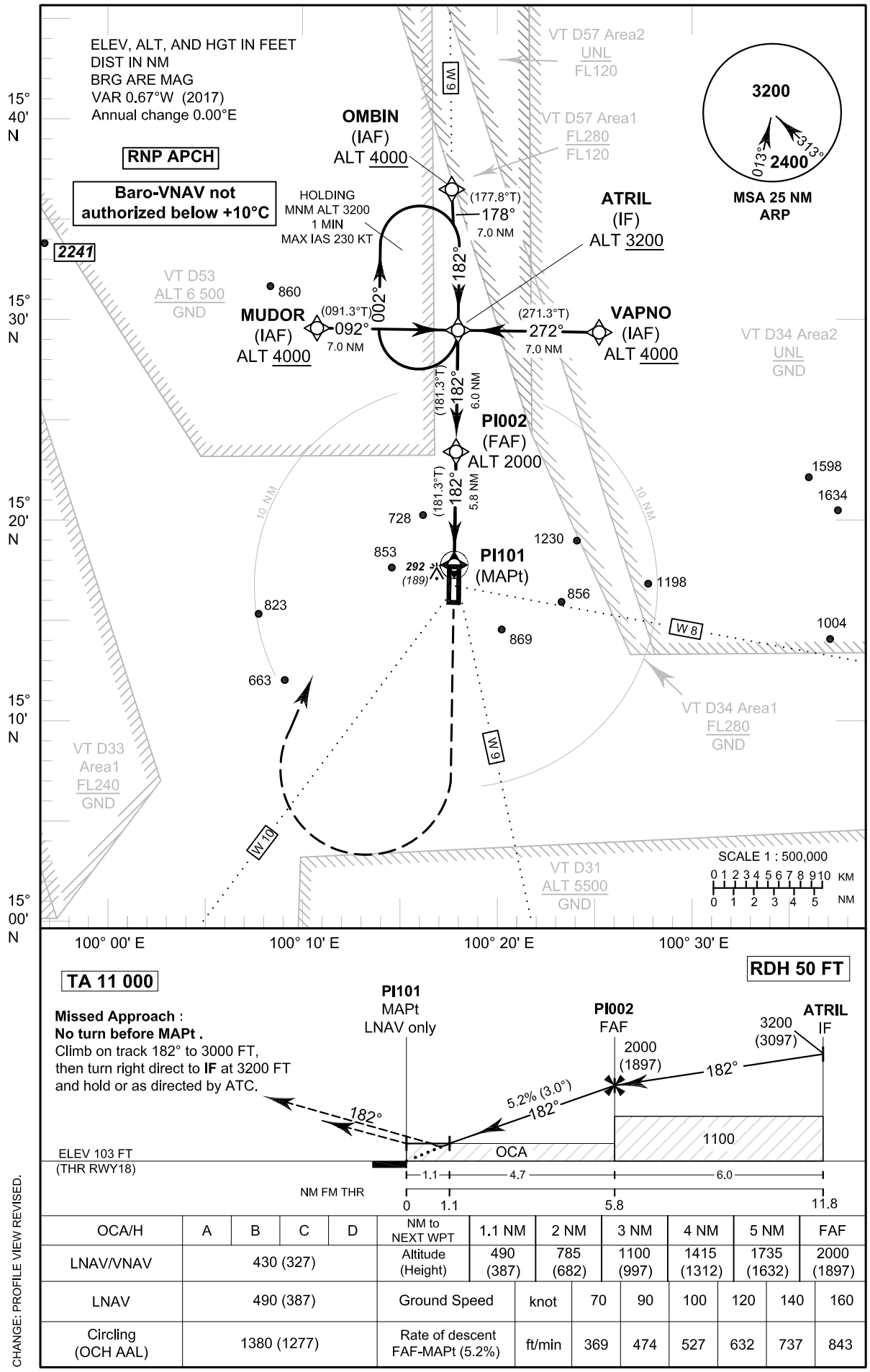
**MILITARY USE ONLY**

**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 103 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 103 FT

APP : 124.0, 325.0
TWR : 133.25, 241.5
GND : 121.75, 257.8

**NAKHON SAWAN/Takhli (VTPI)**
**RNAV (GNSS) RWY18**







| OCA/H | A | B | C | D | NM to NEXT WPT | 1.1 NM | 2 NM | 3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 430 (327) | | | | Altitude (Height) | 490 (387) | 785 (682) | 1100 (997) | 1415 (1312) | 1735 (1632) | 2000 (1897) |
| LNAV | 490 (387) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1380 (1277) | | | | Rate of descent FAF-MAPt (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: PROFILE VIEW REVISED.

October 2019

**MILITARY USE ONLY**

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 103 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 103 FT

**NAKHON SAWAN/Takhli (VTPI)**
**RNAV (GNSS) RWY18**

## TABULAR DESCRIPTION

**RNAV (GNSS) RWY18**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | MUDOR (IAF) | - | - | +0.67 | - | - | +4000 | - | - | RNP APCH |
| 020 | TF | ATRIL (IF) | - | 092°(091.3°) | +0.67 | 7.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | OMBIN (IAF) | - | - | +0.67 | - | - | +4000 | - | - | RNP APCH |
| 020 | TF | ATRIL (IF) | - | 178°(177.8°) | +0.67 | 7.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | VAPNO (IAF) | - | - | +0.67 | - | - | +4000 | - | - | RNP APCH |
| 020 | TF | ATRIL (IF) | - | 272°(271.3°) | +0.67 | 7.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ATRIL (IF) | - | - | +0.67 | - | - | +3200 | | - | RNP APCH |
| 020 | TF | PI002 (FAF) | - | 182°(181.3°) | +0.67 | 6.0 | - | @2000 | - | - | RNP APCH |
| 030 | TF | PI101 (MAPt) | Y | 182°(181.3°) | +0.67 | 5.8 | - | @153 | - | - 3.0 / 50 | RNP APCH |
| 040 | CA | - | - | 182°(181.3°) | +0.67 | - | - | +3000 | - | - | RNP APCH |
| 050 | DF | ATRIL (IF) | - | - | +0.67 | - | R | +3200 | - | - | RNP APCH |
| 060 | HM | ATRIL (IF) | Y | 182°(181.3°) | +0.67 | 1 minute | R | +3200 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNAV (GNSS) RWY18**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| MUDOR | 15° 29' 27.84" N | 100° 10' 47.71" E |
| OMBIN | 15° 36' 20.02" N | 100° 17' 46.07" E |
| VAPNO | 15° 29' 09.03" N | 100° 25' 17.38" E |
| ATRIL | 15° 29' 18.56" N | 100° 18' 02.55" E |
| PI002 | 15° 23' 17.11" N | 100° 17' 54.25" E |
| PI101 (THR18) | 15° 17' 27.00" N | 100° 17' 46.22" E |
| | | |

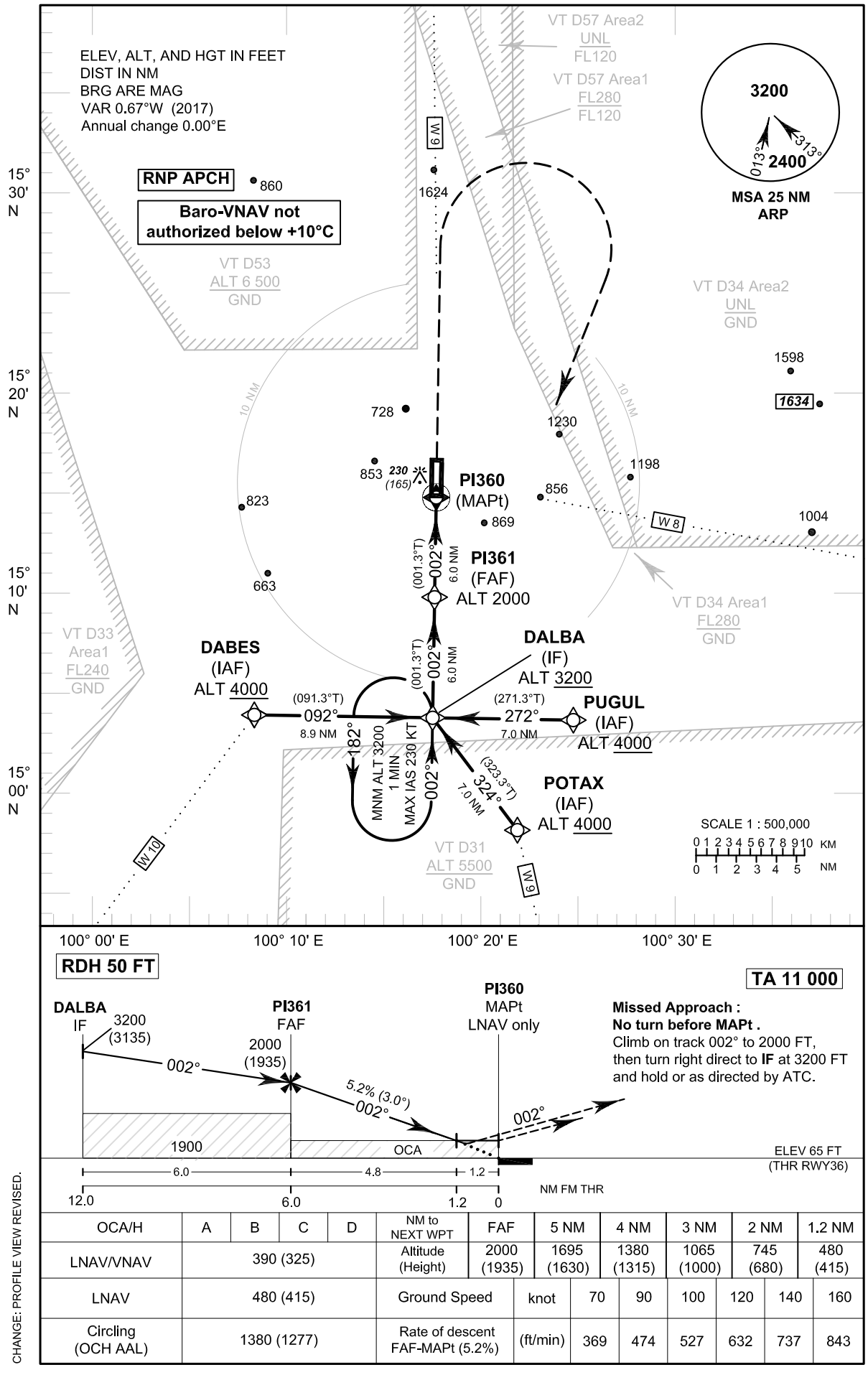
**MILITARY USE ONLY**

**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 103 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 65 FT

APP : 124.0, 325.0
TWR : 133.25, 241.5
GND : 121.75, 257.8

**NAKHON SAWAN/Takhli (VTPI)**
**RNAV (GNSS) RWY36**




**RDH 50 FT**

**TA 11 000**




**Missed Approach :**
**No turn before MAPt .**
Climb on track 002° to 2000 FT, then turn right direct to **IF** at 3200 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 5 NM | 4 NM | 3 NM | 2 NM | 1.2 NM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 390 (325) | | | | Altitude (Height) | 2000 (1935) | 1695 (1630) | 1380 (1315) | 1065 (1000) | 745 (680) | 480 (415) |
| LNAV | 480 (415) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1380 (1277) | | | | Rate of descent FAF-MAPt (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: PROFILE VIEW REVISED.

October 2019

**MILITARY USE ONLY**

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 103 FT** HEIGHTS RELATED TO THR RWY36 **-** ELEV 65 FT

**NAKHON SAWAN/Takhli (VTPI)**
**RNAV (GNSS) RWY36**

## TABULAR DESCRIPTION

**RNAV (GNSS) RWY36**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | DABES (IAF) | - | - | +0.67 | - | - | +4000 | - | - | RNP APCH |
| 020 | TF | DALBA (IF) | - | 092°(091.3°) | +0.67 | 8.9 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | PUGUL (IAF) | - | - | +0.67 | - | - | +4000 | - | - | RNP APCH |
| 020 | TF | DALBA (IF) | - | 272°(271.3°) | +0.67 | 7.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | POTAX (IAF) | - | - | +0.67 | - | - | +4000 | - | - | RNP APCH |
| 020 | TF | DALBA (IF) | - | 324°(323.3°) | +0.67 | 7.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | DALBA (IF) | - | - | +0.67 | - | - | +3200 | | - | RNP APCH |
| 020 | TF | PI361 (FAF) | - | 002°(001.3°) | +0.67 | 6.0 | - | @2000 | - | - | RNP APCH |
| 030 | TF | PI360 (MAPt) | Y | 002°(001.3°) | +0.67 | 6.0 | - | @115 | - | - 3.0 / 50 | RNP APCH |
| 040 | CA | - | - | 002°(001.3°) | +0.67 | - | - | +2000 | - | - | RNP APCH |
| 050 | DF | DALBA (IF) | - | - | +0.67 | - | R | +3200 | - | - | RNP APCH |
| 060 | HM | DALBA (IF) | Y | 002°(001.3°) | +0.67 | 1 minute | L | +3200 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNAV (GNSS) RWY36**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| POTAX | 14° 58' 08.57" N | 100° 21' 46.67" E |
| DABES | 15° 03' 58.51" N | 100° 08' 17.43" E |
| PUGUL | 15° 03' 37.27" N | 100° 24' 41.32" E |
| DALBA | 15° 03' 46.78" N | 100° 17' 27.36" E |
| PI361 | 15° 09' 48.22" N | 100° 17' 35.67" E |
| PI360 (THR36) | 15° 15' 49.66" N | 100° 17' 43.98" E |
| | | |

CHANGE: HM TURN DIRECTION.

**MILITARY USE ONLY**

## VTSF AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSF - NAKHON SI THAMMARAT / NAKHON SI THAMMARAT AIRPORT

## VTSF AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 083222.62N 0995641.01E<br>Centre of RWY 1060 M. from THR RWY19 |
| 2 | Direction and distance from (city) | 10 KM N, from city |
| 3 | Elevation/Reference temperature | 4M (13 FT) /33°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.39°W (2016)/0.01°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Nakhon Si Thammarat Airport<br>Nakhon Si Thammarat Airport<br>Amphoe Muang<br>Nakhon Si Thammarat 80000<br>Thailand<br>Tel: +667 545 0544<br>+667 545 0545<br>+667 545 0541<br>Fax: +667 545 0549<br>AFS: VTSFYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTSF AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1500 |
| 2 | Customs and immigration | O/R |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1500 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1500 |
| 8 | Fuelling | 0100-1000 |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Surat Thani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +667 744 1008<br>+669 1010 1837<br>Fax: +667 744 1009 |

## VTSF AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTSF AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Taxi, Limousine |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | In the city |
| 7 | Remarks | NIL |

## VTSF AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 7 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | For the removal of disable aircraft operated by the owner of aircraft and the removal equipment operated by contracted external resource,<br><br>Please contact aerodrome coordinator:<br>- Director of Nakhon Si Thammarat Airport<br>Tel: +668 5041 0140<br>- Airport Safety Group<br>Tel: +668 6591 0681<br>+667 545 0541<br>Fax: +667 545 0549<br>E-mail: Nakhon@airports.go.th |
| 4 | Remarks | NIL |

## VTSF AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTSF AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | APRON A<br>Surface: Concrete and Asphalt<br>Strength: PCN 42/F/C/X/T<br>APRON B<br>Surface: Concrete<br>Strength: PCN 45/R/C/X/T |

| | | |
|---|---|---|
| 2 | Taxiway width, surface and strength | Width: TWY A, B and D = 23 M, TWY C = 10.5 M<br>Surface: Concrete and asphalt<br>Strength: TWY A, B and D : PCN 42/F/C/X/T<br>TWY C: 5.3 T |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 14 ft |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSF AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>Nose-wheel guide lines at apron<br>VDGS of aircraft stands: Aircraft stand No. 5 and 6 |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR,TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: TWY CL, TWY Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSF AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| | Radio Mast<br>HGT 60 M<br>MARKED RED LGT<br>ON TOP | 083452N 0995658E | NIL | NIL | NIL |

## VTSF AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Nakhon Si Thammarat,<br>Southern East-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1500<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern East-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 546 6646, +668 6498 0632 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |

| | | |
|---|---|---|
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Nakhon Si Thammarat TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSF AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 006.49° | 2100x45 | PCN 42/F/C/X/T<br>Asphaltic concrete | 083148.51N 0995637.41E | THR 13 FT<br>TDZ 13 FT |
| 19 | 186.49° | 2100x45 | PCN 42/F/C/X/T<br>Asphaltic concrete | 083256.73N 0995644.61E | THR 13 FT<br>TDZ 13 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| 0% | 60x60 | NIL | 2340x300 | NIL | NIL |
| 0% | 60x60 | NIL | 2340x300 | NIL | NIL |

## VTSF AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 2100 | 2100 | 2160 | 2100 | NIL |
| 19 | 2100 | 2100 | 2160 | 2100 | NIL |

## VTSF AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 01 | SALS<br>420M<br>LIH | Green | PAPI<br>Left 3° | NIL | NIL | 2100 M<br>60 M<br>White, LIM | Red | NIL | NIL |
| 19 | SALS<br>420M | Green | PAPI<br>Left 3°<br>(47.32 FT) | NIL | NIL | 2100 M<br>60 M<br>White, LIM | Red | NIL | NIL |

## VTSF AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building FLG WG EV 7 SEC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI(1) : wind cone at 300 M from THR 01 off set Left side 102.5 M, illuminated<br>LDI(2) : wind cone at 300 M from THR 19 off set Left side 102.5 M, illuminated |
| 3 | TWY edge and centre line lighting | TWY edge: All TWY<br>TWY centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the air field lighting (AFL).<br>Switch over time : 15 SEC |
| 5 | Remarks | NIL |

## VTSF AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Helicopter is approach using active runway and landing as instructed by ATC. |

## VTSF AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centred on Nakhon Si Thammarat DVOR/DME (083230.0N 0995648.7E) |
| 2 | Vertical limits | 2000 ft/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Nakhon Si Thammarat Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSF AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Nakhon Si Thammarat Approach | 119.75 MHz<br>121.5 MHz[1)] | As AD OPR HR | [1)]Emergency frequency |
| TWR | Nakhon Si Thammarat Tower | 122.55 MHz<br>236.6 MHz<br>121.5 MHz[1)]<br>243.0 MHz[1)] | As AD OPR HR | |
| GND | Nakhon Si Thammarat Ground | 121.9 MHz | As AD OPR HR | |
| ATIS | Nakhon Si Thammarat Airport | 123.4 MHz | As AD OPR HR | |

## VTSF AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | NKS | 117.4 MHz CH121X | H24 | 083230.0N 0995648.7E | | Due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 nm, at required altitudes is various areas:<br>RDL 001-190 beyond 40 NM should not below 2500 ft. RDL 191-240 beyond 40 nm should not below 7000 ft.<br>RDL 241-280 beyond 25 nm should not below 8000 ft. RDL 281-320 beyond 40 nm should not below 7000 ft.<br>RDL 321-360 beyond 40 nm should not below 5000 ft. |
| LOC RWY19 ILS CAT I | INKS | 109.7 MHz | H24 | 083138.4N 0995636.4E | | a) Localizer<br>- Designated operational coverage 18 nm ±10º and 10 nm ±35º of localizer course, no back course and voice feature. |
| GP | | 333.2 MHz | H24 | 083245.3N 0995647.3E | | b) Glide path 3°<br>- RWY19 ILS Glide Path not coincident with PAPI starting at 1 DME or 400 ft (MSL) |
| DME | | CH34X (333.2 MHz) | H24 | 083245.1N 0995647.2E | | DME<br>- Paired with Glide Path.<br>- Power output 100 watts.<br>- Omni-directional antenna. |

## VTSF AD 2.20 LOCAL AERODROME REGULATIONS

### 1. 180 DEGREES TURN ON THE RUNWAY

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, aircraft code letter C or higher shall make 180 degrees turn at the runway turn pads located at the end of runway 01 and 19 only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTSF AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSF AD 2.22 FLIGHT PROCEDURES

### 1. SPEED CONTROL PROCEDURE IN NAKHON SI THAMMARAT TMA

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

**2. IFR DEPARTURES OTHER THAN VIA SID**

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

**3. VISUAL DEPARTURES**

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**4. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 01:

NAKHON SI THAMMARAT OMNI 01 Departure: Required climb gradient 365 ft per NM (6.0%) until 7,500 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 912 | 1216 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 3,000 ft (or altitude assigned by ATC between 3,000 ft – 6,500 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 19:

NAKHON SI THAMMARAT OMNI 19 Departure: Required climb gradient 395 ft per NM (6.5%) until 7,500 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.5% | (ft/min) | 428 | 494 | 658 | 987 | 1316 | 1646 | 1975 |

No turn before DER.
After departure climb straight ahead until 4,000 ft (or altitude assigned by ATC between 4,000 ft – 6,500 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTSF AD 2.23 ADDITIONAL INFORMATION

**1. BIRD CONCENTRATIONS**

- Bird concentrations in the vicinity of an aerodrome.

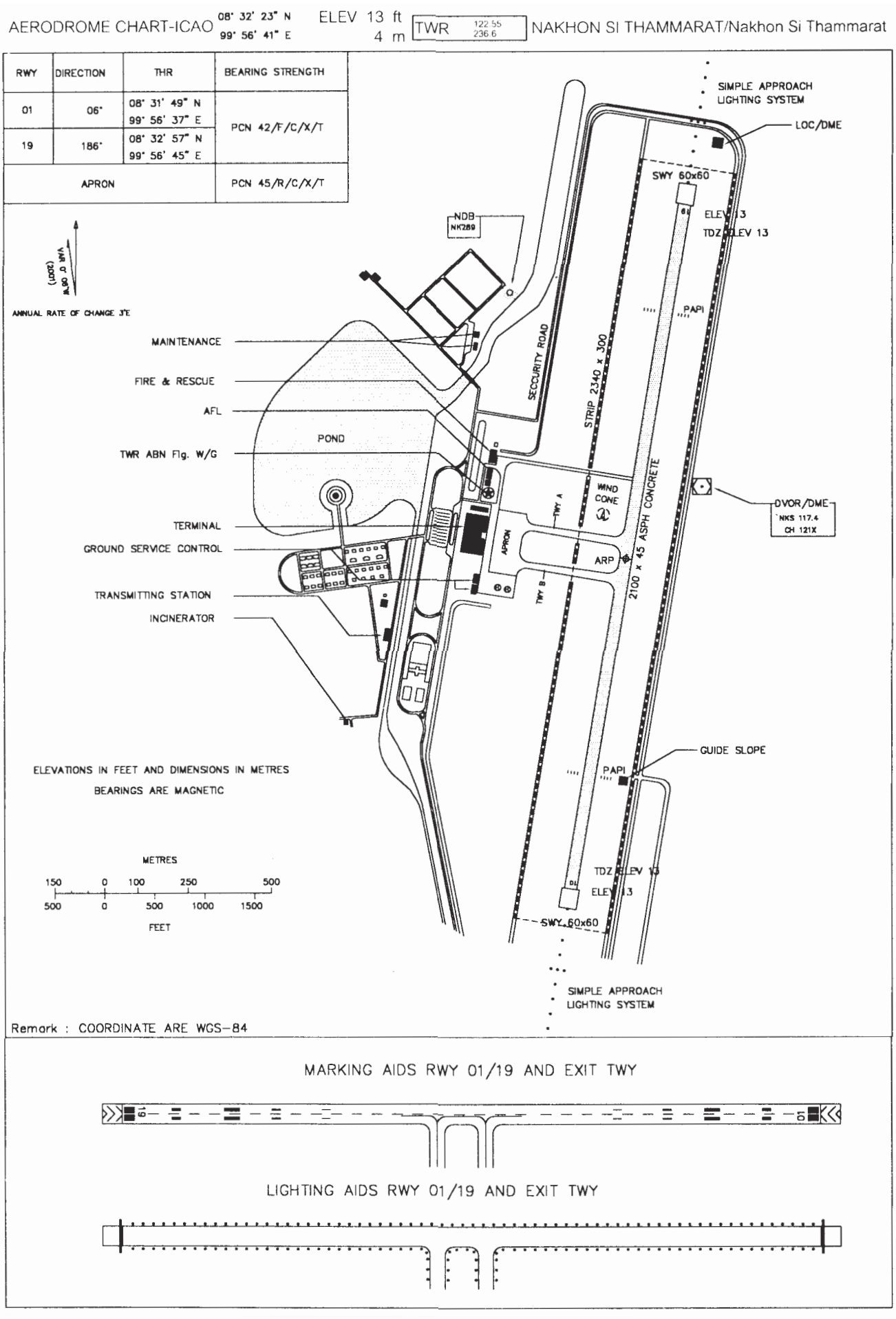
## VTSF AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSF-2-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - GIFBY1A TAWIT1A PEDOR1A PUYOL1A WADEZ1A | AD 2-VTSF-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - GIFBY1A TAWIT1A PEDOR1A PUYOL1A WADEZ1A (Tabular description) | AD 2-VTSF-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - GIFBY1B TAWIT1B PEDOR1B PUYOL1B WADEZ1B | AD 2-VTSF-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - GIFBY1B TAWIT1B PEDOR1B PUYOL1B WADEZ1B (Tabular description) | AD 2-VTSF-6-4 |
| Instrument Approach Chart - ICAO - VOR RWY 01 | AD 2-VTSF-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 01 (Fix and point list table) | AD 2-VTSF-8-2 |
| Instrument Approach Chart - ICAO - VOR y RWY 19 | AD 2-VTSF-8-3 |
| Instrument Approach Chart - ICAO - VOR y RWY 19 (Fix and point list table) | AD 2-VTSF-8-4 |
| Instrument Approach Chart - ICAO - VOR z RWY 19 | AD 2-VTSF-8-5 |
| Instrument Approach Chart - ICAO - VOR z RWY 19 (Fix and point list table) | AD 2-VTSF-8-6 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 19 | AD 2-VTSF-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 19 (Fix and point list table) | AD 2-VTSF-8-8 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 19 | AD 2-VTSF-8-9 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 19 (Fix and point list table) | AD 2-VTSF-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 01 | AD 2-VTSF-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 01 (Tabular description) | AD 2-VTSF-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 19 | AD 2-VTSF-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 19 (Tabular description) | AD 2-VTSF-8-14 |

**INTENTIONALLY BLANK**

AERODROME CHART-ICAO 08° 32' 23" N 99° 56' 41" E ELEV 13 ft 4 m TWR 122.55 236.6 NAKHON SI THAMMARAT/Nakhon Si Thammarat

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 01 | 06° | 08° 31' 49" N 99° 56' 37" E | PCN 42/F/C/X/T |
| 19 | 186° | 08° 32' 57" N 99° 56' 45" E | |
| APRON | | | PCN 45/R/C/X/T |




MARKING AIDS RWY 01/19 AND EXIT TWY



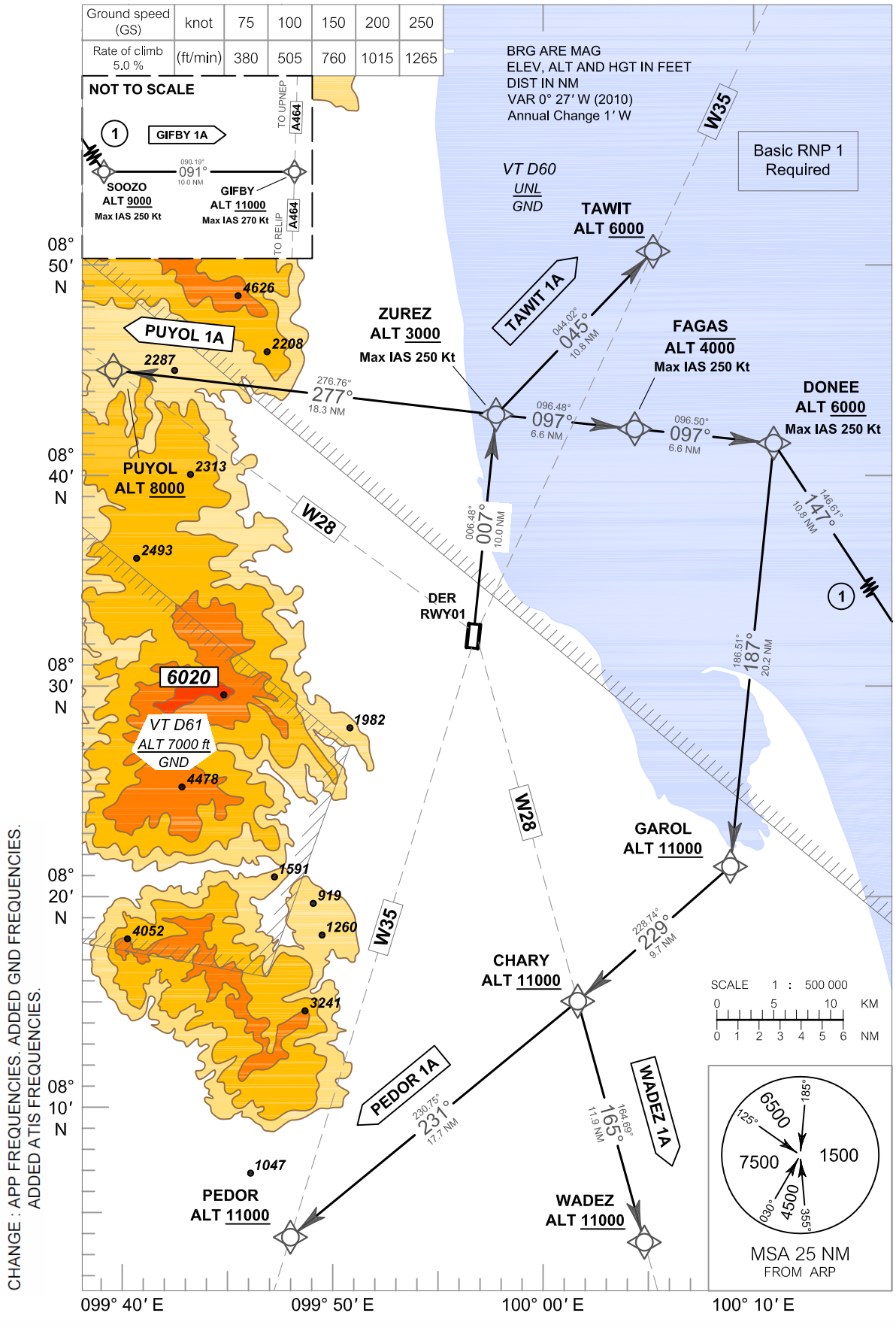
LIGHTING AIDS RWY 01/19 AND EXIT TWY

**INTENTIONALLY BLANK**

## STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

## NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)
**SID RNAV RWY 01**
**GIFBY 1A TAWIT 1A PEDOR 1A PUYOL 1A WADEZ 1A**



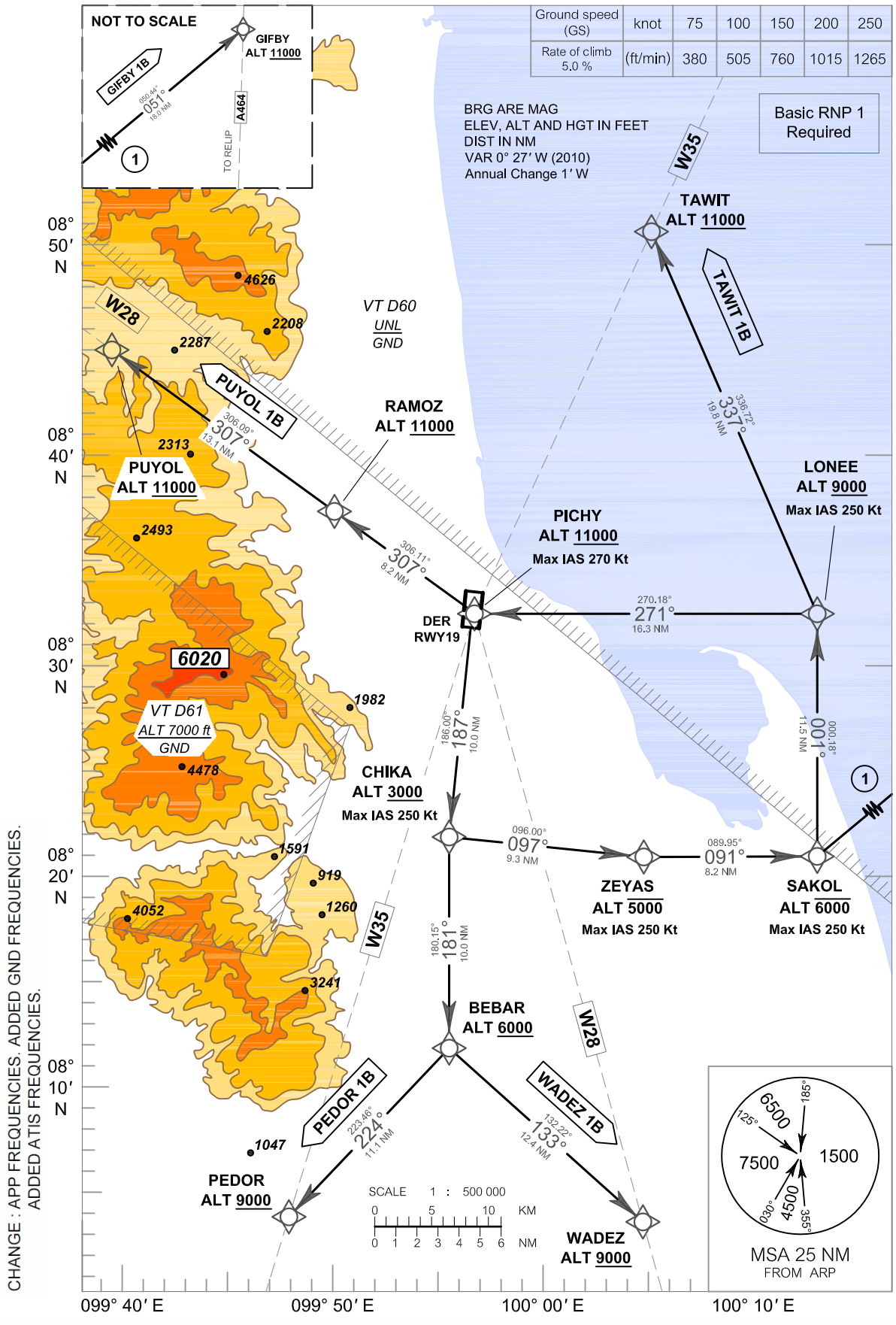
NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
SID RNAV RWY 01

| Fix identifier | WGS-84 Coordinates | | Path | Flyover | Course | Turn | Altitude | Speed | Magnetic | Navigation |
|---|---|---|---|---|---|---|---|---|---|---|
| (Waypoint name) | Latitude | Longtitude | descriptor | | ° M (° T) | direction | | limit | variation | performance |
| DER RWY01 | 083256.70 N | 0995644.63 E | CF | - | 007°(006.48°) | - | - | - | 0.5 | RNP1 |
| ZUREZ | 084256.38 N | 0995747.97 E | TF | - | 007°(006.48°) | L,R | +3000 | 250 | 0.5 | RNP1 |
| TAWIT | 085042.75 N | 1000521.15 E | TF | - | 045°(044.02°) | R | +6000 | - | 0.5 | RNP1 |
| PUYOL | 084505.88 N | 0993926.35 E | TF | - | 277°(276.76°) | R | +8000 | - | 0.5 | RNP1 |
| FAGAS | 084214.54 N | 1000427.26 E | TF | - | 097°(096.48°) | - | -4000 | 250 | 0.5 | RNP1 |
| DONEE | 084132.52 N | 1001107.17 E | TF | - | 097°(096.50°) | R | +6000 | 250 | 0.5 | RNP1 |
| SOOZO | 083226.42 N | 1001708.69 E | TF | - | 147°(146.61°) | L | +9000 | 250 | 0.5 | RNP1 |
| GIFBY | 083224.27 N | 1002714.36 E | TF | - | 091°(090.19°) | L | +11000 | 270 | 0.5 | RNP1 |
| GAROL | 082120.78 N | 1000858.58 E | TF | - | 187°(186.51°) | R | +11000 | - | 0.5 | RNP1 |
| CHARY | 081456.10 N | 1000138.50 E | TF | - | 229°(228.74°) | L,R | +11000 | - | 0.5 | RNP1 |
| PEDOR | 080342.01 N | 0994750.96 E | TF | - | 231°(230.75°) | L | +11000 | - | 0.5 | RNP1 |
| WADEZ | 080325.22 N | 1000448.33 E | TF | - | 165°(164.69°) | - | +11000 | - | 0.5 | RNP1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

**NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)**
**SID RNAV RWY 19**
**GIFBY 1B TAWIT 1B PEDOR 1B PUYOL 1B WADEZ 1B**



NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
SID RNAV RWY 19

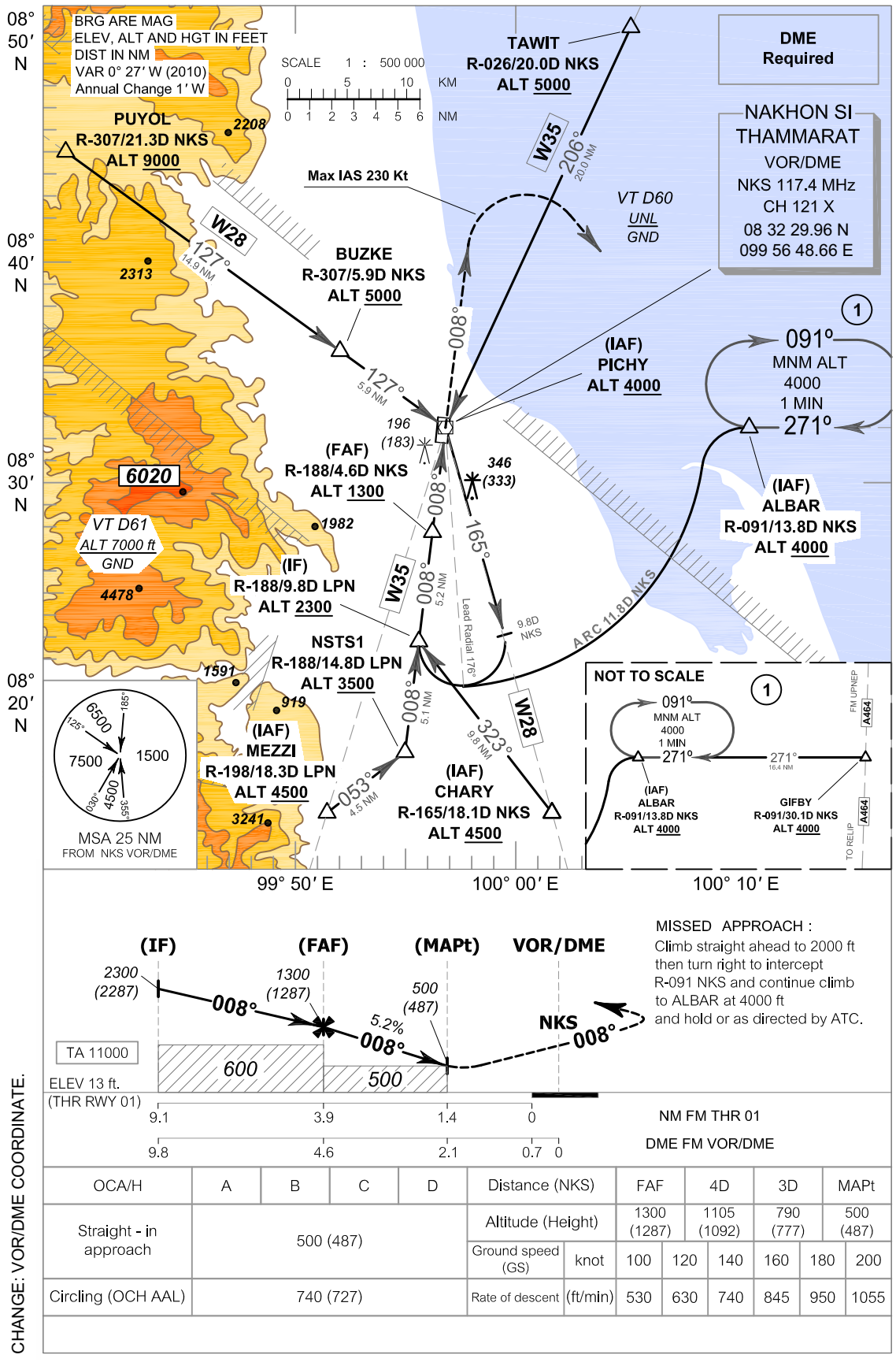
| Fix identifier | WGS-84 Coordinates | | Path | Flyover | Course | Turn | Altitude | Speed | Magnetic | Navigation |
|---|---|---|---|---|---|---|---|---|---|---|
| (Waypoint name) | Latitude | Longtitude | descriptor | | ° M (° T) | direction | | limit | variation | performance |
| DER RWY19 | 083148.48 N | 0995637.43 E | CF | - | 187°(186.00°) | - | - | - | 0.5 | RNP1 |
| CHIKA | 082150.77 N | 0995534.39 E | TF | - | 187°(186.00°) | L,R | +3000 | 250 | 0.5 | RNP1 |
| BEBAR | 081147.77 N | 0995532.78 E | TF | - | 181°(180.15°) | L | +6000 | - | 0.5 | RNP1 |
| PEDOR | 080342.01 N | 0994750.96 E | TF | - | 224°(223.46°) | L | +9000 | - | 0.5 | RNP1 |
| WADEZ | 080325.22 N | 1000448.33 E | TF | - | 133°(132.22°) | R | +9000 | - | 0.5 | RNP1 |
| ZEYAS | 082052.17 N | 1000453.96 E | TF | - | 097°(096.00°) | L | -5000 | 250 | 0.5 | RNP1 |
| SAKOL | 082052.48 N | 1001312.92 E | TF | - | 091°(089.95°) | L | -6000 | 250 | 0.5 | RNP1 |
| GIFBY | 083224.27 N | 1002714.36 E | TF | - | 051°(050.44°) | L | +11000 | - | 0.5 | RNP1 |
| LONEE | 083227.17 N | 1001315.10 E | TF | - | 001°(000.18°) | L | +9000 | 250 | 0.5 | RNP1 |
| PICHY | 083229.93 N | 0995648.66 E | TF | - | 271°(270.18°) | R | +11000 | 270 | 0.5 | RNP1 |
| RAMOZ | 083722.03 N | 0995006.16 E | TF | - | 307°(306.11°) | - | +11000 | - | 0.5 | RNP1 |
| PUYOL | 084505.88 N | 0993926.35 E | TF | - | 307°(306.09°) | - | +11000 | - | 0.5 | RNP1 |
| TAWIT | 085042.75 N | 1000521.15 E | TF | - | 337°(336.72°) | R | +11000 | - | 0.5 | RNP1 |

INSTRUMENT APPROACH CHART - ICAO

**AERODROME ELEV. 13 ft**
HEIGHTS RELATED TO AERODROME ELEV.

APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

## NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)
**VOR RWY 01**




CHANGE: VOR/DME COORDINATE.

| OCA/H | A | B | C | D | Distance (NKS) | | FAF | 4D | 3D | MAPt |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in approach | 500 (487) | | | | Altitude (Height) | | 1300 (1287) | 1105 (1092) | 790 (777) | 500 (487) |
| | | | | | Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Circling (OCH AAL) | 740 (727) | | | | Rate of descent | (ft/min) | 530 | 630 | 740 | 845 | 950 | 1055 |

**NAKHON SI THAMMARAT /**
**Nakhon Si Thammarat (VTSF)**
**VOR RWY 01**

CHANGE: VOR/DME COORDINATE.

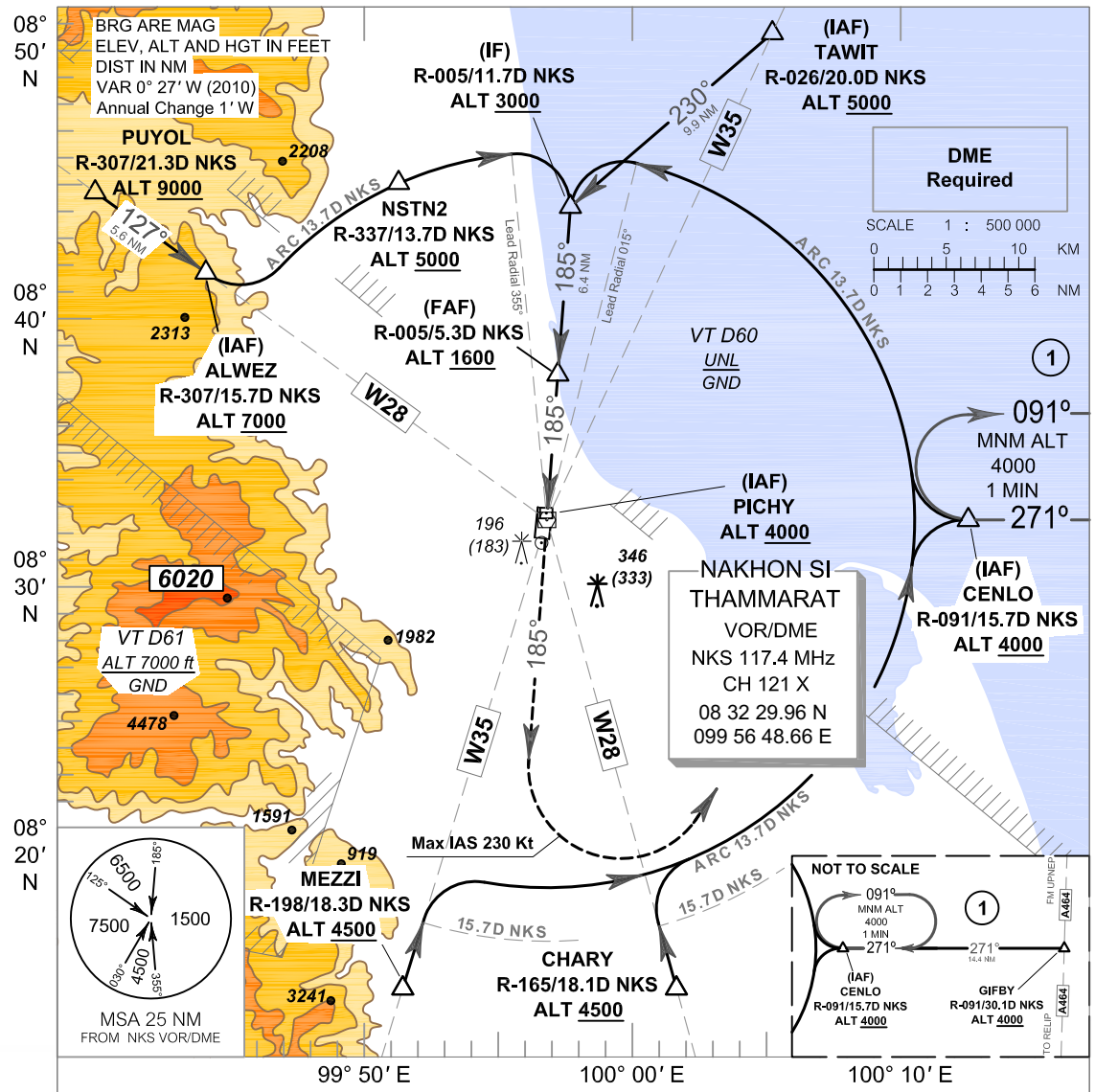
| | | | |
|---|---|---|---|
| TAWIT | 20.0D, R-026 NKS | 08 50 42.75 N*<br>08 50.71 N* | 100 05 21.15 E*<br>100 05.35 E* |
| PUYOL | 21.3D, R-307 NKS | 08 45 05.88 N*<br>08 45.10 N* | 099 39 26.35 E*<br>099 39.44 E* |
| BUZKE | 5.9D, R-307 NKS | 08 35 59.67 N*<br>08 35.99 N* | 099 51 59.33 E*<br>099 51.99 E* |
| GIFBY | 30.1D, R-091 NKS | 08 32 24.27 N*<br>08 32.40 N* | 100 27 14.36 E*<br>100 27.24 E* |
| (IAF)<br>PICHY | NKS | 08 32 29.96 N*<br>08 32.50 N* | 099 56 48.66 E*<br>099 56.81 E* |
| (IAF)<br>ALBAR | 13.8D, R-091 NKS | 08 32 27.64 N*<br>08 32.46 N* | 100 10 43.05 E*<br>100 10.72 E* |
| (IAF)<br>MEZZI | 18.3D, R-198 NKS | 08 14 57.53 N*<br>08 14.96 N* | 099 51 20.98 E*<br>099 51.35 E* |
| (IAF)<br>CHARY | 18.1D, R-165 NKS | 08 14 56.10 N*<br>08 14.94 N* | 100 01 38.50 E*<br>100 01.64 E* |
| NSTS1 | 14.8D, R-188 NKS | 08 17 42.87 N*<br>08 17.71 N* | 099 54 55.30 E*<br>099 54.92 E* |
| (IF) | 9.8D, R-188 NKS | 08 22 45.23 N*<br>08 22.75 N* | 099 55 33.91 E*<br>099 55.57 E* |
| (FAF) | 4.6D, R-188 NKS | 08 27 56.28 N*<br>08 27.94 N* | 099 56 13.67 E*<br>099 56.23 E* |
| (MAPt) | 2.1D, R-188 NKS | 08 30 24.11 N*<br>08 30.40 N* | 099 56 32.57 E*<br>099 56.54 E* |

INSTRUMENT APPROACH CHART - ICAO

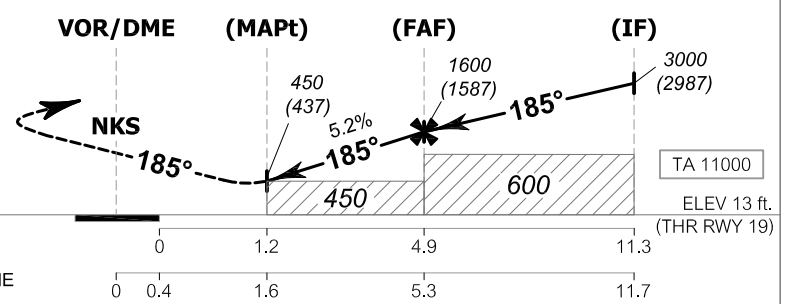
**AERODROME ELEV. 13 ft**
HEIGHTS RELATED TO AERODROME ELEV.

APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

**NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)**
**VOR y RWY 19**




MISSED APPROACH :
Climb straight ahead to 2000 ft
then turn left to intercept
R-091 NKS
and continue climb
to CENLO at 4000 ft
and hold or as directed by ATC.




| OCA/H | A | B | C | D | Distance (NKS) | | MAPt | 2D | 3D | 4D | 5D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in approach | 450 (437) | | | | Altitude (Height) | | 450 (437) | 570 (557) | 885 (872) | 1200 (1187) | 1515 (1502) | 1600 (1587) |
| | | | | | Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Circling (OCH AAL) | 740 (727) | | | | Rate of descent | (ft/min) | 530 | 630 | 740 | 845 | 950 | 1055 |

CHANGE: VOR/DME COORDINATE.

NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
VOR y RWY 19

CHANGE: VOR/DME COORDINATE.

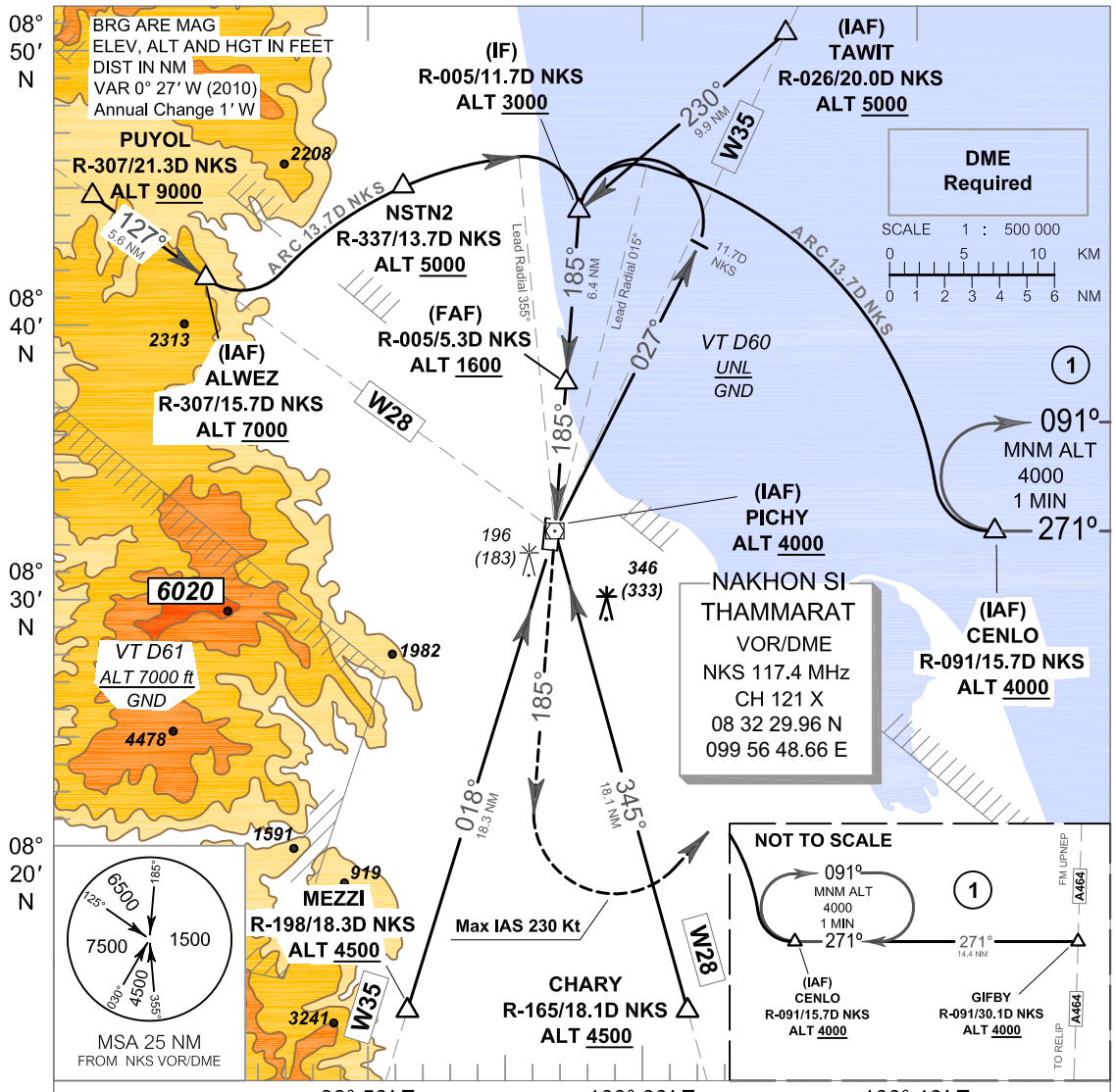
| | | | |
|---|---|---|---|
| PUYOL | 21.3D, R-307 NKS | 08 45 05.88 N*<br>08 45.10 N* | 099 39 26.35 E*<br>099 39.44 E* |
| MEZZI | 18.3D, R-198 NKS | 08 14 57.53 N*<br>08 14.96 N* | 099 51 20.98 E*<br>099 51.35 E* |
| CHARY | 18.1D, R-165 NKS | 08 14 56.10 N*<br>08 14.94 N* | 100 01 38.50 E*<br>100 01.64 E* |
| GIFBY | 30.1D, R-091 NKS | 08 32 24.27 N*<br>08 32.40 N* | 100 27 14.36 E*<br>100 27.24 E* |
| (IAF)<br>ALWEZ | 15.7D, R-307 NKS | 08 41 47.77 N*<br>08 41.80 N* | 099 43 59.73 E*<br>099 43.99 E* |
| (IAF)<br>TAWIT | 20.0D, R-026 NKS | 08 50 42.75 N*<br>08 50.71 N* | 100 05 21.15 E*<br>100 05.35 E* |
| (IAF)<br>CENLO | 15.7D, R-091 NKS | 08 32 27.27 N*<br>08 32.45 N* | 100 12 39.92 E*<br>100 12.67 E* |
| (IAF)<br>PICHY | NKS | 08 32 29.96 N*<br>08 32.50 N* | 099 56 48.66 E*<br>099 56.81 E* |
| NSTN2 | 13.7D R-337 NKS | 08 45 07.47 N*<br>08 45.12 N* | 099 51 16.85 E*<br>099 51.28 E* |
| (IF) | 11.7D R-005 NKS | 08 44 13.57 N*<br>08 44.23 N* | 099 57 43.68 E*<br>099 57.73 E* |
| (FAF) | 5.3D, R-005 NKS | 08 37 50.74 N*<br>08 37.85 N* | 099 57 13.73 E*<br>099 57.23 E* |
| (MAPt) | 1.6D, R-005 NKS | 08 34 08.41 N*<br>08 34.14 N* | 099 56 56.35 E*<br>099 56.94 E* |

INSTRUMENT APPROACH CHART - ICAO

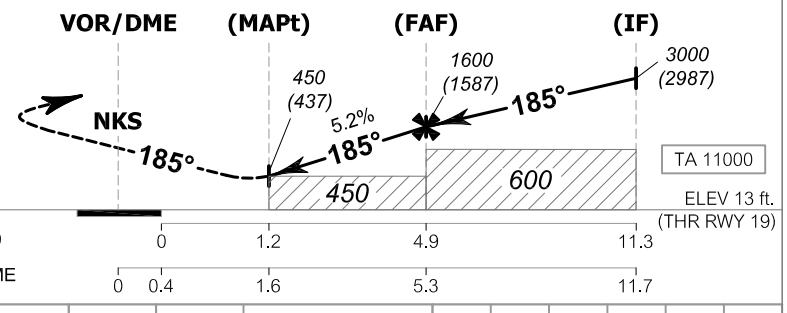
**AERODROME ELEV. 13 ft**
HEIGHTS RELATED TO AERODROME ELEV.

APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

**NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)**
**VOR z RWY 19**




MISSED APPROACH :
Climb straight ahead to 2000 ft
then turn left to intercept
R-091 NKS
and continue climb
to CENLO at 4000 ft
and hold or as directed by ATC.




| OCA/H | A | B | C | D | Distance (NKS) | | MAPt | 2D | 3D | 4D | 5D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in approach | 450 (437) | | | | Altitude (Height) | | 450 (437) | 570 (557) | 885 (872) | 1200 (1187) | 1515 (1502) | 1600 (1587) |
| | | | | | Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Circling (OCH AAL) | 740 (727) | | | | Rate of descent | (ft/min) | 530 | 630 | 740 | 845 | 950 | 1055 |

CHANGE: VOR/DME COORDINATES.

NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
VOR z RWY 19

CHANGE: VOR/DME COORDINATES.

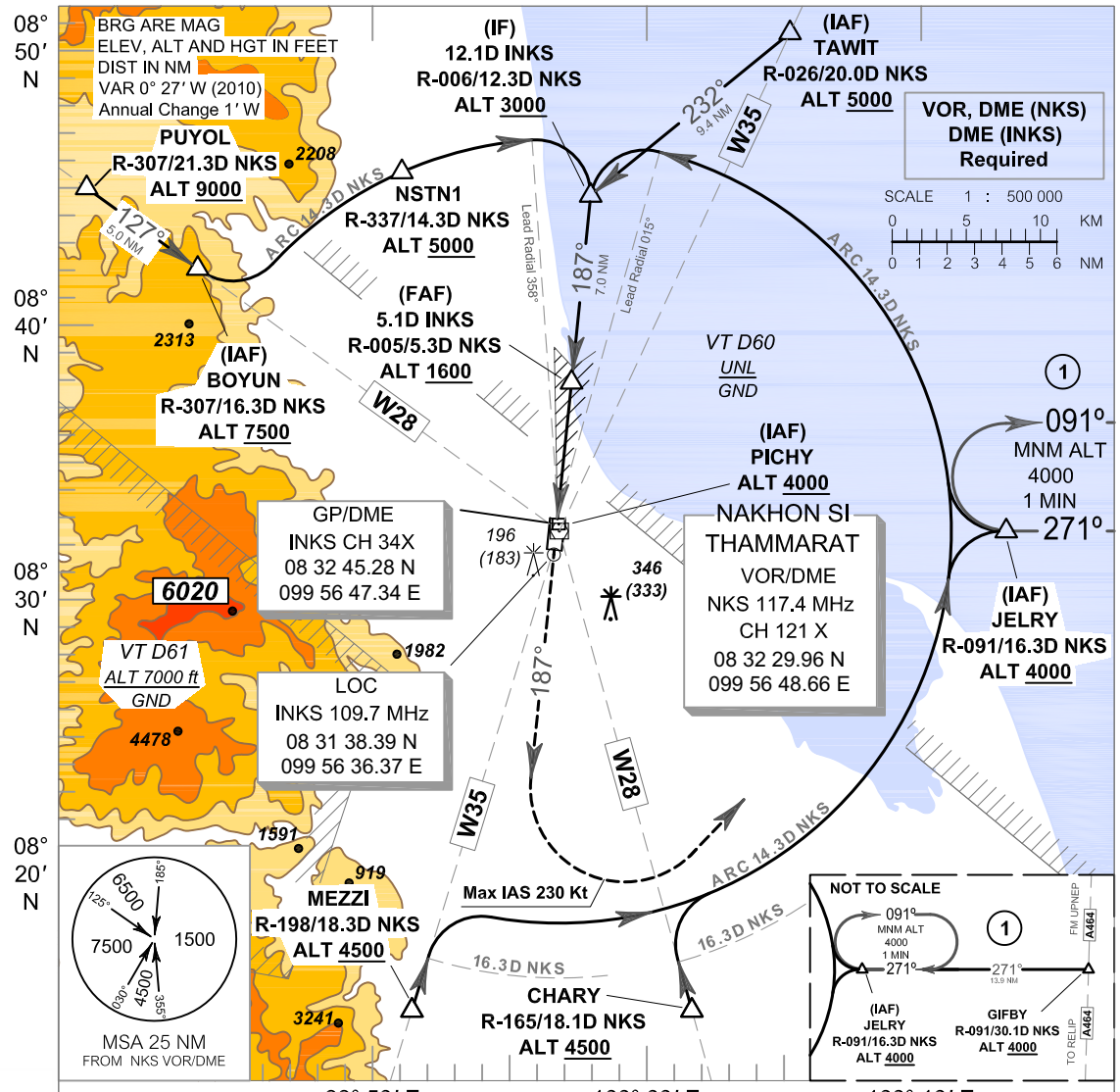
| | | | |
|---|---|---|---|
| PUYOL | 21.3D, R-307 NKS | 08 45 05.88 N*<br>08 45.10 N* | 099 39 26.35 E*<br>099 39.44 E* |
| MEZZI | 18.3D, R-198 NKS | 08 14 57.53 N*<br>08 14.96 N* | 099 51 20.98 E*<br>099 51.35 E* |
| CHARY | 18.1D, R-165 NKS | 08 14 56.10 N*<br>08 14.94 N* | 100 01 38.50 E*<br>100 01.64 E* |
| GIFBY | 30.1D, R-091 NKS | 08 32 24.27 N*<br>08 32.40 N* | 100 27 14.36 E*<br>100 27.24 E* |
| (IAF)<br>ALWEZ | 15.7D, R-307 NKS | 08 41 47.77 N*<br>08 41.80 N* | 099 43 59.73 E*<br>099 43.99 E* |
| (IAF)<br>TAWIT | 20.0D, R-026 NKS | 08 50 42.75 N*<br>08 50.71 N* | 100 05 21.15 E*<br>100 05.35 E* |
| (IAF)<br>CENLO | 15.7D, R-091 NKS | 08 32 27.27 N*<br>08 32.45 N* | 100 12 39.92 E*<br>100 12.67 E* |
| (IAF)<br>PICHY | NKS | 08 32 29.96 N*<br>08 32.50 N* | 099 56 48.66 E*<br>099 56.81 E* |
| NSTN2 | 13.7D, R-337 NKS | 08 45 07.47 N*<br>08 45.12 N* | 099 51 16.85 E*<br>099 51.28 E* |
| (IF) | 11.7D, R-005 NKS | 08 44 13.57 N*<br>08 44.23 N* | 099 57 43.68 E*<br>099 57.73 E* |
| (FAF) | 5.3D, R-005 NKS | 08 37 50.74 N*<br>08 37.85 N* | 099 57 13.73 E*<br>099 57.23 E* |
| (MAPt) | 1.6D, R-005 NKS | 08 34 08.41 N*<br>08 34.14 N* | 099 56 56.35 E*<br>099 56.94 E* |

INSTRUMENT APPROACH CHART - ICAO

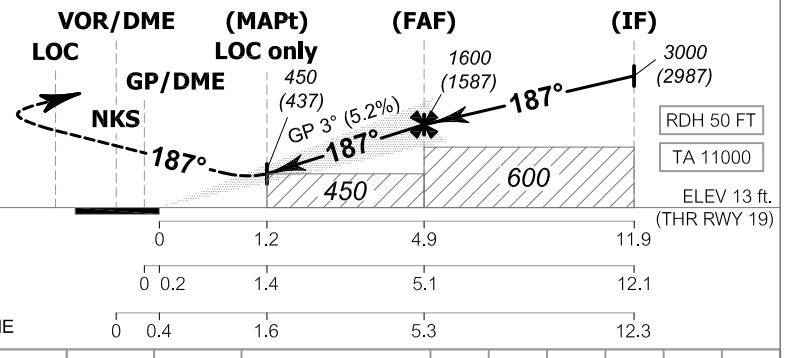
**AERODROME ELEV. 13 ft**
HEIGHTS RELATED TO
THR RWY 19 ELEV. 13 ft

APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

**NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)**
**ILS or LOC y RWY 19**




MISSED APPROACH :
Climb straight ahead to 2000 ft
then turn left to intercept
R-091 NKS
and continue climb
to JELRY at 4000 ft
and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in approach CAT I | 220 (207) | | | |
| LOC Only | 450 (437) | | | |
| Circling (OCH AAL) | 740 (727) | | | |

| Distance (INKS) | | MAPt | 2D | 3D | 4D | 5D | FAF |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | | 450 (437) | 630 (617) | 950 (937) | 1265 (1252) | 1580 (1567) | 1600 (1587) |
| Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Rate of descent | (ft/min) | 530 | 630 | 740 | 845 | 950 | 1055 |

CHANGE: LOC, GP/DME AND VOR/DME COORDINATES.

NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
ILS or LOC y RWY 19

CHANGE: VOR/DME COORDINATES.

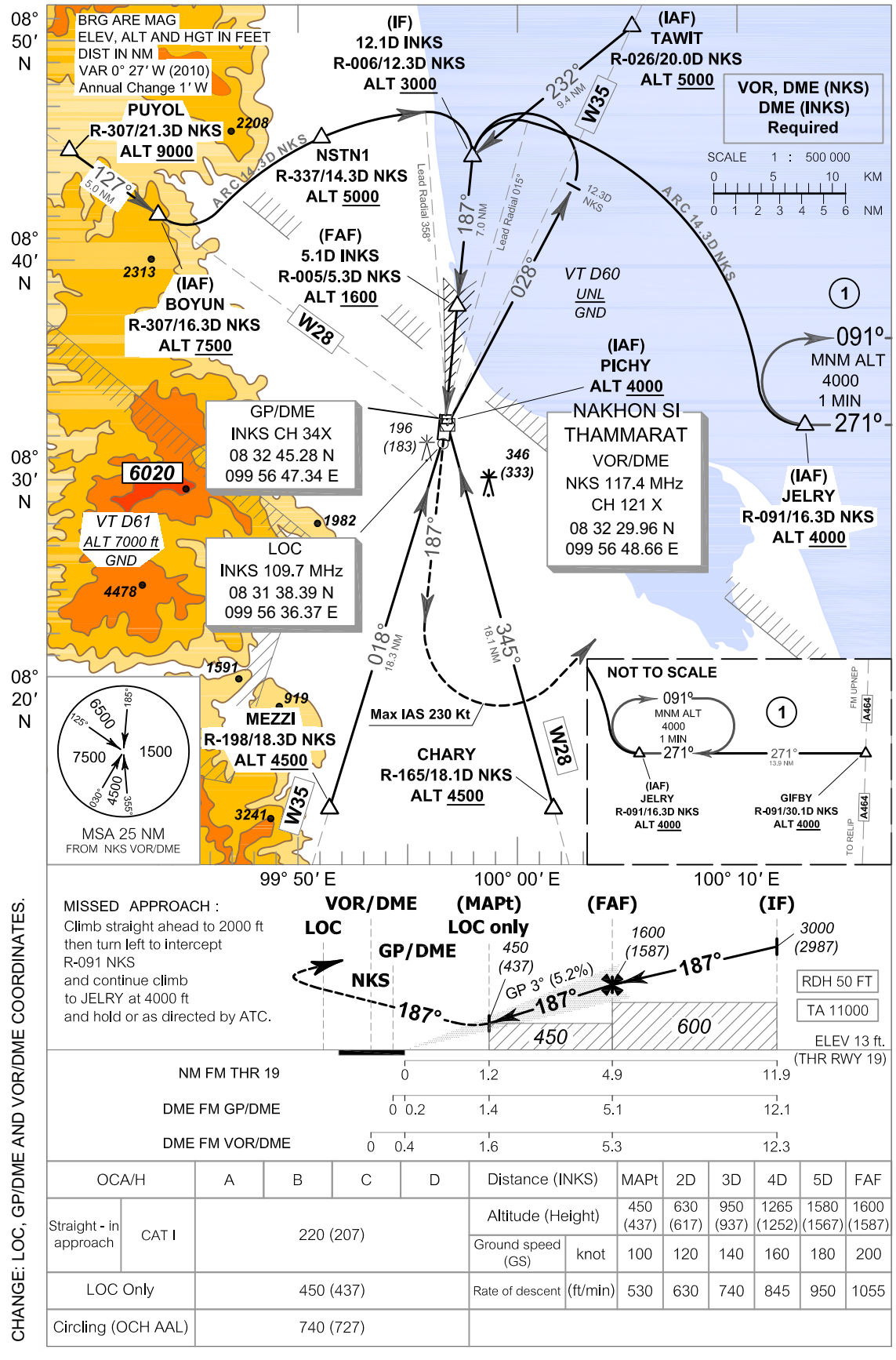
| | | | |
|---|---|---|---|
| TAWIT | 20.0D, R-026 NKS | 08 50 42.75 N*<br>08 50.71 N* | 100 05 21.15 E*<br>100 05.35 E* |
| PUYOL | 21.3D, R-307 NKS | 08 45 05.88 N*<br>08 45.10 N* | 099 39 26.35 E*<br>099 39.44 E* |
| GIFBY | 30.1D, R-091 NKS | 08 32 24.27 N*<br>08 32.40 N* | 100 27 14.36 E*<br>100 27.24 E* |
| NSTN1 | 14.3D, R-337 NKS | 08 45 39.55 N*<br>08 45.66 N* | 099 51 02.78 E*<br>099 51.05 E* |
| MEZZI | 18.3D, R-198 NKS | 08 14 57.53 N*<br>08 14.96 N* | 099 51 20.98 E*<br>099 51.35 E* |
| CHARY | 18.1D, R-165 NKS | 08 14 56.10 N*<br>08 14.94 N* | 100 01 38.50 E*<br>100 01.64 E* |
| (IAF)<br>BOYUN | 16.3D, R-307 NKS | 08 42 08.37 N*<br>08 42.14 N* | 099 43 31.30 E*<br>099 43.52 E* |
| (IAF)<br>PICHY | NKS | 08 32 29.96 N*<br>08 32.50 N* | 099 56 48.66 E*<br>099 56.81 E* |
| (IAF)<br>JELRY | 16.3D, R-091 NKS | 08 32 27.17 N*<br>08 32.45 N* | 100 13 15.10 E*<br>100 13.25 E* |
| (IF) | 12.1D INKS | 08 44 47.33 N*<br>08 44.79 N* | 099 57 59.70 E*<br>099 57.99 E* |
| (FAF) | 5.1D INKS | 08 37 50.54 N*<br>08 37.84 N* | 099 57 15.66 E*<br>099 57.26 E* |
| (MAPt) | 1.4D INKS | 08 34 08.66 N*<br>08 34.14 N* | 099 56 52.23 E*<br>099 56.87 E* |

INSTRUMENT APPROACH CHART - ICAO

**AERODROME ELEV. 13 ft**
HEIGHTS RELATED TO
THR RWY 19 ELEV. 13 ft

APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

**NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)**
**ILS or LOC z RWY 19**




CHANGE: LOC, GP/DME AND VOR/DME COORDINATES.

MISSED APPROACH :
Climb straight ahead to 2000 ft
then turn left to intercept
R-091 NKS
and continue climb
to JELRY at 4000 ft
and hold or as directed by ATC.




| OCA/H | A | B | C | D | Distance (INKS) | | MAPt | 2D | 3D | 4D | 5D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in approach CAT I | 220 (207) | | | | Altitude (Height) | | 450 (437) | 630 (617) | 950 (937) | 1265 (1252) | 1580 (1567) | 1600 (1587) |
| | | | | | Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| LOC Only | 450 (437) | | | | Rate of descent | (ft/min) | 530 | 630 | 740 | 845 | 950 | 1055 |
| Circling (OCH AAL) | 740 (727) | | | | | | | | | | | |

NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
ILS or LOC z RWY 19

CHANGE: VOR/DME COORDINATES.

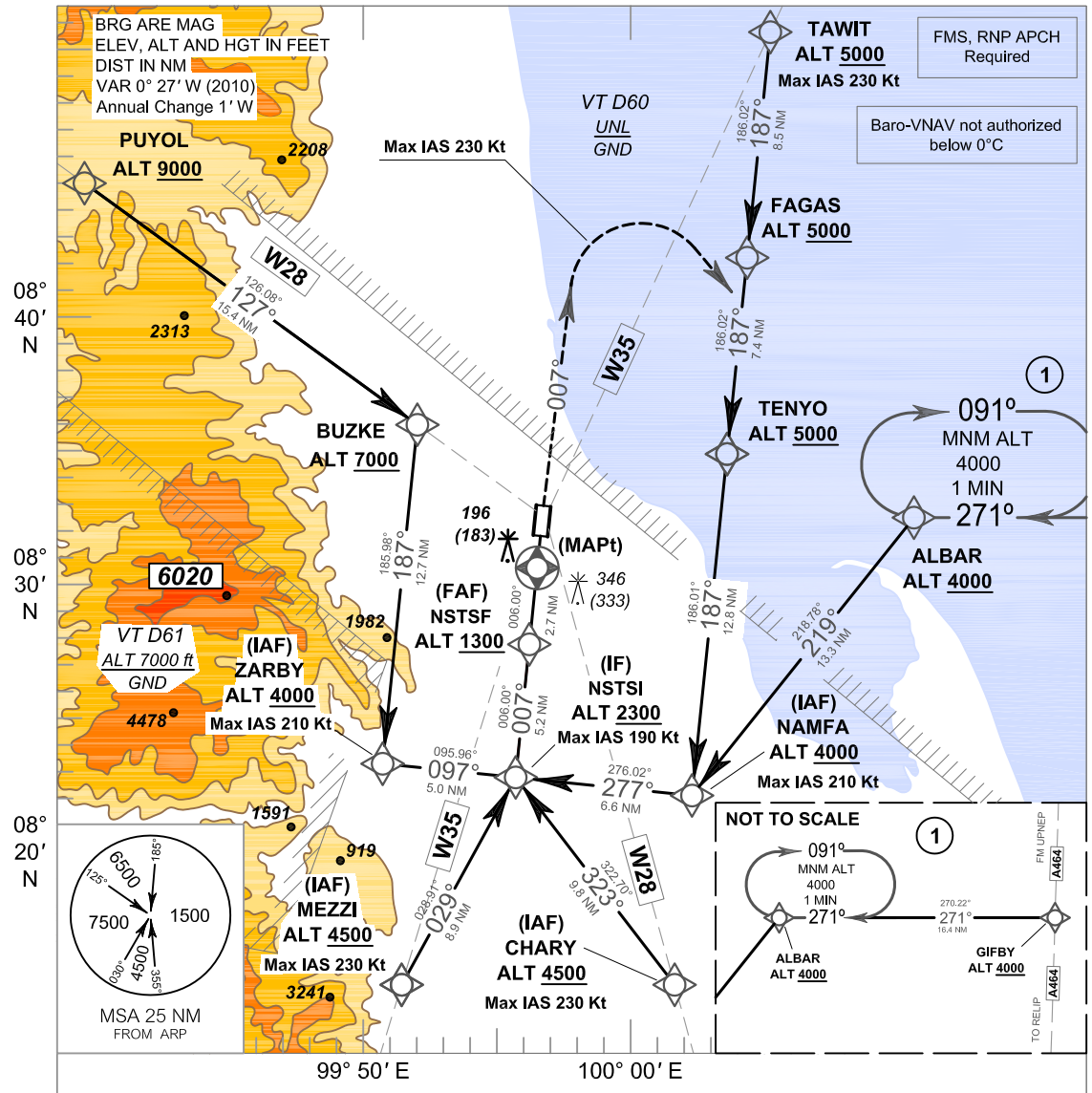
| | | | |
|---|---|---|---|
| TAWIT | 20.0D, R-026 NKS | 08 50 42.75 N*<br>08 50.71 N* | 100 05 21.15 E*<br>100 05.35 E* |
| PUYOL | 21.3D, R-307 NKS | 08 45 05.88 N*<br>08 45.10 N* | 099 39 26.35 E*<br>099 39.44 E* |
| GIFBY | 30.1D, R-091 NKS | 08 32 24.27 N*<br>08 32.40 N* | 100 27 14.36 E*<br>100 27.24 E* |
| NSTN1 | 14.3D, R-337 NKS | 08 45 39.55 N*<br>08 45.66 N* | 099 51 02.78 E*<br>099 51.05 E* |
| MEZZI | 18.3D, R-198 NKS | 08 14 57.53 N*<br>08 14.96 N* | 099 51 20.98 E*<br>099 51.35 E* |
| CHARY | 18.1D, R-165 NKS | 08 14 56.10 N*<br>08 14.94 N* | 100 01 38.50 E*<br>100 01.64 E* |
| (IAF)<br>BOYUN | 16.3D, R-307 NKS | 08 42 08.37 N*<br>08 42.14 N* | 099 43 31.30 E*<br>099 43.52 E* |
| (IAF)<br>PICHY | NKS | 08 32 29.96 N*<br>08 32.50 N* | 099 56 48.66 E*<br>099 56.81 E* |
| (IAF)<br>JELRY | 16.3D, R-091 NKS | 08 32 27.17 N*<br>08 32.45 N* | 100 13 15.10 E*<br>100 13.25 E* |
| (IF) | 12.1D INKS | 08 44 47.33 N*<br>08 44.79 N* | 099 57 59.70 E*<br>099 57.99 E* |
| (FAF) | 5.1D INKS | 08 37 50.54 N*<br>08 37.84 N* | 099 57 15.66 E*<br>099 57.26 E* |
| (MAPt) | 1.4D INKS | 08 34 08.66 N*<br>08 34.14 N* | 099 56 52.23 E*<br>099 56.87 E* |

INSTRUMENT APPROACH CHART - ICAO

**AERODROME ELEV. 13 ft**
HEIGHTS RELATED TO AERODROME ELEV.

APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

**NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)**
**RNP RWY01**




| OCA/H | A | B | C | D | NM to THR 01 | | FAF | 3NM | 2NM | MAPt |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 450 (437) | | | | Altitude (Height) | | 1300 (1287) | 1010 (997) | 695 (682) | 450 (437) |
| LNAV | 450 (437) | | | | Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Circling (OCH AAL) | 740 (727) | | | | Rate of descent | (ft/min) | 530 | 630 | 740 | 845 | 950 | 1055 |

CHANGE : CHART TITLE.

**NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
RNP RWY01**

| Fix identifier | WGS-84 Coordinates | | Path | Flyover | Course | Turn | Altitude | Speed | Magnetic | Navigation |
|---|---|---|---|---|---|---|---|---|---|---|
| (Waypoint name) | Latitude | Longtitude | descriptor | | ° M (° T) | direction | | limit | variation | performance |
| TAWIT | 085042.75 N | 1000521.15 E | TF | - | 187°(186.02°) | L | +5000 | - | 0.5 | RNP1 |
| FAGAS | 084214.54 N | 1000427.26 E | TF | - | 187°(186.02°) | - | +5000 | - | 0.5 | RNP1 |
| TENYO | 083452.22 N | 1000340.40 E | IF | - | 187°(186.01°) | - | +5000 | - | 0.5 | RNP1 |
| PUYOL | 084505.88 N | 0993926.35 E | IF | - | 127°(126.08°) | - | +9000 | - | 0.5 | RNP1 |
| BUZKE | 083559.67 N | 0995159.33 E | TF | - | 187°(185.98°) | R | +7000 | - | 0.5 | RNP1 |
| GIFBY | 083224.27 N | 1002714.36 E | IF | - | 271°(270.22°) | R | +4000 | - | 0.5 | RNP1 |
| ALBAR | 083227.64 N | 1001043.05 E | IF | - | 219°(218.78°) | L | +4000 | - | 0.5 | RNP1 |
| NAMFA (IAF) | 082202.72 N | 1000219.01 E | IF,TF | - | 277°(276.02°) | R | +4000 | 210 | 0.5 | RNP1 |
| MEZZI (IAF) | 081457.53 N | 0995120.98 E | IF,TF | - | 029°(028.91°) | R | +4500 | 230 | 0.5 | RNP1 |
| CHARY (IAF) | 081456.10 N | 1000138.50 E | IF,TF | - | 323°(322.70°) | L | +4500 | 230 | 0.5 | RNP1 |
| ZARBY (IAF) | 082315.93 N | 0995038.95 E | IF,TF | - | 097°(095.96°) | L | +4000 | 210 | 0.5 | RNP1 |
| NSTSI (IF) | 082244.59 N | 0995540.04 E | TF | - | 007°(006.00°) | L, R | +2300 | 190 | 0.5 | RNP1 |
| NSTSF (FAF) | 082757.39 N | 0995613.05 E | TF | - | 007°(006.00°) | - | 1300 | - | 0.5 | RNP0.3 |
| MAPt | 083036.52 N | 0995629.84 E | TF | Y | 007°(006.00°) | L | 450 | - | 0.5 | RNP0.3 |
| | | | CA | - | 007°(006.00°) | L | +2000 | 230 | 0.5 | RNP1 |
| ALBAR (MAHF) | 083227.64 N | 1001043.05 E | DF | - | - | - | +4000 | - | 0.5 | RNP1 |

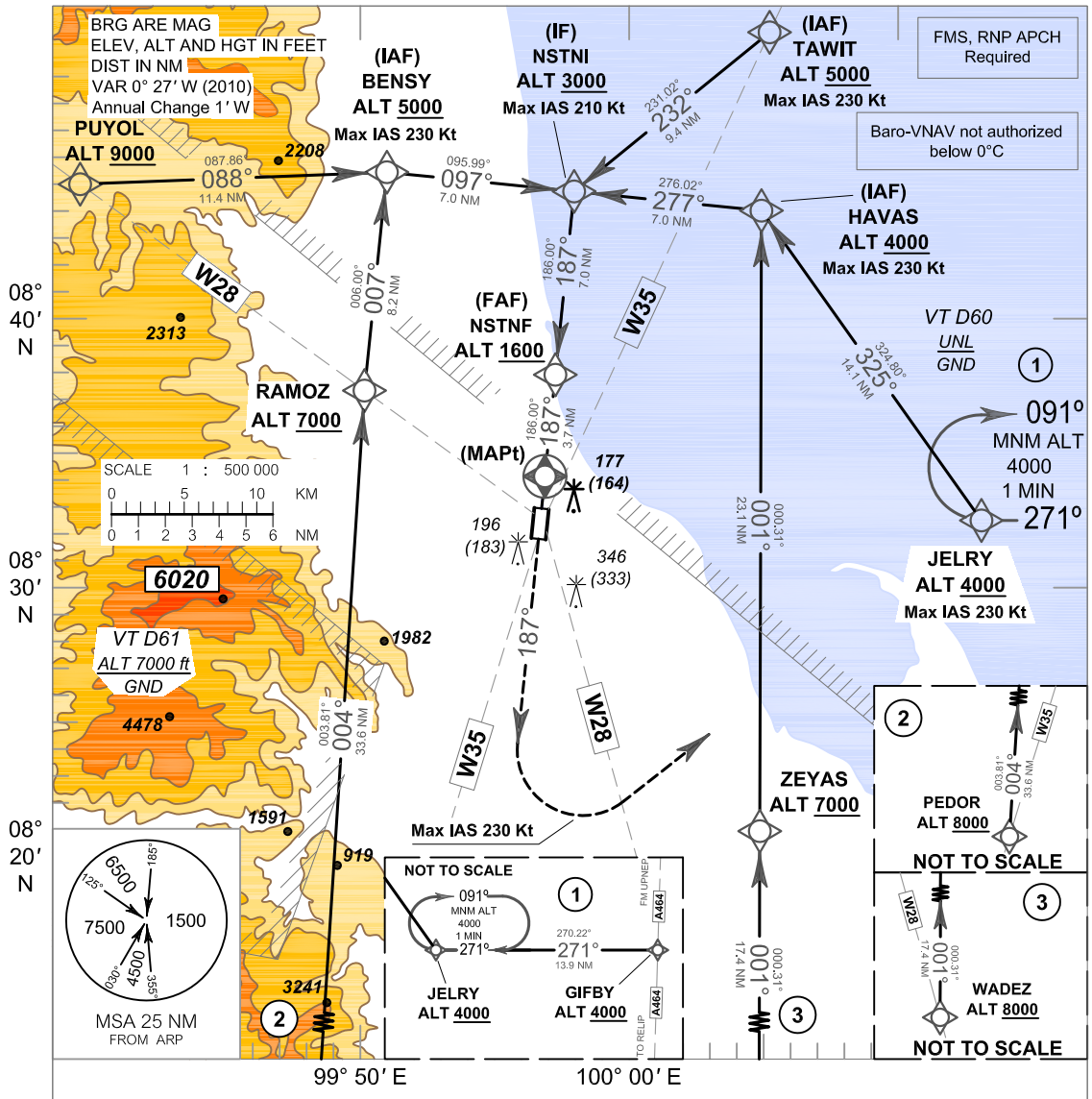
CHANGE : CHART TITLE.

INSTRUMENT APPROACH CHART - ICAO

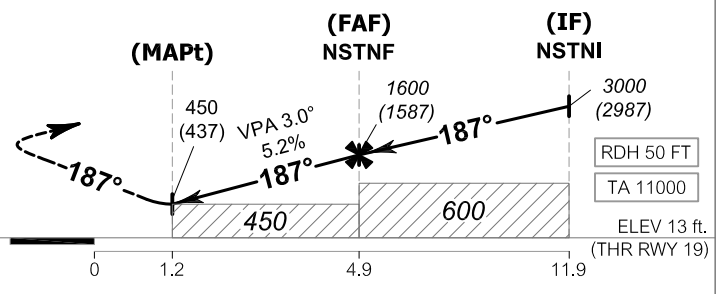
**AERODROME ELEV. 13 ft**
HEIGHTS RELATED TO AERODROME ELEV.

APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

**NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)**
**RNP RWY19**




MISSED APPROACH :
No turn before MAPt
Climb on track 187°,
at 2000 ft turn left direct to
JELRY at 4000
and hold or as directed by ATC.




| OCA/H | A | B | C | D | NM to THR19 | | MAPt | 2NM | 3NM | 4NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 350 (337) | | | | Altitude (Height) | | 450 (437) | 695 (682) | 1010 (997) | 1325 (1312) | 1600 (1587) |
| LNAV | 450 (437) | | | | Ground speed (GS) | knot | 100 | 120 | 140 | 160 | 180 | 200 |
| Circling (OCH AAL) | 740 (727) | | | | Rate of descent | (ft/min) | 530 | 630 | 740 | 845 | 950 | 1055 |

CHANGE : CHART TITLE.

**NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
RNP RWY19**

| Fix identifier | WGS-84 Coordinates | | Path | Flyover | Course | Turn | Altitude | Speed | Magnetic | Navigation |
|---|---|---|---|---|---|---|---|---|---|---|
| (Waypoint name) | Latitude | Longtitude | descriptor | | ° M (° T) | direction | | limit | variation | performance |
| PUYOL | 084505.88 N | 0993926.35 E | IF | - | 088°(087.86°) | L | +9000 | - | 0.5 | RNP1 |
| PEDOR | 080342.01 N | 0994750.96 E | IF | - | 004°(003.81°) | L | +8000 | - | 0.5 | RNP1 |
| WADEZ | 080325.22 N | 1000448.33 E | IF | - | 001°(000.31°) | R | +8000 | - | 0.5 | RNP1 |
| RAMOZ | 083722.03 N | 0995006.16 E | TF | - | 007°(006.00°) | R | +7000 | - | 0.5 | RNP1 |
| ZEYAS | 082052.17 N | 1000453.96 E | TF | - | 001°(000.31°) | - | +7000 | - | 0.5 | RNP1 |
| GIFBY | 083224.27 N | 1002714.36 E | TF | - | 271°(270.22°) | R | +4000 | - | 0.5 | RNP1 |
| JELRY | 083227.17 N | 1001315.10 E | TF | - | 325°(324.80°) | R | +4000 | - | 0.5 | RNP1 |
| BENSY (IAF) | 084531.41 N | 0995057.74 E | IF,TF | - | 097°(095.99°) | R | +5000 | 230 | 0.5 | RNP1 |
| TAWIT (IAF) | 085042.75 N | 1000521.15 E | IF,TF | - | 232°(231.02°) | R | +5000 | 230 | 0.5 | RNP1 |
| HAVAS (IAF) | 084403.11 N | 1000501.60 E | IF,TF | - | 277°(276.02°) | L | +4000 | 230 | 0.5 | RNP1 |
| NSTNI (IF) | 084447.33 N | 0995759.70 E | TF | - | 187°(186.00°) | L, R | +3000 | 210 | 0.5 | RNP1 |
| NSTNF (FAF) | 083750.54 N | 0995715.66 E | TF | - | 187°(186.00°) | - | 1600 | - | 0.5 | RNP0.3 |
| MAPt | 083408.66 N | 0995652.23 E | - | Y | 187°(186.00°) | - | 450 | - | 0.5 | RNP0.3 |
| | | | CA | - | 187°(186.00°) | L | +2000 | 230 | 0.5 | RNP1 |
| JELRY (MAHF) | 083227.17 N | 1001315.10 E | DF | - | - | - | +4000 | 230 | 0.5 | RNP1 |

CHANGE : CHART TITLE.

## VTSN AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSN - NAKHON SI THAMMARAT / CHA - IAN AIRPORT

## VTSN AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 082750N 0995730E |
| 2 | Direction and distance from (city) | 5 KM N from city |
| 3 | Elevation/Reference temperature | 15M (44 FT) /37.46°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.24°W/3°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Nakhon Thammarat Airport<br>Nakhon Si Thammarat Airport<br>Amphoe Muang<br>Nakhon Si Thammarat Province 80000<br>Thailand<br>Tel: +667 534 3052<br>Fax: +667 534 3052<br>AFS: VTSNYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | VFR |
| 8 | Remarks | Operator: Thai Army Airfiled |

## VTSN AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0000-1000 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | 0000-1000 |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | HJ |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTSN AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTSN AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | NIL |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTSN AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 4 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTSN AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons |

## VTSN AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 61/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Concrete and asphalt<br>Strength: PCN 41/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSN AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY: Marked |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSN AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| - | Radio mast HGT 100 M painted red/white LGTD on top | 082535N 0995732E | NIL | NIL | NIL |

## VTSN AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | NIL |
| 2 | Hours of service<br>MET Office outside hours | NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | NIL |
| 4 | Type of landing forecast<br>Interval of issuance | NIL |
| 5 | Briefing/consultation provided | No |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | NIL |
| 8 | Supplementary equipment available for providing information | NIL |
| 9 | ATS units provided with information | NIL |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSN AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | NIL | 2300x45 | PCN 20/F/B/Y/T Concrete and asphalt | NIL | NIL |
| 36 | NIL | 2300x45 | PCN 20/F/B/Y/T Concrete and asphalt | NIL | NIL |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | 100x30 | NIL | NIL | NIL | NIL |
| NIL | 150x30 | NIL | NIL | NIL | NIL |

## VTSN AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | NIL | NIL | NIL | NIL | NIL |
| 36 | NIL | NIL | NIL | NIL | NIL |

## VTSN AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| 36 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |

## VTSN AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | NIL |
| 4 | Secondary power supply/switch-over time | NIL |
| 5 | Remarks | NIL |

## VTSN AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTSN AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on Nakhon Si Thammarat NDB (0827.7N 9957.7E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Nakhon Si Thammarat Tower<br>English, Thai |
| 5 | Transition altitude | NIL |
| 6 | Remarks | NIL |

## VTSN AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Nakhon Si Thammarat Tower | 122.7 MHZ<br>236.6 MHZ<br>*121.5 MHZ | HJ | *Emergency Freq |
| G/A/G | Nakhon Si Thammarat Radio | 121.9 MHZ<br>6577 KHZ<br>5490 KHZ | HJ | Primary Freq. (Upper side band)<br>Secondary Freq. (Upper side band) |

## VTSN AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NIL | NIL | NIL | NIL | NIL | NIL | NIL |

## VTSN AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTSN AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSN AD 2.22 FLIGHT PROCEDURES

NIL

## VTSN AD 2.23 ADDITIONAL INFORMATION

NIL

## VTSN AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

**INTENTIONALLY BLANK**

## VTCN AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTCN - NAN / NAN NAKHON AIRPORT

## VTCN AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 184828.49N 1004700.31E |
| 2 | Direction and distance from (city) | 3 KM N, from city |
| 3 | Elevation/Reference temperature | 685 FT/29°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.85°W (2016)/0.00°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Nan Nakhon Airport<br>Nan Nakhon Airport<br>Nan-Thung Chang Road, Moo 2 Tambon pasing<br>Amphoe Muang<br>Nan 55000<br>Thailand<br>Tel: +665 471 0270<br>+665 477 1650<br>Fax: +665 477 1308<br>AFS: VTCNYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTCN AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1300 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1300 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1300 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phitsanulok Airport (1st floor of airport building)<br>Tel: +665 530 1078<br>+669 2262 3140<br>Fax: +665 530 1077 |

## VTCN AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTCN AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Car rent, Taxi and motorbike taxi services |
| 4 | Medical facilities | First aid at AD and hospital in the city |
| 5 | Bank and Post Office | Automatic teller machine(ATM) available but bank and post office in the city |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTCN AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTCN AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTCN AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 45/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 20 M<br>Surface: Concrete and asphalt<br>Strength: PCN 37/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTCN AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY AND TWY: Marked and lighted. |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTCN AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| NIL | NIL | NIL | Radio mast erected at field right side of RWY 20,215 M from centre line height 24 M and the another, height 153 M Both painted red and white alternatively lighted by red light on top | 184430N 1004435E | NIL |

## VTCN AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Nan,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1300<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 471 8670 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) and Weather Radar |
| 9 | ATS units provided with information | Nan TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTCN AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02 | 020.12° | 2075x45 | PCN 42/F/C/X/T Concrete and asphalt | 184800.52N 1004649.21E | THR 679 FT TDZ 681 FT |
| 20 | 200.12° | 2075x45 | PCN 42/F/C/X/T Concrete and asphalt | 184858.74N 1004712.31E | THR 682 FT TDZ 685 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| NIL | NIL | 225x90 | 2195x150 | 90x90 | NIL | NIL | NIL |
| NIL | NIL | 225x90 | 2195x150 | 90x90 | NIL | NIL | NIL |

## VTCN AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02 | 2000 | 2225 | 2000 | 1925 | NIL |
| 20 | 2000 | 2225 | 2000 | 1925 | NIL |

## VTCN AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 02 | NIL | Green Green | PAPI Left 3.4° (60.29 FT) | NIL | NIL | 2075 M 60 M FM 0 M - 60 M Red, FM 60 M -1475 M White, FM 1475 M - 2075 M Yellow, LIH | Red NIL | NIL | RTIL |
| 20 | NIL | Green NIL | PAPI Left 3° (53.71 FT) | NIL | NIL | 2075 M 60 M FM 0 M - 60 M Red, FM 60 M -1475 M White, FM 1475 M - 2075 M Yellow, LIH | Red NIL | NIL | RTIL |

## VTCN AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building, FLG W G EV 7 SEC<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | Edge: TWY A, B |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all tower, PAPI<br>Switch-over time: 15 SEC |
| 5 | Remarks | Flares 2 HR PN |

## VTCN AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTCN AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on NAN DVOR/DME (184832.76N 1004657.31E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Nan Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTCN AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Nan Approach | 120.25 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Nan Tower | 118.55 MHz<br>121.5 MHz [1)]<br>236.6 MHz | As AD OPR HR | |
| ATIS | Nan Airport | 355 KHz | As AD OPR HR | |

## VTCN AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | NN | 355 KHz | H24 | 184826.00N 1004711.91E | | NDB restriction, orbit coverage in mountain terrain and border limited was check and found as follow:<br>-40 NM from bearing 331-045 DEG (CW) altitude should not below 8000 FT. (due to border limited).<br>-20 NM from bearing 046-160 DEG (CW) altitude should not below 6500 FT. (due to border limited).<br>-50 NM from bearing 161-330 DEG (CW) altitude should not below 7500 FT. |
| DVOR/DME | NAN | 115.7MHz CH104X | H24 | 184832.8N 1004657.4E | | DVOR/DME restriction, due to Mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM.<br>At the required altitude in various areas as follow:<br>-RDL 021-110 DEG at 20 NM should not below 8000 FT.<br>-RDL 111-160 DEG at 20 NM should not below 6000 FT.<br>-RDL 161-230 DEG at 40 NM should not below 7000 FT.<br>-RDL 231-250 DEG at 40 NM should not below 9000 FT.<br>-RDL 251-290 DEG at 40 NM should not below 11000 FT.<br>-RDL 291-350 DEG at 40 NM should not below 9000 FT.<br>-RDL 351-020 DEG at 40 NM should not below 8000 FT. |

## VTCN AD 2.20 LOCAL AERODROME REGULATIONS

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, aircraft code letter C or higher shall make 180 degrees turn at the runway turn pads located on left side of runway 20 (near the threshold of runway 20). Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand/the Headquarters of that operator and shall be liable for the compensation caused by such violation

## VTCN AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTCN AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,

- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**3. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 02:

NAN OMNI 02 Departure: Required climb gradient 365 ft per NM (6.0%) until 8,600 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 912 | 1216 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 3,000 ft (or altitude assigned by ATC between 3,000 ft - 7,500 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 20:

NAN OMNI 20 Departure: Required climb gradient 365 ft per NM (6.0%) until 8,600 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 912 | 1216 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 3,000 ft (or altitude assigned by ATC between 3,000 ft - 7,500 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTCN AD 2.23 ADDITIONAL INFORMATION

NIL

## VTCN AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTCN-2-1 |
| Instrument Approach Chart - ICAO - NDB RWY 02 CAT C, D | AD 2-VTCN-8-1 |
| Instrument Approach Chart - ICAO - NDB RWY 02 CAT C, D (Fix and point list table) | AD 2-VTCN-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 02 | AD 2-VTCN-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 02 (Fix and point list table) | AD 2-VTCN-8-4 |
| Instrument Approach Chart - ICAO - VOR RWY 20 | AD 2-VTCN-8-5 |
| Instrument Approach Chart - ICAO - VOR RWY 20 (Fix and point list table) | AD 2-VTCN-8-6 |
| Instrument Approach Chart - ICAO - RNP RWY 02 | AD 2-VTCN-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 02 (Tabular description) | AD 2-VTCN-8-8 |
| Instrument Approach Chart - ICAO - RNP RWY 20 | AD 2-VTCN-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 20 (Tabular description) | AD 2-VTCN-8-10 |

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# AERODROME CHART - ICAO

18 48 28 N
100 47 00 E

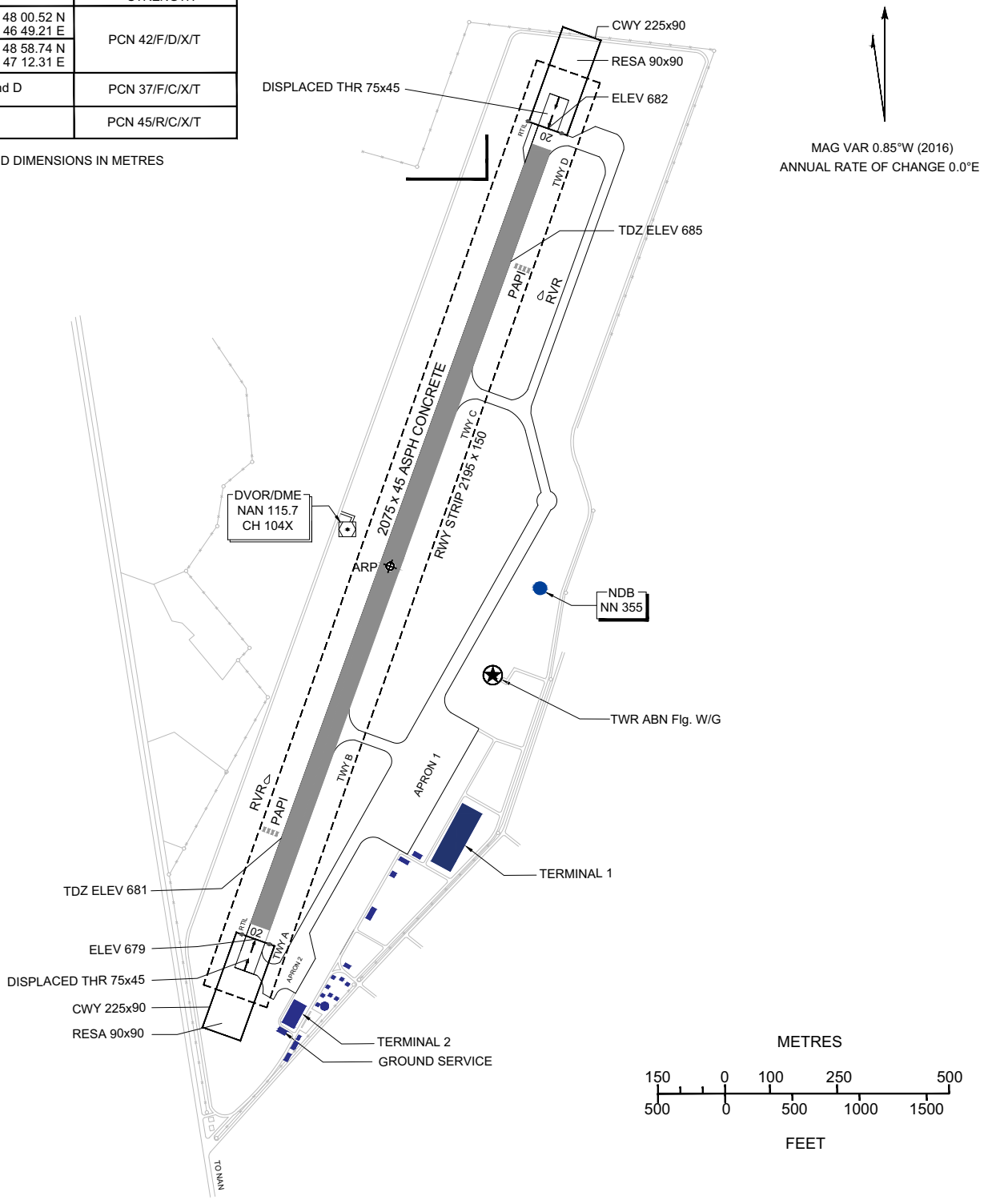
ELEV 685 FT

TWR 118.55 236.60

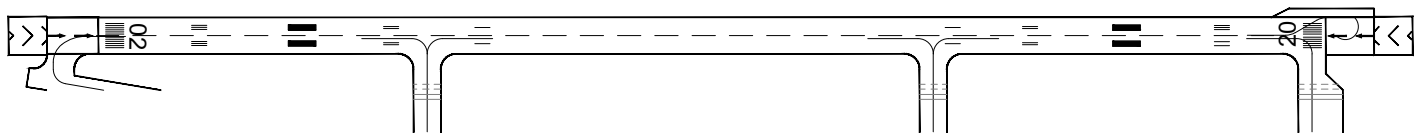
NAN / Nan Nakhon

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 02 | 20.12 | 18 48 00.52 N 100 46 49.21 E | PCN 42/F/D/X/T |
| 20 | 200.12 | 18 48 58.74 N 100 47 12.31 E | |
| TAXIWAY A,B,C and D | | | PCN 37/F/C/X/T |
| APRON | | | PCN 45/R/C/X/T |

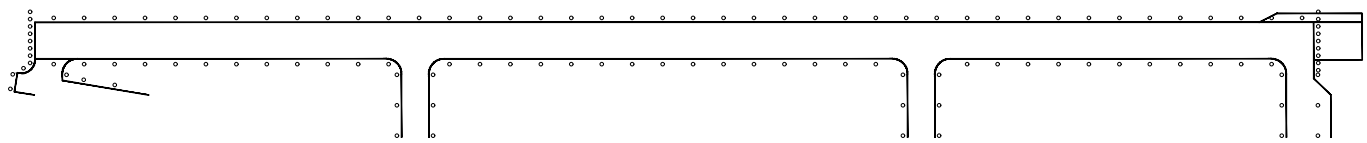
ELEVATIONS IN FEET AND DIMENSIONS IN METRES




MARKING AIDS RWY 02/20 AND EXIT TWY




LIGHTING AIDS RWY 02/20 AND EXIT TWY



CHANGE : REVISED CHART. THR 02 COORD. RWY DIMS. RWY STRIP DIMS. DISPLACED THR DIMS. CWY DIMS. RESA DIMS. RTIL RWY 02/20 ADDED. CANCELLED RIGHT PAPI 02.

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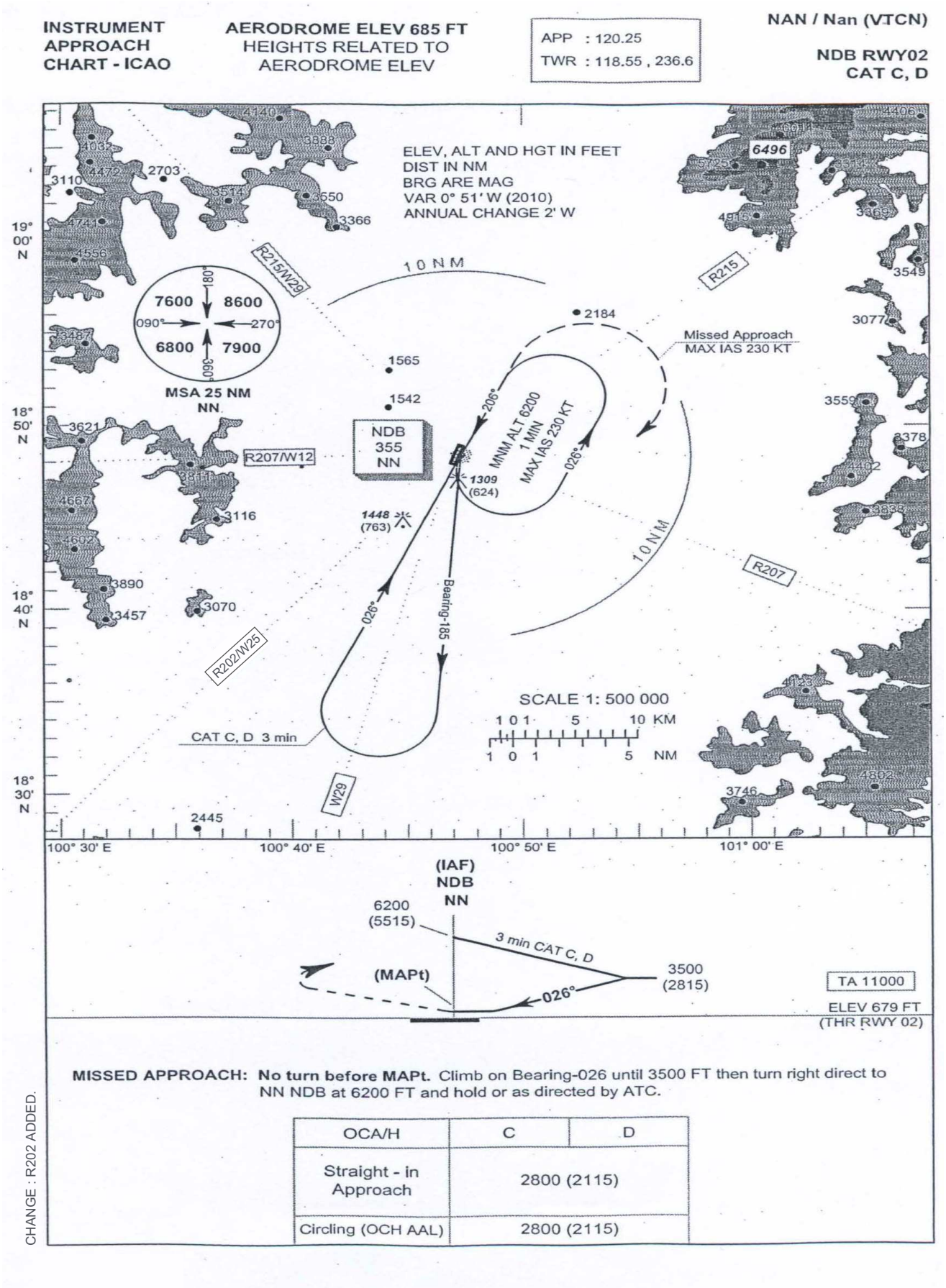



**MISSED APPROACH:** **No turn before MAPt.** Climb on Bearing-026 until 3500 FT then turn right direct to NN NDB at 6200 FT and hold or as directed by ATC.

| OCA/H | C | D |
|---|---|---|
| Straight - in Approach | 2800 (2115) | |
| Circling (OCH AAL) | 2800 (2115) | |

CHANGE : R202 ADDED.

NAN / Nan (VTCN)

NDB RWY02
CAT C, D

| Fixes / Points | | Coordinates | |
|---|---|---|---|
| MAPt | NN | 18 48 26.00 N<br>18 48.43 N | 100 47 11.91 E<br>100 47.20 E |
| THR RWY 02 | - | 18 47 58.24 N<br>18 47.97 N | 100 46 48.31 E<br>100 46.81 E |
| NDB | NN | 18 48 26.00 N<br>18 48.43 N | 100 47 11.91 E<br>100 47.20 E |

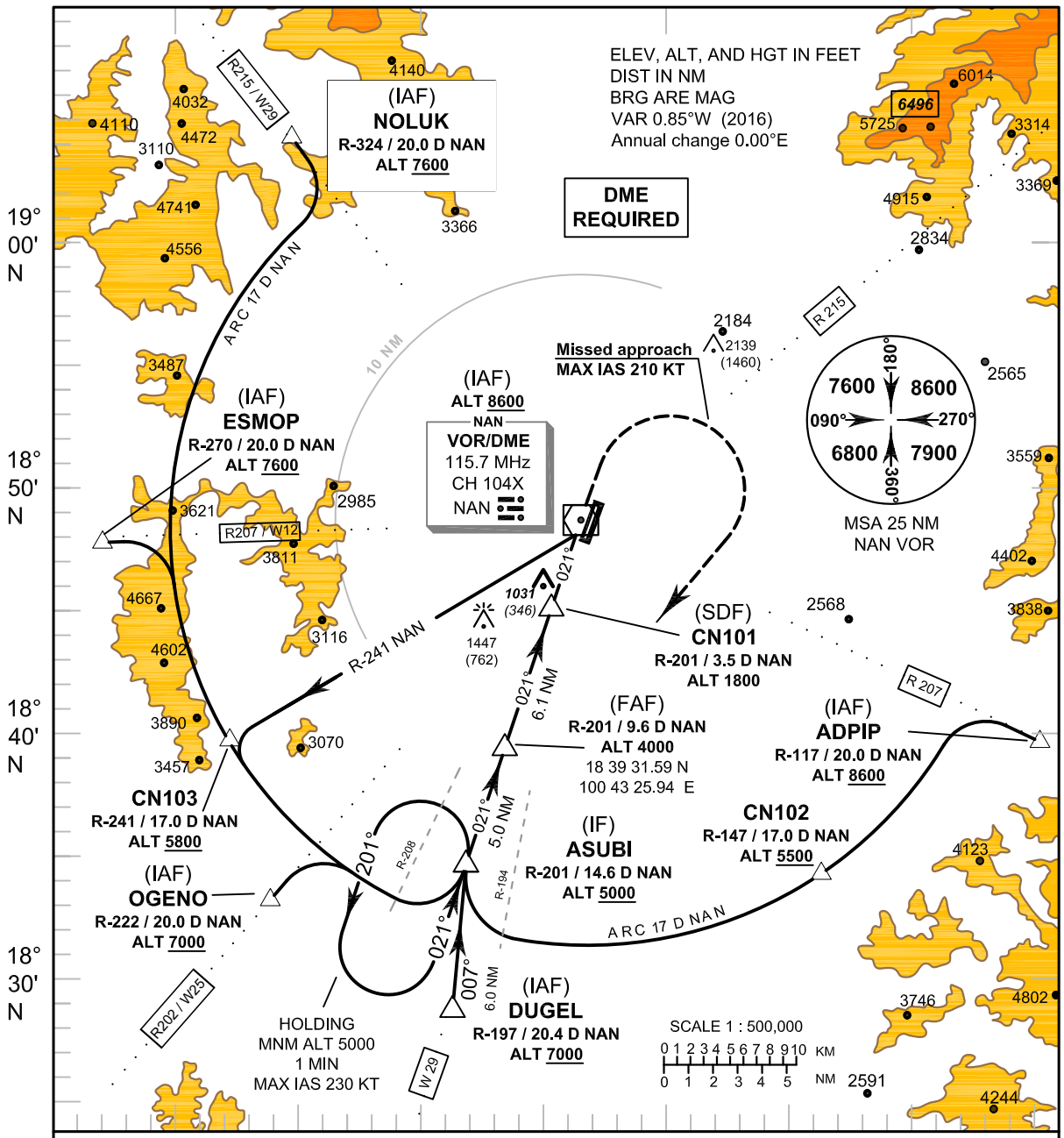
Date: Aug 2013

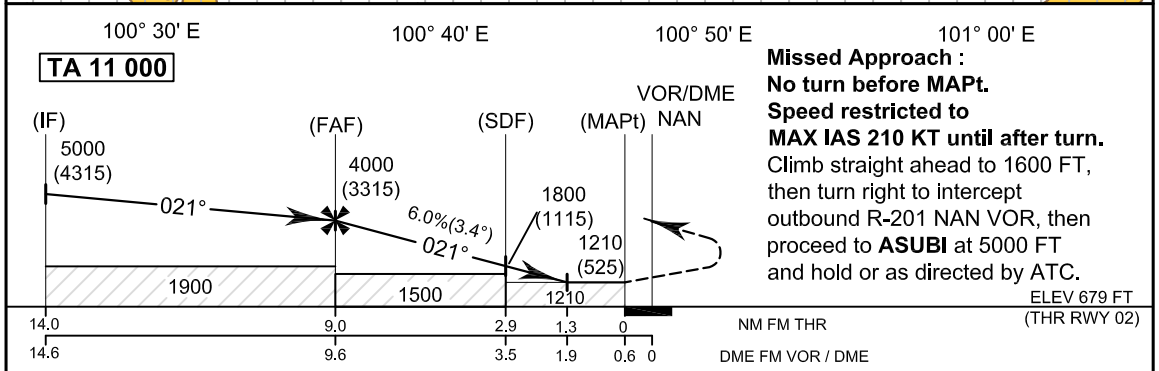
**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 685 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 120.25
TWR : 118.55, 236.6

**NAN/Nan Nakhon (VTCN)**
**VOR RWY02**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in approach | 1210 (525) | | | |
| Circling (OCH AAL) | 1500 (815) | | 2100 (1415) | |

| Distance (NAN) | FAF | 9 D | 8 D | 7 D | 6 D | 5 D | 4 D | 3 D | 1.9 D |
|---|---|---|---|---|---|---|---|---|---|
| Altitude (Height) | 4000 (3315) | 3795 (3110) | 3435 (2750) | 3070 (2385) | 2705 (2020) | 2340 (1655) | 1975 (1290) | 1610 (925) | 1210 (525) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 | | |
| Rate of descent (6.0%) | (ft/min) | 425 | 547 | 608 | 729 | 851 | 972 | | |

CHANGE : R202 AND R215 ADDED.

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 685 FT** HEIGHTS RELATED TO AERODROME ELEV

**NAN/Nan Nakhon (VTCN)**
**VOR RWY02**

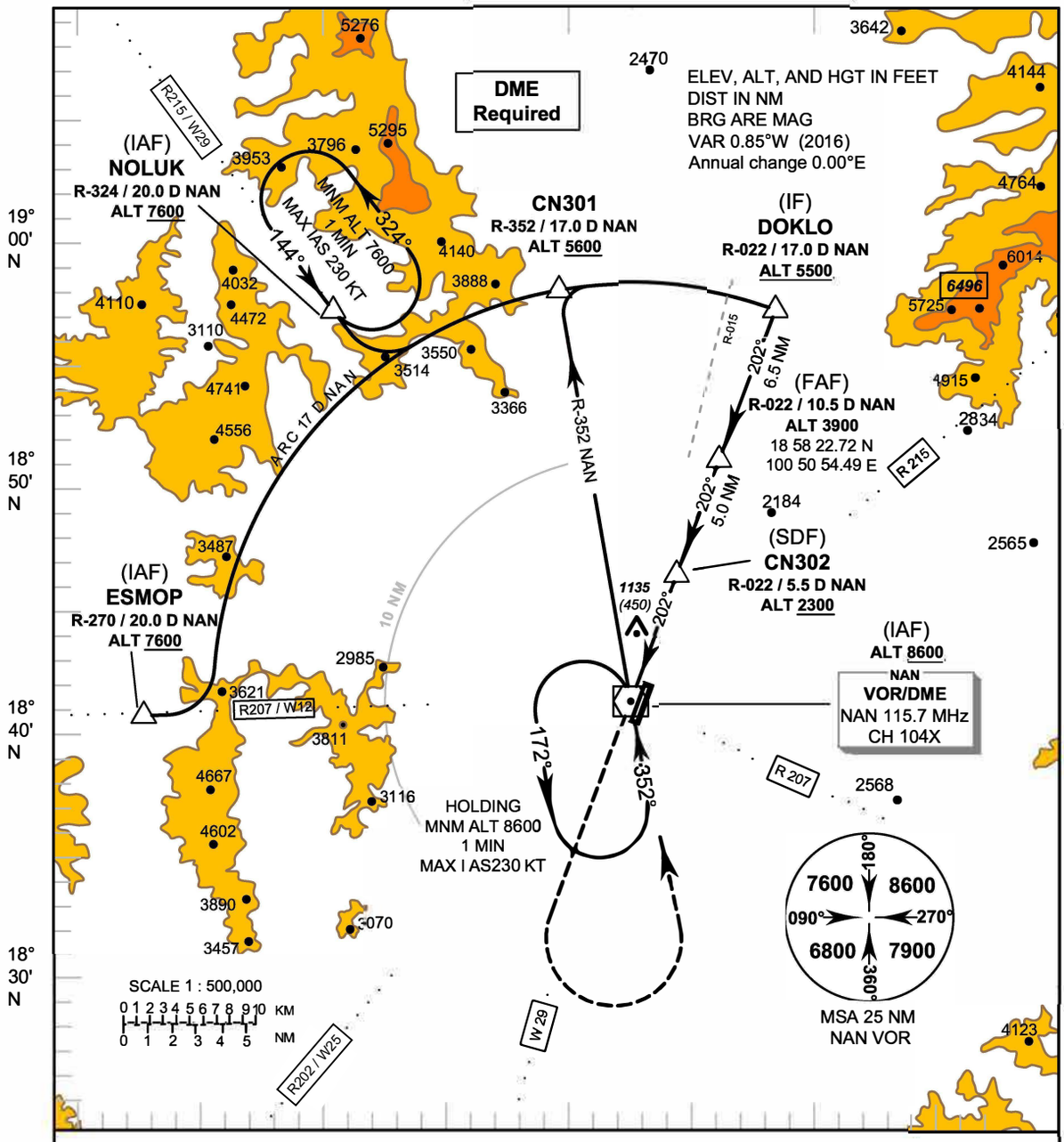
| Fix / Point | | Coordinates | |
|---|---|---|---|
| VOR (IAF) | NAN | 18 48 32.76 N | 100 46 57.36 E |
| ADPIP (IAF) | R - 117 / 20.0 D NAN | 18 39 46.40 N | 101 05 54.67 E |
| CN102 | R - 147 / 17.0 D NAN | 18 34 24.99 N | 100 56 59.93 E |
| NOLUK (IAF) | R - 324 / 20.0 D NAN | 19 04 38.32 N | 100 34 20.30 E |
| ESMOP (IAF) | R - 270 / 20.0 D NAN | 18 48 07.91 N | 100 25 52.62 E |
| CN103 | R - 241 / 17.0 D NAN | 18 40 00.13 N | 100 31 26.91 E |
| OGENO (IAF) | R - 222 / 20.0 D NAN | 18 33 27.22 N | 100 33 07.59 E |
| DUGEL (IAF) | R - 197 / 20.4 D NAN | 18 28 53.32 N | 100 40 57.94 E |
| ASUBI (IF) | R - 201/ 14.6 D NAN | 18 34 49.75 N | 100 41 36.01 E |
| (FAF) | R - 201 / 9.6 D NAN | 18 39 31.59 N | 100 43 25.94 E |
| CN101 (SDF) | R - 201 / 3.5 D NAN | 18 45 15.19 N | 100 45 40.13 E |
| (MAPt) | R - 201 / 0.6 D NAN | 18 48 01.94 N | 100 46 45.26 E |

CHANGE : VOR AND CN101 COORDINATES.

**INSTRUMENT APPROACH CHART-ICAO** — **AERODROME ELEV 685 FT** HEIGHTS RELATED TO AERODROME ELEV

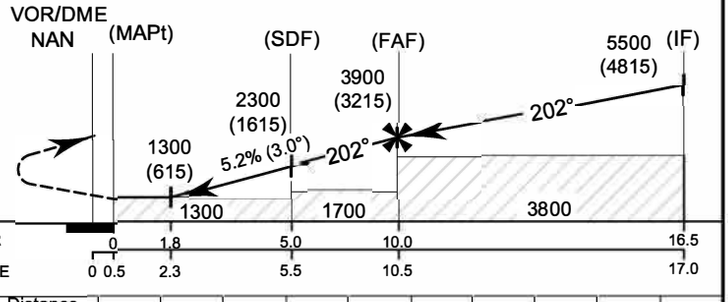
APP : 120.25
TWR : 118.55, 236.6

**NAN/Nan Nakhon (VTCN)**
**VOR RWY20**




**TA 11000**

**Missed Approach :**
**No turn before MAPt.**
Climb straight ahead to 3000 FT, then turn left to intercept inbound R-172 NAN VOR, then proceed to NAN VOR at 8600 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D | Distance (NAN) | 2.3 D | 3 D | 4 D | 5 D | 6 D | 7 D | 8 D | 9 D | 10 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight-in approach | 1300 (615) | | | | Altitude (Height) | 1300 (615) | 1525 (840) | 1840 (1155) | 2155 (1470) | 2475 (1790) | 2790 (2105) | 3105 (2420) | 3420 (2735) | 3735 (3050) | 3900 (3215) |
| | | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 | | | |
| Circling (OCH AAL) | 1500 (815) | | 2100 (1415) | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 | | | |

CHANGE : R202 AND R215 ADDED.

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 685 FT** HEIGHTS RELATED TO AERODROME ELEV

**NAN/Nan Nakhon (VTCN)**
**VOR RWY20**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| VOR (IAF) | NAN | 18 48 32.76 N | 100 46 57.36 E |
| ESMOP (IAF) | R - 270 / 20.0 D NAN | 18 48 07.91 N | 100 25 52.62 E |
| NOLUK (IAF) | R - 324 / 20.0 D NAN | 19 04 38.32 N | 100 34 20.30 E |
| CN301 | R - 352 / 17.0 D NAN | 19 05 23.21 N | 100 44 03.17 E |
| DOKLO (IF) | R - 022 / 17.0 D NAN | 19 04 29.04 N | 100 53 22.01 E |
| (FAF) | R - 022 / 10.5 D NAN | 18 58 22.72 N | 100 50 54.49 E |
| CN302 (SDF) | R - 022 / 5.5 D NAN | 18 53 41.45 N | 100 49 01.35 E |
| (MAPt) | R - 022 / 0.5 D NAN | 18 49 00.17 N | 100 47 08.34 E |

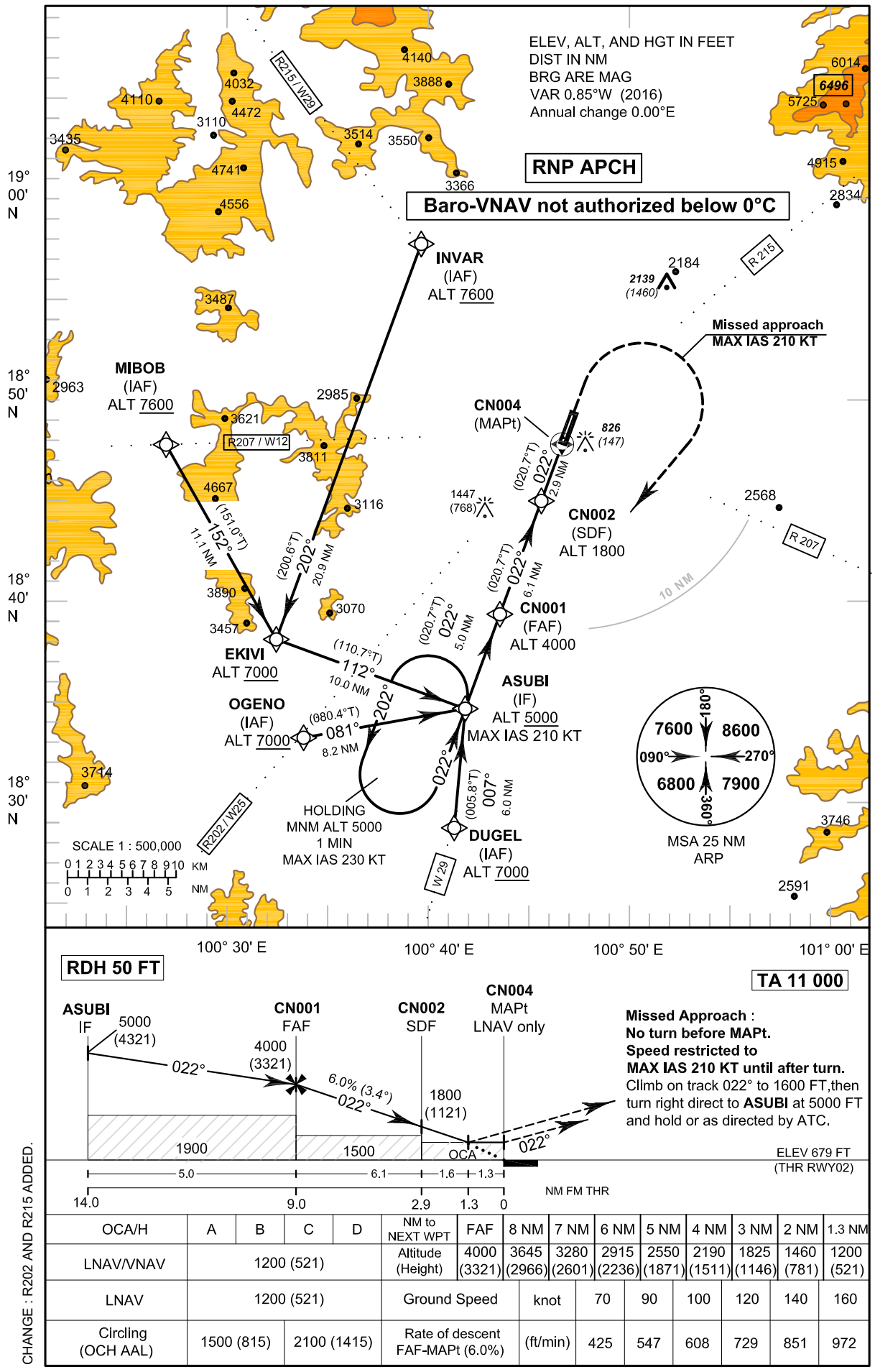
CHANGE : VOR COORDINATE.

**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 685 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 679 FT

APP : 120.25
TWR : 118.55, 236.6

**NAN/Nan Nakhon (VTCN)**
**RNP RWY02**







| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 8 NM | 7 NM | 6 NM | 5 NM | 4 NM | 3 NM | 2 NM | 1.3 NM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 1200 (521) | | | | Altitude (Height) | 4000 (3321) | 3645 (2966) | 3280 (2601) | 2915 (2236) | 2550 (1871) | 2190 (1511) | 1825 (1146) | 1460 (781) | 1200 (521) |
| LNAV | 1200 (521) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 | | |
| Circling (OCH AAL) | 1500 (815) | | 2100 (1415) | | Rate of descent FAF-MAPt (6.0%) | (ft/min) | 425 | 547 | 608 | 729 | 851 | 972 | | |

CHANGE : R202 AND R215 ADDED.

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 685 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 679 FT

**NAN/Nan Nakhon (VTCN)**
**RNP RWY02**

## TABULAR DESCRIPTION

**RNP RWY02**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | DUGEL (IAF) | - | - | +0.85 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | ASUBI (IF) | - | 007°(005.8°) | +0.85 | 6.0 | - | +5000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | OGENO (IAF) | - | - | +0.85 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | ASUBI (IF) | - | 081°(080.4°) | +0.85 | 8.2 | - | +5000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MIBOB (IAF) | - | - | +0.85 | - | - | +7600 | - | - | RNP APCH |
| 020 | TF | EKIVI | - | 152°(151.0°) | +0.85 | 11.1 | L | +7000 | - | - | RNP APCH |
| 030 | TF | ASUBI (IF) | - | 112°(110.7°) | +0.85 | 10.0 | - | +5000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | INVAR (IAF) | - | - | +0.85 | - | - | +7600 | - | - | RNP APCH |
| 020 | TF | EKIVI | - | 202°(200.6°) | +0.85 | 20.9 | L | +7000 | - | - | RNP APCH |
| 030 | TF | ASUBI (IF) | - | 112°(110.7°) | +0.85 | 10.0 | - | +5000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ASUBI (IF) | - | - | +0.85 | - | - | +5000 | -210 | - | RNP APCH |
| 020 | TF | CN001 (FAF) | - | 022°(020.7°) | +0.85 | 5.0 | - | @4000 | - | - | RNP APCH |
| 030 | TF | CN002 (SDF) | - | 022°(020.7°) | +0.85 | 6.1 | - | @1800 | - | - | RNP APCH |
| 040 | TF | CN004 (MAPt) | Y | 022°(020.7°) | +0.85 | 2.9 | - | @729 | - | -3.4 / 50 | RNP APCH |
| 050 | CA | - | - | 022°(020.7°) | +0.85 | - | - | +1600 | - | - | RNP APCH |
| 060 | DF | ASUBI (IF) | - | - | +0.85 | - | R | +5000 | -210 | - | RNP APCH |
| 070 | HM | ASUBI (IF) | Y | 022°(020.7°) | +0.85 | 1 minute | L | +5000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY02**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| INVAR | 18° 58' 02.05" N | 100° 39' 31.36" E |
| MIBOB | 18° 48' 08.12" N | 100° 26' 03.27" E |
| EKIVI | 18° 38' 22.25" N | 100° 31' 44.36" E |
| OGENO | 18° 33' 27.22" N | 100° 33' 07.59" E |
| DUGEL | 18° 28' 53.32" N | 100° 40' 57.94" E |
| ASUBI | 18° 34' 49.75" N | 100° 41' 36.01" E |
| CN001 | 18° 39' 31.54" N | 100° 43' 27.52" E |
| CN002 | 18° 45' 14.84" N | 100° 45' 43.49" E |
| CN004 (THR02) | 18° 48' 00.52" N | 100° 46' 49.21" E |
| | | |

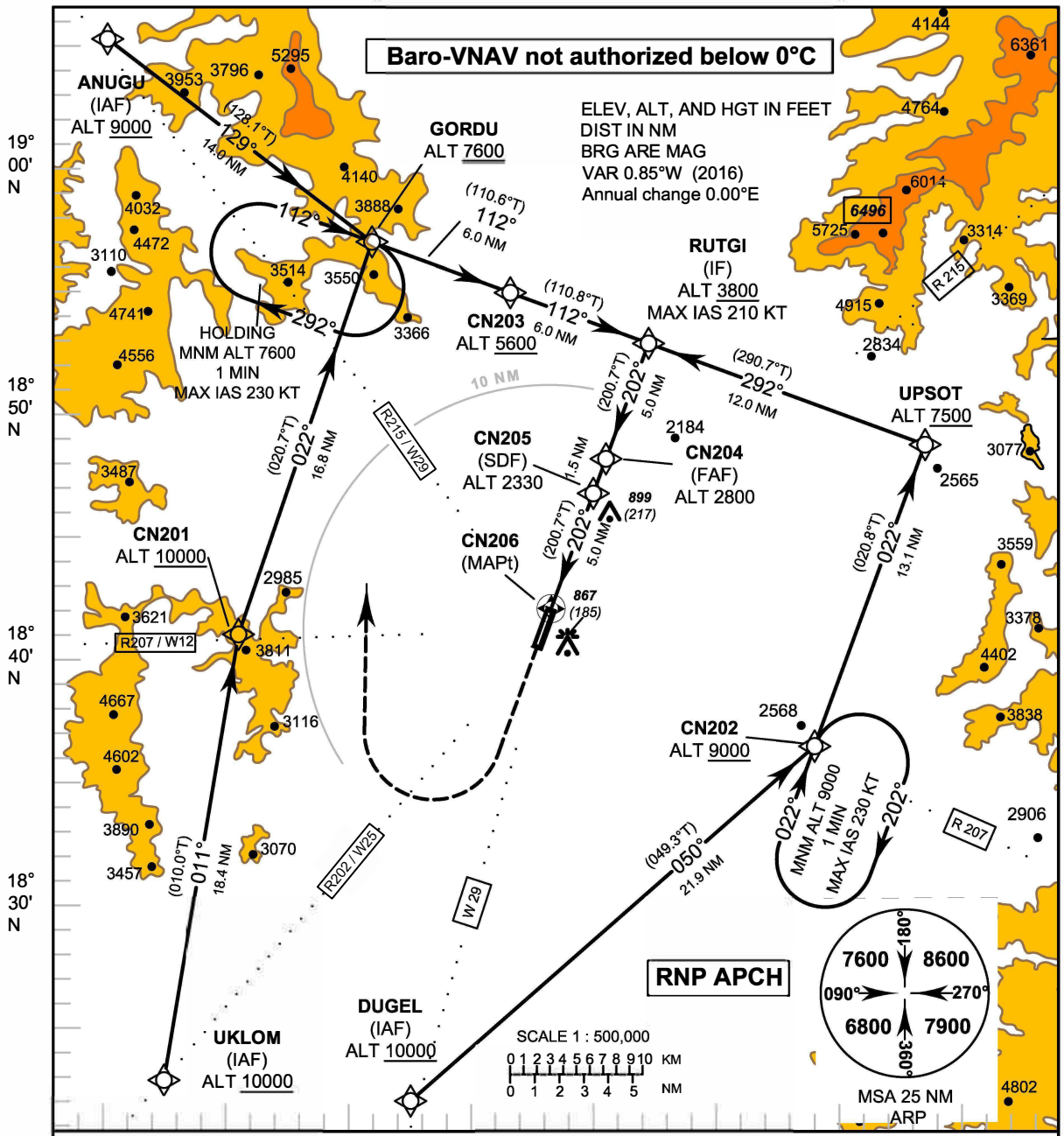
CHANGE: THR COORD.

**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 685 FT**
HEIGHTS RELATED TO
THR RWY20 - ELEV 682 FT

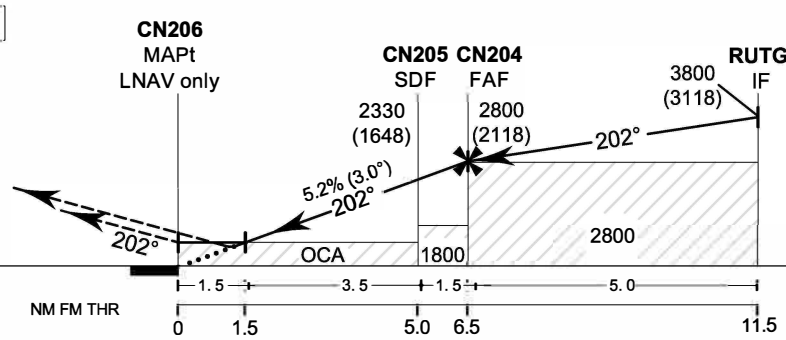
APP : 120.25
TWR : 118.55, 236.6

**NAN/Nan Nakhon (VTCN)**
**RNP RWY20**




**TA 11 000** **RDH 50 FT**

**Missed Approach :**
**No turn before MAPt.**
Climb on track 202° to 3300 FT, then turn right direct to **GORDU** at 7600 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D | NM to NEXT WPT | 1.5 NM | 2 NM | 3 NM | 4 NM | 5 NM | 6 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 1030 (348) | | | | Altitude (Height) | 1200 (518) | 1365 (683) | 1680 (998) | 1995 (1313) | 2310 (1628) | 2630 (1948) | 2800 (2118) |
| LNAV | 1200 (518) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1500 (815) | | 2100 (1415) | | Rate of descent FAF-MAPt (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : R202 AND R215 ADDED.

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 685 FT**
HEIGHTS RELATED TO
THR RWY20 **-** ELEV 682 FT

**NAN/Nan Nakhon (VTCN)**
**RNP RWY20**

## TABULAR DESCRIPTION

**RNP RWY20**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | DUGEL (IAF) | - | - | +0.85 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | CN202 | - | 050°(049.3°) | +0.85 | 21.9 | L | +9000 | - | - | RNP APCH |
| 030 | TF | UPSOT | - | 022°(020.8°) | +0.85 | 13.1 | L | +7500 | - | - | RNP APCH |
| 040 | TF | RUTGI (IF) | - | 292°(290.7°) | +0.85 | 12.0 | - | +3800 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ANUGU (IAF) | - | - | +0.85 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | GORDU | - | 129°(128.1°) | +0.85 | 14.0 | L | +7600 | - | - | RNP APCH |
| 030 | TF | CN203 | - | 112°(110.6°) | +0.85 | 6.0 | - | +5600 | - | - | RNP APCH |
| 040 | TF | RUTGI (IF) | - | 112°(110.8°) | +0.85 | 6.0 | - | +3800 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | UKLOM (IAF) | - | - | +0.85 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | CN201 | - | 011°(010.0°) | +0.85 | 18.4 | R | +10000 | - | - | RNP APCH |
| 030 | TF | GORDU | - | 022°(020.7°) | +0.85 | 16.8 | R | +7600 | - | - | RNP APCH |
| 040 | TF | CN203 | - | 112°(110.6°) | +0.85 | 6.0 | - | +5600 | - | - | RNP APCH |
| 050 | TF | RUTGI (IF) | - | 112°(110.8°) | +0.85 | 6.0 | - | +3800 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RUTGI (IF) | - | - | +0.85 | - | - | +3800 | -210 | - | RNP APCH |
| 020 | TF | CN204 (FAF) | - | 202°(200.7°) | +0.85 | 5.0 | - | @2800 | - | - | RNP APCH |
| 030 | TF | CN205 (SDF) | - | 202°(200.7°) | +0.85 | 1.5 | - | @2330 | - | - | RNP APCH |
| 040 | TF | CN206 (MAPt) | Y | 202°(200.7°) | +0.85 | 5.0 | - | @732 | - | -3.0 / 50 | RNP APCH |
| 050 | CA | - | - | 202°(200.7°) | +0.85 | - | - | +3300 | - | - | RNP APCH |
| 060 | DF | GORDU | - | - | +0.85 | - | R | +7600 | - | - | RNP APCH |
| 070 | HM | GORDU | Y | 112°(110.6°) | +0.85 | 1 minute | R | +7600 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY20**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| UKLOM | 18° 30' 05.00" N | 100° 30' 02.76" E |
| CN201 | 18° 48' 17.06" N | 100° 33' 24.54" E |
| ANUGU | 19° 12' 40.76" N | 100° 28' 00.88" E |
| GORDU | 19° 04' 02.04" N | 100° 39' 38.68" E |
| CN203 | 19° 01' 55.14" N | 100° 45' 34.52" E |
| DUGEL | 18° 28' 53.32" N | 100° 40' 57.94" E |
| CN202 | 18° 43' 14.06" N | 100° 58' 26.68" E |
| UPSOT | 18° 55' 30.53" N | 101° 03' 20.04" E |
| RUTGI | 18° 59' 46.66" N | 100° 51' 29.66" E |
| CN204 | 18° 55' 04.97" N | 100° 49' 37.70" E |
| CN205 | 18° 53' 40.46" N | 100° 49' 04.13" E |
| CN206 (THR20) | 18° 48' 58.74" N | 100° 47' 12.31" E |
| | | |

## VTSC AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSC - NARATHIWAT / NARATHIWAT AIRPORT

## VTSC AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 063104.21N 1014433.04E |
| 2 | Direction and distance from (city) | 13 km NW, from city |
| 3 | Elevation/Reference temperature | 23 FT/29°C |
| 4 | Geoid Undulation at AD ELEV PSN | -35 FT |
| 5 | MAG VAR/Annual change | 0.34°W (2022)/0.03°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director Of Narathiwat Airport<br>Narathiwat Airport<br>Main Office<br>Narathiwat Province<br>Thailand<br>Tel: +667 356 5061-5<br>Fax: +667 356 5066<br>AFS: VTSCYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTSC AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Hat Yai Air Traffic Control Centre (1st floor of tower building)<br>Tel: +669 2262 2436<br>Fax: +667 425 1050 |

## VTSC AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTSC AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | NIL |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTSC AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTSC AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons |

## VTSC AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 65/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 65/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSC AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>Nose-wheel guide lines at apron<br>VDGS of aircraft stands: NIL,<br>aircraft parking shall follow marshaller strictly. |
| 2 | RWY and TWY markings and LGT | RWY markings: RWY Designation, THR, TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY markings: CL, Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSC AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTSC AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Narathiwat,<br>Southern East-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern East-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 356 5077 ext. 6606 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) and Weather Radar |
| 9 | ATS units provided with information | Narathiwat TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSC AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02 | 023.43° | 2500x45 | PCN 65/F/C/X/T<br>Asphaltic concrete | 063026.88N<br>1014416.86E<br>-35 FT | THR 23 FT |
| 20 | 203.43° | 2500x45 | PCN 65/F/C/X/T<br>Asphaltic concrete | 063141.55N<br>1014449.22E<br>-35 FT | THR 23 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location & description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| NIL | 60x45 | NIL | 2740x300 | NIL | NIL | NIL | NIL |
| NIL | 60x45 | NIL | 2740x300 | NIL | NIL | NIL | NIL |

## VTSC AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02 | 2500 | 2500 | 2560 | 2500 | NIL |
| 20 | 2500 | 2500 | 2560 | 2500 | NIL |

## VTSC AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 02 | CAT1<br>900 m<br>LIH | Green | PAPI<br>Left 3° | NIL | NIL | 2500 m<br>60 m<br>White, LIH | Red | NIL | NIL |
| 20 | SALS<br>300 m<br>LIH | Green | PAPI<br>Left 3° | NIL | NIL | 2500 m<br>60 m<br>White, LIH | Red | NIL | NIL |

## VTSC AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building, FLG W G EV 7 SEC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | EDGE: ALL TWY |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the airport<br>Switch-over time: 15 SEC |
| 5 | Remarks | NIL |

## VTSC AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTSC AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centred on NTW DVOR/DME (063138.2N 1014442.5E) |
| 2 | Vertical limits | 2000 ft/AGL |

| | | |
|---|---|---|
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Narathiwat Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSC AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Narathiwat Approach | 125.55 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Narathiwat Tower | 122.7 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| GND | Narathiwat Ground | 121.9 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Narathiwat Airport | 383 KHz | As AD OPR HR | |

## VTSC AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | NT | 383 KHz | H24 | 063141.3N<br>1014459.1E | | NDB, 50 nm coverage restriction as follows:<br>– Bearing 260º-300º altitude should not below 5 500 ft<br>– Bearing 301º-055º altitude should not below 1 500 ft<br>– Bearing 056º-259º unable to perform flight inspection due to border limited |

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | NTW | 116.3 MHz CH110X | H24 | 063138.2N 1014442.5E | | DVOR/DME restrictions,<br>1. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 nm at the required altitude in various areas as follows:<br>a) 40 nm clockwise orbit flown from<br>– Radial 271º-290º altitude should not below 9 000 ft<br>– Radial 291º-300º altitude should not below 4 000 ft<br>– Radial 301º-020º altitude should not below 2 000 ft<br>b) 20 nm clockwise orbit flown from<br>– Radial 021º-130º altitude should not below 2 000 ft<br>– Radial 131º-270º altitude should not below 5 000 ft<br>2. Due to the out-of-tolerance 30 Hz FM deviation ratio on radial 294º unusable within 10-40 nm. |
| ILS CAT I LOC RWY 02 | INTW | 110.1 MHz | H24 | 063150.9N 1014453.3E | | ILS coverage over a sector 035° either side of runway centreline, no back course and voice feature.<br>Distance 1 050 m to THR RWY 02. |
| GP/DME | | 334.4 MHz CH 38X | H24 | 063035.8N 1014425.0E | | Narathiwat GP RWY 02 unusable beyond 6 degrees left of LOC course. |

## VTSC AD 2.20 LOCAL AERODROME REGULATIONS

For preventing runway pavement structural damage, aircraft with weight equivalent to or heavier than B737 or A319 are not allowed to make 180 degree turn on the runway. The turn shall be made on the runway turnpad located near the threshold of runway 02.

## VTSC AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSC AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

**To execute a visual departure**

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**3. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

**To execute an omnidirectional departure:**

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 02:

**NARA OMNI 02 Departure: Required climb gradient 304 ft per NM (5.0%) until 5,000 ft.**

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 5.0% | (ft/min) | 329 | 380 | 506 | 760 | 1013 | 1266 | 1519 |

No turn before DER.
After departure climb straight ahead until 1,000 ft (or altitude assigned by ATC between 1,000 – 5,000 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 20:

**NARA OMNI 20 Departure: Required climb gradient 383 ft per NM (6.3%) until 5,000 ft.**

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.3% | (ft/min) | 415 | 478 | 638 | 957 | 1276 | 1595 | 1914 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 – 5,000 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTSC AD 2.23 ADDITIONAL INFORMATION

**1. BIRD CONCENTRATIONS**

- Bird concentrations in the vicinity of an aerodrome.

## VTSC AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSC-2-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - ERVES1A NUBKA1A | AD 2-VTSC-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - ERVES1A NUBKA1A (Tabular description) | AD 2-VTSC-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - ERVES1B NUBKA1B | AD 2-VTSC-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - ERVES1B NUBKA1B (Tabular description) | AD 2-VTSC-6-4 |
| Instrument Approach Chart - ICAO - VOR RWY 02 | AD 2-VTSC-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 02 (Fix and point list table) | AD 2-VTSC-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 20 | AD 2-VTSC-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 20 (Fix and point list table) | AD 2-VTSC-8-4 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 02 | AD 2-VTSC-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 02 (Fix and point list table) | AD 2-VTSC-8-6 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 02 | AD 2-VTSC-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 02 (Tabular description) | AD 2-VTSC-8-8 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 02 (Fix and Point list table) | AD 2-VTSC-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 02 | AD 2-VTSC-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 02 (Tabular description) | AD 2-VTSC-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 20 | AD 2-VTSC-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 20 (Tabular description) | AD 2-VTSC-8-14 |

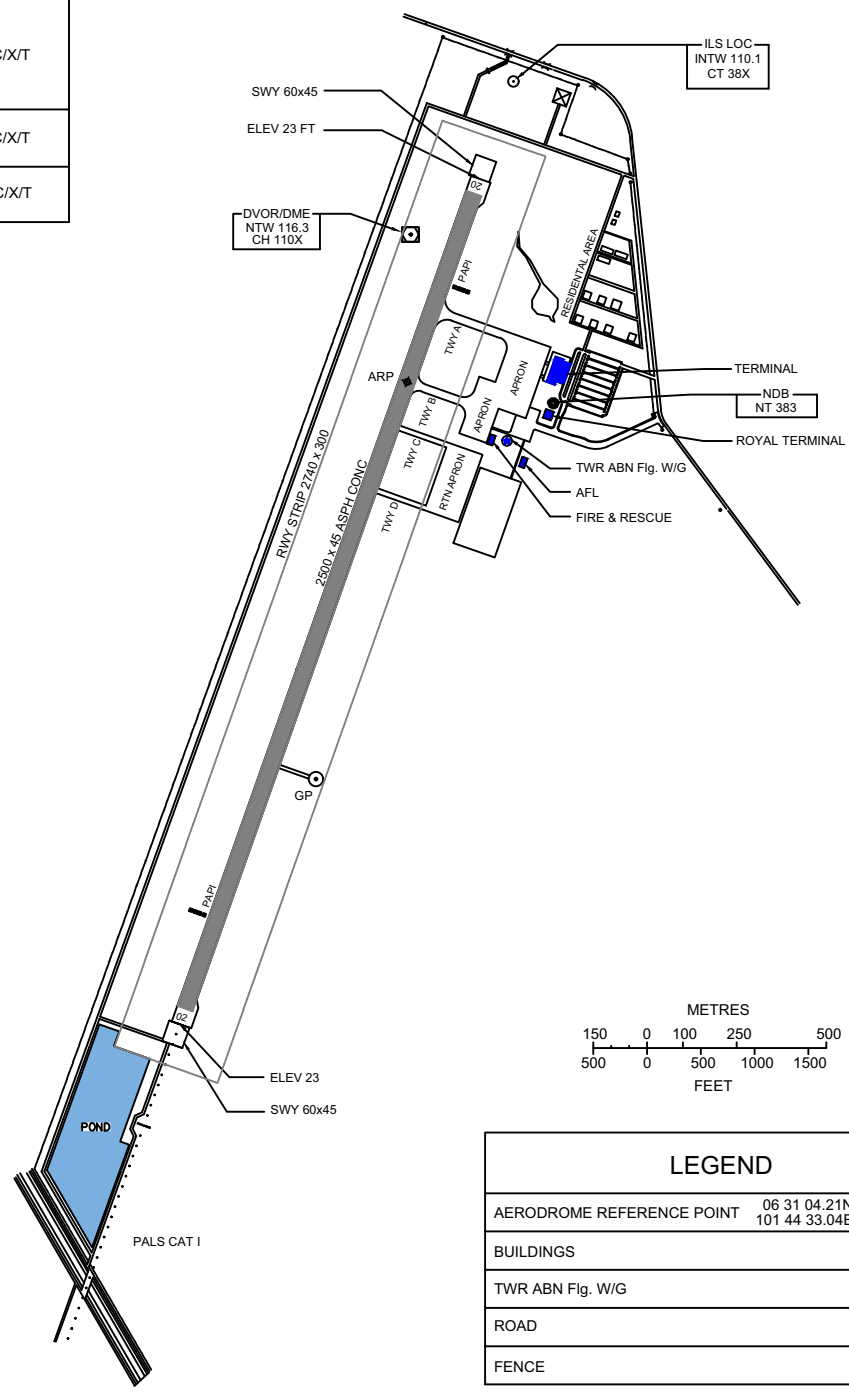
AERODROME CHART - ICAO 06 31 04.21 N 101 44 33.04 E ELEV 23 FT TWR 121.50 122.70 236.60 NARATHIWAT/ Narathiwat

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 02 | 023.43° | 06 30 26.88 N 101 44 16.86 E | PCN 65/F/C/X/T |
| 20 | 203.43° | 06 31 41.55 N 101 44 49.22 E | |
| TAXIWAY A, B, C, D | | | PCN 65/F/C/X/T |
| APRON | | | PCN 65/R/C/X/T |

ELEVATIONS IN FEET AND DIMENSIONS IN METRES

BEARINGS ARE MAGNETIC

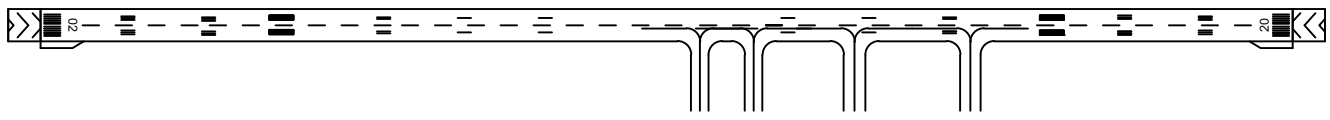
MAG VAR 0.34°W (2022)
ANNUAL RATE OF CHANGE 0.03°W



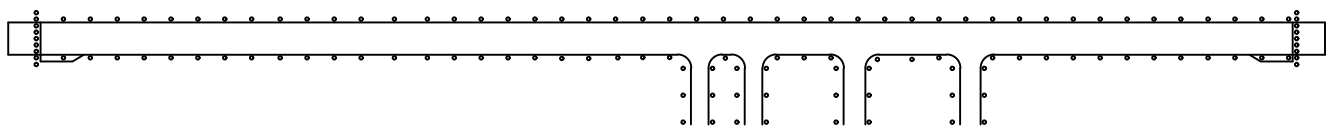

| LEGEND | |
|---|---|
| AERODROME REFERENCE POINT | 06 31 04.21N 101 44 33.04E |
| BUILDINGS | |
| TWR ABN Flg. W/G | |
| ROAD | |
| FENCE | |

REMARK : COORDINATE ARE WGS-84

MARKING AIDS RWY 02/20 AND EXIT TWY




LIGHTING AIDS RWY 02/20 AND EXIT TWY



CHANGE: REVISED CHART. TRUE BEARING RWY 02/20. MAG VAR. ANNUAL RATE OF CHANGE. ARP COORDINATES. THR COORDINATES. AD AND THR ELEV. TABULAR.

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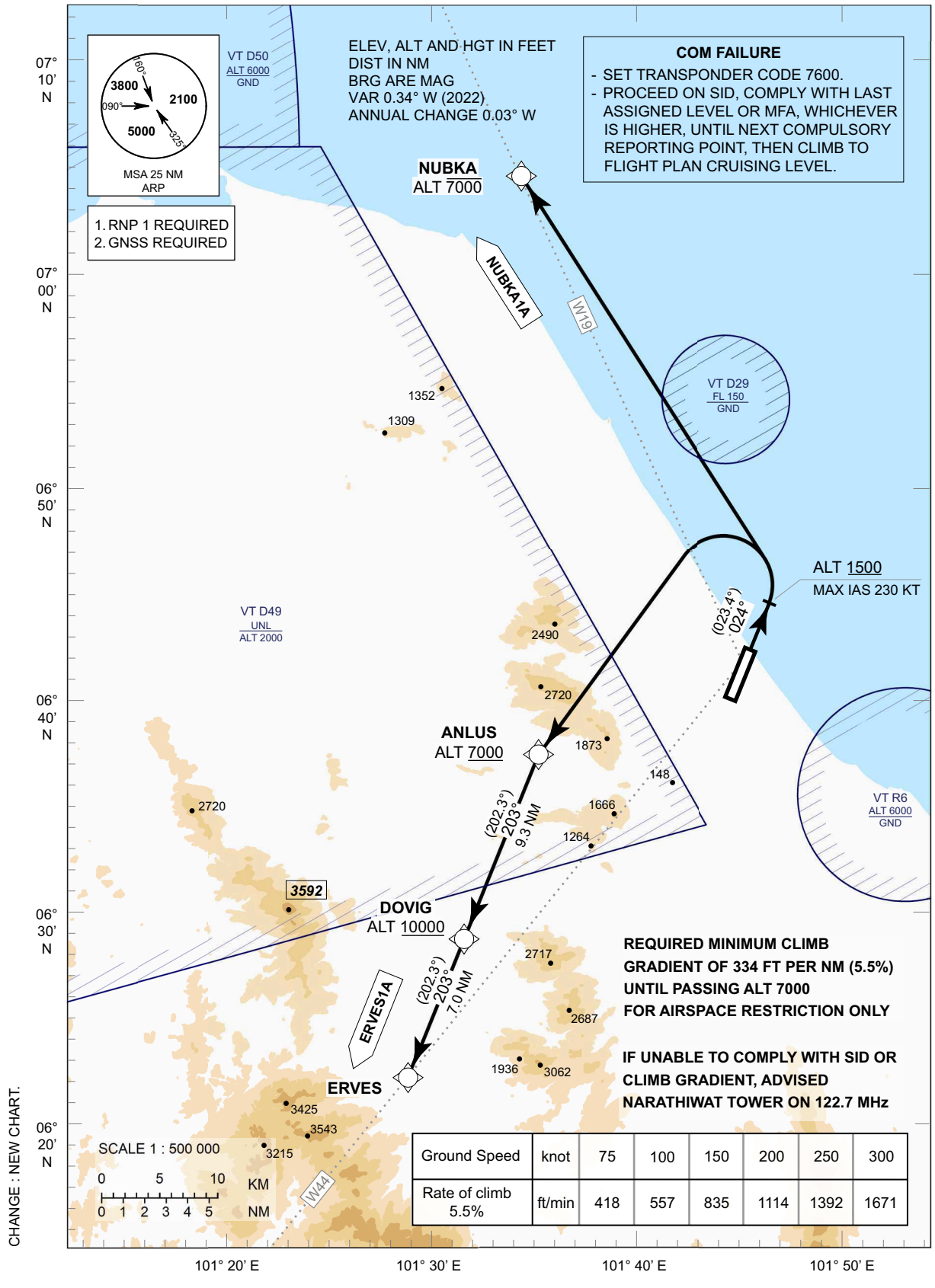
**STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 125.55 MHz
TWR : 122.7, 236.6 MHz
GND : 121.9 MHz
ATIS : 383.0 kHz

**NARATHIWAT / Narathiwat (VTSC)**
**RNAV RWY02**

ERVES1A NUBKA1A




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of climb 5.5% | ft/min | 418 | 557 | 835 | 1114 | 1392 | 1671 |

**STANDARD DEPARTURE CHART**
**INSTRUMENT (SID) - ICAO**

**NARATHIWAT / Narathiwat (VTSC)**
**RNAV RWY02**

ERVES1A NUBKA1A

**TABULAR DESCRIPTION**

| RNAV RWY02 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ERVES1A | | | | | | | | | | | |
| 010 | - | DER RWY 02 | - | - | +0.40 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 024° (023.4°) | +0.40 | - | - | +1500 | -230 | - | RNP 1 |
| 030 | DF | ANLUS | - | - | +0.40 | - | - | +7000 | - | - | RNP 1 |
| 040 | TF | DOVIG | | 203° (202.3°) | +0.40 | 9.3 | L | +10000 | - | - | RNP 1 |
| 050 | TF | ERVES | | 203° (202.3°) | +0.40 | 7.0 | - | - | - | - | RNP 1 |
| NUBKA1A | | | | | | | | | | | |
| 010 | - | DER RWY 02 | - | - | - | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 024° (023.4°) | +0.40 | - | - | +1500 | -230 | - | RNP 1 |
| 030 | DF | NUBKA | - | - | +0.40 | - | L | -7000 | - | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY02 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| DER RWY 02 | 06° 31' 41.55" N 101° 44' 49.22" E |
| ANLUS | 06° 27' 19.04" N 101° 35' 05.72" E |
| DOVIG | 06° 18' 38.50" N 101° 31' 32.85" E |
| ERVES | 06° 12' 07.88" N 101° 28' 53.20" E |
| NUBKA | 06° 54' 33.58" N 101° 34' 25.82" E |

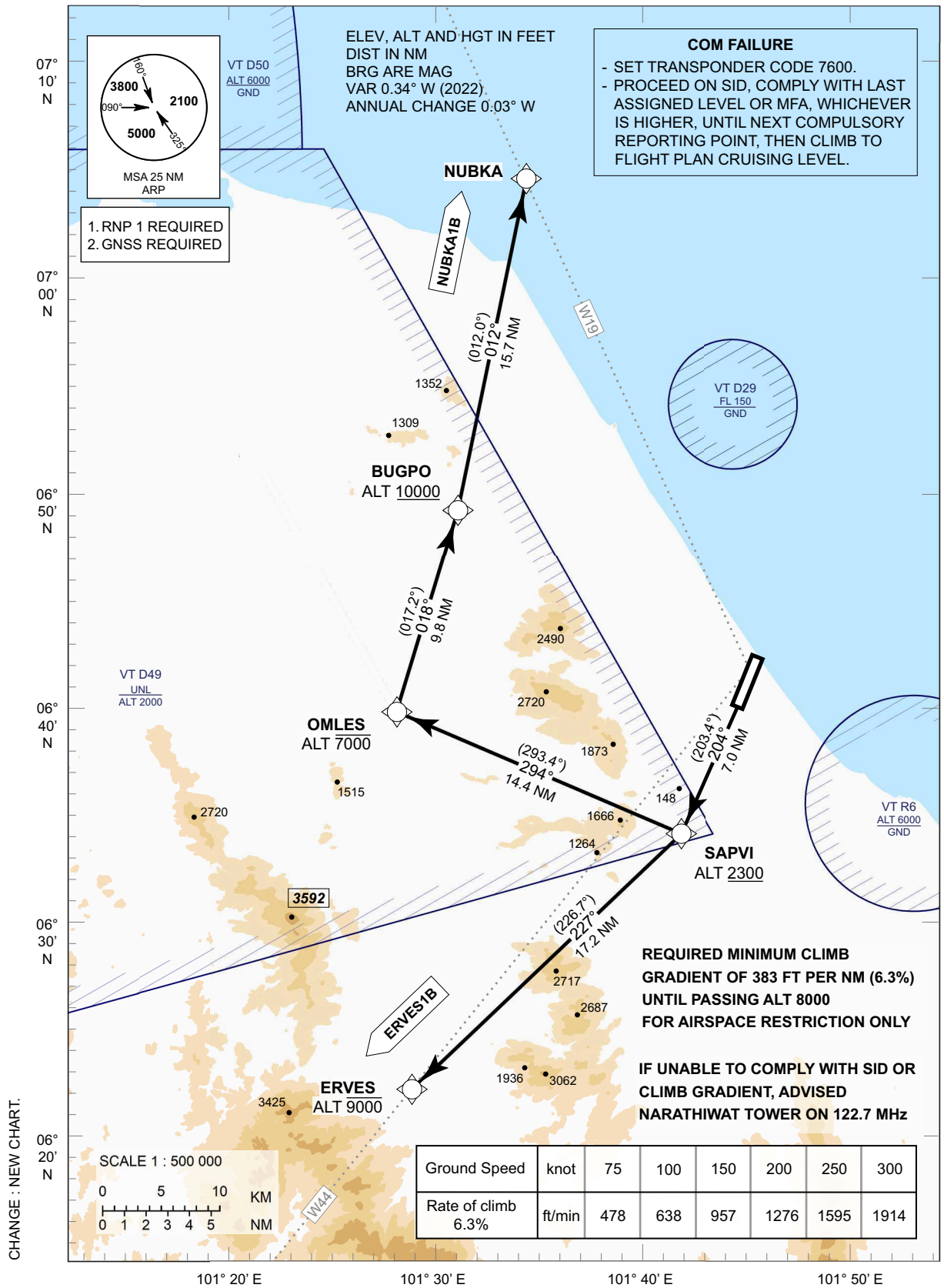
**STANDARD DEPARTURE CHART**
**INSTRUMENT (SID) - ICAO**

| TRANSITION ALTITUDE |
|---|
| 11000 FT |

| | |
|---|---|
| APP | : 125.55 MHz |
| TWR | : 122.7, 236.6 MHz |
| GND | : 121.9 MHz |
| ATIS | : 383.0 kHz |

**NARATHIWAT / Narathiwat (VTSC)**
**RNAV RWY20**

ERVES1B NUBKA1B




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of climb 6.3% | ft/min | 478 | 638 | 957 | 1276 | 1595 | 1914 |

**STANDARD DEPARTURE CHART**
**INSTRUMENT (SID) - ICAO**

**NARATHIWAT / Narathiwat (VTSC)**
**RNAV RWY20**

ERVES1B NUBKA1B

**TABULAR DESCRIPTION**

| RNAV RWY20 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ERVES1B | | | | | | | | | | | |
| 010 | - | DER RWY 20 | - | - | - | - | - | - | - | - | RNP 1 |
| 020 | CF | SAPVI | - | 204° (203.4°) | +0.40 | 7.0 | - | +2300 | - | - | RNP 1 |
| 030 | TF | ERVES | - | 227° (226.7°) | +0.40 | 17.2 | - | -9000 | - | - | RNP 1 |
| NUBKA1B | | | | | | | | | | | |
| 010 | - | DER RWY 20 | - | - | +0.40 | - | - | - | - | - | RNP 1 |
| 020 | CF | SAPVI | - | 204° (203.5°) | +0.40 | 7.0 | - | +2300 | - | - | RNP 1 |
| 030 | TF | OMLES | - | 294° (293.4°) | +0.40 | 14.4 | - | -7000 | - | - | RNP 1 |
| 040 | TF | BUGPO | - | 018° (017.2°) | +0.40 | 9.8 | - | +10000 | - | - | RNP 1 |
| 050 | TF | NUBKA | - | 012° (012.0°) | +0.40 | 15.7 | - | - | - | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY20 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| DER RWY 20 | 06° 30' 26.88" N 101° 44' 16.86" E |
| BUGPO | 06° 39' 07.69" N 101° 31' 09.21" E |
| ERVES | 06° 12' 07.88" N 101° 28' 53.20" E |
| NUBKA | 06° 54' 33.58" N 101° 34' 25.82" E |
| OMLES | 06° 29' 43.93" N 101° 28' 15.20" E |
| SAPVI | 06° 23' 59.79" N 101° 41' 29.00" E |

CHANGE : DER RWY NUMBER AND PATH DESCRIPTOR.

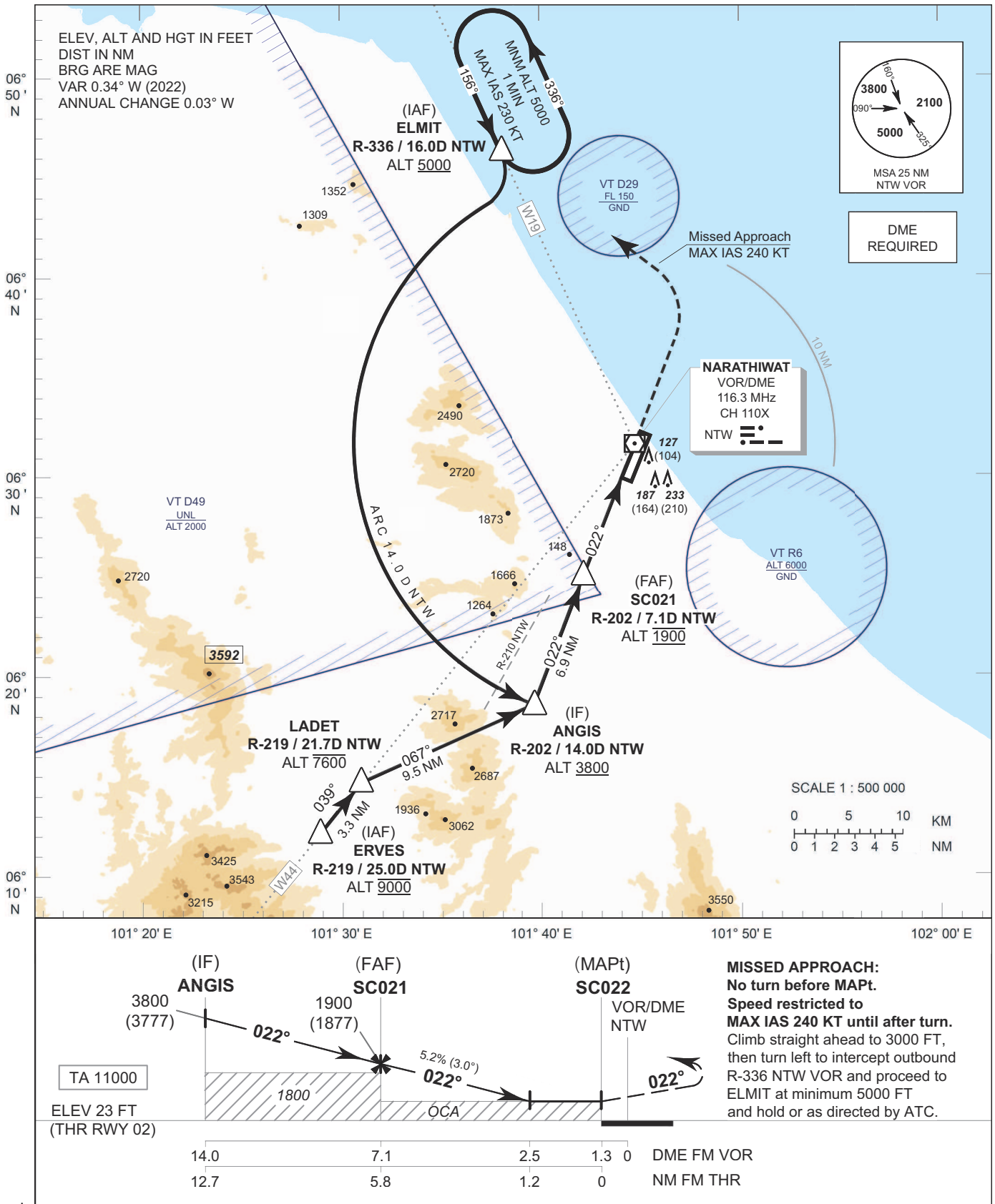
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | |
|---|---|
| APP | : 125.55 MHz |
| TWR | : 122.7, 236.6 MHz |
| GND | : 121.9 MHz |
| ATIS | : 383.0 kHz |

**NARATHIWAT / Narathiwat (VTSC)**

**VOR RWY02**







**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 240 KT until after turn.**
Climb straight ahead to 3000 FT, then turn left to intercept outbound R-336 NTW VOR and proceed to ELMIT at minimum 5000 FT and hold or as directed by ATC.

CHANGE :IAF WAYPOINT.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 450 (427) | | | |
| Circling (OCH AAL) | 900 (877) | | | |

| Distance (NTW) | FAF | 7D | 6D | 5D | 4D | 3D | 2.5D |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 1900 (1877) | 1875 (1852) | 1555 (1532) | 1240 (1217) | 925 (929) | 610 (587) | 450 (427) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Decent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO AERODROME ELEV

**NARATHIWAT / Narathiwat (VTSC)**

**VOR RWY02**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) ELMIT | R-336 / 16.0D NTW | 06° 46' 18.49" N | 101° 38' 07.93" E |
| (IAF) ERVES | R-219 / 25.0D NTW | 06° 12' 07.88" N | 101° 28' 53.20" E |
| LADET | R-219 / 21.7D NTW | 06° 14' 40.58" N | 101° 30' 56.96" E |
| (IF) ANGIS | R-202 / 14.0D NTW | 06° 18' 31.09" N | 101° 39' 37.95" E |
| (FAF) SC021 | R-202 / 7.1D NTW | 06° 24' 59.05" N | 101° 42' 08.01" E |
| (MAPt) SC022 | R-202 / 1.3D NTW | 06° 30' 27.61" N | 101° 44' 15.14" E |
| VOR | NTW | 06° 31' 38.23" N | 101° 44' 42.45" E |

CHANGE : VOR COORDINATE.

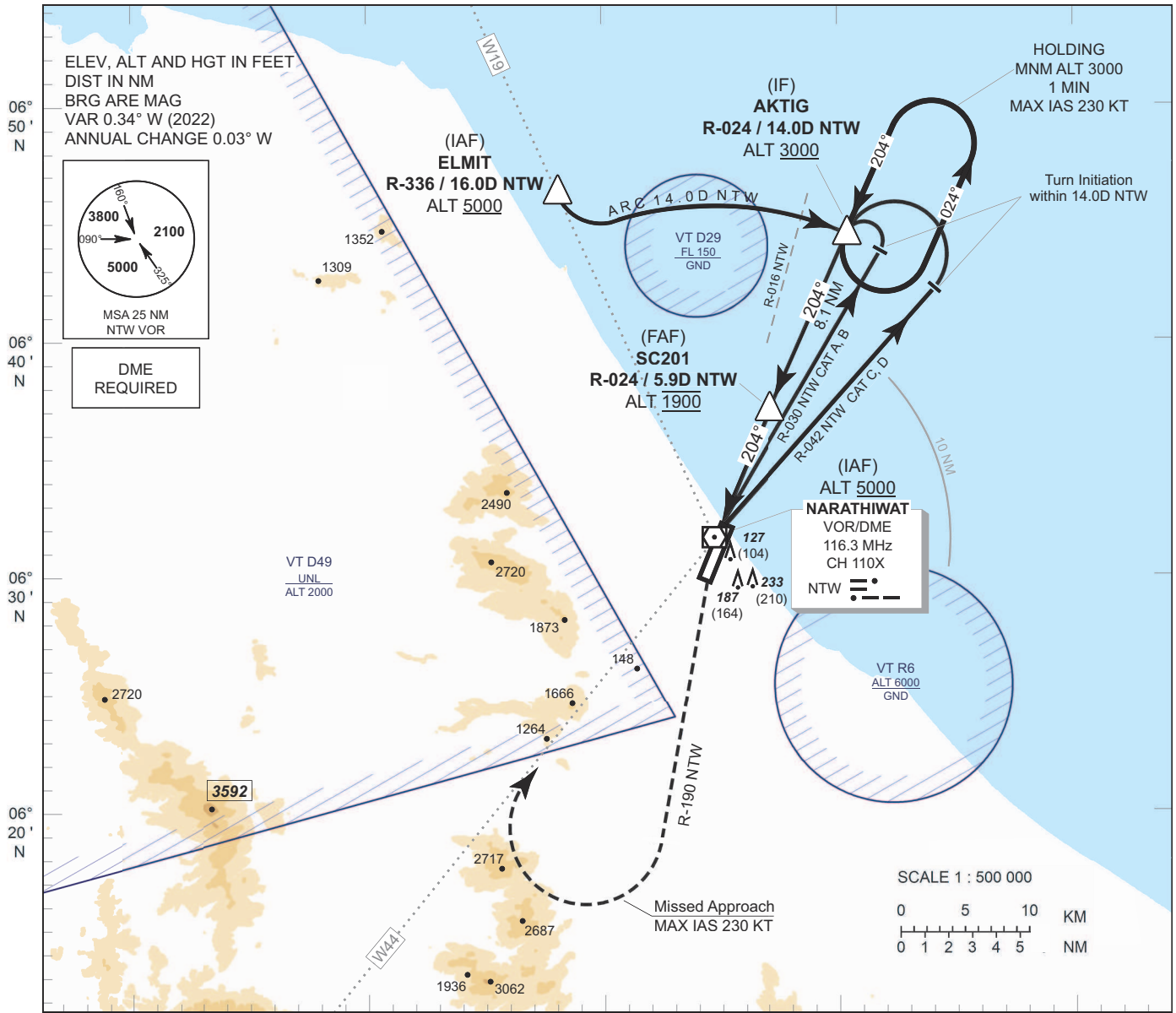
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO AERODROME ELEV

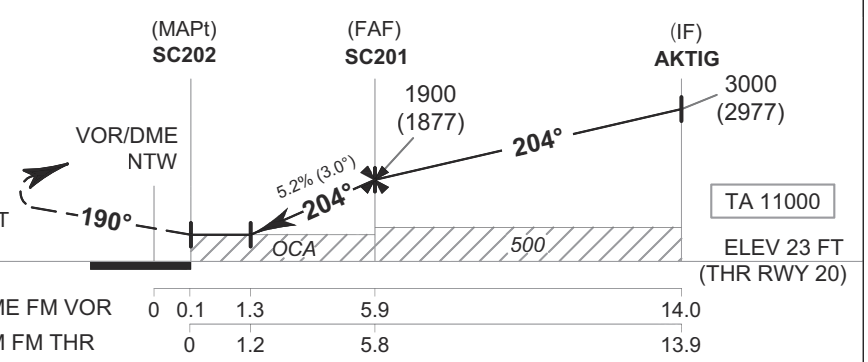
| | |
|---|---|
| APP | : 125.55 MHz |
| TWR | : 122.7, 236.6 MHz |
| GND | : 121.9 MHz |
| ATIS | : 383.0 kHz |

**NARATHIWAT / Narathiwat (VTSC)**

**VOR RWY20**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 230 KT until after turn.**
At MAPt , Climb and turn left to intercept outbound R-190 NTW VOR to 2100 FT, then turn right to intercept outbound R-024 NTW VOR and proceed to AKTIG at minimum 3000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 450 (427) | | | |
| Circling (OCH AAL) | 900 (877) | | | |

| Distance (NTW) | | 1.3D | 2D | 3D | 4D | 5D | FAF |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | | 450 (427) | 675 (652) | 990 (967) | 1305 (1282) | 1620 (1597) | 1900 (1877) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Decent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO AERODROME ELEV

**NARATHIWAT / Narathiwat (VTSC)**

**VOR RWY20**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>VOR | NTW | 06° 31' 38.23" N | 101° 44' 42.45" E |
| (IAF)<br>ELMIT | R-336 / 16.0D NTW | 06° 46' 18.49" N | 101° 38' 07.93" E |
| (IF)<br>AKTIG | R-024 / 14.0D NTW | 06° 44' 29.84" N | 101° 50' 24.60" E |
| (FAF)<br>SC201 | R-024 / 5.9D NTW | 06° 37' 03.22" N | 101° 47' 06.54" E |
| (MAPt)<br>SC202 | R-024 / 0.1D NTW | 06° 31' 43.54" N | 101° 44' 44.83" E |

CHANGE: VOR COORDINATE.

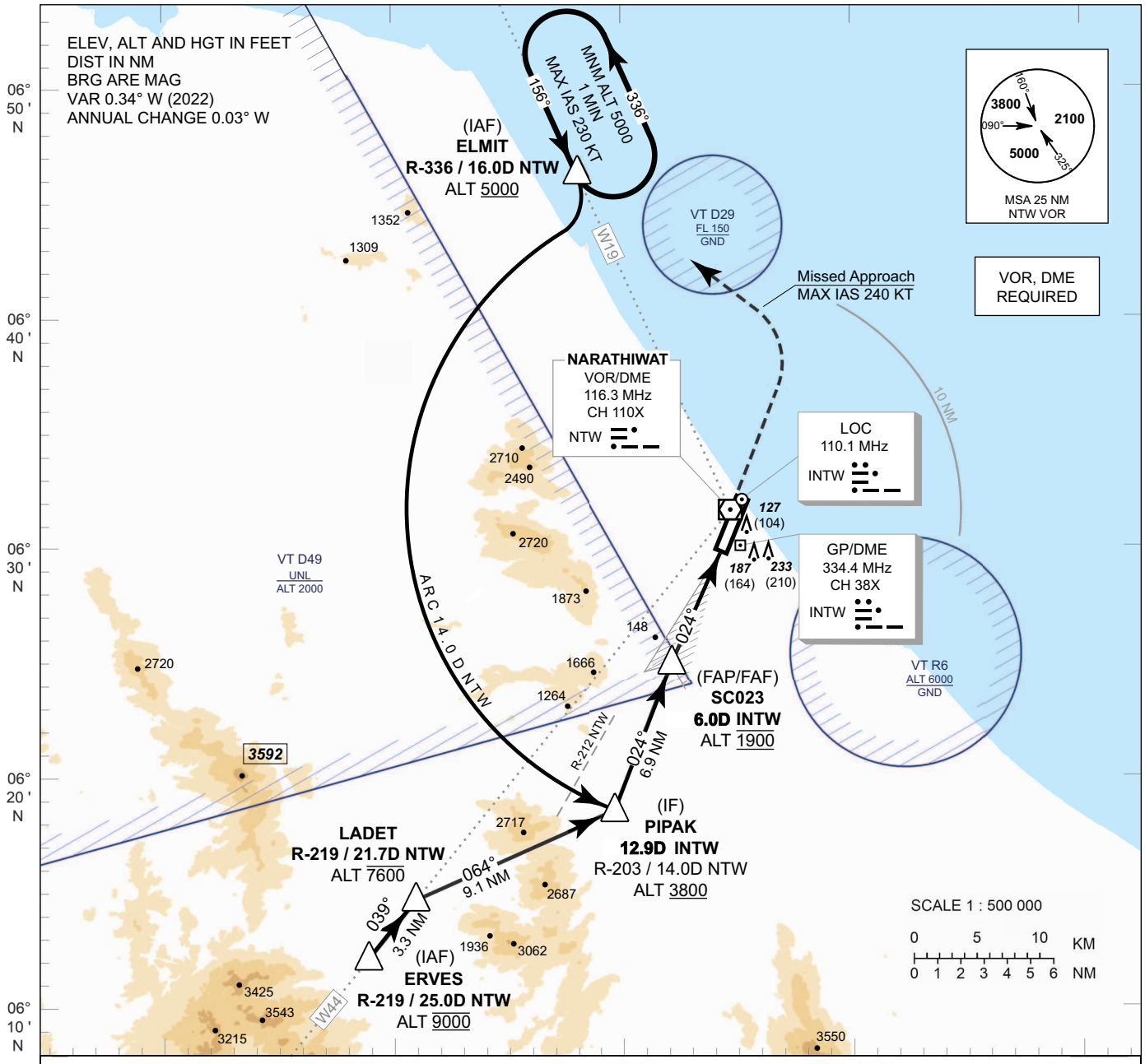
**INSTRUMENT APPROACH CHART - ICAO**

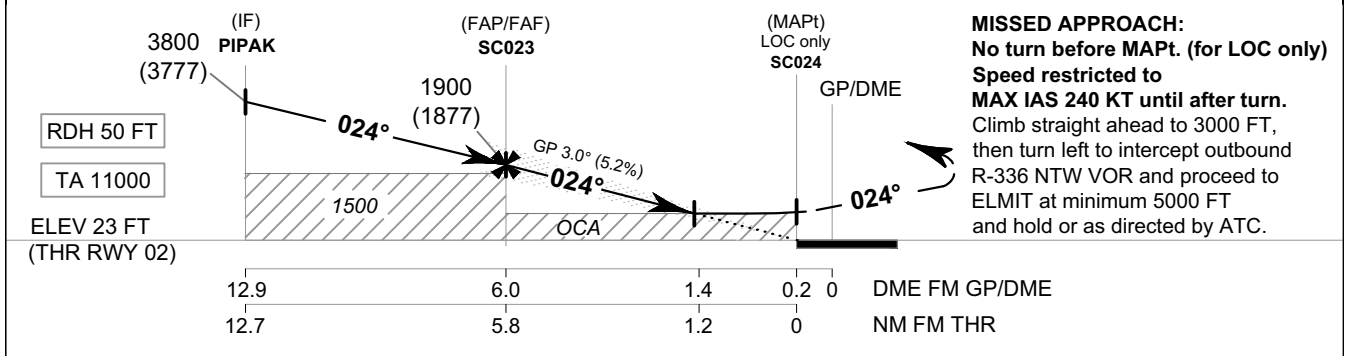
**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 23 FT

| | |
|---|---|
| APP | : 125.55 MHz |
| TWR | : 122.7, 236.6 MHz |
| GND | : 121.9 MHz |
| ATIS | : 383.0 kHz |

**NARATHIWAT / Narathiwat (VTSC)**

**ILS or LOC y RWY02**




**MISSED APPROACH:**
**No turn before MAPt. (for LOC only)**
**Speed restricted to**
**MAX IAS 240 KT until after turn.**
Climb straight ahead to 3000 FT, then turn left to intercept outbound R-336 NTW VOR and proceed to ELMIT at minimum 5000 FT and hold or as directed by ATC.

CHANGE: PIPAK, SC023 AND SC024 GP/DME DISTANCE.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 300 (277) | | | |
| LOC only | | 450 (427) | | | |
| Circling (OCH AAL) | | 900 (877) | | | |

| GS OUT | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Distance (INTW) | | FAF | 6D | 5D | 4D | 3D | 2D | 1.4D |
| Altitude (Height) | | 1900 (1877) | 1840 (1817) | 1525 (1502) | 1210 (1187) | 895 (872) | 580 (557) | 450 (427) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 | |
| Rate of Decent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 | |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 23 FT

**NARATHIWAT / Narathiwat (VTSC)**

**ILS or LOC y RWY02**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>ELMIT | R-336 / 16.0D NTW | 06° 46' 18.49" N | 101° 38' 07.93" E |
| (IAF)<br>ERVES | R-219 / 25.0D NTW | 06° 12' 07.88" N | 101° 28' 53.20" E |
| LADET | R-219 / 21.7D NTW | 06° 14' 40.58" N | 101° 30' 56.96" E |
| (IF)<br>PIPAK | 12.9D INTW | 06° 18' 41.73" N | 101° 39' 11.78" E |
| (FAP/FAF)<br>SC023 | 6.0D INTW | 06° 25' 05.99" N | 101° 41' 57.99" E |
| (MAPt)<br>SC024 | 0.2D INTW | 06° 30' 26.88" N | 101° 44' 16.86" E |
| LOC | INTW | 06° 31' 50.94" N | 101° 44' 53.29" E |
| GP/DME | INTW | 06° 30' 35.76" N | 101° 44' 24.99" E |
| VOR | NTW | 06° 31' 38.23" N | 101° 44' 42.45" E |

CHANGE : LOC, GP/DME AND VOR COORDINATE.
PIPAK, SC023 AND SC024 GP/DME DISTANCE.

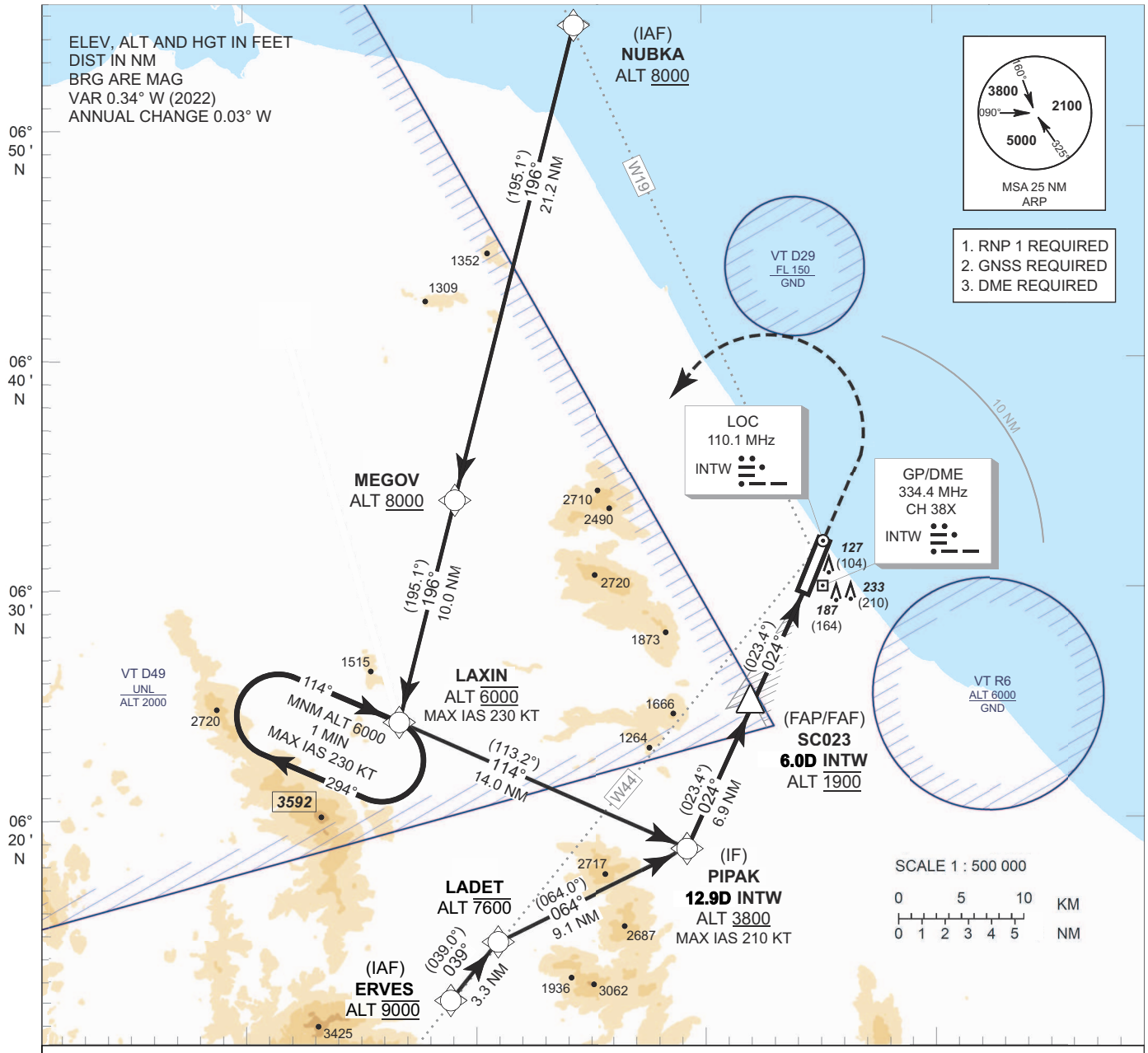
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 23 FT

APP : 125.55 MHz
TWR : 122.7, 236.6 MHz
GND : 121.9 MHz
ATIS : 383.0 kHz

**NARATHIWAT / Narathiwat (VTSC)**

**ILS or LOC z RWY02**




CHANGE: PIPAK, SC023 AND SC024 GP/DME DISTANCE.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 300 (277) | | | |
| LOC only | | 450 (427) | | | |
| Circling (OCH AAL) | | 900 (877) | | | |

| GS OUT | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Distance (INTW) | FAF | 6D | 5D | 4D | 3D | 2D | 1.4D |
| Altitude (Height) | 1900 (1877) | 1840 (1817) | 1525 (1502) | 1210 (1187) | 895 (872) | 580 (557) | 450 (427) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Decent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 23 FT

**NARATHIWAT / Narathiwat (VTSC)**

**ILS or LOC z RWY02**

**TABULAR DESCRIPTION**

| ILS or LOC z RWY02 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IAF) NUBKA | - | - | +0.40 | - | - | +8000 | - | - | RNP 1 |
| 020 | TF | MEGOV | - | 196° (195.1°) | +0.40 | 21.2 | - | +8000 | - | - | RNP 1 |
| 030 | TF | LAXIN | - | 196° (195.1°) | +0.40 | 10.0 | - | @6000 | -230 | - | RNP 1 |
| 040 | TF | (IF) PIPAK | - | 114° (113.2°) | +0.40 | 14.0 | - | +3800 | -210 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) ERVES | - | - | +0.40 | - | - | @9000 | - | - | RNP 1 |
| 020 | TF | LADET | - | 039° (039.0°) | +0.40 | 3.3 | - | -7600 | - | - | RNP 1 |
| 030 | TF | (IF) PIPAK | - | 064° (064.0°) | +0.40 | 9.1 | - | +3800 | -210 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) PIPAK | - | - | +0.40 | - | - | +3800 | -210 | - | RNP 1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | (FAF) SC023 | - | 024° (023.4°) | +0.40 | 6.9 | - | @1900 | - | - | ILS |
| 030 | TF | (MAPt @ THR02) SC024 | Y | 024° (023.4°) | +0.40 | 5.8 | - | @73 | - | -3.0/50 | ILS |
| 040 | CA | - | - | 024° (023.4°) | +0.40 | - | - | +1800 | - | - | RNP 1 |
| 050 | DF | LAXIN | - | - | +0.40 | - | L | @6000 | - | - | RNP 1 |
| 060 | HM | LAXIN | Y | 114° (113.2°) | +0.40 | 1 minute | R | +6000 | -230 | - | RNP 1 |

**WAYPOINT LIST**

| ILS or LOC z RWY02 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| ERVES | 06° 12' 07.88" N 101° 28' 53.20" E |
| LADET | 06° 14' 40.58" N 101° 30' 56.96" E |
| LAXIN | 06° 24' 15.00" N 101° 26' 14.66" E |
| MEGOV | 06° 33' 57.05" N 101° 28' 51.75" E |
| NUBKA | 06° 54' 33.58" N 101° 34' 25.82" E |
| PIPAK | 06° 18' 41.73" N 101° 39' 11.78" E |
| SC023 | 06° 25' 05.99" N 101° 41' 57.99" E |
| SC024 | 06° 30' 26.88" N 101° 44' 16.86" E |

CHANGE : WAYPOINT LAXIN ALTITUDE RESTRICTION.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 23 FT

**NARATHIWAT / Narathiwat (VTSC)**

**ILS or LOC z RWY02**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IF)<br>PIPAK | 12.9D INTW | 06° 18' 41.73" N | 101° 39' 11.78" E |
| (FAP/FAF)<br>SC023 | 6.0D INTW | 06° 25' 03.53" N | 101° 41' 56.93" E |
| (MAPt @ THR02)<br>SC024 | 0.2D INTW | 06° 30' 26.88" N | 101° 44' 16.86" E |
| LOC | INTW | 06° 31' 50.94" N | 101° 44' 53.29" E |
| GP/DME | INTW | 06° 30' 35.76" N | 101° 44' 24.99" E |

CHANGE: LOC AND GP/DME COORDINATES.
PIPAK,SC023 AND SC024 GP/DME DISTANCE.

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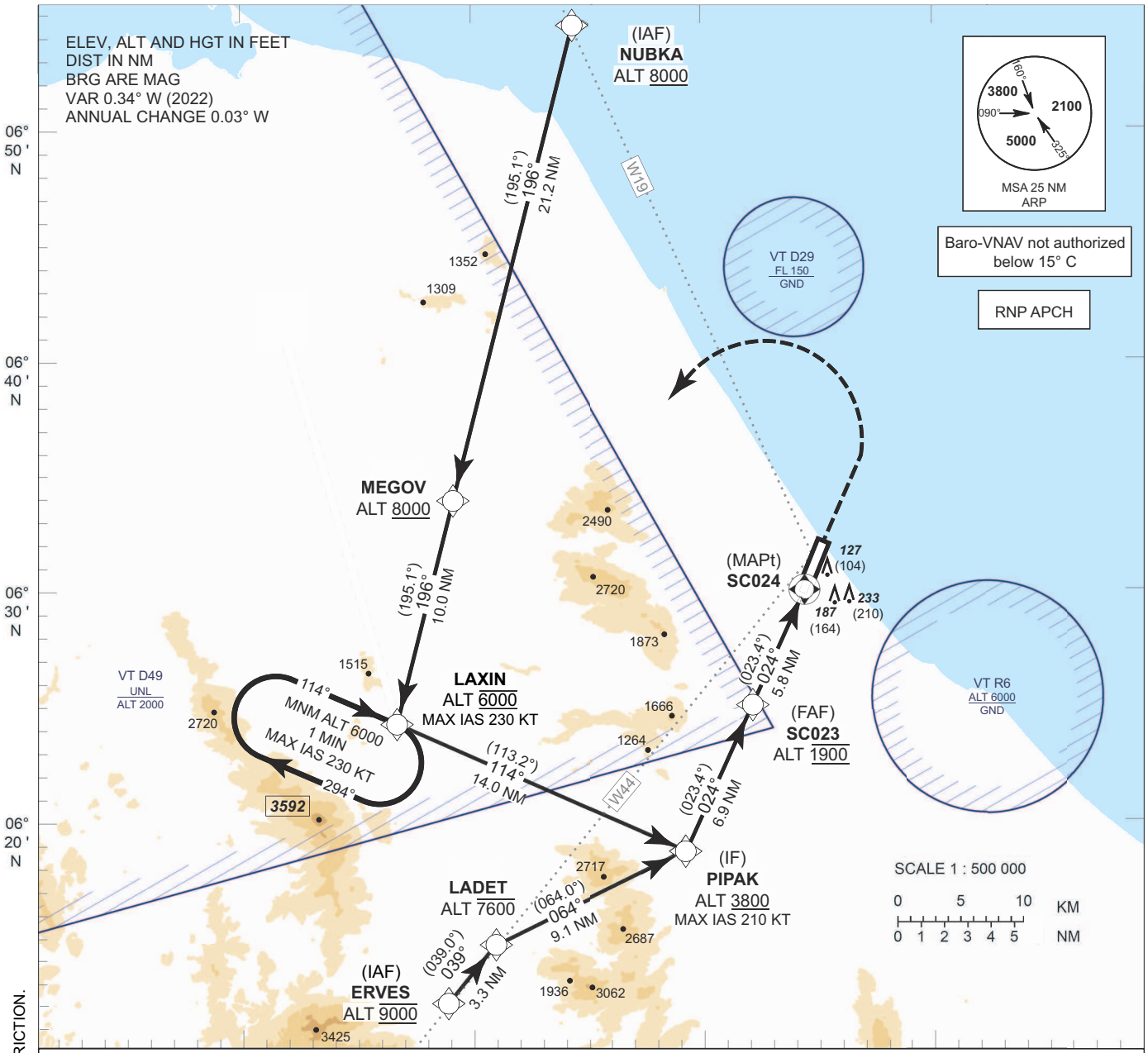
**INSTRUMENT APPROACH CHART - ICAO**

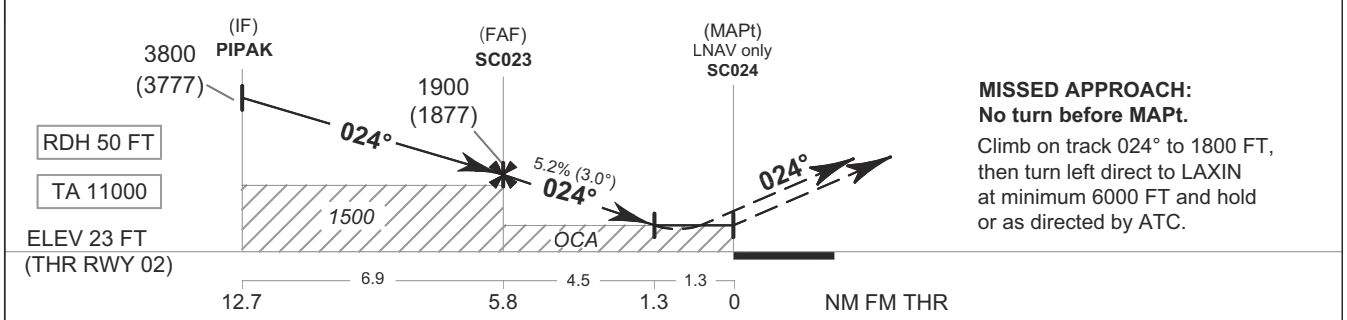
**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 23 FT

| | |
|---|---|
| APP | : 125.55 MHz |
| TWR | : 122.7, 236.6 MHz |
| GND | : 121.9 MHz |
| ATIS | : 383.0 kHz |

**NARATHIWAT / Narathiwat (VTSC)**

**RNP RWY02**




**MISSED APPROACH:**
**No turn before MAPt.**
Climb on track 024° to 1800 FT, then turn left direct to LAXIN at minimum 6000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 340 (317) | | | |
| LNAV | 480 (457) | | | |
| Circling (OCH AAL) | 900 (877) | | | |

| NM to NEXT WPT | | FAF | 5NM | 4NM | 3NM | 2NM | 1.3NM |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | | 1900 (1877) | 1650 (1627) | 1335 (1312) | 1020 (997) | 705 (682) | 480 (457) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Decent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : IAF WAYPOINT AND WAYPOINT LAXIN ALTITUDE RESTRICTION.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 23 FT

**NARATHIWAT / Narathiwat (VTSC)**

**RNP RWY02**

CHANGE : WAYPOINT LAXIN ALTITUDE RESTRICTION.

**TABULAR DESCRIPTION**

| RNP RWY02 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course °M (°T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| 010 | IF | (IAF) NUBKA | - | - | +0.40 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | MEGOV | - | 196° (195.1°) | +0.40 | 21.2 | - | +8000 | - | - | RNP APCH |
| 030 | TF | LAXIN | - | 196° (195.1°) | +0.40 | 10.0 | - | @6000 | -230 | - | RNP APCH |
| 040 | TF | (IF) PIPAK | - | 114° (113.2°) | +0.40 | 14.0 | - | +3800 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) ERVES | - | - | +0.40 | - | - | @9000 | - | - | RNP APCH |
| 020 | TF | LADET | - | 039° (039.0°) | +0.40 | 3.3 | - | -7600 | - | - | RNP APCH |
| 030 | TF | (IF) PIPAK | - | 064° (064.0°) | +0.40 | 9.1 | - | +3800 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) PIPAK | - | - | +0.40 | - | - | +3800 | -210 | - | RNP APCH |
| 020 | TF | (FAF) SC023 | - | 024° (023.4°) | +0.40 | 6.9 | - | @1900 | - | - | RNP APCH |
| 030 | TF | (MAPt @ THR02) SC024 | Y | 024° (023.4°) | +0.40 | 5.8 | - | @73 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 024° (023.4°) | +0.40 | - | - | +1800 | - | - | RNP APCH |
| 050 | DF | LAXIN | - | - | +0.40 | - | L | @6000 | - | - | RNP APCH |
| 060 | HM | LAXIN | Y | 114° (113.2°) | +0.40 | 1 minute | R | +6000 | -230 | - | RNP APCH |

**WAYPOINT LIST**

| RNP RWY02 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| ERVES | 06° 12' 07.88" N 101° 28' 53.20" E |
| LADET | 06° 14' 40.58" N 101° 30' 56.96" E |
| LAXIN | 06° 24' 15.00" N 101° 26' 14.66" E |
| MEGOV | 06° 33' 57.05" N 101° 28' 51.75" E |
| NUBKA | 06° 54' 33.58" N 101° 34' 25.82" E |
| PIPAK | 06° 18' 41.73" N 101° 39' 11.78" E |
| SC023 | 06° 25' 05.99" N 101° 41' 57.99" E |
| SC024 | 06° 30' 26.88" N 101° 44' 16.86" E |

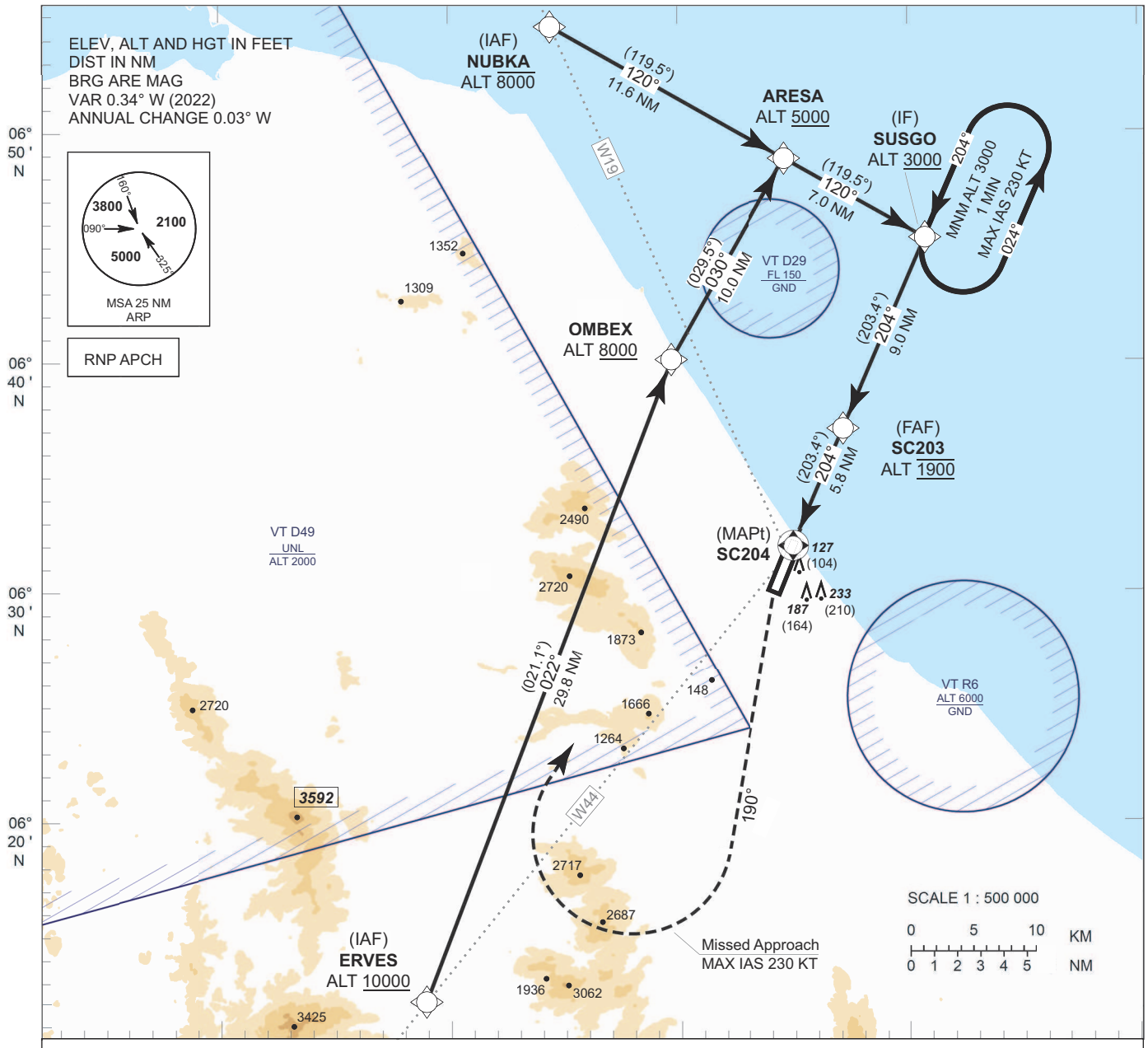
**INSTRUMENT APPROACH CHART - ICAO**

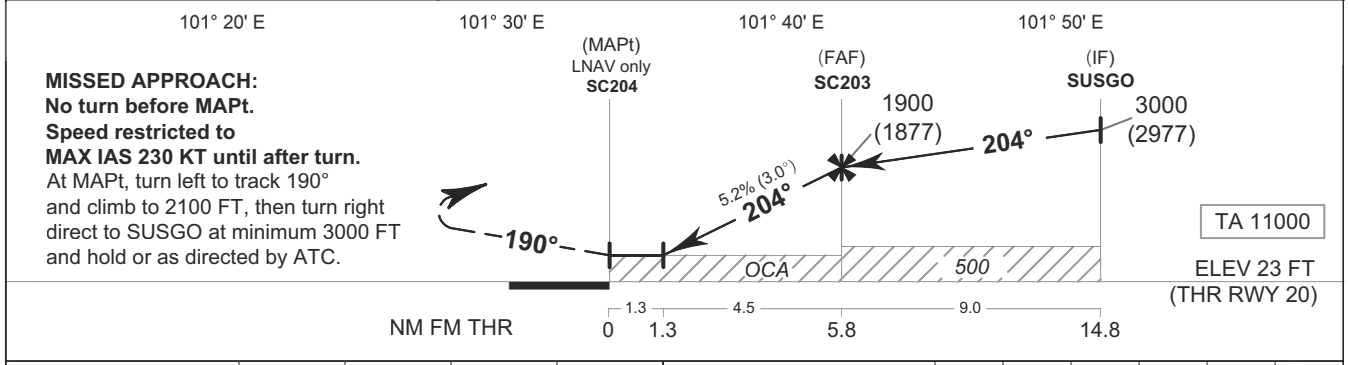
**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | |
|---|---|
| APP | : 125.55 MHz |
| TWR | : 122.7, 236.6 MHz |
| GND | : 121.9 MHz |
| ATIS | : 383.0 kHz |

**NARATHIWAT / Narathiwat (VTSC)**

**RNP RWY20**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV | 480 (457) | | | |
| Circling (OCH AAL) | 900 (877) | | | |

| NM to NEXT WPT | | 1.3NM | 2NM | 3NM | 4NM | 5NM | FAF |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | | 480 (457) | 705 (682) | 1020 (997) | 1335 (1392) | 1650 (1597) | 1900 (2077) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Decent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 23 FT**
HEIGHTS RELATED TO AERODROME ELEV

**NARATHIWAT / Narathiwat (VTSC)**

**RNP RWY20**

**TABULAR DESCRIPTION**

| RNP RWY20 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IAF) NUBKA | - | - | +0.40 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | ARESA | - | 120° (119.5°) | +0.40 | 11.6 | - | +5000 | - | - | RNP APCH |
| 030 | TF | (IF) SUSGO | - | 120° (119.5°) | +0.40 | 7.0 | - | +3000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) ERVES | - | - | +0.40 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | OMBEX | - | 022° (021.1°) | +0.40 | 29.8 | - | +8000 | - | - | RNP APCH |
| 030 | TF | ARESA | - | 030° (029.5°) | +0.40 | 10.0 | - | +5000 | - | - | RNP APCH |
| 040 | TF | (IF) SUSGO | - | 120° (119.5°) | +0.40 | 7.0 | - | +3000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) SUSGO | - | - | +0.40 | - | - | +3000 | - | - | RNP APCH |
| 020 | TF | (FAF) SC203 | - | 204° (203.4°) | +0.40 | 9.0 | - | @1900 | - | - | RNP APCH |
| 030 | TF | (MAPt @ THR20) SC204 | Y | 204° (203.4°) | +0.40 | 5.8 | - | @480 | - | - | RNP APCH |
| 040 | CA | - | - | 190° | +0.40 | - | L | +2100 | - | - | RNP APCH |
| 050 | DF | SUSGO | - | - | +0.40 | - | R | +3000 | - | - | RNP APCH |
| 060 | HM | SUSGO | Y | 204° (203.4°) | +0.40 | 1 minute | L | +3000 | - | - | RNP APCH |

**WAYPOINT LIST**

| RNP RWY20 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| ARESA | 06° 48' 48.09" N 101° 44' 36.94" E |
| ERVES | 06° 12' 07.88" N 101° 28' 53.20" E |
| NUBKA | 06° 54' 33.58" N 101° 34 25.82" E |
| SC203 | 06° 37' 02.45" N 101° 47' 08.32" E |
| SC204 | 06° 31' 41.55" N 101° 44' 49.22" E |
| SUSGO | 06° 45' 20.25" N 101° 50' 44.22" E |
| OMBEX | 06° 40' 03.37" N 101° 39' 39.97" E |

## VTSK AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSK - PATTANI / PATTANI AIRPORT

## VTSK AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 064708.55N 1010913.09E |
| 2 | Direction and distance from (city) | 16 KM S, from city |
| 3 | Elevation/Reference temperature | 8 FT/35°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.14°W (2016)/0°0'E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Air Task Force 9, Royal Thai Air Force<br>Pattani Airport<br>Amphoe Nongjig<br>Pattani Province 94170<br>Thailand<br>Tel: +667 343 1190<br>+667 343 7023<br>Fax: +667 343 1195<br>AFS: VTSKYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTSK AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | HJ |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | HJ |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100, outside this period 1 HR PN to Pattani Tower |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTSK AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTSK AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Taxi |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTSK AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | NIL |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTSK AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons |

## VTSK AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete and asphalt<br>Strength: PCN 27/F/A/Y/T |
| 2 | Taxiway width, surface and strength | Width: 20 M<br>Surface: Concrete and asphalt<br>Strength: PCN 27/F/A/Y/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSK AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Markings and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSK AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| - | Radio mast HGT 30 M painted red/white LGTD on top | 073500N 0993700E | NIL | NIL | NIL |
| Final RWY 08 (Right side) | Cell phone antenna HGT 148 FT AGL Dist 1,300 M to THR | 064700N 1010810E | | | |

## VTSK AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | NIL |
| 2 | Hours of service<br>MET Office outside hours | NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | supply TAF from Southern (East coast) Regional Met. Center |
| 4 | Type of landing forecast<br>Interval of issuance | supply TAF from Southern (East coast) Regional Met. Center |
| 5 | Briefing/consultation provided | No |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | Daily Weather Forecast |
| 8 | Supplementary equipment available for providing information | NIL |
| 9 | ATS units provided with information | NIL |
| 10 | Additional information (limitation of service, etc.) | IP system |

## VTSK AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 08 | 085.05° | 1400x40 | PCN 27/F/A/Y/T<br>Concrete and asphalt | 064706.12N 1010850.08E | THR 7 FT<br>TDZ 7 FT |
| 26 | 265.05° | 1400x40 | PCN 27/F/A/Y/T<br>Concrete and asphalt | 064709.17N 1010935.62E | THR 8 FT<br>TDZ 8 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | 30x55 | NIL | 1700x300 | NIL | NIL |
| NIL | 150x55 | NIL | 1700x300 | NIL | NIL |

## VTSK AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 08 | 1400 | 1400 | 1430 | 1400 | NIL |
| 26 | 1400 | 1400 | 1550 | 1400 | NIL |

## VTSK AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 08 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |
| 26 | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL | NIL |

## VTSK AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG WG EV 7 SEC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to ABN at the airport. |
| 5 | Remarks | Flares 2 HR PN |

## VTSK AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTSK AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centred on 064718.45N 1010852.51E |
| 2 | Vertical limits | 2000 ft/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Pattani Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSK AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Pattani Approach | 126.0 MHz | 23:00-11:00 [2] | [1] Emergency frequency<br>[2] Outside this period and Holiday<br>1 HR PN to ATC |
| TWR | Pattani Tower | 119.3 MHz<br>236.6 MHz<br>121.5 MHz [1] | H24 | |

## VTSK AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NIL | | | | | | |

## VTSK AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTSK AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSK AD 2.22 FLIGHT PROCEDURES

NIL

## VTSK AD 2.23 ADDITIONAL INFORMATION

NIL

## VTSK AD 2.24 CHARTS RELATED TO AN AERODROME

| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSK-2-1 |
| Instrument Approach Chart - ICAO - RNP RWY 08 CAT A, B | AD 2-VTSK-8-1 |
| Instrument Approach Chart - ICAO - RNP RWY 08 CAT A, B (Tabular description) | AD 2-VTSK-8-2 |
| Instrument Approach Chart - ICAO - RNP RWY 26 CAT A, B | AD 2-VTSK-8-3 |
| Instrument Approach Chart - ICAO - RNP RWY 26 CAT A, B (Tabular description) | AD 2-VTSK-8-4 |

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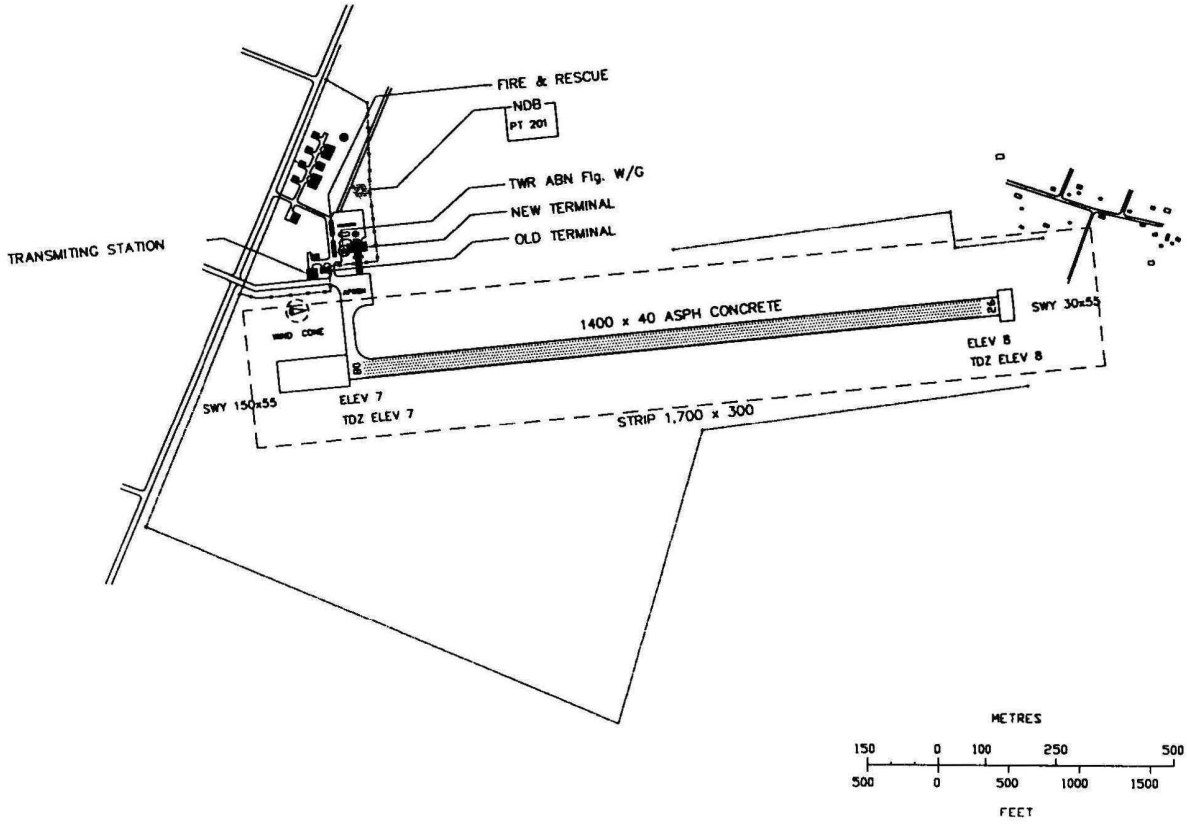
AERODROME CHART-ICAO 06° 47' 08" N 101° 09' 13" E ELEV 8 ft 2 m TWR 119.3 236.8 PATTANI/Pattani

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 08 | 85° | 06° 47' 06" N 101° 08' 50" E | PCN 21/F/C/X/T |
| 26 | 265° | 06° 47' 09" N 101° 09' 36" E | |
| APRON | | | PCN 21/R/C/X/T |

VAR 0° 0' (2001)

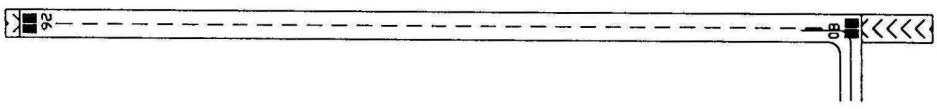
ANNUAL RATE OF CHANGE 3'E

- ELEVETIONS IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC

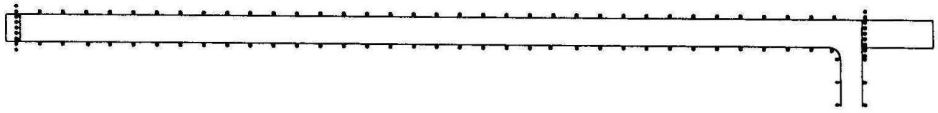



Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 08/26 AND EXIT TWY




LIGHTING AIDS RWY 08/26 AND EXIT TWY



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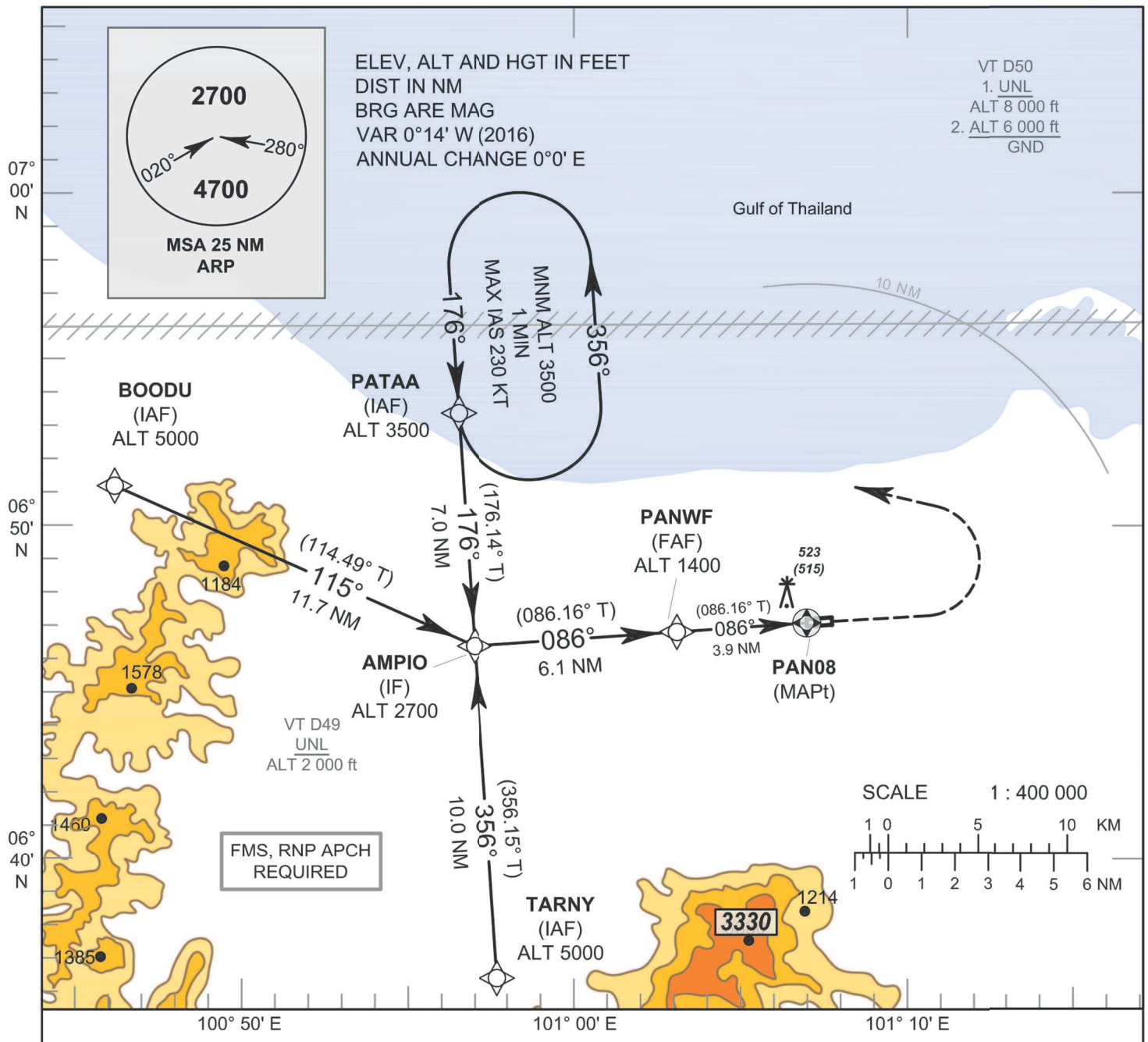
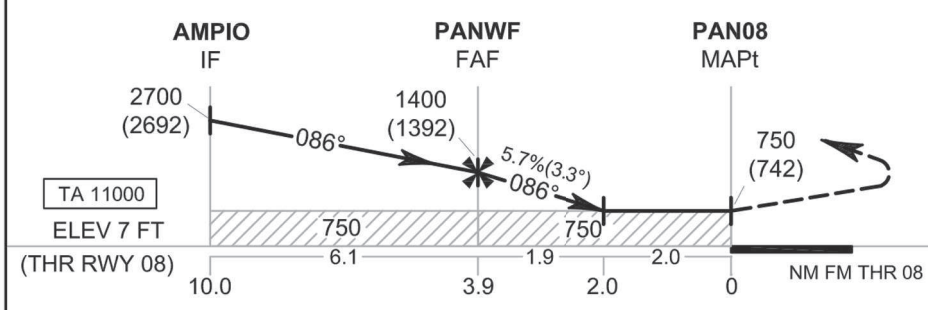
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 126.0
TWR : 119.3

**PATTANI / Pattani (VTSK)**
**RNP RWY08**
**CAT A, B**




**MISSED APPROACH :**

**No turn before MAPt.**
Climb on track 086 ° to 2000 FT, then turn left direct to PATAA at 3500 FT and hold or as directed by ATC.

CHANGE: CANCEL W14

| OCA/H | A | B | NM to NEXT WPT | FAF | 3 NM | 2 NM |
|---|---|---|---|---|---|---|
| LNAV | 750 (742) | | Altitude (Height) | 1400 (1392) | 1095 (1087) | 750 (742) |
| | | | Ground speed | knot 70 | 90 100 | 120 140 160 |
| Circling (OCH AAL) | 1900 (1892) | | Rate of descent FAF-MAPt (5.7%) | (ft/min) 404 | 519 577 | 693 808 924 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PATTANI / Pattani (VTSK)**
**RNP RWY08**
**CAT A, B**

## TABULAR DESCRIPTION

**RNP RWY08**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | PATAA (IAF) | - | - | + 0.2 | - | - | @3500 | - | - | RNP APCH |
| 020 | TF | AMPIO (IF) | - | 176°(176.14°) | + 0.2 | 7.0 | - | @2700 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | BOODU (IAF) | - | - | + 0.2 | - | - | @5000 | - | - | RNP APCH |
| 020 | TF | AMPIO (IF) | - | 115°(114.49°) | + 0.2 | 11.7 | - | @2700 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | TARNY (IAF) | - | - | + 0.2 | - | - | @5000 | - | - | RNP APCH |
| 020 | TF | AMPIO (IF) | - | 356°(356.15°) | + 0.2 | 10.0 | - | @2700 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | AMPIO (IF) | - | - | + 0.2 | - | - | @2700 | - | - | RNP APCH |
| 020 | TF | PANWF (FAF) | - | 086°(086.16°) | + 0.2 | 6.1 | - | @1400 | - | - | RNP APCH |
| 030 | TF | PAN08 (MAPt) | Y | 086°(086.16°) | + 0.2 | 3.9 | - | @750 | - | - | RNP APCH |
| 040 | CA | - | - | 086°(086.16°) | + 0.2 | - | - | + 2000 | - | - | RNP APCH |
| 050 | DF | PATAA (IAF) | - | - | + 0.2 | - | L | + 3500 | - | - | RNP APCH |
| 060 | HM | PATAA (IAF) | Y | 176°(176.14°) | + 0.2 | 1 minute | L | + 3500 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY08**

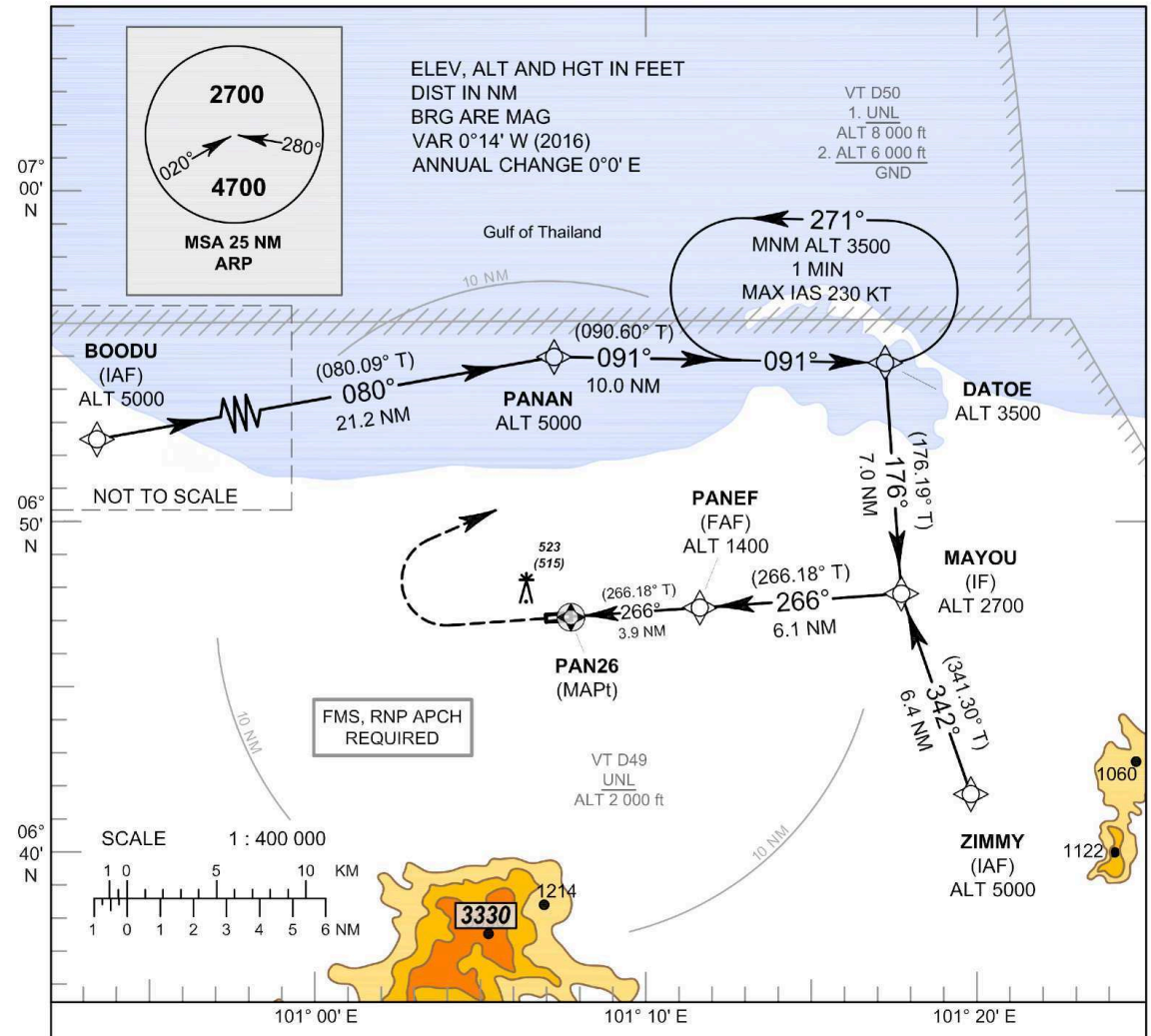
| Waypoint Identifier | Coordinates | |
|---|---|---|
| PATAA | 06° 53' 26.76" N | 100° 58' 19.94" E |
| BOODU | 06° 51' 17.61" N | 100° 48' 07.49" E |
| TARNY | 06° 36' 24.20" N | 100° 59' 28.85" E |
| AMPIO | 06° 46' 25.71" N | 100° 58' 48.33" E |
| PANWF | 06° 46' 50.39" N | 101° 04' 55.39" E |
| PAN08 (THR 08) | 06° 47' 06.12" N | 101° 08' 50.08" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO AERODROME ELEV

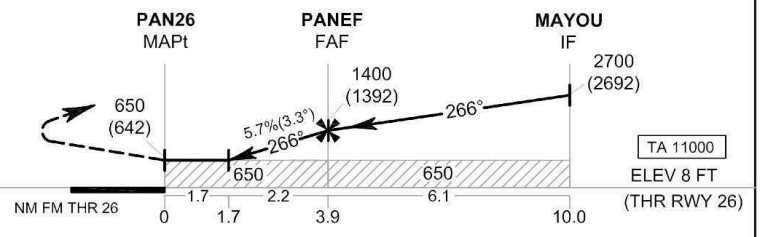
APP : 126.0
TWR : 119.3

**PATTANI / Pattani (VTSK)**
**RNP RWY26**
**CAT A, B**




**MISSED APPROACH :**

**No turn before MAPt.**
Climb on track 266° to 2000 FT, then turn right direct to DATOE at 3500 FT and hold or as directed by ATC.




CHANGE: CANCEL W14

| OCA/H | A | B | NM to NEXT WPT | 1.7 NM | 2 NM | 3 NM | FAF |
|---|---|---|---|---|---|---|---|
| LNAV | 650 (642) | | Altitude (Height) | 650 (642) | 750 (742) | 1095 (1087) | 1400 (1392) |
| | | | Ground speed | knot 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1900 (1892) | | Rate of descent FAF-MAPt (5.7%) | (ft/min) 404 | 519 | 577 | 693 | 808 | 924 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 8 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PATTANI / Pattani (VTSK)**
**RNP RWY26**
**CAT A, B**

## TABULAR DESCRIPTION

**RNP RWY26**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | ZIMMY (IAF) | - | - | + 0.2 | - | - | @5000 | - | - | RNP APCH |
| 020 | TF | MAYOU (IF) | - | 342°(341.30°) | + 0.2 | 6.4 | - | @2700 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | BOODU (IAF) | - | - | + 0.2 | - | - | @5000 | - | - | RNP APCH |
| 020 | TF | PANAN | - | 080°(080.09°) | + 0.2 | 21.2 | R | @5000 | - | - | RNP APCH |
| 030 | TF | DATOE | - | 091°(090.60°) | + 0.2 | 10.0 | R | @3500 | - | - | RNP APCH |
| 040 | TF | MAYOU (IF) | - | 176°(176.19°) | + 0.2 | 7.0 | - | @2700 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MAYOU (IF) | - | - | + 0.2 | - | - | @2700 | - | - | RNP APCH |
| 020 | TF | PANEF (FAF) | - | 266°(266.18°) | + 0.2 | 6.1 | - | @1400 | - | - | RNP APCH |
| 030 | TF | PAN26 (MAPt) | Y | 266°(266.18°) | + 0.2 | 3.9 | - | @650 | - | - | RNP APCH |
| 040 | CA | - | - | 266°(266.18°) | + 0.2 | - | - | + 2000 | - | - | RNP APCH |
| 050 | DF | DATOE | - | - | + 0.2 | - | R | + 3500 | - | - | RNP APCH |
| 060 | HM | DATOE | Y | 091°(090.60°) | + 0.2 | 1 minute | L | + 3500 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY26**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| ZIMMY | 06° 41' 42.51" N | 101° 21' 41.65" E |
| BOODU | 06° 51' 17.61" N | 100° 48' 07.49" E |
| PANAN | 06° 54' 56.90" N | 101° 09' 06.07" E |
| DATOE | 06° 54' 50.44" N | 101° 19' 09.32" E |
| MAYOU | 06° 47' 49.36" N | 101° 19' 37.41" E |
| PANEF | 06° 47' 24.87" N | 101° 13' 30.31" E |
| PAN26 (THR 26) | 06° 47' 09.17" N | 101° 09' 35.62" E |

## VTPB AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTPB - PHETCHABUN / PHETCHABUN AIRPORT

## VTPB AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 164033.71N 1011142.39E |
| 2 | Direction and distance from (city) | 36 KM N, from city |
| 3 | Elevation/Reference temperature | 450 FT |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.76°W (2016)/0.00°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Phetchabun Airport<br>Phetchabun Airport<br>Tambon Lanbah, Amphoe Lomsak<br>Phetchabun Province 67110, Thailand<br>Tel: +665 671 3569<br>+665 671 3571<br>Fax: +665 671 3570<br>AFS: VTPBYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTPB AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phitsanulok Airport (1st floor of airport building)<br>Tel: +665 530 1078<br>+669 2262 3140<br>Fax: +665 530 1077 |

## VTPB AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTPB AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | NIL |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTPB AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 5 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTPB AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTPB AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 45/R/C/X/T |
| 2 | Taxiway width, surface and strength | Surface: Concrete and asphalt<br>Strength: PCN 42/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTPB AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Markings and lighted |
| 3 | Stop bars | Marking |
| 4 | Remarks | NIL |

## VTPB AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTPB AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Phetchabun,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 482 4330 ext. 7308 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) and Weather Radar |
| 9 | ATS units provided with information | Phetchabun TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTPB AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 180.33° | 2100x45 | PCN 42/F/C/X/T Concrete and asphalt | 164107.89N 1011142.42E | THR 450 FT TDZ 450 FT |
| 36 | 000.33° | 2100x45 | PCN 42/F/C/X/T Concrete and asphalt | 163959.52N 1011142.36E | THR 449 FT TDZ 449 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | 60x45 | NIL | 2340x300 | NIL | NIL |
| NIL | 60x45 | NIL | 2340x300 | NIL | NIL |

## VTPB AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 2100 | 2100 | 2160 | 2100 | NIL |
| 36 | 2100 | 2100 | 2160 | 2100 | NIL |

## VTPB AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18 | NIL | Green | PAPI Left 3.3° (15.72 M) | NIL | NIL | 2100 M 60 M White, LIH | Red | NIL | NIL |
| 36 | SALS 420M LIH | Green | PAPI Left 3° (15.72 M) | NIL | NIL | 2100 M 60 M White, LIH | Red | NIL | NIL |

## VTPB AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: ABN: on top of control tower, FLG W G EV 2.5 SEC.,HO, HS<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | LIM TWY EDGE Lighting |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the airport.<br>Switch - over time 10 SEC. |
| 5 | Remarks | NIL |

## VTPB AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | 1 Landing area on Taxiway B |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTPB AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centre on Phetchabun DVOR/DME (164033.66N 1011148.12E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Phetchabun Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTPB AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Phetchabun Approach | 126.7 MHZ | As AD OPR HR | NIL |
| TWR | Phetchabun Tower | 122.3 MHZ<br>236.6 MHZ | As AD OPR HR | NIL |

## VTPB AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | PH | 283 KHZ | H24 | 163939.13N 1011125.30E | | NDB can not provide adequate signal to 50 NM at required altitude in various areas due to mountainous area around the STN:<br>-RDL 041-180 DEG beyond 50 NM should not below 7000 FT.<br>-RDL 181-270 DEG beyond 50 NM should not below 7100 FT.<br>-RDL 271-340 DEG beyond 50 NM should not below 8500 FT.<br>-RDL 341-015 DEG flown to 45 NM should not below 8500 FT. (due to border limited)<br>-RDL 016-040 DEG beyond 50 NM should not below 7000 FT. |
| DVOR/DME | PCB | 115.4 MHZ CH101X | H24 | 164033.6N 1011147.9E | | DVOR/DME restrictions,<br>1. Unusable due to roughness out of tolerance on radial 277° distance between 7-9 DME altitude 5 500 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 061°-230° beyond 30 NM altitude should not below 6 500 FT<br>– Radial 231°-320° beyond 30 NM altitude should not below 8 000 FT<br>– Radial 321°-060° beyond 40 NM altitude should not below 7 500 FT |
| ILS CAT I RWY36 LOC/DME | IPCB | 109.1 MHZ CH28X | H24 | 164117.65N 1011142.43E | 446.84 FT | LOC designated operation coverage 18 NM, ALT 7000 FT AMSL |
| DME | | | H24 | 164117.66N 1011144.85E | | DME Paired with LOC FREQ |
| GP | | 331.4 MHZ | H24 | 164008.96N 1011146.42E | | GP 3 DEG, RDH 50 FT |

## VTPB AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTPB AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTPB AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

## 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

## 3. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 18:

PHETCHABUN OMNI 18 Departure: Required climb gradient 365 ft per NM (6.0%) until 8,000 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 912 | 1216 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 3,000 ft (or altitude assigned by ATC between 3,000 ft - 7,500 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 36:

PHETCHABUN OMNI 36 Departure: Required climb gradient 478 ft per NM (8.0%) until 8,000 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 8.0% | (ft/min) | 527 | 608 | 810 | 1215 | 1620 | 2025 | 2430 |

No turn before DER.
After departure climb straight ahead until 4,000 ft (or altitude assigned by ATC between 4,000 ft - 7,500 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTPB AD 2.23 ADDITIONAL INFORMATION

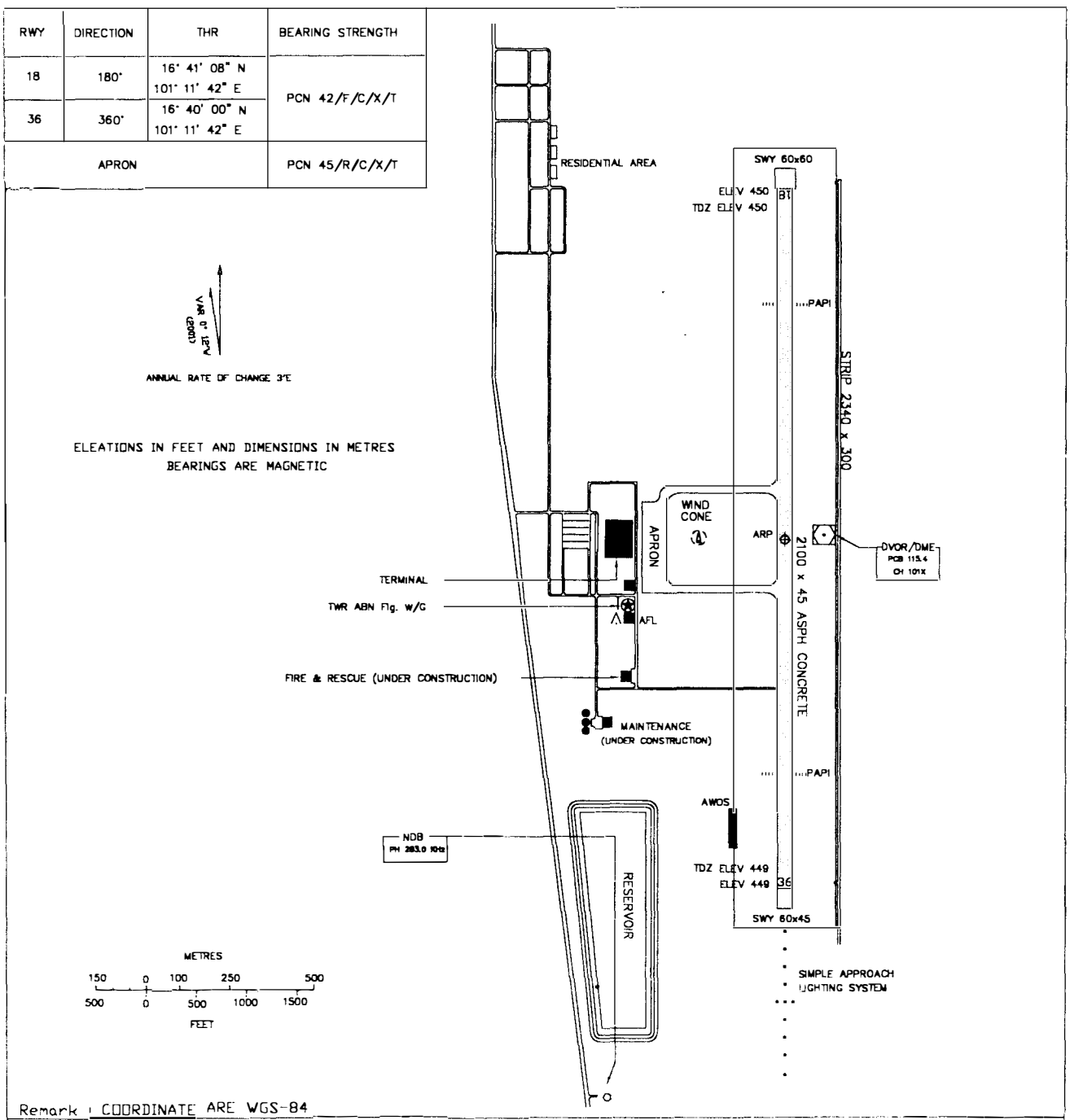
NIL

## VTPB AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTPB-2-1 |
| Instrument Approach Chart - ICAO - VOR RWY 36 | AD 2-VTPB-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 36 (Fix and point list table) | AD 2-VTPB-8-2 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 36 | AD 2-VTPB-8-3 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 36 (Fix and point list table) | AD 2-VTPB-8-4 |
| Instrument Approach Chart - ICAO - RNP RWY 18 | AD 2-VTPB-8-5 |
| Instrument Approach Chart - ICAO - RNP RWY 18 (Tabular description) | AD 2-VTPB-8-6 |
| Instrument Approach Chart - ICAO - RNP RWY 36 | AD 2-VTPB-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 36 (Tabular description) | AD 2-VTPB-8-8 |

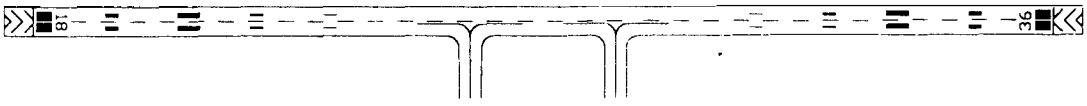
AERODROME CHART-ICAO 16° 40' 34" N 101° 11' 42" E ELEV 450 ft 137 m TWR 122.3 236.6 PHETCHABUN / Phetchabun

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 18 | 180° | 16° 41' 08" N 101° 11' 42" E | PCN 42/F/C/X/T |
| 36 | 360° | 16° 40' 00" N 101° 11' 42" E | |
| APRON | | | PCN 45/R/C/X/T |

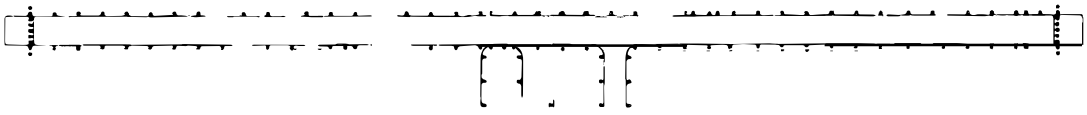



Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 18/36 AND EXIT TWY




LIGHTING AIDS RWY 18/36 AND EXIT TWY



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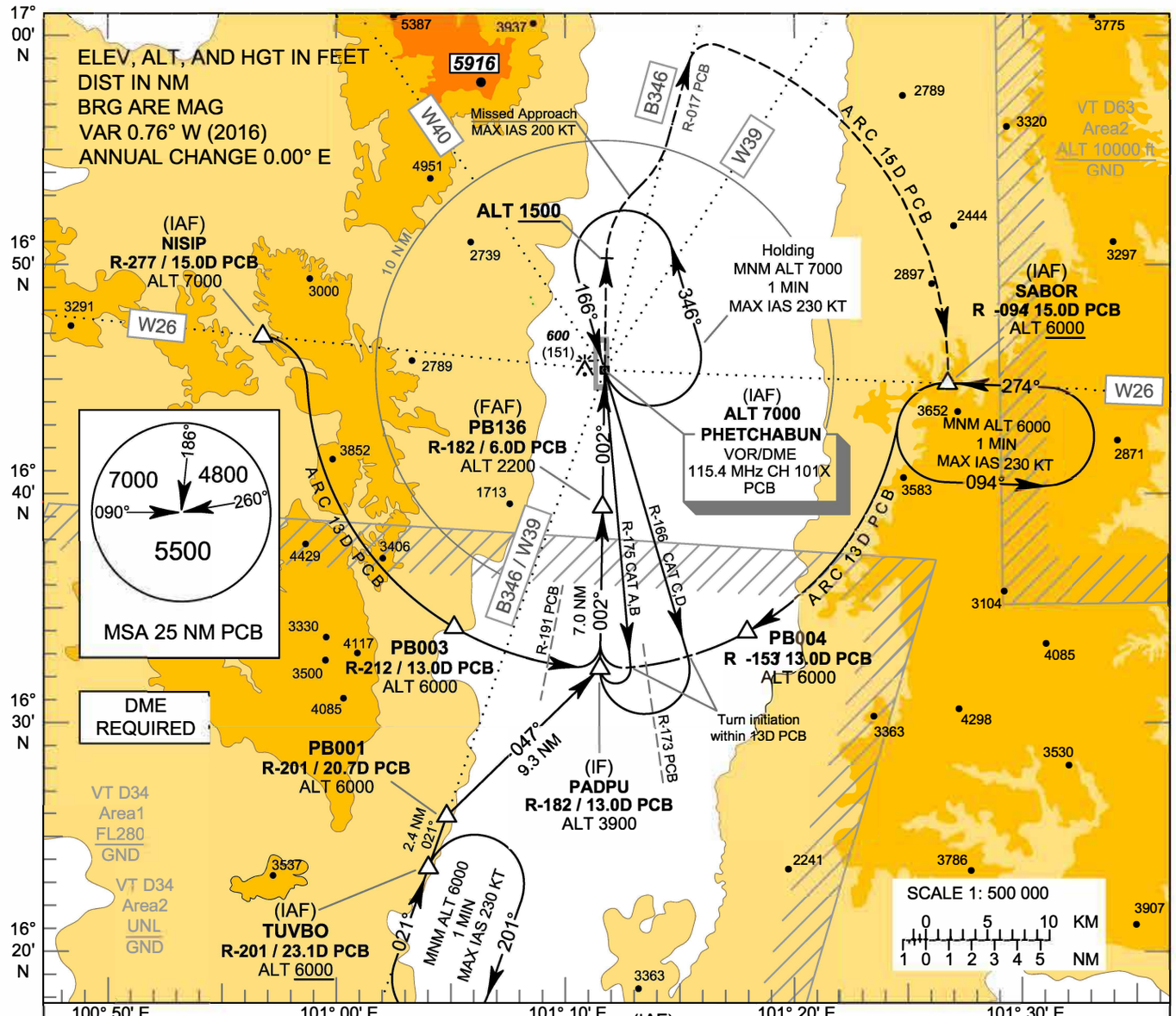
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 450 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 449 FT

APP : 126.7
TWR : 122.3 , 236.6

**PHETCHABUN / Phetchabun (VTPB)**

**VOR RWY36**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**

Climb straight ahead to 1500 FT, then turn right to intercept outbound R-017 PCB VOR proceed to 15 DME PCB.Follow arc 15 DME PCB to SABOR at 6000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | Distance (PCB) | FAF | 5 D | 4 D | 3 D | 2 D | 1.7 D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 850 (401) | | | | Altitude (Height) | 2200 (1751) | 1890 (1441) | 1575 (1126) | 1260 (811) | 940 (491) | 850 (401) |
| Circling (OCH AAL) | 1200 (750) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| * FOR CIRCLING RESTRICTIONS SEE VERSO | | | | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

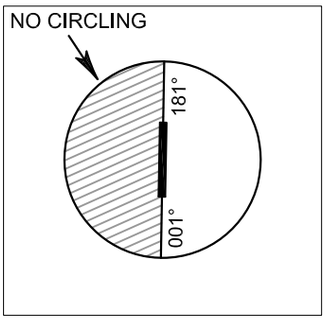
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 450 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 449 FT

**PHETCHABUN / Phetchabun (VTPB)**

**VOR RWY36**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| TUVBO (IAF) | R-201 / 23.1D PCB | 16 18 48.55 N | 101 03 32.62 E |
| PB001 | R-201 / 20.7D PCB | 16 21 03.32 N | 101 04 23.70 E |
| NISIP (IAF) | R-277 / 15.0D PCB | 16 42 12.28 N | 100 56 16.08 E |
| PB003 | R-212 / 13.0D PCB | 16 29 22.01 N | 101 04 50.36 E |
| SABOR (IAF) | R-094 / 15.0D PCB | 16 39 47.88 N | 101 27 24.46 E |
| PB004 | R-153 / 13.0D PCB | 16 29 01.59 N | 101 18 08.36 E |
| PADPU (IF) | R-182 / 13.0D PCB | 16 27 30.73 N | 101 11 26.58 E |
| PB136 (FAF) | R-182 / 6.0D PCB | 16 34 34.24 N | 101 11 38.23 E |
| MAPt | R-182 / 0.6D PCB | 16 39 59.46 N | 101 11 47.18 E |
| VOR (IAF) | PCB | 16 40 33.61 N | 101 11 47.89 E |




CHANGE: VOR COORDINATES.

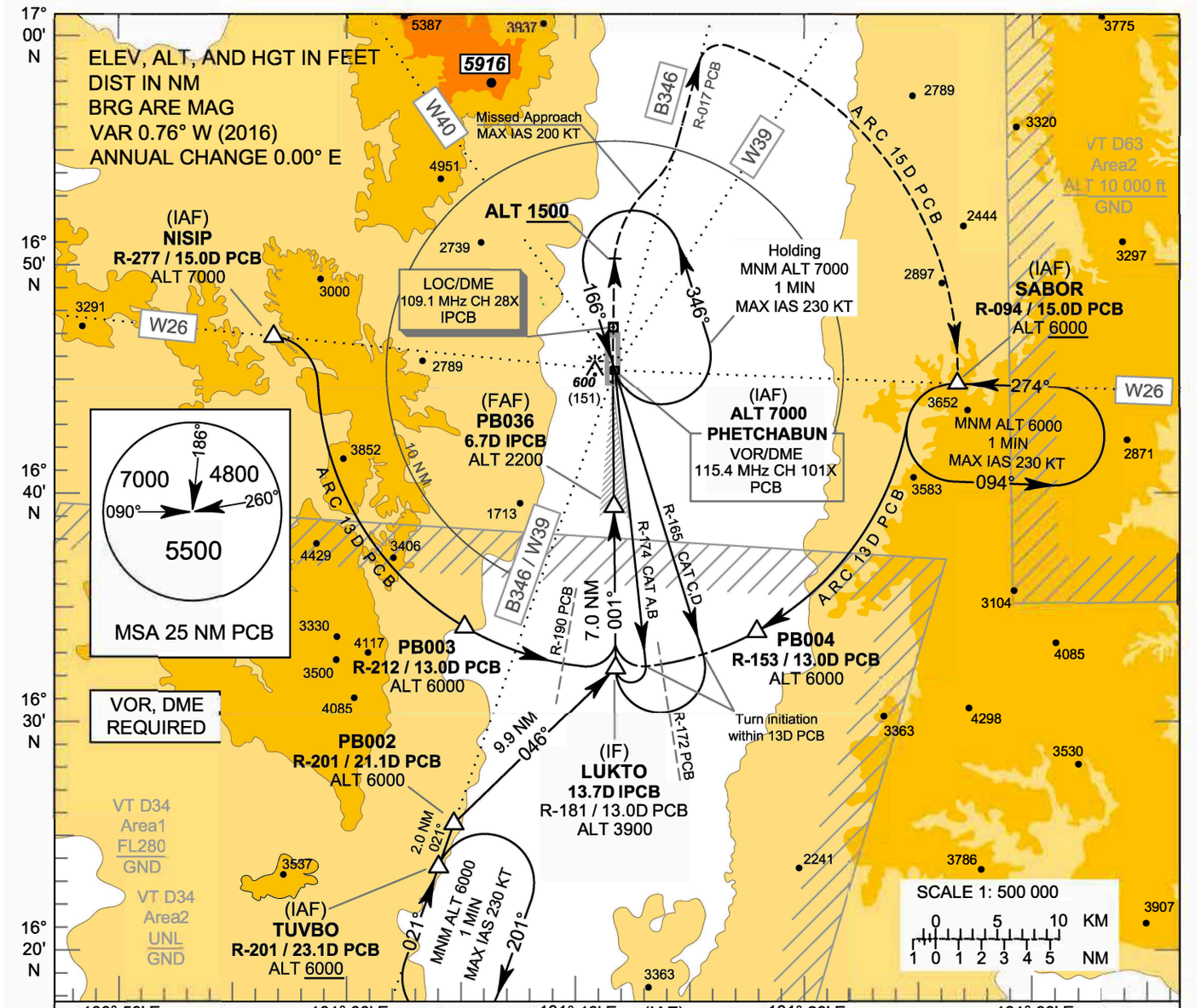
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 450 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 449 FT

APP : 126.7
TWR : 122.3 , 236.6

**PHETCHABUN / Phetchabun (VTPB)**

**ILS or LOC RWY36**




**MISSED APPROACH:**
**No turn before MAPt (for LOC only).**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**

Climb straight ahead to 1500 FT, then turn right to intercept outbound R-017 PCB VOR proceed to 15 DME PCB.Follow arc 15 DME PCB to SABOR at 6000 FT and hold or as directed by ATC.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 660 (211) | | | |
| LOC only | | 850 (401) | | | |
| Circling (OCH AAL) | | 1200 (750) | | | |

* FOR CIRCLING RESTRICTIONS SEE VERSO

| GS OUT | Distance (IPCB) | FAF | 6 D | 5 D | 4 D | 3 D | 2.4 D |
|---|---|---|---|---|---|---|---|
| | Altitude (Height) | 2200 (1751) | 1985 (1536) | 1670 (1221) | 1355 (906) | 1035 (586) | 850 (401) |
| | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

OCT 2017

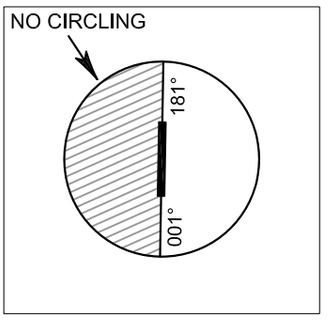
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 450 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 449 FT

**PHETCHABUN / Phetchabun (VTPB)**

**ILS or LOC RWY36**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| TUVBO (IAF) | R-201 / 23.1D PCB | 16 18 48.55 N | 101 03 32.62 E |
| PB002 | R-201 / 21.1D PCB | 16 20 41.71 N | 101 04 15.51 E |
| NISIP (IAF) | R-277 / 15.0D PCB | 16 42 12.28 N | 100 56 16.08 E |
| PB003 | R-212 / 13.0D PCB | 16 29 22.01 N | 101 04 50.36 E |
| SABOR (IAF) | R-094 / 15.0D PCB | 16 39 47.88 N | 101 27 24.46 E |
| PB004 | R-153 / 13.0D PCB | 16 29 01.59 N | 101 18 08.36 E |
| LUKTO (IF) | 13.7D IPCB | 16 27 30.47 N | 101 11 41.70 E |
| PB036 (FAF) | 6.7D IPCB | 16 34 34.19 N | 101 11 42.07 E |
| MAPt (LOC only) @THR36 | 1.3D IPCB | 16 39 59.52 N | 101 11 42.36 E |
| LOC / DME | IPCB | 16 41 17.64 N | 101 11 42.48 E |
| VOR (IAF) | PCB | 16 40 33.61 N | 101 11 47.89 E |
| GP | - | 16 40 08.95 N | 101 11 46.47 E |




CHANGE: VOR AND LOC/DME COORDINATES. GP COORDINATES ADDED.

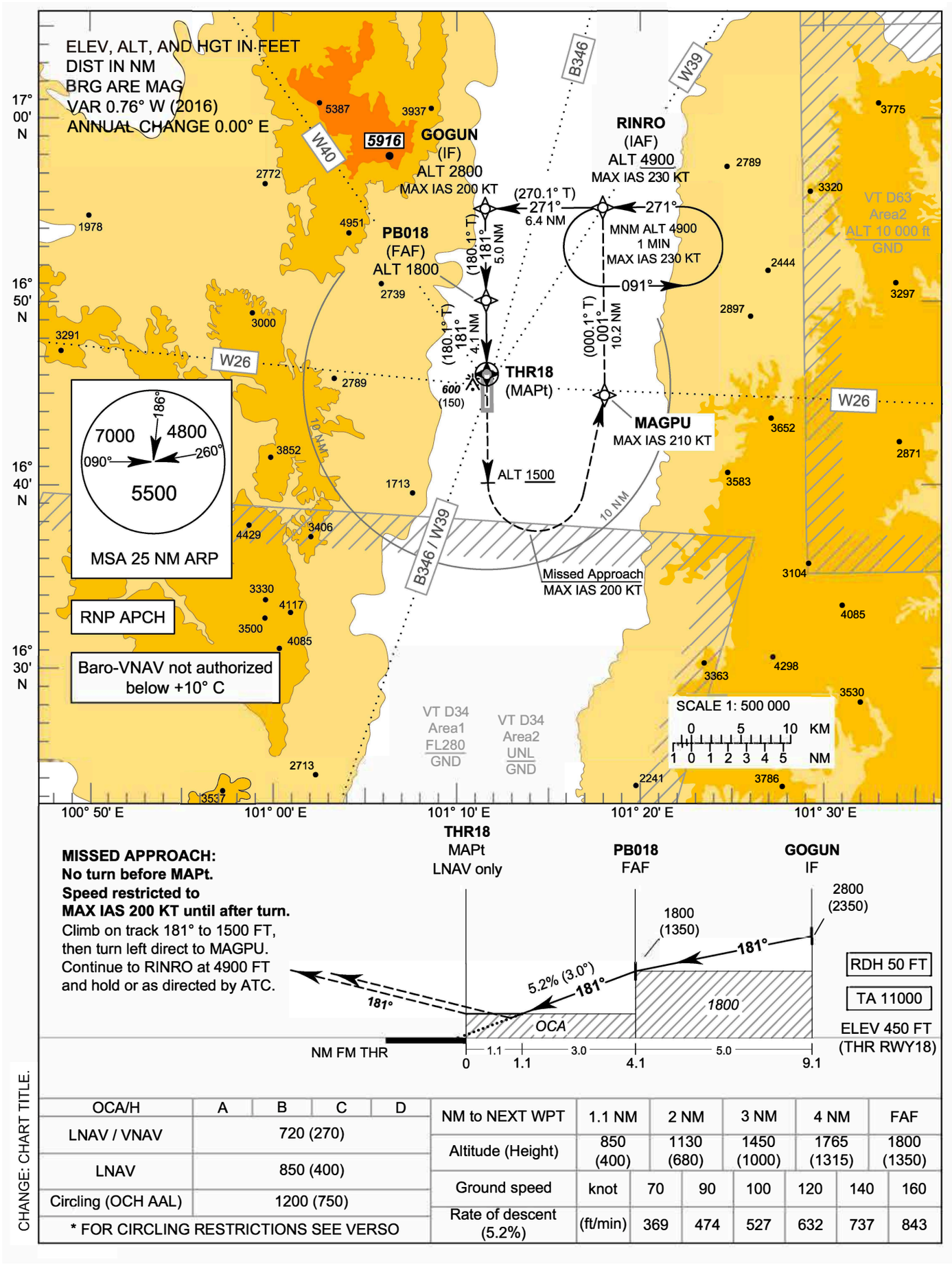
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 450 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 450 FT

APP : 126.7
TWR : 122.3 , 236.6

**PHETCHABUN / Phetchabun (VTPB)**

**RNP RWY18**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb on track 181° to 1500 FT,
then turn left direct to MAGPU.
Continue to RINRO at 4900 FT
and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV / VNAV | 720 (270) | | | |
| LNAV | 850 (400) | | | |
| Circling (OCH AAL) | 1200 (750) | | | |
| * FOR CIRCLING RESTRICTIONS SEE VERSO | | | | |

| NM to NEXT WPT | 1.1 NM | 2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|
| Altitude (Height) | 850 (400) | 1130 (680) | 1450 (1000) | 1765 (1315) | 1800 (1350) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 450 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 450 FT

**PHETCHABUN / Phetchabun (VTPB)**

**RNP RWY18**

## TABULAR DESCRIPTION

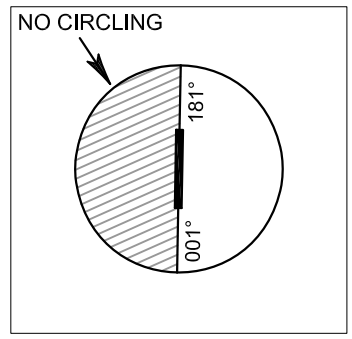
**RNP RWY18**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | RINRO (IAF) | - | - | +0.76 | - | - | +4900 | -230 | - | RNP APCH |
| 020 | TF | GOGUN (IF) | - | 271°(270.1°) | +0.76 | 6.4 | L | @2800 | -200 | - | RNP APCH |
| 030 | TF | PB018 (FAF) | - | 181°(180.1°) | +0.76 | 5.0 | - | @1800 | - | - | RNP APCH |
| 040 | TF | THR18 (MAPt) | Y | 181°(180.1°) | +0.76 | 4.1 | - | @500 | - | -3.0/50 | RNP APCH |
| 050 | CA | - | - | 181°(180.1°) | +0.76 | - | - | +1500 | -200 | - | RNP APCH |
| 060 | DF | MAGPU | - | - | +0.76 | - | L | - | -210 | - | RNP APCH |
| 070 | TF | RINRO | - | 001°(000.1°) | +0.76 | 10.2 | - | +4900 | -230 | - | RNP APCH |
| 080 | HM | RINRO | Y | 271°(270.1°) | +0.76 | 1 minute | L | +4900 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY18**

| Waypoint Identifier | Coordinates |
|---|---|
| RINRO | 16° 50' 15.69" N 101° 18' 23.91" E |
| GOGUN | 16° 50' 16.13" N 101° 11' 42.90" E |
| PB018 | 16° 45' 14.90" N 101° 11' 42.64" E |
| THR18 | 16° 41' 07.89" N 101° 11' 42.42" E |
| MAGPU | 16° 39' 59.14" N 101° 18' 23.01" E |



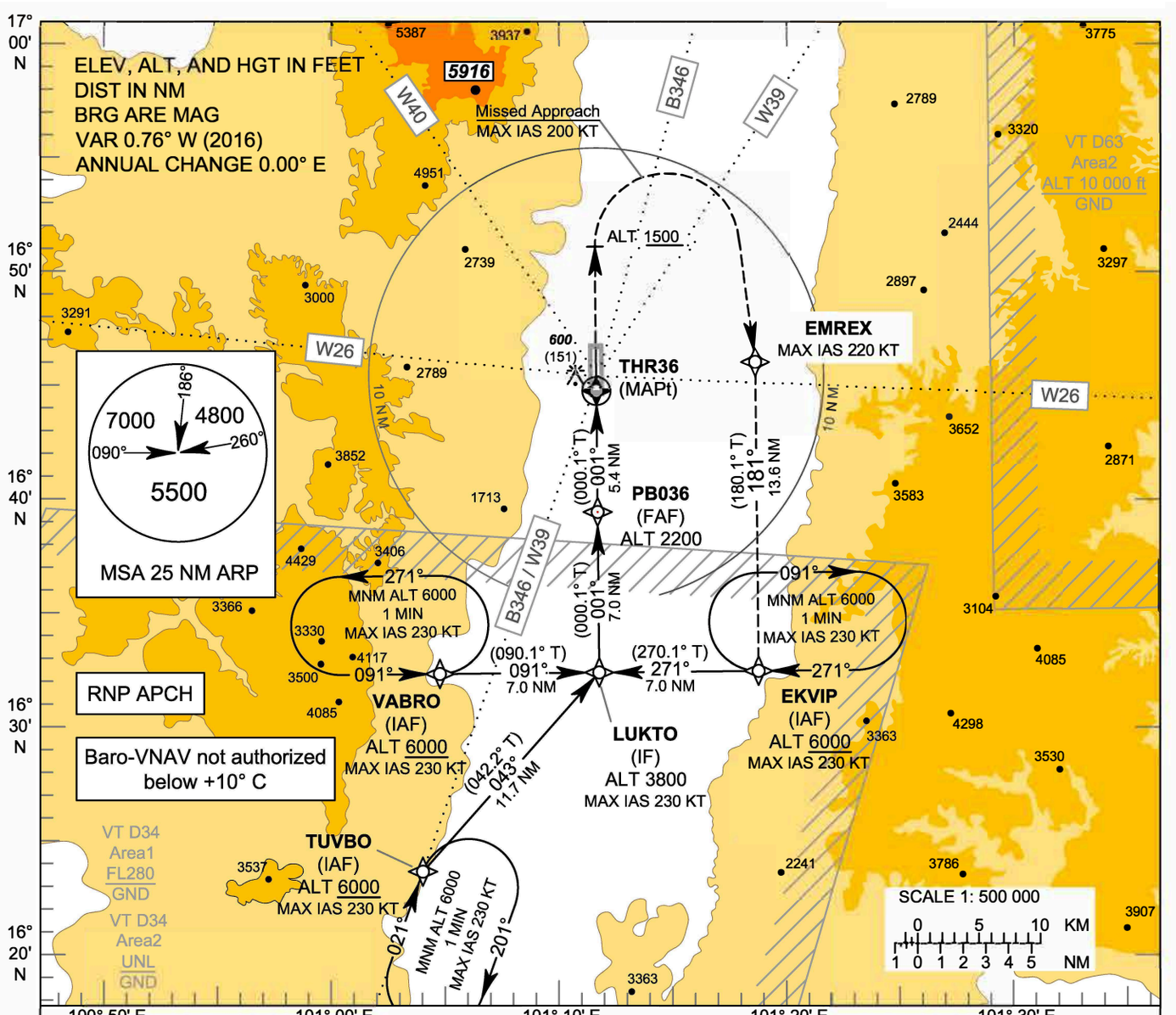
**INSTRUMENT APPROACH CHART - ICAO**

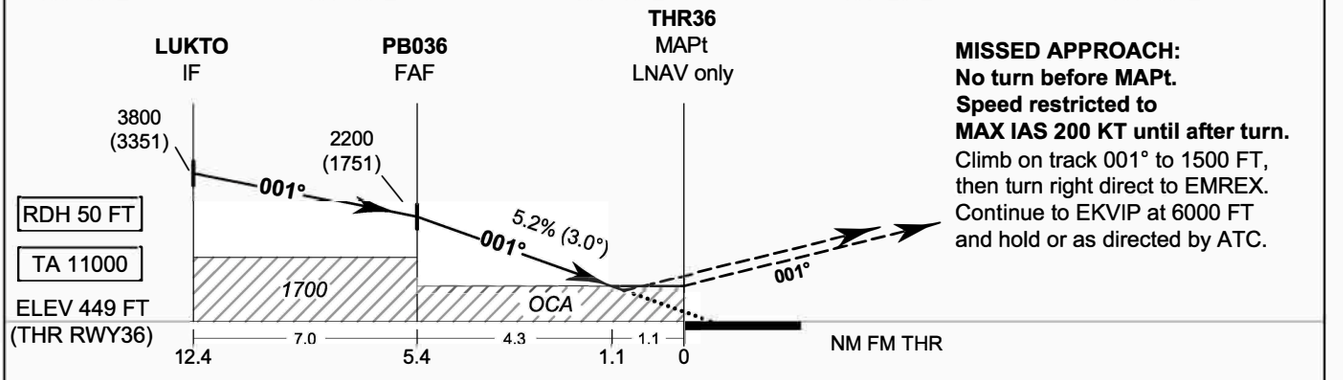
**AERODROME ELEV 450 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 449 FT

APP : 126.7
TWR : 122.3 , 236.6

**PHETCHABUN / Phetchabun (VTPB)**

**RNP RWY36**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb on track 001° to 1500 FT, then turn right direct to EMREX. Continue to EKVIP at 6000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV / VNAV | 750 (301) | | | |
| LNAV | 850 (401) | | | |
| Circling (OCH AAL) | 1200 (750) | | | |
| * FOR CIRCLING RESTRICTIONS SEE VERSO | | | | |

| NM to NEXT WPT | FAF | 5 NM | 4 NM | 3 NM | 2 NM | 1.1 NM |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2200 (1751) | 2080 (1631) | 1765 (1316) | 1445 (996) | 1130 (681) | 850 (401) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 450 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 449 FT

**PHETCHABUN / Phetchabun (VTPB)**

**RNP RWY36**

## TABULAR DESCRIPTION

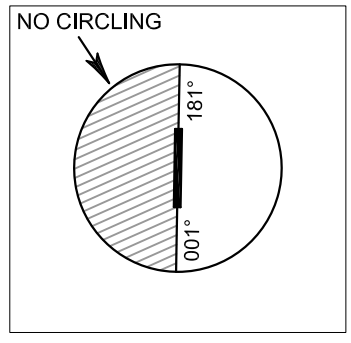
**RNP RWY36**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | TUVBO (IAF) | - | - | +0.76 | - | - | +6000 | -230 | - | RNP APCH |
| 020 | TF | LUKTO (IF) | - | 043°(042.2°) | +0.76 | 11.7 | - | @3800 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | VABRO (IAF) | - | - | +0.76 | - | - | +6000 | -230 | - | RNP APCH |
| 020 | TF | LUKTO (IF) | - | 091°(090.1°) | +0.76 | 7.0 | - | @3800 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | EKVIP (IAF) | - | - | +0.76 | - | - | +6000 | -230 | - | RNP APCH |
| 020 | TF | LUKTO (IF) | - | 271°(270.1°) | +0.76 | 7.0 | - | @3800 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | LUKTO (IF) | - | - | +0.76 | - | - | @3800 | -230 | - | RNP APCH |
| 020 | TF | PB036 (FAF) | - | 001°(000.1°) | +0.76 | 7.0 | - | @2200 | - | - | RNP APCH |
| 030 | TF | THR36 (MAPt) | Y | 001°(000.1°) | +0.76 | 5.4 | - | @499 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 001°(000.1°) | +0.76 | - | - | +1500 | -200 | - | RNP APCH |
| 050 | DF | EMREX | - | - | +0.76 | - | R | - | -220 | - | RNP APCH |
| 060 | TF | EKVIP | - | 181°(180.1°) | +0.76 | 13.6 | - | +6000 | -230 | - | RNP APCH |
| 070 | HM | EKVIP | Y | 271°(270.1°) | +0.76 | 1 minute | R | +6000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY36**

| Waypoint Identifier | Coordinates |
|---|---|
| TUVBO | 16° 18' 48.55" N 101° 03' 32.62" E |
| VABRO | 16° 27' 30.71" N 101° 04' 24.66" E |
| EKVIP | 16° 27' 29.99" N 101° 18' 58.75" E |
| LUKTO | 16° 27' 30.47" N 101° 11' 41.70" E |
| PB036 | 16° 34' 34.19" N 101° 11' 42.07" E |
| THR36 | 16° 39' 59.52" N 101° 11' 42.36" E |
| EMREX | 16° 41' 07.40" N 101° 18' 59.98" E |



## VTPP AD 2.1 AERODROME LOCATION INDICATOR AND NAME

**VTPP - PHITSANULOK / PHITSANULOK AIRPORT**

## VTPP AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 164658.59N 1001644.88E |
| 2 | Direction and distance from (city) | 8 KM SE, from city |
| 3 | Elevation/Reference temperature | 148 FT/40°C |
| 4 | Geoid Undulation at AD ELEV PSN | -116 FT |
| 5 | MAG VAR/Annual change | 1.00°W (2022)/ 0.04°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Phitsanulok Airport<br>Phitsanulok Airport<br>Phitsanulok Province<br>Thailand<br>Tel: +665 530 1010<br>Fax: +665 530 1009<br>AFS: VTPPYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTPP AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0000-1300 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 0000-1300 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 0000-1300 |
| 8 | Fuelling | 0100-1000 |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phitsanulok Airport (1st floor of airport building)<br>Tel: +665 530 1078<br>+669 2262 3140<br>Fax: +665 530 1077<br>Fuelling: Overtime fuelling service available on request<br>Tel: +666 2596 8000 |

## VTPP AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1, AVGAS |
| 3 | Fuelling facilities/capacity | 2 JET A-1 Refueller @ 12,000 L<br>1 AVGAS Refueller @ 3,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTPP AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Limousine and car hire from the airport |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | Bank: NIL<br>Post Office: In the city |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTPP AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTPP AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTPP AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 57/R/C/X/T |
| 2 | Taxiway width, surface and strength | TWY A, B, C, D and E<br>Width: 19 M<br>Surface: Asphaltic concrete<br>Strength: PCN 45/F/C/X/T<br>TWY F and I<br>Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 61/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation 150 ft (46 m) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTPP AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR,TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: CL, Edge, Intermediate Holding Position and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTPP AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| RWY 14/ APCH<br>RWY 32/ TKOF | TELECOMMUNICATIONS<br>MAST 13<br>ELEV 366 FT (112 M)<br>NIL/ LGTD | 164906.3N<br>1001542.4E | AWOS 1<br>ELEV 183 FT (56 M)<br>Painted red/white<br>LGTD | 164730.3N<br>1001625.8E | NIL |
| RWY 32/ APCH<br>RWY 14/ TKOF | TELECOMMUNICATIONS<br>MAST 18<br>ELEV 303 FT (92 M)<br>Painted red/white<br>LGTD | 164530.8N<br>1001817.1E | AWOS 2<br>ELEV 185 FT (56 M)<br>Painted red/white<br>LGTD | 164730.6N<br>1001625.5E | NIL |
| RWY 14/ APCH<br>RWY 32/ TKOF | RADIO MAST 2<br>ELEV 288 FT (88 M)<br>Painted red/white<br>LGTD | 164827.8N<br>1001548.0E | AWOS 3<br>ELEV 177 FT (54 M)<br>Painted red/white<br>LGTD | 164631.1N<br>1001710.7E | NIL |
| RWY 14/ APCH<br>RWY 32/ TKOF | RADIO MAST 5<br>ELEV 252 FT (77 M)<br>Painted red/white<br>LGTD | 164808.6N<br>1001557.2E | AWOS 4<br>ELEV 176 FT (54 M)<br>Painted red/white<br>LGTD | 164631.4N<br>1001710.4E | NIL |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| RWY 14/ APCH<br>RWY 32/ TKOF | RADIO MAST 10<br>ELEV 316 FT (96 M)<br>Painted red/white<br>LGTD | 164859.7N<br>1001545.1E | GLIDE SLOPE<br>ELEV 195 FT (59 M)<br>Painted red/white<br>LGTD | 164629.9N<br>1001711.6E | NIL |
| RWY 14/ APCH<br>RWY 32/ TKOF | RADIO MAST 12<br>ELEV 293 FT (89 M)<br>Painted red/white<br>LGTD | 164838.2N<br>1001533.8E | TACAN<br>ELEV 200 FT (61 M)<br>NIL/ LGTD | 164631.1N<br>1001713.4E | NIL |
| RWY 14/ APCH<br>RWY 32/ TKOF | RADIO MAST 17<br>ELEV 336 FT (103 M)<br>Painted red/white<br>LGTD | 164905.0N<br>1001537.2E | TELECOMMUNICATIONS MAST 5<br>ELEV 303 FT (92 M)<br>NIL/ LGTD | 164717.2N<br>1001538.1E | NIL |
| RWY 14/ APCH<br>RWY 32/ TKOF | LIGHTNING ROD<br>ELEV 268 FT (82 M)<br>NIL/LGTD | 164816.0N<br>1001541.2E | TELECOMMUNICATIONS MAST 14<br>ELEV 311 FT (95 M)<br>Painted red/white<br>LGTD | 164712.5N<br>1001550.9E | NIL |
| RWY 14/ APCH<br>RWY 32/ TKOF | DORMITORY BUILDING<br>ELEV 257 FT (78 M)<br>NIL/LGTD | 164819.4N<br>1001553.1E | TELECOMMUNICATIONS MAST 16<br>ELEV 321 FT (98 M)<br>Painted red/white<br>LGTD | 164910.6N<br>1001716.3E | NIL |
| RWY 14/ APCH<br>RWY 32/ TKOF | APARTMENT<br>ELEV 367 FT (112 M)<br>NIL/LGTD | 164906.2N<br>1001542.4E | TELECOMMUNICATIONS MAST 17<br>ELEV 304 FT (93 M)<br>NIL/ LGTD | 164854.7N<br>1001719.1E | NIL |
| RWY 14/ APCH<br>RWY 32/ TKOF | BUILDING 3<br>ELEV 321 FT (98 M)<br>NIL/LGTD | 164819.3N<br>1001520.4E | TELECOMMUNICATIONS MAST 20<br>ELEV 303 FT (92 M)<br>NIL/ LGTD | 164502.5N<br>1001654.0E | NIL |
| | | | TELECOMMUNICATIONS MAST 22<br>ELEV 305 FT (93 M)<br>NIL/ LGTD | 164628.7N<br>1001547.8E | NIL |
| | | | TELECOMMUNICATIONS MAST 23<br>ELEV 306 FT (93 M)<br>Painted red/white<br>LGTD | 164634.8N<br>1001549.5E | NIL |
| | | | RADIO MAST 3<br>ELEV 304 FT (93 M)<br>Painted red/white<br>LGTD | 164700.4N<br>1001603.4E | NIL |
| | | | RADIO MAST 15<br>ELEV 292 FT (89 M)<br>Painted red/white<br>LGTD | 164716.2N<br>1001613.3E | NIL |
| | | | RADIO MAST 16<br>ELEV 374 FT (114 M)<br>NIL/ LGTD | 164733.9N<br>1001649.4E | NIL |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | RADIO MAST 18<br>ELEV 307 FT (94 M)<br>Painted red/white<br>LGTD | 164931.3N<br>1001535.1E | NIL |
| | | | RADIO MAST 19<br>ELEV 448 FT (137 M)<br>Painted red/white<br>LGTD | 164843.7N<br>1001626.8E | NIL |
| | | | RADIO MAST 20<br>ELEV 398 FT (121 M)<br>NIL/ LGTD | 164843.4N<br>1001623.3E | NIL |
| | | | RADIO MAST 21<br>ELEV 460 FT (140 M)<br>Painted red/white<br>LGTD | 164848.7N<br>1001623.0E | NIL |
| | | | RADIO MAST 22<br>ELEV 305 FT (93 M)<br>Painted red/white<br>LGTD | 164730.6N<br>1001422.6E | NIL |
| | | | RADIO MAST 23<br>ELEV 298 FT (91 M)<br>Painted red/white<br>LGTD | 164740.4N<br>1001409.8E | NIL |
| | | | AIR TRAFFIC CONTROL TOWER<br>ELEV 255 FT (78 M)<br>Painted red/white<br>LGTD | 164656.1N<br>1001658.1E | NIL |
| | | | TOPLAND HOTEL BUILDING<br>ELEV 351 FT (107 M)<br>NIL/ LGTD | 164918.6N<br>1001552.4E | NIL |

## VTPP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Phitsanulok,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2300-1300<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 530 1422 ext. 7078 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS), Weather Radar |
| 9 | ATS units provided with information | Phitsanulok TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTPP AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 14 | 143.89° | 3000x45 | PCN 61/F/C/X/T<br>Asphaltic concrete | 164738.03N 1001615.01E<br>-116 FT | THR 148 FT |
| 32 | 323.89° | 3000x45 | PCN 61/F/C/X/T<br>Asphaltic concrete | 164619.13N 1001714.75E<br>-116 FT | THR 148 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location & description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 0% | NIL | NIL | 3180x280 | 240x90 | NIL | NIL | NIL |
| 0% | 60x60 | NIL | 3180x280 | NIL | NIL | NIL | NIL |

## VTPP AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 14 | 3000 | 3000 | 3000 | 3000 | NIL |
| 32 | 3000 | 3000 | 3060 | 3000 | NIL |

## VTPP AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 14 | NIL | Green | PAPI<br>Left 3° | NIL | NIL | 3000 M<br>60 M<br>White, LIM | Red | NIL | NIL |
| 32 | CAT1<br>900 M | Green | PAPI<br>Left 3°<br>(15.72 M) | NIL | NIL | 3000 M<br>60 M<br>White, LIM | Red | 60 M<br>Red | NIL |

## VTPP AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W G EV 6 SEC..<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL |
| 3 | TWY edge and centre line lighting | TWY edge: All TWY<br>TWY centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the Air Field Lighting (AFL) building.<br>Switch-over time: 15 SEC |
| 5 | Remarks | Flares 2 HR PN |

## VTPP AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTPP AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on PSL DVOR/DME (164613.34N 1001728.70E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Phitsanulok Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTPP AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Phitsanulok Approach | 120.7 MHZ<br>284.0 MHZ<br>121.5 MHZ [1)]<br>243.0 MHZ [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Phitsanulok Tower | 118.9 MHZ<br>236.6 MHZ<br>121.5 MHZ [1)]<br>243.0 MHZ [1)] | As AD OPR HR | |
| GND | Phitsanulok Ground | 121.9 MHZ | As AD OPR HR | |
| ATIS | Phitsanulok Airport | 127.4 MHZ | As AD OPR HR | |

## VTPP AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | PSL | 114.1 MHZ<br>CH88X | H24 | 164613.3N<br>1001729.0E | | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 351°-120° altitude should not below 5 500 FT<br>– Radial 121°-270° altitude should not below 3 000 FT<br>– Radial 271°-300° altitude should not below 5 000 FT<br>– Radial 301°-350° altitude should not below 3 500 FT |
| ILS CAT I<br>LOC RWY32 | IPSL | 110.1 MHZ | H24 | 164746.19N<br>1001608.82E | | Designated operational coverage 18 NM ±10º and 10 NM ±35º of localizer course, no back course and voice feature, the antenna array is located on extended runway centre line at distance 310 M. from THR of runway 14. |
| GP/DME | | 334.4 MHZ<br>CH38X | H24 | 164629.87N<br>1001711.63E | | Glide Path 3°<br>DME co-located with Glide Slope power output 100 watts Uni-directional |
| TACAN | | CH99 | | 1647.6N<br>10016.7E | | Military Facility, operation on request 30 MIN PN to ATC. |

## VTPP AD 2.20 LOCAL AERODROME REGULATIONS

### 1. 180 DEGREE TURN ON THE RUNWAY

To prevent runway pavement damage, all aircraft Maximum Takeoff Weight (MTOW) more than 5700 KG are not allowed to make 180 degree turn on the runway. The turn shall be made on the runway turn pad at the end of runway 14 and 32 only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand / The Headquarter of that operator shall be liable for the compensation caused by such violation.

### 2. Advanced Visual Docking Guidance System (A-VDGS) Procedures at Phitsanulok Airport

2.1 Inspection of Advanced Visual Docking Guidance System (A-VDGS)
(Ref: Standard Operating Procedure of Visual Aids)

2.1.1 Press the F1 button on the A-VDGS interface.

2.1.2 Enter a 5-digit PIN code.

2.1.3 Select the Test Walk menu and wait until the system is ready to operate.

2.1.4 Operate the system to conduct Test Walk by walking along the centerline and stopping at the T-Mark.

2.1.5 Test the foreign object detection system (Stop OBST) by means of test walk or foreign object test.

2.1.6 Check the operability of the Emergency Stop button.

2.1.7 Check operational readiness of the system (A-VDGS) and all components following the checklist.

***Note:*** *If the A-VDGS system malfunctions and becomes inoperable, the bridge driver shall inform the airline or air cargo operator to provide a marshaller to guide the aircraft to the T-Mark at the aircraft stand, and report the issue to the airport operations coordinator (06), who will inform the engineering and maintenance team for inspection and repairs.*

2.2 Activation of Advanced Visual Docking Guidance System (A-VDGS)

2.2.1 Press the F1 button on the A-VDGS interface.

2.2.2 Enter a 5-digit PIN code.

2.2.3 Select the aircraft type and model.

2.2.4 Press the OK button.

2.2.5 After the aircraft has fully parked at the T-Mark at the aircraft stand and the aircraft maintenance technician has placed chocks on the wheels, press the F1 button on the A-VDGS control panel to display the On Chock message on the pilot display.

***Note:***
*1) If an incorrect aircraft model is selected, the red Stop message will appear on the pilot display. After checking the error, select Override by pressing the F2 button to allow the aircraft to park normally at the T-Mark.*
*2)In case an emergency stop is necessary during aircraft docking, the bridge driver shall control the Emergency Stop button at the control display panel on the aerobridge. Airline or cargo operator shall control the Emergency Stop button at the Rotunda Column under the aerobridge.*
*3)The A-VDGS command has an active time of 30 minutes. It is advised to operate the system within the specified period.*

## VTPP AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTPP AD 2.22 FLIGHT PROCEDURES

### 1. VFR PROCEDURES AND LOCAL PROCEDURES

1.1 Details of VFR entry and exit procedures, see charts.

1.2 Aerodrome traffic circuit

Using both sides of traffic circuit.

1.3 Overhead approach pattern.

a) Using runway 14 by right turn pattern.
b) Using runway 32 by left turn pattern.

## 2. SPEED CONTROL PROCEDURE IN PHITSANULOK TMA

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

## 3. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

## 4. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

– meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
– the pilot shall be responsible for obstacle clearance until such specified altitude,
– the pilot prior to take-off shall agree to execute this procedure,
– the ATC clearance shall be readback,

**5. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 14:
PHITSANULOK OMNI 14 Departure: Required climb gradient 201 ft per NM (3.3%) until 4,500 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3 % | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,000 ft (or altitude assigned by ATC between 1,000 ft – 3,500 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 32:
PHITSANULOK OMNI 32 Departure: Required climb gradient 201 ft per NM (3.3%) until 4,500 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3 % | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,000 ft (or altitude assigned by ATC between 1,000 ft – 3,500 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTPP AD 2.23 ADDITIONAL INFORMATION

**1. BIRD CONCENTRATIONS**

- Bird concentrations in the vicinity of an aerodrome.

## VTPP AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTPP-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTPP-2-3 |
| Aerodrome Ground Movement chart - ICAO | AD 2-VTPP-2-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 14 - GOKON1A GOSTA1A IGPOP1A NIROP1A PEBLI1A PIBIK1A POLOB1A REMER1A | AD 2-VTPP-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 14 - GOKON1A GOSTA1A IGPOP1A NIROP1A PEBLI1A PIBIK1A POLOB1A REMER1A (Tabular description1) | AD 2-VTPP-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 14 - GOKON1A GOSTA1A IGPOP1A NIROP1A PEBLI1A PIBIK1A POLOB1A REMER1A (Tabular description 2) | AD 2-VTPP-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 32 - GOKON1B GOSTA1B IGPOP1B NIROP1B PEBLI1B PIBIK1B POLOB1B REMER1B | AD 2-VTPP-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 32 - GOKON1B GOSTA1B IGPOP1B NIROP1B PEBLI1B PIBIK1B POLOB1B REMER1B (Tabular description 1) | AD 2-VTPP-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 32 - GOKON1B GOSTA1B IGPOP1B NIROP1B PEBLI1B PIBIK1B POLOB1B REMER1B (Tabular description 2) | AD 2-VTPP-6-7 |
| Instrument Approach Chart - ICAO - VOR RWY 14 | AD 2-VTPP-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 14 (Fix and point list table) | AD 2-VTPP-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 32 | AD 2-VTPP-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 32 (Fix and point list table) | AD 2-VTPP-8-4 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 32 | AD 2-VTPP-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 32 (Fix and point list table) | AD 2-VTPP-8-6 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 32 | AD 2-VTPP-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 32 (Tabular description 1) | AD 2-VTPP-8-8 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 32 (Tabular description 2) | AD 2-VTPP-8-9 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 32 (Fix and point list table) | AD 2-VTPP-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 14 | AD 2-VTPP-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 14 (Tabular description) | AD 2-VTPP-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 14 (Waypoint list table) | AD 2-VTPP-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 32 | AD 2-VTPP-8-15 |
| Instrument Approach Chart - ICAO - RNP RWY 32 (Tabular description 1) | AD 2-VTPP-8-16 |
| Instrument Approach Chart - ICAO - RNP RWY 32 (Tabular description 2) | AD 2-VTPP-8-17 |
| VFR ENTRY PROCEDURE CHART - RWY 14/32 | AD 2-VTPP-9-1 |
| VFR ENTRY PROCEDURE CHART - RWY 14/32 (Tabular description) | AD 2-VTPP-9-2 |
| VFR EXIT PROCEDURE CHART - RWY 14 | AD 2-VTPP-9-3 |
| VFR EXIT PROCEDURE CHART - RWY 14 (Tabular description) | AD 2-VTPP-9-4 |
| VFR EXIT PROCEDURE CHART - RWY 32 | AD 2-VTPP-9-5 |
| VFR EXIT PROCEDURE CHART - RWY 32 (Tabular description) | AD 2-VTPP-9-6 |

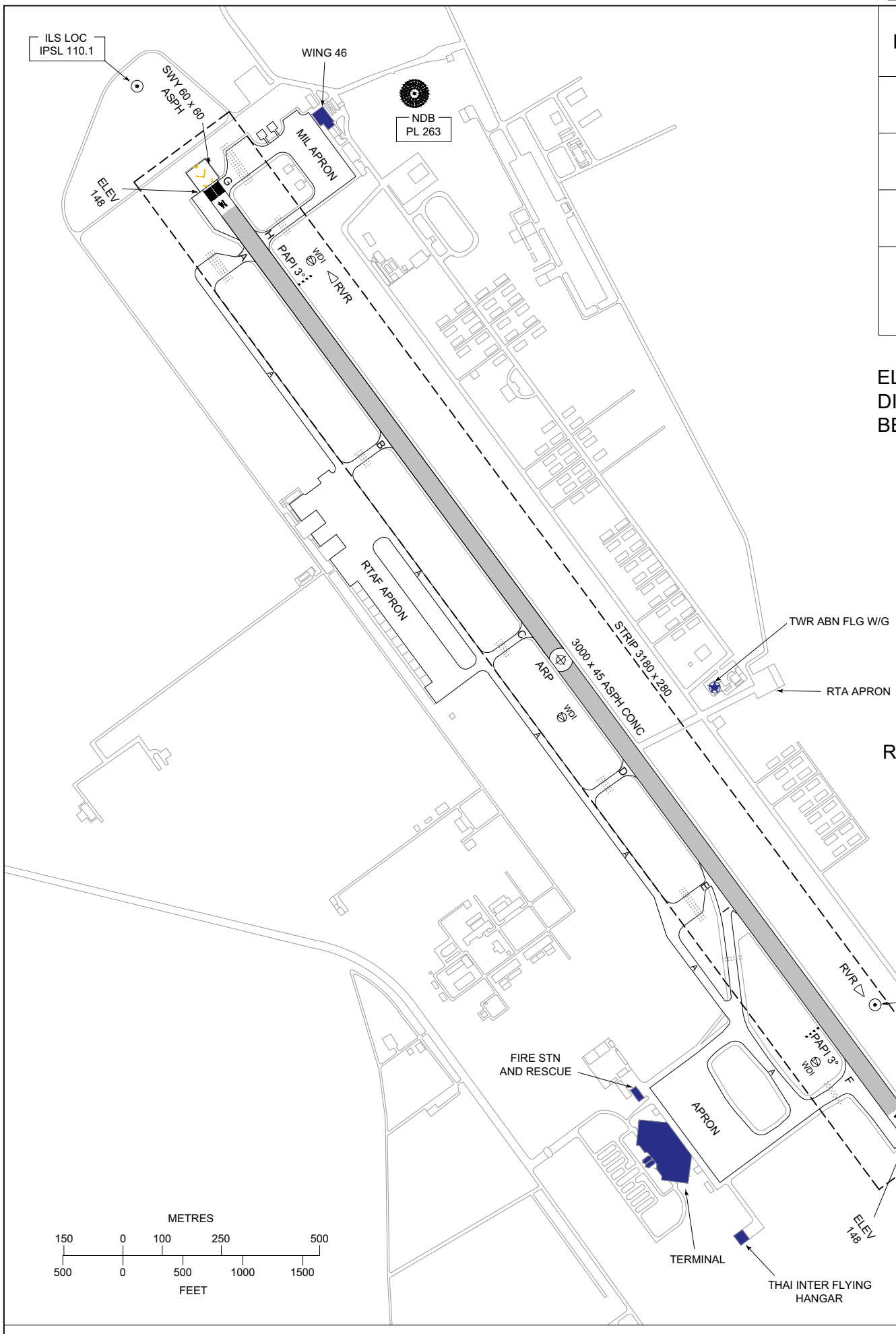
# AERODROME CHART - ICAO

**16 46 58.59N**
**100 16 44.88E**

**ELEV 148 FT**

**TWR 118.9, 236.6**
**GND 121.9**

# PHITSANULOK / Phitsanulok




| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 14 | 143.89° | 16 47 38.03N<br>100 16 15.01E | PCN 61/F/C/X/T |
| 32 | 323.89° | 16 46 19.13N<br>100 17 14.75E | |
| APRON | | | PCN 57/R/C/X/T |
| TAXIWAY A, B, C, D AND E<br>TAXIWAY F AND I<br>TAXIWAY G AND H | | | PCN 45/F/C/X/T<br>PCN 61/F/C/X/T<br>NIL |

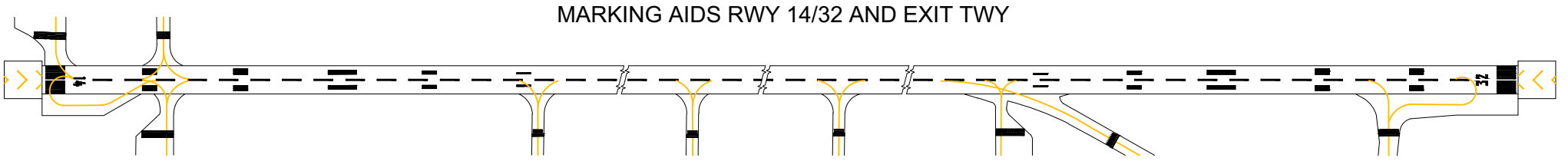
ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

VAR 1.00°W (2022)
ANNUAL RATE OF CHANGE 0.04°W

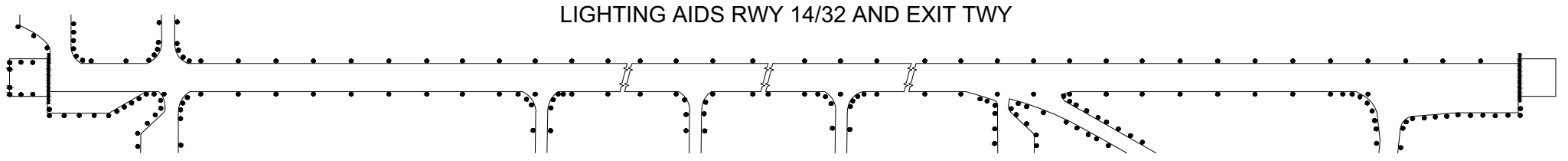
REMARKS:

- HOT SPOTS SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY A, B, C, D AND E WIDTH 19 m.
- TAXIWAY F AND I WIDTH 23 m.
- TAXIWAY G AND H WIDTH (NIL)

MARKING AIDS RWY 14/32 AND EXIT TWY




LIGHTING AIDS RWY 14/32 AND EXIT TWY




CHANGE: REVISED CHART. STRIP DIMS.

**INTENTIONALLY BLANK**

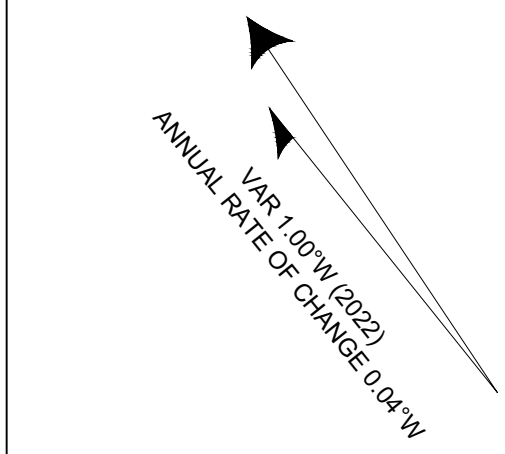
# AIRCRAFT PARKING/ DOCKING CHART - ICAO

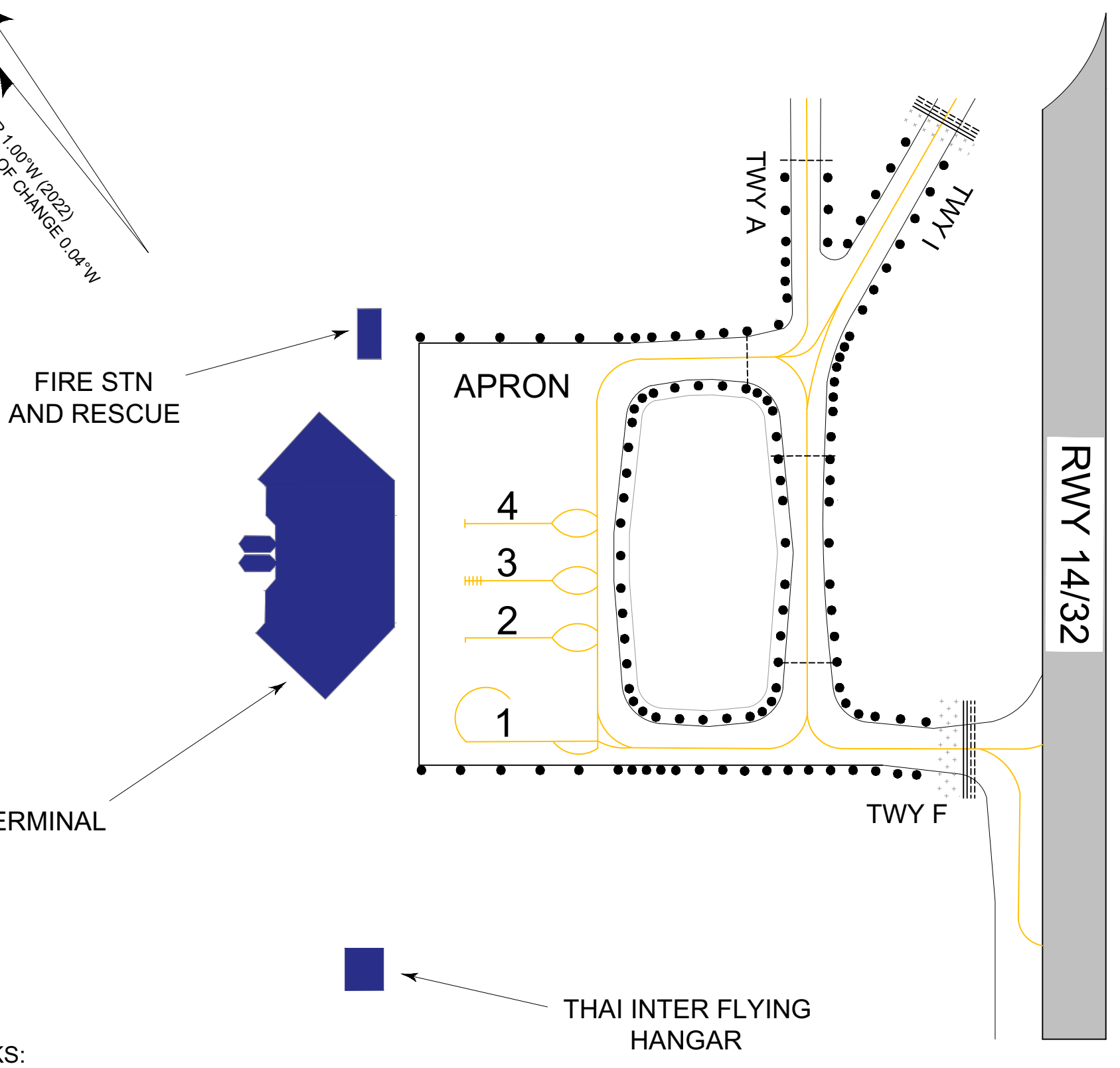
**APRON ELEV**
**150 FT**

**TWR 118.9, 236.6**
**GND 121.9**

# PHITSANULOK / Phitsanulok

ELEVATIONS IN FEET




REMARKS:

- AIRCRAFT STAND NR 3 AVAILABLE WITH AVIATION BRIDGES
- HOT SPOTS ARE SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY A, B, C, D AND E WIDTH 19 m
- TAXIWAY F AND I WIDTH 23 m.
- TAXIWAY G AND H WIDTH (NIL)
- APRON PCN 57/R/C/X/T
- TAXIWAY A, B, C, D AND E PCN 45/F/C/X/T
- TAXIWAY F AND I PCN 61/F/C/X/T
- TAXIWAY G AND H PCN (NIL)

| LEGEND | |
|---|---|
| INTERMEDIATE HOLDING POSITION | — — — |
| RUNWAY - HOLDING POSITION NON-PRECISION APCH RWY | |

METRES

150 0 100 250

500 0 500 1000

FEET

CHANGE: NEW APRON ELEV

| INS COORDINATES FOR AIRCRAFT STANDS | | |
|---|---|---|
| STAND NR | COORDINATES | |
| 1 | 16°46'16.47"N | 100°16'58.91"E |
| 2 | 16°46'18.51"N | 100°16'57.61"E |
| 3 | 16°46'19.03"N | 100°16'56.02"E |
| 4 | 16°46'20.50"N | 100°16'55.80"E |

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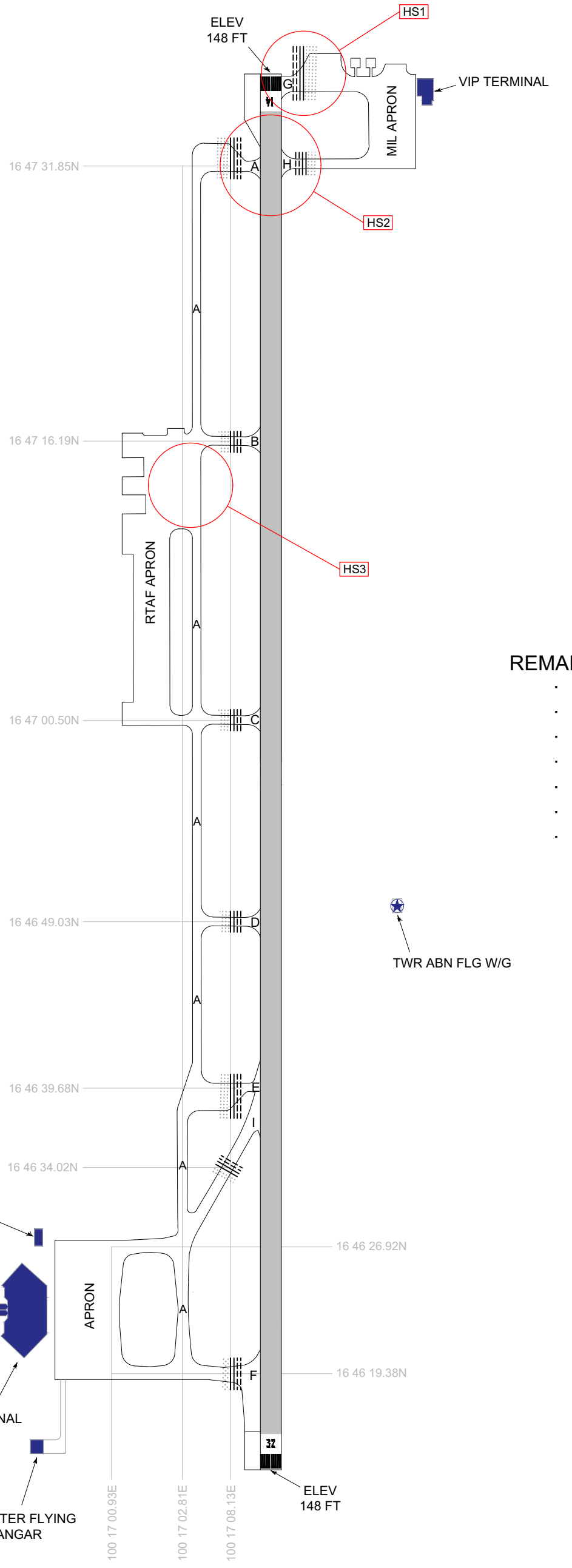
# AERODROME GROUND MOVEMENT CHART - ICAO

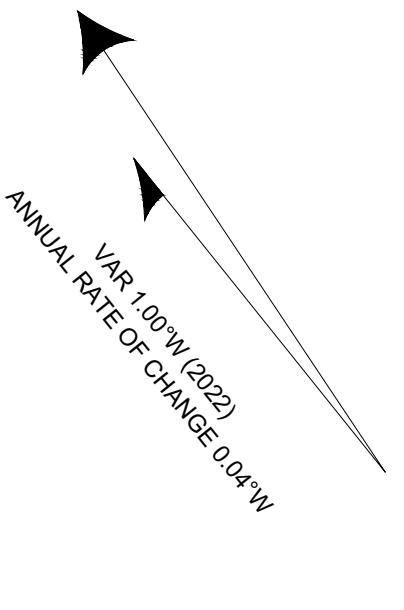
**APRON ELEV**
**150 FT**

**TWR 118.9, 236.6**
**GND 121.9**

# PHITSANULOK / Phitsanulok

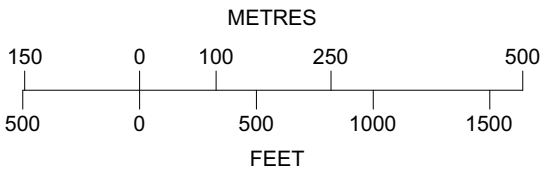



ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC




REMARKS:

- TAXIWAY A, B, C, D AND E WIDTH 19 m.
- TAXIWAY F AND I WIDTH 23 m.
- TAXIWAY G AND H WIDTH (NIL)
- APRON PCN 57/R/C/X/T
- TAXIWAY A, B, C, D AND E PCN 45/F/C/X/T
- TAXIWAY F AND I PCN 61/F/C/X/T
- TAXIWAY G AND H PCN (NIL)




CHANGE: NEW CHART.

## LEGEND

| | |
|---|---|
| RUNWAY - HOLDING POSITION<br>NON-PRECISION APCH RWY | |

HS1, HS2 - PARTIALLY INVISIBLE BY TWR

HS3 - ACFT PARKING NEAR TWY

**INTENTIONALLY BLANK**

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

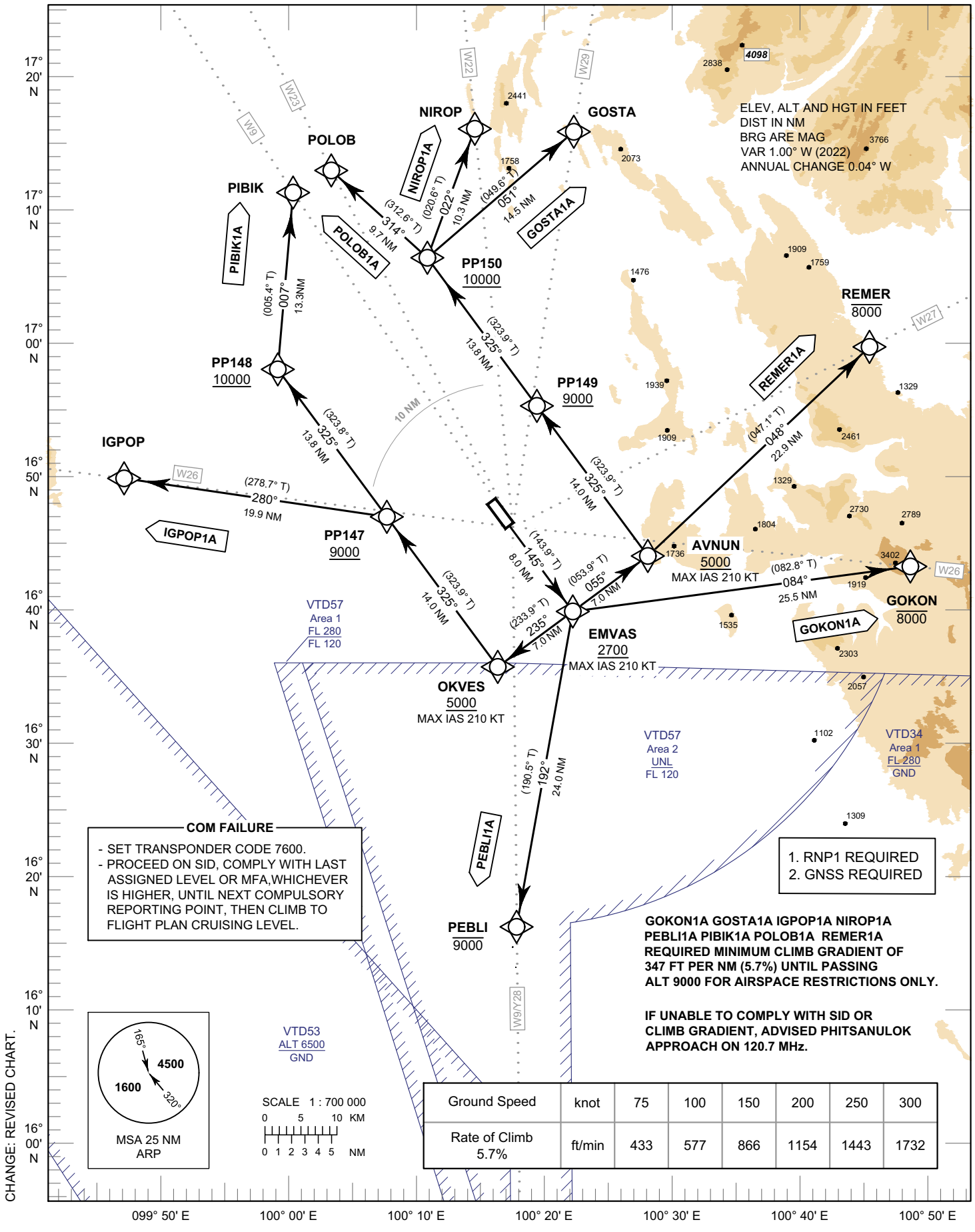
TRANSITION ALTITUDE
11000 FT

APP : 120.7, 284.0
TWR : 118.9 , 236.6
GND : 121.9
ATIS : 127.4

**PHITSANULOK /Phitsanulok (VTPP)**

**RNAV RWY14**

GOKON1A GOSTA1A IGPOP1A NIROP1A
PEBLI1A PIBIK1A POLOB1A REMER1A



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHITSANULOK /Phitsanulok (VTPP)**

**RNAV RWY14**

GOKON1A GOSTA1A IGPOP1A NIROP1A
PEBLI1A PIBIK1A POLOB1A REMER1A

**TABULAR DESCRIPTION (1)**

| RNAV RWY14 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| GOKON1A TO W26 | | | | | | | | | | | |
| 010 | - | DER RWY14 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | EMVAS | - | 145° (143.9°) | +1.1 | 8.0 | - | +2700 | -210 | - | RNP 1 |
| 030 | TF | GOKON | - | 084° (082.8°) | +1.1 | 25.5 | - | -8000 | - | - | RNP 1 |
| GOSTA1A TO W29 | | | | | | | | | | | |
| 010 | - | DER RWY14 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | EMVAS | - | 145° (143.9°) | +1.1 | 8.0 | - | +2700 | -210 | - | RNP 1 |
| 030 | TF | AVNUN | - | 055 (053.9°) | +1.1 | 7.0 | - | +5000 | -210 | - | RNP 1 |
| 040 | TF | PP149 | - | 325° (323.9°) | +1.1 | 14.0 | - | +9000 | - | - | RNP 1 |
| 050 | TF | PP150 | - | 325° (323.9°) | +1.1 | 13.8 | - | +10000 | - | - | RNP 1 |
| 060 | TF | GOSTA | - | 051 (049.6°) | +1.1 | 14.5 | - | - | - | - | RNP 1 |
| IGPOP1A TO W26 | | | | | | | | | | | |
| 010 | - | DER RWY14 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | EMVAS | - | 145° (143.9°) | +1.1 | 8.0 | - | +2700 | -210 | - | RNP 1 |
| 030 | TF | OKVES | - | 235° (233.9°) | +1.1 | 7.0 | - | +5000 | -210 | - | RNP 1 |
| 040 | TF | PP147 | - | 325° (323.9°) | +1.1 | 14.0 | - | +9000 | - | - | RNP 1 |
| 050 | TF | IGPOP | - | 280° (278.7°) | +1.1 | 19.9 | - | - | - | - | RNP 1 |
| NIROP1A TO W22 | | | | | | | | | | | |
| 010 | - | DER RWY14 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | EMVAS | - | 145° (143.9°) | +1.1 | 8.0 | - | +2700 | -210 | - | RNP 1 |
| 030 | TF | AVNUN | - | 055 (053.9°) | +1.1 | 7.0 | - | +5000 | -210 | - | RNP 1 |
| 040 | TF | PP149 | - | 325° (323.9°) | +1.1 | 14.0 | - | +9000 | - | - | RNP 1 |
| 050 | TF | PP150 | - | 325° (323.9°) | +1.1 | 13.8 | - | +10000 | - | - | RNP 1 |
| 060 | TF | NIROP | - | 022 (020.6°) | +1.1 | 10.3 | - | - | - | - | RNP 1 |
| PEBLI1A TO W9/Y28 | | | | | | | | | | | |
| 010 | - | DER RWY14 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | EMVAS | - | 145° (143.9°) | +1.1 | 8.0 | - | +2700 | -210 | - | RNP 1 |
| 030 | TF | PEBLI | - | 192° (190.5°) | +1.1 | 24.0 | - | -9000 | - | - | RNP 1 |
| PIBIK1A TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY14 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | EMVAS | - | 145° (143.9°) | +1.1 | 8.0 | - | +2700 | -210 | - | RNP 1 |
| 030 | TF | OKVES | - | 235° (233.9°) | +1.1 | 7.0 | - | +5000 | -210 | - | RNP 1 |
| 040 | TF | PP147 | - | 325° (323.9°) | +1.1 | 14.0 | - | +9000 | - | - | RNP 1 |
| 050 | TF | PP148 | - | 325° (323.8°) | +1.1 | 13.8 | - | +10000 | - | - | RNP 1 |
| 060 | TF | PIBIK | - | 007° (005.4°) | +1.1 | 13.3 | - | - | - | - | RNP 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHITSANULOK /Phitsanulok (VTPP)**

**RNAV RWY14**

GOKON1A GOSTA1A IGPOP1A NIROP1A
PEBLI1A PIBIK1A POLOB1A REMER1A

**TABULAR DESCRIPTION (2)**

| RNAV RWY14 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| POLOB1A TO W23 | | | | | | | | | | | |
| 010 | - | DER RWY14 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | EMVAS | - | 145° (143.9°) | +1.1 | 8.0 | - | +2700 | -210 | - | RNP 1 |
| 030 | TF | AVNUN | - | 055 (053.9°) | +1.1 | 7.0 | - | +5000 | -210 | - | RNP 1 |
| 040 | TF | PP149 | - | 325° (323.9°) | +1.1 | 14.0 | - | +9000 | - | - | RNP 1 |
| 050 | TF | PP150 | - | 325° (323.9°) | +1.1 | 13.8 | - | +10000 | - | - | RNP 1 |
| 060 | TF | POLOB | - | 314 (312.6°) | +1.1 | 9.7 | - | - | - | - | RNP 1 |
| REMER1A TO W27 | | | | | | | | | | | |
| 010 | - | DER RWY14 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | EMVAS | - | 145° (143.9°) | +1.1 | 8.0 | - | +2700 | -210 | - | RNP 1 |
| 030 | TF | AVNUN | - | 055 (053.9°) | +1.1 | 7.0 | - | +5000 | -210 | - | RNP 1 |
| 040 | TF | REMER | - | 048° (047.1°) | +1.1 | 22.9 | - | -8000 | - | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY14 | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY14 | 16° 46' 19.13" N 100° 17' 14.75" E |
| AVNUN | 16° 43' 58.02" N 100° 28' 03.11" E |
| EMVAS | 16° 39' 49.70" N 100° 22' 09.43" E |
| GOKON | 16° 43' 00.76" N 100° 48' 33.82" E |
| GOSTA | 17° 15' 57.30" N 100° 22' 29.83" E |
| IGPOP | 16° 50' 02.08" N 099° 47' 07.71" E |
| NIROP | 17° 16' 13.74" N 100° 14' 44.33" E |
| OKVES | 16° 35' 41.21" N 100° 16' 16.00" E |
| PEBLI | 16° 16' 05.94" N 100° 17' 36.21" E |
| PIBIK | 17° 11' 30.33" N 100° 00' 27.77" E |
| POLOB | 17° 13' 09.43" N 100° 03' 27.80" E |
| PP147 | 16° 47' 02.38" N 100° 07' 39.91" E |
| PP148 | 16° 58' 14.49" N 099° 59' 09.40" E |
| PP149 | 16° 55' 19.67" N 100° 19' 27.35" E |
| PP150 | 17° 06' 32.17" N 100° 10' 57.23" E |
| REMER | 16° 59' 34.56" N 100° 45' 31.34" E |

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**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

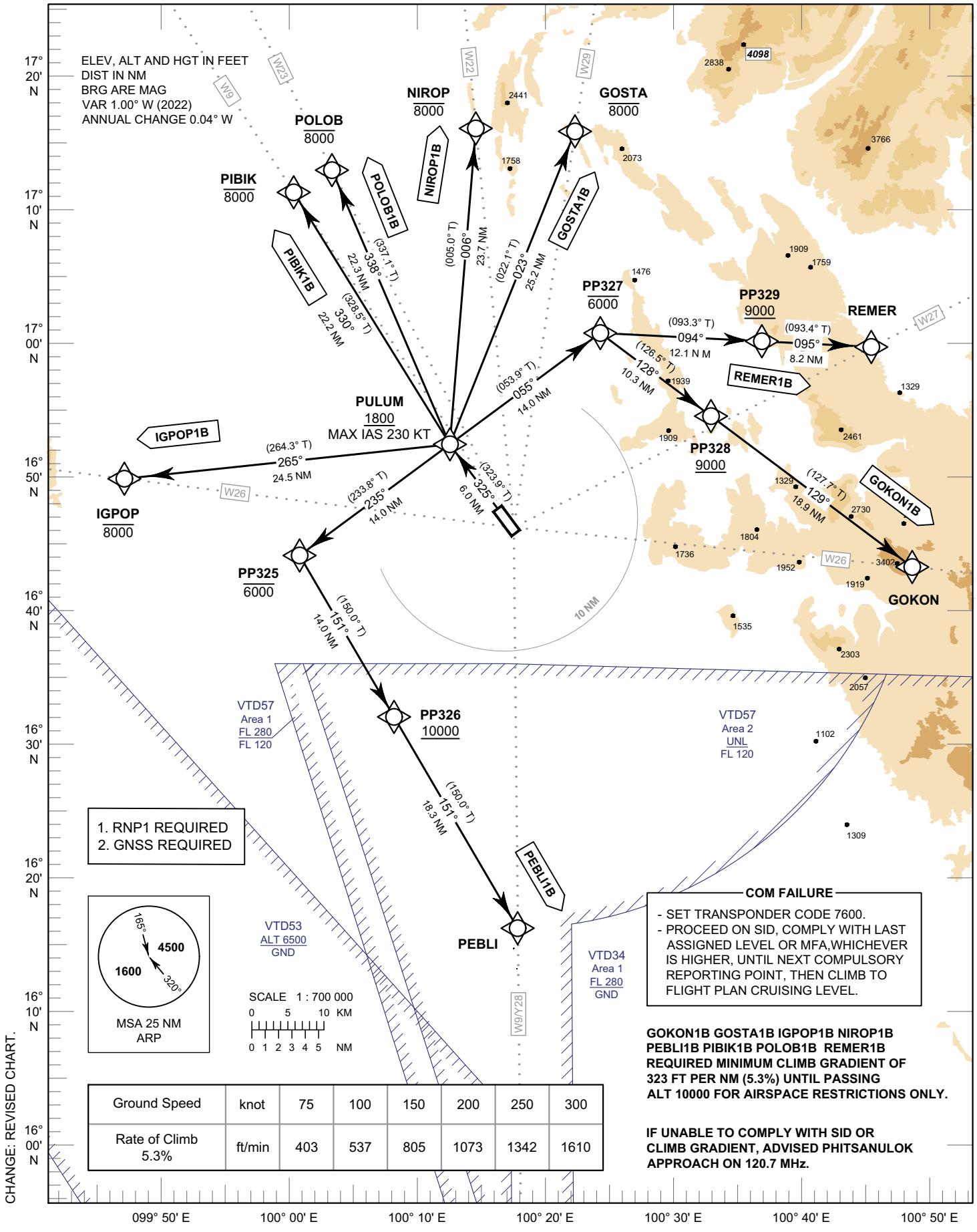
TRANSITION ALTITUDE
11000 FT

APP : 120.7, 284.0
TWR : 118.9 , 236.6
GND : 121.9
ATIS : 127.4

**PHITSANULOK / Phitsanulok (VTPP)**

**RNAV RWY32**

GOKON1B GOSTA1B IGPOP1B NIROP1B
PEBLI1B PIBIK1B POLOB1B REMER1B




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.3% | ft/min | 403 | 537 | 805 | 1073 | 1342 | 1610 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHITSANULOK / Phitsanulok (VTPP)**

**RNAV RWY32**

GOKON1B GOSTA1B IGPOP1B NIROP1B
PEBLI1B PIBIK1B POLOB1B REMER1B

**TABULAR DESCRIPTION (1)**

| RNAV RWY32 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| GOKON1B TO W26 | | | | | | | | | | | |
| 010 | - | DER RWY32 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | PULUM | - | 325° (323.9°) | +1.1 | 6.0 | - | +1800 | -230 | - | RNP 1 |
| 030 | TF | PP327 | - | 055° (053.9°) | +1.1 | 14.0 | - | -6000 | - | - | RNP 1 |
| 040 | TF | PP328 | - | 128° (126.5°) | +1.1 | 10.3 | - | +9000 | - | - | RNP 1 |
| 050 | TF | GOKON | - | 129° (127.7°) | +1.1 | 18.9 | - | - | - | - | RNP 1 |
| GOSTA1B TO W29 | | | | | | | | | | | |
| 010 | - | DER RWY32 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | PULUM | - | 325° (323.9°) | +1.1 | 6.0 | - | +1800 | -230 | - | RNP 1 |
| 030 | TF | GOSTA | - | 023° (022.1°) | +1.1 | 25.2 | - | -8000 | - | - | RNP 1 |
| IGPOP1B TO W26 | | | | | | | | | | | |
| 010 | - | DER RWY32 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | PULUM | - | 325° (323.9°) | +1.1 | 6.0 | - | +1800 | -230 | - | RNP 1 |
| 030 | TF | IGPOP | - | 265° (264.3°) | +1.1 | 24.5 | - | -8000 | - | - | RNP 1 |
| NIROP1B TO W22 | | | | | | | | | | | |
| 010 | - | DER RWY32 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | PULUM | - | 325° (323.9°) | +1.1 | 6.0 | - | +1800 | -230 | - | RNP 1 |
| 030 | TF | NIROP | - | 006° (005.0°) | +1.1 | 23.7 | - | -8000 | - | - | RNP 1 |
| PEBLI1B TO W9/Y28 | | | | | | | | | | | |
| 010 | - | DER RWY32 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | PULUM | - | 325° (323.9°) | +1.1 | 6.0 | - | +1800 | -230 | - | RNP 1 |
| 030 | TF | PP325 | - | 235° (233.8°) | +1.1 | 14.0 | - | -6000 | - | - | RNP 1 |
| 040 | TF | PP326 | - | 151° (150.0°) | +1.1 | 14.0 | - | +10000 | - | - | RNP 1 |
| 050 | TF | PEBLI | - | 151° (150.0°) | +1.1 | 18.3 | - | - | - | - | RNP 1 |
| PIBIK1B TO W9 | | | | | | | | | | | |
| 010 | - | DER RWY32 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | PULUM | - | 325° (323.9°) | +1.1 | 6.0 | - | +1800 | -230 | - | RNP 1 |
| 030 | TF | PIBIK | - | 330° (328.5°) | +1.1 | 22.2 | - | -8000 | - | - | RNP 1 |
| POLOB1B TO W23 | | | | | | | | | | | |
| 010 | - | DER RWY32 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | PULUM | - | 325° (323.9°) | +1.1 | 6.0 | - | +1800 | -230 | - | RNP 1 |
| 030 | TF | POLOB | - | 338° (337.1°) | +1.1 | 22.3 | - | -8000 | - | - | RNP 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHITSANULOK / Phitsanulok (VTPP)**

**RNAV RWY32**

GOKON1B GOSTA1B IGPOP1B NIROP1B
PEBLI1B PIBIK1B POLOB1B REMER1B

**TABULAR DESCRIPTION (2)**

| RNAV RWY32 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| REMER1B TO W27 | | | | | | | | | | | |
| 010 | - | DER RWY32 | - | - | +1.1 | - | - | - | - | - | RNP 1 |
| 020 | CF | PULUM | - | 325° (323.9°) | +1.1 | 6.0 | - | 1800 | -230 | - | RNP 1 |
| 030 | TF | PP327 | - | 055° (053.9°) | +1.1 | 14.0 | - | -6000 | - | - | RNP 1 |
| 040 | TF | PP329 | - | 094° (093.3°) | +1.1 | 12.1 | - | +9000 | - | - | RNP 1 |
| 050 | TF | REMER | - | 095° (093.4°) | +1.1 | 8.2 | - | - | - | - | RNP 1 |
| | | | | | | | | | | | |

**WAYPOINT LIST**

| RNAV RWY32 | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY32 | 16° 47' 38.03" N 100° 16' 15.01" E |
| GOKON | 16° 43' 00.76" N 100° 48' 33.82" E |
| GOSTA | 17° 15' 57.30" N 100° 22' 29.83" E |
| IGPOP | 16° 50' 02.08" N 099° 47' 07.71" E |
| NIROP | 17° 16' 13.74" N 100° 14' 44.33" E |
| PEBLI | 16° 16' 05.94" N 100° 17' 36.21" E |
| PIBIK | 17° 11' 30.33" N 100° 00' 27.77" E |
| POLOB | 17° 13' 09.43" N 100° 03' 27.80" E |
| PP325 | 16° 44' 11.83" N 100° 00' 47.05" E |
| PP326 | 16° 32' 01.59" N 100° 08' 04.87" E |
| PP327 | 17° 00' 46.41" N 100° 24' 22.09" E |
| PP328 | 16° 54' 38.31" N 100° 32' 58.00" E |
| PP329 | 17° 00' 04.03" N 100° 36' 59.11" E |
| PULUM | 16° 52' 30.03" N 100° 12' 33.77" E |
| REMER | 16° 59' 34.56" N 100° 45' 31.34" E |

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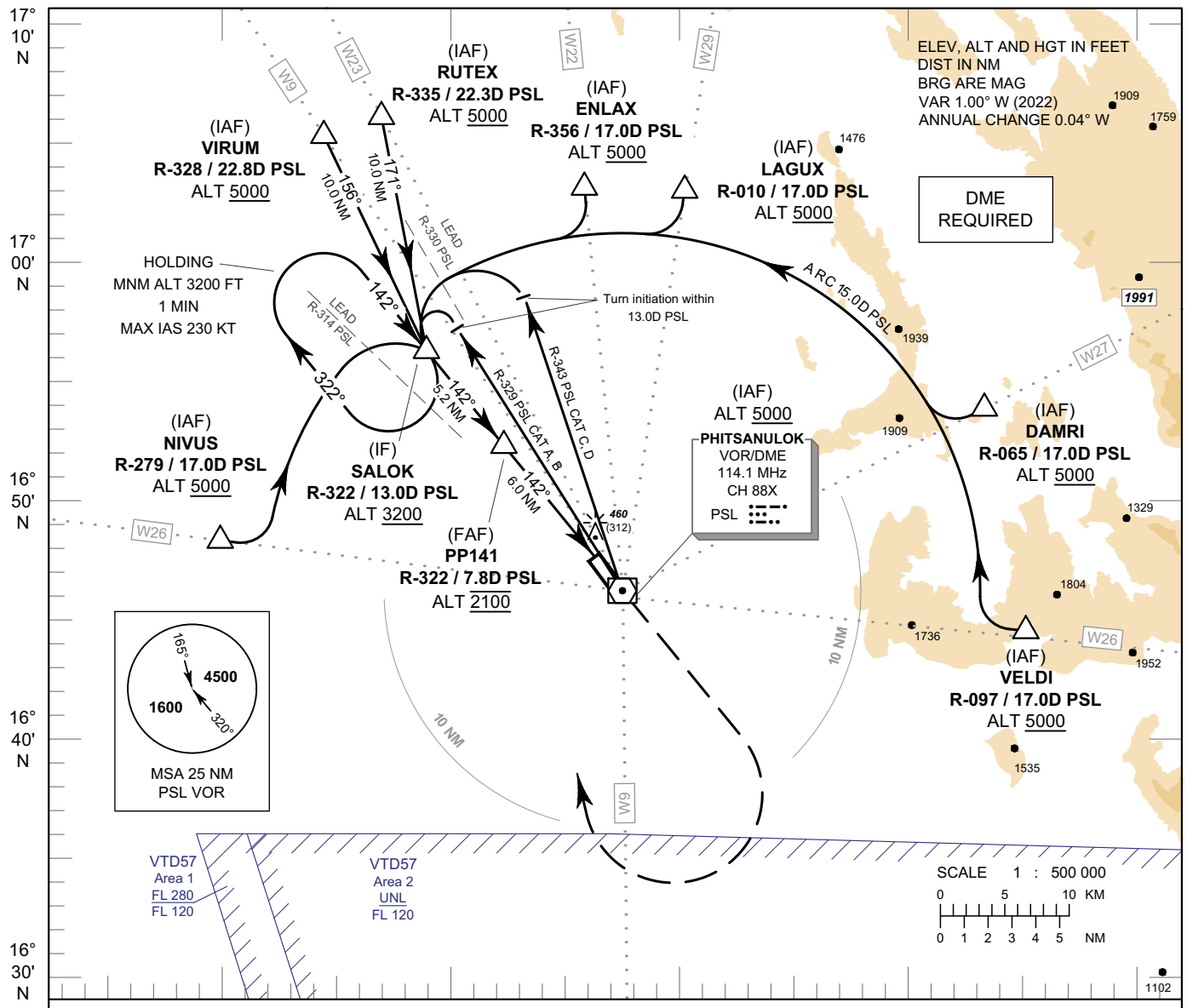
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 120.7, 284.0
TWR : 118.9 , 236.6
GND : 121.9
ATIS : 127.4

**PHITSANULOK / Phitsanulok (VTPP)**

**VOR RWY14**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | 670 (522) | | | |
| Circling (OCH AAL) | 1000 (852) | | | |

| Distance (PSL) | FAF | 7D | 6D | 5D | 4D | 3.3D |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2100 (1952) | 1840 (1692) | 1525 (1377) | 1210 (1062) | 890 (742) | 670 (522) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO AERODROME ELEV

**PHITSANULOK / Phitsanulok (VTPP)**

**VOR RWY14**

| Fix/Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>VOR | PSL | 16° 46' 13.27" N | 100° 17' 28.95" E |
| (IAF)<br>VELDI | R-097 / 17.0D PSL | 16° 44' 24.79" N | 100° 35' 05.73" E |
| (IAF)<br>DAMRI | R-065 / 17.0D PSL | 16° 53' 47.82" N | 100° 33' 21.71" E |
| (IAF)<br>LAGUX | R-010 / 17.0D PSL | 17° 03' 04.27" N | 100° 20' 19.14" E |
| (IAF)<br>ENLAX | R-356 / 17.0D PSL | 17° 03' 13.58" N | 100° 15' 55.67" E |
| (IAF)<br>NIVUS | R-279 / 17.0D PSL | 16° 48' 26.33" N | 099° 59' 54.50" E |
| (IAF)<br>VIRUM | R-328 / 22.8D PSL | 17° 05' 28.31" N | 100° 04' 31.92" E |
| (IAF)<br>RUTEX | R-335 / 22.3D PSL | 17° 06' 15.35" N | 100° 07' 03.69" E |
| (IF)<br>SALOK | R-322 / 13.0D PSL | 16° 56' 23.08" N | 100° 08' 58.26" E |
| (FAF)<br>PP141 | R-322 / 7.8D PSL | 16° 52' 19.59" N | 100° 12' 22.32" E |
| (MAPt)<br>PP140 | R-322 / 1.8D PSL | 16° 47' 39.41" N | 100° 16' 16.88" E |

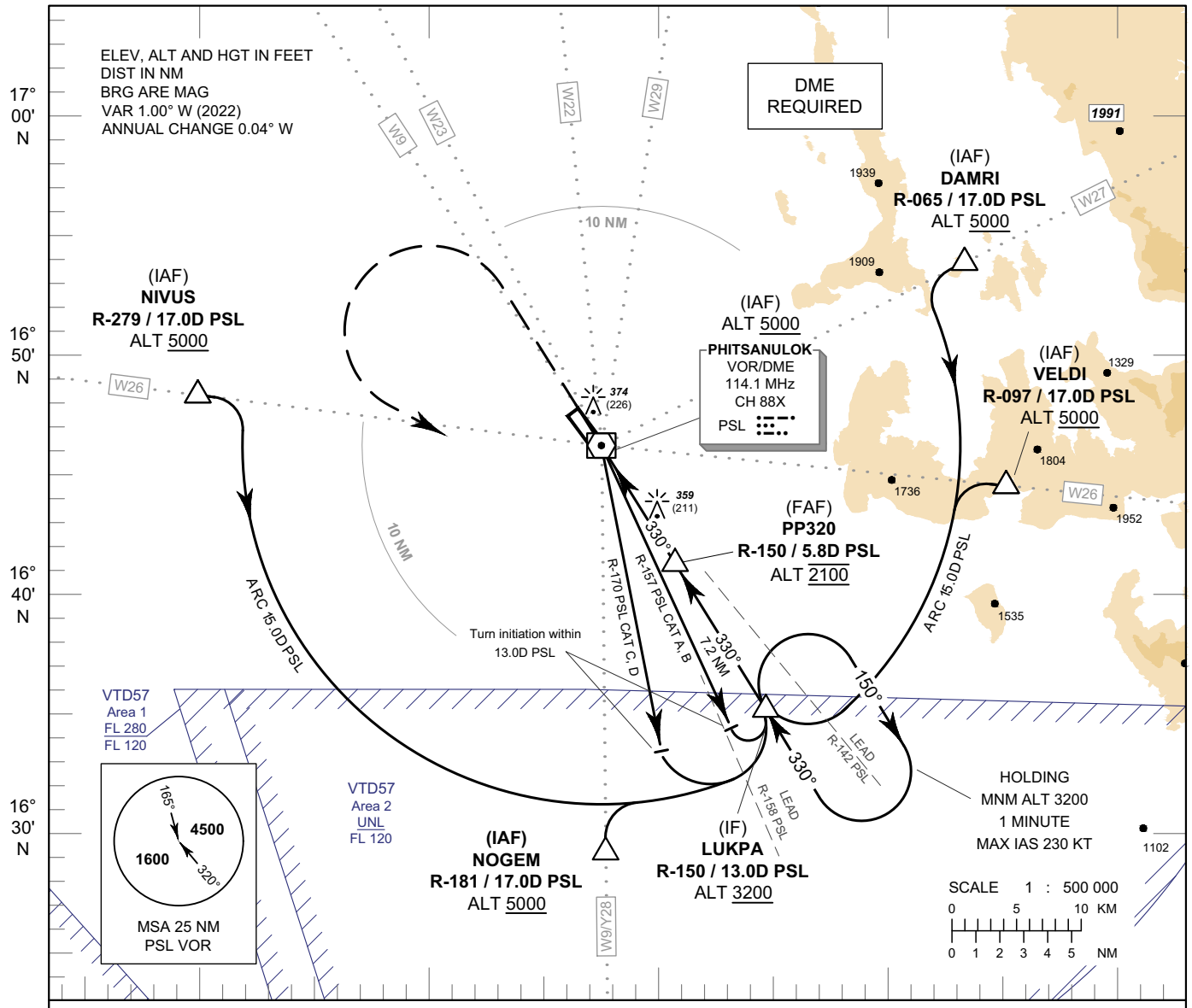
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO AERODROME ELEV

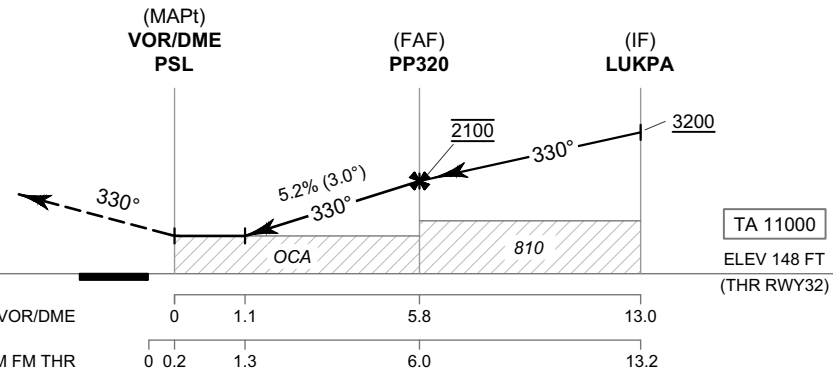
| | |
|---|---|
| APP | : 120.7, 284.0 |
| TWR | : 118.9 , 236.6 |
| GND | : 121.9 |
| ATIS | : 127.4 |

**PHITSANULOK / Phitsanulok (VTPP)**

**VOR RWY32**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb straight ahead to 3000 FT, then turn left to intercept outbound R-150 PSL VOR and continue climb to LUKPA at minimum 3200 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | 610 (462) | | | |
| Circling (OCH AAL) | 1000 (852) | | | |

| Distance (PSL) | 1.1D | 2D | 3D | 4D | 5D | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | 610 (462) | 895 (747) | 1210 (1062) | 1525 (1377) | 1840 (1692) | 2100 (1952) |

| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CORRECT MISSED APPROACH INSTRUCTION.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
AERODROME ELEV

**PHITSANULOK / Phitsanulok (VTPP)**

**VOR RWY32**

| Fix/Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>VELDI | R-097 / 17.0D PSL | 16° 44' 24.79" N | 100° 35' 05.73" E |
| (IAF)<br>DAMRI | R-065 / 17.0D PSL | 16° 53' 47.82" N | 100° 33' 21.71" E |
| (IAF)<br>NOGEM | R-181 / 17.0D PSL | 16° 29' 09.16" N | 100° 17' 32.96" E |
| (IAF)<br>NIVUS | R-279 / 17.0D PSL | 16° 48' 26.33" N | 099° 59' 54.50" E |
| (IF)<br>LUKPA | R-150 / 13.0D PSL | 16° 35' 05.75" N | 100° 24' 33.60" E |
| (FAF)<br>PP320 | R-150 / 5.8D PSL | 16° 41' 15.59" N | 100° 20' 38.45" E |
| VOR | PSL | 16° 46' 13.27" N | 100° 17' 28.95" E |

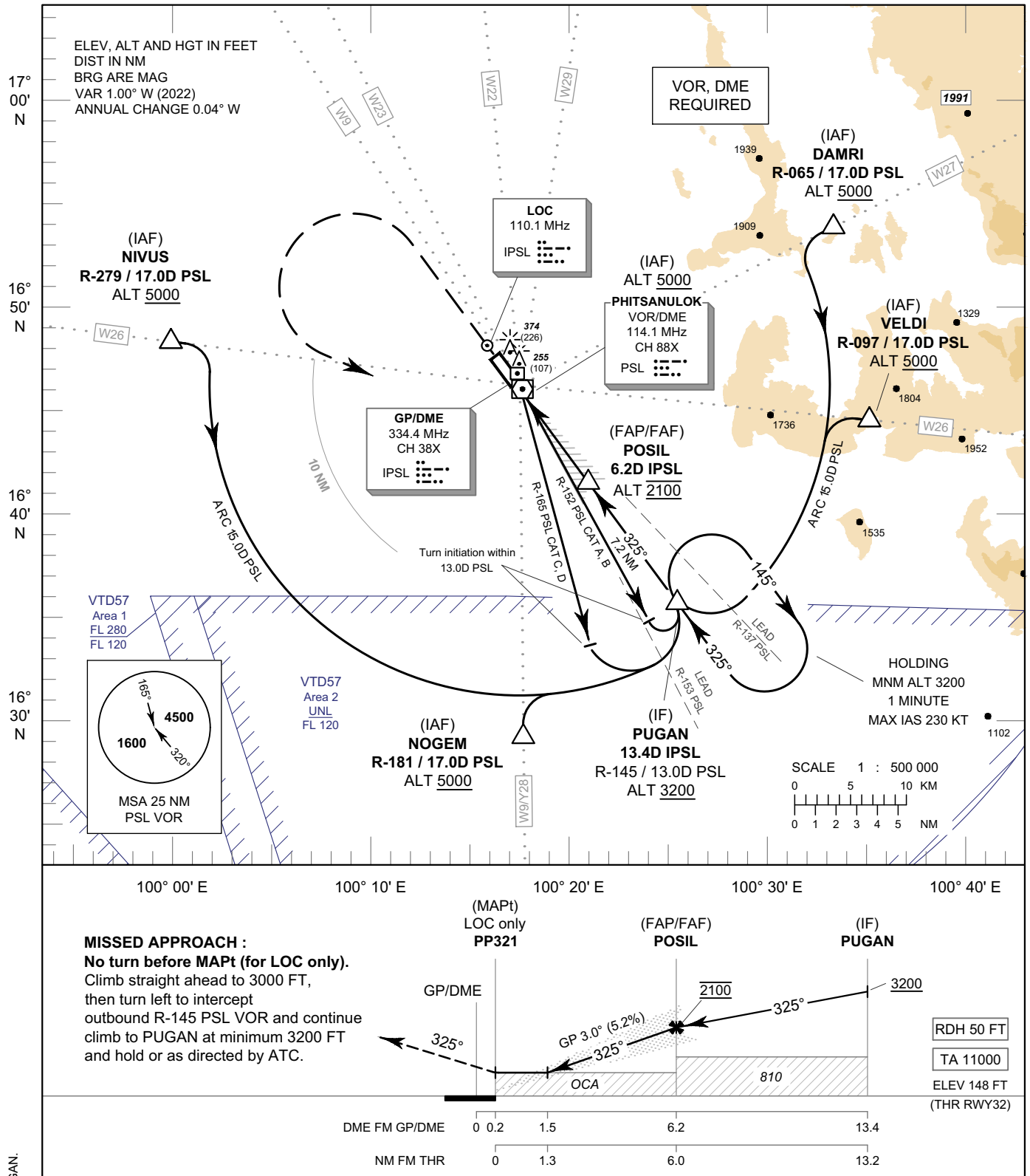
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

| | |
|---|---|
| APP | : 120.7, 284.0 |
| TWR | : 118.9 , 236.6 |
| GND | : 121.9 |
| ATIS | : 127.4 |

**PHITSANULOK / Phitsanulok (VTPP)**

**ILS or LOC y RWY32**




**MISSED APPROACH :**
**No turn before MAPt (for LOC only).**
Climb straight ahead to 3000 FT,
then turn left to intercept
outbound R-145 PSL VOR and continue
climb to PUGAN at minimum 3200 FT
and hold or as directed by ATC.




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 370 (222) | | | |
| LOC only | | 610 (462) | | | |
| Circling (OCH AAL) | | 1000 (852) | | | |

| GS OUT | Distance (IPSL) | 1.5D | 2D | 3D | 4D | 5D | 6D | FAF |
|---|---|---|---|---|---|---|---|---|
| | Altitude (Height) | 610 (462) | 765 (617) | 1080 (932) | 1400 (1252) | 1715 (1567) | 2030 (1882) | 2100 (1952) |
| | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| | Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: PSL RADIAL OF PUGAN.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

**PHITSANULOK / Phitsanulok (VTPP)**

**ILS or LOC y RWY32**

| Fix/Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>VELDI | R-097 / 17.0D PSL | 16° 44' 24.79" N | 100° 35' 05.73" E |
| (IAF)<br>DAMRI | R-065 / 17.0D PSL | 16° 53' 47.82" N | 100° 33' 21.71" E |
| (IAF)<br>NOGEM | R-181 / 17.0D PSL | 16° 29' 09.16" N | 100° 17' 32.96" E |
| (IAF)<br>NIVUS | R-279 / 17.0D PSL | 16° 48' 26.33" N | 099° 59' 54.50" E |
| (IF)<br>PUGAN | 13.4D IPSL | 16° 35' 35.86" N | 100° 25' 21.12" E |
| (FAP/FAF)<br>POSIL | 6.2D IPSL | 16° 41' 28.38" N | 100° 20' 54.79" E |
| (MAPt@THR32)<br>PP321 | 0.2D IPSL | 16° 46' 19.13" N | 100° 17' 14.75" E |
| LOC | IPSL | 16° 47' 46.21" N | 100° 16' 08.80" E |
| GP/DME | - | 16° 46' 29.85" N | 100° 17' 11.66" E |
| (IAF)<br>VOR | PSL | 16° 46' 13.27" N | 100° 17' 28.95" E |

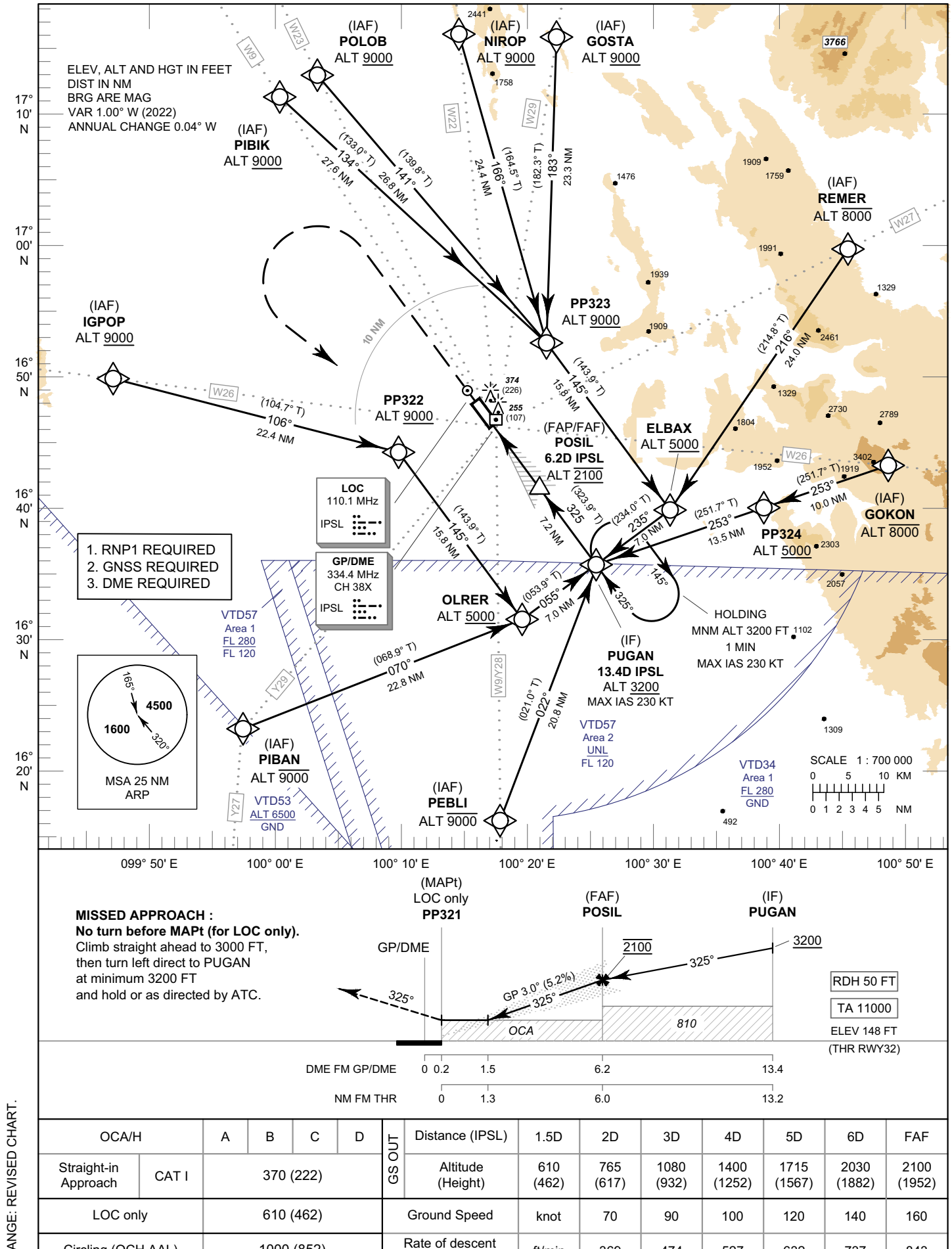
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

| | |
|---|---|
| APP | : 120.7, 284.0 |
| TWR | : 118.9 , 236.6 |
| GND | : 121.9 |
| ATIS | : 127.4 |

**PHITSANULOK / Phitsanulok (VTPP)**

**ILS or LOC z RWY32**




**MISSED APPROACH :**
**No turn before MAPt (for LOC only).**
Climb straight ahead to 3000 FT,
then turn left direct to PUGAN
at minimum 3200 FT
and hold or as directed by ATC.




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 370 (222) | | | |
| LOC only | | 610 (462) | | | |
| Circling (OCH AAL) | | 1000 (852) | | | |

| GS OUT | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Distance (IPSL) | 1.5D | 2D | 3D | 4D | 5D | 6D | FAF |
| Altitude (Height) | 610 (462) | 765 (617) | 1080 (932) | 1400 (1252) | 1715 (1567) | 2030 (1882) | 2100 (1952) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

**PHITSANULOK / Phitsanulok (VTPP)**

**ILS or LOC z RWY32**

**TABULAR DESCRIPTION (1)**

**ILS or LOC z RWY32**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) GOKON | - | - | +1.1 | - | - | -8000 | - | - | RNP 1 |
| 020 | TF | PP324 | - | 253° (251.7°) | +1.1 | 10.0 | - | +5000 | - | - | RNP 1 |
| 030 | TF | (IF) PUGAN | - | 253° (251.7°) | +1.1 | 13.5 | - | +3200 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) REMER | - | - | +1.1 | - | - | -8000 | - | - | RNP 1 |
| 020 | TF | ELBAX | - | 216° (214.8°) | +1.1 | 24.0 | - | +5000 | - | - | RNP 1 |
| 030 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) GOSTA | - | - | +1.1 | - | - | +9000 | - | - | RNP 1 |
| 020 | TF | PP323 | - | 183° (182.3°) | +1.1 | 23.3 | - | +9000 | - | - | RNP 1 |
| 030 | TF | ELBAX | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP 1 |
| 040 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) NIROP | - | - | +1.1 | - | - | +9000 | - | - | RNP 1 |
| 020 | TF | PP323 | - | 166° (164.5°) | +1.1 | 24.4 | - | +9000 | - | - | RNP 1 |
| 030 | TF | ELBAX | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP 1 |
| 040 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) POLOB | - | - | +1.1 | - | - | +9000 | - | - | RNP 1 |
| 020 | TF | PP323 | - | 141° (139.8°) | +1.1 | 26.8 | - | +9000 | - | - | RNP 1 |
| 030 | TF | ELBAX | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP 1 |
| 040 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PIBIK | - | - | +1.1 | - | - | +9000 | - | - | RNP 1 |
| 020 | TF | PP323 | - | 134° (133.0°) | +1.1 | 27.6 | - | +9000 | - | - | RNP 1 |
| 030 | TF | ELBAX | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP 1 |
| 040 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) IGPOP | - | - | +1.1 | - | - | +9000 | - | - | RNP 1 |
| 020 | TF | PP322 | - | 106° (104.7°) | +1.1 | 22.4 | - | +9000 | - | - | RNP 1 |
| 030 | TF | OLRER | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP 1 |
| 040 | TF | (IF) PUGAN | - | 055° (053.9°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PIBAN | - | - | +1.1 | - | - | -9000 | - | - | RNP 1 |
| 020 | TF | OLRER | - | 070° (068.9°) | +1.1 | 22.8 | - | +5000 | - | - | RNP 1 |
| 030 | TF | (IF) PUGAN | - | 055° (053.9°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PEBLI | - | - | +1.1 | - | - | -9000 | - | - | RNP 1 |
| 020 | TF | (IF) PUGAN | - | 022° (021.0°) | +1.1 | 20.8 | - | +3200 | -230 | - | RNP 1 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

**PHITSANULOK / Phitsanulok (VTPP)**

**ILS or LOC z RWY32**

**TABULAR DESCRIPTION (2)**

| ILS or LOC z RWY32 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course ° M (° T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ TCH** | **Navigation Specification** |
| 010 | IF | (IF) PUGAN | - | - | +1.1 | - | - | +3200 | -230 | - | RNP 1 |
| **TRANSITION TO ILS or LOC** | | | | | | | | | | | |
| 020 | TF | (FAF) POSIL | - | 325° (323.9°) | +1.1 | 7.2 | - | @2100 | - | - | ILS |
| 030 | TF | (MAPt@THR32) PP321 | Y | 325° (323.9°) | +1.1 | 6.0 | - | @198 | - | -3.0/50 | ILS |
| 040 | CA | - | - | 325° (323.9°) | +1.1 | - | - | +3000 | - | - | RNP 1 |
| 050 | DF | (IF) PUGAN | - | - | +1.1 | - | L | +3200 | - | - | RNP 1 |
| 060 | HM | (IF) PUGAN | Y | 325° (323.9°) | +1.1 | 1 minute | R | +3200 | -230 | - | RNP 1 |

**WAYPOINT LIST**

| ILS or LOC z RWY32 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| ELBAX | 16° 39' 44.00" N 100° 31' 14.82" E |
| GOKON | 16° 43' 00.76" N 100° 48' 33.82" E |
| GOSTA | 17° 15' 57.30" N 100° 22' 29.83" E |
| IGPOP | 16° 50' 02.08" N 099° 47' 07.71" E |
| NIROP | 17° 16' 13.74" N 100° 14' 44.33" E |
| OLRER | 16° 31' 27.56" N 100° 19' 27.68" E |
| PEBLI | 16° 16' 05.94" N 100° 17' 36.21" E |
| PIBAN | 16° 23' 13.57" N 099° 57' 18.10" E |
| PIBIK | 17° 11' 30.33" N 100° 00' 27.77" E |
| POLOB | 17° 13' 09.43" N 100° 03' 27.80" E |
| POSIL | 16° 41' 28.38" N 100° 20' 54.79" E |
| PP321 | 16° 46' 19.13" N 100° 17' 14.75" E |
| PP322 | 16° 44' 18.07" N 100° 09' 44.56" E |
| PP323 | 16° 52' 35.16" N 100° 21' 31.99" E |
| PP324 | 16° 39' 51.56" N 100° 38' 40.35" E |
| PUGAN | 16° 35' 35.86" N 100° 25' 21.12" E |
| REMER | 16° 59' 34.56" N 100° 45' 31.34" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

**PHITSANULOK / Phitsanulok (VTPP)**

**ILS or LOC z RWY32**

| Fix/Point | | Coordinates | |
|---|---|---|---|
| (IF)<br>PUGAN | 13.4D IPSL | 16° 35' 35.86" N | 100° 25' 21.12" E |
| (FAP/FAF)<br>POSIL | 6.2D IPSL | 16° 41' 28.38" N | 100° 20' 54.79" E |
| (MAPt@THR32)<br>PP321 | 0.2D IPSL | 16° 46' 19.13" N | 100° 17' 14.75" E |
| LOC | IPSL | 16° 47' 46.21" N | 100° 16' 08.80" E |
| GP/DME | - | 16° 46' 29.85" N | 100° 17' 11.66" E |

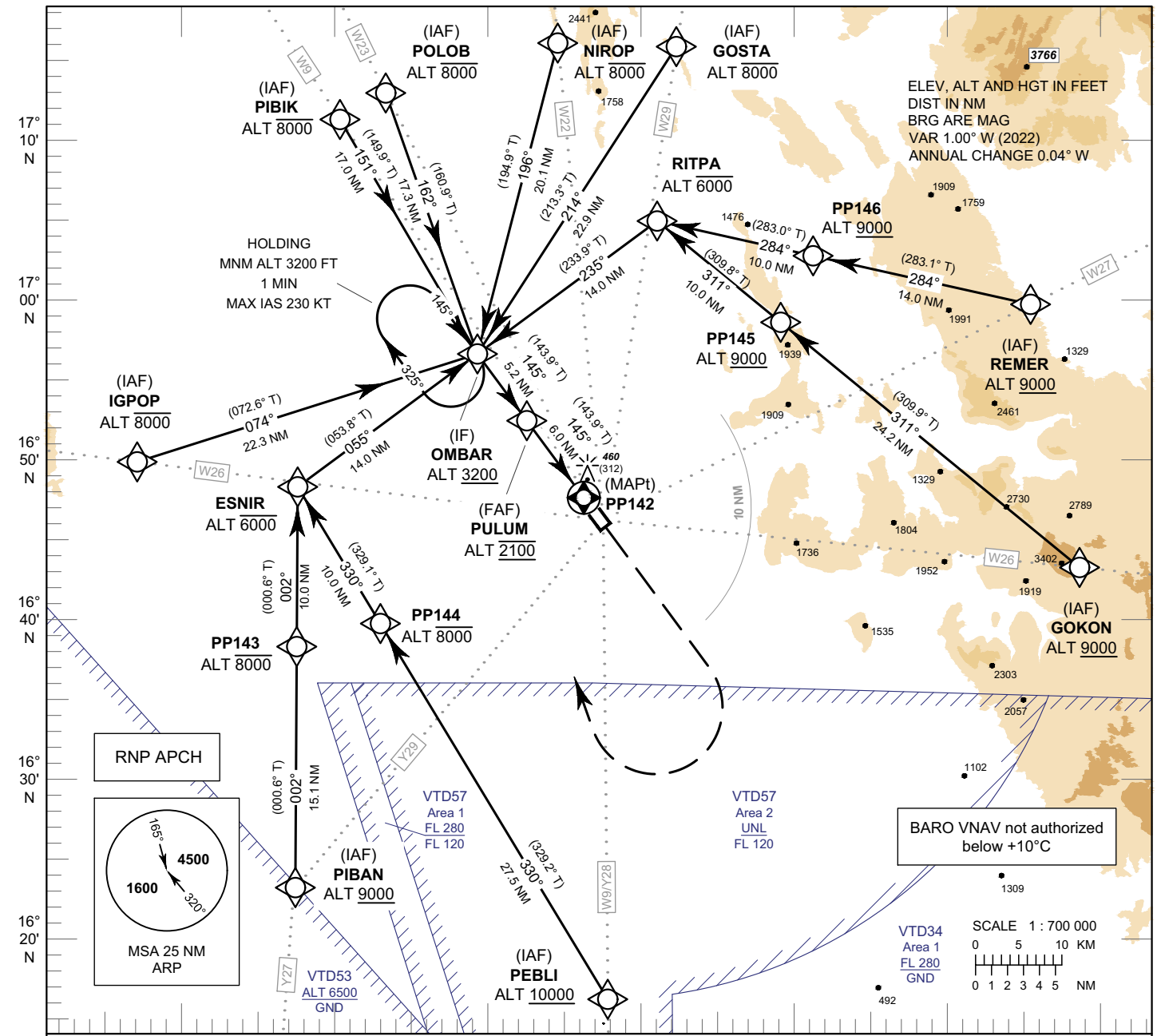
**INSTRUMENT APPROACH CHART - ICAO**

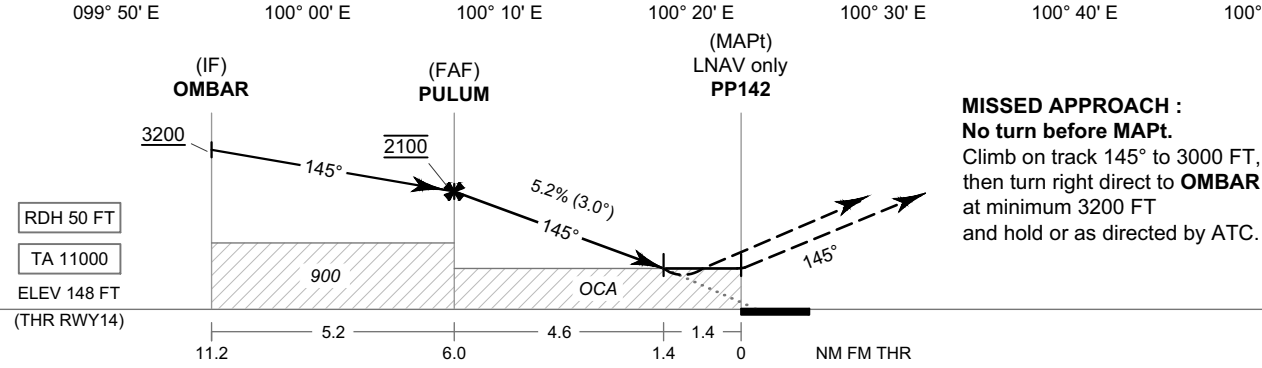
**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY14 - ELEV 148 FT

| | |
|---|---|
| APP | : 120.7, 284.0 |
| TWR | : 118.9 , 236.6 |
| GND | : 121.9 |
| ATIS | : 127.4 |

**PHITSANULOK / Phitsanulok (VTPP)**

**RNP RWY14**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 145° to 3000 FT,
then turn right direct to **OMBAR**
at minimum 3200 FT
and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 640 (492) | | | |
| LNAV | | | | |
| Circling (OCH AAL) | 1000 (852) | | | |

| NM to NEXT WPT | FAF | 5 NM | 4 NM | 3 NM | 2 NM | 1.4 NM |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2100 (1952) | 1780 (1632) | 1460 (1312) | 1145 (997) | 830 (682) | 640 (492) |

| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY14 - ELEV 148 FT

**PHITSANULOK / Phitsanulok (VTPP)**

**RNP RWY14**

**TABULAR DESCRIPTION**

**RNP RWY14**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) GOKON | - | - | +1.1 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | PP145 | - | 311° (309.9°) | +1.1 | 24.2 | - | +9000 | - | - | RNP APCH |
| 030 | TF | RITPA | - | 311° (309.8) | +1.1 | 10.0 | - | -6000 | - | - | RNP APCH |
| 040 | TF | (IF) OMBAR | - | 235° (233.9°) | +1.1 | 14.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) REMER | - | - | +1.1 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | PP146 | - | 284° (283.1°) | +1.1 | 14.0 | - | +9000 | - | - | RNP APCH |
| 030 | TF | RITPA | - | 284° (283.0°) | +1.1 | 10.0 | - | -6000 | - | - | RNP APCH |
| 040 | TF | (IF) OMBAR | - | 235° (233.9°) | +1.1 | 14.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) GOSTA | - | - | +1.1 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IF) OMBAR | - | 214° (213.3°) | +1.1 | 22.9 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) NIROP | - | - | +1.1 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IF) OMBAR | - | 196° (194.9°) | +1.1 | 20.1 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) POLOB | - | - | +1.1 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IF) OMBAR | - | 162° (160.9°) | +1.1 | 17.3 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PIBIK | - | - | +1.1 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IF) OMBAR | - | 151° (149.9°) | +1.1 | 17.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) IGPOP | - | - | +1.1 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IF) OMBAR | - | 074° (072.6°) | +1.1 | 22.3 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PEBLI | - | - | +1.1 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | PP144 | - | 330° (329.2°) | +1.1 | 27.5 | - | -8000 | - | - | RNP APCH |
| 030 | TF | ESNIR | - | 330° (329.1°) | +1.1 | 10.0 | - | -6000 | - | - | RNP APCH |
| 040 | TF | (IF) OMBAR | - | 055° (053.8°) | +1.1 | 14.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PIBAN | - | - | +1.1 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | PP143 | - | 002° (000.6°) | +1.1 | 15.1 | - | -8000 | - | - | RNP APCH |
| 030 | TF | ESNIR | - | 002° (000.6°) | +1.1 | 10.0 | - | -6000 | - | - | RNP APCH |
| 040 | TF | (IF) OMBAR | - | 055° (053.8°) | +1.1 | 14.0 | - | +3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) OMBAR | - | - | +1.1 | - | - | +3200 | - | - | RNP APCH |
| 020 | TF | (FAF) PULUM | - | 145° (143.9°) | +1.1 | 5.2 | - | @2100 | - | - | RNP APCH |
| 030 | TF | (MAPt@THR14) PP142 | Y | 145° (143.9°) | +1.1 | 6.0 | - | @198 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 145° (143.9°) | +1.1 | - | - | +3000 | - | - | RNP APCH |
| 050 | DF | (IF) OMBAR | - | - | +1.1 | - | R | +3200 | - | - | RNP APCH |
| 060 | HM | (IF) OMBAR | Y | 145° (143.9°) | +1.1 | 1 minute | R | +3200 | -230 | - | RNP APCH |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY14 - ELEV 148 FT

**PHITSANULOK / Phitsanulok (VTPP)**

**RNP RWY14**

**WAYPOINT LIST**

| **RNP RWY14** | | |
|---|---|---|
| **Waypoint Identifier** | **Coordinates** | |
| ESNIR | 16° 48' 25.24" N | 099° 57' 34.74" E |
| GOKON | 16° 43' 00.76" N | 100° 48' 33.82" E |
| GOSTA | 17° 15' 57.30" N | 100° 22' 29.83" E |
| IGPOP | 16° 50' 02.08" N | 099° 47' 07.71" E |
| NIROP | 17° 16' 13.74" N | 100° 14' 44.33" E |
| OMBAR | 16° 56' 43.02" N | 100° 09' 21.89" E |
| PEBLI | 16° 16' 05.94" N | 100° 17' 36.21" E |
| PIBAN | 16° 23' 13.57" N | 099° 57' 18.10" E |
| PIBIK | 17° 11' 30.33" N | 100° 00' 27.77" E |
| POLOB | 17° 13' 09.43" N | 100° 03' 27.80" E |
| PP142 | 16° 47' 38.03" N | 100° 16' 15.01" E |
| PP143 | 16° 38' 22.81" N | 099° 57' 28.10" E |
| PP144 | 16° 39' 48.27" N | 100° 02' 55.80" E |
| PP145 | 16° 58' 34.71" N | 100° 29' 11.38" E |
| PP146 | 17° 02' 45.20" N | 100° 31' 17.38" E |
| PULUM | 16° 52' 30.03" N | 100° 12' 33.77" E |
| REMER | 16° 59' 34.56" N | 100° 45' 31.34" E |
| RITPA | 17° 05' 00.11" N | 100° 21' 10.08" E |

**INTENTIONALLY BLANK**

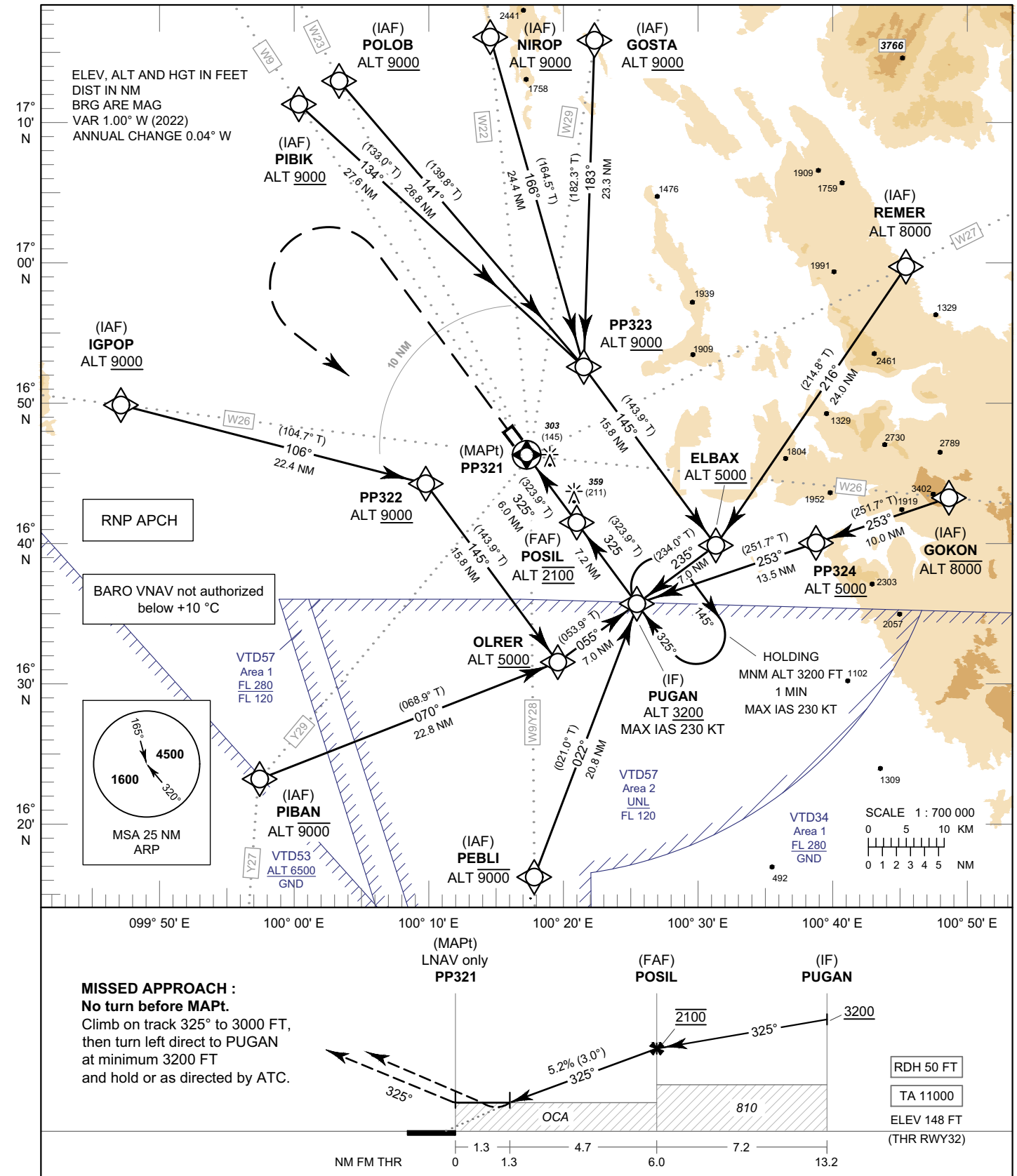
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

APP : 120.7, 284.0
TWR : 118.9 , 236.6
GND : 121.9
ATIS : 127.4

**PHITSANULOK / Phitsanulok (VTPP)**

**RNP RWY32**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 325° to 3000 FT,
then turn left direct to PUGAN
at minimum 3200 FT
and hold or as directed by ATC.




| OCA/H | A | B | C | D | NM to NEXT WPT | 1.3 NM | 2 NM | 3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 470 (322) | | | | Altitude (Height) | 610 (462) | 830 (682) | 1145 (997) | 1460 (1312) | 1780 (1632) | 2100 (1952) |
| LNAV | 610 (462) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1000 (852) | | | | Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

**PHITSANULOK / Phitsanulok (VTPP)**

**RNP RWY32**

**TABULAR DESCRIPTION (1)**

**RNP RWY32**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) GOKON | - | - | +1.1 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | PP324 | - | 253° (251.7°) | +1.1 | 10.0 | - | +5000 | - | - | RNP APCH |
| 030 | TF | (IF) PUGAN | - | 253° (251.7°) | +1.1 | 13.5 | - | +3200 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) REMER | - | - | +1.1 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | ELBAX | - | 216° (214.8°) | +1.1 | 24.0 | - | +5000 | - | - | RNP APCH |
| 030 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) GOSTA | - | - | +1.1 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | PP323 | - | 183° (182.3°) | +1.1 | 23.3 | - | +9000 | - | - | RNP APCH |
| 030 | TF | ELBAX | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP APCH |
| 040 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) NIROP | - | - | +1.1 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | PP323 | - | 166° (164.5°) | +1.1 | 24.4 | - | +9000 | - | - | RNP APCH |
| 030 | TF | ELBAX | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP APCH |
| 040 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) POLOB | - | - | +1.1 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | PP323 | - | 141° (139.8°) | +1.1 | 26.8 | - | +9000 | - | - | RNP APCH |
| 030 | TF | ELBAX | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP APCH |
| 040 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PIBIK | - | - | +1.1 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | PP323 | - | 134° (133.0°) | +1.1 | 27.6 | - | +9000 | - | - | RNP APCH |
| 030 | TF | ELBAX | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP APCH |
| 040 | TF | (IF) PUGAN | - | 235° (234.0°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) IGPOP | - | - | +1.1 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | PP322 | - | 106° (104.7°) | +1.1 | 22.4 | - | +9000 | - | - | RNP APCH |
| 030 | TF | OLRER | - | 145° (143.9°) | +1.1 | 15.8 | - | +5000 | - | - | RNP APCH |
| 040 | TF | (IF) PUGAN | - | 055° (053.9°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PIBAN | - | - | +1.1 | - | - | -9000 | - | - | RNP APCH |
| 020 | TF | OLRER | - | 070° (068.9°) | +1.1 | 22.8 | - | +5000 | - | - | RNP APCH |
| 030 | TF | (IF) PUGAN | - | 055° (053.9°) | +1.1 | 7.0 | - | +3200 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) PEBLI | - | - | +1.1 | - | - | -9000 | - | - | RNP APCH |
| 020 | TF | (IF) PUGAN | - | 022° (021.0°) | +1.1 | 20.8 | - | +3200 | -230 | - | RNP APCH |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 148 FT**
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

**PHITSANULOK / Phitsanulok (VTPP)**

**RNP RWY32**

**TABULAR DESCRIPTION (2)**

| RNP RWY32 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IF) PUGAN | - | - | +1.1 | - | - | +3200 | -230 | - | RNP APCH |
| 020 | TF | (FAF) POSIL | - | 325° (323.9°) | +1.1 | 7.2 | - | @2100 | - | - | RNP APCH |
| 030 | TF | (MAPt@THR32) PP321 | Y | 325° (323.9°) | +1.1 | 6.0 | - | @198 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 325° (323.9°) | +1.1 | - | - | +3000 | - | - | RNP APCH |
| 050 | DF | (IF) PUGAN | - | - | +1.1 | - | L | +3200 | - | - | RNP APCH |
| 060 | HM | (IF) PUGAN | Y | 325° (323.9°) | +1.1 | 1 minute | R | +3200 | -230 | - | RNP APCH |

**WAYPOINT LIST**

| RNP RWY32 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | |
| ELBAX | 16° 39' 44.00" N | 100° 31' 14.82" E |
| GOKON | 16° 43' 00.76" N | 100° 48' 33.82" E |
| GOSTA | 17° 15' 57.30" N | 100° 22' 29.83" E |
| IGPOP | 16° 50' 02.08" N | 099° 47' 07.71" E |
| NIROP | 17° 16' 13.74" N | 100° 14' 44.33" E |
| OLRER | 16° 31' 27.56" N | 100° 19' 27.68" E |
| PEBLI | 16° 16' 05.94" N | 100° 17' 36.21" E |
| PIBAN | 16° 23' 13.57" N | 099° 57' 18.10" E |
| PIBIK | 17° 11' 30.33" N | 100° 00' 27.77" E |
| POLOB | 17° 13' 09.43" N | 100° 03' 27.80" E |
| POSIL | 16° 41' 28.38" N | 100° 20' 54.79" E |
| PP321 | 16° 46' 19.13" N | 100° 17' 14.75" E |
| PP322 | 16° 44' 18.07" N | 100° 09' 44.56" E |
| PP323 | 16° 52' 35.16" N | 100° 21' 31.99" E |
| PP324 | 16° 39' 51.56" N | 100° 38' 40.35" E |
| PUGAN | 16° 35' 35.86" N | 100° 25' 21.12" E |
| REMER | 16° 59' 34.56" N | 100° 45' 31.34" E |

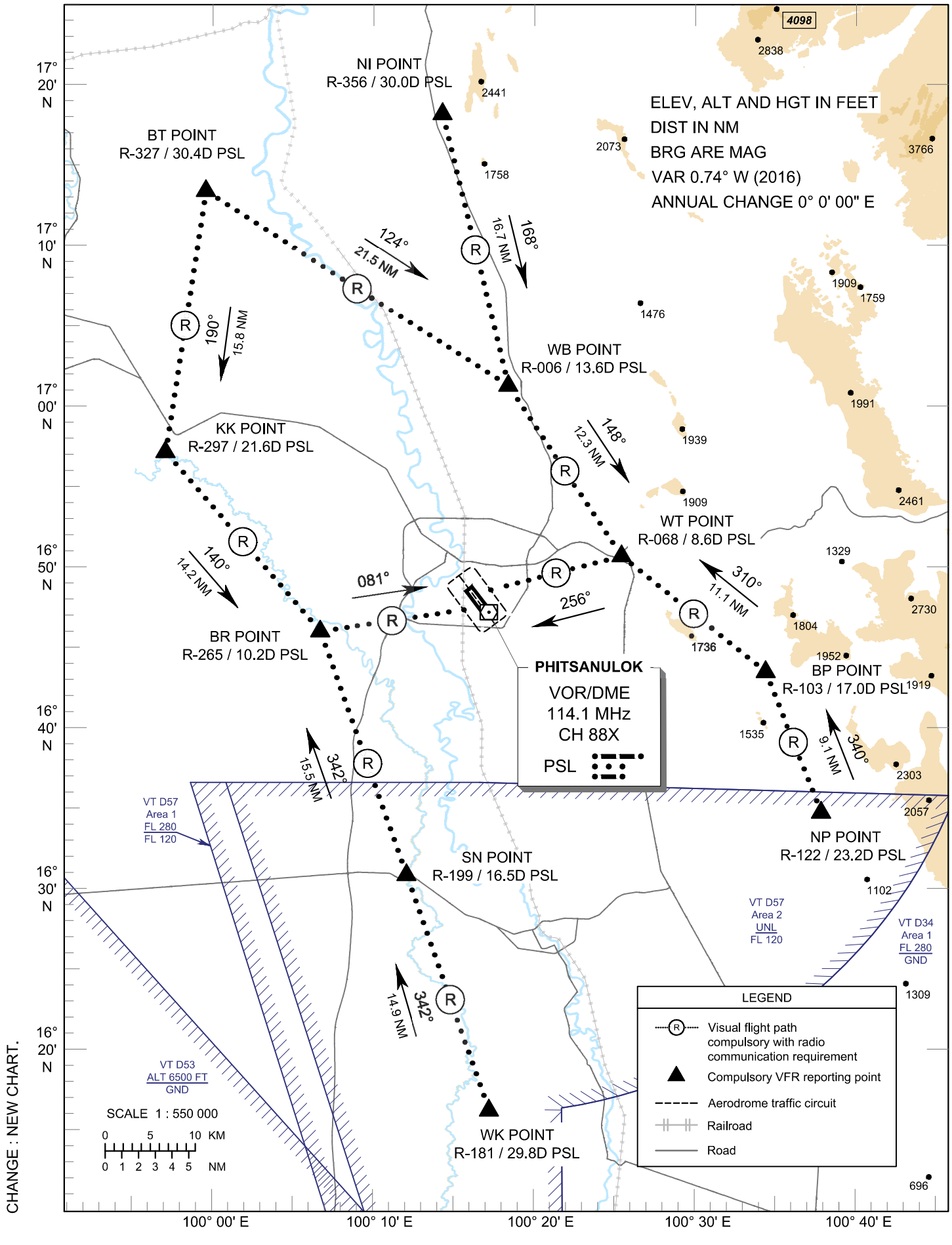
**INTENTIONALLY BLANK**

**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 145 FT**
HEIGHT RELATED TO AERODROME ELEV

| | |
|---|---|
| APP | : 120.7, 284.0 |
| TWR | : 118.9, 236.6 |
| GND | : 121.9 |
| ATIS | : 127.4 |

**PHITSANULOK / Phitsanulok (VTPP) RWY 14/32**



**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 145 FT**
HEIGHT RELATED TO AERODROME ELEV

**PHITSANULOK / Phitsanulok (VTPP) RWY 14/32**

ARR-RWY14/32 (**From North**)

Enter via most direct route through the NI POINT, then heading 168° to WB POINT, heading 148° to WT POINT, then join aerodrome traffic circuit when direct by ATC.

ARR-RWY14/32 (**From North - West**)

Enter via most direct route through the BT POINT, then heading 124° to WB POINT, heading 148° to WT POINT, then join aerodrome traffic circuit when direct by ATC.

Enter via most direct route through the BT POINT, then heading 190° to KK POINT, heading 140° to BR POINT, then join aerodrome traffic circuit when direct by ATC.

ARR-RWY14/32 (**From East**)

Enter via most direct route through the NP POINT, then heading 340° to BP POINT, heading 310° to WT POINT, then join aerodrome traffic circuit when direct by ATC.

ARR-RWY14/32 (**From South**)

Enter via most direct route through the WK POINT, then heading 342° to SN POINT, heading 342° to BR POINT, then join aerodrome traffic circuit when direct by ATC.

| Reporting points | Visual Reference | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "BP" or BRAVO - PAPA Point | Wat Nam Pat, Ban Nam Pat community | R-103 / 17.0D PSL | 16° 42' 30.77" N | 100° 34' 43.59" E |
| "BR" or BRAVO - ROMIO Point | Football pitch, Bo Wittaya Bang Rakam School | R-265 / 10.2D PSL | 16° 45' 08.12" N | 100° 06' 56.78" E |
| "BT" or BRAVO - TANGO Point | Bridge, Ban Thung Pa Krathin | R-327 / 30.4D PSL | 17° 11' 39.79" N | 099° 59' 57.75" E |
| "KK" or KILO - KILO Point | Wat Kong Krailat | R-297 / 21.6D PSL | 16° 55' 58.33" N | 099° 57' 20.73" E |
| "NI" or NOVEMBER - INDIA Point | Ridge near Na-In | R-356 / 30.0D PSL | 17°16' 12.50" N | 100° 14' 47.31" E |
| "NP" or NOVEMBER - PAPA Point | Noen Maprang Junction | R-122 / 23.2D PSL | 16°34' 01.58" N | 100° 38' 06.30" E |
| "SN" or SIERRA - NOVEMBER Point | Bridge Samngam district | R-199 / 16.5D PSL | 16° 30' 26.88" N | 100° 12' 14.18" E |
| "WB" or WHISKY - BRAVO Point | Wat Bot, Khwae Noi River bend | R-006 / 13.6D PSL | 16° 59' 50.32" N | 100° 18' 47.19" E |
| "WK" or WHISKY - KILO Point | Wat Yang Khao Sutthawat | R-181 / 29.8D PSL | 16° 16' 15.31" N | 100° 17' 17.11" E |
| "WT" or WHISKY - TANGO Point | Wang Thong Junction | R-068 / 8.6D PSL | 16° 49' 32.39" N | 100° 25' 47.00" E |
| PHITSANULOK VOR/DME (PSL) | PHITSANULOK VOR/DME Station | - | 16° 46' 13.34" N | 100° 17' 28.70" E |

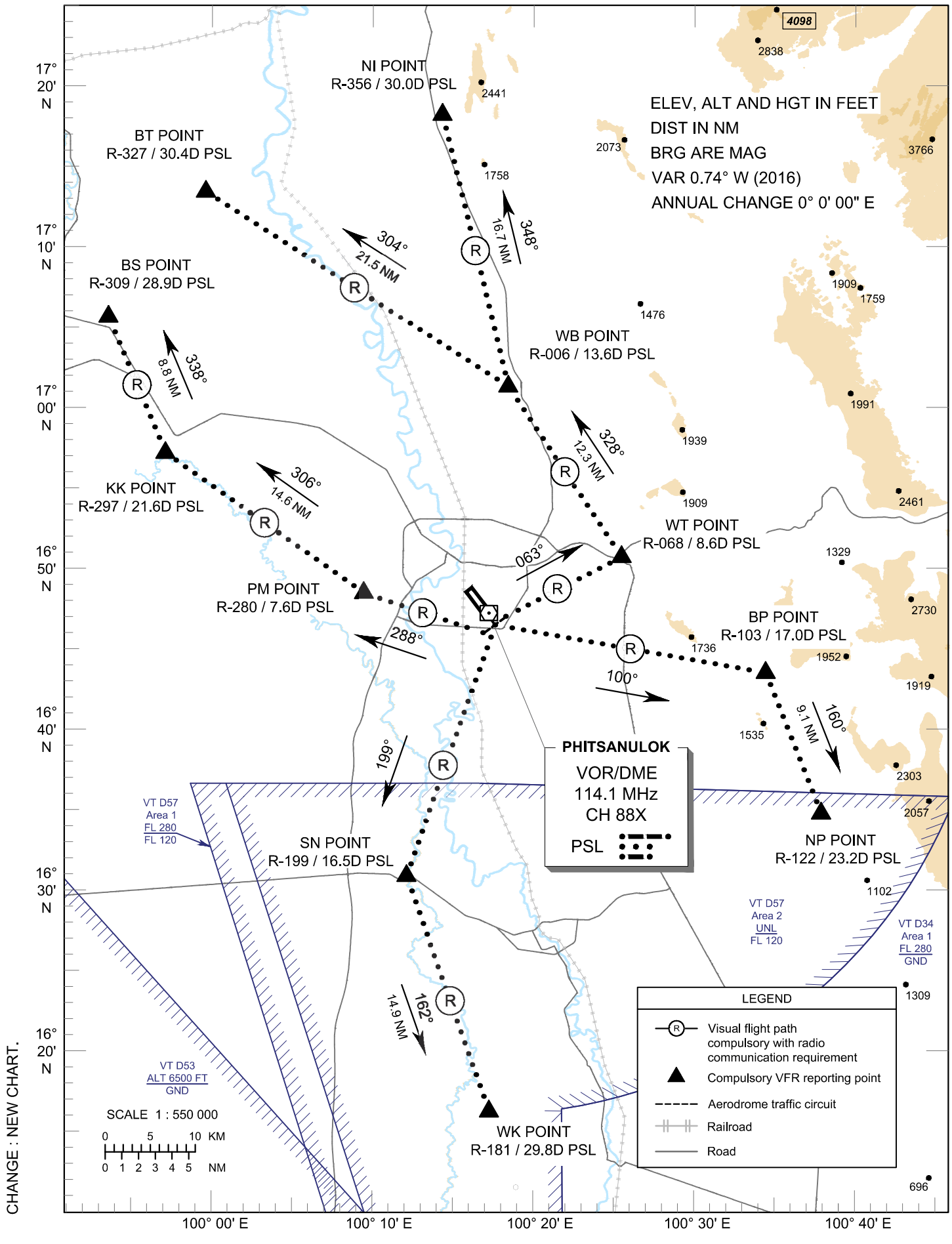
CHAGE : NEW CHART.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 145 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 120.7, 284.0
TWR : 118.9, 236.6
GND : 121.9
ATIS : 127.4

**PHITSANULOK / Phitsanulok (VTPP) RWY 14**



**VFR EXIT PROCEDURE CHART** | **AERODROME ELEV 145 FT** HEIGHT RELATED TO AERODROME ELEV | **PHITSANULOK / Phitsanulok (VTPP) RWY 14**

DEP-RWY14 (**To North**)
After departure left turn heading 063° to WT POINT, then heading 328° to WB POINT, then heading 348° to NI POINT, then proceed to destination.

DEP-RWY14 (**To North - West**)
After departure left turn heading 063° to WT POINT, then heading 328° to WB POINT, then heading 304° to BT POINT, then proceed to destination.

After departure right turn heading 288° to PM POINT, then heading 306° to KK POINT, then heading 338° to BS POINT, then proceed to destination.

DEP-RWY14 (**To East**)
After departure left turn heading 100° to BP POINT, then heading 160° to NP POINT, then proceed to destination.

DEP-RWY14 (**To South**)
After departure right turn heading 199° to SN POINT, then heading 162° to WK POINT, then proceed to destination.

| Reporting points | Visual Reference | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "BP" or BRAVO - PAPA Point | Wat Nam Pat,<br>Ban Nam Pat community | R-103 / 17.0D PSL | 16° 42' 30.77" N | 100° 34' 43.59" E |
| "BS" or BRAVO - SIERRA Point | Bueng Yai<br>Ban Suan district | R-309 / 28.9D PSL | 17° 04' 10.76" N | 099° 53' 49.35" E |
| "BT" or BRAVO - TANGO Point | Bridge, Ban Thung Pa<br>Krathin | R-327 / 30.4D PSL | 17° 11' 39.79" N | 099° 59' 57.75" E |
| "KK" or KILO - KILO Point | Wat Kong Krailat | R-297 / 21.6D PSL | 16° 55' 58.33" N | 099° 57' 20.73" E |
| "NI" or NOVEMBER - INDIA Point | Ridge near Na-In | R-356 / 30.0D PSL | 17°16' 12.50" N | 100° 14' 47.31" E |
| "NP" or NOVEMBER - PAPA Point | Noen Maprang Junction | R-122 / 23.2D PSL | 16°34' 01.58" N | 100° 38' 06.30" E |
| "PM" or PAPA - MIKE Point | Wat Pong Mo Khao | R-280 / 7.6D PSL | 16°47' 27.25" N | 100° 09' 40.51" E |
| "SN" or SIERRA - NOVEMBER Point | Bridge<br>Samngam district | R-199 / 16.5D PSL | 16° 30' 26.88" N | 100° 12' 14.18" E |
| "WB" or WHISKY - BRAVO Point | Wat Bot, Khwae Noi<br>River bend | R-006 / 13.6D PSL | 16° 59' 50.32" N | 100° 18' 47.19" E |
| "WK" or WHISKY - KILO Point | Wat Yang Khao<br>Sutthawat | R-181 / 29.8D PSL | 16° 16' 15.31" N | 100° 17' 17.11" E |
| "WT" or WHISKY - TANGO Point | Wang Thong Junction | R-068 / 8.6D PSL | 16° 49' 32.39" N | 100° 25' 47.00" E |
| PHITSANULOK<br>VOR/DME (PSL) | PHITSANULOK<br>VOR/DME Station | - | 16° 46' 13.34" N | 100° 17' 28.70" E |

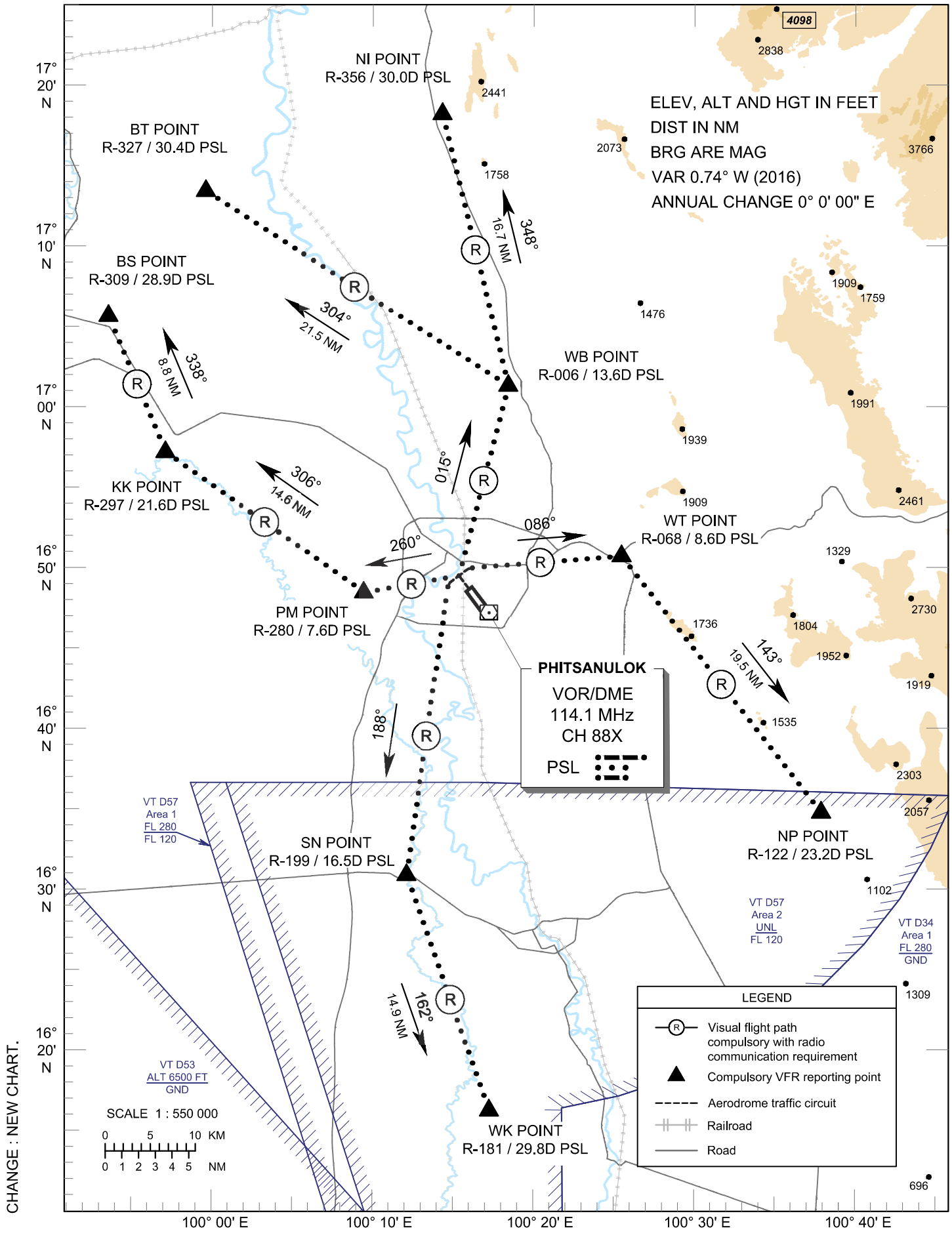
CHANGE : NEW CHART.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 145 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 120.7, 284.0
TWR : 118.9, 236.6
GND : 121.9
ATIS : 127.4

**PHITSANULOK / Phitsanulok (VTPP) RWY 32**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 145 FT**
HEIGHT RELATED TO AERODROME ELEV

**PHITSANULOK / Phitsanulok (VTPP) RWY 32**

DEP-RWY32 (**To North**)
After departure right turn heading 015° to WB POINT, then heading 348° to NI POINT, then proceed to destination.

DEP-RWY32 (**To North - West**)
After departure right turn heading 015° to WB POINT, then heading 304° to BT POINT, then proceed to destination.

After departure left turn heading 260° to PM POINT, then heading 306° to KK POINT, then heading 338° to BS POINT, then proceed to destination.

DEP-RWY32 (**To East**)
After departure right turn heading 086° to WT POINT, then heading 143° to NP POINT, then proceed to destination.

DEP-RWY32 (**To South**)
After departure left turn heading 188° to SN POINT, then heading 162° to WK POINT, then proceed to destination.

| Reporting points | Visual Reference | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "BS" or BRAVO - SIERRA Point | Bueng Yai Ban Suan district | R-309 / 28.9D PSL | 17° 04' 10.76" N | 099° 53' 49.35" E |
| "BT" or BRAVO - TANGO Point | Bridge, Ban Thung Pa Krathin | R-327 / 30.4D PSL | 17° 11' 39.79" N | 099° 59' 57.75" E |
| "KK" or KILO - KILO Point | Wat Kong Krailat | R-297 / 21.6D PSL | 16° 55' 58.33" N | 099° 57' 20.73" E |
| "NI" or NOVEMBER - INDIA Point | Ridge near Na-In | R-356 / 30.0D PSL | 17°16' 12.50" N | 100° 14' 47.31" E |
| "NP" or NOVEMBER - PAPA Point | Noen Maprang Junction | R-122 / 23.2D PSL | 16°34' 01.58" N | 100° 38' 06.30" E |
| "PM" or PAPA - MIKE Point | Wat Pong Mo Khao | R-280 / 7.6D PSL | 16°47' 27.25" N | 100° 09' 40.51" E |
| "SN" or SIERRA - NOVEMBER Point | Bridge Samngam district | R-199 / 16.5D PSL | 16° 30' 26.88" N | 100° 12' 14.18" E |
| "WB" or WHISKY - BRAVO Point | Wat Bot, Khwae Noi River bend | R-006 / 13.6D PSL | 16° 59' 50.32" N | 100° 18' 47.19" E |
| "WK" or WHISKY - KILO Point | Wat Yang Khao Sutthawat | R-181 / 29.8D PSL | 16° 16' 15.31" N | 100° 17' 17.11" E |
| "WT" or WHISKY - TANGO Point | Wang Thong Junction | R-068 / 8.6D PSL | 16° 49' 32.39" N | 100° 25' 47.00" E |
| PHITSANULOK VOR/DME (PSL) | PHITSANULOK VOR/DME Station | - | 16° 46' 13.34" N | 100° 17' 28.70" E |

CHANGE : NEW CHART.

## VTCP AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTCP - PHRAE / PHRAE AIRPORT

## VTCP AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 180756N 1000953E |
| 2 | Direction and distance from (city) | 3 km E, from city |
| 3 | Elevation/Reference temperature | 540 FT/27°C |
| 4 | Geoid Undulation at AD ELEV PSN | -121FT |
| 5 | MAG VAR/Annual change | 1°W (2022)/0.05°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Phrae Airport<br>Phrae Airport<br>72 Chohae Road, Tambon Nachack<br>Amphoe Muangphrae,<br>Phrae Province 54000<br>Thailand<br>Tel: +665 451 1184<br>+665 452 2706<br>Fax: +665 452 2705<br>AFS: VTCPYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTCP AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0130-0930 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 0130-0930 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 0130-0930 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phitsanulok Airport (1st floor of airport building)<br>Tel: +665 530 1078<br>+669 2262 3140<br>Fax: +665 530 1077 |

## VTCP AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTCP AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | NIL |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTCP AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 5 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTCP AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTCP AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSTIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Asphaltic concrete<br>Strength: PCN 20/F/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 15 M<br>Surface: Asphaltic concrete<br>Strength: PCN 20/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location : At Apron<br>Elevation : 534 FT (162.81 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTCP AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>VDGS of aircraft stands: NIL, aircraft parking shall follow marshaller strictly. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: TWY CL, TWY Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTCP AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| RWY 01 /<br>APCH area<br>RWY 19 /<br>TKOF area | Pagoda<br>609 FT (185.67 M)<br>NIL / NIL | 180715.66N<br>1000954.47E | AWOS 1<br>569 FT (173.49 M)<br>Painted red/white<br>LGTD | 180808.87N<br>1000957.30E | NIL |
| | Radio mast<br>699 FT (213.13 M)<br>Painted red/white<br>LGTD | 181014.02N<br>1001020.07E | AWOS 2<br>573 FT (174.73 M)<br>Painted red/white<br>LGTD | 180808.67N<br>1000957.29E | |
| | Building<br>581 FT (177.23 M)<br>NIL / NIL | 180711.10N<br>1000945.86E | AWOS 3<br>576 FT (175.71 M)<br>Painted red/white<br>LGTD | 180741.69N<br>1000954.98E | |
| | | | AWOS 4<br>572 FT (174.26 M)<br>Painted red/white<br>LGTD | 180741.50N<br>1000954.95E | |
| | | | DVOR/DME<br>572 FT (174.33 M)<br>Painted red/white<br>LGTD | 180802.86N<br>1000958.49E | |
| | | | GP<br>586 FT (178.66 M)<br>Painted red/white<br>LGTD | 180740.61N<br>1000954.73E | |
| | | | Tree<br>604 FT (184.10 M)<br>NIL / NIL | 180828.42N<br>1001002.45E | |
| | | | Telecommunication mast<br>689 FT (210.15 M)<br>Painted red/white<br>LGTD | 180907.05N<br>1000933.11E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Telecommunication mast<br>702 FT (213.89 M)<br>Painted red/white<br>LGTD | 180711.37N<br>1001105.62E | |
| | | | Telecommunication mast<br>690 FT (210.32 M)<br>Painted red/white<br>LGTD | 180607.94N<br>1001113.05E | |
| | | | Telecommunication mast<br>691 FT (210.75 M)<br>Painted red/white<br>LGTD | 180841.98N<br>1001123.21E | |
| | | | Radio mast<br>716 FT (218.14 M)<br>Painted red/white<br>LGTD | 180840.95N<br>1000833.51E | |
| | | | Radio mast<br>732 FT (223.03 M)<br>Painted red/white<br>LGTD | 180851.69N<br>1000849.76E | |
| | | | Radio mast<br>713 FT (217.37 M)<br>Painted red/white<br>LGTD | 180850.00N<br>1000846.64E | |
| | | | Radio mast<br>691 FT (210.66 M)<br>Painted red/white<br>LGTD | 180757.67N<br>1000807.33E | |
| | | | Radio mast<br>707 FT (215.58 M)<br>Painted red/white<br>LGTD | 180646.13N<br>1000814.49E | |
| | | | Radio mast<br>778 FT (237.14 M)<br>Painted red/white<br>LGTD | 180651.26N<br>1001049.34E | |
| | | | Radio mast<br>692 FT (211.06 M)<br>Painted red/white<br>LGTD | 180800.75N<br>1000914.89E | |
| | | | Hospital Building<br>691 FT (210.85 M)<br>NIL / NIL | 180759.63N<br>1000916.30E | |
| | | | ATC tower<br>645 FT (196.48 M)<br>Painted red/white<br>LGTD | 180751.68N<br>1000943.98E | |

## VTCP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Phrae,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 0000-1000<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 453 1307 ext. 4508 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Phrae TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTCP AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 005.39° | 1500x30 | PCN 20/F/C/X/T<br>Asphaltic concrete | 180731.51N<br>1000950.38E | THR 540 FT |
| 19 | 185.39° | 1500x30 | PCN 20/F/C/X/T<br>Asphaltic concrete | 180820.08N<br>1000955.31E | THR 537 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location &description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | 75x30 | NIL | 1770x150 | NIL | NIL | NIL | NIL |
| | 75x30 | NIL | 1770x150 | NIL | NIL | NIL | NIL |

## VTCP AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 1500 | 1500 | 1575 | 1500 | NIL |
| 19 | 1500 | 1500 | 1575 | 1500 | NIL |

## VTCP AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 01 | NIL | Green<br>NIL | PAPI<br>Left 3°<br>(44.98 FT) | NIL | NIL | 1500 M<br>55.56 M<br>FM 0 M - 1000 M<br>White,<br>FM 1000 M - 1500 M<br>Yellow,<br>LIH | Red<br>NIL | 75 M<br>Red | RTIL |
| 19 | NIL | Green<br>NIL | PAPI<br>Left 3.2°<br>(45.77 FT) | NIL | NIL | 1500 M<br>55.56 M<br>FM 0 M - 1000 M<br>White,<br>FM 1000 M - 1500 M<br>Yellow,<br>LIH | Red<br>NIL | 75 M<br>Red | RTIL |

## VTCP AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W G EV 2 SEC<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI: 1. Wind cone at 267 M from THR 19 off set to the left side 90 M from RCL, illuminated.<br>2. Wind cone at 110 M from RCL off set to the left side 50 M from TWY CL, illuminated.<br>3. Wind cone at 252 M from THR 01 off set to the left side 90 M from RCL, illuminated. |
| 3 | TWY edge and centre line lighting | TWY edge: All TWY<br>TWY centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the Airfield Lighting (AFL) building.<br>Switch-over time: 15 SEC. |
| 5 | Remarks | NIL |

## VTCP AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTCP AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on Phrae DVOR/DME (180802.78N 1000958.35E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Phrae Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

**VTCP AD 2.18 ATS COMMUNICATION FACILITIES**

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Phrae Approach | 120.1 MHZ<br>121.5 MHZ 1) | As AD OPR HR | 1) Emergency frequency |
| TWR | Phrae Tower | 121.5 MHZ 1)<br>118.6 MHZ<br>236.6 MHZ | As AD OPR HR | |
| ATIS | Phrae Airport | 340.0 KHZ | As AD OPR HR | |

**VTCP AD 2.19 RADIO NAVIGATION AND LANDING AIDS**

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give VAR) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | PR | 340KHZ | H24 | 180746.14N 1000940.91E | | The coverage clockwise orbit data refer to commissioning check due to excessive ADF needle oscillation in various areas within 50 NM radius as follows:<br>– Bearing 001°-040° altitude should not below 7 000 FT<br>– Bearing 041°-180° altitude should not below 8 000 FT<br>– Bearing 181°-200° altitude should not below 5 000 FT<br>– Bearing 201°-260° altitude should not below 8 000 FT<br>– Bearing 261°-360° altitude should not below 6 000 FT |

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give VAR) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | PAE | 111.8MHZ CH55X | H24 | 180802.9N 1000958.5E | | DVOR/DME restrictions,<br>1. Unusable due to roughness out of tolerance on radial 146° distance between 7.0-8.0 DME altitude 7 000 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>– Radial 055º-080º altitude should not below 9 000 FT<br>– Radial 081º-160º altitude should not below 11 000 FT<br>– Radial 161º-180º altitude should not below 8 000 FT<br>– Radial 181º-350º altitude should not below 6 000 FT<br>– Radial 351º-054º altitude should not below 6 500 FT |

## VTCP AD 2.20 LOCAL AERODROME REGULATIONS

### 1. 180 DEGREES TURN ON THE RUNWAY

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, all aircraft are not allowed to make 180 degrees turn on the runway. The turn shall be made on the runway turn pad at the end of runway 01 and 19 only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTCP AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTCP AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,

- the pilot shall be responsible for obstacle clearance until such specified altitude,

- the pilot prior to take-off shall agree to execute this procedure,

- the ATC clearance shall be readback,

### 3. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 01:

PHRAE OMNI 01 Departure: Required climb gradient 286 ft per NM (4.7%) until 7,500 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 4.7% | (ft/min) | 309 | 357 | 476 | 714 | 952 | 1190 | 1428 |

No turn before DER.
After departure climb straight ahead until 3,500 ft (or altitude assigned by ATC between 3,500 ft - 6,500 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 19:

PHRAE OMNI 19 Departure: Required climb gradient 487 ft per NM (8.0%) until 7,500 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 8.0% | (ft/min) | 527 | 608 | 810 | 1215 | 1620 | 2025 | 2430 |

No turn before DER.
After departure climb straight ahead until 3,500 ft (or altitude assigned by ATC between 3,500 ft - 6,500 ft), then comply with ATC clearance issued (or as directed by ATC).

**VTCP AD 2.23 ADDITIONAL INFORMATION**

NIL

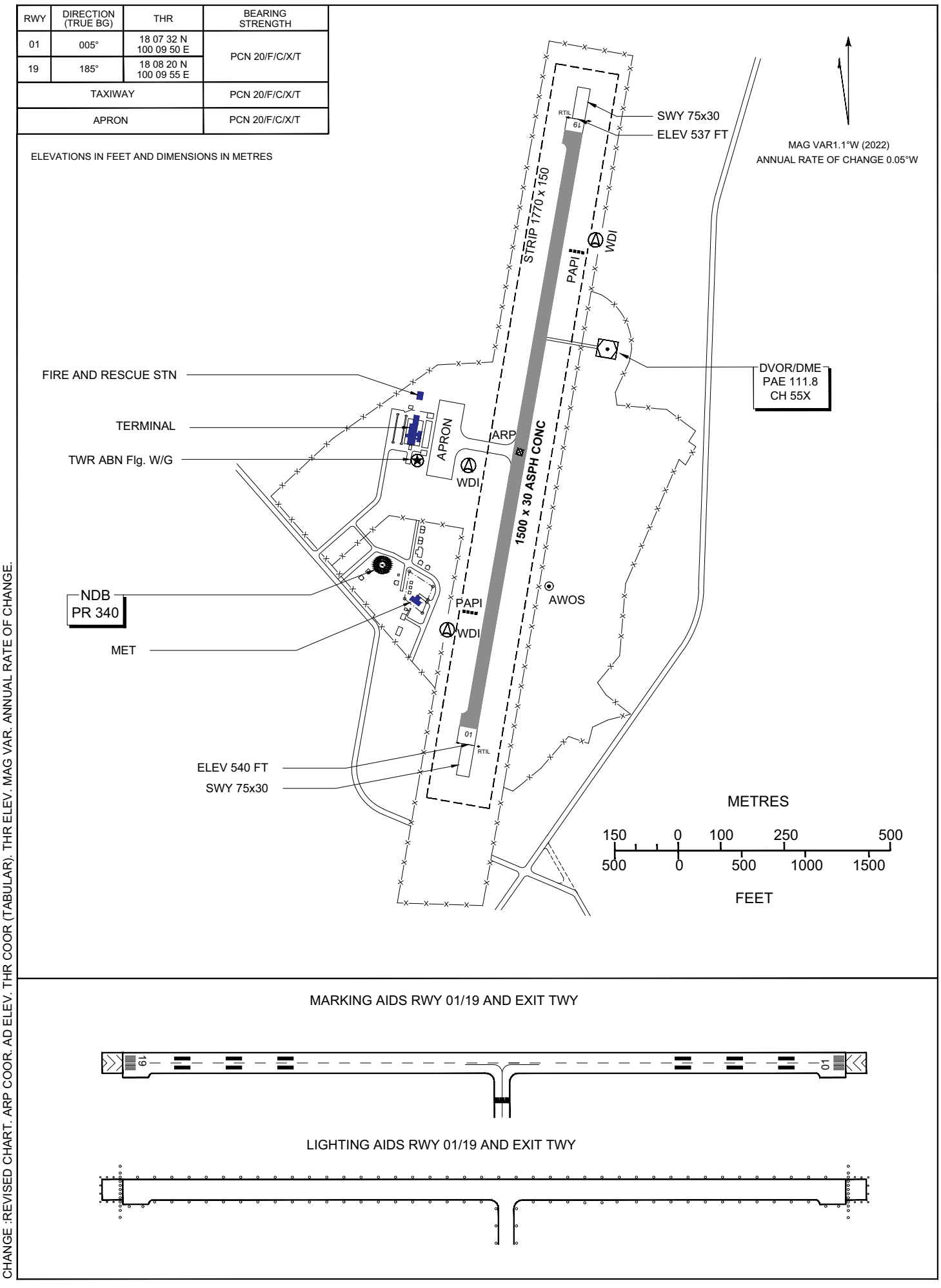
## VTCP AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTCP-2-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - AIZAK1E IDKOR1E OTBAD1E SUNGO1E | AD 2-VTCP-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - AIZAK1E IDKOR1E OTBAD1E SUNGO1E (Tabular description) | AD 2-VTCP-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - AIZAK1A IDKOR1A OTBAD1A SUNGO1A | AD 2-VTCP-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - AIZAK1A IDKOR1A OTBAD1A SUNGO1A (Tabular description) | AD 2-VTCP-6-4 |
| Instrument Approach Chart - ICAO - VOR RWY 01 | AD 2-VTCP-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 01 (Fix and point list table) | AD 2-VTCP-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 19 | AD 2-VTCP-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 19 (Fix and point list table) | AD 2-VTCP-8-4 |
| Instrument Approach Chart - ICAO - RNP RWY 01 | AD 2-VTCP-8-5 |
| Instrument Approach Chart - ICAO - RNP RWY 01 (Tabular description) | AD 2-VTCP-8-6 |
| Instrument Approach Chart - ICAO - RNP RWY 19 | AD 2-VTCP-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 19 (Tabular description) | AD 2-VTCP-8-8 |

AERODROME CHART - ICAO | 18 07 56 N 100 09 53 E | ELEV 540 FT | TWR 118.60 236.60 | PHRAE / Phrae

| RWY | DIRECTION (TRUE BG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 01 | 005° | 18 07 32 N 100 09 50 E | PCN 20/F/C/X/T |
| 19 | 185° | 18 08 20 N 100 09 55 E | |
| TAXIWAY | | | PCN 20/F/C/X/T |
| APRON | | | PCN 20/F/C/X/T |

ELEVATIONS IN FEET AND DIMENSIONS IN METRES




MARKING AIDS RWY 01/19 AND EXIT TWY




LIGHTING AIDS RWY 01/19 AND EXIT TWY



CHANGE :REVISED CHART. ARP COOR. AD ELEV. THR COOR (TABULAR). THR ELEV. MAG VAR. ANNUAL RATE OF CHANGE.

**INTENTIONALLY BLANK**

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

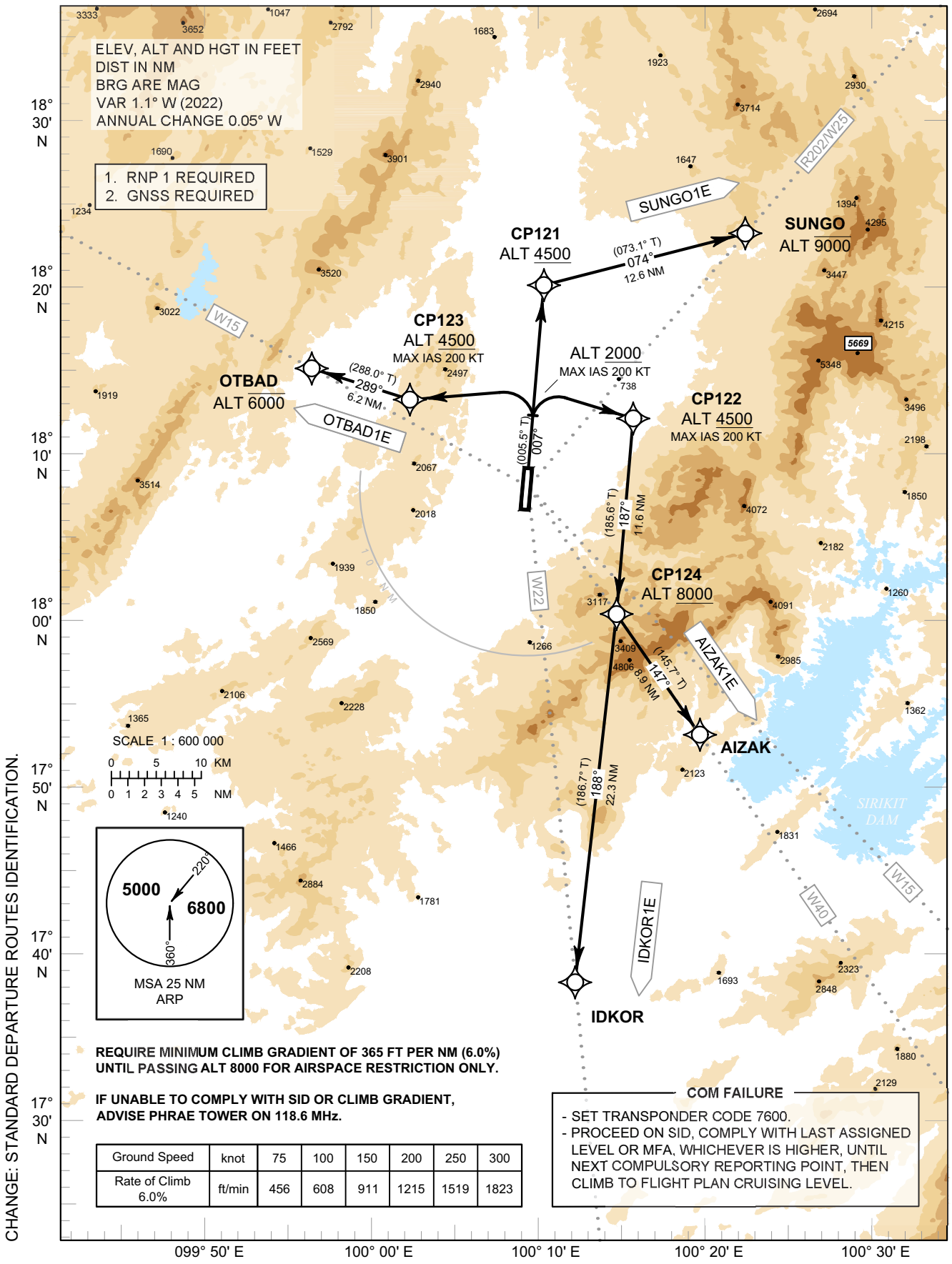
TRANSITION ALTITUDE
11000 FT

APP : 120.1 MHz
TWR : 118.6, 236.6 MHz
ATIS : 340.0 kHz

**PHRAE / Phrae (VTCP)**

**RNAV RWY01**

AIZAK1E IDKOR1E OTBAD1E SUNGO1E




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 6.0% | ft/min | 456 | 608 | 911 | 1215 | 1519 | 1823 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHRAE / Phrae (VTCP)**

**RNAV RWY01**

AIZAK1E IDKOR1E OTBAD1E SUNGO1E

CHANGE : CHANGE: STANDARD DEPARTURE ROUTES IDENTIFICATION.

**TABULAR DESCRIPTION**

| **RNAV RWY01** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| AIZAK1E TO W40 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 007° (005.5°) | +1.2 | - | - | +2000 | -200 | - | RNP 1 |
| 030 | DF | CP122 | - | - | +1.2 | - | R | +4500 | -200 | - | RNP 1 |
| 040 | TF | CP124 | - | 187° (185.6°) | +1.2 | 11.6 | - | +8000 | - | - | RNP 1 |
| 050 | TF | AIZAK | - | 147° (145.7°) | +1.2 | 8.9 | - | - | - | - | RNP 1 |
| IDKOR1E TO W22 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 007° (005.5°) | +1.2 | - | - | +2000 | -200 | - | RNP 1 |
| 030 | DF | CP122 | - | - | +1.2 | - | R | +4500 | -200 | - | RNP 1 |
| 040 | TF | CP124 | - | 187° (185.6°) | +1.2 | 11.6 | - | +8000 | - | - | RNP 1 |
| 050 | TF | IDKOR | - | 188° (186.7°) | +1.2 | 22.3 | - | - | - | - | RNP 1 |
| OTBAD1E TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 007° (005.5°) | +1.2 | - | - | +2000 | -200 | - | RNP 1 |
| 030 | DF | CP123 | - | - | +1.2 | - | L | +4500 | -200 | - | RNP 1 |
| 040 | TF | OTBAD | - | 289° (288.0°) | +1.2 | 6.2 | - | -6000 | - | - | RNP 1 |
| SUNGO1E TO R202/W25 | | | | | | | | | | | |
| 010 | - | DER RWY01 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 007° (005.5°) | +1.2 | - | - | +2000 | -200 | - | RNP 1 |
| 030 | DF | CP121 | - | - | +1.2 | - | - | +4500 | - | - | RNP 1 |
| 040 | TF | SUNGO | - | 074° (073.1°) | +1.2 | 12.6 | - | -9000 | - | - | RNP 1 |

**WAYPOINT LIST**

| **RNAV RWY01** | | |
|---|---|---|
| **Waypoint Identifier** | **Coordinates** | |
| DER RWY01 | 18° 08' 20.08" N | 100° 09' 55.31" E |
| AIZAK | 17° 53' 02.46" N | 100° 20' 40.03" E |
| CP121 | 18° 19' 31.68" N | 100° 11' 03.56" E |
| CP122 | 18° 12' 01.06" N | 100° 16' 36.88" E |
| CP123 | 18° 13' 19.23" N | 100° 02' 32.87" E |
| CP124 | 18° 00' 23.96" N | 100° 15' 25.72" E |
| IDKOR | 17° 38' 09.69" N | 100° 12' 43.33" E |
| OTBAD | 18° 15' 14.17" N | 099° 56' 22.32" E |
| SUNGO | 18° 23' 11.99" N | 100° 23' 45.83" E |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

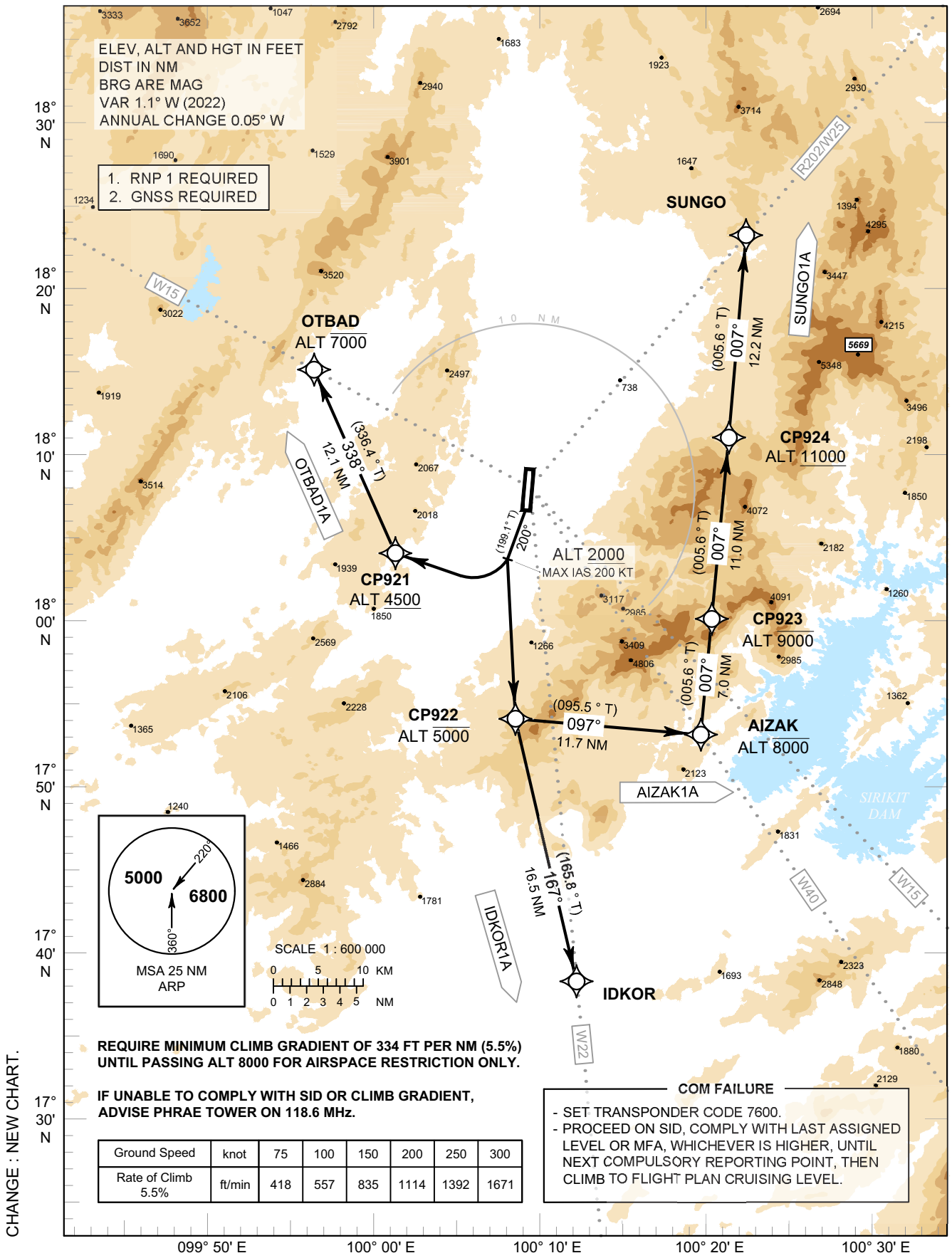
TRANSITION ALTITUDE
11000 FT

APP : 120.1 MHz
TWR : 118.6, 236.6 MHz
ATIS : 340.0 kHz

**PHRAE / Phrae (VTCP)**

**RNAV RWY19**

AIZAK1A IDKOR1A OTBAD1A SUNGO1A




**REQUIRE MINIMUM CLIMB GRADIENT OF 334 FT PER NM (5.5%) UNTIL PASSING ALT 8000 FOR AIRSPACE RESTRICTION ONLY.**

**IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE PHRAE TOWER ON 118.6 MHz.**

| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.5% | ft/min | 418 | 557 | 835 | 1114 | 1392 | 1671 |

**COM FAILURE**

- SET TRANSPONDER CODE 7600.
- PROCEED ON SID, COMPLY WITH LAST ASSIGNED LEVEL OR MFA, WHICHEVER IS HIGHER, UNTIL NEXT COMPULSORY REPORTING POINT, THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

CHANGE : NEW CHART.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**PHRAE / Phrae (VTCP)**

**RNAV RWY19**

AIZAK1A IDKOR1A OTBAD1A SUNGO1A

**TABULAR DESCRIPTION**

| **RNAV RWY19** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| AIZAK1A TO W40 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 200° (199.1°) | +1.2 | - | - | +2000 | -200 | - | RNP 1 |
| 030 | DF | CP922 | - | - | +1.2 | - | L | -5000 | - | - | RNP 1 |
| 040 | TF | AIZAK | - | 097° (095.5°) | +1.2 | 11.7 | - | -8000 | - | - | RNP 1 |
| IDKOR1A TO W22 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 200° (199.1°) | +1.2 | - | - | +2000 | -200 | - | RNP 1 |
| 030 | DF | CP922 | - | - | +1.2 | - | L | -5000 | - | - | RNP 1 |
| 040 | TF | IDKOR | - | 167° (165.8°) | +1.2 | 16.5 | - | - | - | - | RNP 1 |
| OTBAD1A TO W15 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 200° (199.1°) | +1.2 | - | - | +2000 | -200 | - | RNP 1 |
| 030 | DF | CP921 | - | - | +1.2 | - | R | +4500 | - | - | RNP 1 |
| 040 | TF | OTBAD | - | 338° (336.4°) | +1.2 | 12.1 | - | -7000 | - | - | RNP 1 |
| SUNGO1A TO R202/W25 | | | | | | | | | | | |
| 010 | - | DER RWY19 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 200° (199.1°) | +1.2 | - | - | +2000 | -200 | - | RNP 1 |
| 030 | DF | CP922 | - | - | +1.2 | - | L | -5000 | - | - | RNP 1 |
| 040 | TF | AIZAK | - | 097° (095.5°) | +1.2 | 11.7 | - | -8000 | - | - | RNP 1 |
| 050 | TF | CP923 | - | 007° (005.6°) | +1.2 | 7.0 | - | -9000 | - | - | RNP 1 |
| 060 | TF | CP924 | - | 007° (005.6°) | +1.2 | 11.0 | - | +11000 | - | - | RNP 1 |
| 070 | TF | SUNGO | - | 007° (005.6°) | +1.2 | 12.2 | - | - | - | - | RNP 1 |

**WAYPOINT LIST**

| **RNAV RWY19** | | | | | |
|---|---|---|---|---|---|
| **Waypoint Identifier** | **Coordinates** | | **Waypoint Identifier** | **Coordinates** | |
| DER RWY19 | 18° 07' 31.51" N | 100° 09' 50.38" E | CP924 | 18° 11' 00.63" N | 100° 22' 30.60" E |
| AIZAK | 17° 53' 02.46" N | 100° 20' 40.03" E | IDKOR | 17° 38' 09.69" N | 100° 12' 43.33" E |
| CP921 | 18° 04' 08.50" N | 100° 01' 27.10" E | OTBAD | 18° 15' 14.17" N | 099° 56' 22.32" E |
| CP922 | 17° 54' 10.60" N | 100° 08' 29.19" E | SUNGO | 18° 23' 11.99" N | 100° 23' 45.83" E |
| CP923 | 18° 00' 02.11" N | 100° 21' 23.02" E | | | |

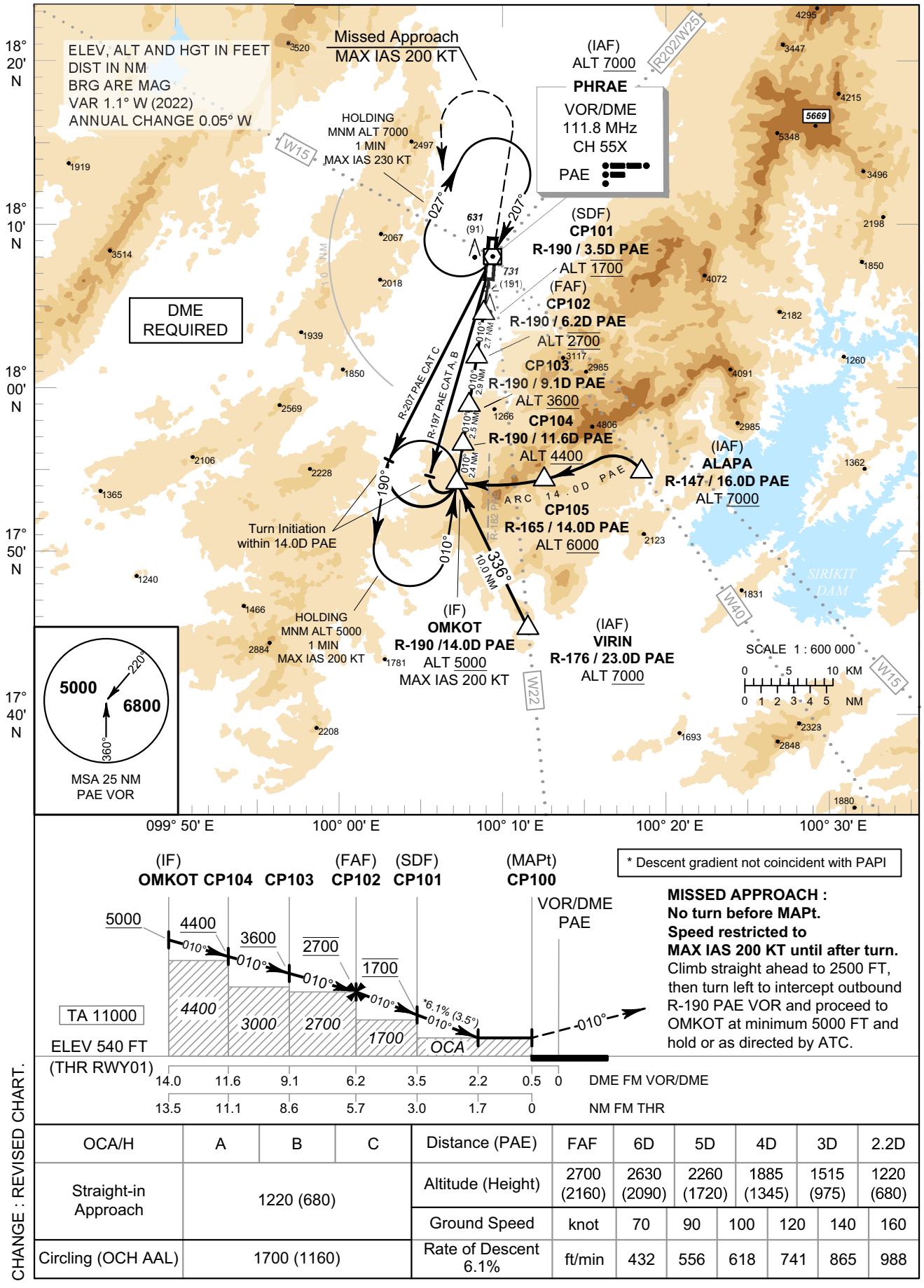
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 540 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 120.1 MHz
TWR : 118.6, 236.6 MHz
ATIS : 340.0 kHz

**PHRAE / Phrae (VTCP)**

**VOR RWY01**







CHANGE : REVISED CHART.

| OCA/H | A | B | C |
|---|---|---|---|
| Straight-in Approach | 1220 (680) | | |
| Circling (OCH AAL) | 1700 (1160) | | |

| Distance (PAE) | FAF | 6D | 5D | 4D | 3D | 2.2D |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2700 (2160) | 2630 (2090) | 2260 (1720) | 1885 (1345) | 1515 (975) | 1220 (680) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 6.1% | ft/min | 432 | 556 | 618 | 741 | 865 | 988 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 540 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PHRAE / Phrae (VTCP)**

**VOR RWY01**

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) VOR | PAE | 18° 08' 02.85" N | 100° 09' 58.47" E |
| (IAF) VIRIN | R-176 / 23.0D PAE | 17° 45' 02.73" N | 100° 12' 05.73" E |
| (IAF) ALAPA | R-147 / 16.0D PAE | 17° 54' 46.53" N | 100° 19' 25.99" E |
| CP105 | R-165 / 14.0D PAE | 17° 54' 31.73" N | 100° 13' 59.76" E |
| (IF) OMKOT | R-190 / 14.0D PAE | 17° 54' 09.87" N | 100° 07' 40.76" E |
| CP104 | R-190 / 11.6D PAE | 17° 56' 32.67" N | 100° 08' 04.34" E |
| CP103 | R-190 / 9.1D PAE | 17° 59' 01.42" N | 100° 08' 28.89" E |
| (FAF) CP102 | R-190 / 6.2D PAE | 18° 01' 53.97" N | 100° 08' 57.44" E |
| (SDF) CP101 | R-190 / 3.5D PAE | 18° 04' 34.61" N | 100° 09' 24.01" E |
| (MAPt) CP100 | R-190 / 0.5D PAE | 18° 07' 31.23" N | 100° 09' 53.23" E |

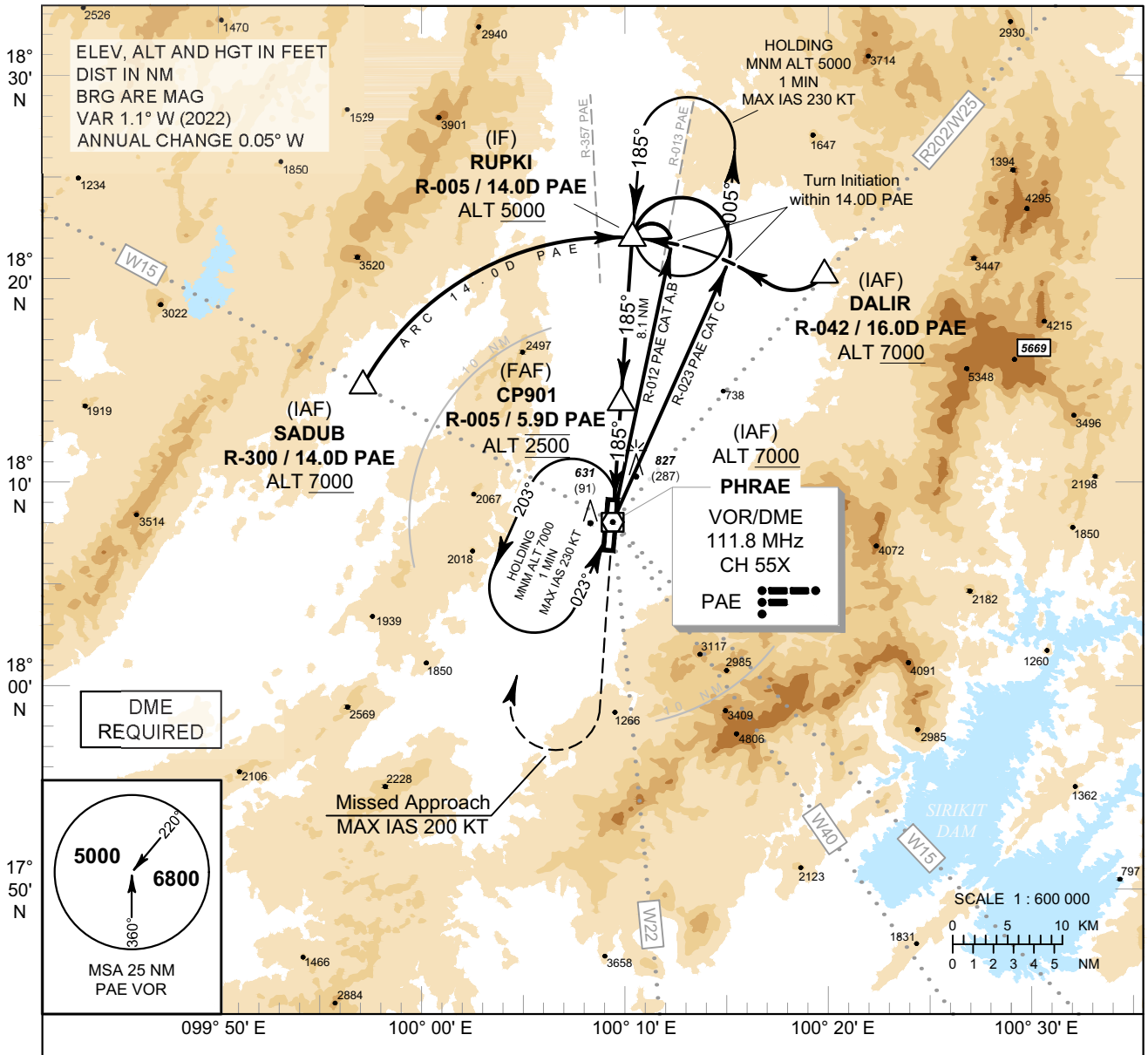
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 540 FT**
HEIGHTS RELATED TO AERODROME ELEV

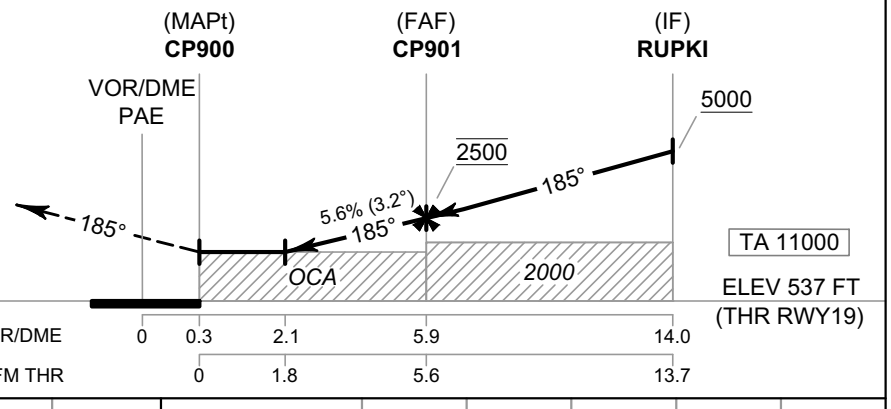
APP : 120.1 MHz
TWR : 118.6, 236.6 MHz
ATIS : 340.0 kHz

**PHRAE / Phrae (VTCP)**

**VOR RWY19**




**MISSED APPROACH :**
**No turn before MAPt.**
**MAX IAS 200 KT until after turn.**
Climb straight ahead to 2000 FT, then turn right to intercept outbound R-005 PAE VOR and proceed to RUPKI at minimum 5000 FT and hold or as directed by ATC.




CHANGE : REVISED CHART.

| OCA/H | A | B | C |
|---|---|---|---|
| Straight-in Approach | 1200 (660) | | |
| Circling (OCH AAL) | 1700 (1160) | | |

| Distance (PAE) | 2.1 D | 3 D | 4 D | 5 D | FAF |
|---|---|---|---|---|---|
| Altitude (Height) | 1200 (660) | 1510 (970) | 1850 (1310) | 2190 (1650) | 2500 (1960) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.6% | ft/min | 397 | 510 | 567 | 681 | 794 | 907 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 540 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PHRAE / Phrae (VTCP)**

**VOR RWY19**

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) VOR | PAE | 18° 08' 02.85" N | 100° 09' 58.47" E |
| (IAF) DALIR | R-042 / 16.0D PAE | 18° 20' 10.25" N | 100° 21' 00.16" E |
| (IAF) SADUB | R-300 / 14.0D PAE | 18° 14' 51.03" N | 099° 57' 06.39" E |
| (IF) RUPKI | R-005 / 14.0D PAE | 18° 22' 04.00" N | 100° 11' 01.66" E |
| (FAF) CP901 | R-005 / 5.9D PAE | 18° 13' 57.34" N | 100° 10' 25.08" E |
| (MAPt) CP900 | R-005 / 0.3D PAE | 18° 08' 19.72" N | 100° 09' 59.74" E |

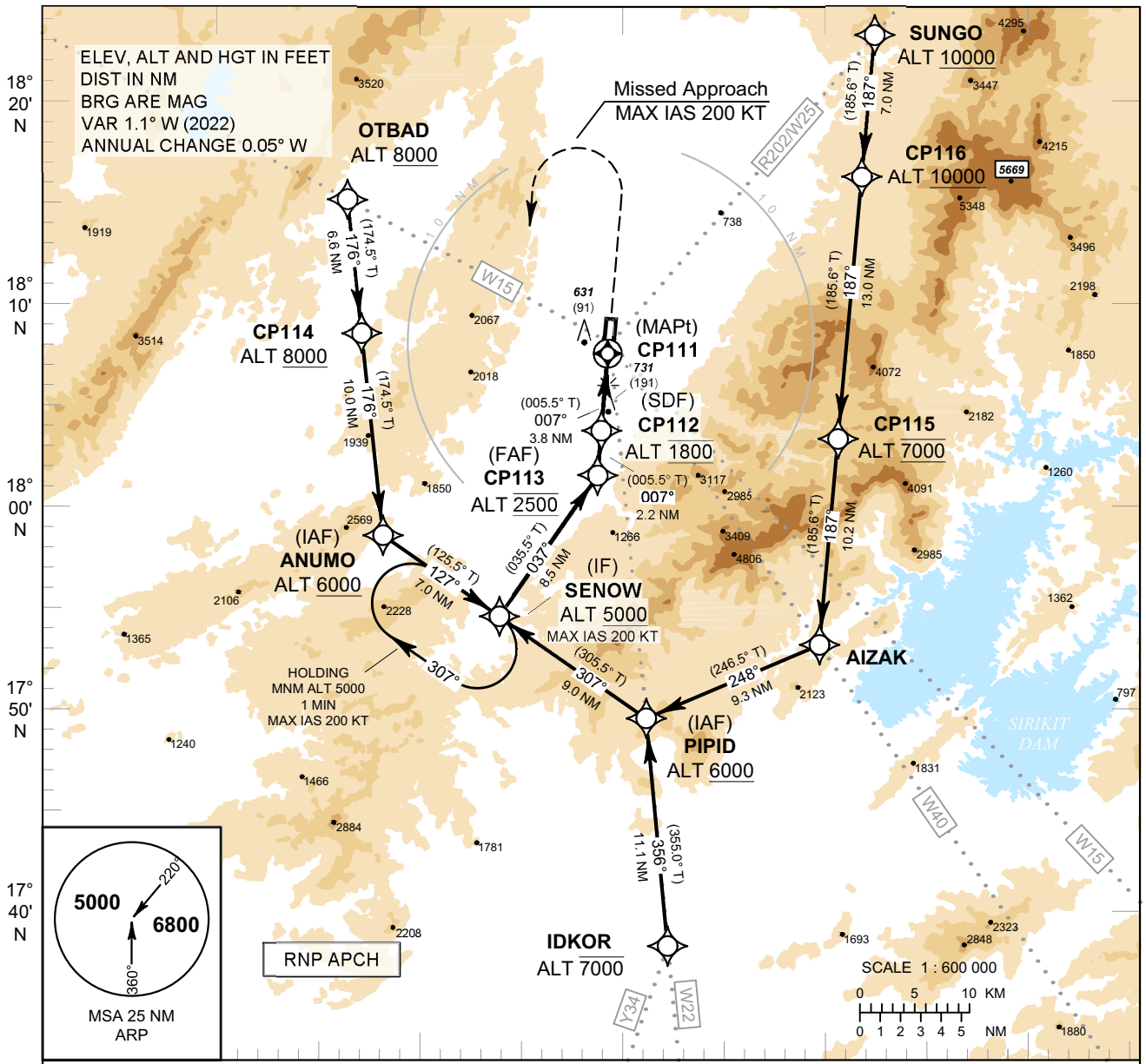
**INSTRUMENT APPROACH CHART - ICAO**

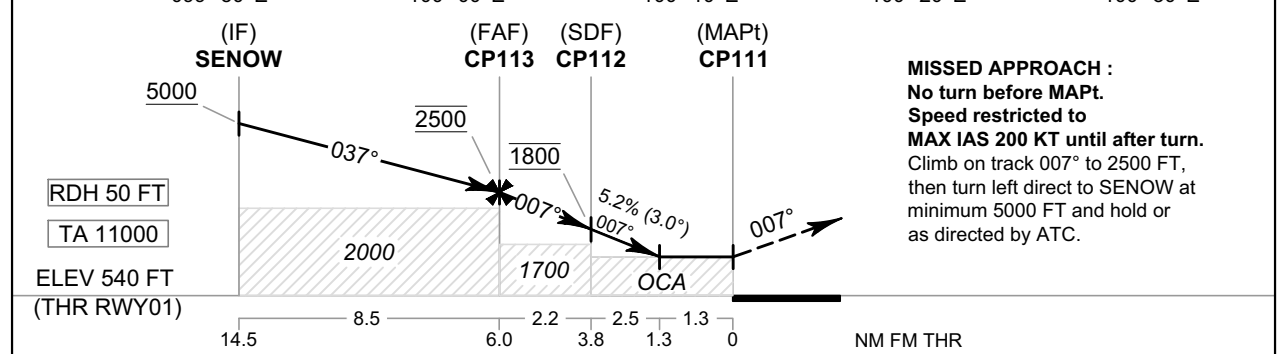
**AERODROME ELEV 540 FT**
HEIGHTS RELATED TO
THR RWY01 - ELEV 540 FT

APP : 120.1 MHz
TWR : 118.6, 236.6 MHz
ATIS : 340.0 kHz

**PHRAE / Phrae (VTCP)**

**RNP RWY01**




| OCA/H | A | B | C |
|---|---|---|---|
| LNAV | 1000 (460) | | |
| Circling (OCH AAL) | 1700 (1160) | | |

| NM to NEXT WPT | FAF | 5 NM | 4 NM | 3 NM | 2 NM | 1.3 NM |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2500 (1960) | 2170 (1630) | 1855 (1315) | 1535 (995) | 1220 (680) | 1000 (460) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 540 FT**
HEIGHTS RELATED TO
THR RWY01 - ELEV 540 FT

**PHRAE / Phrae (VTCP)**

**RNP RWY01**

## TABULAR DESCRIPTION

**RNP RWY01**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | OTBAD | - | - | +1.2 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | CP114 | - | 176° (174.5°) | +1.2 | 6.6 | - | +8000 | - | - | RNP APCH |
| 030 | TF | (IAF) ANUMO | - | 176° (174.5°) | +1.2 | 10.0 | - | +6000 | - | - | RNP APCH |
| 040 | TF | (IF) SENOW | - | 127° (125.5°) | +1.2 | 7.0 | - | +5000 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | IDKOR | - | - | +1.2 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | (IAF) PIPID | - | 356° (355.0°) | +1.2 | 11.1 | - | +6000 | - | - | RNP APCH |
| 030 | TF | (IF) SENOW | - | 307° (305.5°) | +1.2 | 9.0 | - | +5000 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SUNGO | - | - | +1.2 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | CP116 | - | 187° (185.6°) | +1.2 | 7.0 | - | +10000 | - | - | RNP APCH |
| 030 | TF | CP115 | - | 187° (185.6°) | +1.2 | 13.0 | - | @7000 | - | - | RNP APCH |
| 040 | TF | AIZAK | - | 187° (185.6°) | +1.2 | 10.2 | - | - | - | - | RNP APCH |
| 050 | TF | (IAF) PIPID | - | 248° (246.5°) | +1.2 | 9.3 | - | +6000 | - | - | RNP APCH |
| 060 | TF | (IF) SENOW | - | 307° (305.5°) | +1.2 | 9.0 | - | +5000 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) SENOW | - | - | +1.2 | - | - | +5000 | -200 | - | RNP APCH |
| 020 | TF | (FAF) CP113 | - | 037° (035.5°) | +1.2 | 8.5 | - | @2500 | - | - | RNP APCH |
| 030 | TF | (SDF) CP112 | - | 007° (005.5°) | +1.2 | 2.2 | - | @1800 | - | - | RNP APCH |
| 040 | TF | (MAPt@THR01)CP111 | Y | 007° (005.5°) | +1.2 | 3.8 | - | @1000 | - | - | RNP APCH |
| 050 | CA | - | - | 007° (005.5°) | +1.2 | - | L | +2500 | -200 | - | RNP APCH |
| 060 | DF | (IF) SENOW | - | - | +1.2 | - | - | +5000 | -200 | - | RNP APCH |
| 070 | HM | (IF) SENOW | Y | 127° (125.5°) | +1.2 | 1 minute | R | +5000 | -200 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY01**

| Waypoint Identifier | Coordinates | | Waypoint Identifier | Coordinates | |
|---|---|---|---|---|---|
| AIZAK | 17° 53' 02.46" N | 100° 20' 40.03" E | CP116 | 18° 16' 12.36" N | 100° 23' 02.65" E |
| ANUMO | 17° 58' 37.99" N | 099° 58' 02.92" E | IDKOR | 17° 38' 09.69" N | 100° 12' 43.33" E |
| CP111 | 18° 07' 31.51" N | 100° 09' 50.38" E | OTBAD | 18° 15' 14.17" N | 099° 56' 22.32" E |
| CP112 | 18° 03' 43.68" N | 100° 09' 27.26" E | PIPID | 17° 49' 18.23" N | 100° 11' 42.21" E |
| CP113 | 18° 01' 31.77" N | 100° 09' 13.89" E | SENOW | 17° 54' 33.15" N | 100° 04' 01.59" E |
| CP114 | 18° 08' 37.58" N | 099° 57' 02.41" E | SUNGO | 18° 23' 11.99" N | 100° 23' 45.83" E |
| CP115 | 18° 03' 13.02" N | 100° 21' 42.60" E | | | |

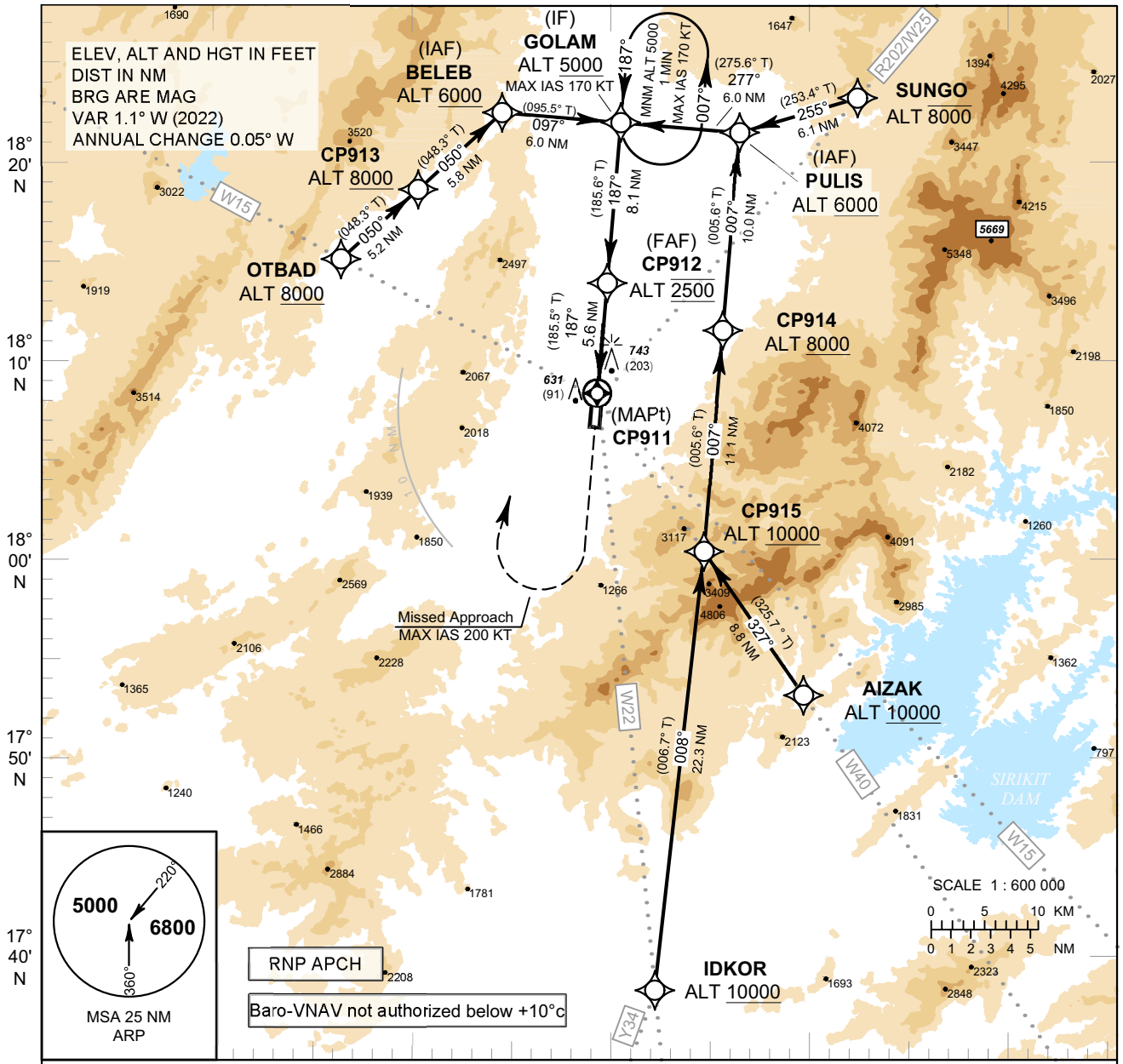
**INSTRUMENT APPROACH CHART - ICAO**

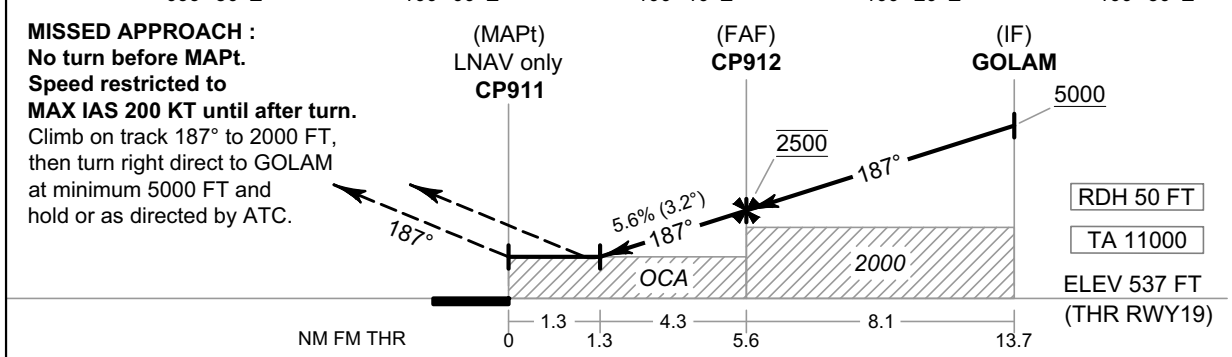
**AERODROME ELEV 540 FT**
HEIGHTS RELATED TO
THR RWY19 - ELEV 537 FT

APP : 120.1 MHz
TWR : 118.6, 236.6 MHz
ATIS : 340.0 kHz

**PHRAE / Phrae (VTCP)**

**RNP RWY19**




| OCA/H | A | B | C | NM to NEXT WPT | 1.3 NM | 2 NM | 3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 880 (343) | | | Altitude (Height) | 1030 (493) | 1270 (733) | 1610 (1073) | 1950 (1413) | 2290 (1753) | 2500 (1963) |
| LNAV | 1030 (493) | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1700 (1160) | | | Rate of Descent 5.6% | ft/min | 397 | 510 | 567 | 681 | 794 | 907 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 540 FT**
HEIGHTS RELATED TO
THR RWY19 - ELEV 537 FT

**PHRAE / Phrae (VTCP)**

**RNP RWY19**

## TABULAR DESCRIPTION

**RNP RWY19**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | OTBAD | - | - | +1.2 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | CP913 | - | 050° (048.3°) | +1.2 | 5.2 | - | +8000 | - | - | RNP APCH |
| 030 | TF | (IAF) BELEB | - | 050° (048.3°) | +1.2 | 5.8 | - | +6000 | - | - | RNP APCH |
| 040 | TF | (IF) GOLAM | - | 097° (095.5°) | +1.2 | 6.0 | - | +5000 | -170 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SUNGO | - | - | +1.2 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IAF) PULIS | - | 255° (253.4°) | +1.2 | 6.1 | - | +6000 | - | - | RNP APCH |
| 030 | TF | (IF) GOLAM | - | 277° (275.6°) | +1.2 | 6.0 | - | +5000 | -170 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | AIZAK | - | - | +1.2 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | CP915 | - | 327° (325.7°) | +1.2 | 8.8 | - | +10000 | - | - | RNP APCH |
| 030 | TF | CP914 | - | 007° (005.6°) | +1.2 | 11.1 | - | +8000 | - | - | RNP APCH |
| 040 | TF | (IAF) PULIS | - | 007° (005.6°) | +1.2 | 10.0 | - | +6000 | - | - | RNP APCH |
| 050 | TF | (IF) GOLAM | - | 277° (275.6°) | +1.2 | 6.0 | - | +5000 | -170 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | IDKOR | - | - | +1.2 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | CP915 | - | 008° (006.7°) | +1.2 | 22.3 | - | +10000 | - | - | RNP APCH |
| 030 | TF | CP914 | - | 007° (005.6°) | +1.2 | 11.1 | - | +8000 | - | - | RNP APCH |
| 040 | TF | (IAF) PULIS | - | 007° (005.6°) | +1.2 | 10.0 | - | +6000 | - | - | RNP APCH |
| 050 | TF | (IF) GOLAM | - | 277° (275.6°) | +1.2 | 6.0 | - | +5000 | -170 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) GOLAM | - | - | +1.2 | - | - | +5000 | -170 | - | RNP APCH |
| 020 | TF | (FAF) CP912 | - | 187° (185.6°) | +1.2 | 8.1 | - | @2500 | - | - | RNP APCH |
| 030 | TF | (MAPt@THR19)CP911 | Y | 187° (185.5°) | +1.2 | 5.6 | - | @587 | - | -3.2/50 | RNP APCH |
| 040 | CA | - | - | 187° (185.5°) | +1.2 | - | - | +2000 | -200 | - | RNP APCH |
| 050 | DF | (IF) GOLAM | - | - | +1.2 | - | R | + 5000 | - | - | RNP APCH |
| 060 | HM | (IF) GOLAM | Y | 187° (185.6°) | +1.2 | 1 minute | L | +5000 | -170 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY19**

| Waypoint Identifier | Coordinates | | Waypoint Identifier | Coordinates | |
|---|---|---|---|---|---|
| AIZAK | 17° 53' 02.46" N | 100° 20' 40.03" E | CP915 | 18° 00' 22.95" N | 100° 15' 26.45" E |
| BELEB | 18° 22' 36.31" N | 100° 05' 02.03" E | GOLAM | 18° 22' 01.48" N | 100° 11' 18.80" E |
| CP911 | 18° 08' 20.08" N | 100° 09' 55.31" E | IDKOR | 17° 38' 09.69" N | 100° 12' 43.33" E |
| CP912 | 18° 13' 55.83" N | 100° 10' 29.41" E | OTBAD | 18° 15' 14.17" N | 099° 56' 22.32" E |
| CP913 | 18° 18' 43.98" N | 100° 00' 28.79" E | PULIS | 18° 21' 26.45" N | 100° 17' 35.53" E |
| CP914 | 18° 11' 26.94" N | 100° 16' 34.21" E | SUNGO | 18° 23' 11.99" N | 100° 23' 45.83" E |

## VTBP AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTBP - PRACHUAP KHIRIKHAN / PRACHUAP AIRPORT

## VTBP AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 114718.30N 0994816.65E |
| 2 | Direction and distance from (city) | 3 KM SE of Prachuap Khirikhan Province |
| 3 | Elevation/Reference temperature | 17 ft/25.5°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | NIL |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Wing 5, Prachuap Air Force Base<br>Prachuap Khirikhan Province<br>Thailand<br>Tel: +663 260 3919<br>Fax: +662 534 6000 Ext.60550<br>AFS: VTBPYXYX |
| 7 | Types of traffic permitted (IFR/VFR) | VFR |
| 8 | Remarks | Operator: Royal Thai Air Force |

## VTBP AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 every day |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | 0100-0900 every day |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | 2300-1100 every day |
| 7 | ATS | 2300-1100 every day |
| 8 | Fuelling | 0100-0900 MON-FRI |
| 9 | Handling | 0100-0900 MON-FRI |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | Outside these HR services are available O/R.<br>Request to be submitted to TWR not later than 0900 UTC. |

## VTBP AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JP8 |
| 3 | Fuelling facilities/capacity | 2 Trucks 8000 L, 75 L/MIN |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTBP AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | Near the AD and in the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Car hire from and to the city |
| 4 | Medical facilities | First aid at Aerodrome. Hospital in the city |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | Office in the city |
| 7 | Remarks | NIL |

## VTBP AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Within ATS HR; 1 fire fighting trucks with 10,000 L Of water 1,500 L of form,<br>Within ATS HR; 1 fire fighting trucks with 4,000 L Of water 500 L of form,<br>Command post vehicle 1 |
| 2 | Rescue equipment | Yes, 1 boat of 15 persons |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTBP AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTBP AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Asphalt<br>Strength: PCN 45/F/B/X/T |
| 2 | Taxiway width, surface and strength | Width: TWY A 50 FT, TWY B 30 FT<br>Surface: Asphalt<br>Strength: PCN 43/F/A/X/T (TWY A), PCN 45/F/B/X/T (TWY B) |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 16.847 FT (5.135 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTBP AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxiing guidance signs at all intersections with TWY and RWY and at all holding position.<br>Parking follow the signalman. |
| 2 | RWY and TWY markings and LGT | RWY: Designation, THR, centre line and distance<br>Markers lighted. Runway edge light provided<br>For RWY 08/26 only.<br>TWY: Taxiway edge light, Centre line and holding positions<br>at all TWY/RWY intersections marked. |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTBP AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 08/TKOF<br>26/APP | Mountain<br>273 M/896 FT<br>NIL | 114707N 0994859E | Mountain<br>273 M/896 FT<br>NIL | 114707N 0994859E | NIL |
| | Island<br>60 M/197 FT<br>NIL | 114729N 0994859E | Island<br>60 M/197 FT<br>NIL | 114729N 0994859E | |
| | Island<br>100 M/328 FT<br>LGTD | 114739N 0994922E | Island<br>100 M/328 FT | 114730N 0994922E | |
| | | | Island<br>228 M/747 FT<br>NIL | 114730N 0994753E | |
| 08/APP<br>18/TKOF<br>36/APOP | As 08/TKOF<br>Mountain<br>185 M/607 FT<br>NIL | 114508N 0994746E | | | |
| | Island<br>60 M/197 FT<br>NIL | 114601N 0994836E | | | |
| 18/APP<br>36/TKOF | Mountain<br>107 M/350 FT<br>LGTD | 114856N 0994830E | Mountain<br>185 M/607 FT<br>NIL | 114508N 0994746E | |
| | Mast<br>322 M/1057 FT | 115420N 0994804E | Mast<br>108 M/356 FT<br>LGTD | 114759N 0994730E | |
| FINAL APP<br>RWY08 | Radio Mast<br>HGT 51 M/167 FT<br>Marked and LGTD | 114648N 0994623E | | | |

## VTBP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Met Section Wing 5 |
| 2 | Hours of service<br>MET Office outside hours | HJ to be requested |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Met Section Wing 5<br>H24 |
| 4 | Type of landing forecast<br>Interval of issuance | TEMPO |
| 5 | Briefing/consultation provided | Personal Consultation |
| 6 | Flight documentation<br>Language(s) used | Charts, plain language text<br>Thai |
| 7 | Charts and other information available for briefing or consultation | Synoptic chart, wind aloft chart, FATHAI AD forecast<br>,RADAR NETWORK |
| 8 | Supplementary equipment available for providing information | Tel: 60530 or self-briefing at base operation |
| 9 | ATS units provided with information | Prachuap Khiri Khan TWR |

| | | |
|---|---|---|
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTBP AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 08 | 076 GEO<br>080 MAG | 2000x40 | PCN 43/F/A/X/T<br>Asphalt | NIL | THR 3 M/10 FT |
| 26 | 256 GEO<br>260 MAG | 2000x40 | PCN 43/F/A/X/T<br>Asphalt | NIL | THR 3 M/10 FT |
| 18 | 180 GEO<br>180 MAG | 1050x40 | PCN 43/F/A/X/T<br>Asphalt<br>50x40 | NIL | THR 3 M/10 FT |
| 36 | 360 GEO<br>360 MAG | 1050x40 | PCN 43/F/A/X/T<br>Asphalt | NIL | THR 3 M/10 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTBP AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 08 | 2000 | 2000 | 2000 | 2000 | NIL |
| 26 | 2000 | 2000 | 2000 | 2000 | NIL |
| 18 | 1050 | 1050 | 1050 | 1050 | NIL |
| 36 | 1050 | 1050 | 1050 | 1050 | NIL |

## VTBP AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 08 | NIL | Green | PAPI<br>Both 3°<br>White, LIH | NIL | NIL | 2000 M<br>50 M | Red | NIL | NIL |
| 26 | NIL | Green | PAPI<br>Both 5°<br>White, LIH | NIL | NIL | 2000 M<br>50 M | Red | NIL | NIL |

## VTBP AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | EDGE: All TWY A, B Centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply :Limited to RDO/COM only<br>Switching-over time : Automatic with in 15 sec |
| 5 | Remarks | NIL |

## VTBP AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Helicopter LDG/TKOF by using runways. |

## VTBP AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 20 NM radius centred on 114718.3045N 0994816.6455E |
| 2 | Vertical limits | 6000 FT/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Prachuap Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTBP AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Prachuap TWR | 351.1 MHZ<br>135.9 MHZ<br>236.6 MHZ<br>*121.5 MHZ<br>*243.0 MHZ | 23:00-11:00 | Primary operation<br><br>*Emergency Freq. |
| GND | Prachuap GND | 257.8 MHZ<br>121.75 MHZ | 23:00-11:00 | Secondary operation |

## VTBP AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| TACAN | PCK | CH 84X<br>TX1171 MHz<br>RX 1108 MHz | H24 | 114712.3851N<br>0994730.2153E | 20 M | NIL |
| NDB | PCK | 320 KHZ | 2300-1100 | 114729.8861N<br>0994800.0279E | 20 M | |

## VTBP AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTBP AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTBP AD 2.22 FLIGHT PROCEDURES

NIL

## VTBP AD 2.23 ADDITIONAL INFORMATION

NIL

## VTBP AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

## VTPH AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTPH - PRACHUAP KHIRI KHAN / HUA HIN AIRPORT

## VTPH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 123749.15N 0995712.40E |
| 2 | Direction and distance from (city) | 7 KM, NE from city |
| 3 | Elevation/Reference temperature | 62 FT/30°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.56°W (2016) /0.01°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Hua Hin Airport<br>Hua Hin Airport<br>Phetkasem Road, Amphoe Hua Hin<br>Prachuap Khirikhan Province<br>Thailand<br>Tel: +663 252 0182<br>Fax: +663 252 0182<br>AFS: VTPHYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTPH AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100 |
| 8 | Fuelling | 2330-1530 Other than this period 1 HR PN to airport |
| 9 | Handling | NIL |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Hua Hin Air Traffic Control Centre (1st floor of tower building)<br>Tel: +663 252 2512<br>Fax: +663 252 0831 Ext. 5230 |

## VTPH AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1, AVGAS 100KK, JP8 |
| 3 | Fuelling facilities/capacity | 2 JET A-1 Refuellers @ 12,000 L<br>1 AVGAS 100LL Refueller @ 5,000 L<br>750-1100 L/Min |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTPH AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the airport |
| 3 | Transportation | Limousines, car rent, Taxi |
| 4 | Medical facilities | First AID at AD and hospital in the city |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTPH AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTPH AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTPH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 45/R/B/Y/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Concrete and asphalt<br>Strength: PCN 42/F/B/Y/T |
| 3 | Altimeter checkpoint location and elevation | Location : At Apron<br>Elevation : 6.786 M (22.258 FT) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTPH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY and TWY Marked and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTPH AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | Radio mast 1<br>ELEV 84 FT (26 M)<br>RED LGT on top | 123759.50N<br>0995712.32E | |
| | | | Radio mast 2<br>ELEV 79 FT (24 M)<br>RED LGT on top | 123749.14N<br>0995717.47E | |
| | | | Radio mast 3<br>ELEV 132 FT (40 M)<br>RED LGT on top | 123723.63N<br>0995714.57E | |
| | | | Radio mast 5<br>ELEV 82 FT (25 M)<br>RED LGT on top | 123813.25N<br>0995707.22E | |
| | | | Radio mast 7<br>ELEV 285 FT (87 M)<br>RED LGT on top | 123509.70N<br>0995717.73E | |
| | | | Lightning rod<br>welfare housing<br>ELEV 110 FT (33 M)<br>RED LGT on top | 123755.41N<br>0995718.16E | |
| | | | Klai Kang Woon<br>Special Aircraft<br>ELEV 72 FT (22 M)<br>RED LGT on top | 123747.07N<br>0995716.83E | |
| | | | AWOS 1<br>ELEV 52 FT (16 M)<br>RED LGT on top | 123749.94N<br>0995708.52E | |
| | | | Water tank 2<br>ELEV 120 FT (40 M)<br>RED LGT on top | 123902.47N<br>0995654.73E | |
| | | | ATC Tower<br>ELEV 144 FT (44 M)<br>RED LGT on top | 123754.01N<br>0995703.38E | |
| | | | ATC Radio mast<br>ELEV 87 FT (26 M)<br>RED LGT on top | 123756.05N<br>0995703.33E | |
| | | | DVOR/DME<br>ELEV 66 FT (20 M)<br>RED LGT on top | 123803.97N<br>0995704.21E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | Monitor mast<br>ELEV 58 FT (18 M)<br>RED LGT on top | 123806.85N<br>0995703.77E | |
| | | | Telecommunication mast 1<br>ELEV 211 FT (64 M)<br>RED LGT on top | 123807.50N<br>0995638.52E | |
| | | | Telecommunication mast 2<br>ELEV 259 FT (79 M)<br>RED LGT on top | 123930.93N<br>0995704.55E | |
| | | | Telecommunication mast 3<br>ELEV 195 FT (59 M)<br>RED LGT on top | 123854.70N<br>0995704.80E | |
| | | | Telecommunication mast 8<br>ELEV 172 FT (52 M)<br>RED LGT on top | 123712.30N<br>0995642.75E | |
| | | | Telecommunication mast 9<br>ELEV 174 FT (53 M)<br>RED LGT on top | 123741.71N<br>0995648.40E | |
| | | | Telecommunication mast 10<br>ELEV 176 FT (54 M)<br>RED LGT on top | 123800.77N<br>0995648.63E | |
| | | | Telecommunication mast 11<br>ELEV 177 FT (54 M)<br>RED LGT on top | 123700.70N<br>0995638.32E | |
| | | | Telecommunication mast 12<br>ELEV 170 FT (52 M)<br>RED LGT on top | 123702.00N<br>0995638.64E | |
| | | | Telecommunication mast 13<br>ELEV 195 FT (60 M)<br>RED LGT on top | 123941.84N<br>0995705.68E | |
| | | | Telecommunication mast 14<br>ELEV 221 FT (67 M)<br>RED LGT on top | 123946.80N<br>0995702.82E | |
| | | | Condominium 1<br>(PALM PAVILLION)<br>ELEV 167 FT (51 M)<br>RED LGT on top | 123708.37N<br>0995715.76E | |
| | | | Condominium 3<br>ELEV 228 FT (69 M)<br>RED LGT on top | 123842.78N<br>0995710.00E | |
| | | | Condominium 4<br>ELEV 207 FT (63 M)<br>RED LGT on top | 123841.05N<br>0995712.12E | |
| | | | Condominium 7<br>ELEV 109 FT (33 M)<br>NIL | 123819.32N<br>0995709.75E | |
| | | | Condominium 9<br>ELEV 176 FT (54 M)<br>RED LGT on top | 123833.91N<br>0995720.96E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | Condominium 10<br>ELEV 177 FT (54 M)<br>RED LGT on top | 123816.85N<br>0995718.74E | |
| | | | Condominium 11<br>ELEV 175 FT (53 M)<br>RED LGT on top | 123814.88N<br>099720.00E | |
| | | | Condominium 12<br>ELEV 195 FT (59 M)<br>RED LGT on top | 123808.67N<br>0995718.40E | |
| | | | Condominium 13<br>ELEV 195 FT (59 M)<br>RED LGT on top | 123912.02N<br>0995716.65E | |
| | | | Condominium 14<br>ELEV 169 FT (51 M)<br>RED LGT on top | 123921.42N<br>0995723.22E | |
| | | | Condominium 15<br>ELEV 222 FT (68 M)<br>RED LGT on top | 123916.43N<br>0995723.57E | |
| | | | Condominium 17<br>ELEV 214 FT (65 M)<br>RED LGT on top | 123850.47N<br>0995710.28E | |
| | | | Condominium 18<br>ELEV 240 FT (73 M)<br>RED LGT on top | 123845.61N<br>0995709.36E | |
| | | | Billboard 1<br>ELEV 95 FT (29 M)<br>NIL | 123843.37N<br>0995656.20E | |
| | | | NDB 1<br>ELEV 120 FT (37 M)<br>RED LGT on top | 123841.17N<br>0995646.34E | |
| | | | NDB 2<br>ELEV 121 FT (37 M)<br>RED LGT on top | 123842.84N<br>0995646.74E | |
| | | | Wind measuring pole<br>ELEV 73 FT (22 M)<br>RED LGT on top | 123830.25N<br>0995654.93E | |

## VTPH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Hua Hin,<br>Southern East-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern East-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +663 252 0831 ext. 5229 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) and Weather Radar |
| 9 | ATS units provided with information | Hua Hin TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTPH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 16 | 159.96° | 2100x35 | PCN 42/F/B/Y/T<br>Concrete and asphalt | 123841.01N<br>0995652.75E | THR 62 FT<br>TDZ 62 FT |
| 34 | 339.96° | 2100x35 | PCN 42/F/B/Y/T<br>Concrete and asphalt | 123741.54N<br>0995715.28E | THR 17 FT<br>TDZ 22 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | NIL | NIL | 2236x120 | NIL | NIL |
| NIL | 60x35 | NIL | 2236x120 | NIL | NIL |

## VTPH AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 16 | 2100 | 2100 | 2100 | 2100 | NIL |
| 34 | 2100 | 2100 | 2160 | 1950 | NIL |

## VTPH AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 16 | NIL | NIL | PAPI<br>Left 3°<br>(15.72 M) | NIL | NIL | 2100 M<br>60 M<br>White, LIH | Red | NIL | NIL |
| 34 | NIL | NIL | NIL | NIL | NIL | 2100 M<br>60 M<br>White, LIH | Red | NIL | NIL |

* RWY 16 PAPI restriction. Due mountain on right side of approach path, distance approximately 6 NM from RWY, 1300 FT height, aircraft approach to RWY 16 Should be careful,

## VTPH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W EV 7 SEC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | EDGE: All TWY |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at AD.<br>Switch-over time 12 SEC. |
| 5 | Remarks | NIL |

## VTPH AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTPH AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centred on HHN DVOR/DME (123803.9N 0995704.2E). Excluding VTR3. |
| 2 | Vertical limits | 2000 ft/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Hua Hin Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTPH AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Hua Hin Approach | 126.2 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Hua Hin Tower | 122.7 MHz<br>236.6 MHz<br>121.5 MHz[1)]<br>243.0 MHz[1)] | As AD OPR HR | |
| GND | Hua Hin Ground | 121.9 MHz | As AD OPR HR | |
| ATIS | Hua Hin Airport | 126.8 MHz | As AD OPR HR | |

## VTPH AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | HN | 213 KHz | H24 | 123842.0N 0995646.5E | NIL | The coverage orbit data refer to commissioning check as follows:<br>1. 50 nm orbit flown from bearing 001°-179° (CW) at altitude 1 500 ft<br>2. 30 nm orbit flown from bearing 180°-360° (CW) at altitude 4 000 ft (due to border limited)<br>3. Due to the fluctuation of needle is out of tolerance from bearing 180°-330° |
| DVOR/DME | HHN | 113.3 MHz CH80X | H24 | 123803.9N 0995704.2E | NIL | DVOR/DME restriction, due to terrain surround DVOR/DME station coverage check does not provide adequate signal 40 nm at required altitude in various areas as follows:<br>1. 40 nm clockwise orbit<br>– Radial 001°-170° altitude should not below 3 000 ft<br>– Radial 171°-210° altitude should not below 7 000 ft<br>– Radial 301°-340° altitude should not below 10 000 ft<br>– Radial 340°-360° altitude should not below 3 000 ft<br>2. 30 nm clockwise orbit (Due to border limited)<br>– Radial 211°- 300° altitude should not below 10 000 ft<br>3. Radial 341° distance 10.3 DME at altitude 4 000 ft found roughness out of tolerance |

## VTPH AD 2.20 LOCAL AERODROME REGULATIONS

**1. Operating limitation**

To operate at VTPH, Commercial flight with Code C aircraft shall require an authorization from the Airport Director in accordance with established procedures. Please contact AD administration Unit as specified in VTPH AD 2.2 AERODROME GEOGRAPHECAL AND ADMINISTRATIVE DATA for more detail of the authorization procedure.

**2. Operation at the airport during aircraft code C operating at VTPH**

When conducting operations with Code C aircraft on the runway (RWY) or taxiway, all other aircraft operations shall be held in abeyance behind runway holding position or intermediate holding position, or aircraft shall comply with instructions issued by ATC.

## VTPH AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTPH AD 2.22 FLIGHT PROCEDURES

**1. Types of ATC Services**

Within Hua Hin TMA (Class D Airspace), Hua Hin approach control will provide VFR/IFR flights with ATS surveillance services based on only partial radar coverage from Suvarnabhumi and Don Mueang SSRs. Procedural control service will be provided in the remaining areas.

## 2. VFR PROCEDURES

Details of VFR entry and exit procedures, see charts.

## 3. SPEED CONTROL PROCEDURE IN HUA HIN TMA

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

# VTPH AD 2.23 ADDITIONAL INFORMATION

## 1. BIRD CONCENTRATIONS

Bird concentration in the vicinity of an aerodrome.

## VTPH AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTPH-2-1 |
| Instrument Approach Chart - ICAO - NDB RWY 16 | AD 2-VTPH-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 16 | AD 2-VTPH-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 16 (Fix and point list table) | AD 2-VTPH-8-4 |
| Instrument Approach Chart - ICAO - RNP RWY 16 | AD 2-VTPH-8-5 |
| Instrument Approach Chart - ICAO - RNP RWY 16 (Tabular description) | AD 2-VTPH-8-6 |
| VFR ENTRY PROCEDURE CHART - RWY 16/34 | AD 2-VTPH-9-1 |
| VFR ENTRY PROCEDURE CHART - RWY 16/34 (Tabular description) | AD 2-VTPH-9-2 |
| VFR ENTRY PROCEDURE FOR HELICOPTER CHART - RWY 16/34 | AD 2-VTPH-9-3 |
| VFR ENTRY PROCEDURE FOR HELICOPTER CHART - RWY 16/34 (Tabular description) | AD 2-VTPH-9-4 |
| VFR EXIT PROCEDURE CHART - RWY 16 | AD 2-VTPH-9-5 |
| VFR EXIT PROCEDURE CHART - RWY 16 (Tabular description) | AD 2-VTPH-9-6 |
| VFR EXIT PROCEDURE CHART - RWY 34 | AD 2-VTPH-9-7 |
| VFR EXIT PROCEDURE CHART - RWY 34 (Tabular description) | AD 2-VTPH-9-8 |
| VFR EXIT PROCEDURE FOR HELICOPTER CHART - RWY 16 | AD 2-VTPH-9-9 |
| VFR EXIT PROCEDURE FOR HELICOPTER CHART - RWY 16 (Tabular description) | AD 2-VTPH-9-10 |
| VFR EXIT PROCEDURE FOR HELICOPTER CHART - RWY 34 | AD 2-VTPH-9-11 |
| VFR EXIT PROCEDURE FOR HELICOPTER CHART - RWY 34 (Tabular description) | AD 2-VTPH-9-12 |

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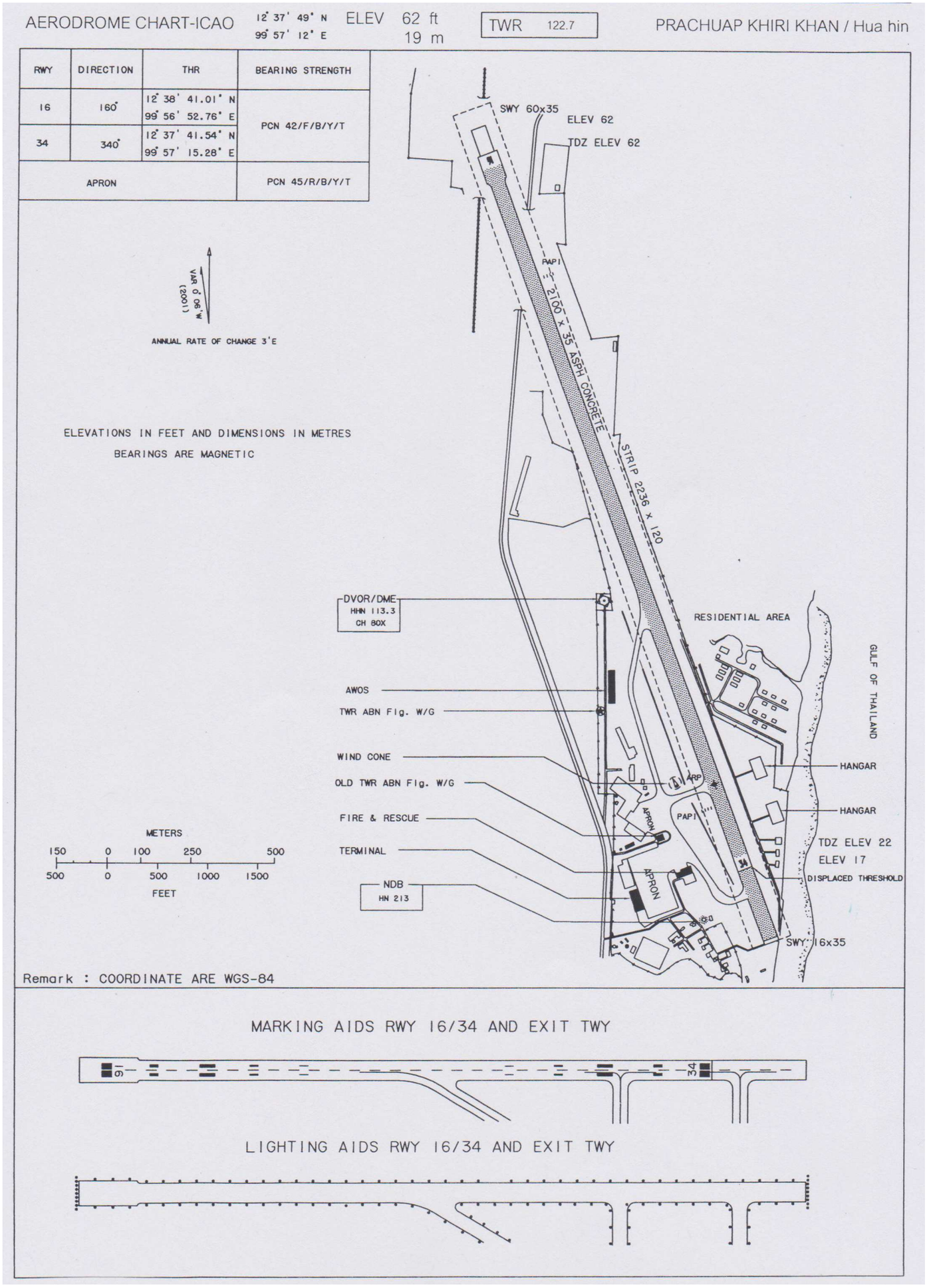
AERODROME CHART-ICAO
12° 37' 49" N
99° 57' 12" E
ELEV 62 ft
19 m
TWR 122.7
PRACHUAP KHIRI KHAN / Hua hin
RWY
DIRECTION
THR
BEARING STRENGTH
16
160°
12° 38' 41.01" N
99° 56' 52.76" E
PCN 42/F/B/Y/T
34
340°
12° 37' 41.54" N
99° 57' 15.28" E
APRON
PCN 45/R/B/Y/T
VAR 0° 06' W (2001)
ANNUAL RATE OF CHANGE 3'E
ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC
SWY 60x35
ELEV 62
TDZ ELEV 62
PAPI
2100 x 35 ASPH CONCRETE
STRIP 2236 x 120
DVOR/DME
HHN 113.3
CH 80X
AWOS
TWR ABN Flg. W/G
WIND CONE
OLD TWR ABN Flg. W/G
FIRE & RESCUE
TERMINAL
NDB
HN 213
RESIDENTIAL AREA
GULF OF THAILAND
HANGAR
HANGAR
ARP
APRON
APRON
PAPI
TDZ ELEV 22
ELEV 17
DISPLACED THRESHOLD
SWY 16x35
METERS
150 0 100 250 500
500 0 500 1000 1500
FEET
Remark : COORDINATE ARE WGS-84
MARKING AIDS RWY 16/34 AND EXIT TWY
16
34
LIGHTING AIDS RWY 16/34 AND EXIT TWY

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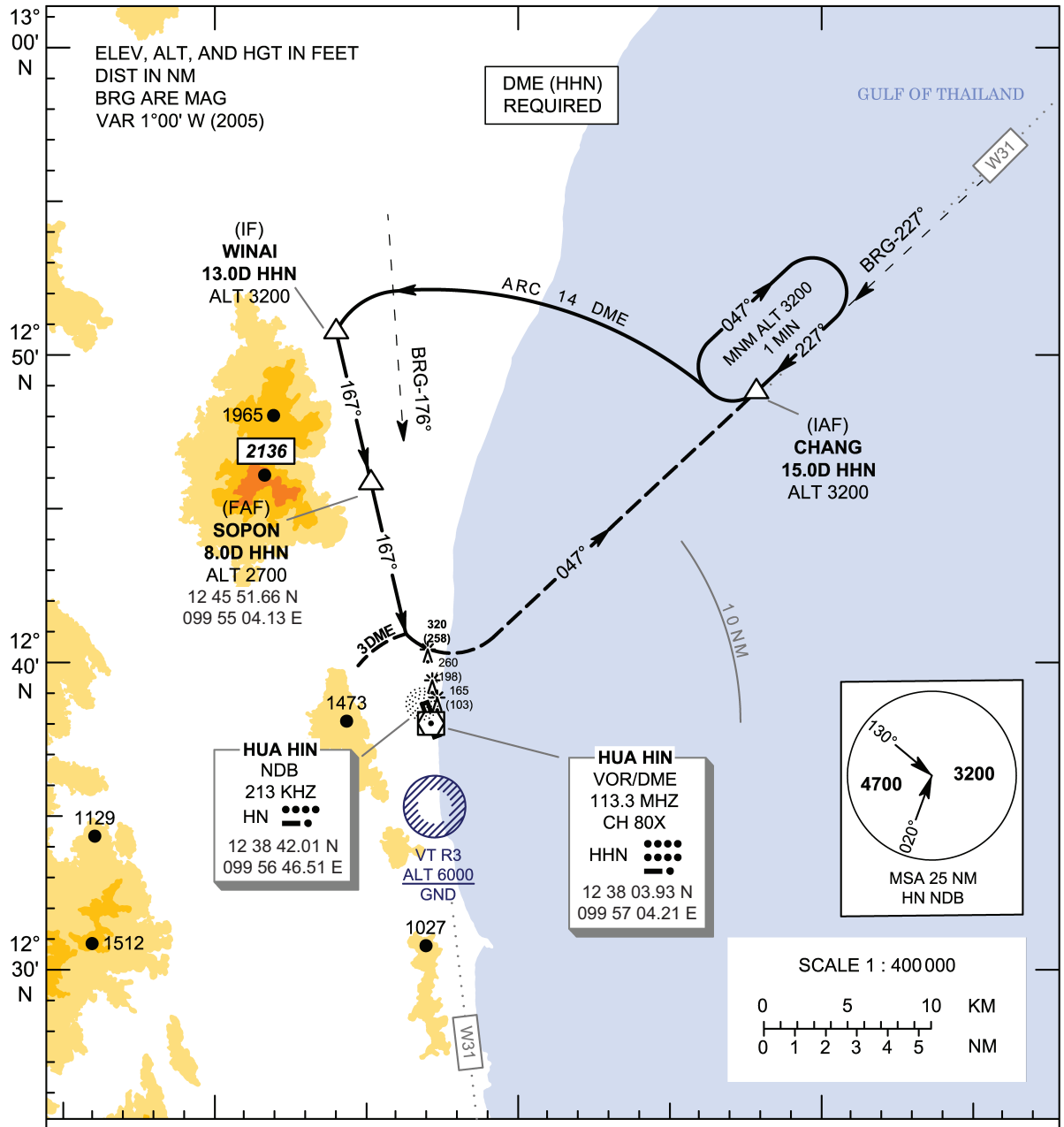
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 126.2 |
| TWR | : | 122.7, 236.6 |
| GND | : | 121.9 |
| ATIS | : | 126.8 |

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH)**
**NDB RWY16**




| OCA/H | A | B | C |
|---|---|---|---|
| Straight - in Approach | 940 (878) | | |
| Circling | Not Authorized | | |

| Distance | 8 DME | 7 DME | 6 DME | 5 DME | 4 DME | 3 DME |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2700 (2638) | 2350 (2288) | 2000 (1938) | 1650 (1588) | 1300 (1238) | 940 (878) |

| Ground Speed | knot | 100 | 120 | 140 | 160 | 180 |
|---|---|---|---|---|---|---|
| FAF-MAPt 5 NM | min:sec | 3:00 | 2:30 | 2:09 | 1:53 | 1:40 |
| Rate of Descent | ft/min | 595 | 715 | 835 | 995 | 1075 |

CHANGE: VOR/DME AND NDB COORDINATES.

December 2019

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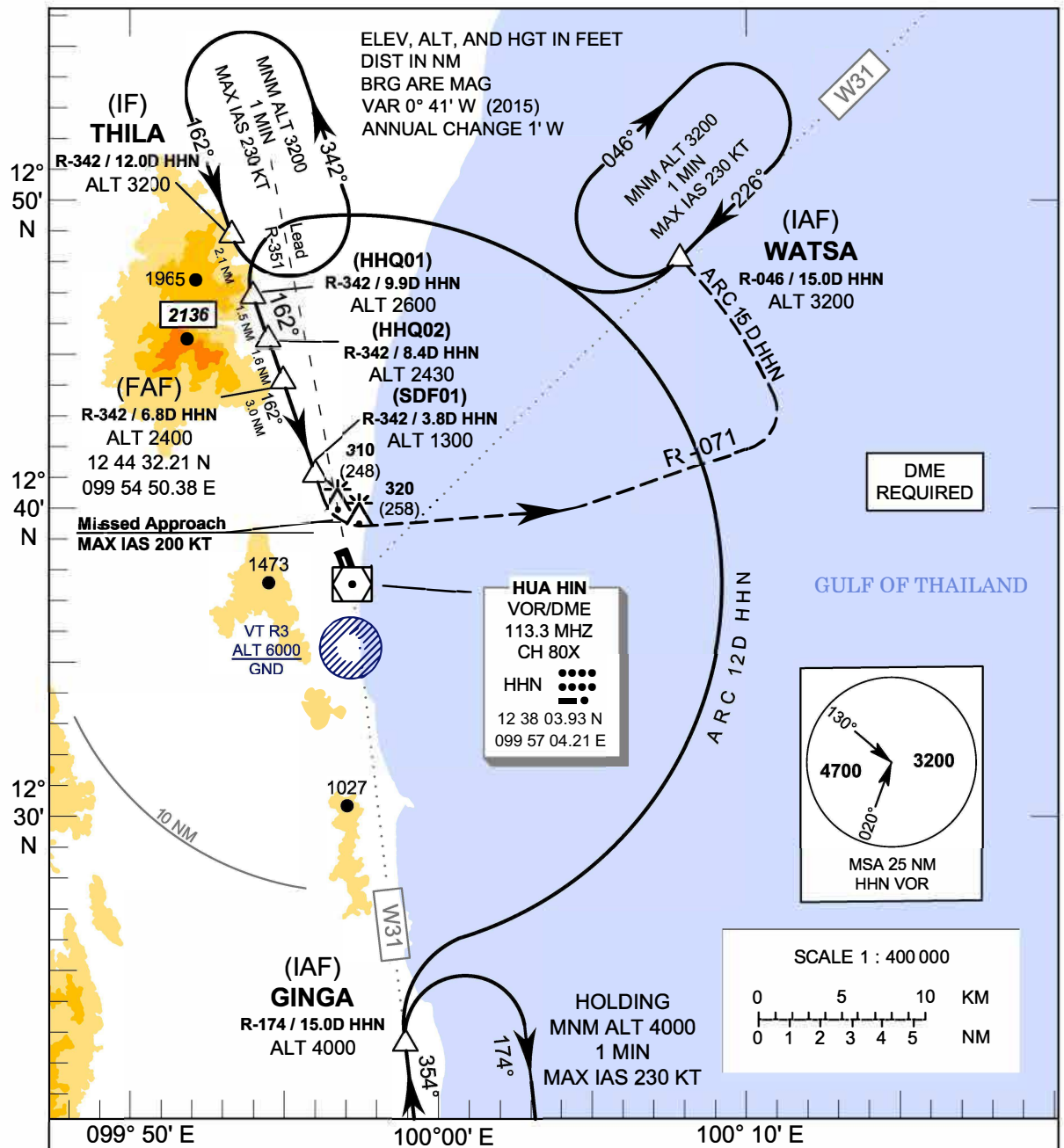
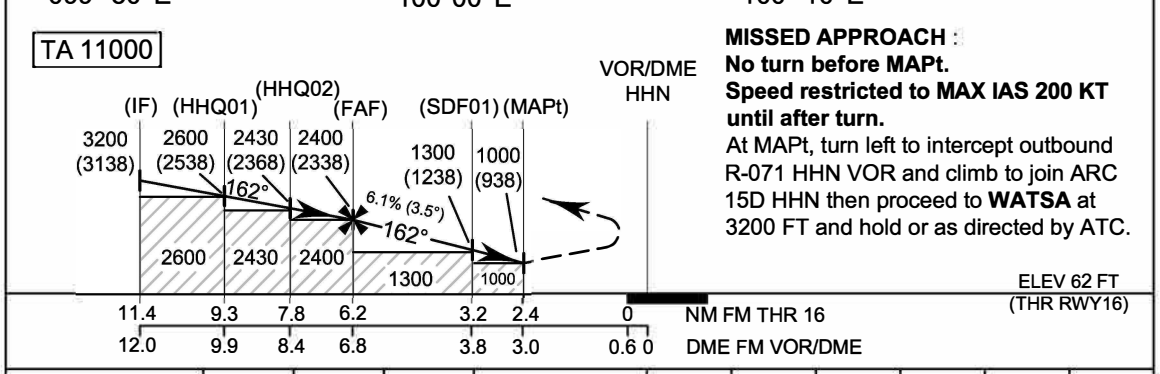
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | |
|---|---|
| APP | 126.2 |
| TWR | 122.7, 236.6 |
| GND | 121.9 |
| ATIS | 126.8 |

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH)**
**VOR RWY16**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 200 KT until after turn.**
At MAPt, turn left to intercept outbound R-071 HHN VOR and climb to join ARC 15D HHN then proceed to **WATSA** at 3200 FT and hold or as directed by ATC.

| OCA/H | A | B | C | Distance (HHN) | FAF | 6 D | 5 D | 4 D | SDF01 | 3.0 D |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight-in Approach | 1000 (938) | | | Altitude (Height) | 2400 (2338) | 2115 (2053) | 1740 (1678) | 1370 (1308) | 1300 (1238) | 1000 (938) |
| | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling | Not Authorized | | | Rate of Descent | ft/min | 432 | 556 | 618 | 741 | 865 | 988 |

CHANGE: VOR/DME COORDINATE.

December 2019

**PRACHUAP KHIRIKHAN/
Hua Hin (VTPH)
VOR RWY16**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF)<br>GINGA | R - 174 /<br>15.0 D HHN | 12 23 05.39 N | 099 58 46.55 E |
| (IAF)<br>WATSA | R - 046 /<br>15.0 D HHN | 12 48 39.73 N | 100 07 59.26 E |
| (IF)<br>THILA | R - 342 /<br>12.0 D HHN | 12 49 29.03 N | 099 53 07.95 E |
| HHQ01 | R - 342 /<br>9.9 D HHN | 12 47 29.17 N | 099 53 49.32 E |
| HHQ02 | R - 342 /<br>8.4 D HHN | 12 46 03.54 N | 099 54 18.87 E |
| FAF | R - 342 /<br>6.8 D HHN | 12 44 32.21 N | 099 54 50.38 E |
| SDF01 | R - 342 /<br>3.8 D HHN | 12 41 40.96 N | 099 55 49.45 E |
| MAPt | R - 342 /<br>3.0 D HHN | 12 40 55.30 N | 099 56 05.19 E |
| VOR | HHN | 12 38 03.93 N | 099 57 04.21 E |

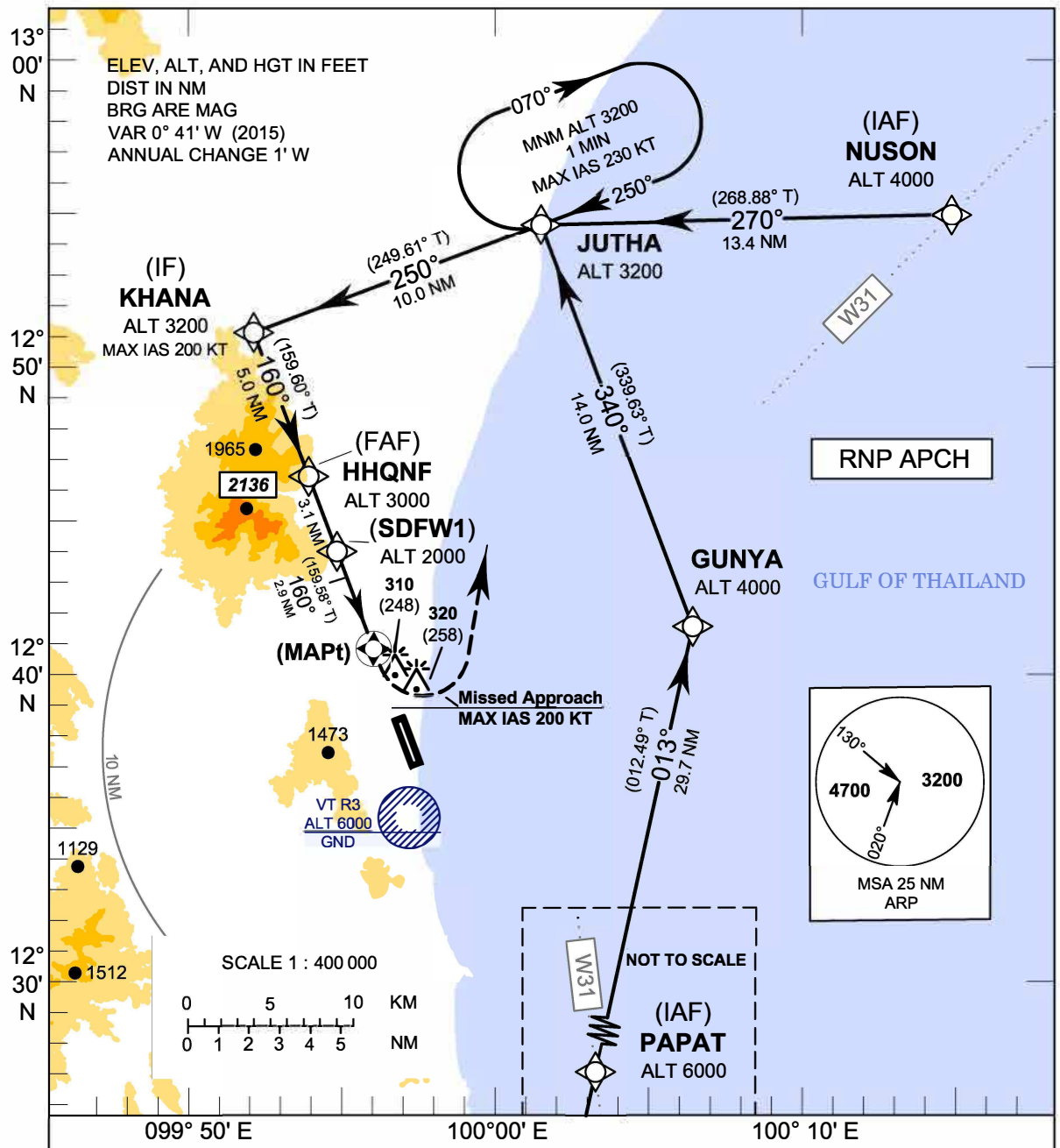
CHANGE: VOR/DME COORDINATE.

**INSTRUMENT APPROACH CHART - ICAO**

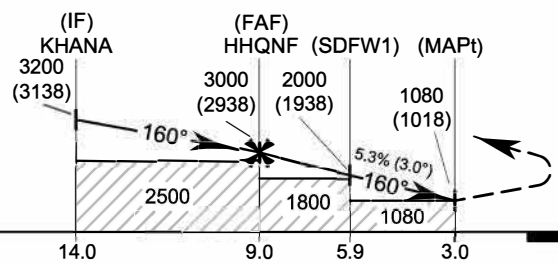
**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | |
|---|---|
| APP | 126.2 |
| TWR | 122.7, 236.6 |
| GND | 121.9 |
| ATIS | 126.8 |

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH)**
**RNP RWY16**




TA 11000




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 200 KT until after turn.**
At MAPt, turn left climb direct to **JUTHA** at 3200 FT and hold or as directed by ATC.

ELEV 62 FT
(THR RWY16)

CHANGE : CHART TITLE.

| OCA/H | A | B | C | NM to THR16 | FAF | 8 NM | 7 NM | 6 NM | 5 NM | 4 NM | 3 NM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV | 1080 (1018) | | | Altitude (Height) | 3000 (2938) | 2690 (2628) | 2365 (2303) | 2045 (1983) | 1720 (1658) | 1400 (1338) | 1080 (1018) |
| | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| | | | | Rate of Descent | ft/min | 376 | 483 | 537 | 644 | 751 | 859 |
| Circling | Not Authorized | | | | | | | | | | |

**PRACHUAP KHIRIKHAN/ Hua Hin (VTPH)**

**RNP RWY16**

| Serial Number | Path Descriptor | Waypoint Identifier | WGS-84 Coordinates | | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Latitude | Longtitude | | | | | | | | | |
| 001 | IF | PAPAT (IAF) | 12 13 06.29 N | 099 59 54.70 E | - | 013°(012.49°) | 0.7° | 29.7 | - | 6000 | - | - | RNP APCH |
| 002 | TF | GUNYA | 12 42 11.04 N | 100 06 28.22 E | - | 340°(339.63°) | 0.7° | 14.0 | L | 4000 | - | - | RNP APCH |
| 003 | IF | NUSON (IAF) | 12 55 38.26 N | 100 15 11.32 E | - | 270°(268.88°) | 0.7° | 13.4 | - | 4000 | - | - | RNP APCH |
| 004 | TF | JUTHA | 12 55 22.14 N | 100 01 28.75 E | - | 250°(249.61°) | 0.7° | 10.0 | L | 3200 | - | - | RNP APCH |
| 005 | TF | KHANA (IF) | 12 51 51.97 N | 099 51 52.83 E | - | 160°(159.60°) | 0.7° | 5.0 | L | 3200 | 200 | | RNP APCH |
| 006 | TF | HHQNF(FAF) | 12 47 09.49 N | 099 53 40.00 E | - | 160°(159.58°) | 0.7° | 3.1 | - | 3000 | - | - | RNP APCH |
| 007 | TF | SDFW1 | 12 44 14.31 N | 099 54 46.43 E | - | 160°(159.58°) | 0.7° | 2.9 | - | 2000 | - | - | RNP APCH |
| 008 | - | MAPt (3.0 NM FM THR 16) | 12 41 30.51 N | 099 55 48.52 E | Y | - | 0.7° | - | L | 1080 | 200 | - | RNP APCH |
| 009 | DF | JUTHA | 12 55 22.14 N | 100 01 28.75 E | - | - | 0.7° | - | - | 3200 | - | - | RNP APCH |
| 010 | HM | JUTHA | 12 55 22.14 N | 100 01 28.75 E | Y | 250°(249.61°) | 0.7° | - | R | 3200 | - | - | RNP APCH |

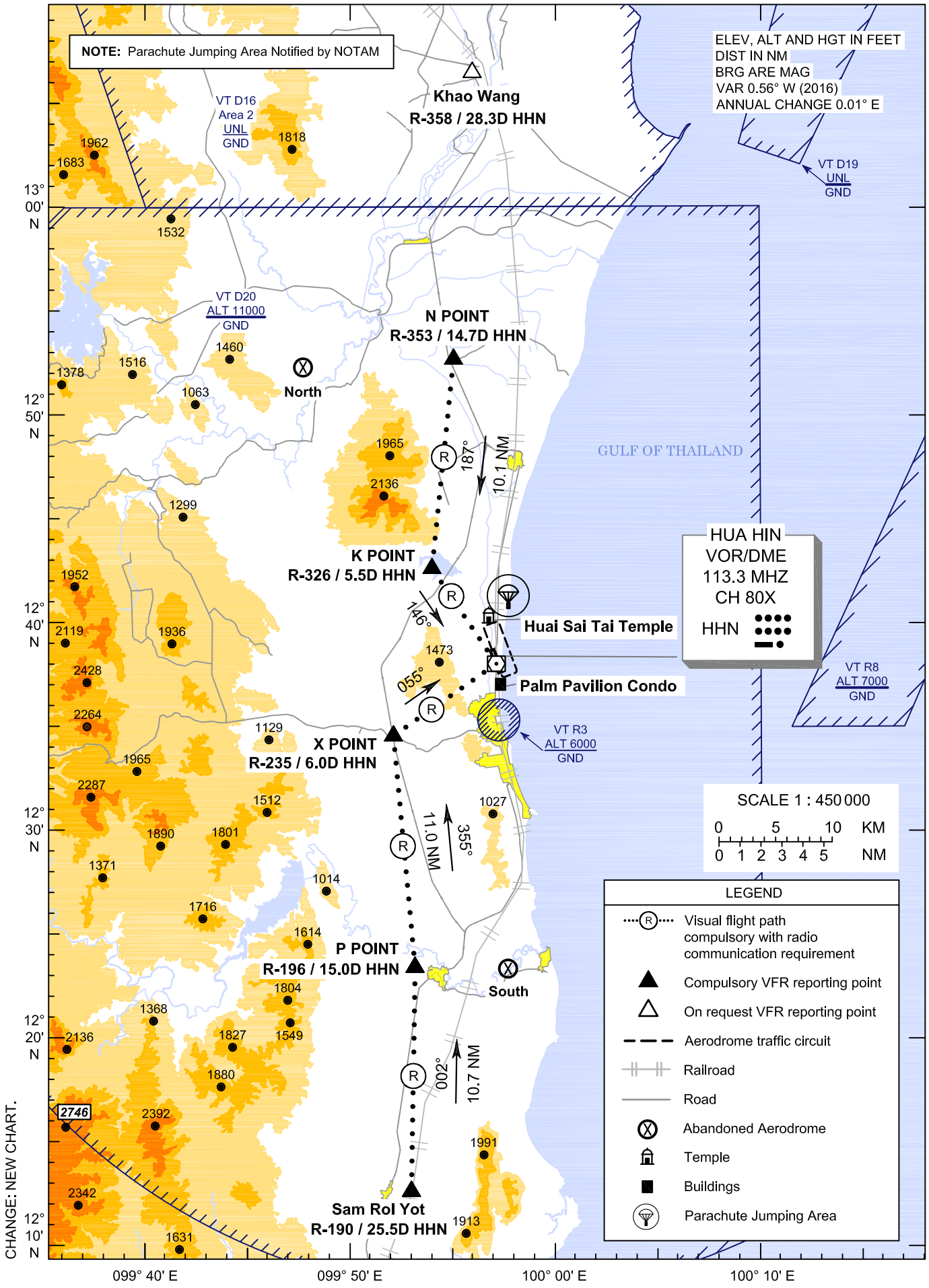
CHANGE : CHART TITLE.

**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 126.20 |
| TWR | : | 122.70, 236.60 |
| GND | : | 121.90 |
| ATIS | : | 126.8 |

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY16/34**



**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY16/34**

ARR-RWY16/34 (**From North**)
Inbound via Khao Wang. Then heading 184° to N POINT, heading 187° to K POINT, then turn left heading 146° proceed to over aerodrome and join aerodrome traffic circuit when directed by ATC.

ARR-RWY16/34 (**From South**)
Inbound via Sam Roi Yot. Then heading 002° to P POINT, heading 355° to X POINT, then turn right heading 055° procced to over aerodrome and join aerodrome traffic circuit when directed by ATC.

| Reporting points | Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "N" or NOVEMBER Point | Ban Nong Pao Tan (Road Intersection) | R-353 / 14.7D | 12° 52' 42.02" N | 099° 55' 01.80" E |
| "K" or KILO Point | Hill | R-326 / 5.5D | 12° 42' 34.32" N | 099° 53' 53.53" E |
| "P" or PAPA Point | Amphoe Pran Buri (Road Intersection) | R-196 / 15.0D | 12° 23' 31.34" N | 099° 53' 02.90" E |
| "X" or X-RAY Point | Road Intersection | R-235 / 6.0D | 12° 34' 33.99" N | 099° 52' 01.01" E |
| Khao Wang | Khao Wang Palace | R-358 / 28.3D | 13° 06' 27.04" N | 099° 55' 59.50" E |
| Sam Roi Yot | Sam Roi Yot Railway Station | R-190 / 25.5D | 12° 12' 45.70" N | 099° 52' 50.30" E |
| HUA HIN VOR/DME (HHN) | HUA HIN VOR/DME Station | - | 12° 38' 04.04" N | 099° 57' 04.23" E |

| Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|
| | | Latitude | Longitude |
| Parachute Jumping Area | R-011 / 3.3D | 12° 41' 19.52" N | 099° 57' 40.00" E |
| Abandoned Aerodrome (North) | R-328 / 16.9D | 12° 52' 18.96" N | 099° 47' 40.15" E |
| Huai Sai Tai Temple | R-351 / 2.1D | 12° 40' 10.21" N | 099° 56' 42.21" E |
| Palm Pavilion Condo | R-169 / 1.0D | 12° 37' 04.75" N | 099° 57' 16.34" E |
| Abandoned Aerodrome (South) | R-179 / 14.6D | 12° 23' 25.95" N | 099° 57' 35.30" E |

**NOTE:** Parachute Jumping Area Notified by NOTAM

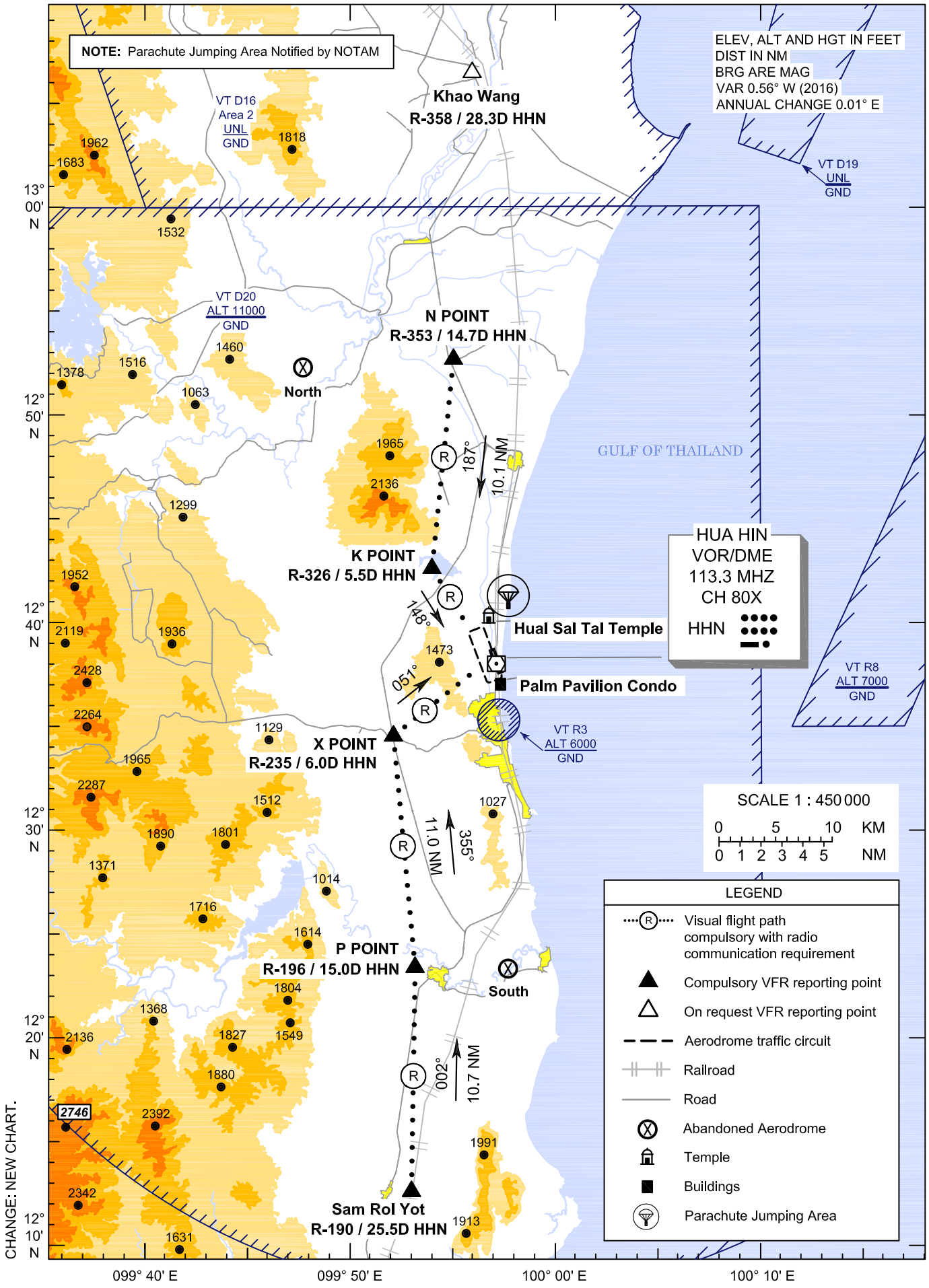
CHANGE: NEW CHART.

**VFR ENTRY PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 126.20 |
| TWR | : | 122.70, 236.60 |
| GND | : | 121.90 |
| ATIS | : | 126.8 |

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY16/34**



**VFR ENTRY PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY16/34**

ARR-RWY16/34 (**From North**)
Inbound via Khao Wang. Then heading 184° to N POINT, heading 187° to K POINT, then turn left heading 148° to join aerodrome traffic circuit when directed by ATC.

ARR-RWY16/34 (**From South**)
Inbound via Sam Roi Yot. Then heading 002° to P POINT, heading 355° to X POINT, then turn right heading 051° to join aerodrome traffic circuit when directed by ATC.

| Reporting points | Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "N" or NOVEMBER Point | Ban Nong Pao Tan (Road Intersection) | R-353 / 14.7D | 12° 52' 42.02" N | 099° 55' 01.80" E |
| "K" or KILO Point | Hill | R-326 / 5.5D | 12° 42' 34.32" N | 099° 53' 53.53" E |
| "P" or PAPA Point | Amphoe Pran Buri (Road Intersection) | R-196 / 15.0D | 12° 23' 31.34" N | 099° 53' 02.90" E |
| "X" or X-RAY Point | Road Intersection | R-235 / 6.0D | 12° 34' 33.99" N | 099° 52' 01.01" E |
| Khao Wang | Khao Wang Palace | R-358 / 28.3D | 13° 06' 27.04" N | 099° 55' 59.50" E |
| Sam Roi Yot | Sam Roi Yot Railway Station | R-190 / 25.5D | 12° 12' 45.70" N | 099° 52' 50.30" E |
| HUA HIN VOR/DME (HHN) | HUA HIN VOR/DME Station | - | 12° 38' 04.04" N | 099° 57' 04.23" E |

| Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|
| | | Latitude | Longitude |
| Parachute Jumping Area | R-011 / 3.3D | 12° 41' 19.52" N | 099° 57' 40.00" E |
| Abandoned Aerodrome (North) | R-328 / 16.9D | 12° 52' 18.96" N | 099° 47' 40.15" E |
| Huai Sai Tai Temple | R-351 / 2.1D | 12° 40' 10.21" N | 099° 56' 42.21" E |
| Palm Pavilion Condo | R-169 / 1.0D | 12° 37' 04.75" N | 099° 57' 16.34" E |
| Abandoned Aerodrome (South) | R-179 / 14.6D | 12° 23' 25.95" N | 099° 57' 35.30" E |

**NOTE:** Parachute Jumping Area Notified by NOTAM

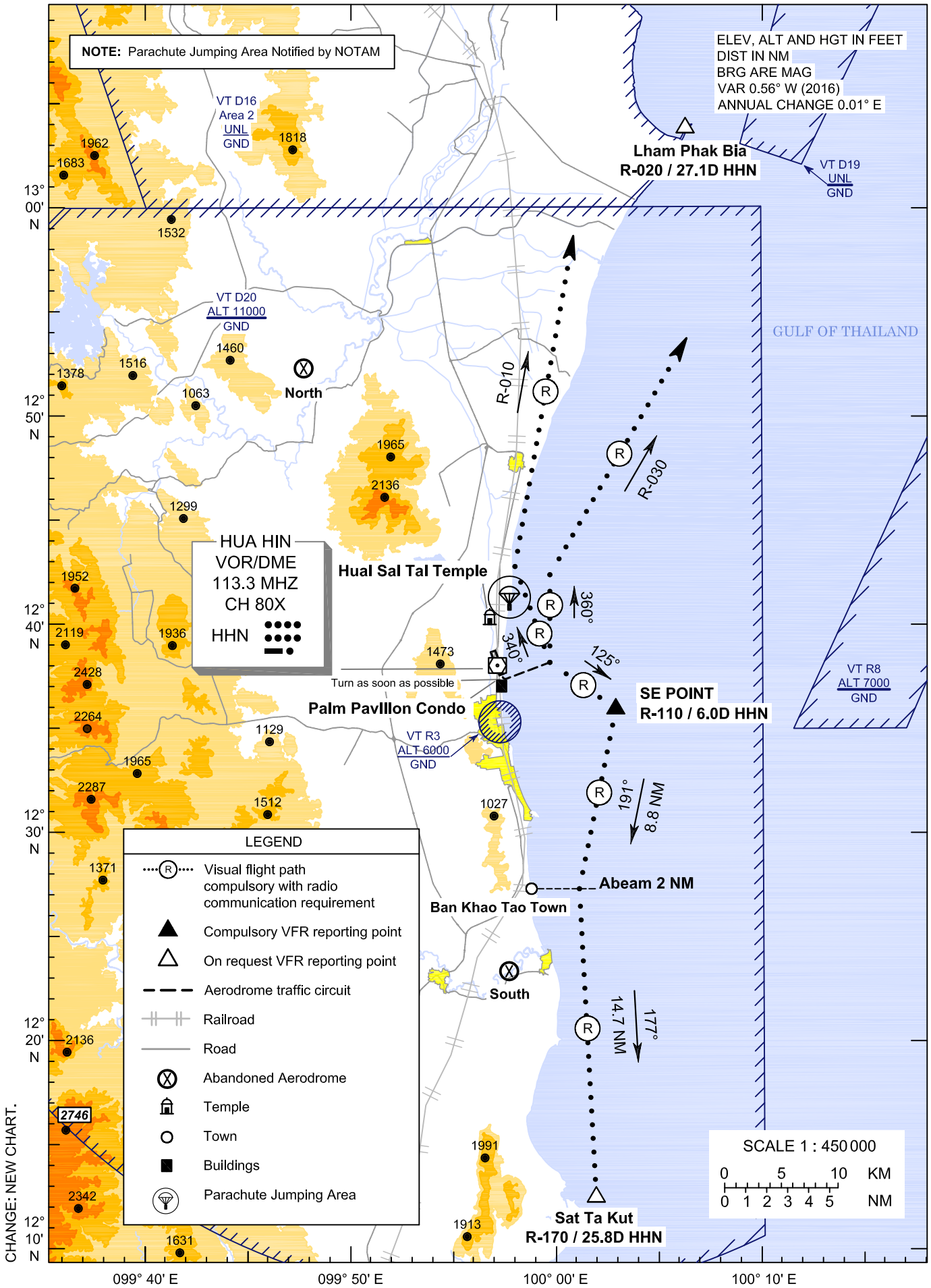
CHANGE: NEW CHART.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 126.20 |
| TWR | : | 122.70, 236.60 |
| GND | : | 121.90 |
| ATIS | : | 126.8 |

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY16**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY16**

DEP-RWY16 (**North**)
To avoid VT R3, after departure turn left heading 070° as soon as possible until 2.5 DME for clear of traffic in circuit then turn left heading 340° to establish outbound R-010 HHN VOR.

**In case of parachute jumping area active :** To avoid VT R3, after departure turn left heading 070°as soon as possible until 2.5 DME for clear of traffic in circuit then turn left heading 360° to establish outbound R-030 HHN VOR.

DEP-RWY16 (**South**)
To avoid VT R3, after departure turn left heading 070° as soon as possible until 2.5 DME for clear of traffic in circuit then turn right heading 125° to SE POINT then turn right heading 191° to 2 NM abeam Ban Khao Tao and continue abeam shore line to Sat Ta Kut.

| Reporting points | Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "SE" or SOUTH EAST Point | - | R-110 / 6.0D | 12° 36' 03.51" N | 100° 02' 51.36" E |
| Lham Pak Bia | Lham Pak Bia | R-020 / 27.1D | 13° 03' 46.72" N | 100° 06' 19.72" E |
| Sat Ta Kut | Sat Ta Kut Island | R-170 / 25.8D | 12° 12' 36.89" N | 100° 01' 47.51" E |
| HUA HIN VOR/DME (HHN) | HUA HIN VOR/DME Station | - | 12° 38' 04.04" N | 099° 57' 04.23" E |

| Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|
| | | Latitude | Longitude |
| Parachute Jumping Area | R-011 / 3.3D | 12° 41' 19.52" N | 099° 57' 40.00" E |
| Abandoned Aerodrome (North) | R-328 / 16.9D | 12° 52' 18.96" N | 099° 47' 40.15" E |
| Huai Sai Tai Temple | R-351 / 2.1D | 12° 40' 10.21" N | 099° 56' 42.21" E |
| Palm Pavilion Condo | R-169 / 1.0D | 12° 37' 04.75" N | 099° 57' 16.34" E |
| Abandoned Aerodrome (South) | R-179 / 14.6D | 12° 23' 25.95" N | 099° 57' 35.30" E |

**NOTE:** Parachute Jumping Area Notified by NOTAM

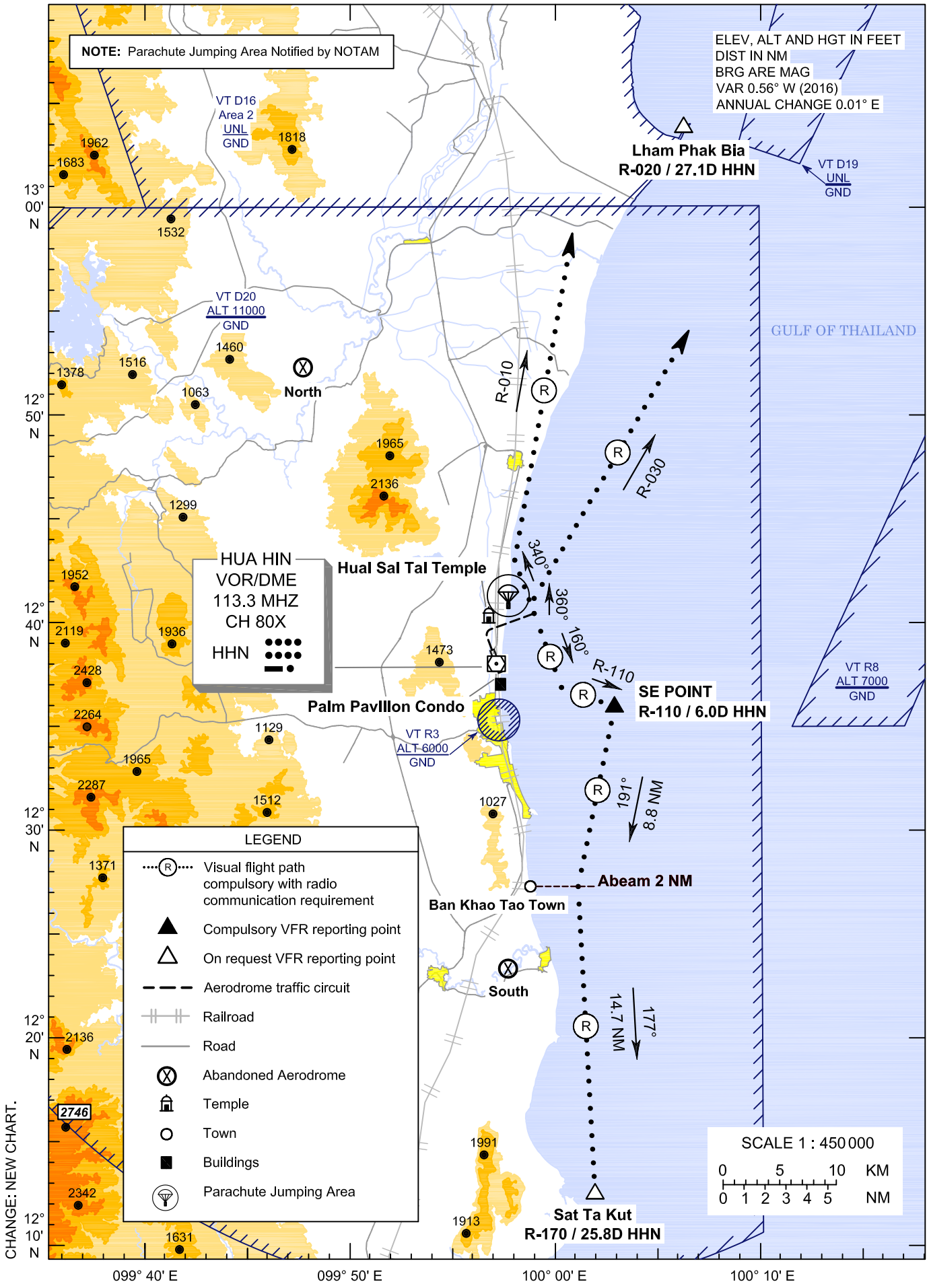
CHANGE: NEW CHART.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 126.20 |
| TWR | : | 122.70, 236.60 |
| GND | : | 121.90 |
| ATIS | : | 126.8 |

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY34**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY34**

DEP-RWY34 (**North**)
After departure turn right heading 070° until 3.0 DME for clear of traffic in circuit then turn left heading 340° to establish outbound R-010 HHN VOR.

**In case of parachute jumping area active :** To avoid parachute jumping area, after departure turn right heading 070° until 3.0 DME for clear of traffic in circuit then turn left heading 360° to establish outbound R-030 HHN VOR.

DEP-RWY34 (**South**)
To avoid parachute jumping area, after departure turn right heading 070° until 3.0 DME for clear of traffic in circuit then turn right heading 160° to establish outbound R-110 HHN VOR to SE POINT then turn right heading 191° to 2 NM abeam Ban Khao Tao and continue abeam shore line to Sat Ta Kut.

| Reporting points | Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "SE" or SOUTH EAST Point | - | R-110 / 6.0D | 12° 36' 03.51" N | 100° 02' 51.36" E |
| Lham Pak Bia | Lham Pak Bia | R-020 / 27.1D | 13° 03' 46.72" N | 100° 06' 19.72" E |
| Sat Ta Kut | Sat Ta Kut Island | R-170 / 25.8D | 12° 12' 36.89" N | 100° 01' 47.51" E |
| HUA HIN VOR/DME (HHN) | HUA HIN VOR/DME Station | - | 12° 38' 04.04" N | 099° 57' 04.23" E |

| Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|
| | | Latitude | Longitude |
| Parachute Jumping Area | R-011 / 3.3D | 12° 41' 19.52" N | 099° 57' 40.00" E |
| Abandoned Aerodrome (North) | R-328 / 16.9D | 12° 52' 18.96" N | 099° 47' 40.15" E |
| Huai Sai Tai Temple | R-351 / 2.1D | 12° 40' 10.21" N | 099° 56' 42.21" E |
| Palm Pavilion Condo | R-169 / 1.0D | 12° 37' 04.75" N | 099° 57' 16.34" E |
| Abandoned Aerodrome (South) | R-179 / 14.6D | 12° 23' 25.95" N | 099° 57' 35.30" E |

**NOTE:** Parachute Jumping Area Notified by NOTAM

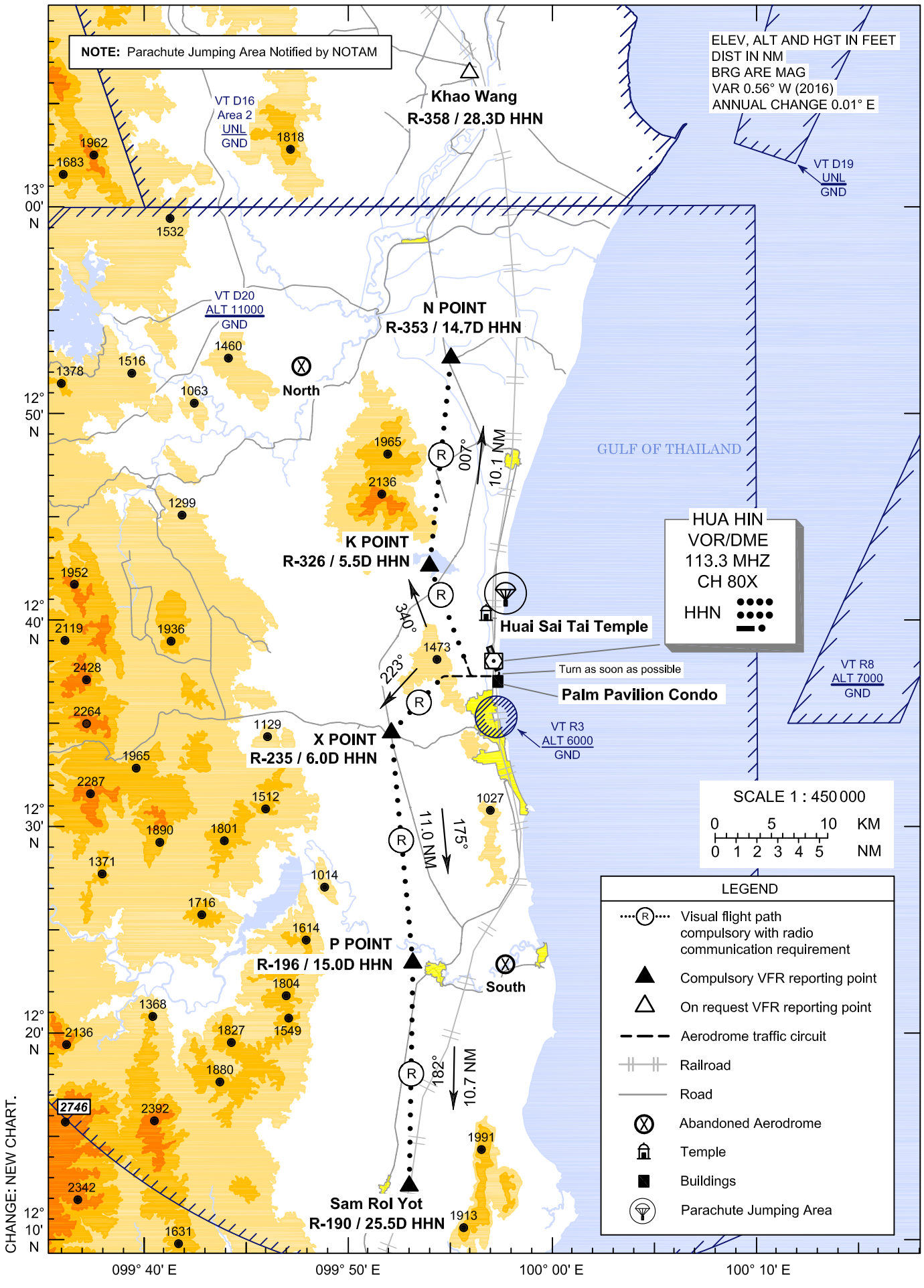
CHANGE: NEW CHART.

**VFR EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 126.20 |
| TWR | : | 122.70, 236.60 |
| GND | : | 121.90 |
| ATIS | : | 126.8 |

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY16**



**VFR EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY16**

DEP-RWY16 (**North**)
To avoid VT R3, after departure turn right heading 270° as soon as possible. Then turn right to join right downwind and heading 340° to K POINT. Then turn right heading 007° to N POINT and proceed to Khao Wang.

DEP-RWY16 (**South**)
To avoid VT R3, after departure turn right heading 270° as soon as possible until 2.5 DME.
Then turn left heading 223° to X POINT.Then turn left heading 175° to P POINT and heading 182° to Sam Roi Yot.

| Reporting points | Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "N" or NOVEMBER Point | Ban Nong Pao Tan (Road Intersection) | R-353 / 14.7D | 12° 52' 42.02" N | 099° 55' 01.80" E |
| "K" or KILO Point | Hill | R-326 / 5.5D | 12° 42' 34.32" N | 099° 53' 53.53" E |
| "P" or PAPA Point | Amphoe Pran Buri (Road Intersection) | R-196 / 15.0D | 12° 23' 31.34" N | 099° 53' 02.90" E |
| "X" or X-RAY Point | Road Intersection | R-235 / 6.0D | 12° 34' 33.99" N | 099° 52' 01.01" E |
| Khao Wang | Khao Wang palace | R-358 / 28.3D | 13° 06' 27.04" N | 099° 55' 59.50" E |
| Sam Roi Yot | Sam Roi Yot Railway station | R-190 / 25.5D | 12° 12' 45.70" N | 099° 52' 50.30" E |
| HUA HIN VOR/DME (HHN) | HUA HIN VOR/DME Station | - | 12° 38' 04.04" N | 099° 57' 04.23" E |

| Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|
| | | Latitude | Longitude |
| Parachute Jumping Area | R-011 / 3.3D | 12° 41' 19.52" N | 099° 57' 40.00" E |
| Abandoned Aerodrome (North) | R-328 / 16.9D | 12° 52' 18.96" N | 099° 47' 40.15" E |
| Huai Sai Tai Temple | R-351 / 2.1D | 12° 40' 10.21" N | 099° 56' 42.21" E |
| Palm Pavilion Condo | R-169 / 1.0D | 12° 37' 04.75" N | 099° 57' 16.34" E |
| Abandoned Aerodrome (South) | R-179 / 14.6D | 12° 23' 25.95" N | 099° 57' 35.30" E |

**NOTE:** Parachute Jumping Area Notified by NOTAM

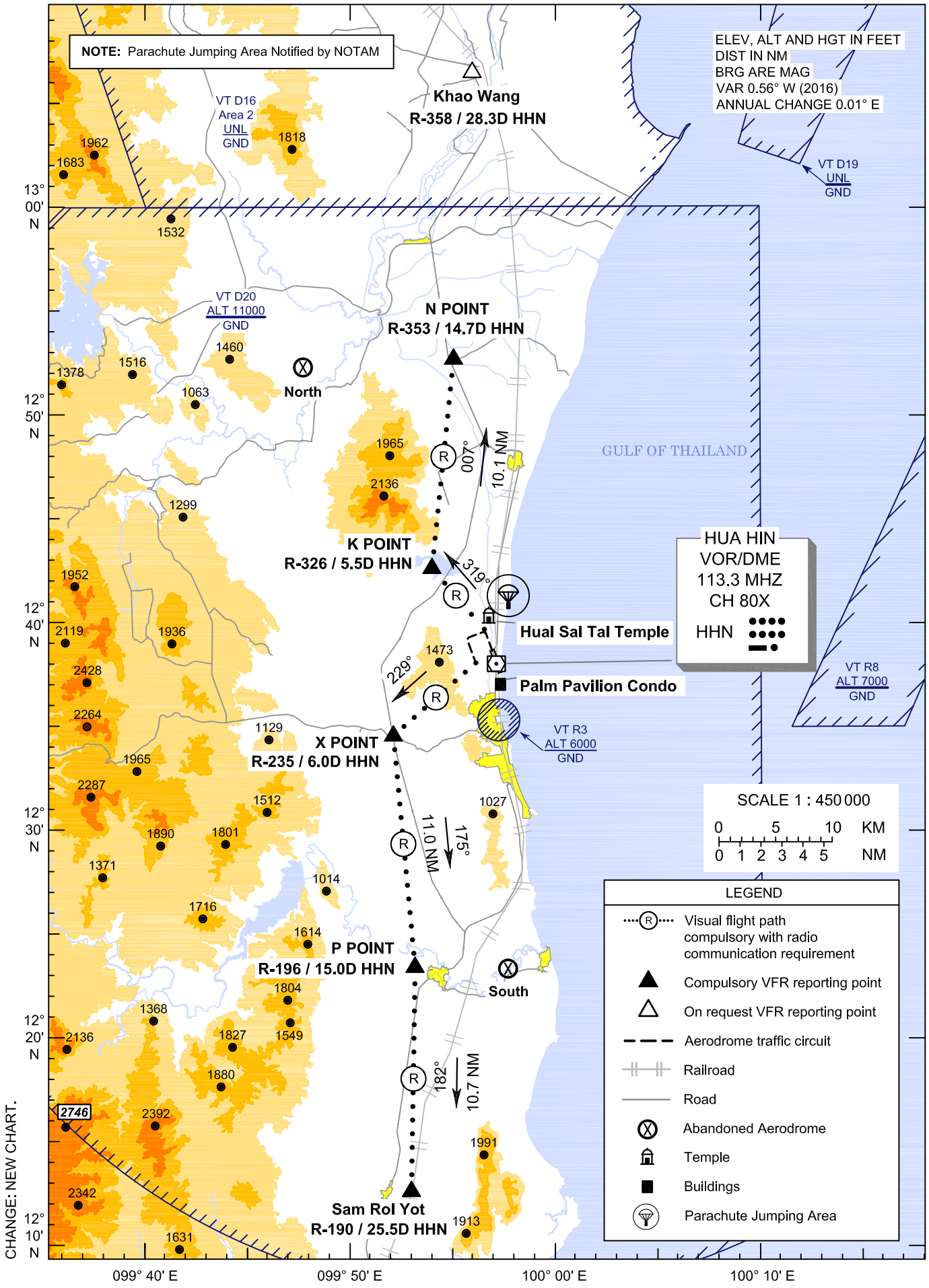
CHANGE: NEW CHART.

**VFR EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

| | | |
|---|---|---|
| APP | : | 126.20 |
| TWR | : | 122.70, 236.60 |
| GND | : | 121.90 |
| ATIS | : | 126.8 |

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY34**



**VFR EXIT PROCEDURE FOR HELICOPTER CHART**

**AERODROME ELEV 62 FT**
HEIGHTS RELATED TO AERODROME ELEV

**PRACHUAP KHIRI KHAN / Hua Hin (VTPH) RWY34**

DEP-RWY34 (**North**)
After departure turn left heading 319° to K POINT. Then turn right heading 007° to N POINT and proceed to Khao Wang.

DEP-RWY34 (**South**)
After departure turn left to join left downwind. Continue on left downwind until mid of runway. Then turn right heading 229 ° to X POINT. Then turn left heading 175° to P POINT and heading 182° to Sam Roi Yot.

| Reporting points | Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| "N" or NOVEMBER Point | Ban Nong Pao Tan (Road Intersection) | R-353 / 14.7D | 12° 52' 42.02" N | 099° 55' 01.80" E |
| "K" or KILO Point | Hill | R-326 / 5.5D | 12° 42' 34.32" N | 099° 53' 53.53" E |
| "P" or PAPA Point | Amphoe Pran Buri (Road Intersection) | R-196 / 15.0D | 12° 23' 31.34" N | 099° 53' 02.90" E |
| "X" or X-RAY Point | Road Intersection | R-235 / 6.0D | 12° 34' 33.99" N | 099° 52' 01.01" E |
| Khao Wang | Khao Wang Palace | R-358 / 28.3D | 13° 06' 27.04" N | 099° 55' 59.50" E |
| Sam Roi Yot | Sam Roi Yot Railway Station | R-190 / 25.5D | 12° 12' 45.70" N | 099° 52' 50.30" E |
| HUA HIN VOR/DME (HHN) | HUA HIN VOR/DME Station | - | 12° 38' 04.04" N | 099° 57' 04.23" E |

| Landmark | Radial / DME from HHN VOR | Coordinates | |
|---|---|---|---|
| | | Latitude | Longitude |
| Parachute Jumping Area | R-011 / 3.3D | 12° 41' 19.52" N | 099° 57' 40.00" E |
| Abandoned Aerodrome (North) | R-328 / 16.9D | 12° 52' 18.96" N | 099° 47' 40.15" E |
| Huai Sai Tai Temple | R-351 / 2.1D | 12° 40' 10.21" N | 099° 56' 42.21" E |
| Palm Pavilion Condo | R-169 / 1.0D | 12° 37' 04.75" N | 099° 57' 16.34" E |
| Abandoned Aerodrome (South) | R-179 / 14.6D | 12° 23' 25.95" N | 099° 57' 35.30" E |

**NOTE:** Parachute Jumping Area Notified by NOTAM

CHANGE: NEW CHART.

## VTSR AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSR - RANONG / RANONG AIRPORT

## VTSR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 094639.44N 0983507.74E |
| 2 | Direction and distance from (city) | 24 KM N from city |
| 3 | Elevation/Reference temperature | 57 FT |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.51°W(2016)/0.01°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Ranong Aiport<br>Ranong Airport<br>Phetchakasem Road<br>Ranong Province 85000<br>Thailand<br>Tel: +667 782 4581-3<br>Fax: +667 782 4580<br>AFS: VTSRYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTSR AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phuket International Airport (3rd floor of domestic terminal building)<br>Tel: +667 632 7205<br>+669 2262 2141<br>Fax: +667 656 3048 |

## VTSR AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTSR AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Taxi, Limosine |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTSR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTSR AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | NIL |

## VTSR AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 41/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Concrete and asphalt<br>Strength: PCN 41/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSR AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Marked |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Marked and lighted |
| 3 | Stop bars | Marked |
| 4 | Remarks | NIL |

## VTSR AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTSR AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Ranong,<br>Southern West-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern West-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 782 8458 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) and Weather Radar |
| 9 | ATS units provided with information | Ranong TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSR AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02 | 023.83° | 2000x45 | PCN 41/F/C/X/T Concrete and asphalt | 094609.63N 0983454.51E | THR 36 FT TDZ 43 FT |
| 20 | 203.83° | 2000x45 | PCN 41/F/C/X/T Concrete and asphalt | 094709.25N 0983520.97E | THR 57 FT TDZ 57 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | 60x45 | NIL | 2240x300 | NIL | NIL |
| NIL | 60x45 | NIL | 2240x300 | NIL | NIL |

## VTSR AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02 | 2000 | 2000 | 2060 | 2000 | NIL |
| 20 | 2000 | 2000 | 2060 | 2000 | NIL |

## VTSR AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 02 | SALS 420 M | Green WBAR LIH | PAPI Left 3° | NIL | NIL | 2000 M 60 M White,LIH | Red | NIL | NIL |
| 20 | NIL | Green WBAR LIH | NIL | NIL | NIL | 2000 M 60 M White,LIH | Red | NIL | NIL |

## VTSR AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W G EV 7 SEC. |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | Edge: ALL TWY |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the airport.<br>Switch over time: 15 SEC. |
| 5 | Remarks | NIL |

## VTSR AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Six landing areas on both sides of apron. |

## VTSR AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centred on RAN DVOR/DME (094640.7N 0983501.4E) |
| 2 | Vertical limits | 2000 ft/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Ranong Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSR AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Ranong Approach | 125.1 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Ranong Tower | 122.25 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Ranong Airport | 126.475 MHz | As AD OPR HR | |

## VTSR AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | RN | 375 KHz | H24 | 094659.9N<br>0983527.6E | | 50 nm orbit flown from:<br>– Bearing 020°-040° altitude should not below 5 000 ft.<br>– Bearing 041°-140° altitude should not below 3 500 ft.<br>– Bearing 141°-200° altitude should not below 5 500 ft.<br>– Bearing 201°-019° unable to perform flight inspection due to border limited. |
| DVOR/DME | RAN | 113.4 MHz<br>CH 81X | H24 | 094640.7N<br>0983501.4E | | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station coverage, check does not provide adequate signal to 40 NM at the required altitude in various areas as follows:<br>20 NM orbit<br>– Radial 020°-040° altitude should not below 6 000 ft.<br>– Radial 041°-060° altitude should not below 12 000 ft.<br>– Radial 061°-120° altitude should not below 16 000 ft.<br>– Radial 151°-170° altitude should not below 9 000 ft.<br>40 NM orbit<br>– Radial 121°-150° altitude should not below 16 000 ft.<br>– Radial 171°-187° altitude should not below 12 000 ft.<br>– Radial 188°-230° altitude should not below 7 000 ft.<br>– Radial 231°-019° unable to fly due to border limited. |
| ILS CAT I<br>LOC RWY 02 | IRAN | 110.5 MHz | H24 | 094718.3N<br>0983525.0E | | ILS/DME RWY 02 unusable beyond 5° right of LOC course. |
| GP/DME | | 329.6 MHz<br>CH 42X | H24 | 094620.4N<br>0983455.1E | | |

## VTSR AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTSR AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSR AD 2.22 FLIGHT PROCEDURES

NIL

## VTSR AD 2.23 ADDITIONAL INFORMATION

NIL

## VTSR AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSR-2-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - PAYUN1A | AD 2-VTSR-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - PAYUN1A (Tabular description) | AD 2-VTSR-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - KAOYA1A NEETA1A | AD 2-VTSR-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - KAOYA1A NEETA1A (Tabular description) | AD 2-VTSR-6-4 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - PAYUN1B | AD 2-VTSR-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - PAYUN1B (Tabular description) | AD 2-VTSR-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - KAOYA1B NEETA1B | AD 2-VTSR-6-7 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - KAOYA1B NEETA1B (Tabular description) | AD 2-VTSR-6-8 |
| Instrument Approach Chart - ICAO - VOR RWY 02 | AD 2-VTSR-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 02 (Fix and point list table) | AD 2-VTSR-8-2 |
| Instrument Approach Chart - ICAO - ILS RWY 02 | AD 2-VTSR-8-3 |
| Instrument Approach Chart - ICAO - ILS RWY 02 (Fix and point list table) | AD 2-VTSR-8-4 |
| Instrument Approach Chart - ICAO - LOC RWY 02 | AD 2-VTSR-8-5 |
| Instrument Approach Chart - ICAO - LOC RWY 02 (Fix and point list table) | AD 2-VTSR-8-6 |
| Instrument Approach Chart - ICAO - RNP RWY 02 | AD 2-VTSR-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 02 (Tabular description) | AD 2-VTSR-8-8 |

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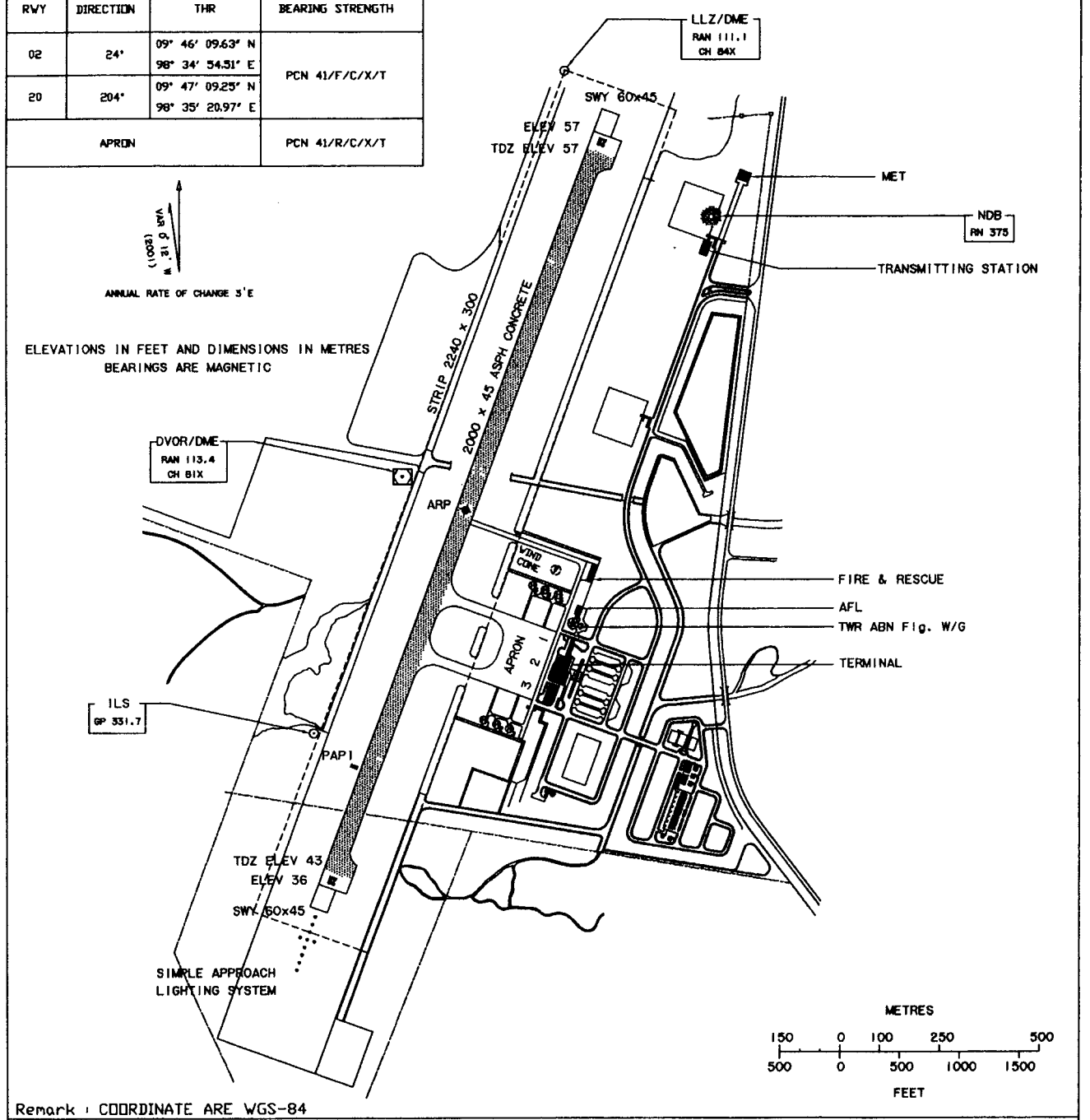
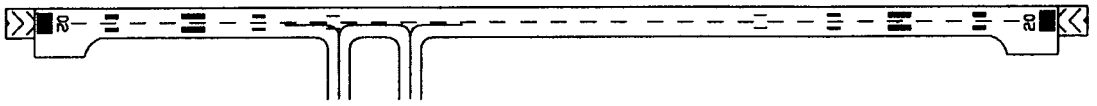
AERODROME CHART-ICAO 09° 46' 39" N 98° 35' 08" E ELEV 57 ft 17 m TWR 122.25 236.6 RANONG/Ranong

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 02 | 24° | 09° 46' 09.63" N 98° 34' 54.51" E | PCN 41/F/C/X/T |
| 20 | 204° | 09° 47' 09.25" N 98° 35' 20.97" E | |
| APRON | | | PCN 41/R/C/X/T |

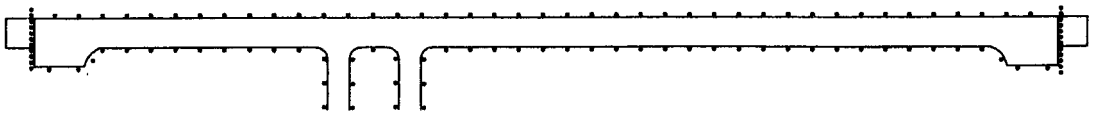



Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 02/20 AND EXIT TWY




LIGHTING AIDS RWY 02/20 AND EXIT TWY



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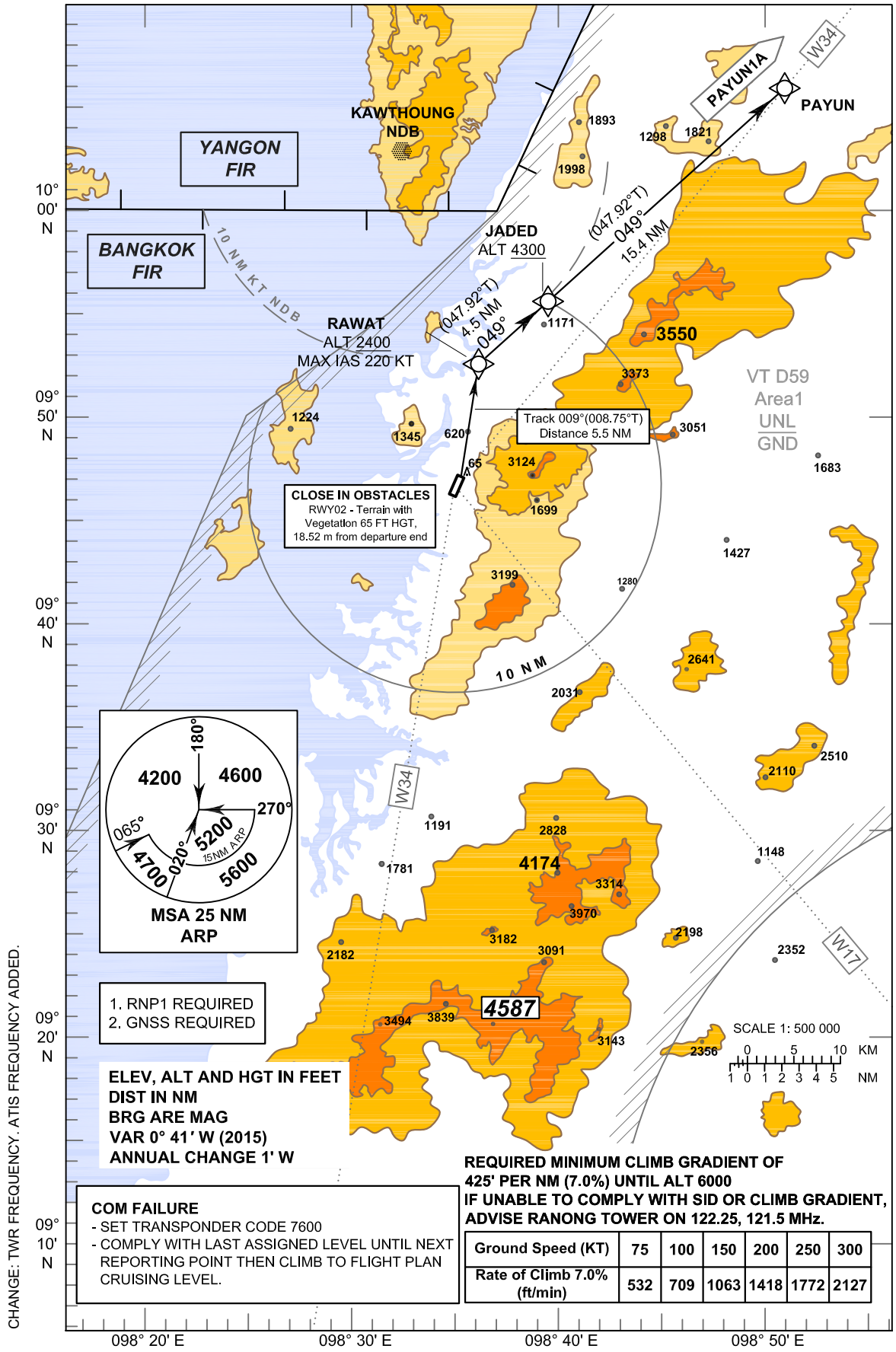
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE 11000 FT

APP : 125.1
TWR : 122.25 , 236.6
ATIS : 126.475

**RANONG / Ranong (VTSR)**
**RNAV RWY02**

**PAYUN1A**




| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 7.0% (ft/min) | 532 | 709 | 1063 | 1418 | 1772 | 2127 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**RANONG / Ranong (VTSR)**
**RNAV RWY02**

**PAYUN1A**

## TABULAR DESCRIPTION

| RNAV RWY02 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | Navigation Specification |
| 010 | - | DER RWY02 | - | - | 0.7 | - | - | - | - | RNP1 |
| 020 | CF | RAWAT | - | 009°(008.75°) | 0.7 | 5.5 | R | +2400 | -220 | RNP1 |
| 030 | TF | JADED | - | 049°(047.92°) | 0.7 | 4.5 | - | +4300 | - | RNP1 |
| 040 | TF | PAYUN | - | 049°(047.92°) | 0.7 | 15.4 | - | - | - | RNP1 |

## WAYPOINT LIST

| RNAV RWY02 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | |
| DER RWY02 | 09 47 09.22 N | 098 35 20.99 E |
| RAWAT | 09 52 38.27 N | 098 36 12.08 E |
| JADED | 09 55 41.30 N | 098 39 36.51 E |
| PAYUN | 10 06 03.82 N | 098 51 12.48 E |

CHANGE : CANCEL FREQUENCY BOX. CANCEL TRANSITION ALTITUDE BOX.

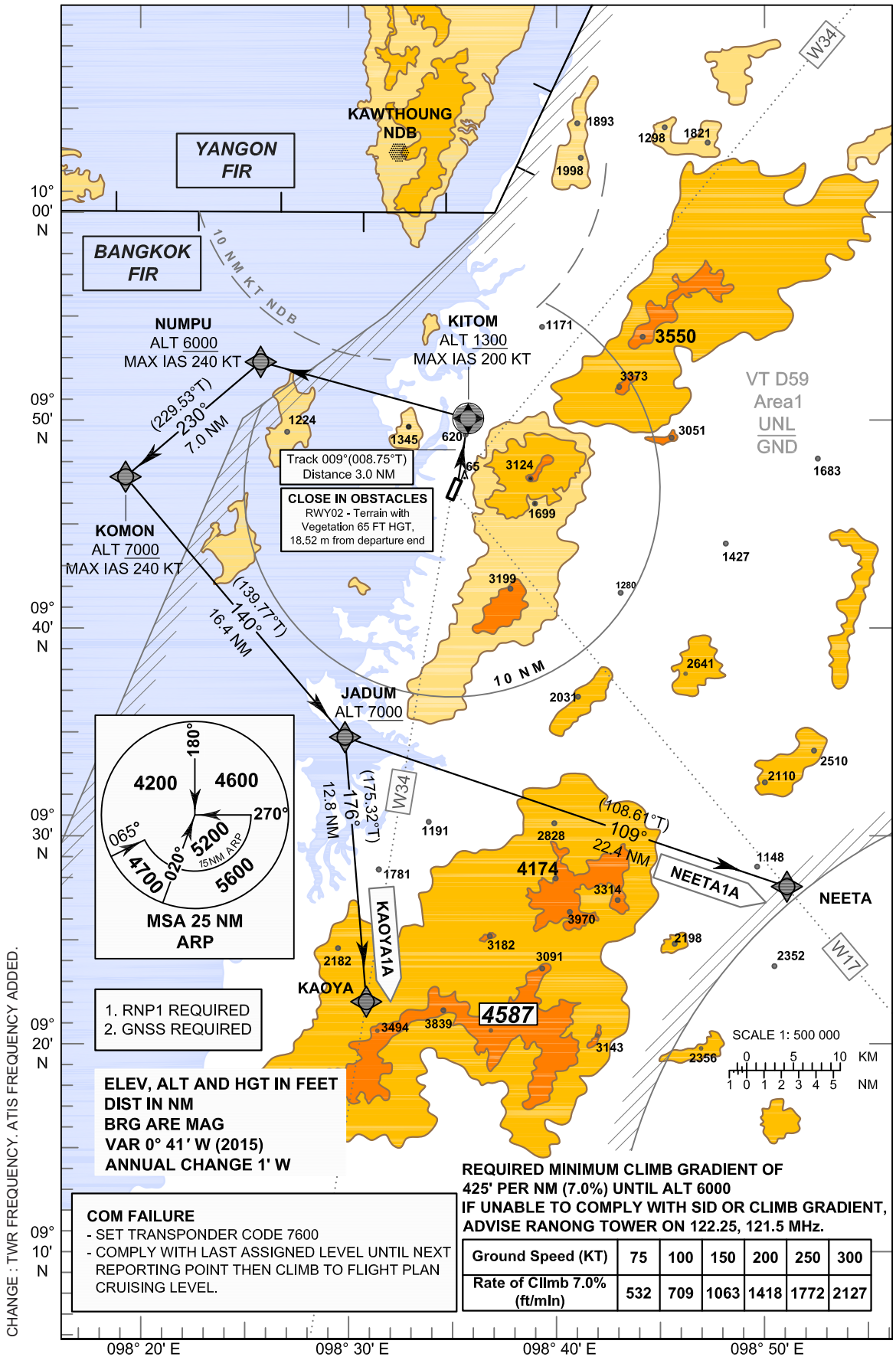
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE 11000 FT

APP : 125.1
TWR : 122.25 , 236.6
ATIS : 126.475

**RANONG / Ranong (VTSR) RNAV RWY02**

**KAOYA1A, NEETA1A**




CHANGE : TWR FREQUENCY. ATIS FREQUENCY ADDED.

**COM FAILURE**
- SET TRANSPONDER CODE 7600
- COMPLY WITH LAST ASSIGNED LEVEL UNTIL NEXT REPORTING POINT THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

**REQUIRED MINIMUM CLIMB GRADIENT OF 425' PER NM (7.0%) UNTIL ALT 6000**
**IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE RANONG TOWER ON 122.25, 121.5 MHz.**

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 7.0% (ft/min) | 532 | 709 | 1063 | 1418 | 1772 | 2127 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**RANONG / Ranong (VTSR)**
**RNAV RWY02**

**KAOYA1A, NEETA1A**

## TABULAR DESCRIPTION

| RNAV RWY02 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | Navigation Specification |
| 010 | - | DER RWY02 | - | - | 0.7 | - | - | - | - | RNP1 |
| 020 | CF | KITOM | Y | 009°(008.75°) | 0.7 | 3.0 | L | +1300 | -200 | RNP1 |
| 030 | DF | NUMPU | - | - | 0.7 | - | L | +6000 | -240 | RNP1 |
| 040 | TF | KOMON | - | 230°(229.53°) | 0.7 | 7.0 | L | +7000 | -240 | RNP1 |
| 050 | TF | JADUM | - | 140°(139.77°) | 0.7 | 16.4 | R | +7000 | - | RNP1 |
| 060 | TF | KAOYA | - | 176°(175.32°) | 0.7 | 12.8 | - | - | - | RNP1 |
| | | | | | | | | | | |
| 010 | - | DER RWY02 | - | - | 0.7 | - | - | - | - | RNP1 |
| 020 | CF | KITOM | Y | 009°(008.75°) | 0.7 | 3.0 | L | +1300 | -200 | RNP1 |
| 030 | DF | NUMPU | - | - | 0.7 | - | L | +6000 | -240 | RNP1 |
| 040 | TF | KOMON | - | 230°(229.53°) | 0.7 | 7.0 | L | +7000 | -240 | RNP1 |
| 050 | TF | JADUM | - | 140°(139.77°) | 0.7 | 16.4 | L | +7000 | - | RNP1 |
| 060 | TF | NEETA | - | 109°(108.61°) | 0.7 | 22.4 | - | - | - | RNP1 |

## WAYPOINT LIST

| RNAV RWY02 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | |
| DER RWY02 | 09 47 09.22 N | 098 35 20.99 E |
| KITOM | 09 50 08.01 N | 098 35 48.74 E |
| NUMPU | 09 51 51.31 N | 098 24 31.03 E |
| KOMON | 09 47 17.34 N | 098 19 07.27 E |
| JADUM | 09 34 43.03 N | 098 29 49.98 E |
| KAOYA | 09 21 56.02 N | 098 30 53.18 E |
| NEETA | 09 27 30.64 N | 098 51 21.36 E |

CHANGE : CANCEL FREQUENCY BOX. CANCEL TRANSITION ALTITUDE BOX.

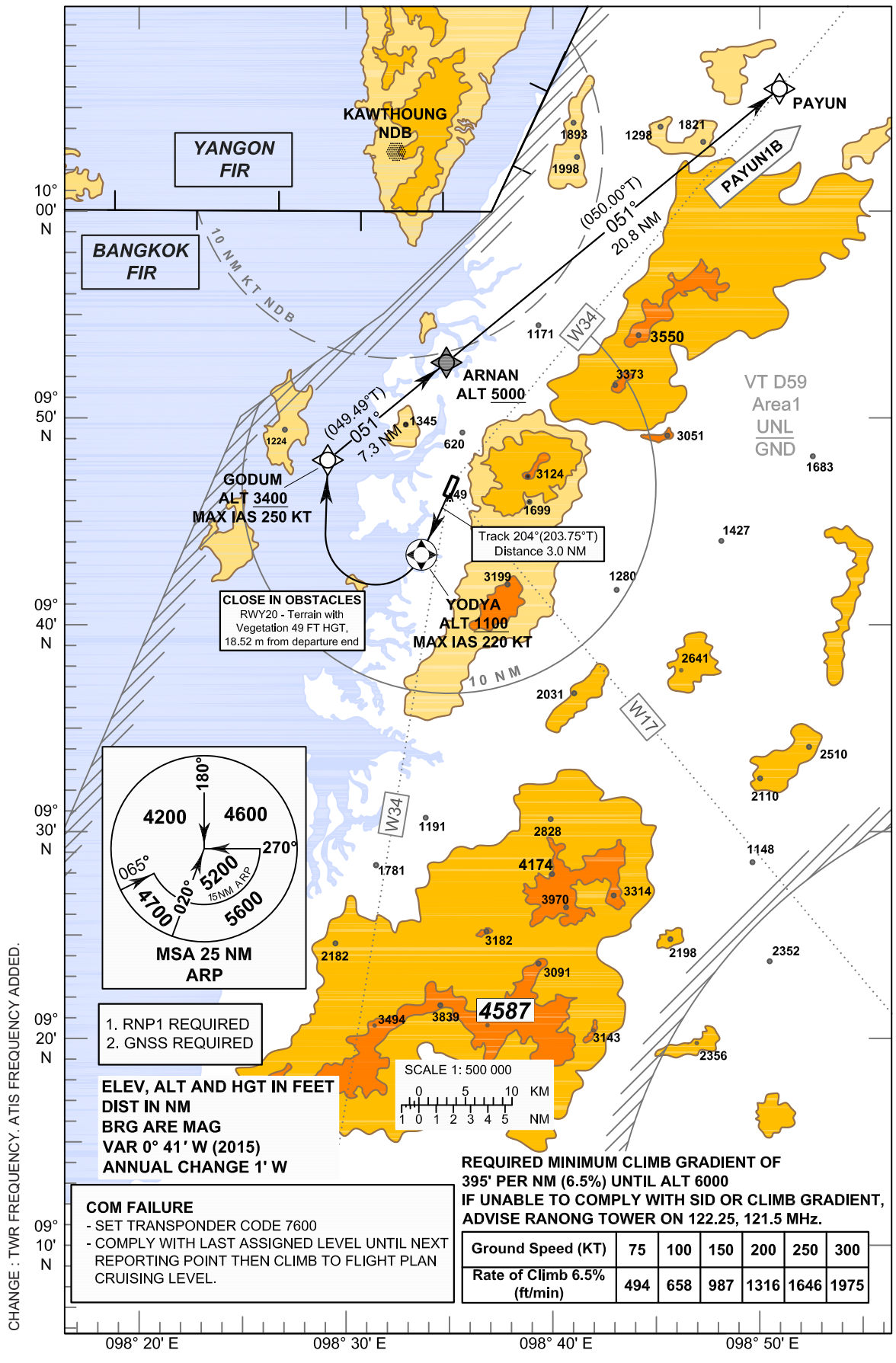
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE 11000 FT

APP : 125.1
TWR : 122.25 , 236.6
ATIS : 126.475

**RANONG / Ranong (VTSR)**
**RNAV RWY20**

**PAYUN1B**




**REQUIRED MINIMUM CLIMB GRADIENT OF 395' PER NM (6.5%) UNTIL ALT 6000**
**IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT, ADVISE RANONG TOWER ON 122.25, 121.5 MHz.**

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 6.5% (ft/min) | 494 | 658 | 987 | 1316 | 1646 | 1975 |

**COM FAILURE**
- SET TRANSPONDER CODE 7600
- COMPLY WITH LAST ASSIGNED LEVEL UNTIL NEXT REPORTING POINT THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**RANONG / Ranong (VTSR)**
**RNAV RWY20**

**PAYUN1B**

## TABULAR DESCRIPTION

| RNAV RWY20 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | Navigation Specification |
| 010 | - | DER RWY20 | - | - | 0.7 | - | - | - | - | RNP1 |
| 020 | CF | YODYA | Y | 204°(203.75°) | 0.7 | 3.0 | R | +1100 | -220 | RNP1 |
| 030 | DF | GODUM | - | - | 0.7 | - | R | +3400 | -250 | RNP1 |
| 040 | TF | ARNAN | - | 051°(049.49°) | 0.7 | 7.3 | - | +5000 | - | RNP1 |
| 050 | TF | PAYUN | - | 051°(050.00°) | 0.7 | 20.8 | - | - | - | RNP1 |

## WAYPOINT LIST

| RNAV RWY20 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | |
| DER RWY20 | 09 46 09.60 N | 098 34 54.54 E |
| YODYA | 09 43 24.08 N | 098 33 41.11 E |
| GODUM | 09 47 52.89 N | 098 29 20.25 E |
| ARNAN | 09 52 36.63 N | 098 35 01.15 E |
| PAYUN | 10 06 03.82 N | 098 51 12.48 E |

CHANGE : CANCEL FREQUENCY BOX. CANCEL TRANSITION ALTITUDE BOX.

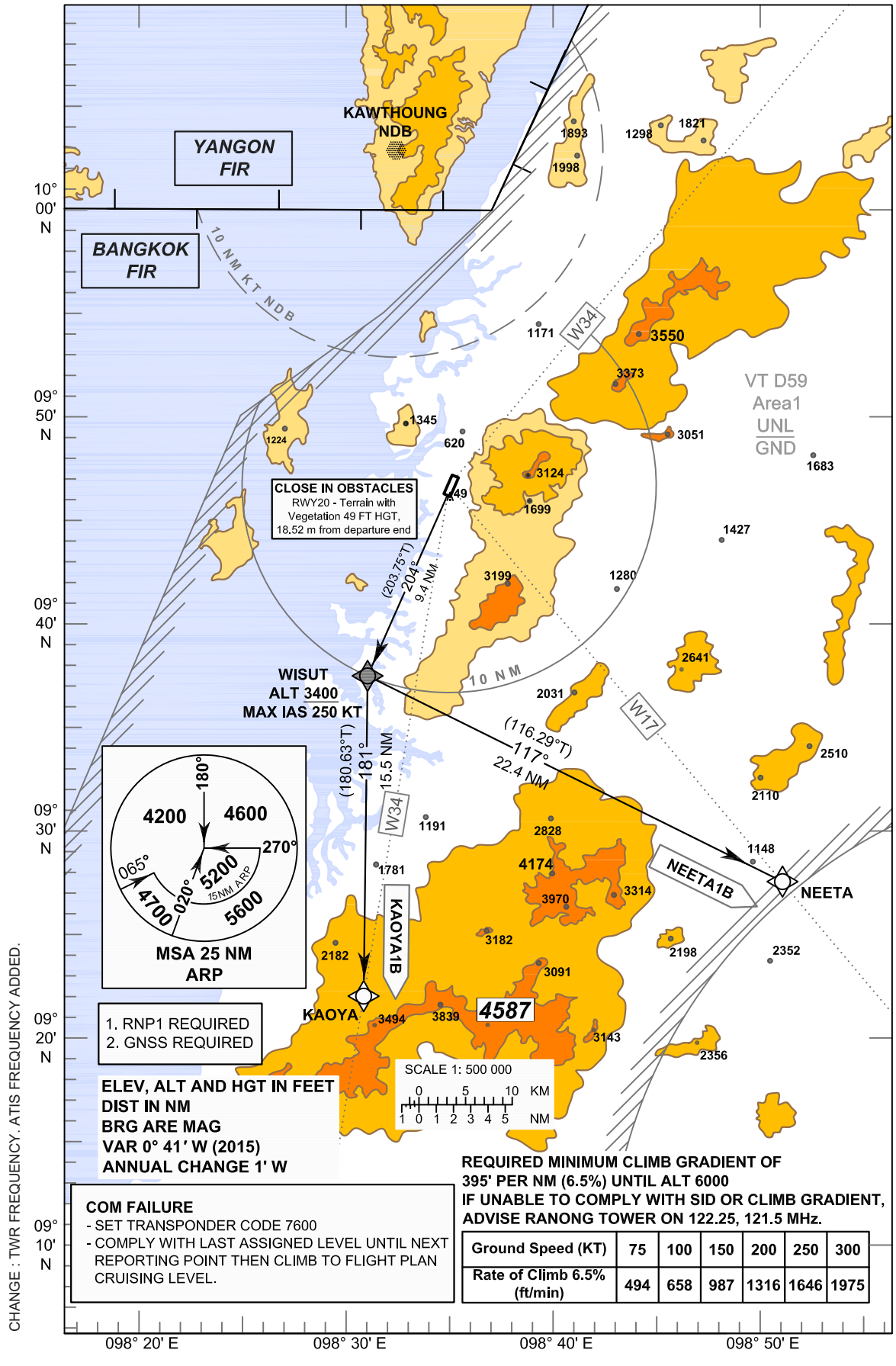
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE 11000 FT

APP : 125.1
TWR : 122.25 , 236.6
ATIS : 126.475

**RANONG / Ranong (VTSR)**
**RNAV RWY20**

**KAOYA1B, NEETA1B**




| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 6.5% (ft/min) | 494 | 658 | 987 | 1316 | 1646 | 1975 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**RANONG / Ranong (VTSR)**
**RNAV RWY20**

**KAOYA1B, NEETA1B**

**TABULAR DESCRIPTION**

| RNAV RWY20 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | Navigation Specification |
| 010 | - | DER RWY20 | - | - | 0.7 | - | - | - | - | RNP1 |
| 020 | CF | WISUT | - | 204°(203.75°) | 0.7 | 9.4 | L | +3400 | -250 | RNP1 |
| 030 | TF | KAOYA | - | 181°(180.63°) | 0.7 | 15.5 | - | - | - | RNP1 |
| | | | | | | | | | | |
| 010 | - | DER RWY20 | - | - | 0.7 | - | - | - | - | RNP1 |
| 020 | CF | WISUT | - | 204°(203.75°) | 0.7 | 9.4 | L | +3400 | -250 | RNP1 |
| 030 | TF | NEETA | - | 117°(116.29°) | 0.7 | 22.4 | - | - | - | RNP1 |

**WAYPOINT LIST**

| RNAV RWY20 | | |
|---|---|---|
| | | |
| Waypoint Identifier | Coordinates | |
| DER RWY20 | 09 46 09.60 N | 098 34 54.54 E |
| WISUT | 09 37 30.96 N | 098 31 04.53 E |
| KAOYA | 09 21 56.02 N | 098 30 53.18 E |
| NEETA | 09 27 30.64 N | 098 51 21.36 E |

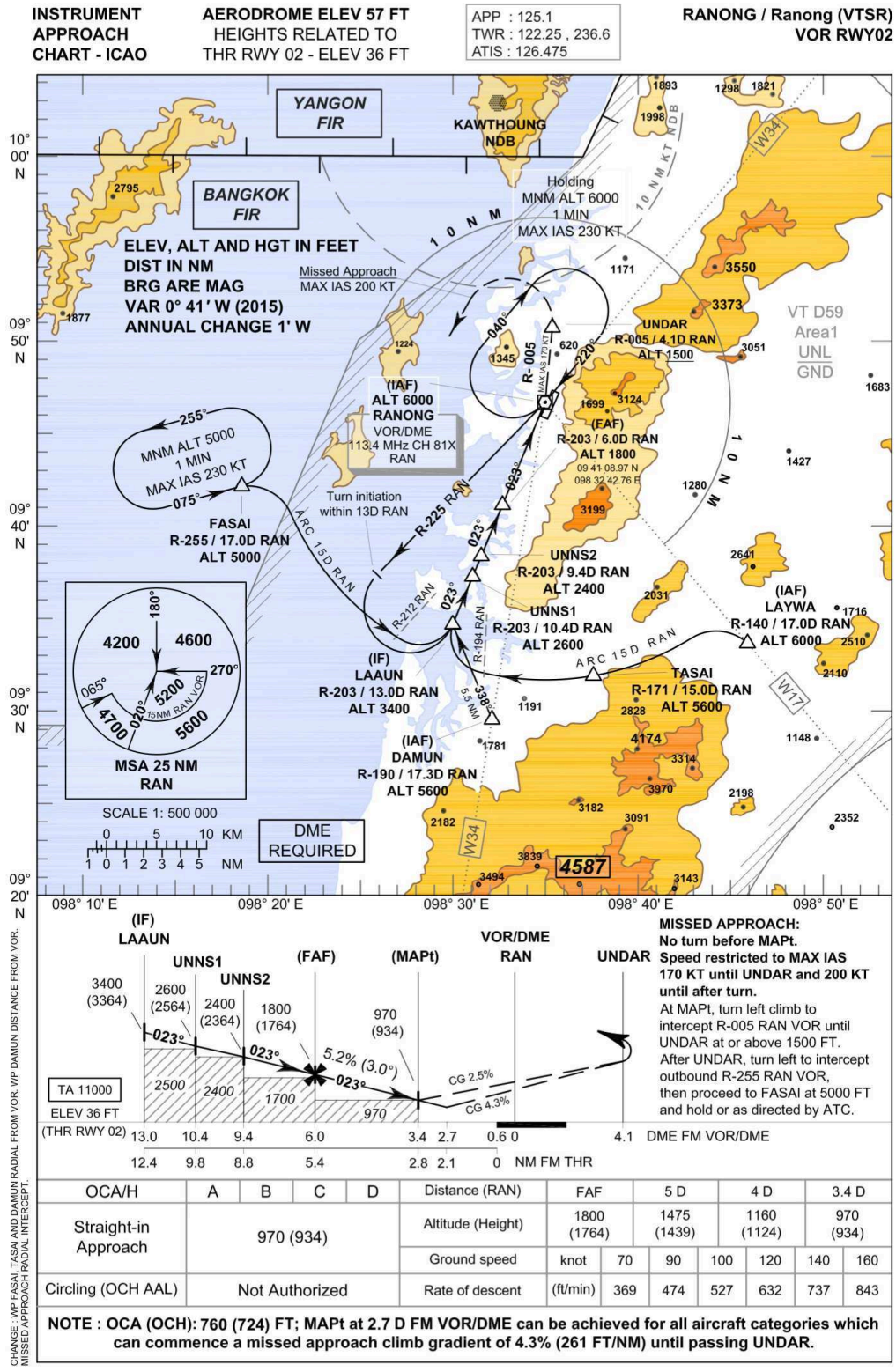
CHANGE : CANCEL FREQUENCY BOX. CANCEL TRANSITION ALTITUDE BOX.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 57 FT
HEIGHTS RELATED TO THR RWY 02 - ELEV 36 FT

APP : 125.1
TWR : 122.25 , 236.6
ATIS : 126.475

RANONG / Ranong (VTSR)
VOR RWY02







**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to MAX IAS 170 KT until UNDAR and 200 KT until after turn.**
At MAPt, turn left climb to intercept R-005 RAN VOR until UNDAR at or above 1500 FT.
After UNDAR, turn left to intercept outbound R-255 RAN VOR, then proceed to FASAI at 5000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | Distance (RAN) | FAF | 5 D | 4 D | 3.4 D |
|---|---|---|---|---|---|---|---|---|---|
| Straight-in Approach | 970 (934) | | | | Altitude (Height) | 1800 (1764) | 1475 (1439) | 1160 (1124) | 970 (934) |
| | | | | | Ground speed | knot 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | Not Authorized | | | | Rate of descent | (ft/min) 369 | 474 | 527 | 632 | 737 | 843 |

**NOTE : OCA (OCH): 760 (724) FT; MAPt at 2.7 D FM VOR/DME can be achieved for all aircraft categories which can commence a missed approach climb gradient of 4.3% (261 FT/NM) until passing UNDAR.**

CHANGE : WP FASAI, TASAI AND DAMUN RADIAL FROM VOR. WP DAMUN DISTANCE FROM VOR. MISSED APPROACH RADIAL INTERCEPT.

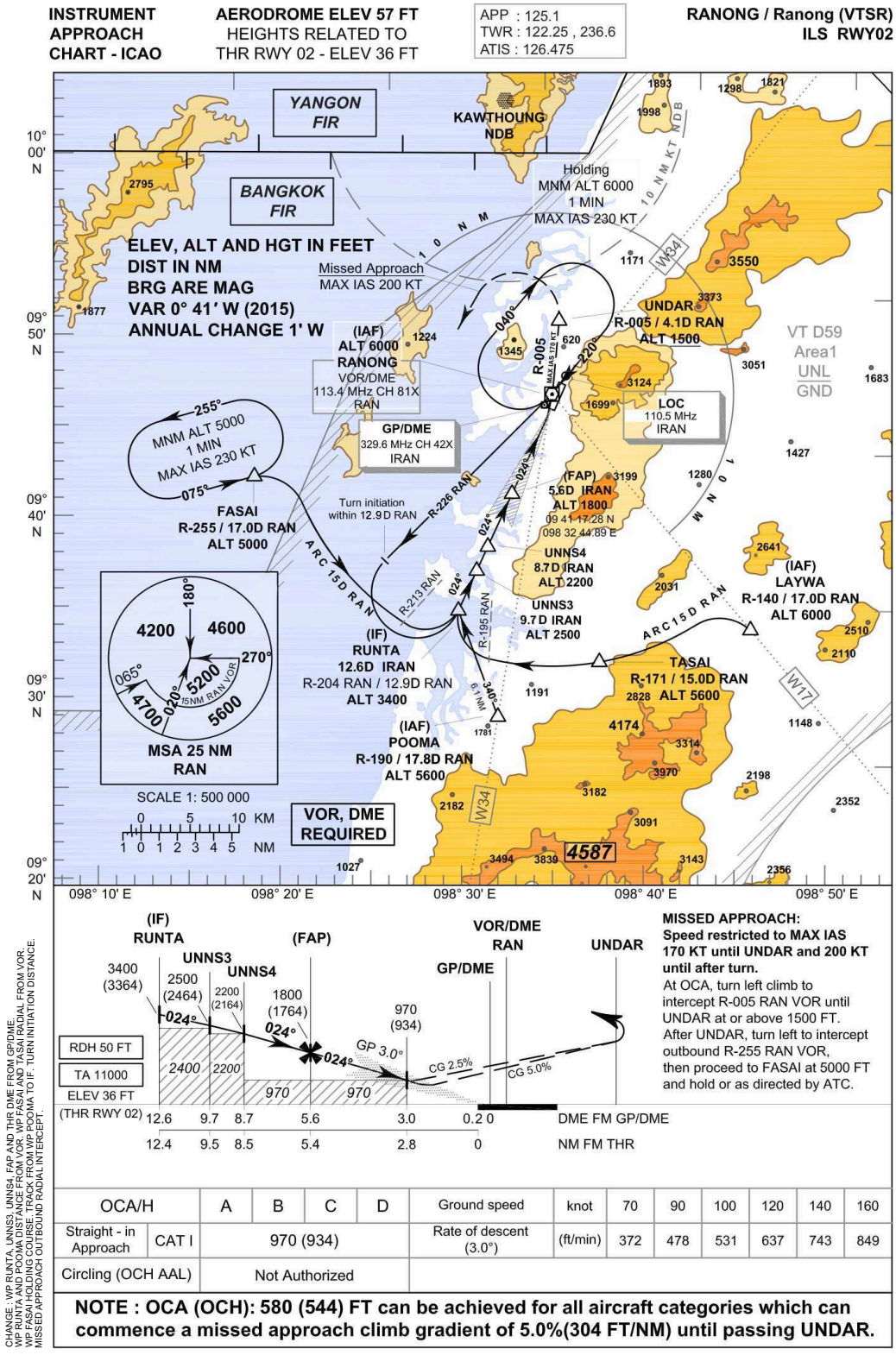
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 57 FT**
HEIGHTS RELATED TO
THR RWY 02 - ELEV 36 FT

**RANONG / Ranong (VTSR)**
**VOR RWY02**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| LAYWA (IAF) | R-140 / 17.0 D RAN | 09 33 39.55 N | 098 46 08.20 E |
| TASAI | R-171 / 15.0 D RAN | 09 31 52.58 N | 098 37 41.43 E |
| DAMUN (IAF) | R-190 / 17.3 D RAN | 09 29 30.56 N | 098 32 09.21 E |
| LAAUN (IF) | R-203 / 13.0 D RAN | 09 34 39.04 N | 098 30 00.27 E |
| UNNS1 | R-203 / 10.4 D RAN | 09 37 03.88 N | 098 31 00.61 E |
| UNNS2 | R-203 / 9.4 D RAN | 09 37 59.58 N | 098 31 23.82 E |
| FAF | R-203 / 6.0 D RAN | 09 41 08.97 N | 098 32 42.76 E |
| MAPt (CG 2.5%) | R-203 / 3.4 D RAN | 09 43 33.80 N | 098 33 43.14 E |
| MAPt (CG 4.3%) | R-203 / 2.7 D RAN | 09 44 12.75 N | 098 33 59.49 E |
| THR RWY 02 | - | 09 46 09.60 N | 098 34 54.54 E |
| VOR (IAF) | RAN | 09 46 40.71 N | 098 35 01.36 E |
| UNDAR | R-005 / 4.1 D RAN | 09 50 48.28 N | 098 35 19.08 E |
| FASAI | R-255 / 17.0 D RAN | 09 42 08.62 N | 098 18 26.53 E |

CHANGE : VOR COORDINATE. WP FASAI, TASAI AND DAMUN
RADIAL FROM VOR. WP DAMUN DISTANCE FROM VOR.




| OCA/H | | A | B | C | D | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 970 (934) | | | | Rate of descent (3.0°) | (ft/min) | 372 | 478 | 531 | 637 | 743 | 849 |
| Circling (OCH AAL) | | Not Authorized | | | | | | | | | | | |

**NOTE : OCA (OCH): 580 (544) FT can be achieved for all aircraft categories which can commence a missed approach climb gradient of 5.0%(304 FT/NM) until passing UNDAR.**

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 57 FT**
HEIGHTS RELATED TO
THR RWY 02 - ELEV 36 FT

**RANONG / Ranong (VTSR)**
**ILS RWY02**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| LAYWA (IAF) | R-140 / 17.0 D RAN | 09 33 39.55 N | 098 46 08.20 E |
| TASAI | R-171 / 15.0 D RAN | 09 31 52.58 N | 098 37 41.43 E |
| POOMA (IAF) | R-190 / 17.8 D RAN | 09 29 00.78 N | 098 32 04.23 E |
| RUNTA (IF) | 12.6 D IRAN | 09 34 45.42 N | 098 29 51.20 E |
| UNNS3 | 9.7 D IRAN | 09 37 26.02 N | 098 31 00.81 E |
| UNNS4 | 8.7 D IRAN | 09 38 21.40 N | 098 31 24.81 E |
| FAP | 5.6 D IRAN | 09 41 13.07 N | 098 32 39.24 E |
| THR RWY 02 | - | 09 46 09.60 N | 098 34 54.54 E |
| GP / DME | IRAN | 09 46 20.38 N | 098 34 55.13 E |
| VOR (IAF) | RAN | 09 46 40.71 N | 098 35 01.36 E |
| LOC | IRAN | 09 47 18.28 N | 098 35 25.01 E |
| UNDAR | R-005 / 4.1 D RAN | 09 50 48.28 N | 098 35 19.08 E |
| FASAI | R-255 / 17.0 D RAN | 09 42 08.62 N | 098 18 26.53 E |

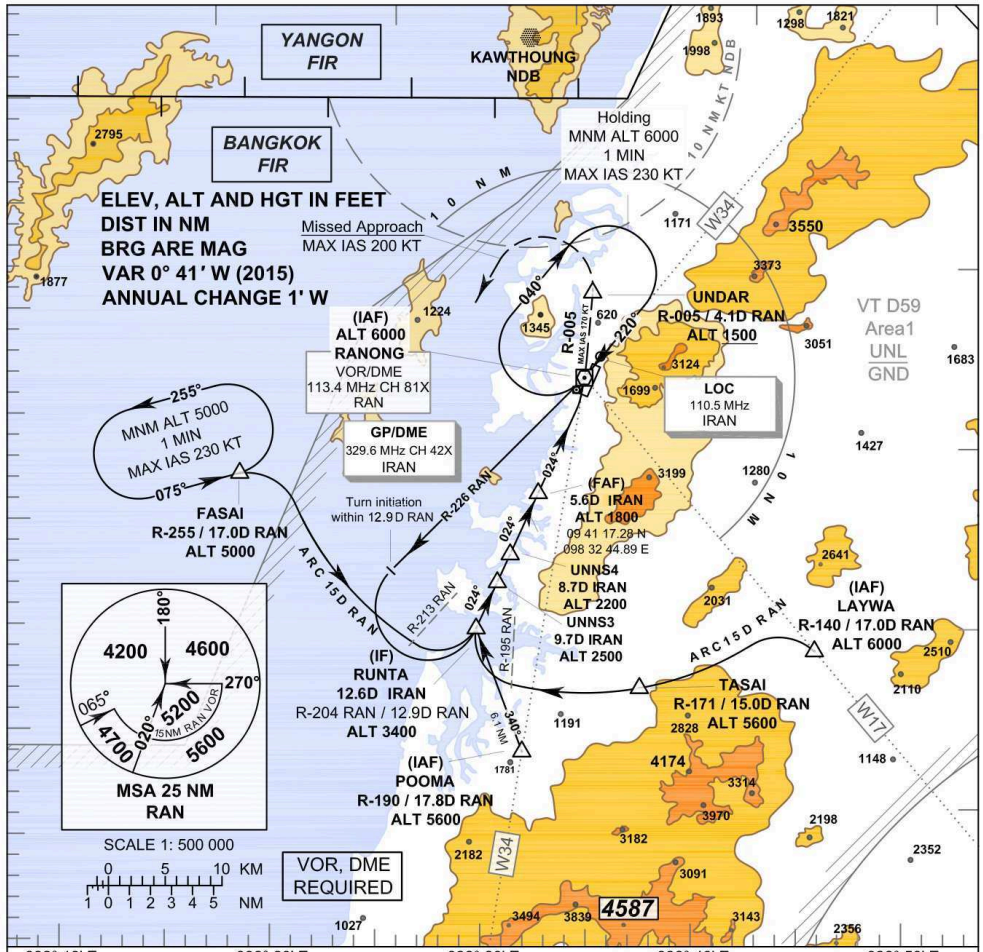
CHANGE : VOR, GP/DME, LOC, WP UNNS3, UNNS4, FAP COORDINATE.
WP RUNTA, UNNS3, UNNS4, FAP DISTANCE FROM GP/DME.
WP TASAI AND FASAI RADIAL FROM VOR. WP POOMA DISTANCE FROM VOR.

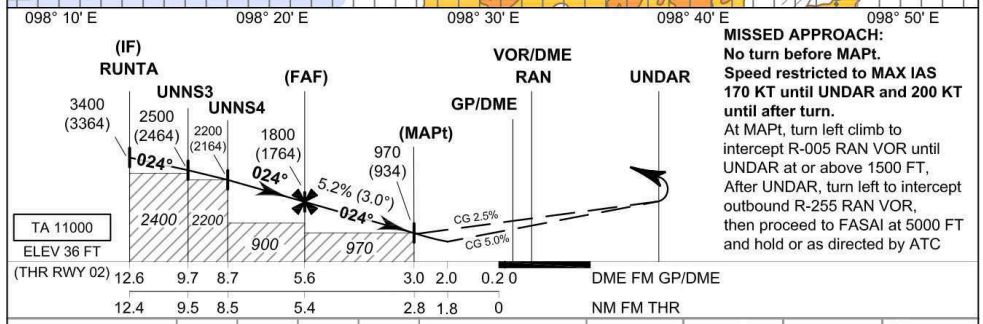
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 57 FT**
HEIGHTS RELATED TO
THR RWY 02 - ELEV 36 FT

APP : 125.1
TWR : 122.25 , 236.6
ATIS : 126.475

**RANONG / Ranong (VTSR)**
**LOC RWY02**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to MAX IAS 170 KT until UNDAR and 200 KT until after turn.**
At MAPt, turn left climb to intercept R-005 RAN VOR until UNDAR at or above 1500 FT,
After UNDAR, turn left to intercept outbound R-255 RAN VOR, then proceed to FASAI at 5000 FT and hold or as directed by ATC

| OCA/H | A | B | C | D | Distance (IRAN) | FAF | 5 D | 4 D | 3 D |
|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 970 (934) | | | | Altitude (Height) | 1800 (1764) | 1610 (1574) | 1290 (1254) | 970 (934) |

| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Circling (OCH AAL) | Not Authorized | Rate of descent | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**NOTE : OCA (OCH): 650 (614) FT; MAPt at 1.9 D FM GP/DME can be achieved for all aircraft categories which can commence a missed approach climb gradient of 5.0%(304 FT/NM) until passing UNDAR.**

CHANGE : WP RUNTA, UNNS3, UNNS4, FAP, MAPt (CG 2.5%), MAPt (CG 5.0%) AND THR DME FROM GP/DME.
WP RUNTA AND POOMA DISTANCE FROM VOR. WP FASAI AND TASAI RADIAL FROM VOR.
WP FASAI HOLDING COURSE. TRACK FROM WP POOMA TO IF. TURN INITIATION DISTANCE.
MISSED APPROACH OUTBOUND RADIAL INTERCEPT.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 57 FT**
HEIGHTS RELATED TO
THR RWY 02 - ELEV 36 FT

**RANONG / Ranong (VTSR)**
**LOC RWY02**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| LAYWA (IAF) | R-140 / 17.0 D RAN | 09 33 39.55 N | 098 46 08.20 E |
| TASAI | R-171 / 15.0 D RAN | 09 31 52.58 N | 098 37 41.43 E |
| POOMA (IAF) | R-190 / 17.8 D RAN | 09 29 00.78 N | 098 32 04.23 E |
| RUNTA (IF) | 12.6 D IRAN | 09 34 45.42 N | 098 29 51.20 E |
| UNNS3 | 9.7 D IRAN | 09 37 26.00 N | 098 31 00.81 E |
| UNNS4 | 8.7 D IRAN | 09 38 21.40 N | 098 31 24.81 E |
| (FAF) | 5.6 D IRAN | 09 41 13.07 N | 098 32 39.24 E |
| MAPt (CG 2.5%) | 3.0 D IRAN | 09 43 37.09 N | 098 33 41.70 E |
| MAPt (CG 5.0%) | 2.0 D IRAN | 09 44 32.51 N | 098 34 05.74 E |
| THR RWY 02 | - | 09 46 09.60 N | 098 34 54.54 E |
| GP / DME | IRAN | 09 46 20.38 N | 098 34 55.13 E |
| VOR (IAF) | RAN | 09 46 40.71 N | 098 35 01.36 E |
| LOC | IRAN | 09 47 18.28 N | 098 35 25.01 E |
| UNDAR | R-005 / 4.1 D RAN | 09 50 48.28 N | 098 35 19.08 E |
| FASAI | R-255 / 17.0 D RAN | 09 42 08.62 N | 098 18 26.53 E |

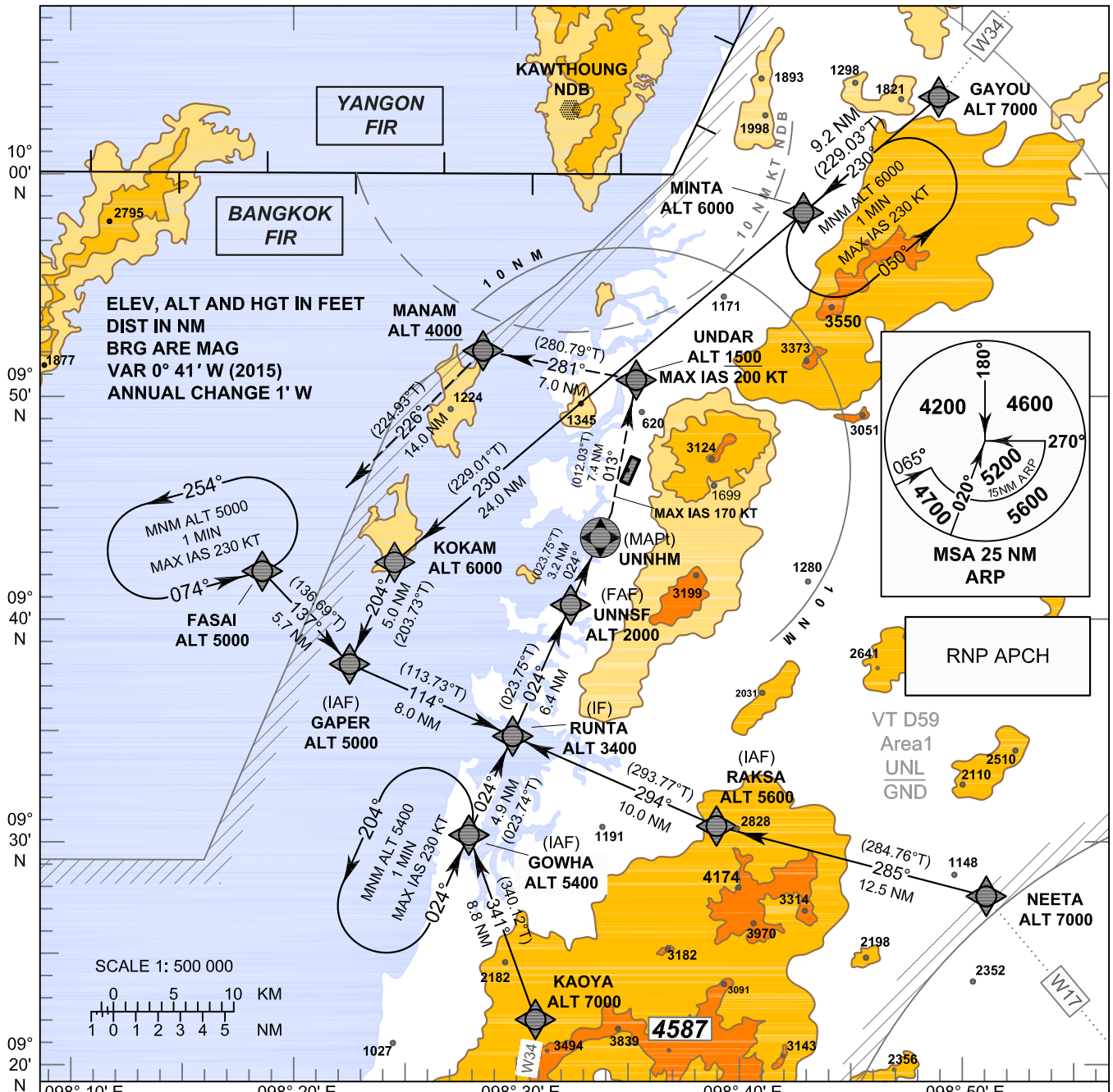
CHANGE : WP UNNS3, UNNS4, FAF, MAPt (CG 2.5%), MAPt (CG 5.0%), GP/DME, VOR,AND LOC COORDINATE. WP RUNTA, UNNS3, UNNS4, FAF, MAPt (CG 2.5%), MAPt (CG 5.0%) DME FROM GP/DME. WP POOMA DISTANCE FROM VOR. WP FASAI AND TASAI RADIAL FROM VOR.

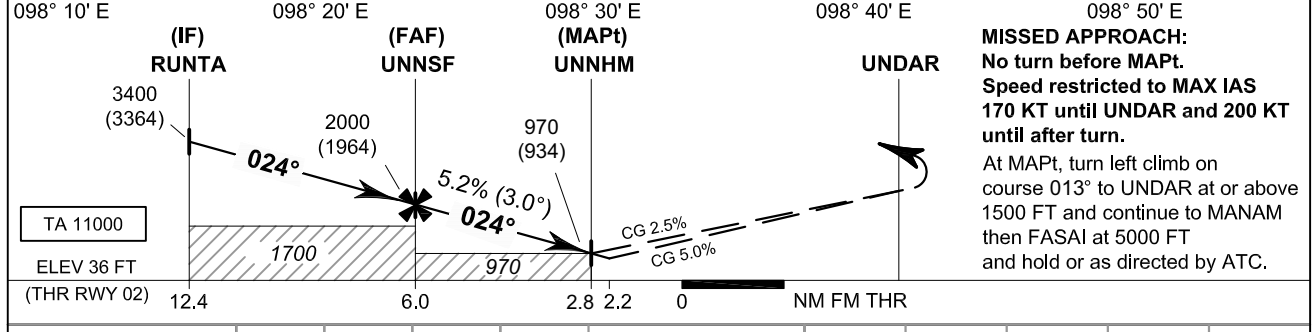
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 57 FT**
HEIGHTS RELATED TO
THR RWY 02 - ELEV 36 FT

APP : 125.1
TWR : 122.25 , 236.6
ATIS : 126.475

**RANONG / Ranong (VTSR)**
**RNP RWY02**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to MAX IAS 170 KT until UNDAR and 200 KT until after turn.**
At MAPt, turn left climb on course 013° to UNDAR at or above 1500 FT and continue to MANAM then FASAI at 5000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | NM to THR 02 | FAF | 5 NM | 4 NM | 3 NM | 2.8 NM |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV | 970 (934) | | | | Altitude (Height) | 2000 (1964) | 1665 (1629) | 1350 (1314) | 1035 (999) | 970 (934) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | Not Authorized | | | | Rate of descent | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**NOTE : OCA (OCH): 780 (744) FT; MAPt at 2.2 NM FM THR can be achieved for all aircraft categoies which can commence a missed approach climb gradient of 5.0% (304 FT/NM) until passing UNDAR.**

CHANGE : OCA, DISTANCE AND TRUE TRACK AND MAGNETIC TRACK WP UNNHM - WP UNDAR. MISSED APPROACH INSTRUCTION.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 57 FT**
HEIGHTS RELATED TO
THR RWY 02 - ELEV 36 FT

**RANONG / Ranong (VTSR)**
**RNP RWY02**

## TABULAR DESCRIPTION

RNP RWY02

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | GAYOU | - | - | 0.7 | | - | @7000 | - | - | RNP APCH |
| 020 | TF | MINTA | - | 230°(229.03°) | 0.7 | 9.2 | - | @6000 | - | - | RNP APCH |
| 030 | TF | KOKAM | - | 230°(229.01°) | 0.7 | 24.0 | L | @6000 | - | - | RNP APCH |
| 040 | TF | GAPER (IAF) | - | 204°(203.73°) | 0.7 | 5.0 | L | @5000 | - | - | RNP APCH |
| 050 | TF | RUNTA (IF) | - | 114°(113.73°) | 0.7 | 8.0 | - | @3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | KAOYA | - | - | 0.7 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | GOWHA (IAF) | - | 341°(340.12°) | 0.7 | 8.8 | R | @5400 | - | - | RNP APCH |
| 030 | TF | RUNTA (IF) | - | 024°(023.74°) | 0.7 | 4.9 | - | @3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | NEETA | - | - | 0.7 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | RAKSA (IAF) | - | 285°(284.76°) | 0.7 | 12.5 | R | @5600 | - | - | RNP APCH |
| 030 | TF | RUNTA (IF) | - | 294°(293.77°) | 0.7 | 10.0 | - | @3400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RUNTA (IF) | - | - | 0.7 | - | - | @3400 | - | - | RNP APCH |
| 020 | TF | UNNSF (FAF) | - | 024°(023.75°) | 0.7 | 6.4 | - | @2000 | - | - | RNP APCH |
| 030 | TF | UNNHM MAPt (CG 2.5%) (2.8 NM FM THR 02) | Y | 024°(023.75°) | 0.7 | 3.2 | L | @970 | -170 | - | RNP APCH |
| 040 | CF | UNDAR | - | 013°(012.03°) | 0.7 | 7.4 | L | +1500 | -200 | - | RNP APCH |
| 050 | TF | MANAM | - | 281°(280.79°) | 0.7 | 7.0 | L | +4000 | - | - | RNP APCH |
| 060 | TF | FASAI | - | 226°(224.93°) | 0.7 | 14.0 | - | @5000 | - | - | RNP APCH |
| 070 | HM | FASAI | Y | 074°(073°.44) | 0.7 | - | L | +5000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RUNTA (IF) | - | - | 0.7 | - | - | @3400 | - | - | RNP APCH |
| 020 | TF | UNNSF (FAF) | - | 024°(023.75°) | 0.7 | 6.4 | - | @2000 | - | - | RNP APCH |
| 030 | TF | UNNLM MAPt (CG 5.0%) (2.2 NM FM THR 02) | Y | 024°(023.75°) | 0.7 | 3.8 | L | @780 | -170 | - | RNP APCH |
| 040 | CF | UNDAR | - | 012°(011.00°) | 0.7 | 6.8 | L | +1500 | -200 | - | RNP APCH |
| 050 | TF | MANAM | - | 281°(280.79°) | 0.7 | 7.0 | L | +4000 | - | - | RNP APCH |
| 060 | TF | FASAI | - | 226°(224.93°) | 0.7 | 14.0 | - | @5000 | - | - | RNP APCH |
| 070 | HM | FASAI | Y | 074°(073°.44) | 0.7 | - | L | +5000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | FASAI | - | - | 0.7 | - | - | @5000 | - | - | RNP APCH |
| 020 | TF | GAPER | - | 137°(136.69°) | 0.7 | 5.7 | L | @5000 | - | - | RNP APCH |
| 030 | TF | RUNTA (IF) | - | 114°(113.73°) | 0.7 | 8.0 | - | @3400 | - | - | RNP APCH |

## WAYPOINT LIST

RNP RWY02

| Waypoint Identifier | Coordinates | |
|---|---|---|
| GAYOU | 10 04 31.00 N | 098 49 54.79 E |
| MINTA | 09 58 27.09 N | 098 42 52.11 E |
| KOKAM | 09 42 35.40 N | 098 24 28.72 E |
| GAPER | 09 37 59.53 N | 098 22 26.39 E |
| KAOYA | 09 21 56.02 N | 098 30 53.18 E |
| GOWHA | 09 30 15.05 N | 098 27 51.39 E |
| NEETA | 09 27 30.64 N | 098 51 21.36 E |
| RAKSA | 09 30 42.56 N | 098 39 07.01 E |
| RUNTA | 09 34 45.42 N | 098 29 51.20 E |
| UNNSF | 09 40 38.56 N | 098 32 27.72 E |
| UNNHM | 09 43 35.13 N | 098 33 46.01 E |
| UNNLM | 09 44 08.22 N | 098 34 00.70 E |
| UNDAR | 09 50 48.28 N | 098 35 19.08 E |
| MANAM | 09 52 06.56 N | 098 28 27.74 E |
| FASAI | 09 42 08.62 N | 098 18 26.53 E |

CHANGE : MAPt LOCATION (CG 2.5%). WP UNNHM COORDINATES.
DISTANCE AND TRUE TRACK AND MAGNETIC TRACK WP UNNHM - WP UNDAR.

## VTUV AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUV - ROI ET / ROI ET AIRPORT

## VTUV AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 160700.34N 1034625.67E<br>Centre of RWY 1050 M. from THR RWY 18 |
| 2 | Direction and distance from (city) | 19 KM E from city |
| 3 | Elevation/Reference temperature | 451 FT /28°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.82°W(2016) /0.02°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Roi Et Airport<br>Roi Et Airport,<br>Roi Et-Phonthong Road,<br>Nongphok, Thawatburi,<br>Roi Et, 45170 Thailand<br>Tel: +664 351 8246-8<br>Fax: +664 351 8253<br>AFS: VTUVYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTUV AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1400 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1400 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1400 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Ubon Ratchathani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +664 525 6407, +668 9488 2157<br>Fax: +664 524 0798 Ext. 7874 |

## VTUV AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |

| | | |
|---|---|---|
| 7 | Remarks | NIL |

## VTUV AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Taxi and car hire from the airport |
| 4 | Medical facilities | Hospital in the city |
| 5 | Bank and Post Office | Bank and Post office in the city |
| 6 | Tourist Office | In the city |
| 7 | Remarks | NIL |

## VTUV AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUV AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUV AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 45/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Concrete and asphalt<br>Strength: PCN 42/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUV AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Marked and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUV AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTUV AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Roi Et,<br>Lower Northeastern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1400<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Lower Northeastern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +664 351 9886 ext. 7408 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Roi Et TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUV AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 182.69° | 2100x45 | PCN 42/F/D/X/T<br>Concrete and asphalt | 160734.53N 1034627.20E | THR451 FT<br>TDZ 451 FT |
| 36 | 002.69° | 2100x45 | PCN 42/F/D/X/T<br>Concrete and asphalt | 160626.14N 1034624.15E | THR451 FT<br>TDZ 451 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| 0% | 60x60 | NIL | 2340x300 | NIL | NIL |
| 0% | 60x60 | NIL | 2340x300 | NIL | NIL |

## VTUV AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 2100 | 2100 | 2160 | 2100 | NIL |
| 36 | 2100 | 2100 | 2160 | 2100 | NIL |

## VTUV AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18 | RTIL | Green | PAPI LEFT 3° (50.58 FT) | NIL | NIL | 2100 M 60 M White, LIH | Red | NIL | NIL |
| 36 | SALS 420 M | Green | PAPI LEFT 3° (50.58 FT) | NIL | NIL | 2100 M 60 M White, LIH | Red | NIL | NIL |

## VTUV AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building FLG W G EV 7 SEC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | EDGE: All taxiways |
| 4 | Secondary power supply/switch-over time | Secondary power supply at tower and air field lighting (AFL).<br>Switch-over time: 15 SEC |
| 5 | Remarks | NIL |

## VTUV AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTUV AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on Roi Et DVOR/DME (160700.6N 1034619.5E) |
| 2 | Vertical limits | 2000 ft/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Roi Et Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTUV AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Roi Et Approach | 125.4 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)]Emergency frequency |
| TWR | Roi Et Tower | 119.75 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Roi Et Airport | 128.275 MHz | As AD OPR HR | |

## VTUV AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | RE | 319 KHz | H24 | 160638.5N<br>1034641.6E | | Coverage orbit data refer from commissioning checked as follows:<br>50 nm clockwise orbit result found satisfactory.<br>– Bearing 341°-030° at altitude 3 000 ft<br>– Bearing 031°-060° at altitude 3 000 ft<br>– Bearing 061°-340° at altitude 2 000 ft |
| DVOR/DME | ROT | 111.2 MHz<br>CH 49X | H24 | 160700.6N<br>1034619.5E | | Coverage orbit data refer from commissioning checked as follows:<br>– 40 nm clockwise orbit flown from radial 001°-360° altitude should not below 2 000 ft<br>– Airway W5 flown to 40 nm at 2 000 ft was checked and found satisfactory |
| LOC RWY36<br>ILS CAT I | IROT | 109.5 MHz | H24 | 160744.3N<br>1034627.7E | | LOC: Designated operation coverage 18 nm, ALT 6700 ft AMSL |
| GP | | 332.6 MHz | H24 | 160635.8N<br>1034620.6E | | GP: 3 GEG, RDH 50 ft |
| DME | IROT | CH 32X<br>(109.5 MHz) | H24 | 160744.3N<br>1034625.3E | 448 ft | DME: Paired with LOC FREQ. |

## VTUV AD 2.20 LOCAL AERODROME REGULATIONS

All aircraft code letter C and higher are not allowed to turn on runway. The turn shall be made on the runway turn pad only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand / The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTUV AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUV AD 2.22 FLIGHT PROCEDURES

### 1. VFR PROCEDURES

Details of VFR entry and exit procedures, see charts.

### 2. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 3. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

### 4. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 18:

ROIET OMNI 18 Departure: Required climb gradient 201 ft per NM (3.3%) until 2,400 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,000 ft (or altitude assigned by ATC between 1,000 ft – 2,000 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 36:

ROIET OMNI 36 Departure: Required climb gradient 201 ft per NM (3.3%) until 2,400 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,000 ft (or altitude assigned by ATC between 1,000 ft – 2,000 ft), then comply with ATC clearanceissued (or as directed by ATC).

## VTUV AD 2.23 ADDITIONAL INFORMATION

- Birds concentration on and in the vicinity of an Aerodrome.

## VTUV AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTUV-2-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - ANKID1A BODUR1A DOTUS1A ENTEK1A RURAR1A SEDNO1A | AD 2-VTUV-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - ANKID1A BODUR1A DOTUS1A ENTEK1A RURAR1A SEDNO1A (Tabular description) | AD 2-VTUV-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - ANKID1A BODUR1A DOTUS1A ENTEK1A RURAR1A SEDNO1A (Waypoint list table) | AD 2-VTUV-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ANKID1B BODUR1B DOTUS1B ENTEK1B RURAR1B SEDNO1B | AD 2-VTUV-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ANKID1B BODUR1B DOTUS1B ENTEK1B RURAR1B SEDNO1B (Tabular description) | AD 2-VTUV-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - ANKID1B BODUR1B DOTUS1B ENTEK1B RURAR1B SEDNO1B (Waypoint list table) | AD 2-VTUV-6-7 |
| Instrument Approach Chart - ICAO - VOR RWY 18 | AD 2-VTUV-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 18 (Fix and point list table) | AD 2-VTUV-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 36 | AD 2-VTUV-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 36 (Fix and point list table) | AD 2-VTUV-8-4 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 36 | AD 2-VTUV-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 36 (Fix and point list table) | AD 2-VTUV-8-6 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 36 | AD 2-VTUV-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 36 (Tabular description) | AD 2-VTUV-8-8 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 36 (Fix and point list table) | AD 2-VTUV-8-9 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 36 (Waypoint list table) | AD 2-VTUV-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 18 | AD 2-VTUV-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 18 (Tabular description 1) | AD 2-VTUV-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 18 (Tabular description 2) | AD 2-VTUV-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 36 | AD 2-VTUV-8-15 |
| Instrument Approach Chart - ICAO - RNP RWY 36 (Tabular description) | AD 2-VTUV-8-16 |
| Instrument Approach Chart - ICAO - RNP RWY 36 (Waypoint list table) | AD 2-VTUV-8-17 |
| VFR ENTRY PROCEDURE CHART - RWY 18/36 | AD 2-VTUV-9-1 |
| VFR ENTRY PROCEDURE CHART - RWY 18/36 (Tabular description) | AD 2-VTUV-9-2 |
| VFR EXIT PROCEDURE CHART - RWY 18/36 | AD 2-VTUV-9-3 |
| VFR EXIT PROCEDURE CHART - RWY 18/36 (Tabular description) | AD 2-VTUV-9-4 |

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# AERODROME CHART - ICAO

16 07 00 N
103 46 26 E

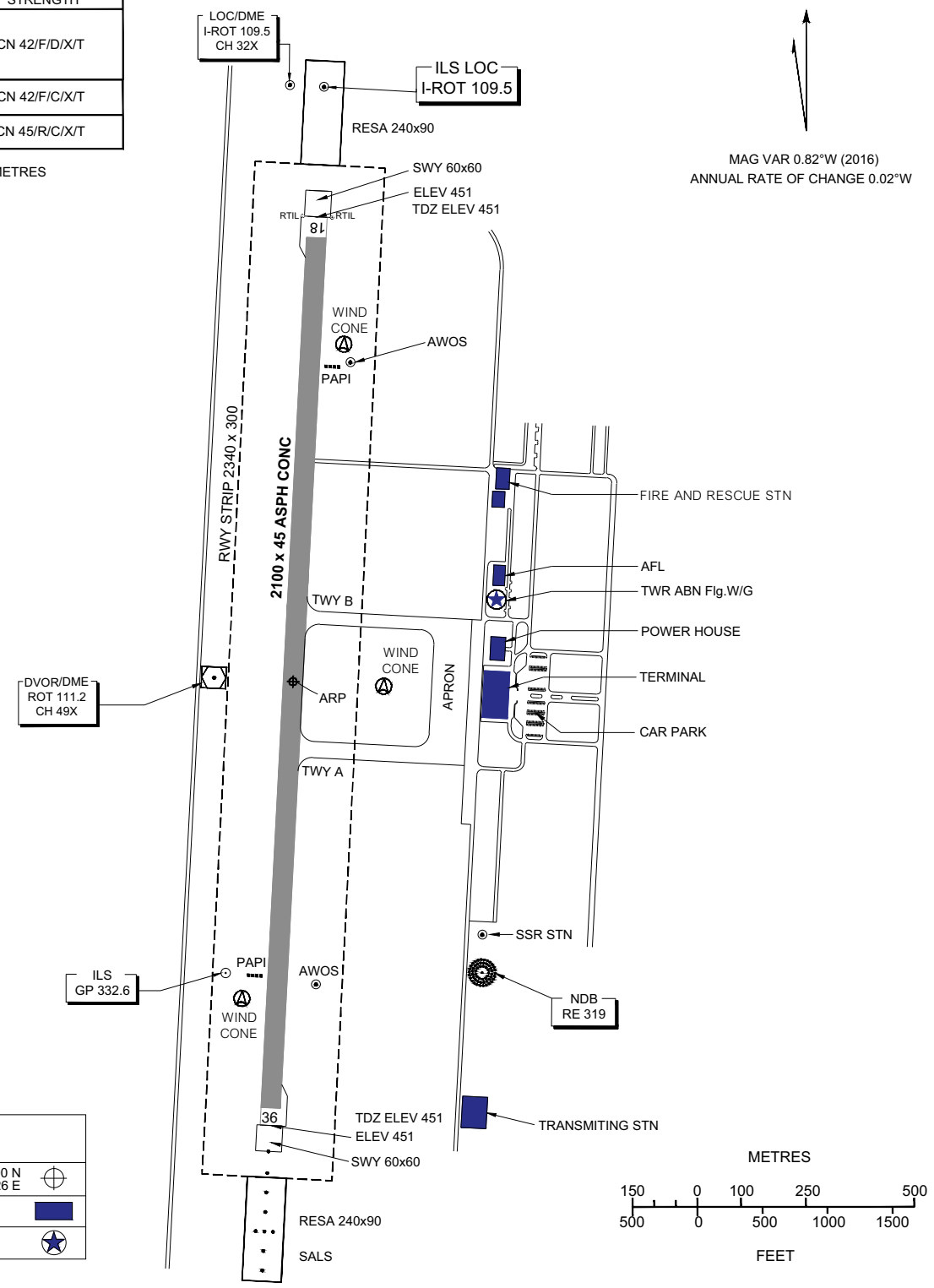
ELEV 451 FT

TWR 119.75 236.60

ROI ET / Roi Et

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 18 | 182.69 | 16 07 34.53 N 103 46 27.20 E | PCN 42/F/D/X/T |
| 36 | 02.69 | 16 06 26.14 N 103 46 24.15 E | |
| TAXIWAY A,B | | | PCN 42/F/C/X/T |
| APRON | | | PCN 45/R/C/X/T |

ELEVATIONS IN FEET AND DIMENSIONS IN METRES

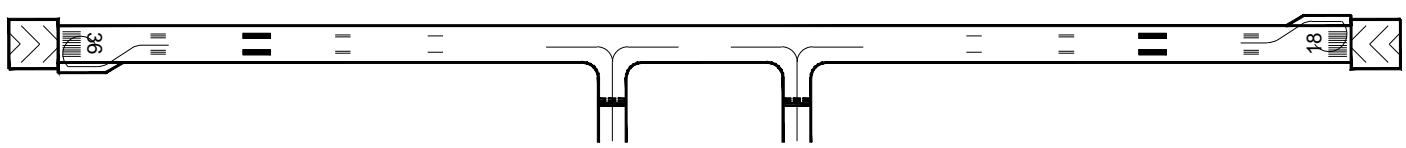



## LEGEND

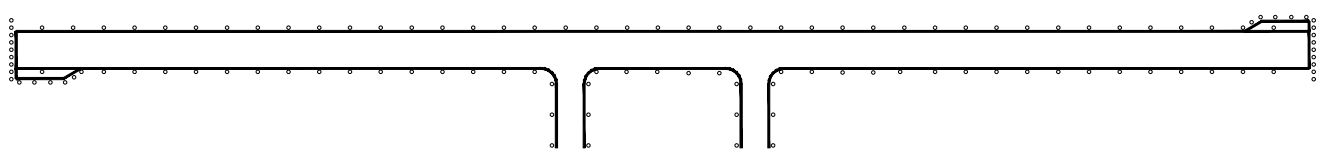
| | |
|---|---|
| AERODROME REFERENCE POINT | 16 07 00 N 103 46 26 E |
| BUILDINGS | |
| TWR ABN Flg. W/G | |

Remark : COORDINATES ARE WGS-84

MARKING AIDS RWY 18/36 AND EXIT TWY




LIGHTING AIDS RWY 18/36 AND EXIT TWY



CHANGE : REVISED CHART. RTIL RWY 18 ADDED.

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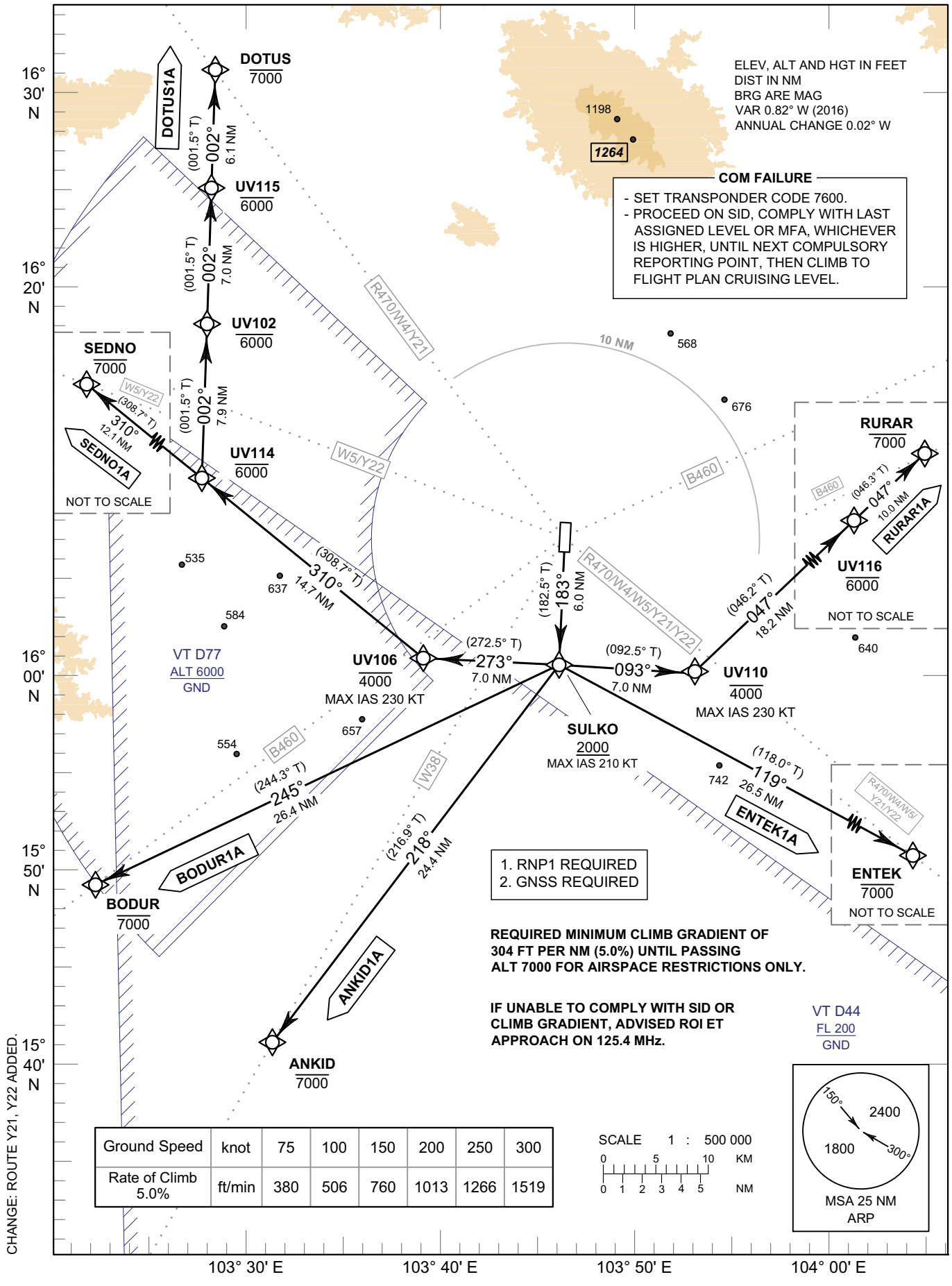
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET / Roi Et (VTUV)**
**RNAV RWY18**

ANKID1A BODUR1A DOTUS1A
ENTEK1A RURAR1A SEDNO1A




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.0% | ft/min | 380 | 506 | 760 | 1013 | 1266 | 1519 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**ROI ET / Roi Et (VTUV)**
**RNAV RWY18**

ANKID1A BODUR1A DOTUS1A
ENTEK1A RURAR1A SEDNO1A

**TABULAR DESCRIPTION**

| **RNAV RWY18** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ANKID1A | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | SULKO | - | 183°(182.5°) | +0.90 | 6.0 | R | +2000 | -210 | - | RNP 1 |
| 030 | TF | ANKID | - | 218°(216.9°) | +0.90 | 24.4 | - | -7000 | - | - | RNP 1 |
| BODUR1A | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | SULKO | - | 183°(182.5°) | +0.90 | 6.0 | R | +2000 | -210 | - | RNP 1 |
| 030 | TF | BODUR | - | 245°(244.3°) | +0.90 | 26.4 | - | -7000 | - | - | RNP 1 |
| DOTUS1A | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | SULKO | - | 183°(182.5°) | +0.90 | 6.0 | R | +2000 | -210 | - | RNP 1 |
| 030 | TF | UV106 | - | 273°(272.5°) | +0.90 | 7.0 | R | -4000 | -230 | - | RNP 1 |
| 040 | TF | UV114 | - | 310°(308.7°) | +0.90 | 14.7 | R | -6000 | - | - | RNP 1 |
| 050 | TF | UV102 | - | 002°(001.5°) | +0.90 | 7.9 | - | -6000 | - | - | RNP 1 |
| 060 | TF | UV115 | - | 002°(001.5°) | +0.90 | 7.0 | - | -6000 | - | - | RNP 1 |
| 070 | TF | DOTUS | - | 002°(001.5°) | +0.90 | 6.1 | - | -7000 | - | - | RNP 1 |
| ENTEK1A | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | SULKO | - | 183°(182.5°) | +0.90 | 6.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | ENTEK | - | 119°(118.0°) | +0.90 | 26.5 | - | -7000 | - | - | RNP 1 |
| RURAR1A | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | SULKO | - | 183°(182.5°) | +0.90 | 6.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | UV110 | - | 093°(092.5°) | +0.90 | 7.0 | L | -4000 | -230 | - | RNP 1 |
| 040 | TF | UV116 | - | 047°(046.2°) | +0.90 | 18.2 | - | -6000 | - | - | RNP 1 |
| 050 | TF | RURAR | - | 047°(046.3°) | +0.90 | 10.0 | - | -7000 | - | - | RNP 1 |
| SEDNO1A | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | SULKO | - | 183°(182.5°) | +0.90 | 6.0 | R | +2000 | -210 | - | RNP 1 |
| 030 | TF | UV106 | - | 273°(272.5°) | +0.90 | 7.0 | R | -4000 | -230 | - | RNP 1 |
| 040 | TF | UV114 | - | 310°(308.7°) | +0.90 | 14.7 | - | -6000 | - | - | RNP 1 |
| 050 | TF | SEDNO | - | 310°(308.7°) | +0.90 | 12.1 | - | -7000 | - | - | RNP 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**ROI ET / Roi Et (VTUV)**
**RNAV RWY18**

ANKID1A BODUR1A DOTUS1A
ENTEK1A RURAR1A SEDNO1A

## WAYPOINT LIST

| **RNAV RWY18** | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY18 | 16° 06' 26.14" N 103° 46' 24.15" E |
| ANKID | 15° 40' 48.67" N 103° 30' 57.40" E |
| BODUR | 15° 48' 52.90" N 103° 21' 27.21" E |
| DOTUS | 16° 31' 03.01" N 103° 27' 31.56" E |
| ENTEK | 15° 47' 54.67" N 104° 10' 24.31" E |
| RURAR | 16° 19' 43.04" N 104° 14' 35.65" E |
| SEDNO | 16° 17' 33.31" N 103° 17' 07.18" E |
| SULKO | 16° 00' 24.98" N 103° 46' 08.03" E |
| UV102 | 16° 17' 54.63" N 103° 27' 10.81" E |
| UV106 | 16° 00' 42.97" N 103° 38' 52.38" E |
| UV110 | 16° 00' 06.74" N 103° 53' 23.67" E |
| UV114 | 16° 09' 56.42" N 103° 26' 58.24" E |
| UV115 | 16° 24' 56.23" N 103° 27' 21.90" E |
| UV116 | 16° 12' 46.75" N 104° 07' 04.75" E |

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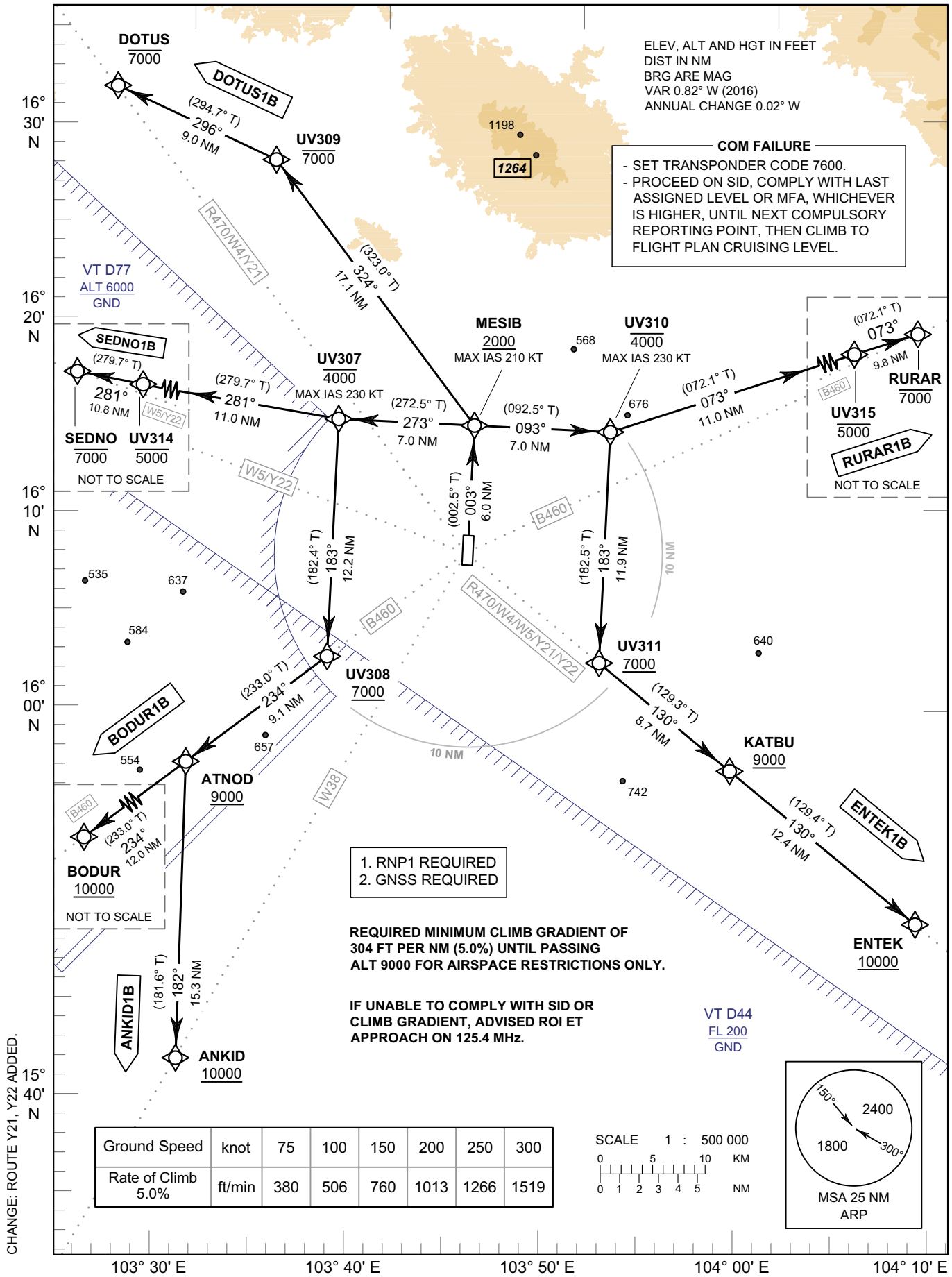
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET / Roi Et (VTUV)**
**RNAV RWY36**

ANKID1B BODUR1B DOTUS1B
ENTEK1B RURAR1B SEDNO1B




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.0% | ft/min | 380 | 506 | 760 | 1013 | 1266 | 1519 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**ROI ET / Roi Et (VTUV)**
**RNAV RWY36**

ANKID1B BODUR1B DOTUS1B
ENTEK1B RURAR1B SEDNO1B

**TABULAR DESCRIPTION**

| **RNAV RWY36** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ANKID1B | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | MESIB | - | 003°(002.5°) | +0.90 | 6.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | UV307 | - | 273°(272.5°) | +0.90 | 7.0 | L | -4000 | -230 | - | RNP 1 |
| 040 | TF | UV308 | - | 183°(182.4°) | +0.90 | 12.2 | R | +7000 | - | - | RNP 1 |
| 050 | TF | ATNOD | - | 234°(233.0°) | +0.90 | 9.1 | L | +9000 | - | - | RNP 1 |
| 060 | TF | ANKID | - | 182°(181.6°) | +0.90 | 15.3 | - | +10000 | - | - | RNP 1 |
| BODUR1B | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | MESIB | - | 003°(002.5°) | +0.90 | 6.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | UV307 | - | 273°(272.5°) | +0.90 | 7.0 | L | -4000 | -230 | - | RNP 1 |
| 040 | TF | UV308 | - | 183°(182.4°) | +0.90 | 12.2 | R | +7000 | - | - | RNP 1 |
| 050 | TF | ATNOD | - | 234°(233.0°) | +0.90 | 9.1 | - | +9000 | - | - | RNP 1 |
| 060 | TF | BODUR | - | 234°(233.0°) | +0.90 | 12.0 | - | +10000 | - | - | RNP 1 |
| DOTUS1B | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | MESIB | - | 003°(002.5°) | +0.90 | 6.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | UV309 | - | 324°(323.0°) | +0.90 | 17.1 | L | -7000 | - | - | RNP 1 |
| 040 | TF | DOTUS | - | 296°(294.7°) | +0.90 | 9.0 | - | -7000 | - | - | RNP 1 |
| ENTEK1B | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | MESIB | - | 003°(002.5°) | +0.90 | 6.0 | R | +2000 | -210 | - | RNP 1 |
| 030 | TF | UV310 | - | 093°(092.5°) | +0.90 | 7.0 | R | -4000 | -230 | - | RNP 1 |
| 040 | TF | UV311 | - | 183°(182.5°) | +0.90 | 11.9 | L | +7000 | - | - | RNP 1 |
| 050 | TF | KATBU | - | 130°(129.3°) | +0.90 | 8.7 | - | +9000 | - | - | RNP 1 |
| 060 | TF | ENTEK | - | 130°(129.4°) | +0.90 | 12.4 | - | +10000 | - | - | RNP 1 |
| RURAR1B | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | MESIB | - | 003°(002.5°) | +0.90 | 6.0 | R | +2000 | -210 | - | RNP 1 |
| 030 | TF | UV310 | - | 093°(092.5°) | +0.90 | 7.0 | L | -4000 | -230 | - | RNP 1 |
| 040 | TF | UV315 | - | 073°(072.1°) | +0.90 | 11.0 | - | -5000 | - | - | RNP 1 |
| 050 | TF | RURAR | - | 073°(072.1°) | +0.90 | 9.8 | - | -7000 | - | - | RNP 1 |
| SEDNO1B | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +0.90 | - | - | - | - | - | RNP 1 |
| 020 | CF | MESIB | - | 003°(002.5°) | +0.90 | 6.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | UV307 | - | 273°(272.5°) | +0.90 | 7.0 | R | -4000 | -230 | - | RNP 1 |
| 040 | TF | UV314 | - | 281°(279.7°) | +0.90 | 11.0 | - | -5000 | - | - | RNP 1 |
| 050 | TF | SEDNO | - | 281°(279.7°) | +0.90 | 10.8 | - | -7000 | - | - | RNP 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**ROI ET / Roi Et (VTUV)**
**RNAV RWY36**

ANKID1B BODUR1B DOTUS1B
ENTEK1B RURAR1B SEDNO1B

## WAYPOINT LIST

| **RNAV RWY36** | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY36 | 16° 07' 34.53" N 103° 46' 27.20" E |
| ANKID | 15° 40' 48.67" N 103° 30' 57.40" E |
| ATNOD | 15° 56' 08.67" N 103° 31' 24.04" E |
| BODUR | 15° 48' 52.90" N 103° 21' 27.21" E |
| DOTUS | 16° 31' 03.01" N 103° 27' 31.56" E |
| ENTEK | 15° 47' 54.67" N 104° 10' 24.31" E |
| KATBU | 15° 55' 48.14" N 104° 00' 28.29" E |
| MESIB | 16° 13' 35.69" N 103° 46' 43.33" E |
| RURAR | 16° 19' 43.04" N 104° 14' 35.65" E |
| SEDNO | 16° 17' 33.31" N 103° 17' 07.18" E |
| UV307 | 16° 13' 53.68" N 103° 39' 27.19" E |
| UV308 | 16° 01' 37.11" N 103° 38' 54.77" E |
| UV309 | 16° 27' 16.30" N 103° 36' 02.07" E |
| UV310 | 16° 13' 17.44" N 103° 53' 59.44" E |
| UV311 | 16° 01' 22.10" N 103° 53' 27.08" E |
| UV314 | 16° 15' 44.87" N 103° 28' 10.71" E |
| UV315 | 16° 16' 41.36" N 104° 04' 52.21" E |

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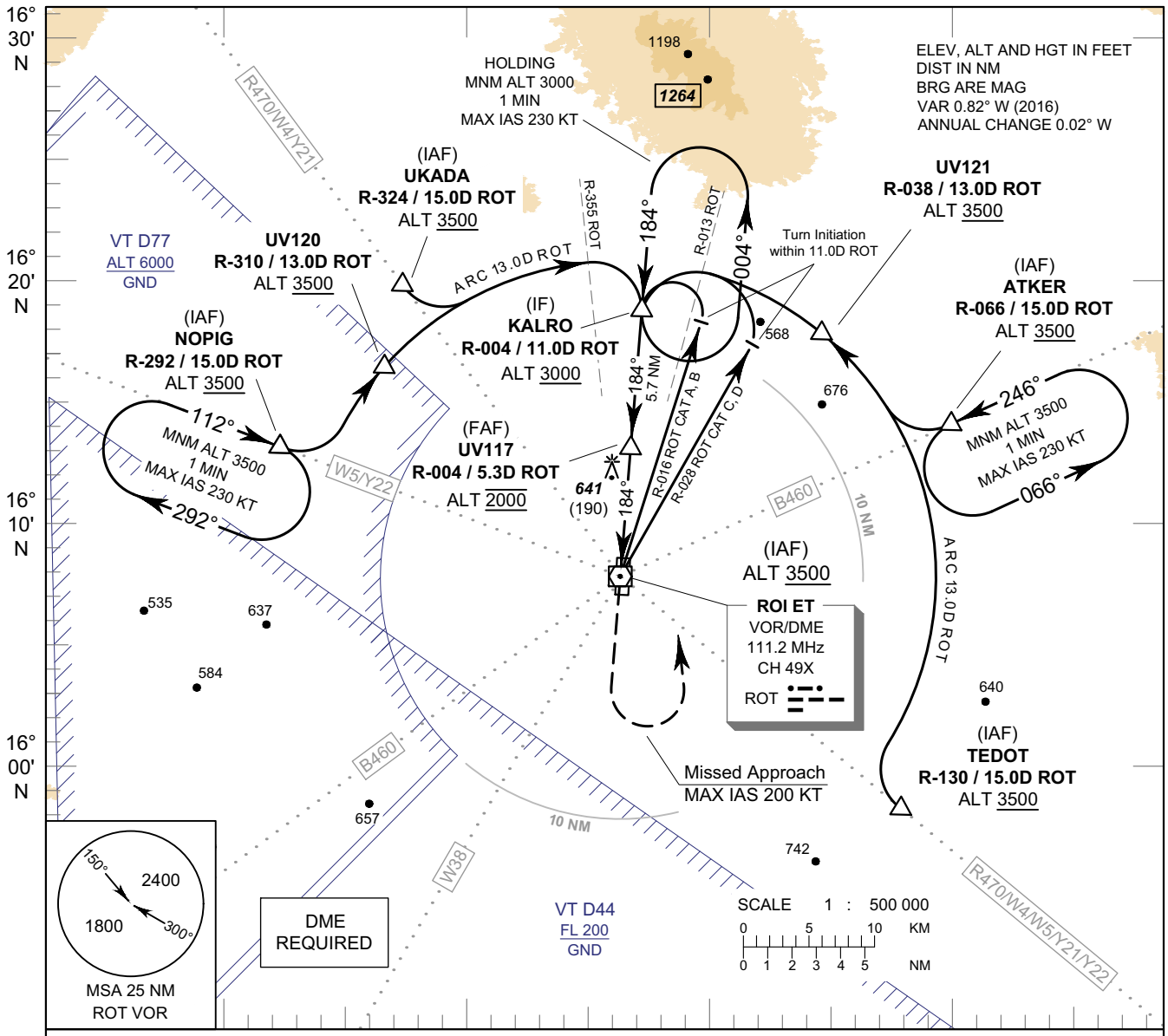
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO AERODROME ELEV

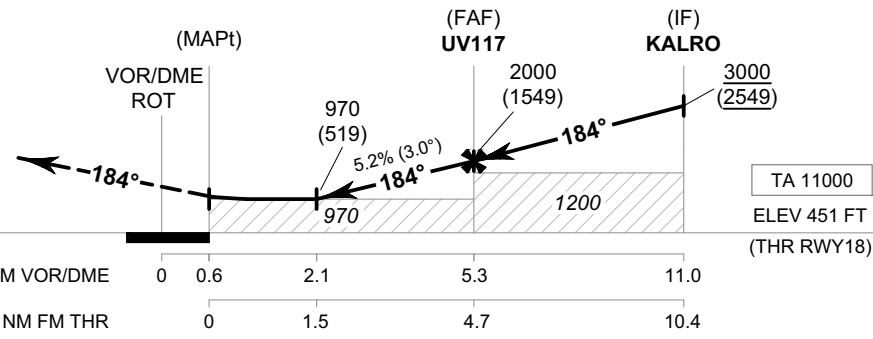
APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET / Roi Et (VTUV)**

**VOR RWY18**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb on track 184° to 1500 FT, then turn left to intercept outbound R-004 ROT VOR and proceed to KALRO at minimum 3000 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 970 (519) | | | |
| Circling (OCH AAL) | 1200 (749) | | | |

| Distance (ROT) | | 2.1D | 3D | 4D | 5D | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 970 (519) | 1260 (809) | 1575 (1124) | 1890 (1439) | 2000 (1549) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y21, Y22 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO AERODROME ELEV

**ROI ET / Roi Et (VTUV)**

**VOR RWY18**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) VOR | ROT | 16° 07' 00.61" N | 103° 46' 19.51" E |
| (IAF) UKADA | R-324 / 15.0D ROT | 16° 19' 02.02" N | 103° 36' 56.08" E |
| UV120 | R-310 / 13.0D ROT | 16° 15' 14.73" N | 103° 35' 50.59" E |
| (IAF) NOPIG | R-292 / 15.0D ROT | 16° 12' 17.45" N | 103° 31' 43.71" E |
| (IAF) TEDOT | R-130 / 15.0D ROT | 15° 57' 27.97" N | 103° 58' 22.45" E |
| (IAF) ATKER | R-066 / 15.0D ROT | 16° 13' 22.29" N | 104° 00' 27.10" E |
| UV121 | R-038 / 13.0D ROT | 16° 17' 24.80" N | 103° 54' 29.08" E |
| (IF) KALRO | R-004 / 11.0D ROT | 16° 18' 02.16" N | 103° 47' 00.15" E |
| (FAF) UV117 | R-004 / 5.3D ROT | 16° 12' 17.48" N | 103° 46' 38.93" E |
| (MAPt) | R-004 / 0.6D ROT | 16° 07' 34.81" N | 103° 46' 21.55" E |

CHANGE : VOR COORDINATE

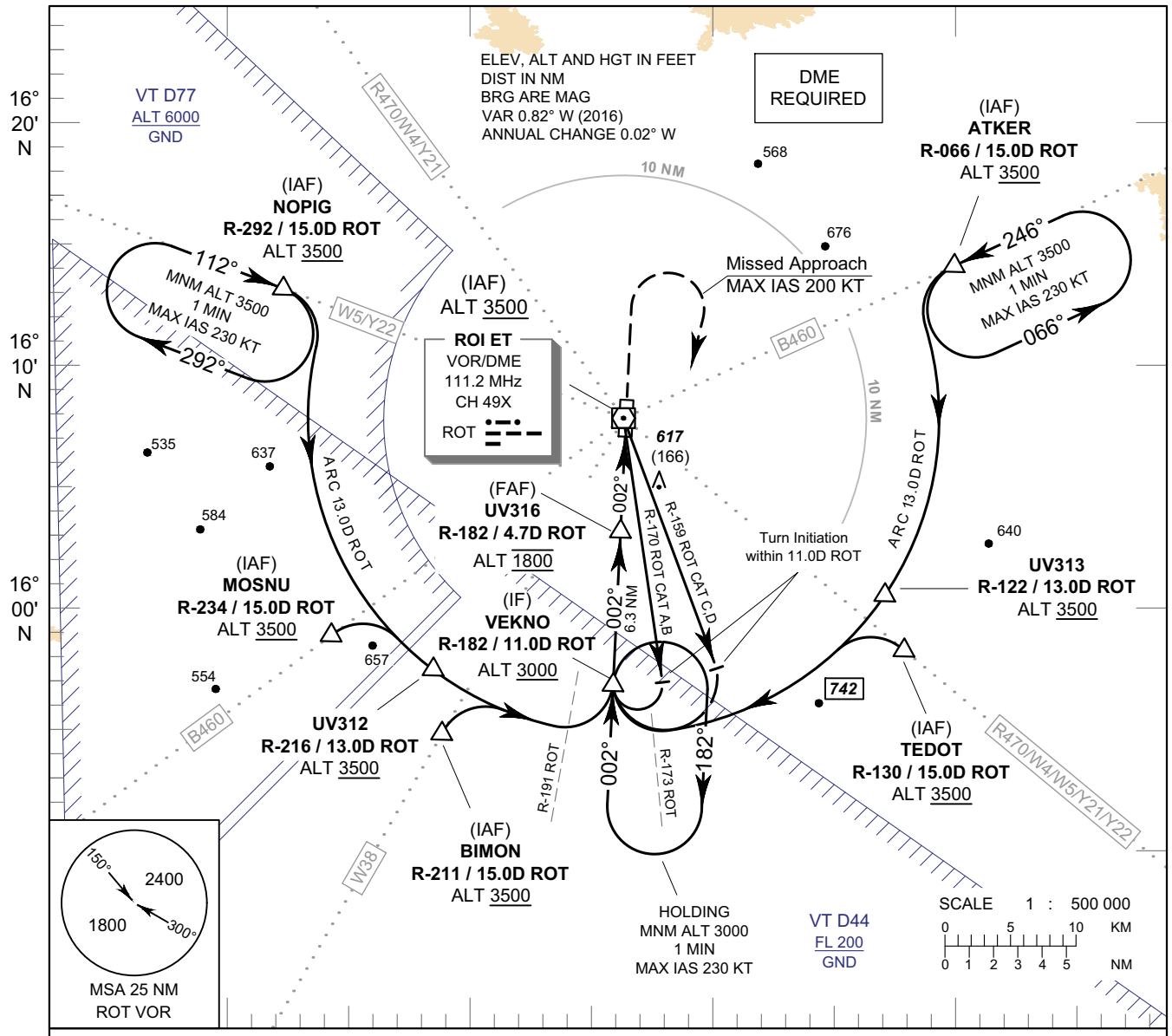
**INSTRUMENT APPROACH CHART - ICAO**

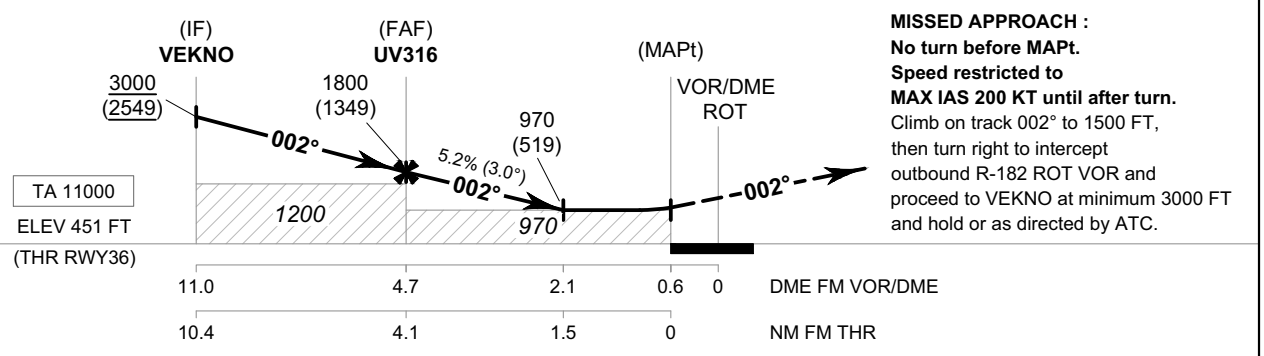
**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET / Roi Et (VTUV)**

**VOR RWY36**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 970 (519) | | | |
| Circling (OCH AAL) | 1200 (749) | | | |

| Distance (ROT) | | FAF | 4D | 3D | 2.1D | | |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | | 1800 (1349) | 1575 (1124) | 1260 (809) | 970 (519) | | |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y21, Y22 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO AERODROME ELEV

**ROI ET / Roi Et (VTUV)**

**VOR RWY36**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) VOR | ROT | 16° 07' 00.61" N | 103° 46' 19.51" E |
| (IAF) NOPIG | R-292 / 15.0D ROT | 16° 12' 17.45" N | 103° 31' 43.71" E |
| (IAF) MOSNU | R-234 / 15.0D ROT | 15° 57' 57.11" N | 103° 33' 52.77" E |
| UV312 | R-216 / 13.0D ROT | 15° 56' 19.95" N | 103° 38' 33.51" E |
| (IAF) BIMON | R-211 / 15.0D ROT | 15° 53' 54.78" N | 103° 38' 37.93" E |
| (IAF) ATKER | R-066 / 15.0D ROT | 16° 13' 22.29" N | 104° 00' 27.10" E |
| UV313 | R-122 / 13.0D ROT | 16° 00' 15.24" N | 103° 57' 52.55" E |
| (IAF) TEDOT | R-130 / 15.0D ROT | 15° 57' 27.97" N | 103° 58' 22.45" E |
| (IF) VEKNO | R-182 / 11.0D ROT | 15° 55' 57.94" N | 103° 46' 07.50" E |
| (FAF) UV316 | R-182 / 4.7D ROT | 16° 02' 19.31" N | 103° 46' 14.37" E |
| (MAPt) | R-182 / 0.6D ROT | 16° 06' 26.30" N | 103° 46' 18.83" E |

CHANGE : VOR COORDINATE

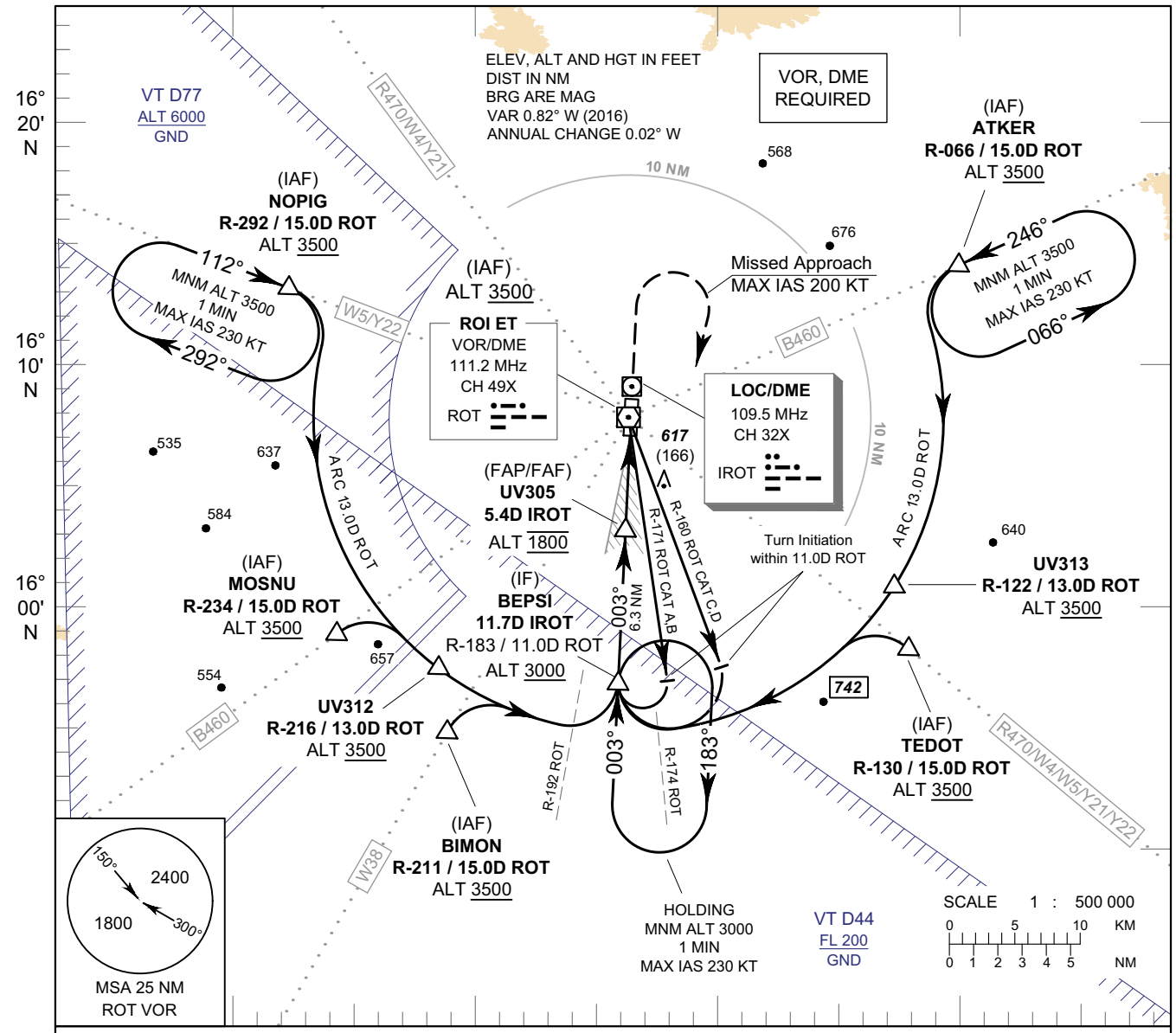
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET / Roi Et (VTUV)**

**ILS or LOC y RWY36**




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 660 (209) | | | |
| LOC only | | 970 (519) | | | |
| Circling (OCH AAL) | | 1200 (749) | | | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (IROT) | | FAF | 5D | 4D | 3D | 2.8D | |
| Altitude (Height) | | 1800 (1349) | 1670 (1219) | 1355 (904) | 1040 (589) | 970 (519) | |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y21, Y22 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

**ROI ET / Roi Et (VTUV)**

**ILS or LOC y RWY36**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF)<br>VOR | ROT | 16° 07' 00.61" N | 103° 46' 19.51" E |
| (IAF)<br>NOPIG | R-292 / 15.0D ROT | 16° 12' 17.45" N | 103° 31' 43.71" E |
| (IAF)<br>MOSNU | R-234 / 15.0D ROT | 15° 57' 57.11" N | 103° 33' 52.77" E |
| UV312 | R-216 / 13.0D ROT | 15° 56' 19.95" N | 103° 38' 33.51" E |
| (IAF)<br>BIMON | R-211 / 15.0D ROT | 15° 53' 54.78" N | 103° 38' 37.93" E |
| (IAF)<br>ATKER | R-066 / 15.0D ROT | 16° 13' 22.29" N | 104° 00' 27.10" E |
| UV313 | R-122 / 13.0D ROT | 16° 00' 15.24" N | 103° 57' 52.55" E |
| (IAF)<br>TEDOT | R-130 / 15.0D ROT | 15° 57' 27.97" N | 103° 58' 22.45" E |
| (IF)<br>BEPSI | 11.7D IROT | 15° 55' 58.22" N | 103° 45' 56.13" E |
| (FAP/FAF)<br>UV305 | 5.4D IROT | 16° 02' 19.35" N | 103° 46' 13.13" E |
| MAPt (LOC only)<br>THR RWY36 | 1.3D IROT | 16° 06' 26.14" N | 103° 46' 24.15" E |
| GP | - | 16° 06' 35.75" N | 103° 46' 20.59" E |
| LOC/DME | IROT | 16° 07' 44.27" N | 103° 46' 27.69" E |

CHANGE : VOR, LOC/DME, GP COORDINATE

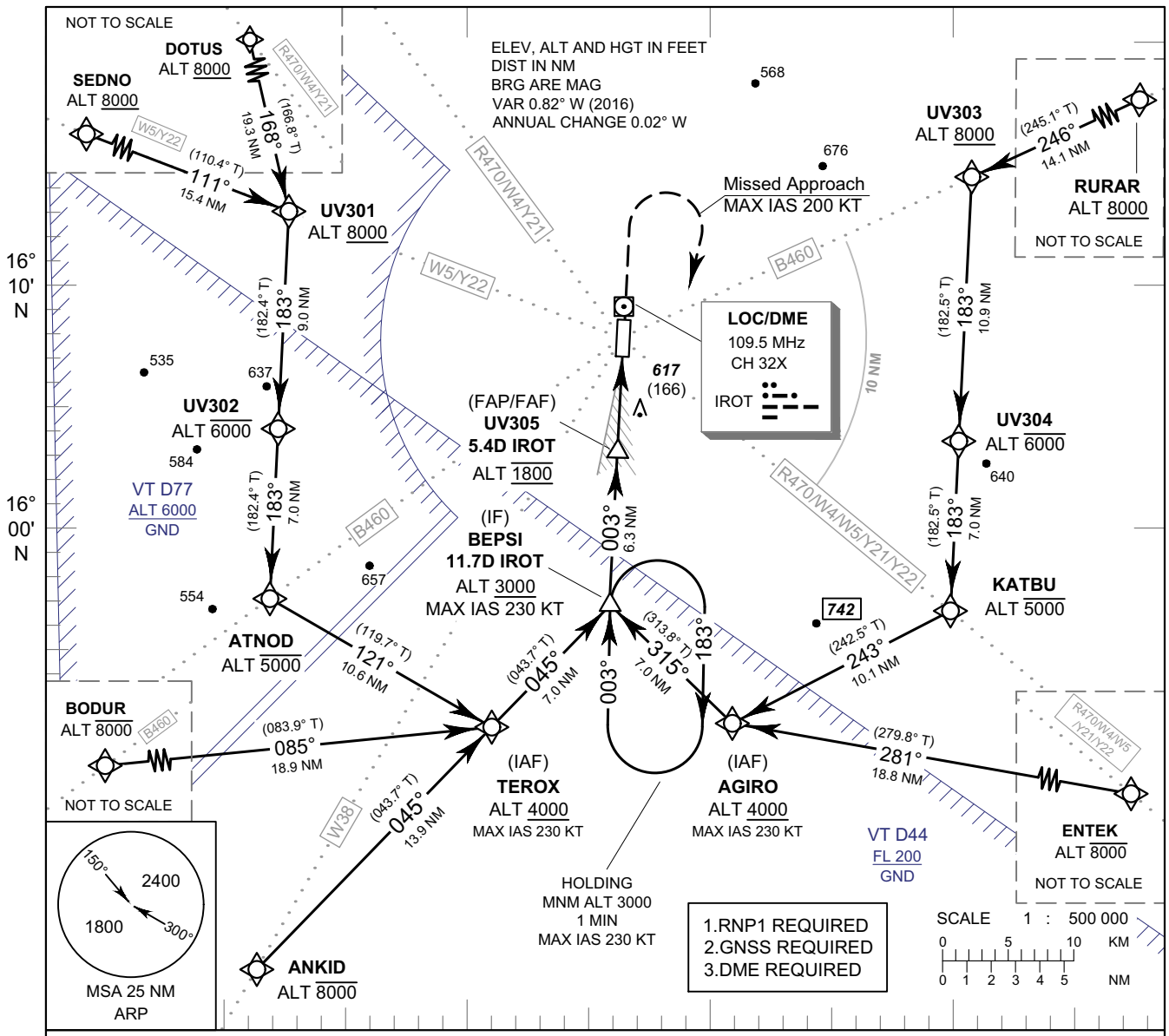
**INSTRUMENT APPROACH CHART - ICAO**

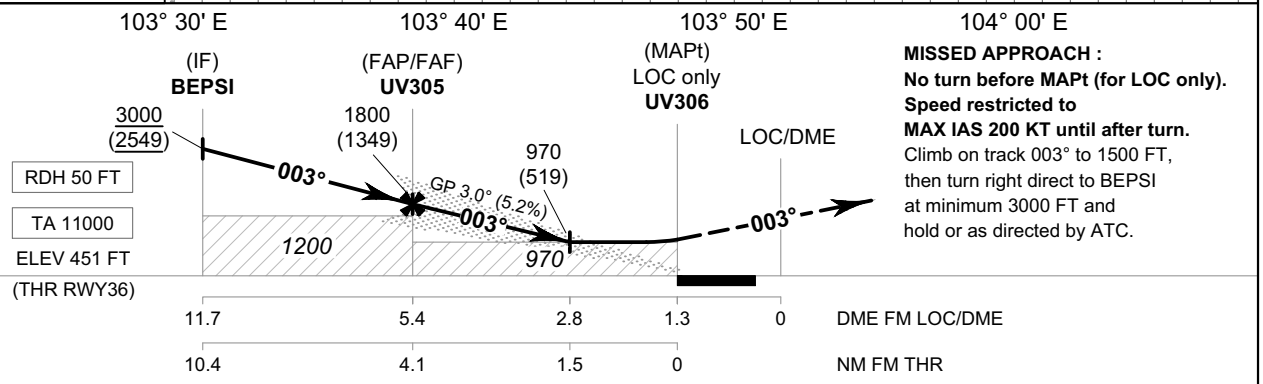
**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET / Roi Et (VTUV)**

**ILS or LOC z RWY36**




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 660 (209) | | | |
| LOC only | | 970 (519) | | | |
| Circling (OCH AAL) | | 1200 (749) | | | |

| GS OUT | | FAF | 5D | 4D | 3D | 2.8D |
|---|---|---|---|---|---|---|
| Distance (IROT) | | | | | | |
| Altitude (Height) | | 1800 (1349) | 1670 (1219) | 1355 (904) | 1040 (589) | 970 (519) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y21, Y22 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

**ROI ET / Roi Et (VTUV)**

**ILS or LOC z RWY36**

**TABULAR DESCRIPTION**

| **ILS or LOC z RWY36** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
| 010 | IF | ANKID | - | - | +0.90 | - | - | -8000 | - | - | RNP 1 |
| 020 | TF | (IAF) TEROX | - | 045°(043.7°) | +0.90 | 13.9 | - | +4000 | -230 | - | RNP 1 |
| 030 | TF | (IF) BEPSI | - | 045°(043.7°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | BODUR | - | - | +0.90 | - | - | -8000 | - | - | RNP 1 |
| 020 | TF | (IAF) TEROX | - | 085°(083.9°) | +0.90 | 18.9 | L | +4000 | -230 | - | RNP 1 |
| 030 | TF | (IF) BEPSI | - | 045°(043.7°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | SEDNO | - | - | +0.90 | - | - | +8000 | - | - | RNP 1 |
| 020 | TF | UV301 | - | 111°(110.4°) | +0.90 | 15.4 | R | +8000 | - | - | RNP 1 |
| 030 | TF | UV302 | - | 183°(182.4°) | +0.90 | 9.0 | - | -6000 | - | - | RNP 1 |
| 040 | TF | ATNOD | - | 183°(182.4°) | +0.90 | 7.0 | L | -5000 | - | - | RNP 1 |
| 050 | TF | (IAF) TEROX | - | 121°(119.7°) | +0.90 | 10.6 | L | +4000 | -230 | - | RNP 1 |
| 060 | TF | (IF) BEPSI | - | 045°(043.7°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | DOTUS | - | - | +0.90 | - | - | +8000 | - | - | RNP 1 |
| 020 | TF | UV301 | - | 168°(166.8°) | +0.90 | 19.3 | R | +8000 | - | - | RNP 1 |
| 030 | TF | UV302 | - | 183°(182.4°) | +0.90 | 9.0 | - | -6000 | - | - | RNP 1 |
| 040 | TF | ATNOD | - | 183°(182.4°) | +0.90 | 7.0 | L | -5000 | - | - | RNP 1 |
| 050 | TF | (IAF) TEROX | - | 121°(119.7°) | +0.90 | 10.6 | L | +4000 | -230 | - | RNP 1 |
| 060 | TF | (IF) BEPSI | - | 045°(043.7°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | ENTEK | - | - | +0.90 | - | - | -8000 | - | - | RNP 1 |
| 020 | TF | (IAF) AGIRO | - | 281°(279.8°) | +0.90 | 18.8 | R | +4000 | -230 | - | RNP 1 |
| 030 | TF | (IF) BEPSI | - | 315°(313.8°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | RURAR | - | - | +0.90 | - | - | +8000 | - | - | RNP 1 |
| 020 | TF | UV303 | - | 246°(245.1°) | +0.90 | 14.1 | L | +8000 | - | - | RNP 1 |
| 030 | TF | UV304 | - | 183°(182.5°) | +0.90 | 10.9 | - | -6000 | - | - | RNP 1 |
| 040 | TF | KATBU | - | 183°(182.5°) | +0.90 | 7.0 | R | -5000 | - | - | RNP 1 |
| 050 | TF | (IAF) AGIRO | - | 243°(242.5°) | +0.90 | 10.1 | R | +4000 | -230 | - | RNP 1 |
| 060 | TF | (IF) BEPSI | - | 315°(313.8°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) BEPSI | - | - | +0.90 | - | - | +3000 | -230 | - | RNP 1 |
| **TRANSITION TO ILS or LOC** | | | | | | | | | | | |
| 020 | TF | (FAP/FAF) UV305 | - | 003°(002.5°) | +0.90 | 6.3 | - | @1800 | - | - | ILS |
| 030 | TF | (MAPt@THR36) UV306 | Y | 003°(002.5°) | +0.90 | 4.1 | - | @501 | - | -3.0/50 | ILS |
| 040 | CA | - | - | 003°(002.5°) | +0.90 | - | - | +1500 | -200 | - | RNP 1 |
| 050 | DF | (IF) BEPSI | - | - | +0.90 | - | R | +3000 | -200 | - | RNP 1 |
| 060 | HM | (IF) BEPSI | Y | 003°(002.5°) | +0.90 | 1 minute | R | +3000 | -230 | - | RNP 1 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

**ROI ET / Roi Et (VTUV)**

**ILS or LOC z RWY36**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IF)<br>BEPSI | 11.7D IROT | 15° 55' 58.22" N | 103° 45' 56.13" E |
| (FAP/FAF)<br>UV305 | 5.4D IROT | 16° 02' 19.35" N | 103° 46' 13.13" E |
| MAPt (LOC only)<br>THR RWY36 | 1.3D IROT | 16° 06' 26.14" N | 103° 46' 24.15" E |
| GP | - | 16° 06' 35.75" N | 103° 46' 20.59" E |
| LOC/DME | IROT | 16° 07' 44.27" N | 103° 46' 27.69" E |

CHANGE : LOC/DME, GP COORDINATE

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

**ROI ET / Roi Et (VTUV)**

**ILS or LOC z RWY36**

## WAYPOINT LIST

| **ILS or LOC z RWY36** | |
|---|---|
| Waypoint Identifier | Coordinates |
| AGIRO | 15° 51' 06.48" N 103° 51' 10.85" E |
| ANKID | 15° 40' 48.67" N 103° 30' 57.40" E |
| ATNOD | 15° 56' 08.67" N 103° 31' 24.04" E |
| BEPSI | 15° 55' 58.22" N 103° 45' 56.13" E |
| BODUR | 15° 48' 52.90" N 103° 21' 27.21" E |
| DOTUS | 16° 31' 03.01" N 103° 27' 31.56" E |
| ENTEK | 15° 47' 54.67" N 104° 10' 24.31" E |
| KATBU | 15° 55' 48.14" N 104° 00' 28.29" E |
| RURAR | 16° 19' 43.04" N 104° 14' 35.65" E |
| SEDNO | 16° 17' 33.31" N 103° 17' 07.18" E |
| TEROX | 15° 50' 53.58" N 103° 40' 54.75" E |
| UV301 | 16° 12' 09.50" N 103° 32' 05.74" E |
| UV302 | 16° 03' 10.05" N 103° 31' 42.32" E |
| UV303 | 16° 13' 45.01" N 104° 01' 17.65" E |
| UV304 | 16° 02' 49.48" N 104° 00' 47.58" E |
| UV305 | 16° 02' 19.35" N 103° 46' 13.13" E |
| UV306 | 16° 06' 26.14" N 103° 46' 24.15" E |

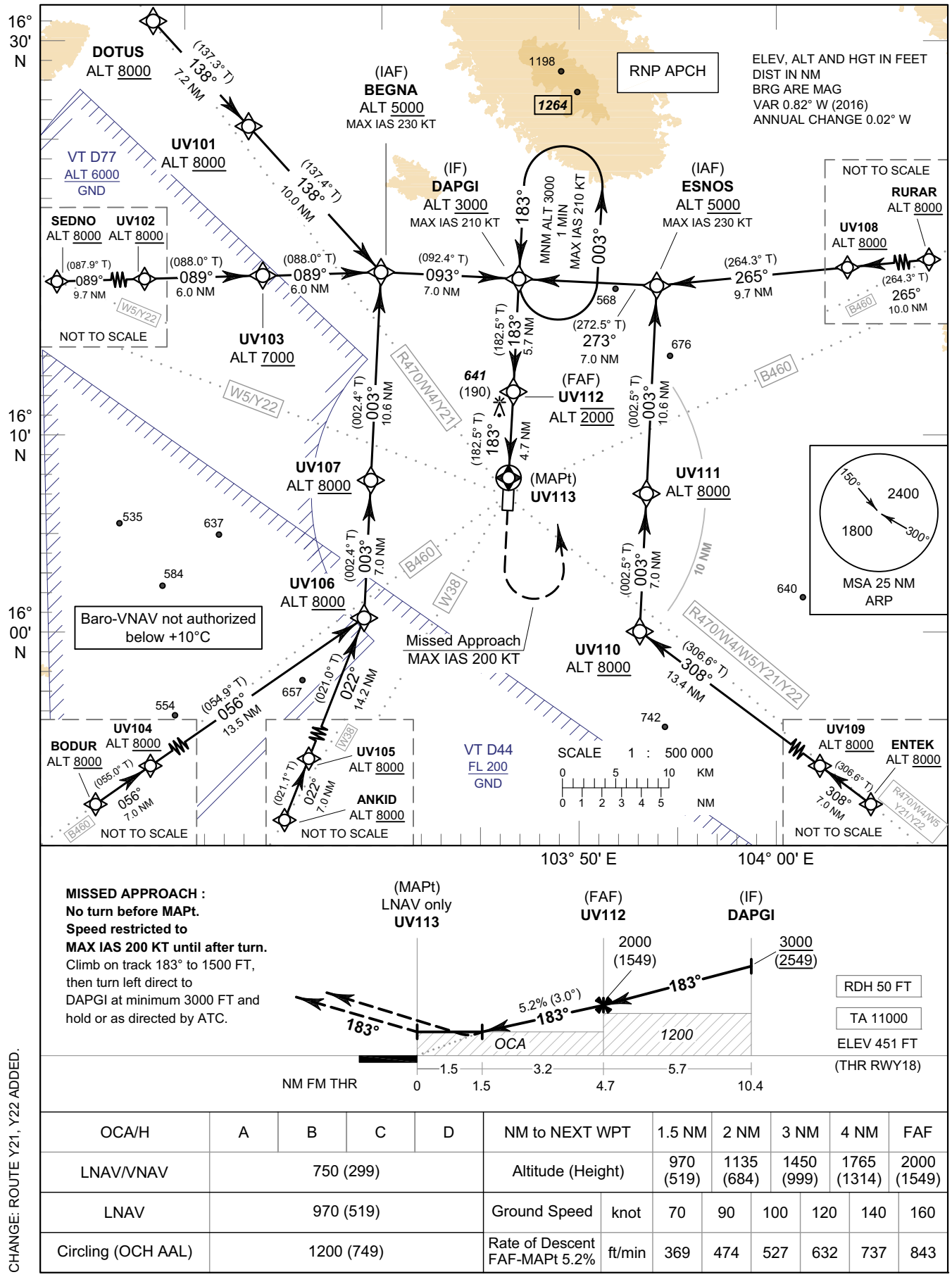
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 451 FT

APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET / Roi Et (VTUV)**

**RNP RWY18**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb on track 183° to 1500 FT,
then turn left direct to
DAPGI at minimum 3000 FT and
hold or as directed by ATC.




| OCA/H | A | B | C | D | NM to NEXT WPT | | 1.5 NM | 2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 750 (299) | | | | Altitude (Height) | | 970 (519) | 1135 (684) | 1450 (999) | 1765 (1314) | 2000 (1549) |
| LNAV | 970 (519) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1200 (749) | | | | Rate of Descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y21, Y22 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 451 FT

**ROI ET / Roi Et (VTUV)**

**RNP RWY18**

**TABULAR DESCRIPTION (1)**

**RNP RWY18**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | DOTUS | - | - | +0.90 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UV101 | - | 138°(137.3°) | +0.90 | 7.2 | - | +8000 | - | - | RNP APCH |
| 030 | TF | (IAF) BEGNA | - | 138°(137.4°) | +0.90 | 10.0 | L | +5000 | -230 | - | RNP APCH |
| 040 | TF | (IF) DAPGI | - | 093°(092.4°) | +0.90 | 7.0 | - | +3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SEDNO | - | - | +0.90 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UV102 | - | 089°(087.9°) | +0.90 | 9.7 | - | +8000 | - | - | RNP APCH |
| 030 | TF | UV103 | - | 089°(088.0°) | +0.90 | 6.0 | - | +7000 | - | - | RNP APCH |
| 040 | TF | (IAF) BEGNA | - | 089°(088.0°) | +0.90 | 6.0 | R | +5000 | -230 | - | RNP APCH |
| 050 | TF | (IF) DAPGI | - | 093°(092.4°) | +0.90 | 7.0 | - | +3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | BODUR | - | - | +0.90 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UV104 | - | 056°(055.0°) | +0.90 | 7.0 | - | +8000 | - | - | RNP APCH |
| 030 | TF | UV106 | - | 056°(054.9°) | +0.90 | 13.5 | L | +8000 | - | - | RNP APCH |
| 040 | TF | UV107 | - | 003°(002.4°) | +0.90 | 7.0 | - | +8000 | - | - | RNP APCH |
| 050 | TF | (IAF) BEGNA | - | 003°(002.4°) | +0.90 | 10.6 | R | +5000 | -230 | - | RNP APCH |
| 060 | TF | (IF) DAPGI | - | 093°(092.4°) | +0.90 | 7.0 | - | +3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ANKID | - | - | +0.90 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UV105 | - | 022°(021.1°) | +0.90 | 7.0 | - | +8000 | - | - | RNP APCH |
| 030 | TF | UV106 | - | 022°(021.0°) | +0.90 | 14.2 | L | +8000 | - | - | RNP APCH |
| 040 | TF | UV107 | - | 003°(002.4°) | +0.90 | 7.0 | - | +8000 | - | - | RNP APCH |
| 050 | TF | (IAF) BEGNA | - | 003°(002.4°) | +0.90 | 10.6 | R | +5000 | -230 | - | RNP APCH |
| 060 | TF | (IF) DAPGI | - | 093°(092.4°) | +0.90 | 7.0 | - | +3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ENTEK | - | - | +0.90 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UV109 | - | 308°(306.6°) | +0.90 | 7.0 | - | +8000 | - | - | RNP APCH |
| 030 | TF | UV110 | - | 308°(306.6°) | +0.90 | 13.4 | R | +8000 | - | - | RNP APCH |
| 040 | TF | UV111 | - | 003°(002.5°) | +0.90 | 7.0 | - | +8000 | - | - | RNP APCH |
| 050 | TF | (IAF) ESNOS | - | 003°(002.5°) | +0.90 | 10.6 | L | +5000 | -230 | - | RNP APCH |
| 060 | TF | (IF) DAPGI | - | 273°(272.5°) | +0.90 | 7.0 | - | +3000 | -210 | - | RNP APCH |

CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 451 FT

**ROI ET / Roi Et (VTUV)**

**RNP RWY18**

**TABULAR DESCRIPTION (2)**

| RNP RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | RURAR | - | - | +0.90 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UV108 | - | 265°(264.3°) | +0.90 | 10.0 | - | +8000 | - | - | RNP APCH |
| 030 | TF | (IAF) ESNOS | - | 265°(264.3°) | +0.90 | 9.7 | R | +5000 | -230 | - | RNP APCH |
| 040 | TF | (IF) DAPGI | - | 273°(272.5°) | +0.90 | 7.0 | - | +3000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) DAPGI | - | - | +0.90 | - | - | +3000 | -210 | - | RNP APCH |
| 020 | TF | (FAF) UV112 | - | 183°(182.5°) | +0.90 | 5.7 | - | @2000 | - | - | RNP APCH |
| 030 | TF | (MAPt@THR18) UV113 | Y | 183°(182.5°) | +0.90 | 4.7 | - | @501 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 183°(182.5°) | +0.90 | - | - | +1500 | -200 | - | RNP APCH |
| 050 | DF | (IF) DAPGI | - | - | +0.90 | - | L | +3000 | -200 | - | RNP APCH |
| 060 | HM | (IF) DAPGI | Y | 183°(182.5°) | +0.90 | 1 minute | L | +3000 | -210 | - | RNP APCH |

**WAYPOINT LIST**

| RNP RWY18 | | | |
|---|---|---|---|
| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
| ANKID | 15° 40' 48.67" N 103° 30' 57.40" E | UV103 | 16° 18' 07.60" N 103° 33' 24.87" E |
| BEGNA | 16° 18' 20.39" N 103° 39' 38.95" E | UV104 | 15° 52' 54.95" N 103° 27' 24.01" E |
| BODUR | 15° 48' 52.90" N 103° 21' 27.21" E | UV105 | 15° 47' 22.23" N 103° 33' 33.97" E |
| DAPGI | 16° 18' 02.38" N 103° 46' 55.25" E | UV106 | 16° 00' 42.97" N 103° 38' 52.38" E |
| DOTUS | 16° 31' 03.01" N 103° 27' 31.56" E | UV107 | 16° 07' 44.34" N 103° 39' 10.92" E |
| ENTEK | 15° 47' 54.67" N 104° 10' 24.31" E | UV108 | 16° 18' 42.99" N 104° 04' 14.85" E |
| ESNOS | 16° 17' 44.13" N 103° 54' 11.52" E | UV109 | 15° 52' 06.05" N 104° 04' 34.48" E |
| RURAR | 16° 19' 43.04" N 104° 14' 35.65" E | UV110 | 16° 00' 06.74" N 103° 53' 23.67" E |
| SEDNO | 16° 17' 33.31" N 103° 17' 07.18" E | UV111 | 16° 07' 08.09" N 103° 53' 42.72" E |
| UV101 | 16° 25' 43.72" N 103° 32' 36.37" E | UV112 | 16° 12' 17.45" N 103° 46' 39.83" E |
| UV102 | 16° 17' 54.63" N 103° 27' 10.81" E | UV113 | 16° 07' 34.53" N 103° 46' 27.20" E |

CHANGE: CHART TITLE.

**INTENTIONALLY BLANK**

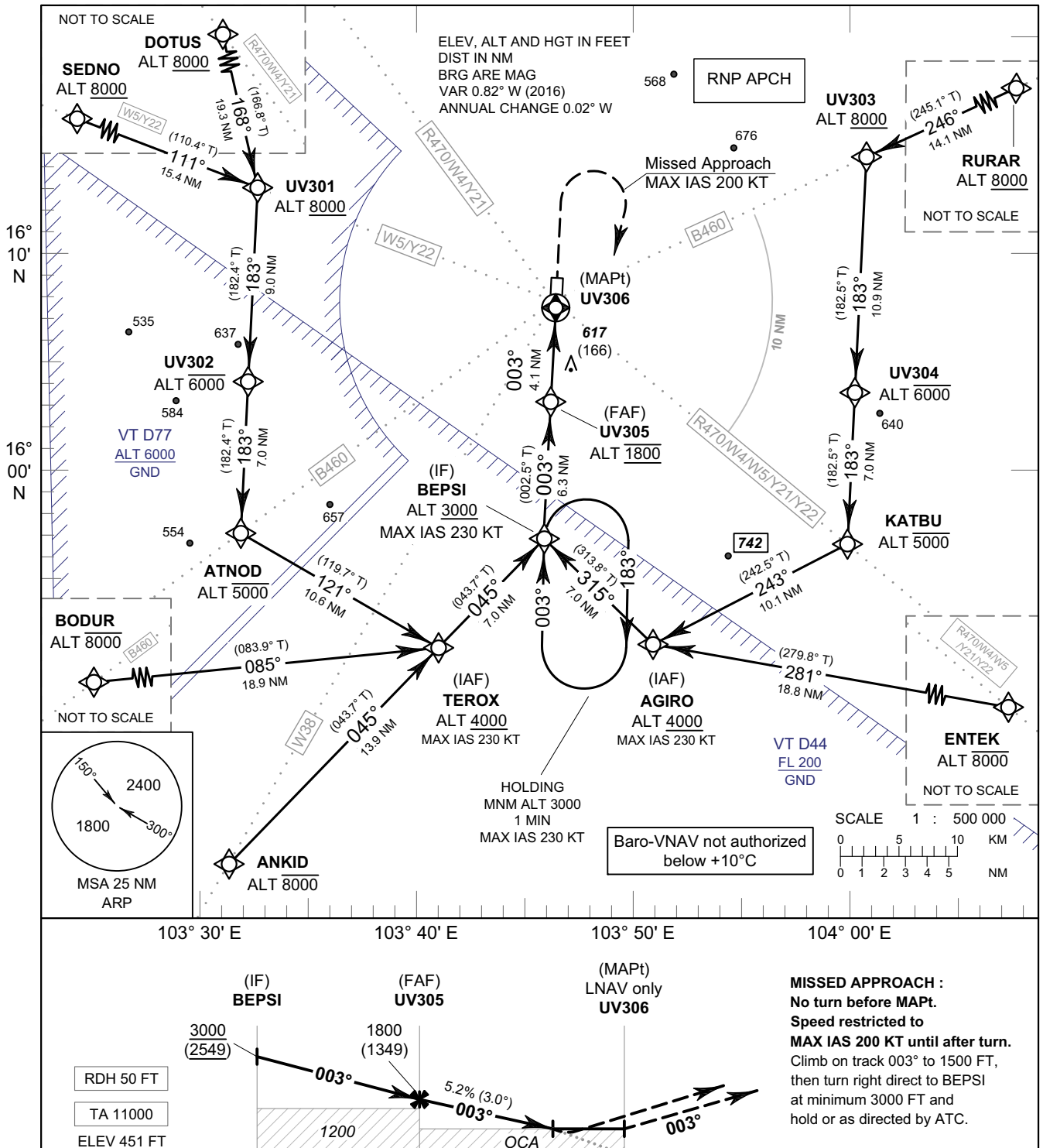
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET / Roi Et (VTUV)**

**RNP RWY36**







| OCA/H | A | B | C | D | NM to NEXT WPT | | FAF | 4 NM | 3 NM | 2 NM | 1.5 NM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 800 (349) | | | | Altitude (Height) | | 1800 (1349) | 1765 (1314) | 1450 (999) | 1135 (684) | 970 (519) |
| LNAV | 970 (519) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1200 (749) | | | | Rate of Descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: ROUTE Y21, Y22 ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

**ROI ET / Roi Et (VTUV)**

**RNP RWY36**

**TABULAR DESCRIPTION**

| RNP RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | ANKID | - | - | +0.90 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IAF) TEROX | - | 045°(043.7°) | +0.90 | 13.9 | - | +4000 | -230 | - | RNP APCH |
| 030 | TF | (IF) BEPSI | - | 045°(043.7°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | BODUR | - | - | +0.90 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IAF) TEROX | - | 085°(083.9°) | +0.90 | 18.9 | L | +4000 | -230 | - | RNP APCH |
| 030 | TF | (IF) BEPSI | - | 045°(043.7°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SEDNO | - | - | +0.90 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UV301 | - | 111°(110.4°) | +0.90 | 15.4 | R | +8000 | - | - | RNP APCH |
| 030 | TF | UV302 | - | 183°(182.4°) | +0.90 | 9.0 | - | -6000 | - | - | RNP APCH |
| 040 | TF | ATNOD | - | 183°(182.4°) | +0.90 | 7.0 | L | -5000 | - | - | RNP APCH |
| 050 | TF | (IAF) TEROX | - | 121°(119.7°) | +0.90 | 10.6 | L | +4000 | -230 | - | RNP APCH |
| 060 | TF | (IF) BEPSI | - | 045°(043.7°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | DOTUS | - | - | +0.90 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UV301 | - | 168°(166.8°) | +0.90 | 19.3 | R | +8000 | - | - | RNP APCH |
| 030 | TF | UV302 | - | 183°(182.4°) | +0.90 | 9.0 | - | -6000 | - | - | RNP APCH |
| 040 | TF | ATNOD | - | 183°(182.4°) | +0.90 | 7.0 | L | -5000 | - | - | RNP APCH |
| 050 | TF | (IAF) TEROX | - | 121°(119.7°) | +0.90 | 10.6 | L | +4000 | -230 | - | RNP APCH |
| 060 | TF | (IF) BEPSI | - | 045°(043.7°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ENTEK | - | - | +0.90 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | (IAF) AGIRO | - | 281°(279.8°) | +0.90 | 18.8 | R | +4000 | -230 | - | RNP APCH |
| 030 | TF | (IF) BEPSI | - | 315°(313.8°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RURAR | - | - | +0.90 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | UV303 | - | 246°(245.1°) | +0.90 | 14.1 | L | +8000 | - | - | RNP APCH |
| 030 | TF | UV304 | - | 183°(182.5°) | +0.90 | 10.9 | - | -6000 | - | - | RNP APCH |
| 040 | TF | KATBU | - | 183°(182.5°) | +0.90 | 7.0 | R | -5000 | - | - | RNP APCH |
| 050 | TF | (IAF) AGIRO | - | 243°(242.5°) | +0.90 | 10.1 | R | +4000 | -230 | - | RNP APCH |
| 060 | TF | (IF) BEPSI | - | 315°(313.8°) | +0.90 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | BEPSI (IF) | - | - | +0.90 | - | - | +3000 | -230 | - | RNP APCH |
| 020 | TF | (FAF) UV305 | - | 003°(002.5°) | +0.90 | 6.3 | - | @1800 | - | - | RNP APCH |
| 030 | TF | (MAPt@THR36) UV306 | Y | 003°(002.5°) | +0.90 | 4.1 | - | @501 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 003°(002.5°) | +0.90 | - | - | +1500 | -200 | - | RNP APCH |
| 050 | DF | (IF) BEPSI | - | - | +0.90 | - | R | +3000 | -200 | - | RNP APCH |
| 060 | HM | (IF) BEPSI | Y | 003°(002.5°) | +0.90 | 1 minute | R | +3000 | -230 | - | RNP APCH |

CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 451 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

**ROI ET / Roi Et (VTUV)**

**RNP RWY36**

## WAYPOINT LIST

| **RNP RWY36** | |
|---|---|
| Waypoint Identifier | Coordinates |
| AGIRO | 15° 51' 06.48" N 103° 51' 10.85" E |
| ANKID | 15° 40' 48.67" N 103° 30' 57.40" E |
| ATNOD | 15° 56' 08.67" N 103° 31' 24.04" E |
| BEPSI | 15° 55' 58.22" N 103° 45' 56.13" E |
| BODUR | 15° 48' 52.90" N 103° 21' 27.21" E |
| DOTUS | 16° 31' 03.01" N 103° 27' 31.56" E |
| ENTEK | 15° 47' 54.67" N 104° 10' 24.31" E |
| KATBU | 15° 55' 48.14" N 104° 00' 28.29" E |
| RURAR | 16° 19' 43.04" N 104° 14' 35.65" E |
| SEDNO | 16° 17' 33.31" N 103° 17' 07.18" E |
| TEROX | 15° 50' 53.58" N 103° 40' 54.75" E |
| UV301 | 16° 12' 09.50" N 103° 32' 05.74" E |
| UV302 | 16° 03' 10.05" N 103° 31' 42.32" E |
| UV303 | 16° 13' 45.01" N 104° 01' 17.65" E |
| UV304 | 16° 02' 49.48" N 104° 00' 47.58" E |
| UV305 | 16° 02' 19.35" N 103° 46' 13.13" E |
| UV306 | 16° 06' 26.14" N 103° 46' 24.15" E |

CHANGE: CHART TITLE.

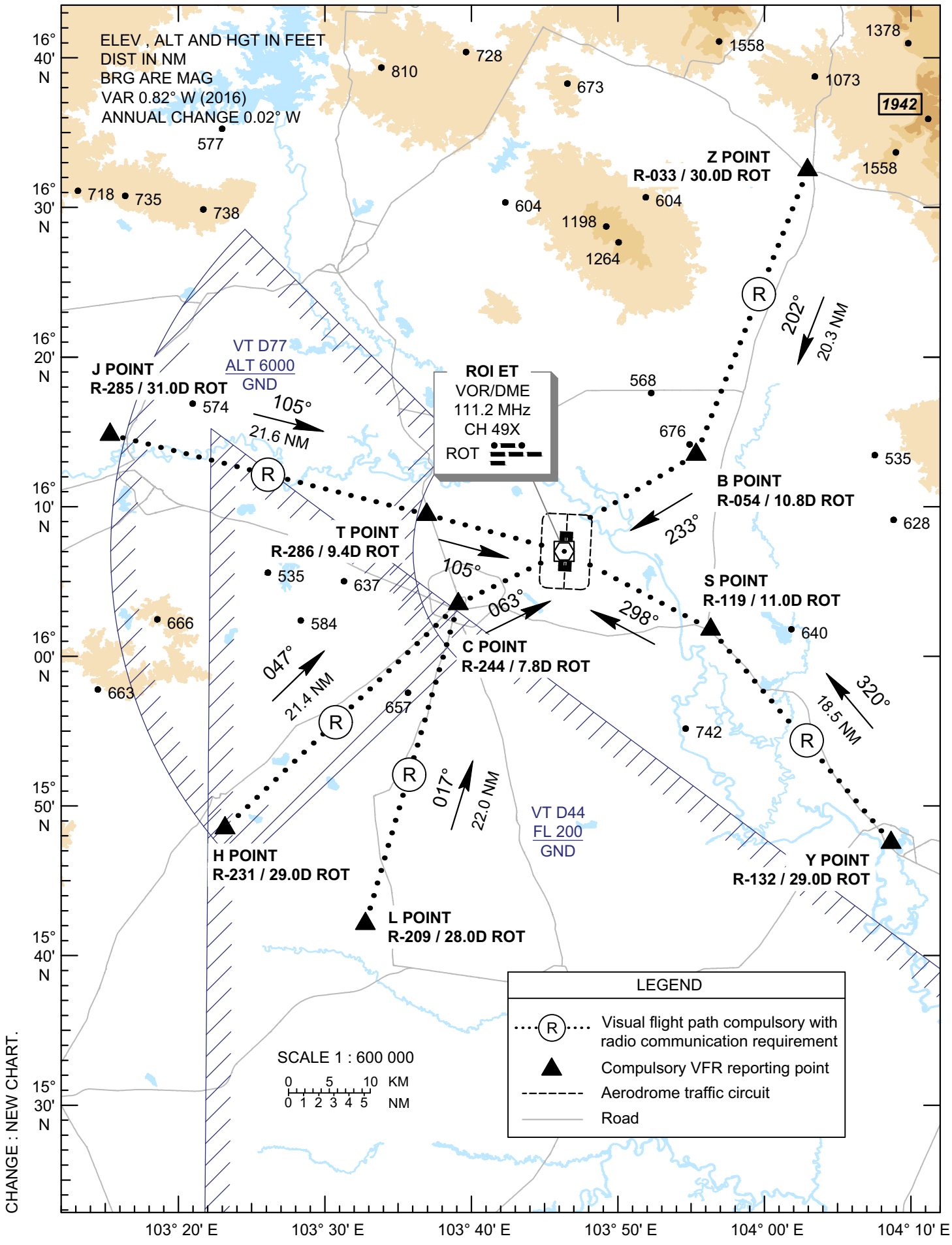
**INTENTIONALLY BLANK**

**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 451 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET /
Roi Et (VTUV)
RWY 18/36**



**VFR ENTRY PROCEDURE CHART**

**AERODROME ELEV 451 FT**
HEIGHT RELATED TO AERODROME ELEV

**ROI ET / Roi Et (VTUV) RWY 18/36**

ARR-RWY18/36 (From VTUK)
Enter via most direct route through the J POINT , then heading 105° to T POINT , then join aerodrome traffic circuit when direct by ATC.

ARR-RWY18/36 (From VTUQ)
Enter via most direct route through the H POINT , then heading 047° to C POINT , then join aerodrome traffic circuit when direct by ATC.

ARR-RWY18/36 (From VTUO)
Enter via most direct route through the L POINT , then heading 017° to C POINT , then join aerodrome traffic circuit when direct by ATC.

ARR-RWY18/36 (From VTUW)
Enter via most direct route through the Z POINT , then heading 202° to B POINT , then join aerodrome traffic circuit when direct by ATC.

ARR-RWY18/36 (From VTUU)
Enter via most direct route through the Y POINT , then heading 320° to S POINT , then join aerodrome traffic circuit when direct by ATC.

| Reporting Points | Visual Reference | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longtitude |
| "B" or BRAVO Point | Pho Si Sawang intersection | R-054 / 10.8D ROT | 16° 13' 29.60" N | 103° 55' 21.37" E |
| "C" or CHALIE Point | Planchai Swamp | R-244 / 7.8D ROT | 16° 03' 28.55" N | 103° 39' 04.13" E |
| "H" or HOTEL Point | Hexagon Pond | R-231 / 29.0D ROT | 15° 48' 28.63" N | 103° 23' 10.46" E |
| "J" or JULIET Point | Mahasarakham University | R-285 / 31.0D ROT | 16° 14' 33.17" N | 103° 15' 03.57" E |
| "L" or LIMA Point | Lao Luang Temple | R-209 / 28.0D ROT | 15° 42' 06.02" N | 103° 32' 48.97" E |
| "S" or SIERRA Point | Salaloi Lake | R-119 / 11.0D ROT | 16° 01' 53.12" N | 103° 56' 24.99" E |
| "T" or TANGO Point | Wat Bueng Sai Thong | R-286 / 9.4D ROT | 16° 09' 23.79" N | 103° 36' 51.83" E |
| "Y" or YANKEE Point | Mueang Yasothon | R-132 / 29.0D ROT | 15° 47' 45.62" N | 104° 08' 52.16" E |
| "Z" or ZULU Point | Lerng Sew Lake | R-033 / 30.0D ROT | 16° 32' 31.41" N | 104° 02' 54.65" E |
| ROI ET VOR/DME (ROT) | ROI ET VOR/DME Station | - | 16° 07' 00.59" N | 103° 46' 19.45" E |

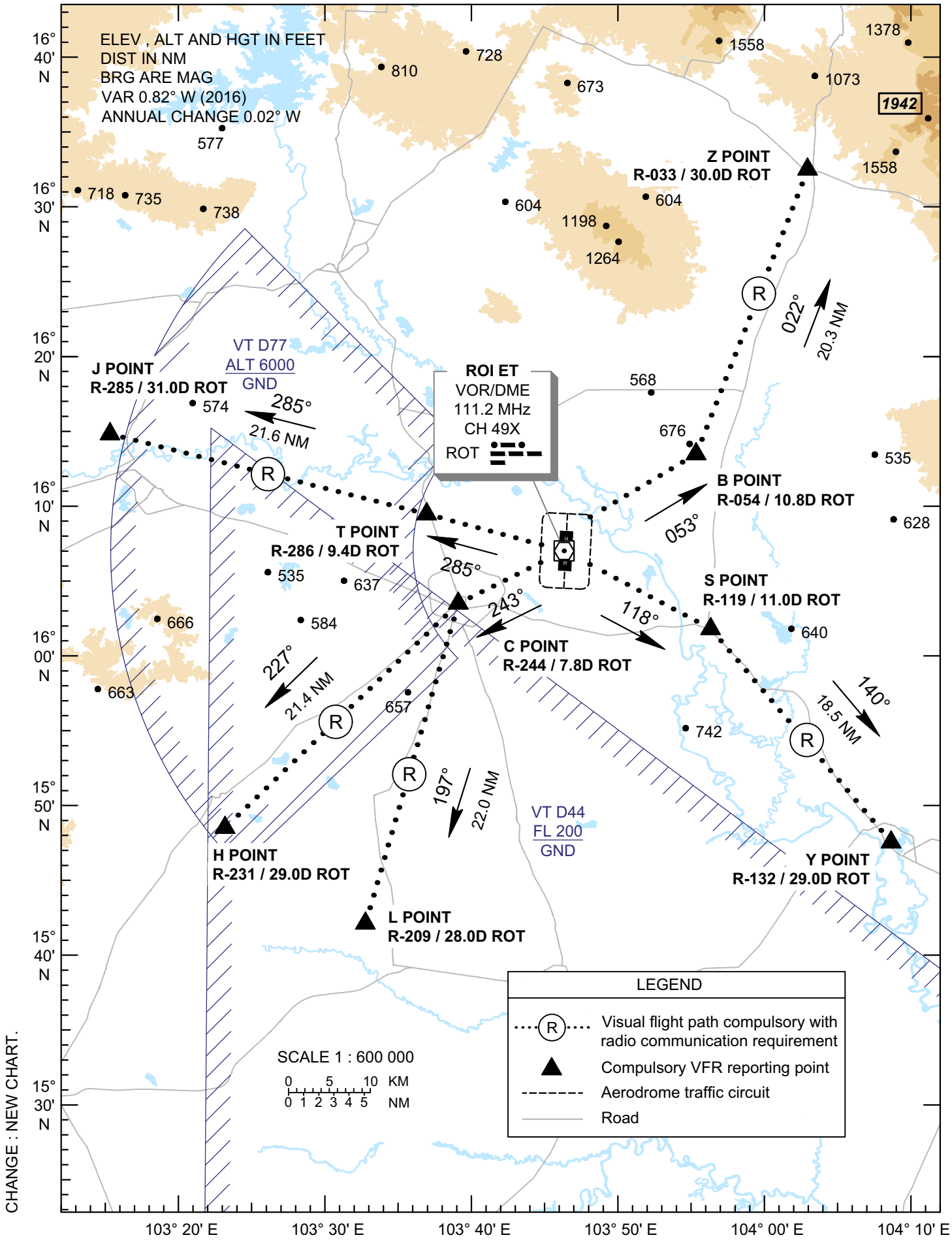
CHANGE : NEW CHART.

**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 451 FT**
HEIGHT RELATED TO AERODROME ELEV

APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

**ROI ET /
Roi Et (VTUV)
RWY 18/36**



**VFR EXIT PROCEDURE CHART**

**AERODROME ELEV 451 FT**
HEIGHT RELATED TO AERODROME ELEV

**ROI ET / Roi Et (VTUV) RWY 18/36**

DEP-RWY18/36 (To VTUK)
Outbound to T POINT, then heading 285° to J POINT, then proceed to destination.

DEP-RWY18/36 (To VTUQ)
Outbound to C POINT, then heading 227° to H POINT, then proceed to destination.

DEP-RWY18/36 (To VTUO)
Outbound to C POINT, then heading 197° to L POINT, then proceed to destination.

DEP-RWY18/36 (To VTUW)
Outbound to B POINT, then heading 022° to Z POINT, then proceed to destination.

DEP-RWY18/36 (To VTUU)
Outbound to S POINT, then heading 140° to Y POINT, then proceed to destination.

| Reporting Points | Visual Reference | Radial / DME | Coordinates | |
|---|---|---|---|---|
| | | | Latitude | Longtitude |
| "B" or BRAVO Point | Pho Si Sawang intersection | R-054 / 10.8D ROT | 16° 13' 29.60" N | 103° 55' 21.37" E |
| "C" or CHALIE Point | Planchai Swamp | R-244 / 7.8D ROT | 16° 03' 28.55" N | 103° 39' 04.13" E |
| "H" or HOTEL Point | Hexagon Pond | R-231 / 29.0D ROT | 15° 48' 28.63" N | 103° 23' 10.46" E |
| "J" or JULIET Point | Mahasarakham University | R-285 / 31.0D ROT | 16° 14' 33.17" N | 103° 15' 03.57" E |
| "L" or LIMA Point | Lao Luang Temple | R-209 / 28.0D ROT | 15° 42' 06.02" N | 103° 32' 48.97" E |
| "S" or SIERRA Point | Salaloi Lake | R-119 / 11.0D ROT | 16° 01' 53.12" N | 103° 56' 24.99" E |
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| "Z" or ZULU Point | Lerng Sew Lake | R-033 / 30.0D ROT | 16° 32' 31.41" N | 104° 02' 54.65" E |
| ROI ET VOR/DME (ROT) | ROI ET VOR/DME Station | - | 16° 07' 00.59" N | 103° 46' 19.45" E |

CHANGE : NEW CHART.

## VTBW AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTBW - SA KAEO / WATTHANA NAKHON AIRPORT

## VTBW AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 134607.52N 1021855.97E |
| 2 | Direction and distance from (city) | 3 KM NW of Watthana Nakhon District |
| 3 | Elevation/Reference temperature | 225 FT/35°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0°36'W(2017)/0'W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Wing 3, Watthana Nakhon Air Force Base<br>Sakaeo Province<br>Thailand<br>Tel: +663 755 0477<br>+662 534 6000 Ext. 42908<br>+662 534 6000 Ext. 42957<br>AFS: VTBWYXYX |
| 7 | Types of traffic permitted (IFR/VFR) | VFR |
| 8 | Remarks | Operator: Royal Thai Air Force |

## VTBW AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 0100 - 0900 MON-FRI |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | 0100 - 0900 MON-FRI |
| 4 | AIS Briefing Office | 0100 - 0900 MON-FRI |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | 0100 - 0900 MON-FRI |
| 7 | ATS | 2300 - 1100 every day |
| 8 | Fuelling | 0100 - 0900 MON-FRI |
| 9 | Handling | 0100 - 0900 MON-FRI |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | Outside these HR services are available O/R.<br>Request to be submitted to TWR not later than 0800 UTC |

## VTBW AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JP8 |
| 3 | Fuelling facilities/capacity | 1 Truck 12 000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTBW AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | Near the AD and in the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Car hire from and to the city |
| 4 | Medical facilities | Base Dispensary. Hospital in the city |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | Office in the city |
| 7 | Remarks | NIL |

## VTBW AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 2 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | Fire fighting Service H24 |

## VTBW AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTBW AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Apron (Tower)<br>Surface: Asphalt<br>Strength:PCN 33/F/C/X/T<br>Apron (301 Sqn.)<br>Surface: Concrete<br>Strength: PCN 17/R/C/W/T |
| 2 | Taxiway width, surface and strength | Taxiway A, B, C, D and E<br>Width: 20 M<br>Surface: Asphalt<br>Strength: PCN 40/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTBW AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxiing guidance signs at all intersections with TWY and RWY and at all holding position<br>Parking follows the signalman. |
| 2 | RWY and TWY markings and LGT | RWY and TWY: marked and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTBW AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 05/APP<br>23/TKOF | Mast<br>HGT 132 M<br>painted red/white<br>LGTD on top | 134512.2080N<br>1021733.1127E | Mast<br>HGT 92 M<br>painted red/white<br>LGTD on top | 134601.6368N<br>1021907E | NIL |
| | | | Radio mast<br>HGT 125 M<br>painted red/white<br>LGTD on top | 134551.8769N<br>1021933.5594E | |
| | | | Mast<br>HGT 148 M<br>painted red/white<br>LGTD on top | 134456.8591N<br>1021919.3544E | |
| | | | Mast<br>HGT 150 M<br>painted red/white<br>LGTD on top | 134420.8282N<br>1021917.6655E | |
| | | | Mast<br>HGT 190 M<br>painted red/white<br>LGTD on top | 134423.5891N<br>1021855.9209E | |
| | | | Mast<br>HGT 139 M<br>painted red/white<br>LGTD on top | 134447.7444N<br>1021829.3271E | |
| | | | Radio mast<br>HGT 129 M<br>painted red/white<br>LGTD on top | 134451.8533N<br>1021804.5503E | |
| | | | Mast<br>HGT 162 M<br>painted red/white<br>LGTD on top | 134521.6841N<br>1021646.3603E | |
| | | | Mast<br>HGT 161 M<br>painted red/white<br>LGTD on top | 134545.2971N<br>1021653.5423E | |

## VTBW AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Met Section Wing 3, Watthana Nakhon Air Force Base |
| 2 | Hours of service<br>MET Office outside hours | H24 |
| 3 | Office responsible for TAF preparation<br>Periods of validity | NIL |
| 4 | Type of landing forecast<br>Interval of issuance | TEMPO |
| 5 | Briefing/consultation provided | Personal Consultation |
| 6 | Flight documentation<br>Language(s) used | Charts, plain language text.<br>Thai |

| | | |
|---|---|---|
| 7 | Charts and other information available for briefing or consultation | Synoptic chart, wind aloft chart<br>FATHAI AD forecast, RADAR NETWORK |
| 8 | Supplementary equipment available for providing information | Tel: +662 534 6000 ext.42909 |
| 9 | ATS units provided with information | WATTHANA NAKON TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTBW AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | NIL | 1500x35 | PCN 40/F/C/X/T<br>Asphalt | 134551.81N<br>1021836.88E | 68 M / 225 FT |
| 23 | NIL | 1500x35 | PCN 40/F/C/X/T<br>Asphalt | 134623.24N<br>1021915.07E | 66 M / 217 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | 150x35 | NIL | NIL | NIL | NIL |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTBW AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | 1500 | 1500 | 1650 | 1500 | NIL |
| 23 | 1500 | 1500 | 1500 | 1500 | NIL |

## VTBW AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 05 | NIL | Green | APAPI LEFT 3° | NIL | NIL | 1500 M 60 M | NIL | NIL | NIL |
| 23 | NIL | Green | APAPI LEFT 3° | NIL | NIL | 1500 M 60 M | NIL | NIL | NIL |

## VTBW AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building, FLG W G EV 2.5 SEC<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | WDI 530 M right side FM THR RWY 05, 78 M FM RCL |
| 3 | TWY edge and centre line lighting | EDGE: All TWY A,B,C,D,E Centre line: NIL |
| 4 | Secondary power supply/switch-over time | NIL |
| 5 | Remarks | NIL |

## VTBW AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | Helicopter LDG/TKOF by using runways. |

## VTBW AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 10NM radius centred on 134607.52N 1021588.97E |
| 2 | Vertical limits | 5500 FT/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Watthana Nakhon Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTBW AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Watthana Nakon TWR | UHF 236.6 MHZ<br>VHF 120.75 MHZ<br>*121.5 MHZ<br>*243.0 MHZ | 2300-1100<br>Every day | Primary operation<br><br>*Emergency Freq. |
| GND | Watthana Nakon Ground | UHF 298.0 MHZ<br>VHF 123.3 MHZ | | |

## VTBW AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | WN | 270 KHZ | 2300-1100 | 134602.62N<br>1021906.28E | NIL | NIL |

## VTBW AD 2.20 LOCAL AERODROME REGULATIONS

The Royal Thai Air Force notifies that Watthana Nakhon Air Force Base (Watthana Nakhon AFB) air traffic services (ATS) are basically available for military aircraft and government owned aircraft. Therefore, the Watthana Nakhon AFB is not allowed to use as an alternate aerodrome for civilian aircraft.

## VTBW AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTBW AD 2.22 FLIGHT PROCEDURES

NIL

## VTBW AD 2.23 ADDITIONAL INFORMATION

NIL

## VTBW AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

## VTUI AD 2.1 AERODROME LOCATION INDICATOR AND NAME

**VTUI - SAKON NAKHON / SAKON NAKHON AIRPORT**

## VTUI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 171142.51N 1040707.06E |
| 2 | Direction and distance from (city) | 12 KM N from city |
| 3 | Elevation/Reference temperature | 529 FT |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.93°W(2016)/0.02°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Sakon Nakhon Airport<br>Sakon Nakhon Airport<br>Sakon Nakhon-Nakhon Phanom Road,<br>Thatnaweng, Mueang Sakon Nakhon,<br>Sakon Nakhon 47000<br>Thailand<br>Tel: +664 272 4044-5<br>Fax: +664 272 4041<br>AFS: VTUIYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTUI AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Udon Thani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +664 223 0124<br>+669 2262 3477<br>Fax: +664 224 2797 |

## VTUI AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTUI AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Limousine and Car rental |
| 4 | Medical facilities | Hospital in the city |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTUI AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUI AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUI AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Apron A (EAST)<br>Surface: Concrete<br>Strength: PCN 47/R/D/X/T<br>Apron A (WEST)<br>Surface: Concrete<br>Strength: PCN 47/R/C/X/T |
| 2 | Taxiway width, surface and strength | TWY A, B and C<br>Width: 23 M<br>Surface: Asphalt Concrete<br>Strength: PCN 43/F/D/X/T<br>TWY D<br>Width: 23 M<br>Surface: Asphalt Concrete<br>Strength: PCN 46/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 534 FT (162.61 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUI AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID sings: Marked<br>TWY guide line: Yes<br>VDGS of aircraft stand: NIL,<br>Aircraft parking shall follow marshaller instructions. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, CL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: CL, Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUI AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | **Obstacle type<br>Elevation<br>Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| RWY 05/APCH area<br>RWY 23/TKOF area | Billboard<br>565 FT (172.21 M)<br>NIL / NIL | 171102.92N<br>1040631.98E | AWOS<br>557 FT (169.78 M)<br>Painted red/white<br>LGTD | 171204.57N<br>1040725.55E | |
| | Road sign<br>565 FT (172.28 M)<br>NIL / NIL | 171108.34N<br>1040625.12E | AWOS<br>554 FT (169 M)<br>Painted red/white<br>LGTD | 171204.71N<br>1040725.70E | |
| | Building<br>558 FT (170 M)<br>NIL / NIL | 171108.58N<br>1040627.79E | AWOS<br>565 FT (172.30 M)<br>Painted red/white<br>LGTD | 171205.78N<br>1040726.82E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | High voltage pole<br>685 FT (208.82 M)<br>NIL / LGTD | 171039.18N<br>1040542.57E | AWOS<br>565 FT (172.30 M)<br>Painted red/white<br>LGTD | 171205.85N<br>1040726.89E | |
| | High voltage pole<br>690 FT (210.21 M)<br>NIL / LGTD | 171029.37N<br>1040546.69E | AWOS<br>566 FT (172.49 M)<br>Painted red/white<br>LGTD | 171123.68N<br>1040642.27E | |
| RWY 05/APCH area<br>RWY 23/TKOF area | High voltage pole<br>690 FT (210.35 M)<br>NIL / LGTD | 171020.33N<br>1040550.51E | AWOS<br>566 FT (172.44 M)<br>Painted red/white<br>LGTD | 171123.63N<br>1040642.22E | |
| | High voltage pole<br>677 FT (206.38 M)<br>NIL / LGTD | 171011.45N<br>1040554.25E | Glide slope<br>581 FT (177.11 M)<br>Painted red/white<br>LGTD | 171208.04N<br>1040728.89E | |
| | Telecommunication mast<br>692 FT (210.95 M)<br>NIL / LGTD | 171054.21N<br>1040556.88E | Water tank<br>623 FT (189.79 M)<br>Painted red/white<br>NIL | 171108.38N<br>1040641.39E | |
| | Telecommunication mast<br>683 FT (208.05 M)<br>NIL / LGTD | 171051.27N<br>1040555.96E | Water tank<br>623 FT (190.02 M)<br>Painted red/white<br>NIL | 171107.24N<br>1040640.83E | |
| RWY 05/APCH area<br>RWY 23/TKOF area | Telecommunication mast<br>702 FT (213.95 M)<br>NIL / LGTD | 171049.83N<br>1040557.70E | Radio mast<br>969 FT (295.48 M)<br>Painted red/white<br>LGTD | 171212.06N<br>1040612.10E | |
| | Building<br>577 FT (175.83 M)<br>NIL / NIL | 171110.20N<br>1040625.38E | Radio mast<br>943 FT (287.48 M)<br>Painted red/white<br>LGTD | 171212.93N<br>1040603.60E | |
| | DME<br>552 FT (168.19 M)<br>Painted red/white<br>NIL | 171106.04N<br>1040632.62E | Radio mast<br>748 FT (228 M)<br>Painted red/white<br>LGTD | 171122.86N<br>1040541.29E | |
| | | | Radio mast<br>721 FT (219.72 M)<br>Painted red/white<br>LGTD | 171118.60N<br>1040610.74E | |
| | | | Radio mast<br>714 FT (217.65 M)<br>Painted red/white<br>LGTD | 171107.80N<br>1040646.47E | |
| | | | Radio mast<br>691 FT (210.53 M)<br>Painted red/white<br>LGTD | 171107.13N<br>1040646.94E | |
| | | | Radio mast<br>1003 FT (305.67 M)<br>Painted red/white<br>LGTD | 171042.72N<br>1040450.12E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Radio mast<br>753 FT (229.57 M)<br>Painted red/white<br>LGTD | 171142.38N<br>1040516.89E | |
| | | | Radio mast<br>739 FT (225.23 M)<br>Painted red/white<br>LGTD | 171326.78N<br>1040625.77E | |
| | | | Radio mast<br>738 FT (224.84 M)<br>Painted red/white<br>LGTD | 171326.98N<br>1040624.87E | |
| | | | Radio mast<br>843 FT (256.96 M)<br>Painted red/white<br>LGTD | 170930.62N<br>1040747.19E | |
| | | | Radio mast<br>689 FT (210.16 M)<br>Painted red/white | 170924.19N<br>1040748.64E | |
| | | | Radio mast<br>753 FT (229.64 M)<br>Painted red/white<br>LGTD | 170933.74N<br>1040756.50E | |
| | | | Radio mast<br>720 FT (219.60 M)<br>Painted red/ white<br>LGTD | 170917.59N<br>1040755.09E | |
| | | | Telecommunication mast<br>911 FT (277.70 M)<br>Painted red/white<br>LGTD | 171006.54N<br>1040837.74E | |
| | | | Telecommunication mast<br>682 FT (208 M)<br>Painted red/white<br>LGTD | 171044.15N<br>1040736.92E | |
| | | | Telecommunication mast<br>708 FT (215.74 M)<br>Painted red/white<br>LGTD | 171208.90N<br>1040554.81E | |
| | | | Telecommunication mast<br>697 FT (212.58 M)<br>Painted red/white<br>LGTD | 171148.18N<br>1040536.70E | |
| | | | Telecommunication mast<br>710 FT (216.34 M)<br>Painted red/white<br>LGTD | 171145.02N<br>1040532.02E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Telecommunication mast<br>705 FT (214.82 M)<br>NIL / LGTD | 171343.60N<br>1040617.66E | |
| | | | Telecommunication mast<br>746 FT (227.38 M)<br>Painted red/white<br>LGTD | 171418.09N<br>1040630.19E | |
| | | | Telecommunication mast<br>717 FT (218.66 M)<br>NIL / LGTD | 170930.47N<br>1040746.96E | |
| | | | Telecommunication mast<br>700 FT (213.37 M)<br>NIL / LGTD | 170919.33N<br>1040711.28E | |
| | | | Telecommunication mast<br>794 FT (242 M)<br>Painted red/white<br>LGTD | 170937.09N<br>1040819.64E | |
| | | | Apron Flood light pole<br>620 FT (188.95 M)<br>NIL / LGTD | 171148.83N<br>1040701.48E | |
| | | | Apron Flood light pole<br>620 FT (189.01 M)<br>NIL / LGTD | 171147.47N<br>1040700.05E | |
| | | | Apron Flood light pole<br>620 FT (189.04 M)<br>NIL / LGTD | 171146.11N<br>1040658.63E | |
| | | | Apron Flood light pole<br>621 FT (189.19 M)<br>NIL / LGTD | 171144.96N<br>1040657.43E | |
| | | | Apron Flood light pole<br>621 FT (189.15 M)<br>NIL / LGTD | 171143.82N<br>1040656.25E | |
| | | | Lightning rod<br>on top of building<br>605 FT (184.51 M)<br>NIL / NIL | 171148.11N<br>1040659.37E | |
| | | | ATC tower (Old)<br>593 FT (180.72 M)<br>Painted red/white<br>NIL | 171127.43N<br>1040700.68E | |
| | | | ATC Tower<br>653 FT (199.08 M)<br>Painted red/white<br>LGTD | 171146.23N<br>1040657.29E | |

## VTUI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Sakon Nakhon,<br>Upper Northeastern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Upper Northeastern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +664 271 6574 ext. 7613 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) and Weather Radar |
| 9 | ATS units provided with information | Sakon Nakhon TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | 045.50° | 2600x45 | PCN 43/F/D/X/T<br>Asphaltic Concrete | 171112.56N 1040635.89E | THR 529 FT<br>TDZ 529 FT |
| 23 | 225.50° | 2600x45 | PCN 43/F/D/X/T<br>Asphaltic Concrete | 171212.45N 1040738.22E | THR 526 FT<br>TDZ 526 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 0.0385% | NIL | NIL | 2720x150 | 300x90 | NIL | NIL | NIL |
| 0.0385% | NIL | NIL | 2720x150 | 168x90 | NIL | NIL | NIL |

## VTUI AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | 2600 | 2600 | 2600 | 2600 | NIL |
| 23 | 2600 | 2600 | 2600 | 2600 | NIL |

## VTUI AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 05 | NIL | Green<br>NIL | PAPI<br>LEFT 3°<br>(55.77 FT) | NIL | NIL | 2600 M<br>30 M<br>FM 0 M-2000 M<br>White,<br>FM 2000 M- 2600 M<br>Yellow, LIH | Red<br>NIL | NIL | RTIL |
| 23 | SALS<br>420 M<br>LIH | Green<br>NIL | PAPI<br>LEFT 3°<br>(47.48 FT) | NIL | NIL | 2600 M<br>30 M<br>FM 0 M-2000 M<br>White,<br>FM 2000 M-2600 M<br>Yellow, LIH | Red<br>NIL | NIL | NIL |

## VTUI AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: On top of ATC tower, FLG W G EV 3 SEC.<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI: Wind cone at 1360 M from THR 05 off set to the left side 90 M from RCL, illuminated. |
| 3 | TWY edge and centre line lighting | TWY edge: ALL TWY<br>TWY centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply at Airfield Lighting (AFL) building<br>Switch-over time: 15 SEC. |
| 5 | Remarks | NIL |

## VTUI AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTUI AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on SKN DVOR/DME<br>(171250.8N 1040812.4E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |

| | | |
|---|---|---|
| 4 | ATS unit call sign<br>Language(s) | Sakon Nakhon Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTUI AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Sakon Nakhon Approach | 123.35 MHz<br>284.0 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Sakon Nakhon Tower | 119.65 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Sakon Nakhon Airport | 365.0 KHz | As AD OPR HR | |

## VTUI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | SN | 365 KHz | H24 | 171149.1N<br>1040653.5E | NIL | Data refer from commissioning checked as follows:<br>1. Bearing 181°-360° 50 nm. orbit altitude should not below 3 000 ft.<br>2. Bearing 001°-140° 50 nm. orbit unable to check due to border limited<br>3. Bearing 141°-180° unusable beyond 15 nm. |
| DVOR/DME | SKN | 114.2 MHz<br>CH 89X | H24 | 171250.8N<br>1040812.4E | NIL | DVOR/DME restriction due to mountainous terrain surround DVOR/ DME station, coverage check does not provide adequate signal at required altitude in various areas as follows:<br>1. 30 nm. orbit (Due to border limited)<br>– Radial 000º-130º altitude should not below 2 100 ft.<br>2. 40 nm. orbit<br>– Radial 131º-280º altitude should not below 5 500 ft.<br>– Radial 281º-359º altitude should not below 2 100 ft. |
| IILS CAT I<br>RWY 23<br>LOC | ISKN | 110.3 MHz<br>CH40X | H24 | 171107.7N<br>1040630.9E | NIL | Designated operation coverage 18 nm. ALT 6800 ft/AMSL. |
| DME | | | | 171106.0N<br>1040632.6E | 527 FT | Paired with LOC FREQ |
| GP | | 335.0 MHz | H24 | 171208.1N<br>1040728.9E | NIL | 3 DEG REF Datum height 50 ft. |

## VTUI AD 2.20 LOCAL AERODROME REGULATIONS

### 1. VFR REPORTING POINTS AND LOCAL PROCEDURES

Reporting points for VFR flight in order to expedite and maintain an orderly flow of air traffic into Sakon Nakhon Airport, the procedures of inbound traffic for VFR flight, conventional and prop - jet aircraft be set up as follows:

a) Aircraft entering to land from north of Sakon Nakhon Airport, shall report over Nong Wai reservoir designated as November Whisky (172205.2N 1040316E) which is approximately 10 NM on radial 334 of SKN DVOR/DME (171250.89N1040812.34E), when reaching NW the aircraft will be instructed to join aerodrome traffic circuit accordingly.
b) Aircraft entering to land from east of Sakon Nakhon Airport, shall report over Hoai Wung reservoir designated as Hotel Whisky (171805.2N 1043056.2E) which is approximately 22.5 NM on radial 077 of SKN DVOR/DME (171250.89N1040812.34E) when reaching HW the aircraft will be instructed to join aerodrome traffic circuit accordingly.
c) Aircraft entering to land from south of Sakon Nakhon Airport, shall report over Nam Phung Dam designated as November Papa (170245.3N 1041216.3E), which is approximately 11 NM on radial 158 of SKN DVOR/DME (171250.89N1040812.34E), when reaching NP the aircraft will be instructed to join aerodrome traffic circuit accordingly.
d) Aircraft entering to land from south of Sakon Nakhon Airport, shall report over Ban Na reservoir, designated as November Kilo (164625.4N 1040201.5E) which is approximately 27 NM on radial 192 of SKN DVOR/DME (171250.89N1040812.34E), when reaching NK the aircraft will be instructed to join aerodrome traffic circuit accordingly.
e) Aircraft entering to land from west of Sakon Nakhon Airport, shall report over Nam Un reservoir, designated as November Uniform (171005.2N 1034646.5E) which is approximately 20.5 NM on radial 262 of SKN DVOR/DME (171250.89N1040812.34E), when reaching NU the aircraft will be instructed to join aerodrome traffic circuit accordingly.

### 2. 180 DEGREES TURN ON THE RUNWAY

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, all aircraft Maximum Takeoff Weight (MTOW) more than 5700 KG are not allowed to make 180 degrees turn on the runway. The turn shall be made on the runway turn pad at the end of runway 05 and 23 only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTUI AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUI AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

### 3. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 05:

SAKON NAKHON OMNI 05 Departure: Required climb gradient 201 ft per NM (3.3%) until 3,300 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 2,000 ft (or altitude assigned by ATC between 2,000 ft - 2,900 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 23:

SAKON NAKHON OMNI 23 Departure: Required climb gradient 274 ft per NM (4.5%) until 3,300 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 4.5% | (ft/min) | 296 | 342 | 456 | 684 | 911 | 1139 | 1367 |

No turn before DER.
After departure climb straight ahead until 2,000 ft (or altitude assigned by ATC between 2,000 ft - 2,900 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTUI AD 2.23 ADDITIONAL INFORMATION

- Bird concentration in the vicinity of runway 23 (end of runway 05)

## VTUI AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTUI-2-1 |
| Instrument Approach Chart - ICAO - VOR RWY 05 | AD 2-VTUI-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 05 (Fix and point list table) | AD 2-VTUI-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 23 | AD 2-VTUI-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 23 (Fix and point list table) | AD 2-VTUI-8-4 |
| Instrument Approach Chart - ICAO - ILS RWY 23 | AD 2-VTUI-8-5 |
| Instrument Approach Chart - ICAO - ILS RWY 23 (Fix and point list table) | AD 2-VTUI-8-6 |
| Instrument Approach Chart - ICAO - LOC RWY 23 | AD 2-VTUI-8-7 |
| Instrument Approach Chart - ICAO - LOC RWY 23 (Fix and point list table) | AD 2-VTUI-8-8 |
| Instrument Approach Chart - ICAO - RNP RWY 05 | AD 2-VTUI-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 05 (Tabular description) | AD 2-VTUI-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 23 | AD 2-VTUI-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 23 (Tabular description) | AD 2-VTUI-8-12 |

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## AERODROME CHART - ICAO

17 11 43 N
104 07 07 E

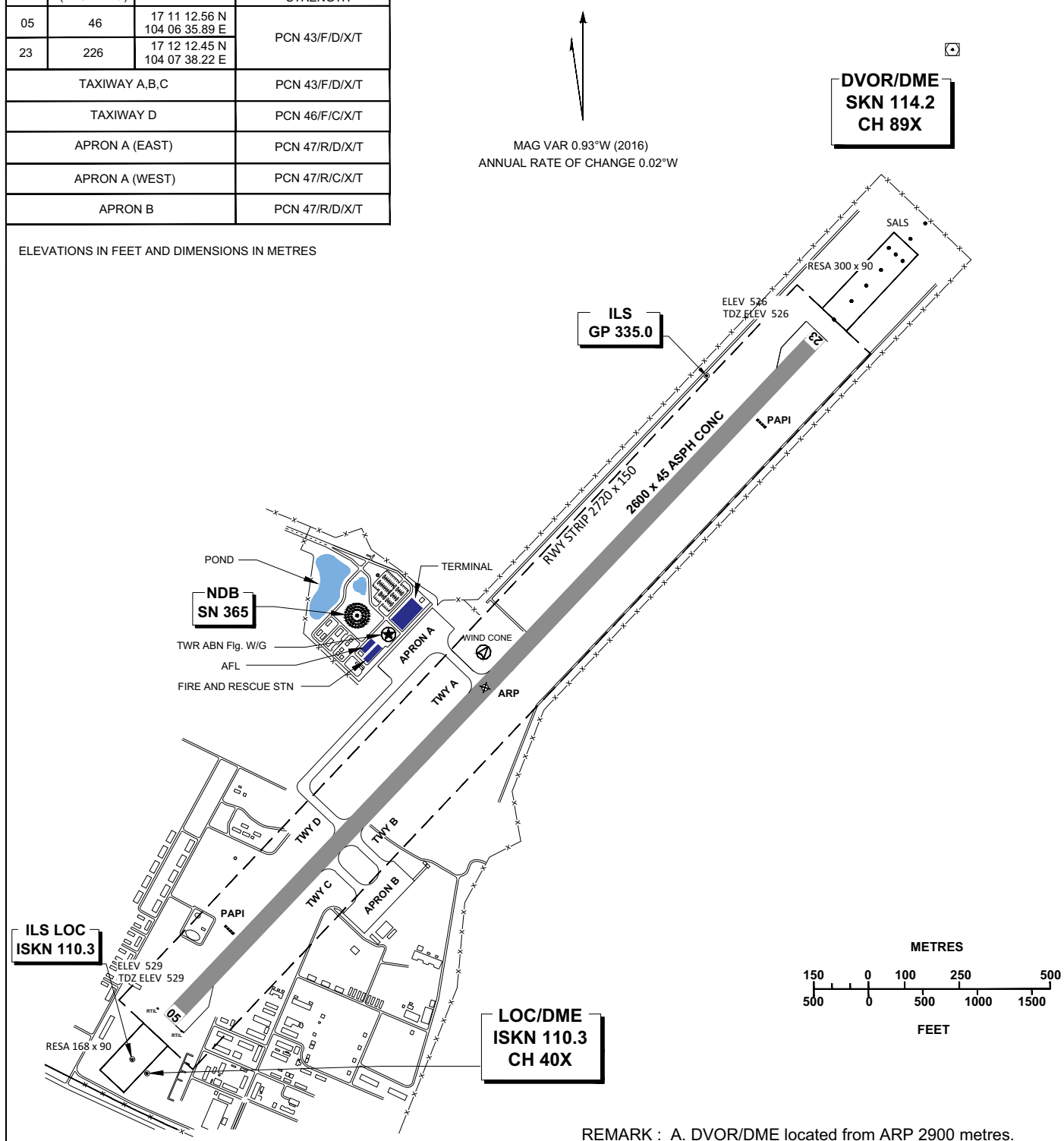
ELEV 529 FT

**TWR** 119.65 236.60

## SAKON NAKHON / Sakon Nakhon

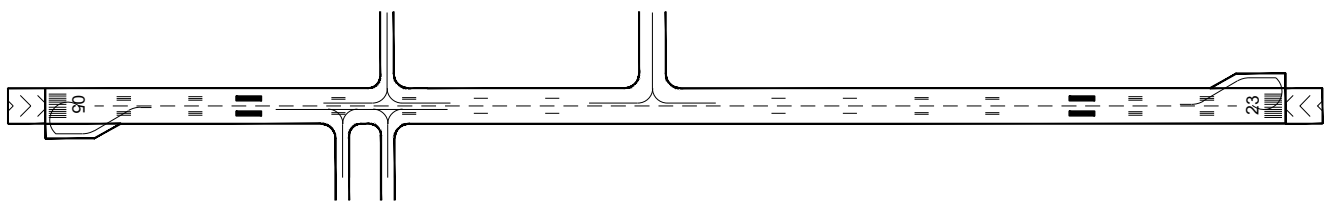
| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 05 | 46 | 17 11 12.56 N<br>104 06 35.89 E | PCN 43/F/D/X/T |
| 23 | 226 | 17 12 12.45 N<br>104 07 38.22 E | |
| TAXIWAY A,B,C | | | PCN 43/F/D/X/T |
| TAXIWAY D | | | PCN 46/F/C/X/T |
| APRON A (EAST) | | | PCN 47/R/D/X/T |
| APRON A (WEST) | | | PCN 47/R/C/X/T |
| APRON B | | | PCN 47/R/D/X/T |

ELEVATIONS IN FEET AND DIMENSIONS IN METRES

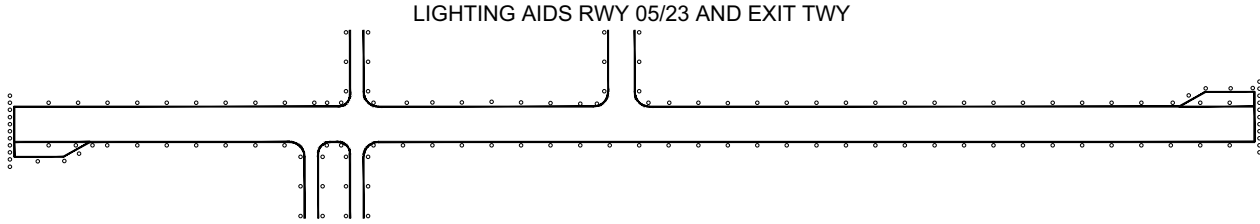



REMARK : A. DVOR/DME located from ARP 2900 metres.
B. DVOR/DME restriction due to mountainous terrain surround

MARKING AIDS RWY 05/23 AND EXIT TWY




LIGHTING AIDS RWY 05/23 AND EXIT TWY



CHANGE : REVISED CHART. STRIP DIMS. RESA DIMS of RWY 05/23

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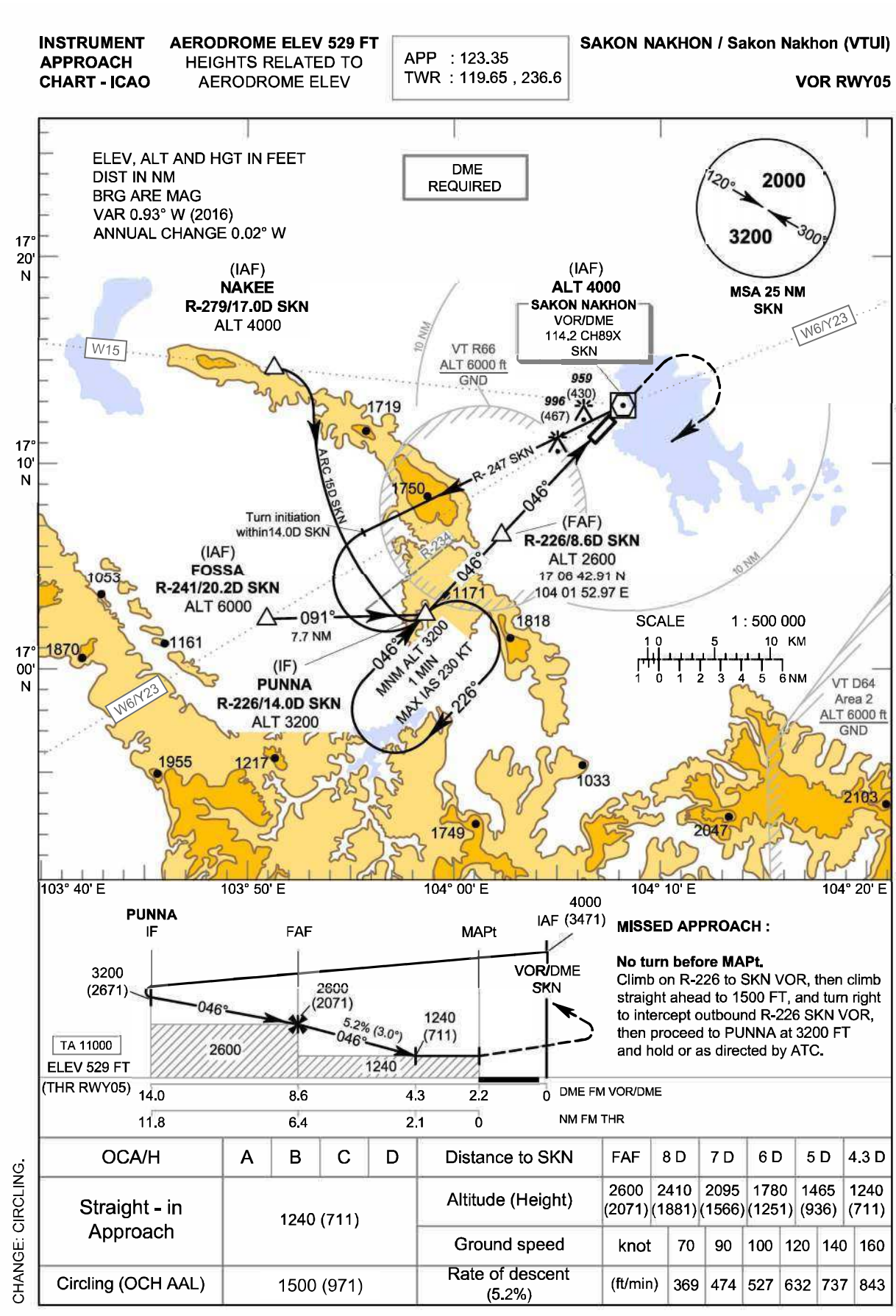
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35
TWR : 119.65 , 236.6

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**VOR RWY05**




CHANGE: CIRCLING.

| OCA/H | A | B | C | D | Distance to SKN | FAF | 8 D | 7 D | 6 D | 5 D | 4.3 D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 1240 (711) | | | | Altitude (Height) | 2600 (2071) | 2410 (1881) | 2095 (1566) | 1780 (1251) | 1465 (936) | 1240 (711) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1500 (971) | | | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO AERODROME ELEV

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**VOR RWY05**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) NAKEE | R-279 / 17.0D SKN | 17 15 05.96 N | 103 50 35.93 E |
| (IAF) FOSSA | R-241 / 20.2D SKN | 17 02 51.48 N | 103 49 50.92 E |
| (IF) PUNNA | R-226 / 14.0D SKN | 17 02 49.77 N | 103 57 53.28 E |
| (FAF) | R-226 / 8.6D SKN | 17 06 42.91 N | 104 01 52.97 E |
| (MAPt) | R-226 / 2.2D SKN | 17 11 16.74 N | 104 06 35.29 E |
| (IAF) VOR | SKN | 17 12 50.84 N | 104 08 12.39 E |

CHANGE: VOR AND MAPt COORDINATES.

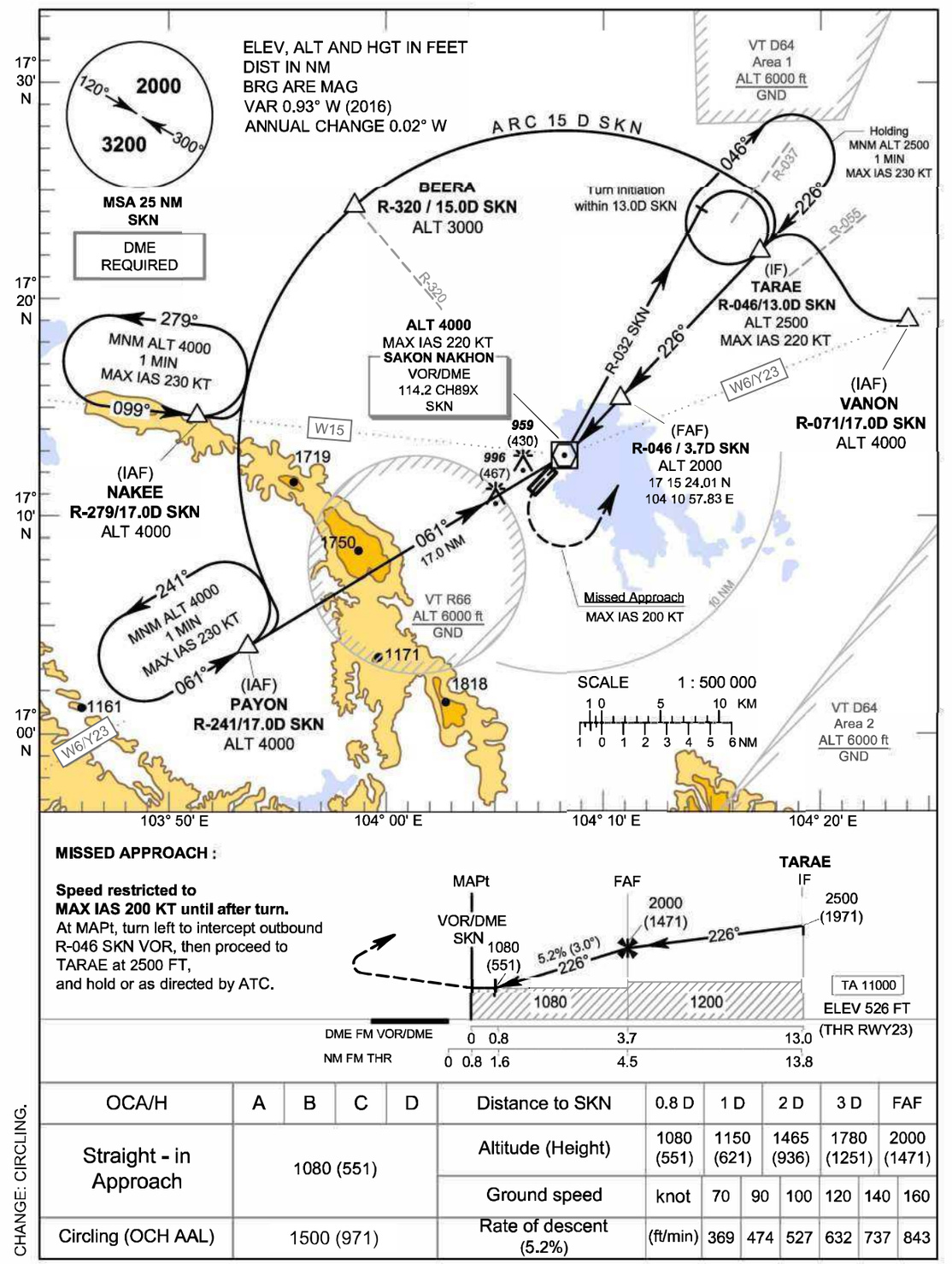
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35
TWR : 119.65 , 236.6

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**VOR RWY23**




**MISSED APPROACH :**

**Speed restricted to**
**MAX IAS 200 KT until after turn.**
At MAPt, turn left to intercept outbound R-046 SKN VOR, then proceed to TARAE at 2500 FT,
and hold or as directed by ATC.




CHANGE: CIRCLING.

| OCA/H | A | B | C | D | Distance to SKN | 0.8 D | 1 D | 2 D | 3 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 1080 (551) | | | | Altitude (Height) | 1080 (551) | 1150 (621) | 1465 (936) | 1780 (1251) | 2000 (1471) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1500 (971) | | | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO AERODROME ELEV

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**VOR RWY23**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) NAKEE | R-279 / 17.0D SKN | 17 15 05.96 N | 103 50 35.93 E |
| (IAF) PAYON | R-241 / 17.0D SKN | 17 04 24.70 N | 103 52 46.34 E |
| (IAF) VANON | R-071 / 17.0D SKN | 17 18 38.93 N | 104 24 52.65 E |
| BEERA | R-320 / 15.0D SKN | 17 24 13.04 N | 103 57 55.37 E |
| (IF) TARAE | R-046 / 13.0D SKN | 17 22 01.55 N | 104 17 52.00 E |
| (FAF) | R-046 / 3.7D SKN | 17 15 27.63 N | 104 10 57.26 E |
| (MAPt) VOR | SKN | 17 12 50.84 N | 104 08 12.39 E |

CHANGE: VOR AND FAF COORDINATES.

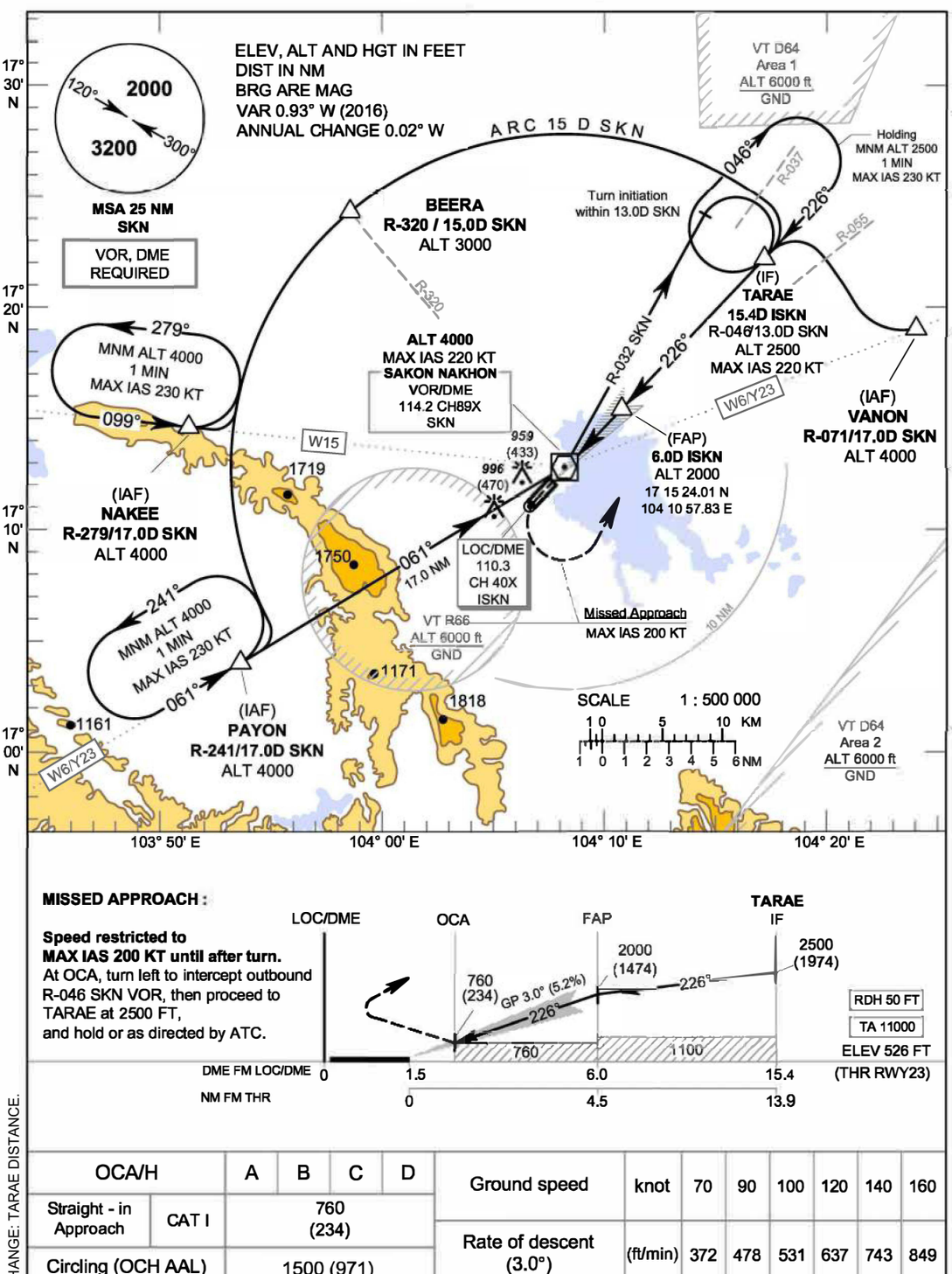
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO
THR RWY23 - ELEV 526 FT

APP : 123.35
TWR : 119.65 , 236.6

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**ILS RWY23**




**MISSED APPROACH :**

**Speed restricted to MAX IAS 200 KT until after turn.**
At OCA, turn left to intercept outbound R-046 SKN VOR, then proceed to TARAE at 2500 FT,
and hold or as directed by ATC.




| OCA/H | | A | B | C | D | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 760 (234) | | | | Rate of descent (3.0°) | (ft/min) | 372 | 478 | 531 | 637 | 743 | 849 |
| Circling (OCH AAL) | | 1500 (971) | | | | | | | | | | | |

CHANGE: TARAE DISTANCE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO
THR RWY23 - ELEV 526 FT

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**ILS RWY23**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) NAKEE | R-279 / 17.0D SKN | 17 15 05.96 N | 103 50 35.93 E |
| (IAF) PAYON | R-241 / 17.0D SKN | 17 04 24.70 N | 103 52 46.34 E |
| (IAF) VANON | R-071 / 17.0D SKN | 17 18 38.93 N | 104 24 52.65 E |
| BEERA | R-320 / 15.0D SKN | 17 24 13.04 N | 103 57 55.37 E |
| (IF) TARAE | 15.4D ISKN | 17 22 01.55 N | 104 17 52.00 E |
| (FAP) | 6.0D ISKN | 17 15 24.01 N | 104 10 57.83 E |
| LOC/DME | ISKN | 17 11 07.70 N | 104 06 30.91 E |
| VOR | SKN | 17 12 50.84 N | 104 08 12.39 E |

CHANGE: VOR AND LOC COORDIANTES. TARAE DISTANCE.

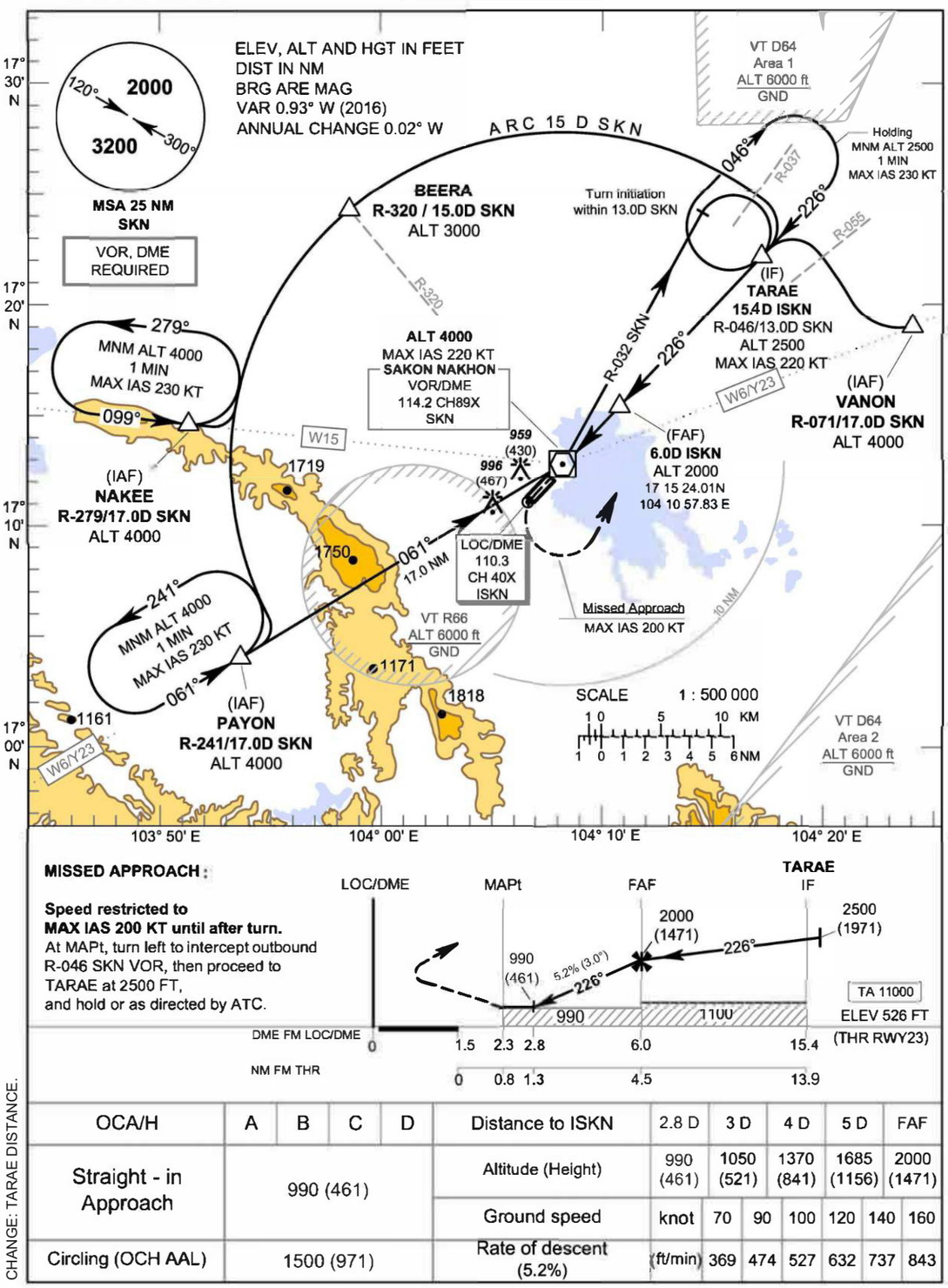
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35
TWR : 119.65 , 236.6

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**LOC RWY23**




**MISSED APPROACH :**

**Speed restricted to MAX IAS 200 KT until after turn.**
At MAPt, turn left to intercept outbound R-046 SKN VOR, then proceed to TARAE at 2500 FT, and hold or as directed by ATC.




CHANGE: TARAE DISTANCE.

| OCA/H | A | B | C | D | Distance to ISKN | 2.8 D | 3 D | 4 D | 5 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 990 (461) | | | | Altitude (Height) | 990 (461) | 1050 (521) | 1370 (841) | 1685 (1156) | 2000 (1471) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1500 (971) | | | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO AERODROME ELEV

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**LOC RWY23**

| FIX/POINT | | COORDINATES | |
|---|---|---|---|
| (IAF) NAKEE | R-279 / 17.0D SKN | 17 15 05.96 N | 103 50 35.93 E |
| (IAF) PAYON | R-241 / 17.0D SKN | 17 04 24.70 N | 103 52 46.34 E |
| (IAF) VANON | R-071 / 17.0D SKN | 17 18 38.93 N | 104 24 52.65 E |
| BEERA | R-320 / 15.0D SKN | 17 24 13.04 N | 103 57 55.37 E |
| (IF) TARAE | 15.4D ISKN | 17 22 01.55 N | 104 17 52.00 E |
| (FAF) | 6.0D ISKN | 17 15 24.01 N | 104 10 57.83 E |
| MAPt | 2.3D ISKN | 17 12 45.68 N | 104 08 12.83 E |
| LOC/DME | ISKN | 17 11 07.70 N | 104 06 30.91 E |
| VOR | SKN | 17 12 50.84 N | 104 08 12.39 E |

CHANGE: VOR AND LOC COORDIANTES. TARAE DISTANCE.

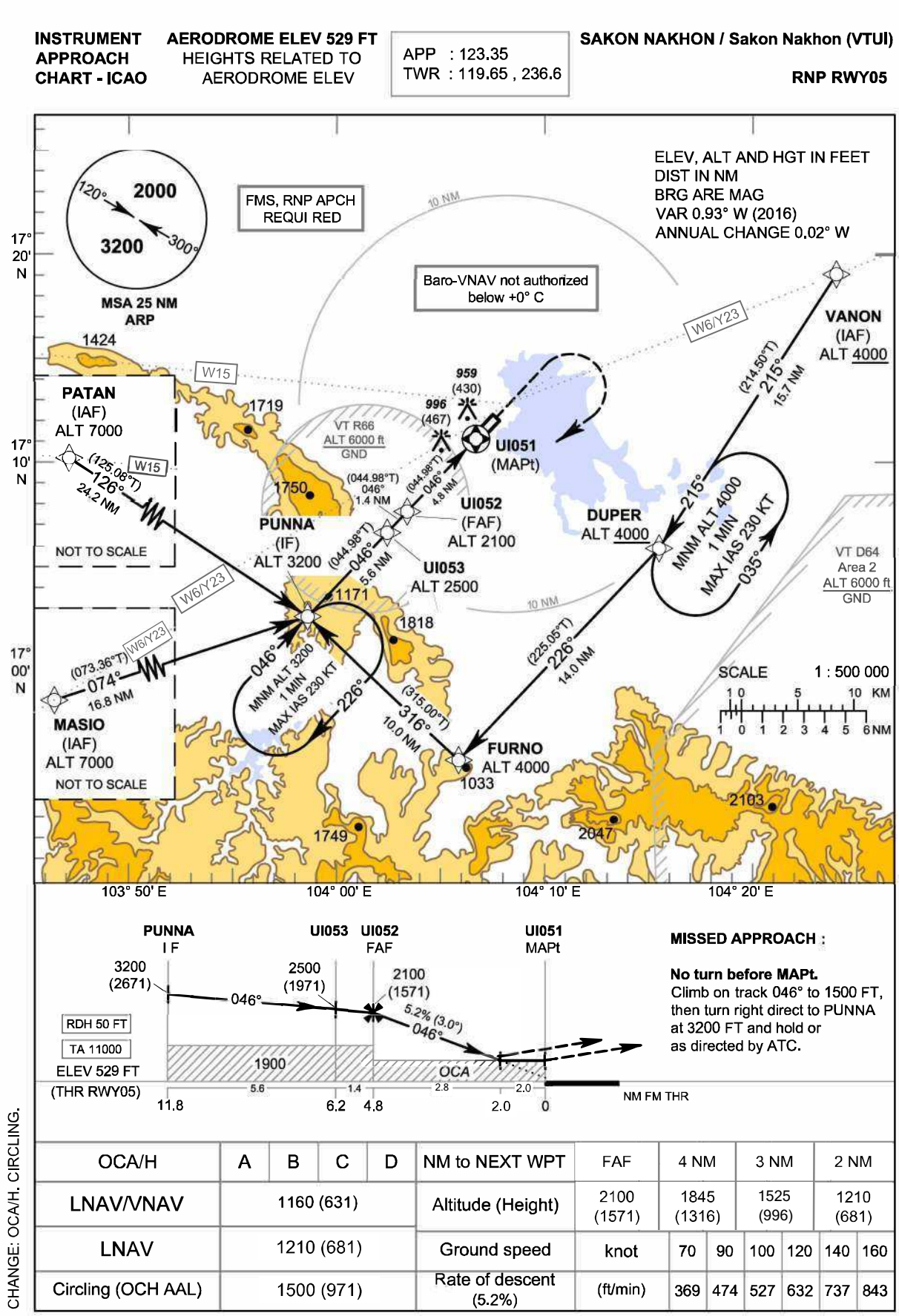
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35
TWR : 119.65 , 236.6

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**RNP RWY05**




| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 4 NM | 3 NM | 2 NM |
|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 1160 (631) | | | | Altitude (Height) | 2100 (1571) | 1845 (1316) | 1525 (996) | 1210 (681) |
| LNAV | 1210 (681) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1500 (971) | | | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: OCA/H. CIRCLING.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO
AERODROME ELEV

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**RNP RWY05**

## TABULAR DESCRIPTION

**RNP RWY05**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | VANON (IAF) | - | - | +0.95 | - | - | +4000 | - | - | RNP APCH |
| 020 | TF | DUPER | - | 215°(214.50°) | +0.95 | 15.7 | R | +4000 | - | - | RNP APCH |
| 030 | TF | FURNO | - | 226°(225.05°) | +0.95 | 14.0 | R | @4000 | - | - | RNP APCH |
| 040 | TF | PUNNA (IF) | - | 316°(315.00°) | +0.95 | 10.0 | - | @3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MASIO (IAF) | - | - | +0.95 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | PUNNA (IF) | - | 074°(073.36°) | +0.95 | 16.8 | - | @3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | PATAN (IAF) | - | - | +0.95 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | PUNNA (IF) | - | 126°(125.08°) | +0.95 | 24.2 | - | @3200 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | PUNNA (IF) | - | - | +0.95 | - | - | @3200 | - | - | RNP APCH |
| 020 | TF | UI053 | - | 046°(044.98°) | +0.95 | 5.6 | - | @2500 | - | - | RNP APCH |
| 030 | TF | UI052 (FAF) | - | 046°(044.98°) | +0.95 | 1.4 | - | @2100 | - | - | RNP APCH |
| 040 | TF | UI051 (MAPt) | Y | 046°(044.98°) | +0.95 | 4.8 | - | @579 | - | -3.0/50 | RNP APCH |
| 050 | CA | - | - | 046°(044.98°) | +0.95 | - | - | + 1500 | - | - | RNP APCH |
| 060 | DF | PUNNA (IF) | - | - | +0.95 | - | R | + 3200 | - | - | RNP APCH |
| 070 | HM | PUNNA (IF) | Y | 046°(044.98°) | +0.95 | 1 minute | R | + 3200 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY05**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| VANON | 17° 18' 38.93" N | 104° 24' 52.65" E |
| DUPER | 17° 05' 40.03" N | 104° 15' 36.25" E |
| FURNO | 16° 55' 43.91" N | 104° 05' 16.11" E |
| MASIO | 16° 58' 01.07" N | 103° 41' 06.91" E |
| PATAN | 17° 16' 47.29" N | 103° 37' 15.11" E |
| PUNNA | 17° 02' 49.77" N | 103° 57' 53.28" E |
| UI053 | 17° 06' 48.43" N | 104° 02' 01.20" E |
| UI052 | 17° 07' 48.18" N | 104° 03' 03.21" E |
| UI051 (THR05) | 17° 11' 12.56" N | 104° 06' 35.89" E |

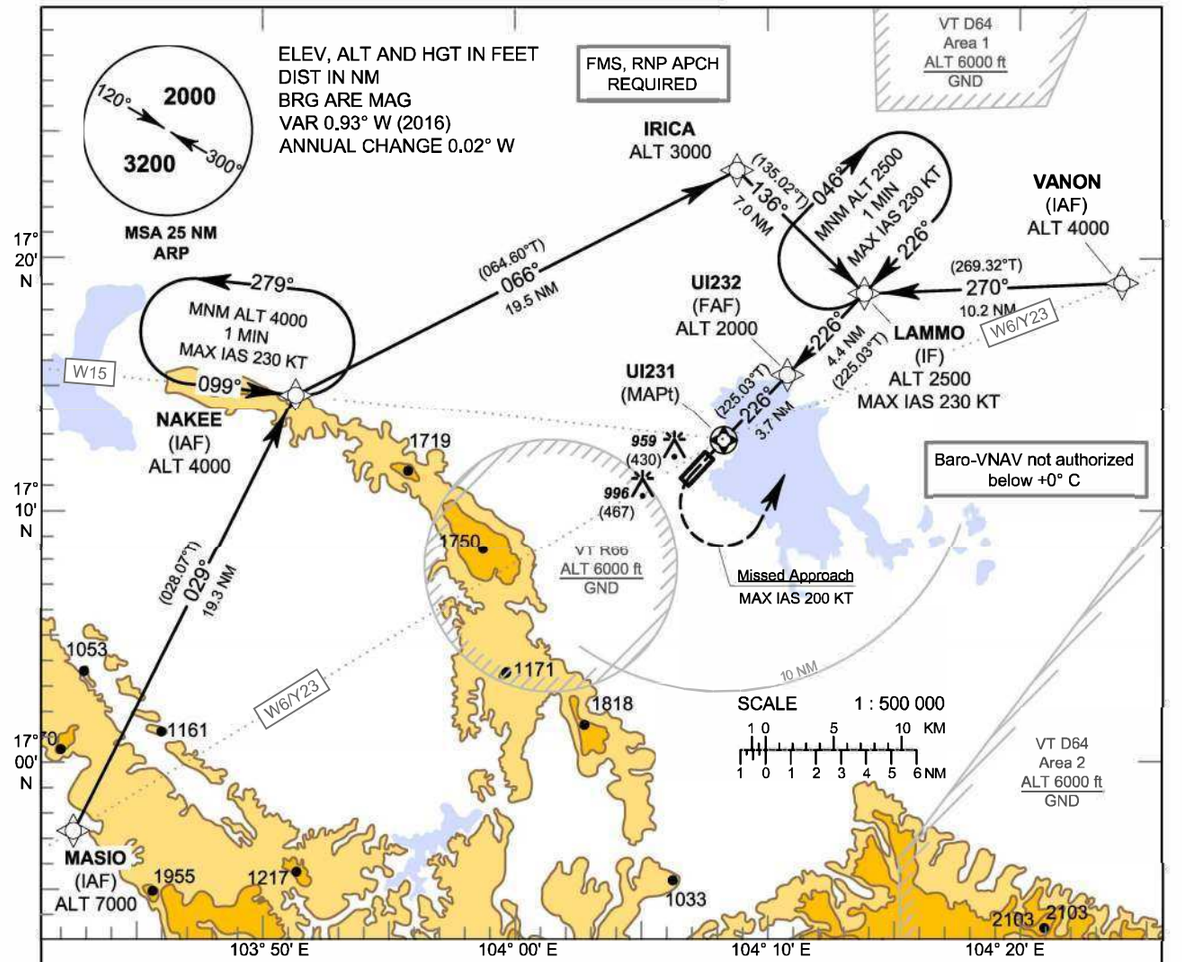
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35
TWR : 119.65 , 236.6

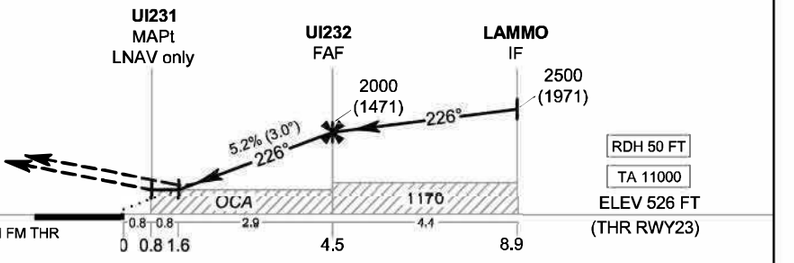
**SAKON NAKHON / Sakon Nakhon (VTUI)**

**RNP RWY23**




**MISSED APPROACH :**

**Speed restricted to**
**MAX IAS 200 KT until after turn.**
At MAPt, turn left direct to
LAMMO at 2500 FT,
and hold or as directed by ATC.




CHANGE: CIRCLING.

| OCA/H | A | B | C | D | NM to NEXT WPT | 1.6 NM | 2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 1170 (641) | | | | Altitude (Height) | 1080 (551) | 1210 (681) | 1525 (996) | 1845 (1316) | 2000 (1471) |
| LNAV | 1080 (551) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1500 (971) | | | | Rate of descent (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 529 FT**
HEIGHTS RELATED TO
AERODROME ELEV

**SAKON NAKHON / Sakon Nakhon (VTUI)**

**RNP RWY23**

## TABULAR DESCRIPTION

**RNP RWY23**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | MASIO (IAF) | - | - | +0.95 | - | - | @7000 | - | - | RNP APCH |
| 020 | TF | NAKEE (IAF) | - | 029°(028.07°) | +0.95 | 19.3 | R | @4000 | - | - | RNP APCH |
| 030 | TF | IRICA | - | 066°(064.60°) | +0.95 | 19.5 | R | @3000 | - | - | RNP APCH |
| 040 | TF | LAMMO (IF) | - | 136°(135.02°) | +0.95 | 7.0 | - | @2500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | NAKEE (IAF) | - | - | +0.95 | - | - | @4000 | - | - | RNP APCH |
| 020 | TF | IRICA | - | 066°(064.60°) | +0.95 | 19.5 | R | @3000 | - | - | RNP APCH |
| 030 | TF | LAMMO (IF) | - | 136°(135.02°) | +0.95 | 7.0 | - | @2500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | VANON (IAF) | - | - | +0.95 | - | - | @4000 | - | - | RNP APCH |
| 020 | TF | LAMMO (IF) | - | 270°(269.32°) | +0.95 | 10.2 | - | @2500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | LAMMO (IF) | - | - | +0.95 | - | - | @2500 | -230 | - | RNP APCH |
| 020 | TF | UI232 (FAF) | - | 226°(225.03°) | +0.95 | 4.4 | - | @2000 | - | - | RNP APCH |
| 030 | TF | UI231 (MAPt) | Y | 226°(225.03°) | +0.95 | 3.7 | L | @830 | - | -3.0/50 | RNP APCH |
| 040 | DF | LAMMO (IF) | - | - | +0.95 | - | - | + 2500 | -200 | - | RNP APCH |
| 050 | HM | LAMMO (IF) | Y | 226°(225.03°) | +0.95 | 1 minute | R | + 2500 | - 230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY23**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| MASIO | 16° 58' 01.07" N | 103° 41' 06.91" E |
| NAKEE | 17° 15' 05.96" N | 103° 50' 35.93" E |
| IRICA | 17° 23' 29.74" N | 104° 09' 02.67" E |
| VANON | 17° 18' 38.93" N | 104° 24' 52.65" E |
| LAMMO | 17° 18' 31.38" N | 104° 14' 12.98" E |
| UI232 | 17° 15' 24.07" N | 104° 10' 57.76" E |
| UI231 (MAPt) | 17° 12' 46.51" N | 104° 08' 13.70" E |
| THR 23 | 17° 12' 12.45" N | 104° 07' 38.22" E |

## VTSH AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSH - SONGKHLA / SONGKHLA AIRPORT

## VTSH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 071108.59N 1003631.66E |
| 2 | Direction and distance from (city) | 130° 3 KM SE from Songkhla city |
| 3 | Elevation/Reference temperature | 3.7 M(12 FT)/30.4°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0°30'W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Naval Air Station, Songkhla Airport<br>Saiburi Rd., Amphoe Muang<br>Songkhla 90000<br>Thailand<br>Tel: +667 431 1085<br>AFS: VTSHYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | VFR |
| 8 | Remarks | Operator: Royal Thai Navy |

## VTSH AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | MON-FRI 0130-0930 (0830-1630 LT) |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | HJ |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | HJ |
| 8 | Fuelling | HJ |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTSH AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | *JP8, AVGAS 100/130 |
| 3 | Fuelling facilities/capacity | *1 truck, 6 000 L, 50 L/sec |
| 4 | De-icing facilities | Not available |
| 5 | Hangar space for visiting aircraft | Not available |
| 6 | Repair facilities for visiting aircraft | Not available |
| 7 | Remarks | *For military |

## VTSH AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Bus, Taxi in the city |
| 4 | Medical facilities | First aid at Airport, hospital in the city |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | In the city |
| 7 | Remarks | NIL |

## VTSH AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Within Airport HR; Category 6 |
| 2 | Rescue equipment | Not available |
| 3 | Capability for removal of disabled aircraft | Not available |
| 4 | Remarks | NIL |

## VTSH AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTSH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 10/F/C/Y/U |
| 2 | Taxiway width, surface and strength | Surface: Concrete |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Guide lines at apron. |
| 2 | RWY and TWY markings and LGT | RWY: Desognation, THR, TDZ, CL - Centre line marking, edge LGT, distance marker/LGT.<br>TWY: Edge LGT, taxi guide lines, holding position. |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSH AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 13/APCH<br>31/TKOF | hill<br>350 FT<br>LGTD | 1 NM<br>left of RWY 13 | Radio mast<br>186 FT<br>LGTD | North of Airfield | NIL |
| 31/APCH<br>13/TKOF | hill<br>295 FT<br>UNLGTD | 0.4 NM<br>left of RWY 31 | Radio mast<br>200 FT<br>LGTD | South of Airfield | |

## VTSH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | NIL |
| 2 | Hours of service<br>MET Office outside hours | 0700-1900 LT<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | NIL |
| 4 | Type of landing forecast<br>Interval of issuance | NIL |
| 5 | Briefing/consultation provided | NIL |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | NIL |
| 8 | Supplementary equipment available for providing information | NIL |
| 9 | ATS units provided with information | Control Tower |
| 10 | Additional information (limitation of service, etc.) | Tel: +667 431 1085 (HJ)<br>+667 431 1451-5 Ext.2653-4 |

## VTSH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 13 | 132 GEO<br>133 MAG | 1510x45 | PCN 10/F/C/Y/U<br>Concrete and asphalt | 071128.54N 1003611.45E | NIL |
| 31 | 312 GEO<br>313 MAG | 1510x45 | PCN 10/F/C/Y/U<br>Concrete and asphalt | 071054.37N 1003646.07E | NIL |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | NIL | NIL | 1630x150 | NIL | NIL |
| NIL | NIL | NIL | 1630x150 | NIL | NIL |

## VTSH AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 13 | 1510 | 1510 | 1510 | 1510 | NIL |
| 31 | 1510 | 1510 | 1510 | 1510 | NIL |

## VTSH AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 13 | NIL | Green | NIL | NIL | NIL | 1510 M, 45 M, White, LIH | Red | NIL | NIL |
| 31 | Simple App LGT 300 M LIM | White | NIL | NIL | NIL | 1510 M, 45 M, White, LIH | Red | NIL | NIL |

## VTSH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: On top of tower, at FLG W G EV 3 sec HO and IMC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to Control TWR building and AFLD lighting, switch-over time : 3 sec |
| 5 | Remarks | NIL |

## VTSH AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTSH AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | Beginning at 0710.4N 10026.6E then clockwise along 10 NM arc from Songkhla VOR/DME (0711.4N 10036.9E) to 0701.2N 10037.7E then follow westward along Hat Yai Control Zone to the starting point. |
| 2 | Vertical limits | Up to but not including 3000 FT AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Songkhla Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTSH AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Songkhla Tower | 121.5* MHZ<br>126.2 MHZ<br>227.0 MHZ | HJ | *Emergency Freq. |
| AFS | Songkhla | USB 7745 KHZ<br>USB 5443 KHZ | | Domestic circuit<br>7745-PRI.<br>5443-SEC |

## VTSH AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| VOR/DME | SKL | 113.5 MHZ<br>CH82X | H24 | 071119.65N<br>1003615.11E | NIL | Military Facility |
| NDB | SK | 410 KHZ | 2300-1100 | 071115N<br>1003614E | | |

## VTSH AD 2.20 LOCAL AERODROME REGULATIONS

**VFR TRAFFIC PATTERN**

Rectangular: Altitude 1000 FT AGL

## VTSH AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSH AD 2.22 FLIGHT PROCEDURES

NIL

## VTSH AD 2.23 ADDITIONAL INFORMATION

NIL

## VTSH AD 2.24 CHARTS RELATED TO AN AERODROME

| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSH-2-1 |

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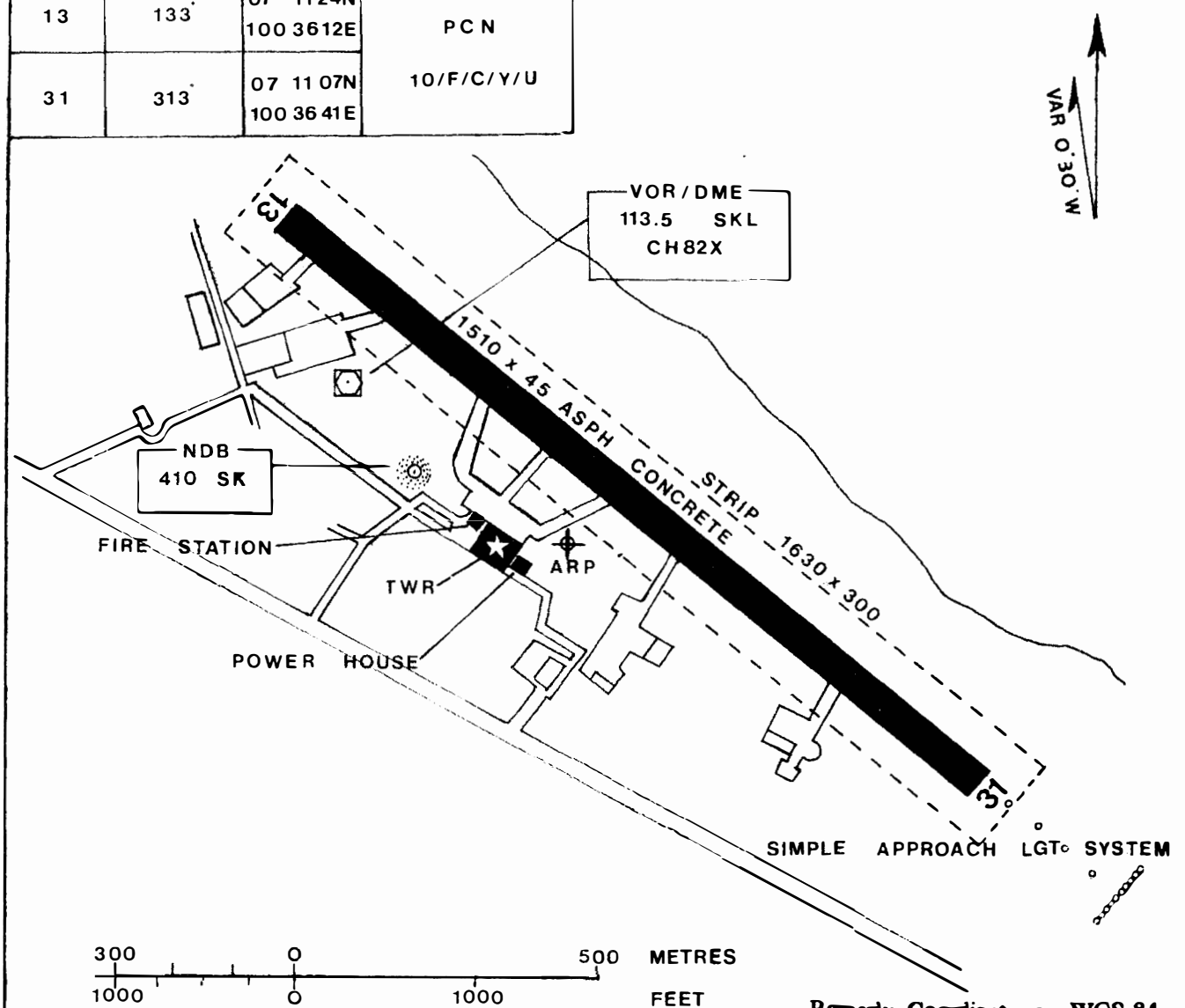
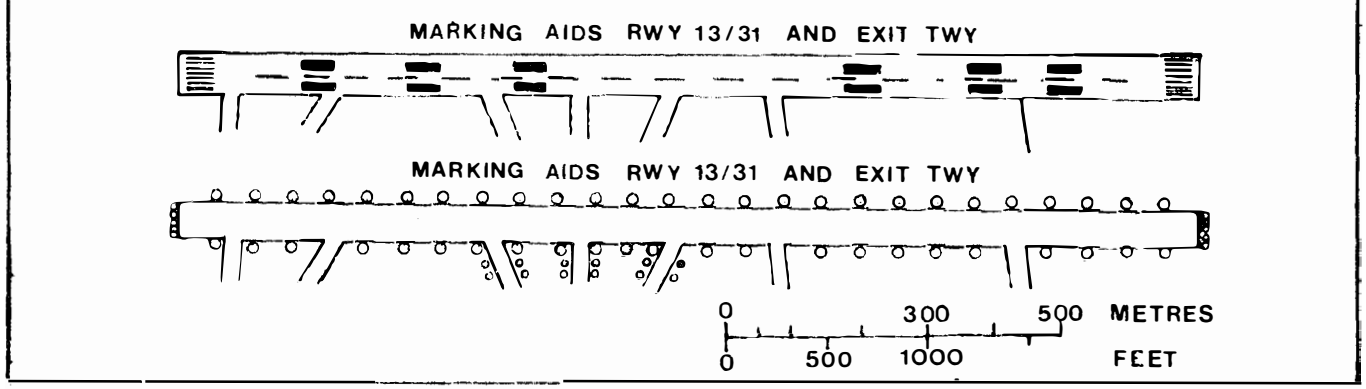
# AERODROME CHART-ICAO 07° 11.0′N 100° 37.0′E ELEV 12ft TWR 126.2 SONGKHLA / Songkhla

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 13 | 133° | 07 11 24N 100 36 12E | PCN |
| 31 | 313° | 07 11 07N 100 36 41E | 10/F/C/Y/U |

ELEVATION IN FEET AND DIMENSIONS IN METRES BEARING ARE MAGNETIC




Remark: Coordinates are WGS-84



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## VTPO AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTPO - SUKHOTHAI / SUKHOTHAI AIRPORT

## VTPO AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 171415.6774N 0994905.9969E<br>1050 M From THR 18 |
| 2 | Direction and distance from (city) | 27 KM From Sukhothai |
| 3 | Elevation/Reference temperature | 55.829M (183.166FT) / 33.3°C |
| 4 | Geoid Undulation at AD ELEV PSN | -37.351 (-122.543FT) |
| 5 | MAG VAR/Annual change | 0°48'W (2011) / 0°1'W /YEAR |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Sukhothai Airport<br>Bangkok Airways Public Company Limited<br>99 Mu 4 Klongkrajong, Swankhalok District<br>Sukhothai Thailand 64110<br>Tel: +665 564 7225-6<br>Fax: +665 564 7221<br>E-mail: thsairportgroup@bangkokair.com<br>Website: http://www.sukhothaiairport.com<br>AFS: VTPOYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Bangkok Airways Public Company Limited |

## VTPO AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1300 |
| 2 | Customs and immigration | Customs: Available<br>Immigration: Available (on request) |
| 3 | Health and sanitation | Quarantine available (on request) |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100 |
| 8 | Fuelling | Available within AD hours |
| 9 | Handling | Available within AD hours |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTPO AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1 and AVGAS |
| 3 | Fuelling facilities/capacity | Bangkok Aviation Fuel Service Public Co., Ltd. (BAFS)<br>JET A-1 Storage Tank: 1 Tank @ 25,000 L<br>1 Refueller Truck @ 8,000 L<br>AVGAS 100LL Storage Tank: 1 Tank @ 2,000 L<br>1 Refueller Truck @ 5,000 L<br>1 Trailer @ 1,600 L<br>a. Regional Airport Manager<br>E-mail: teerakan@bafs.co.th<br>Tel. +668 9134 5690<br>b. Sukhothai Airport Station<br>E-mail: prirat@bafsservices.co.th<br>Tel. +668 9906 7885 |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | Sukhothai Airport has provided ground handling agents as the following:<br>1. Bangkok Airways Ground Services Co., Ltd. (PGGS)<br>E-mail: phuwanai@pg-gs.com<br>Tel: +668 1065 8400<br>2. BAGS Ground Services Co., Ltd<br>E-mail: ths-stationmanager@bagsgroundservices.com<br>Tel: +668 7171 9089 |

## VTPO AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | At AD |
| 2 | Restaurants | At AD |
| 3 | Transportation | Public Transportation and BIR (Limousines and Car Rent) |
| 4 | Medical facilities | First aid at airport |
| 5 | Bank and Post Office | Available in town |
| 6 | Tourist Office | Tourism Authority of Thailand (Office in Town)<br>Tel: +665 5616 228-9<br>Fax: +665 5616 228<br>Email: tatsukho@tat.or.th<br>Tourist Assistance Center - TAC Sukhothai<br>Email: tacsukhothai@gmail.com |
| 7 | Remarks | NIL |

## VTPO AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 5 |
| 2 | Rescue equipment | Available at fire fighting truck |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTPO AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |

| | | |
|---|---|---|
| 3 | Remarks | The aerodrome is available all seasons. |

## VTPO AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 44/R/C/W/T |
| 2 | Taxiway width, surface and strength | Width: 30 M<br>Surface: Concrete and asphalt<br>Strength: PCN 40/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | ALC location: At Apron<br>Elevation: 56.464 M (185.249 FT) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTPO AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxi guidance sign and guide line |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Marked and Lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTPO AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | | | NIL | | NIL |

## VTPO AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Sukhothai,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 564 7225 ext. 7251 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |

| | | |
|---|---|---|
| 8 | Supplementary equipment available for providing information | Barometer, Anemometer and Thermometer Screen |
| 9 | ATS units provided with information | Sukhothai TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTPO AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 180° | 2100x45 | PCN 40/F/C/X/T Asphalt | 171449.87N 0994906.66E | THR 54.5 m/179 ft |
| 36 | 360° | 2100x45 | PCN 40/F/C/X/T Asphalt | 171341.56N 0994905.27E | THR 54.5 m/179 ft |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| 0% | NIL | 60x150 | 2220x150 | NIL | NIL |
| 0% | NIL | 150x150 | 2220x150 | NIL | NIL |

## VTPO AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 2100 | 2160 | 2100 | 2100 | NIL |
| 36 | 2100 | 2250 | 2100 | 2100 | NIL |

## VTPO AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18 | - | Green | PAPI LEFT 3° 49.90 ft (15.21 m) | - | - | 2100 m 60 m Clear/Yellow | Red | - | RTIL |
| 36 | - | Green | PAPI LEFT 3° 53.93 ft (16.44 m) | - | - | 2100 m 60 m Clear/Yellow | Red | - | RTIL |

## VTPO AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building. FLG W/G EV 3 Sec. 0000-1100 |
| 2 | LDI location and LGT<br>Anemometer location and LGT | -<br>At MET Station, 1000 M from THR 18 |
| 3 | TWY edge and centre line lighting | NIL |
| 4 | Secondary power supply/switch-over time | Electric Generator 15 sec. |
| 5 | Remarks | NIL |

## VTPO AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid Undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTPO AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on THS NDB (171406.81N 0994919.23E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Sukhothai Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTPO AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Sukhothai Approach | 120.7 MHZ<br>121.5 MHZ 1) | As AD OPR HR | 1) Emergency frequency |
| TWR | Sukhothai Tower | 122.9 MHZ<br>121.5 MHZ 1) | As AD OPR HR | |

## VTPO AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG/VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | THS | 292 KHZ | H24 | 171406.8N<br>0994919.3E | | 1. Route coverage checked on bearing 021° from THS to PR altitude 9 000 FT flown to 57 NM found satisfactory<br>2. Coverage 50 NM clockwise orbit data refer from commissioning checked as follows:<br>– Bearing 041°-100° at altitude 4 000 FT<br>– Bearing 101°-190° at altitude 2 000 FT<br>– Bearing 191°-040° at altitude 5 000 FT |

| Type of aid, MAG/VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| LOC RWY36<br>ILS CAT I | ISKT | 109.5 MHZ | H24 | 171458.01N<br>0994906.83E | | LOC: Designated Operation coverage 18 NM, ALT 6500 FT/AMSL. |
| GP | | 332.6 MHZ | H24 | 171351.07N<br>0994902.08E | | |
| DME | ISKT | CH32X<br>(109.5 MHZ) | H24 | 171457.85N<br>0994909.24E | 175.79 FT | DME: Paired with LOC Freq |

## VTPO AD 2.20 LOCAL AERODROME REGULATIONS

1. Establishment of significance reporting point for inbound and outbound route within Sukhothai TMA are as follows:

| NAME | CO-ORDINATES | BEARING /DISTANCE FM THS (NDB) |
|---|---|---|
| TOPAS | 172916.19N 0992358.16E | BRG 302 / 28NM |
| SARIM | 173029.97N 0994737.09E | BRG 355 / 16 NM |
| KIMLET | 164927.60N 0994429.32E | BRG 190 / 25 NM |

2. In order to facilitates all IFR aircraft to / from Sukhothai airport arrival / departure preference routes are established at Sukhothai airport as follows:

Inbound to Sukhothai Airport

– Bangkok to Sukhothai

The flight plan route: BKK(DVOR/DME)-W9-PSL(DVOR/DME) –DCT-THS(NDB).

– Chiang Mai to Sukhothai

The flight plan route: CMA (DVOR/DME)-W9-SARIM(173029.97N0994737.09E)-DCT-THS(NDB)

Outbound from Sukhothai Airport

– Sukhothai to Bangkok

The flight plan route: THS (NDB)-DCT-KIMET(164927.60N0994429.23E)-DCT-BEKOD-A464-BKK(DVOR/DME).

– Sukhothai to Chiang Mai

The flight plan route: THS(NDB)-DCT-TOPAS(172916.19N0992358.16E)-A464-CMA(DVOR/DME).

3. Due to temporary area at the right side of the threshold runway 36, the aircraft extremely caution while landing.

## VTPO AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTPO AD 2.22 FLIGHT PROCEDURES

### 1. SPEED CONTROL PROCEDURE IN SUKHOTHAI TMA

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

## VTPO AD 2.23 ADDITIONAL INFORMATION

NIL

## VTPO AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTPO-2-1 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTPO-2-3 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 18/36 | AD 2-VTPO-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - PEBLI1C TOPAS1C | AD 2-VTPO-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 18 - PEBLI1C TOPAS1C (Tabular description) | AD 2-VTPO-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - PEBLI1D TOPAS1D | AD 2-VTPO-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 36 - PEBLI1D TOPAS1D (Tabular description) | AD 2-VTPO-6-4 |
| Instrument Approach Chart - ICAO - NDB RWY 36 | AD 2-VTPO-8-1 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 36 | AD 2-VTPO-8-3 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 36 (Tabular description) | AD 2-VTPO-8-4 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 36 (Fix and point list table) | AD 2-VTPO-8-5 |
| Instrument Approach Chart - ICAO - RNP RWY 18 | AD 2-VTPO-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 18 (Tabular description) | AD 2-VTPO-8-8 |
| Instrument Approach Chart - ICAO - RNP RWY 36 | AD 2-VTPO-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 36 (Tabular description) | AD 2-VTPO-8-10 |

# AERODROME CHART - ICAO

17° 14' 16" N
099° 49' 06" E

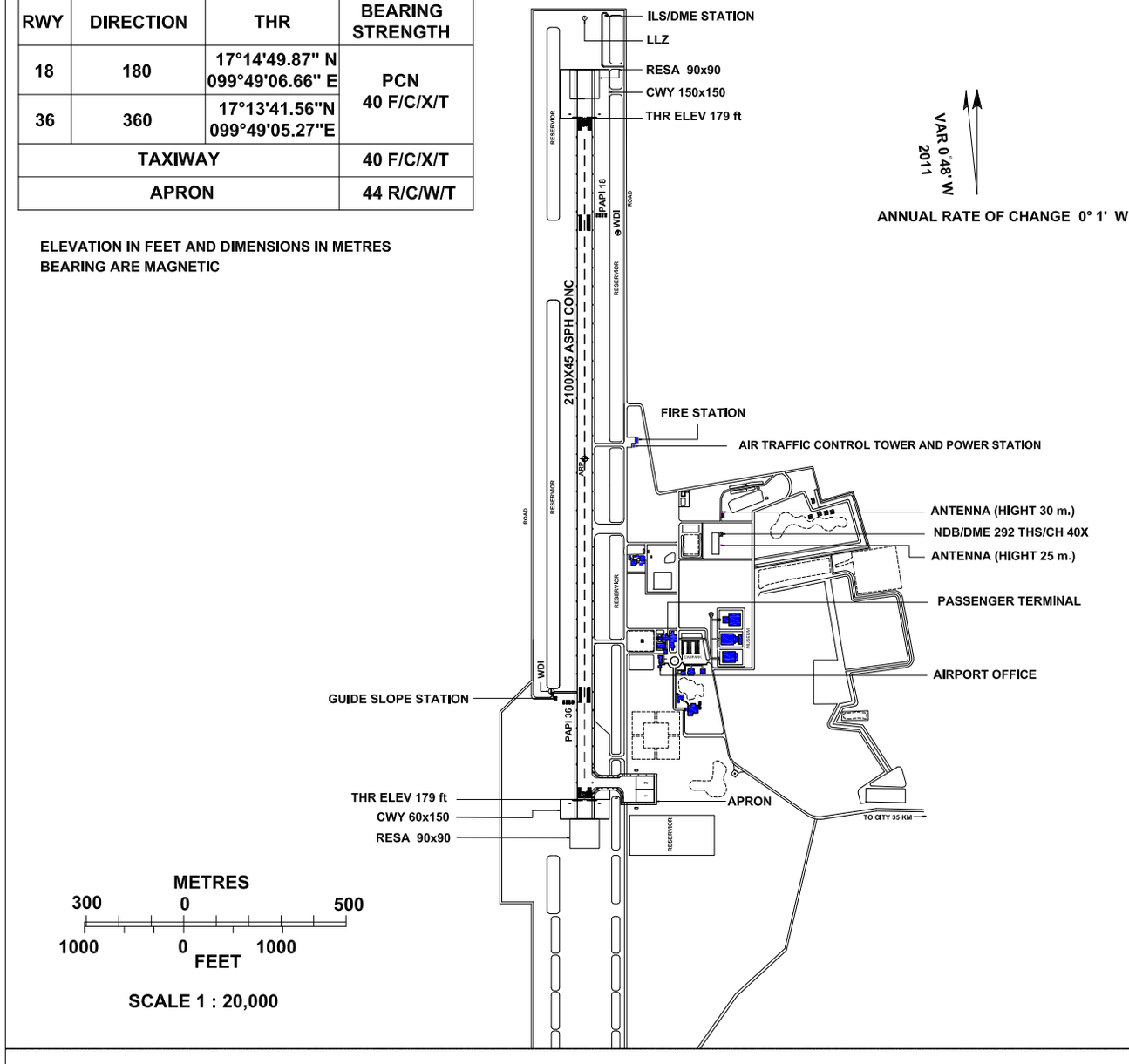
ELEV 179 ft
54.50 m

TWR 118.7

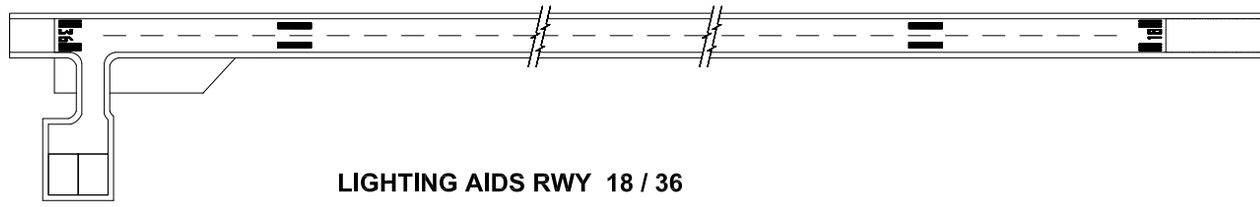
SUKHOTHAI / Sukhothai

| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 18 | 180 | 17°14'49.87" N<br>099°49'06.66" E | PCN<br>40 F/C/X/T |
| 36 | 360 | 17°13'41.56"N<br>099°49'05.27"E | |
| TAXIWAY | | | 40 F/C/X/T |
| APRON | | | 44 R/C/W/T |

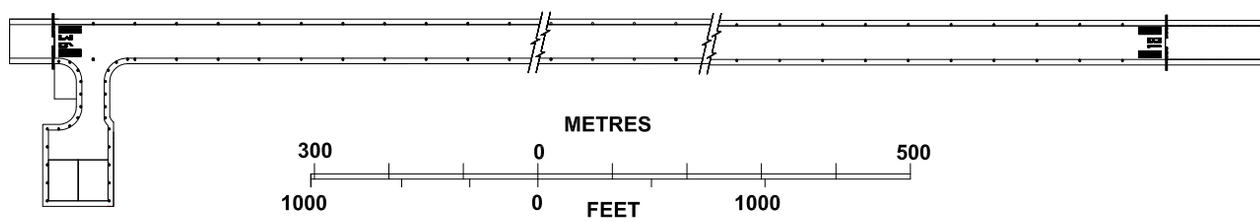
ELEVATION IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC




## MARKING AIDS RWY 18 / 36




## LIGHTING AIDS RWY 18 / 36



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# Aerodrome Ground Movement Chart - ICAO

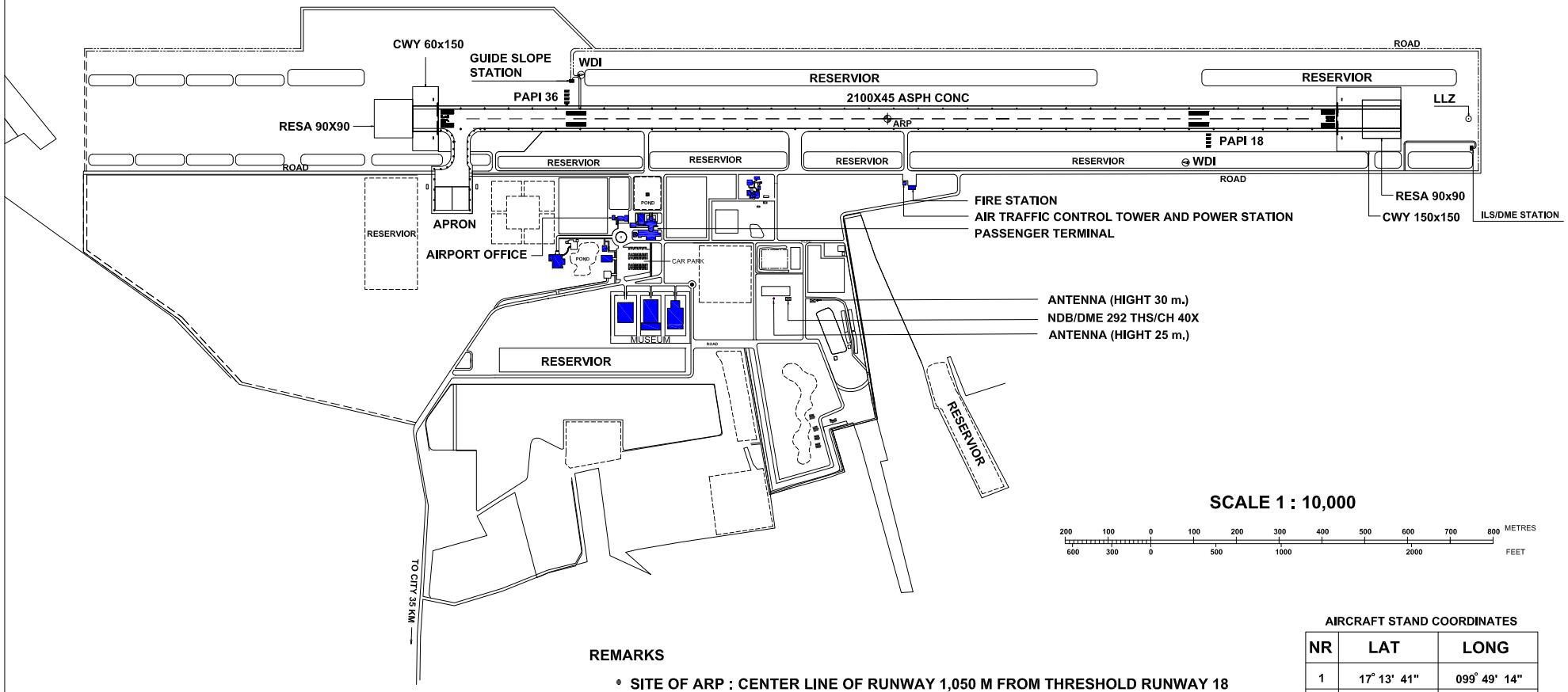
**SUKHOTHAI / Sukhothai**

DIMENSIONS IN METRES

MAG VAR 0° 48'W (2011)
ANNUAL CHANGE 0° 1' W
AERODROME ELEVATION 179 FT (54.5 M)

## LEGEND

| | |
|---|---|
| AERODROME REFERENCE POINT | 17° 14' 16" N 099° 49' 06" E |
| BUILDING OR LARGE STRUCTURE | |
| AIRCRAFT STAND | 2 |
| POND AND RESERVIOR | |




SCALE 1 : 10,000

200 100 0 100 200 300 400 500 600 700 800 METRES
600 300 0 500 1000 2000 FEET

AIRCRAFT STAND COORDINATES

| NR | LAT | LONG |
|---|---|---|
| 1 | 17° 13' 41" | 099° 49' 14" |
| 2 | 17° 13' 43" | 099° 49' 14" |

**REMARKS**

- SITE OF ARP : CENTER LINE OF RUNWAY 1,050 M FROM THRESHOLD RUNWAY 18
- RUNWAY : SURFACE AND STRENGTH : ASPHALT : PCN 40/F/C/X/T

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AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

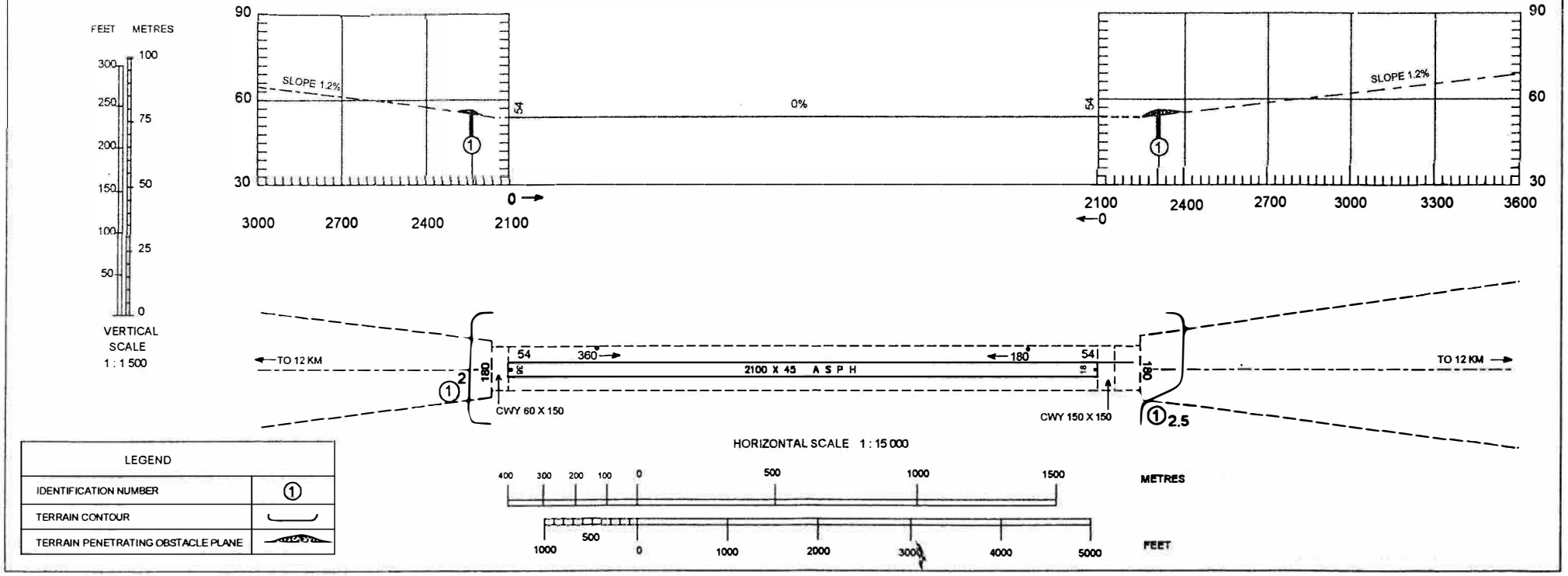
SUKHOTHAI / Sukhothai Airport

DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 0° 12 W (2001)

RWY 18 / 36

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 36 | | RWY 18 |
| 2100 | TAKE-OFF RUN AVAILABLE | 2100 |
| 2250 | TAKE-OFF DISTANCE AVAILABLE | 2160 |
| 2100 | ACCELERATE STOP DISTANCE AVAILABLE | 2100 |
| 2100 | LANDING DISTANCE AVAILABLE | 2100 |




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ① |
| TERRAIN CONTOUR | |
| TERRAIN PENETRATING OBSTACLE PLANE | |

CHANGE : PAGE NUMBER CHANGED.

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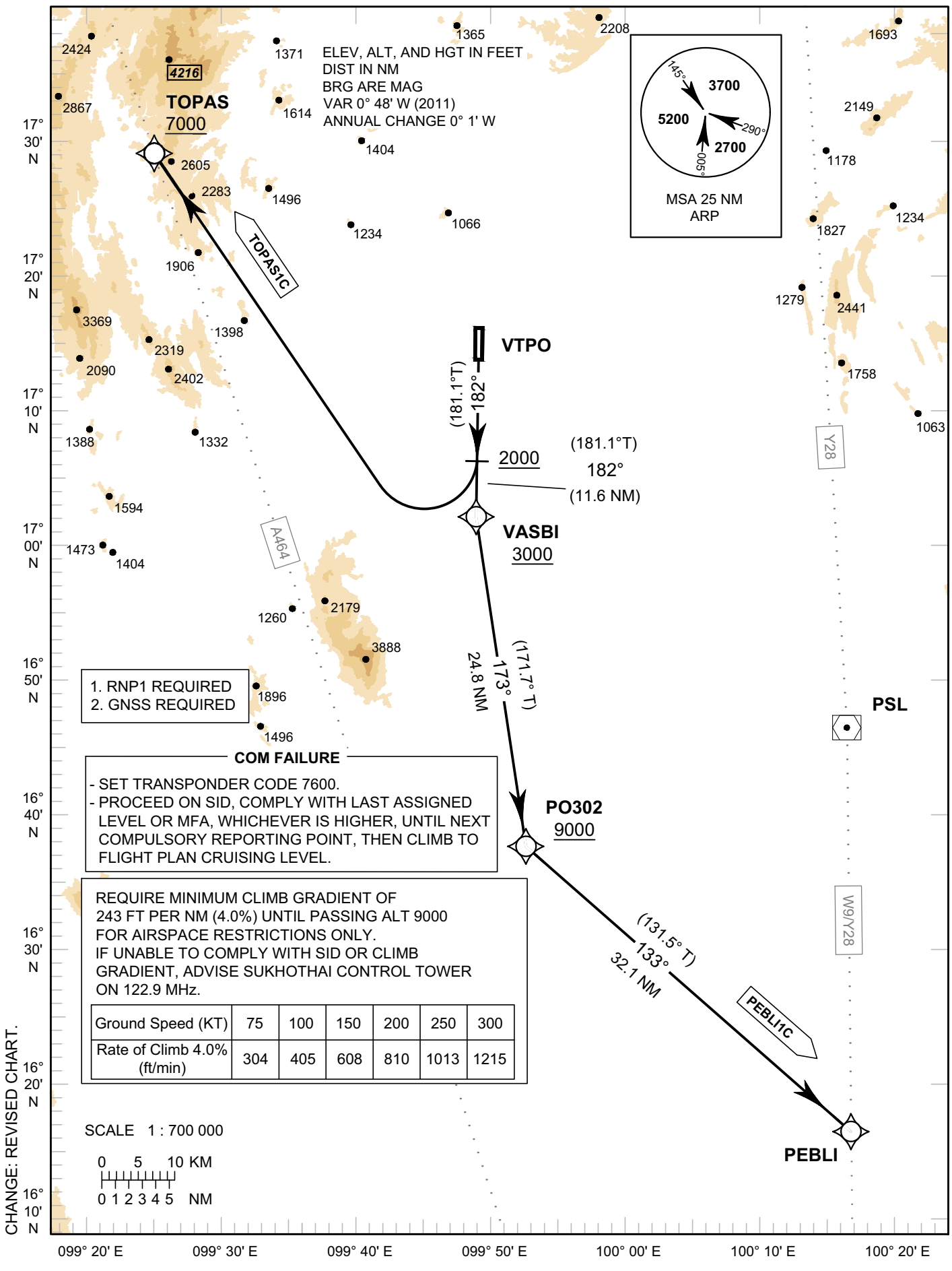
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITIONAL ALTITUDE
11000 FT

APP : 120.7
TWR : 122.9

**SUKHOTHAI / Sukhothai (VTPO)**
**RNAV RWY18**

PEBLI1C TOPAS1C



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**SUKHOTHAI / Sukhothai (VTPO)**
**RNAV RWY18**

PEBLI1C TOPAS1C

## TABULAR DESCRIPTION

| RNAV RWY18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| PEBLI1C TO W9/Y28 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +1.0 | - | - | - | - | - | RNP 1 |
| 020 | CF | VASBI | - | 182°(181.1°) | +1.0 | 11.6 | - | +3000 | - | - | RNP 1 |
| 030 | TF | PO302 | - | 173°(171.7°) | +1.0 | 24.8 | - | +9000 | - | - | RNP 1 |
| 040 | TF | PEBLI | - | 133°(131.5°) | +1.0 | 32.1 | - | - | - | - | RNP 1 |
| TOPAS1C TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY18 | - | - | +1.0 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 182°(181.1°) | +1.0 | - | - | +2000 | - | - | RNP 1 |
| 030 | DF | TOPAS | - | - | +1.0 | - | R | +7000 | - | - | RNP 1 |

## WAYPOINT LIST

| RNAV RWY18 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | |
| DER RWY18 | 17° 13' 41.56" N | 099° 49' 05.27" E |
| PEBLI | 16° 16' 05.94" N | 100° 17' 36.21" E |
| PO302 | 16° 37' 29.85" N | 099° 52' 35.46" E |
| TOPAS | 17° 29' 16.19" N | 099° 23' 58.16" E |
| VASBI | 17° 02' 05.51" N | 099° 48' 51.12" E |

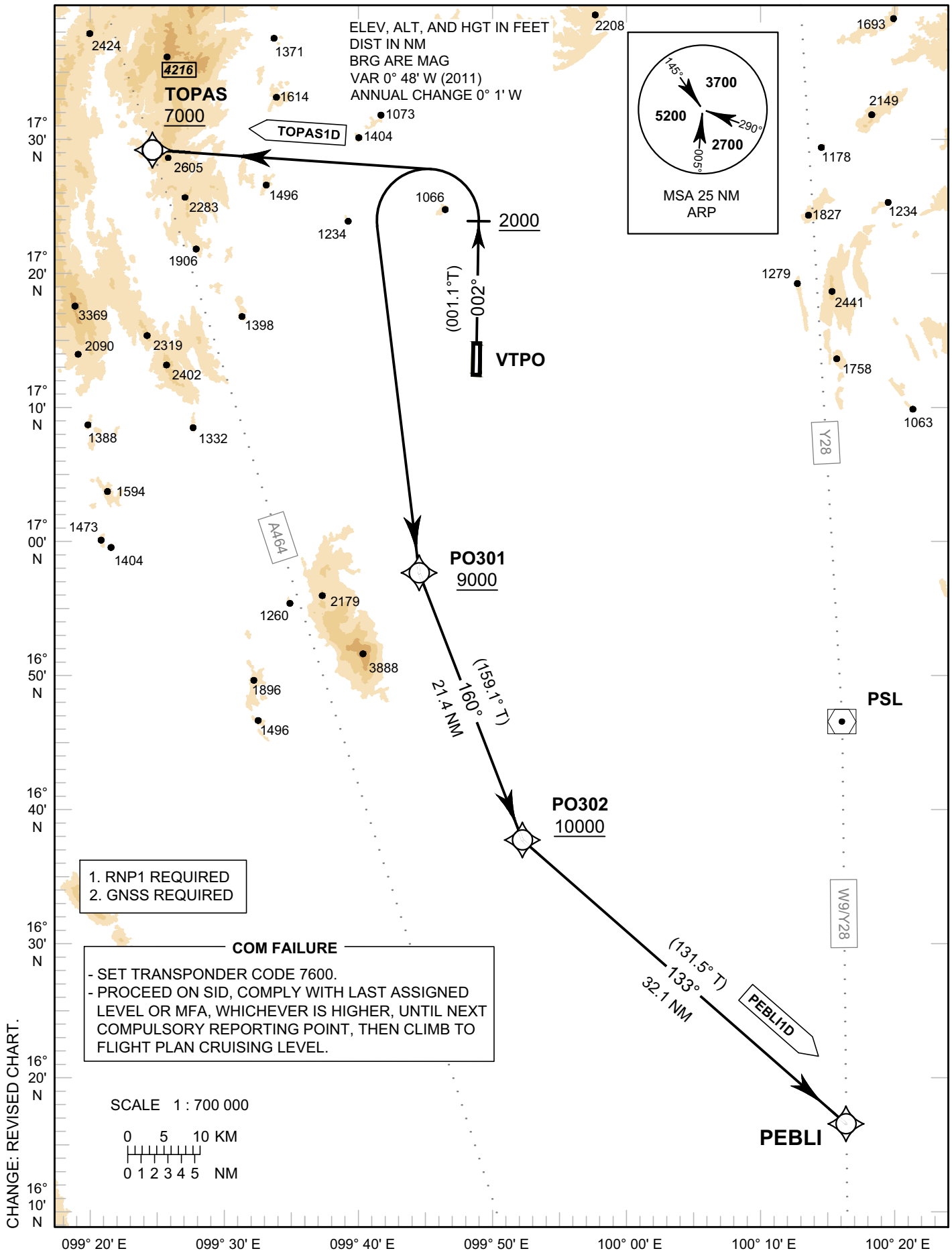
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITIONAL ALTITUDE
11000 FT

APP : 120.7
TWR : 122.9

**SUKHOTHAI / Sukhothai (VTPO)**
**RNAV RWY36**

PEBLI1D TOPAS1D



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**SUKHOTHAI / Sukhothai (VTPO)**
**RNAV RWY36**

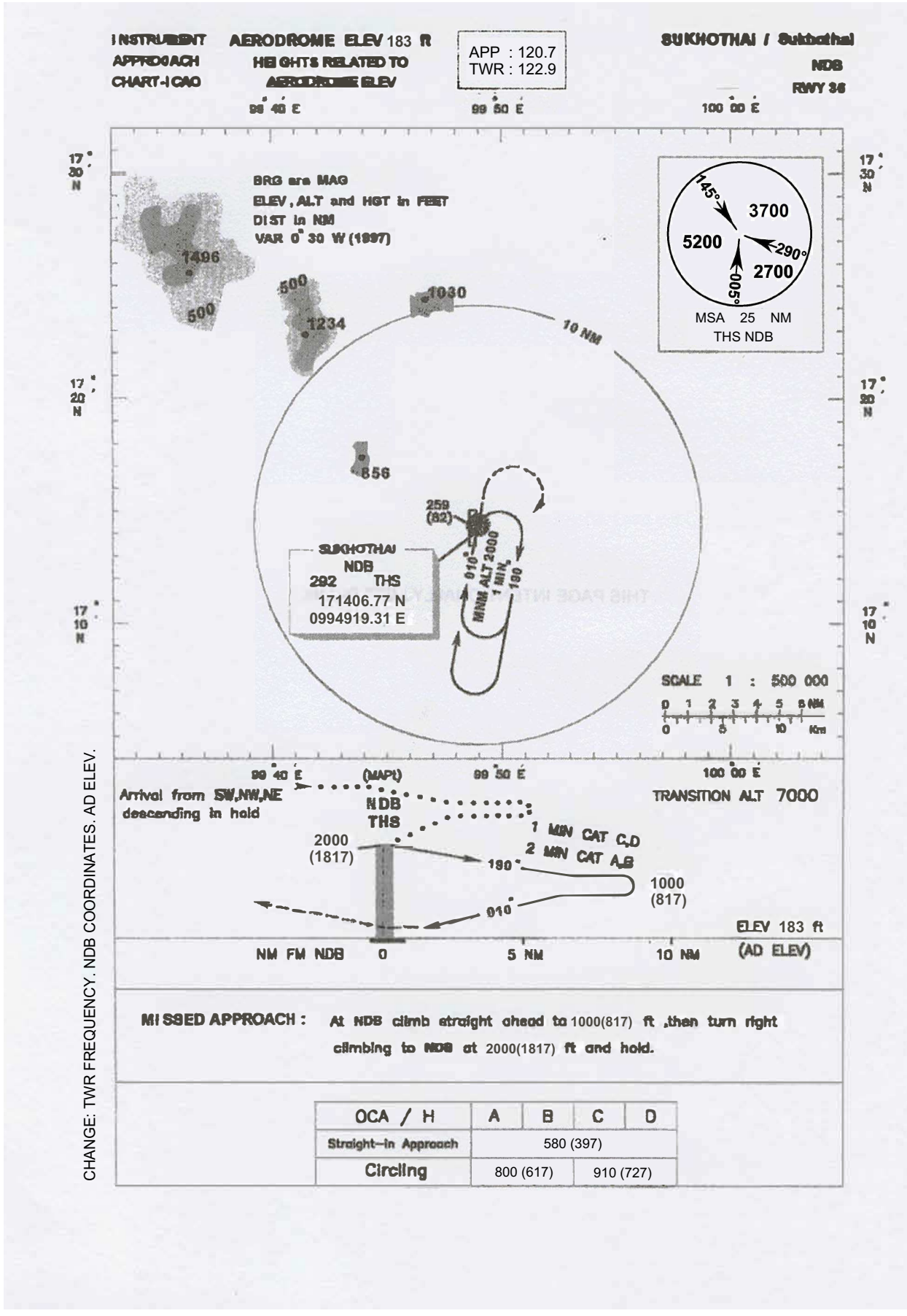
PEBLI1D TOPAS1D

## TABULAR DESCRIPTION

| RNAV RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| PEBLI1D TO W9/Y28 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +1.0 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 002°(001.1°) | +1.0 | - | - | +2000 | - | - | RNP 1 |
| 030 | DF | PO301 | - | - | +1.0 | - | L | +9000 | - | - | RNP 1 |
| 040 | TF | PO302 | - | 160°(159.1°) | +1.0 | 21.4 | - | +10000 | - | - | RNP 1 |
| 050 | TF | PEBLI | - | 133°(131.5°) | +1.0 | 32.1 | - | - | - | - | RNP 1 |
| TOPAS1D TO A464 | | | | | | | | | | | |
| 010 | - | DER RWY36 | - | - | +1.0 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 002°(001.1°) | +1.0 | - | - | +2000 | - | - | RNP 1 |
| 030 | DF | TOPAS | - | - | +1.0 | - | L | +7000 | | | RNP 1 |

## WAYPOINT LIST

| RNAV RWY36 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | |
| DER RWY36 | 17° 14' 49.87" N | 099° 49' 06.66" E |
| PEBLI | 16° 16' 05.94" N | 100° 17' 36.21" E |
| PO301 | 16° 57' 32.70" N | 099° 44' 39.09" E |
| PO302 | 16° 37' 29.85" N | 099° 52' 35.46" E |
| TOPAS | 17° 29' 16.19" N | 099° 23' 58.16" E |




| OCA / H | A | B | C | D |
|---|---|---|---|---|
| Straight-in Approach | 580 (397) | | | |
| Circling | 800 (617) | | 910 (727) | |

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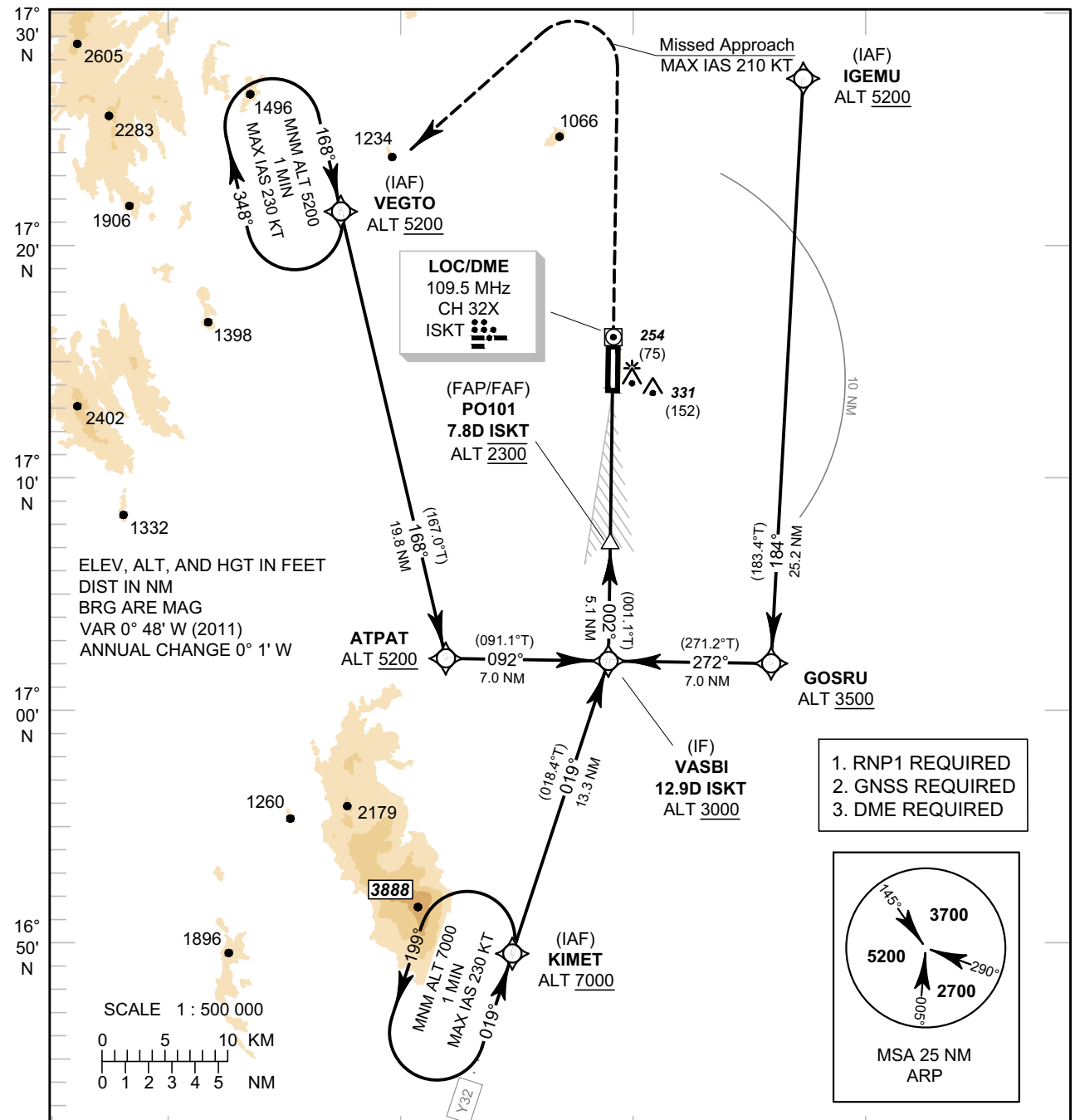
**INSTRUMENT APPROACH CHART - ICAO**

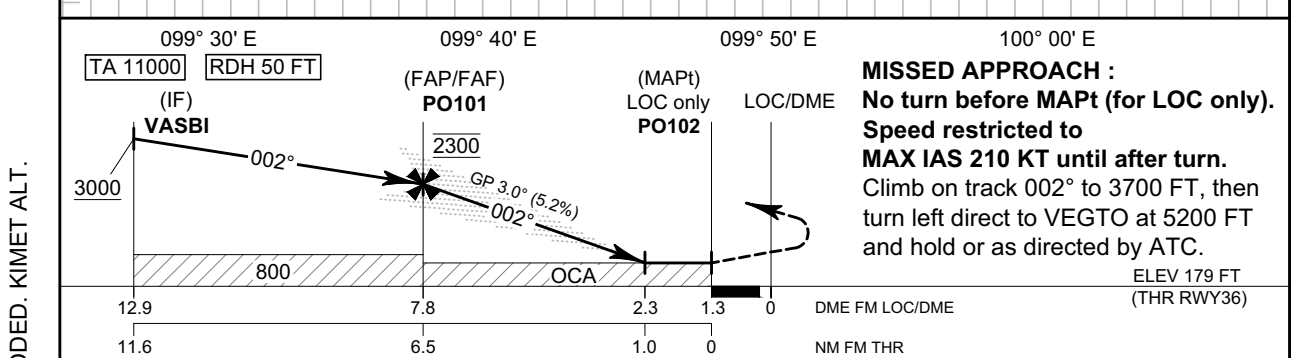
**AERODROME ELEV 183 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 179 FT

APP : 120.7
TWR : 122.9

**SUKHOTHAI / Sukhothai (VTPO)**

**ILS or LOC RWY36**




| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight-in Approach | CAT I | 420 (241) | | | |
| LOC Only | | 560 (381) | | | |
| Circling (OCH AAL) | | 800 (617) | | 910 (727) | |

| GS OUT | Distance (ISKT) | FAF | 7D | 6D | 5D | 4D | 3D | 2.3D |
|---|---|---|---|---|---|---|---|---|
| | Altitude (Height) | 2300 (2121) | 2030 (1851) | 1715 (1536) | 1400 (1221) | 1080 (901) | 765 (586) | 560 (381) |
| | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| | Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: Y32 ADDED. KIMET ALT.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 183 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 179 FT

**SUKHOTHAI / Sukhothai (VTPO)**
**ILS or LOC RWY36**

CHANGE: KIMET ALT.

## TABULAR DESCRIPTION

| ILS or LOC RWY36 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IAF) VEGTO | - | - | +1.0 | - | - | +5200 | - | - | RNP 1 |
| 020 | TF | ATPAT | - | 168°(167.0°) | +1.0 | 19.8 | - | +5200 | - | - | RNP 1 |
| 030 | TF | (IF) VASBI | - | 092°(091.1°) | +1.0 | 7.0 | - | +3000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) IGEMU | - | - | +1.0 | - | - | +5200 | - | - | RNP 1 |
| 020 | TF | GOSRU | - | 184°(183.4°) | +1.0 | 25.2 | - | +3500 | - | - | RNP 1 |
| 030 | TF | (IF) VASBI | - | 272°(271.2°) | +1.0 | 7.0 | - | +3000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) KIMET | - | - | +1.0 | - | - | +7000 | - | - | RNP 1 |
| 020 | TF | (IF) VASBI | - | 019°(018.4°) | +1.0 | 13.3 | - | +3000 | - | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) VASBI | - | - | +1.0 | - | - | +3000 | - | - | RNP 1 |
| **TRANSITION TO ILS or LOC** | | | | | | | | | | | |
| 020 | TF | (FAF) PO101 | - | 002°(001.1°) | +1.0 | 5.1 | - | @2300 | - | - | ILS |
| 030 | TF | (MAPt@THR36) PO102 | Y | 002°(001.1°) | +1.0 | 6.5 | - | @229 | - | -3.0 / 50 | ILS |
| 040 | CA | - | - | 002°(001.1°) | +1.0 | - | - | +3700 | - | - | RNP 1 |
| 050 | DF | (IAF) VEGTO | - | - | +1.0 | - | L | +5200 | -210 | - | RNP 1 |
| 060 | HM | (IAF) VEGTO | Y | 168°(167.0°) | +1.0 | 1 minute | R | +5200 | -230 | - | RNP 1 |

## WAYPOINT LIST

| ILS or LOC RWY36 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | |
| ATPAT | 17° 02' 13.61" N | 099° 41' 32.84" E |
| GOSRU | 17° 01' 57.14" N | 099° 56' 09.39" E |
| IGEMU | 17° 27' 13.10" N | 099° 57' 44.02" E |
| KIMET | 16° 49' 27.60" N | 099° 44' 29.32" E |
| PO101 | 17° 07' 10.05" N | 099° 48' 57.31" E |
| PO102 | 17° 13' 41.56" N | 099° 49' 05.27" E |
| VASBI | 17° 02' 05.51" N | 099° 48' 51.12" E |
| VEGTO | 17° 21' 33.09" N | 099° 36' 53.92" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 183 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 179 FT

**SUKHOTHAI / Sukhothai (VTPO)**
**ILS or LOC RWY36**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IF)<br>VASBI | 12.9D ISKT | 17° 02' 05.51" N | 099° 48' 51.12" E |
| (FAF)<br>PO101 | 7.8D ISKT | 17° 07' 10.05" N | 099° 48' 57.31" E |
| (MAPt@THR36)<br>PO102 | 1.3D ISKT | 17° 13' 41.56" N | 099° 49' 05.27" E |
| LOC | ISKT | 17° 14' 58.02" N | 099° 49' 06.84" E |
| DME | ISKT | 17° 14' 57.85" N | 099° 49' 09.24" E |
| GP | ISKT | 17° 13' 51.06" N | 099° 49' 02.10" E |

CHANGE: LOC, GP COORDINATES.

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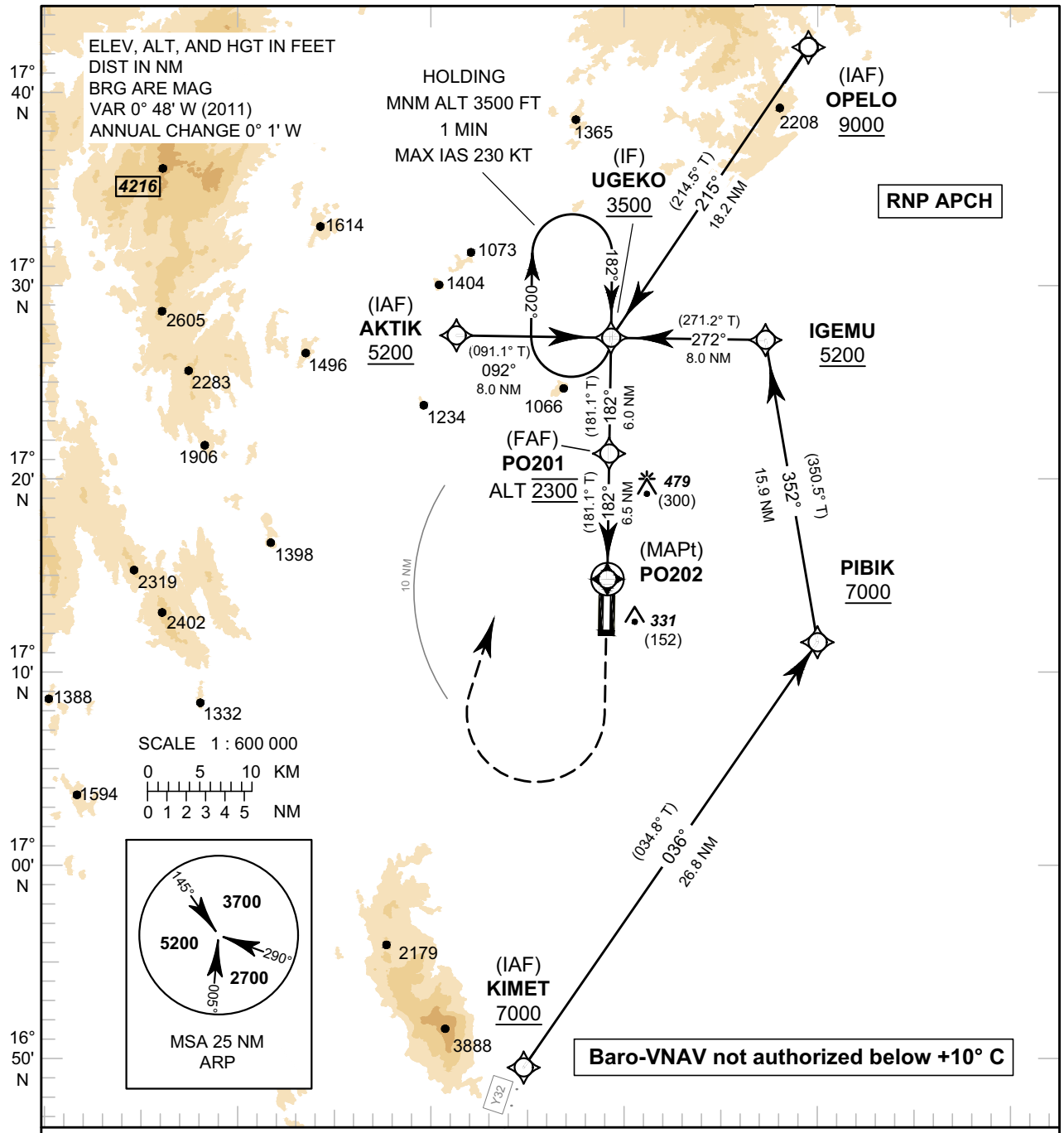
**INSTRUMENT APPROACH CHART - ICAO**

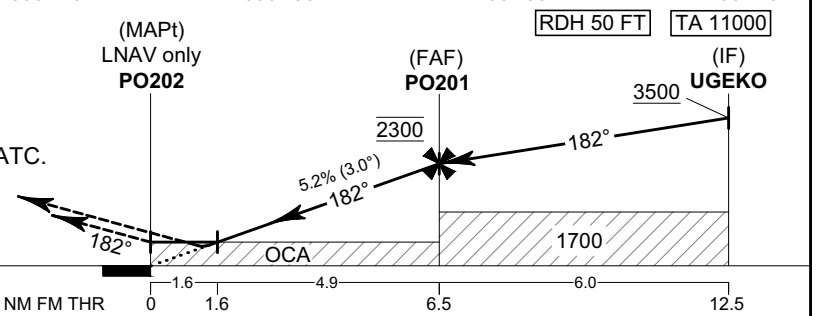
**AERODROME ELEV 183 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 179 FT

APP : 120.7
TWR : 122.9

**SUKHOTHAI / Sukhothai (VTPO)**
**RNP RWY18**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 182° to 1700 FT,
then turn right direct to UGEKO at
3500 FT and hold or as directed by ATC.




CHANGE: REVISED CHART.

| OCA/H | A | B | C | D | NM to NEXT WPT | 1.6 NM | 2 NM | 3 NM | 4 NM | 5 NM | 6 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 470 (291) | | | | Altitude (Height) | 730 (551) | 860 (681) | 1175 (996) | 1495 (1316) | 1810 (1631) | 2125 (1946) | 2300 (2121) |
| LNAV | 730 (551) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 800 (617) | | 910 (727) | | Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 183 FT**
HEIGHTS RELATED TO
THR RWY18 - ELEV 179 FT

**SUKHOTHAI / Sukhothai (VTPO)**
**RNP RWY18**

## TABULAR DESCRIPTION

**RNP RWY18**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) OPELO | - | - | +1.0 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | (IF) UGEKO | - | 215°(214.5°) | +1.0 | 18.2 | - | +3500 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) KIMET | - | - | +1.0 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | PIBIK | - | 036°(034.8°) | +1.0 | 26.8 | - | +7000 | - | - | RNP APCH |
| 030 | TF | IGEMU | - | 352°(350.5°) | +1.0 | 15.9 | - | +5200 | - | - | RNP APCH |
| 040 | TF | (IF) UGEKO | - | 272°(271.2°) | +1.0 | 8.0 | - | +3500 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) AKTIK | - | - | +1.0 | - | - | +5200 | - | - | RNP APCH |
| 020 | TF | (IF) UGEKO | - | 092°(091.1°) | +1.0 | 8.0 | - | +3500 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) UGEKO | - | - | +1.0 | - | - | +3500 | - | - | RNP APCH |
| 020 | TF | (FAF) PO201 | - | 182°(181.1°) | +1.0 | 6.0 | - | @2300 | - | - | RNP APCH |
| 030 | TF | (MAPt@THR18) PO202 | Y | 182°(181.1°) | +1.0 | 6.5 | - | @229 | - | -3.0 / 50 | RNP APCH |
| 040 | CA | - | - | 182°(181.1°) | +1.0 | - | - | +1700 | - | - | RNP APCH |
| 050 | DF | (IF) UGEKO | - | - | +1.0 | - | R | +3500 | - | - | RNP APCH |
| 060 | HM | (IF) UGEKO | Y | - | +1.0 | 1 minute | R | +3500 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY18**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| AKTIK | 17° 27' 31.99" N | 099° 40' 59.98" E |
| IGEMU | 17° 27' 13.10" N | 099° 57' 44.02" E |
| KIMET | 16° 49' 27.60" N | 099° 44' 29.32" E |
| OPELO | 17° 42' 24.27" N | 100° 00' 07.57" E |
| PIBIK | 17° 11' 30.33" N | 100° 00' 27.77" E |
| PO201 | 17° 21' 21.34" N | 099° 49' 14.64" E |
| PO202 | 17° 14' 49.87" N | 099° 49' 06.66" E |
| UGEKO | 17° 27' 22.72" N | 099° 49' 22.01" E |

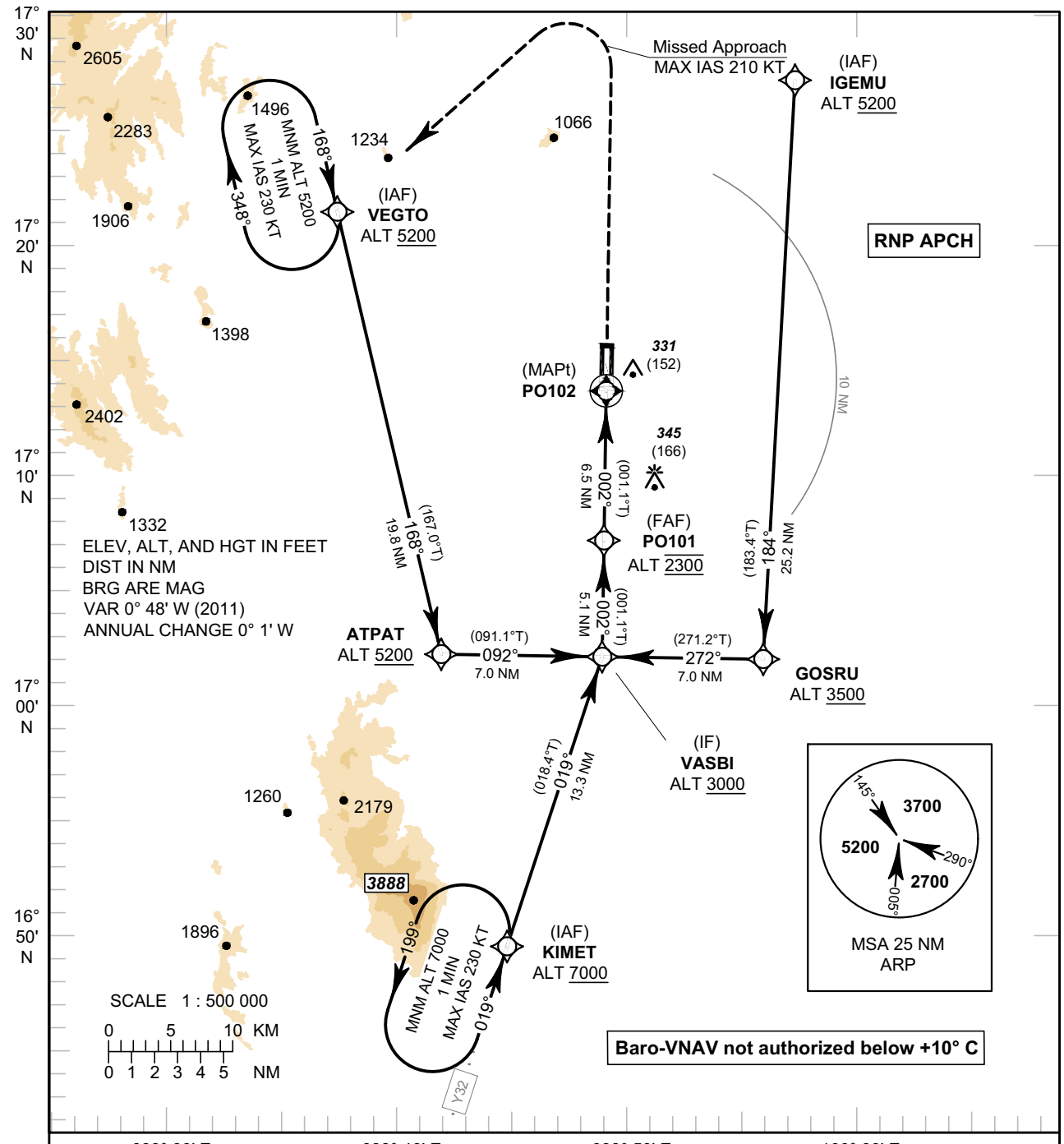
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 183 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 179 FT

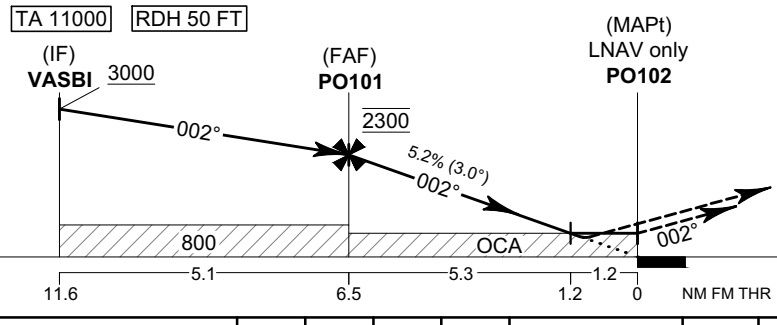
APP : 120.7
TWR : 122.9

**SUKHOTHAI / Sukhothai (VTPO)**

**RNP RWY36**




TA 11000 RDH 50 FT




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 210 KT until after turn.**
Climb on track 002° to 3700 FT, then turn left direct to VEGTO at 5200 FT and hold or as directed by ATC.

ELEV 179 FT
(THR RWY36)

CHANGE: Y32 ADDED. KIMET ALT.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 500 (321) | | | |
| LNAV | 600 (421) | | | |
| Circling (OCH AAL) | 800 (617) | | 910 (727) | |

| NM to NEXT WPT | FAF | 6 NM | 5 NM | 4 NM | 3 NM | 2 NM | 1.2 NM |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 2300 (2121) | 2125 (1946) | 1810 (1631) | 1495 (1316) | 1175 (996) | 860 (681) | 600 (421) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 183 FT**
HEIGHTS RELATED TO
THR RWY36 - ELEV 179 FT

**SUKHOTHAI / Sukhothai (VTPO)**
**RNP RWY36**

## TABULAR DESCRIPTION

**RNP RWY36**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) VEGTO | - | - | +1.0 | - | - | +5200 | - | - | RNP APCH |
| 020 | TF | ATPAT | - | 168°(167.0°) | +1.0 | 19.8 | - | +5200 | - | - | RNP APCH |
| 030 | TF | (IF) VASBI | - | 092°(091.1°) | +1.0 | 7.0 | - | +3000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) IGEMU | - | - | +1.0 | - | - | +5200 | - | - | RNP APCH |
| 020 | TF | GOSRU | - | 184°(183.4°) | +1.0 | 25.2 | - | +3500 | - | - | RNP APCH |
| 030 | TF | (IF) VASBI | - | 272°(271.2°) | +1.0 | 7.0 | - | +3000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) KIMET | - | - | +1.0 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | (IF) VASBI | - | 019°(018.4°) | +1.0 | 13.3 | - | +3000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) VASBI | - | - | +1.0 | - | - | +3000 | - | - | RNP APCH |
| 020 | TF | (FAF) PO101 | - | 002°(001.1°) | +1.0 | 5.1 | - | @2300 | - | - | RNP APCH |
| 030 | TF | (MAPt@THR36) PO102 | Y | 002°(001.1°) | +1.0 | 6.5 | - | @229 | - | -3.0 / 50 | RNP APCH |
| 040 | CA | - | - | 002°(001.1°) | +1.0 | - | - | +3700 | - | - | RNP APCH |
| 050 | DF | (IAF) VEGTO | - | - | +1.0 | - | L | +5200 | -210 | - | RNP APCH |
| 060 | HM | (IAF) VEGTO | Y | 168°(167.0°) | +1.0 | 1 minute | R | +5200 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY36**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| ATPAT | 17° 02' 13.61" N | 099° 41' 32.84" E |
| GOSRU | 17° 01' 57.14" N | 099° 56' 09.39" E |
| IGEMU | 17° 27' 13.10" N | 099° 57' 44.02" E |
| KIMET | 16° 49' 27.60" N | 099° 44' 29.32" E |
| PO101 | 17° 07' 10.05" N | 099° 48' 57.31" E |
| PO102 | 17° 13' 41.56" N | 099° 49' 05.27" E |
| VASBI | 17° 02' 05.51" N | 099° 48' 51.12" E |
| VEGTO | 17° 21' 33.09" N | 099° 36' 53.92" E |

CHANGE: KIMET ALT.

## VTSB AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSB - SURAT THANI / SURAT THANI AIRPORT

## VTSB AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 090810.09N 0990820.55E |
| 2 | Direction and distance from (city) | 25 KM. W from city |
| 3 | Elevation/Reference temperature | 20 FT/28°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.46°W(2016)/0.01°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Surat Thani Airport<br>Surat Thani Airport<br>Tambon Huatoi, Amphoe Phunphin<br>Surat Thani Province 84130<br>Thailand<br>Tel: +667 744 1230<br>+667 744 1349<br>Fax: +667 744 1225<br>AFS: VTSBYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTSB AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1500 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1500 |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | 2300-1500 |
| 8 | Fuelling | 0100-1200 Another time on request |
| 9 | Handling | NIL |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Surat Thani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +667 744 1008<br>+669 1010 1837<br>Fax: +667 744 1009 |

## VTSB AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1, AVGAS |
| 3 | Fuelling facilities/capacity | 1 JET A-1 Refueller @ 12,000 L<br>1 JET A-1 Refueller @ 22,000 L<br>1 AVGAS DC Motor Dispenser from drum 50 L |
| 4 | De-icing facilities | NIL |

| | | |
|---|---|---|
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTSB AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Limosine, Car rental, Taxi |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTSB AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 8 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTSB AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTSB AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCR 1200/R/C/X/T |
| 2 | Taxiway width, surface and strength | TWY A, B and M<br>Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCR 800/F/C/X/T<br>TWY C (Parallel TWY), D, E, F, G, H, I and J<br>Width: 23 M<br>Surface: Concrete<br>Strength: PCR 550/R/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSB AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |

| | | |
|---|---|---|
| 2 | RWY and TWY markings and LGT | RWY and TWY: Marked and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSB AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| NIL | Radio mast<br>HGT 45 M<br>painted red/ white<br>LGTD on top | 090900N 0991000E | NIL | NIL | NIL |
| | Radio mast<br>HGT 45 M<br>painted red/ white<br>LGTD on top | 090823N 0990715E | | | |
| | Radio mast<br>HGT 121 M<br>painted red/ white<br>LGTD on top | 090750N 0992130E | | | |

## VTSB AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Surat Thani,<br>Southern East-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1500<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern East-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 744 1132 ext. 5514 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS),<br>Low Level Windshear Alert System (LLWAS) and Weather Radar |
| 9 | ATS units provided with information | Surat Thani TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSB AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCR) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 04 | 044.09° | 3000x45 | PCR 800/F/C/X/T Asphaltic concrete | 090722.19N 0990733.72E | THR 20 FT |
| 22 | 224.09 | 3000x45 | PCR 800/F/C/X/T Asphaltic concrete | 090832.55N 0990842.50E | THR 18 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location & description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| NIL | NIL | NIL | 3120x300 | 240x90 | NIL | NIL | NIL |
| NIL | NIL | NIL | 3120x300 | 240x90 | NIL | NIL | NIL |

## VTSB AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 04 | 3000 | 3000 | 3000 | 3000 | NIL |
| 22 | 3000 | 3000 | 3000 | 3000 | NIL |

## VTSB AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 04 | NIL | Green | PAPI Left 3° (53.45 FT) | NIL | NIL | 3000 M 60 M White, LIH | Red | NIL | NIL |
| 22 | CAT1 900M | Green | PAPI Left 3° (58.92 FT) | NIL | NIL | 3000 M 60 M White, LIH | Red | NIL | NIL |

## VTSB AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W G EV 7 SEC<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | EDGE: ALL TWY |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all air field lighting (AFL)<br>Switch-over time: 20 SEC |
| 5 | Remarks | Flares 2 HR PN |

## VTSB AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTSB AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on STN DVOR/DME (090746.2N 0990805.1E) |
| 2 | Vertical limits | 3000 ft/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Surat Thani Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSB AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Surat Thani Approach | 123.35 / 240.0 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Surat Thani Tower | 122.7 MHz<br>274.5 MHz<br>121.5 MHz [1)]<br>243.0 MHz [1)] | As AD OPR HR | |
| GND | Surat Thani Ground | 121.9 MHz<br>275.8 MHz | As AD OPR HR | |
| ATIS | Surat Thani Airport | 125.95 MHz | As AD OPR HR | |

## VTSB AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | STN | 110.6 MHz CH43X | H24 | 090746.2N 0990805.1E | | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage orbit 40 nm as follow:<br>RDL 001-070 DEG ALT should not below 1500 ft<br>RDL 071-090 DEG ALT should not below 3500 ft<br>RDL 091-150 DEG ALT should not below 5000 ft<br>RDL 151-190 DEG ALT should not below 1500 ft<br>RDL 191-360 DEG ALT should not below 4000 ft<br>RDL 227 DEG distance approximate 10-13 DME out of tolerance roughness and scalloping. |
| ILS CAT I LOC RWY22 | ISTN | 109.5 MHz | H24 | 090715.0N 0990726.8E | | Designated operational coverage 18 nm ±10º and 10 nm ±35º of localizer course, no back course and voice feature, the antenna array is located on extended runway centre line at distance 305 m from THR of runway 04. |
| GP/DME | | 332.6 MHz CH32X | H24 | 090821.8N 0990837.5E | | - Glide Path 3°<br>- DME co-located with Glide Slope power output 100 watts Uni-directional |
| TACAN | SRT | CH79 | 2300-1100 | 0907.9N 09908.1E | | Military Facility |

## VTSB AD 2.20 LOCAL AERODROME REGULATIONS

1. VFR REPORTING POINTS AND LOCAL PROCEDURES

1.1 Reporting points for VFR flight In order to expedite and maintain an orderly flow of air traffic into Surat Thani Airport, the procedures of the inbound traffic of VFR flight, conventional and prop-jet aircraft be set up as follow:

a) Aircraft entering to land from north of Surat Thani Airport, shall report over Chai Ya District, designated as CHARLIE point (0923.0N 9912.5E) which is approximately 15 nm on bearing 010º from SR NDB. When reaching CHARLIE the aircraft will be instructed to join aerodrome traffic pattern accordingly.
b) Aircraft entering to land from east of Surat Thani Airport, shall report over Surat Thani District, designated as SIERRA point (0908.0N 9920.0E) which is approximately 12 nm on bearing 090º from SR NDB. When reaching SIERRA the aircraft will be instructed to join aerodrome traffic pattern accordingly.
c) Aircraft entering to land from south of Surat Thani Airport, shall report over Ban Nasan District, designated as NOVEMBER point (0848.0N 9922.0E) which is approximately 25 nm on bearing 145º from SR NDB. When reaching NOVEMBER the aircraft will be instructed to join aerodrome traffic pattern accordingly.
d) Aircraft entering to land from west of Surat Thani Airport, shall report over Khirirat Nikhom District, designated as KILO point (0902.0N 09858.0E) which is approximately 14 nm on bearing 240º from SR NDB. When reaching KILO the aircraft will be instructed to join aerodrome traffic pattern accordingly.

1.2 Aerodrome traffic circuit

Using both sides of traffic circuit

1.3 Overhead approach pattern

a) Using runway 04 by left turn pattern

b) Using runway 22 by right turn pattern

## VTSB AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSB AD 2.22 FLIGHT PROCEDURES

### 1. SPEED CONTROL PROCEDURE IN SURAT THANI TMA

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

### 2. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 3. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

### 4. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 04:

SURAT OMNI 04 Departure: Required climb gradient 304 ft per NM (5.0%) until 6,100 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 5.0% | (ft/min) | 329 | 380 | 506 | 760 | 1013 | 1266 | 1519 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft – 5,000 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 22:

SURAT OMNI 22 Departure: Required climb gradient 304 ft per NM (5.0%) until 6,100 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 5.0% | (ft/min) | 329 | 380 | 506 | 760 | 1013 | 1266 | 1519 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft – 5,000 ft), then comply with ATC clearance issued (or as directed by ATC).

**VTSB AD 2.23 ADDITIONAL INFORMATION**

- Royal Thai Air Force ASR/SSR Air-to-ground facilities operations located at Surat Thani Airport

Radio call sign : SURAT

APP/ARR freq : 134.75, 342.5, 382.4 and 123.6 MHZ

DEP freq : 134.1 and 335.5 MHZ

Cover range / height : ASR 70 NM / 40 000 FT SSR 200 NM / 100 000 FT

Hours of operations : Monday-Friday 0100-0900

Emission : ASR 500 KW, SSR 1.5 KW

Remarks : Available for Military

- Windshear Alert System installed and operations at Aerodrome.

- BAK14 RAG installed on both side 400 M from Threshold of Runway 04/22

- Aircraft code letter C and over are not allowed to make 180 degree on runway for preventing runway pavement structural damage.
Remark : The turn shall be made on the turnpad close to runway 22 and on runway 04 near taxiway E.

- Bird concentrations in the vicinity of an aerodrome.

**VTSB AD 2.24 CHARTS RELATED TO AN AERODROME**


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSB-2-1 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 04/22 | AD 2-VTSB-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 04 - ADLAL1D EMVEL1D IDNAR1D LAMUL1D NIXET1D SEGRA1D TAVAT1D TOGIM1D | AD 2-VTSB-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 04 - ADLAL1D EMVEL1D IDNAR1D LAMUL1D NIXET1D SEGRA1D TAVAT1D TOGIM1D (Tabular description) | AD 2-VTSB-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 04 - ADLAL1D EMVEL1D IDNAR1D LAMUL1D NIXET1D SEGRA1D TAVAT1D TOGIM1D (Waypoint list table) | AD 2-VTSB-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 22 - ADLAL1C EMVEL1C IDNAR1C LAMUL1C NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C | AD 2-VTSB-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 22 - ADLAL1C EMVEL1C IDNAR1C LAMUL1C NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C (Tabular description 1) | AD 2-VTSB-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 22 - ADLAL1C EMVEL1C IDNAR1C LAMUL1C NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C (Tabular description 2) | AD 2-VTSB-6-7 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 22 - ADLAL1C EMVEL1C IDNAR1C LAMUL1C NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C (Waypoint list table) | AD 2-VTSB-6-8 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 04 - ADLAL1B EMVEL1B IDNAR1B IKERA1B LAMUL1B SEGRA1B TAVAT1B TOGIM1B | AD 2-VTSB-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 04 - ADLAL1B EMVEL1B IDNAR1B IKERA1B LAMUL1B SEGRA1B TAVAT1B TOGIM1B (Tabular description) | AD 2-VTSB-7-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 04 - ADLAL1B EMVEL1B IDNAR1B IKERA1B LAMUL1B SEGRA1B TAVAT1B TOGIM1B (Waypoint list table) | AD 2-VTSB-7-3 |

| Chart name | Page |
|---|---|
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 22 - ADLAL1A EMVEL1A IDNAR1A IKERA1A LAMUL1A SEGRA1A TAVAT1A TOGIM1A | AD 2-VTSB-7-5 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 22 - ADLAL1A EMVEL1A IDNAR1A IKERA1A LAMUL1A SEGRA1A TAVAT1A TOGIM1A (Tabular description 1) | AD 2-VTSB-7-6 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 22 - ADLAL1A EMVEL1A IDNAR1A IKERA1A LAMUL1A SEGRA1A TAVAT1A TOGIM1A (Tabular description 2) | AD 2-VTSB-7-7 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 22 - ADLAL1A EMVEL1A IDNAR1A IKERA1A LAMUL1A SEGRA1A TAVAT1A TOGIM1A (Waypoint list table) | AD 2-VTSB-7-8 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 22 | AD 2-VTSB-8-1 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 22 (Tabular description) | AD 2-VTSB-8-2 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 22 (Fix and point list table) | AD 2-VTSB-8-3 |
| Instrument Approach Chart - ICAO - RNP RWY 04 | AD 2-VTSB-8-5 |
| Instrument Approach Chart - ICAO - RNP RWY 04 (Tabular description) | AD 2-VTSB-8-6 |
| Instrument Approach Chart - ICAO - RNP RWY 22 | AD 2-VTSB-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 22 (Tabular description) | AD 2-VTSB-8-8 |

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## AERODROME CHART - ICAO

09 08 10.09N
099 08 20.55E

ELEV 20 FT

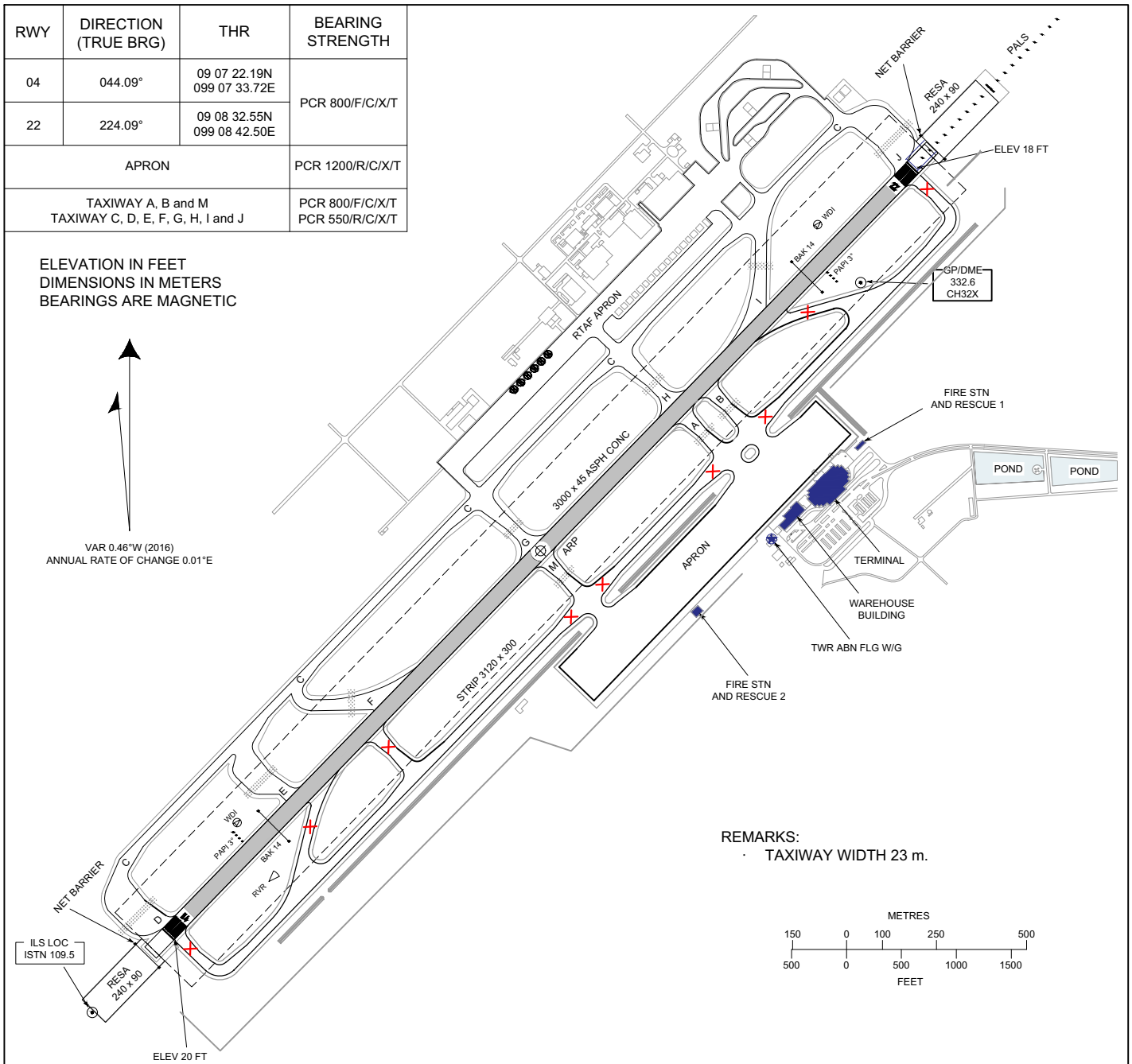
TWR 122.7, 274.5
GND 121.9, 275.8

## SURAT THANI / Surat Thani

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 04 | 044.09° | 09 07 22.19N<br>099 07 33.72E | PCR 800/F/C/X/T |
| 22 | 224.09° | 09 08 32.55N<br>099 08 42.50E | |
| APRON | | | PCR 1200/R/C/X/T |
| TAXIWAY A, B and M<br>TAXIWAY C, D, E, F, G, H, I and J | | | PCR 800/F/C/X/T<br>PCR 550/R/C/X/T |

ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

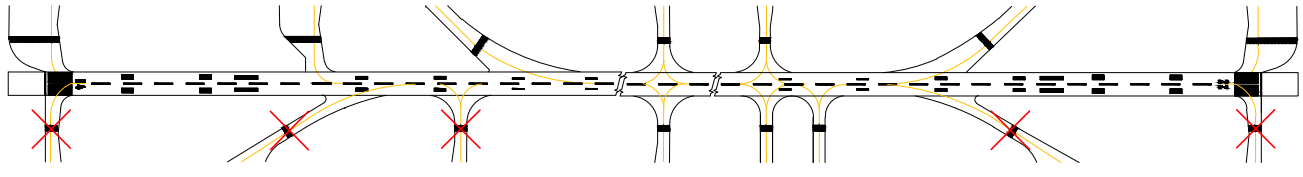
VAR 0.46°W (2016)
ANNUAL RATE OF CHANGE 0.01°E



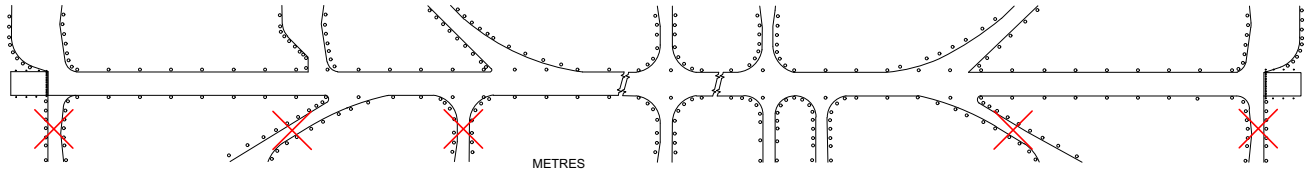

REMARKS:

- TAXIWAY WIDTH 23 m.

MARKING AIDS RWY 04/22 AND EXIT TWY



LIGHTING AIDS RWY 04/22 AND EXIT TWY




CHANGE: REVISED CHART. RESA RWY 04/22. CANCELLED SWY 04/22. EXTENDED APRON AREA.

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# AERODROME OBSTACLE CHART - ICAO
## TYPE A (OPERATING LIMITATIONS)

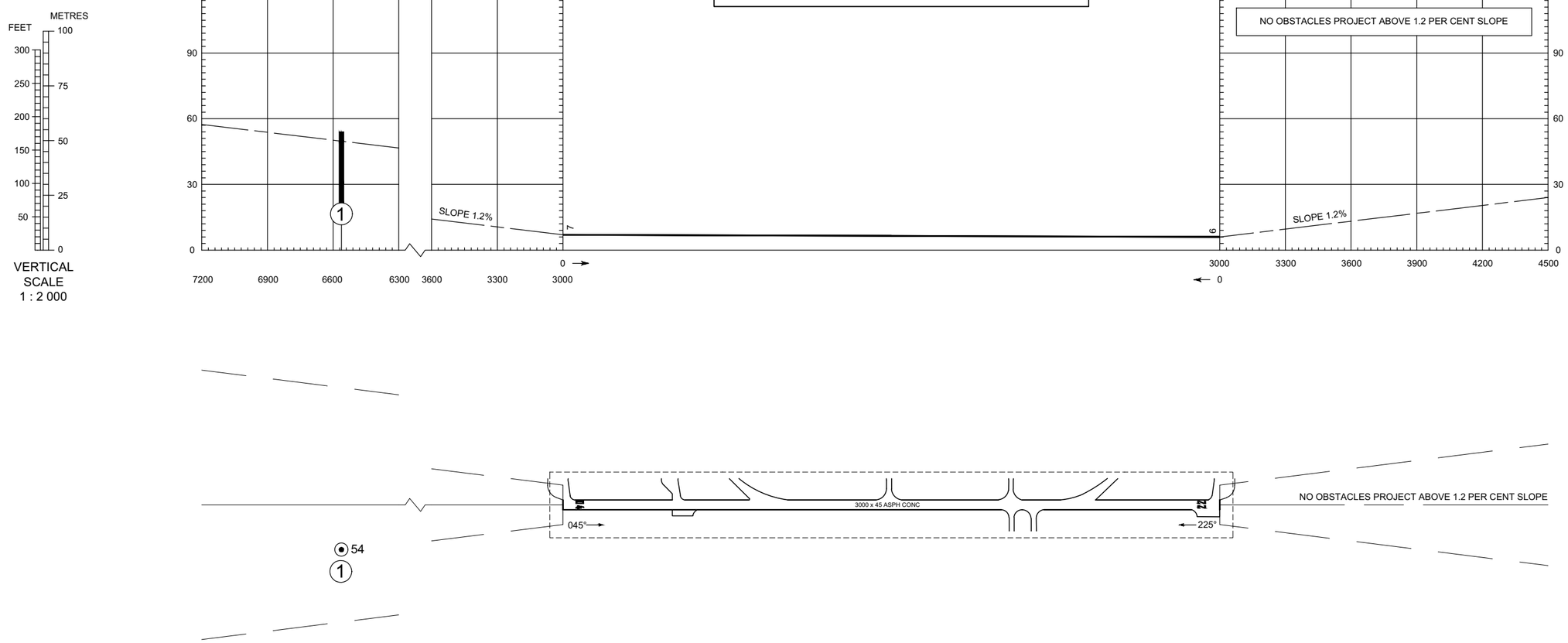
**DIMENSIONS AND ELEVATIONS IN METRES**

**SURAT THANI / Surat Thani Airport**

MAGNETIC VARIATION 0.60°W (2022)
ANNUAL RATE OF CHANGE 0.02°W

RWY 04 / 22

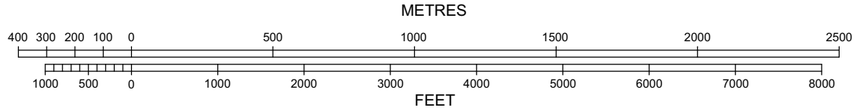
| DECLARED DISTANCES | | |
|---|---|---|
| RWY 04 | | RWY 22 |
| 3000 | TAKE-OFF RUN AVAILABLE | 3000 |
| 3000 | TAKE-OFF DISTANCE AVAILABLE | 3000 |
| 3000 | ACCELERATE STOP DISTANCE AVAILABLE | 3000 |
| 3000 | LANDING DISTANCE AVAILABLE | 3000 |




ORDER OF ACCURACY
HORIZONTAL 0.5 m
VERTICAL 0.5 m

| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | 1 |
| POLE, TOWER, SPIRE, ANTENNA, ETC | ⊙ |

HORIZONTAL SCALE 1 : 20 000




| AMENDMENT RECORD | | |
|---|---|---|
| No. | DATE | ENTERED BY |

CHANGE: NEW CHART.

DEPARTMENT OF AIRPORTS

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## STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

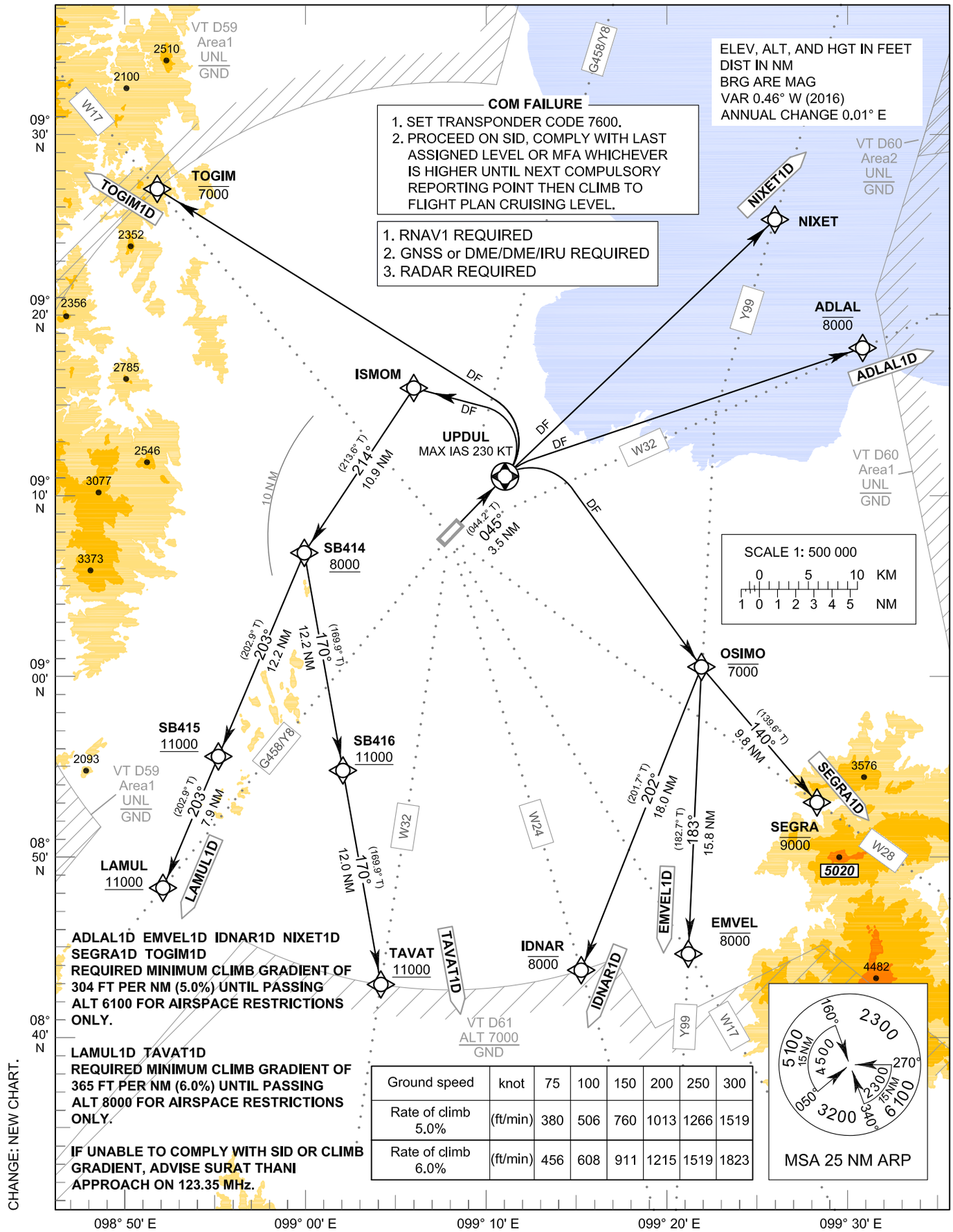
TRANSITION ALTITUDE
11000 FT

| | |
|---|---|
| APP | 123.35 , 240.0 |
| TWR | 122.7 , 274.5 |
| GND | 121.9 , 275.8 |
| ATIS | 125.95 |

## SURAT THANI / Surat Thani (VTSB)

## RNAV RWY04

ADLAL1D EMVEL1D IDNAR1D LAMUL1D
NIXET1D SEGRA1D TAVAT1D TOGIM1D



**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY04**

ADLAL1D EMVEL1D IDNAR1D LAMUL1D
NIXET1D SEGRA1D TAVAT1D TOGIM1D

## TABULAR DESCRIPTION

**RNAV RWY04**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADLAL1D | | | | | | | | | | | |
| 010 | - | DER RWY04 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | UPDUL | Y | 045°(044.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | ADLAL | - | - | +0.44 | - | - | -8000 | - | - | RNAV 1 |
| EMVEL1D | | | | | | | | | | | |
| 010 | - | DER RWY04 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | UPDUL | Y | 045°(044.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | OSIMO | - | - | +0.44 | - | R | -7000 | - | - | RNAV 1 |
| 040 | TF | EMVEL | - | 183°(182.7°) | +0.44 | 15.8 | - | -8000 | - | - | RNAV 1 |
| IDNAR1D | | | | | | | | | | | |
| 010 | - | DER RWY04 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | UPDUL | Y | 045°(044.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | OSIMO | - | - | +0.44 | - | R | -7000 | - | - | RNAV 1 |
| 040 | TF | IDNAR | - | 202°(201.7°) | +0.44 | 18.0 | - | -8000 | - | - | RNAV 1 |
| LAMUL1D | | | | | | | | | | | |
| 010 | - | DER RWY04 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | UPDUL | Y | 045°(044.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | ISMOM | - | - | +0.44 | - | L | - | - | - | RNAV 1 |
| 040 | TF | SB414 | - | 214°(213.6°) | +0.44 | 10.9 | L | +8000 | - | - | RNAV 1 |
| 050 | TF | SB415 | - | 203°(202.9°) | +0.44 | 12.2 | - | +11000 | - | - | RNAV 1 |
| 060 | TF | LAMUL | - | 203°(202.9°) | +0.44 | 7.9 | - | +11000 | - | - | RNAV 1 |
| NIXET1D | | | | | | | | | | | |
| 010 | - | DER RWY04 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | UPDUL | Y | 045°(044.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | NIXET | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| SEGRA1D | | | | | | | | | | | |
| 010 | - | DER RWY04 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | UPDUL | Y | 045°(044.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | OSIMO | - | - | +0.44 | - | - | -7000 | - | - | RNAV 1 |
| 040 | TF | SEGRA | - | 140°(139.6°) | +0.44 | 9.8 | - | -9000 | - | - | RNAV 1 |
| TAVAT1D | | | | | | | | | | | |
| 010 | - | DER RWY04 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | UPDUL | Y | 045°(044.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | ISMOM | - | - | +0.44 | - | L | - | - | - | RNAV 1 |
| 040 | TF | SB414 | - | 214°(213.6°) | +0.44 | 10.9 | L | +8000 | - | - | RNAV 1 |
| 050 | TF | SB416 | - | 170°(169.9°) | +0.44 | 12.2 | - | +11000 | - | - | RNAV 1 |
| 060 | TF | TAVAT | - | 170°(169.9°) | +0.44 | 12.0 | - | +11000 | - | - | RNAV 1 |
| TOGIM1D | | | | | | | | | | | |
| 010 | - | DER RWY04 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | UPDUL | Y | 045°(044.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | TOGIM | - | - | +0.44 | - | - | -7000 | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY04**

ADLAL1D EMVEL1D IDNAR1D LAMUL1D
NIXET1D SEGRA1D TAVAT1D TOGIM1D

## WAYPOINT LIST

| RNAV RWY04 | | | |
|---|---|---|---|
| | | | |
| **Waypoint Identifier** | **Coordinates** | | **Pronunciation** |
| DER RWY04 | 09° 08' 32.55" N | 099° 08' 42.50" E | - |
| ADLAL | 09° 18' 10.00" N | 099° 31' 06.46" E | ADD - LAN |
| EMVEL | 08° 44' 37.58" N | 099° 21' 21.67" E | EM - VEL |
| IDNAR | 08° 43' 43.73" N | 099° 15' 23.83" E | ID - NHA |
| ISMOM | 09° 15' 57.90" N | 099° 06' 05.84" E | IS - MOM |
| LAMUL | 08° 48' 17.52" N | 098° 52' 08.16" E | LAH - MUL |
| NIXET | 09° 25' 17.11" N | 099° 26' 13.25" E | NIG - SET |
| OSIMO | 09° 00' 30.75" N | 099° 22' 06.09" E | O - SI - MO |
| SB414 | 09° 06' 50.46" N | 098° 59' 59.98" E | - |
| SB415 | 08° 55' 33.96" N | 098° 55' 13.09" E | - |
| SB416 | 08° 54' 47.57" N | 099° 02' 08.89" E | - |
| SEGRA | 08° 53' 00.22" N | 099° 28' 31.31" E | SAE - GRA |
| TAVAT | 08° 42' 56.59" N | 099° 04' 15.52" E | TA - VAT |
| TOGIM | 09° 26' 59.13" N | 098° 51' 48.08" E | TO - GIM |
| UPDUL | 09° 11' 03.87" N | 099° 11' 10.46" E | UP - DOON |

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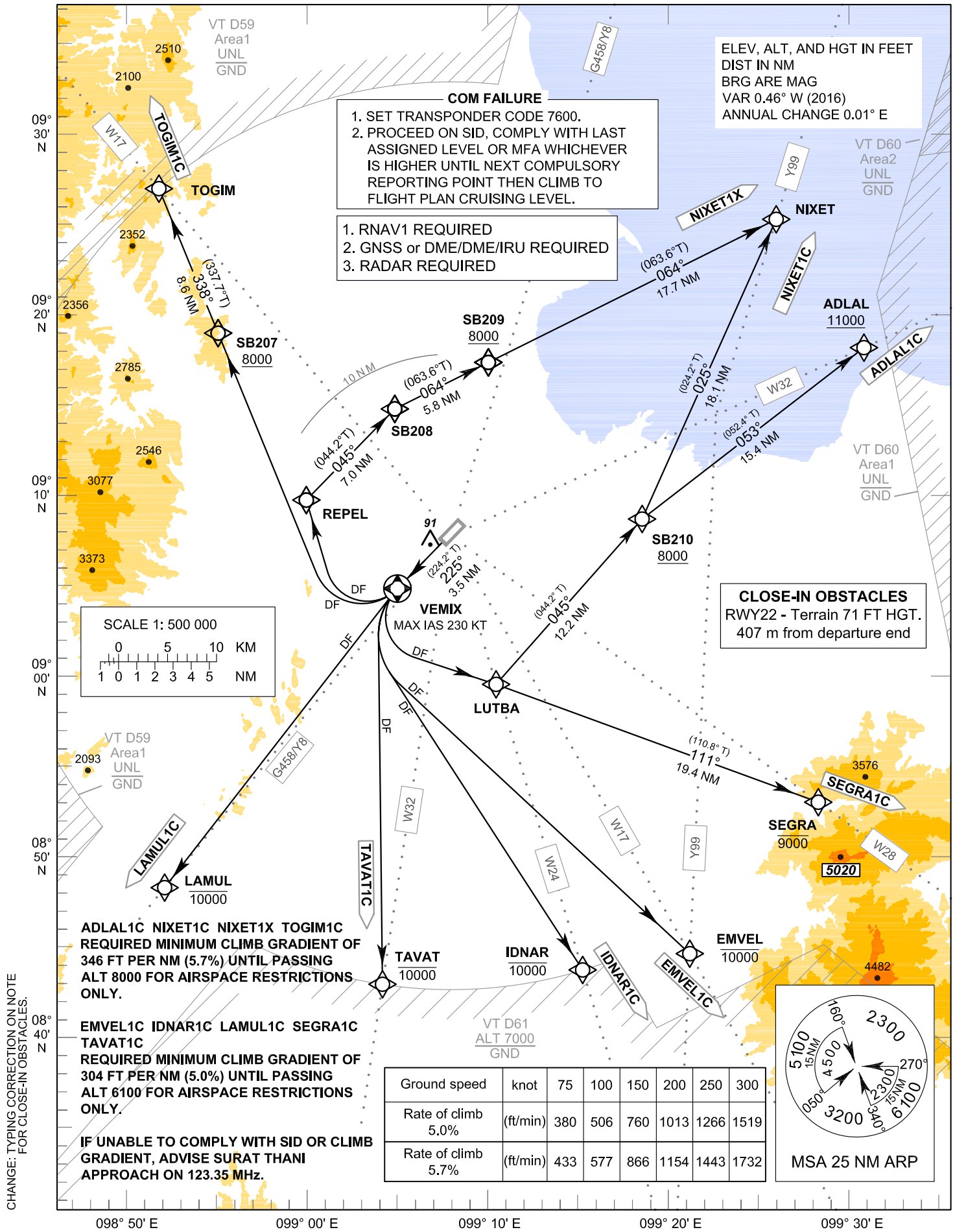
## STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 123.35 , 240.0
TWR : 122.7 , 274.5
GND : 121.9 , 275.8
ATIS : 125.95

## SURAT THANI / Surat Thani (VTSB)
## RNAV RWY22

ADLAL1C EMVEL1C IDNAR1C LAMUL1C
NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C




| Ground speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of climb 5.0% | (ft/min) | 380 | 506 | 760 | 1013 | 1266 | 1519 |
| Rate of climb 5.7% | (ft/min) | 433 | 577 | 866 | 1154 | 1443 | 1732 |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY22**

ADLAL1C EMVEL1C IDNAR1C LAMUL1C
NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C

## TABULAR DESCRIPTION (1)

**RNAV RWY22**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADLAL1C | | | | | | | | | | | |
| 010 | - | DER RWY22 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | VEMIX | Y | 225°(224.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | LUTBA | - | - | +0.44 | - | L | - | - | - | RNAV 1 |
| 040 | TF | SB210 | - | 045°(044.2°) | +0.44 | 12.2 | R | +8000 | - | - | RNAV 1 |
| 050 | TF | ADLAL | - | 053°(052.4°) | +0.44 | 15.4 | - | +11000 | - | - | RNAV 1 |
| EMVEL1C | | | | | | | | | | | |
| 010 | - | DER RWY22 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | VEMIX | Y | 225°(224.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | EMVEL | - | - | +0.44 | - | - | -10000 | - | - | RNAV 1 |
| IDNAR1C | | | | | | | | | | | |
| 010 | - | DER RWY22 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | VEMIX | Y | 225°(224.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | IDNAR | - | - | +0.44 | - | - | -10000 | - | - | RNAV 1 |
| LAMUL1C | | | | | | | | | | | |
| 010 | - | DER RWY22 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | VEMIX | Y | 225°(224.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | LAMUL | - | - | +0.44 | - | - | -10000 | - | - | RNAV 1 |
| NIXET1C | | | | | | | | | | | |
| 010 | - | DER RWY22 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | VEMIX | Y | 225°(224.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | LUTBA | - | - | +0.44 | - | L | - | - | - | RNAV 1 |
| 040 | TF | SB210 | - | 045°(044.2°) | +0.44 | 12.2 | L | +8000 | - | - | RNAV 1 |
| 050 | TF | NIXET | - | 025°(024.2°) | +0.44 | 18.1 | - | - | - | - | RNAV 1 |
| NIXET1X | | | | | | | | | | | |
| 010 | - | DER RWY22 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | VEMIX | Y | 225°(224.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | REPEL | - | - | +0.44 | - | R | - | - | - | RNAV 1 |
| 040 | TF | SB208 | - | 045°(044.2°) | +0.44 | 7.0 | R | - | - | - | RNAV 1 |
| 050 | TF | SB209 | - | 064°(063.6°) | +0.44 | 5.8 | - | +8000 | - | - | RNAV 1 |
| 060 | TF | NIXET | - | 064°(063.6°) | +0.44 | 17.7 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY22**

ADLAL1C EMVEL1C IDNAR1C LAMUL1C
NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C

## TABULAR DESCRIPTION (2)

**RNAV RWY22**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SEGRA1C | | | | | | | | | | | |
| 010 | - | DER RWY22 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | VEMIX | Y | 225°(224.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | LUTBA | - | - | +0.44 | - | L | - | - | - | RNAV 1 |
| 040 | TF | SEGRA | - | 111°(110.8°) | +0.44 | 19.4 | - | -9000 | - | - | RNAV 1 |
| TAVAT1C | | | | | | | | | | | |
| 010 | - | DER RWY22 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | VEMIX | Y | 225°(224.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | TAVAT | - | - | +0.44 | - | - | -10000 | - | - | RNAV 1 |
| TOGIM1C | | | | | | | | | | | |
| 010 | - | DER RWY22 | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | CF | VEMIX | Y | 225°(224.2°) | +0.44 | 3.5 | - | - | -230 | - | RNAV 1 |
| 030 | DF | SB207 | - | - | +0.44 | - | R | +8000 | - | - | RNAV 1 |
| 040 | TF | TOGIM | - | 338°(337.7°) | +0.44 | 8.6 | - | - | - | - | RNAV 1 |

**STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY22**

ADLAL1C EMVEL1C IDNAR1C LAMUL1C
NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C

## WAYPOINT LIST

**RNAV RWY22**

| Waypoint Identifier | Coordinates | | Pronunciation |
|---|---|---|---|
| DER RWY22 | 09° 07' 22.19" N | 099° 07' 33.72" E | - |
| ADLAL | 09° 18' 10.00" N | 099° 31' 06.46" E | ADD - LAN |
| EMVEL | 08° 44' 37.58" N | 099° 21' 21.67" E | EM - VEL |
| IDNAR | 08° 43' 43.73" N | 099° 15' 23.83" E | ID - NHA |
| LAMUL | 08° 48' 17.52" N | 098° 52' 08.16" E | LAH - MUL |
| LUTBA | 08° 59' 56.82" N | 099° 10' 10.29" E | LUT - BA |
| NIXET | 09° 25' 17.11" N | 099° 26' 13.25" E | NIG - SET |
| REPEL | 09° 09' 44.80" N | 099° 00' 01.21" E | RAE - PEL |
| SB207 | 09° 18' 57.33" N | 098° 55' 06.76" E | - |
| SB208 | 09° 14' 47.53" N | 099° 04' 57.05" E | - |
| SB209 | 09° 17' 21.94" N | 099° 10' 09.99" E | - |
| SB210 | 09° 08' 41.82" N | 099° 18' 43.70" E | - |
| SEGRA | 08° 53' 00.22" N | 099° 28' 31.31" E | SAE - GRA |
| TAVAT | 08° 42' 56.59" N | 099° 04' 15.52" E | TA - VAT |
| TOGIM | 09° 26' 59.13" N | 098° 51' 48.08" E | TO - GIM |
| VEMIX | 09° 04' 50.85" N | 099° 05' 05.81" E | VE - MIX |

## STANDARD ARRIVAL CHART- INSTRUMENT (STAR) - ICAO

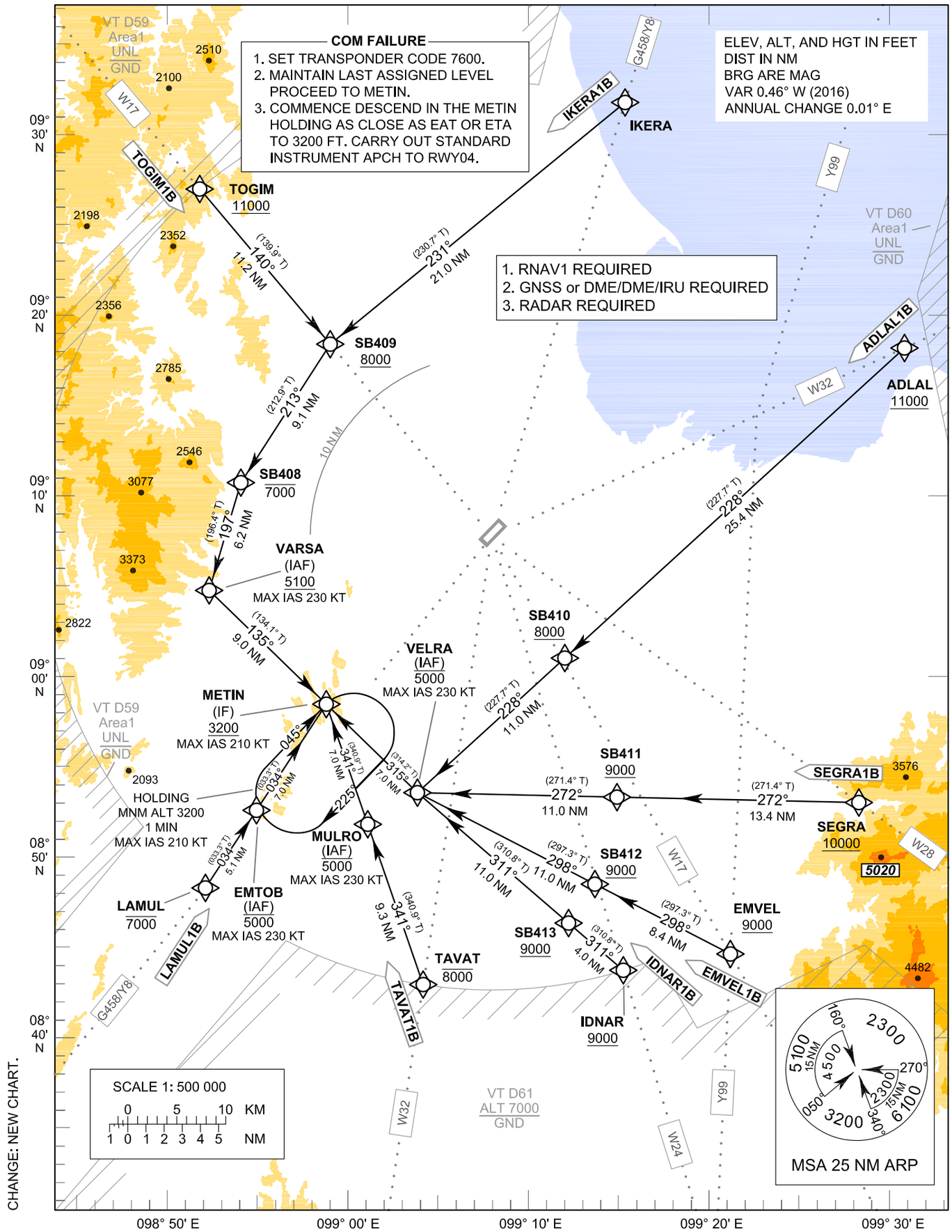
TRANSITION ALTITUDE
11000 FT

| | | |
|---|---|---|
| APP | : | 123.35 , 240.0 |
| TWR | : | 122.7 , 274.5 |
| GND | : | 121.9 , 275.8 |
| ATIS | : | 125.95 |

## SURAT THANI / Surat Thani (VTSB)

## RNAV RWY04

ADLAL1B EMVEL1B IDNAR1B IKERA1B
LAMUL1B SEGRA1B TAVAT1B TOGIM1B



**STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY04**

ADLAL1B EMVEL1B IDNAR1B IKERA1B
LAMUL1B SEGRA1B TAVAT1B TOGIM1B

## TABULAR DESCRIPTION

**RNAV RWY04**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADLAL1B | | | | | | | | | | | |
| 010 | IF | ADLAL | - | - | +0.44 | - | - | +11000 | - | - | RNAV 1 |
| 020 | TF | SB410 | - | 228°(227.7°) | +0.44 | 25.4 | - | +8000 | - | - | RNAV 1 |
| 030 | TF | VELRA (IAF) | - | 228°(227.7°) | +0.44 | 11.0 | R | -5000 | -230 | - | RNAV 1 |
| 040 | TF | METIN (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNAV 1 |
| EMVEL1B | | | | | | | | | | | |
| 010 | IF | EMVEL | - | - | +0.44 | - | - | +9000 | - | - | RNAV 1 |
| 020 | TF | SB412 | - | 298°(297.3°) | +0.44 | 8.4 | - | +9000 | - | - | RNAV 1 |
| 030 | TF | VELRA (IAF) | - | 298°(297.3°) | +0.44 | 11.0 | R | -5000 | -230 | - | RNAV 1 |
| 040 | TF | METIN (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNAV 1 |
| IDNAR1B | | | | | | | | | | | |
| 010 | IF | IDNAR | - | - | +0.44 | - | - | +9000 | - | - | RNAV 1 |
| 020 | TF | SB413 | - | 311°(310.8°) | +0.44 | 4.0 | - | +9000 | - | - | RNAV 1 |
| 030 | TF | VELRA (IAF) | - | 311°(310.8°) | +0.44 | 11.0 | R | -5000 | -230 | - | RNAV 1 |
| 040 | TF | METIN (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNAV 1 |
| IKERA1B | | | | | | | | | | | |
| 010 | IF | IKERA | - | - | +0.44 | - | - | - | - | - | RNAV 1 |
| 020 | TF | SB409 | - | 231°(230.7°) | +0.44 | 21.0 | L | +8000 | - | - | RNAV 1 |
| 030 | TF | SB408 | - | 213°(212.9°) | +0.44 | 9.1 | L | -7000 | - | - | RNAV 1 |
| 040 | TF | VARSA (IAF) | - | 197°(196.4°) | +0.44 | 6.2 | L | +5100 | -230 | - | RNAV 1 |
| 050 | TF | METIN (IF) | - | 135°(134.1°) | +0.44 | 9.0 | - | +3200 | -210 | - | RNAV 1 |
| LAMUL1B | | | | | | | | | | | |
| 010 | IF | LAMUL | - | - | +0.44 | - | - | -7000 | - | - | RNAV 1 |
| 020 | TF | EMTOB (IAF) | - | 034°(033.3°) | +0.44 | 5.1 | - | -5000 | -230 | - | RNAV 1 |
| 030 | TF | METIN (IF) | - | 034°(033.3°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNAV 1 |
| SEGRA1B | | | | | | | | | | | |
| 010 | IF | SEGRA | - | - | +0.44 | - | - | +10000 | - | - | RNAV 1 |
| 020 | TF | SB411 | - | 272°(271.4°) | +0.44 | 13.4 | - | +9000 | - | - | RNAV 1 |
| 030 | TF | VELRA (IAF) | - | 272°(271.4°) | +0.44 | 11.0 | R | -5000 | -230 | - | RNAV 1 |
| 040 | TF | METIN (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNAV 1 |
| TAVAT1B | | | | | | | | | | | |
| 010 | IF | TAVAT | - | - | +0.44 | - | - | -8000 | - | - | RNAV 1 |
| 020 | TF | MULRO (IAF) | - | 341°(340.9°) | +0.44 | 9.3 | - | -5000 | -230 | - | RNAV 1 |
| 030 | TF | METIN (IF) | - | 341°(340.9°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNAV 1 |
| TOGIM1B | | | | | | | | | | | |
| 010 | IF | TOGIM | - | - | +0.44 | - | - | +11000 | - | - | RNAV 1 |
| 020 | TF | SB409 | - | 140°(139.9°) | +0.44 | 11.2 | R | +8000 | - | - | RNAV 1 |
| 030 | TF | SB408 | - | 213°(212.9°) | +0.44 | 9.1 | L | -7000 | - | - | RNAV 1 |
| 040 | TF | VARSA (IAF) | - | 197°(196.4°) | +0.44 | 6.2 | L | +5100 | -230 | - | RNAV 1 |
| 050 | TF | METIN (IF) | - | 135°(134.1°) | +0.44 | 9.0 | - | +3200 | -210 | - | RNAV 1 |

**STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY04**

ADLAL1B EMVEL1B IDNAR1B IKERA1B
LAMUL1B SEGRA1B TAVAT1B TOGIM1B

## WAYPOINT LIST

| RNAV RWY04 | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | **Pronunciation** |
| ADLAL | 09° 18' 10.00" N 099° 31' 06.46" E | ADD - LAN |
| EMTOB | 08° 52' 35.41" N 098° 54' 58.65" E | EM - TOB |
| EMVEL | 08° 44' 37.58" N 099° 21' 21.67" E | EM - VEL |
| IDNAR | 08° 43' 43.73" N 099° 15' 23.83" E | ID - NHA |
| IKERA | 09° 31' 46.39" N 099° 15' 32.00" E | I - KEH - RA |
| LAMUL | 08° 48' 17.52" N 098° 52' 08.16" E | LAH - MUL |
| METIN | 08° 58' 27.96" N 098° 58' 51.85" E | ME - THIN |
| MULRO | 08° 51' 49.15" N 099° 01' 10.50" E | MUN - RO |
| SB408 | 09° 10' 43.80" N 098° 54' 06.20" E | - |
| SB409 | 09° 18' 23.84" N 098° 59' 05.06" E | - |
| SB410 | 09° 01' 00.81" N 099° 12' 09.07" E | - |
| SB411 | 08° 53' 18.94" N 099° 15' 02.90" E | - |
| SB412 | 08° 48' 30.09" N 099° 13' 48.86" E | - |
| SB413 | 08° 46' 20.78" N 099° 12' 21.01" E | - |
| SEGRA | 08° 53' 00.22" N 099° 28' 31.31" E | SAE - GRA |
| TAVAT | 08° 42' 56.59" N 099° 04' 15.52" E | TA - VAT |
| TOGIM | 09° 26' 59.13" N 098° 51' 48.08" E | TO - GIM |
| VARSA | 09° 04' 45.80" N 098° 52' 20.21" E | VA - SA |
| VELRA | 08° 53' 34.01" N 099° 03' 56.30" E | VEL - RA |

**INTENTIONALLY BLANK**

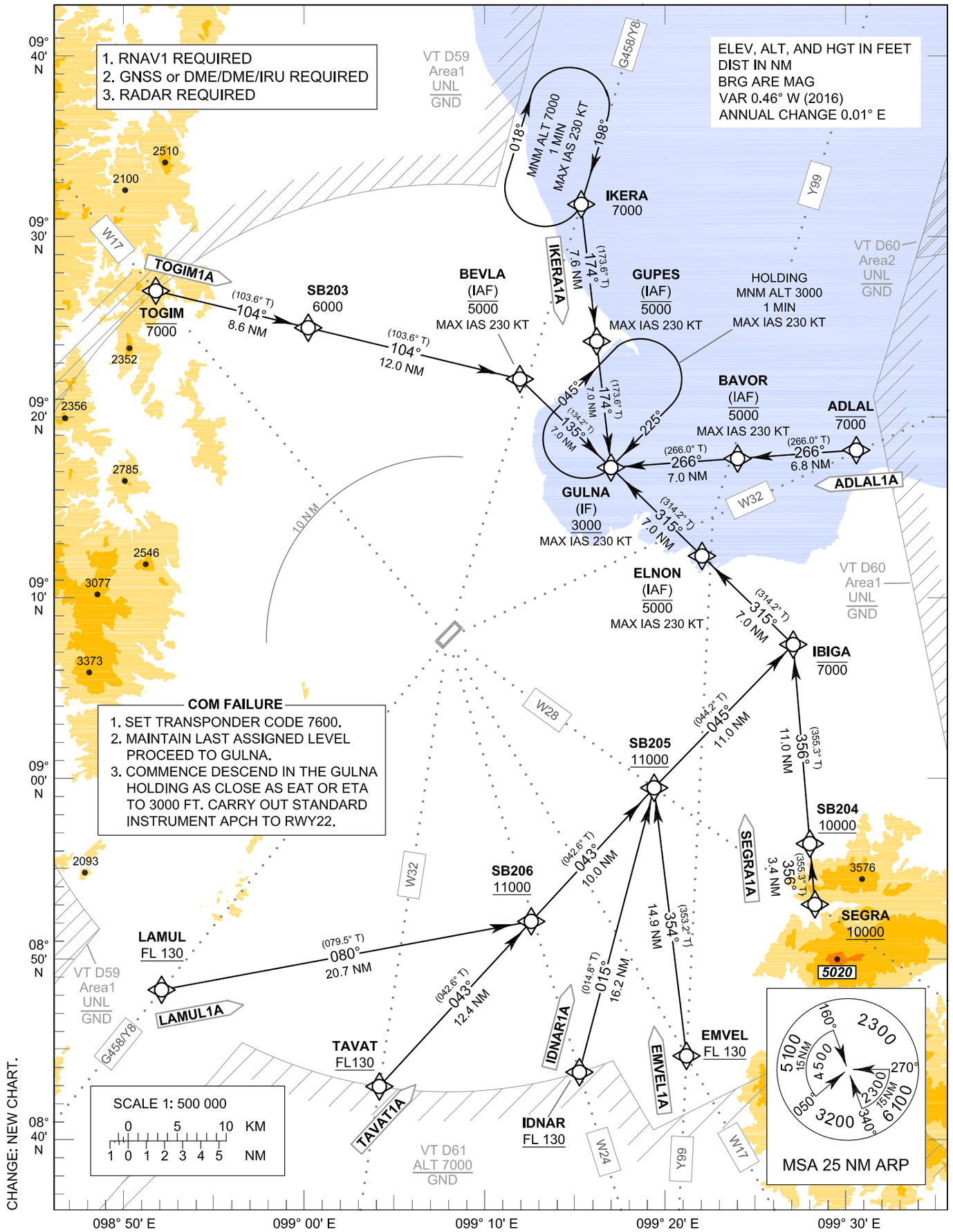
## STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11000 FT

| | | |
|---|---|---|
| APP | : | 123.35 , 240.0 |
| TWR | : | 122.7 , 274.5 |
| GND | : | 121.9 , 275.8 |
| ATIS | : | 125.95 |

## SURAT THANI / Surat Thani (VTSB)
## RNAV RWY22

ADLAL1A EMVEL1A IDNAR1A IKERA1A
LAMUL1A SEGRA1A TAVAT1A TOGIM1A



**STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY22**

ADLAL1A EMVEL1A IDNAR1A IKERA1A
LAMUL1A SEGRA1A TAVAT1A TOGIM1A

## TABULAR DESCRIPTION (1)

| RNAV RWY22 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ADLAL1A | | | | | | | | | | | |
| 010 | IF | ADLAL | - | - | +0.44 | - | - | -7000 | - | - | RNAV 1 |
| 020 | TF | BAVOR (IAF) | - | 266°(266.0°) | +0.44 | 6.8 | - | -5000 | -230 | - | RNAV 1 |
| 030 | TF | GULNA (IF) | - | 266°(266.0°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| EMVEL1A | | | | | | | | | | | |
| 010 | IF | EMVEL | - | - | +0.44 | - | - | +FL130 | - | - | RNAV 1 |
| 020 | TF | SB205 | - | 354°(353.2°) | +0.44 | 14.9 | R | +11000 | - | - | RNAV 1 |
| 030 | TF | IBIGA | - | 045°(044.2°) | +0.44 | 11.0 | L | -7000 | - | - | RNAV 1 |
| 040 | TF | ELNON (IAF) | - | 315°(314.2°) | +0.44 | 7.0 | - | -5000 | -230 | - | RNAV 1 |
| 050 | TF | GULNA (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| IDNAR1A | | | | | | | | | | | |
| 010 | IF | IDNAR | - | - | +0.44 | - | - | +FL130 | - | - | RNAV 1 |
| 020 | TF | SB205 | - | 015°(014.8°) | +0.44 | 16.2 | R | +11000 | - | - | RNAV 1 |
| 030 | TF | IBIGA | - | 045°(044.2°) | +0.44 | 11.0 | L | -7000 | - | - | RNAV 1 |
| 040 | TF | ELNON (IAF) | - | 315°(314.2°) | +0.44 | 7.0 | - | -5000 | -230 | - | RNAV 1 |
| 050 | TF | GULNA (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| IKERA1A | | | | | | | | | | | |
| 010 | IF | IKERA | - | - | +0.44 | - | - | 7000 | - | - | RNAV 1 |
| 020 | TF | GUPES (IAF) | - | 174°(173.6°) | +0.44 | 7.6 | - | -5000 | -230 | - | RNAV 1 |
| 030 | TF | GULNA (IF) | - | 174°(173.6°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| LAMUL1A | | | | | | | | | | | |
| 010 | IF | LAMUL | - | - | +0.44 | - | - | +FL130 | - | - | RNAV 1 |
| 020 | TF | SB206 | - | 080°(079.5°) | +0.44 | 20.7 | L | +11000 | - | - | RNAV 1 |
| 030 | TF | SB205 | - | 043°(042.6°) | +0.44 | 10.0 | R | +11000 | - | - | RNAV 1 |
| 040 | TF | IBIGA | - | 045°(044.2°) | +0.44 | 11.0 | L | -7000 | - | - | RNAV 1 |
| 050 | TF | ELNON (IAF) | - | 315°(314.2°) | +0.44 | 7.0 | - | -5000 | -230 | - | RNAV 1 |
| 060 | TF | GULNA (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |

**STANDARD ARRIVAL CHART-
INSTRUMENT (STAR) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY22**

ADLAL1A EMVEL1A IDNAR1A IKERA1A
LAMUL1A SEGRA1A TAVAT1A TOGIM1A

## TABULAR DESCRIPTION (2)

| RNAV RWY22 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| SEGRA1A | | | | | | | | | | | |
| 010 | IF | SEGRA | - | - | +0.44 | - | - | +10000 | - | - | RNAV 1 |
| 020 | TF | SB204 | - | 356°(355.3°) | +0.44 | 3.4 | - | +10000 | - | - | RNAV 1 |
| 030 | TF | IBIGA | - | 356°(355.3°) | +0.44 | 11.0 | L | -7000 | - | - | RNAV 1 |
| 040 | TF | ELNON (IAF) | - | 315°(314.2°) | +0.44 | 7.0 | - | -5000 | -230 | - | RNAV 1 |
| 050 | TF | GULNA (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| TAVAT1A | | | | | | | | | | | |
| 010 | IF | TAVAT | - | - | +0.44 | - | - | +FL130 | - | - | RNAV 1 |
| 020 | TF | SB206 | - | 043°(042.6°) | +0.44 | 12.4 | - | +11000 | - | - | RNAV 1 |
| 030 | TF | SB205 | - | 043°(042.6°) | +0.44 | 10.0 | R | +11000 | - | - | RNAV 1 |
| 040 | TF | IBIGA | - | 045°(044.2°) | +0.44 | 11.0 | L | -7000 | - | - | RNAV 1 |
| 050 | TF | ELNON (IAF) | - | 315°(314.2°) | +0.44 | 7.0 | - | -5000 | -230 | - | RNAV 1 |
| 060 | TF | GULNA (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| TOGIM1A | | | | | | | | | | | |
| 010 | IF | TOGIM | - | - | +0.44 | - | - | -7000 | - | - | RNAV 1 |
| 020 | TF | SB203 | - | 104°(103.6°) | +0.44 | 8.6 | - | 6000 | - | - | RNAV 1 |
| 030 | TF | BEVLA (IAF) | - | 104°(103.6°) | +0.44 | 12.0 | R | -5000 | -230 | - | RNAV 1 |
| 040 | TF | GULNA (IF) | - | 135°(134.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |

**STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO**

**SURAT THANI / Surat Thani (VTSB)**
**RNAV RWY22**

ADLAL1A EMVEL1A IDNAR1A IKERA1A
LAMUL1A SEGRA1A TAVAT1A TOGIM1A

## WAYPOINT LIST

| RNAV RWY22 | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | **Pronunciation** |
| ADLAL | 09° 18' 10.00" N 099° 31' 06.46" E | ADD - LAN |
| BAVOR | 09° 17' 41.42" N 099° 24' 14.48" E | BA - VER |
| BEVLA | 09° 22' 06.23" N 099° 12' 06.12" E | BAVE - LA |
| ELNON | 09° 12' 17.88" N 099° 22' 15.18" E | EL - NON |
| EMVEL | 08° 44' 37.58" N 099° 21' 21.67" E | EM - VEL |
| GULNA | 09° 17' 12.09" N 099° 17' 10.72" E | GUN - NA |
| GUPES | 09° 24' 11.43" N 099° 16' 23.39" E | GU - PES |
| IBIGA | 09° 07' 23.59" N 099° 27' 19.50" E | I - BI - GA |
| IDNAR | 08° 43' 43.73" N 099° 15' 23.83" E | ID - NHA |
| IKERA | 09° 31' 46.39" N 099° 15' 32.00" E | I - KEH - RA |
| LAMUL | 08° 48' 17.52" N 098° 52' 08.16" E | LAH - MUL |
| SB203 | 09° 24' 56.69" N 099° 00' 17.92" E | - |
| SB204 | 08° 56' 22.76" N 099° 28' 14.47" E | - |
| SB205 | 08° 59' 28.43" N 099° 19' 34.44" E | - |
| SB206 | 08° 52' 05.20" N 099° 12' 43.56" E | - |
| SEGRA | 08° 53' 00.22" N 099° 28' 31.31" E | SAE - GRA |
| TAVAT | 08° 42' 56.59" N 099° 04' 15.52" E | TA - VAT |
| TOGIM | 09° 26' 59.13" N 098° 51' 48.08" E | TO - GIM |

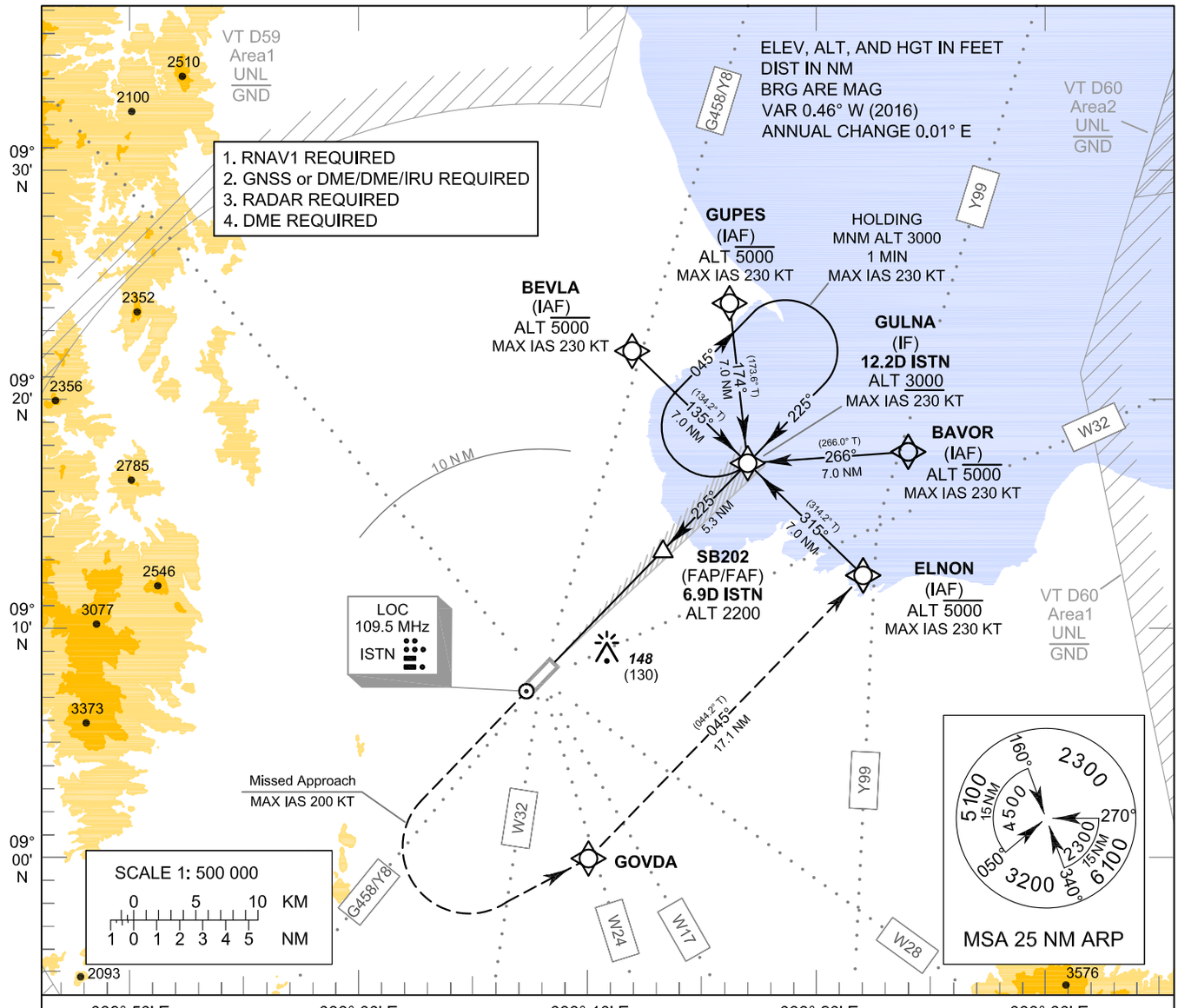
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 20 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 18 FT

| | | |
|---|---|---|
| APP | : | 123.35 , 240.0 |
| TWR | : | 122.7 , 274.5 |
| GND | : | 121.9 , 275.8 |
| ATIS | : | 125.95 |

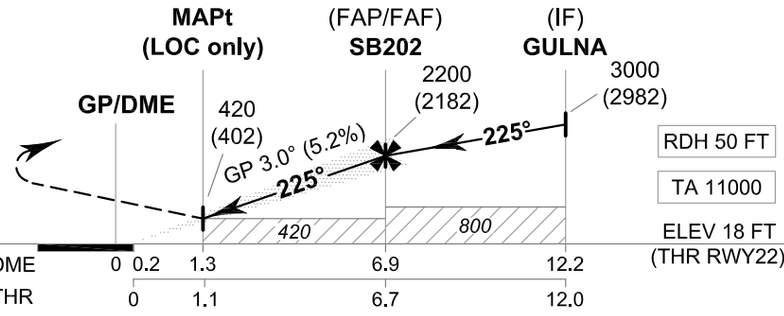
**SURAT THANI / Surat Thani (VTSB)**

**ILS or LOC z RWY22**




**MISSED APPROACH:**

**No turn before MAPt (for LOC only).**
**Speed restrlcted to**
**MAX IAS 200 KT untll after turn.**
Climb on track 225° to 1200 FT,
then turn left direct to GOVDA. Continue
to ELNON then GULNA at 3000 FT
and hold or as directed by ATC.




CHANGE: NEW CHART.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 280 (262) | | | |
| LOC only | | 420 (402) | | | |
| Circling (OCH AAL) | | 860 (840) | | | |

| GS OUT | | Distance (ISTN) | 1.3 D | 2 D | 3 D | 4 D | 5 D | 6 D | FAF |
|---|---|---|---|---|---|---|---|---|---|
| | | Altitude (Height) | 420 (402) | 635 (617) | 950 (932) | 1270 (1252) | 1585 (1567) | 1900 (1882) | 2200 (2182) |
| | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| | | Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 20 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 18 FT

**SURAT THANI / Surat Thani (VTSB)**

**ILS or LOC z RWY22**

## TABULAR DESCRIPTION

| ILS or LOC z RWY22 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | BAVOR (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNAV 1 |
| 020 | TF | GULNA (IF) | - | 266°(266.0°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | BEVLA (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNAV 1 |
| 020 | TF | GULNA (IF) | - | 135°(134.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | ELNON (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNAV 1 |
| 020 | TF | GULNA (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | GUPES (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNAV 1 |
| 020 | TF | GULNA (IF) | - | 174°(173.6°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| | | | | | | | | | | | |
| 010 | IF | GULNA (IF) | - | - | +0.44 | - | - | +3000 | -230 | - | RNAV 1 |
| TRANSITION TO ILS or LOC | | | | | | | | | | | |
| 020 | TF | SB202 (FAF) | - | 225°(224.2°) | +0.44 | 5.3 | - | @2200 | - | - | ILS |
| 030 | TF | MAPt (LOC only) | Y | 225°(224.2°) | +0.44 | 5.6 | - | @420 | - | -3.0/50 | ILS |
| 040 | CA | - | - | 225°(224.2°) | +0.44 | - | - | +1200 | -200 | - | RNAV 1 |
| 050 | DF | GOVDA | - | - | +0.44 | - | L | - | -200 | - | RNAV 1 |
| 060 | TF | ELNON (IAF) | - | 045°(044.2°) | +0.44 | 17.1 | - | -5000 | -230 | - | RNAV 1 |
| 070 | TF | GULNA (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNAV 1 |
| 080 | HM | GULNA (IF) | Y | 225°(224.2°) | +0.44 | 1 minute | R | +3000 | -230 | - | RNAV 1 |

## WAYPOINT LIST

| ILS or LOC z RWY22 | | |
|---|---|---|
| Waypoint Identifier | Coordinates | Pronunciation |
| BAVOR | 09° 17' 41.42" N 099° 24' 14.48" E | BA - VER |
| BEVLA | 09° 22' 06.23" N 099° 12' 06.12" E | BAVE - LA |
| ELNON | 09° 12' 17.88" N 099° 22' 15.18" E | EL - NON |
| GOVDA | 08° 59' 56.82" N 099° 10' 10.29" E | GOB - DA |
| GULNA | 09° 17' 12.09" N 099° 17' 10.72" E | GUN - NA |
| GUPES | 09° 24' 11.43" N 099° 16' 23.39" E | GU - PES |
| MAPt (LOC only) | 09° 09' 20.11" N 099° 09' 29.00" E | - |
| SB202 | 09° 13' 22.20" N 099° 13' 25.76" E | - |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 20 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 18 FT

**SURAT THANI / Surat Thani (VTSB)**

**ILS or LOC z RWY22**

| Fix / Point | | Coordinates | | Pronunciation |
|---|---|---|---|---|
| GULNA (IF) | 12.2D ISTN | 09° 17' 12.09" N | 099° 17' 10.72" E | GUN - NA |
| SB202 (FAP/FAF) | 6.9D ISTN | 09° 13' 22.20" N | 099° 13' 25.76" E | - |
| MAPt (LOC only) | 1.3D ISTN | 09° 09' 20.11" N | 099° 09' 29.00" E | - |
| LOC | ISTN | 09° 07' 15.02" N | 099° 07' 26.77" E | - |
| GP/DME | ISTN | 09° 08' 21.78" N | 099° 08' 37.50" E | - |

CHANGE: LOC AND GP/DME COORDINATES.

**INTENTIONALLY BLANK**

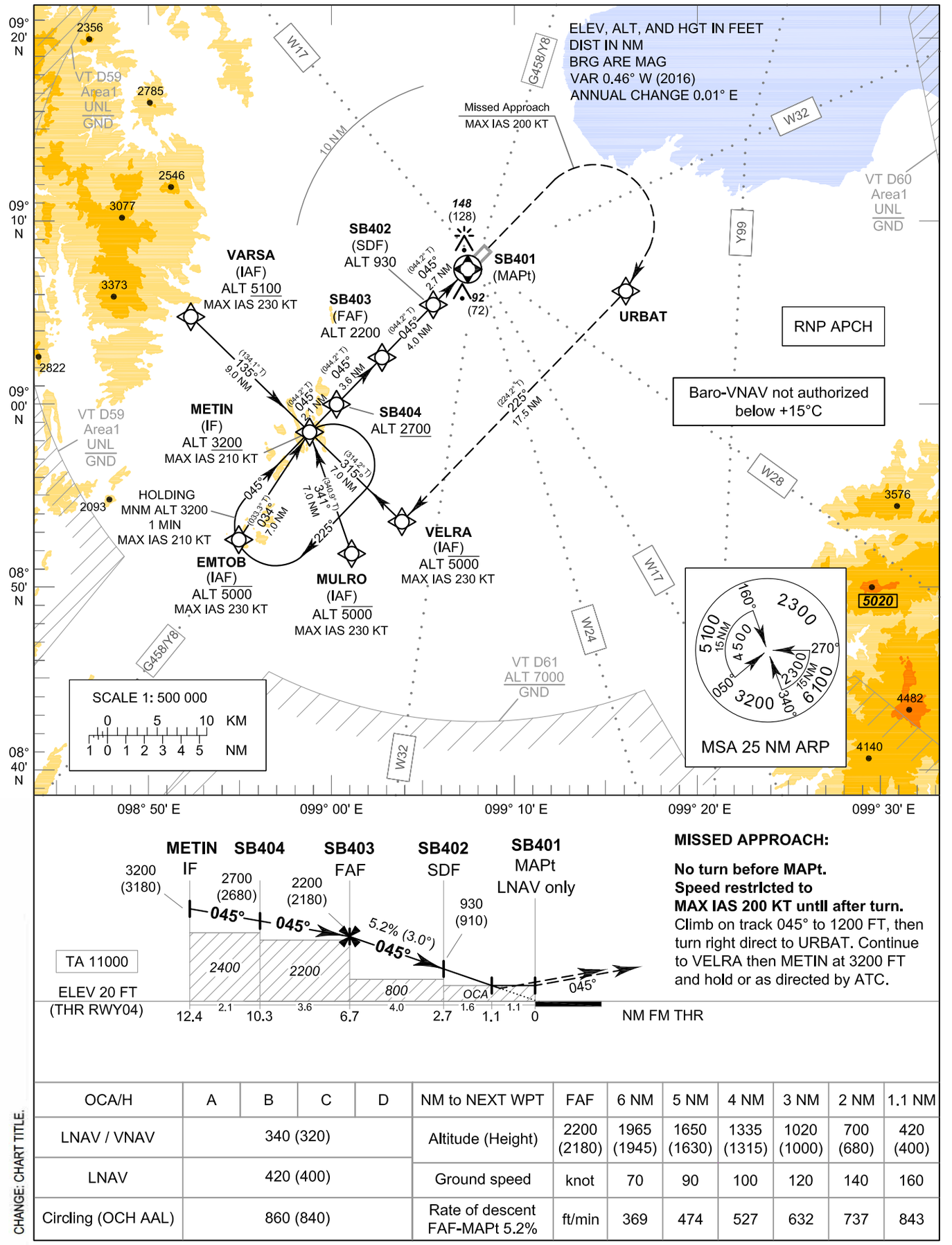
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 20 FT**
HEIGHTS RELATED TO
THR RWY04 - ELEV 20 FT

| | |
|---|---|
| APP : | 123.35 , 240.0 |
| TWR : | 122.7 , 274.5 |
| GND : | 121.9 , 275.8 |
| ATIS : | 125.95 |

**SURAT THANI / Surat Thani (VTSB)**

**RNP RWY04**







**MISSED APPROACH:**

**No turn before MAPt.**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb on track 045° to 1200 FT, then turn right direct to URBAT. Continue to VELRA then METIN at 3200 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 6 NM | 5 NM | 4 NM | 3 NM | 2 NM | 1.1 NM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 340 (320) | | | | Altitude (Height) | 2200 (2180) | 1965 (1945) | 1650 (1630) | 1335 (1315) | 1020 (1000) | 700 (680) | 420 (400) |
| LNAV | 420 (400) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 860 (840) | | | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 20 FT**
HEIGHTS RELATED TO
THR RWY04 - ELEV 20 FT

**SURAT THANI / Surat Thani (VTSB)**
**RNP RWY04**

## TABULAR DESCRIPTION

**RNP RWY04**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | EMTOB (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | METIN (IF) | - | 034°(033.3°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MULRO (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | METIN (IF) | - | 341°(340.9°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | VARSA (IAF) | - | - | +0.44 | - | - | +5100 | -230 | - | RNP APCH |
| 020 | TF | METIN (IF) | - | 135°(134.1°) | +0.44 | 9.0 | - | +3200 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | VELRA (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | METIN (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | METIN (IF) | - | - | +0.44 | - | - | +3200 | -210 | - | RNP APCH |
| 020 | TF | SB404 | - | 045°(044.2°) | +0.44 | 2.1 | - | +2700 | - | - | RNP APCH |
| 030 | TF | SB403 (FAF) | - | 045°(044.2°) | +0.44 | 3.6 | - | @2200 | - | - | RNP APCH |
| 040 | TF | SB402 (SDF) | - | 045°(044.2°) | +0.44 | 4.0 | - | @930 | - | - | RNP APCH |
| 050 | TF | SB401 (MAPt) | Y | 045°(044.2°) | +0.44 | 2.7 | - | @70 | - | -3.0/50 | RNP APCH |
| 060 | CA | - | - | 045°(044.2°) | +0.44 | - | - | +1200 | -200 | - | RNP APCH |
| 070 | DF | URBAT | - | - | +0.44 | - | R | - | -200 | - | RNP APCH |
| 080 | TF | VELRA (IAF) | - | 225°(224.2°) | +0.44 | 17.5 | - | -5000 | -230 | - | RNP APCH |
| 090 | TF | METIN (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3200 | -210 | - | RNP APCH |
| 100 | HM | METIN (IF) | Y | 045°(044.2°) | +0.44 | 1 minute | R | +3200 | -210 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY04**

| Waypoint Identifier | Coordinates | Pronunciation |
|---|---|---|
| EMTOB | 08° 52' 35.41" N 098° 54' 58.65" E | EM - TOB |
| METIN | 08° 58' 27.96" N 098° 58' 51.85" E | ME - THIN |
| MULRO | 08° 51' 49.15" N 099° 01' 10.50" E | MUN - RO |
| SB401 | 09° 07' 22.19" N 099° 07' 33.72" E | - |
| SB402 | 09° 05' 25.44" N 099° 05' 39.62" E | - |
| SB403 | 09° 02' 32.46" N 099° 02' 50.62" E | - |
| SB404 | 08° 59' 58.79" N 099° 00' 20.53" E | - |
| URBAT | 09° 06' 09.76" N 099° 16' 14.93" E | ER - BAT |
| VARSA | 09° 04' 45.80" N 098° 52' 20.21" E | VA - SA |
| VELRA | 08° 53' 34.01" N 099° 03' 56.30" E | VEL - RA |

CHANGE : CHART TITLE.

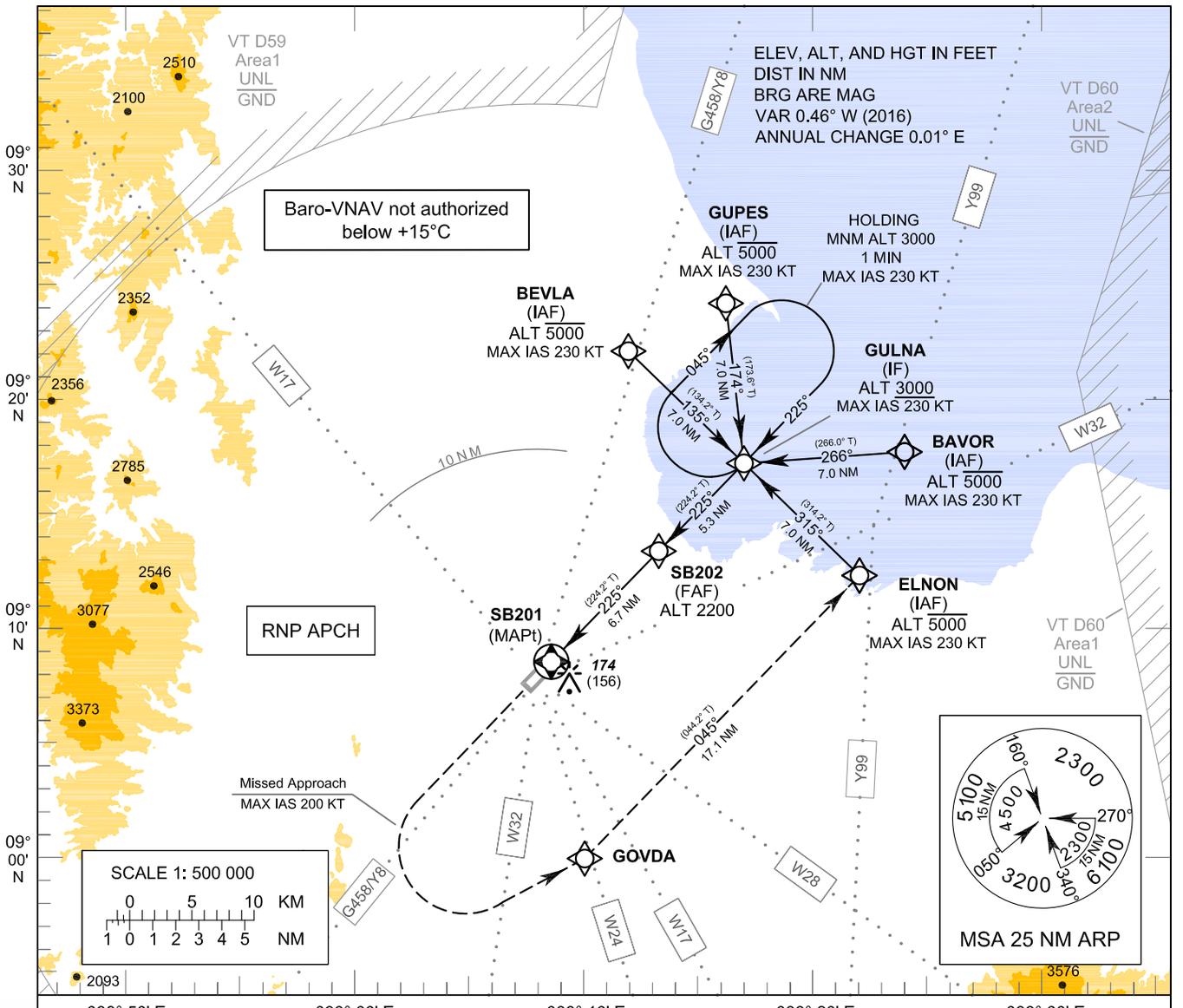
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 20 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 18 FT

| | | |
|---|---|---|
| APP | : | 123.35 , 240.0 |
| TWR | : | 122.7 , 274.5 |
| GND | : | 121.9 , 275.8 |
| ATIS | : | 125.95 |

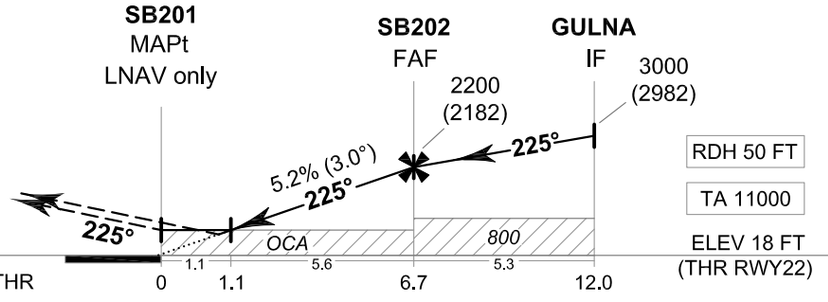
**SURAT THANI / Surat Thani (VTSB)**

**RNP RWY22**




**MISSED APPROACH:**

**No turn before MAPt .**
**Speed restricted to**
**MAX IAS 200 KT until after turn.**
Climb on track 225° to 1200 FT,
then turn left direct to GOVDA. Continue
to ELNON then GULNA at 3000 FT
and hold or as directed by ATC.




| OCA/H | A | B | C | D | NM to NEXT WPT | 1.1 NM | 2 NM | 3 NM | 4 NM | 5 NM | 6 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 350 (332) | | | | Altitude (Height) | 420 (402) | 700 (682) | 1015 (997) | 1330 (1312) | 1650 (1632) | 1965 (1947) | 2200 (2182) |
| LNAV | 420 (402) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 860 (840) | | | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 20 FT**
HEIGHTS RELATED TO
THR RWY22 - ELEV 18 FT

**SURAT THANI / Surat Thani (VTSB)**
**RNP RWY22**

## TABULAR DESCRIPTION

**RNP RWY22**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | BAVOR (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | GULNA (IF) | - | 266°(266.0°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | BEVLA (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | GULNA (IF) | - | 135°(134.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ELNON (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | GULNA (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | GUPES (IAF) | - | - | +0.44 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | GULNA (IF) | - | 174°(173.6°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | GULNA (IF) | - | - | +0.44 | - | - | +3000 | -230 | - | RNP APCH |
| 020 | TF | SB202 (FAF) | - | 225°(224.2°) | +0.44 | 5.3 | - | @2200 | - | - | RNP APCH |
| 030 | TF | SB201 (MAPt) | Y | 225°(224.2°) | +0.44 | 6.7 | - | @68 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 225°(224.2°) | +0.44 | - | - | +1200 | -200 | - | RNP APCH |
| 050 | DF | GOVDA | - | - | +0.44 | - | L | - | -200 | - | RNP APCH |
| 060 | TF | ELNON (IAF) | - | 045°(044.2°) | +0.44 | 17.1 | - | -5000 | -230 | - | RNP APCH |
| 070 | TF | GULNA (IF) | - | 315°(314.2°) | +0.44 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| 080 | HM | GULNA (IF) | Y | 225°(224.2°) | +0.44 | 1 minute | R | +3000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY22**

| Waypoint Identifier | Coordinates | Pronunciation |
|---|---|---|
| BAVOR | 09° 17' 41.42" N 099° 24' 14.48" E | BA - VER |
| BEVLA | 09° 22' 06.23" N 099° 12' 06.12" E | BAVE - LA |
| ELNON | 09° 12' 17.88" N 099° 22' 15.18" E | EL - NON |
| GOVDA | 08° 59' 56.82" N 099° 10' 10.29" E | GOB - DA |
| GULNA | 09° 17' 12.09" N 099° 17' 10.72" E | GUN - NA |
| GUPES | 09° 24' 11.43" N 099° 16' 23.39" E | GU - PES |
| SB201 | 09° 08' 32.55" N 099° 08' 42.50" E | - |
| SB202 | 09° 13' 22.20" N 099° 13' 25.76" E | - |

CHANGE : CHART TITLE.

**INTENTIONALLY BLANK**

## VTSM AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSM - SURAT THANI / SAMUI AIRPORT

## VTSM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 093256N 1000345E<br>Centre line of RWY, 860 M from THR 35 |
| 2 | Direction and distance from (city) | 17 KM, from city |
| 3 | Elevation/Reference temperature | 19.5 M (64 FT) / 31.6°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0°22'W(2018)/0°1'E/year |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Samui Airport<br>Samui Airport<br>Amphoe Koh Samui<br>Surat Thani Province 84320<br>Thailand<br>Tel: +667 742 8580<br>Fax: +667 725 6270<br>E-mail: samuiairport@bangkokair.com,<br>samui_adminairport@bangkokair.com<br>Website:www.samuiairport.com<br>AFS: VTSMYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Bangkok Airways Public Company Limited |

## VTSM AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1500 |
| 2 | Customs and immigration | Available within AD hours |
| 3 | Health and sanitation | Available within AD hours |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1500 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1500 |
| 8 | Fuelling | Available within AD hours |
| 9 | Handling | Available within AD hours |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTSM AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A1 |
| 3 | Fuelling facilities/capacity | Bangkok Aviation Fuel Service Public Co.,Ltd. (BAFS)<br>Website: www.bafsthai.com<br>Tel: +662 834 8954<br><br>Regional Airport Manager<br>Email: teerakan@bafs.co.th<br>Tel. +668 9134 5690<br>1 Fuel Truck @ 15,000 L<br>2 Fuel Trucks @ 12,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | The airport has provided ground handling agents as following:<br>Bangkok Airways Ground Services Co., Ltd (PGGS)<br>Ground Handling Inquiry E-mail: office@pg-gs.com,<br>phuwanai@pg-gs.com, phornphan@pg-gs.com<br>Phone: +668 1065 8400 and +666 5269 1515 |

## VTSM AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the vicinity of AD |
| 2 | Restaurants | At AD |
| 3 | Transportation | Limousine service<br>Car rental service |
| 4 | Medical facilities | First aid at AD |
| 5 | Bank and Post Office | Money Exchange: Available<br>Post Office: NIL |
| 6 | Tourist Office | Tourist Office Centre (Office in town)<br>Open H24<br>Phone: +667 743 0018<br><br>Airport Emergency Tourist Police Centre At AD<br>Open: 0200-1000 |
| 7 | Remarks | NIL |

## VTSM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | 1 Rescue vehicle |
| 3 | Capability for removal of disabled aircraft | Available up to A319 |
| 4 | Remarks | For removal of disabled aircraft by contracted external resource, please contact aerodrome coordinator:<br>- Airport Rescue and Fire Fighting Manager<br>Tel: +668 1956 6655<br>- Airport Fire Station<br>Tel: +667 742 8526 |

## VTSM AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTSM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 42/R/D/X/T |
| 2 | Taxiway width, surface and strength | Taxiway A, B, C, D, E and F<br>Width: 30 M<br>Surface: Concrete<br>Strength: PCN 42/R/D/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSM AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Taxi guidance signs and guide lines at TWY and Apron |
| 2 | RWY and TWY markings and LGT | RWY: Marked and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSM AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| RWY17/APCH | Building<br>28.5 M (93.5 FT)<br>No Markings<br>No LGT | 093335.23N<br>1000346.24E | Hill 630 M | 093324N<br>1000423E | See Aerodrome obstacle chart type A for details |
| RWY35/TKOF | Building<br>40 M (131 FT)<br>No Markings<br>No LGT | 093415.23N<br>1000334.55E | | | |

## VTSM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Samui,<br>Southern East-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1500<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern East-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 742 8520 |
| 6 | Flight documentation<br>Language(s) used | Thai/English |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Barometer, Anemometer and Thermometer Screen |
| 9 | ATS units provided with information | Samui TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSM AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THE geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 17 | 174.48° | 2100x45 | PCN 38/F/B/W/T<br>Concrete and asphalt | 093319.40N 1000342.26E | 43 FT |
| 35 | 354.48° | 2100x45 | PCN 38/F/B/W/T<br>Concrete and asphalt | 093227.55N 1000347.31E | 56 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| 0% / 0.8%<br>1300 M / 800 M | 225x45 | 60x45 | 2085x150 | NIL | See below |
| -0.8% / 0%<br>800 M / 1300 M<br><br>(See of Type A chart) | 60x45 | 60x45 | 2020x150 | NIL | See below |

**Remarks**

Infringement of RWY strips

Infringement maximum of 52.5 M start at 376 M to 480 M from runway threshold 35, located on left side of runway 35.

## VTSM AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 17 | 1800 | 1860 | 2025 | 1825 | NIL |
| 35 | 1900 | 1960 | 1960 | 1660 | NIL |

## VTSM AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 17 | NIL | Green | PAPI<br>Right 3°<br>(47.53 FT) | White<br>2 Pairs<br><br>646M | 2100 M,30 M White<br>FM 0-1200 M, Red/White<br>FM 1200-1800 M, Red<br>FM 1800-2100 M, LIH | 2100 M,60 M Red<br>FM 0-200 M, White<br>FM 200-1400 M, Yellow<br>FM 1400-2100 M, LIH | Red | NIL | RTIL |
| 35 | NIL | Green | PAPI<br>Left 3.2°<br>(46.35 FT) | White<br>2 Pairs<br><br>647M | 2100 M,30 M White<br>FM 0-1200 M, Red/White<br>FM 1200-1800 M, Red<br>FM 1800-2100 M, LIH | 2100 M,60 M Red<br>FM 0-300 M, White,<br>FM 300-1300 M, Yellow<br>FM 1300-2100 M, LIH | Red | NIL | RTIL |

## VTSM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: at Control Tower FLG/WG. EV 3 Sec<br>2300-1500 |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: 3 Wind cone with illumination at THR 17, 500 M and 800 M from THR 17 and 180 M from THR 35<br>Anemometer: At MET Station 410 M from THR 17 |
| 3 | TWY edge and centre line lighting | TWY edge Lighted |
| 4 | Secondary power supply/switch-over time | Electrical Generator / 0 Sec (UPS) |
| 5 | Remarks | NIL |

## VTSM AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTSM AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on VTSM ARP<br>(093256N 1000345E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Samui Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTSM AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Samui Approach | 129.6 MHz / 305.4 MHz<br>121.5 MHz [1)] | As AD OPR HR | 1) Emergency frequency |
| TWR | Samui Tower | 118.9 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| GND | Samui Ground | 121.9 MHz | As AD OPR HR | |
| ATIS | Samui Airport | 128.6 MHz | As AD OPR HR | |

## VTSM AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | SMU | 117.6 MHz CH123X | H24 | 093249.3N 1000342.3E | 24m | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal at required altitude in various areas as follows:<br>– Radial 000º-015º beyond 25 nm altitude should not below 4 000 ft.<br>– Radial 016º-040º beyond 25 nm altitude should not below 6 000 ft.<br>– Radial 041º-060º beyond 20 nm altitude should not below 11 000 ft.<br>– Radial 061º-070º beyond 25 nm altitude should not below 9 000 ft.<br>– Radial 071º-120º beyond 40 nm altitude should not below 11 000 ft.<br>– Radial 121º-180º beyond 40 nm altitude should not below 5 000 ft.<br>– Radial 181º-210º beyond 25 nm altitude should not below 8 000 ft.<br>– Radial 211º-260º beyond 20 nm altitude should not below 9 000 ft.<br>– Radial 261º-280º beyond 25 nm altitude should not below 7 000 ft.<br>– Radial 281º-360º beyond 40 nm altitude should not below 8 000 ft. |

## VTSM AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTSM AD 2.21 NOISE ABATEMENT PROCEDURES

**1. ICAO Noise Abatement Departure Procedure RWY17/35**

1.1 ICAO have developed aircraft operating procedures, Noise Abatement Departure Procedure 1 (NADP 1) and Noise Abatement Departure Procedure 2 (NADP 2), for the take-off climb to ensure that the necessary safety of flight operations is maintained whilst minimizing exposure to noise on the ground.

1.2 NADP 1 is intended to provide noise reduction for noise sensitive areas in close proximity to the departure end of the runway. NADP 2 provides noise reduction to areas more distant from the runway end.

1.3 All operators are to adopt NADP 1 procedures for all take-offs from Samui Airport on RWY17 or RWY35

1.4 Full details of NADP 1 and NADP 2 are contained in ICAO Procedures for Air Navigation Services – Aircraft Operations, Volume 1 – Flight Procedures (PANSOPS, Doc 8168 Volume 1).

1.5 For Propeller and Turboprop Aeroplane, after take-off Pilot-in-Command should aim to use an airspeed giving the best rate of climb.

**2. Noise Mitigating Measures**

2.1 The following procedures are implemented to reduce aircraft noise levels when operating conditions permit. These measures include:

a) Preferential use of Runway
b) APU Restrictions
c) Reverse Thrust Use

2.2 Preferential use of Runway

RWY35 for take-off and RWY17 for landing are preferentially to be used. However, in order to achieve maximum flight safety, this procedure is not applied under the following circumstances.

a) The use of other runway is necessary in consideration of safety of the aircraft operation.

b) The condition of the specified runway is not suitable for landing or take-off.
c) The tail wind component, including gusts, exceeds 5 KT.
d) The cross wind component, including gusts, exceeds 15 KT.
e) When the possibility exists that orderly flow of traffic may be impeded.

2.3 APU Restrictions

For noise abatement purposes, pilots are encouraged to limit Auxiliary Power Units (APU) use to the minimum time necessary. The maximum recommended APU run-time is (30) minutes.

2.4 Reverse Thrust Use

The use of reverse thrust may negatively impact the residential community surrounding the Samui Airport, particularly during night hours. The use of minimum reverse thrust necessary for safety is recommended consistent with runway conditions and available length.

**3. Noise Level Limits**

3.1 Noise Operating Restrictions

Under the Environmental Protection (Aircraft Noise) Regulations, international and domestic aircraft operating to/from Samui Airport are required to be certified as compliant with the relevant ICAO Annex 16 Volume I, Aircraft Noise.

– Subsonic jets must be certified as Chapter 3 or Chapter 4.
– Aircraft with Chapter 2 noise certification are not permitted to operate.

3.2 Marginally Compliant Chapter 3 (MCC3) Aircraft

The operations to flights which will be operated by subsonic jet aircraft that meet the Chapter 3 standards by a cumulative margin of not more than 5 EPNdB (Marginally Compliant Chapter 3 (MCC3) Aircraft) will be prohibited for take-off and landing at Samui Airport between 1100 UTC and 2359 UTC.

3.3 Exempted MCC3 Aircraft

MCC3 aircraft operated for emergency, medical and humanitarian purposes are exempted from the above restriction.

## VTSM AD 2.22 FLIGHT PROCEDURES

**1. SPEED CONTROL PROCEDURE IN SAMUI TMA**

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

**2. IFR DEPARTURES OTHER THAN VIA SID**

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

**3. VISUAL DEPARTURES**

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**4. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 17:

SAMUI OMNI 17 Departure: Required climb gradient 402 ft per NM (6.6%) until 3,700 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.6% | (ft/min) | 435 | 501 | 668 | 1003 | 1337 | 1671 | 2005 |

No turn before DER.
After departure climb on heading 160° until 3,000 ft, then comply with ATC clearance issued (or as directed by ATC).

- Runway 35:

SAMUI OMNI 35 Departure: Required climb gradient 402 ft per NM (6.6%) until 3,700 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.6% | (ft/min) | 435 | 501 | 668 | 1003 | 1337 | 1671 | 2005 |

No turn before DER.
After departure climb straight ahead until 3,000 ft, then comply with ATC clearance issued (or as directed by ATC).

## VTSM AD 2.23 ADDITIONAL INFORMATION

**1. BIRD CONCENTRATIONS**

1.1 Bird concentrations in the vicinity of an aerodrome.

## VTSM AD 2.24 CHARTS RELATED TO AN AERODROME

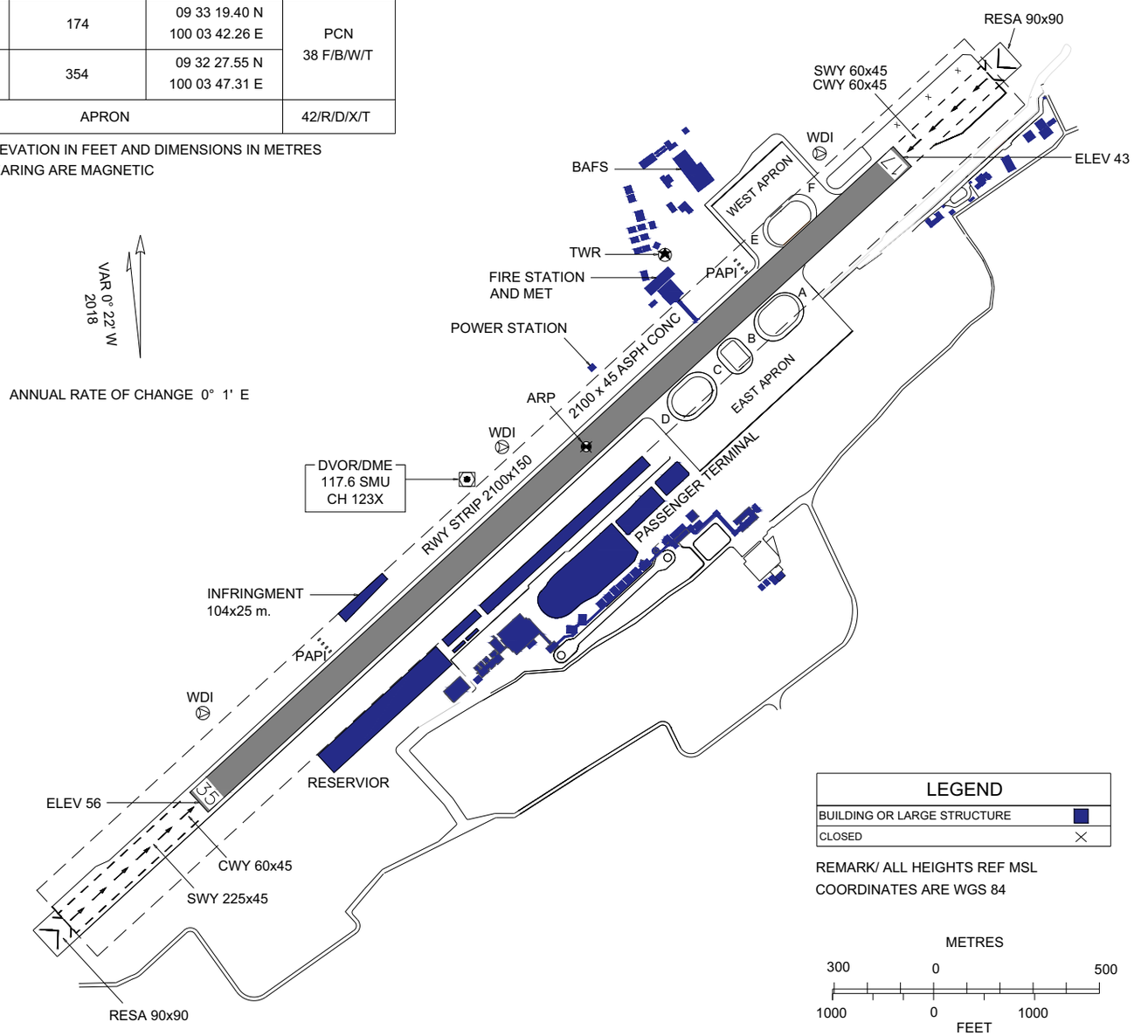

| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSM-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTSM-2-3 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTSM-2-5 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 35/17 | AD 2-VTSM-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 17 - DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UPNEP1A | AD 2-VTSM-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 17 - DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UPNEP1A (Tabular description) | AD 2-VTSM-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 17 - DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UPNEP1A (Waypoint list table) | AD 2-VTSM-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 35 - ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B | AD 2-VTSM-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 35 - ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B (Tabular description) | AD 2-VTSM-6-6 |

| Chart name | Page |
|---|---|
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 35 - ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B (Waypoint list table) | AD 2-VTSM-6-7 |
| Instrument Approach Chart - ICAO - VOR RWY 17 - CAT A, B | AD 2-VTSM-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 17 - CAT A, B (Fix and point list table) | AD 2-VTSM-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 17 - CAT C | AD 2-VTSM-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 17 - CAT C (Fix and point list table) | AD 2-VTSM-8-4 |
| Instrument Approach Chart - ICAO - VOR RWY 35 - CAT A, B | AD 2-VTSM-8-5 |
| Instrument Approach Chart - ICAO - VOR RWY 35 - CAT A, B (Fix and point list table) | AD 2-VTSM-8-6 |
| Instrument Approach Chart - ICAO - VOR RWY 35 - CAT C | AD 2-VTSM-8-7 |
| Instrument Approach Chart - ICAO - VOR RWY 35 - CAT C (Fix and point list table) | AD 2-VTSM-8-8 |
| Instrument Approach Chart - ICAO - RNP RWY 17 - CAT A, B | AD 2-VTSM-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 17 - CAT A, B (Tabular description) | AD 2-VTSM-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 17 - CAT A, B (Waypoint list table) | AD 2-VTSM-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 17 - CAT C | AD 2-VTSM-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 17 - CAT C (Tabular description) | AD 2-VTSM-8-14 |
| Instrument Approach Chart - ICAO - RNP RWY 17 - CAT C (Waypoint list table) | AD 2-VTSM-8-15 |
| Instrument Approach Chart - ICAO - RNP RWY 35 - CAT A, B | AD 2-VTSM-8-17 |
| Instrument Approach Chart - ICAO - RNP RWY 35 - CAT A, B (Tabular description) | AD 2-VTSM-8-18 |
| Instrument Approach Chart - ICAO - RNP RWY 35 - CAT A, B (Waypoint list table) | AD 2-VTSM-8-19 |
| Instrument Approach Chart - ICAO - RNP RWY 35 - CAT C | AD 2-VTSM-8-21 |
| Instrument Approach Chart - ICAO - RNP RWY 35 - CAT C (Tabular description) | AD 2-VTSM-8-22 |
| Instrument Approach Chart - ICAO - RNP RWY 35 - CAT C (Waypoint list table) | AD 2-VTSM-8-23 |

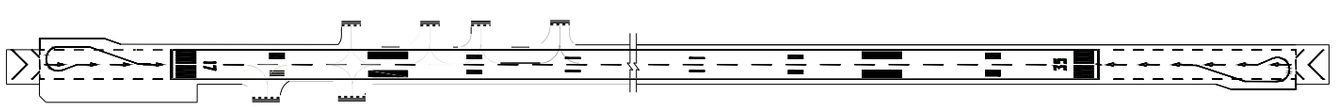
AERODROME CHART - ICAO | 09 32 56 N 100 03 45 E | ELEV 64 ft. | TWR 118.9 121.5 243.0 | SURAT THANI / Samui Airport

| RWY | DIRETION | THR | BEARING STRENGTH |
|---|---|---|---|
| 17 | 174 | 09 33 19.40 N 100 03 42.26 E | PCN 38 F/B/W/T |
| 35 | 354 | 09 32 27.55 N 100 03 47.31 E | |
| APRON | | | 42/R/D/X/T |

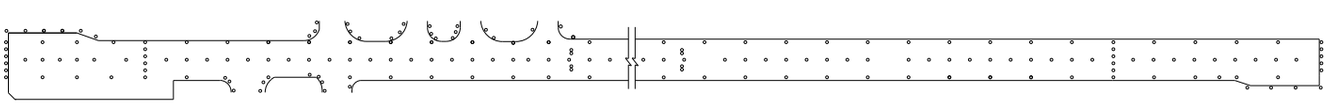
ELEVATION IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC




MARKING AIDS RWY 17/35 AND EXIT TWY




LIGHTING AIDS RWY 17/35 AND EXIT TWY



CHANGE : REVISED CHART. MAG VAR. ARP COORD. TWR FREQ. ANNUAL RATE OF CHANGE. WDI ADDED. INFRINGMENT. RWY STRIP.

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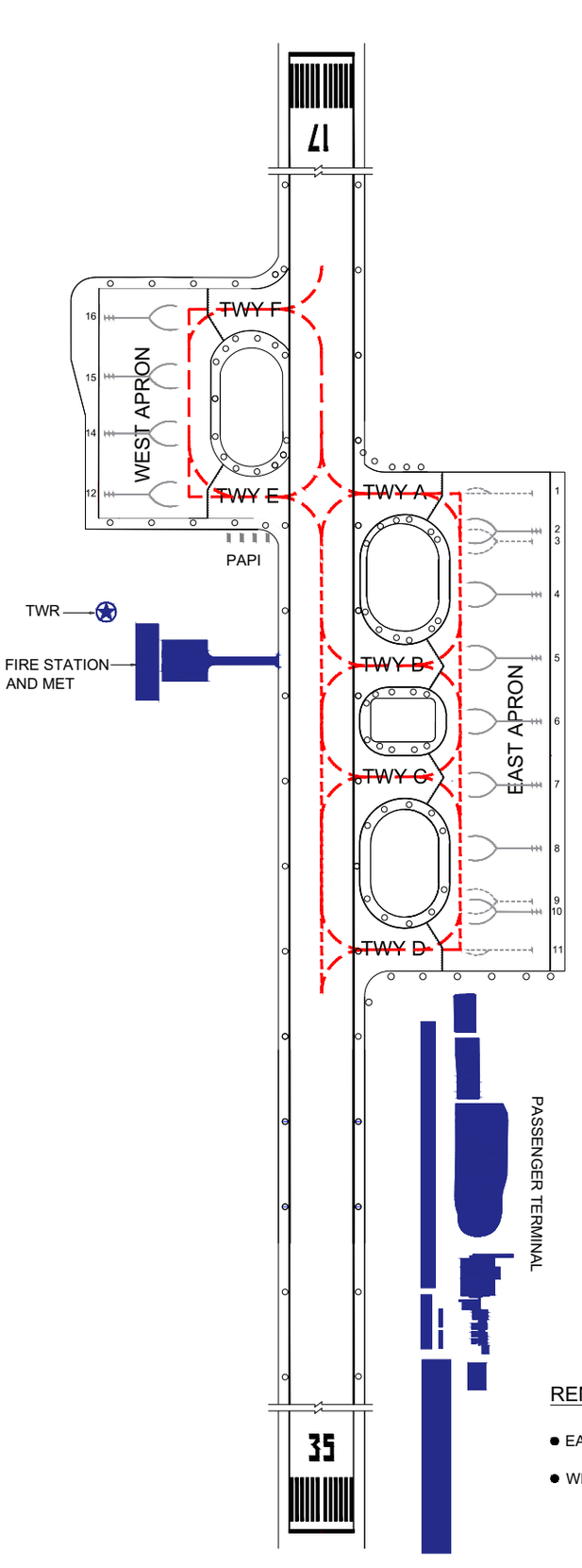
AIRCRAFT PARKING/
DOCKING CHART - ICAO

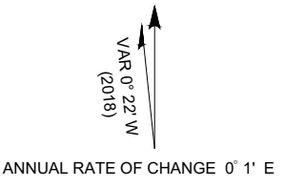
09 32 56 N
100 03 45 E

WEST APRON ELEV 47 ft.
EAST APRON ELEV 46 ft.

TWR 118.9
GND 121.9

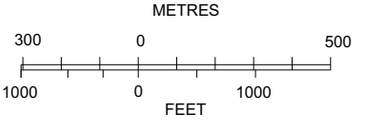
SURAT THANI / Samui Airport




| AIRCRAFT STAND COORDINATES (WGS-84) | | | |
|---|---|---|---|
| NR | LAT (N) | LONG (E) | UP TO |
| 1 | 09 33 10.96 | 100 03 47.77 | ATR72 |
| 2 | 09 33 10.09 | 100 03 48.02 | B734,A319,ATR72 |
| 3 | 09 33 09.66 | 100 03 48.09 | ATR72 |
| 4 | 09 33 08.66 | 100 03 48.24 | B734,A319,ATR72 |
| 5 | 09 33 07.26 | 100 03 48.34 | B734,A319,ATR72 |
| 6 | 09 33 05.79 | 100 03 48.33 | B734,A319,ATR72 |
| 7 | 09 33 04.40 | 100 03 48.45 | B734,A319,ATR72 |
| 8 | 09 33 02.94 | 100 03 48.59 | B734,A319,ATR72 |
| 9 | 09 33 01.76 | 100 03 48.65 | ATR72 |
| 10 | 09 33 01.56 | 100 03 48.70 | B734,A319,ATR72 |
| 11 | 09 33 00.65 | 100 03 48.75 | ATR72 |
| 12 | 09 33 10.10 | 100 03 38.17 | B734,A319,ATR72 |
| 14 | 09 33 11.45 | 100 03 38.04 | B734,A319,ATR72 |
| 15 | 09 33 12.71 | 100 03 37.92 | B734,A319,ATR72 |
| 16 | 09 33 14.10 | 100 03 37.78 | B734,A319,ATR72 |

| LEGEND | |
|---|---|
| AIRCRAFT STAND | 1 |
| TAXIWAY LIGHT | |
| GUIDE LINE | |
| AIRCRAFT HOLDING POSITION | |




SCALE 1 : 20,000

REMARKS

- EAST APRON ACFT STAND NR 1-11 SURFACE AND STRENGTH : CONCRETE , PCN 42/R/D/X/T
- WEST APRON ACFT STAND NR 12-16 SURFACE AND STRENGTH : CONCRETE , PCN 42/R/D/X/T

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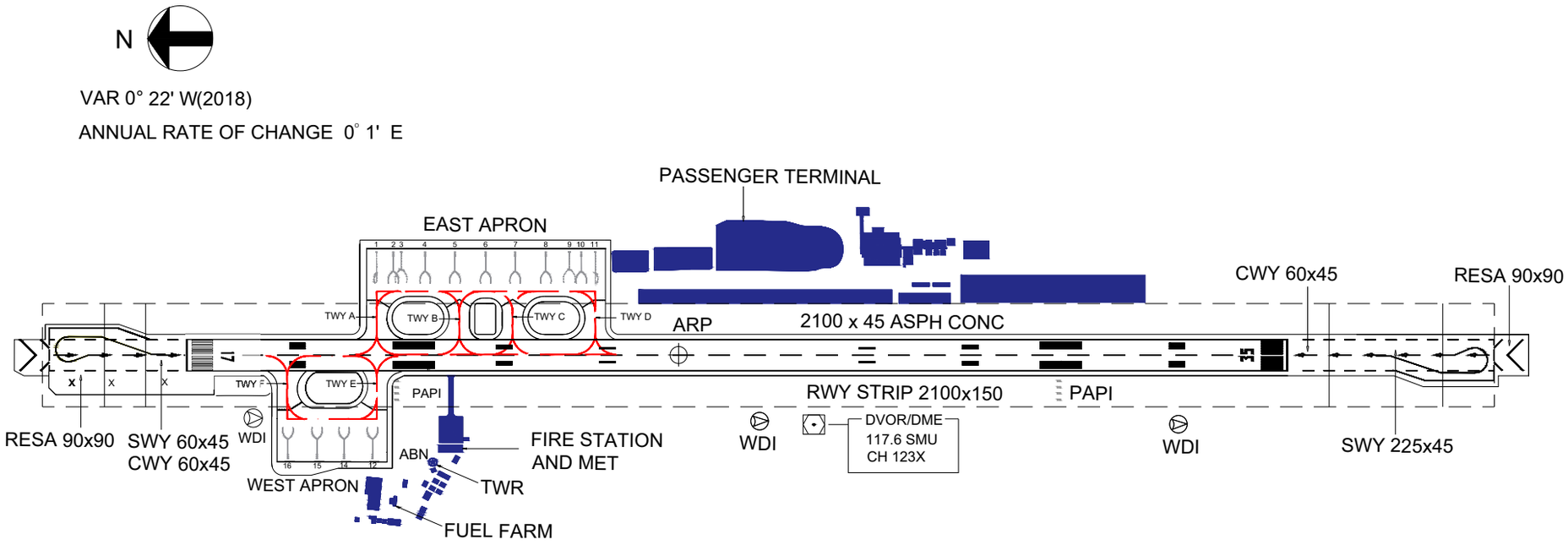
# AERODROME GROUND MOVEMENT CHART - ICAO

WEST APRON ELEV 47 ft.
EAST APRON ELEV 46 ft.

TWR 118.9
GND 121.9

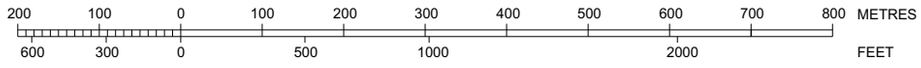
## SURAT THANI / Samui Airport

CHANGE : REVISED CHART. MAG VAR. ARP COORD. TWR AND GND FREQ. ANNUAL RATE OF CHANGE.
WDI ADDED. INFRINGMENT. RWY STRIP. TWY E AND F ADDED. EAST AND WEST APRON.




| LEGEND | |
|---|---|
| AERODROME REFERENCE POINT 09 32 56 N 100 03 45 E | ⊕ |
| BUILDING OR LARGE STRUCTURE | ■ |
| CLOSED | X |
| TAXI ROUTES | – – – |
| AIRCRAFT STAND AND IDENTIFICATION | 1 |
| RUNWAY HOLDING POSITION | ≡ |

SCALE 1 : 10,000



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# Aerodrome Obstacle Chart - ICAO
# Type A (Operation Limitations)

SURAT THANI / Samui Airport

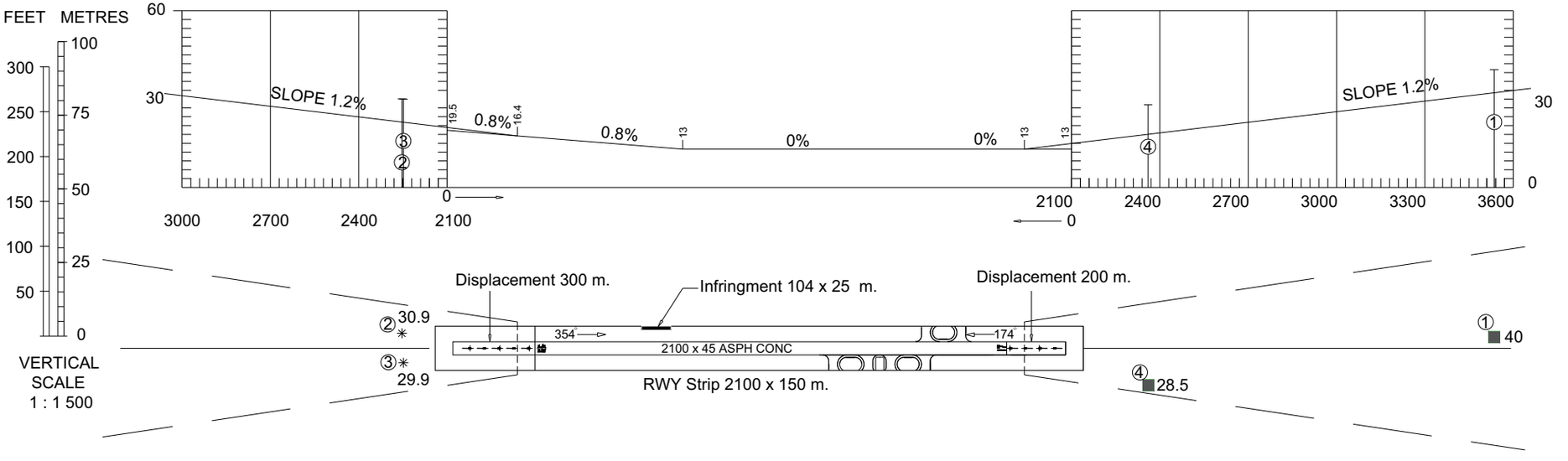
DIMENSIONS AND ELEVATIONS IN METRES
MAGNETIC VARIATION 0° 22' W (2018)

## RUNWAY 35 / 17

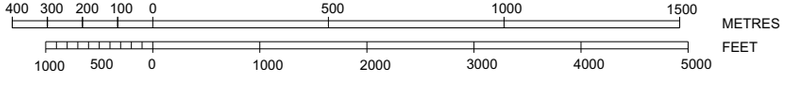
| DECLARED DISTANCES | | |
|---|---|---|
| RWY 35 | | RWY 17 |
| 1900 | TAKE-OFF RUN AVAILABLE | 1800 |
| 1960 | TAKE-OFF DISTANCE AVAILABLE | 1860 |
| 1960 | ACCELERATE STOP DISTANCE AVAILABLE | 2025 |
| 1660 | LANDING DISTANCE AVAILABLE | 1825 |

## OPERATING LIMITATIONS

For ICAO reference code C aircraft during take-off and landing max cross-wind dry and wet RWY should be 5kts less than the flight manual recommended limits




HORIZONTAL - SCALE 1 : 15,000




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ① |
| LARGE STRUCTURE | ■ |
| TREE | ✳ |

CHANGE : PAGE NUMBER CHANGED.

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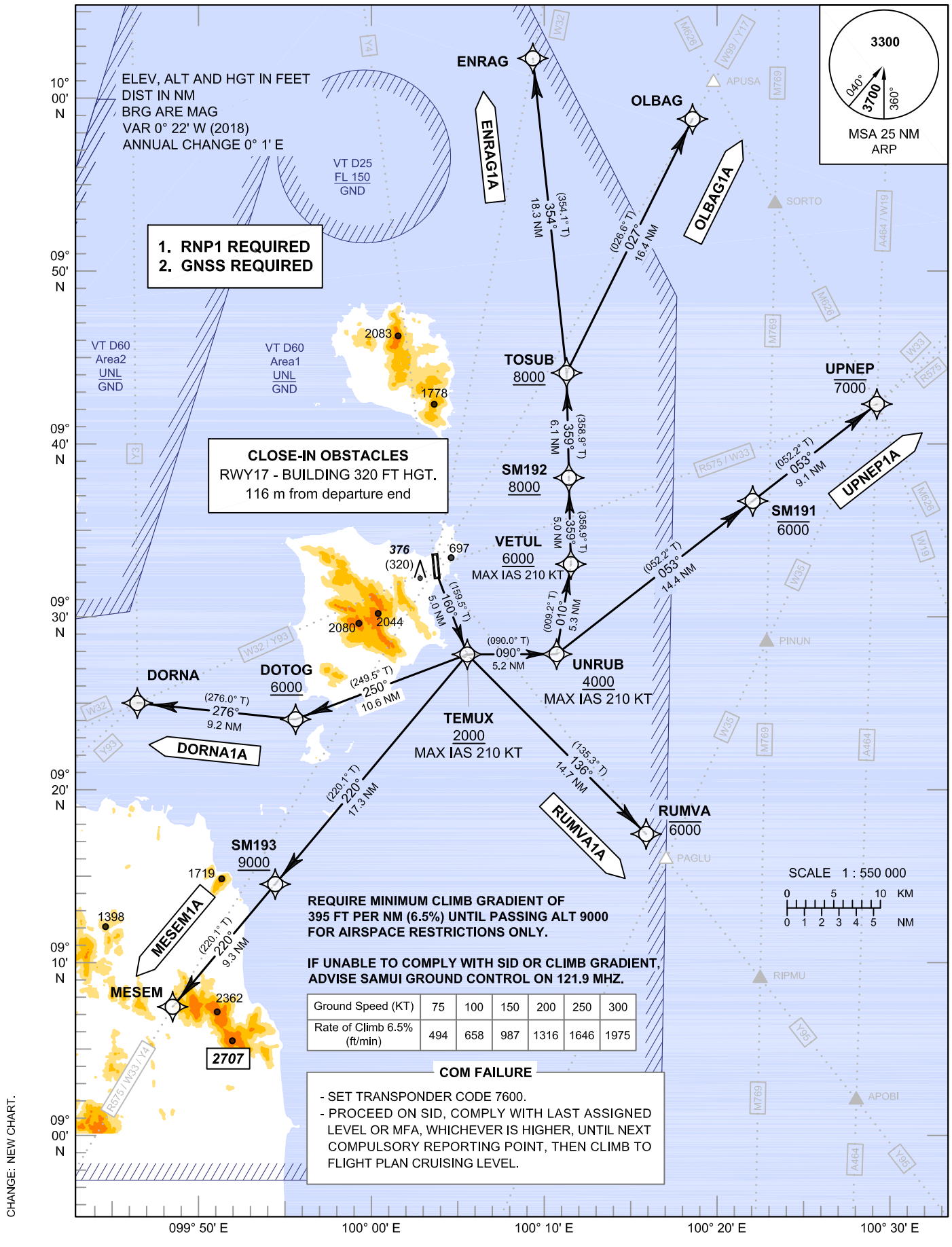
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 129.6
TWR : 118.9
GND : 121.9
ATIS : 128.6

**SURAT THANI / Samui (VTSM)**
**RNAV RWY17**

DORNA1A ENRAG1A MESEM1A
OLBAG1A RUMVA1A UPNEP1A




CHANGE: NEW CHART.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**SURAT THANI / Samui (VTSM)**
**RNAV RWY17**

DORNA1A ENRAG1A MESEM1A
OLBAG1A RUMVA1A UPNEP1A

## TABULAR DESCRIPTION

**RNAV RWY17**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DORNA1A | | | | | | | | | | | |
| 010 | - | DER RWY17 | - | - | +0.33 | - | L | - | - | - | RNP 1 |
| 020 | CF | TEMUX | - | 160°(159.5°) | +0.33 | 5.0 | R | +2000 | -210 | - | RNP 1 |
| 030 | TF | DOTOG | - | 250°(249.5°) | +0.33 | 10.6 | R | +6000 | - | - | RNP 1 |
| 040 | TF | DORNA | - | 276°(276.0°) | +0.33 | 9.2 | - | - | - | - | RNP 1 |
| ENRAG1A | | | | | | | | | | | |
| 010 | - | DER RWY17 | - | - | +0.33 | - | L | - | - | - | RNP 1 |
| 020 | CF | TEMUX | - | 160°(159.5°) | +0.33 | 5.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | UNRUB | - | 090°(090.0°) | +0.33 | 5.2 | L | +4000 | -210 | - | RNP 1 |
| 040 | TF | VETUL | - | 010°(009.2°) | +0.33 | 5.3 | L | +6000 | -210 | - | RNP 1 |
| 050 | TF | SM192 | - | 359°(358.9°) | +0.33 | 5.0 | - | +8000 | - | - | RNP 1 |
| 060 | TF | TOSUB | - | 359°(358.9°) | +0.33 | 6.1 | L | +8000 | - | - | RNP 1 |
| 070 | TF | ENRAG | - | 354°(354.1°) | +0.33 | 18.3 | - | - | - | - | RNP 1 |
| MESEM1A | | | | | | | | | | | |
| 010 | - | DER RWY17 | - | - | +0.33 | - | L | - | - | - | RNP 1 |
| 020 | CF | TEMUX | - | 160°(159.5°) | +0.33 | 5.0 | R | +2000 | -210 | - | RNP 1 |
| 030 | TF | SM193 | - | 220°(220.1°) | +0.33 | 17.3 | - | +9000 | - | - | RNP 1 |
| 040 | TF | MESEM | - | 220°(220.1°) | +0.33 | 9.3 | - | - | - | - | RNP 1 |
| OLBAG1A | | | | | | | | | | | |
| 010 | - | DER RWY17 | - | - | +0.33 | - | L | - | - | - | RNP 1 |
| 020 | CF | TEMUX | - | 160°(159.5°) | +0.33 | 5.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | UNRUB | - | 090°(090.0°) | +0.33 | 5.2 | L | +4000 | -210 | - | RNP 1 |
| 040 | TF | VETUL | - | 010°(009.2°) | +0.33 | 5.3 | L | +6000 | -210 | - | RNP 1 |
| 050 | TF | SM192 | - | 359°(358.9°) | +0.33 | 5.0 | - | +8000 | - | - | RNP 1 |
| 060 | TF | TOSUB | - | 359°(358.9°) | +0.33 | 6.1 | R | +8000 | - | - | RNP 1 |
| 070 | TF | OLBAG | - | 027°(026.6°) | +0.33 | 16.4 | - | - | - | - | RNP 1 |
| RUMVA1A | | | | | | | | | | | |
| 010 | - | DER RWY17 | - | - | +0.33 | - | L | - | - | - | RNP 1 |
| 020 | CF | TEMUX | - | 160°(159.5°) | +0.33 | 5.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | RUMVA | - | 136°(135.3°) | +0.33 | 14.7 | - | -6000 | - | - | RNP 1 |
| UPNEP1A | | | | | | | | | | | |
| 010 | - | DER RWY17 | - | - | +0.33 | - | L | - | - | - | RNP 1 |
| 020 | CF | TEMUX | - | 160°(159.5°) | +0.33 | 5.0 | L | +2000 | -210 | - | RNP 1 |
| 030 | TF | UNRUB | - | 090°(090.0°) | +0.33 | 5.2 | L | +4000 | -210 | - | RNP 1 |
| 040 | TF | SM191 | - | 053°(052.2°) | +0.33 | 14.4 | - | -6000 | - | - | RNP 1 |
| 050 | TF | UPNEP | - | 053°(052.2°) | +0.33 | 9.1 | - | -7000 | - | - | RNP 1 |
| | | | | | | | | | | | |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**SURAT THANI / Samui (VTSM)**
**RNAV RWY17**

DORNA1A ENRAG1A MESEM1A
OLBAG1A RUMVA1A UPNEP1A

## WAYPOINT LIST

**RNAV RWY17**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| DER RWY17 | 09° 32' 27.55" N | 100° 03' 47.31" E |
| DORNA | 09° 24' 58.70" N | 099° 46' 14.10" E |
| DOTOG | 09° 24' 00.75" N | 099° 55' 29.95" E |
| ENRAG | 10° 02' 23.31" N | 100° 09' 31.07" E |
| MESEM | 09° 07' 19.05" N | 099° 48' 15.85" E |
| OLBAG | 09° 58' 49.36" N | 100° 18' 52.25" E |
| RUMVA | 09° 17' 16.93" N | 100° 15' 59.72" E |
| SM191 | 09° 36' 36.69" N | 100° 22' 18.46" E |
| SM192 | 09° 38' 00.18" N | 100° 11' 32.87" E |
| SM193 | 09° 14' 25.82" N | 099° 54' 16.76" E |
| TEMUX | 09° 27' 45.27" N | 100° 05' 33.73" E |
| TOSUB | 09° 44' 05.84" N | 100° 11' 25.88" E |
| UNRUB | 09° 27' 45.24" N | 100° 10' 47.51" E |
| UPNEP | 09° 42' 13.10" N | 100° 29' 36.40" E |
| VETUL | 09° 32' 58.84" N | 100° 11' 38.63" E |

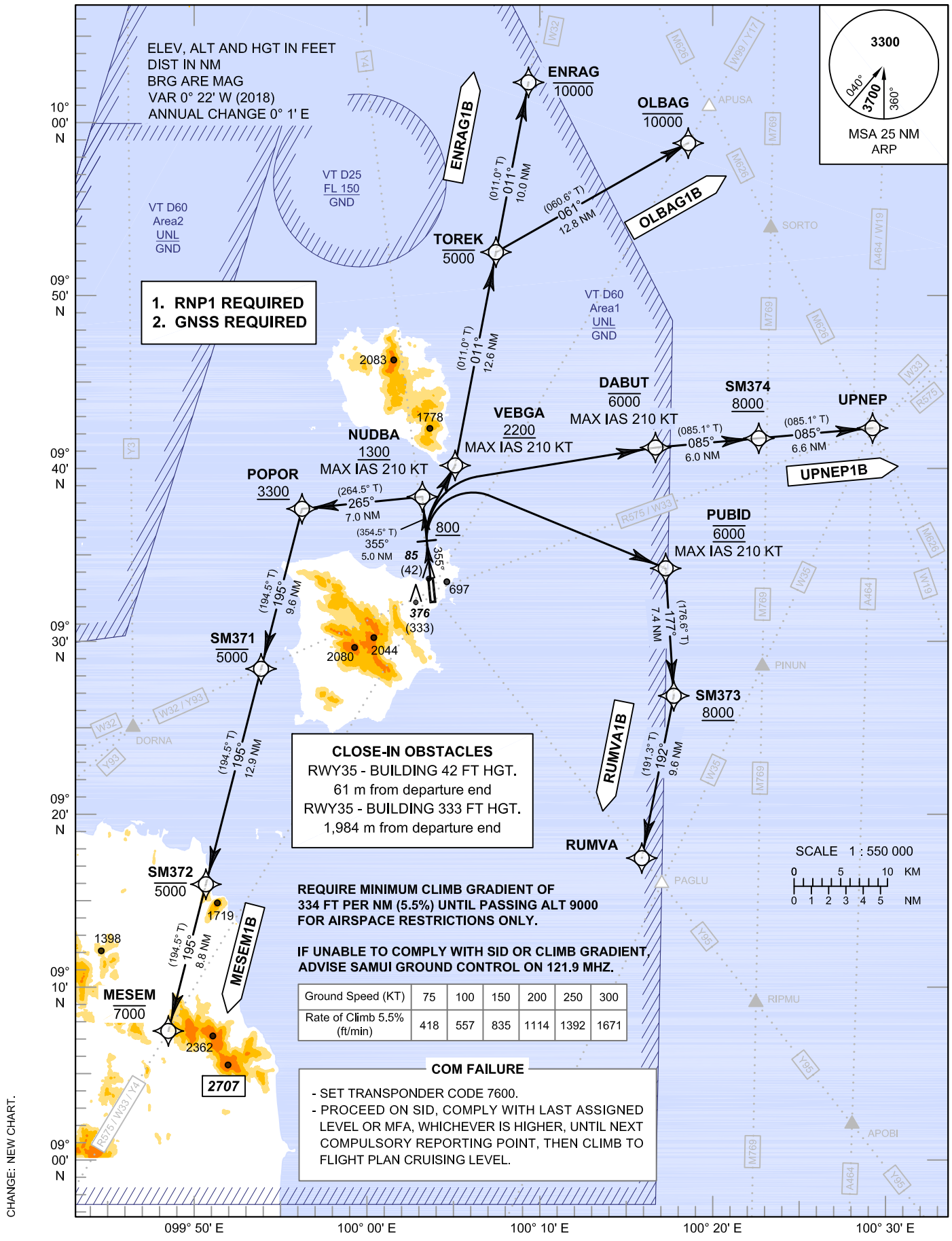
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 129.6
TWR : 118.9
GND : 121.9
ATIS : 128.6

**SURAT THANI / Samui (VTSM)**
**RNAV RWY35**

ENRAG1B MESEM1B
OLBAG1B RUMVA1B UPNEP1B




CHANGE: NEW CHART.

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**SURAT THANI / Samui (VTSM)**
**RNAV RWY35**

ENRAG1B MESEM1B
OLBAG1B RUMVA1B UPNEP1B

## TABULAR DESCRIPTION

**RNAV RWY35**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ENRAG1B | | | | | | | | | | | |
| 010 | - | DER RWY35 | - | - | +0.33 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 355°(354.5°) | +0.33 | - | - | +800 | - | - | RNP 1 |
| 030 | DF | VEBGA | | - | +0.33 | - | R | +2200 | -210 | - | RNP 1 |
| 040 | TF | TOREK | - | 011°(011.0°) | +0.33 | 12.6 | - | -5000 | - | - | RNP 1 |
| 050 | TF | ENRAG | - | 011°(011.0°) | +0.33 | 10.0 | - | -10000 | - | - | RNP 1 |
| MESEM1B | | | | | | | | | | | |
| 010 | - | DER RWY 35 | - | - | +0.33 | - | - | - | - | - | RNP 1 |
| 020 | CF | NUDBA | - | 355°(354.5°) | +0.33 | 5.0 | L | +1300 | -210 | - | RNP 1 |
| 030 | TF | POPOR | - | 265°(264.5°) | +0.33 | 7.0 | L | +3300 | - | - | RNP 1 |
| 040 | TF | SM371 | - | 195°(194.5°) | +0.33 | 9.6 | - | -5000 | - | - | RNP 1 |
| 050 | TF | SM372 | - | 195°(194.5°) | +0.33 | 12.9 | - | -5000 | - | - | RNP 1 |
| 060 | TF | MESEM | - | 195°(194.5°) | +0.33 | 8.8 | - | -7000 | - | - | RNP 1 |
| OLBAG1B | | | | | | | | | | | |
| 010 | - | DER RWY35 | - | - | +0.33 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 355°(354.5°) | +0.33 | - | - | +800 | - | - | RNP 1 |
| 030 | DF | VEBGA | - | - | +0.33 | - | R | +2200 | -210 | - | RNP 1 |
| 040 | TF | TOREK | - | 011°(011.0°) | +0.33 | 12.6 | R | -5000 | - | - | RNP 1 |
| 050 | TF | OLBAG | - | 061°(060.6°) | +0.33 | 12.8 | - | -10000 | - | - | RNP 1 |
| RUMVA1B | | | | | | | | | | | |
| 010 | - | DER RWY35 | - | - | +0.33 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 355°(354.5°) | +0.33 | - | - | +800 | - | - | RNP 1 |
| 030 | DF | PUBID | - | - | +0.33 | - | R | @6000 | -210 | - | RNP 1 |
| 040 | TF | SM373 | - | 177°(176.6°) | +0.33 | 7.4 | R | +8000 | - | - | RNP 1 |
| 050 | TF | RUMVA | - | 192°(191.3°) | +0.33 | 9.6 | - | - | - | - | RNP 1 |
| UPNEP1B | | | | | | | | | | | |
| 010 | - | DER RWY35 | - | - | +0.33 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 355°(354.5°) | +0.33 | - | - | +800 | - | - | RNP 1 |
| 030 | DF | DABUT | - | - | +0.33 | - | R | -6000 | -210 | - | RNP 1 |
| 040 | TF | SM374 | - | 085°(085.1°) | +0.33 | 6.0 | - | +8000 | - | - | RNP 1 |
| 050 | TF | UPNEP | - | 085°(085.1°) | +0.33 | 6.6 | - | - | - | - | RNP 1 |
| | | | | | | | | | | | |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**SURAT THANI / Samui (VTSM)**
**RNAV RWY35**

ENRAG1B MESEM1B
OLBAG1B RUMVA1B UPNEP1B

## WAYPOINT LIST

**RNAV RWY35**

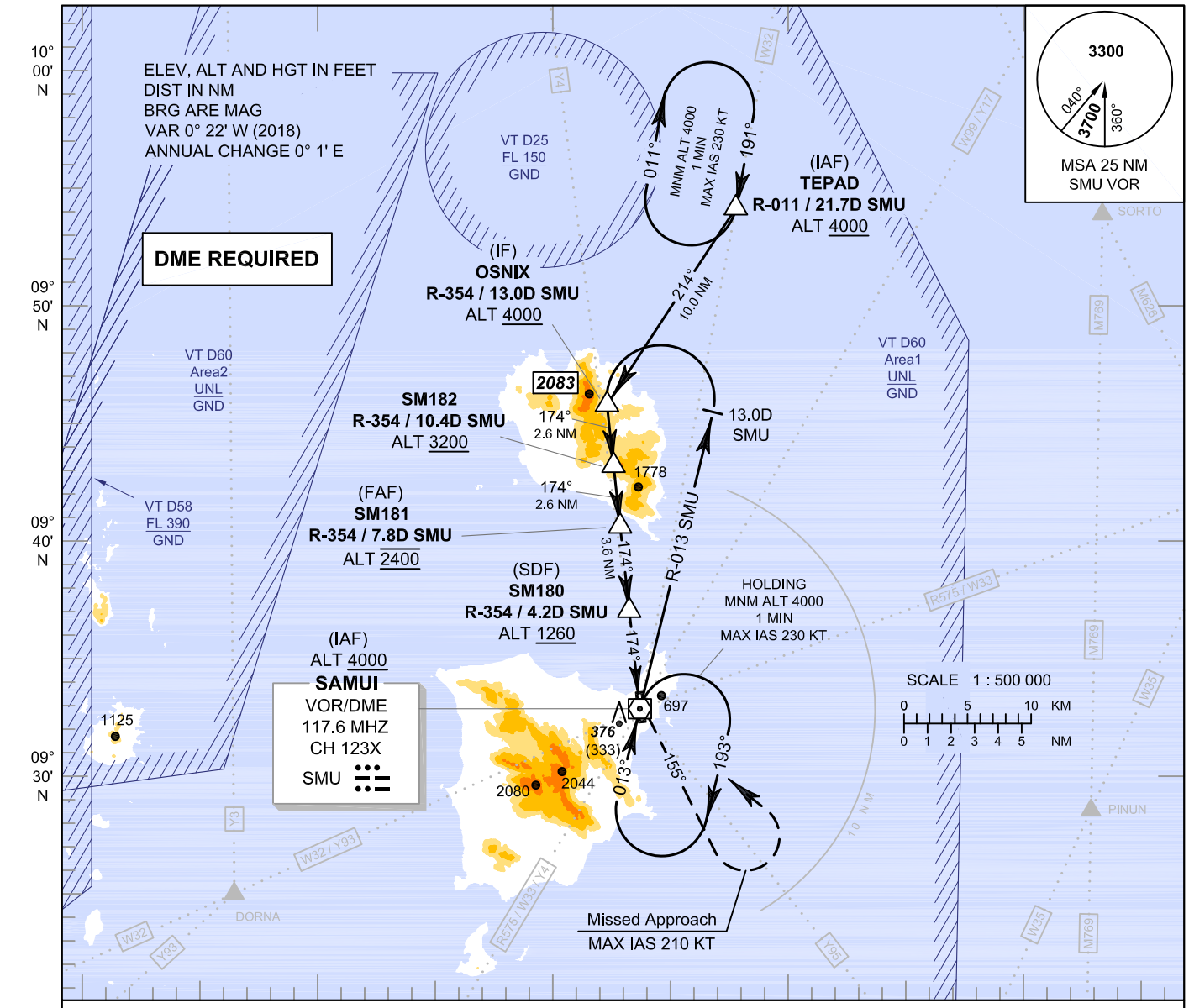
| Waypoint Identifier | Coordinates | |
|---|---|---|
| DER RWY35 | 09° 33' 19.40" N | 100° 03' 42.26" E |
| DABUT | 09° 41' 08.45" N | 100° 16' 53.04" E |
| ENRAG | 10° 02' 23.31" N | 100° 09' 31.07" E |
| MESEM | 09° 07' 19.05" N | 099° 48' 15.85" E |
| NUDBA | 09° 38' 19.40" N | 100° 03' 13.03" E |
| OLBAG | 09° 58' 49.36" N | 100° 18' 52.25" E |
| POPOR | 09° 37' 38.71" N | 099° 56' 09.81" E |
| PUBID | 09° 34' 07.10" N | 100° 17' 27.30" E |
| RUMVA | 09° 17' 16.93" N | 100° 15' 59.72" E |
| SM371 | 09° 28' 21.11" N | 099° 53' 44.42" E |
| SM372 | 09° 15' 50.22" N | 099° 50' 28.85" E |
| SM373 | 09° 26' 42.51" N | 100° 17' 53.96" E |
| SM374 | 09° 41' 39.27" N | 100° 22' 56.23" E |
| TOREK | 09° 52' 31.68" N | 100° 07' 34.62" E |
| UPNEP | 09° 42' 13.10" N | 100° 29' 36.40" E |
| VEBGA | 09° 40' 08.36" N | 100° 05' 08.47" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

| | |
|---|---|
| APP | 129.6 |
| TWR | 118.9 |
| GND | 121.9 |
| ATIS | 128.6 |

**SURAT THANI / Samui (VTSM)**
**VOR RWY17**
**CAT A, B**




| OCA/H | A | B |
|---|---|---|
| Straight - in Approach | 920 (877) | |
| Circling* (OCH AAL) | 1400 (1336) | |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

| Distance (SMU) | FAF | 7 D | 6 D | 5 D | 4 D | 3.1 D |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2400 (2357) | 2145 (2102) | 1830 (1787) | 1515 (1472) | 1200 (1157) | 920 (877) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

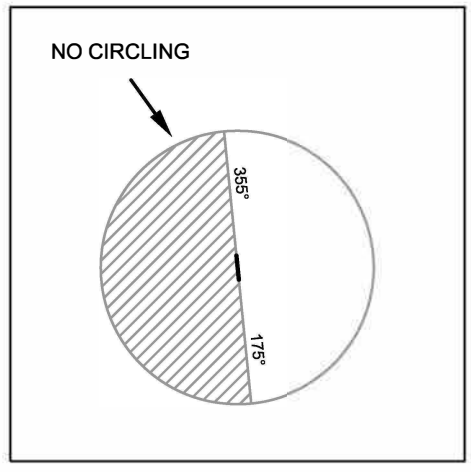
CHANGE: NEW PROCEDURES.
INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.0 NM
DUE TO TERRAIN RESTRICTIONS.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

**SURAT THANI / Samui (VTSM)**
**VOR RWY17**
**CAT A, B**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) TEPAD | R-011 / 21.7D SMU | 09° 54' 11.99" N | 100° 07' 54.35" E |
| (IF) OSNIX | R-354 / 13.0D SMU | 09° 45' 48.80" N | 100° 02' 19.70" E |
| SM182 | R-354 / 10.4D SMU | 09° 43' 12.94" N | 100° 02' 36.22" E |
| (FAF) SM181 | R-354 / 7.8D SMU | 09° 40' 37.07" N | 100° 02' 52.74" E |
| (SDF) SM180 | R-354 / 4.2D SMU | 09° 37' 00.86" N | 100° 03' 15.65" E |
| MAPt | R-354 / 0.5D SMU | 09° 33' 19.09" N | 100° 03' 39.13" E |
| (IAF) VOR | SMU | 09° 32' 49.34" N | 100° 03' 42.26" E |



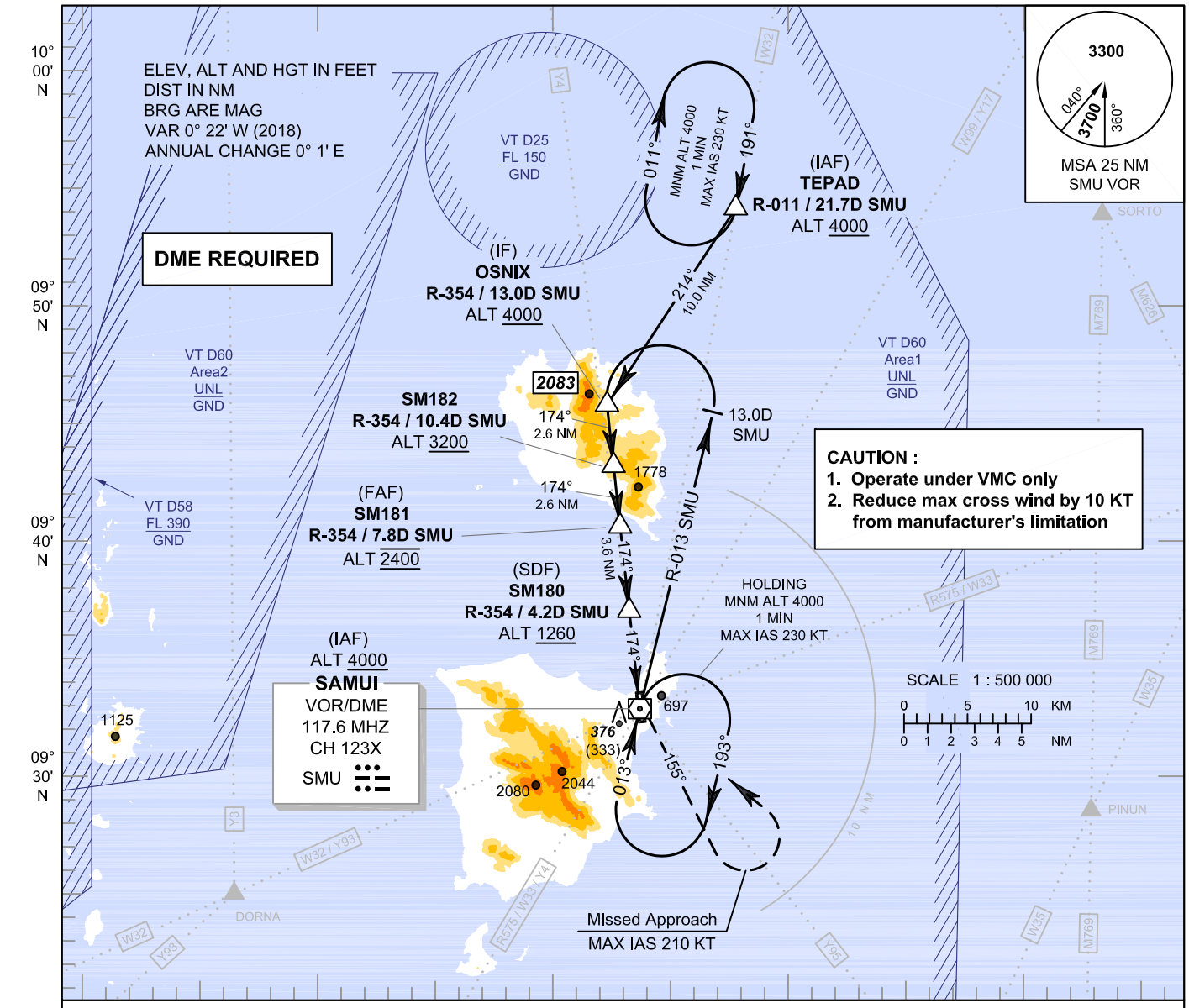

CHANGE: VOR/DME COORDINATES.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

| | |
|---|---|
| APP | 129.6 |
| TWR | 118.9 |
| GND | 121.9 |
| ATIS | 128.6 |

**SURAT THANI / Samui (VTSM)**
**VOR RWY17**
**CAT C**




CHANGE: NEW PROCEDURES.
INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM
DUE TO TERRAIN RESTRICTIONS.

| | |
|---|---|
| OCA/H | C |
| Straight - in Approach | 920 (877) |
| Circling* (OCH AAL) | 1400 (1336) |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

| Distance (SMU) | FAF | 7 D | 6 D | 5 D | 4 D | 3.1 D |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2400 (2357) | 2145 (2102) | 1830 (1787) | 1515 (1472) | 1200 (1157) | 920 (877) |

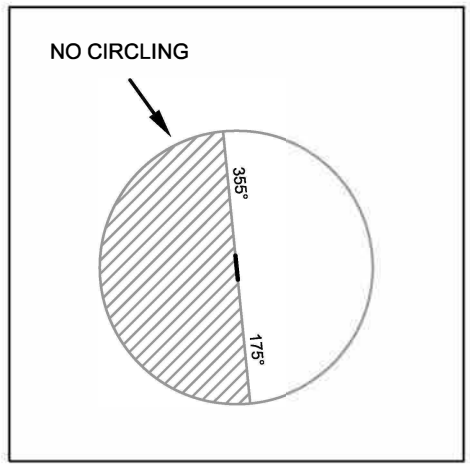
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

**SURAT THANI / Samui (VTSM)**
**VOR RWY17**
**CAT C**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) TEPAD | R-011 / 21.7D SMU | 09° 54' 11.99" N | 100° 07' 54.35" E |
| (IF) OSNIX | R-354 / 13.0D SMU | 09° 45' 48.80" N | 100° 02' 19.70" E |
| SM182 | R-354 / 10.4D SMU | 09° 43' 12.94" N | 100° 02' 36.22" E |
| (FAF) SM181 | R-354 / 7.8D SMU | 09° 40' 37.07" N | 100° 02' 52.74" E |
| (SDF) SM180 | R-354 / 4.2D SMU | 09° 37' 00.86" N | 100° 03' 15.65" E |
| MAPt | R-354 / 0.5D SMU | 09° 33' 19.09" N | 100° 03' 39.13" E |
| (IAF) VOR | SMU | 09° 32' 49.34" N | 100° 03' 42.26" E |



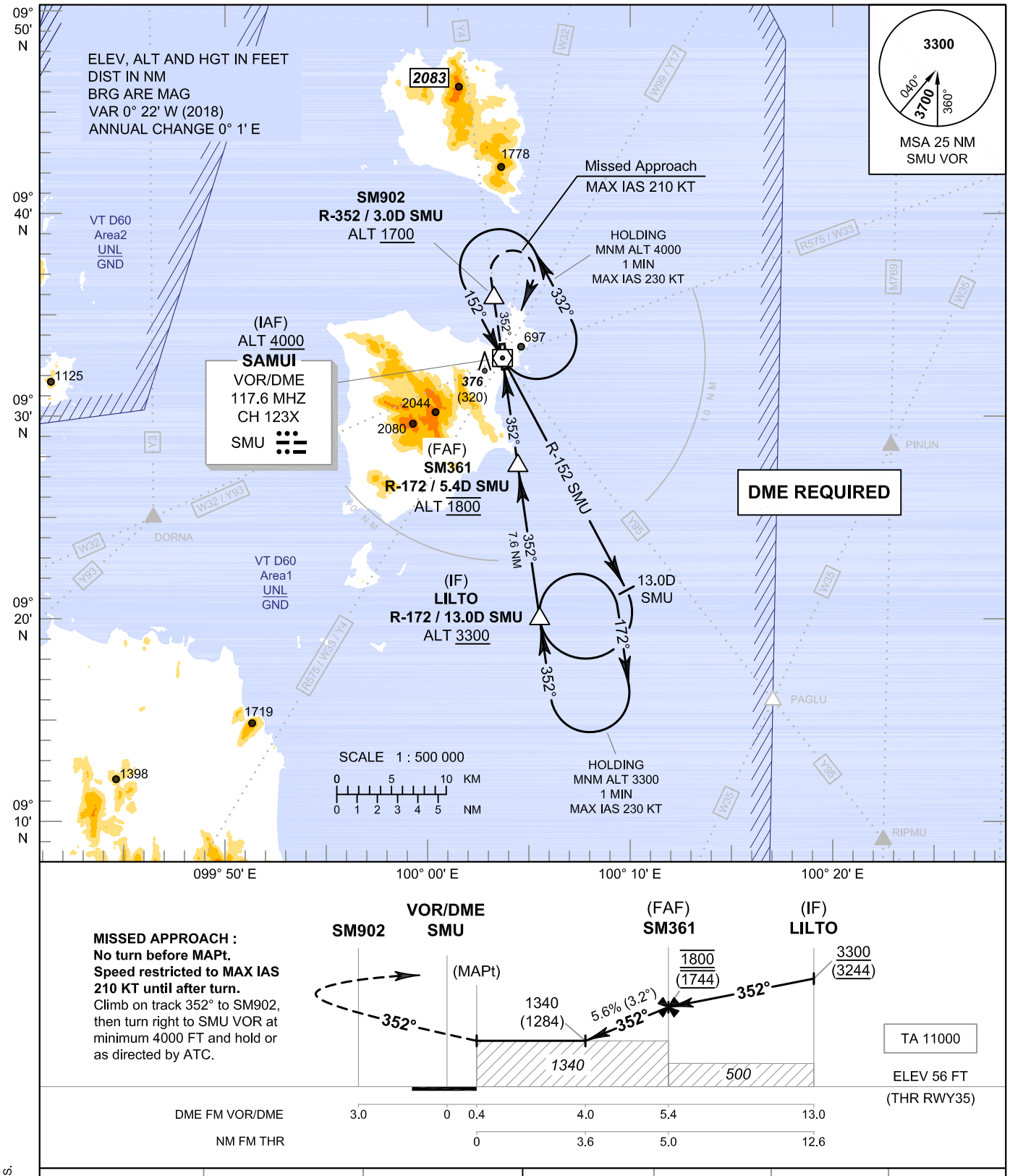

CHANGE: VOR/DME COORDINATES.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

| | |
|---|---|
| APP | 129.6 |
| TWR | 118.9 |
| GND | 121.9 |
| ATIS | 128.6 |

**SURAT THANI / Samui (VTSM)**
**VOR RWY35**
**CAT A, B**







| OCA/H | A | B |
|---|---|---|
| Straight - in Approach | 1340 (1284) | |
| Circling* (OCH AAL) | 1400 (1336) | |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

| Distance (SMU) | 4 D | 5 D | FAF |
|---|---|---|---|
| Altitude (Height) | 1340 (1284) | 1670 (1614) | 1800 (1744) |

| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of Descent 5.6% | ft/min | 397 | 510 | 567 | 681 | 794 | 907 |

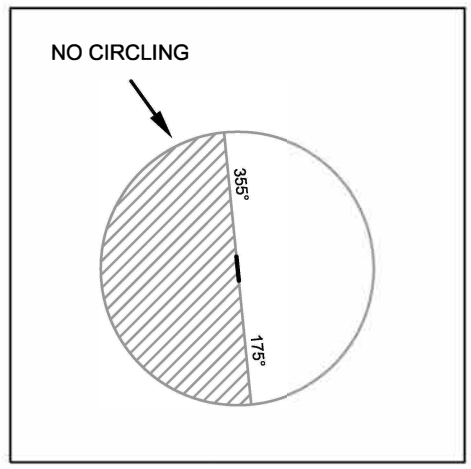
CHANGE: NEW PROCEDURES.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

**SURAT THANI / Samui (VTSM)**
**VOR RWY35**
**CAT A, B**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) VOR | SMU | 09° 32' 49.34" N | 100° 03' 42.26" E |
| (IF) LILTO | R-172 / 13.0D SMU | 09° 19' 53.35" N | 100° 05' 31.31" E |
| (FAF) SM361 | R-172 / 5.4D SMU | 09° 27' 28.88" N | 100° 04' 27.33" E |
| MAPt | R-172 / 0.4D SMU | 09° 32' 27.20" N | 100° 03' 45.40" E |
| SM902 | R-352 / 3.0D SMU | 09° 35' 48.57" N | 100° 03' 17.09" E |



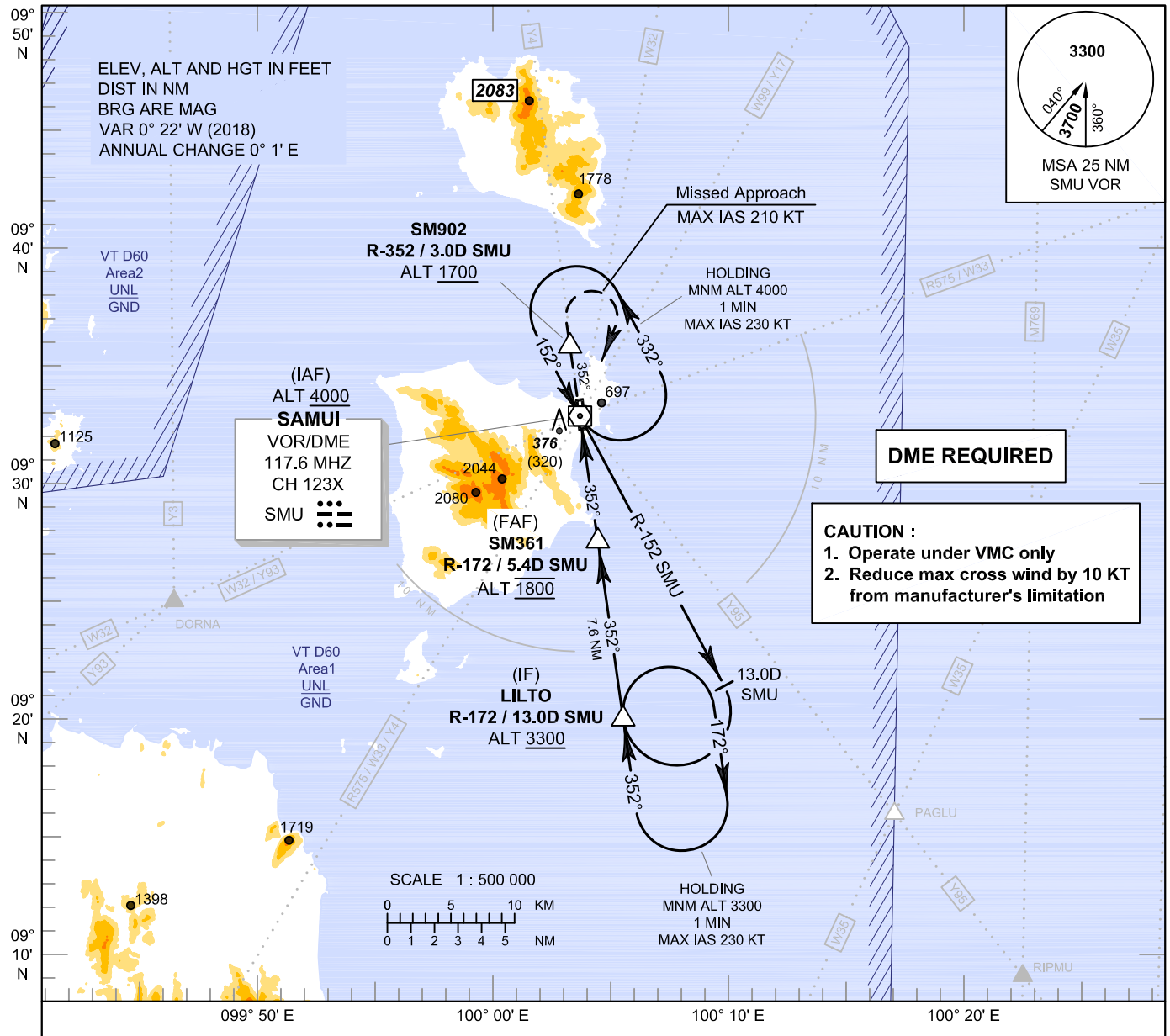

CHANGE: VOR/DME COORDINATES.

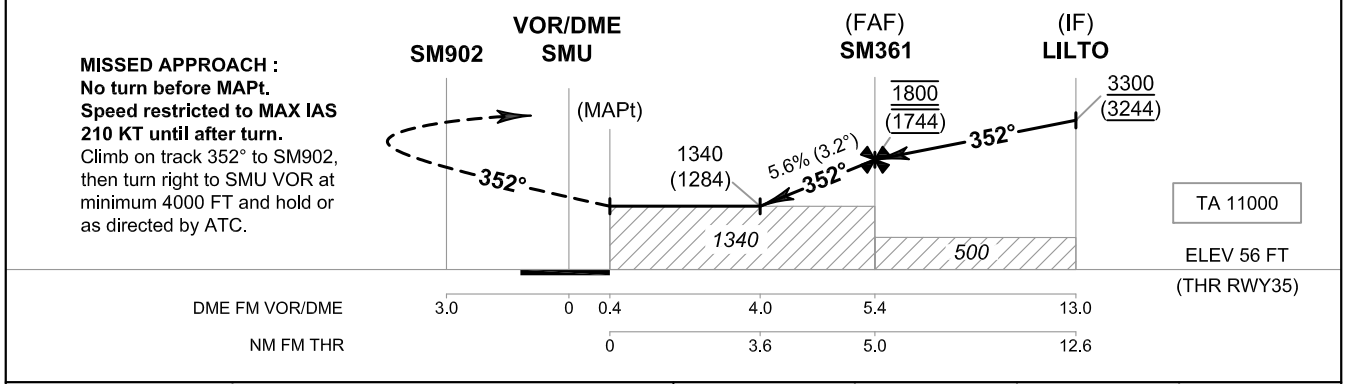
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

APP : 129.6
TWR : 118.9
GND : 121.9
ATIS : 128.6

**SURAT THANI / Samui (VTSM)**
**VOR RWY35**
**CAT C**




CHANGE: NEW PROCEDURES.

| OCA/H | C |
|---|---|
| Straight - in Approach | 1340 (1284) |
| Circling* (OCH AAL) | 1400 (1336) |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

| Distance (SMU) | 4 D | 5 D | FAF |
|---|---|---|---|
| Altitude (Height) | 1340 (1284) | 1670 (1614) | 1800 (1744) |

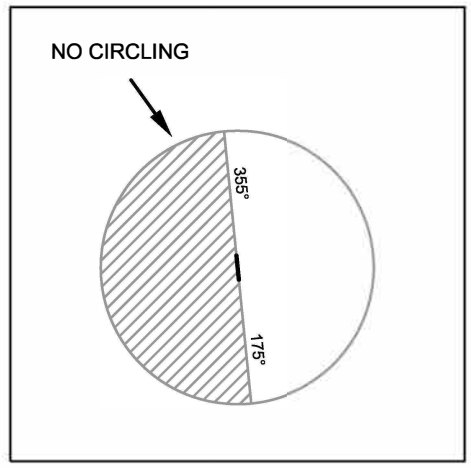
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of Descent 5.6% | ft/min | 397 | 510 | 567 | 681 | 794 | 907 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

**SURAT THANI / Samui (VTSM)**
**VOR RWY35**
**CAT C**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) VOR | SMU | 09° 32' 49.34" N | 100° 03' 42.26" E |
| (IF) LILTO | R-172 / 13.0D SMU | 09° 19' 53.35" N | 100° 05' 31.31" E |
| (FAF) SM361 | R-172 / 5.4D SMU | 09° 27' 28.88" N | 100° 04' 27.33" E |
| MAPt | R-172 / 0.4D SMU | 09° 32' 27.20" N | 100° 03' 45.40" E |
| SM902 | R-352 / 3.0D SMU | 09° 35' 48.57" N | 100° 03' 17.09" E |



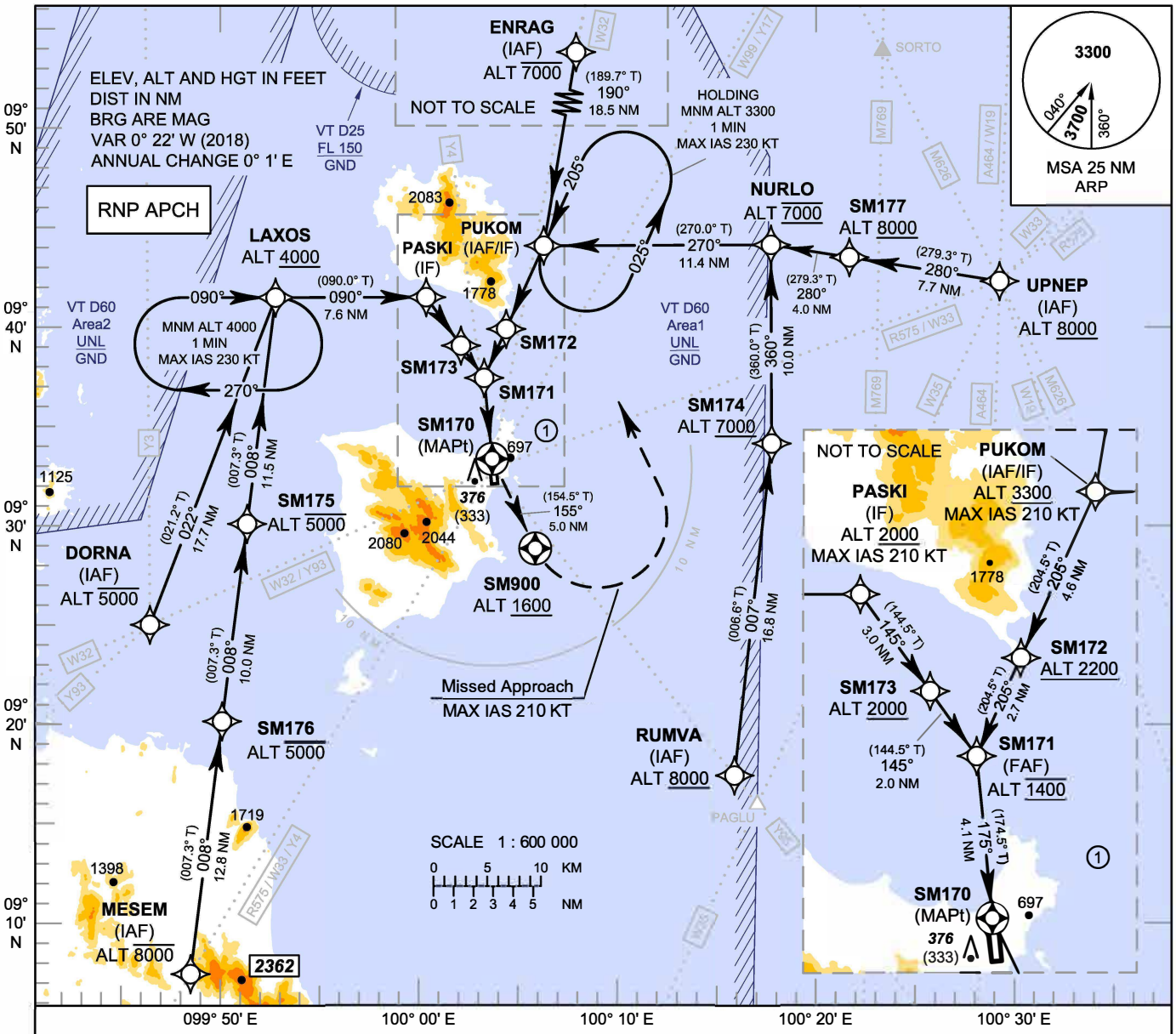

CHANGE: VOR/DME COORDINATES.

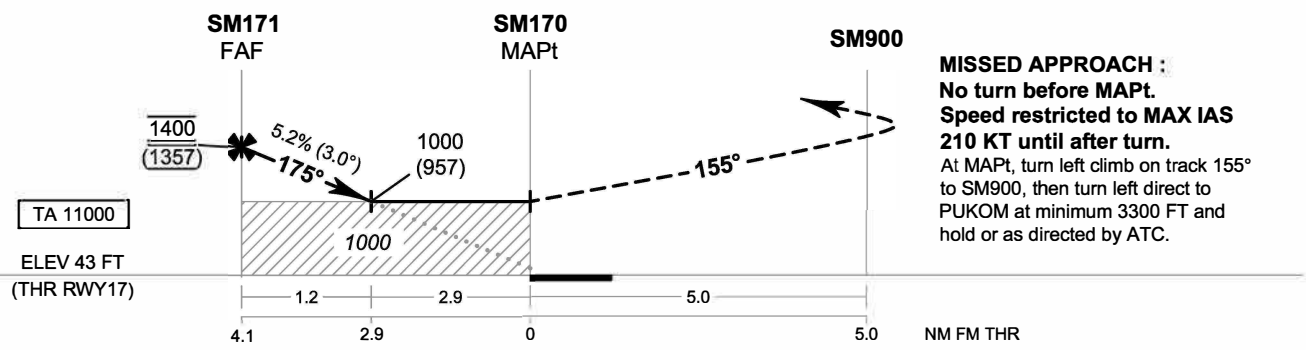
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

APP : 129.6
TWR : 118.9
GND : 121.9
ATIS : 128.6

**SURAT THANI / Samui (VTSM)**
**RNP RWY17**
**CAT A, B**




CHANGE : CHART TITLE.

| OCA/H | A | B | NM to NEXT WPT | FAF | 4 NM | 3 NM | 2.9 NM |
|---|---|---|---|---|---|---|---|
| LNAV | 1000 (957) | | Altitude (Height) | 1400 (1357) | 1355 (1312) | 1040 (997) | 1000 (957) |
| Circling* (OCH AAL) | 1400 (1336) | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| * FOR CIRCLING RESTRICTIONS SEE VERSO. | | | Rate of Descent FAF - MAPt 5.2% | ft/ min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

**SURAT THANI / Samui (VTSM)**
**RNP RWY17**
**CAT A, B**

## TABULAR DESCRIPTION

**RNP RWY17**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | RUMVA (IAF) | - | - | +0.33 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | SM174 | - | 007°(006.6°) | +0.33 | 16.8 | L | +7000 | - | - | RNP APCH |
| 030 | TF | NURLO | - | 360°(360.0°) | +0.33 | 10.0 | L | @7000 | - | - | RNP APCH |
| 040 | TF | PUKOM (IAF/IF) | - | 270°(270.0°) | +0.33 | 11.4 | L | +3300 | -210 | - | RNP APCH |
| 050 | TF | SM172 | - | 205°(204.5°) | +0.33 | 4.6 | - | +2200 | - | - | RNP APCH |
| 060 | TF | SM171 (FAF) | - | 205°(204.5°) | +0.33 | 2.7 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | UPNEP (IAF) | - | - | +0.33 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | SM177 | - | 280°(279.3°) | +0.33 | 7.7 | - | +8000 | - | - | RNP APCH |
| 030 | TF | NURLO | - | 280°(279.3°) | +0.33 | 4.0 | L | @7000 | - | - | RNP APCH |
| 040 | TF | PUKOM (IAF/IF) | - | 270°(270.0°) | +0.33 | 11.4 | L | +3300 | -210 | - | RNP APCH |
| 050 | TF | SM172 | - | 205°(204.5°) | +0.33 | 4.6 | - | +2200 | - | - | RNP APCH |
| 060 | TF | SM171 (FAF) | - | 205°(204.5°) | +0.33 | 2.7 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ENRAG (IAF) | - | - | +0.33 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | PUKOM (IAF/IF) | - | 190°(189.7°) | +0.33 | 18.5 | R | +3300 | -210 | - | RNP APCH |
| 030 | TF | SM172 | - | 205°(204.5°) | +0.33 | 4.6 | - | +2200 | - | - | RNP APCH |
| 040 | TF | SM171 (FAF) | - | 205°(204.5°) | +0.33 | 2.7 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MESEM (IAF) | - | - | +0.33 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | SM176 | - | 008°(007.3°) | +0.33 | 12.8 | - | -5000 | - | - | RNP APCH |
| 030 | TF | SM175 | - | 008°(007.3°) | +0.33 | 10.0 | - | -5000 | - | - | RNP APCH |
| 040 | TF | LAXOS | - | 008°(007.3°) | +0.33 | 11.5 | R | +4000 | - | - | RNP APCH |
| 050 | TF | PASKI (IF) | - | 090°(090.0°) | +0.33 | 7.6 | R | +2000 | -210 | - | RNP APCH |
| 060 | TF | SM173 | - | 145°(144.5°) | +0.33 | 3.0 | - | +2000 | - | - | RNP APCH |
| 070 | TF | SM171 (FAF) | - | 145°(144.5°) | +0.33 | 2.0 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | DORNA (IAF) | - | - | +0.33 | - | - | -5000 | - | - | RNP APCH |
| 020 | TF | LAXOS | - | 022°(021.2°) | +0.33 | 17.7 | R | +4000 | - | - | RNP APCH |
| 030 | TF | PASKI (IF) | - | 090°(090.0°) | +0.33 | 7.6 | R | +2000 | -210 | - | RNP APCH |
| 040 | TF | SM173 | - | 145°(144.5°) | +0.33 | 3.0 | - | +2000 | - | - | RNP APCH |
| 050 | TF | SM171 (FAF) | - | 145°(144.5°) | +0.33 | 2.0 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | PUKOM (IAF/IF) | - | - | +0.33 | - | - | +3300 | -210 | - | RNP APCH |
| 020 | TF | SM172 | - | 205°(204.5°) | +0.33 | 4.6 | - | +2200 | - | - | RNP APCH |
| 030 | TF | SM171 (FAF) | - | 205°(204.5°) | +0.33 | 2.7 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SM171 (FAF) | - | - | +0.33 | - | - | @1400 | - | - | RNP APCH |
| 020 | TF | SM170 (MAPt) | Y | 175°(174.5°) | +0.33 | 4.1 | - | @93 | - | -3.0 / 50 | RNP APCH |
| 030 | TF | SM900 | Y | 155°(154.5°) | +0.33 | 5.0 | L | +1600 | - | - | RNP APCH |
| 040 | DF | PUKOM (IAF/IF) | - | - | +0.33 | - | L | +3300 | -210 | - | RNP APCH |
| 050 | HM | PUKOM (IAF/IF) | Y | 205°(204.5°) | +0.33 | 1 minute | L | +3300 | -230 | - | RNP APCH |

CHANGE : CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

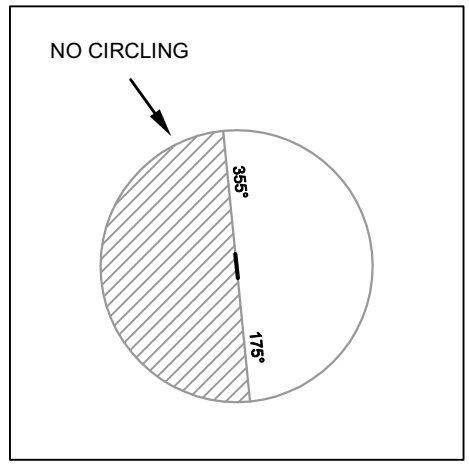
**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

**SURAT THANI / Samui (VTSM)**
**RNP RWY17**
**CAT A, B**

## WAYPOINT LIST

**RNP RWY17**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| DORNA | 09° 24' 58.70" N | 099° 46' 14.10" E |
| ENRAG | 10° 02' 23.31" N | 100° 09' 31.07" E |
| LAXOS | 09° 41' 30.78" N | 099° 52' 40.85" E |
| MESEM | 09° 07' 19.05" N | 099° 48' 15.85" E |
| NURLO | 09° 44' 05.89" N | 100° 17' 57.36" E |
| PASKI | 09° 41' 30.69" N | 100° 00' 21.81" E |
| PUKOM | 09° 44' 05.87" N | 100° 06' 22.07" E |
| RUMVA | 09° 17' 16.93" N | 100° 15' 59.72" E |
| SM170 | 09° 33' 19.40" N | 100° 03' 42.26" E |
| SM171 | 09° 37' 25.40" N | 100° 03' 18.29" E |
| SM172 | 09° 39' 53.52" N | 100° 04' 26.25" E |
| SM173 | 09° 39' 03.52" N | 100° 02' 07.71" E |
| SM174 | 09° 34' 03.10" N | 100° 17' 57.17" E |
| SM175 | 09° 30' 04.04" N | 099° 51' 12.06" E |
| SM176 | 09° 20' 06.14" N | 099° 49' 54.83" E |
| SM177 | 09° 43' 27.23" N | 100° 21' 57.26" E |
| SM900 | 09° 28 47.41" N | 100° 05' 53.06" E |
| UPNEP | 09° 42' 13.10" N | 100° 29' 36.40" E |




CHANGE : CHART TITLE.

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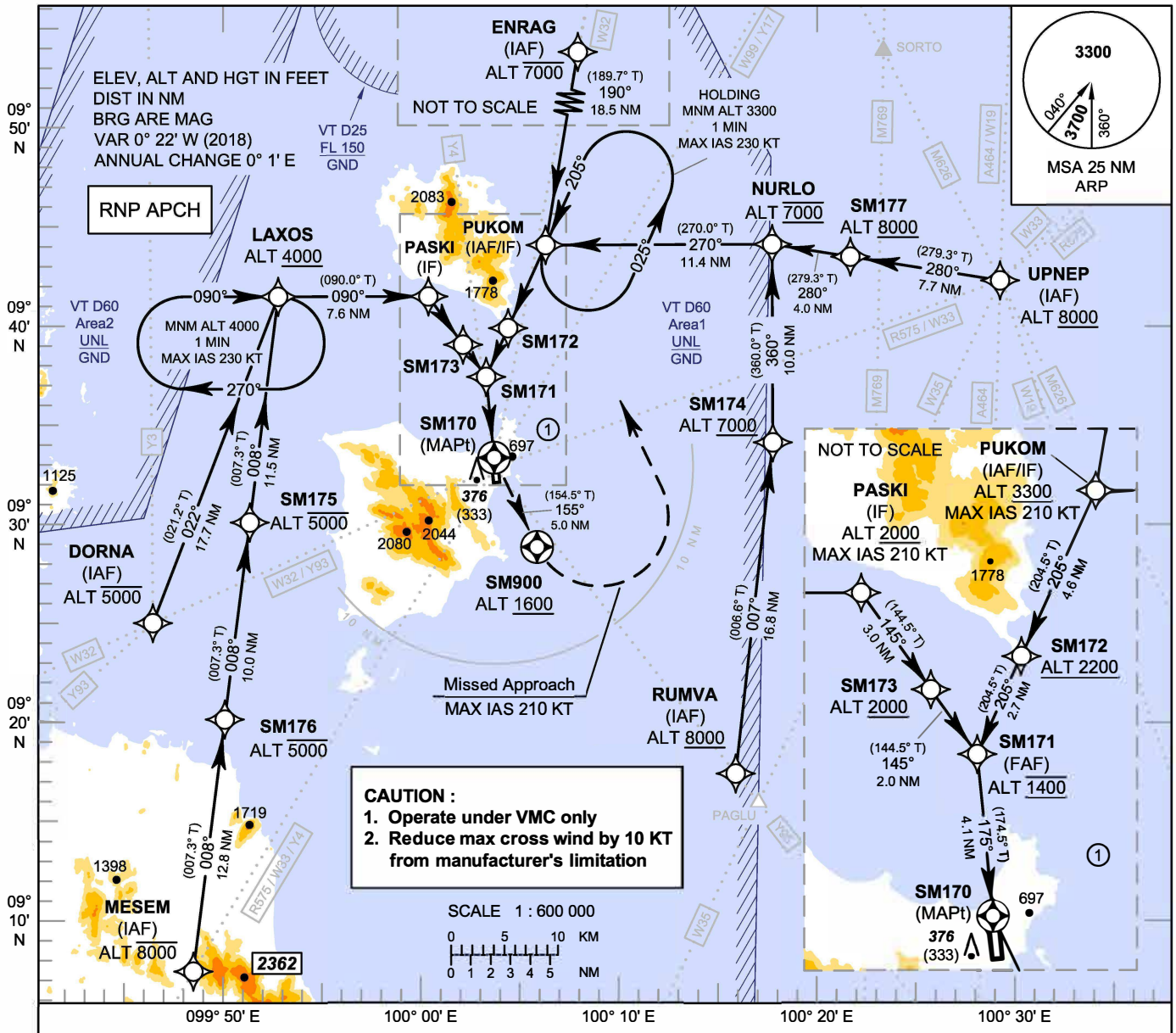
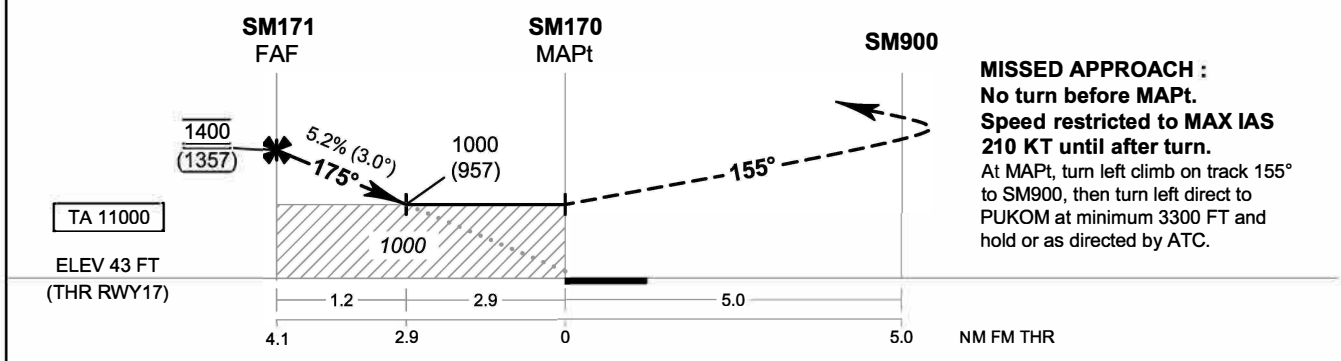
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

APP : 129.6
TWR : 118.9
GND : 121.9
ATIS : 128.6

**SURAT THANI / Samui (VTSM)**
**RNP RWY17**
**CAT C**




CHANGE : CHART TITLE.

| OCA/H | C | NM to NEXT WPT | FAF | 4 NM | 3 NM | 2.9 NM |
|---|---|---|---|---|---|---|
| LNAV | 1000 (957) | Altitude (Height) | 1400 (1357) | 1355 (1312) | 1040 (997) | 1000 (957) |
| Circling* (OCH AAL) | 1400 (1336) | Ground Speed | knot 70 | 90 | 100 | 120 | 140 | 160 |
| * FOR CIRCLING RESTRICTIONS SEE VERSO. | | Rate of Descent FAF - MAPt 5.2% | ft/min 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

**SURAT THANI / Samui (VTSM)**
**RNP RWY17**
**CAT C**

## TABULAR DESCRIPTION

**RNP RWY17**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | RUMVA (IAF) | - | - | +0.33 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | SM174 | - | 007°(006.6°) | +0.33 | 16.8 | L | +7000 | - | - | RNP APCH |
| 030 | TF | NURLO | - | 360°(360.0°) | +0.33 | 10.0 | L | @7000 | - | - | RNP APCH |
| 040 | TF | PUKOM (IAF/IF) | - | 270°(270.0°) | +0.33 | 11.4 | L | +3300 | -210 | - | RNP APCH |
| 050 | TF | SM172 | - | 205°(204.5°) | +0.33 | 4.6 | - | +2200 | - | - | RNP APCH |
| 060 | TF | SM171 (FAF) | - | 205°(204.5°) | +0.33 | 2.7 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | UPNEP (IAF) | - | - | +0.33 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | SM177 | - | 280°(279.3°) | +0.33 | 7.7 | - | +8000 | - | - | RNP APCH |
| 030 | TF | NURLO | - | 280°(279.3°) | +0.33 | 4.0 | L | @7000 | - | - | RNP APCH |
| 040 | TF | PUKOM (IAF/IF) | - | 270°(270.0°) | +0.33 | 11.4 | L | +3300 | -210 | - | RNP APCH |
| 050 | TF | SM172 | - | 205°(204.5°) | +0.33 | 4.6 | - | +2200 | - | - | RNP APCH |
| 060 | TF | SM171 (FAF) | - | 205°(204.5°) | +0.33 | 2.7 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ENRAG (IAF) | - | - | +0.33 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | PUKOM (IAF/IF) | - | 190°(189.7°) | +0.33 | 18.5 | R | +3300 | -210 | - | RNP APCH |
| 030 | TF | SM172 | - | 205°(204.5°) | +0.33 | 4.6 | - | +2200 | - | - | RNP APCH |
| 040 | TF | SM171 (FAF) | - | 205°(204.5°) | +0.33 | 2.7 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MESEM (IAF) | - | - | +0.33 | - | - | -8000 | - | - | RNP APCH |
| 020 | TF | SM176 | - | 008°(007.3°) | +0.33 | 12.8 | - | -5000 | - | - | RNP APCH |
| 030 | TF | SM175 | - | 008°(007.3°) | +0.33 | 10.0 | - | -5000 | - | - | RNP APCH |
| 040 | TF | LAXOS | - | 008°(007.3°) | +0.33 | 11.5 | R | +4000 | - | - | RNP APCH |
| 050 | TF | PASKI (IF) | - | 090°(090.0°) | +0.33 | 7.6 | R | +2000 | -210 | - | RNP APCH |
| 060 | TF | SM173 | - | 145°(144.5°) | +0.33 | 3.0 | - | +2000 | - | - | RNP APCH |
| 070 | TF | SM171 (FAF) | - | 145°(144.5°) | +0.33 | 2.0 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | DORNA (IAF) | - | - | +0.33 | - | - | -5000 | - | - | RNP APCH |
| 020 | TF | LAXOS | - | 022°(021.2°) | +0.33 | 17.7 | R | +4000 | - | - | RNP APCH |
| 030 | TF | PASKI (IF) | - | 090°(090.0°) | +0.33 | 7.6 | R | +2000 | -210 | - | RNP APCH |
| 040 | TF | SM173 | - | 145°(144.5°) | +0.33 | 3.0 | - | +2000 | - | - | RNP APCH |
| 050 | TF | SM171 (FAF) | - | 145°(144.5°) | +0.33 | 2.0 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | PUKOM (IAF/IF) | - | - | +0.33 | - | - | +3300 | -210 | - | RNP APCH |
| 020 | TF | SM172 | - | 205°(204.5°) | +0.33 | 4.6 | - | +2200 | - | - | RNP APCH |
| 030 | TF | SM171 (FAF) | - | 205°(204.5°) | +0.33 | 2.7 | - | @1400 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | SM171 (FAF) | - | - | +0.33 | - | - | @1400 | - | - | RNP APCH |
| 020 | TF | SM170 (MAPt) | Y | 175°(174.5°) | +0.33 | 4.1 | - | @93 | - | -3.0 / 50 | RNP APCH |
| 030 | TF | SM900 | Y | 155°(154.5°) | +0.33 | 5.0 | L | +1600 | - | - | RNP APCH |
| 040 | DF | PUKOM (IAF/IF) | - | - | +0.33 | - | L | +3300 | -210 | - | RNP APCH |
| 050 | HM | PUKOM (IAF/IF) | Y | 205°(204.5°) | +0.33 | 1 minute | L | +3300 | -230 | - | RNP APCH |

CHANGE : CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

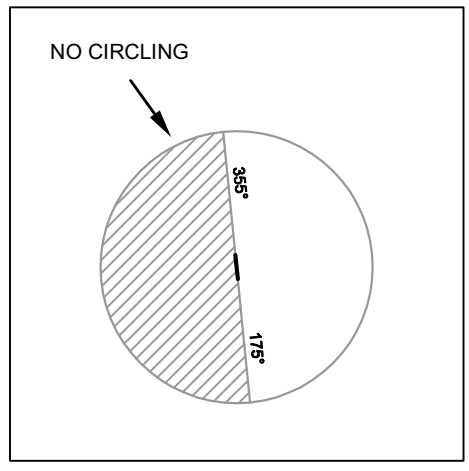
**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

**SURAT THANI / Samui (VTSM)**
**RNP RWY17**
**CAT C**

## WAYPOINT LIST

**RNP RWY17**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| DORNA | 09° 24' 58.70" N | 099° 46' 14.10" E |
| ENRAG | 10° 02' 23.31" N | 100° 09' 31.07" E |
| LAXOS | 09° 41' 30.78" N | 099° 52' 40.85" E |
| MESEM | 09° 07' 19.05" N | 099° 48' 15.85" E |
| NURLO | 09° 44' 05.89" N | 100° 17' 57.36" E |
| PASKI | 09° 41' 30.69" N | 100° 00' 21.81" E |
| PUKOM | 09° 44' 05.87" N | 100° 06' 22.07" E |
| RUMVA | 09° 17' 16.93" N | 100° 15' 59.72" E |
| SM170 | 09° 33' 19.40" N | 100° 03' 42.26" E |
| SM171 | 09° 37' 25.40" N | 100° 03' 18.29" E |
| SM172 | 09° 39' 53.52" N | 100° 04' 26.25" E |
| SM173 | 09° 39' 03.52" N | 100° 02' 07.71" E |
| SM174 | 09° 34' 03.10" N | 100° 17' 57.17" E |
| SM175 | 09° 30' 04.04" N | 099° 51' 12.06" E |
| SM176 | 09° 20' 06.14" N | 099° 49' 54.83" E |
| SM177 | 09° 43' 27.23" N | 100° 21' 57.26" E |
| SM900 | 09° 28 47.41" N | 100° 05' 53.06" E |
| UPNEP | 09° 42' 13.10" N | 100° 29' 36.40" E |




CHANGE : CHART TITLE.

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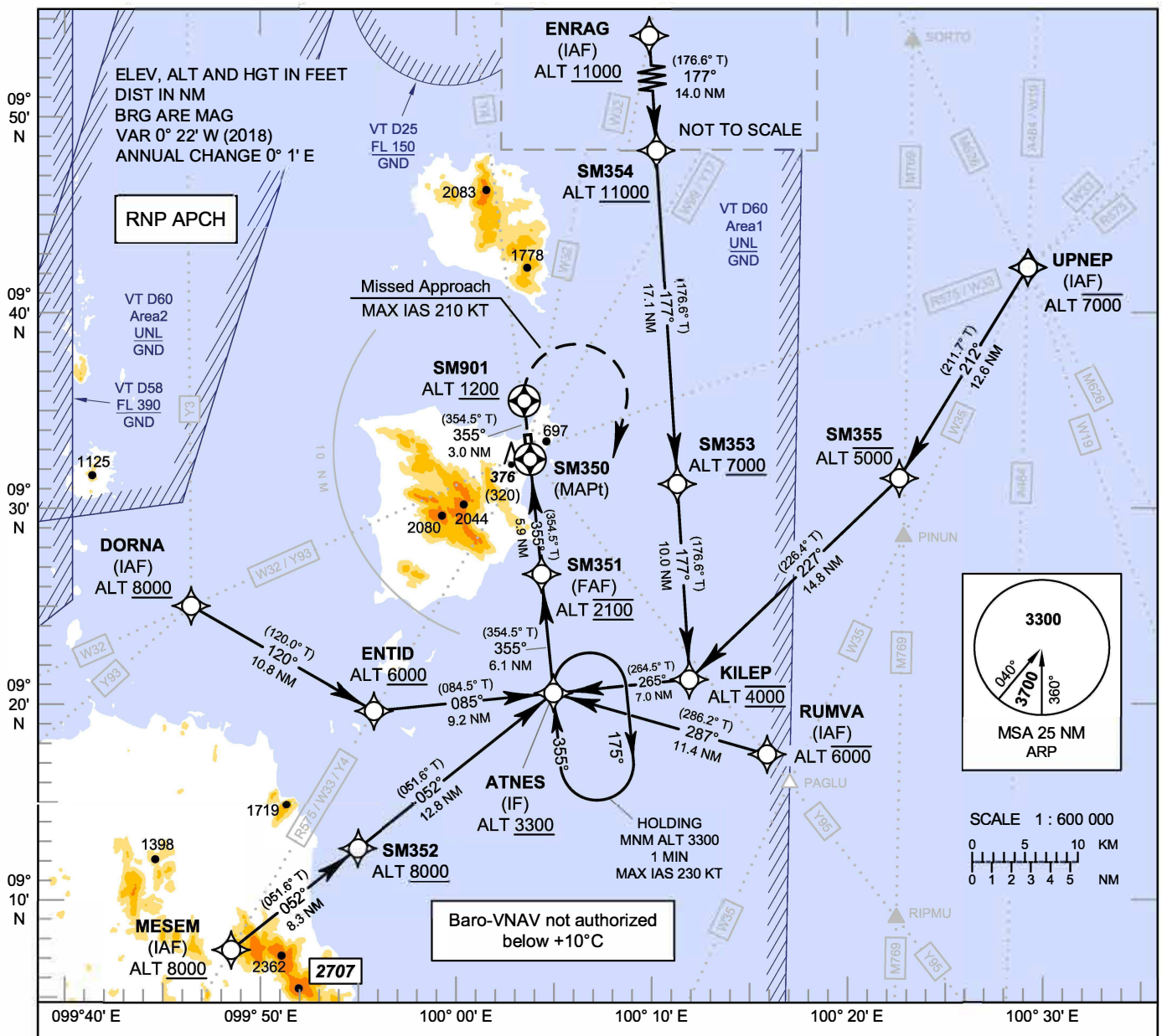
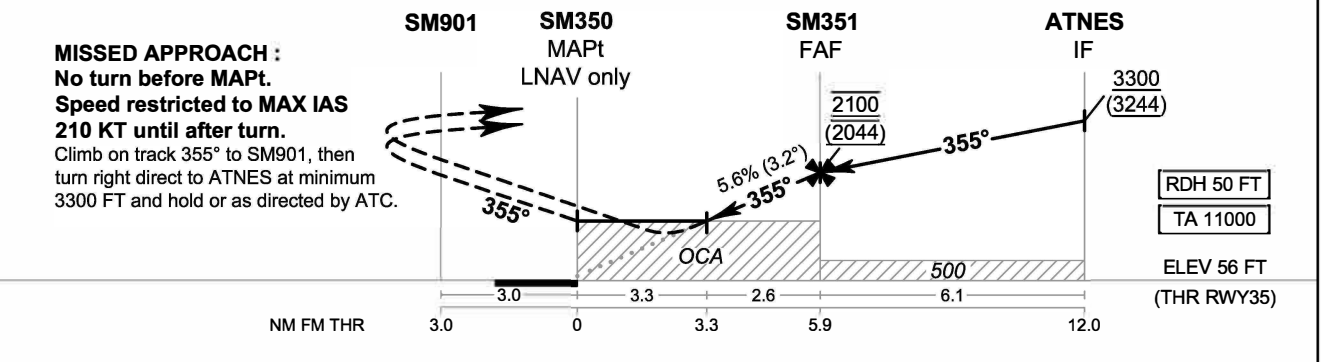
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

| | |
|---|---|
| APP | : 129.6 |
| TWR | : 118.9 |
| GND | : 121.9 |
| ATIS | : 128.6 |

**SURAT THANI / Samui (VTSM)**
**RNP RWY35**
**CAT A, B**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 210 KT until after turn.**
Climb on track 355° to SM901, then turn right direct to ATNES at minimum 3300 FT and hold or as directed by ATC.

CHANGE : CHART TITLE.

| OCA/H | A | B |
|---|---|---|
| LNAV/VNAV | 1120 (1064) | |
| LNAV | 1220 (1164) | |
| Circling* (OCH AAL) | 1400 (1336) | |

* FOR CIRCLING RESTRICTIONS SEE VERSO.

| NM to NEXT WPT | 3.3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|
| Altitude (Height) | 1220 (1164) | 1470 (1414) | 1810 (1754) | 2100 (2044) |

| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of Descent FAF - MAPt 5.6% | ft/min | 397 | 510 | 567 | 681 | 794 | 907 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

**SURAT THANI / Samui (VTSM)**
**RNP RWY35**
**CAT A, B**

## TABULAR DESCRIPTION

**RNP RWY35**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | UPNEP (IAF) | - | - | +0.33 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | SM355 | - | 212°(211.7°) | +0.33 | 12.6 | R | -5000 | - | - | RNP APCH |
| 030 | TF | KILEP | - | 227°(226.4°) | +0.33 | 14.8 | R | @4000 | - | - | RNP APCH |
| 040 | TF | ATNES (IF) | - | 265°(264.5°) | +0.33 | 7.0 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ENRAG (IAF) | - | - | +0.33 | - | - | +11000 | - | - | RNP APCH |
| 020 | TF | SM354 | - | 177°(176.6°) | +0.33 | 14.0 | - | +11000 | - | - | RNP APCH |
| 030 | TF | SM353 | - | 177°(176.6°) | +0.33 | 17.1 | - | +7000 | - | - | RNP APCH |
| 040 | TF | KILEP | - | 177°(176.6°) | +0.33 | 10.0 | R | @4000 | - | - | RNP APCH |
| 050 | TF | ATNES (IF) | - | 265°(264.5°) | +0.33 | 7.0 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RUMVA (IAF) | - | - | +0.33 | - | - | -6000 | - | - | RNP APCH |
| 020 | TF | ATNES (IF) | - | 287°(286.2°) | +0.33 | 11.4 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MESEM (IAF) | - | - | +0.33 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | SM352 | - | 052°(051.6°) | +0.33 | 8.3 | - | +8000 | - | - | RNP APCH |
| 030 | TF | ATNES (IF) | - | 052°(051.6°) | +0.33 | 12.8 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | DORNA (IAF) | - | - | +0.33 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | ENTID | - | 120°(120.0°) | +0.33 | 10.8 | L | +6000 | - | - | RNP APCH |
| 030 | TF | ATNES (IF) | - | 085°(084.5°) | +0.33 | 9.2 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ATNES (IF) | - | - | +0.33 | - | - | +3300 | - | - | RNP APCH |
| 020 | TF | SM351 (FAF) | - | 355°(354.5°) | +0.33 | 6.1 | - | @2100 | - | - | RNP APCH |
| 030 | TF | SM350 (MAPt) | Y | 355°(354.5°) | +0.33 | 5.9 | - | @106 | - | -3.2 / 50 | RNP APCH |
| 040 | TF | SM901 | Y | 355°(354.5°) | +0.33 | 3.0 | - | +1200 | - | - | RNP APCH |
| 050 | DF | ATNES (IF) | - | - | +0.33 | - | R | +3300 | -210 | - | RNP APCH |
| 060 | HM | ATNES (IF) | Y | 355°(354.5°) | +0.33 | 1 minute | R | +3300 | -230 | - | RNP APCH |

CHANGE : CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

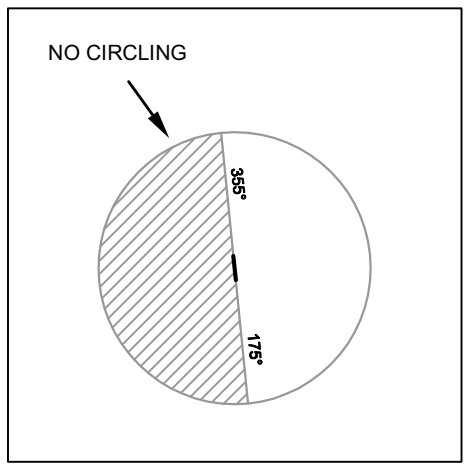
**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

**SURAT THANI / Samui (VTSM)**
**RNP RWY35**
**CAT A, B**

## WAYPOINT LIST

**RNP RWY35**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| ATNES | 09° 20' 27.55" N | 100° 04' 57.39" E |
| DORNA | 09° 24' 58.70" N | 099° 46' 14.10" E |
| ENRAG | 10° 02' 23.31" N | 100° 09' 31.07" E |
| ENTID | 09° 19' 33.96" N | 099° 55' 40.38" E |
| KILEP | 09° 21' 08.06" N | 100° 12' 00.28" E |
| MESEM | 09° 07' 19.05" N | 099° 48' 15.85" E |
| RUMVA | 09° 17 16.93" N | 100° 15' 59.72" E |
| SM350 | 09° 32' 27.55" N | 100° 03' 47.31" E |
| SM351 | 09° 26' 33.55" N | 100° 04' 21.78" E |
| SM352 | 09° 12' 29.52" N | 099° 54' 49.95" E |
| SM353 | 09° 31' 09.79" N | 100° 11' 24.06" E |
| SM354 | 09° 48' 20.10" N | 100° 10' 21.97" E |
| SM355 | 09° 31' 25.18" N | 100° 22' 53.12" E |
| SM901 | 09° 35' 27.55" N | 100° 03' 29.78" E |
| UPNEP | 09° 42' 13.10" N | 100° 29' 36.40" E |




CHANGE : CHART TITLE.

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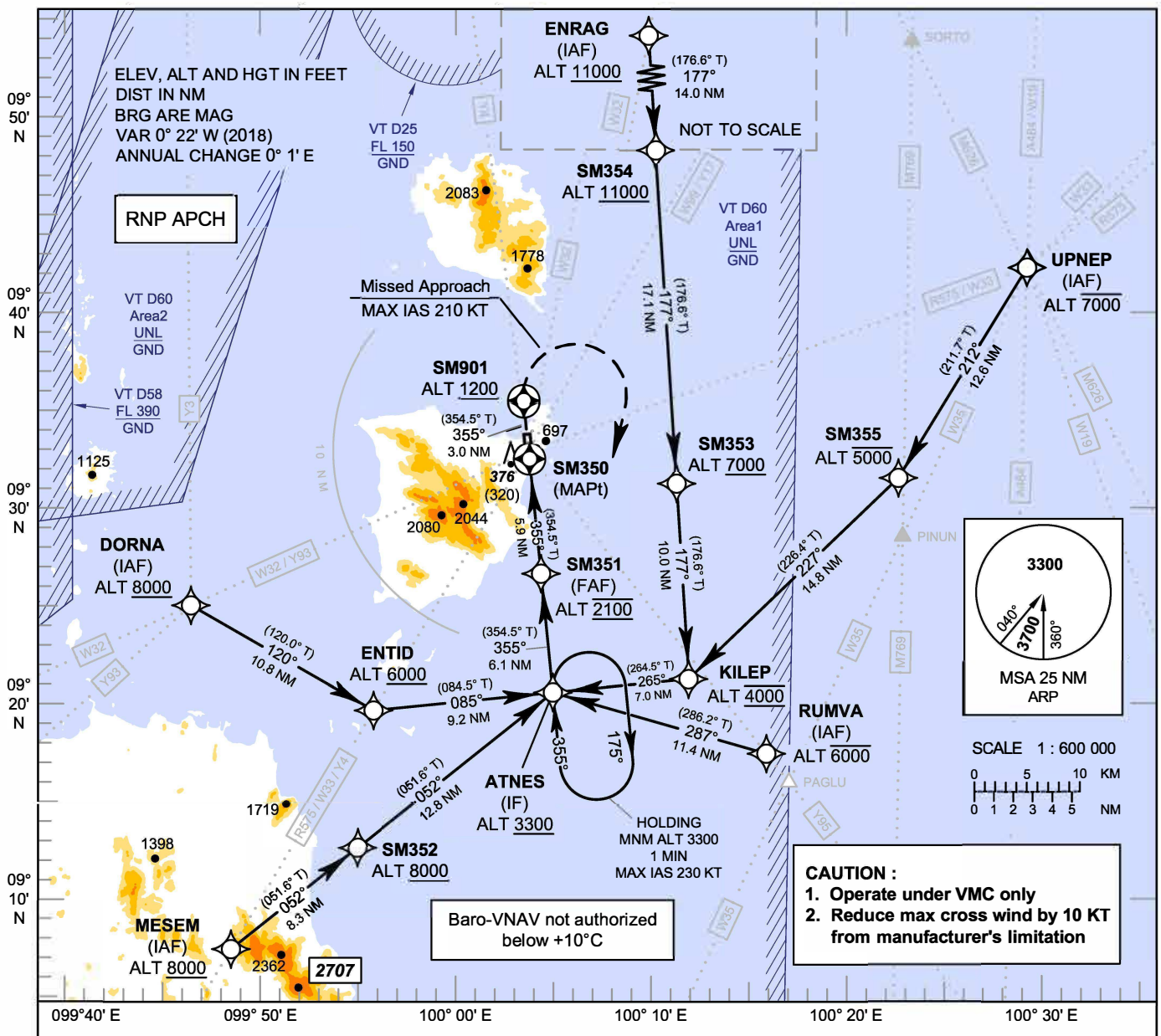
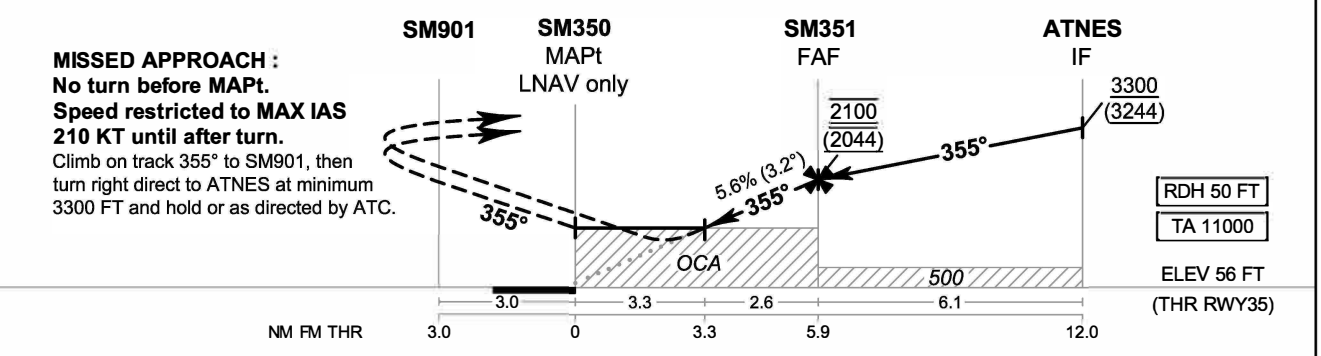
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

APP : 129.6
TWR : 118.9
GND : 121.9
ATIS : 128.6

**SURAT THANI / Samui (VTSM)**
**RNP RWY35**
**CAT C**




| OCA/H | C | NM to NEXT WPT | 3.3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|
| LNAV/VNAV | 1120 (1064) | Altitude (Height) | 1220 (1164) | 1470 (1414) | 1810 (1754) | 2100 (2044) |
| LNAV | 1220 (1164) | | | | | |
| Circling* (OCH AAL) | 1400 (1336) | Ground Speed | knot 70 | 90 | 100 | 120 | 140 | 160 |
| * FOR CIRCLING RESTRICTIONS SEE VERSO. | | Rate of Descent FAF - MAPt 5.6% | ft/min 397 | 510 | 567 | 681 | 794 | 907 |

CHANGE : CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

**SURAT THANI / Samui (VTSM)**
**RNP RWY35**
**CAT C**

## TABULAR DESCRIPTION

**RNP RWY35**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | UPNEP (IAF) | - | - | +0.33 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | SM355 | - | 212°(211.7°) | +0.33 | 12.6 | R | -5000 | - | - | RNP APCH |
| 030 | TF | KILEP | - | 227°(226.4°) | +0.33 | 14.8 | R | @4000 | - | - | RNP APCH |
| 040 | TF | ATNES (IF) | - | 265°(264.5°) | +0.33 | 7.0 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ENRAG (IAF) | - | - | +0.33 | - | - | +11000 | - | - | RNP APCH |
| 020 | TF | SM354 | - | 177°(176.6°) | +0.33 | 14.0 | - | +11000 | - | - | RNP APCH |
| 030 | TF | SM353 | - | 177°(176.6°) | +0.33 | 17.1 | - | +7000 | - | - | RNP APCH |
| 040 | TF | KILEP | - | 177°(176.6°) | +0.33 | 10.0 | R | @4000 | - | - | RNP APCH |
| 050 | TF | ATNES (IF) | - | 265°(264.5°) | +0.33 | 7.0 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RUMVA (IAF) | - | - | +0.33 | - | - | -6000 | - | - | RNP APCH |
| 020 | TF | ATNES (IF) | - | 287°(286.2°) | +0.33 | 11.4 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MESEM (IAF) | - | - | +0.33 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | SM352 | - | 052°(051.6°) | +0.33 | 8.3 | - | +8000 | - | - | RNP APCH |
| 030 | TF | ATNES (IF) | - | 052°(051.6°) | +0.33 | 12.8 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | DORNA (IAF) | - | - | +0.33 | - | - | +8000 | - | - | RNP APCH |
| 020 | TF | ENTID | - | 120°(120.0°) | +0.33 | 10.8 | L | +6000 | - | - | RNP APCH |
| 030 | TF | ATNES (IF) | - | 085°(084.5°) | +0.33 | 9.2 | - | +3300 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ATNES (IF) | - | - | +0.33 | - | - | +3300 | - | - | RNP APCH |
| 020 | TF | SM351 (FAF) | - | 355°(354.5°) | +0.33 | 6.1 | - | @2100 | - | - | RNP APCH |
| 030 | TF | SM350 (MAPt) | Y | 355°(354.5°) | +0.33 | 5.9 | - | @106 | - | -3.2 / 50 | RNP APCH |
| 040 | TF | SM901 | Y | 355°(354.5°) | +0.33 | 3.0 | - | +1200 | - | - | RNP APCH |
| 050 | DF | ATNES (IF) | - | - | +0.33 | - | R | +3300 | -210 | - | RNP APCH |
| 060 | HM | ATNES (IF) | Y | 355°(354.5°) | +0.33 | 1 minute | R | +3300 | -230 | - | RNP APCH |

CHANGE : CHART TITLE.

**INSTRUMENT APPROACH CHART - ICAO**

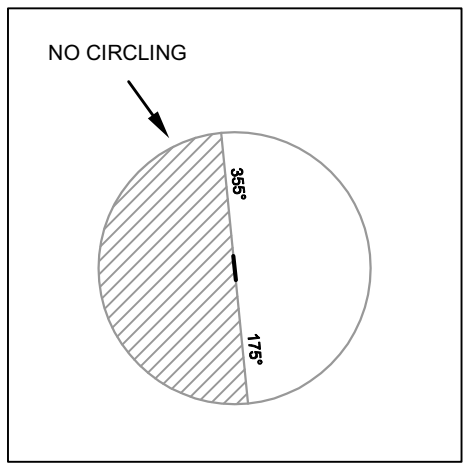
**AERODROME ELEV 64 FT**
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

**SURAT THANI / Samui (VTSM)**
**RNP RWY35**
**CAT C**

## WAYPOINT LIST

**RNP RWY35**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| ATNES | 09° 20' 27.55" N | 100° 04' 57.39" E |
| DORNA | 09° 24' 58.70" N | 099° 46' 14.10" E |
| ENRAG | 10° 02' 23.31" N | 100° 09' 31.07" E |
| ENTID | 09° 19' 33.96" N | 099° 55' 40.38" E |
| KILEP | 09° 21' 08.06" N | 100° 12' 00.28" E |
| MESEM | 09° 07' 19.05" N | 099° 48' 15.85" E |
| RUMVA | 09° 17 16.93" N | 100° 15' 59.72" E |
| SM350 | 09° 32' 27.55" N | 100° 03' 47.31" E |
| SM351 | 09° 26' 33.55" N | 100° 04' 21.78" E |
| SM352 | 09° 12' 29.52" N | 099° 54' 49.95" E |
| SM353 | 09° 31' 09.79" N | 100° 11' 24.06" E |
| SM354 | 09° 48' 20.10" N | 100° 10' 21.97" E |
| SM355 | 09° 31' 25.18" N | 100° 22' 53.12" E |
| SM901 | 09° 35' 27.55" N | 100° 03' 29.78" E |
| UPNEP | 09° 42' 13.10" N | 100° 29' 36.40" E |




CHANGE : CHART TITLE.

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## VTPT AD 2.1 AERODROME LOCATION INDICATOR AND NAME

**VTPT - TAK / TAK AIRPORT**

## VTPT AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 165345.55N 0991513.42E |
| 2 | Direction and distance from (city) | 15 KM E, from city |
| 3 | Elevation/Reference temperature | 478 FT/38°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.72°W(2016)/0.01°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Tak Airport<br>Tak Airport<br>Amphoe Muang<br>Tak Province 63000 Thailand<br>Tel: +665 551 2603<br>Fax: +665 551 4059<br>AFS: VTPTYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTPT AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | Available on request 3 hours prior notice required in-advance to Phitsanulok approach control center via AFTN: VTPPZAZX VTPPZTZX or FAX: +665 525 3016 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phitsanulok Airport (1st floor of airport building)<br>Tel: +665 530 1078<br>+669 2262 3140<br>Fax: +665 530 1077 |

## VTPT AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |

| | | |
|---|---|---|
| 7 | Remarks | NIL |

**VTPT AD 2.5 PASSENGER FACILITIES**

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | NIL |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

**VTPT AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

| | | |
|---|---|---|
| 1 | AD category for fire fighting | NIL |
| 2 | Rescue equipment | NIL |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

**VTPT AD 2.7 SEASONAL AVAILABILITY - CLEARING**

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons |

**VTPT AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA**

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete and asphalt<br>Strength: PCN 16/F/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 15 M<br>Surface: Concrete and asphalt<br>Strength: PCN 16/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

**VTPT AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS**

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY and TWY: Marked |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTPT AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| - | Radio mast HGT 98 FT, painted red/white LGTD on top<br><br>Radio mast HGT 82 FT, painted red/white LGTD on top<br><br>*2 Radio mast HGT 60 M<br>(See RMK) | 164000N 0983300E<br><br>164207N 0983218E | NIL | NIL | 1.DIST 600 M on radial 340 FM MST DVOR<br><br>2. DIST 1300 m on radial 270 FM MST DVOR<br><br>3. Both painted red/ white LGTD on top |

## VTPT AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Tak,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 551 1967 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Barometer, Anemometer and Thermometer Screen |
| 9 | ATS units provided with information | Tak TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTPT AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 09 | 090.54° | 1500x30 | PCN 16/F/C/X/T<br>Concrete and asphalt | 165345.68N 0991446.72E | THR 469 FT<br>TDZ 473 FT |
| 27 | 270.54° | 1500x30 | PCN 16/F/C/X/T<br>Concrete and asphalt | 165345.43N 0991537.41E | THR 478 FT<br>TDZ 478 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | 75x45 | NIL | 1770x150 | NIL | NIL |
| NIL | 75x45 | NIL | 1770x150 | NIL | NIL |

**VTPT AD 2.13 DECLARED DISTANCES**

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 09 | 1500 | 1500 | 1575 | 1500 | NIL |
| 27 | 1500 | 1500 | 1575 | 1500 | NIL |

**VTPT AD 2.14 APPROACH AND RUNWAY LIGHTING**

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 09 | NIL | NIL | NIL | NIL | NIL | 1 500 M<br>NIL | NIL | NIL | NIL |
| 27 | NIL | NIL | PAPI<br>BOTH 3° | NIL | NIL | 1 500 M<br>NIL | NIL | NIL | NIL |

**VTPT AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY**

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG WG EV 7 SEC |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the airport, and ABN |
| 5 | Remarks | Flares 2 HR PN |

**VTPT AD 2.16 HELICOPTER LANDING AREA**

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTPT AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5NM radius centred on Tak NDB (165358.24N 0991507.91E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Tak Tower<br>English, Thai |
| 5 | Transition altitude | 11000FT |
| 6 | Remarks | NIL |

## VTPT AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Tak Approach | 126.0 MHZ<br>121.5 MHZ [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Tak Tower | 121.5 MHZ [1)]<br>118.8 MHZ<br>236.6 MHZ | As AD OPR HR | |

## VTPT AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | TK | 332 KHZ | H24 | 165358.2N 0991508.0E | NIL | 1. Route coverage checked and result found satisfactory as follows:<br>– Bearing 098° from TK to PSL altitude 7 000 FT flown to 60 NM<br>– Bearing 254° from TK to MST altitude 7 000 FT flown to 43 NM<br>2. Coverage 15 NM clockwise orbit data refer from commissioning checked as follows:<br>– Bearing 001°-360° at altitude 3 500 FT |

## VTPT AD 2.20 LOCAL AERODROME REGULATIONS

NIL

## VTPT AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTPT AD 2.22 FLIGHT PROCEDURES

NIL

## VTPT AD 2.23 ADDITIONAL INFORMATION

NIL

## VTPT AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTPT-2-1 |
| Instrument Approach Chart - ICAO - NDB a | AD 2-VTPT-8-1 |

AERODROME CHART-ICAO

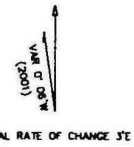
16° 53' 46" N
99° 15' 13" E

ELEV 478 ft
146 m

TWR 118.8 236.6

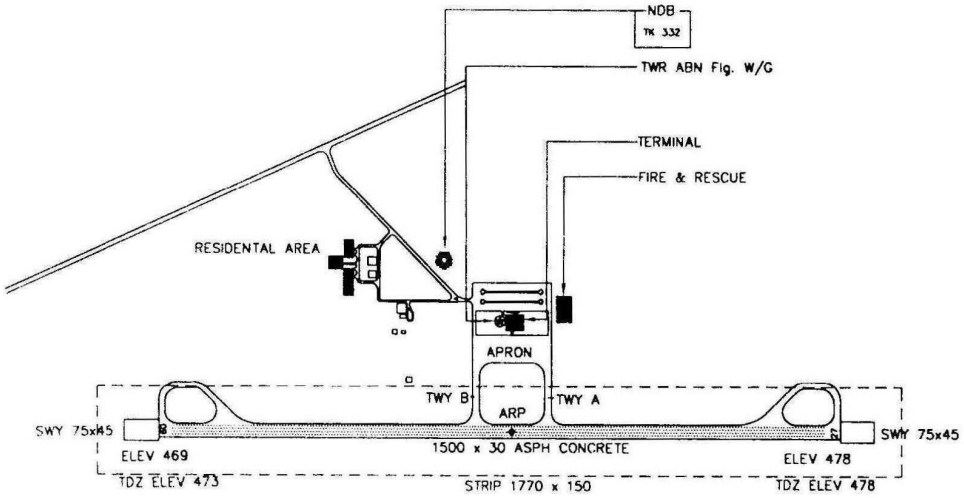
TAK / Tak

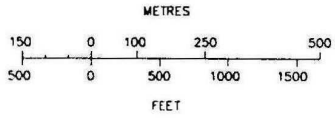
| RWY | DIRECTION | THR | BEARING STRENGTH |
|---|---|---|---|
| 09 | 91° | 16° 53' 46" N<br>99° 14' 47" E | PCN 16/F/C/X/T |
| 27 | 271° | 16° 53' 45" N<br>99° 15' 37" E | |
| APRON | | | PCN 16/F/C/X/T |




ANNUAL RATE OF CHANGE 3'E

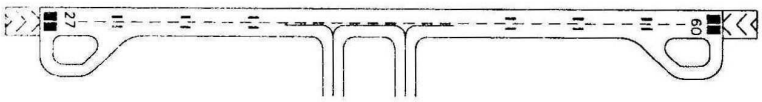
ELEVETIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC



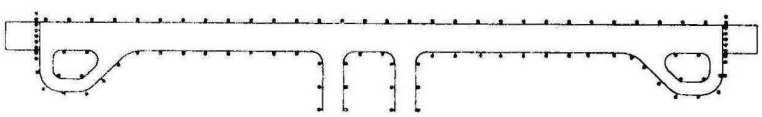




Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 09/27 AND EXIT TWY




LIGHTING AIDS RWY 09/27 AND EXIT TWY



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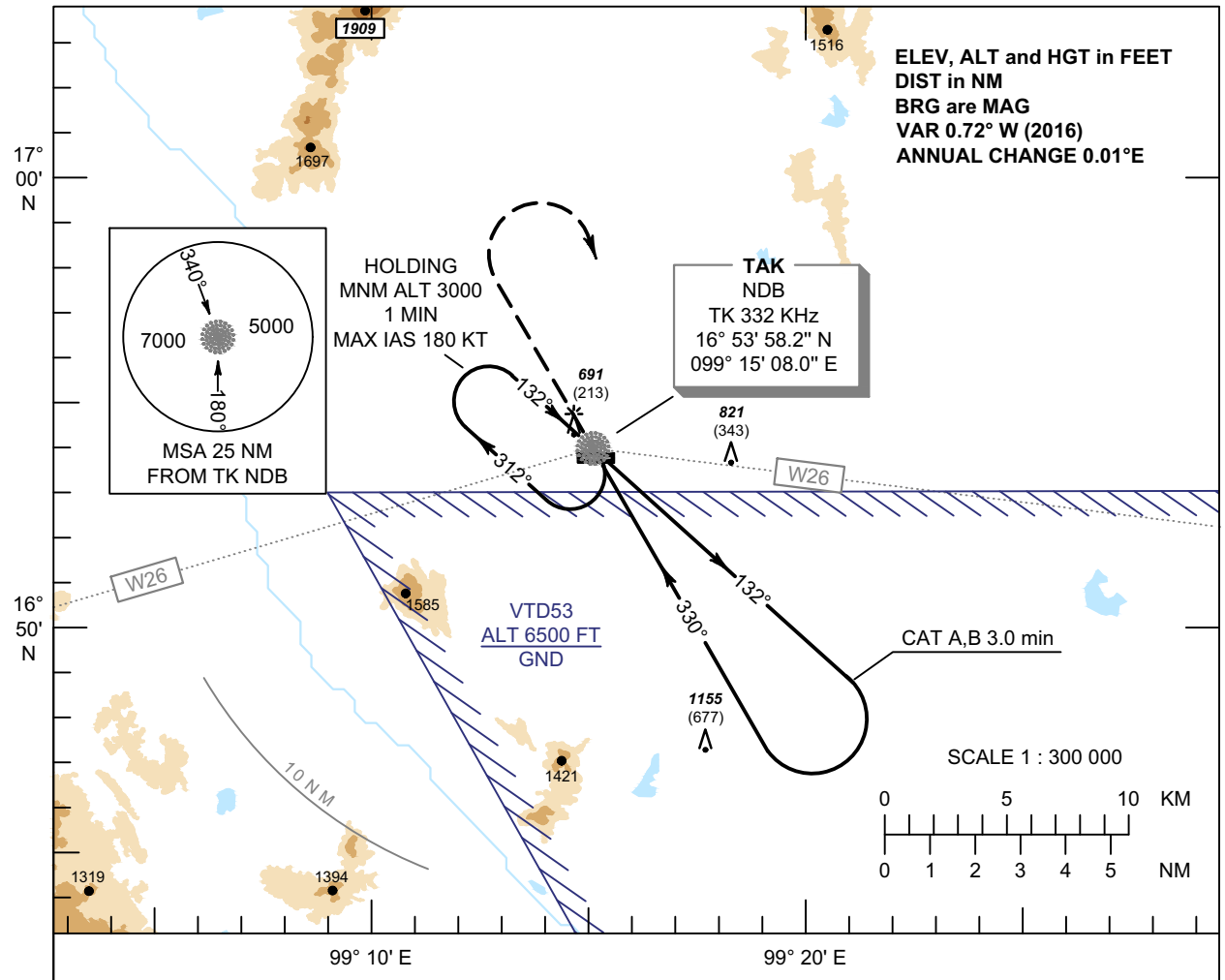
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 478 FT**
HEIGHT RELATED TO AERODROME ELEV

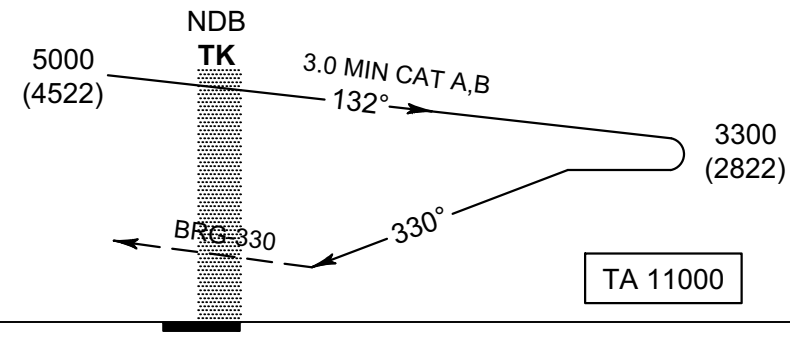
APP : 126.0
TWR : 118.8, 236.6

**TAK / Tak**
**NDB a**




**MISSED APPROACH :**

At TK NDB climb on BRG-330
to 2000 ft, then turn right
and continue climb to PT NDB
at or above 3000 FT,
then continue climb in the
holding pattern to 5000 ft
and hold or as directed by ATC.




| OCA/H | A | B |
|---|---|---|
| Straight - in approach | Not Authorized | |
| Circling (OCH AAL) | 1600 (1122) | 1800 (1322) |

CHANGE: REALIGNMENT.

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## VTPM AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTPM - TAK / MAE SOT AIRPORT

## VTPM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 164159.73N 0983300.44E |
| 2 | Direction and distance from (city) | 5 KM W, from city |
| 3 | Elevation/Reference temperature | 693 FT / 37°C |
| 4 | Geoid Undulation at AD ELEV PSN | -128 FT |
| 5 | MAG VAR/Annual change | 0.94°W(2022)/0.04°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Mae Sot Airport<br>Mae Sot Airport<br>Amphoe Mae Sot<br>Tak Province<br>Thailand<br>Tel: +665 556 3620<br>Fax: +665 554 4593<br>AFS: VTPMYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTPM AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1100 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1100 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1100 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phitsanulok Airport (1st floor of airport building)<br>Tel: +665 530 1078<br>+669 2262 3140<br>Fax: +665 530 1077 |

## VTPM AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |

| | | |
|---|---|---|
| 7 | Remarks | NIL |

**VTPM AD 2.5 PASSENGER FACILITIES**

| | | |
|---|---|---|
| 1 | Hotels | in the city |
| 2 | Restaurants | in the city |
| 3 | Transportation | Car rental |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

**VTPM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

**VTPM AD 2.7 SEASONAL AVAILABILITY - CLEARING**

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

**VTPM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA**

| | | |
|---|---|---|
| 1 | Apron surface and strength | Apron 1<br>Surface: Asphaltic concrete<br>Strength: PCN 34/F/C/X/T<br>Apron 2<br>Surface: Concrete<br>Strength: PCN 42/R/C/X/T |
| 2 | Taxiway width, surface and strength | Taxiway A<br>Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 34/F/C/X/T<br>Taxiway B and Taxiway C<br>Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 42/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At Apron<br>Elevation: 690 FT |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTPM AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>Nose-wheel guide lines at apron<br>VDGS of aircraft stands: Aircraft stand No.2 at Apron 2 |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, CL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: CL, Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTPM AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| RWY 09/TKOF Area | Radio mast<br>ELEV 958 FT (292 M)<br>NIL/NIL | 164223.83N 0983637.24E | Building<br>ELEV 860 FT (262 M)<br>NIL/NIL | 164234.95N 0983420.96E | NIL |
| RWY 09/TKOF Area | Radio mast<br>ELEV 899 FT (274 M)<br>Painted red/white<br>NIL | 164224.43N 0983642.71E | Radio mast<br>ELEV 860 FT (262 M)<br>NIL/NIL | 164207.53N 0983015.79E | |
| RWY 09/TKOF Area | Radio mast<br>ELEV 1060 FT (323 M)<br>NIL/NIL | 164213.51N 0983707.54E | Radio mast<br>ELEV 860 FT (262 M)<br>Painted red/white<br>NIL | 164210.14N 0983106.43E | |
| | | | Radio mast<br>ELEV 850 FT (259 M)<br>NIL/NIL | 164347.16N 0983334.87E | |
| | | | Radio mast<br>ELEV 840 FT (256 M)<br>NIL/NIL | 164403.91N 0983403.58E | |
| | | | Radio mast<br>ELEV 846 FT (258 M)<br>NIL/NIL | 164335.84N 0983504.19E | |
| | | | Radio mast<br>ELEV 846 FT (258 M)<br>Painted red/white<br>NIL | 164242.67N 0983424.87E | |
| | | | Radio mast<br>ELEV 860 FT (262 M)<br>Painted red/white<br>NIL | 164255.01N 0983505.65E | |
| | | | Radio mast<br>ELEV 866 FT (264 M)<br>Painted red/white<br>NIL | 164256.31N 0983513.88E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Radio mast<br>ELEV 863 FT (263 M)<br>Painted red/white<br>NIL | 164259.54N 0983528.49E | |
| | | | Radio mast<br>ELEV 1083 FT (330 M)<br>NIL/NIL | 164356.93N 0983358.99E | |
| | | | Radio mast<br>ELEV 860 FT (262 M)<br>NIL/NIL | 164224.02N 0983424.96E | |
| | | | Radio mast<br>ELEV 850 FT (259 M)<br>NIL/NIL | 164217.32N 0983221.44E | |
| | | | Radio mast<br>ELEV 879 FT (268 M)<br>NIL/NIL | 164402.16N 0983358.78E | |
| | | | Radio mast<br>ELEV 896 FT (273 M)<br>NIL/NIL | 164305.88N 0983341.53E | |
| | | | Water tank<br>ELEV 833 FT (254 M)<br>NIL/NIL | 164219.61N 0983233.91E | |
| | | | At Aerodrome | | |
| | | | Apron flood light pole<br>ELEV 781 FT (238 M)<br>NIL/LGTD | 164206.28N 0983233.70E | |
| | | | Apron flood light pole<br>ELEV 781 FT (238 M)<br>NIL/LGTD | 164206.30N 0983235.73E | |
| | | | Apron flood light pole<br>ELEV 781 FT (238 M)<br>NIL/LGTD | 164206.34N 0983237.70E | |
| | | | Apron flood light pole<br>ELEV 778 FT (237 M)<br>NIL/LGTD | 164206.36N 0983238.60E | |
| | | | Apron flood light pole<br>ELEV 778 FT (237 M)<br>NIL/LGTD | 164208.25N 0983240.87E | |
| | | | Apron flood light pole<br>ELEV 778 FT (237 M)<br>NIL/LGTD | 164208.30N 0983242.90E | |
| | | | Apron flood light pole<br>ELEV 778 FT (237 M)<br>NIL/LGTD | 164208.31N 0983244.91E | |
| | | | Apron flood light pole<br>ELEV 778 FT (237 M)<br>NIL/LGTD | 164208.35N 0983246.96E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | ATC tower<br>ELEV 771 FT (235 M)<br>Painted red/white<br>LGTD | 164206.88N 0983235.83E | |

**VTPM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED**

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Mae Sot,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 556 3286 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Mae Sot TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

**VTPM AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS**

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 09 | 089.13° | 2100x45 | PCN 42/F/C/X/T<br>Asphaltic concrete | 164159.42N 0983238.85E<br>-128 FT | THR 691 FT |
| 27 | 269.13° | 2100x45 | PCN 42/F/C/X/T<br>Asphaltic concrete | 164200.25N 0983335.89E<br>-127 FT | THR 681 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| NIL | NIL | NIL | 2220x280 | 240x90 | NIL | NIL | THR displaced by 410 M |
| NIL | NIL | NIL | 2220x280 | 240x90 | NIL | NIL | NIL |

## VTPM AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 09 | 2100 | 2100 | 2100 | 1690 | THR displaced by 410 M |
| 27 | 2100 | 2100 | 2100 | 2100 | NIL |

## VTPM AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 09 | NIL | Green<br>NIL | NIL | NIL | NIL | 2100 M<br>60 M<br>White;<br>FM 0 M - 410 M<br>Red,<br>FM 410 M -<br>1500 M White,<br>FM 1500 M -<br>2100 M Yellow,<br>5 steps, LIH | Red<br>NIL | NIL | NIL |
| 27 | SALS<br>420 M<br>LIH | Green<br>NIL | PAPI<br>Left 3.4°<br>(53.60<br>FT) | NIL | NIL | 2100 M<br>60 M<br>White,<br>FM 1500 M -<br>2100 M Yellow,<br>5 steps, LIH | Red<br>NIL | NIL | RTIL |

## VTPM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W G EV 2.5 SEC.<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>WDI: 1. Wind cone at 322 M from THR 27 off set left side 80 M from RCL, illuminated<br>2. Wind cone at 1834 M from THR 27 off set right side 80 M from RCL, illuminated<br>Anemometer: NIL |
| 3 | TWY edge and centre line lighting | Edge: All TWY<br>Centre Line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the Airfield Lighting (AFL) building<br>Switch- over time: 11 SEC. |
| 5 | Remarks | NIL |

## VTPM AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |

| | | |
|---|---|---|
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

**VTPM AD 2.17 ATS AIRSPACE**

| | | |
|---|---|---|
| 1 | Designation and lateral limits | Starting from a point 1644.7N 9829.0E and then clockwise along 5NM arc radius centred on MST DVOR/DME (164152.13N 0983229.68E) to a point 1637.0N 09835.0E and then along Bangkok FIR to the starting point. |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Mae Sot Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

**VTPM AD 2.18 ATS COMMUNICATION FACILITIES**

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Mae Sot Approach | 120.65 MHZ<br>121.5 MHZ [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Mae Sot Tower | 121.5 MHZ [1)]<br>118.35 MHZ<br>236.6 MHZ | As AD OPR HR | |
| ATIS | Mae Sot Airport | 316 KHZ | As AD OPR HR | |

**VTPM AD 2.19 RADIO NAVIGATION AND LANDING AIDS**

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | MS | 316KHZ | H24 | 164206.97N<br>0983223.25E | NIL | Data refer from commissioning as follows:<br>– 50 NM orbit flown from bearing 340°-170° clockwise orbit at altitude 7 500 FT result found satisfactory<br>– Bearing 171°-339° clockwise orbit unable to perform due to border limited |

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | MST | 116.7MHZ CH114X | H24 | 164152.1N 0983229.7E | NIL | DVOR/DME restrictions,<br>1. Unusable due to roughness out of tolerance<br>– Radial 104° distance between 6.0-13.0 DME altitude 5 500 FT<br>– Radial 012° distance between 22.0-24.0 DME altitude 5 000 FT<br>– Radial 124° distance between 32.0-34.0 DME altitude 6 600 FT<br>2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal clockwise orbit 40 NM at the required altitude in various areas as follows:<br>– Radial 000°-030° altitude should not below 7 000 FT<br>– Radial 031°-060° altitude should not below 9 000 FT<br>– Radial 061°-070° altitude should not below 10 000 FT<br>– Radial 071°-120° altitude should not below 9 000 FT<br>– Radial 121°-360° unable to perform due to border limited |

## VTPM AD 2.20 LOCAL AERODROME REGULATIONS

- All aircraft flying to Mae Sot Airport are requested to use RWY 27 for landing due to RWY 09 unsuitable, because it may cross over Yangon FIR while approaching to land.

- To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, aircraft code letter C (Wing span above 24 M.) or higher are not allowed to make 180 degrees turn on the runway. The turn shall be made on the runway turn pad located on both end of runway. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTPM AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTPM AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure:

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,

- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

### 3. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 09:

MAESOT OMNI 09 Departure: Required climb gradient 365 ft per NM (6.0%) until 7,500 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 911 | 1215 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead 3,000 ft (or altitude assigned by ATC between 3,000 – 6,500 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTPM AD 2.23 ADDITIONAL INFORMATION

### 1. BIRD CONCENTRATIONS

Bird concentrations in the vicinity of an aerodrome.

## VTPM AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTPM-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTPM-2-3 |
| Aerodrome Ground Movement Chart - ICAO (VTPM) | AD 2-VTPM-2-5 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 09/27 | AD 2-VTPM-3-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 09 - KADAV1A KADAV1B KADAV1C VEGRA1A | AD 2-VTPM-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 09 - KADAV1A KADAV1B KADAV1C VEGRA1A (Tabular description) | AD 2-VTPM-6-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 27 - KADAV1W TORAN1W URGUM1W VEGRA1W | AD 2-VTPM-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 27 - KADAV1W TORAN1W URGUM1W VEGRA1W (Tabular description) | AD 2-VTPM-7-2 |
| Instrument Approach Chart - ICAO - VOR RWY 27 | AD 2-VTPM-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 27 (Fix and point list table) | AD 2-VTPM-8-2 |
| Instrument Approach Chart - ICAO - RNP RWY 27 | AD 2-VTPM-8-3 |
| Instrument Approach Chart - ICAO - RNP RWY 27 (Tabular description) | AD 2-VTPM-8-4 |

# AERODROME CHART - ICAO

**16 41 59.73N**
**098 33 00.44 E**

**ELEV 693 FT**

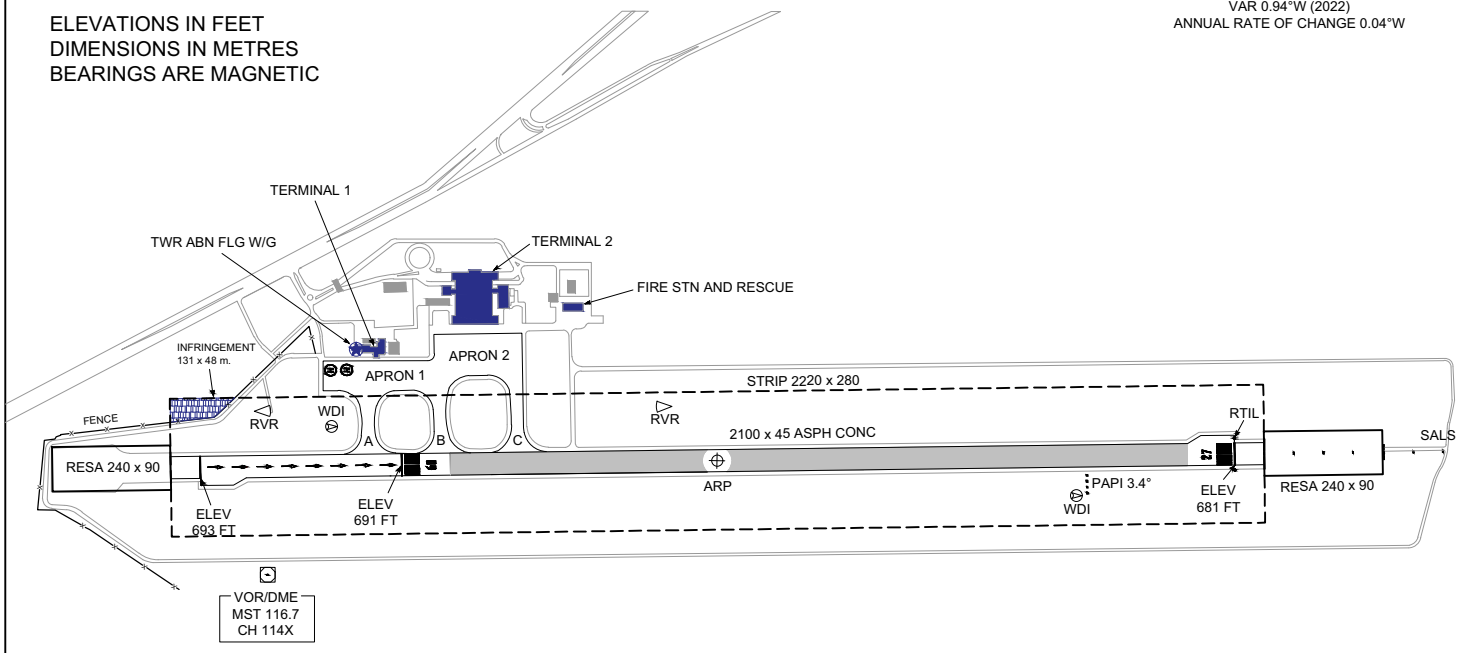
**TWR 118.35**
**236.6**

**TAK / Mae Sot**

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 09 | 089.13° | 16 41 59.42N<br>098 32 38.85E | PCN 42/F/C/X/T |
| 27 | 269.13° | 16 42 00.25N<br>098 33 35.89E | |
| APRON 1<br>APRON 2 | | | PCN 34/F/C/X/T<br>PCN 42/R/C/X/T |
| TAXIWAY A<br>TAXIWAY B AND C | | | PCN 34/F/C/X/T<br>PCN 42/F/C/X/T |

VAR 0.94°W (2022)
ANNUAL RATE OF CHANGE 0.04°W

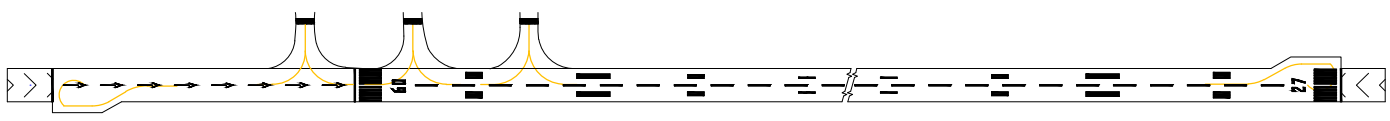
ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC



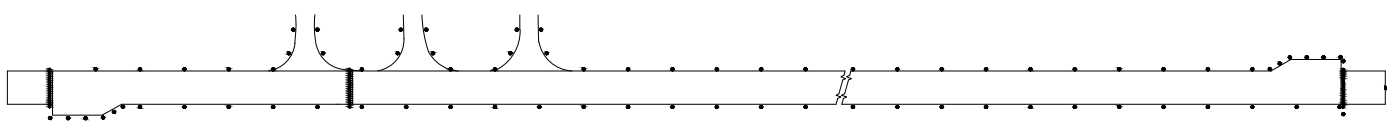

REMARKS:

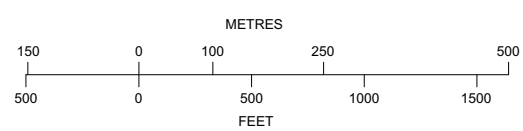
- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- TAXIWAY WIDTH 23 m.

MARKING AIDS RWY 09/27 AND EXIT TWY



LIGHTING AIDS RWY 09/27 AND EXIT TWY






CHANGE: REVISED CHART, MAG VAR, ANNUAL RATE OF CHANGE, ARP AND RWY COORDINATES, RWY AND RWY STRIP DIMENSION. SWY: AD ELEV, THR ELEV, PAPI RWY27 POSITION. RTIL RWY 27.

Date of Aeronautical Information

**Department of Airports**

Final
30 Sep 2022

# INTENTIONALLY BLANK

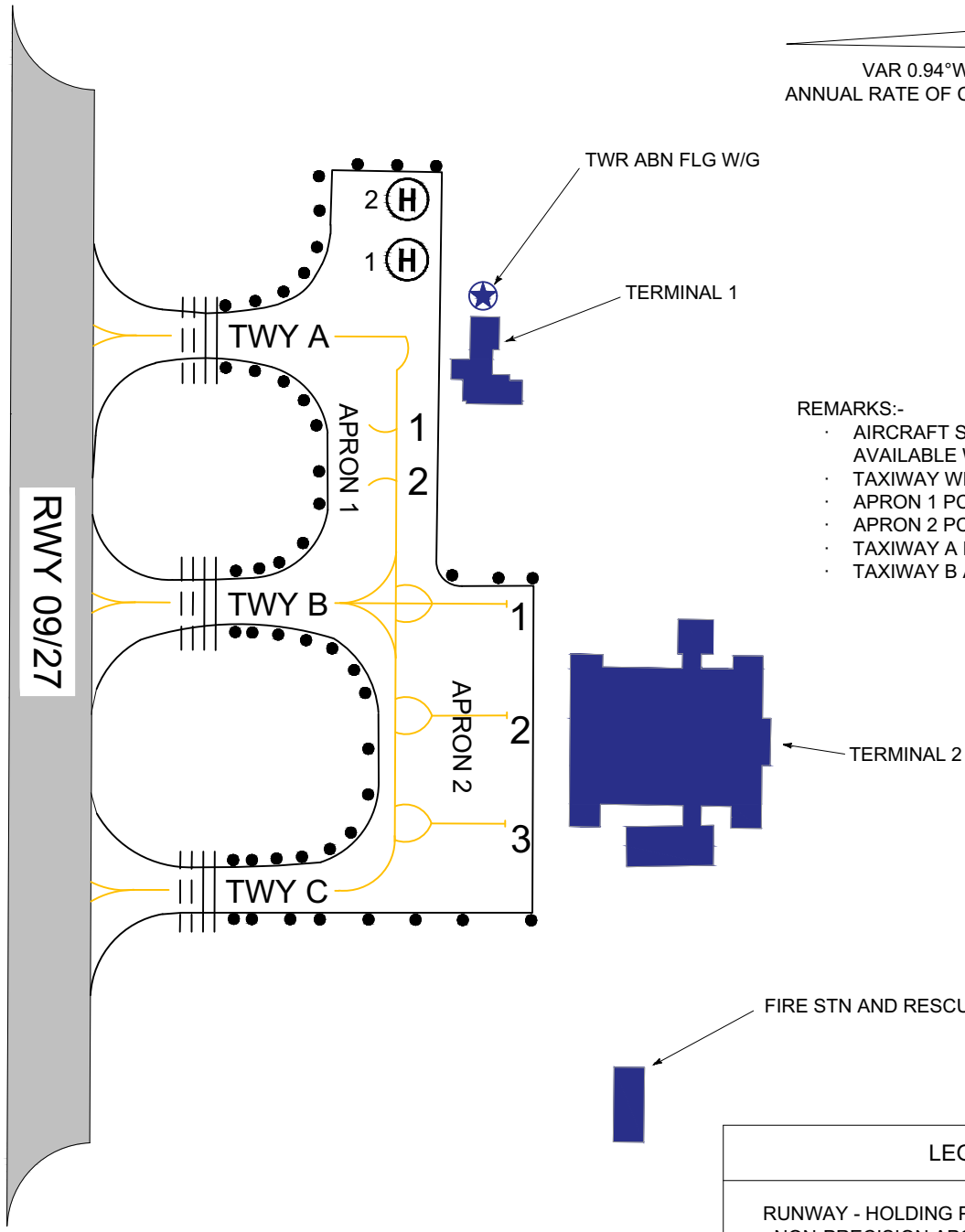
## AIRCRAFT PARKING/ DOCKING CHART - ICAO

**APRON ELEV 690 FT**

TWR 118.35
236.6

## TAK / Mae Sot

ELEVATIONS IN FEET




REMARKS:-

- AIRCRAFT STAND NR 2 (APRON 2) AVAILABLE WITH AVIATION BRIDGES
- TAXIWAY WIDTH 23 M.
- APRON 1 PCN 34/F/C/X/T
- APRON 2 PCN 42/R/C/X/T
- TAXIWAY A PCN 34/F/C/X/T
- TAXIWAY B AND C PCN 42/F/C/X/T

| LEGEND | |
|---|---|
| RUNWAY - HOLDING POSITION<br>NON-PRECISION APCH RWY | |

METRES
100 0 100 200
200 0 400 800
FEET

| INS COORDINATES FOR AIRCRAFT STANDS | | |
|---|---|---|
| LOCATION | STAND NR | COORDINATES |
| APRON 1 | 1 | 16 42 05.54N 098 32 38.20E |
| | 2 | 16 42 05.55N 098 32 39.15E |
| | TLOF 1 | 16 42 05.66N 098 32 35.07E |
| | TLOF 2 | 16 42 05.65N 098 32 33.96E |
| APRON 2 | 1 | 16 42 07.58N 098 32 41.66E |
| | 2 | 16 42 07.78N 098 32 43.50E |
| | 3 | 16 42 07.60N 098 32 45.43E |

CHANGE: EDIT AIRCRAFT STAND NR. (APRON 2). TABULAR.

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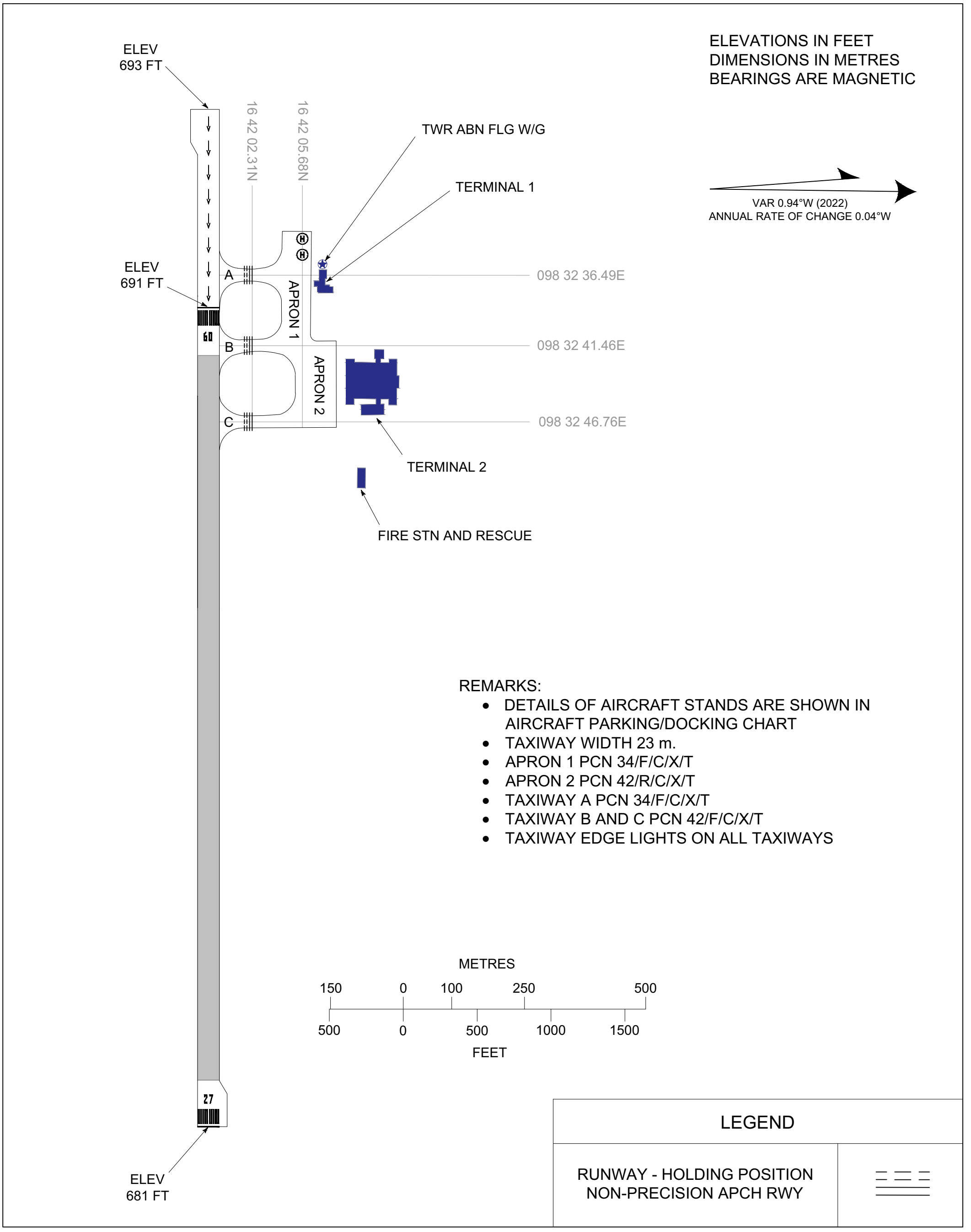
# AERODROME GROUND MOVEMENT CHART - ICAO

**APRON ELEV**
**690 FT**

**TWR 118.35**
**236.6**

## TAK / Mae Sot




CHANGE: NEW CHART.

Date of Aeronautical Information

**Department of Airports**

Final
29 Aug 2022

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# AERODROME OBSTACLE CHART - ICAO

**DIMENSIONS AND ELEVATIONS IN METRES**

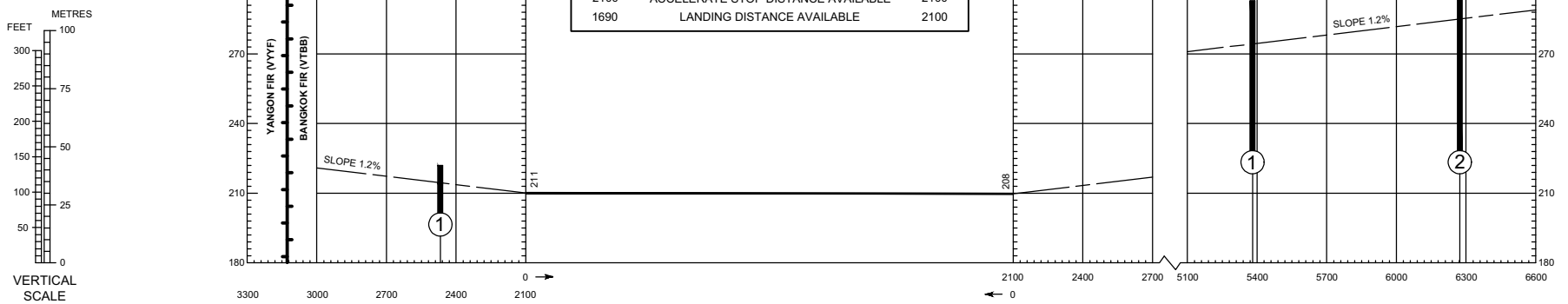
**TYPE A (OPERATING LIMITATIONS)**

**TAK / Mae Sot Airport**

MAGNETIC VARIATION 0.94°W (2022)
ANNUAL RATE OF CHANGE 0.04°W

RWY 09 / 27

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 09 | | RWY 27 |
| 2100 | TAKE-OFF RUN AVAILABLE | 2100 |
| 2100 | TAKE-OFF DISTANCE AVAILABLE | 2100 |
| 2100 | ACCELERATE STOP DISTANCE AVAILABLE | 2100 |
| 1690 | LANDING DISTANCE AVAILABLE | 2100 |




| LEGEND | |
|---|---|
| IDENTIFICATION NUMBER | ① |
| POLE, TOWER, SPIRE, ANTENNA, ETC | ⊙ |
| BUILDING OR LARGE STRUCTURE | ▬ |
| FLIGHT INFORMATION REGION (FIR) | ⌇ |

HORIZONTAL SCALE 1 : 20 000

METRES 400 300 200 100 0 500 1000 1500 2000 2500

FEET 1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000

ORDER OF ACCURACY
HORIZONTAL 0.5 m
VERTICAL 0.5 m

CHANGE: NEW CHART.

Date of Aeronautical Information

DEPARTMENT OF AIRPORTS

Final
8 Sep 2022

**INTENTIONALLY BLANK**

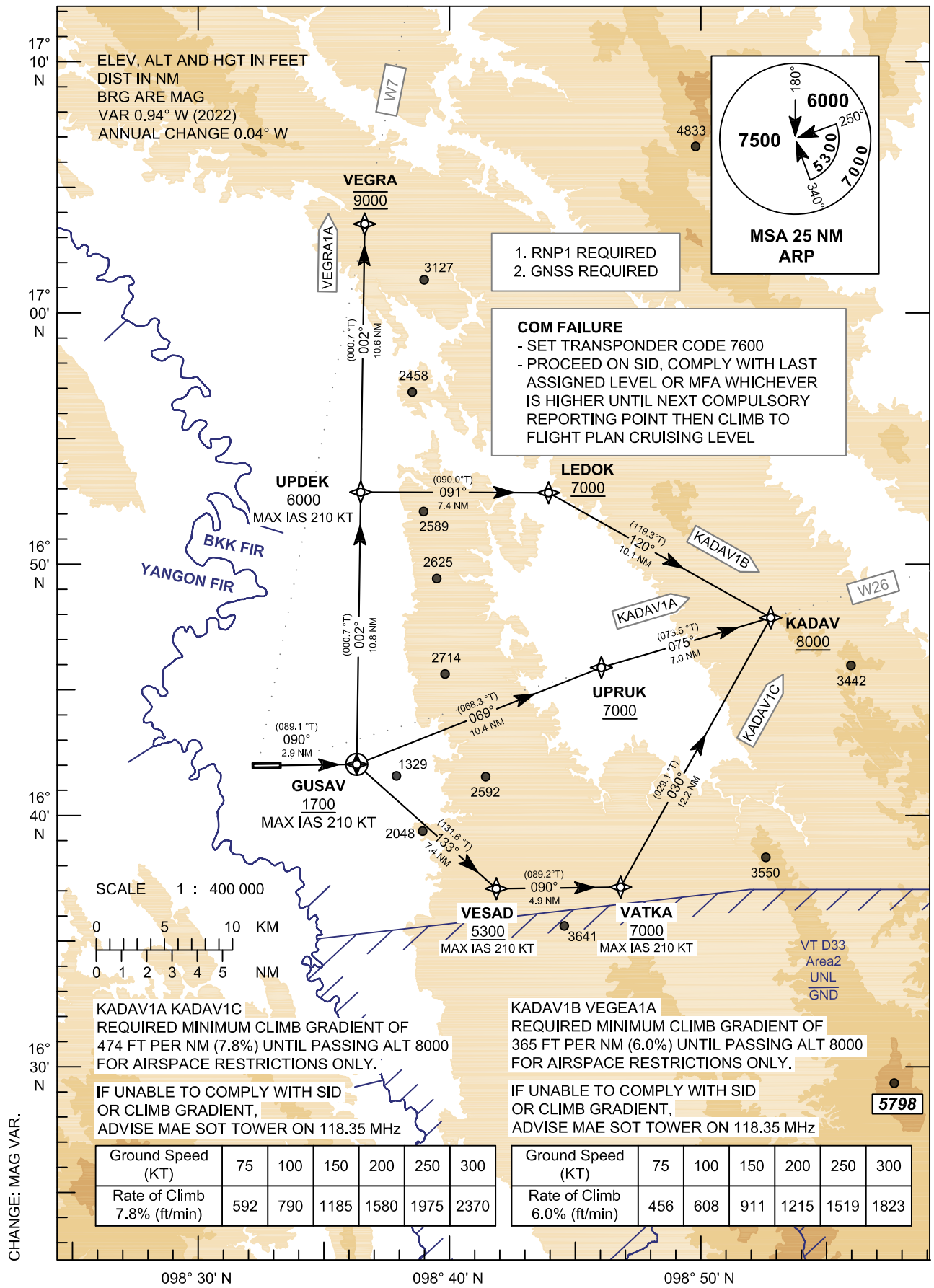
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 120.65 MHz
TWR : 118.35 , 236.6 MHz
ATIS : 316.0 KHz

**TAK / Mae Sot (VTPM)**
**RNAV RWY09**

KADAV1A KADAV1B KADAV1C VEGRA1A




| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 7.8% (ft/min) | 592 | 790 | 1185 | 1580 | 1975 | 2370 |

| Ground Speed (KT) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of Climb 6.0% (ft/min) | 456 | 608 | 911 | 1215 | 1519 | 1823 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**TAK / Mae Sot (VTPM)**
**RNAV RWY09**

KADAV1A KADAV1B KADAV1C VEGRA1A

**TABULAR DESCRIPTION**

**RNAV RWY09**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KADAV1A | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | GUSAV | Y | 090°(089.1°) | +1.1 | 2.9 | - | +1700 | -210 | - | RNP1 |
| 030 | TF | UPRUK | - | 069°(068.3°) | +1.1 | 10.4 | - | +7000 | - | - | RNP1 |
| 040 | TF | KADAV | - | 075°(073.5°) | +1.1 | 7.0 | - | +8000 | - | - | RNP1 |
| KADAV1B | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | GUSAV | Y | 090°(089.1°) | +1.1 | 2.9 | - | +1700 | -210 | - | RNP1 |
| 030 | TF | UPDEK | - | 002°(000.7°) | +1.1 | 10.8 | - | +6000 | -210 | - | RNP1 |
| 040 | TF | LEDOK | - | 091°(090.0°) | +1.1 | 7.4 | - | +7000 | - | - | RNP1 |
| 050 | TF | KADAV | - | 120°(119.3°) | +1.1 | 10.1 | - | +8000 | - | - | RNP1 |
| KADAV1C | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | GUSAV | Y | 090°(089.1°) | +1.1 | 2.9 | - | +1700 | -210 | - | RNP1 |
| 030 | TF | VESAD | - | 133°(131.6°) | +1.1 | 7.4 | - | +5300 | -210 | - | RNP1 |
| 040 | TF | VATKA | - | 090°(089.2°) | +1.1 | 4.9 | - | +7000 | -210 | - | RNP1 |
| 050 | TF | KADAV | - | 030°(029.1°) | +1.1 | 12.2 | - | +8000 | - | - | RNP1 |
| VEGRA1A | | | | | | | | | | | |
| 010 | - | DER RWY09 | - | - | +1.1 | - | - | - | - | - | RNP1 |
| 020 | CF | GUSAV | Y | 090°(089.1°) | +1.1 | 2.9 | - | +1700 | -210 | - | RNP1 |
| 030 | TF | UPDEK | - | 002°(000.7°) | +1.1 | 10.8 | - | +6000 | -210 | - | RNP1 |
| 040 | TF | VEGRA | - | 002°(000.7°) | +1.1 | 10.6 | - | @9000 | - | - | RNP1 |

**WAYPOINT LIST**

| **RNAV RWY09** | | |
|---|---|---|
| | | |
| **Waypoint Identifier** | **Coordinates** | **Pronunciation** |
| DER RWY09 | 16 42 00.25 N 098 33 35.89 E | - |
| GUSAV | 16 42 02.87 N 098 36 35.48 E | GU-SAV |
| KADAV | 16 47 54.24 N 098 53 40.89 E | KA-DAV |
| LEDOK | 16 52 52.67 N 098 44 28.90 E | LE-DOK |
| VEGRA | 17 03 33.12 N 098 36 52.59 E | VEG-RA |
| VATKA | 16 37 10.63 N 098 47 29.39 E | VAT-KA |
| VESAD | 16 37 06.51 N 098 42 21.77 E | VE-SAD |
| UPRUK | 16 45 54.96 N 098 46 41.17 E | UP-RUK |
| UPDEK | 16 52 52.81 N 098 36 44.09 E | UP-DEK |

CHANGE: MAG VAR.

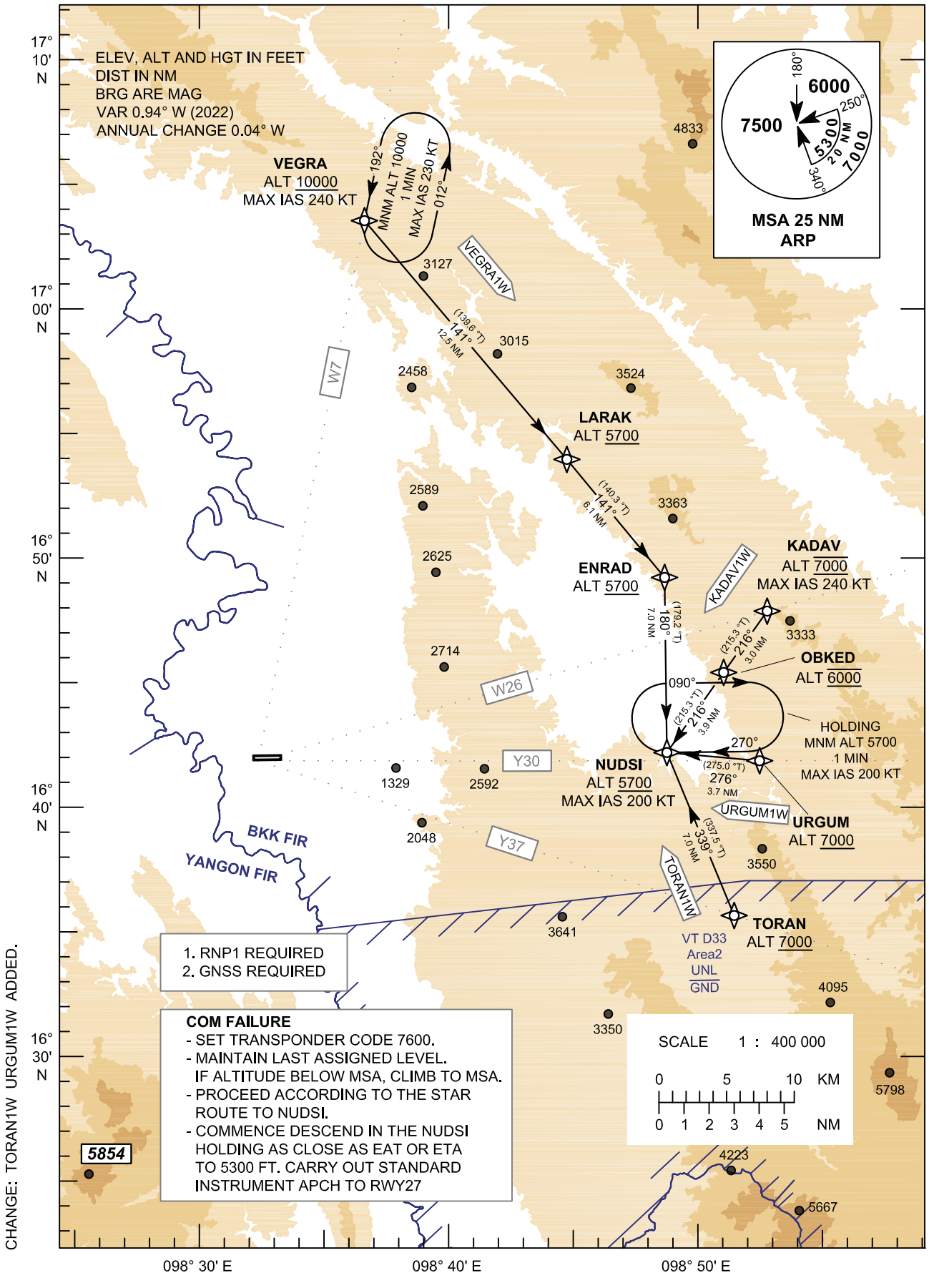
**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 120.65 MHz
TWR : 118.35 , 236.6 MHz
ATIS : 316.0 KHz

**TAK / Mae Sot (VTPM)**
**RNAV RWY27**

KADAV1W TORAN1W URGUM1W VEGRA1W




CHANGE: TORAN1W URGUM1W ADDED.

**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**TAK / Mae Sot (VTPM)**
**RNAV RWY27**

KADAV1W TORAN1W URGUM1W VEGRA1W

**TABULAR DESCRIPTION**

**RNAV RWY27**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KADAV1W | | | | | | | | | | | |
| 010 | IF | KADAV | - | - | +1.1 | - | - | @7000 | -240 | - | RNP1 |
| 020 | TF | OBKED | - | 216°(215.3°) | +1.1 | 3.0 | - | @6000 | - | - | RNP1 |
| 030 | TF | NUDSI | - | 216°(215.3°) | +1.1 | 3.9 | - | +5700 | -200 | - | RNP1 |
| TORAN1W | | | | | | | | | | | |
| 010 | IF | TORAN | - | - | +1.1 | - | - | +7000 | - | - | RNP1 |
| 020 | TF | NUDSI | - | 339°(337.5°) | +1.1 | 7.0 | - | +5700 | -200 | - | RNP1 |
| URGUM1W | | | | | | | | | | | |
| 010 | IF | URGUM | - | - | +1.1 | - | - | +7000 | - | - | RNP1 |
| 020 | TF | NUDSI | - | 276°(275.0°) | +1.1 | 3.7 | - | +5700 | -200 | - | RNP1 |
| VEGRA1W | | | | | | | | | | | |
| 010 | IF | VEGRA | - | - | +1.1 | - | - | +10000 | -240 | - | RNP1 |
| 020 | TF | LARAK | - | 141°(139.6°) | +1.1 | 12.5 | - | +5700 | - | - | RNP1 |
| 030 | TF | ENRAD | - | 141°(140.3°) | +1.1 | 6.1 | - | +5700 | - | - | RNP1 |
| 040 | TF | NUDSI | - | 180°(179.2°) | +1.1 | 7.0 | - | +5700 | -200 | - | RNP1 |

**WAYPOINT LIST**

| RNAV RWY27 | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| LARAK | 16 53 59.25 N 098 45 19.90 E |
| NUDSI | 16 42 13.62 N 098 49 30.56 E |
| KADAV | 16 47 54.24 N 098 53 40.89 E |
| VEGRA | 17 03 33.12 N 098 36 52.59 E |
| ENRAD | 16 49 15.30 N 098 49 24.50 E |
| OBKED | 16 45 26.75 N 098 51 52.46 E |
| TORAN | 16 35 41.37 N 098 52 18.94 E |
| URGUM | 16 41 54.09 N 098 53 22.31 E |

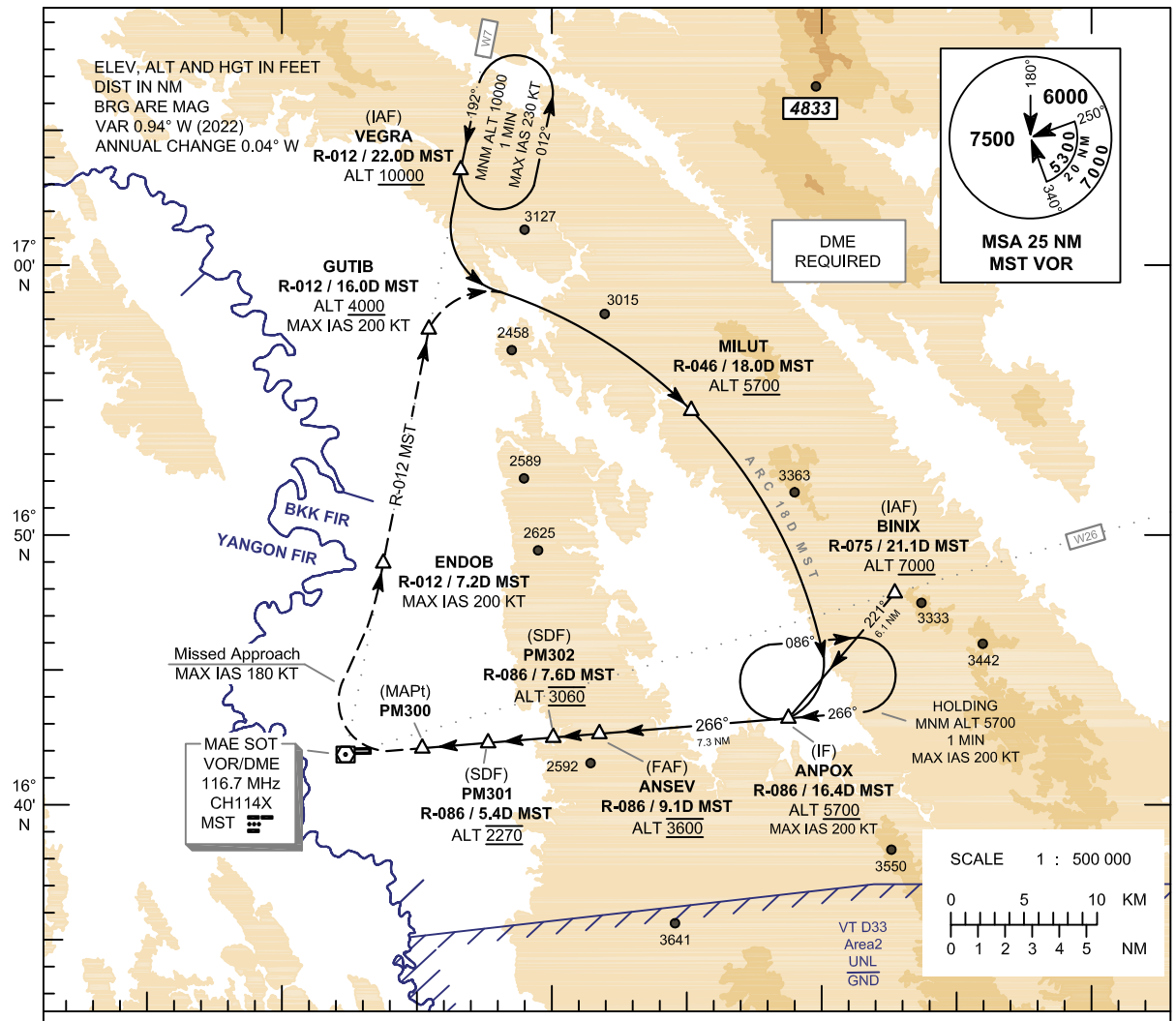
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 693 FT**
HEIGHTS RELATED TO
THR RWY27 - ELEV 681 FT

APP : 120.65 MHz
TWR : 118.35 , 236.6 MHz
ATIS : 316.0 KHz

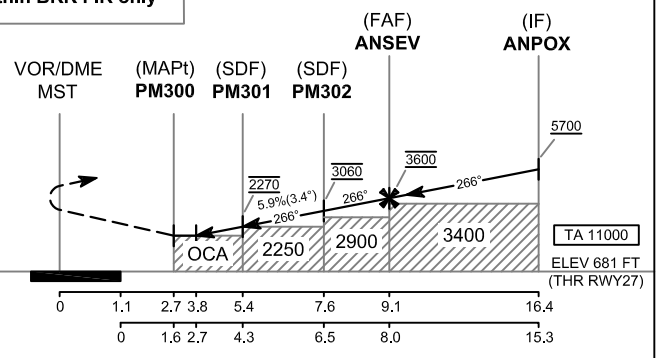
**TAK / Mae Sot (VTPM)**

**VOR RWY27**




**CAUTION : Missed approach procedure shall be within BKK FIR only**

**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 180 KT until after turn.**
At MAPt, turn right climb to intercept outbound
R-012 MST VOR at ENDOB, then proceed on
R-012 MST VOR to GUTIB at minimum ALT 4000 ft
and follow ARC 18 D MST to MILUT at minimum
ALT 5700 ft, then to ANPOX at minimum ALT 5700 FT
and hold or as directed by ATC.




CHANGE: REVISE CHART.

| OCA/H | A | B | C |
|---|---|---|---|
| Straight-in Approach | 1700 (1019) | | |
| Circling (OCH AAL) | NOT AUTHORIZED | | |

| Distance (MST) | 3.8 D | 4 D | 5 D | PM301 | 6 D | 7 D | PM302 | 8 D | FAF |
|---|---|---|---|---|---|---|---|---|---|
| Altitude (Height) | 1700 (1019) | 1770 (1089) | 2130 (1449) | 2270 (1589) | 2490 (1809) | 2845 (2164) | 3060 (2379) | 3205 (2524) | 3600 (2919) |

| Ground speed knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|
| Rate of descent (5.9%) ft/min | 418 | 538 | 597 | 717 | 836 | 956 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 693 FT**
HEIGHTS RELATED TO
THR RWY27 - ELEV 681 FT

**TAK / Mae Sot (VTPM)**

**VOR RWY27**

| FIX / POINT | | Coordinates | |
|---|---|---|---|
| (IAF) BINIX | R-075 / 21.1D MST | 16 47 53.06 N | 098 53 36.74 E |
| (IAF) VEGRA | R-012 / 22.0D MST | 17 03 33.12 N | 098 36 52.59 E |
| MILUT | R-046 / 18.0D MST | 16 54 38.50 N | 098 45 46.21 E |
| GUTIB | R-012 / 16.0D MST | 16 57 38.52 N | 098 35 39.75 E |
| ENDOB | R-012 / 7.2D MST | 16 48 57.93 N | 098 33 55.61 E |
| (IF) ANPOX | R-086 / 16.4D MST | 16 43 14.09 N | 098 49 31.25 E |
| (FAF) ANSEV | R-086 / 9.1D MST | 16 42 37.79 N | 098 41 56.58 E |
| (SDF) PM302 | R-086 / 7.6D MST | 16 42 30.26 N | 098 40 22.73 E |
| (SDF) PM301 | R-086 / 5.4D MST | 16 42 19.23 N | 098 38 05.45 E |
| (MAPt) PM300 | R-086 / 2.7D MST | 16 42 05.55 N | 098 35 15.75 E |
| (IAF) VOR | MST | 16 41 52.13 N | 098 32 29.67 E |

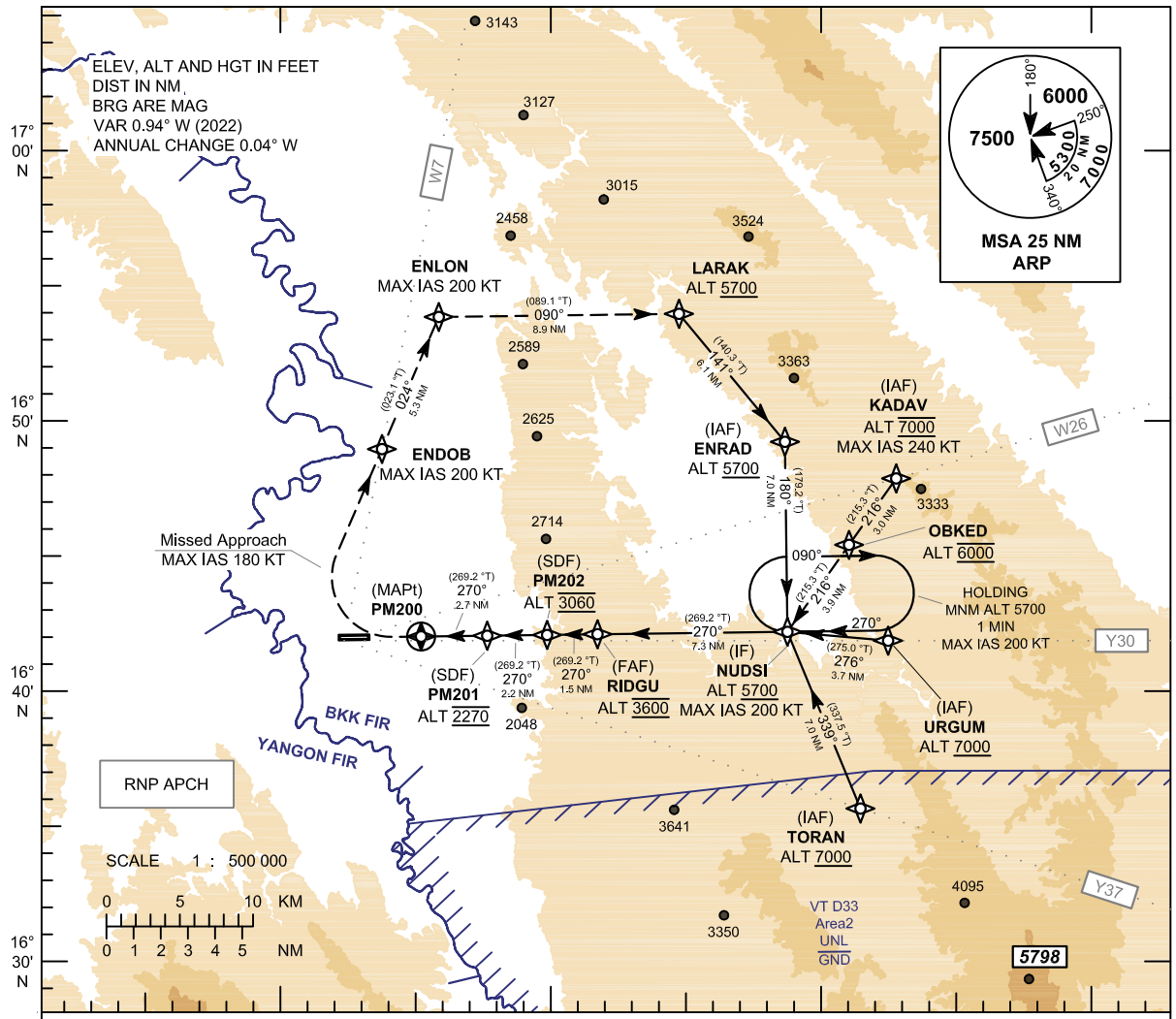
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 693 FT**
HEIGHTS RELATED TO
THR RWY27 - ELEV 681 FT

APP : 120.65 MHz
TWR : 118.35 , 236.6 MHz
ATIS : 316.0 KHz

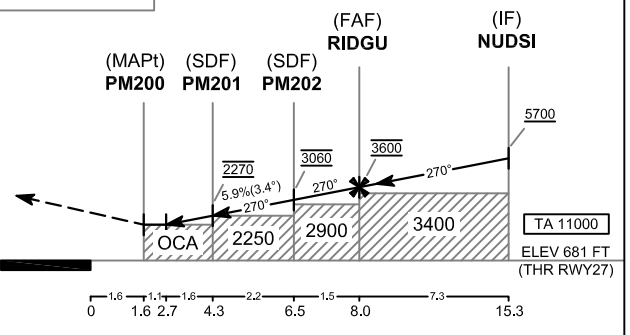
**TAK / Mae Sot (VTPM)**

**RNP RWY27**




**CAUTION : Missed approach procedure shall be within BKK FIR only**

**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 180 KT until after turn.**
At MAPt, turn right climb to ENDOB, then to ENLON
then turn right to LARAK, then turn right to ENRAD
at minimum ALT 5700 ft, then proceed to
NUDSI at minimum ALT 5700 FT
and hold or as directed by ATC.




CHANGE: REVISE CHART.

| OCA/H | A | B | C | NM to NEXT WPT | 2.7 NM | 3 NM | 4 NM | PM 201 | 5 NM | 6 NM | PM202 | 7 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV | 1700 (1019) | | | Altitude (Height) | 1700 (1019) | 1805 (1124) | 2165 (1484) | 2270 (1589) | 2525 (1844) | 2880 (2199) | 3060 (2379) | 3240 (2559) | 3600 (2919) |
| | | | | Ground speed | knot | | | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | NOT AUTHORIZED | | | Rate of descent FAF - MAPt 5.9% | ft/min | | | 418 | 538 | 597 | 717 | 836 | 956 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 693 FT**
HEIGHTS RELATED TO
THR RWY27 - ELEV 681 FT

**TAK / Mae Sot (VTPM)**

**RNP RWY27**

**TABULAR DESCRIPTION**

**RNP RWY27**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) KADAV | - | - | +1.1 | - | - | @7000 | -240 | - | RNP APCH |
| 020 | TF | OBKED | - | 216°(215.3°) | +1.1 | 3.0 | - | @6000 | - | - | RNP APCH |
| 030 | TF | (IF) NUDSI | - | 216°(215.3°) | +1.1 | 3.9 | - | +5700 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | LARAK | - | - | +1.1 | - | - | +5700 | - | - | RNP APCH |
| 020 | TF | (IAF) ENRAD | - | 141°(140.3°) | +1.1 | 6.1 | - | +5700 | - | - | RNP APCH |
| 030 | TF | (IF) NUDSI | - | 180°(179.2°) | +1.1 | 7.0 | - | +5700 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) URGUM | - | - | +1.1 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | (IF) NUDSI | - | 276°(275.0°) | +1.1 | 3.7 | - | +5700 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) TORAN | - | - | +1.1 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | (IF) NUDSI | - | 339°(337.5°) | +1.1 | 7.0 | - | +5700 | -200 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) NUDSI | - | - | +1.1 | - | - | +5700 | -200 | - | RNP APCH |
| 020 | TF | (FAF) RIDGU | - | 270°(269.2°) | +1.1 | 7.3 | - | @3600 | - | - | RNP APCH |
| 030 | TF | (SDF) PM202 | - | 270°(269.2°) | +1.1 | 1.5 | - | @3060 | - | - | RNP APCH |
| 040 | TF | (SDF) PM201 | - | 270°(269.2°) | +1.1 | 2.2 | - | @2270 | - | - | RNP APCH |
| 050 | TF | (MAPt) PM200 | Y | 270°(269.2°) | +1.1 | 2.7 | - | @1300 | -180 | -3.4/50 | RNP APCH |
| 060 | DF | ENDOB | - | - | +1.1 | - | R | - | -200 | - | RNP APCH |
| 070 | TF | ENLON | - | 024°(023.1°) | +1.1 | 5.3 | - | - | -200 | - | RNP APCH |
| 080 | TF | LARAK | - | 090°(089.1°) | +1.1 | 8.9 | - | - | - | - | RNP APCH |
| 090 | TF | ENRAD | - | 141°(140.3°) | +1.1 | 6.1 | - | +5700 | - | - | RNP APCH |
| 100 | TF | NUDSI | - | 180°(179.2°) | +1.1 | 7.0 | - | +5700 | - | - | RNP APCH |
| 110 | HM | NUDSI | Y | 270°(269.2°) | +1.1 | - | R | +5700 | -200 | - | RNP APCH |

**WAYPOINT LIST**

| **RNP RWY27** | | | |
|---|---|---|---|
| | | | |
| **Waypoint Identifier** | **Coordinates** | **Waypoint Identifier** | **Coordinates** |
| TORAN | 16 35 41.37 N 098 52 18.94 E | ENRAD | 16 49 15.30 N 098 49 24.50 E |
| URGUM | 16 41 54.09 N 098 53 22.31 E | PM202 | 16 42 06.08 N 098 40 22.17 E |
| LARAK | 16 53 59.25 N 098 45 19.90 E | PM201 | 16 42 04.14 N 098 38 04.65 E |
| NUDSI | 16 42 13.62 N 098 49 30.56 E | PM200 | 16 42 01.72 N 098 35 15.89 E |
| ENLON | 16 53 51.38 N 098 36 05.93 E | OBKED | 16 45 26.75 N 098 51 52.46 E |
| KADAV | 16 47 54.24 N 098 53 40.89 E | ENDOB | 16 48 57.93 N 098 33 55.61 E |
| RIDGU | 16 42 07.39 N 098 41 55.93 E | | |

## VTST AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTST - TRANG / TRANG AIRPORT

## VTST AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 073031.02N 0993656.79E |
| 2 | Direction and distance from (city) | 7 KM S, from city |
| 3 | Elevation/Reference temperature | 67 FT / 31°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.37°W(2016)/0.01°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Trang Airport<br>Trang Airport<br>Trang-palinan Road<br>Amphone Muang<br>Trang Province 92000 Thailand<br>Tel: +667 557 2151<br>+667 557 2152<br>+667 557 2153<br>Fax: +667 557 2154<br>AFS: VTSTYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTST AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1300 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1300 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1300 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Hat Yai Air Traffic Control Centre (1st floor of tower building)<br>Tel: +669 2262 2436<br>Fax: +667 425 1050 |

## VTST AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTST AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Limousines, Bus and Taxi |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTST AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 7 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTST AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons |

## VTST AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | APRON A: Surface: Concrete and asphalt<br>Strength: PCN 42/F/C/X/T<br>APRON B: Surface: Concrete<br>Strength: PCN 45/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: TWY A = 15M<br>TWY B and C = 23M<br>Surface: Concrete and asphalt<br>Strength: PCN 42/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 56 FT (16.96 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTST AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Marked |
| 2 | RWY and TWY markings and LGT | RWY and TWY Markings and lighted |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTST AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| - | Radio mast HGT 36 M Painted red/white LGTD on top | 0730.5N 09937.8E | NIL | NIL | NIL |

## VTST AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Trang,<br>Southern West-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1300<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern West-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +667 557 2146<br>Fax: +667 557 2146 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) and Weather Radar |
| 9 | ATS units provided with information | Trang TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTST AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 08 | 080.83° | 2320x45 | PCN 42/F/C/X/T<br>Concrete and asphalt | 073026.07N 0993625.80E | THR 67 FT<br>TDZ 67 FT |
| 26 | 260.83° | 2320x45 | PCN 42/F/C/X/T<br>Concrete and asphalt | 073036.89N 0993733.57E | THR 52 FT<br>TDZ 56 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| -0.22% | NIL | NIL | 2440x300 | NIL | NIL |
| +0.22% | NIL | NIL | 2440x300 | NIL | NIL |

## VTST AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 08 | 2320 | 2320 | 2320 | 2320 | NIL |
| 26 | 2320 | 2320 | 2320 | 2100 | NIL |

## VTST AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 08 | SALS<br>420M<br>LIH | Green | PAPI<br>Left<br>3.5° | NIL | NIL | 2320 M<br>60 M<br>White/LIH | Red | NIL | NIL |
| 26 | NIL | Green | PAPI<br>Left<br>3.5° | NIL | NIL | 2320 M<br>60 M<br>White/LIH | Red | NIL | NIL |

## VTST AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W EV 7 SEC.<br>IBN: Nil |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | EDGE: All TWY |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the air field lighting (AFL) and tower<br>Switch-over time 15 SEC |
| 5 | Remarks | Flares 2 HR PN |

## VTST AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTST AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 nm radius centred on TRN DVOR/DME (073032.1N 0993733.7E) |
| 2 | Vertical limits | 2000 ft/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Trang Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTST AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Trang Approach | 125.3 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Trang Tower | 118.4 MHz<br>236.6 MHz<br>121.5 MHz [1)] | As AD OPR HR | |
| ATIS | Trang Airport | 134.5 MHz | As AD OPR HR | |

## VTST AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | TRN | 116.6 MHz CH 113X | H24 | 073032.1N 0993733.7E | | DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal at the required altitude in various areas as follows:<br>1. 20 nm orbit<br>– Radial 081°-130° altitude should not below 6 000 ft.<br>2. 40 nm orbit<br>– Radial 131°-350° altitude should not below 4 000 ft.<br>– Radial 351°-030° altitude should not below 6 000 ft.<br>– Radial 031°-080° altitude should not below 7 000 ft. |
| ILS CAT I LOC/DME RWY 08 | ITRN | 110.3 MHz CH 40X | H24 | 073038.4N 0993743.2E | | LOC: Designated Operation Coverage 18 nm, ALT 6 300 ft/AMSL |
| GP | | 335 MHz | H24 | 073030.7N 0993634.8E | | GP: 3.50 DEG, RDH 58 ft |

## VTST AD 2.20 LOCAL AERODROME REGULATIONS

### 1. 180 DEGREES TURN ON THE RUNWAY

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, all aircraft Maximum Takeoff Weight (MTOW) more than 5700 kg are not allowed to make 180 degrees turn on the runway. The turn shall be made on the runway turn pad at the end of runway 08 and 26 only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTST AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTST AD 2.22 FLIGHT PROCEDURES

NIL

## VTST AD 2.23 ADDITIONAL INFORMATION

### 1. BIRD CONCENTRATIONS

- Bird concentrations in the vicinity of an aerodrome.

## VTST AD 2.24 CHARTS RELATED TO AN AERODROME

| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTST-2-1 |
| Instrument Approach Chart - ICAO - VOR RWY 08 | AD 2-VTST-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 08 (Fix and point list table) | AD 2-VTST-8-2 |
| Instrument Approach Chart - ICAO - ILS or LOC RWY 08 | AD 2-VTST-8-3 |

| Chart name | Page |
|---|---|
| Instrument Approach Chart - ICAO - ILS or LOC RWY 08 (Fix and point list table) | AD 2-VTST-8-4 |
| Instrument Approach Chart - ICAO - RNP RWY 08 | AD 2-VTST-8-5 |
| Instrument Approach Chart - ICAO - RNP RWY 08 (Tabular description) | AD 2-VTST-8-6 |

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# AERODROME CHART-ICAO

07 30 31 N
099 36 57 E

ELEV 67 FT
20 M

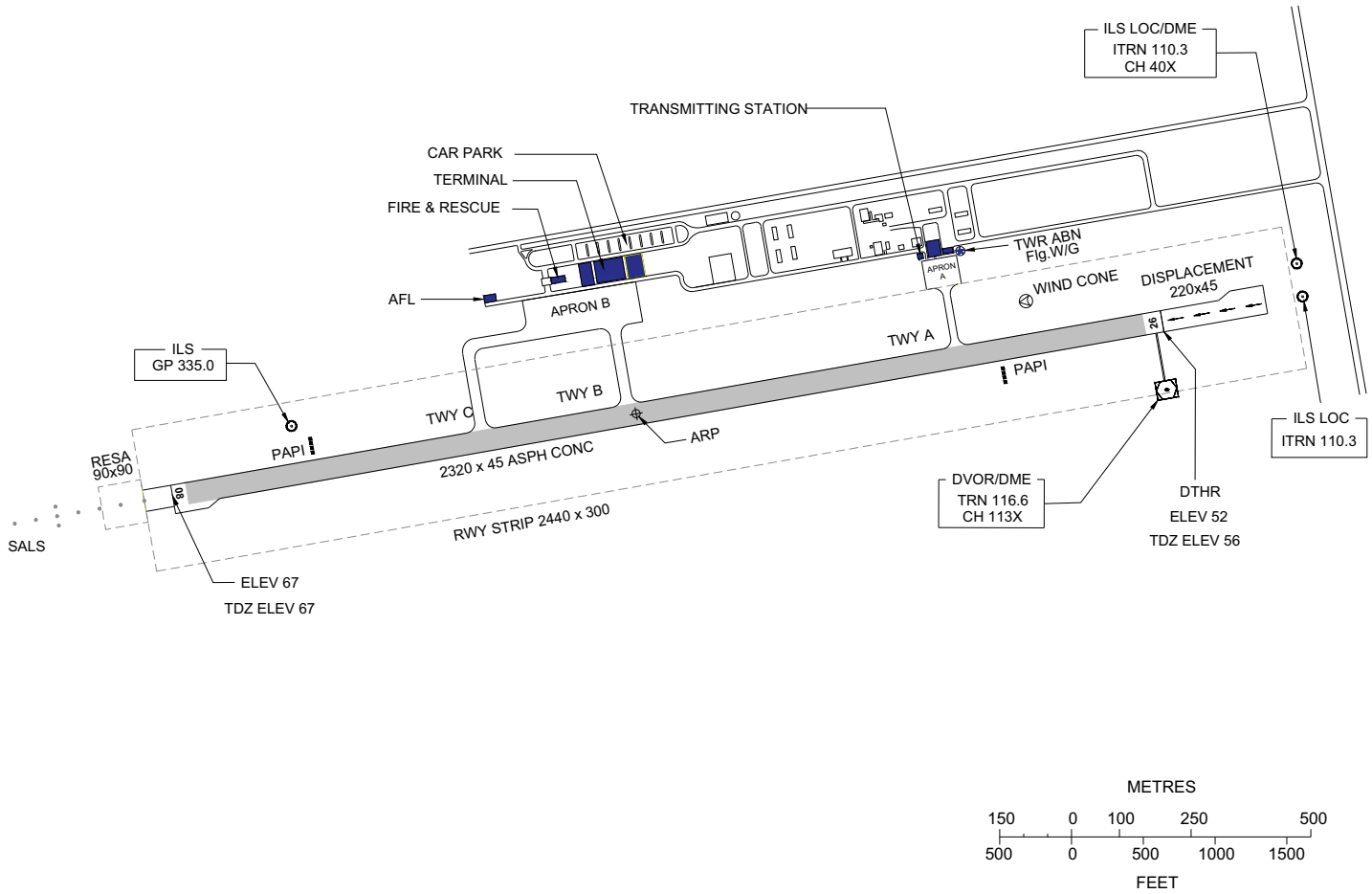
TWR 118.4

## TRANG / Trang

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 08 | 080.83° | 07 30 26 N<br>099 36 26 E | PCN 42/F/C/X/T |
| 26 | 261.83° | 07 30 37 N<br>099 37 34 E | |
| APRON A | | | PCN 42/F/C/X/T |
| APRON B | | | PCN 45/R/C/X/T |
| TWY A, B and C | | | PCN 42/F/C/X/T |

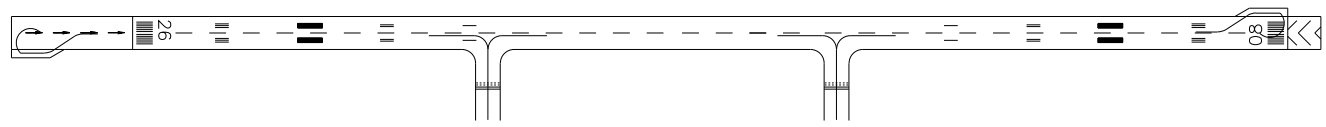
MAG VAR 0.37°W (2016)
ANNUAL RATE OF CHANGE 0.01°E

ELEVETIONS IN FEET AND DIMENTION IN METRES
BEARINGS ARE MAGNETIC

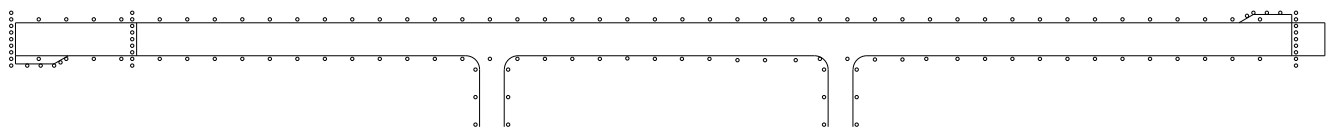



Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 08/26 AND EXIT TWY




LIGHTING AIDS RWY 08/26 AND EXIT TWY



150 0 100 250 500 METRES
500 0 500 1000 1500 FEET

CHANGE : REVISED CHART. MAG VAR. ANNUAL RATE OF CHANGE. TABULAR INFO. AFL ADDED. NDB DELETED.

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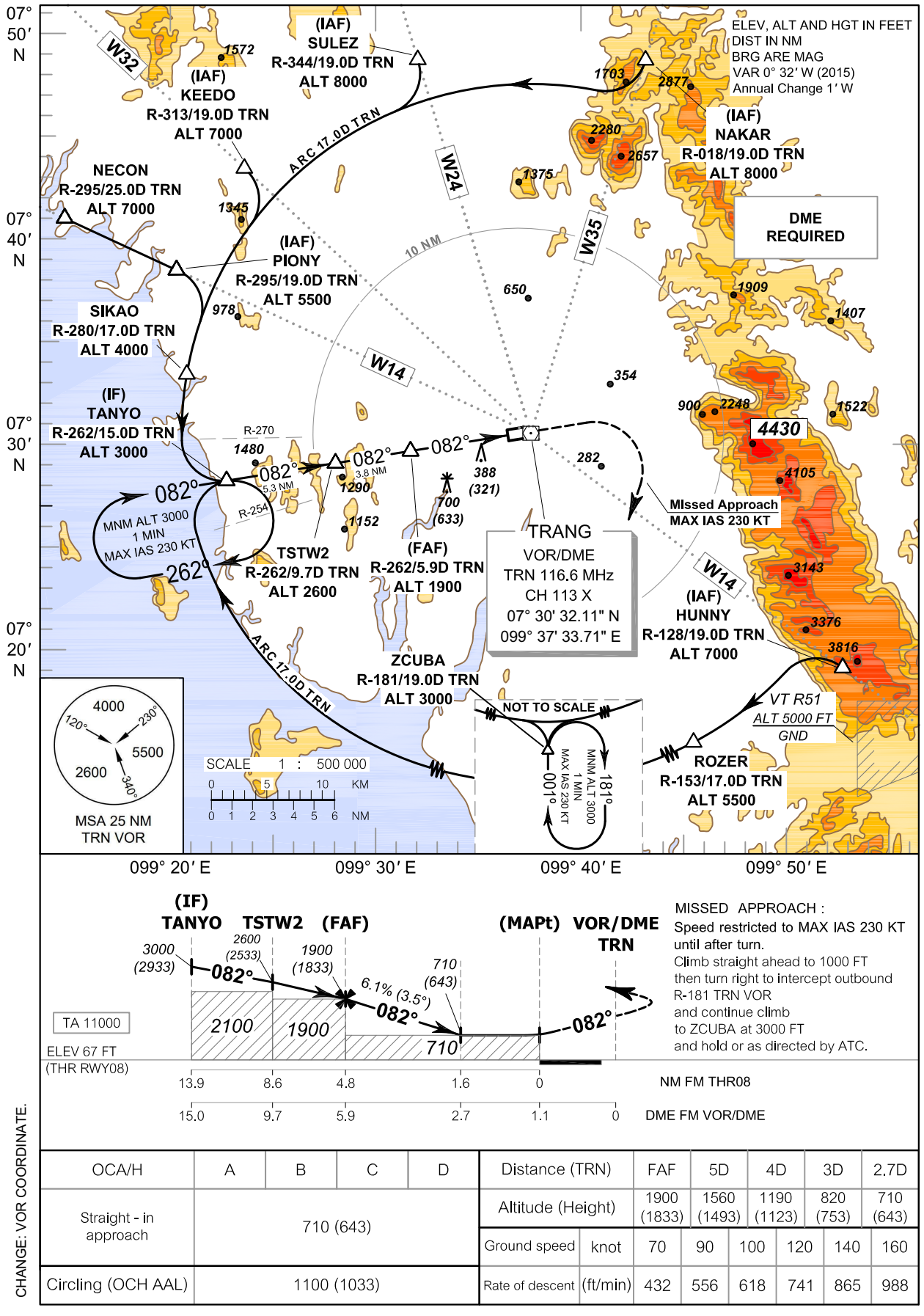
INSTRUMENT APPROACH CHART - ICAO

**AERODROME ELEV 67 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 125.3
TWR : 118.4 , 236.6

**TRANG / Trang (VTST)**

**VOR RWY08**







CHANGE: VOR COORDINATE.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in approach | 710 (643) | | | |
| Circling (OCH AAL) | 1100 (1033) | | | |

| Distance (TRN) | | FAF | 5D | 4D | 3D | 2.7D |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1900 (1833) | 1560 (1493) | 1190 (1123) | 820 (753) | 710 (643) |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent | (ft/min) | 432 | 556 | 618 | 741 | 865 | 988 |

INSTRUMENT APPROACH CHART - ICAO

**AERODROME ELEV 67 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 125.3
TWR : 118.4 , 236.6

**TRANG / Trang (VTST)**

**VOR RWY08**

| | | | |
|---|---|---|---|
| (IAF) NAKAR | R-018 / 19.0D TRN | 07 48 46.92 N | 099 43 11.39 E |
| (IAF) SULEZ | R-344 / 19.0D TRN | 07 48 48.38 N | 099 32 00.75 E |
| (IAF) KEEDO | R-313 / 19.0D TRN | 07 43 29.46 N | 099 23 30.44 E |
| NECON | R-295 / 25.0D TRN | 07 41 02.31 N | 099 14 41.55 E |
| (IAF) PIONY | R-295 / 19.0D TRN | 07 38 32.46 N | 099 20 09.54 E |
| SIKAO | R-280 / 17.0D TRN | 07 33 25.05 N | 099 20 41.41 E |
| (IAF) HUNNY | R-128 / 19.0D TRN | 07 19 03.37 N | 099 52 50.50 E |
| ROZER | R-153 / 17.0D TRN | 07 15 25.36 N | 099 45 32.02 E |
| (IF) TANYO | R-262 / 15.0D TRN | 07 28 13.64 N | 099 22 36.74 E |
| TSTW2 | R-262 / 9.7D TRN | 07 29 02.84 N | 099 27 54.62 E |
| (FAF) | R-262 / 5.9D TRN | 07 29 37.83 N | 099 31 41.46 E |
| (MAPt) | R-262 / 1.1D TRN | 07 30 21.94 N | 099 36 28.02 E |
| ZCUBA | R-181 / 19.0D TRN | 07 11 26.73 N | 099 37 33.87 E |

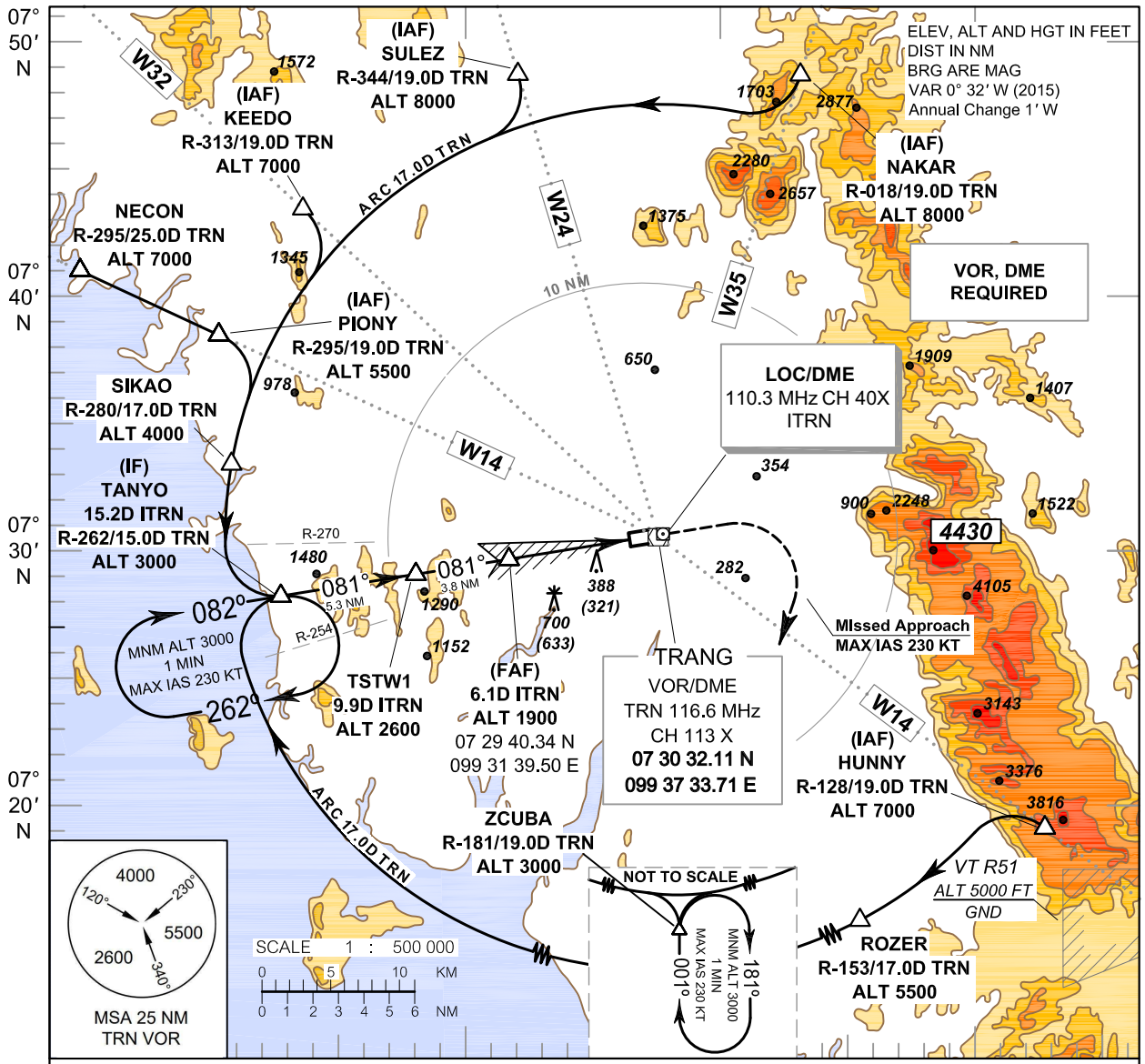
INSTRUMENT APPROACH CHART - ICAO

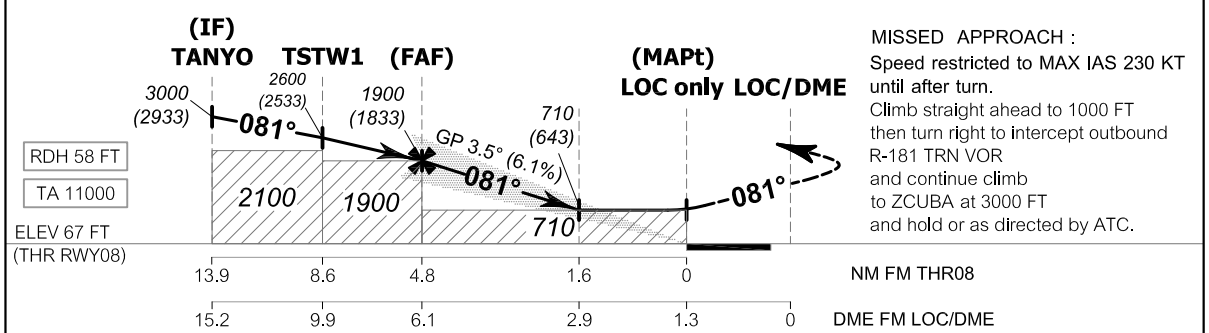
**AERODROME ELEV 67 FT**
HEIGHTS RELATED TO
THR RWY08 - ELEV 67 FT

APP : 125.3
TWR : 118.4 , 236.6

**TRANG / Trang (VTST)**

**ILS or LOC RWY08**




CHANGE: **VOR COORDINATES.**

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in approach | CAT I | 570 (503) | 580 (513) | 590 (523) | 600 (533) |
| LOC Only | | 710 (643) | | | |
| Circling (OCH AAL) | | 1100 (1033) | | | |

| GS OUT | | | | | | | |
|---|---|---|---|---|---|---|---|
| Distance (ITRN) | | FAF | 6D | 5D | 4D | 3D | 2.9D |
| Altitude (Height) | | 1900 (1833) | 1860 (1793) | 1490 (1423) | 1120 (1053) | 750 (683) | 710 (643) |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent | (ft/min) | 432 | 556 | 618 | 741 | 865 | 988 |

INSTRUMENT APPROACH CHART - ICAO

**AERODROME ELEV 67 FT**
HEIGHTS RELATED TO
THR RWY08 - ELEV 67 FT

APP : 125.3
TWR : 118.4 , 236.6

**TRANG / Trang (VTST)**

**ILS or LOC RWY08**

| | | | |
|---|---|---|---|
| (IAF) NAKAR | R-018 / 19.0D TRN | 07 48 46.92 N | 099 43 11.39 E |
| (IAF) SULEZ | R-344 / 19.0D TRN | 07 48 48.38 N | 099 32 00.75 E |
| (IAF) KEEDO | R-313 / 19.0D TRN | 07 43 29.46 N | 099 23 30.44 E |
| NECON | R-295 / 25.0D TRN | 07 41 02.31 N | 099 14 41.55 E |
| (IAF) PIONY | R-295 / 19.0D TRN | 07 38 32.46 N | 099 20 09.54 E |
| SIKAO | R-280 / 17.0D TRN | 07 33 25.05 N | 099 20 41.41 E |
| (IAF) HUNNY | R-128 / 19.0D TRN | 07 19 03.37 N | 099 52 50.50 E |
| ROZER | R-153 / 17.0D TRN | 07 15 25.36 N | 099 45 32.02 E |
| (IF) TANYO | 15.2D ITRN | 07 28 13.64 N | 099 22 36.74 E |
| TSTW1 | 9.9D ITRN | 07 29 04.14 N | 099 27 52.85 E |
| (FAF) | 6.1D ITRN | 07 29 40.34 N | 099 31 39.50 E |
| (MAPt) | 1.3D ITRN | 07 30 26.07 N | 099 36 25.80 E |
| ZCUBA | R-181 / 19.0D TRN | 07 11 26.73 N | 099 37 33.87 E |

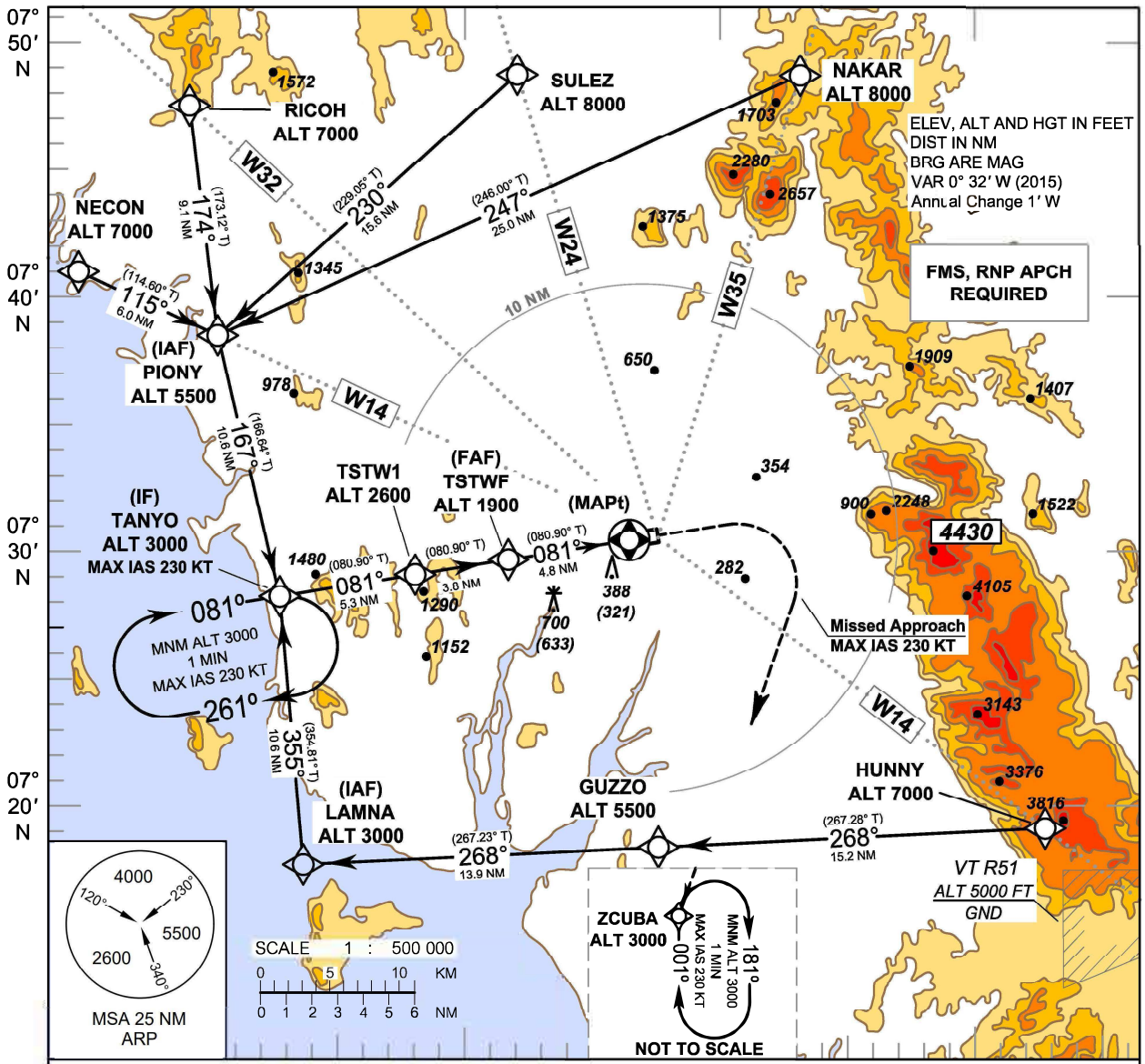
INSTRUMENT APPROACH CHART - ICAO

**AERODROME ELEV 67 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 125.3
TWR : 118.4 , 236.6

**TRANG / Trang (VTST)**

**RNP RWY08**




CHANGE : MSA.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV | 710 (643) | | | |
| Circling (OCH AAL) | 1100 (1033) | | | |

| NM to THR08 | | FAF | 4NM | 3NM | 2NM | 1.6NM |
|---|---|---|---|---|---|---|
| Altitude (Height) | | 1900 (1833) | 1600 (1533) | 1230 (1163) | 860 (793) | 710 (643) |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent | (ft/min) | 432 | 556 | 618 | 741 | 865 | 988 |

AERONAUTICAL RADIO OF THAILAND

INSTRUMENT **AERODROME ELEV 67 FT**
APPROACH HEIGHTS RELATED TO
CHART - ICAO AERODROME ELEV

APP : 125.3
TWR : 118.4 , 236.6

**TRANG / Trang (VTST)**

**RNP RWY08**

| Serial | Path | Waypoint Identifier | WGS-84 Coordinates | | | | Flyover | Course | Magnetic | Distance | Turn | Altitude | Speed | VPA/ | Navigation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number | Descriptor | | Latitude | | Longtitude | | | ° M (° T) | Variation | (NM) | Direction | (FT) | (KT) | TCH | Specification |
| 001 | IF | NAKAR | 074846.92 | N | 0994311.39 | E | - | 247°(246.00°) | 0.5 | 25.0 | - | 8000 | - | - | RNP APCH |
| 002 | IF | SULEZ | 074848.38 | N | 0993200.75 | E | - | 230°(229.05°) | 0.5 | 15.6 | - | 8000 | - | - | RNP APCH |
| 003 | IF | RICOH | 074737.10 | N | 0991903.65 | E | - | 174°(173.12°) | 0.5 | 9.1 | - | 7000 | - | - | RNP APCH |
| 004 | IF | NECON | 074102.31 | N | 0991441.55 | E | - | 115°(114.60°) | 0.5 | 6.0 | - | 7000 | - | - | RNP APCH |
| 005 | IF/TF | PIONY (IAF) | 073832.46 | N | 0992009.54 | E | | 167°(166.64°) | 0.5 | 10.6 | L, R | 5500 | - | - | RNP APCH |
| 006 | IF | HUNNY | 071903.37 | N | 0995250.50 | E | - | 268°(267.28°) | 0.5 | 15.2 | - | 7000 | - | - | RNP APCH |
| 007 | TF | GUZZO | 071819.69 | N | 0993733.80 | E | - | 268°(267.23°) | 0.5 | 13.9 | - | 5500 | - | - | RNP APCH |
| 008 | IF/TF | LAMNA (IAF) | 071738.99 | N | 0992334.45 | E | - | 355°(354.81°) | 0.5 | 10.6 | R | 3000 | - | - | RNP APCH |
| 009 | TF | TANYO (IF) | 072813.64 | N | 0992236.74 | E | - | 081°(080.90°) | 0.5 | 5.3 | L, R | 3000 | 230 | - | RNP APCH |
| 010 | TF | TSTW1 | 072904.14 | N | 0992752.85 | E | - | 081°(080.90°) | 0.5 | 3.8 | - | 2600 | - | - | RNP APCH |
| 011 | TF | TSTWF (FAF) | 072940.34 | N | 0993139.50 | E | - | 081°(080.90°) | 0.5 | 4.8 | - | 1900 | - | - | RNP APCH |
| 012 | - | MAPt (THR08) | 073026.07 | N | 0993625.80 | E | Y | 081°(080.90°) | 0.5 | - | - | 710 | - | - | RNP APCH |
| 013 | CA | - | - | | - | | - | - | 0.5 | - | R | 1000 | 230 | - | RNP APCH |
| 014 | DF | ZCUBA | 071126.73 | N | 0993733.87 | E | - | - | 0.5 | - | - | 3000 | - | - | RNP APCH |
| 015 | HM | ZCUBA | 071126.73 | N | 0993733.87 | E | Y | 001°(359.99°) | 0.5 | - | R | 3000 | - | - | RNP APCH |

## VTBO AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTBO - TRAT (KHAO SMING) / TRAT AIRPORT

## VTBO AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 121631N 1021912E<br>Centre line of RWY, 900 M From THR 23 |
| 2 | Direction and distance from (city) | 32 KM , NW of city (Trat) |
| 3 | Elevation/Reference temperature | 82 FT (25 M)/30.8°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0°31'W(2011)/0°1'W/YEAR |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Trat Airport<br>Bangkok Airways Public Company Limited<br>99 Moo 3 Tambon Tasom Khao Saming District<br>Trat Thailand 23150<br>Tel: +663 952 5777<br>Fax: +663 952 5778<br>E-mail: tdxairport@bangkokair.com<br>Website: www.tratairport.com |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Bangkok Airways Public Company Limited |

## VTBO AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1500 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | 2300-1100 |
| 5 | ATS Reporting Office (ARO) | 2300-1100 other this period 3 HR PN to ATC via<br>AFS: VTBBZAZX<br>Tel: +662 285 9695 |
| 6 | MET Briefing Office | 2300-1100 |
| 7 | ATS | 2300-1100 other this period 3 HR PN to ATC via<br>AFS: VTBBZAZX<br>Tel: +662 285 9695 |
| 8 | Fuelling | 0100-1200 or available on Request |
| 9 | Handling | 0100-1200 or available on Request |
| 10 | Security | H24 |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTBO AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1 |

| | | |
|---|---|---|
| 3 | Fuelling facilities/capacity | Bangkok Aviation Fuel Service Public Co., Ltd. (BAFS)<br>a) Regional Airport Manager<br>E-mail: teerakan@bafs.co.th<br>Tel: +668 9134 5690<br>b) Trat Airport Station<br>E-mail: pongsak.k@bafsservices.co.th<br>Tel: +668 1863 8602<br>Fuel Refueller Truck: 1, Capacity: 8,000 L<br>Fuel Tank Capacity: 25,000 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | The airport has provided ground handling agent as following:<br>a) Bangkok Airways Ground Services Co., Ltd. (PGGS)<br>Ground Handling Inquiry<br>E-mail: office@pg-gs.com<br>Tel: +667 742 8500 Ext. 31381<br>+666 3079 6696<br>b) BAGS Ground Services Co., Ltd.<br>E-mail: tdx-stationmanager@bags-groundservices.com<br>Tel: +666 1405 8296 |

## VTBO AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | At the AD and in the city |
| 3 | Transportation | Limousines |
| 4 | Medical facilities | First AID at airport |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | Office in Amphoe Lame Ngop |
| 7 | Remarks | NIL |

## VTBO AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 5 |
| 2 | Rescue equipment | AVBL at Fire Fighting Truck (Foam 570 L., Water 5700 L.) and Water Truck 15000 L. |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | Available 24H |

## VTBO AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons |

## VTBO AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | N/A |
| 2 | Taxiway width, surface and strength | N/A |
| 3 | Altimeter checkpoint location and elevation | THR 18, 61 FT |

| | | |
|---|---|---|
| 4 | VOR checkpoints | N/A |
| 5 | INS checkpoints | N/A |
| 6 | Remarks | ACFT parking on RWY |

## VTBO AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | N/A |
| 2 | RWY and TWY markings and LGT | RWY : Marking and lighting |
| 3 | Stop bars | N/A |
| 4 | Remarks | No TWY |

## VTBO AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| NIL | | | Hill 210 M (690 FT)<br>Hill 206 M (676 FT)<br>Hill 102.46 M (340 FT) | 121608N 1021805E<br>121533N 1021909E<br>121601N 1021845E | NIL |

## VTBO AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Trat,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1100<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Aeronautical Meteorology Division<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | NIL<br>NIL |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +663 952 5777 ext. 3433 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | NIL |
| 8 | Supplementary equipment available for providing information | Barometer, Anemometer and Thermometer Screen |
| 9 | ATS units provided with information | Trat TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTBO AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | 051.28° | 1800x45 | PCN 41/F/B/X/T Concrete and asphalt | 121612.65N 1021848.46E | THR 32.15 m |
| 23 | 231.28 | 1800x45 | PCN 41/F/B/X/T Concrete and asphalt | 121649.30N 1021934.94E | THR 18.73 m |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| -0.80%-0.40% (1550, 250) | NIL | 60x150 | 1920x150 | NIL | NIL |
| +0.40%+0.80% (250, 1550) | NIL | 60x150 | 1920x150 | NIL | NIL |

## VTBO AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | 1800 | 1860 | 1800 | 1800 | NIL |
| 23 | 1800 | 1860 | 1800 | 1800 | NIL |

## VTBO AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 05 | NIL | Green | PAPI LEFT 4° | NIL | 1800 m 60 m White | 1800 m 60 m White | Red | NIL | NIL |
| 23 | NIL | Green | PAPI LEFT 3° | NIL | 1800 m 60 m White | 1800 m 60 m White | Red | NIL | NIL |

## VTBO AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: On top of Control Tower. FLG WG EV 3 SEC,<br>HR of OPS as ATS OPR HR |
| 2 | LDI location and LGT<br>Anemometer location and LGT | 1 WDI Left side, 315 m from THR RWY 23 and 92 m from RCL, illuminated<br>1 WDI right side, 619 m from THR RWY 23 and 88 m from RCL, illuminated |
| 3 | TWY edge and centre line lighting | NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the Air Field Lighting (AFL),<br>STBY power switch-overtime 15 SEC |

| | | |
|---|---|---|
| 5 | Remarks | NIL |

**VTBO AD 2.16 HELICOPTER LANDING AREA**

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

**VTBO AD 2.17 ATS AIRSPACE**

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A Circle of 5 nm radius centred on Trat NDB (121628.1N 1021850.1E) |
| 2 | Vertical limits | 2000 ft/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | Trat Tower<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

**VTBO AD 2.18 ATS COMMUNICATION FACILITIES**

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Trat Approach | 120.25 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)]Emergency frequency |
| TWR | Trat Tower | 122.9 MHz<br>121.5 MHz[1)] | 23:00-11:00 | |

## VTBO AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | TRT | 384 KHz | H24 | 121628.1N 1021850.1E | 24 m from ground | NDB restriction, due to mountainous terrain surround NDB station, coverage check does not provide adequate signal clockwise 50 nm orbit at altitude in various areas as follows:<br>- Bearing 001º-145º unable to performed due to border limited.<br>- Bearing 146º-320º altitude should not below 5 000 ft<br>- Bearing 321º-360º altitude should not below 8 000 ft |
| DME | TRT | Tx. 997 MHz Rx.1060 MHz CH36X (109.9 MHz) | H24 | 121635.2N 1021908.9E | 15 m from ground | DME restriction, due to mountainous terrain surround DME station, coverage check does not provide adequate signal clockwise orbit at required altitude and distance in various areas as follows:<br>1. 25 nm orbit<br>- Radial 006º-020º altitude should not below 2 000 ft<br>- Radial 121º-150º altitude should not below 14 000 ft<br>- Radial 151º-190º altitude should not below 10 000 ft<br>- Radial 191º-005º altitude should not below 7 000 ft<br>2. 20 nm orbit (Due to border limited)<br>- Radial 021º-090º altitude should not below 2 000 ft<br>- Radial 091º-120º altitude should not below 5 000 ft |

## VTBO AD 2.20 LOCAL AERODROME REGULATIONS

- If an aircraft is parking on RWY, using the RWY is totally prohibited for another aircraft.

## VTBO AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTBO AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,

- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**3. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 05:

TRAT OMNI 05 Departure: Required climb gradient 201 ft per NM (3.3%) until 4,100 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,200 ft (or altitude assigned by ATC between 1,200 ft - 3,500 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTBO AD 2.23 ADDITIONAL INFORMATION

NIL

## VTBO AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTBO-2-1 |
| Instrument Approach Chart - ICAO - RNP RWY 23 | AD 2-VTBO-8-1 |
| Instrument Approach Chart - ICAO - RNP RWY 23 (Tabular description) | AD 2-VTBO-8-2 |

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## AERODROME CHART - ICAO

12°16' 31"N
102°19' 12"E

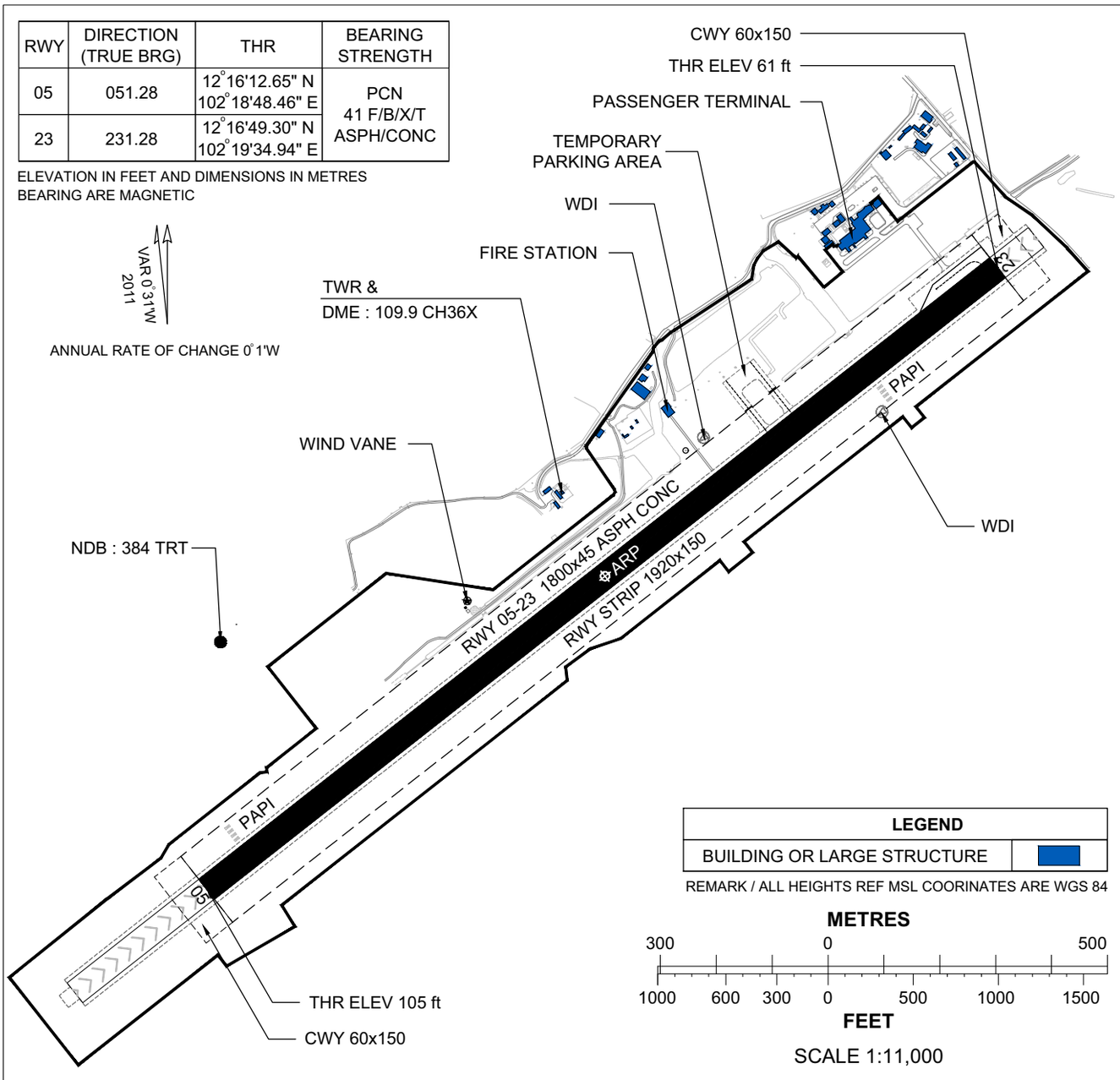
ELEV 82 ft
( 25 m.)

APP 120.25
TWR 122.9

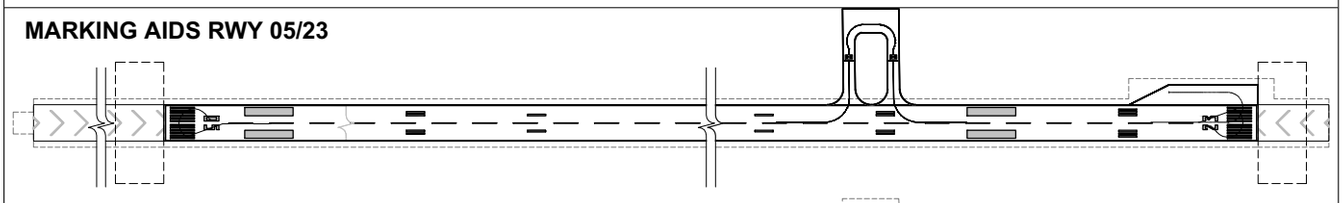
## TRAT (Khao Sming) / TRAT AIRPORT

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 05 | 051.28 | 12°16'12.65" N<br>102°18'48.46" E | PCN<br>41 F/B/X/T<br>ASPH/CONC |
| 23 | 231.28 | 12°16'49.30" N<br>102°19'34.94" E | |

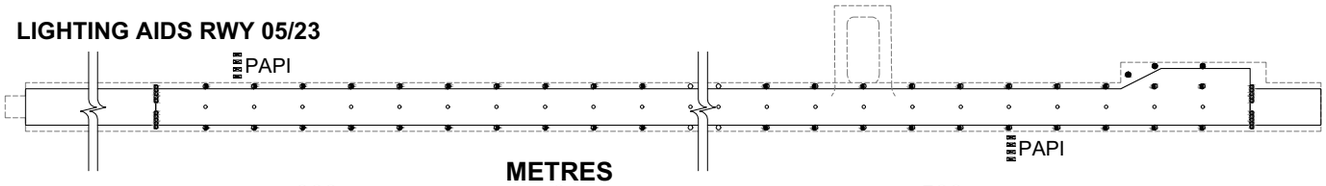
ELEVATION IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC




### MARKING AIDS RWY 05/23



### LIGHTING AIDS RWY 05/23




METRES
300 0 500
1000 600 300 0 500 1000 1500
FEET

SCALE 1:9,000

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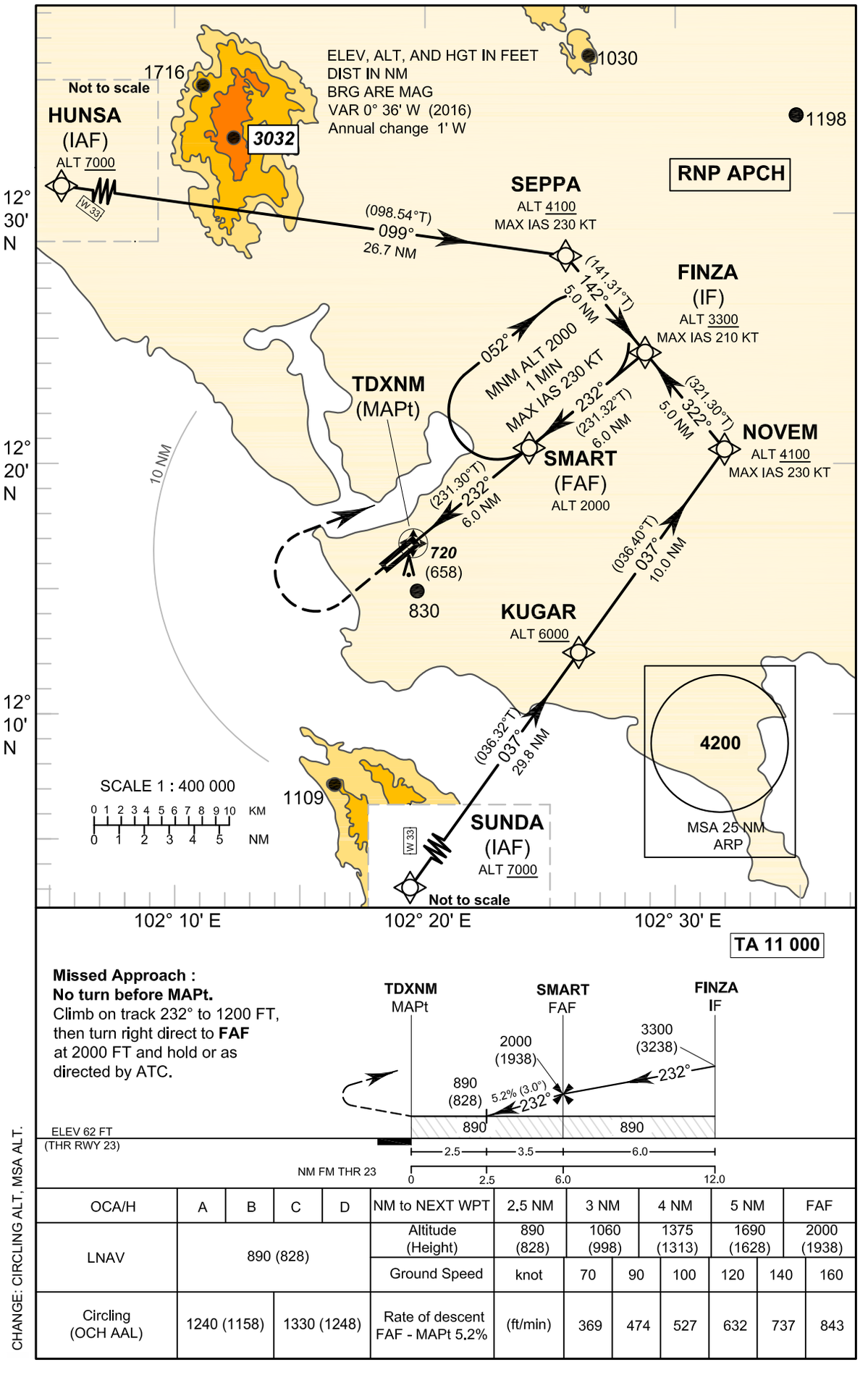
**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 82 FT**
HEIGHTS RELATED TO
THR RWY23 - ELEV 62 FT

APP : 120.25
TWR : 122.9

**TRAT / Trat (VTBO)**
**RNP RWY23**




**TA 11 000**

**Missed Approach :**
**No turn before MAPt.**
Climb on track 232° to 1200 FT, then turn right direct to **FAF** at 2000 FT and hold or as directed by ATC.




CHANGE: CIRCLING ALT, MSA ALT.

| OCA/H | A | B | C | D | NM to NEXT WPT | 2.5 NM | 3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV | 890 (828) | | | | Altitude (Height) | 890 (828) | 1060 (998) | 1375 (1313) | 1690 (1628) | 2000 (1938) |
| | | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1240 (1158) | | 1330 (1248) | | Rate of descent FAF - MAPt 5.2% | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO** | **AERODROME ELEV 82 FT** HEIGHTS RELATED TO THR RWY23 - ELEV 62 FT | **TART / Trat (VTBO) RNP RWY23**

**TABULAR DESCRIPTION**

**RNP RWY23**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | SUNDA (IAF) | - | - | +0.60 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | KUGAR | - | 037°(036.32°) | +0.60 | 29.8 | - | +6000 | - | - | RNP APCH |
| 030 | TF | NOVEM | - | 037°(036.40°) | +0.60 | 10.0 | L | +4100 | - 230 | - | RNP APCH |
| 040 | TF | FINZA (IF) | - | 322°(321.30°) | +0.60 | 5.0 | - | +3300 | - 210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | HUNSA (IAF) | - | - | +0.60 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | SEPPA | - | 099°(098.54°) | +0.60 | 26.7 | R | +4100 | - 230 | - | RNP APCH |
| 030 | TF | FINZA (IF) | - | 142°(141.31°) | +0.60 | 5.0 | - | +3300 | - 210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | FINZA (IF) | - | - | +0.60 | - | - | +3300 | - 210 | - | RNP APCH |
| 020 | TF | SMART (FAF) | - | 232°(231.32°) | +0.60 | 6.0 | - | @2000 | - | - | RNP APCH |
| 030 | TF | TDXNM (MAPt) | Y | 232°(231.30°) | +0.60 | 6.0 | - | @890 | - | - | RNP APCH |
| 040 | CA | - | - | 232°(231.30°) | +0.60 | - | - | +1200 | - | - | RNP APCH |
| 050 | DF | SMART (FAF) | - | - | +0.60 | - | R | +2000 | - | - | RNP APCH |
| 060 | HM | SMART (FAF) | Y | 232°(231.32°) | +0.60 | 1 minute | R | +2000 | - 230 | - | RNP APCH |

**WAYPOINT LIST**

**RNP RWY23**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| SUNDA | 11° 48' 14.01" N | 102° 08' 14.08" E |
| KUGAR | 12° 12' 21.61" N | 102° 26' 16.32" E |
| NOVEM | 12° 20' 25.98" N | 102° 32' 19.57" E |
| HUNSA | 12° 32' 15.73" N | 101° 59' 00.42" E |
| SEPPA | 12° 28' 15.82" N | 102° 25' 56.90" E |
| FINZA | 12° 24' 20.91" N | 102° 29' 08.28" E |
| SMART | 12° 20' 35.16" N | 102° 24' 21.55" E |
| TDXNM (THR23) | 12° 16' 49.30" N | 102° 19' 34.94" E |
| | | |

CHANGE : CHART TITLE.

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## VTUU AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUU - UBON RATCHATHANI / UBON RATCHATHANI AIRPORT

## VTUU AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 151504.58N 1045212.88E |
| 2 | Direction and distance from (city) | 1 KM N, from city |
| 3 | Elevation/Reference temperature | 411 ft/36°C |
| 4 | Geoid Undulation at AD ELEV PSN | -74 ft |
| 5 | MAG VAR/Annual change | 1.11°W(2022)/0.05°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Ubon Ratchathani Airport<br>Ubon Ratchathani Airport<br>Amphone Muang<br>Ubon Ratchathani Province 34000<br>Thailand<br>Tel: +664 524 5612-3<br>Fax: +664 524 4406<br>AFS: VTUUYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTUU AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1500 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1500 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1500 |
| 8 | Fuelling | 0100-1130 |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Ubon Ratchathani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +664 525 6407, +668 9488 2157<br>Fax: +664 524 0798 Ext. 7874 |

## VTUU AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1, AVGAS |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |

| | | |
|---|---|---|
| 7 | Remarks | NIL |

## VTUU AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Limousine |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | Bank: Avaliable<br>Post office: Available |
| 6 | Tourist Office | Office in the city |
| 7 | Remarks | NIL |

## VTUU AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 8 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUU AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUU AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 61/R/C/X/T |
| 2 | Taxiway width, surface and strength | Taxiway A and B<br>Width: 23 M<br>Surface: Asphaltic concrete<br>Strength: PCN 61/F/C/X/T<br>Taxiway C, D, E, F, G, H, I and J (Military) |
| 3 | Altimeter checkpoint location and elevation | Location: At apron<br>Elevation: 403 FT (122.82 M) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUU AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>Nose-wheel guide lines at apron<br>VDGS of aircraft stands: stand no. 1, 2, 3, 4 and 5, aircraft parking shall follow marshaller strictly. |

| | | |
|---|---|---|
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, RCL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: CL, Edge and RWY Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUU AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 05 | Tree 141.1(M) | 151420.7N 1045121.1E | Radio Mast 178.7(M) marked | 151348.6N 1045108.9E | NIL |
| | Sign Board 143.5 (M) | 151425.0N 1045109.8E | Radio Mast 180.2(M) marked | 151346.7N 1045112.3E | |
| | Sign Board 141.4 (M) | 151421.6N 1045111.1E | Radio Mast 182.9(M) marked | 151344.1N 1045117.2E | |
| | Sign Board 139.0 (M) | 151419.0N 1045113.2E | Radio Mast 165.8(M) marked | 151330.3N 1045117.1E | |
| | Building 143.2 (M) | 151409.3N 1045113.1E | Radio Mast 179.2(M) marked/LGT | 151328.7N 1045125.9E | |
| | Tree 153.9 (M) | 151404.9N 1045045.8E | Radio Mast 174.3(M) marked | 151327.0N 1045125.7E | |
| | | | Radio Mast 168.3(M) marked | 151442.7N 1045052.7E | |
| | | | Radio Mast 183.1(M) marked | 151445.5N 1045056.1E | |
| | | | Building 166.1(M) | 151451.5N 1045107.2E | |
| | | | Radio Mast 166.7(M) marked/LGT | 151504.1N 1045140.0E | |
| | | | Radio Mast 171.3(M) marked | 151459.6N 1045056.8E | |
| | | | Radio Mast 219.4(M) marked/LGT | 151431.5N 1045005.1E | |
| | | | Radio Mast 200.8(M) marked/LGT | 151437.6N 1044919.2E | |
| | | | Radio Mast 196.1(M) marked/LGT | 151445.6N 1044930.0E | |
| | | | Radio Mast 185.4(M) marked | 151505.6N 1044949.7E | |
| | | | Radio Mast 180.6(M) marked/LGT | 151506.6N 1045012.8E | |
| | | | Building 170.0(M) | 151523.3N 1045053.9E | |
| | | | Radio Mast 210.2(M) marked/LGT | 151524.8N 1045042.5E | |
| | | | Radio Mast 186.6(M) marked | 151535.2N 1045049.0E | |
| | | | Radio Mast 186.3(M) marked | 151517.1N 1045013.8E | |
| | | | Radio Mast 165.3(M) marked/LGT | 151515.7N 1045013.7E | |
| | | | Radio Mast 170.5(M) marked | 151514.5N 1044950.3E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 05 | | | Radio Mast 185.4(M) marked/LGT | 151551.7N 1044934.8E | NIL |
| | | | Radio Mast 189.4(M) marked | 151541.1N 1044941.1E | |
| | | | Radio Mast 165.7(M) marked | 151542.4N 1044950.1E | |
| | | | Radio Mast 194.9(M) marked/LGT | 151542.6N 1044944.0E | |
| | | | Radio Mast 170.9(M) marked | 151549.9N 1045032.8E | |
| | | | Building 180.7(M) | 151548.3N 1045023.0E | |
| | | | Radio Mast 187.4(M) marked/LGT | 151557.4N 1045012.3E | |
| | | | Building 170.7(M) | 151602.4N 1045034.5E | |
| | | | Radio Mast 184.5(M) marked | 151602.4N 1045034.5E | |
| | | | Radio Mast 178.9(M) marked/LGT | 151612.9N 1045102.3E | |
| | | | Radio Mast 200.5(M) marked | 151619.4N 1045056.3E | |
| | | | Radio Mast 182.0(M) marked | 151609.3N 1045143.8E | |
| | | | Radio Mast 181.2(M) marked/LGT | 151632.2N 1045137.5E | |
| | | | Radio Mast 208.1(M) marked/LGT | 151637.2N 1045131.8E | |
| | | | Radio Mast 172.2(M) marked/LGT | 151654.5N 1045200.6E | |
| | | | Radio Mast 186.5(M) marked/LGT | 151718.8N 1045305.6E | |
| | | | Radio Mast 186.7(M) marked | 151719.2N 1045314.8E | |
| | | | Radio Mast 177.2(M) marked | 151607.7N 1045301.0E | |
| | | | Radio Mast 278.9(M) marked/LGT | 151820.8N 1045337.6E | |
| | | | Radio Mast 247.1(M) marked/LGT | 151821.0N 1045344.7E | |
| | | | Building 130.7 (M) | 151436.9N 1045129.2E | |
| | | | Radio Pole 134.4 (M) | 151502.6N 1045200.2E | |
| | | | Building 126.8 (M) | 151434.2N 1045138.3E | |
| | | | Building 128.5 (M) | 151433.8N 1045143.8E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| 05 | | | Building 127.0 (M) AWOS | 151523.2N 1045243.5E | NIL |
| | | | Radio Mast G/P marked/LGT 133.9(M) | 151525.9N 1045247.1E | |
| | | | Building Marked DVOR/DME 133.1(M) | 151442.9N 1045157.1E | |
| | | | Tower 166.4(M) Marked/LGT | 151445.8N 1045209.2E | |
| 23 | Tree 131.2(M) | 151541.7N 1045256.9E | Radio Mast 179.2(M) marked | 151345.9N 1045136.4E | |
| | TACAN 130.0(M) Building/LGT | 151544.7N 1045300.0E | Radio Mast 181.6(M) LGT | 151333.5N 1045201.1E | |
| | Tree 141.7(M) | 151552.8N 1045314.5E | Radio Mast 176.6(M) | 151236.6N 1045141.5E | |
| | Tree 148.3(M) | 151557.4N 1045313.7E | Radio Mast 178.0(M) marked/LGT | 151602.4N 1045145.8E | |
| | Tree 148.4(M) | 151600.5N 1045314.1E | Radio Mast 169.9(M) marked/LGT | 151411.9N 1045147.1E | |
| | Radio Mast 167.6(M) marked | 151349.8N 1045058.0E | Radio Mast 170.4(M) marked | 151416.6N 1045149.2E | |
| | | | Radio Mast 174.6(M) marked/LGT | 151411.4N 1045149.8E | |
| | | | Radio Mast 166.5(M) marked/LGT | 151425.4N 1045200.1E | |
| | | | Radio Mast 178.6(M) marked/LGT | 151409.3N 1045227.7E | |
| | | | Radio Mast 170.4(M) marked/LGT | 151427.7N 1045252.7E | |
| | | | Radio Mast 170.1(M) | 151512.0N 1045252.7E | |
| | | | Radio Mast 174.5(M) marked/LGT | 151439.8N 1045341.1E | |
| | | | Radio Mast 172.9(M) marked/LGT | 151618.3N 1045501.2E | |
| | | | Radio Mast 262.9(M) marked/LGT | 151609.5N 1045544.3E | |

## VTUU AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Lower Northeastern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | H24<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Lower Northeastern Meteorological Center,<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |

| | | |
|---|---|---|
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +664 524 4108<br>Fax: +664 524 4200 |
| 6 | Flight documentation<br>Language(s) used | Charts, Tabular forms and Abbreviated Plain Language Texts<br>English |
| 7 | Charts and other information available for briefing or consultation | S, U85, U70, U50, U40, U30, U25, U20, SWH, SWM, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS),<br>Low Level Windshear Alert System (LLWAS) and Weather Radar |
| 9 | ATS units provided with information | Ubon Ratchathani TWR<br>Ubon Ratchathani APP |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUU AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY coordinates THR end undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | 051.48° | 3000x45 | PCN 61/F/C/X/T<br>Asphaltic concrete | 151434.17N 1045133.53E<br>-74 ft | THR 411 ft |
| 23 | 231.48° | 3000x45 | PCN 61/F/C/X/T<br>Asphaltic concrete | 151534.99N 1045252.24E<br>-74 ft | THR 397 ft |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location & description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| NIL | 60x60 | NIL | 3240x180 | 240x90 | NIL | NIL | NIL |
| NIL | 60x60 | NIL | 3240x180 | 240x90 | NIL | NIL | NIL |

## VTUU AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 05 | 3000 | 3000 | 3060 | 3000 | NIL |
| 23 | 3000 | 3000 | 3060 | 3000 | NIL |

## VTUU AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 05 | SALS<br>420M<br>LIH | Green<br>NIL | PAPI<br>LEFT 3°<br>(54.36 FT) | NIL | NIL | 3 000 M<br>60 M<br>FM 0 M - 2400 M<br>White,<br>FM 2400 M - 3000M<br>Yellow, LIH | Red<br>NIL | 60 M<br>Red | NIL |
| 23 | SALS<br>407M<br>LIH | Green<br>WBAR | PAPI<br>LEFT 3°<br>(49.93 FT) | NIL | NIL | 3 000 M<br>60 M<br>FM 0 M - 2400 M<br>White,<br>FM 2400 M - 3000 M<br>Yellow, LIH | Red<br>NIL | 60 M<br>Red | NIL |

## VTUU AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG W G EV 3 SEC.<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: NIL<br>WDI:<br>1. Wind cone at 345 M from THR 05 off set to the left side 80 M from RCL, illuminated.<br>2. Wind cone at 90 M from centre line of TWY A off set to the left side 177 M from RCL, illuminated.<br>3. Wind cone at 370 M from THR 23 off set to the right side 78.50 M from RCL, illuminated. |
| 3 | TWY edge and centre line lighting | TWY Edge: All TWY<br>TWY Centre Line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at the Air Field Lighting (AFL) building<br>Switch – over time : 15 SEC.. |
| 5 | Remarks | NIL |

## VTUU AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTUU AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5NM radius centred on UBL DVOR/DME (151442.7N 1045157.2E) |
| 2 | Vertical limits | 3000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Ubon Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTUU AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Ubon Approach | 123.5 MHz<br>257.8 MHz<br>121.5 MHz [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Ubon Tower | 119.9 MHz<br>274.5 MHz<br>121.5 MHz [1)]<br>243.0 MHz [1)] | As AD OPR HR | |
| GND | Ubon Ground | 121.9 MHz<br>275.8 MHz | As AD OPR HR | |
| ATIS | Ubon Airport | 128.2 MHz | As AD OPR HR | |
| ASR | Departure Control | 335.5 MHz<br>134.1 MHz | 0100-0900 [2)]<br>MON-FRI<br>(Except Public Holiday) | [2)] Other this period 2 HR PN TO ATC Royal Thai Air Force<br>ASR OPS AVBL for MIL<br>- Coverage/HGT:<br>PSR 70 nm/30 000ft<br>SSR 200 nm/100 000 ft<br>- EM: PSR 500 KW<br>SSR 1.5 KW |
| | Arrival Control | 282.2 MHz<br>125.75 MHz | | |
| SRA | Final Control | 382.4 MHz | | |

## VTUU AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | UB | 373 KHz | H24 | 151425.9N<br>1045148.8E | | Data refer from commissioning checked as follows:<br>– 50 nm clockwise orbit, altitude 3 000 ft bearing 111°-070° found satisfactory<br>– Due to border limited: 35 nm clockwise orbit, altitude 3 000 ft bearing 071°-110° found satisfactory |

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | UBL | 112.7 MHz CH74X | H24 | 151442.7N 1045157.2E | | DVOR/DME restriction<br>1. Due to obstacles surround DVOR/ DME station, coverage check does not provide adequate signal clockwise orbit at required altitude in various areas as follows:<br>a) 40 nm<br>– Radial 111°-155° altitude should not below 3 000 ft.<br>– Radial 156°-165° altitude should not below 7 000 ft.<br>– Radial 166°-200° altitude should not below 5 000 ft.<br>– Radial 201°-070° altitude should not below 3 000 ft.<br>b) 30 nm (Due to border limit)<br>– Radial 071°-110° altitude should not below 2 000 ft.<br>2. During 6 NM orbit found 30 Hz. AM modulation is fluctuated within 29%-50% between radial 170°-190°. UBON DVOR/DME unusable between radial 170°-190° (CW) beyond 10 nm altitude 2 000 ft. |
| ILS CAT I LOC RWY23 | IUBL | 110.1 MHz CH38X | H24 | 151424.1N 1045120.5E | | – ILS coverage over sector of 35 either side of runway centre line, no back course and voice feature, the antenna array is located on extended runway centre line at distance 500 m from THR of RWY 05, height of antenna array is 4.1 m from ground<br>– No marker |
| GP/DME | | 334.4 MHz | H24 | 151526.1N 1045247.2E | | – Glide Path angle 3.0°<br>– DME co-located with glide path power output 100 watts omnidirectional |
| TACAN | UBL | 114.6 MHz CH93 | 2300-1100 MON-FRI (Except Public Holiday) | 151544.79N 1045300.00E | | Other this period 2 HR PN TO ATC |

## VTUU AD 2.20 LOCAL AERODROME REGULATIONS

### 1. 180 DEGREES TURN ON THE RUNWAY

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, aircraft code letter C or higher are not allowed to make 180 degrees turn on the runway. The turn shall be made on the runway turn pad located on both end of runway. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator and shall be liable for the compensation caused by such violation.

## VTUU AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUU AD 2.22 FLIGHT PROCEDURES

### 1. VFR REPORTING POINTS AND LOCAL PROCEDURES

1.1 Reporting points for VFR flight

In order to expedite and maintain an orderly flow of air traffic into Ubon Ratchathani Airport, The procedures of inbound traffic or VFR flight, conventional and prop jet aircraft be set up as follow:

a) Aircraft entering to land from north of Ubon Ratchathani Airport, shall report over Khuang Nai District, designated as KILO NOVEMBER (1523.0N 10434.0E) and / or Nong Tae District designated as NOVEMBER (1524.4N 10447.9E which are 22 NM on R-300 and 11NM or R-337 of UBL DVOR/DME respectively. When reaching November the aircraft will be instructed to join aerodrome traffic pattern accordingly.
b) Aircraft entering to land from west or southwest of Ubon Ratchathani Airport, shall report over Kantharom District, designated as KILO ROMEO (1505.5N 10431.5E) and/or Pak Nam Chi designated as DELTA (1511.5N 10443.5E) which are 24 NM on R-248 and 10 NM on R-250 of UBL VOR/DME respectively. When reaching DELTA the aircraft will be instructed to join aerodrome traffic pattern accordingly.
c) Aircraft entering to land from south of Ubon Ratchathani Airport, shall report over Sri-cai Bridge, designated as SIERRA (1506.0N 10454.4E) which is 9 NM on R-167 of UBL DVOR/DME. When Reaching SIERRA the aircraft will be instructed to join aerodrome traffic pattern accordingly.

1.2 Aerodrome traffic circuit

Using both sides of traffic circuit.

1.3 Overhead approach pattern

a) Using RWY05 by left turn pattern.
b) Using RWY23 by right turn pattern

1.4 Landing and Take - off

In order to avoid the high percentage of noise pollution at Ubon Ratchathani Airport, If traffic and weather condition permit, Pilots are requested to land by using RWY23 and take off RWY05.

### 2. SPEED CONTROL PROCEDURE IN UBON TMA

a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase “NO SPEED RESTRICTIONS”. An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase “RESUME NORMAL SPEED” will be used.
g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to “RESUME NORMAL SPEED” does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

### 3. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 4. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance
- the pilot shall be responsible for obstacle clearance until such specified altitude,

- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**5. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 05:

UBON OMNI 05 Departure: Required climb gradient 201 ft per NM (3.3%) until 2,000 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 1,800 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 23

UBON OMNI 23 Departure: Required climb gradient 207 ft per NM (3.4%) until 2,000 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.4% | (ft/min) | 224 | 258 | 344 | 516 | 689 | 861 | 1033 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500-1,800 ft), then comply with ATC clearance issued (or as directed by ATC)

**VTUU AD 2.23 ADDITIONAL INFORMATION**

- BAK14 RAG installed at 400 M from threshold runway 05 and 23 cable height 3 inches.

- Net Barrier installed on both side of runway 05/23 at 35 M (115 FT.) from threshold, height 1.35 M (4.5 FT.)

- Birds concentration on and in the vicinity of an aerodrome.

## VTUU AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTUU-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTUU-2-3 |
| Aerodrome Ground Movement Chart - ICAO | AD 2-VTUU-2-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 05 - ASABO1B ENLEP1B POTEV1B SAGAL1B VENPO1B | AD 2-VTUU-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 05 - ASABO1B ENLEP1B POTEV1B SAGAL1B VENPO1B (Tabular description) | AD 2-VTUU-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 23 - ASABO1A ENLEP1A POTEV1A VENPO1A VESUD1A | AD 2-VTUU-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 23 - ASABO1A ENLEP1A POTEV1A VENPO1A VESUD1A (Tabular description) | AD 2-VTUU-6-4 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 05 – ASABO1C ENLEP1C POTEV1C VENPO1C VESUD1C | AD 2-VTUU-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 05 – ASABO1C ENLEP1C POTEV1C VENPO1C VESUD1C (Tabular description) | AD 2-VTUU-7-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 23 – ASABO1D ENLEP1D OBKIB1D POTEV1D VENPO1D | AD 2-VTUU-7-3 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 23 – ASABO1D ENLEP1D OBKIB1D POTEV1D VENPO1D (Tabular description) | AD 2-VTUU-7-4 |
| Instrument Approach Chart - ICAO - VOR RWY 05 | AD 2-VTUU-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 05 (Fix and point list table) | AD 2-VTUU-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 23 | AD 2-VTUU-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 23 (Fix and point list table) | AD 2-VTUU-8-4 |
| Instrument Approach Chart - ICAO - LOC y RWY 23 | AD 2-VTUU-8-5 |
| Instrument Approach Chart - ICAO - LOC y RWY 23 (Fix and point list table) | AD 2-VTUU-8-6 |
| Instrument Approach Chart - ICAO - LOC z RWY 23 | AD 2-VTUU-8-7 |
| Instrument Approach Chart - ICAO - LOC z RWY 23 (Tabular description) | AD 2-VTUU-8-8 |
| Instrument Approach Chart - ICAO - LOC z RWY 23 (Fix and point list table) | AD 2-VTUU-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 05 | AD 2-VTUU-8-10 |
| Instrument Approach Chart - ICAO - RNP RWY 05 (Tabular description) | AD 2-VTUU-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 23 | AD 2-VTUU-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 23 (Tabular description) | AD 2-VTUU-8-13 |

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# AERODROME CHART - ICAO

**15 15 04.58N**
**104 52 12.88E**

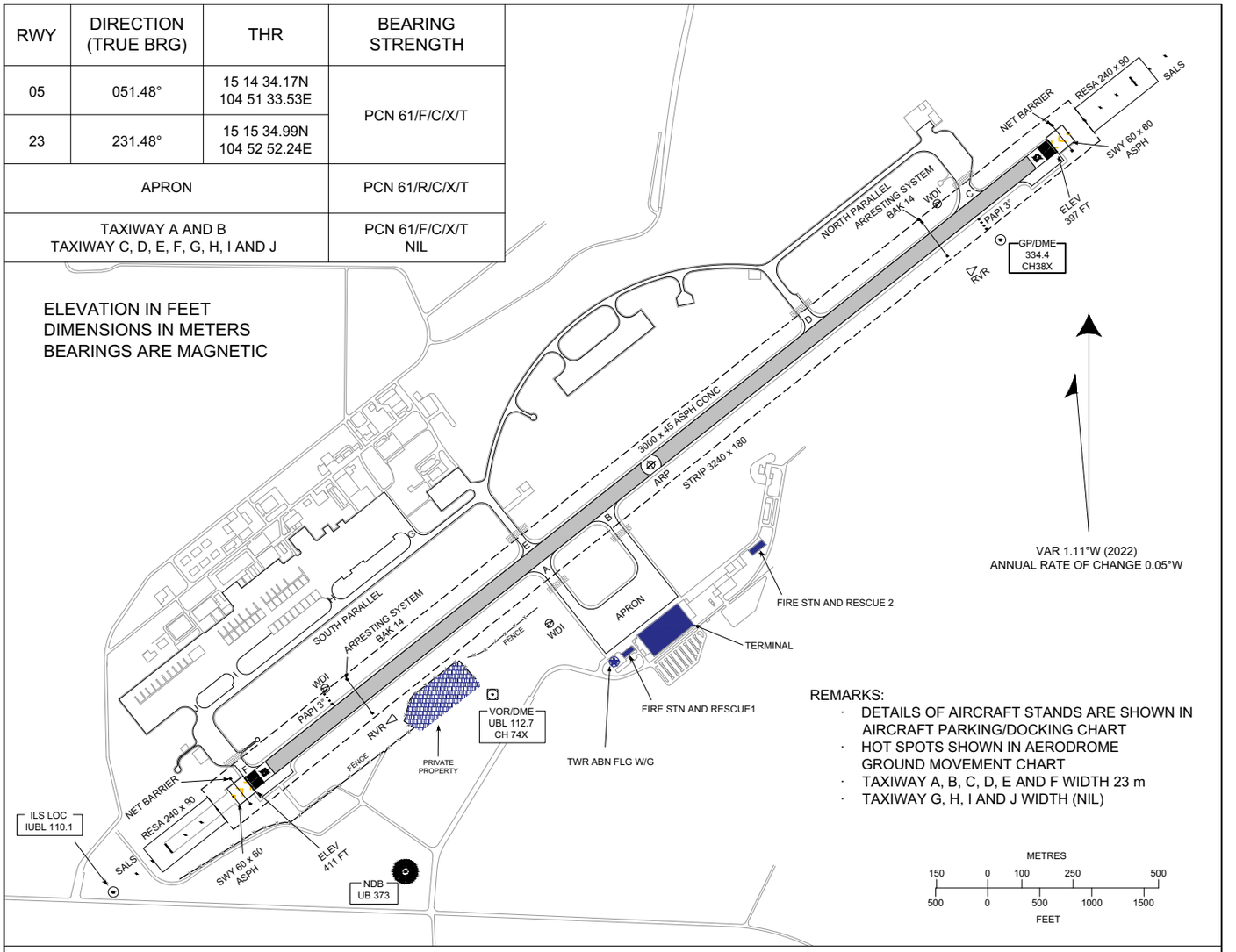
**ELEV 411 FT**

**TWR 119.9, 274.5**
**GND 121.9, 275.8**

# UBON RATCHATHANI / Ubon Ratchathani

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 05 | 051.48° | 15 14 34.17N<br>104 51 33.53E | PCN 61/F/C/X/T |
| 23 | 231.48° | 15 15 34.99N<br>104 52 52.24E | |
| APRON | | | PCN 61/R/C/X/T |
| TAXIWAY A AND B<br>TAXIWAY C, D, E, F, G, H, I AND J | | | PCN 61/F/C/X/T<br>NIL |

ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

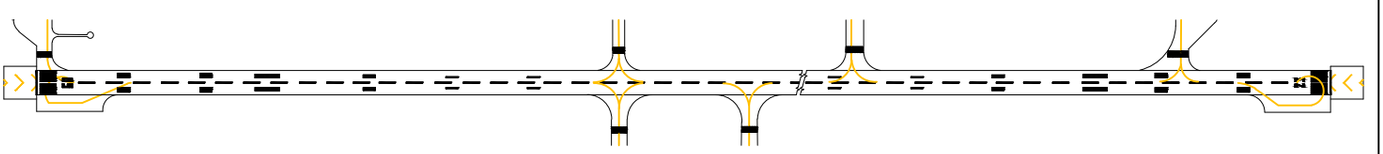



REMARKS:

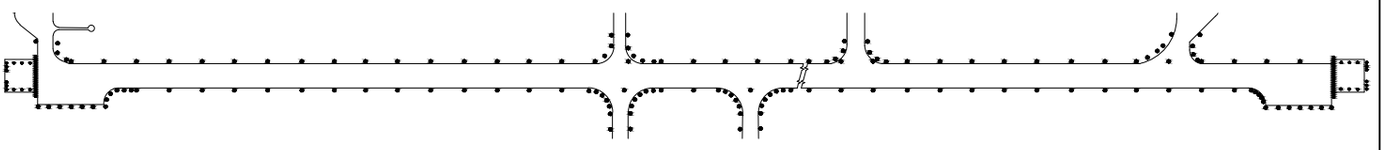
- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- HOT SPOTS SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY A, B, C, D, E AND F WIDTH 23 m
- TAXIWAY G, H, I AND J WIDTH (NIL)

METRES
150 0 100 250 500
500 0 500 1000 1500
FEET

MARKING AIDS RWY 05/23 AND EXIT TWY



LIGHTING AIDS RWY 05/23 AND EXIT TWY



METRES
150 0 100 250 500
500 0 500 1000 1500
FEET

CHANGE: REVISED CHART. MAG VAR, ANNUAL RATE OF CHANGE. TRUE BRG. ARP COORDINATES. RWY COORDINATES. AD THR. THR ELEV.

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# AIRCRAFT PARKING/ DOCKING CHART - ICAO

**APRON ELEV 403 FT**

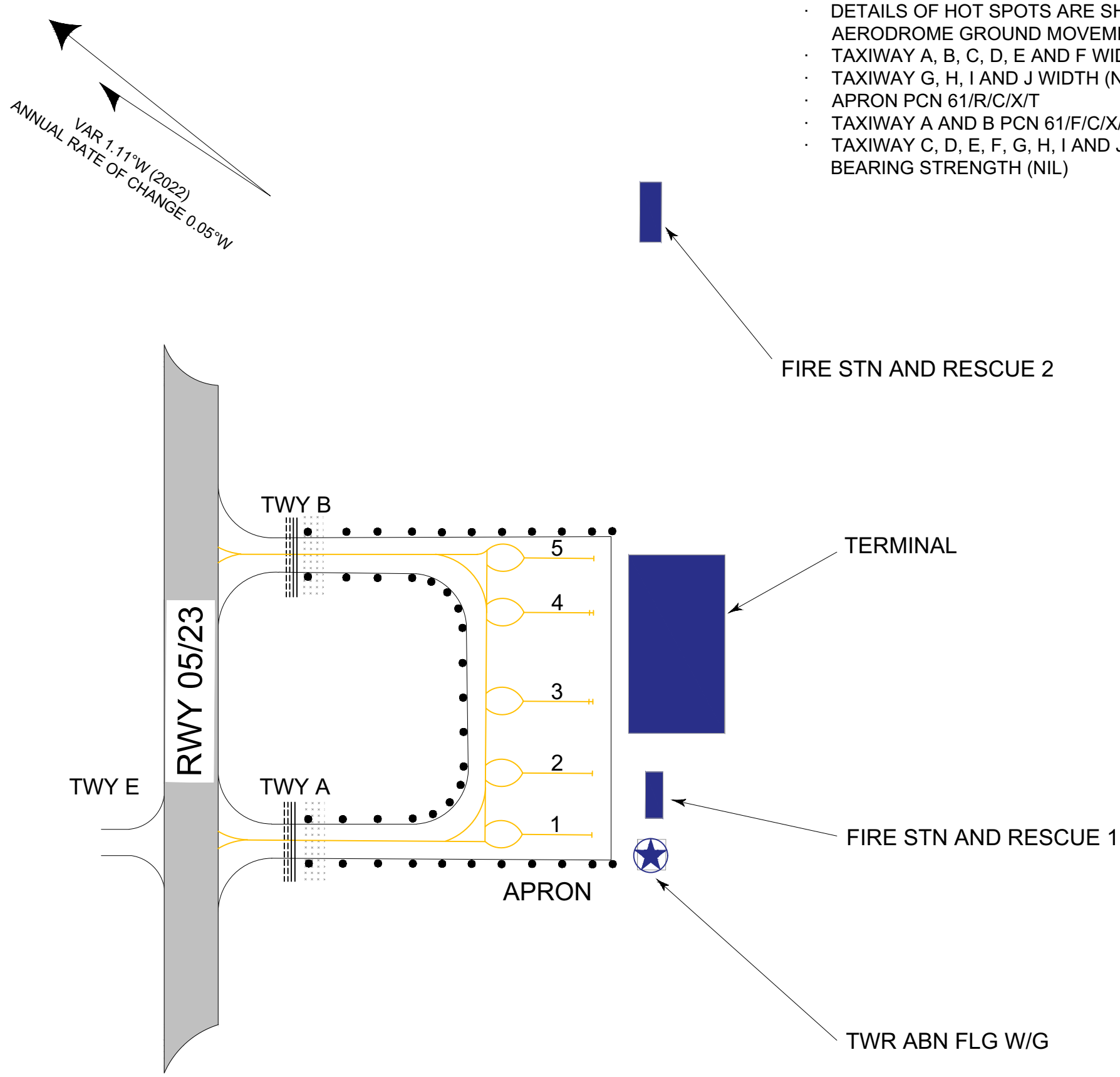
**TWR 119.9, 274.5**
**GND 121.9, 275.8**

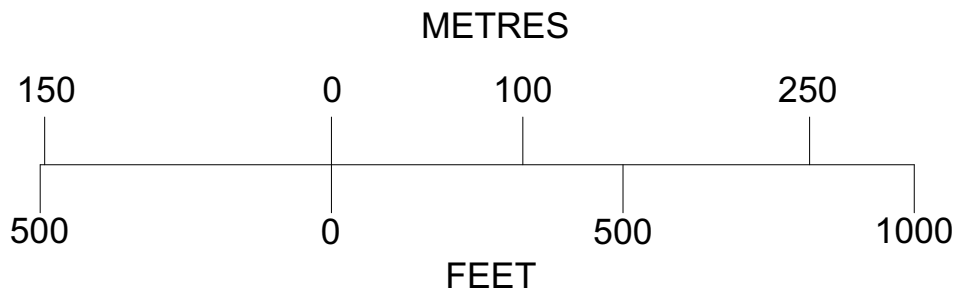
# UBON RATCHATHANI / Ubon Ratchathani

ELEVATIONS IN FEET

REMARKS:

- AIRCRAFT STAND NR 3 AND 4 AVAILABLE WITH AVIATION BRIDGES
- DETAILS OF HOT SPOTS ARE SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY A, B, C, D, E AND F WIDTH 23 m.
- TAXIWAY G, H, I AND J WIDTH (NIL)
- APRON PCN 61/R/C/X/T
- TAXIWAY A AND B PCN 61/F/C/X/T
- TAXIWAY C, D, E, F, G, H, I AND J BEARING STRENGTH (NIL)




CHANGE: REVISED CHART. MAG VAR. ANNUAL RATE OF CHANGE.

| LEGEND | |
|---|---|
| RUNWAY - HOLDING POSITION<br>NON-PRECISION APCH RWY | |

INS COORDINATES FOR AIRCRAFT STANDS

| STAND NR | COORDINATES | |
|---|---|---|
| 1 | 15 14 47.41N | 104 52 08.63E |
| 2 | 15 14 48.42N | 104 52 09.94E |
| 3 | 15 14 49.68N | 104 52 11.56E |
| 4 | 15 14 51.21N | 104 52 13.56E |
| 5 | 15 14 52.08N | 104 52 14.68E |

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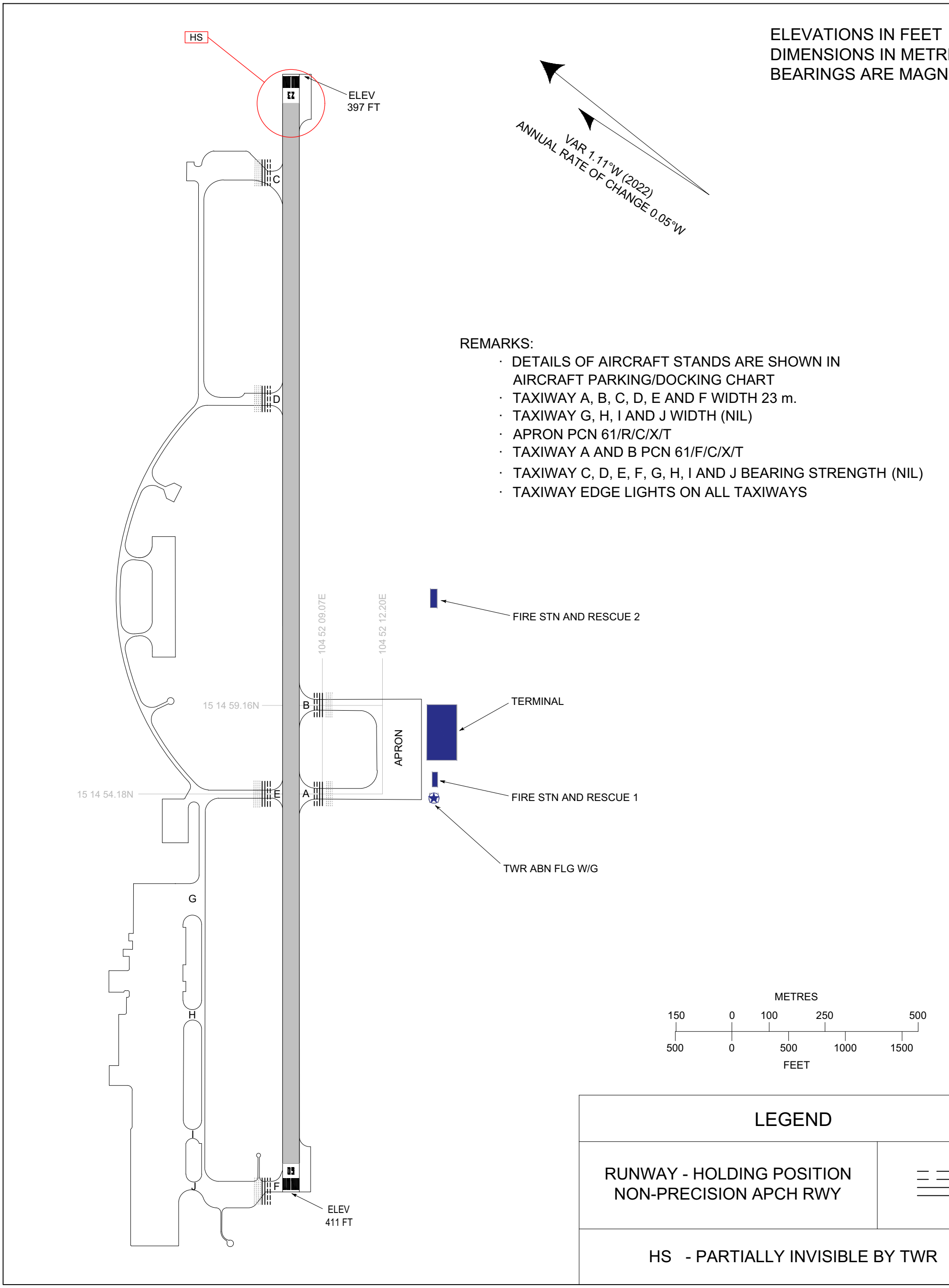
# AERODROME GROUND MOVEMENT CHART - ICAO

**APRON ELEV**
**403 FT**

**TWR 119.9, 274.5**
**GND 121.9, 275.8**

## UBON RATCHATHANI / Ubon Ratchathani




CHANGE: REVISED CHART. MAG VAR. ANNUAL RATE OF CHANGE.

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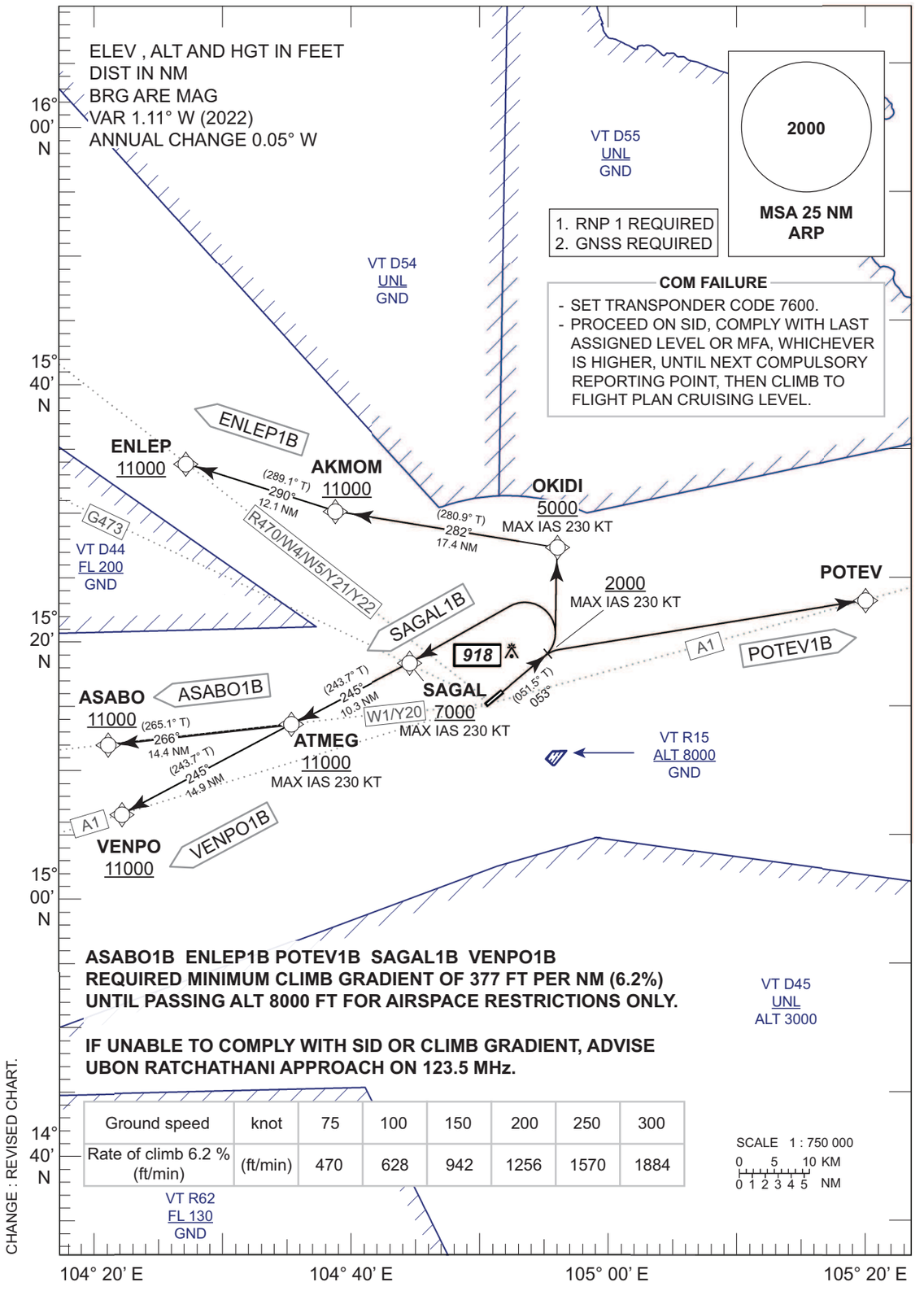
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU)**
**RNAV RWY05**

ASABO1B ENLEP1B POTEV1B SAGAL1B VENPO1B




| Ground speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of climb 6.2 % (ft/min) | (ft/min) | 470 | 628 | 942 | 1256 | 1570 | 1884 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) RNAV RWY05**

ASABO1B ENLEP1B POTEV1B SAGAL1B VENPO1B

**TABULAR DESCRIPTION**

| RNAV RWY05 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
| **ASABO1B** | | | | | | | | | | | |
| 010 | - | DER RWY05 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 053°(051.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | SAGAL | - | - | +1.2 | - | L | +7000 | -230 | - | RNP 1 |
| 040 | TF | ATMEG | - | 245°(243.7°) | +1.2 | 10.3 | - | +11000 | -230 | - | RNP 1 |
| 050 | TF | ASABO | - | 266°(265.1°) | +1.2 | 14.4 | - | +11000 | - | - | RNP 1 |
| **ENLEP1B** | | | | | | | | | | | |
| 010 | - | DER RWY05 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 053°(051.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | OKIDI | - | - | +1.2 | - | L | +5000 | -230 | - | RNP 1 |
| 040 | TF | AKMOM | - | 282°(280.9°) | +1.2 | 17.4 | - | +11000 | - | - | RNP 1 |
| 050 | TF | ENLEP | - | 290°(289.1°) | +1.2 | 12.1 | - | +11000 | - | - | RNP 1 |
| **POTEV1B** | | | | | | | | | | | |
| 010 | - | DER RWY05 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 053°(051.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | POTEV | - | - | +1.2 | - | R | - | - | - | RNP 1 |
| **SAGAL1B** | | | | | | | | | | | |
| 010 | - | DER RWY05 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 053°(051.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | SAGAL | - | - | +1.2 | - | L | +7000 | -230 | - | RNP 1 |
| **VENPO1B** | | | | | | | | | | | |
| 010 | - | DER RWY05 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 053°(051.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | SAGAL | - | - | +1.2 | - | L | +7000 | -230 | - | RNP 1 |
| 040 | TF | ATMEG | - | 245°(243.7°) | +1.2 | 10.3 | - | +11000 | -230 | - | RNP 1 |
| 050 | TF | VENPO | - | 245°(243.7°) | +1.2 | 14.9 | - | +11000 | - | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY05 | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY05 | 15° 15' 34.99" N 104° 52' 52.24" E |
| AKMOM | 15° 29' 55.31" N 104° 39' 48.69" E |
| ASABO | 15° 12' 09.44" N 104° 21' 02.31" E |
| ATMEG | 15° 13' 23.37" N 104° 35' 50.58" E |
| ENLEP | 15° 33' 53.26" N 104° 28' 00.19" E |
| OKIDI | 15° 26' 37.53" N 104° 57' 30.96" E |
| POTEV | 15° 21' 52.55" N 105° 22' 06.28" E |
| SAGAL | 15° 17' 57.41" N 104° 45' 21.94" E |
| VENPO | 15° 06' 44.98" N 104° 22' 02.18" E |

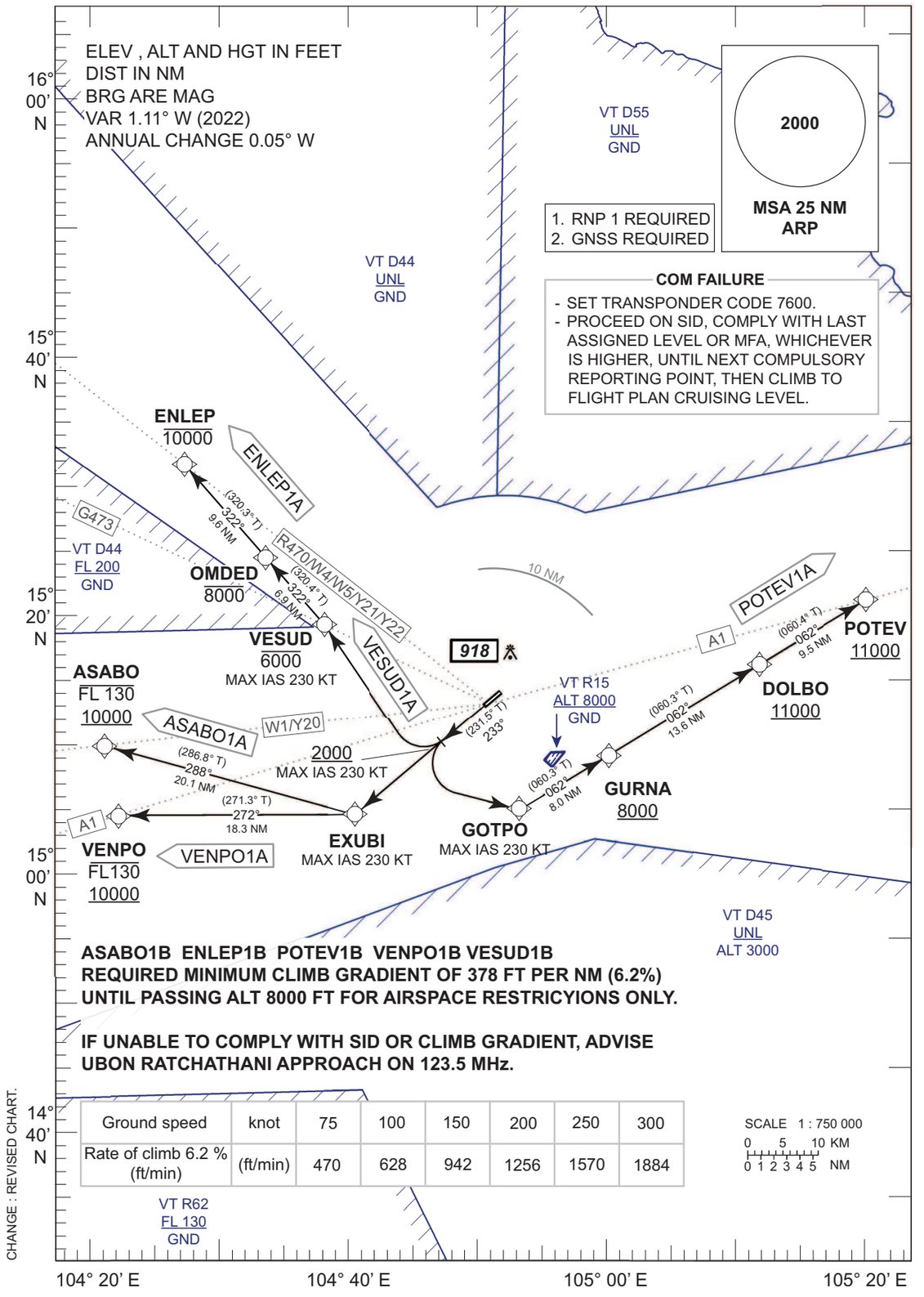
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) RNAV RWY23**

ASABO1A ENLEP1A POTEV1A VENPO1A VESUD1A



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) RNAV RWY23**

ASABO1A ENLEP1A POTEV1A VENPO1A VESUD1A

**TABULAR DESCRIPTION**

| RNAV RWY23 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course °M(°T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ RDH** | **Navigation Specification** |
| **ASABO1A** | | | | | | | | | | | |
| 010 | - | DER RWY23 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 233°(231.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | EXUBI | - | - | +1.2 | - | - | - | -230 | - | RNP 1 |
| 040 | TF | ASABO | - | 288°(286.8°) | +1.2 | 20.1 | - | -13000 +10000 | - | - | RNP 1 |
| **ENLEP1A** | | | | | | | | | | | |
| 010 | - | DER RWY23 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 233°(231.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | VESUD | - | - | +1.2 | - | R | -6000 | -230 | - | RNP 1 |
| 040 | TF | OMDED | - | 322°(320.4°) | +1.2 | 6.9 | - | -8000 | - | - | RNP 1 |
| 050 | TF | ENLEP | - | 322°(320.3°) | +1.2 | 9.6 | - | -10000 | - | - | RNP 1 |
| **POTEV1A** | | | | | | | | | | | |
| 010 | - | DER RWY23 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 233°(231.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | GOTPO | - | - | +1.2 | - | L | - | -230 | - | RNP 1 |
| 040 | TF | GURNA | - | 062°(060.3°) | +1.2 | 8.0 | - | +8000 | - | - | RNP 1 |
| 050 | TF | DOLBO | - | 062°(060.3°) | +1.2 | 13.6 | - | +11000 | - | - | RNP 1 |
| 060 | TF | POTEV | - | 062°(060.4°) | +1.2 | 9.5 | - | +11000 | - | - | RNP 1 |
| **VENPO1A** | | | | | | | | | | | |
| 010 | - | DER RWY23 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 233°(231.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | EXUBI | - | - | +1.2 | - | - | - | -230 | - | RNP 1 |
| 040 | TF | VENPO | - | 272°(271.3°) | +1.2 | 18.3 | - | -13000 +10000 | - | - | RNP 1 |
| **VESUD1A** | | | | | | | | | | | |
| 010 | - | DER RWY23 | - | - | +1.2 | - | - | - | - | - | RNP 1 |
| 020 | CA | - | - | 233°(231.5°) | +1.2 | - | - | +2000 | -230 | - | RNP 1 |
| 030 | DF | VESUD | - | - | +1.2 | - | R | -6000 | -230 | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY23 | |
|---|---|
| **Waypoint Identifier** | **Coordinates** |
| DER RWY23 | 15° 14' 34.17" N 104° 51' 33.53" E |
| ASABO | 15° 12' 09.44" N 104° 21' 02.31" E |
| DOLBO | 15° 17' 09.84" N 105° 13' 33.42" E |
| ENLEP | 15° 33' 53.26" N 104° 28' 00.19" E |
| EXUBI | 15° 06' 21.19" N 104° 40' 56.37" E |
| GOTPO | 15° 06' 24.41" N 104° 54' 06.22" E |
| GURNA | 15° 10' 23.13" N 105° 01' 17.34" E |
| OMDED | 15° 26' 28.02" N 104° 34' 20.99" E |
| POTEV | 15° 21' 52.55" N 105° 22' 06.28" E |
| VENPO | 15° 06' 44.98" N 104° 22' 02.18" E |
| VESUD | 15° 21' 08.05" N 104° 38' 54.27" E |

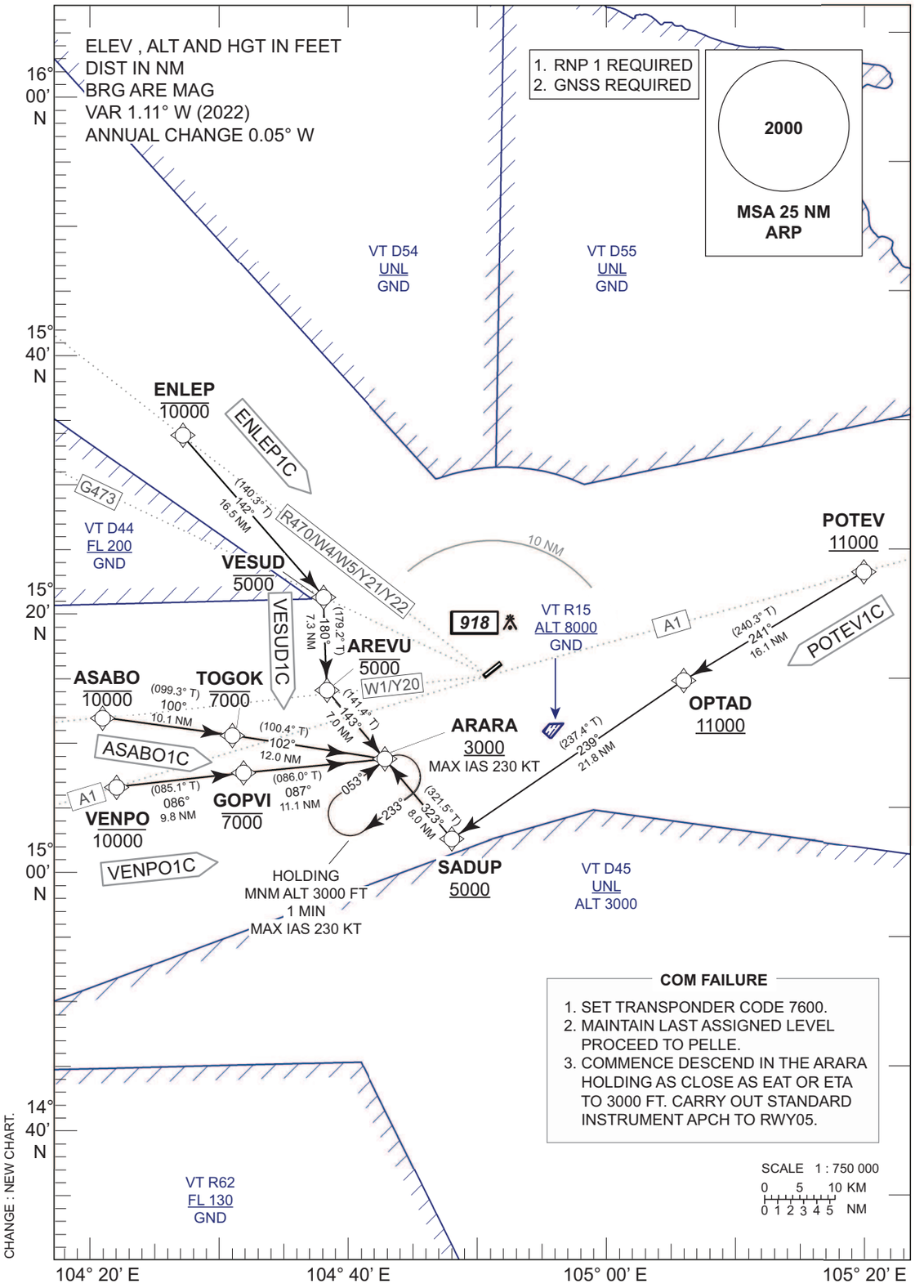
**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU)**
**RNAV RWY05**

ASABO1C ENLEP1C POTEV1C VENPO1C VESUD1C



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**UBON RATCHATHANI / Ubon Ratchathani (VTUU)**
**RNAV RWY05**

ASABO1C ENLEP1C POTEV1C VENPO1C VESUD1C

**TABULAR DESCRIPTION**

| RNAV RWY05 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
| **ASABO1C** FROM W1/Y20 | | | | | | | | | | | |
| 010 | IF | ASABO | - | - | +1.2 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | TOGOK | - | 100°(099.3°) | +1.2 | 10.1 | - | -7000 | - | - | RNP 1 |
| 030 | TF | ARARA | - | 102°(100.4°) | +1.2 | 12.0 | - | +3000 | -230 | - | RNP 1 |
| **ENLEP1C** FROM R470/W4/W5/Y21/Y22 | | | | | | | | | | | |
| 010 | IF | ENLEP | - | - | +1.2 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | VESUD | - | 142°(140.3°) | +1.2 | 16.5 | - | -5000 | - | - | RNP 1 |
| 030 | TF | AREVU | - | 180°(179.2°) | +1.2 | 7.3 | - | -5000 | - | - | RNP 1 |
| 040 | TF | ARARA | - | 143°(141.4°) | +1.2 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| **POTEV1C** FROM A1 | | | | | | | | | | | |
| 010 | IF | POTEV | - | - | +1.2 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | OPTAD | - | 241°(240.3°) | +1.2 | 16.1 | - | +11000 | - | - | RNP 1 |
| 030 | TF | SADUP | - | 239°(237.4°) | +1.2 | 21.8 | - | +5000 | - | - | RNP 1 |
| 040 | TF | ARARA | - | 323°(321.5°) | +1.2 | 8.0 | - | +3000 | -230 | - | RNP 1 |
| **VENPO1C** FROM A1 | | | | | | | | | | | |
| 010 | IF | VENPO | - | - | +1.2 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | GOPVI | - | 086°(085.1°) | +1.2 | 9.8 | - | -7000 | - | - | RNP 1 |
| 030 | TF | ARARA | - | 087°(086.0°) | +1.2 | 11.1 | - | +3000 | -230 | - | RNP 1 |
| **VESUD1C** FROM G473 | | | | | | | | | | | |
| 010 | IF | VESUD | - | - | +1.2 | - | - | -5000 | - | - | RNP 1 |
| 020 | TF | AREVU | - | 180°(179.2°) | +1.2 | 7.3 | - | -5000 | - | - | RNP 1 |
| 030 | TF | ARARA | - | 143°(141.4°) | +1.2 | 7.0 | - | +3000 | -230 | - | RNP 1 |

**WAYPOINT LIST**

| RNAV RWY05 | |
|---|---|
| Waypoint Identifier | Coordinates |
| ARARA | 15° 08' 21.24" N 104° 43' 31.30" E |
| AREVU | 15° 13' 50.98" N 104° 39' 00.56" E |
| ASABO | 15° 12' 09.44" N 104° 21' 02.31" E |
| ENLEP | 15° 33' 53.26" N 104° 28' 00.19" E |
| GOPVI | 15° 07' 35.15" N 104° 32' 07.43" E |
| OPTAD | 15° 13' 51.60" N 105° 07' 38.89" E |
| POTEV | 15° 21' 52.55" N 105° 22' 06.28" E |
| SADUP | 15° 02' 04.20" N 104° 48' 40.50" E |
| TOGOK | 15° 10' 31.60" N 104° 31' 19.04" E |
| VENPO | 15° 06' 44.98" N 104° 22' 02.18" E |
| VESUD | 15° 21' 08.05" N 104° 38' 54.27" E |

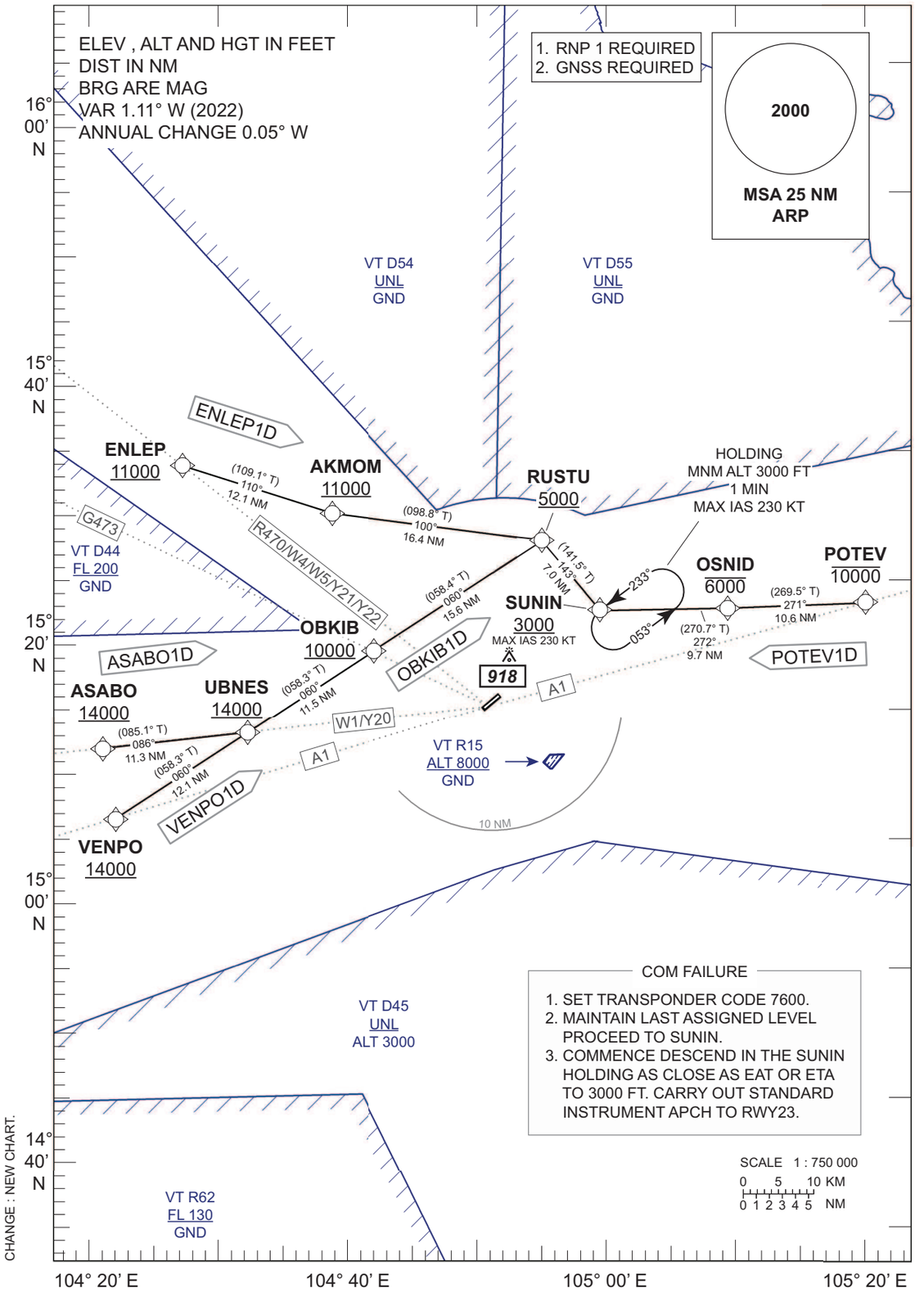
**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) RNAV RWY23**

ASABO1D ENLEP1D OBKIB1D POTEV1D VENPO1D



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**UBON RATCHATHANI / Ubon Ratchathani (VTUU)**
**RNAV RWY23**

ASABO1D ENLEP1D OBKIB1D POTEV1D VENPO1D

**TABULAR DESCRIPTION**

**RNAV RWY23**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **ASABO1D** FROM W1/Y20 | | | | | | | | | | | |
| 010 | IF | ASABO | - | - | +1.2 | - | - | +14000 | - | - | RNP 1 |
| 020 | TF | UBNES | - | 086°(085.1°) | +1.2 | 11.3 | - | +14000 | - | - | RNP 1 |
| 030 | TF | OBKIB | - | 060°(058.3°) | +1.2 | 11.5 | - | +10000 | - | - | RNP 1 |
| 040 | TF | RUSTU | - | 060°(058.4°) | +1.2 | 15.6 | - | +5000 | - | - | RNP 1 |
| 050 | TF | SUNIN | - | 143°(141.5°) | +1.2 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| **ENLEP1D** FROM R470/W4/W5/Y21/Y22 | | | | | | | | | | | |
| 010 | IF | ENLEP | - | - | +1.2 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | AKMOM | - | 110°(109.1°) | +1.2 | 12.1 | - | +11000 | - | - | RNP 1 |
| 030 | TF | RUSTU | - | 100°(098.8°) | +1.2 | 16.4 | - | +5000 | - | - | RNP 1 |
| 040 | TF | SUNIN | - | 143°(141.5°) | +1.2 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| **OBKIB1D** FROM G473 | | | | | | | | | | | |
| 010 | IF | OBKIB | - | - | +1.2 | - | - | +10000 | - | - | RNP 1 |
| 020 | TF | RUSTU | - | 060°(058.4°) | +1.2 | 15.6 | - | +5000 | - | - | RNP 1 |
| 030 | TF | SUNIN | - | 143°(141.5°) | +1.2 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| **POTEV1D** FROM A1 | | | | | | | | | | | |
| 010 | IF | POTEV | - | - | +1.2 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | OSNID | - | 271°(269.5°) | +1.2 | 10.6 | - | -6000 | - | - | RNP 1 |
| 030 | TF | SUNIN | - | 272°(270.7°) | +1.2 | 9.7 | - | +3000 | -230 | - | RNP 1 |
| **VENPO1D** FROM A1 | | | | | | | | | | | |
| 010 | IF | VENPO | - | - | +1.2 | - | - | +14000 | - | - | RNP 1 |
| 020 | TF | UBNES | - | 060°(058.3°) | +1.2 | 12.1 | - | +14000 | - | - | RNP 1 |
| 030 | TF | OBKIB | - | 060°(058.3°) | +1.2 | 11.5 | - | +10000 | - | - | RNP 1 |
| 040 | TF | RUSTU | - | 060°(058.4°) | +1.2 | 15.6 | - | +5000 | - | - | RNP 1 |
| 050 | TF | SUNIN | - | 143°(141.5°) | +1.2 | 7.0 | - | +3000 | -230 | - | RNP 1 |

**WAYPOINT LIST**

**RNAV RWY23**

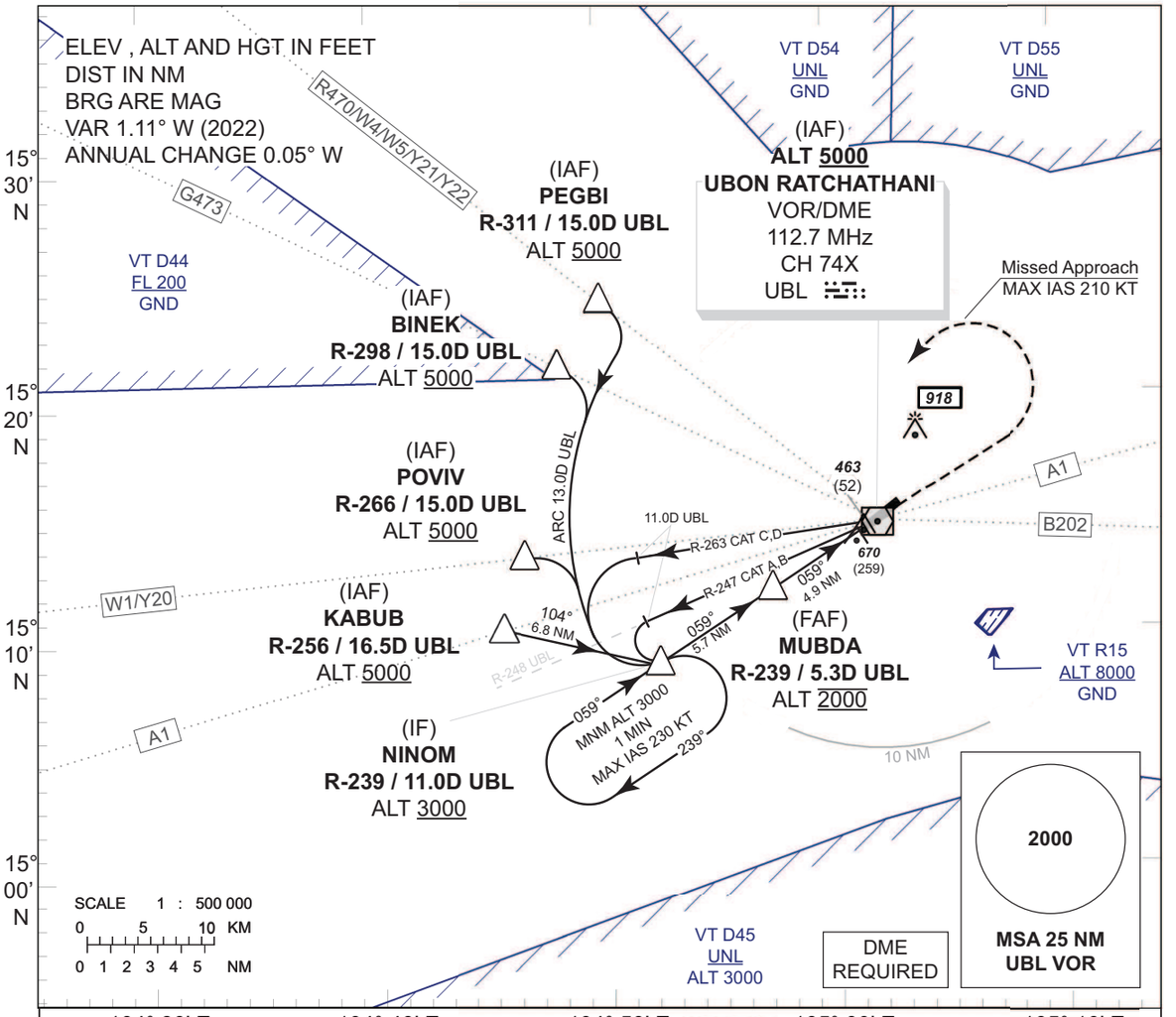
| Waypoint Identifier | Coordinates |
|---|---|
| AKMOM | 15° 29' 55.31" N 104° 39' 48.69" E |
| ASABO | 15° 12' 09.44" N 104° 21' 02.31" E |
| ENLEP | 15° 33' 53.26" N 104° 28' 00.19" E |
| OBKIB | 15° 19' 12.51" N 104° 42' 49.30" E |
| OSNID | 15° 21' 47.03" N 105° 11' 07.67" E |
| POTEV | 15° 21' 52.55" N 105° 22' 06.28" E |
| RUSTU | 15° 27' 24.60" N 104° 56' 33.17" E |
| SUNIN | 15° 21' 54.45" N 105° 01' 03.74" E |
| UBNES | 15° 13' 07.57" N 104° 32' 39.76" E |
| VENPO | 15° 06' 44.98" N 104° 22' 02.18" E |

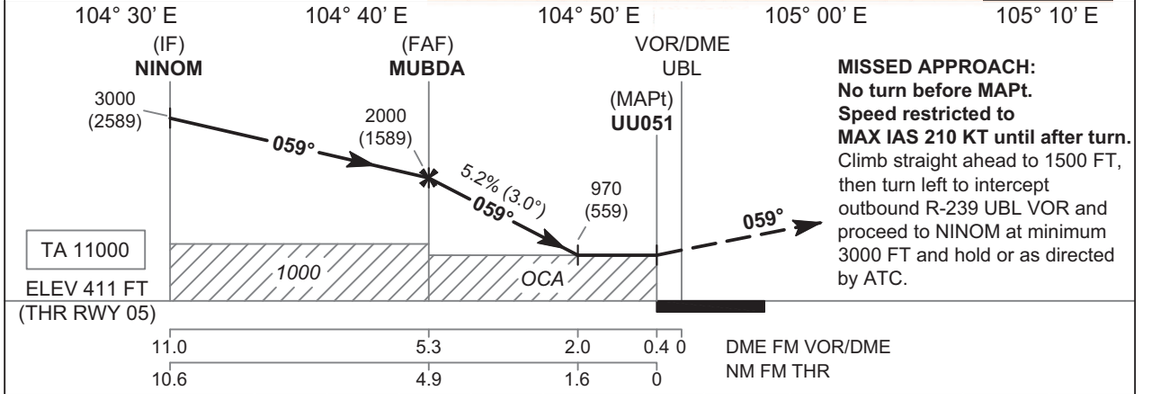
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO AERODROME ELEV

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) VOR RWY05**




**MISSED APPROACH:**
**No turn before MAPt.**
**Speed restricted to MAX IAS 210 KT until after turn.**
Climb straight ahead to 1500 FT, then turn left to intercept outbound R-239 UBL VOR and proceed to NINOM at minimum 3000 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D | Distance (UBL) | FAF | 5 D | 4 D | 3 D | 2 D |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 970 (559) | | | | Altitude (Height) | 2000 (1589) | 1915 (1504) | 1600 (1189) | 1280 (869) | 965 (554) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1400 (989) | | | | Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO AERODROME ELEV

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) VOR RWY05**

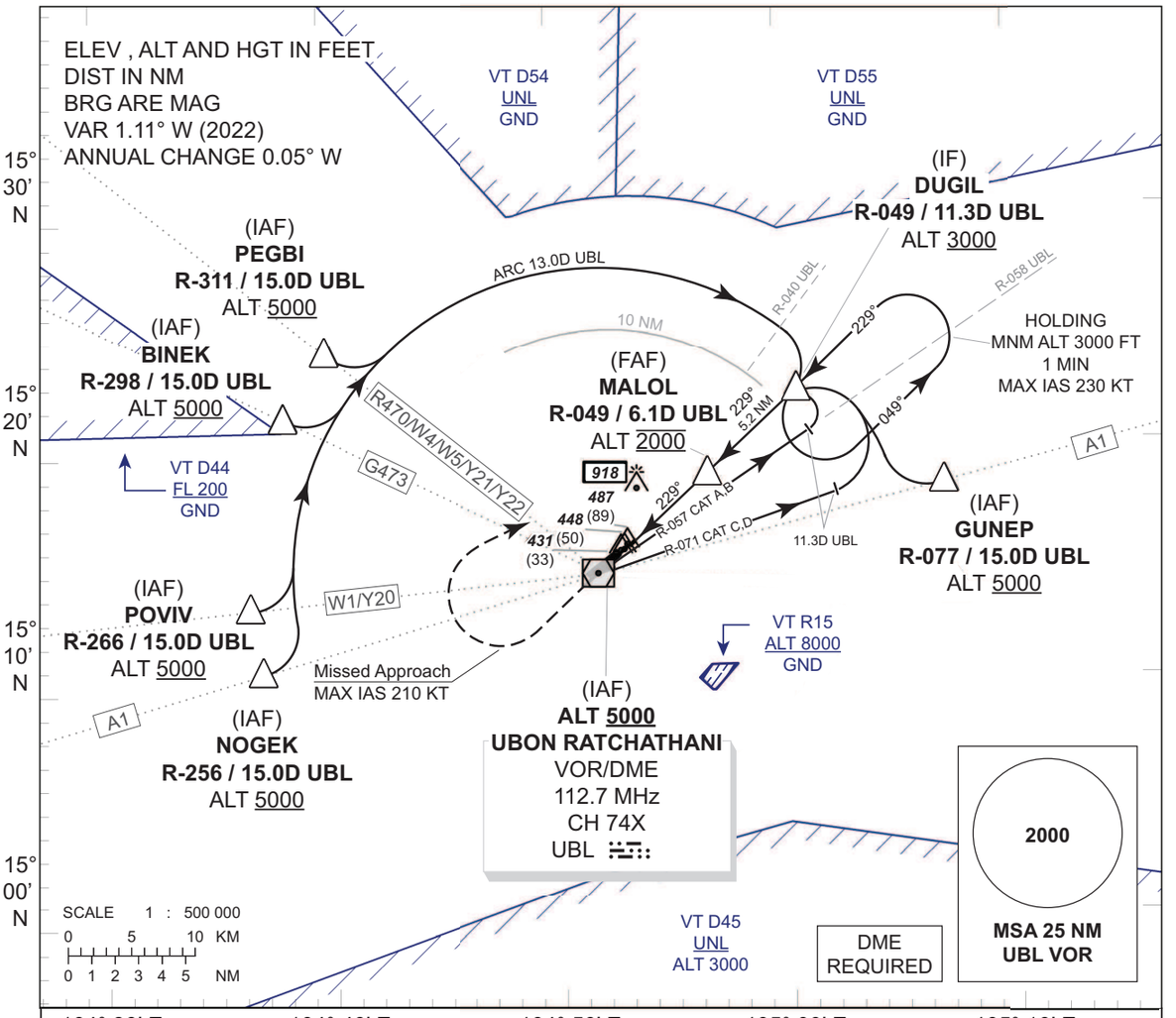
| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) PEGBI | R-311 / 15.0D UBL | 15° 24' 18.31" N | 104° 39' 59.24" E |
| (IAF) BINEK | R-298 / 15.0D UBL | 15° 21' 31.40" N | 104° 38' 06.75" E |
| (IAF) POVIV | R-266 / 15.0D UBL | 15° 13' 26.61" N | 104° 36' 29.71" E |
| (IAF) KABUB | R-256 / 16.5D UBL | 15° 10' 20.54" N | 104° 35' 30.02" E |
| (IF) NINOM | R-239 / 11.0D UBL | 15° 08' 50.06" N | 104° 42' 19.40" E |
| (FAF) MUBDA | R-239 / 5.3D UBL | 15° 11' 52.98" N | 104° 47' 19.00" E |
| (MAPt) UU051 | R-239 / 0.4D UBL | 15° 14' 30.02" N | 104° 51' 36.49" E |
| (IAF) VOR | UBL | 15° 14' 42.68" N | 104° 51' 57.24" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY23 - ELEV 397 FT

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) VOR RWY23**




| OCA/H | A | B | C | D | Distance (UBL) | 2.8 D | 3 D | 4 D | 5 D | 6 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 950 (553) | | | | Altitude (Height) | 950 (552) | 1015 (618) | 1330 (933) | 1650 (1253) | 1965 (1568) | 2000 (1603) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1400 (989) | | | | Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY23 - ELEV 397 FT

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) VOR RWY23**

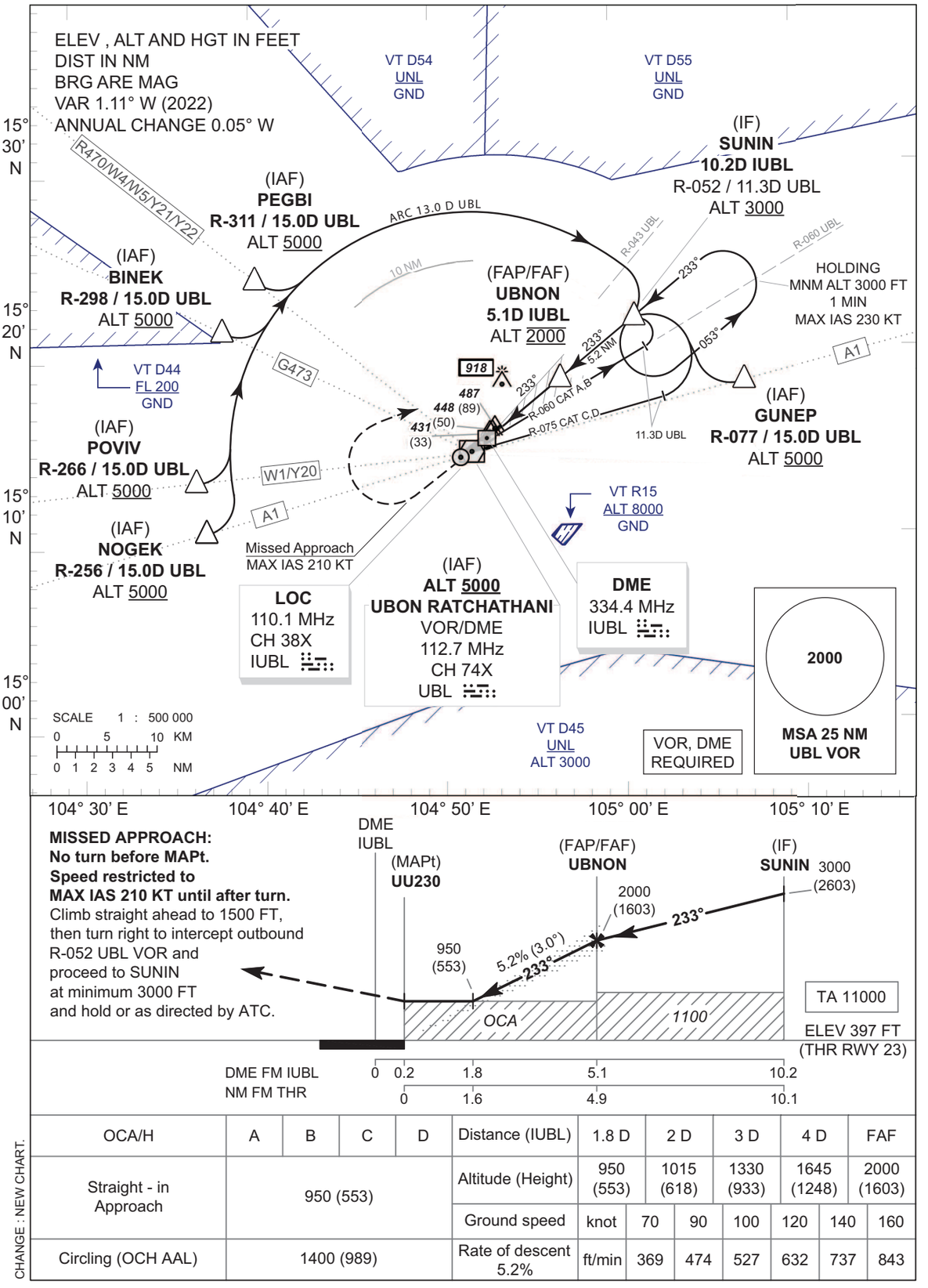
| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) PEGBI | R-311 / 15.0D UBL | 15° 24' 18.31" N | 104° 39' 59.24" E |
| (IAF) BINEK | R-298 / 15.0D UBL | 15° 21' 31.40" N | 104° 38' 06.75" E |
| (IAF) POVIV | R-266 / 15.0D UBL | 15° 13' 26.61" N | 104° 36' 29.71" E |
| (IAF) NOGEK | R-256 / 15.0D UBL | 15° 10' 44.34" N | 104° 36' 59.46" E |
| (IAF) GUNEP | R-077 / 15.0D UBL | 15° 18' 18.14" N | 105° 07' 01.54" E |
| (IF) DUGIL | R-049 / 11.3D UBL | 15° 22' 21.51" N | 105° 00' 38.72" E |
| (FAF) MALOL | R-049 / 6.1D UBL | 15° 18' 51.11" N | 104° 56' 39.48" E |
| (MAPt) UU231 | R-049 / 1.2D UBL | 15° 15' 32.78" N | 104° 52' 54.16" E |
| (IAF) VOR | UBL | 15° 14' 42.68" N | 104° 51' 57.24" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY23 - ELEV 397 FT

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU)**
**LOC y RWY23**




| OCA/H | A | B | C | D | Distance (IUBL) | 1.8 D | 2 D | 3 D | 4 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 950 (553) | | | | Altitude (Height) | 950 (553) | 1015 (618) | 1330 (933) | 1645 (1248) | 2000 (1603) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1400 (989) | | | | Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : NEW CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY23 - ELEV 397 FT

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) LOC y RWY23**

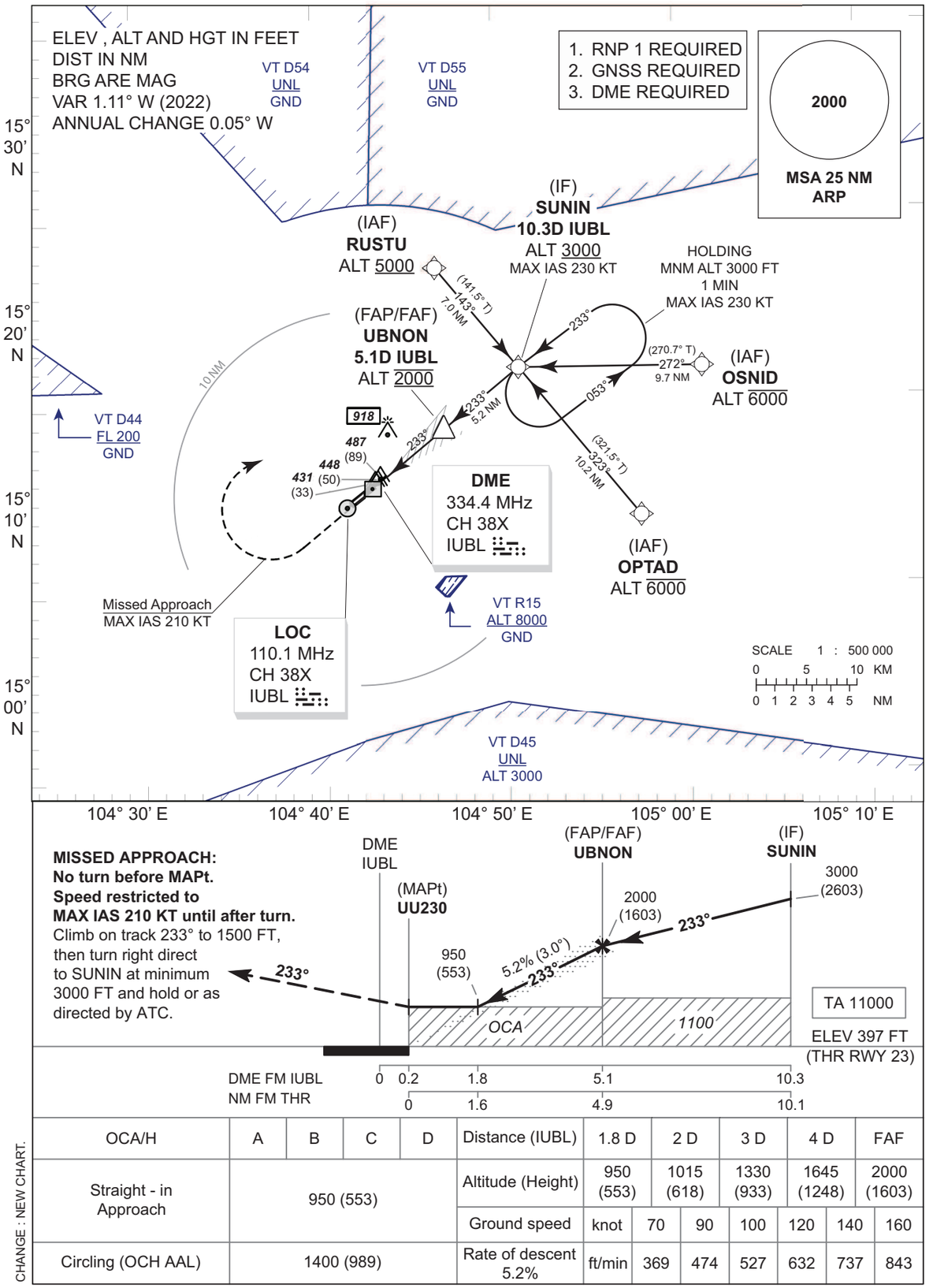
| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IAF) PEGBI | R-311 / 15.0D UBL | 15° 24' 18.31" N | 104° 39' 59.24" E |
| (IAF) BINEK | R-298 / 15.0D UBL | 15° 21' 31.40" N | 104° 38' 06.75" E |
| (IAF) POVIV | R-266 / 15.0D UBL | 15° 13' 26.61" N | 104° 36' 29.71" E |
| (IAF) NOGEK | R-256 / 15.0D UBL | 15° 10' 44.34" N | 104° 36' 59.46" E |
| (IAF) GUNEP | R-077 / 15.0D UBL | 15° 18' 18.14" N | 105° 07' 01.54" E |
| (IF) SUNIN | 10.2D IUBL | 15° 21' 54.45" N | 105° 01' 03.74" E |
| (FAP/FAF) UBNON | 5.0D IUBL | 15° 18' 38.04" N | 104° 56' 49.18" E |
| (MAPt) UU230 | 0.2D IUBL | 15° 15' 34.99" N | 104° 52' 52.24" E |
| LOC | IUBL | 15° 14' 24.09" N | 104° 51' 20.50" E |
| DME | - | 15° 15' 26.05" N | 104° 52' 47.24" E |
| (IAF) VOR | UBL | 15° 14' 42.68" N | 104° 51' 57.24" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY23 - ELEV 397 FT

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU)**
**LOC z RWY23**







| OCA/H | A | B | C | D | Distance (IUBL) | 1.8 D | 2 D | 3 D | 4 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| Straight - in Approach | 950 (553) | | | | Altitude (Height) | 950 (553) | 1015 (618) | 1330 (933) | 1645 (1248) | 2000 (1603) |
| | | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1400 (989) | | | | Rate of descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : NEW CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY23 - ELEV 397 FT

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) LOC z RWY23**

**TABULAR DESCRIPTION**

| LOC z RWY23 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Serial Number** | **Path Descriptor** | **Waypoint Identifier** | **Flyover** | **Course °M(°T)** | **Magnetic Variation** | **Distance (NM)** | **Turn Direction** | **Altitude (FT)** | **Speed (KT)** | **VPA/ RDH** | **Navigation Specification** |
| 010 | IF | (IAF) RUSTU | - | - | +1.2 | - | - | +5000 | - | - | RNP 1 |
| 020 | TF | (IF) SUNIN | - | 143°(141.5°) | +1.2 | 7.0 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) OSNID | - | - | +1.2 | - | - | -6000 | - | - | RNP 1 |
| 020 | TF | (IF) SUNIN | - | 272°(270.7°) | +1.2 | 9.7 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) OPTAD | - | - | +1.2 | - | - | -6000 | - | - | RNP 1 |
| 020 | TF | (IF) SUNIN | - | 323°(321.5°) | +1.2 | 10.2 | - | +3000 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) SUNIN | - | - | +1.2 | - | - | +3000 | -230 | - | RNP 1 |
| **TRANSITION TO LOC** | | | | | | | | | | | |
| 020 | TF | (FAF/FAP) UBNON | - | 233°(231.5°) | +1.2 | 5.2 | - | @2000 | - | - | LOC |
| 030 | TF | (MAPt @THR23) UU230 | Y | 233°(231.5°) | +1.2 | 4.9 | - | @447 | - | -3.0/50 | LOC |
| 040 | CA | - | - | 233°(231.5°) | +1.2 | - | - | +1500 | - | - | RNP 1 |
| 050 | DF | (IF) SUNIN | - | - | +1.2 | - | R | +3000 | -210 | - | RNP 1 |
| 060 | HM | (IF) SUNIN | Y | 233°(231.5°) | +1.2 | 1 minute | L | +3000 | -230 | - | RNP 1 |

**WAYPOINT LIST**

| LOC z RWY23 | |
|---|---|
| | |
| **Waypoint Identifier** | **Coordinates** |
| OPTAD | 15° 13' 51.60" N 105° 07' 38.89" E |
| OSNID | 15° 21' 47.03" N 105° 11' 07.67" E |
| RUSTU | 15° 27' 24.60" N 104° 56' 33.17" E |
| SUNIN | 15° 21' 54.45" N 105° 01' 03.74" E |
| UBNON | 15° 18' 38.04" N 104° 56' 49.18" E |
| UU230 | 15° 15' 34.99" N 104° 52' 52.24" E |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY23 - ELEV 397 FT

**UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
LOC z RWY23**

| Fix / Point | | Coordinates | |
|---|---|---|---|
| (IF)<br>SUNIN | 10.2D IUBL | 15° 21' 54.45" N | 105° 01' 03.74" E |
| (FAP/FAF)<br>UBNON | 5.0D IUBL | 15° 18' 38.04" N | 104° 56' 49.18" E |
| (MAPt)<br>UU230 | 0.2D IUBL | 15° 15' 34.99" N | 104° 52' 52.24" E |
| LOC | IUBL | 15° 14' 24.09" N | 104° 51' 20.50" E |
| DME | - | 15° 15' 26.05" N | 104° 52' 47.24" E |

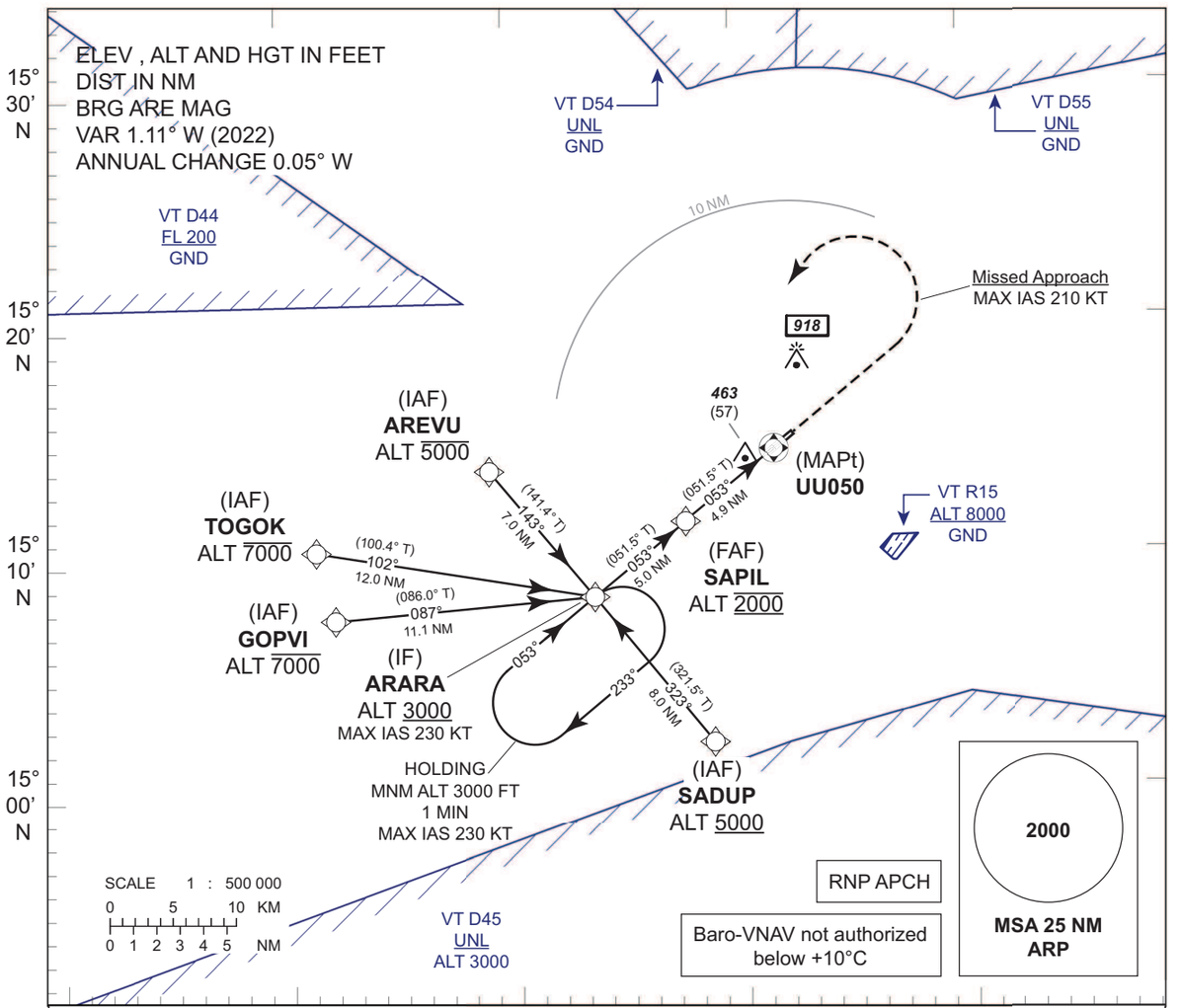
**INTENTIONALLY BLANK**

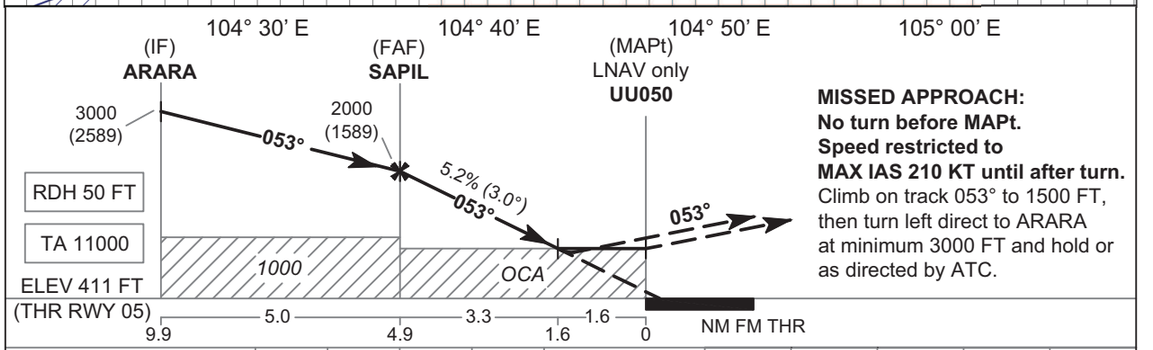
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY05 - ELEV 411 FT

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU)**
**RNP RWY05**




CHANGE : REVISED CHART.

| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 4 NM | 3 NM | 2 NM | 1.6 NM |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 890 (479) | | | | Altitude (Height) | 2000 (1589) | 1725 (1314) | 1410 (999) | 1090 (679) | 970 (559) |
| LNAV | 970 (559) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1400 (989) | | | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY05 - ELEV 411 FT

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) RNP RWY05**

**TABULAR DESCRIPTION**

| RNP RWY05 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
| 010 | IF | (IAF) AREVU | - | - | +1.2 | - | - | -5000 | - | - | RNP APCH |
| 020 | TF | (IF) ARARA | - | 143°(141.4°) | +1.2 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) TOGOK | - | - | +1.2 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | (IF) ARARA | - | 102°(100.4°) | +1.2 | 12.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) GOPVI | - | - | +1.2 | - | - | -7000 | - | - | RNP APCH |
| 020 | TF | (IF) ARARA | - | 087°(086.0°) | +1.2 | 11.1 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) SADUP | - | - | +1.2 | - | - | +5000 | - | - | RNP APCH |
| 020 | TF | (IF) ARARA | - | 323°(321.5°) | +1.2 | 8.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) ARARA | - | - | +1.2 | - | - | +3000 | -230 | - | RNP APCH |
| 020 | TF | (FAF) SAPIL | - | 053°(051.5°) | +1.2 | 5.0 | - | @2000 | - | - | RNP APCH |
| 030 | TF | (MAPt @THR05) UU050 | Y | 053°(051.5°) | +1.2 | 4.9 | - | @461 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 053°(051.5°) | +1.2 | - | - | +1500 | - | - | RNP APCH |
| 050 | DF | (IF) ARARA | - | - | +1.2 | - | L | +3000 | -210 | - | RNP APCH |
| 060 | HM | (IF) ARARA | Y | 053°(051.5°) | +1.2 | 1 minute | R | +3000 | -230 | - | RNP APCH |

**WAYPOINT LIST**

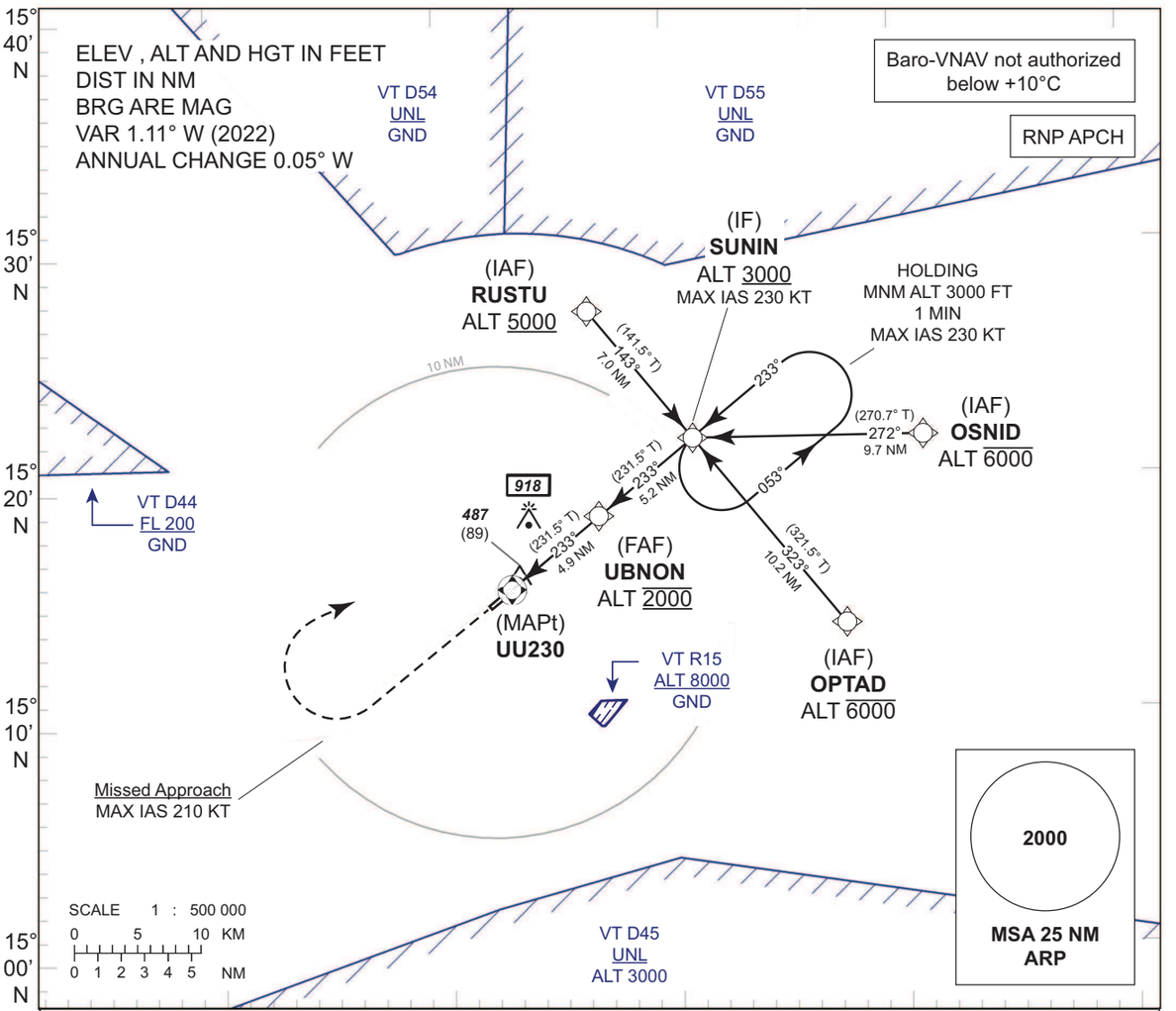
| RNP RWY05 | |
|---|---|
| | |
| Waypoint Identifier | Coordinates |
| ARARA | 15° 08' 21.24" N 104° 43' 31.30" E |
| AREVU | 15° 13' 50.98" N 104° 39' 00.56" E |
| GOPVI | 15° 07' 35.15" N 104° 32' 07.43" E |
| SADUP | 15° 02' 04.20" N 104° 48' 40.50" E |
| SAPIL | 15° 11' 30.25" N 104° 47' 35.60" E |
| TOGOK | 15° 10' 31.60" N 104° 31' 19.04" E |
| UU050 | 15° 14' 34.17" N 104° 51' 33.53" E |

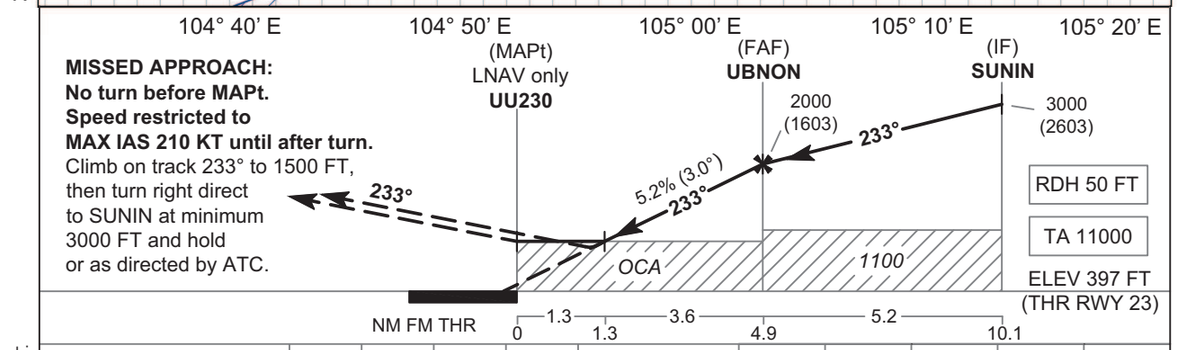
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY23 - ELEV 397 FT

APR : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8
ATIS : 128.2

**UBON RATCHATHANI / Ubon Ratchathani (VTUU)**
**RNP RWY23**




| OCA/H | A | B | C | D | NM to NEXT WPT | 1.3 NM | 2 NM | 3 NM | 4 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|
| LNAV / VNAV | 760 (363) | | | | Altitude (Height) | 860 (463) | 1075 (678) | 1395 (998) | 1710 (1313) | 2000 (1603) |
| LNAV | 860 (463) | | | | Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1400 (989) | | | | Rate of descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 411 FT**
HEIGHT RELATED TO
THR RWY23 - ELEV 397 FT

**UBON RATCHATHANI / Ubon Ratchathani (VTUU) RNP RWY23**

**TABULAR DESCRIPTION**

| RNP RWY23 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ RDH | Navigation Specification |
| 010 | IF | (IAF) RUSTU | - | - | +1.2 | - | - | +5000 | - | - | RNP APCH |
| 020 | TF | (IF) SUNIN | - | 143°(141.5°) | +1.2 | 7.0 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) OSNID | - | - | +1.2 | - | - | -6000 | - | - | RNP APCH |
| 020 | TF | (IF) SUNIN | - | 272°(270.7°) | +1.2 | 9.7 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) OPTAD | - | - | +1.2 | - | - | -6000 | - | - | RNP APCH |
| 020 | TF | (IF) SUNIN | - | 323°(321.5°) | +1.2 | 10.2 | - | +3000 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) SUNIN | - | - | +1.2 | - | - | +3000 | -230 | - | RNP APCH |
| 020 | TF | (FAF) UBNON | - | 233°(231.5°) | +1.2 | 5.2 | - | @2000 | - | - | RNP APCH |
| 030 | TF | (MAPt @THR23) UU230 | Y | 233°(231.5°) | +1.2 | 4.9 | - | @447 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 233°(231.5°) | +1.2 | - | - | +1500 | - | - | RNP APCH |
| 050 | DF | (IF) SUNIN | - | - | +1.2 | - | R | +3000 | -210 | - | RNP APCH |
| 060 | HM | (IF) SUNIN | Y | 233°(231.5°) | +1.2 | 1 minute | L | +3000 | -230 | - | RNP APCH |

**WAYPOINT LIST**

| RNP RWY23 | |
|---|---|
| | |
| Waypoint Identifier | Coordinates |
| OPTAD | 15° 13' 51.60" N 105° 07' 38.89" E |
| OSNID | 15° 21' 47.03" N 105° 11' 07.67" E |
| RUSTU | 15° 27' 24.60" N 104° 56' 33.17" E |
| SUNIN | 15° 21' 54.45" N 105° 01' 03.74" E |
| UBNON | 15° 18' 38.04" N 104° 56' 49.18" E |
| UU230 | 15° 15' 34.99" N 104° 52' 52.24" E |

## VTUD AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUD - UDON THANI / UDON THANI AIRPORT

## VTUD AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 172311.17N 1024717.69E |
| 2 | Direction and distance from (city) | 3 KM SW, from city |
| 3 | Elevation/Reference temperature | 579 FT/26°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.87°W(2016) / 0.01°W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Udon Thani Airprot<br>Udon Thani Airport<br>Makkhaeng, Muang<br>Udon Thani 41000<br>Thailand<br>Tel: +664 224 4426<br>Fax: +664 224 6804<br>AFS: VTUDYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTUD AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1500 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1500 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1500 |
| 8 | Fuelling | 2300-1500 |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Udon Thani Air Traffic Control Centre (1st floor of tower building)<br>Tel: +664 223 0124<br>+669 2262 3477<br>Fax: +664 224 2797 |

## VTUD AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | JET A-1, AVGAS |
| 3 | Fuelling facilities/capacity | 3 JET A-1 Refueller @ 12,000 L1 JET A-1 Refueller @ 22,000 L1<br>AVGAS DC Motor Dispenser from drum 200 L |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTUD AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | Near the AD and in the city |
| 2 | Restaurants | At AD and in the city |
| 3 | Transportation | Limousines and shuttle bus |
| 4 | Medical facilities | Hospital in the city |
| 5 | Bank and Post Office | Bank: NIL<br>Post office: At AD, open 0300-1100 |
| 6 | Tourist Office | At AD and in the city |
| 7 | Remarks | NIL |

## VTUD AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 8 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUD AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTUD AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 61/R/C/X/T |
| 2 | Taxiway width, surface and strength | TWY A - TWY N<br>Width: 23 M<br>Surface: Concrete<br>Strength: PCN 61/R/C/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: At Apron<br>Elevation: 179 M (590 FT) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUD AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>VDGS of aircraft stands: NIL, aircraft shall follow marshaller strictly. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, CL, Aiming Point and RWY Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: CL and Edge<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUD AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| RWY12/<br>Approach area<br>RWY30/<br>Take off area | Tree<br>HGT 132 FT AGL<br>NIL / NIL | 172336.09N<br>1024613.09E | AWOS 1<br>ELEV 613.75 FT<br>(187.07 M)<br>Paint red/white<br>LGTD | 172327.73 N<br>1024634.26E | NIL |
| RWY12/<br>Approach area<br>RWY30/<br>Take off area | Radio mast<br>ELEV 701.44 FT<br>(213.80 M)<br>Paint red/white<br>LGTD | 172402.44N<br>1024600.88E | AWOS 2<br>ELEV 613.65 FT<br>(187.04 M)<br>Paint red/white<br>LGTD | 172327.64N<br>1024634.44E | |
| RWY30/<br>Approach area | Radio mast<br>ELEV 727.26 FT<br>(221.67 M)<br>Paint red/white<br>LGTD | 172211.25N<br>1024841.64E | AWOS 3<br>ELEV 612.40 FT<br>(186.66 M)<br>Paint red/white<br>LGTD | 172250.71N<br>1024750.63E | |
| RWY30/<br>Approach area<br>RWY12/<br>Take off area | Radio mast<br>ELEV 829.27 FT<br>(252.76 M)<br>Paint red/white<br>LGTD | 172144.55N<br>1024911.61E | AWOS 4<br>ELEV 612.60 FT<br>(186.72 M)<br>Paint red/white<br>LGTD | 172250.64N<br>1024750.71E | |
| RWY30/<br>Approach area<br>RWY12/<br>Take off area | Telecommunication mast<br>ELEV 634.74 FT<br>(193.47 M)<br>NIL / NIL | 172246.27N<br>1024825.46E | GP<br>ELEV 637.43 FT<br>(194.29 M)<br>Paint red/white<br>LGTD | 172256.83N<br>1024756.06E | |
| | | | Radio mast<br>ELEV 829.56 FT<br>(252.85 M)<br>Paint red/white<br>LGTD | 172454.30N<br>1024648.57E | |
| | | | Radio mast<br>ELEV 833.92 FT<br>(254.18 M)<br>Paint red/white<br>LGTD | 172421.52N<br>1024649.65E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Radio mast<br>ELEV 807.09 FT<br>(246 M)<br>Paint red/white<br>LGTD | 172226.91N<br>1024816.60E | |
| | | | Radio mast<br>ELEV 763.25 FT<br>(232.64 M)<br>Paint red/white<br>LGTD | 172417.56N<br>1024717.27E | |
| | | | Radio mast<br>ELEV 983.01 FT<br>(299.62 M)<br>Paint red/white<br>LGTD | 172444.38N<br>1024742.77E | |
| | | | Radio mast<br>ELEV 732.87 FT<br>(223.38 M)<br>Paint red/white<br>LGTD | 172353.89N<br>1024711.03E | |
| | | | Radio mast<br>ELEV 909.28 FT<br>(277.15 M)<br>NIL / NIL | 172320.67N<br>1024814.35E | |
| | | | Radio mast<br>ELEV 917.16 FT<br>(279.55 M)<br>Paint red/white<br>LGTD | 172508.08N<br>1024806.00E | |
| | | | Radio mast<br>ELEV 784.71 FT<br>(239.18 M)<br>NIL / NIL | 172222.33N<br>1024803.13E | |
| | | | Radio mast<br>ELEV 870.34 FT<br>(265.28 M)<br>Paint red/white<br>NIL | 172444.66N<br>1024733.74E | |
| | | | Microwave radio mast<br>ELEV 734.51 FT<br>(223.88 M)<br>Paint red/white<br>LGTD | 172304.98N<br>1024756.02E | |
| | | | Telecommunication mast<br>ELEV 783.17 FT<br>(238.71 M)<br>Paint red/white<br>LGTD | 172125.77N<br>1024708.40E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Telecommunication mast ELEV 746.46 FT (227.52 M) Paint red/white LGTD | 172140.25N 1024711.59E | |
| | | | Telecommunication mast ELEV 746.46 FT (227.52 M) Paint red/white LGTD | 172410.35N 1024627.69E | |
| | | | Telecommunication mast ELEV 740.39 FT (225.67 M) Paint red/white LGTD | 172334.37N 1024717.19E | |
| | | | Telecommunication mast ELEV 797.34 FT (243.03 M) Paint red/white LGTD | 172442.34N 1024307.60E | |
| | | | Telecommunication mast ELEV 748.16 FT (228.04 M) Paint red/white LGTD | 172205.85N 1024749.72E | |
| | | | Telecommunication mast ELEV 761.35 FT (232.06 M) NIL / NIL | 172114.53N 1024806.03E | |
| | | | Telecommunication mast ELEV 774.57 FT (236.09 M) NIL / NIL | 172248.11N 1024427.81E | |
| | | | Telecommunication mast ELEV 836.75 FT (255.04 M) Paint red/white NIL | 172248.52N 1024432.37E | |
| | | | Telecommunication mast ELEV 760.56 FT (231.82 M) Paint red/white NIL | 172302.83N 1024447.32E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Telecommunication mast<br>ELEV 735.17 FT<br>(224.08 M)<br>NIL / NIL | 172306.14N<br>1024539.60E | |
| | | | Telecommunication mast<br>ELEV 780.61 FT<br>(237.93 M)<br>Paint red/white<br>LGTD | 172138.71N<br>1024535.51E | |
| | | | Telecommunication mast<br>ELEV 765.68 FT<br>(233.38 M)<br>NIL / NIL | 172153.95N<br>1024536.29E | |
| | | | Telecommunication mast<br>ELEV 742.09 FT<br>(226.19 M)<br>Paint red/white<br>NIL | 172222.25N<br>1024619.06E | |
| | | | Telecommunication mast<br>ELEV 745.31 FT<br>(227.17 M)<br>Paint red/white<br>NIL | 172224.47N<br>1024622.42E | |
| | | | Telecommunication mast<br>ELEV 753.28 FT<br>(229.60 M)<br>Paint red/white<br>NIL | 172224.38N<br>1024623.49E | |
| | | | Telecommunication mast<br>ELEV 743.01 FT<br>(226.47 M)<br>Paint red/white<br>LGTD | 172221.31N<br>1024625.98E | |
| | | | Telecommunication mast<br>ELEV 761.91 FT<br>(232.23 M)<br>NIL / NIL | 172117.43N<br>1024645.34E | |
| | | | Telecommunication mast<br>ELEV 873.03 FT<br>(266.10 M)<br>Paint red/white<br>NIL | 172104.48N<br>1024706.73E | |

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | Obstacle type<br>Elevation<br>Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| | | | Building<br>ELEV 776.15 FT<br>(236.57 M)<br>Paint red/white<br>LGTD | 172202.95N<br>1024535.16E | |
| | | | Building<br>ELEV 734.94 FT<br>(224.01 M)<br>NIL / NIL | 172439.51N<br>1024742.31E | |
| | | | Building<br>ELEV 754.17 FT<br>(229.87 M)<br>NIL / NIL | 172420.21N<br>1024759.92E | |
| | | | Building<br>ELEV 743.57 FT<br>(226.64 M)<br>NIL / LGTD | 172456.73N<br>1024642.99E | |
| | | | Telecommunication<br>Mast<br>HGT 237 FT AGL<br>NIL / NIL | 172356.00N<br>1024618.60E | |

## VTUD AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Udon Thani,<br>Upper Northeastern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1500<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Upper Northeastern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +664 224 6803 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS)<br>and Low Level Windshear Alert System (LLWAS) |
| 9 | ATS units provided with information | Udon Thani TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUD AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 12 | 117.69° | 3048x45 | PCN 65/F/C/X/T<br>Asphalt | 172333.72N 1024631.65E | THR 579 FT<br>TDZ 579 FT |
| 30 | 297.68° | 3048x45 | PCN 65/F/C/X/T<br>Asphalt | 172248.62N 1024803.73E | THR 579 FT<br>TDZ 579 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | 300x45 | NIL | 3768x300 | NIL | NIL |
| NIL | 300x45 | NIL | 3768x300 | NIL | NIL |

## VTUD AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 12 | 3048 | 3048 | 3348 | 3048 | NIL |
| 30 | 3048 | 3048 | 3348 | 3048 | NIL |

## VTUD AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 12 | SALS<br>420 M<br>LIH | Green<br>NIL | PAPI<br>LEFT 3°<br>(50.60 FT) | NIL | NIL | 3 048 M<br>60 M<br>White LIH<br>YCZ: 600 M | Red<br>NIL | 300 M<br>Red | NIL |
| 30 | SALS<br>420 M<br>LIH | Green<br>Green | PAPI<br>LEFT 3°<br>(53.84 FT) | NIL | NIL | 3 048 M<br>60 M<br>White LIH<br>YCZ: 600 M | Red<br>NIL | 300 M<br>Red | NIL |

## VTUD AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At Tower Building, FLG WG EV 4 SEC..<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>WDI:<br>- Wind cone at 350 M from THR 12 off set to the right side 80 M from RCL, illuminated.<br>- Wind cone at 350 M from THR 30 off set to the left side 80 M from RCL, illuminated.<br>Anemometer: NIL |
| 3 | TWY edge and centre line lighting | Edge: All TWY<br>Centre Line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply at air field lighting (AFL).<br>Switch-over time: 15 SEC |
| 5 | Remarks | NIL |

## VTUD AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTUD AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on UDN DVOR/DME<br>(172305.2N 1024629.8E) |
| 2 | Vertical limits | 3000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Udon Tower<br>English, Thai |

| | | |
|---|---|---|
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTUD AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Udon Approach | 126.2 MHz<br>265.9 MHz<br>119.45 MHz[2)]<br>121.5 MHz[1)] | As AD OPR HR | [1)]Emergency frequency<br>[2)]Backup frequency |
| TWR | Udon Tower | 121.5 MHz[1)]<br>122.5 MHz<br>243.0 MHz[1)]<br>355.4 MHz<br>119.45 MHz[2)] | As AD OPR HR | |
| GND | Udon Ground | 121.9 MHz<br>275.8 MHz | As AD OPR HR | |
| ATIS | Udon Airport | 127.6 MHz | As AD OPR HR | |

## VTUD AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR/DME | UDN | 114.3 MHz<br>CH90X | H24 | 172305.2N<br>1024629.8E | | DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal at required altitudes in various areas as follows:<br>1. 15 nm orbit<br>- RDL 277º-280º ALT should not below 5000 ft<br>2. 20 nm orbit (due to border limited)<br>- RDL 331º- 030º ALT should not below 2500 ft<br>3. 40 nm orbit<br>- RDL 031º- 090º ALT should not below 3000 ft<br>- RDL 091º-190º ALT should not below 4000 ft<br>- RDL 191º- 268º ALT should not below 5000 ft<br>- RDL 269º- 276º ALT should not below 8000ft<br>- RDL 281º- 330º ALT should not below 5000 ft<br>4.The En-route radial 275 (W15) beyond 20 nm ALT 6500 ft the DVOR/DME signal out of tolerance. |
| ILS CAT I<br>LOC RWY30 | IUDN | 110.1 MHz | H24 | 172341.2N<br>1024616.4E | | |
| GP/DME | | 334.4 MHz<br>CH38X | H24 | 172256.8N<br>1024756.0E | | |

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| TACAN | UDN | CH86 | 0000-1300 | 1722.9N 10248.1E | | Military Facilities PN 30 min to ATC |

## VTUD AD 2.20 LOCAL AERODROME REGULATIONSS

### 1. VFR REPORTING POINTS AND LOCAL PROCEDURES

1.1 Reporting points for VFR flight In order to expedite and maintain an order flow of air traffic into Udon Thani Airport, the procedures of the inbound traffic of VFR flight, conventional and prop-jet aircraft be set up as follow:

a) Aircraft entering to land from north and northeast of Udon Thani Airport, will report over Bantin Distric, designated as TANGO (1739.6N 10247.6E) which is 17 NM on R-360 of UD VOR. When reaching TANGO the aircraft will be instructed to join aerodrome traffic pattern accordingly
b) Aircraft entering to land from east and southeast of Udon Thani Airport, will report over Nonghan District, designated as NOVEMBER (1721.5N 10306.1E) which is 17 NM on R-095 of UD VOR. When reaching NOVEMBER the aircraft will be instructed to join aerodrome traffic pattern accordingly
c) Aircraft entering to land from south and southwest of Udon Thani Airport will report over Ban Dongrueng, designated as ROMEO (1709.5N 10258.0E) which is 16 NM on R-145 of UD VOR. When reaching ROMEO the aircraft will be instructed to join aerodrome traffic pattern accordingly
d) Aircraft entering to land from west of Udon Thani Airport, will report over Ban Hua Khua (Hui Luang Reservoir) designated as HOTEL (1725.0N 10236.5E) which is 12 NM on R-280 of UD VOR. When reaching HOTEL the aircraft will be instructed to join aerodrome traffic pattern accordingly

1.2 Aerodrome traffic circuit.

Using both sides of traffic circuit

1.3 Overhead approach pattern.

a) Using runway 12 by right turn pattern.
b) Using runway 30 by left turn pattern.

### 2. AERODROME OPERATING MINIMA USE OF RUNWAYS

Runway landing restriction for aircraft requiring the use of aerodrome:
Runway 12/30: Except where AOC holder has landing operations when RVR or visibility by MET is 1,000 meter or above. Less are not permitted.

## VTUD AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUD AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

**3. OMNIDIRECTIONAL DEPARTURES**

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 12:

UDON OMNI 12 Departure: Required climb gradient 201 ft per NM (3.3%) until 3,500 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 3,000 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 30:

UDON OMNI 30 Departure: Required climb gradient 201 ft per NM (3.3%) until 3,500 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 3.3% | (ft/min) | 217 | 251 | 334 | 501 | 668 | 835 | 1003 |

No turn before DER.
After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft - 3,000 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTUD AD 2.23 ADDITIONAL INFORMATION

**1. MILITARY RADAR AND FACILITIES**

- Royal Thai Air Force ASR/SSR facilities installed and operations details as follows:

Radio call sign : UDON Departure Control/ UDOM Arrival Control

DEP freq : 134.1 and 261.4 MHZ

ARR freq : 119.6, 298.0 and 382.4 MHZ

Conver range/height : ASR 70 NM/40 000 FT

: SSR 200 NM/100 000 FT

Hours of operations : Monday-Friday 0100-0900

Emission : ASR 500 KW, SSR 1.5 KW

Remarks : Available for Military.

- BAK 14 RAG installed at 427 M from threshold runway 12 and 30 cable height 3 inches.

- Net Barrier installed on both side of runway 12/30 at 15 M from threshold.

**2. BIRD CONCENTRATIONS**

- Bird concentrations in the vicinity of an aerodrome.

## VTUD AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTUD-2-1 |
| Aircraft Parking/Docking Chart - ICAO | AD 2-VTUD-2-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 12 - ANPUS1B ELNET1B ESGIB1B GULNO1B POVEX1B SURGU1B TERCO1B | AD 2-VTUD-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 12 - ANPUS1B ELNET1B ESGIB1B GULNO1B POVEX1B SURGU1B TERCO1B (Tabular description 1) | AD 2-VTUD-6-2 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 12 - ANPUS1B ELNET1B ESGIB1B GULNO1B POVEX1B SURGU1B TERCO1B (Tabular description 2) | AD 2-VTUD-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 30 - ANPUS1D ELNET1D ESGIB1D GULNO1D POVEX1D SURGU1D TERCO1D | AD 2-VTUD-6-5 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 30 - ANPUS1D ELNET1D ESGIB1D GULNO1D POVEX1D SURGU1D TERCO1D (Tabular description 1) | AD 2-VTUD-6-6 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 30 - ANPUS1D ELNET1D ESGIB1D GULNO1D POVEX1D SURGU1D TERCO1D (Tabular description 2) | AD 2-VTUD-6-7 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 12 - ANPUS1A ELNET1A ESGIB1A GULNO1A MUGNO1A POVEX1A SURGU1A | AD 2-VTUD-7-1 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 12 - ANPUS1A ELNET1A ESGIB1A GULNO1A MUGNO1A POVEX1A SURGU1A (Tabular description) | AD 2-VTUD-7-2 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 12 - ANPUS1A ELNET1A ESGIB1A GULNO1A MUGNO1A POVEX1A SURGU1A (Waypoint list table) | AD 2-VTUD-7-3 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 30 - ANPUS1C ELNET1C ESGIB1C GULNO1C MUGNO1C POVEX1C SURGU1C | AD 2-VTUD-7-5 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 30 - ANPUS1C ELNET1C ESGIB1C GULNO1C MUGNO1C POVEX1C SURGU1C (Tabular description) | AD 2-VTUD-7-6 |
| Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 30 - ANPUS1C ELNET1C ESGIB1C GULNO1C MUGNO1C POVEX1C SURGU1C (Waypoint list table) | AD 2-VTUD-7-7 |
| Instrument Approach Chart - ICAO - VOR RWY 12 | AD 2-VTUD-8-1 |
| Instrument Approach Chart - ICAO - VOR RWY 12 (Fix and point list table) | AD 2-VTUD-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 30 | AD 2-VTUD-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 30 (Fix and point list table) | AD 2-VTUD-8-4 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 30 | AD 2-VTUD-8-5 |
| Instrument Approach Chart - ICAO - ILS or LOC y RWY 30 (Fix and point list table) | AD 2-VTUD-8-6 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 30 | AD 2-VTUD-8-7 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 30 (Tabular description) | AD 2-VTUD-8-8 |
| Instrument Approach Chart - ICAO - ILS or LOC z RWY 30 (Fix and point list table) | AD 2-VTUD-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 12 | AD 2-VTUD-8-11 |
| Instrument Approach Chart - ICAO - RNP RWY 12 (Tabular description) | AD 2-VTUD-8-12 |
| Instrument Approach Chart - ICAO - RNP RWY 30 | AD 2-VTUD-8-13 |
| Instrument Approach Chart - ICAO - RNP RWY 30 (Tabular description) | AD 2-VTUD-8-14 |

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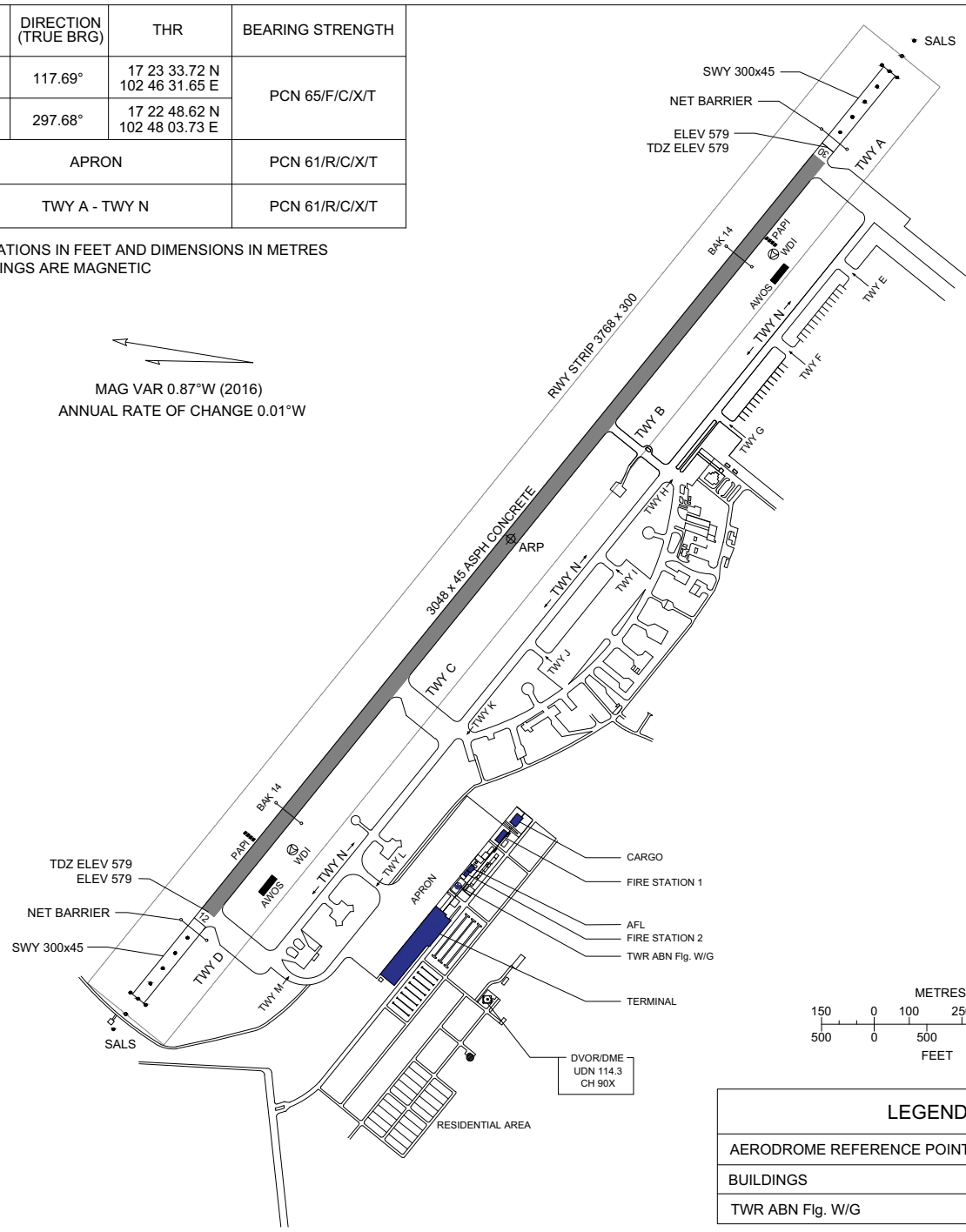
## AERODROME CHART - ICAO 17 23 11 N 102 47 18 E ELEV 579 FT 176 M TWR 122.50 355.40 UDON THANI / Udon Thani

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 12 | 117.69° | 17 23 33.72 N 102 46 31.65 E | PCN 65/F/C/X/T |
| 30 | 297.68° | 17 22 48.62 N 102 48 03.73 E | |
| APRON | | | PCN 61/R/C/X/T |
| TWY A - TWY N | | | PCN 61/R/C/X/T |

ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

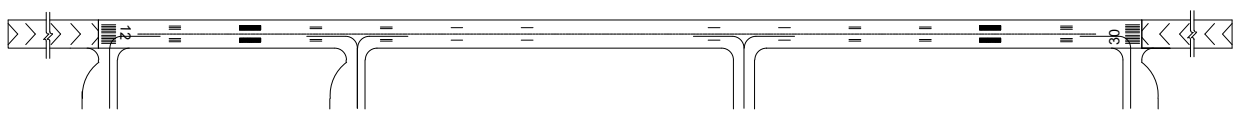
MAG VAR 0.87°W (2016)
ANNUAL RATE OF CHANGE 0.01°W



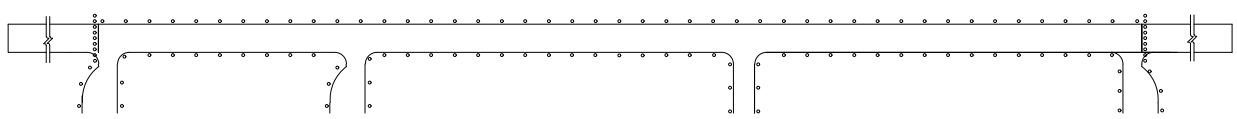

| LEGEND | |
|---|---|
| AERODROME REFERENCE POINT | 17 23 11 N 102 47 18 E |
| BUILDINGS | |
| TWR ABN Flg. W/G | |

REMARK : COORDINATES ARE WGS-84

MARKING AIDS RWY 12/30 AND EXIT TWY




LIGHTING AIDS RWY 12/30 AND EXIT TWY



CHANGE : REVISED CHART. TABULAR ADDED. MAG VAR. ANNUAL RATE OF CHANGE. WIND CONE ADDED. AWOS ADDED. NDB DELETED.

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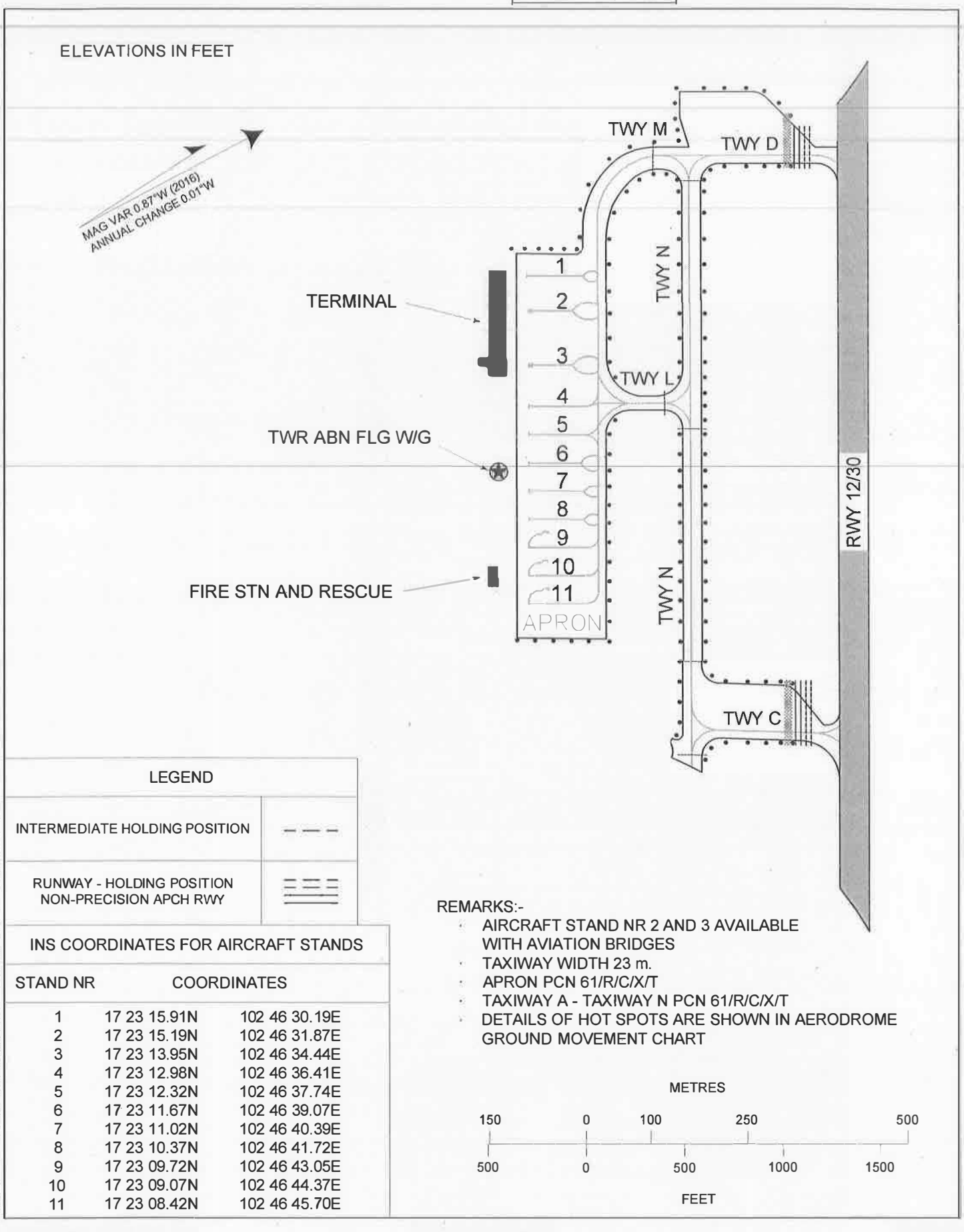
## AIRCRAFT PARKING/ DOCKING CHART - ICAO

**APRON ELEV 590 FT**

| TWR 122.5, 355.4 |
|---|
| GND 121.9, 275.8 |

## UDON THANI / Udon Thani




| LEGEND | |
|---|---|
| INTERMEDIATE HOLDING POSITION | — — — |
| RUNWAY - HOLDING POSITION NON-PRECISION APCH RWY | = = = |

| INS COORDINATES FOR AIRCRAFT STANDS | | |
|---|---|---|
| STAND NR | COORDINATES | |
| 1 | 17 23 15.91N | 102 46 30.19E |
| 2 | 17 23 15.19N | 102 46 31.87E |
| 3 | 17 23 13.95N | 102 46 34.44E |
| 4 | 17 23 12.98N | 102 46 36.41E |
| 5 | 17 23 12.32N | 102 46 37.74E |
| 6 | 17 23 11.67N | 102 46 39.07E |
| 7 | 17 23 11.02N | 102 46 40.39E |
| 8 | 17 23 10.37N | 102 46 41.72E |
| 9 | 17 23 09.72N | 102 46 43.05E |
| 10 | 17 23 09.07N | 102 46 44.37E |
| 11 | 17 23 08.42N | 102 46 45.70E |

CHANGE: APRON ELEV. and INS COORDINATES FOR AIRCRAFT STANDS (4,5,6,7,8,10 and 11).

REMARKS:-

- AIRCRAFT STAND NR 2 AND 3 AVAILABLE WITH AVIATION BRIDGES
- TAXIWAY WIDTH 23 m.
- APRON PCN 61/R/C/X/T
- TAXIWAY A - TAXIWAY N PCN 61/R/C/X/T
- DETAILS OF HOT SPOTS ARE SHOWN IN AERODROME GROUND MOVEMENT CHART

METRES

150 0 100 250 500

500 0 500 1000 1500

FEET

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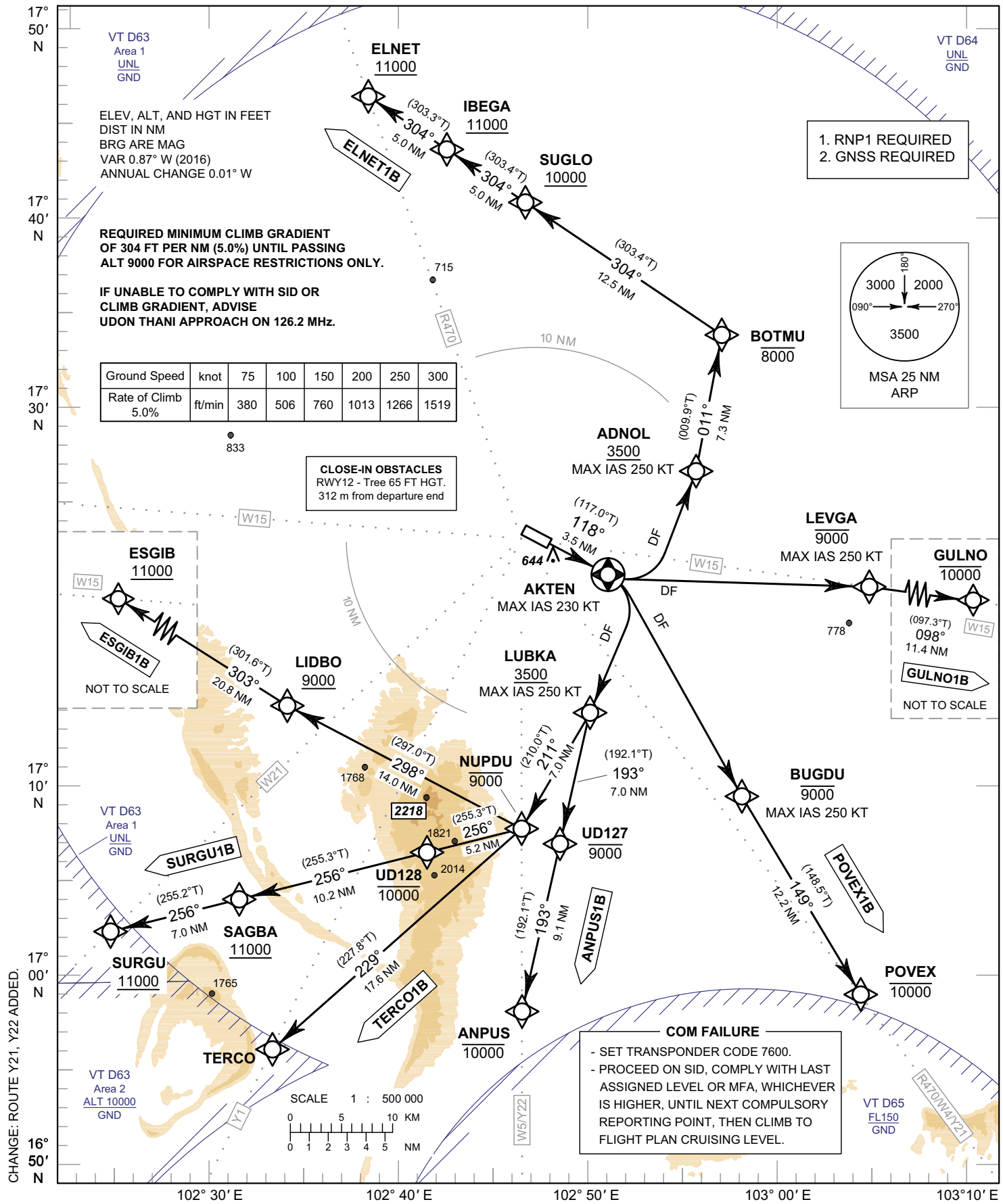
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY12**

ANPUS1B ELNET1B ESGIB1B
GULNO1B POVEX1B SURGU1B TERCO1B



**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY12**

ANPUS1B ELNET1B ESGIB1B
GULNO1B POVEX1B SURGU1B TERCO1B

**TABULAR DESCRIPTION (1)**

| RNAV RWY12 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ANPUS1B | | | | | | | | | | | |
| 010 | - | DER RWY12 | - | - | +0.91 | - | - | - | - | | RNP 1 |
| 020 | CF | AKTEN | Y | 118°(117.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | LUBKA | - | - | +0.91 | - | R | +3500 | -250 | - | RNP 1 |
| 040 | TF | UD127 | - | 193°(192.1°) | +0.91 | 7.0 | - | -9000 | - | - | RNP 1 |
| 050 | TF | ANPUS | - | 193°(192.1°) | +0.91 | 9.1 | - | -10000 | - | - | RNP 1 |
| ELNET1B | | | | | | | | | | | |
| 010 | - | DER RWY12 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | AKTEN | Y | 118°(117.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | ADNOL | - | - | +0.91 | - | L | +3500 | -250 | - | RNP 1 |
| 040 | TF | BOTMU | - | 011°(009.9°) | +0.91 | 7.3 | - | -8000 | - | - | RNP 1 |
| 050 | TF | SUGLO | - | 304°(303.4°) | +0.91 | 12.5 | - | +10000 | - | - | RNP 1 |
| 060 | TF | IBEGA | - | 304°(303.4°) | +0.91 | 5.0 | - | +11000 | - | - | RNP 1 |
| 070 | TF | ELNET | - | 304°(303.3°) | +0.91 | 5.0 | - | +11000 | - | - | RNP 1 |
| ESGIB1B | | | | | | | | | | | |
| 010 | - | DER RWY12 | - | - | +0.91 | - | - | - | - | | RNP 1 |
| 020 | CF | AKTEN | Y | 118°(117.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | LUBKA | - | - | +0.91 | - | R | +3500 | -250 | - | RNP 1 |
| 040 | TF | NUPDU | - | 211°(210.0°) | +0.91 | 7.0 | - | -9000 | - | - | RNP 1 |
| 050 | TF | LIDBO | - | 298°(297.0°) | +0.91 | 14.0 | - | +9000 | - | - | RNP 1 |
| 060 | TF | ESGIB | - | 303°(301.6°) | +0.91 | 20.8 | - | +11000 | - | - | RNP 1 |
| GULNO1B | | | | | | | | | | | |
| 010 | - | DER RWY12 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | AKTEN | Y | 118°(117.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | LEVGA | - | - | +0.91 | - | L | -9000 | -250 | - | RNP 1 |
| 040 | TF | GULNO | - | 098°(097.3°) | +0.91 | 11.4 | - | -10000 | - | - | RNP 1 |
| POVEX1B | | | | | | | | | | | |
| 010 | - | DER RWY12 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | AKTEN | Y | 118°(117.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | BUGDU | - | - | +0.91 | - | R | -9000 | -250 | - | RNP 1 |
| 040 | TF | POVEX | - | 149°(148.5°) | +0.91 | 12.2 | - | -10000 | - | - | RNP 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY12**

ANPUS1B ELNET1B ESGIB1B
GULNO1B POVEX1B SURGU1B TERCO1B

**TABULAR DESCRIPTION (2)**

**RNAV RWY12**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURGU1B | | | | | | | | | | | |
| 010 | - | DER RWY12 | - | - | +0.91 | - | - | - | - | | RNP 1 |
| 020 | CF | AKTEN | Y | 118°(117.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | LUBKA | - | - | +0.91 | - | R | +3500 | -250 | - | RNP 1 |
| 040 | TF | NUPDU | - | 211°(210.0°) | +0.91 | 7.0 | - | -9000 | - | - | RNP 1 |
| 050 | TF | UD128 | - | 256°(255.3°) | +0.91 | 5.2 | - | -10000 | - | - | RNP 1 |
| 060 | TF | SAGBA | - | 256°(255.3°) | +0.91 | 10.2 | - | +11000 | - | - | RNP 1 |
| 070 | TF | SURGU | - | 256°(255.2°) | +0.91 | 7.0 | - | +11000 | - | - | RNP 1 |
| TERCO1B | | | | | | | | | | | |
| 010 | - | DER RWY12 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | AKTEN | Y | 118°(117.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | LUBKA | - | - | +0.91 | - | R | +3500 | -250 | - | RNP 1 |
| 040 | TF | NUPDU | - | 211°(210.0°) | +0.91 | 7.0 | - | -9000 | - | - | RNP 1 |
| 050 | TF | TERCO | - | 229°(227.8°) | +0.91 | 17.6 | - | - | - | - | RNP 1 |

**WAYPOINT LIST**

**RNAV RWY12**

| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
|---|---|---|---|
| DER RWY12 | 17° 22' 48.62" N 102° 48' 03.73" E | LIDBO | 17° 14' 03.45" N 102° 33' 42.65" E |
| ADNOL | 17° 26' 44.78" N 102° 56' 07.85" E | LUBKA | 17° 13' 47.25" N 102° 50' 22.35" E |
| AKTEN | 17° 21' 12.77" N 102° 51' 19.30" E | NUPDU | 17° 07' 41.39" N 102° 46' 43.01" E |
| ANPUS | 16° 57' 59.70" N 102° 46' 51.15" E | POVEX | 16° 59' 05.19" N 103° 05' 29.66" E |
| BOTMU | 17° 33' 59.49" N 102° 57' 27.11" E | SAGBA | 17° 03' 45.63" N 102° 31' 11.90" E |
| BUGDU | 17° 09' 33.14" N 102° 58' 49.31" E | SUGLO | 17° 40' 53.99" N 102° 46' 31.13" E |
| ELNET | 17° 46' 25.01" N 102° 37' 45.95" E | SURGU | 17° 01' 57.87" N 102° 24' 08.06" E |
| ESGIB | 17° 24' 58.25" N 102° 15' 13.93" E | TERCO | 16° 55' 49.66" N 102° 33' 07.98" E |
| GULNO | 17° 19' 14.93" N 103° 17' 35.08" E | UD127 | 17° 06' 54.37" N 102° 48' 50.25" E |
| IBEGA | 17° 43' 39.55" N 102° 42' 08.61" E | UD128 | 17° 06' 22.50" N 102° 41' 30.85" E |
| LEVGA | 17° 20' 42.77" N 103° 05' 45.34" E | | |

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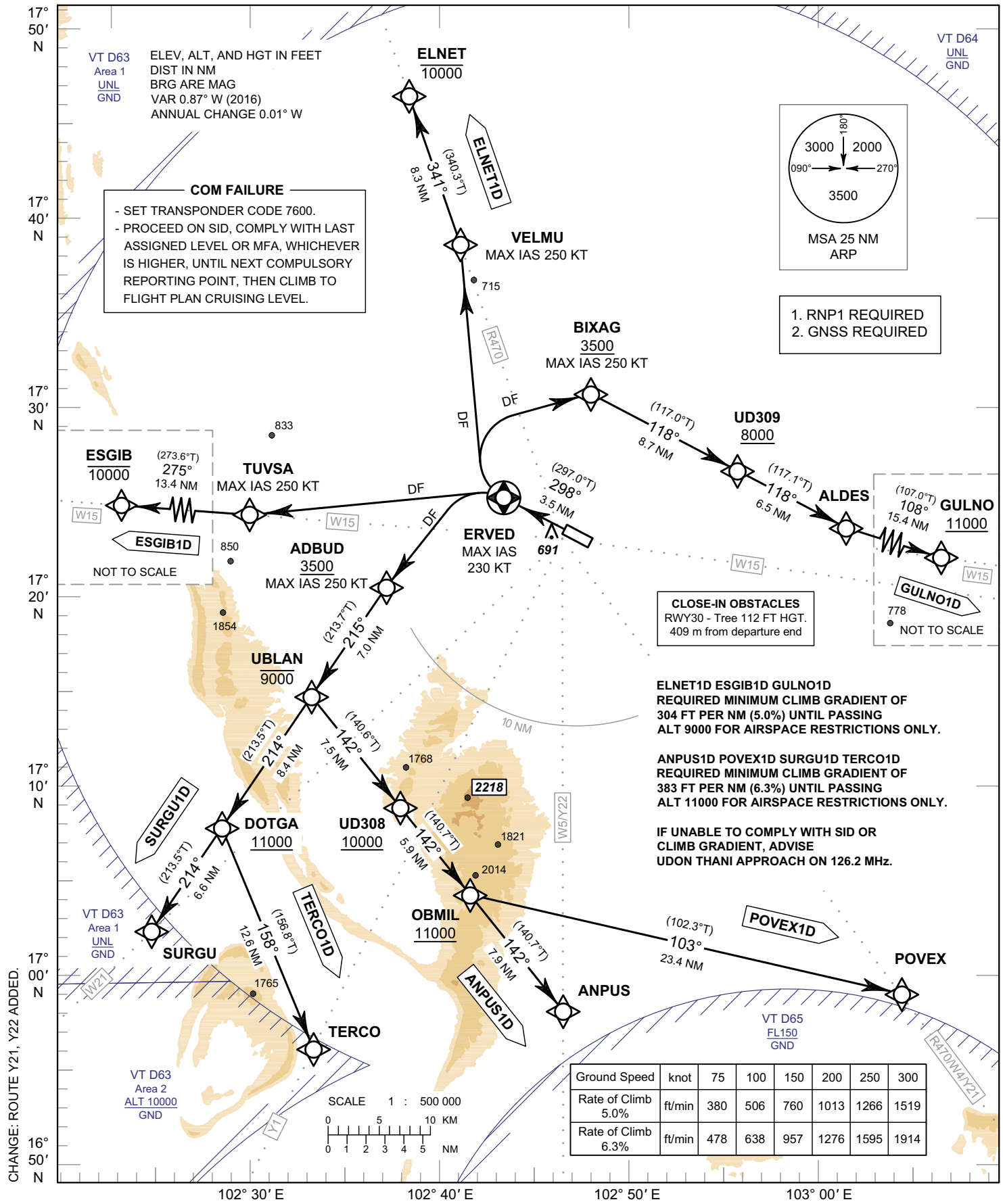
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY30**

ANPUS1D ELNET1D ESGIB1D
GULNO1D POVEX1D SURGU1D TERCO1D




| Ground Speed | knot | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|
| Rate of Climb 5.0% | ft/min | 380 | 506 | 760 | 1013 | 1266 | 1519 |
| Rate of Climb 6.3% | ft/min | 478 | 638 | 957 | 1276 | 1595 | 1914 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY30**

ANPUS1D ELNET1D ESGIB1D
GULNO1D POVEX1D SURGU1D TERCO1D

**TABULAR DESCRIPTION (1)**

| RNAV RWY30 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ANPUS1D | | | | | | | | | | | |
| 010 | - | DER RWY30 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | ERVED | Y | 298°(297.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | ADBUD | - | - | +0.91 | - | L | +3500 | -250 | - | RNP 1 |
| 040 | TF | UBLAN | - | 215°(213.7°) | +0.91 | 7.0 | - | -9000 | - | - | RNP 1 |
| 050 | TF | UD308 | - | 142°(140.6°) | +0.91 | 7.5 | - | +10000 | - | - | RNP 1 |
| 060 | TF | OBMIL | - | 142°(140.7°) | +0.91 | 5.9 | - | +11000 | - | - | RNP 1 |
| 070 | TF | ANPUS | - | 142°(140.7°) | +0.91 | 7.9 | - | - | - | - | RNP 1 |
| ELNET1D | | | | | | | | | | | |
| 010 | - | DER RWY30 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | ERVED | Y | 298°(297.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | VELMU | - | - | +0.91 | - | R | - | -250 | - | RNP 1 |
| 040 | TF | ELNET | - | 341°(340.3°) | +0.91 | 8.3 | - | -10000 | - | - | RNP 1 |
| ESGIB1D | | | | | | | | | | | |
| 010 | - | DER RWY30 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | ERVED | Y | 298°(297.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | TUVSA | - | - | +0.91 | - | L | - | -250 | - | RNP 1 |
| 040 | TF | ESGIB | - | 275°(273.6°) | +0.91 | 13.4 | - | -10000 | - | - | RNP 1 |
| GULNO1D | | | | | | | | | | | |
| 010 | - | DER RWY30 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | ERVED | Y | 298°(297.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | BIXAG | - | - | +0.91 | - | R | +3500 | -250 | - | RNP 1 |
| 040 | TF | UD309 | - | 118°(117.0°) | +0.91 | 8.7 | - | +8000 | - | - | RNP 1 |
| 050 | TF | ALDES | - | 118°(117.1°) | +0.91 | 6.5 | - | - | - | - | RNP 1 |
| 060 | TF | GULNO | - | 108°(107.0°) | +0.91 | 15.4 | - | +11000 | - | - | RNP 1 |
| POVEX1D | | | | | | | | | | | |
| 010 | - | DER RWY30 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | ERVED | Y | 298°(297.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | ADBUD | - | - | +0.91 | - | L | +3500 | -250 | - | RNP 1 |
| 040 | TF | UBLAN | - | 215°(213.7°) | +0.91 | 7.0 | - | -9000 | - | - | RNP 1 |
| 050 | TF | UD308 | - | 142°(140.6°) | +0.91 | 7.5 | - | +10000 | - | - | RNP 1 |
| 060 | TF | OBMIL | - | 142°(140.7°) | +0.91 | 5.9 | - | +11000 | - | - | RNP 1 |
| 070 | TF | POVEX | - | 103°(102.3°) | +0.91 | 23.4 | - | - | - | - | RNP 1 |

**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY30**

ANPUS1D ELNET1D ESGIB1D
GULNO1D POVEX1D SURGU1D TERCO1D

**TABULAR DESCRIPTION (2)**

**RNAV RWY30**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SURGU1D | | | | | | | | | | | |
| 010 | - | DER RWY30 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | ERVED | Y | 298°(297.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | ADBUD | - | - | +0.91 | - | L | +3500 | -250 | - | RNP 1 |
| 040 | TF | UBLAN | - | 215°(213.7°) | +0.91 | 7.0 | - | -9000 | - | - | RNP 1 |
| 050 | TF | DOTGA | - | 214°(213.5°) | +0.91 | 8.4 | - | +11000 | - | - | RNP 1 |
| 060 | TF | SURGU | - | 214°(213.5°) | +0.91 | 6.6 | - | - | - | - | RNP 1 |
| TERCO1D | | | | | | | | | | | |
| 010 | - | DER RWY30 | - | - | +0.91 | - | - | - | - | - | RNP 1 |
| 020 | CF | ERVED | Y | 298°(297.0°) | +0.91 | 3.5 | - | - | -230 | - | RNP 1 |
| 030 | DF | ADBUD | - | - | +0.91 | - | L | +3500 | -250 | - | RNP 1 |
| 040 | TF | UBLAN | - | 215°(213.7°) | +0.91 | 7.0 | - | -9000 | - | - | RNP 1 |
| 050 | TF | DOTGA | - | 214°(213.5°) | +0.91 | 8.4 | - | +11000 | - | - | RNP 1 |
| 060 | TF | TERCO | - | 158°(156.8°) | +0.91 | 12.6 | - | - | - | - | RNP 1 |

**WAYPOINT LIST**

**RNAV RWY30**

| Waypoint Identifier | Coordinates | Waypoint Identifier | Coordinates |
|---|---|---|---|
| DER RWY30 | 17° 23' 33.72" N 102° 46' 31.65" E | OBMIL | 17° 04' 05.93" N 102° 41' 39.53" E |
| ADBUD | 17° 20' 21.55" N 102° 36' 50.43" E | POVEX | 16° 59' 05.19" N 103° 05' 29.66" E |
| ALDES | 17° 23' 47.70" N 103° 02' 08.55" E | SURGU | 17° 01' 57.87" N 102° 24' 08.06" E |
| ANPUS | 16° 57' 59.70" N 102° 46' 51.15" E | TERCO | 16° 55' 49.66" N 102° 33' 07.98" E |
| BIXAG | 17° 30' 44.10" N 102° 47' 59.49" E | TUVSA | 17° 24' 07.82" N 102° 29' 13.75" E |
| DOTGA | 17° 07' 29.54" N 102° 27' 56.58" E | UBLAN | 17° 14' 30.72" N 102° 32' 46.85" E |
| ELNET | 17° 46' 25.01" N 102° 37' 45.95" E | UD308 | 17° 08' 41.12" N 102° 37' 45.08" E |
| ERVED | 17° 25' 09.49" N 102° 43' 15.99" E | UD309 | 17° 26' 44.78" N 102° 56' 07.85" E |
| ESGIB | 17° 24' 58.25" N 102° 15' 13.93" E | VELMU | 17° 38' 34.57" N 102° 40' 42.16" E |
| GULNO | 17° 19' 14.93" N 103° 17' 35.08" E | | |

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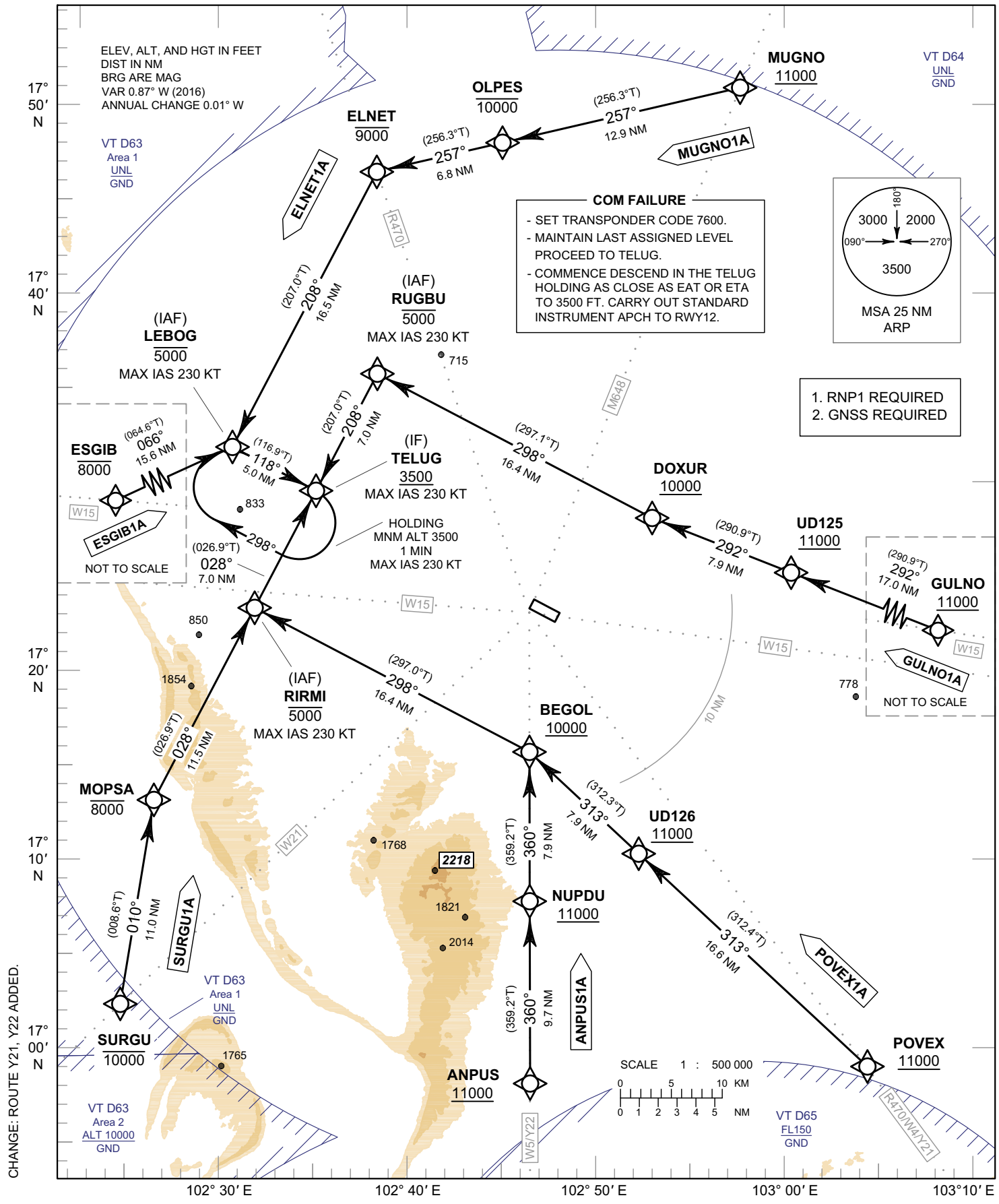
**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY12**

ANPUS1A ELNET1A ESGIB1A
GULNO1A MUGNO1A POVEX1A SURGU1A



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY12**

ANPUS1A ELNET1A ESGIB1A
GULNO1A MUGNO1A POVEX1A SURGU1A

**TABULAR DESCRIPTION**

| RNAV RWY12 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ANPUS1A | | | | | | | | | | | |
| 010 | IF | ANPUS | - | - | +0.91 | - | - | +11000 | - | | RNP 1 |
| 020 | TF | NUPDU | - | 360°(359.2°) | +0.91 | 9.7 | - | +11000 | - | - | RNP 1 |
| 030 | TF | BEGOL | - | 360°(359.2°) | +0.91 | 7.9 | - | +10000 | - | - | RNP 1 |
| 040 | TF | (IAF) RIRMI | - | 298°(297.0°) | +0.91 | 16.4 | - | -5000 | -230 | - | RNP 1 |
| 050 | TF | (IF) TELUG | - | 028°(026.9°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| ELNET1A | | | | | | | | | | | |
| 010 | IF | ELNET | - | - | +0.91 | - | - | -9000 | - | - | RNP 1 |
| 020 | TF | (IAF) LEBOG | - | 208°(207.0°) | +0.91 | 16.5 | - | -5000 | -230 | - | RNP 1 |
| 030 | TF | (IF) TELUG | - | 118°(116.9°) | +0.91 | 5.0 | - | +3500 | -230 | - | RNP 1 |
| ESGIB1A | | | | | | | | | | | |
| 010 | IF | ESGIB | - | - | +0.91 | - | - | -8000 | - | - | RNP 1 |
| 020 | TF | (IAF) LEBOG | - | 066°(064.6°) | +0.91 | 15.6 | - | -5000 | -230 | - | RNP 1 |
| 030 | TF | (IF) TELUG | - | 118°(116.9°) | +0.91 | 5.0 | - | +3500 | -230 | - | RNP 1 |
| GULNO1A | | | | | | | | | | | |
| 010 | IF | GULNO | - | - | +0.91 | - | - | +11000 | - | | RNP 1 |
| 020 | TF | UD125 | - | 292°(290.9°) | +0.91 | 17.0 | - | +11000 | - | - | RNP 1 |
| 030 | TF | DOXUR | - | 292°(290.9°) | +0.91 | 7.9 | - | +10000 | - | - | RNP 1 |
| 040 | TF | (IAF) RUGBU | - | 298°(297.1°) | +0.91 | 16.4 | - | -5000 | -230 | - | RNP 1 |
| 050 | TF | (IF) TELUG | - | 208°(207.0°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| MUGNO1A | | | | | | | | | | | |
| 010 | IF | MUGNO | - | - | +0.91 | - | - | +11000 | - | | RNP 1 |
| 020 | TF | OLPES | - | 257°(256.3°) | +0.91 | 12.9 | - | -10000 | - | - | RNP 1 |
| 030 | TF | ELNET | - | 257°(256.3°) | +0.91 | 6.8 | - | -9000 | - | - | RNP 1 |
| 040 | TF | (IAF) LEBOG | - | 208°(207.0°) | +0.91 | 16.5 | - | -5000 | -230 | - | RNP 1 |
| 050 | TF | (IF) TELUG | - | 118°(116.9°) | +0.91 | 5.0 | - | +3500 | -230 | - | RNP 1 |
| POVEX1A | | | | | | | | | | | |
| 010 | IF | POVEX | - | - | +0.91 | - | - | +11000 | - | | RNP 1 |
| 020 | TF | UD126 | - | 313°(312.4°) | +0.91 | 16.6 | - | +11000 | - | - | RNP 1 |
| 030 | TF | BEGOL | - | 313°(312.3°) | +0.91 | 7.9 | - | +10000 | - | - | RNP 1 |
| 040 | TF | (IAF) RIRMI | - | 298°(297.0°) | +0.91 | 16.4 | - | -5000 | -230 | - | RNP 1 |
| 050 | TF | (IF) TELUG | - | 028°(026.9°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| SURGU1A | | | | | | | | | | | |
| 010 | IF | SURGU | - | - | +0.91 | - | - | -10000 | - | | RNP 1 |
| 020 | TF | MOPSA | - | 010°(008.6°) | +0.91 | 11.0 | - | -8000 | - | - | RNP 1 |
| 030 | TF | (IAF) RIRMI | - | 028°(026.9°) | +0.91 | 11.5 | - | -5000 | -230 | - | RNP 1 |
| 040 | TF | (IF) TELUG | - | 028°(026.9°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |

**STANDARD ARRIVAL CHART -
INSTRUMENT (STAR) - ICAO**

**UDON THANI / Udon Thani (VTUD)
RNAV RWY12**

ANPUS1A ELNET1A ESGIB1A
GULNO1A MUGNO1A POVEX1A SURGU1A

**WAYPOINT LIST**

| **RNAV RWY12** | | |
|---|---|---|
| **Waypoint Identifier** | **Coordinates** | |
| ANPUS | 16° 57' 59.70" N | 102° 46' 51.15" E |
| BEGOL | 17° 15' 38.05" N | 102° 46' 36.32" E |
| DOXUR | 17° 28' 09.28" N | 102° 53' 15.54" E |
| ELNET | 17° 46' 25.01" N | 102° 37' 45.95" E |
| ESGIB | 17° 24' 58.25" N | 102° 15' 13.93" E |
| GULNO | 17° 19' 14.93" N | 103° 17' 35.08" E |
| LEBOG | 17° 31' 40.01" N | 102° 29' 56.44" E |
| MOPSA | 17° 12' 50.14" N | 102° 25' 50.63" E |
| MUGNO | 17° 51' 07.17" N | 102° 57' 53.39" E |
| NUPDU | 17° 07' 41.39" N | 102° 46' 43.01" E |
| OLPES | 17° 48' 02.71" N | 102° 44' 42.91" E |
| POVEX | 16° 59' 05.19" N | 103° 05' 29.66" E |
| RIRMI | 17° 23' 07.60" N | 102° 31' 17.15" E |
| RUGBU | 17° 35' 39.33" N | 102° 37' 55.60" E |
| SURGU | 17° 01' 57.87" N | 102° 24' 08.06" E |
| TELUG | 17° 29' 23.50" N | 102° 34' 36.26" E |
| UD125 | 17° 25' 19.76" N | 103° 00' 59.71" E |
| UD126 | 17° 10' 17.20" N | 102° 52' 43.16" E |

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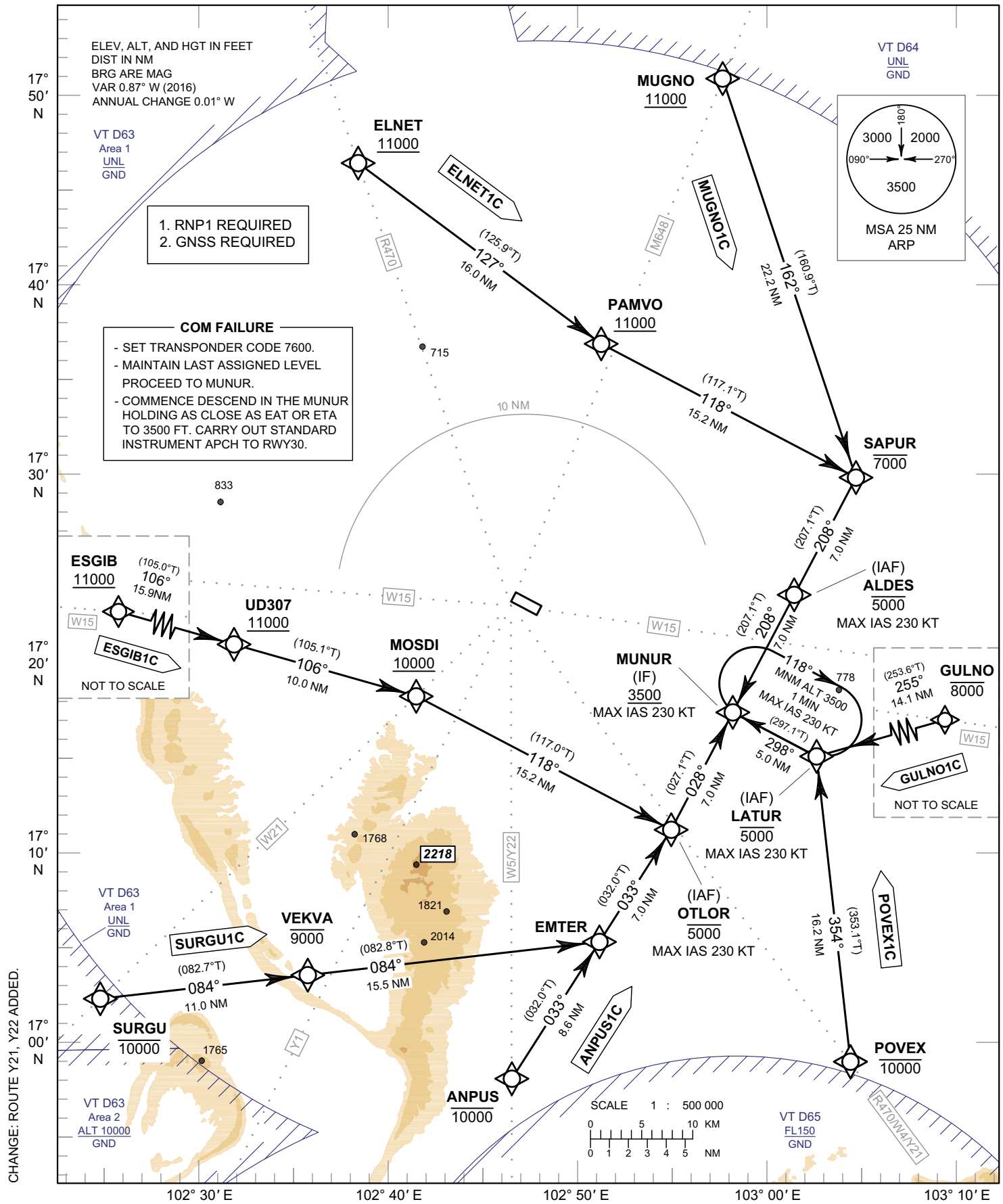
**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE
11000 FT

APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY30**

ANPUS1C ELNET1C ESGIB1C
GULNO1C MUGNO1C POVEX1C SURGU1C



**STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO**

**UDON THANI / Udon Thani (VTUD)**
**RNAV RWY30**

ANPUS1C ELNET1C ESGIB1C
GULNO1C MUGNO1C POVEX1C SURGU1C

**TABULAR DESCRIPTION**

| RNAV RWY30 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ANPUS1C | | | | | | | | | | | |
| 010 | IF | ANPUS | - | - | +0.91 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | EMTER | - | 033°(032.0°) | +0.91 | 8.6 | - | - | - | - | RNP 1 |
| 030 | TF | (IAF) OTLOR | - | 033°(032.0°) | +0.91 | 7.0 | - | -5000 | -230 | - | RNP 1 |
| 040 | TF | (IF) MUNUR | - | 028°(027.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| ELNET1C | | | | | | | | | | | |
| 010 | IF | ELNET | - | - | +0.91 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | PAMVO | - | 127°(125.9°) | +0.91 | 16.0 | - | +11000 | - | - | RNP 1 |
| 030 | TF | SAPUR | - | 118°(117.1°) | +0.91 | 15.2 | - | -7000 | - | - | RNP 1 |
| 040 | TF | (IAF) ALDES | - | 208°(207.1°) | +0.91 | 7.0 | - | -5000 | -230 | - | RNP 1 |
| 050 | TF | (IF) MUNUR | - | 208°(207.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| ESGIB1C | | | | | | | | | | | |
| 010 | IF | ESGIB | - | - | +0.91 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | UD307 | - | 106°(105.0°) | +0.91 | 15.9 | - | +11000 | - | - | RNP 1 |
| 030 | TF | MOSDI | - | 106°(105.1°) | +0.91 | 10.0 | - | +10000 | - | - | RNP 1 |
| 040 | TF | (IAF) OTLOR | - | 118°(117.0°) | +0.91 | 15.2 | - | -5000 | -230 | - | RNP 1 |
| 050 | TF | (IF) MUNUR | - | 028°(027.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| GULNO1C | | | | | | | | | | | |
| 010 | IF | GULNO | - | - | +0.91 | - | - | -8000 | - | - | RNP 1 |
| 020 | TF | (IAF) LATUR | - | 255°(253.6°) | +0.91 | 14.1 | - | -5000 | -230 | - | RNP 1 |
| 030 | TF | (IF) MUNUR | - | 298°(297.1°) | +0.91 | 5.0 | - | +3500 | -230 | - | RNP 1 |
| MUGNO1C | | | | | | | | | | | |
| 010 | IF | MUGNO | - | - | +0.91 | - | - | +11000 | - | - | RNP 1 |
| 020 | TF | SAPUR | - | 162°(160.9°) | +0.91 | 22.2 | - | -7000 | - | - | RNP 1 |
| 030 | TF | (IAF) ALDES | - | 208°(207.1°) | +0.91 | 7.0 | - | -5000 | -230 | - | RNP 1 |
| 040 | TF | (IF) MUNUR | - | 208°(207.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| POVEX1C | | | | | | | | | | | |
| 010 | IF | POVEX | - | - | +0.91 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | (IAF) LATUR | - | 354°(353.1°) | +0.91 | 16.2 | - | -5000 | -230 | - | RNP 1 |
| 030 | TF | (IF) MUNUR | - | 298°(297.1°) | +0.91 | 5.0 | - | +3500 | -230 | - | RNP 1 |
| SURGU1C | | | | | | | | | | | |
| 010 | IF | SURGU | - | - | +0.91 | - | - | -10000 | - | - | RNP 1 |
| 020 | TF | VEKVA | - | 084°(082.7°) | +0.91 | 11.0 | - | -9000 | - | - | RNP 1 |
| 030 | TF | EMTER | - | 084°(082.8°) | +0.91 | 15.5 | - | - | - | - | RNP 1 |
| 040 | TF | (IAF) OTLOR | - | 033°(032.0°) | +0.91 | 7.0 | - | -5000 | -230 | - | RNP 1 |
| 050 | TF | (IF) MUNUR | - | 028°(027.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |

**STANDARD ARRIVAL CHART -
INSTRUMENT (STAR) - ICAO**

**UDON THANI / Udon Thani (VTUD)
RNAV RWY30**

ANPUS1C ELNET1C ESGIB1C
GULNO1C MUGNO1C POVEX1C SURGU1C

**WAYPOINT LIST**

| **RNAV RWY30** | | |
|---|---|---|
| **Waypoint Identifier** | **Coordinates** | |
| ALDES | 17° 23' 47.70" N | 103° 02' 08.55" E |
| ANPUS | 16° 57' 59.70" N | 102° 46' 51.15" E |
| ELNET | 17° 46' 25.01" N | 102° 37' 45.95" E |
| EMTER | 17° 05' 17.82" N | 102° 51' 35.56" E |
| ESGIB | 17° 24' 58.25" N | 102° 15' 13.93" E |
| GULNO | 17° 19' 14.93" N | 103° 17' 35.08" E |
| LATUR | 17° 15' 15.09" N | 103° 03' 27.72" E |
| MOSDI | 17° 18' 12.73" N | 102° 41' 20.48" E |
| MUGNO | 17° 51' 07.17" N | 102° 57' 53.39" E |
| MUNUR | 17° 17' 32.26" N | 102° 58' 48.60" E |
| OTLOR | 17° 11' 16.76" N | 102° 55' 28.89" E |
| PAMVO | 17° 36' 59.70" N | 102° 51' 19.33" E |
| POVEX | 16° 59' 05.19" N | 103° 05' 29.66" E |
| SAPUR | 17° 30' 03.05" N | 103° 05' 28.77" E |
| SURGU | 17° 01' 57.87" N | 102° 24' 08.06" E |
| UD307 | 17° 20' 49.93" N | 102° 31' 15.00" E |
| VEKVA | 17° 03' 21.41" N | 102° 35' 32.58" E |

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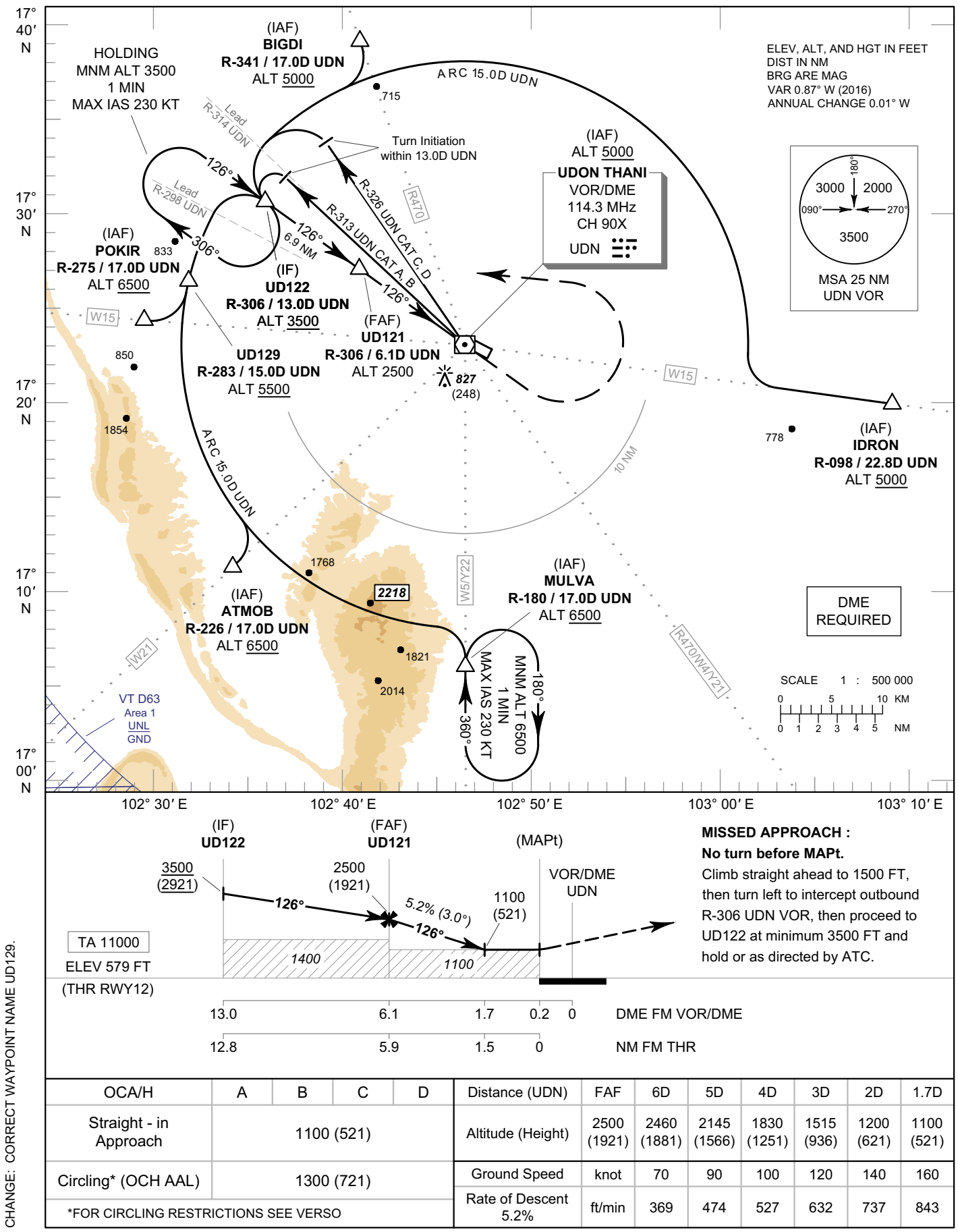
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**

**VOR RWY12**




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 1100 (521) | | | |
| Circling* (OCH AAL) | 1300 (721) | | | |
| *FOR CIRCLING RESTRICTIONS SEE VERSO | | | | |

| Distance (UDN) | FAF | 6D | 5D | 4D | 3D | 2D | 1.7D |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 2500 (1921) | 2460 (1881) | 2145 (1566) | 1830 (1251) | 1515 (936) | 1200 (621) | 1100 (521) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CORRECT WAYPOINT NAME UD129.

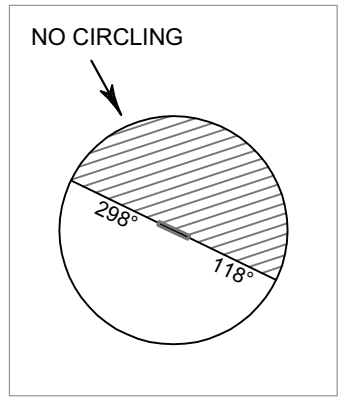
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO AERODROME ELEV

**UDON THANI / Udon Thani (VTUD)**

**VOR RWY12**

| Fix / Point | | Corrdinates | |
|---|---|---|---|
| (IAF)<br>ATMOB | R-226 / 17.0D UDN | 17° 11' 07.02" N | 102° 33' 49.07" E |
| (IAF)<br>BIGDI | R-341 / 17.0D UDN | 17° 39' 08.16" N | 102° 40' 29.65" E |
| (IAF)<br>IDRON | R-098 / 22.8D UDN | 17° 20' 09.96" N | 103° 10' 11.12" E |
| (IAF)<br>MULVA | R-180 / 17.0D UDN | 17° 06' 00.16" N | 102° 46' 44.42" E |
| (IAF)<br>POKIR | R-275 / 17.0D UDN | 17° 24' 09.53" N | 102° 28' 45.58" E |
| UD129 | R-283 / 15.0D UDN | 17° 26' 13.14" N | 102° 31' 09.61" E |
| (IF)<br>UD122 | R-306 / 13.0D UDN | 17° 30' 32.93" N | 102° 35' 21.36" E |
| (FAF)<br>UD121 | R-306 / 6.1D UDN | 17° 26' 36.19" N | 102° 41' 14.99" E |
| (MAPt)<br>UD120 | R-306 / 0.2D UDN | 17° 23' 12.70" N | 102° 46' 18.53" E |
| (IAF)<br>VOR | UDN | 17° 23' 05.16" N | 102° 46' 29.77" E |




CHANGE: CORRECT WAYPOINT NAME UD129.
VOR, UD120 AND UD121 COORDINATE.

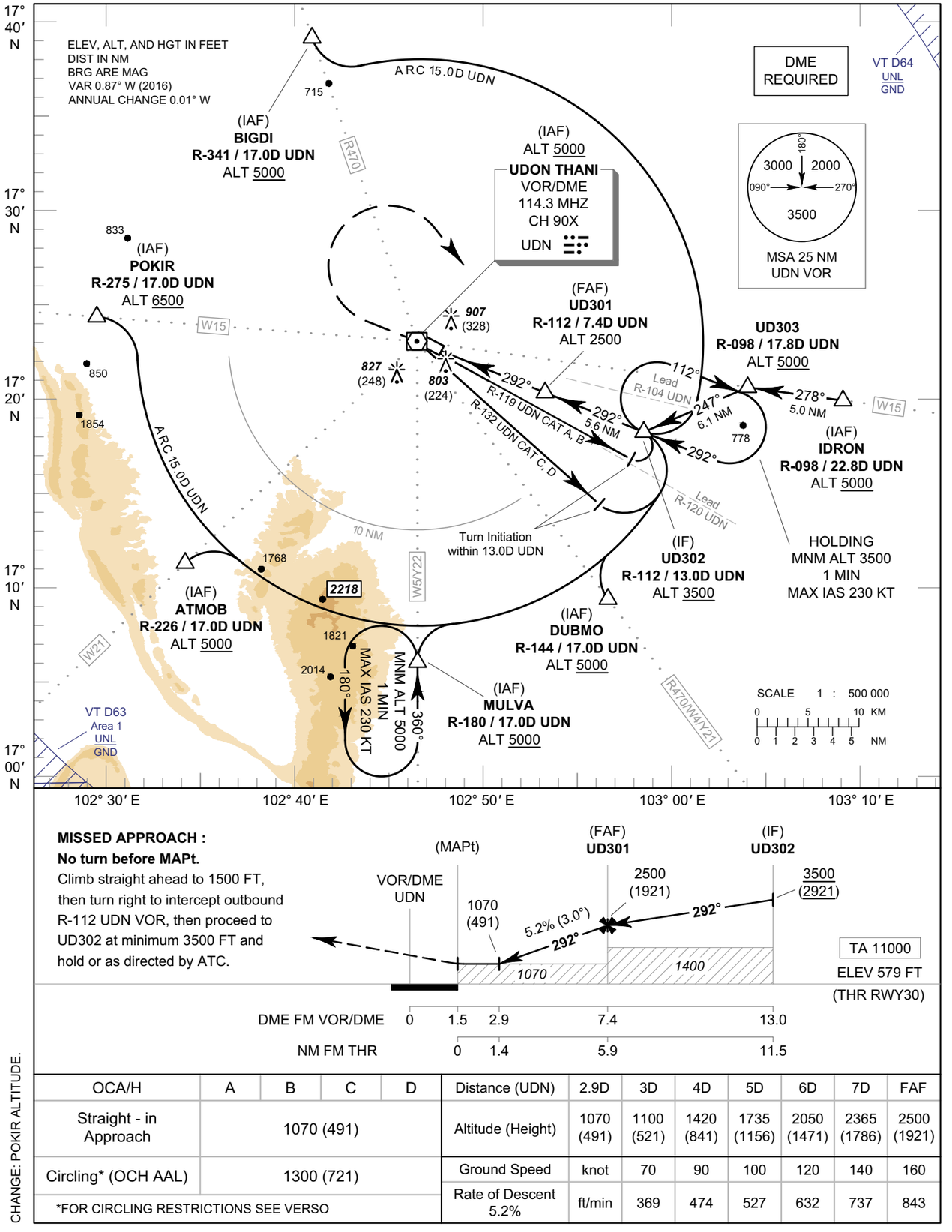
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**

**VOR RWY30**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb straight ahead to 1500 FT, then turn right to intercept outbound R-112 UDN VOR, then proceed to UD302 at minimum 3500 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight - in Approach | 1070 (491) | | | |
| Circling* (OCH AAL) | 1300 (721) | | | |

*FOR CIRCLING RESTRICTIONS SEE VERSO

| Distance (UDN) | 2.9D | 3D | 4D | 5D | 6D | 7D | FAF |
|---|---|---|---|---|---|---|---|
| Altitude (Height) | 1070 (491) | 1100 (521) | 1420 (841) | 1735 (1156) | 2050 (1471) | 2365 (1786) | 2500 (1921) |
| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: POKIR ALTITUDE.

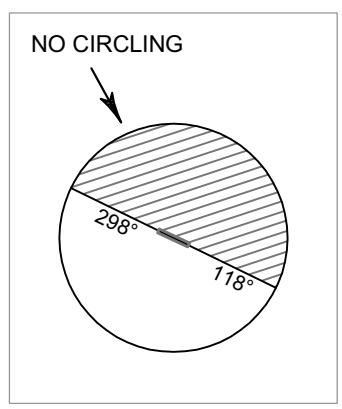
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO AERODROME ELEV

**UDON THANI / Udon Thani (VTUD)**

**VOR RWY30**

| Fix / Point | | Corrdinates | |
|---|---|---|---|
| (IAF) ATMOB | R-226 / 17.0D UDN | 17° 11' 07.02" N | 102° 33' 49.07" E |
| (IAF) BIGDI | R-341 / 17.0D UDN | 17° 39' 08.16" N | 102° 40' 29.65" E |
| (IAF) DUBMO | R-144 / 17.0D UDN | 17° 09' 29.25" N | 102° 57' 15.60" E |
| (IAF) IDRON | R-098 / 22.8D UDN | 17° 20' 09.96" N | 103° 10' 11.12" E |
| (IAF) MULVA | R-180 / 17.0D UDN | 17° 06' 00.16" N | 102° 46' 44.42" E |
| (IAF) POKIR | R-275 / 17.0D UDN | 17° 24' 09.53" N | 102° 28' 45.58" E |
| UD303 | R-098 / 17.8D UDN | 17° 20' 48.47" N | 103° 04' 59.08" E |
| (IF) UD302 | R-112 / 13.0D UDN | 17° 18' 21.13" N | 102° 59' 10.37" E |
| (FAF) UD301 | R-112 / 7.4D UDN | 17° 20' 24.13" N | 102° 53' 41.34" E |
| (MAPt) UD300 | R-112 / 1.5D UDN | 17° 22' 32.88" N | 102° 47' 56.36" E |
| (IAF) VOR | UDN | 17° 23' 05.16" N | 102° 46' 29.77" E |




CHANGE: VOR, UD300 AND UD301 COORDINATE.

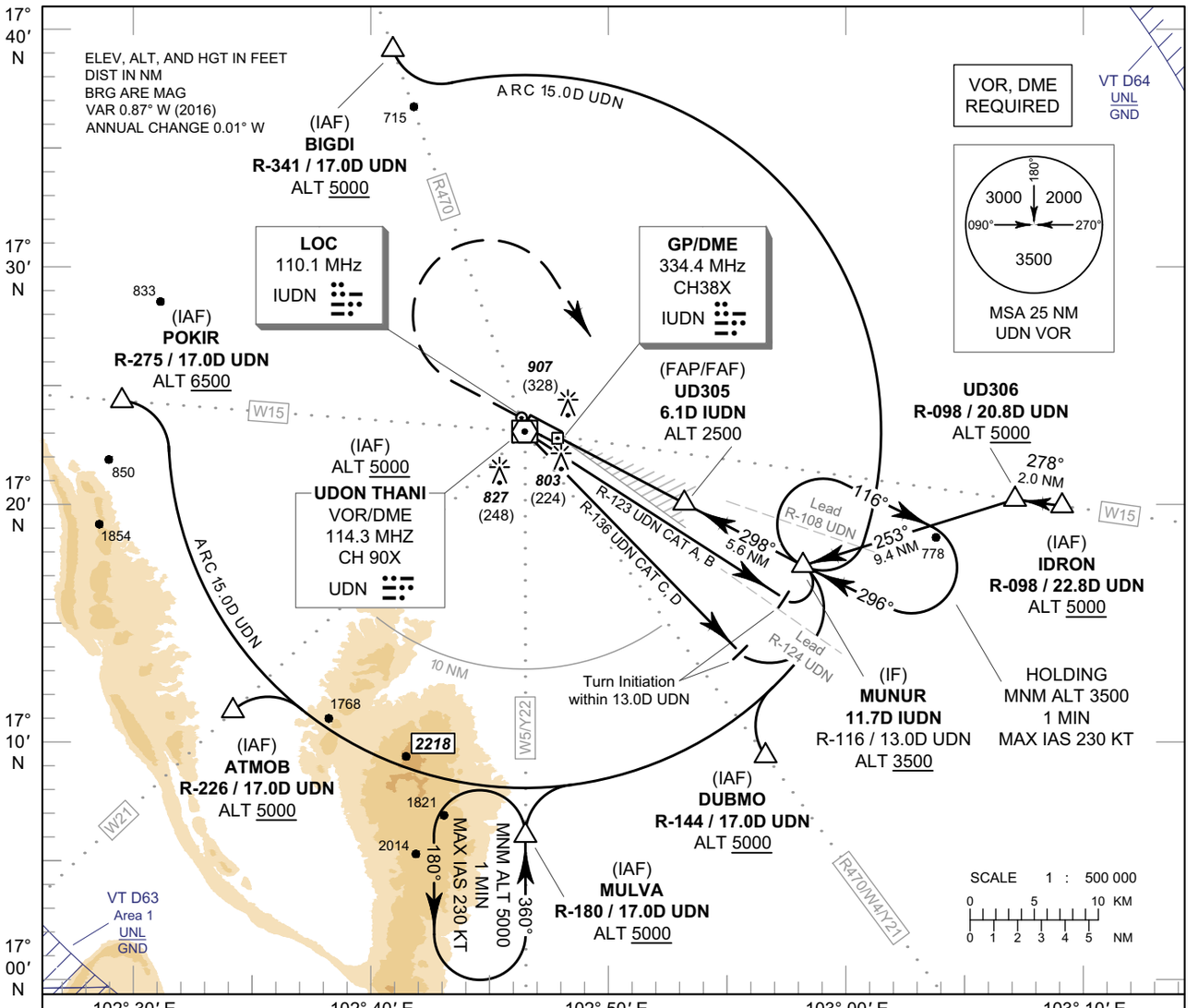
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO
THR RWY30 - ELEV 579 FT

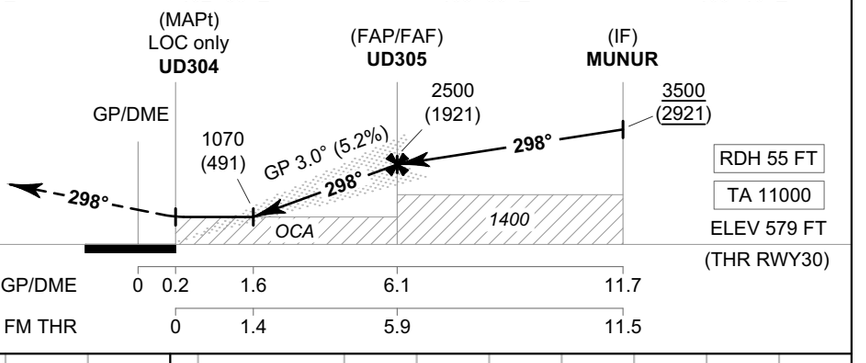
APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**

**ILS or LOC y RWY30**




**MISSED APPROACH :**
**No turn before MAPt (for LOC only).**
Climb straight ahead to 1500 FT, then turn right to intercept outbound R-116 UDN VOR, then proceed to MUNUR at minimum 3500 FT and hold or as directed by ATC.




CHANGE: POKIR ALTITUDE.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 860 (281) | 870 (291) | 880 (301) | 890 (311) |
| LOC only | | 1070 (491) | | | |
| Circling* (OCH AAL) | | 1300 (721) | | | |

*FOR CIRCLING RESTRICTIONS SEE VERSO

| GS OUT | Distance (IUDN) | 1.6D | 2D | 3D | 4D | 5D | 6D | FAF |
|---|---|---|---|---|---|---|---|---|
| | Altitude (Height) | 1070 (491) | 1200 (621) | 1515 (936) | 1830 (1251) | 2145 (1566) | 2460 (1881) | 2500 (1921) |
| | Ground Speed knot | 70 | 90 | 100 | 120 | 140 | 160 | |
| | Rate of Descent 5.2% ft/min | 369 | 474 | 527 | 632 | 737 | 843 | |

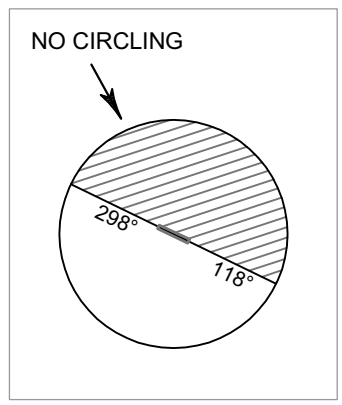
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO
THR RWY30 - ELEV 579 FT

**UDON THANI / Udon Thani (VTUD)**

**ILS or LOC y RWY30**

| Fix / Point | | Corrdinates | |
|---|---|---|---|
| (IAF)<br>ATMOB | R-226 / 17.0D UDN | 17° 11' 07.02" N | 102° 33' 49.07" E |
| (IAF)<br>BIGDI | R-341 / 17.0D UDN | 17° 39' 08.16" N | 102° 40' 29.65" E |
| (IAF)<br>DUBMO | R-144 / 17.0D UDN | 17° 09' 29.25" N | 102° 57' 15.60" E |
| (IAF)<br>IDRON | R-098 / 22.8D UDN | 17° 20' 09.96" N | 103° 10' 11.12" E |
| (IAF)<br>MULVA | R-180 / 17.0D UDN | 17° 06' 00.16" N | 102° 46' 44.42" E |
| (IAF)<br>POKIR | R-275 / 17.0D UDN | 17° 24' 09.53" N | 102° 28' 45.58" E |
| UD306 | R-098 / 20.8D UDN | 17° 20' 25.33" N | 103° 08' 06.70" E |
| (IF)<br>MUNUR | 11.7D IUDN | 17° 17' 32.26" N | 102° 58' 48.60" E |
| (FAP/FAF)<br>UD305 | 6.1D IUDN | 17° 20' 07.01" N | 102° 53' 33.38" E |
| (MAPt@THR30)<br>UD304 | 0.2D IUDN | 17° 22' 48.62" N | 102° 48' 03.73" E |
| LOC | IUDN | 17° 23' 41.21" N | 102° 46' 16.38" E |
| GP/DME | IUDN | 17° 22' 56.83" N | 102° 47' 56.01" E |
| (IAF)<br>VOR | UDN | 17° 23' 05.16" N | 102° 46' 29.77" E |




CHANGE: VOR, GP/DME AND LOC COORDINATE.

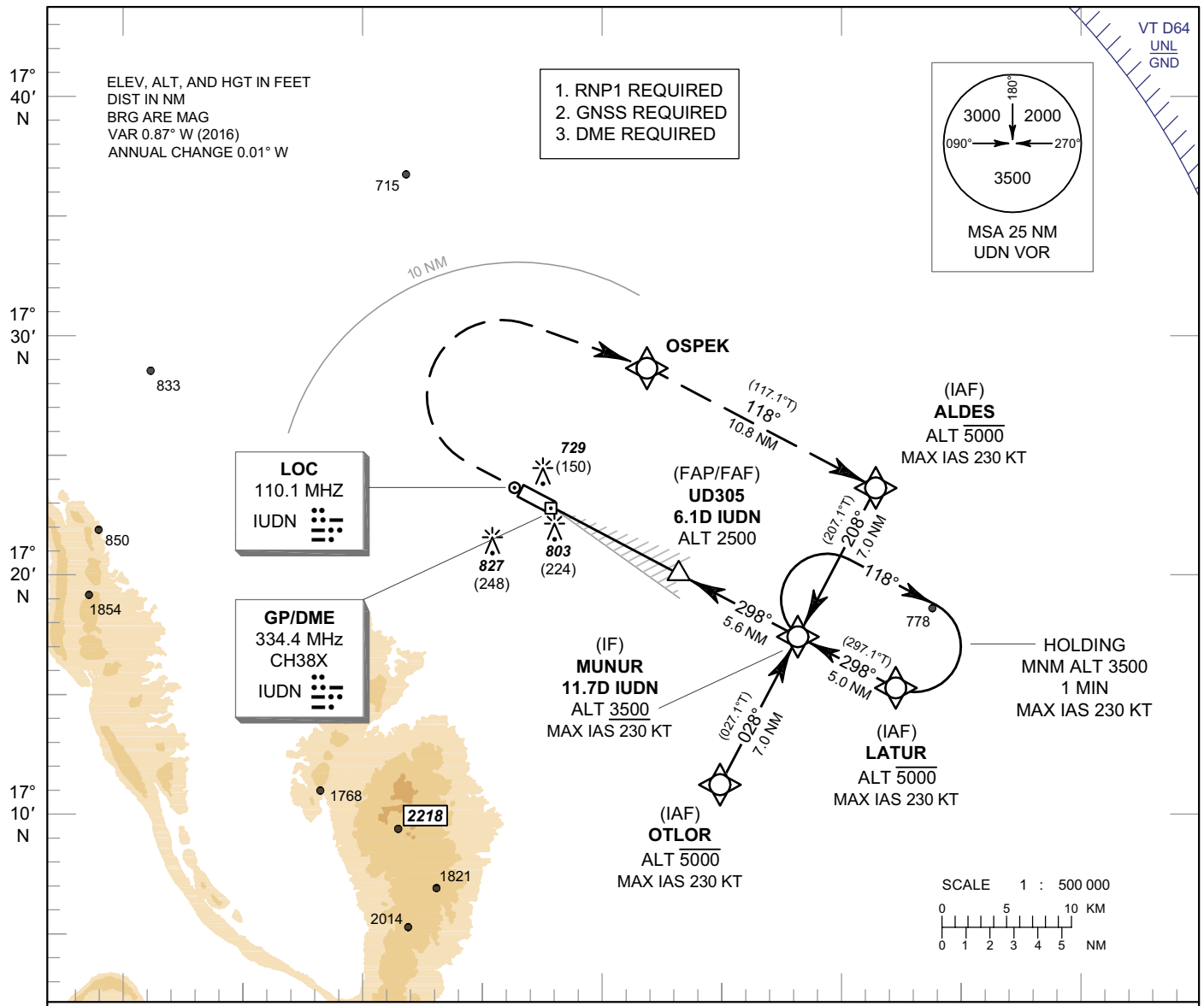
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO
THR RWY30 - ELEV 579 FT

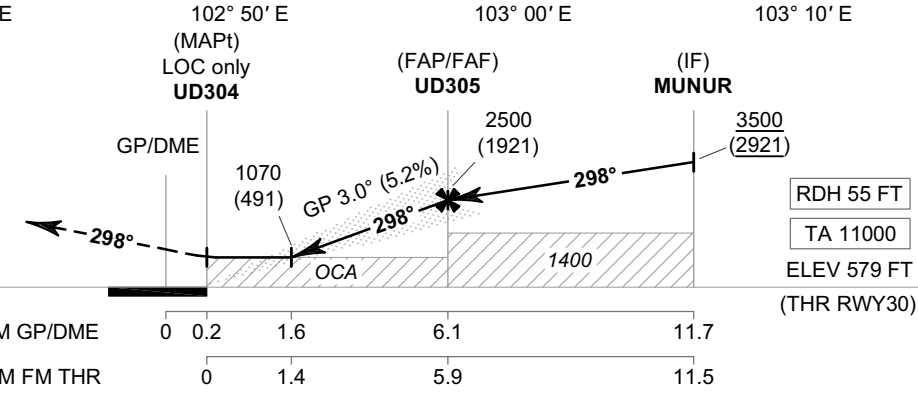
APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**

**ILS or LOC z RWY30**




**MISSED APPROACH :**
**No turn before MAPt (for LOC only).**
Climb on track 298° to 1500 FT,
then turn right direct to OSPEK.
continue to ALDES then proceed to
MUNUR at minimum 3500 FT and hold
or as directed by ATC.




CHANGE: NEW CHART.

| OCA/H | | A | B | C | D |
|---|---|---|---|---|---|
| Straight - in Approach | CAT I | 860 (281) | 870 (291) | 880 (301) | 890 (311) |
| LOC only | | 1070 (491) | | | |
| Circling* (OCH AAL) | | 1300 (721) | | | |

*FOR CIRCLING RESTRICTIONS SEE VERSO

| GS OUT | Distance (IUDN) | 1.6D | 2D | 3D | 4D | 5D | 6D | FAF |
|---|---|---|---|---|---|---|---|---|
| | Altitude (Height) | 1070 (491) | 1200 (621) | 1515 (936) | 1830 (1251) | 2145 (1566) | 2460 (1881) | 2500 (1921) |
| | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| | Rate of Descent 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

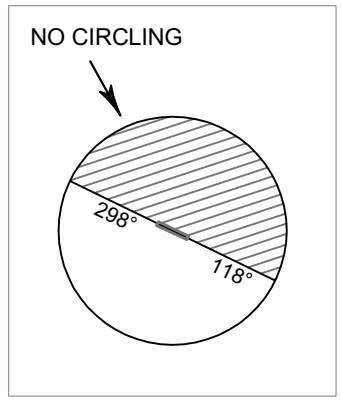
**INSTRUMENT APPROACH CHART - ICAO** | **AERODROME ELEV 579 FT** HEIGHTS RELATED TO THR RWY30 - ELEV 579 FT | **UDON THANI / Udon Thani (VTUD)** **ILS or LOC z RWY30**

**TABULAR DESCRIPTION**

| ILS or LOC z RWY30 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | (IAF) OTLOR | - | - | +0.91 | - | - | -5000 | -230 | - | RNP 1 |
| 020 | TF | (IF) MUNUR | - | 028°(027.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) LATUR | - | - | +0.91 | - | - | -5000 | -230 | - | RNP 1 |
| 020 | TF | (IF) MUNUR | - | 298°(297.1°) | +0.91 | 5.0 | - | +3500 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IAF) ALDES | - | - | +0.91 | - | - | -5000 | -230 | - | RNP 1 |
| 020 | TF | (IF) MUNUR | - | 208°(207.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| | | | | | | | | | | | |
| 010 | IF | (IF) MUNUR | - | - | +0.91 | - | - | +3500 | -230 | - | RNP 1 |
| **TRANSITION TO ILS or LOC** | | | | | | | | | | | |
| 020 | TF | (FAP/FAF) UD305 | - | 298°(297.1°) | +0.91 | 5.6 | - | @2500 | - | - | ILS |
| 030 | TF | (MAPt@THR30) UD304 | Y | 298°(297.1°) | +0.91 | 5.9 | - | @634 | - | -3.0/55 | ILS |
| 040 | CA | - | - | 298°(297.1°) | +0.91 | - | - | +1500 | - | - | RNP 1 |
| 050 | DF | OSPEK | - | - | +0.91 | - | R | - | - | - | RNP 1 |
| 060 | TF | (IAF) ALDES | - | 118°(117.1°) | +0.91 | 10.8 | - | -5000 | -230 | - | RNP 1 |
| 070 | TF | (IF) MUNUR | - | 208°(207.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP 1 |
| 080 | HM | (IF) MUNUR | Y | 298°(297.1°) | +0.91 | 1 minute | R | +3500 | -230 | - | RNP 1 |

**WAYPOINT LIST**

| ILS or LOC z RWY30 | |
|---|---|
| Waypoint Identifier | Coordinates |
| ALDES | 17° 23' 47.70" N 103° 02' 08.55" E |
| LATUR | 17° 15' 15.09" N 103° 03' 27.72" E |
| MUNUR | 17° 17' 32.26" N 102° 58' 48.60" E |
| OSPEK | 17° 28' 43.41" N 102° 52' 05.91" E |
| OTLOR | 17° 11' 16.76" N 102° 55' 28.89" E |
| UD304 | 17° 22' 48.62" N 102° 48' 03.73" E |
| UD305 | 17° 20' 07.01" N 102° 53' 33.38" E |



**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO
THR RWY30 - ELEV 579 FT

**UDON THANI / Udon Thani (VTUD)**

**ILS or LOC z RWY30**

| Fix / Point | | Corrdinates | |
|---|---|---|---|
| (IF)<br>MUNUR | 11.7D IUDN | 17° 17' 32.26" N | 102° 58' 48.60" E |
| (FAP/FAF)<br>UD305 | 6.1D IUDN | 17° 20' 07.01" N | 102° 53' 33.38" E |
| (MAPt@THR30)<br>UD304 | 0.2D IUDN | 17° 22' 48.62" N | 102° 48' 03.73" E |
| LOC | IUDN | 17° 23' 41.21" N | 102° 46' 16.38" E |
| GP/DME | IUDN | 17° 22' 56.83" N | 102° 47' 56.01" E |

CHANGE: GP/DME AND LOC COORDINATE.

**INTENTIONALLY BLANK**

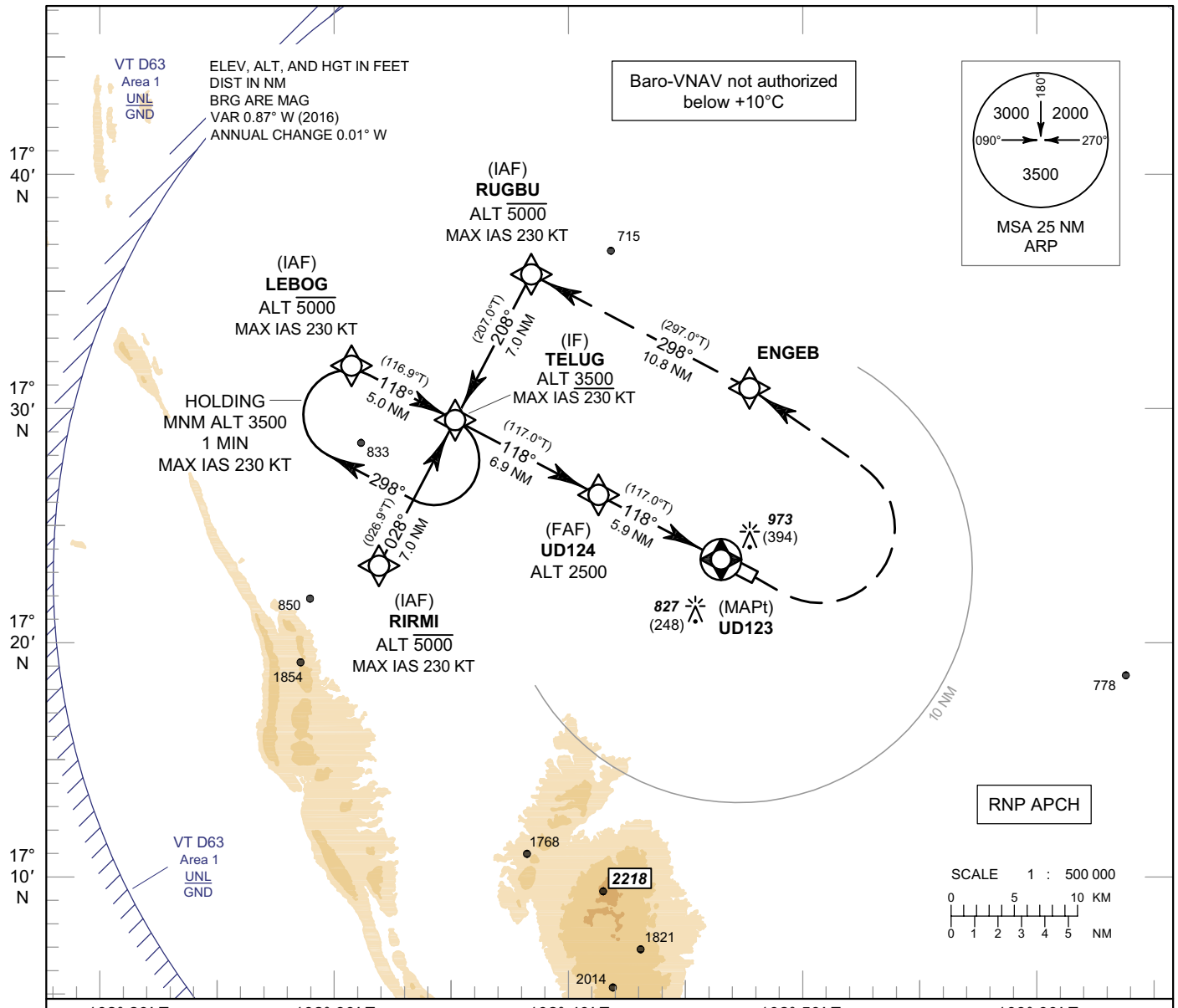
**INSTRUMENT APPROACH CHART - ICAO**

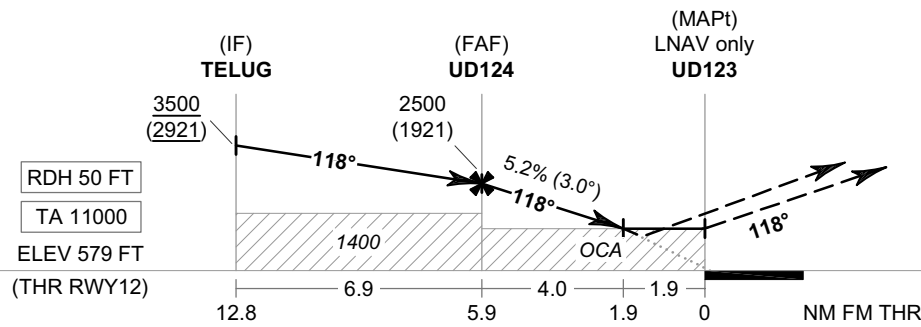
**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO
THR RWY12 - ELEV 579 FT

APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**

**RNP RWY12**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 118° to 1500 FT, then turn left direct to ENGEB. continue to RUGBU then proceed to TELUG at minimum 3500 FT and hold or as directed by ATC.

| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 990 (411) | | | |
| LNAV | 1230 (651) | | | |
| Circling* (OCH AAL) | 1300 (721) | | | |

*FOR CIRCLING RESTRICTIONS SEE VERSO

| NM to NEXT WPT | FAF | 5 NM | 4 NM | 3 NM | 2 NM | 1.9 NM |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2500 (1921) | 2210 (1631) | 1895 (1316) | 1575 (996) | 1260 (681) | 1230 (651) |

| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of Descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO
THR RWY12 - ELEV 579 FT

**UDON THANI / Udon Thani (VTUD)**

**RNP RWY12**

**TABULAR DESCRIPTION**

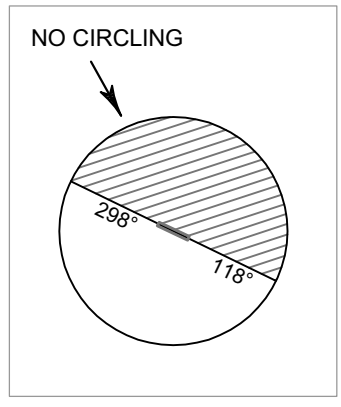
**RNP RWY12**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) RIRMI | - | - | +0.91 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | (IF) TELUG | - | 028°(026.9°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) LEBOG | - | - | +0.91 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | (IF) TELUG | - | 118°(116.9°) | +0.91 | 5.0 | - | +3500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) RUGBU | - | - | +0.91 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | (IF) TELUG | - | 208°(207.0°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) TELUG | - | - | +0.91 | - | - | +3500 | -230 | - | RNP APCH |
| 020 | TF | (FAF) UD124 | - | 118°(117.0°) | +0.91 | 6.9 | - | @2500 | - | - | RNP APCH |
| 030 | TF | (MAPt@THR12) UD123 | Y | 118°(117.0°) | +0.91 | 5.9 | - | @629 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 118°(117.0°) | +0.91 | - | - | +1500 | - | - | RNP APCH |
| 050 | DF | ENGEB | - | - | +0.91 | - | L | - | - | - | RNP APCH |
| 060 | TF | RUGBU | - | 298°(297.0°) | +0.91 | 10.8 | - | -5000 | -230 | - | RNP APCH |
| 070 | TF | TELUG | - | 208°(207.0°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP APCH |
| 080 | HM | TELUG | Y | 118°(116.9°) | +0.91 | 1 minute | R | +3500 | -230 | - | RNP APCH |

**WAYPOINT LIST**

**RNP RWY12**

| Waypoint Identifier | Coordinates |
|---|---|
| ENGEB | 17° 30' 44.10" N 102° 47' 59.49" E |
| LEBOG | 17° 31' 40.01" N 102° 29' 56.44" E |
| RIRMI | 17° 23' 07.60" N 102° 31' 17.15" E |
| RUGBU | 17° 35' 39.33" N 102° 37' 55.60" E |
| TELUG | 17° 29' 23.50" N 102° 34' 36.26" E |
| UD123 | 17° 23' 33.72" N 102° 46' 31.65" E |
| UD124 | 17° 26' 15.13" N 102° 41' 01.80" E |



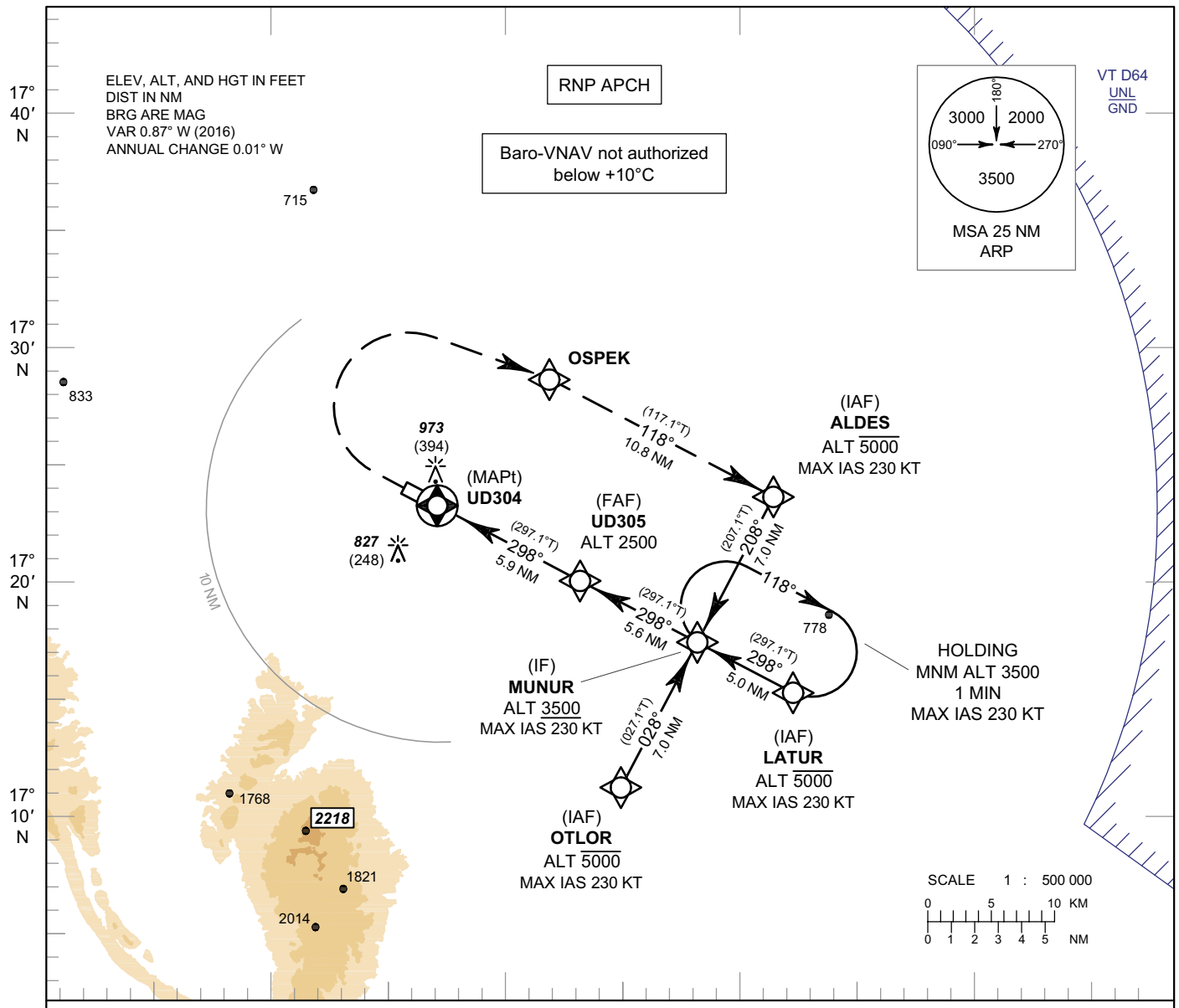
**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO
THR RWY30 - ELEV 579 FT

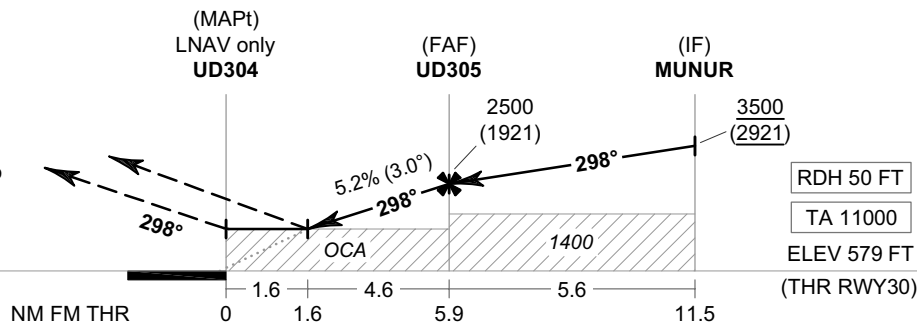
APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

**UDON THANI / Udon Thani (VTUD)**

**RNP RWY30**




**MISSED APPROACH :**
**No turn before MAPt.**
Climb on track 298° to 1500 FT, then turn right direct to OSPEK. continue to ALDES then proceed to MUNUR at minimum 3500 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D |
|---|---|---|---|---|
| LNAV/VNAV | 1140 (561) | | | |
| LNAV | | | | |
| Circling* (OCH AAL) | 1300 (721) | | | |

*FOR CIRCLING RESTRICTIONS SEE VERSO

| NM to NEXT WPT | 1.6 NM | 2 NM | 3 NM | 4 NM | 5 NM | FAF |
|---|---|---|---|---|---|---|
| Altitude (Height) | 1140 (561) | 1260 (681) | 1575 (996) | 1895 (1316) | 2210 (1631) | 2500 (1921) |

| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of Descent FAF-MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE : REVISED CHART.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 579 FT**
HEIGHTS RELATED TO
THR RWY30 - ELEV 579 FT

**UDON THANI / Udon Thani (VTUD)**

**RNP RWY30**

**TABULAR DESCRIPTION**

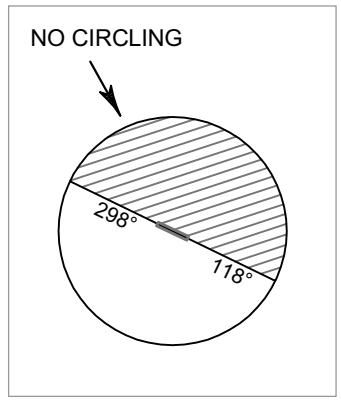
**RNP RWY30**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | (IAF) OTLOR | - | - | +0.91 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | (IF) MUNUR | - | 028°(027.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) LATUR | - | - | +0.91 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | (IF) MUNUR | - | 298°(297.1°) | +0.91 | 5.0 | - | +3500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IAF) ALDES | - | - | +0.91 | - | - | -5000 | -230 | - | RNP APCH |
| 020 | TF | (IF) MUNUR | - | 208°(207.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | (IF) MUNUR | - | - | +0.91 | - | - | +3500 | -230 | - | RNP APCH |
| 020 | TF | (FAF) UD305 | - | 298°(297.1°) | +0.91 | 5.6 | - | @2500 | - | - | RNP APCH |
| 030 | TF | (MAPt@THR30) UD304 | Y | 298°(297.1°) | +0.91 | 5.9 | - | @629 | - | -3.0/50 | RNP APCH |
| 040 | CA | - | - | 298°(297.1°) | +0.91 | - | - | +1500 | - | - | RNP APCH |
| 050 | DF | OSPEK | - | - | +0.91 | - | R | - | - | - | RNP APCH |
| 060 | TF | (IAF) ALDES | - | 118°(117.1°) | +0.91 | 10.8 | - | -5000 | -230 | - | RNP APCH |
| 070 | TF | (IF) MUNUR | - | 208°(207.1°) | +0.91 | 7.0 | - | +3500 | -230 | - | RNP APCH |
| 080 | HM | (IF) MUNUR | Y | 298°(297.1°) | +0.91 | 1 minute | R | +3500 | -230 | - | RNP APCH |

**WAYPOINT LIST**

**RNP RWY30**

| Waypoint Identifier | Coordinates |
|---|---|
| ALDES | 17° 23' 47.70" N 103° 02' 08.55" E |
| LATUR | 17° 15' 15.09" N 103° 03' 27.72" E |
| MUNUR | 17° 17' 32.26" N 102° 58' 48.60" E |
| OSPEK | 17° 28' 43.41" N 102° 52' 05.91" E |
| OTLOR | 17° 11' 16.76" N 102° 55' 28.89" E |
| UD304 | 17° 22' 48.62" N 102° 48' 03.73" E |
| UD305 | 17° 20' 07.01" N 102° 53' 33.38" E |



## VTSY AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSY - YALA/BETONG AIRPORT

## VTSY AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 054719.64N 1010849.77E |
| 2 | Direction and distance from (city) | 10 KM NE from city |
| 3 | Elevation/Reference temperature | 225.25 M (738 FT) |
| 4 | Geoid Undulation at AD ELEV PSN | -9 M (-30 FT) |
| 5 | MAG VAR/Annual change | 0.27ºW (2020) / 0.03ºW |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Betong Airport<br>Betong Airport<br>125 Moo.8, Yarom<br>Betong<br>Yala 95110<br>Thailand |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTSY AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | AD Administration | 0130 - 0930 |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 0130 - 0930 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | 0130 - 0930 |
| 11 | De-icing | NIL |
| 12 | Remarks | NIL |

## VTSY AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTSY AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | NIL |
| 4 | Medical facilities | Hospital in the city |
| 5 | Bank and Post Office | In the city |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTSY AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 5 |
| 2 | Rescue equipment | Accordance with AD Category 5 |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTSY AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | NIL |

## VTSY AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 23/R/D/X/T |
| 2 | Taxiway width, surface and strength | TWY A and B<br>Width: 18 M<br>Surface: Asphalt<br>Strength: PCN 23/F/D/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: 054714.33N 1010851.00E<br>054713.84N 1010849.62E<br>054713.34N 1010848.25E<br>Elevation: MSL 225.109 M (738.547 FT) |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTSY AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | Aircraft stand ID signs: Marked<br>TWY guide lines: Yes<br>VDGS of aircraft stands: NIL, aircraft parking shall follow marshaller strictly. |
| 2 | RWY and TWY markings and LGT | RWY marking: RWY Designation, THR, TDZ, CL, Aiming Point and Side Stripe<br>RWY LGT: THR, RWY Edge and RWY End<br>TWY marking: CL, Edge, RWY Holding Position and Intermediate Holding Position<br>TWY LGT: TWY Edge |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTSY AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling area and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| APCH RWY 07/<br>TKOF RWY 25 | Tree<br>253.63 M<br>(HGT 28.38 M) | 054711.76N 1010817.00E | NIL | NIL | NIL |
| | Tree<br>275.27 M<br>(HGT 50.02 M) | 054657.63N 1010803.25E | | | |
| | Radio Mast<br>387.41 M<br>(HGT 162.16 M)<br>Marked and LGT | 054615.47N 1010356.79E | | | |
| | Radio Mast<br>423.26 M<br>(HGT 198 M)<br>Marked and LGT | 054544.82N 1010404.54E | | | |
| APCH RWY 25/<br>TKOF RWY 07 | Mountain<br>415 M<br>(HGT 195.82 M) | | | | |
| | Mountain<br>644 M<br>(HGT 424.82 M) | See Aerodrome Obstacle Chart - ICAO Type A | | | |
| | Mountain<br>954 M<br>(HGT 734.82 M) | | | | |

## VTSY AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Betong,<br>Southern East-Coast Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 0000-1000<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Southern East-Coast Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +668 9283 1877 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observing System (AWOS) |
| 9 | ATS units provided with information | Betong TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTSY AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE & MAG BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 07<br>(Non-instrument runway) | 070.09° | 1800x30 | PCN 23/F/D/X/T<br>Asphalt | 054714.13N<br>1010834.47E | 225.25 M<br>(738 FT) |
| 25<br>(Non-instrument runway) | 250.09° | 1800x30 | PCN 23/F/D/X/T<br>Asphalt | 054733.96N<br>1010929.53E | 219.18 M<br>(719 FT) |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 0.00% -0.63%<br>(690M 1100M) | NIL | NIL | 1920x150 | 240x60 | NIL | NIL | NIL |
| 0.63% 0.00%<br>(1100M 690M) | NIL | NIL | 1920x150 | 240x60 | NIL | NIL | NIL |

## VTSY AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 07 | 1800 | 1800 | 1800 | 1800 | NIL |
| 25 | 1800 | 1800 | 1800 | 1800 | NIL |

## VTSY AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 07 | SALS<br>420 M<br>LIH | Green<br>NIL | PAPI<br>Left 3.9°<br>(59.42 FT) | NIL | NIL | 1800 M<br>30 M<br>White, LIH<br>YCZ 600 M | Red<br>NIL | NIL | NIL |
| 25 | NIL | Green<br>NIL | PAPI<br>Left 4.7°<br>(42.78 FT) | NIL | NIL | 1800 M<br>30 M<br>White, LIH<br>YCZ 600 M | Red<br>NIL | NIL | 1. RTIL<br>2. Due to mountainous terrains, PAPI RWY 25 is unusable beyond 3 NM and approved only for operation under VFR conditions. |

## VTSY AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: On top of control tower, FLG W G EV 2 SEC<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI: NIL<br>Anemometer: Wind cone at 280 M from THR 07 off set left side 67 M from RCL and wind cone at 155 M from THR 25 off set left side 67 M from RCL |
| 3 | TWY edge and centre line lighting | Edge: TWY A and B<br>Centre line: NIL |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all lighting at AFL Building<br>Switch-over time: 15 SEC |
| 5 | Remarks | NIL |

## VTSY AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTSY AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | BETONG AERODROME TRAFFIC ZONE (ATZ), a circle radius 5 nm centred on BET DVOR/DME (054707.7N 1010838.7E) |
| 2 | Vertical limits | 4000 ft/AGL |
| 3 | Airspace classification | D |
| 4 | ATS unit call sign<br>Language(s) | BETONG TOWER<br>English, Thai |
| 5 | Transition altitude | 11000 ft |
| 6 | Remarks | NIL |

## VTSY AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Narathiwat Approach | 125.55 MHz<br>121.5 MHz 1) | 23:00-11:00 | 1) Emergency frequency |
| TWR | Betong Tower | 124.15MHz<br>236.6MHz<br>121.5 MHz 1)<br>243.0 MHz 1) | 01:30-09:30 | |
| GND | Betong Ground | 122.15 MHz<br>121.5 MHz 1)<br>243.0 MHz 1) | 01:30-09:30 | |
| ATIS | Betong Airport | 128.5 MHz | 01:30-09:30 | |

## VTSY AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, CAT of ILS/MLS (For VOR/ILS/MLS, give VAR) | ID | Frequency | Hours of operation | Site of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| DVOR | BET | 113.1 MHz | H24 | 054707.7N 1010838.7E | | DVOR/DME restrictions,<br>1. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 nm at required altitude and distance in various areas as follows:<br>– Radial 350°-020° altitude should not below 8 000 ft.<br>– Radial 021°-040° altitude should not below 6 500 ft.<br>– Radial 041°-060° altitude should not below 9 000 ft.<br>– Radial 061°-075° altitude should not below 15 000 ft.<br>– Radial 076°-349° unable to check due to border limit |
| DME | | 78X | H24 | 054707.8N 1010838.3E | | DME co-located with DVOR |

## VTSY AD 2.20 LOCAL AERODROME REGULATIONS

**1. 180 DEGREES TURN ON THE RUNWAY**

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, all aircraft are not allowed to make 180 degrees turn on the runway. The turn shall be made on the runway turn pad located near the threshold of runway 25. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand (CAAT)/ The Headquarter of that operator shall be liable for the compensation caused by such violation.

## VTSY AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSY AD 2.22 FLIGHT PROCEDURES

NIL

## VTSY AD 2.23 ADDITIONAL INFORMATION

**1. BIRD CONCENTRATIONS**

- Bird concentrations in the vicinity of an aerodrome.

## VTSY AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTSY-2-1 |
| Aerodrome Obstacle Chart - ICAO Type A - RWY 07/25 | AD 2-VTSY-3-1 |
| Aerodrome Obstacle Chart - ICAO Type B | AD 2-VTSY-3-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 07 - ERVES1A PETAC1A | AD 2-VTSY-6-1 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 07 - ERVES1A PETAC1A (Tabular description) | AD 2-VTSY-6-2 |

| Chart name | Page |
|---|---|
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 25 - ERVES1B PETAC1B | AD 2-VTSY-6-3 |
| Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 25 - ERVES1B PETAC1B (Tabular description) | AD 2-VTSY-6-4 |
| Instrument Approach Chart - ICAO - VOR a | AD 2-VTSY-8-1 |
| Instrument Approach Chart - ICAO - VOR a (Fix and point list table) | AD 2-VTSY-8-2 |
| Instrument Approach Chart - ICAO - RNP a | AD 2-VTSY-8-3 |
| Instrument Approach Chart - ICAO - RNP a (Tabular description) | AD 2-VTSY-8-4 |

# AERODROME CHART - ICAO

**05 47 19.64 N**
**101 08 49.77 E**

**ELEV 738 FT**
**225 m**

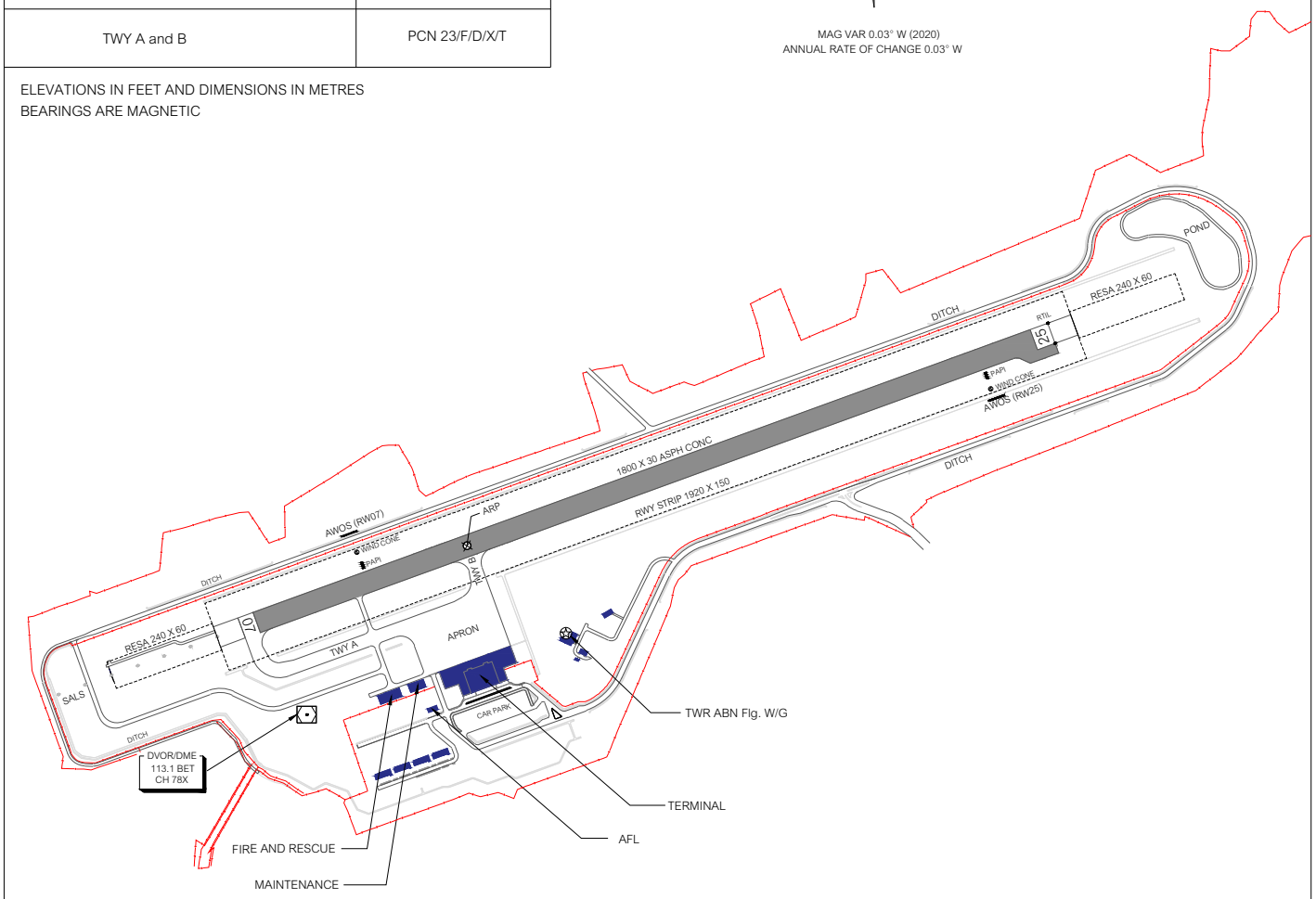
**TWR 124.15**

**YALA / Betong**

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 07 | 70.09 | 05 47 14.13 N<br>101 08 34.47 E | PCN 23/F/D/X/T |
| 25 | 250.09 | 05 47 33.96 N<br>101 09 29.53 E | |
| APRON | | | PCN 23/R/D/X/T |
| TWY A and B | | | PCN 23/F/D/X/T |

ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

MAG VAR 0.03° W (2020)
ANNUAL RATE OF CHANGE 0.03° W



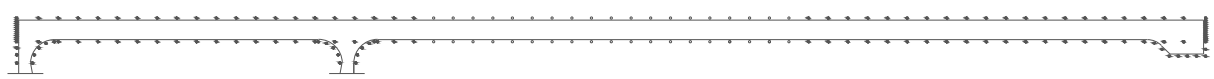

METRES
150 0 100 250 500
500 0 500 1000 1500
FEET

Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 07/25 AND EXIT TWY



LIGHTING AIDS RWY 07/25 AND EXIT TWY



CHANGE: PAPI 07/25 ADDED.

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# AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATIONAL LIMITATIONS)

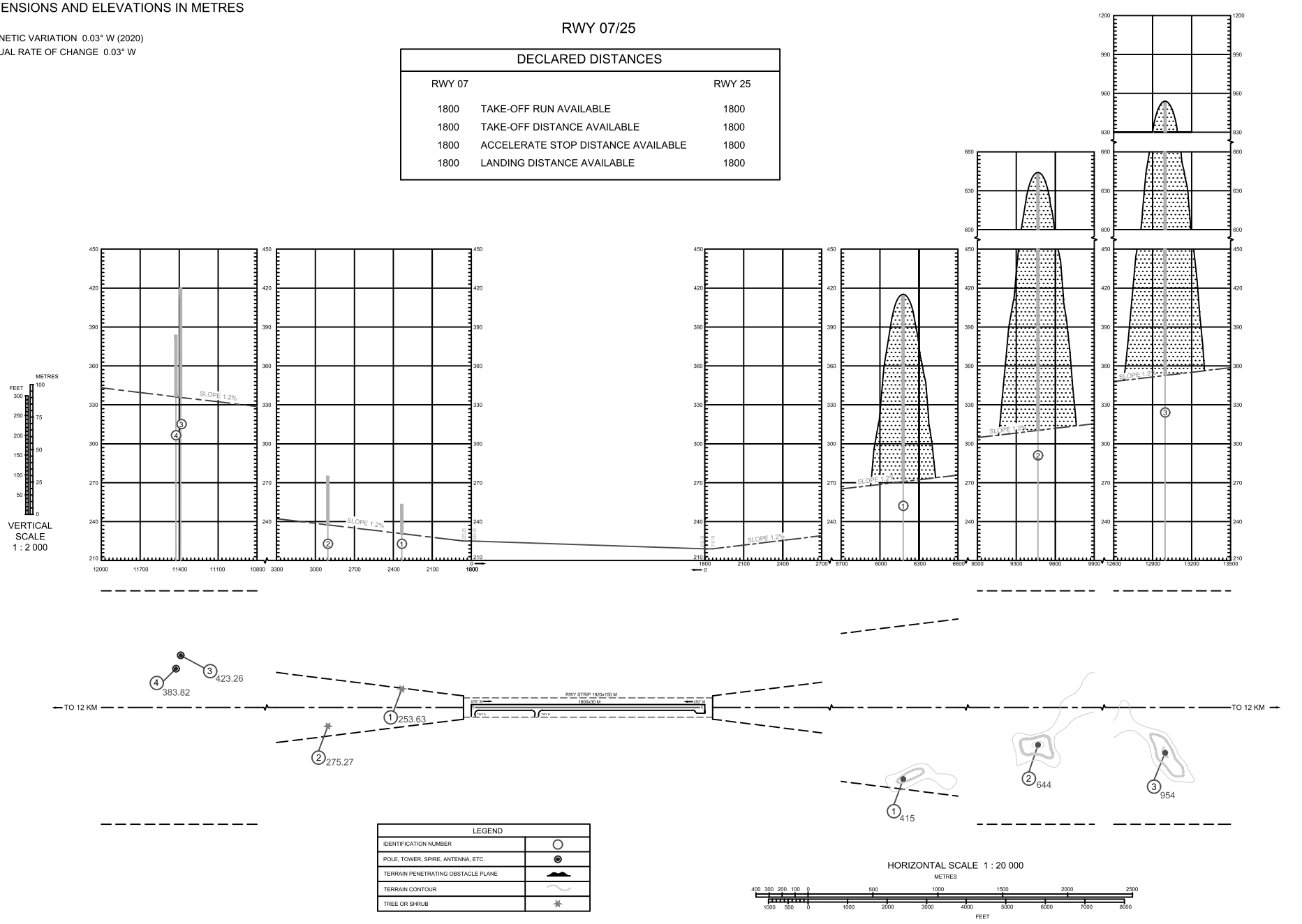
YALA / Betong Airport

DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 0.03° W (2020)
ANNUAL RATE OF CHANGE 0.03° W

RWY 07/25

| DECLARED DISTANCES | | |
|---|---|---|
| RWY 07 | | RWY 25 |
| 1800 | TAKE-OFF RUN AVAILABLE | 1800 |
| 1800 | TAKE-OFF DISTANCE AVAILABLE | 1800 |
| 1800 | ACCELERATE STOP DISTANCE AVAILABLE | 1800 |
| 1800 | LANDING DISTANCE AVAILABLE | 1800 |




CHNAGE: NEW CHART.

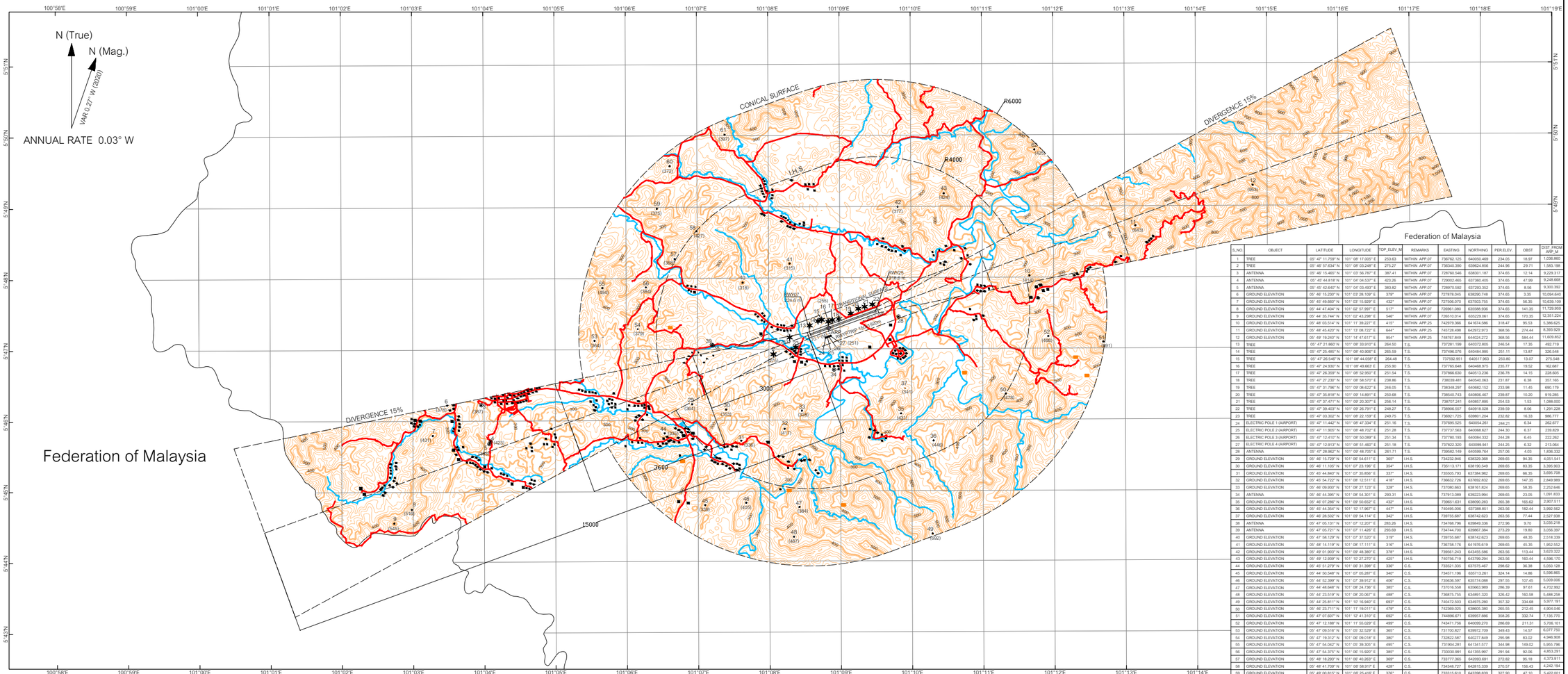
**INTENTIONALLY BLANK**

GRIDLINES AND CO-ORDINATES SHOWN ARE BASED ON WGS-84 DATUM

DIMENSIONS IN METRES
ELEVATIONS IN METRES (EGM-96)
AERODROME ELEVATION 225.247 m (738.999 FT)

# AERODROME OBSTACLE CHART - ICAO
# TYPE - B

## YALA/BETONG, THAILAND




| S_NO. | OBJECT | LATITUDE | LONGITUDE | TOP_ELEV_M | REMARKS | EASTING | NORTHING | PER.ELEV. | OBST | DIST_FROM APP_M |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | TREE | 05° 47' 11.759" N | 101° 08' 17.005" E | 253.63 | WITHIN APP.07 | 736762.125 | 640050.469 | 234.05 | 18.97 | 1,036.860 |
| 2 | TREE | 05° 46' 57.634" N | 101° 08' 03.248" E | 275.27 | WITHIN APP.07 | 736340.356 | 639624.856 | 244.96 | 29.71 | 1,043.196 |
| 3 | ANTENNA | 05° 46' 15.460" N | 101° 02' 56.787" E | 387.41 | WITHIN APP.07 | 728760.546 | 638301.187 | 374.65 | 12.14 | 9,229.317 |
| 4 | ANTENNA | 05° 45' 44.818" N | 101° 04' 04.537" E | 423.26 | WITHIN APP.07 | 729002.465 | 637360.405 | 374.65 | 47.99 | 9,248.668 |
| 5 | ANTENNA | 05° 45' 42.640" N | 101° 04' 03.493" E | 383.82 | WITHIN APP.07 | 728970.592 | 637293.352 | 374.65 | 8.56 | 9,300.392 |
| 6 | GROUND ELEVATION | 05° 46' 15.230" N | 101° 03' 28.109" E | 379* | WITHIN APP.07 | 727878.045 | 638290.748 | 374.65 | 3.35 | 10,094.640 |
| 7 | GROUND ELEVATION | 05° 45' 49.660" N | 101° 02' 15.929" E | 432* | WITHIN APP.07 | 727538.070 | 637503.755 | 374.65 | 56.35 | 10,639.109 |
| 8 | GROUND ELEVATION | 05° 44' 47.404" N | 101° 02' 57.997" E | 517* | WITHIN APP.07 | 726961.080 | 635588.936 | 374.65 | 141.35 | 11,729.959 |
| 9 | GROUND ELEVATION | 05° 44' 35.744" N | 101° 03' 43.298" E | 546* | WITHIN APP.07 | 726510.014 | 635229.061 | 374.65 | 170.35 | 12,351.224 |
| 10 | GROUND ELEVATION | 05° 48' 03.014" N | 101° 11' 39.227" E | 415* | WITHIN APP.25 | 742979.366 | 641674.086 | 318.47 | 95.53 | 5,366.625 |
| 11 | GROUND ELEVATION | 05° 48' 45.420" N | 101° 13' 08.722" E | 644* | WITHIN APP.25 | 745728.498 | 642972.973 | 368.56 | 274.44 | 8,393.929 |
| 12 | GROUND ELEVATION | 05° 49' 19.240" N | 101° 14' 47.617" E | 954* | WITHIN APP.25 | 748767.849 | 644024.272 | 368.56 | 584.44 | 11,609.852 |
| 13 | TREE | 05° 47' 21.860" N | 101° 08' 33.910" E | 264.50 | T.S. | 737281.199 | 640372.805 | 246.54 | 17.35 | 492.719 |
| 14 | TREE | 05° 47' 25.490" N | 101° 08' 45.936" E | 265.59 | T.S. | 737496.076 | 640484.995 | 251.11 | 13.87 | 326.548 |
| 15 | TREE | 05° 47' 26.546" N | 101° 08' 44.058" E | 264.48 | T.S. | 737552.951 | 640517.963 | 250.80 | 13.07 | 275.548 |
| 16 | TREE | 05° 47' 24.930" N | 101° 08' 49.663" E | 255.90 | T.S. | 737765.648 | 640468.975 | 235.77 | 19.52 | 162.687 |
| 17 | TREE | 05° 47' 26.359" N | 101° 08' 52.950" E | 251.54 | T.S. | 737866.630 | 640513.236 | 236.78 | 14.15 | 228.605 |
| 18 | TREE | 05° 47' 27.230" N | 101° 08' 58.370" E | 238.86 | T.S. | 738039.481 | 640540.063 | 231.87 | 6.38 | 357.165 |
| 19 | TREE | 05° 47' 31.796" N | 101° 09' 06.622" E | 246.09 | T.S. | 738348.297 | 640662.152 | 233.98 | 11.45 | 690.179 |
| 20 | TREE | 05° 47' 35.818" N | 101° 09' 14.891" E | 250.68 | T.S. | 738640.743 | 640806.467 | 239.87 | 10.20 | 919.285 |
| 21 | TREE | 05° 47' 37.471" N | 101° 09' 20.307" E | 256.14 | T.S. | 738707.241 | 640867.895 | 254.53 | 1.53 | 1,088.000 |
| 22 | TREE | 05° 47' 38.429" N | 101° 09' 26.797" E | 248.27 | T.S. | 738906.557 | 640918.026 | 239.59 | 8.08 | 1,291.228 |
| 23 | TREE | 05° 47' 03.302" N | 101° 08' 22.159" E | 249.75 | T.S. | 736921.725 | 639801.204 | 232.82 | 16.33 | 986.777 |
| 24 | ELECTRIC POLE 1 (AIRPORT) | 05° 47' 11.442" N | 101° 08' 47.334" E | 251.16 | T.S. | 737695.525 | 640054.261 | 244.21 | 6.34 | 262.677 |
| 25 | ELECTRIC POLE 2 (AIRPORT) | 05° 47' 11.905" N | 101° 08' 48.702" E | 251.28 | T.S. | 737737.563 | 640068.427 | 244.30 | 6.37 | 239.829 |
| 26 | ELECTRIC POLE 3 (AIRPORT) | 05° 47' 12.410" N | 101° 08' 50.089" E | 251.34 | T.S. | 737780.193 | 640084.332 | 244.28 | 6.45 | 222.262 |
| 27 | ELECTRIC POLE 4 (AIRPORT) | 05° 47' 12.913" N | 101° 08' 51.460" E | 251.18 | T.S. | 737822.320 | 640099.941 | 244.25 | 6.32 | 213.064 |
| 28 | ANTENNA | 05° 47' 28.962" N | 101° 09' 48.705" E | 261.71 | T.S. | 739582.149 | 640599.764 | 257.06 | 4.03 | 1,836.332 |
| 29 | GROUND ELEVATION | 05° 46' 19.729" N | 101° 06' 54.611" E | 360* | I.H.S. | 734232.946 | 638329.369 | 269.65 | 94.35 | 4,051.541 |
| 30 | GROUND ELEVATION | 05° 46' 11.105" N | 101° 07' 23.196" E | 354* | I.H.S. | 735113.171 | 638190.549 | 269.65 | 83.35 | 3,395.903 |
| 31 | GROUND ELEVATION | 05° 45' 44.840" N | 101° 07' 35.856" E | 337* | I.H.S. | 735505.793 | 637384.982 | 269.65 | 66.35 | 3,695.708 |
| 32 | GROUND ELEVATION | 05° 45' 54.722" N | 101° 08' 12.511" E | 418* | I.H.S. | 736632.726 | 637692.832 | 269.65 | 147.35 | 2,849.989 |
| 33 | GROUND ELEVATION | 05° 46' 09.930" N | 101° 08' 27.122" E | 329* | I.H.S. | 737080.663 | 638161.624 | 269.65 | 58.35 | 2,252.648 |
| 34 | ANTENNA | 05° 46' 44.390" N | 101° 08' 54.301" E | 293.31 | I.H.S. | 737913.089 | 639223.994 | 269.65 | 23.05 | 1,091.833 |
| 35 | GROUND ELEVATION | 05° 46' 07.286" N | 101° 09' 50.652" E | 432* | I.H.S. | 739651.631 | 638090.283 | 265.38 | 165.62 | 2,907.511 |
| 36 | GROUND ELEVATION | 05° 45' 44.354" N | 101° 10' 17.967" E | 447* | I.H.S. | 740495.006 | 637388.851 | 263.56 | 182.44 | 3,992.562 |
| 37 | GROUND ELEVATION | 05° 46' 28.502" N | 101° 09' 54.114" E | 342* | I.H.S. | 739750.687 | 638742.623 | 263.56 | 77.44 | 2,527.938 |
| 38 | ANTENNA | 05° 47' 05.131" N | 101° 07' 12.207" E | 283.26 | I.H.S. | 734768.796 | 639849.336 | 272.96 | 9.70 | 3,030.218 |
| 39 | ANTENNA | 05° 47' 05.721" N | 101° 07' 11.426" E | 293.69 | I.H.S. | 734744.700 | 639867.384 | 273.29 | 19.80 | 3,056.397 |
| 40 | GROUND ELEVATION | 05° 47' 58.129" N | 101° 07' 37.520" E | 319* | I.H.S. | 735755.687 | 639742.623 | 269.65 | 49.35 | 2,518.335 |
| 41 | GROUND ELEVATION | 05° 48' 14.119" N | 101° 08' 17.111" E | 316* | I.H.S. | 736758.176 | 641976.619 | 269.65 | 45.35 | 1,952.552 |
| 42 | GROUND ELEVATION | 05° 49' 01.903" N | 101° 09' 48.380" E | 378* | I.H.S. | 739561.243 | 643455.586 | 263.56 | 113.44 | 3,623.322 |
| 43 | GROUND ELEVATION | 05° 49' 12.939" N | 101° 10' 27.270" E | 425* | I.H.S. | 740756.719 | 643799.294 | 263.56 | 160.44 | 4,596.170 |
| 44 | GROUND ELEVATION | 05° 45' 01.279" N | 101° 06' 31.398" E | 336* | C.S. | 733521.335 | 637575.467 | 298.62 | 36.38 | 5,050.128 |
| 45 | GROUND ELEVATION | 05° 44' 50.548" N | 101° 07' 05.287" E | 340* | C.S. | 734571.196 | 637513.261 | 324.14 | 14.86 | 5,596.865 |
| 46 | GROUND ELEVATION | 05° 44' 52.399" N | 101° 07' 39.912" E | 406* | C.S. | 735636.597 | 637774.088 | 297.55 | 107.45 | 5,009.006 |
| 47 | GROUND ELEVATION | 05° 44' 48.648" N | 101° 08' 24.736" E | 395* | C.S. | 737016.558 | 637663.989 | 286.39 | 97.61 | 4,702.992 |
| 48 | GROUND ELEVATION | 05° 44' 23.519" N | 101° 08' 20.057" E | 489* | C.S. | 736875.755 | 634891.320 | 326.42 | 160.58 | 5,488.258 |
| 49 | GROUND ELEVATION | 05° 44' 25.811" N | 101° 10' 16.940" E | 693* | C.S. | 740472.503 | 634975.280 | 357.32 | 334.68 | 5,977.191 |
| 50 | GROUND ELEVATION | 05° 46' 23.711" N | 101° 11' 19.011" E | 479* | C.S. | 742369.025 | 638605.380 | 265.55 | 212.45 | 4,904.046 |
| 51 | GROUND ELEVATION | 05° 47' 07.607" N | 101° 12' 41.310" E | 692* | C.S. | 744896.671 | 639957.886 | 308.26 | 332.74 | 7,130.770 |
| 52 | GROUND ELEVATION | 05° 47' 12.188" N | 101° 11' 55.029" E | 499* | C.S. | 743471.756 | 640099.270 | 286.69 | 211.31 | 5,706.101 |
| 53 | GROUND ELEVATION | 05° 47' 09.516" N | 101° 09' 32.529" E | 365* | C.S. | 737100.827 | 639972.709 | 349.43 | 14.57 | 6,077.750 |
| 54 | GROUND ELEVATION | 05° 47' 19.312" N | 101° 06' 09.018" E | 380* | C.S. | 732822.587 | 640277.849 | 295.98 | 83.02 | 4,949.908 |
| 55 | GROUND ELEVATION | 05° 47' 54.042" N | 101° 05' 39.305" E | 495* | C.S. | 731904.281 | 641341.577 | 344.98 | 149.02 | 5,955.796 |
| 56 | GROUND ELEVATION | 05° 47' 54.375" N | 101° 06' 15.502" E | 380* | C.S. | 733030.991 | 641355.997 | 291.94 | 92.06 | 4,853.291 |
| 57 | GROUND ELEVATION | 05° 48' 18.293" N | 101° 06' 40.263" E | 369* | C.S. | 733777.365 | 642093.691 | 272.82 | 95.18 | 4,373.911 |
| 58 | GROUND ELEVATION | 05° 48' 41.709" N | 101° 06' 58.917" E | 428* | C.S. | 734348.727 | 642815.339 | 270.57 | 156.43 | 4,242.194 |
| 59 | GROUND ELEVATION | 05° 49' 00.815" N | 101° 06' 25.416" E | 376* | C.S. | 733315.610 | 643398.839 | 327.90 | 47.10 | 5,422.001 |
| 60 | GROUND ELEVATION | 05° 49' 36.658" N | 101° 06' 36.367" E | 373* | C.S. | 733648.480 | 644501.128 | 355.55 | 16.45 | 5,880.340 |
| 61 | GROUND ELEVATION | 05° 50' 03.167" N | 101° 07' 22.714" E | 398* | C.S. | 735071.627 | 645319.167 | 354.66 | 42.34 | 5,882.676 |
| 62 | GROUND ELEVATION | 05° 49' 49.736" N | 101° 11' 43.796" E | 426* | C.S. | 743107.274 | 644939.094 | 358.30 | 66.70 | 7,068.857 |

SCALE 1 : 100,000

1,000 0 1,000 2,000 3,000 4,000 5,000 METRES
3,000 0 3,000 6,000 9,000 12,000 15,000 FEET

| LEGEND | |
|---|---|
| AERODROME REFERENCE POINT 5° 47' 19.64" N 101° 08' 49.77"E | |
| INTERNATIONAL BOUNDERY LINE | |
| ROAD | |
| RIVER, CANAL | |
| CONTOUR | |
| TREE | |
| ANTENNA | |
| VILLAGE | |
| BUILDING OR LARGE STRUCTURE | |
| GROUND ELEVATION | NO. (ELEV) |

| ORDER OF ACCURACY | |
|---|---|
| HORIZONTAL | 1 M |
| VERTICAL | 0.5 M |

NOTE :
1. ALL OBSTACLES SHOWN WHICH ARE PENETRATE SURFACE SPECIFIED IN ANNEX 14 VOL-1,CHAPTER-1&GSR.
2. TORA FOR RWY 07 IS 1800 m.
   TORA FOR RWY 25 IS 1800 m.
3. TO BRING OUT THE CLARIFY IN THE OBSTACLES DEPICTED IN THE APROACH AND TAKE-OFF SURFACE, ONLY HIGHER.
4. ALL OBSTACLES ARE SHOWN IN THE CHART ARE BASED ON AERONAUTICAL SURVEY MARCH 2020.
5. TOPOGRAPHIC FEATURES SOURCE - WORLD TOPO MAP ESPI.
6. CONTOUR SOURCE - SRTM DATA.

AMENDENT RECORD

| No. | DATE | ENTERED BY |
|---|---|---|
| | | |

CHANGE: NEW CHART.

**INTENTIONALLY BLANK**

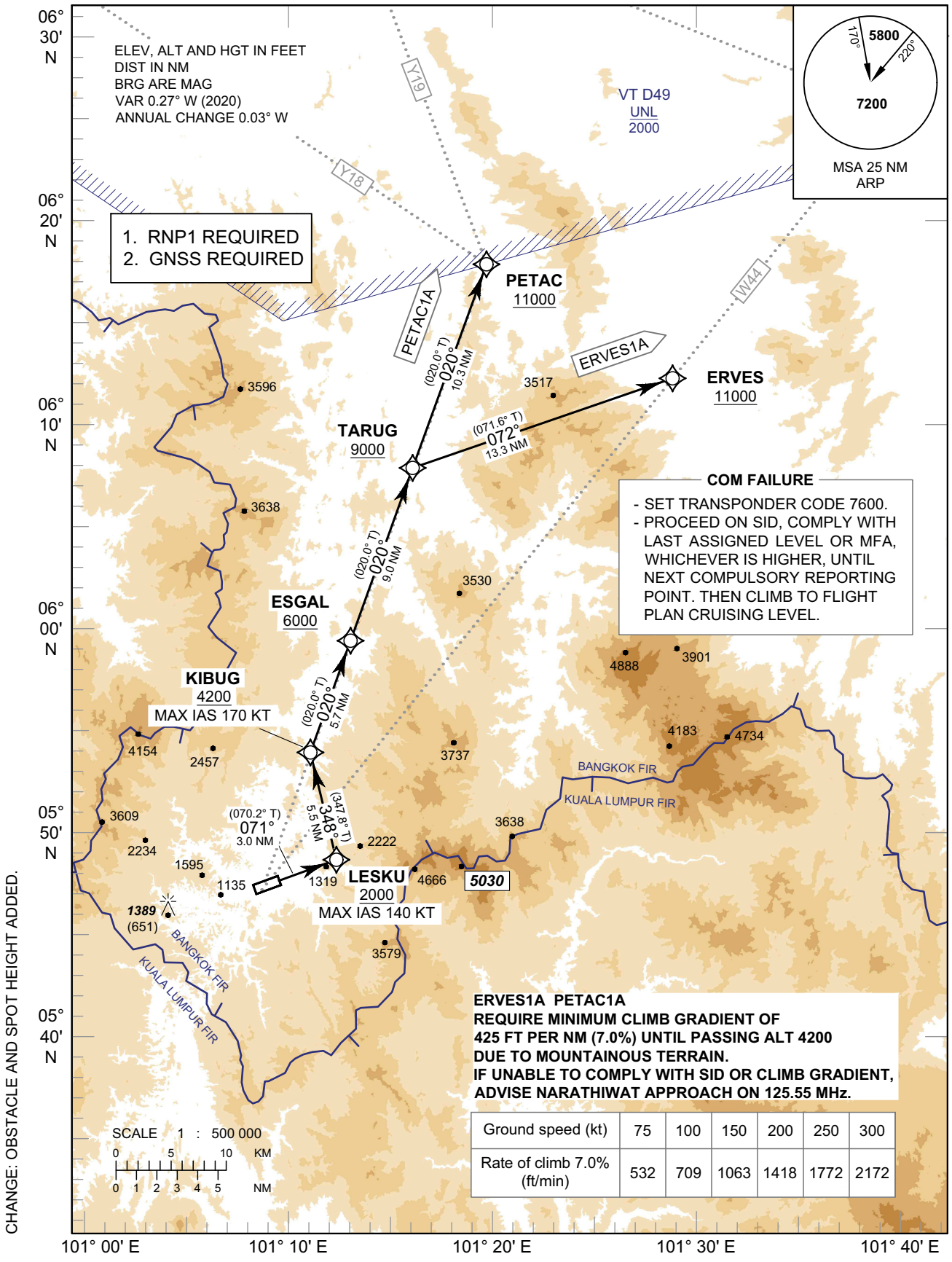
**STANDARD DEPARTURE CHART**
**INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000

APP : 125.55
TWR : 124.15, 236.6
GND : 122.15
ATIS : 128.50

**YALA / Betong (VTSY)**
**RNAV RWY07**

ERVES1A PETAC1A




| Ground speed (kt) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of climb 7.0% (ft/min) | 532 | 709 | 1063 | 1418 | 1772 | 2172 |

**STANDARD DEPARTURE CHART**
**INSTRUMENT (SID) - ICAO**

**YALA / Betong (VTSY)**
**RNAV RWY07**

ERVES1A PETAC1A

## TABULAR DESCRIPTION

| **RNAV RWY07** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ERVES1A | | | | | | | | | | | |
| 010 | - | DER RWY07 | - | - | +0.27 | - | - | - | - | - | RNP 1 |
| 020 | CF | LESKU | - | 071°(070.2°) | +0.27 | 3.0 | - | +2000 | -140 | - | RNP 1 |
| 030 | TF | KIBUG | - | 348°(347.8°) | +0.27 | 5.5 | - | +4200 | -170 | - | RNP 1 |
| 040 | TF | ESGAL | - | 020°(020.0°) | +0.27 | 5.7 | - | +6000 | - | - | RNP 1 |
| 050 | TF | TARUG | - | 020°(020.0°) | +0.27 | 9.0 | - | +9000 | - | - | RNP 1 |
| 060 | TF | ERVES | - | 072°(071.6°) | +0.27 | 13.3 | - | +11000 | - | - | RNP 1 |
| PETAC1A | | | | | | | | | | | |
| 010 | - | DER RWY07 | - | - | +0.27 | - | - | - | - | - | RNP 1 |
| 020 | CF | LESKU | - | 071°(070.2°) | +0.27 | 3.0 | - | +2000 | -140 | - | RNP 1 |
| 030 | TF | KIBUG | - | 348°(347.8°) | +0.27 | 5.5 | - | +4200 | -170 | - | RNP 1 |
| 040 | TF | ESGAL | - | 020°(020.0°) | +0.27 | 5.7 | - | +6000 | - | - | RNP 1 |
| 050 | TF | TARUG | - | 020°(020.0°) | +0.27 | 9.0 | - | +9000 | - | - | RNP 1 |
| 060 | TF | PETAC | - | 020°(020.0°) | +0.27 | 10.3 | - | +11000 | - | - | RNP 1 |

## WAYPOINT LIST

| **RNAV RWY07** | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY07 | 05° 47' 33.96" N 101° 09' 29.53" E |
| ERVES | 06° 12' 07.88" N 101° 28' 53.20" E |
| ESGAL | 05° 59' 24.18" N 101° 13' 06.39" E |
| KIBUG | 05° 54' 01.26" N 101° 11' 08.97" E |
| LESKU | 05° 48' 35.15" N 101° 12' 19.48" E |
| PETAC | 06° 17' 39.82" N 101° 19' 45.08" E |
| TARUG | 06° 07' 54.03" N 101° 16' 11.86" E |

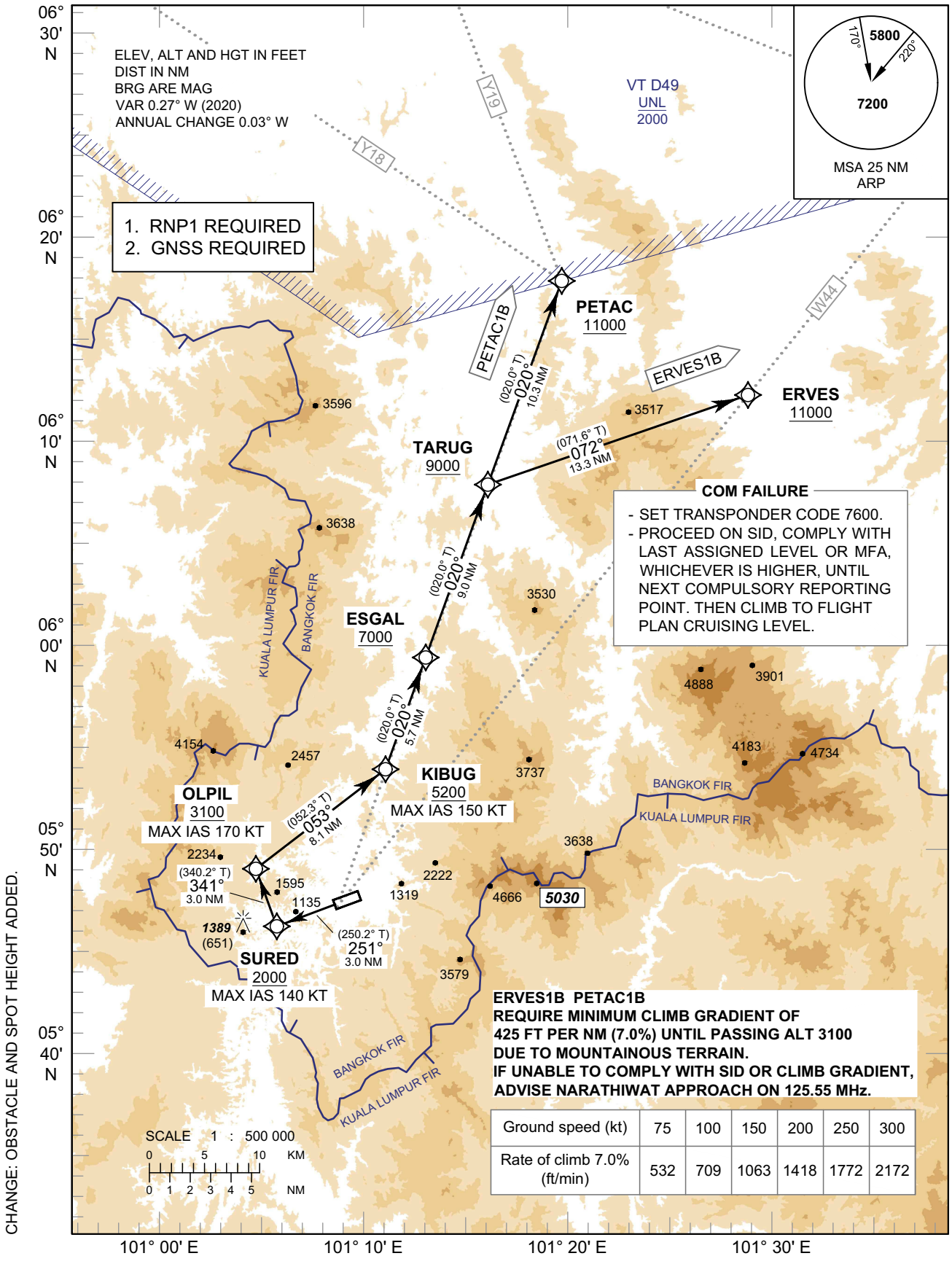
**STANDARD DEPARTURE CHART**
**INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE
11000

APP : 125.55
TWR : 124.15, 236.6
GND : 122.15
ATIS : 128.50

**YALA / Betong (VTSY)**
**RNAV RWY25**

ERVES1B PETAC1B




| Ground speed (kt) | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|
| Rate of climb 7.0% (ft/min) | 532 | 709 | 1063 | 1418 | 1772 | 2172 |

**STANDARD DEPARTURE CHART**
**INSTRUMENT (SID) - ICAO**

**YALA / Betong (VTSY)**
**RNAV RWY25**

ERVES1B PETAC1B

## TABULAR DESCRIPTION

| **RNAV RWY25** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| ERVES1B | | | | | | | | | | | |
| 010 | - | DER RWY25 | - | - | +0.27 | - | - | - | - | - | RNP 1 |
| 020 | CF | SURED | - | 251°(250.2°) | +0.27 | 3.0 | - | +2000 | -140 | - | RNP 1 |
| 030 | TF | OLPIL | - | 341°(340.2°) | +0.27 | 3.0 | - | +3100 | -170 | - | RNP 1 |
| 040 | TF | KIBUG | - | 053°(052.3°) | +0.27 | 8.1 | - | +5200 | -170 | - | RNP 1 |
| 050 | TF | ESGAL | - | 020°(020.0°) | +0.27 | 5.7 | - | +7000 | - | - | RNP 1 |
| 060 | TF | TARUG | - | 020°(020.0°) | +0.27 | 9.0 | - | +9000 | - | - | RNP 1 |
| 070 | TF | ERVES | - | 072°(071.6°) | +0.27 | 13.3 | - | +11000 | - | - | RNP 1 |
| PETAC1B | | | | | | | | | | | |
| 010 | - | DER RWY25 | - | - | +0.27 | - | - | - | - | - | RNP 1 |
| 020 | CF | SURED | - | 251°(250.2°) | +0.27 | 3.0 | - | +2000 | -140 | - | RNP 1 |
| 030 | TF | OLPIL | - | 341°(340.2°) | +0.27 | 3.0 | - | +3100 | -170 | - | RNP 1 |
| 040 | TF | KIBUG | - | 053°(052.3°) | +0.27 | 8.1 | - | +5200 | -170 | - | RNP 1 |
| 050 | TF | ESGAL | - | 020°(020.0°) | +0.27 | 5.7 | - | +7000 | - | - | RNP 1 |
| 060 | TF | TARUG | - | 020°(020.0°) | +0.27 | 9.0 | - | +9000 | - | - | RNP 1 |
| 070 | TF | PETAC | - | 020°(020.0°) | +0.27 | 10.3 | - | +11000 | - | - | RNP 1 |

## WAYPOINT LIST

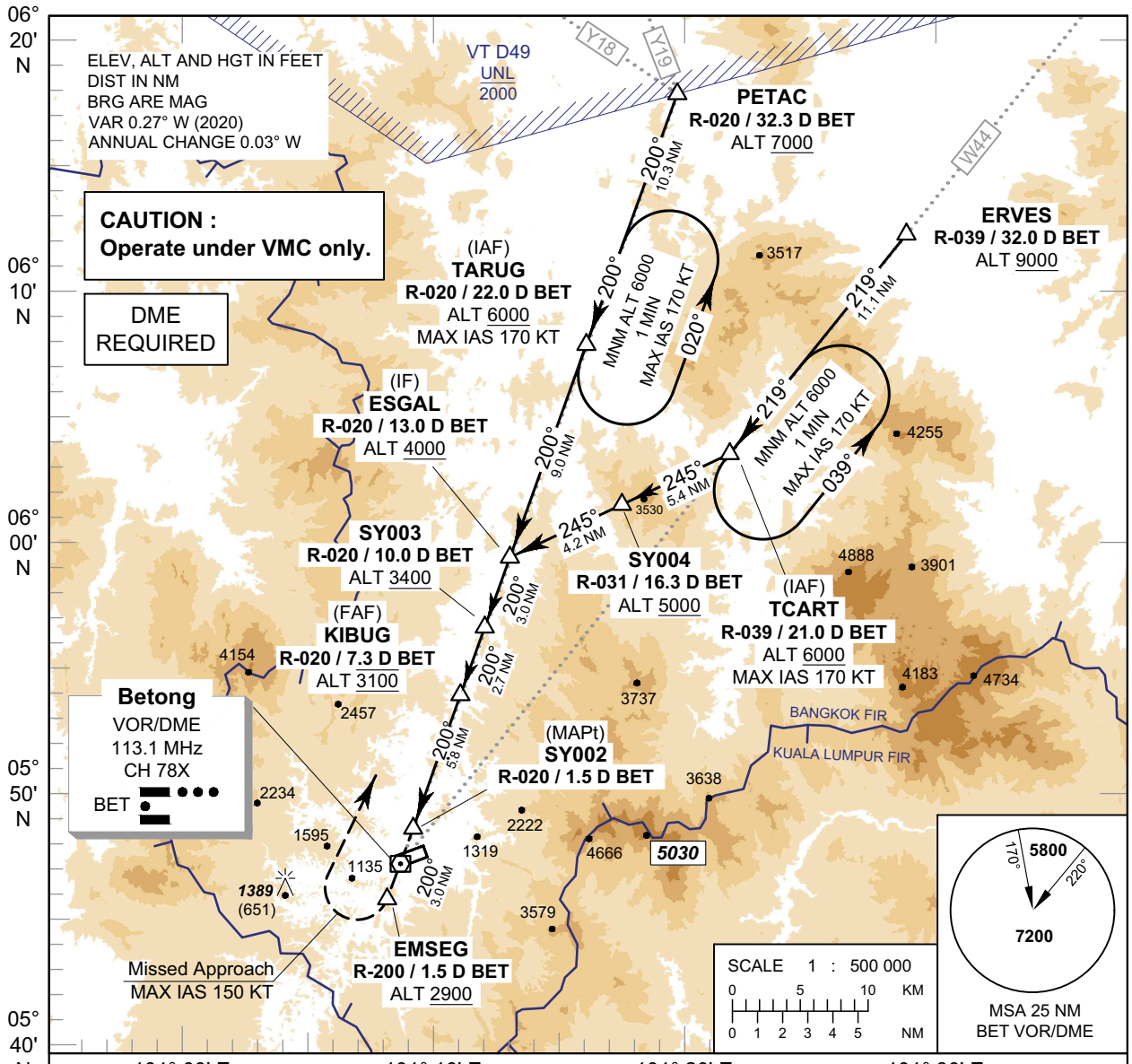
| **RNAV RWY25** | |
|---|---|
| Waypoint Identifier | Coordinates |
| DER RWY25 | 05° 47' 14.13" N 101° 08' 34.47" E |
| ERVES | 06° 12' 07.88" N 101° 28' 53.20" E |
| ESGAL | 05° 59' 24.18" N 101° 13' 06.39" E |
| KIBUG | 05° 54' 01.26" N 101° 11' 08.97" E |
| OLPIL | 05° 49' 03.10" N 101° 04' 43.36" E |
| PETAC | 06° 17' 39.82" N 101° 19' 45.08" E |
| SURED | 05° 46' 12.92" N 101° 05' 44.54" E |
| TARUG | 06° 07' 54.03" N 101° 16' 11.86" E |

**INSTRUMENT APPROACH CHART - ICAO**

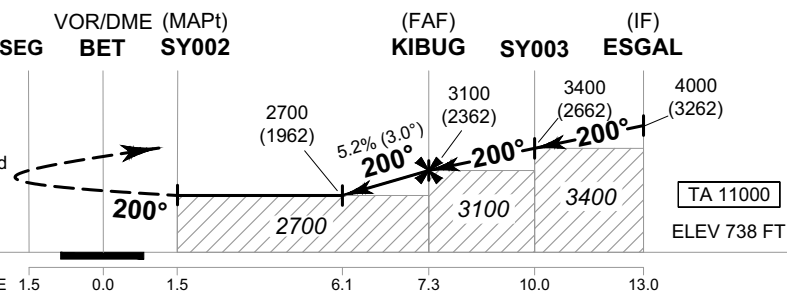
**AERODROME ELEV 738 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 125.55
TWR : 124.15, 236.6
GND : 122.15
ATIS : 128.50

**YALA / Betong (VTSY)**
**VOR a**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 130 KT until after turn.**
Climb straight ahead to EMSEG at minimum 2900 FT, then turn right to intercept outbound R-020 BET VOR, then proceed to TARUG at minimum 6000 FT and hold or as directed by ATC.




| OCA/H | A | B | C |
|---|---|---|---|
| Straight - in approach | Not authorized | | |
| Circling (OCH AAL) | 2700 (1962) | | |

| Distance (BET) | 6.1 D | | 7.0 D | | FAF | |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2700 (1962) | | 3000 (2262) | | 3100 (2362) | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Rate of descent (5.2%) | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**REMARK :** 1. FOR CIRCLING RESTRICTION, SEE VERSO.
2. TAKE CAUTION TO REMAIN WITHIN BANGKOK FIR WHILE CIRCLING AND MISSED APPROACH DUE TO PROXIMITY OF KUALA LUMPUR FIR.
3. LANDING DISTANCE AVAILABLE (LDA) IS 1,800 m.

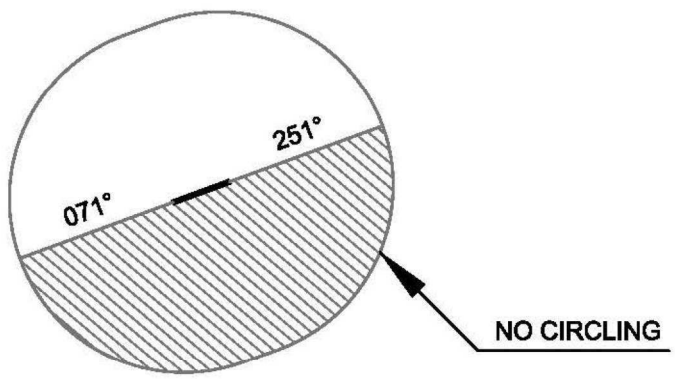
CHANGE: OBSTACLE AND SPOT HEIGHT ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 738 FT**
HEIGHTS RELATED TO AERODROME ELEV

**YALA / Betong (VTSY)**
**VOR a**

| FIX / POINT | | COORDINATES | |
|---|---|---|---|
| ERVES | R-039 / 32.0 D BET | 06° 12' 07.88" N | 101° 28' 53.20" E |
| PETAC | R-020 / 32.3 D BET | 06° 17' 39.82" N | 101° 19' 45.08" E |
| (IAF) TARUG | R-020 / 22.0 D BET | 06° 07' 54.03" N | 101° 16' 11.86" E |
| (IAF) TCART | R-039 / 21.0 D BET | 06° 03' 30.16" N | 101° 21' 53.78" E |
| SY004 | R-031 / 16.3 D BET | 06° 01' 11.86" N | 101° 16' 57.21" E |
| (IF) ESGAL | R-020 / 13.0 D BET | 05° 59' 24.18" N | 101° 13' 06.39" E |
| SY003 | R-020 / 10.0 D BET | 05° 56' 34.22" N | 101° 12' 04.58" E |
| (FAF) KIBUG | R-020 / 7.3 D BET | 05° 54' 01.26" N | 101° 11' 08.97" E |
| (MAPt) SY002 | R-020 / 1.5 D BET | 05° 48' 32.67" N | 101° 09' 09.54" E |
| VOR | BET | 05° 47' 07.67" N | 101° 08' 38.65" E |
| EMSEG | R-200 / 1.5 D BET | 05° 45' 42.70" N | 101° 08' 07.77" E |



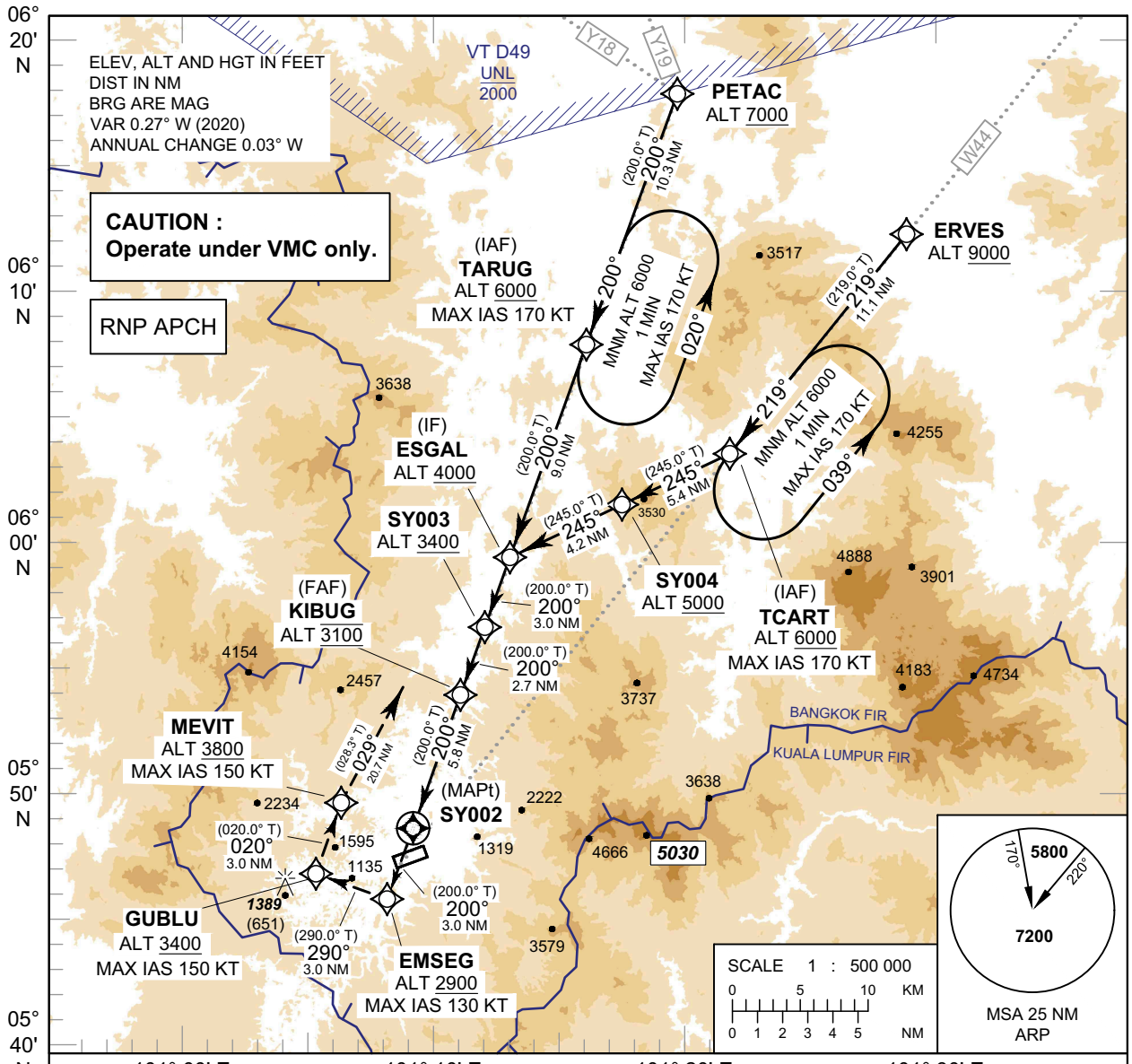

CHANGE: VOR COORDINATE.

**INSTRUMENT APPROACH CHART - ICAO**

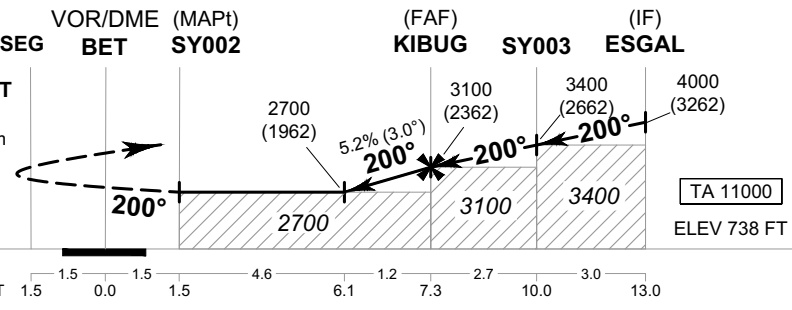
**AERODROME ELEV 738 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 125.55
TWR : 124.15, 236.6
GND : 122.15
ATIS : 128.50

**YALA / Betong (VTSY)**
**RNP a**




**MISSED APPROACH :**
**No turn before MAPt.**
**Speed restricted to MAX IAS 130 KT until after turn.**
Climb on track 200° to EMSEG at minimum 2900 FT, then turn right to GUBLU, then turn right to MEVIT. Finally, proceed to TARUG at minimum 6000 FT and hold or as directed by ATC.




| OCA/H | A | B | C |
|---|---|---|---|
| LNAV | Not authorized | | |
| Circling (OCH AAL) | 2700 (1962) | | |

| NM to NEXT WPT | 6.1 NM | | 7.0 NM | | FAF | |
|---|---|---|---|---|---|---|
| Altitude (Height) | 2700 (1962) | | 3000 (2262) | | 3100 (2362) | |
| Ground speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| FAF - MAPt 5.2% | ft/min | 369 | 474 | 527 | 632 | 737 | 843 |

**REMARK :** 1. FOR CIRCLING RESTRICTION, SEE VERSO.
2. TAKE CAUTION TO REMAIN WITHIN BANGKOK FIR WHILE CIRCLING AND MISSED APPROACH DUE TO PROXIMITY OF KUALA LUMPUR FIR.
3. LANDING DISTANCE AVAILABLE (LDA) IS 1,800 m.

CHANGE: OBSTACLE AND SPOT HEIGHT ADDED.

**INSTRUMENT APPROACH CHART - ICAO**

**AERODROME ELEV 738 FT**
HEIGHTS RELATED TO
AERODROME ELEV

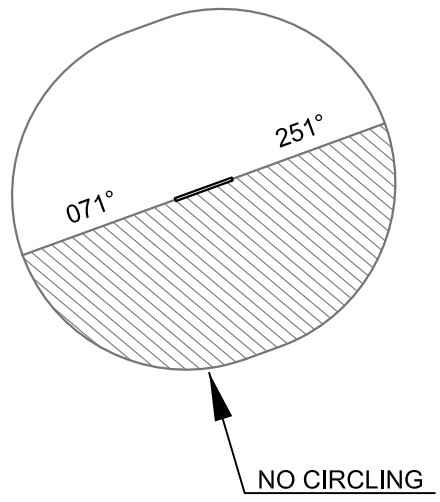
**YALA / Betong (VTSY)**
**RNP a**

## TABULAR DESCRIPTION

| RNP a | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
| 010 | IF | ERVES | - | - | +0.27 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | TCART (IAF) | - | 219°(219.0°) | +0.27 | 11.1 | - | +6000 | -170 | - | RNP APCH |
| 030 | TF | SY004 | - | 245°(245.0°) | +0.27 | 5.4 | - | +5000 | - | - | RNP APCH |
| 040 | TF | ESGAL (IF) | - | 245°(245.0°) | +0.27 | 4.2 | - | +4000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | PETAC | - | - | +0.27 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | TARUG (IAF) | - | 200°(200.0°) | +0.27 | 10.3 | - | +6000 | -170 | - | RNP APCH |
| 030 | TF | ESGAL (IF) | - | 200°(200.0°) | +0.27 | 9.0 | - | +4000 | - | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ESGAL (IF) | - | - | +0.27 | - | - | +4000 | - | - | RNP APCH |
| 020 | TF | SY003 | - | 200°(200.0°) | +0.27 | 3.0 | - | +3400 | - | - | RNP APCH |
| 030 | TF | KIBUG (FAF) | - | 200°(200.0°) | +0.27 | 2.7 | - | @3100 | - | - | RNP APCH |
| 040 | TF | SY002 (MAPt) | Y | 200°(200.0°) | +0.27 | 5.8 | - | @2700 | - | - | RNP APCH |
| 050 | CF | EMSEG | - | 200°(200.0°) | +0.27 | 3.0 | - | +2900 | -130 | - | RNP APCH |
| 060 | TF | GUBLU | - | 290°(290.0°) | +0.27 | 3.0 | - | +3400 | -150 | - | RNP APCH |
| 070 | TF | MEVIT | - | 020°(020.0°) | +0.27 | 3.0 | - | +3800 | -150 | - | RNP APCH |
| 080 | TF | TARUG (IAF) | - | 029°(028.3°) | +0.27 | 20.7 | - | +6000 | -170 | - | RNP APCH |
| 090 | HM | TARUG (IAF) | Y | 200°(200.0°) | +0.27 | 1 minute | L | +6000 | -170 | - | RNP APCH |

## WAYPOINT LIST

| RNP a | |
|---|---|
| Waypoint Identifier | Coordinates |
| EMSEG | 05° 45' 42.70" N 101° 08' 07.77" E |
| ERVES | 06° 12' 07.88" N 101° 28' 53.20" E |
| ESGAL | 05° 59' 24.18" N 101° 13' 06.39" E |
| GUBLU | 05° 46' 44.55" N 101° 05' 18.06" E |
| KIBUG | 05° 54' 01.26" N 101° 11' 08.97" E |
| MEVIT | 05° 49' 34.52" N 101° 06' 19.81" E |
| PETAC | 06° 17' 39.82" N 101° 19' 45.08" E |
| SY002 | 05° 48' 32.67" N 101° 09' 09.54" E |
| SY003 | 05° 56' 34.22" N 101° 12' 04.58" E |
| SY004 | 06° 01' 11.86" N 101° 16' 57.21" E |
| TARUG | 06° 07' 54.03" N 101° 16' 11.86" E |
| TCART | 06° 03' 30.16" N 101° 21' 53.78" E |



## VTUZ AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUZ - KHON-KAEN / NAM PHONG

## VTUZ AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 163901.02N 1025747.19E |
| 2 | Direction and distance from (city) | 7 NM SE of Nam Phong District |
| 3 | Elevation/Reference temperature | 723 FT / 28°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | NIL |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Nam Phong AFB, Nam Phong District<br>Khon Kaen Province<br>Thailand<br>Tel: +662 534 6000 ext. 42302<br>AFS: VTUZYXYX<br>VTUZZTZX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Royal Thai Air Force |

## VTUZ AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | AD Administration | NIL |
| 2 | Customs and immigration | NIL |
| 3 | Health and sanitation | NIL |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | NIL |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | NIL |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | Operational hours will active by NOTAM<br>Arriving aircraft is required to obtain prior permission from RTAF before entering/landing. |

## VTUZ AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTUZ AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | NIL |
| 2 | Restaurants | NIL |
| 3 | Transportation | NIL |
| 4 | Medical facilities | NIL |
| 5 | Bank and Post Office | NIL |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTUZ AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 2 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTUZ AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | NIL |

## VTUZ AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 75/R/C/W/T |
| 2 | Taxiway width, surface and strength | Width: 23 M<br>Surface: Asphaltic Concrete<br>Strength: PCN 65/F/B/X/T |
| 3 | Altimeter checkpoint location and elevation | Location: NIL<br>Elevation: NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTUZ AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|---|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands | NIL |
| 2 | RWY and TWY markings and LGT | RWY: RWY edge light, THR wing bar, THR/END light, distance marker, PAPI<br>TWY: TWY edge light, TWY guidance sign, RWY guard light |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTUZ AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling area and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| RWY/Area affected | Obstacle type Elevation Markings/LGT | Coordinates | Obstacle type Elevation Markings/LGT | Coordinates | |
| a | b | c | a | b | |
| NIL | NIL | NIL | NIL | NIL | NIL |

## VTUZ AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Met Section, Nam Phong Air Force Base |
| 2 | Hours of service<br>MET Office outside hours | 0100-0900 MON-FRI (Except public holiday) |
| 3 | Office responsible for TAF preparation<br>Periods of validity | NIL |
| 4 | Type of landing forecast<br>Interval of issuance | TEMPO |
| 5 | Briefing/consultation provided | Personal Consultation |
| 6 | Flight documentation<br>Language(s) used | Charts, plain language text.<br>Thai |
| 7 | Charts and other information available for briefing or consultation | NIL |
| 8 | Supplementary equipment available for providing information | Tel: +662 534 6000 ext. 42302 |
| 9 | ATS units provided with information | Nam Phong TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTUZ AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE & MAG BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | NIL | 3050x45 | PCN 65/F/B/X/T<br>Asphaltic Concrete | 163831.90N<br>1025796.10E | 711 FT |
| 19 | NIL | 3050x45 | PCN 65/F/B/X/T<br>Asphaltic Concrete | 164001.14N<br>1025817.65E | 799 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | OFZ | Remarks |
|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 |
| NIL | 300x45 | NIL | NIL | NIL | NIL |
| NIL | 300x45 | NIL | NIL | NIL | NIL |

## VTUZ AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 3050 | 3050 | 3350 | 3050 | NIL |
| 19 | 3050 | 3050 | 3350 | 3050 | NIL |

## VTUZ AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 01 | NIL | Green | PAPI<br>Both 3° | NIL | NIL | 3050 M<br>30 M<br>White | Red | NIL | NIL |
| 19 | NIL | Green | PAPI<br>Both 3° | NIL | NIL | 3050 M<br>30 M<br>White | Red | NIL | NIL |

## VTUZ AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | NIL |
| 4 | Secondary power supply/switch-over time | NIL |
| 5 | Remarks | NIL |

## VTUZ AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTUZ AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | KHON KAEN / NAM PHONG Aerodrome Traffic Zone (ATZ) a circle, 5 NM centred on 163901.02N 1025747.19E (ARP) |
| 2 | Vertical limits | SFC to 2000 FT.AGL |
| 3 | Airspace classification | |

| | | |
|---|---|---|
| 4 | ATS unit call sign<br>Language(s) | Nam Phong Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | Active by NOTAM<br>See VTUZ AD 2.20 |

## VTUZ AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Nam Phong Tower | NIL | Active by NOTAM | Primary Operation Secondary Operation *Emergency Freq. |
| GND | Nam Phong Ground | NIL | | |

## VTUZ AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, CAT of ILS/MLS (For VOR/ILS/MLS, give VAR) | ID | Frequency | Hours of operation | Site of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NIL | NIL | NIL | NIL | NIL | NIL | |

## VTUZ AD 2.20 LOCAL AERODROME REGULATIONS

The Royal Thai Air Force notifies that Nam Phong Air Force Base (Nam Phong AFB) air traffic services (ATS) are basically available for military aircraft and government owned aircraft. Therefore, the Nam Phong AFB is not allowed to use as an alternate aerodrome for civilian aircraft.

The Aerodrome Traffic Zone (ATZ) of Nam Phong Air Force Base (Narn Phong AFB) will be notified by NOTAM. Aircraft which fly pass into Nam Phong AFB ATZ when in active, have to contact The Royal Thai Air Force before. (Contact information and frequency will declare by NOTAM)

## VTUZ AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTUZ AD 2.22 FLIGHT PROCEDURES

NIL

## VTUZ AD 2.23 ADDITIONAL INFORMATION

NIL

## VTUZ AD 2.24 CHARTS RELATED TO AN AERODROME

NIL

**Chart name** **Page**

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