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,
Vibhavadi Rangsit Rd., Chatuchak,
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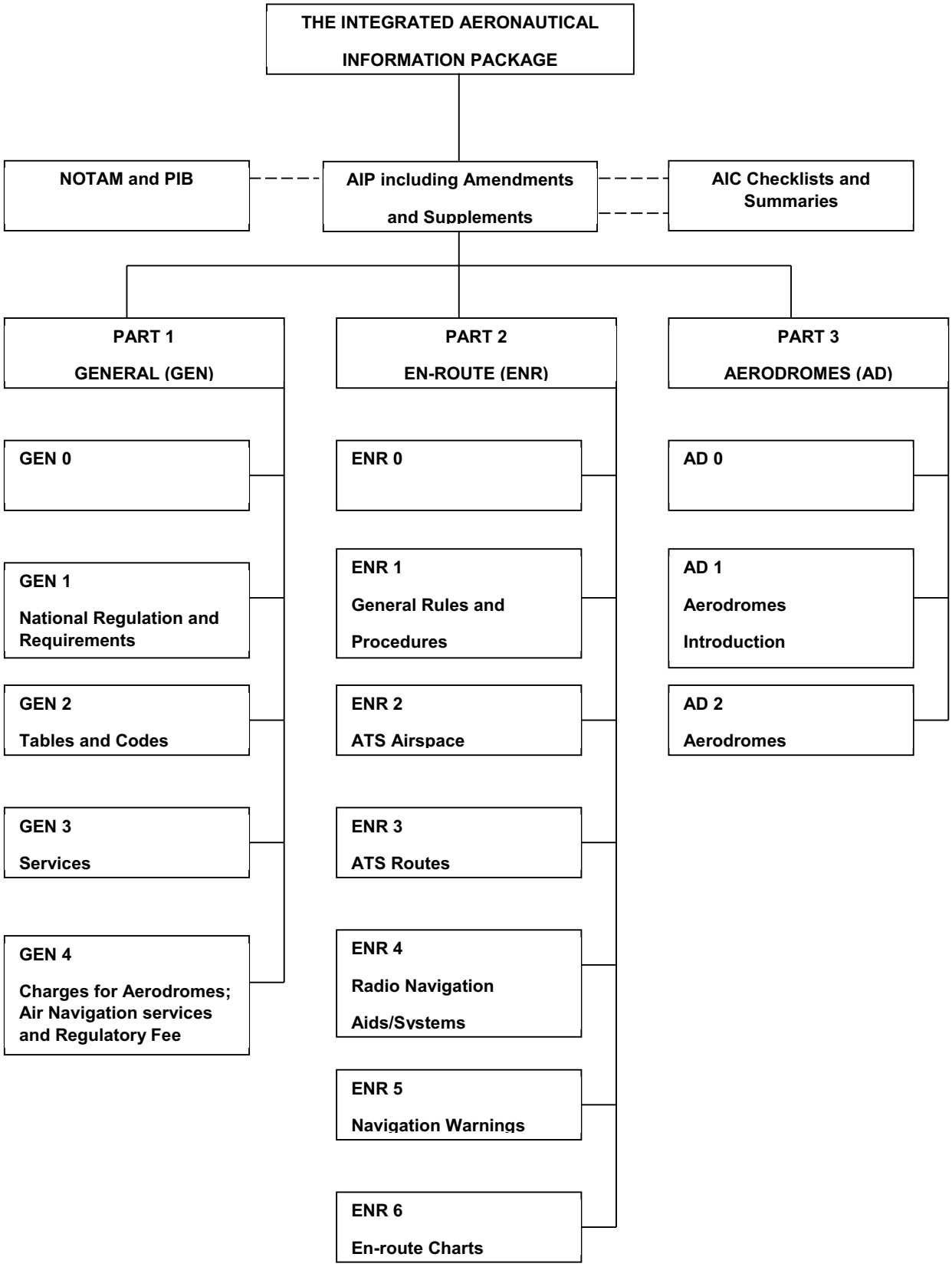
Bangkok 10900
Thailand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AIP including Amendments and Supplements
AIC Checklists and Summaries
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PART 2 EN-ROUTE (ENR)
PART 3 AERODROMES (AD)
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GEN 2 Tables and Codes
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GEN 0.2 RECORD OF AIP AMENDMENTS

AIP AMENDMENT			
NR/ Year	Publication date	Date inserted	Inserted by

AIRAC AIP AMENDMENT			
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	
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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	
3/22	NIL	NIL	
4/22	10 MAR 2022	21 APR 2022	

AIP AMENDMENT			
NR/ Year	Publication date	Date inserted	Inserted by

AIRAC AIP AMENDMENT			
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5/22	07 APR 2022	19 MAY 2022	
6/22	05 MAY 2022	16 JUN 2022	
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AIP AMENDMENT			
NR/ Year	Publication date	Date inserted	Inserted by

AIRAC AIP AMENDMENT			
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	

NR / Year	Subject	AIP section(s) affected	Period of validity	Cancellation record

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2-VTSP-1-13	25 JAN 24
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2-VTSP-1-16	17 JUN 21
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2-VTSP-8-17	17 JUN 21
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2-VTBS-7-14	31 OCT 24
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2-VTBS-7-16	26 DEC 24
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2-VTBS-7-19	31 OCT 24
2-VTBS-7-20	31 OCT 24
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2-VTBS-8-5	**20 MAR 25**
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2-VTBS-9-9	28 NOV 24
2-VTBS-9-11	28 NOV 24
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2-VTBU-1-5	23 JAN 25
2-VTBU-1-6	23 JAN 25
2-VTBU-1-7	23 JAN 25
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2-VTSS-9-1	16 MAY 24

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2-VTUO-1-4	13 JUN 24
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2-VTUO-8-4	18 JUL 19
2-VTUO-8-5	17 JUN 21
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2-VTUO-8-11	26 DEC 24
2-VTUO-8-12	26 DEC 24

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2-VTSE-1-8	16 MAY 24
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2-VTSE-2-6	20 APR 23
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2-VTSE-8-3	17 JUN 21
2-VTSE-8-5	17 JUN 21
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2-VTSE-8-12	18 JUL 19
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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

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2-VTUK-9-9	13 AUG 20
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2-VTUK-9-11	13 AUG 20
2-VTUK-9-12	27 FEB 20

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2-VTSG-6-3	20 MAY 21
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2-VTSG-6-8	18 JUL 19
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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	18 JUL 19
2-VTSG-8-3	17 JUN 21
2-VTSG-8-4	18 JUL 19
2-VTSG-8-5	17 JUN 21
2-VTSG-8-6	18 JUL 19
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	8 AUG 24
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	2 NOV 23
2-VTUL-1-6	2 NOV 23
2-VTUL-1-7	2 NOV 23
2-VTUL-1-8	30 NOV 23
2-VTUL-1-9	30 NOV 23
2-VTUL-1-10	26 DEC 24
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	20 MAY 21
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	12 SEP 19
2-VTBL-1-2	12 SEP 19
2-VTBL-1-3	12 SEP 19
2-VTBL-1-4	13 JUL 23
2-VTBL-1-5	12 SEP 19
2-VTBL-1-6	12 SEP 19
2-VTBL-1-7	13 JUL 23
2-VTBL-1-8	12 SEP 19
2-VTBL-1-9	12 SEP 19
2-VTBL-1-10	12 SEP 19

MAE HONG SON / MAE HONG SON AIRPORT

2-VTCH-1-1	7 OCT 21
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	13 JUN 24
2-VTCH-1-6	8 AUG 24
2-VTCH-1-7	13 JUN 24

Page	Date
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	21 MAR 24
2-VTUW-1-5	21 MAR 24
2-VTUW-1-6	5 SEP 24
2-VTUW-1-7	21 MAR 24
2-VTUW-1-8	**20 MAR 25**
2-VTUW-1-9	21 MAR 24
2-VTUW-1-10	21 MAR 24
2-VTUW-1-11	5 SEP 24
2-VTUW-2-1	5 SEP 24
2-VTUW-8-1	2 NOV 23
2-VTUW-8-2	18 JUL 19
2-VTUW-8-3	21 APR 22
2-VTUW-8-4	18 JUL 19
2-VTUW-8-5	21 APR 22
2-VTUW-8-6	18 JUL 19
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	3 NOV 22
2-VTUQ-1-4	23 MAR 23
2-VTUQ-1-5	23 MAR 23
2-VTUQ-1-6	19 MAY 22
2-VTUQ-1-7	30 NOV 23
2-VTUQ-1-8	30 NOV 23
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	21 APR 22
2-VTUQ-8-3	21 APR 22
2-VTUQ-8-5	21 APR 22
2-VTUQ-8-7	21 APR 22
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	30 NOV 23
2-VTUN-1-2	12 SEP 19
2-VTUN-1-3	12 SEP 19
2-VTUN-1-4	30 NOV 23
2-VTUN-1-5	30 NOV 23
2-VTUN-1-6	30 NOV 23
2-VTUN-1-7	23 APR 20
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

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	18 APR 24
2-VTSF-1-5	18 APR 24
2-VTSF-1-6	**20 MAR 25**
2-VTSF-1-7	18 APR 24
2-VTSF-1-8	18 APR 24
2-VTSF-1-9	18 APR 24
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	13 AUG 20
2-VTSF-8-2	18 JUL 19
2-VTSF-8-3	13 AUG 20
2-VTSF-8-4	18 JUL 19
2-VTSF-8-5	13 AUG 20
2-VTSF-8-6	18 JUL 19
2-VTSF-8-7	13 AUG 20
2-VTSF-8-8	18 JUL 19
2-VTSF-8-9	13 AUG 20
2-VTSF-8-10	18 JUL 19
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	3 NOV 22
2-VTCN-1-4	30 NOV 23
2-VTCN-1-5	30 NOV 23
2-VTCN-1-6	26 DEC 24
2-VTCN-1-7	26 DEC 24
2-VTCN-1-8	26 DEC 24
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	8 AUG 24
2-VTSC-1-4	8 AUG 24
2-VTSC-1-5	8 AUG 24
2-VTSC-1-6	8 AUG 24
2-VTSC-1-7	8 AUG 24
2-VTSC-1-8	5 SEP 24
2-VTSC-2-1	8 AUG 24
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	5 SEP 24
2-VTSC-8-3	8 AUG 24
2-VTSC-8-4	8 AUG 24
2-VTSC-8-5	5 SEP 24
2-VTSC-8-6	5 SEP 24
2-VTSC-8-7	5 SEP 24
2-VTSC-8-8	5 SEP 24
2-VTSC-8-9	8 AUG 24
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

Page	Date
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	26 DEC 24
2-VTSK-1-6	23 MAR 23
2-VTSK-2-1	18 JUL 19
2-VTSK-8-1	18 JUL 19
2-VTSK-8-3	23 MAR 23
2-VTSK-8-5	3 DEC 20
2-VTSK-8-6	3 DEC 20
2-VTSK-8-7	3 DEC 20
2-VTSK-8-8	3 DEC 20

PHETCHABUN / PHETCHABUN AIRPORT

2-VTPB-1-1	7 OCT 21
2-VTPB-1-2	7 OCT 21
2-VTPB-1-3	3 NOV 22
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	8 AUG 24
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	**20 MAR 25**
2-VTPP-1-9	**20 MAR 25**
2-VTPP-1-10	**20 MAR 25**
2-VTPP-1-11	**20 MAR 25**
2-VTPP-2-1	31 OCT 24
2-VTPP-2-2	23 MAR 23
2-VTPP-2-3	23 MAR 23
2-VTPP-2-4	23 MAR 23
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	**20 MAR 25**
2-VTPP-8-3	**20 MAR 25**
2-VTPP-8-5	26 DEC 24
2-VTPP-8-6	26 DEC 24
2-VTPP-8-7	**20 MAR 25**
2-VTPP-8-8	26 DEC 24
2-VTPP-8-9	**20 MAR 25**
2-VTPP-8-10	26 DEC 24
2-VTPP-8-11	26 DEC 24
2-VTPP-8-12	26 DEC 24
2-VTPP-8-13	26 DEC 24
2-VTPP-8-14	26 DEC 24
2-VTPP-8-15	26 DEC 24
2-VTPP-8-16	26 DEC 24
2-VTPP-8-17	26 DEC 24
2-VTPP-8-19	26 DEC 24
2-VTPP-8-20	26 DEC 24
2-VTPP-8-21	26 DEC 24
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	23 JAN 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	26 DEC 24
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	26 DEC 24
2-VTCP-2-1	26 DEC 24
2-VTCP-6-1	26 DEC 24
2-VTCP-6-2	26 DEC 24
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	22 FEB 24
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	13 JUN 24
2-VTPH-1-7	13 JUN 24
2-VTPH-1-8	13 JUN 24
2-VTPH-1-9	28 NOV 24
2-VTPH-1-10	28 NOV 24
2-VTPH-1-11	28 NOV 24
2-VTPH-2-1	18 JUL 19
2-VTPH-8-1	26 MAR 20
2-VTPH-8-3	26 MAR 20
2-VTPH-8-4	18 JUL 19
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	3 NOV 22
2-VTSR-1-4	7 OCT 21
2-VTSR-1-5	2 DEC 21
2-VTSR-1-6	7 OCT 21
2-VTSR-1-7	2 NOV 23
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	2 NOV 23
2-VTSR-8-2	2 NOV 23
2-VTSR-8-3	2 NOV 23
2-VTSR-8-4	20 MAY 21
2-VTSR-8-5	2 NOV 23
2-VTSR-8-6	2 NOV 23
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	26 MAR 20
2-VTUV-1-4	26 MAR 20
2-VTUV-1-5	2 DEC 21
2-VTUV-1-6	30 NOV 23
2-VTUV-1-7	30 NOV 23
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	16 JUL 20
2-VTUV-8-3	21 APR 22
2-VTUV-8-4	16 JUL 20
2-VTUV-8-5	21 APR 22
2-VTUV-8-6	16 JUL 20
2-VTUV-8-7	21 APR 22
2-VTUV-8-8	16 JUL 20
2-VTUV-8-9	16 JUL 20
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

Page	Date
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	31 OCT 24
2-VTUI-1-8	2 NOV 23
2-VTUI-1-9	2 NOV 23
2-VTUI-1-10	30 NOV 23
2-VTUI-1-11	31 OCT 24
2-VTUI-2-1	31 OCT 24
2-VTUI-8-1	2 NOV 23
2-VTUI-8-2	18 JUL 19
2-VTUI-8-3	2 NOV 23
2-VTUI-8-4	18 JUL 19
2-VTUI-8-5	2 NOV 23
2-VTUI-8-6	18 JUL 19
2-VTUI-8-7	2 NOV 23
2-VTUI-8-8	18 JUL 19
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	23 JAN 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	31 OCT 24
2-VTSB-1-4	28 NOV 24
2-VTSB-1-5	31 OCT 24
2-VTSB-1-6	31 OCT 24
2-VTSB-1-7	31 OCT 24
2-VTSB-1-8	28 NOV 24
2-VTSB-1-9	31 OCT 24
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	23 MAR 23
2-VTSB-8-4	23 MAR 23
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	16 MAY 24
2-VTSM-1-7	10 SEP 20
2-VTSM-1-8	30 NOV 23
2-VTSM-1-9	30 NOV 23
2-VTSM-1-10	30 NOV 23
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	18 JUN 20
2-VTSM-8-3	18 JUN 20
2-VTSM-8-4	18 JUN 20
2-VTSM-8-5	18 JUN 20
2-VTSM-8-6	18 JUN 20
2-VTSM-8-7	18 JUN 20
2-VTSM-8-8	18 JUN 20
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
2-VTSM-8-23	15 JUL 21

TAK / TAK AIRPORT

2-VTPT-1-1	7 OCT 21
2-VTPT-1-2	7 OCT 21
2-VTPT-1-3	3 NOV 22
2-VTPT-1-4	12 SEP 19
2-VTPT-1-5	2 DEC 21
2-VTPT-1-6	26 DEC 24
2-VTPT-2-1	18 JUL 19

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	26 JAN 23
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	3 NOV 22
2-VTST-1-4	7 OCT 21
2-VTST-1-5	2 DEC 21
2-VTST-1-6	21 MAR 24
2-VTST-1-7	21 MAR 24
2-VTST-2-1	17 JUN 21
2-VTST-8-1	15 JUN 23
2-VTST-8-2	18 JUL 19
2-VTST-8-3	15 JUN 23
2-VTST-8-4	18 JUL 19
2-VTST-8-5	15 JUN 23
2-VTST-8-6	3 DEC 20

TRAT (KHAO SMING) / TRAT AIRPORT

2-VTBO-1-1	19 MAY 22
2-VTBO-1-2	11 JUL 24
2-VTBO-1-3	21 APR 22
2-VTBO-1-4	3 NOV 22
2-VTBO-1-5	11 JUL 24
2-VTBO-1-6	30 NOV 23
2-VTBO-1-7	30 NOV 23
2-VTBO-8-1	23 MAR 23
2-VTBO-8-2	15 JUL 21

UBON RATCHATHANI / UBON RATCHATHANI AIRPORT

2-VTUU-1-1	23 FEB 23
2-VTUU-1-2	28 NOV 24

Page	Date
2-VTUU-1-3	28 NOV 24
2-VTUU-1-4	13 JUN 24
2-VTUU-1-5	13 JUN 24
2-VTUU-1-6	13 JUN 24
2-VTUU-1-7	13 JUN 24
2-VTUU-1-8	28 NOV 24
2-VTUU-1-9	8 AUG 24
2-VTUU-1-10	13 JUN 24
2-VTUU-1-11	13 JUN 24
2-VTUU-1-12	13 JUN 24
2-VTUU-1-13	13 JUN 24
2-VTUU-2-1	13 JUN 24
2-VTUU-2-3	13 JUN 24
2-VTUU-2-5	13 JUN 24
2-VTUU-6-1	21 APR 22
2-VTUU-6-3	21 APR 22
2-VTUU-6-5	21 APR 22
2-VTUU-6-6	18 JUL 19
2-VTUU-6-7	21 APR 22
2-VTUU-6-8	18 JUL 19
2-VTUU-8-1	21 APR 22
2-VTUU-8-2	18 JUL 19
2-VTUU-8-3	21 APR 22
2-VTUU-8-4	18 JUL 19
2-VTUU-8-5	21 APR 22
2-VTUU-8-6	18 JUL 19
2-VTUU-8-7	21 APR 22
2-VTUU-8-8	20 MAY 21
2-VTUU-8-9	21 APR 22
2-VTUU-8-10	20 MAY 21

UDON THANI / UDON THANI AIRPORT

2-VTUD-1-1	29 DEC 22
2-VTUD-1-2	25 JAN 24
2-VTUD-1-3	13 JUL 23
2-VTUD-1-4	13 JUL 23
2-VTUD-1-5	13 JUL 23
2-VTUD-1-6	13 JUL 23
2-VTUD-1-7	13 JUL 23
2-VTUD-1-8	13 JUL 23
2-VTUD-1-9	13 JUL 23
2-VTUD-1-10	28 NOV 24
2-VTUD-1-11	28 NOV 24
2-VTUD-1-12	28 NOV 24
2-VTUD-1-13	28 NOV 24
2-VTUD-2-1	21 APR 22
2-VTUD-2-3	13 JUN 24
2-VTUD-6-1	21 APR 22
2-VTUD-6-2	28 JAN 21
2-VTUD-6-3	28 JAN 21
2-VTUD-6-5	21 APR 22
2-VTUD-6-6	28 JAN 21
2-VTUD-6-7	28 JAN 21
2-VTUD-7-1	21 APR 22
2-VTUD-7-2	28 JAN 21
2-VTUD-7-3	28 JAN 21
2-VTUD-7-5	21 APR 22
2-VTUD-7-6	28 JAN 21
2-VTUD-7-7	28 JAN 21
2-VTUD-8-1	16 MAY 24
2-VTUD-8-2	16 MAY 24
2-VTUD-8-3	11 JUL 24
2-VTUD-8-4	25 MAR 21
2-VTUD-8-5	11 JUL 24
2-VTUD-8-6	25 MAR 21
2-VTUD-8-7	25 MAR 21
2-VTUD-8-8	25 MAR 21
2-VTUD-8-9	25 MAR 21
2-VTUD-8-11	25 MAR 21
2-VTUD-8-12	25 MAR 21
2-VTUD-8-13	25 MAR 21
2-VTUD-8-14	25 MAR 21

YALA/BETONG AIRPORT

2-VTSY-1-1	21 APR 22
2-VTSY-1-2	21 MAY 20
2-VTSY-1-3	21 APR 22
2-VTSY-1-4	21 APR 22
2-VTSY-1-5	21 APR 22
2-VTSY-1-6	21 APR 22
2-VTSY-1-7	20 APR 23
2-VTSY-1-8	20 APR 23
2-VTSY-2-1	21 APR 22
2-VTSY-3-1	21 APR 22
2-VTSY-3-3	21 APR 22
2-VTSY-6-1	29 DEC 22
2-VTSY-6-2	3 DEC 20
2-VTSY-6-3	29 DEC 22
2-VTSY-6-4	3 DEC 20
2-VTSY-8-1	29 DEC 22
2-VTSY-8-2	3 DEC 20
2-VTSY-8-3	29 DEC 22
2-VTSY-8-4	3 DEC 20

KHON-KAEN / NAM PHONG

2-VTUZ-1-1	30 NOV 23
2-VTUZ-1-2	30 NOV 23
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

AIP Pages(s) Affected	Amendment Text	Introduced by AIP Amendment NR

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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.aerometutapao.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

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: - Powers of the Minister of Transport and of the Civil Aviation Authority of Thailand and the Director under the Act; - Powers and duties of the Civil Aviation Board; - Civil Aviation Regulatory; - Air Navigation Service Regulatory; - Dangerous good and Prohibited item Regulatory; - General provisions on aircraft; - Registration and markings of aircraft; - Aircraft types, production of aircraft and airworthiness control; - Air Operator Certification; - Aviation Economic Regulatory; - Personnel (Personnel Licensing); - Security; - Facilitation; - Aerodromes and air navigation facilities; - Passenger Service Charges; - Ramp and aircraft technical services; - Accident (aircraft accident investigation); - Search and Rescue; - Powers to inspect, seize and delay of aircraft; - 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: - Offences against air navigation and aircraft; - Powers and duties of aircraft commander; competent authority and in-flight security officer; - 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: - Inspection and identification of aircraft committing wrongful acts; - Detection and seizure of aircraft, and arrest, control and preliminary investigation; - Costs arising out of the interception or operations; - 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 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 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 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 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 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 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 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 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 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 7th Amendment			
NIL	NIL	NIL	NIL

Annex 8 – Airworthiness of Aircraft 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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)

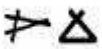
GEN 2.3 CHART SYMBOLS

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	

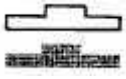
1.2 Approach charts

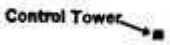
The aerodrome on which the procedure is based	
Aerodromes affecting the traffic pattern on the aerodrome on which the procedure is based	

1.3 Aerodrome charts

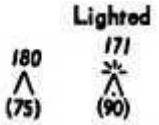
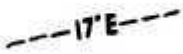
Hard surface runway	
Unpaved runway	
Stopway	

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 ***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	IBKD	ILS/LOC/ DME/ RWY03L	A
BR	BURI RAM	NDB	A	BANGKOK	IBKK	ILS/LOC/ RWY21R	A
BRM	BURI RAM	DVOR/DME	AE	BANGKOK	IDMG	ILS/LOC/DME/ RWY21L	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	ICMA	ILS/LOC/DME/ RWY36	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	ICTR	ILS/LOC/DME/ RWY03	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	ILS/LOC/DME/ RWY03L	A	CHUM PHON	CPN	DVOR/DME	AE
IBKK	BANGKOK	ILS/LOC/ RWY21R	A	CHUM PHON	ICPN	ILS/LOC/DME/ RWY24	A
IBUT	U-TAPAO	ILS/LOC/DME/ RWY18	A	HAT YAI	HTY	DVOR/DME	AE
ICMA	CHIANG MAI	ILS/LOC/DME/ RWY36	A	HAT YAI	IHTY	ILS/LOC/ DME/ RWY26	A
ICPN	CHUM PHON	ILS/LOC/DME/ RWY24	A	HUA HIN	HN	NDB	A
ICTR	CHIANG RAI	ILS/LOC/DME/ RWY03	A	HUA HIN	HHN	DVOR/DME	AE
IDMG	BANGKOK	ILS/LOC/DME/ RWY21L	A	KAMPHAENG SAEN	KPS	NDB	A
IHTY	HAT YAI	ILS/LOC/ DME/ RWY26	A	KAMPHAENG SAEN	KPS	VOR/DME	A
IKBI	KRABI	ILS/LOC/DME/ RWY32	A	KHON KAEN	KKN	DVOR/DME	AE
ILOB	LOP BURI	ILS/LOC/DME/ RWY05	A	KHON KAEN	KN	NDB	A
ILPN	LAMPANG	ILS/LOC/DME/ RWY36	A	KHORAT	KRT	DVOR/DME	E
INAN	NAN	ILS/LOC/DME/ RWY02	A	KRABI	KB	NDB	A
INKP	NAKHON PHANOM	ILS/LOC/DME/ RWY15	A	KRABI	KBI	DVOR/DME	AE

ID	Station name	Aid	Purpose A=Aerodrome E=Enroute AE=Both	Station name	ID	Aid	Purpose A=Aerodrome E=Enroute AE=Both
INKR	NAKHON RATCHASI-MA	ILS/LOC/DME/ RWY06	A	KRABI	IKBI	ILS/LOC/ DME/ RWY32	A
INKS	NAKHON SI THAM-MARAT	ILS/LOC/DME/ RWY19	A	LAMPANG	LP	NDB	A
INTW	NARATHIWAT	ILS/LOC/DME/ RWY02	A	LAMPANG	LPN	DVOR/DME	AE
IPCB	PHETCHABUN	ILS/LOC/DME/ RWY36	A	LAMPANG	ILPN	ILS/LOC/ DME/ RWY36	A
IPKT	PHUKET	ILS/LOC/DME/ RWY27	A	LOEI	LOY	DVOR/DME	AE
IPSL	PHITSANULOK	ILS/LOC/DME/ RWY32	A	LOEI	LY	NDB	A
IRAN	RANONG	ILS/LOC/DME/ RWY02	A	LOP BURI	LB	NDB	A
IROT	ROI ET	ILS/LOC/DME/ RWY36	A	LOP BURI	ILOB	ILS/LOC/ DME/ RWY05	A
ISEN	SUVARNABHUMI	ILS/LOC/DME/ RWY19	A	MAE HONG SON	MH	NDB	A
ISES	SUVARNABHUMI	ILS/LOC/DME/ RWY01	A	MAE HONG SON	MHS	DVOR/DME	AE
ISKN	SAKON NAKHON	ILS/LOC/DME/ RWY23	A	MAE SOT	MS	NDB	A
ISKT	SUKHOTHAI	ILS/LOC/DME/ RWY36	A	MAE SOT	MST	DVOR/DME	AE
ISTN	SURAT THANI	ILS/LOC/DME/ RWY22	A	NAKHON PHANOM	NP	NDB	A
ISWN	SUVARNABHUMI	ILS/LOC/DME/ RWY20L	A	NAKHON PHANOM	NKP	DVOR/DME	AE
ISWS	SUVARNABHUMI	ILS/LOC/DME/ RWY02R	A	NAKHON PHANOM	INKP	ILS/LOC/ DME/ RWY15	A
ITRN	TRANG	ILS/LOC/DME/ RWY08	A	NAKHON RAT-CHASIMA	KR	NDB	A
IUBL	UBON RATCHATHANI	ILS/LOC/DME/ RWY23	A	NAKHON RAT-CHASIMA	NKR	DVOR/DME	A
IUDN	UDON THANI	ILS/LOC/DME/ RWY30	A	NAKHON RAT-CHASIMA	INKR	ILS/LOC/ DME/ RWY06	A
KB	KRABI	NDB	A	NAKHON SI THAM-MARAT	NKS	DVOR/DME	AE
KBI	KRABI	DVOR/DME	AE	NAKHON SI THAM-MARAT	INKS	ILS/LOC/ DME/ RWY19	A
KKN	KHON KAEN	DVOR/DME	AE	NAN	NN	NDB	A
KN	KHON KAEN	NDB	A	NAN	NAN	DVOR/DME	AE
KPS	KAMPHAENG SAEN	NDB	A	NAN	INAN	ILS/LOC/ DME/ RWY02	A
KPS	KAMPHAENG SAEN	VOR/DME	A	NARATHIWAT	NT	NDB	A

ID	Station name	Aid	Purpose A=Aerodrome E=Enroute AE=Both	Station name	ID	Aid	Purpose A=Aerodrome E=Enroute AE=Both
KR	NAKHON RATCHASI-MA	NDB	A	NARATHIWAT	NTW	DVOR/DME	AE
KRT	KHORAT	DVOR/DME	E	NARATHIWAT	INTW	ILS/LOC/ DME/ RWY02	A
LB	LOP BURI	NDB	A	PATTANI	PT	NDB	AE
LOY	LOEI	DVOR/DME	AE	PHETCHABUN	PH	NDB	A
LP	LAMPANG	NDB	A	PHETCHABUN	PCB	DVOR/DME	AE
LPN	LAMPANG	DVOR/DME	AE	PHETCHABUN	IPCB	ILS/LOC/ DME/ RWY36	A
LY	LOEI	NDB	A	PHITSANULOK	PL	NDB	A
MH	MAE HONG SON	NDB	A	PHITSANULOK	PSL	DVOR/DME	AE
MHS	MAE HONG SON	DVOR/DME	AE	PHITSANULOK	IPSL	ILS/LOC/ DME/ RWY32	A
MS	MAE SOT	NDB	A	PHRAE	PR	NDB	A
MST	MAE SOT	DVOR/DME	AE	PHRAE	PAE	DVOR/DME	AE
NAN	NAN	DVOR/DME	AE	PHUKET	PUT	DVOR/DME	AE
NKP	NAKHON PHANOM	DVOR/DME	AE	PHUKET	IPKT	ILS/LOC/ DME/ RWY27	A
NKR	NAKHON RATCHASI-MA	DVOR/DME	A	PRACHUAP KHIRI KHAN	PCK	NDB	A
NKS	NAKHON SI THAM-MARAT	DVOR/DME	AE	RANONG	RN	NDB	A
NN	NAN	NDB	A	RANONG	RAN	DVOR/DME	AE
NP	NAKHON PHANOM	NDB	A	RANONG	IRAN	ILS/LOC/ DME/ RWY02	A
NT	NARATHIWAT	NDB	A	RAYONG	RYN	DVOR/DME	E
NTW	NARATHIWAT	DVOR/DME	AE	ROI ET	RE	NDB	A
PAE	PHRAE	DVOR/DME	AE	ROI ET	ROT	DVOR/DME	AE
PCB	PHETCHABUN	DVOR/DME	AE	ROI ET	IROT	ILS/LOC/ DME/ RWY36	A
PCK	PRACHUAP KHIRI KHAN	NDB	A	SAKON NAKHON	SN	NDB	A
PH	PHETCHABUN	NDB	A	SAKON NAKHON	SKN	DVOR/DME	AE
PL	PHITSANULOK	NDB	A	SAKON NAKHON	ISKN	ILS/LOC/ DME/ RWY23	A
PR	PHRAE	NDB	A	SAMUI	SM	NDB	A
PSL	PHITSANULOK	DVOR/DME	AE	SAMUI	SMU	DVOR/DME	AE
PT	PATTANI	NDB	AE	SONGKHLA	SK	NDB	A

ID	Station name	Aid	Purpose A=Aerodrome E=Enroute AE=Both	Station name	ID	Aid	Purpose A=Aerodrome E=Enroute AE=Both
PUT	PHUKET	DVOR/DME	AE	SONGKHLA	SKL	VOR/DME	A
RAN	RANONG	DVOR/DME	AE	SUKHOTHAI	ISKT	ILS/LOC/ DME/ RWY36	A
RE	ROI ET	NDB	A	SUKHOTHAI	THS	NDB	AE
RN	RANONG	NDB	A	SURAT THANI	STN	DVOR/DME	AE
ROT	ROI ET	DVOR/DME	AE	SURAT THANI	ISTN	ILS/LOC/ DME/ RWY22	A
RYN	RAYONG	DVOR/DME	E	SUVARNABHUMI	SVB	DVOR/DME	A
SK	SONGKHLA	NDB	A	SUVARNABHUMI	ISEN	ILS/LOC/ DME/ RWY19	A
SKL	SONGKHLA	VOR/DME	A	SUVARNABHUMI	ISES	ILS/LOC/ DME/ RWY01	A
SKN	SAKON NAKHON	DVOR/DME	AE	SUVARNABHUMI	ISWN	ILS/LOC/ DME/ RWY20L	A
SM	SAMUI	NDB	A	SUVARNABHUMI	ISWS	ILS/LOC/ DME/ RWY02R	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	ITRN	ILS/LOC/ DME/ RWY08	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	IUBL	ILS/LOC/ DME/ RWY23	A
TRT	TRAT	NDB/DME	AE	UDON THANI	UDN	DVOR/DME	AE
UB	UBON RAT-CHATHANI	NDB	A	UDON THANI	IUDN	ILS/LOC/ DME/ RWY30	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	IBUT	ILS/LOC/ DME RWY18	A

GEN 2.6 CONVERSION TABLES

NM to KM 1 NM = 1.852 KM		KM to NM 1 KM = 0.54 NM		FT to M 1 FT = 0.3048 M		M to FT 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 1 NM = 1.852 KM		KM to NM 1 KM = 0.54 NM		FT to M 1 FT = 0.3048 M		M to FT 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	28 NOV 2024
		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 Song	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
		Ubon Ratchathani	AD 2-VTUU-2-1	In AIP	13 JUN 2024
		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	28 NOV 2024
		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
	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	13 JUN 2024
		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-2-3	In AIP	23 MAR 2023
	1 : 10,000	**Mae Sot**	AD 2-VTPM-2-5	In AIP	1 DEC 2022
		Ubon Ratchathani	AD 2-VTUU-2-5	In AIP	13 JUN 2024

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	28 NOV 2024
	1 : 20,000	RWY 02R/20L	AD 2-VTBS-3-3	In AIP	28 NOV 2024
	1 : 20,000	RWY 02L/20R	AD 2-VTBS-3-5	In AIP	28 NOV 2024
		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 RIVDU3C ROBKA3C SEMBO4C TARED3C UPKUP3C	AD 2-VTBD-6-1	In AIP	26 DEC 2024
		RNAV RWY21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C	AD 2-VTBD-6-7	In AIP	18 MAY 2023
		RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A RIVDU3A ROBKA3A SEMBO4A TARED3A UPKUP3A	AD 2-VTBD-6-13	In AIP	26 DEC 2024
		RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A	AD 2-VTBD-6-19	In AIP	18 MAY 2023
		RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B RIVDU1B ROBKA1B SEMBO2B TARED1B UPKUP1B	AD 2-VTBD-6-25	In AIP	26 DEC 2024
		RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B	AD 2-VTBD-6-31	In AIP	18 MAY 2023
		RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D RIVDU1D ROBKA1D SEMBO2D TARED1D UPKUP1D	AD 2-VTBD-6-39	In AIP	26 DEC 2024

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-6-45	In AIP	18 MAY 2023
		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 03 - BENVI1B DUBEN1B NUMDO1B PONUK1B	AD 2-VTCT-6-5	In AIP	26 DEC 2024
		Phuket			
		RWY 09/27	AD 2-VTSP-6-1	In AIP	20 MAY 2021
	1 : 800,000	RNAV RWY 09 - ANPUB1A EMRIT1A EPGOT1A IGEVI1A ONETI1A REBED1A SATVA1A SAVSA1A SUSID1A UBNEN1A UPSAB1A	AD 2-VTSP-6-5	In AIP	20 MAY 2021
	1 : 800,000	RNAV RWY 27 - ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B	AD 2-VTSP-6-9	In AIP	20 MAY 2021
		Suvarnabhumi Intl			
		RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K VANKO1K	AD 2-VTBS-6-1	In AIP	26 DEC 2024
		RNAV RWY 02L - ALBOS1F BON-VO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F	AD 2-VTBS-6-13	In AIP	26 DEC 2024

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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H	AD 2-VTBS-6-27	In AIP	26 DEC 2024
		RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J	AD 2-VTBS-6-39	In AIP	26 DEC 2024
		RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G	AD 2-VTBS-6-53	In AIP	26 DEC 2024
		RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E	AD 2-VTBS-6-65	In AIP	26 DEC 2024
		RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U S EMBO1U TL1U	AD 2-VTBS-6-77	In AIP	31 OCT 2024
		RNAV RWY 02L(PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q	AD 2-VTBS-6-85	In AIP	31 OCT 2024
		RNAV RWY 02R (PROPELLER) - ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S	AD 2-VTBS-6-93	In AIP	31 OCT 2024
		RNAV RWY 19 (PROPELLER) - ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T	AD 2-VTBS-6-101	In AIP	31 OCT 2024
		RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R	AD 2-VTBS-6-109	In AIP	31 OCT 2024

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-6-117	In AIP	31 OCT 2024
		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 NOBIT1D PADPA1D PIMER1D TAXEB1D	AD 2-VTSS-6-1	In AIP	16 MAY 2024
	1 : 600,000	RNAV RWY26 - DANDO1C ELREM1C ENVON1C KARMI1C KENNE1C NOBIT1C PADPA1C PIMER1C TAXEB1C	AD 2-VTSS-6-5	In AIP	16 MAY 2024
		Khon Kaen			
	1 : 600,000	RNAV RWY 03 - AKRET1A ALGIT1A EMRUT1A NEMTE1A ONUVI1A SEDNO1C	AD 2-VTUK-6-1	In AIP	21 APR 2022
	1 : 600,000	RNAV RWY 21 - AKRET1B ALGIT1B EMRUT1B NEMTE1B ONUVI1B SEDNO1D	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 - AIZAK1B IDKOR1B OTBAD1B SUNGO1B	AD 2-VTCP-6-1	In AIP	26 DEC 2024
	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 : 500,000	RWY 05 - RAMBU1B ROT1B CMP1B BUTRA1B PAKSE1B	AD 2-VTUU-6-1	In AIP	21 APR 2022
	1 : 500,000	RWY 23 - RAMBU1A ROT1A CMP1A BUTRA1A PAKSE1A	AD 2-VTUU-6-3	In AIP	21 APR 2022
	1 : 500,000	RNAV RWY 05 - ARARE1B BAMBO1B CHETA1B PACER1B ROONY1B	AD 2-VTUU-6-5	In AIP	21 APR 2022
	1 : 500,000	RNAV RWY 23 - ARARE1A BAMBO1A CHETA1A PACER1A ROONY1A	AD 2-VTUU-6-7	In AIP	21 APR 2022
		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 NOBIT1B OBLEX1B PAD-PA1B PIMER1B TAMOS1B TAXEB1B	AD 2-VTSS-7-1	In AIP	16 MAY 2024
	1 : 600,000	RNAV RWY26 - ELREM1A ENVON1A KENNE1A NOBIT1A OBLEX1A PAD-PA1A PIMER1A TAMOS1A TAXEB1A	AD 2-VTSS-7-5	In AIP	16 MAY 2024
		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
		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	18 MAY 2023
	1 : 500,000	VOR RWY 21R	AD 2-VTBD-8-3	In AIP	18 MAY 2023
	1 : 500,000	VOR RWY 03R	AD 2-VTBD-8-5	In AIP	15 JUN 2023
	1 : 500,000	ILS or LOC y RWY 03L	AD 2-VTBD-8-7	In AIP	18 MAY 2023
	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	18 MAY 2023
	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	2 NOV 2023
	1 : 600,000	VOR Y RWY 27	AD 2-VTSP-8-3	In AIP	2 NOV 2023
	1 : 700,000	VOR Z RWY 09	AD 2-VTSP-8-5	In AIP	2 NOV 2023
	1 : 500,000	VOR Z RWY 27	AD 2-VTSP-8-7	In AIP	2 NOV 2023
	1 : 500,000	ILS or LLZ RWY 27	AD 2-VTSP-8-9	In AIP	2 NOV 2023
	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	23 MAR 2023
	1 : 500,000	VOR RWY 18	AD 2-VTBU-8-3	In AIP	16 JUN 2022
	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	16 MAY 2024
	1 : 500,000	VOR RWY 26	AD 2-VTSS-8-3	In AIP	16 MAY 2024
	1 : 500,000	ILS or LOC y RWY 26	AD 2-VTSS-8-5	In AIP	16 MAY 2024
	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
Instrument Approach Chart - ICAO		**Chumphon**			
	1 : 500,000	NDB RWY 06	AD 2-VTSE-8-1	In AIP	17 JUN 2021
	1 : 500,000	NDB RWY 24	AD 2-VTSE-8-3	In AIP	17 JUN 2021
	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
	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
		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	2 NOV 2023
	1 : 400,000	VOR RWY 33	AD 2-VTUW-8-3	In AIP	21 APR 2022
	1 : 400,000	ILS or LOC RWY 15	AD 2-VTUW-8-5	In AIP	21 APR 2022
	1 : 400,000	RNP RWY 15	AD 2-VTUW-8-7	In AIP	2 NOV 2023
	1 : 400,000	RNP RWY 33	AD 2-VTUW-8-9	In AIP	21 APR 2022

Title of series	Scale	Name and/or number	Reference	Price ($US)	Date
		Nakhon Ratchasima			
	1 : 500,000	VOR/DME RWY 06	AD 2-VTUQ-8-1	In AIP	21 APR 2022
	1 : 500,000	VOR/DME RWY 24	AD 2-VTUQ-8-3	In AIP	21 APR 2022
	1 : 500,000	ILS/DME RWY 06	AD 2-VTUQ-8-5	In AIP	21 APR 2022
	1 : 500,000	LLZ/DME RWY 06	AD 2-VTUQ-8-7	In AIP	21 APR 2022
	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	13 AUG 2020
	1 : 500,000	VOR y RWY 19	AD 2-VTSF-8-3	In AIP	13 AUG 2020
Instrument Approach Chart - ICAO	1 : 500,000	VOR z RWY 19	AD 2-VTSF-8-5	In AIP	13 AUG 2020
	1 : 500,000	ILS or LOC y RWY 19	AD 2-VTSF-8-7	In AIP	13 AUG 2020
	1 : 500,000	ILS or LOC z RWY 19	AD 2-VTSF-8-9	In AIP	13 AUG 2020
		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	5 SEP 2024
	1 : 500,000	ILS or LOC z RWY 02	AD 2-VTSC-8-7	In AIP	5 SEP 2024
	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	NDB RWY 08 CAT A, B	AD 2-VTSK-8-1	In AIP	18 JUL 2019
	1 : 400,000	NDB RWY 26 CAT A, B	AD 2-VTSK-8-3	In AIP	23 MAR 2023
	1 : 400,000	RNP RWY 08 CAT A, B	AD 2-VTSK-8-5	In AIP	3 DEC 2020
	1 : 400,000	RNP RWY 26 CAT A, B	AD 2-VTSK-8-7	In AIP	3 DEC 2020
		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	NDB RWY 14	AD 2-VTPP-8-1	In AIP	20 MAR 2025
	1 : 500,000	NDB RWY 32	AD 2-VTPP-8-3	In AIP	20 MAR 2025
	1 : 500,000	VOR RWY 14	AD 2-VTPP-8-5	In AIP	26 DEC 2024
	1 : 500,000	VOR RWY 32	AD 2-VTPP-8-7	In AIP	20 MAR 2025
	1 : 500,000	ILS or LOC y RWY 32	AD 2-VTPP-8-9	In AIP	20 MAR 2025
	1 : 700,000	ILS or LOC z RWY 32	AD 2-VTPP-8-11	In AIP	26 DEC 2024
	1 : 700,000	RNP RWY 14	AD 2-VTPP-8-15	In AIP	26 DEC 2024
	1 : 700,000	RNP RWY 32	AD 2-VTPP-8-17	In AIP	26 DEC 2024
		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	26 MAR 2020
	1 : 400,000	VOR RWY 16	AD 2-VTPH-8-3	In AIP	26 MAR 2020
	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	2 NOV 2023
	1 : 500,000	ILS RWY 02	AD 2-VTSR-8-3	In AIP	2 NOV 2023
	1 : 500,000	LOC RWY 02	AD 2-VTSR-8-5	In AIP	2 NOV 2023
	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

Title of series	Scale	Name and/or number	Reference	Price ($US)	Date
Instrument Approach Chart - ICAO		**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	2 NOV 2023
	1 : 500,000	LOC RWY 23	AD 2-VTUI-8-7	In AIP	2 NOV 2023
	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			
	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
		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	15 JUN 2023
	1 : 500,000	ILS or LOC RWY 08	AD 2-VTST-8-3	In AIP	15 JUN 2023
	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	21 APR 2022
	1 : 500,000	VOR RWY 23	AD 2-VTUU-8-3	In AIP	21 APR 2022
	1 : 500,000	ILS or LOC RWY 23	AD 2-VTUU-8-5	In AIP	21 APR 2022
	1 : 600,000	RNP RWY 05	AD 2-VTUU-8-7	In AIP	21 APR 2022
	1 : 600,000	RNP RWY 23	AD 2-VTUU-8-9	In AIP	21 APR 2022
		Udon Thani			
	1 : 500,000	VOR RWY 12	AD 2-VTUD-8-1	In AIP	16 MAY 2024
	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	20 FEB 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	28 NOV 2024

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

Not applicable

6. ATS units address list

Not applicable

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:

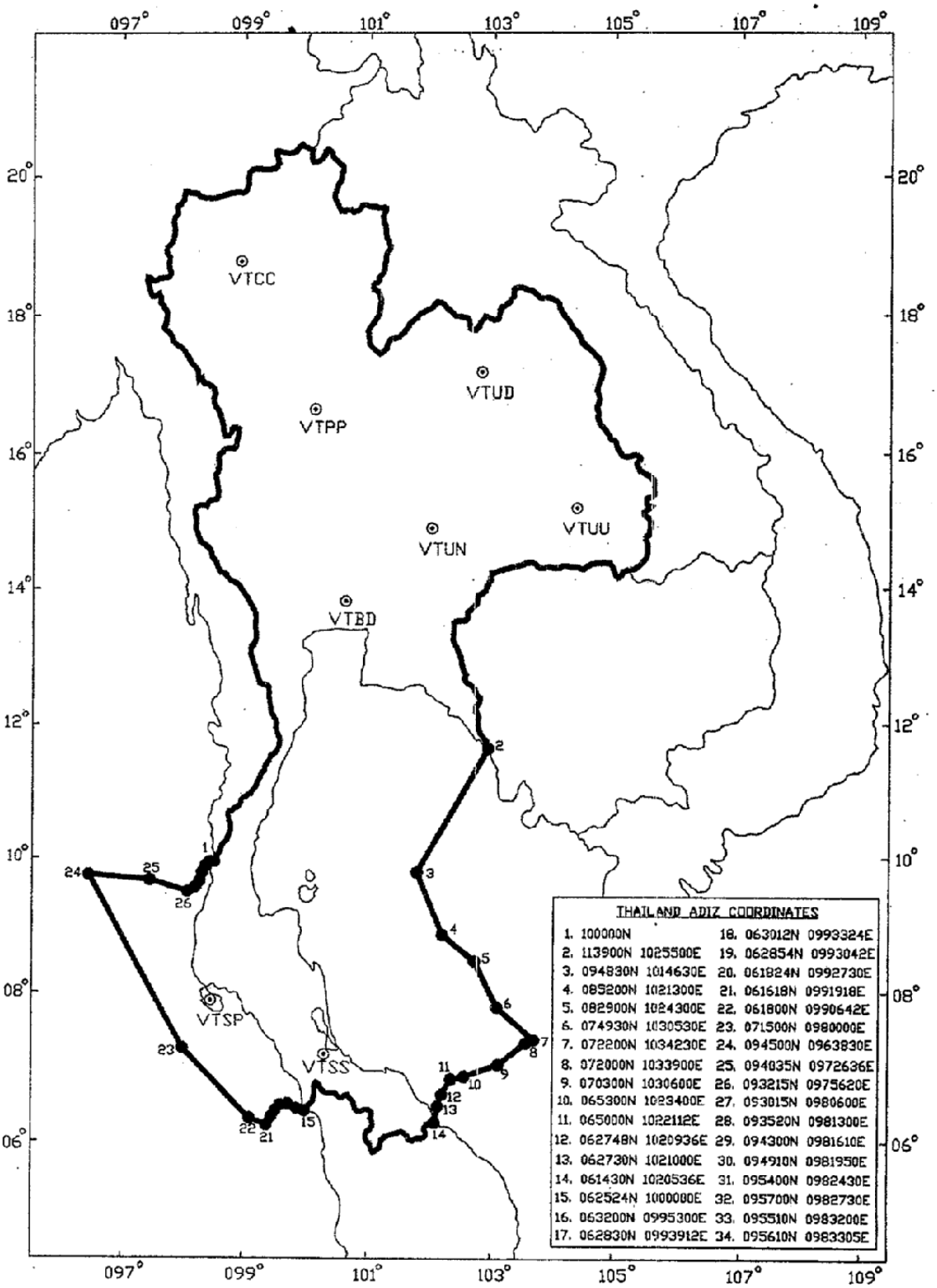
– PINK Airways will be notified by NOTAM consisting of:

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**



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: - 350 M from THR 01, THR 02R, THR 19 and THR 20L - 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: 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: 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: 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: 270 M from THR 18 and 258 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 6676 KHZ 2965 KHZ	H+10 to H+15 and H+40 to H+45	2310 - 1145 Z H24 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 - WC SIGMET/ up to 6 hours - 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**.

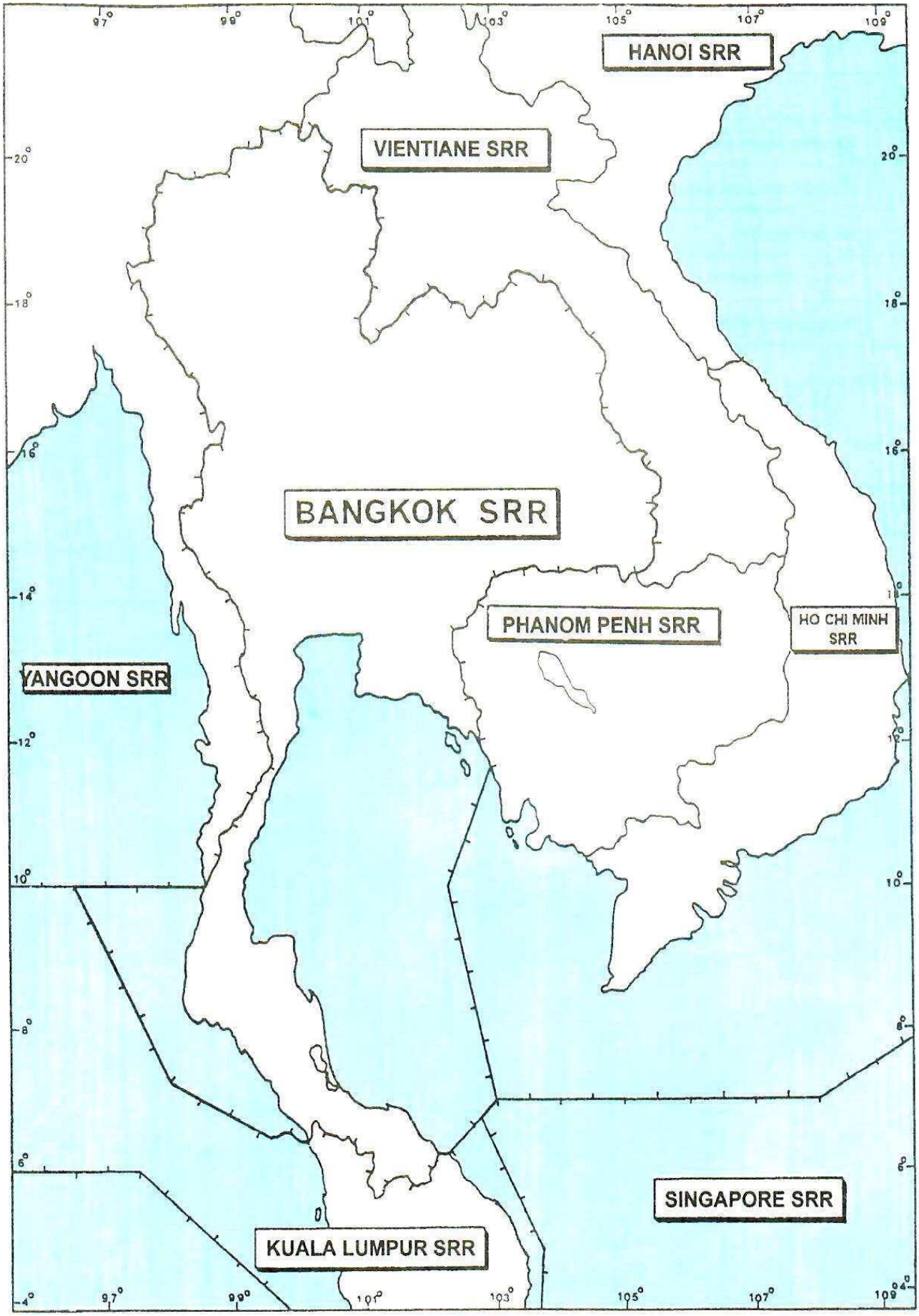
6.2.4 Air Traffic Service Units guard on the international frequencies 121.5 and 243.0 MHZ continuously, during the hours of services. Coastal Radio operates on 24 hours basic and guards on international distress frequencies.

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: 6.2.4.1 signals not less than 8 FT (2.5 M) 6.2.4.2 care to lay out signals exactly as shown. 6.2.4.3 as much colour contrast as possible between signals and background 6.2.4.4 every effort to attract by other means such as radio, flares, smoke, reflected light. etc.		 Make Take Provide 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 Charges (ANS):

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**

Suvarnabhumi International Airport	= 0.90
Don Mueang International Airport	= 0.50
Regional International Airports	= 0.50
(Chiang Mai, Mae Fah Luang -Chiang Rai, Phuket and Hat Yai International Airport)	

Provincial Airports	= 0.05
U-Tapao Rayong Pattaya International Airport	= 0

d) **Unit Rate**

En Route Charge	= 3,500 Baht per unit
Terminal Charge	= 500 Baht per unit

Note 1: *The calculation of ANS charges for Member Airlines and Charter Flights is specified at the Unit Rate stated above which is one-third of Non-Member Airlines' calculation.*

Note 2: *The specified ANS charges hereunder are applicable to School Flights, effective from 1 January 2016 onwards.*

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 – DEP and ARR together counted as 1 flight – Only the final flight charged	– 100% of Member Airlines' Charge – DEP and ARR together counted as 1 flight – Every flight charged
	3.2 Terminal Charge (Stop & Go Landing (SGL))	– 50% of Member Airlines' Charge – DEP and ARR together counted as 2 flights – Only the final flight charged	– 100% of Member Airlines' Charge – DEP and ARR together counted as 2 flights – Every flight charged

Note 3: *In order to promote the government's policy to support domestic flights, 25% discount on ANS charges is applied to domestic flights including School Flights.*

Note 4: *Overfly ANS Charges are 1.45 times of International Flight ANS Charges.*

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	:Thaibev Quarter
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)

ENR 0.

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 300 m (1 000 ft) 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 300 m (1 000 ft) 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 300 m (1 000 ft) 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

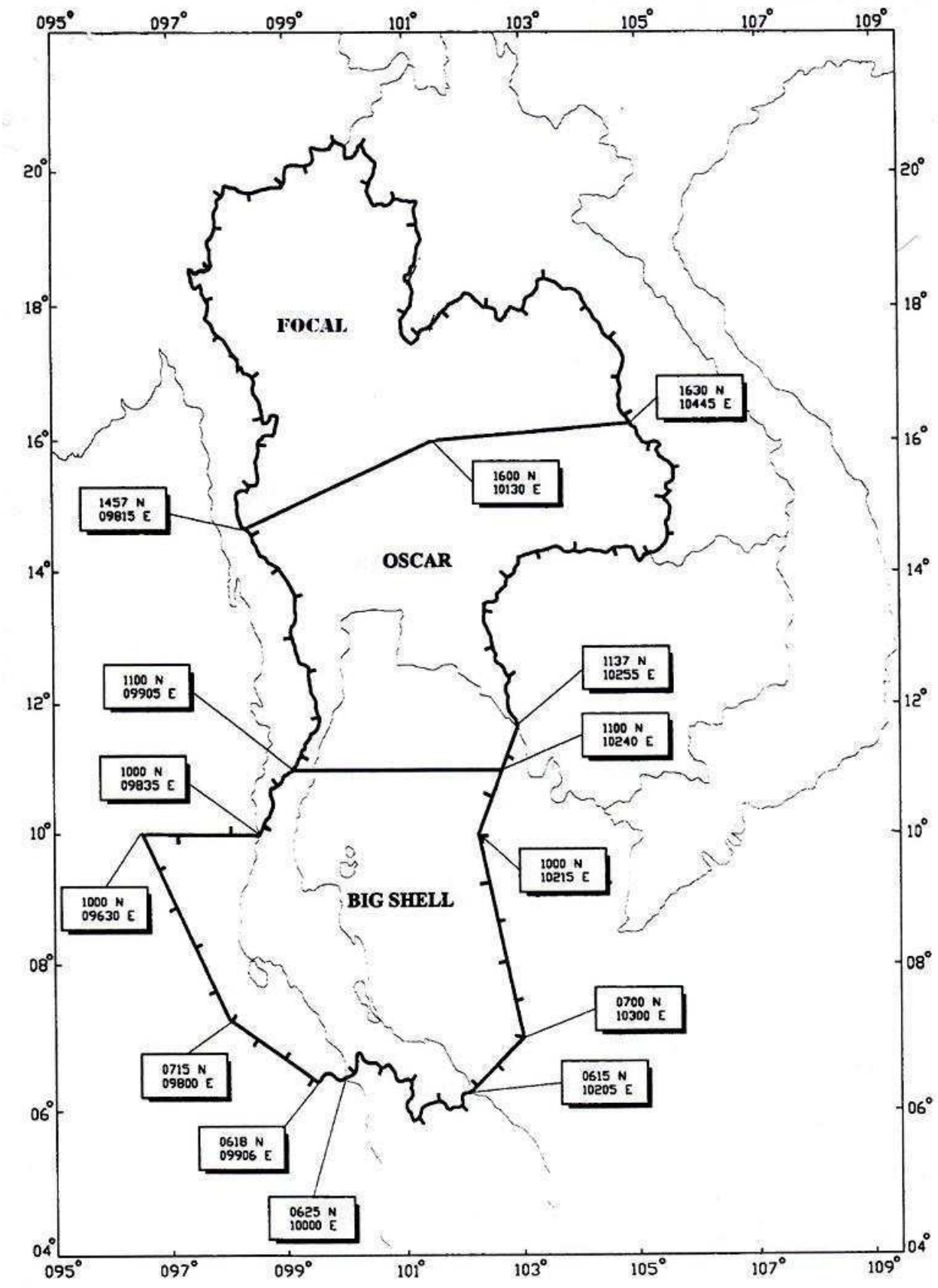
12.1 All VFR flights outside controlled airspace may contact authorities concerned on frequency 127.0 MHz or 331.3 MHz

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 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 2.VFR traffic information (traffic avoidance advice on requet)	250 kt IAS 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	80 NM
Hua Hin Airport	123728.55N	0995655.43E	60 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, 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

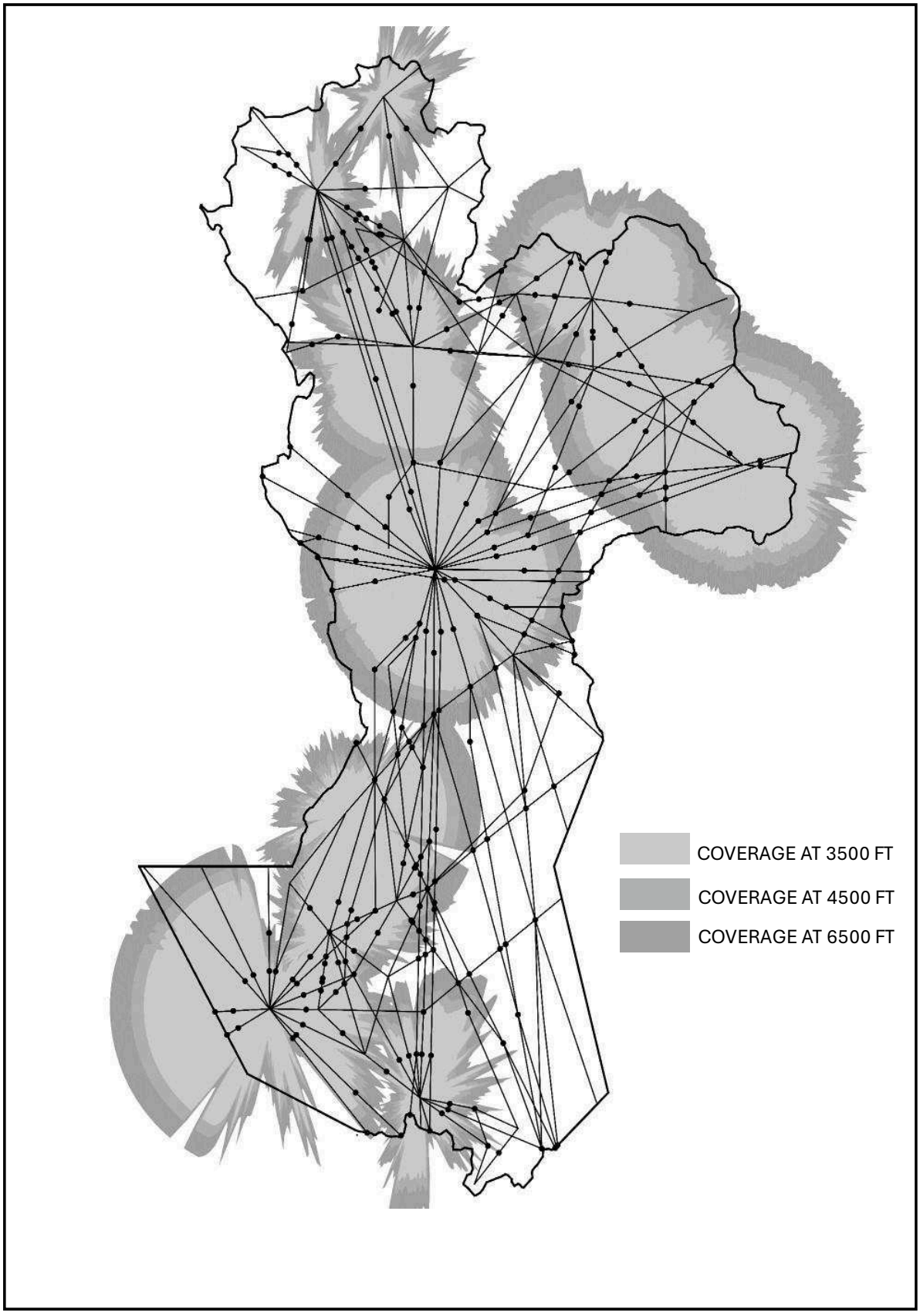
4.7.1 All aircraft flying within controlled airspace in Bangkok FIR shall set transponder as stipulated in paragraph 3.6

5. OTHER RELEVANT INFORMATION AND PROCEDURES

NIL

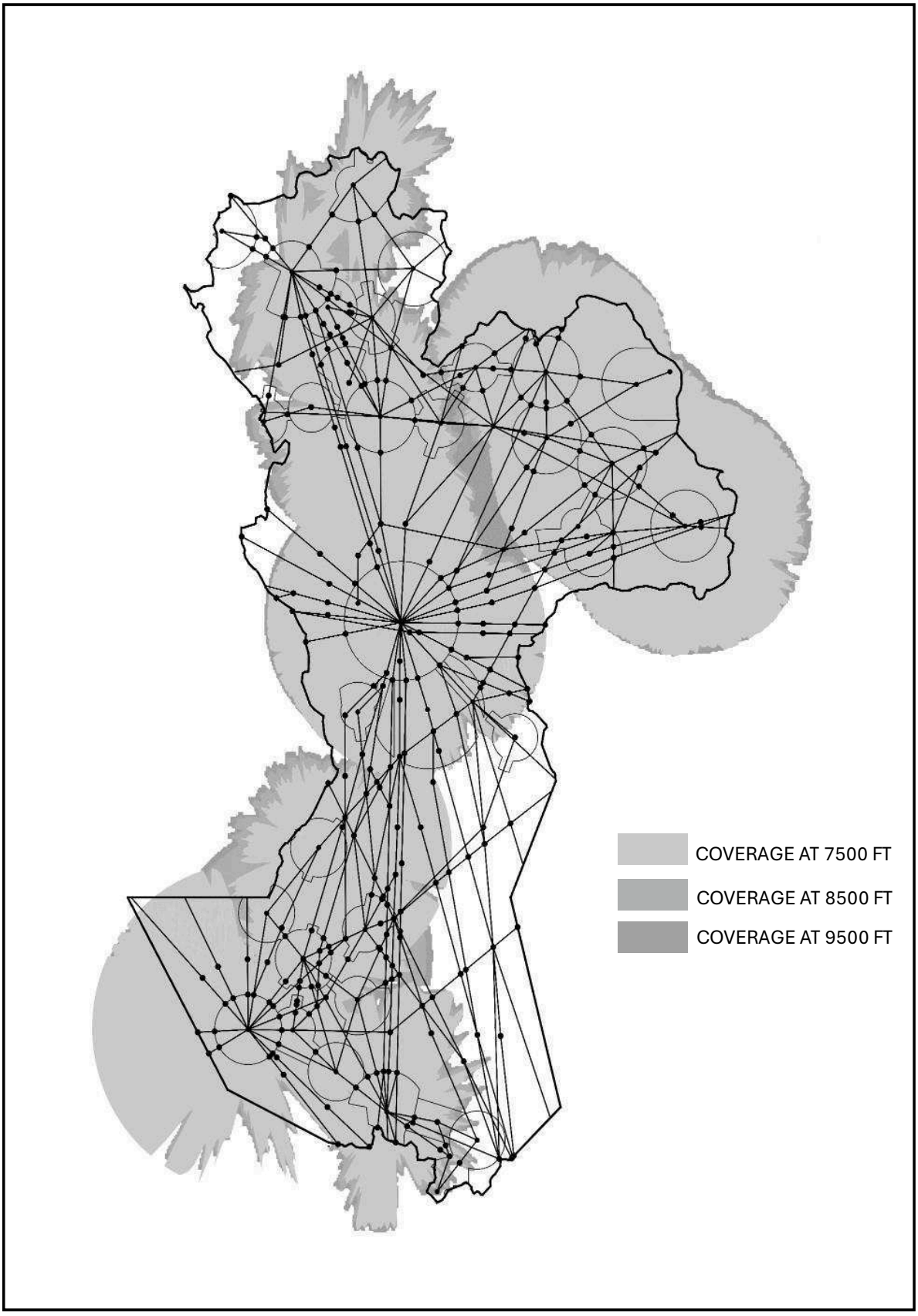
Area of Theoretical SSR Coverage

Figure ENR 1.6 -A - Coverage at 3500 FT 4500 FT 6500 FT



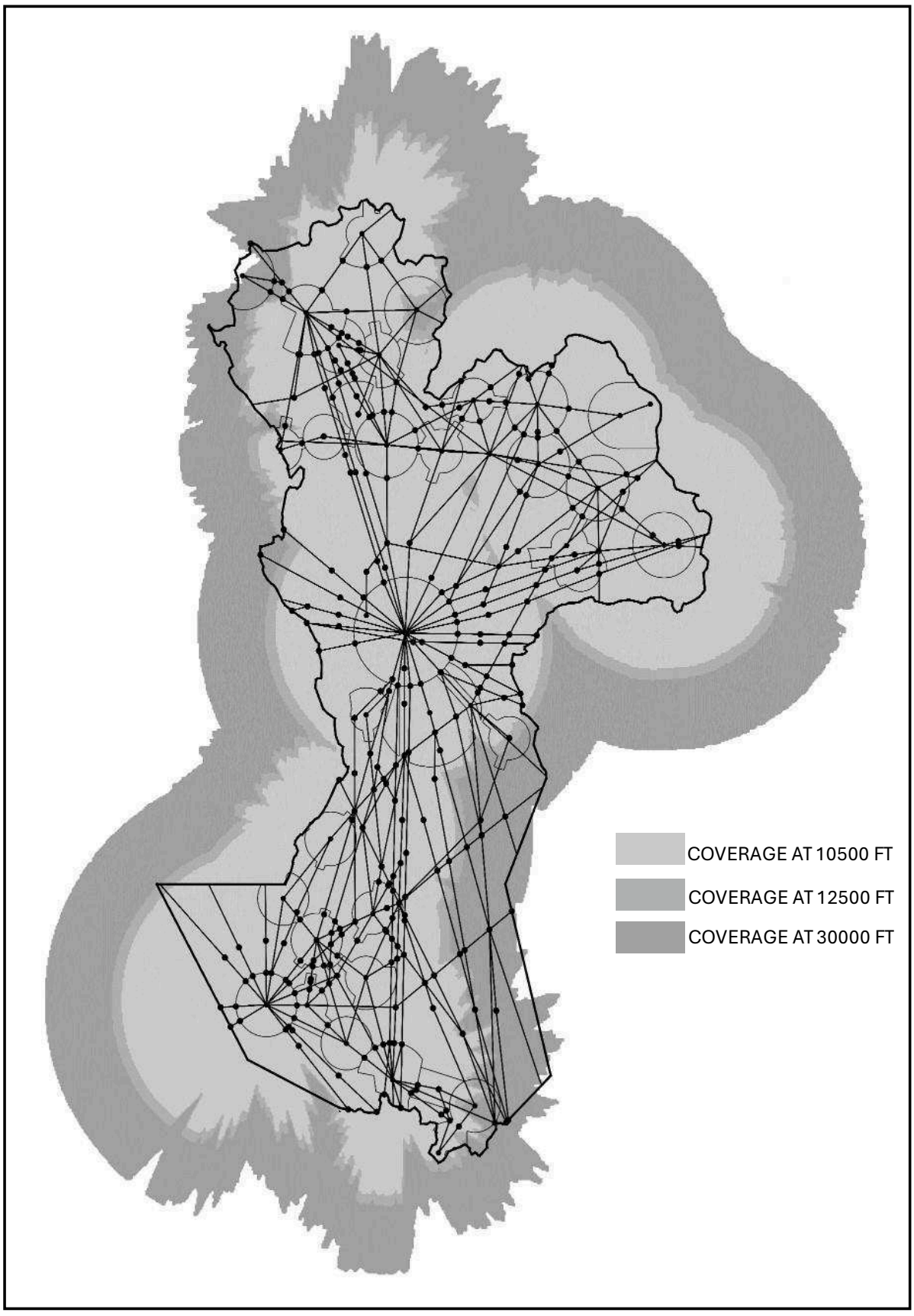
Area of Theoretical SSR Coverage

Figure ENR 1.6 -B - Coverage at 7500 FT 8500 FT 9500 FT



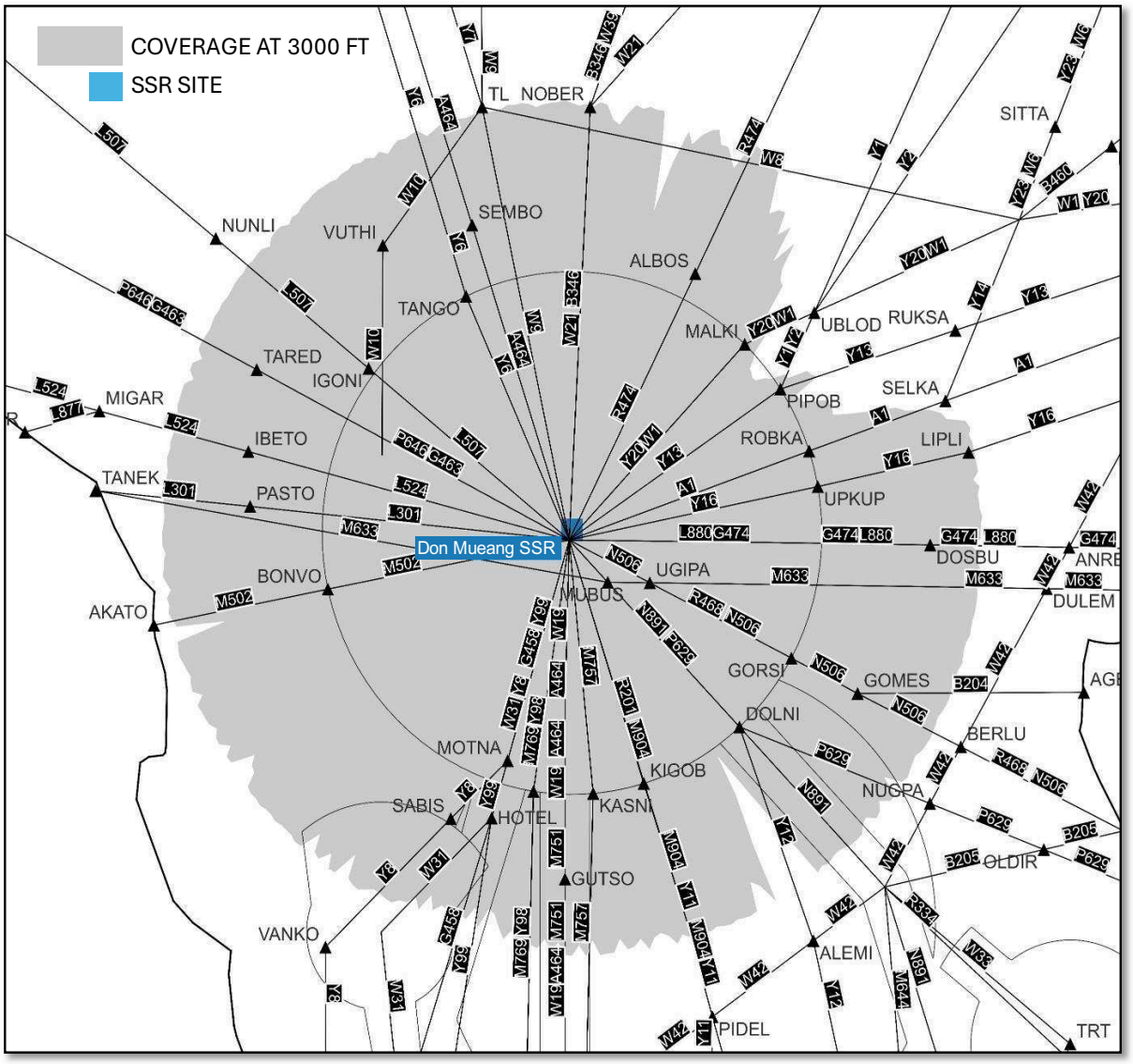
Area of Theoretical SSR Coverage

Figure ENR 1.6 -C - Coverage at 10500 FT 12500 FT 30000 FT



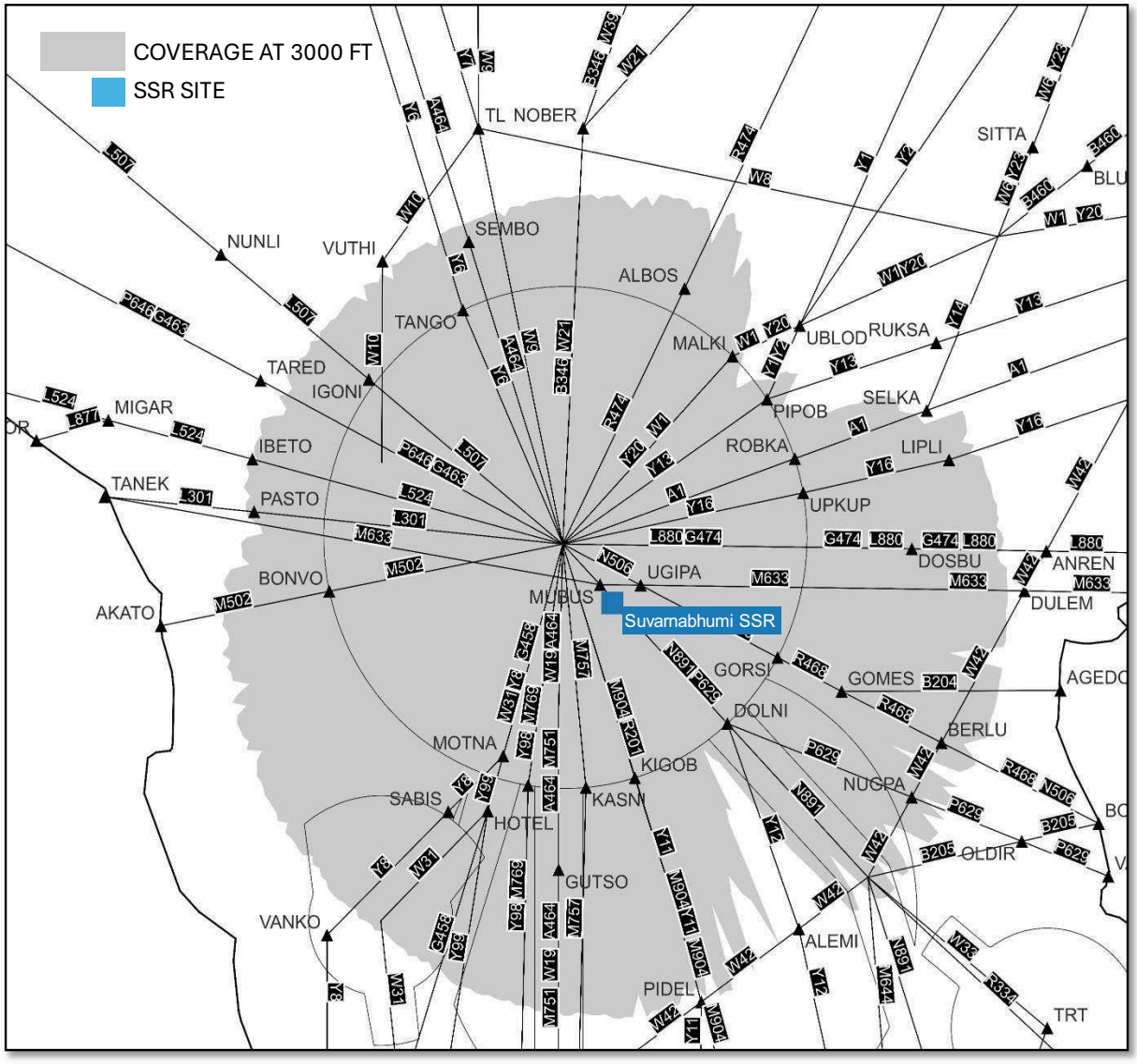
Area of Theoretical SSR Coverage

Figure ENR 1.6 -D – Don Mueang SSR Station Coverage at3000 FT



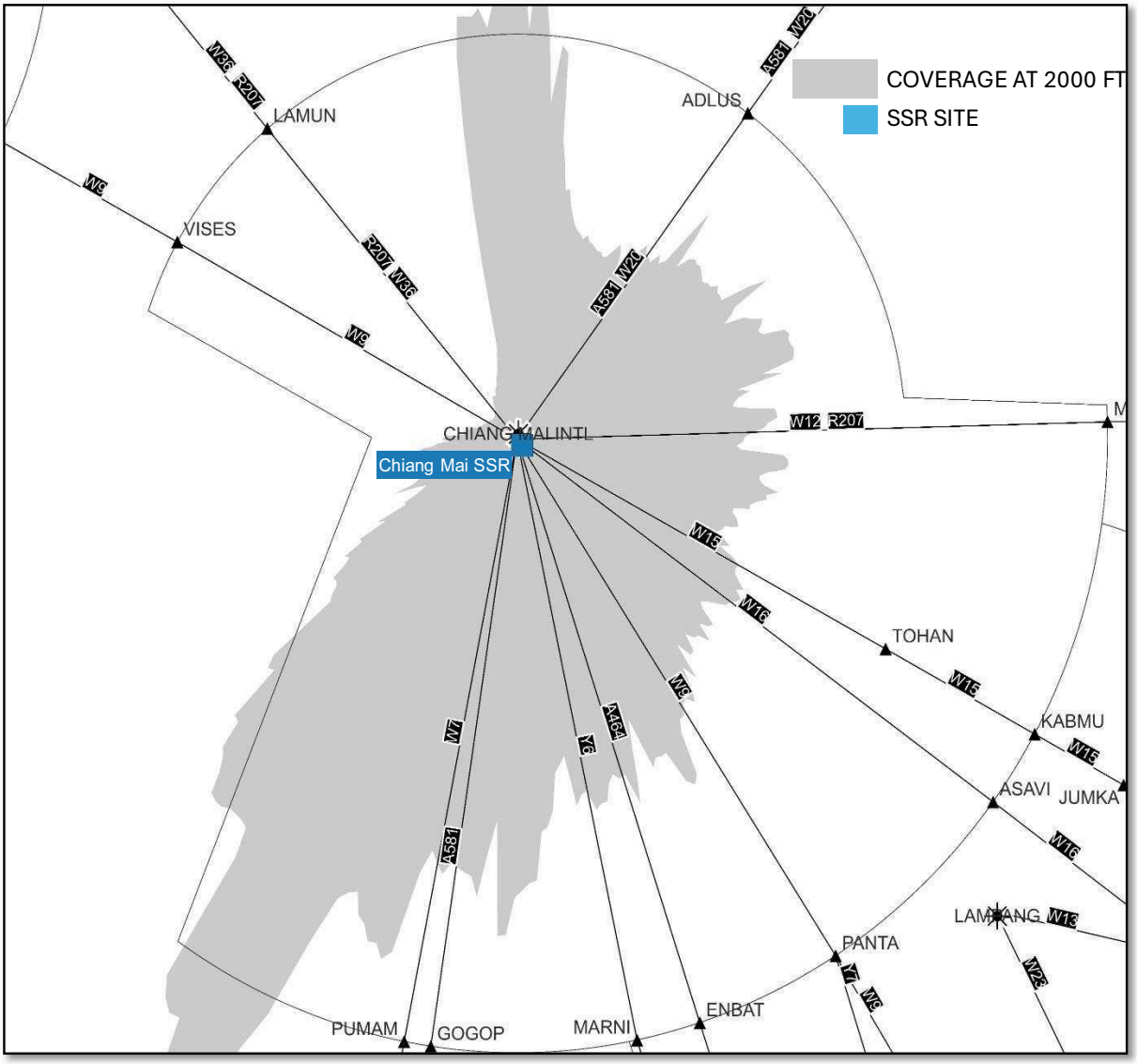
Area of Theoretical SSR Coverage

Figure ENR 1.6 -E – Suvarnabhumi SSR Station Coverage at 3000 FT



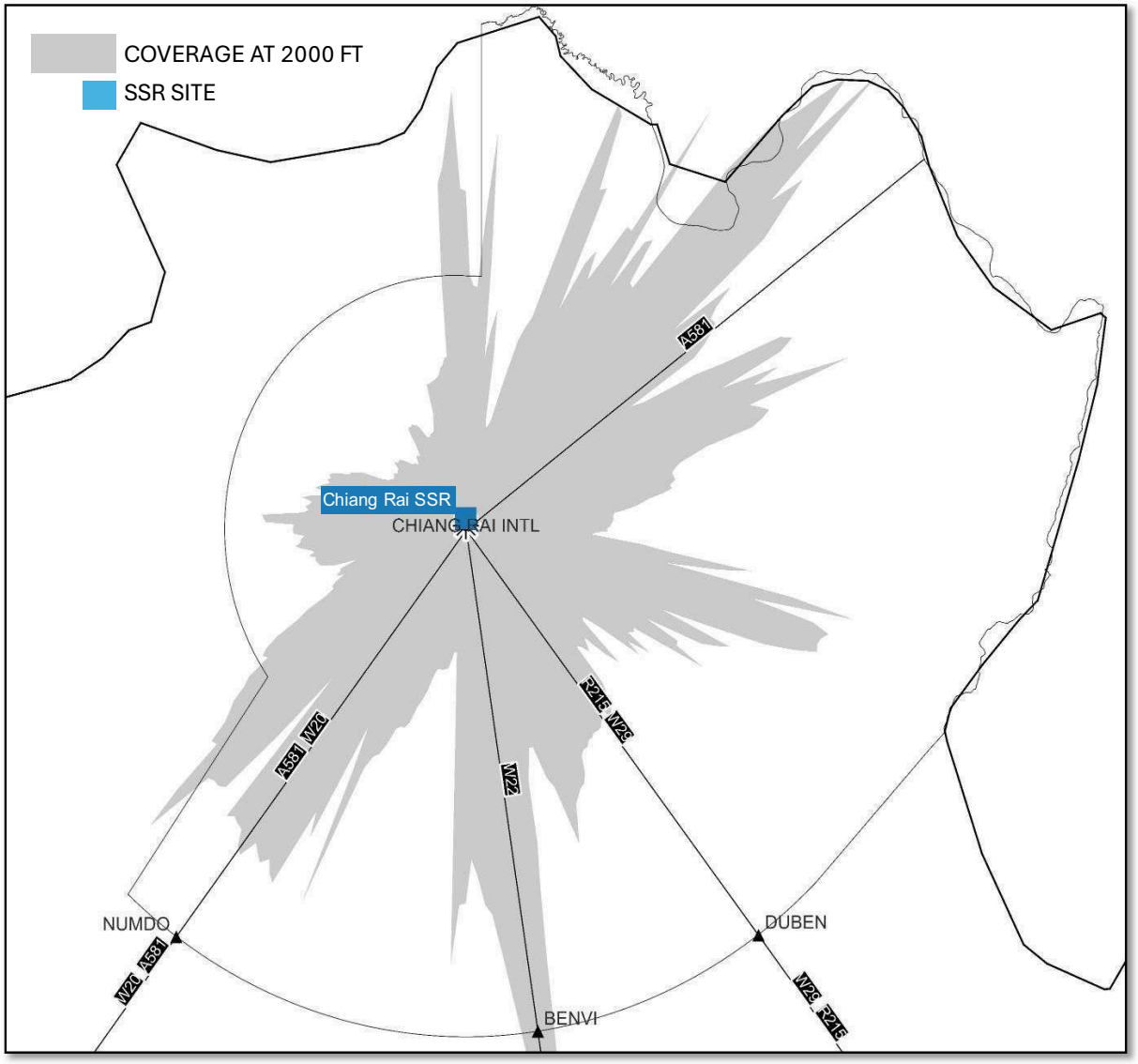
Area of Theoretical SSR Coverage

Figure ENR 1.6 -F – Chiang Mai SSR Station Coverage at 2000 FT



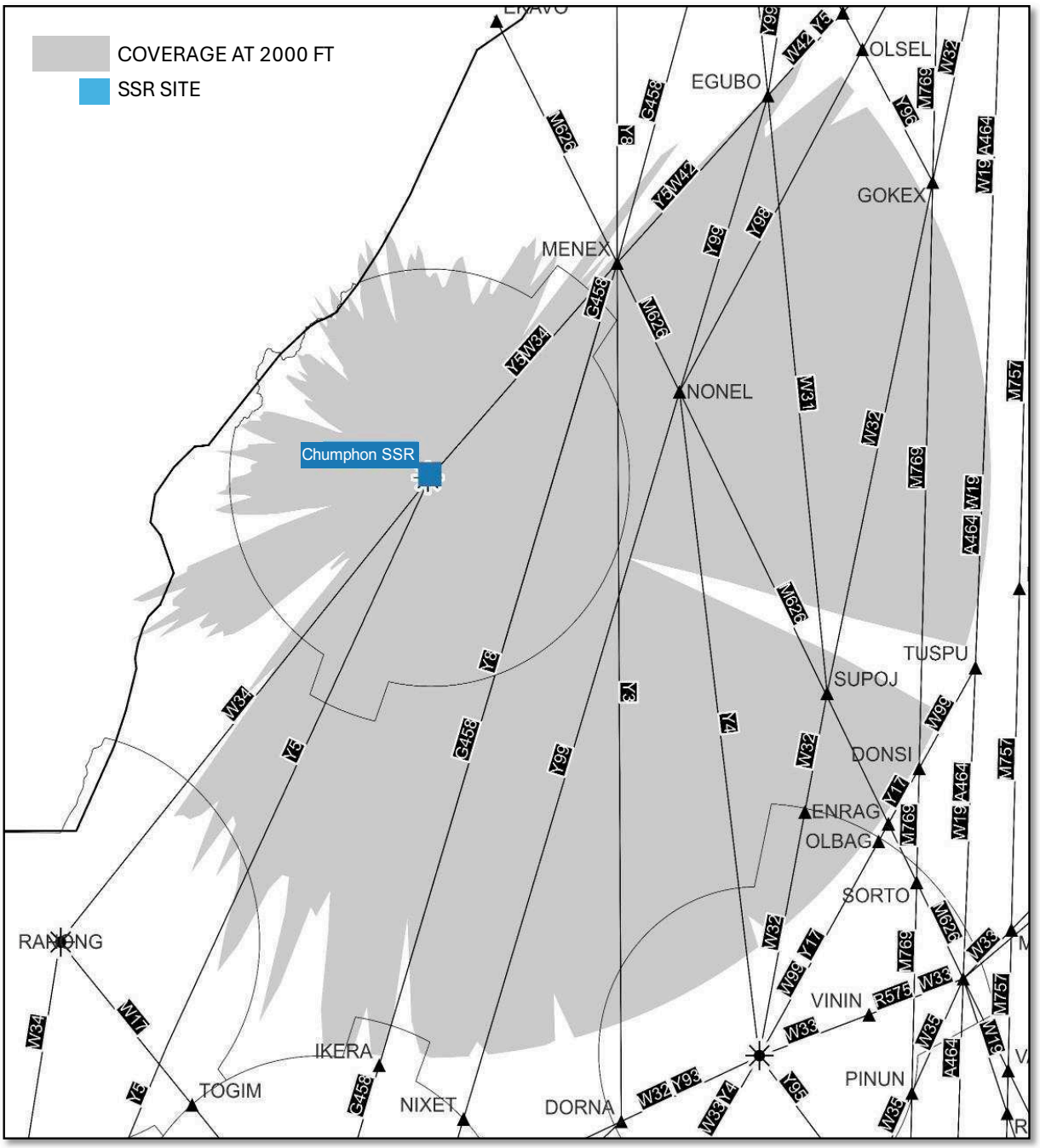
Area of Theoretical SSR Coverage

Figure ENR 1.6 -G – Chiang Rai SSR Station Coverage at 2000 FT



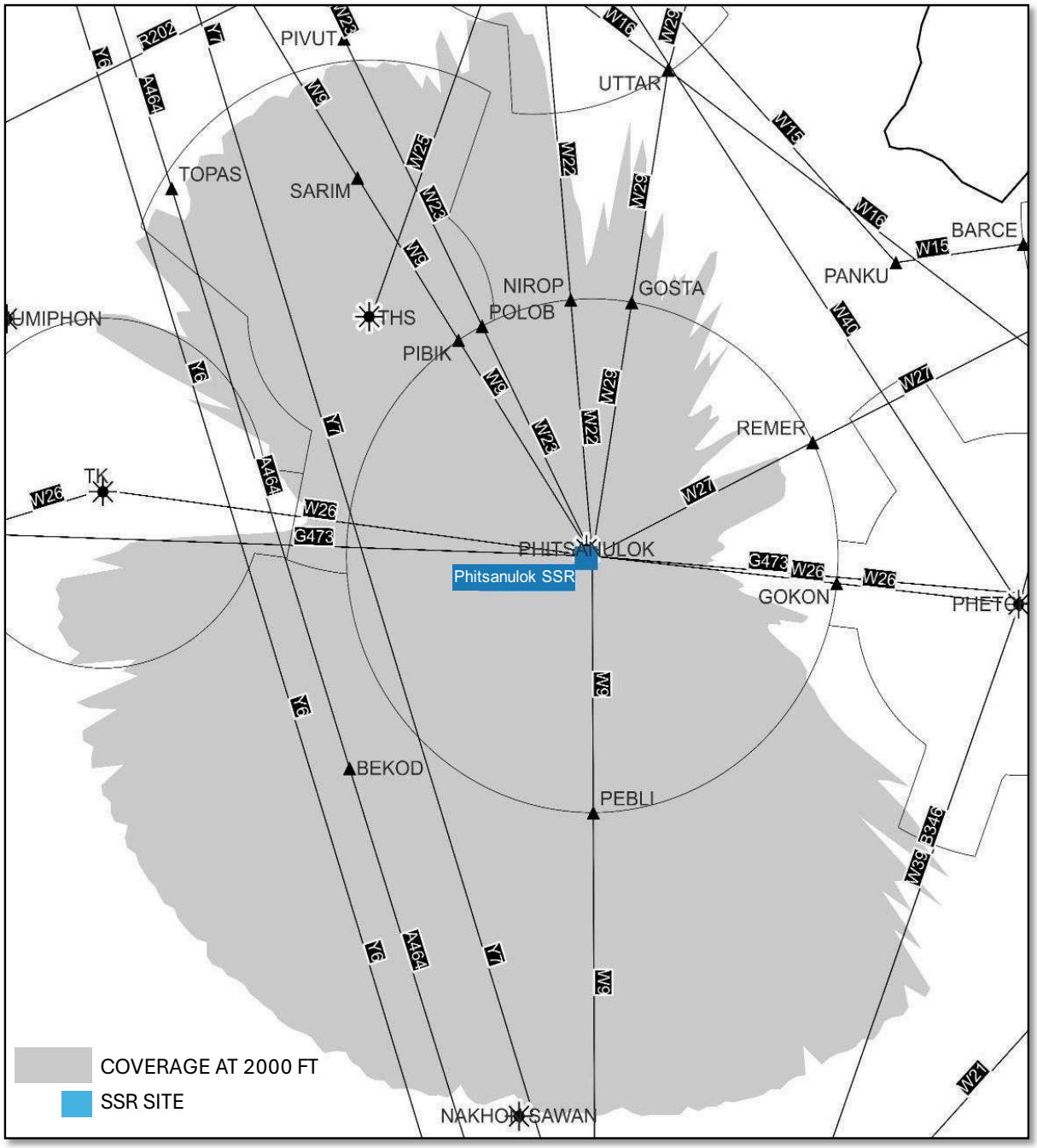
Area of Theoretical SSR Coverage

Figure ENR 1.6 -H– Chumphon SSR Station Coverage at 2000 FT



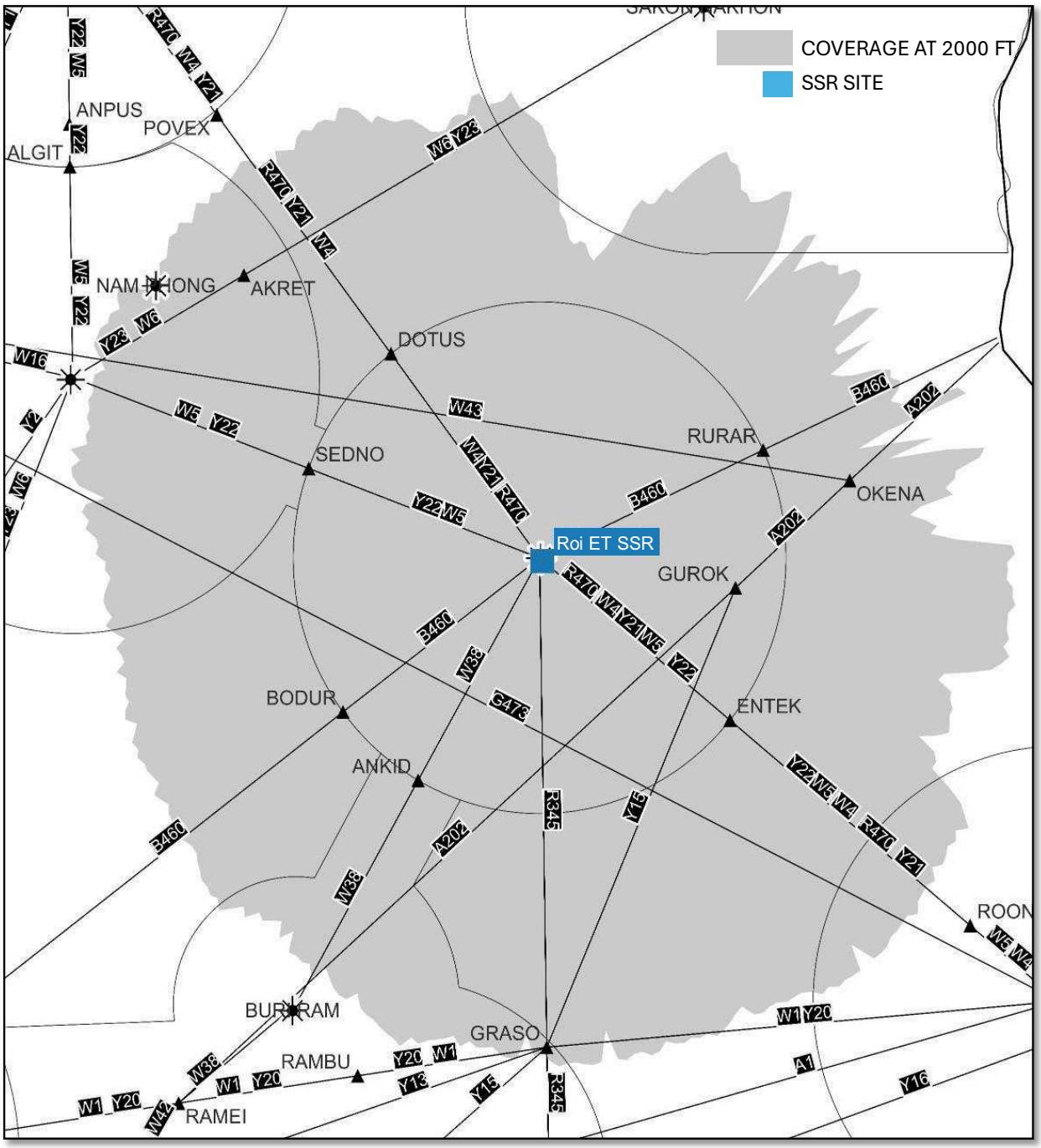
Area of Theoretical SSR Coverage

Figure ENR 1.6 -I– Phitsanulok SSR Station Coverage at 2000 FT



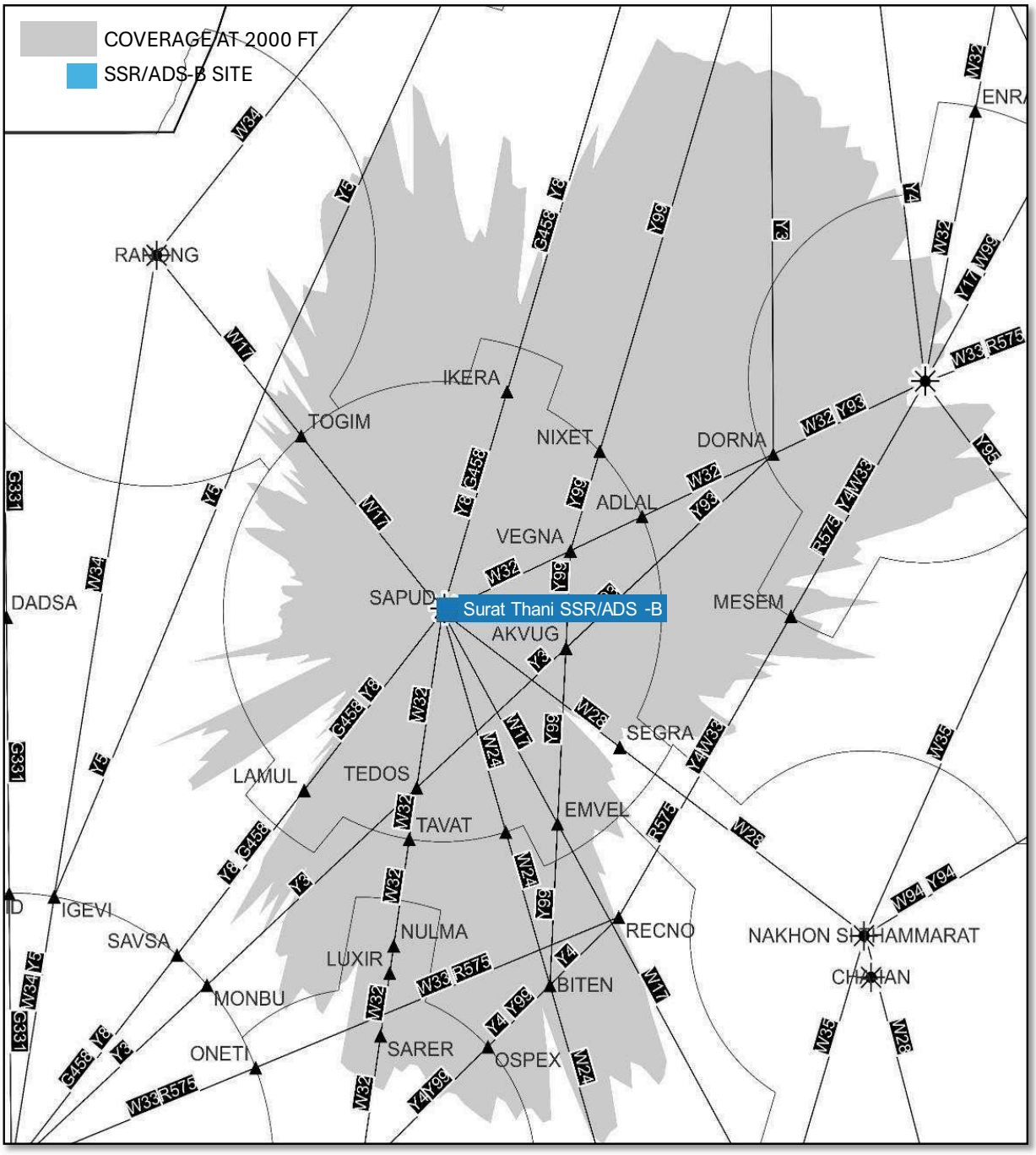
Area of Theoretical SSR Coverage

Figure ENR 1.6 -J– Roi Et SSR Station Coverage at 2000 FT



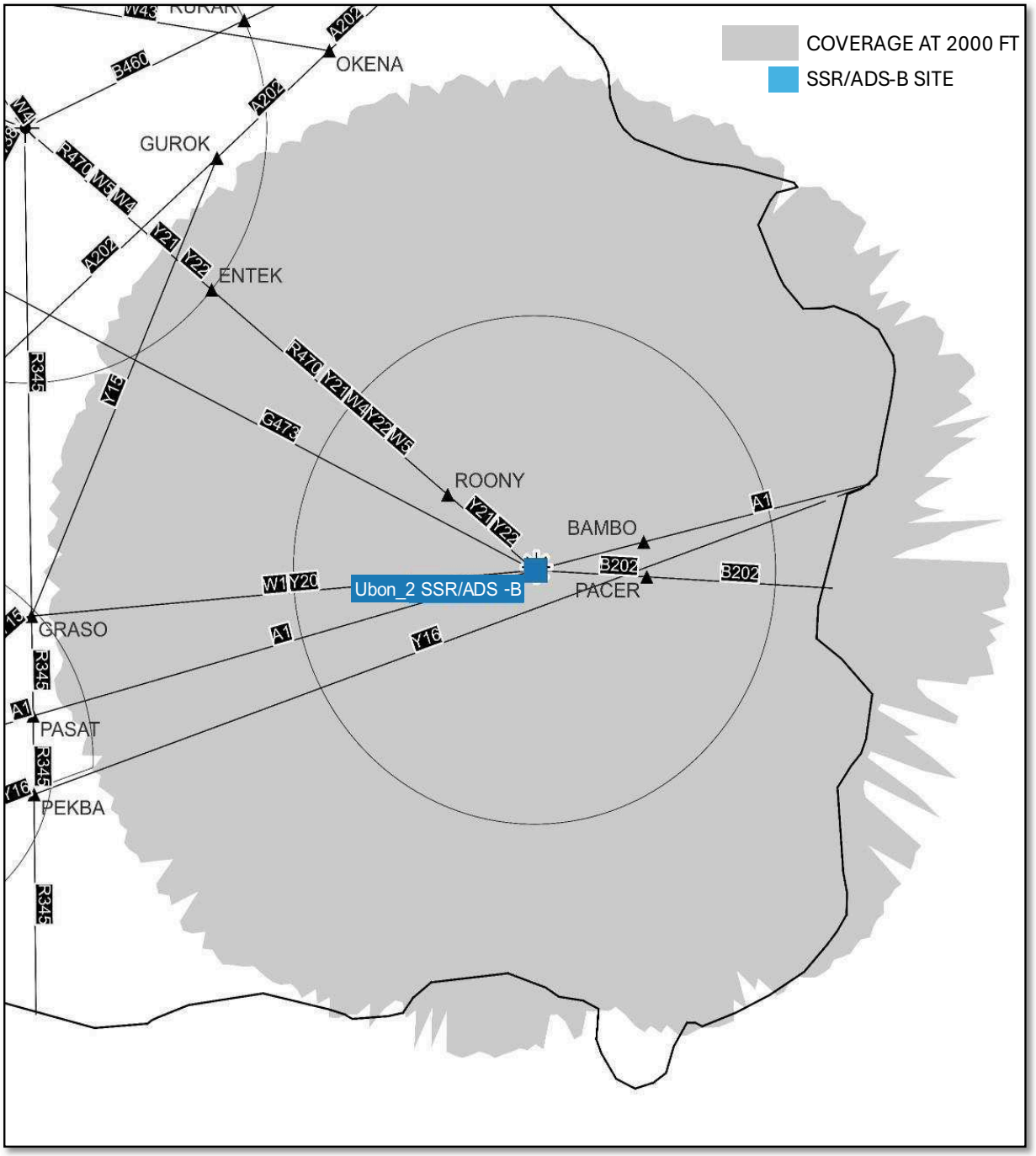
Area of Theoretical SSR/ADS-B Coverage

Figure ENR 1.6 -K– Surat Thani SSR/ADS-B Station Coverage at 2000 FT



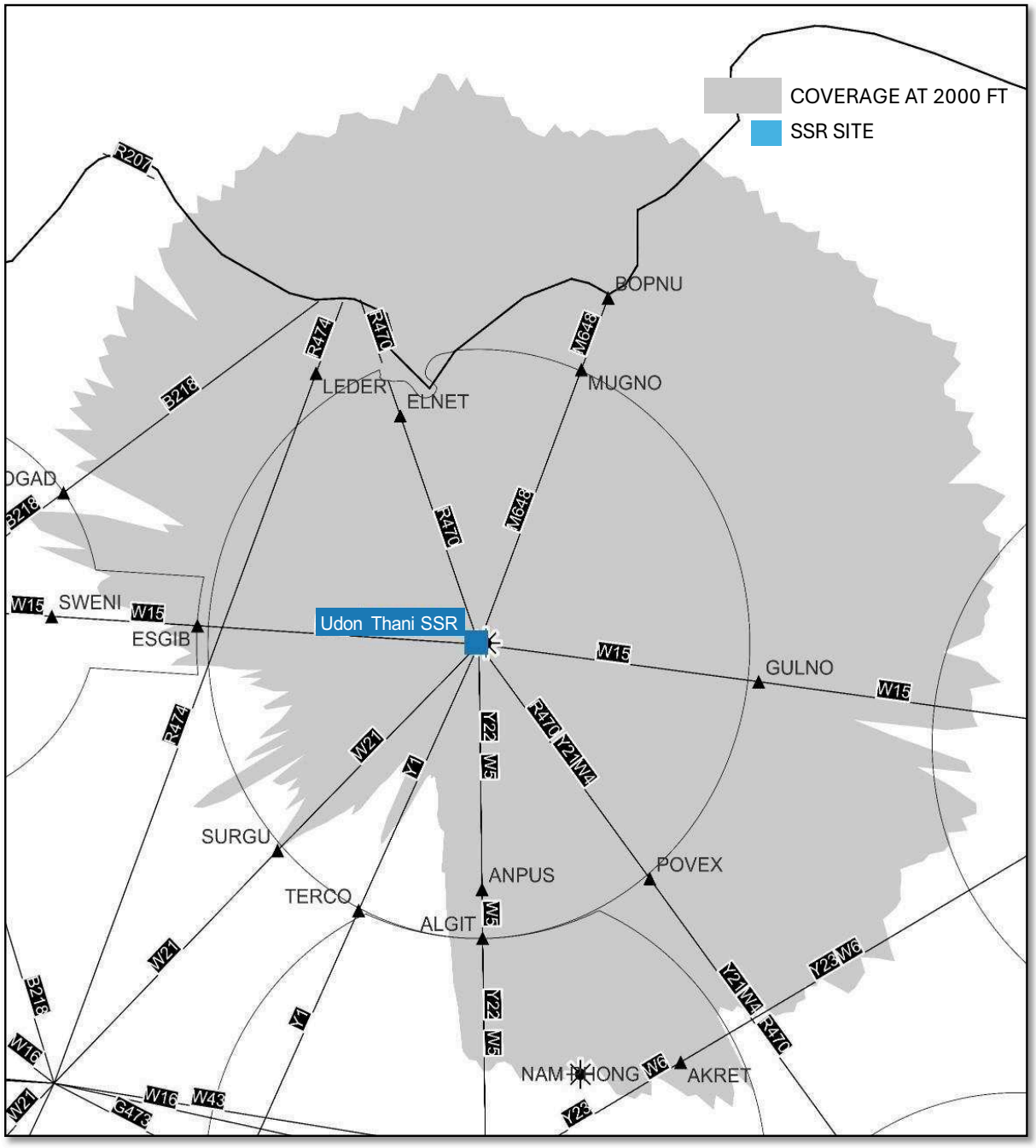
Area of Theoretical SSR/ADS-B Coverage

Figure ENR 1.6 -L– Ubon Ratchathani_2 SSR/ADS-B Station Coverage at 2000 FT



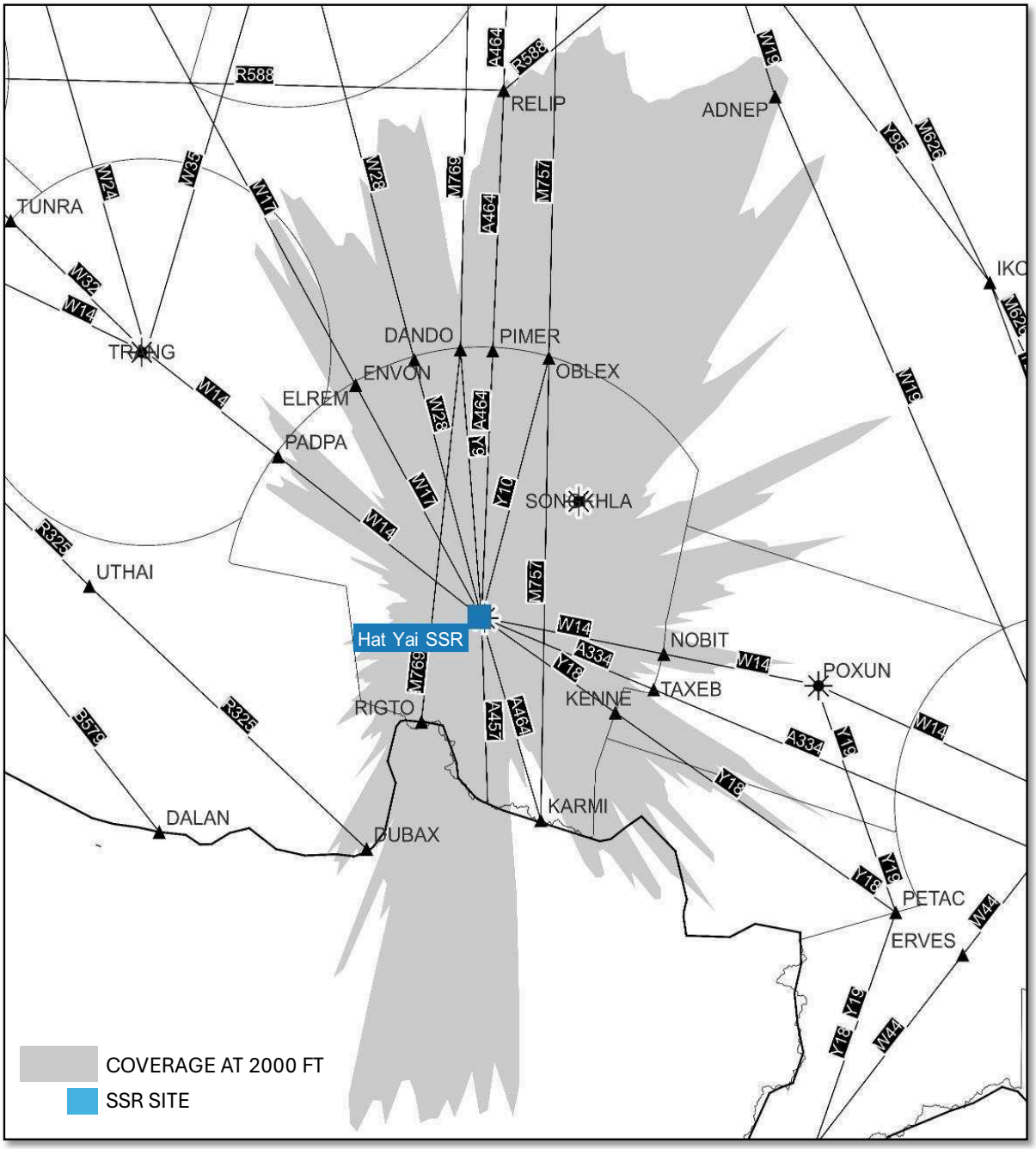
Area of Theoretical SSR Coverage

Figure ENR 1.6 -M– Udon Thani SSR Station Coverage at 2000 FT



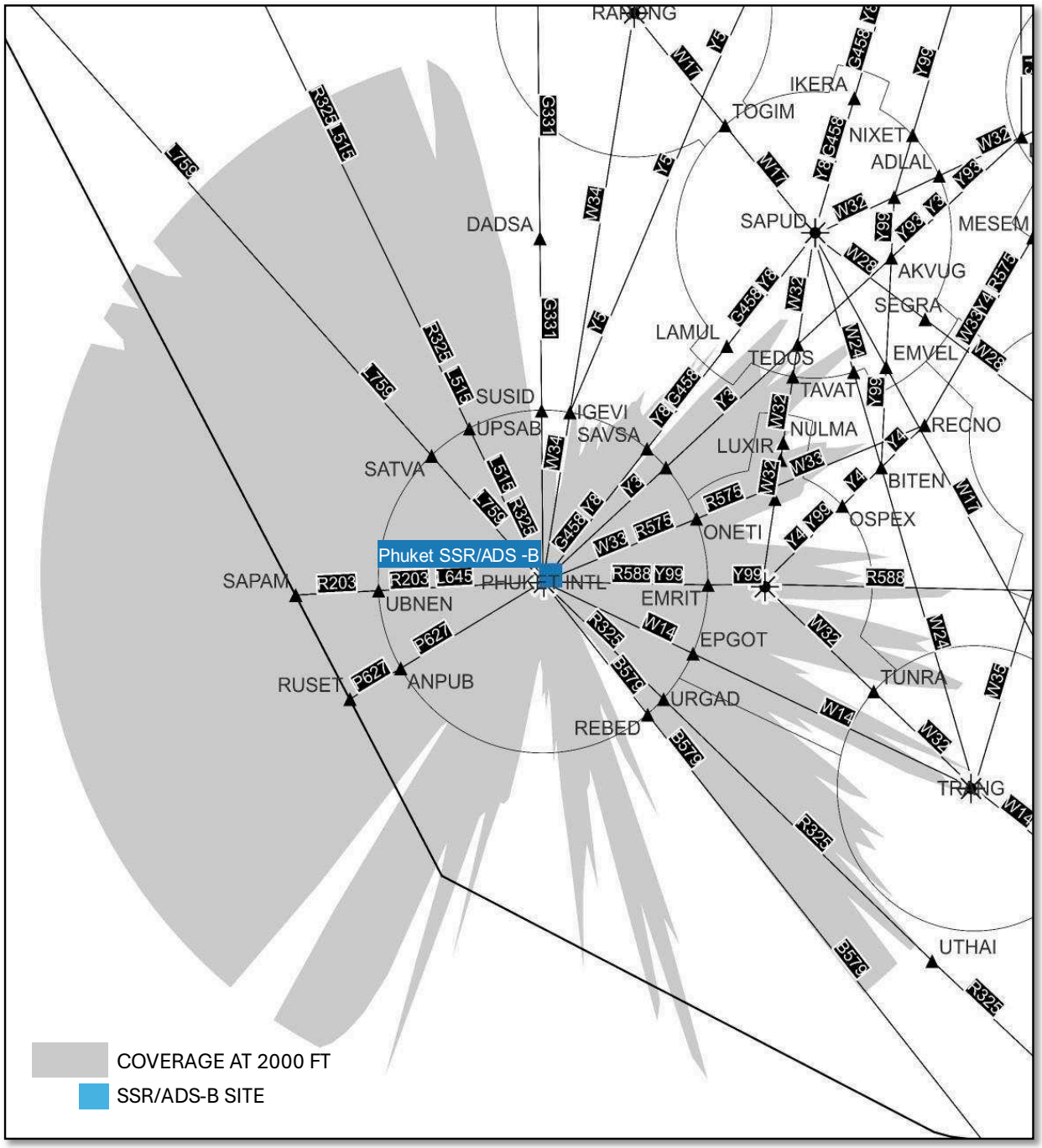
Area of Theoretical SSR Coverage

Figure ENR 1.6 -N– Hat Yai SSR Station Coverage at 2000 FT



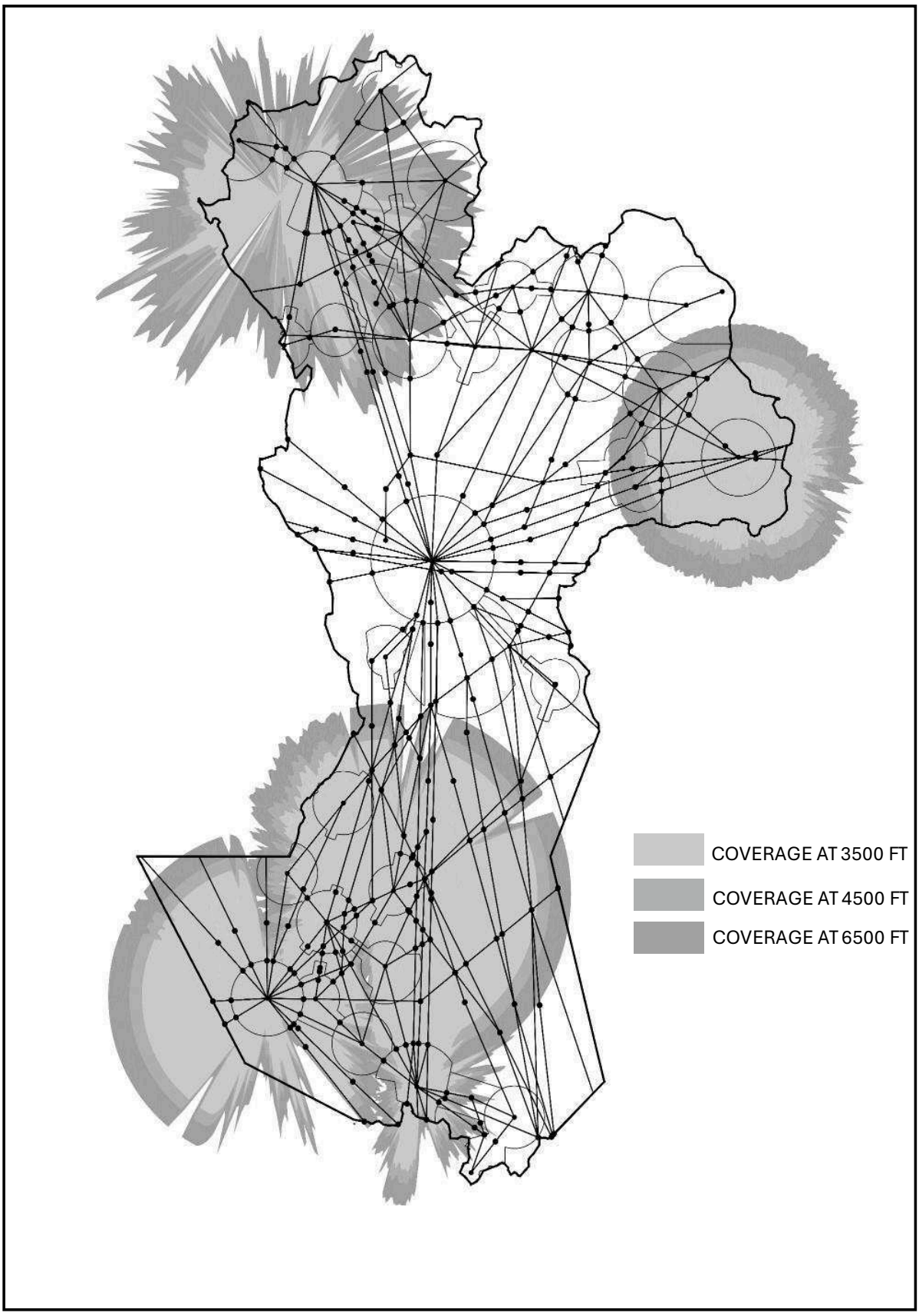
Area of Theoretical SSR/ADS-B Coverage

Figure ENR 1.6 -O– Phuket SSR/ADS-B Station Coverage at 2000 FT



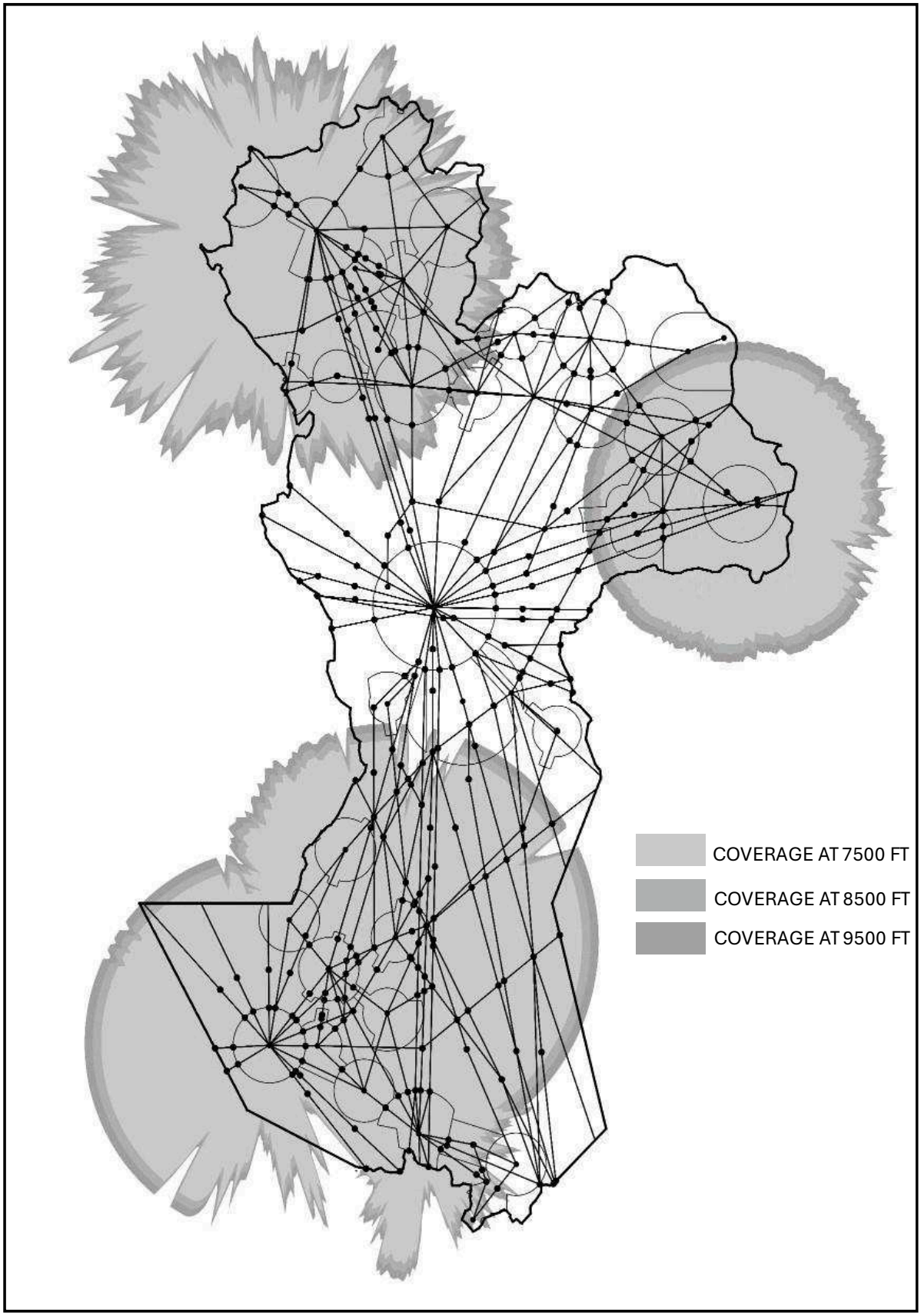
Area of Theoretical ADS-B Coverage

Figure ENR 1.6 -P - Coverage at 3500 FT 4500 FT 6500 FT



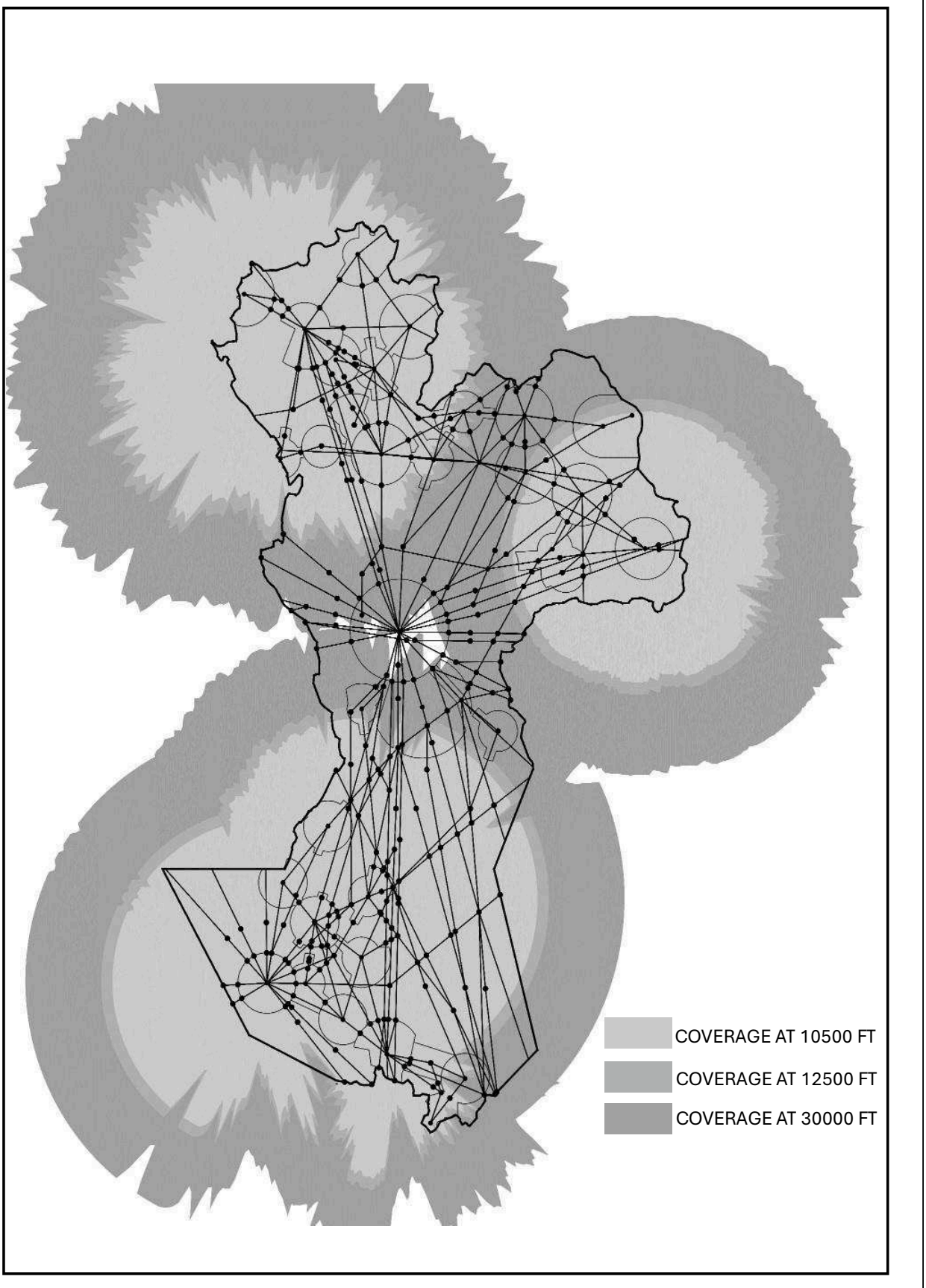
Area of Theoretical ADS-B Coverage

Figure ENR 1.6 -Q - Coverage at 7500 FT 8500 FT 9500 FT



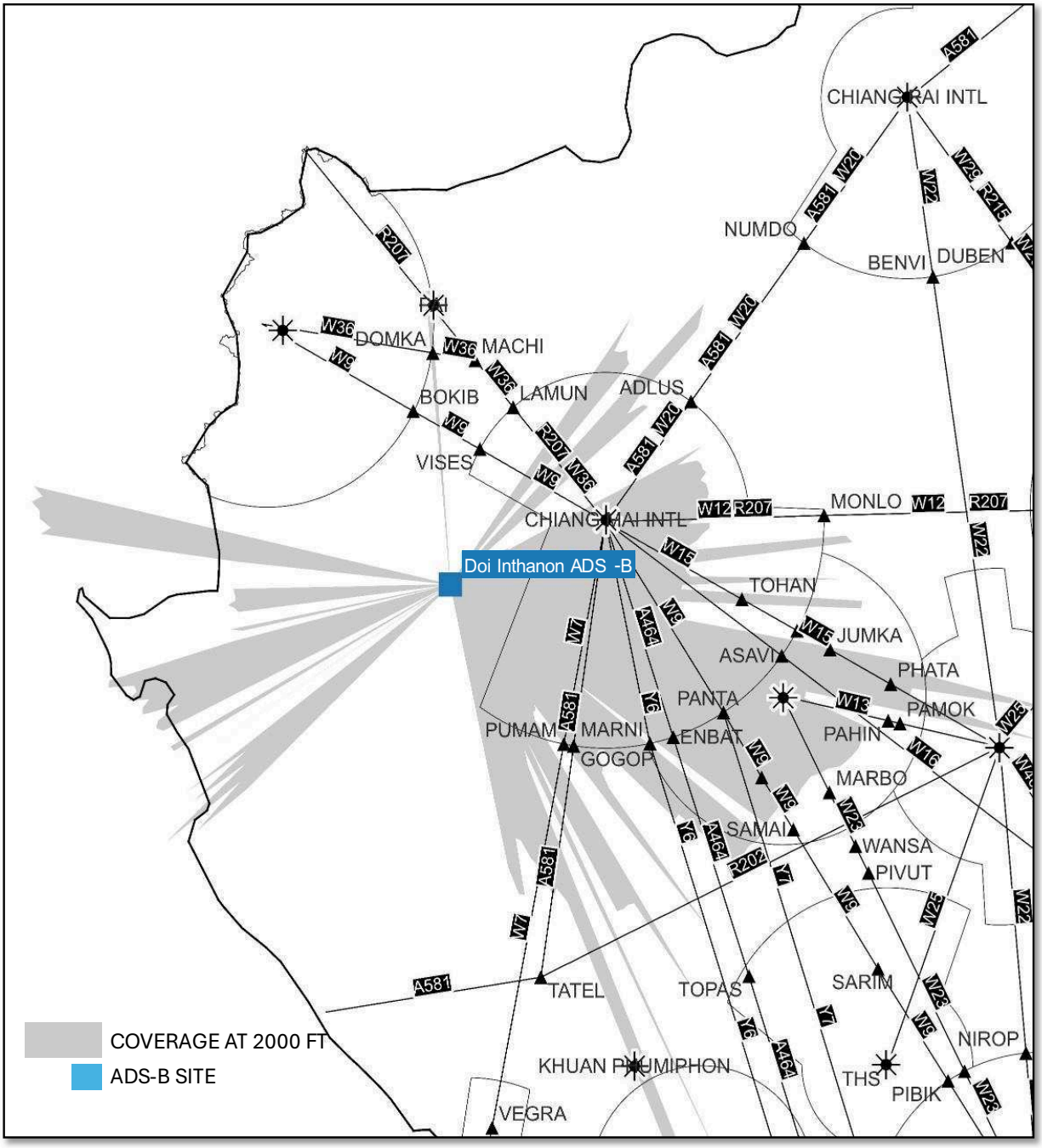
Area of Theoretical ADS-B Coverage

Figure ENR 1.6 -R - Coverage at 10500 FT 12500 FT 30000 FT



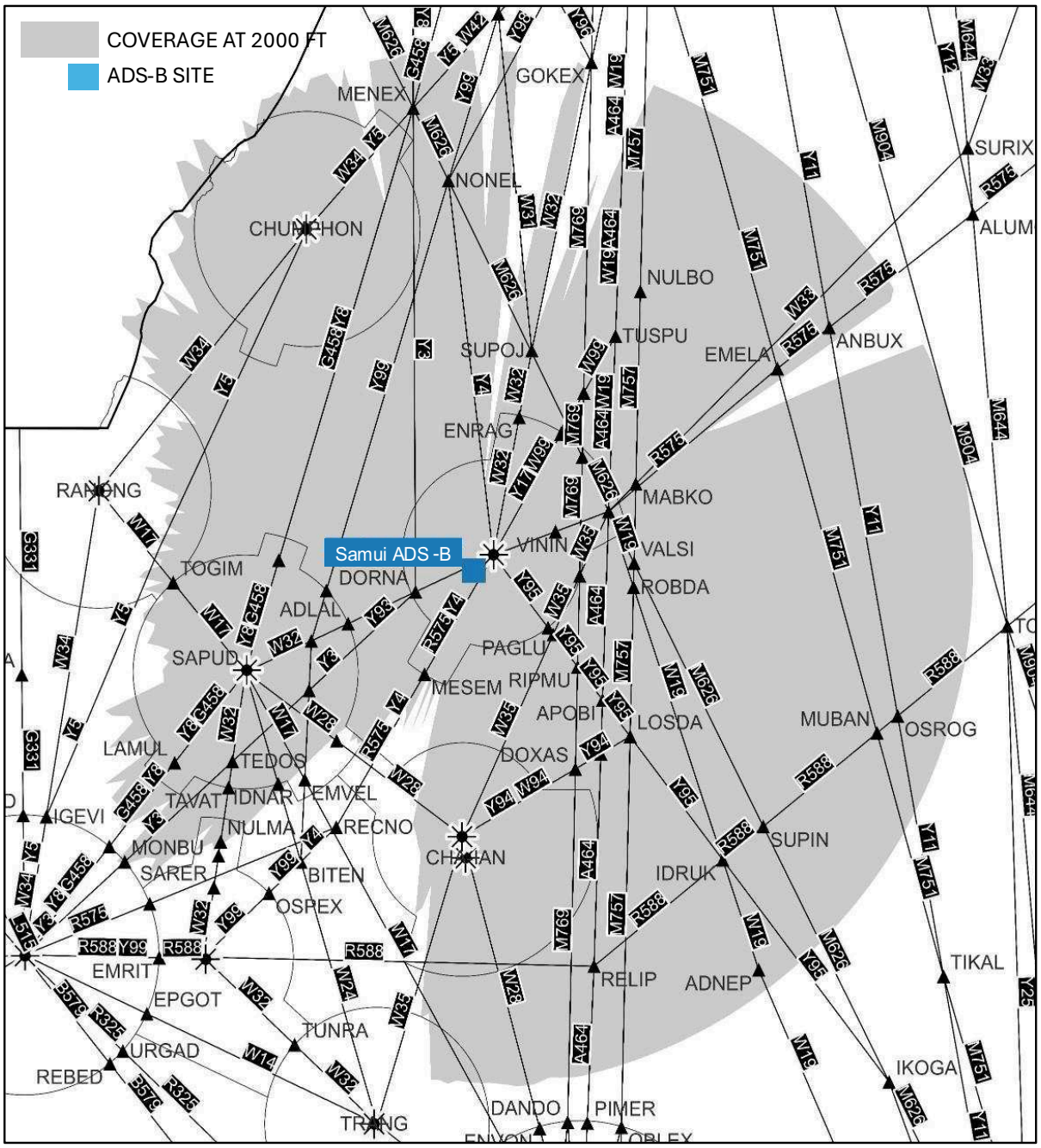
Area of Theoretical ADS-B Coverage

Figure ENR 1.6 -S – Doi Inthanon ADS -B Station Coverage at 2000 FT



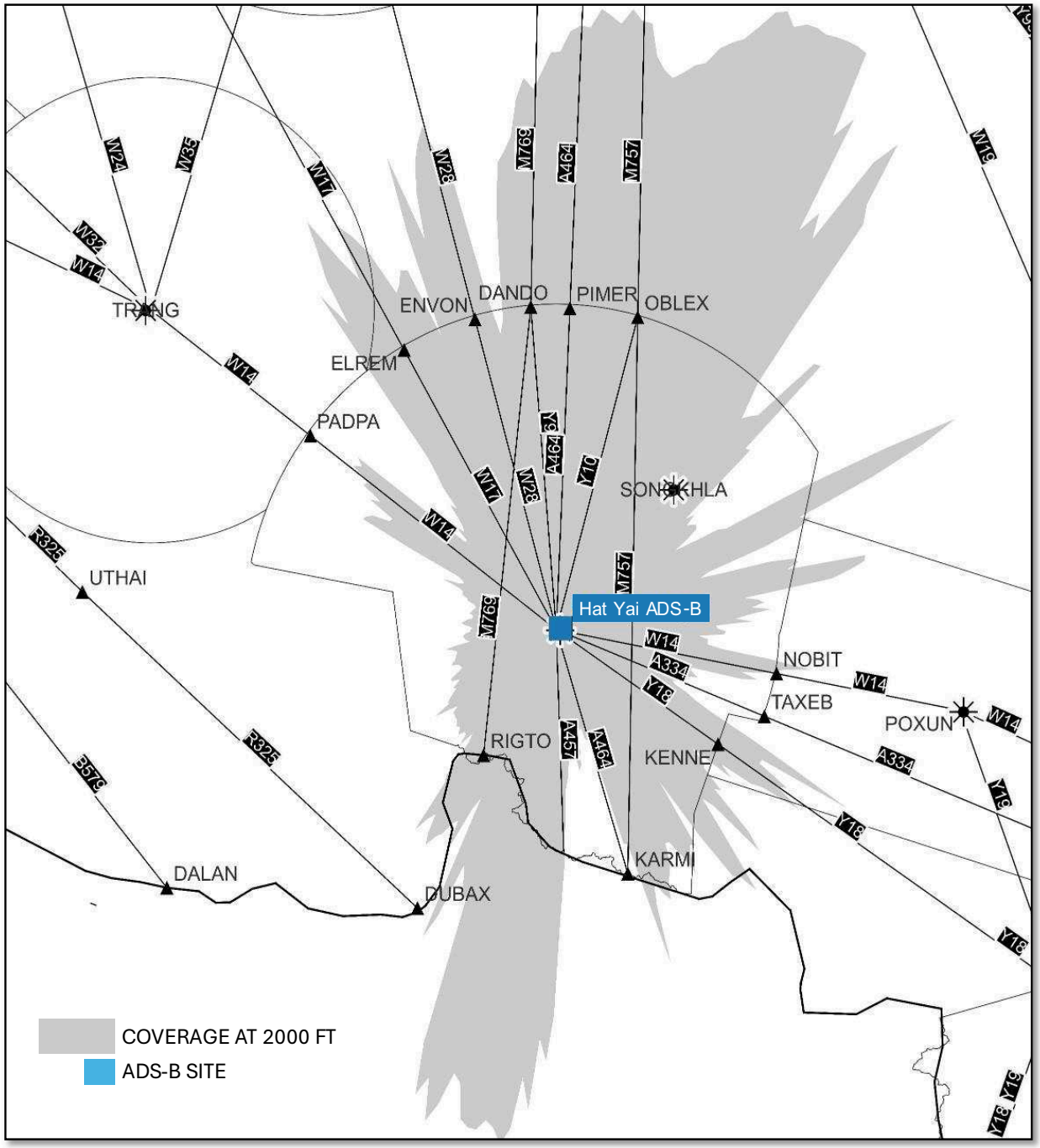
Area of Theoretical ADS-B Coverage

Figure ENR 1.6 -T – Samui ADS-B Station Coverage at 2000 FT



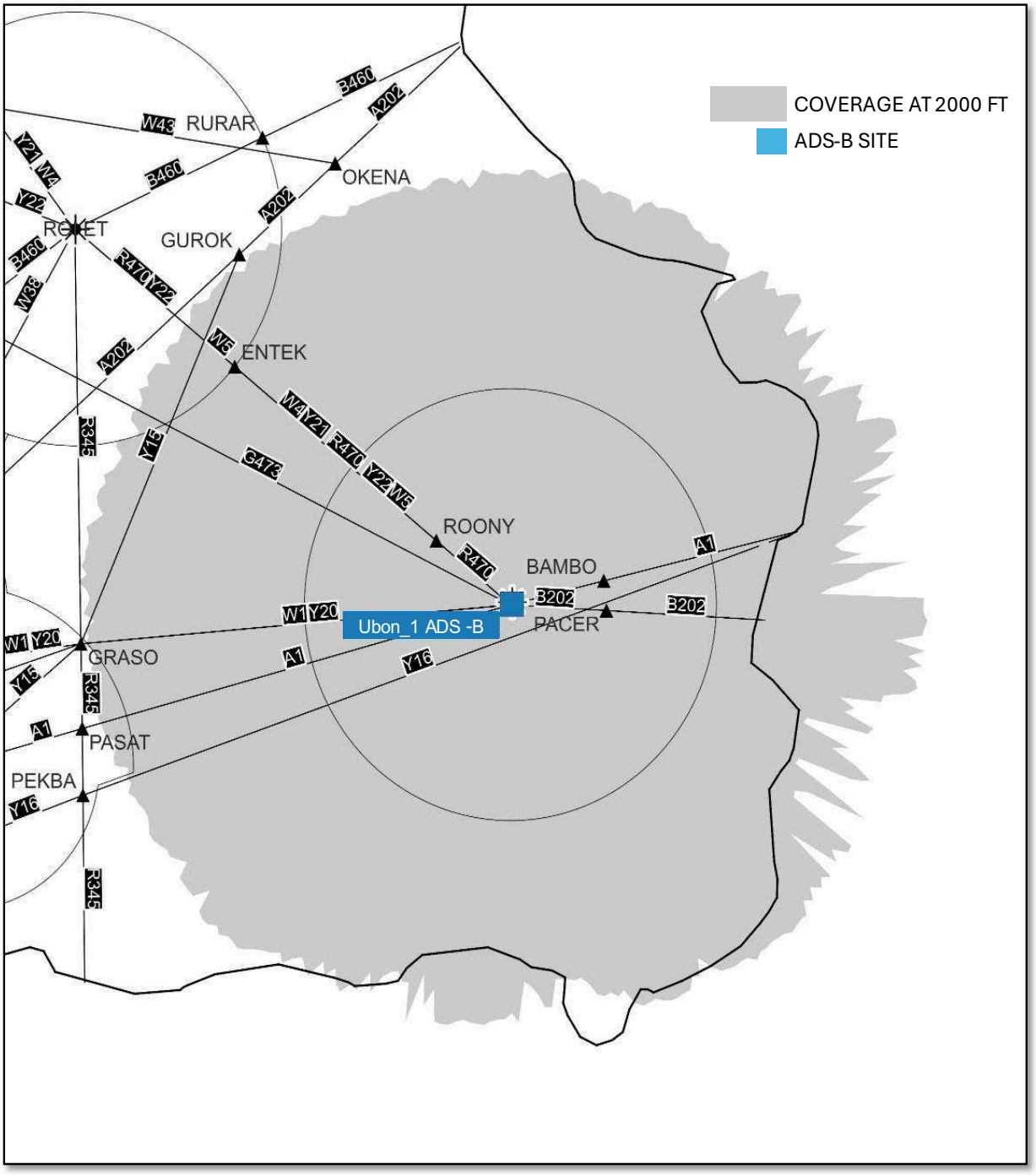
Area of Theoretical ADS-B Coverage

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: i. on the initial call on any frequency within the RVSM airspace (controllers shall provide and readback with this same phrase), and ii. in all requests for flight level changes pertaining to flight levels within the RVSM airspace; and iii. in all read-backs to flight level clearances pertaining to flight levels within the RVSM airspace 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 1. Making maximum use of exterior lights; 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. 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. 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 2. If the pilot requests clearance to exit RVSM airspace, accommodate expeditiously, if possible. 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. 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 1. Making maximum use of exterior lights; 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. 2. Requesting ATC clearance to climb above or descend below RVSM airspace if ATC cannot establish adequate separation from other aircraft. 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. 2. If the pilot requests clearance to exit RVSM airspace, accommodate expeditiously, if possible. 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. 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 1. Making maximum use of exterior lights; 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. 2. Requesting flight level change, if necessary. 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. 2. If unable to provide adequate separation, advise the pilot of essential traffic information and request pilot's intentions. 3. Notify other aircraft in the vicinity and continue to monitor the situation. 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 Other levels available with prior approval
L880 / L628 (EB) L628	EB – FL330, FL370, FL410 WB – FL280, FL340
N891	SB – FL330 NB – FL260, FL300, FL380
A1	EB – FL290, FL330, FL370, FL390, FL410 WB – FL280, FL300, FL340, FL380, FL400
N506 / M768 (EB) M768	EB – FL270, FL330, FL410 WB – FL300, FL380
A202	EB – FL290, FL330, FL370, FL390, FL410 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.

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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 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.

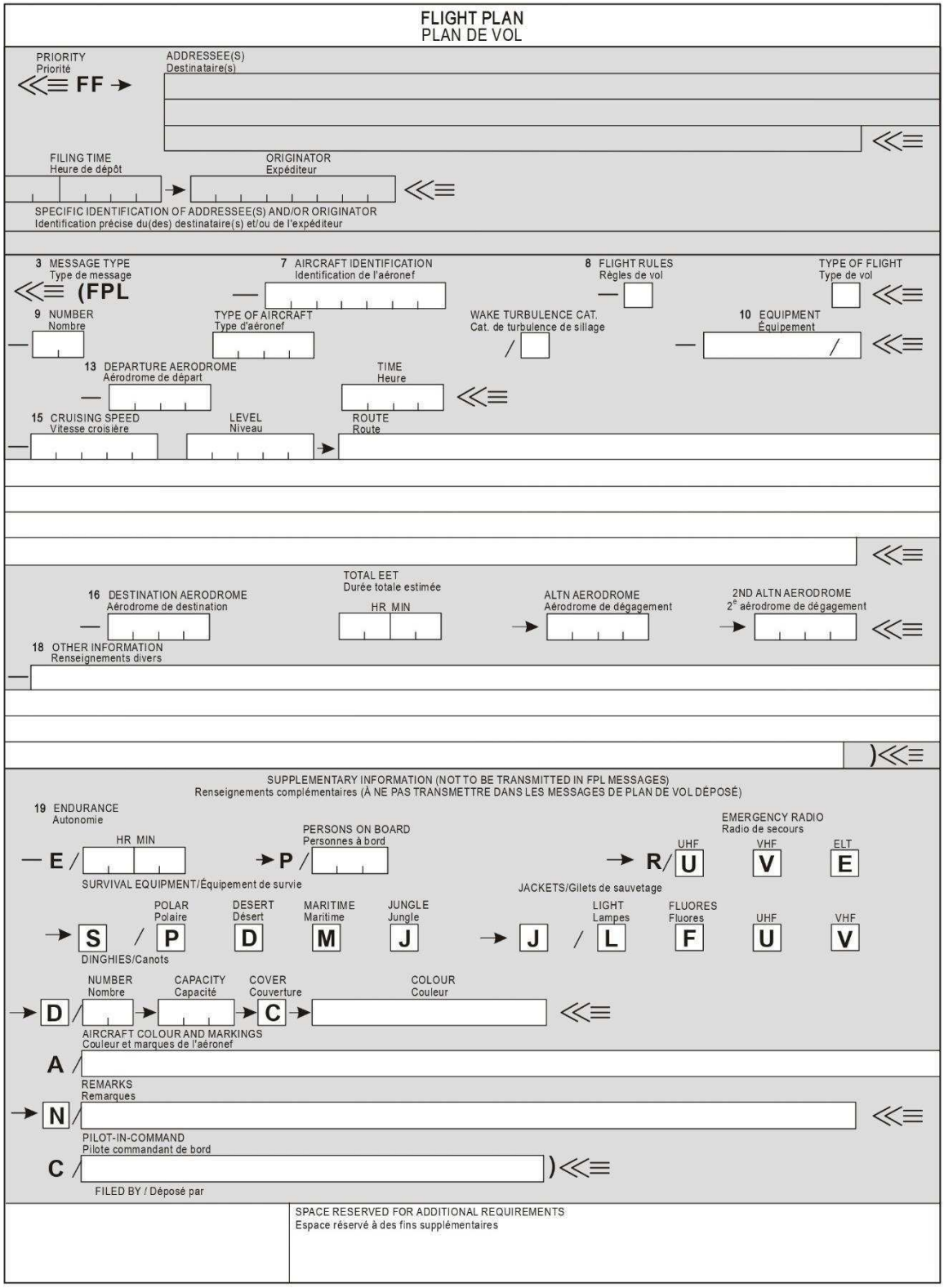
1.4 Contents and form of a flight plan

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 1. Available when VT D58 is active 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 (2) KASNI M757 MABKO W33 UPNEP W35 NKS (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 (2) …BKK M757 MABKO W33 UPNEP W35 NKS (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 (when VT D59 is not active) or (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… (when VT D59 is not active) or (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 (2) ENRAG W32 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI (when VTD60 is not active)
47		VTBS	(1) OLBAG Y17 DONSI M769 LEBIM or (2) ENRAG W32 GOKEX M769 LEBIM (when VT D60 is not active)
48		Overfly BKK	(1) OLBAG Y17 DONSI M769 BKK…or (2) ENRAG W32 GOKEX M769 BKK… (when VT D60 is not active)
49	VTSF	VTBD	(1) NKS Y94 DOXAS M769 GOKEX Y96 EMTIX Y99 HOTEL DCT SABAI or (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 (2) NKS W35 PINUN M769 LEBIM (when VT D60 is not active)
51		Overfly BKK	(1) NKS Y94 DOXAS M769 BKK…or (2) NKS W35 PINUN M769 BKK … (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 (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 (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 (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 (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) (2) UKERA G458 MENEX W34 CPN (for jet aircraft)
9		VTSR	(1) HOTEL G458 MENEX W34 RAN (for propeller aircraft) (2) UKERA G458 MENEX W34 RAN (for jet aircraft)
10		VTSB	(1) HOTEL G458 IKERA (for propeller aircraft) (2) UKERA G458 IKERA (for jet aircraft)
11		VTSG	(1) HOTEL G458 SAPUD W32 NULMA (for propeller aircraft) (2) UKERA G458 SAPUD W32 NULMA (for jet aircraft)
12		VTSP	(1) HOTEL G458 SAVSA (for propeller aircraft) (2) UKERA G458 SAVSA (for jet aircraft)
13		Overfly PUT	(1) HOTEL G458 PUT… (for propeller aircraft) (2) UKERA G458 PUT… (for jet aircraft)
14		VTST	(1) HOTEL G458 SAPUD W24 TRN (for propeller aircraft) (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 (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 (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 (2) ENRAG W32 REGOS A464 GUTSO DCT SABAI (when VT D60 is not active)
51		VTBS	(1) OLBAG W99 TUSPU A464 GUTSO DCT LEBIM or (2) ENRAG W32 REGOS A464 GUTSO DCT LEBIM (when VT D60 is not active)
52		Overfly BKK	(1) OLBAG W99 TUSPU A464 BKK …or (2) ENRAG W32 REGOS A464 BKK …

	FROM	TO	ROUTE
53	VTSF	VTBD	(1) NKS W94 GUPMO A464 GUTSO DCT SABAI or (2) NKS W35 UPNEP A464 GUTSO DCT SABAI (when VT D60 is not active)
54		VTBS	(1) NKS W94 GUPMO A464 GUTSO DCT LEBIM or (2) NKS W35 UPNEP A464 GUTSO DCT LEBIM (when VT D60 is not active)
55		Overfly BKK	(1) NKS W94 GUPMO A464 …or (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 (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 (2) ENRAG W32 REGOS W42 ASEKU DCT BUT (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 (2) ENRAG W32 SUPOJ W31 HHN (when VT D60 is not active)
10	VTPH	VTSM	(1) HHN W31 SUPOJ DCT UPNEP W33 SMU or (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 (between GOLUD-MUBAN)	Northbound	Even	(1) From Kuala Lumpur FIR to Bangkok FIR (2) Not available for aircraft destination VTBD and VTBS
M904 (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 (2) RYN M644 TONIK M904 TIDAR (when VT D71 is active)
5		Overfly PASVA	(1) KIGOB Y11 PASVA or (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 (2) RYN M644 TONIK M904 TIDAR (when VT D71 is active)
10		Overfly PASVA	(1) BUT Y11 PASVA or (2) BUT M904 PIDEL Y11 PASVA or (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 (2) …BKK N891 RYN M644 TONIK M904 TIDAR (when VT D71 is active)
15		Overfly PASVA	(1) …BKK Y11 PASVA or (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 (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 (2) VAPVU P629 MUBUS DCT BONVO M502
24	Overfly TIDAR	VTBD	(1) TIDAR M904 TONIK M644 ALUMO Y12 ALEMI DCT SEHNA or (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 (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 (2) ABTOK M644 RYN DCT SEHNA (when VT D71 is active)
28		VTBS	(1) ABTOK M644 ALUMO Y12 ALEMI DCT TUMGA or (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 (Between BKK and UBL)	Eastbound	Odd	-
A464	Bi-directional	-	Available from FL250 and below
L524 (between KAMKO and BKK)	Eastbound	Odd	See note (3)
L877	Eastbound	Odd	Available for aircraft destination VTBD or VTBS only
L301 (between DWI and BKK)	Bi-directional(1)	-	- Available for overfly BKK DVOR (Bidirectional) and departing aircraft from VTBD or VTBS (Westbound) - Eastbound aircraft destination VTBD or VTBS shall file DWI L877 MIGAR L524 on flight plan
M502 (between AKATO and BKK)	Bi-directional(2)	-	
W1 (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 (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/ VTUI/VTUW	ROBKA A1 SELKA Y14 KRT Y23 KKN Y23/Y22
		VTUV/VTUO	ROBKA A1 TOPER W42 RAMEI W38
		Westbound (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 BENDY-EVEN	-
		BENDY-- 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 (2) ALBOS R474 VTN (available when VT D34 active but VTD 43 not active) or (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 (2) ALBOS R474 CMP W26 (available when VT D34 active but VT D43 not active) or (3) RIVDU Y27 PIBAN Y29 W26 (when VT D 34 and VT D43 active)
	VTPM	(1) OLVUK Y26 NUVLU Y30 URGUM or (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 (2) ALBOS R474 CMP B218 (available when VT D34 active but VT D43 not active) or (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 (2) ALBOS R474 CMP W21 SURGU (available when VT D43 not active) or (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 (2) ALBOS R474 (available when VT D43 not active) or (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 (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 (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 (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 (2) B218 CMP W21 NAKON (available when VT D34 active)
	VTBS	(1) W39 NORTA (available when VT D34 not active) or (2) B218 CMP W21 NORTA (available when VT D34 active)
	Overfly BKK	(1) W39 BKK (available when VT D34 not active) or (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 MARNI
	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 (2) ALBOS R474 CMP W21 SURGU (available when VT D43 not active) or (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 (2) ALBOS R474 CMP B218 (available when VT D34 active but VT D43 not active) or (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 (2) ALBOS R474 (available when VT D43 not active) or (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 (2) ALBOS R474 VTN (available when VT D34 active but VTD 43 not active) or (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 (2) ALBOS R474 CMP W26 (available when VT D34 active but VT D43 not active) or (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 (2) B218 CMP W21 NAKON (available when VT D34 active)
	VTBS	1) W39 NORTA (available when VT D34 not active) or (2) B218 CMP W21 NORTA (available when VT D34 active)
	Overfly BKK	(1) W39 BKK (available when VT D34 not active) or (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 (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 (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 (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 (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 ***Note 1:*** *Meteorological conditions or terrain may required the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.* ***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. ***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) * _____

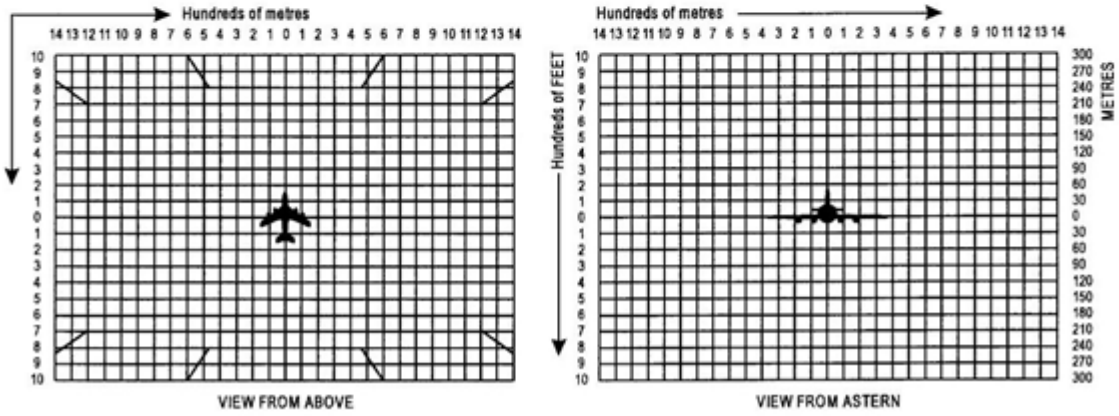
   b) Report received by _____ (name of ATS unit)

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 Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
BANGKOK FLIGHT INFORMATION REGION 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. UNL / GND	Bangkok ACC	Bangkok Control (English, Thai) H24		
WIDTH OF AIRWAYS **AIRWAYS WITHIN BANGKOK FIR** 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. **AIRWAYS WITHIN BANGKOK AREA OF RESPONSIBILITY** The width of airways within Bangkok area of responsibility (AOR) is 50 NM CONTROL AREAS **ALFA CONTROL AREA** The airspace within a circle of 50 NM radius centred on 135452.0N1003620.0E. FL 460 / FL 285 Class of airspace: A BELOW FL 285 / ABOVE FL 160 Class of airspace: B **VFR FLIGHT IN ALFA CONTROL AREA** 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 (English, Thai) H24		Excluding VTD16, VTD19 and VTD47

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
BANGKOK AREA CONTROL CENTRE SECTOR ORGANIZATION ***BANGKOK AREA CONTROL CENTRE IS DIVIDED INTO 12 SECTORS AS FOLLOWS:*** **SECTOR 1N** An area bounded by 162305.20N 0985436.80E - then clockwise along Bangkok/Yangon FIR boundary and Bangkok/Vientiane FIR boundary to 173356.83N 1010000.00E - 170000.00N 1004517.30E - then along the clockwise arc of 30 NM radius centred on PSL DVOR/DME (164613.3N 1001729.0E) to 163201.74N 1004502.60E - 161748.43N 1004455.31E - 162305.20N 0985436.80E FL460 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	124.5 MHZ 256.3 MHZ 121.5 MHZ/EMERG	
SECTOR 2N An area bounded by 161748.43N 1004455.31E - 163201.74N 1004502.60E - then along the clockwise arc of 30 NM radius centred on PSL DVOR/DME (164613.3N 1001729.0E) to 170000.00N 1004517.30E - 173356.83N 1010000.00E - then clockwise along Bangkok/Vientiane FIR boundary to 175851.00N 1030000.00E - 160948.00N 1030000.00E - 161329.40N 1020259.40E - 161748.43N 1004455.31E FL460 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	126.5 MHZ 121.5 MHZ/EMERG	
SECTOR 3N An area bounded by a straight lines joining the following points 135506.00N 1003548.10E - 162305.20N 0985436.80E - 161748.43N 1004455.31E - 161329.40N 1020259.40E - 135506.00N 1003548.10E FL460 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	128.1 MHZ 263.8 MHZ 121.5 MHZ/EMERG	
SECTOR 4N An area bounded by 133006.00N 0991248.80E then clockwise along Bangkok/Yangon FIR boundary to 162305.20N 0985436.80E - 135506.00N 1003548.10E - 133006.00N 0991248.80E FL460 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	120.95 MHZ 121.5 MHZ/EMERG	

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
SECTOR 5N An area bounded by 141302.00N 1030000.00E - 160948.00N 1030000.00E - 175851.00N 1030000.00E - then clockwise along Bangkok/Vientiane FIR boundary and Bangkok/Phnom Penh FIR boundary to 141302.00N 1030000.00E FL460 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	132.1 MHZ 268.5 MHZ 121.5 MHZ/EMERG	
SECTOR 6N An area bounded by 135506.00N 1003548.10E - 161329.40N 1020259.40E - 160948.00N 1030000.00E - 141302.00N 1030000.00E - 135506.00N 1003548.10E FL460 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	133.1 MHZ 285.3 MHZ 121.5 MHZ/EMERG	
SECTOR 1S An area bounded by 114006.50N 0993448.70E - then clockwise along Bangkok/Yangon FIR boundary to 133006.00N 0991248.80E - 135506.00N 1003548.10E - 132006.10N 1004948.10E - 124106.30N 1004948.10E - 122500.00N 1005105.00E - 104130.00N 1012502.00E - 110006.80N 1005948.10E - 112906.60N 0995948.50E - 114006.50N 0993448.70E FL460 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	120.5 MHZ 256.6 MHZ 121.5 MHZ/EMERG	
SECTOR 2S An area bounded by 102334.00N 0984513.60E - then clockwise along Bangkok/Yangon FIR boundary to 114006.50N 0993448.70E - 112906.60N 0995948.50E - 110006.80N 1005948.10E - 104130.00N 1012502.00E - 100244.00N 1013740.60E - 090239.80N 1000012.90E - 102334.00N 0984513.60E FL460 FL270	Bangkok ACC	Bangkok Control (English, Thai) H24	118.35 MHZ 121.5 MHZ/EMERG	

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
SECTOR 3S An area bounded by 100006.90N 0974918.00E - 100006.90N 0983849.20E - then clockwise along Bangkok/Yangon FIR boundary to 102334.00N 0984513.60E - 090239.80N 1000012.90E - 064716.80N 1000000.00E - 080654.83N 0981822.69E (PUT DVOR/DME) - 100006.90N 0974918.00E FL460 GND and an area bounded by 102334.00N 0984513.60E - then clockwise along Bangkok/Yangon FIR boundary to 114006.50N 0993448.70E - 112906.60N 0995948.50E - 090239.80N 1000012.90E - 102334.00N 0984513.60E up to but not including FL270 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	125.7 MHZ 268.5 MHZ 121.5 MHZ/EMERG	
SECTOR 4S An area bounded by 100006.90N 0962950.10E - 100006.90N 0974918.00E - 080654.83N 0981822.69E (PUT DVOR/DME) - 064716.80N 1000000.00E - 063844.42N 1001050.18E - then clockwise along Bangkok/Kuala Lumpur FIR boundary to 063007.90N 0992948.90E - 071507.70N 0975949.50E - 100006.90N 0962950.10E FL460 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	133.9 MHZ 121.5 MHZ/EMERG	
SECTOR 5S An area bounded by 100244.00N 1013740.60E - 104130.00N 1012502.00E - 122500.00N 1005105.00E - 124106.30N 1004948.10E - 132006.10N 1004948.10E - 135506.00N 1003548.10E - 141302.00N 1030000.00E - then clockwise along Bangkok/Phnom Penh FIR boundary to 113654.00N 1030000.00E - 100000.00N 1021500.00E - 100244.00N 1013740.60E FL460 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	135.5MHZ 285.5MHZ 121.5 MHZ/EMERG	

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
SECTOR 6S An area bounded by 063844.42N 1001050.18E - 064716.80N 1000000.00E - 090239.80N 1000012.90E - 100244.00N 1013740.60E - 100000.00N 1021500.00E - 070000.00N 1030000.00E - 064500.00N 1024000.00E - 061500.00N 1021500.00E - then clockwise along Bangkok/Kuala Lumpur FIR boundary to 063844.42N 1001050.18E FL460 GND and an area bounded by 112906.60N 0995948.50E - 110006.80N 1005948.10E - 104130.00N 1012502.00E - 100244.00N 1013740.60E - 090239.80N 1000012.90E - 112906.60N 0995948.50E up to but not including FL270 GND	Bangkok ACC	Bangkok Control (English, Thai) H24	123.95 MHZ 265.9 MHZ 121.5 MHZ/EMERG	

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
BANGKOK TERMINAL CONTROL AREA The airspace within a circle of 50 NM radius centred on VTBD ARP (135451.74N 1003620.49E). FL 160 3000 FT Class of airspace: C Sectorization of air traffic the Bangkok TMA is divided into 10 sectors as follows: **1. Approach East 1 (APE 1) Sector** 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. This sector encompasses ATS and RNAV routes: W1, A202, A1, Y1, Y2, Y13 and Y16. Aircraft operating in this sector shall contact BAPP on frequency 119.1 MHz or 262.5 MHz. **2. Approach East 2 (APE 2) Sector** 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. This sector encompasses ATS and RNAV routes: G474, L880, M633, N506, N891, P629, R468 and Y12. Aircraft operating in this sector shall contact BAPP on frequency 122.35 MHz or 262.5 MHz. **3. Approach South 1 (APS 1) Sector** 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. This sector encompasses ATS and RNAV routes: A464, M751, W19, R201, M904, M757 and Y11. Aircraft operating in this sector shall contact BAPP on frequency 120.3 MHz or 262.5 MHz. **4. Approach South 2 (APS 2) Sector** 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. This sector encompasses ATS and RNAV routes: G458, W31, Y8 and M769. Aircraft operating in this sector shall contact BAPP on frequency 124.35 MHz or 262.5 MHz.	Bangkok APP	Bangkok Approach (English, Thai) H24	119.1 MHZ 119.25 MHZ 119.4 MHZ 120.3 MHZ 121.1 MHZ 122.35 MHZ 124.35 MHZ 125.2 MHZ 125.8 MHZ 126.3 MHZ 133.4 MHZ 133.0 MHZ 262.5 MHZ 121.5 MHZ/EMERG 243.0 MHZ/EMERG	Excluding Bangkok CTR,Kamphaeng Saen CTR, VTD16, VTD17, VTD18, VTD19, VTD31, VTD47 and VTD72

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
5. Approach West (APW) Sector 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. This sector encompasses ATS routes: G463, L301,L507, L524, M502, M524, M633 and P646. Aircraft operating in this sector shall contact BAPP on frequency 125.2 MHz or 262.5 MHz. **6. Approach North (APN) Sector** 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. 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. **7. Suvarnabhumi Departure (DSB) Sector** a) When runway 19/20L/20R in use 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. Aircraft operating in this sector shall contact DSB on frequency 119.25 MHz or 262.5 MHz. b) When runway 01/02L/02R in use 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. Aircraft operating in this sector shall contact DSB on frequency 119.25 MHz or 262.5 MHz. **8. Suvarnabhumi Arrival (ARR) Sector** a) When runway 19/20L/20R in use 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 Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
Aircraft operating in this sector shall contact ARR on frequency 121.1 MHz (126.3 MHz if so instructed) or 262.5 MHz. b) When runway 01/02L/02R in use 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. Aircraft operating in this sector shall contact ARR on frequency 121.1 MHz (or 126.3 MHz if so instructed) or 262.5 MHz. **9. Don Mueang Departure (DDP) Sector** a) When runway 21L/R in use 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. Aircraft operating in this sector shall contact DDP on frequency 119.4 MHz or 262.5 MHz. b) When runway 03L/R in use 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. Aircraft operating in this sector shall contact DDP on frequency 119.4 MHz or 262.5 MHz. **10. Don Mueang Arrival (DAR) Sector** a) When runway 21L/R in use 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. Aircraft operating in this sector shall contact DAR on frequency 133.0 MHz or 262.5 MHz.				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
b) When runway 03L/R in use 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. Aircraft operating on this sector shall contact DAR on frequency 133.0 MHz or 262.5 MHz.				
BANGKOK CONTROL ZONE The airspace within a circle of 35 NM radius centred on VTBD ARP (135451.74N1003620.49E) ALT 11000 FT GND Class of airspace: C	Bangkok APP	Bangkok Approach (English, Thai) H24	119.1 MHZ 119.25 MHZ 119.4 MHZ 120.3 MHZ 121.1 MHZ 122.35 MHZ 124.35 MHZ 125.2 MHZ 125.8 MHZ 126.3 MHZ 133.4 MHZ 133.0 MHZ 262.5 MHZ 121.5 MHZ/EMERG 243.0 MHZ/EMERG	Excluding Kamphaeng Saen CTR, VTD16, VTD17, VTD18, and VTD72
BETONG CONTROLLED AIRSPACES				
A. BETONG CONTROL ZONE The airspace enclosed by the following boundary: Starting from a point located at 055646.66N 1010551.38E then along Bangkok FIR/Kuala Lumpur FIR boundary to 054809.13N 1011837.28E and then counter clockwise along 10 NM radius centred on BET DVOR/DME (054707.68N 1010838.65E) to the starting point. up to but not including 4000 FT AGL GND Class of airspace: D	Hat Yai APP (Hat Yai Sector)	Narathiwat Approach (English, Thai) 2300-1100*	125.55 MHZ** 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 VTSYZTZX Tel: +667 323 4900 VTSSZTZX Tel: +667 425 1074 VTSCZTZX Tel: +667 356 5077 **RCAG If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
BURI RAM CONTROLLED AIRSPACES **A. BURI RAM CONTROL ZONE** The airspace within a circle of 10 NM radius centred on BRM DVOR/DME (151422.43N1031531.59E) up to but not including 2000 FT AGL GND Class of airspace: C	Group of Provincial Approach Air Traffic Control (Ubon Sector)	Buri Ram Approach (English, Thai) As AD OPR HR	125.55 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9612 Fax: +662 285 9610
B. BURI RAM TERMINAL CONTROL AREA The airspace enclosed by the following boundaries beginning at a point 152840N 1033030E then clockwise along 20 NM arc from BRM DVOR/DME (151422.43N1031531.59E) to 151633N 1033522E then clockwise along 25 NM arc radius centred on 145209.4N 1032920.0E to 145132N 1035548E - 144953N 1035055E then clockwise along 20 NM arc radius centred on 145209.4N 1032920.0E to 143830N 1031416E - 143652N 1030924E then clockwise along 25 NM arc radius centred on 145209.4N 1032920.0E to 145620N 1030434E - 145300N 1024000E then counter clockwise along 35 NM arc from KHORAT TACAN (145606.0N1020421.8E) 151135N 1023700E - 151224N 1030024E then clockwise along 15 NM arc from BRM DVOR/DME (151422.43N1031531.59E) to 152918N 1031751E - 154407N 1032620E then counter clockwise along 30 NM arc from ROT DVOR/DME (160700.59N1034619.45E) then direct to starting point. ALT 11000 FT 2000 FT AGL Class of airspace: C				
CHIANG MAI CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. CHIANG MAI CONTROL ZONE Starting from 184604.4N 0984748.7E then clockwise along an arc of 10 NM radius from CMA DVOR/DME (184558.1N 0985740.4E) to 185516.4N 0985754.6E - 191204.3N 0991048.5E - from this point make an arc of 30 NM radius from CMA DVOR/DME clockwise to 190640.4N 0991848.4E - 184904.4N 0990718.5E - 184958.4N 0991754.4E - from this point make an arc of 20 NM radius from CMA DVOR/DME clockwise to 183216.5N 0984248.7E then direct to the starting point. Excluding airspace extending upward from ground to and including 2 000 FT above mean sea level enclosed by boundaries beginning at 184206.71N 0990436.34E - 184159.10N 0991209.38E - 183648.33N 0991108.95E - 183645.32N 0990441.37E then direct to starting point. UP TO BUT NOT INCLUDING 5000 FT AGL GND Class of airspace: C	Chiang Mai APP	Chiang Mai Approach (English, Thai) H24	129.6 MHZ 305.4 MHZ 121.5 MHZ/EMERG 243.0 MHZ/EMERG	
B. CHIANG MAI TERMINAL CONTROL AREA The airspace enclosed by the following boundaries, beginning at 185355.53N 0983239.89E then clockwise along an arc of 25 NM radius from CMA DVOR/DME (184558.1N 0985740.4E) to 184832.29N 0992353.72E - 184804.79N 0993740.73E - from this point make an arc of 38 NM radius from CMA DVOR/DME clockwise to 181444.64N 0983440.27E - 184604.43N 0984748.53E - and direct to the starting point ALT 11000 FT 2000 FT Class of airspace: C	Chiang Mai APP	Chiang Mai/Radar Approach (English, Thai) H24	129.6 MHZ 305.4 MHZ 121.5 MHZ/EMERG 243.0 MHZ/EMERG	
CHIANG RAI CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. CHIANG RAI CONTROL ZONE The airspace within a circle of 10 NM radius centred on CTR DVOR/DME (195655.9N 0995259.3E) up to but not including 2000 FT AGL GND Class of airspace: C **B. CHIANG RAI TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: starting from a point 194456.49N 1002417.97E - 193556.99N 1001551.49E - then clockwise along 30 NM arc radius centred on CTR DVOR/DME (195655.9N 0995259.3E) to 193515.48N 0993052.64E - 194810.65N 0994001.50E - then clockwise along 15 NM arc radius centred on CTR DVOR/DME to 201155.25N 0995400.00E - 202611.39N 0995400.00E - and then along BKK FIR to the starting point. ALT 11000 FT 2000 FT AGL Class of airspace: C	Group of Provincial Approach Air Traffic Control (Chiang Rai Sector)	Chiang Rai Approach (English, Thai) As AD OPR HR	120.05 MHZ 257.8 MHZ 121.5 MHZ/EMERG	VTBBZAZX: Tel: +662 285 9614 Fax: +662 285 9610
CHUMPHON CONTROLLED AIRSPACES				
A. CHUMPHON CONTROL ZONE A circle of 15 NM radius centred on CPN DVOR/DME (104240.21N0992156.03E) up to but not including 2000 FT AGL GND Class of airspace: D **B. CHUMPHON TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: Starting from a point 105612.7N 0994154.7E then clockwise along 25 NM arc radius centred on CPN DVOR/DME (104240.21N0992156.03E) to 101524.9N 0991500.9E - 101324.9N 0991500.9E - then clockwise along 30 NM arc radius centred on CPN DVOR/DME (104240.21N0992156.03E) to 101718.9N 0990701.0E - 102154.9N 0990842.9E - then clockwise along 30 NM arc radius centred on CPN DVOR/DME (104240.21N0992156.03E) to 110124.7N 0994530.6E then direct to the starting point. Excluding the Myanmar territory. ALT 7000 FT 2000 FT AGL Class of airspace: C	Group of Provincial Approach Air Traffic Control (Samui Sector)	Chumphon Approach (English, Thai) As AD OPR HR	122.6 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9613 Fax: +662 285 9610
HAT YAI CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. HAT YAI CONTROL ZONE A Circle of 15 NM radius cent red on HTY DVOR/ DME (065602.75N1002316.47E) up to but not including 3000 FT GND Class of airspace: C **B. HAT YAI TERMINAL CONTROL AREA** The airspace enclosed by the following boundaries beginning at 070301.7N 0994912.7E then clockwise along 35 NM arc from HTY DVOR/ DME (065602.75N1002316.47E) to 071507.7N 1005248.3E - 065601.8N 1004836.3E then clockwise along 25 NM arc from HTY DVOR/ DME to 064607.8N 0994630.8E - 064655.8N 1004242.4E - 063607.9N 1003848.4E - 062737.9N 1003830.4E - then follow westward along the Bangkok FIR boundary to 064331.8N 1001148.6E - 064507.8N 1000648.6E - 070007.81N 1000448.6E then direct to the starting point. ALT 11000FT 3000 FT Class of airspace: C	Hat Yai APP	Hat Yai Approach (English, Thai) H24	126.7 MHZ 301.5 MHZ 121.5 MHZ/EMERG 243.0 MHZ/EMERG 133.2 MHZ	Except the airspace overlapped VTD50 ALT 8000 FT 3000 FT Backup frequency
HUA HIN CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. HUA HIN CONTROL ZONE The airspace within a circle of 10 NM radius centre on HHN DVOR/DME (123804.04N0995704.23E) up to but not including 2000FT GND Class of airspace: D **B. HUA HIN TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: beginning at a point 124200N 1001200E from this point make an arc of 15 NM from HHN DVOR/DME (123804.04N0995704.23E) clockwise to 122444N 1000408E - 121431N 1000515E - then clockwise along 25 NM from HHN DVOR/DME to 121316N 0995533E - 122339N 0995332E - then clockwise along arc 15 NM from HHN DVOR/DME to 124300N 0994310E - then make a straight line north ward 125600N 0994100E - then make an arc of 25 NM from HHN DVOR/DME clockwise to 125000N 1001830E - then southward to the starting point. Excluding VTR3 and VTR8 and G458. ALT 11000FT 2000FT Class of airspace: D	Hua Hin APP	Hua Hin Approach (English, Thai) As AD OPR HR	126.2 MHZ 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. VTPHZTZX Tel: +668 1572 4878
KAMPHAENG SAEN CONTROL ZONE The airspace within a circle of 25 NM radius centred on KPS TACAN (channel 98, 140522N0995456E) ALT 6000 FT GND Class of airspace: C	Kamphaeng Saen APP	Kamphaeng Saen Approach (English, Thai) H24	134.1 MHZ 308.6 MHZ	Excluding Bangkok Control Zone
KHON KAEN CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. KHON KAEN CONTROL ZONE The airspace within a circle of 10 NM radius centred on KKN DVOR/DME (162814.73N1024716.07E) up to but not including 2000 FT AGL GND Class of airspace: C **B. KHON KAEN TERMINAL CONTROL AREA** The airspace enclosed by the following boundaries: Starting from a point 165549.06N 1025943.25E then clockwise along 30 NM arc radius centred on KKN DVOR/DME (162814.73N1024716.07E) to 162237.63N 1031752.28E - 162204.42N 1031924.64E - then counter clockwise along 30 NM arc radius centred on ROT DVOR/DME (160700.59N1034619.45E) to 161241.05N 1031547.42E - 161314.24N 1031415.12E - then clockwise along 30 NM arc radius centred on KKN DVOR/DME (162814.73N1024716.07E) to 165529.09N 1023401.97E - then counter clockwise along 30 NM arc radius centred on UDN DVOR/DME (172304.20N1024630.05E) to the starting point ALT 11000 FT 2000 FT Class of airspace: C	Group of Provincial Approach Air Traffic Control (Khon Kaen Sector)	Khon Kaen Approach (English, Thai) As AD OPR HR	123.4 MHZ 240.0 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9611 Fax: +662 285 9610
KHORAT CONTROL ZONE The airspace enclosed by the following boundaries beginning at a point 150735.7N 1022135.3E - 151135.7N 1023647.2E - and clockwise along a 35 NM arc radius centred on KRT TACAN (145606.0N1020421.8E) to 145305.8N 1023947.2E - 145105.8N 1022447.3E - and clockwise along 20 NM arc radius centred on KRT TACAN to 143605.8N 1020147.5E - 143005.8N 1014047.6E - and clockwise along a 35 NM arc radius centred on KRT TACAN to 144705.8N 1012947.7E - 145353.7N 1014347.6E - and clockwise along a 20 NM arc radius centred on KRT TACAN to the starting point. ALT 11000 FT GND Class of airspace: C	Khorat APP	Khorat Approach (English, Thai) H24	129.75 MHZ 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.
KRABI CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. KRABI CONTROL ZONE The airspace within a circle of 10 NM radius centred on KBI VOR/DME (080627.19N0985839.07E) up to but not including 2000 FT GND Class of airspace: C **B. KRABI TERMINAL CONTROL AREA** The airspace enclosed by the following boundaries: Starting from a point 073617.95N 0991303.04E - 074956.18N 0984322.54E - then counter clockwise along 30 NM arc radius centred on PUT DVOR/DME (080654.83N0981822.69E) to 082115.49N 0984500.06E - then clockwise along 20 NM arc radius centred on KBI VOR/DME (080627.19N0985839.07E) to 082623.61N 0985605.57E - 083636.11N 0985805.68E - then clockwise along 30 NM arc radius centred on KBI VOR/DME (080627.19N0985839.07E) to 083509.81N 0990754.38E - 082507.75N 0990607.06E - then clockwise along 20 NM arc radius centred on KBI VOR/DME (080627.19N0985839.07E) to 075717.53N 0991636.23E - 075117.86N 0992322.29E - then counter clockwise along 25 NM arc radius centred on TRN DVOR/DME (073032.17N0993733.67E) to the starting point ALT 11000 FT 2000 FT Class of airspace: C	Phuket APP (Phuket Sector)	Krabi Approach* (English, Thai) As AD OPR HR	120.05 MHZ** 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 **RCAG If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency.
LAMPANG CONTROLLED AIRSPACES				
A.LAMPANG CONTROL ZONE The airspace within a circle of 10 NM radius centre on LPN DVOR/DME (181635.9N 0993008.4E) up to but not including 2000 FT GND Class of airspace: C **B. LAMPANG TERMINAL CONTOL AREA** The airspace enclosed by a circle of 25 NM radius centred on LPN DVOR/DME (181635.9N0993008.4E) excluding CHIANG MAI Terminal Control Area and ATS route A464 ALT 11000 FT 2000 FT Class of airspace: C	Chiang Mai APP (Chiang Mai Sector)	Lampang Approach (English, Thai) As AD OPR HR	119.3 MHZ* 121.5 MHZ/EMERG	*RCAG If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency.
LOEI CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. LOEI CONTROL ZONE The airspace within a circle of 10 NM radius centred on LOY DVOR/DME (172649.38N1014323.12E) up to but not including 2000 FT GND Class of airspace: C **B. LOEI TERMINAL CONTROL AREA** The airspace enclosed by the following boundaries: Starting from a point 172903.41N 1012236.19E - and then clockwise along 20 NM arc radius centred on LOY DVOR/DME (172649.38N1014323.12E) to 173039.85N 1020354.41E - 172957.00N 1021559.60E - then counter clockwise along 30 NM arc radius centred on UDN DVOR/DME (172304.20N1024630.05E) to 171956.38N 1021520.80E - 172039.09N 1020316.26E - then clockwise along 20 NM arc radius centred on LOY DVOR/DME (172649.38N1014323.12E) to 171341.88N 1012734.57E - 170942.48N 1011736.03E - then clockwise along 30 NM arc radius centred on LOY DVOR/DME (172649.38N1014323.12E) to 172734.43N 1011201.63E - then direct to the starting point ALT 11000 FT 2000 FT Class of airspace: C	Group of Provincial Approach Air Traffic Control (Khon Kaen Sector)	Loei Approach (English Thai) As AD OPR HR	122.55 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9611 Fax: +662 285 9610
MAE HONG SON CONTROLLED AIRSPACES				
A. MAE HONG SON CONTROL ZONE The airspace within a circle of 10 NM radius on MHS DVOR/DME (191911.1N 0975443.6E) Excluding the Myanmar territory. up to but not including 2000 FT GND Class of airspace: D **B. MAE HONG SON TERMINAL CONTROL AREA** The airspace enclosed by a circle of 30 NM radius centred on MHS DVOR/DME (191911.1N 0975443.6E) Excluding the Myanmar territory. ALT 11000 FT 2000 FT Class of airspace: D	Chiang Mai APP (Chiang Mai Sector)	Mae Hong Son Approach (English, Thai) As AD OPR HR	126.2 MHZ* 121.5 MHZ/EMERG	*RCAG If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency
MAE SOT CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. MAE SOT CONTROL ZONE The airspace enclosed by the following boundary: Starting from a point 165147.0N 0983218.9E and then clockwise along 10 NM arc radius centred on MST DVOR/DME (164152.1N 0983229.7E) to 163205.1N 0983612.9E and then along BKK FIR to the starting point. up to but not including 2000 FT GND Class of airspace: C **B. MAE SOT TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: Starting from a point 170104.9N 098249.0E and then clockwise along 20 NM arc radius centred on MST DVOR/DME (164152.1N 0983229.7E) to 170134.9N 0983118.9E - 171152.9N 0983300.9E and then clockwise along 30 NM arc radius centred on MST DVOR/DME to 170958.9N 0984348.8E - 170005.0N 0984148.80E and then clockwise along 20 NM arc radius centred on MST DVOR/DME to 165205.0N 0985048.8E - 165305.0N 0985348.8E and then counter clockwise along 20 NM arc radius centred on TK NDB (165358.2N 0991508.0E) to 064305.1N 0985648.7E - 164235.1N 0985348.8E and then clockwise along 20 NM arc radius centred on MST DVOR/DME to 162235.1N 0983918.9E and then along BKK FIR to the starting point. ALT 11000 FT 2000 FT Class of airspace: C	Chiang Mai APP (Chiang Mai Sector)	Mae Sot Approach* (English, Thai) As AD OPR HR	120.65 MHZ** 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. **RCAG If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency
NARATHIWAT CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. NARATHIWAT CONTROL ZONE The airspace within a circle of 10 NM radius centred on NTW DVOR/DME (063138.24N1014442.48E) up to but not including 2000 FT AGL GND Class of airspace: C **B. NARATHIWAT TERMINAL CONTROL AREA** 1. A circle of 25 NM radius centred on NTW DVOR/DME (063138.24N1014442.48E) ALT 11000 FT 2000 FT 2. The airspace enclosed by the following boundaries: Starting from a point located at 061836.84N 1012314.09E - 061402.73N 1010630.29E then along Bangkok FIR/Kuala Lumpur FIR boundary to 055441.43N 1013651.39E - 060745.40N 1013655.15E and then clockwise along 25 NM radius centred on NTW DVOR/DME (063138.24N1014442.48E) to the starting point. ALT 11000 FT 4000 FT Class of airspace: C	Hat Yai APP (Hat Yai Sector)	Narathiwat Approach (English, Thai) As AD OPR HR	125.55 MHZ* 121.5 MHZ/EMERG	*RCAG If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency
NAN CONTROLLED AIRSPACES				
A. NAN CONTROL ZONE The airspace within a circle of 10 NM radius centred on NAN DVOR/DME (184832.8N1004657.4E) up to but not including 2000 FT AGL GND Class of airspace: C **B. NAN TERMINAL CONTROL AREA** The airspace enclosed by the following boundary : Starting from a point 185713.85N 1011714.96E - 182342.02N 1010448.43E then clockwise along 30 NM arc radius centred on NAN DVOR/DME (184832.8N1004657.4E) to 182234.95N 1003056.94E - 181854.45N 1002738.69E from this point then counter clockwise along 20 NM arc radius centred on PAE DVOR/DME (180802.9N1000958.5E) to 182552.98N 1001937.46E - 182915.55N 1002241.38E from this point clockwise along 30 NM arc radius centred on NAN DVOR/DME to the starting point. Excluding the Laos territory. ALT11000 FT 2000 FT Class of airspace: C	Group of Provincial Approach Air Traffic Control (Chiang Rai Sector)	Nan Approach (English, Thai) As AD OPR HR	120.25 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9614 Fax: +662 285 9610
NAKHON PHANOM CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. NAKHON PHANOM CONTROL ZONE The airspace enclosed by the following boundary: Starting from a point 173305.2N 1043846.1E - 171905.3N 1044728E and then clockwise along 10 NM arc radius centred on NKP DVOR/DME (172317.87N1043818.01E) to the starting point Excluding the Laos territory. up to but not including 2000 FT AGL GND Class of airspace: C	Group of Provincial Approach Air Traffic Control (Khon Kaen Sector)	Sakon Nakhon Approach* (English, Thai) As AD OPR HR	123.35 MHZ 284.0 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9611 Fax: +662 285 9610
NAKHON SI THAMMARAT CONTROLLED AIR-SPACES				
A.NAKHON SI THAMMARAT CONTROL ZONE The airspace within a circle of 10 NM radius centred on NKS DVOR/DME (083229.95N0995648.67E) up to but not including 2000 FT AGL GND Class of airspace: C **B.NAKHON SI THAMMARAT TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: Starting from a point 085315.48N 0993440.19E - 084641.65N 0994230.63E - then clockwise along 20 NM arc radius centred on NKS DVOR/DME (083229.95N0995648.67E) to 084227.08N 1001421.39E - 084227.57N 1002524.11E - then clockwise along 30 NM arc radius centred on NKS DVOR/DME (083229.95N0995648.67E) to 080526.44N 0994327.40E - 081513.69N 0994629.07E - then clockwise along 20NM arc radius centred on NKS DVOR/DME (083229.95N0995648.67E) to 083729.54N 0993714.95E - 084538.48N 0992840.93E - then counter clockwise along 30 NM arc radius centred on STN DVOR/DME (090746.24N0990805.09E) to the starting point. ALT 11000 FT 2000 FT Class of airspace: C	Group of Provincial Approach Air Traffic Control (Samui Sector)	Nakhon Si Thammarat Approach (English, Thai) As AD OPR HR	119.75 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9613 Fax: +662 285 9610
PATTANI CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. PATTANI CONTROL ZONE The airspace within a circle of 10 NM radius centred on PT NDB (064718.45N1010852.51E) up to but not including 2000 FT AGL GND Class of airspace: C **B. PATTANI TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: Starting from a point 070819.7N 1005000.3E - 065431.8N 1013524.0E - 062807.9N 1011936.1E - 064019.9N 1004018.4E - then direct to a starting point ALT 11000 FT 2000 FT Excluding Hat Yai TMA, Narathiwat TMA Class of airspace: C	Hat Yai APP (Hat Yai Sector)	Pattani Approach* (English, Thai) 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 the joint-use airspace TWR hours of services: 3 HR PN in advance to Hat Yai Approach Control Centre via AFTN VTSSZAZX VTSSZTZX Fax: +667 425 1070 VTSSZTZX Tel: +667 425 1074 VTSKZTZX Tel: +661 988 3274 **RCAG If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency
PHETCHABUN CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. PHETCHABUN CONTROL ZONE The airspace within a circle of 10 NM radius centred on PCB DVOR/DME (164033.6N1011147.9E) up to but not including 2000 FT AGL GND Class of airspace: C **B. PHETCHABUN TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: Starting from a point 170242.63N 1004957.84E - then clockwise along 30 NM arc radius from PCB DVOR/DME (164033.6N1011147.9E) to 170819.51N 1005837.17E - 165959.98N 1010427.29E - from this point clockwise along 20 NM arc radius centred on PCB DVOR/DME to 170001.30N 1011857.39E - 170823.73N 1012443.06E - then clockwise along 20 NM arc radius centred on PCB DVOR/DME to 170255.62N 1013328.43E - 165433.23N 1012742.93E - then clockwise along 20 NM arc radius centred on PCB DVOR/DMEto 161957.83N 1010934.85E - 161031.71N 1010601.45E - then clockwise along 30 NM arc radius centred on PCB DVOR/DMEto 161357.78N 1005615.51E - 162323.90N 1005948.97E - then clockwise along 20 NM arc radius from PCB DVOR/DME to 163745.48N 1005031.20E - 163801.69N 1004759.02E and counter clockwise along 30 NM arc radius centred on PSL DVOR/DME (164613.3N1001729.0E) to 164800.50N 1004907.60E - 164744.29N 1005139.91E - then clockwise along 20 NM arc radius centred on PCB DVOR/DME to 165423.10N 1005547.78E - then direct to the starting point. ALT 11000 FT 2000 FT Class of airspace: C	Group of Provincial Approach Air Traffic Control (Chiang Rai Sector)	Phetchabun Approach (English, Thai) As AD OPR HR	126.7 MHZ	VTBBZAZX Tel: +662 285 9614 Fax: +662 285 9610
PHITSANULOK CONTROLLED AIRSPACES				

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
A. PHITSANULOK CONTROL ZONE The airspace within a circle of 15 NM radius centred on PSL DVOR/DME (164613.3N 1001729.0E) up to but not including 2000 FT AGL GND Class of airspace: C **B. PHITSANULOK TERMINAL CONTROL AREA** The airspace enclosed by a circle of 30 NM radius centred on PSL DVOR/DME (164613.3N 1001729.0E) ALT 11000 FT 2000 FT Class of airspace: C	Phitsanulok APP	Phitsanulok Approach (English, Thai) As AD OPR HR	120.7 MHZ/284.0 MHZ 121.5 MHZ/EMERG 243.0 MHZ/EMERG	
PHRAE CONTROLLED AIRSPACES **A. PHRAE CONTROL ZONE** The airspace within a circle of 10 NM radius centred on PAE DVOR/DME (180802.9N1000958.5E) up to but not including 2000 FT AGL GND Class of airspace: C **B. PHRAE TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: Starting from a point 182634.6N 1000218.1E - 183634.6N 0993948.1E - then clockwise along 30 NM arc radius centred on PAE DVOR/DME (180802.9N1000958.5E) to 183804.4N 1001048.0E - 182804.6N 1001212.0E - then clockwise along 20 NM arc radius centred on PAE DVOR/DME to 175704.8N 1002748.0E - 174934.8N 1003447.9E - then clockwise along 30 NM arc radius centred on PAE DVOR/DME to 173804.9N 1000718.1E - 174822.8N 1000642.1E - and then clockwise along 20 NM arc radius the centred on PAE DVOR/DME to the starting point ALT 11000 FT 2000 FT Excluding LAMPANG TMA Class of airspace: C	Group of Provincial Approach Air Traffic Control (Chiang Rai Sector)	Phrae Approach (English, Thai) As AD OPR HR	120.1 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9614 Fax: +662 285 9610
PHUKET CONTROLLED AIRSPACES **A. PHUKET CONTROL ZONE** A circle of 10 NM centres on PUT DVOR/DME (080654.83N0981822.69E) up to but not including 2000 FT AGL GND Class of airspace: C **B. PHUKET TERMINAL CONTROL AREA** The airspace within a circle of 30 NM radius centres on PUT DVOR/DME (080654.83N0981822.69E) ALT 11000 FT 2000 FT Class of airspace: C	Phuket APP	Phuket Approach (English, Thai) H24	124.7 MHZ 284.0 MHZ 120.7 MHZ/ARR 121.5 MHZ/EMERG 243.0 MHZ/EMERG	

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
RANONG CONTROLLED AIRSPACES **A. RANONG CONTROL ZONE** The airspace within a circle of 10 NM radius centred on RAN DVOR/DME (094643.18N0983502.11E) up to but not including 2000 FT GND Class of airspace: C **B. RANONG TERMINAL CONTROL AREA** The airspace enclosed by the following boundaries: Starting from a point 093117.14N 0985500.96E - 092955.95N 0985609.83E - then counter clockwise along 25 NM arc radius centred on STN DVOR/DME (090746.24N0990805.09E) to 092313.08N 0984808.19E - 092434.24N 0984659.31E - then clockwise along 25 NM arc radius centred on RAN DVOR/DME (094643.18N0983502.11E) to the starting point. Excluding the portion of area produced in Yangon FIR. ALT 11000 FT 2000 FT Class of airspace: C	Phuket APP (Phuket Sector)	Ranong Approach (English, Thai) As AD OPR HR*	125.1 MHZ** 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. **RCAG If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency.
ROI ET CONTROLLED AIRSPACES **A. ROIET CONTROL ZONE** The airspace within a circle of 10 NM radius centred on ROT DVOR/DME (160700.59N1034619.45E) up to but not including 2000 FT GND Class of airspace: C **B. ROI ET TERMINAL CONTROL AREA** The airspace within a circle of 30 NM radius centred on ROT DVOR/DME (160700.59N1034619.45E) ALT 11000 FT 2000 FT Class of airspace: C	Group of Provincial Approach Air Traffic Control (Ubon Sector)	Roi Et Approach (English, Thai) As AD OPR HR	125.4 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9612 Fax: +662 285 9610

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
SAKON NAKHON CONTROLLED AIRSPACES **A. SAKON NAKHON CONTROL ZONE** The airspace within a circle of 10 NM radius centred on SKN DVOR/DME (171250.89N1040812.34E) up to but not including 2000 FT GND Class of airspace: C **B. SAKON NAKHON TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: Starting from a point 174253.1N 1040758.4E - 174253.1N 1042406.2E - 164253.4N 1044446.1E - 164253.4N 1040758.4E - then clockwise along 30 NM arc radius centred on SKN DVOR/DME (171250.89N1040812.34E) to the starting point. Excluding the Laos territory. ALT 11000 FT 2000 FT Excluding Nakhon Phanom Control Zone Class of airspace: C	Group of Provincial Approach Air Traffic Control (Khon Kaen Sector)	Sakon Nakhon Approach (English, Thai) As AD OPR HR	123.35 MHZ / 284.0 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9611 Fax: +662 285 9610

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
SURAT THANI CONTROLLED AIRSPACES **A. SURAT THANI CONTROL ZONE** The airspace within a circle of 10 NM radius centred on STN DVOR/DME (090746.24N0990805.09E) up to but not including 3000 FT GND Class of airspace: C **B. SURAT THANI TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: Starting from a point 093307.1N 0991101.0E - 093737.1N 0991230.9E - then clockwise along 30 NM arc radius centred on STN DVOR/DME (090746.24N0990805.09E) to 093443.1N 0992200.9E - 093019.1N 0992030.9E - then clockwise along 25 NM arc radius centred on STN DVOR/DME (090746.24N0990805.09E) to 085607.3N 0993036.8E - 085307.3N 0993418.8E - then clockwise along 30 NM arc radius centred on STN DVOR/DME (090746.24N0990805.09E) to 084031.3N 0991930.9E - 084467.3N 0991706.9E - then clockwise along 25 NM arc radius centred on STN DVOR/DME (090746.24N0990805.09E) to 084549.3N 0985701.1E - 084207.03N 0985349.1E - then clockwise along 30 NM arc radius centred on STN DVOR/DME (090746.24N0990805.09E) to 084837.3N 0984607.1E - 085225.2N 0984925.1E - then clockwise along 25 NM arc radius centred on STN DVOR/DME (090746.24N0990805.09E) to the starting point. ALT 11000 FT 2000 FT Class of airspace: C	Group of Provincial Approach Air Traffic Control (Samui Sector)	Surat Thani Approach (English, Thai) As AD OPR HR	123.35 MHZ/240.0 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9613 Fax: +662 285 9610

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
SAMUI CONTROLLED AIRSPACES				VTBBZAZX Tel: +662 285 9613 Fax +662 285 9610
A.SAMUI CONTROL ZONE The airspace within a circle of 10 NM radius centred of SM NDB (093314.01N1000335.65E) up to but not including 3000 FT AGL GND Class of airspace: C **B. SAMUI TERMINAL CONTROL AREA** The airspace enclosed by the following boundary: starting from a point 100256.00N 1000511.00E then clockwise along 30 NM arc radius on SM NDB (093314.01N1000335.65E) to 093802N 1003338E - 093300N 1002357E then clockwise along 20 NM arc radius on SM NDB (093314.01N1000335.65E) to 091346.00N 0995834.00E - 090459.00N 0995306.00E - clockwise along 30NM arc radius centred on SM NDB (093314.01N1000335.65E) to 091000.00N 0994428.00E - 091851.00N 0994940.00E - then clockwise along 20 NM arc radius centred on SM NDB (093314.01N1000335.65E) to 095256.00N 1000302.00E - then direct to starting point. Including B463 11000 FT AGL 2000 FT AGL Class of airspace: C	Group of Provincial Approach Air Traffic Control (Samui Sector)	Samui Approach (English, Thai) As AD OPR HR	129.6 MHZ/305.4 MHZ 121.5 MHZ/EMERG	

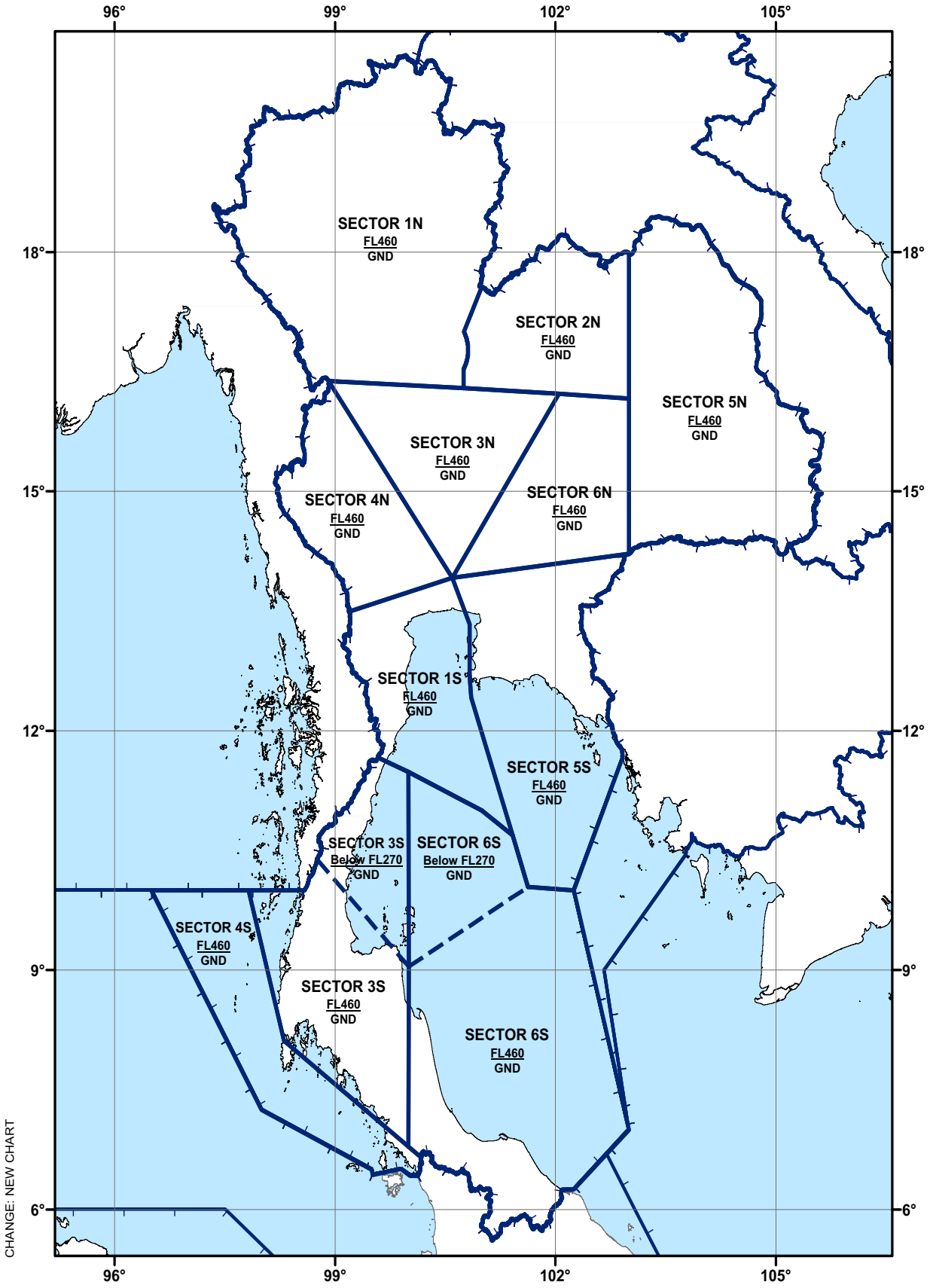
Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
SUKHOTHAI CONTROLLED AIRSPACES **A. SUKHOTHAI AERODROME TRAFFIC ZONE** A circle of 5 NM radius centred on THS NDB (171406.8N 0994919.3E) 2000 FT AGL GND Class of airspace: C	Sukhothai TWR			
B. SUKHOTHAI CONTROL ZONE The airspace within a circle of 10 NM radius centred on THS NDB (171406.8N 0994919.3E) Excluding Phitsanulok TMA. up to but not including 2000 FT AGL GND **C. SUKHOTHAI TERMINAL CONTROL AREA** The airspace enclosed by the follow boundaries beginning at 174029N 1000432E - 172551N 0995909E then clockwise along 15 NM arc from THS NDB (171406.8N 0994919.3E) to 170000N 0995100E - 164454N 0995100E then clockwise along 30 NM arc from THS NDB to 164648N 0993848E - 170130N 0994154E then clockwise along 15 NM arc from THS NDB to 171348N 0993412E - 172442N 0992006E then clockwise along 30 NM arc from THS NDB to the starting point. Excluding Phitsanulok TMA. ALT 11000 FT 2000 FT Class of airspace: C **D. Transition Altitude: 11 000 FT**	Phitsanulok APP	Sukhothai Approach (English, Thai) As AD OPR HR	120.7 MHZ 121.5 MHZ/EMERG	
TAK CONTROLLED AIRSPACES **A. TAK CONTROL ZONE** The airspace within a circle of 10 NM radius centred on TK NDB (165358.2N 0991508.0E) up to but not including 2000 FT GND Class of airspace: C **B. TAK TERMINAL CONTROL AREA** The airspace enclosed by the following boundaries: Starting from a point 165629.81N 0993550.14E - 165553.24N 0994046.08E - 164601.66N 0993836.55E - 164632.03N 0993430.61E - then clockwise along 20 NM arc radius centred on TK NDB (165358.2N 0991508.0E) to the starting point Excluding A464, G473, VTD33 and VT D 56 ALT 11000 FT 2000 FT Class of airspace: C	Phitsanulok APP	Tak Approach* (English, Thai) As AD OPR HR	126.0 MHZ 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 Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
TAKHLI CONTROL ZONE The airspace enclosed by the following boundaries: beginning at 144511.7N 1003309.1E and clockwise along a 35 NM arc radius from TKL TACAN (151629.13N1001756.62E) to 145805.7N 1004848.0E then counter clockwise along a 12 NM arc radius from Khok Kathiam (centred on 145228.7N1003948.2E) to the starting point. ALT 11000 FT 2000 Class of airspace: C	Takhli APP	Takhli Approach (English, Thai) H24	122.3 MHz 236.6 MHz 253.5 MHz	Conventional Approach (Secondary) Excluding Alfa Control Area, VTD31 and Nakhon Sawan Aerodrome Traffic Zone.
TRANG CONTROLLED AIRSPACES **A. TRANG CONTROL ZONE** The airspace within a circle of 10 NM radius centred on TRN DVOR/DME (073032.17N0993733.67E) up to but not including 2000 FT GND Class of airspace: C **B. TRANG TERMINAL CONTROL AREA** The airspace enclosed by a circle of 25 NM radius centred on TRN DVOR/DME (073032.17N0993733.67E) Excluding Hat Yai TMA. ALT 11000 FT 2000 FT Class of airspace: C	Hat Yai APP (Hat Yai Sector)	Trang Approach (English, Thai) As AD OPR HR	125.3 MHZ* 121.5 MHZ/EMERG	*RCAG If unable to contact Approach Control Centre/Office attempt to contact tower on appropriate frequency.

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
TRAT CONTROLLED AIRSPACES **A. TRAT CONTROL ZONE** The airspace within a circle of 10 NM radius centred of TRT NDB (121628.10N1021850.08E) up to but not including 2000 FT GND Class of airspace: C **B. TRAT TERMINAL CONTROL AREA** The airspace enclosed by the follow boundaries beginning at 123259.66N 1020609.45E then clockwise along 20 NM arc radius centred on TRT NDB to 115552.08N 1021639.12E - 114625.74N 1021309.78E - then clockwise along 30 NM arc radius centred on TRT NDB to 114951.88N 1020334.90E - 115918.21N 1020704.28E - then clockwise along 20 NM arc radius centred on TRT NDB to 122511.30N 1015943.07E - 123130.69N 1015146.64E - then clockwise along 30 NM arc radius centred on TRT NDB to 123919.05N 1015812.68E - then direct to starting point ALT 11000 FT ALT 2000 FT Class of airspace: C	Group of Provincial Approach Air Traffic Control (Samui Sector)	Trat Approach (English, Thai) As AD OPR HR	120.25 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9613 Fax: +662 285 9610
UBON CONTROLLED AIRSPACES **A. UBON CONTROL ZONE** The airspace within a circle of 10 NM radius centred on UBL DVOR/DME (151442.71N1045157.30E) up to but not including 3000 FT AGL GND Class of airspace: C **B. UBON TERMINAL CONTROL AREA** The airspace enclosed by a circle of 30 NM radius centred on UBL DVOR/DME (151442.71N1045157.30E) FL 200 2000FT AGL Class of airspace: C	Group of Provincial Approach Air Traffic Control (Ubon Sector)	Ubon Approach (English, Thai) As AD OPR HR	123.5 MHZ / 257.8 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9612 Fax: +662 285 9610

Name Lateral limits Vertical limits Class of airspace 1	Unit providing service 2	Call sign Language Area and conditions of use Hours of service 3	Frequency/Purpose 4	Remarks 5
UDON CONTROLLED AIRSPACES **A. UDON CONTROL ZONE** The airspace within a circle of 10 NM radius centred on UDN DVOR/DME (172304.20N1024630.05E) up to but not including 3000 FT AGL GND Class of airspace: C **B. UDON TERMINAL CONTROL AREA** The airspace enclosed by a circle of 30 NM radius centred on UDN DVOR/DME (172304.20N1024630.05E) Excluding the Laos territory. ALT 11000 FT 2000 FT Class of airspace: C	Group of Provincial Approach Air Traffic Control (Khon Kaen Sector)	Udon Approach (English, Thai) As AD OPR HR	126.2 MHZ / 265.9 MHZ 119.45 MHZ 121.5 MHZ/EMERG	VTBBZAZX Tel: +662 285 9611 Fax: +662 285 9610 Backup frequency
U–TAPAO CONTROLLED AIRSPACES **A. U-TAPAO CONTROL ZONE** The airspace within a circle of 5 NM radius centred on U-Tapao aerodrome (124046.6N1010017.7E) up to but not including 2000 FT AGL GND Class of airspace: C **B. U-TAPAO TERMINAL CONTROL AREA** The airspace enclosed by a circle of 50 NM radius centred on U-Tapao aerodrome (124046.6N1010017.7E) 1. From 5 NM to 15 NM radius measured from the centre of the aerodrome, 700 FT above ground level to unlimited. 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: (i) U-Tapao Control Zone (ii) That portion overlapped by Bangkok Alfa Control Area and Hua Hin Terminal Control Area. (iii) All airspace on airways A464, R468, G463 and G458 from FL65 to FL460	U-Tapao APP	U-Tapao Approach (English, Thai) H24	119.7 MHZ/PRI 134.5 MHZ/SEC 273.3 MHZ/PRI 238.3 MHZ/SEC 121.5 MHZ/EMERG 243.0 MHZ/EMERG	VTBUZPZX Tel: +663 824 5196
AREA OUTSIDE CONTROL AIRSPACE The area outside control airspace (outside airways TMA and CTR), but within Bangkok FIR. Class of airspace: G	Bangkok ACC	Bangkok Control (English, Thai) H24		See frequency in use at appropriate sectors

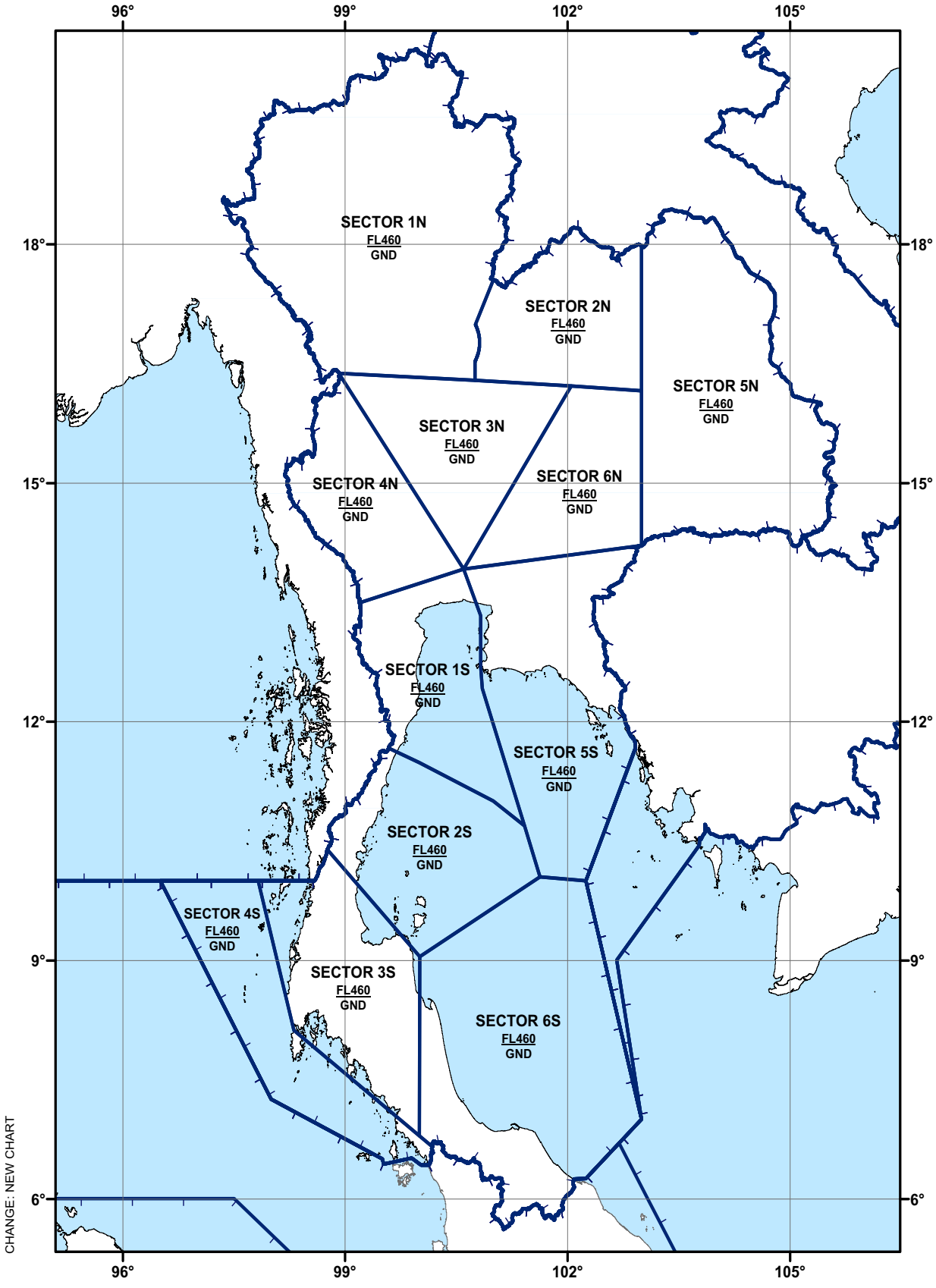
AREAS OF RESPONSIBILITY AND SECTORIZATION OF BANGKOK AREA CONTROL CENTRE (Below FL270)



CHANGE: NEW CHART

February 2020

AREAS OF RESPONSIBILITY AND SECTORIZATION OF BANGKOK AREA CONTROL CENTRE (FL 270 - FL 460)



CHANGE: NEW CHART

February 2020

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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 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
A1					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	071° / 251° 51.0 NM	FL 460 / 7 500 FT Class A	10	↓	
▲ ROBKA 141043N 1012508E	071° / 251° 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: - ATS route A1 will apply for eastbound traffic only - Westbound traffic shall filed flight plan via W1 after UBL - The available for westbound traffic on A1 or direct route will be subject to prior approval from ATC
▲ SELKA 142020N 1015311E	071° / 251° 54.0 NM				
▲ TOPER 143808N 1024538E	072° / 252° 41.0 NM				
△ SANOT 145134N 1032548E	075° / 255° 22.0 NM				
▲ PASAT 145727N 1034726E	075° / 255° 65.0 NM				
▲ UBON DVOR/DME (UBL) 151443N 1045157E	077° / 257° 44.0 NM	FL 460 / 9 500 FT Class A 10 000 FT		↓ ↑	
▲ BUTRA 152506N 1053546E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
A202					
RAMEI ▲ 150240N 1030040E	049° 229° 91.0 NM	FL 460 12 500 FT/FL 125 Class A	(*)	↓	Pilot may expect ATC instruction to avoid VT D64, VT D54, VT D44 and VT D30 (*) For width of airways, see ENR 2.1-1
GUROK ▲ 160329N 1041106E	049° 229° 19.0 NM	13 000 FT/FL 125			
OKENA ▲ 161608N 1042533E	048° 228° 26.0 NM	FL 460 6 500 FT Class A 7 000 FT		↑	
SAVANNAKHET DVOR/DME (SAV) ▲ 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 **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
A334					
HAT YAI DVORDME (HTY) 065603N 1002316E	112° 292° 25.0 NM	FL 460 9 500 FT Class A	20	↓	
TAXEB 064641N 1004645E	112° 292° 83.0 NM	10 000 FT		↑	
PASVA 061529N 1020431E					For continuation, see AIP Malaysia.
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
A457					
▲ HAT YAI DVOR/DME (HTY) 065603N 1002316E	178° 358° 24.0 NM	FL 460 9 500 FT Class A 10 000 FT	20	↓ ↑	
▲ TAMOS 063208N 1002407E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
A464					
▲ CHIANG MAI DVORDME (CMA) 184558N 0985740E	163° 343°	FL 460 6 500 FT	20	↓	
	38.0 NM	Class A			
▲ ENBAT 180941N 0991004E	163° 343°	7 000 FT			
	42.0 NM				
△ TOPAS 172916N 0992358E	163° 343°				
	71.0 NM				
▲ BEKOD 162117N 0994636E	163° 343°				
	91.0 NM				
▲ SEMBO 145359N 1001548E	163° 343°				
	63.0 NM				
▲ BANGKOK DVORDME (BKK) 135337N 1003546E	182° 002°				
	32.0 NM				
△ POLAK 132106N 1003454E	181° 001°				
	33.0 NM				
▲ GUTSO 124820N 1003454E	181° 001°				
	48.0 NM				
▲ REGOS 120007N 1003454E	182° 002°				
	60.0 NM				
△ DIRAX 110007N 1003248E	183° 003°	FL 460 3 500 FT			
	40.0 NM	Class A			
▲ TUSPU 101948N 1003108E	183° 003°	4 000 FT			
	37.0 NM				
▲ UPNEP 094213N 1002936E	182° 002°				
	40.0 NM				
▲ APOBI 090147N 1002814E	182° 002°				
	12.0 NM				
▲ GUPMO 085012N 1002750E	182° 002°				
	46.0 NM				
▲ RELIP 080432N 1002619E	183° 003°			↑	
	33.0 NM				
▲ PIMER					

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**
073045N 1002449E	183° 003° 35.0 NM	FL 460 3 500 FT Class A 4 000 FT	20	↓	
▲ HAT YAI DVORDME (HTY) 065603N 1002316E	163° 343° 27.0 NM	FL 460 8 500 FT Class A 9 000 FT			
▲ KARMI 062940N 1003121E				↑	

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
A581					For continuation, see AIP Republic of the Union of Myanmar.
▲ BOMAS 172305N 0980549E	082° 262° 35.0 NM	FL 460 10 500 FT Class A	10	↓	
▲ BIGVO 172830N 0984154E	012° 192° 41.0 NM	FL 110			
▲ PUMAM 180831N 0985001E	012° 192° 38.0 NM				
▲ CHIANG MAI DVOR/DME (CMA) 184558N 0985740E	037° 217° 25.0 NM	FL 350 7 500 FT Class A			
▲ ADLUS 190610N 0991320E	037° 217° 33.0 NM	8 000 FT			
▲ NUMDO 193243N 0993402E	037° 218° 30.0 NM				
▲ CHIANG RAI DVOR/DME (CTR) 195656N 0995259E	053° 233° 36.0 NM	FL 460 6 500 FT Class A		↑	
▲ PONUK 201858N 1002306E		7 000 FT			

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
B202					
▲ UBON DVOR/DME (UBL) 151443N 1045157E	093° 273° 51.0 NM	FL 460 FL 260 Class A FL 270	(*)	↓ ↑	(*) For width of airways, see ENR 2.1-1.
▲ PAKSE VOR/DME (PAK) 151148N 1054417E					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 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
B204					
▲ GOMES 132406N 1013506E	090° 270° 45.0 NM	FL 460 FL 135 Class A FL 140	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ AGEDO 132419N 1022139E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
B205					
▲ RAYONG DVOR/DME (RYN) 124648N 1014042E	078° 258° 33.0 NM	FL 460 FL 155 Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ OLDIR 125401N 1021325E	078° 258° 16.0 NM	FL 160		↑	
▲ BOKAK 125736N 1022947E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
B218					
▲ VIENTIANE DVOR/DME (VTN) 180037N 1023226E	235° 055° 38.0 NM	FL 460 3 500 FT Class A	20	↓	
▲ NOGAD 173834N 1020021E	235° 055° 20.0 NM	4 000 FT		↑	
▲ LOEI DVOR/DME (LOY) 172649N 1014323E	164° 344° 20.0 NM	FL 460 6 500 FT Class A		↓	
▲ BOVGO 170740N 1014935E	164° 344° 31.0 NM	7 000 FT		↑	
▲ CHUM PHAE DVOR/DME (CMP) 163811N 1015905E					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 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
B346					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	004° / 184° 83.0 NM	FL 460 / 10 000 FT Class A	20	↓	Conditional Route (CDR) availability: Portion between NOBER-PCB CDR1 1. Weekdays, Monday to Friday 1700 - 2200 UTC 2. From Friday 1700 UTC to Sunday 2200 UTC 3. Public Holidays CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
▲ NOBER 151636N 1004006E	021° / 201° 89.0 NM	11 000 FT/FL 110			
▲ PHETCHABUN DVOR/DME (PCB) 164034N 1011148E	017° / 197° 28.0 NM				
▲ UDIKU 170735N 1011952E	017° / 197° 10.0 NM				
▲ OMGIV 171709N 1012243E	017° / 197° 28.0 NM			↑	
▲ YAKUA 174415N 1013052E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
B460					
▲ KHORAT DVOR/DME (KRT) 145502N 1020823E	053° 234° 89.0 NM	FL 460 6 500 FT Class A	20	↓	Conditional Route (CDR) Availability; Portion between KRT-ROT CDR1 1. Weekdays, Monday to Friday 1000-2300 UTC 2. From Friday 1000 UTC to Sunday 2300 UTC 3. Public Holidays CDR2 Other periods, Availability will be Notified by Airspace use plan (AUP) Published in www.thaicmac.aerothai.aero
▲ BODUR 154853N 1032127E	054° 234° 30.0 NM	7 000 FT			
▲ ROI-ET DVOR/DME (ROT) 160701N 1034619E	066° 246° 30.0 NM				
▲ RURAR 161943N 1041436E	066° 246° 33.0 NM			↑	
▲ SAVANNAKHET DVOR/DME (SAV) 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 **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
B579					
PHUKET DVOR/DME (PUT)					
▲ 080655N 0981823E	141° 321° 30.0 NM	FL 460 6 500 FT Class A 7 000 FT	20	↓	
REBED					
▲ 074332N 0983736E	141° 321° 20.0 NM	FL 460 6 500 FT Class A 7 000 FT			
NUTGU					
▲ 072803N 0985020E	141° 321° 77.0 NM	FL 460 9 500 FT Class A 10 000 FT		↑	
DALAN					
▲ 062808N 0993920E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
G331					
▲ PADET 100007N 0981719E	180° 000° 53.0 NM	FL 460 9 500 FT Class A 10 000 FT	10	↓	
▲ DADSA 090713N 0981749E	180° 000° 30.0 NM	FL 460 6 500 FT Class A 7 000 FT			
▲ SUSID 083659N 0981808E	180° 000° 30.0 NM			↑	
▲ PHUKET DVOR/DME (PUT) 080655N 0981823E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 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				
080655N 0981823E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
G463					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	298° 118° 70.0 NM	FL 460 9 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ TARED 142620N 0993129E	298° 118° 86.0 NM	10 000 FT		↑	
▲ BETNO 150554N 0981231E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
G473					
MAKAS 164947N 0982949E	093° 273° 103.0 NM	FL 460 9 000 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
PHITSANULOK DVOR/DME (PSL) 164613N 1001729E	096° 276° 98.0 NM	10 000 FT			
CHUM PHAE DVOR/DME (CMP) 163807N 1015920E	117° 297° 186.0 NM			↑	
UBON DVORDME (UBL) 151443N 1045157E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
G474					
BANGKOK DVOR/DME (BKK)					
135337N 1003546E	091° 271° 51.0 NM	FL 460 10 500 FT Class A 11 000 FT	(*)	↓	(*) For width of airways, see ENR 2.1-1.
ANKOS					
135300N 1012742E	091° 272° 22.0 NM	FL 460 FL 145 Class A FL 150			
DOSBU					
135240N 1015002E	092° 272° 28.0 NM				
ANREN					
135212N 1021838E	092° 272° 27.0 NM			↑	
OMURO					
135143N 1024559E					For continuation, see AIP Kingdom of Cambodia.
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
R201					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	162° 342° 77.0 NM	FL 460 6 500 FT Class A 7 000 FT	20	↓ ↑	Excluding area of VTP7
▲ U-TAPAO DVOR/DME (BUT) 124000N 1010002E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
R202					
▲ BIGVO 172830N 0984154E	066° 246° 93.0 NM	FL 460 12 500 FT/FL 125 Class A FL 130	10	↓	
▲ PHRAE DVOR/DME (PAE) 180803N 1000958E	042° 222° 20.0 NM				
▲ SUNGO 182312N 1002346E	042° 222° 34.0 NM			↑	
▲ NAN DVOR/DME (NAN) 184833N 1004657E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
R203					
▲ PHUKET DVORDME (PUT) 080655N 0981823E	268° 087° 30.0 NM	FL 460 6 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ UBNEN 080520N 0974812E	268° 088° 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 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 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 (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
R215					
▲ CHIANG RAI DVOR/DME (CTR) 195656N 0995259E	144° 324° 30.0 NM	FL 460 9 500 FT Class A	(*)	↓	
▲ DUBEN 193249N 1001207E	144° 324° 55.0 NM	10 000 FT			
▲ NAN DVOR/DME (NAN) 184833N 1004657E	052° 232° 35.0 NM			↑	
▲ TOMIP 191105N 1011548E					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 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification / Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
R325					
▲ IKULA					
100007N 0972114E	154° / 334°	FL 460 / 9 000 FT	(*)	↓	(*) For width of airways, see ENR 2.1-1.
	66.0 NM	Class A / 10 000 FT			
▲ MUDMA					
090050N 0975115E	154° / 334°	FL 460 / 6 500 FT			
	30.0 NM	Class A			
▲ UPSAB					
083348N 0980452E	154° / 334°	7 000 FT			
	30.0 NM				
▲ PHUKET DVOR/DME (PUT)					
080655N 0981823E	134° / 314°				
	30.0 NM				
▲ URGAD					
074615N 0984031E	133° / 313°				
	5.0 NM				
▲ OSVIP					
074253N 0984409E	134° / 314°	FL 460 / 9 500 FT			
	62.0 NM	Class A / 10 000 FT			
▲ UTHAI					
070008N 0992949E	132° / 312°			↑	
	51.0 NM				
▲ DUBAX					
062556N 1000737E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
R334					
▲ RAYONG DVOR/DME (RYN) 124648N 1014042E	132° 312° 103.0 NM	FL 460 FL 165 Class A FL 170	20	↓ ↑	
▲ SAKDA 113654N 1030000E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
R345					
ROI-ET DVOR/DME (ROT)					
▲ 160701N 1034619E	180° 000°	FL 460 FL 215	10	↓	
GRASO	58.0 NM	Class A			
▲ 150917N 1034714E	180° 000°	FL 220			
PASAT	12.0 NM				
▲ 145727N 1034726E	180° 000°				
PEKBA	9.0 NM				
▲ 144808N 1034733E	180° 000°			↑	
BIDEM	26.0 NM				
▲ 142154N 1034750E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
R468					
BANGKOK DVOR/DME (BKK)					
▲ 135337N 1003546E	117° / 298°	FL 460 / 7 500 FT	(*)	↓	(*) For width of airways, see ENR 2.1-1.
UGIPA	18.0 NM	Class A			
▲ 134524N 1005221E	118° / 298°	8 000 FT			
GORSI	32.0 NM				
▲ 133055N 1012128E	118° / 298°				
GOMES	15.0 NM				
▲ 132406N 1013506E	117° / 297°				
BERLU	23.0 NM				
▲ 131350N 1015620E	117° / 297°	FL 460 / FL 155			
	36.0 NM	Class A		↑	
BOKAK		FL 160			
▲ 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 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
R470					For continuation, see AIP Lao People's Democratic Republic.
▲ VIENTIANE DVOR/DME (VTN) 180037N 1023226E	161° 341° 15.0 NM	FL 460 3 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ ELNET 174625N 1023746E	161° 341° 25.0 NM	4 000 FT			
▲ UDON DVOR/DME (UDN) 172304N 1024630E	144° 324° 30.0 NM	FL 460 6 500 FT Class A			
▲ POVEX 165905N 1030530E	144° 324° 35.0 NM	7 000 FT			
▲ DOTUS 163103N 1032732E	144° 324° 30.0 NM				
▲ ROI-ET DVOR/DME (ROT) 160701N 1034619E	130° 310° 30.0 NM				
▲ ENTEK 154755N 1041024E	130° 310° 52.0 NM			↑	
▲ UBON DVOR/DME (UBL) 151443N 1045157E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
R474					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	027° 207° 57.0 NM	FL 460 6 500 FT Class A 7 000 FT	(*)	↓	(*) For width of airways, see ENR 2.1-1. Conditional Route (CDR) availability: Portion between 7,000 FT to FL350 CDR1 1.Weekdays,Monday to Friday 0900-0100 UTC. 2. Friday 0900 UTC to Monday 0100 UTC 3.Public Holidays CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
▲ ALBOS 144442N 1010142E	027° 207° 126.0 NM				
▲ CHUM PHAE DVOR/DME (CMP) 163811N 1015905E	022° 202° 78.0 NM	FL 460 3 500 FT Class A 4 000 FT			
▲ LEDER 175044N 1022825E	022° 202° 11.0 NM	FL 460 3 500 FT Class A 4 000 FT		↑	
▲ VIENTIANE DVOR/DME (VTN) 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 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
R575					
▲ PHUKET DVORDME (PUT) 080655N 0981823E	069° / 249° 30.0 NM	FL 460 / 8 500 FT Class A	10	↓	(*) For width of airways, see ENR 2.1-1.
▲ ONETI 081757N 0984633E	069° / 249° 45.0 NM	9 000 FT			
▲ RECNO 083425N 0992825E	031° / 211° 38.0 NM				
▲ MESEM 090719N 0994816E	031° / 211° 30.0 NM				
▲ SAMUI DVORDME (SMU) 093249N 1000342E	070° / 250° 15.0 NM	FL 460 / 6 500 FT Class A			
△ VININ 093754N 1001740E	070° / 250° 13.0 NM	7 000 FT			
▲ UPNEP 094213N 1002936E	051° / 231° 48.0 NM		(*)		
△ EMELA 101249N 1010729E	053° / 233° 15.0 NM	FL 460 / FL 155 Class A			
▲ ANBUX 102137N 1011908E	053° / 233° 40.0 NM	FL 160			
▲ ALUMO 104554N 1015123E	053° / 233° 29.0 NM				
△ ANOBO 110323N 1021442E	054° / 234° 56.0 NM			↑	
▲ SAKDA 113654N 1030000E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
R588					
▲ PHUKET DVORDME (PUT) 080655N 0981823E	092° / 272° 30.0 NM	FL 460 / 9 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ EMRIT 080621N 0984840E	090° / 270° 10.0 NM	10 000 FT			
▲ KRABI DVORDME (KBI) 080627N 0985839E	092° / 272° 87.0 NM				
▲ RELIP 080432N 1002619E	052° / 232° 37.0 NM	FL 460 / FL 155 Class A			
▲ IDRUK 082724N 1005513E	052° / 232° 12.0 NM	FL 160			
△ SUPIN 083435N 1010419E	052° / 232° 32.0 NM				
△ MUBAN 085441N 1012952E	052° / 232° 6.0 NM				
▲ OSROG 085820N 1013431E	052° / 232° 31.0 NM				
△ TONIK 091736N 1015907E	052° / 232° 28.0 NM			↑	
▲ BASIT 093447N 1022108E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification / Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W1					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	044° / 224° 51.0 NM	FL 460 / 6 500 FT Class A	10	↓	
▲ MALKI 143111N 1011153E	067° / 247° 15.0 NM	7 000 FT			
▲ UBLOD 143715N 1012612E	067° / 247° 45.0 NM	FL 460 / 12 500 FT/FL 125 Class A			
▲ KHORAT DVOR/DME (KRT) 145502N 1020823E	082° / 262° 51.0 NM	13 000 FT/FL 130			
▲ RAMEI 150240N 1030040E	082° / 262° 22.0 NM	FL 460 / 6 500 FT Class A			
△ RAMBU 150554N 1032319E	082° / 262° 23.0 NM	7 000 FT			
▲ GRASO 150917N 1034714E	086° / 266° 63.0 NM			↑	
▲ UBON DVOR/DME (UBL) 151443N 1045157E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W4					
UDON DVOR/DME (UDN)					
172304N 1024630E	144° 324°	FL 460 6 500 FT	(*)	↓	(*) For width of airways, see ENR 2.1-1.
POVEX	30.0 NM	Class A			
165905N 1030530E	144° 324°	7 000 FT			
DOTUS	35.0 NM				
163103N 1032732E	144° 324°				
ROI-ET DVOR/DME (ROT)	30.0 NM				
160701N 1034619E	130° 310°				
ENTEK	30.0 NM				
154755N 1041024E	130° 310°			↑	
UBON DVOR/DME (UBL)	52.0 NM				
151443N 1045157E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W5					
▲ UDON DVOR/DME (UDN) 172304N 1024630E	180° 000° 25.0 NM	FL 460 6 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ ANPUS 165800N 1024651E	180° 000° 5.0 NM	7 000 FT			
▲ ALGIT 165300N 1024655E	180° 000° 25.0 NM				
▲ KHON KAEN DVOR/DME (KKN) 162815N 1024716E	111° 291° 31.0 NM				
▲ SEDNO 161733N 1031707E	111° 291° 30.0 NM				
▲ ROI-ET DVOR/DME (ROT) 160701N 1034619E	130° 310° 30.0 NM				
▲ ENTEK 154755N 1041024E	130° 310° 52.0 NM			↑	
▲ UBON DVOR/DME (UBL) 151443N 1045157E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification / Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W6					
▲ KHORAT DVOR/DME (KRT) 145502N 1020823E	023° / 203° 70.0 NM	FL 460 / 6 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ EMRUT 160020N 1023533E	023° / 203° 30.0 NM	7 000 FT			
▲ KHON KAEN DVOR/DME (KKN) 162815N 1024716E	061° / 241° 24.0 NM				
▲ AKRET 164016N 1030856E	061° / 241° 65.0 NM				
▲ SAKON NAKHON DVOR/DME (SKN) 171251N 1040812E	071° / 251° 31.0 NM			↑	
▲ NAKHON PHANOM DVOR/DME (NKP) 172318N 1043818E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W7					
▲ CHIANG MAI DVORDME (CMA) 184558N 0985740E	192° 012° 38.0 NM	FL 460 8 000 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ PUMAM 180831N 0985001E	192° 012° 41.0 NM	9 000 FT			
▲ BIGVO 172830N 0984154E	192° 012° 25.0 NM				
▲ VEGRA 170333N 0983653E	192° 012° 22.0 NM			↑	
▲ MAE SOT DVORDME (MST) 164152N 0983230E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W8					
▲ TAKHLI NDB (TL) 151633N 1001751E	102° 282° 109.0 NM	FL 460 6 500 FT Class A 7 000 FT	(*)	↓ ↑	(*) For width of airways, see ENR 2.1-1.
▲ KHORAT DVOR/DME (KRT) 145502N 1020823E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 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 (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W10					
▲ KAMPHAENG SAEN DVOR/DME (KPS) 140956N 0995715E	001° 181° 40.0 NM	FL 260 5 500 FT Class A	(*)	↓	For Military use only. (*) For width of airways, see ENR 2.1-1.
▲ VUTHI 145007N 0995725E	037° 218° 33.0 NM	6 000 FT		↑	
▲ TAKHLI NDB (TL) 151633N 1001751E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 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 (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W13					
▲ LAMPANG DVOR/DME (LPN) 181636N 0993008E	104° 284° 25.0 NM	FL 460 6 000 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ OMDIL 181107N 0995546E	104° 284° 14.0 NM	7 000 FT		↑	
▲ PHRAE DVOR/DME (PAE) 180803N 1000958E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W14					
▲ PHUKET DVORDME (PUT) 080655N 0981823E	115° 295° 30.0 NM	FL 460 6 500 FT Class A	10	↓	
▲ EPGOT 075416N 0984555E	115° 295° 57.0 NM	7 000 FT			
▲ TRANG DVORDME (TRN) 073032N 0993734E	127° 307° 22.0 NM				
▲ PADPA 071700N 0995532E	127° 307° 35.0 NM			↑	
▲ HAT YAI DVORDME (HTY) 065603N 1002316E					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 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		7 000 FT			
▲ 183452N 0991859E	120° / 300°				
	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° / 263°				
	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)					
▲ 172304N 1024630E	098° / 278°	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 (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W16					
△ PANKU 172035N 1005606E	126° 306° 74.0 NM	FL 460 6 500 FT Class A	(*)	↓	
▲ CHUM PHAE DVOR/DME (CMP) 163807N 1015920E	103° 283° 27.0 NM	7 000 FT			
▲ ONUVI 163228N 1022655E	103° 283° 20.0 NM			↑	
▲ KHON KAEN DVOR/DME (KKN) 162815N 1024716E					
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)					
094643N 0983502E	140° / 320°	FL 460 / 6 500 FT	10	↓	
TOGIM	26.0 NM	Class A			
092659N 0985148E	140° / 320°	7 000 FT			
SURAT THANI DVORDME (STN)	25.0 NM				
090746N 0990805E	151° / 331°	FL 460 / 7 500 FT			
EMVEL	27.0 NM	Class A			
084438N 0992122E	151° / 331°	8 000 FT			
ELREM	90.0 NM				
072616N 1000607E	151° / 331°			↑	
HAT YAI DVORDME (HTY)	35.0 NM				
065603N 1002316E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W19					
▲ BANGKOK DVORDME (BKK) 135337N 1003546E	182° 002° 32.0 NM	FL 460 6 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
△ POLAK 132106N 1003454E	181° 001° 33.0 NM	7 000 FT			
▲ GUTSO 124820N 1003454E	181° 001° 48.0 NM				
▲ REGOS 120007N 1003454E	183° 003° 60.0 NM				
△ DIRAX 110007N 1003248E	183° 003° 40.0 NM				
▲ TUSPU 101948N 1003108E	183° 003° 37.0 NM				
▲ UPNEP 094213N 1002936E	162° 342° 17.0 NM				
▲ ROBDA 092558N 1003511E	162° 342° 62.0 NM				
▲ IDRUK 082724N 1005513E	162° 342° 25.0 NM				
△ ADNEP 080344N 1010318E	156° 336° 75.0 NM				
▲ NUBKA 065434N 1013426E	156° 336° 25.0 NM			↑	
▲ NARATHIWAT DVORDME (NTW) 063138N 1014442E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W20					
▲ CHIANG MAI DVOR/DME (CMA)					
184558N 0985740E	038° 218° 25.0 NM	FL 350 7 500 FT Class A	10	↓	
▲ ADLUS					
190610N 0991320E	038° 218° 33.0 NM	8 000 FT			
▲ NUMDO					
193243N 0993402E	038° 218° 30.0 NM			↑	
▲ CHIANG RAI DVOR/DME (CTR)					
195656N 0995259E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W21					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	004° 184° 83.0 NM	FL 460 10 000 FT Class A 11 000 FT	10	↓	
▲ NOBER 151636N 1004006E	044° 224° 111.0 NM	FL 460 6 500 FT Class A 7 000 FT			
▲ CHUM PHAE DVOR/DME (CMP) 163811N 1015905E	046° 227° 34.0 NM				
▲ SURGU 170158N 1022408E	047° 227° 30.0 NM			↑	
▲ UDON DVOR/DME (UDN) 172304N 1024630E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 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 (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W23					
▲ PHITSANULOK DVOR/DME (PSL) 164613N 1001729E	334° 154° 30.0 NM	FL 460 6 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ POLOB 171309N 1000328E	334° 154° 37.0 NM	7 000 FT			
△ PIVUT 174644N 0994553E	334° 154° 8.0 NM				
▲ VENAG 175411N 0994158E	334° 154° 25.0 NM			↑	
▲ LAMPANG DVOR/DME (LPN) 181636N 0993008E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W24					
▲ SURAT THANI DVOR/DME (STN) 090746N 0990805E	164° 344° 25.0 NM	FL 460 7 500 FT Class A	10	↓	
▲ IDNAR 084344N 0991524E	164° 344° 17.0 NM	8 000 FT			
▲ BITEN 082659N 0992029E	164° 344° 59.0 NM			↑	
▲ TRANG DVOR/DME (TRN) 073032N 0993734E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W25					
▲ SUKHOTHAI NDB (THS) 171407N 0994919E	021° 201° 40.0 NM	FL 460 6 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ IBUBU 175128N 1000336E	021° 201° 18.0 NM	9 000 FT			
▲ PHRAE DVOR/DME (PAE) 180803N 1000958E	042° 222° 20.0 NM	FL 460 8 000 FT Class A			
▲ SUNGO 182312N 1002346E	042° 222° 34.0 NM	9 000 FT		↑	
▲ NAN DVOR/DME (NAN) 184833N 1004657E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W26					
▲ MAE SOT DVOR/DME (MST) 164152N 0983230E	075° 255° 21.0 NM	FL 460 6 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ KADAV 164754N 0985341E	075° 255° 21.0 NM	7 000 FT			
▲ TAK NDB (TK) 165358N 0991508E	098° 278° 31.0 NM				
△ IGPOP 165002N 0994708E	098° 278° 29.0 NM				
▲ PHITSANULOK DVOR/DME (PSL) 164613N 1001729E	097° 277° 30.0 NM				
▲ GOKON 164301N 1004834E	097° 277° 22.0 NM				
▲ PHETCHABUN DVOR/DME (PCB) 164034N 1011148E	094° 274° 46.0 NM			↑	
▲ CHUM PHAE DVOR/DME (CMP) 163807N 1015920E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W27					
▲ PHITSANULOK DVOR/DME (PSL) 164613N 1001729E	065° 245° 30.0 NM	FL 460 6 500 FT Class A	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ REMER 165935N 1004531E	065° 245° 40.0 NM	7 000 FT			
▲ OMGIV 171709N 1012243E	065° 245° 7.0 NM				
▲ RIBDO 172014N 1012918E	065° 245° 15.0 NM			↑	
▲ LOEI DVOR/DME (LOY) 172649N 1014323E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W28					
▲ SURAT THANI DVORDME (STN) 090746N 0990805E	126° 306° 25.0 NM	FL 460 8 500 FT Class A	10	↓	
▲ SEGRA 085300N 0992831E	126° 306° 35.0 NM	9 000 FT			
▲ NAKHON SI THAMMARAT DVORDME (NKS) 083230N 0995649E	165° 345° 65.0 NM	FL 460 7 500 FT Class A			
▲ ENVON 072933N 1001406E	165° 345° 35.0 NM	8 000 FT		↑	
▲ HAT YAI DVORDME (HTY) 065603N 1002316E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W29					
▲ PHITSANULOK DVOR/DME (PSL) 164613N 1001729E	010° 190° 30.0 NM	FL 460 6 500 FT Class A	10	↓	
▲ GOSTA 171557N 1002230E	010° 190° 27.0 NM	7 000 FT			
▲ UTTAR 174305N 1002706E	017° 197° 68.0 NM			↑	
▲ NAN DVOR/DME (NAN) 184833N 1004657E	324° 144° 55.0 NM	FL 460 8 500 FT Class A		↓	
▲ DUBEN 193249N 1001207E	324° 144° 30.0 NM	9 000 FT		↑	
▲ CHIANG RAI DVOR/DME (CTR) 195656N 0995259E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W31					
▲ SUPOJ 101642N 1001220E	355° / 175° 72.0 NM	FL 460 / 3 500 FT Class A	10	↓	
▲ EGUBO 112838N 1000450E	354° / 174° 34.0 NM	4 000 FT			
△ UKERA 120207N 1000110E	354° / 174° 36.0 NM				
▲ HUA HIN DVOR/DME (HHN) 123804N 0995704E	046° / 226° 31.0 NM	FL 150 / 3 500 FT Class A 4 000 FT			
▲ HOTEL 130006N 1001948E	017° / 197° 56.0 NM	FL 150 / 7 500 FT Class A 8 000 FT		↑	
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification / Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W32					
▲ REGOS 120007N 1003454E	193° 013° 43.0 NM	FL 460 3 500 FT Class A 4 000 FT	10		Uni-directional northbound from GOKEX to REGOS Conditional Route (CDR) availability: Portion between REGOS-SMU
▲ GOKEX 111815N 1002544E	193° 013° 63.0 NM			↑	
▲ SUPOJ 101642N 1001220E	191° 011° 15.0 NM			↓	CDR1 1. Weekdays, Monday to Friday 1700 - 2300 UTC 2. From Friday 1700 UTC to Sunday 2300 UTC 3. Public Holidays CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
▲ ENRAG 100223N 1000931E	191° 011° 30.0 NM				
▲ SAMUI DVOR/DME (SMU) 093249N 1000342E	246° 066° 19.0 NM				
▲ DORNA 092459N 0994614E	246° 066° 16.0 NM				
△ ADLAL 091810N 0993106E	246° 066° 9.0 NM				
▲ VEGNA 091427N 0992251E	246° 066° 16.0 NM				
▲ SURAT THANI DVOR/DME (STN) 090746N 0990805E	189° 009° 19.0 NM	FL 460 7 500 FT Class A 8 000 FT			
▲ TEDOS 084834N 0990507E	189° 009° 6.0 NM				
▲ TAVAT 084257N 0990416E	189° 009° 12.0 NM				
▲ NULMA 083118N 0990228E	189° 009° 3.0 NM				
▲ LUXIR 082819N 0990200E	189° 009° 7.0 NM				
▲ SARER 082127N 0990057E	189° 009° 15.0 NM			↑	
▲ KRABI DVOR/DME (KBI) 080627N 0985839E	133° 313° 28.0 NM			↓	
▲ TUNRA 074737N 0991905E	133° 313° 25.0 NM			↑	
▲ TRANG DVOR/DME (TRN) 073032N 0993734E					

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
W33					
▲ PHUKET DVOR/DME (PUT) 080655N 0981823E	069° 249°	FL 460 9 500 FT	10	↓	Conditional Route (CDR) availability: Portion between PUT-SMU CDR1 1. Weekdays, Monday to Friday 1700 - 2300 UTC 2. From Friday 1700 UTC to Sunday 2300 UTC 3. Public Holidays CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
▲ ONETI 081757N 0984633E	30.0 NM 069° 249°	Class A 10 000 FT			
▲ RECNO 083425N 0992825E	45.0 NM 031° 211°	FL 460 6 500 FT			
▲ MESEM 090719N 0994816E	38.0 NM 031° 211°	Class A 7 000 FT			
▲ SAMUI DVOR/DME (SMU) 093249N 1000342E	30.0 NM 070° 250°				
△ VININ 093754N 1001740E	15.0 NM 070° 250°				
▲ UPNEP 094213N 1002936E	13.0 NM 046° 226°				
▲ MABKO 094809N 1003543E	8.0 NM 046° 226°				
▲ SURIX 105959N 1015015E	103.0 NM 021° 201°				
▲ TRAT NDB (TRT) 121628N 1021850E	81.0 NM 310° 129°			↑	
▲ RAYONG DVOR/DME (RYN) 124648N 1014042E	48.0 NM				

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W34					
▲ MENEX					
110831N 0994543E	223° 043°	FL 460 6 500 FT	10	↓	
▲ CHUM PHON DVOR/DME (CPN)	35.0 NM	Class A			
104240N 0992156E	220° 040°	7 000 FT			
▲ RANONG DVOR/DME (RAN)	72.0 NM				
094643N 0983502E	190° 010°				
▲ IGEVI	71.0 NM				
083640N 0982320E	190° 010°			↑	
▲ PHUKET DVOR/DME (PUT)	30.0 NM				
080655N 0981823E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W35					
UPNEP					
▲ 094213N 1002936E	206° 026°	FL 460 7 500 FT	10	↓	Conditional Route (CDR) availability: Portion between UPNEP-NKS CDR1 1. Weekdays, Monday to Friday 1700 - 2300 UTC 2. From Friday 1700 UTC to Sunday 2300 UTC 3. Public Holidays CDR2 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° 025°	8 000 FT			
PAGLU	14.0 NM				
▲ 091549N 1001709E	205° 025°				
NAKHON SI THAMMARAT DVOR/DME (NKS)	48.0 NM				
▲ 083230N 0995649E	198° 018°			↑	
TRANG DVOR/DME (TRN)	65.0 NM				
▲ 073032N 0993734E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W36					
▲ CHIANG MAI DVOR/DME (CMA) 184558N 0985740E	321° 141° 25.0 NM	FL 460 8 000 FT Class A	10	↓	
▲ LAMUN 190513N 0984044E	321° 141° 10.0 NM	9 000 FT			
▲ MACHI 191306N 0983346E	280° 100° 7.4 NM				
▲ DOMKA 191419N 0982602E	280° 100° 30.0 NM			↑	
▲ MAE HONG SON DVOR/DME (MHS) 191911N 0975444E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W38					
▲ RAMEI 150240N 1030040E	052° 232° 19.0 NM	FL 460 6 500 FT Class A 7 000 FT	(*)	↓	(*) For width of airways, see ENR 2.1-1.
▲ BURI RAM DVOR/DME (BRM) 151422N 1031532E	030° 210° 30.0 NM				
▲ ANKID 154049N 1033057E	030° 210° 30.0 NM			↑	
▲ ROI-ET DVOR/DME (ROT) 160701N 1034619E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W39					Conditional Route (CDR) availability:
▲ NOBER 151636N 1004006E	021° 201° 89.0 NM	FL 460 6 500 FT Class A 7 000 FT	(*)	↓	CDR1 1. Weekdays, Monday to Friday 1700-2200 UTC. 2.Friday 1700 UTC to Sunday 2200 UTC 3. Public Holidays
▲ PHETCHABUN DVORDME (PCB) 164034N 1011148E	034° 214° 35.0 NM				CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
▲ DUBOL 171004N 1013154E	035° 215° 20.0 NM				(*) For width of airways, see ENR 2.1-1.
▲ LOEI DVORDME (LOY) 172649N 1014323E				↑	
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST(COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W40					
PHRAE DVOR/DME (PAE) 180803N 1000958E	147° 327° 18.0 NM	FL 460 7 500 FT Class A	10	↓	
AIZAK 175302N 1002040E	147° 327° 87.0 NM	8 000 FT		↑	
PHETCHABUN DVOR/DME (PCB) 164034N 1011148E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits / Lower limits or Airspace classification / Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W42					
MENEX 110831N 0994543E	044° 224° 28.0 NM	FL 460 FL 155 Class A FL 160	20	↓	
EGUBO 112838N 1000450E	044° 224° 14.0 NM				
UPVIL 113836N 1001421E	044° 224° 18.0 NM				
SURMA 115122N 1002633E	044° 224° 12.0 NM				
REGOS 120007N 1003454E	055° 235° 5.0 NM				
ASEKU 120306N 1003905E	055° 235° 32.0 NM	FL 460 FL 285 Class A FL 290			
PIDEL 122143N 1010514E	055° 235° 25.0 NM				
ALEMI 123626N 1012600E	055° 235° 18.0 NM				
RAYONG DVOR/DME (RYN) 124648N 1014042E	030° 210° 14.0 NM	FL 460 FL 125 Class A FL 130			
RUPTA 125839N 1014733E	030° 210° 5.0 NM	FL 460 FL 155 Class A FL 160			
NUGPA 130254N 1014959E	030° 210° 13.0 NM				
BERLU 131350N 1015620E	030° 210° 35.0 NM	FL 460 FL 205 Class A FL 210			
DULEM 134416N 1021400E	030° 210° 9.0 NM				
ANREN 135212N 1021838E	030° 210° 35.0 NM				
XIKMA 142236N 1023626E	031° 211° 18.0 NM				
TOPER 143808N 1024538E	031° 211° 16.0 NM				
PAKRI 145202N 1025409E	032° 212° 12.0 NM	FL 460 6 500 FT Class A 7 000 FT		↑	
RAMEI 150240N 1030040E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST(COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W43					
▲ CHUM PHAE DVOR/DME (CMP) 163811N 1015905E	098° 278° 142.0 NM	FL 460 6 500 FT Class A 7 000 FT	20	↓ ↑	
▲ OKENA 161608N 1042533E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
W44					
▲ NARATHIWAT DVOR/DME (NTW) 063138N 1014442E	219° 039° 25.0 NM	FL 460 8 500 FT Class A 9 000 FT	10	↓	
▲ ERVES 061208N 1012853E	219° 039° 32.0 NM			↑	
▲ BETONG DVOR/DME (BET) 054708N 1010839E					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W94					
NAKHON SI THAMMARAT DVOR/DME (NKS)					
▲ 083230N 0995649E	061° / 241° 35.0 NM	FL 460 / 4 500 FT 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 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
W99					
SAMUI DVOR/DME (SMU)					
▲ 093249N 1000342E	030° / 210° 30.0 NM	FL 460 / 4 500 FT Class A	10	↓	Uni-directional northbound route
OLBAG					
▲ 095849N 1001852E	030° / 210° 2.0 NM	5 000 FT			
APUSA					
△ 100057N 1002007E	031° / 211° 8.0 NM	FL 460 / 6 500 FT Class A			
DONSI					
▲ 100738N 1002401E	031° / 211° 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

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ENR 3.3 AREA NAVIGATION (RNAV) ROUTES

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
L301 **(RNAV 2)** **[GNSS]**					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	276° 096° 64.0 NM	FL 460 7 500 FT Class A		↓	Route segment between DWI and BKK available for overfly BKK (Bi-directional) and departing from VTBD or VTBS (Westbound).
▲ PASTO 140005N 0993007E	276° 096° 31.0 NM	8 000 FT		↑	
▲ TANEK 140306N 0985819E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
L507 **(RNAV 2)** **[GNSS]**					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	310° 130° 52.0 NM	FL 460 9 500 FT Class A		↓	
▲ IGONI 142633N 0995430E	310° 130° 39.0 NM	10 000 FT			
▲ NUNLI 145127N 0992304E	310° 130° 59.0 NM	FL 460 FL 145 Class A FL 150		↑	
▲ LUDVI 152849N 0983530E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
L515 **(RNAV 2)** **[GNSS]**					
IKULA 100007N 0972114E	154° 334° 66.0 NM	FL 460 10 500 FT Class A 11 000 FT/FL 110		↓	
MUDMA 090050N 0975115E	154° 334° 30.0 NM	FL 460 6 500 FT Class A			
UPSAB 083348N 0980452E	154° 334° 30.0 NM	7 000 FT		↑	
PHUKET DVOR/DME (PUT) 080655N 0981823E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
L524 **(RNAV 2)** **[GNSS]**					
BANGKOK DVOR/DME (BKK) ▲ 135337N 1003546E	286° 105° 66.0 NM	FL 460 9 500 FT Class A 10 000 FT			
IBETO ▲ 141036N 0992946E	285° 105° 31.0 NM				
MIGAR ▲ 141823N 0985907E	285° 105° 26.0 NM			↑	
NURDA ▲ 142451N 0983322E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
L645 **(RNAV 2)** **[GNSS]**					
▲ PHUKET DVORDME (PUT) 080655N 0981823E	268° 087° 30.0 NM	FL 460 6 500 FT Class A		↓	
▲ UBNEN 080520N 0974812E	268° 088° 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 **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
L759 **(RNAV 2)** **[GNSS]**					
PHUKET DVOR/DME (PUT) 080655N 0981823E	318° 138° 30.0 NM	FL 460 6 500 FT Class A		↓	
SATVA 082902N 0975756E	318° 138° 30.0 NM	7 000 FT			
ANPAN 085116N 0973720E	318° 138° 93.0 NM	FL 460 10 500 FT Class A 11 000 FT/FL 110		↑	
TAVUN 100000N 0963312E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
L877 **(RNAV 2)** **[GNSS]**					
MIGAR ▲ 141823N 0985907E	256° 075° 15.0 NM	FL 460 9 500 FT Class A 10 000 FT		↑	Available for aircraft destination VTBD or VTBS only
PUMOR ▲ 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 (RNAV 2) [GNSS]					
▲ BANGKOK DVOR/DME (BKK)					
135337N 1003546E	091° / 271°	FL 460 / 10 500 FT		↓	
	51.0 NM	Class A			
▲ ANKOS		11 000 FT			
135300N 1012742E	091° / 272°	FL 460 / FL 145			
▲ DOSBU	22.0 NM	Class A			
135240N 1015002E	092° / 272°	FL 150			
▲ ANREN	28.0 NM				
135212N 1021838E	092° / 272°				
▲ OMURO	27.0 NM				
135143N 1024559E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
M502 **(RNAV 2)** **[GNSS]**					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	260° 079° 49.0 NM	FL 460 10 000 FT Class A		↓	Conditional Route (CDR) availability: CDR1 1. Weekdays, Monday to Friday 1500 -2300 UTC 2. From Friday 1500 UTC to Sunday 2300 UTC 3. Public Holidays CDR2 Not applicable
▲ BONVO 134410N 0994607E	259° 079° 36.0 NM	11 000 FT/FL 110			
▲ AKATO 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 (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
M626 **(RNAV 2)** **[GNSS]**					
EKAVO ▲ 113737N 0993025E	153° 333° 33.0 NM	FL 460 9 500 FT Class A		↓	
MENEX ▲ 110831N 0994543E	154° 334° 17.0 NM	10 000 FT			
NONEL ▲ 105301N 0995337E	154° 334° 58.0 NM				
APUSA △ 100057N 1002007E	154° 334° 8.0 NM				
SORTO ▲ 095353N 1002342E	154° 334° 13.0 NM				
UPNEP ▲ 094213N 1002936E	153° 333° 12.0 NM				
VALSI ▲ 093108N 1003518E	153° 333° 63.0 NM				
SUPIN △ 083435N 1010419E	153° 333° 61.0 NM			↑	
IKOGA ▲ 073935N 1013235E	153° 333° 94.0 NM			↑	Uni-directional northbound, portion between KADAX-IKOGA For continuation, see AIP Malaysia
KADAX ▲ 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 **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
M644 **(RNAV 2)** **[GNSS]**					
▲ RAYONG DVORDME (RYN) 124648N 1014042E	176° 355° 121.0 NM	FL 460 FL 285 Class A		↓	
▲ ALUMO 104554N 1015123E	175° 355° 88.0 NM	FL 290		↑	
△ TONIK 091736N 1015907E	175° 355° 76.0 NM				Uni-directional northbound route portion between TONIK - ABTOK
△ DUGON 080125N 1020549E	174° 354° 103.0 NM			↑	
▲ ABTOK 061818N 1021744E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
M648 **(RNAV 2)** **[GNSS]**					
▲ UDON DVOR/DME (UDN) 172304N 1024630E	022° 202° 30.0 NM	FL 460 6 500 FT Class A			Uni-directional southbound Conditional Route (CDR) Availability: CDR1 1. Weekdays, Monday to Friday from 1700-2200 UTC 2. From Friday 1700 UTC to Sunday 2200 UTC 3. Public holidays CDR2 Other periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
▲ MUGNO 175107N 1025753E	022° 202° 8.0 NM	7 000 FT			
▲ 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 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
M751 **(RNAV 2)** **[GNSS]**					
BANGKOK DVORDME (BKK) ▲ 135337N 1003546E	182° 002° 32.0 NM	FL 460 6 500 FT Class A		↓	
POLAK △ 132106N 1003454E	181° 001° 33.0 NM	7 000 FT			
GUTSO ▲ 124820N 1003454E	181° 001° 48.0 NM				
REGOS ▲ 120007N 1003454E	163° 343° 63.0 NM				
IDAGA △ 110007N 1005348E	164° 344° 49.0 NM				
EMELA ▲ 101249N 1010729E	164° 344° 81.0 NM			↑	
MUBAN △ 085441N 1012952E	164° 344° 54.0 NM				Uni-direction northbound route portion between GOLUD - MUBAN
TIKAL ▲ 080220N 1014448E	163° 343° 109.0 NM			↑	
GOLUD ▲ 061706N 1021639E					For continuation, see AIP Malaysia

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
M757 **(RNAV 2)** **[GNSS]**					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	175° 355° 49.0 NM	FL 460 FL 155 Class A		↓	Uni-directional southbound route
▲ KASNI 130450N 1004042E	182° 002° 61.0 NM	FL 160			
▲ ASEKU 120306N 1003905E	182° 002° 93.0 NM				
▲ NULBO 102919N 1003643E	182° 002° 41.0 NM	FL 460 6 500 FT Class A			
▲ MABKO 094809N 1003543E	182° 002° 17.0 NM	7 000 FT			
▲ VALSI 093108N 1003518E	182° 002° 5.0 NM				
▲ ROBDA 092558N 1003511E	182° 002° 32.0 NM				
▲ LOSDA 085356N 1003425E	182° 002° 84.0 NM				
▲ OBLEX 072948N 1003228E	181° 001° 60.0 NM				
▲ KARMI 062940N 1003121E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
M769 **(RNAV 2)** **[GNSS]**					
BANGKOK DVOR/DME (BKK) ▲ 135337N 1003546E	189° 009° 49.0 NM	FL 460 FL 155 Class A			Uni-directional northbound route
LEBIM ▲ 130515N 1002825E	182° 002° 74.0 NM	FL 160			
SURMA ▲ 115122N 1002633E	182° 002° 33.0 NM				
GOKEX ▲ 111815N 1002544E	182° 002° 70.0 NM				
DONSI ▲ 100738N 1002401E	182° 002° 14.0 NM				
SORTO ▲ 095353N 1002342E	182° 002° 25.0 NM	FL 460 FL 125 Class A			
PINUN ▲ 092825N 1002306E	182° 002° 19.0 NM	FL 130			
RIPMU ▲ 090852N 1002238E	182° 002° 22.0 NM				
DOXAS ▲ 084657N 1002208E	182° 002° 76.0 NM				
DANDO ▲ 073054N 1002024E	187° 007° 48.0 NM			↑	
RIGTO ▲ 064228N 1001504E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
M904 **(RNAV 2)** **[GNSS]**					Uni-directional southbound route, portion between BKK - TONIK
▲ BANGKOK DVORDME (BKK) 135337N 1003546E	163° 343° 49.0 NM	FL 460 6 500 FT 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. When VT D71 is activated, M904 is not available for flight planning.
▲ KIGOB 130646N 1005106E	162° 342° 28.0 NM	7 000 FT			
▲ U-TAPAO DVORDME (BUT) 124000N 1010002E	165° 345° 19.0 NM	FL 460 FL 145 Class A			
▲ PIDEL 122143N 1010514E	164° 344° 17.0 NM	FL 150 FL 460 FL 245 Class A			
△ DIPUN 120457N 1011011E	164° 344° 93.0 NM	FL 250			
△ SIRAT 103450N 1013640E	164° 344° 80.0 NM				
△ TONIK 091736N 1015907E	161° 341° 153.0 NM			↓ ↑	
▲ TIDAR 065230N 1025000E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
N506 **(RNAV 2)** **[GNSS]**					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	117° / 298° 18.0 NM	FL 460 / 7 500 FT Class A		↓	Uni-directional eastbound route
▲ UGIPA 134524N 1005221E	118° / 298° 32.0 NM	8 000 FT			
▲ GORSI 133055N 1012128E	118° / 298° 15.0 NM				
▲ GOMES 132406N 1013506E	117° / 297° 23.0 NM				
▲ BERLU 131350N 1015620E	117° / 297° 36.0 NM	FL 460 / FL 155 Class A			
▲ BOKAK 125736N 1022947E		FL160			
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
N891 **(RNAV 2)** **[GNSS]**					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	137° 317° 49.0 NM	FL 460 7 000 FT Class A		↓	
▲ DOLNI 131740N 1011048E	137° 317° 42.0 NM	8 000 FT			
▲ RAYONG DVORDME (RYN) 124648N 1014042E	163° 343° 108.0 NM	FL 460 FL 160 Class A			
△ ANOBO 110323N 1021442E	163° 343° 38.0 NM	FL 170		↑	
▲ BENSA 102631N 1022630E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
P627 **(RNAV 2)** **[GNSS]**					
PHUKET DVOR/DME (PUT) 080655N 0981823E	240° 060° 30.0 NM	FL 460 6 500 FT Class A		↓	
ANPUB 075141N 0975216E	240° 060° 11.0 NM	7 000 FT		↑	
RUSET 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 **(RNAV 2)** **[GNSS]**					
BANGKOK DVOR/DME (BKK) 135337N 1003546E	137° 317°	FL 460 7 500 FT			Uni-directional westbound route
MUBUS 134530N 1004342E	11.0 NM 137° 317°	Class A 8 000 FT			
DOLNI 131740N 1011048E	38.0 NM 112° 292°				
NUGPA 130254N 1014959E	41.0 NM 112° 292°				
OLDIR 125401N 1021325E	25.0 NM 112° 292°	FL 460 FL 155			
VAPVU 124701N 1023149E	19.0 NM	Class A FL 160		↑	

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
P646 **(RNAV 2)** **[GNSS]**					
BANGKOK DVOR/DME (BKK) 135337N 1003546E	298° 118° 70.0 NM	FL 460 9 500 FT Class A		↓	
TARED 142620N 0993129E	298° 118° 86.0 NM	10 000 FT		↑	
BETNO 150554N 0981231E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y1 **(RNAV 2)** **[GNSS]**					
▲ UDON DVOR/DME (UDN) 172304N 1024630E	206° 026° 30.0 NM	FL 460 12 000 FT Class A 13 000 FT		↓	Uni-directional southbound route Conditional Route (CDR) availability: CDR1 1. Weekdays, Monday to Friday 1000 - 2300 UTC 2. From Friday 1000 UTC to Sunday 2300 UTC 3. Public Holidays CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
▲ TERCO 165550N 1023308E	206° 026° 152.0 NM				
▲ UBLOD 143715N 1012612E	206° 026° 16.0 NM	FL 460 6 500 FT Class A 7 000 FT			
▲ PIPOB 142236N 1011914E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y2 **(RNAV 2)** **[GNSS]**					
KHON KAEN DVOR/DME (KKN) ▲ 162815N 1024716E	216° 036° 30.0 NM	FL 460 12 000 FT/FL 120 Class A		↓	Uni-directional southbound route Conditional Route (CDR) availability: CDR1 1. Weekdays, Monday to Friday 1000 - 2300 UTC 2. From Friday 1000 UTC to Sunday 2300 UTC 3. Public Holidays CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
NEMTE ▲ 160345N 1022913E	216° 036° 105.0 NM	13 000 FT/FL 130			
UBLOD ▲ 143715N 1012612E	206° 026° 16.0 NM	FL 460 6 500 FT Class A 7 000 FT			
PIPOB ▲ 142236N 1011914E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y3 **(RNAV 2)** **[GNSS]**					
▲ MENEX 110831N 0994543E	180° 000°	FL 460 7 000 FT		↓	Uni-directional southbound route Conditional Route (CDR) availability: CDR1 Not applicable CDR2 1. Available when VTD58 is activated 2. Availability shall be notified by NOTAM or Airspace use plan (AUP) published in www.thaicmac.aerothai.aero 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 092459N 0994614E	103.0 NM 229° 049°	Class A 8 000 FT			
▲ TEDOS 084834N 0990507E	55.0 NM 229° 049°				
▲ MONBU 082659N 0984056E	32.0 NM 229° 049°				
▲ PHUKET DVOR/DME (PUT) 080655N 0981823E	30.0 NM				

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y4 **(RNAV 2)** **[GNSS]**					
NONEL					
▲ 105301N 0995337E	173° / 353°	FL 460 / 7 000 FT			Uni-directional northbound route Conditional Route (CDR) availability: CDR1 Not applicable CDR2 1. Available when VTD58 is activated 2. Availability shall be notified by NOTAM or Airspace use plan (AUP) published in www.thaicmac.aerothai.aero 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 (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels: Odd | Even 5	Remarks Controlling unit Frequency 6
Y5 **(RNAV 2)** **[GNSS]**					
▲ PHUKET DVOR/DME (PUT) 080655N 0981823E	010° / 190°	FL 460 / 6 500 FT		↓	Uni-directional northbound route Conditional Route (CDR) availability: CDR1 1. Weekdays, Monday to Friday 1700 - 2200 UTC 2. From Friday 1700 UTC to Sunday 2200 UTC 3. Public Holidays CDR2 Other Periods, Availability shall be notified by NOTAM or Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
30.0 NM	Class A				
▲ IGEVI 083640N 0982320E	024° / 204°	7 000 FT			
31.0 NM					
△ ANDAX 090441N 0983545E	024° / 204°	FL 460 / 12 500 FT/FL 125			
32.0 NM	Class A				
▲ NOMEK 093404N 0984835E	026° / 206°	13 000 FT/FL 130			
76.0 NM					
▲ CHUM PHON DVOR/DME (CPN) 104240N 0992156E	043° / 223°				
35.0 NM					
▲ MENEX 110831N 0994543E	044° / 224°				
28.0 NM					
▲ EGUBO 112838N 1000450E	044° / 224°				
14.0 NM					
▲ UPVIL 113836N 1001421E	044° / 224°				
18.0 NM					
▲ SURMA 115122N 1002633E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y7 **(RNAV 2)** **[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 (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y8 **(RNAV 2)** **[GNSS]**					
BANGKOK DVORDME (BKK) 135337N 1003546E	197° 017° 44.0 NM	FL 460 12 500 FT/ FL 125 Class A		↓	Uni-directional southbound route
MOTNA 131110N 1002306E	226° 046° 16.0 NM	13 000 FT/FL 130			
SABIS 125959N 1001125E	226° 046° 35.0 NM				
VANKO 123511N 0994538E	180° 000° 51.0 NM				
BUXEL 114342N 0994540E	180° 000° 35.0 NM				
MENEX 110831N 0994543E	198° 018° 101.0 NM	FL 460 7 500 FT Class A			
IKERA 093146N 0991532E	198° 018° 25.0 NM	8 000 FT			
SURAT THANI DVORDME (STN) 090746N 0990805E	220° 040° 25.0 NM	FL 460 6 500 FT Class A		↓	Northbound direction between PUT and STN is available for flight departing VTSP and arriving VTSB only
LAMUL 084818N 0985208E	219° 039° 23.0 NM	7 000 FT			
SAVSA 083016N 0983729E	220° 040° 30.0 NM			↑	
PHUKET DVORDME (PUT) 080655N 0981823E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y9 **(RNAV 2)** **[GNSS]**					
▲ DANDO 073054N 1002024E	176° 356° 35.0 NM	FL 460 6 500 FT Class A 7 000 FT		↑	Uni-directional northbound route
▲ HAT YAI DVOR/DME (HTY) 065603N 1002316E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y10 **(RNAV 2)** **[GNSS]**					
▲ OBLEX 072948N 1003228E	196° 015° 35.0 NM	FL 460 6 500 FT Class A 7 000 FT		↓	Uni-directional southbound route
▲ HAT YAI DVOR/DME (HTY) 065603N 1002316E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y11 **(RNAV 2)** **[GNSS]**					Uni-directional southbound route
▲ KIGOB 130646N 1005106E	163° 343° 28.0 NM	FL 460 FL 155 Class A		↓	When VTD71 is activated, Y11 is not available for flight planning. 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) 124000N 1010002E	165° 345° 19.0 NM	FL 160			
▲ PIDEL 122143N 1010514E	181° 001° 43.0 NM				
△ NOMEP 113830N 1010454E	170° 350° 78.0 NM	FL 460 FL 245 Class A			
▲ ANBUX 102137N 1011908E	170° 350° 84.0 NM	FL 250			
▲ OSROG 085820N 1013431E	170° 350° 57.0 NM				
▲ TIKAL 080220N 1014448E	170° 350° 108.0 NM				
▲ PASVA 061529N 1020431E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y12 **(RNAV 2)** **[GNSS]**					Uni-directional northbound route
DOLNI ▲ 131740N 1011048E	161° 341° 44.0 NM	FL 460 FL 155 Class A			When VTR13 is activated, Y12 is not available for flight planning.
ALEMI ▲ 123626N 1012600E	168° 348° 113.0 NM	FL 160		↑	
ALUMO ▲ 104554N 1015123E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y13 **(RNAV 2)** **[GNSS]**					Uni-directional westbound route
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	056° 236° 51.0 NM	FL 460 6 500 FT Class A			Available for aircraft with VTBS as destination only.
▲ PIPOB 142236N 1011914E	073° 253° 37.0 NM	7 000 FT			
▲ RUKSA 143351N 1015512E	073° 253° 60.0 NM	FL 460 FL 205 Class A			
▲ PAKRI 145202N 1025409E	072° 252° 54.0 NM	FL 210		↑	
▲ GRASO 150917N 1034714E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y14 **(RNAV 2)** **[GNSS]**					
▲ SELKA 142020N 1015311E	024° 204° 38.0 NM	FL 460 FL 205 Class A FL 210		↓	Uni-directional northbound route
▲ KHORAT DVOR/DME (KRT) 145502N 1020823E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y15 **(RNAV 2)** **[GNSS]**					
△ SANOT 145134N 1032548E	050° 230° 27.0 NM	FL 460 FL 205 Class A		↓	Uni-directional northbound route
▲ GRASO 150917N 1034714E	024° 204° 59.0 NM	FL 210			
▲ GUROK 160329N 1041106E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels: Odd | Even 5	Remarks Controlling unit Frequency 6
Y16 **(RNAV 2)** **[GNSS]**					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	079° / 259° 51.0 NM	FL 460 / 7 500 FT Class A		↓	Uni-directional eastbound route
▲ UPKUP 140353N 1012655E	078° / 258° 31.0 NM	8 000 FT			
▲ LIPLI 141028N 1015756E	073° / 253° 39.0 NM	FL 460 / FL 205 Class A			
▲ XIKMA 142236N 1023626E	070° / 251° 73.0 NM	FL 210			
▲ PEKBA 144808N 1034733E	071° / 252° 111.0 NM				
▲ BUTRA 152506N 1053546E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y17 **(RNAV 2)** **[GNSS]**					
SAMUI DVORDME (SMU) 093249N 1000342E	030° 210° 30.0 NM	FL 460 4 500 FT Class A		↓	Uni-directional northbound route
OLBAG 095849N 1001852E	030° 210° 2.0 NM	5 000 FT			
APUSA 100057N 1002007E	031° 211° 8.0 NM				
DONSI 100738N 1002401E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits; Airspace Classification; Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels: Odd / Even 5	Remarks Controlling unit Frequency 6
Y18 **(RNAV 2)** **[GNSS]**					
▲ HAT YAI DVORDME (HTY) 065603N 1002316E	124° / 304° 22.0 NM	FL 460 / 6 500 FT Class A		↓	ConditionalRoute (CDR) availability; CDR1 1. Weekdays, Monday to Friday 1100-2300 UTC 2. From Friday 1100 UTC to Sunday 2300 UTC 3. Public Holidays CDR2 Other period, Availability shall be notified by NOTAM or Airspace use plan (AUP) in www.thaicmac.aerothai.aero
▲ KENNE 064340N 1004132E	124° / 304° 36.0 NM	7 000 FT			
▲ TONUV 062319N 1011127E	124° / 304° 10.0 NM				
▲ PETAC 061740N 1011945E	200° / 020° 32.0 NM			↑	
▲ BETONG DVORDME (BET) 054708N 1010839E					

Route designator (RNP type)* Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits Airspace Classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y19 **(RNAV 2)** **[GNSS]**					
▲ PATTANI NDB (PT) 064718N 1010853E	160° 340° 21.0 NM	FL 460 6 500 FT Class A 7 000 FT		↓	Conditional Route (CDR)availability; CDR1 1. Weekdays, Monday to Friday 1100-2300 UTC 2. From Friday 1100 UTC to Sunday 2300 UTC 3. Public Holidays CDR2 Other period, Availability shall be notified by NOTAM or Airspace use plan (AUP) in www.thaicmac.aerothai.aero
▲ LERNI 062706N 1011618E	160° 340° 10.0 NM				
▲ PETAC 061740N 1011945E	200° 020° 32.0 NM			↑	
▲ BETONG DVOR/DME (BET) 054708N 1010839E					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y20 **(RNAV 2)** **[GNSS]**					
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E	044° / 224°	FL 460 / 6 500 FT		↓	
	51.0 NM	Class A			
▲ MALKI 143111N 1011153E	067° / 247°	7 000 FT			
	15.0 NM				
▲ UBLOD 143715N 1012612E	067° / 247°	FL 460 / 12 500 FT / FL 125			
	45.0 NM	Class A			
▲ KHORAT DVOR/DME (KRT) 145502N 1020823E	082° / 262°	13 000 FT / FL 130			
	51.0 NM				
▲ RAMEI 150240N 1030040E	082° / 262°	FL 460 / 6 500 FT			
	22.0 NM	Class A			
▲ RAMBU 150554N 1032319E	082° / 262°	7 000 FT			
	23.0 NM				
▲ GRASO 150917N 1034714E	086° / 266°			↑	
	63.0 NM				
▲ UBON DVOR/DME (UBL) 151443N 1045157E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y21 **(RNAV 2)** **[GNSS]**					
UDON DVOR/DME (UDN)					
▲ 172304N 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 1034619E	130° / 310°				
ENTEK	30.0 NM				
▲ 154755N 1041024E	130° / 310°			↑	
UBON DVOR/DME (UBL)	52.0 NM				
▲ 151443N 1045157E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits or Airspace classification / Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels: Odd | Even 5	Remarks Controlling unit Frequency 6
Y22 **(RNAV 2)** **[GNSS]**					
UDON DVOR/DME (UDN)					
▲ 172304N 1024630E	180° / 000°	FL 460 / 10 500 FT		↓	
ANPUS	25.0 NM	Class A			
▲ 165800N 1024651E	180° / 000°	11 000 FT			
ALGIT	5.0 NM				
▲ 165300N 1024655E	180° / 000°				
KHON KAEN DVOR/DME (KKN)	25.0 NM				
▲ 162815N 1024716E	111° / 291°	FL 460 / 6 500 FT			
SEDNO	31.0 NM	Class A			
▲ 161733N 1031707E	111° / 291°	7 000 FT			
ROI-ET DVOR/DME (ROT)	30.0 NM				
▲ 160701N 1034619E	130° / 310°				
ENTEK	30.0 NM				
▲ 154755N 1041024E	130° / 310°				
UBON DVOR/DME (UBL)	52.0 NM			↑	
▲ 151443N 1045157E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type)* Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits or Airspace classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y23 **(RNAV 2)** **[GNSS]**					
KHORAT DVOR/DME (KRT) 145502N 1020823E	023° 203° 70.0 NM	FL 460 6 500 FT Class A		↓	
EMRUT 160020N 1023533E	023° 203° 30.0 NM	7 000 FT			
KHON KAEN DVOR/DME (KKN) 162815N 1024716E	061° 241° 24.0 NM				
AKRET 164016N 1030856E	061° 241° 65.0 NM				
SAKON NAKHON DVOR/DME (SKN) 171251N 1040812E	071° 251° 31.0 NM			↑	
NAKHON PHANOM DVOR/DME (NKP) 172318N 1043818E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits Airspace Classification **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y24 **(RNAV 2)**					
IKOGA 073935N 1013235E	160° 340° 90.0 NM	FL 460 FL 245 Class A	10	↓	Uni-direction southbound route
PASVA 061529N 1020431E					

Route designator (RNP type)* Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits Airspace Classification **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y25 **(RNAV 2)**					
▲ TONIK 091736N 1015907E	179° 359°	FL 460 FL 245	10	↓	Uni- direction southbound route
	181.0 NM	Class A			
▲ PASVA 061529N 1020431E					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y26 **(RNAV 2)** **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 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y27 **(RNAV 2)** **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 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y28 **(RNAV 2)** **GNSS**					
DUBEN ▲ 193249N 1001207E	179° / 359° 45.0 NM	FL 460 / 8 500 FT Class A		↓	Uni-directional southbound route
BENDY △ 184752N 1001334E	179° / 359° 121.0 NM	9 000 FT		↓	
PHITSANULOK DVOR/DME (PSL) ▲ 164613N 1001729E	181° / 001° 30.0 NM	FL 460 / 6 500 FT Class A			
PEBLI ▲ 161606N 1001736E	181° / 001° 59.0 NM	7 000 FT			
TAKHLI NDB (TL) ▲ 151633N 1001751E	169° / 349° 84.0 NM				
BANGKOK DVOR/DME (BKK) ▲ 135337N 1003546E					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y29 **(RNAV 2)** **GNSS**					
PIBAN ▲ 162314N 0995718E	041° 221° 30.0 NM	FL 460 6 500 FT Class A 7 000 FT		↓	Uni-directional northbound route
PHITSANULOK DVOR/ DME (PSL) ▲ 164613N 1001729E					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y30 **(RNAV 2)** **GNSS**					
NUVLU 164146N 0993140E	271° 091° 37.0 NM	FL 460 6 500 FT Class A 7 000 FT		↓	Uni-directional westbound route
URGUM 164154N 0985322E	271° 091° 20.0 NM				
MAE SOT DVORDME (MST) 164152N 0983230E					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y31 **(RNAV 2)** **GNSS**					
▲ LOEI DVORDME (LOY) 172649N 1014323E	231° 051° 20.0 NM	FL 460 7 500 FT Class A		↓	Uni-directional south-westbound route Conditional Route (CDR) availability: CDR1 1. Weekdays, Monday to Friday from 1700 - 2200 UTC 2. From Friday 1700 UTC to Sunday 2200 UTC 3. Public Holidays CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
▲ ANLUR 171330N 1012705E	231° 051° 9.0 NM	8 000 FT			
▲ UDIKU 170735N 1011952E	231° 051° 39.0 NM				
▲ GOKON 164301N 1004834E	229° 049° 40.0 NM				
▲ PEBLI 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 **(RNAV 2)** **GNSS**					
ELDAL ▲ 162106N 0993839E	012° 192° 29.0 NM	FL 460 6 500 FT Class A		↓	Uni-directional northbound route
KIMET ▲ 164928N 0994429E		7 000 FT			

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y33 **(RNAV 2)** **GNSS**					
BEBUV ▲ 172713N 0991613E	016° 196° 26.0 NM	FL 460 6 500 FT Class A		↓	Uni-directional northbound route
IBIRI ▲ 175223N 0992317E		7 000 FT			

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y34 **(RNAV 2)** **GNSS**					
▲ POLOB 171309N 1000328E	021° 201° 26.0 NM	FL 460 6 500 FT Class A		↓	Uni-directional northbound route
▲ IDKOR 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 **(RNAV 2)** **GNSS**						
LOEI DVOR/DME (LOY)						
▲ 172649N 1014323E	327° 147° 21.0 NM	FL 460 6 500 FT Class A 7 000 FT		↓		Conditional Route (CDR) availability: CDR1 1. Weekdays, Monday to Friday from 1700 - 2200 UTC 2. From Friday 1700 UTC to Sunday 2200 UTC 3. Public Holidays CDR2 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 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y36 **(RNAV 2)** **GNSS** CHIANG MAI DVOR/ DME (CMA)					
▲ 184558N 0985740E	080° 260° 25.0 NM	FL 460 6 500 FT Class A 7 000 FT		↓	Uni-directional eastbound route Conditional Route (CDR) availability: CDR1 1. Weekdays, Monday to Friday from 1400 - 0100 UTC 2. From Friday 1400 UTC to Sunday 0100 UTC 3. Public Holidays CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
IGUDA ▲ 185047N 0992332E	080° 260° 108.0 NM	FL 460 10 500 FT Class A 11 000 FT			
TOMIP ▲ 191105N 1011548E					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y37 **(RNAV 2)** **GNSS**					
ELDAL ▲ 162106N 0993839E	289° 109° 47.0 NM	FL 460 6 500 FT Class A		↓	Uni-directional westbound route Conditional Route (CDR) availability: CDR1 1. Weekdays, Monday to Friday from 1700 - 2200 UTC 2. From Friday 1700 UTC to Sunday 2200 UTC 3. Public Holidays CDR2 Other Periods, Availability shall be notified by Airspace use plan (AUP) published in www.thaicmac.aerothai.aero
TORAN ▲ 163541N 0985219E	289° 109° 20.0 NM	7 000 FT			
MAE SOT DVOR/DME (MST) ▲ 164152N 0983230E					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits; Airspace Classification; Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels: Odd | Even 5	Remarks Controlling unit Frequency 6
Y93 **(RNAV 2)** **[GNSS]**					
▲ AKVUG 090349N 0992219E	049° / 229° 14.0 NM	FL 460 / 7 500 FT Class A 8 000 FT		↓	Uni-directional northbound route
△ OTGOL 091306N 0993248E	049° / 229° 18.0 NM	FL 460 / 4 500 FT Class A 5 000 FT			
▲ DORNA 092459N 0994614E	066° / 246° 19.0 NM				
▲ SAMUI DVOR/DME (SMU) 093249N 1000342E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y94 **(RNAV 2)** **[GNSS]** NAKHON SI THAM-MARAT DVOR/DME (NKS)					
▲ 083230N 0995649E	061° 241° 29.0 NM	FL 460 4 500 FT Class A 5 000 FT		↓	
DOXAS ▲ 084657N 1002208E	061° 241° 14.0 NM	FL 460 6 500 FT Class A 7 000 FT		↑	
LOSDA ▲ 085356N 1003425E					
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type) Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits; Airspace Classification; Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels: Odd | Even 5	Remarks Controlling unit Frequency 6
Y95 **(RNAV 2)** **[GNSS]**					
▲ SAMUI DVOR/DME (SMU) 093249N 1000342E	142° / 322°	FL 460 / 4 500 FT		↓	
▲ RUMVA 091717N 1001600E	20.0 NM 142° / 322°	Class A 5 000 FT			
△ PAGLU 091549N 1001709E	2.0 NM 142° / 322°	FL 460 / 6 500 FT			
▲ RIPMU 090852N 1002238E	9.0 NM 142° / 322°	Class A 7 000 FT			
▲ APOBI 090147N 1002814E	9.0 NM 142° / 322°				
▲ LOSDA 085356N 1003425E	10.0 NM 142° / 322°				
▲ IDRUK 082724N 1005513E	34.0 NM 142° / 322°	FL 460 / 9 500 FT			
▲ IKOGA 073935N 1013235E	60.0 NM	Class A 10 000 FT		↑	
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits; Airspace Classification; Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels: Odd | Even 5	Remarks Controlling unit Frequency 6
Y96 **(RNAV 2)** **[GNSS]**					
▲ GOKEX 111815N 1002544E	332° 152°	FL 460 7 500 FT		↓	Uni-directional northbound route
▲ OLSEL 113411N 1001649E	18.0 NM 332° 152°	Class A 8 000 FT			
▲ UPVIL 113836N 1001421E	5.0 NM 332° 152°				
▲ EMTIX 114931N 1000814E	12.0 NM				
For flight planning procedure, see ENR 1.10.					

Route designator (RNP type)* Name of significant points Coordinates **1**	Track MAG (GEO) VOR RDL DIST (COP) **2**	Upper limits Lower limits Airspace Classification Minimum flight altitude **3**	Lateral limits NM **4**	Direction of cruising levels Odd | Even **5**	Remarks Controlling unit Frequency **6**
Y98 **(RNAV 2)** **[GNSS]**					
▲ NONEL 105301N 0995337E	030° 210° 47.0 NM	FL 460 7 500 FT Class A		↓	Uni-directional northbound route
▲ OLSEL 113411N 1001649E	030° 210° 20.0 NM	8 000 FT			
▲ SURMA 115122N 1002633E	002° 182° 74.0 NM				
▲ LEBIM 130515N 1002825E	009° 189° 49.0 NM				
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E					

For flight planning procedure, see ENR 1.10.

Route designator (RNP type)* Name of significant points Coordinates 1	Track MAG (GEO) VOR RDL DIST (COP) 2	Upper limits / Lower limits Airspace Classification Minimum flight altitude 3	Lateral limits NM 4	Direction of cruising levels Odd | Even 5	Remarks Controlling unit Frequency 6
Y99 **(RNAV 2)** **[GNSS]**					
▲ PHUKET DVOR/DME (PUT) 080655N 0981823E	092° / 272°	FL 460 / 6 500 FT		↓	Uni-directional northbound route
	30.0 NM	Class A			
▲ EMRIT 080621N 0984840E	090° / 270°	7 000 FT			
	10.0 NM				
▲ KRABI DVORDME (KBI) 080627N 0985839E	047° / 227°	FL 460 / 7 500 FT			
	20.0 NM	Class A			
▲ OSPEX 082015N 0991319E	047° / 227°	8 000 FT			
	10.0 NM				
▲ BITEN 082659N 0992029E	003° / 183°				
	18.0 NM				
▲ EMVEL 084438N 0992122E	003° / 183°				
	19.0 NM				
▲ AKVUG 090349N 0992219E	003° / 183°				
	11.0 NM				
▲ VEGNA 091427N 0992251E	018° / 198°				
	11.0 NM				
▲ NIXET 092517N 0992613E	018° / 198°				
	91.0 NM				
▲ NONEL 105301N 0995337E	018° / 198°				
	37.0 NM				
▲ EGUBO 112838N 1000450E	010° / 190°				
	21.0 NM				
▲ EMTIX 114931N 1000814E	010° / 190°				
	71.0 NM				
▲ HOTEL 130006N 1001948E	017° / 197°				
	12.0 NM				
▲ MOTNA 131110N 1002306E	017° / 197°				
	44.0 NM				
▲ BANGKOK DVOR/DME (BKK) 135337N 1003546E					

For flight planning procedure, see ENR 1.10.

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ENR 3.4 HELICOPTER ROUTES

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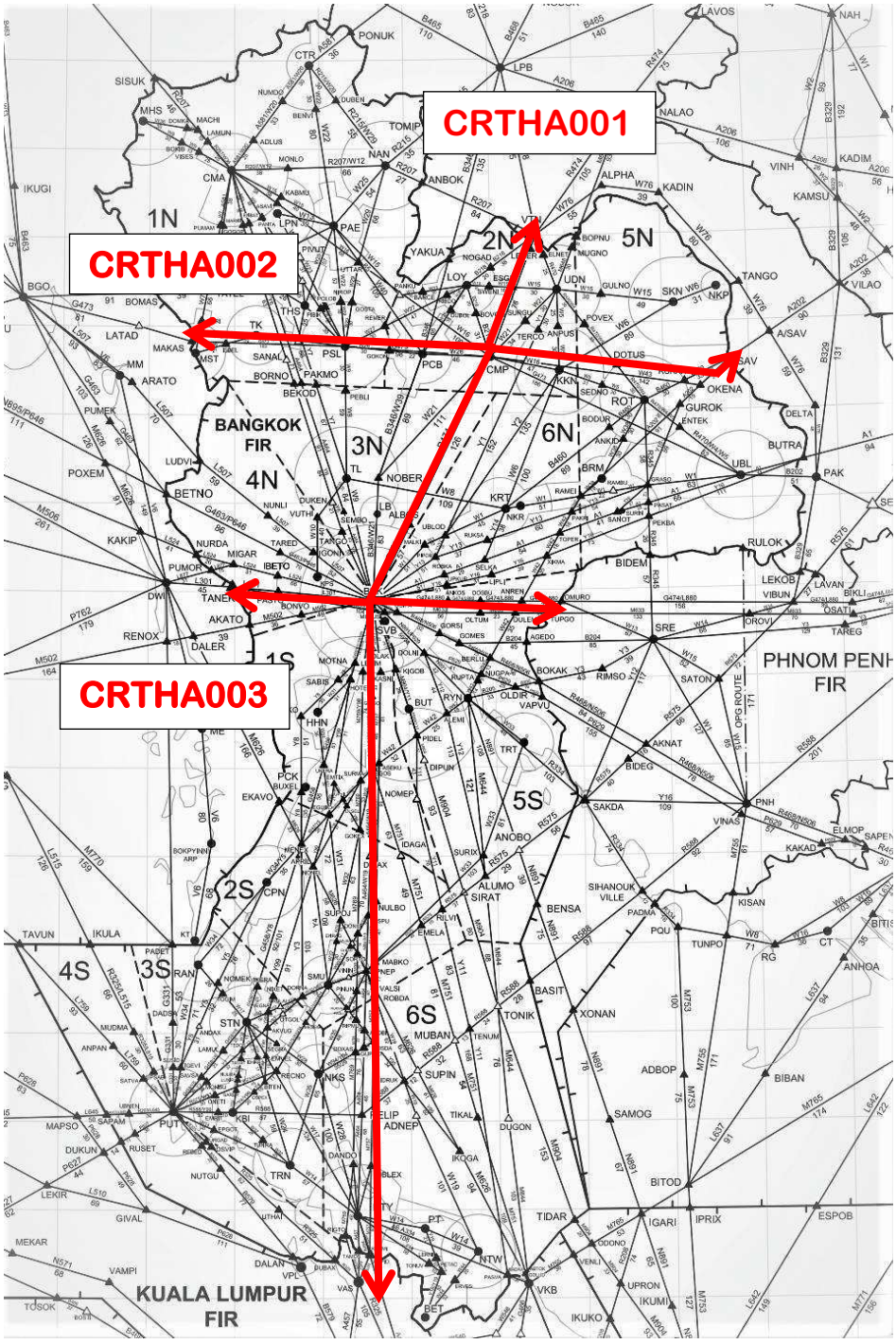
ENR 3.5 OTHER ATS ROUTES

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	117.7MHZ (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: – Radial 321°-030° altitude should not below 2 500 FT – Radial 031°-060° altitude should not below 4 000 FT – Radial 061°-120° altitude should not below 3 000 FT – Radial 121°-320° altitude should not below 4 000 FT
BETONG DVOR/DME	BET	113.1MHZ (CH 78X)	H24	054707.68N 1010838.65E		DVOR/DME restrictions, 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: – Radial 350°-020° altitude should not below 8 000 FT – Radial 021°-040° altitude should not below 6 500 FT – Radial 041°-060° altitude should not below 9 000 FT – Radial 061°-075° altitude should not below 15 000 FT – Radial 076°-349° unable to check due to border limit
BURI RAM DVOR/DME	BRM	117.2MHZ (CH 119X)	H24	151422.43N 1031531.59E	-	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: – Radial 091°-140° altitude should not below 3 500 FT – Radial 141°-240° altitude should not below 5 000 FT – Radial 241°-280° altitude should not below 4 000 FT – Radial 281°-090° altitude should not below 2 500 FT
CHIANG MAI DVOR/DME	CMA	116.9MHZ (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: 1. 40 NM Orbit – Radial 350º-080º altitude should not below 8 000 FT – Radial 081º-180º altitude should not below 7 000 FT – Radial 181º-240º altitude should not below 9 000 FT 2. 20 NM Orbit (Due to mountainous terrain) – 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: 1. 40 NM – Radial 141º-180º altitude should not below 5 000 FT – Radial 181º-210º altitude should not below 7 500 FT – Radial 211º-255º altitude should not below 9 000 FT – Radial 256º-265º altitude should not below 10 000 FT – Radial 266º-270º altitude should not below 9 000 FT 2. 20 NM (Due to border limited) – Radial 271º-340º altitude should not below 6 500 FT – Radial 341º-140º altitude should not below 5 000 FT
CHUM PHAE DVOR/DME	CMP	112.9MHZ (CH 76X)		163807N 1015920E	-	DVOR/DME restrictions, 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: – Radial 102° distance between 9.5-10.5 DME at altitude 4 500 FT – Radial 223º distance between 11.0-12.0 DME at altitude 5 000 FT – Radial 273º distance between 13.0-14.0 DME at altitude 6 000 FT – Radial 343º distance between 6.0-8.5 DME at altitude 5 500 FT 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: – Radial 001º-010º altitude should not below 5 500 FT – Radial 011º-080º altitude should not below 4 500 FT – Radial 081º-105º altitude should not below 7 000 FT – Radial 106º-120º altitude should not below 6 000 FT – Radial 121º-190º altitude should not below 5 000 FT – Radial 191º-230º altitude should not below 6 000 FT – Radial 231º-260º altitude should not below 8 000 FT – Radial 261º-310º altitude should not below 7 000 FT – Radial 311º-330º altitude should not below 8 000 FT – Radial 331º-350º altitude should not below 5 500 FT – 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	104240.21N 0992156.03E	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: 1. 40 NM – Radial 011°-020° altitude should not below 5 000 FT – Radial 021°-050° altitude should not below 4 000 FT – Radial 051°-100° altitude should not below 2 000 FT – Radial 101°-110° altitude should not below 4 000 FT – Radial 111°-190° altitude should not below 2 000 FT – Radial 191°-225° altitude should not below 4 000 FT – Radial 226°-230° altitude should not below 6 000 FT 2. 30 NM (Due to border limited) – Radial 231°-270° altitude should not below 5 000 FT 3. 20 NM (Due to border limited) – Radial 271°-010° altitude should not below 5 000 FT
HAT YAI DVOR/DME	HTY	115.3MHZ (CH 100X)	H24	065602.75N 1002316.47E	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: – Radial 171º- 240º at 10 NM ALT should not below 5 000 FT – Radial 131º- 170º at 20 NM ALT should not below 4 000 FT – Radial 031º-130º at 40 NM ALT should not below 5 000 FT – Radial 241º- 270º at 40 NM ALT should not below 7 000 FT – Radial 271º- 300º at 40 NM ALT should not below 10 000 FT – Radial 301º- 330º at 40 NM ALT should not below 6 000 FT – Radial 331º- 030º at 40 NM ALT should not below 3 000 FT
HUA HIN DVOR/DME	HHN	113.3MHZ (CH 80X)	H24	123804.04N 0995704.23E	-	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: 1. 40 NM clockwise orbit – Radial 001°-170° altitude should not below 3 000 FT – Radial 171°-210° altitude should not below 7 000 FT – Radial 301°-340° altitude should not below 10 000 FT – Radial 340°-360° altitude should not below 3 000 FT 2. 30 NM clockwise orbit (Due to border limited) – Radial 211°- 300° altitude should not below 10 000 FT 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	114.5MHZ (CH 92X)	2300-1100	140956N 0995715E	-	
KHON KAEN DVOR/DME	KKN	114.9MHZ (CH 96X)	H24	162814.73N 1024716.07E	-	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: – Radial 001°-080° altitude should not below 2 500 FT – Radial 081°-220° altitude should not below 2 000 FT – Radial 221°-360° altitude should not below 3 500 FT
KHORAT DVOR/DME	KRT	113.7MHZ (CH 84X)	H24	145502.35N 1020823.32E	-	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: – Radial 081°-280° altitude should not below 5 000 FT – Radial 281°-080° altitude should not below 3 500 FT
KRABI DVOR/DME	KBI	111MHZ (CH 47X)	H24	080627.19N 0985839.07E	-	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: – Radial 001º-180º altitude should not below 5 500 FT – Radial 181º-200º altitude should not below 7 000 FT – Radial 201º-340º altitude should not below 10 000 FT – Radial 341º-360º altitude should not below 15 500 FT
LAMPANG DVOR/DME	LPN	114.7MHZ (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: – Radial 351º-070º beyond 40 NM should not below 6 000 FT – Radial 071º-130º beyond 30 NM should not below 6 000 FT – Radial 131º-320º beyond 40 NM should not below 6 000 FT – 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	172649.38N 1014323.12E	-	DVOR/DME restriction, 1. Unusable due to roughness out of tolerance – Radial 020° between 10-11 DME altitude 3 000 FT – Radial 243° between 7-8 DME altitude 6 000 FT and between 32-33 DME altitude 7 500 FT 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: 2.1 40 NM orbit – Radial 030°-050° altitude should not below 10 000 FT – Radial 051°-100° altitude should not below 7 000 FT – Radial 101°-130° altitude should not below 10 000 FT – Radial 131°-200° altitude should not below 5 000 FT – Radial 201°-250° altitude should not below 12 000 FT – Radial 251°-270° altitude should not below 13 000 FT 2.2 20 NM orbit (Due to border limited) – 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, 1. Unusable due to roughness out of tolerance – Radial 040° distance between 10.5-12.5 DME altitude 5 500 FT – Radial 085° distance between 5.5-7.5 DME altitude 7 000 FT – Radial 100° distance between 9.0-10.0 DME altitude 7 000 FT – Radial 120° distance between 9.5 - 10.5 DME altitude 7 500 FT 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: – Radial 060°-080° altitude should not below 8 500 FT – Radial 081°-140° altitude should not below 13 000 FT – Radial 141°-190° altitude should not below 9 000 FT – 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	116.7MHZ (CH 114X)	H24	164152.1N 0983229.7E	-	DVOR/DME restrictions, 1. Unusable due to roughness out of tolerance – Radial 104° distance between 6.0-13.0 DME altitude 5 500 FT – Radial 012° distance between 22.0-24.0 DME altitude 5 000 FT – Radial 124° distance between 32.0-34.0 DME altitude 6 600 FT 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: – Radial 000°-030° altitude should not below 7 000 FT – Radial 031°-060° altitude should not below 9 000 FT – Radial 061°-070° altitude should not below 10 000 FT – Radial 071°-120° altitude should not below 9 000 FT – Radial 121°-360° unable to perform due to border limited
NAKHON PHANOM DVOR/DME	NKP	111.6MHZ (CH 53X)	H24	172317.87N 1043818.01E	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: – Radial 181°-190° altitude should not below 2 500 FT – Radial 191°-260° altitude should not below 4 000 FT – Radial 261°-320° altitude should not below 2 500 FT – Radial 321°-180° unable to check (Due to border limited)
NAKHON SI THAMMARAT DVOR/DME	NKS	117.4MHZ (CH 121X)	H24	083229.95N 0995648.67E	-	Due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM at required altitudes is various areas: – Radial 001º-190º beyond 40 NM should not below 2 500 FT – Radial 191º-240º beyond 40 NM should not below 7 000 FT – Radial 241º-280º beyond 25 NM should not below 8 000 FT – Radial 281º-320º beyond 40 NM should not below 7 000 FT – Radial 321º-360º beyond 40 NM should not below 5 000 FT
NAN DVOR/DME	NAN	115.7MHZ (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: – Radial 011º-110º at 20 NM should not below 8 000 FT – Radial 111º-160º at 20 NM should not below 6 000 FT – Radial 161º-180º at 40 NM should not below 6 000 FT – Radial 181º-330º at 40 NM should not below 7 000 FT – 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	116.3MHZ (CH 110X)	H24	063138.24N 1014442.48E	-	DVOR/DME restriction, 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: a) 40 NM clockwise orbit flown from – Radial 271º-290º altitude should not below 9 000 FT – Radial 291º-300º altitude should not below 4 000 FT – Radial 301º-020º altitude should not below 2 000 FT b) 20 NM clockwise orbit flown from – Radial 021º-130º altitude should not below 2 000 FT – Radial 131º-270º altitude should not below 5 000 FT 2. Due to the out-of-tolerance 30 Hz FM deviation ratio on radial 294º unusable within 10-40 NM.
PATTANI NDB	PT	201KHZ	H24	064718.45N 1010852.51E	-	
PHETCHABUN DVOR/DME	PCB	115.4MHZ (CH 101X)	H24	164033.6N 1011147.9E	-	DVOR/DME restrictions, 1. Unusable due to roughness out of tolerance on radial 277° distance between 7-9 DME altitude 5 500 FT 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: – Radial 061°-230° beyond 30 NM altitude should not below 6 500 FT – Radial 231°-320° beyond 30 NM altitude should not below 8 000 FT – Radial 321°-060° beyond 40 NM altitude should not below 7 500 FT
PHITSANULOK DVOR/DME	PSL	114.1MHZ (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: – Radial 351°-120° altitude should not below 5 500 FT – Radial 121°-270° altitude should not below 3 000 FT – Radial 271°-300° altitude should not below 5 000 FT – 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	111.8MHZ (CH 55X)	H24	180802.9N 1000958.5E	-	DVOR/DME restrictions, 1. Unusable due to roughness out of tolerance on radial 146° distance between 7.0-8.0 DME altitude 7 000 FT 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: – Radial 055º-080º altitude should not below 9 000 FT – Radial 081º-160º altitude should not below 11 000 FT – Radial 161º-180º altitude should not below 8 000 FT – Radial 181º-350º altitude should not below 6 000 FT – Radial 351º-054º altitude should not below 6 500 FT
PHUKET DVOR/DME	PUT	116.9MHZ (CH 116X)	H24	080654.83N 0981822.69E	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: – Radial 360º-030º altitude should not below 5 500 FT – Radial 031º-170º altitude should not below 9 000 FT – Radial 171º-220º altitude should not below 7 000 FT – Radial 221º-359º altitude should not below 3 000 FT
RANONG DVOR/DME	RAN	113.4MHZ (CH 81X)	H24	094643.18N 0983502.11E	-	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: 20 NM orbit – Radial 020°-040° altitude should not below 6 000 FT – Radial 041°-060° altitude should not below 12 000 FT – Radial 061°-120° altitude should not below 16 000 FT – Radial 151°-170° altitude should not below 9 000 FT 40 NM orbit – Radial 121°-150° altitude should not below 16 000 FT – Radial 171°-187° altitude should not below 12 000 FT – Radial 188°-230° altitude should not below 7 000 FT – 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	112.5MHZ (CH 72X)	H24	124648.3N 1014041.7E	-	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: – Radial 011º-040º altitude should not below 9 000 FT – Radial 041º-050º altitude should not below 4 000 FT – Radial 051º-080º altitude should not below 6 000 FT – Radial 081º-240º altitude should not below 4 000 FT – Radial 240º-010º altitude should not below 5 000 FT
ROI-ET DVOR/DME	ROT	111.2MHZ (CH 49X)	H24	160700.59N 1034619.45E	-	Coverage orbit data refer from commissioning checked as follows: – 40 NM clockwise orbit flown from radial 001°-360° altitude should not below 2 000 FT – Airway W5 flown to 40 NM at 2 000 FT was checked and found satisfactory
SAKON NAKHON DVOR/DME	SKN	114.2MHZ (CH 89X)	H24	171250.89N 1040812.34E	-	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: 1. 30 NM orbit (Due to border limited) – Radial 000º-130º altitude should not below 2 100 FT 2. 40 NM orbit – Radial 131º-280º altitude should not below 5 500 FT – Radial 281º-359º altitude should not below 2 100 FT
SONGKHLA DVOR/DME	SKL	113.5MHZ (CH 82X)	H24	071119.65N 1003615.11E	-	Military facility
SAMUI DVOR/DME	SMU	117.6MHZ (CH 123X)	H24	093249.47N 1000342.27E	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: – Radial 000º-015º beyond 25 NM altitude should not below 4 000 FT – Radial 016º-040º beyond 25 NM altitude should not below 6 000 FT – Radial 041º-060º beyond 20 NM altitude should not below 11 000 FT – Radial 061º-070º beyond 25 NM altitude should not below 9 000 FT – Radial 071º-120º beyond 40 NM altitude should not below 11 000 FT – Radial 121º-180º beyond 40 NM altitude should not below 5 000 FT – Radial 181º-210º beyond 25 NM altitude should not below 8 000 FT – Radial 211º-260º beyond 20 NM altitude should not below 9 000 FT – Radial 261º-280º beyond 25 NM altitude should not below 7 000 FT – 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	110.6MHZ (CH 43X)	H24	090746.24N 0990805.09E	-	DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage orbit 40 NM as follows: – Radial 001º-070º altitude should not below 1 500 FT – Radial 071º-090º altitude should not below 3 500 FT – Radial 091º-150º altitude should not below 5 000 FT – Radial 151º-190º altitude should not below 1 500 FT – Radial 191º-360º altitude should not below 4 000 FT – Radial 227º distance approximate 10-13 DME out of tolerance roughness and scalloping
SUKHOTHAI NDB	THS	292KHZ	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 2. Coverage 50 NM clockwise orbit data refer from commissioning checked as follows: – Bearing 041°-100° at altitude 4 000 FT – Bearing 101°-190° at altitude 2 000 FT – Bearing 191°-040° at altitude 5 000 FT
TAKHLI NDB	TL	350KHZ	H24	151633.45N 1001751.11E	-	
TAK NDB	TK	332KHZ	H24	165358.2N 0991508.0E		1. Route coverage checked and result found satisfactory as follows: – Bearing 098° from TK to PSL altitude 7 000 FT flown to 60 NM – Bearing 254° from TK to MST altitude 7 000 FT flown to 43 NM 2. Coverage 15 NM clockwise orbit data refer from commissioning checked as follows: – Bearing 001°-360° at altitude 3 500 FT
TRANG DVOR/DME	TRN	116.6MHZ (CH 113X)	H24	073032.17N 0993733.67E	-	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: 1. 20 NM orbit – Radial 081°-130° altitude should not below 6 000 FT 2. 40 NM orbit – Radial 131°-350° altitude should not below 4 000 FT – Radial 351°-030° altitude should not below 6 000 FT – 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 NDB	TRT	384KHZ (CH 36X)	H24	121628.10N 1021850.08E	-	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: – Bearing 001º-145º unable to performed due to border limited – Bearing 146º-320º altitude should not below 5 000 FT – Bearing 321º-360º altitude should not below 8 000 FT
UBON DVOR/DME	UBL	112.7MHZ (CH 74X)	H24	151442.71N 1045157.30E	-	DVOR/DME restriction 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: a) 40 NM – Radial 111°-155° altitude should not below 3 000 FT – Radial 156°-165° altitude should not below 7 000 FT – Radial 166°-200° altitude should not below 5 000 FT – Radial 201°-070° altitude should not below 3 000 FT b) 30 NM (Due to border limit) – Radial 071°-110° altitude should not below 2 000 FT 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 DVOR/DME	UDN	114.3MHZ (CH 90X)	H24	172304.20N 1024630.05E	-	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: 1. 15 NM orbit – RDL 277º-280º ALT should not below 5000 FT 2. 20 NM orbit (due to border limited) – RDL 331º- 030º ALT should not below 2500 FT 3. 40 NM orbit – RDL 031º- 090º ALT should not below 3000 FT – RDL 091º-190º ALT should not below 4000 FT – RDL 191º- 268º ALT should not below 5000 FT – RDL 269º- 276º ALT should not below 8000 FT – RDL 281º- 330º ALT should not below 5000 FT 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: – Radial 101°-170° altitude should not below 2 000 FT – Radial 171°-250° altitude should not below 6 000 FT – Radial 251°-320° altitude should not below 8 000 FT – Radial 321°-050° altitude should not below 6 000 FT – Radial 051°-100° altitude should not below 4 000 FT

ENR 4.2 SPECIAL NAVIGATION SYSTEMS

NIL

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ENR 4.3 GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)

NIL

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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
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
BENDY	184752N 1001334E	R207, W12, Y28
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
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
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
GOMES	132406.10N 1013505.70E	B204, N506, R468
GORSI	133054.64N 1012128.05E	N506, R468

Name-code designator	Coordinates		ATS route or other route
1	2		3
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

Name-code designator	Coordinates		ATS route or other route
1	2		3
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
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
OSVIP	074253.09N	0984408.91E	R325
OTBAD	181514N	0995622E	W15
OTGOL	091305.80N	0993247.77E	Y93
OVLEN	155804N	0995509E	Y27

Name-code designator	Coordinates	ATS route or other route
1	2	3
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
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

Name-code designator	Coordinates	ATS route or other route
1	2	3
RUSET	074616.0N 0974257.0E	P627
SABIS	125958.53N 1001124.53E	Y8
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
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

Name-code designator	Coordinates		ATS route or other route
1	2		3
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
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

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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.

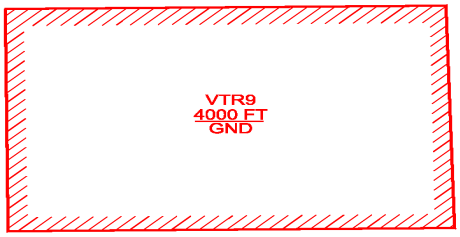
4. Each area is described in the tabulation which indicates its lateral and vertical limits, the type of restriction or hazard involved, the time at which the area is active and any other pertinent information.

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 Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTP4 MUANG KOM Area bounded by lines joining successively the following points: 150700N 1005900E - 150700N 1005000E - 145500N 1005000E - 145500N 1005900E - 150700N 1005900E	FL 240 GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : Bombing / Air Firing Area Time of activity : MON - FRI, H24 Permission to entry : Only authorized aircraft Inflight information : Chandy Tower freq. 134.75 MHZ or 285.4 MHZ Contact agency : Chandy Tower, Tel: +662 534 6000 ext. 25884
VTP7 SATTAHIP Circle of 4NM radius centred on point 123845N 1005300E	UNL GND	Type of restriction : Naval Base Nature of hazard/activity : National security area Time of activity : H24 Permission to entry : Only authorized aircraft by RTN Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5600
VTP36 KHAO SOIDAO TAI A semi-circle 17 NM radius of 125613N 1021250E from 0° to 180°	ALT 5 000 FT GND	Type of restriction : RTN Area Nature of hazard/activity : Military operations Time of activity : Sunset to Sunrise Permission to entry : Only authorized aircraft by RTN Inflight information : Trat Approach freq. 120.25 MHZ Contact agency : Chanthaburi and Trat Border Defense, Tel. +663 931 2334, +663 931 1099
VTP37 KHAO KHLONG OA A semi-circle 14 NM radius of 123419N 1023635E from 135° to 315°	ALT 5 000 FT GND	Type of restriction : RTN Area Nature of hazard/activity : Military operations Time of activity : Sunset to Sunrise Permission to entry : Only authorized aircraft by RTN Inflight information : Trat Approach freq. 120.25 MHZ Contact agency : Chanthaburi and Trat Border Defense, Tel. +663 931 2334, +663 931 1099
VTP38 KO CHANG - KO KHUD Area bounded by lines joining successively the following points: 121737N 1021424E - 120945N 1023432E - 114630N 1025324E - 113800N 1025530E - 113000N 1023000E - 120000N 1021100E - 121737N 1021424E	ALT 5 000 FT GND	Type of restriction : RTN Area Nature of hazard/activity : Military operations Time of activity : Sunset to Sunrise Permission to entry : Only authorized aircraft by RTN Inflight information : Trat Approach freq. 120.25 MHZ 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 Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTR1 BANGKOK CITY Circle of 10 NM radius centred on point 134554N 1003218E	ALT 3 000 FT GND	Type of restriction : Congested Area Nature of hazard/activity : - Time of acitivity : H24 Permission to entry : Only authorized aircraft by CAAT, except any aircraft operated under air traffic control services. CAAT may issue further temporary condition for flight operation within VT R1 by NOTAM. Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ Contact agency : CAAT, Air Navigation Operations Management Department
VTR2 CHITRLADA PALACE Circle of 1 NM radius centred on point 134605.18N 1003116.44E	ALT 6 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : H24 Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ Contact agency : CAAT, Air Navigation Service Standards Department
VTR3 HUA HIN PALACE Circle of 1 NM radius centred on point 123522.19N 0995710.69E	ALT 6 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : Notified by NOTAM Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : Hua Hin Approach, AEROTHAI Contact agency : CAAT, Air Navigation Service Standards Department
VTR5 PHU PHING PALACE Circle of 2 NM radius centred on point 184820N 0985357E	ALT 12 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : Notified by NOTAM Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : Chiang Mai Approach, AEROTHAI Contact agency : CAAT, Air Navigation Service Standards Department

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTR6 THAK SIN PALACE Circle of 5 NM radius centred on point 062522.11N 1015218.93E	ALT 6 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : Notified by NOTAM Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : Narathiwat Approach, AEROTHAI Contact agency : CAAT, Air Navigation Service Standards Department
VTR8 KAMPHAENG SAEN JETTISON Area bounded by lines joining successively the following points: 125300N 1002000E - 125300N 1002500E - 123500N 1001700E - 123500N 1001130E - 125300N 1002000E	ALT 7 000 FT GND	Type of restriction : RTAF Jettison Area Nature of hazard/activity : Jettison Area Time of activity : H24 Permission to entry : Only authorized aircraft Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ before entering. Contact agency : Kamphaeng Saen Flying Training School Air Traffic Control branch, Tel.+662 534 6000 ext 37517, 37522
VTR11 KO HIN CHALAM, SATTAHIP Circle of 2 NM radius centred on point 122753N 1005819E	UNL GND	Type of restriction : RTN Jettison Area / Ground and Air Gunnery Area Nature of hazard/activity : Military operations Time of activity : H24 Permission to entry : Only authorized aircraft by U-Tapao Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196
VTR12 KO LUAM, PRACHUAP KHIRI KHAN Circle of 0.5 NM radius centred on point 114530N 0995000E	ALT 9 000 FT GND	Type of restriction : RTN Jettison Area Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Permission to entry : Only authorized aircraft by RTN Inflight information : Prachuap Tower freq. 135.9 MHZ or 236.6 MHZ Contact agency : Wing 5, Prachuap Air Force Base Prachuap Khirikhan Province, Tel. +663 260 3919
VTR13 KO SAMET, RAYONG Circle of 7.1 NM radius centred on point 121200N 1012100E	UNL GND	Type of restriction : RTN Jettison Area / Ground Gunnery Area Nature of hazard/activity : Military operations Time of activity : H24 Permission to entry : Only authorized aircraft by U-Tapao Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196
VTR15 UBON Area bounded by lines joining successively the following points: 151013N 1045610E - 151046N 1045642E - 151046N 1045749E - 150942N 1045649E - 150942N 1045642E - 151013N 1045610E	ALT 8 000 FT GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : H24 Permission to entry : Only authorized aircraft by RTAF Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ Contact agency : Wing 21 Air Traffic Control branch, Tel. +662 534 6000 ext 43512, 43508

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTR51 SONGKHLA Area bounded by lines joining successively the following points: 0717N 09954E - 0717N 09959E - 0715N 09959E - 0713N 09954E - 0717N 09954E	ALT 5 000 FT GND	Type of restriction : RTAF Jettison Area Nature of hazard/activity : Jettison Area Time of activity : Sunrise to Sunset Permission to entry : Only authorized aircraft by RTAF Inflight information : contact BIG SHELL control freq. 127.0 MHZ or 331.3 MHZ Contact agency : Air Defense Sector Operation Control 3, Tel. +667 726 8083
VTR52 SONGKHLA Area bounded by lines joining successively the following points: 0629N 10032E - 0636N 10032E - 0636N 10038E - 0629N 10038E - 0629N 10032E	ALT 8 000 FT GND	Type of restriction : RTAF Jettison Area Nature of hazard/activity : Jettison Area Time of activity : Sunrise to Sunset Permission to entry : Only authorized aircraft by RTAF Inflight information : BIG SHELL control freq. 127.0 MHZ or 331.3 MHZ Contact agency : Air Defense Sector Operation Control 3, Tel. +667 726 8083
VTR62 EASTERN AREA Area bounded by lines joining successively the following points: 113800N 1025530E - 113000N 1023000E - 120945N 1023432E - 125613N 1021250E - 135000N 1021250E - 142800N 1031000E - 144500N 1040000E - 144500N 1044100E - 142400N 1045100E - then westward along the Thai-Cambodian border to the starting point.	ALT 13 000 FT GND	Type of restriction : RTN Area Nature of hazard/activity : Military operations Time of activity : Sunset to Sunrise Permission to entry : Only authorized aircraft by RTN Inflight information : Trat Approach freq. 120.25 MHZ Contact agency : Chanthaburi and Trat Border Defense Command, Tel. +663 931 2334, +663 931 1099
VTR66 PHU PHAN PALACE Circle of 5 NM radius centred on point 170738.10N 1040119.76E	ALT 6 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : Notified by NOTAM Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : Sakon Nakhon Approach, AEROTHAI Contact agency : CAAT, Air Navigation Service Standards Department
VTR68 NAM PHONG Area bounded by lines joining successively the following points: 164048.58N 1025559.19E - 163810.90N 1025605.94E - 164049.25N 1025706.67E - 163814.77N 1025708.31E	FL 150 GND	Type of restriction : RTAF Jettison Area Nature of hazard/activity : RTAF Jettison Area Time of activity : MON-FRI, 0000-1000 Permission to entry : Only authorized aircraft by RTAF Inflight information : contact Khon Kaen Approach freq. 123.4 MHZ or 236.6 MHZ 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 Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTR79 PHIMANMAS PALACE Circle of 0.5 NM radius centred on point 123908N 1005848E	ALT 6 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : Notified by NOTAM Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : U-Tapao Approach, Royal Thai Navy Contact agency : CAAT, Air Navigation Service Standards Department
VTR80 SRAPATHUM PALACE Circle of 1 NM radius centred on point 134452.69N 1003155.92E	ALT 6 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : H24 Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ Contact agency : CAAT, Air Navigation Service Standards Department
VTR81 JAKRIBONGKOT PALACE Circle of 1 NM radius centred on point 135648.31N 1003126.90E	ALT 6 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : H24 Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ Contact agency : CAAT, Air Navigation Service Standards Department
VTR82 AMPHORN ROYAL PALACE Circle of 1 NM radius centred on point 134621.50N 1003040.28E	ALT 6 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : H24 Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ Contact agency : CAAT, Air Navigation Service Standards Department

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTR83 SUKOTHAI PALACE Circle of 1 NM radius centred on point 134656.66N 1003033.51E	ALT 6 000 FT GND	Type of restriction : Royal Residence Area Nature of hazard, activity : - Time of activity : H24 Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : Don Mueang Approach freq. 119.4 MHZ or Bangkok Approach freq. 125.8 MHZ or 262.5 MHZ Contact agency : CAAT, Air Navigation Service Standards Department
VTR84 TIPPIMARN PALACE Circle of 1 NM radius centred on point 142929.82N 1013145.88E	ALT 7 500 FT GND	Type of restriction : Royal Residence Area Nature of hazard/activity : - Time of activity : H24 Permission to entry : As specified condition: 1. Authorized aircraft; or 2. HOSP or MEDEVAC aircraft, prior coordination with ATC is required. Any occurrence of entry into restricted area shall be reported to CAAT. Inflight information : OSCAR Control Contact agency : CAAT, Air Navigation Service Standards Department

6.3 DANGER AREAS

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD16 RATCHABURI Area 1 Area bounded by lines joining successively the following points: 133200.00N 1001600.00E - then follows the coast line to 132555.77N 1000709.33E - 135409.97N 0995818.91E - 135600.00N 1001100.00E - 134800.00N 1001100.00E - 133200.00N 1001600.00E	FL 120 GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1300 Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ Pilots are advised to contact prior to entering. Contact agency : Kamphaeng Saen Flying Training School Air Traffic Control branch, Tel. +662 534 6000 ext 37517, 37522
Area 2 Area bounded by lines joining successively the following points: 132555.77N 1000709.33E - then follows the coast line to 130000.00N 1000400.00E - 130000.00N 0994000.00E - 134900.00N 0992300.00E - 135409.97N 0995818.91E - 132555.77N 1000709.33E	UNL GND	

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD17 KANCHANABURI Area 1 Area bounded by lines joining successively the following points: 135600.00N 1001100.00E - 135253.16N 0994930.37E - then clockwise along 45NM arc radius centred on BKK VOR/DME (135336.8N 1003546.3E) to 140930.15N 0995225.65E - 140600.00N 1001100.00E - 135600.00N 1001100.00E	ALT 6 000 FT GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1300 Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ Pilots are advised to contact prior to entering. Contact agency : Kamphaeng Saen Flying Training School Air Traffic Control branch, Tel. +662 534 6000 ext 37517, 37522
Area 2 Area bounded by lines joining successively the following points: 135253.16N 0994930.37E - 134900.00N 0992300.00E - 141500.00N 0992300.00E - 140930.15N 0995225.65E - then counter clockwise along 45 NM arc radius centred on BKK VOR/DME (135336.8N 1003546.3E) to 135253.16N 0994930.37E	ALT 9 000 FT GND	
VTD18 SUPHAN BURI Area 1 Area bounded by lines joining successively the following points: 140600.00N 1001100.00E - 140930.15N 0995225.65E - then clockwise along 45 NM arc radius centred on BKK VOR/DME (135336.8N 1003546.3E) to 143304.18N 1001310.02E - 141900.00N 1002400.00E - 140600.00N 1001100.00E	ALT 6 000 FT GND UNL FL 200	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1300 Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ Pilots are advised to contact prior to entering. Contact agency : Kamphaeng Saen Flying Training School Air Traffic Control branch, Tel. +662 534 6000 ext 37517, 37522 Note: Training aircraft at FL200 and above will be authorized by Bangkok ACC.
Area 2 Area bounded by lines joining successively the following points: 140930.15N 0995225.65E - 141500.00N 0992300.00E - 145400.00N 0995700.00E - 143304.18N 1001310.02E - then counter clockwise along 45 NM arc radius centred on BKK VOR/DME (135336.8N 1003546.3E) to 140930.15N 0995225.65E	ALT 8 000 FT GND UNL FL 200	
VTD19 MAE KLONG Area bounded by lines joining successively the following points: 1324N 10015E - 1322N 10022E - 1302N 10012E - 1303N 10009E - 1324N 10015E	UNL GND	Type of restriction : RTAF Jettison Area Nature of hazard/activity : High altitude Training Area Time of activity : MON - FRI, 0300-0900 Inflight information : Kamphaeng Saen Approach freq. 127.7 MHZ or 237.0 MHZ before entering Pilots are advised to contact prior to entering. 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 Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD20 HUA HIN Area bounded by lines joining the following points: 1300N 09937E - 1300N 10010E - 1210N 10010E - then along the arc of 30 NM radius centred on HHN DVOR/DME (123804.04N 0995704.23E) 1300N 09937E *Excluding* Hua Hin CTR, Hua Hin TMA and G458	ALT 11 000 FT GND	Type of restriction : Civil Flight Training Area Nature of hazard/activity : Flight school training Time of activity : Sunrise to Sunset Inflight information : Hua Hin Approach freq. 126.2 MHZ Contact agency : -
VTD21 SATTAHIP BAY Area 1 Area bounded by lines joining successively the following points: 1220N 10030E - 1240N 10030E - 1240N 10040.8E - 1220N 10040.8E - 1220N 10030E	ALT 6 000 FT GND	Type of restriction : RTN Gun Training Range for surface ships Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Pilots are advised to contact prior to entering. Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196
Area 2 Area bounded by lines joining successively the following points: 1220N 10040.8E - 1240N 10040.8E - 1240N 10058E - 1220N 10058E - 1220N 10040.8E	FL 150 GND	
Area 3 Area bounded by lines joining successively the following points: 1220N 10058E - 1237N 10058E - 1237N 10115E - 1220N 10115E - 1220N 10058E	FL 150 GND	
VTD22 KO KHRAM, SATTAHIP Area bounded by lines joining successively the following points: 1251.3N 10040E - 1251.3N 10051E - 1240N 10051E - 1240N 10040E - 1251.3N 10040E	FL 150 GND	Type of restriction : RTN Gun Training Range for surface ships and aircraft Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Pilots are advised to contact prior to entering. Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196
VTD23 KO PHAI Area bounded by lines joining successively the following points: 1250N 10030E - 1305N 10030E - 1305N 10045E - 1250N 10045E - 1250N 10030E	ALT 6 000 FT GND	Type of restriction : RTN Gun Training Range for surface ships and aircraft Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Pilots are advised to contact prior to entering. Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD24 KO CHANG, TRAT Circle of 5 NM radius centred on point 1203.1N 10214.6E	FL 150 GND	Type of restriction : RTN Gun Training Range for surface ships and aircraft Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ, if unable contact Trat Approach freq. 120.25 MHZ Pilots are advised to contact prior to entering. Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196
VTD25 KO TAO, CHUMPHON Circle of 5 NM radius centred on point 0956.6N 09959.8E	FL 150 GND	Type of restriction : RTN Weapon Training Range for surface ships and aircraft Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : Samui Approach freq. 129.6 MHZ or 305.4 MHZ Pilots are advised to contact prior to entering. Contact agency : Wing 7, Surat Thani Air Force Base, Tel. +667 744 1132
VTD26 CHONG SAMAE SAN, SATTAHIP Area bounded by lines joining successively the following points: 1233.5N 10055.3E - 1237.3N 10055.3E - 1237.3N 10057.3E - 1233.5N 10057.3E - 1233.5N 10055.3E	FL 150 GND	Type of restriction : RTN Gun Training Range Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Pilots are advised to contact prior to entering. Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196
VTD27 PONG NAM RON, CHANTHABURI Area bounded by lines joining successively the following points: 1255.2N 10217.1E - 1250.6N 10220.4E - 1255.8N 10222.8E - 1259.5N 10221.4E - 1255.2N 10217.1E	ALT 8 000 FT GND	Type of restriction : RTN Gun Training Range Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Pilots are advised to contact prior to entering. Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196
VTD28 SATTAHIP Area bounded by lines joining successively the following points: 1250.5N 10049.7E - 1251.3N 10051.7E - 1246.8N 10053.5E - 1245.8N 10051.6E - 1250.5N 10049.7E	FL 150 GND	Type of restriction : RTN Gun Training Range Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Pilots are advised to contact prior to entering. Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196
VTD29 HIN RAKIT PATTANI Circle of 3 NM radius centred on point 0644N 10144E	FL 150 GND	Type of restriction : RTN Weapon Training Range for surface ships and aircraft Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : Narathiwat Approach freq. 125.55 MHZ Pilots are advised to contact prior to entering. Contact agency : 2nd Naval Area Command, Tel. +667 432 5804

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD30W NAKHON RATCHASIMA Area 1 Area bounded by lines joining successively the following points: 144905.7N 1011547.8E - 162005.4N 1021047.3E - 160405.5N 1022847.2E - 145935.7N 1015947.5E - 144305.8N 1012247.8E	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1000 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 Pilots are advised to contact prior to entering. Contact agency : Wing 1 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556
VTD30W NAKHON RATCHASIMA Area 2 Area bounded by lines joining successively the following points: 150905.7N 1021947.3E - 160005.5N 1024247.1E - 154905.6N 1032146.8E - 151305.7N 1032146.8E	UNL GND	
VTD31 LOP BURI Area bounded by lines joining successively the following points: 1503N 10010E - 1505N 10100E - 1430N 10055E - 1437N 10009E - 1503N 10010E *Excluding* VTP4 (MUANG KOM)	ALT 5 500 FT GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2200-1700 Inflight information : Khok Kathiam Tower freq. 122.6 MHZ or 238.6 MHZ Pilots are advised to contact prior to entering. Contact agency : Wing 2 Air Traffic Control branch, Tel. +662 534 6000 ext 50520
VTD32 NAKHON RATCHASIMA Circle of 50 NM radius centred on point KRT TACAN (145606.0N 1020421.8E). *Excluding* Khorat Control Zone and Buri Ram Terminal Control Area.	ALT 5 500 FT GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1400 Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ, if unable Khorat Approach freq. 129.75 MHZ or 349.0 MHZ Pilots are advised to contact prior to entering. Contact agency : Wing 1 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556
VTD33 NAKHON SAWAN, CHAI NAT Area1 Area bounded by lines joining successively the following points: 154125.79N 0994345.28E - 154124.14N 0995122.80E - 150656.33N 1000238.89E - 150006.18N 0995717.24E - 154125.79N 0994345.28E	FL 240 GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2200-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 4 Air Traffic Control branch, Tel. +662 534 6000 ext 53544, 53546
Area 2 Area bounded by lines joining successively the Following points: 163705.34N 0992523.13E - 154125.79N 0994345.28E - 150006.18N 0995717.24E - 150012.17N 0992327.39E - 153847.73N 0983417.53E - then follow the boundary to 163508.84N 0983522.41E - 163705.10N 0985248.80E - 163705.34N 0992523.13E	UNL GND	

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD34 PHETCHABUN, PHICHIT Area 1 Area bounded by lines joining successively the following points: 151305.60N 1010147.90E - 151305.60N 1002648.10E - 152405.50N 1002148.20E - 161623.05N 1002148.10E - then follow the arc 30 NM counter clockwise from PSL DVOR/DME (164613.34N 1001728.70E) to 163458.20N 1004628.25E - 163205.30N 1012647.60E - 151305.60N 1010147.90E *Excluding* Airway W21	FL 280 GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2200-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 4 Air Traffic Control branch, Tel. +662 534 6000 ext 53544, 53546
Area 2 Area bounded by lines joining successively the following points: 151305.60N 1010147.90E - 151305.69N 1002803.35E - 153222.66N 1002148.11E - 161623.05N 1002148.10E - then follow the arc 30 NM counter clockwise from PSL DVOR/DME (164613.34N 1001728.70E) to 163458.20N 1004628.25E - 163205.30N 1012647.60E - 151305.60N 1010147.90E *Excluding* Airway W21	UNL GND	
VTD35 PRACHUAP, KHIRI KHAN Area bounded by lines joining successively the following points: 120300N 0993300E - 120800N 1000300E - 114700N 0995000E - 112900N 0993800E - 110000N 0993200E - 110000N 0990700E - then follow the boundary to 120800N 0993300E *Excluding* Chumphon TMA	ALT 6 500 FT GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1100 Inflight information : Prachuap Tower freq. 135.9 MHZ or 351.1 MHZ Pilots are advised to contact prior to entering. Contact agency : Wing 5 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556
VTD40 KABIN BURI/WATTANA NAKHON, PRACHIN BURI Area 1 Area bounded by lines joining successively the following points: 135900N 1013800E - 135900N 1022000E - 133000N 1022000E - 133000N 1011900E - 135900N 1013800E	ALT 10 000 FT ALT 5 000 FT	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1500 Inflight information : OSCAR Control freq. 127.0 MHZ or 331.3 MHZ Pilots are advised to contact prior to entering. Contact agency: Wattana Nakhon Tower, Tel. +662 534 6000 ext 42908, 42909
	ALT 5 000 FT GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1500 Inflight information: Wattana nakhon Tower freq. 118.1 MHZ or 236.6 MHZ Pilots are advised to contact prior to entering. Contact agency: Wattana Nakhon Tower, Tel. +662 534 6000 ext 42908, 42909

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
Area 2 Area bounded by lines joining successively the following points: 135900N 1015400E - 135900N 1022000E - 133000N 1022000E - 133000N 1015400E - 135900N 1015400E	FL 140 ALT 10 000 FT	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : Activation period will be notified by NOTAM. Inflight information: OSCAR Control freq. 127.0 MHZ or 331.3 MHZ Pilots are advised to contact prior to entering. Contact agency: Wattana Nakhon Tower, Tel. +662 534 6000 ext 42908, 42909
VTD41 MAE RIM, CHIANG MAI Area bounded by lines joining successively the following points: 202700N 0995400E on Thai-Myanmar border to 184700N 0995400E - 184700N 0990900E - then follow the arc 10 NM counter clockwise from CHM TACAN (184612N 0985812E) 185600N 0985400E - 191800N 0984200E - 194600N 0984200E on Thai-Myanmar border then follow the boundary to the starting point. *Excluding Airway* W20 between altitude 7500 ft to FL200 Chiang Mai TMA and Chiang Rai TMA.	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 0100-1400 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 Pilots are advised to contact prior to entering. Contact agency: Wing 41 Air Traffic Control branch, Tel. +662 534 6000 ext 57504, 57503
VTD42 CHOM THONG, CHIANG MAI Area bounded by lines joining successively the following points: 184700N 0974500E on Thai-Myanmar border to 184700N 0984800E - 182000N 0985800E - 173000N 0985800E - 173000N 0980000E on Thai-Myanmar border then follow the boundary to the starting point.	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 0100-1400 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 Pilots are advised to contact prior to entering. Contact agency : Wing 41 Air Traffic Control branch, Tel. +662 534 6000 ext 57504, 57503
VTD43 LOP BURI Area bounded by lines joining successively the following points: 151305.6N 1004748.0E - 162705.3N 1015547.4E - 162005.4N 1021047.3E - 144905.7N 1011547.8E	FL 350 GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 0100-0900 Inflight information : OSCAR Control freq. 127.0 or 331.3 MHZ, if unable contact Khorat Approach freq. 129.75 MHZ or 285.0 MHZ Pilots are advised to contact prior to entering. Contact agency : Wing 1 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556
VTD44 UBON, YASOTHON Area bounded by lines joining successively the following points: 152100N 1043800E - 152100N 1032200E - 161500N 1032200E - 152100N 1043800E	FL 200 GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1000 Inflight information : OSCAR Control freq. 127.0 or 331.3 MHZ, if unable contact Khorat Approach freq. 123.5 MHZ or 257.8 MHZ Pilots are advised to contact prior to entering. Contact agency : Wing 21 Air Traffic Control branch, Tel. +662 534 6000 ext 43506, 43502

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD45 UBON, SI SA KET Area bounded by lines joining successively the following points: 145800N 1053700E - 150400N 1050000E - 150200N 1045200E - 143800N 1034000E - 142500N 1034000E - then follow the boundary to 145800N 1053700E	UNL ALT 3 000 FT	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2200-1300 Inflight information : OSCAR Control freq. 127.0 or 331.3 MHZ, if unable contact Khorat Approach freq. 123.5 MHZ or 257.8 MHZ Pilots are advised to contact prior to entering. Contact agency : Wing 21 Air Traffic Control branch, Tel. +662 534 6000 ext 43506, 43502
VTD46 NAKHON RATCHASIMA Area bounded by 20 NM arc from KRT TACAN (145606.0N 1020421.8E) beginning at point 143600N 1020200E - then counter clockwise, along the arc to 145100N 1022500E - 145100N 1032500E - 142200N 1032500E - then follow the boundary to 135600N 1024700E - 135600N 1015600E - 143600N 1020200E	FL 200 GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1000 Inflight information : OSCAR Control freq. 127.0 or 331.3 MHZ, if unable contact Khorat Approach freq. 129.75 MHZ or 349.0 MHZ Pilots are advised to contact prior to entering. Contact agency : Wing 1 Air Traffic Control branch, Tel. +662 534 6000 ext 40555, 40556
VTD47 SAMUT SAKHON Area bounded by lines joining successively the following points: 134700N 1002700E - 133800N 1002700E - 132900N 1002100E - then follow the coast line to 133200N 1001600E - 134800N 1001100E - 134700N 1002700E	UNL FL 120	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 0130-0930 Inflight information : Bangkok Approach freq. 124.35 MHZ or 262.5 MHZ Pilots are advised to contact prior to entering. Contact agency : -
VTD48 SONGKHLA Area bounded by lines joining successively the following points: 063600N 1000400E - 063000N 0994000E - 070600N 0993300E - 070000N 1000500E - 064500N 1000700E - 063600N 1000400E	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 0200-0800 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 Pilots are advised to contact prior to entering. Contact agency : Wing 56 Air Traffic Control branch, Tel. +662 534 6000 ext 63555, 63520
VTD49 SONGKHLA Area bounded by lines joining successively the following points 063600N 1003900E - 065600N 1004600E - 065600N 1012500E - 062400N 1014300E - 061500N 1011000E - 063600N 1003900E *Excluding* HAT YAI TMA.	UNL ALT 2 000 FT	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1100 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 Pilots are advised to contact prior to entering. Contact agency : Wing 56 Air Traffic Control branch, Tel. +662 534 6000 ext 63555, 63520

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD50 SONGKHLA Area bounded by lines joining successively the following points: 0656.0N 10046.0E - 0711.0N 10037.0E - 0754.0N 10039.0E - then follow the arc 60 NM clockwise from HAT YAI DVOR/DME (065602.75N 1002316.47E) 0656.0N 10124.0E - 0656.0N 10046.0E	UNL ALT 8 000FT	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1100 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 Pilots are advised to contact prior to entering. Contact agency : Wing 56 Air Traffic Control branch, Tel. +662 534 6000 ext 63555, 63520
	ALT 6 000 FT GND	Type of restriction : RTN Flying Training Nature of hazard/activity : Military operations Time of activity : MON - FRI, 2300-1100 Inflight information: Songkhla Tower freq. 126.2 MHZ or 227.0 MHZ Pilots are advised to contact prior to entering. Contact agency: 2nd Naval Area Command, Tel. +667 432 5804
VTD53 PHITSANULOK Area bounded by lines joining successively the following points: 1653.0N 09930.0E - 1653.0N 09909.0E - 1610.0N 09934.0E - 1523.0N 10005.0E - 1523.0N 10017.0E - 1602.0N 10017.0E - 1653.0N 09930.0E	ALT 6 500 FT GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 0200-0500 and 0600-0800 Inflight information : FOCAL freq. 127.0 MHZ or 331.3 MHZ, if unable contact Phitsanulok Approach freq. 120.7 MHZ or 284.0 MHZ Pilots are advised to contact prior to entering. Contact agency : Wing 46 Air Traffic Control branch, Tel. +662 534 6000 ext 55164, 55157
VTD54 UBON Area bounded by 15 NM arc from UBL TACAN (151544.70N 1045300.00E) beginning at point 152900N 1044900E - 152900N 1045300E - 161400N 1045500E - 161400N 1040900E - then along the arc to the starting point.	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2200-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 21 Air Traffic Control branch, Tel. +662 534 6000 ext 43506, 43502
VTD55 UBON Area bounded by 15 NM arc from UBL TACAN (151544.70N 1045300.00E) beginning at point 152900N 1045300E - 161400N 1045500E - 161400N 1050100E then clockwise along the FIR boundary to 153600N 1053700E - 152700N 1050000E - then along the arc to the starting point.	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2200-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 46 Air Traffic Control branch, Tel. +662 534 6000 ext 55164, 55157

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD57 PHITSANULOK Area 1 Area bounded by lines joining successively the following points: 152405.50N 1002148.20E - 163005.20N 1000408.30E - 163605.20N 0995848.30E - 163559.33N 1001648.06E - 163458.20N 1004628.25E - then follow the arc 30 NM clockwise from PSL DVOR/DME (164613.34N 1001728.70E) to 161623.05N 1002148.10E - 152405.50N 1002148.20E *Excluding Airway* W9.	FL 280 FL 120	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 0000-1000 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 Pilots are advised to contact prior to entering. Contact agency : Wing 46 Air Traffic Control branch, Tel. +662 534 6000 ext 55164, 55157
Area 2 Area bounded by lines joining successively the following points: 153222.66N 1002148.11E - 163604.56N 1000100.74E - 163559.33N 1001648.06E - 163458.20N 1004628.25E - then follow the arc 30 NM clockwise from PSL DVOR/DME (164613.34N 1001728.70E) to 161623.05N 1002148.10E - 153222.66N 1002148.11E *Excluding Airway* W9.	UNL FL 120	
VTD58 SURAT THANI Area bounded by lines joining successively the following points: 112554.32N 0992354.41E Thai-Myanmar border to 105129.09N 0994016.74E - 092518.00N 0994006.00E - 083301.22N 0983331.55E - then follow the arc 30 NM clockwise from PUT DVOR/DME (080654.83N 0981822.69E) to 083625.96N 0982432.98E - 090818.00N 0975118.00E - 092900.00N 0971600.00E - 095000.00N 0982500.00E - 100004.46N 0983705.87E - then follow the boundary to the starting point.	FL 390 GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : Notified by NOTAM 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 Pilots are advised to contact prior to entering. Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD59 SURAT THANI Area 1 Area bounded by lines joining successively the following points: 1058.0N 09906.0E Thai-Myanmar border to 1058.0N 09934.5E - 0933.0N 09911.0E - then follow the arc 25 NM counter clockwise from STN DVOR/DME (090746.24N 0990805.09E) to 0852.3N 09849.5E - 0833.0N 09833.5E - then follow the arc 30 NM counter clockwise from PUT DVOR/DME (080654.83N 0981822.69E) to 0836.0N 09812.0E - 0929.0N 09736.0E - 0929.0N 09816.0E - 0950.0N 09825.0E - 0955.0N 09832.0E - then follow the boundary to the starting point. *Excluding* Chumpon TMA and Ranong TMA and CTR.	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513
Area 2 Beginning at 0929.0N 09736.0E - 0836.0N 09812.0E - then follow the arc 30 NM counter clockwise from PUT DVOR/DME (080654.83N 0981822.69E) to 0820.0N 09751.5E - 0820.0N 09730.0E - 0929.0N 09730.0E - 0929.0N 09736.0E	ALT 12 000 FT GND	
VTD60 SURAT THANI Area 1 Area bounded by lines joining successively the following points: 092108.45N 0993149.01E - 103415.64N 0995439.12E - 094830.78N 1001754.79E - 081808.39N 1001550.28E - 081828.66N 0994352.24E - 083107.99N 0993638.33E - 085743.18N 0993640.94E - 092108.45N 0993149.01E	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513
Area 2 Area bounded by lines joining successively the following points: 092847.28N 0993411.75E - 100005.16N 0994357.26E - 100000.95N 0995504.62E - 093017.70N 0994547.49E - 092847.28N 0993411.75E	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : Notified by NOTAM 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 Pilots are advised to contact prior to entering. Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD61 SURAT THANI Area bounded by lines joining successively the following points: 0845.0N 09929.0E - 0827.0N 09951.0E - 0816.0N 09947.0E - 0828.0N 09842.0E - 0845.7N 09857.2E - then follow the arc 25 NM from STN DVOR/ DME (090746.24N 0990805.09E) counter clockwise to 0844.5N 09917.3E - 0840.4N 09919.7E - 0845.0N 09929.0E	ALT 7 000 FT GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 7 Air Traffic Control branch, Tel. +662 534 6000 ext 65556, 65513
VTD63 UDON, LOEI Area 1 Udon, Loei Area bounded by lines joining successively the following points: 1750.8N 10235.5E on Thai-Laotian border then follow the arc 30 NM counter clockwise from UDN TACAN (1722.9N 10248.1E) to 1700.0N 10228.0E - 1700.0N 10130.0E - 1744.0N 10130.0E - then eastward along the Thai-Laotian border to the starting point.	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2200-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 23 Air Traffic Control branch, Tel. +662 534 6000 ext 45512, 45502
Area 2 Udon, Loei, Khon Kaen Beginning at 1700.0N 10228.0E - then follow the arc 30 NM counter clockwise from UDN TACAN (1722.9N 10248.1E) to 1656.0N 10239.5E - then follow the arc 30 NM counter clockwise from KN NDB (162743.41N 1024704.18E) 1630.0N 10217.0E - 1630.0N 10130.0E - 1700.0N 10130.0E - 1700.0N 10228.0E	ALT 10 000 FT GND	
VTD64 UDON, NONG KHAI (North Area) Area bounded by lines joining successively the following points: 1755.0N 10247.0E on Thai-Laotian border to 1753.0N 10247.5E - then follow the arc 30 NM clockwise from UDN TACAN (1722.9N 10248.1E) to 1725.53N 10319.35E - 1731.94N 10441.36E then northward along the Thai-Laotian border to the starting point.	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2200-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 23 Air Traffic Control branch, Tel. +662 534 6000 ext 45512, 45502
VTD64 UDON, NONG KHAI (South Area) Area bounded by lines joining successively the following points: 1725.53N 10319.35E then follow the arc 30 NM clockwise from UDN TACAN (1722.9N 10248.1E) to 1709.0N 10315.8E - 1630.0N 10409.2E - 1630.0N 10440.0E then northward along the Thai-Laotian border to 1731.94N 10441.36E then to the starting point.	UNL GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2200-1700 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 Pilots are advised to contact prior to entering. Contact agency : Wing 23 Air Traffic Control branch, Tel. +662 534 6000 ext 45512, 45502

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
NAKHON PHANOM FLYING TRAINING, AREA WITHIN VTD64 Area 1 Area bounded by lines joining the following points: 172800N 1041500E - 174800N 1041500E - 173600N 1042600E - 172800N 1042200E - 172800N 1041500E Area 2 Area bounded by lines joining the following points: 163000N 1041500E - 165600N 1041500E - 170800N 1042500E - 170800N 1043900E - 170000N 1043800E - 163000N 1043900E - 163000N 1041500E	ALT 6 000 FT GND	Type of restriction : Civil Flight Training Area Nature of hazard/activity : Flight school training Time of activity : Between 2300-1100 Inflight information : Sakon Nakhon Approach freq. 123.35 MHZ or 284.0 MHZ, if unable contact Nakhon Phanom Tower freq. 122.5 MHZ Pilots are advised to contact prior to entering. Contact agency : Nakhon Phanom Tower, Tel. +668 5911 6562
VTD65 NORTHEASTERN AREA A circle 20 NM radius centred on point 1639.0N 10258.0E	FL 150 GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Bombing / Air Firing Area Time of activity : MON - FRI, 0000-1000 Inflight information : Khon Kaen Approach freq. 123.4 MHZ or 240.0 MHZ Pilots are advised to contact prior to entering. Contact agency : Air Operation Division, Tel. +662 280 2499
VTD67 KANCHANABURI Area bounded by lines joining successively the following points: 1454.0N 09830.0E - 1454.0N 09957.0E - 1415.0N 09923.0E - 1349.0N 09923.0E - 1349.0N 09914.0E - 1435.0N 09830.0E - 1454.0N 09830.0E	ALT 6 000 FT GND	Type of restriction : RTA Flying Training Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : Kanchanaburi Tower freq. 122.0 MHZ Pilots are advised to contact prior to entering. Contact agency : Air Operation Division, Tel. +662 280 2499
VTD70 CHANTHANBURI Area bounded by the line joining the following points 1253N 10213E - 1253N 10153E - 1313N 10153E - 1313N 10213E (Banchankhtem Kitchakut District Chanthaburi Province)	FL 150 GND	Type of restriction : RTN Flight Training Area Nature of hazard/activity : Millitary flight training area Time of activity : MON - FRI, 0130-0930 except public holidays Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Pilots are advised to contact prior to entering. Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196
VTD71 GULF OF THAILAND Area bounded by the line joining the following points: 1100N 10135E - 1100N 10105E - 1200N 10045E - 1200N 10135E	FL 300 GND	Type of restriction : RTN Flight Training Area Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : U-Tapao Approach freq. 119.7 MHZ or 273.3 MHZ Pilots are advised to contact prior to entering. Contact agency : Royal Thai Naval Air Division, Tel. +663 824 5193, +663 824 5196

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD72 BANGKOK, NONTHABURI, NAKHON PATHOM, SUPHANBURI Area bounded by lines joining successively the following points: Area 1 141820.38N 1004014.57E - 135819.51N 1002641.46E - 140459.67N 1001251.12E - 141811.10N 1002501.17E - 141820.38N 1004014.57E Area 2 135819.54N 1002641.46E - 134604.48N 1002225.41E - 134630.34N 1001255.05E - 140459.67N 1001251.12E - 135819.54N 1002641.46E	ALT 5 000 FT GND	Type of restriction : RTAF Flying Training Nature of hazard/activity : High speed combat manoeuvring Time of activity : MON - FRI, 2300-1500 Inflight information : Don Mueang Approach freq. 119.4 MHZ or 262.5 MHZ Pilots are advised to contact prior to entering. Contact agency : 604 Squadron, Tel. +662 534 6000 ext 22553
VTD74 PHANGNGA Area bounded by the lines joining successively the following points: Area 1 091500N 0971500E - 091500N 0974000E - 084500N 0974000E - 084500N 0971500E - 091500N 0971500E	FL 150 GND	Type of restriction : RTN Weapon Training Range for surface ships Nature of hazard/activity : Military operations Time of activity : Notified by NOTAM Inflight information : Phuket Approach freq. 124.7 MHZ or 284.0 MHZ Pilots are advised to contact prior to entering. Contact agency : 3rd Naval Area Command, Tel. +667 639 1590
Area 2 090000N 0975000E - 090000N 0980500E - 084000N 0980500E - 084000N 0975000E - 090000N 0975000E	ALT 9 000 FT GND	
Area 3 083300N 0975000E - 083300N 0981400E - 082700N 0981400E - 082700N 0975000E - 083300N 0975000E	ALT 8 000 FT GND	
VTD75 KHON KAEN Area bounded by the lines joining successively the following points: 163000N 1023700E - 161300N 1022200E - 163000N 1021700E - 163000N 1023700E	ALT 6 000 FT GND	Type of restriction : Civil Flight Training Area Nature of hazard/activity : Flight school training Time of activity : SAT and SUN, 2300 - 1400 after this period will be notified by NOTAM Inflight information : Roi Et Approach freq. 125.4MHZ, if unable contact Khon Kaen Tower Pilots are advised to contact prior to entering. Contact agency : -
VTD76 KHON KAEN Area bounded by the lines joining successively the following point: 161700N 1025000E - 162000N 1031500E - 160000N 1031500E - 160000N 1025000E - 161700N 1025000E	ALT 6 000 FT GND	Type of restriction : Civil Flight Training Area Nature of hazard/activity : Flight school training Time of activity : SAT and SUN, 2300 - 1400 after this period will be notified by NOTAM Inflight information : Roi Et Approach freq. 125.4MHZ, if unable contact Khon Kaen Tower Pilots are advised to contact prior to entering. Contact agency : -

Identification, name and lateral limits	Upper limit Lower limit	Remarks (time of activity, type of restriction, nature of hazard, risk of interception)
1	2	3
VTD77 KHON KAEN / ROI-ET Area bounded by the lines joining successively the following point: 160000N 1033915E - 154615N 1032430E - then along the arc of 30 NM radius centred on ROT DVOR/DME (160700.59N 1034619.45E) 162800N 1032430E - 161400N 1033915E - then along the arc of 10 NM radius centred on ROT DVOR/DME to starting point.	ALT 6 000 FT GND	Type of restriction : Civil Flight Training Area Nature of hazard/activity : Flight school training Time of activity : SAT and SUN, 2300 - 1400 after this period will be notified by NOTAM Inflight information : Roi Et Approach freq. 125.4MHZ, if unable contact Khon Kaen Tower Pilots are advised to contact prior to entering. 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 Lower limit	Activation time
P4	SFC 6000	H24
P7	SFC 6000	H24
P36	FL100 MSL SFC	HN
P37	FL100 MSL SFC	HN
P39	FL100 MSL SFC	HN
R1	FL100 MSL SFC	H24
R2	FL100 MSL SFC	H24
R3	FL100 MSL SFC	NOTIFIED BY NOTAM
R5	FL100 MSL SFC	NOTIFIED BY NOTAM
R6	FL100 MSL SFC	NOTIFIED BY NOTAM
R8	FL100 MSL SFC	H24
R11	10000 SFC	H24
R12	FL100 MSL SFC	NOTIFIED BY NOTAM
R13	10000 SFC	H24
R15	FL100 MSL SFC	H24
R51	FL100 MSL SFC	HJ
R52	FL100 MSL SFC	HJ
R62	FL100 MSL SFC	HN
R66	FL100 MSL SFC	NOTIFIED BY NOTAM
R68	6000 SFC	MON - FRI 0000-1000
R79	FL100 MSL SFC	NOTIFIED BY NOTAM
R80	FL100 MSL 2500 FT	H24
R81	FL100 MSL 2500 FT	H24
R82	FL100 MSL SFC	H24
R83	FL100 MSL SFC	H24
R84	FL100 MSL SFC	H24
D16 AREA1	6000 SFC	MON - FRI 2300-1300
D16 AREA2	10000 SFC	MON - FRI 2300-1300
D17 AREA1	FL100 MSL SFC	MON - FRI 2300-1300
D17 AREA2	FL100 MSL SFC	MON - FRI 2300-1300
D18 AREA1	FL100 MSL 10000 FT MSL SFC 2500 FT MSL	MON - FRI 2300-1300
D18 AREA2	FL100 MSL 10000 FT MSL SFC 2500 FT MSL	MON - FRI 2300-1300
D19	10000 SFC	MON - FRI 0300-0900
D20	FL100 MSL SFC	HJ
D21 AREA1	FL100 MSL SFC	NOTIFIED BY NOTAM
D21 AREA2	6000 SFC	NOTIFIED BY NOTAM
D21 AREA3	6000 SFC	NOTIFIED BY NOTAM
D22	6000 SFC	NOTIFIED BY NOTAM
D23	FL100 MSL SFC	NOTIFIED BY NOTAM
D24	6000 SFC	NOTIFIED BY NOTAM
D25	6000 SFC	NOTIFIED BY NOTAM
D26	6000 SFC	NOTIFIED BY NOTAM
D27	FL100 MSL SFC	NOTIFIED BY NOTAM
D28	6000 SFC	NOTIFIED BY NOTAM
D29	6000 SFC	NOTIFIED BY NOTAM
D30 AREA1	10000 SFC	MON - FRI 2300-1000
D30 AREA2	10000 SFC	MON - FRI 2300-1000
D31	FL100 MSL SFC	MON - FRI 2200-1700
D32	FL100 MSL SFC	MON - FRI 2300-1400
D33 AREA1	6000 SFC	MON - FRI 2200-1700
D33 AREA2	10000 SFC	MON - FRI 2200-1700
D34 AREA1	6000 SFC	MON - FRI 2200-1700
D34 AREA2	10000 SFC	MON - FRI 2200-1700
D35	FL100 MSL SFC	MON - FRI 2300-1100
D40 AREA1	FL100 MSL ALT 10000 FT FL100 MSL ALT 6000 FT	MON - FRI 2300-1500
D40 AREA2	FL100 MSL ALT 6000 FT	NOTIFIED BY NOTAM
D41	10000 SFC	MON - FRI 0100-1400
D42	10000 SFC	MON - FRI 0100-1400
D43	6000 SFC	MON - FRI 0100-0900
D44	6000 SFC	MON - FRI 2300-1000
D45	6000 SFC	MON - FRI 2200-1300
D46	6000 SFC	MON - FRI 2300-1000
D47	6000 SFC	MON - FRI 0130-0930
D48	10000 SFC	MON - FRI 0200-0800
D49	FL100 MSL SFC	MON - FRI 2300-1100
D50	FL100 MSL ALT 10000 FT FL100 MSL ALT 6000 FT	MON - FRI 2300-1100
D53	FL100 MSL SFC	MON - FRI 0200-0500 , MON - FRI 0600-0800
D54	10000 SFC	MON - FRI 2200-1700
D55	10000 SFC	MON - FRI 2200-1700
D57 AREA1	6000 SFC	MON - FRI 0000-1000
D57 AREA2	6000 SFC	MON - FRI 0000-1000
D58	6000 SFC	NOTIFIED BY NOTAM
D59 AREA1	10000 SFC	MON - FRI 2300-1700
D59 AREA2	FL100 MSL SFC	MON - FRI 2300-1700
D60 AREA1	10000 SFC	MON - FRI 2300-1700
D60 AREA2	10000 SFC	NOTIFIED BY NOTAM
D61	FL100 MSL SFC	MON - FRI 2300-1700
D63 AREA1	10000 SFC	MON - FRI 2200-1700
D63 AREA2	FL100 MSL SFC	MON - FRI 2200-1700
D64 (North Area)	10000 SFC	MON - FRI 2200-1700
D64 (South Area)	10000 SFC	MON - FRI 2200-1700
D64 AREA1	FL100 MSL SFC	MON - FRI 2300-1100
D64 AREA2	FL100 MSL SFC	MON - FRI 2300-1100
D65	FL100 MSL SFC	MON - FRI 0000-1000
D67	FL100 MSL SFC	NOTIFIED BY NOTAM
D70	6000 SFC	MON - FRI 0130-0930
D71	FL100 MSL SFC	NOTIFIED BY NOTAM
D72 AREA1	FL100 MSL SFC	MON - FRI 2300-1500
D72 AREA2	FL100 MSL SFC	MON - FRI 2300-1500
D74 AREA1	10000 SFC	NOTIFIED BY NOTAM
D74 AREA2	FL100 MSL SFC	NOTIFIED BY NOTAM
D74 AREA3	FL100 MSL SFC	NOTIFIED BY NOTAM
D75	FL100 MSL SFC	SAT - SUN 2300-1400
D76	FL100 MSL SFC	SAT - SUN 2300-1400
D77	FL100 MSL SFC	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 Mhz;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
TWR 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 121.8 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 02/25
EFFECTIVE DATE
20 FEB 25

CHANGE: LAMPANG ATIS FREQ, MAE HONG SON ATIS FREQ.

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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AND
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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)

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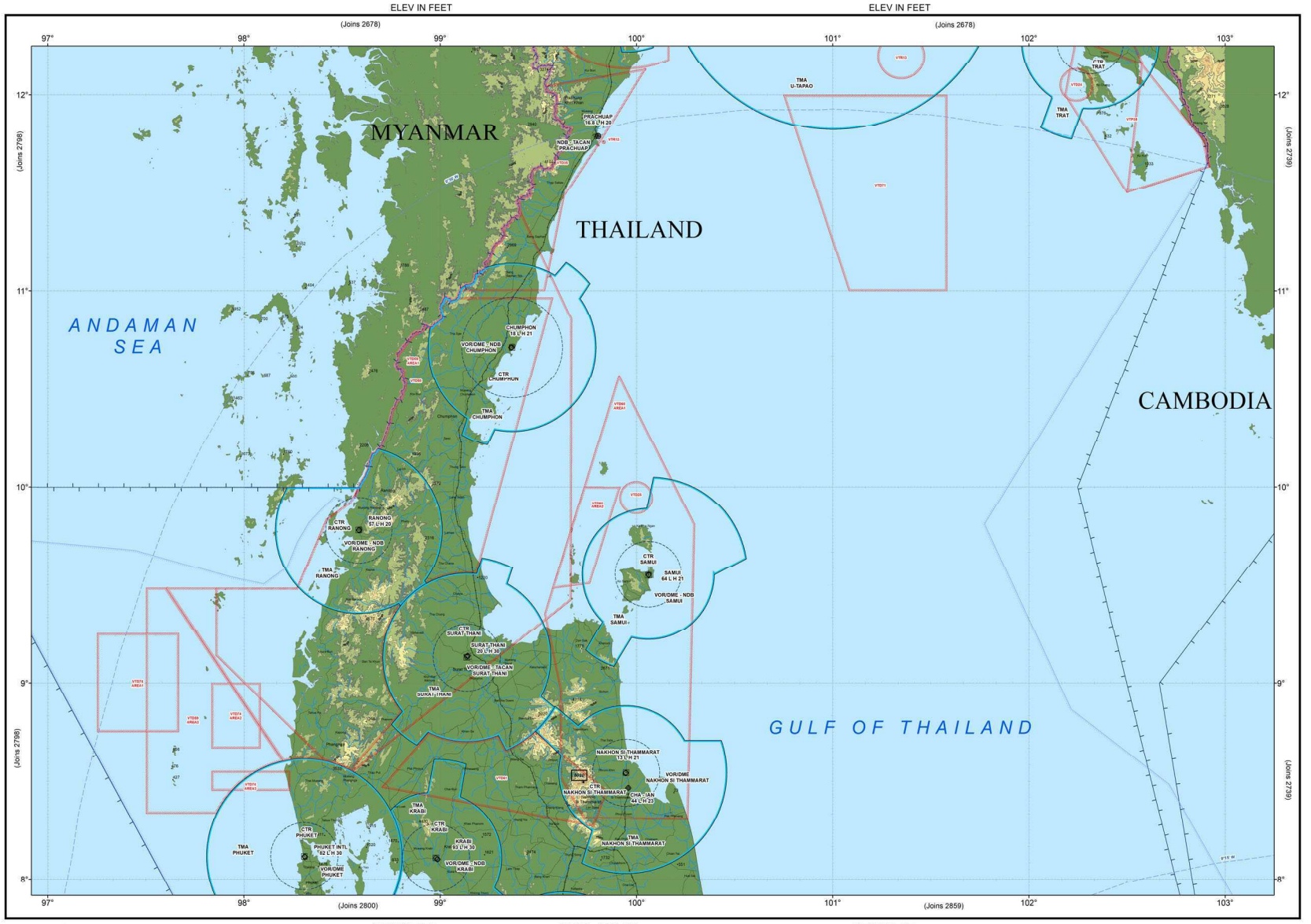
WORLD AERONAUTICAL CHART-ICAO
1 : 1 000 000

(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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AND
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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

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AD 0.2	RECORD OF AIP AMENDMENTS	AD 0.6-1
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CHIANG MAI/CHIANG MAI INTERNATIONAL AIRPORT

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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 (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 (“slippery wet” runway)	Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.	Medium
2	STANDING WATER (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 (Dry)	Yes*	No	No**
5 (Wet)	Yes	Yes	No**
3 (Slippery Wet)	Yes	Yes	No**
2 (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 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 NS = Non-scheduled P = Private	
1	2	3	4	5
Aerodromes				
BANGKOK/DON MUEANG INTERNATIONAL AIRPORT VTBD	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTBD
BANGKOK/SUVARNABHUMI INTERNATIONAL VTBS	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTBS
BURI RAM/BURI RAM AIRPORT VTUO	NTL	IFR, VFR	S, NS, P	AD 2-VTUO
CHIANG MAI/CHIANG MAI INTERNATIONAL AIRPORT VTCC	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTCC
CHIANG RAI/MAE FAH LUANG-CHIANG RAI INTERNATIONAL AIRPORT VTCT	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTCT
CHUMPHON/CHUMPHON AIRPORT VTSE	NTL	IFR, VFR	S, NS, P	AD 2-VTSE
PRACHUAP KHIRI KHAN/ HUA HIN AIRPORT VTPH	NTL	IFR, VFR	S, NS, P	AD 2-VTPH
LOP BURI/KHOK KATHIAM AIRPORT VTBL	NTL	VFR	NIL	AD 2-VTBL
KHON KAEN/KHON KAEN AIRPORT VTUK	NTL	IFR, VFR	S, NS, P	AD 2-VTUK
KHON-KAEN / NAM PHONG	NTL	IFR,VFR	NIL	AD 2-VTUZ
KRABI/KRABI AIRPORT VTSG	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTSG
LAMPANG/LAMPANG AIRPORT VTCL	NTL	IFR, VFR	S, NS, P	AD 2-VTCL
LOEI/LOEI AIRPORT VTUL	NTL	IFR, VFR	S, NS, P	AD 2-VTUL
MAE HONG SON / PAI AIRPORT VTCI	NTL	VFR	S, NS, P	AD 2-VTCI
MAE HONG SON/ MAE HONG SON AIRPORT VTCH	NTL	IFR, VFR	S, NS, P	AD 2-VTCH
TAK/MAE SOT AIRPORT VTPM	NTL	IFR, VFR	S, NS, P	AD 2-VTPM
NAKHON PATHOM/KAMPHAENG SAEN AIRPORT VTBK	NTL	IFR, VFR	NIL	AD 2-VTBK
NAKHON PHANOM/ NAKHON PHANOM AIRPORT VTUW	NTL	IFR, VFR	S, NS, P	AD 2-VTUW

Aerodrome/heliport name 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 NS = Non-scheduled P = Private	
1	2	3	4	5
NAKHON RATCHASIMA / KHORAT AIRPORT VTUN	NTL	VFR	S	AD 2-VTUN
NAKHON RATCHASIMA/ NAKHON RATCHASIMA AIRPORT VTUQ	NTL	IFR, VFR	S, NS, P	AD 2-VTUQ
NAKHON SAWAN/ NAKHON SAWAN AIRPORT VTPN	NTL	VFR	NIL	AD 2-VTPN
NAKHON SAWAN/TAKHLI AIRPORT VTPI	NTL	IFR, VFR	NIL	AD 2-VTPI
NAKHON SI THAMMARAT / CHA - IAN AIRPORT VTSN	NTL	VFR	S	AD 2-VTSN
NAKHON SI THAMMARAT/ NAKHON SI THAMMARAT AIRPORT VTSF	NTL	IFR, VFR	S, NS, P	AD 2-VTSF
NAN/NAN NAKHON AIRPORT VTCN	NTL	IFR, VFR	S, NS, P	AD 2-VTCN
NARATHIWAT/ NARATHIWAT AIRPORT VTSC	NTL	IFR, VFR	S, NS, P	AD 2-VTSC
PATTANI/PATTANI AIRPORT VTSK	NTL	VFR	S, NS, P	AD 2-VTSK
PHETCHABUN/ PHETCHABUN AIRPORT VTPB	NTL	IFR, VFR	S, NS, P	AD 2-VTPB
PHITSANULOK/ PHITSANULOK AIRPORT VTPP	NTL	IFR, VFR	S, NS, P	AD 2-VTPP
PHARE/PHRAE AIRPORT VTCP	NTL	IFR, VFR	S, NS, P	AD 2-VTCP
PHUKET/ PHUKET INTERNATIONAL AIRPORT VTSP	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTSP
PRACHUAP KHIRI KHAN/ PRACHUAP AIRPORT VTBP	NTL	VFR	NIL	AD 2-VTBP
RANONG/RANONG AIRPORT VTSR	NTL	IFR, VFR	S, NS, P	AD 2-VTSR
ROI ET/ROI ET AIRPORT VTUV	NTL	IFR, VFR	S, NS, P	AD 2-VTUV
SAKON NAKHON/ SAKON NAKHON AIRPORT VTUI	NTL	IFR, VFR	S, NS, P	AD 2-VTUI
SURAT THANI/SAMUI AIRPORT VTSM	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTSM
SONGKHLA / HAT YAI INTERNATIONAL AIRPORT VTSS	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTSS

Aerodrome/heliport name 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 NS = Non-scheduled P = Private	
1	2	3	4	5
SONGKHLA/ SONGKHLA AIRPORT VTSH	NTL	VFR	NIL	AD 2-VTSH
SUKHOTHAI/SUKHOTHAI AIRPORT VTPO	NTL	IFR, VFR	S, NS, P	AD 2-VTPO
SURAT THANI/ SURAT THANI AIRPORT VTSB	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTSB
TAK/TAK AIRPORT VTPT	NTL	IFR, VFR	S, NS, P	AD 2-VTPT
TRANG/TRANG AIRPORT VTST	NTL	IFR, VFR	S, NS, P	AD 2-VTST
TRAT/TRAT AIRPORT VTBO	NTL	IFR, VFR	S, NS, P	AD 2-VTBO
RAYONH/ U-TAPAO RAYONG PATTAYA INTERNATIONAL AIRPORT VTBU	INTL - NTL	IFR, VFR	S, NS, P	AD 2-VTBU
UBON RATCHATHANI/ UBON RATCHATHANI AIRPORT VTUU	NTL	IFR, VFR	S, NS, P	AD 2-VTUU
UDON THANI/ UDON THANI AIRPORT VTUD	NTL	IFR, VFR	S, NS, P	AD 2-VTUD
SA KAEO/ WATTHANA NAKHON AIRPORT VTBW	NTL	IFR, VFR	NIL	AD 2-VTBW
YALA/BETONG AIRPORT 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 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 NS = Non-scheduled P = Private	
1	2	3	4	5
Heliport				
BANGKOK CITY Bang Rak – Changri-La Hotel 134317.30N 1003050.90E	NTL	VFR	P	NIL
BANGKOK CITY Bang Rak – C.P. Tower 1 134733.70N 1003208.60E	NTL	VFR	P	NIL
BANGKOK CITY Vadhana – Bam Rung Rad Hospital 134444.81N 1003308.37E	NTL	VFR	P	NIL

Aerodrome/heliport name 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 NS = Non-scheduled P = Private	
1	2	3	4	5
LAMPANG Mae Mo – Mae Mo Power Plant 4 181647.00N 0994410.00E	NTL	VFR	P	NIL
PHRA NAKHON SI AYUTHAYA Bang Pa-in – NMB-Minebea Thai Ltd. 140910.30N 1003702.90E	NTL	VFR	P	NIL
CHONBURI Bang Lamung – Royal Cliff Beach Hotel 125601.00N 1005230.00E	NTL	VFR	P	NIL
KRABI Ao Nang – Phi Phi Island Village Beach Front Resort 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 Location indicator	Date of certification	Validity of certification	Remark
BANGKOK/DON MUEANG INTERNATIONAL AIRPORT VTBD	17 JUL 2023	10 years	Certified 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
PRACHUAP KHIRI KHAN/HUA HIN AIRPORT VTPH	Not certified	NIL	NIL
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
SURAT THANI/SAMUI AIRPORT VTSM	20 AUG 2022	10 years	Certified 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 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) Don Mueang International Airport 222 Vibhavadi Rangsit Road, Donmueang, Bangkok 10210 Thailand Tel: +662 535 1515 +662 535 1516 Fax: +662 535 1065 +662 535 1306 E-mail: dmk.dep@airportthai.co.th Website:www.airportthai.co.th 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): Located at 2nd floor, the central block building, Don Mueang International Airport Tel: +66 2515 3263 Fax: +66 2535 1879 AFTN: VTBDZPZX E-mail: vtbdzpzx@aerothai.co.th

VTBD AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Available form a) Asia Ground Service Co.,Ltd (AGS) 7 Forklifts (7 T - 1 Forklifts, 5 T - 1 Forklifts, 3 T - 1 Forklifts, 2.5 T - 4 Forklifts) 3 Electric Hand-lifts (1.5 T - 3 Forklifts), 2 Trucks Handling weight up to 200 T per day. b) Technology Asia Pacific Co.,Ltd (TAP) 4 Forklifts (7 T - 1 Forklifts, 2.5 T - 3 Forklifts) 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) Website:www.bafsthai.com Tel: +662 834 8900 Fax: +662 834 8999 Fuel Dispenser Truck: 21 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: a) AGS CARGO DMK E-mail: dmkfa@asiagroundservice.com Tel: +662 504 3821-3 +669 5208 4161-2 Fax: +662 504 3825 b) AOT GROUND AVIATION SERVICES CO., LTD. (AOTGA) Website: www.aotga.com Ground Handling Inquiry: - Marketing Department E-mail: marketing@aotga.com Tel: +666 4182 5396 Operation Inquiry: - Ground Operations Control/Operations Department E-mail: dmkopsocc@aotga.com, dmkroc@aotga.com, Tel: +668 2941 7679 (24 hrs.) +666 4182 5391 (24 hrs.) +662 535 3818 (24 hrs.) Radio contact Call sign: Blue Port Don Mueang Frequency:129.350MHZ - GA Aviation Channel (Private aircraft) and AOTGA Premium Lounge Ground & Operation Department E-mail: DMKVIP@aotga.com Tel: +666 4182 5389 (24 hrs.) c) BANGKOK AIR CATERING DON MUEANG CO., LTD E-mail: dmkhhpg@bangkokaircatering.com Mob: +666 4209 3694 d) MJETS LIMITED (Private Aircraft only) Handling Service E-mail: ground@mjets.com Tel: +662 034 5622 (24 hrs.) +668 5485 6623 (24 hrs.) VHF FREQ:131.175MHZ " MJets OPS " AOG Support & MRO E-mail: AOG@mjets.com Tel: +668 5484 8722 e) TAP CARGO DMK E-mail: dmk@tapaircargo.com Tel: +662 157 3539 Fax: +662 157 3540 SITA: DMKTPXH, DMKTAXH f) THAI AIRWAYS INTERNATIONAL PUBLIC CO.,LTD. (TG) E-mail: tg.charter@thaiairways.com Tel: +662 563 8107 Fax: +662 563 8106 SITA: DMKZMTG AFS: VTBDTHAK

VTBD AD 2.5 PASSENGER FACILITIES

1	Hotels	At the 4th floor (Terminal 2) Tel: +662 535 7555-8 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 Post office: At the 3rd Floor (Terminal 1 & 2) Tel: +662 504 3070 (Terminal 1) +662 504 3181 (Terminal 2) Open : Daily 0130 - 1200
6	Tourist Office	Office at the 1st Floor (Terminal 1) Arrival hall; Tel: +662 535 3433
7	Remarks	For further information Tel: +662 535 1192 +662 535 2110 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: Airport Operations Department - Airside Services Division Tel: +662 535 1283 +662 535 1288 Rescue and Fire Fighting Department - Aircraft Fire Fighting Division 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 Surface: Concrete Strength: PCR 830/R/B/W/T Pier 2-3 Surface: Concrete Strength: PCR 830/R/B/W/T Pier 3-4 Surface: Concrete Strength: PCR 830/R/B/W/T Pier 4-5 Surface: Concrete Strength: PCR 830/R/B/W/T Pier 5-6 Surface: Concrete Strength: PCR 830/R/B/W/T Pier 6 Surface: Concrete Strength: PCR 830/R/B/W/T South Apron Surface: Concrete Strength: PCR 830/R/B/W/T
2	Taxiway width, surface and strength	Width: 23 M - 50 M Surface: Concrete Strength: See Aerodrome Ground Movement Chart - ICAO for taxiway strength, surface and width.
3	Altimeter checkpoint location and elevation	Location: At Apron Elevation: 3.25 M/10 FT
4	VOR checkpoints	Location: - At holding position RWY 21R on TWY B (north) - RDL 023/2.2 NM - At holding position RWY 03L on TWY S (nearby TWY C) - RDL 012/0.6 NM 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 - 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 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. Nose-wheel guide lines at aprons Solid nose-wheel guide lines at aircraft stands Guide lines at apron. 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. TWY: Holding position at all TWY/RWY Intersections, marked. Edge at all TWY, marked and lighted Centre line at all TWY, marked. Centre line at D, E, F, J, O, R, S, C, C (south), lighted Intermediate holding position light at TWY C between TWY O-R
3	Stop bars	Stop Bar Lights installed detail as follow: – At holding position RWY 21R on TWY B north, distance 130 M from RCL – At holding position RWY 21R on TWY D, distance 130 M right side of RCL – At holding position RWY 21R on TWY D, distance 210 M left side of RCL – At holding position RWY 21R on TWY E, distance 90 M right side of RCL – At holding position RWY 21R on TWY J, distance 90 M right side of RCL – At holding position RWY 21R on TWY S, distance 90 M right side of RCL – At holding position RWY 21R on TWY S, distance 130 M left side of RCL – At holding position RWY 21R on TWY C south, distance 90 M from RCL
4	Remarks	Aircraft marshalling and Towing service: 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 HGT 70 M Marked, Lighted	135307.86N 1003351.09E	NIL
			Radio mast HGT 61 M Marked, Lighted	135452.97N 1003709.84E	NIL
			Building HGT 78 M Marked, Lighted	135339.003N 1003341.633E	NIL
			Building HGT 87.10 M Lighted	135212.77N 1003403.06E	NIL
			Building HGT 50 M Lighted	135711.09N 1003715.04E	NIL

VTBD AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorology Division, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Aeronautical Meteorology Division 30 HR
4	Type of landing forecast Interval of issuance	TREND 30 Min
5	Briefing/consultation provided	Personal Consultation Tel: +662 535 1256 Fax: +662 535 1252
6	Flight documentation Language(s) used	Charts, Tabular forms and Abbreviated Plain Language Texts. 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 Observation System (AWOS), Low Level Windshear Alert System (LLWAS), 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% (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 IBN: NIL HN: IMC
2	LDI location and LGT Anemometer location and LGT	WDI : 1 WDI 375 M FM THR RWY 21R AND 179 M FM RWY 21R CL, BTN RWY 21R AND 21L illuminated : 1 WDI left side of THR RWY 21L, 158 M FM RWY CL illuminated
3	TWY edge and centre line lighting	Edge: All TWY 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 Switch-over time: 0 Sec -Secondary power supply to all lighting at RWY 21R/03L Switch-over time: 0 Sec
5	Remarks	Stop Bars at TWY B north, D, E, J, S, C (south) 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 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 Language(s)	Don Mueang Tower 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 Bangkok Approach	119.4 MHZ / 262.5 MHZ 133.4 MHZ / 262.5 MHZ 125.2 MHZ / 262.5 MHZ 124.35 MHZ / 262.5 MHZ 122.35 MHZ / 262.5 MHZ 119.1 MHZ / 262.5 MHZ 120.3 MHZ / 262.5 MHZ 125.8 MHZ [2] 121.5 MHZ [1] / 243.0MHZ [1]	H24	1) Emergency frequency 2) Clearance delivery for aircraft departing to adjacent aerodromes and helicopters operating within BKK CTR 3) Arrival ATIS 4) Departure ATIS
CDC	Don Mueang Delivery	127.7 MHZ	H24	
DAR	Don Mueang Arrival	133.0 MHZ / 262.5 MHZ 121.5 MHZ [1] / 243.0MHZ [1]	H24	
TWR	Don Mueang Tower	118.1 MHZ / 236.6 MHZ 121.5 MHZ [1] / 243.0 MHZ [1]	H24	
SMC	Don Mueang Ground	121.9 MHZ / 257.8 MHZ 122.5 MHZ / 257.8 MHZ	H24	
ATIS	Don Mueang Intl Airport	126.4 MHZ [3] / 344.6 MHZ [3] / 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: – Radial 321°-030° altitude should not below 2 500 FT – Radial 031°-060° altitude should not below 4 000 FT – Radial 061°-120° altitude should not below 3 000 FT – Radial 121°-320° altitude should not below 4 000 FT
ILS CAT II LOC-21R	IBKK	109.3 MHZ	H24	135340.6N 1003540.6E		Instrument Landing System - Reference Datum Height (RDH) is 16.46 M (54 FT). A. Localizer - LOC 300 M (984 FT) from THR RWY 03L, along RWY centre line. Course width 3° B. Glide Path 3° - GP 333 M (1,093 FT) from THR RWY 21R, 120 M (394 FT) from RWY centre line. C.DME - Co-located with GP.
GP/DME		332.0 MHZ CH 30X	H24	135523.5N 1003642.8E		
ILS CAT I LOC RWY21L	IDMG	110.3 MHZ	H24	135351.83N 1003601.85E		Instrument Landing System – Reference Datum Height (RDH) is 53 FT A. Localizer – LOC 225 M from THR RWY 03R, along RWY centre line. – Course width 3.6° B. Glide Path 3° – GP 320 M from THR RWY 21L, 120 M from RWY centre line. C. DME – Co-located with GP
GP/DME		335.0 MHZ CH40X	H24	135521.25N 1003647.45E		
ILS CAT I LOC RWY03L	IBKD	109.7MHZ CH34X	H24	135543.71N 1003649.60E		Instrument Landing System – Designated operation coverage 9 DME (IBKD), ALT 6000 FT/AMSL – Reference Datum Height (RDH) is 55 FT A. Localizer – Course width 3.0° B. Glide Path 3° – GP unusable beyond 6° right side of localizer course C. DME – Co-located with LOC
DME			H24	135544.88N 1003647.53E	3FT	
GP		333.2MHZ	H24	135356.48N 1003554.02E		

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 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. Remarks 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 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. Alternative 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. Alternative 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. Alternative 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. Alternative 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 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. Alternative 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. Alternative 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 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

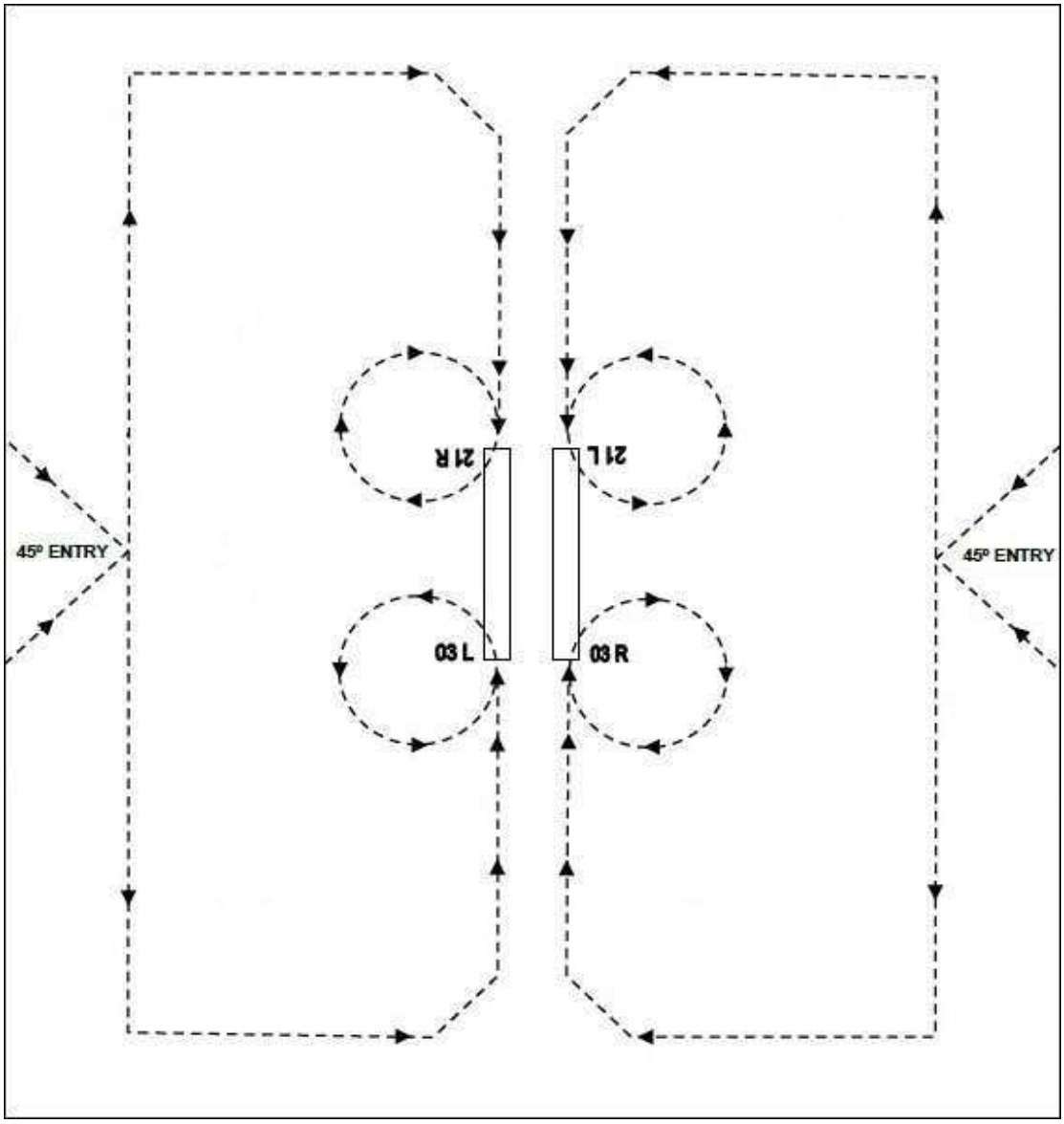
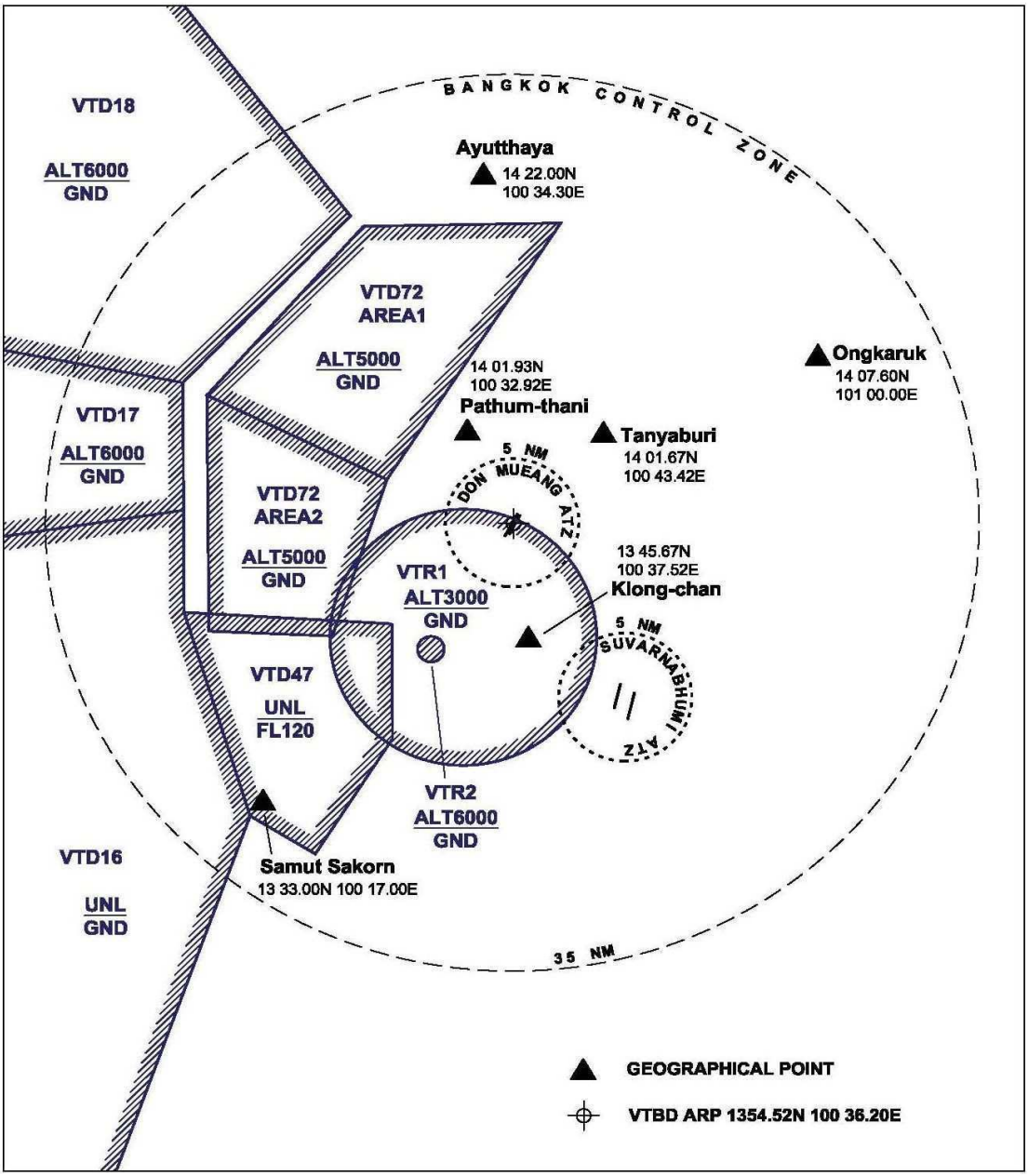


Illustration of Bangkok control zone and Don Mueang aerodrome traffic zone

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.

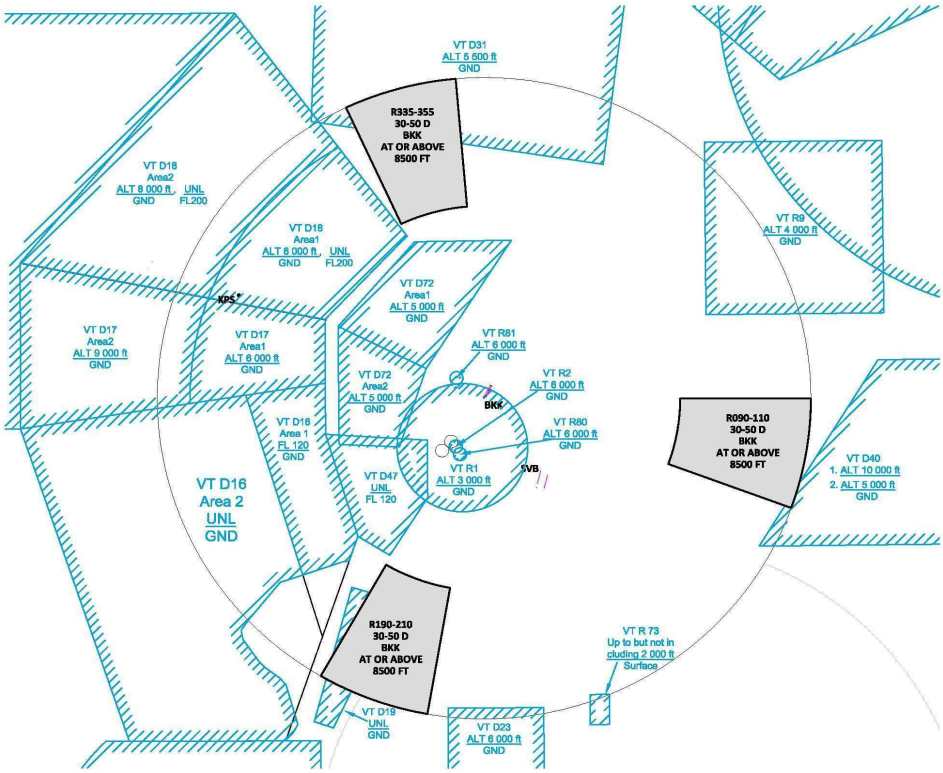
10.2 Fuel Dumping Areas

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 80 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 RIVDU3C ROBKA3C SEMBO4C TARED3C UPKUP3C	AD 2-VTBD-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C RIVDU3C ROBKA3C SEMBO4C TARED3C UPKUP3C (Radio communication failure table)	AD 2-VTBD-6-2
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C RIVDU3C ROBKA3C SEMBO4C TARED3C UPKUP3C (Tabular description 1)	AD 2-VTBD-6-3
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C RIVDU3C ROBKA3C SEMBO4C TARED3C UPKUP3C (Tabular description 2)	AD 2-VTBD-6-4
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C RIVDU3C ROBKA3C SEMBO4C TARED3C UPKUP3C (Tabular description 3)	AD 2-VTBD-6-5
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - ALBOS3C BONVO3C NOBER4C NUNLI3C OLVUK3C PASTO3C RIVDU3C ROBKA3C SEMBO4C TARED3C UPKUP3C (Waypoint list table)	AD 2-VTBD-6-6
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C	AD 2-VTBD-6-7
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-6-8
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C (Tabular description 1)	AD 2-VTBD-6-9
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C (Tabular description 2)	AD 2-VTBD-6-10
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C (Tabular description 3)	AD 2-VTBD-6-11
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21L - DOSBU3C GORSI3C HHN3C KASNI3C KIGOB3C REGOS3C RYN3C SABIS3C UKERA3C (Waypoint list table)	AD 2-VTBD-6-12
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A RIVDU3A ROBKA3A SEMBO4A TARED3A UPKUP3A	AD 2-VTBD-6-13
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R -ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A RIVDU3A ROBKA3A SEMBO4A TARED3A UPKUP3A (Radio communication failure table)	AD 2-VTBD-6-14
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A RIVDU3A ROBKA3A SEMBO4A TARED3A UPKUP3A (Tabular description 1)	AD 2-VTBD-6-15
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A RIVDU3A ROBKA3A SEMBO4A TARED3A UPKUP3A (Tabular description 2)	AD 2-VTBD-6-16
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A RIVDU3A ROBKA3A SEMBO4A TARED3A UPKUP3A (Tabular description 3)	AD 2-VTBD-6-17
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - ALBOS3A BONVO3A NOBER4A NUNLI3A OLVUK3A PASTO3A RIVDU3A ROBKA3A SEMBO4A TARED3A UPKUP3A (Waypoint list table)	AD 2-VTBD-6-18
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A	AD 2-VTBD-6-19
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-6-20
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A (Tabular description 1)	AD 2-VTBD-6-21
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A (Tabular description 2)	AD 2-VTBD-6-22
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A (Tabular description 3)	AD 2-VTBD-6-23

Chart name	Page
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21R - DOSBU3A GORSI3A HHN3A KASNI3A KIGOB3A REGOS3A RYN3A SABIS3A UKERA3A (Waypoint list table)	AD 2-VTBD-6-24
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B RIVDU1B ROBKA1B SEMBO2B TARED1B UPKUP1B	AD 2-VTBD-6-25
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L -ALBOS1B NOBER2B NUNLI1B OLVUK1B RIVDU1B ROBKA1B SEMBO2B TARED1B UPKUP1B (Radio communication failure table)	AD 2-VTBD-6-26
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B RIVDU1B ROBKA1B SEMBO2B TARED1B UPKUP1B (Tabular description 1)	AD 2-VTBD-6-27
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B RIVDU1B ROBKA1B SEMBO2B TARED1B UPKUP1B (Tabular description 2)	AD 2-VTBD-6-28
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B RIVDU1B ROBKA1B SEMBO2B TARED1B UPKUP1B (Tabular description 3)	AD 2-VTBD-6-29
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - ALBOS1B NOBER2B NUNLI1B OLVUK1B RIVDU1B ROBKA1B SEMBO2B TARED1B UPKUP1B (Waypoint list table)	AD 2-VTBD-6-30
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03L - BONVO1B DOSBU1B GORSI1B HHN1B KASNI1B KIGOB1B PASTO1B REGOS1B RYN1B SABIS2B UKERA1B	AD 2-VTBD-6-31
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-6-32
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-6-33
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-6-34
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-6-35
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-6-36
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-6-37
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D RIVDU1D ROBKA1D SEMBO2D TARED1D UPKUP1D	AD 2-VTBD-6-39
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D RIVDU1D ROBKA1D SEMBO2D TARED1D UPKUP1D (Radio communication failure table)	AD 2-VTBD-6-40
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D RIVDU1D ROBKA1D SEMBO2D TARED1D UPKUP1D (Tabular description 1)	AD 2-VTBD-6-41
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D RIVDU1D ROBKA1D SEMBO2D TARED1D UPKUP1D (Tabular description 2)	AD 2-VTBD-6-42
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R ALBOS1D NOBER2D NUNLI1D OLVUK1D RIVDU1D ROBKA1D SEMBO2D TARED1D UPKUP1D (Tabular description 3)	AD 2-VTBD-6-43
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - ALBOS1D NOBER2D NUNLI1D OLVUK1D RIVDU1D ROBKA1D SEMBO2D TARED1D UPKUP1D (Waypoint list table)	AD 2-VTBD-6-44
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03R - BONVO1D DOSBU1D GORSI1D HHN1D KASNI1D KIGOB1D PASTO1D REGOS1D RYN1D SABIS2D UKERA1D	AD 2-VTBD-6-45
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-6-46
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-6-47
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-6-48
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-6-49
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-6-50
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-6-51
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 21L/21R - ENDUU3A NAKON3A SABAI3A SEHNA3A WEHHA3A	AD 2-VTBD-7-1
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

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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
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

Chart name	Page
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

INTENTIONALLY BLANK

AERODROME CHART - ICAO

13 54 52 N
100 36 20 E

ELEV 9 FT

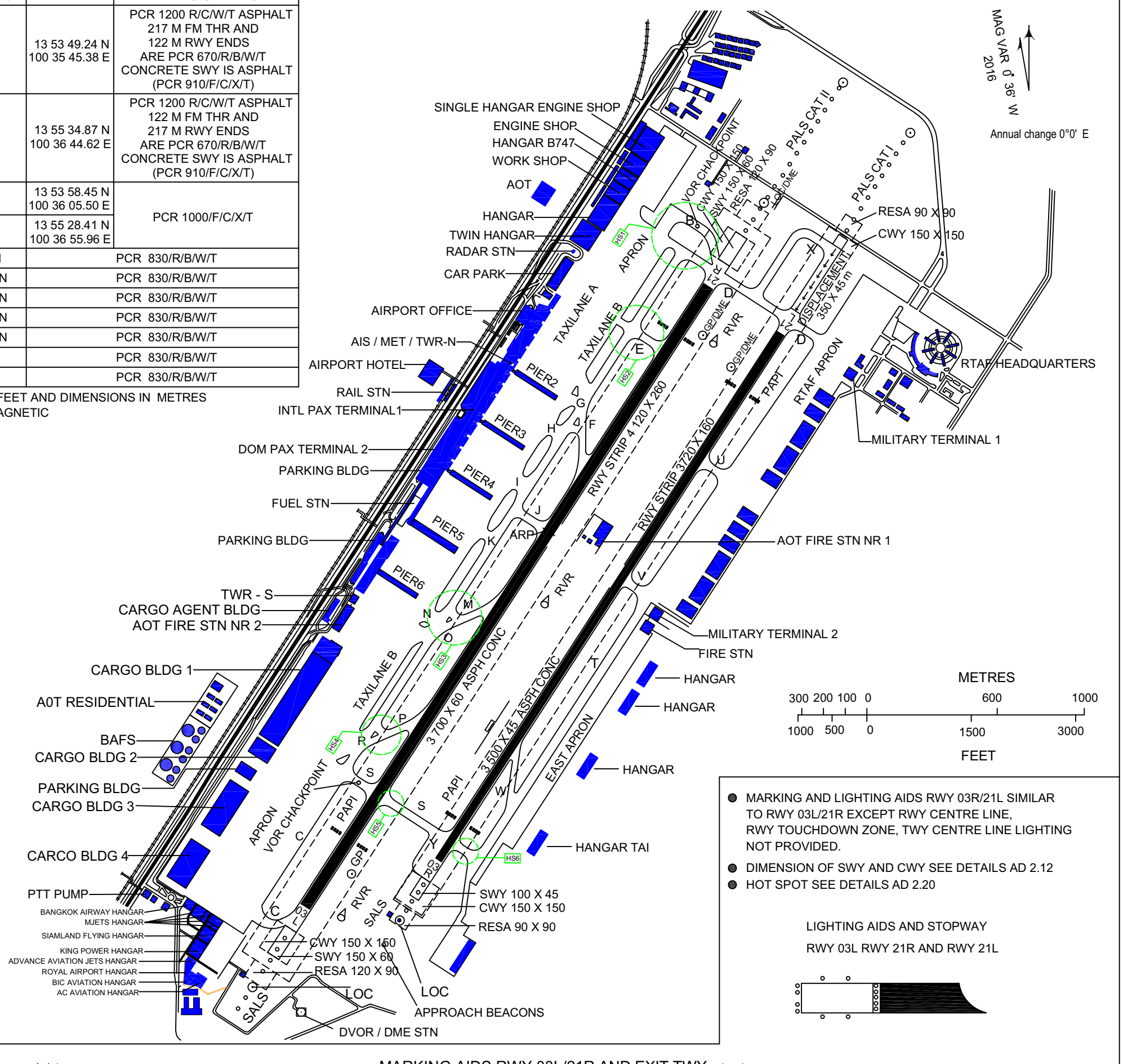
TWR 118.1
GND 121.9
122.5

BANGKOK / DON MUEANG INTL.

RWY	DIRECTION	THR	BEARING STRENGTH
03L	029	13 53 49.24 N 100 35 45.38 E	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)
21R	209	13 55 34.87 N 100 36 44.62 E	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)
03R	028	13 53 58.45 N 100 36 05.50 E	PCR 1000/F/C/X/T
21L	208	13 55 28.41 N 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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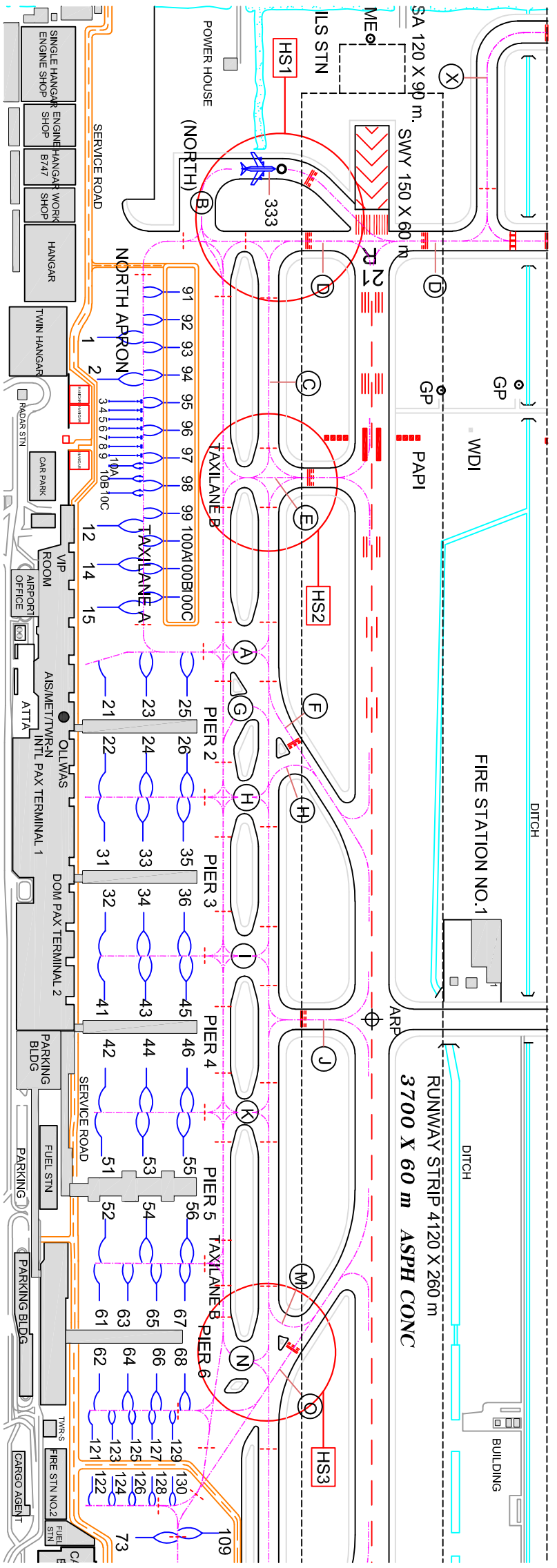
AIRCRAFT PARKING DOCKING CHART - ICAO

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)

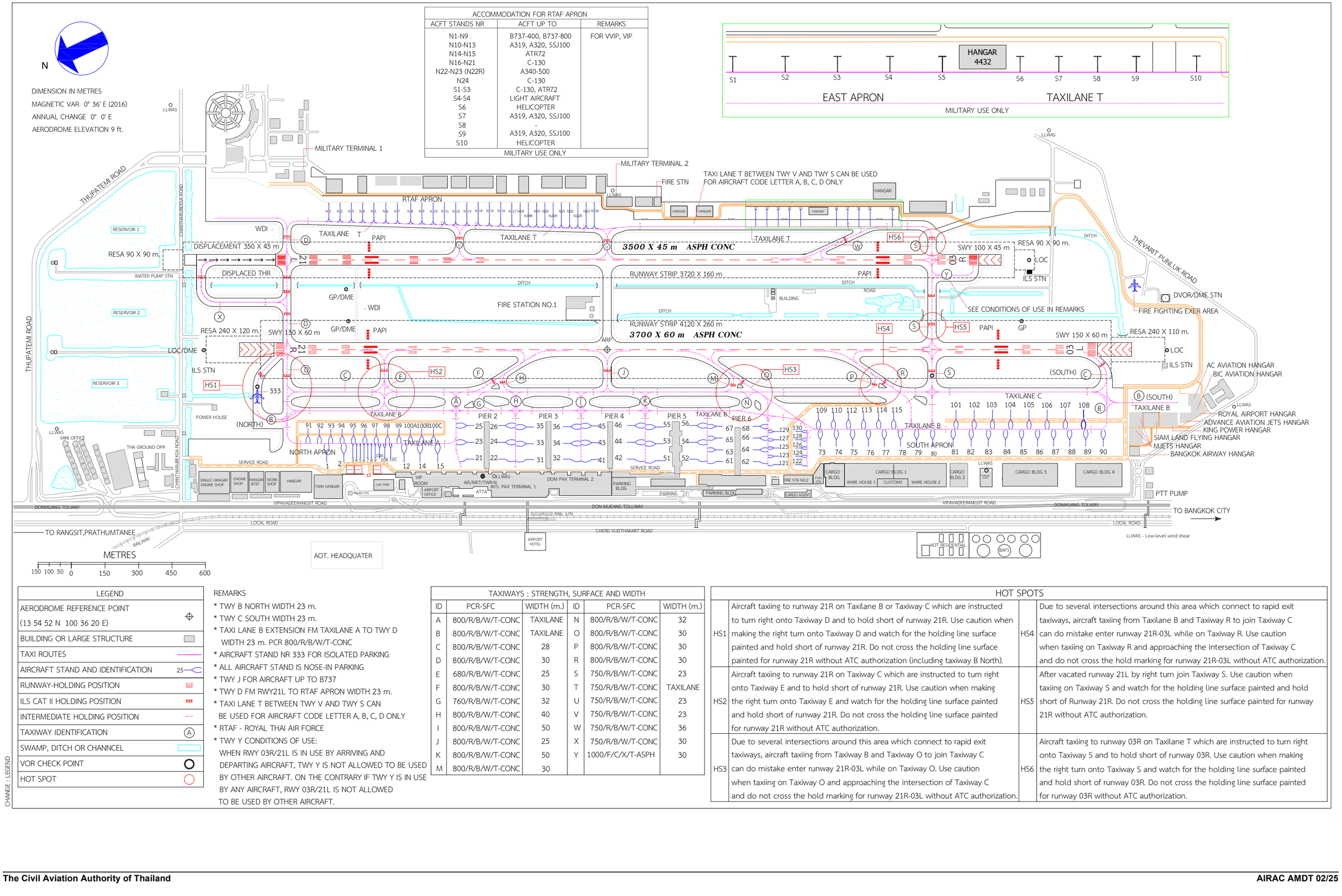
CHANGE: . TEMPLATE. COORDINATES STAND NR 101, 107, 108 AND 121

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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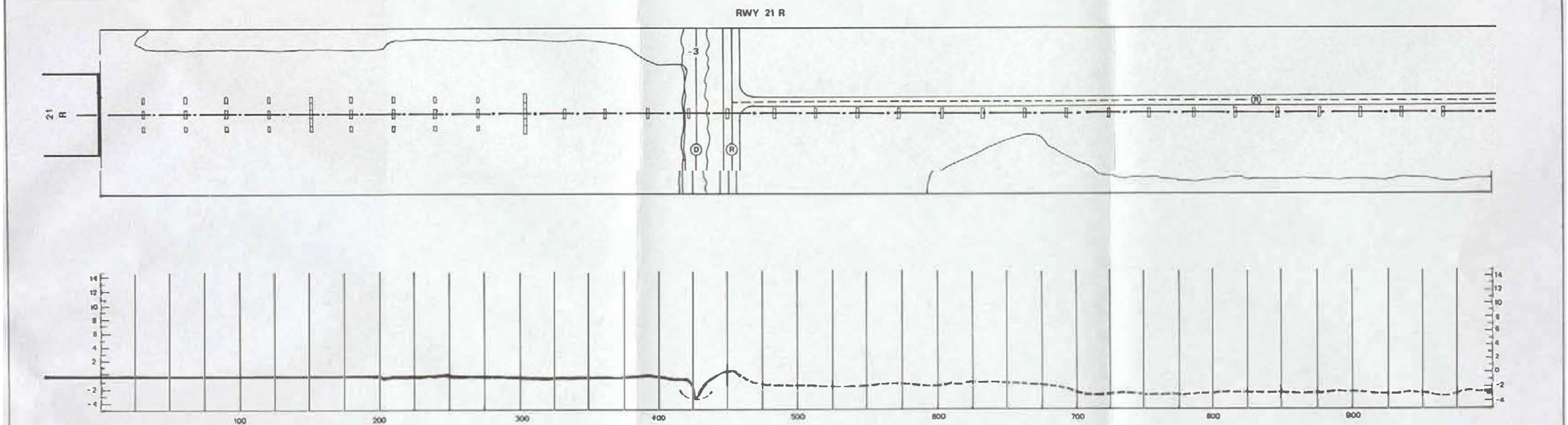
BANGKOK INTL
RWY 21 R

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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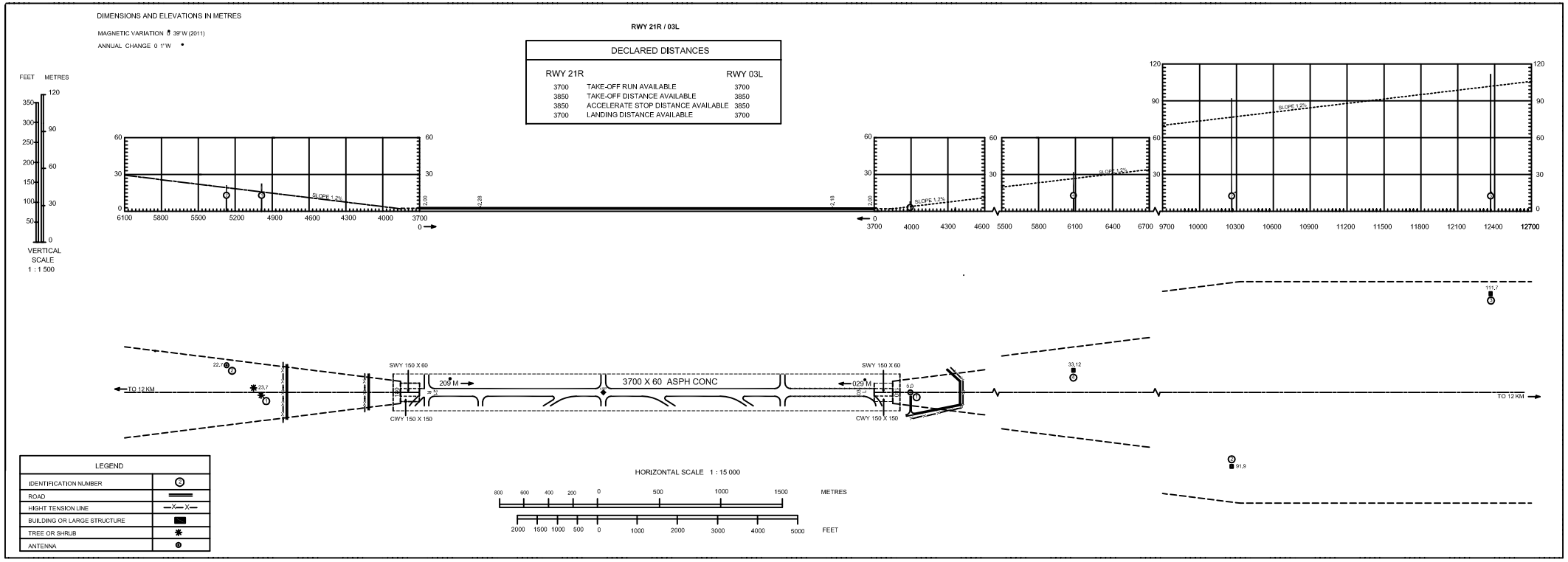
AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

Don Mueang International Airport



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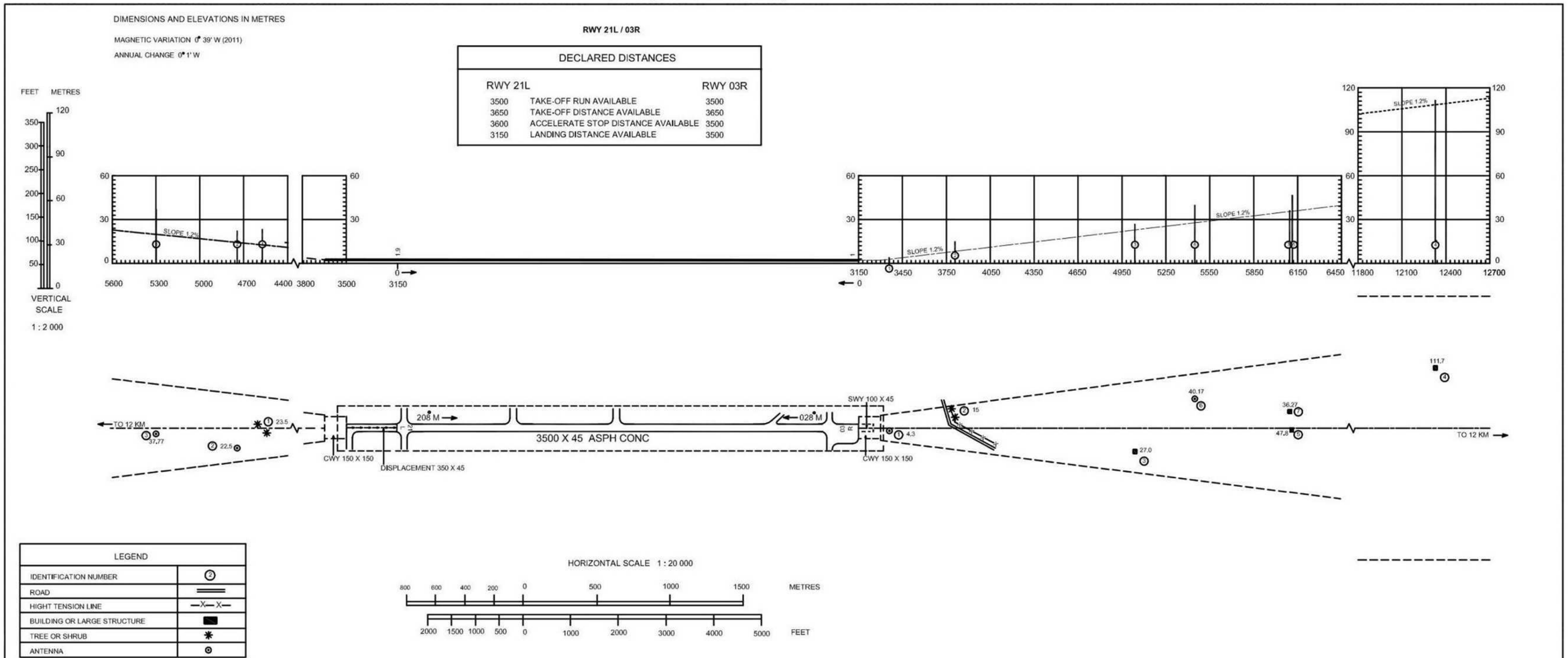
AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

Don Mueang International Airport



CHANGE : RWY ELEV

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STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

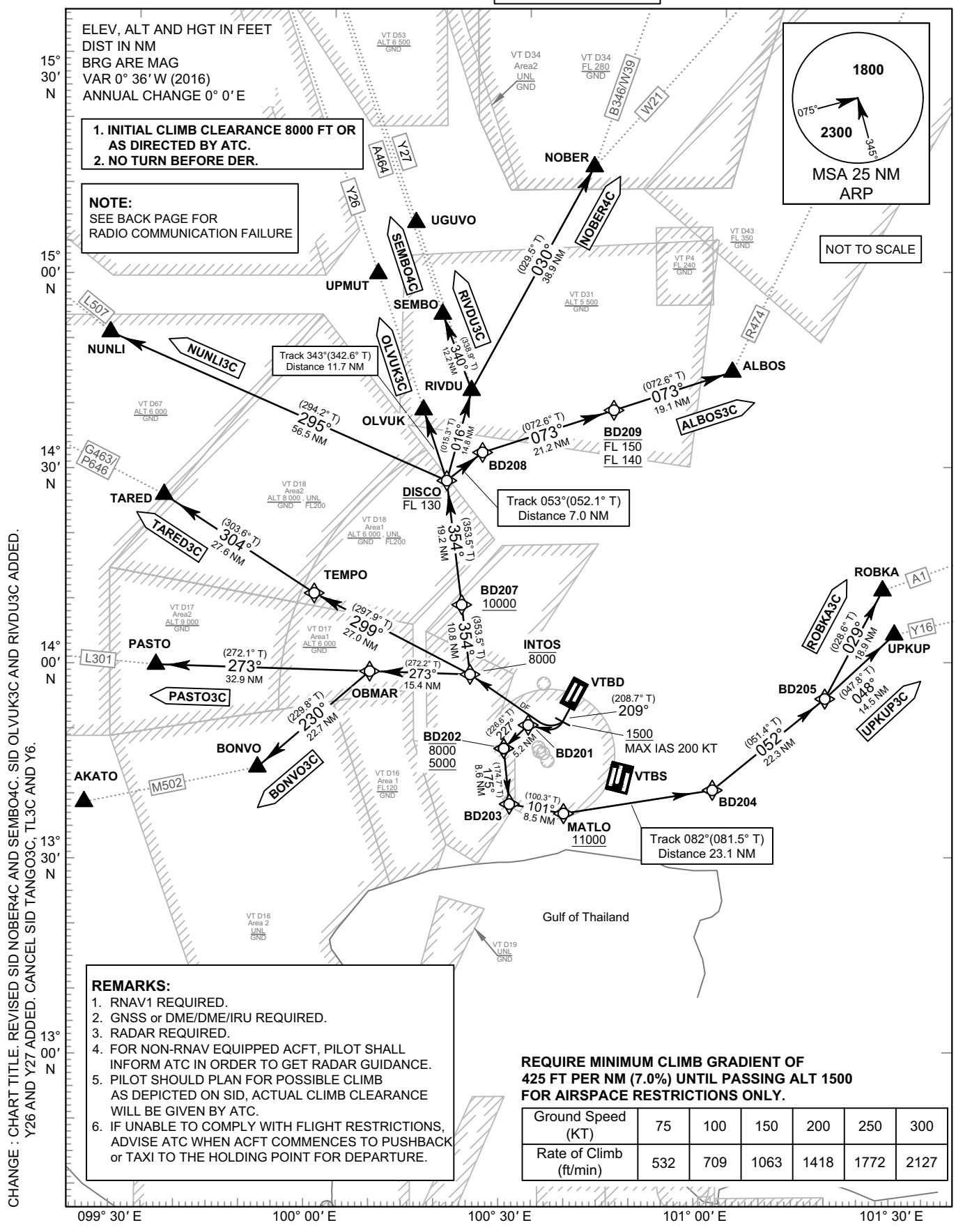
TRANSITION ALTITUDE
11000 FT

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
RIVDU3C ROBKA3C SEMBO4C
TARED3C UPKUP3C



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

CHANGE : CHART TITLE. REVISED SID NOBER4C AND SEMBO4C. SID OLVUK3C AND RIVDU3C ADDED. Y26 AND Y27 ADDED. CANCEL SID TANGO3C, TL3C AND Y6.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
RIVDU3C ROBKA3C SEMBO4C
TARED3C UPKUP3C

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
RIVDU3C ROBKA3C SEMBO4C
TARED3C UPKUP3C

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU3C ROBKA3C SEMBO4C
TARED3C UPKUP3C

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU3C 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	RIVDU	-	016°(015.3°)	+ 0.6	14.8	-	-	-	-	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

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
RIVDU3C ROBKA3C SEMBO4C
TARED3C UPKUP3C

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21L**

ALBOS3C BONVO3C NOBER4C
NUNLI3C OLVUK3C PASTO3C
RIVDU3C ROBKA3C SEMBO4C
TARED3C UPKUP3C

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

CHANGE : CHART TITLE. REVISED WAYPOINT LIST.

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

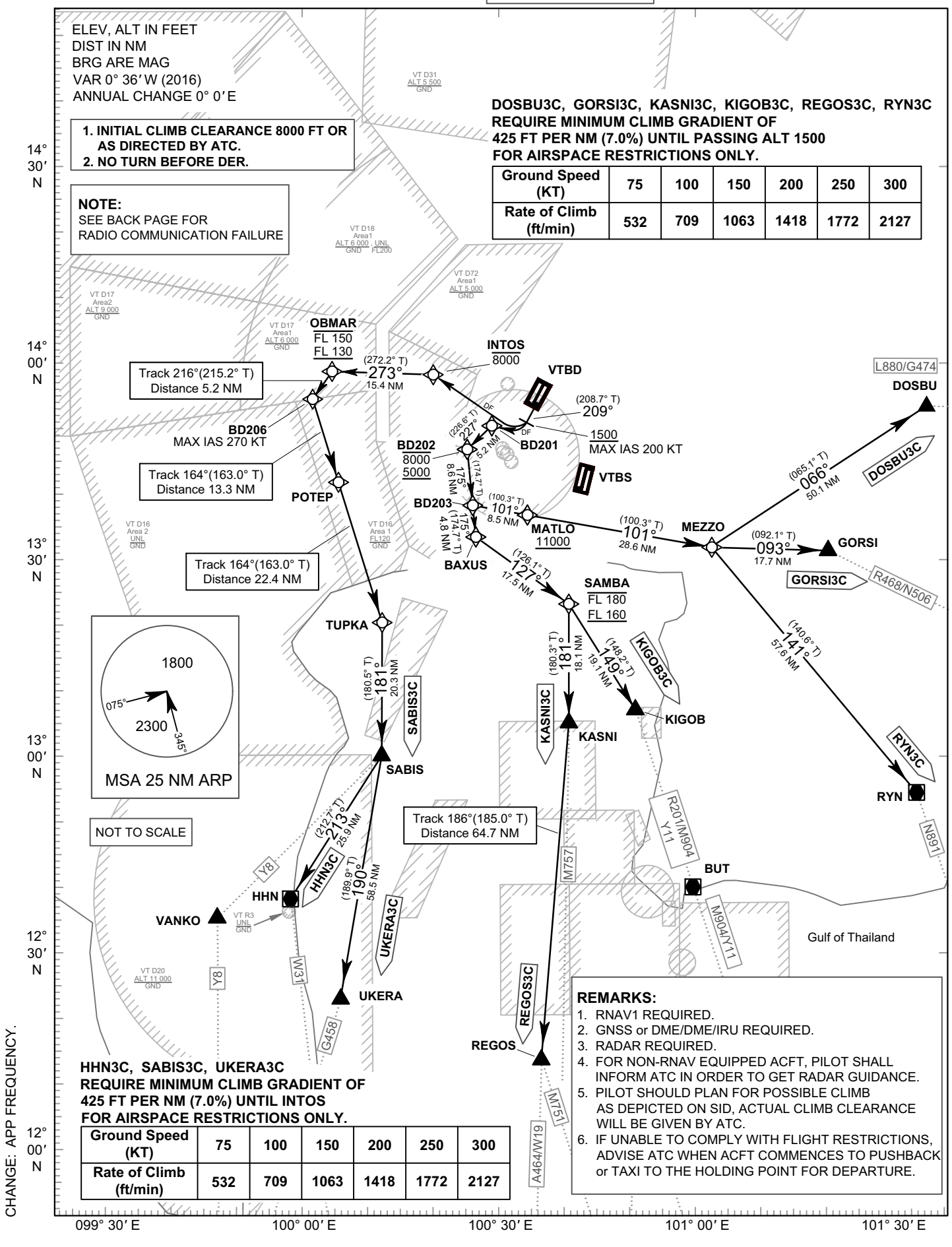
TRANSITION ALTITUDE
11000 FT

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

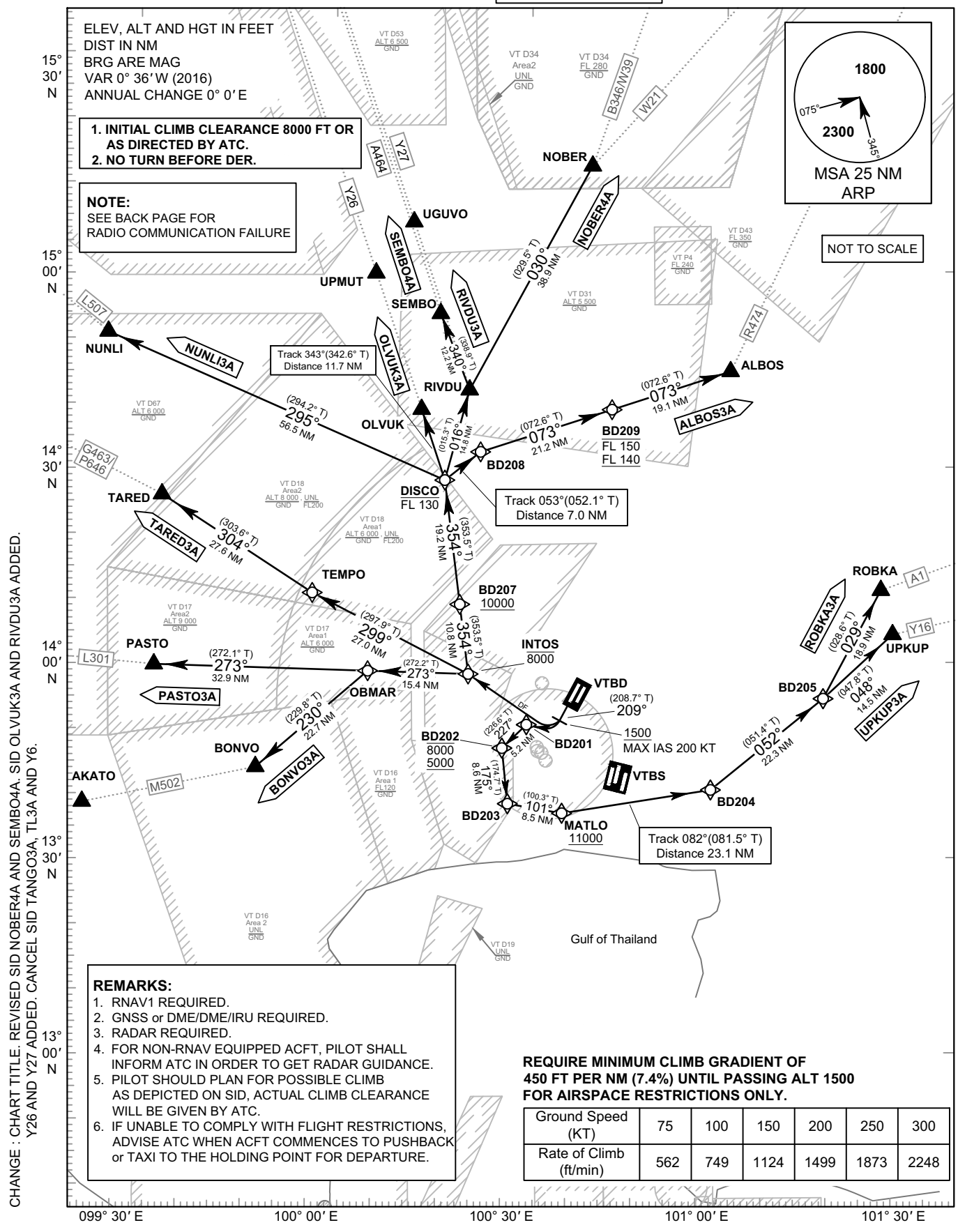
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

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
RIVDU3A ROBKA3A SEMBO4A
TARED3A UPKUP3A



**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

ALBOS3A BONVO3A NOBER4A
NUNLI3A OLVUK3A PASTO3A
RIVDU3A ROBKA3A SEMBO4A
TARED3A UPKUP3A

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
RIVDU3A ROBKA3A SEMBO4A
TARED3A UPKUP3A

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU3A ROBKA3A SEMBO4A
TARED3A UPKUP3A

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU3A 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	RIVDU	-	016°(015.3°)	+ 0.6	14.8	-	-	-	-	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

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY21R**

ALBOS3A BONVO3A NOBER4A
NUNLI3A OLVUK3A PASTO3A
RIVDU3A ROBKA3A SEMBO4A
TARED3A UPKUP3A

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU3A ROBKA3A SEMBO4A
TARED3A UPKUP3A

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

CHANGE : CHART TITLE. REVISED WAYPOINT LIST.

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

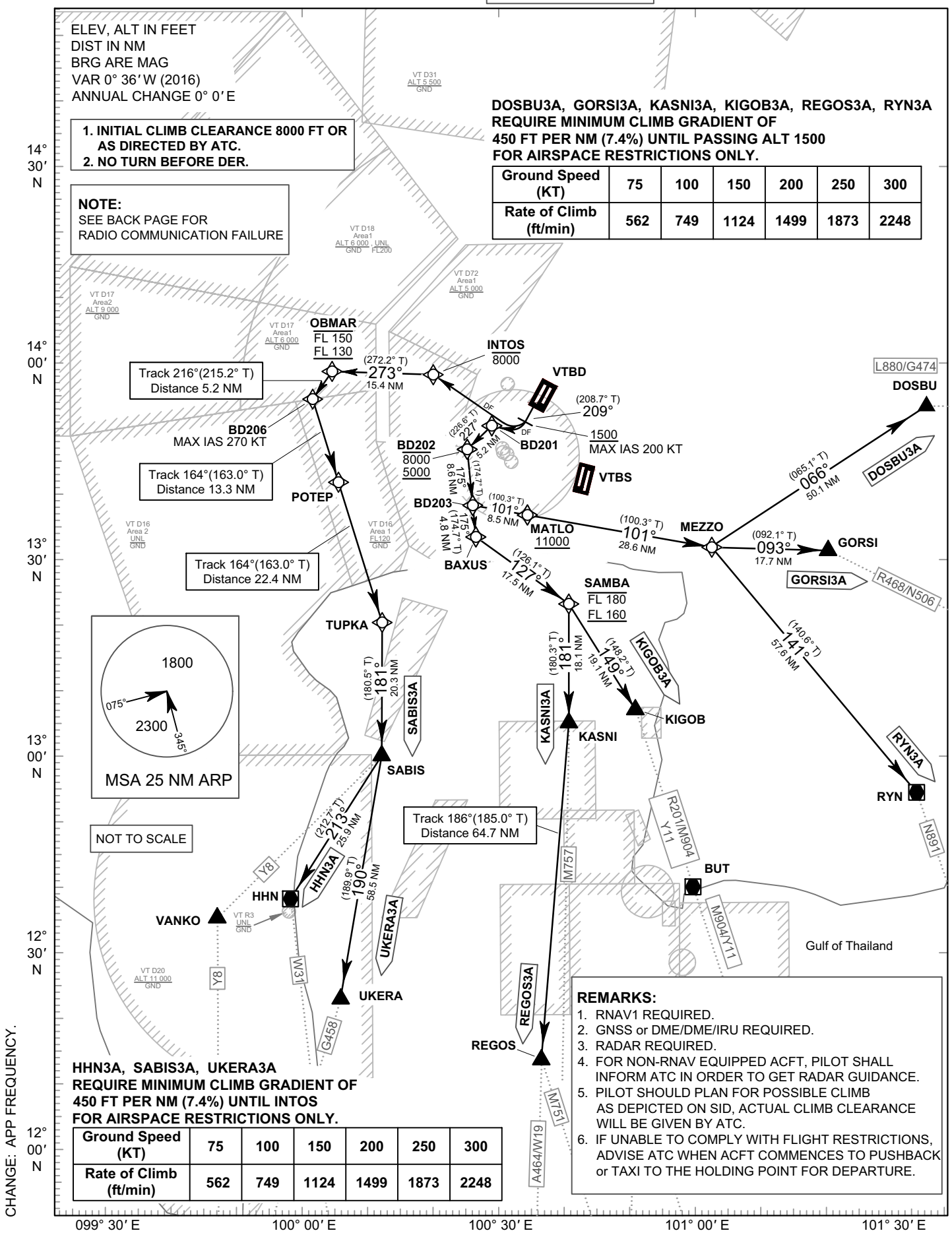
TRANSITION ALTITUDE
11000 FT

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

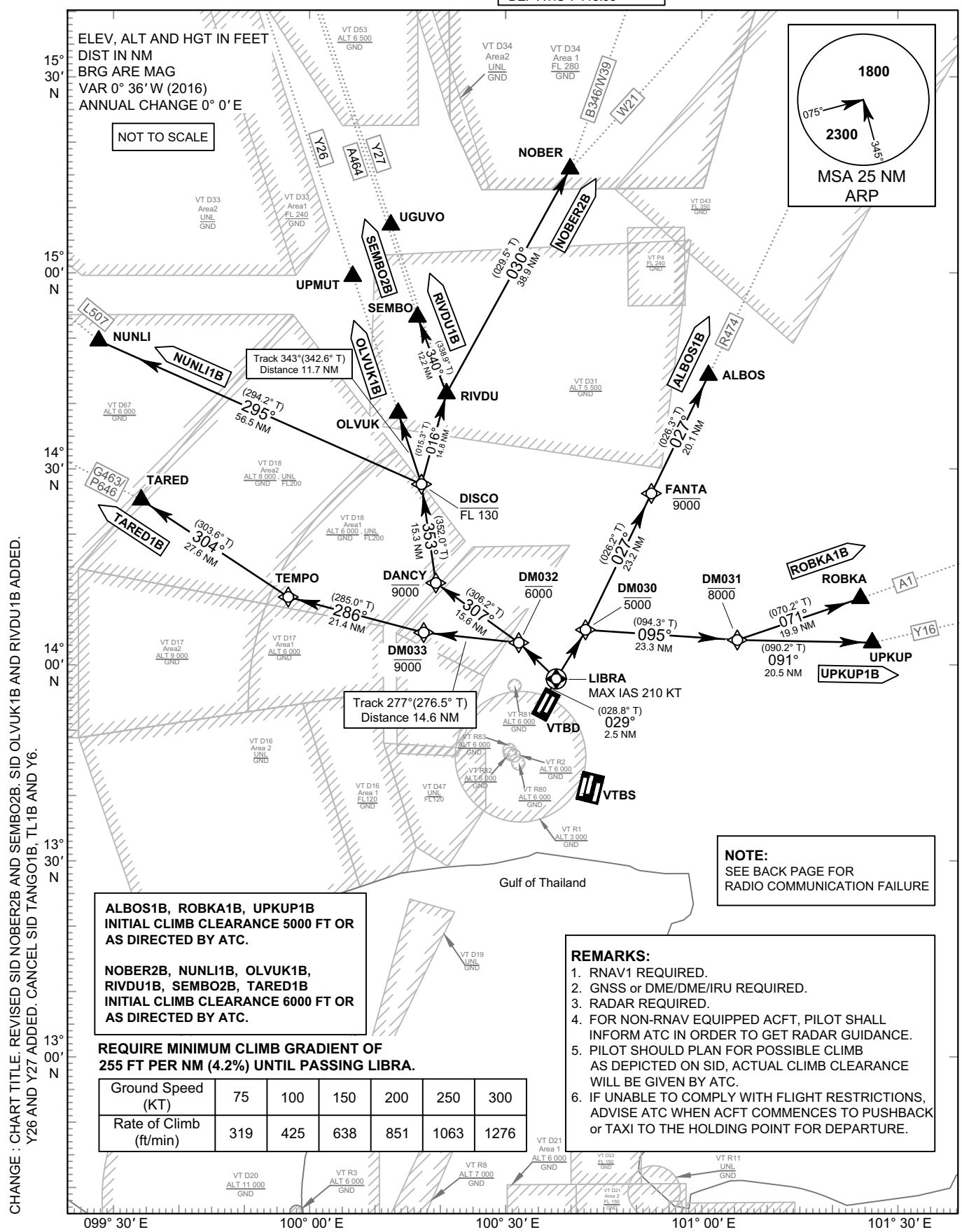
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

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 RIVDU1B ROBKA1B
SEMBO2B TARED1B UPKUP1B



NOTE:
SEE BACK PAGE FOR
RADIO COMMUNICATION FAILURE

ALBOS1B, ROBKA1B, UPKUP1B INITIAL CLIMB CLEARANCE 5000 FT OR AS DIRECTED BY ATC.

NOBER2B, NUNLI1B, OLVUK1B, RIVDU1B, SEMBO2B, TARED1B INITIAL CLIMB CLEARANCE 6000 FT OR AS DIRECTED BY ATC.

REQUIRE MINIMUM CLIMB GRADIENT OF 255 FT PER NM (4.2%) UNTIL PASSING LIBRA.

Ground Speed (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	319	425	638	851	1063	1276

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 NOBER2B AND SEMBO2B. SID OLVUK1B AND RIVDU1B ADDED. Y26 AND Y27 ADDED. CANCEL SID TANGO1B, TL1B AND Y6.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B RIVDU1B ROBKA1B
SEMBO2B TARED1B UPKUP1B

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 RIVDU1B ROBKA1B
SEMBO2B TARED1B UPKUP1B

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B RIVDU1B ROBKA1B
SEMBO2B TARED1B UPKUP1B

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU1B 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	RIVDU	-	016°(015.3°)	+ 0.6	14.8	-	-	-	-	RNAV 1
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

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B RIVDU1B ROBKA1B
SEMBO2B TARED1B UPKUP1B

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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
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

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03L**

ALBOS1B NOBER2B NUNLI1B
OLVUK1B RIVDU1B ROBKA1B
SEMBO2B TARED1B UPKUP1B

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

CHANGE : CHART TITLE. REVISED WAYPOINT LIST.

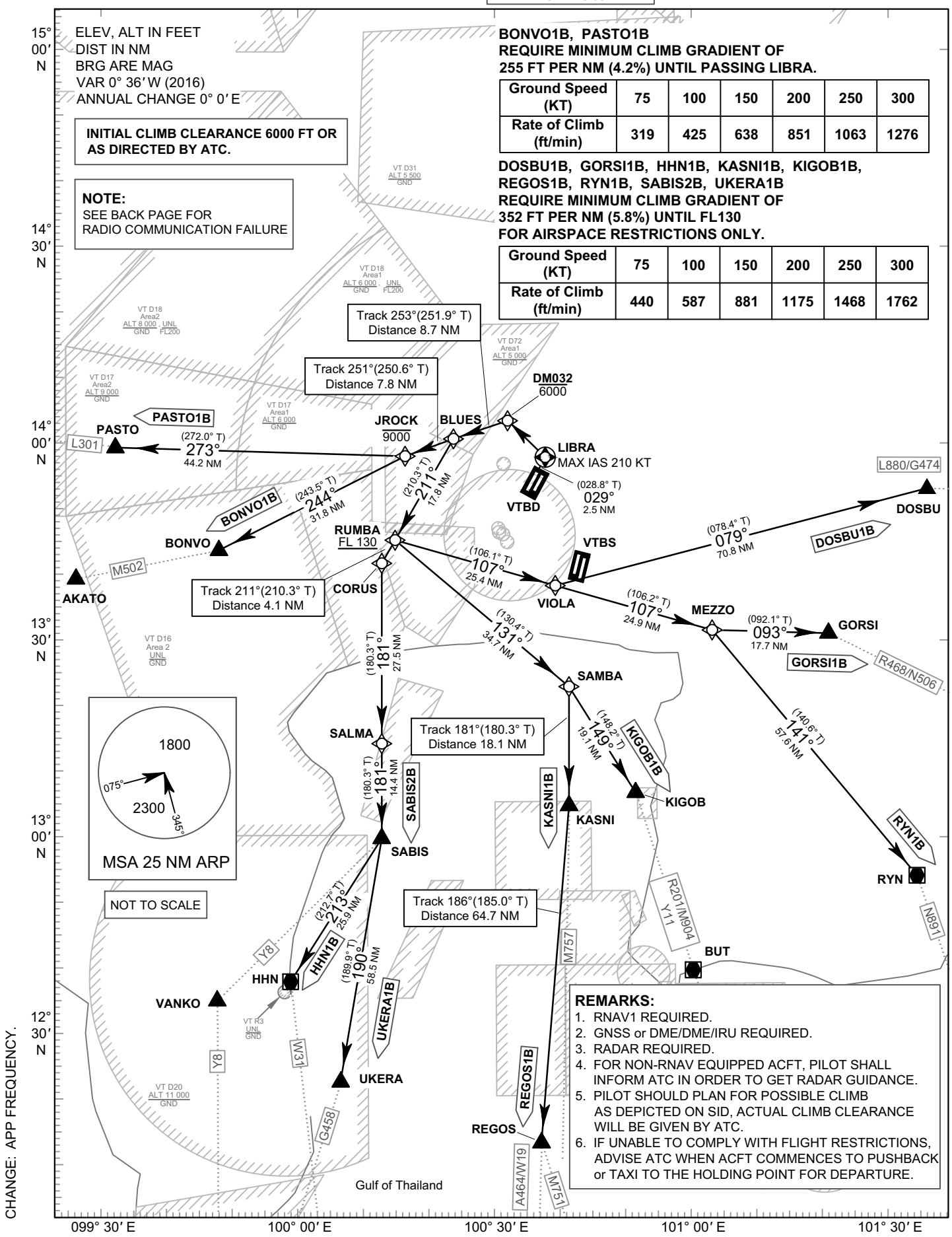
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

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

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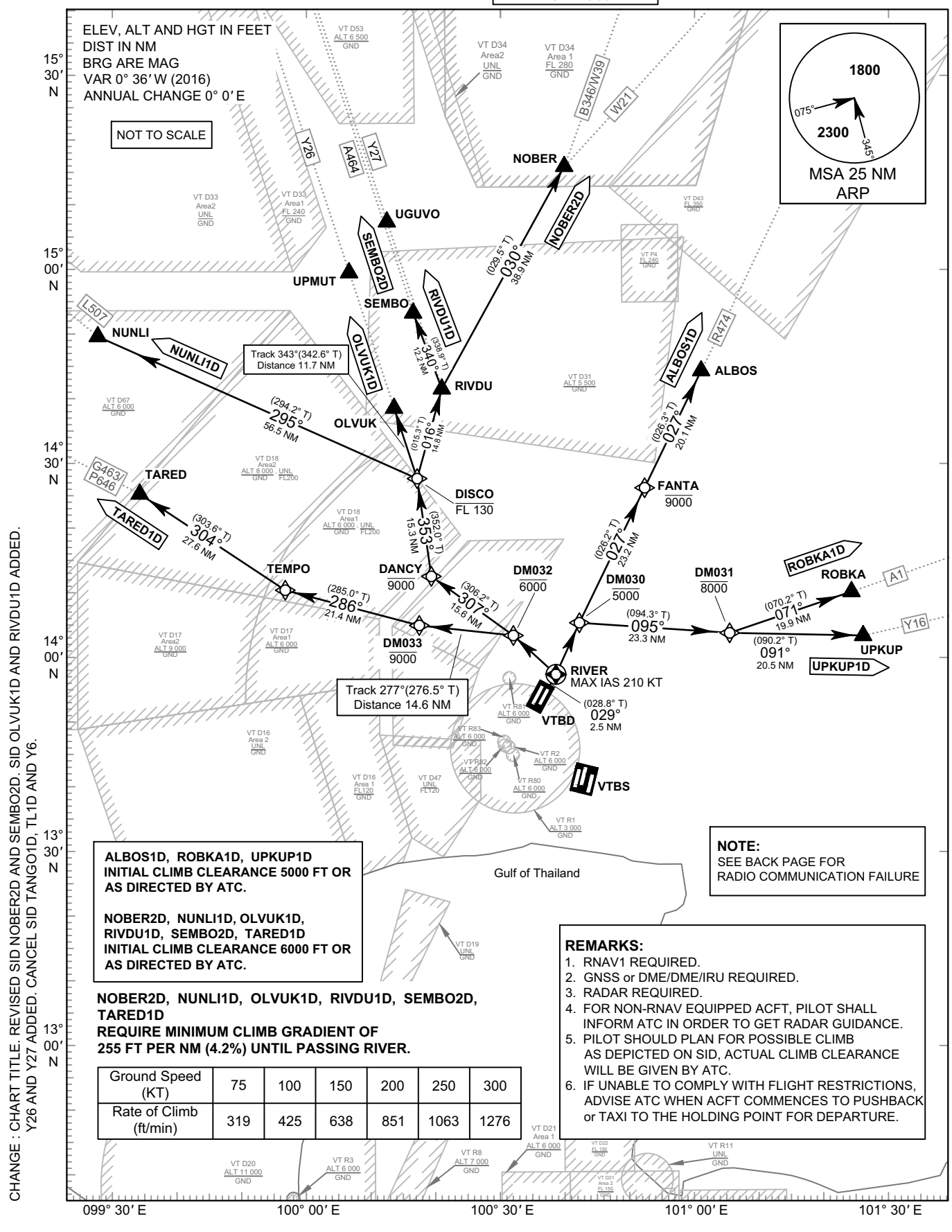
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

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 RWY03R

ALBOS1D NOBER2D NUNLI1D
OLVUK1D RIVDU1D ROBKA1D
SEMBO2D TARED1D UPKUP1D



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 RIVDU1D ROBKA1D
SEMBO2D TARED1D UPKUP1D

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 RIVDU1D ROBKA1D
SEMBO2D TARED1D UPKUP1D

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R

ALBOS1D NOBER2D NUNLI1D
OLVUK1D RIVDU1D ROBKA1D
SEMBO2D TARED1D UPKUP1D

CHANGE : CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU1D 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	RIVDU	-	016°(015.3°)	+ 0.6	14.8	-	-	-	-	RNAV 1
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

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

ALBOS1D NOBER2D NUNLI1D
OLVUK1D RIVDU1D ROBKA1D
SEMBO2D TARED1D UPKUP1D

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
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. REVISED TABULAR DESCRIPTION.

**STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO**

**BANGKOK/Don Mueang Intl (VTBD)
RNAV RWY03R**

ALBOS1D NOBER2D NUNLI1D
OLVUK1D RIVDU1D ROBKA1D
SEMBO2D TARED1D UPKUP1D

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

CHANGE : CHART TITLE. REVISED WAYPOINT LIST.

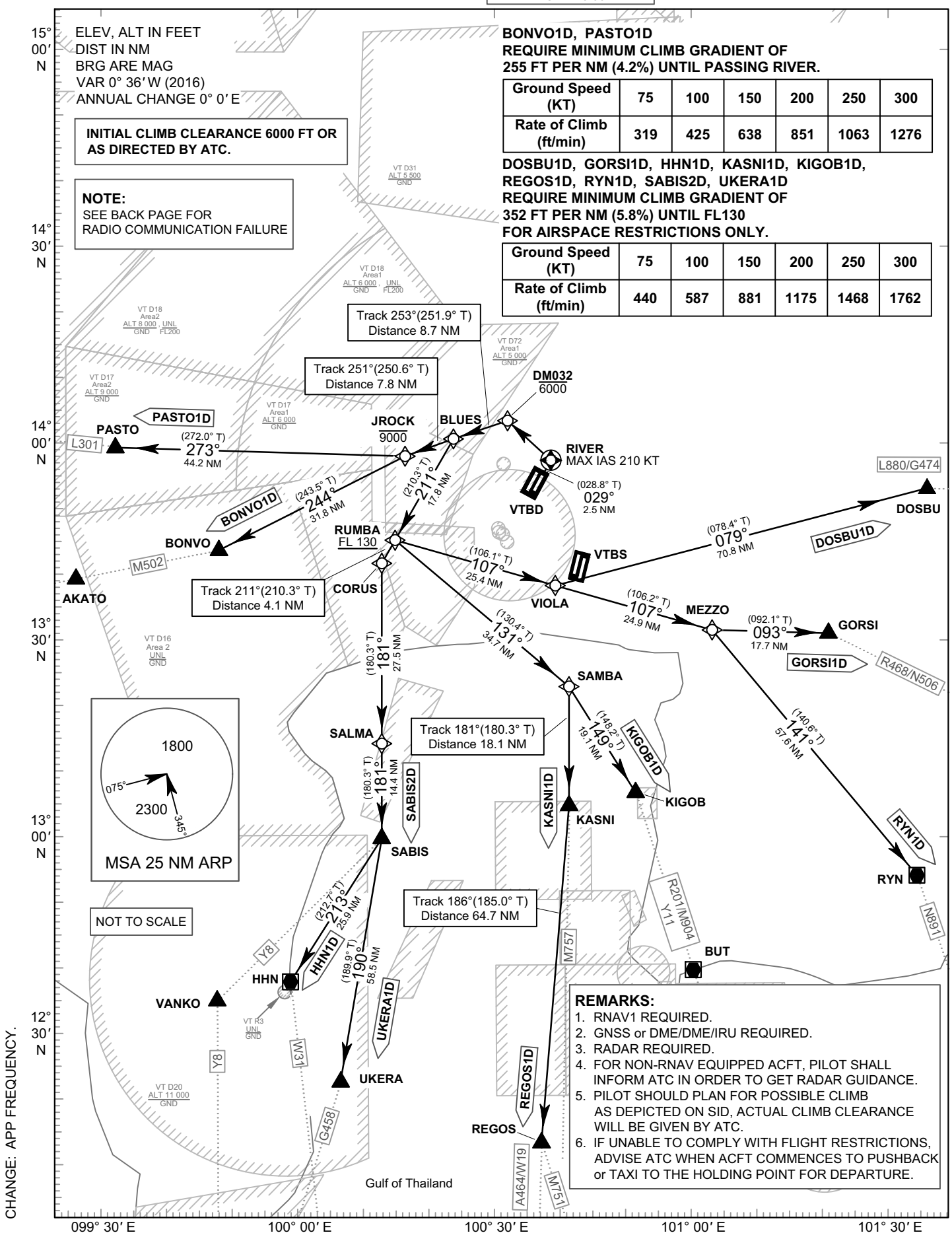
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

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

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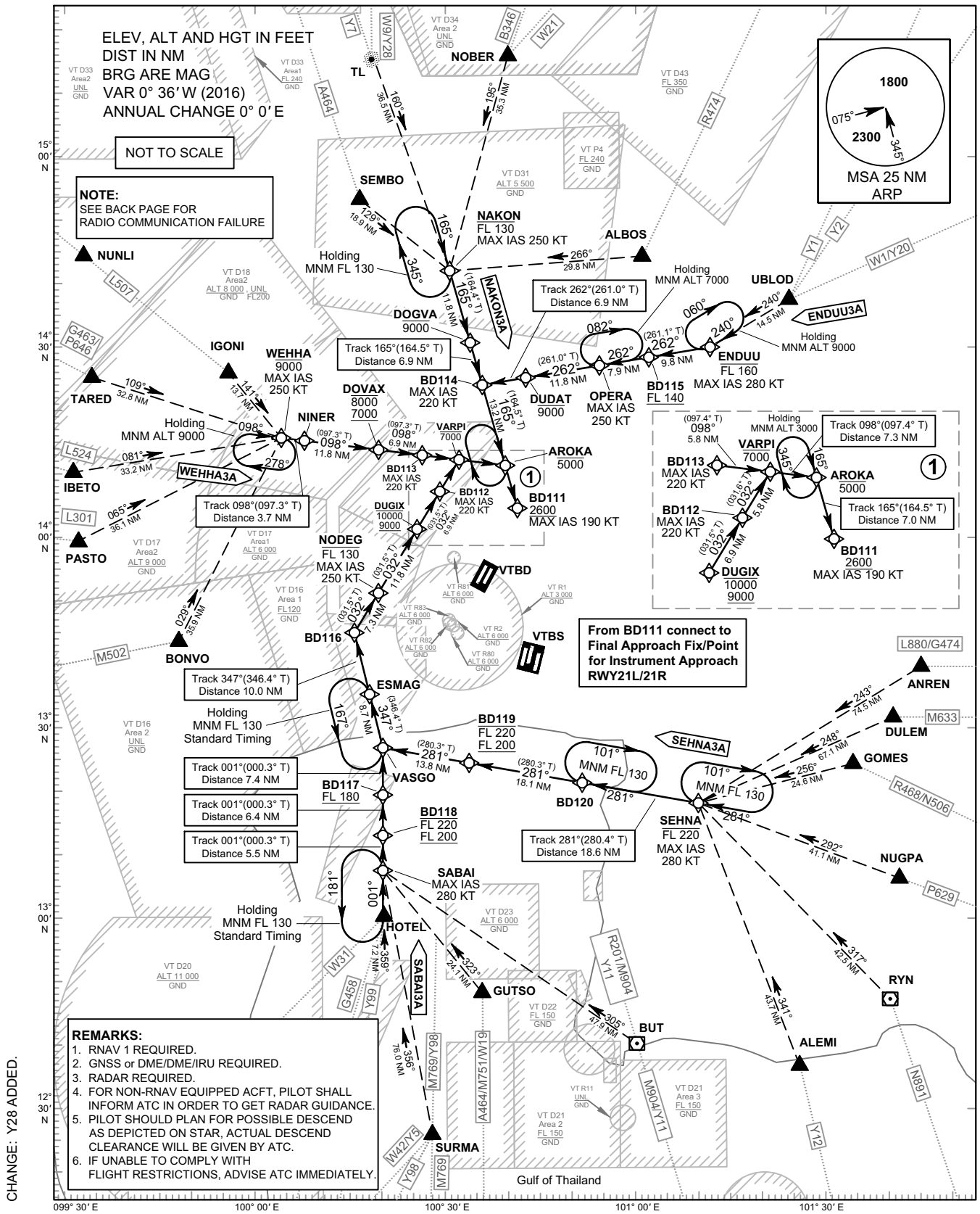
STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11000 FT
SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	:	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

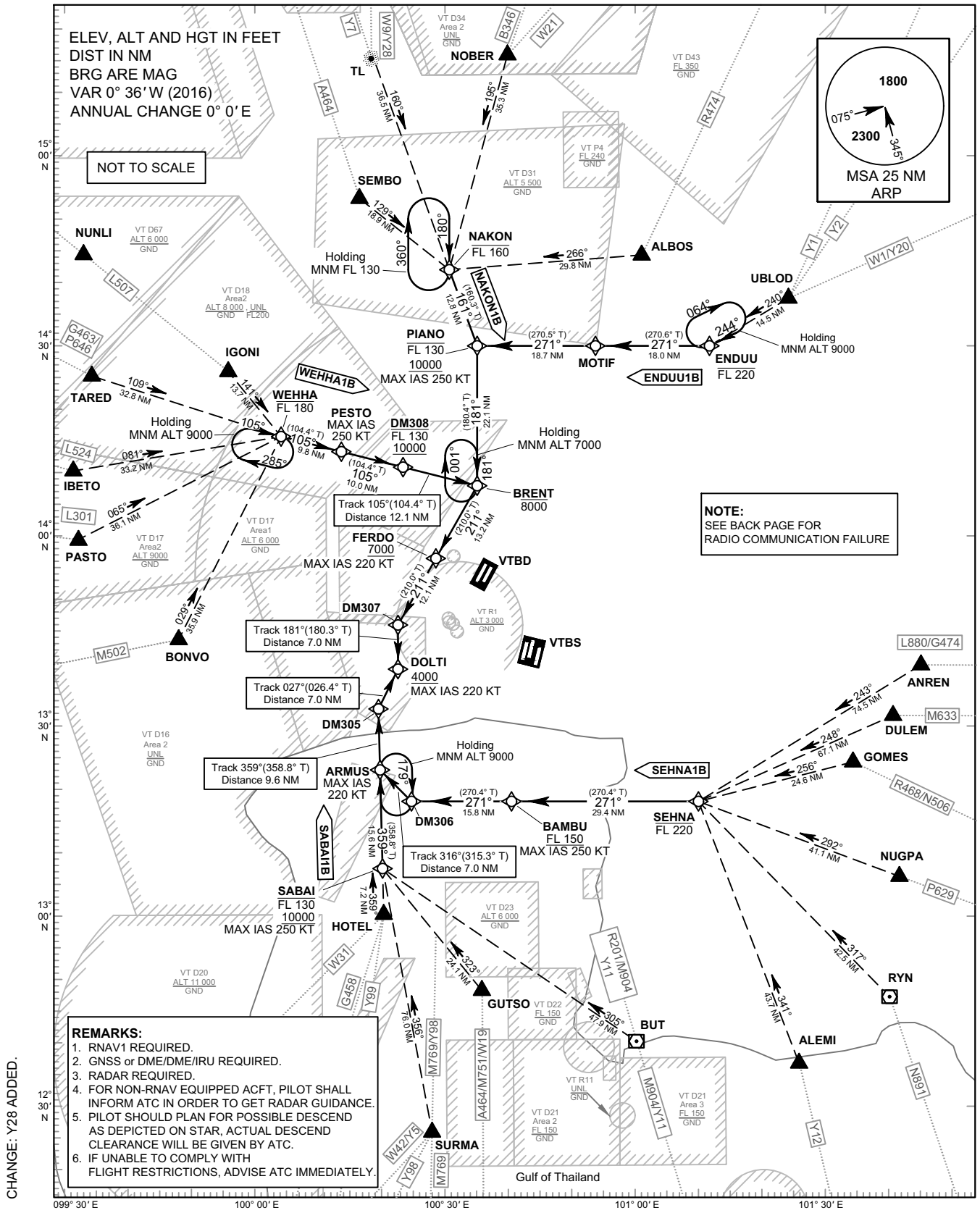
STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

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.

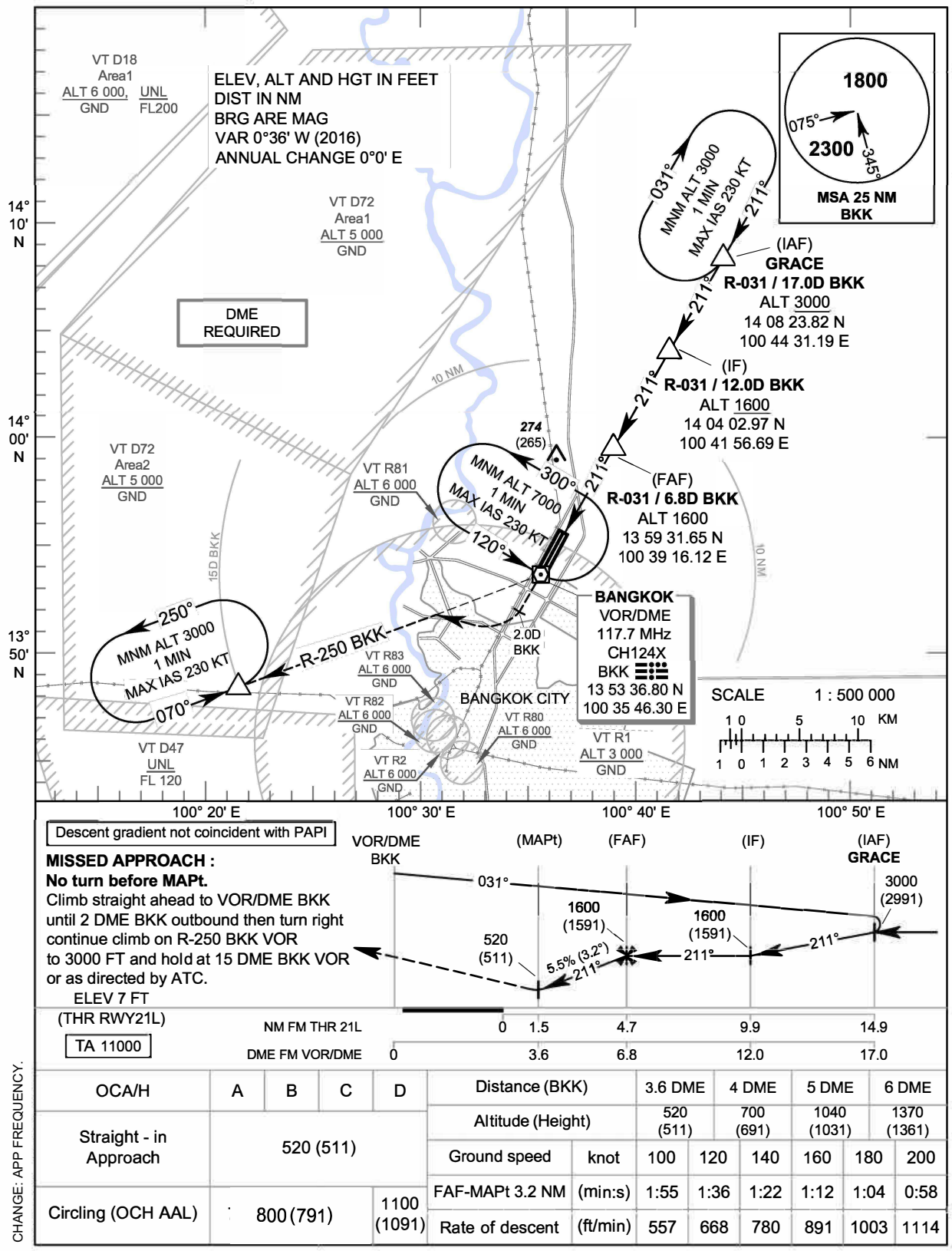
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 9 FT
HEIGHTS RELATED TO AERODROME ELEV

APP	: 119.1, 262.5
	: 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 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

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

CHANGE: APP FREQUENCY.

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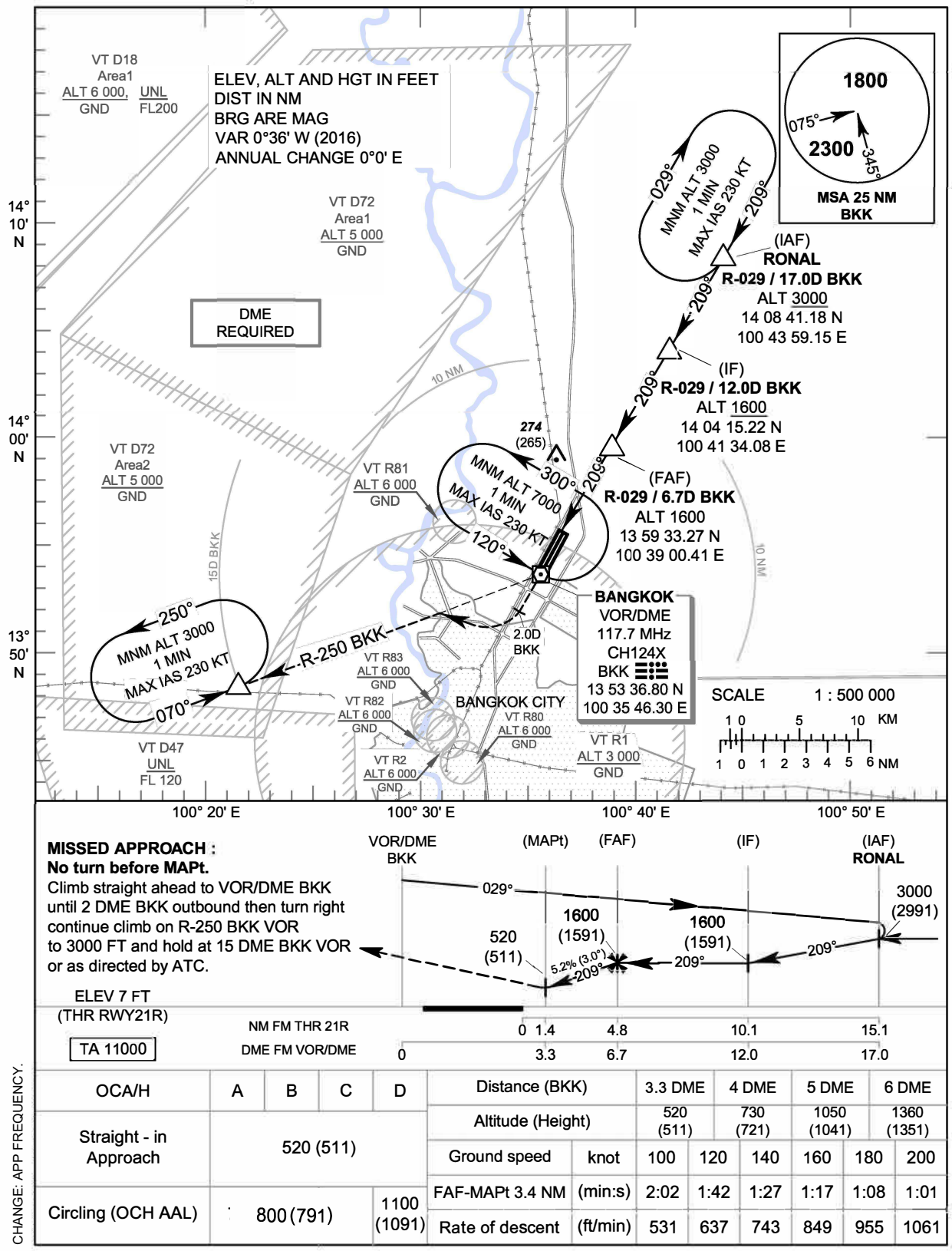
INSTRUMENT APPROACH CHART - ICAO

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

NM FM THR 21R
DME FM VOR/DME

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

CHANGE: APP FREQUENCY.

INTENTIONALLY BLANK

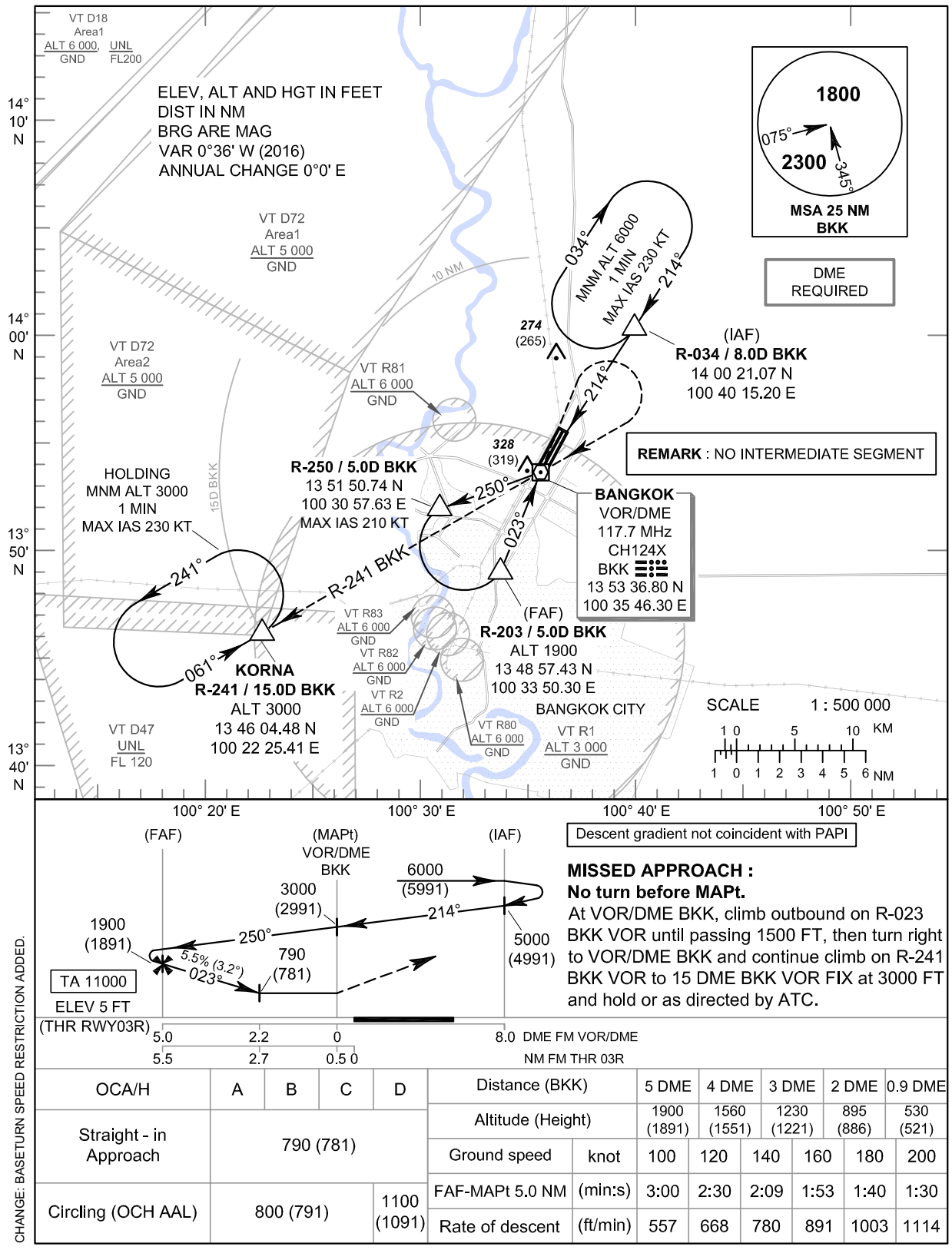
INSTRUMENT APPROACH CHART - ICAO

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



CHANGE: BASETURN SPEED RESTRICTION ADDED.

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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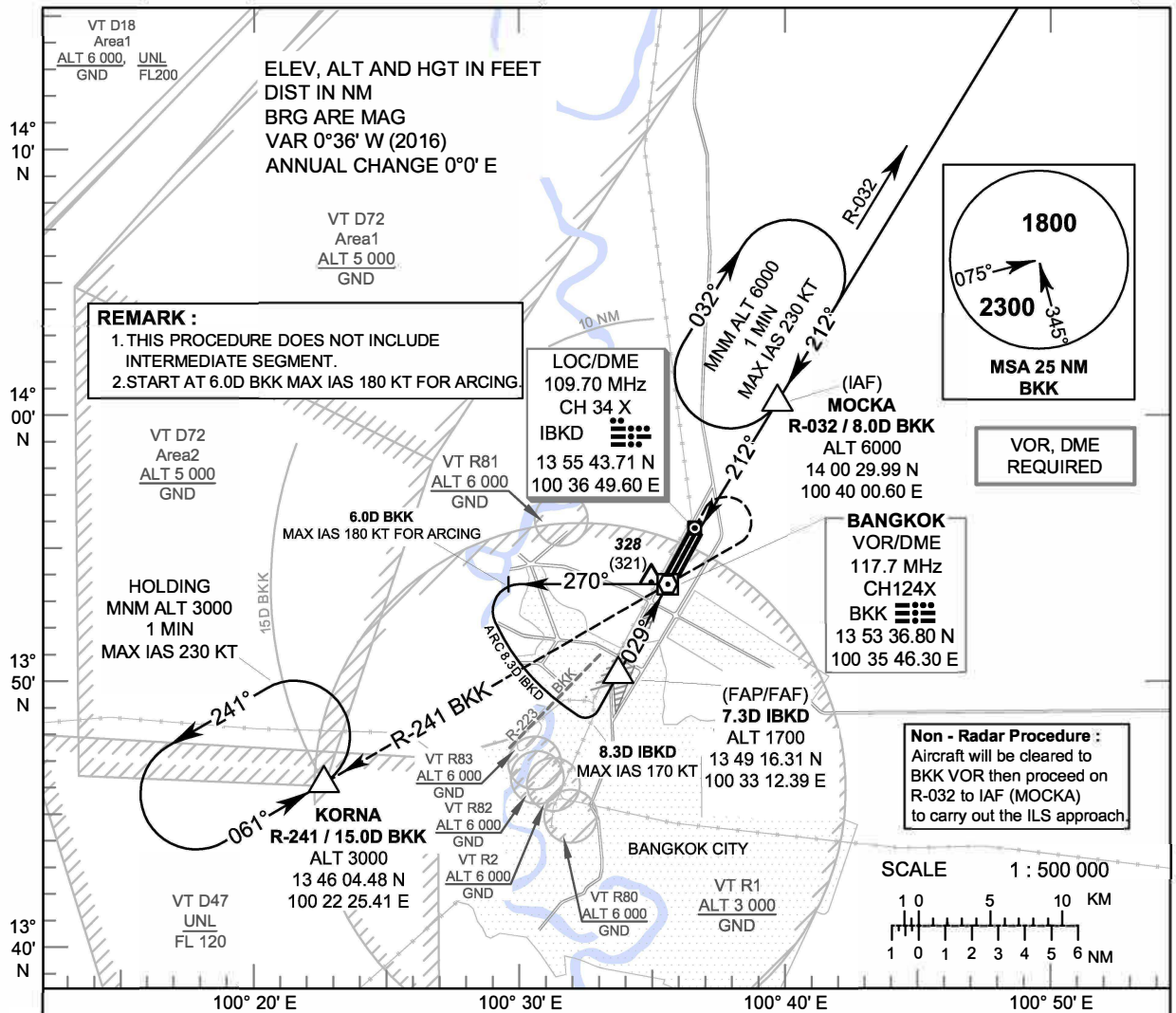
INSTRUMENT APPROACH CHART - ICAO

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

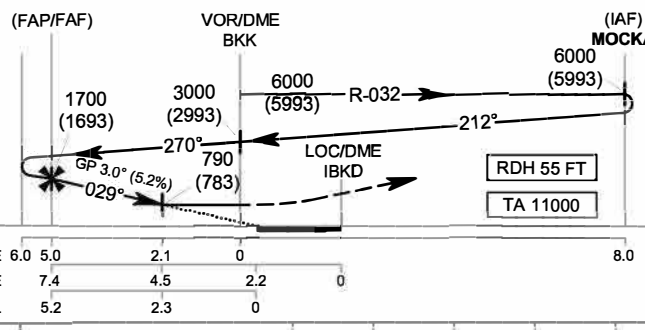
BANGKOK / Don Mueang Intl (VTBD)

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)



CHANGE: APP FREQUENCY.

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

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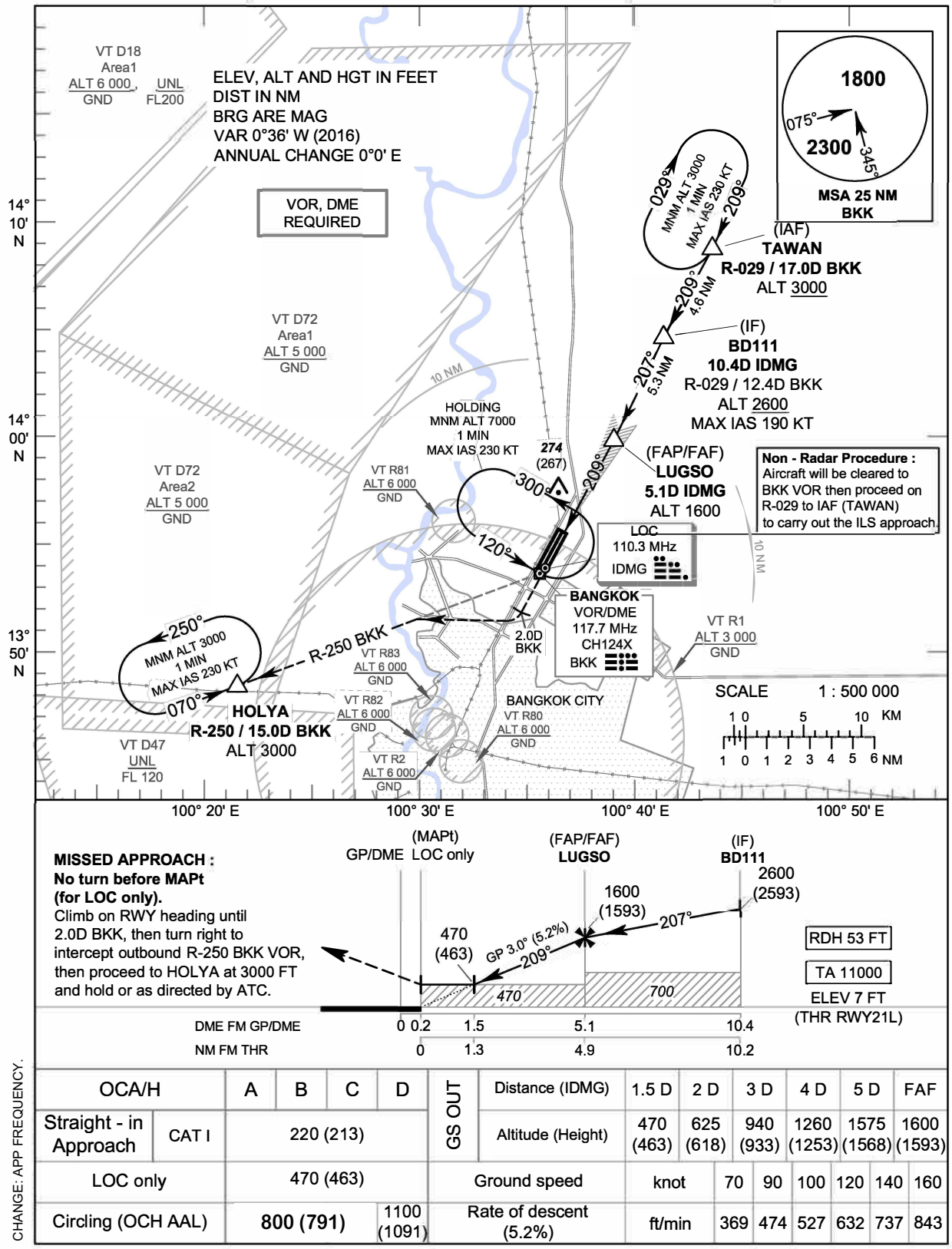
INSTRUMENT APPROACH CHART - ICAO

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

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' 01.85" E
GP/DME	IDMG	13° 55' 21.25" N	100° 36' 47.45" E
HOLYA	R-250 / 15.0D BKK	13° 48' 16.86" N	100° 21' 21.08" E
VOR	BKK	13° 53' 36.80" N	100° 35' 46.30" E

INSTRUMENT APPROACH CHART - ICAO

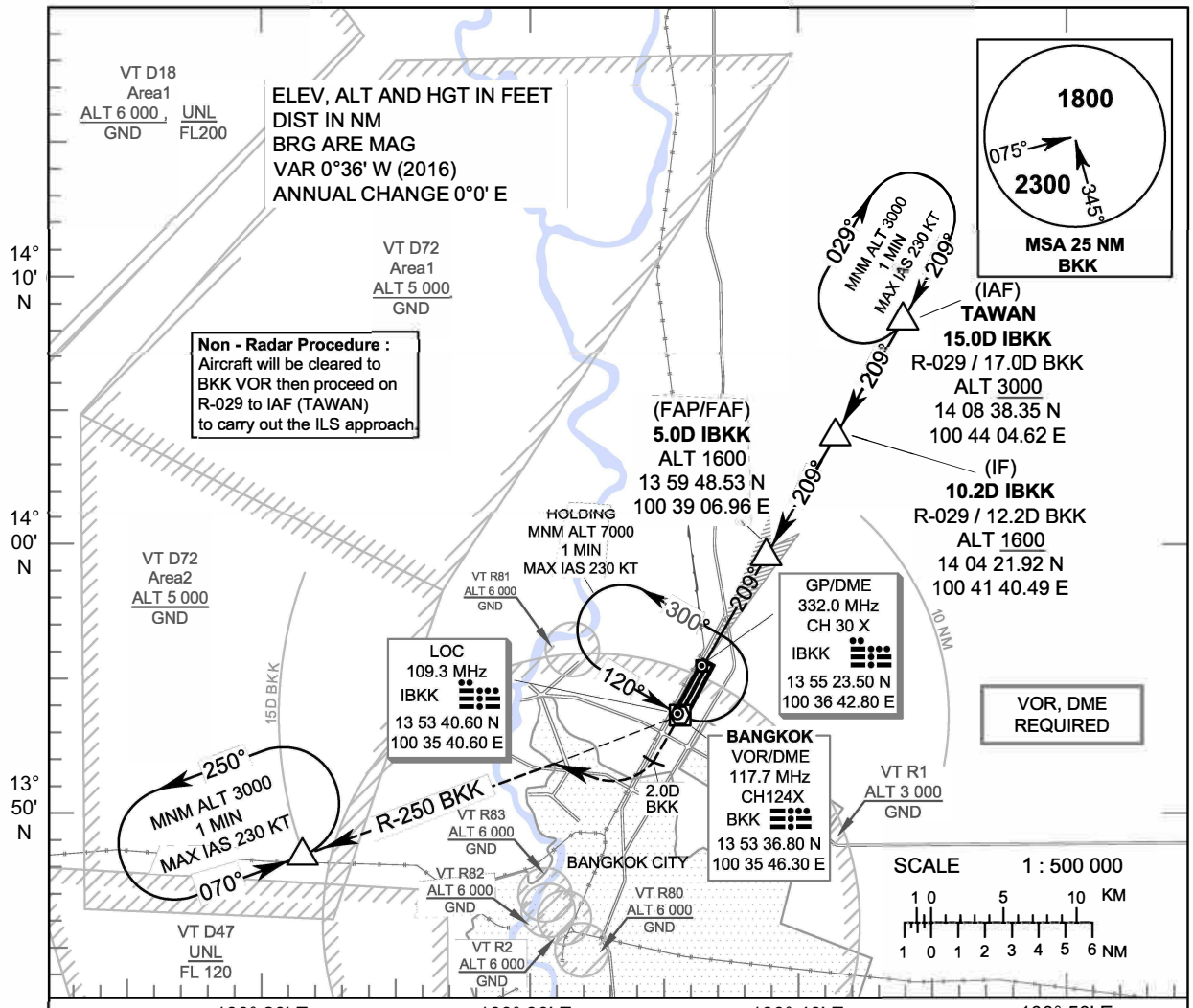
AERODROME ELEV 9 FT
HEIGHTS RELATED TO
THR RWY21R - ELEV 7 FT

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

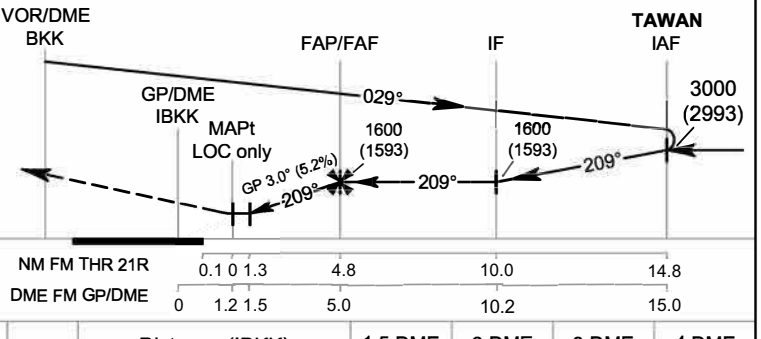
BANGKOK / Don Mueang Intl (VTBD)

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: APP FREQUENCY.

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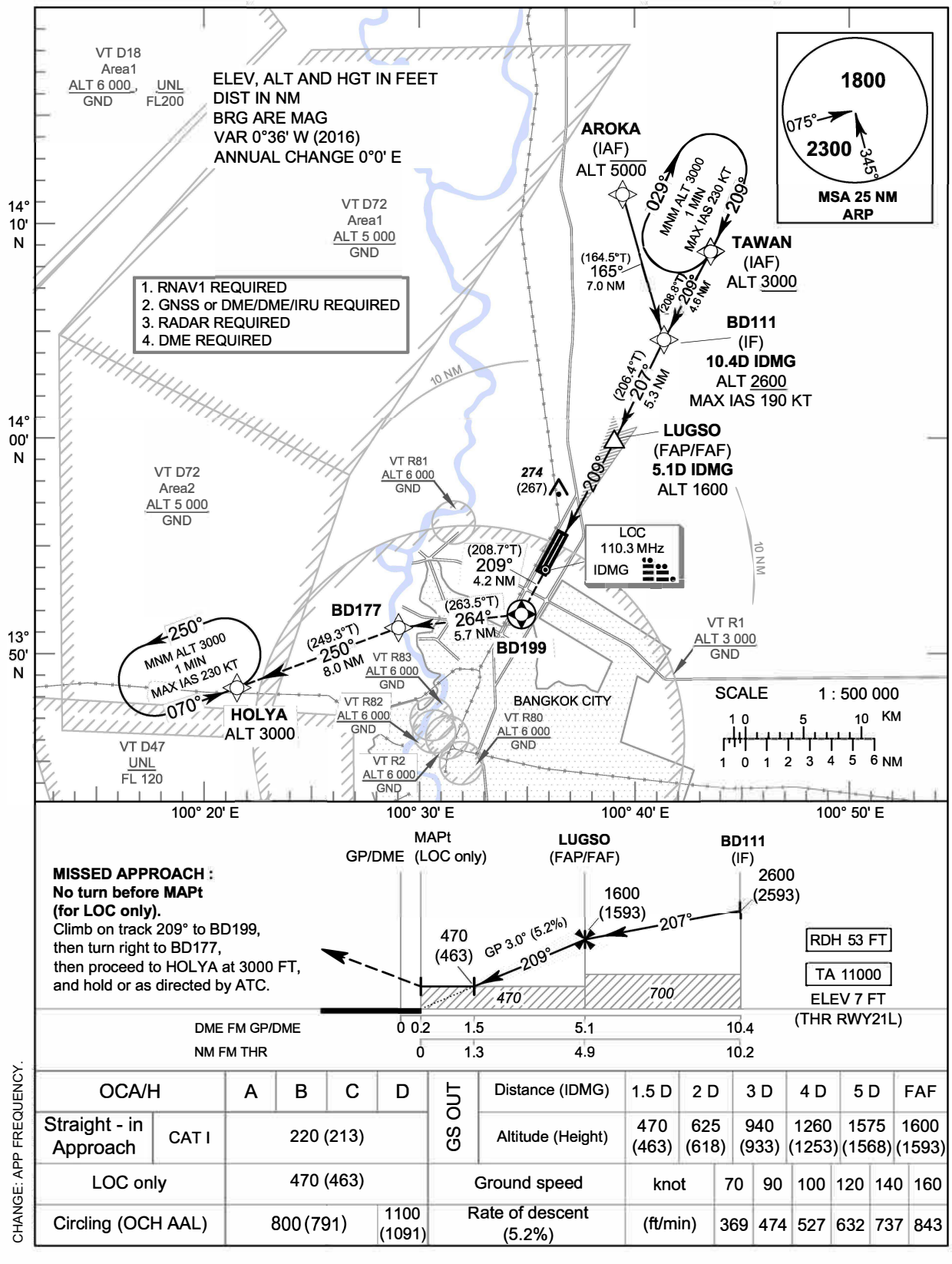
INSTRUMENT APPROACH CHART - ICAO

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' 01.85" E
GP/DME	IDMG	13° 55' 21.25" N	100° 36' 47.45" E

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INSTRUMENT APPROACH CHART - ICAO

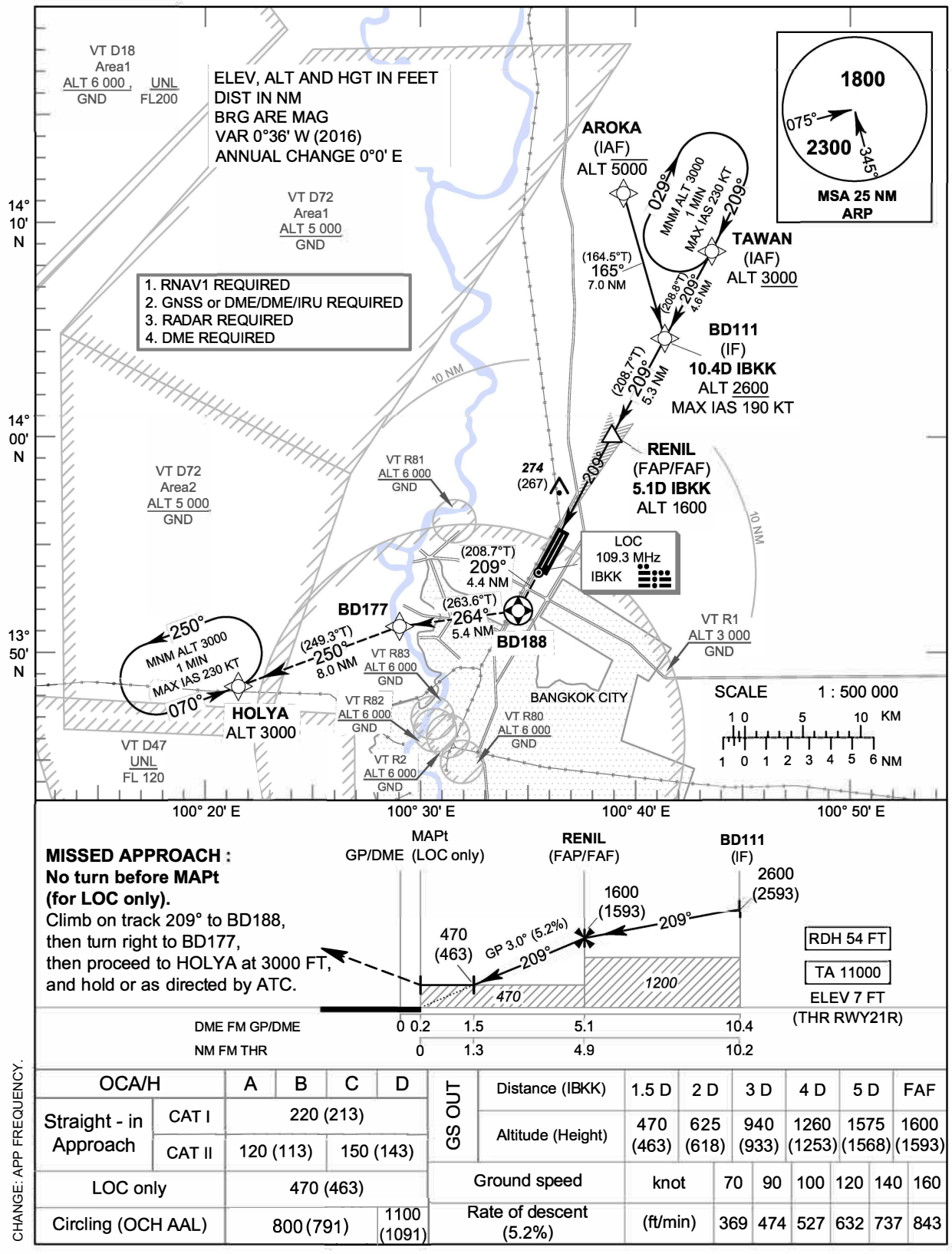
AERODROME ELEV 9 FT
HEIGHTS RELATED TO
THR RWY21R - ELEV 7 FT

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' 40.60" N	100° 35' 40.60" E
GP/DME	IBKK	13° 55' 23.50" N	100° 36' 42.80" E

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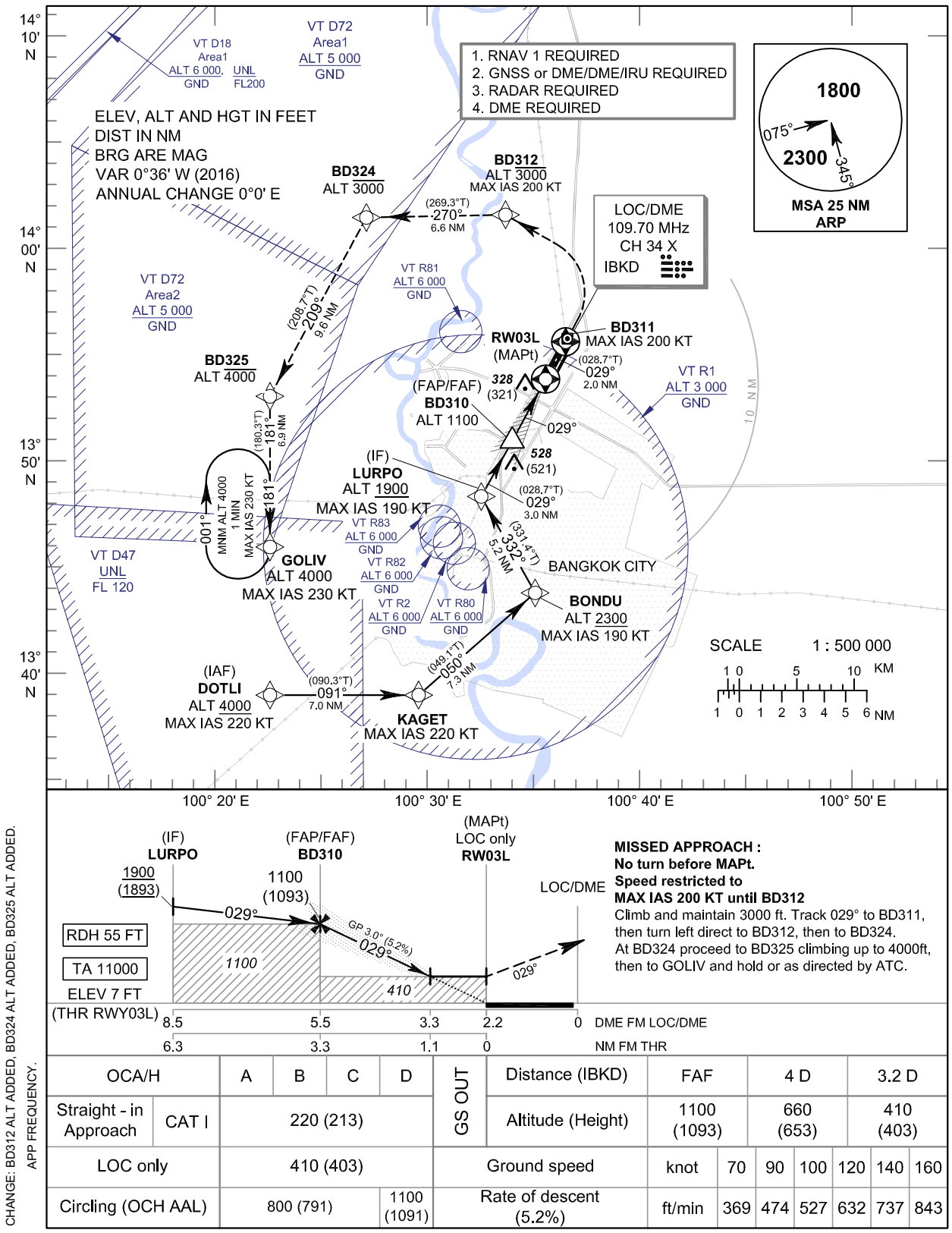
INSTRUMENT APPROACH CHART - ICAO

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 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' 43.71" N	100° 36' 49.60" E

CHANGE: NEW CHART.

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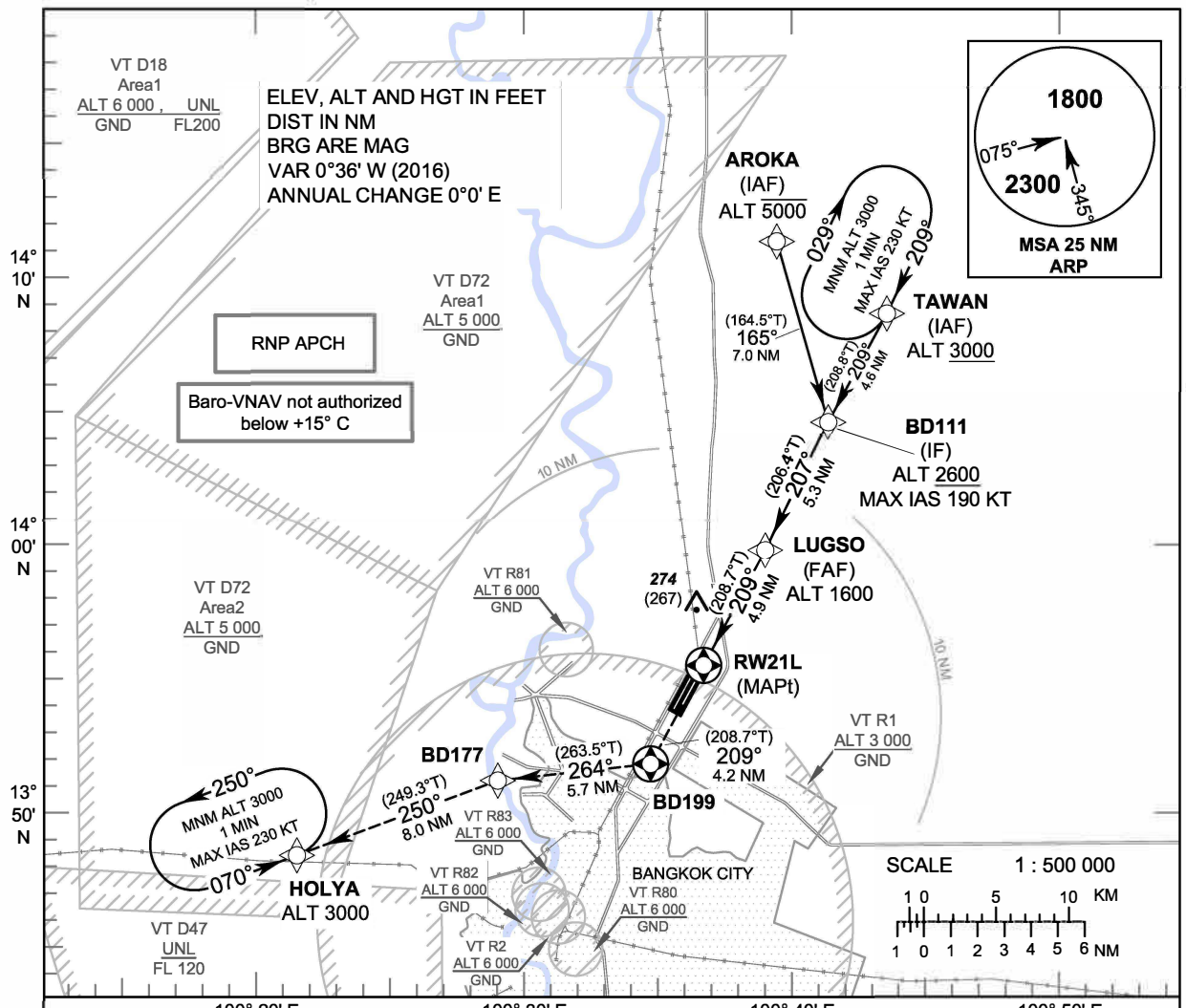
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 9 FT
HEIGHTS RELATED TO
THR RWY21L - ELEV 7 FT

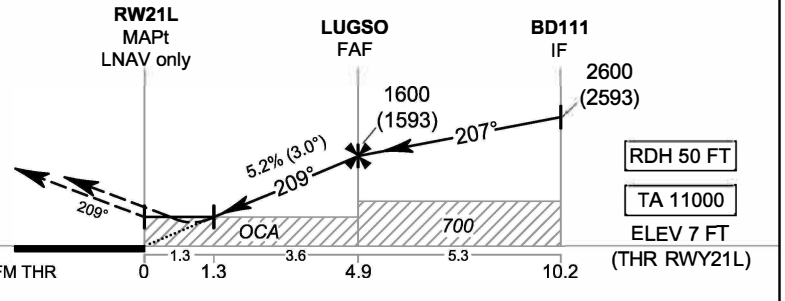
APP	: 119.1, 262.5
	: 119.4, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
DAR	: 133.0, 262.5
TWR	: 118.1, 236.6
ATIS	: 126.4, 344.6

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.

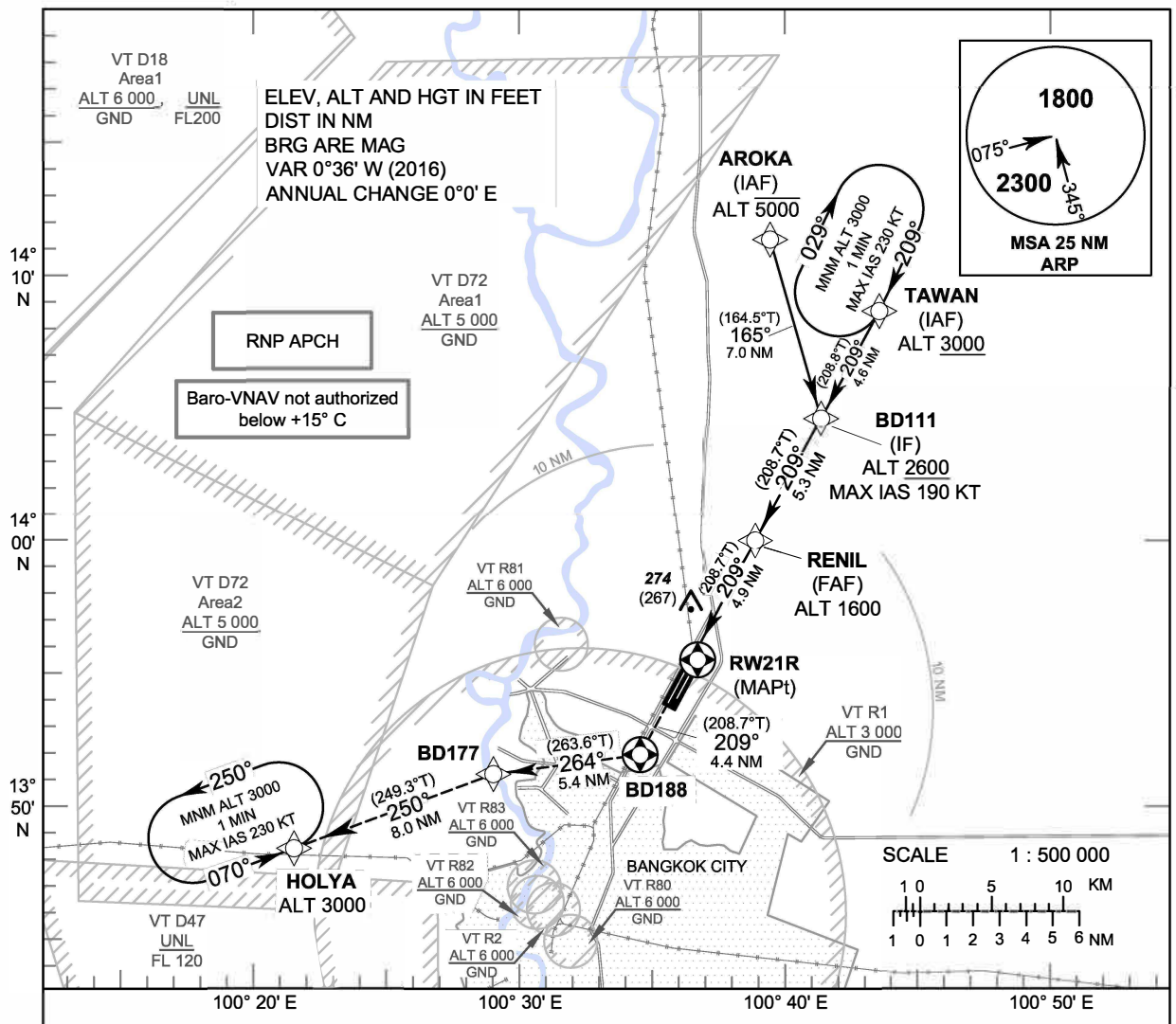
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 9 FT
HEIGHTS RELATED TO
THR RWY21R - ELEV 7 FT

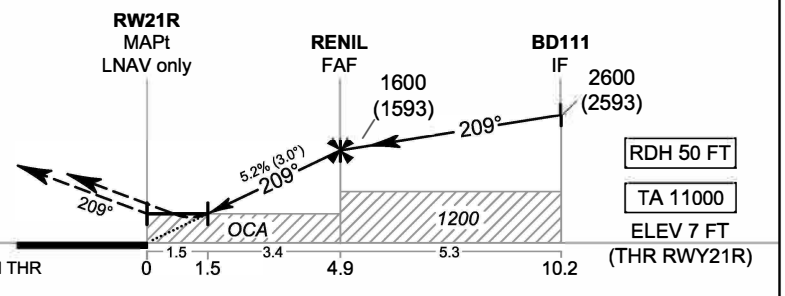
APP	: 119.1, 262.5
	: 119.4, 262.5
	: 120.3, 262.5
	: 133.4,262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
DAR	: 133.0, 262.5
TWR	: 118.1, 236.6
ATIS	: 126.4, 344.6

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.

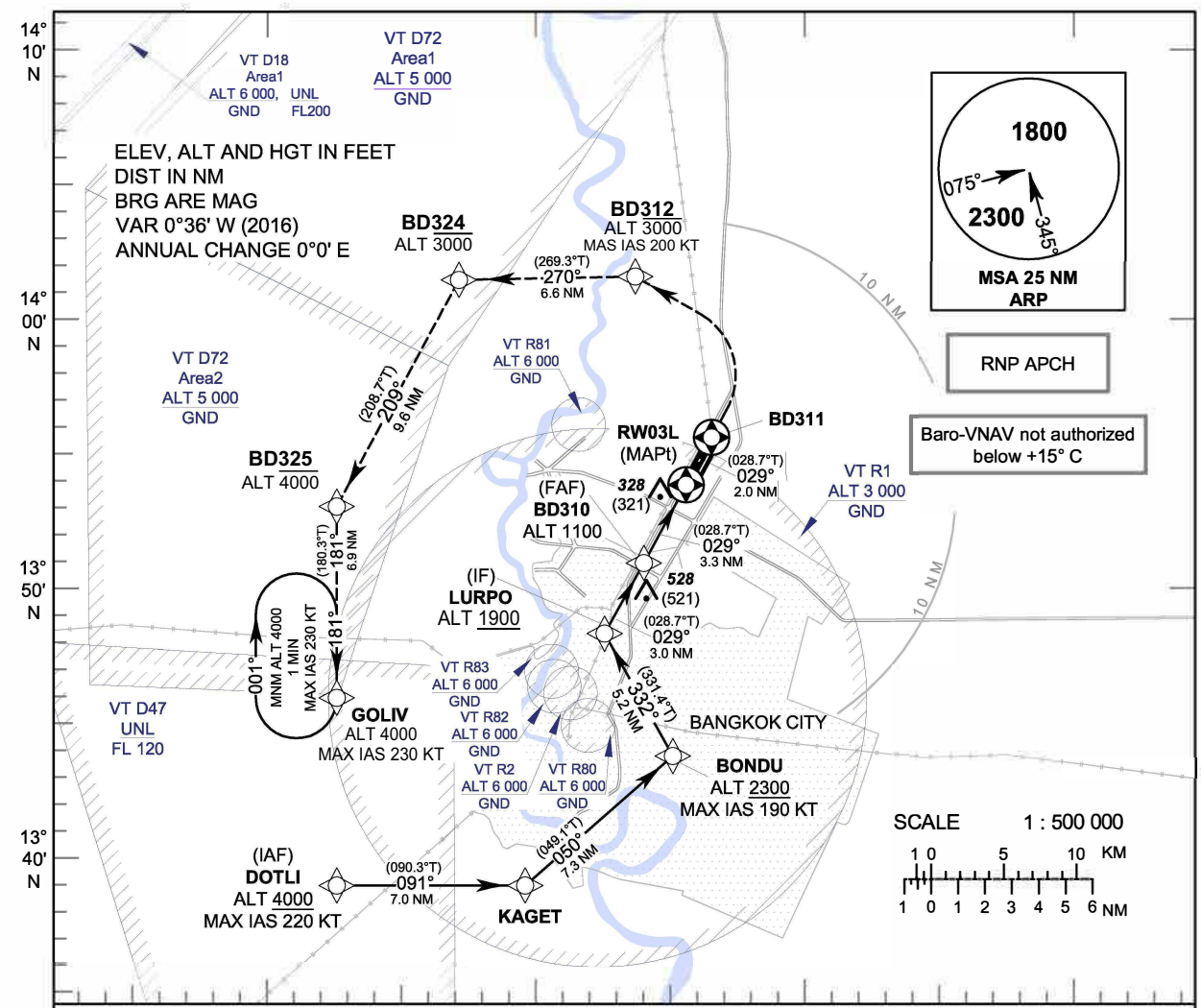
INSTRUMENT APPROACH CHART - ICAO

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

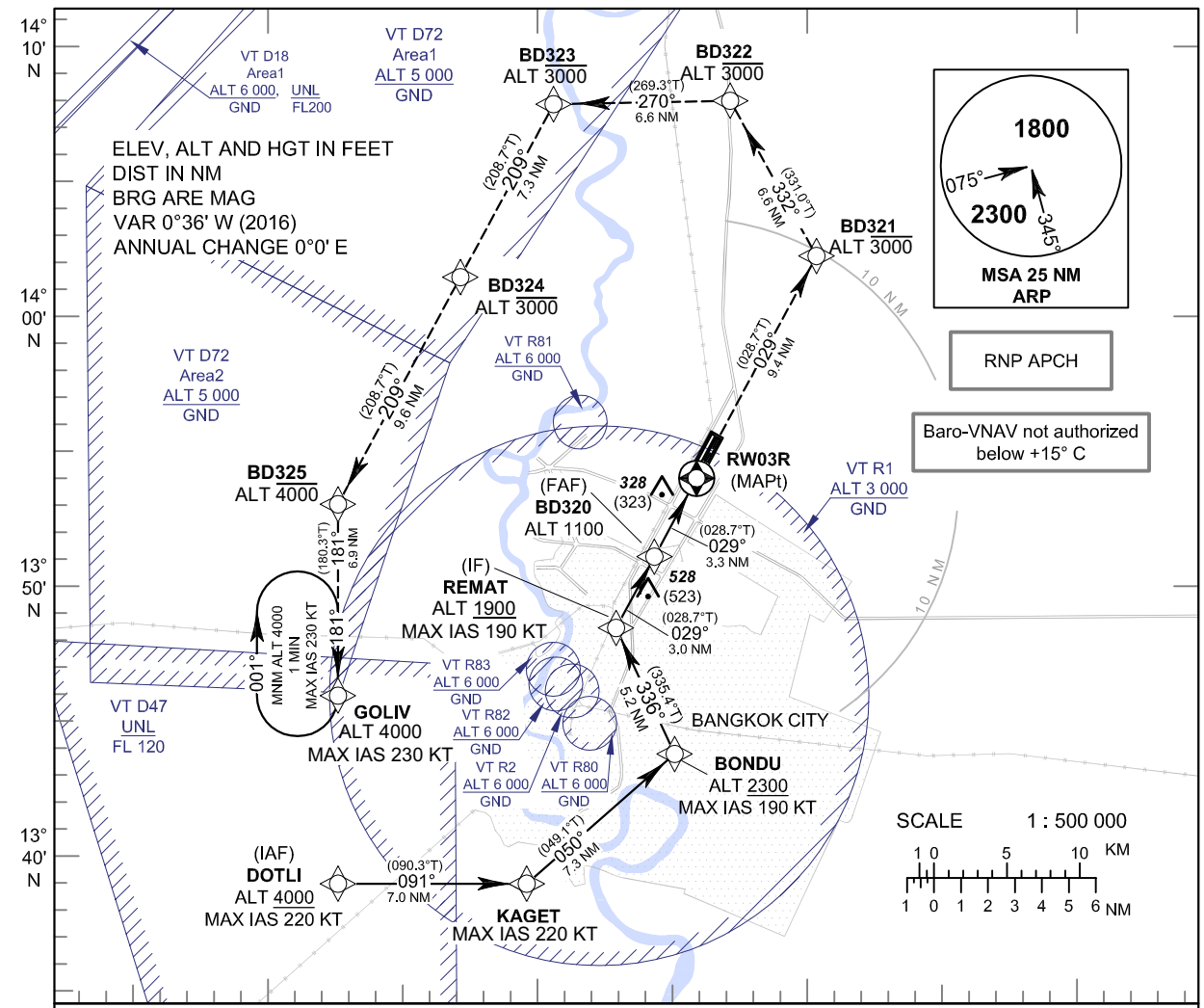
INSTRUMENT APPROACH CHART - ICAO

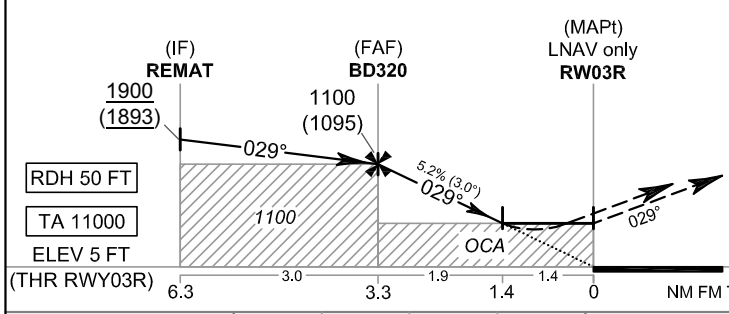
AERODROME ELEV 9 FT
HEIGHTS RELATED TO
THR RWY03R - ELEV 5 FT

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

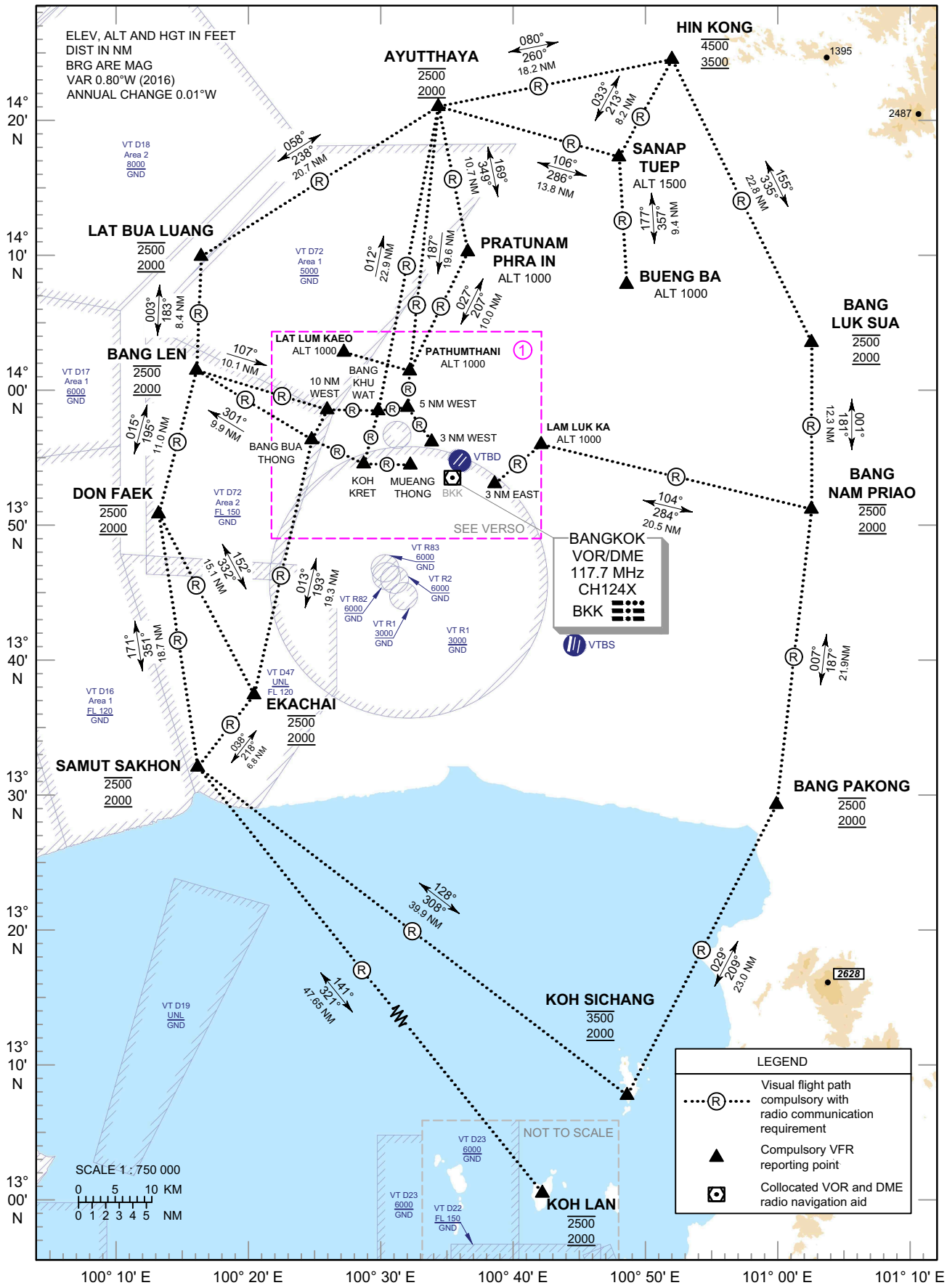
CHANGE: BD321 ALT ADDED, BD322 ALT ADDED, BD323 ALT ADDED, BD324 ALT ADDED, BD325 ALT ADDED.

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

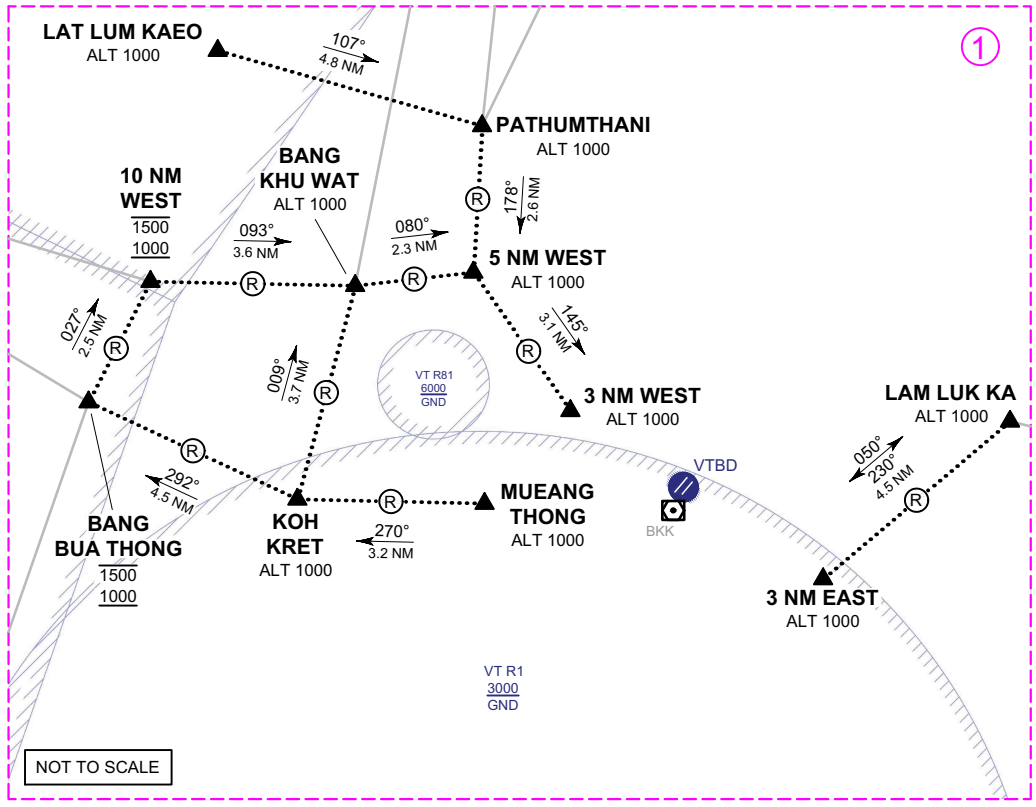
BANGKOK/Don Mueang Intl (VTBD)
RWY 21L/21R



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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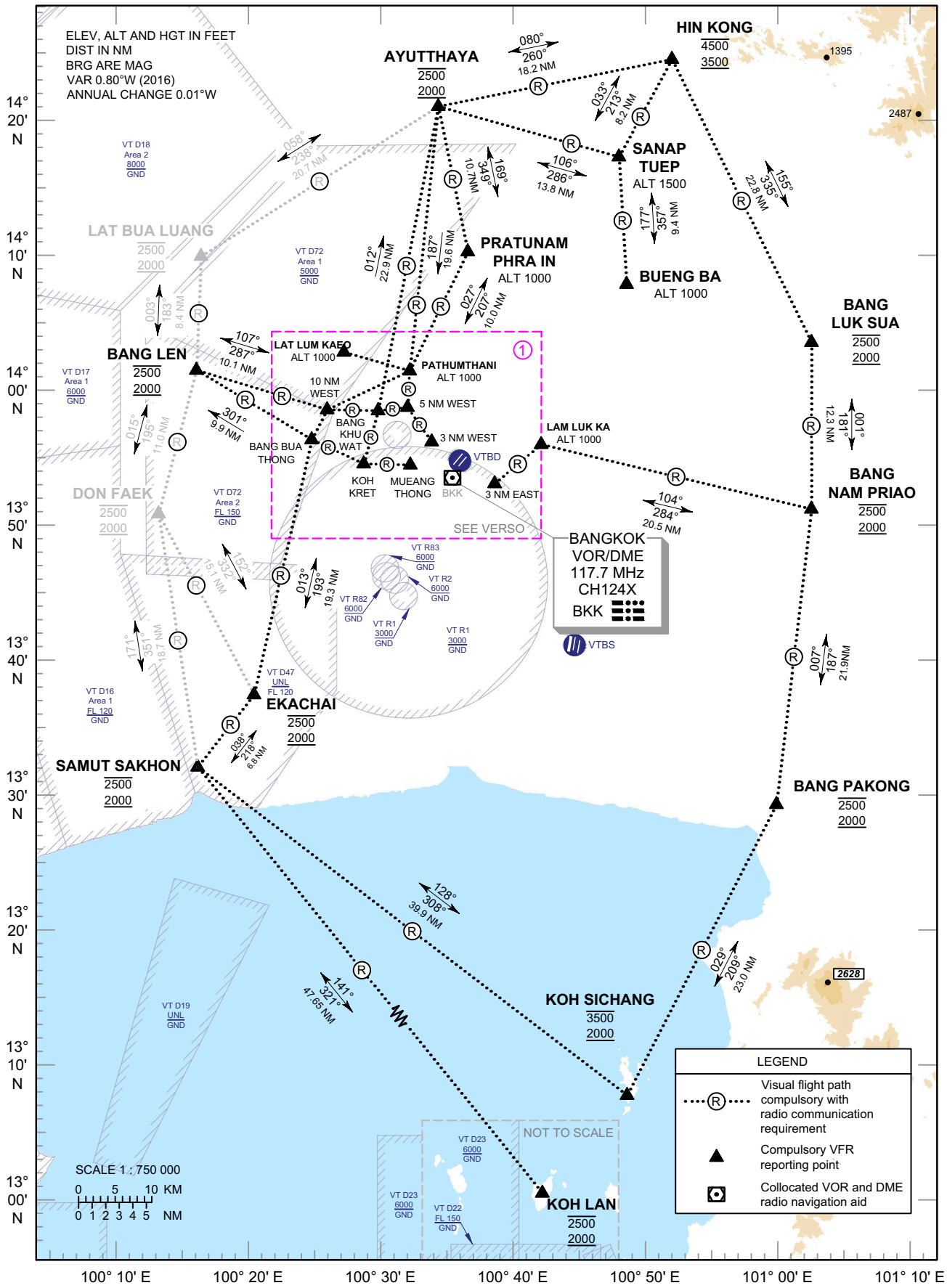
VFR ENTRY AND EXIT PROCEDURE FOR LIGHT AIRCRAFT CHART

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

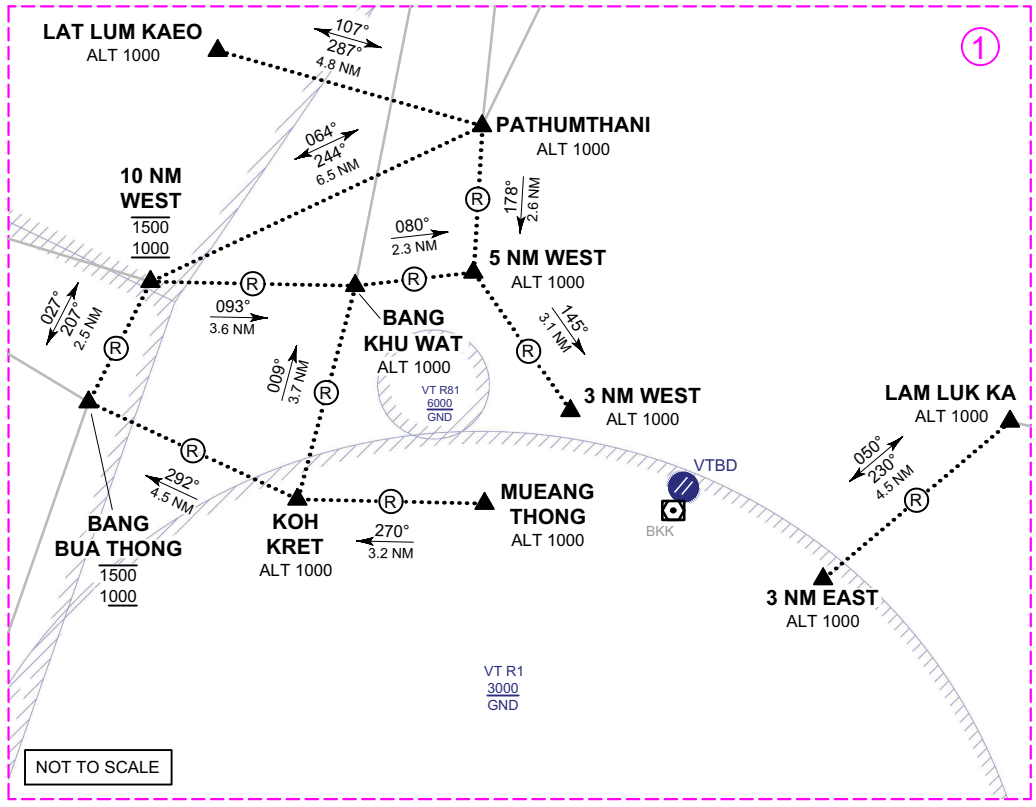
BANGKOK/Don Mueang Intl (VTBD)
RWY 03L/03R



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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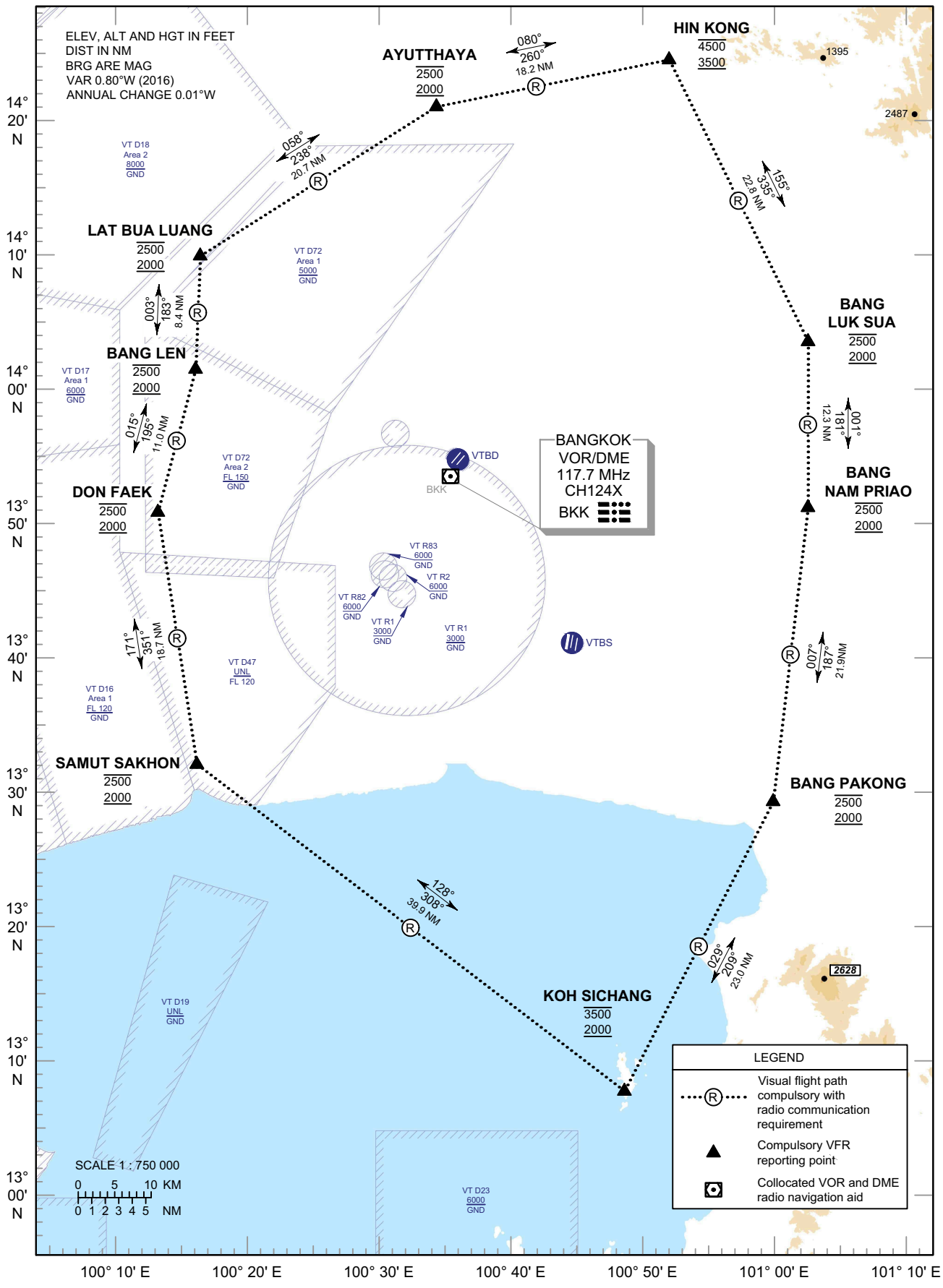
VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART

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

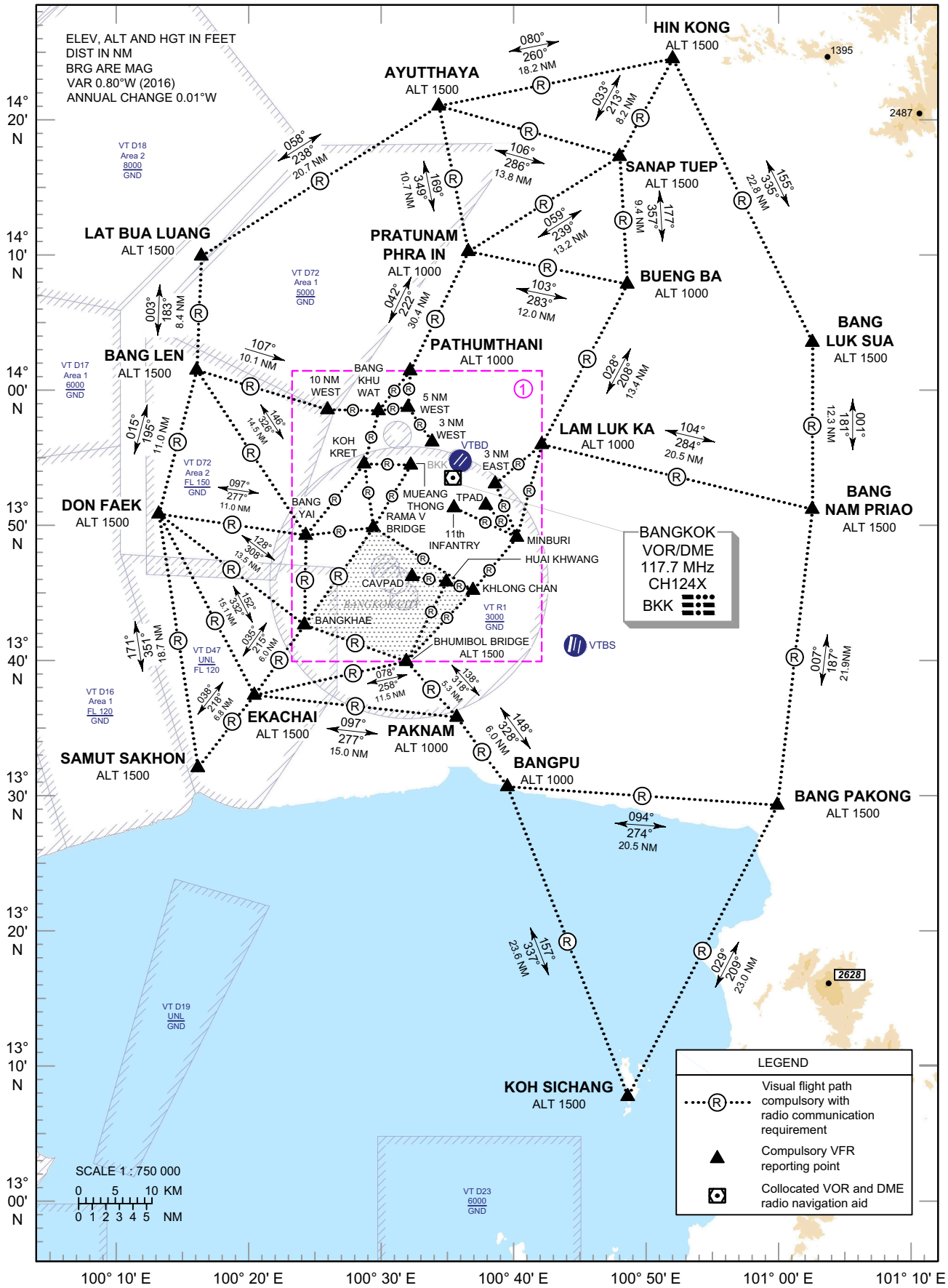
Reporting points	Landmark	Radial / DME from BKK VOR	Coordinates	
			Latitude	Longitude
HIN KONG	Hin Kong Interchange, Phahonyothin Rd.	R-030 / 35.2D	14° 24' 30.00" N	100° 52' 40.00" E
AYUTTHAYA	Preedee-Thamrong Bridge Crossing Pasak River	R-359 / 27.5D	14° 21' 08.00" N	100° 34' 53.00" E
LAT BUA LUANG	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

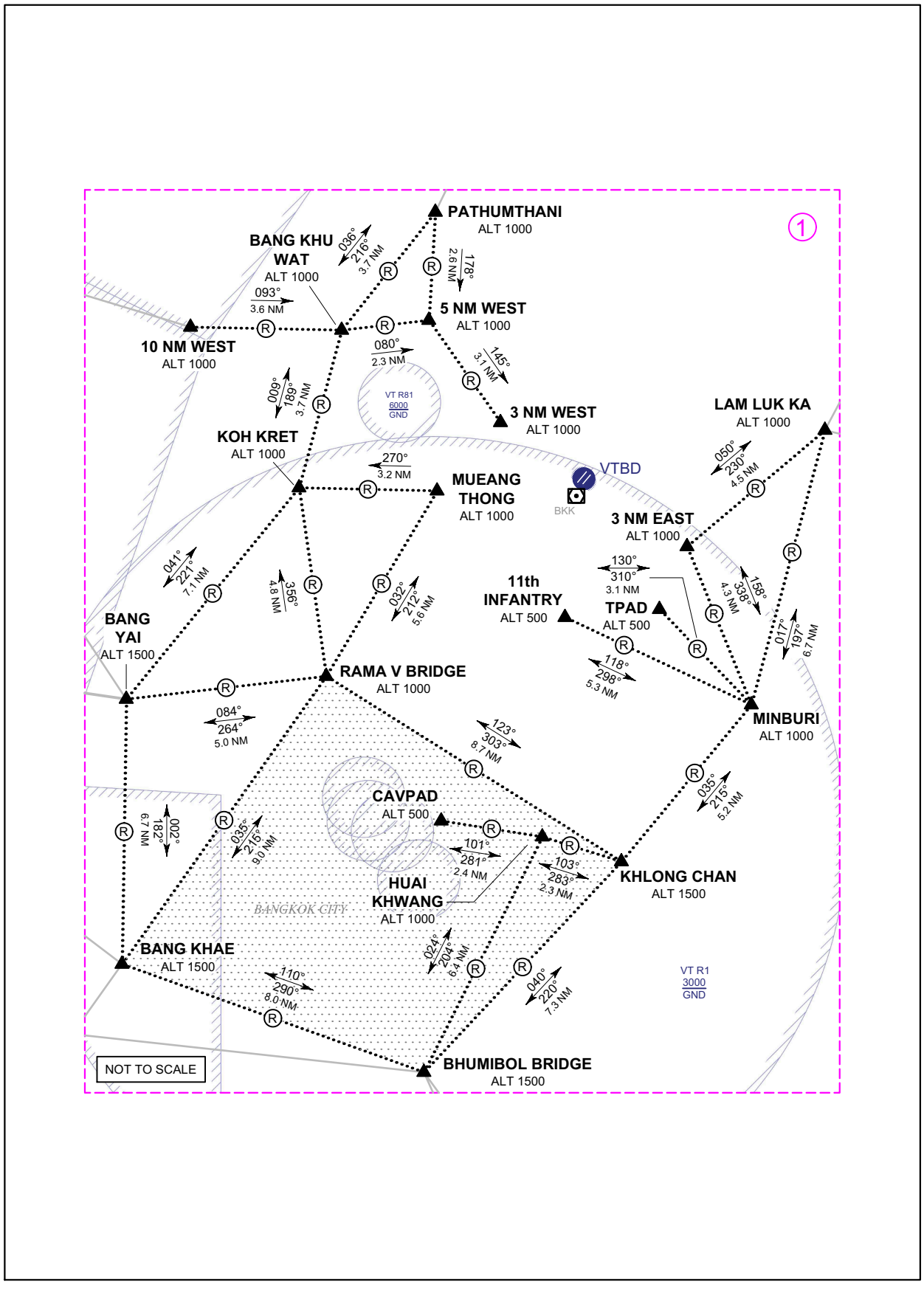
BANGKOK/Don Mueang Intl (VTBD)
RWY 21L/21R



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

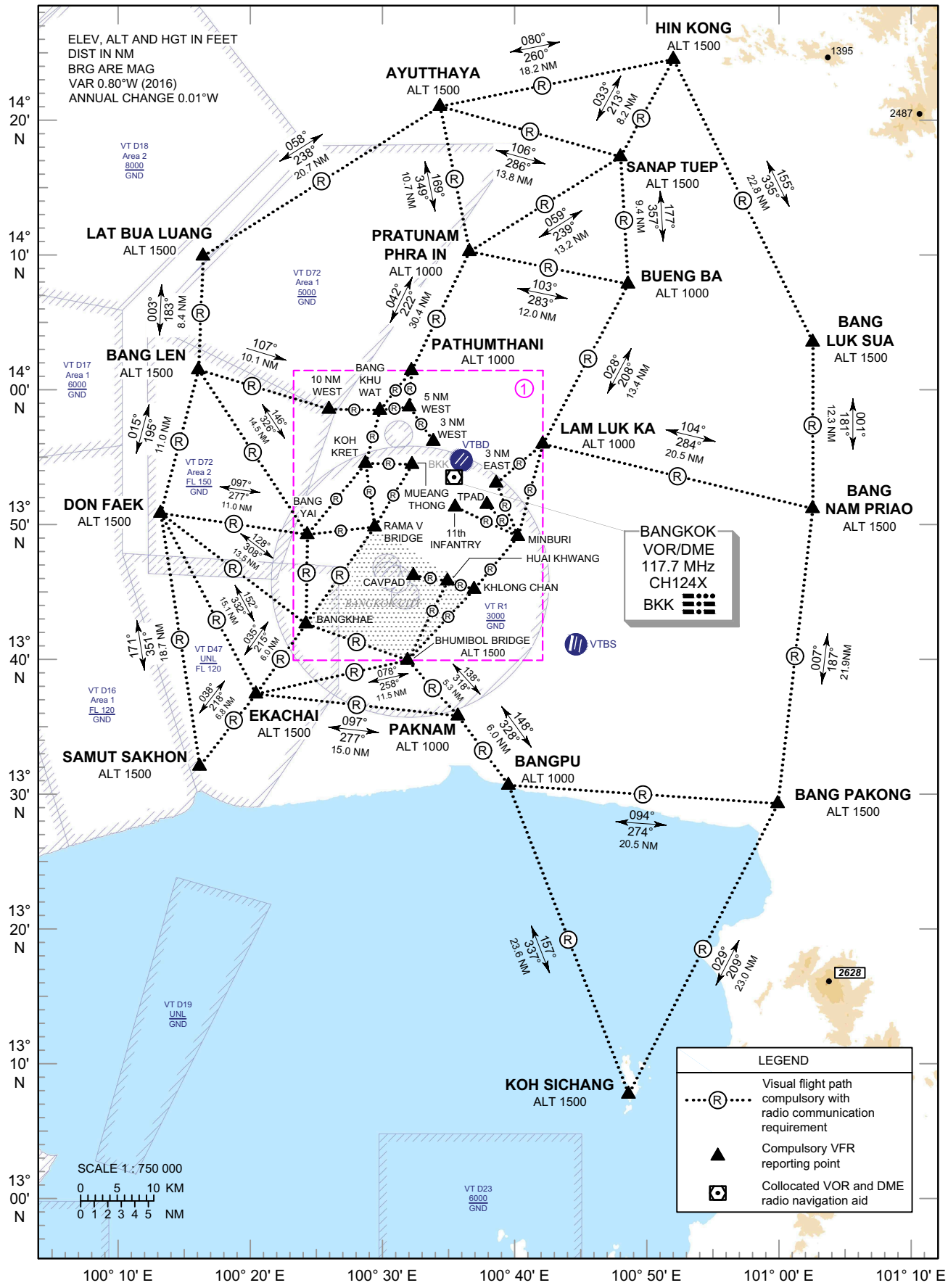
Reporting points	Landmark	Radial / DME from BKK VOR	Coordinates	
			Latitude	Longitude
BANG LUK SUA	Pradhana Vanalai Studio	R-070 / 28.3D	14° 03' 26.00'' N	101° 03' 05.00'' E
SAMUT SAKHON	Thachalom Roundabout	R-222 / 28.4D	13° 32' 17.00'' N	100° 16' 20.00'' E
KOH SICHANG	Koh Sichang	R-165 / 47.4D	13° 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

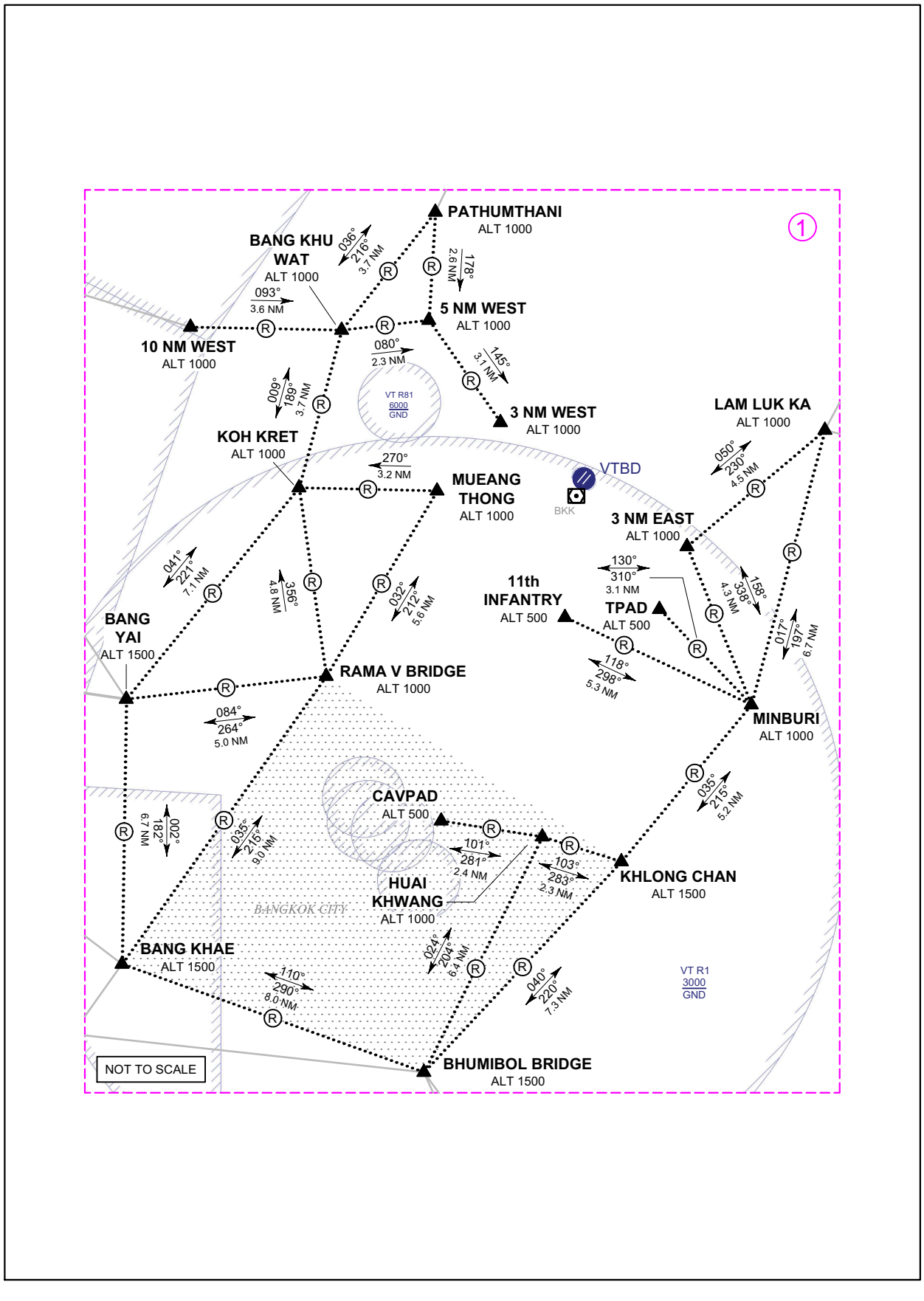
BANGKOK/Don Mueang Intl (VTBD)
RWY 03L/03R



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

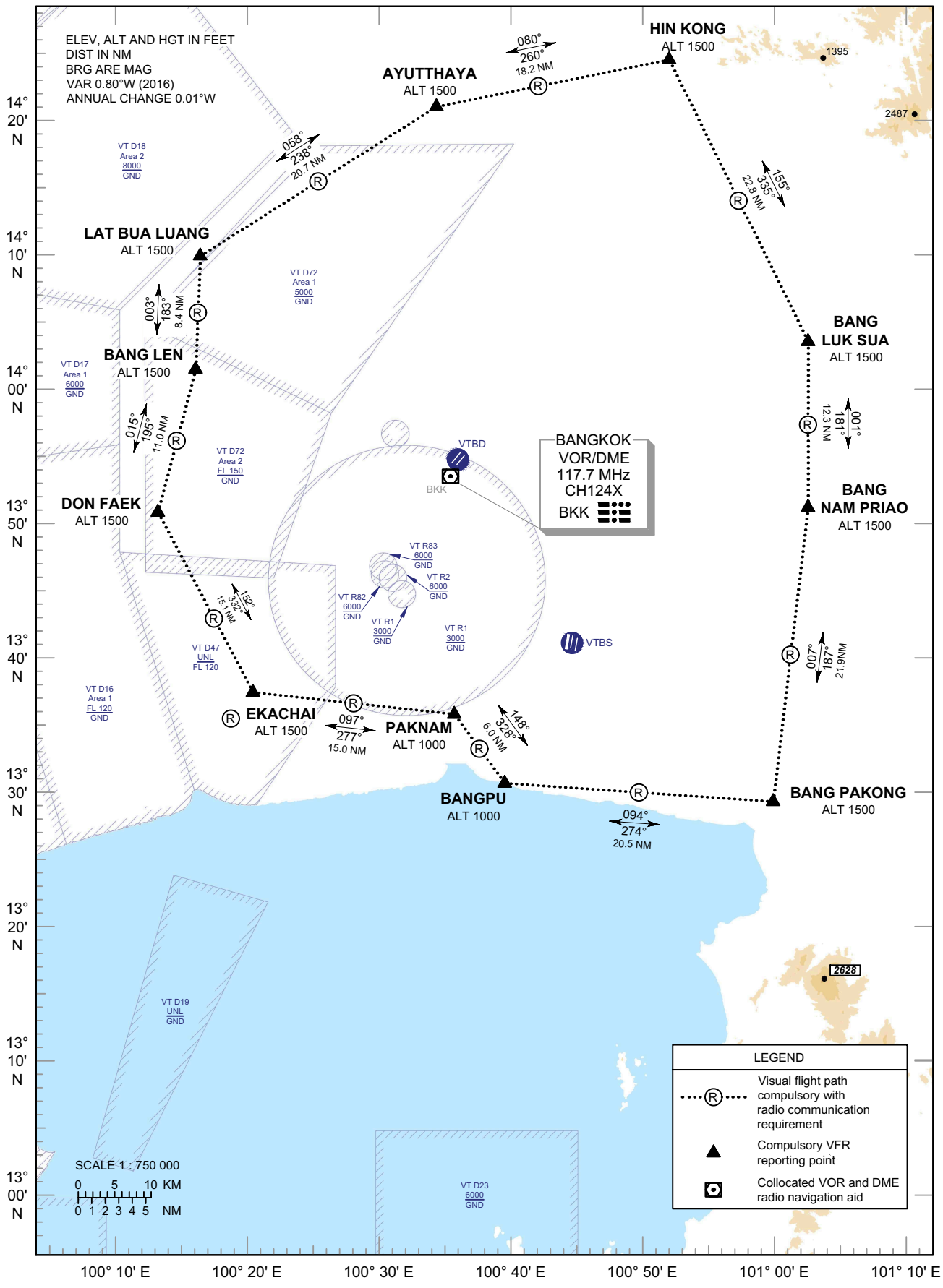
Reporting points	Landmark	Radial / DME from BKK VOR	Coordinates	
			Latitude	Longitude
BANG LUK SUA	Pradhana Vanalai Studio	R-070 / 28.3D	14° 03' 26.00'' N	101° 03' 05.00'' E
SAMUT SAKHON	Thachalom Roundabout	R-222 / 28.4D	13° 32' 17.00'' N	100° 16' 20.00'' E
KOH SICHANG	Koh Sichang	R-165 / 47.4D	13° 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
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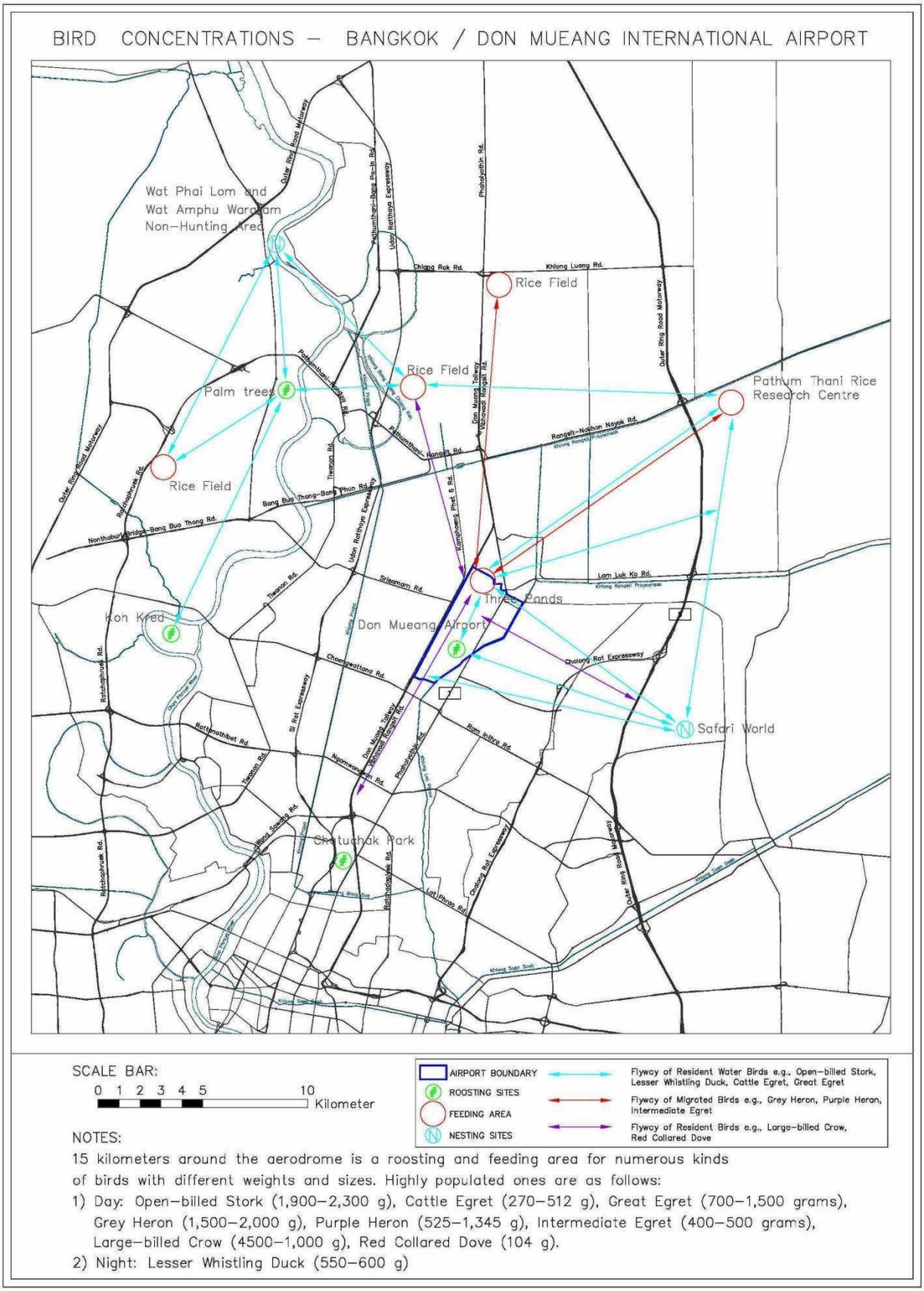
BANG PAKONG	Devahastin Bridge, Bangna-Chonburi Expressway Crossing Bang Pakong River	R-136 / 33.9D	13° 29' 13.20'' N	101° 00' 07.80'' E
BANG NAM PRIAO	Bang Nam Priao Intersection	R-095 / 26.6D	13° 51' 05.00'' N	101° 02' 58.00'' E
BANG LUK SUA	Pradhana Vanalai Studio	R-070 / 28.3D	14° 03' 26.00'' N	101° 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)

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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 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 Airport of Thailand Public Company Limited 60 Mahidol Road Suthep Subdistrict Mueang District Chiang Mai 50200 Thailand Tel: +665 392 2000 Fax: +665 392 2020 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): Located at Chiang Mai Air Traffic Control Center (1st floor of tower building) Tel: +669 1818 5798 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 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 1 JET A-1 Refueller @ 25,000 L 2 JET A-1 Refueller @ 12,000 L 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: a) Thai Airways International Public Co.,ltd (TG) Website:www.thaiairways.com Tel: +662 593 2264 +662 539 2284 b) BAGS Ground Services Co.,Ltd Website:www.bags-groundservices.com Tel: +665 392 2461 c) Chiang Mai Ground Handling Services Co., Ltd. Tel: +668 1472 2335 d) Hs Aviation Co., Ltd. Tel: +661 901 2070 Website:www.hsavia.aero/home E-mail: ops@hsavia.aero e) Thai Ground Handling Website:www.thai-handling.com Tel: +668 0502 5184 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	First Aid at AD and Hospital in the City
5	Bank and Post Office	Bank: Currency Exchange service: Available at AD Daily 0000-1600 Post Office: Available at AD Daily 0130 – 1300
6	Tourist Office	Tourist Assistance Center Chiangmai (TAC): 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 : - Rescue and Fire Fighting Division and Maintenance Department Tel: +665 392 2342, +665 392 2379 - Thai Airways International PLC Tel: +665 392 2262 - Royal Thai Air Force Tel: +665 328 1012 ext.5-7422, 5-7410 +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 Surface: Concrete Strength: PCR 660/R/A/W/T South Apron Aircraft Stand NR 20L, 20 And 20R Surface: Concrete Strength: PCR 660/R/A/W/T
2	Taxiway width, surface and strength	– Taxiway A Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T – Taxiway B, G Width: 23 M, Surface: Asphalt, PCR 660/R/A/W/T – Taxiway C Width: 23 M, Surface: Asphalt, PCR 700/F/C/X/T – Taxiway D Rapid exit taxiway Width: 28 M, Surface: Asphalt, PCR 700/F/C/X/T – Taxiway E Width: 28 M, Surface: Asphalt, PCR 1350/R/D/W/T – Taxiway F Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T – Taxiway H Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T – Taxiway P Width: 23 M, Surface: Asphalt, PCR 950/F/D/X/T Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T – Taxiway P5, P6 Width: 35 M, Surface: Concrete, PCR 660/R/A/W/T – Taxiway Q Width: 23 M, Surface: Concrete, PCR 660/R/A/W/T
3	Altimeter checkpoint location and elevation	Location: At Apron 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. Nose-Wheel guide lines at apron. Solid Nose-Wheel guide lines at aircraft stands. Nose-in guidance at aircraft stands. 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 RWY LGT: THR, RWY Edge and RWY End lights TWY marking: Centre line, Edge, RWY Holding Positions and Intermediate Holding Positions 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, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Northern Meteorological Center, 30 HR
4	Type of landing forecast Interval of issuance	TREND 30 Min
5	Briefing/consultation provided	Personal Consultation Tel: +665 320 3801 Fax: +665 320 3801
6	Flight documentation Language(s) used	Charts, Tabular forms and Abbreviated Plain Language Texts. 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 Observation System (AWOS), Low Level Wind Shear 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 300 M BFR THR (Displacement) and 100 M RWY ENDS are PCR 660/R/A/W/T Concrete	184651.80N 0985746.52E -39 M (-129 FT)	THR 316 M/ 1036 FT
36	360°	3100x45	PCR 660/F/B/X/T Asphalt 100 M FM THR36 is PCR 660/R/A/W/T Concrete	184510.94N 0985746.26E -39.4 M (-129 FT)	THR 306.9 M/ 1007 FT 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 420 M LIH	Green	PAPI Both 3° (61 FT)	NIL	NIL	3100 M 60 M 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 420 M LIH	Green	PAPI Both 3° (63 FT)	NIL	NIL	3100 M 60 M 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 IBN: NIL As AD Administration
2	LDI location and LGT Anemometer location and LGT	Wind Cone near right PAPI 36, illuminated Anemometer: NIL
3	TWY edge and centre line lighting	EDGE: All TWY Centre Line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting At AD switch-overtime : 15 SEC
5	Remarks	NIL

VTCC AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (184558.06N 0985740.38E)
2	Vertical limits	5000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Chiang Mai Tower 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 305.4 MHZ 121.5 MHZ [1)] 243.0 MHZ [1)]	H24	[1)] Emergency frequency
TWR	Chiang Mai Tower	118.1 MHZ 236.6 MHZ 121.5 MHZ [1)] 243.0 MHZ [1)]	H24	
GND	Chiang Mai Ground	121.9 MHZ 275.8 MHZ	H24	
ATIS	Chiang Mai Int Airport	127.2 MHZ 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 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 area as follows: 1. 40 NM Orbit – Radial 350º-080º altitude should not below 8 000 FT – Radial 081º-180º altitude should not below 7 000 FT – Radial 181º-240º altitude should not below 9 000 FT 2. 20 NM Orbit (Due to mountainous terrain) – 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) – Reference Datum Height (RDH) is 16.5 M. A. Localizer – Coverage 18 NM within ± 10° and 10 NM between ± 10° and ± 35° from the front course line. – The localizer antenna array is located on the extended runway centre line at distance 478.4 M from THR of RWY 18. – Height of the array is 2.3 M. B. Glide path 3° – 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. – Location 327.6 M (1,075 FT) from THR RWY 36, 120.3 M (395 FT) west side from RWY centre line. C. DME – Paired with Glide Slope. – Power output 100 watts. – Bi-directional antenna. – 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.

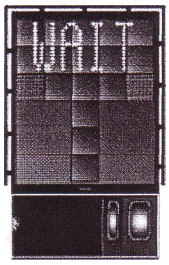
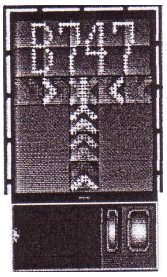
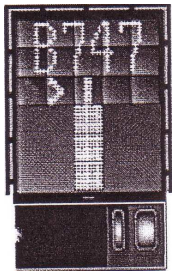
b) Item to check before entering the stand area

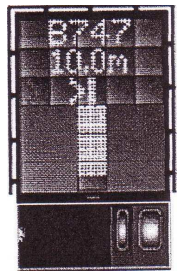
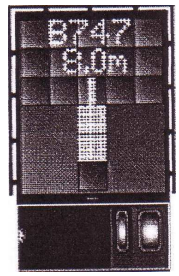
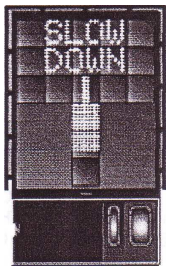
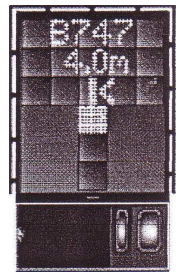
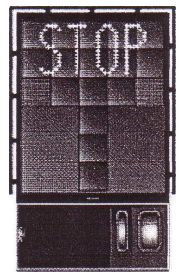
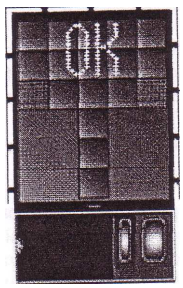
Warning: The pilot shall not enter the stand area, unless the docking system first is showing the vertical running arrows. The pilot must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

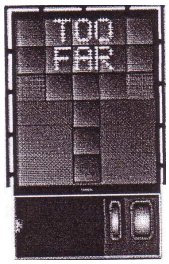
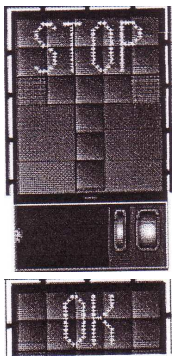
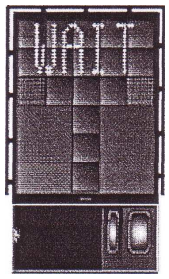
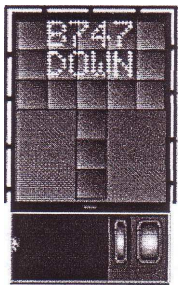
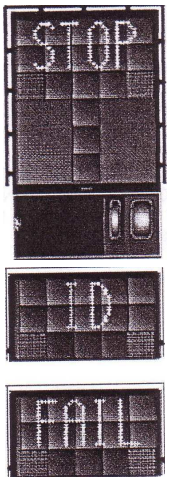
Warning: The pilot shall not enter the stand area, unless the aircraft type displayed is equal to the approaching aircraft/ The Correctness of other information, such as ‘door 2’, shall also be checked.

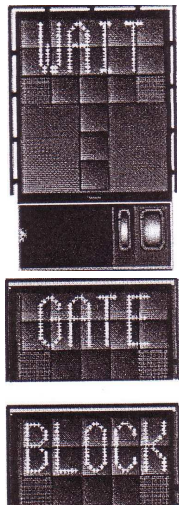
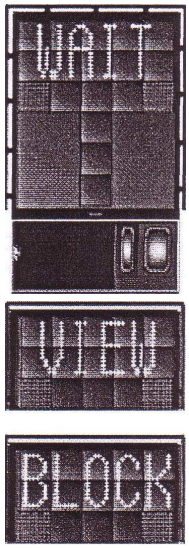
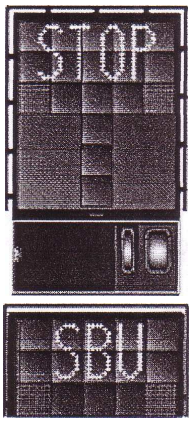
c) The SBU message

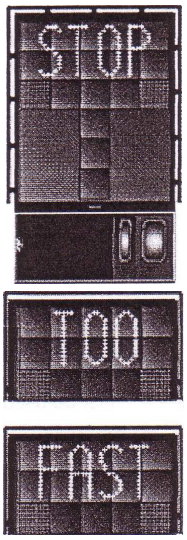
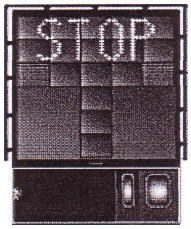
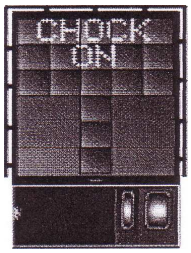
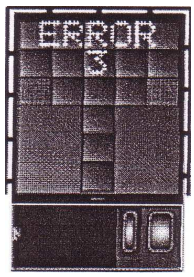
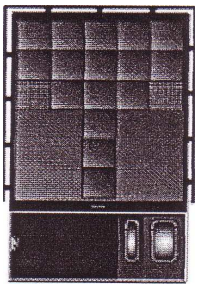
The message STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance. Do not try to resume docking without manual guidance.

	4.2.2 START-OF-DOCKING 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 The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft. If 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.
	4.2.4TRACKING 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 give correct position and azimuth guidance.

	4.2.5CLOSING RATE 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.
	4.2.6 ALIGNED TO CENTRE 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. 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. 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. When the correct stop-position is reached, the display will show STOP and red lights will be lit.
	4.2.10 DOCKING COMPLETE. When the aircraft has parked, OK will be displayed.

	4.2.11 OVERSHOOT. If the aircraft overshoot the stop-position, TOO FAR will be displayed.
	4.2.12 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.
	4.2.13 WAIT. 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. 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. 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. 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.
	4.2.15 AIRCRAFT VERIFICATION FAILURE. 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. 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. 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. 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 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. 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 Any unrecoverable error during the docking procedure will generate an SBU condition. The display will show red stop bar and the text STOP SBU. A manual backup procedure must be used for docking guidance.

	4.2.19 TOO FAST 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. The docking system must be re-started or docking procedure completed by manual guidance.
	4.2.20 EMERGENCY STOP When the emergency stop button is pressed, STOP is displayed.
	4.2.21 CHOCKS ON 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 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 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. POWER FAILURE 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			

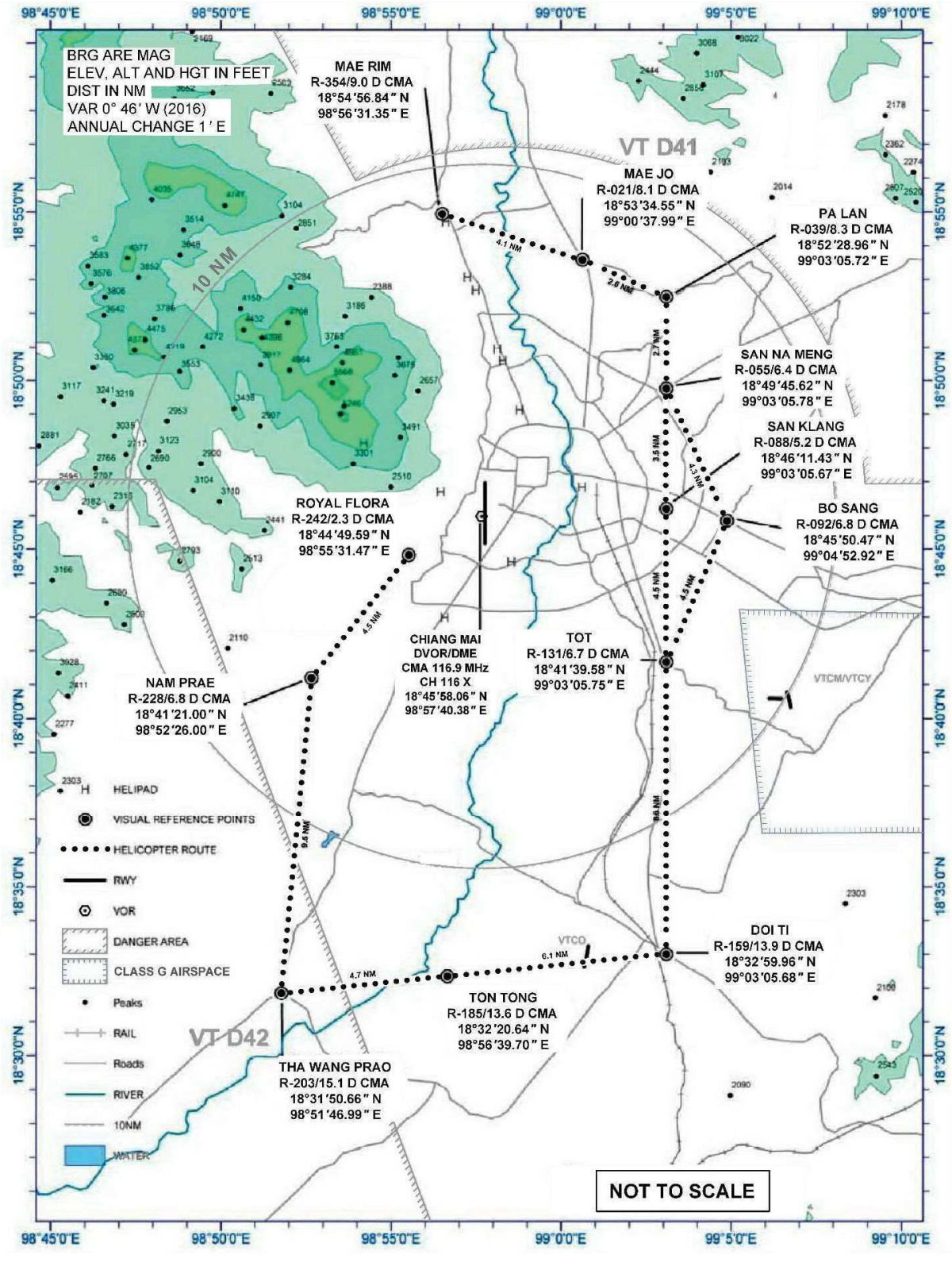
1.22 VFR helicopter routes for departure and arrival at EGAT Hang Dong (HEG)

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

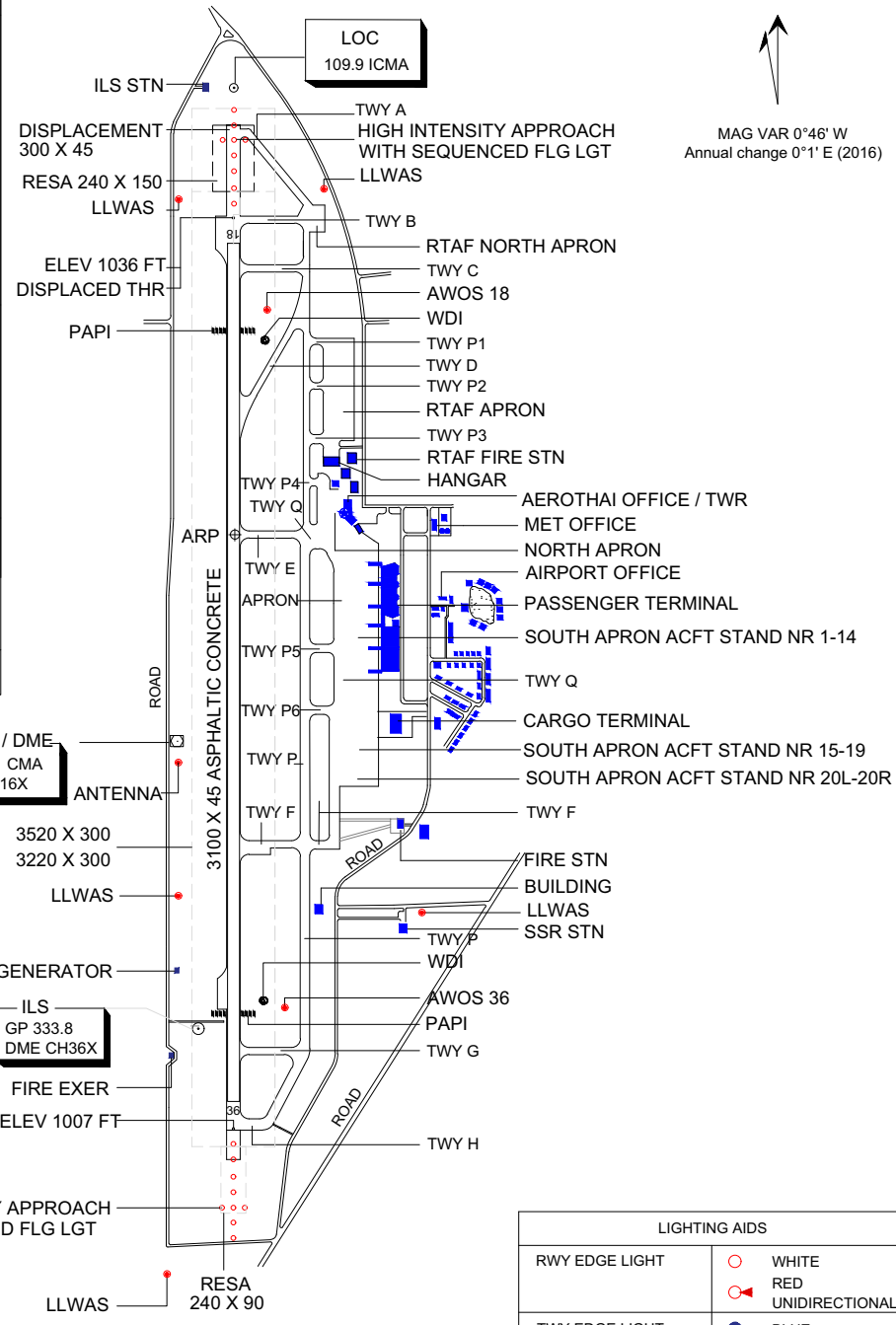
ELEV 1036 FT

TWR 118.1

CHIANG MAI / Chiang Mai Intl

RWY	DIRECTION	THR	BEARING STRENGTH
18	180	18 46 51.80 N 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 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 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

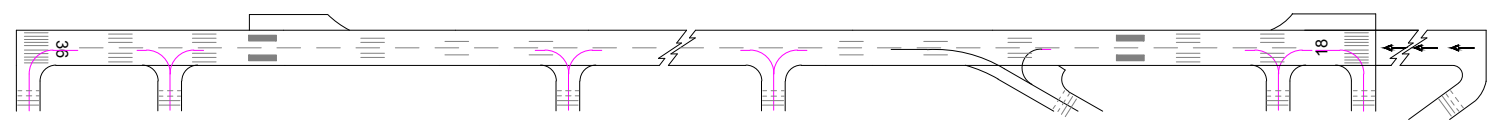


LIGHTING AIDS	
RWY EDGE LIGHT	WHITE RED UNIDIRECTIONAL
TWY EDGE LIGHT	BLUE
THR/END LIGHT	RED/GREEN BIDIRECTIONAL

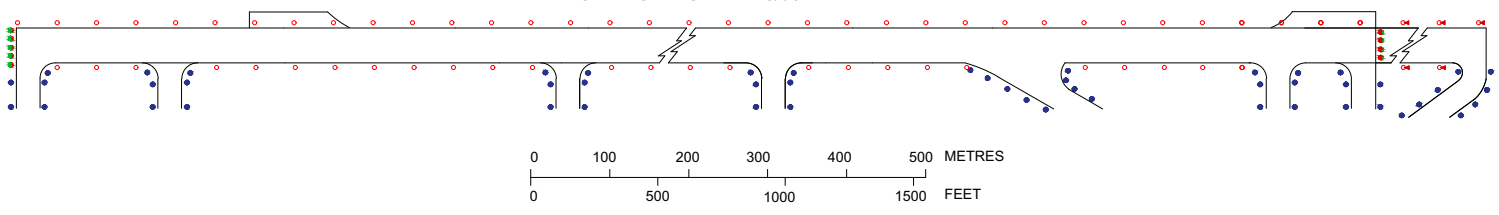
REMARKS

- 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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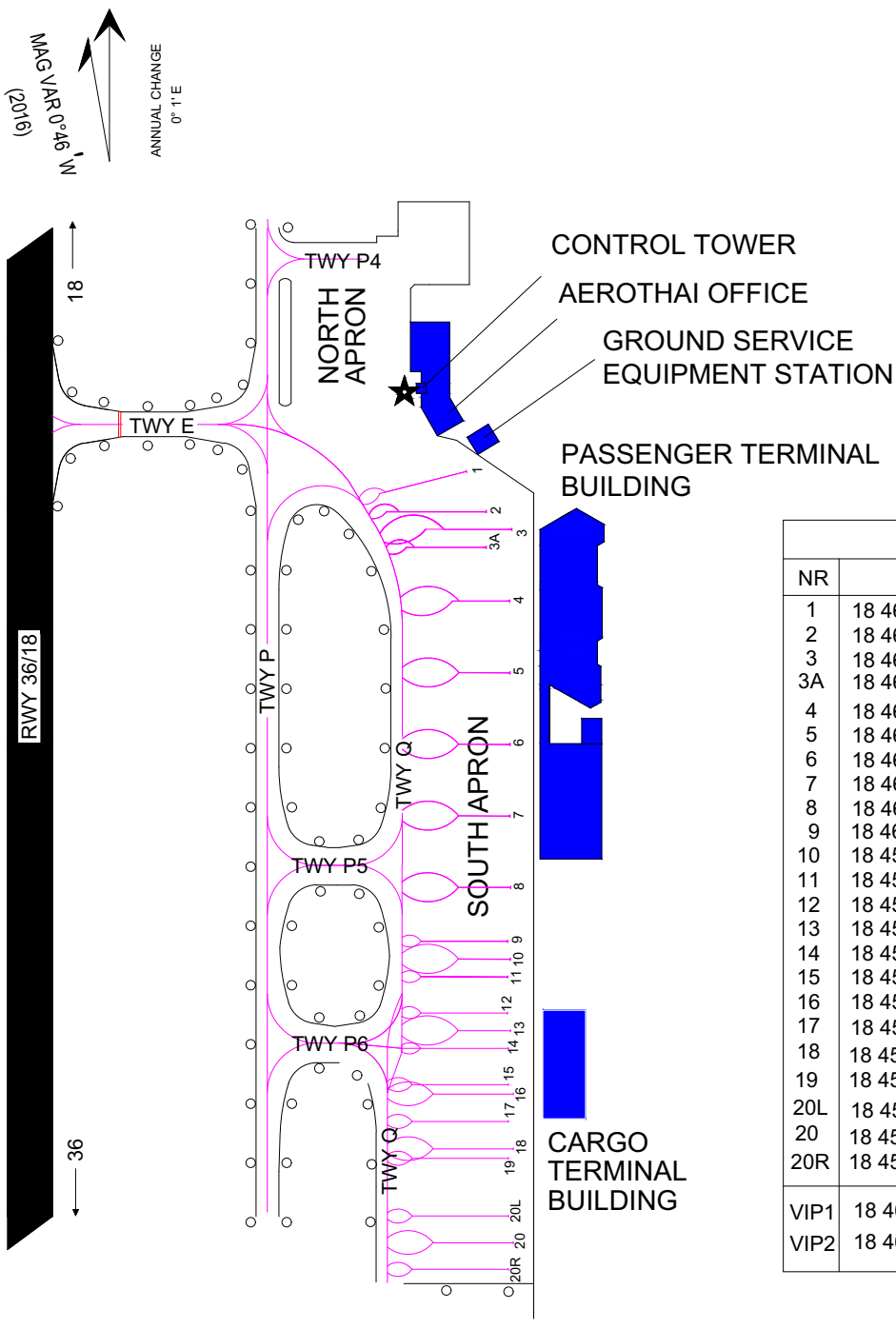
AIRCRAFT PARKING / DOCKING CHART - ICAO

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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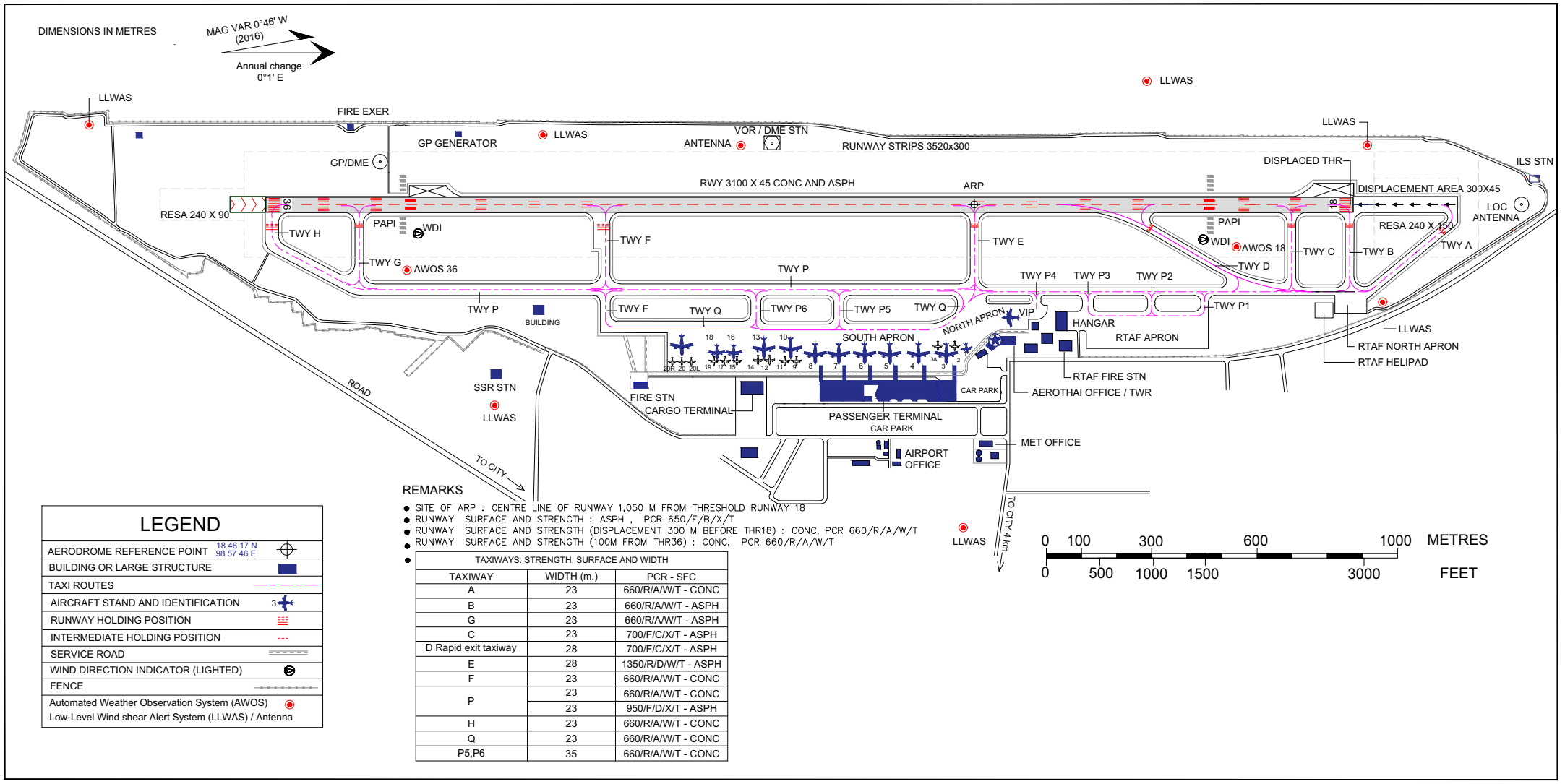
AERODROME GROUND MOVEMENT CHART - ICAO

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

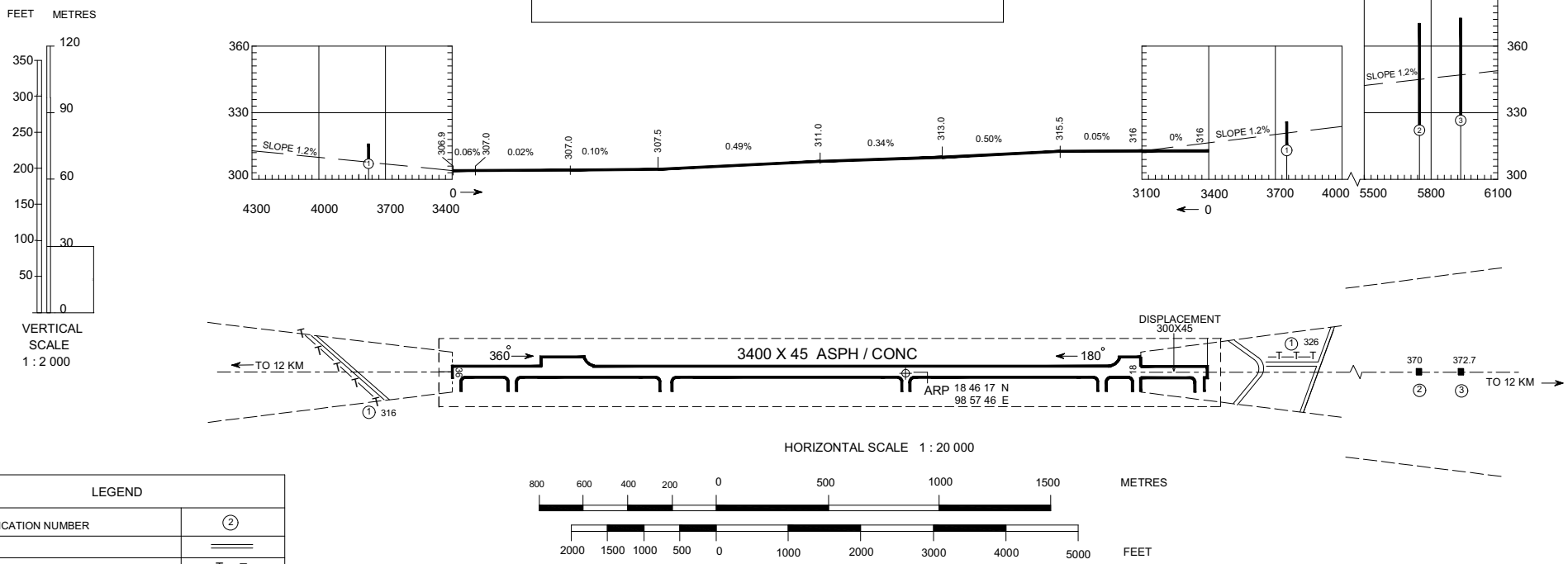
DIMENSIONS AND ELEVATIONS IN METRES

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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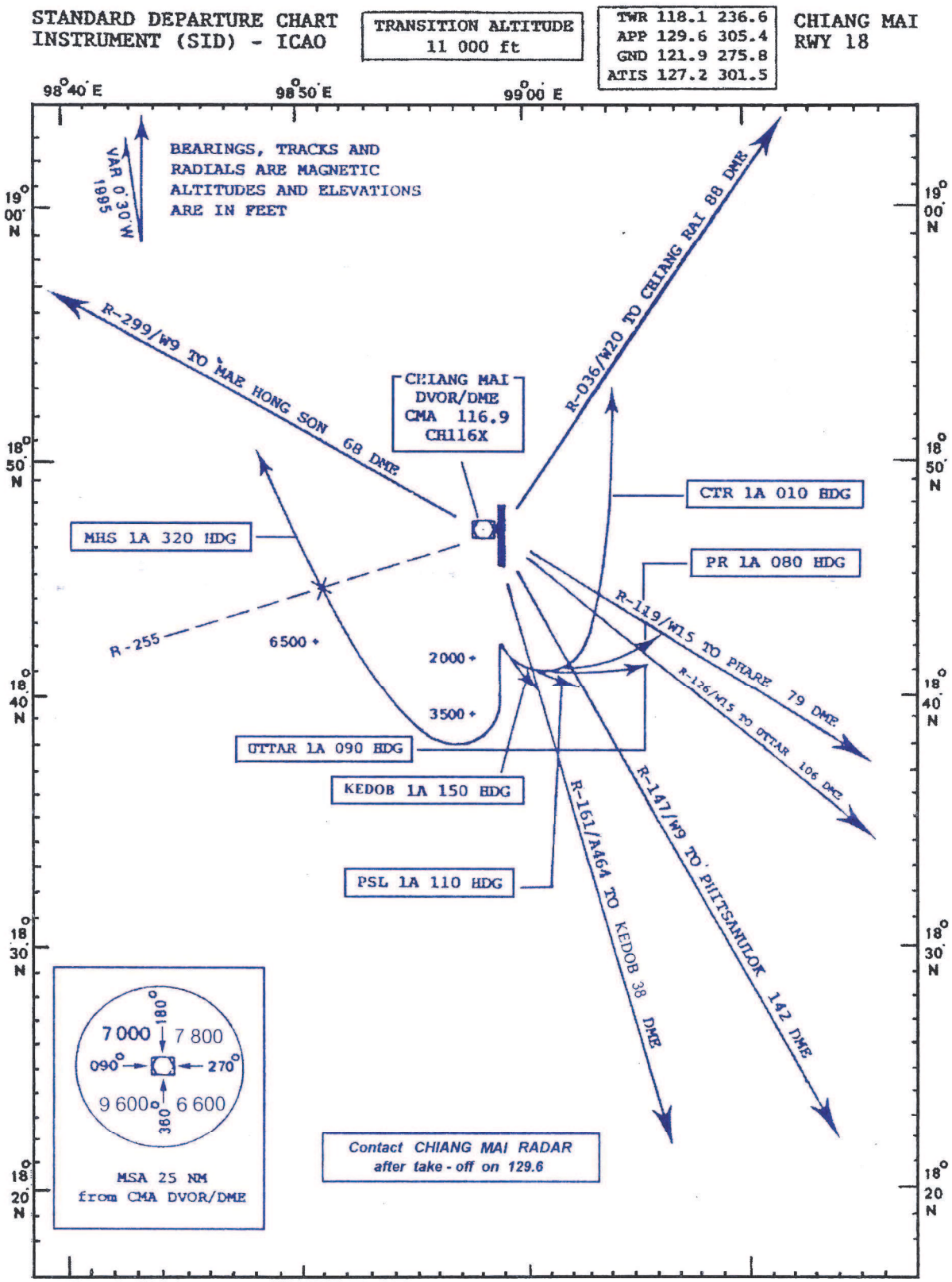
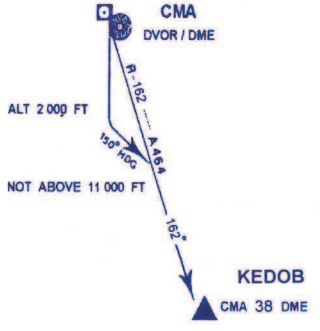

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO
TRANSITION ALTITUDE
11 000 ft
TWR 118.1 236.6
APP 129.6 305.4
GND 121.9 275.8
ATIS 127.2 301.5
CHIANG MAI
RWY 18
98°40' E
98°50' E
99°00' E
19°00' N
18°50' N
18°40' N
18°30' N
18°20' N
VAR 0°30'W 1995
BEARINGS, TRACKS AND RADIALS ARE MAGNETIC
ALTITUDES 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

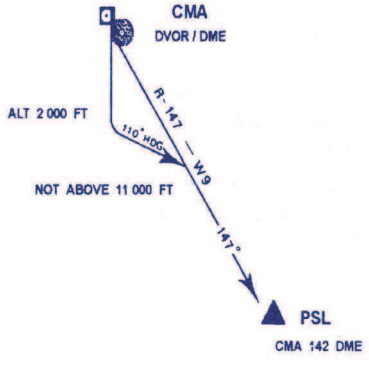
KEDOB ONE ALFA (KEDOB 1 A)

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.



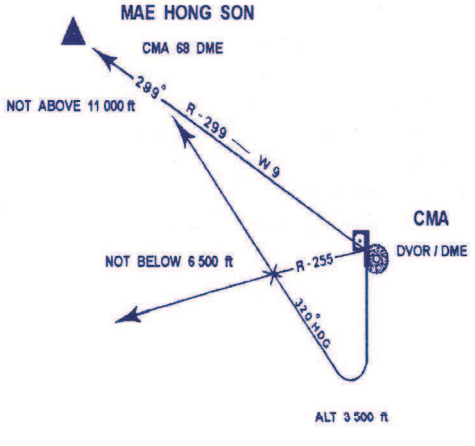
PHITSANULOK ONE ALFA (PSL 1 A)

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.

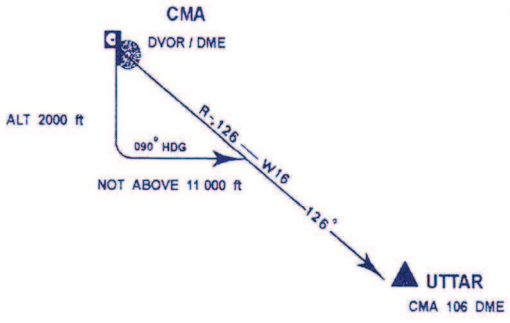


STANDARD INSTRUMENT DEPARTURE (SID) CHIANG MAI INTERNATIONAL AIRPORT

STANDARD INSTRUMENT DEPARTURE RUNWAY 18

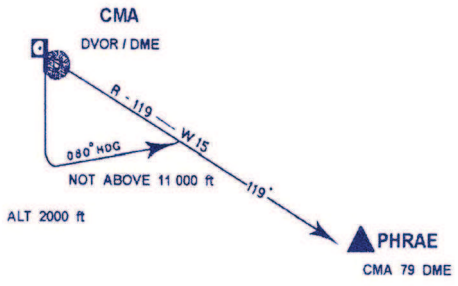
UTTAR ONE ALFA (UTTAR 1 A)

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.



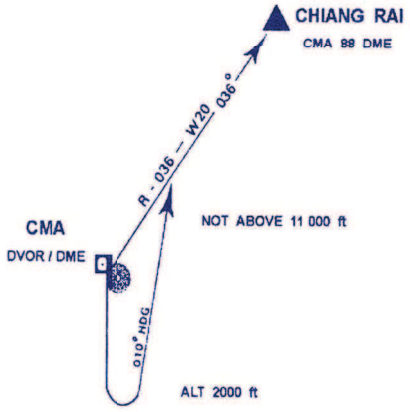
PHRAE ONE ALFA (PR 1 A)

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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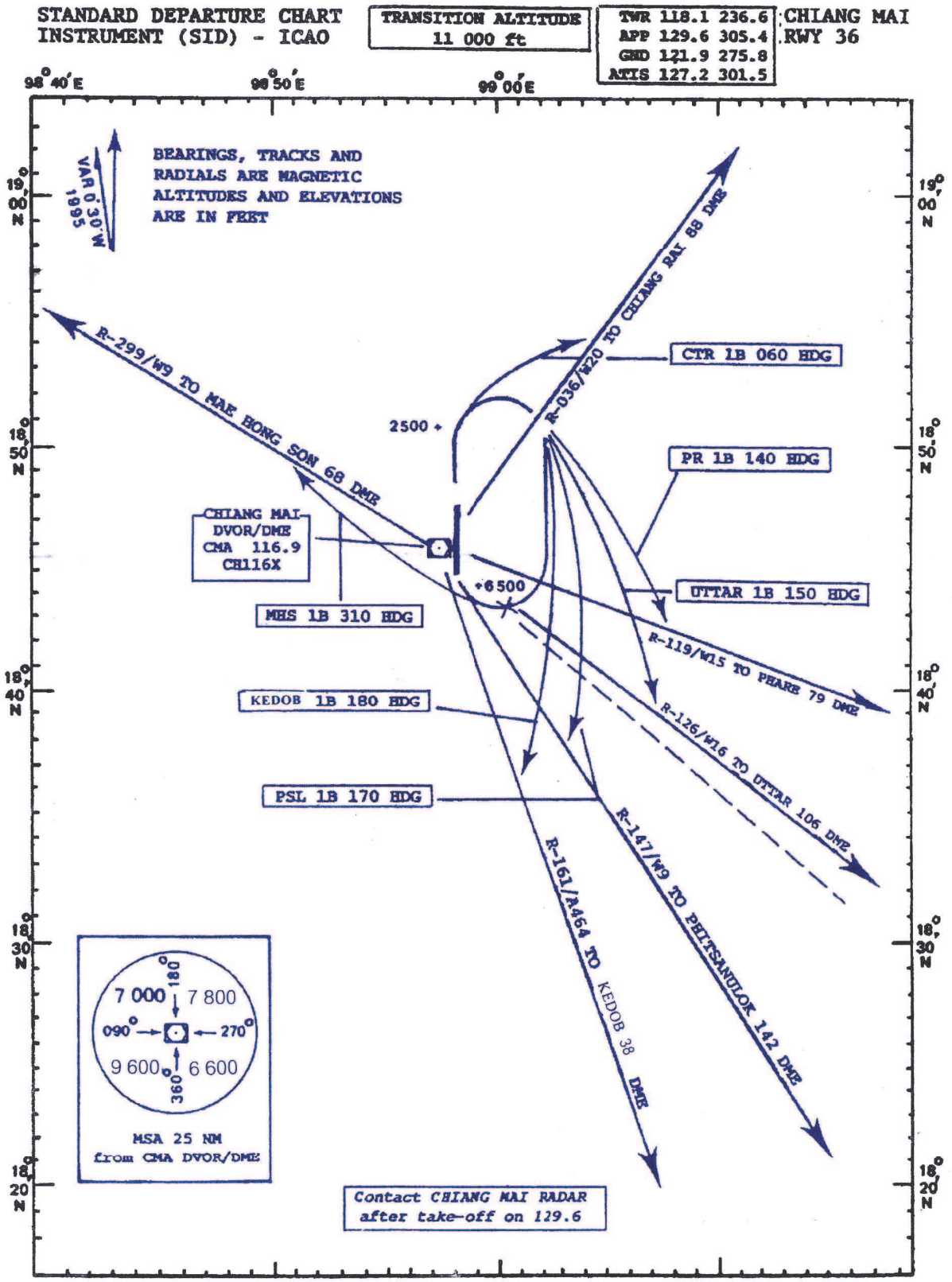
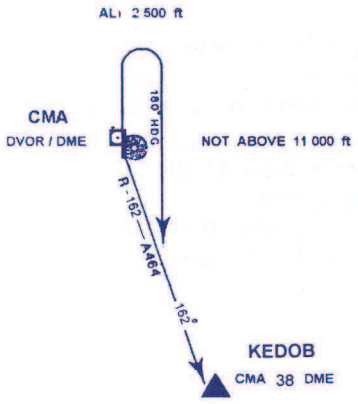

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO
TRANSITION ALTITUDE
11 000 ft
TWR 118.1 236.6
APP 129.6 305.4
GND 121.9 275.8
ATIS 127.2 301.5
CHIANG MAI
RWY 36
98° 40' E
98° 50' E
99° 00' E
19° 00' N
18° 50' N
18° 40' N
18° 30' N
18° 20' N
VAR 0°30' W
1995
BEARINGS, TRACKS AND
RADIALS ARE MAGNETIC
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

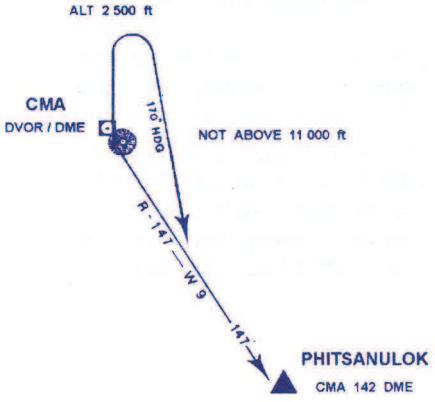
KEDOB ONE BRAVO (KEDOB 1 B)

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.



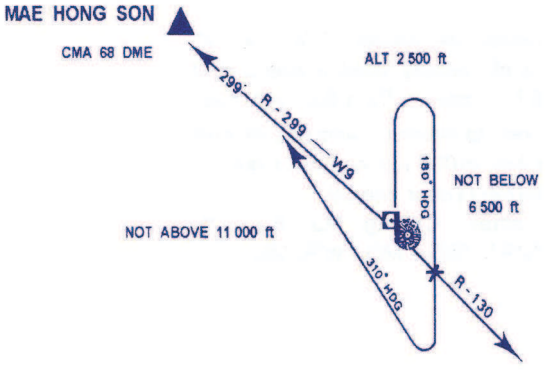
PHITSANULOK ONE BRAVO (PSL 1 B)

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.

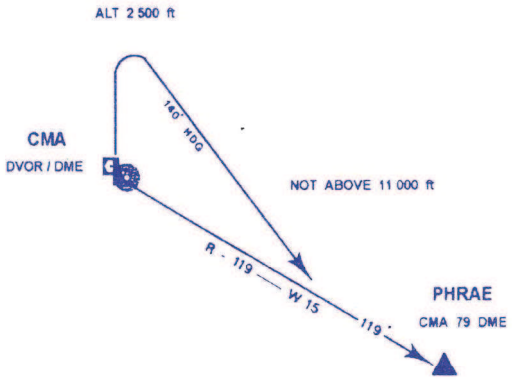


STANDARD INSTRUMENT DEPARTURE (SID) CHIANG MAI INTERNATIONAL AIRPORT

STANDARD INSTRUMENT DEPARTURE RUNWAY 36

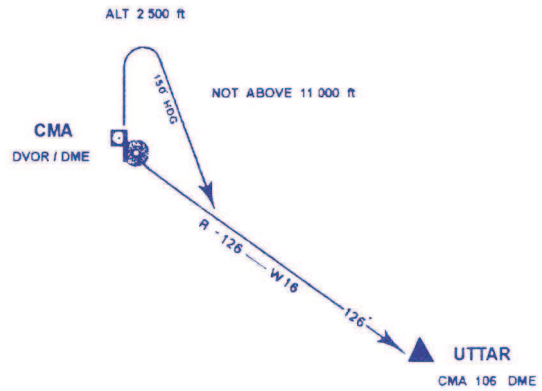
PHRAE ONE BRAVO (PR 1 B)

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.



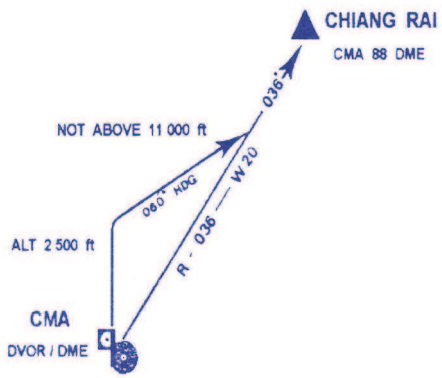
UTTAR ONE BRAVO (UTTAR 1 B)

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

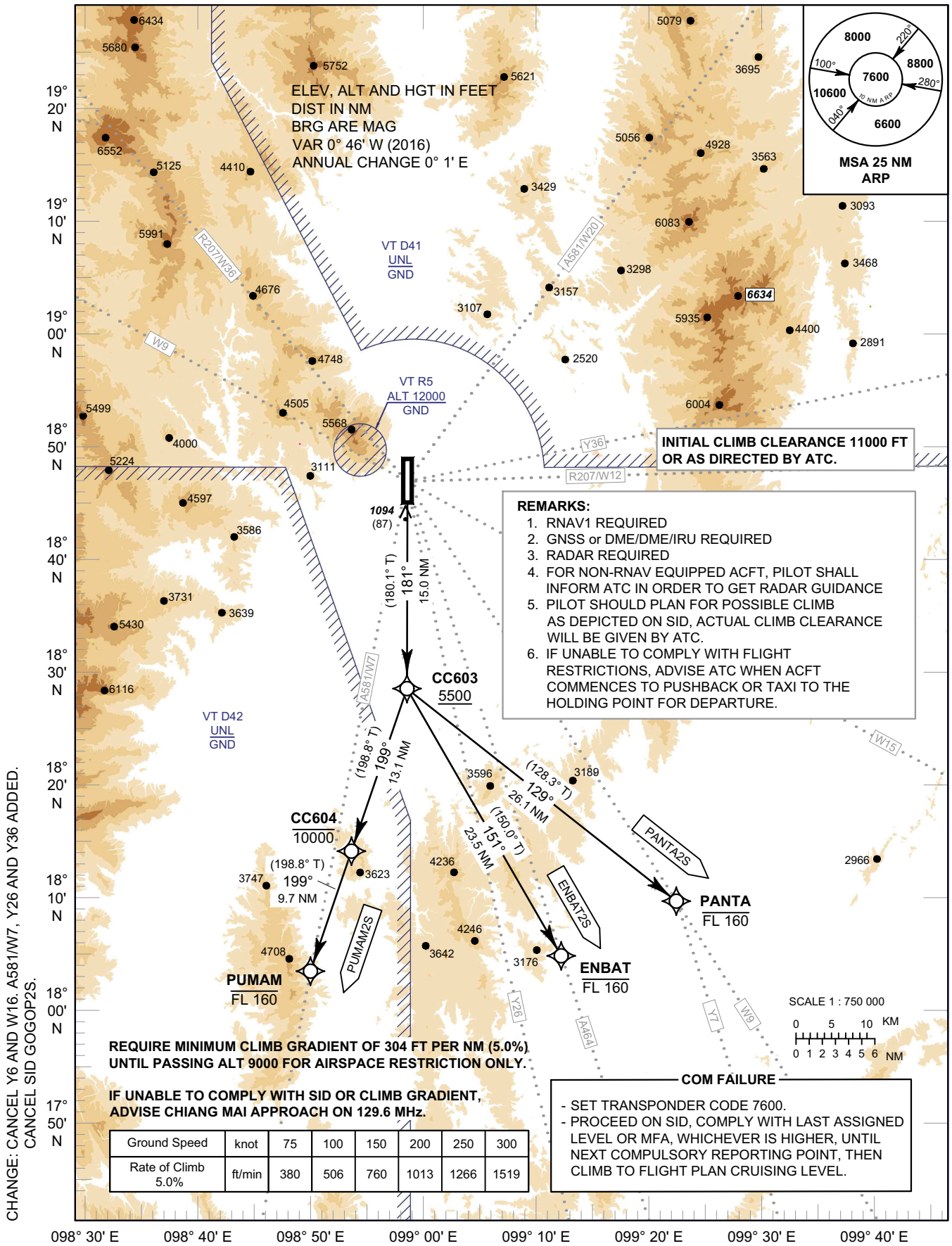
TRANSITION ALTITUDE
11000 FT

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

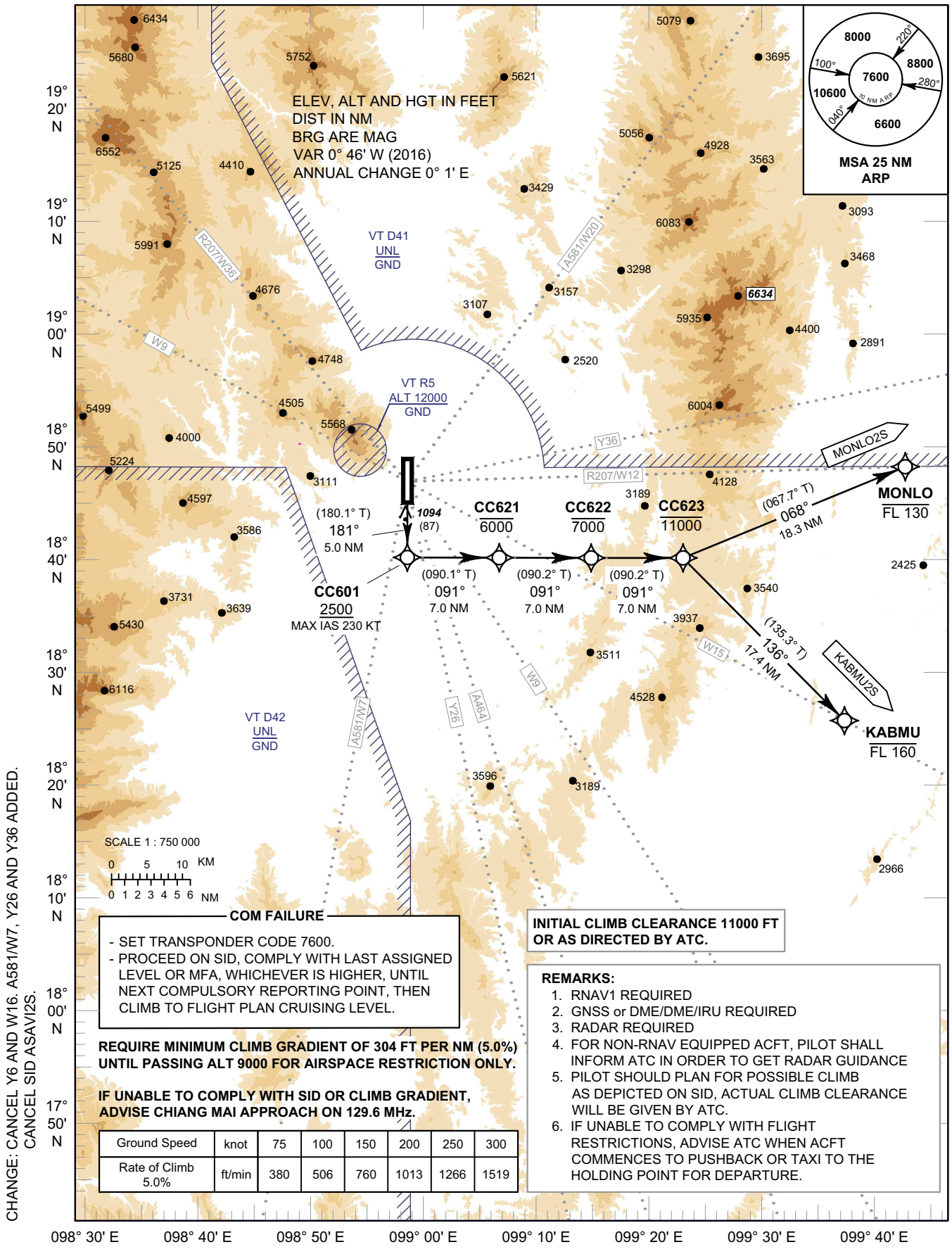
TRANSITION ALTITUDE
11000 FT

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

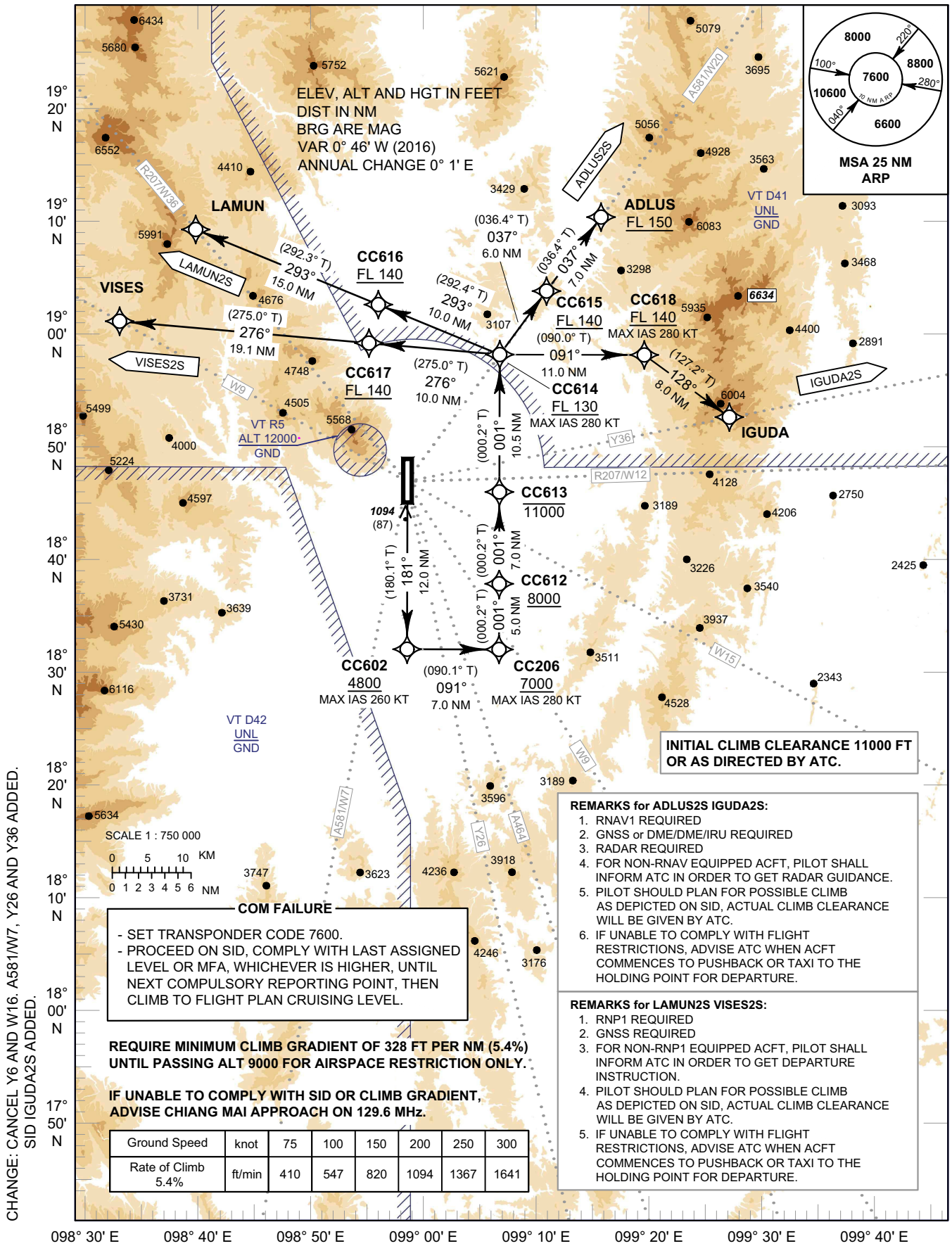
TRANSITION ALTITUDE
11000 FT

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.

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STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

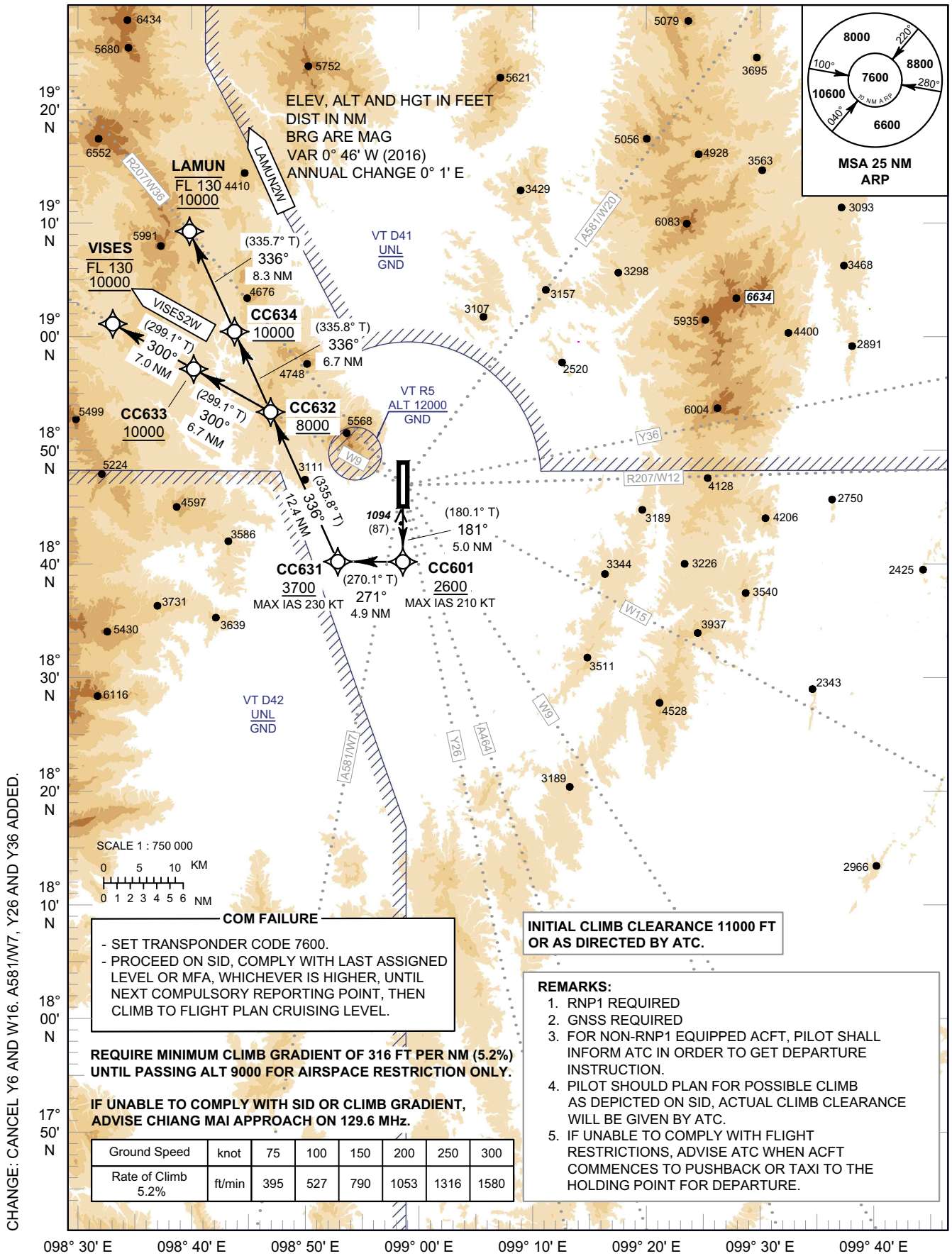
TRANSITION ALTITUDE
11000 FT

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

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

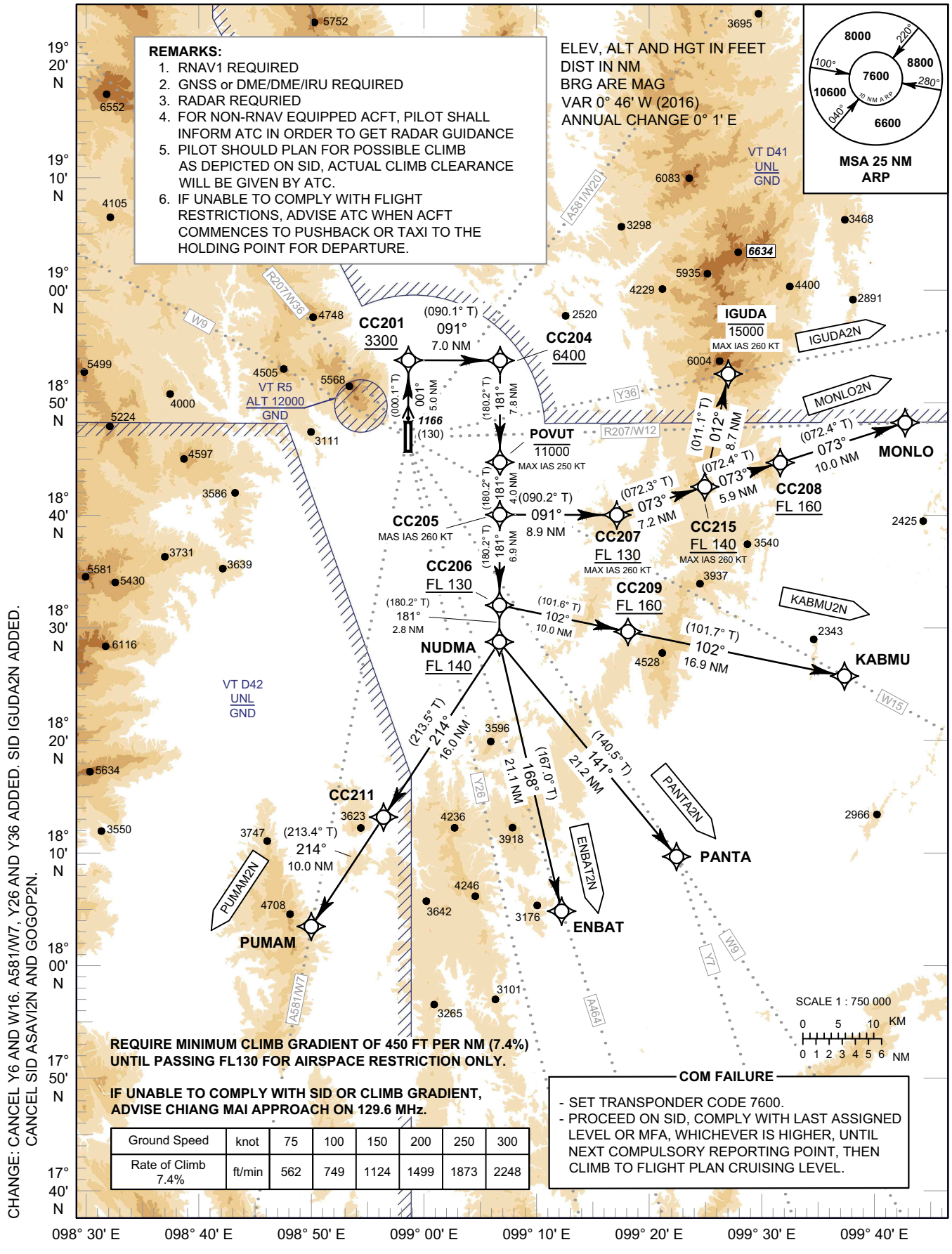
TRANSITION ALTITUDE
11000 FT

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

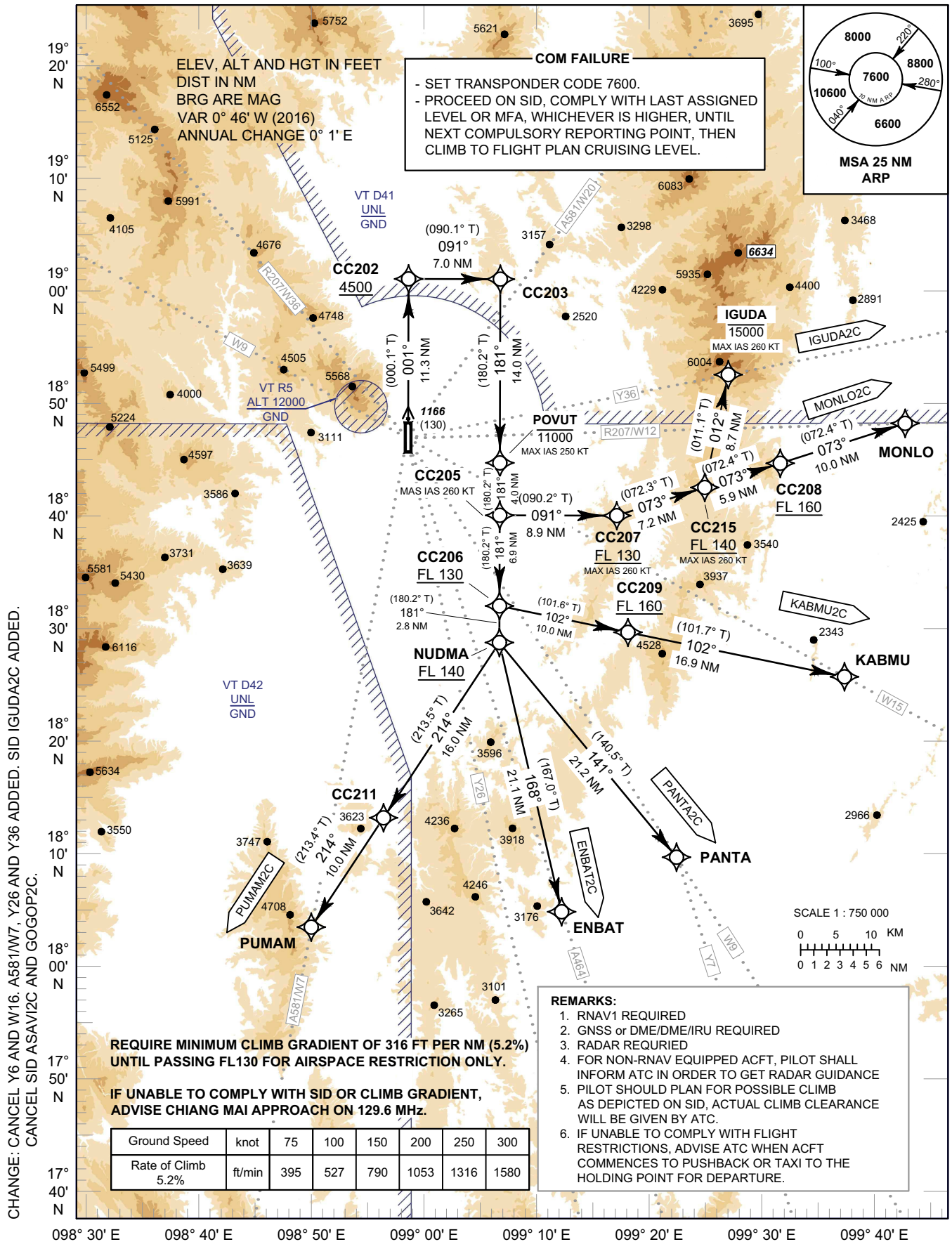
TRANSITION ALTITUDE
11000 FT

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

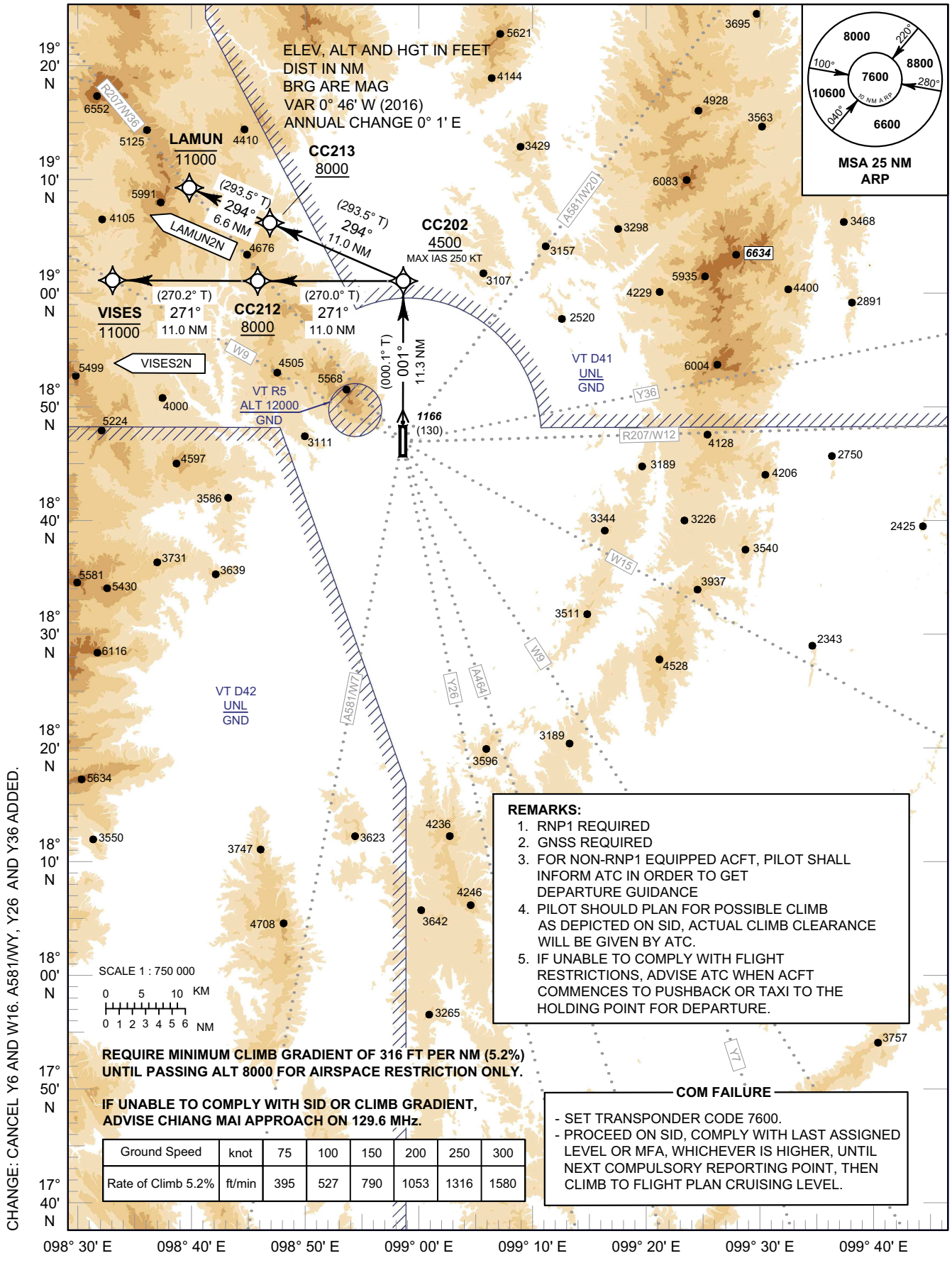
TRANSITION ALTITUDE
11000 FT

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

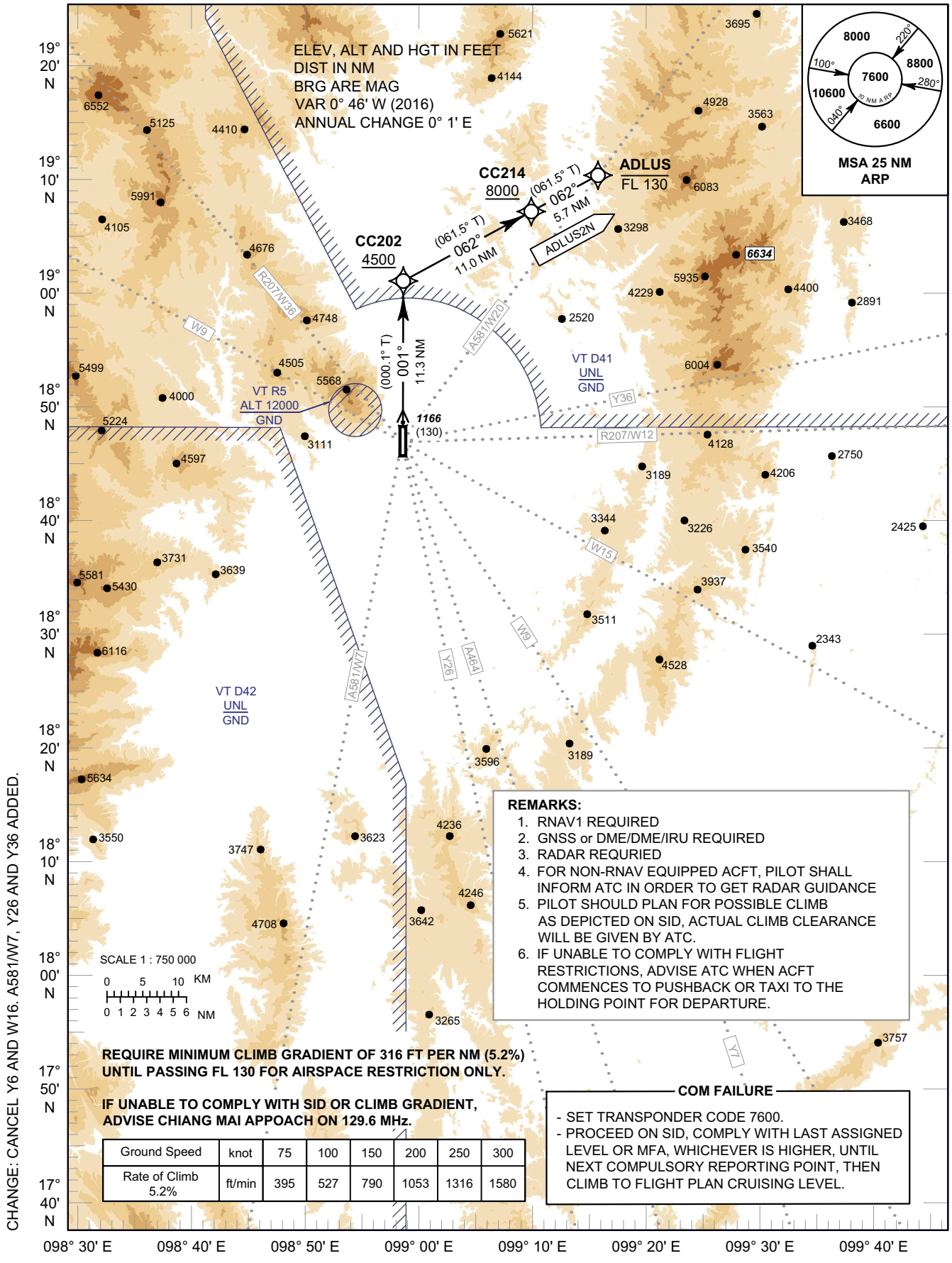
TRANSITION ALTITUDE
11000 FT

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

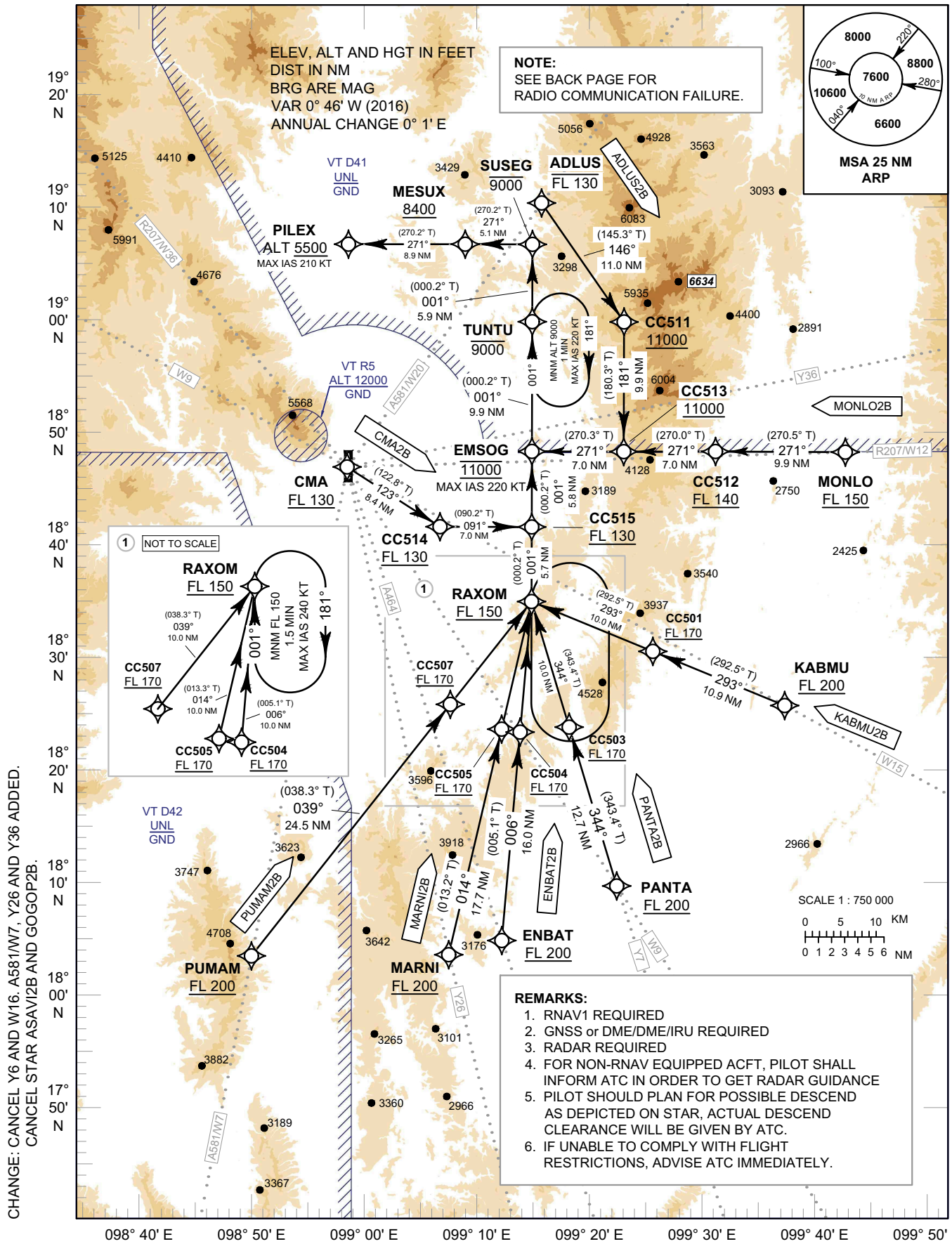
TRANSITION ALTITUDE
11000 FT

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**, DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, **THENCE CONNECT TO INTERMEDIATE APPROACH FIX PILEX FOR RNP APPROACH RWY18.**
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.

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

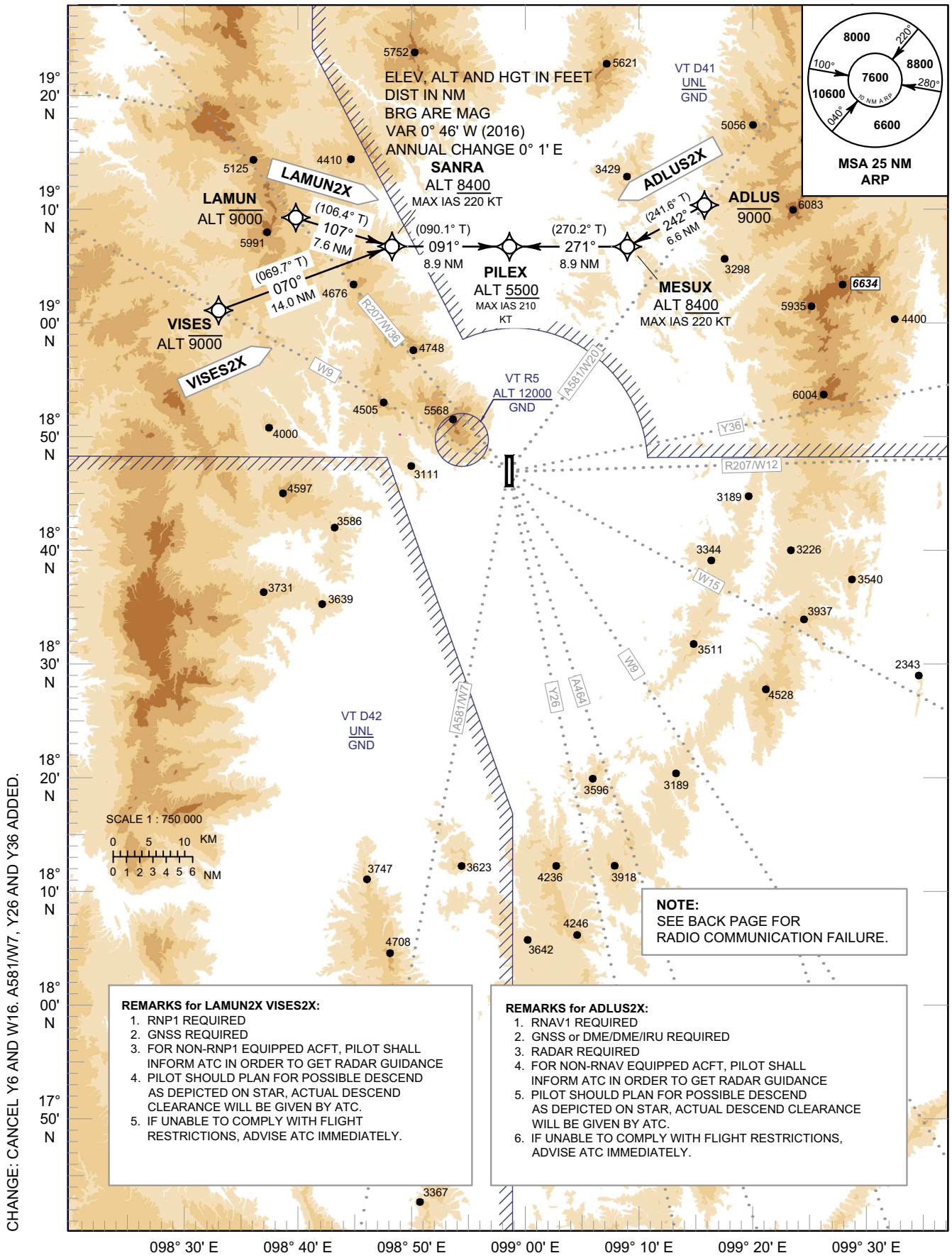
TRANSITION ALTITUDE
11000 FT

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,** DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, **THENCE CONNECT TO INTERMEDIATE APPROACH FIX PILEX FOR RNP APPROACH RWY18.**
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.

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

INTENTIONALLY BLANK

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

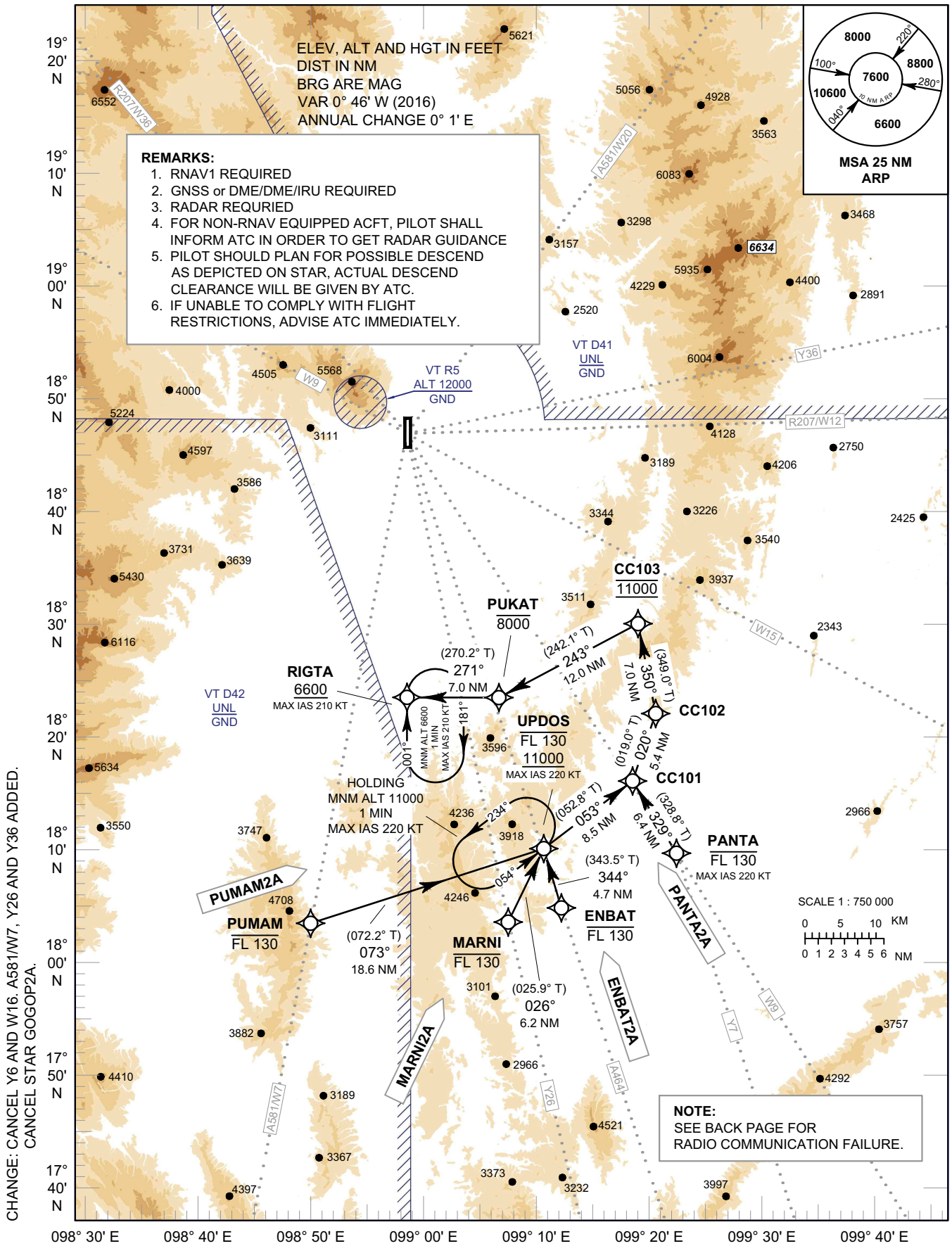
TRANSITION ALTITUDE
11000 FT

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**, DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, **THENCE CARRY OUT THE APPROPRIATE INSTRUMENT APPROACH PROCEDURE RWY36.**
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.

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

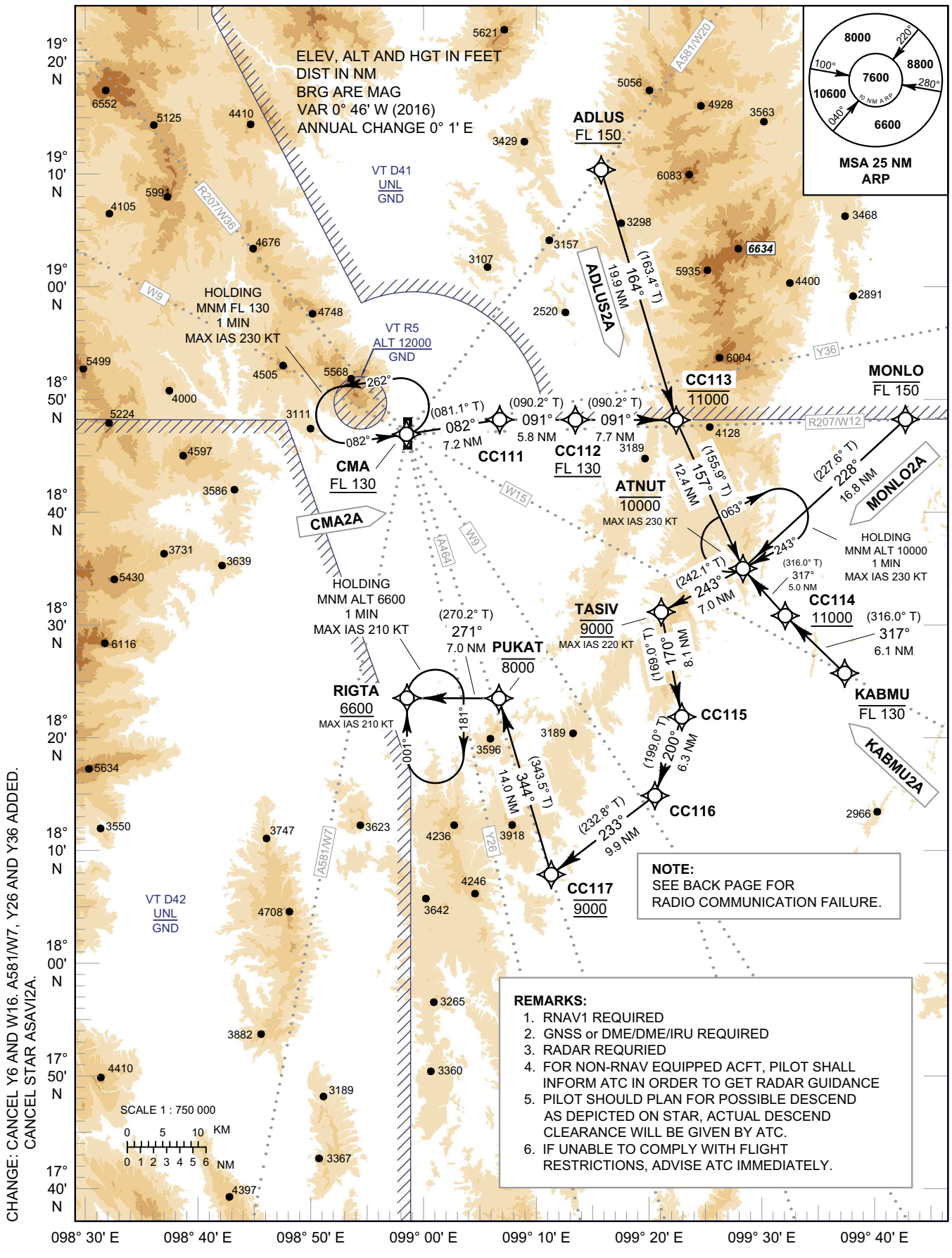
TRANSITION ALTITUDE
11000 FT

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**, DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, **THENCE CARRY OUT THE APPROPRIATE INSTRUMENT APPROACH PROCEDURE RWY36.**
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.

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

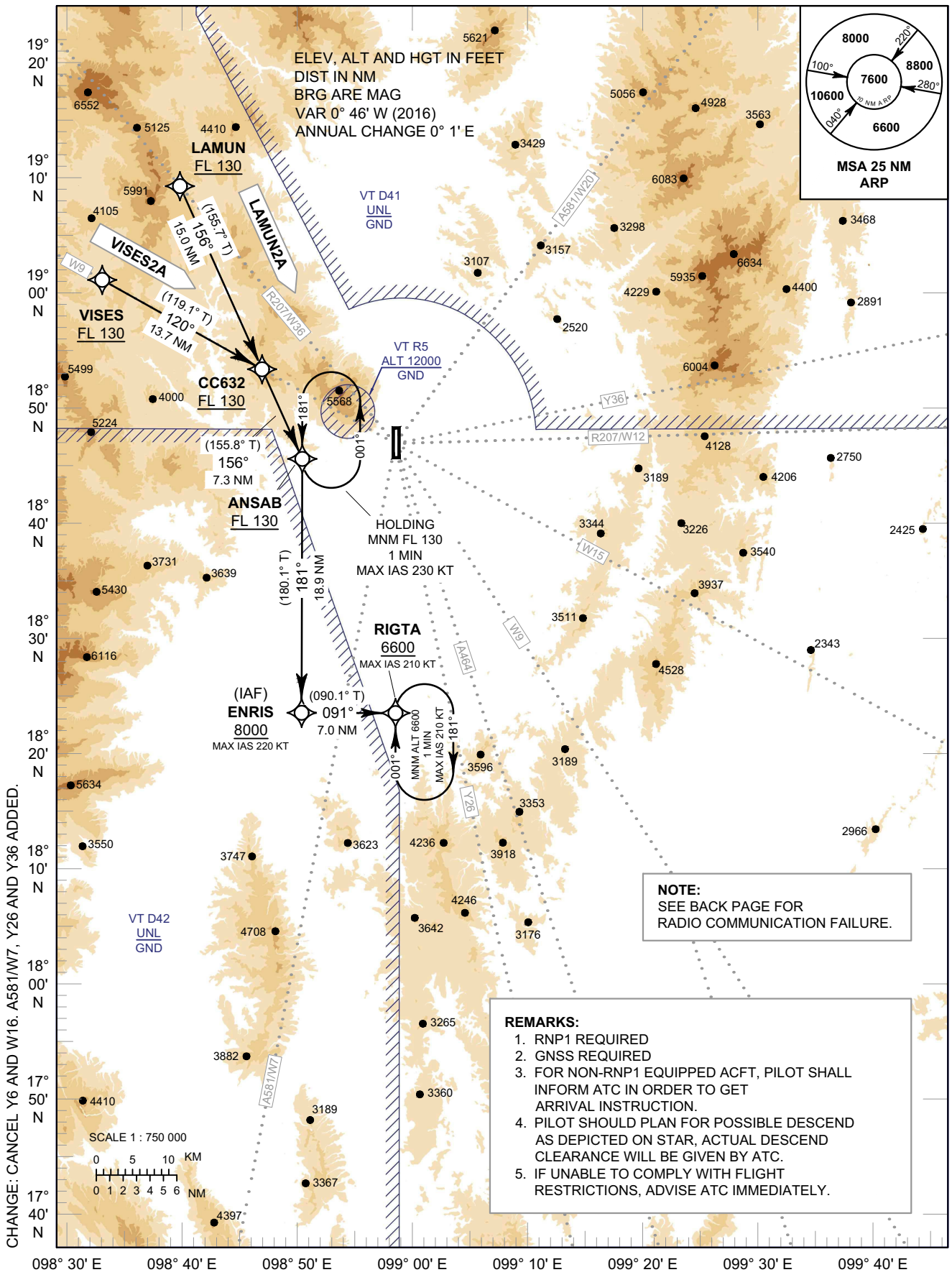
TRANSITION ALTITUDE
11000 FT

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**, DECEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, **THENCE CARRY OUT THE APPROPRIATE INSTRUMENT APPROACH PROCEDURE RWY36.**
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.

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.

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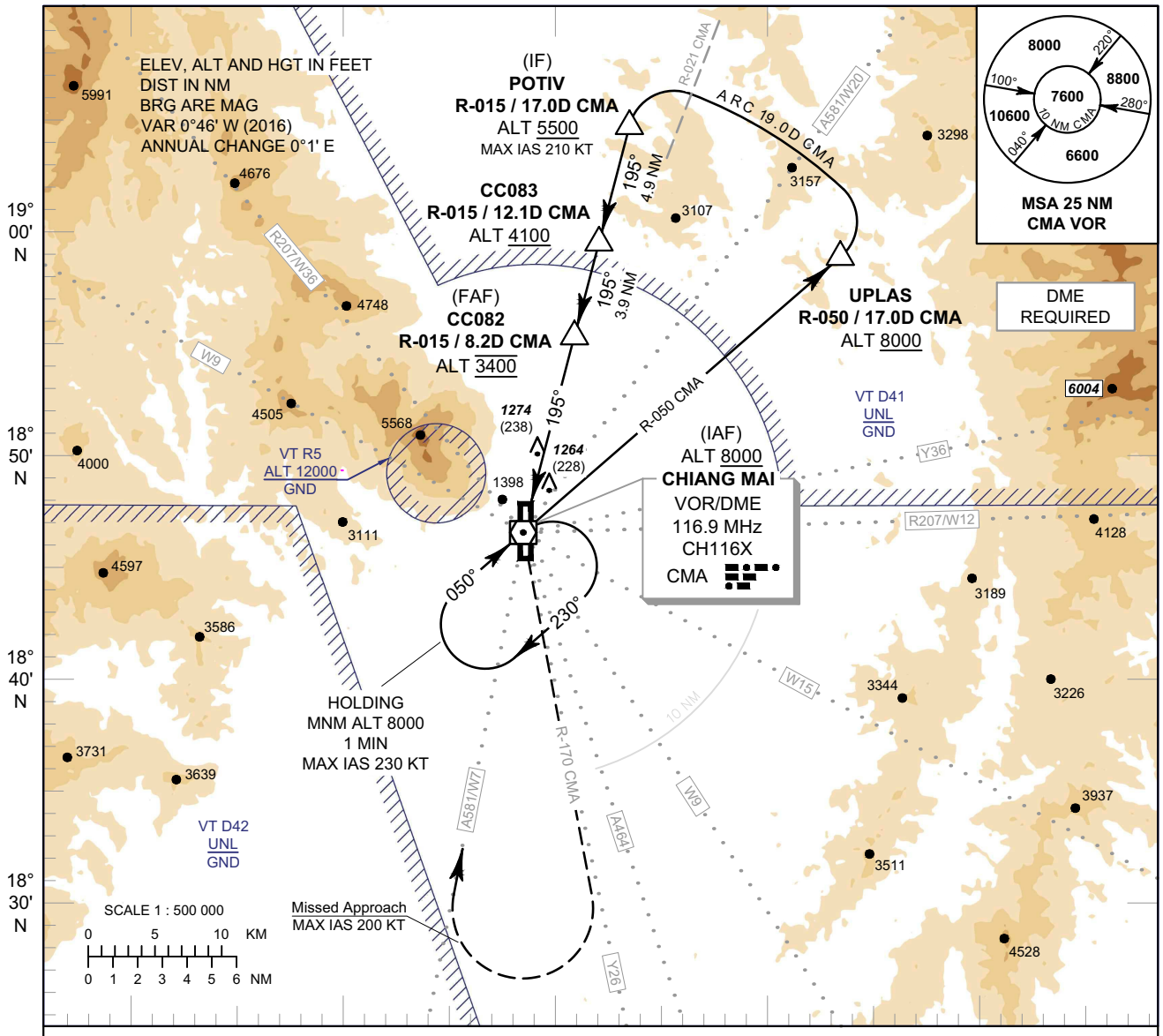
INSTRUMENT APPROACH CHART - ICAO

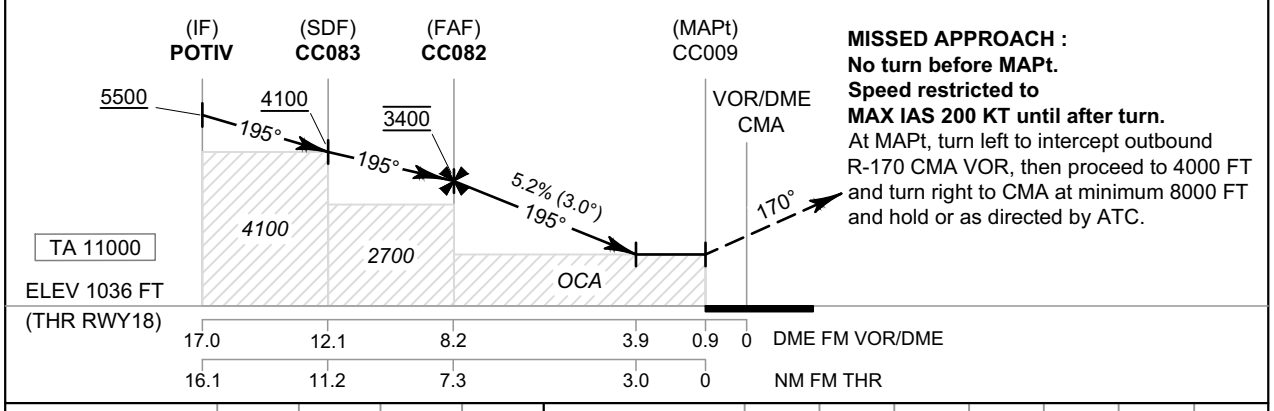
AERODROME ELEV 1036 FT
HEIGHTS RELATED TO AERODROME ELEV

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.

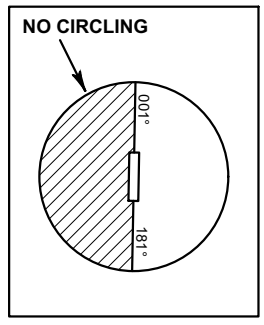
INSTRUMENT APPROACH CHART - ICAO

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.

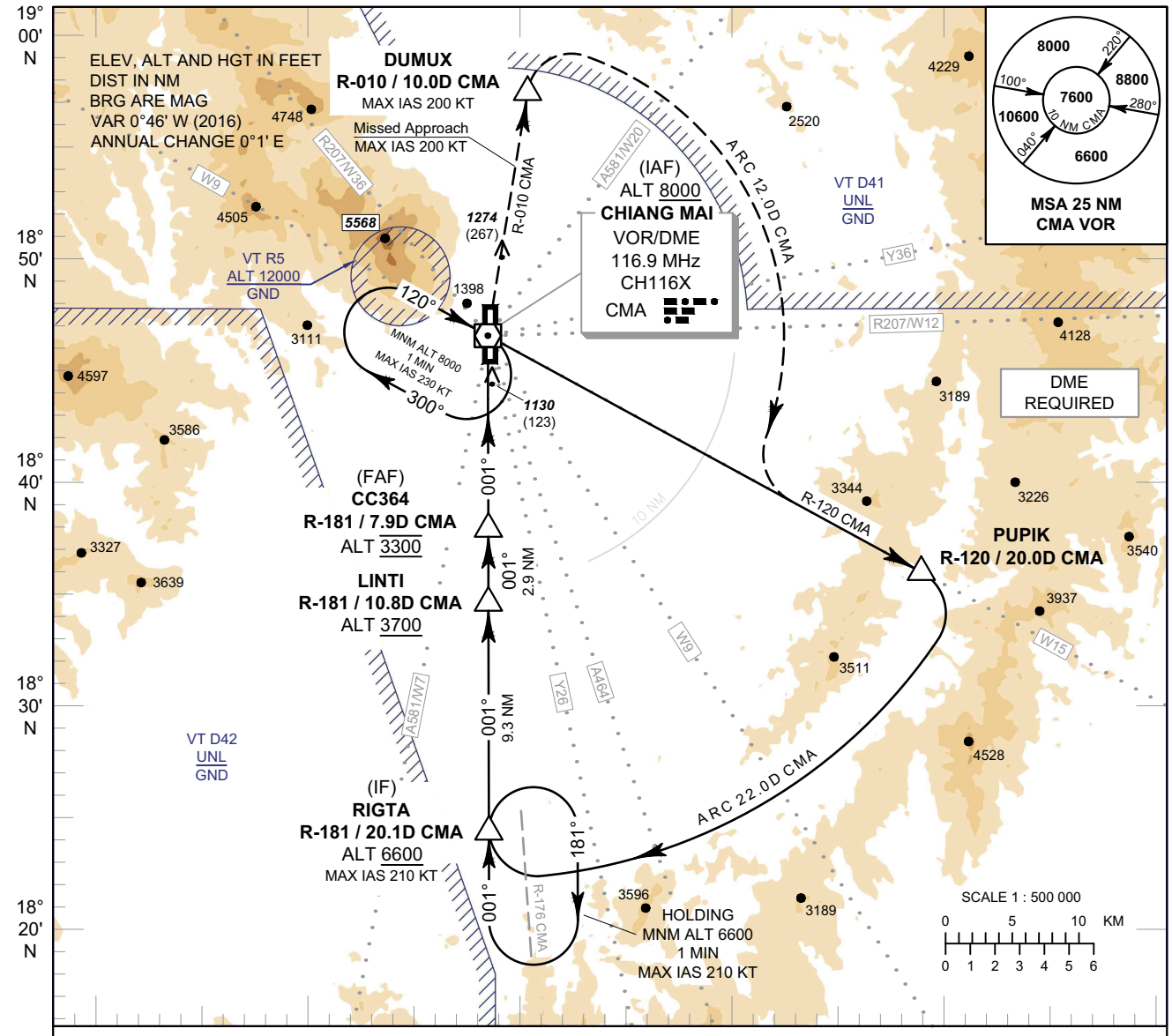
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 1036 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

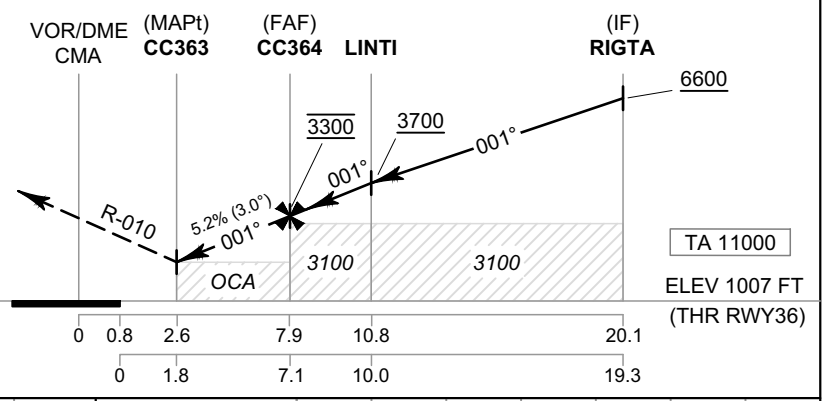
APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

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.

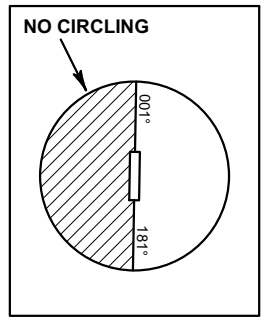
INSTRUMENT APPROACH CHART - ICAO

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) 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) CC364	R-181 / 7.9D CMA	18° 38' 02.20" N	098° 57' 41.53" E	-
(MAPt) 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) VOR	CMA	18° 45' 58.05" N	098° 57' 40.40" E	-



CHANGE: LINTI, CC364, CC363 AND VOR COORDINATES.

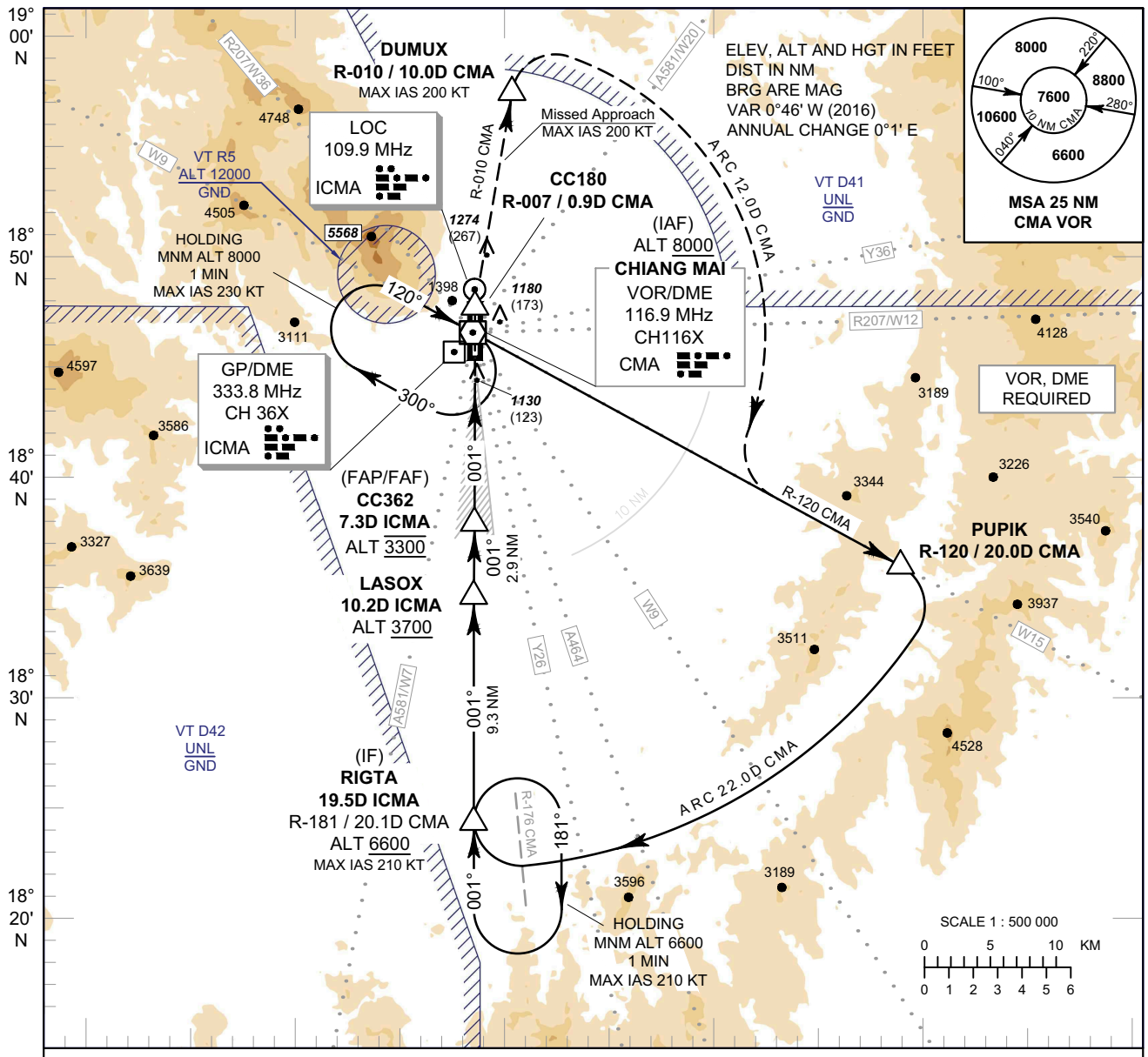
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 1036 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

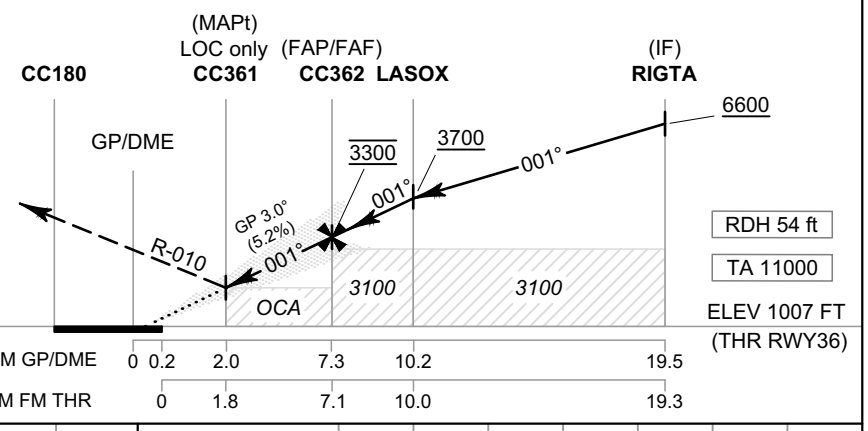
APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

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

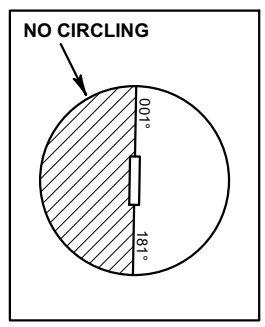
AERODROME ELEV 1036 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

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) 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) CC362	7.3D ICMA	18° 38' 03.29" N	098° 57' 45.16" E	-
(MAPt) 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) VOR	CMA	18° 45' 58.05" N	098° 57' 40.40" E	-



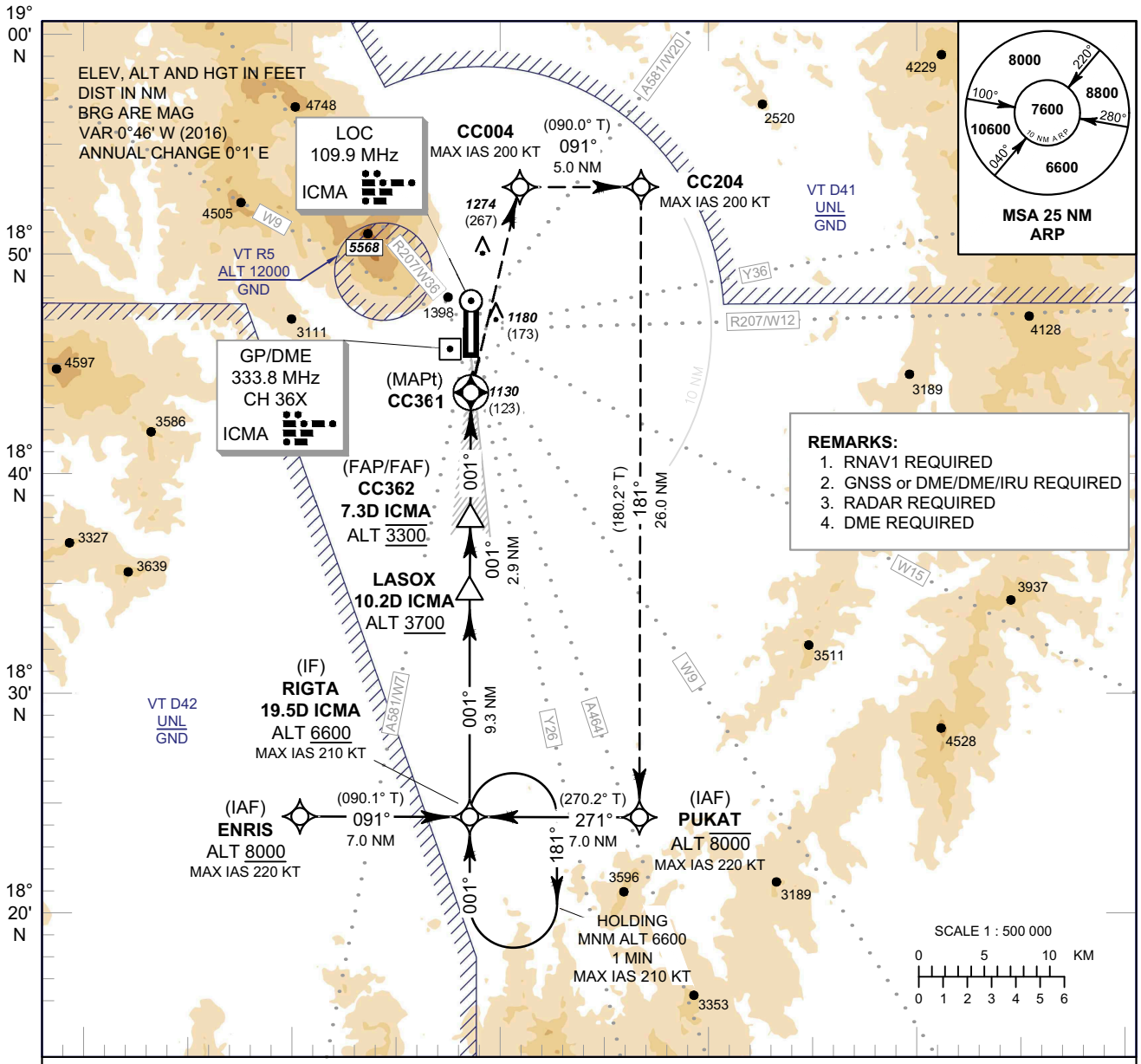
INSTRUMENT APPROACH CHART - ICAO

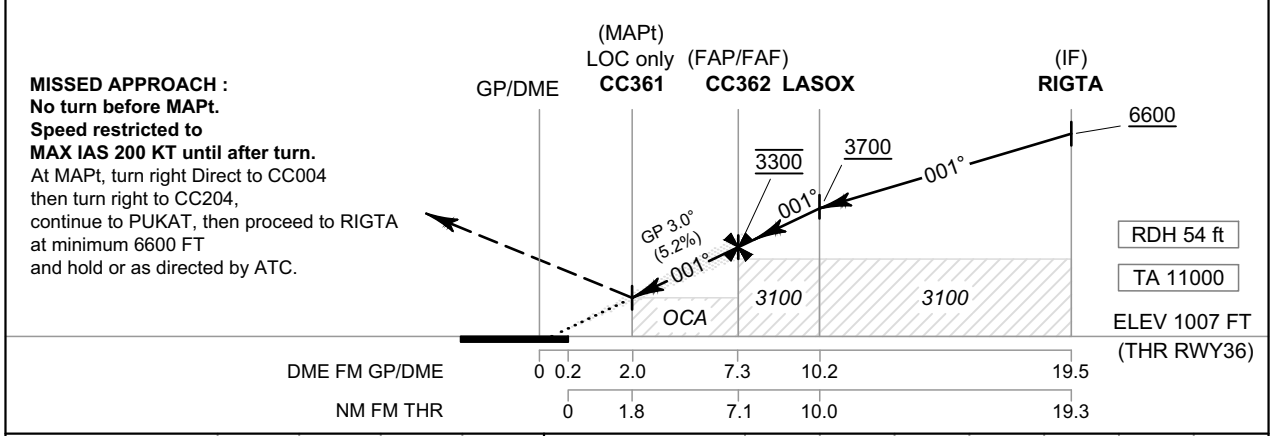
AERODROME ELEV 1036 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

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

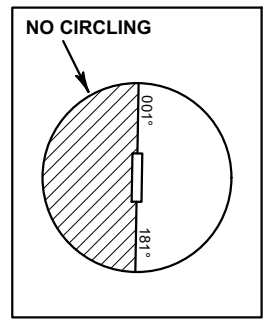
INSTRUMENT APPROACH CHART - ICAO

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) 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) CC362	7.3D ICMA	18° 38' 03.29" N	098° 57' 45.16" E	-
(MAPt) 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.

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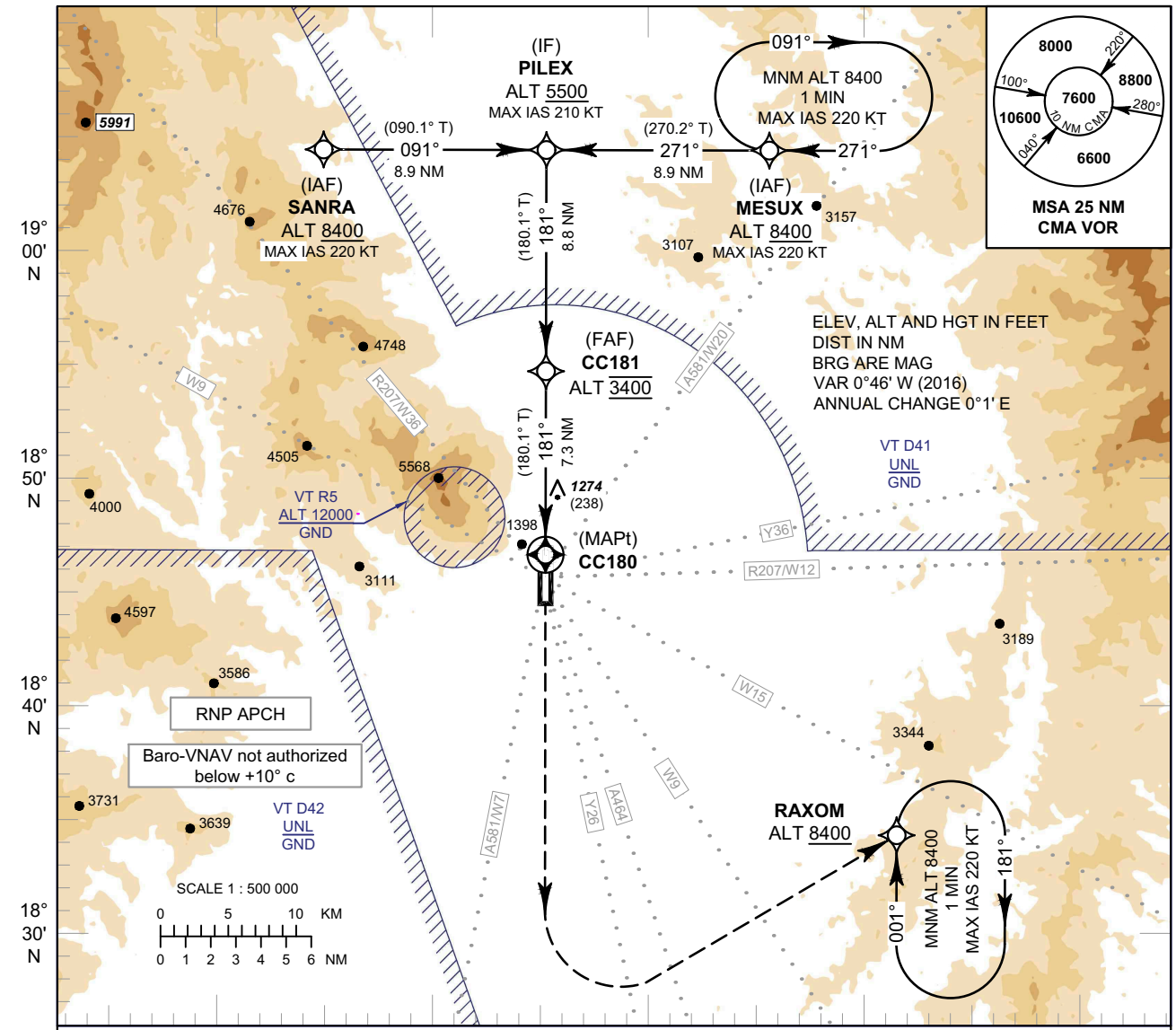
INSTRUMENT APPROACH CHART - ICAO

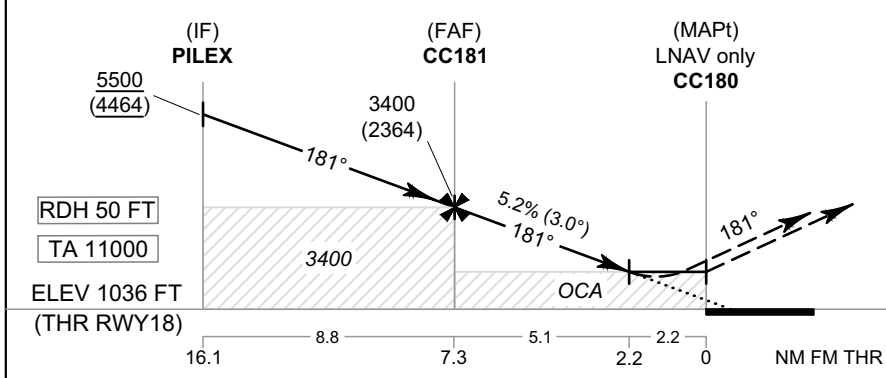
AERODROME ELEV 1036 FT
HEIGHTS RELATED TO
THR RWY18 - ELEV 1036 FT

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)

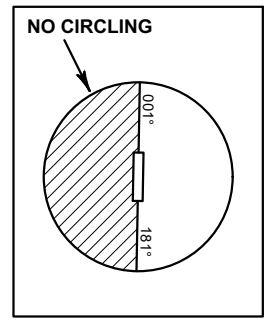
RNP RWY18

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.

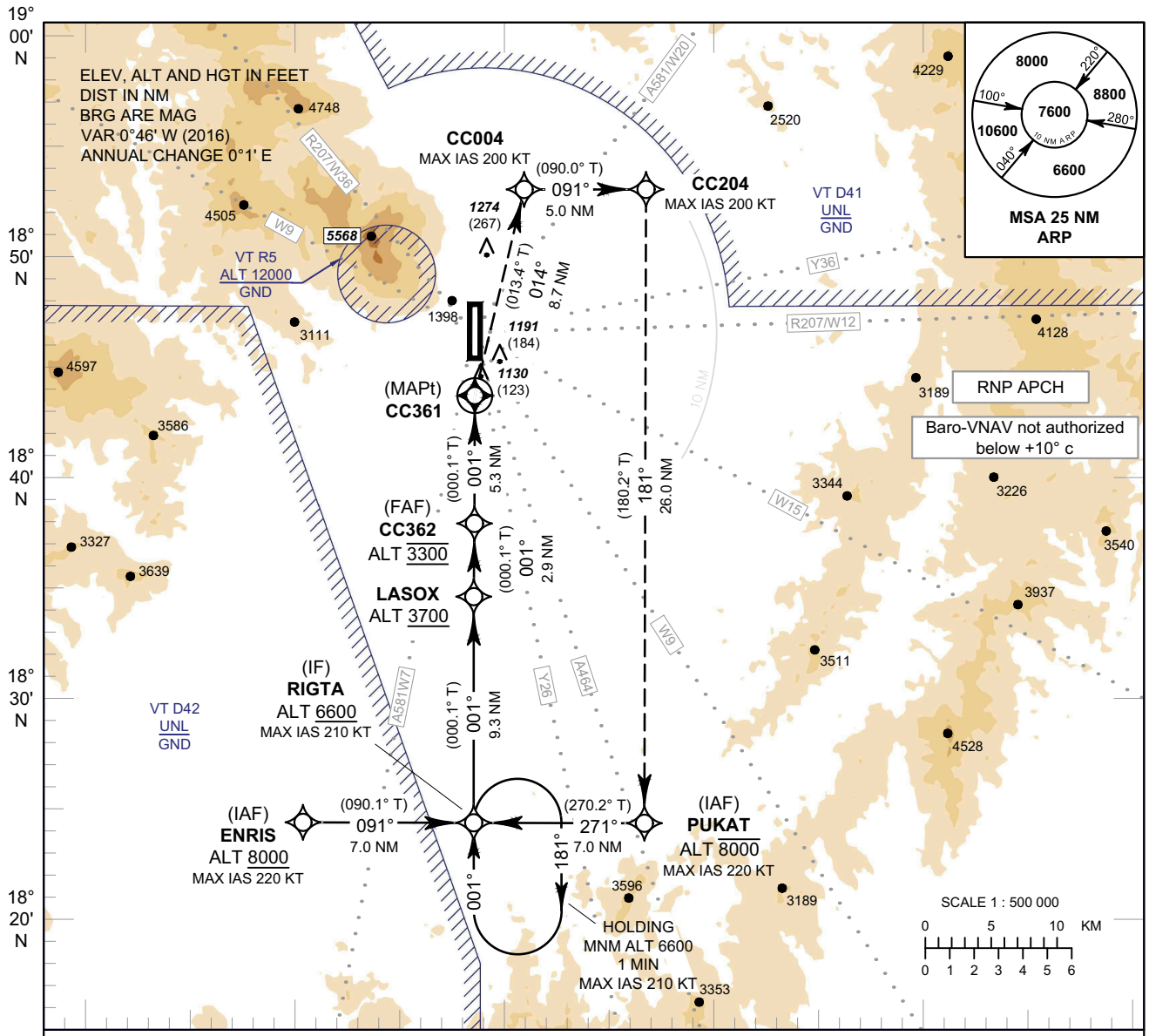
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 1036 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 1007 FT

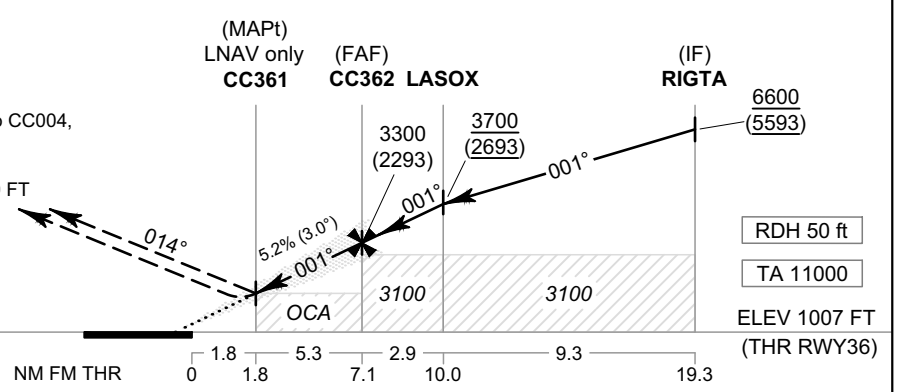
APP : 129.6 , 305.4
TWR : 118.1 , 236.6
GND : 121.9 , 275.8
ATIS : 127.2 , 301.5

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)

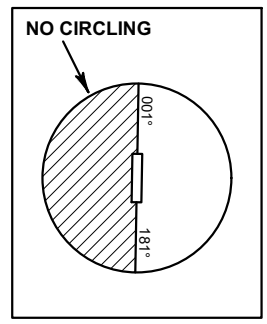
RNP RWY36

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 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 Mae Fah Luang-Chiang Rai International Airport 404 Chiang Rai-Maechan Road Rimkok-Baan Doo Sub-District Amphoe Mueang Chiang Rai 57100 Thailand Tel: +665 379 8000 +665 379 8999 Fax: +665 379 8049 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 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) Tel: +669 1818 5798 Fax:+66 5327 7897

VTCT AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Thai Airways International Public Co.,Ltd. (TG) Website: www.thaicargo.com E-mail: ceifw@thaiairways.com xbd3chiangraistation@thaiairways.com Tel: +665 379 8242 +665 379 8243 2 Hand pallet trucks 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 Website: www.pttor.com/en/product/commercial/Aviation-Fuel Tel: +665 379 3700 Fax: +665 379 3701 Fuel Refueller Truck: 2 - 1 Capacity: 22,000 L - 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: a. BAGS Ground Services Co.,Ltd. Website: www.bags-groundservices.com E-mail: cei-stationmanager@bags-groundservices.com Tel: +669 5524 4914 +669 3575 1133 b. Chiang Mai Ground Handling Services Co.,Ltd. E-mail: ground.cgs@yahoo.com Tel: +668 3914 6495 +668 0495 9391 c. H.S. Aviation Co.,Ltd. Website: www.hsavia.aero E-mail: ops@hsavia.aero Tel: +668 1901 2070 +668 1916 6294 Fax: +662 531 0509 d. Thai Airways International Public Co.,Ltd. (TG) Website: www.thaigroundservices.com E-mail: ceikk@thaiairways.com ceikloffice@thaiairways.com Tel: +665 379 8212 +668 9555 2901 +665 379 8205 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 Bank open: 0200-1300 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 Surface: Concrete 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 TWY B: 30 M, Concrete surface, PCR 1500/R/D/W/T TWY C: 35 M, Concrete surface, PCR 1500/R/D/W/T TWY D: 23 M, Concrete surface, PCR 1500/R/D/W/T TWY P: 23 M, Concrete surface, PCR 1500/R/D/W/T
3	Altimeter checkpoint location and elevation	Location: At Apron 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. 2. Taxiway Edge is provided 3. Illuminated guidance signs are provided at various intersections 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). 5. Nose-Wheel guidelines at apron. 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 RWY LGT: THR, RWY EDGE and RWY End lights TWY marking: Centre line, Edge and RWY Holding Position 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. 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, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 30 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 379 3062-3, +665 379 3698-9 Fax: +665 379 3061
6	Flight documentation 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 Observation System (AWOS), Low Level Wind Shear 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% 0.05%	NIL NIL	NIL NIL	3120x300 3120x300	240x150 300x150	NIL NIL	YES NIL	The Runway blast pad are provided beyond both Runway end; the width is 60 M and the length is 120 M. each.

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 900 M LIH	Green	PAPI 3° Located either side of RWY, 420 M behind RWY THR (63.9 FT)	NIL	NIL	3000 M 60 M White Last 600 M 60 M Amber LIH	Red	NIL	NIL
21	SALS 420 M LIH	Green	PAPI 3° Located either side of RWY, 377 M behind RWY THR (59.2 FT)	NIL	NIL	3000 M 60 M White Last 600 M 60 M Amber 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 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. Switch-over time 12 SEC.
5	Remarks	NIL

VTCT AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 Language(s)	Chiang Rai Tower 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 257.8 MHZ 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Chiang Rai Tower	118.4 MHZ 236.6 MHZ 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: 1. 25 NM – Bearing 001º-140º at altitude 5 500 FT – Bearing 281º-360º at altitude 7 500 FT 2. 40 NM – Bearing 141°-180° at altitude 6 000 FT – 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: 1. 40 NM – Radial 141º-180º altitude should not below 5 000 FT – Radial 181º-210º altitude should not below 7 500 FT – Radial 211º-255º altitude should not below 9 000 FT – Radial 256º-265º altitude should not below 10 000 FT – Radial 266º-270º altitude should not below 9 000 FT 2. 20 NM (Due to border limited) – Radial 271º-340º altitude should not below 6 500 FT – 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 b) Glide Path 3º. 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. 2.In case of facing South: Self-manoeuvring operation will be available if stand 4 is vacant. 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. 2.In case of facing South: Self-manoeuvring operation will be available if stand 5 is vacant. 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. 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.

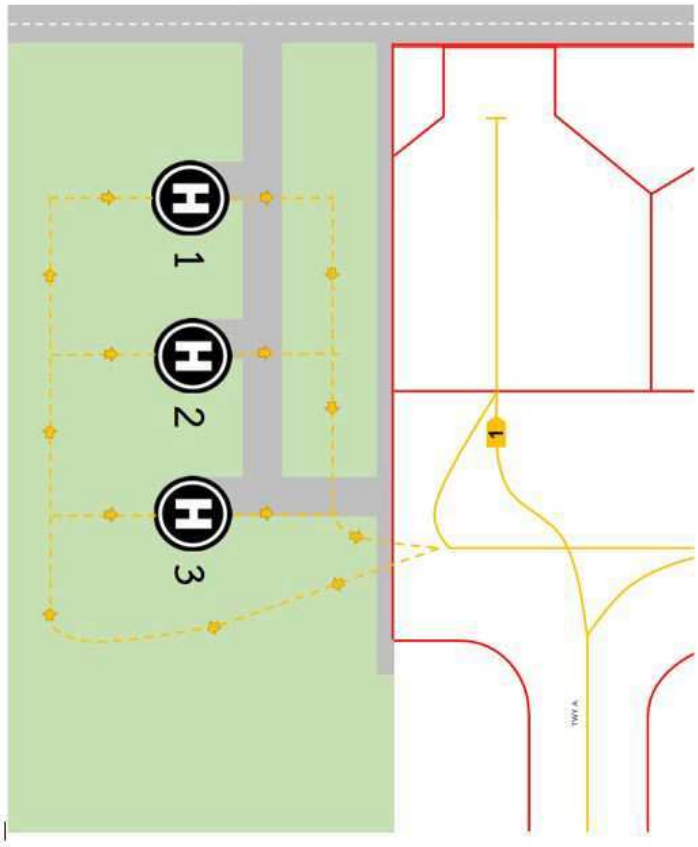
6.4 Outbound operation

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 All aircraft wishing to operate at Mae Fah Luang-Chiang Rai International Airport shall adhere to the following procedures;



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

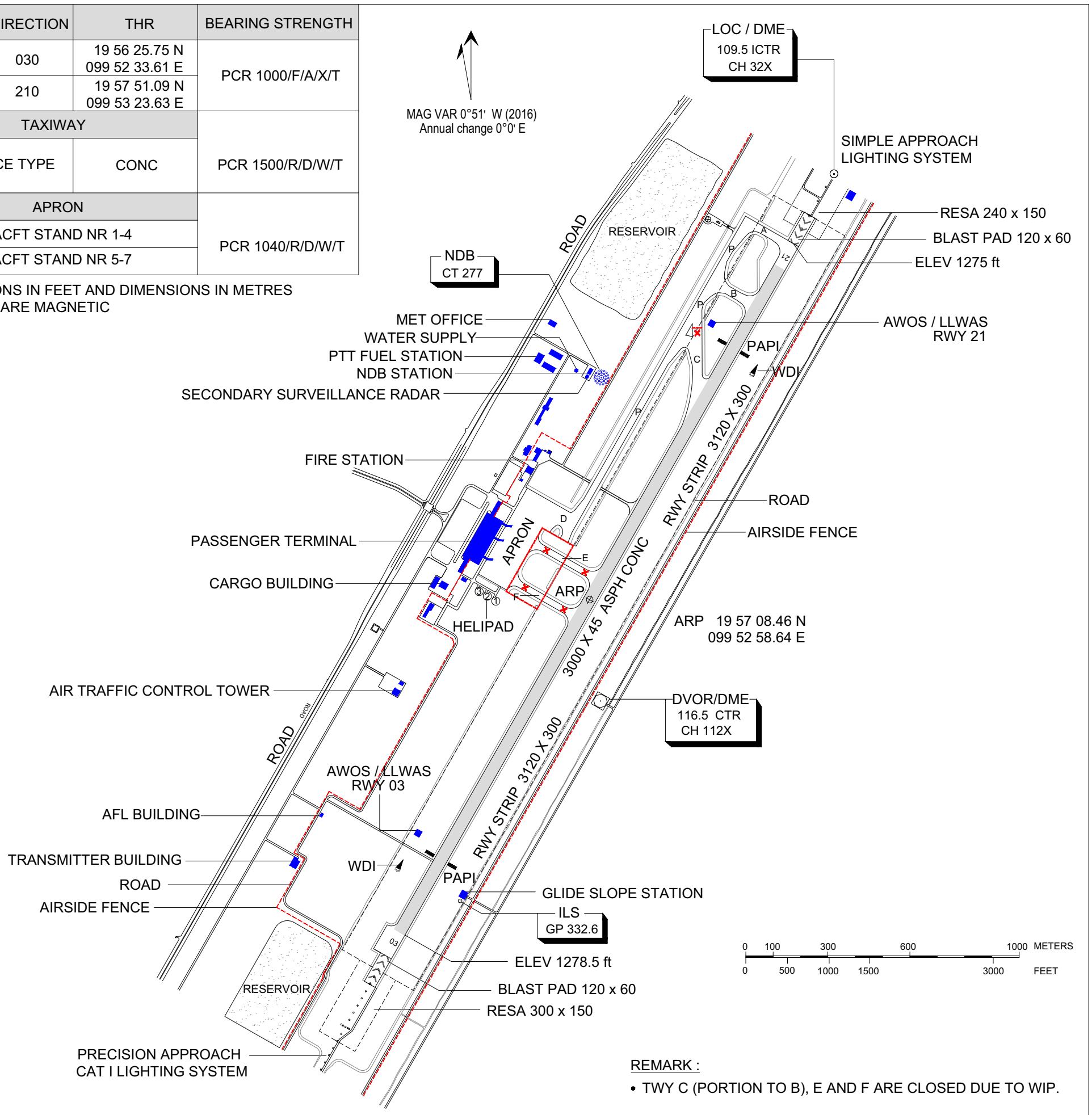
ELEV 1280 ft

TWR 118.4

CHIANG RAI / MAE FAH
Luang-Chiang Rai Intl.

RWY	DIRECTION	THR	BEARING STRENGTH
03	030	19 56 25.75 N 099 52 33.61 E	PCR 1000/F/A/X/T
21	210	19 57 51.09 N 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.

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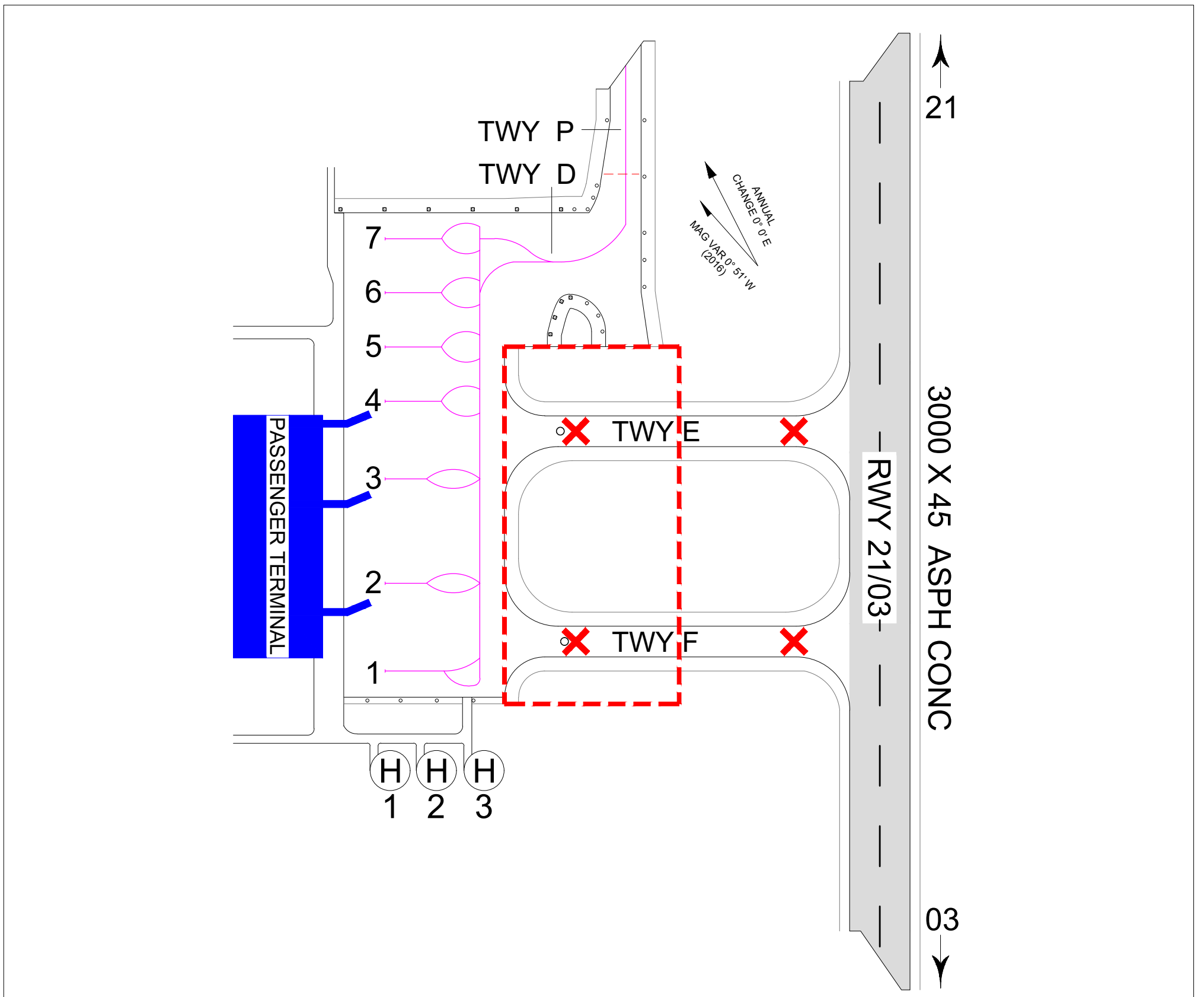
AIRCRAFT PARKING/
DOCKING CHART - ICAO

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

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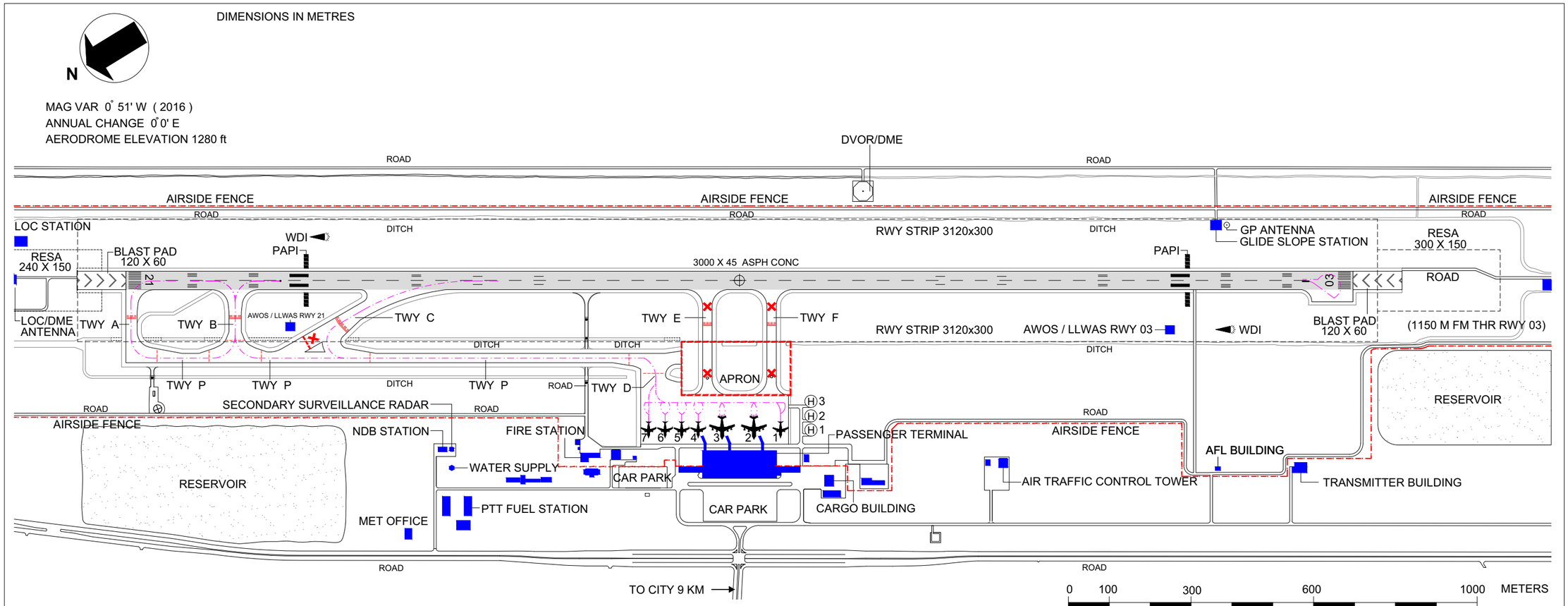
Mae Fah Laung-Chiang Rai International Airport / Aerodrome Ground Movement Chart



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.

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AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

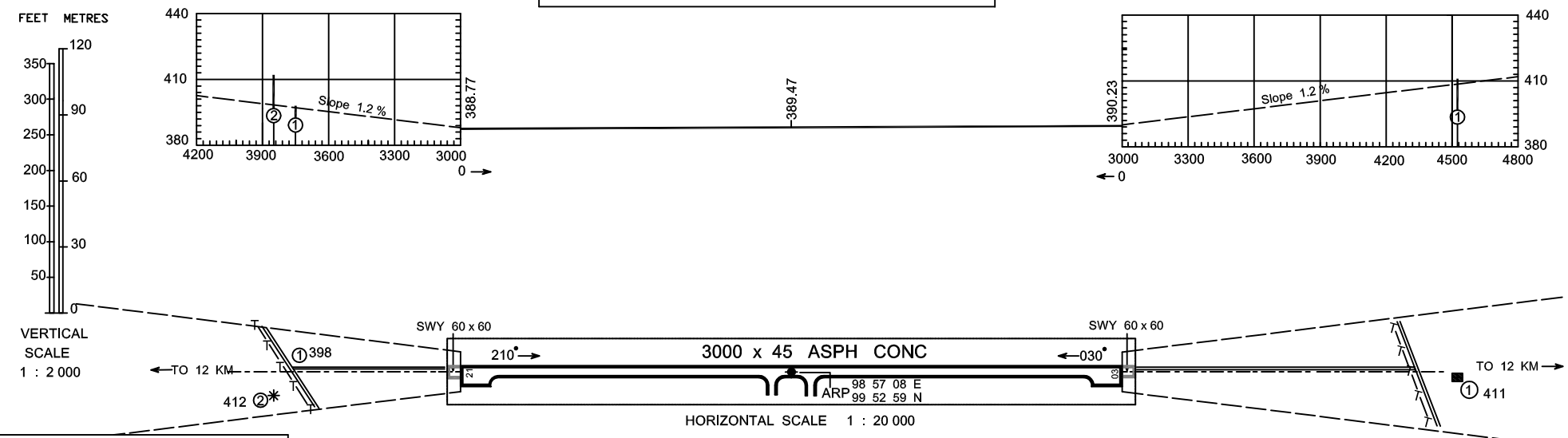
Mae Fah Luang-Chiang Rai International Airport

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

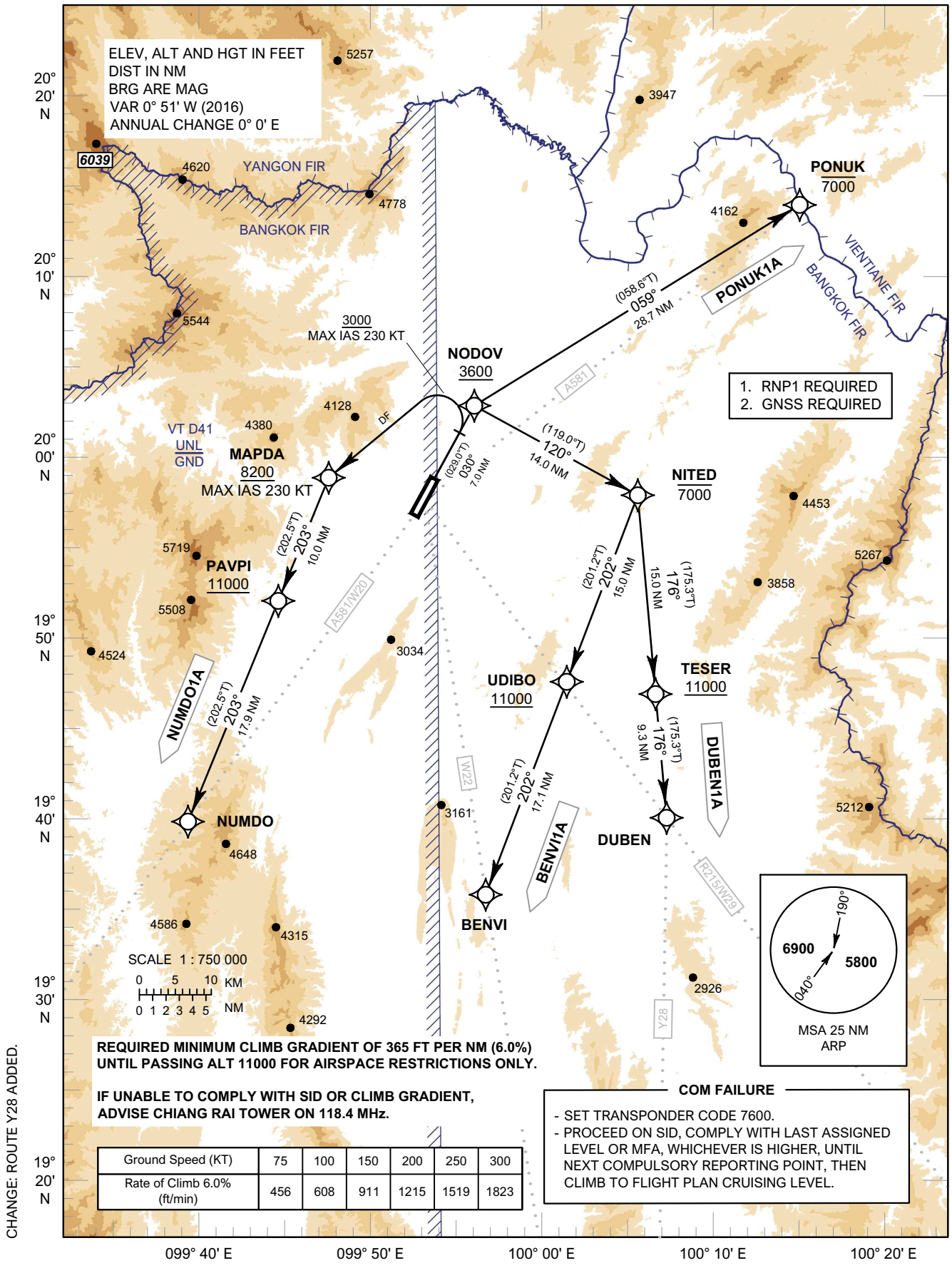
TRANSITION ALTITUDE
11000 FT

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

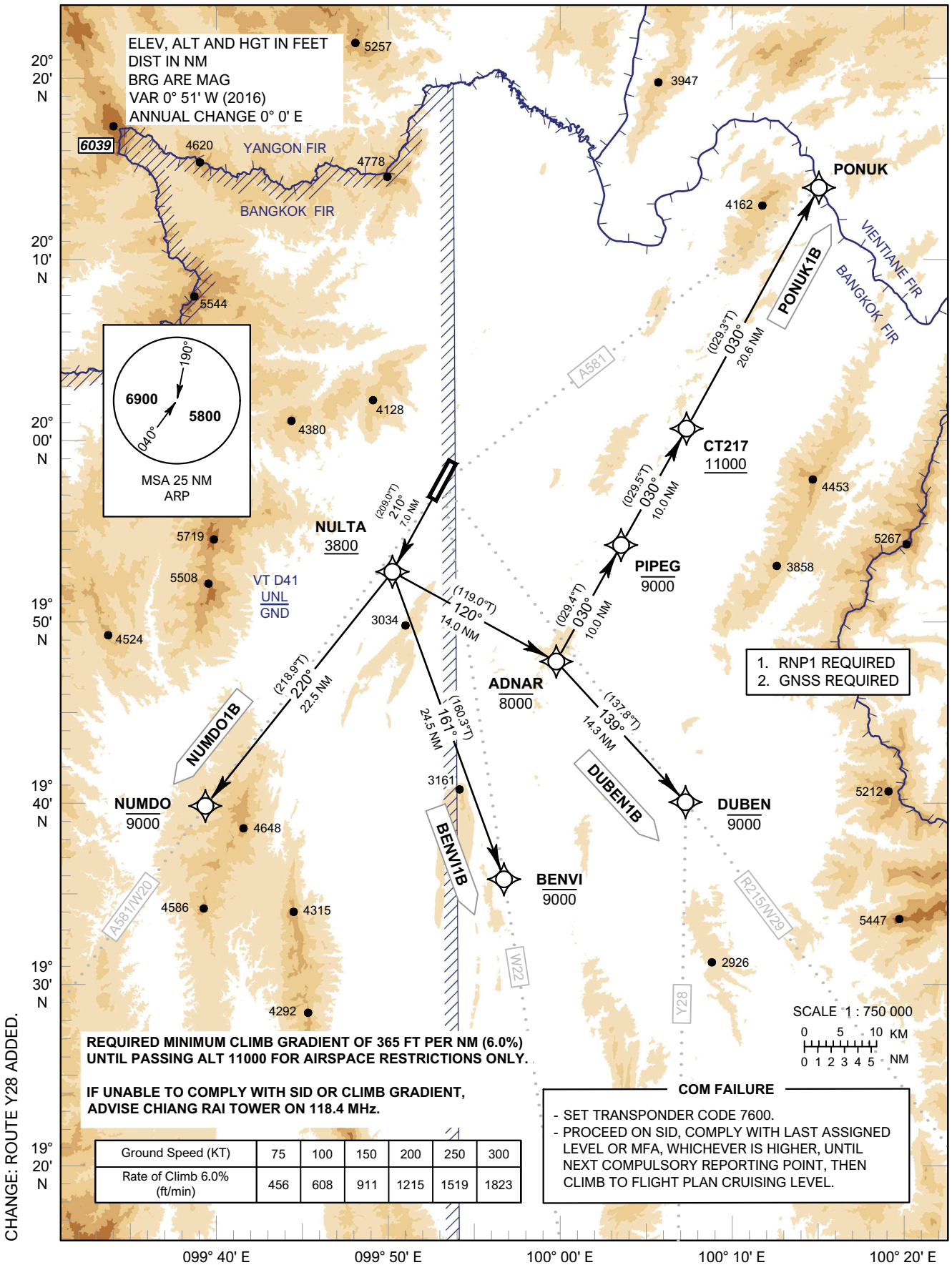
TRANSITION ALTITUDE
11000 FT

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.

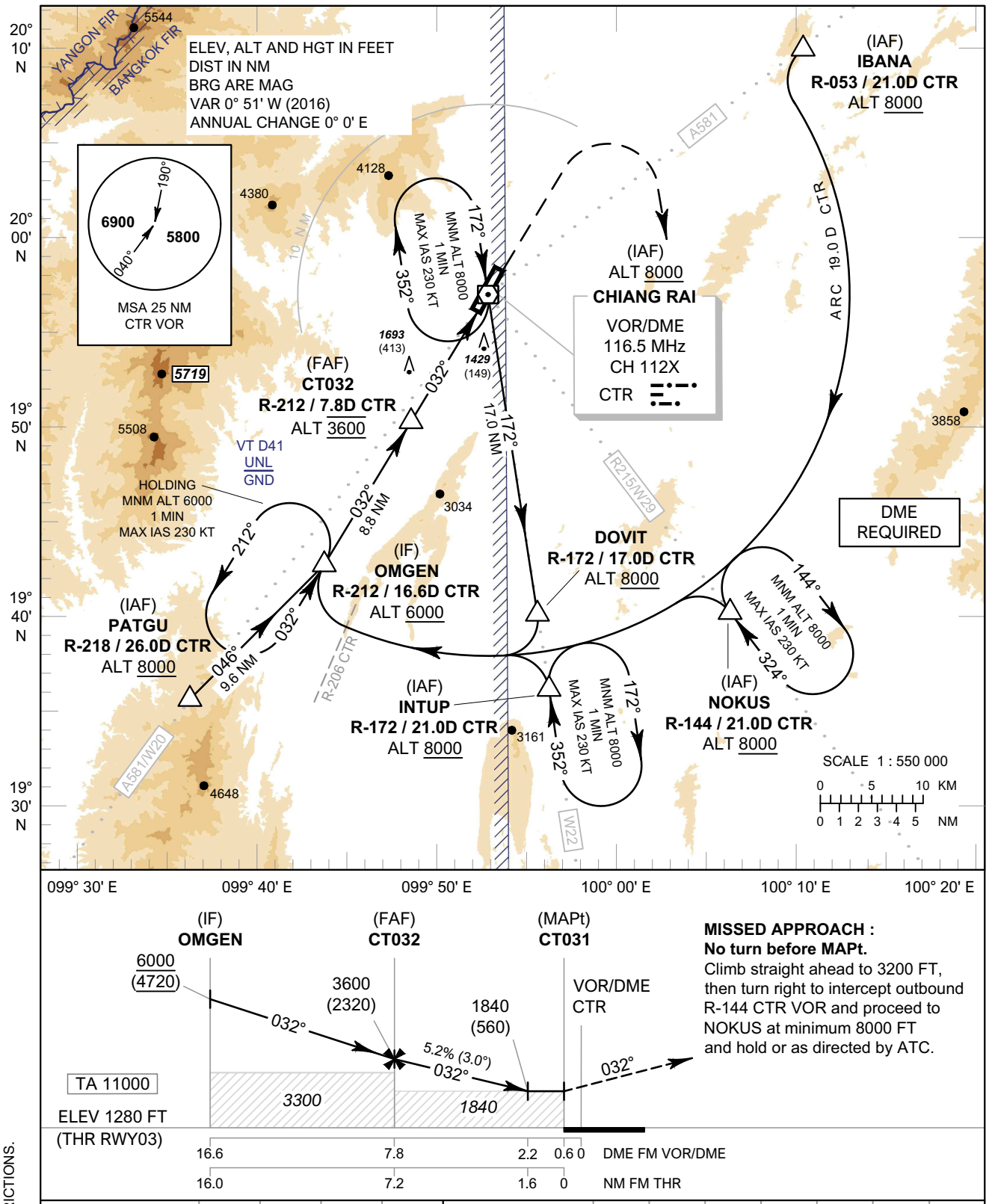
INSTRUMENT APPROACH CHART - ICAO

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.

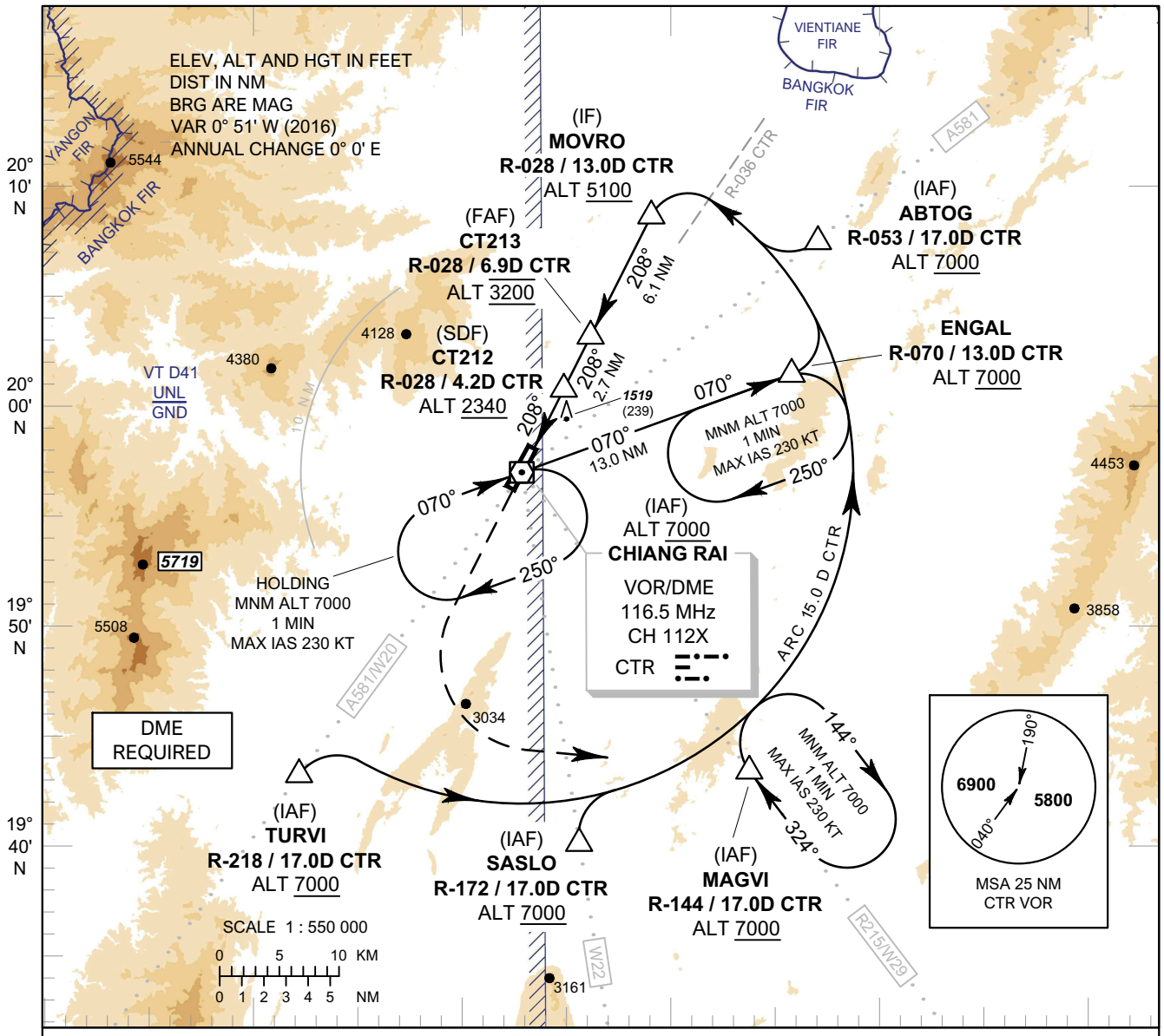
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 1280 FT
HEIGHTS RELATED TO AERODROME ELEV

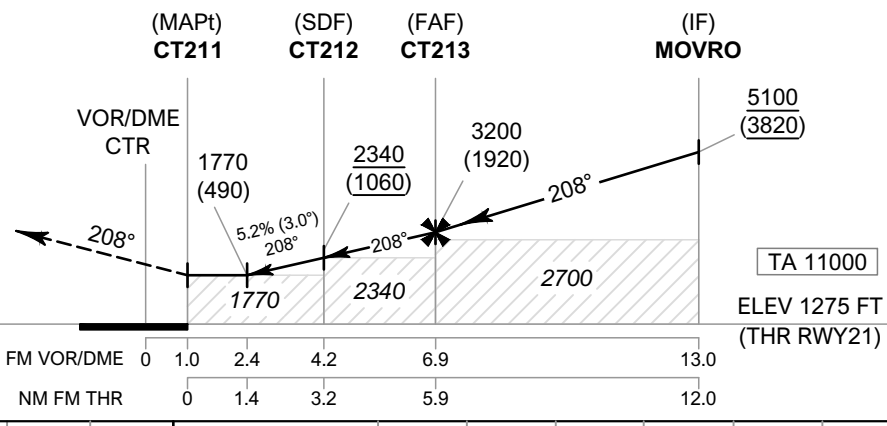
APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

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.

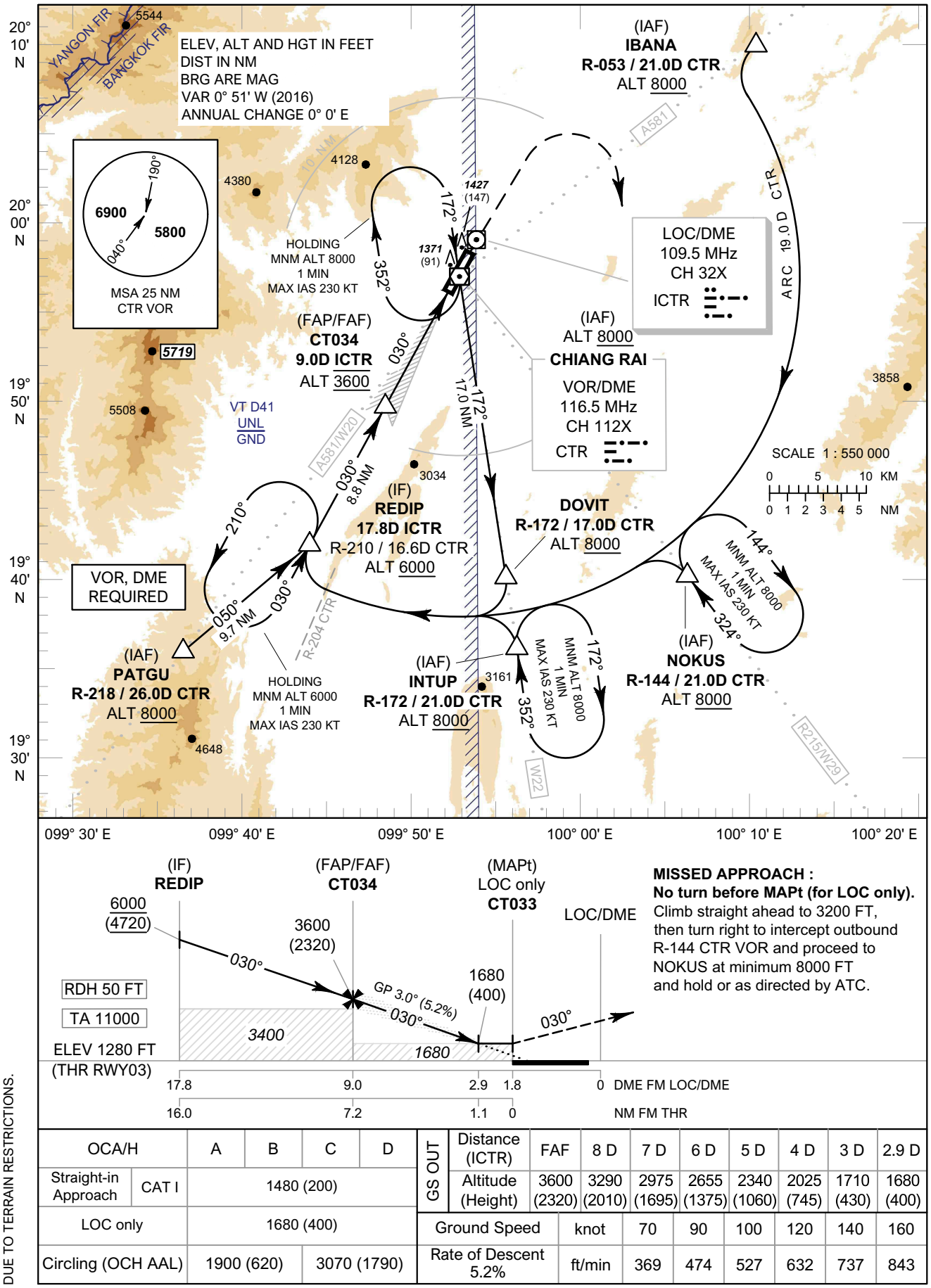
INSTRUMENT APPROACH CHART - ICAO

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) 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) REDIP	17.8D ICTR	19° 42' 22.84" N	099° 44' 20.05" E
(FAP/FAF) CT034	9.0D ICTR	19° 50' 06.49" N	099° 48' 51.27" E
(MAPt @ THR03) 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) VOR	CTR	19° 56' 55.89" N	099° 52' 59.30" E

CHANGE: VOR, LOC/DME, AND GP COORDINATES.

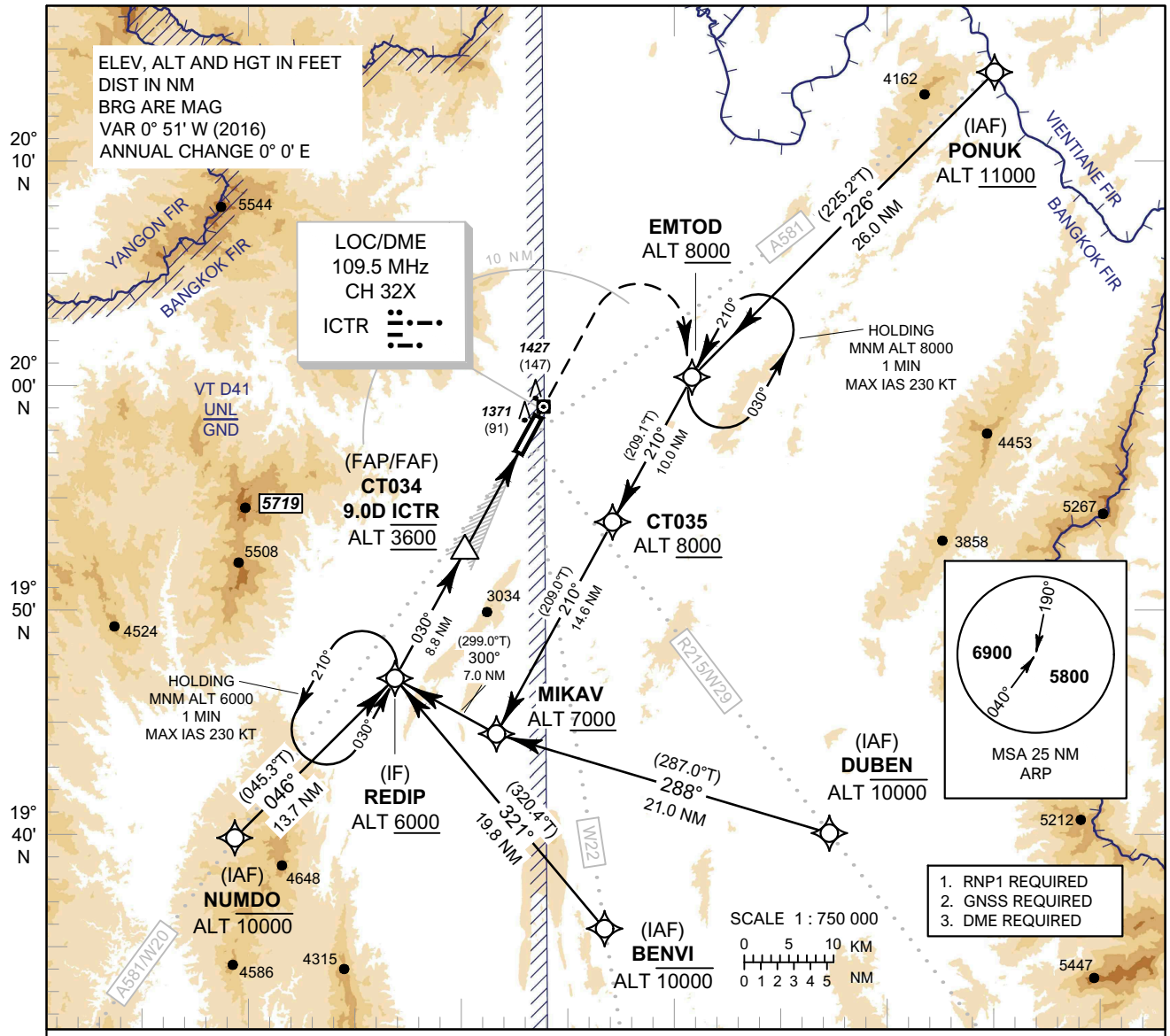
INSTRUMENT APPROACH CHART - ICAO

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) REDIP	17.8D ICTR	19° 42' 22.84" N	099° 44' 20.05" E
(FAP/FAF) CT034	9.0D ICTR	19° 50' 06.49" N	099° 48' 51.27" E
(MAPt @ THR03) 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.

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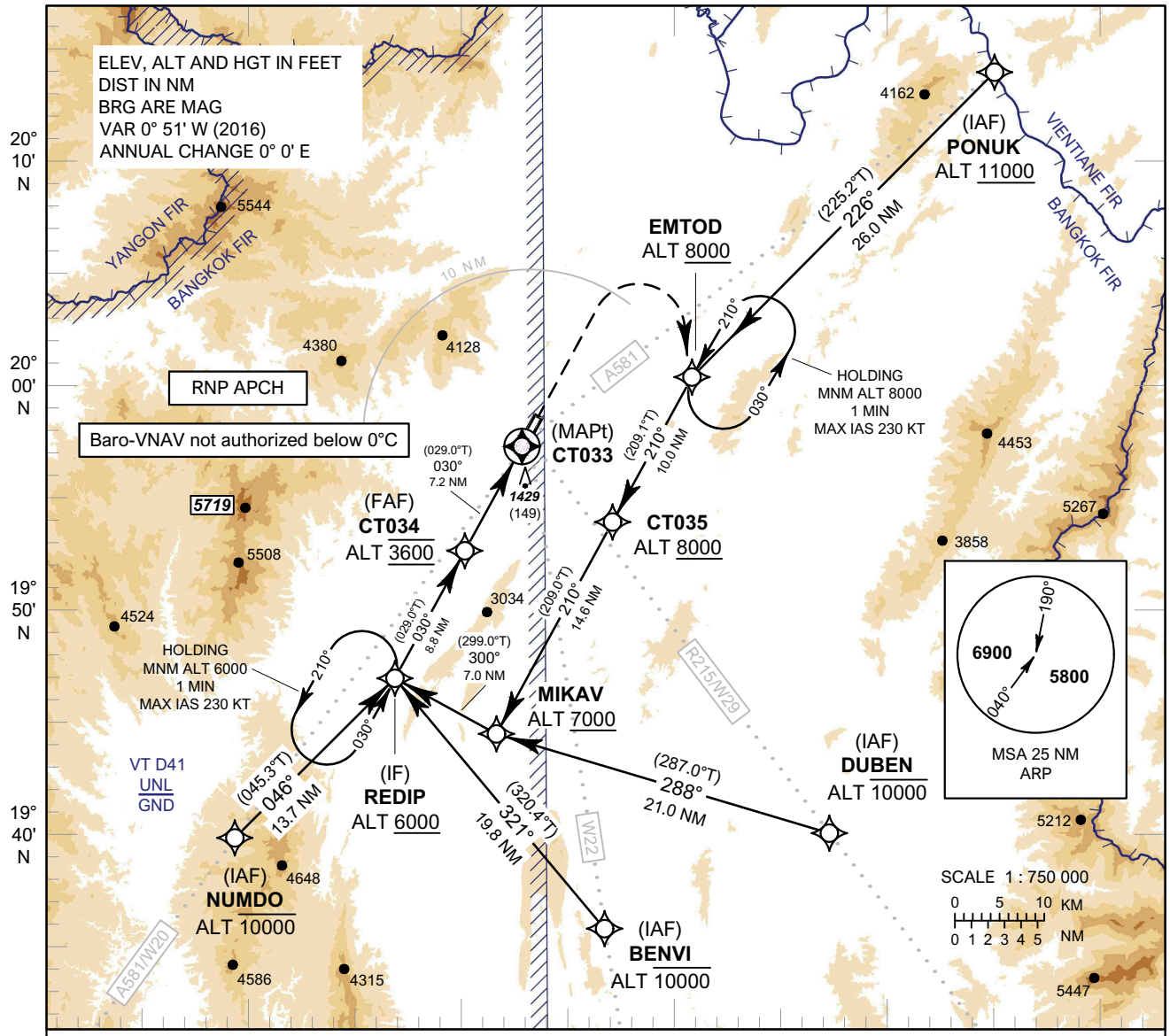
INSTRUMENT APPROACH CHART - ICAO

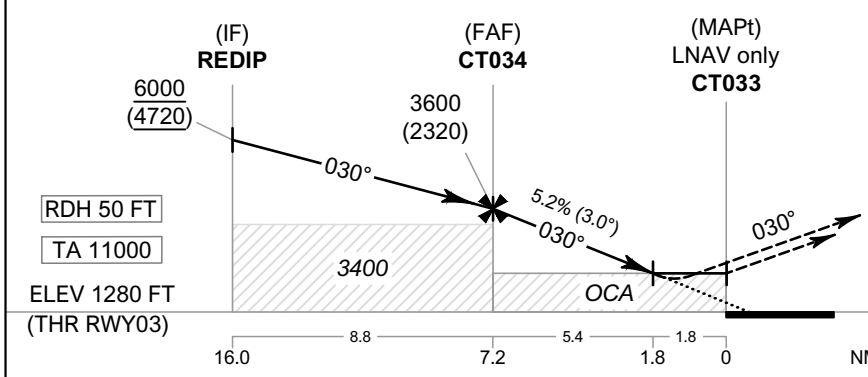
AERODROME ELEV 1280 FT
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

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

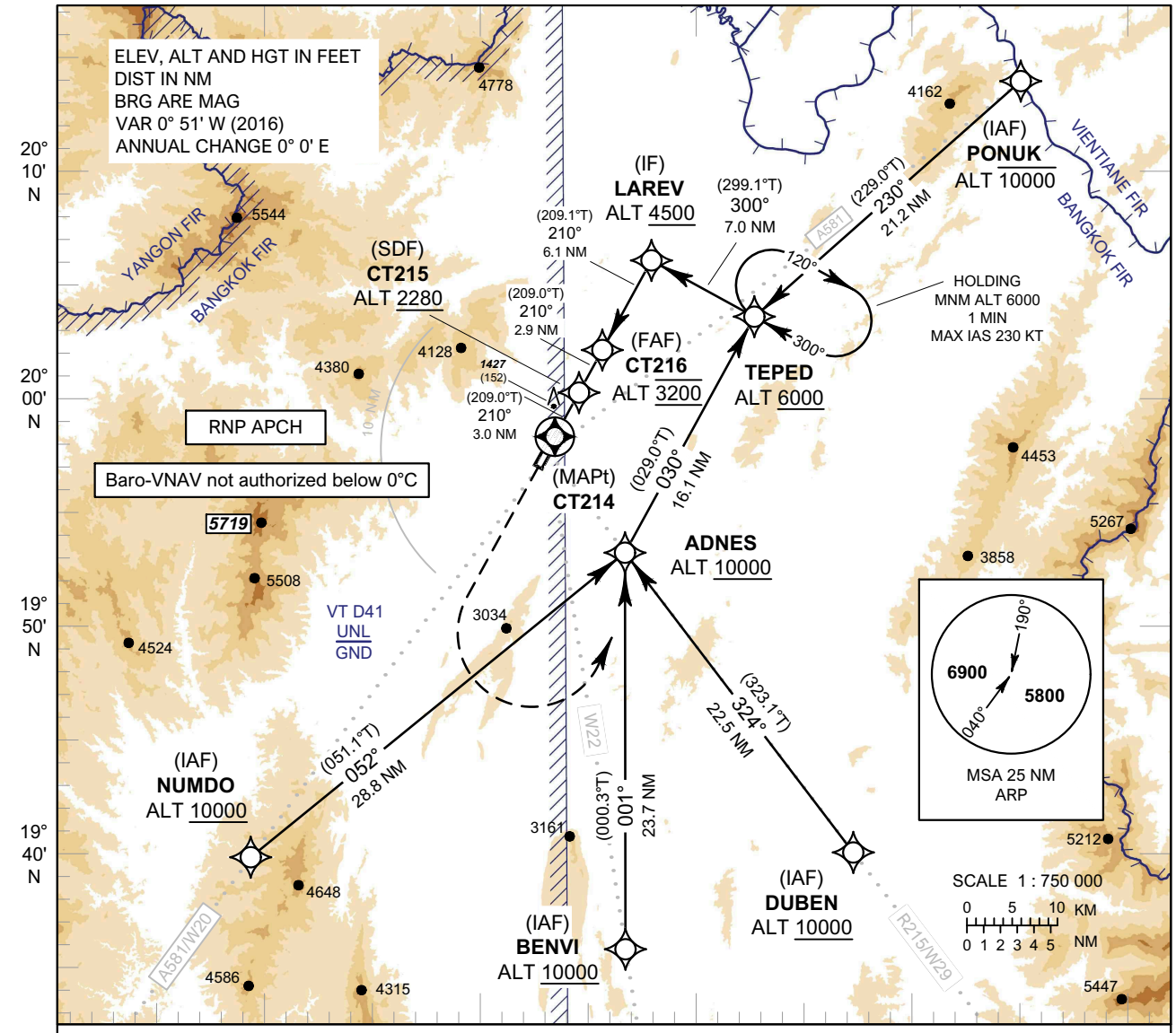
CHANGE: THR RWY03 COORDINATE.

INSTRUMENT APPROACH CHART - ICAO

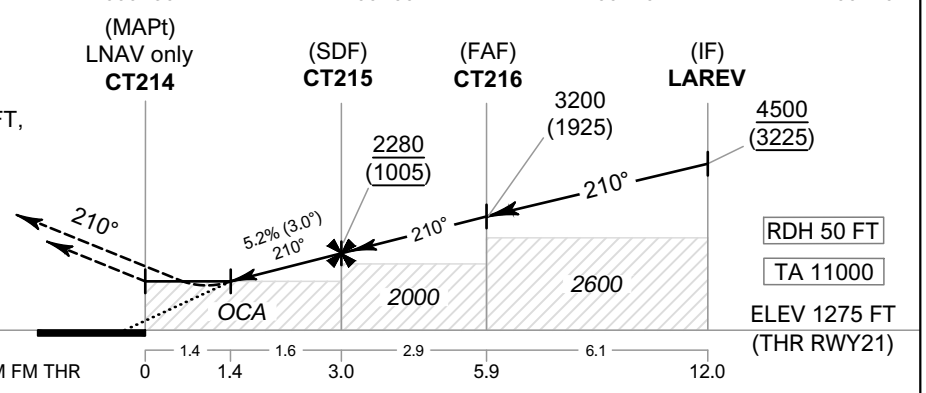
AERODROME ELEV 1280 FT
HEIGHTS RELATED TO
THR RWY21 - ELEV 1275 FT

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 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 Airports of Thailand Public Company Limited (AOT) 222 Village No.6, Mai Khao Sub District, Thalang District Phuket 83110, Thailand Tel: +667 632 7230-6 Fax: +667 632 7478 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): Located at Phuket International Airport (3rd floor of domestic terminal building) Tel: +66 7656 3045 Mobile: +669 2262 2141 Fax: +66 7632 7205

VTSP AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	AOT Ground Aviation Services Co., Ltd. (AOTGA) 2 Forklifts (5 T - 1 Forklift, 3 T - 1 Forklift) 3 Hand Pallet Trucks (2.5 T) 1 Tractor 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 Tel: +667 632 8220 +667 632 7190 Jet A-1 Storage Tank: 3 Tanks Total Volume 12,000,000 L Jet A-1 Refueller: 3 - 1 Refueller Capacity: 22,000 L - 2 Refueller Capacity: 12,000 L Jet A-1 Hydrant Dispensers: 10 AVGAS 100LL: - 5 Drums Capacity: 1,000 L - 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: a) AOT Ground Aviation Services Co., Ltd. (AOTGA) Website: www.aotga.com Ground Handling & Private Aircraft Handling Inquiry: - Marketing Department E-mail: marketing@aotga.com Tel: +666 4182 5396 Operation Inquiry: - Ground & Operation Department E-mail: hktroc@aotga.com hktopsocc@aotga.com Tel: +666 4707 7515 (24 hrs.) +666 4707 7918 (24 hrs.) Air To Ground Communication Frequency: 129.350 MHZ Call sign: Blue Port Phuket - Cargo Department E-mail: hktcargo@aotga.com Tel: +667 635 1355 +668 4202 3372 b) Siam Land Flying Co.,Ltd (Private Aircraft only) Ground Handling and Operations Inquiry: E-mail: ops@siamlandpjt.com Tel: +667 668 8801-3 Fax: +667 668 8805 AFS: VTSPSLFX Air To Ground Communication Frequency: 131.325 MHZ Call sign: Siamland PJT c) Bangkok Air Catering Phuket Co.,Ltd (BAC) Sales and Customer Services: E-mail: sm.hkt@bangkokaircatering.com Operations Department: E-mail: hkthhpg@bangkokaircatering.com Tel: +667 632 8080 +666 3082 9886 Fax: +667 632 8081 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 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. Emergency number is +667 635 1113
5	Bank and Post Office	Bank: At the International and Domestic terminal Post office: At the International terminal, level 1
6	Tourist Office	Office at the International terminal level 1 Tel: +667 621 9878 Fax: +667 632 7100 Office in the city Tel: +667 622 2177 Fax: +667 635 4139
7	Remarks	Website:http://www.airportthai.co.th/phuket 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 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 Surface: Concrete Strength: PCR 780/R/A/W/T -Apron C Surface: Concrete Strength: PCR 570/R/A/W/T Surface: Asphalt Strength: PCR 380/F/A/X/T Apron E Surface: Concrete Strength: PCR 580/R/C/W/T
2	Taxiway width, surface and strength	– Taxiway A, B, E, F and G Width: 30 M. Surface: Concrete Strength: PCR 710/R/A/W/T – Taxiway C Width: 30 M. Surface: Asphalt Strength: PCR 380/F/A/X/T – Taxiway D Width: 23 M. Surface: Asphalt Strength: PCR 380/F/A/X/T – Taxiway P Width: 23 M. Surface: Asphalt Strength: PCR 800/F/C/X/T Surface: Concrete Strength: PCR 710/R/A/W/T – Taxiway K Width: 20 M. Surface: Asphalt Strength: PCR 550/F/D/X/T – Taxiway H and J Width: 29.5 M. Surface: Concrete Strength: PCR 1240/R/C/W/T – Taxilane T1 Width from taxilane centre line to taxilane shouder: 13.42 M, Surface: Concrete, PCR 780/R/A/W/T – Taxilane T2 Width from taxilane centre line to taxilane shouder: 13.67 M., Surface: Concrete, PCR 780/R/A/W/T – Taxilane T3, T4, T5, T6, T7 Surface: Concrete, PCR 780/R/A/W/T
3	Altimeter checkpoint location and elevation	Location: At Apron 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 Nose-Wheel guide lines at apron. Solid Nose-Wheel guide lines at aircraft stands. Nose-in guidance at aircraft stands. Visual Docking System (VDGS) Apron A at stand number 7-16 (not included the Multi-Aircraft Ramp System (MARS) stand) Apron B at stand number 1-6 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 RWY LGT: THR, RWY Edge and RWY End lights TWY marking: Centre line, Edge and RWY Holding Position and Intermediate Holding Position 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/ APCH RWY 27	Mountain HGT 138 M.MSL	See Aerodrome Obstacle Chart Type A	Mountains HGT 130, 268 and 210 M.MSL (North) (Inner Horizontal Surface)	NIL	NIL
			Mountains HGT 141, 120, 139 and 225 M.MSL (South) (Inner Horizontal Surface)	NIL	NIL
			Mountains HGT 295 and 335 M.MSL (Conical Surface)	NIL	NIL
			Mountains HGT 141 M.MSL (North) (Transitional Surface)	NIL	NIL
			LLWAS HGT 68.71 M.MSL LGTD (Transitional Surface)	08 06 41.79N 098 19 23.91E	NIL

VTSP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Southern West-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Southern West-Coast Meteorological Center 30 HR
4	Trend forecast Interval of issuance	TREND 30 Min
5	Briefing/consultation provided	Personal Consultation Tel: +667 632 8149 Fax: +667 632 8148
6	Flight documentation Language(s) used	Charts, Tabular forms and Abbreviated Plain Language Texts 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 Observation System (AWOS), Low Level Wind Shear Alert System (LLWAS), Weather Radar
9	ATS units provided with information	Phuket TWR 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° 085° (MAG)	3000x45	PCR 800/F/A/X/T Asphalt	080643.05N 0981811.90E	THR 7.0 M/22 FT
27	265° 265° (MAG)	3100x45	PCR 800/F/A/X/T Asphalt 100 M BFR THR (Displacement) Is PCR 1240/R/C/W/T Concrete	080652.23N 0981949.46E	THR 25.6 M/84.0 FT 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% (500M 1000M 2500M 3000M)	NIL	NIL	3120x150	NIL	NIL
-0.70% -1.0% -0.01% -0.12% (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 Both 3° 64.07 FT	NIL	NIL	3000 M, 60 M White FM 2400 M - 3000 M Yellow LIH	Red	NIL	RTIL
27	SALS (7 Barrettes) 420M LIH	Green	PAPI Both 3.2° 64.96 FT	NIL	NIL	3000 M, 60 M White FM 2400 M - 3000 M Yellow 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 Anemometer location and LGT	WDI : 1 Wind Direction Indicator near left PAPI 09 : 1 Wind Direction Indicator 350 M. left side FM THR 27, 100 M FM RCL, illuminated Anemometer: See AD Ground Movement Chart
3	TWY edge and centre line lighting	EDGE: All TWY CENTRE LINE: TWY H,J and P
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at RWY 27/09 Switch over time : 0 sec.(UPS)
5	Remarks	NIL

VTSP AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 0806.7N 09818.6E
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Phuket Tower 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 284.0 MHZ 121.5 MHZ 1) 243.0 MHZ 1) 2)	H24	1) Emergency frequency 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 236.6 MHZ 2) 121.5 MHZ 1) 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 CH 116X	H24	080654.83N 0981822.69E	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: 1. Radial 360º-030º altitude should not below 5 500 FT 2. Radial 031º-170º altitude should not below 9 000 FT 3. Radial 171º-220º altitude should not below 7 000 FT 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 LOC/DME RWY 27	IPKT	109.9 MHZ CH 36X	H24	080647.72N 0981819.73E		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. b) Front course 266 Mag. Width 4.4°. c) Glide Path angle 3.2°. d) Middle Marker (MM without compass locator) distance 804 M from approach end of RWY 27. e) DME co-located with localizer 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	080648.27N 0981942.21E		
MM		75 MHZ	H24	080655.43N 0982015.73E		

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 (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 (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

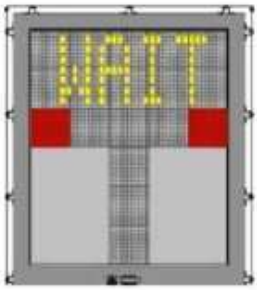
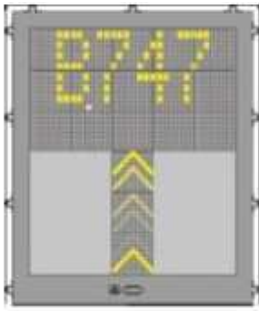
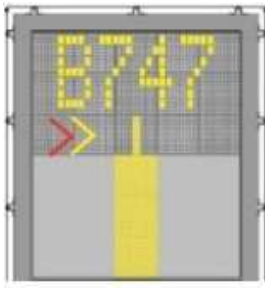
a. General warning
The VDGS system has a built-in error detection program to inform the aircraft pilot of impending dangers during the docking procedure. If the pilot is unsure of the information, being shown on the VDGS display unit, he must immediate stop the aircraft and obtain further information for clearance.

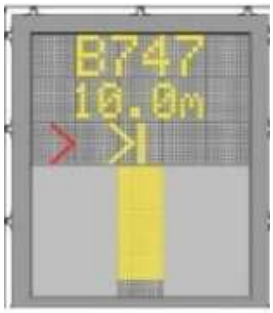
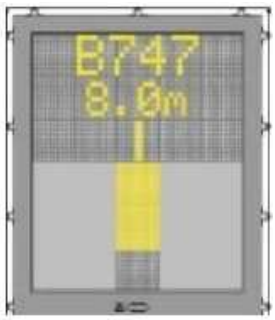
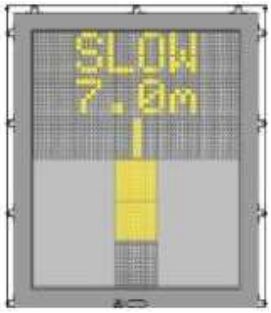
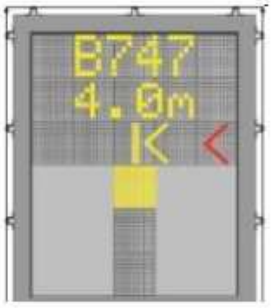
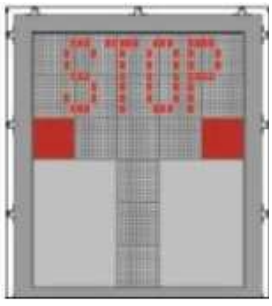
b. Item to check before entering the stand area
Warning : The pilot shall not enter the stand area, unless the docking system first is showing the vertical running arrows. The pilot must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

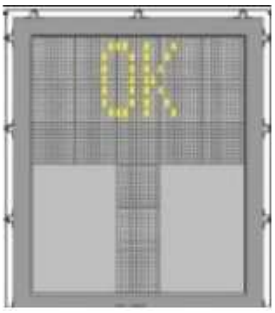
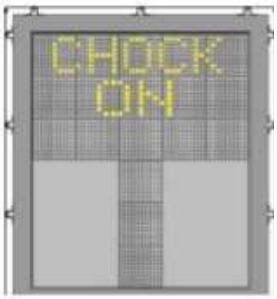
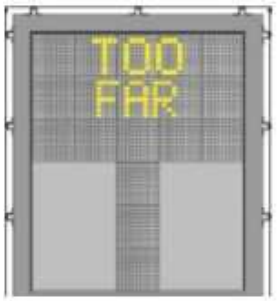
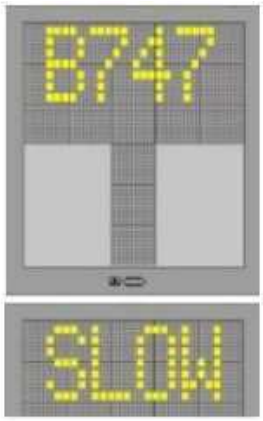
Warning : The pilot shall not enter the stand area, unless the aircraft type displayed is equal to the approaching aircraft/ The Correctness of other information, such as ‘door 2’, shall also be checked.

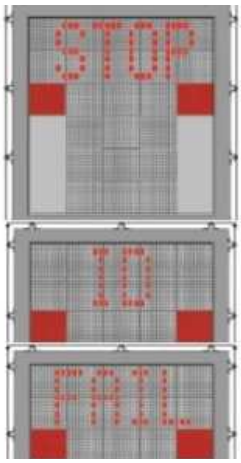
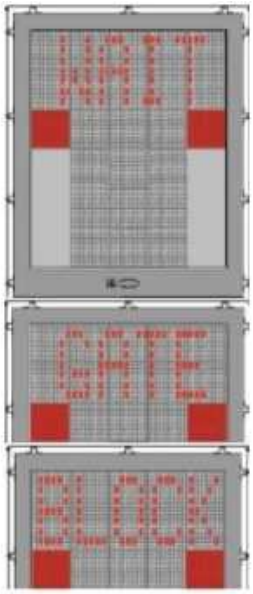
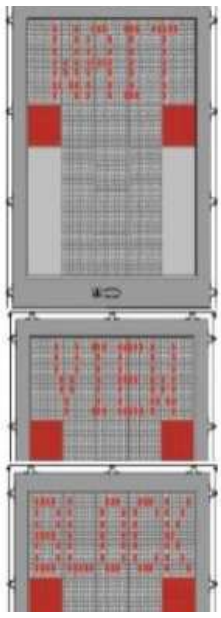
3. Safety Back Up (SBU) message

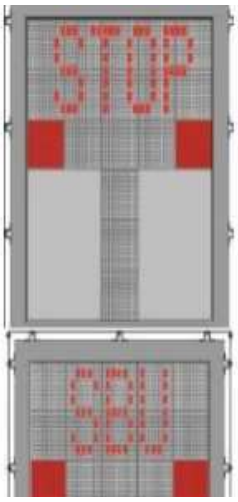
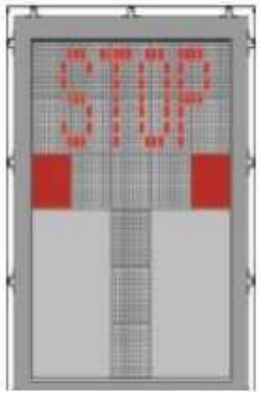
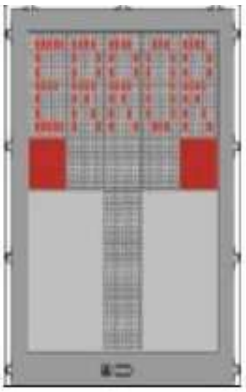
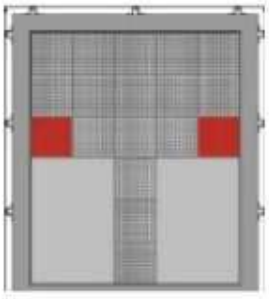
The message STOP Safety Back Up (SBU) means that docking has been interrupted and has to be resumed only by manual guidance. Do not try to resume docking without manual guidance.

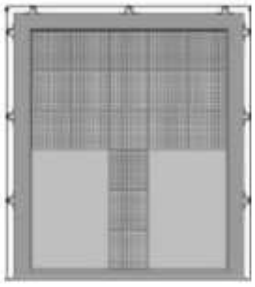
	8.2.2 START-OF-DOCKING When the system is ready to operate, WAIT will be displayed.
	8.2.3 CAPTURE The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft. It shall be checked that the correct aircraft type is displayed. The lead-in line shall be followed. The pilot must not proceed beyond the bridge, unless the arrows have been superseded by closing rate bar.
	8.2.4 TRACKING 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. 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. 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. 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. 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. When the correct stop-position is reached, the display will show STOP and red lights will be lit.

	8.2.10 DOCKING COMPLETE. When the aircraft has parked, OK will be displayed.
	8.2.11 CHOCKS ON. 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. If the aircraft overshoot the stop-position, TOO FAR will be displayed.
	8.2.13 BAD WEATHER CONDITION. 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. 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. 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. 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 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 When the emergency stop button is pressed, STOP is displayed.
	8.2.19 ERROR 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 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 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:

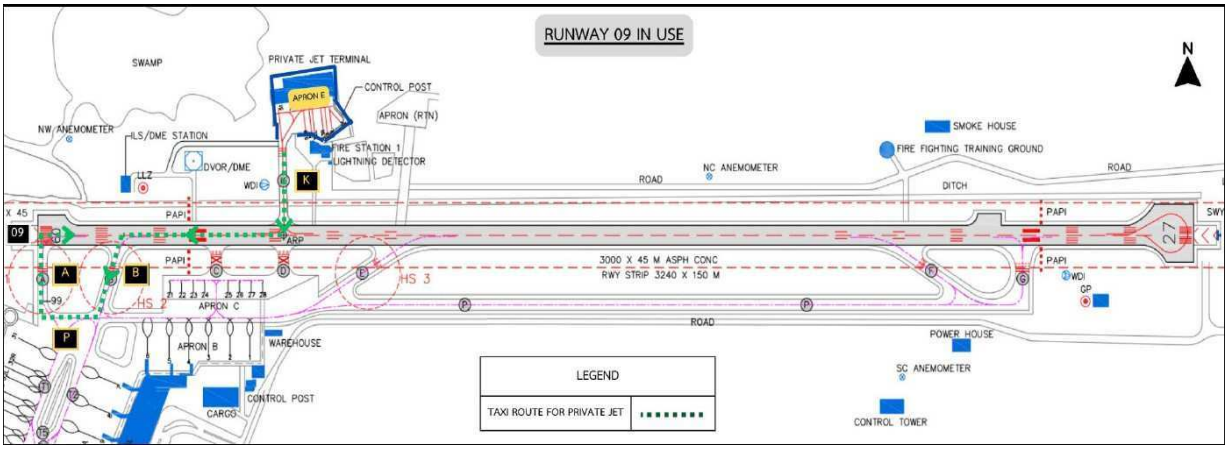
Species	Weight (KG)	Period
Haliastur indus (Brahminy Kite)	0.32 - 0.67	All year (mostly in April - October)
Milvus migrans (Black Kite)	0.56 - 0.94	All year (mostly in April - October)
Spilornis cheela (Crested Serpent Eagle)	0.42 - 1.8	All year (mostly in April - October)
Tyto alba (Barn Owl)	0.43 - 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

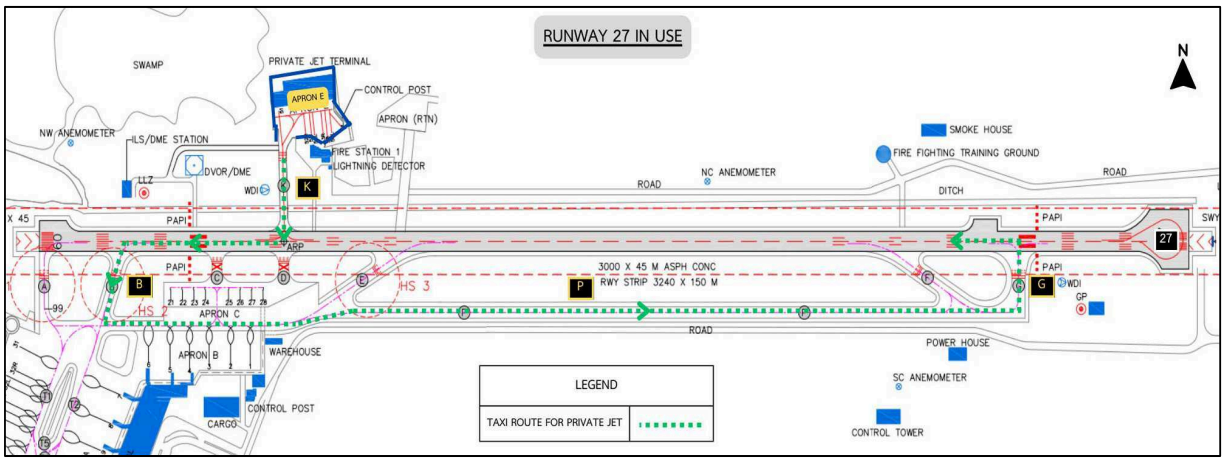
Taxiing procedures to/from Apron E for departing and arriving private jet are prescribed as follow:

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)

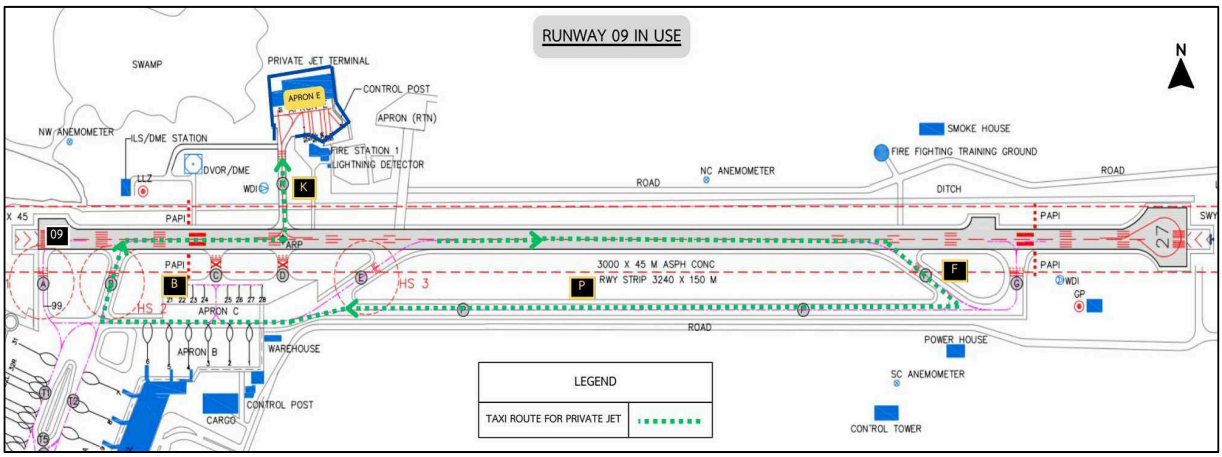


b. Runway 27 in use: aircraft shall taxi via Taxiway K then enter and taxi down on runway to vacate at Taxiway B and taxi via Taxiway P, G to holding point runway 27 or as directed by ATC. (For aircraft departure from intersection Taxiway G, runway remaining distance is 2500 M)

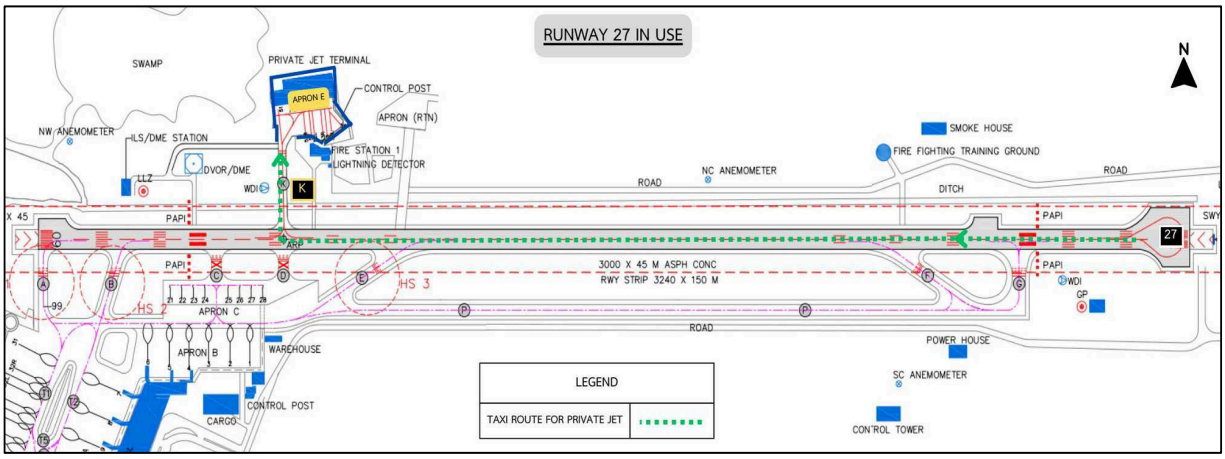


2.2 Arrivals

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 - RWY 09/27	AD 2-VTSP-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RWY 09/27 (Tabular description 1)	AD 2-VTSP-6-2
Standard Departure Chart - Instrument (SID) - ICAO - RWY 09/27 (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	AD 2-VTSP-6-5
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-6-6
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-6-7
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-6-8
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 27 - ANPUB1B EMRIT1B EPGOT1B IGEVI1B ONETI1B REBED1B SATVA1B SAVSA1B SUSID1B UBNEN1B UPSAB1B	AD 2-VTSP-6-9
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-6-10
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-6-11
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-6-12
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

Chart name	Page
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
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

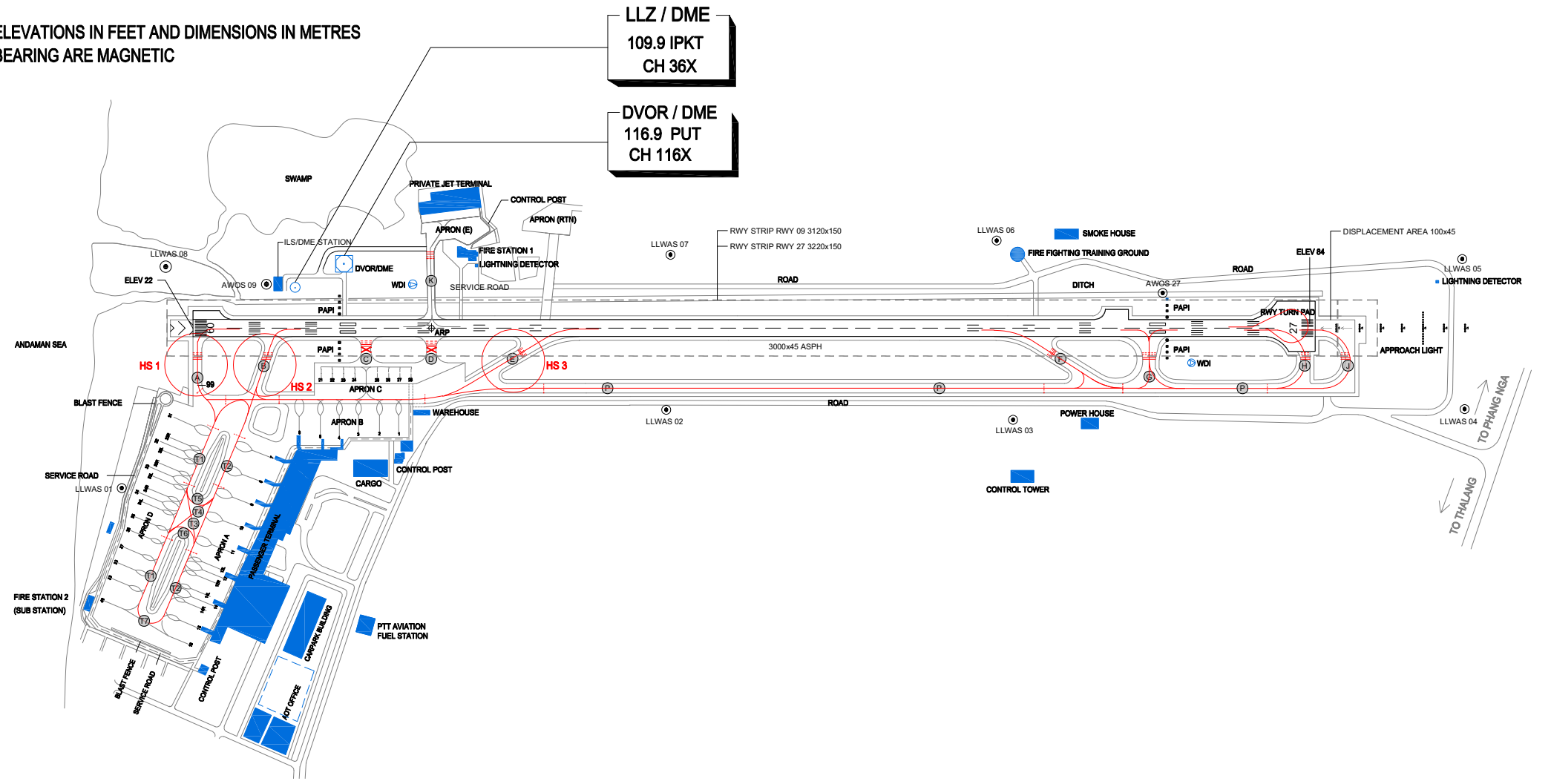
PHUKET / Phuket Intl

RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
09	85	08 06 43.05 N 098 18 11.90 E	PCR 800/F/A/X/T
27	265	08 06 52.23 N 098 19 49.46 E	PCR 800/F/A/X/T 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

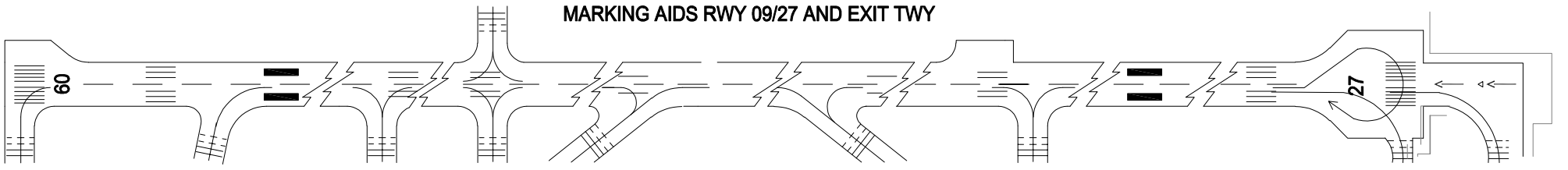
ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC



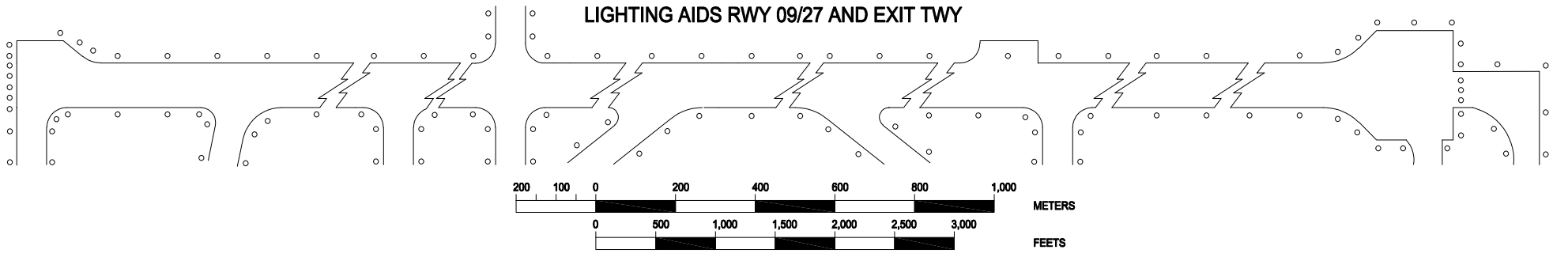
LEGEND	
CLOSED	
HOT SPOT	
BUILDING	
TAXIWAY AND TAXILANE IDENTIFICATION	A OR T1
INTERMEDIATE HOLDING POSITION	

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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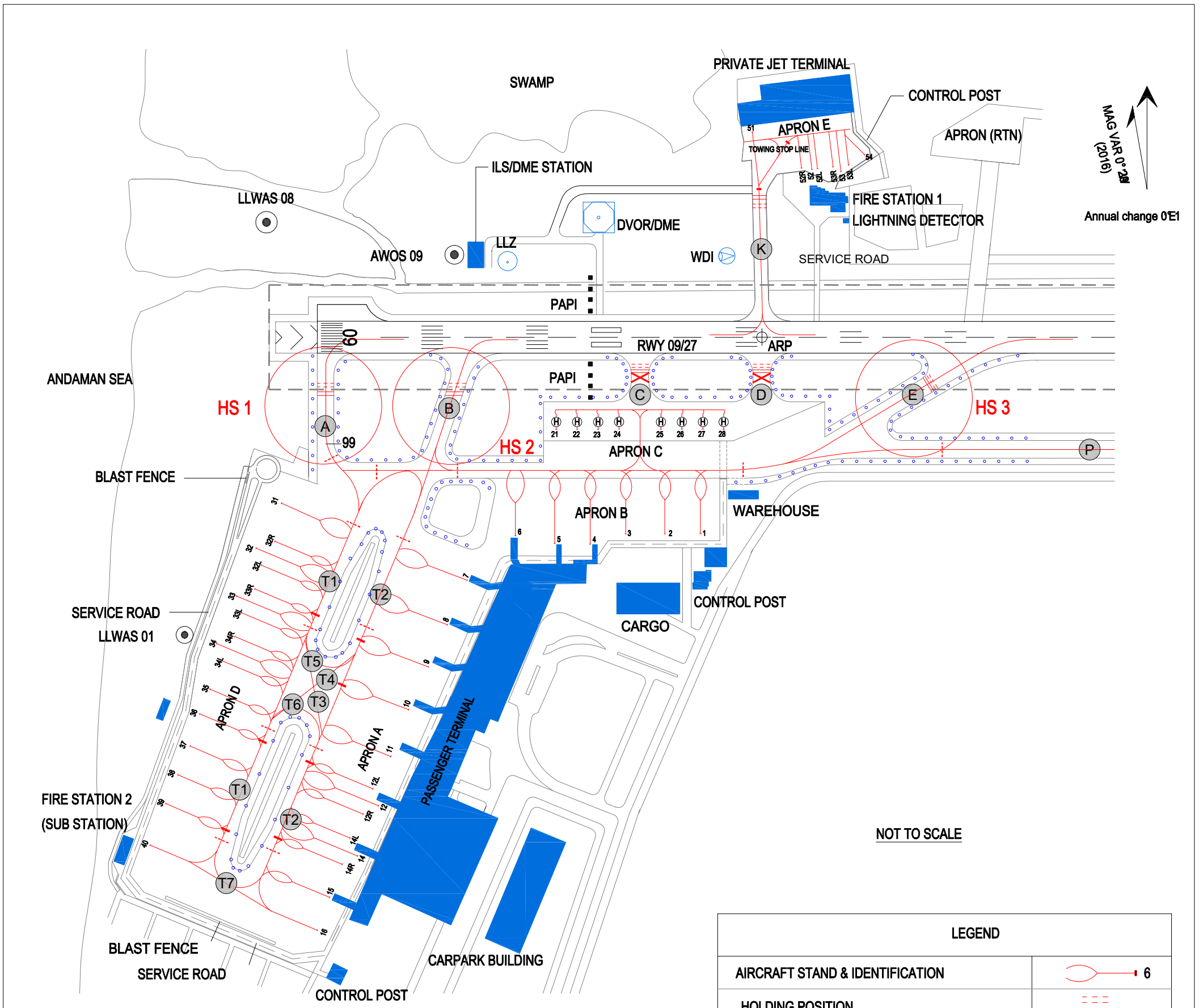
AIRCRAFT PARKING/ DOCKING CHART - ICAO

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

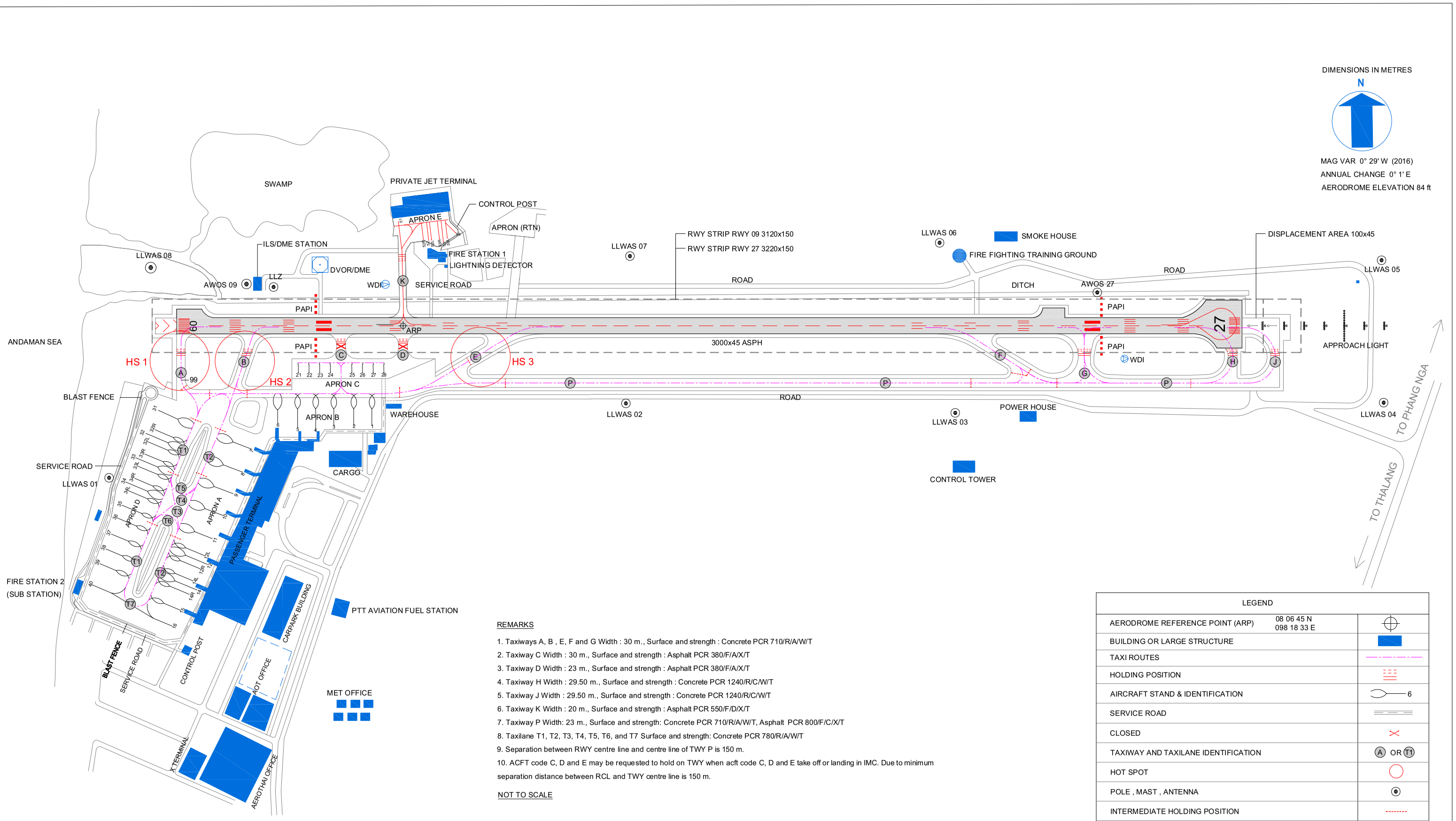
AIRCRAFT STAND COORDINATES									
LOCATION	STAND NR	COORDINATES		ACFT UP TO	LOCATION	STAND NR	COORDINATES		ACFT UP TO
APRON B	1	08 06 35.67	098 18 29.75	CODE D	APRON D	31	08 06 35.59	098 18 10.53	CODE E
	2	08 06 35.51	098 18 28.05	CODE D		32L	08 06 32.42	098 18 09.97	CODE C
	3	08 06 35.35	098 18 26.36	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

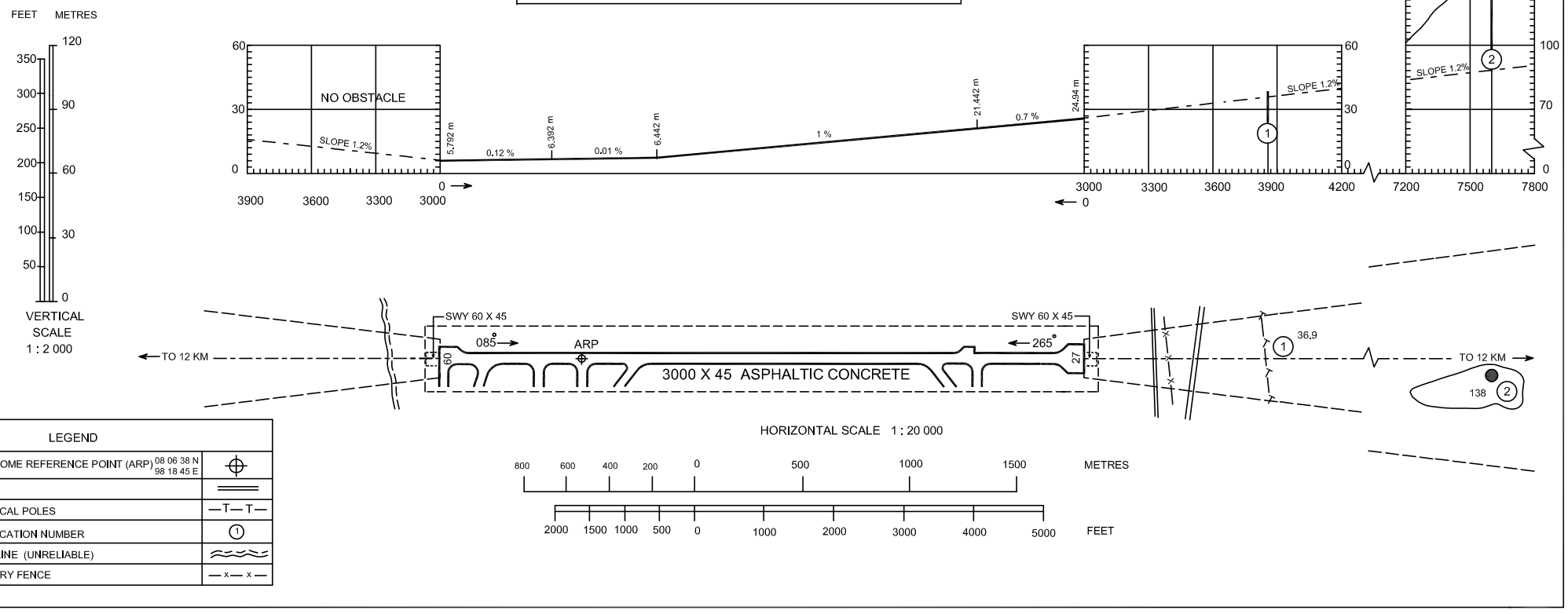
DIMENSIONS AND ELEVATIONS IN METRES

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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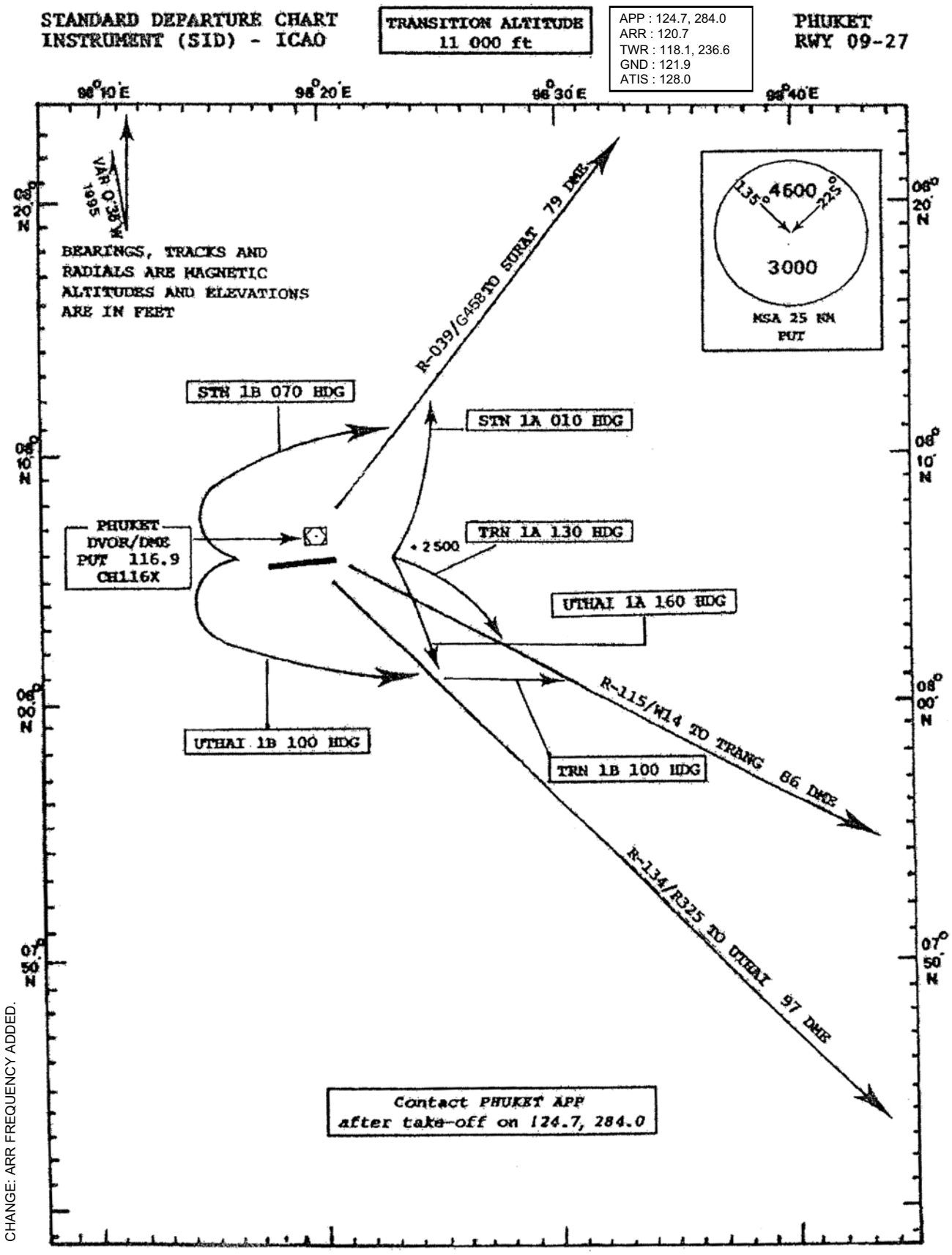


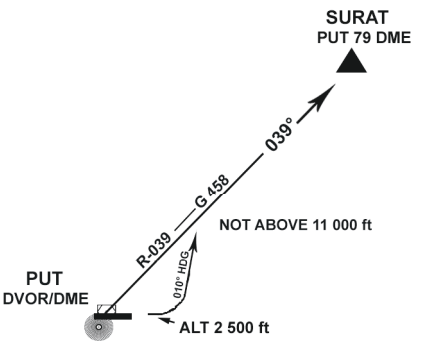
CHANGE: ARR FREQUENCY ADDED.

STANDARD INSTRUMENT DEPARTURE (SID) PHUKET INTERNATIONAL AIRPORT

STANDARD INSTRUMENT DEPARTURE RUNWAY 09

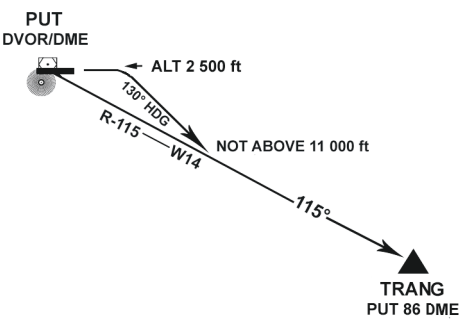
SURAT ONE ALFA (STN 1 A)

Departure gradient 4.3 % Take off, climb runway heading until 2 500 ft or above.Then turn left heading 010° to intercept and proceed on PUT R-039 not above 11 000 ft.
Expect radar control.
Contact Phuket Approach on 124.7, 284.0 MHz after take-off.



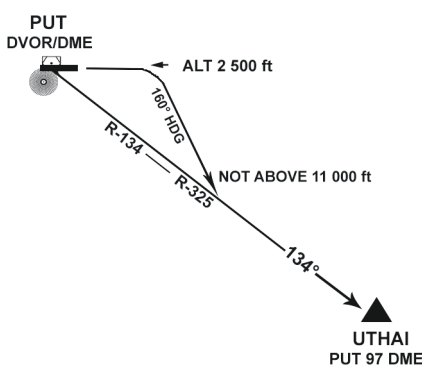
TRANG ONE ALFA (TRN 1 A)

Departure gradient 4.3 % Take off, climb runway heading until 2 500 ft or above.Then turn right heading 130° to intercept and proceed on PUT R-115 not above 11 000 ft.
Expect radar control.
Contact Phuket Approach on 124.7, 284.0 MHz after take-off.



UTHAI ONE ALFA (UTHAI 1 A)

Departure gradient 4.3 % Take off, climb runway heading until 2 500 ft or above.Then turn right heading 160° to intercept and proceed on PUT R-134 not above 11 000 ft.
Expect radar control.
Contact Phuket Approach on 124.7, 284.0 MHz after take-off.

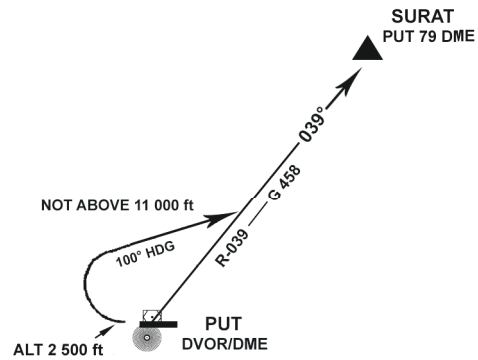


STANDARD INSTRUMENT DEPARTURE (SID) PHUKET INTERNATIONAL AIRPORT

STANDARD INSTRUMENT DEPARTURE RUNWAY 27

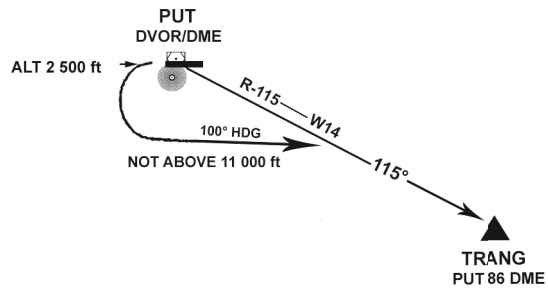
SURAT ONE BRAVO (STN 1 B)

Take off, climb runway heading
until 2 500 ft or above.Then
turn right heading 070° to intercept
and proceed on PUT R-039
not above 11 000 ft.
Expect radar control.
Contact Phuket Approach on
124.7, 284.0 MHz after take-off.



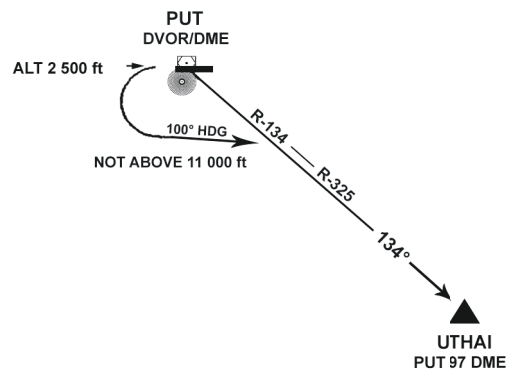
TRANG ONE BRAVO (TRN 1 B)

Take off, climb runway heading
until 2 500 ft or above. Then
turn left heading 100° to intercept
and proceed on PUT R-115
not above 11 000 ft.
Expect radar control
Contact Phuket Approach on
124.7, 284.0 MHz after take-off.



UTHAI ONE BRAVO (UTHAI 1 B)

Take off, climb runway heading
until 2 500 ft or above. Then
turn left heading 100° to intercept
and proceed on PUT R-134
not above 11 000 ft
Expect radar comtrol
Contact Phuket Approach on
124.7, 284.0 Mhz after take off.



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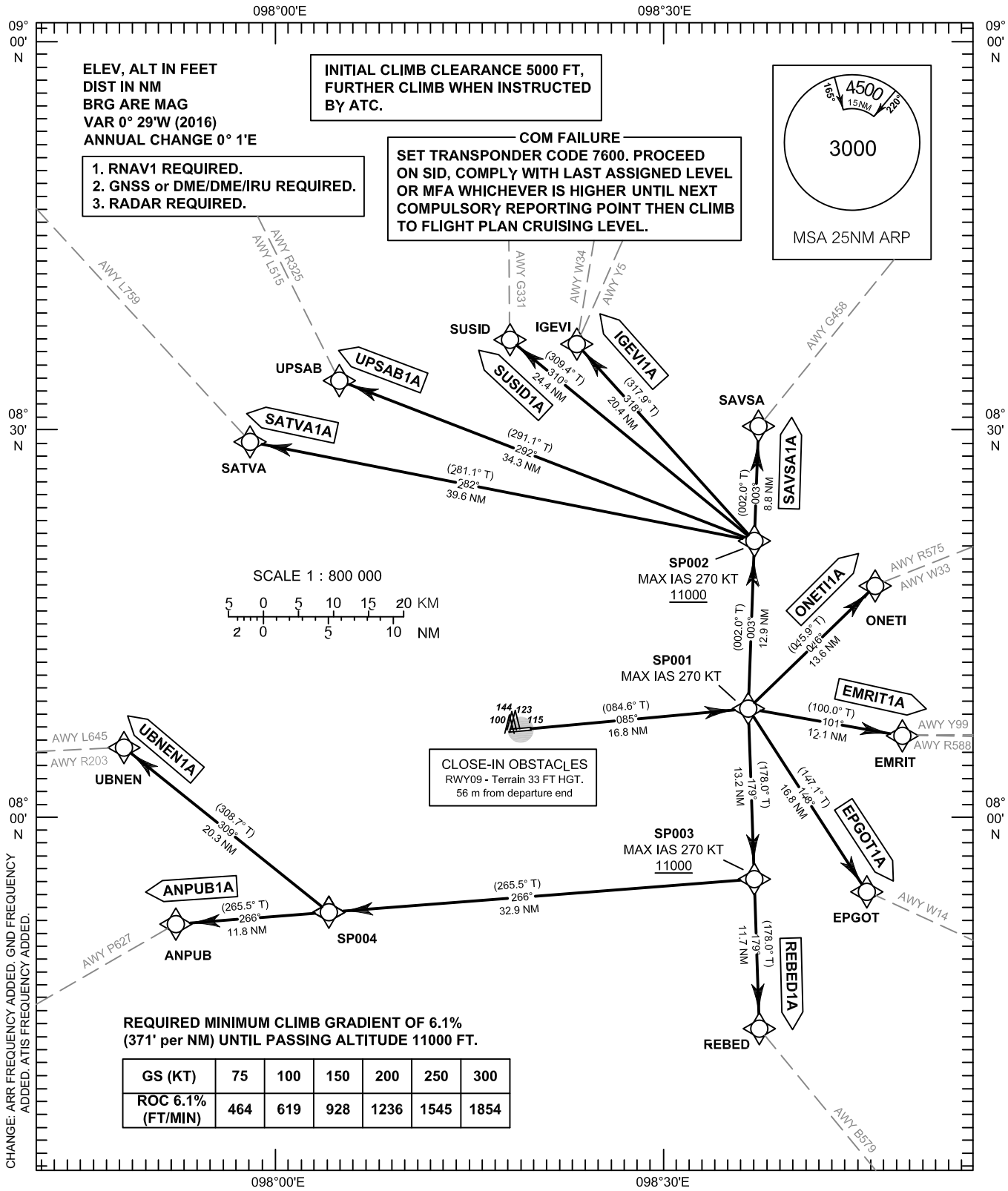
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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



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

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

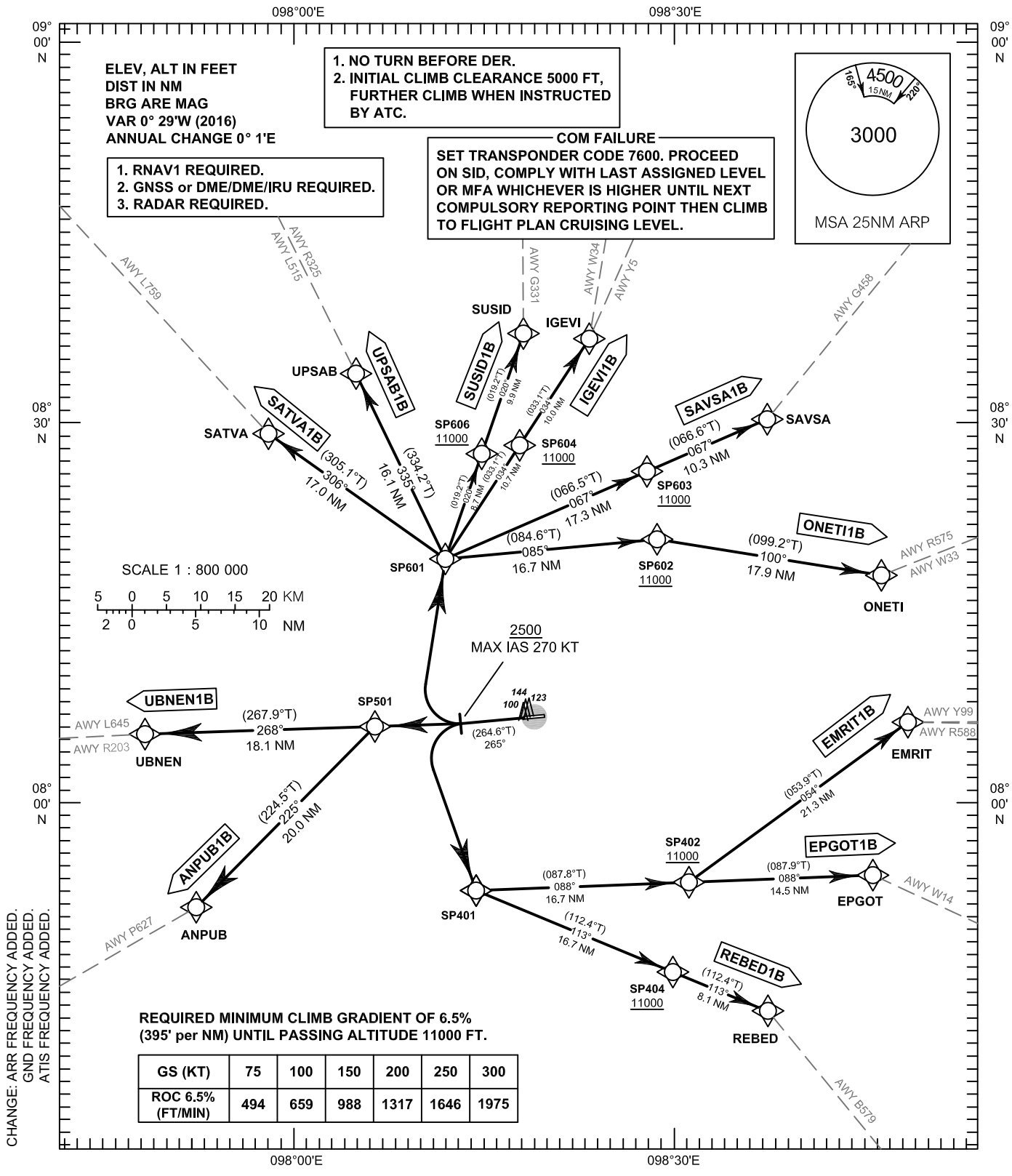
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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

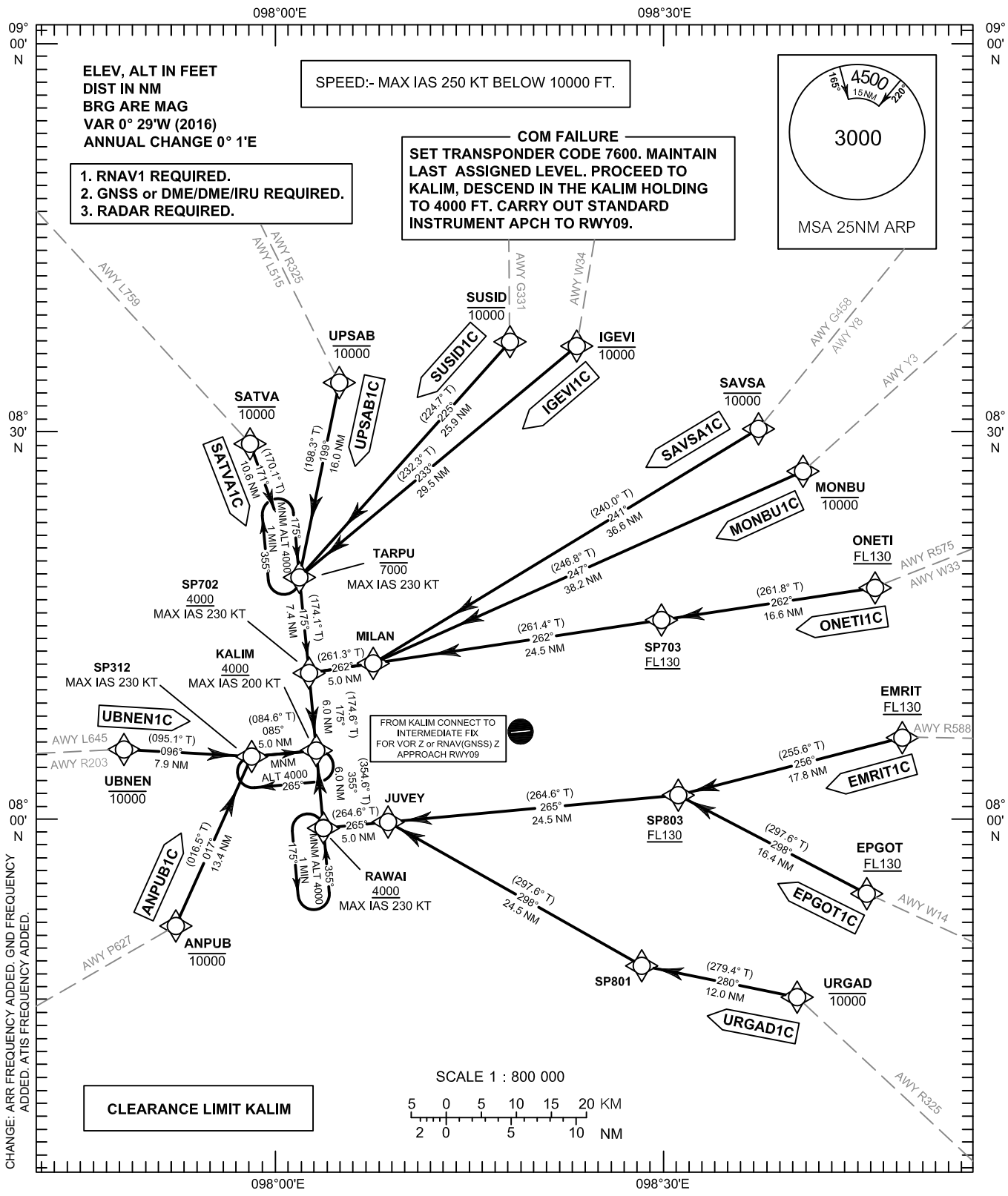
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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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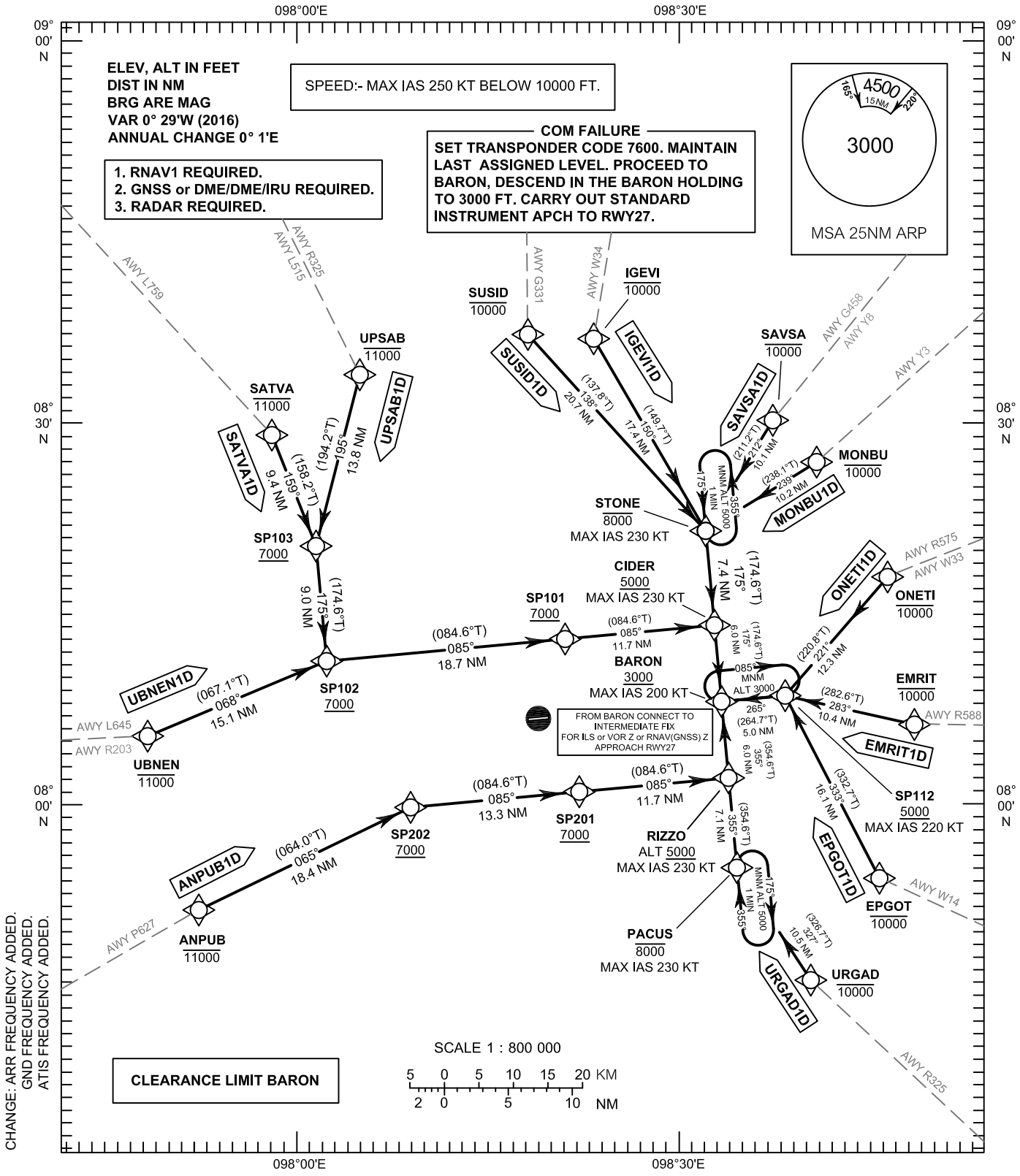
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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

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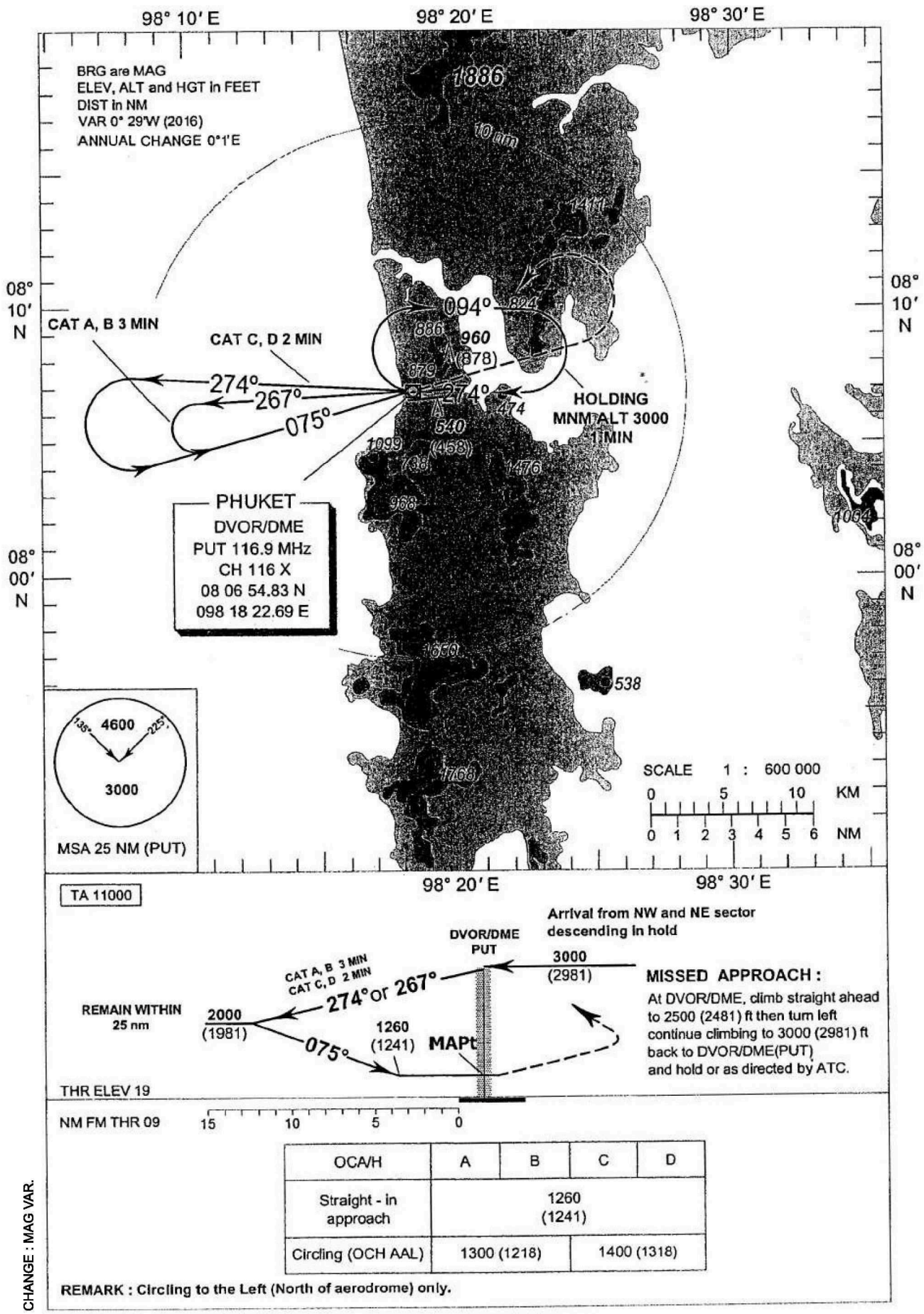
INSTRUMENT APPROACH CHART - ICAO

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 : MAG VAR.

INTENTIONALLY BLANK

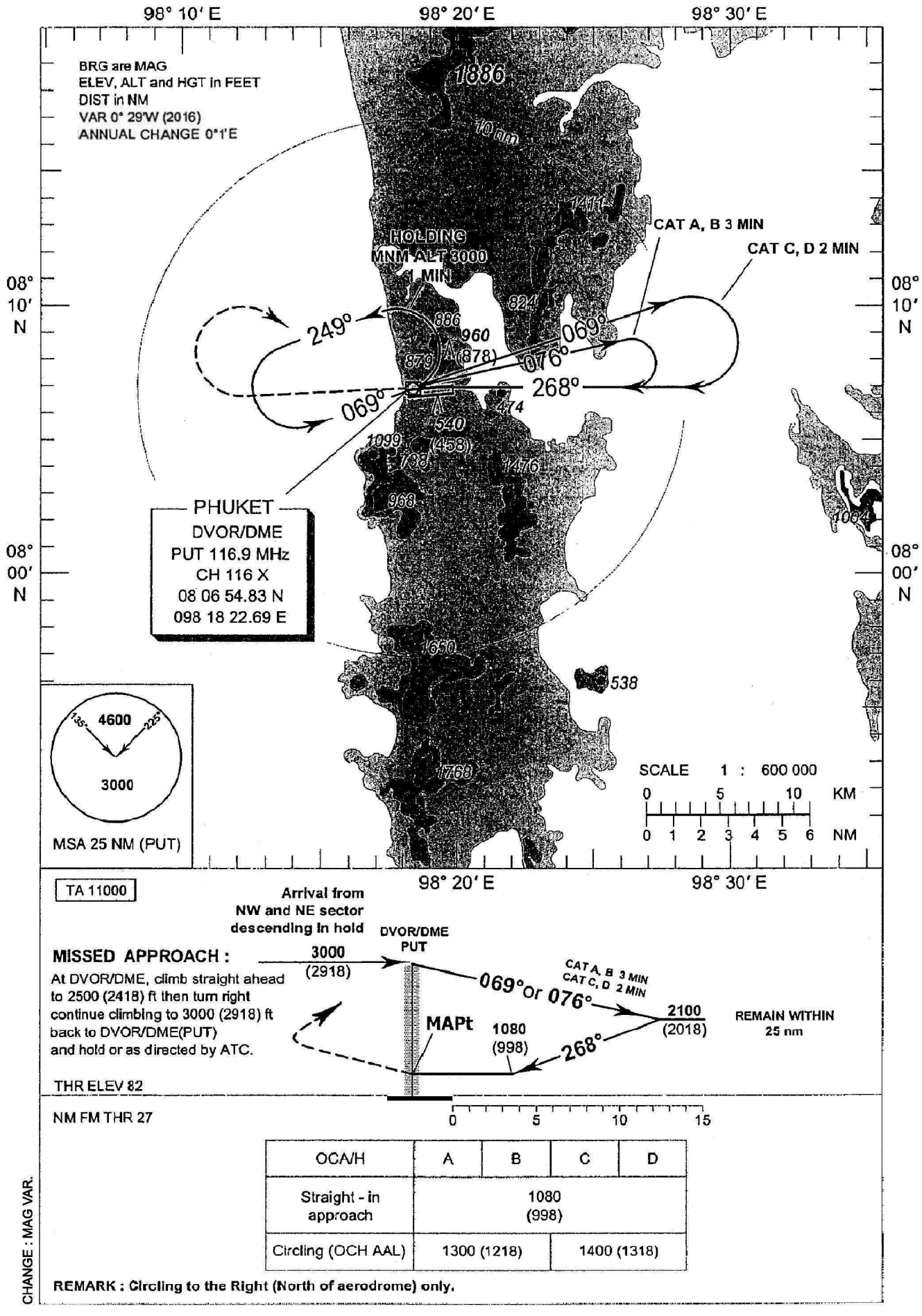
INSTRUMENT APPROACH CHART - ICAO

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

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.

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 : MAG VAR.

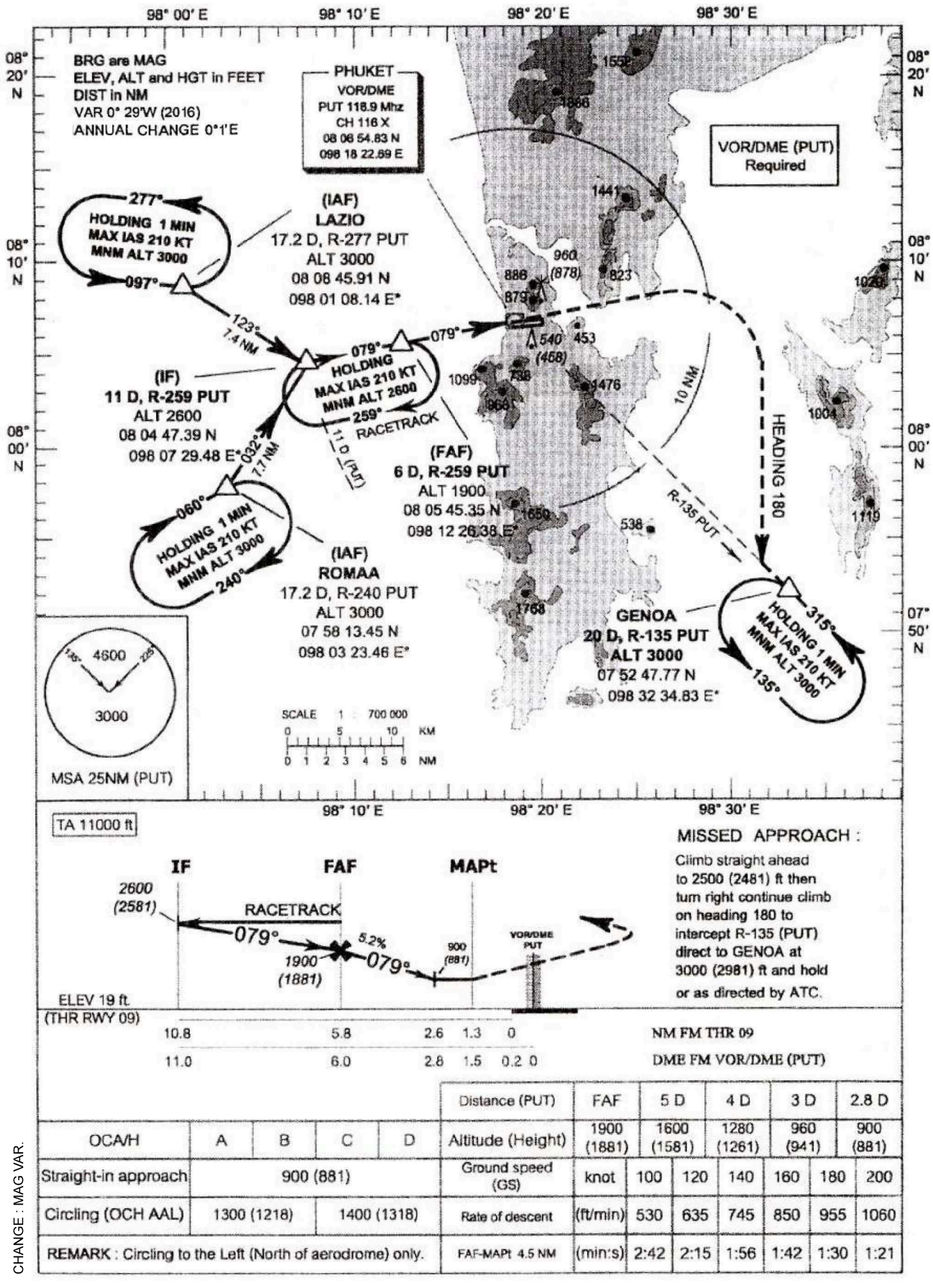
INTENTIONALLY BLANK

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.

NM FM THR 09	10.8	5.8	2.6	1.3	0
DME FM VOR/DME (PUT)	11.0	6.0	2.8	1.5	0.2 0

OCA/H	A	B	C	D
Straight-in approach	900 (881)			
Circling (OCH AAL)	1300 (1218)		1400 (1318)	
REMARK : Circling to the Left (North of aerodrome) only.				

Distance (PUT)	FAF	5 D	4 D	3 D	2.8 D
Altitude (Height)	1900 (1881)	1600 (1581)	1280 (1261)	960 (941)	900 (881)
Ground speed (GS) knot	100	120	140	160	180	200
Rate of descent (ft/min)	530	635	745	850	955	1060
FAF-MAPt 4.5 NM (min:s)	2:42	2:15	1:56	1:42	1:30	1:21

CHANGE : MAG VAR.

INTENTIONALLY BLANK

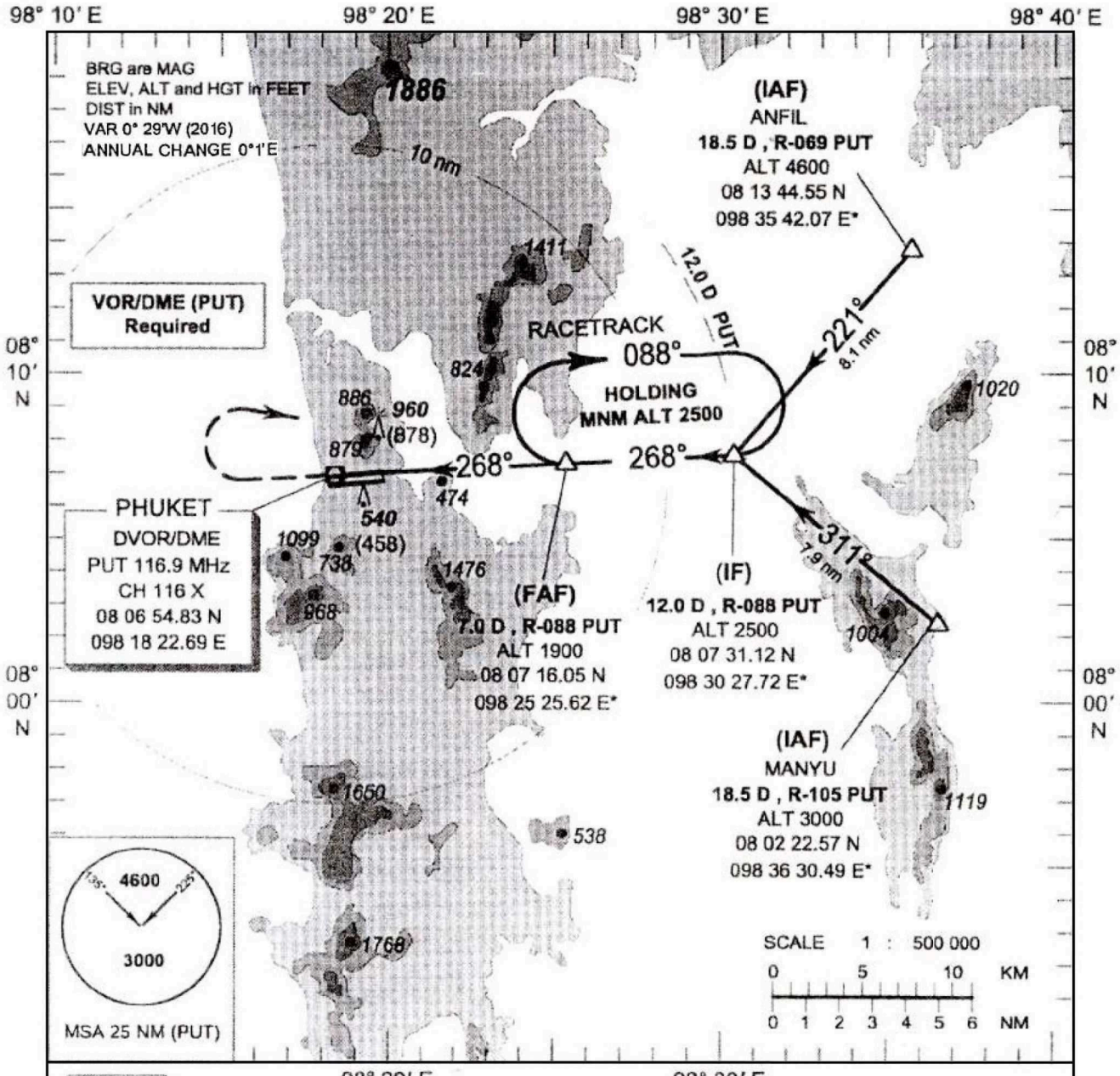
INSTRUMENT APPROACH CHART - ICAO

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

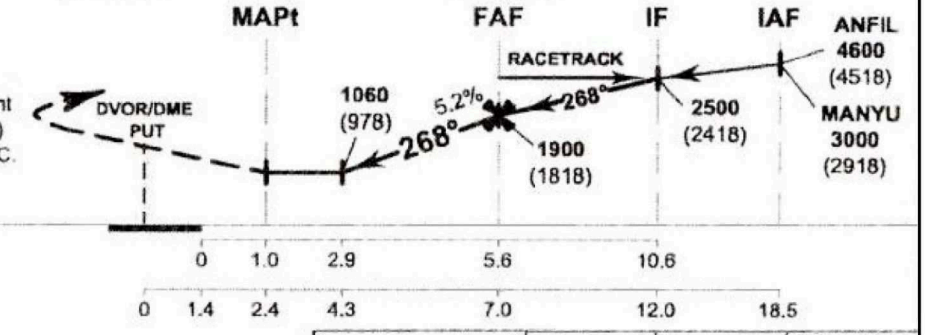
PHUKET / Phuket Intl (VTSP)

VOR Z RWY 27



TA 11000

MISSED APPROACH :
Climb straight ahead
to 2500 (2418) ft then turn right
direct to FAF at 2500 ft (2418)
and hold or as directed by ATC.



Distance (PUT)					5D		6D		7D	
Altitude (Height)					1280 (1198)		1600 (1518)		1900 (1818)	
OCA/H	A	B	C	D	Ground speed (GS)	knot	100	120	140	160	180	200
Straight - in approach	1060 (978)				Rate of descent	(ft/min)	530	635	745	850	955	1060
Circling (OCH AAL)	1300 (1218)		1400 (1318)		FAF-MAPt 4.6 nm	(min/s)	2:46	2:18	1:59	1:44	1:32	1:23

CHANGE : MAG VAR.

REMARK : Circling to the Right (North of aerodrome) only.

INTENTIONALLY BLANK

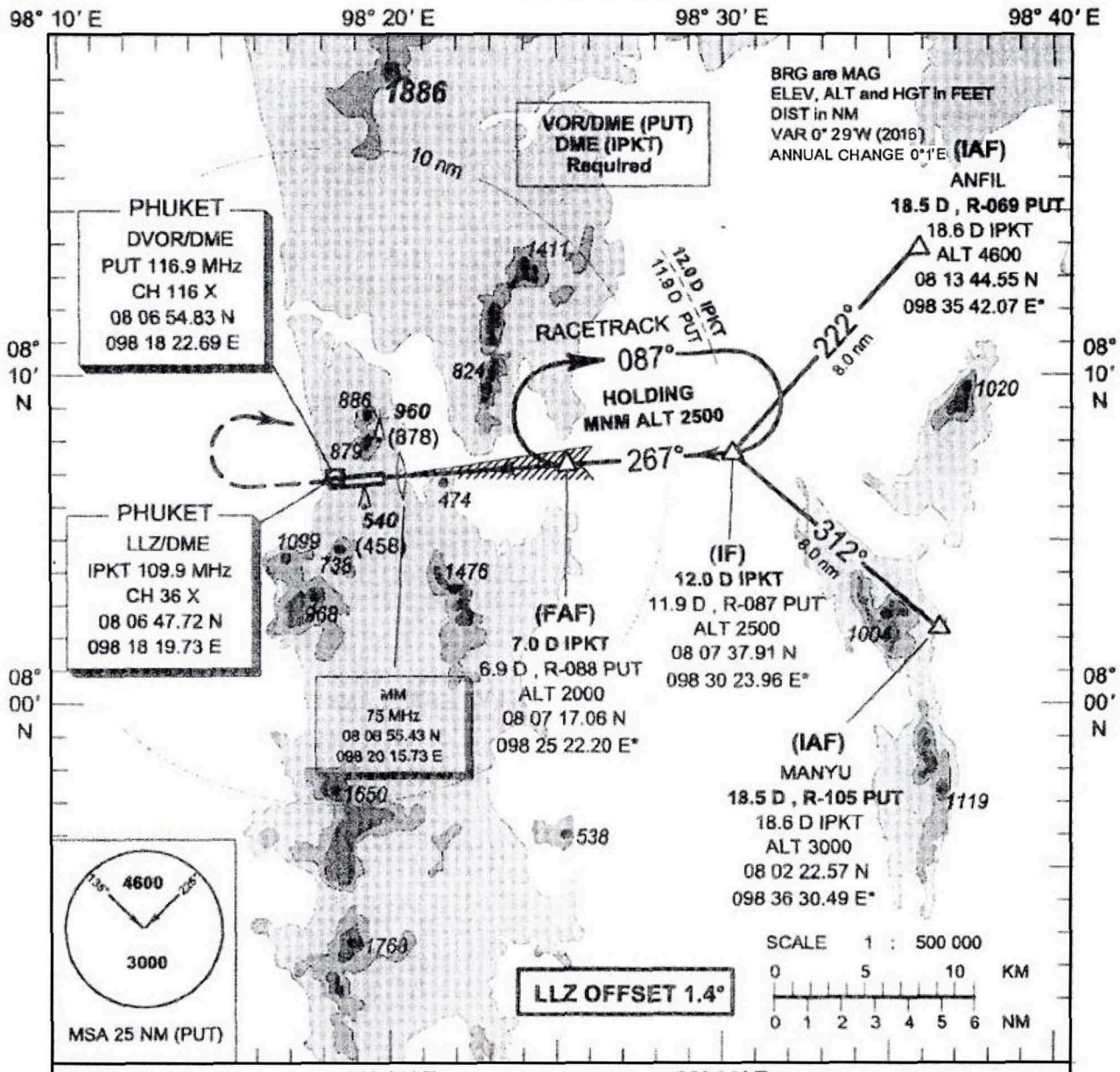
INSTRUMENT APPROACH CHART - ICAO

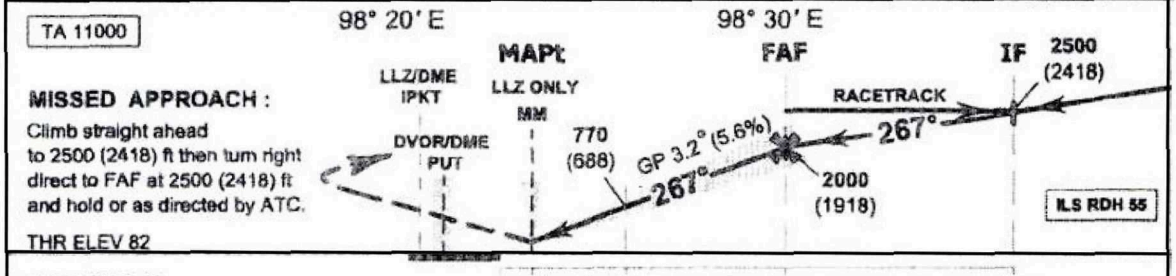
AERODROME ELEV 82 ft
HEIGHTS RELATED TO
THR RWY 27 ELEV **82 ft**

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





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 : MAG VAR.

INTENTIONALLY BLANK

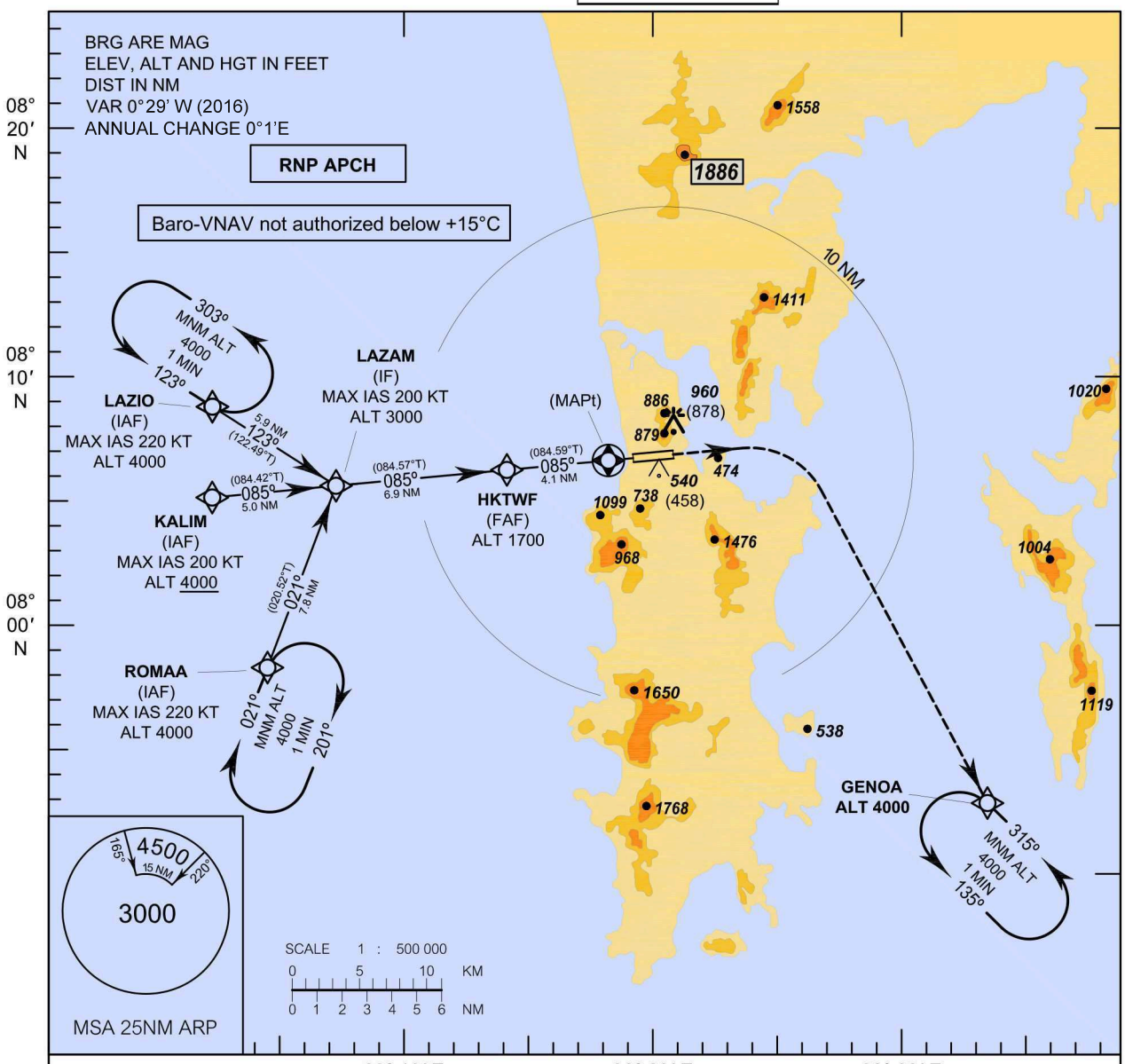
INSTRUMENT APPROACH CHART - ICAO

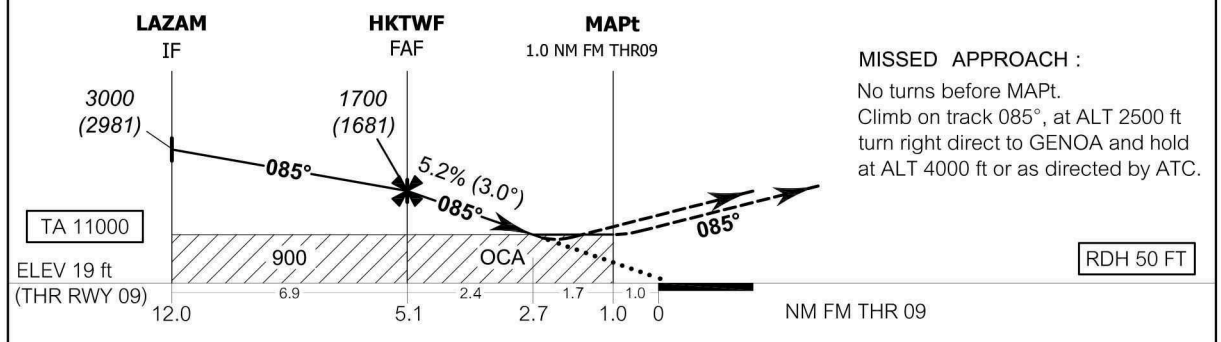
AERODROME ELEV 82 FT
HEIGHTS RELATED TO
THR RWY09 - ELEV 19 FT

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

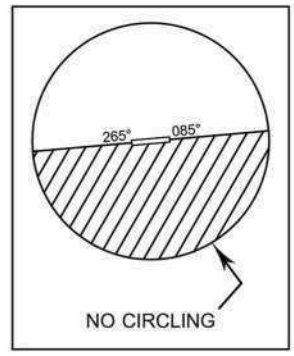
RNP z RWY09

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.

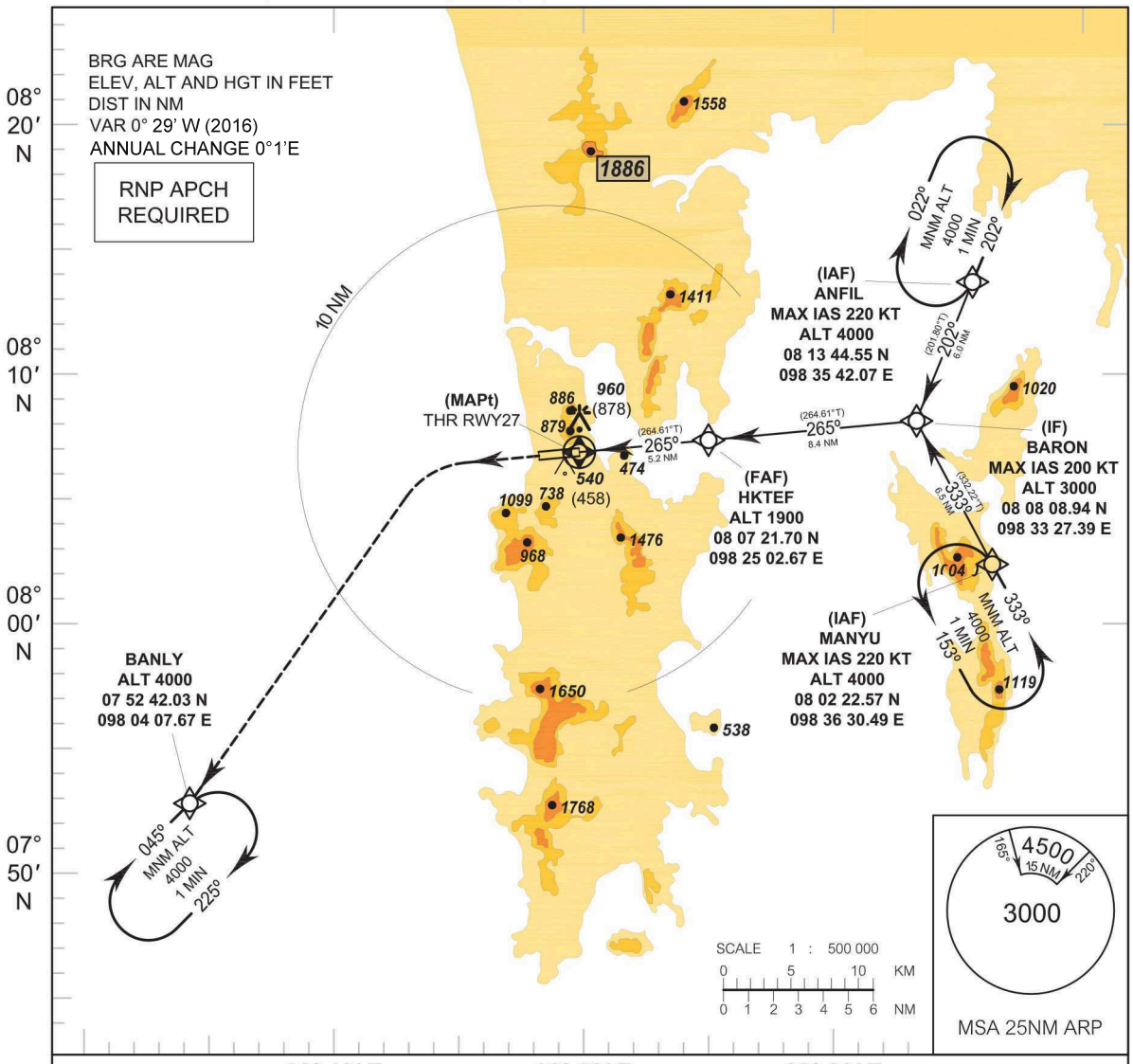
INSTRUMENT APPROACH CHART - ICAO

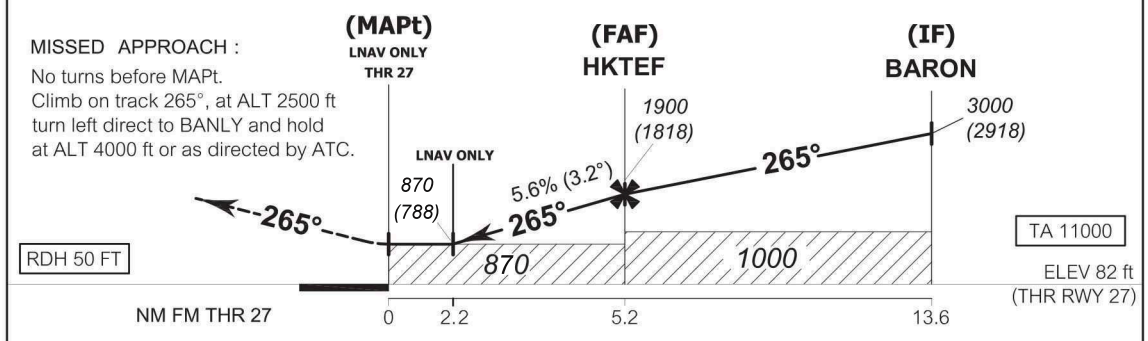
AERODROME ELEV 82 FT
HEIGHTS RELATED TO AERODROME ELEV
BARO-VNAV NA BELOW +15°C

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





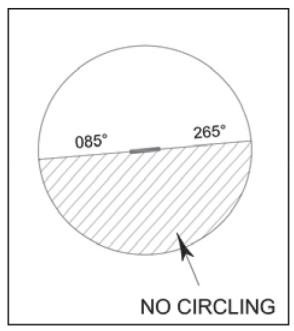
OCA/H	A	B	C	D	NM to MAPt	2.2 NM	3 NM	4 NM	FAF
LNAV/VNAV	870 (788)				Altitude (Height)	870 (788)	1160 (1078)	1500 (1418)	1900 (1818)
LNAV	870 (788)				Ground speed (GS)	knot	100	120	140	160	180	200
Circling (OCH AAL)	1500 (1418)				Rate of descent	(ft/min)	565	680	795	905	1020	1135

* 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 .

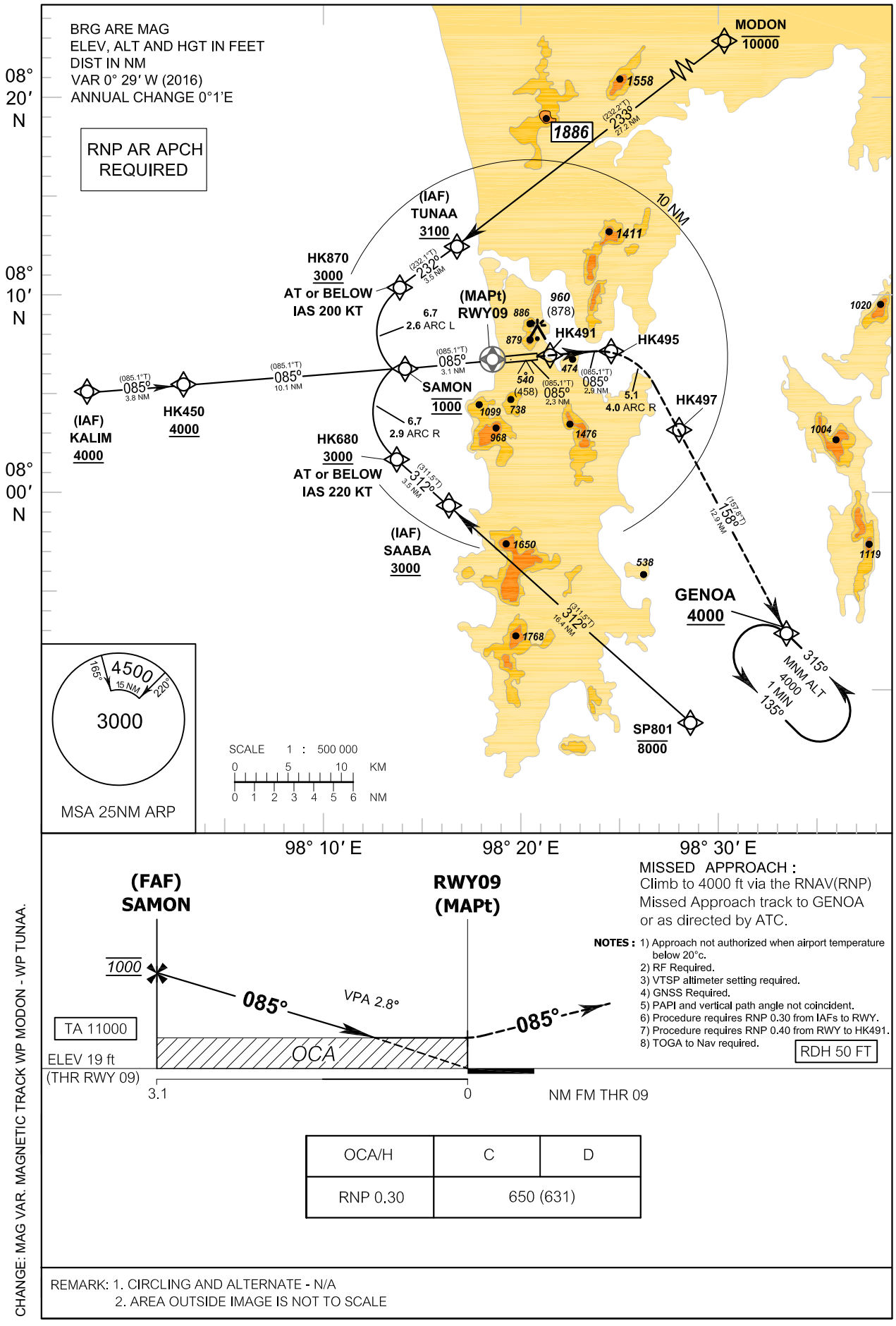
INSTRUMENT APPROACH CHART - ICAO

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.

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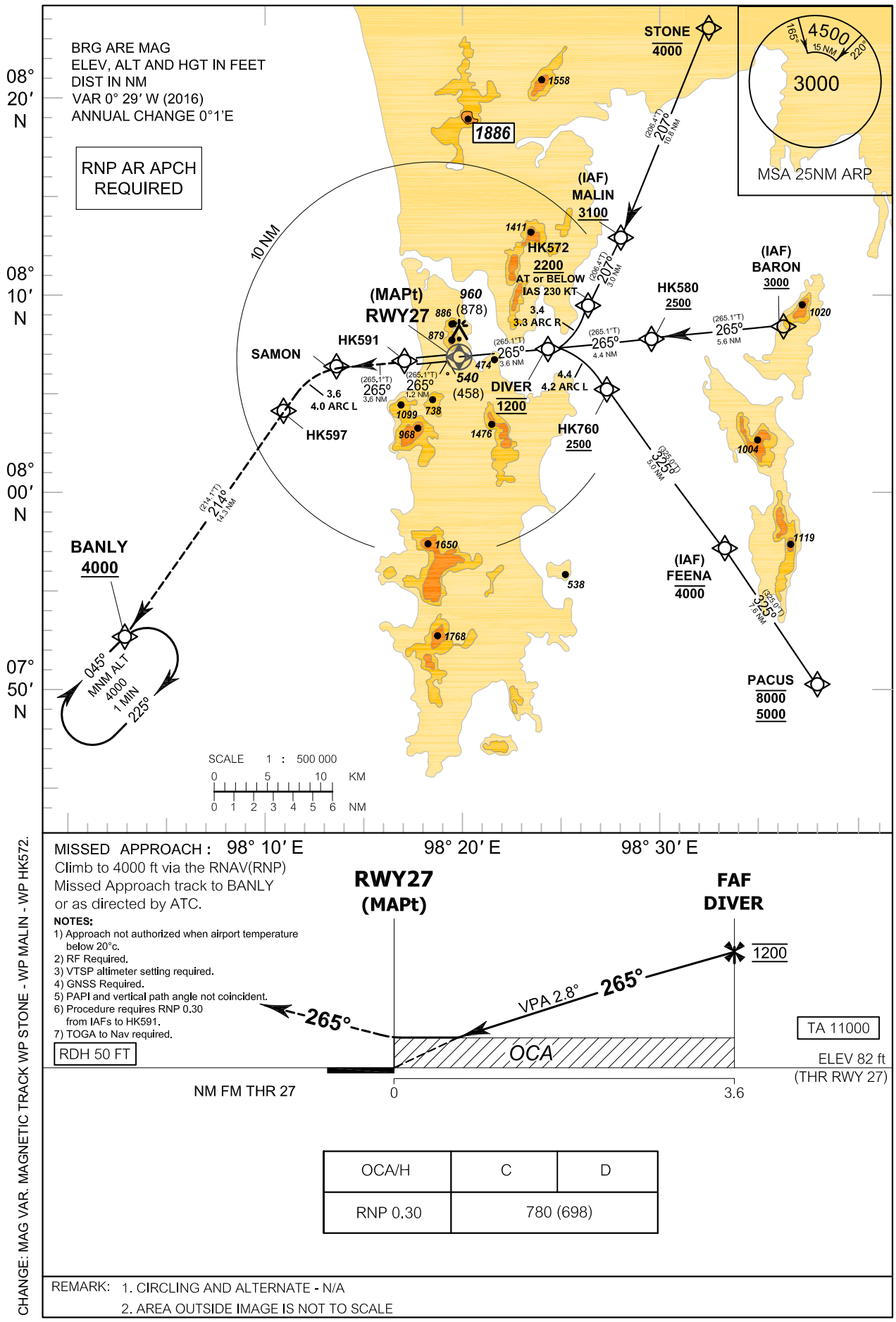
INSTRUMENT APPROACH CHART - ICAO

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.

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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 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° 35' W (2016) / 0° 0' E
6	AD Administration, address, telephone, telefax, telex, AFS	999 Moo 1 Nong Prue, Bangphli, Samut Prakan 10540, Thailand Tel: +662 132 1888 Fax: +662 132 1889 Website: https://suvarnabhumi.airportthai.co.th 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): Located at 2nd floor, the central block building, Don Mueang International Airport Tel: +66 2131 3901-3 Fax: +66 2131 3904 AFTN: VTBSZPZX 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) Website:www.bafsthai.com E-mail: poomravit@bafs.co.th wanijcha@bafs.co.th Tel: +662 834 8959 Fax: +662 929 5480 Fuel Dispenser Truck: 40 Fuel Refueller Truck: 4 - 2 Capacity: 65,000 L - 1 Capacity: 40,000 L - 1 Capacity: 35,000 L b) Aircraft Service International Group (THAILAND) CO.,LTD. (ASIG) Website:www.menziesaviation.com E-mail: n.boonpithaksap@johnmenzies.aero Tel: +662 327 3293-7 Fax: +662 327 3298 Fuel Dispenser Truck: 10 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.
6	Repair facilities for visiting aircraft	Major and minor repair available from Thai Airways International Plc. and line maintenance from International Airlines Technical Pool.

7	Remarks	The Airport has provided ground handling agents as following: a) Worldwide Flight Services Bangkok Air Ground Handling Co., Ltd. (BFS Ground) Website:www.bangkokflightservices.com **Schedule Airlines and Seasonal Charter:** Robert Ruesz, General Manager, Sales and Ground Services E-mail: RobertR@BFSASIA.com Tel: +668 8002 4975 Fax: +662 131 5099 **Ad Hoc Charter and Corporate Jet:** Ekpol Mekvishai, Contracts Manager E-mail: EkpolM@BFSASIA.com Tel: +668 5055 7671 Fax: +662 131 5099 **General Inquiry:** E-mail: marketing@bfsasia.com Tel: +662 131 5000 Fax: +662 131 5077 +662 131 5099 b) Thai Airways International Public Co.Ltd. (TG) Website:www.thaiairways.com **Ground Handling Services:** E-mail: thaigroundservices@thaiairways.com SITA: BKKKATG Tel: +662 137 1610 Fax: +662 137 1675 **Ad Hoc Charter Handling Services:** E-mail: tg.charter@thaiairways.com SITA: BKKZMTG Tel: +662 134 5067-8 **Catering Services:** Website: www.thaicatering.com E-mail: cat.info@thaiairways.com SITA: BKKDCTG Tel: +662 137 2101-5 +662 137 2410 Fax: +662 137 2450 c) LSG SKY CHEFS Website:www.lsgskychefs.com E-mail: DL.APAC.BKK.CustomerServices@lsgskychefs.com Tel: +662 131 1900 +662 131 1952 (24 hrs) +668 7970 3884 (24 hrs) d) Bangkok Air Catering Co, Ltd. (BAC) Website:www.bangkokaircatering .com E-mail: sales@bangkokaircatering.com Tel: +662 131 7500 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. 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 : 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: Airside Operations Department Tel: +662 132 6801 +668 9202 0341 (24 hrs) Fax: +662 132 6819 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 Main Apron, East Apron and West Apron Strength: PCR 1360/R/D/W/T SAT-1 Apron Strength: PCR 1010/R/A/W/T

2	Taxiway width, surface and strength	Minimum Width: 25 M Taxiways: B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12 and B13 Taxiways: C, C1, C2, C8, C9 and C10 Taxiways: D1, D2, D3, D4, D5, D6, D7, D8 and D9 Taxiways: E, E1, E2, E3, E5, E6, E7, E8, E9, E10, E12, E13, E15, E17, E19 and E21 H, H1 and H2 Taxilanes: T1, T2, T3, T4, T5, T10, T11, T12, T13 and T14 Surface: Asphalt Strength: PCR 1730/F/D/X/T Taxiways: F3, F5, F6, F7, F9, F10 and F15 Surface: Asphalt Strength: PCR 870/F/C/X/T Taxiways: B1 Taxilanes: T6, T7, T8, T9, T15, T16 and T17 Surface: Concrete Strength: PCR 1660/R/D/W/T Taxiways: D10 and D11Surface: Concrete Strength: PCR 1220/R/C/W/T Taxiways: J, J1, J2, J3 and J4 Taxiways: K Taxilanes: T18 and T19 Surface: Concrete Strength: PCR 900/R/A/W/T Taxiways: B Taxiways: C3, C4, C5, C6 and C7 Taxiways: G Taxiways: H3 and H4 Taxilanes: T12 Surface: Asphalt Strength: PCR 1730/F/D/X/T Surface: Concrete Strength: PCR 1660/R/D/W/T Taxiways: D Surface: Asphalt Strength: PCR 1730/F/D/X/T Surface: Concrete Strength: PCR 1220/R/C/W/T Taxiways: H5 and H6 Surface: Asphalt Strength: PCR 1730/F/D/X/T Surface: Concrete Strength: PCR 900/R/A/W/T Taxiways: F, F1, F2, F4, F8, F11 and F12 Taxiways: W, Y and Z Surface: Asphalt Strength: PCR 870/F/C/X/T Surface: Concrete Strength: PCR 1220/R/C/W/T
3	Altimeter checkpoint location and elevation	Location : At Apron 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. Guidelines at apron. 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. TWY: Centre line and edge marked and lighted.
3	Stop bars	Stop bars are installed at following locations: RWY 01/19 - Taxiway B1, B2, B3, B11, B12, B13 RWY 02R/20L - Taxiway E1, E2, E3, E5, E10, E15, E17, E19, E21 - Taxiway W, Y, Z RWY 02L/20R -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, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Aeronautical Meteorology Division 30 HR
4	Trend forecast Interval of issuance	TREND 30 Min

5	Briefing/consultation provided	Personal Consultation Tel: +662 134 0006-07 Fax: +662 134 0009
6	Flight documentation Language(s) used	Charts, Tabular Forms and Abbreviated Plain Language Texts 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 Observation System (AWOS), Low Level Wind Shear Alert System (LLWAS), Weather Radar, Local Lightning Warning System (LLWS), Light Detection and Ranging (LIDAR)
9	ATS units provided with information	Suvarnabhumi TWR Bangkok APP 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. Runway 02L/20R, pave jet blast protection areas at runway ends; 120 M long and 60 M wide. Runway 02R/20L surface is grooved; Runway 01/19 and 02L/20R surface is not grooved. 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 900 M 5 steps LIH; with FLG	Green	PAPI LEFT/3° (63.82 FT)	900 M	3700 M, 30 M White, FM 2800 M Red / White FM 3400 M Red 5 steps LIH	3700 M, 60 M White, FM 3100 M Yellow 5 steps LIH	Red	NIL	NIL
20L	CAT II 900 M 5 steps LIH; with FLG	Green	PAPI LEFT/3° (63.82 FT)	900 M	3700 M, 30 M White, FM 2800 M Red / White FM 3400 M Red 5 steps LIH	3700 M, 60 M White, FM 3100 M Yellow 5 steps LIH	Red	NIL	NIL
01	CAT II 900 M 5 steps LIH; with FLG	Green	PAPI LEFT/3° (63.82 FT)	900 M	4000 M, 30 M White, FM 3100 M Red/White FM 3700 M, Red 5 steps LIH	4000 M, 60 M White, FM 3400 M Yellow 5 steps LIH	Red	NIL	NIL
19	CAT II 900 M 5 steps LIH; with FLG	Green	PAPI LEFT/3° (63.82 FT)	900 M	4000 M, 30 M White, FM 3100 M Red/White FM 3700 M, Red 5 steps LIH	4000 M, 60 M White, FM 3400 M Yellow 5 steps 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 900 M 5 steps LIH	Green	PAPI LEFT/3° (63.82 FT)	900 M	4000 M, 30 M White, FM 3100 M Red/White FM 3700 M, Red 5 steps LIH	4000 M, 60 M White, FM 3400 M Yellow 5 steps LIH	Red	NIL	NIL
20R	CAT II 900 M 5 steps LIH	Green	PAPI LEFT/3° (63.82 FT)	900 M	4000 M, 30 M White, FM 3100 M Red/White FM 3700 M, Red 5 steps LIH	4000 M, 60 M White, FM 3400 M Yellow 5 steps 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 IBN: NIL
2	LDI location and LGT Anemometer location and LGT	6 WDIs are lighted and installed at following locations: - 4 WDIs 300 M from THR 01, THR 19, THR 02R, THR 20L, 115 M off-set from RWY Centre Line. - 1 WDI 280 M from THR 02L, 120 M off-set from RWY Centre Line. - 1 WDI 300 M from THR 20R, 120 M off-set from RWY Centre Line. 6 Anemometers are lighted and installed at following locations: - 4 Anemometers 350 M from THR 01, THR 19, THR 02R, THR 20L. - 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 Switch-over time: Lights Associated to Runway 0 sec (UPS) include - Approach Lights Systems - Runway Edge Lights - Runway Touchdown Zone Lights - Runway Centre Line Lights - Precision Approach Path Indicator Systems - Stop Bars - Runway Guard Lights - Runway End Lights - Runway Threshold Lights : Other lighting 15 sec
5	Remarks	NIL

VTBS AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 Language(s)	Suvarnabhumi Tower 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 124.35 MHz / 262.5 MHz 125.2 MHz / 262.5 MHz 133.4 MHz / 262.5 MHz 119.1 MHz / 262.5 MHz 120.3 MHz / 262.5 MHz 125.8 MHz [2] 121.5 MHz [1] / 243.0 MHz [1]	H24	[1] Emergency frequency [2] Clearance delivery for aircraft departing to adjacent aerodromes and helicopters operating within BKK CTR [3] For RWY 01/19 [4] For RWY 02R/20L and RWY 02L/20R [5] Arrival ATIS [6] Departure ATIS
APP	Suvarnabhumi Departure	119.25 MHz / 262.5 MHz 121.5 MHz [1] / 243.0 MHz [1]	H24	
ARR	Suvarnabhumi Arrival	121.1 MHz / 262.5 MHz 126.3 MHz / 262.5 MHz 121.5 MHz [1] / 243.0MHz [1]	H24	
TWR	Suvarnabhumi Tower	118.2 MHz [3] / 274.5 MHz 119.0 MHz [4] 121.5 MHz [1] / 243.0 MHz [1]	H24	
SMC	Suvarnabhumi Ground	121.65 MHz / 275.8 MHz 121.7 MHz 121.75 MHz 121.95 MHz	H24	
CDC	Suvarnabhumi Delivery	128.7 MHz 133.8 MHz	H24	
ATIS	Suvarnabhumi Airport	133.6 MHz [5] / 278.6 MHz [5] / 127.65 MHz [6]	H24	D-ATIS 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 CH 51X	H24	133932.5N 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: – Radial 131°-150° altitude should not below 4 000 FT – Radial 151°-250° altitude should not below 2 000 FT – Radial 251°-130° altitude should not below 2 500 FT
ILS CAT II LOC/DME RWY 02R	I-SWS	109.1 MHZ CH 28X	H24	134222.3N 1004437.8E	-	RWY02R ILS LOC coverage expanded service volume up to 25 DME altitude not below 2 500 FT AMSL.
GP		331.4 MHZ	H24	134027.8N 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/DME RWY 20L	I-SWN	109.5 MHZ CH 32X	H24	134007.5N 1004402.4E	-	RWY 20L ILS LOC coverage expanded service volume up to 25 DME altitude not below 2 500 FT AMSL.
GP		332.6 MHZ	H24	134203.9N 1004428.9E	-	
ILS CAT II LOC/DME RWY 01	I-SES	110.1 MHZ CH 38X	H24	134139.3N 1004542.1E	-	RWY01 ILS LOC coverage expanded service volume up to 25 DME altitude not below 2 500 FT AMSL.
GP		334.4 MHZ	H24	133933.4N 1004513.1E	-	
ILS CAT II LOC/DME RWY 19	I-SEN	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.
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) 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 utilizes 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 console to both the pilot and the co-pilot.

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.

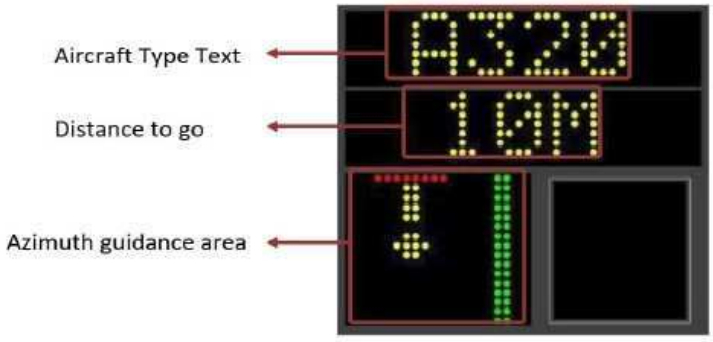


Figure A

13.2.1.1.1 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 display.
c) The word STOP is displayed.
d) A wrong type of aircraft indicates 'ID FAIL' is displayed.

13.2.1.1.2 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.

13.2.1.1.3 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

13.2.1.2 Docking Procedure

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 metres from the parking position and is directly at the centre line. Note that the progress bar and digital close-in distance are not displayed when the aircraft is greater than 30 metres away from the docking position. Airbus 320 aircraft is expected.
	In this picture the aircraft is at exactly 30 metres from the docking position, but is off to the right of the centre line. Starting at 30 metres, the digital close-in distance (second line of display) is displayed, in 1 metre decrements. The progress meter (lower left) will also be activated at this distance.
	The aircraft is at 20 metres from the docking position and has returned to the centre line. Note the position of progress meter. The arrow will advance one position every 2.5 metres.
	In this picture the aircraft is at 10 metres and is on the centre line
	The aircraft is now at 3.2 metres from the stop position and is on the centre line. Note that at below 5 metres, the close-in distance is displayed in 0.2 M decrements.

	Finally the aircraft is perfectly parked at the stop position, and perfectly centred. The word “STOP” is displayed in red. Note also the merging of the arrow and the stop line on the progress meter.
	The word “OK” is displayed in yellow. Docking is successful.

SLOW:

	During the docking process, the pilot must taxi into the aircraft stand at minimum speed. The system will display “SLOW” alternating SLOW message if the system detects the aircraft taxi speed is beyond the range of the preset speed and causing too fast for reliable detection. The “SLOW” message will return to close-in distance information once the aircraft speed is back to normal speed range.

ID FAIL:

 	For this aircraft type ID verification features, the incoming aircraft must be identified and verified at least 12 metres before the stopping position or otherwise, the system will display “ID FAIL” alternating ID/FAIL in the first row of the display. 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, the word “TooFar” will be displayed. The second row of the docking screen will indicate “STOP”. The aircraft shall stop immediately.

ERROR STOP:

	The system will display “Error” message as indicated if the system detects any hardware error that might affect the normal docking process. The second row of the display will indicate “STOP” and no aircraft is to be allowed to march in until the maintenance personnel has rectified the issue.

EMERGENCY STOP:

	The first and second row of the display will show “STOP”. 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

13.2.2.1.1 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.

13.2.2.1.2 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.

13.2.2.1.3 The SBU Message

The message STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance.

Warning: DO NOT TRY TO RESUME DOCKING WITHOUT MANUAL GUIDANCE.

13.2.2.1.4 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.

13.2.2.1.5 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

13.2.2.2 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. The pilot shall check that the correct aircraft type is displayed. The lead-in line shall be followed. The flight number for the approaching aircraft is displayed on the second line of the display if the information is available. The pilot must not proceed beyond the bridge 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. 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.

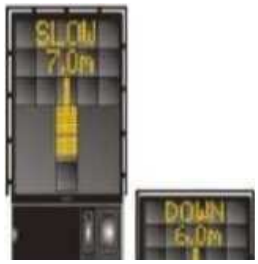
CLOSING RATE

	Display of digital countdown will start when the aircraft is 20 M from stop position. This information is shown instead of the flight number. 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. 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 metres 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 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. 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 overshoot the stop position, TOO FAR will be displayed.

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. Also the red lights are lit.

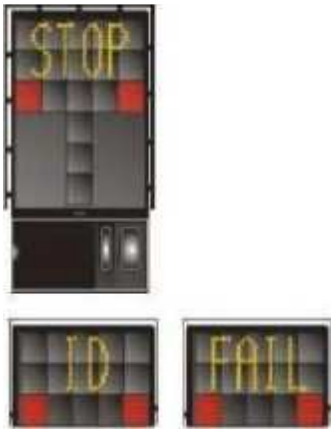
WAIT

	If 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 system detects the aircraft again and the closing-rate bar is shown. The pilot must not proceed beyond the bridge unless the “WAIT” message has been superseded by the closing rate bar.

BAD WEATHER CONDITION

 	During heavy fog, rain or snow, the visibility for the docking system can be reduced. 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 message and replace the rolling arrows with a blank lead-in display. 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. The pilot must not proceed beyond the bridge unless the closing rate bar is shown.

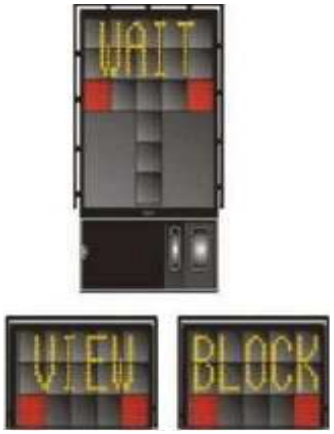
AIRCRAFT VERIFICATION FAILURE

	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, 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 unless the WAIT message has been superseded by the closing rate bar.

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 a wait and 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 unless the WAIT message has been superseded by the closing rate bar.

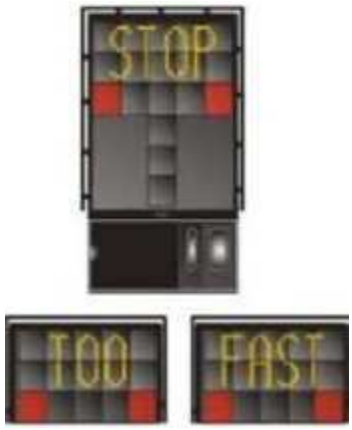
VIEW BLOCKED

	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 unless the WAIT message has been superseded by the closing rate bar.

SBU-STOP

	Any unrecoverable error during the docking procedure will generate an SBU (safety backup) condition. The display will show red stop bar and the text STOP SBU. A manual backup procedure must be used for docking guidance.

TOO FAST

	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. The docking system must be re-started or the docking procedure completed by manual guidance.

EMERGENCY STOP

	When the Emergency Stop button is pressed, STOP is displayed with red squares.

CHOCK ON

	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

	If a system error occurs, the message ERROR is display with an error code. The code is used for maintenance purposes and explained elsewhere.

SYSTEM BREAKDOWN

	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.

POWER FAILURE

	In case of a power failure, the display will be completely black. A manual backup procedure 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

This manual is structured in three main parts. The first chapter contains some introductory information about the APIS and important instructions for how to use this manual. The second chapter instructs how to mechanically install the Operator Panel and how to mount the APIS display unit and necessary supports.

The third chapter instructs you how to configure the AEC industrial computer and LADAR. The appendices in this manual contain all installation information specific to your site.

Please note that the instructions and figures in this manual are general instructions on how to install APIS (except for the information found in the appendices). Minor details in this manual may differ from your site.

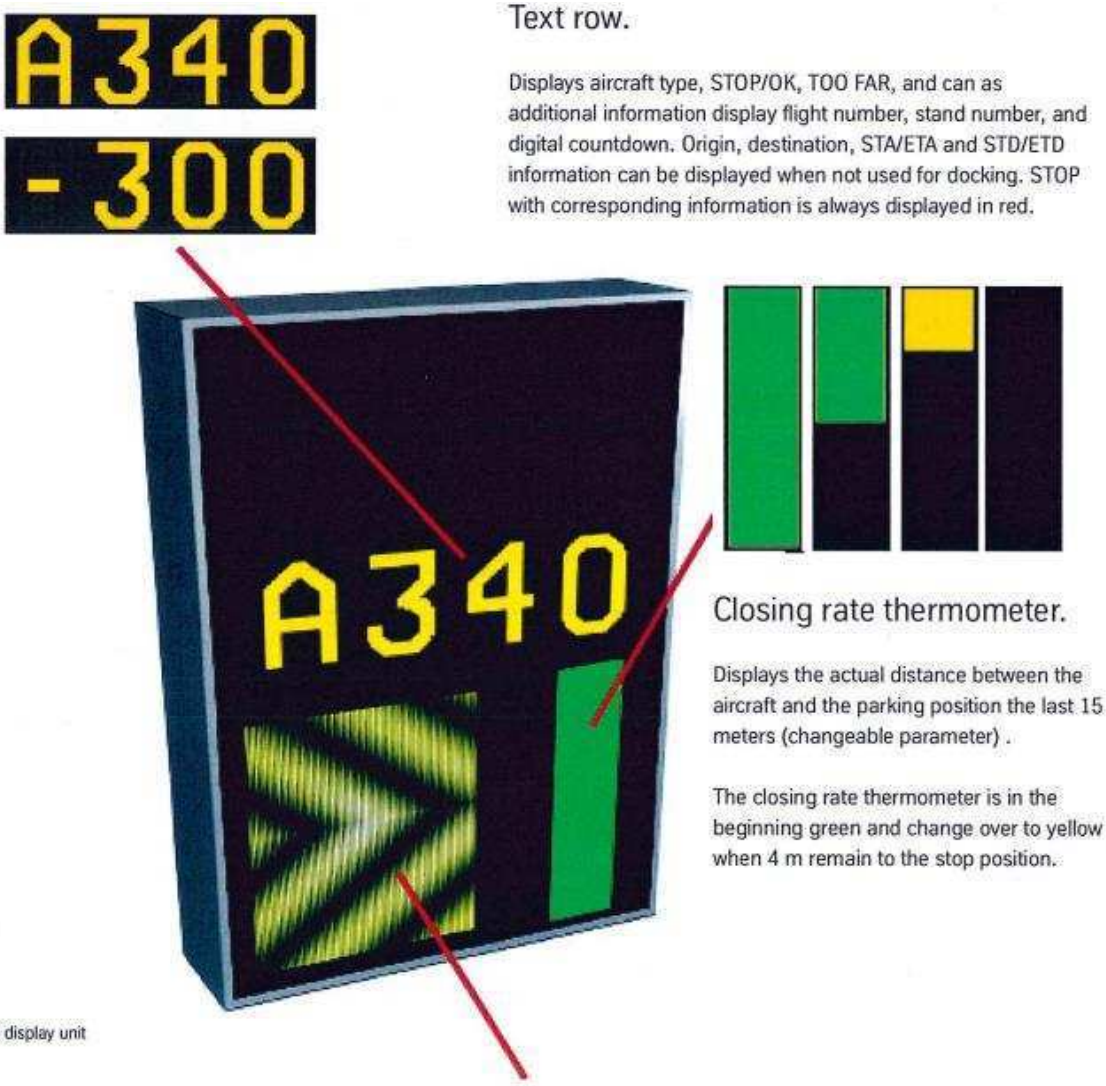


Figure 1: APIS display unit

Text row.

Displays aircraft type, STOP/OK, TOO FAR, and can as additional information display flight number, stand number, and digital countdown. Origin, destination, STA/ETA and STD/ETD information can be displayed when not used for docking. STOP with corresponding information is always displayed in red.

Closing rate thermometer.

Displays the actual distance between the aircraft and the parking position the last 15 meters (changeable parameter) .

The closing rate thermometer is in the beginning green and change over to yellow when 4 m remain to the stop position.

Azimuth guidance.

Displays an arrow when viewed from either side (left or right). The arrow pattern will become a straight line when viewed directly in front of the APIS display unit and First Officer azimuth guidance, respectively.



Safety instructions with essential information on risks associated with certain operations or recommended appropriate preventive measures are incorporated into the text.

Three levels of safety instructions are used in this manual:



WARNING
Risk for personal injury or physical damage to equipment, structures and surroundings.

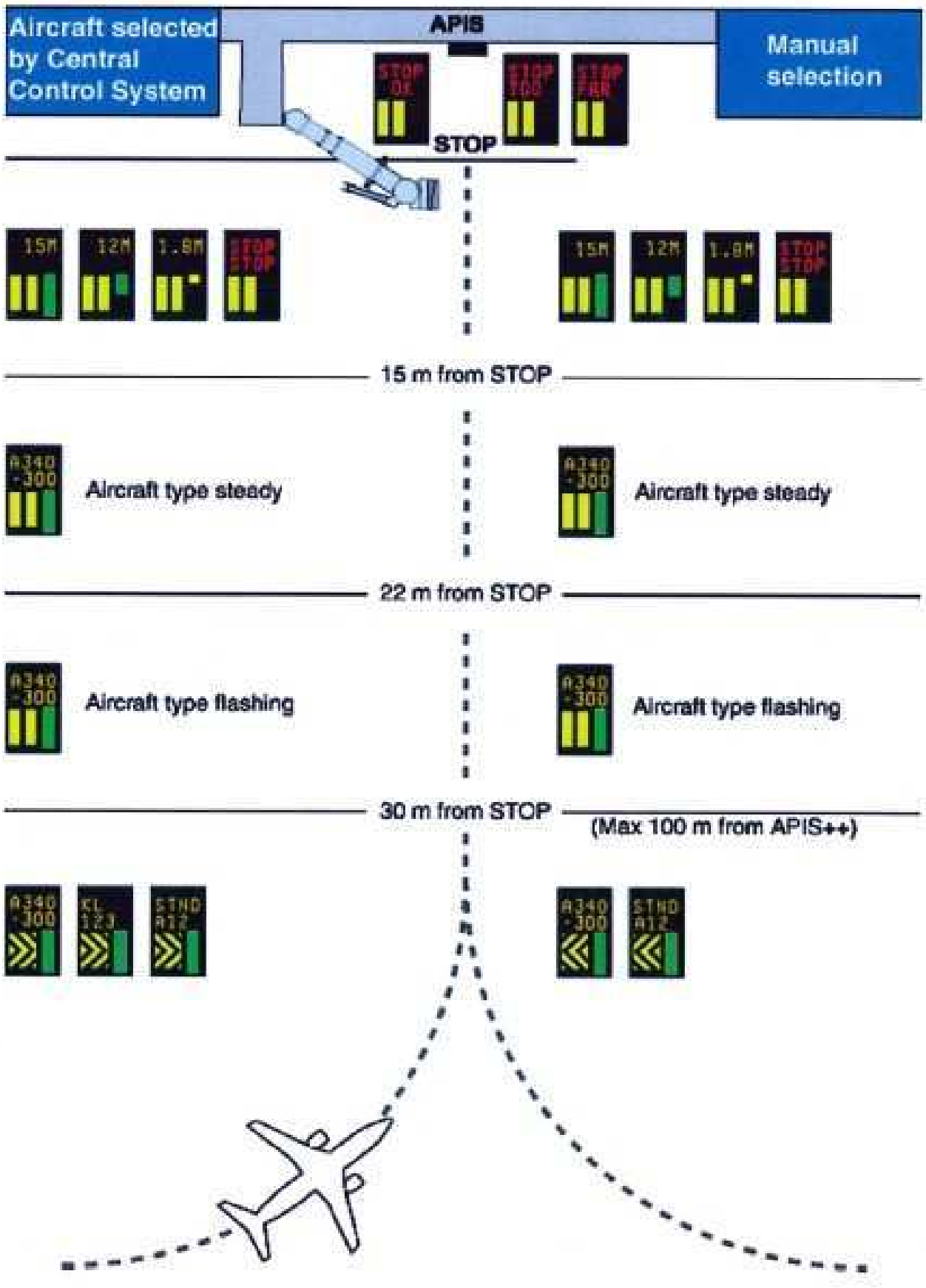


IMPORTANT
Important information that if neglected could result in damage to or erroneous function of equipment



NOTE
Correct practice recommendation or emphasized information.

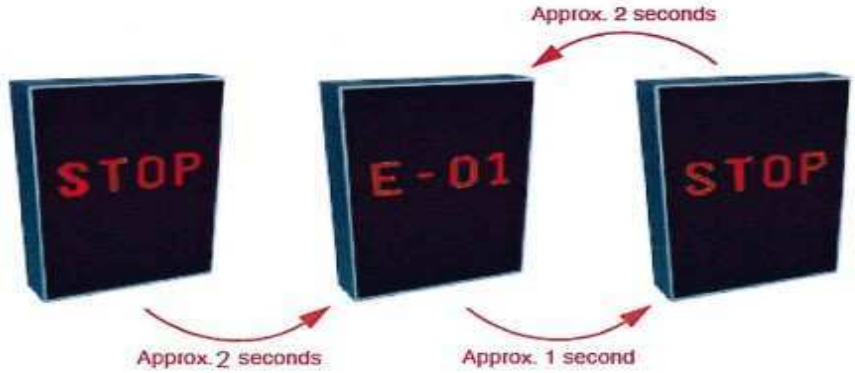
13.2.3.2 Docking Procedures



System detections

The internal computer in the APIS continuously checks for faults and errors. If a fault or error is detected, the text row will display STOP and the error code and the operator panel will display the error message.

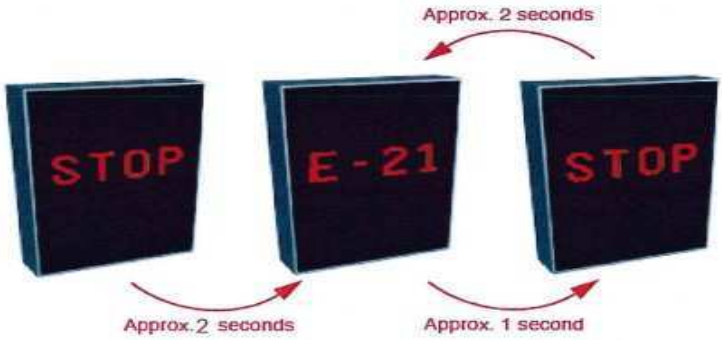
If there is more than one fault, the one with the highest priority will be displayed. The other faults will also be stored in the control computer's error log. If the APIS is configured with dual colour LEDs it will display STOP and all other error messages in RED colour.



Continuous check during docking

During aircraft docking the internal computer is monitoring the LADAR, and if there is any fault or error it will stop the docking and the APIS will display the corresponding error code, see picture below.

The communication with the LED displays is also continuously checked by a watch-dog message and if a display panel does not receive information from the internal computer within a specified time, the text row will automatically display STOP, the closing rate and azimuth guidance will be turned off.



Bridge in stop



Safety interlocks

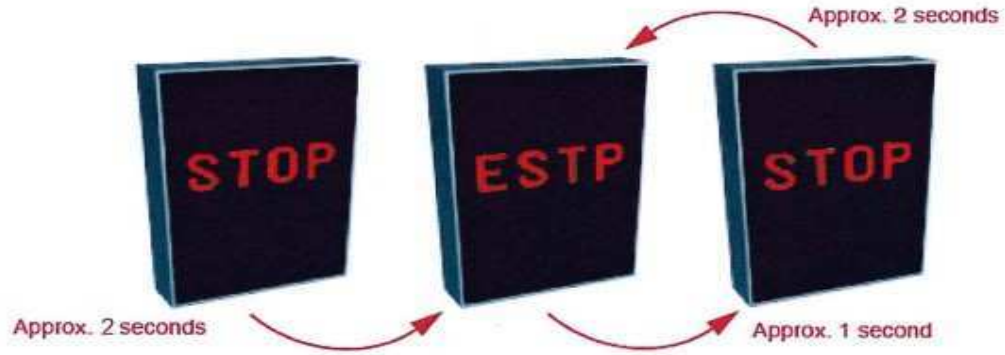
If interfaced to a Passenger Boarding Bridge the APIS does not allow docking unless the bridge is at its parked safe position. If the bridge is not in a safe position the APIS display will show a message indicating which bridge that is out of safe position, STOP BR 1 (BRidge 1). The operator panel will show the same information. There can be up to three separate bridges interlocked to each APIS at the same time.

Emergency stop

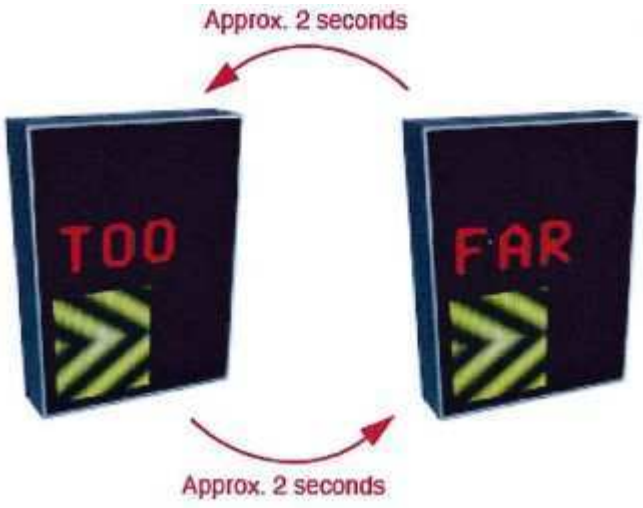
The emergency stop button is used when the approaching aircraft is in danger. When the emergency stop is activated, the text row will display STOP. After a while the text row displays ESTP and STOP until the emergency stop button is released.

During the time the emergency stop is activated all interlocks to other stand equipment are normally released. When the emergency stop button is released the APIS will revert to the status it had before the emergency stop was activated.

If a docking is active the sequence will proceed at the point it is at the moment of release. If the APIS is configured with dual colour LEDs it will display STOP in RED colour.



Too Far



Docking

When the APIS detects that the aircraft has passed the programmable tolerance of the stopping position it will display: TOO FAR

13.3 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).

13.4 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	RIVDU	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, Bangna-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, Bangna-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, Y6, Y8
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 one 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. Fuel Dumping Procedure and In-flight Management Procedures

11.1 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.

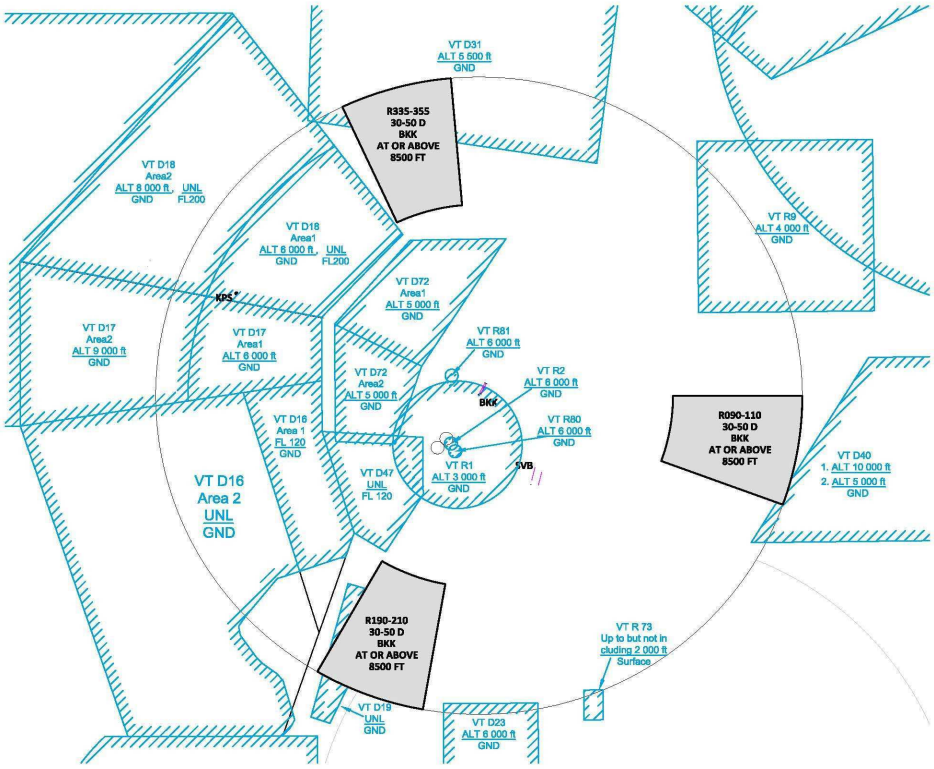
11.2 Fuel dumping areas

11.2.1 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.

11.2.2 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.

11.2.3 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



11.3 In-flight fuel management procedures

11.3.1 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

11.3.2 Actions taken by pilot

11.3.2.1 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.

11.3.2.2 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.

11.3.2.3 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.*

11.3.2.4 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).*

11.3.3 Actions taken by ATC

11.3.3.1 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:

11.3.3.1.1 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

11.3.3.1.2 Coordinate when transferring control of the aircraft to ensure other ATC units to be aware of the flight’s fuel state.

11.3.3.1.3 Standard phraseology

Pilot transmission: (C/S), MINIMUM FUEL
Controller transmission: (C/S), ROGER [NO DELAY EXPECTED or EXPECT (delay information)]

11.3.3.2 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.

11.3.3.2.1 Standard phraseologies

Pilot Transmission: (C/S) MAYDAY, MAYDAY, MAYDAY FUEL
Controller transmission: (C/S) ROGER MAYDAY

12. Aircraft Transponder Failure Procedures

12.1 Control of aircraft experiencing transponder failure procedure.

12.1.1 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”

12.1.2 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.

12.2 Control of aircraft overflying Bangkok FIR or aircraft intending to land at Suvarnabhumi International Airport with its failed transponder procedure

12.2.1 ATC must immediately inform the pilot of his transponder failure so that he could check its operations and repair it.

12.2.2 ATC shall control, according to the filed flight plan, the aircraft experiencing transponder failure to land safely at Suvarnabhumi International Airport.

12.2.3 ATC shall control, according to the filed flight plan, the over-fly aircraft experiencing transponder failure to land safely at the destination aerodrome.

12.2.4 Approach Control shall coordinate closely with Suvarnabhumi Tower and/or other concerned units regarding the problem.

12.3 The above procedures shall be applied to all aircraft except state aircraft and military aircraft.

12.4 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 80 NM.

13. Radio communication failure procedure

13.1 General

13.1.1 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.

13.1.2 The transponder is set to be Mode A code 7600 as soon as the pilot has detected communication failure.

13.1.3 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.

13.1.4 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.

13.2 Total radio communication failure for arriving aircraft

13.2.1 If in VMC, continue to fly in VMC and land at the nearest suitable aerodrome.

13.2.2 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:

13.2.2.1 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.

13.2.2.2 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.

13.2.3 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.

13.2.4 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.

13.3 Total radio communication failure for missed approach aircraft

13.3.1 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.

13.3.2 The pilot then shall complete one holding then start commencing an appropriate approach procedure and landing direction in accordance with para 13.5 below.

13.3.3 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.

13.4 Partial radio communication failure for arriving aircraft

13.4.1 Aircraft unable to receive: pilots shall adopt the total radio communication failure procedures specified in para 13.2 above.

13.4.2 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.

13.5 Identification of Runway in use

13.5.1 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.

13.5.2 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.

13.6 Total radio communication failure for departing aircraft

13.6.1 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.

13.6.2 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:

13.6.2.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

13.6.2.2 The pilot shall comply with the last assigned altitude in accordance with the published speed and altitude restrictions of the relevant SID procedure.

13.6.2.3 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.

13.6.2.4 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 13.5 above.

13.7 Partial radio communication failure for departing aircraft

13.7.1 Aircraft unable to receive: pilots shall adopt the total radio failure procedures specified in para 13.6.2 above.

13.7.2 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.

13.8 Aircraft overflying Bangkok TMA

13.8.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

13.8.2 If in VMC, the pilot shall continue to fly in VMC and land at the nearest suitable aerodrome.

13.8.3 If in IMC, or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with para 13.8.2 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.

13.9 Departing or overflying aircraft

13.9.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

13.9.2 The pilot shall maintain the last assigned heading, speed and level, or minimum flight altitude if higher, for a period of two minutes following:

13.9.2.1 The time the last assigned level or minimum flight altitude is reached; or

13.9.2.2 The time the transponder is set to 7600; or

13.9.2.3 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.

13.9.3 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.

13.10 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

VTBS AD 2.23 ADDITIONAL INFORMATION

1. Bird concentrations

1.1 Bird concentrations in the vicinity of Suvarnabhumi International Airport.

1.1.1 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
Phone +662 132 6981, +662 132 6982
E-mail: birdstrikevtbs@airportthai.co.th

Highly endangered kinds are as follows:

Species	Weight (KG)	Period
Open-billed stork	2.3 - 4.4	All year (mostly in June - July)
Painted stork	2 - 3	All year (mostly in June - July)
Cattle Egret	0.3 - 0.4	All year (mostly in July - November)
Oriental Pratincole	0.07 - 0.095	February - November
Black-winged Stilt	0.25 - 0.3	All year (mostly in April - February)
Red Collared Dove	0.08 - 0.1	All year (mostly in June - October)

Remark: Bird concentrations chart is shown in page AD2-VTBS-9-1 Dated 18 July 2019

1.1.2 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.

1.2 Grass mowing program

1.2.1 Grass mowing in the airside may take place daily during 0100-1000 UTC

1.2.2 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.

1.2.3 Presence of workers and machines are under ATC and AOT staff supervision.

1.2.4 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K VANKO1K	AD 2-VTBS-6-1
Standard Departure Chart - Instrument (SID) - ICAO – RNAV RWY 01 - ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K VANKO1K (Waypoint list table)	AD 2-VTBS-6-12
Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F	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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Verso)	AD 2-VTBS-6-14
Standard Departure Chart - Instrument (SID) - ICAO -RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Radio communication failure table)	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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Tabular description1)	AD 2-VTBS-6-16

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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Tabular description2)	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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Tabular description3)	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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Tabular description4)	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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Tabular description5)	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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Tabular description6)	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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Tabular description7)	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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Tabular description8)	AD 2-VTBS-6-23
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L - ALBOS1F BONVO1F BUT1F DOSBU1F GOMES1F HHN1F KASNI1F LIPLI1F NOBER2F NUNLI1F OLVUK1F PASTO1F REGOS1F RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Tabular description9)	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 RIVDU1F RYN1F SELKA1F SEMBO2F TARED1F UKERA1F VANKO1F (Waypoint list table)	AD 2-VTBS-6-25
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Verso)	AD 2-VTBS-6-28
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R - ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Radio communication failure table)	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Tabular description1)	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Tabular description2)	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Tabular description3)	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Tabular description4)	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Tabular description5)	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Tabular description6)	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Tabular description7)	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Tabular description8)	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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H (Waypoint list table)	AD 2-VTBS-6-38

Chart name	Page
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J	AD 2-VTBS-6-39
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Verso)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Radio communication failure table)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Tabular description1)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Tabular description2)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Tabular description3)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Tabular description4)	AD 2-VTBS-6-45
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - ALBOS1J BONVO1J BUT1J DOSBU1J GOMES1J HHN1J KASNI1J LIPLI1J NOBER2J NUNLI1J OLVUK1J PASTO1J REGOS1J RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Tabular description5)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Tabular description6)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Tabular description7)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Tabular description8)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Tabular description9)	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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J (Waypoint list table)	AD 2-VTBS-6-51
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G	AD 2-VTBS-6-53
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Verso)	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 RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Radio communication failure table)	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 RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Tabular description1)	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 RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Tabular description2)	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 RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Tabular description3)	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 RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Tabular description4)	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 RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Tabular description5)	AD 2-VTBS-6-60

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Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L - ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Tabular description6)	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 RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Tabular description7)	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 RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Tabular description8)	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 RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G (Waypoint list table)	AD 2-VTBS-6-64
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E	AD 2-VTBS-6-65
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Verso)	AD 2-VTBS-6-66
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R - ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Radio communication failure table)	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 RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Tabular description 1)	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 RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Tabular description 2)	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 RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Tabular description 3)	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 RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Tabular description 4)	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 RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Tabular description 5)	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 RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Tabular description 6)	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 RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Tabular description 7)	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 RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Tabular description 8)	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 RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E (Waypoint list table)	AD 2-VTBS-6-76
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-6-77
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-6-78
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 (PROPELLER) - ALBOS1U BUT1U DOSBU1U GOMES1U HOTEL1U KASNI1U LIPLI1U NOBER1U NUNLI1U REGOS1U RYN1U SELKA1U SEMBO1U TL1U (Tabular description 1)	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 (Tabular description 2)	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 3)	AD 2-VTBS-6-81

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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-6-82
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 5)	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 (Waypoint list table)	AD 2-VTBS-6-84
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-6-85
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-6-86
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02L (PROPELLER) - ALBOS1Q BUT1Q DOSBU1Q GOMES1Q HOTEL1Q KASNI1Q LIPLI1Q NOBER1Q NUNLI1Q REGOS1Q RYN1Q SELKA1Q SEMBO1Q TL1Q (Tabular description 1)	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 (Tabular description 2)	AD 2-VTBS-6-88
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-6-89
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 4)	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 5)	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 (Waypoint list table)	AD 2-VTBS-6-92
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-6-93
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-6-94
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02R (PROPELLER) - ALBOS1S BUT1S DOSBU1S GOMES1S HOTEL1S KASNI1S LIPLI1S NOBER1S NUNLI1S REGOS1S RYN1S SELKA1S SEMBO1S TL1S (Tabular description 1)	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 (Tabular description 2)	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 3)	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 4)	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 5)	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 (Waypoint list table)	AD 2-VTBS-6-100
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-6-101
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-6-102
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 (PROPELLER) -ALBOS1T BUT1T DOSBU1T GOMES1T HOTEL1T KASNI1T LIPLI1T NOBER1T NUNLI1T REGOS1T RYN1T SELKA1T SEMBO1T TL1T (Tabular description 1)	AD 2-VTBS-6-103

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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-6-104
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 3)	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 4)	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 5)	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 (Waypiont list table)	AD 2-VTBS-6-108
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-6-109
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-6-110
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-6-111
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20L (PROPELLER) - ALBOS1R BUT1R DOSBU1R GOMES1R HOTEL1R KASNI1R LIPLI1R NOBER1R NUNLI1R REGOS1R RYN1R SELKA1R SEMBO1R TL1R (Tabular description 2)	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 3)	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 4)	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 5)	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 (Waypoint list table)	AD 2-VTBS-6-116
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-6-117
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-6-118
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20R (PROPELLER) - ALBOS1P BUT1P DOSBU1P GOMES1P HOTEL1P KASNI1P LIPLI1P NOBER1P NUNLI1P REGOS1P RYN1P SELKA1P SEMBO1P TL1P (Tabular description 1)	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 (Tabular description 2)	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 3)	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 4)	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 5)	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 (Waypoint list table)	AD 2-VTBS-6-124
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 01/02L/02R - EASTE1D LEBIM1D NORTA1D TUMGA1D WILLA1D	AD 2-VTBS-7-1

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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
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
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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

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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
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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
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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
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

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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

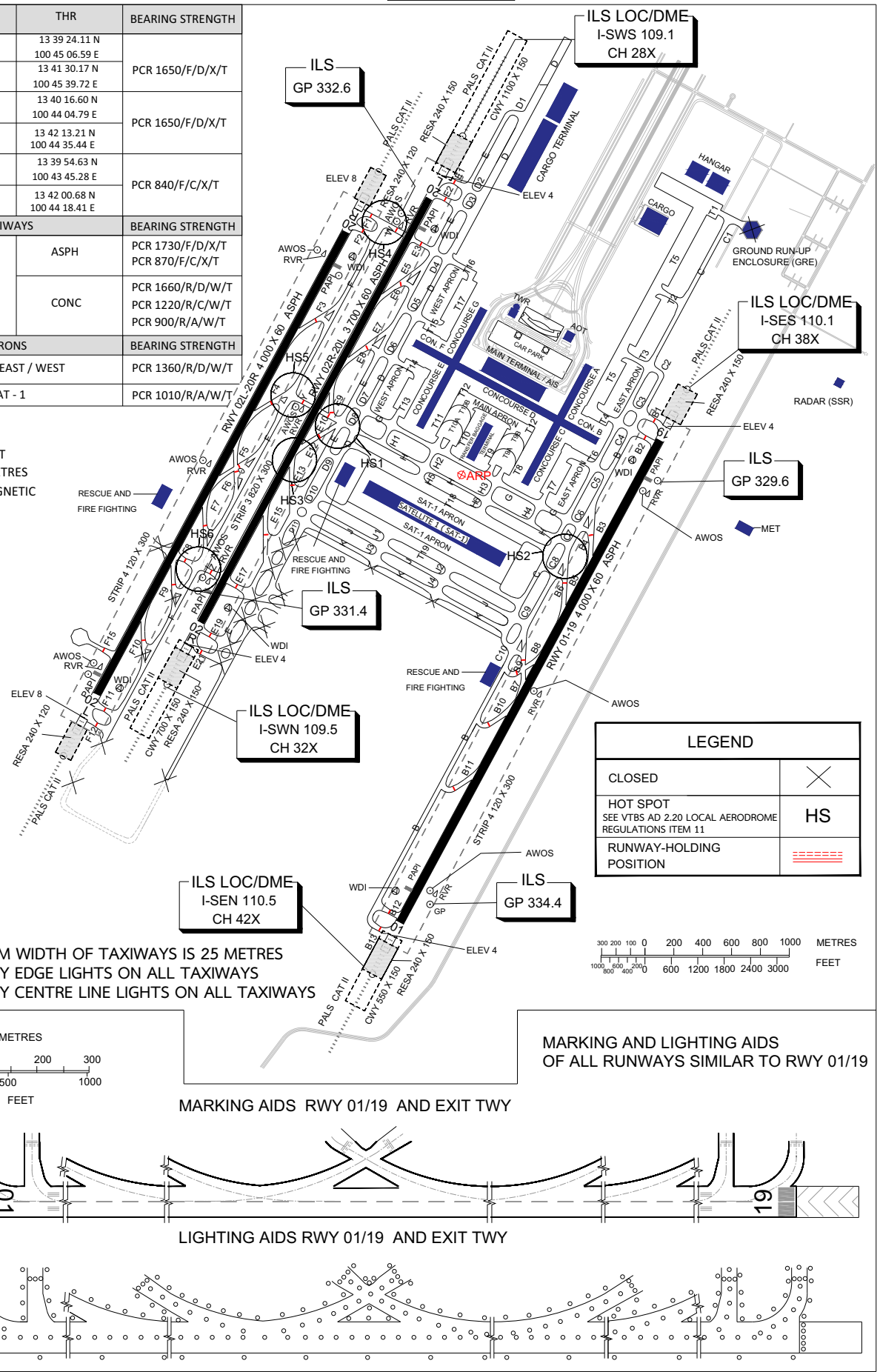
RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
01	14	13 39 24.11 N 100 45 06.59 E	PCR 1650/F/D/X/T
19	194	13 41 30.17 N 100 45 39.72 E	
02R	14	13 40 16.60 N 100 44 04.79 E	PCR 1650/F/D/X/T
20L	194	13 42 13.21 N 100 44 35.44 E	
02L	14	13 39 54.63 N 100 43 45.28 E	PCR 840/F/C/X/T
20R	194	13 42 00.68 N 100 44 18.41 E	

TAXIWAYS		BEARING STRENGTH
SURFACE TYPE	ASPH	PCR 1730/F/D/X/T PCR 870/F/C/X/T
	CONC	PCR 1660/R/D/W/T PCR 1220/R/C/W/T 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

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

MAG VAR 0°35' W (2016)
ANNUAL CHANGE 0° 0' E



LEGEND	
CLOSED	✕
HOT SPOT SEE VTBS AD 2.20 LOCAL AERODROME REGULATIONS ITEM 11	HS
RUNWAY-HOLDING POSITION	≡≡≡≡≡≡≡

REMARKS :
- MINIMUM WIDTH OF TAXIWAYS IS 25 METRES
- TAXIWAY EDGE LIGHTS ON ALL TAXIWAYS
- TAXIWAY CENTRE LINE LIGHTS ON ALL TAXIWAYS

METRES
0 50 100 200 300
0 500 1000
FEET

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 : REVISED CHART

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AIRCRAFT PARKING / DOCKING CHART-ICAO

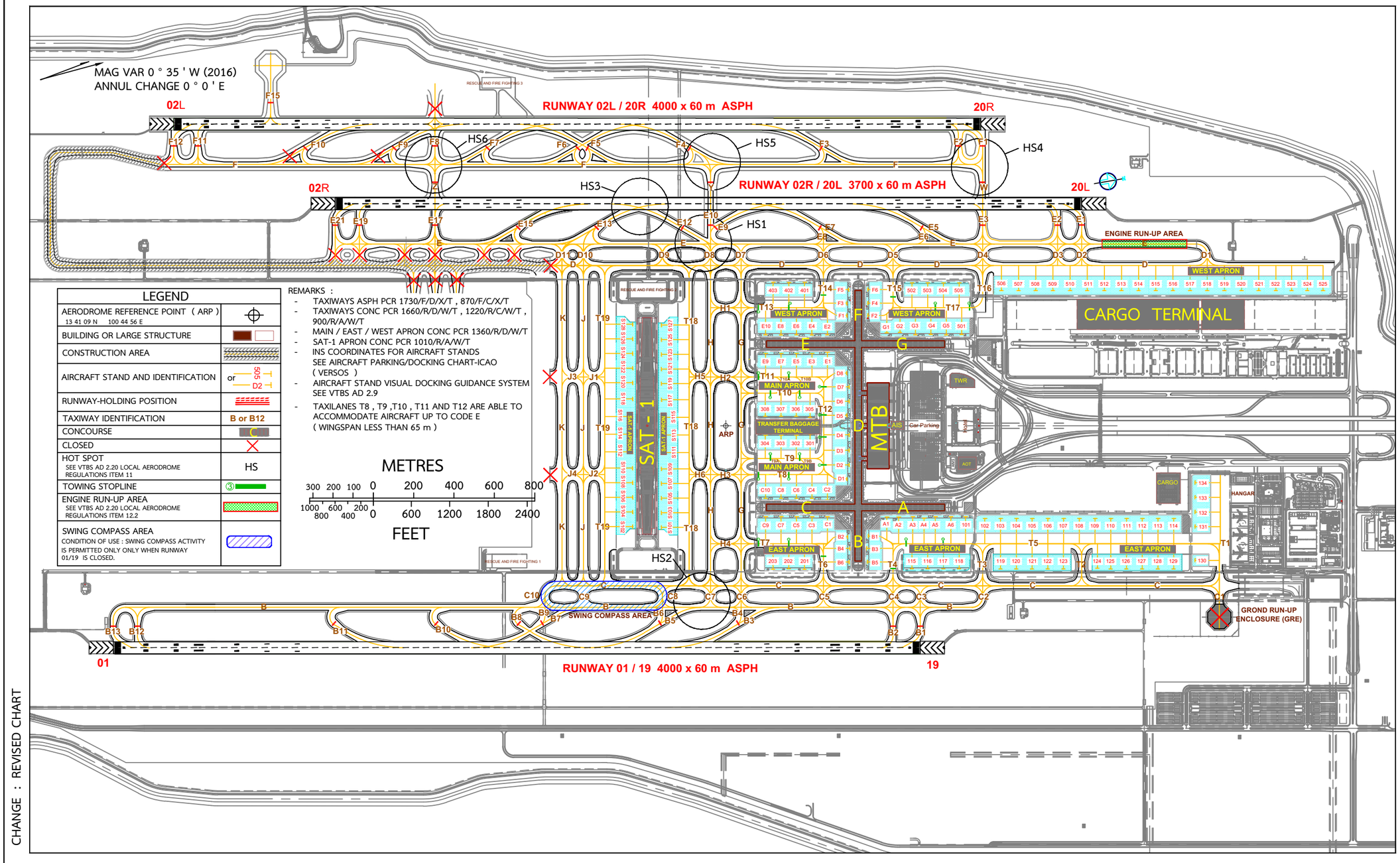
13 41 09 N
100 44 56 E

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 905 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
FEET
1000 800 600 400 200 0 600 1200 1800 2400

CHANGE : REVISED CHART

**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° 35′ W (2016)

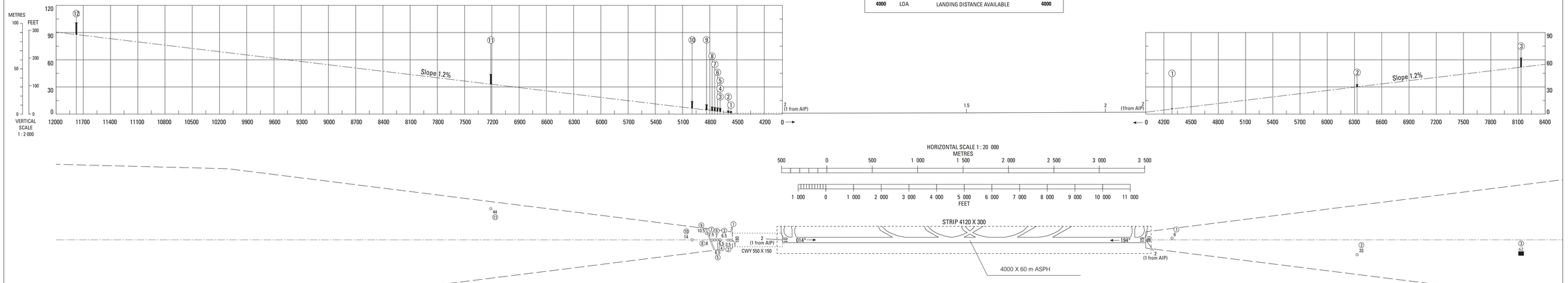
ANNUAL CHANGE 0°0′ E

REFERENCE HEIGHT EGM96

CHANGE: REVISED CHART

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	25 APR 2024	Airports of Thailand Public Company Limited (AOT)
02	5 JUL 2024	Airports of Thailand Public Company Limited (AOT)
03	17 AUG 2024	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° 35′ W (2016)

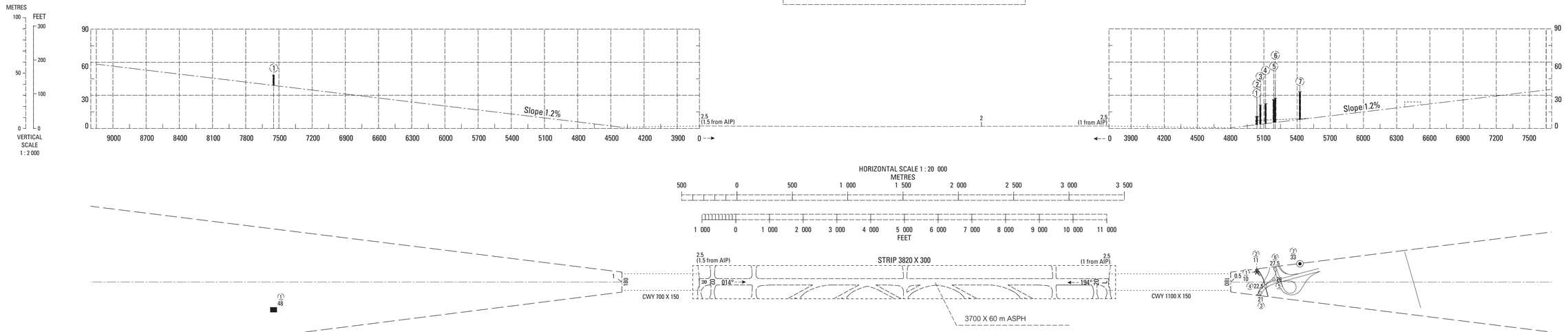
ANNUAL CHANGE 0°0′ E

REFERENCE HEIGHT EGM96

CHANGE: REVISED CHART

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	Plan * Profile
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	25 APR 2024	Airports of Thailand Public Company Limited (AOT)
02	5 JUL 2024	Airports of Thailand Public Company Limited (AOT)
03	17 AUG 2024	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° 35′ W (2016)

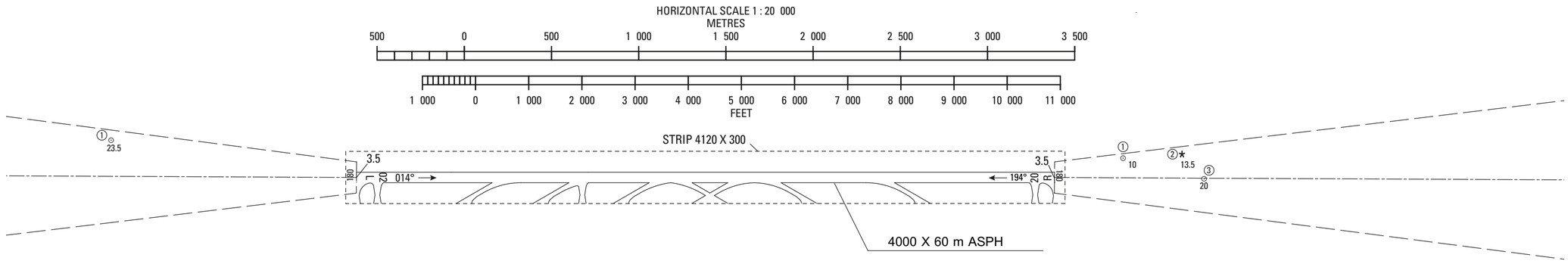
ANNUAL CHANGE 0°0′ E

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

CHANGE: REVISED CHART

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)

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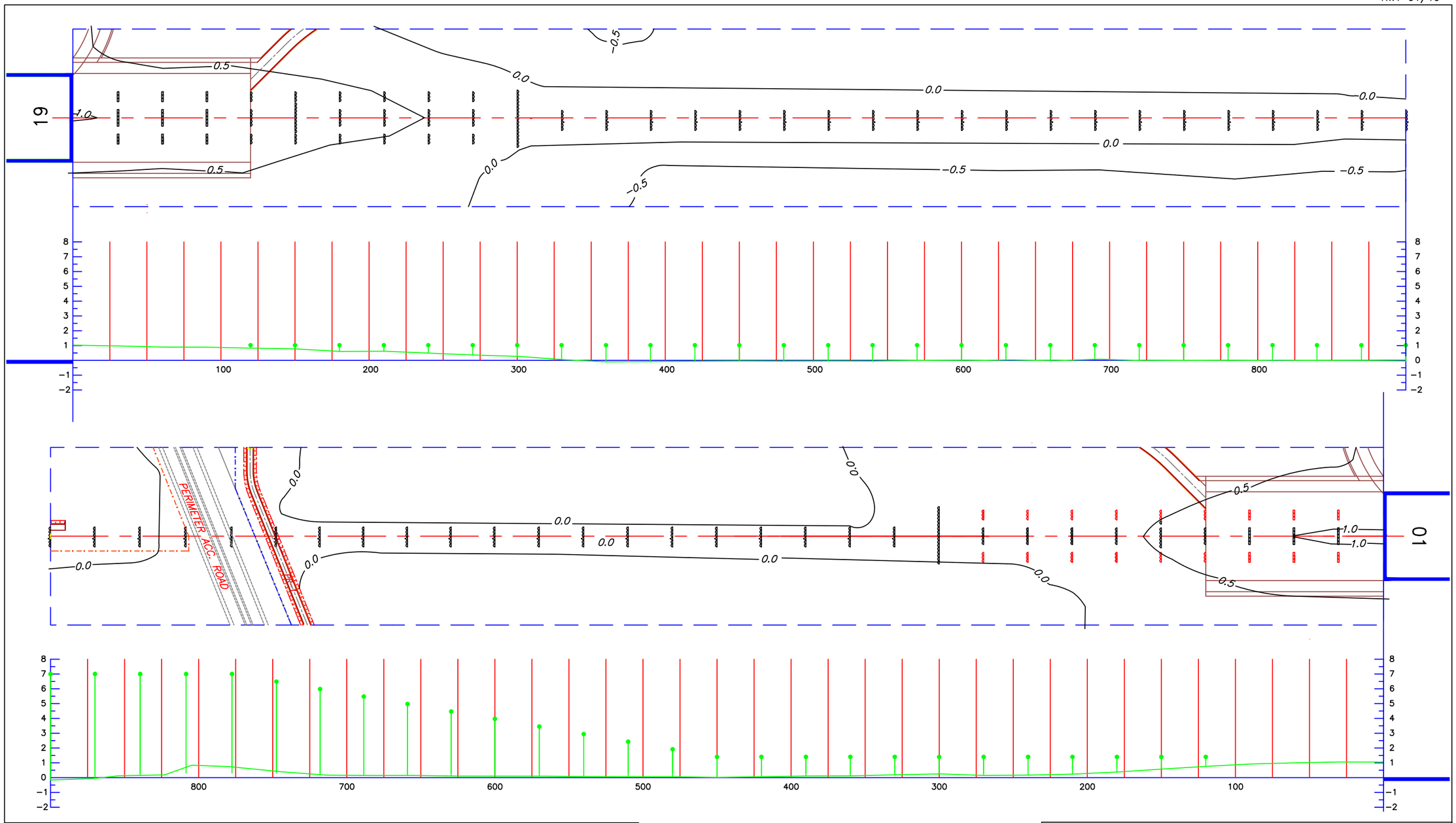
DIMENSIONS AND ELEVATIONS IN METRES

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

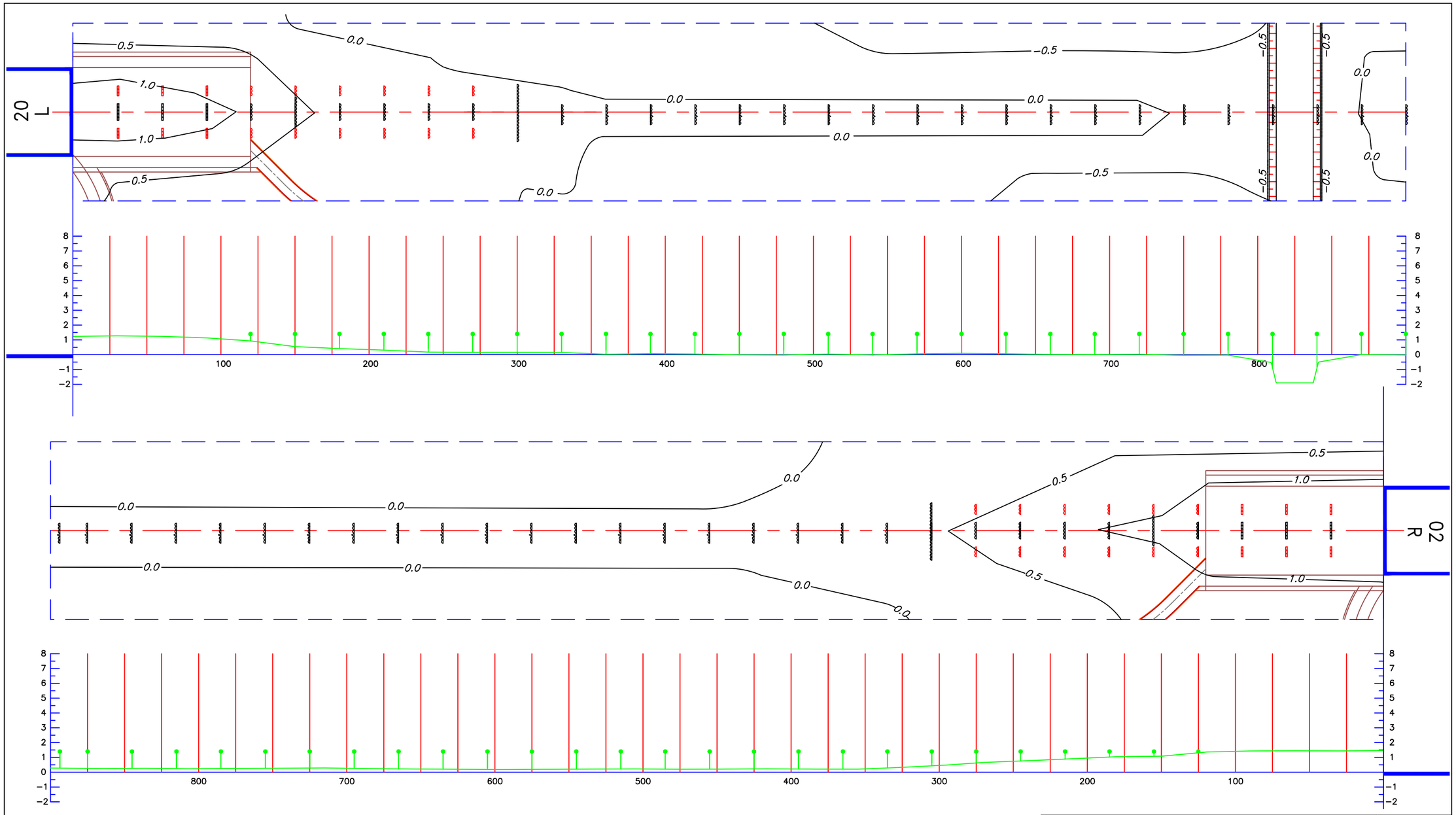
AMENDMENT RECORD		
NO.	DATE	ENTERED BY
01	16 FEB 2024	Airports of Thailand Public Company Limited (AOT)

INTENTIONALLY BLANK

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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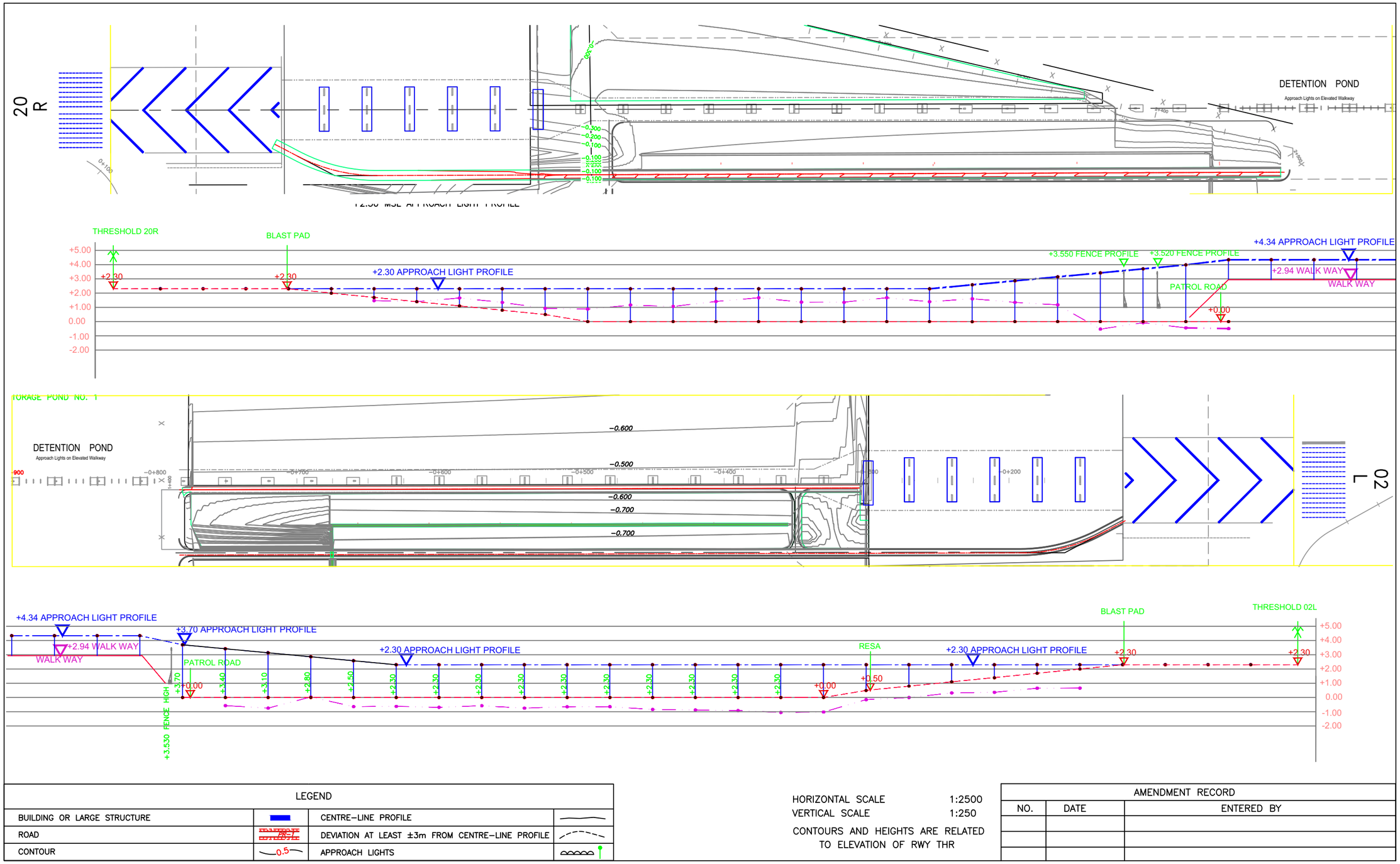
DIMENSIONS AND ELEVATIONS IN METRES

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

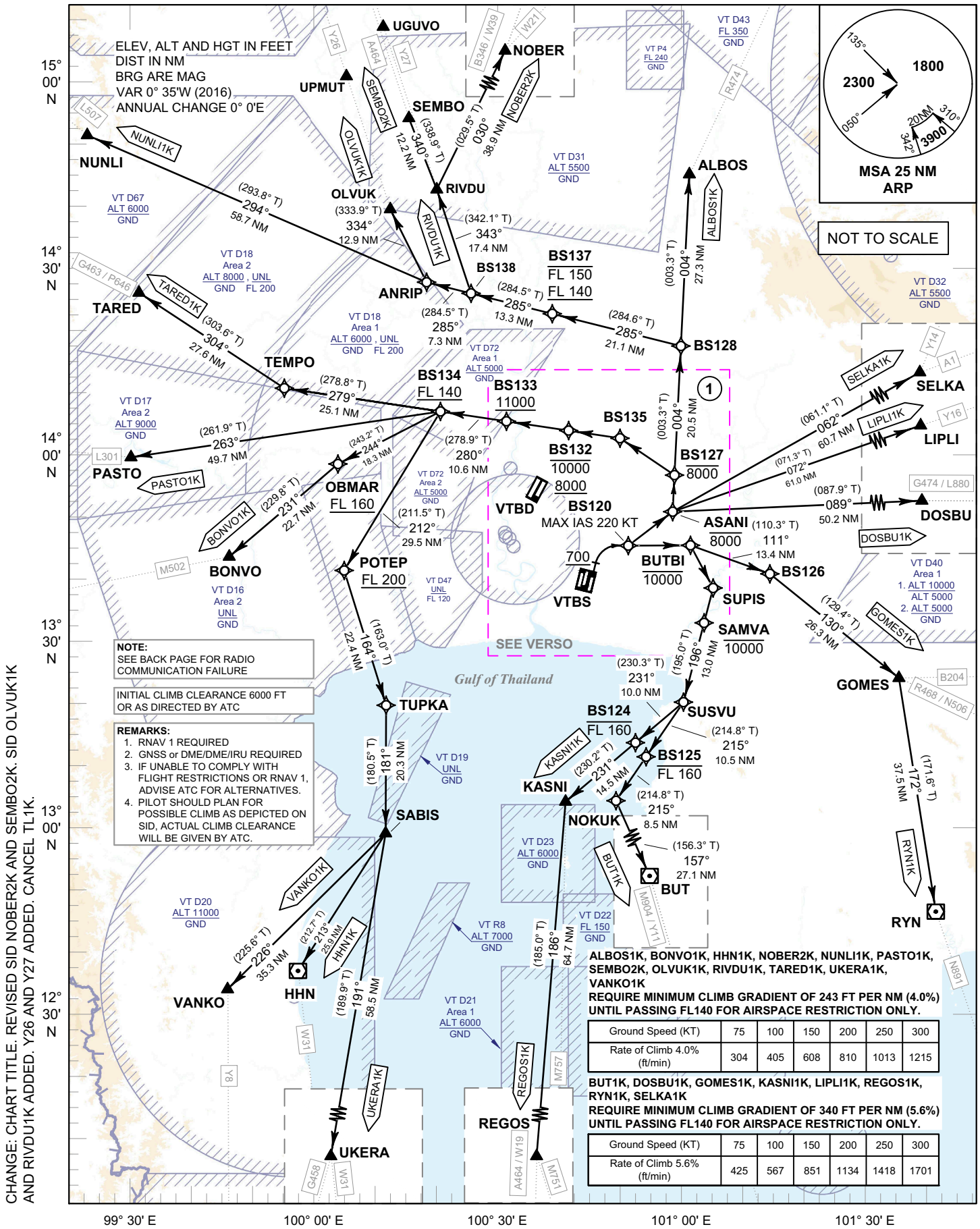
TRANSITION ALTITUDE
11000 FT

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

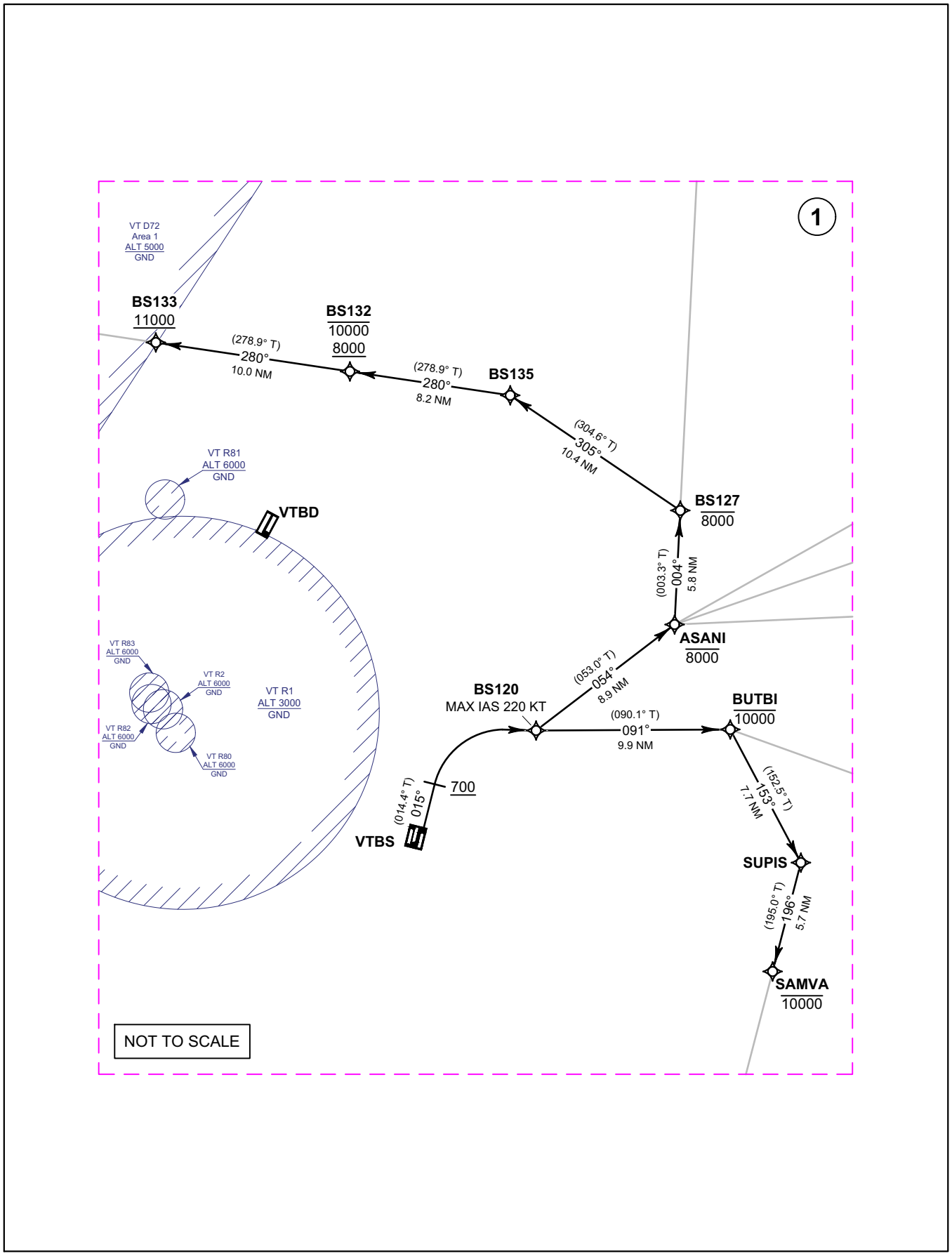
ALBOS1K BONVO1K BUT1K DOSBU1K GOMES1K HHN1K KASNI1K LIPLI1K NOBER2K NUNLI1K OLVUK1K PASTO1K REGOS1K RIVDU1K RYN1K SELKA1K SEMBO2K TARED1K UKERA1K VANKO1K



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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K 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: NOKUK PATH DESCRIPTOR.

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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K 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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K 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. REVISED NOBER2K.

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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K 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: BS138 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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K 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. REVISED TABULAR DESCRIPTION.

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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K VANKO1K

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU1K 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	RIVDU	-	343°(342.1°)	+ 0.6	17.4	-	-	-	-	RNAV 1
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

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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K 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. REVISED TABULAR DESCRIPTION.

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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K VANKO1K

CHANGE: CHART TITLE.

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

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 RIVDU1K RYN1K SELKA1K
SEMBO2K TARED1K UKERA1K VANKO1K

WAYPOINT LIST

RNAV RWY01

Waypoint Identifier	Coordinates	Waypoint Identifier	Coordinates
DER RWY01	13° 41' 30.17" N 100° 45' 39.72" 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
BS120	13° 45' 35.12" N 100° 51' 12.24" E	OLVUK	14° 39' 28.38" N 100° 12' 40.23" E
BS124	13° 14' 09.80" N 100° 52' 07.86" E	PASTO	14° 00' 04.50" N 099° 30' 06.94" E
BS125	13° 11' 54.24" N 100° 53' 50.73" E	POTEP	13° 41' 54.24" N 100° 04' 50.87" E
BS126	13° 40' 53.94" N 101° 14' 15.09" E	REGOS	12° 00' 06.50" N 100° 34' 54.30" E
BS127	13° 56' 45.99" N 100° 58' 49.99" E	RIVDU	14° 42' 35.67" N 100° 20' 18.57" E
BS128	14° 17' 20.29" N 101° 00' 03.68" 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
BS137	14° 22' 38.81" N 100° 39' 04.16" E	SUPIS	13° 38' 43.46" N 101° 04' 58.79" E
BS138	14° 25' 58.19" N 100° 25' 48.74" E	SUSVU	13° 20' 33.99" N 100° 59' 59.73" E
BUT	12° 40' 00.02" N 101° 00' 01.71" E	TARED	14° 26' 19.52" N 099° 31' 28.87" E
BUTBI	13° 45' 33.49" N 101° 01' 20.98" 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	TUPKA	13° 20' 22.25" N 100° 11' 34.96" E
HHN	12° 38' 04.04" N 099° 57' 04.23" E	UKERA	12° 02' 07.25" N 100° 01' 09.59" 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. REVISED WAYPOINT LIST.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

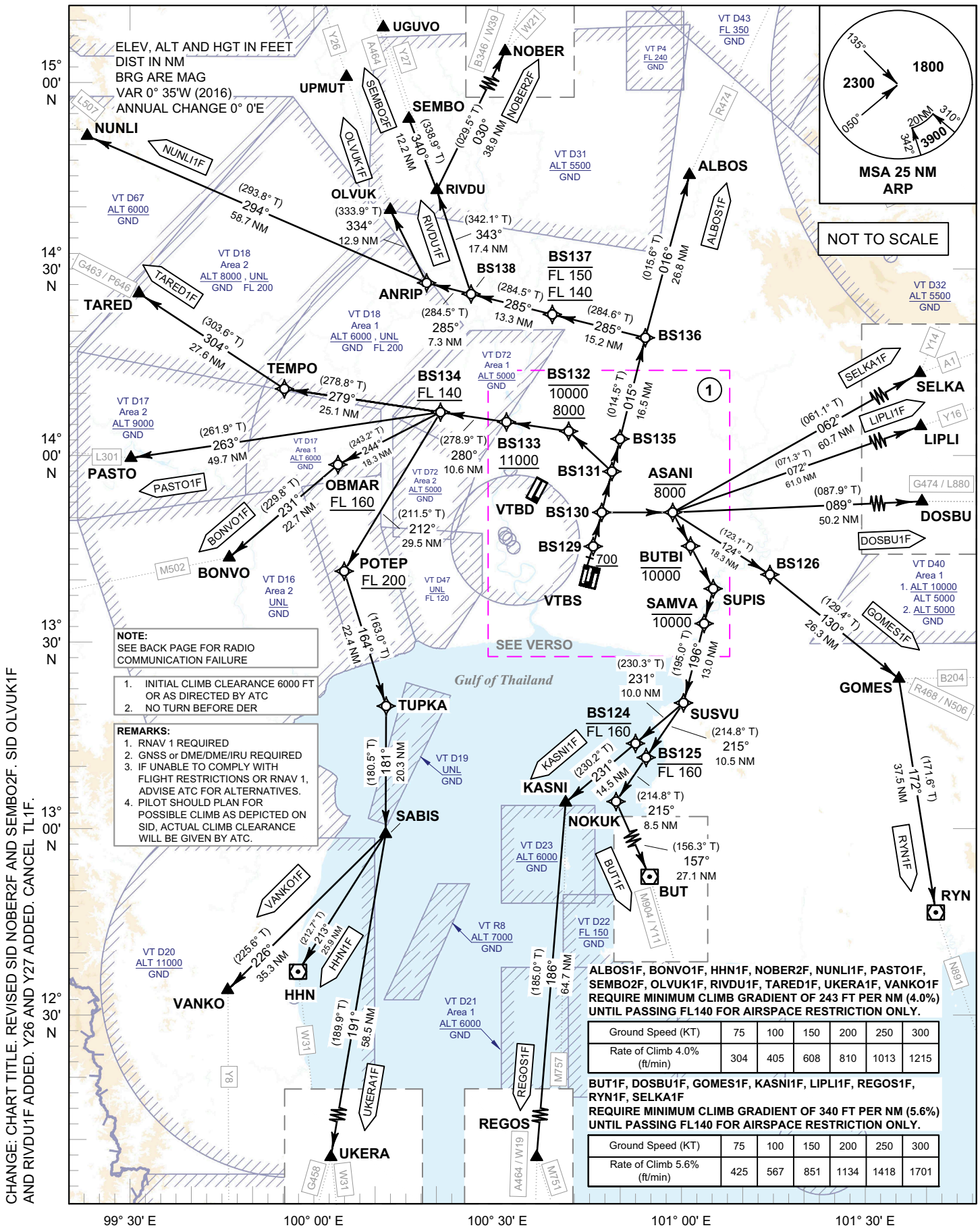
TRANSITION ALTITUDE
11000 FT

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

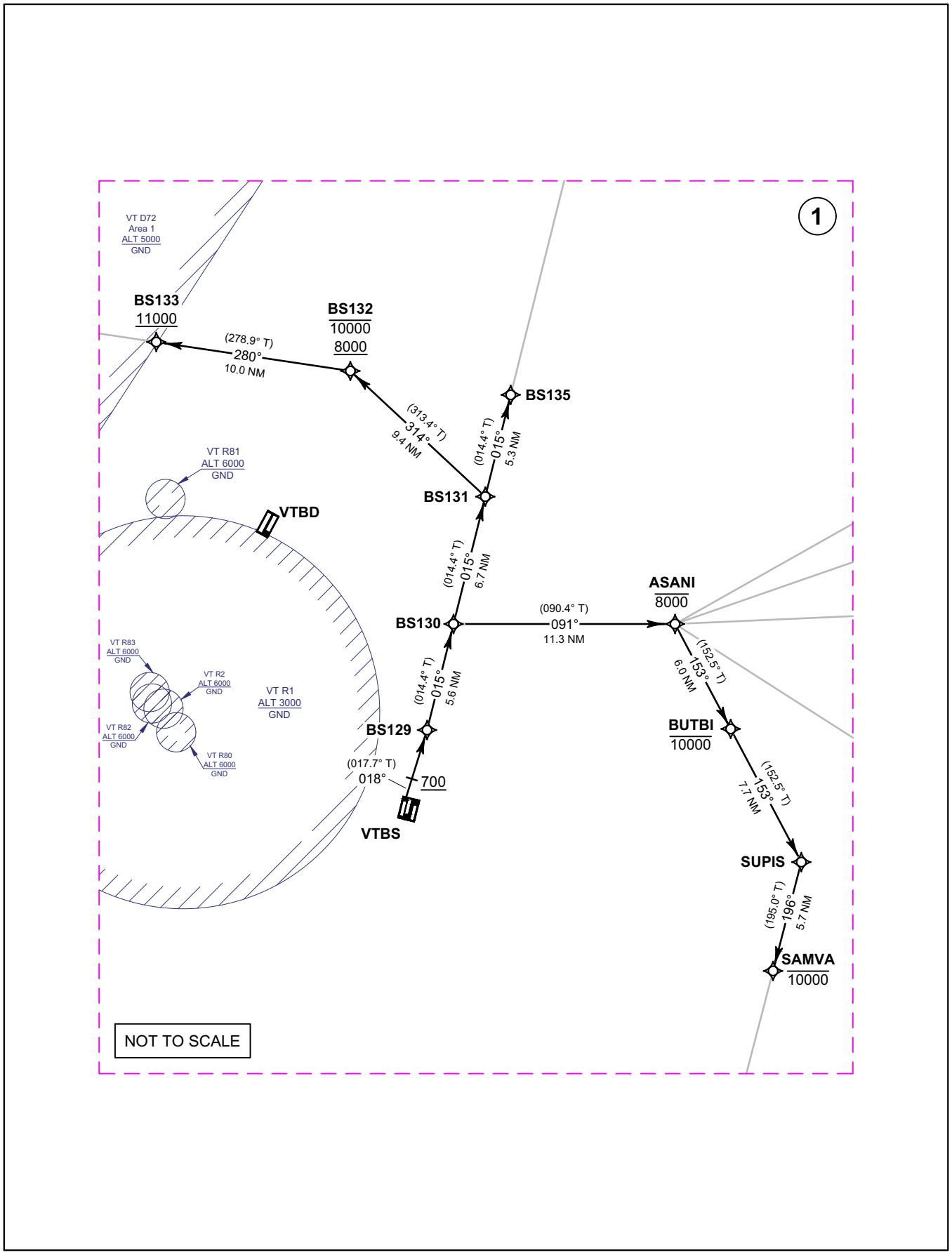
ALBOS1F BONVO1F BUT1F DOSBU1F
GOMES1F HHN1F KASNI1F LIPLI1F
NOBER2F NUNLI1F OLVUK1F PASTO1F
REGOS1F RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F VANKO1F



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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F 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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F 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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F 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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F VANKO1F

CHANGE: CHART TITLE.

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

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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F 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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F 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: BS138 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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F 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. REVISED TABULAR DESCRIPTION.

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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F VANKO1F

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU1F 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	RIVDU	-	343°(342.1°)	+ 0.6	17.4	-	-	-	-	RNAV 1

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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F VANKO1F

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
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
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

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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F VANKO1F

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
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
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

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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F 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
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 RIVDU1F RYN1F SELKA1F
SEMBO2F TARED1F UKERA1F VANKO1F

CHANGE: CHART TITLE. REVISED WAYPOINT LIST.

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	VANKO	12° 35' 11.05" N 099° 45' 37.55" E
KASNI	13° 04' 50.17" N 100° 40' 41.88" E		

INTENTIONALLY BLANK

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

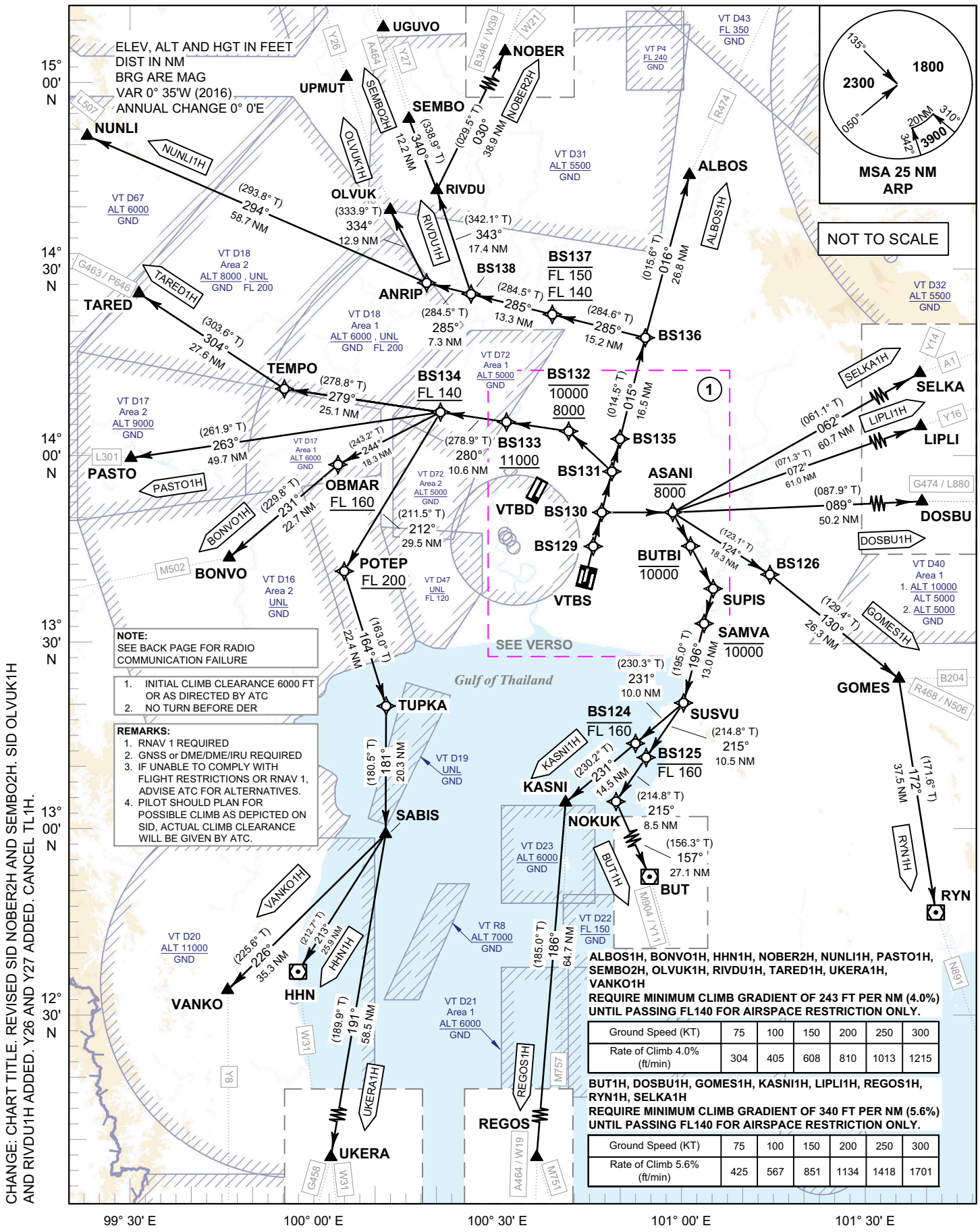
TRANSITION ALTITUDE
11000 FT

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 RWY02R

ALBOS1H BONVO1H BUT1H DOSBU1H GOMES1H HHN1H KASNI1H LIPLI1H NOBER2H NUNLI1H OLVUK1H PASTO1H REGOS1H RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H

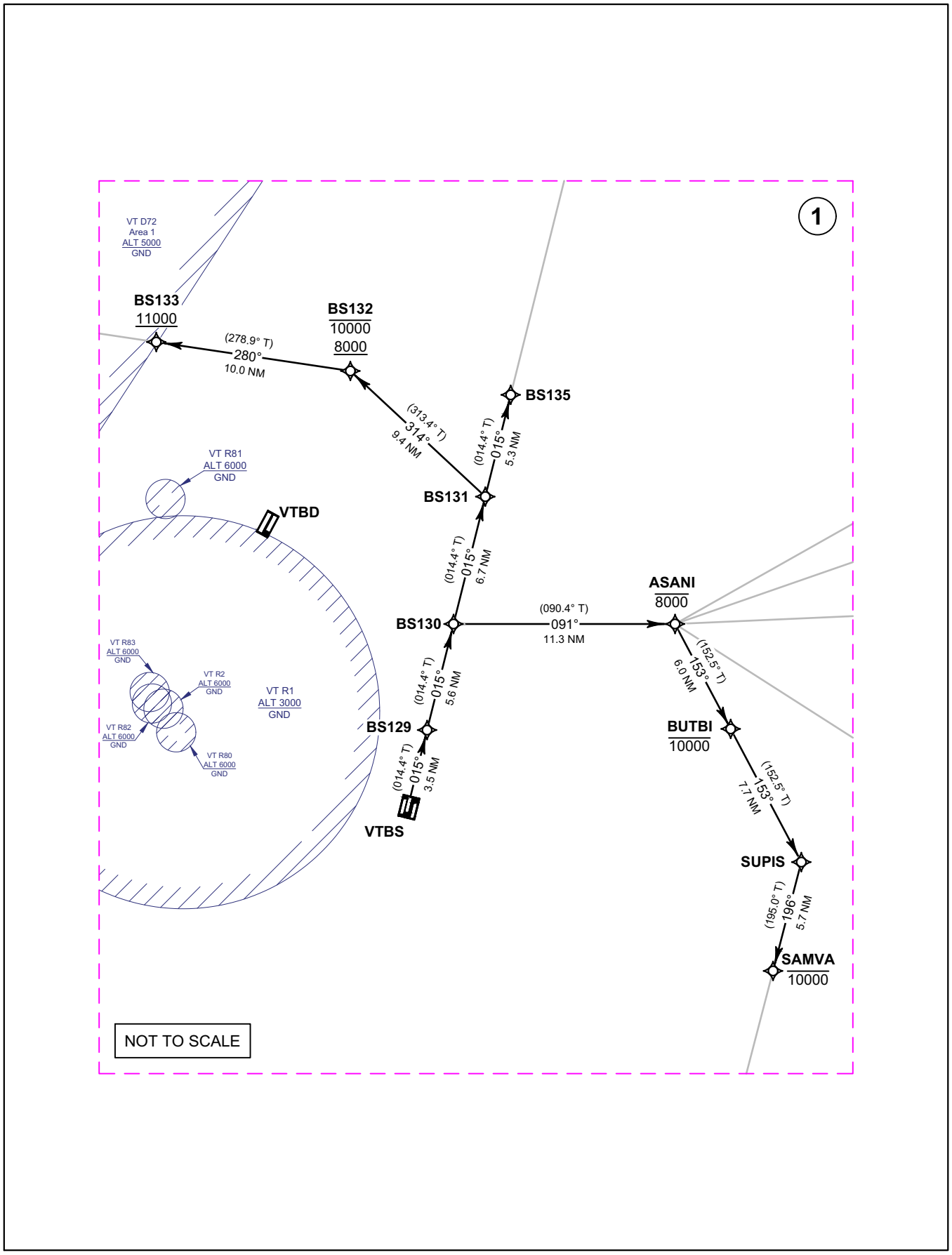


CHANGE: CHART TITLE. REVISED SID NOBER2H AND SEMBO2H. SID OLVUK1H AND RIVDU1H ADDED. Y26 AND Y27 ADDED. CANCEL TL1H.

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 RIVDU1H RYN1H SELKA1H
SEMBO2H TARED1H UKERA1H 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 RIVDU1H RYN1H SELKA1H
SEMBO2H TARED1H UKERA1H 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 RIVDU1H RYN1H SELKA1H
SEMBO2H TARED1H UKERA1H 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 RIVDU1H RYN1H SELKA1H
SEMBO2H TARED1H UKERA1H 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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H 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. REVISED NOBER2H.

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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H VANKO1H

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

CHANGE: BS134 ALTITUDE.

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 RIVDU1H RYN1H SELKA1H
SEMBO2H TARED1H UKERA1H 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
RIVDU1H 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	RIVDU	-	343°(342.1°)	+ 0.6	17.4	-	-	-	-	RNAV 1

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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 RIVDU1H RYN1H SELKA1H
SEMBO2H TARED1H UKERA1H VANKO1H

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
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
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

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 RIVDU1H RYN1H SELKA1H SEMBO2H TARED1H UKERA1H 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
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
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

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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 RIVDU1H RYN1H SELKA1H
SEMBO2H TARED1H UKERA1H VANKO1H

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
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

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 RIVDU1H RYN1H SELKA1H
SEMBO2H TARED1H UKERA1H 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	VANKO	12° 35' 11.05" N 099° 45' 37.55" E
KASNI	13° 04' 50.17" N 100° 40' 41.88" E		

CHANGE: CHART TITLE. REVISED WAYPOINT LIST.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

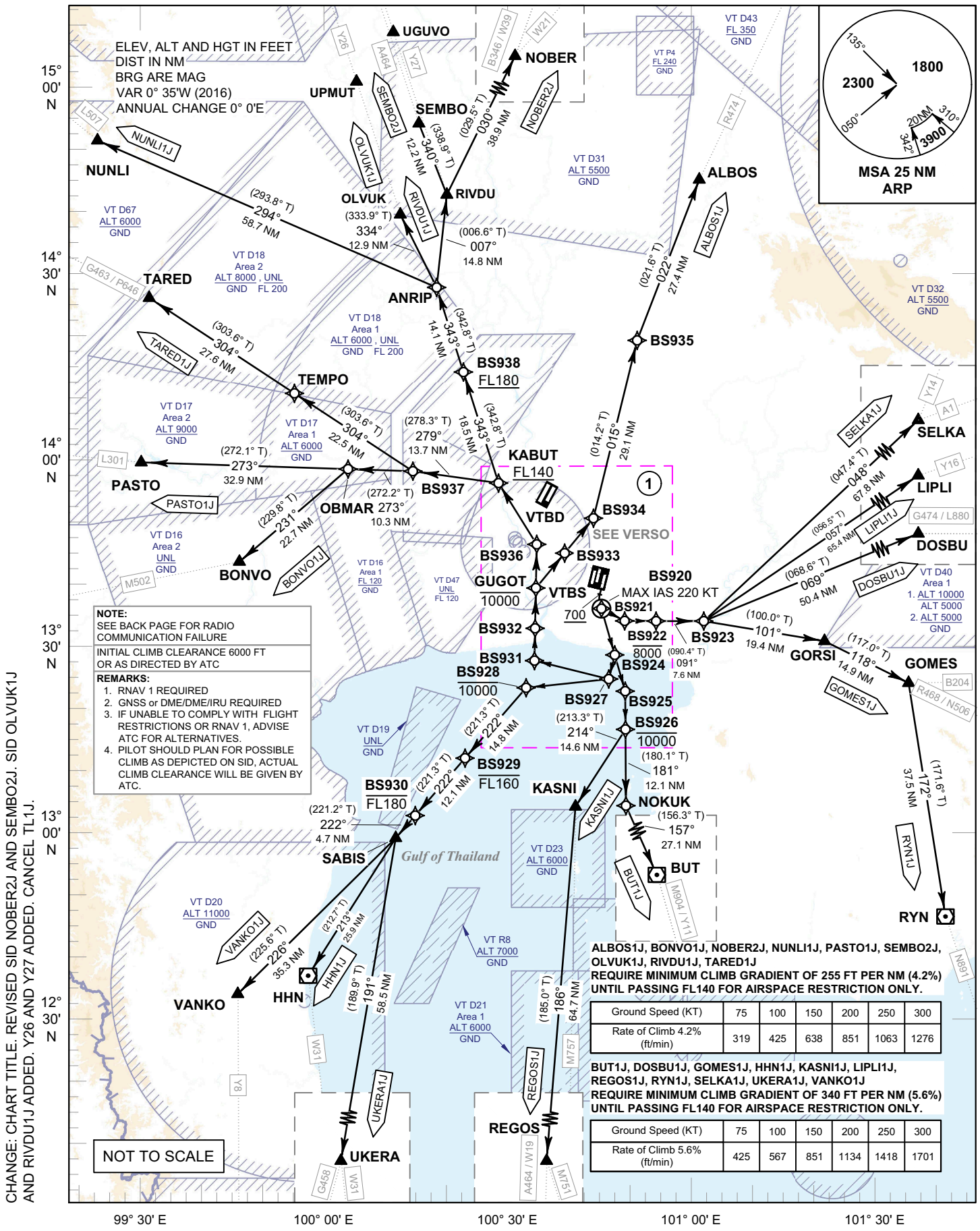
TRANSITION ALTITUDE
11000 FT

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 RIVDU1J RYN1J SELKA1J SEMBO2J TARED1J UKERA1J VANKO1J

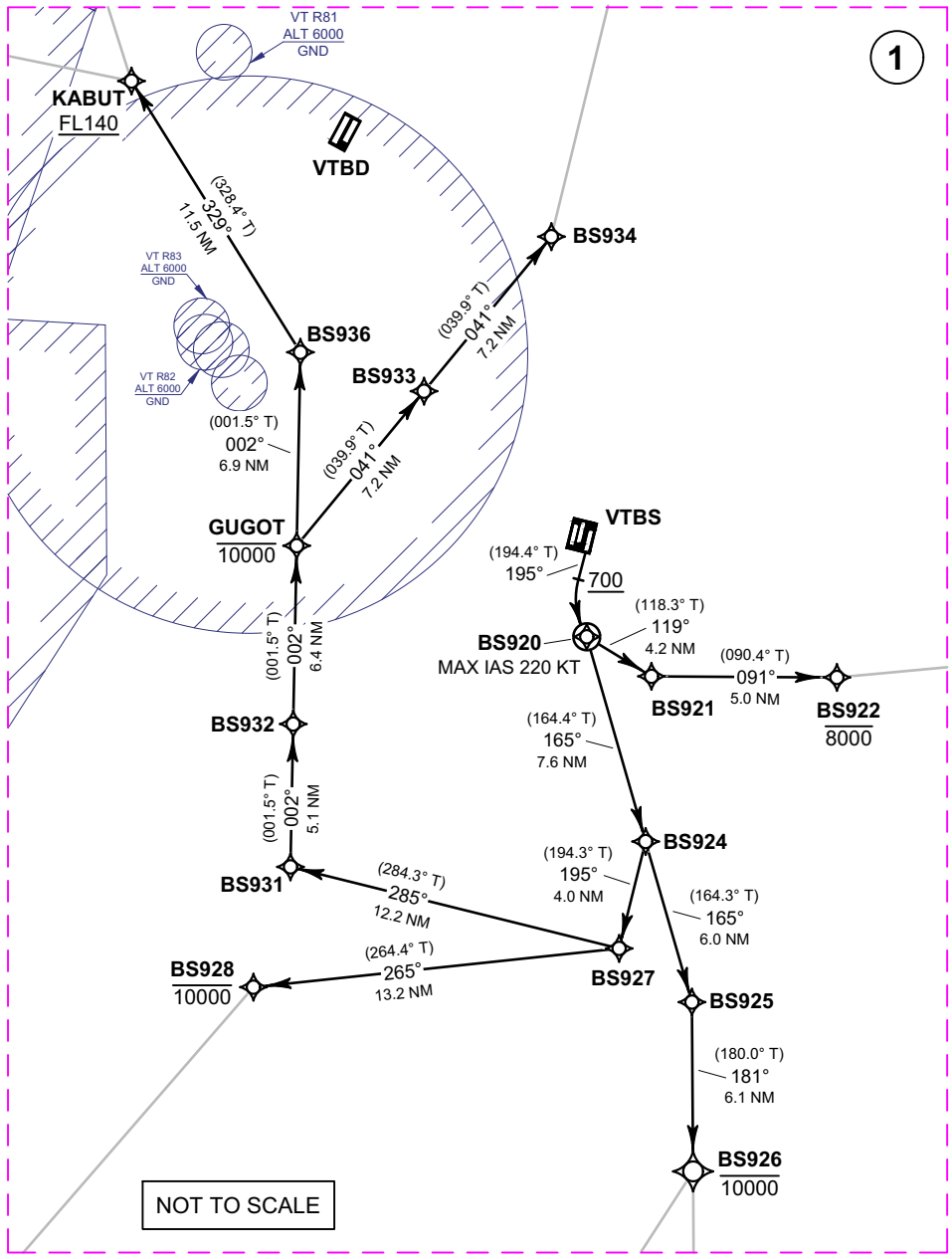


CHANGE: CHART TITLE. REVISED SID NOBER2J AND SEMBO2J. SID OLVUK1J AND RIVDU1J ADDED. Y26 AND Y27 ADDED. CANCEL TL1J.

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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J 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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J 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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J 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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J 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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J 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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J 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. REVISED NOBER2J.

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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J VANKO1J

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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

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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J VANKO1J

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
RIVDU1J 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	RIVDU	-	007°(006.6°)	+ 0.6	14.8	-	-	-	-	RNAV 1

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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J 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. REVISED TABULAR DESCRIPTION.

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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J VANKO1J

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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

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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J 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 RIVDU1J RYN1J SELKA1J
SEMBO2J TARED1J UKERA1J VANKO1J

CHANGE: CHART TITLE. REVISED WAYPOINT LIST.

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	VANKO	12° 35' 11.05" N 099° 45' 37.55" E
DOSBU	13° 52' 40.26" N 101° 50' 01.98" E		

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STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

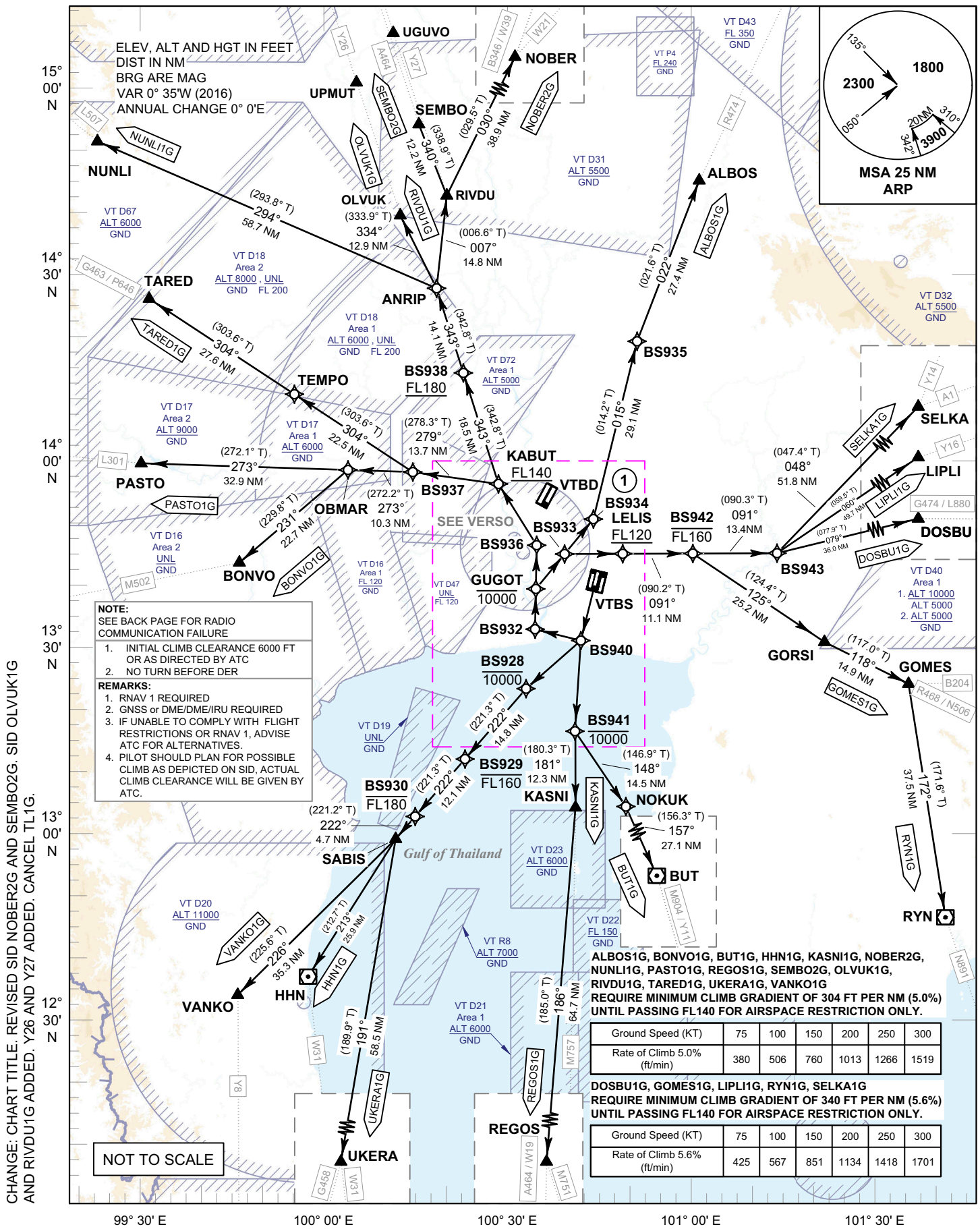
TRANSITION ALTITUDE
11000 FT

SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1 , 262.5
	: 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

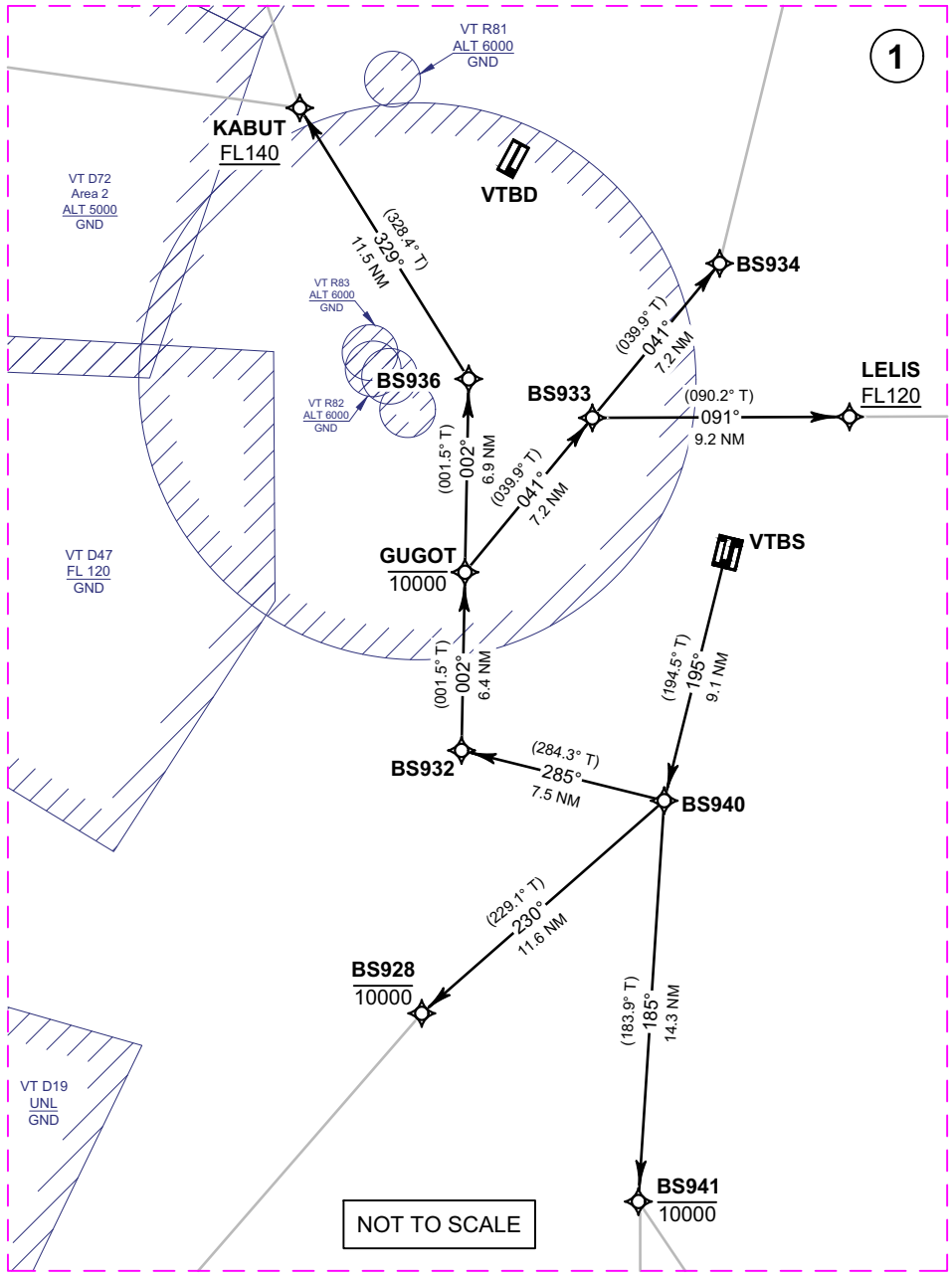
ALBOS1G BONVO1G BUT1G DOSBU1G GOMES1G HHN1G KASNI1G LIPLI1G NOBER2G NUNLI1G OLVUK1G PASTO1G REGOS1G RIVDU1G RYN1G SELKA1G SEMBO2G TARED1G UKERA1G VANKO1G



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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G 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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G 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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G 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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G VANKO1G

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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

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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G VANKO1G

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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

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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G VANKO1G

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G 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
RIVDU1G 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	RIVDU	-	007°(006.6°)	+ 0.6	14.8	-	-	-	-	RNAV 1

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G VANKO1G

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
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
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

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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G VANKO1G

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
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
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

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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G 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
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. REVISED TABULAR DESCRIPTION.

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 RIVDU1G RYN1G SELKA1G
SEMBO2G TARED1G UKERA1G 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	VANKO	12° 35' 11.05" N 099° 45' 37.55" E
GUGOT	13° 39' 44.61" N 100° 34' 28.14" E		

CHANGE: CHART TITLE. REVISED WAYPOINT LIST.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

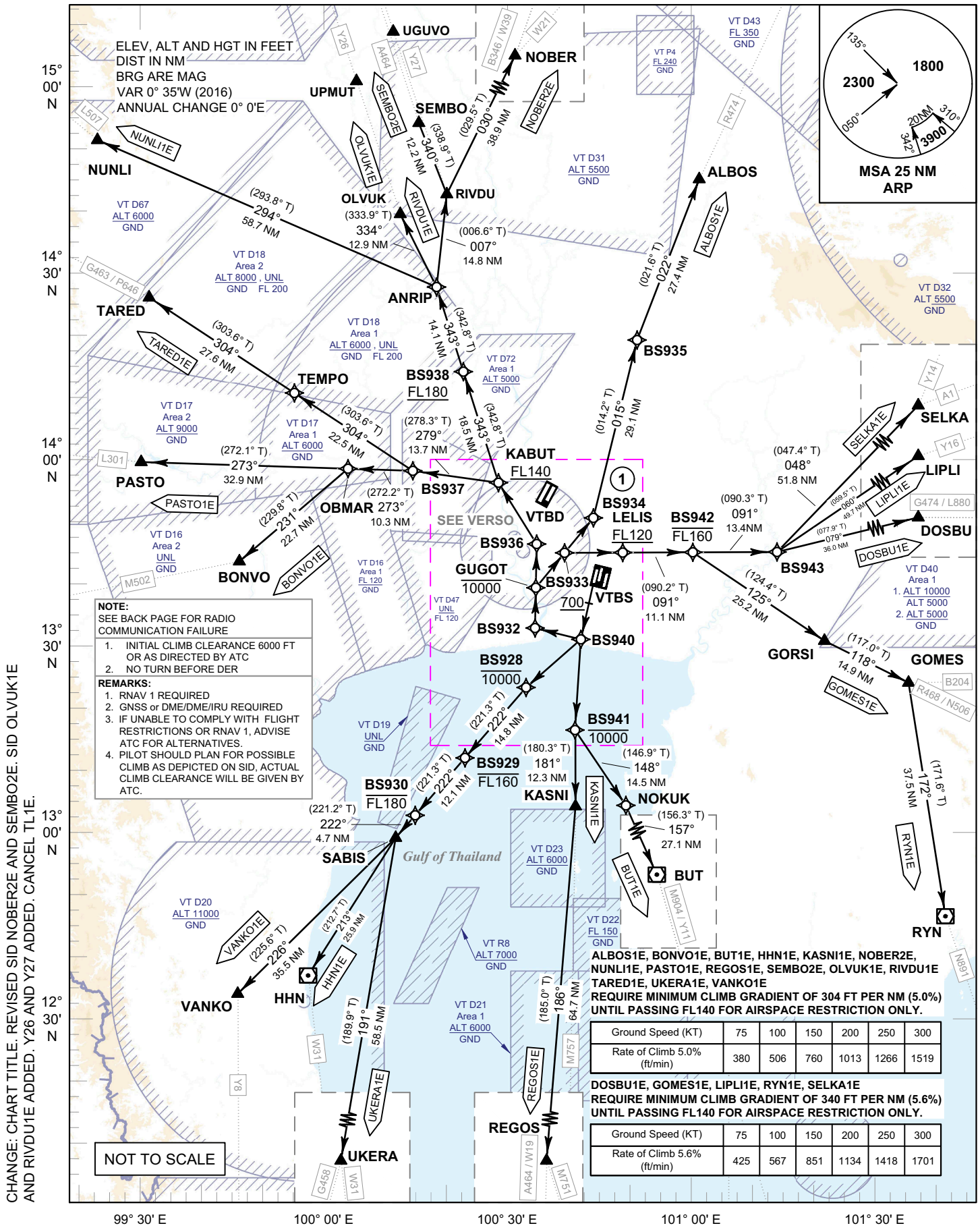
TRANSITION ALTITUDE
11000 FT

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

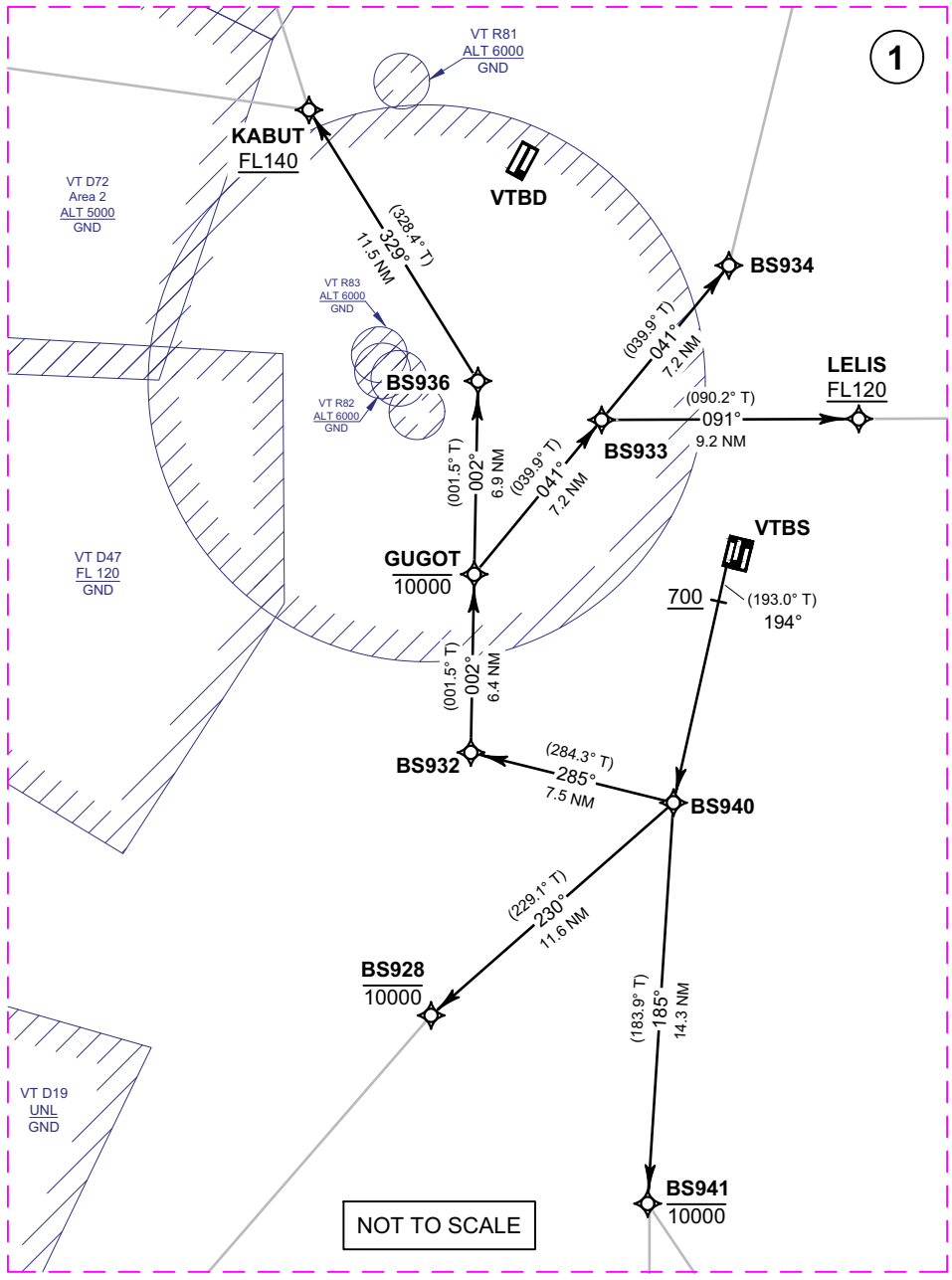
ALBOS1E BONVO1E BUT1E DOSBU1E GOMES1E HHN1E KASNI1E LIPLI1E NOBER2E NUNLI1E OLVUK1E PASTO1E REGOS1E RIVDU1E RYN1E SELKA1E SEMBO2E TARED1E UKERA1E VANKO1E



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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E 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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E 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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E 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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E 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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E 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. REVISED NOBER2E.

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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E VANKO1E

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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

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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E 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
RIVDU1E 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	RIVDU	-	007°(006.6°)	+ 0.6	14.8	-	-	-	-	RNAV 1

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E VANKO1E

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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
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
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

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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E 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
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
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

CHANGE: CHART TITLE. REVISED TABULAR DESCRIPTION.

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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E 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
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
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

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 RIVDU1E RYN1E SELKA1E
SEMBO2E TARED1E UKERA1E 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	VANKO	12° 35' 11.05" N 099° 45' 37.55" E
GUGOT	13° 39' 44.61" N 100° 34' 28.14" E		

CHANGE: CHART TITLE. REVISED WAYPOINT LIST.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

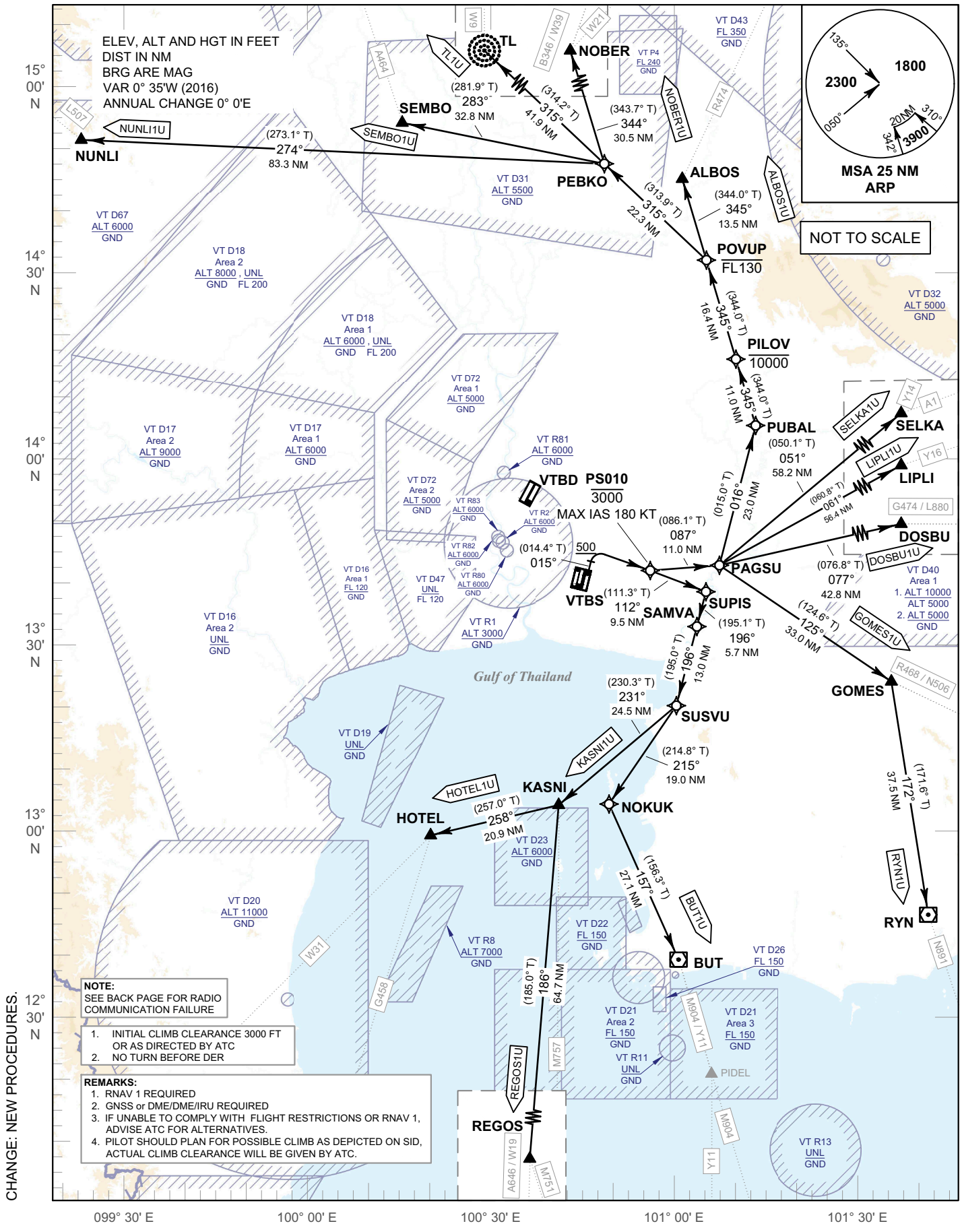
SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

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

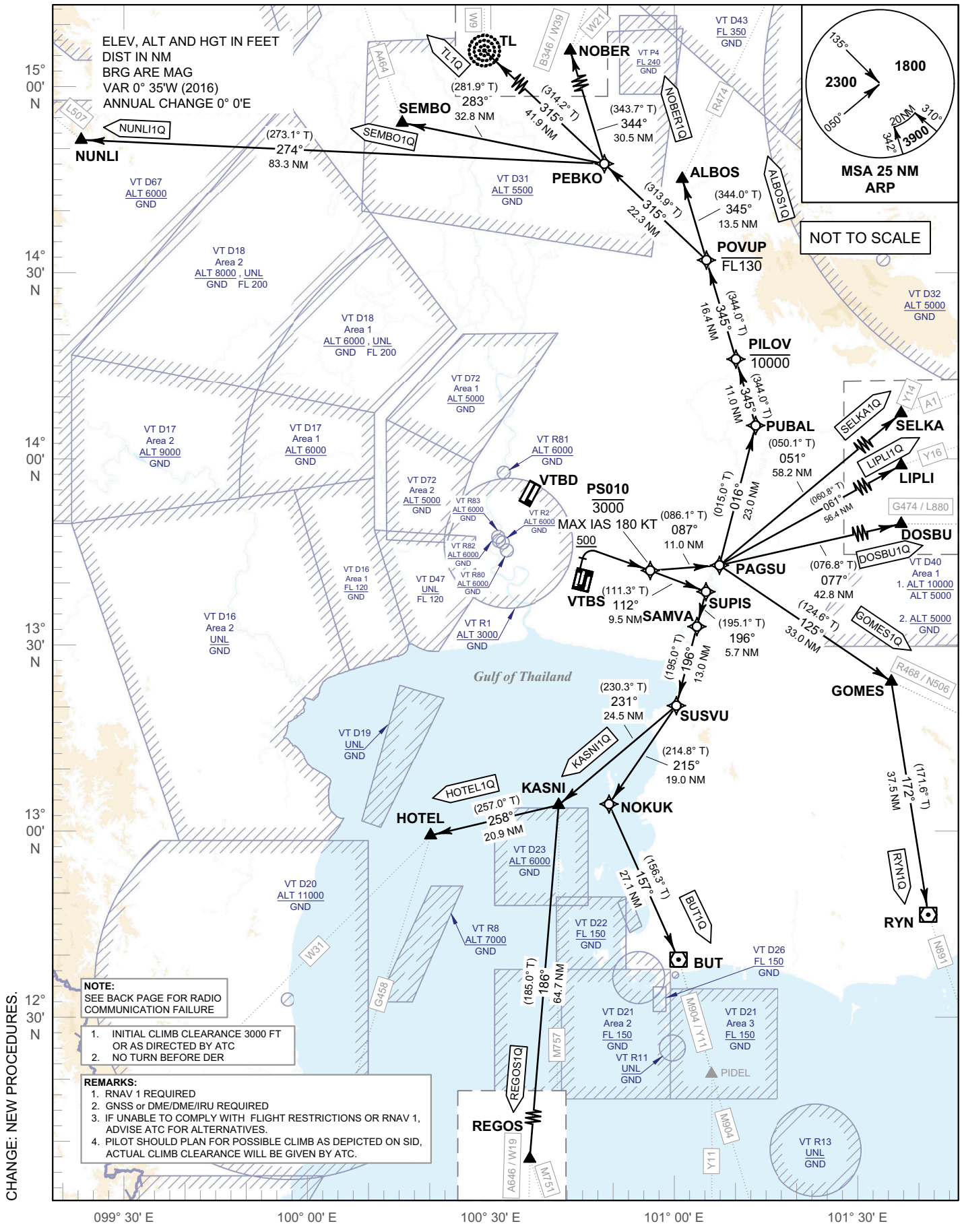
TRANSITION ALTITUDE
11000 FT

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



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.

CHANGE: NEW PROCEDURES.

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

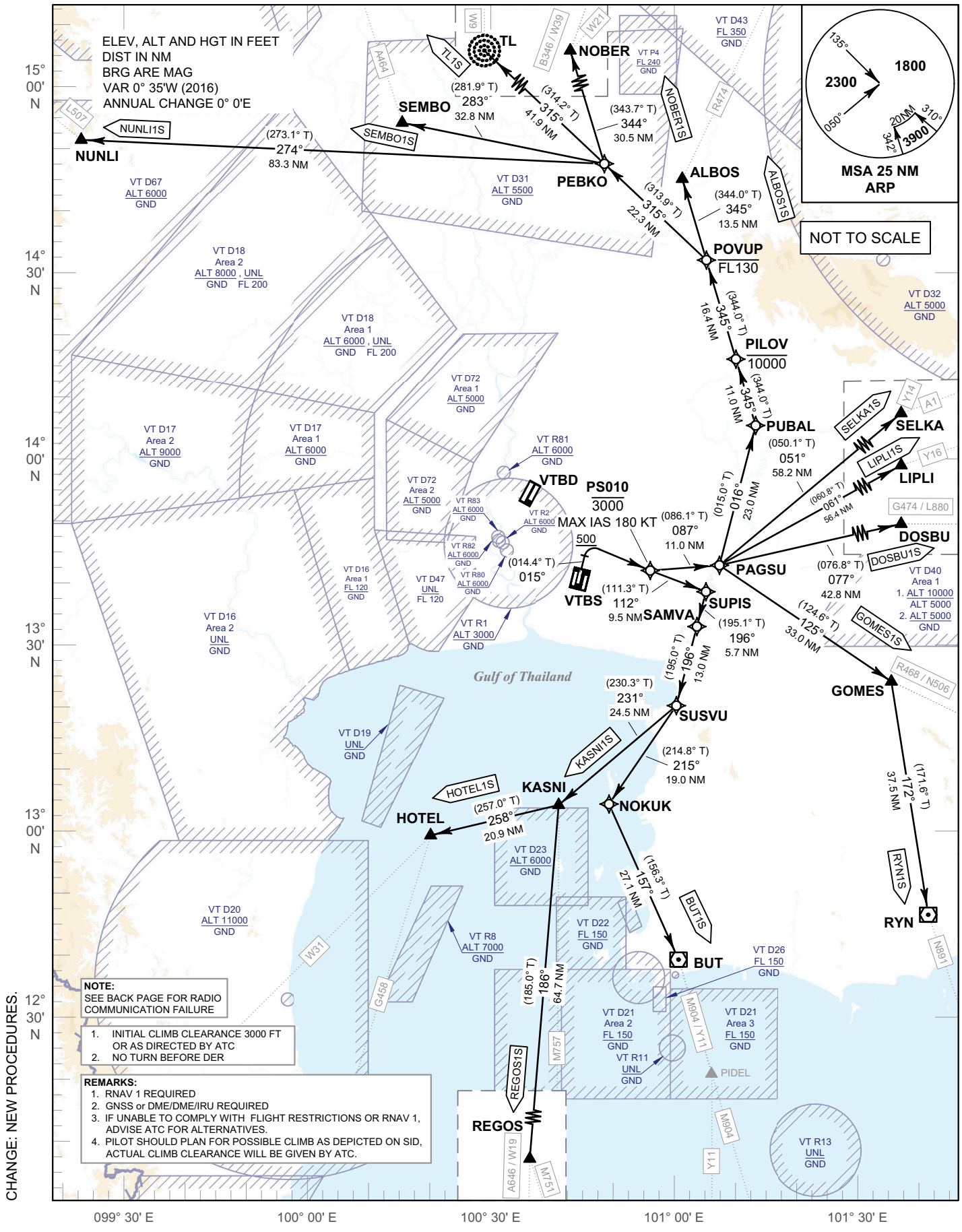
SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

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

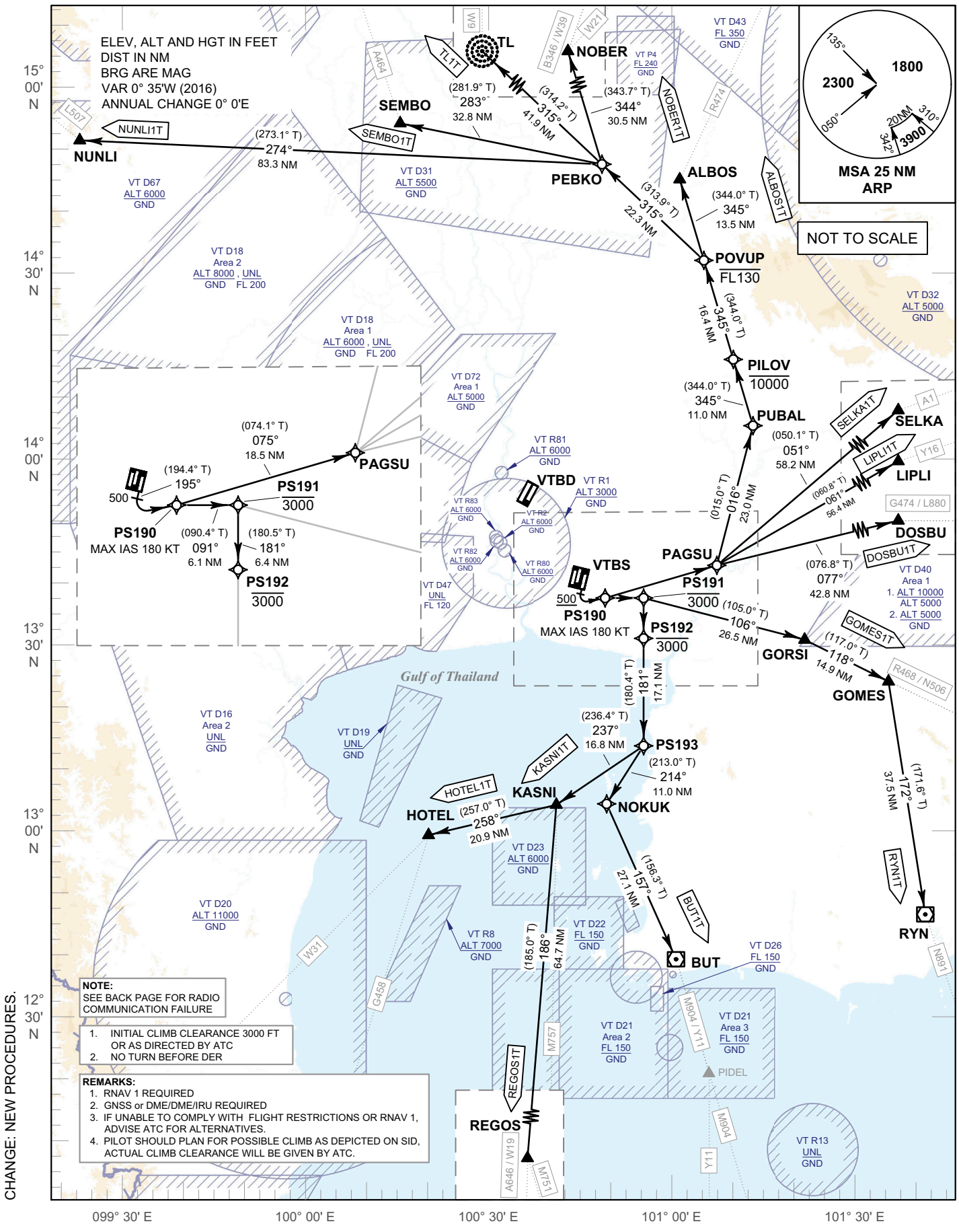
SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

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



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 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

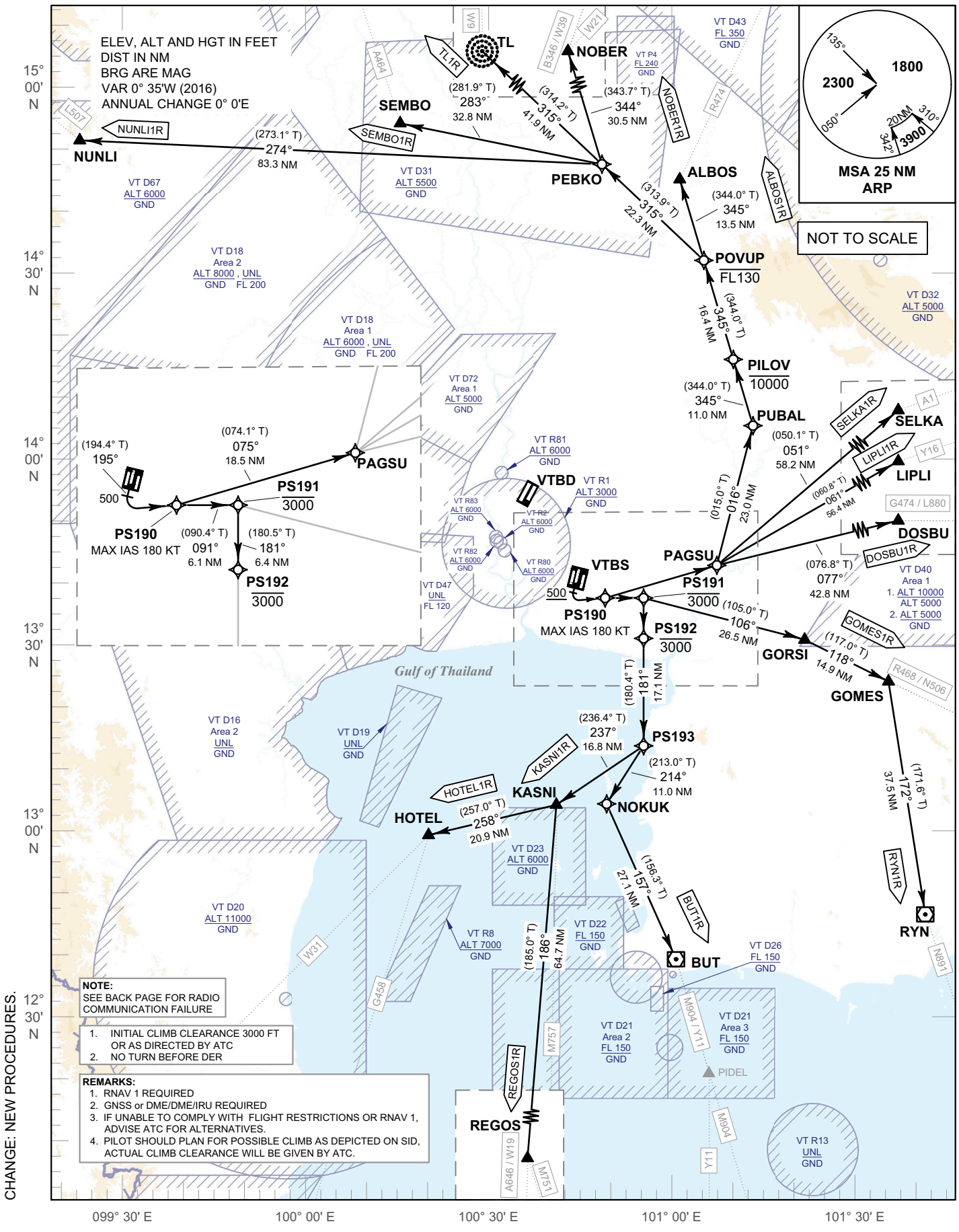
SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

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



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

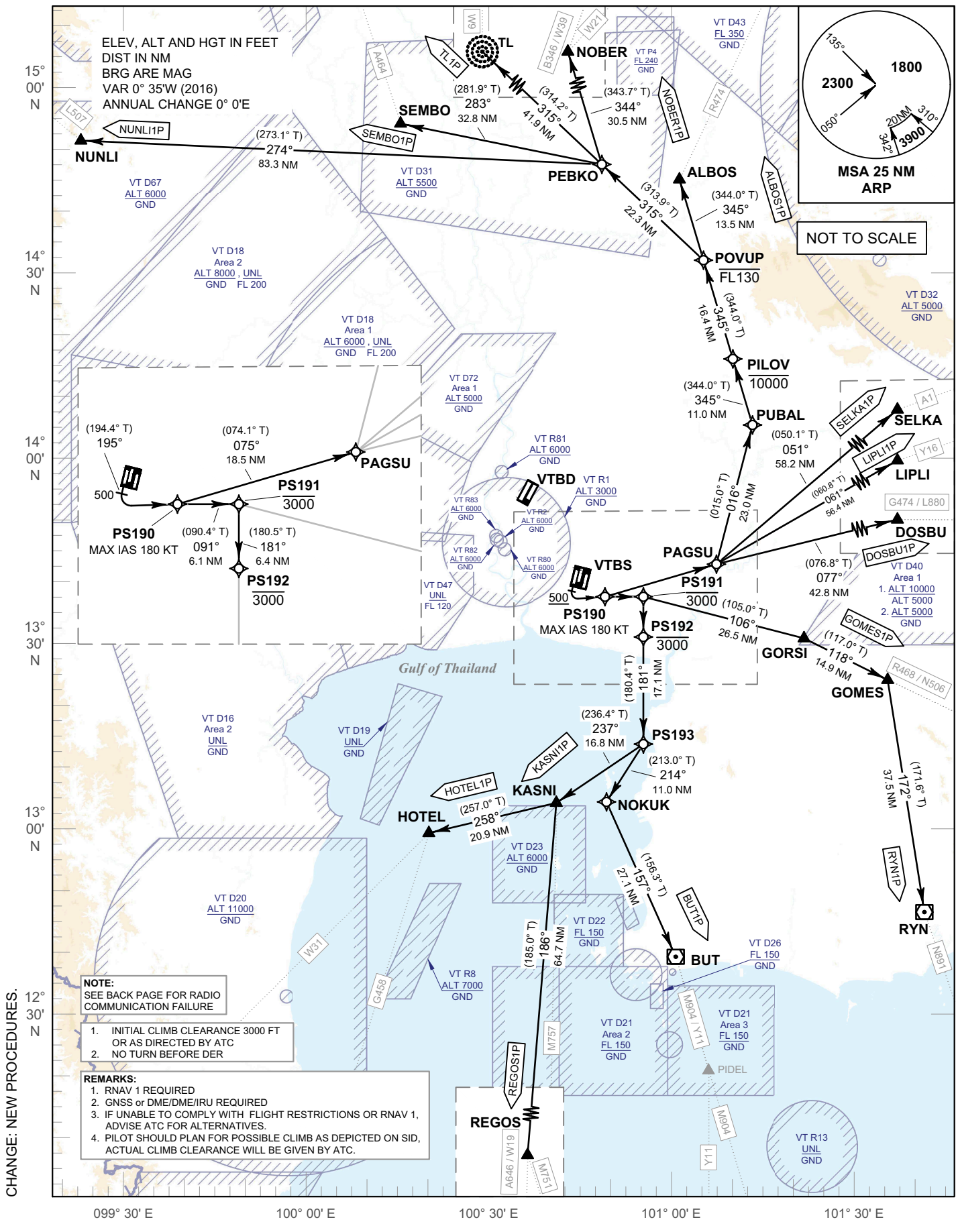
TRANSITION ALTITUDE 11000 FT
SPEED RESTRICTION MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

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

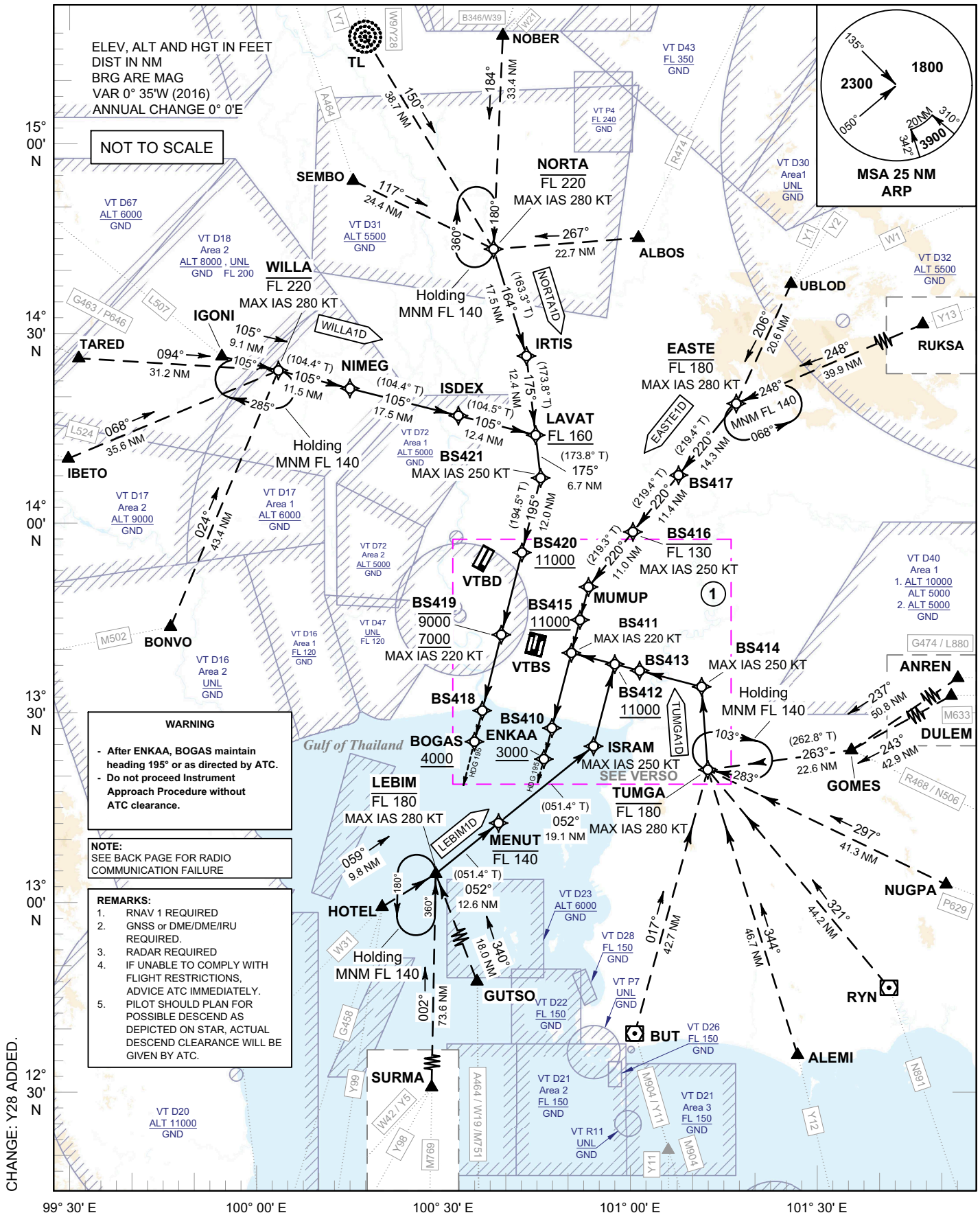
TRANSITION ALTITUDE
11000 FT

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

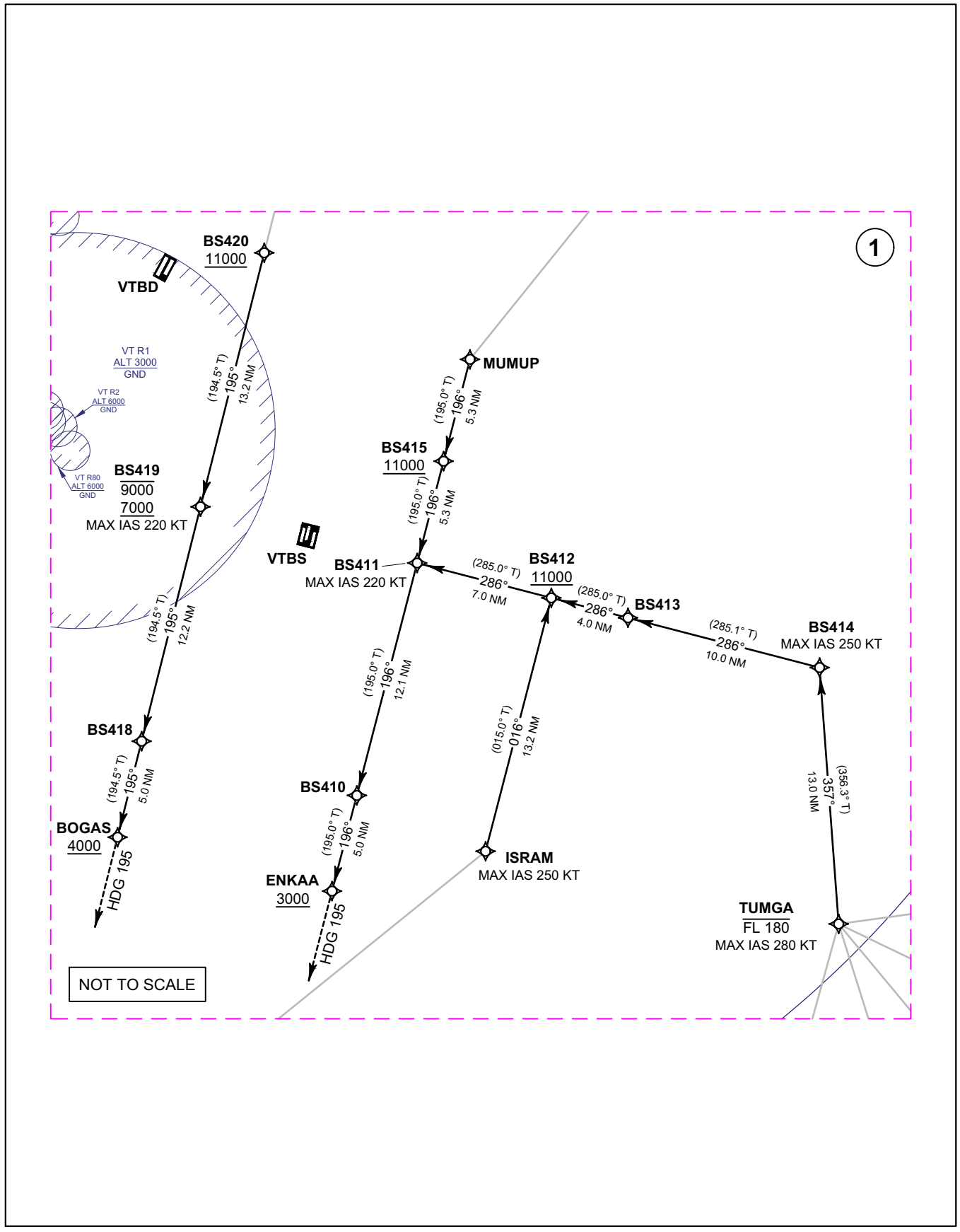
EASTE1D LEBIM1D NORTA1D
TUMGA1D WILLA1D



**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

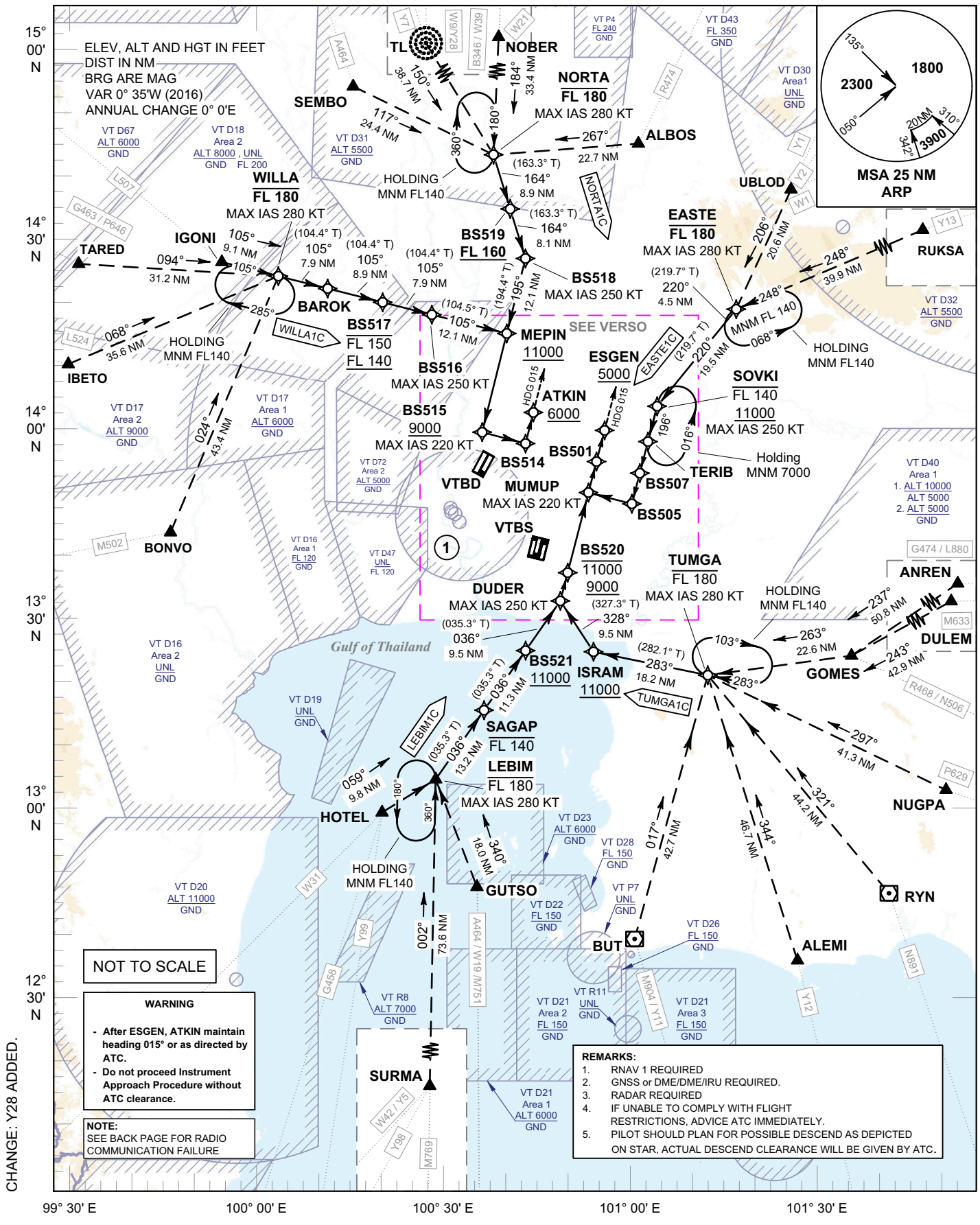
TRANSITION ALTITUDE
11000 FT

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

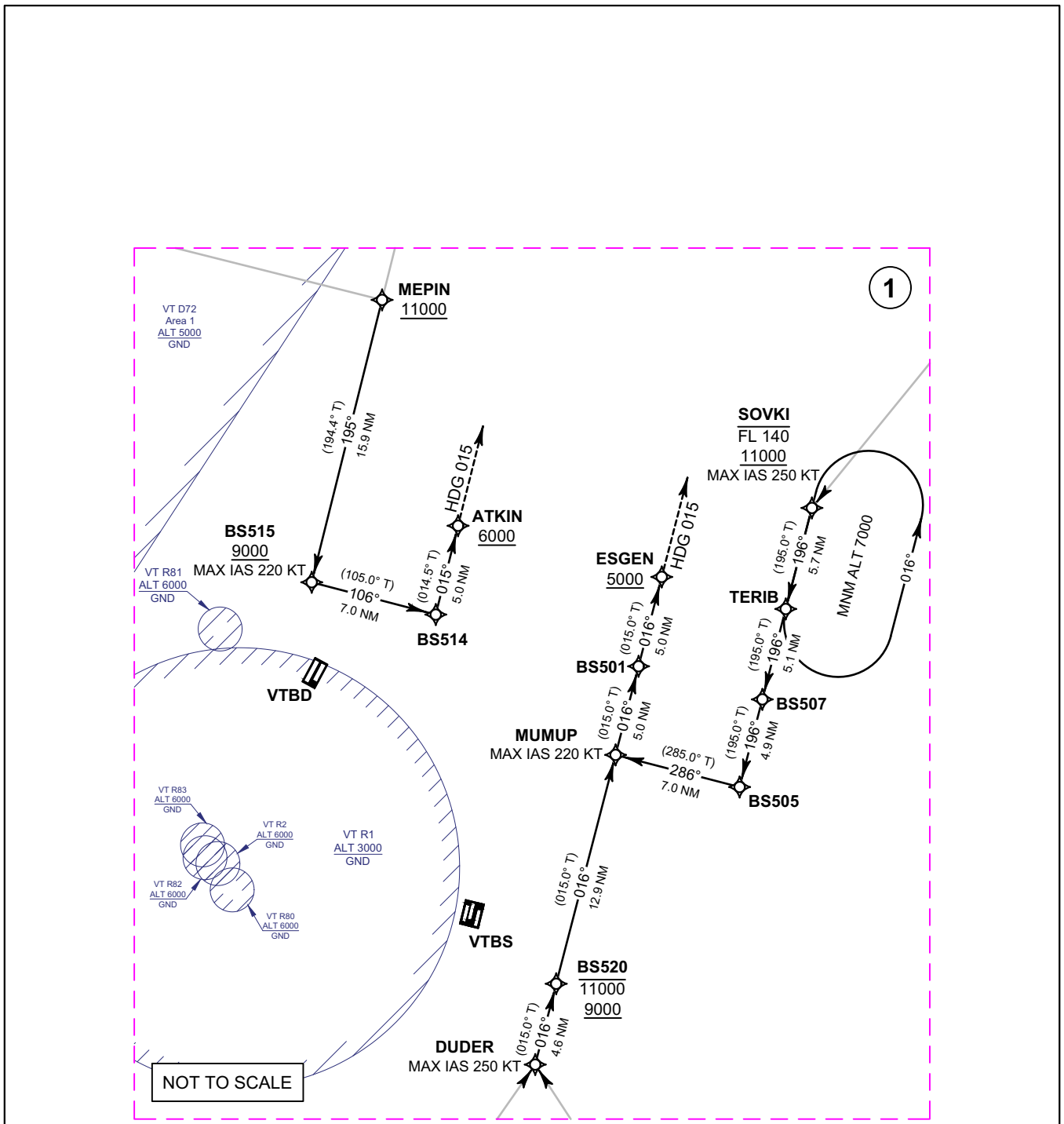
EASTE1C LEBIM1C NORTA1C
TUMGA1C WILLA1C



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

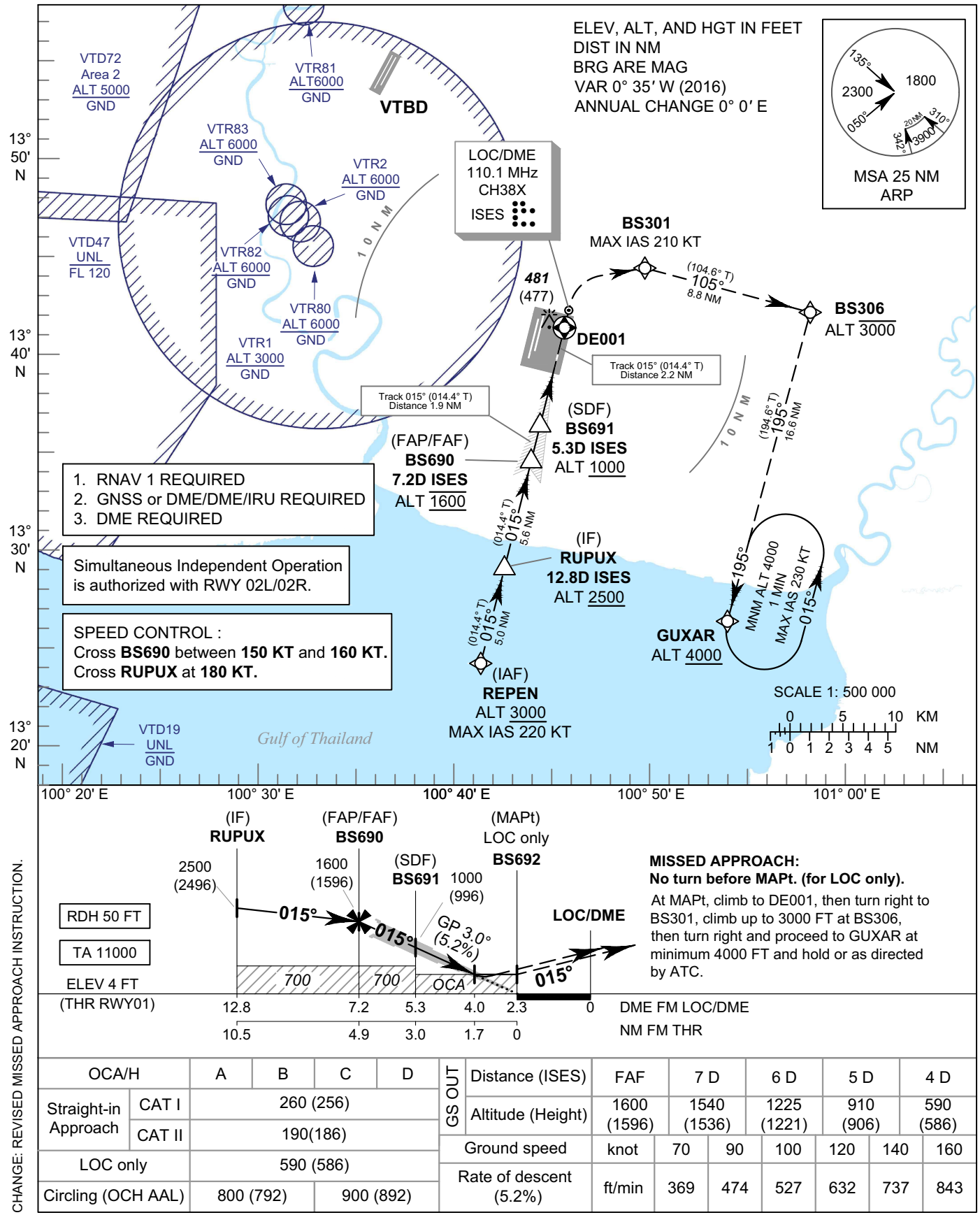
INSTRUMENT APPROACH CHART - ICAO

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

FIX / POINT		COORDINATES	
(IF) RUPUX	12.8D ISES	13° 29' 11.25" N	100° 42' 25.67" E
(FAP/FAF) BS690	7.2D ISES	13° 34' 39.85" N	100° 43' 51.99" E
(SDF) BS691	5.3D ISES	13° 36' 30.21" N	100° 44' 20.89" E
(MAPt @ THR01) BS692	2.3D ISES	13° 39' 24.11" N	100° 45' 06.59" E
LOC/DME	ISES	13° 41' 39.30" N	100° 45' 42.10" E
GP	ISES	13° 39' 33.40" N	100° 45' 13.10" E

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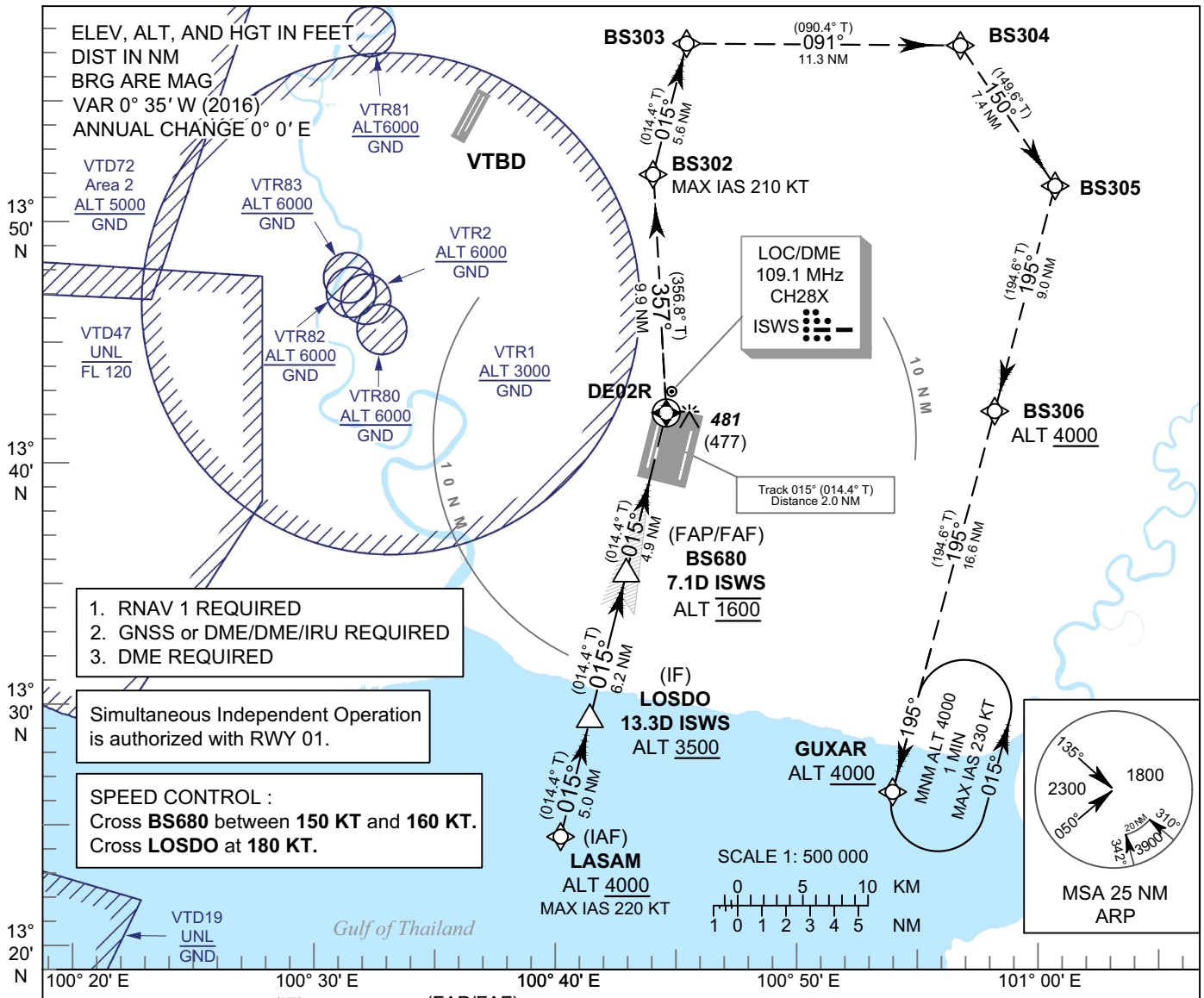
INSTRUMENT APPROACH CHART - ICAO

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

FIX / POINT		COORDINATES	
(IF) LOSDO	13.3D ISWS	13° 29' 28.72" N	100° 41' 14.66" E
(FAP/FAF) BS680	7.1D ISWS	13° 35' 30.85" N	100° 42' 49.82" E
(MAPt @ THR02R) BS681	2.2D ISWS	13° 40' 16.60" N	100° 44' 04.79" E
LOC/DME	ISWS	13° 42' 22.30" N	100° 44' 37.80" E
GP	ISWS	13° 40' 27.80" N	100° 44' 03.60" E

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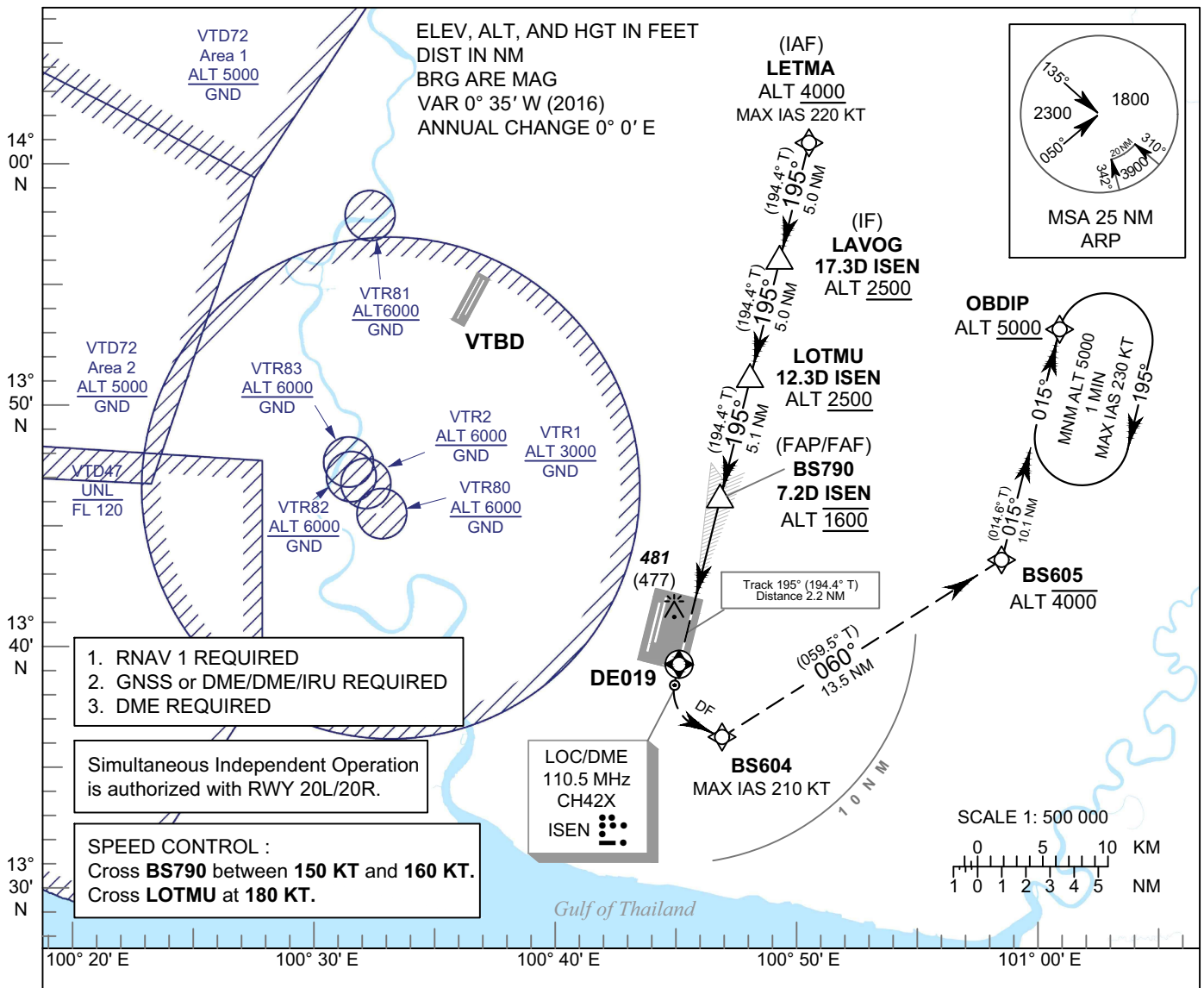
INSTRUMENT APPROACH CHART - ICAO

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

FIX / POINT		COORDINATES	
(IF) 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) BS790	7.2D ISEN	13° 46' 14.41" N	100° 46' 54.45" E
(MAPt @ THR19) BS791	2.3D ISEN	13° 41' 30.17" N	100° 45' 39.72" E
LOC/DME	ISEN	13° 39' 15.00" N	100° 45' 04.20" E
GP	ISEN	13° 41' 19.00" N	100° 45' 40.90" E

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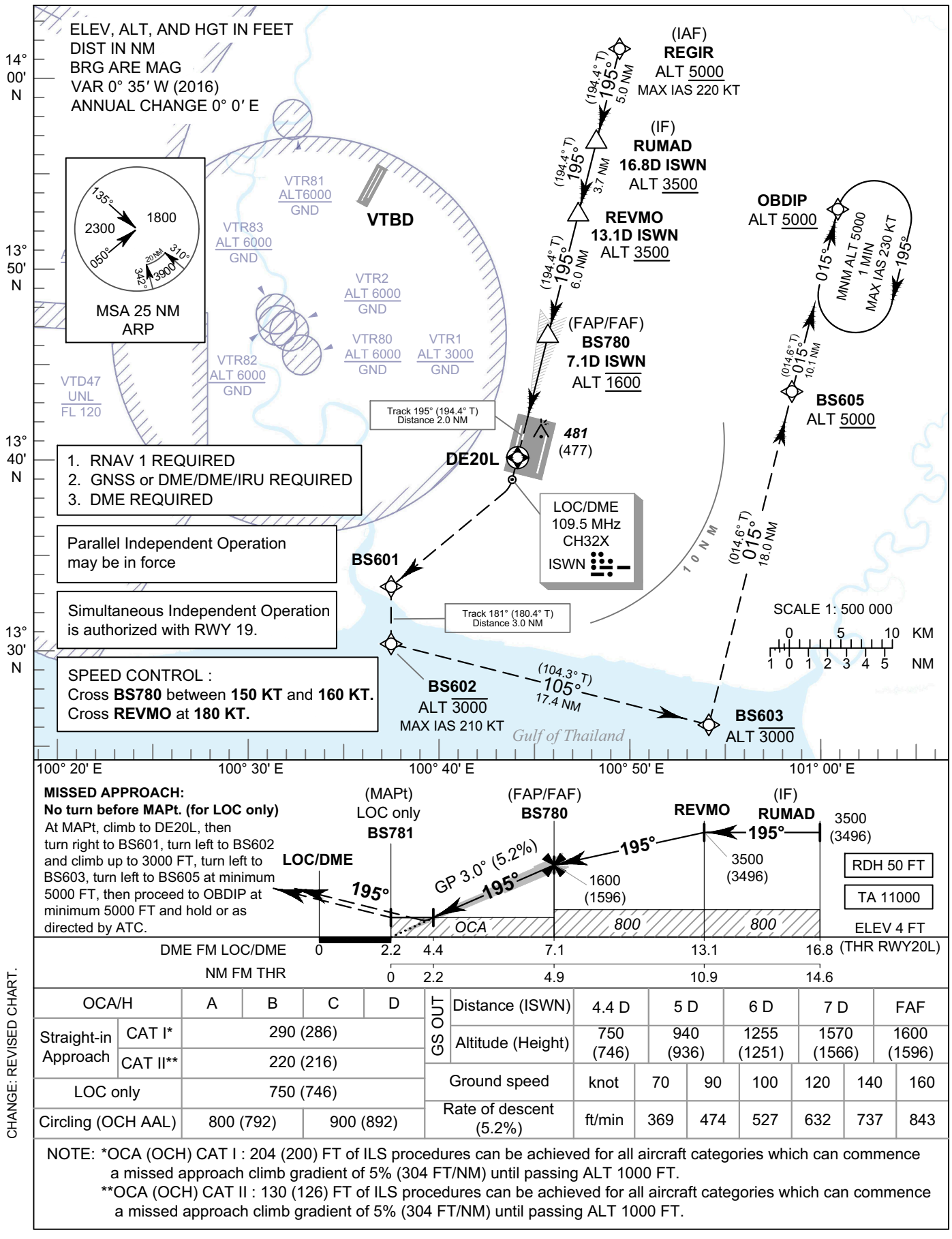
INSTRUMENT APPROACH CHART - ICAO

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

FIX / POINT		COORDINATES	
(IF) 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) BS780	7.1D ISWN	13° 46' 59.12" N	100° 45' 50.66" E
(MAPt @ THR20L) BS781	2.2D ISWN	13° 42' 13.21" N	100° 44' 35.44" E
LOC/DME	ISWN	13° 40' 07.50" N	100° 44' 02.40" E
GP	ISWN	13° 42' 03.90" N	100° 44' 28.90" E

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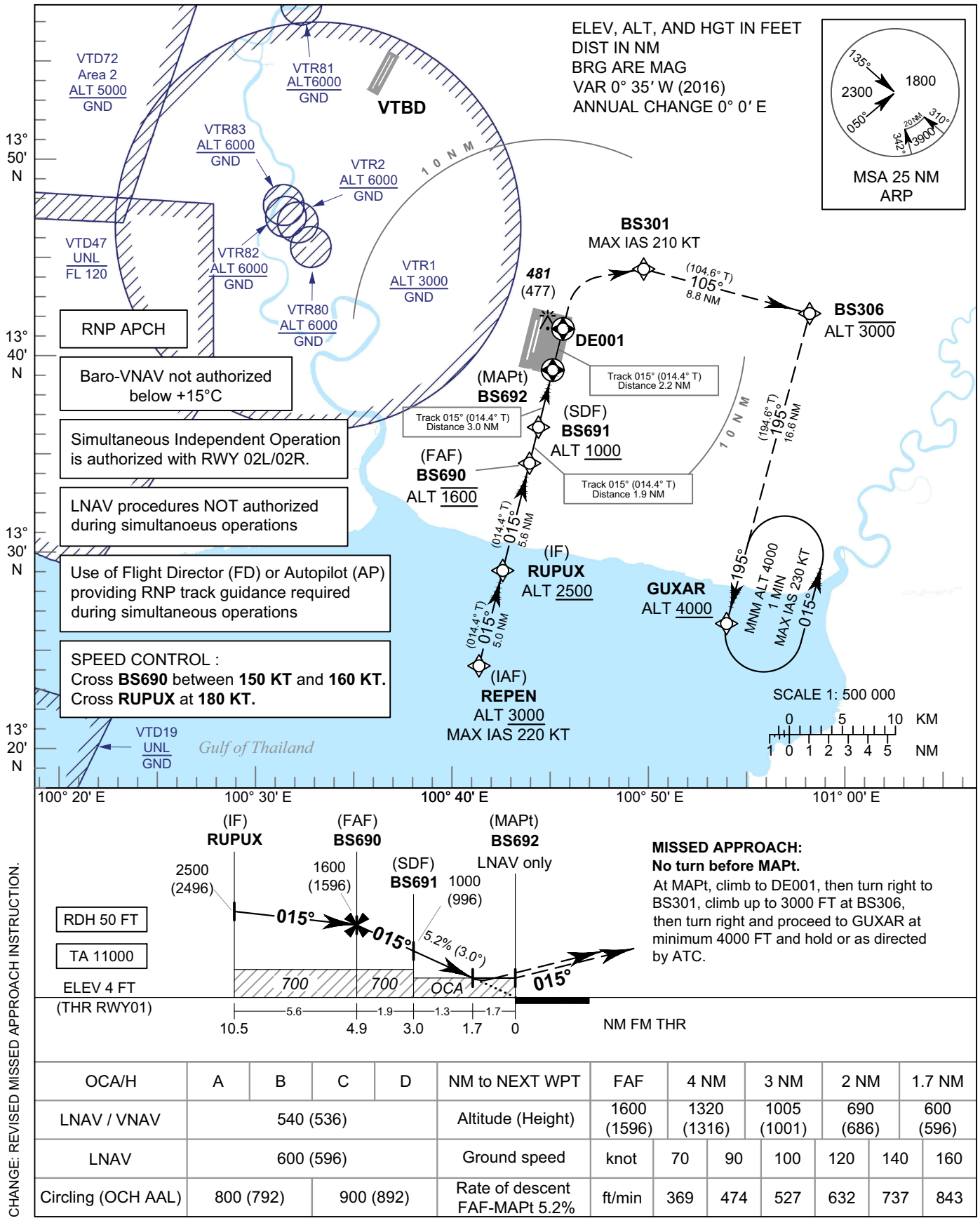
INSTRUMENT APPROACH CHART - ICAO

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

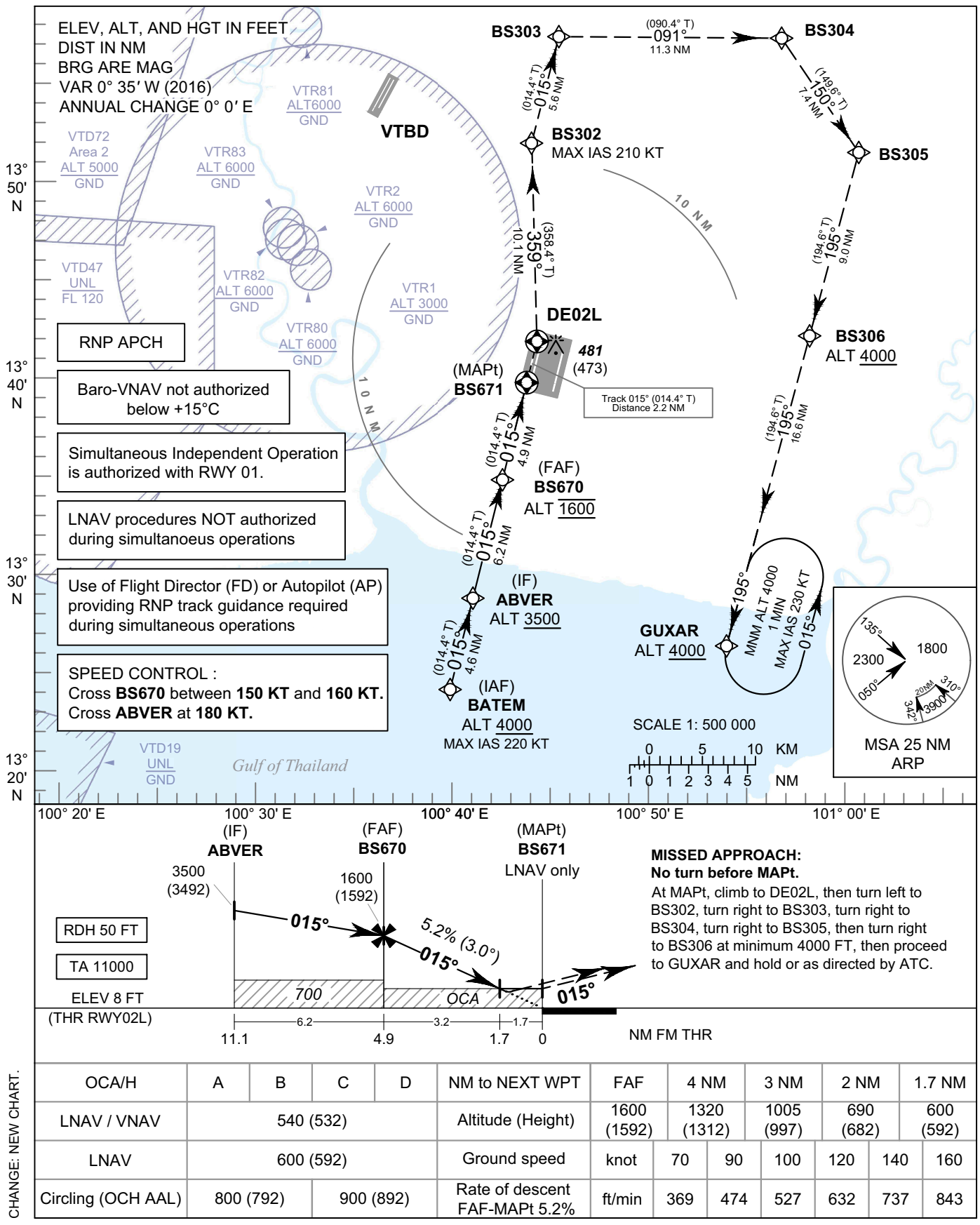
INSTRUMENT APPROACH CHART - ICAO

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

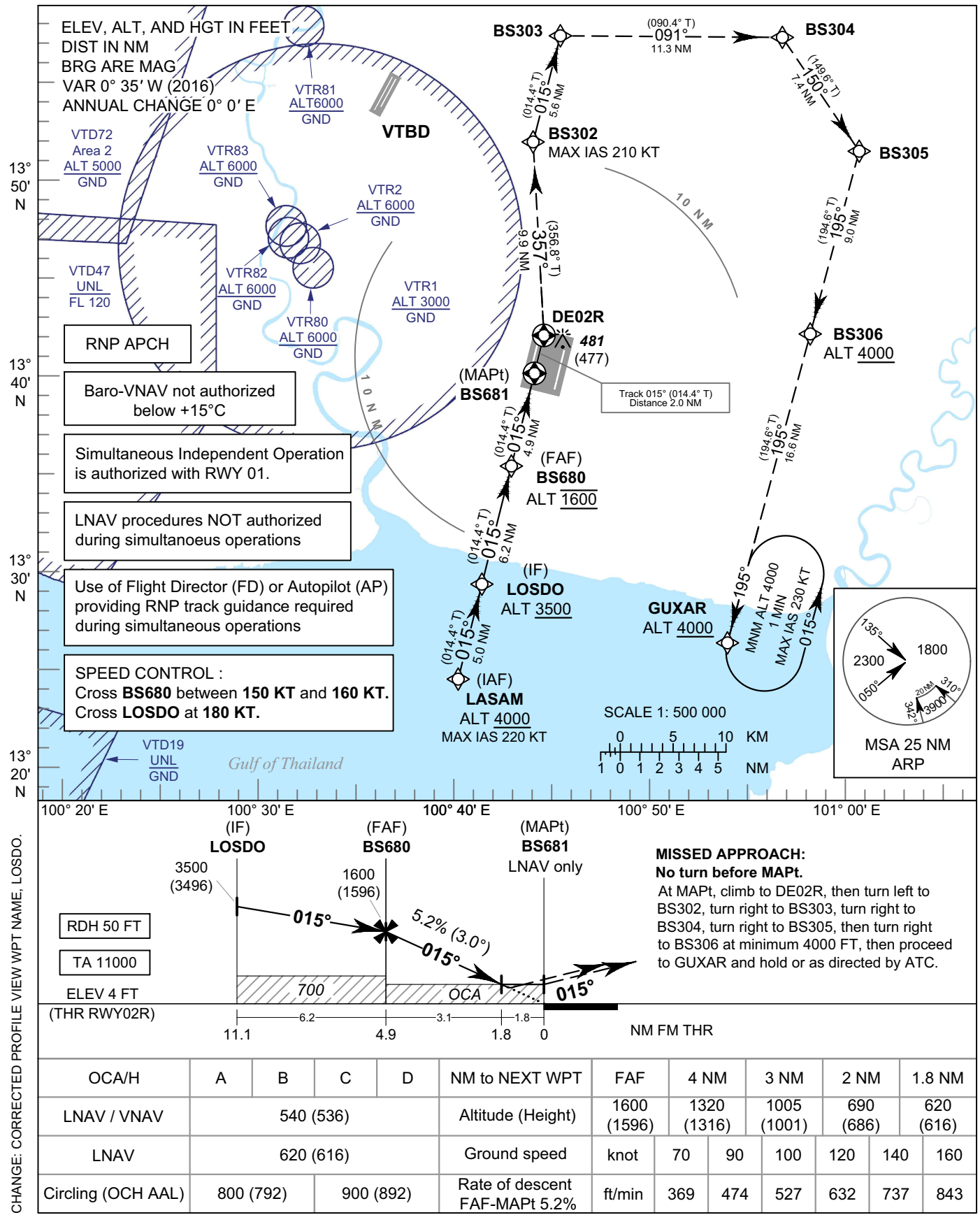
INSTRUMENT APPROACH CHART - ICAO

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

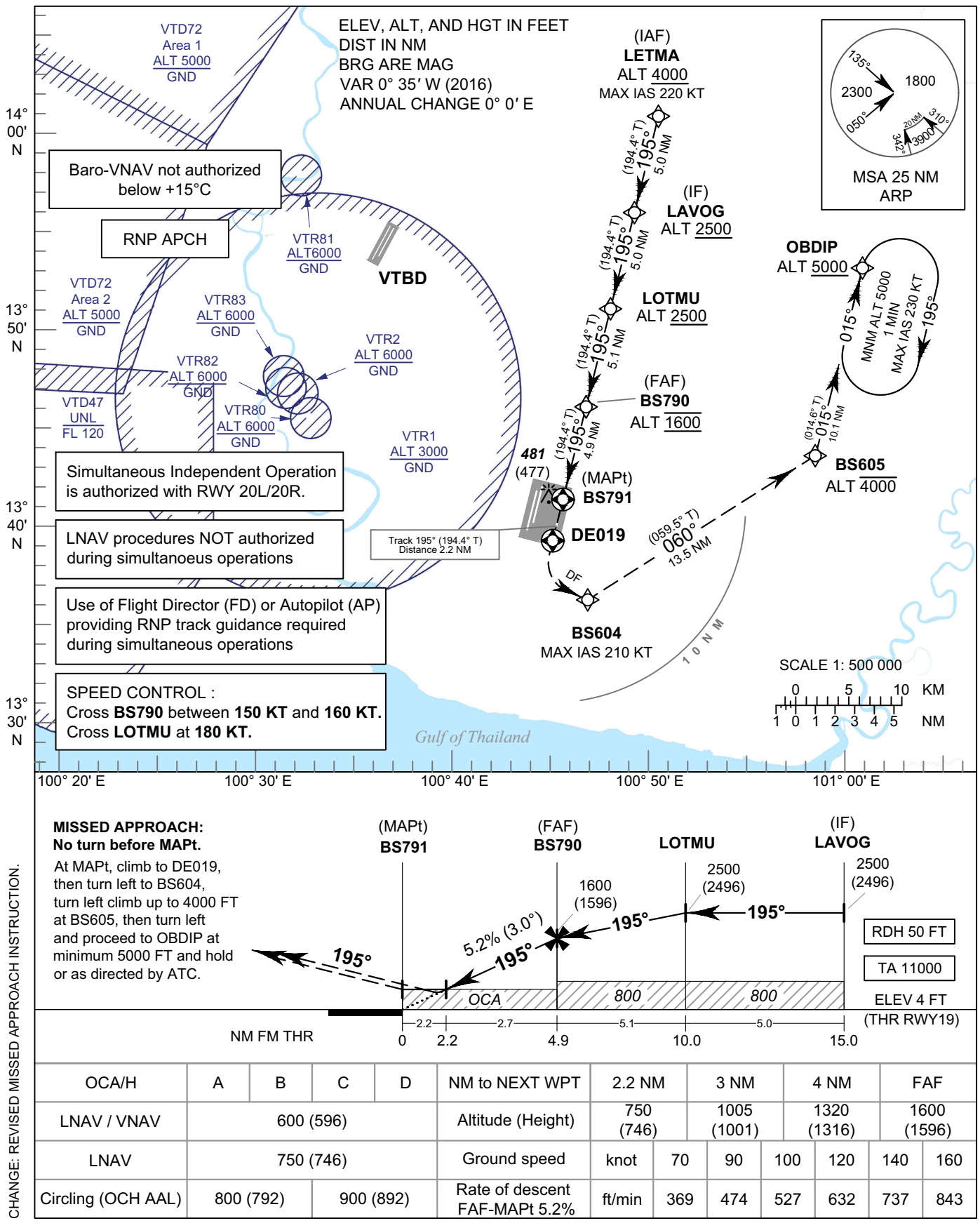
INSTRUMENT APPROACH CHART - ICAO

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

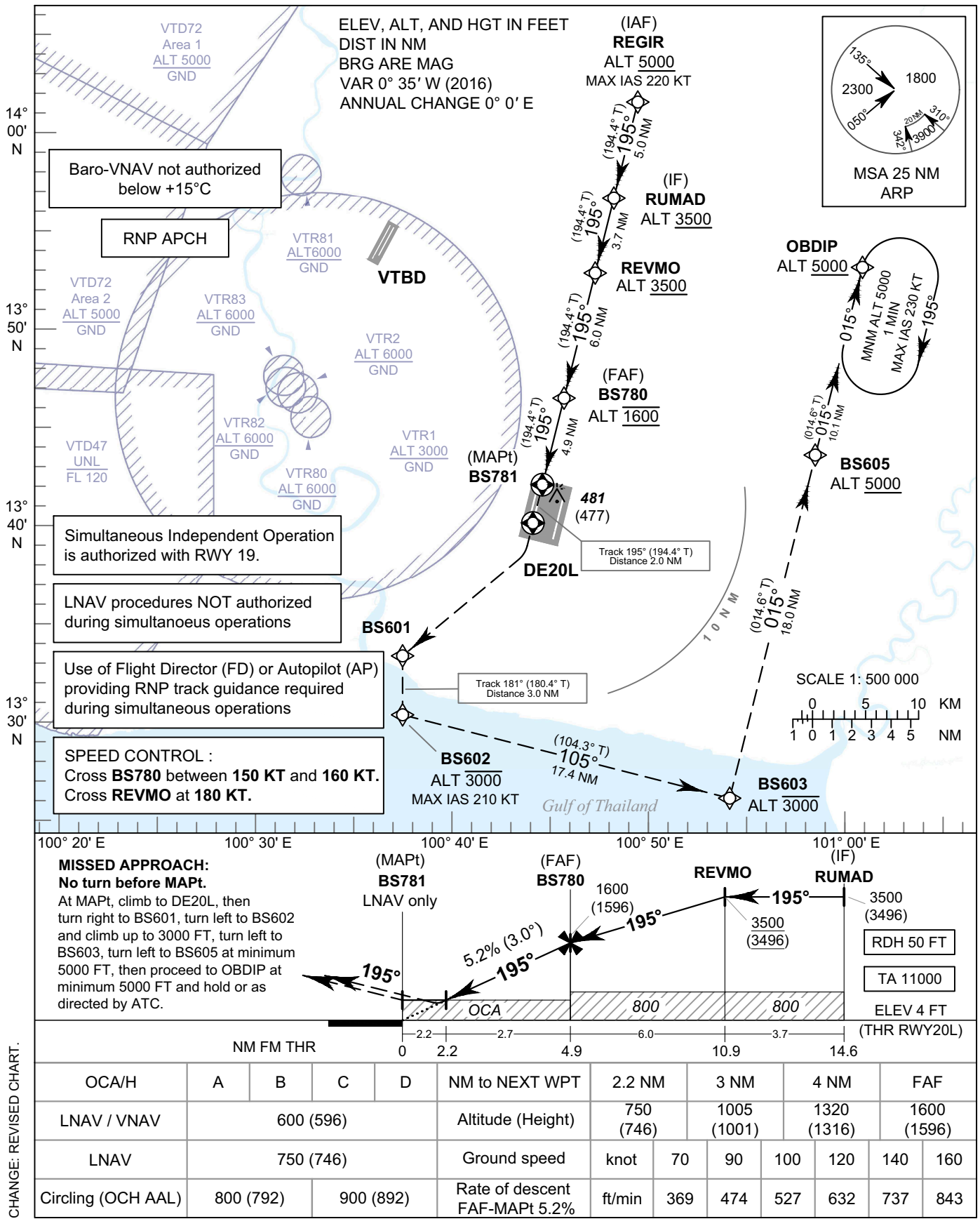
INSTRUMENT APPROACH CHART - ICAO

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

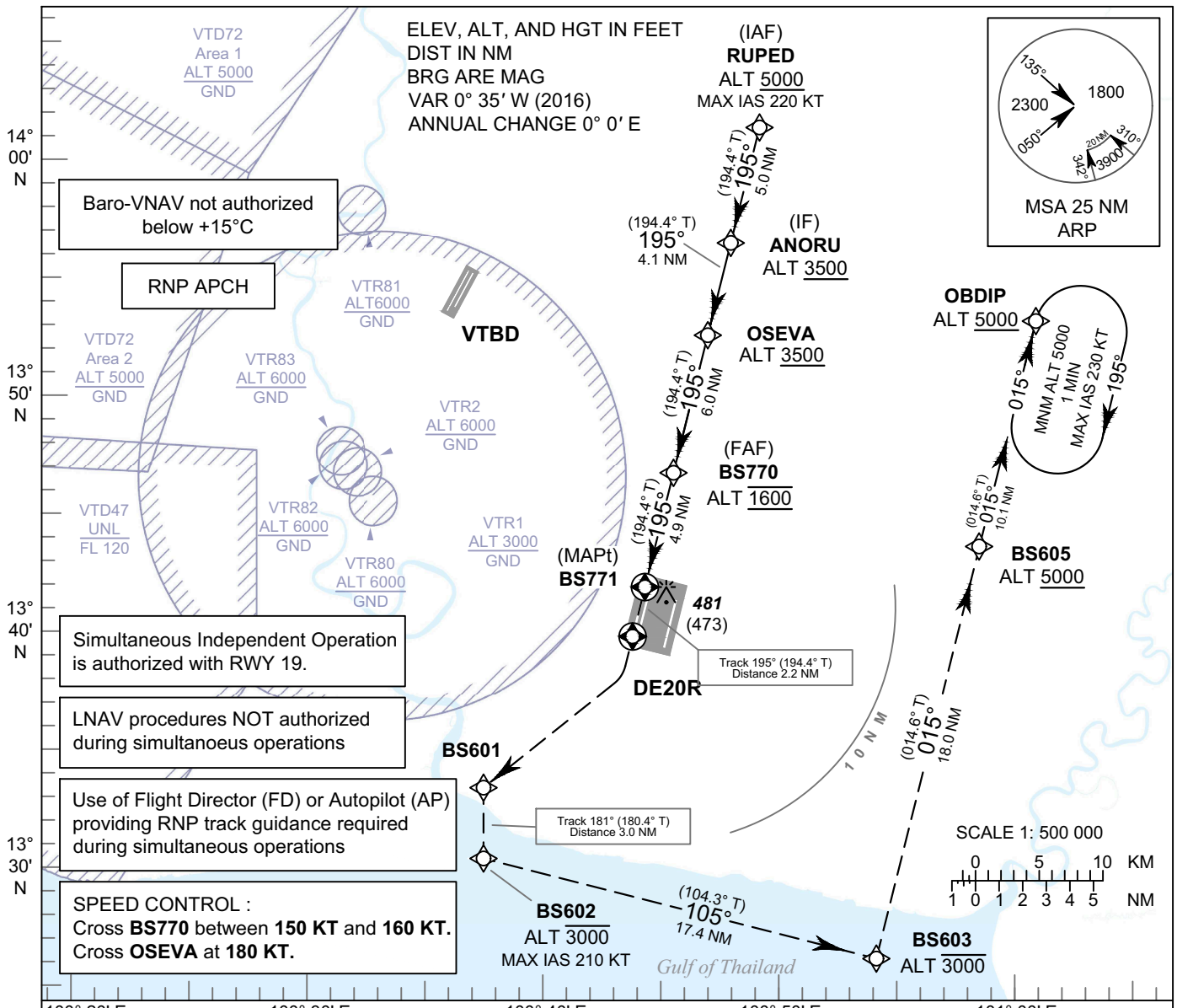
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 8 FT
HEIGHTS RELATED TO
THR RWY20R - ELEV 8 FT

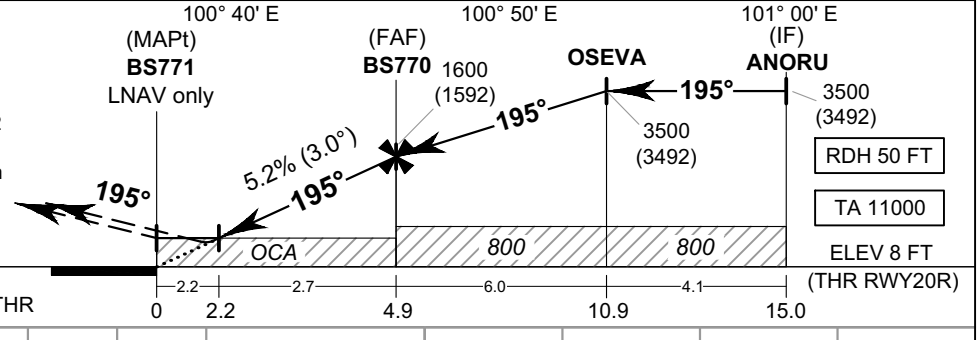
APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1, 262.5
	: 126.3, 262.5
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

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

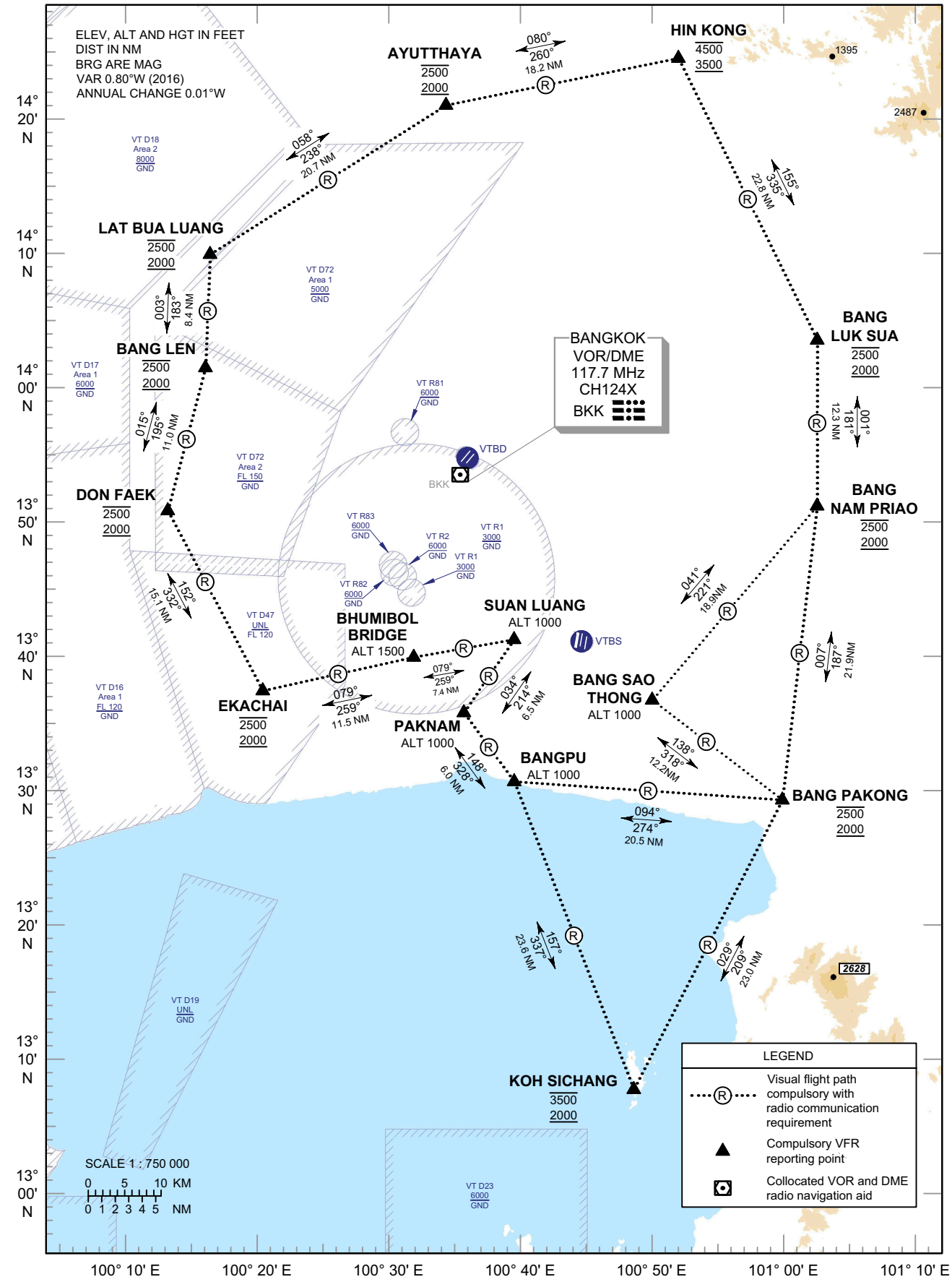
Waypoint Identifier	Coordinates
RUPED	14° 01' 23.89" N 100° 49' 24.59" E
ANORU	13° 56' 32.10" N 100° 48' 07.70" E
OSEVA	13° 52' 35.66" N 100° 47' 05.44" E
BS770	13° 46' 44.92" N 100° 45' 33.15" E
BS771	13° 42' 00.68" N 100° 44' 18.41" E
DE20R	13° 39' 54.63" N 100° 43' 45.28" E
BS601	13° 33' 07.17" N 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

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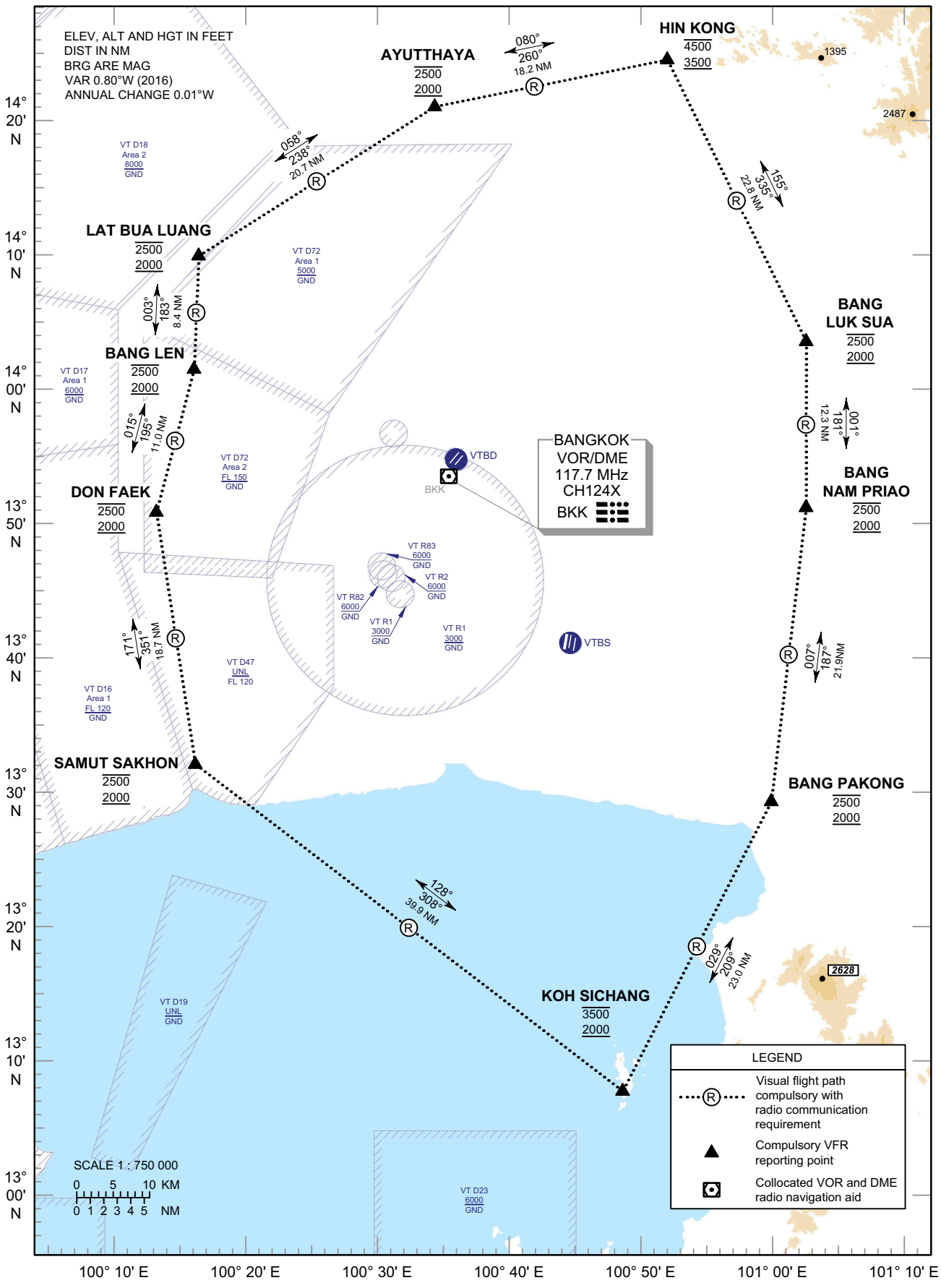
VFR OVERFLY PROCEDURE FOR LIGHT AIRCRAFT CHART

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)

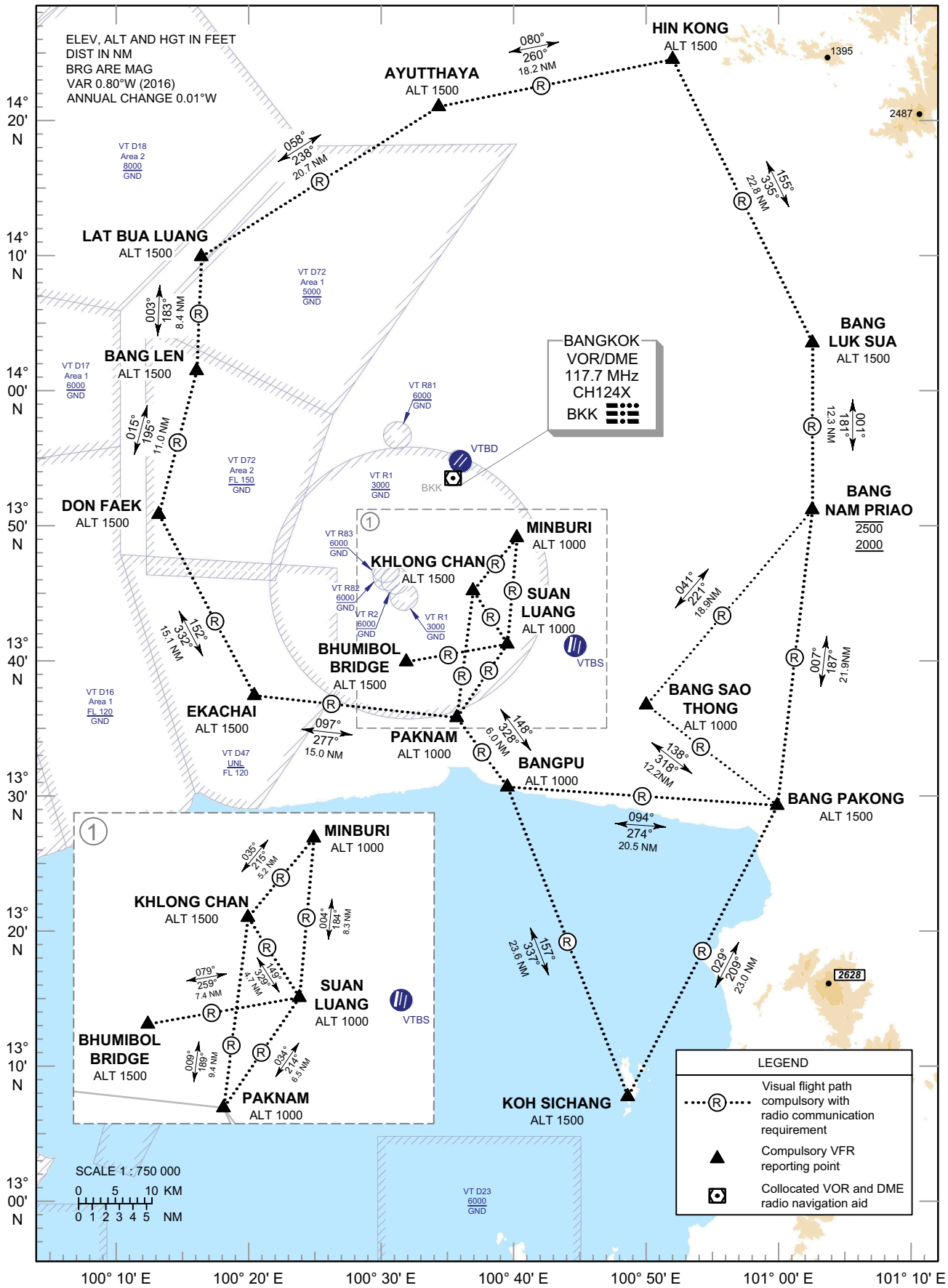
Reporting points	Landmark	Radial / DME from BKK VOR	Coordinates	
			Latitude	Longitude
HIN KONG	Hin Kong Interchange, Phahonyothin Rd.	R-030 / 35.2D	14° 24' 30.00'' N	100° 52' 40.00'' E
AYUTTHAYA	Preedee-Thamrong Bridge Crossing Pasak River	R-359 / 27.5D	14° 21' 08.00'' N	100° 34' 53.00'' E
LAT BUA LUANG	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
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	122.35	, 274.5
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	125.8	
ARR 1:	121.1	
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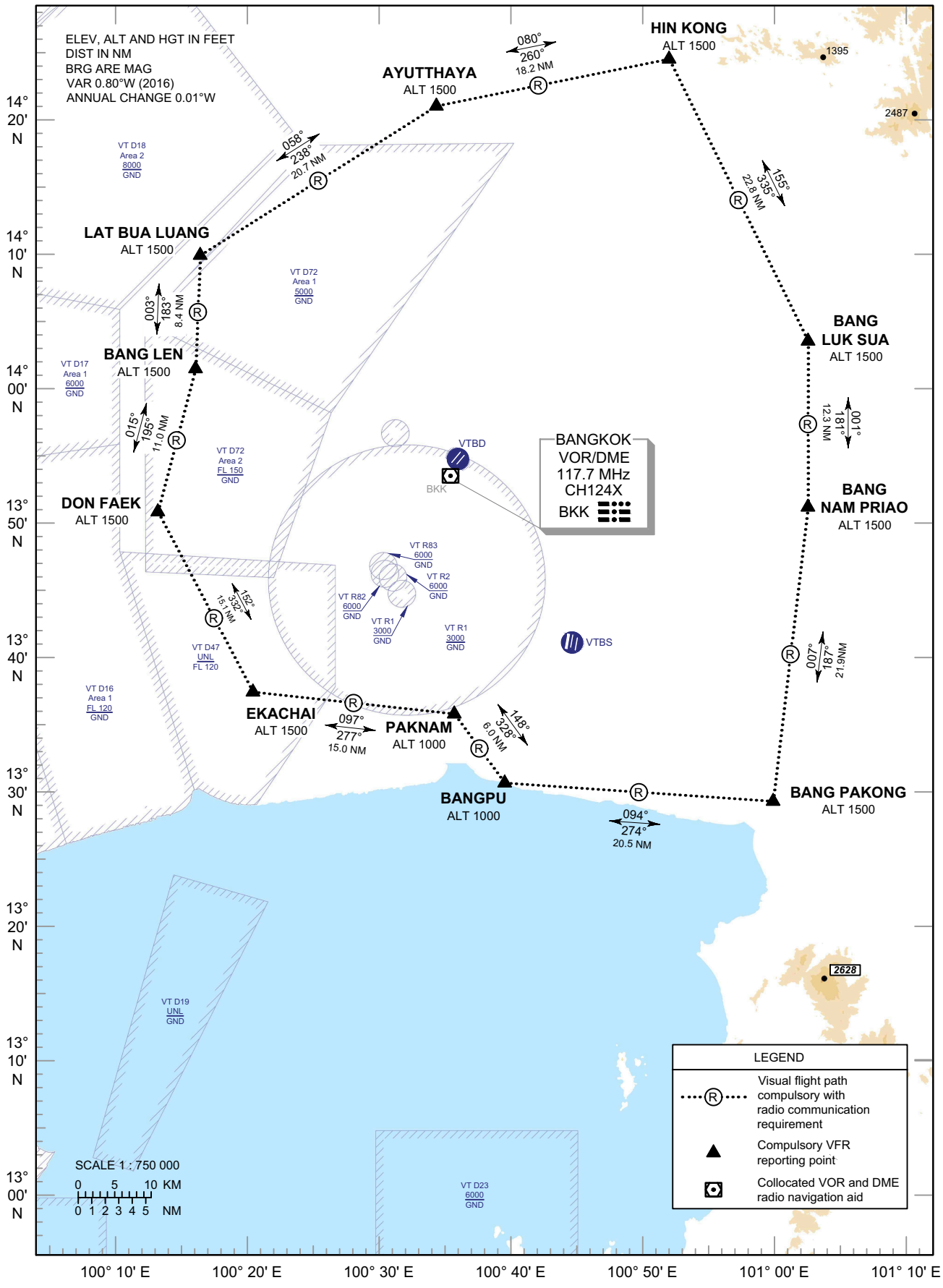
	119.0	
ATIS :	DEP 127.65	, 278.6
	ARR 133.6	

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

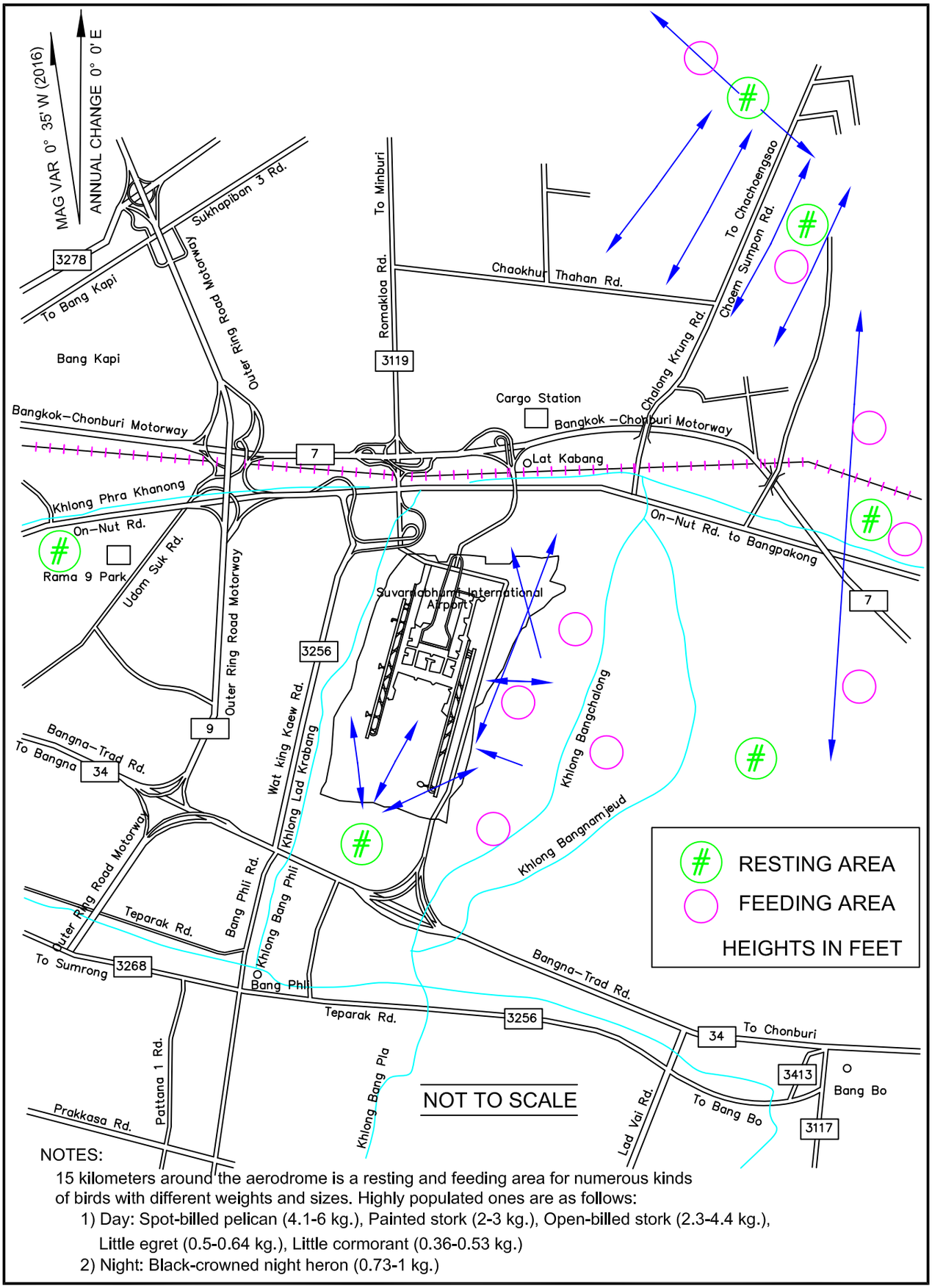
VFR OVERFLY PROCEDURE FOR HELICOPTER CHART

- 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
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 - BANGKOK / SUVARNABHUMI INTERNATIONAL



NOTES:

15 kilometers around the aerodrome is a resting and feeding area for numerous kinds of birds with different weights and sizes. Highly populated ones are as follows:

1) Day: Spot-billed pelican (4.1-6 kg.), Painted stork (2-3 kg.), Open-billed stork (2.3-4.4 kg.), Little egret (0.5-0.64 kg.), Little cormorant (0.36-0.53 kg.)

2) Night: Black-crowned night heron (0.73-1 kg.)

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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 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 Royal Thai Naval Air Division 70 moo.2 Phala Banchang Rayong 21130 Thailand Tel: +663 824 5193 (Dispatcher) +663 824 5190, +668 8669 9221 (TWR) +663 824 5196 (APP) Fax: +663 824 5193 (Dispatcher) Civil: U-Tapao Airport Authority U-Tapao Rayong Pattaya International Airport 70 moo.2 Phala Banchang Rayong 21130 Thailand Tel: +663 824 5600 (Airport Authority) Fax: +663 824 5600 (Airport Authority) 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 2 JET A-1 Refueller @ 12,000 L 1 Hydrant Dispenser for JET A-1 1 JET A-1 Refueller @ 45,000 L 1 JET A-1 Refueller @ 12,000 L 3 Hydrant Cart for JP-8 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 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 Surface: Concrete Strength: PCN 39/R/B/X/T Apron C Surface: Concrete Strength: PCN 40/R/B/X/T Apron D Surface: Concrete Strength: PCN 77/R/B/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt Strength: TWY A, B, C, D, E, F, G, H: PCN 65/R/B/W/T TWY I: PCN 9/R/B/W/T
3	Altimeter checkpoint location and elevation	Location at Apron 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: NIL 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 Subdivision Royal Thai Naval Air Division
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Weather Section 24 HR
4	Type of landing forecast Interval of issuance	TREND 30 Min
5	Briefing/consultation provided	Personal Consultation Tel: +663 824 5489 E-mail: weather.utapao@gmail.com
6	Flight documentation Language(s) used	Charts, Tabular Forms and Abbreviated Plain Language Texts 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 Weather Radar (DWR) X-band
9	ATS units provided with information	U-Tapao TWR 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 Concrete and asphalt	124144.26N 1010022.66E	THR 18 M (59 FT)
36	004°(MAG)	3505x60	PCN 59/F/B/X/T 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 (570 M)	Green	PAPI BI-Latteral 3°	NIL	NIL	3505 M 60 M White LIH	Red	NIL	NIL
36	SALS	Green	PAPI Left 3°	NIL	NIL	3505 M 60 M 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. IBN: NIL
2	LDI location and LGT Anemometer location and LGT	WDI - 1 WDI left side of THR RWY 36 (500 M from RWY THR) - 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 Switch-over time: 0 SEC
5	Remarks	NIL

VTBU AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 Language(s)	U-Tapao Tower 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 121.5 MHZ/EMERG 134.5 MHZ/SEC 238.3 MHZ/SEC 273.3 MHZ/PRI 243.0 MHZ/EMERG	H24	UHF reserved for military use
TWR	U-Tapao Tower	118.3 MHZ 121.5 MHZ/EMERG 227.0 MHZ 243.0 MHZ/EMERG	H24	UHF reserved for military use
GND	U-Tapao Ground	121.9 MHZ 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 1005941.96E		The coverage 50 NM orbit clockwise data refer from commissioning shall be as follows -Bearing 321-020 degree altitude 3,000 feet. -Bearing 021-050 degree altitude 7,000 feet. -Bearing 051-100 degree altitude 6,000 feet. -Bearing 101-320 degree altitude 2,000 feet.
DVOR/DME	BUT	110.8 MHZ 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: – Radial 101°-170° altitude should not below 2 000 FT – Radial 171°-250° altitude should not below 6 000 FT – Radial 251°-320° altitude should not below 8 000 FT – Radial 321°-050° altitude should not below 6 000 FT – Radial 051°-100° altitude should not below 4 000 FT
ILS CAT I LOC RWY 18	IBUT	111.9 MHZ	H24	123937.26N 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 CH 56X	H24	124132.95N 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

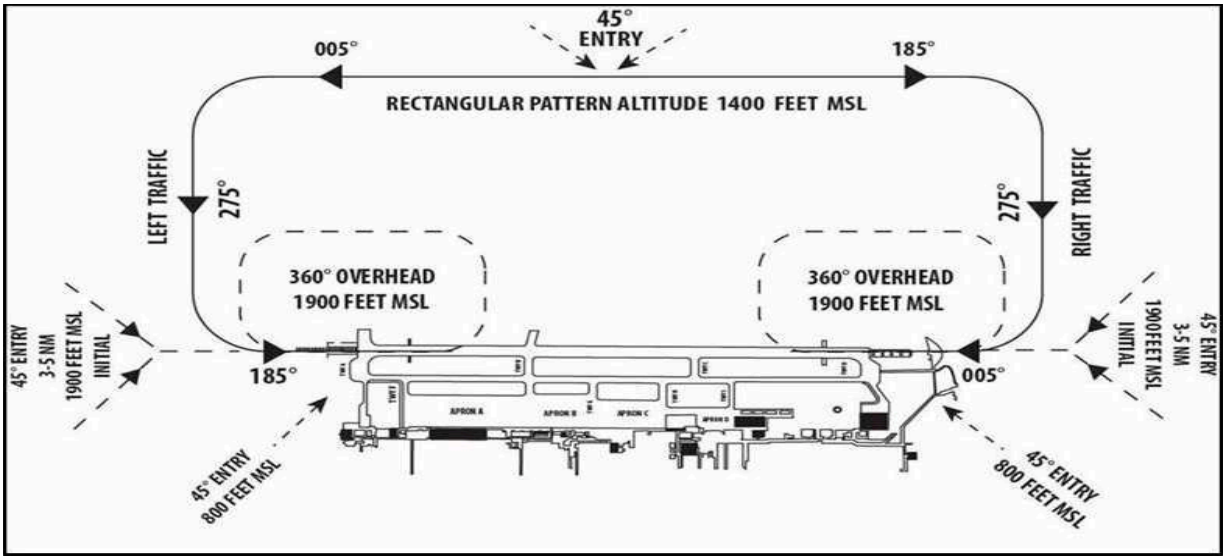
1.1.2 Overhead approach

- 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

Chart name	Page
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

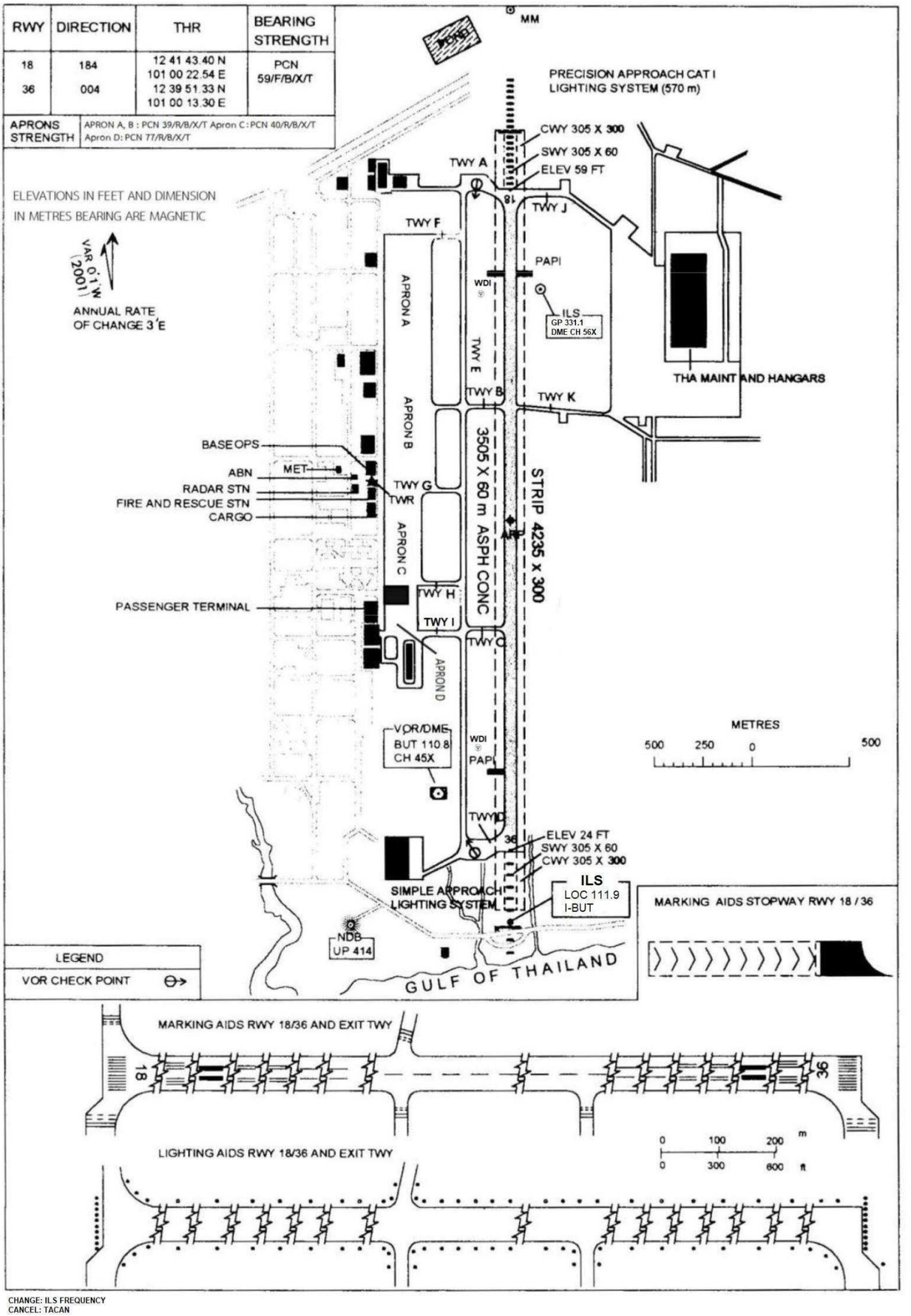
12 40 46.6 N
101 00 17.7 E

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 101 00 22.54 E	PCN 59/F/B/X/T
36	004	12 39 51.33 N 101 00 13.30 E	
APRONS STRENGTH	APRON A, B : PCN 39/R/B/X/T Apron C : PCN 40/R/B/X/T Apron D: PCN 77/R/B/X/T		



CHANGE: ILS FREQUENCY
CANCEL: TACAN

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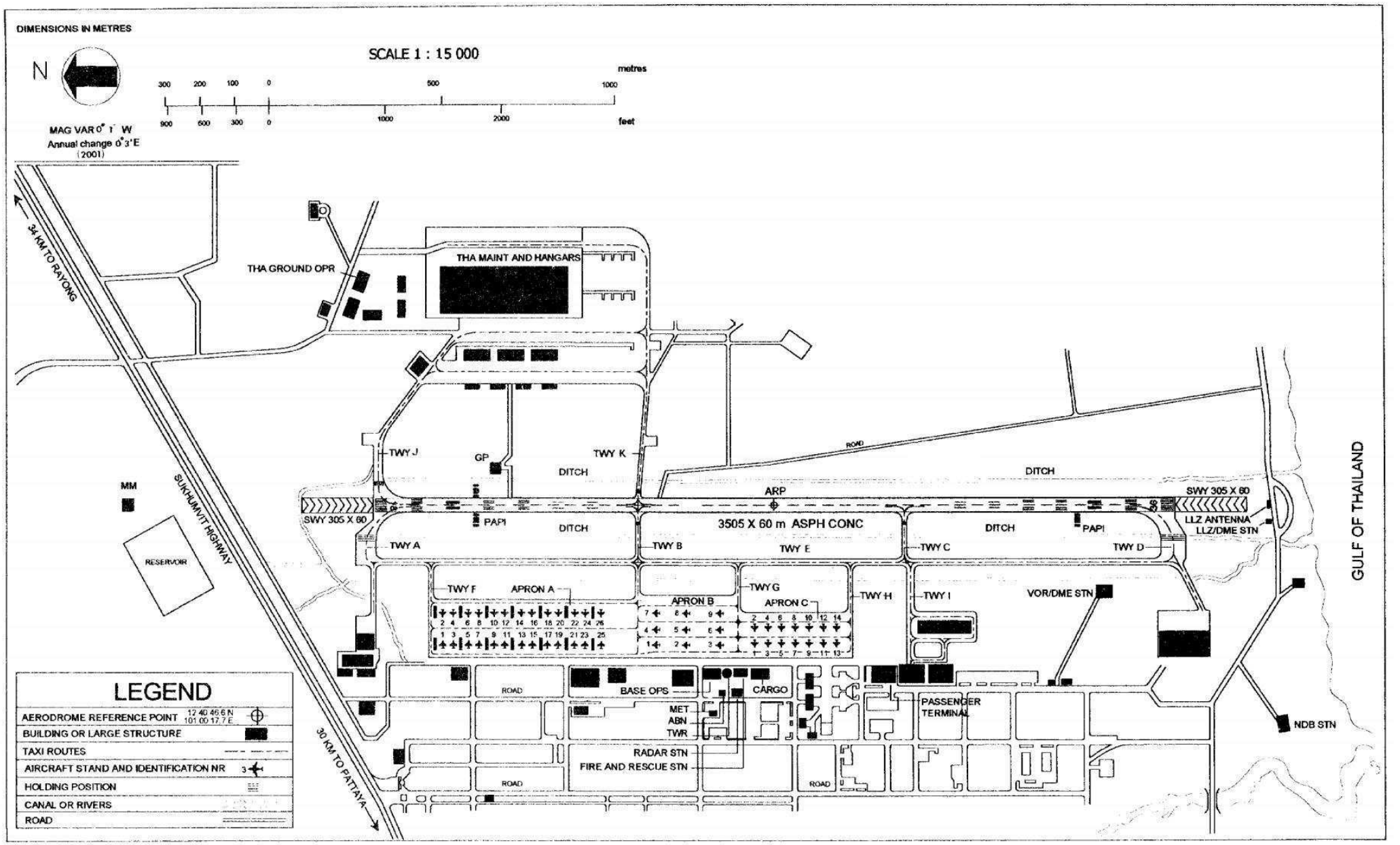
AERODROME GROUND MOVEMENT CHART

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

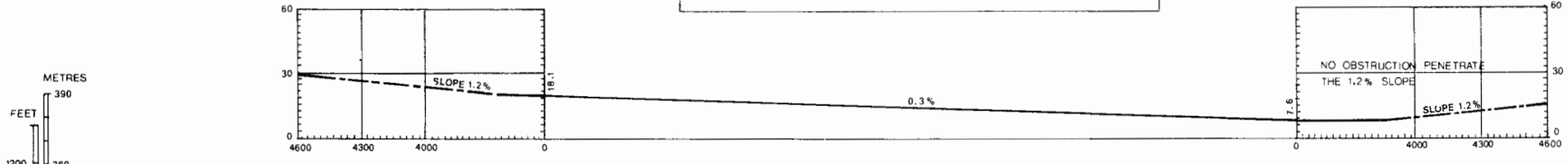
TYPE A - OPERATION LIMITATIONS

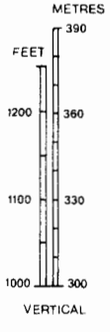
RAYONG/U-Tapao International Airport

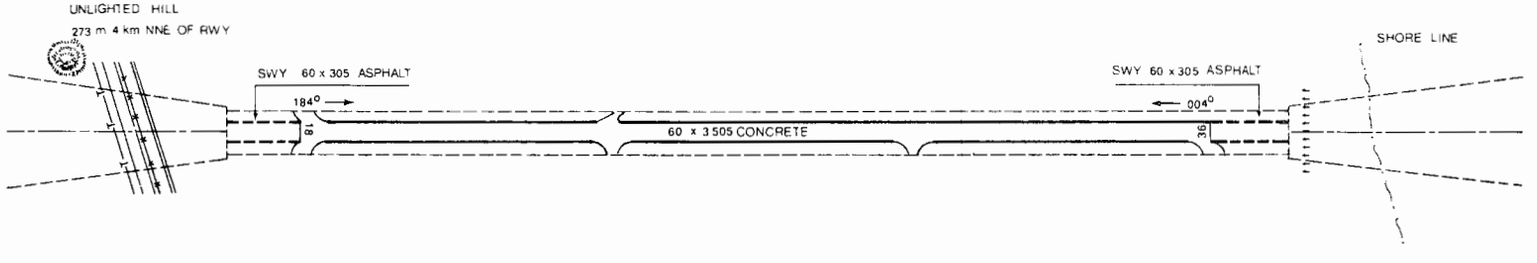
DIMENSIONS AND ELEVATIONS IN METERS

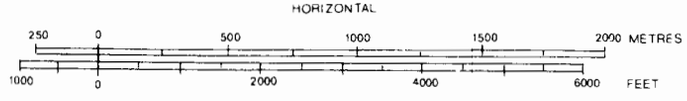
MAGNETIC VARIATION 0° 1'W (2001)

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

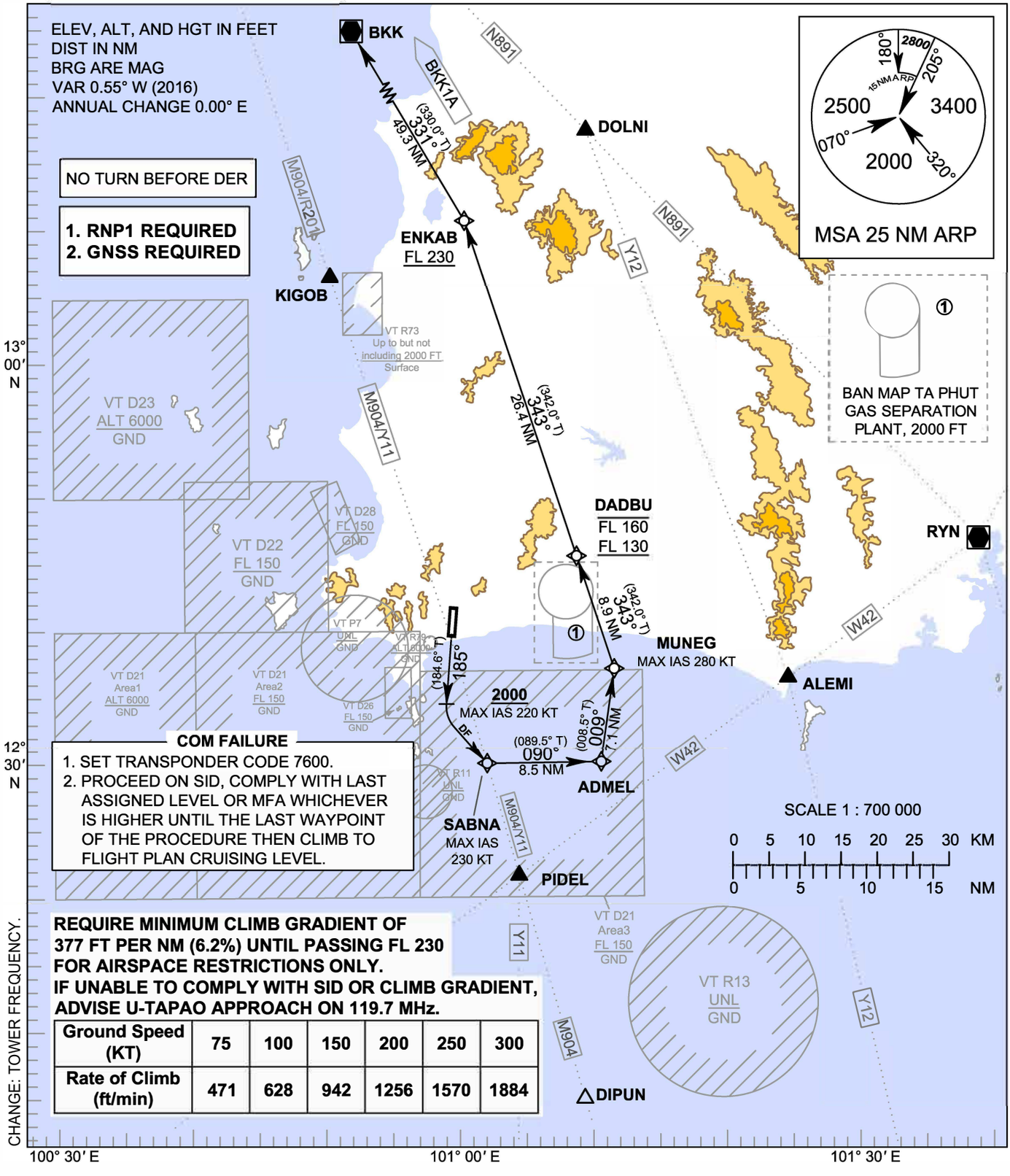
TRANSITION ALTITUDE
11000 FT

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

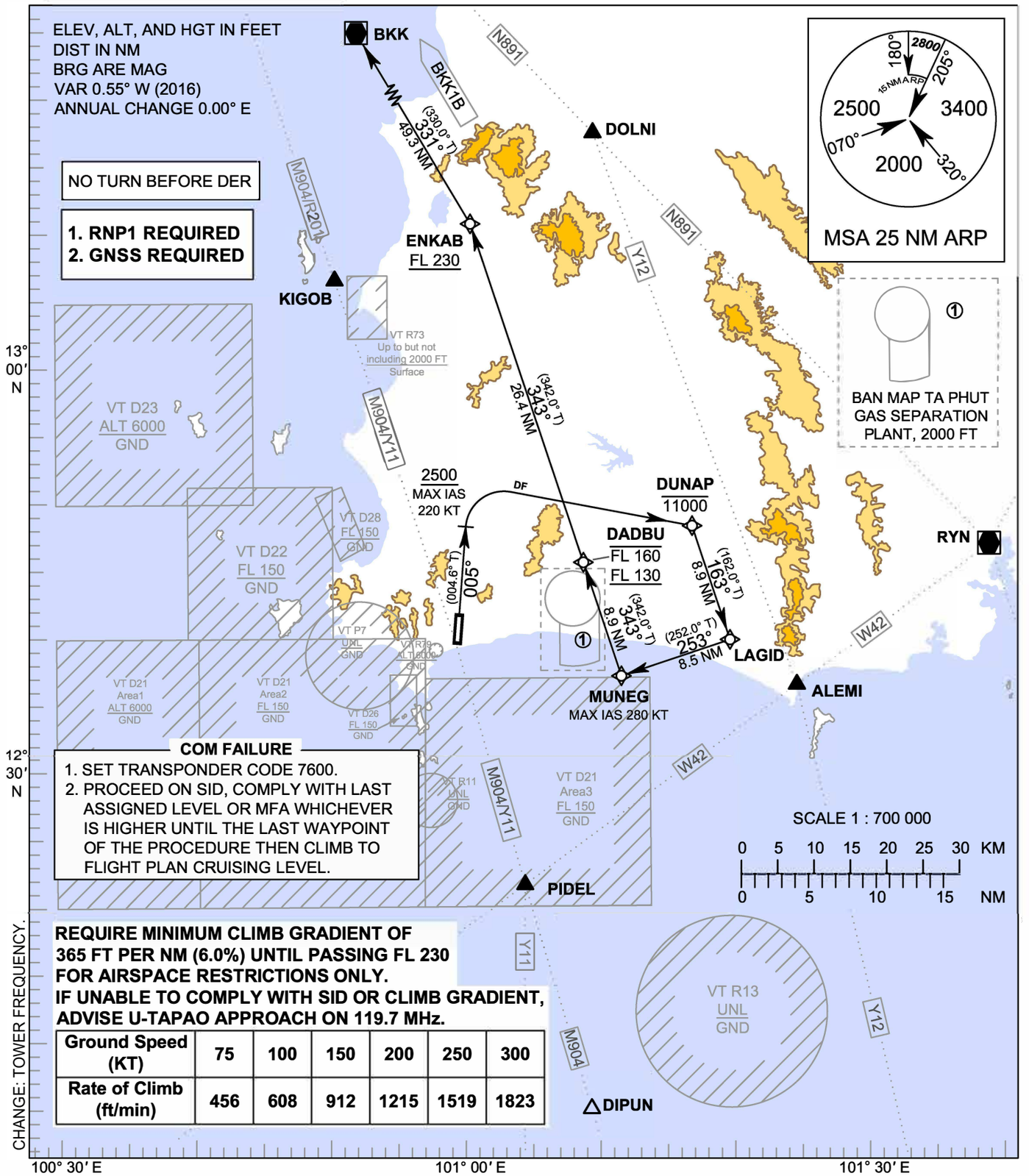
TRANSITION ALTITUDE
11000 FT

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**

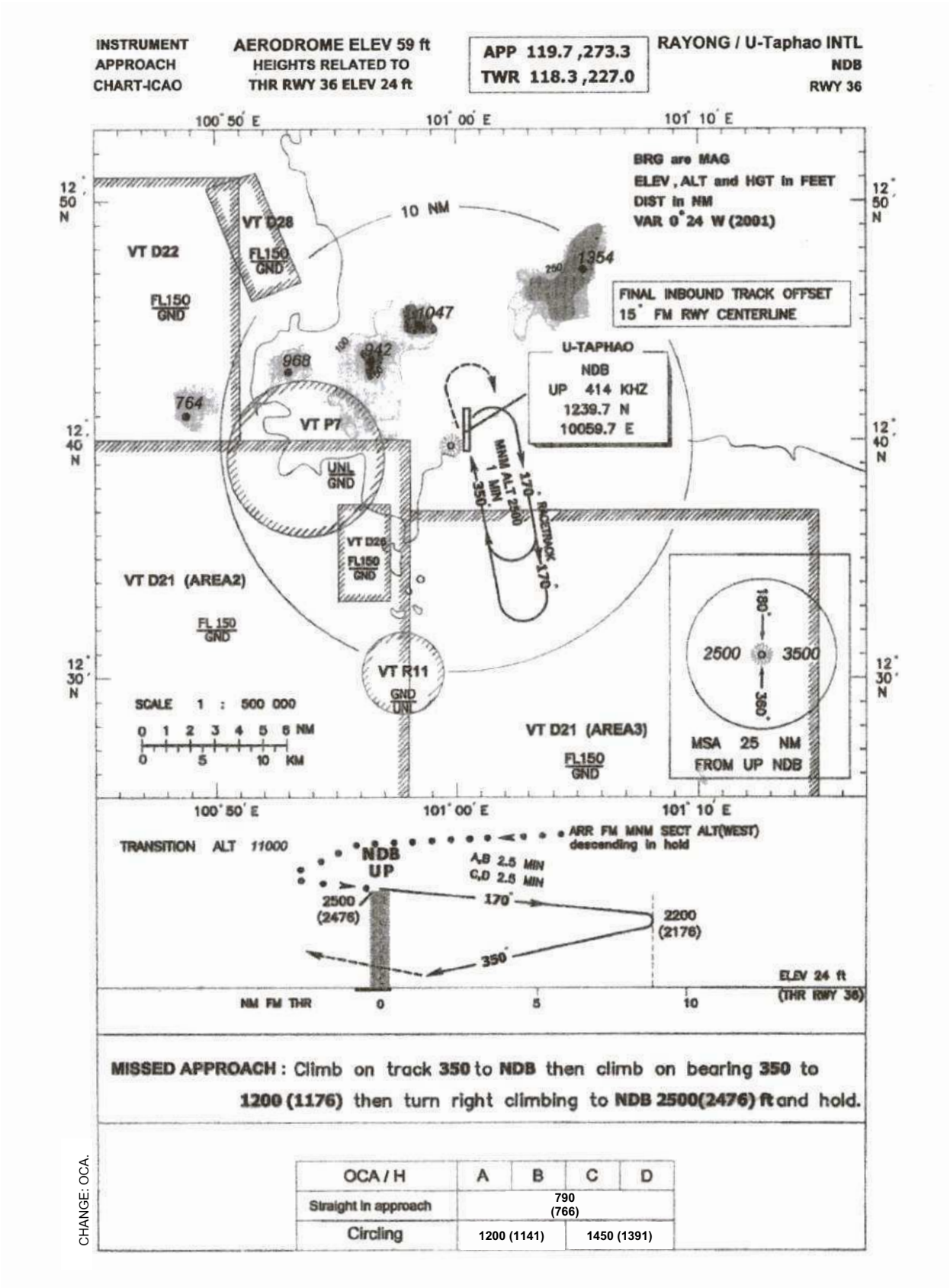
BKK1B

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



CHANGE: OCA.

OCA / H	A	B	C	D
Straight in approach	790 (766)			
Circling	1200 (1141)		1450 (1391)	

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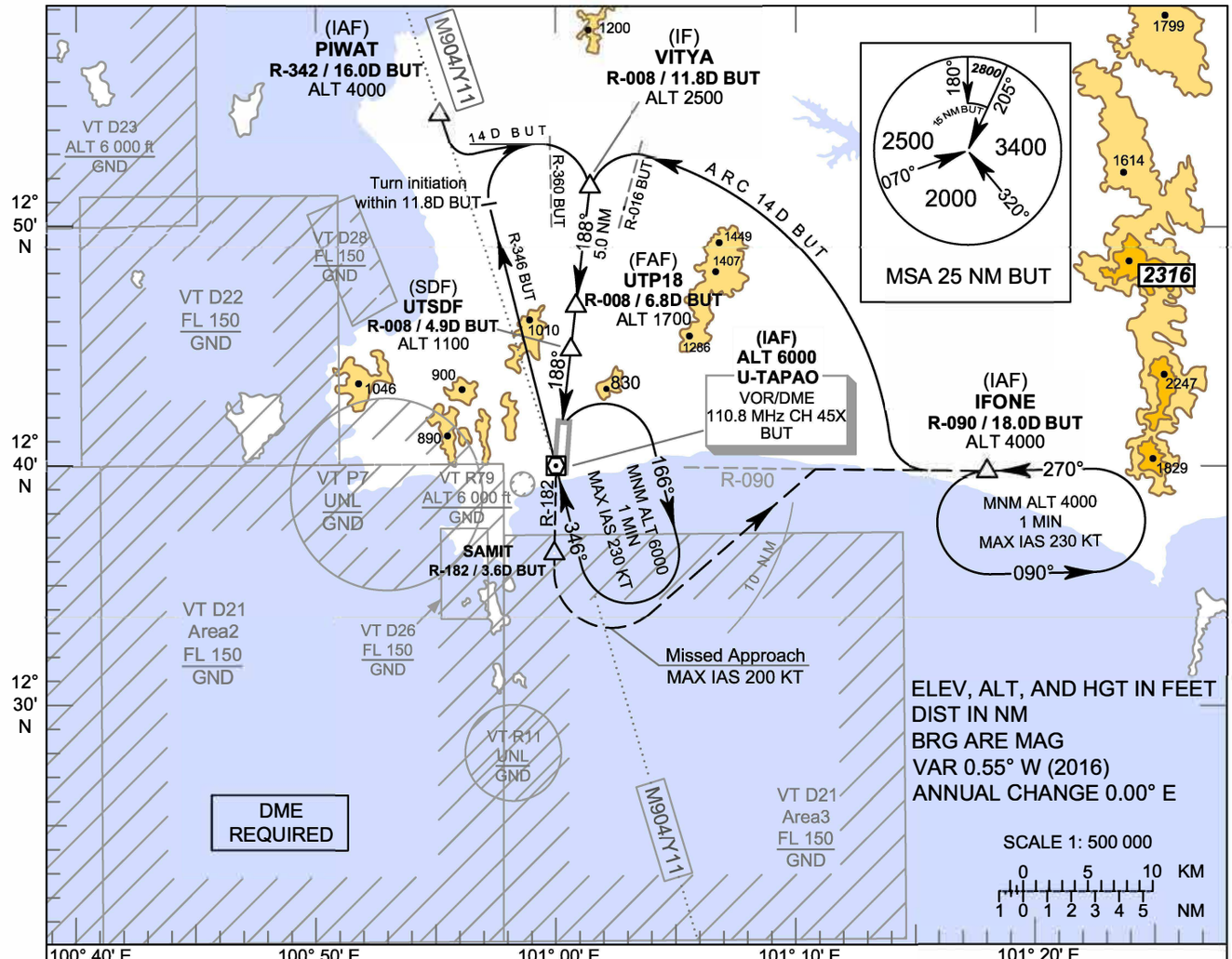
INSTRUMENT APPROACH CHART - ICAO

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)

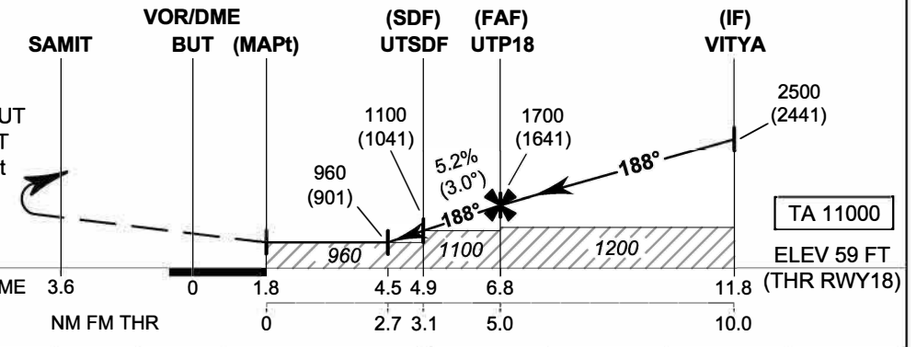
VOR RWY18



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



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

CHANGE: TOWER FREQUENCY.

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 00.02 N	101 00 01.71 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

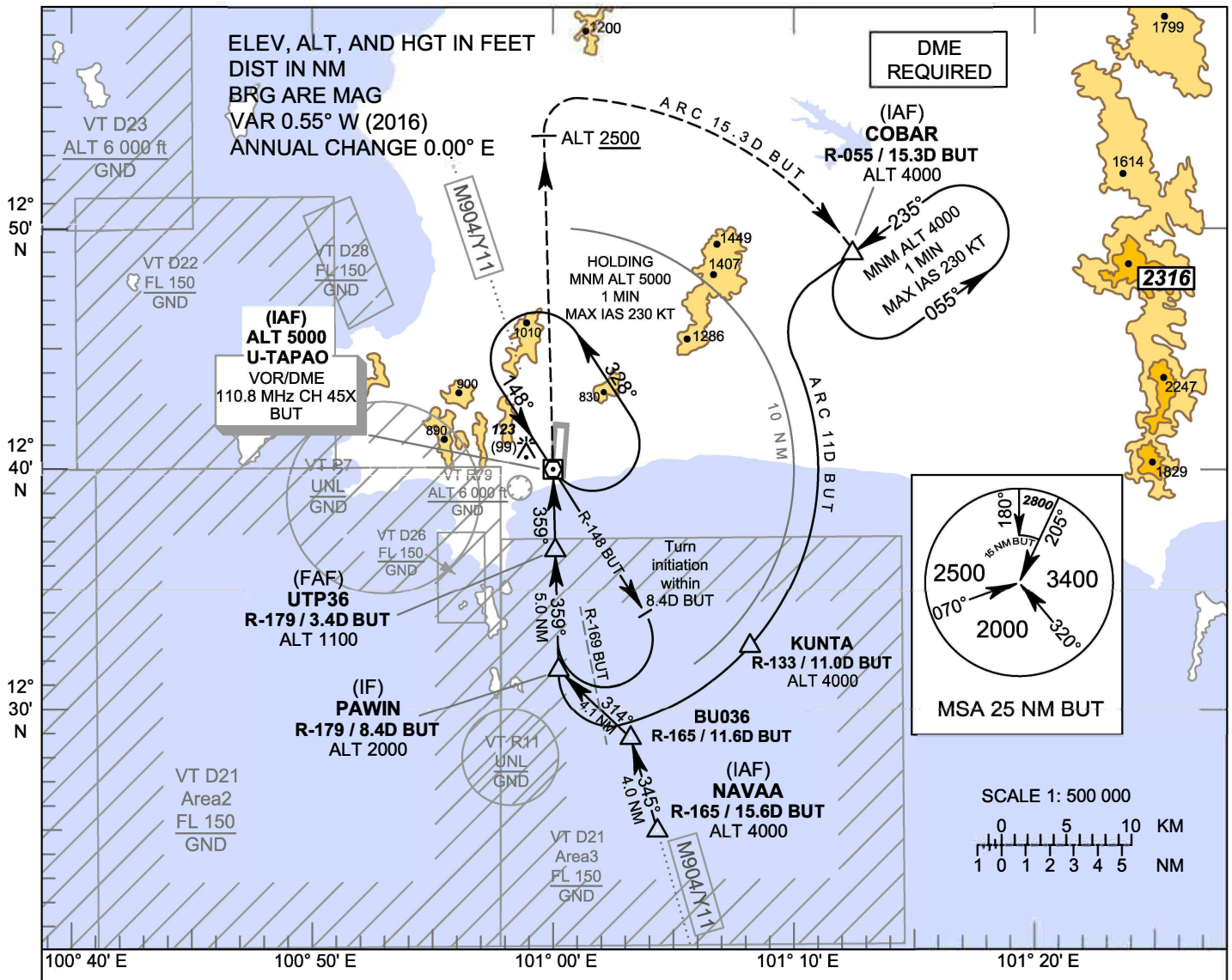
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 59 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 24 FT

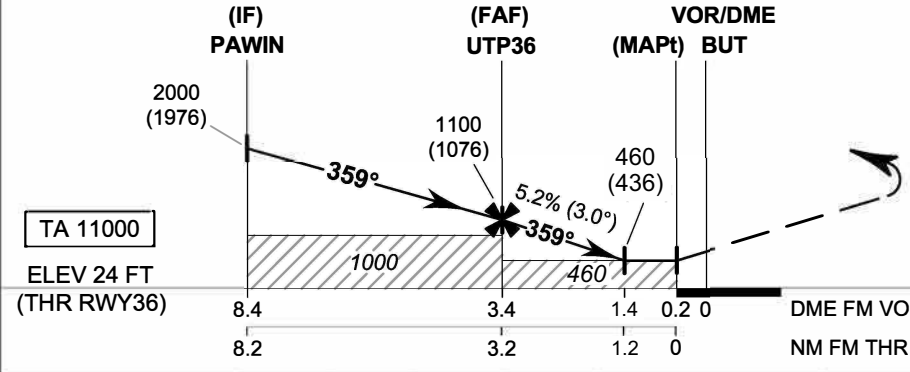
APP	: 119.7 , 134.5 238.3 , 273.3
TWR	: 118.3 , 227.0
GND	: 121.9 , 275.8
ATIS	: 127.2

RAYONG / U-TAPAO RAYONG PATTAYA INTL (VTBU)

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 00.02 N	101 00 01.71 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

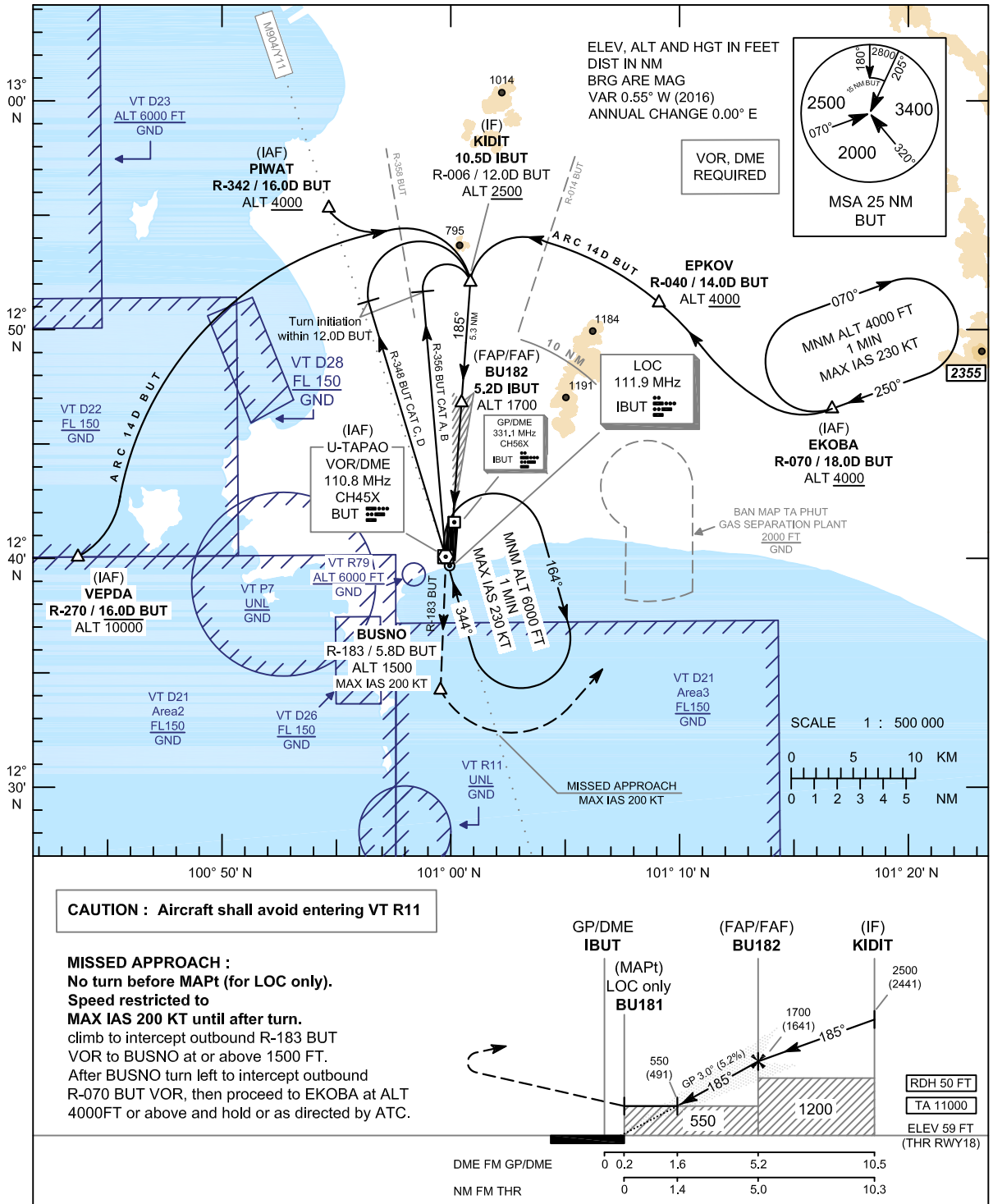
INSTRUMENT APPROACH CHART - ICAO

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' 12.17" E	-
GP/DME	IBUT	12° 41' 32.95" N	101° 00' 25.78" E	-
(IAF) VOR	BUT	12° 40' 00.02" N	101° 00' 01.71" E	-

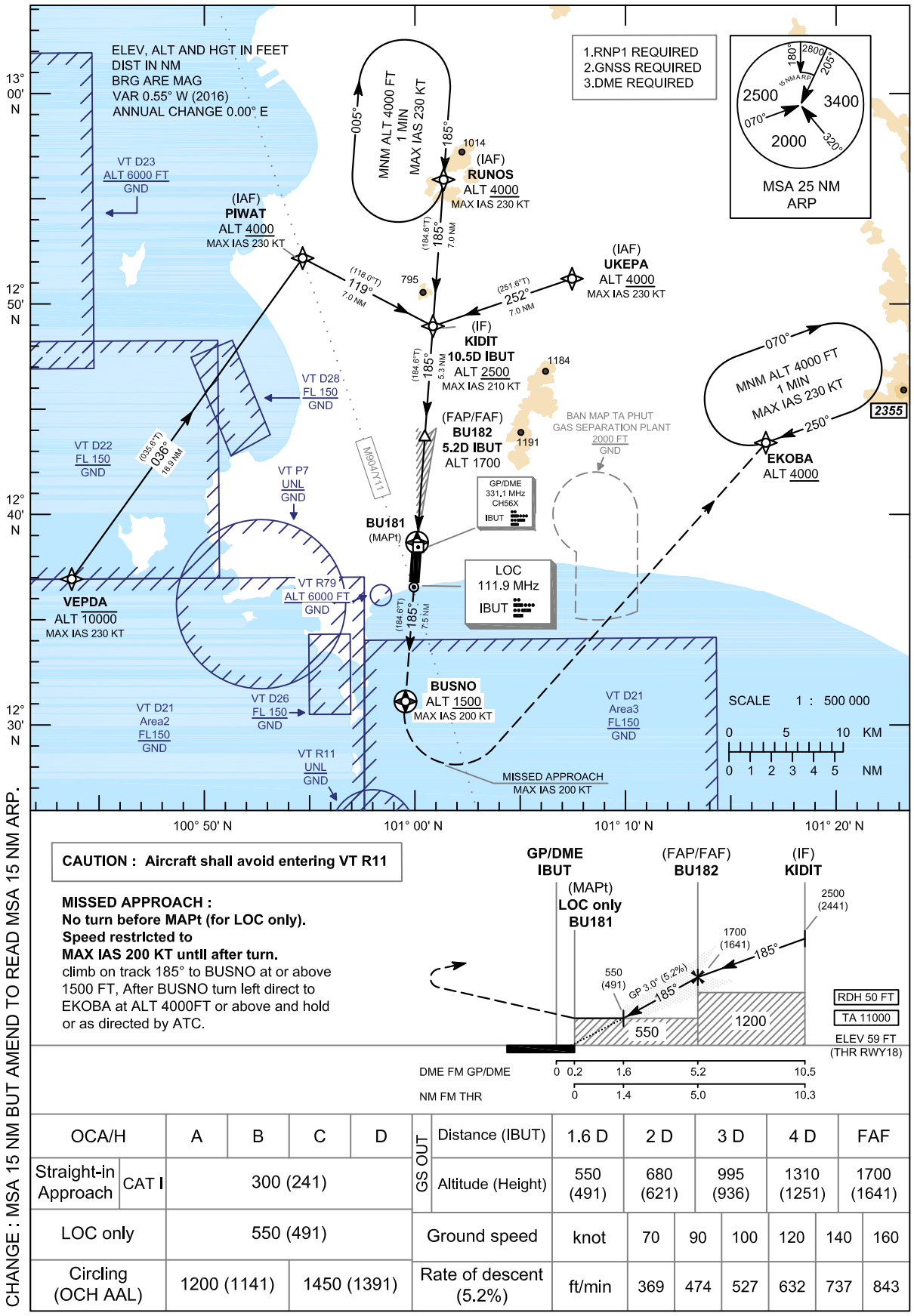
INSTRUMENT APPROACH CHART - ICAO

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)

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

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' 12.17" E	-
GP/DME	IBUT	12° 41' 32.95" N	101° 00' 25.78" E	-

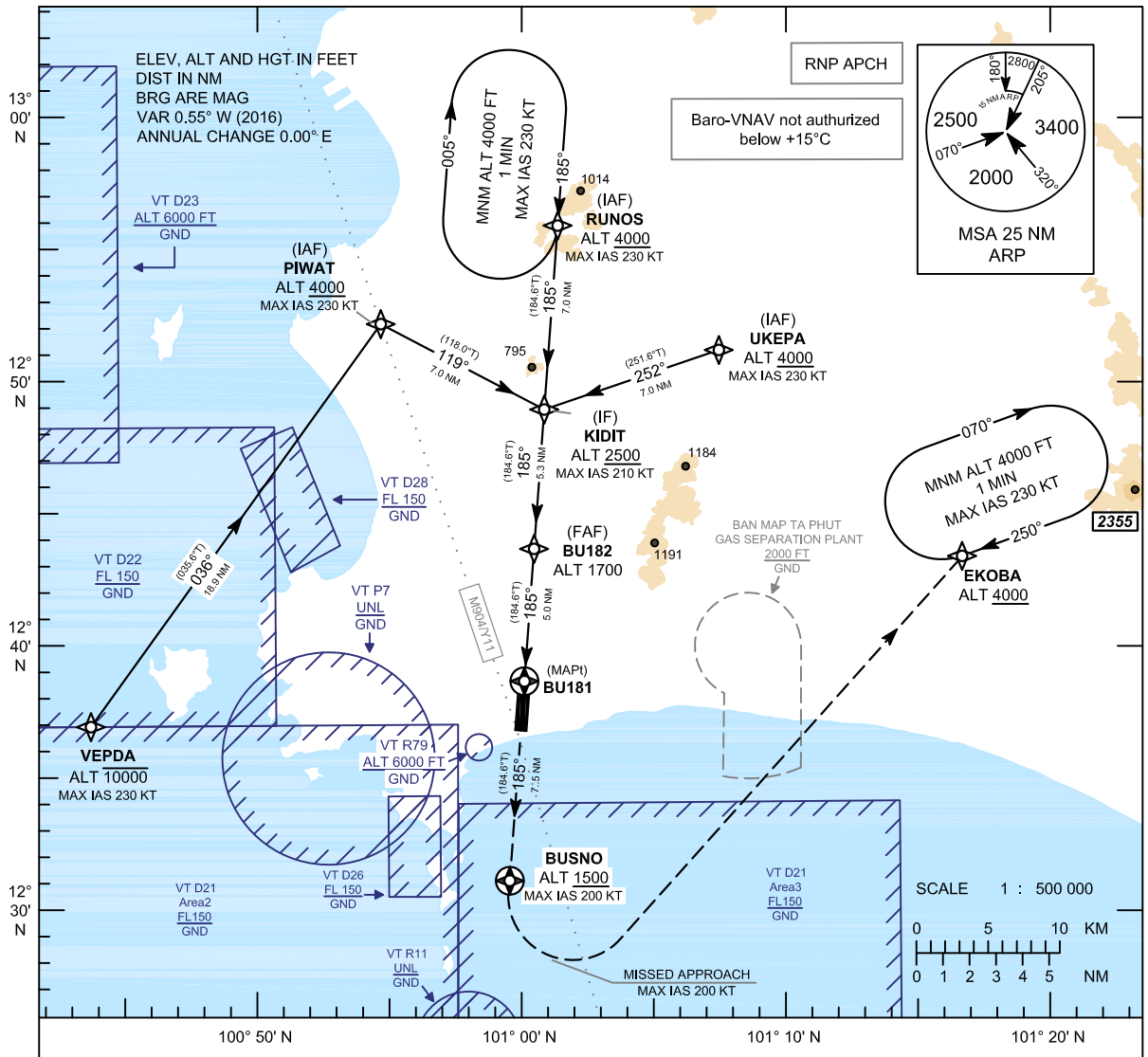
INSTRUMENT APPROACH CHART - ICAO

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

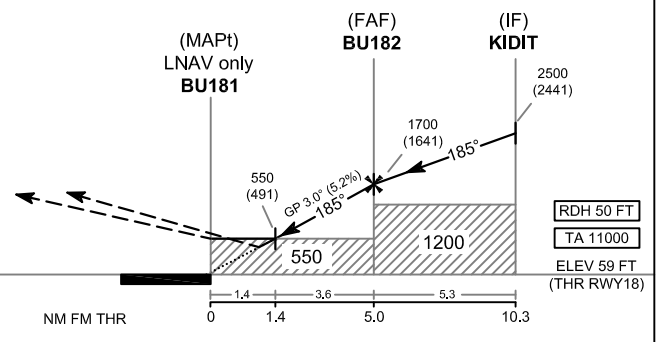
RAYONG / U-TAPAO RAYONG PATTAYA INTL (VTBU)

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

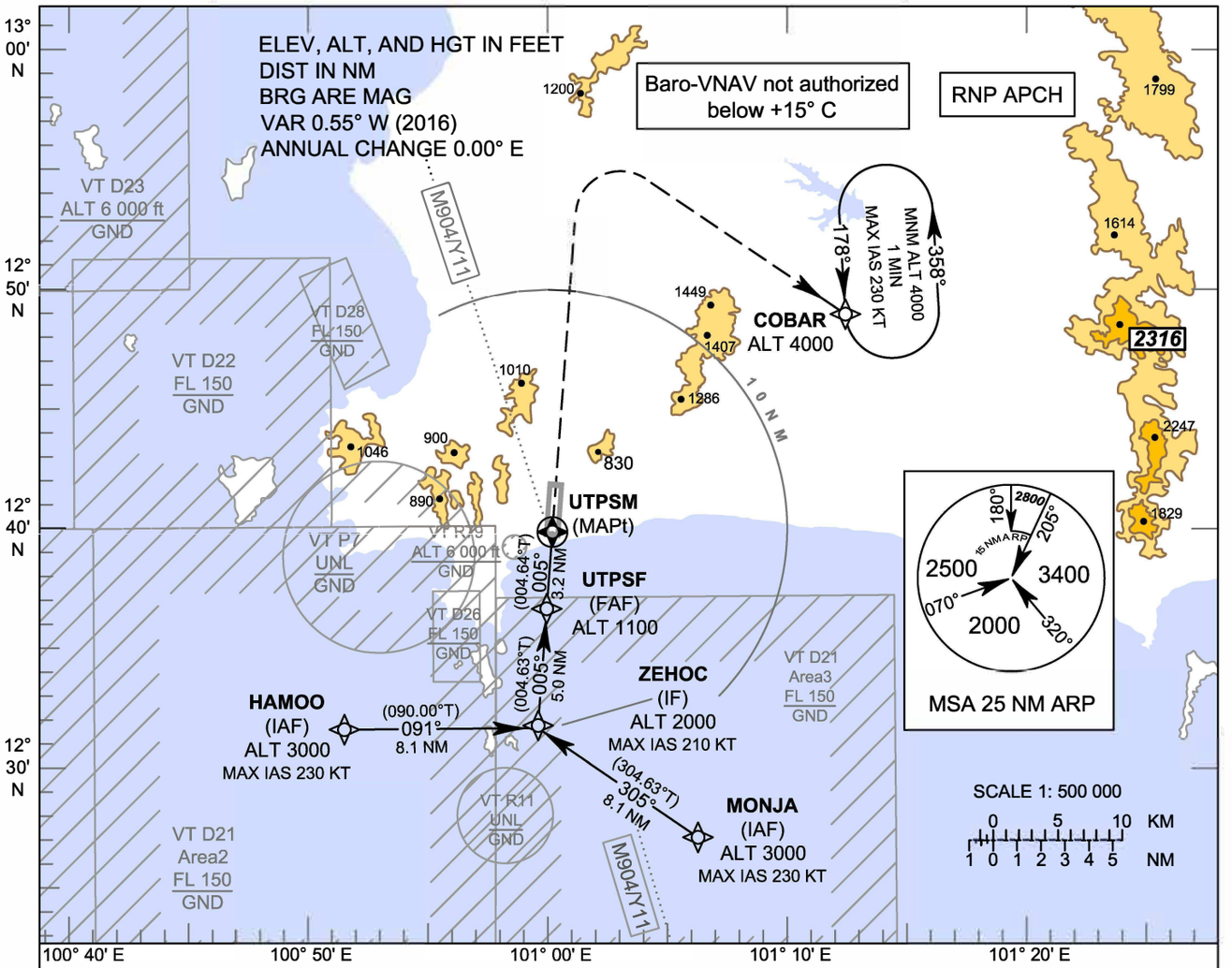
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 59 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 24 FT

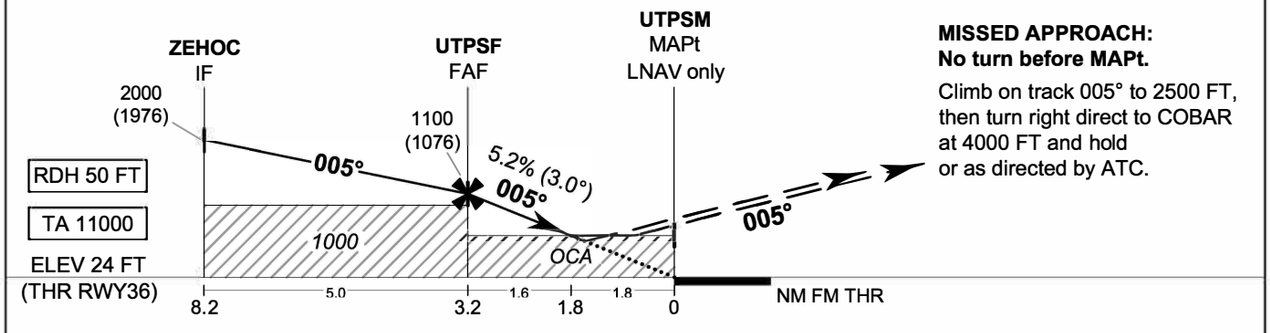
APP : 119.7 , 134.5
238.3 , 273.3
TWR : 118.3 , 227.0
GND : 121.9 , 275.8
ATIS : 127.2

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 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 Airports of Thailand Public Company Limited Hat Yai, Songkhla 90115, Thailand Tel: +667 422 7000 Fax: +667 425 1334 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): Located at Hat Yai Air Traffic Control Center (1st floor of tower building) Mobile: +669 2262 2436 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. 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. Tel: +667 422 7248 Fax: +667 422 7247 3 JET A-1 Refueller @ 12,000+22,000+18,000 L AVGAS 100LL Drum tank 50 L @ 1,000 L -JET A-1: 4 tank.TTK 960,000 L -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: Thai Airways International Public Co.,ltd E-mail: hdykk@thaiairways.com Tel: +667 422 7273 Fax: +667 425 1335 BAGS Ground Services Co.,Ltd E-mail: hdy-stationmanager@bags-groundservices.com hdy-seniorteam@bags-groundservices.com Tel: +667 422 7264 (23.30-14.30 UTC) +666 1172 2177(24 HR) 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 Tel: +667 424 3747 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: - Airside Operation Division Tel: +667 422 7765 +667 422 7766 - Rescue and Fire Fighting Division 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 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 Taxiway B: 26 M, Concrete PCR 950/R/A/W/T Asphalt, PCR 950/F/A/X/T Taxiway C: 26 M, Concrete PCR 950/R/A/W/T Asphalt, PCR 950/F/A/X/T Taxiway D: 26 M, Concrete, PCR 950/R/A/W/T Taxiway E: 30 M, Concrete, PCR 780/R/A/W/T Taxiway F: 27 M, Concrete, PCR 950/R/A/W/T Taxiway G: 24 M, Asphalt, PCR 950/F/D/X/T Taxiway H: 24 M, Asphalt, PCR 950/F/C/X/T Taxiway J: 26 M, Concrete, Asphalt Taxiway K: 26 M, Asphalt Taxiway L: 23 M, Asphalt Taxiway M: 23 M, Asphalt Taxilane N: Concrete, PCR 950/R/B/W/T Taxiway Q: 30 M, Concrete, PCR 950/R/B/W/T Taxiway R: 27 M, Concrete, PCR 950/R/B/W/T
3	Altimeter checkpoint location and elevation	Location: At Apron Elevation: 27.5 M/90 FT
4	VOR checkpoints	Location: - At holding position RWY 08 on TWY R - RDL 254/0.6 NM - At holding position RWY 26 on TWY F - RDL 086/1.2 NM Radio frequency: 115.3 MHZ
5	INS checkpoints	NIL
6	Remarks	Taxiway J, K, L and M are the responsibility of RTAF. Taxiway A not available when the aircraft code C, D, E take-off and landing. 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. Nose-in guidance at aircraft stands. Nose-Wheel guide lines at apron. Solid Nose-Wheel guide lines at aircraft stands. 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. RWY LGT: THR, RWY Edge and RWY End lights TWY marking: Centre line, Edge, RWY Holding Positions and Intermediate Holding Positions. 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			NIL		NIL

VTSS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Southern East-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Southern East-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 30 Min
5	Briefing/consultation provided	Personal Consultation Tel: +667 425 1884 Fax: +667 425 1083
6	Flight documentation Language(s) used	Charts, Tabular forms and Abbreviated Plain Language Texts 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 Observation System (AWOS), Low Level Wind Shear Alert System (LLWAS) and Weather Radar
9	ATS units provided with information	Hat Yai TWR 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 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 1002428.52E	THR 17.81 M/ 58 FT 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% (1110 M 1460 M 1910 M 3050 M)	60x45	NIL	3290x300	90x90	NIL	NIL	NIL
+0.80% +0.13% -0.30% -0.60% (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 420 M LIH	Green	PAPI Both 3° (64.06 FT)	NIL	NIL	3050 M 60 M White FM2450-3050 M Yellow: LIH	Red	60 Red	NIL
26	SALS 420 M LIH	Green	PAPI Both 3° (61.09 FT)	NIL	NIL	3050 M 60 M White FM 2450-3050 M Yellow: LIH	Red	60 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 H24
2	LDI location and LGT Anemometer location and LGT	WDI: 2 Wind Cones, illuminated at 1. 450 M from THR RWY 26 : offset to the left side from RCL 105 M., and 2. 450 M from THR RWY 08 : offset to the left side from RCL 65 M. Anemometer: see AD Chart.
3	TWY edge and centre line lighting	EDGE: All TWY 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 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 0655.9N 10023.5E
2	Vertical limits	3000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Hat Yai Tower 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 301.5 MHZ 121.5 MHZ 1) 243.0 MHZ 1) 133.2 MHZ 2)	H24	1)Emergency frequency 2)Backup frequency
TWR	Hat Yai Tower	118.1 MHZ 275.8 MHZ 121.5 MHZ 1) 243.0 MHZ 1) 133.2 MHZ 2)	H24	
GND	Hat Yai Ground	121.9 MHZ 257.8 MHZ 121.5 MHZ 1) 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	065602.75N 1002316.47E	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: – RDL 171-240 DEG at 10 NM ALT should not below 5,000 FT. – RDL 131-170 DEG at 20 NM ALT should not below 4,000 FT. – RDL 031-130 DEG at 40 NM ALT should not below 5,000 FT. – RDL 241-270 DEG at 40 NM ALT should not below 7,000 FT. – RDL 271-300 DEG at 40 NM ALT should not below 10,000 FT. – RDL 301-330 DEG at 40 NM ALT should not below 6,000 FT. – 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	065549.07N 1002230.14E	37.7 M	RWY 26 ILS Glide slope not coincident with PAPI starting at 0.7 DME
GP/DME		333.8 MHZ 36X		065558.83N 1002419.24E		
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, 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, 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. Stand 2,3,4,7,8 capacity up to code C. Stand 5 capacity up to code E. Stand 6 up to code E MAX wingspan 64 M. 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.

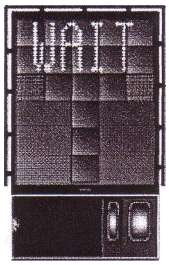
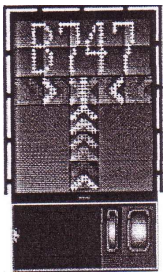
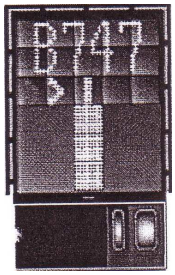
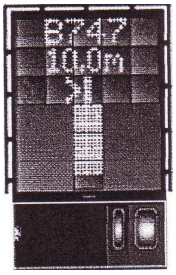
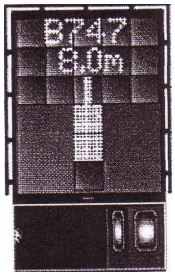
b) Item to check before entering the stand area

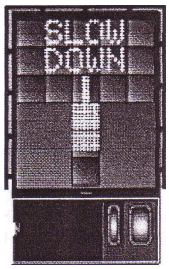
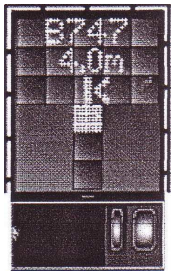
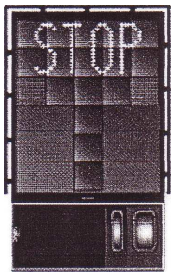
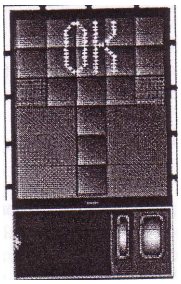
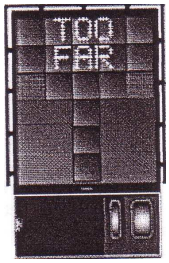
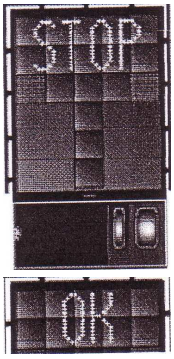
Warning : The pilot shall not enter the stand area, unless the docking system first is showing the vertical running arrows. The pilot must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

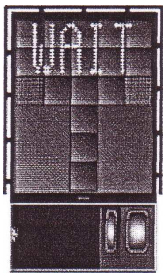
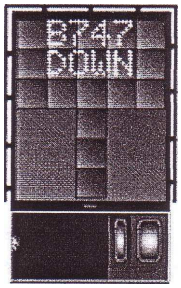
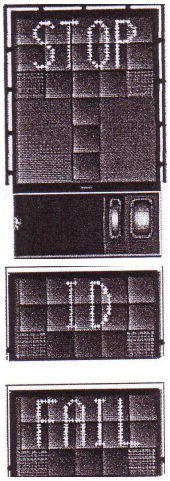
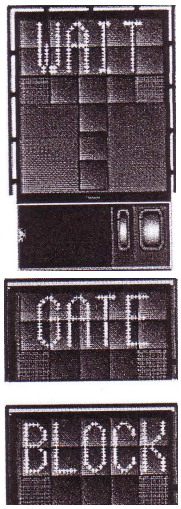
Warning : The pilot shall not enter the stand area, unless the aircraft type displayed is equal to the approaching aircraft/ The Correctness of other information, such as ‘door 2’, shall also be checked.

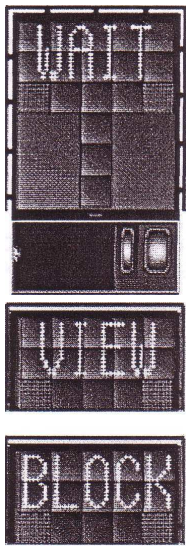
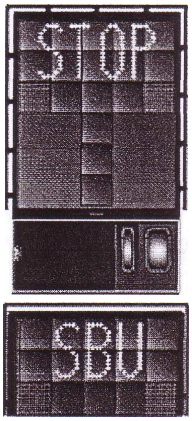
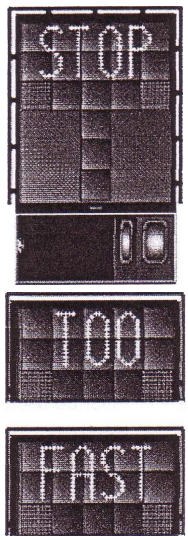
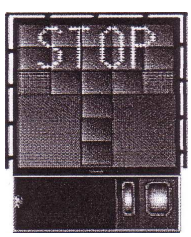
c) The SBU message

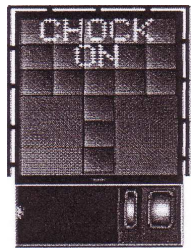
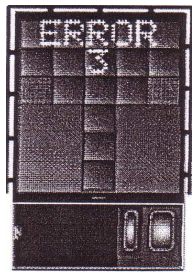
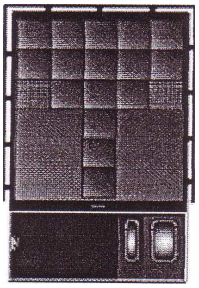
The message STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance. Do not try to resume docking without manual guidance.

	START-OF-DOCKING 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 The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft. If 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.
	TRACKING. 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 give correct position and azimuth guidance.
	CLOSING RATE. 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 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 The aircraft is eight meters from the stop position. The absence of any 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 as a warning to the pilot.
	AZIMUTH GUIDANCE 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. When the correct stop-position is reached, the display will show STOP and red lights will be lit.
	DOCKING COMPLETE. When the aircraft has parked, OK will be displayed.
	OVERSHOOT If the aircraft overshoot the stop-position, TOO FAR will be displayed.
	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.

	WAIT 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. 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. The pilot must not proceed beyond the bridge, unless the “WAIT” message has been superseded by the closing rate bar.
	BAD WEATHER CONDITION 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.
	AIRCRAFT VERIFICATION FAILURE 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. 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 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. The pilot must not proceed beyond the bridge without manual guidance, unless the WAIT message has been superseded by the closing rate bar.

	VIEW BLOCKED 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. 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. Any unrecoverable error during the docking procedure will generate an SBU condition. The display will show red stop bar and the text STOP SBU. A manual backup procedure must be used for docking guidance.
	TOO FAST 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. The docking system must be re-started or docking procedure completed by manual guidance.
	EMERGENCY STOP. When the emergency stop button is pressed, STOP is displayed.

	CHOCKS ON. 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. 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 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. POWER FAILURE 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 NOBIT1D PADPA1D PIMER1D TAXEB1D	AD 2-VTSS-6-1
Standard Departure Chart - Instrument (SID) -ICAO - RNAV RWY 08 - DANDO1D ELREM1D ENVON1D KARMI1D KENNE1D NOBIT1D 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 NOBIT1D 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 NOBIT1C PADPA1C PIMER1C TAXEB1C	AD 2-VTSS-6-5
Standard Departure Chart - Instrument (SID) -ICAO - RNAV RWY 26 - DANDO1C ELREM1C ENVON1C KARMI1C KENNE1C NOBIT1C 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 NOBIT1C 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 NOBIT1C PADPA1C PIMER1C TAXEB1C (Waypoint list table)	AD 2-VTSS-6-8
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 08 - ELREM1B ENVON1B KENNE1B NOBIT1B OBLEX1B PADPA1B PIMER1B TAMOS1B TAXEB1B	AD 2-VTSS-7-1
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 08 - ELREM1B ENVON1B KENNE1B NOBIT1B 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 NOBIT1B 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 NOBIT1A OBLEX1A PADPA1A PIMER1A TAMOS1A TAXEB1A	AD 2-VTSS-7-5
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 26 - ELREM1A ENVON1A KENNE1A NOBIT1A 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 NOBIT1A 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 orLOC 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

AERODROME CHART - ICAO

06 55 58 N
100 23 42 E

ELEV 90 FT

TWR 118.1

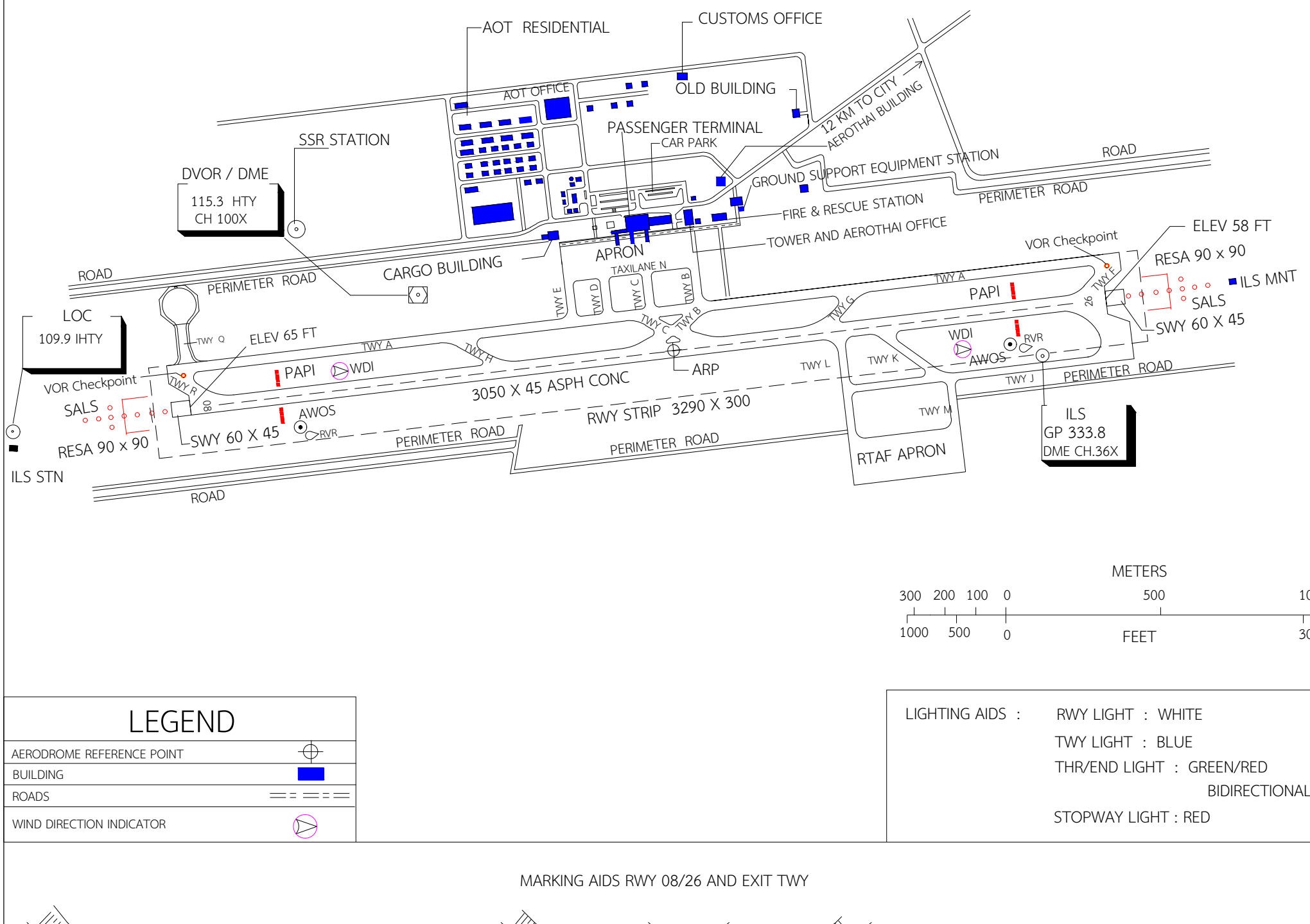
SONGKHLA / Hat Yai Intl

RWY	DIRECTION	THR	BEARING STRENGTH
08	082	06 55 51.50 N 100 22 49.91 E	PCR 950/R/B/W/T 600 M, SWY IS ASPHALT PCR 950/F/B/X/T 2450 M
26	262	06 56 03.89 N 100 24 28.52 E	PCR 950/R/B/W/T 600 M, SWY IS ASPHALT PCR 950/F/B/X/T 2450 M
TAXIWAY A,B,C			PCR 950/F/A/X/T (Asphalt) 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



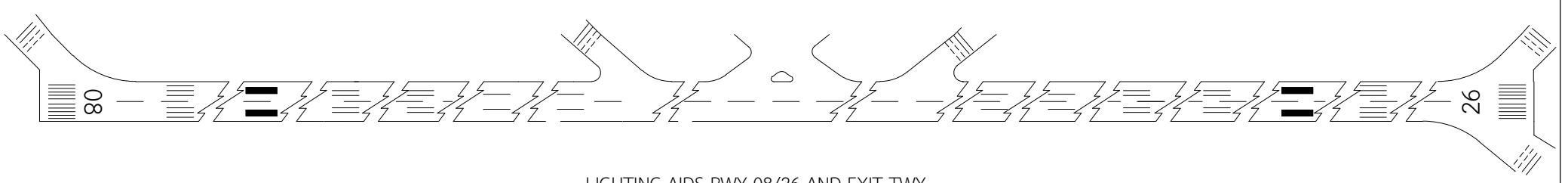
LEGEND

AERODROME REFERENCE POINT	
BUILDING	
ROADS	
WIND DIRECTION INDICATOR	

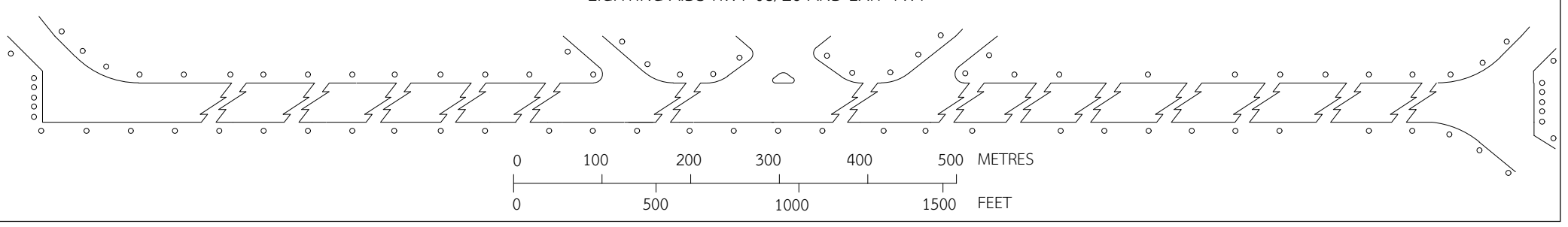
LIGHTING AIDS :
RWY LIGHT : WHITE
TWY LIGHT : BLUE
THR/END LIGHT : GREEN/RED
BIDIRECTIONAL
STOPWAY LIGHT : RED

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

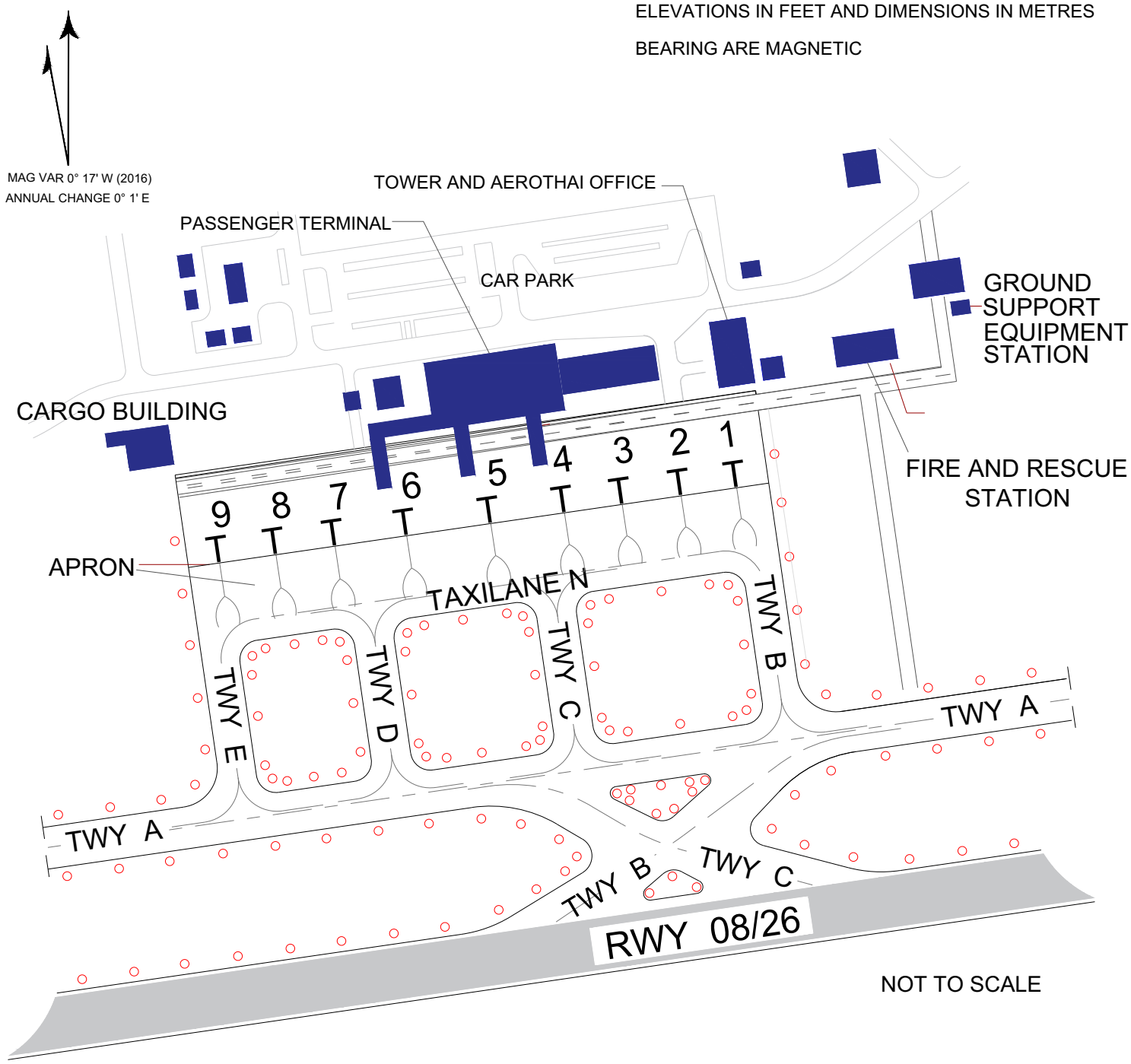
APRON ELEV 90 FT

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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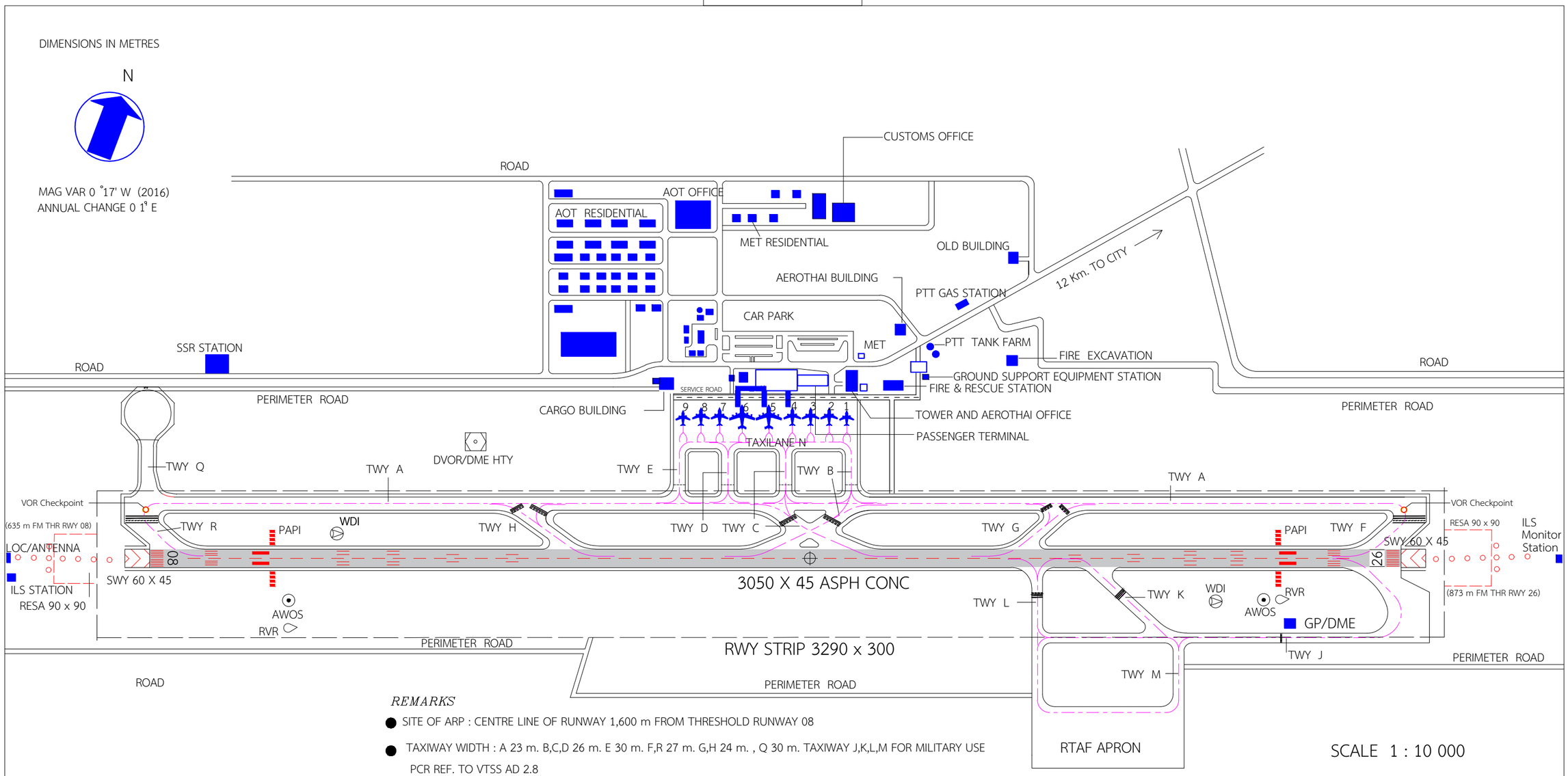
AERODROME GROUND MOVEMENT CHART-ICAO

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)

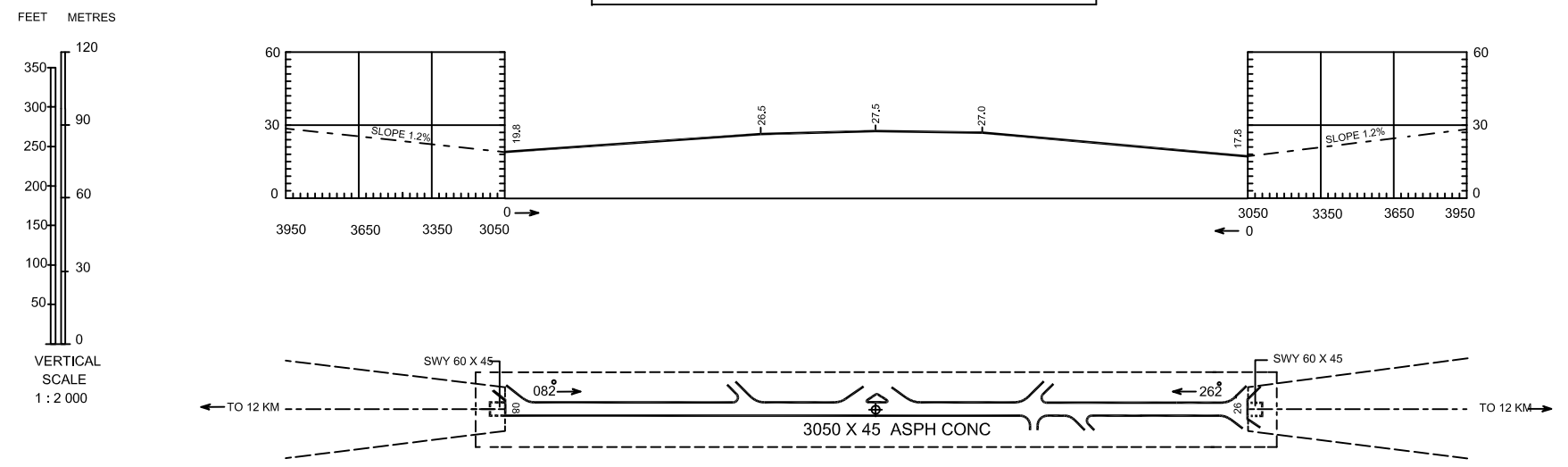
Songkhla / Hat Yai IInternational Airport

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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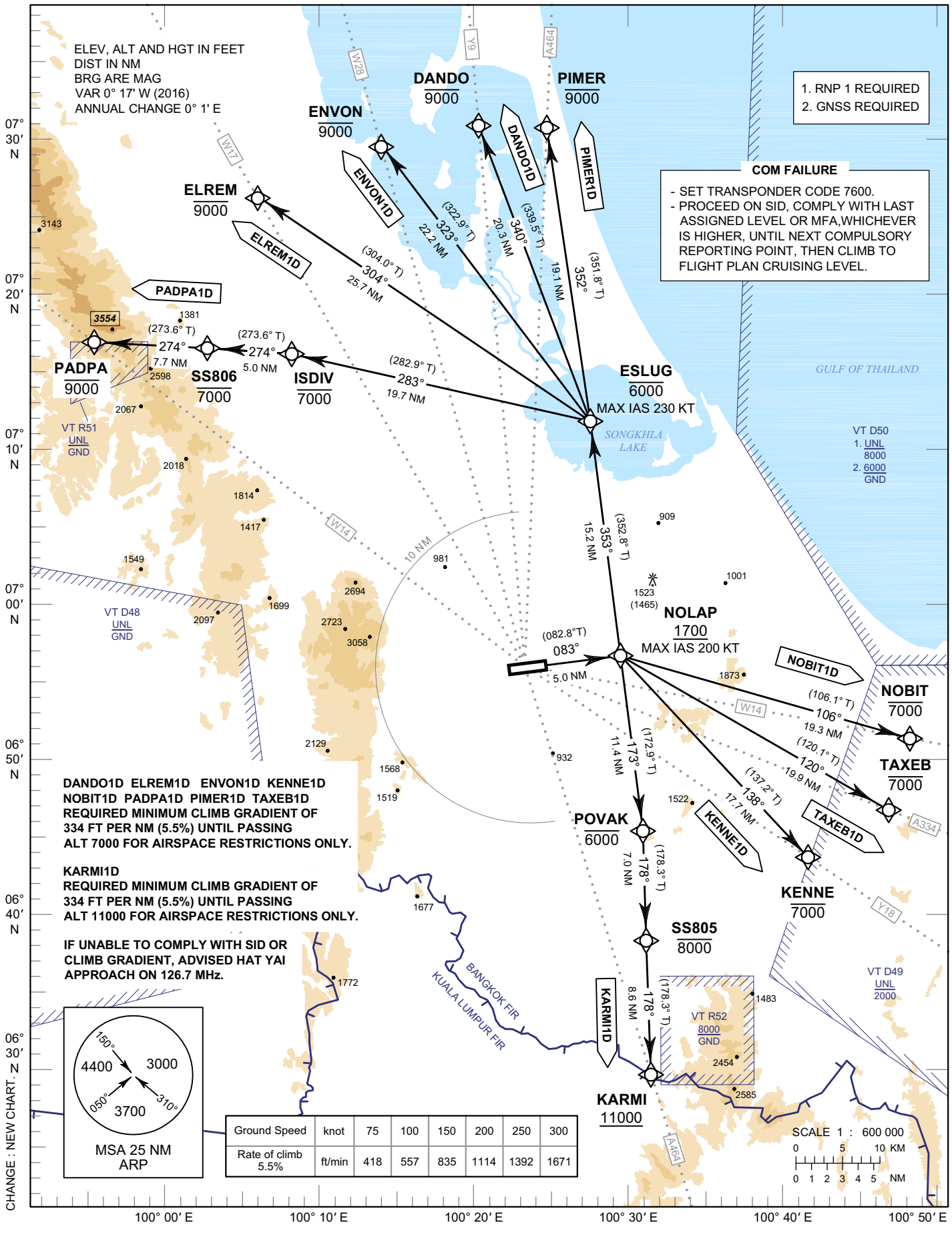
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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 NOBIT1D
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 NOBIT1D
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											
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											
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											
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											
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											
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
NOBIT1D											
010	-	DER RWY08	-	-	+0.20	-	-	-	-	-	RNP 1
020	CF	NOLAP	-	083° (082.8°)	+0.20	5.0	-	+1700	-200	-	RNP 1
030	TF	NOBIT	-	106° (106.1°)	+0.20	19.3	-	-7000	-	-	RNP 1
PIMER1D											
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

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

SONGKHLA / Hat Yai Intl (VTSS)
RNAV RWY08

DANDO1D ELREM1D ENVON1D
KARMI1D KENNE1D NOBIT1D
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											
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											
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
NOBIT	06° 51' 17.61" N 100° 48' 07.49" 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

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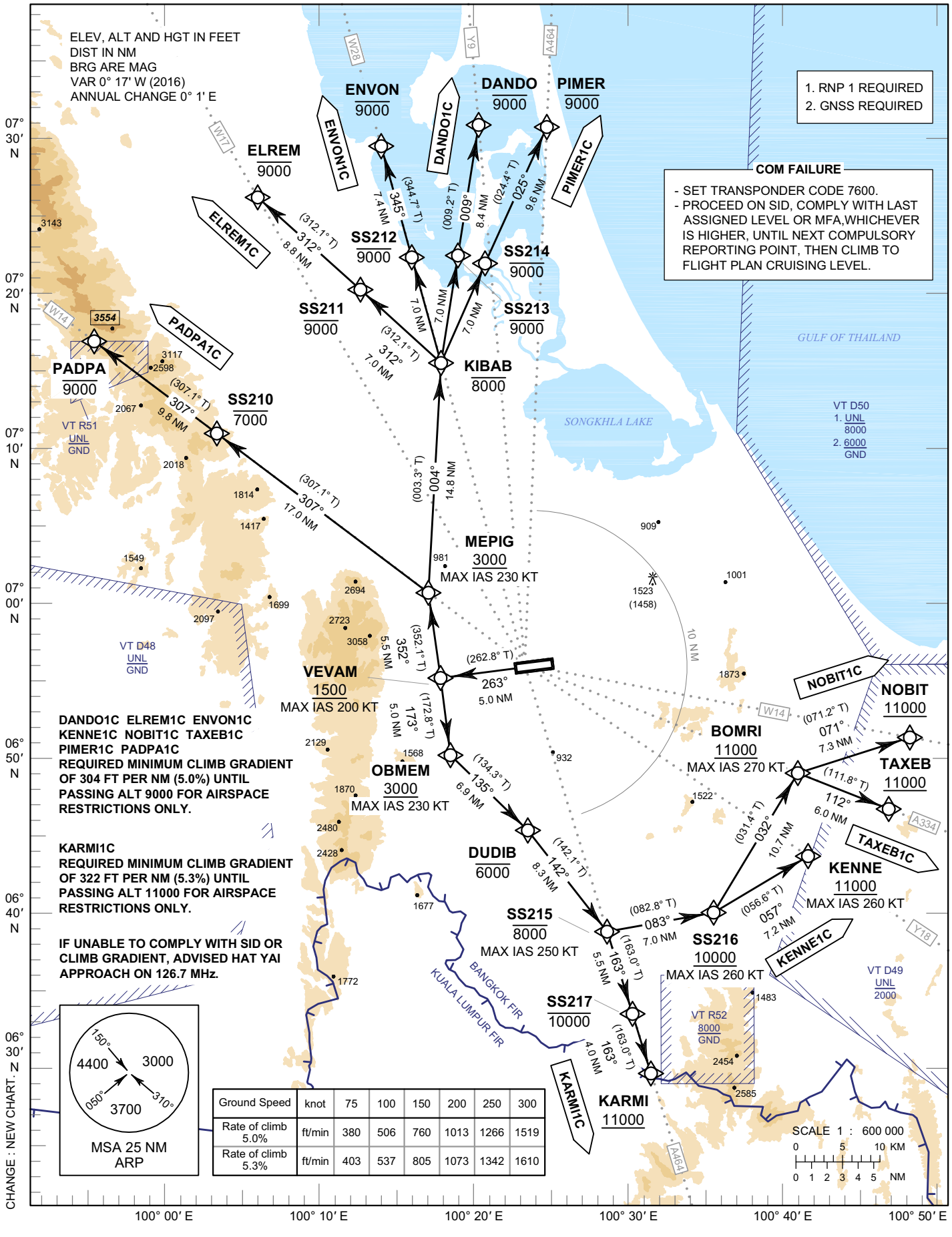
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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 NOBIT1C
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 NOBIT1C
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											
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											
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											
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											
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											
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

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

SONGKHLA / Hat Yai Intl (VTSS)
RNAV RWY26

DANDO1C ELREM1C ENVON1C
KARMI1C KENNE1C NOBIT1C
PADPA1C PIMER1C TAXEB1C

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
NOBIT1C											
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	NOBIT	-	071° (071.2°)	+0.20	7.3	-	+11000	-	-	RNP 1
PADPA1C											
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											
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											
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 NOBIT1C
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
NOBIT	06° 51' 17.61" N	100° 48' 07.49" 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

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
NOBIT1B 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
NOBIT1B OBLEX1B PADPA1B
PIMER1B TAMOS1B TAXEB1B

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											
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											
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											
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
NOBIT1B											
010	IF	NOBIT	-	-	+0.20	-	-	+11000	-	-	RNP 1
020	TF	POVAK	-	251° (251.1°)	+0.20	18.1	-	+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											
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											
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
NOBIT1B 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											
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											
010	IF	TAMOS	-	-	+0.20	-	-	+11000	-	-	RNP 1
020	TF	SS221	-	359° (359.0°)	+0.20	6.5	-	+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											
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

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
NOBIT	06° 51' 17.61" N	100° 48' 07.49" E	TAXEB	06° 46' 40.97" N 100° 46' 44.74" E
OBLEX	07° 29' 47.50" N	100° 32' 27.63" E	VEGTI	06° 54' 59.13" N 100° 08' 17.10" E
PADPA	07° 16' 59.86" N	099° 55' 31.86" E		

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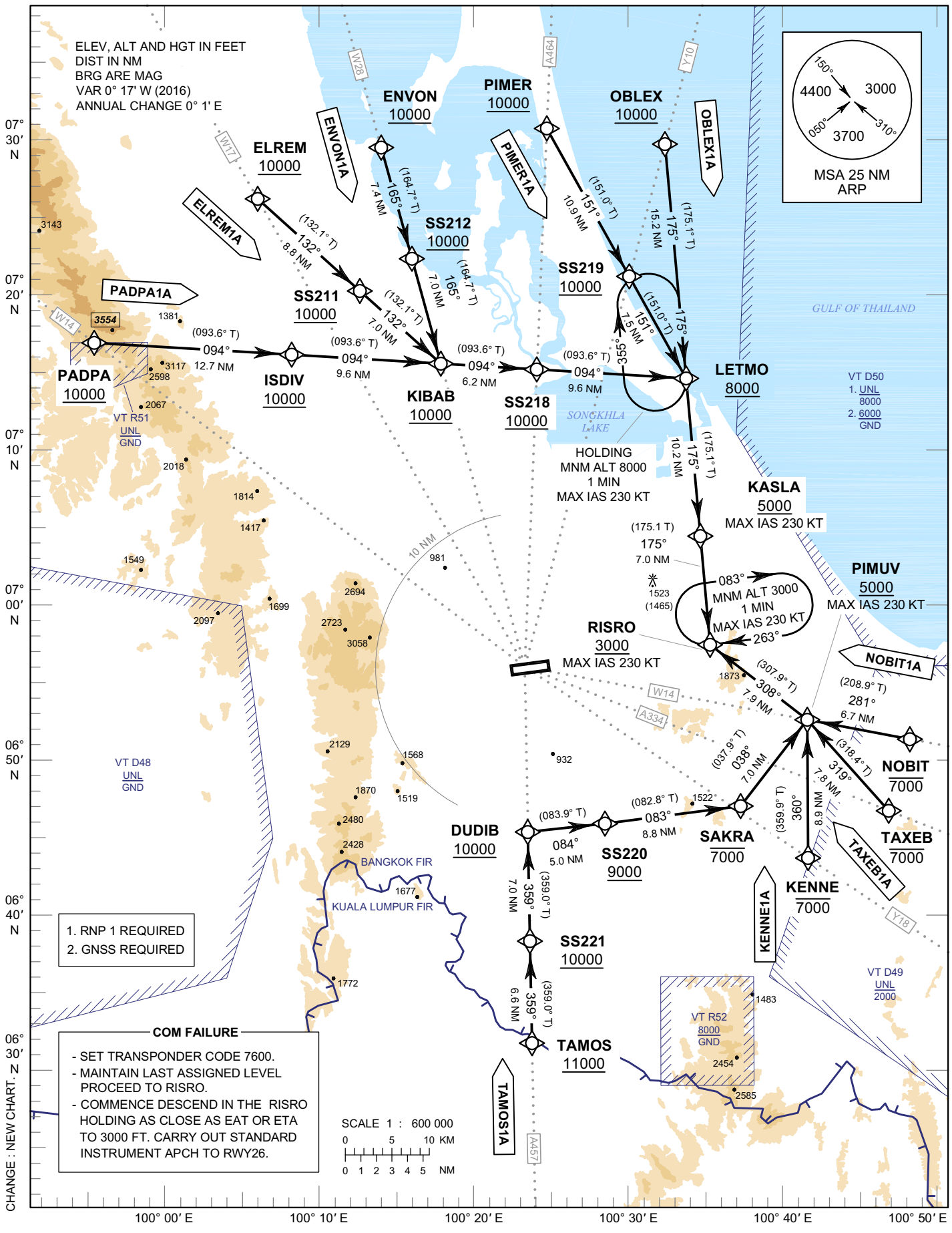
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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
NOBIT1A 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
NOBIT1A 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											
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											
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											
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
NOBIT1A											
010	IF	NOBIT	-	-	+0.20	-	-	-7000	-	-	RNP 1
020	TF	PIMUV	-	281° (280.9°)	+0.20	6.7	-	+5000	-230	-	RNP 1
030	TF	RISRO	-	308° (307.9°)	+0.20	7.9	-	+3000	-230	-	RNP 1
OBLEX1A											
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											
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

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11000 FT

SONGKHLA / Hat Yai Intl (VTSS)
RNAV RWY26

ELREM1A ENVON1A KENNE1A
NOBIT1A 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											
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											
010	IF	TAMOS	-	-	+0.20	-	-	+11000	-	-	RNP 1
020	TF	SS221	-	359° (359.0°)	+0.20	6.6	-	+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											
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
NOBIT	06° 51' 17.61" N	100° 48' 07.49" E	SS221	06° 38' 20.79" N 100° 23' 34.36" E
OBLEX	07° 29' 47.50" N	100° 32' 27.63" E	TAMOS	06° 32' 07.90" N 100° 24' 06.50" E
PADPA	07° 16' 59.86" N	099° 55' 31.86" E	TAXEB	06° 46' 40.97" N 100° 46' 44.74" E
PIMER	07° 30' 44.98" N	100° 24' 48.60" E		

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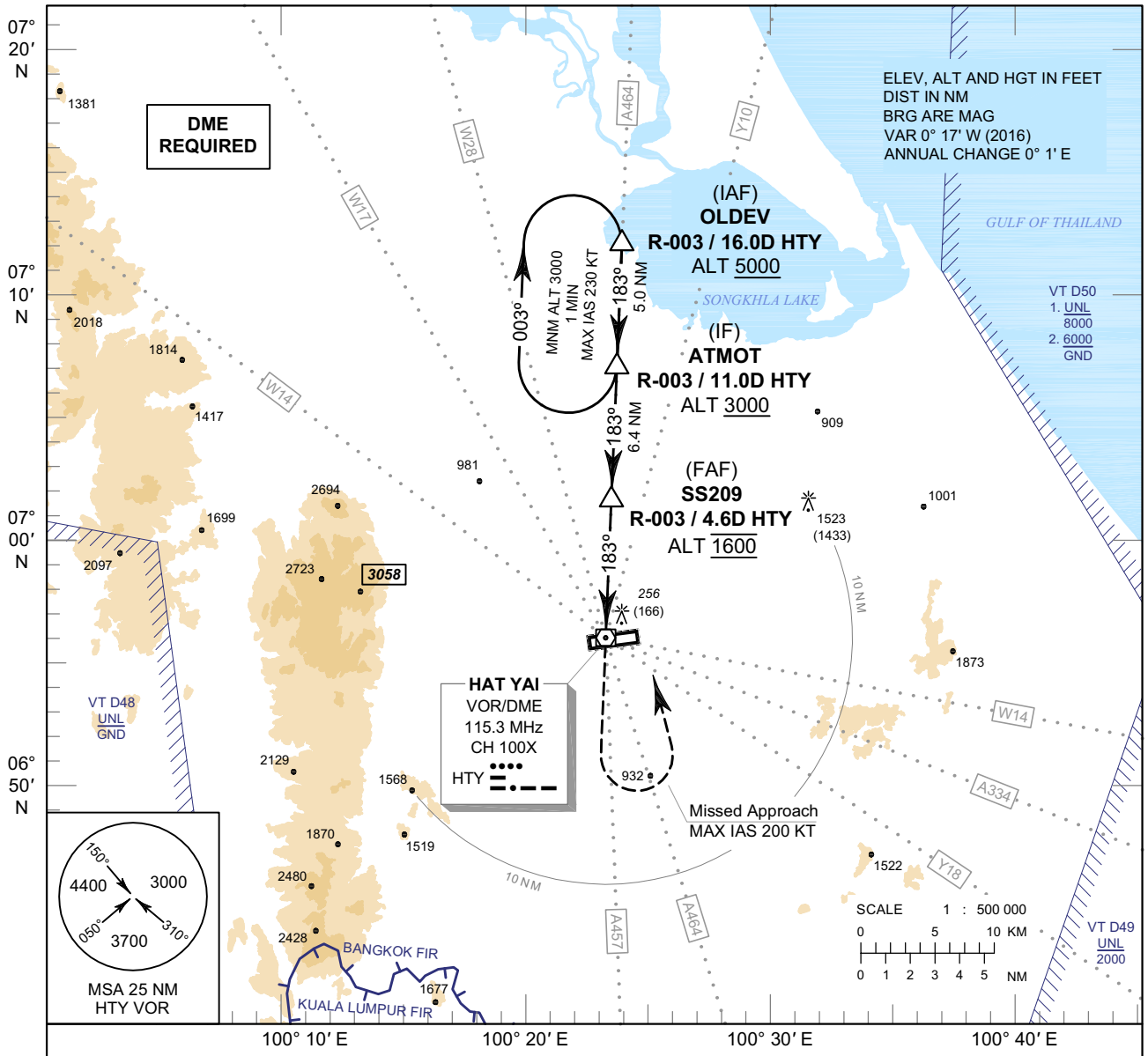
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 90 FT
HEIGHTS RELATED TO AERODROME ELEV

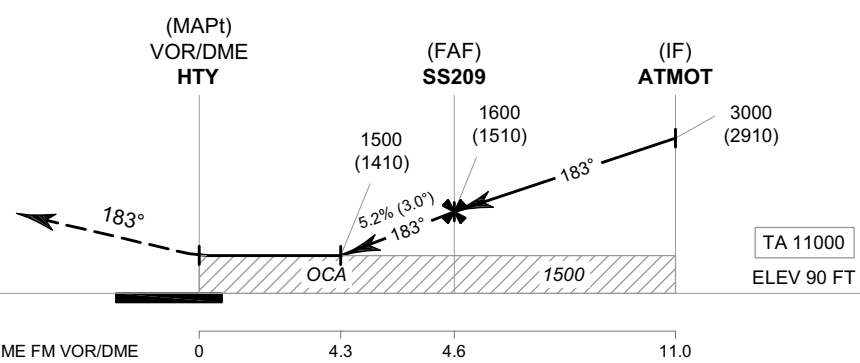
APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

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 : REVISED CHART.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 90 FT
HEIGHTS RELATED TO AERODROME ELEV

SONGKHLA / Hat Yai Intl (VTSS)

VOR a

Fix / Point		Coordinates	
(IAF) OLDEV	R-003 / 16.0D HTY	07° 12' 06.40" N	100° 23' 59.08" E
(IF) ATMOT	R-003 / 11.0D HTY	07° 07' 05.26" N	100° 23' 45.76" E
(FAF) SS209	R-003 / 4.6D HTY	07° 00' 39.80" N	100° 23' 28.71" E
(MAPt) VOR	HTY	06° 56' 02.75" N	100° 23' 16.47" E

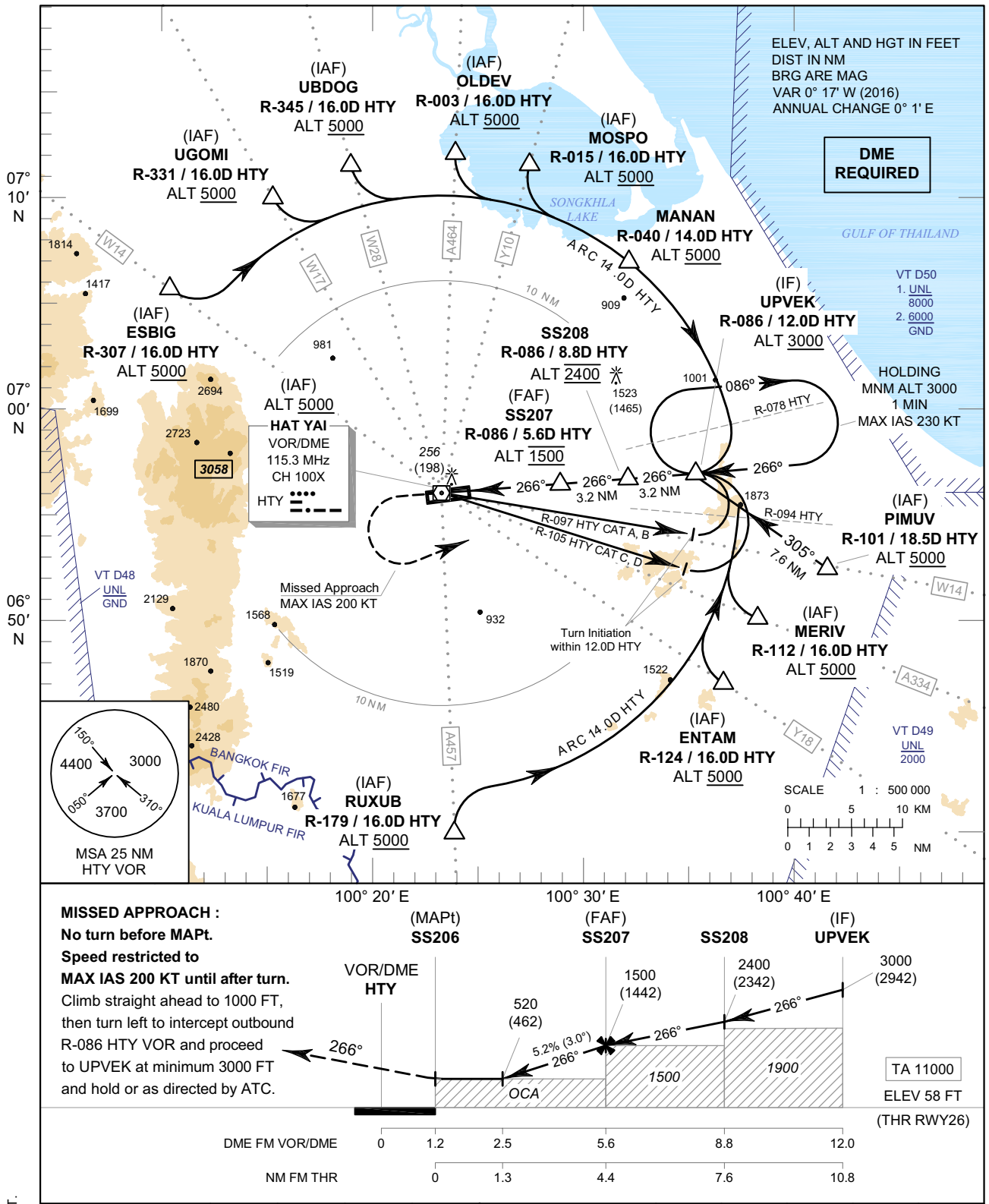
INSTRUMENT APPROACH CHART - ICAO

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)

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 : REVISED CHART.

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) ESBIG	R-307 / 16.0D HTY	07° 05' 44.68" N	100° 10' 26.50" E
(IAF) UGOMI	R-331 / 16.0D HTY	07° 10' 01.79" N	100° 15' 20.13" E
(IAF) UBDOG	R-345 / 16.0D HTY	07° 11' 33.24" N	100° 19' 02.01" E
(IAF) OLDEV	R-003 / 16.0D HTY	07° 12' 06.40" N	100° 23' 59.08" E
(IAF) 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) RUXUB	R-179 / 16.0D HTY	06° 39' 58.28" N	100° 23' 32.72" E
(IAF) ENTAM	R-124 / 16.0D HTY	06° 47' 01.10" N	100° 36' 35.09" E
(IAF) MERIV	R-112 / 16.0D HTY	06° 50' 05.31" N	100° 38' 12.95" E
(IAF) PIMUV	R-101 / 18.5D HTY	06° 52' 33.56" N	100° 41' 31.05" E
(IF) 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) SS207	R-086 / 5.6D HTY	06° 56' 27.33" N	100° 28' 52.72" E
(MAPt) SS206	R-086 / 1.2D HTY	06° 56' 07.99" N	100° 24' 28.12" E
(IAF) VOR	HTY	06° 56' 02.75" N	100° 23' 16.47" E

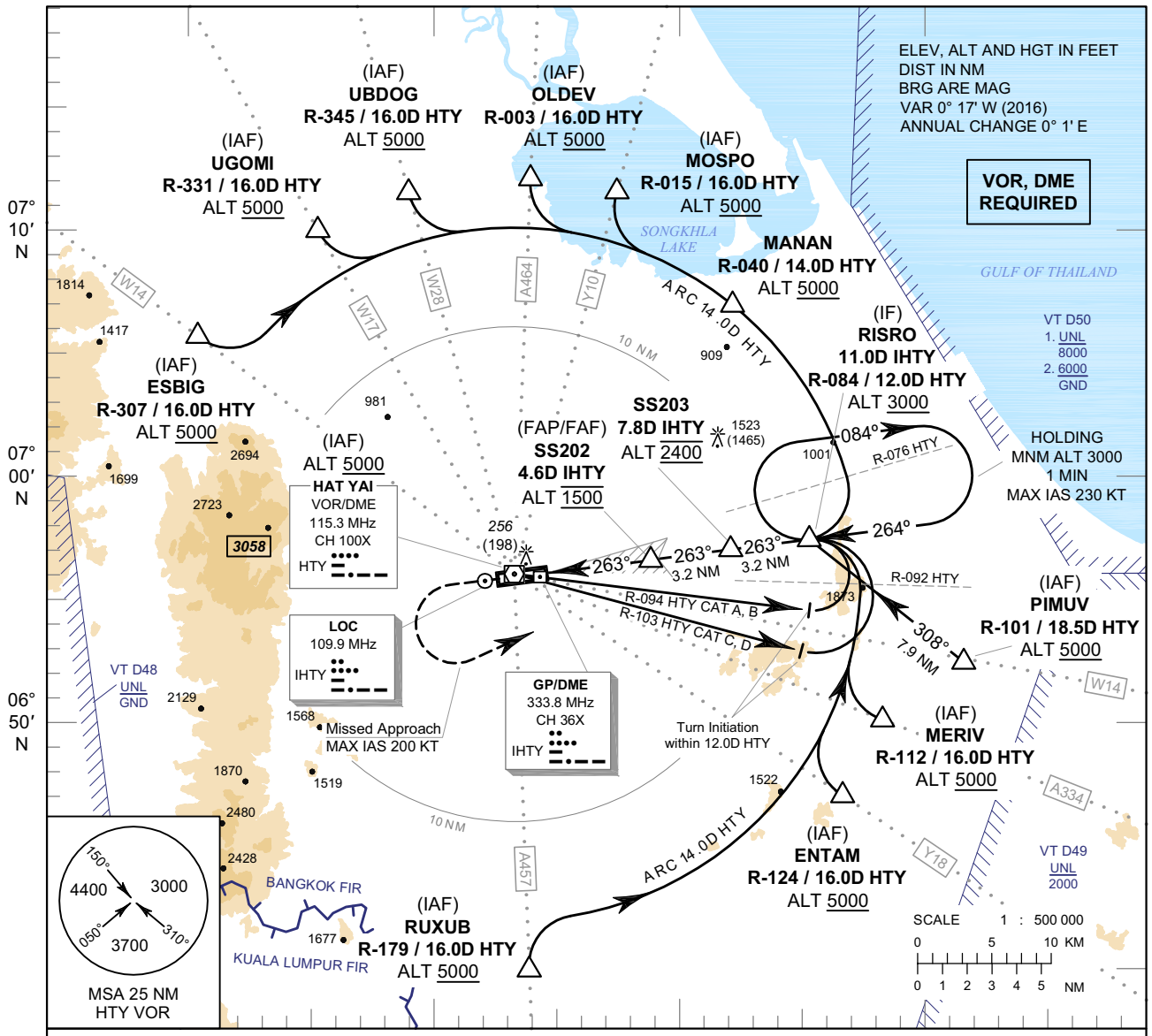
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 90 FT
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

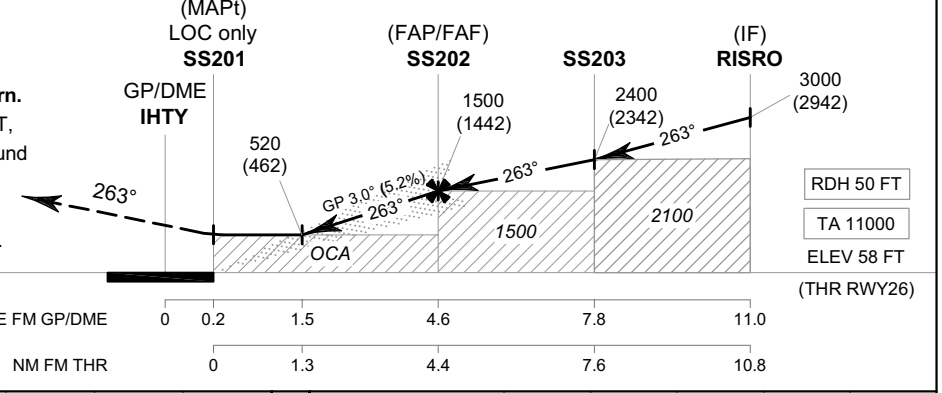
APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

SONGKHLA / Hat Yai Intl (VTSS)

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 : 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 y RWY26

Fix / Point		Coordinates	
(IAF) ESBIG	R-307 / 16.0D HTY	07° 05' 44.68" N	100° 10' 26.50" E
(IAF) UGOMI	R-331 / 16.0D HTY	07° 10' 01.79" N	100° 15' 20.13" E
(IAF) UBDOG	R-345 / 16.0D HTY	07° 11' 33.24" N	100° 19' 02.01" E
(IAF) OLDEV	R-003 / 16.0D HTY	07° 12' 06.40" N	100° 23' 59.08" E
(IAF) 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) RUXUB	R-179 / 16.0D HTY	06° 39' 58.28" N	100° 23' 32.72" E
(IAF) ENTAM	R-124 / 16.0D HTY	06° 47' 01.10" N	100° 36' 35.09" E
(IAF) MERIV	R-112 / 16.0D HTY	06° 50' 05.31" N	100° 38' 12.95" E
(IAF) PIMUV	R-101 / 18.5D HTY	06° 52' 33.56" N	100° 41' 31.05" E
(IF) 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) SS202	4.6D IHTY	06° 56' 36.96" N	100° 28' 51.91" E
(MAPt@THR26) SS201	0.2D IHTY	06° 56' 03.89" N	100° 24' 28.52" E
LOC	IHTY	06° 55' 49.07" N	100° 22' 30.14" E
GP/DME	IHTY	06° 55' 58.83" N	100° 24' 19.24" E
(IAF) VOR	HTY	06° 56' 02.75" N	100° 23' 16.47" E

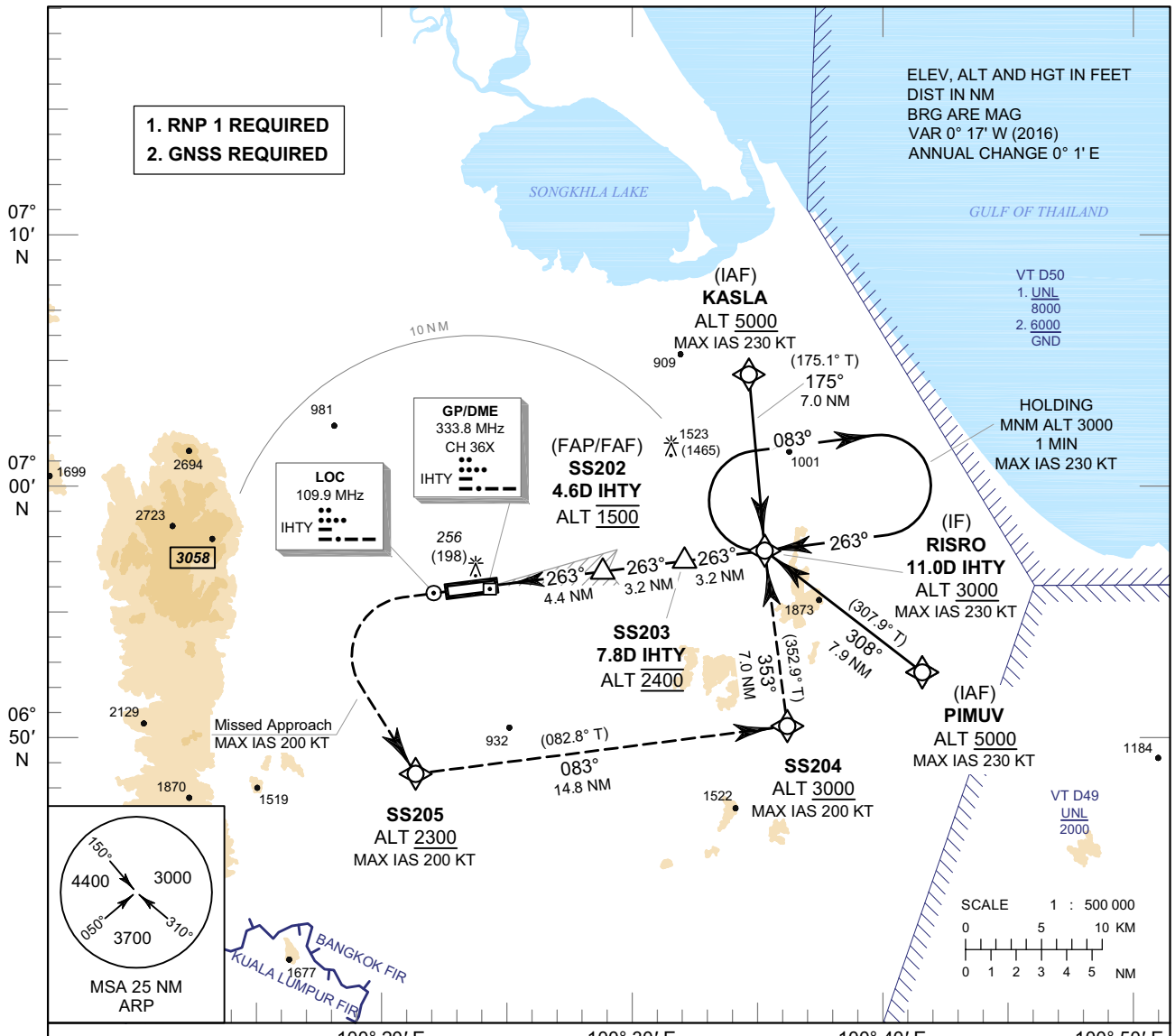
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 90 FT
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

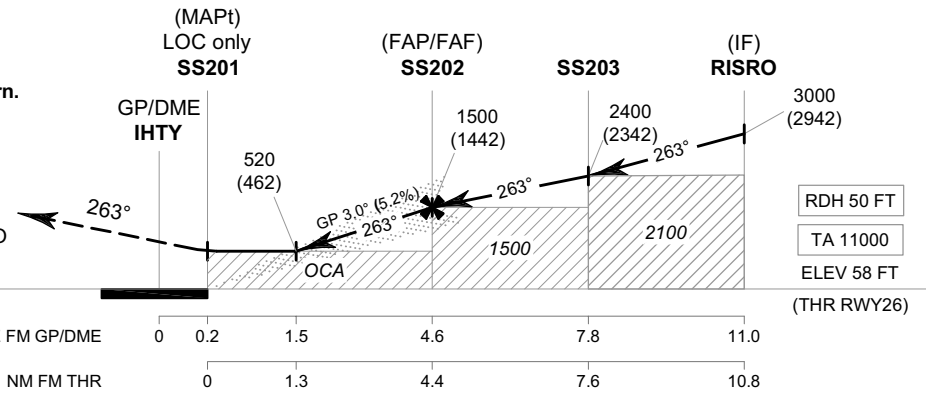
APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

SONGKHLA / Hat Yai Intl (VTSS)

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) 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) SS202	4.6D IHTY	06° 56' 36.96" N	100° 28' 51.91" E
(MAPt@THR26) SS201	0.2D IHTY	06° 56' 03.89" N	100° 24' 28.52" E
LOC	IHTY	06° 55' 49.07" N	100° 22' 30.14" E
GP/DME	IHTY	06° 55' 58.83" N	100° 24' 19.24" E

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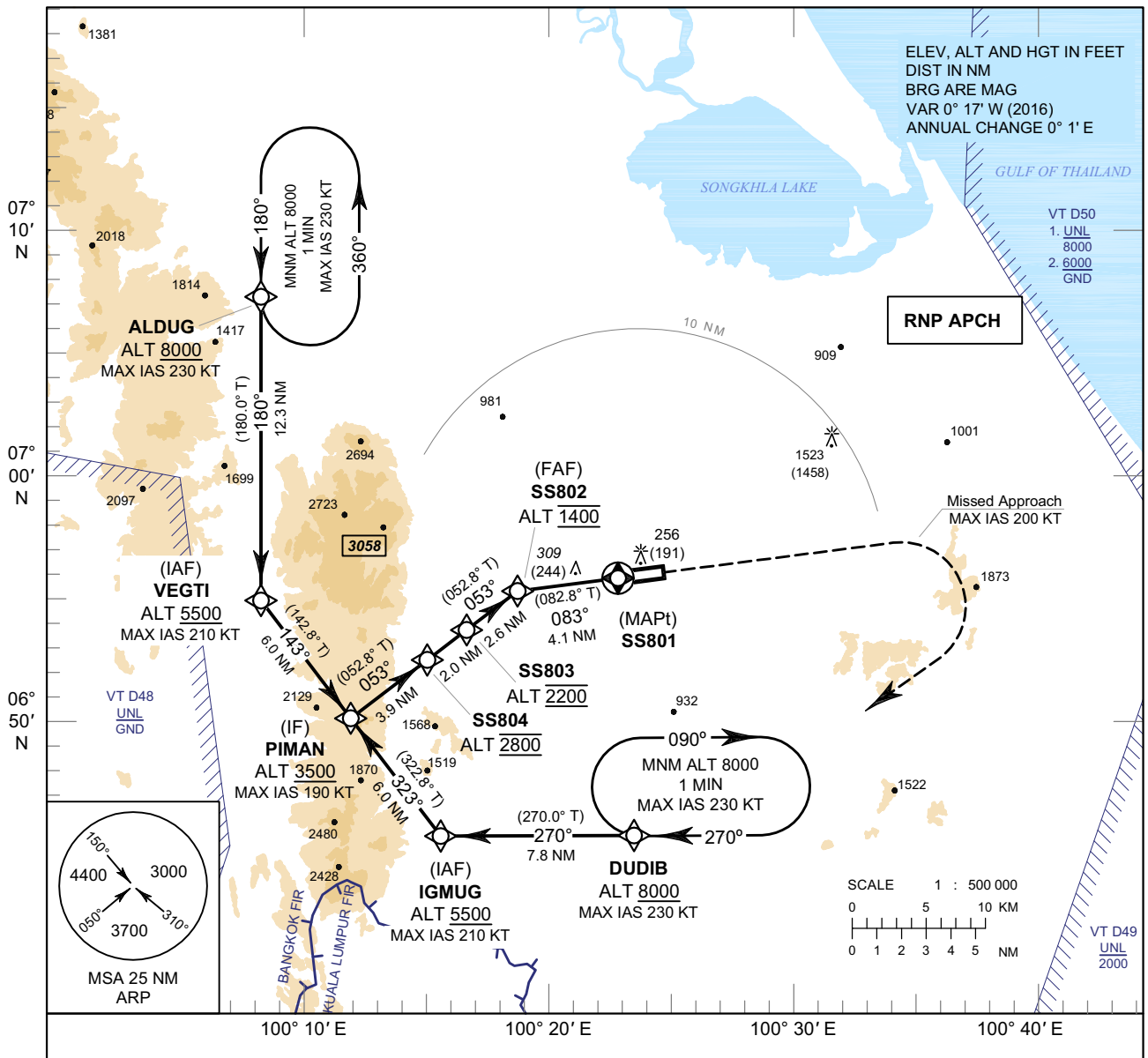
INSTRUMENT APPROACH CHART - ICAO

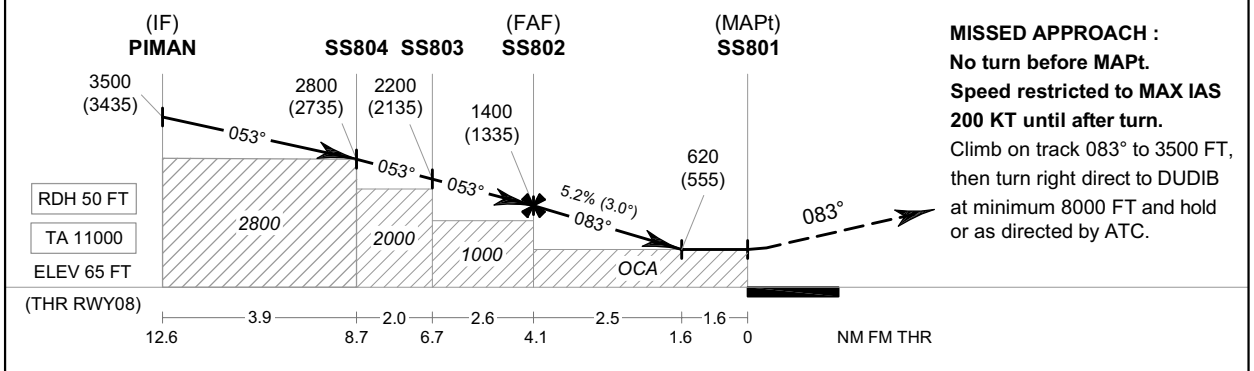
AERODROME ELEV 90 FT
HEIGHTS RELATED TO
THR RWY08 - ELEV 65 FT

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

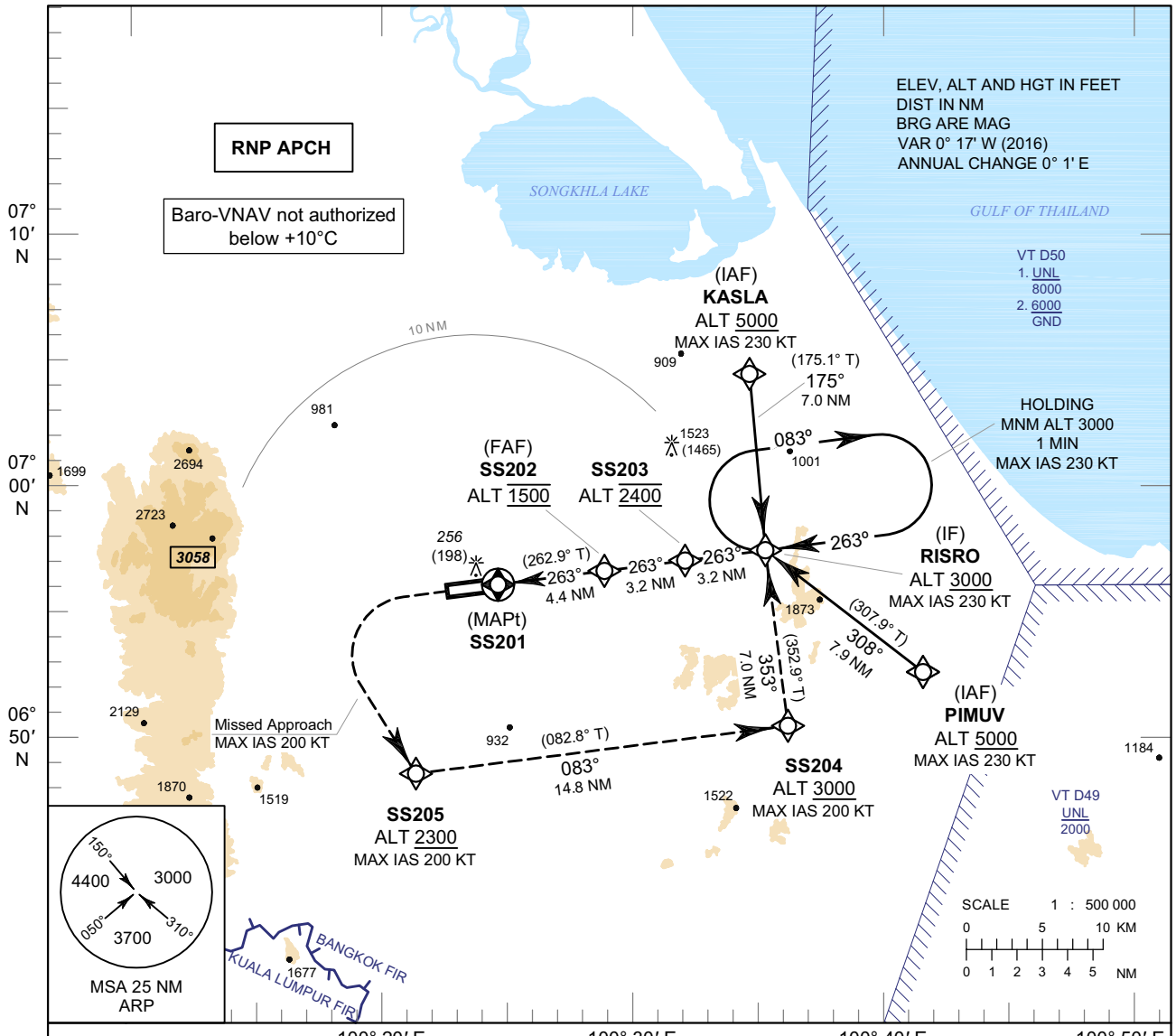
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 90 FT
HEIGHTS RELATED TO
THR RWY26 - ELEV 58 FT

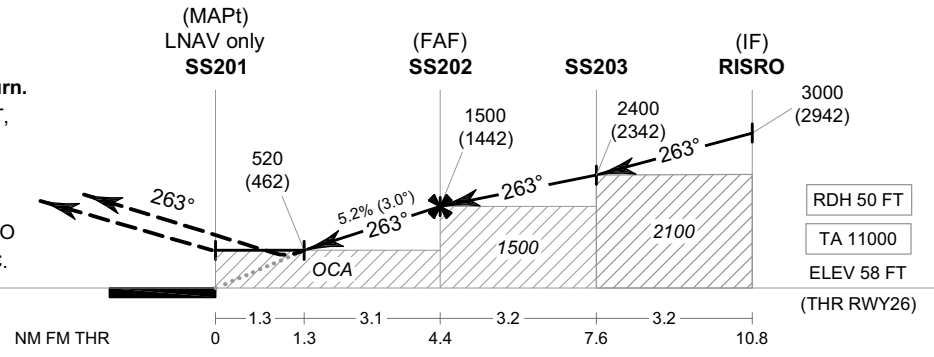
APP : 126.7, 301.5
TWR : 118.1, 275.8
GND : 121.9, 257.8
ATIS : 128.8

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	NM to NEXT WPT		1.3 NM	2 NM	3 NM	4 NM	FAF
LNAV/VNAV	420 (362)				Altitude (Height)		520 (462)	740 (682)	1055 (997)	1370 (1312)	1500 (1442)
LNAV	520 (462)				Ground Speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	900 (810)		1500 (1410)		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 Buri Ram Airport 143 Moo 12, Tambon Ronthong, Amphoe Satuk, Buri Ram Province 31150 Thailand Tel: +664 466 6341 Fax: +664 466 6340 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): Located at Nakhon Ratchasima Air Traffic Control Centre (1st floor of Building) Tel: +664 425 8855 Ext. 7272, +668 9845 1649 Fax: +664425 8952 Ext. 7273 E-mail: vtuqzpzx@aerothai.co.th Hours of services: 2300-1100 after this period contact Tel: +664 525 6407, +668 9488 2157 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 Strength: PCN 64/R/C/X/T
2	Taxiway width, surface and strength	Taxiway A Width: 23 M Surface: Asphaltic concrete Strength: PCN 59/F/C/X/T Taxiway B Width: 23 M Surface: Asphaltic concrete Strength: PCN 42/F/C/X/T
3	Altimeter checkpoint location and elevation	Location: At apron 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 Taxiway guide lines: Yes Nose-wheel guide lines at apron 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 RWY LGT: THR, RWY Edge and RWY End TWY markings: CL, Edge and RWY Holding Position 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 Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
NIL	NIL	NIL	Apron Flood Light (1) HGT 210 M MSL LGTD	151336.30N 1031451.20E	NIL
			Apron Flood Light (2) HGT 210 M MSL LGTD	151337.90N 1031452.40E	
			Apron Flood Light (3) HGT 206 M MSL LGTD	151339.50N 1031453.50E	
			Apron Flood Light (4) HGT 206 M MSL LGTD	151341.10N 1031454.70E	
			Aron Flood Light (5) HGT 206 M MSL LGTD	151342.70N 1031455.80E	
			Apron Flood Light (6) HGT 208 M MSL LGTD	151344.40N 1031457.00E	
			Apron Flood Light (7) HGT 206 M MSL LGTD	151346.10N 1031458.20E	

VTUO AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Buri Ram, Lower Northeastern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1300 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Lower Northeastern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR

5	Briefing/consultation provided	Personal Consultation Tel: +669 8282 4412
6	Flight documentation 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 Observation 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 Asphaltic concrete	151318.37N 1031451.46E -89 FT	THR 594 FT
22	215.10°	2100x45	PCN 59/F/C/X/T Asphaltic concrete	151414.27N 1031531.92E -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 420 M LIH	Green WBAR	PAPI LEFT 3° (50.67 FT)	NIL	NIL	2100 M 60 M White, FM 1500 M - 2100 M Yellow, 5 steps LIH	Red 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 NIL	PAPI LEFT 3° (60.09 FT)	NIL	NIL	2100 M 60 M White, FM 1500 M - 2100 M Yellow, 5 steps LIH	Red 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. IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL WDI: 1. Wind cone at 300 M from THR 04 off set right side 80 M from RCL, illuminated. 2. Wind cone at 830 M from THR 04 off set left side 80 M from RCL, illuminated. 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 TWY centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the Air Field Lighting (AFL) building. Switch-over time: 15 SEC.
5	Remarks	NIL

VTUO AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (151422.43N1031531.59E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Buri Ram Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Buri Ram Tower	118.05 MHZ 236.6 MHZ 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	151419.18N 1031509.15E		Coverage 50 NM clockwise orbit data refer from commissioning checked as follows: – Bearing 001°-360° at altitude 1 700 FT
DVOR/DME	BRM	117.2 MHZ CH119X	H24	151422.43N 1031531.59E		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: – Radial 091°-140° altitude should not below 3 500 FT – Radial 141°-240° altitude should not below 5 000 FT – Radial 241°-280° altitude should not below 4 000 FT – 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

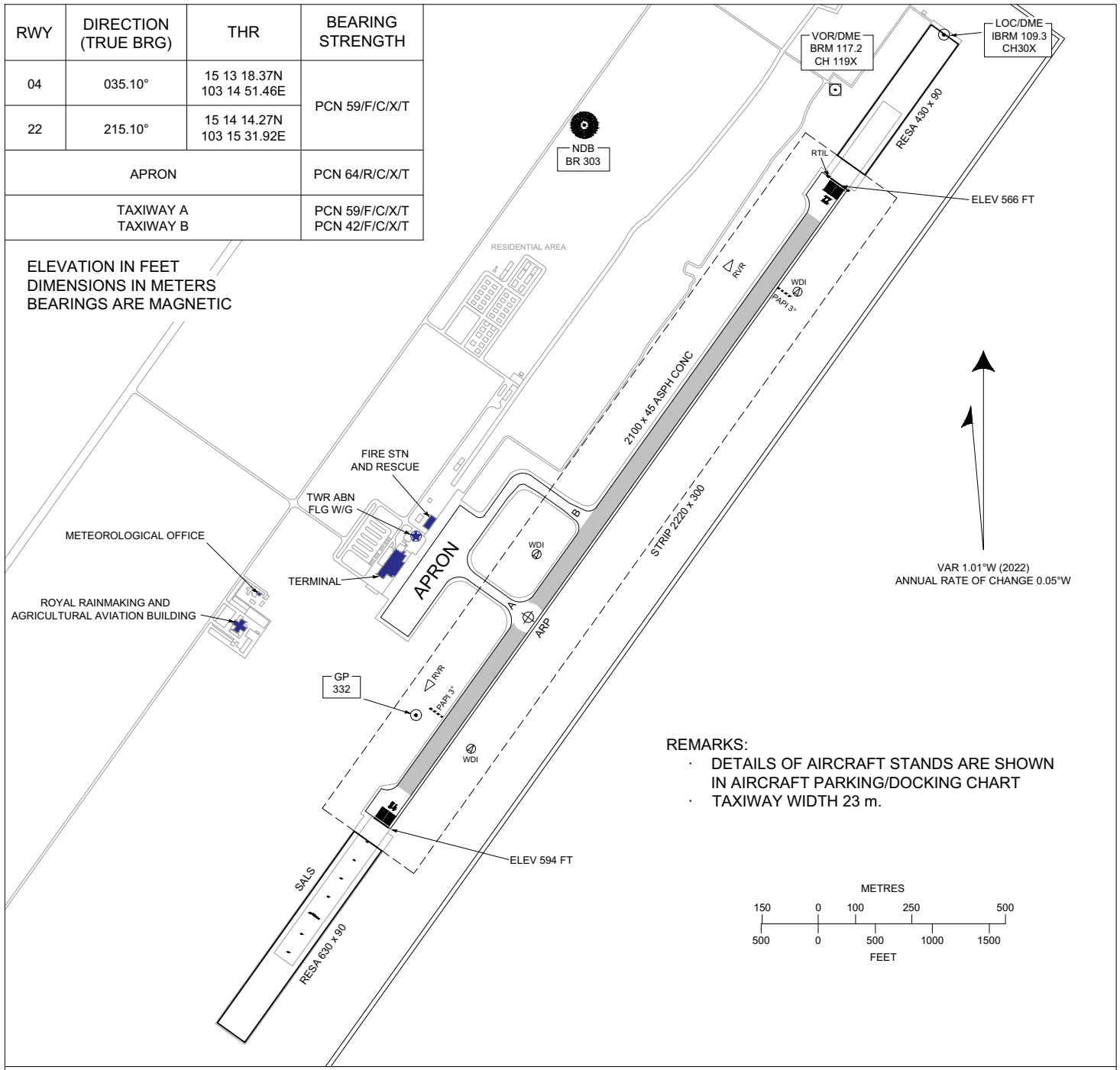
ELEV 594 FT

TWR 118.05
236.6

BURI RAM / Buri Ram

RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
04	035.10°	15 13 18.37N 103 14 51.46E	PCN 59/F/C/X/T
22	215.10°	15 14 14.27N 103 15 31.92E	
APRON			PCN 64/R/C/X/T
TAXIWAY A TAXIWAY B			PCN 59/F/C/X/T PCN 42/F/C/X/T

ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

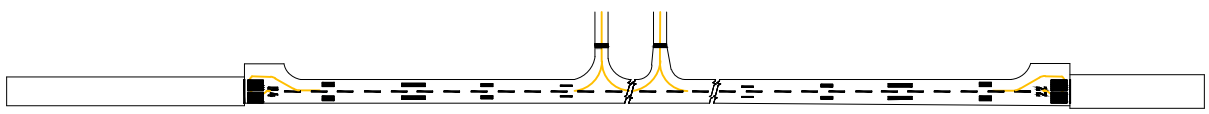


REMARKS:

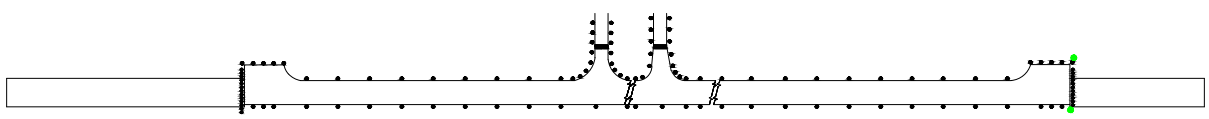
- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- TAXIWAY WIDTH 23 m.

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

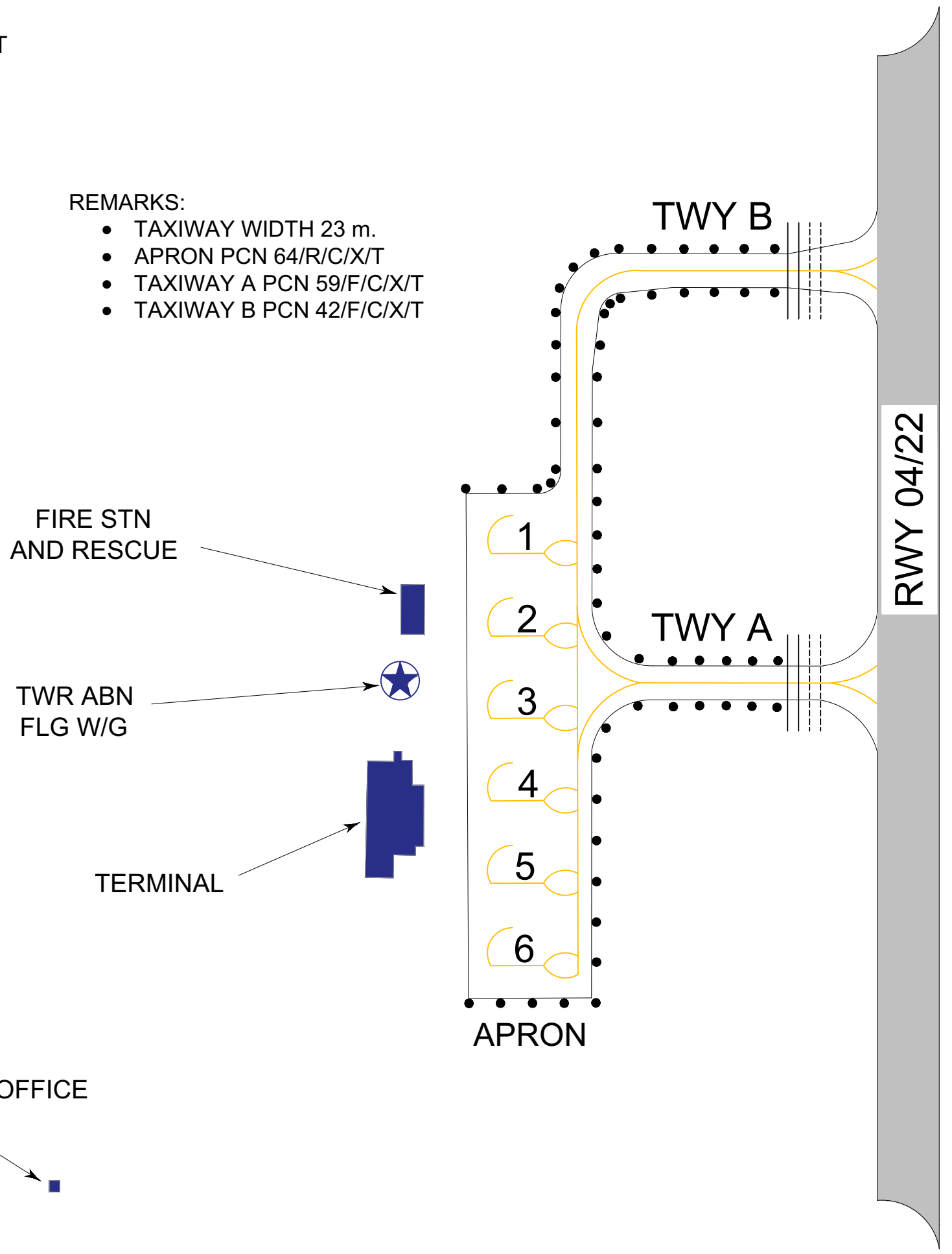
BURI RAM / Buri Ram

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 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.

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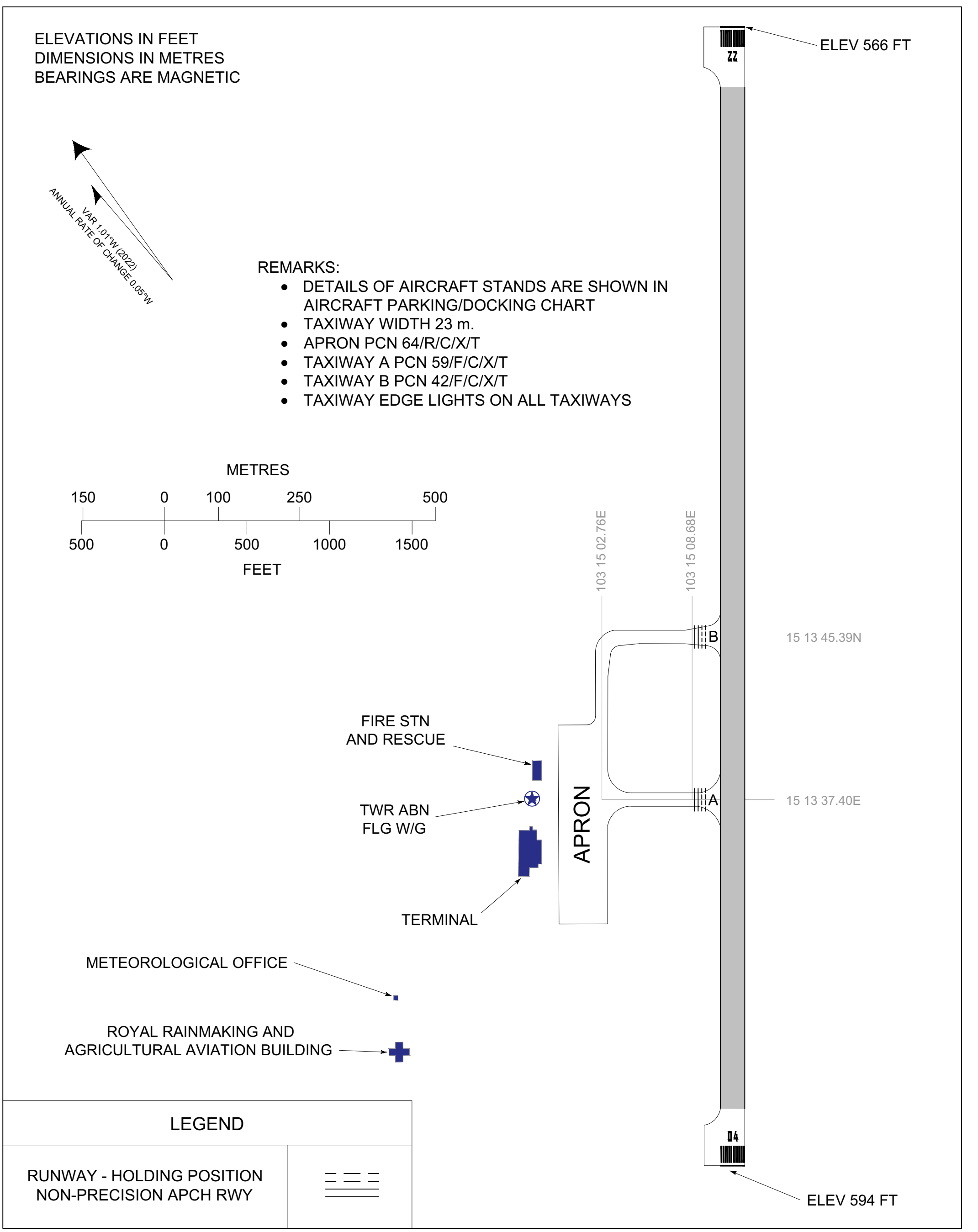
AERODROME GROUND MOVEMENT CHART - ICAO

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)

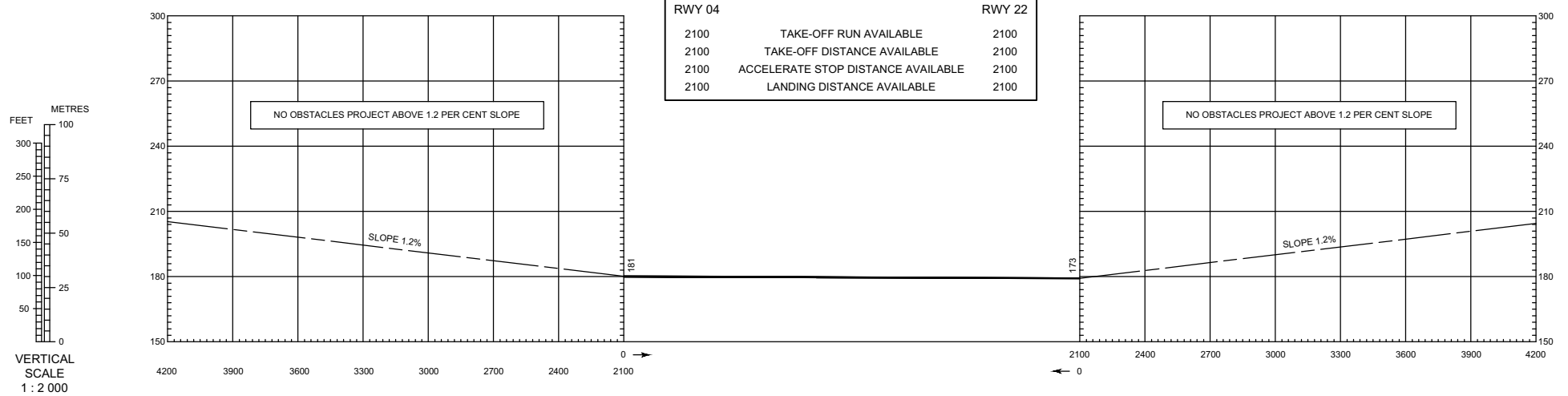
DIMENSIONS AND ELEVATIONS IN METRES

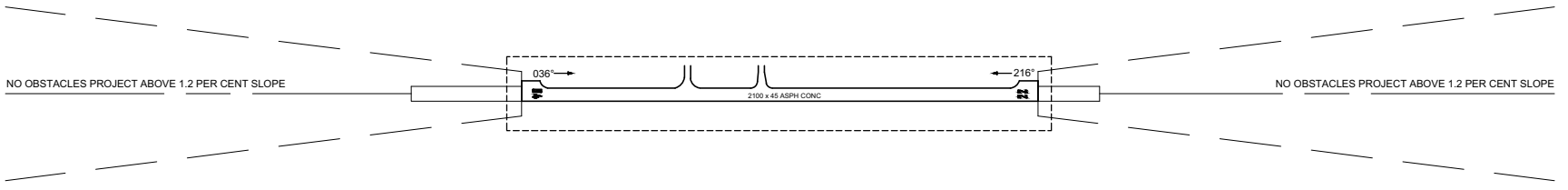
BURI RAM / Buri Ram Airport

MAGNETIC VARIATION 1.01°W (2022)
ANNUAL RATE OF CHANGE 0.05°W

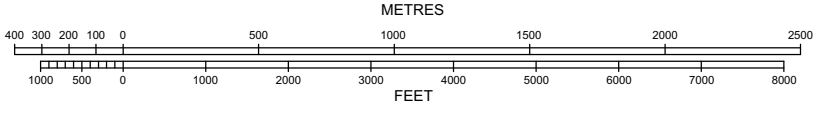
RWY 04 / 22

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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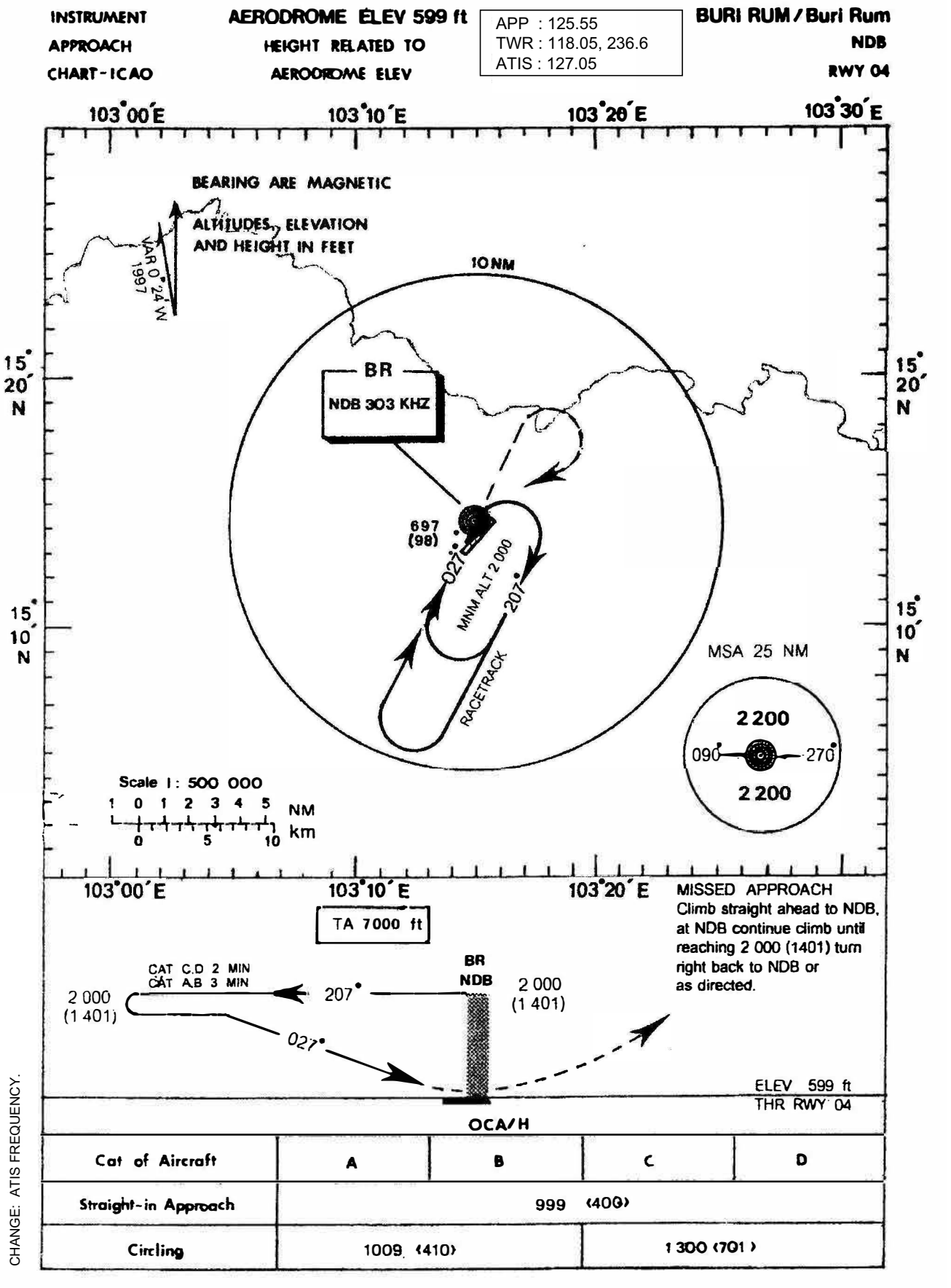

Cat of Aircraft	A	B	C	D
Straight-in Approach	999 (400)			
Circling	1009 (410)		1 300 (701)	

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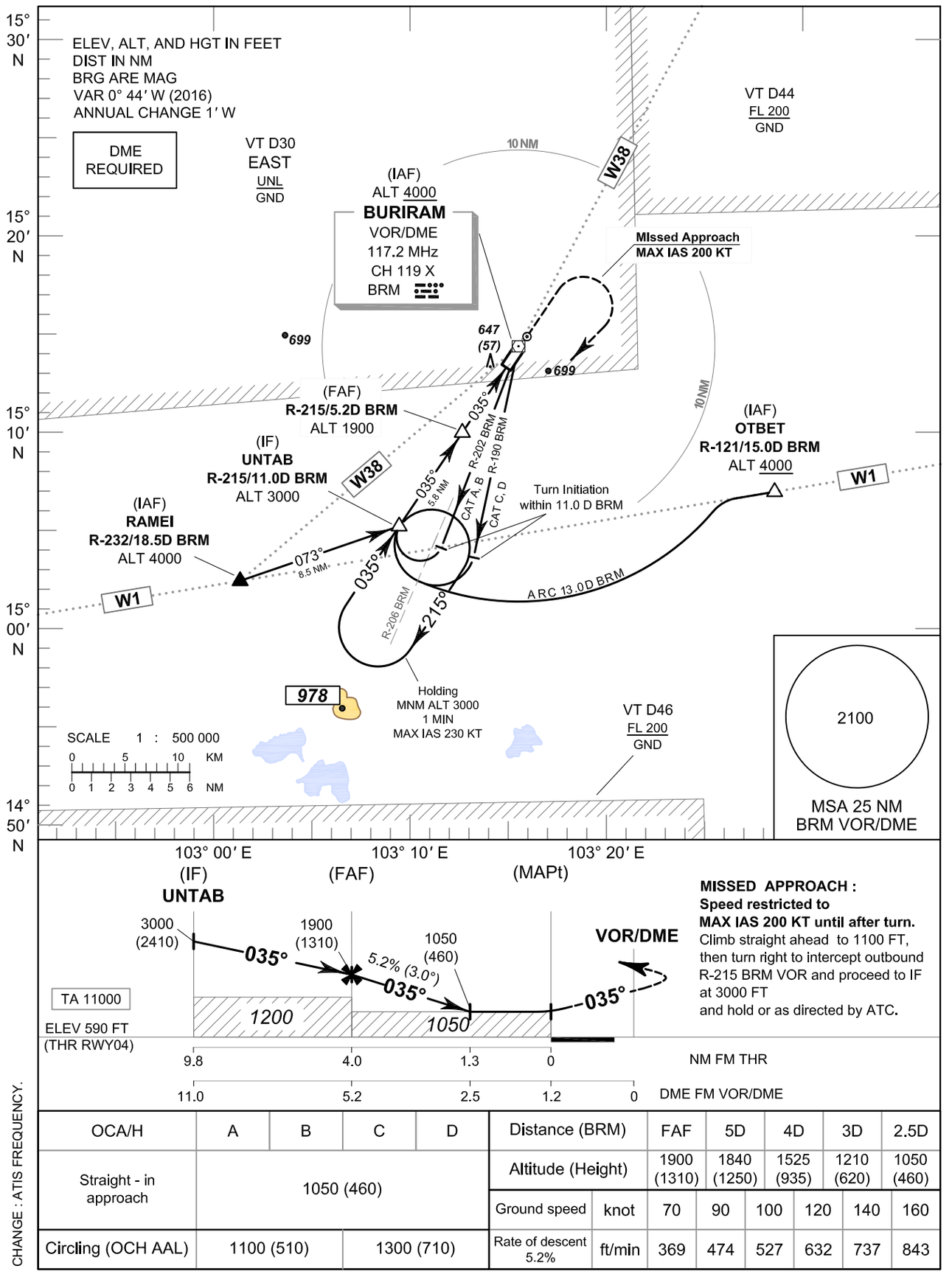
INSTRUMENT APPROACH CHART - ICAO

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′ 22.43″ N	103° 15′ 31.59″ 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

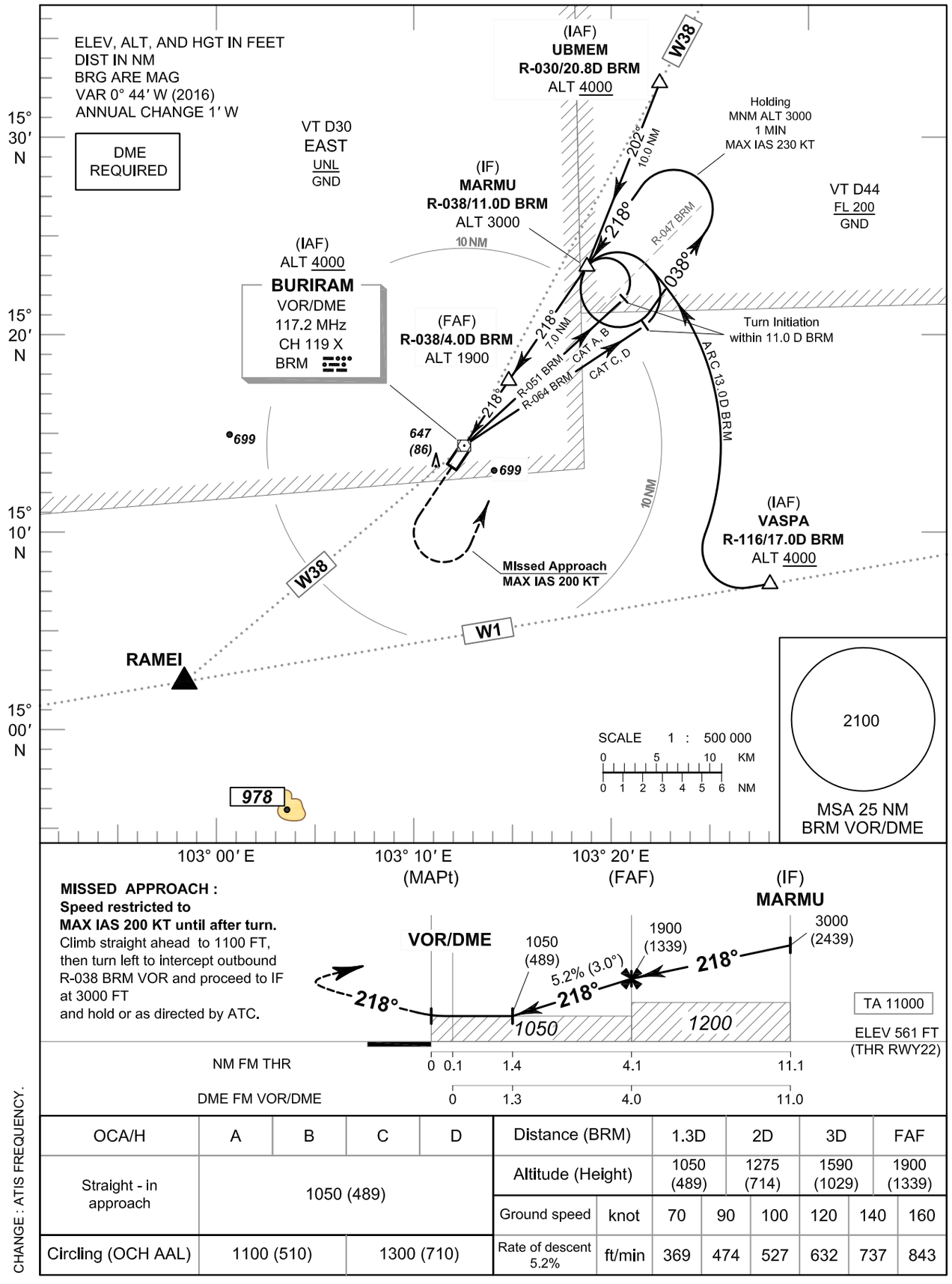
INSTRUMENT APPROACH CHART - ICAO

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) VOR	BRM	15° 14′ 22.43″ N	103° 15′ 31.59″ E
(IAF) VASPA	R-116 / 17.0 D BRM	15° 07′ 03.23″ N	103° 31′ 24.45″ E
(IAF) UBMEM	R-030 / 20.8 D BRM	15° 32' 32.62" N	103° 26′ 07.39″ E
(IF) 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-218 / 0.1 D BRM	15° 14′ 17.63″ N	103° 15′ 27.84″ E

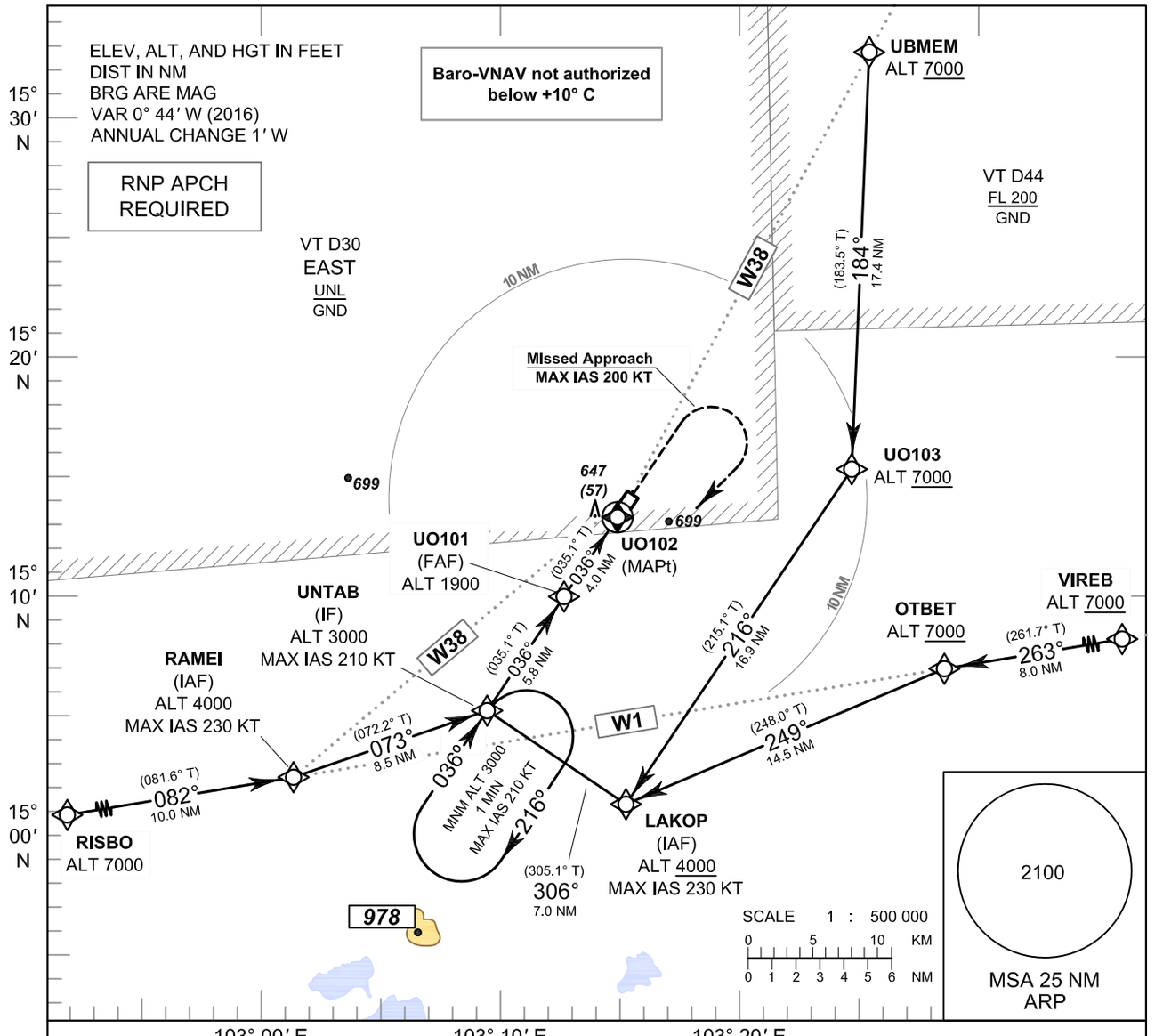
INSTRUMENT APPROACH CHART - ICAO

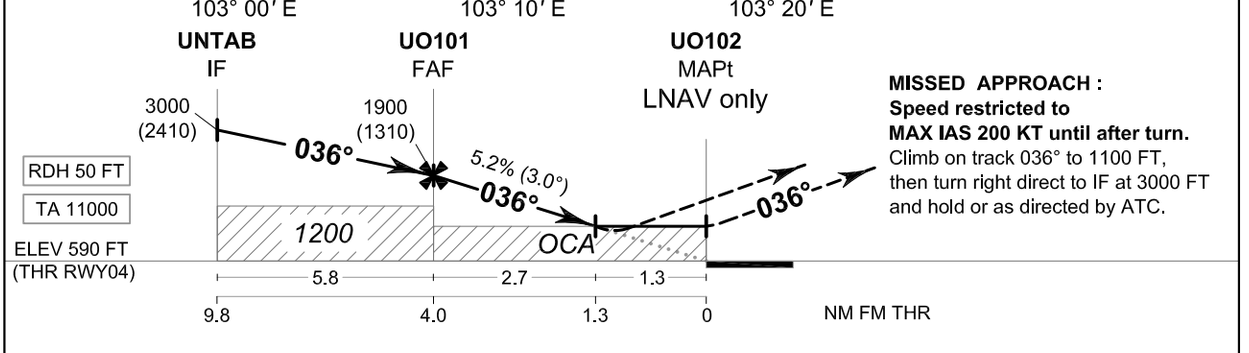
AERODROME ELEV 590 FT
HEIGHTS RELATED TO
THR RWY04 - ELEV 590 FT

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.

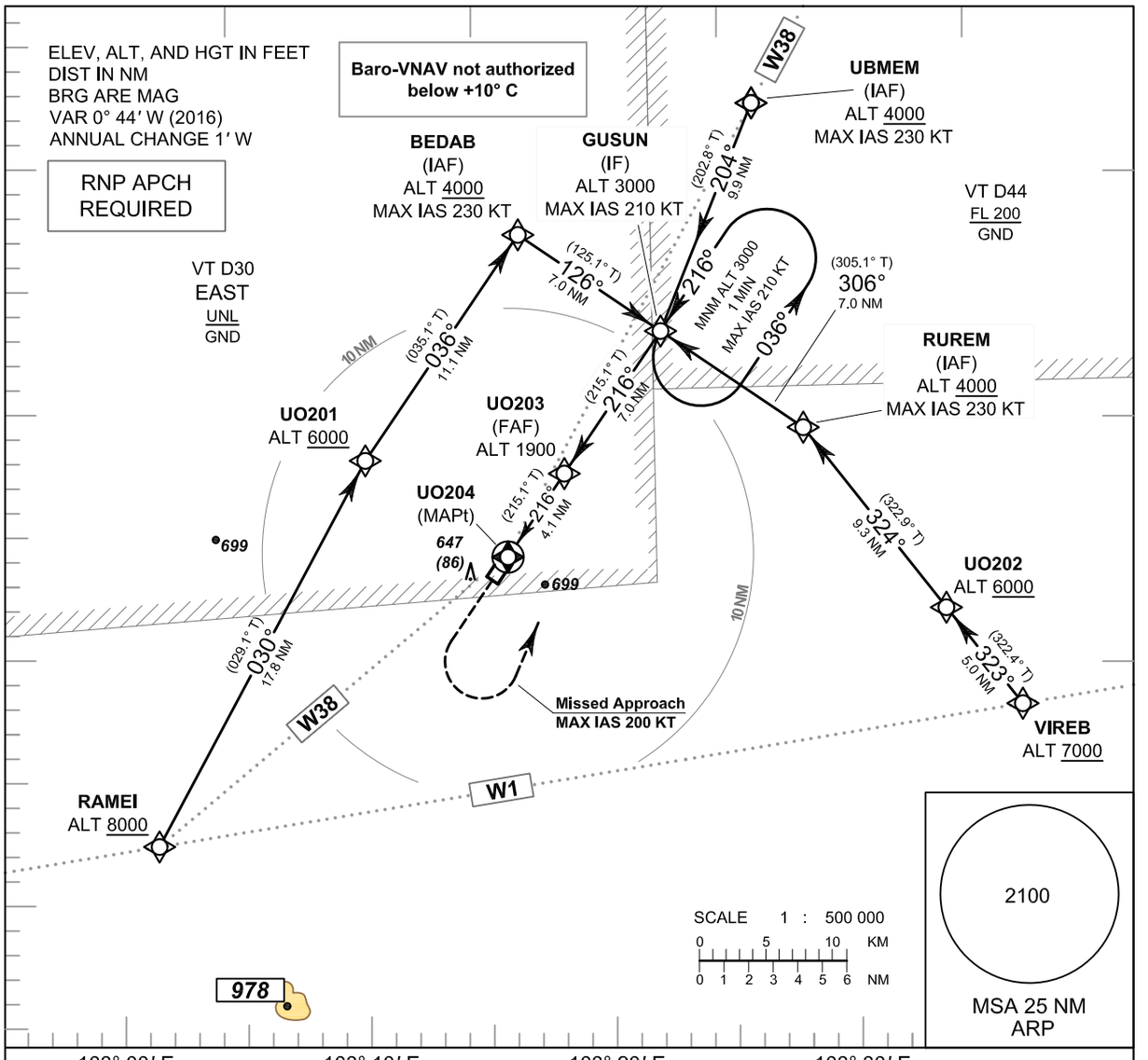
INSTRUMENT APPROACH CHART - ICAO

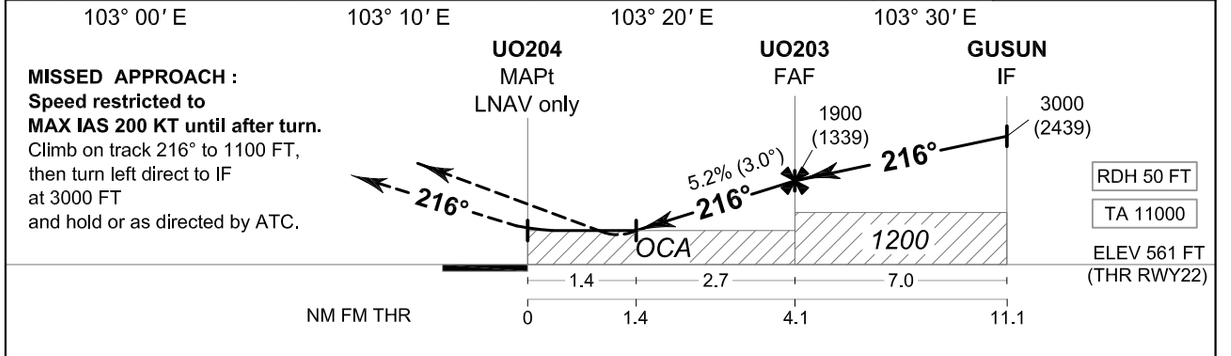
AERODROME ELEV 590 FT
HEIGHTS RELATED TO
THR RWY22 - ELEV 561 FT

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 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 Chumphon Airport Amphoe Pathiu Chumphon Thailand 86160 Tel: +667 759 1263-9 Fax: +667 759 1272 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): Located at Surat Thani Air Traffic Control Centre (1st floor of tower building) Tel: +667 744 1008 +669 1010 1837 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 Strength: PCN 45/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Asphaltic concrete Strength: PCN 42/F/C/X/T
3	Altimeter checkpoint location and elevation	Location: At apron 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 TWY guide lines: Yes 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: CL, Edge and RWY Holding Position 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 Elevation Markings/LGT**	**Coordinates**	**Obstacle type Elevation Markings/LGT**	**Coordinates**	
a	**b**	**c**	**a**	**b**	
			Strip		NIL
APCH RWY 06/ TKOF RWY 24	DME 40 FT (11.98 M) Painted red/white, LGTD	104220.36N 0992102.42E	AWOS (RWY 24) 46 FT (14 M) NIL/Red LGT on top	104255.04N 0992200.21E	
	Tree 67 FT (20.34 M) NIL/NIL	104220.49N 0992100.65E	AWOS (RWY 06) 49 FT (14.90 M) NIL/Red LGT on top	104255.15N 0992200.36E	
APCH RWY 24/ TKOF RWY 06	Chimney 97 FT (29.52 M) NIL/NIL	104303.24N 0992244.02E	GP 72 FT (21.93 M) NIL/Red LGT on top	104249.25N 0992205.82E	
			Tree 52 FT (15.85 M) NIL/NIL	104226.98N 0992113.12E	
			Tree 57 FT (17.19 M) NIL/NIL	104232.04N 0992119.38E	
			Tree 60 FT (18.13 M) NIL/NIL	104237.04N 0992128.03E	
			Tree 60 FT (18.29 M) NIL/NIL	104255.63N 0992200.32E	
			Transitional		
			RADAR 153 FT (46.40 M) NIL/Red LGT on top	104304.39N 0992156.76E	
			Tree 141 FT (42.91 M) NIL/NIL	104223.65N 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, Southern East-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2300-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern East-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 759 1311 ext. 6408
6	Flight documentation 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 Observation 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 IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL WDI: 1. Wind cone at 290 M from THR 24 off set to the left side 90 M from RCL, illuminated. 2. Wind cone at 180 M from RCL, illuminated. 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 TWY centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply at tower and air field lighting (AFL) building. Switch-over time: 15 SEC.
5	Remarks	NIL

VTSE AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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. 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 (104240.21N0992156.03E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Chumphon Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)]Emergency frequency
TWR	Chumphon Tower	122.15 MHZ 236.6 MHZ 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	104303.93N 0992157.99E		50 NM coverage was check and found as follow: – Bearing 016-200 degrees ALT should not below 1,500 FT – Bearing 201-225 degrees ALT should not below 5,000 FT – Bearing 226-015 degrees unable to perform flight inspection due to border limited
DVOR/DME	CPN	110 MHZ CH37X	H24	104240.21N 0992156.03E	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: 1. 40 NM – Radial 011°-020° altitude should not below 5 000 FT – Radial 021°-050° altitude should not below 4 000 FT – Radial 051°-100° altitude should not below 2 000 FT – Radial 101°-110° altitude should not below 4 000 FT – Radial 111°-190° altitude should not below 2 000 FT – Radial 191°-225° altitude should not below 4 000 FT – Radial 226°-230° altitude should not below 6 000 FT 2. 30 NM (Due to border limited) – Radial 231°-270° altitude should not below 5 000 FT 3. 20 NM (Due to border limited) – Radial 271°-010° altitude should not below 5 000 FT
LOC RWY 24 ILS CAT I	ICPN	109.9 MHZ	H24	104218.37N 0992103.61E		LOC: Designated operation coverage 18 NM, ALT 6300 FT AMSL
GP		333.8 MHZ	H24	104249.31N 0992205.84E		GP: 3 DEG, RDH 50 FT
DME	ICPN	CH36X (109.9 MHZ)	H24	104220.40N 0992102.42E	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

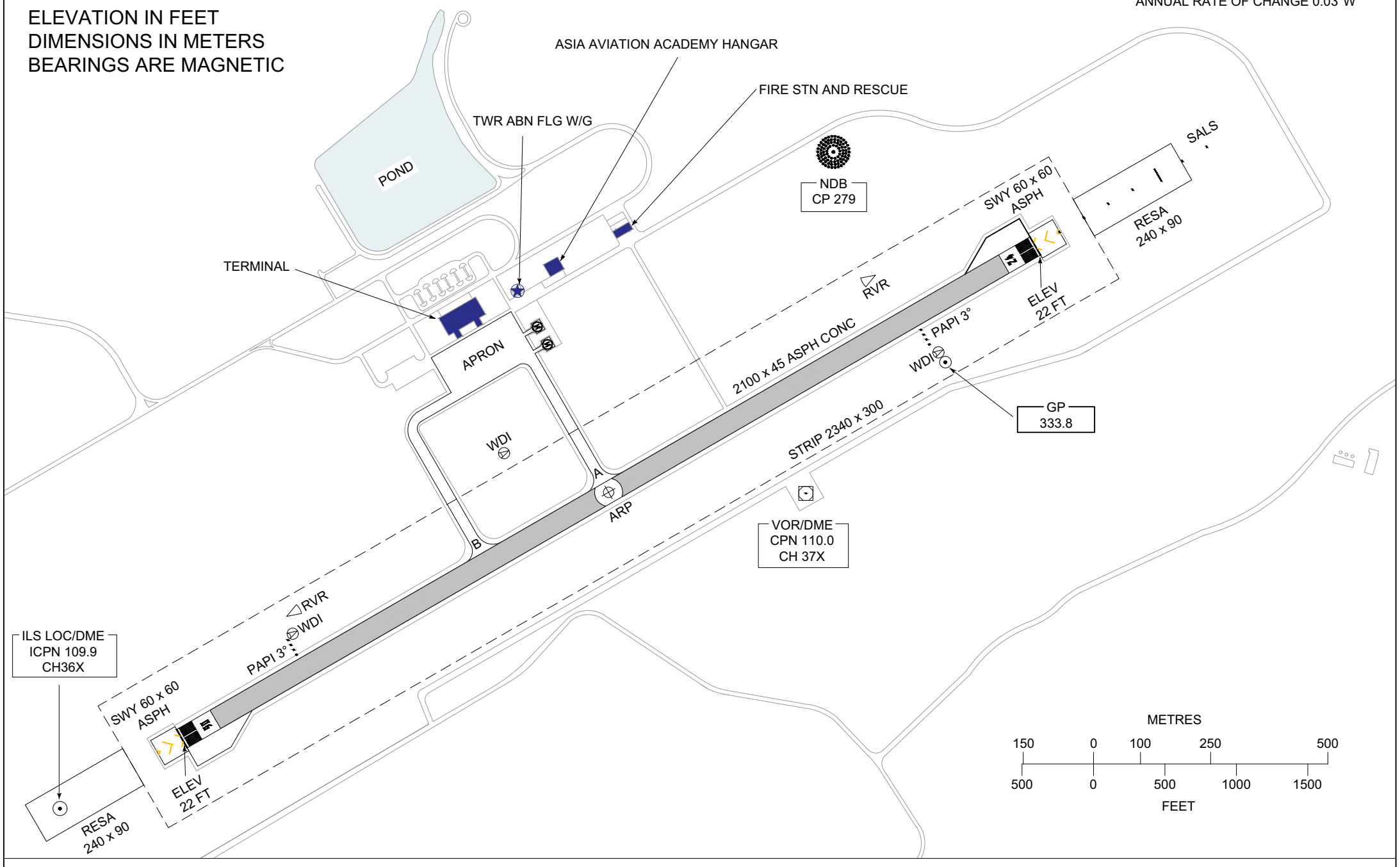
RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
06	060.06°	10 42 23.22N 099 21 12.19E	PCN 42/F/C/X/T
24	240.06°	10 42 57.38N 099 22 12.16E	
APRON			PCN 45/R/C/X/T
TAXIWAY A AND B			PCN 42/F/C/X/T

REMARKS:

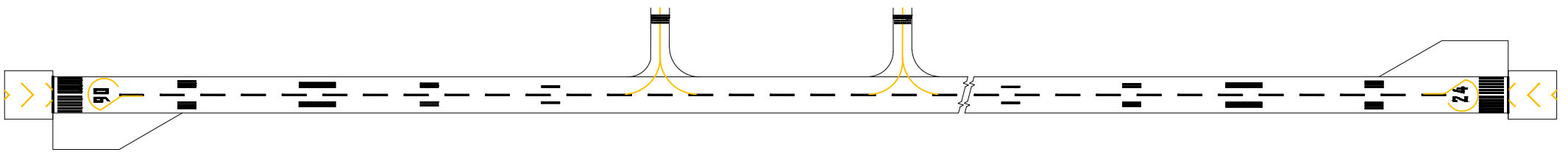
- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- HOT SPOTS SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY WIDTH 23 m.

VAR 0.66°W (2022)
ANNUAL RATE OF CHANGE 0.03°W

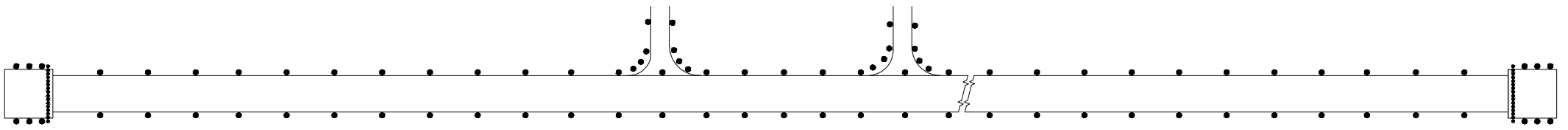
ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC



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

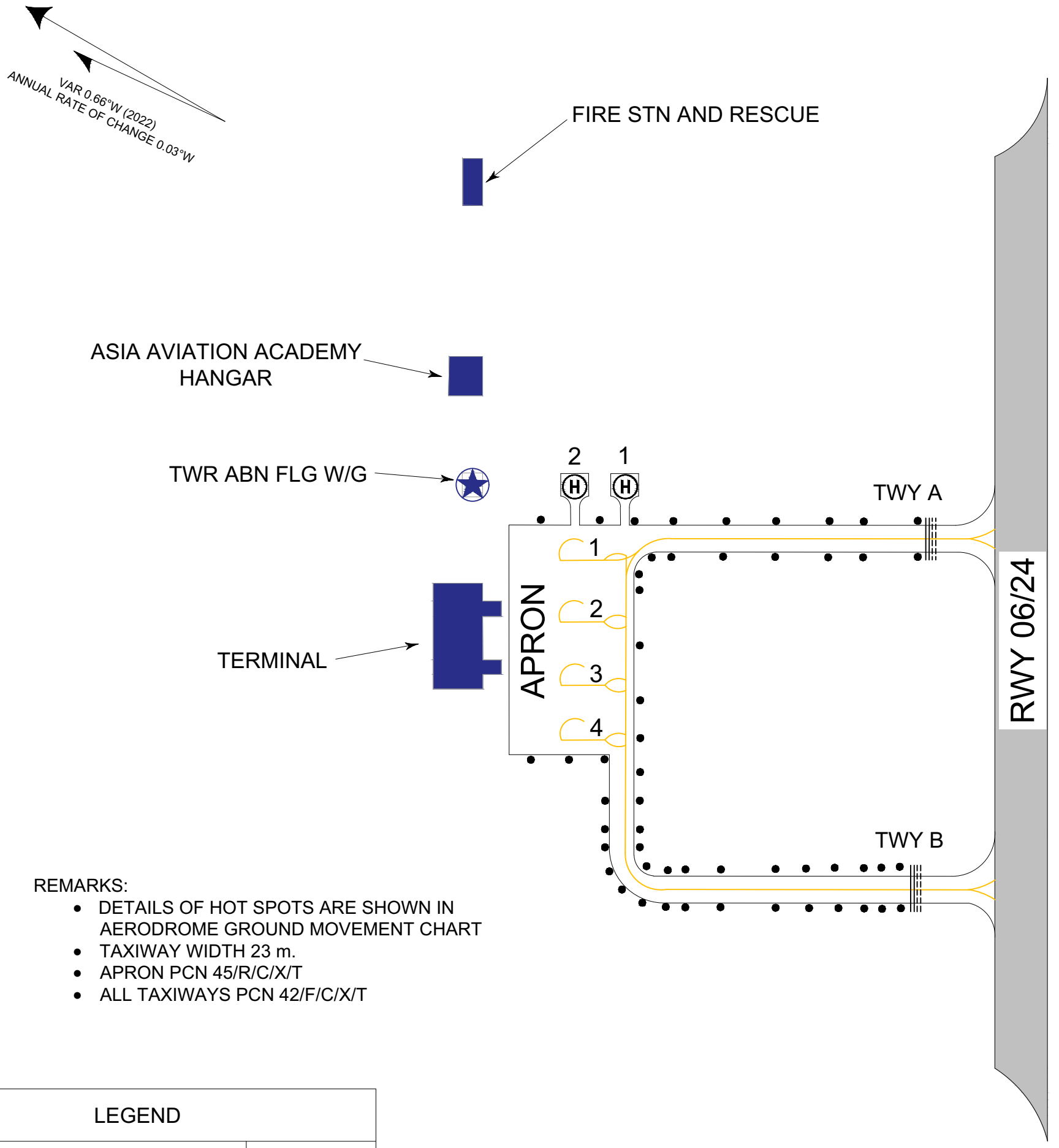
AIRCRAFT PARKING/ DOCKING CHART - ICAO

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 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

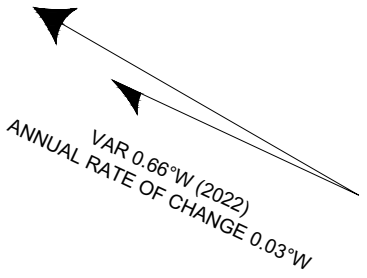
AERODROME GROUND MOVEMENT CHART - ICAO

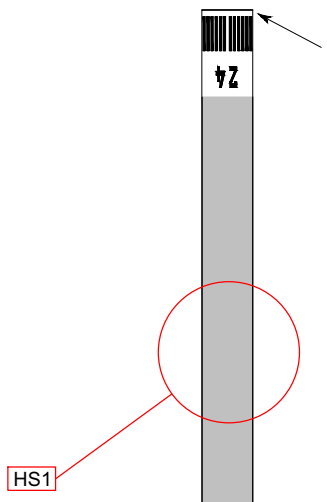
APRON ELEV 21 FT

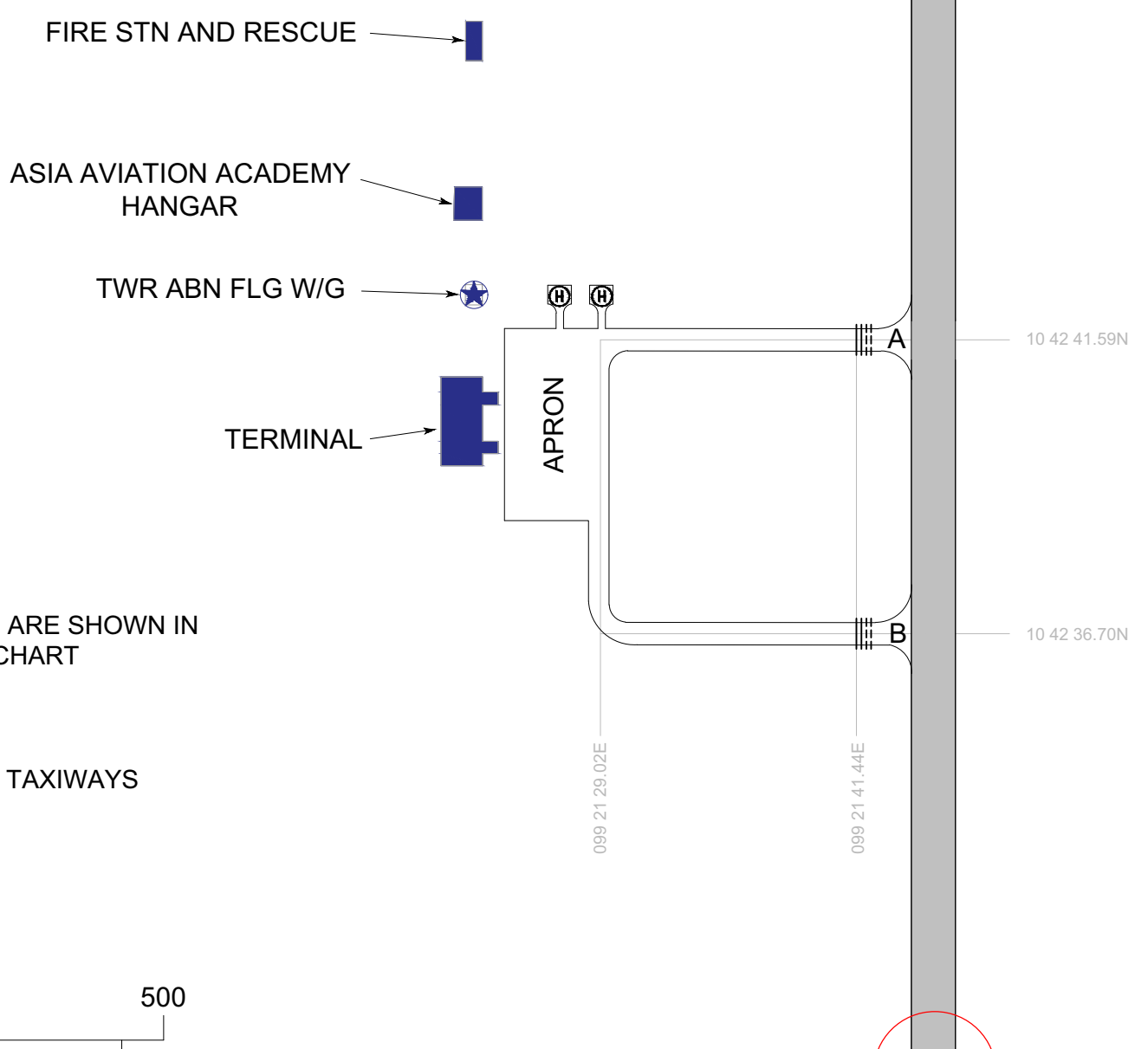
TWR 122.15 236.6

CHUMPHON / Chumphon

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

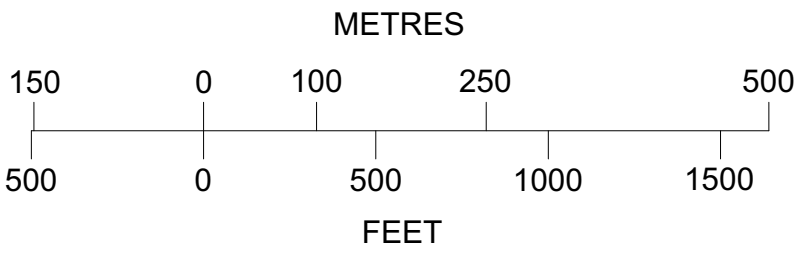






REMARKS:

- 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 NON-PRECISION APCH RWY	
HS1, HS2 - PARTIALLY INVISIBLE BY TWR	

CHANGE: NEW CHART.

INTENTIONALLY BLANK

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

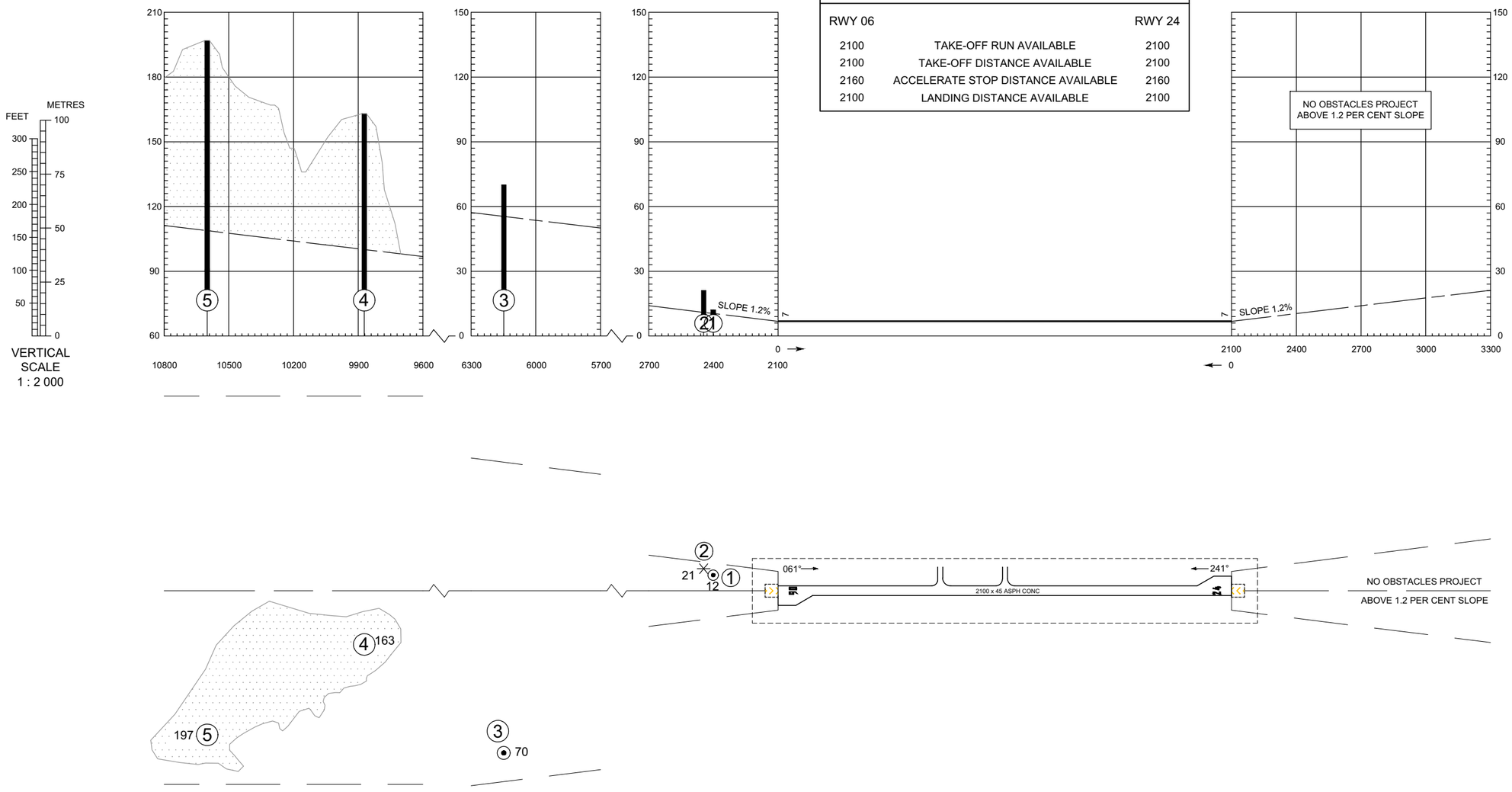
DIMENSIONS AND ELEVATIONS IN METRES

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

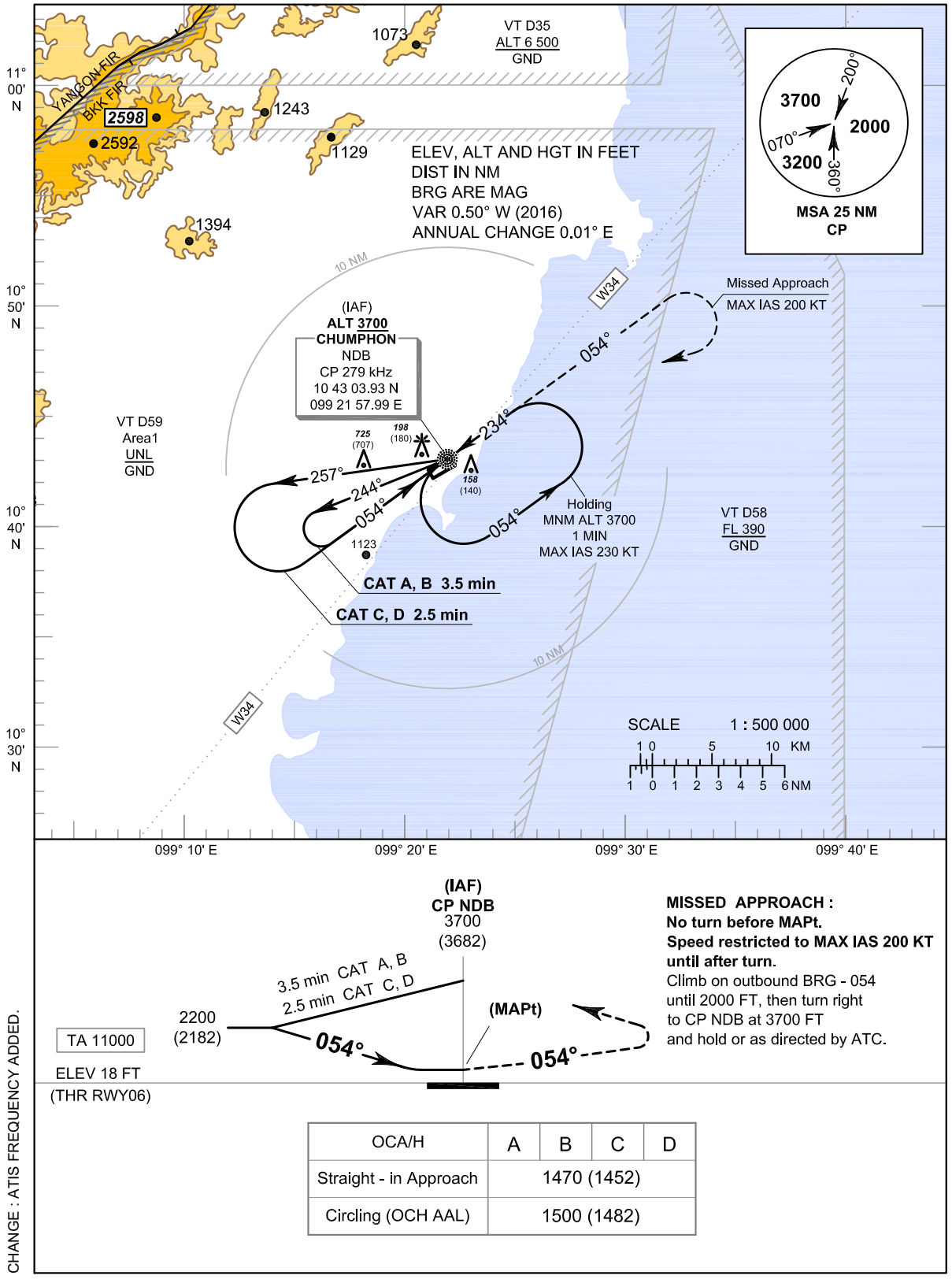
INSTRUMENT APPROACH CHART - ICAO

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



OCA/H	A	B	C	D
Straight - in Approach	1470 (1452)			
Circling (OCH AAL)	1500 (1482)			

CHANGE : ATIS FREQUENCY ADDED.

INTENTIONALLY BLANK

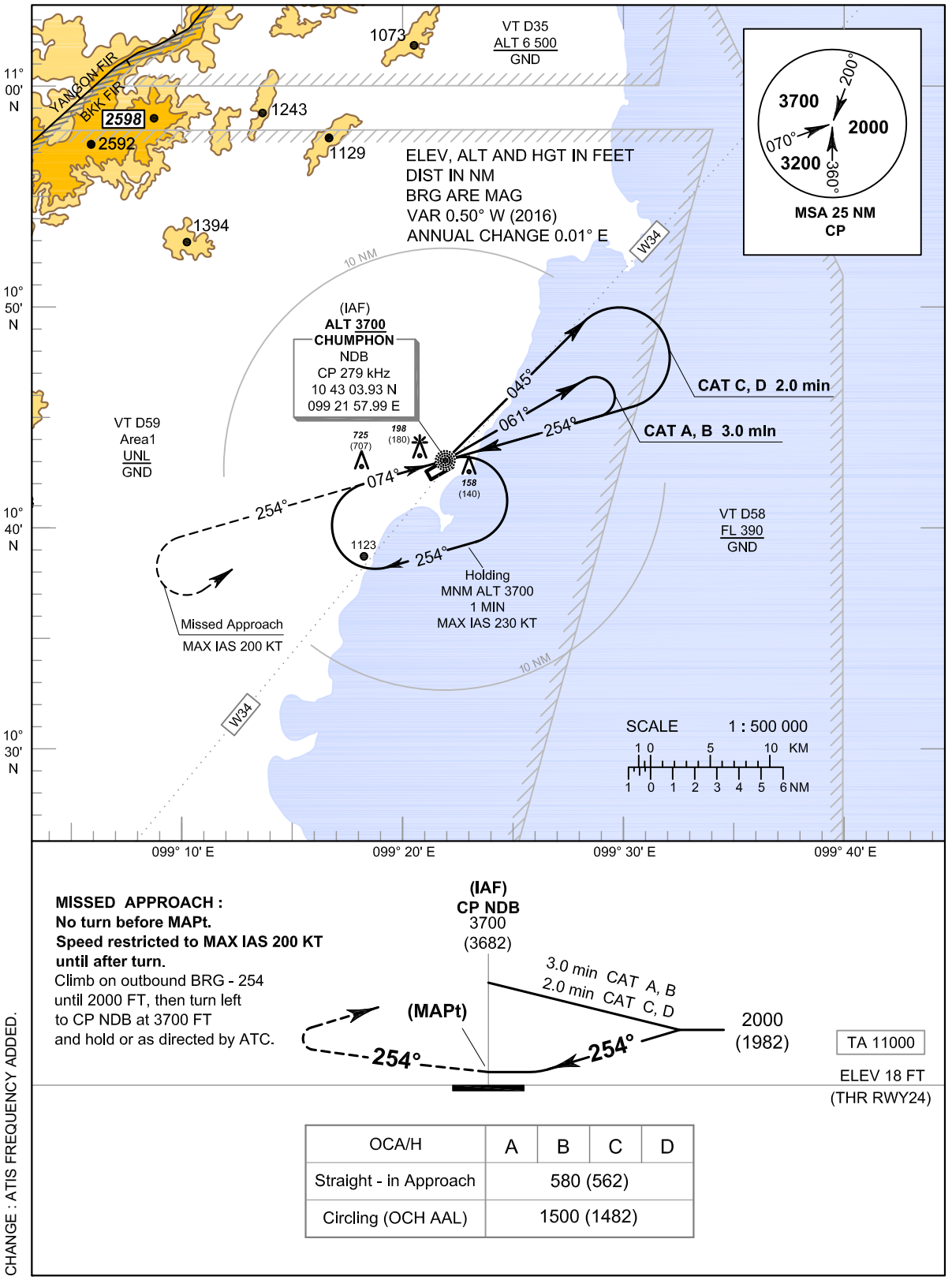
INSTRUMENT APPROACH CHART - ICAO

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 : ATIS FREQUENCY ADDED.

INTENTIONALLY BLANK

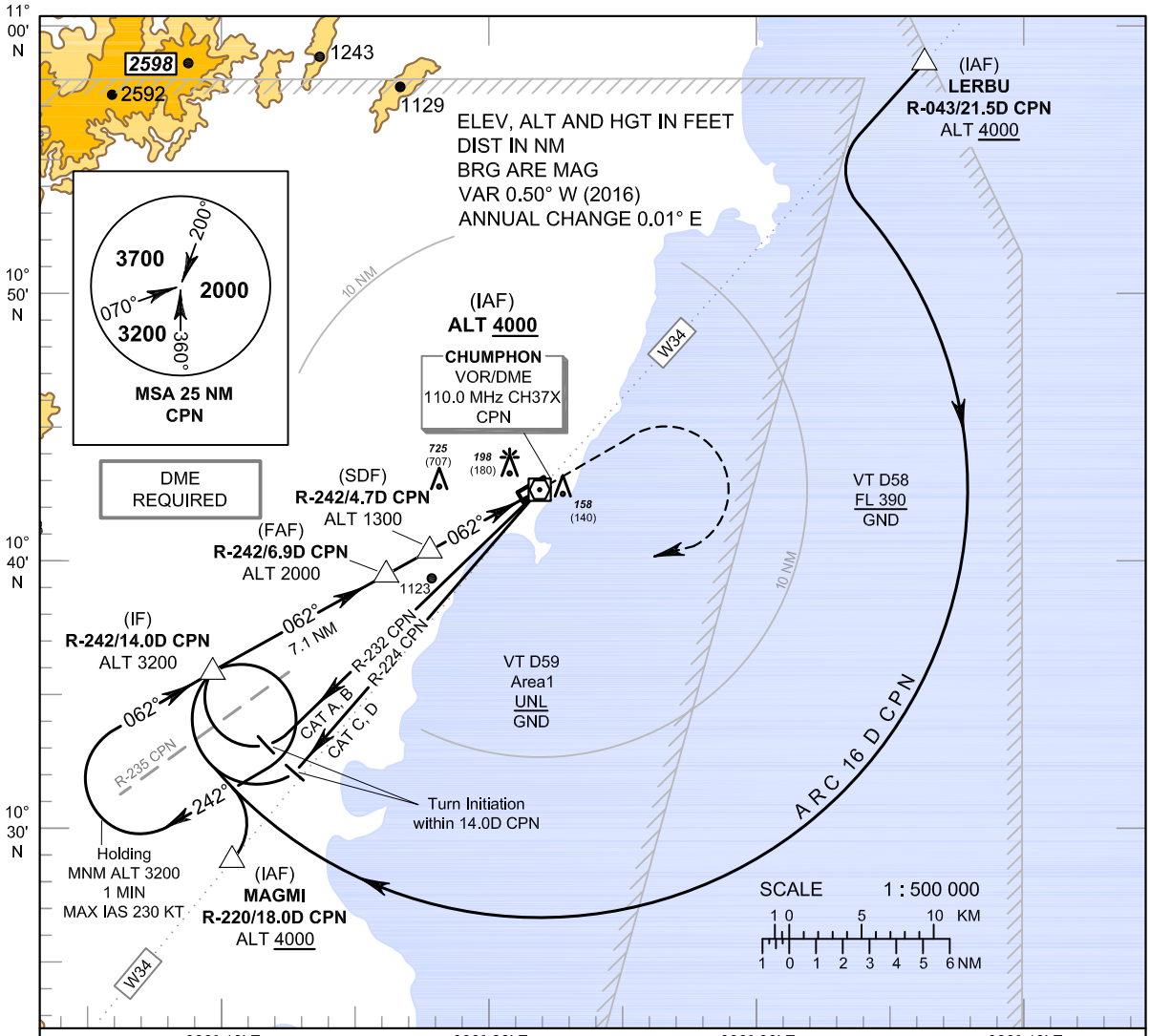
INSTRUMENT APPROACH CHART - ICAO

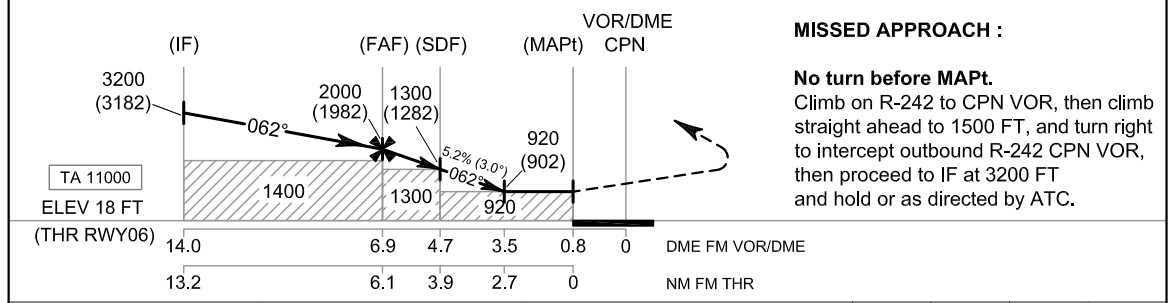
AERODROME ELEV 18 FT
HEIGHTS RELATED TO AERODROME ELEV

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' 40.21" N	099° 21' 56.03" E

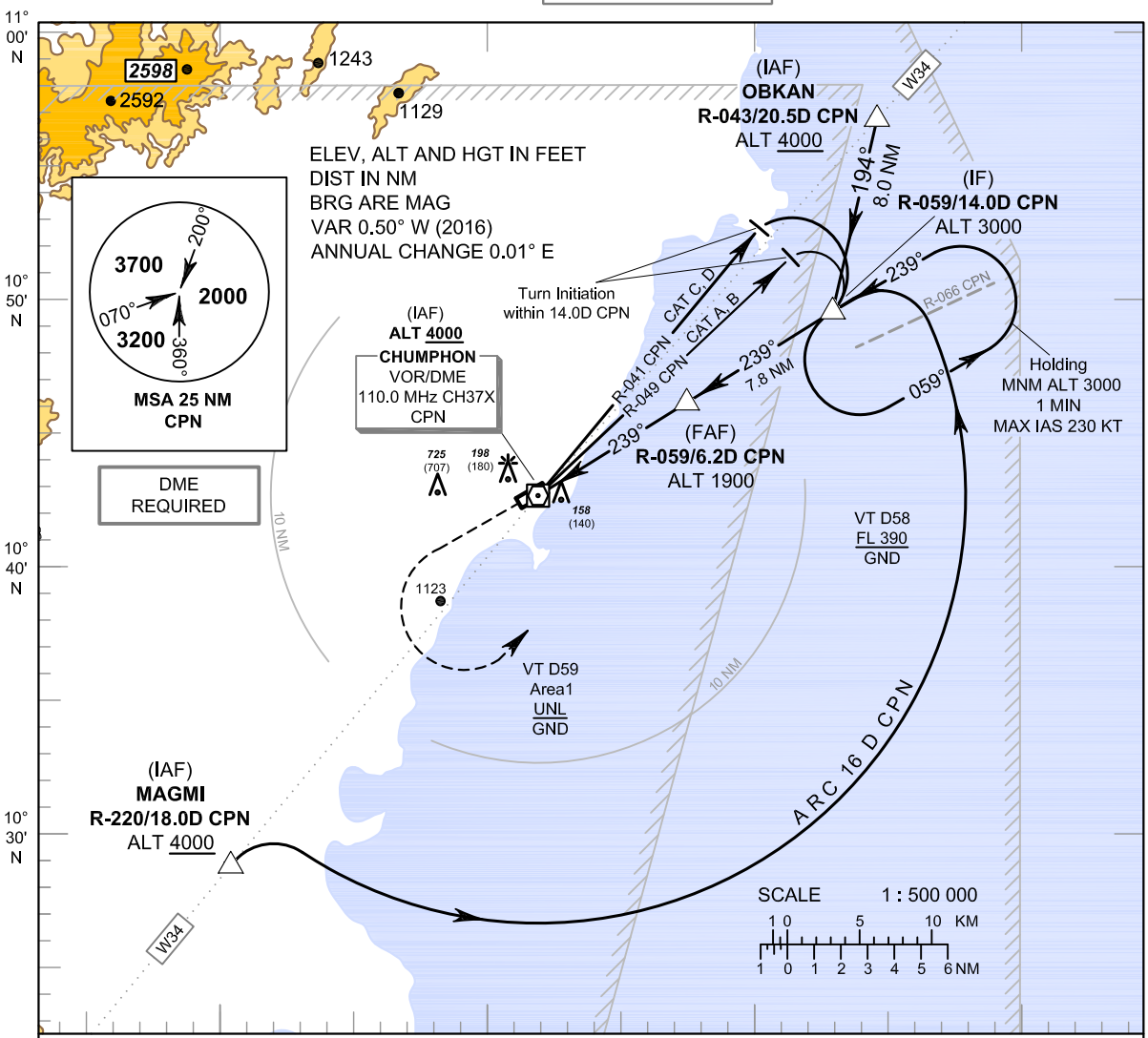
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 18 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

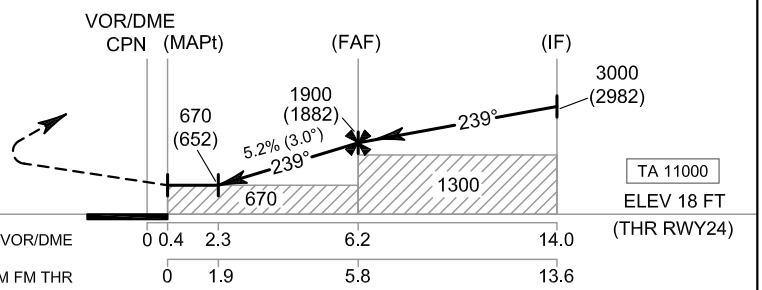
CHUMPHON / Chumphon (VTSE)

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' 40.21" N	099° 21' 56.03" E

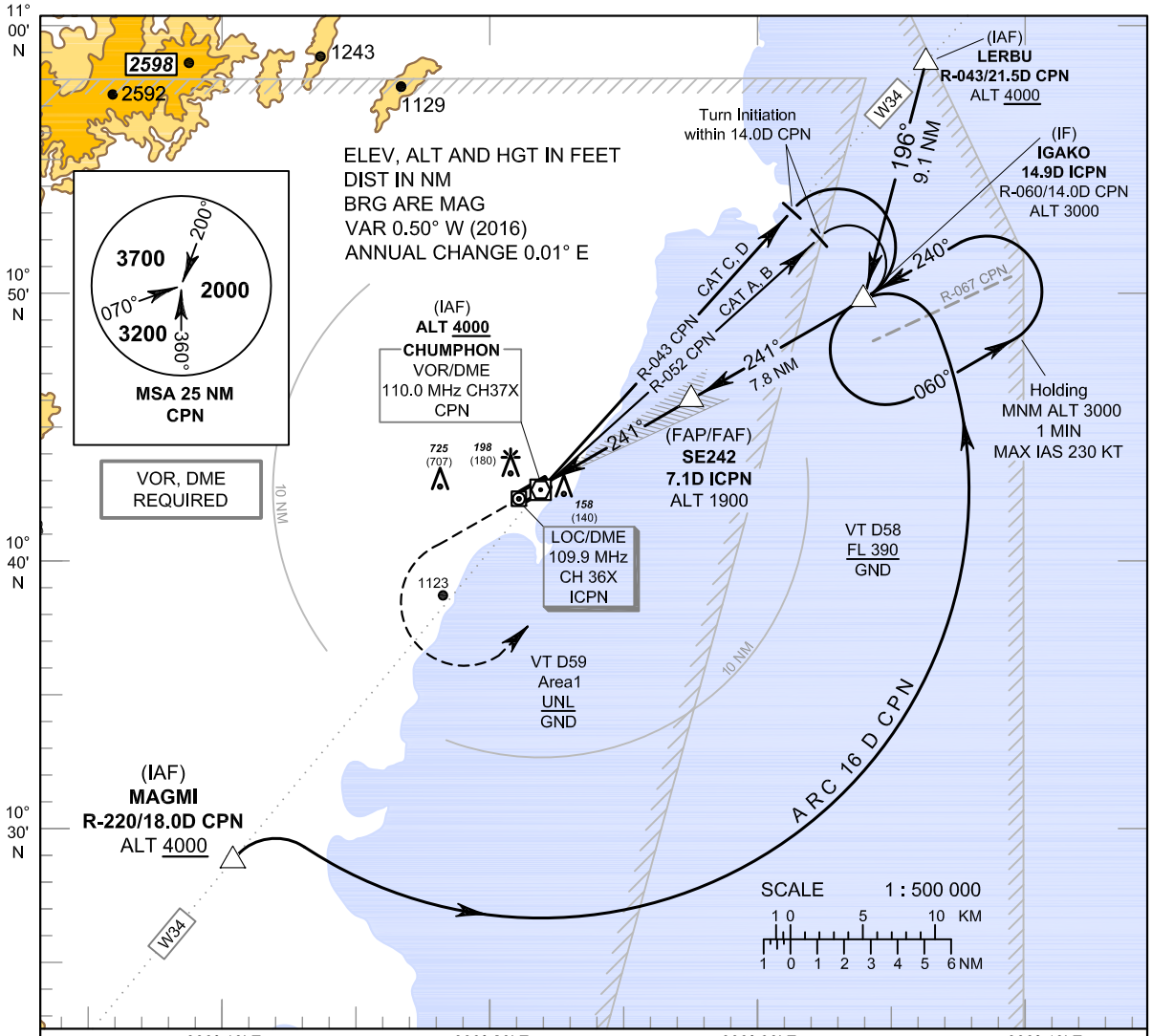
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 18 FT
HEIGHTS RELATED TO
THR RWY24 - ELEV 18 FT

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

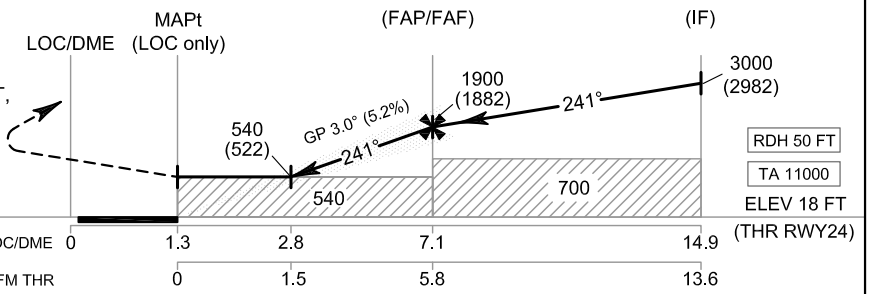
CHUMPHON / Chumphon (VTSE)

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' 18.37" N	099° 21' 03.61" E
GP	ICPN	10° 42' 49.31" N	099° 22' 05.84" E
VOR	CPN	10° 42' 40.21" N	099° 21' 56.03" E

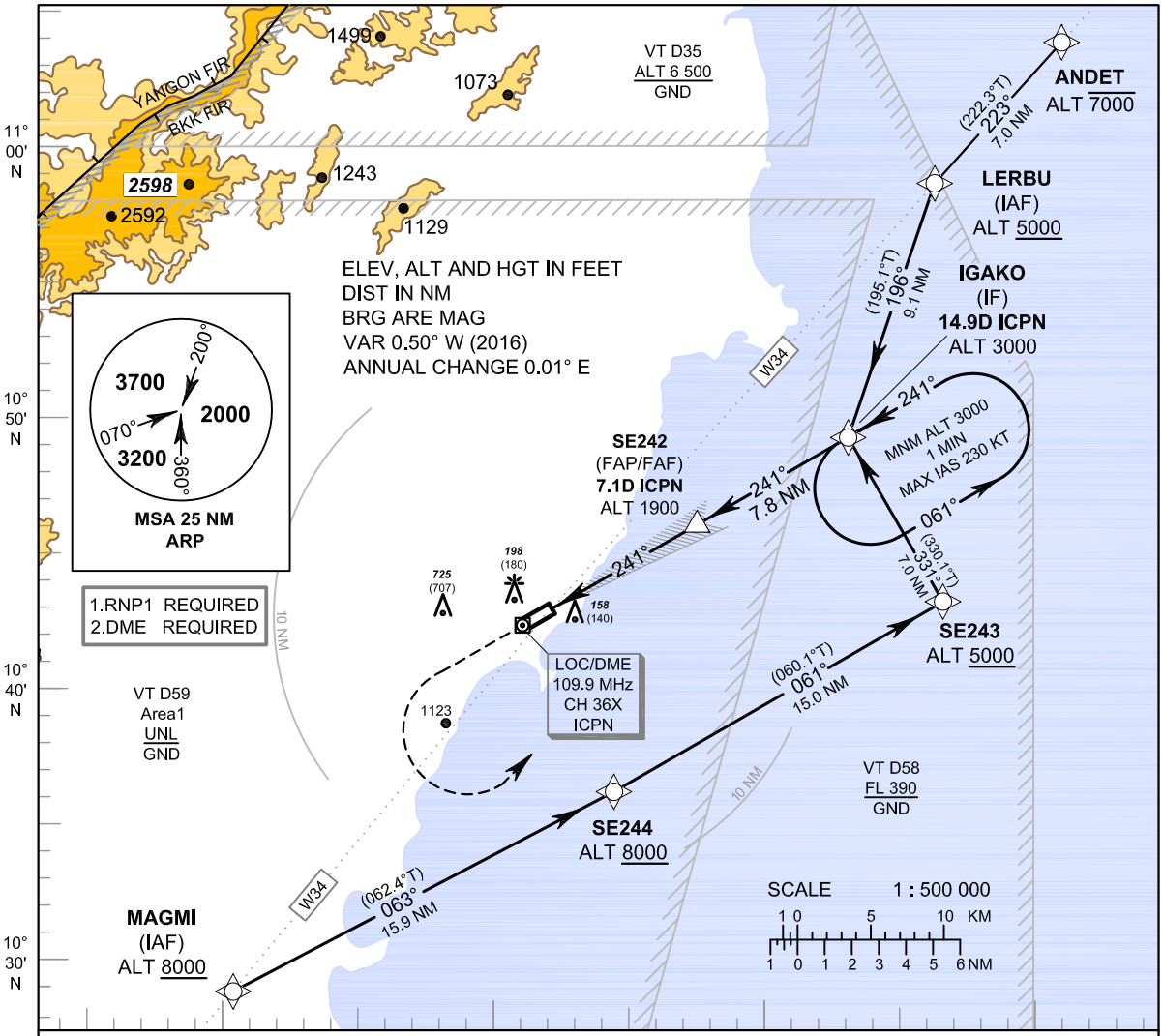
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 18 FT
HEIGHTS RELATED TO
THR RWY24 - ELEV 18 FT

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

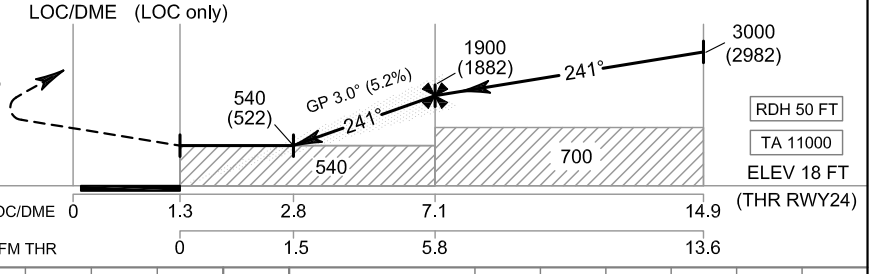
CHUMPHON / Chumphon (VTSE)

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' 18.37" N	099° 21' 03.61" E
GP	ICPN	10° 42' 49.31" N	099° 22' 05.84" E

INTENTIONALLY BLANK

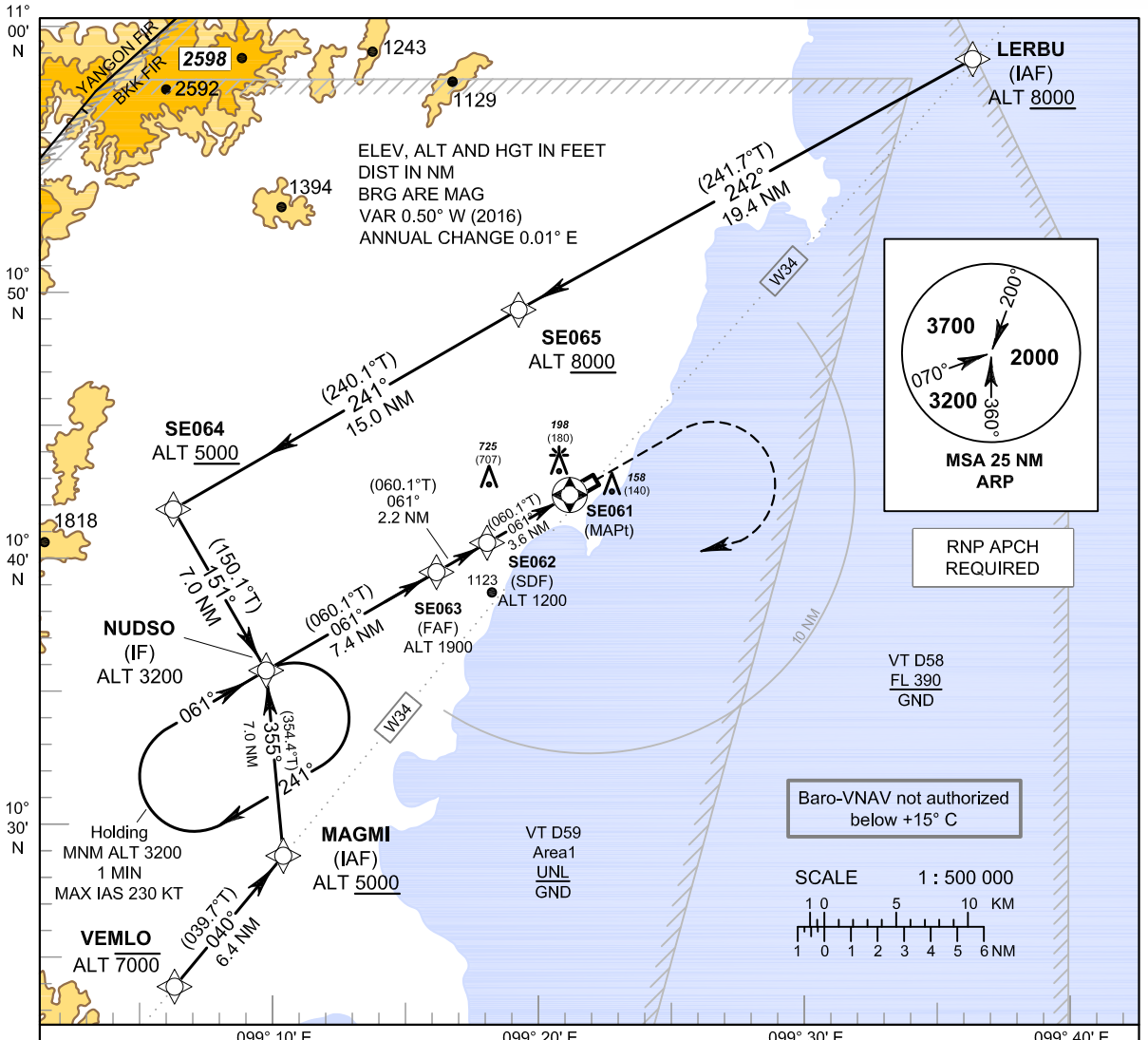
INSTRUMENT APPROACH CHART - ICAO

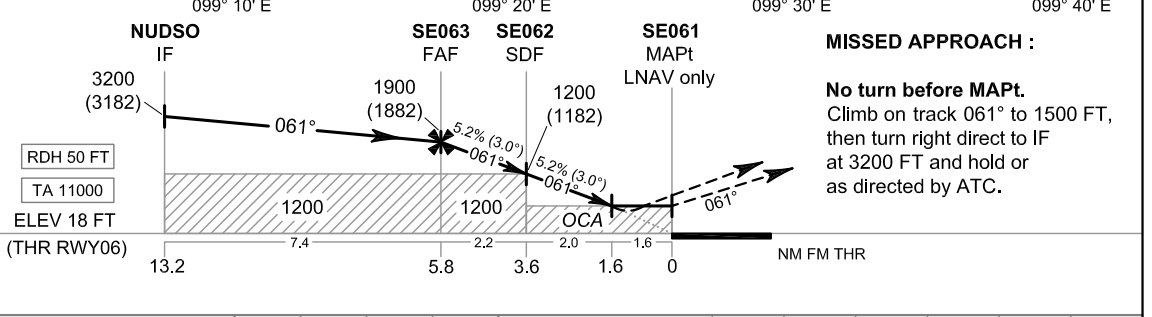
AERODROME ELEV 18 FT
HEIGHTS RELATED TO AERODROME ELEV

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.

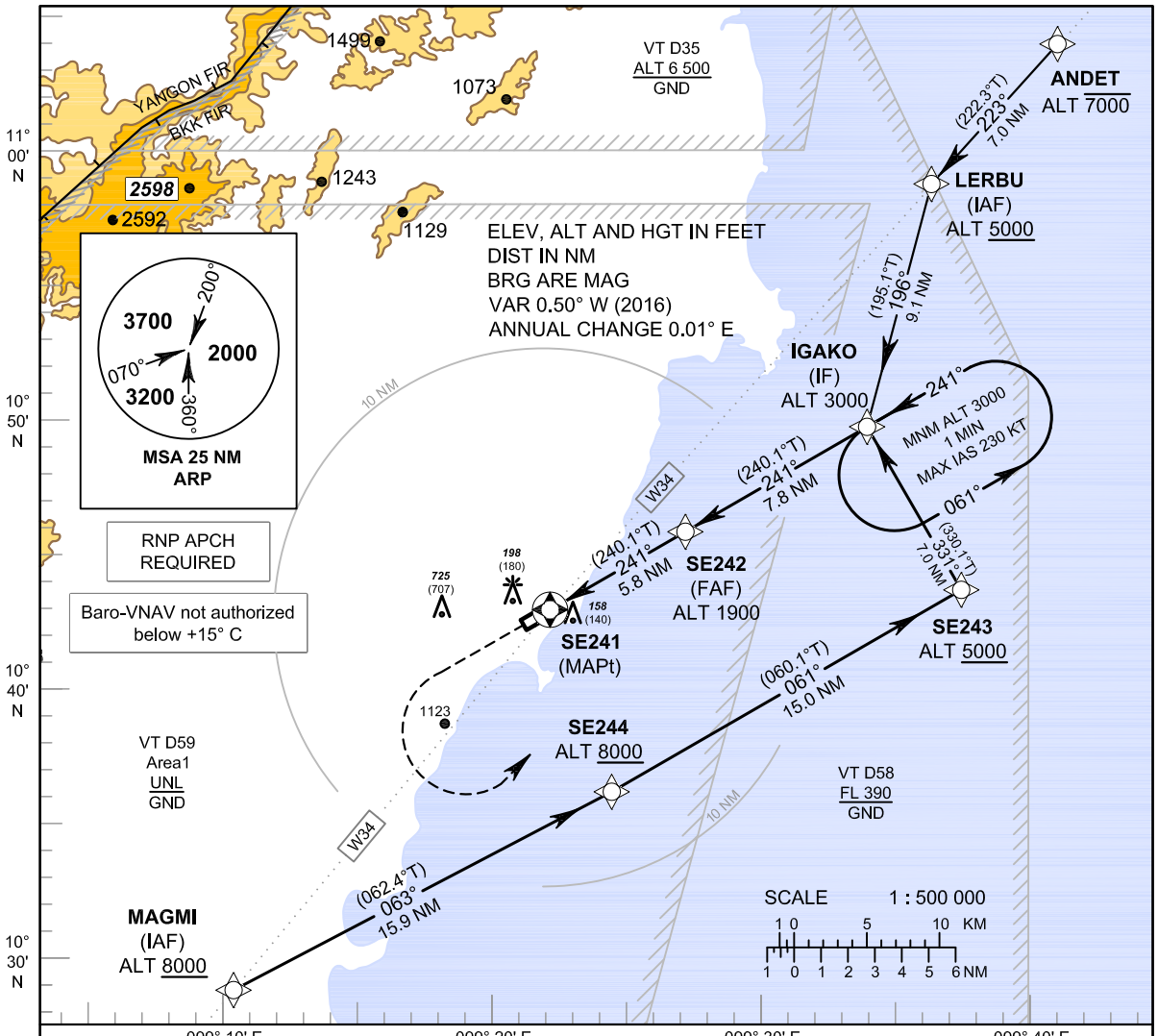
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 18 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 122.6
TWR : 122.15 , 236.6
ATIS : 128.45

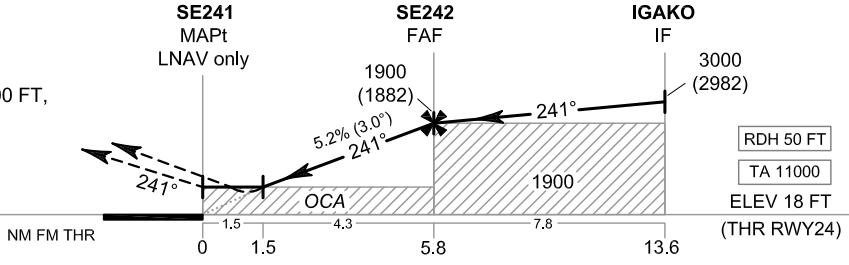
CHUMPHON / Chumphon (VTSE)

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

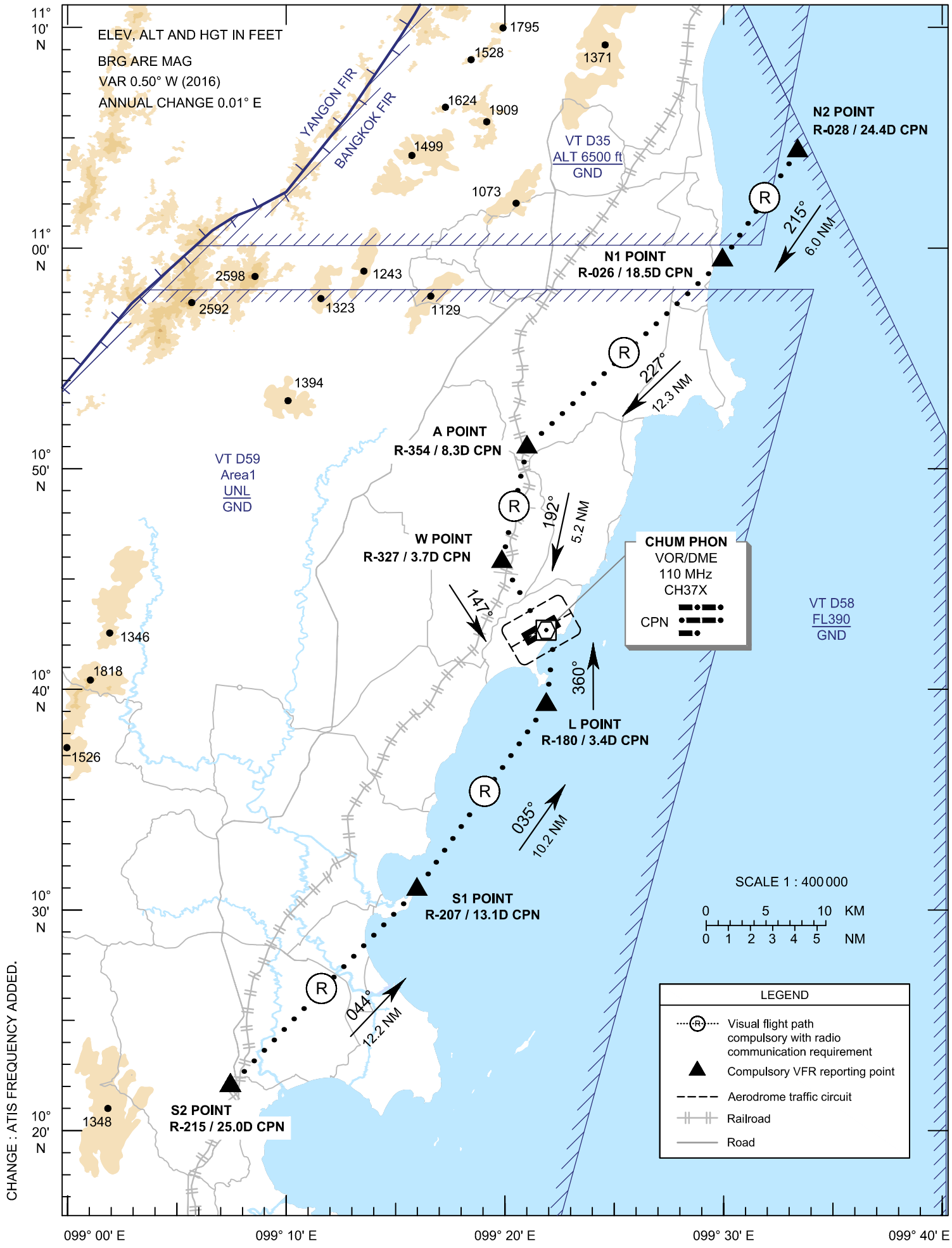
CHANGE : CHART TITLE.

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.

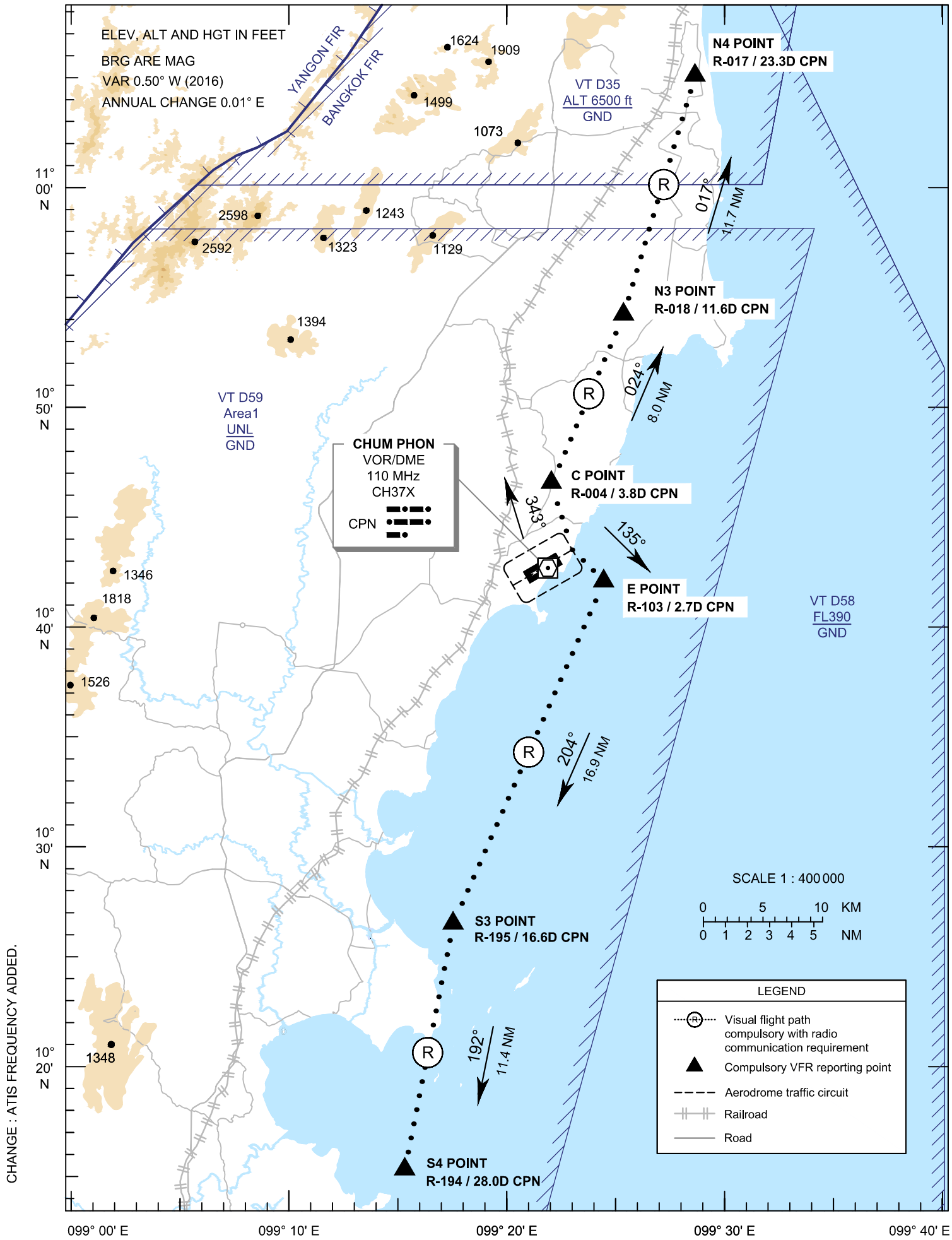
Reporting points	Visual Reference	Radial / DME	Coordinates	
			Latitude	Longitude
A POINT	Ban Map Ammarit	R-354 / 8.3D CPN	10° 50' 55.10" N	099° 21' 00.20" E
L POINT	Lam Tan Cape	R-180 / 3.4D CPN	10° 39' 17.80" N	099° 21' 56.20" E
N1 POINT	Khao Bang Berd	R-026 / 18.5D CPN	10° 59' 26.02" N	099° 30' 02.59" 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.

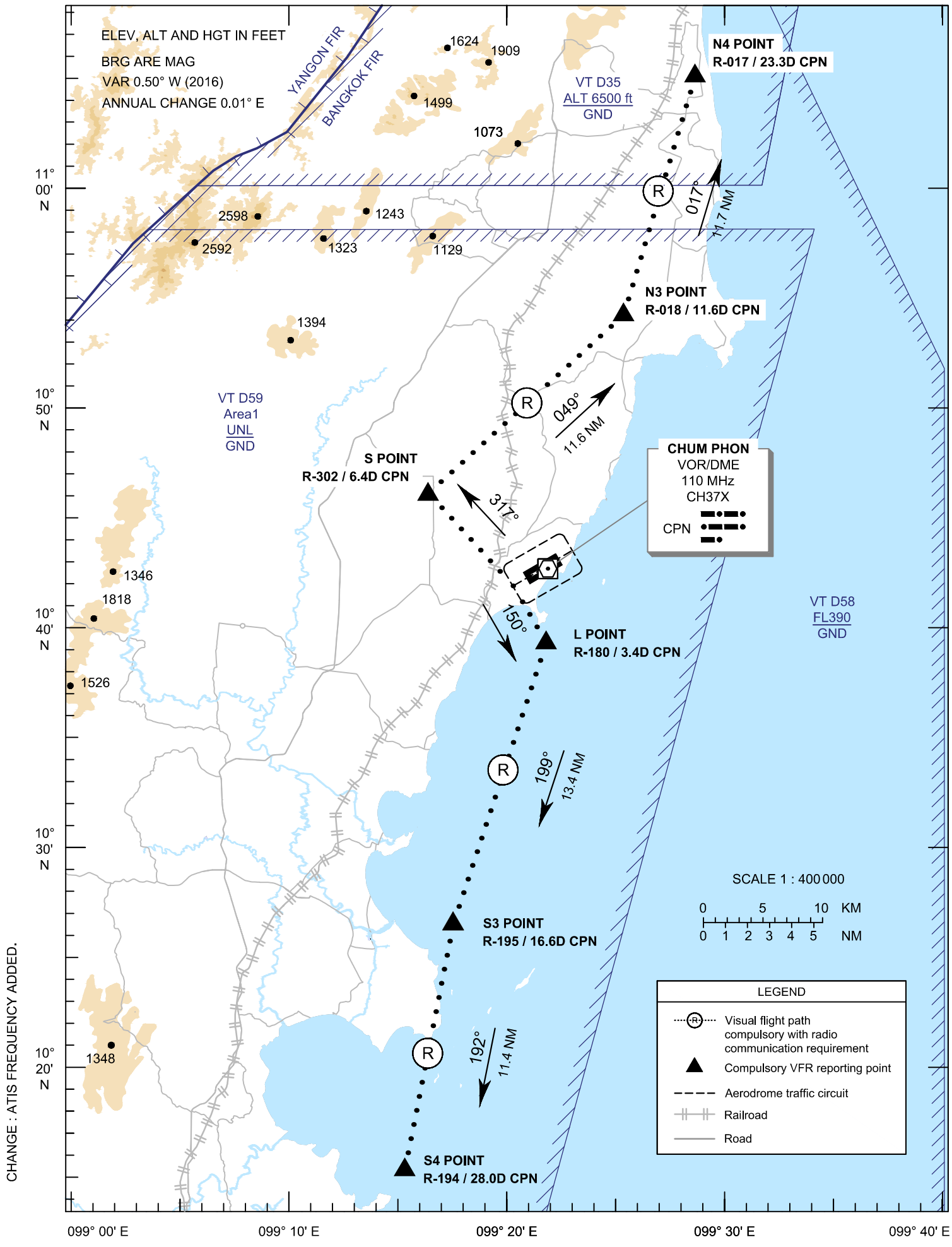
Reporting points	Landmark	Radial / DME	Coordinates	
			Latitude	Longitude
C POINT	Chum Kho (Office of subdistrict Municipality)	R-004 / 3.8D CPN	10° 46' 28.00" N	099° 22' 11.00" E
E POINT	Koh Kai Island	R-103 / 2.7D CPN	10° 42' 04.70" N	099° 24' 36.50" E
N3 POINT	Bang Waen (Road Intersection)	R-018 / 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 Khon Kaen Airport 68/24 Moo 5, Tambon Banped Amphoe Muang Khon Kaen Province 40000, Thailand Tel: +664 346 8170-5 Fax: +664 346 8186 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): Located at Udon Thani Air Traffic Control Centre (1st floor of tower building) Tel: +664 223 0124 +669 2262 3477 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 1 JET A-1 Refueller @ 8,000 L 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 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 Strength: PCN 65/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Asphaltic concrete 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 TWY guide lines: Yes Nose-wheel guide lines at apron 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: CL, Edge and RWY Holding Position 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, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Upper Northeastern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 346 8224 Fax: +664 346 8086
6	Flight documentation Language(s) used	Charts, Tabular forms and Abbreviated Plain Language Texts 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 Observation System (AWOS), Low Level Wind Shear 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 IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL
3	TWY edge and centre line lighting	TWY Edge: All TWY TWY Centre Line: NIL

4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the Air Field Lighting (AFL) building. 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 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 (162814.73N1024716.07E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	KHON KAEN TOWER 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 240.0 MHZ 121.5 MHZ [1)]	As AD OPR HR	[1)]Emergency frequency
TWR	Khon Kaen Tower	122.25 MHZ 236.6 MHZ 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 1024704.18E	NIL	NIL
DVOR/DME	KKN	114.9 MHZ CH96X	H24	162814.73N 1024716.07E	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: – Radial 001°-080° altitude should not below 2 500 FT – Radial 081°-220° altitude should not below 2 000 FT – 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

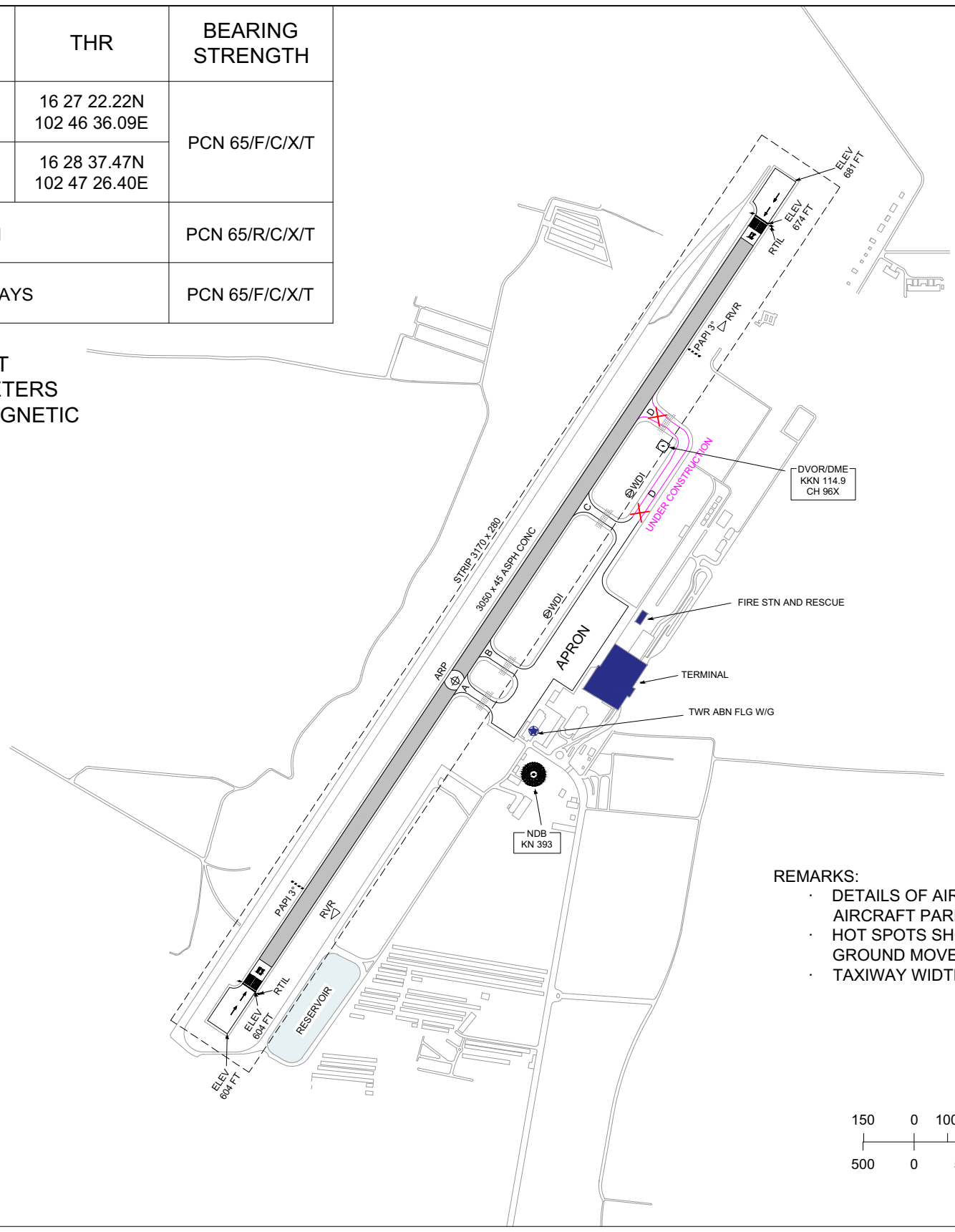
ELEV 681 FT

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 102 46 36.09E	PCN 65/F/C/X/T
21	212.83°	16 28 37.47N 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

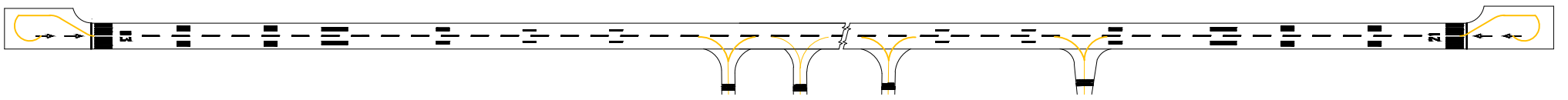


VAR 1.10°W (2022)
ANNUAL RATE OF CHANGE 0.05°W

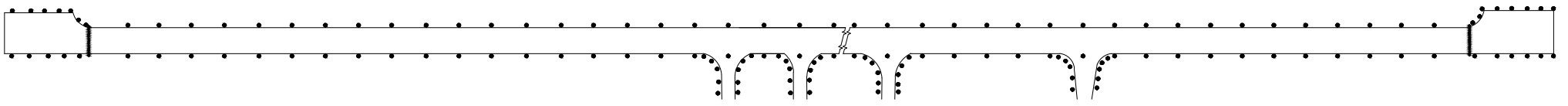
REMARKS:
- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- HOT SPOTS SHOWN IN AERODROME GROUND MOVEMENT CHART
- TAXIWAY WIDTH 23 m.

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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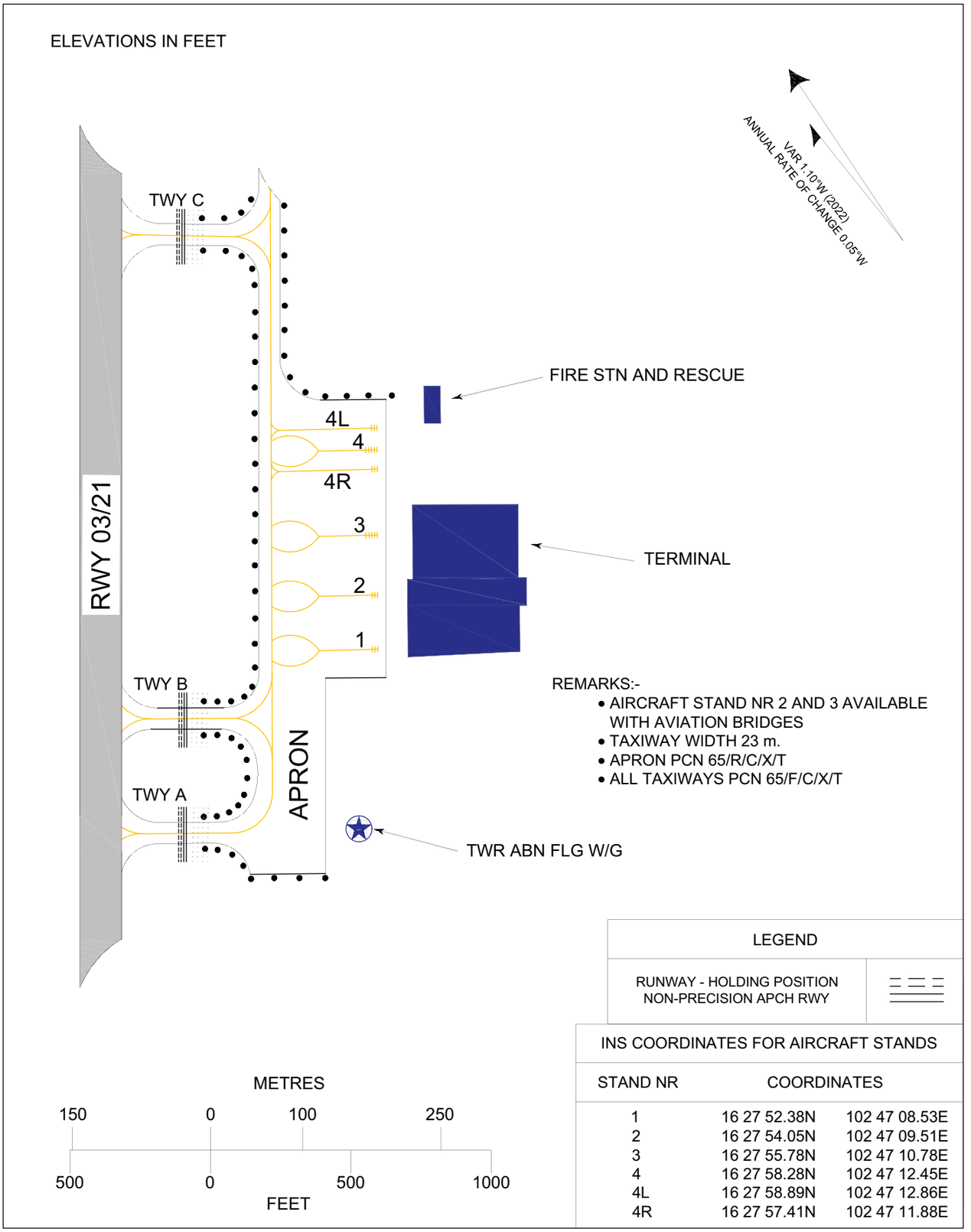
AIRCRAFT PARKING/ DOCKING CHART - ICAO

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

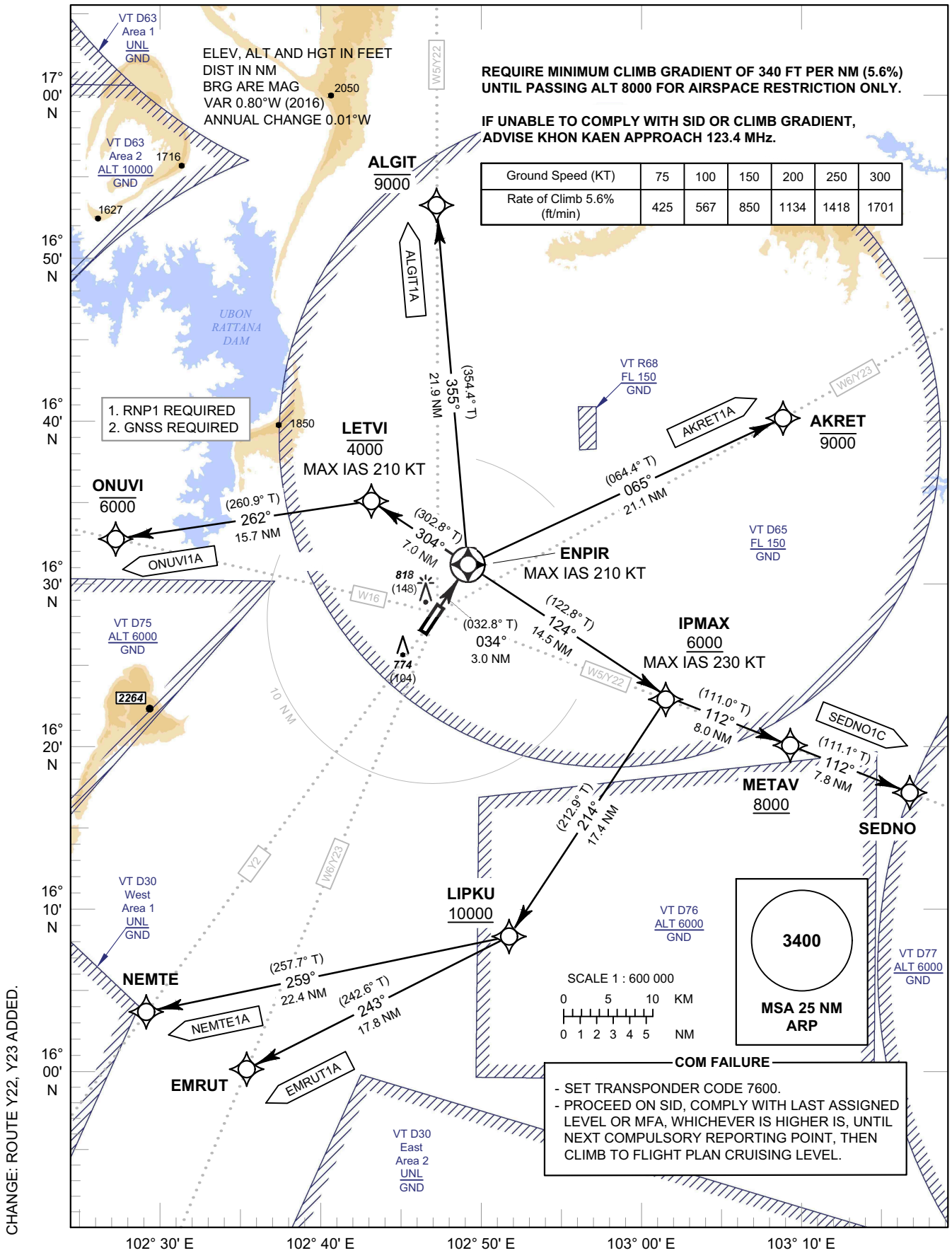
TRANSITION ALTITUDE
11000 FT

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.

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STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

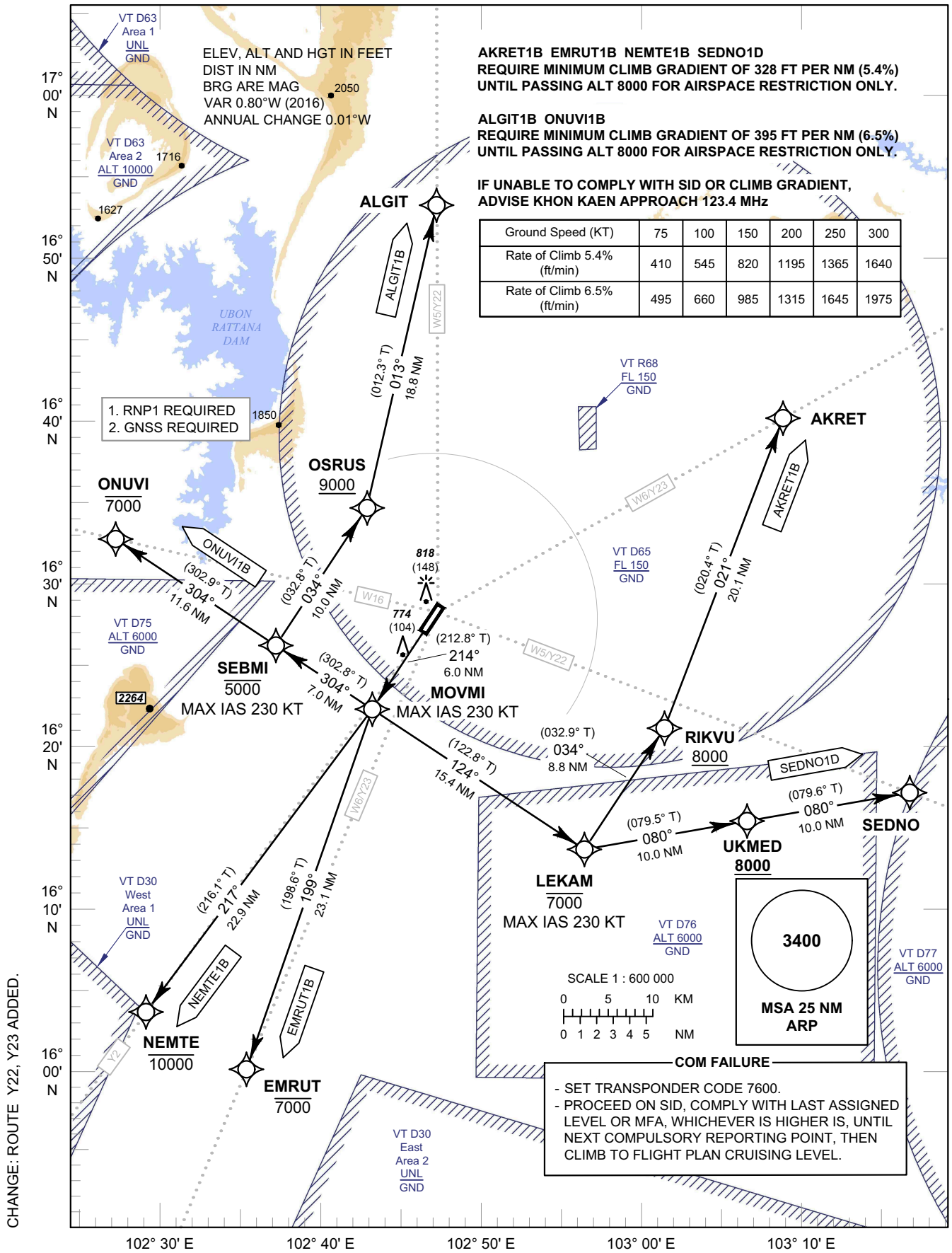
TRANSITION ALTITUDE
11000 FT

APP : 123.4 , 240.0
TWR : 122.25 , 236.6
GND : 121.9
ATIS : 126.85

KHON KAEN /
Khon Kaen (VTUK)

RNAV 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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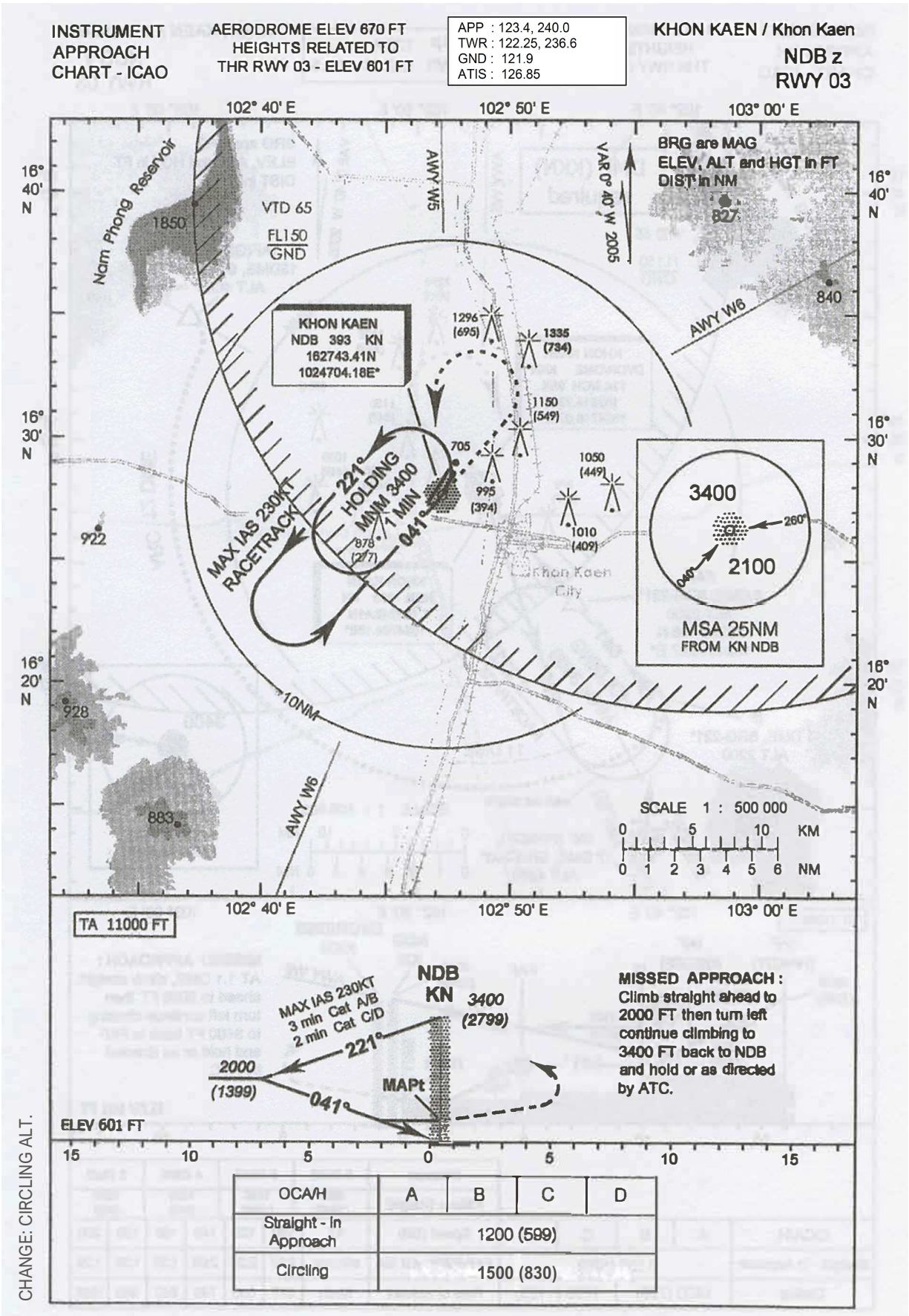

OCA/H	A	B	C	D
Straight - In Approach	1200 (599)			
Circling	1500 (830)			

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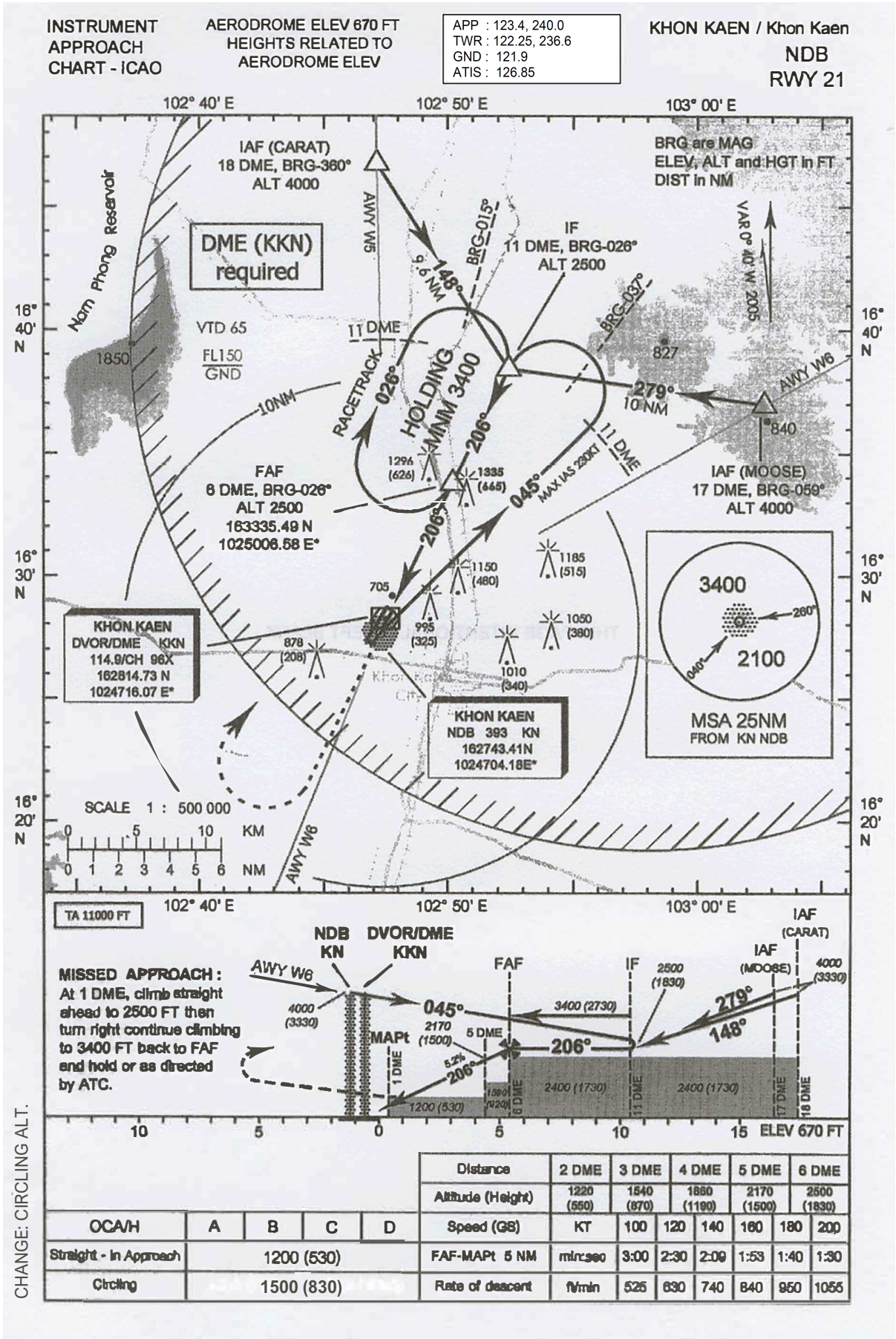

OCA/H	A	B	C	D
Straight - in Approach	1200 (530)			
Circling	1500 (830)			

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

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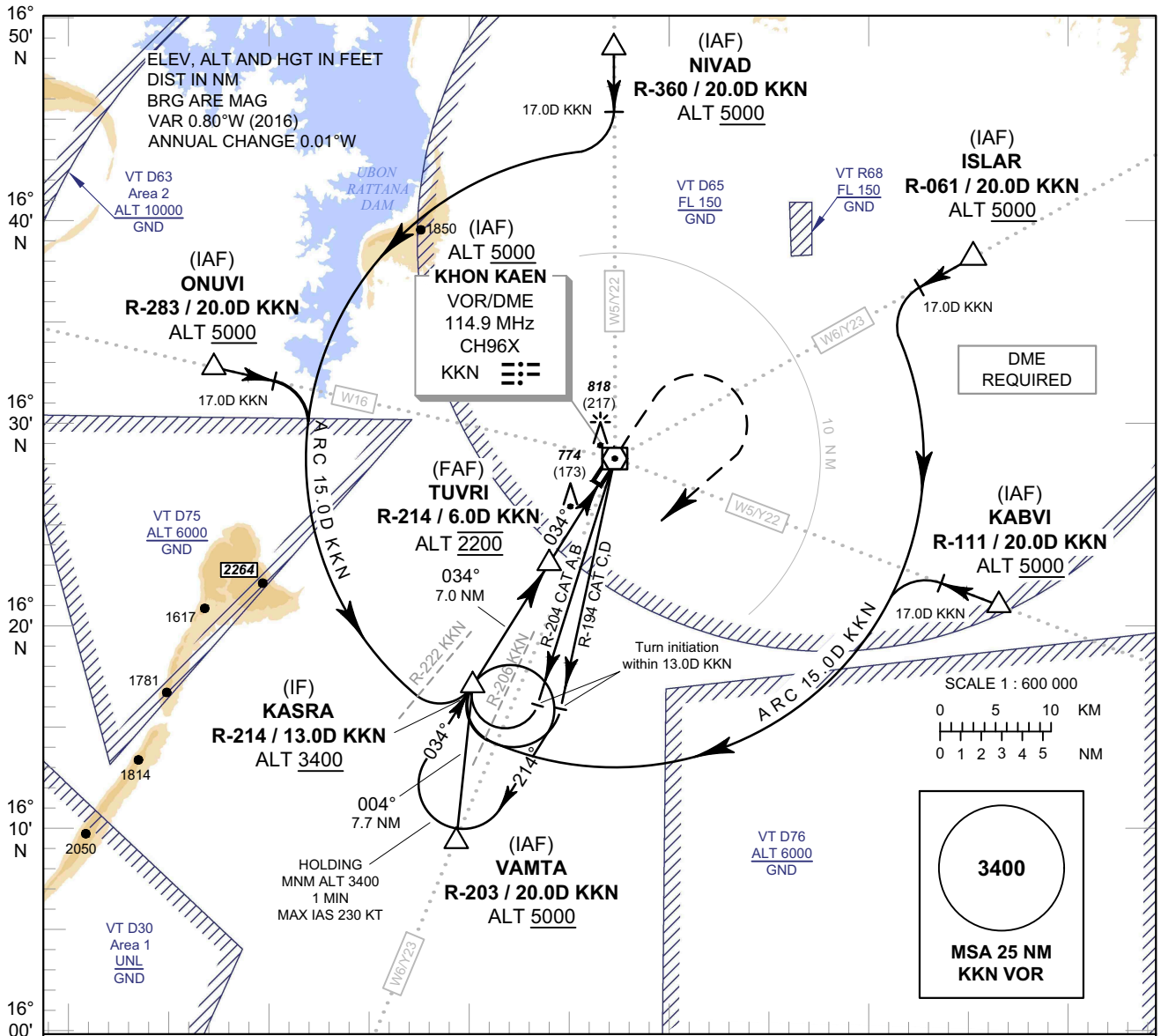
INSTRUMENT APPROACH CHART - ICAO

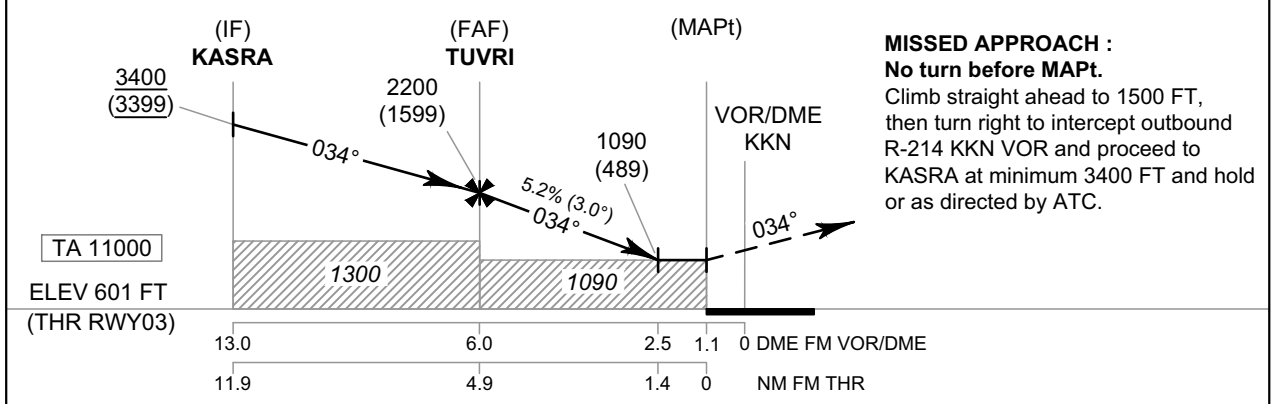
AERODROME ELEV 670 FT
HEIGHTS RELATED TO
THR RWY03 - ELEV 601 FT

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' 14.73" N	102° 47' 16.07" E

CHANGE: REVISED CHART.

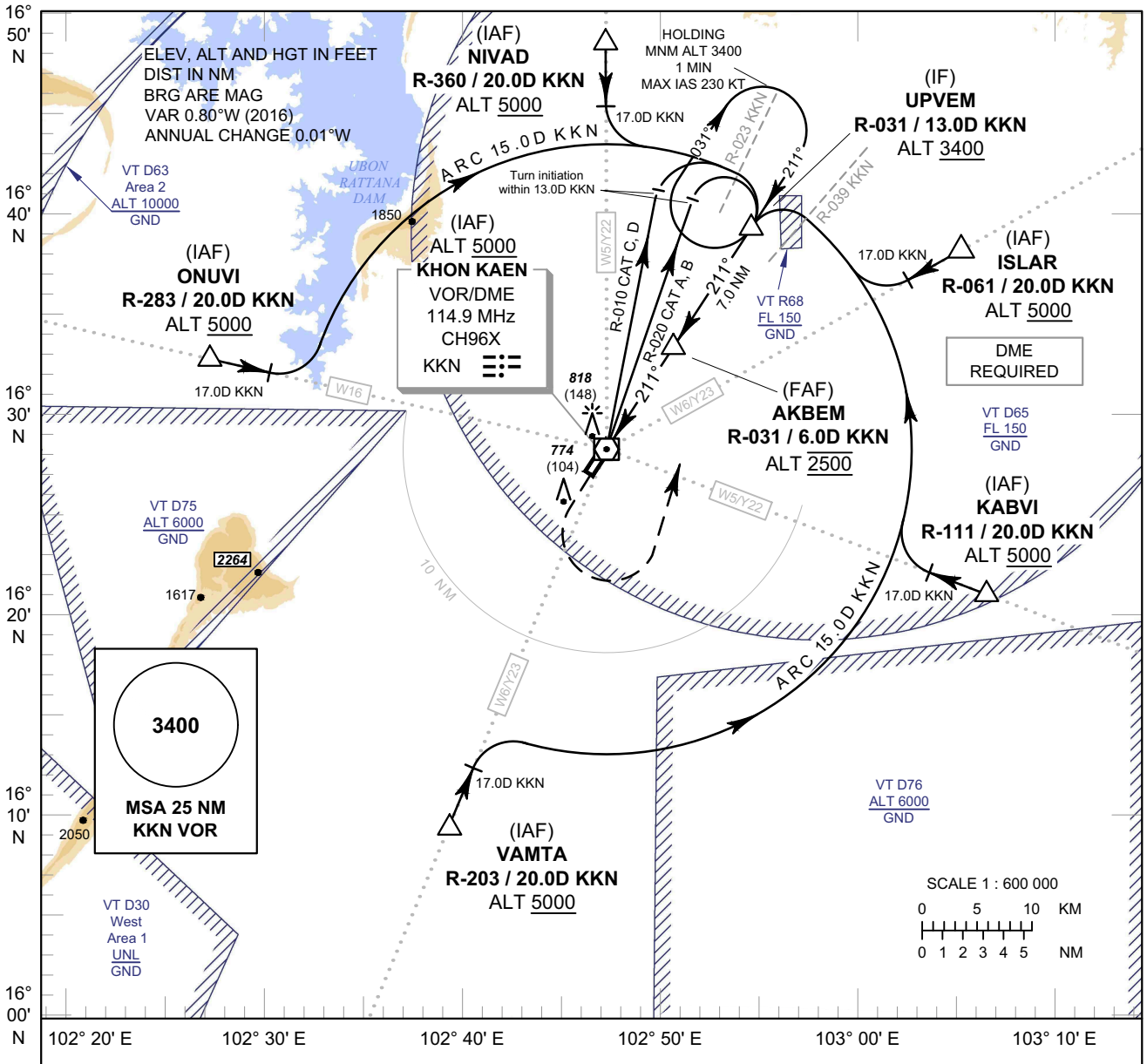
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 670 FT
HEIGHTS RELATED TO
THR RWY21 - ELEV 670 FT

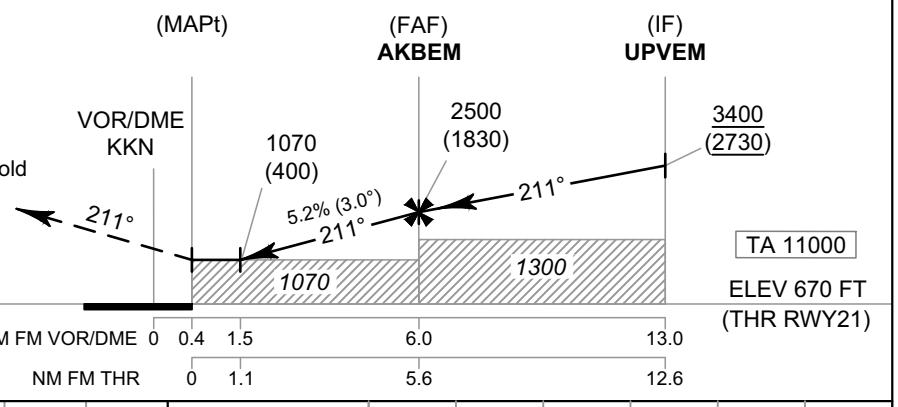
APP : 123.4 , 240.0
TWR : 122.25 , 236.6
GND : 121.9
ATIS : 126.85

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' 14.73" N	102° 47' 16.07" E

CHANGE: REVISED CHART.

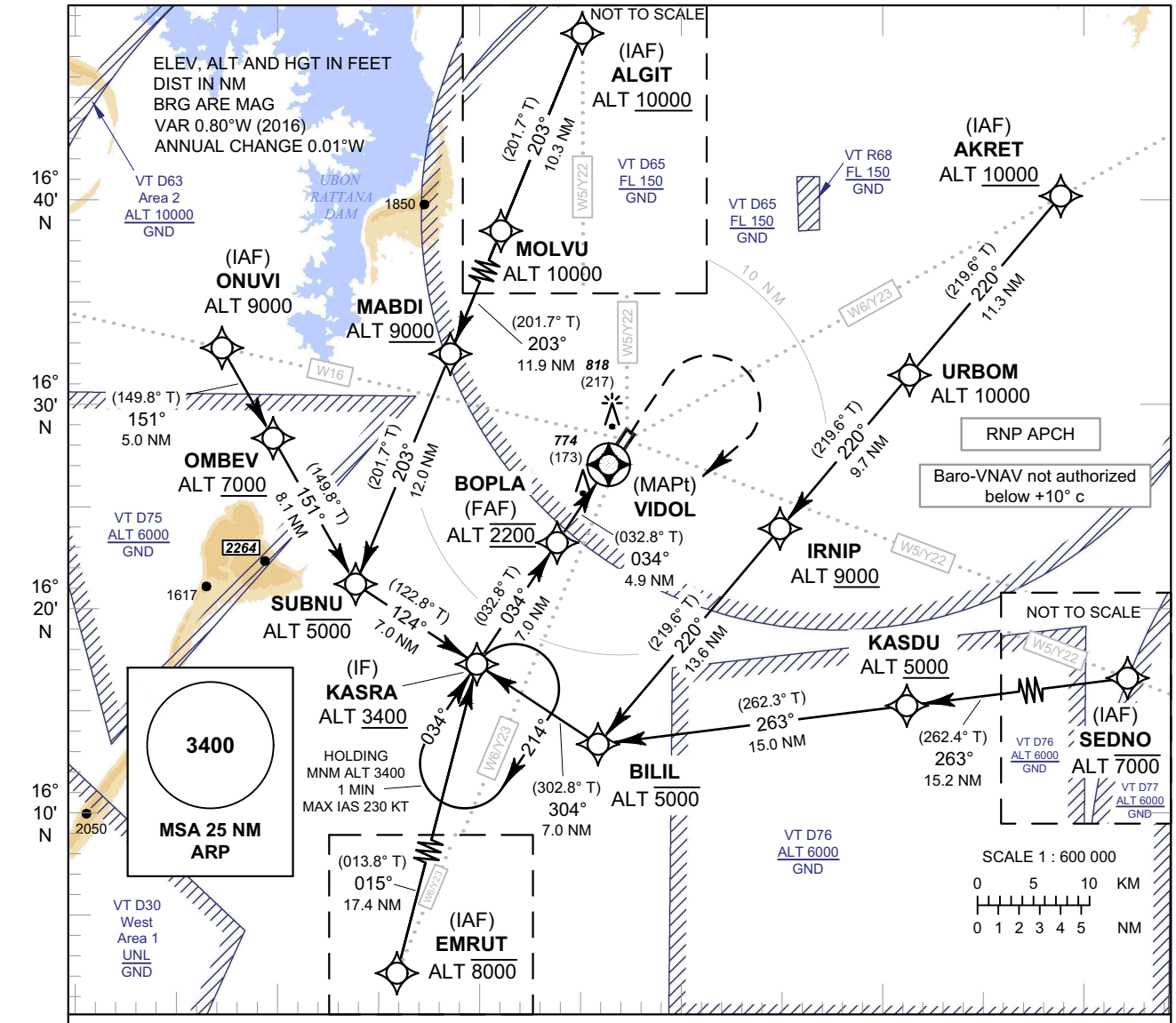
INSTRUMENT APPROACH CHART - ICAO

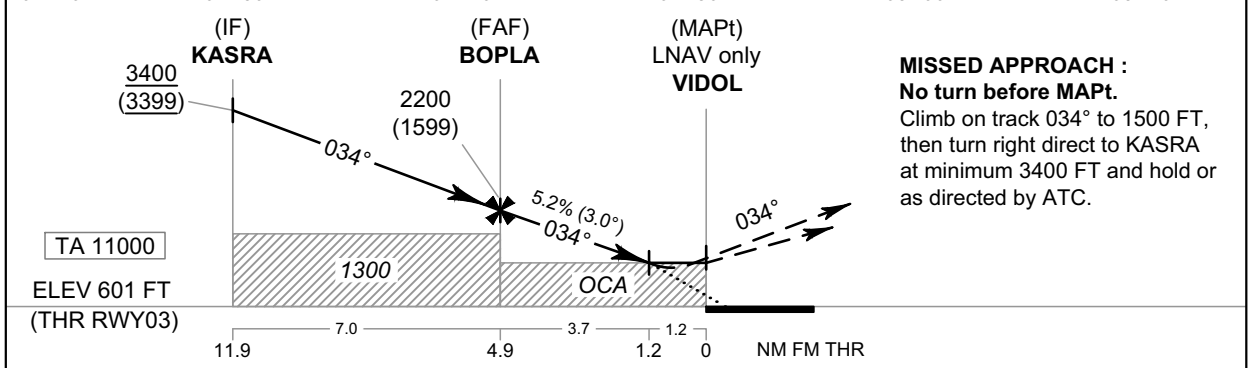
AERODROME ELEV 670 FT
HEIGHTS RELATED TO
THR RWY03 - ELEV 601 FT

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

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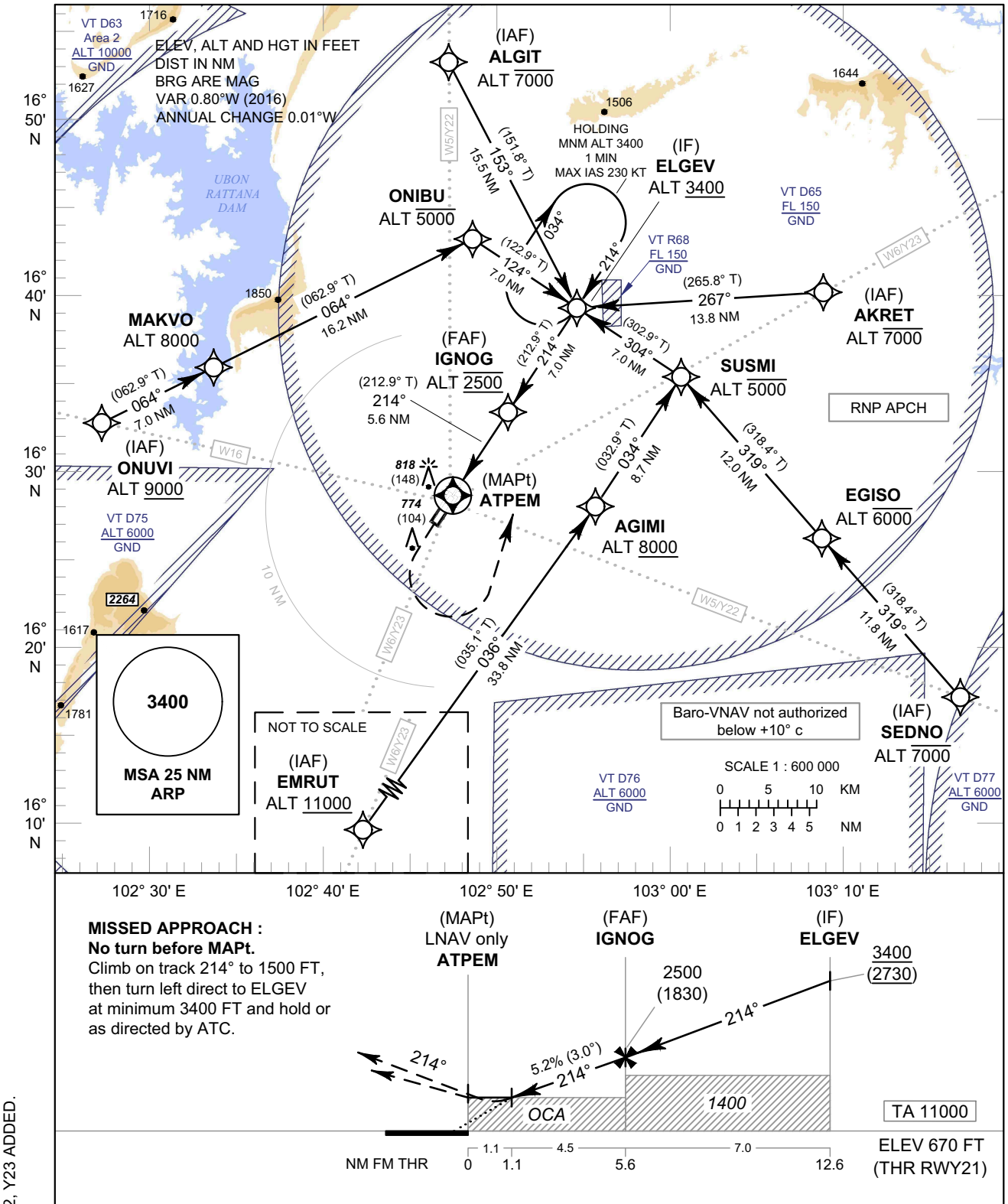
INSTRUMENT APPROACH CHART - ICAO

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

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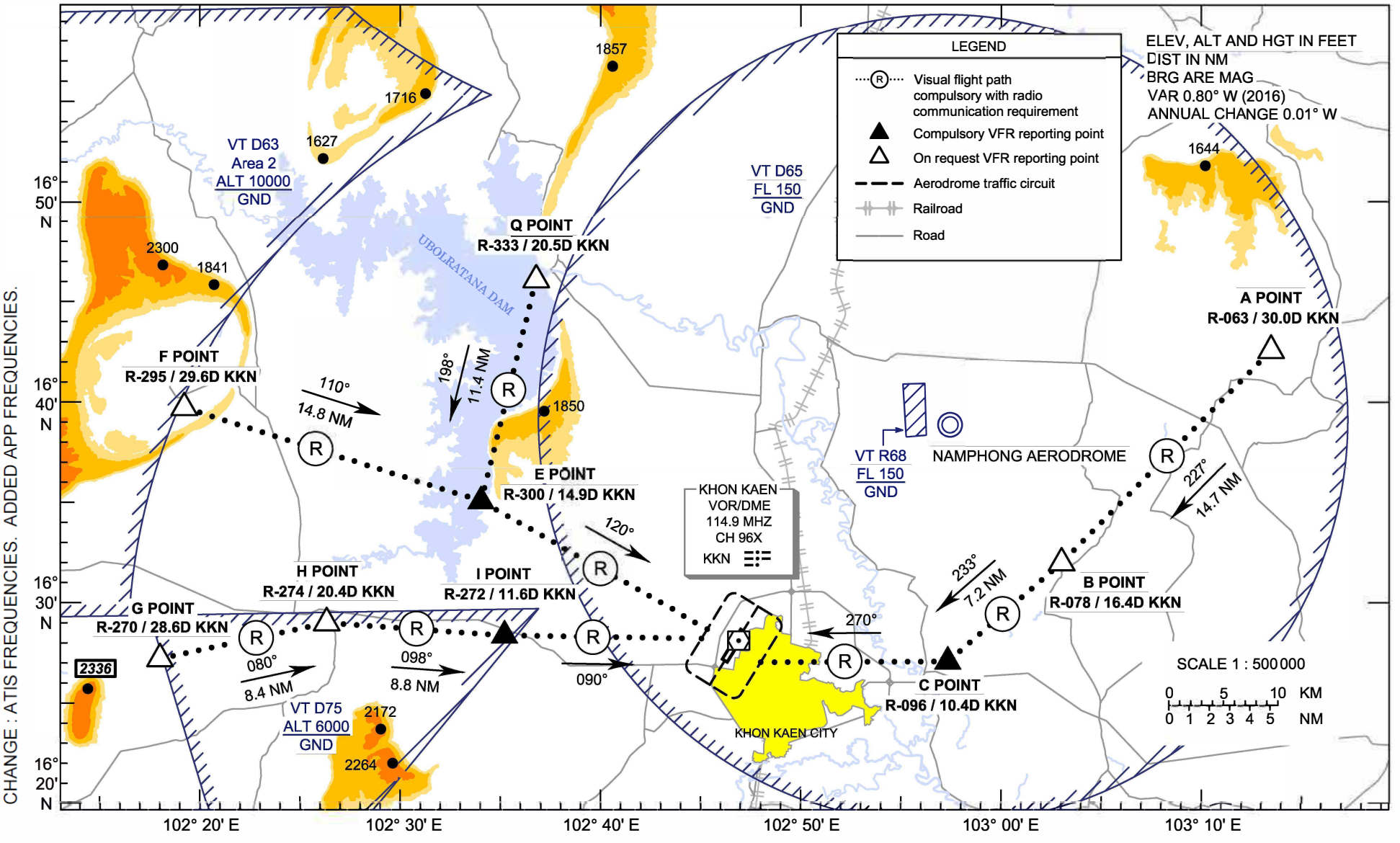
VFR ENTRY PROCEDURE CHART

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' 14.73" N	102° 47' 16.07" E

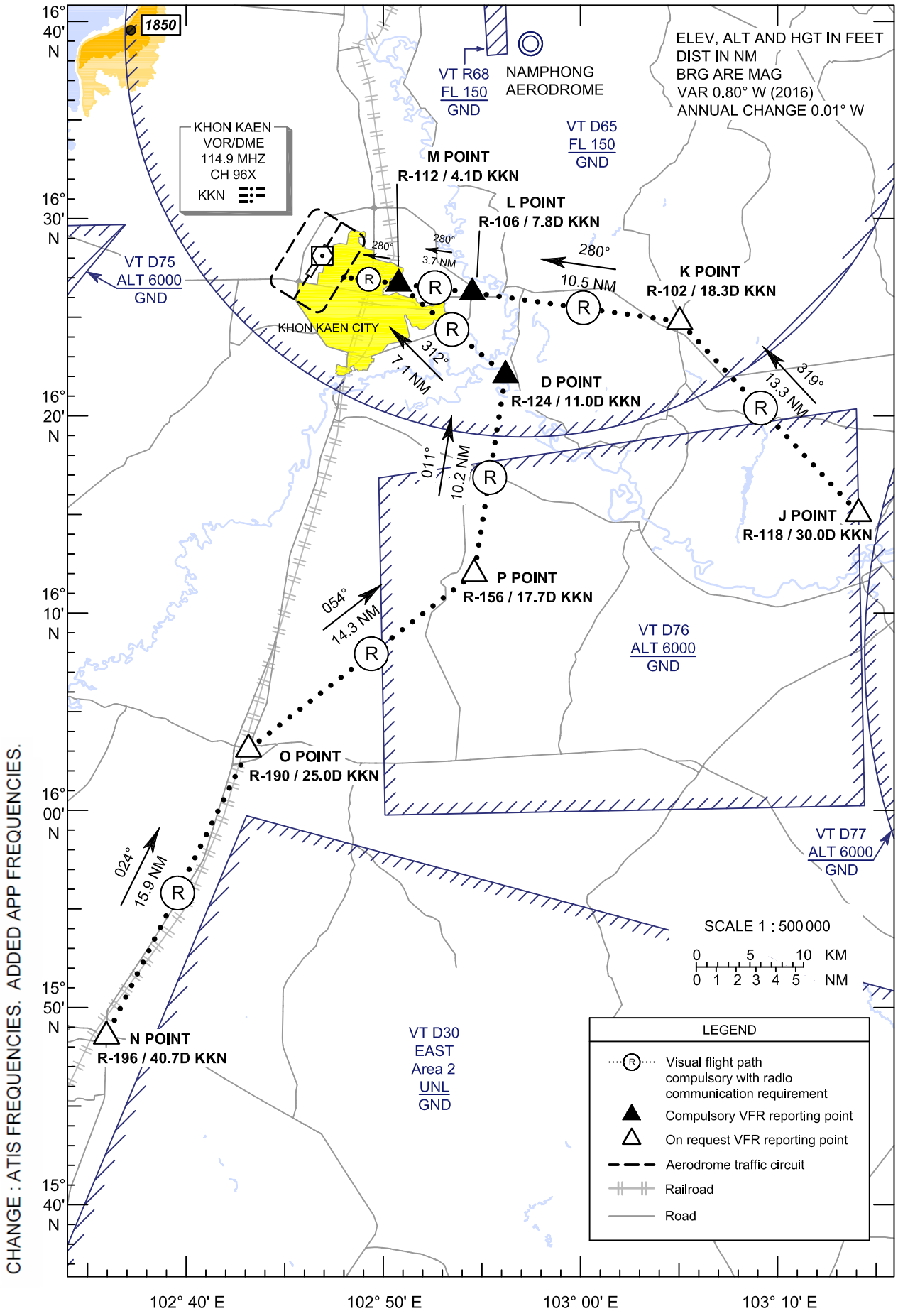
CHANGE: NEW CHART.

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' 14.73" N	102° 47' 16.07" E

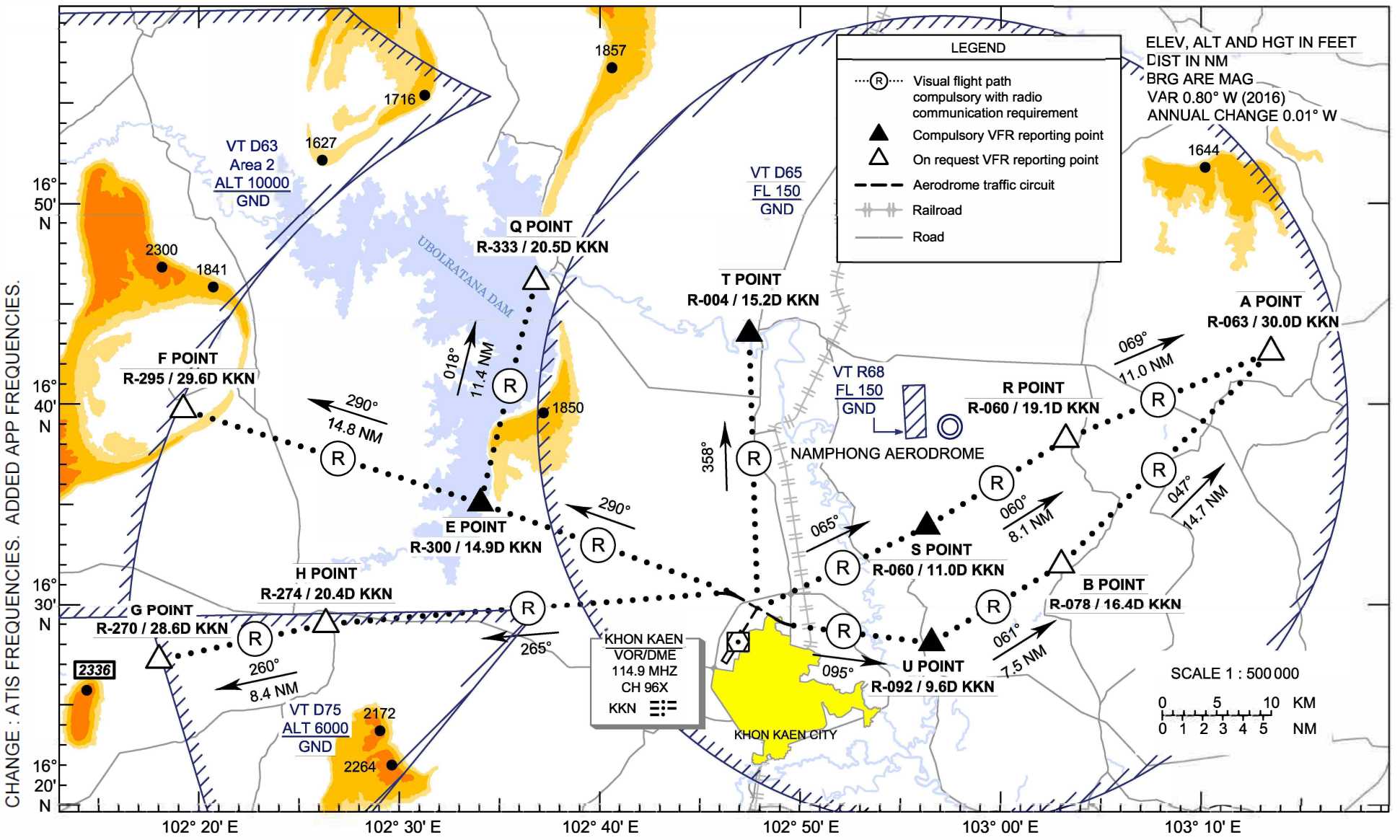
CHANGE: NEW CHART.

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' 14.73" N	102° 47' 16.07" E

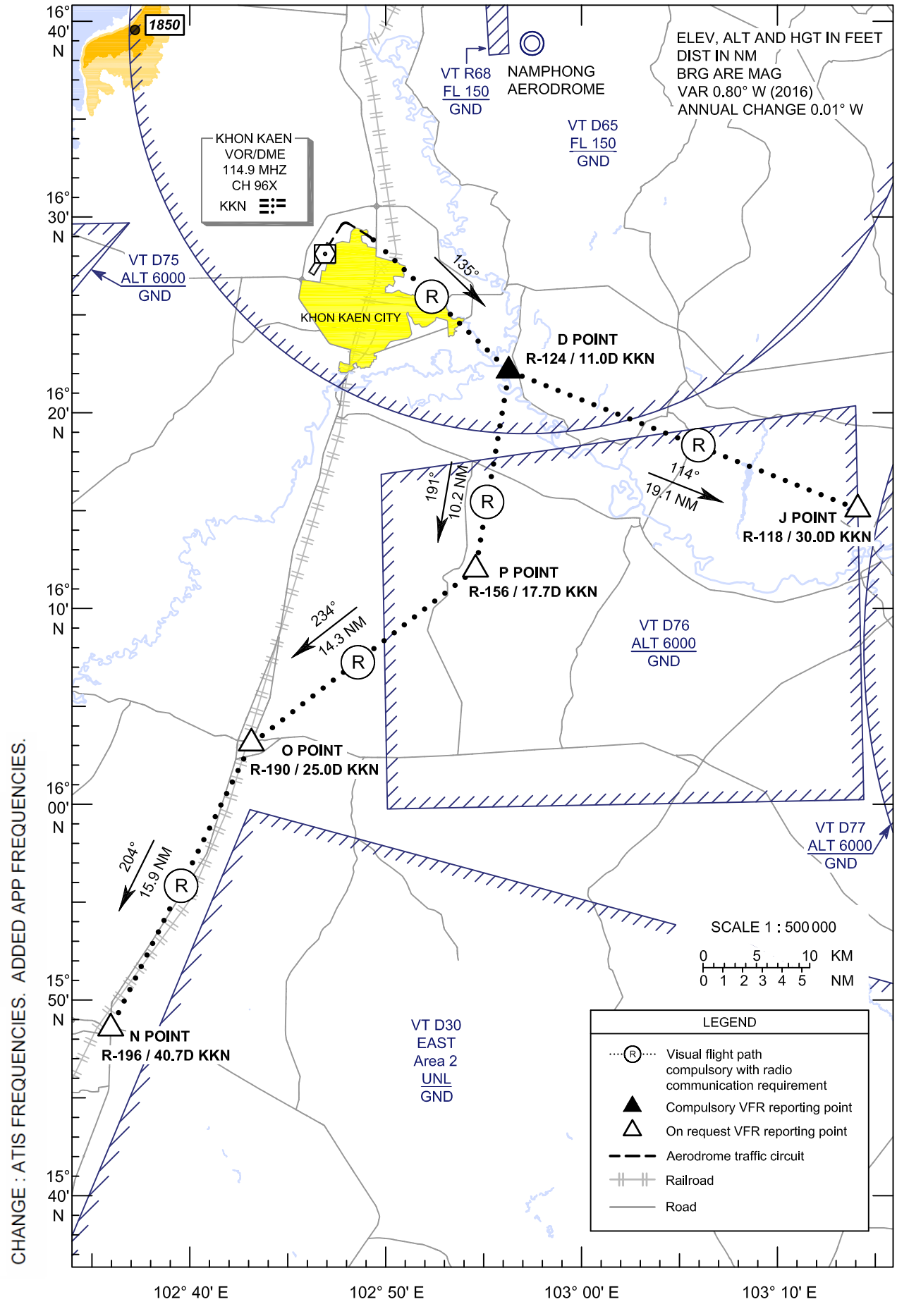
CHANGE: NEW CHART.

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' 14.73" N	102° 47' 16.07" E

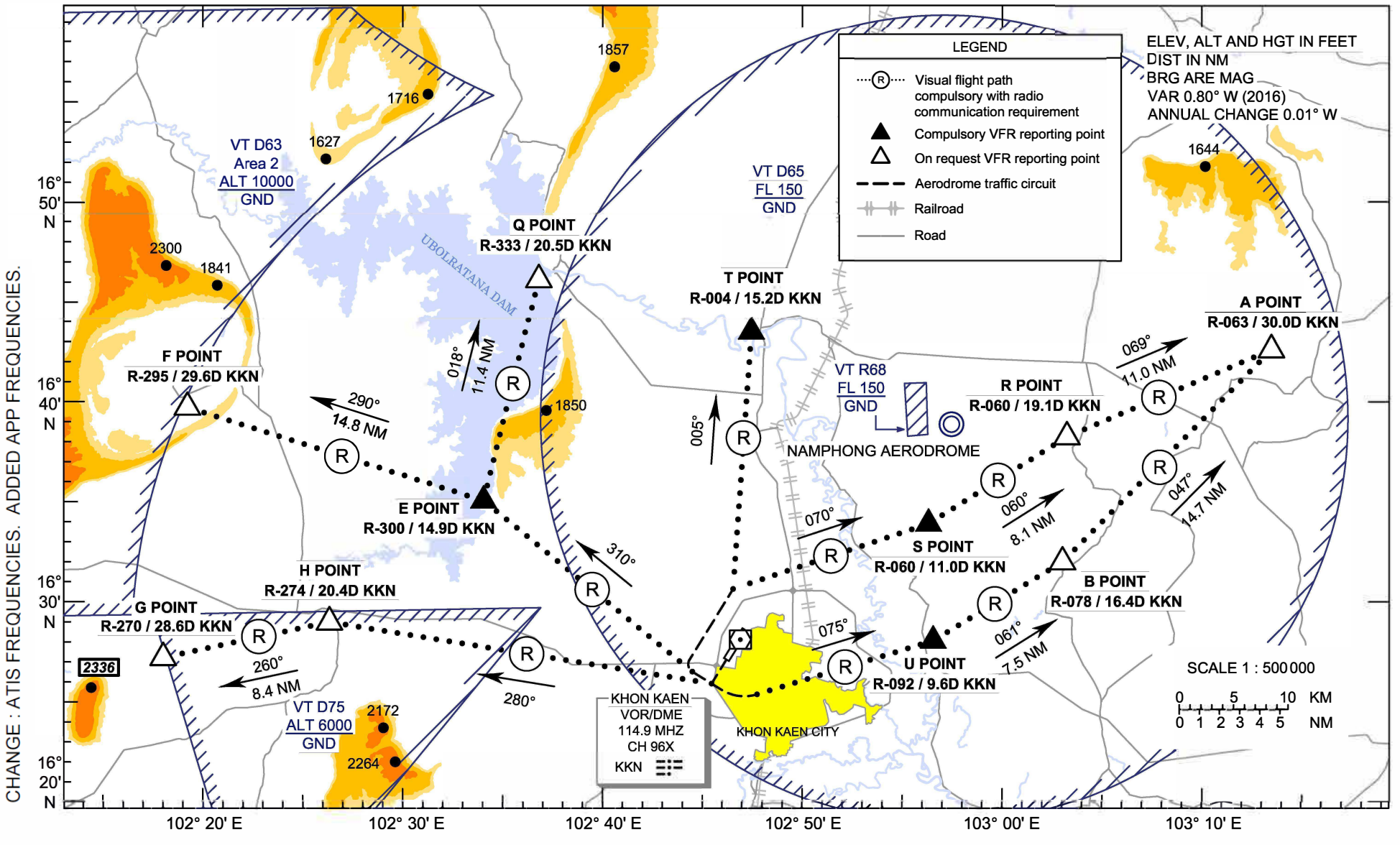
CHANGE: NEW CHART.

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
"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' 14.73" N	102° 47' 16.07" E

CHANGE: NEW CHART.

VFR EXIT PROCEDURE CHART

AERODROME ELEV 670 FT
HEIGHTS RELATED TO AERODROME ELEV

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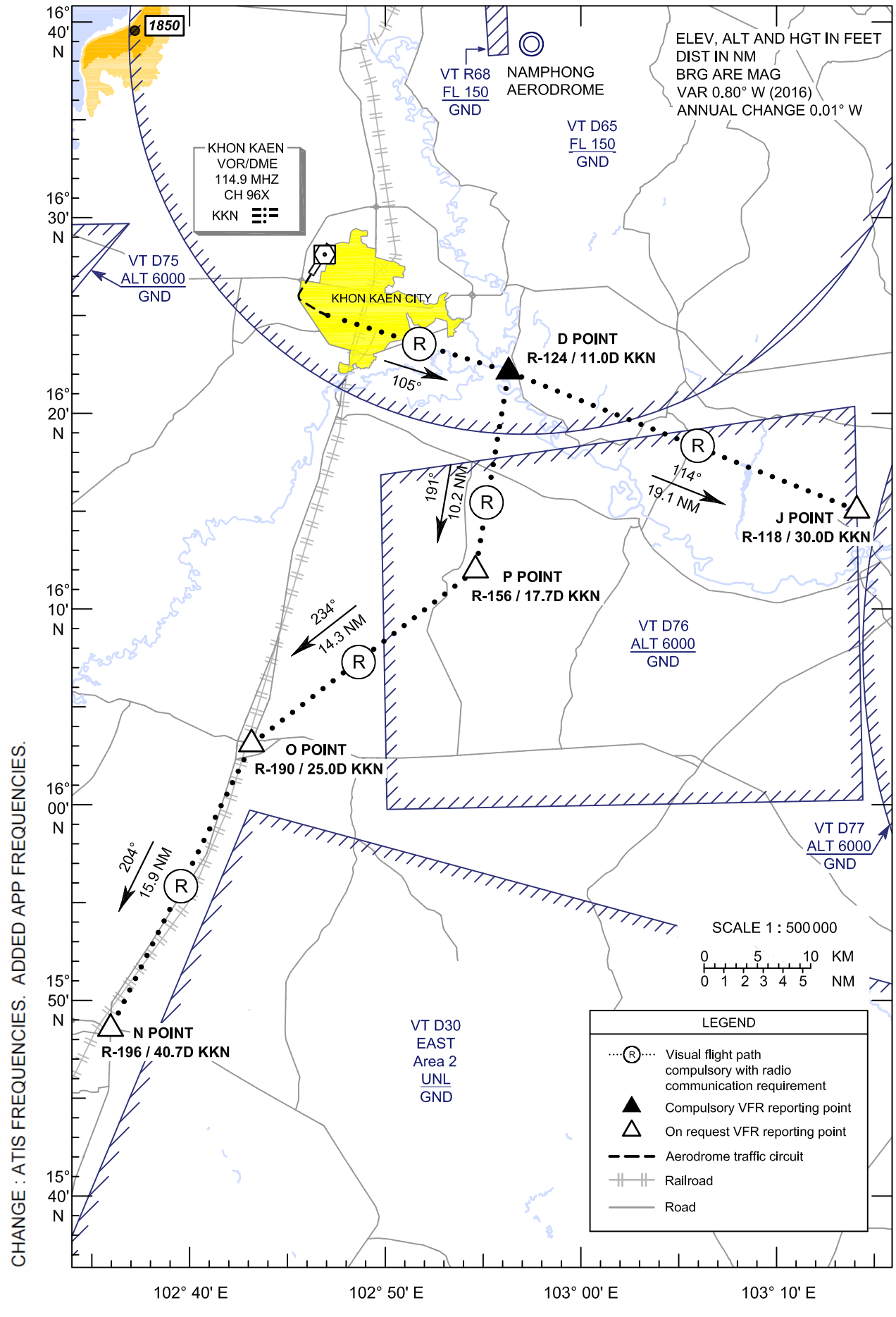
KHON KAEN / Khon Kaen (VTUK) RWY21 (SOUTH)



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
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"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' 14.73" N	102° 47' 16.07" E

CHANGE: NEW CHART.

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 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 Krabi Airport Amphoe Naua Khlong Krabi Province Thailand 81130 Tel: +667 570 1468-9 Fax: +667 570 1470 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): Located at Phuket International Airport (3rd floor of domestic terminal building) Tel: +667 632 7205 +669 2262 2141 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 1 JET A-1 Refueller @ 45,000 L 1 JET A-1 Refueller @ 18,000 L 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, but postal services not available
6	Tourist Office	At AD open 1) 0000 - 0800 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 Strength: PCR 1200/R/C/X/T
2	Taxiway width, surface and strength	Taxiway A, B, C Width: 23 M Surface: Asphaltic concrete 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 HGT 171 M LGTD	075930N 0990306E	NIL	NIL	NIL

VTSG AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Krabi, Southern West-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern West-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 570 1576
6	Flight documentation 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 Observation System (AWOS) and Low Level Wind Shear 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 Asphaltic concrete	080623.28N 0985848.43E	THR 82 FT TDZ 82 FT
32	320.60°	3000x45	PCR 800/F/C/X/T Asphaltic concrete	080507.74N 0985950.66E	THR 93 FT 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% (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% (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 420 M	Green	PAPI Left 3.6° (28.24 M)	NIL	NIL	3000 M 60 M White, LIH	Red	NIL	NIL
32	SALS 420 M	Green	PAPI Left 3.2° (25.25 M)	NIL	NIL	3000 M 60 M 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 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 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
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Krabi Tower 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 121.5 MHZ 1)	As AD OPR HR	1) Emergency frequency
TWR	Krabi Tower	122.5 MHZ 236.6 MHZ 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	080619.0N 0985828.25 E		50 NM coverage restricted as follow: – BRG 090-160 DEG ALT should not below 4000 FT. – BRG 161-270 DEG ALT should not below 1500 FT. – BRG 271-300 DEG ALT should not below 5000 FT. – BRG 351-089 DEG ALT should not below 7000 FT. – 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	080627.19N 0985839.07E		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: – Radial 001°-180° altitude should not below 5 500 FT – Radial 181°-200° altitude should not below 7 000 FT – Radial 201°-340° altitude should not below 10 000 FT – Radial 341°-360° altitude should not below 15 500 FT
ILS CAT I LOC/DME RWY 32	IKBI	110.1 MHZ CH38X	H24	080630.62N 0985842.38E		Designated operation coverage 18 NM, ALT 6300 FT/AMSL.
GP		334.4 MHZ	H24	080519N 0985946.6E		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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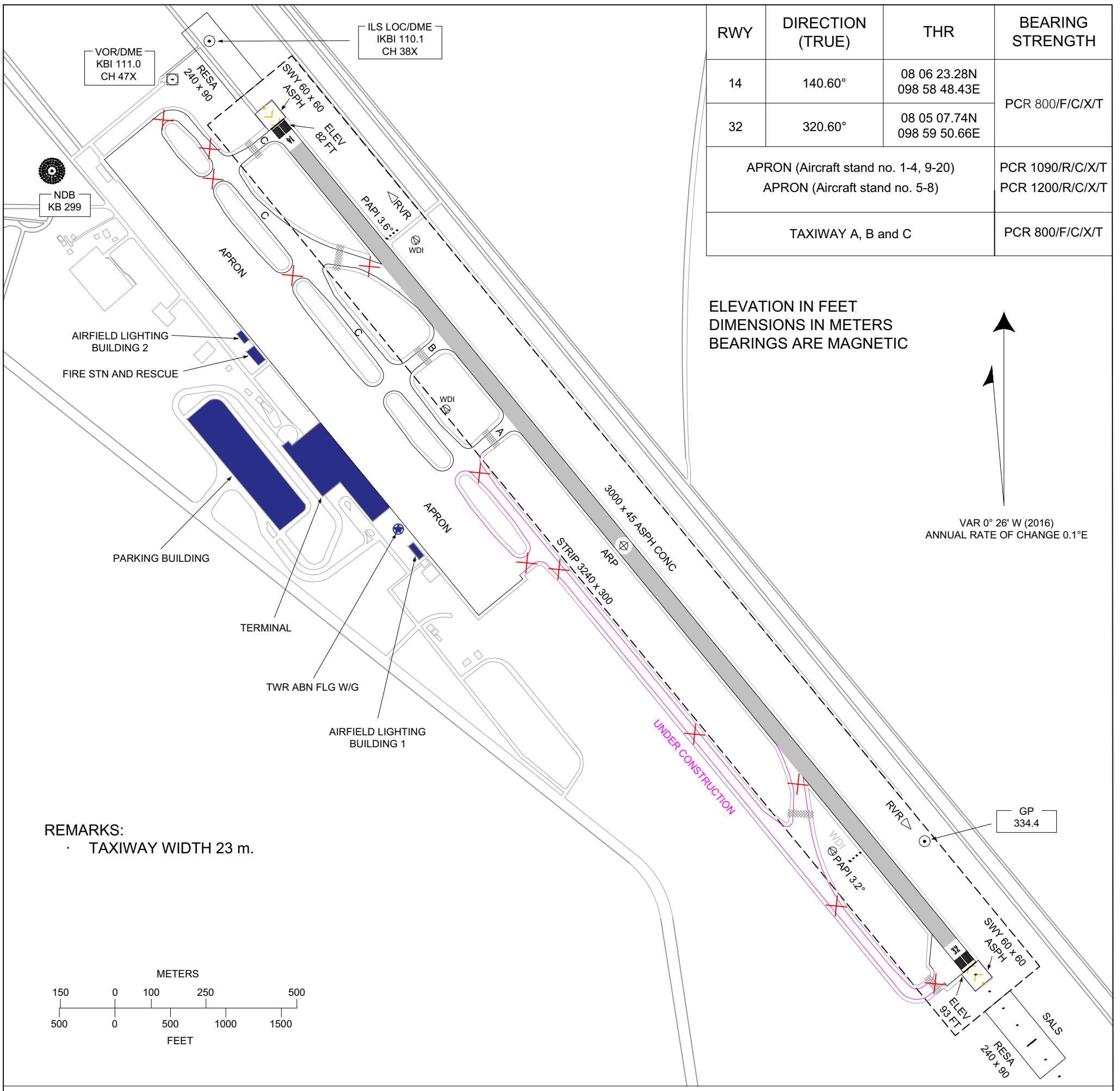
AERODROME CHART - ICAO

080600.59N
0985907.13E

ELEV 93 FT

TWR 122.5, 236.6
GND 121.9

KRABI / Krabi

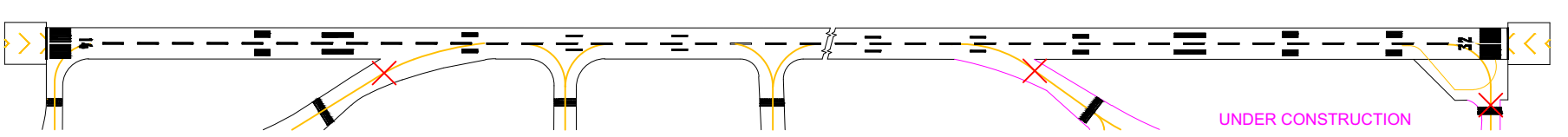


RWY	DIRECTION (TRUE)	THR	BEARING STRENGTH
14	140.60°	08 06 23.28N 098 58 48.43E	PCR 800/F/C/X/T
32	320.60°	08 05 07.74N 098 59 50.66E	
APRON (Aircraft stand no. 1-4, 9-20) APRON (Aircraft stand no. 5-8)			PCR 1090/R/C/X/T PCR 1200/R/C/X/T
TAXIWAY A, B and C			PCR 800/F/C/X/T

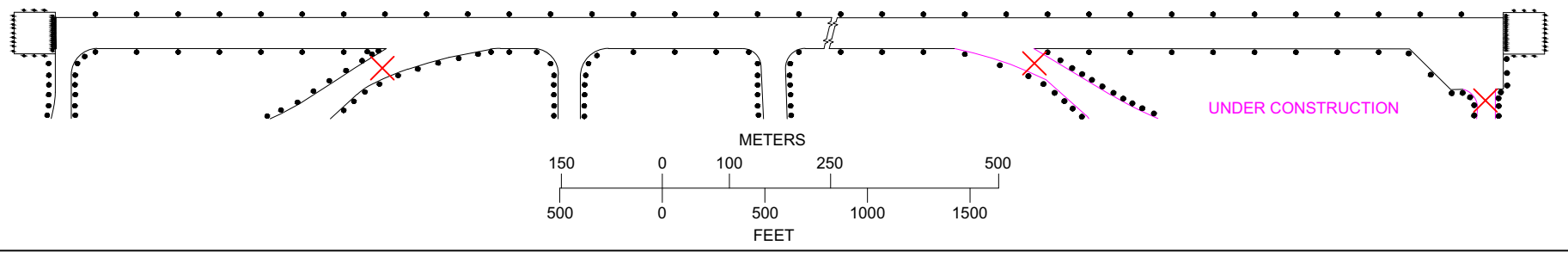
REMARKS:

- 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)

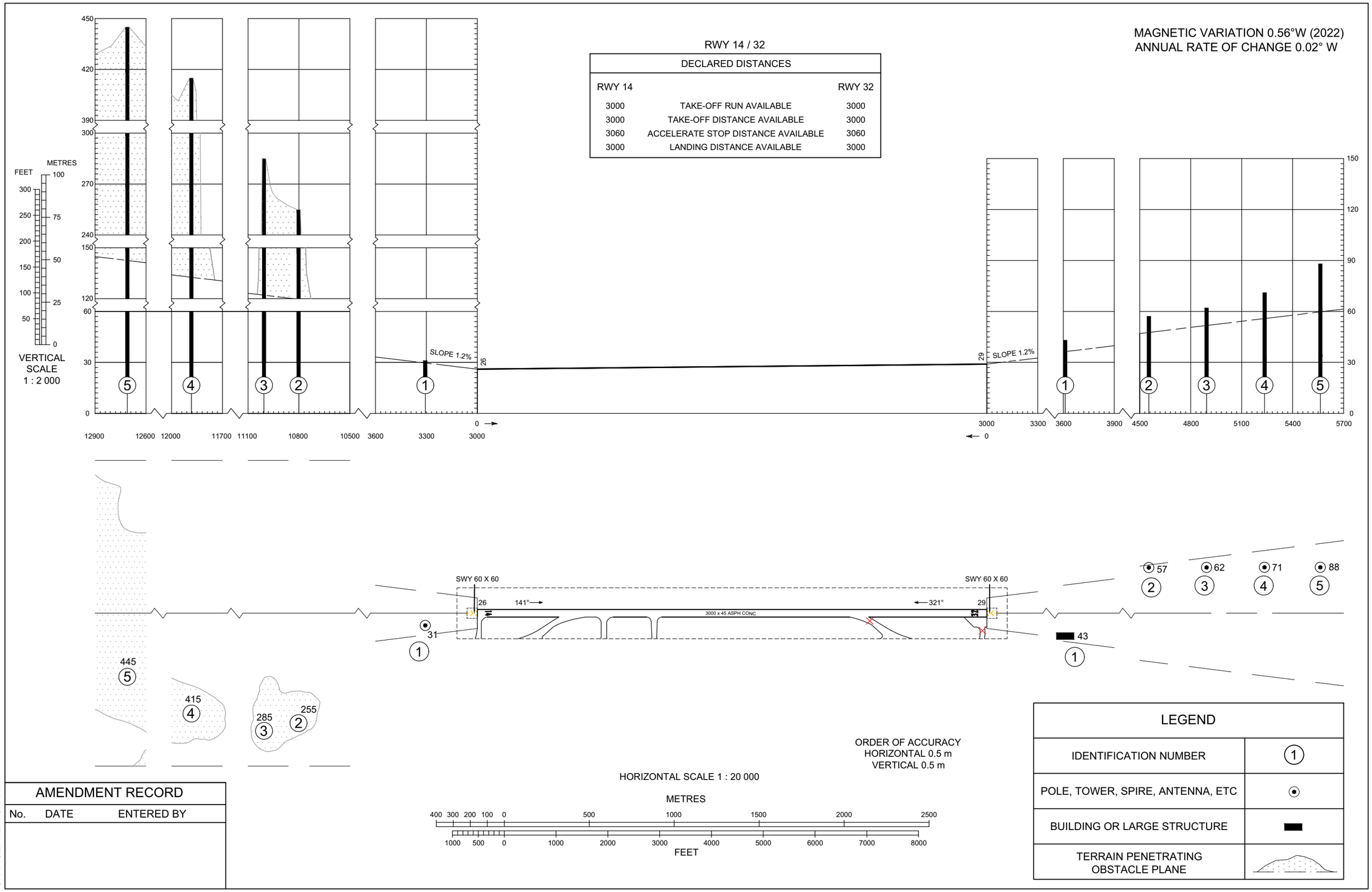
DIMENSIONS AND ELEVATIONS IN METRES

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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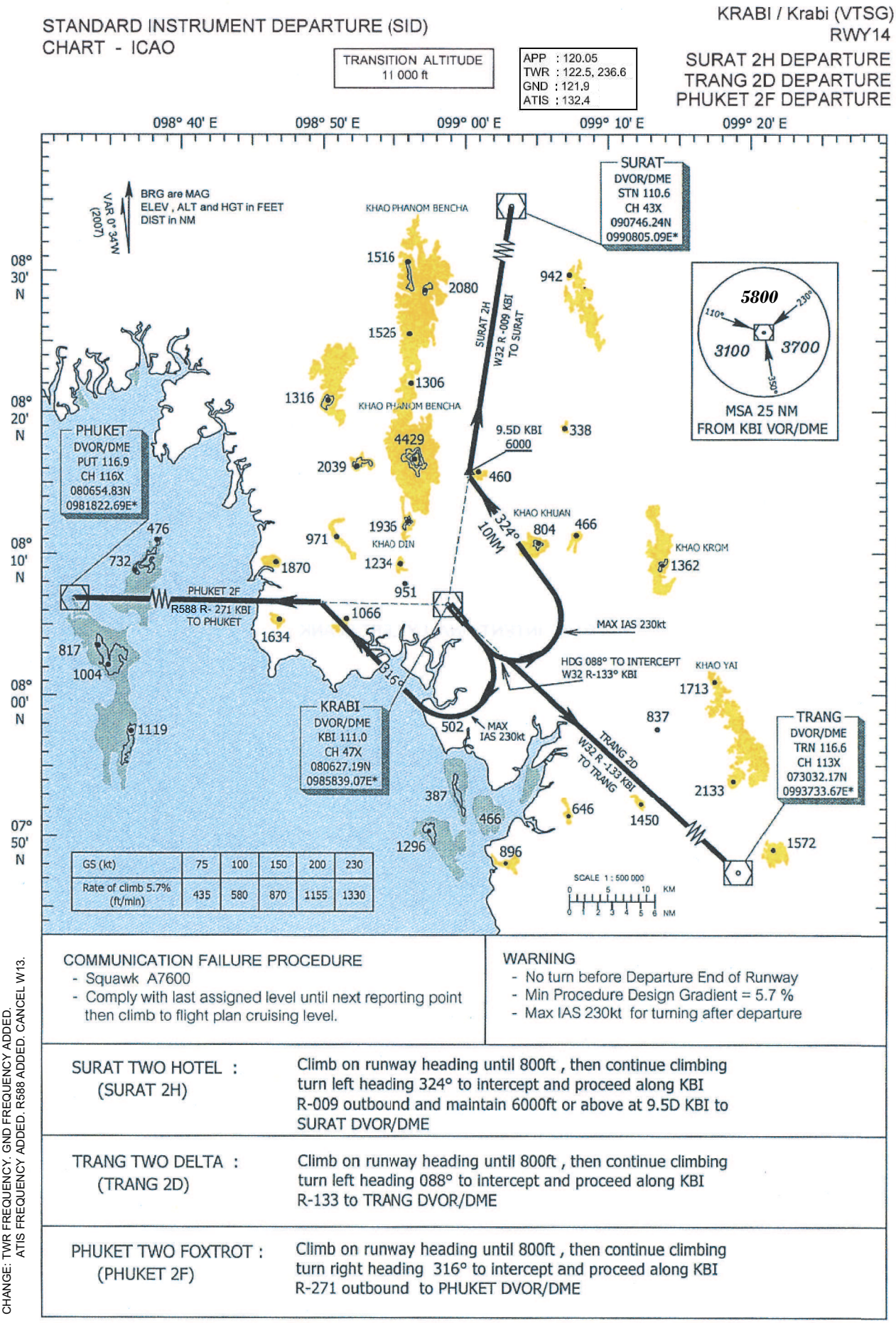

CHANGE: TWR FREQUENCY. GND FREQUENCY ADDED.
ATIS FREQUENCY ADDED. R588 ADDED. CANCEL W13.

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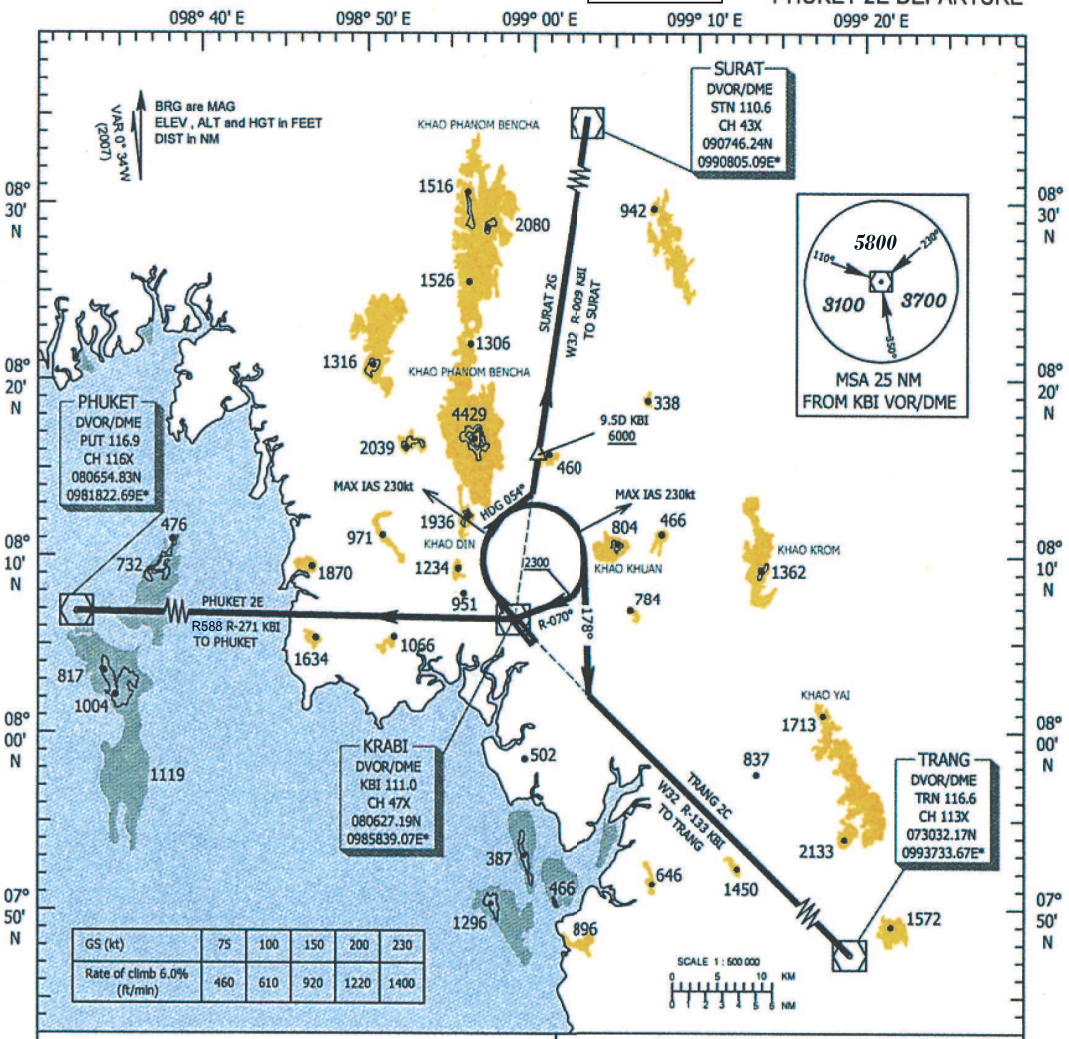
STANDARD INSTRUMENT DEPARTURE (SID)
CHART - ICAO

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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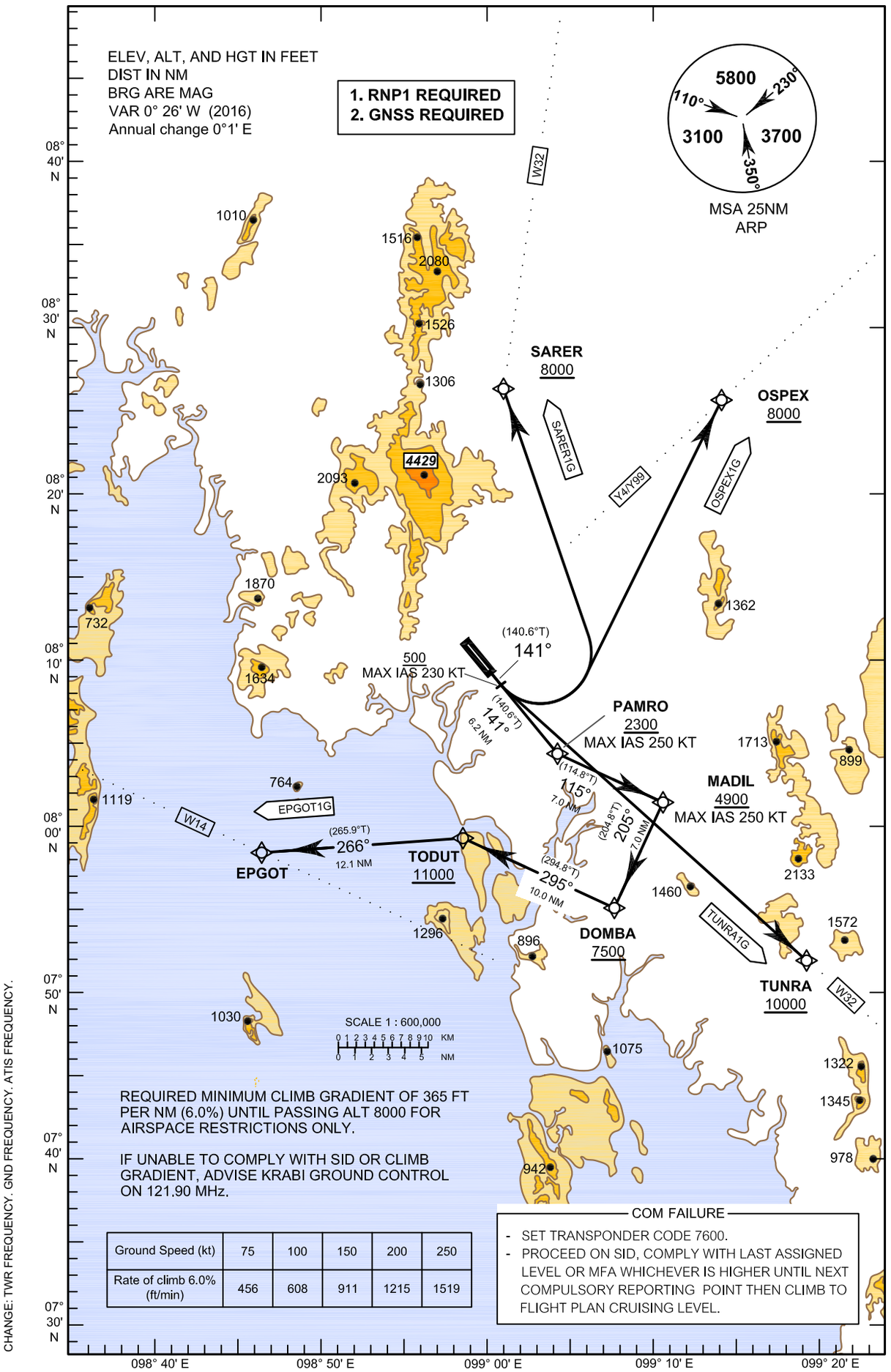
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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

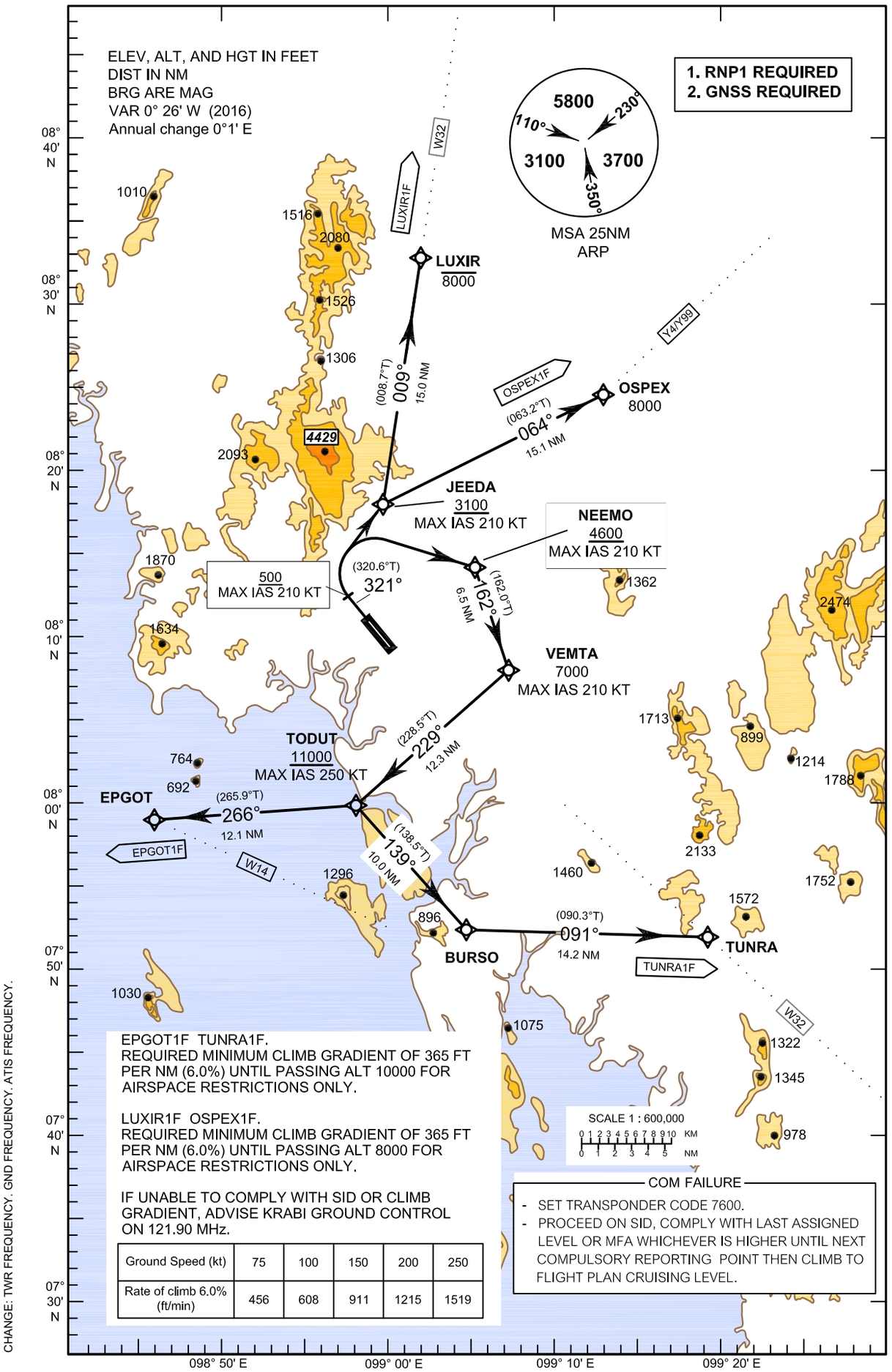
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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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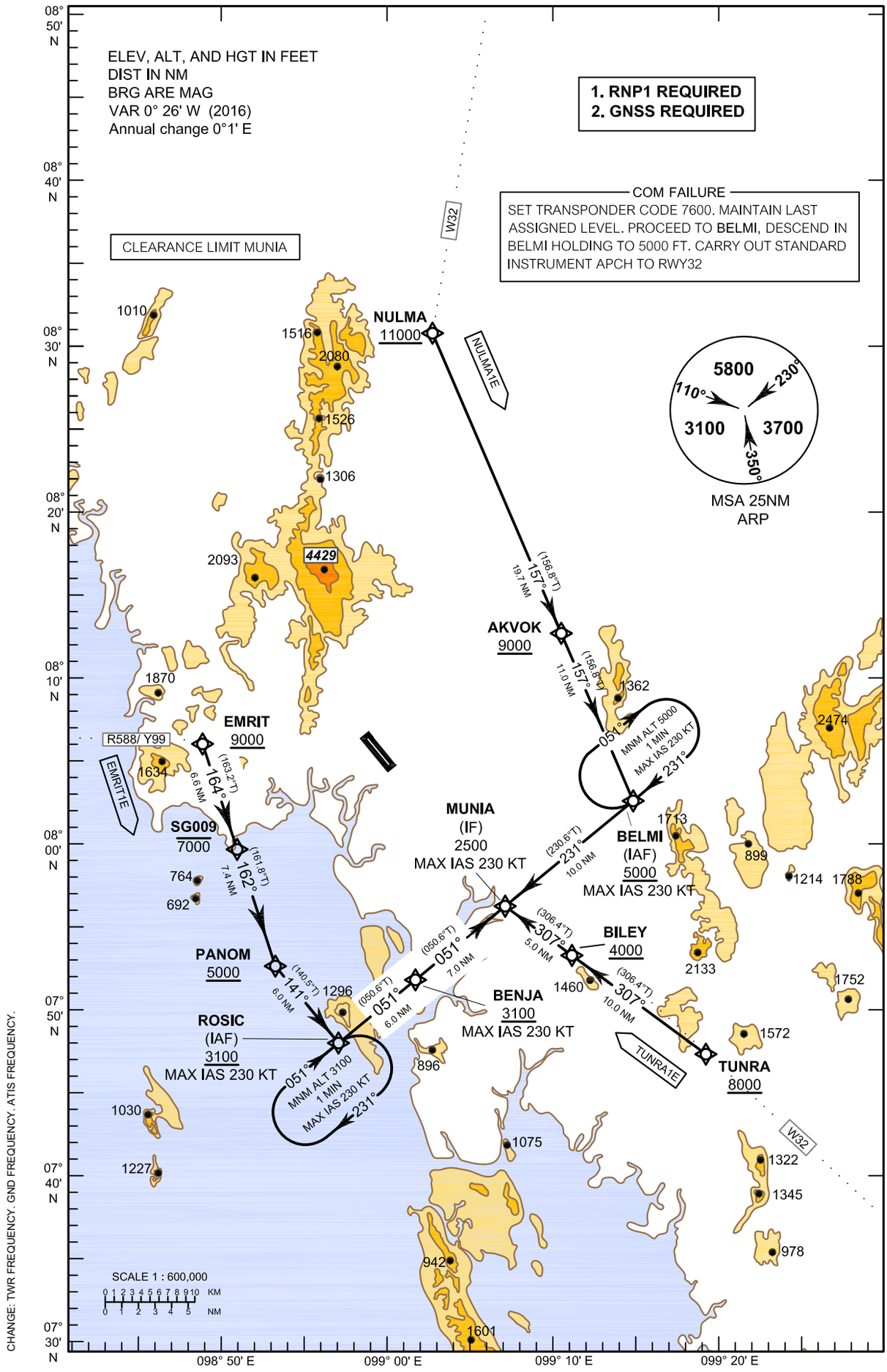
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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

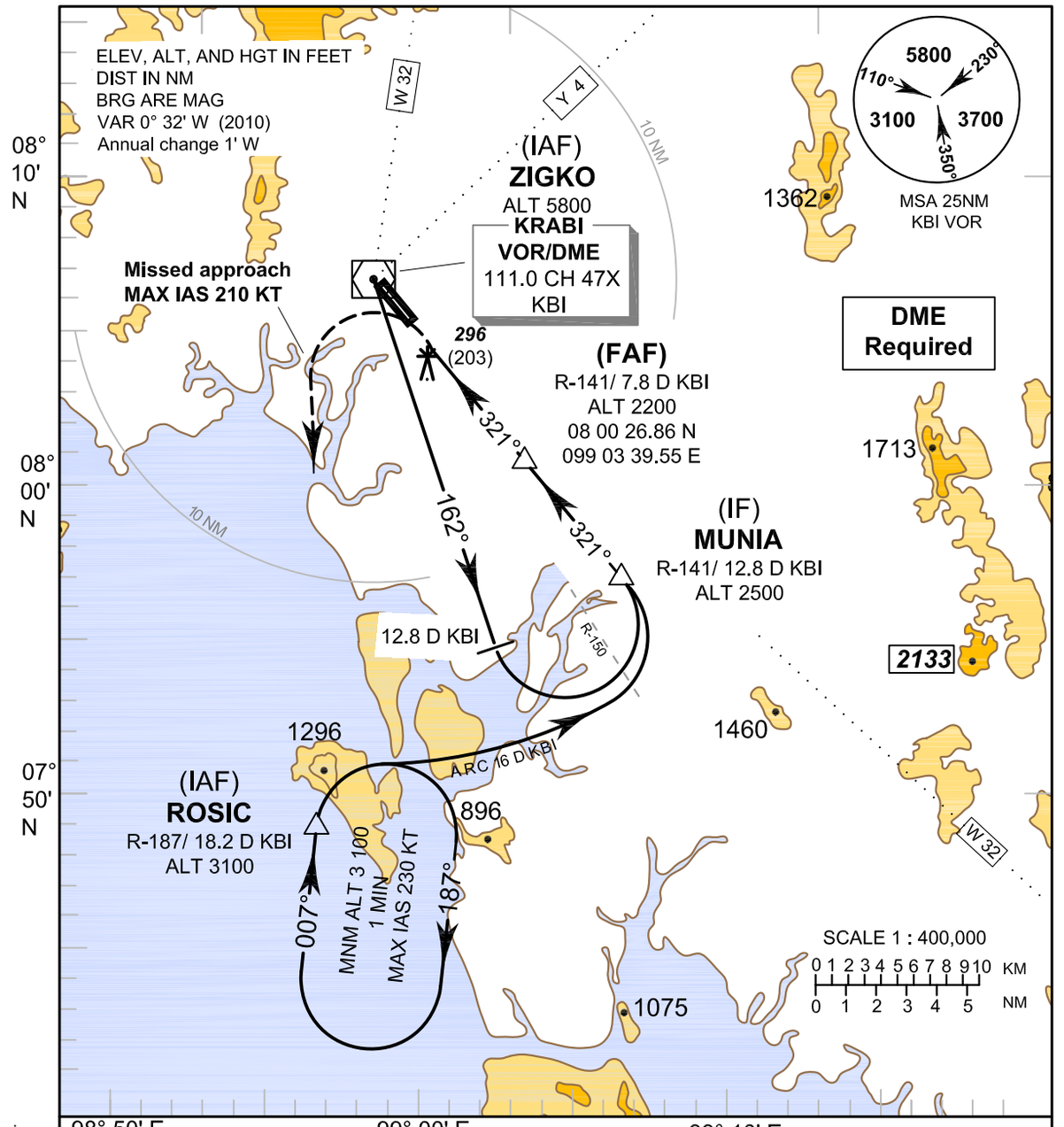
Waypoint Identifier	Coordinates	
NULMA	08° 31' 17.69" N	099° 02' 28.03" E
AKVOK	08° 13' 06.88" N	099° 10' 18.04" E
BELMI	08° 02' 57.62" N	099° 14' 40.22" E
TUNRA	07° 47' 36.74" N	099° 19' 04.91" E
BILEY	07° 53' 36.00" N	099° 10' 56.31" E
EMRIT	08° 06' 21.05" N	098° 48' 40.42" E
SG009	08° 00' 01.05" N	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

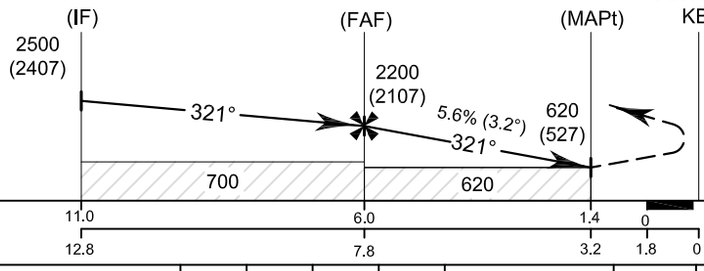
AERODROME ELEV 93 FT
HEIGHTS RELATED TO AERODROME ELEV

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

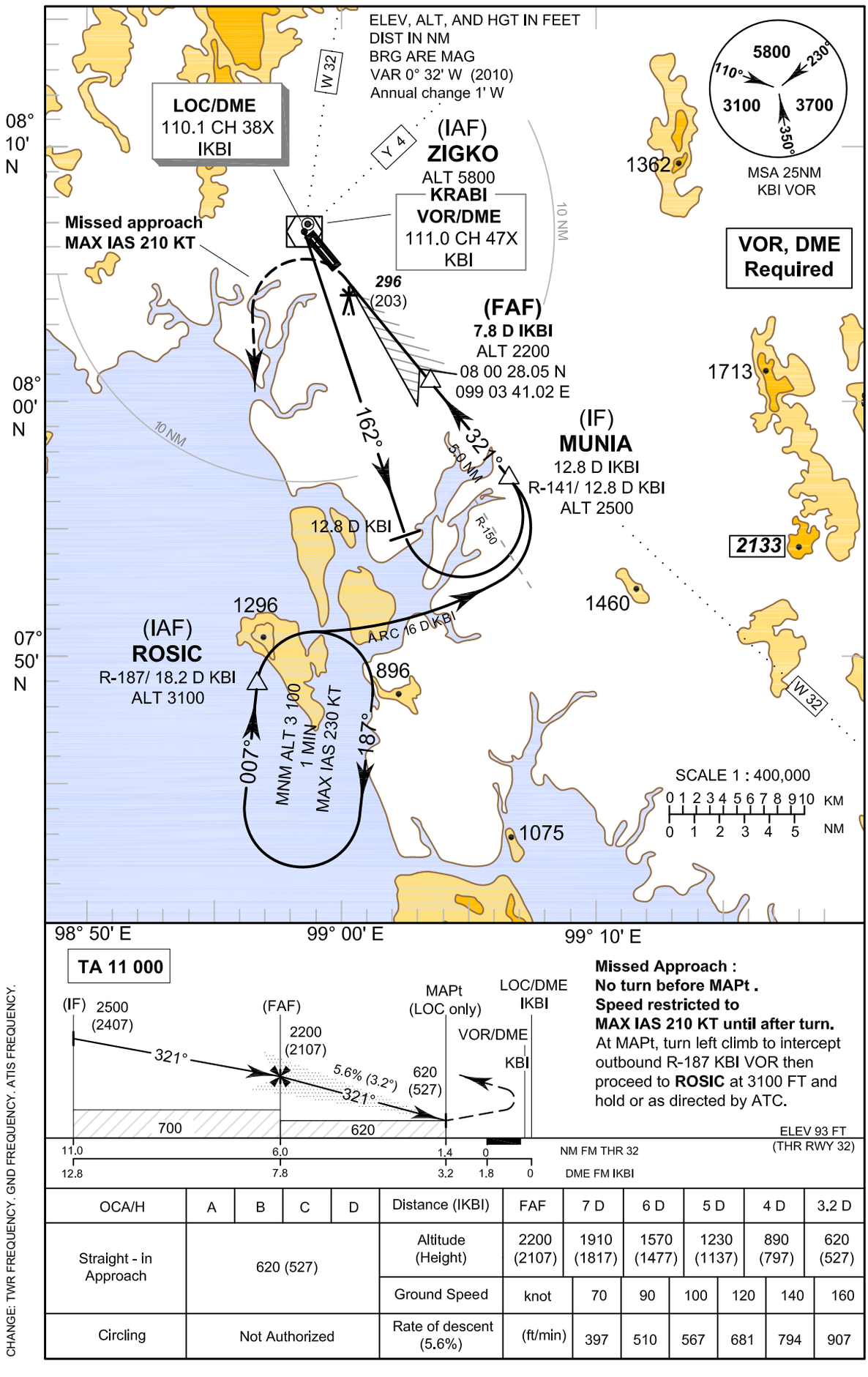
Fix / Point		Coordinates	
ZIGKO (IAF)	KBI	08 06 27.19 N	098 58 39.07 E
ROSIC (IAF)	R - 187 / 18.2 D KBI	07 48 17.81 N	098 56 45.33 E
MUNIA (IF)	R - 141 / 12.8 D KBI	07 56 35.16 N	099 06 52.74 E
FAF	R - 141 / 7.8 D KBI	08 00 26.86 N	099 03 39.55 E
MAPt	R - 141 / 3.2 D KBI	08 04 00.17 N	099 00 41.60 E
VOR	KBI	08 06 27.19 N	098 58 39.07 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/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

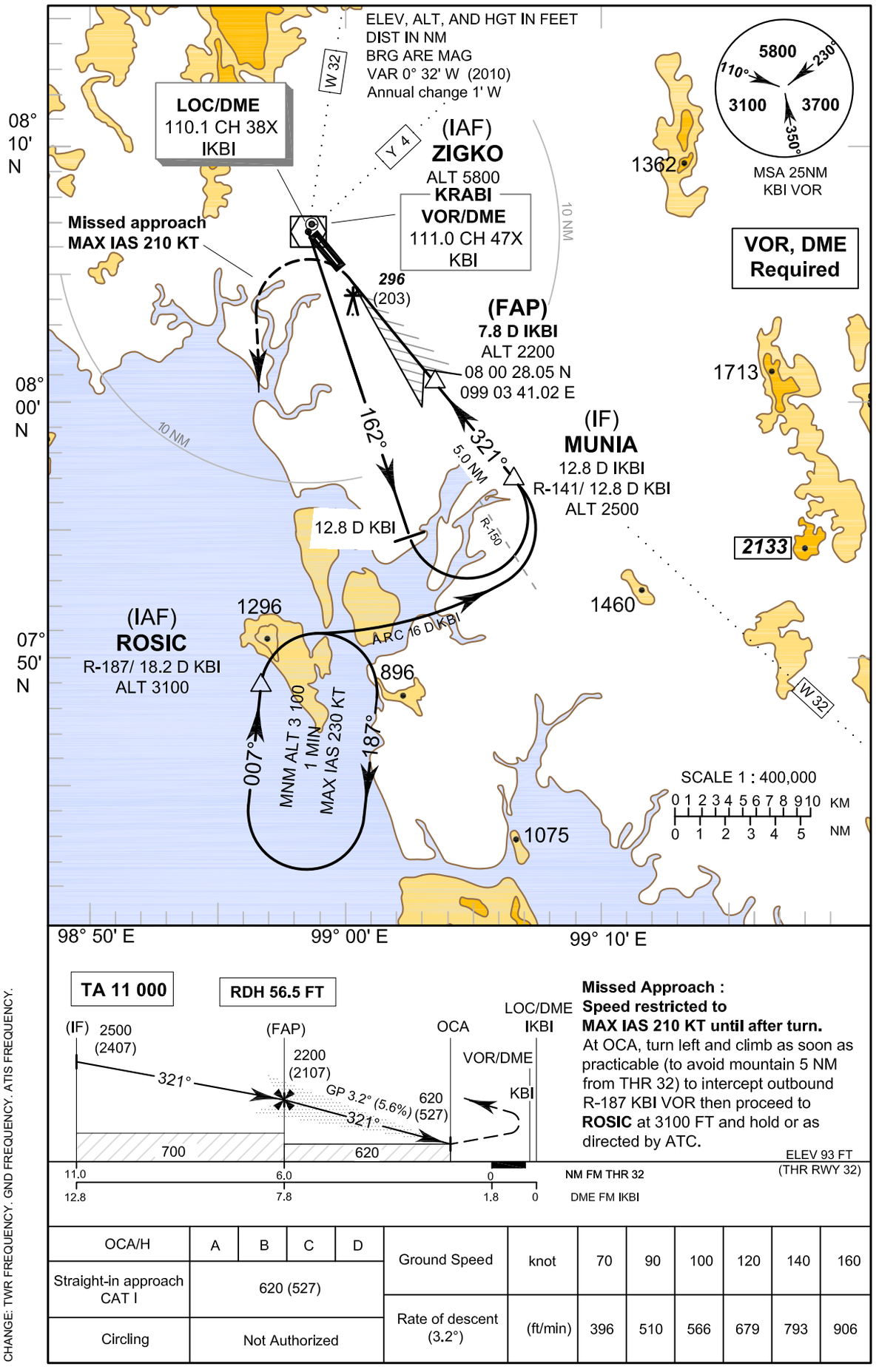
Fix / Point		Coordinates	
ZIGKO (IAF)	KBI	08 06 27.19 N	098 58 39.07 E
ROSIC (IAF)	R - 187 / 18.2 D KBI	07 48 17.81 N	098 56 45.33 E
MUNIA (IF)	12.8 D IKBI	07 56 35.16 N	099 06 52.74 E
FAF	7.8 D IKBI	08 00 28.05 N	099 03 41.02 E
MAPt	3.2 D IKBI	08 04 02.48 N	099 00 44.43 E
LOC / DME	IKBI	08 06 30.62 N	098 58 42.38 E
VOR	KBI	08 06 27.19 N	098 58 39.07 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)
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.

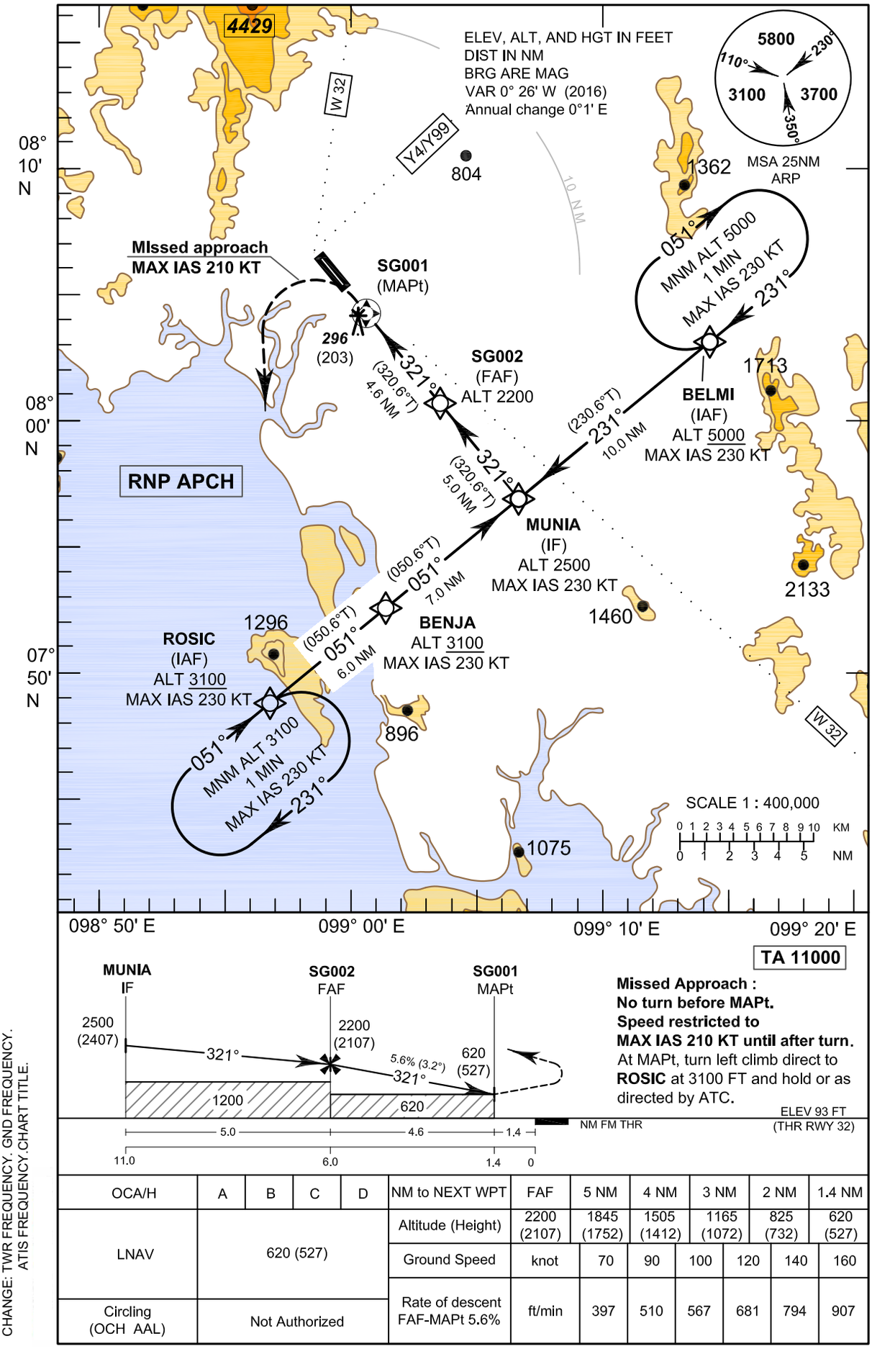
KRABI/Krabi (VTSG)
ILS RWY 32

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 30.62 N	098 58 42.38 E
VOR	KBI	08 06 27.19 N	098 58 39.07 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)
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.

INTENTIONALLY BLANK

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 Lampang Airport 175 Thanon Sanambin 1, Tambon Phrabaht Amphoe Muang Lampang Province 52000 Thailand Tel: +665 482 1505 Fax: +665 482 1509 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 Lampang Petroleum Terminal 59 Highway Lampang-Ngaow Rd., Chompoo, Muang, Lampang, 52100 Tel: +665 422 6111 +668 9850 8974 +668 9850 8977
9	Handling	NIL
10	Security	NIL
11	De-icing	NIL
12	Remarks	ATS Reporting Office (ARO): Located at Chiang Mai Air Traffic Control Centre (1st floor of tower building) Tel: +669 1818 5798 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 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 Strength: PCN 48/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Asphaltic concrete Strength PCN 45/F/C/X/T
3	Altimeter checkpoint location and elevation	Location: At apron 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 TWY guide lines: Yes Nose-wheel guide lines at apron 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 RWY LGT: THR, RWY Edge and RWY End TWY markings: CL, Edge and RWY Holding Position 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 882 FT (269 M) Painted red/white LGTD	181719.7N 0993003.6E	AWOS 1 838 FT (256 M) Painted red/white LGTD	181557.5N 0993019.4E	NIL
	Building 843 FT (257 M) NIL / NIL	181701.7N 0993008.0E	AWOS 2 841 FT (256 M) Painted red/white LGTD	181557.4N 0993019.3E	
	LLZ 800 FT (244 M) Painted red/white LGTD	181651.7N 0993012.5E	Tree 851 FT (259 M) NIL / NIL	181628.2N 0993017.8E	
	Building 817 FT (249 M) NIL / NIL	181652.7N 0993014.7E	Tree 863 FT (263 M) NIL / NIL	181616.8N 0993019.2E	
APCH RWY 36 / TKOF RWY 18	High voltage pole 1064 FT (324 M) NIL / NIL	181301.1N 0993020.2E	Telecommunication mast 985 FT (300 M) Painted red/white LGTD	181701.1N 0992924.3E	
			Telecommunication mast 976 FT (298 M) Painted red/white LGTD	181816.7N 0993105.1E	
			Telecommunication mast 971 FT (296 M) Painted red/white LGTD	181432.3N 0992918.4E	
			Telecommunication mast 1029 FT (314 M) Painted red/white LGTD	181412.3N 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 1062 FT (324 M) Painted red/white LGTD	181822.1N 0992821.4E	
			Radio mast 983 FT (300 M) Painted red/white LGTD	181506.9N 0993050.3E	
			Radio mast 1187 FT (362 M) Painted red/white LGTD	181530.6N 0993239.6E	
			Radio mast 1172 FT (357 M) Painted red/white LGTD	181529.0N 0993242.5E	
			Radio mast 1002 FT (306 M) Painted red/white LGTD	181752.9N 0993108.1E	
			Apron flood light pole 881 FT (269 M) NIL / LGTD	181641.2N 0993019.4E	
			Apron flood light pole 883 FT (269 M) NIL / LGTD	181639.5N 0993019.6E	
			Apron flood light pole 884 FT (269 M) NIL / LGTD	181637.9N 0993019.7E	
			Apron flood light pole 884 FT (269 M) NIL / LGTD	181636.3N 0993019.8E	
			Apron flood light pole 883 FT (269 M) NIL / LGTD	181634.7N 0993020.0E	
			High voltage pole 1035 FT (315 M) NIL / NIL	181329.5N 0992923.9E	
			High voltage pole 1053 FT (321 M) Painted red/white LGTD	181323.1N 0992943.8E	
			High voltage pole 1119 FT (341 M) Painted red/white NIL	181322.0N 0993117.0E	
			High voltage pole 1096 FT (334 M) Painted red/white NIL	181338.9N 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 1138 FT (347 M) NIL / NIL	181349.1N 0993155.0E	
			High voltage pole 1207 FT (368 M) NIL / NIL	181405.4N 0993209.1E	
			High voltage pole 1251 FT (381 M) NIL / NIL	181423.0N 0993224.3E	
			High voltage pole 1267 FT (386 M) NIL / NIL	181437.7N 0993237.1E	
			High voltage pole 1291 FT (393 M) NIL / NIL	181454.9N 0993252.0E	
			High voltage pole 1328 FT (405 M) NIL / NIL	181513.9N 0993308.4E	
			Telecommunication mast 1862 FT (568 M) NIL / LGTD	181500.9N 0993335.4E	
			Building 938 FT (286 M) NIL / NIL	181710.1N 0993022.6E	
			Building 989 FT (301 M) NIL / NIL	181356.3N 0992908.8E	
			Building 1114 FT (339 M) NIL / NIL	181526.6N 0993246.8E	
			Building 1098 FT (335 M) NIL / NIL	181526.9N 0993241.3E	

VTCL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Lampang, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2300-1300 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 482 1517 Fax: +665 431 5788
6	Flight documentation 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 Observation 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. IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL WDI: 1. Wind cone at 120 M from RWY End 36 off set to left side 80 M from RCL, illuminated 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 TWY Centre Line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the Air Field Lighting (AFL) building. Switch-over time: 15 SEC
5	Remarks	NIL

VTCL AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 Language(s)	Lampang Tower 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 121.5 MHz [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Lampang Tower	122.3 MHz 236.6 MHz 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: – 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: – Radial 351°-070° beyond 40 NM should not below 6 000 FT – Radial 071°-130° beyond 30 NM should not below 6 000 FT – Radial 131°-320° beyond 40 NM should not below 6 000 FT – 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. 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

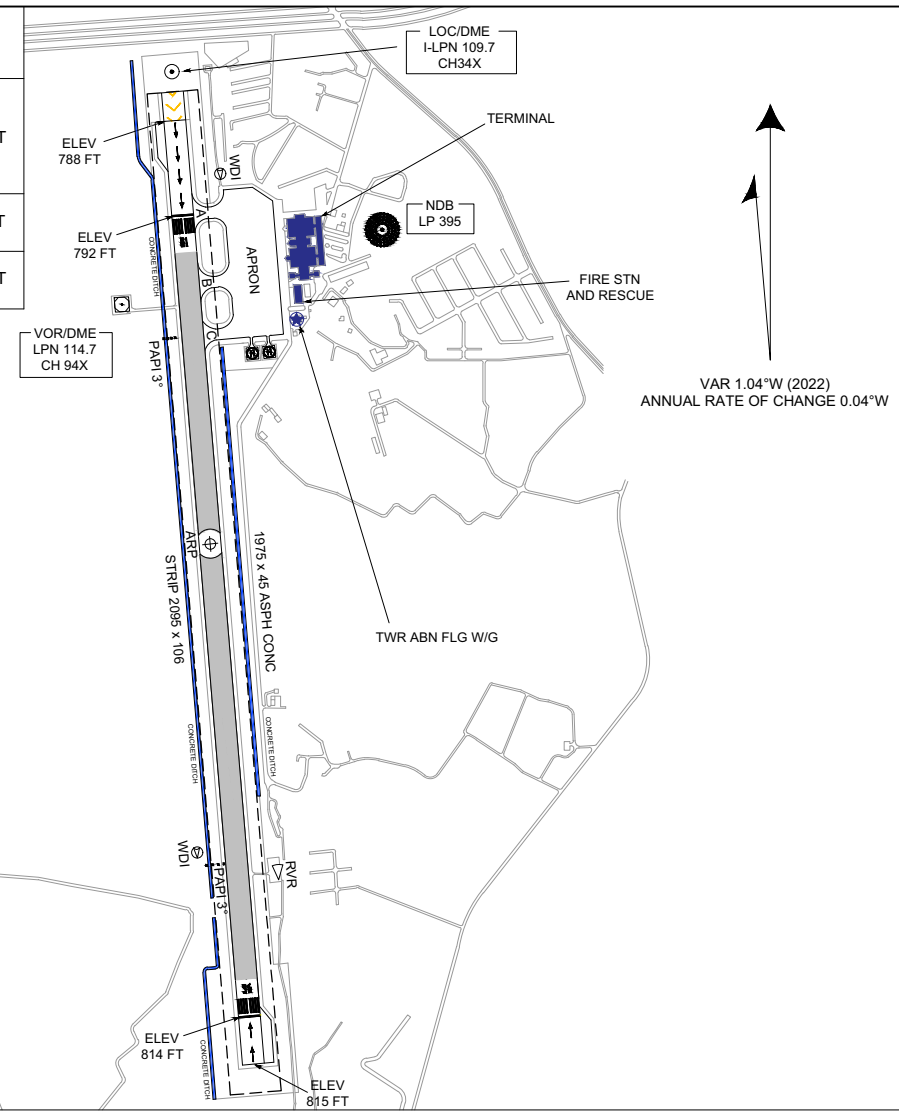
TWR 122.3
236.6

LAMPANG / Lampang

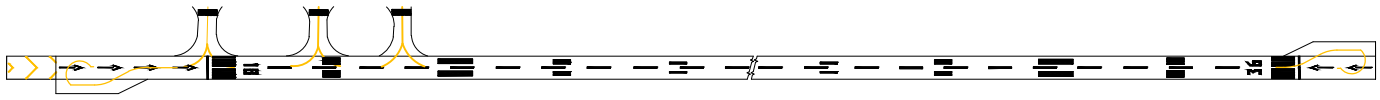
RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
18	175°	18 16 42N 099 30 13E	PCN 45/F/C/X/T
36	355°	18 15 48N 099 30 17E	
TWY A, B AND C			PCN 45/F/C/X/T
APRON			PCN 48/R/C/X/T

ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

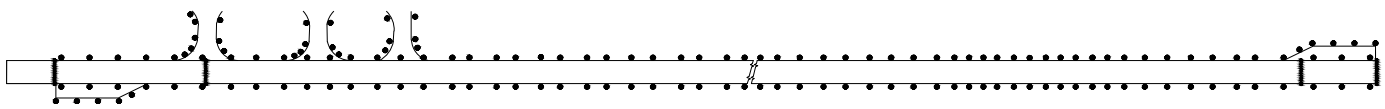
REMARKS:
· TAXIWAY WIDTH 23 m.



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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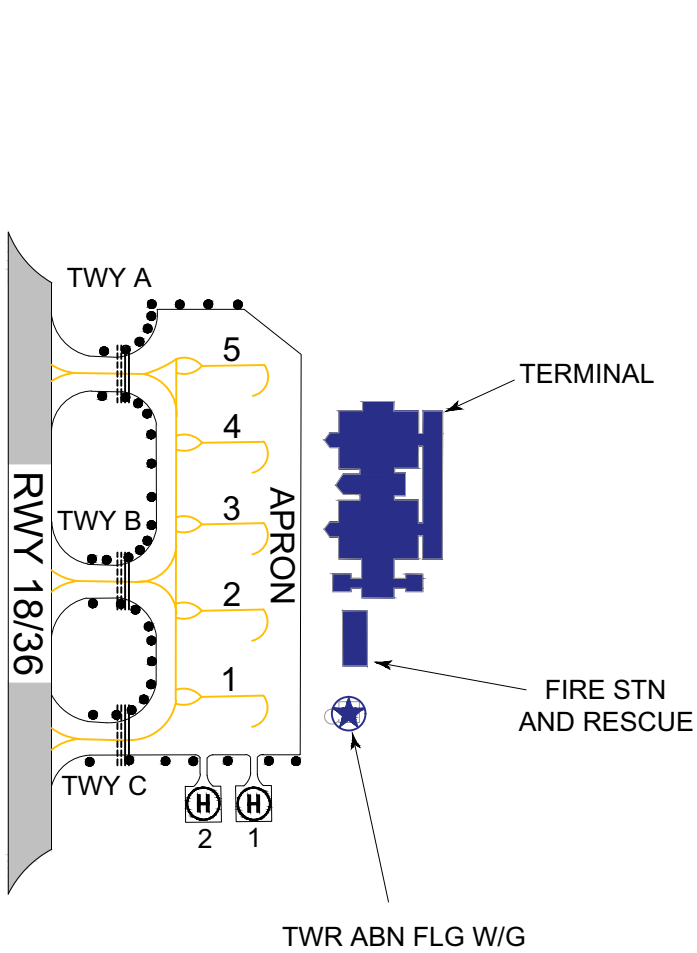
AIRCRAFT PARKING/ DOCKING CHART - ICAO

APRON ELEV 794 FT

TWR 122.3
236.6

LAMPANG / Lampang

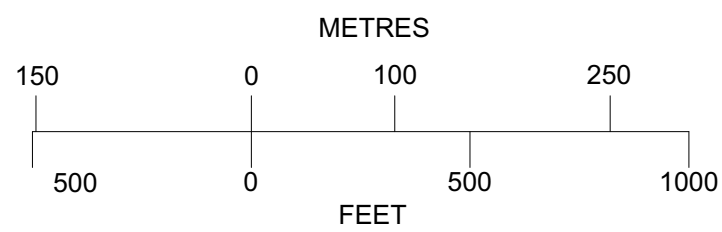
ELEVATIONS IN FEET



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 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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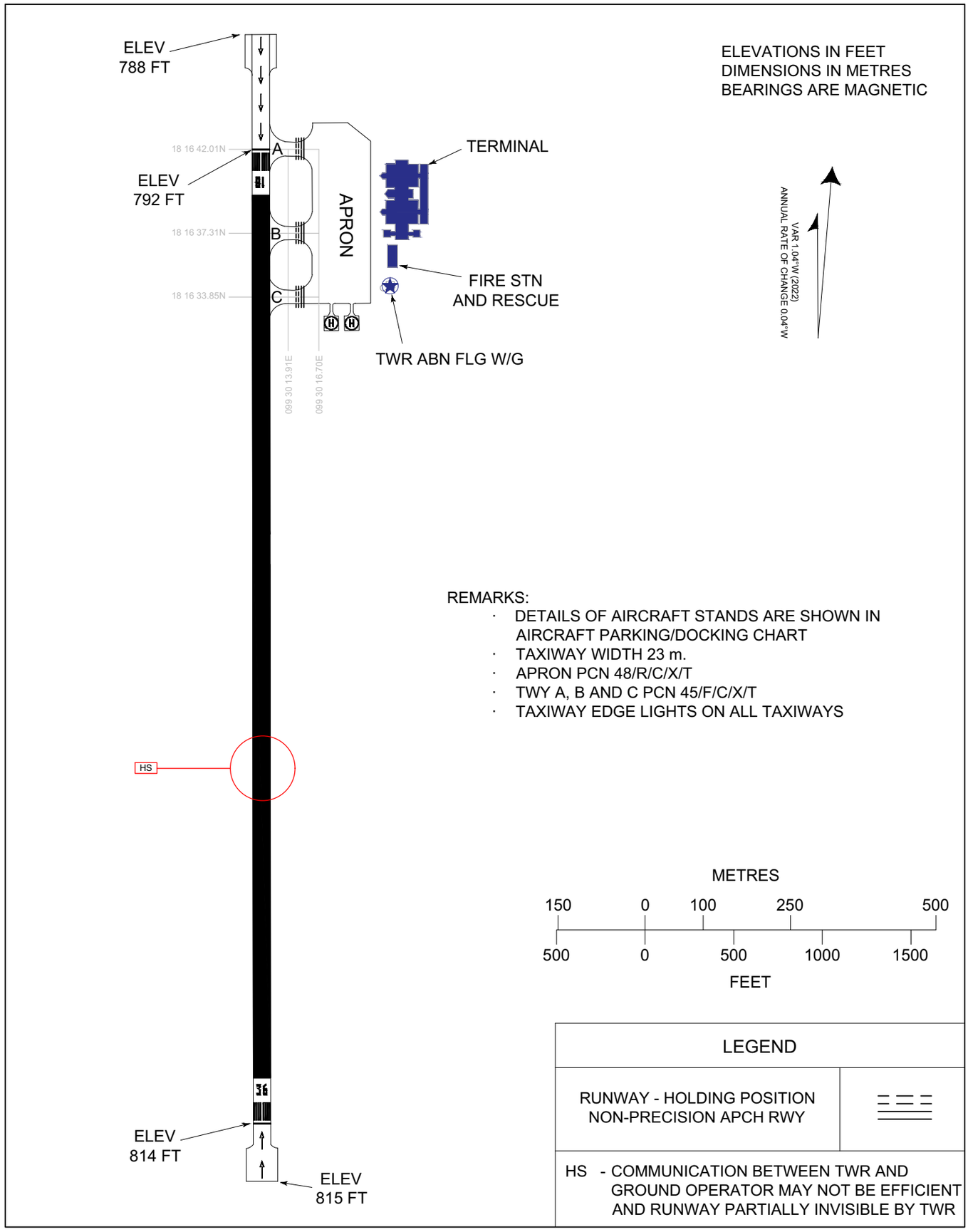
AERODROME GROUND MOVEMENT CHART - ICAO

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 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

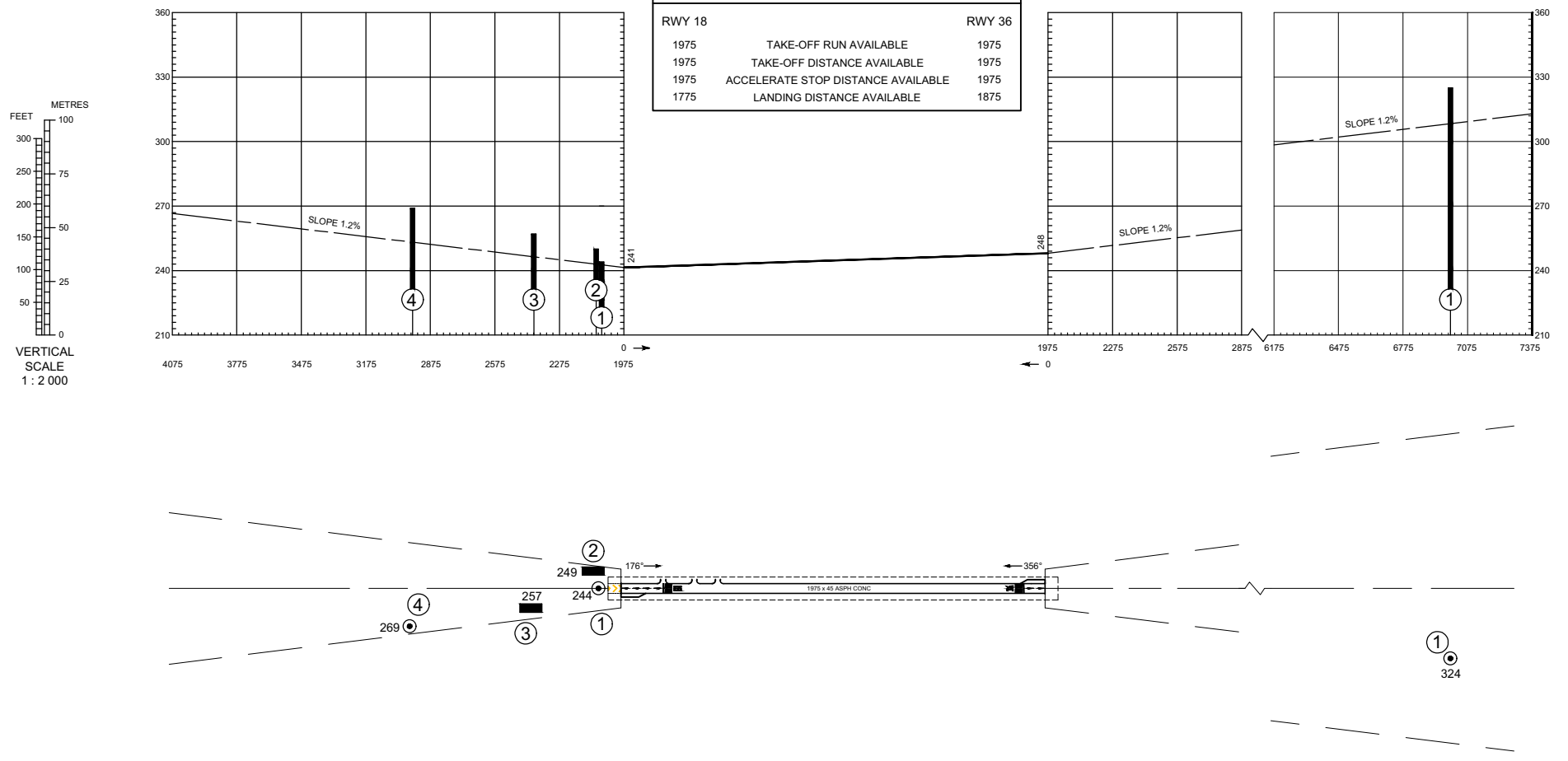
TYPE A (OPERATING LIMITATIONS)

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

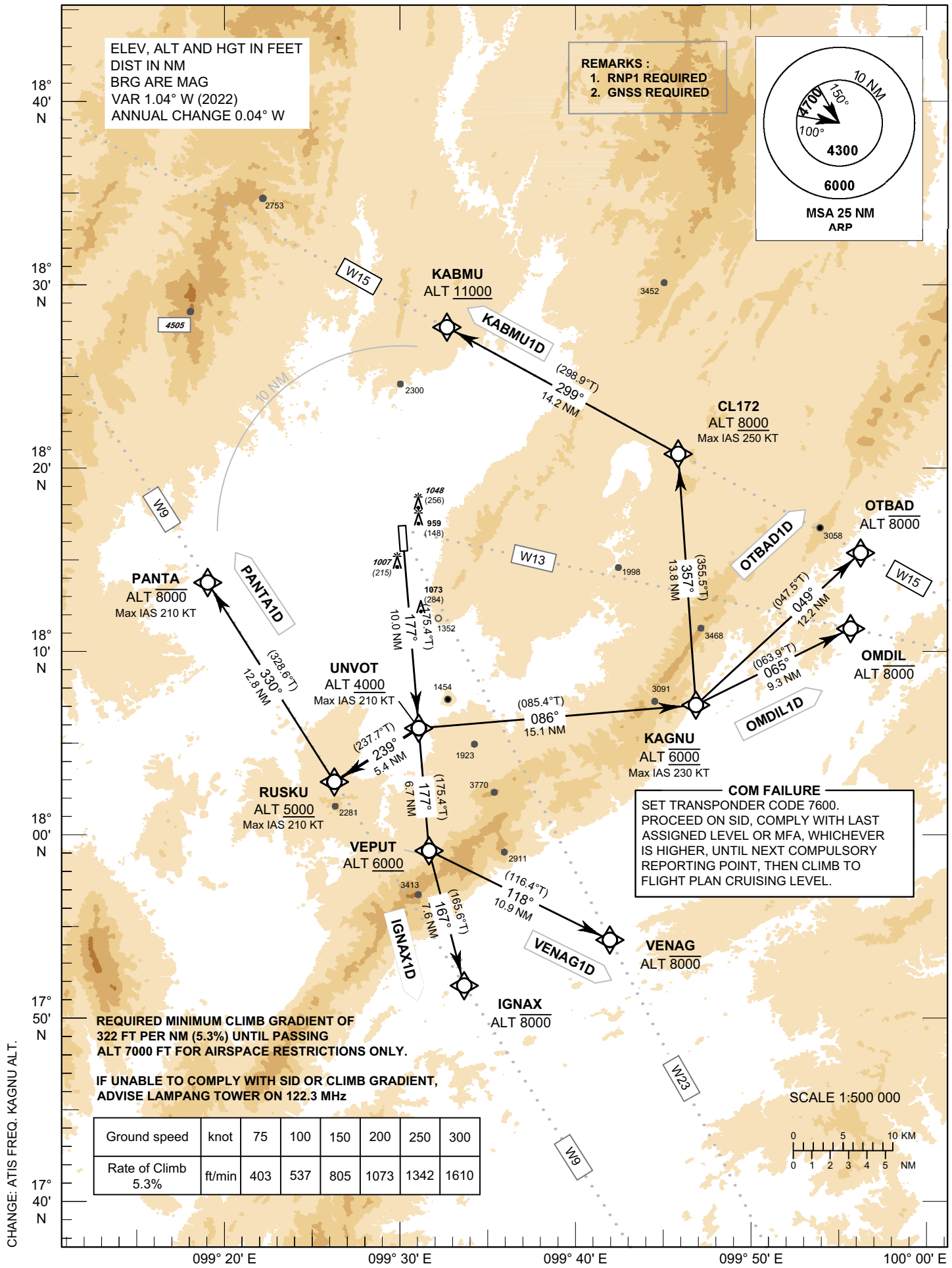
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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.

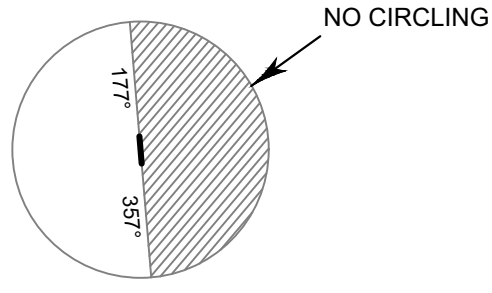
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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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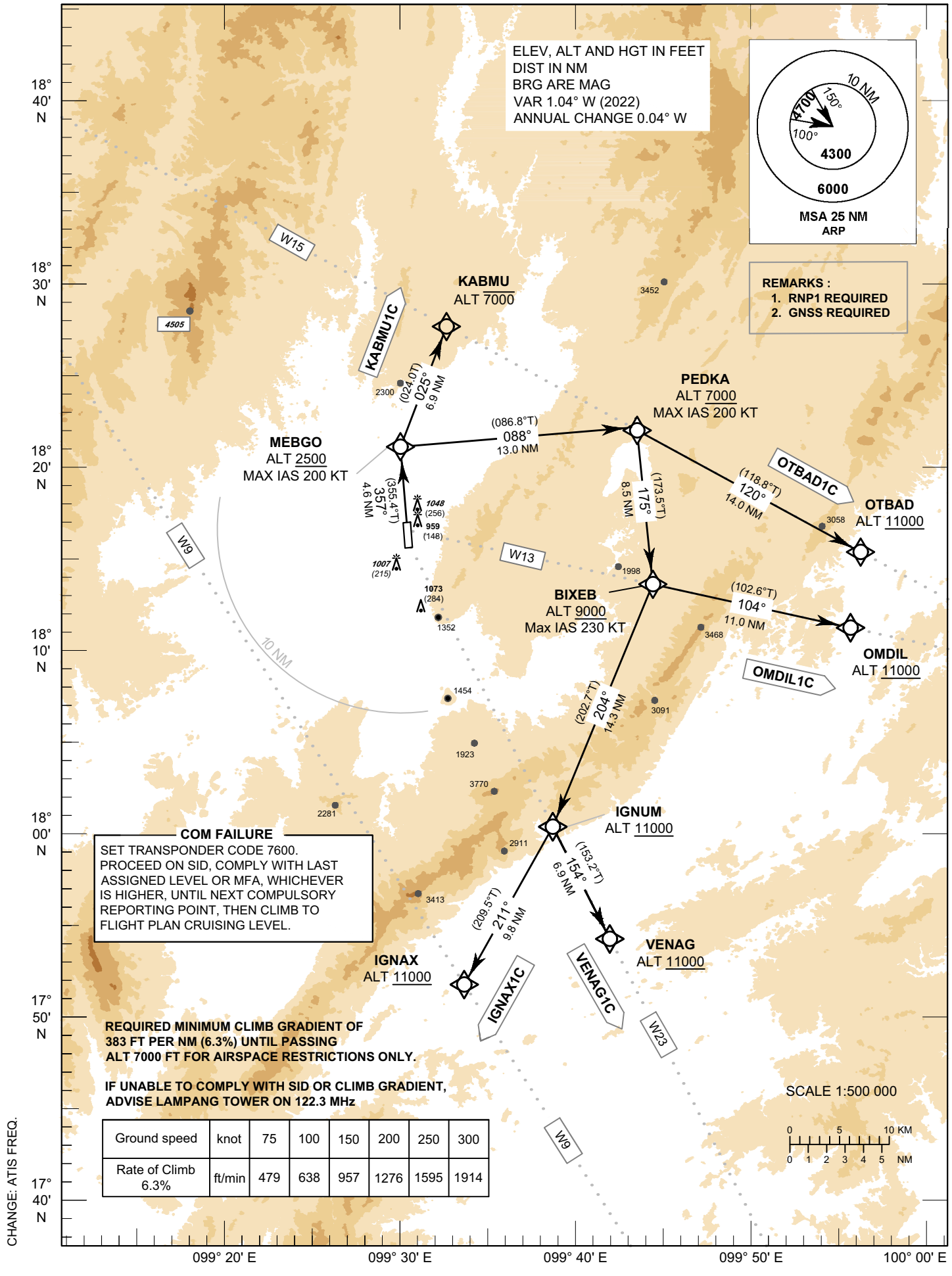
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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.

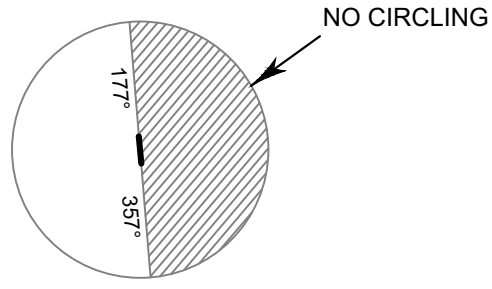
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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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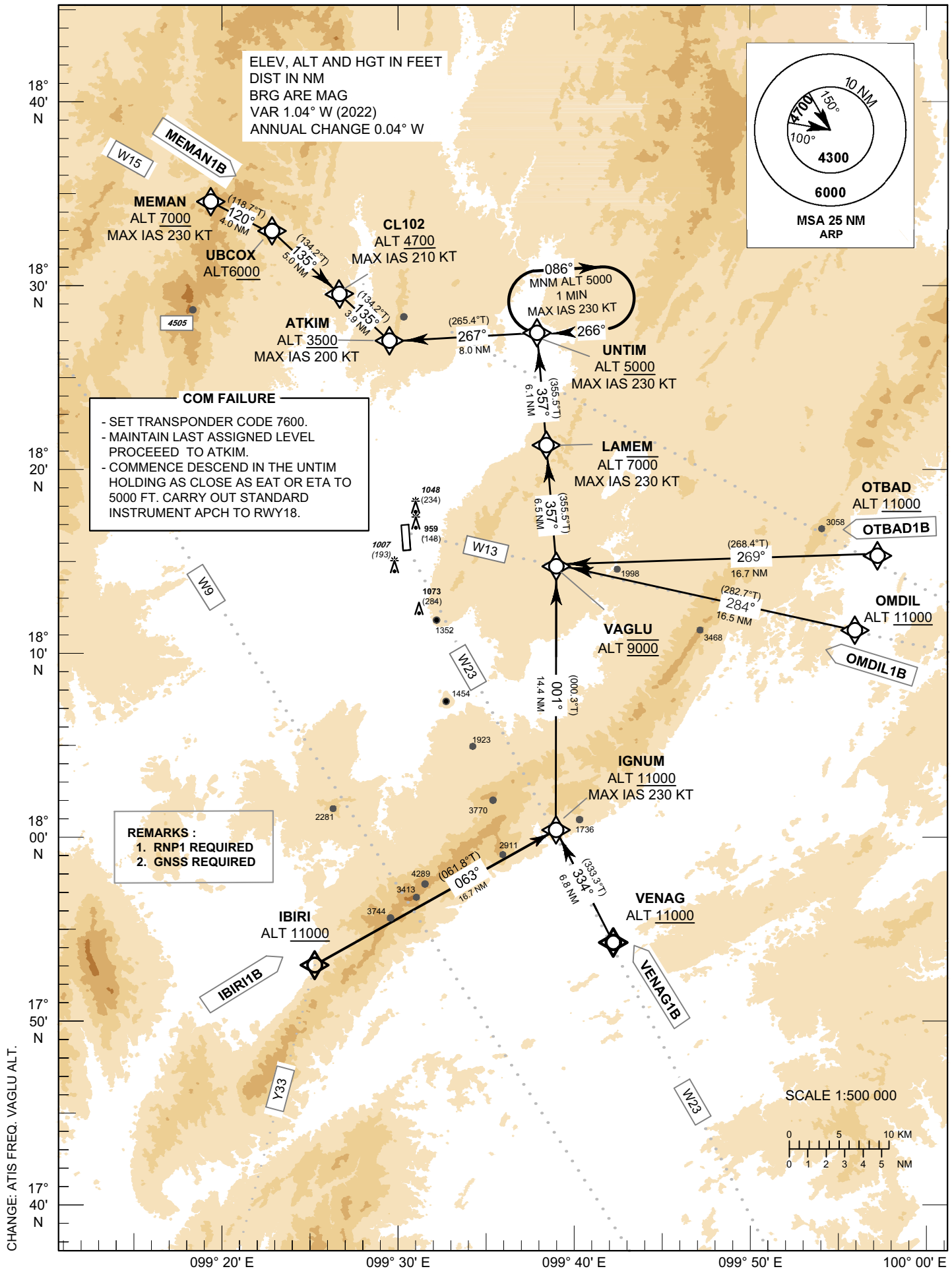
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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

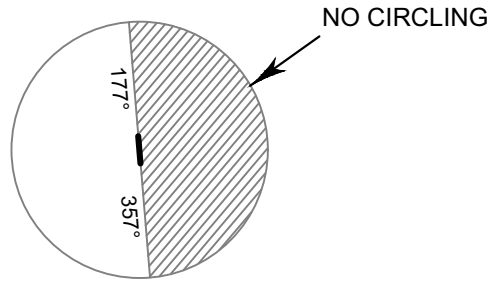
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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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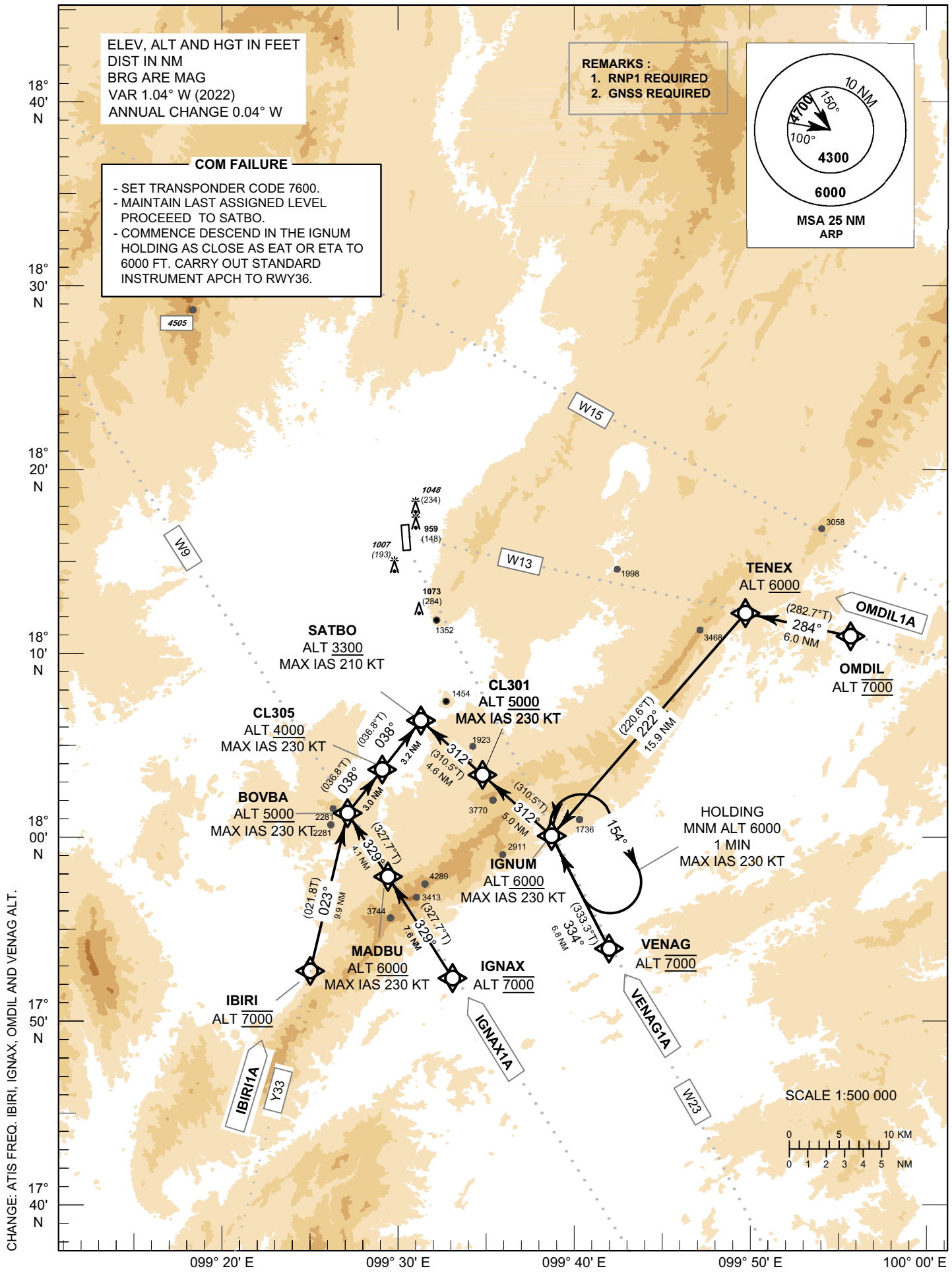
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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

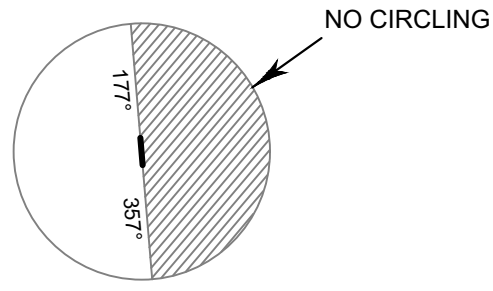
CHANGE: SPEED. IBIRI, IGNAX, OMDIL AND VENAG ALT.

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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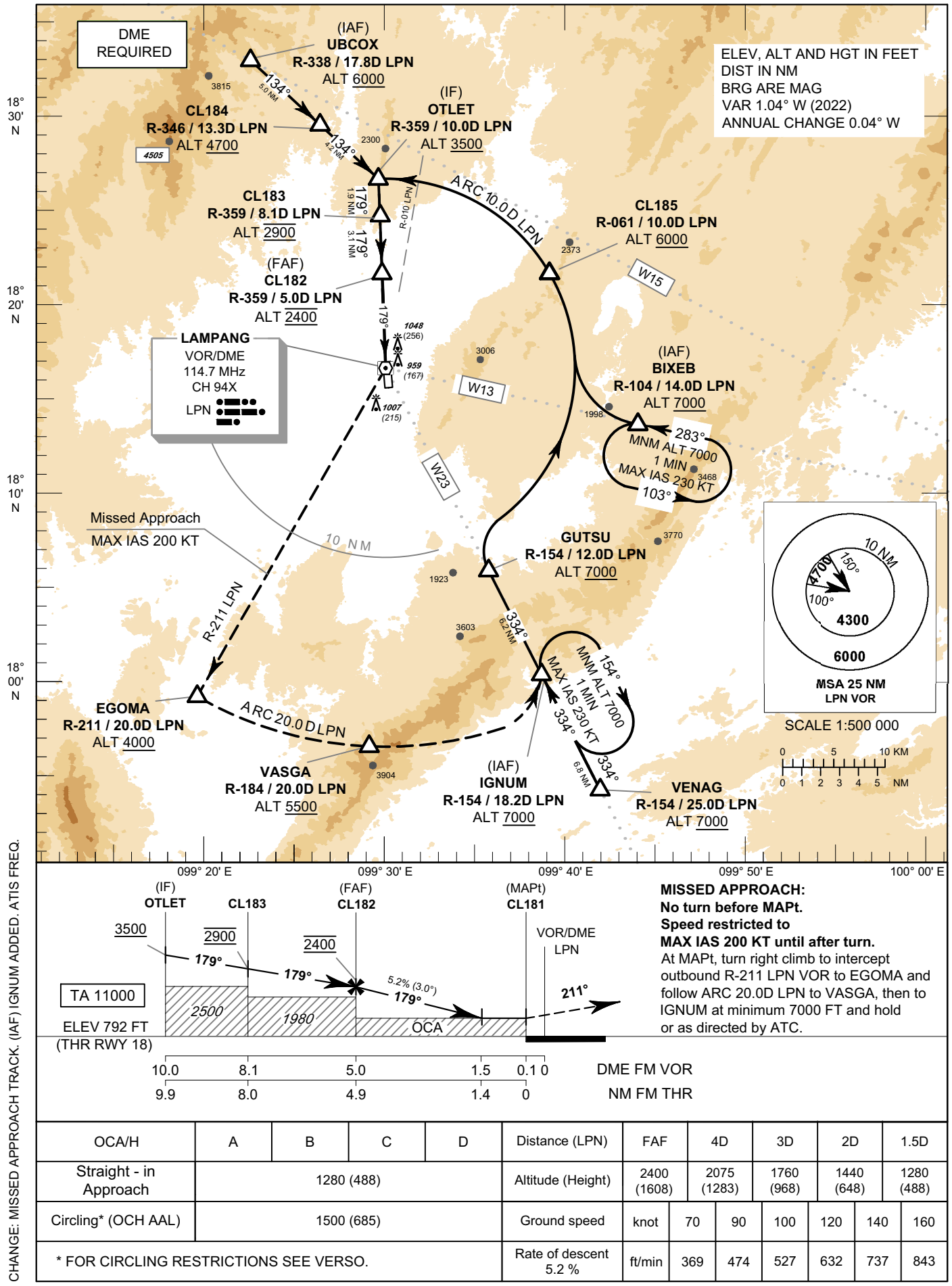
INSTRUMENT APPROACH CHART - ICAO

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.

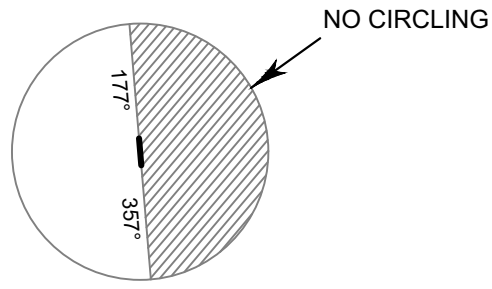
INSTRUMENT APPROACH CHART - ICAO

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.

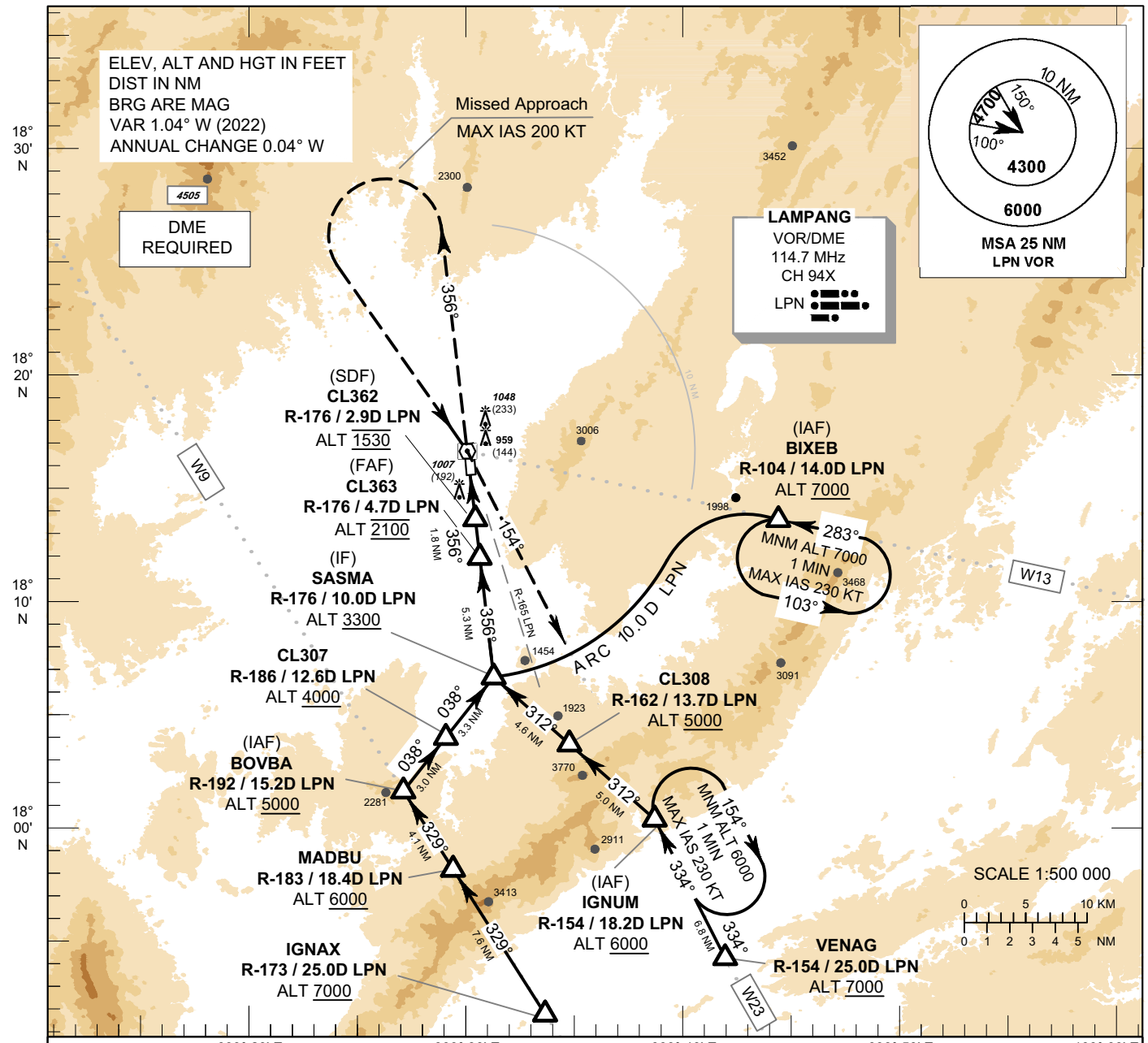
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 815 FT
HEIGHTS RELATED TO AERODROME ELEV

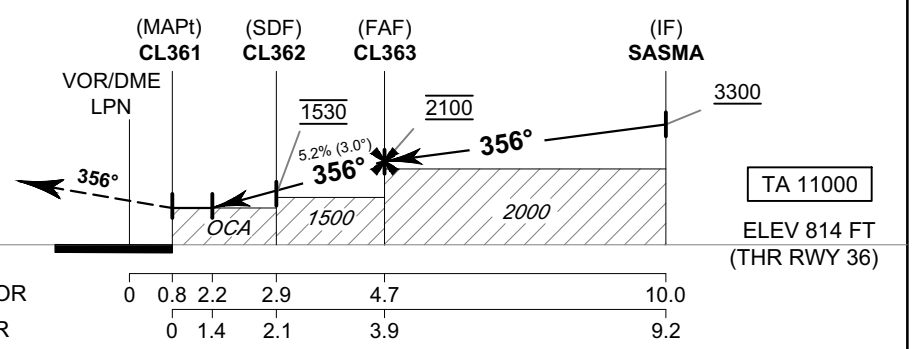
APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

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.

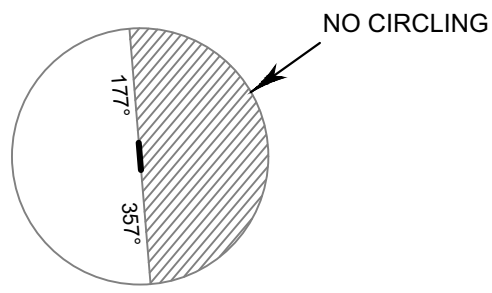
INSTRUMENT APPROACH CHART - ICAO

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



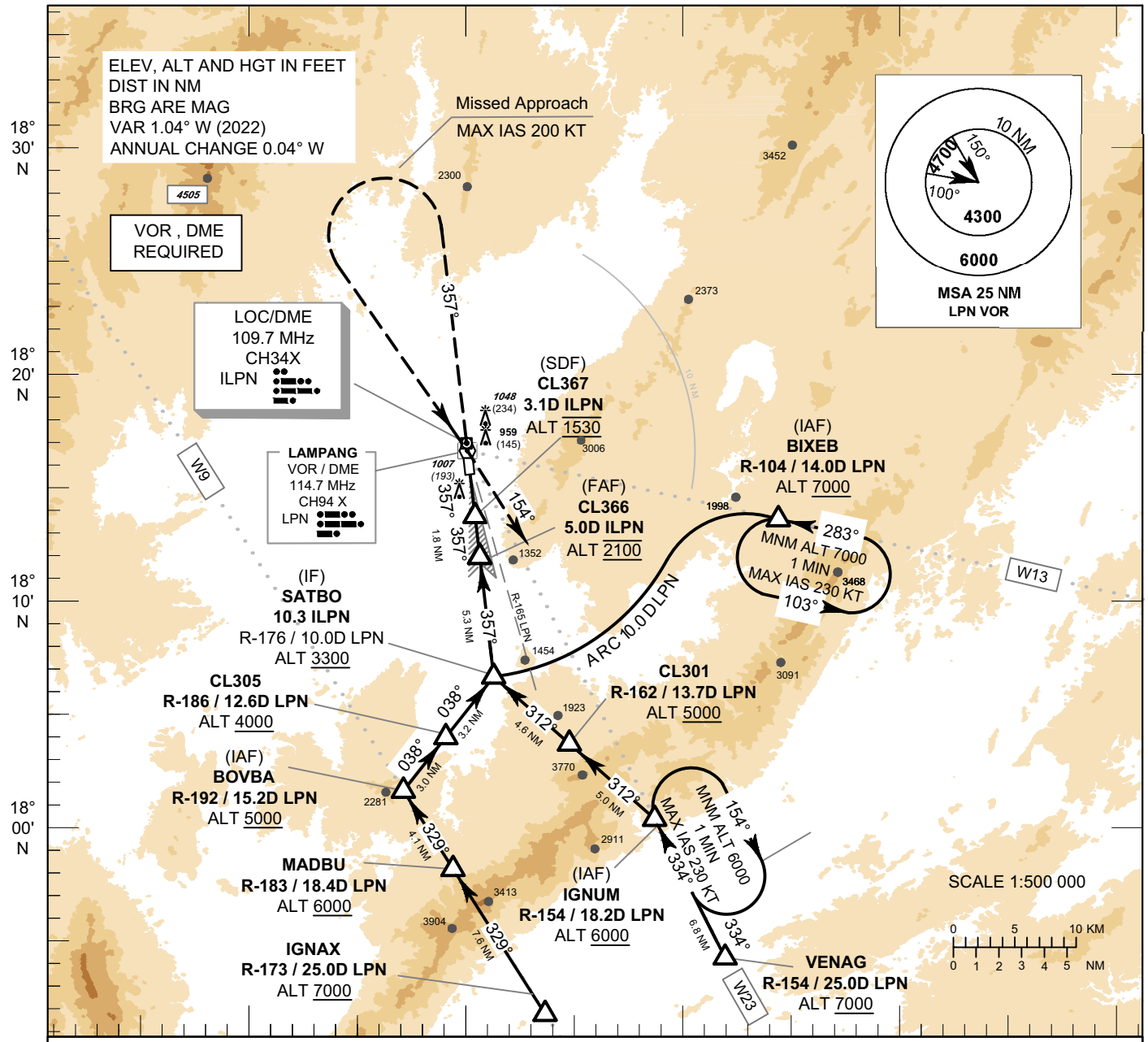
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 815 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 814 FT

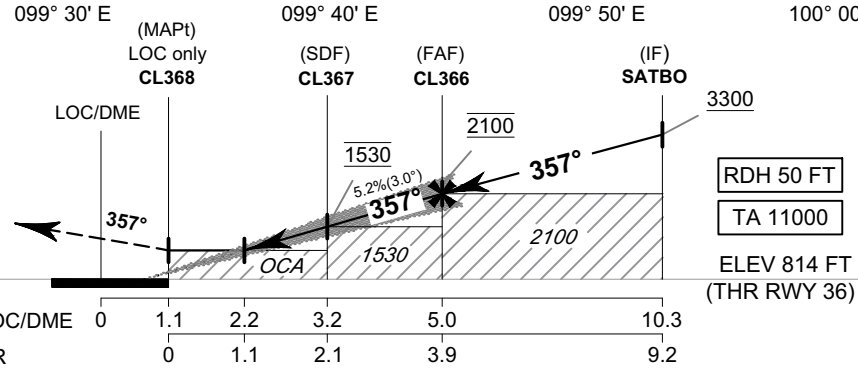
APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

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.

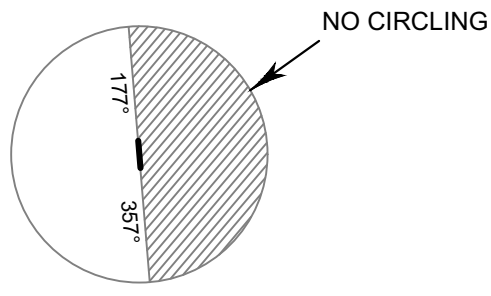
INSTRUMENT APPROACH CHART - ICAO

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.

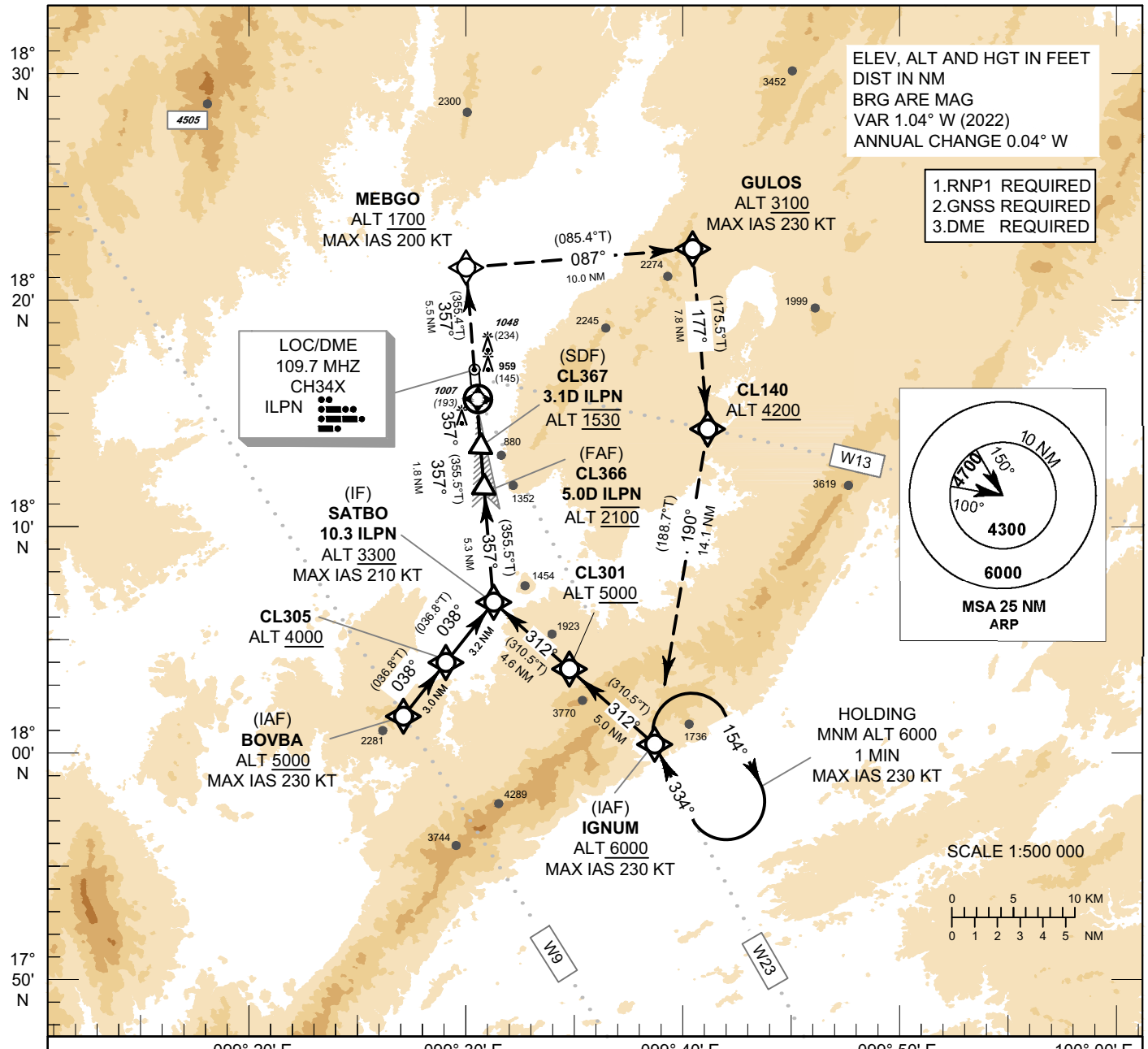
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 815 FT
HEIGHTS RELATED TO
THR RWY 36 ELEV 814 FT

APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

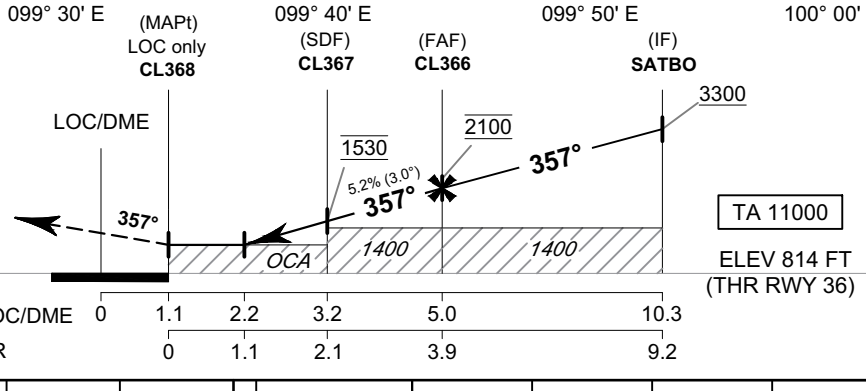
LAMPANG / Lampang (VTCL)

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.

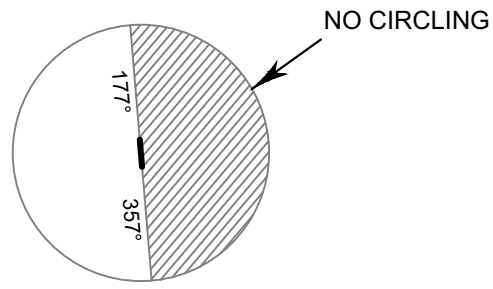
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 815 FT
HEIGHTS RELATED TO
THR RWY 36 ELEV 814 FT

LAMPANG / Lampang (VTCL)

LOC z RWY36

FIX / POINT		COORDINATES	
(IF) 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) 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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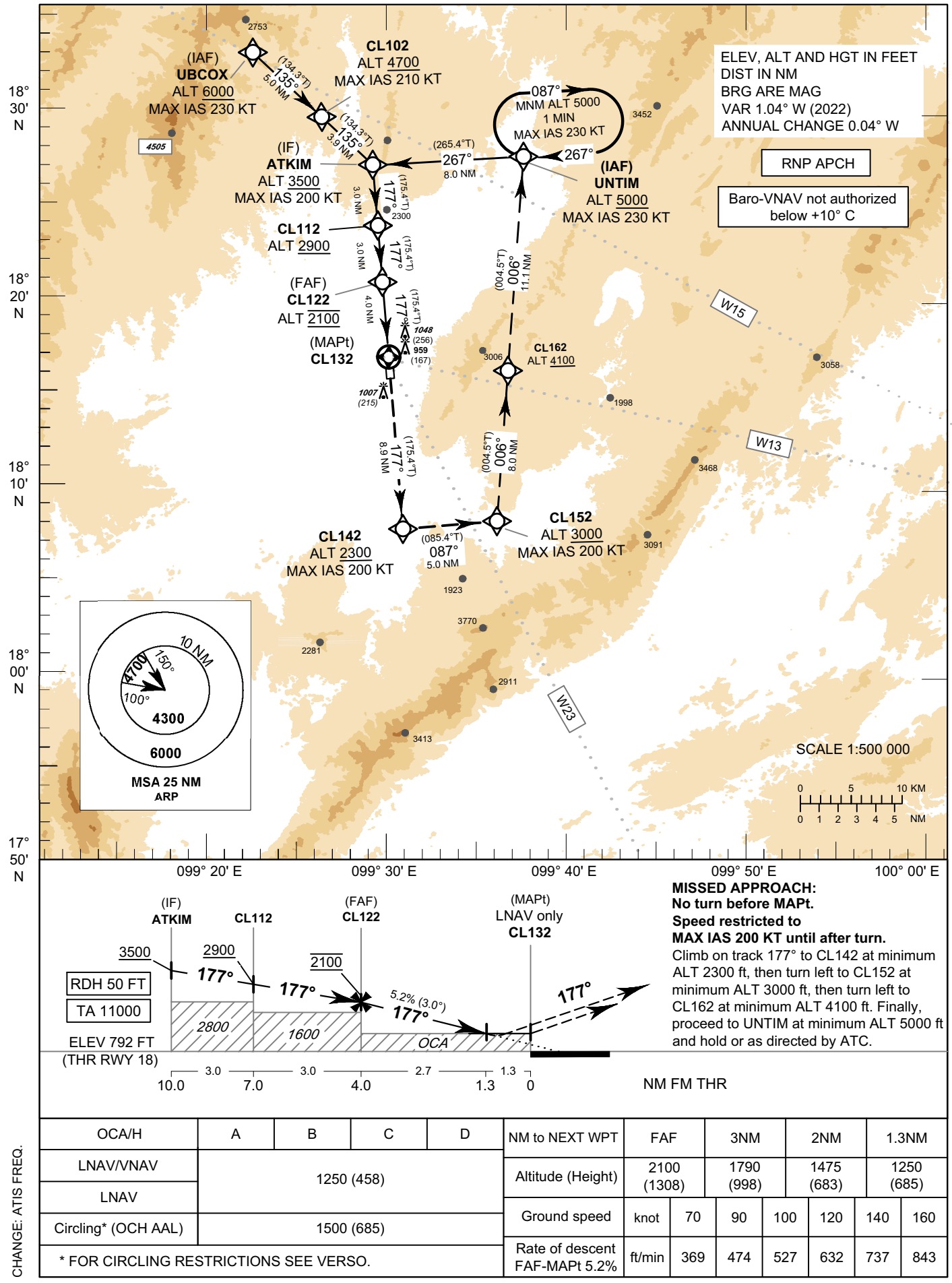
INSTRUMENT APPROACH CHART - ICAO

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

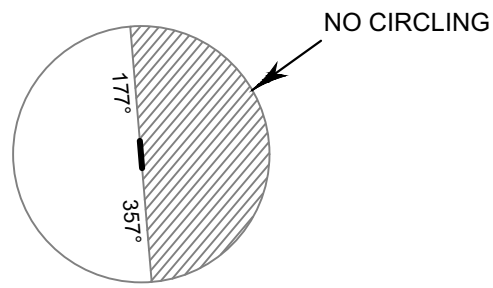
AERODROME ELEV 815 FT
HEIGHTS RELATED TO
THR RWY 18 ELEV 792 FT

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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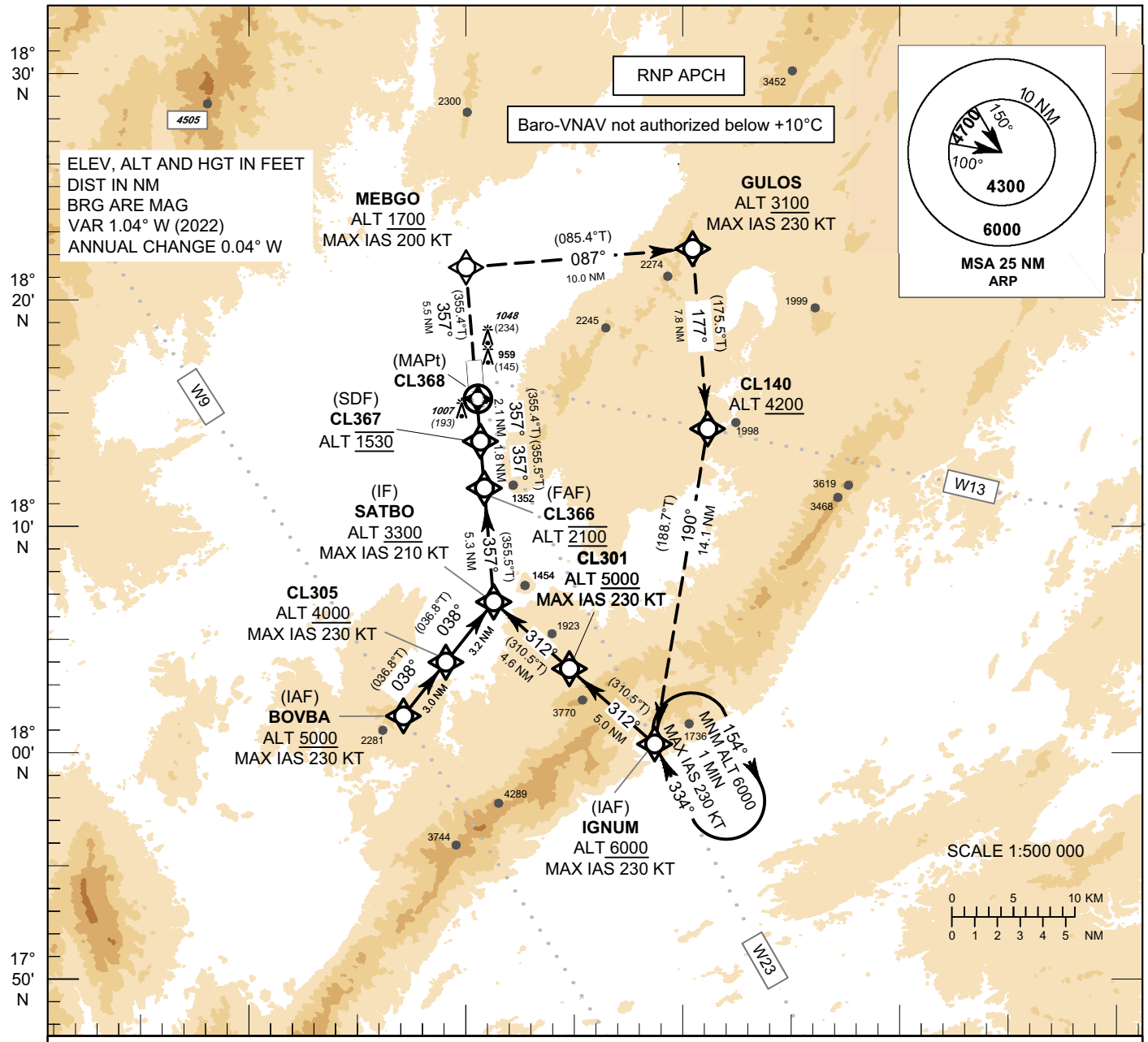
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 815 FT
HEIGHTS RELATED TO
THR RWY 36 ELEV 814 FT

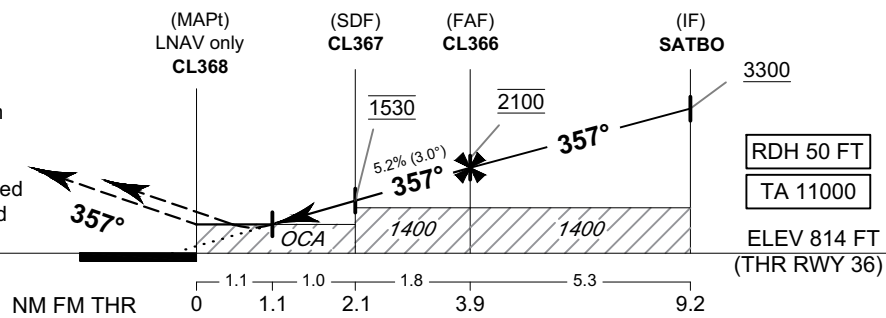
APP : 119.3
TWR : 122.3, 236.6
ATIS : 128.65

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
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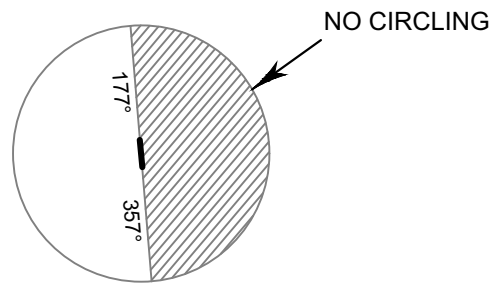
GULOS	18° 22' 05.55" N 099° 40' 18.53" E
BOVBA	18° 01' 35.74" N 099° 27' 08.57" E
MEBGO	18° 21' 17.83" N 099° 29' 49.67" E
IGNUM	18° 00' 19.42" N 099° 38' 43.93" E
SATBO	18° 06' 35.78" N 099° 31' 03.10" E



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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 Loei Airport Loei Province 42000 Thailand Tel: +664 281 2654 +664 281 1521 Fax: +664 281 2654 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): Located at Udon Thani Air Traffic Control Centre (1st floor of tower building) Tel: +664 223 0124 +669 2262 3477 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 Strength: PCN 45/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Asphaltic concrete Strength: PCN 42/F/C/X/T
3	Altimeter checkpoint location and elevation	Location: At apron 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 TWY guide lines: Yes 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: TWY CL, TWY Edge and RWY Holding Position 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 Elevation Markings/LGT**	**Coordinates**	**Obstacle type Elevation Markings/LGT**	**Coordinates**	
a	**b**	**c**	**a**	**b**	
RWY 19 / APCH area RWY 01 / TKOF area	NDB 895 FT (272.70 M) Painted red/white LGTD	172656.04N 1014336.15E	AWOS 842 FT (256.55 M) Painted red/white LGTD	172558.51N 1014315.27E	NIL
	Billboard 887 FT (270.50 M) NIL / NIL	172722.12N 1014345.43E	AWOS 839 FT (255.78 M) Painted red/white LGTD	172558.70N 1014315.31E	
	Radio mast 953 FT (290.62 M) Painted red/white LGTD	172711.03N 1014345.85E	NDB 895 FT (272.90 M) Painted red/white LGTD	172654.08N 1014334.85E	
	Radio mast 950 FT (289.49 M) Painted red/white LGTD	172749.59N 1014342.73E	Water tank 908 FT (276.88 M) Painted red/white LGTD	172646.66N 1014338.31E	
	Telecommunication mast 951 FT (289.76 M) Painted red/white LGTD	172749.95N 1014340.24E	Radio mast 1,011 FT (308.23 M) Painted red/white LGTD	172605.39N 1014336.40E	
	Telecommunication mast 959 FT (292.32 M) Painted red/white LGTD	172749.16N 1014342.65E	Radio mast 978 FT (298.02 M) Painted red/white LGTD	172611.09N 1014338.99E	
			Radio mast 901 FT (274.57 M) NIL / NIL	172643.69N 1014336.74E	
			Radio mast 1,174 FT (357.92 M) Painted red/white LGTD	172831.80N 1014323.91E	

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 1,229 FT (374.61 M) Painted red/white LGTD	172332.84N 1014417.61E	
			Telecommunication mast 1,002 FT (305.35 M) Painted red/white LGTD	172549.63N 1014339.64E	
			Telecommunication mast 976 FT (297.58 M) NIL / NIL	172551.36N 1014337.45E	
			Telecommunication mast 974 FT (296.89 M) Painted red/white LGTD	172659.38N 1014352.17E	
			Telecommunication mast 1,076 FT (328.07 M) NIL / LGTD	172726.74N 1014221.36E	
			Telecommunication mast 1,026 FT (312.62 M) Painted red/white LGTD	172734.24N 1014216.47E	
			Telecommunication mast 1,046 FT (318.78 M) Painted red/white LGTD	172733.58N 1014233.92E	
			Telecommunication mast 1,077 FT (328.24 M) Painted red/white LGTD	172353.67N 1014412.43E	
			Lightning rod on top of building 918 FT (279.76 M) NIL / NIL	172612.28N 1014326.63E	
			Apron flood light pole 942 FT (287.18 M) NIL / LGTD	172641.80N 1014335.10E	
			Apron flood light pole 941 FT (286.74 M) NIL / LGTD	172643.84N 1014335.75E	
			Apron flood light pole 940 FT (286.40 M) NIL / LGTD	172646.49N 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 945 FT (287.90 M) Painted red/white LGTD	172643.51N 1014335.96E	

VTUL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Loei, Upper Northeastern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1200 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Upper Northeastern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 281 4639 ext. 6715
6	Flight documentation 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 Observation 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 IBN: NIL

2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL WDI: 1. Wind cone at 300 M from THR 01 off set to the left side 80 M from RCL, illuminated. 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 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 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 (172649.38N 1014323.12E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Loei Tower 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 121.5 MHZ[1)]	As AD OPR HR	[1)]Emergency frequency
TWR	Loei Tower	118.35 MHZ 236.6 MHZ 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	172655.09N 1014335.41E	NIL	NDB: unusable due to excessive needle swing bearing 255 to 205 degrees, counter clockwise below 8000 FT.
DVOR/DME	LOY	115.9 MHZ CH106X	H24	172649.38N 1014323.12E		DVOR/DME restriction, 1. Unusable due to roughness out of tolerance – Radial 020° between 10-11 DME altitude 3 000 FT – Radial 243° between 7-8 DME altitude 6 000 FT and between 32-33 DME altitude 7 500 FT 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: 2.1 40 NM orbit – Radial 030°-050° altitude should not below 10 000 FT – Radial 051°-100° altitude should not below 7 000 FT – Radial 101°-130° altitude should not below 10 000 FT – Radial 131°-200° altitude should not below 5 000 FT – Radial 201°-250° altitude should not below 12 000 FT – Radial 251°-270° altitude should not below 13 000 FT 2.2 20 NM orbit (Due to border limited) – 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

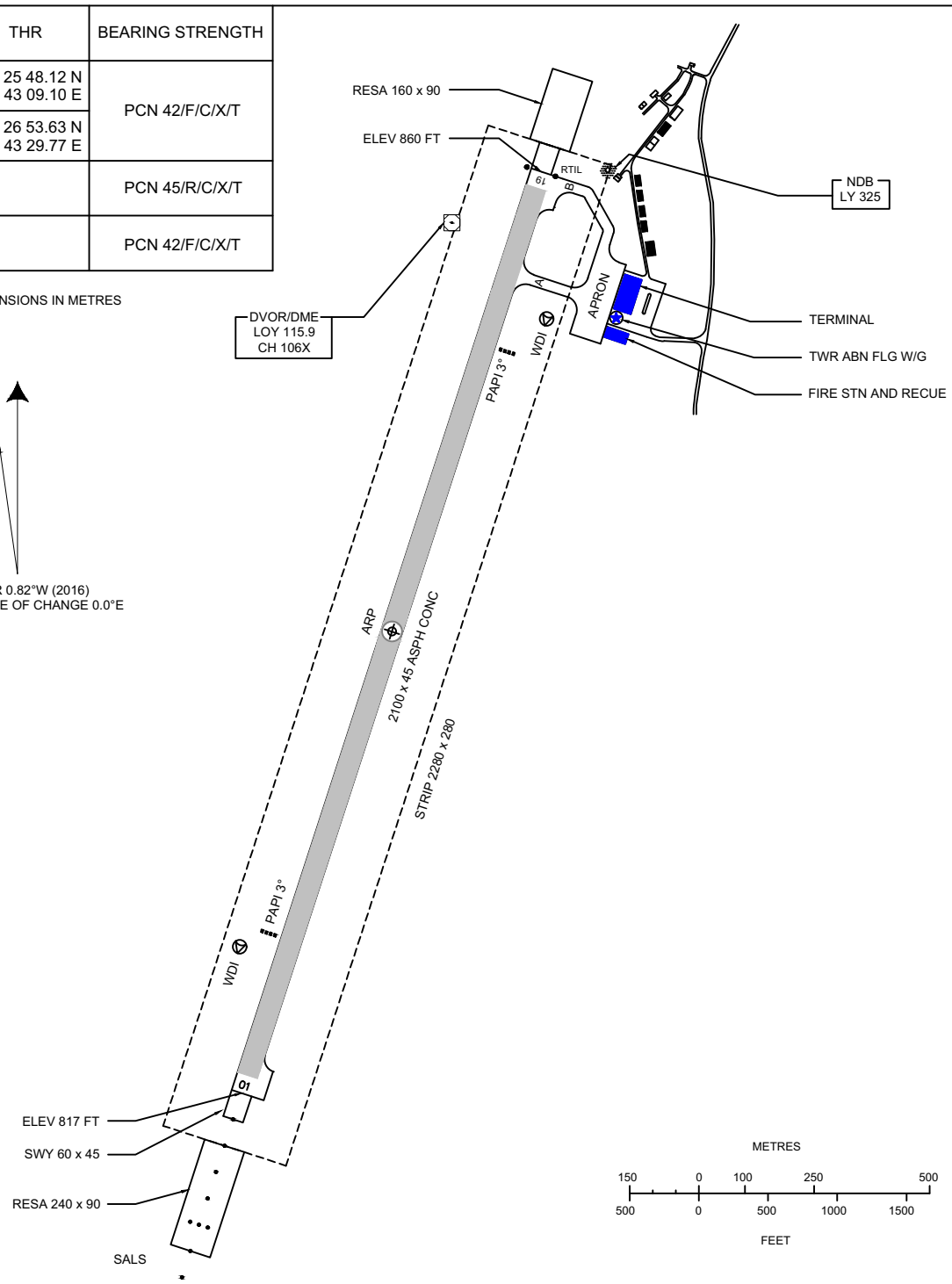
TWR	118.35
	236.6

LOEI / Loei

RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
01	016.47°	17 25 48.12 N 101 43 09.10 E	PCN 42/F/C/X/T
19	196.47°	17 26 53.63 N 101 43 29.77 E	
APRON			PCN 45/R/C/X/T
TWY A AND B			PCN 42/F/C/X/T

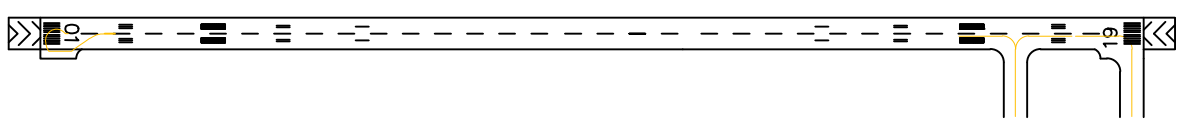
ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

MAG VAR 0.82°W (2016)
ANNUAL RATE OF CHANGE 0.0°E

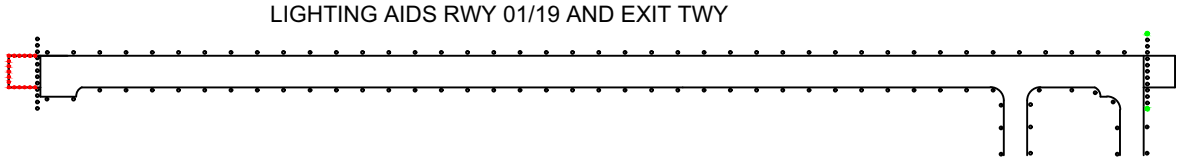


Remark : COORDINATE ARE WGS-84

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

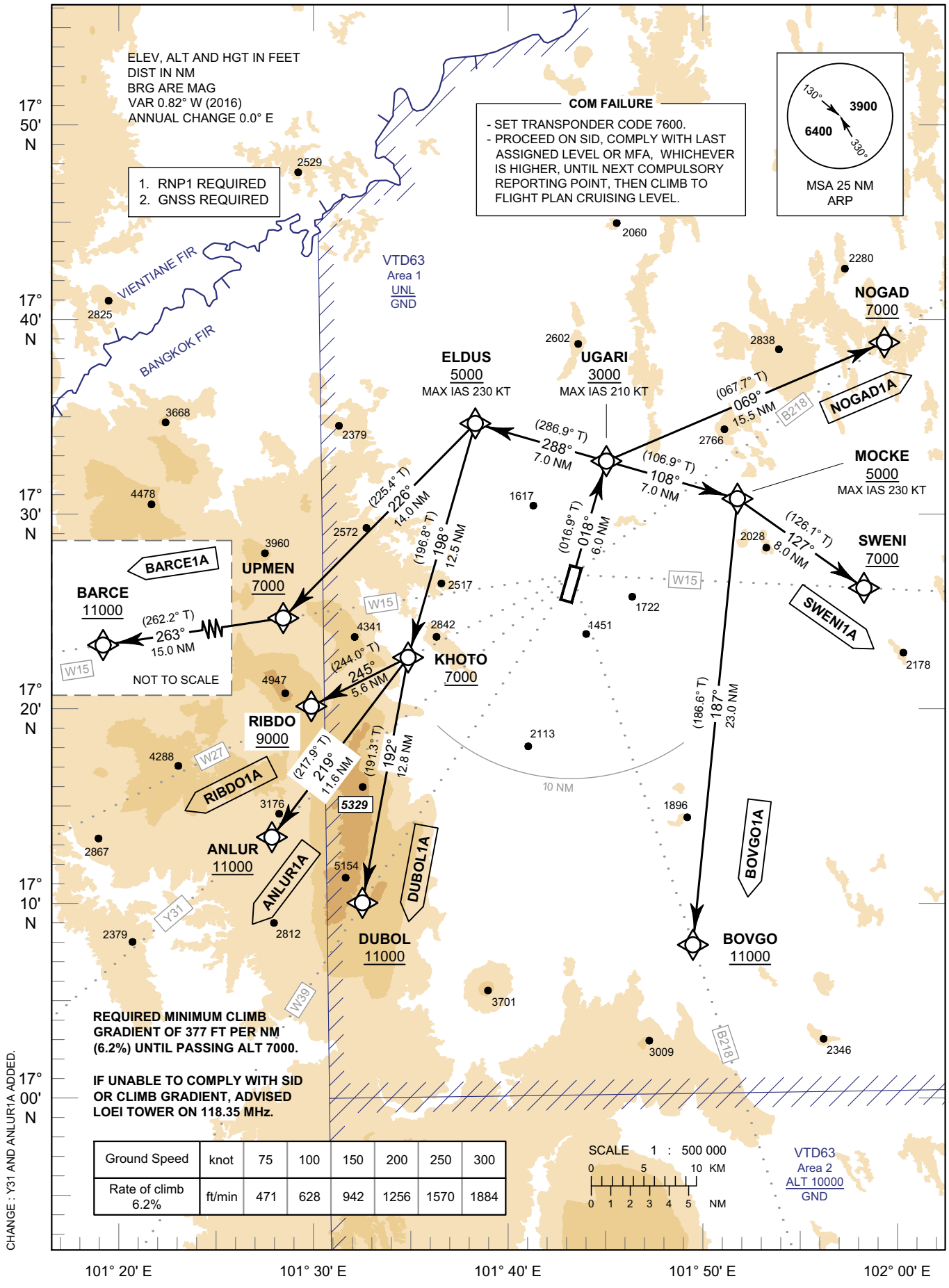
TRANSITION ALTITUDE
11000 FT

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

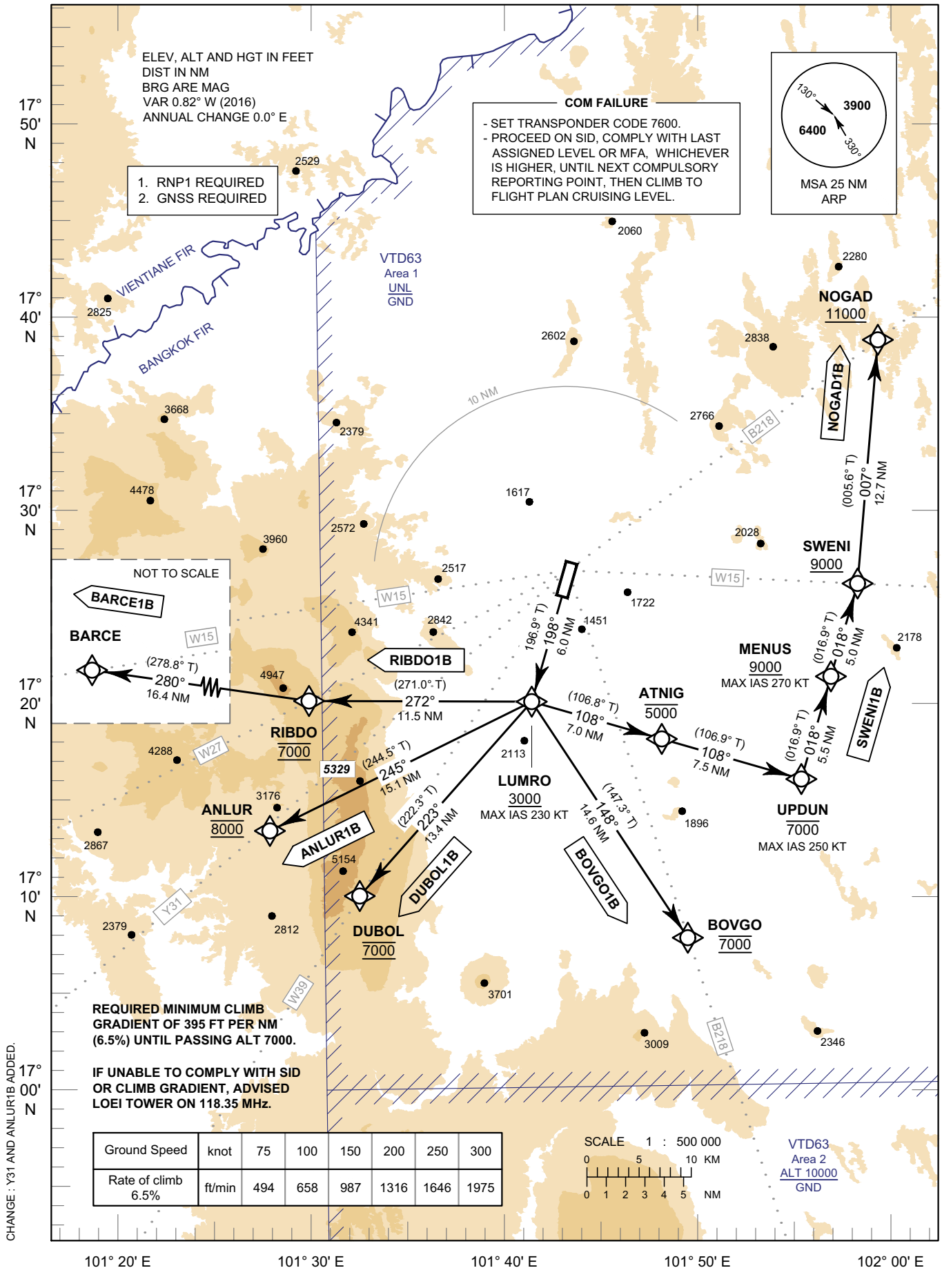
TRANSITION ALTITUDE
11000 FT

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.

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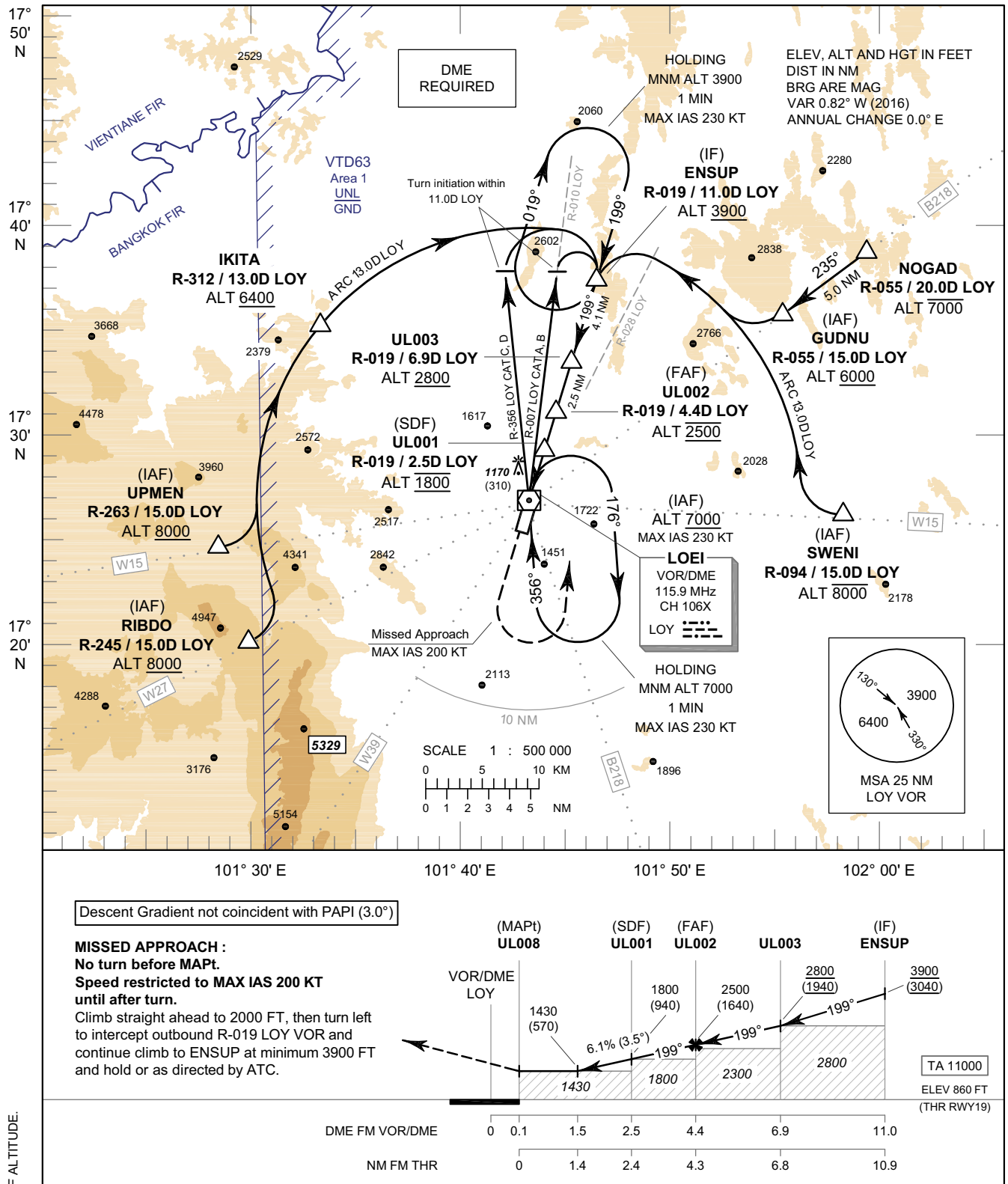
INSTRUMENT APPROACH CHART - ICAO

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' 49.38" N	101° 43' 23.12" 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' 25.02" N	101° 45' 35.96" E
(FAF) UL002	R-019 / 4.4D LOY	17° 31' 01.68" N	101° 44' 47.81" E
(SDF) UL001	R-019 / 2.5D LOY	17° 29' 12.73" N	101° 44' 11.23" E
(MAPt) UL008	R-019 / 0.1D LOY	17° 26' 55.11" N	101° 43' 25.04" E

CHANGE : MAPt NAME.

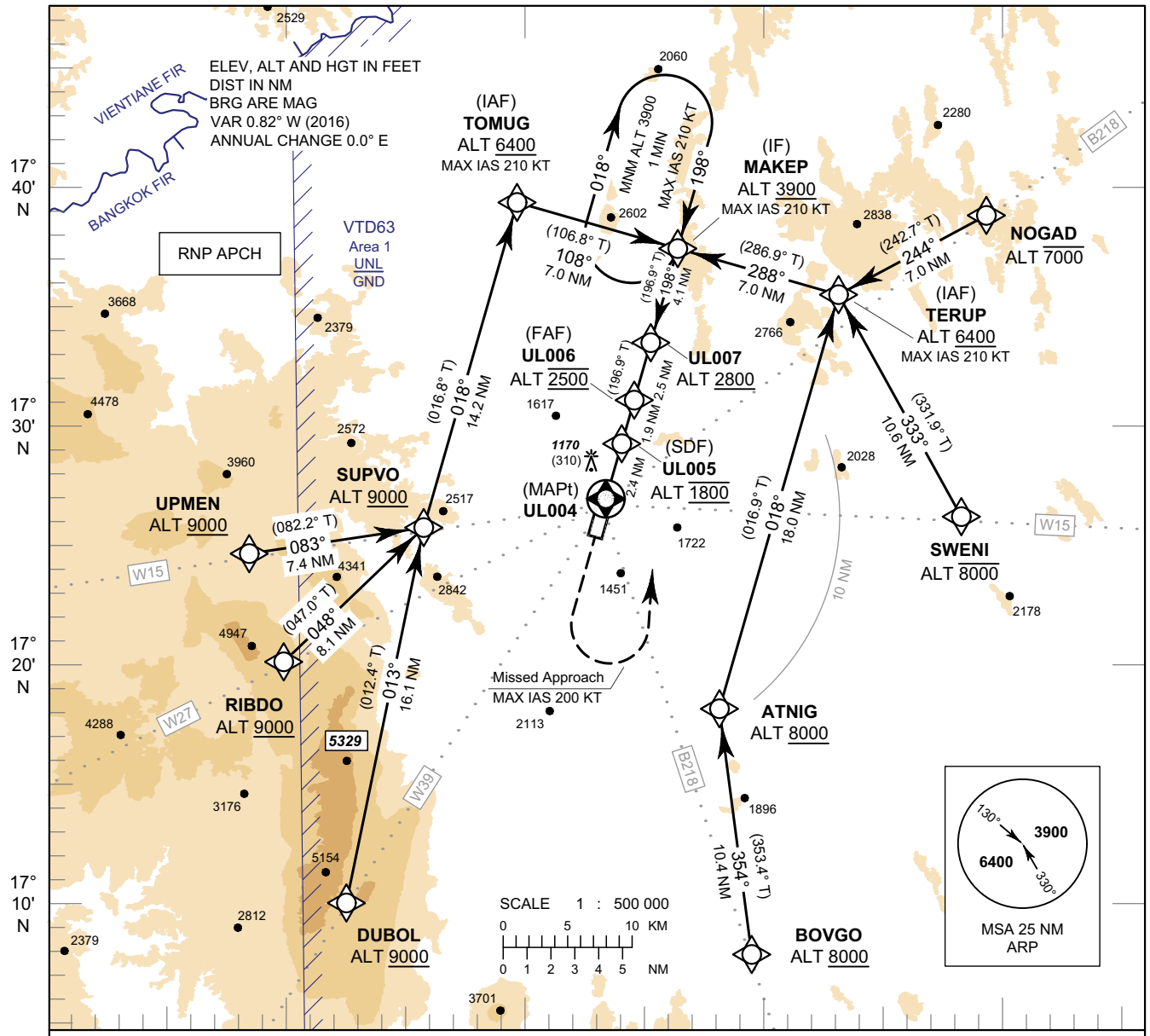
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 860 FT
HEIGHT RELATED TO AERODROME ELEV

APP : 122.55
TWR : 118.35 , 236.6
ATIS : 126.25

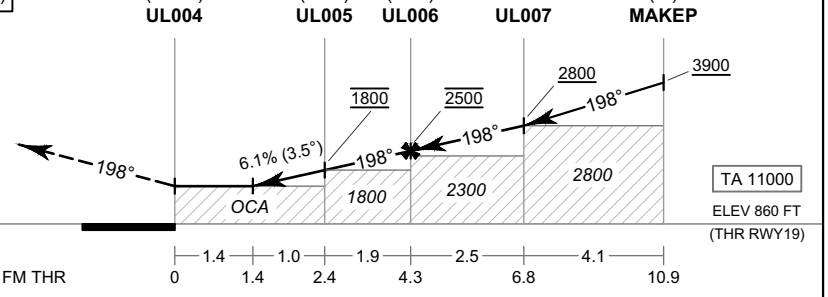
LOEI / Loei (VTUL)

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.

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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 Mueang District Lop Buri Province Tel: +663 677 6736 Fax: NIL 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) Surface: Concrete and asphalt Strength: PCN 27/F/A/Y/T Apron (203) Surface: Concrete Strength: PCN 35/R/C/W/T
2	Taxiway width, surface and strength	TWY A Width: 30 M Surface: Concrete and asphalt Strength: PCN 11/F/D/Y/T TWY B Width: 25 M Surface: Concrete Strength: PCN 35/R/C/W/T TWY C, D, E Width: 24 M Surface: Concrete Strength: PCN 35/R/C/W/T
3	Altimeter checkpoint location and elevation	Elevation: 35.72 M (118 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 HGT 158 M	144935N 1004035E	Radio Mast HGT 115 M Painted red/white LGTD on top	145235.90N 1003824.48E	NIL
-	Radio Mast HGT 130 M Painted red/white LGTD on top	144801.25N 1003833.87E	Radio Mast HGT 65 M Painted red/white LGTD on top	145218.27N 1003824.63E	
-	Radio Mast HGT 60 M Painted red/white LGTD on top	145057.71N 1003955.62E			
-	Radio Mast HGT 60 M Painted red/white LGTD on top	144809.13N 1003911.33E			
-	Radio Mast 74.05 M (MSL) Painted red/white LGTD on top	145104.85N 1003837.50 E			

VTBL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	NIL
2	Hours of service MET Office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	NIL
4	Type of landing forecast Interval of issuance	NIL
5	Briefing/consultation provided	NIL
6	Flight documentation 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	NIL	2200x45	PCN 38/F/D/Y/T Concrete and asphalt	145301.99N 1003936.08E	NIL
34	NIL	2200x45	PCN 38/F/D/Y/T Concrete and asphalt	145154.47N 1004000.75E	NIL
05	NIL	1340x45	PCN 35/R/C/W/T Concrete	145209.96N 1003927.82E	NIL
23	NIL	1340x45	PCN 35/R/C/W/T Concrete	145239.88N 1004000.49E	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	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 100 M White	Red	NIL	NIL
34	NIL	Green	PAPI Left 3°	NIL	NIL	2200 M 100 M White	Red	NIL	NIL
05	NIL	Green	PAPI Left 3°	NIL	NIL	1340 M 100 M White	NIL	NIL	NIL
23	NIL	Green	PAPI Left 3°	NIL	NIL	1340 M 100 M White	NIL	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 Anemometer location and LGT	NIL
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	By motor
5	Remarks	NIL

VTBL AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 Language(s)	Khok Kathiam Tower 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 238.6 MHZ *121.5 MHZ *243.0 MHZ	23:00-11:00	*Emergency Freq.
GND	Ground Control	121.75 MHZ 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 - Reference datum Height(RDH) is 15.24 M (50 FT) A. Localizer - LOC 300 M (984 FT) from THR RWY23, along RWY centre line. Course width 6º B. Glide Path 3º - GP 300 M (984 FT) from THR RWY05, 120 M (394FT) from RWY centre line. C. DME - 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 (150220.40N 1003227.93E) which is approximately 12.12 NM on RDL 324 of LB NDB altitude 2000 FT. (1000 FT. for Helicopter) then proceeding to Ban Khok kathiam, designated as KILO point (145359N 1003536E) 4.3 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 (144305N 1004720E) which is approximately 11.8 NM on BRG 142 of LB NDB altitude 2000 FT. (1000 FT. for Helicopter) then proceeding to Lopburi province designated as LIMA point (144758N 1003800E) which is approximately 4.8 NM on BRG 200 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 1003800E) which is approximately 4.8 NM on BRG 200 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

– Conventional 1000 FT.
– Helicopter 500 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 the control tower or base operations at least sixty minutes before departure.

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

NIL

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 Mae Hong Son Airports Niwet Pisan Road Amphoe Muang Mae Hong Son 58000 Thailand Tel: +665 361 2057 +665 361 1499 Fax: +665 361 1499 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	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): Located at Chiang Mai Air Traffic Control Centre (1st floor of tower building) Tel: +669 1818 5798 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 Strength: PCN 41/F/C/X/T (Apron 1) Surface: Concrete Strength: PCN 45/R/C/X/T (Apron 2)
2	Taxiway width, surface and strength	Taxiway A Width: 17.5 M Surface: Asphalt Strength: PCN 41/F/C/X/T Taxiway B Width: 20 M Surface: Asphalt Strength: PCN 41 F/C/X/T Taxiway C Width: 20 M Surface: Asphalt Strength: PCN 41 F/C/X/T

3	Altimeter checkpoint location and elevation	Location: At Apron 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. TWY edge and TWY holding position are provided. 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/ Approach area	DVOR/DME 1814 FT (553 M) Paint red/white LGTD	191911.11N 0975443.63E	AWOS 960 FT (293 M) Paint red/white LGTD	191756.47N 0975852.13E	NIL
RWY11/ Approach area	Radar 1694 FT (516 M) Paint red/white NIL	191917.72N 0975457.91E	AWOS 956 FT (291 M) Paint red/white LGTD	191756.42N 0975852.33E	NIL
RWY11/ Approach area	Monitor pole 1819 FT (555 M) Paint red/white NIL	191913.03N 0975440.58E	Tree 965 FT (294 M) NIL/NIL	191758.39N 0975843.12E	NIL
RWY29/ Approach area	Mountain 4423 FT (1348 M) NIL/NIL	191742.82N 0980225.29E	Tree 975 FT (297 M) NIL/NIL	191758.09N 0975841.50E	NIL
			Tree 1058 FT (322 M) NIL/NIL	191752.72N 0975908.58E	NIL
			Tree 955 FT (291 M) NIL/NIL	191813.95N 0975827.71E	NIL
			Tree 1036 FT (316 M) NIL/NIL	191812.76N 0975731.75E	NIL
			Tree 1001 FT (305 M) NIL/NIL	191814.01N 0975816.66E	NIL
			Water tank 1001 FT (305 M) NIL/NIL	191818.95N 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 4682 FT (1427 M) NIL/NIL	191549.49N 0980157.50E	NIL
			Radar (MET station) 981 FT (299 M) Painted red/white Red LGT on top	191800.47N 0975831.60E	NIL
			Radio mast 1546 FT (471 M) Paint red/white LGTD	191751.41N 0975728.50E	NIL
			Radio mast 1056 FT (322 M) Paint red/white LGTD	191815.41N 0975839.13E	NIL
			Radio mast 1126 FT (343 M) Paint red/white NIL	191818.40N 0975845.44E	NIL
			Radio mast 1045 FT (318 M) Painted red/white NIL	191724.62N 0975755.20E	NIL
			Electricity pole 1002 FT (306 M) NIL/NIL	191756.81N 0975909.22E	NIL
			Radio mast 1515 FT (462 M) Paint red/white LGTD	191756.10N 0975731.88E	NIL
			Radio mast 1553 FT (473 M) Paint red/white LGTD	191757.05N 0975732.24E	NIL
			Radio mast 1176 FT (358 M) Paint red/white LGTD	191721.62N 0975934.05E	NIL
			Apron flood light pole 971 FT (296 M) Paint red/white LGTD	191803.35N 0975824.07E	NIL
			Apron flood light pole 973 FT (297 M) Paint red/white LGTD	191802.39N 0975827.20E	NIL
			Apron flood light pole 976 FT (297 M) Paint red/white LGTD	191801.40N 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 978 FT (298 M) Paint red/white LGTD	191800.49N 0975833.35E	NIL
			Lightning rod of building 998 FT (304 M) Paint red/white LGTD	191759.88N 0975831.67E	NIL
			ATC tower (Old) 968 FT (295 M) Paint red/white NIL	191801.84N 0975827.08E	NIL
			ATC tower 1007 FT (307 M) Paint red/white LGTD	191800.60N 0975829.25E	NIL

VTCH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Mae Hong Son, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 361 2903 ext. 4210
6	Flight documentation 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 Observation System (AWOS), 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 Anemometer location and LGT	LDI: NIL Anemometer: NIL WDI: 1. Wind cone at 145 M from THR 11 offset to the side 60 M from RCL, illuminated 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 TWY centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the airfield lighting (AFL) building. Switch-over time: 15 SEC
5	Remarks	NIL

VTCH AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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). Excluding the Myanmar territory.
2	Vertical limits	2000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Mae Hong Son Tower 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 121.5 MHz [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Mae Hong Son Tower	122.3 MHz 236.6 MHz 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 0975830.59E	NIL	1. Data refer to commissioning checked as follows: a) 40 NM orbit flown from bearing 071°-180° clockwise orbit at altitude 8 500 FT. Result found satisfactory. b) Bearing 181°-070° clockwise unable to performed due to border limited. 2. Facility performance classified as “Restricted” due to item b) above as per commissioning checked.
DVOR/DME	MHS	115.5 MHZ CH102X	H24	191911.1N 0975443.6E		DVOR/DME restrictions, 1. Unusable due to roughness out of tolerance – Radial 040° distance between 10.5-12.5 DME altitude 5 500 FT – Radial 085° distance between 5.5-7.5 DME altitude 7 000 FT – Radial 100° distance between 9.0-10.0 DME altitude 7 000 FT – Radial 120° distance between 9.5 - 10.5 DME altitude 7 500 FT 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: – Radial 060°-080° altitude should not below 8 500 FT – Radial 081°-140° altitude should not below 13 000 FT – Radial 141°-190° altitude should not below 9 000 FT – 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.

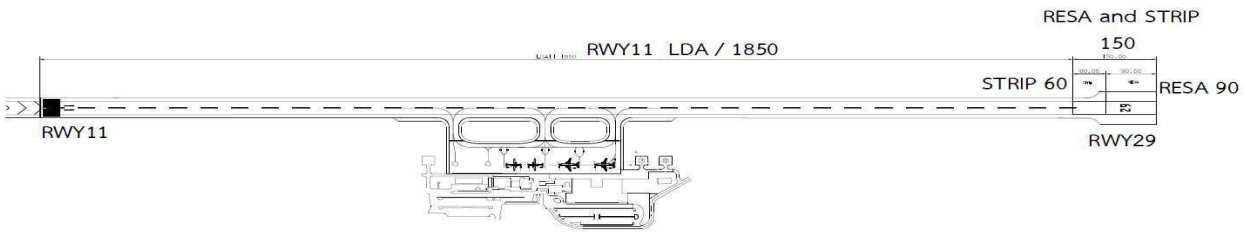
2.6 Pilots shall check the actual takeoff wind and temperature before takeoff in order to calculate the maximum speed and weight of aircraft in takeoff.

2.7 Pilots shall exercise caution when landing on RWY11 and only under good visibility conditions.

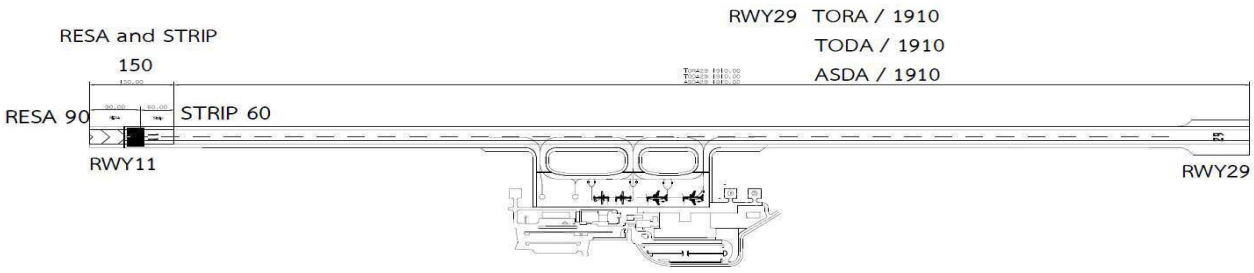
2.8 In the event that landing is not feasible, pilots shall execute a go-around procedure or divert to an alternate aerodrome.

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

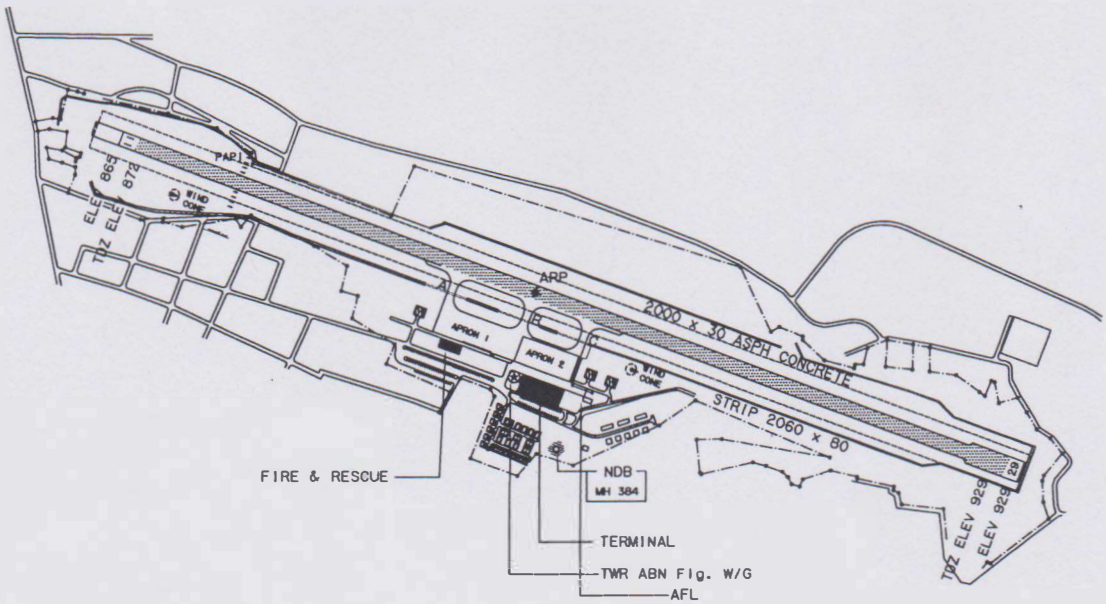
RWY	DIRECTION	THR	BEARING STRENGTH
11	108.26°	19° 18' 15.29" N 97° 58' 00.56" E	PCN 41/F/C/X/T
29	288.26°	19° 18' 55.28" N 97° 58' 05.72" E	
APRON 1			PCN 41/F/C/X/T
APRON 2			PCN 45/R/C/X/T

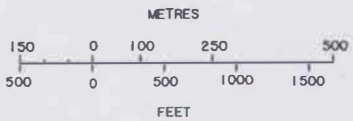
VAR 0° 44' W (2005)

ANNUAL RATE OF CHANGE 4' W

ELEVATIONS IN FEET AND DIMENSIONS IN METRES

BEARINGS ARE MAGNETIC

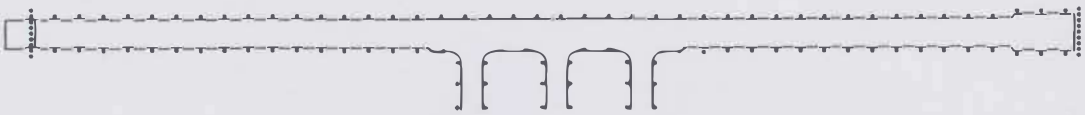




MARKING AIDS RWY 11/29 AND EXIT TWY



LIGHTING AIDS RWY 11/29 AND EXIT TWY



Remark : COORDINATE ARE WGS-84

INTENTIONALLY BLANK

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

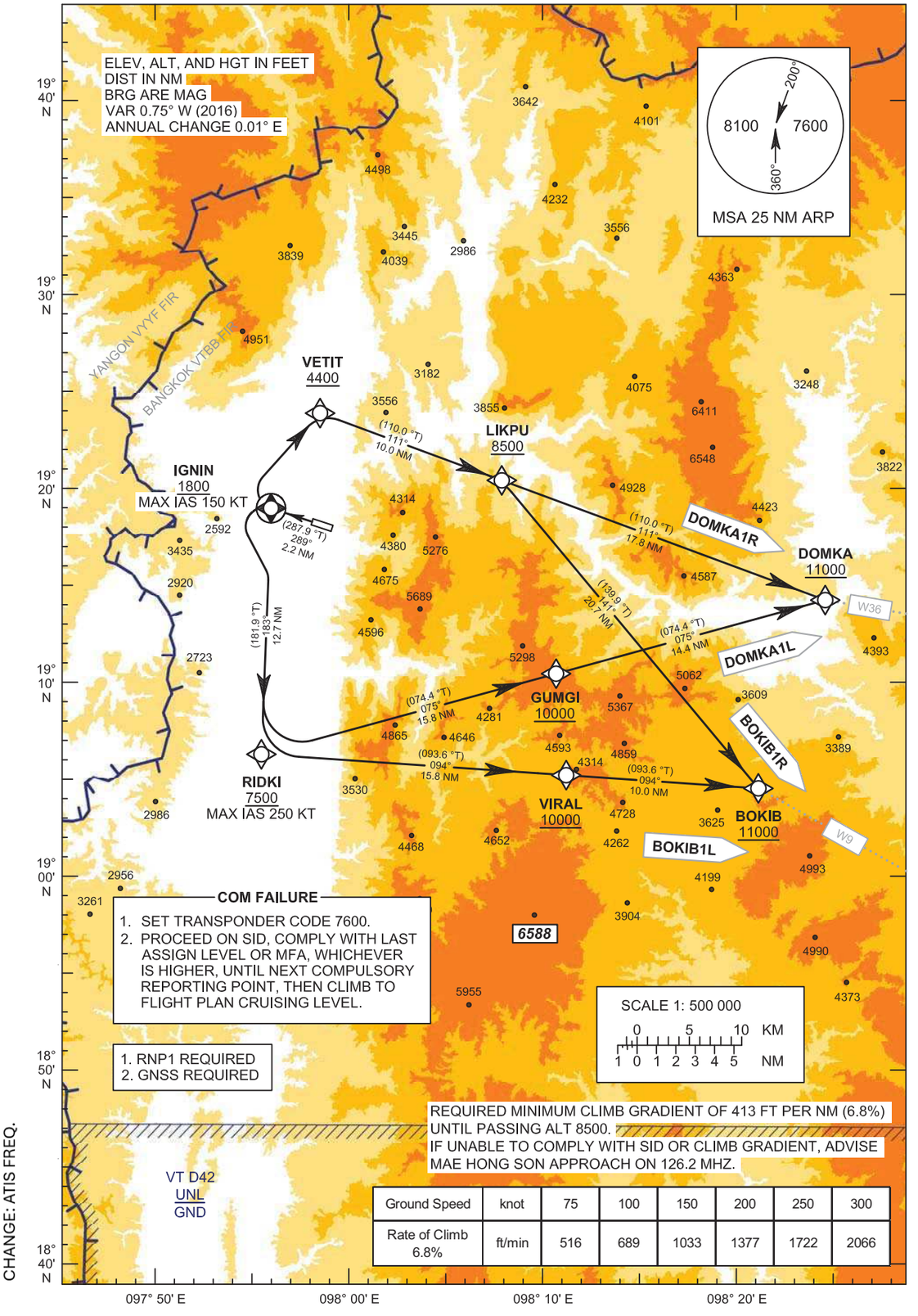
TRANSITION ALTITUDE
11000 FT

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

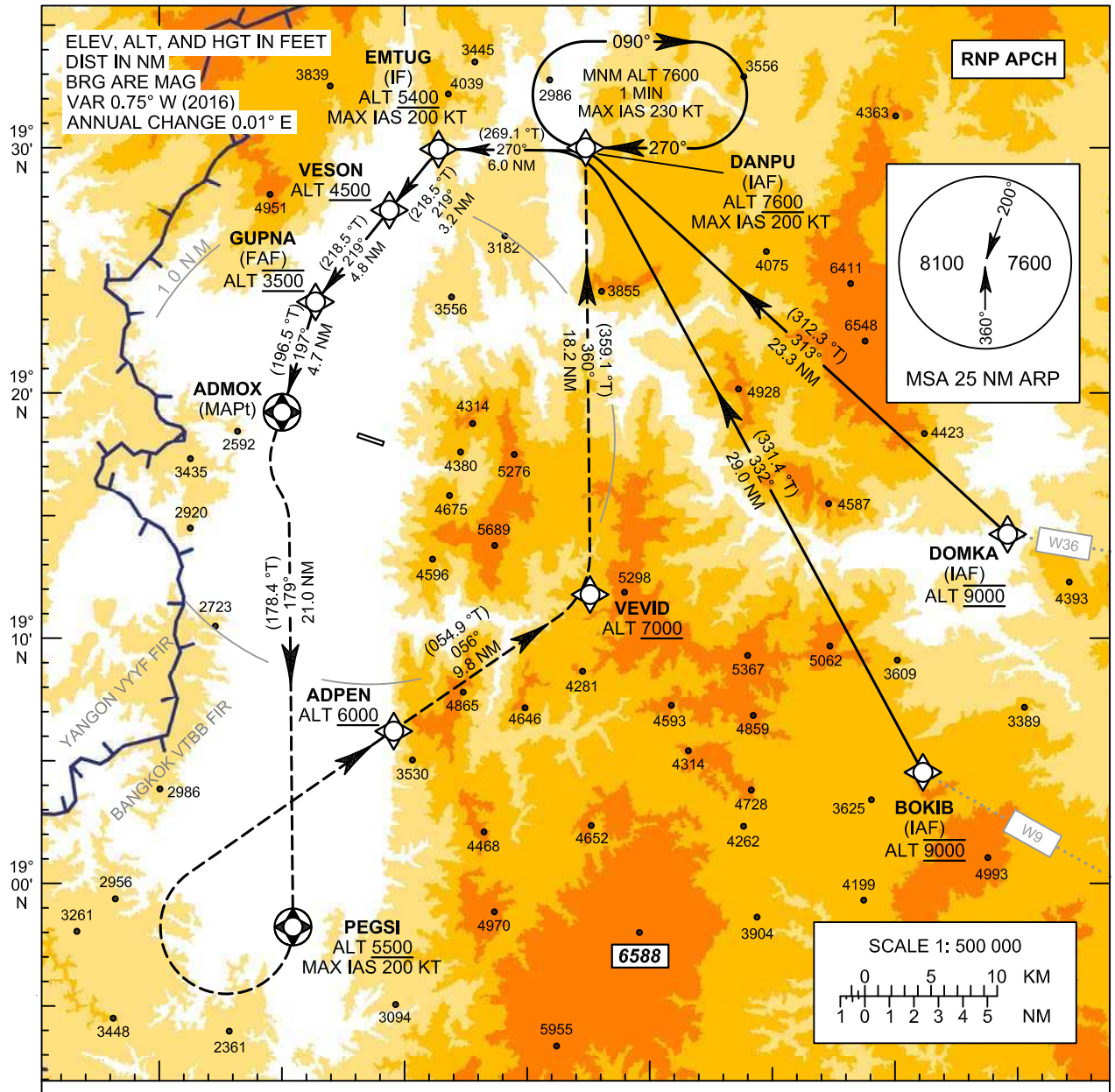
INSTRUMENT APPROACH CHART - ICAO

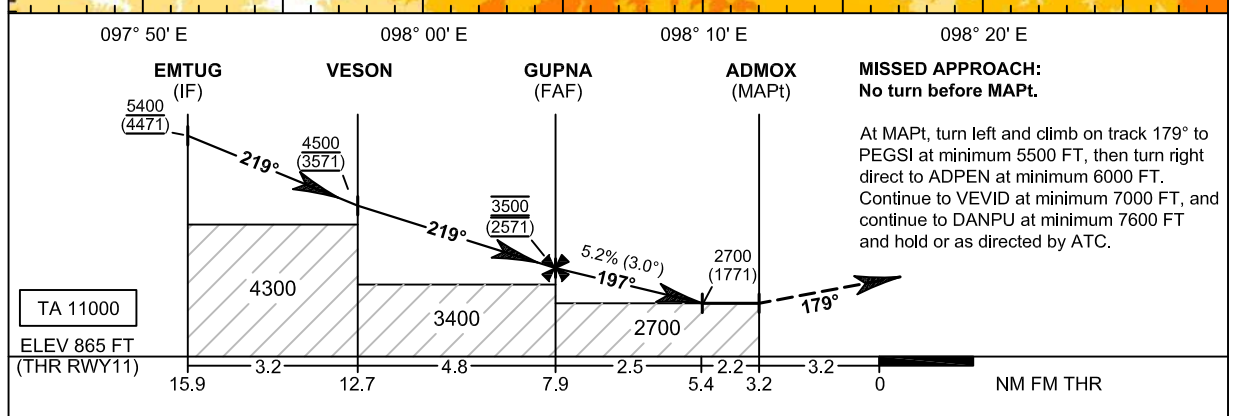
AERODROME ELEV 929 FT
HEIGHTS RELATED TO AERODROME ELEV

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

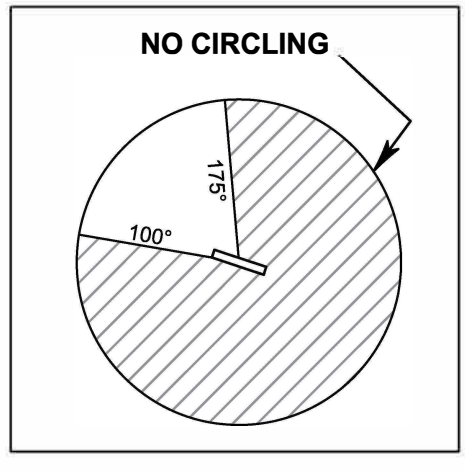
RNP a RWY11

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 Mae Hong Son Airports Niwet Pisan Road Amphoe Muang Mae Hong Son 58000 Thailand Tel: +665 361 2057 +665 361 1499 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 Strength: 5700 KG / 0.50 MPA
2	Taxiway width, surface and strength	Width: 10 M Surface: Concrete and asphalt 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) 524.60 M	192208.98N 0982603.99E	NIL
			TREE (D) 533.60 M	192204.38N 0982607.86E	
			MAST (E) 524.60 M	192205.19N 0982603.05E	
			MAST (F) 524.60 M	192206.45N 0982603.39E	
			MAST (G) 524.60 M	192207.70N 0982603.75E	
			MAST (H) 524.60 M	192210.28N 0982604.04E	
			MAST (I) 524.60 M	192211.58N 0982603.94E	
			MAST (J) 524.60 M	192212.88N 0982603.91E	
			MAST (O) 524.60 M	192226.48N 0982608.19E	
			MAST (P) 524.60 M	192227.69N 0982608.70E	
			MAST (Q) 524.60 M	192228.97N 0982608.92E	

VTCI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	NIL
2	Hours of service MET Office outside hours	NIL
3	Office responsible for TAF preparation Periods of validity	NIL
4	Type of landing forecast Interval of issuance	NIL
5	Briefing/consultation provided	NIL
6	Flight documentation 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 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 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 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

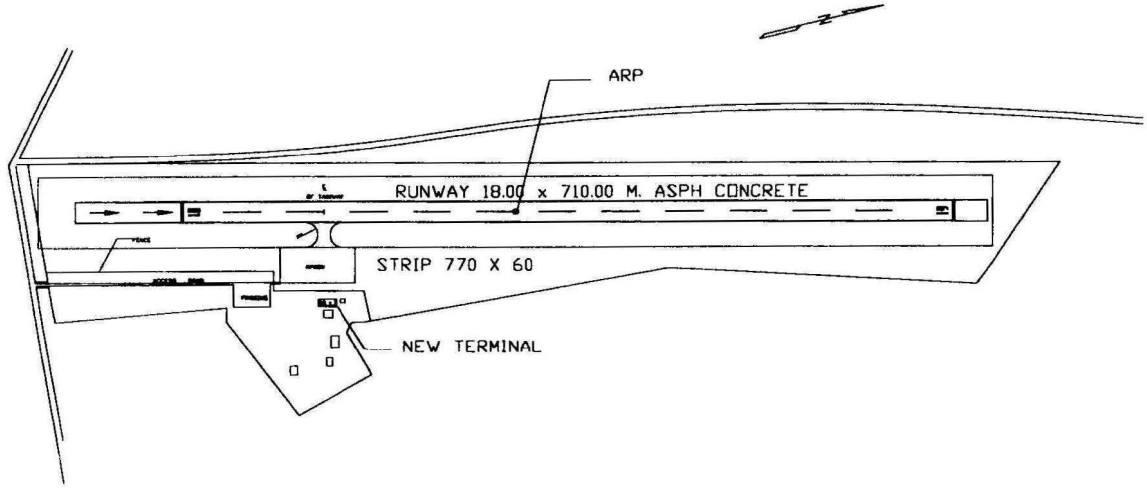
VTCI AD 2.24 CHARTS RELATED TO AN AERODROME

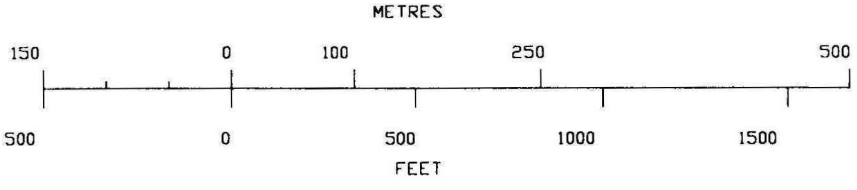
Chart name	Page
Aerodrome Chart - ICAO	AD 2-VTCI-2-1

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

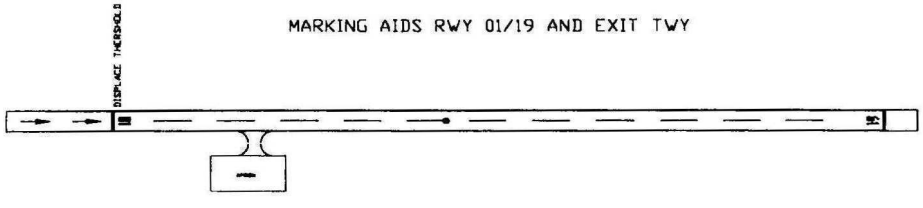
ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC





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 Nakhon Pathom Province Thailand Tel: +662 534 5201 Fax: +662 534 5603 AFS: VTBKYXYX 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 Strength: PCN 48/R/D/X/T
2	Taxiway width, surface and strength	Width: 22.5 M Surface: Concrete Strength: PCN 45/R/C/X/T
3	Altimeter checkpoint location and elevation	Location: Close to the apron 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. 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 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 03/TKOF	Radio mast HGT 18 M painted red/white LGTD on top	140629N 0995533E	Microwave tower HGT 85 M LGTD on top. Chimney HGT 37 M	140936N 0995852E 140828N 0995713E	NIL

VTBK AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Kamphaeng Saen
2	Hours of service MET Office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	Kamphaeng Saen 00, 13, 18 HR
4	Type of landing forecast Interval of issuance	Trend 1 HR
5	Briefing/consultation provided	Personal Consultation
6	Flight documentation Language(s) used	Chart Thai, English
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	Telefax Self - Briefing Terminal
9	ATS units provided with information	Kamphaeng Saen TWR 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 Concrete	140528.37N 0995439.56E	THR 32 FT TDZ 32 FT
21	NIL	2743x45	PCN 45/R/C/X/T Concrete	140646.1N 0995524.72E	THR 32 FT 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 Left 3°	NIL	NIL	2700 M 60 M White, LIH	Red	NIL	NIL
21	NIL	Green	PAPI Both 3°	NIL	NIL	2700 M 60 M 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 Anemometer location and LGT	NIL Anemometer : 1 850 M from THR 21, no LGT Windsock : 240 M from THR 21, 267 M from THR 03, LGT
3	TWY edge and centre line lighting	Edge: All TWY 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 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 Language(s)	Kamphaeng Saen Tower 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 123.3 MHZ *121.5 MHZ *243.0 MHZ		Primary Operation Secondary Operation *Emergency Freq.
GND	Kamphaeng Saen Ground	257.8 MHZ 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 Nakhon Phanom Airport Tambon Photak, Amphoe Muang Nakhon Phanom Province 48000 Thailand Tel: +664 253 1586 Fax: +664 253 1587 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): Located at Udon Thani Air Traffic Control Centre (1st floor of tower building) Tel: +664 223 0124 +669 2262 3477 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 Strength: PCN 61/R/C/X/T
2	Taxiway width, surface and strength	TWY A, B, C, D and P Width: 23 M Surface: Asphaltic concrete Strength: PCN 41/F/C/X/T
3	Altimeter checkpoint location and elevation	Location: At apron 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 TWY guide lines: Yes Nose-wheel guide lines at apron 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: TWY CL, TWY Edge, RWY Holding Position and Intermediate Holding Position 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 Elevation Markings/LGT**	**Coordinates**	**Obstacle type Elevation Markings/LGT**	**Coordinates**	
a	**b**	**c**	**a**	**b**	
RWY 33/APCH area RWY 15/TKOF area	DME 576 FT (175.68 M) Painted red/white LGTD	172219.31N 1043903.03E	AWOS 1 613 FT (186.93 M) Painted red/white LGTD	172322.13N 1043814.91E	NIL
	Telecommunication mast 685 FT (208.79 M) NIL / LGTD	172202.44N 1043931.36E	AWOS 2 616 FT (187.71 M) Painted red/white LGTD	172322.32N 1043814.67E	
			AWOS 3 587 FT (178.77 M) Painted red/white LGTD	172238.98N 1043846.66E	
			AWOS 4 588 FT (179.17 M) Painted red/white LGTD	172239.08N 1043846.60E	
			AWOS 5 622 FT (189.66 M) Painted red/white LGTD	172322.03N 1043815.20E	
			AWOS 6 622 FT (189.66 M) Painted red/white LGTD	172322.12N 1043815.10E	
			DVOR/DME 620 FT (188.97 M) Painted red/white LGTD	172317.87N 1043818.11E	
			Glide slope 637 FT (194.24 M) Painted red/white LGTD	172324.46N 1043813.95E	

VTUW AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Nakhon Phanom, Upper Northeastern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1400 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Upper Northeastern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 253 1532
6	Flight documentation 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 Observation 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 IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL WDI: 1. Wind cone at 350 M from THR 15 off set to the left side 90 M from RCL, illuminated. 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 TWY centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the air field lighting (AFL). Switch over time : 15 sec.
5	Remarks	NIL

VTUW AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (172317.87N 1043818.01E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Nakhon Phanom Tower 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 284.0 MHZ 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Nakhon Phanom Tower	122.5 MHZ 121.5 MHZ [1)] 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	172332.69N 1043833.44E		50 NM Coverage clockwise orbit data refer from commissioning checked as follow: -Bearing 170-350 degree at 2100 FT -Bearing 351-169 degree unable to check due to border limited.
DVOR/DME	NKP	111.6 MHZ CH53X	H24	172317.87N 1043818.01E	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: – Radial 181°-190° altitude should not below 2 500 FT – Radial 191°-260° altitude should not below 4 000 FT – Radial 261°-320° altitude should not below 2 500 FT – Radial 321°-180° unable to check (Due to border limited)
LOC RWY15 ILS CAT I	INKP	109.7 MHZ	H24	172220.65N 1043904.98E		LOC: Localizer coverage unable to perform 10 DEG/ 90 HZ 18 NM and 35 DEG/ 90 HZ 10 NM due to LAOS PDR border.
GP		333.2 MHZ	H24	172324.48N 1043813.98E		GP: 3 DEG, RDH 50 FT
DME	INKP	CH 34X (109.7 MHZ)	H24	172219.39N 1043903.02E	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

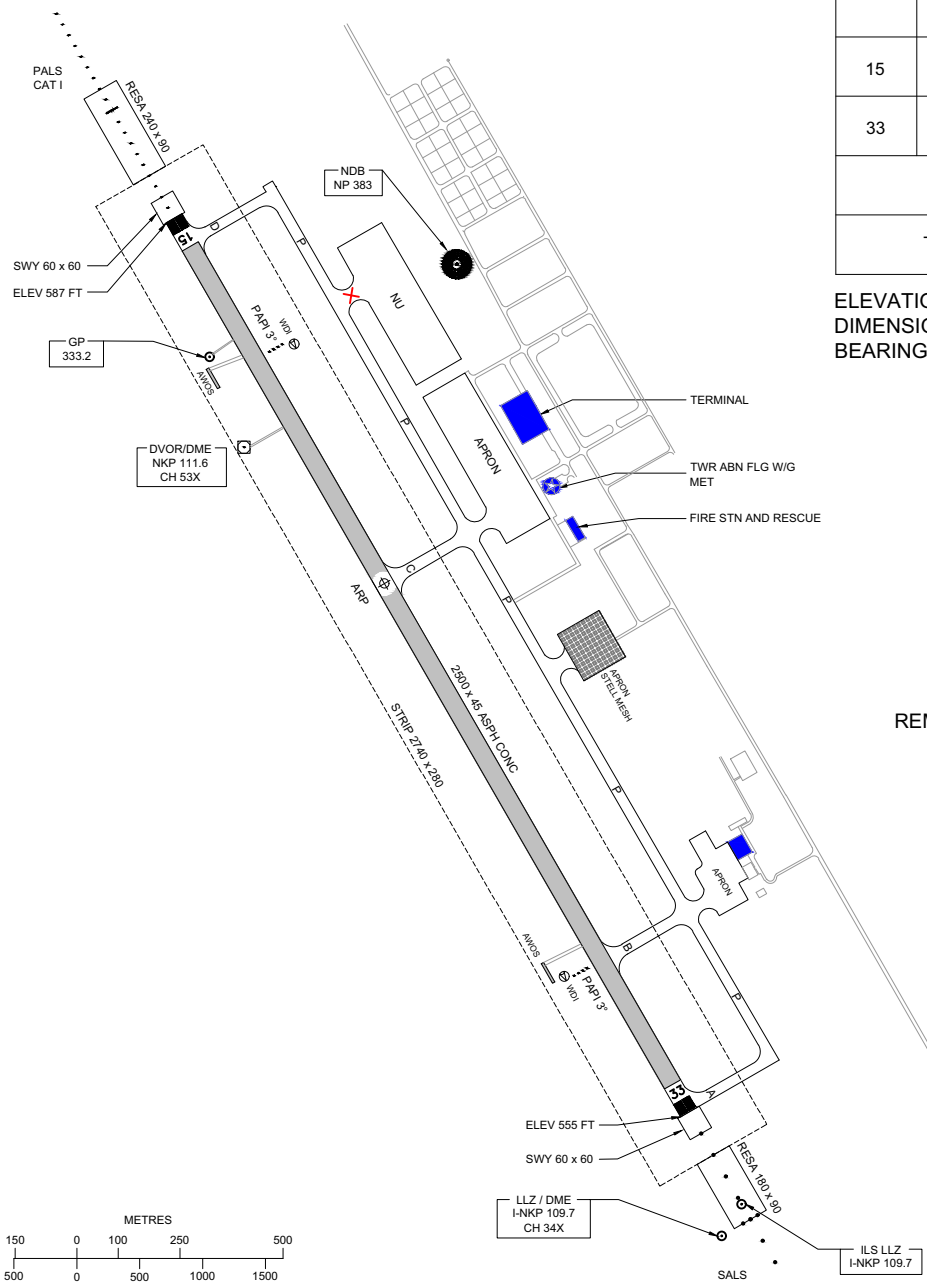
ELEV 587 FT

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 104 38 10.44E	PCN 61/F/C/X/T
33	324.96°	17 22 28.37N 104 38 59.32E	
APRON			PCN 61/R/C/X/T
TAXIWAY A, B, C, D AND P			PCN 41/F/C/X/T

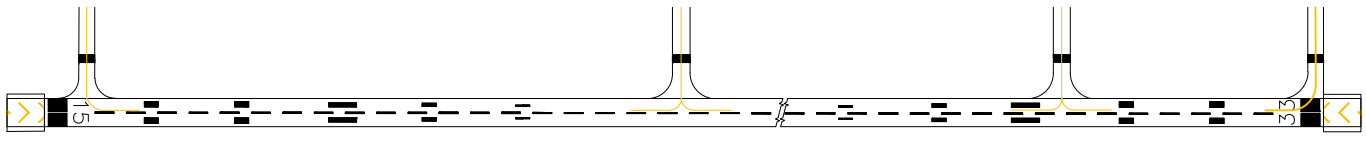
ELEVATION IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC



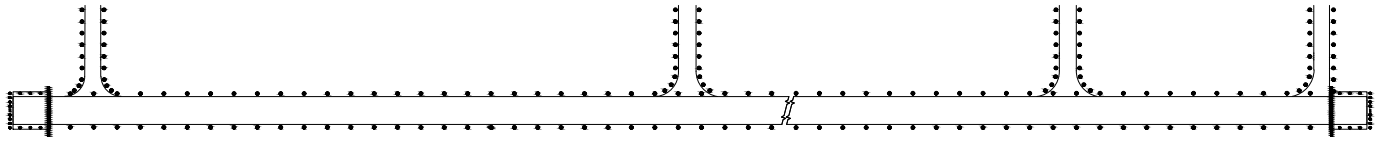
MAG VAR 0.98°W (2016)
ANNUAL RATE OF CHANGE 0.02°W

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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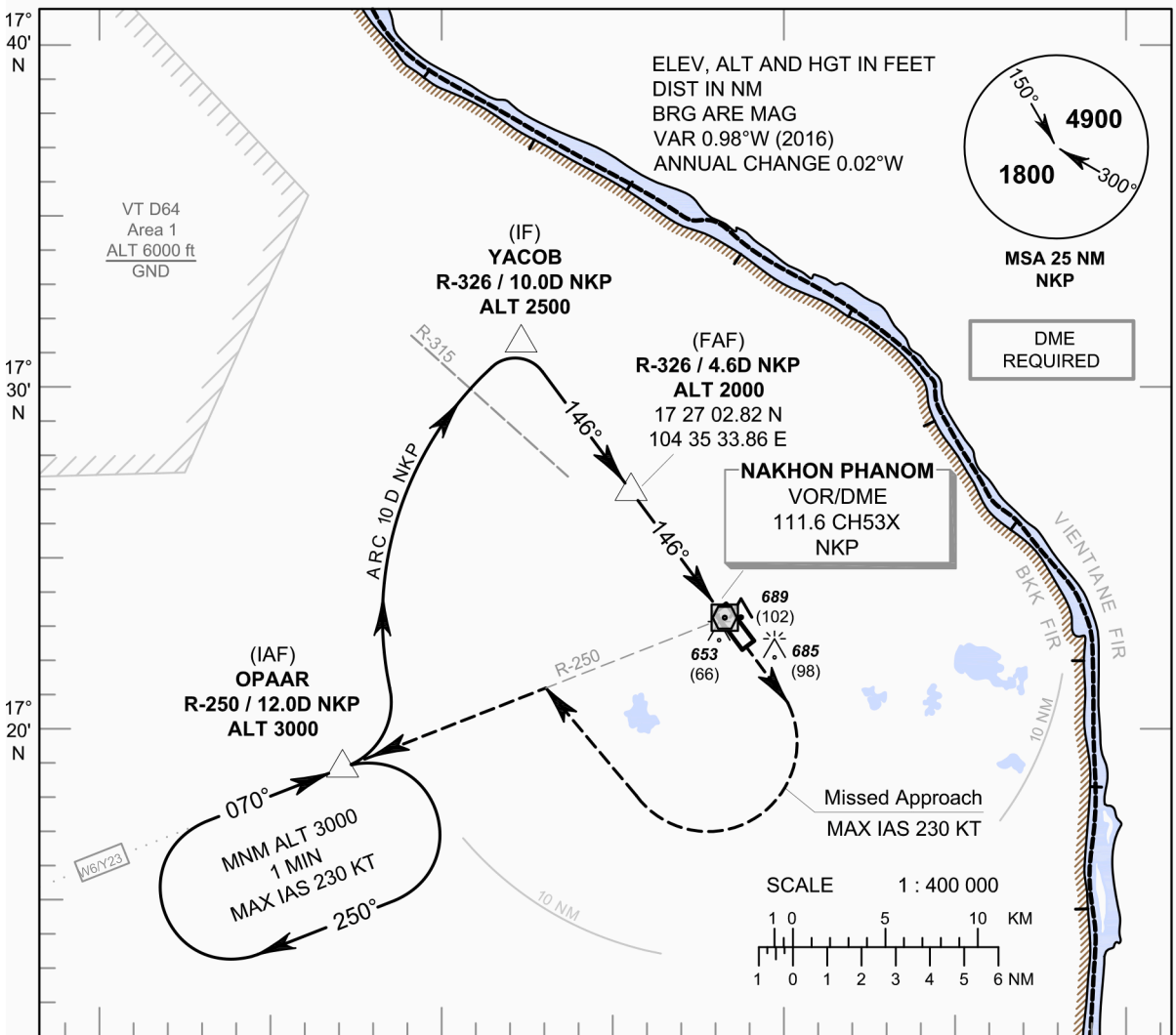
INSTRUMENT APPROACH CHART - ICAO

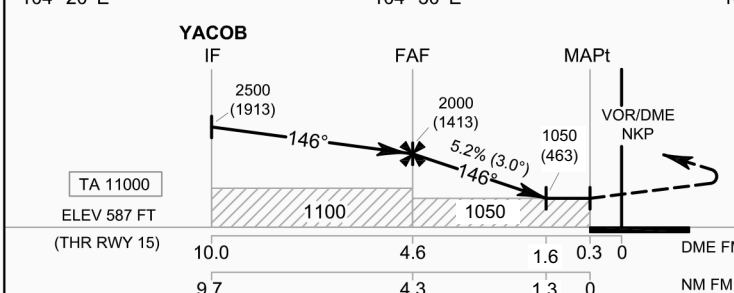
AERODROME ELEV 587 FT
HEIGHTS RELATED TO AERODROME ELEV

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-250 NKP VOR then proceed to OPAAR at 3000 FT and hold or as directed by ATC.

CHANGE: OCA/H.

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

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-250 / 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

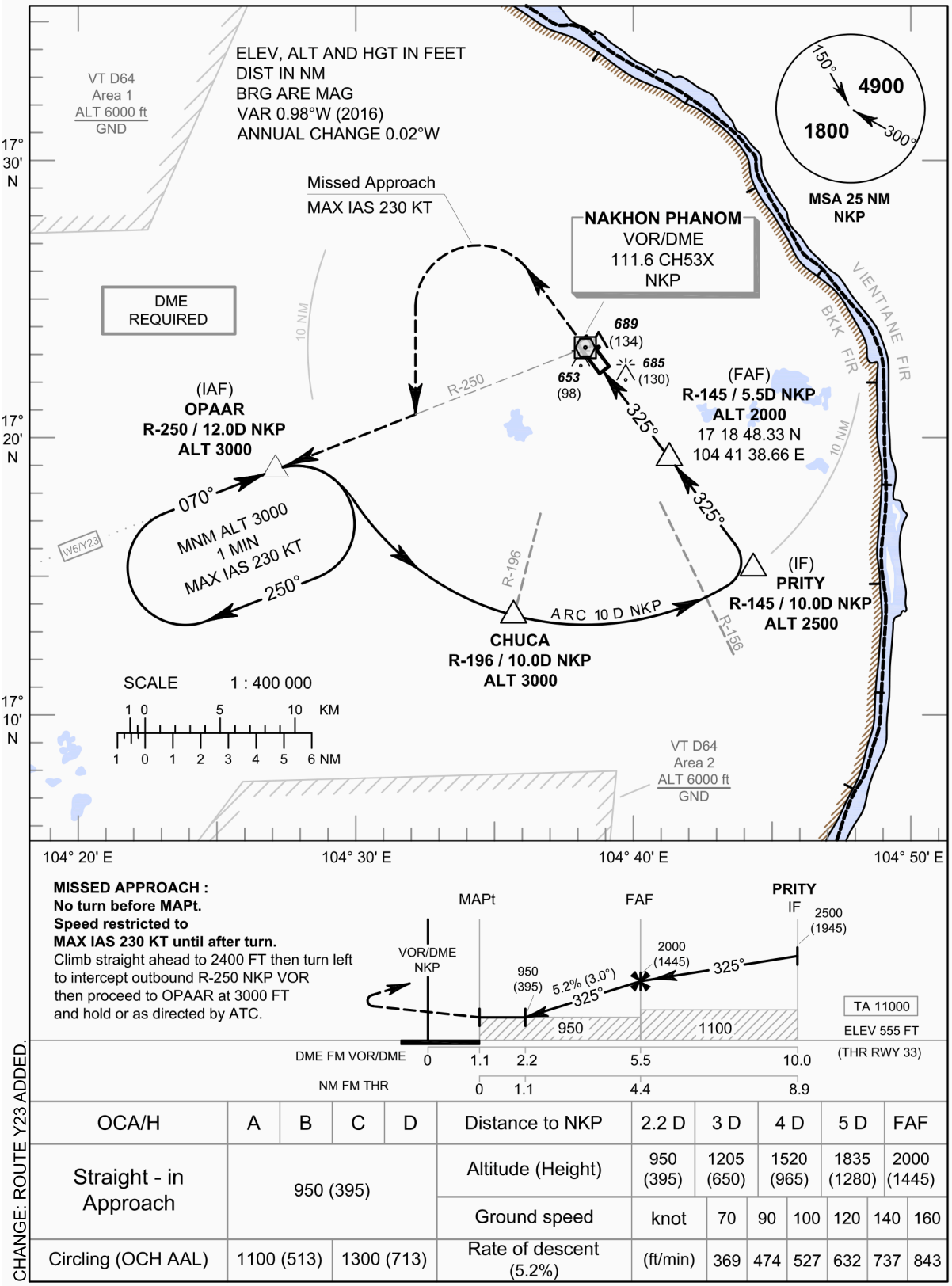
INSTRUMENT APPROACH CHART - ICAO

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-250 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	950 (395)			
Circling (OCH AAL)	1100 (513)		1300 (713)	

Distance to NKP	2.2 D	3 D	4 D	5 D	FAF
Altitude (Height)	950 (395)	1205 (650)	1520 (965)	1835 (1280)	2000 (1445)

Ground speed	knot	70	90	100	120	140	160
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)

VOR RWY33

FIX/POINT		COORDINATES	
(IAF) OPAAR	R-250 / 12.0D NKP	17 19 12.67 N	104 26 29.87 E
CHUCA	R-196 / 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

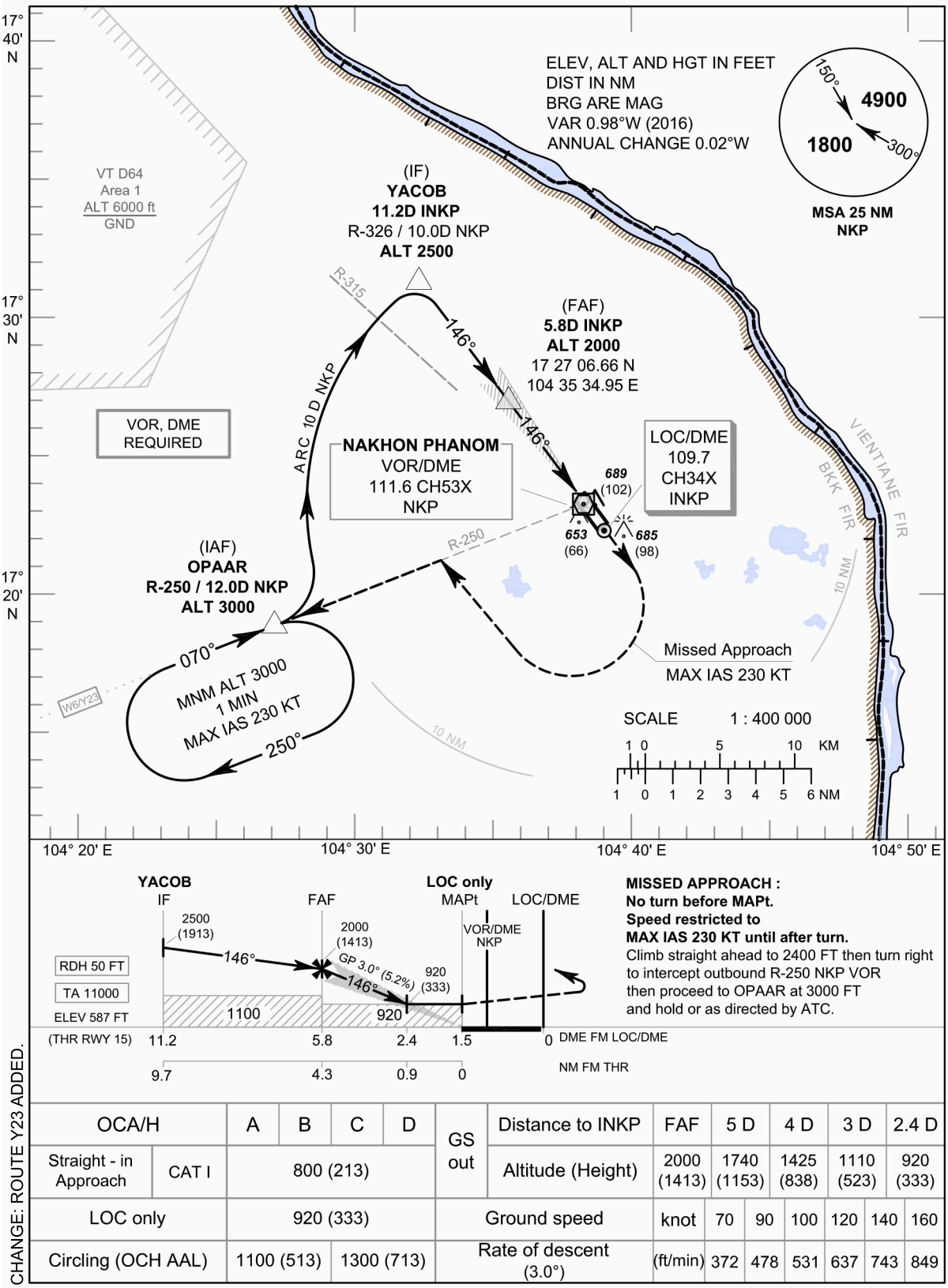
INSTRUMENT APPROACH CHART - ICAO

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



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

CHANGE: ROUTE Y23 ADDED.

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-250 / 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

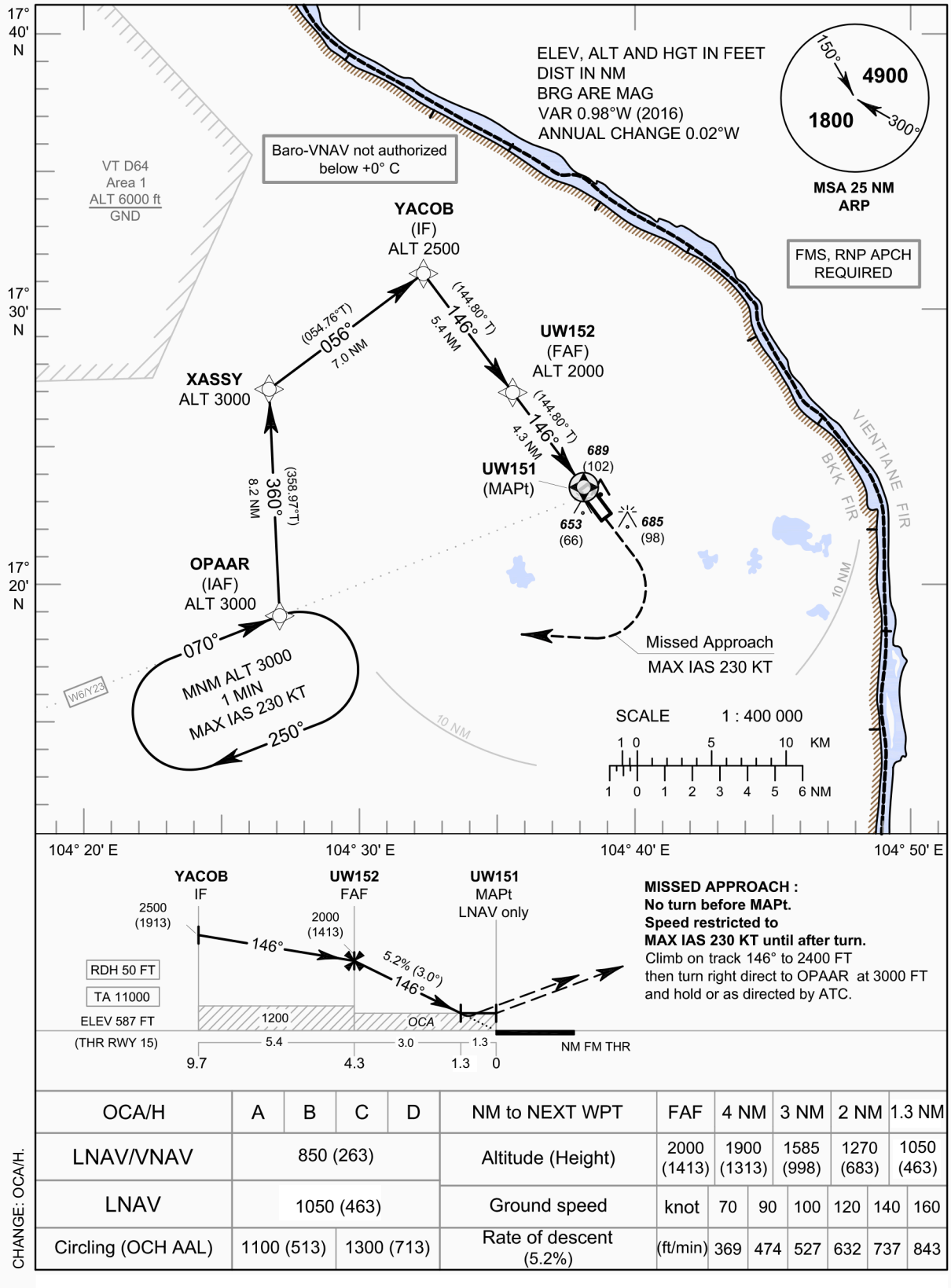
INSTRUMENT APPROACH CHART - ICAO

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.

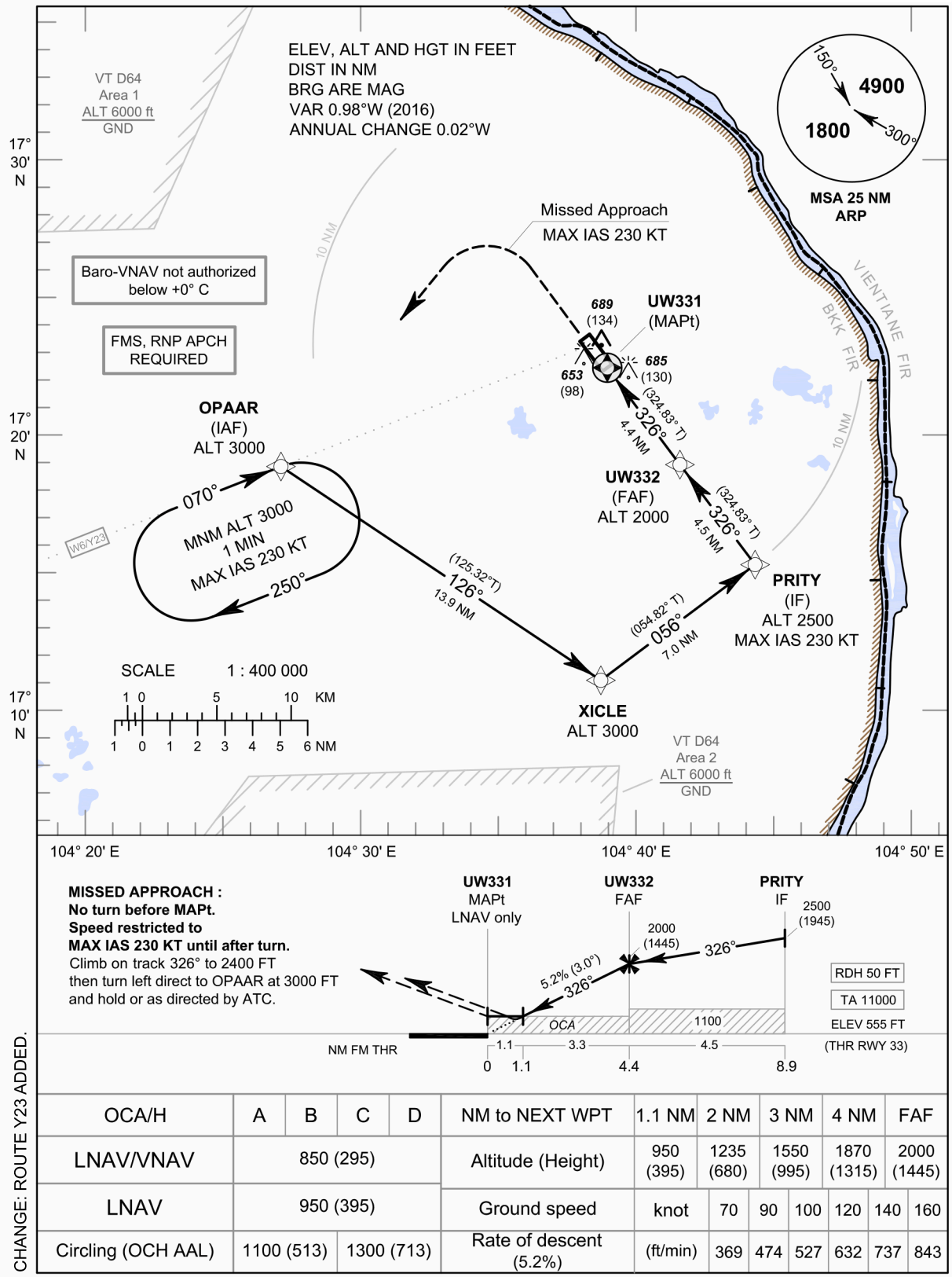
INSTRUMENT APPROACH CHART - ICAO

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 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 Nakhon Ratchasima Airport Amphoe Chalermprakiat Nakhon Ratchasima Province Thailand Tel: +664 425 5899 +664 425 9534 +664 425 9686-8 Fax: +664 425 9689 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): Located at Nakhon Ratchasima Air Traffic Control Centre (1st floor of building) Tel: +664 425 8855 Ext 7272, +668 9845 1649 Fax: +664 425 8952 Ext. 7273 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 Strength: PCN 45/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt 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, Lower Northeastern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1400 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Lower Northeastern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 425 8532
6	Flight documentation 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 Observation 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. IBN: NIL

2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL WDI: 1. Wind cone at 350 M from THR 06 off set Left side 80 M, illuminated 2. Wind cone at 350 M from THR 24 Off set Left side 80 M, illuminated 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 TWY Centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the Airfield Lighting (AFL) building. Switch-over time: 15 SEC.
5	Remarks	NIL

VTUQ AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (145647.66N 1021840.35E) 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 Language(s)	Ratchasima Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)]Emergency frequency
TWR	Ratchasima Tower	119.8 MHZ 236.6 MHZ 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	145723.28N 1021852.93E		Coverage 50 NM clockwise data refer from commissioning as follows: – Bearing 271°-160° at altitude 2 000 FT – Bearing 161°-270° at altitude 3 500 FT
DVOR/DME	NKR	110.2 MHZ CH39X	H24	145647.66N 1021840.35E		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: – Radial 271°-110° altitude should not below 3 000 FT – Radial 111°-160° altitude should not below 3 500 FT – Radial 161°-270° altitude should not below 4 500 FT
LOC RWY 06 ILS CAT I	INKR	109.7 MHZ	H24	145719.26N 1021925.51E		LOC: Designated operation coverage 18 NM, ALT 7000 FT AMSL
GP		333.2 MHZ	H24	145643.23N 1021826.07E		GP: 3 DEG, RDH 54 FT
DME	INKR	CH34X (109.7 MHZ)	H24	145717.24N 1021926.61E	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

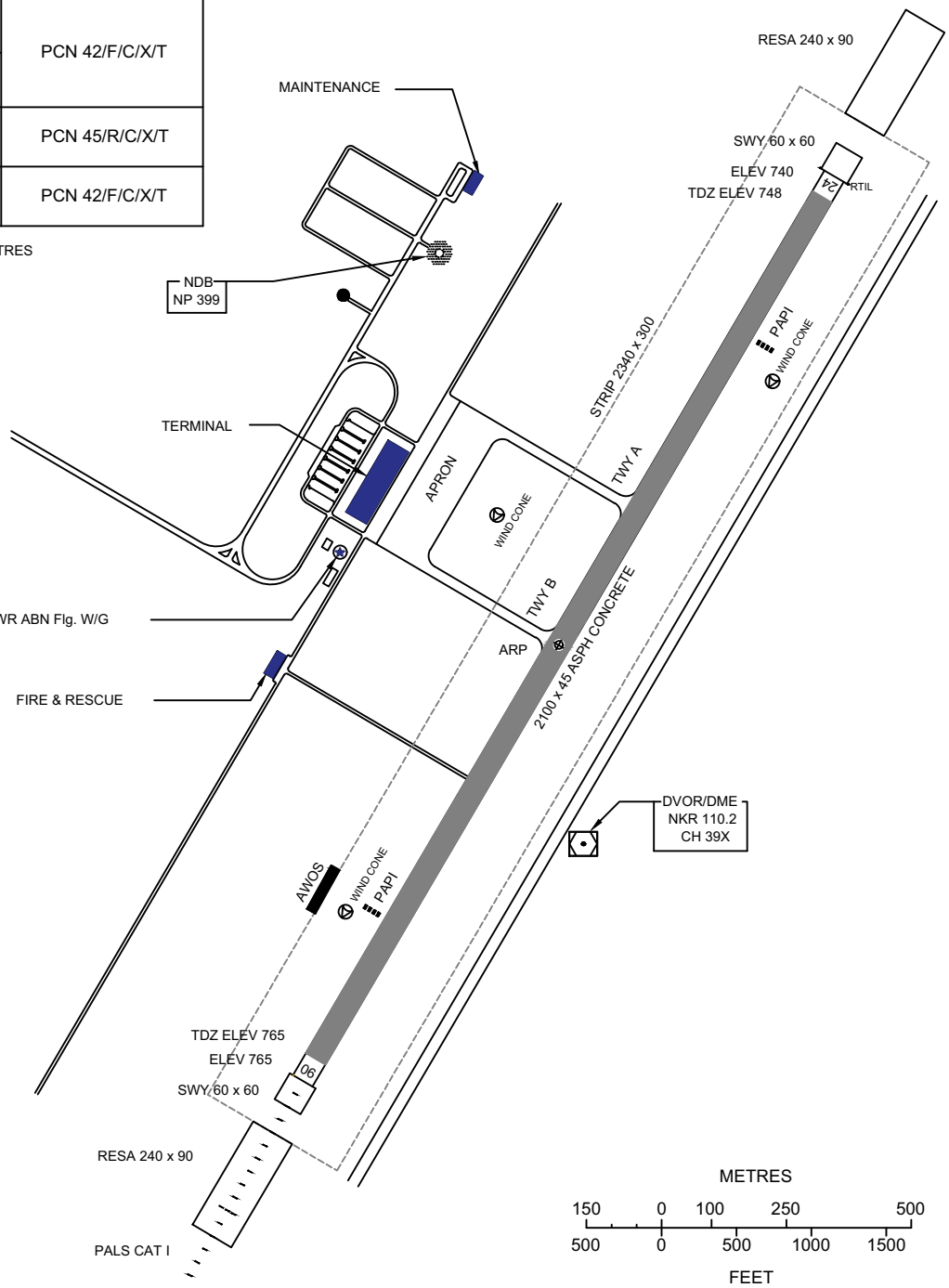
Chart name	Page
Aerodrome Chart - ICAO	AD 2-VTUQ-2-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 06 - SAMBY1A SITTA1A VOBOT1A	AD 2-VTUQ-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 06 - SAMBY1A SITTA1A VOBOT1A (Tabular description)	AD 2-VTUQ-6-2
Standard Departure 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

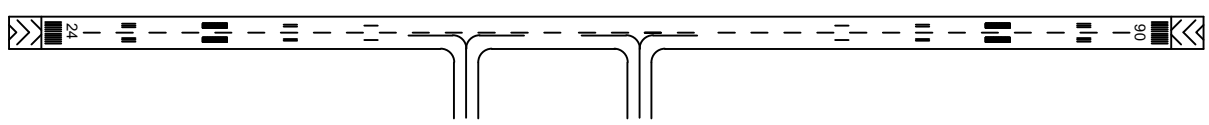
ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

MAG VAR 0.41°W (2016)
ANNUAL RATE OF CHANGE 0°W

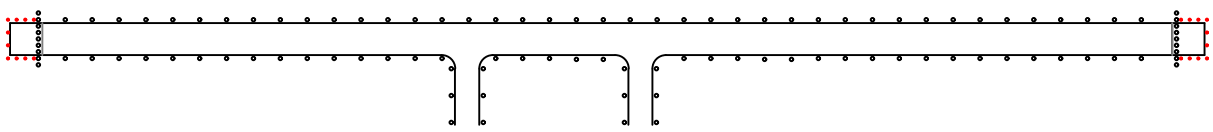


Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 06/24 AND EXIT TWY



LIGHTING AIDS RWY 06/24 AND EXIT TWY



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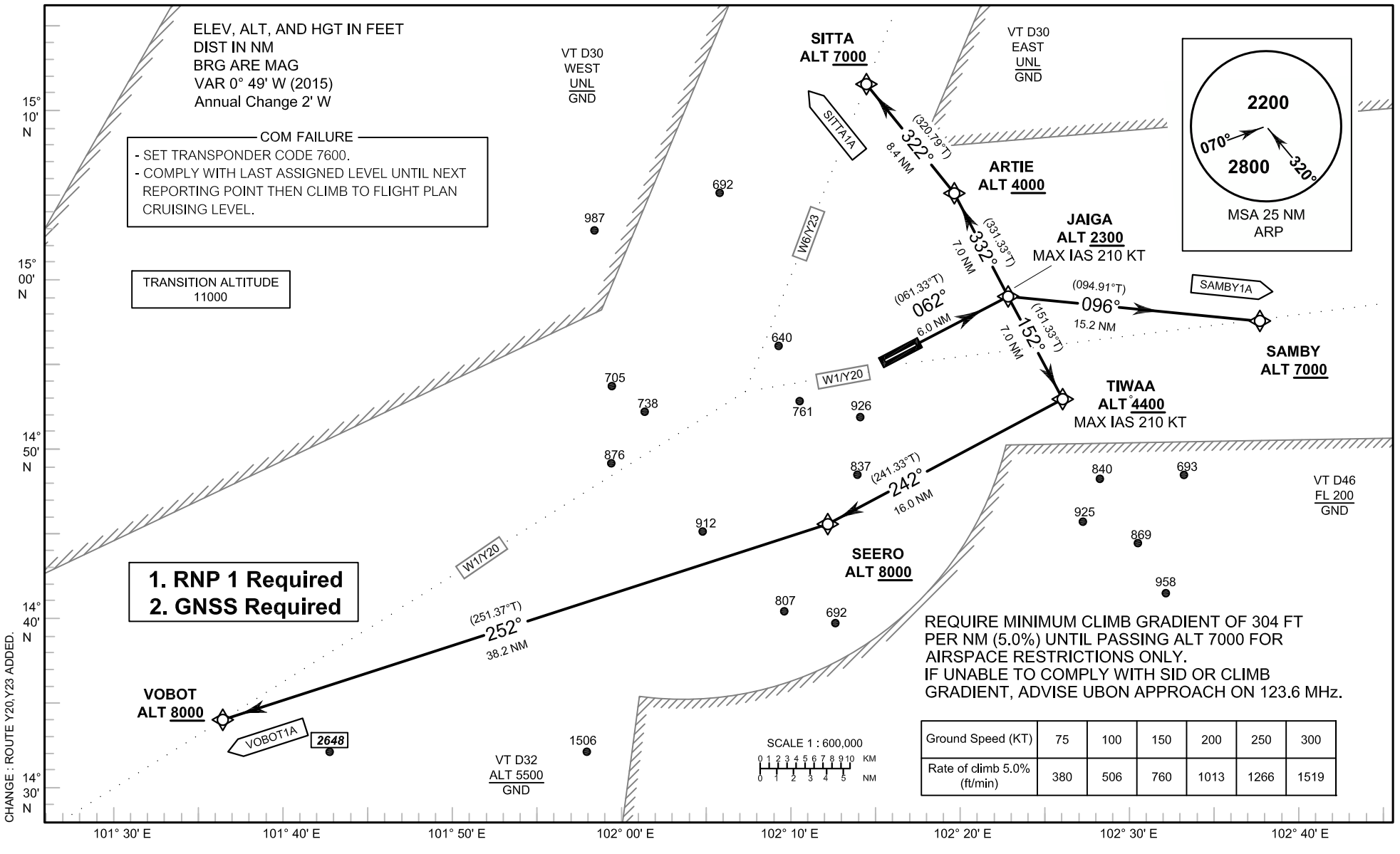
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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

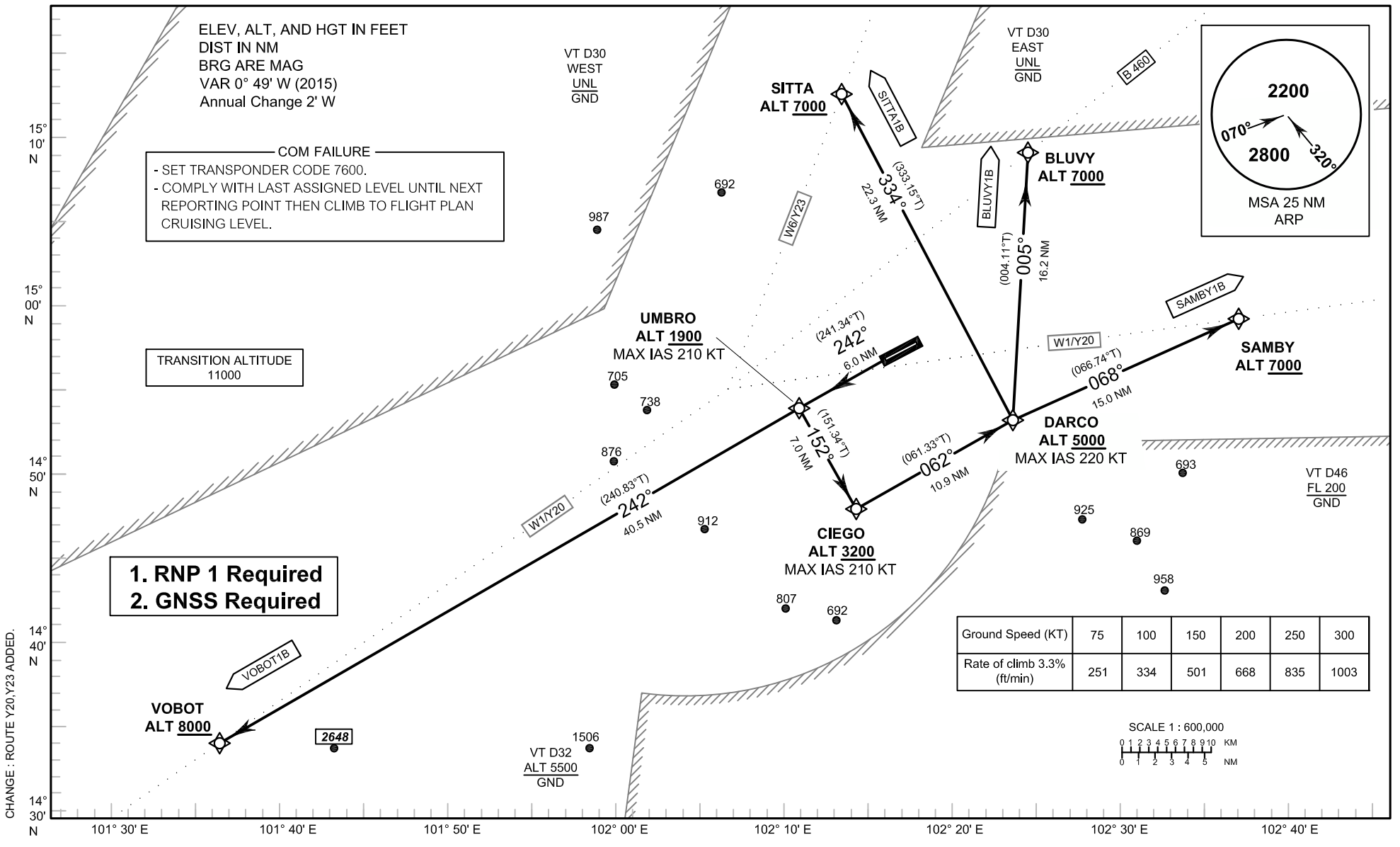
Waypoint Identifier	Coordinates	
DER RWY 06	14 57 14.58 N	102 19 16.70 E
JAIGA	15 00 07.96 N	102 24 43.06 E
TIWAA	14 53 57.84 N	102 28 11.13 E
SEERO	14 46 14.87 N	102 13 41.78 E
VOBOT	14 33 56.57 N	101 36 21.77 E
SAMBY	14 58 49.02 N	102 40 22.21 E
ARTIE	15 06 18.01 N	102 21 14.78 E
SITTA	15 12 50.38 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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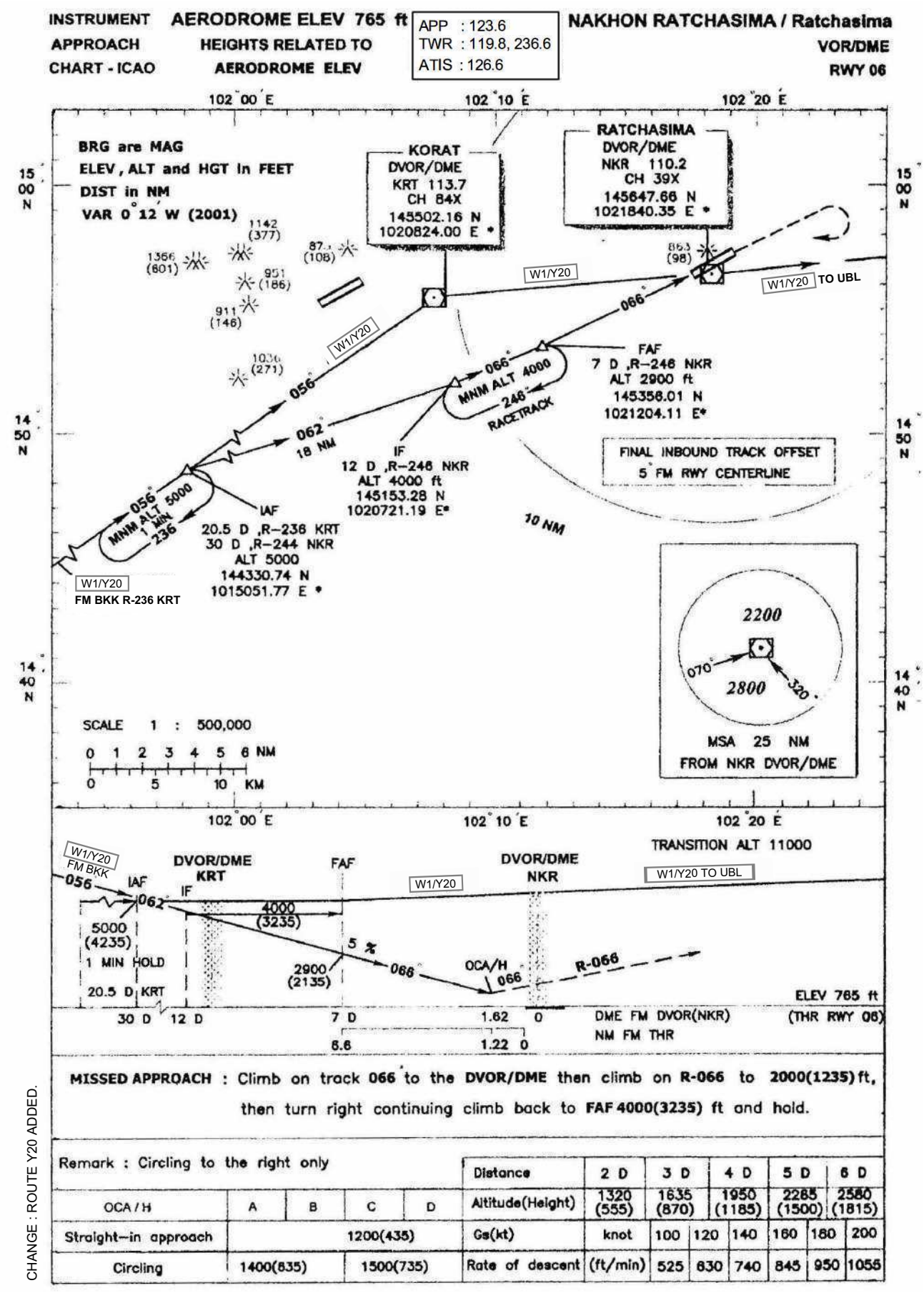
INSTRUMENT APPROACH CHART - ICAO
AERODROME ELEV 765 ft
HEIGHTS RELATED TO AERODROME ELEV
APP : 123.6
TWR : 119.8, 236.6
ATIS : 126.6
NAKHON RATCHASIMA / Ratchasima
VOR/DME
RWY 06
102 00 E
102 10 E
102 20 E
15 00 N
14 50 N
14 40 N
BRG are MAG
ELEV, ALT and HGT in FEET
DIST in NM
VAR 0 12 W (2001)
KORAT
DVOR/DME
KRT 113.7
CH 84X
145502.16 N
1020824.00 E *
RATCHASIMA
DVOR/DME
NKR 110.2
CH 39X
145647.66 N
1021840.35 E *
1142 (377)
1366 (601)
951 (186)
911 (146)
1036 (271)
863 (98)
W1/Y20
W1/Y20 TO UBL
056
062
066
18 NM
MNM ALT 4000
246
RACETRACK
FAF
7 D ,R-246 NKR
ALT 2900 ft
145358.01 N
1021204.11 E*
IF
12 D ,R-246 NKR
ALT 4000 ft
145153.28 N
1020721.19 E*
IAF
20.5 D ,R-236 KRT
30 D ,R-244 NKR
ALT 5000
144330.74 N
1015051.77 E *
MNM ALT 5000
1 MIN
236
W1/Y20
FM BKK R-236 KRT
FINAL INBOUND TRACK OFFSET
5 FM RWY CENTERLINE
10 NM
2200
2800
070
320
MSA 25 NM
FROM NKR DVOR/DME
SCALE 1 : 500,000
0 1 2 3 4 5 6 NM
0 5 10 KM
TRANSITION ALT 11000
W1/Y20 FM BKK
DVOR/DME KRT
FAF
DVOR/DME NKR
W1/Y20 TO UBL
IAF
IF
4000 (3235)
5000 (4235)
1 MIN HOLD
20.5 D KRT
5 %
2900 (2135)
OCA/H
R-066
ELEV 765 ft
30 D
12 D
7 D
1.62
0
8.6
1.22 0
DME FM DVOR(NKR)
NM FM THR
(THR RWY 06)
MISSED APPROACH : Climb on track 066 to the DVOR/DME then climb on R-066 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 approach
1200(435)
Circling
1400(835)
1500(735)
Distance
2 D
3 D
4 D
5 D
6 D
Altitude(Height)
1320 (555)
1635 (870)
1950 (1185)
2285 (1500)
2580 (1815)
Gs(kt)
knot
100
120
140
160
180
200
Rate of descent
(ft/min)
525
630
740
845
950
1055
CHANGE : ROUTE Y20 ADDED.

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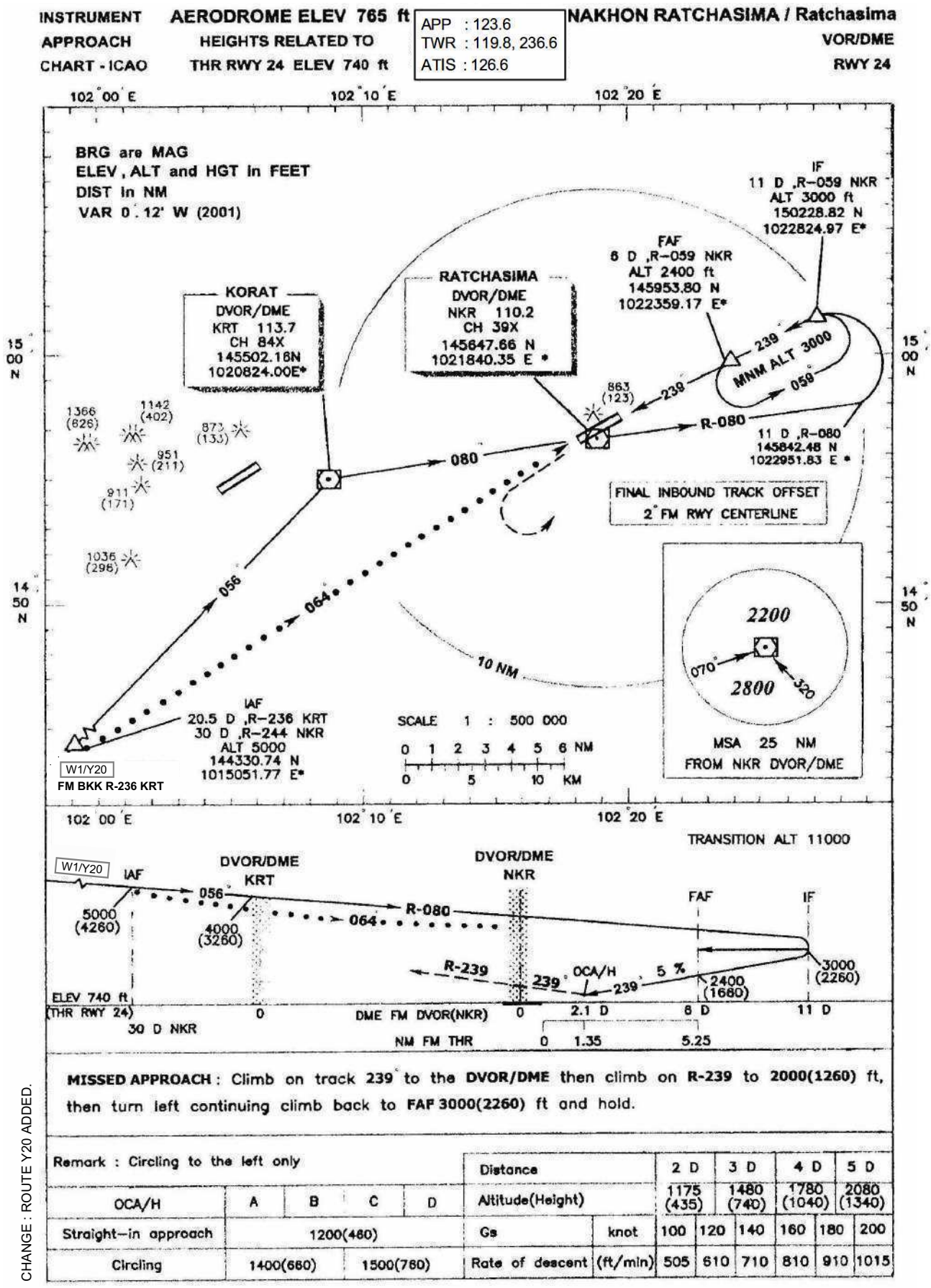

MISSED APPROACH : Climb on track 239° to the **DVOR/DME** then climb on **R-239** to **2000(1260)** ft, then turn left continuing climb back to **FAF 3000(2260)** ft and hold.

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 : ROUTE Y20 ADDED.

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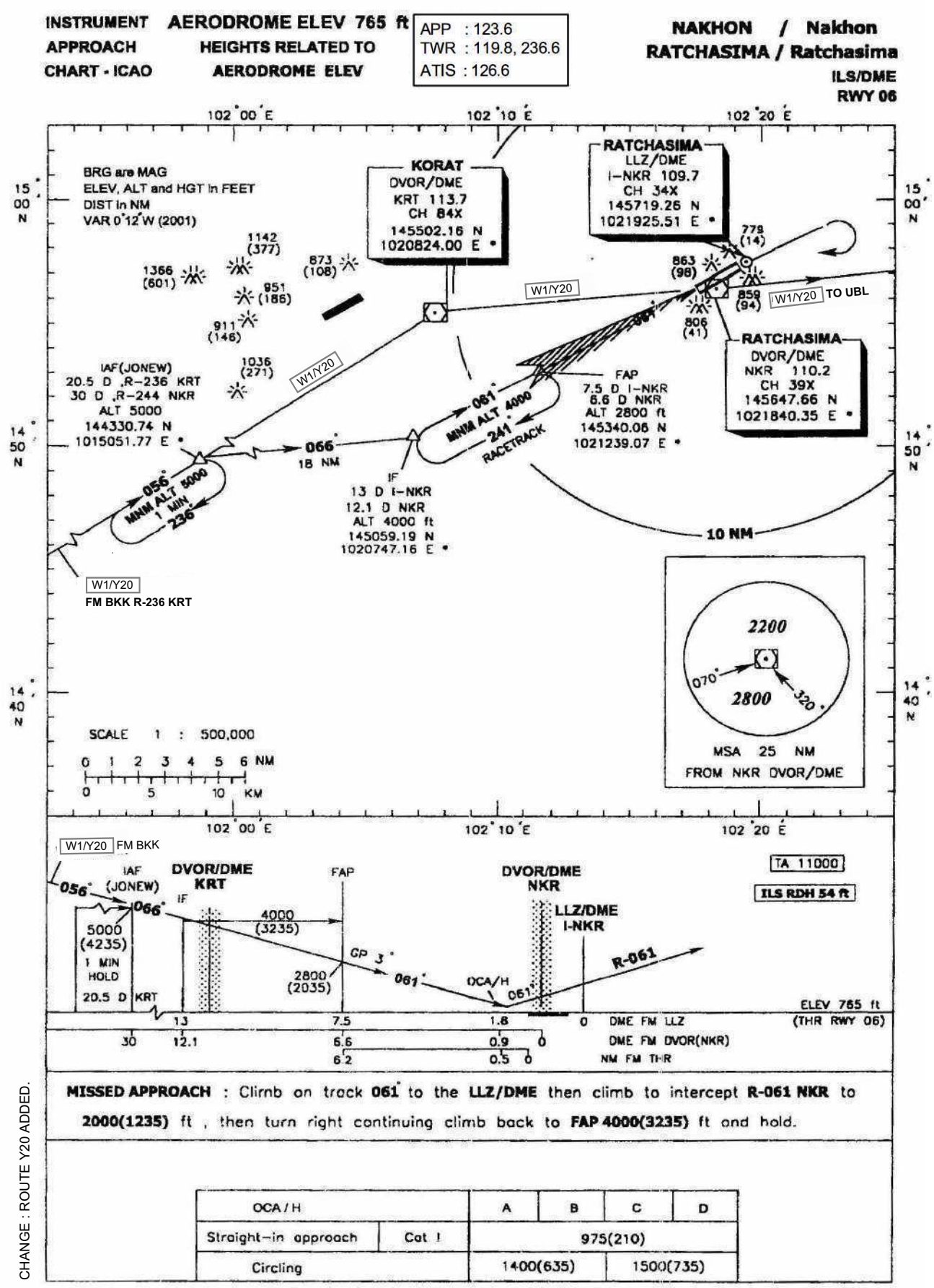
INSTRUMENT APPROACH CHART - ICAO
AERODROME ELEV 765 ft
HEIGHTS RELATED TO AERODROME ELEV
APP : 123.6
TWR : 119.8, 236.6
ATIS : 126.6
NAKHON / Nakhon RATCHASIMA / Ratchasima
ILS/DME
RWY 06
102 00 E
102 10 E
102 20 E
15 00 N
14 50 N
14 40 N
BRG are MAG
ELEV, ALT and HGT in FEET
DIST in NM
VAR 0°12'W (2001)
KORAT
DVOR/DME
KRT 113.7
CH 84X
145502.16 N
1020824.00 E
RATCHASIMA
LLZ/DME
I-NKR 109.7
CH 34X
145719.26 N
1021925.51 E
RATCHASIMA
DVOR/DME
NKR 110.2
CH 39X
145647.66 N
1021840.35 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
IAF(JONEW)
20.5 D ,R-236 KRT
30 D ,R-244 NKR
ALT 5000
144330.74 N
1015051.77 E
066
18 NM
IF
13 D I-NKR
12.1 D NKR
ALT 4000 ft
145059.19 N
1020747.16 E
061
MNM ALT 4000
241
RACETRACK
FAP
7.5 D I-NKR
6.6 D NKR
ALT 2800 ft
145340.06 N
1021239.07 E
056
MNM ALT 5000
1 MIN
236
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
056°
066°
5000 (4235)
1 MIN HOLD
20.5 D KRT
4000 (3235)
GP 3°
2800 (2035)
061°
OCA/H
R-061
ELEV 765 ft
(THR RWY 06)
13
7.5
1.8
0
DME FM LLZ
30
12.1
6.6
6.2
0.9
0.5
0
DME FM DVOR(NKR)
NM FM THR
MISSED APPROACH : Climb on track 061° to the LLZ/DME then climb to intercept R-061 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 : ROUTE Y20 ADDED.

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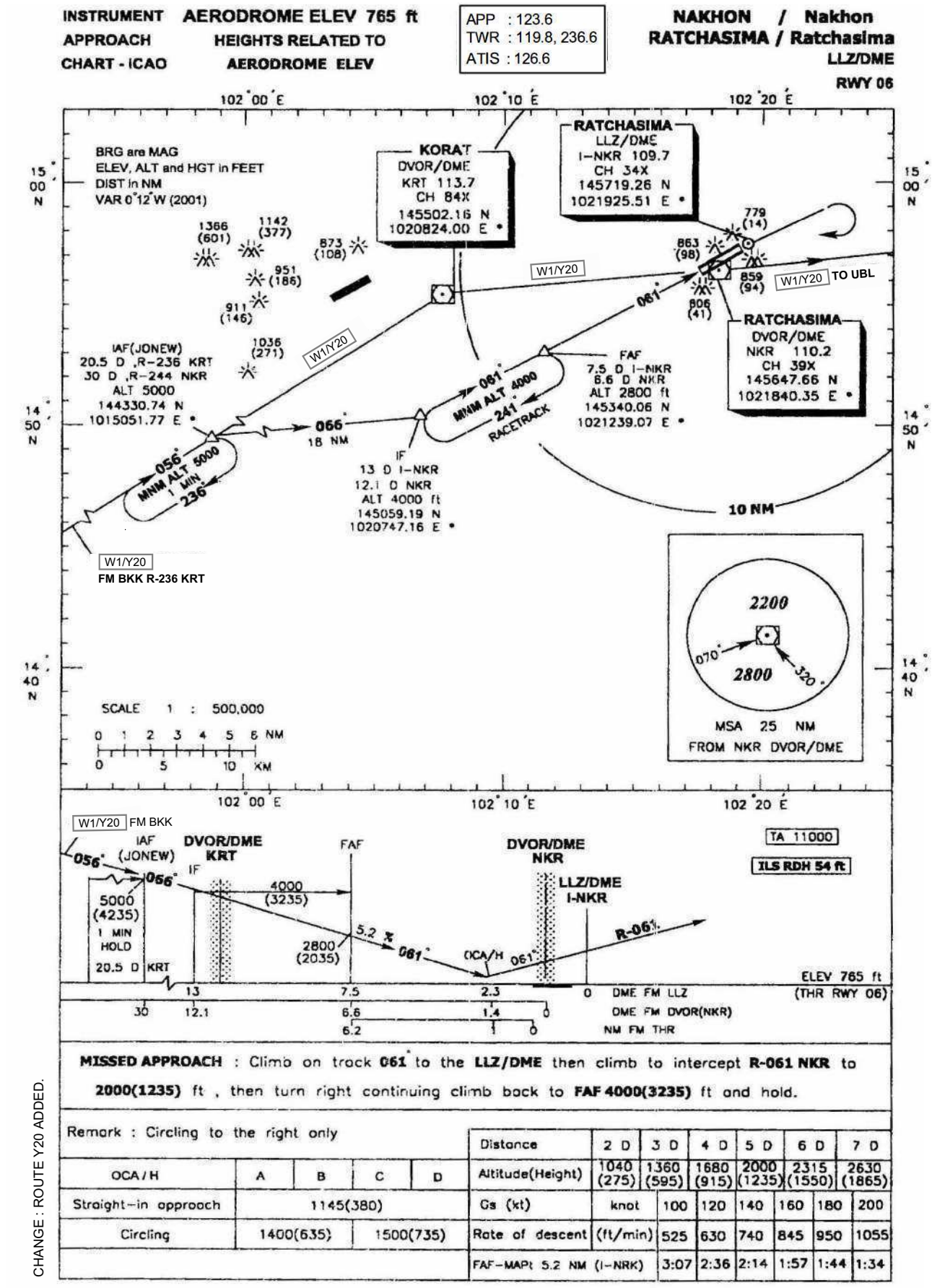
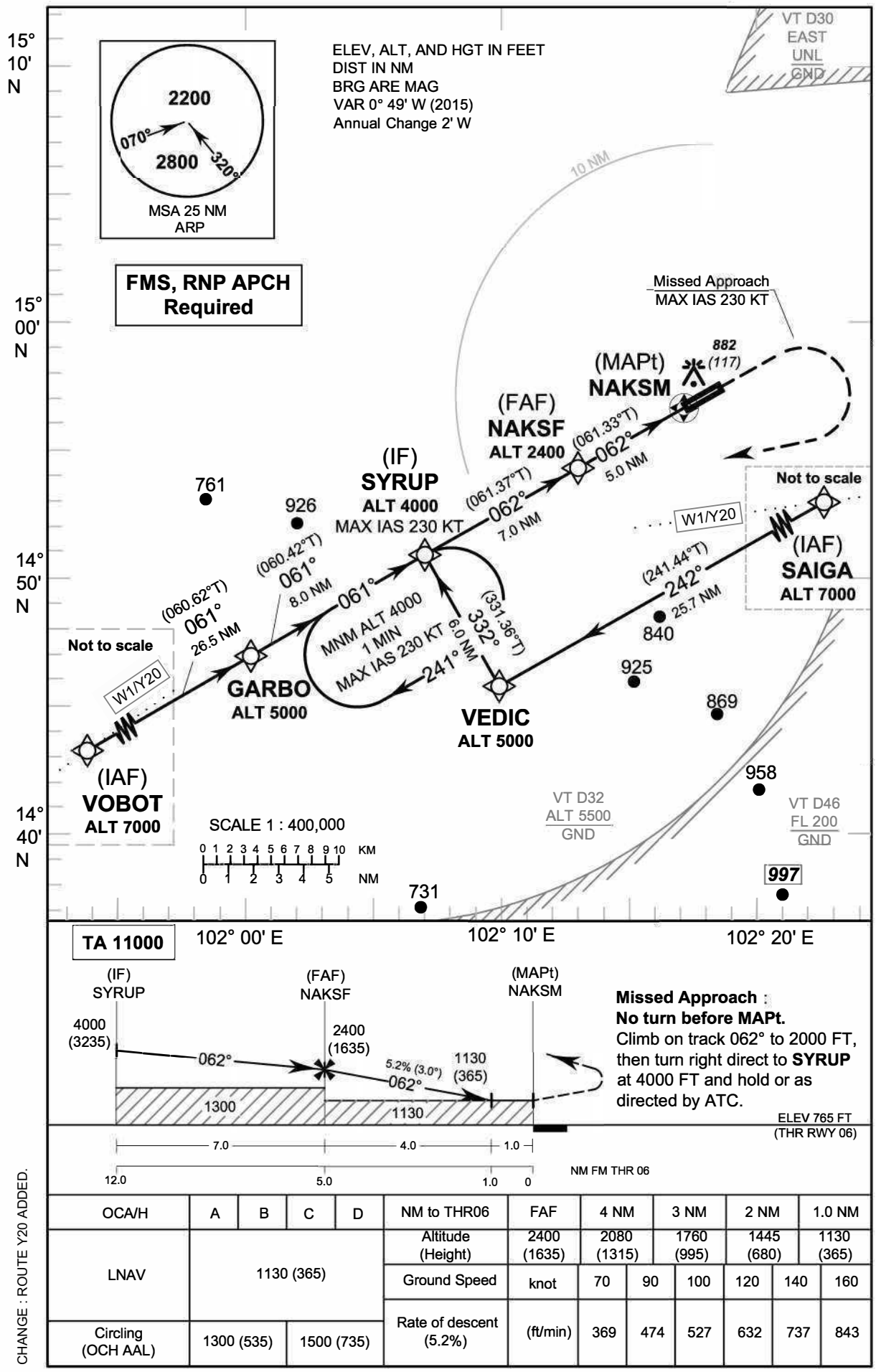

INSTRUMENT APPROACH CHART - ICAO
AERODROME ELEV 765 ft
HEIGHTS RELATED TO AERODROME ELEV
APP : 123.6
TWR : 119.8, 236.6
ATIS : 126.6
NAKHON / Nakhon RATCHASIMA / Ratchasima
LLZ/DME
RWY 06
BRG are MAG
ELEV, ALT and HGT in FEET
DIST in NM
VAR 0°12'W (2001)
KORAT
DVOR/DME
KRT 113.7
CH 84X
145502.16 N
1020824.00 E
RATCHASIMA
LLZ/DME
I-NKR 109.7
CH 34X
145719.26 N
1021925.51 E
RATCHASIMA
DVOR/DME
NKR 110.2
CH 39X
145647.66 N
1021840.35 E
IAF(JONEW)
20.5 D ,R-236 KRT
30 D ,R-244 NKR
ALT 5000
144330.74 N
1015051.77 E
IF
13 D I-NKR
12.1 D NKR
ALT 4000 ft
145059.19 N
1020747.16 E
FAF
7.5 D I-NKR
6.6 D NKR
ALT 2800 ft
145340.06 N
1021239.07 E
066
18 NM
056
MNM ALT 5000
1 MIN
236
081
MNM ALT 4000
241
RACETRACK
061
10 NM
W1/Y20
TO UBL
W1/Y20
FM BKK R-236 KRT
1366 (601)
1142 (377)
873 (108)
951 (186)
911 (146)
1036 (271)
779 (14)
863 (98)
859 (94)
806 (41)
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
102°00'E
102°10'E
102°20'E
15°00'N
14°50'N
14°40'N
W1/Y20 FM BKK
IAF (JONEW)
DVOR/DME KRT
IF
FAF
DVOR/DME NKR
LLZ/DME I-NKR
TA 11000
ILS RDH 54 ft
056°
066°
5000 (4235)
1 MIN HOLD
20.5 D KRT
4000 (3235)
2800 (2035)
5.2 NM
061°
OCA/H
R-061°
ELEV 765 ft
(THR RWY 06)
13 7.5 2.3 0 DME FM LLZ
30 12.1 6.6 1.4 0 DME FM DVOR(NKR)
6.2 1 0 NM FM THR
MISSED APPROACH : Climb on track 061° to the LLZ/DME then climb to intercept R-061 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 : ROUTE Y20 ADDED.

INTENTIONALLY BLANK

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

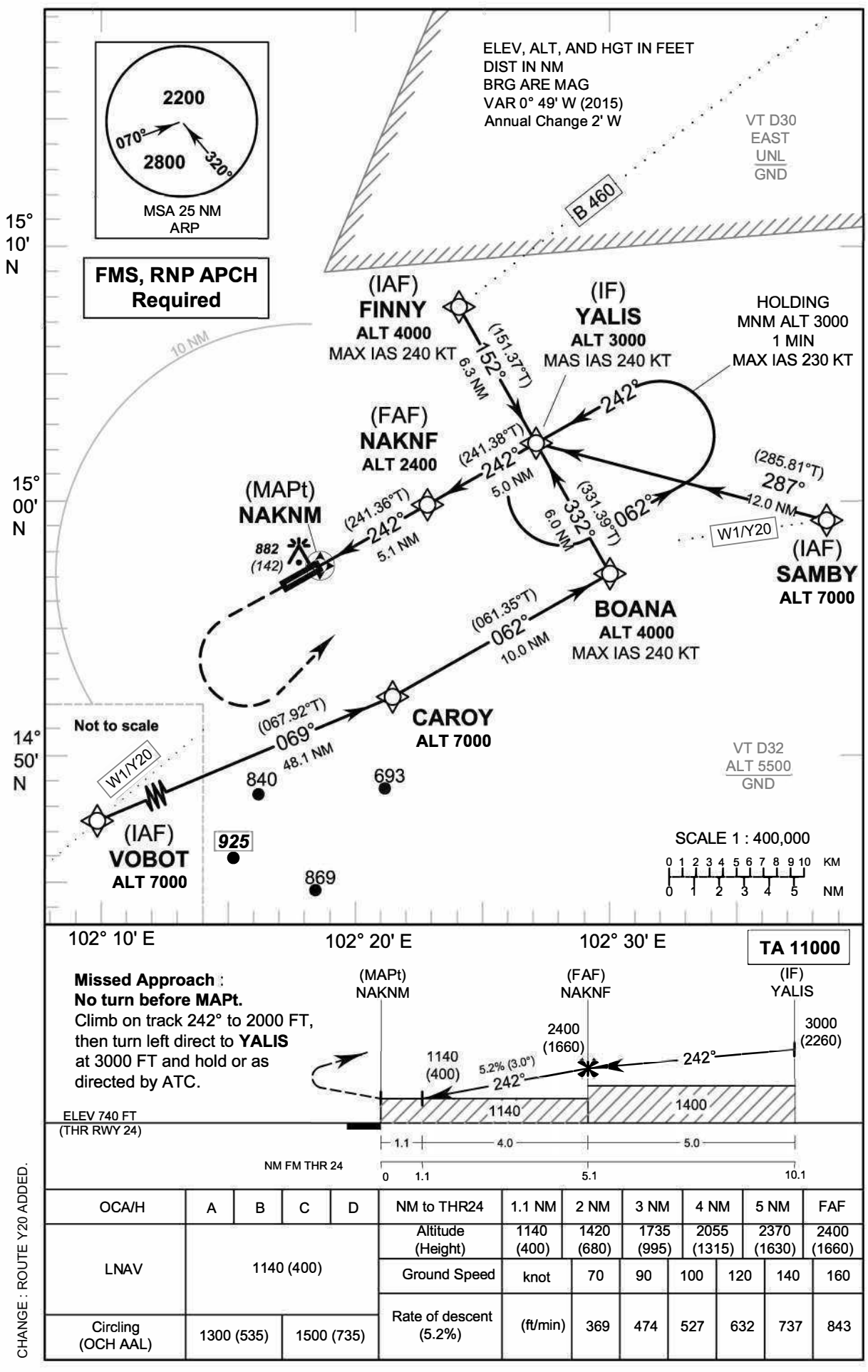
CHANGE: CHART TITLE.

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.

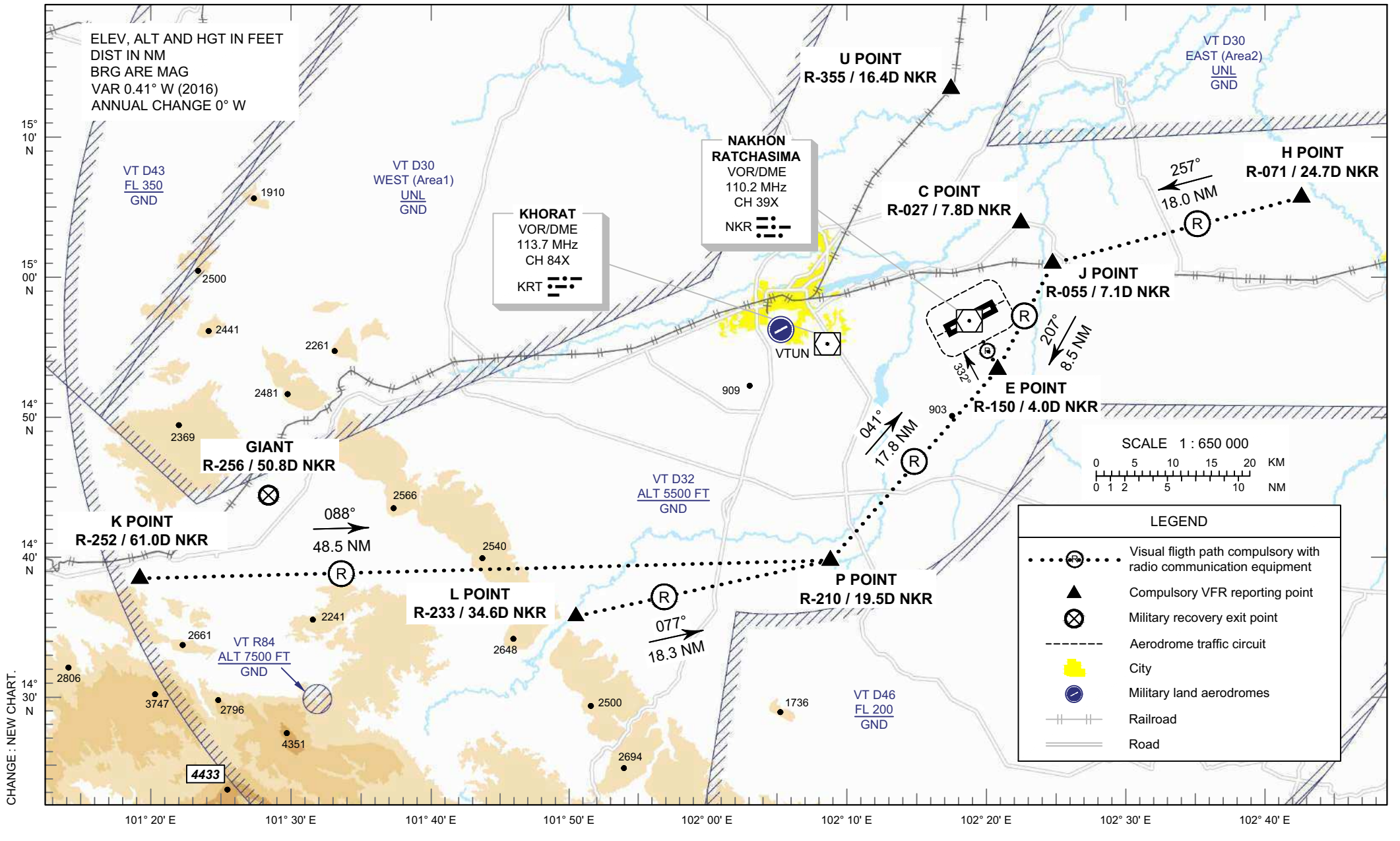
VFR ENTRY PROCEDURE CHART

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.

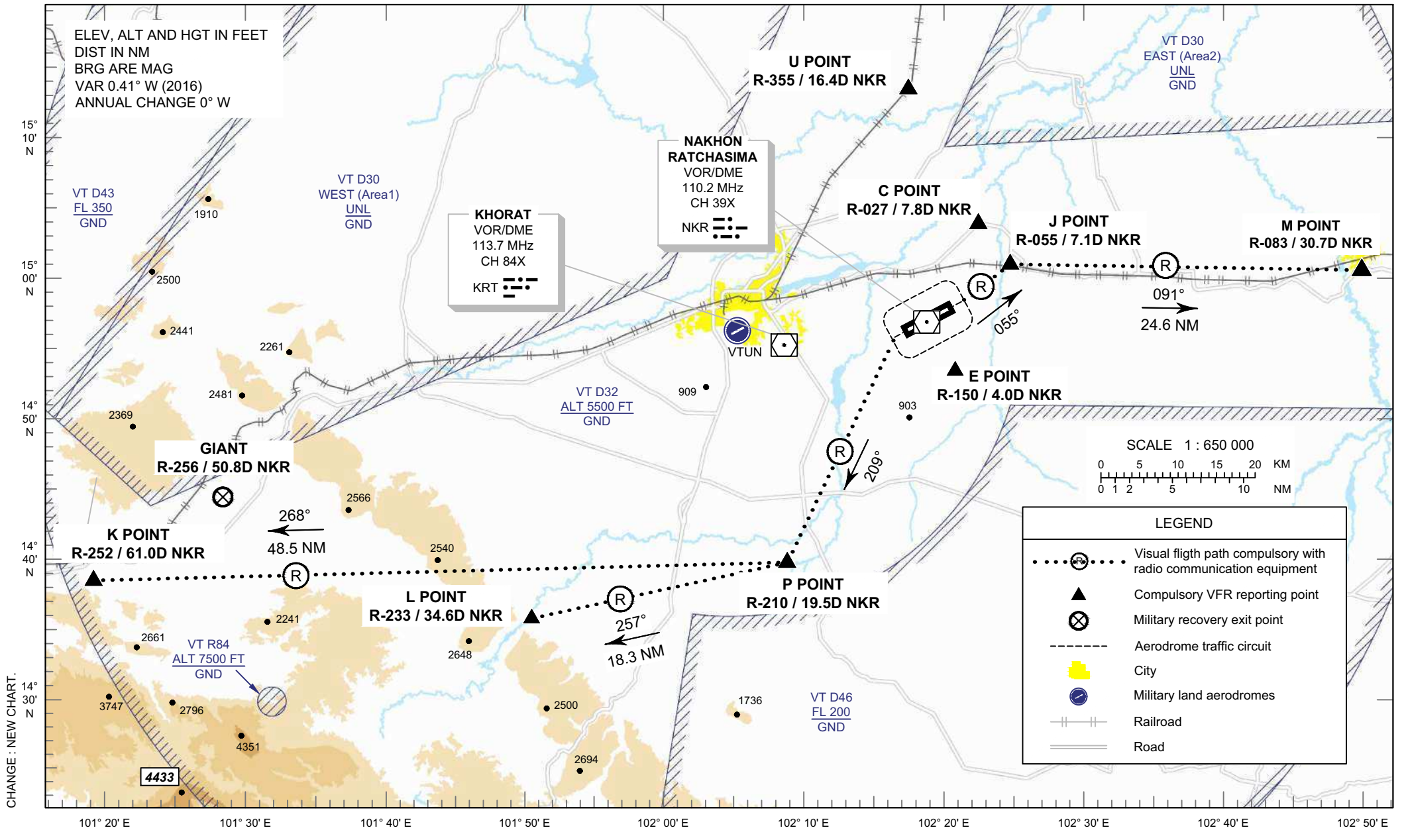
VFR EXIT PROCEDURE CHART

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 1020444E
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 Royal Thai Air Force Nakhon Ratchasima Province Thailand Tel: +662 534 6000 Ext. 40554-5 Fax: +668 7248 6083 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)	NIL
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	NIL

VTUN AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	NIL
2	Fuel/oil types	JP8, Octane 100/130, Oil
3	Fuelling facilities/capacity	4JP8 trucks 20,000 L and 1 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

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	One Helicopter
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 Strength: PCN 50/R/B/W/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete Strength: TWY A: PCN 46/R/B/W/T TWY B: PCN 46/R/B/W/T TWY C: PCN 53/R/B/W/T TWY D: PCN 47/R/B/W/T TWY E: PCN 47/R/B/W/T TWY J: PCN 39/R/B/W/T 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 Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
NIL	Radio mast HGT 183 M painted red/white LGTD on top	145610N 1020020E	Radio mast HGT 131 M painted red/white LGTD on top Radio mast HGT 86 M painted red/white LGTD on top	145640N 1020820E 145237N 1020435E	NIL

VTUN AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Khorat
2	Hours of service MET Office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	00, 065, 12
4	Type of landing forecast Interval of issuance	Trend 2 HR
5	Briefing/consultation provided	Personal Consultation
6	Flight documentation Language(s) used	English
7	Charts and other information available for briefing or consultation	NIL
8	Supplementary equipment available for providing information	Telefax Self-Briefing Terminal
9	ATS units provided with information	Khorat TWR 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
498%	300x45	NIL	NIL	NIL	NIL
498%	300x45	NIL	NIL	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	NIL
24	3000	3000	3300	3000	NIL

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	SALS 420 M	Green	PAPI Both 3°	NIL	NIL	3000 M 45 M White, LIH	Red	NIL	NIL
24	SALS 420 M	Green	PAPI Both 3.02°	NIL	NIL	3000 M 45 M 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.
2	LDI location and LGT Anemometer location and LGT	NIL
3	TWY edge and centre line lighting	EDGE: ALL TWY
4	Secondary power supply/switch-over time	NIL
5	Remarks	NIL

VTUN AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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

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 Language(s)	Khorat Tower 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 129.75 MHZ	H24	Secondary Operation
ASR	Khorat Arrival	349.0 MHZ 129.75 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	Khorat Departure	285.0 MHZ 134.1 MHZ		
SRA	Final Controller	382.4 MHZ		
TWR	Khorat Tower	240.5 MHZ 122.2 MHZ *121.5 MHZ *243.0 MHZ	H24	*Emergency Freq.
GND	Khorat Ground	257.8 MHZ 121.75 MHZ		
ATIS	Khorat AD	134.8 MHZ 390.6 MHZ	2300-1100	

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	145502.35N 1020823.32E		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: – Radial 081°-280° altitude should not below 5 000 FT – Radial 281°-080° altitude should not below 3 500 FT
ILS (CAT I) LOC GP/DME	IKRT	109.9 MHZ CH36X	MON-FRI 2300-1100	145535.31N 1020346.04E		PAPI, runway 24 not coincident with ILS gild slope starting from 0.8 DME or 900 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 R-271 – R-090 of Khorat Airport, shall report over Ban Khok Sung District, designated as NOVEMBER (1503.9N10200.1E) which is approximately 8 NM on R-355 of KRT TACAN. When reaching NOVEMBER the aircraft will be instructed to join aerodrome traffic circuit accordingly.
b) Aircraft entering to land from R-091 – R-270 of Khorat Airport, shall report over Ban Nong kok Chai District, designated as SIERRA (1446.0N10205.0E) which is approximately 10 NM on R-180 of KRT TACN. When reaching SIERRA the aircraft will be instructed to join aerodrome traffic circuit accordingly.

VTUN AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VTUN AD 2.22 FLIGHT PROCEDURES

NIL

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.

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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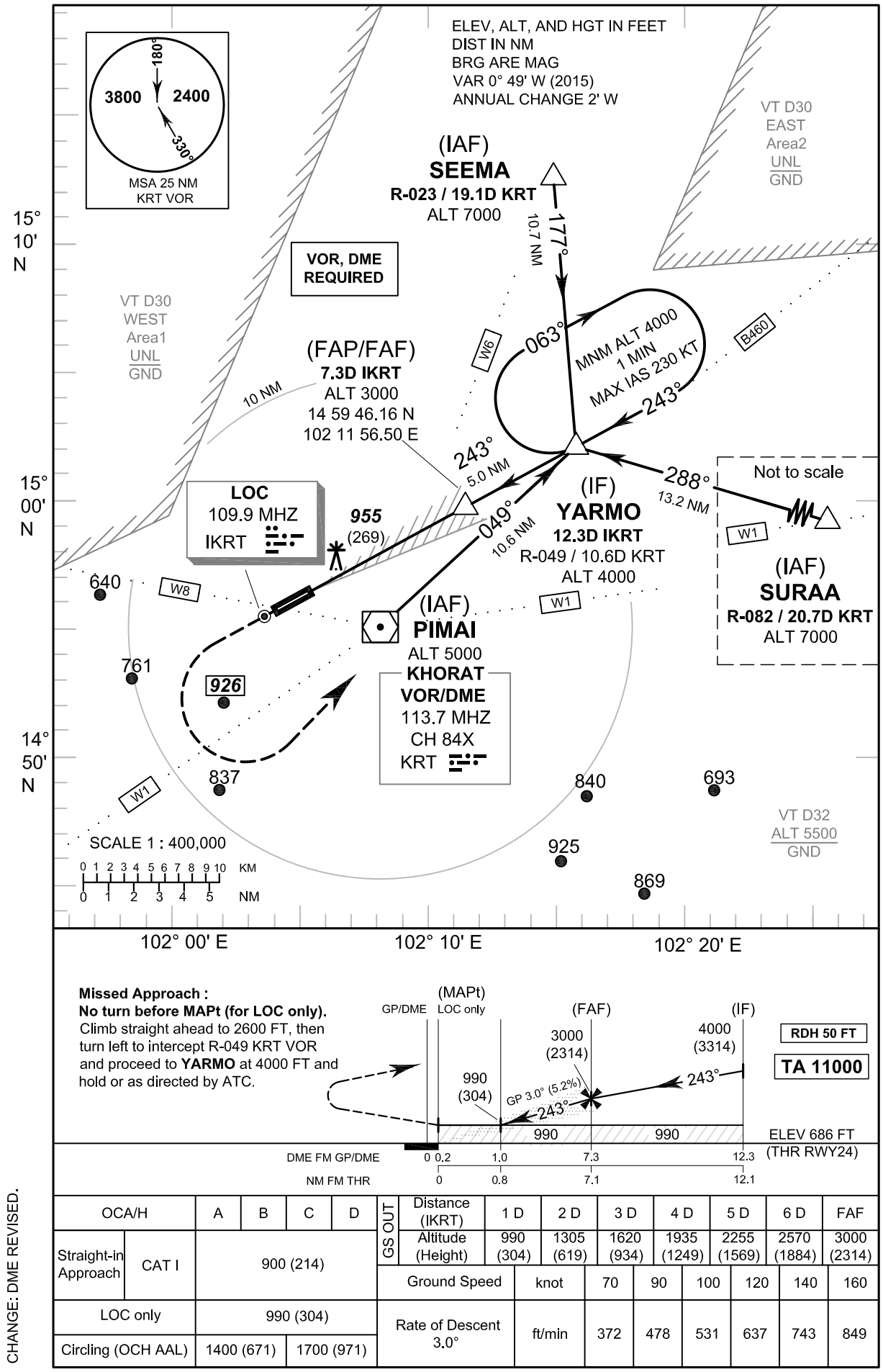
INSTRUMENT APPROACH CHART - ICAO

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 Nakhon Sawan Airport Amphoe Muang Nakhon Sawan Province 60000 Thailand Tel: +665 625 6571 Fax: +665 625 6570 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 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 MET Office outside hours	NIL
3	Office responsible for TAF preparation Periods of validity	NIL
4	Type of landing forecast Interval of issuance	NIL
5	Briefing/consultation provided	NIL
6	Flight documentation 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 Asphalt	154009.69991N 1000854.36355E	1.541 M
23	NIL	1370x30	PCN 22/F/D/Y/T Asphalt	154036.29390N 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 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 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 Language(s)	Nakhon Sawan Tower 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 236.6 MHZ 122.3 MHZ 121.5 MHZ	0130-0930 MON-FRI	Primary Freq Secondary Freq 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 Nakhon Sawan Province Tel: +665 626 1071-2 Ext. 53540-5 (Tower) +665 626 1071-2 Ext. 53546-7 +665 626 1071-2 Ext.54366 (ASR) +665 626 1071-2 Ext.53548-9 (BaseOps) 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 Strength: PCN 80/R/D/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete Strength: PCN 80/R/D/X/T
3	Altimeter checkpoint location and elevation	Location: North or South holding area 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 MET Office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	00, 06, 12
4	Type of landing forecast Interval of issuance	Trend 2 HR
5	Briefing/consultation provided	Personal Consultation
6	Flight documentation Language(s) used	English
7	Charts and other information available for briefing or consultation	Personal Consultation
8	Supplementary equipment available for providing information	Telefax Self - Briefing Terminal
9	ATS units provided with information	Takhli TWR 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 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 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 Language(s)	Takhli Tower 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 124.0 MHZ	H24	Secondary Operation
ASR	Takhli Arrival	325.0 MHZ 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 134.1 MHZ		
SRA	Final Controller	382.4 MHZ		
TWR	Takhli Tower	241.5 MHZ 133.25 MHZ *121.5 MHZ *243.0 MHZ	H24	*Emergency Freq
GND	Takhli Ground	236.6 MHZ 257.8 MHZ 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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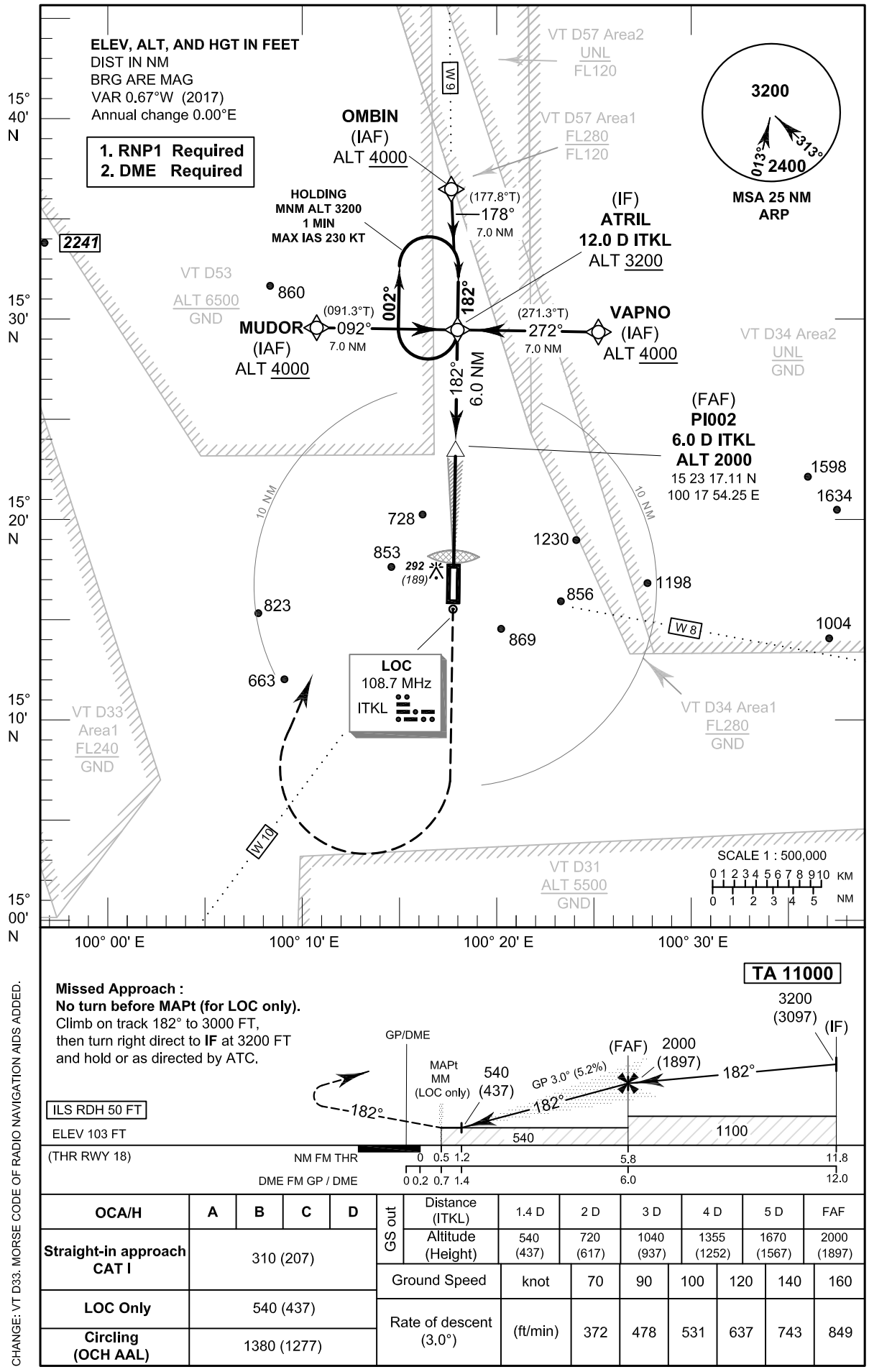
INSTRUMENT APPROACH CHART-ICAO

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

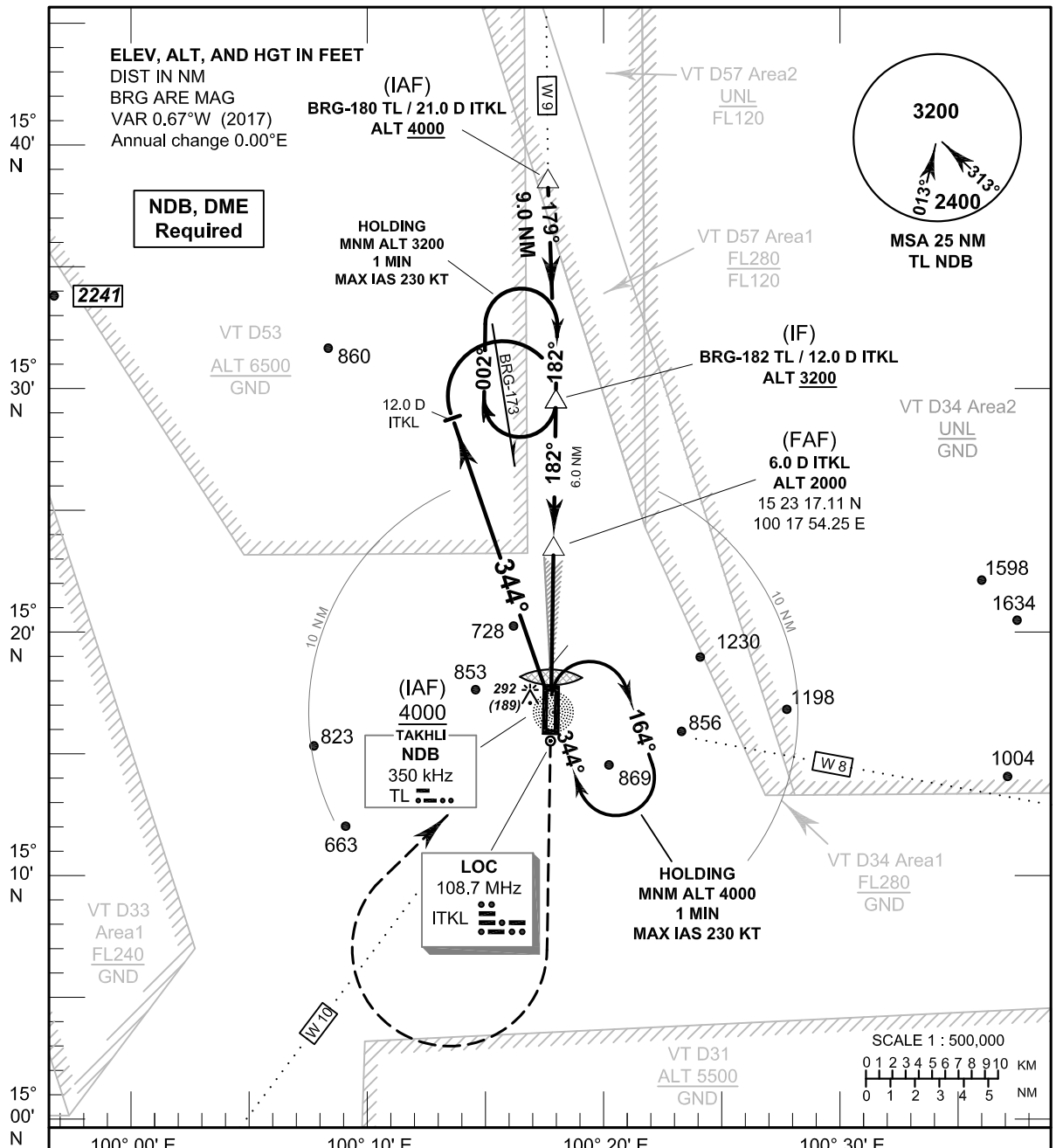
INTENTIONALLY BLANK

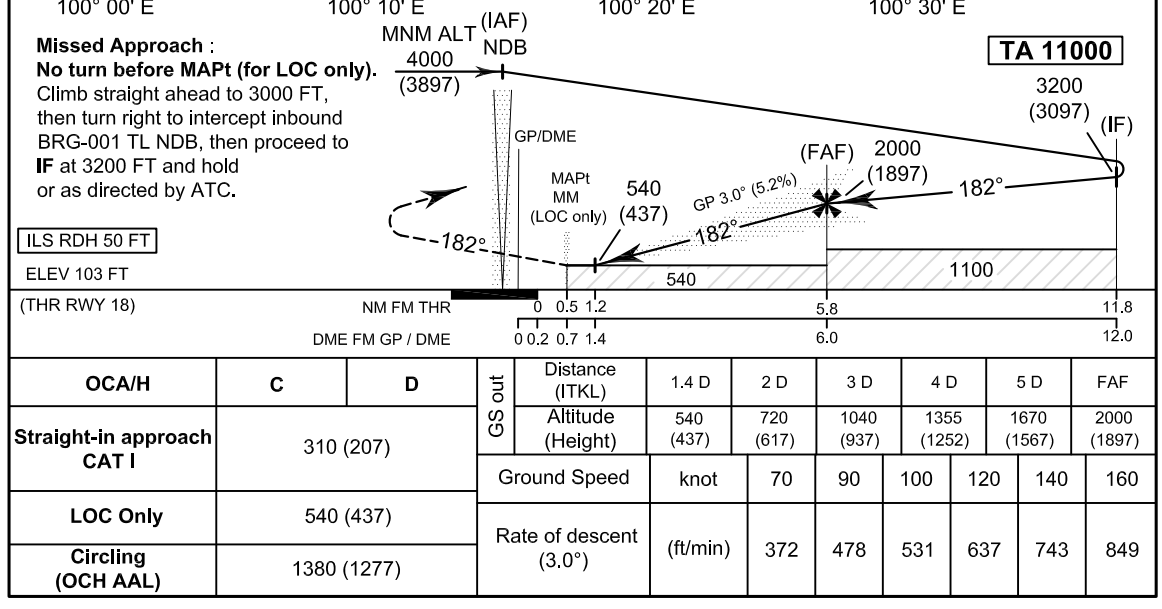
INSTRUMENT APPROACH CHART-ICAO

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

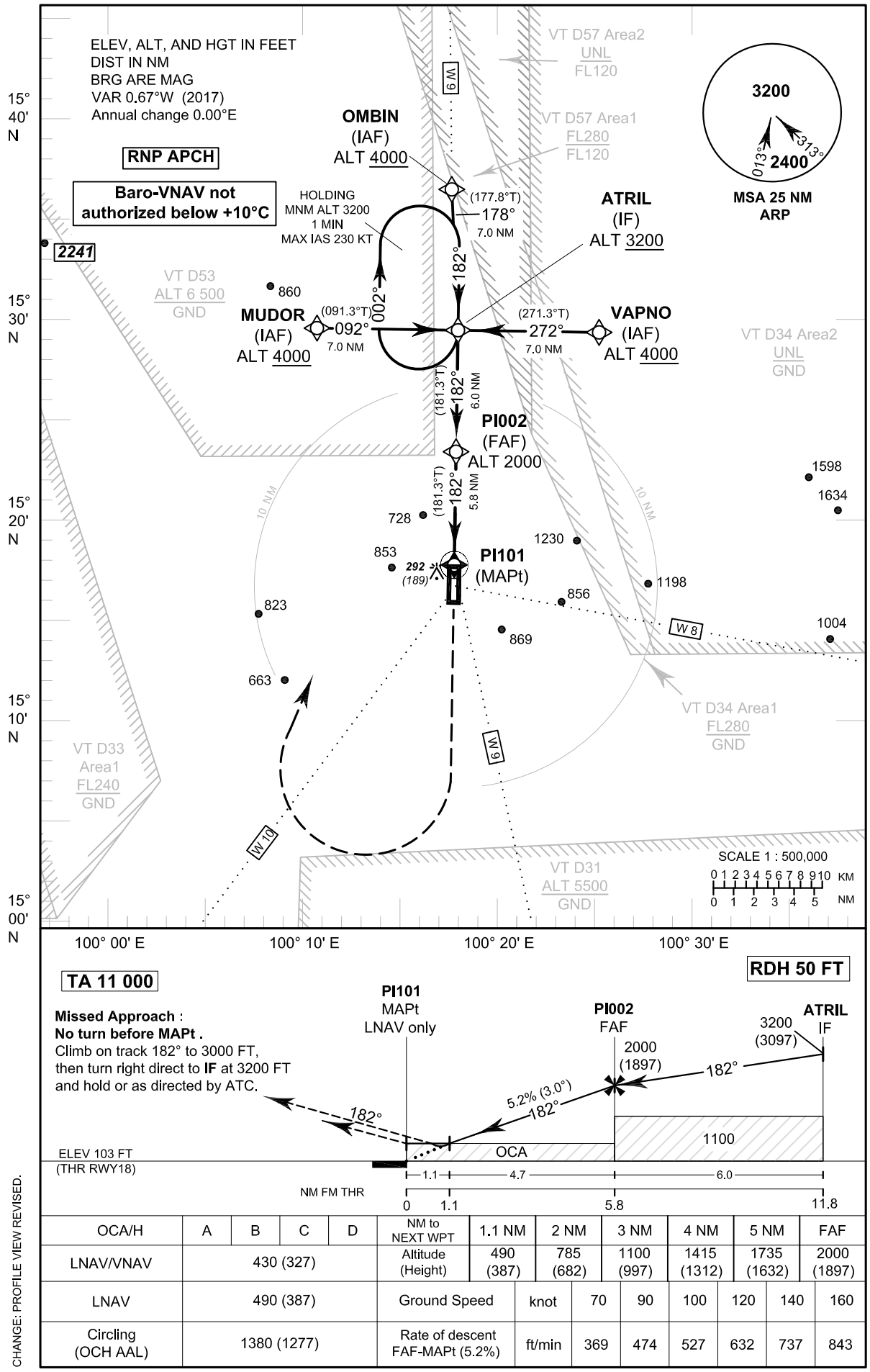
MILITARY USE ONLY

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

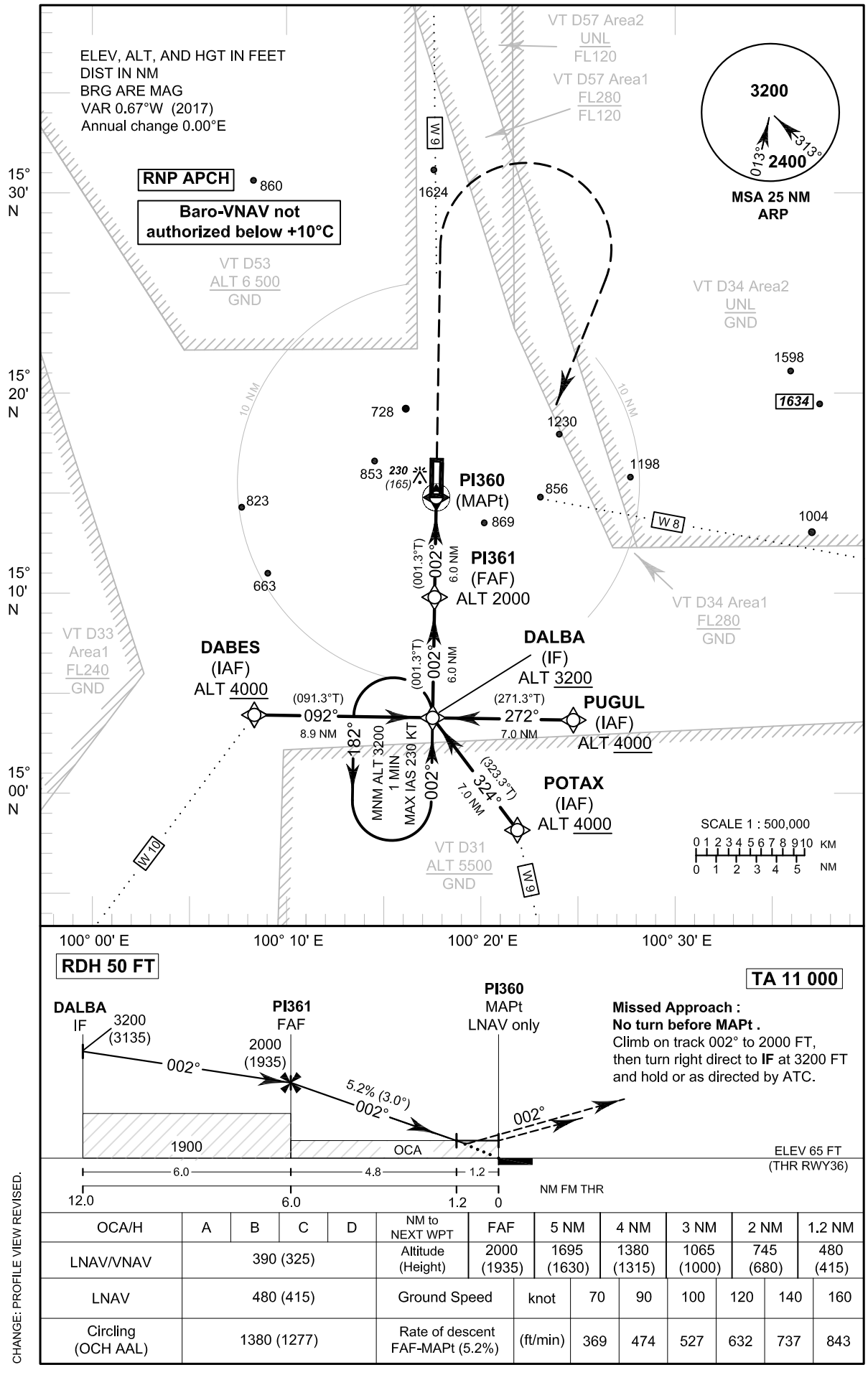
MILITARY USE ONLY

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 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 Nakhon Si Thammarat Airport Amphoe Muang Nakhon Si Thammarat 80000 Thailand Tel: +667 545 0544 +667 545 0545 +667 545 0541 Fax: +667 545 0549 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): Located at Surat Thani Air Traffic Control Centre (1st floor of tower building) Tel: +667 744 1008 +669 1010 1837 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, Please contact aerodrome coordinator: - Director of Nakhon Si Thammarat Airport Tel: +668 5041 0140 - Airport Safety Group Tel: +668 6591 0681 +667 545 0541 Fax: +667 545 0549 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 Surface: Concrete and Asphalt Strength: PCN 42/F/C/X/T APRON B Surface: Concrete 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 Surface: Concrete and asphalt Strength: TWY A, B and D : PCN 42/F/C/X/T TWY C: 5.3 T
3	Altimeter checkpoint location and elevation	Location: At apron 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 TWY guide lines: Yes Nose-wheel guide lines at apron 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: TWY CL, TWY Edge and RWY Holding Position 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 Elevation Markings/LGT**	**Coordinates**	**Obstacle type Elevation Markings/LGT**	**Coordinates**	
a	**b**	**c**	**a**	**b**	
	Radio Mast HGT 60 M MARKED RED LGT ON TOP	083452N 0995658E	NIL	NIL	NIL

VTSF AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Nakhon Si Thammarat, Southern East-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1500 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern East-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 546 6646, +668 6498 0632
6	Flight documentation 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 Observation 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 Asphaltic concrete	083148.51N 0995637.41E	THR 13 FT TDZ 13 FT
19	186.49°	2100x45	PCN 42/F/C/X/T Asphaltic concrete	083256.73N 0995644.61E	THR 13 FT 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 420M LIH	Green	PAPI Left 3°	NIL	NIL	2100 M 60 M White, LIM	Red	NIL	NIL
19	SALS 420M	Green	PAPI Left 3° (47.32 FT)	NIL	NIL	2100 M 60 M 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 Anemometer location and LGT	LDI(1) : wind cone at 300 M from THR 01 off set Left side 102.5 M, illuminated 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 TWY centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the air field lighting (AFL). Switch over time : 15 SEC
5	Remarks	NIL

VTSF AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (083229.95N 0995648.67E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Nakhon Si Thammarat Tower 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 121.5 MHZ[1)]	As AD OPR HR	[1)]Emergency frequency
TWR	Nakhon Si Thammarat Tower	122.55 MHZ 236.6 MHZ 121.5 MHZ[1)] 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	083229.95N 0995648.67E		Due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM, at required altitudes is various areas: RDL 001-190 beyond 40 NM should not below 2500 FT. RDL 191-240 beyond 40 NM should not below 7000 FT. RDL 241-280 beyond 25 NM should not below 8000 FT. RDL 281-320 beyond 40 NM should not below 7000 FT. RDL 321-360 beyond 40 NM should not below 5000 FT.
LOC RWY19 ILS CAT I	INKS	109.7 MHZ	H24	083138.445N 0995636.378E		a) Localizer - Designated operational coverage 18 NM ±10º and 10 NM ±35º of localizer course, no back course and voice feature.
GP		333.2 MHZ	H24	083245.315N 0995647.386E		b) Glide path 3° - RWY19 ILS Glide Path not coincident with PAPI starting at 1 DME or 400 FT (MSL)
DME		CH34X (333.2 MHZ)	H24	083245.315N 0995647.386E		DME - Paired with Glide Path. - Power output 100 watts. - 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

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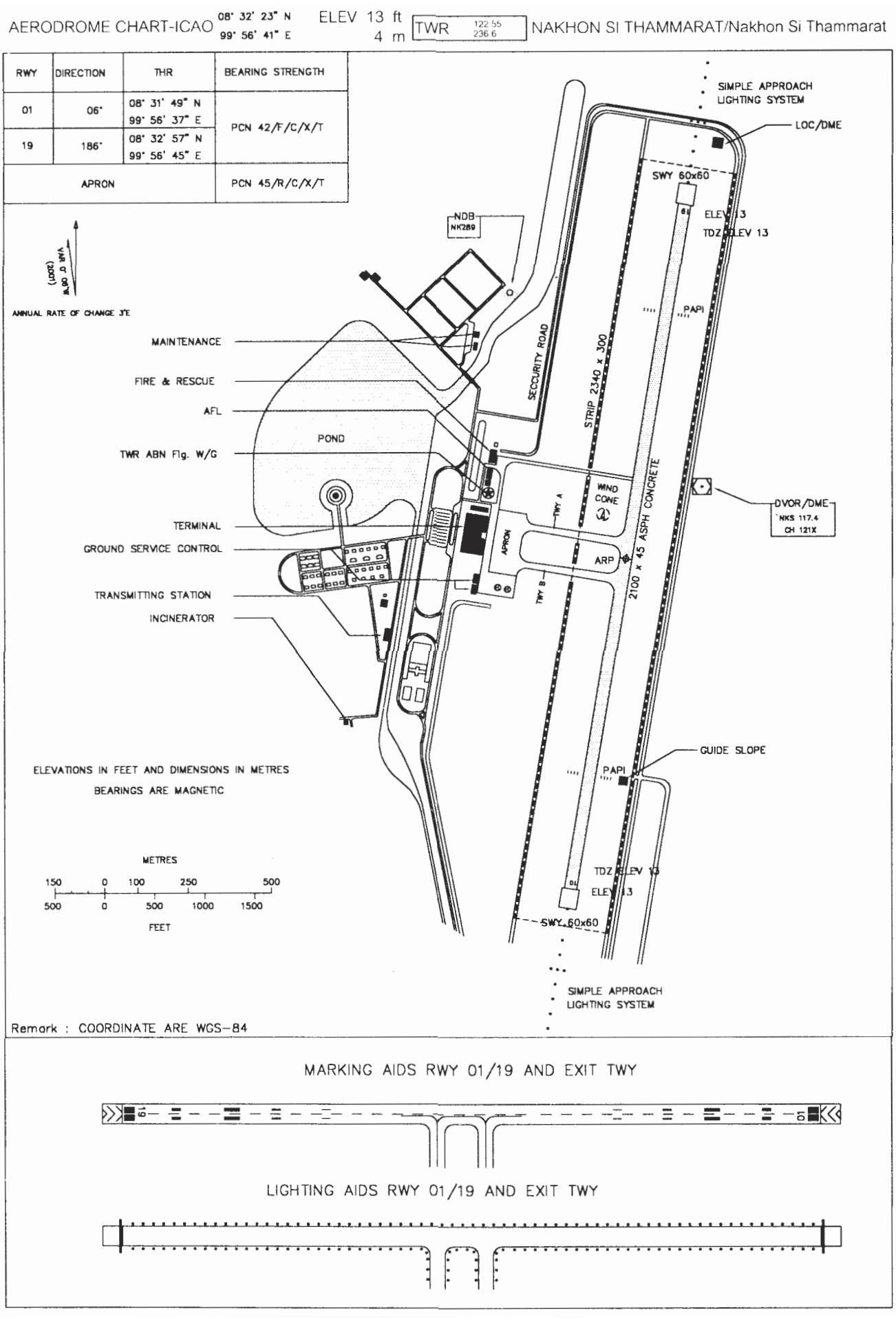
AERODROME CHART-ICAO 08° 32' 23" N 99° 56' 41" E ELEV 13 ft 4 m TWR 122.55 236.6 NAKHON SI THAMMARAT/Nakhon Si Thammarat

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

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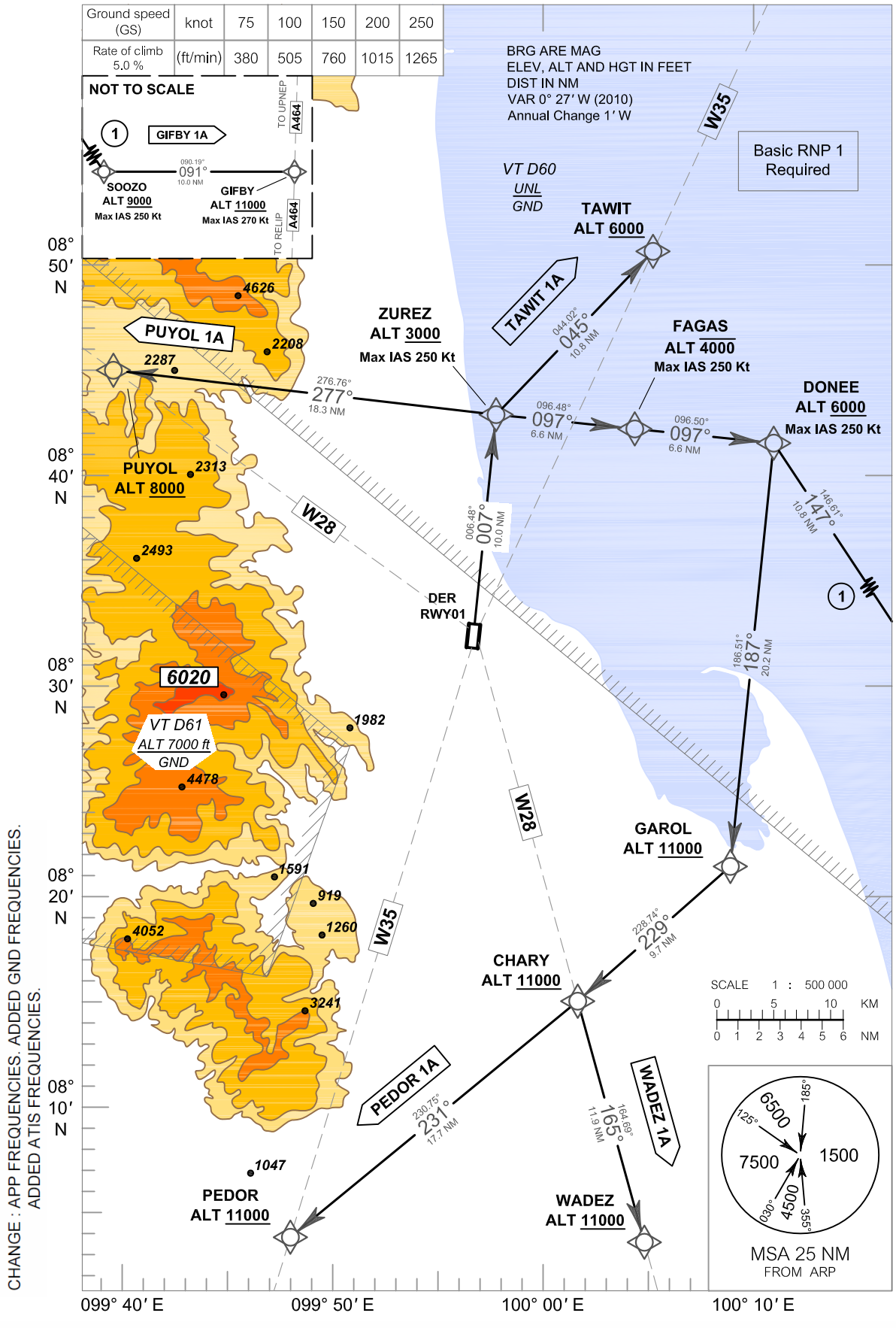
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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



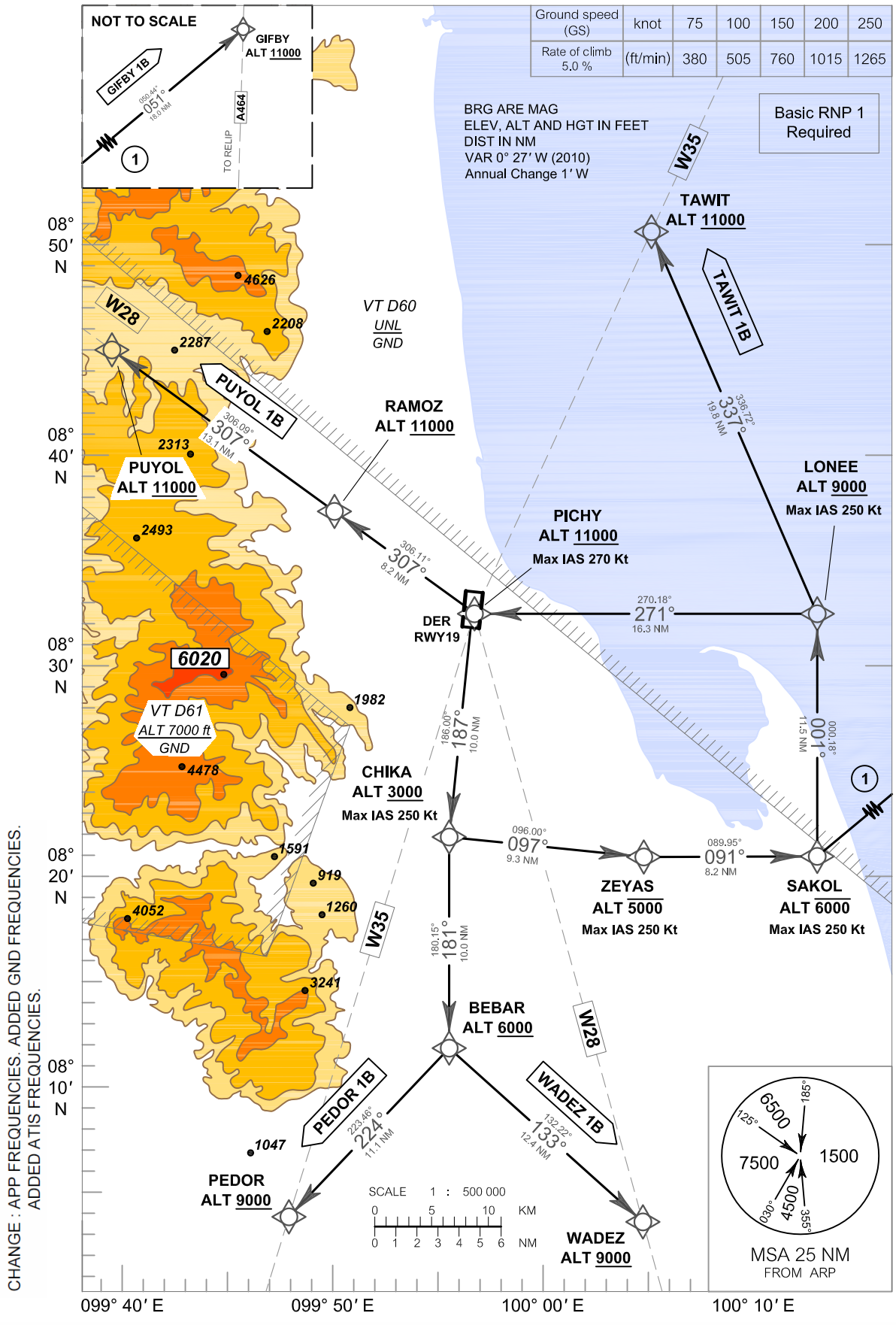
NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
SID RNAV RWY 01

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

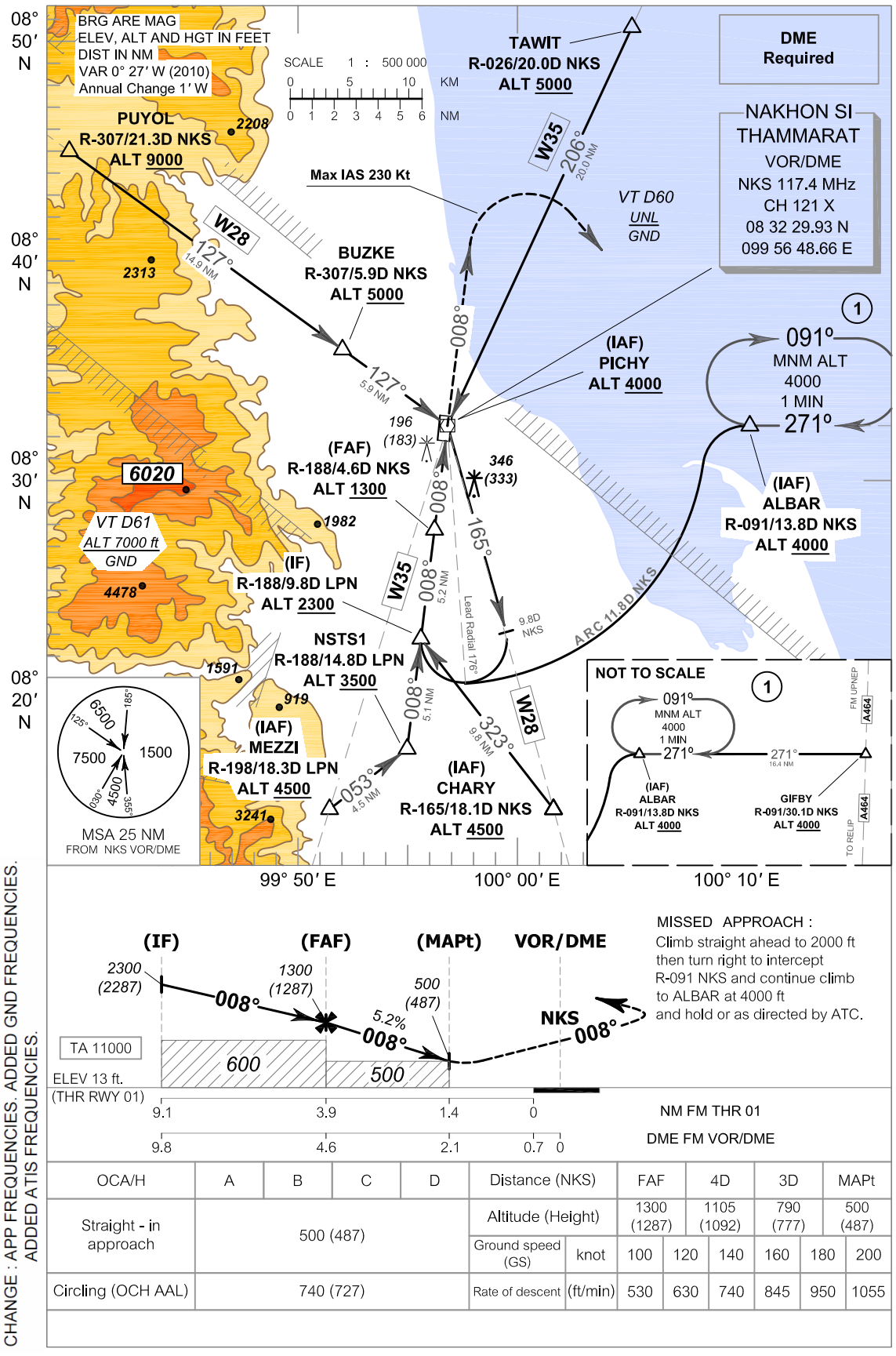
Fix identifier	WGS-84 Coordinates		Path	Flyover	Course	Turn	Altitude	Speed	Magnetic	Navigation
(Waypoint name)	Latitude	Longtitude	descriptor		° M (° T)	direction		limit	variation	performance
DER RWY19	083148.48 N	0995637.43 E	CF	-	187°(186.00°)	-	-	-	0.5	RNP1
CHIKA	082150.77 N	0995534.39 E	TF	-	187°(186.00°)	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 : APP FREQUENCIES. ADDED GND FREQUENCIES.
ADDED ATIS FREQUENCIES.

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

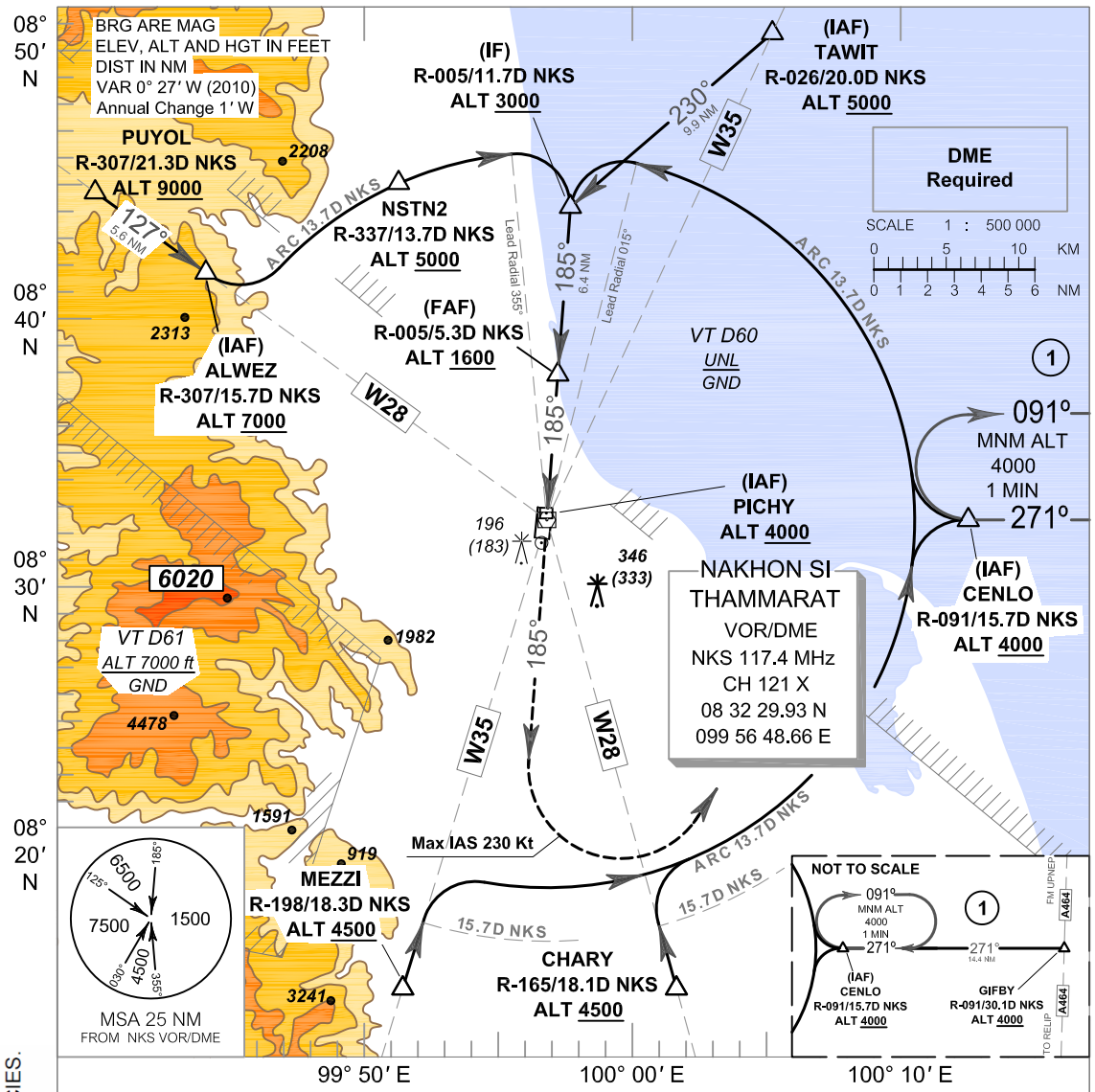
TAWIT	20.0D, R-026 NKS	08 50 42.75 N* 08 50.71 N*	100 05 21.15 E* 100 05.35 E*
PUYOL	21.3D, R-307 NKS	08 45 05.88 N* 08 45.10 N*	099 39 26.35 E* 099 39.44 E*
BUZKE	5.9D, R-307 NKS	08 35 59.67 N* 08 35.99 N*	099 51 59.33 E* 099 51.99 E*
GIFBY	30.1D, R-091 NKS	08 32 24.27 N* 08 32.40 N*	100 27 14.36 E* 100 27.24 E*
(IAF) PICHY	NKS	08 32 29.93 N* 08 32.50 N*	099 56 48.66 E* 099 56.81 E*
(IAF) ALBAR	13.8D, R-091 NKS	08 32 27.64 N* 08 32.46 N*	100 10 43.05 E* 100 10.72 E*
(IAF) MEZZI	18.3D, R-198 NKS	08 14 57.53 N* 08 14.96 N*	099 51 20.98 E* 099 51.35 E*
(IAF) CHARY	18.1D, R-165 NKS	08 14 56.10 N* 08 14.94 N*	100 01 38.50 E* 100 01.64 E*
NSTS1	14.8D, R-188 NKS	08 17 42.87 N* 08 17.71 N*	099 54 55.30 E* 099 54.92 E*
(IF)	9.8D, R-188 NKS	08 22 45.23 N* 08 22.75 N*	099 55 33.91 E* 099 55.57 E*
(FAF)	4.6D, R-188 NKS	08 27 56.28 N* 08 27.94 N*	099 56 13.67 E* 099 56.23 E*
(MAPt)	2.1D, R-188 NKS	08 30 24.11 N* 08 30.40 N*	099 56 32.57 E* 099 56.54 E*

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV. 13 ft
HEIGHTS RELATED TO AERODROME ELEV.

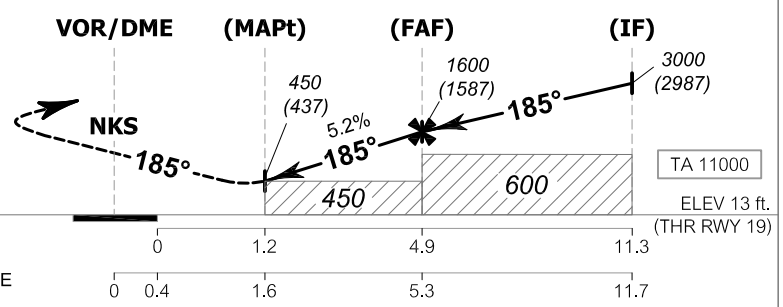
APP : 119.75
TWR : 122.55, 236.6
GND : 121.9
ATIS : 123.4

NAKHON SI THAMMARAT / Nakhon Si Thammarat (VTSF)
VOR y RWY 19



CHANGE : APP FREQUENCIES. ADDED GND FREQUENCIES.
ADDED ATIS FREQUENCIES.

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

NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
VOR y RWY 19

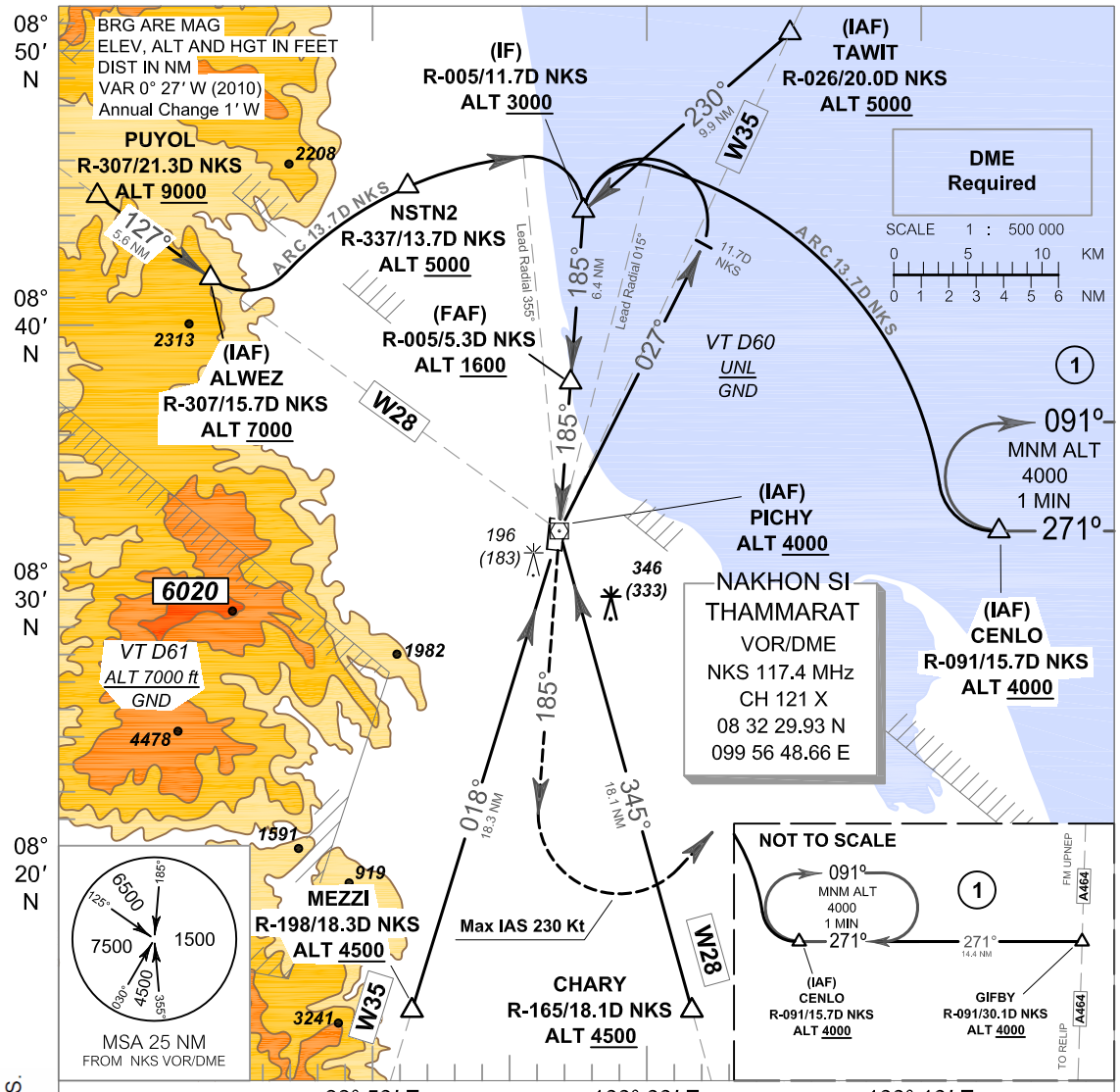
PUYOL	21.3D, R-307 NKS	08 45 05.88 N* 08 45.10 N*	099 39 26.35 E* 099 39.44 E*
MEZZI	18.3D, R-198 NKS	08 14 57.53 N* 08 14.96 N*	099 51 20.98 E* 099 51.35 E*
CHARY	18.1D, R-165 NKS	08 14 56.10 N* 08 14.94 N*	100 01 38.50 E* 100 01.64 E*
GIFBY	30.1D, R-091 NKS	08 32 24.27 N* 08 32.40 N*	100 27 14.36 E* 100 27.24 E*
(IAF) ALWEZ	15.7D, R-307 NKS	08 41 47.77 N* 08 41.80 N*	099 43 59.73 E* 099 43.99 E*
(IAF) TAWIT	20.0D, R-026 NKS	08 50 42.75 N* 08 50.71 N*	100 05 21.15 E* 100 05.35 E*
(IAF) CENLO	15.7D, R-091 NKS	08 32 27.27 N* 08 32.45 N*	100 12 39.92 E* 100 12.67 E*
(IAF) PICHY	NKS	08 32 29.93 N* 08 32.50 N*	099 56 48.66 E* 099 56.81 E*
NSTN2	13.7D R-337 NKS	08 45 07.47 N* 08 45.12 N*	099 51 16.85 E* 099 51.28 E*
(IF)	11.7D R-005 NKS	08 44 13.57 N* 08 44.23 N*	099 57 43.68 E* 099 57.73 E*
(FAF)	5.3D, R-005 NKS	08 37 50.74 N* 08 37.85 N*	099 57 13.73 E* 099 57.23 E*
(MAPt)	1.6D, R-005 NKS	08 34 08.41 N* 08 34.14 N*	099 56 56.35 E* 099 56.94 E*

INSTRUMENT APPROACH CHART - ICAO

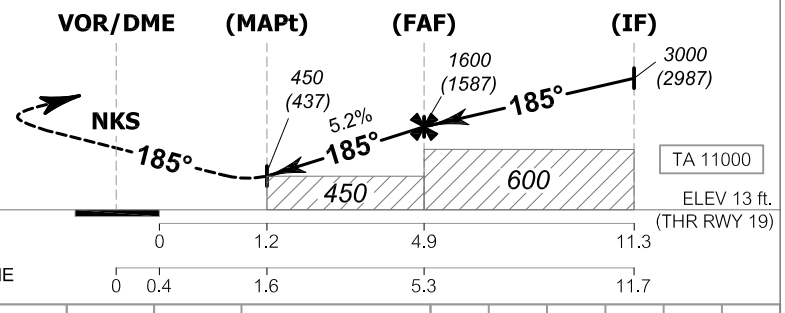
AERODROME ELEV. 13 ft
HEIGHTS RELATED TO AERODROME ELEV.

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 : APP FREQUENCIES. ADDED GND FREQUENCIES.
ADDED ATIS FREQUENCIES.

NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
VOR z RWY 19

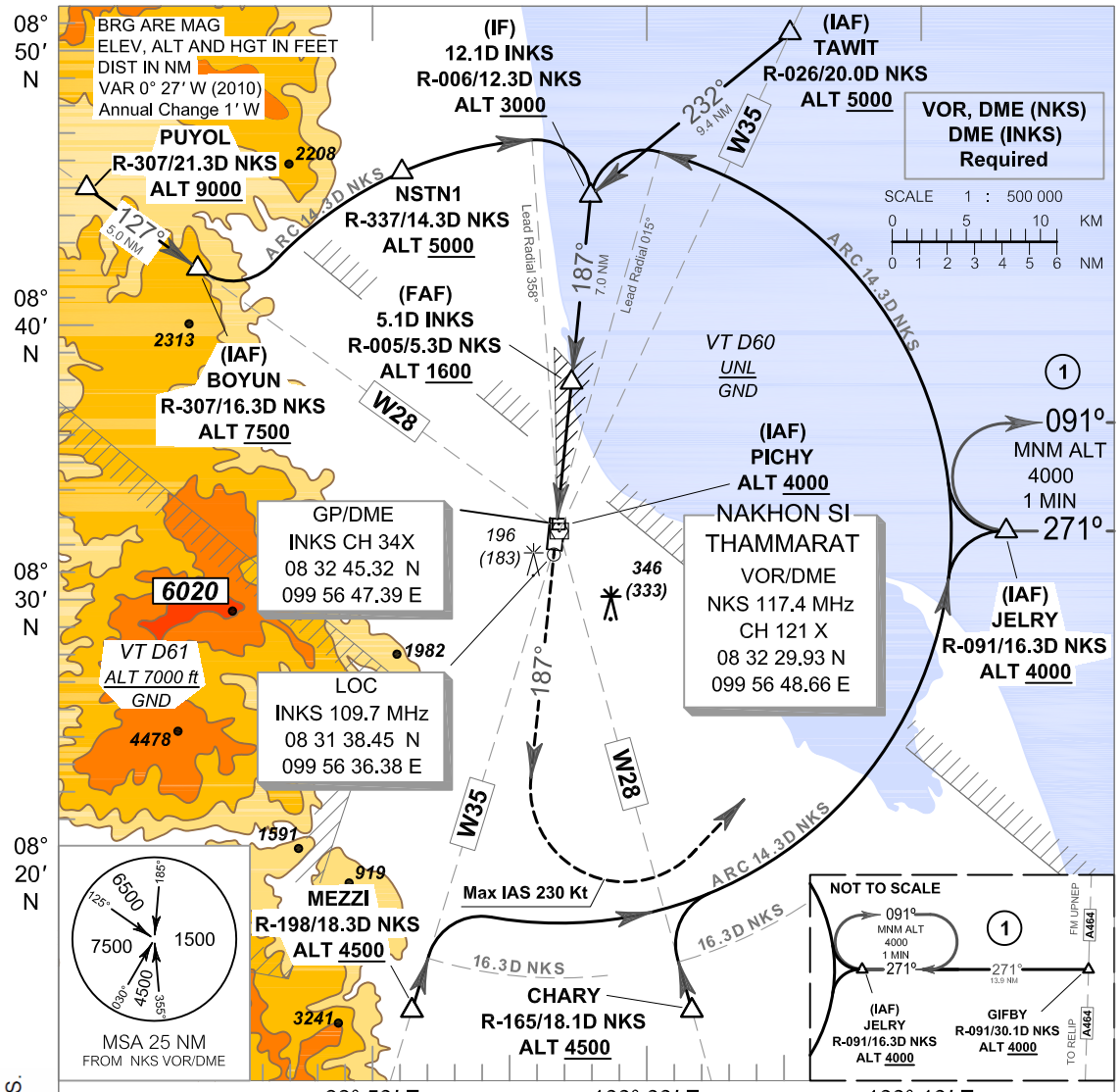
PUYOL	21.3D, R-307 NKS	08 45 05.88 N* 08 45.10 N*	099 39 26.35 E* 099 39.44 E*
MEZZI	18.3D, R-198 NKS	08 14 57.53 N* 08 14.96 N*	099 51 20.98 E* 099 51.35 E*
CHARY	18.1D, R-165 NKS	08 14 56.10 N* 08 14.94 N*	100 01 38.50 E* 100 01.64 E*
GIFBY	30.1D, R-091 NKS	08 32 24.27 N* 08 32.40 N*	100 27 14.36 E* 100 27.24 E*
(IAF) ALWEZ	15.7D, R-307 NKS	08 41 47.77 N* 08 41.80 N*	099 43 59.73 E* 099 43.99 E*
(IAF) TAWIT	20.0D, R-026 NKS	08 50 42.75 N* 08 50.71 N*	100 05 21.15 E* 100 05.35 E*
(IAF) CENLO	15.7D, R-091 NKS	08 32 27.27 N* 08 32.45 N*	100 12 39.92 E* 100 12.67 E*
(IAF) PICHY	NKS	08 32 29.93 N* 08 32.50 N*	099 56 48.66 E* 099 56.81 E*
NSTN2	13.7D, R-337 NKS	08 45 07.47 N* 08 45.12 N*	099 51 16.85 E* 099 51.28 E*
(IF)	11.7D, R-005 NKS	08 44 13.57 N* 08 44.23 N*	099 57 43.68 E* 099 57.73 E*
(FAF)	5.3D, R-005 NKS	08 37 50.74 N* 08 37.85 N*	099 57 13.73 E* 099 57.23 E*
(MAPt)	1.6D, R-005 NKS	08 34 08.41 N* 08 34.14 N*	099 56 56.35 E* 099 56.94 E*

INSTRUMENT APPROACH CHART - ICAO

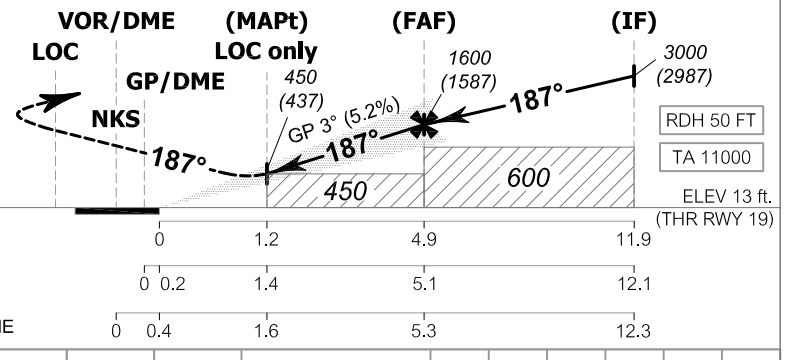
AERODROME ELEV. 13 ft
HEIGHTS RELATED TO
THR RWY 19 ELEV. 13 ft

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	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)											

CHANGE : APP FREQUENCIES. ADDED GND FREQUENCIES.
ADDED ATIS FREQUENCIES.

NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
ILS or LOC y RWY 19

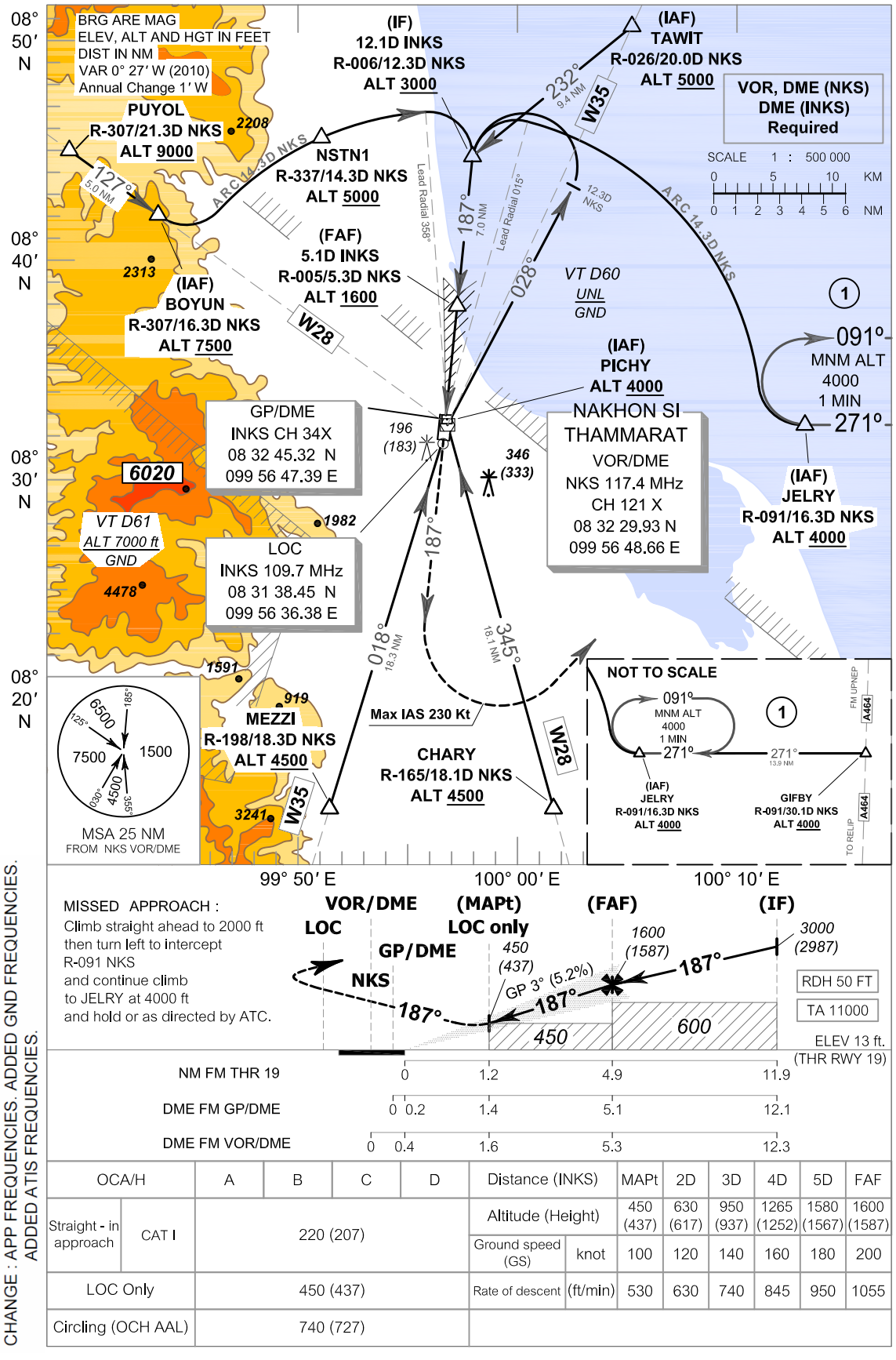
TAWIT	20.0D, R-026 NKS	08 50 42.75 N* 08 50.71 N*	100 05 21.15 E* 100 05.35 E*
PUYOL	21.3D, R-307 NKS	08 45 05.88 N* 08 45.10 N*	099 39 26.35 E* 099 39.44 E*
GIFBY	30.1D, R-091 NKS	08 32 24.27 N* 08 32.40 N*	100 27 14.36 E* 100 27.24 E*
NSTN1	14.3D, R-337 NKS	08 45 39.55 N* 08 45.66 N*	099 51 02.78 E* 099 51.05 E*
MEZZI	18.3D, R-198 NKS	08 14 57.53 N* 08 14.96 N*	099 51 20.98 E* 099 51.35 E*
CHARY	18.1D, R-165 NKS	08 14 56.10 N* 08 14.94 N*	100 01 38.50 E* 100 01.64 E*
(IAF) BOYUN	16.3D, R-307 NKS	08 42 08.37 N* 08 42.14 N*	099 43 31.30 E* 099 43.52 E*
(IAF) PICHY	NKS	08 32 29.93 N* 08 32.50 N*	099 56 48.66 E* 099 56.81 E*
(IAF) JELRY	16.3D, R-091 NKS	08 32 27.17 N* 08 32.45 N*	100 13 15.10 E* 100 13.25 E*
(IF)	12.1D INKS	08 44 47.33 N* 08 44.79 N*	099 57 59.70 E* 099 57.99 E*
(FAF)	5.1D INKS	08 37 50.54 N* 08 37.84 N*	099 57 15.66 E* 099 57.26 E*
(MAPt)	1.4D INKS	08 34 08.66 N* 08 34.14 N*	099 56 52.23 E* 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



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)											

CHANGE : APP FREQUENCIES. ADDED GND FREQUENCIES.
ADDED ATIS FREQUENCIES.

NAKHON SI THAMMARAT /
Nakhon Si Thammarat (VTSF)
ILS or LOC z RWY 19

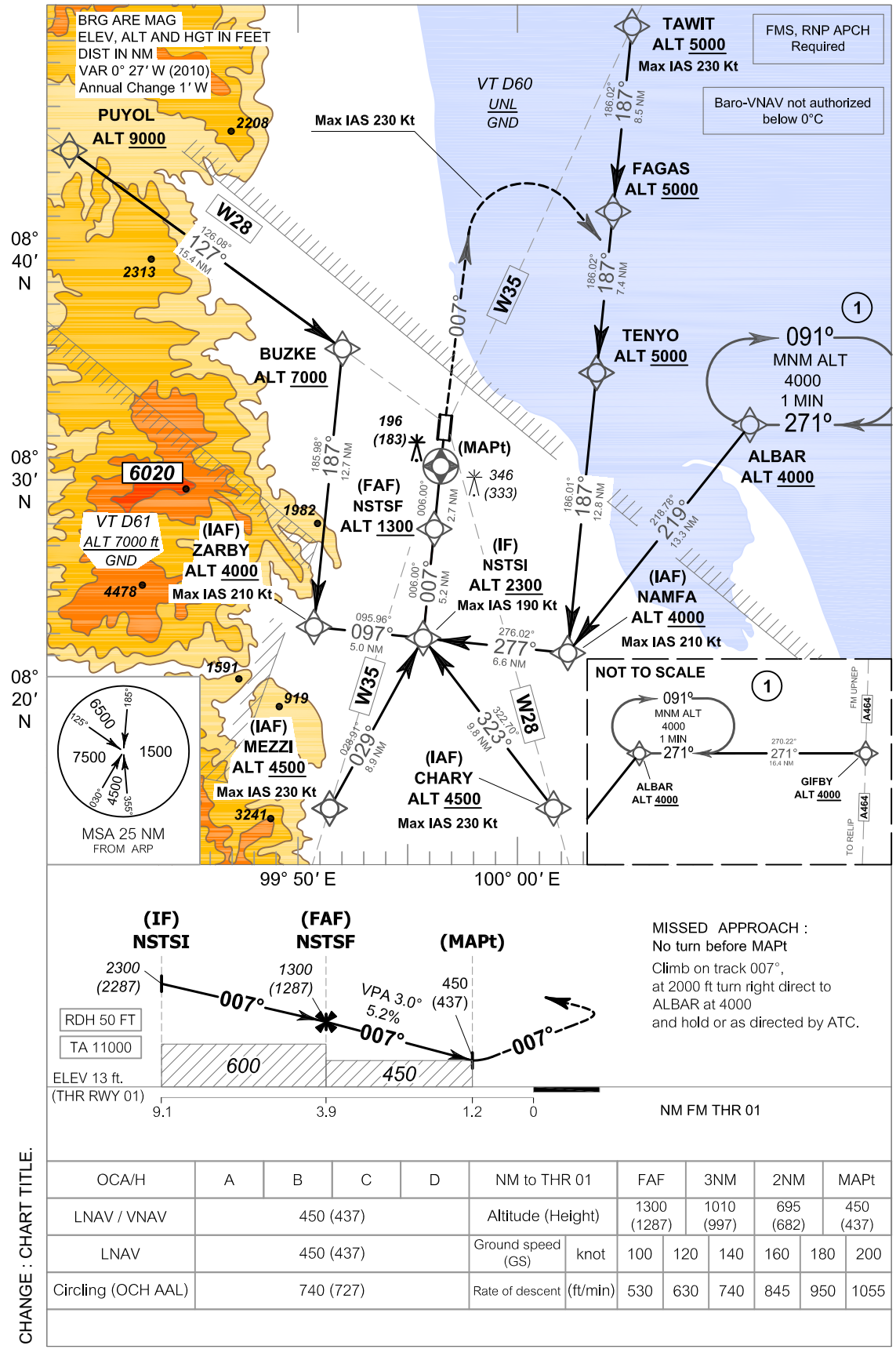
TAWIT	20.0D, R-026 NKS	08 50 42.75 N* 08 50.71 N*	100 05 21.15 E* 100 05.35 E*
PUYOL	21.3D, R-307 NKS	08 45 05.88 N* 08 45.10 N*	099 39 26.35 E* 099 39.44 E*
GIFBY	30.1D, R-091 NKS	08 32 24.27 N* 08 32.40 N*	100 27 14.36 E* 100 27.24 E*
NSTN1	14.3D, R-337 NKS	08 45 39.55 N* 08 45.66 N*	099 51 02.78 E* 099 51.05 E*
MEZZI	18.3D, R-198 NKS	08 14 57.53 N* 08 14.96 N*	099 51 20.98 E* 099 51.35 E*
CHARY	18.1D, R-165 NKS	08 14 56.10 N* 08 14.94 N*	100 01 38.50 E* 100 01.64 E*
(IAF) BOYUN	16.3D, R-307 NKS	08 42 08.37 N* 08 42.14 N*	099 43 31.30 E* 099 43.52 E*
(IAF) PICHY	NKS	08 32 29.93 N* 08 32.50 N*	099 56 48.66 E* 099 56.81 E*
(IAF) JELRY	16.3D, R-091 NKS	08 32 27.17 N* 08 32.45 N*	100 13 15.10 E* 100 13.25 E*
(IF)	12.1D INKS	08 44 47.33 N* 08 44.79 N*	099 57 59.70 E* 099 57.99 E*
(FAF)	5.1D INKS	08 37 50.54 N* 08 37.84 N*	099 57 15.66 E* 099 57.26 E*
(MAPt)	1.4D INKS	08 34 08.66 N* 08 34.14 N*	099 56 52.23 E* 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



CHANGE : CHART TITLE.

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

**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

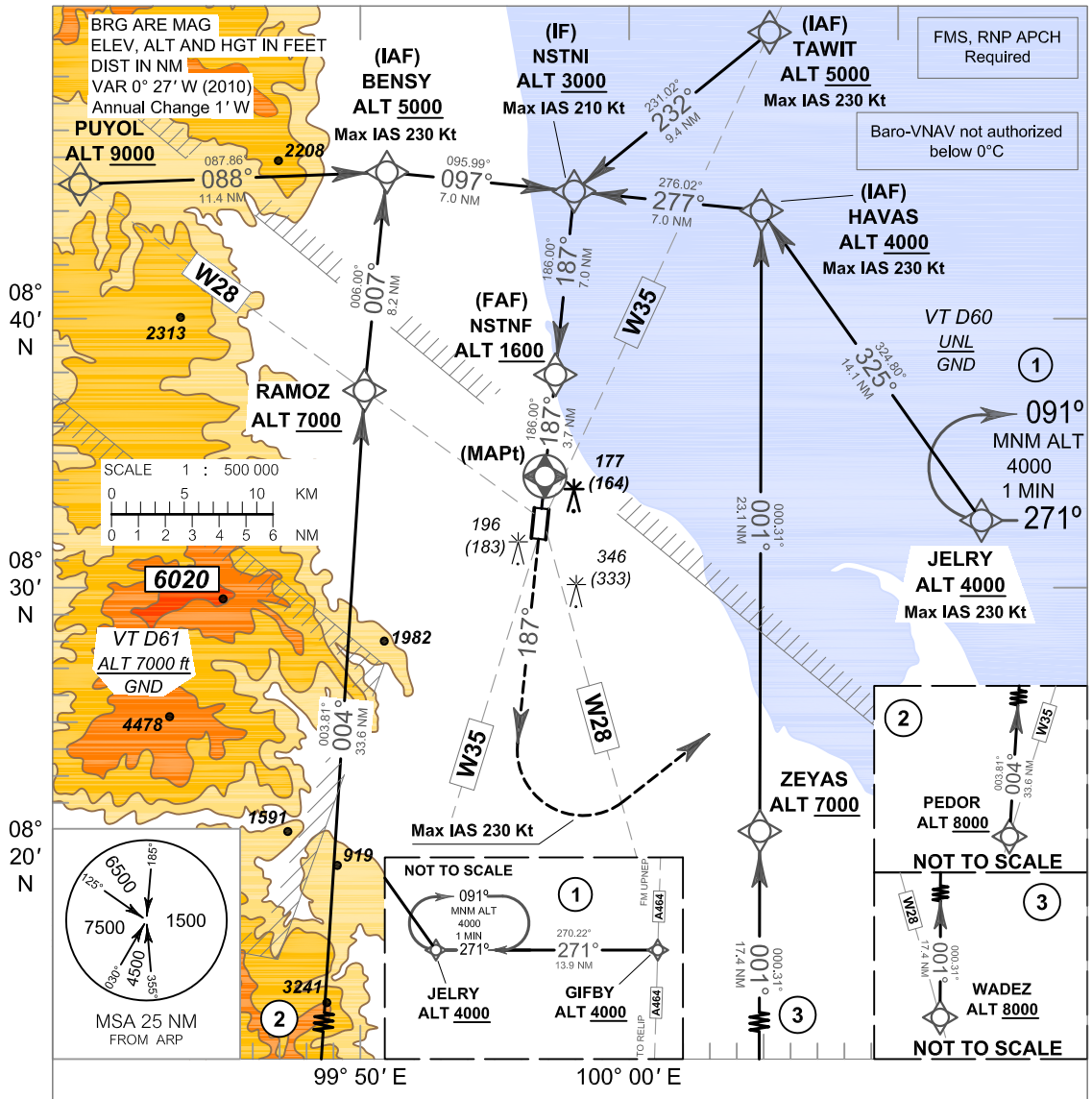
CHANGE : CHART TITLE.

INSTRUMENT APPROACH CHART - ICAO

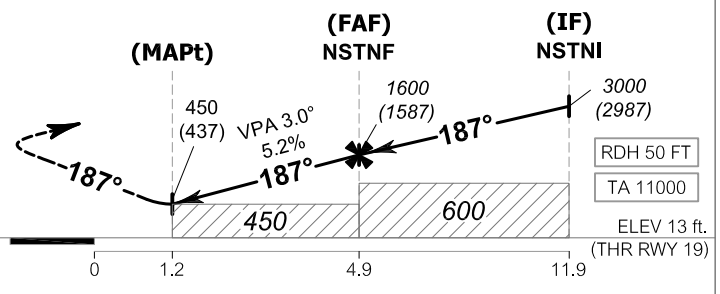
AERODROME ELEV. 13 ft
HEIGHTS RELATED TO AERODROME ELEV.

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 Nakhon Si Thammarat Airport Amphoe Muang Nakhon Si Thammarat Province 80000 Thailand Tel: +667 534 3052 Fax: +667 534 3052 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 Strength: PCN 61/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt 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 MET Office outside hours	NIL
3	Office responsible for TAF preparation Periods of validity	NIL
4	Type of landing forecast Interval of issuance	NIL
5	Briefing/consultation provided	No
6	Flight documentation 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 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 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 Language(s)	Nakhon Si Thammarat Tower 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 236.6 MHZ *121.5 MHZ	HJ	*Emergency Freq
G/A/G	Nakhon Si Thammarat Radio	121.9 MHZ 6577 KHZ 5490 KHZ	HJ	Primary Freq. (Upper side band) 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

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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 Nan Nakhon Airport Nan-Thung Chang Road, Moo 2 Tambon pasing Amphoe Muang Nan 55000 Thailand Tel: +665 471 0270 +665 477 1650 Fax: +665 477 1308 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): Located at Phitsanulok Airport (1st floor of airport building) Tel: +665 530 1078 +669 2262 3140 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 Strength: PCN 45/R/C/X/T
2	Taxiway width, surface and strength	Width: 20 M Surface: Concrete and asphalt 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, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1300 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 471 8670
6	Flight documentation 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 Observation System (AWOS), 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 IBN: NIL
2	LDI location and LGT 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 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 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 Language(s)	Nan Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Nan Tower	118.55 MHZ 121.5 MHZ [1)] 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: -40 NM from bearing 331-045 DEG (CW) altitude should not below 8000 FT. (due to border limited). -20 NM from bearing 046-160 DEG (CW) altitude should not below 6500 FT. (due to border limited). -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. At the required altitude in various areas as follow: -RDL 021-110 DEG at 20 NM should not below 8000 FT. -RDL 111-160 DEG at 20 NM should not below 6000 FT. -RDL 161-230 DEG at 40 NM should not below 7000 FT. -RDL 231-250 DEG at 40 NM should not below 9000 FT. -RDL 251-290 DEG at 40 NM should not below 11000 FT. -RDL 291-350 DEG at 40 NM should not below 9000 FT. -RDL 351-020 DEG at 40 NM should not below 8000 FT.
ILS CAT I RWY02 LOC/DME	INAN	110.3MHZ CH40X	H24	184903.30N 1004714.13E	687.34 FT	LOC designated operation coverage 18 NM, ALT 7000 FT AMSL
DME			H24	184904.17N 1004711.85E		DME paired with LOC FREQ
GP		335MHZ	H24	184808.72N 1004648.08E		GP 3.4 DEG, RDH 58 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

Chart name	Page
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

AERODROME CHART - ICAO

18 48 28 N
100 47 00 E

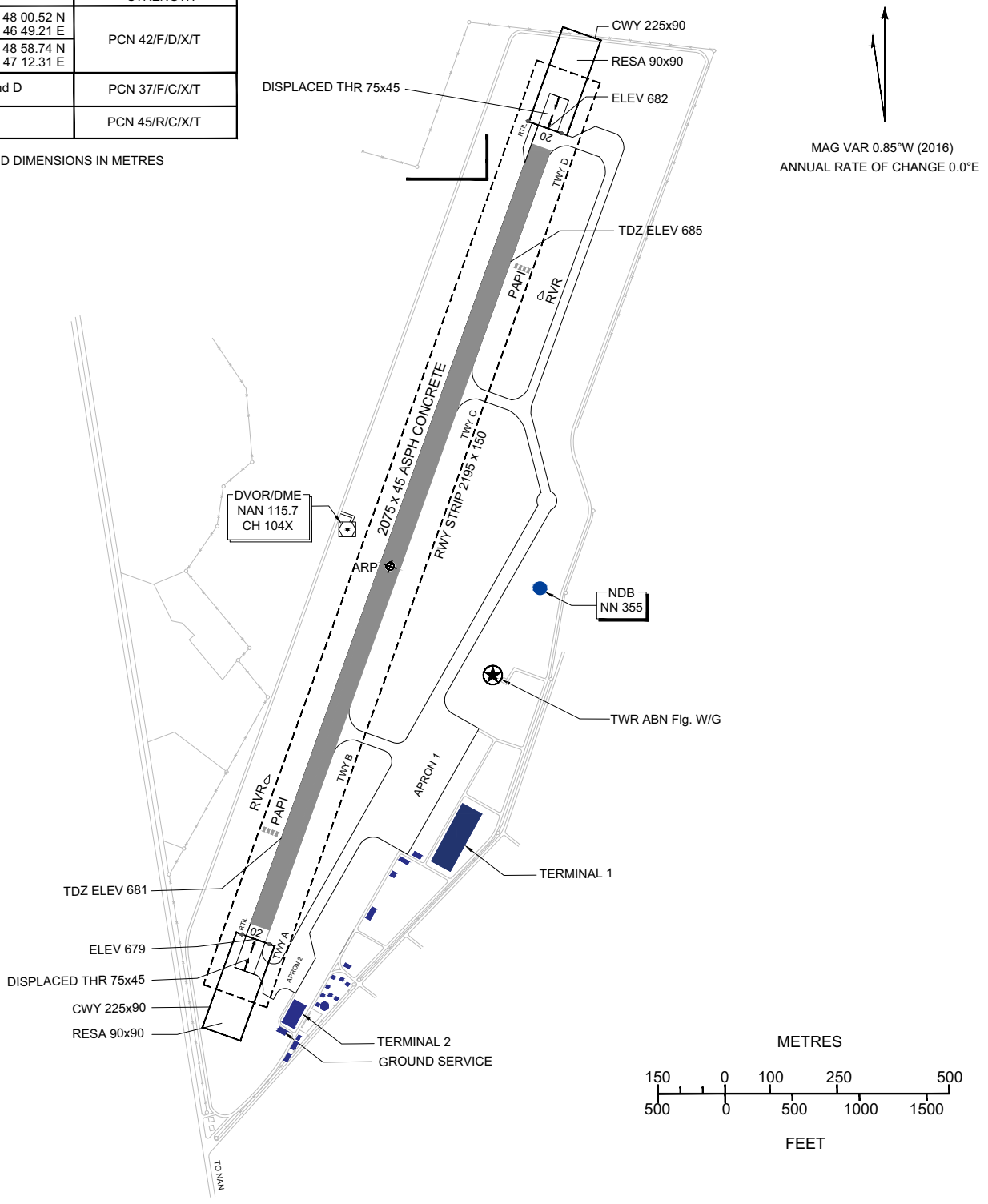
ELEV 685 FT

TWR 118.55 236.60

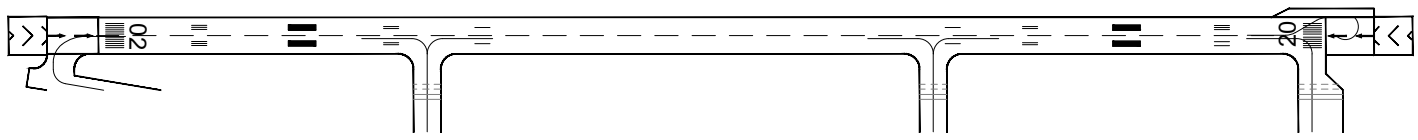
NAN / Nan Nakhon

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

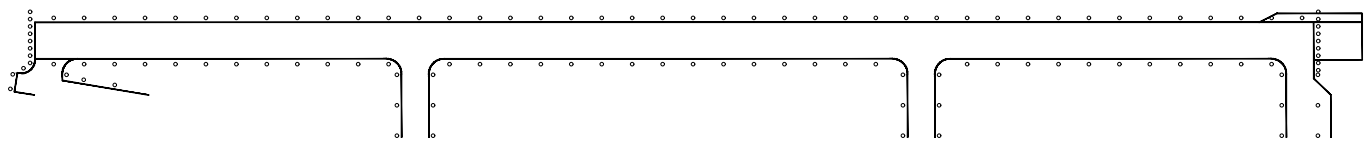
ELEVATIONS IN FEET AND DIMENSIONS IN METRES



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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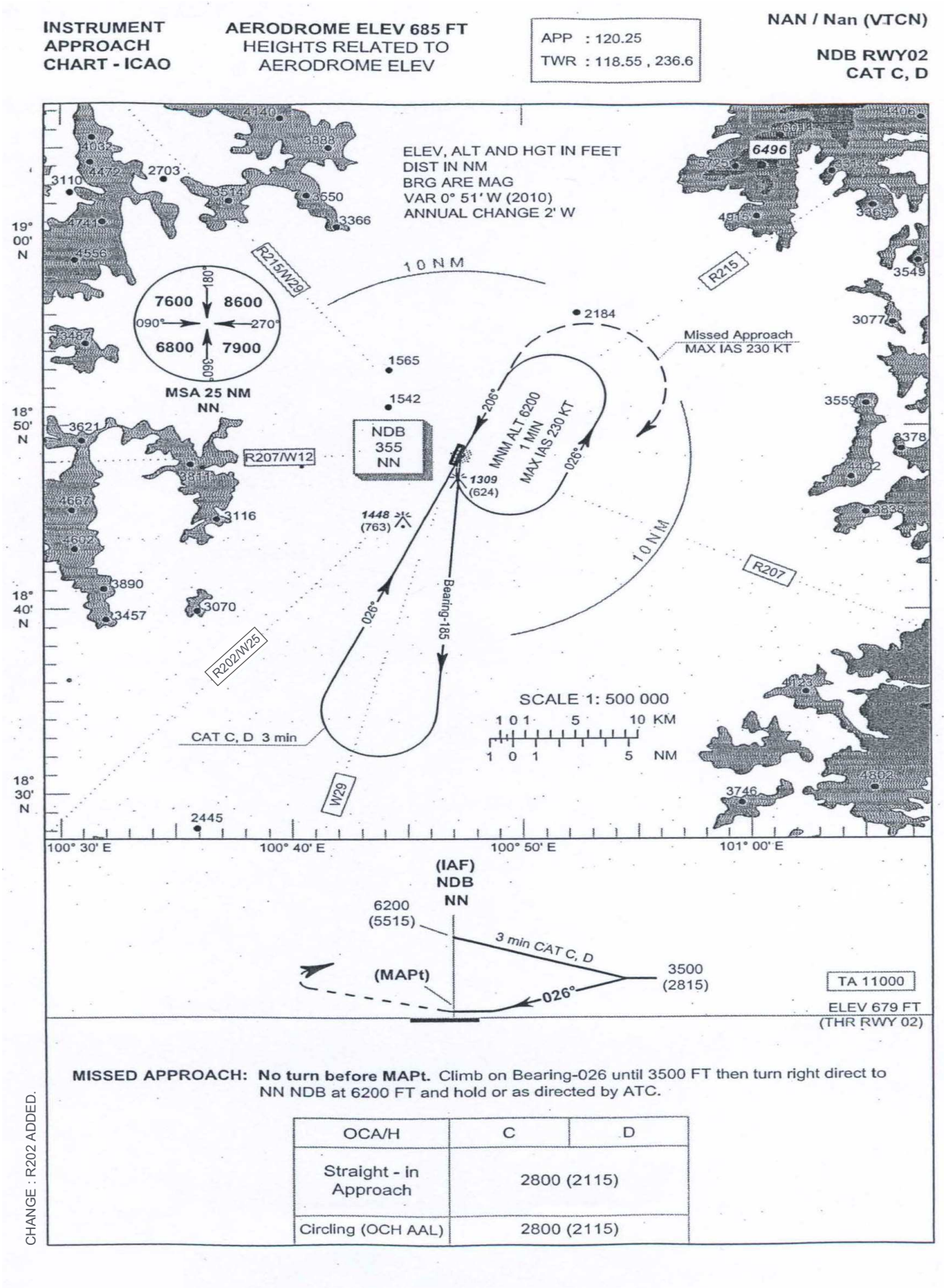


MISSED APPROACH: **No turn before MAPt.** Climb on Bearing-026 until 3500 FT then turn right direct to NN NDB at 6200 FT and hold or as directed by ATC.

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 18 48.43 N	100 47 11.91 E 100 47.20 E
THR RWY 02	-	18 47 58.24 N 18 47.97 N	100 46 48.31 E 100 46.81 E
NDB	NN	18 48 26.00 N 18 48.43 N	100 47 11.91 E 100 47.20 E

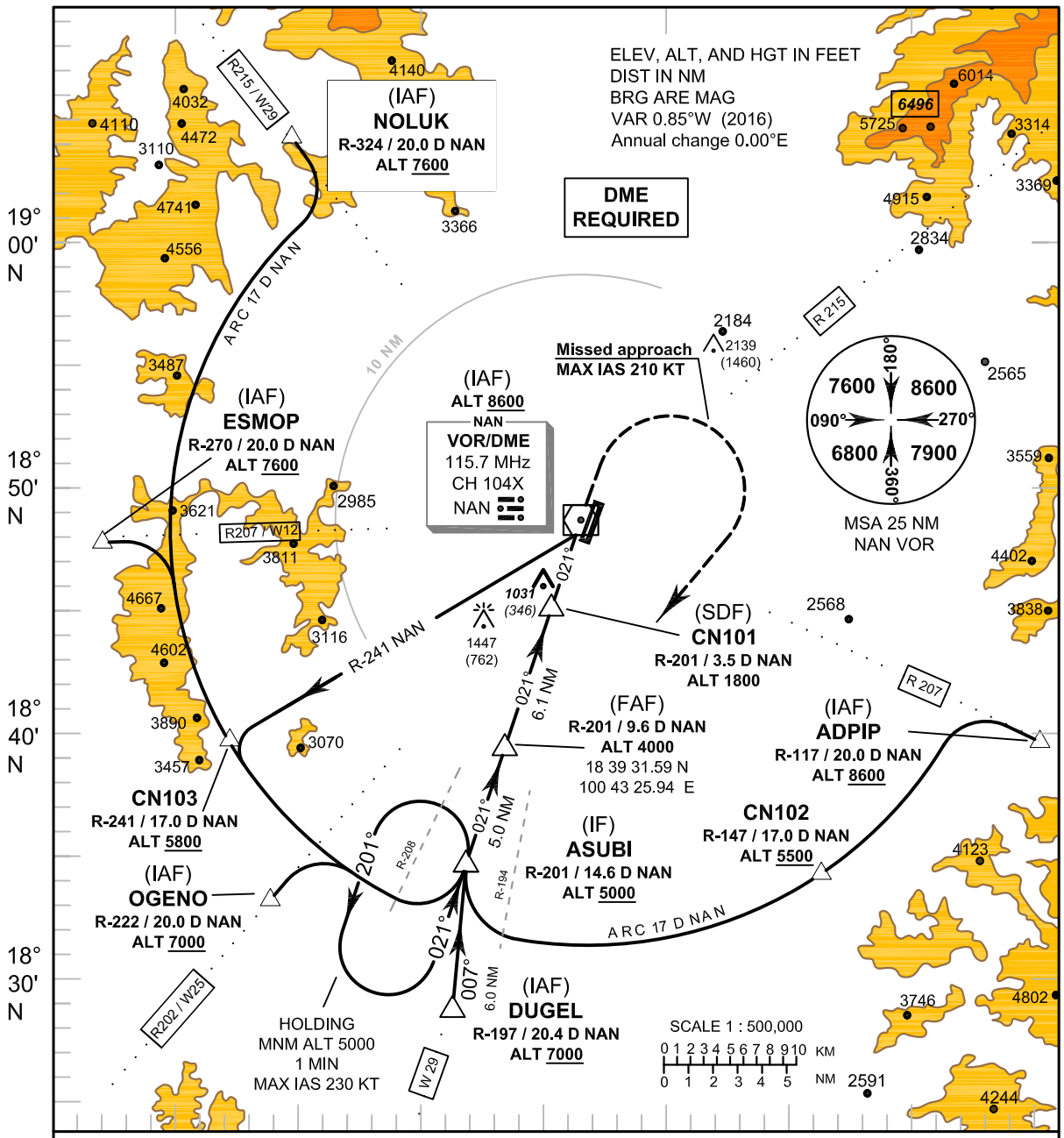
Date: Aug 2013

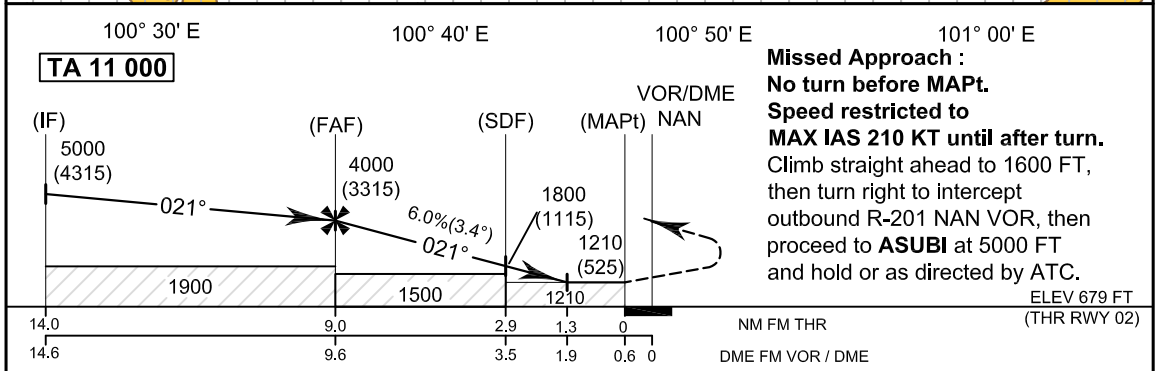
INSTRUMENT APPROACH CHART-ICAO

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

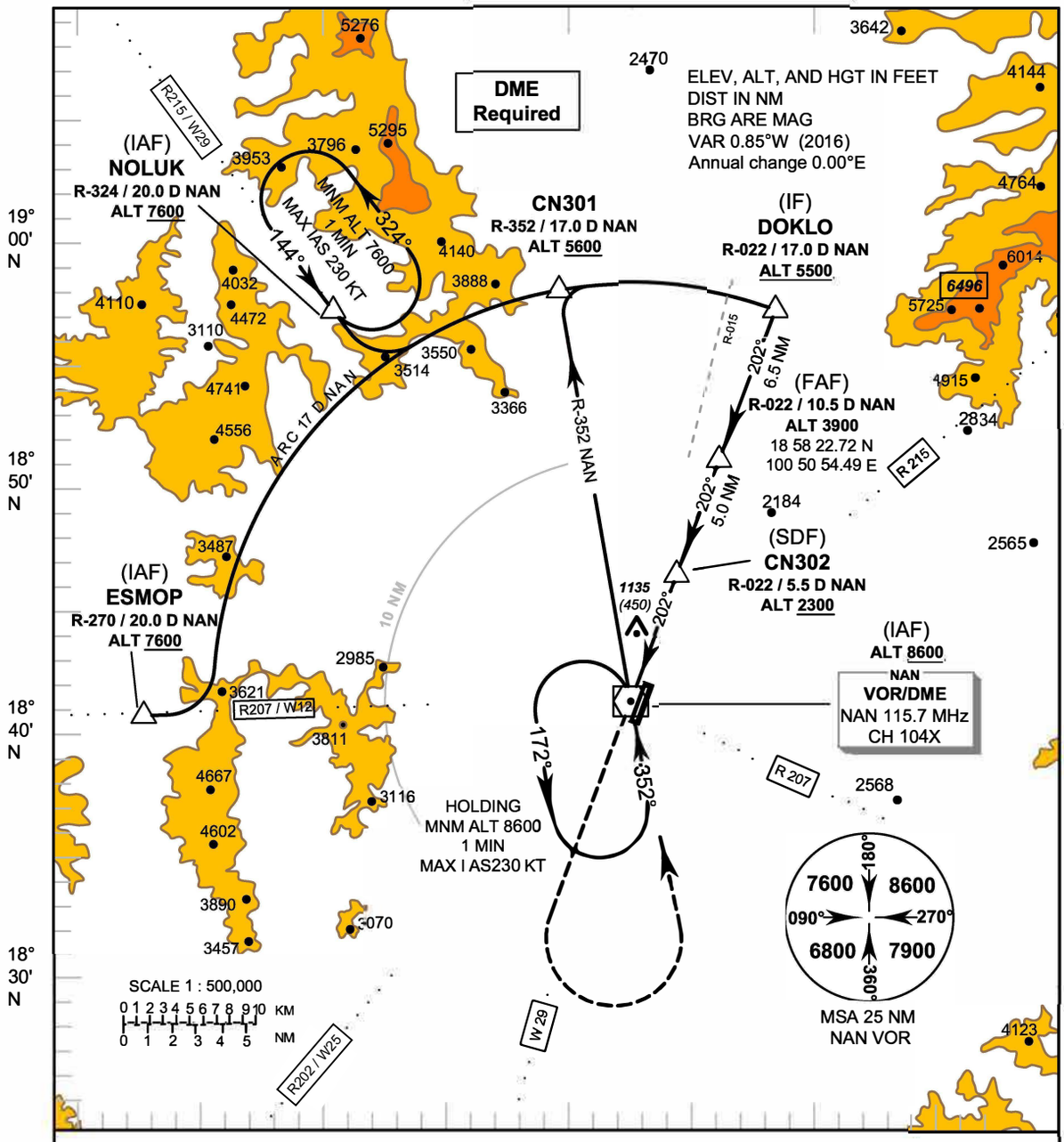
Fix / Point		Coordinates	
VOR (IAF)	NAN	18 48 32.76 N	100 46 57.36 E
ADPIP (IAF)	R - 117 / 20.0 D NAN	18 39 46.40 N	101 05 54.67 E
CN102	R - 147 / 17.0 D NAN	18 34 24.99 N	100 56 59.93 E
NOLUK (IAF)	R - 324 / 20.0 D NAN	19 04 38.32 N	100 34 20.30 E
ESMOP (IAF)	R - 270 / 20.0 D NAN	18 48 07.91 N	100 25 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

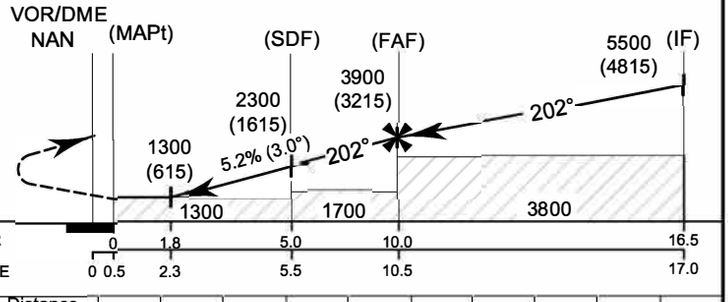
APP : 120.25
TWR : 118.55, 236.6

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

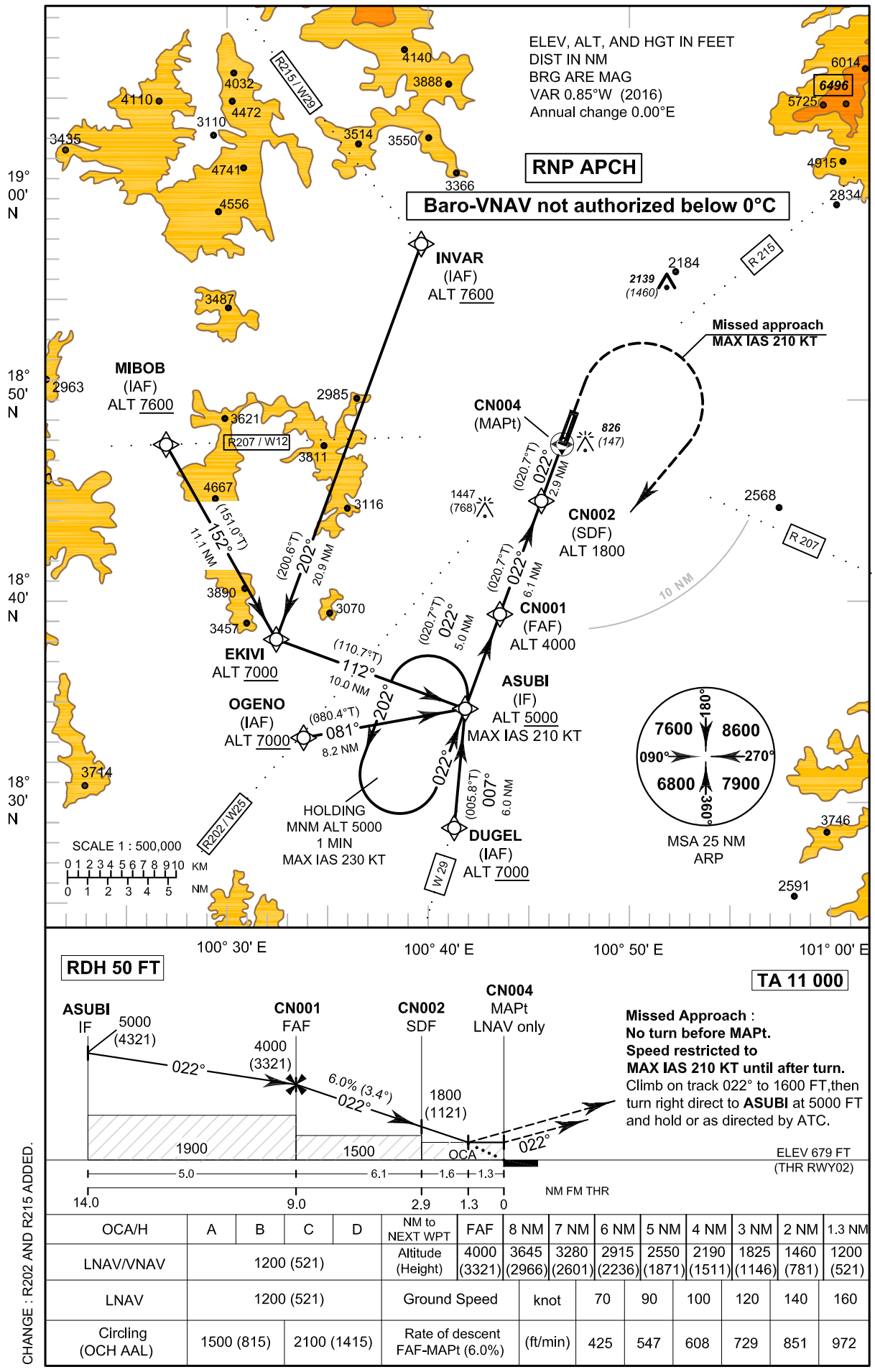
CHANGE : VOR COORDINATE.

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

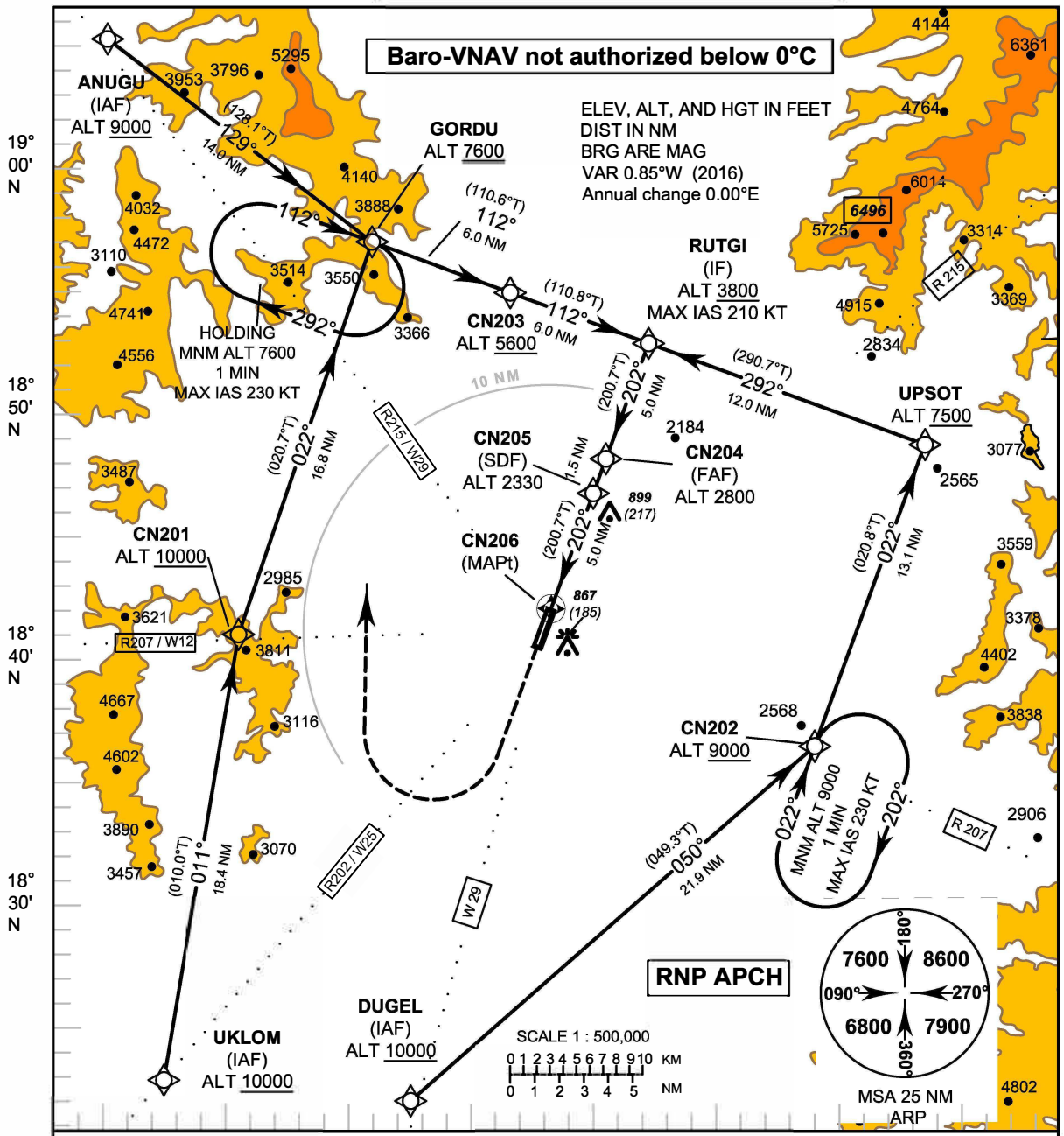
CHANGE: THR COORD.

INSTRUMENT APPROACH CHART-ICAO

AERODROME ELEV 685 FT
HEIGHTS RELATED TO
THR RWY20 - ELEV 682 FT

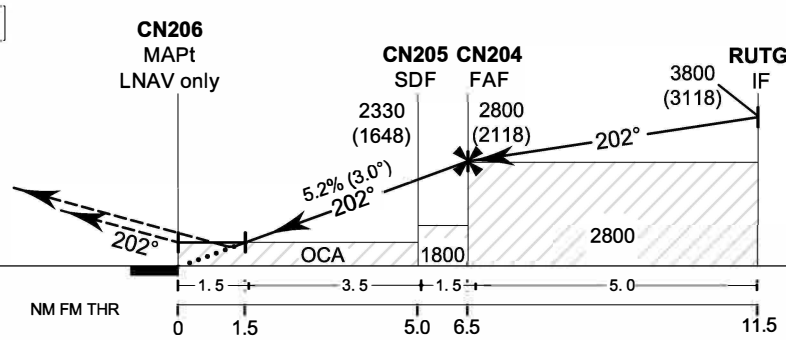
APP : 120.25
TWR : 118.55, 236.6

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 Narathiwat Airport Main Office Narathiwat Province Thailand Tel: +667 356 5061-5 Fax: +667 356 5066 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): Located at Hat Yai Air Traffic Control Centre (1st floor of tower building) Tel: +669 2262 2436 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 Strength: PCN 65/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Asphaltic concrete 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 TWY guide lines: Yes Nose-wheel guide lines at apron 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 RWY LGT: THR, RWY Edge and RWY End TWY markings: CL, Edge and RWY Holding Position 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, Southern East-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern East-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 356 5077 ext. 6606
6	Flight documentation 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 Observation System (AWOS), 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 Asphaltic concrete	063026.88N 1014416.86E -35 FT	THR 23 FT
20	203.43°	2500x45	PCN 65/F/C/X/T Asphaltic concrete	063141.55N 1014449.22E -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 900M LIH	Green	PAPI Left 3°	NIL	NIL	2500 M 60 M White, LIH	Red	NIL	NIL
20	SALS 300M LIH	Green	PAPI Left 3°	NIL	NIL	2500 M 60 M 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 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 Switch-over time: 15 SEC
5	Remarks	NIL

VTSC AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (063138.24N 1014442.48E)
2	Vertical limits	2000 FT/AGL

3	Airspace classification	C
4	ATS unit call sign Language(s)	Narathiwat Tower 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 121.5 MHZ 1)	As AD OPR HR	1) Emergency frequency
TWR	Narathiwat Tower	122.7 MHZ 236.6 MHZ 121.5 MHZ 1)	As AD OPR HR	
GND	Narathiwat Ground	121.9 MHZ 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	383KHZ	H24	063141.31N 1014459.09E		NDB, 50 NM coverage restriction as follows: – Bearing 260º-300º altitude should not below 5 500 FT – Bearing 301º-055º altitude should not below 1 500 FT – 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	116.3MHZ CH110X	H24	063138.24N 1014442.48E		DVOR/DME restrictions, 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: a) 40 NM clockwise orbit flown from – Radial 271º-290º altitude should not below 9 000 FT – Radial 291º-300º altitude should not below 4 000 FT – Radial 301º-020º altitude should not below 2 000 FT b) 20 NM clockwise orbit flown from – Radial 021º-130º altitude should not below 2 000 FT – Radial 131º-270º altitude should not below 5 000 FT 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	063149.20N 1014452.49E		ILS coverage over a sector 035° either side of runway centreline, no back course and voice feature. Distance 1 050 M to THR RWY 02.
GP/DME		334.4 MHZ CH 38X	H24	063048.90N 1014430.60E		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

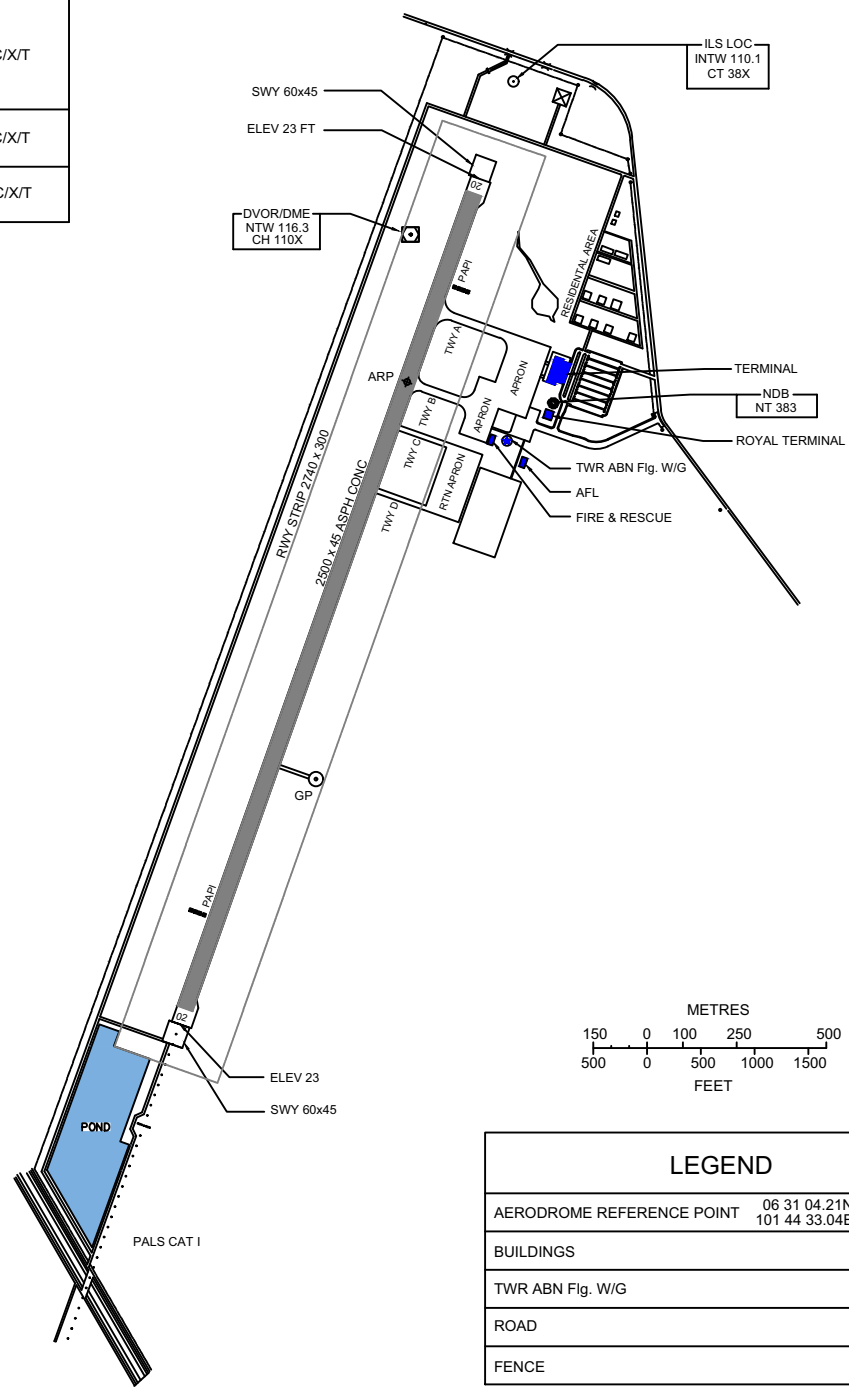
AERODROME CHART - ICAO 06 31 04.21 N 101 44 33.04 E ELEV 23 FT TWR 121.50 122.70 236.60 NARATHIWAT/ Narathiwat

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

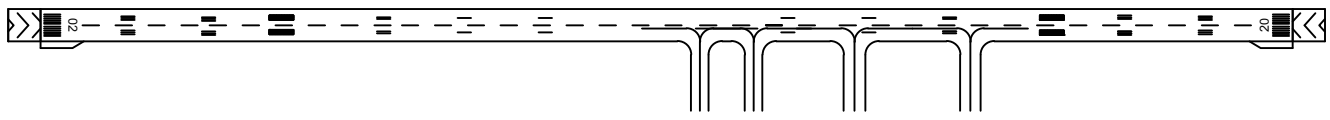
MAG VAR 0.34°W (2022)
ANNUAL RATE OF CHANGE 0.03°W



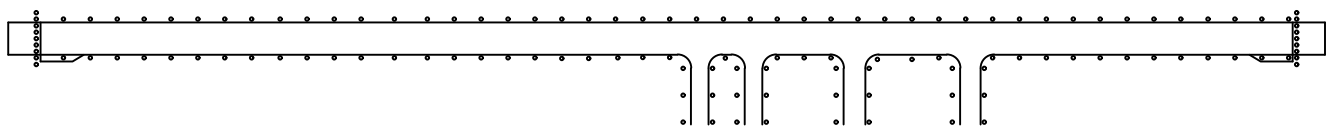
LEGEND	
AERODROME REFERENCE POINT	06 31 04.21N 101 44 33.04E
BUILDINGS	
TWR ABN Flg. W/G	
ROAD	
FENCE	

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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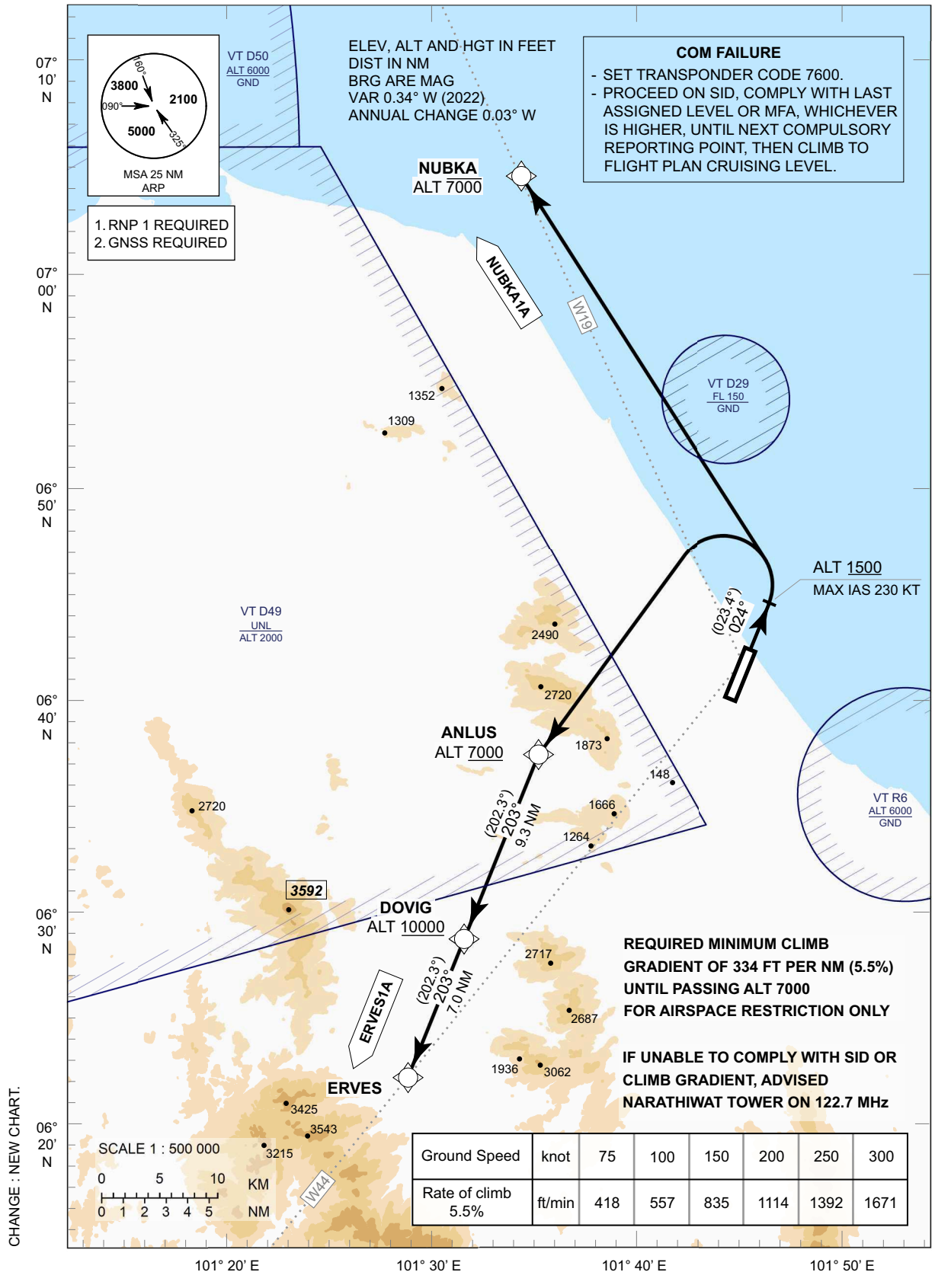
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

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

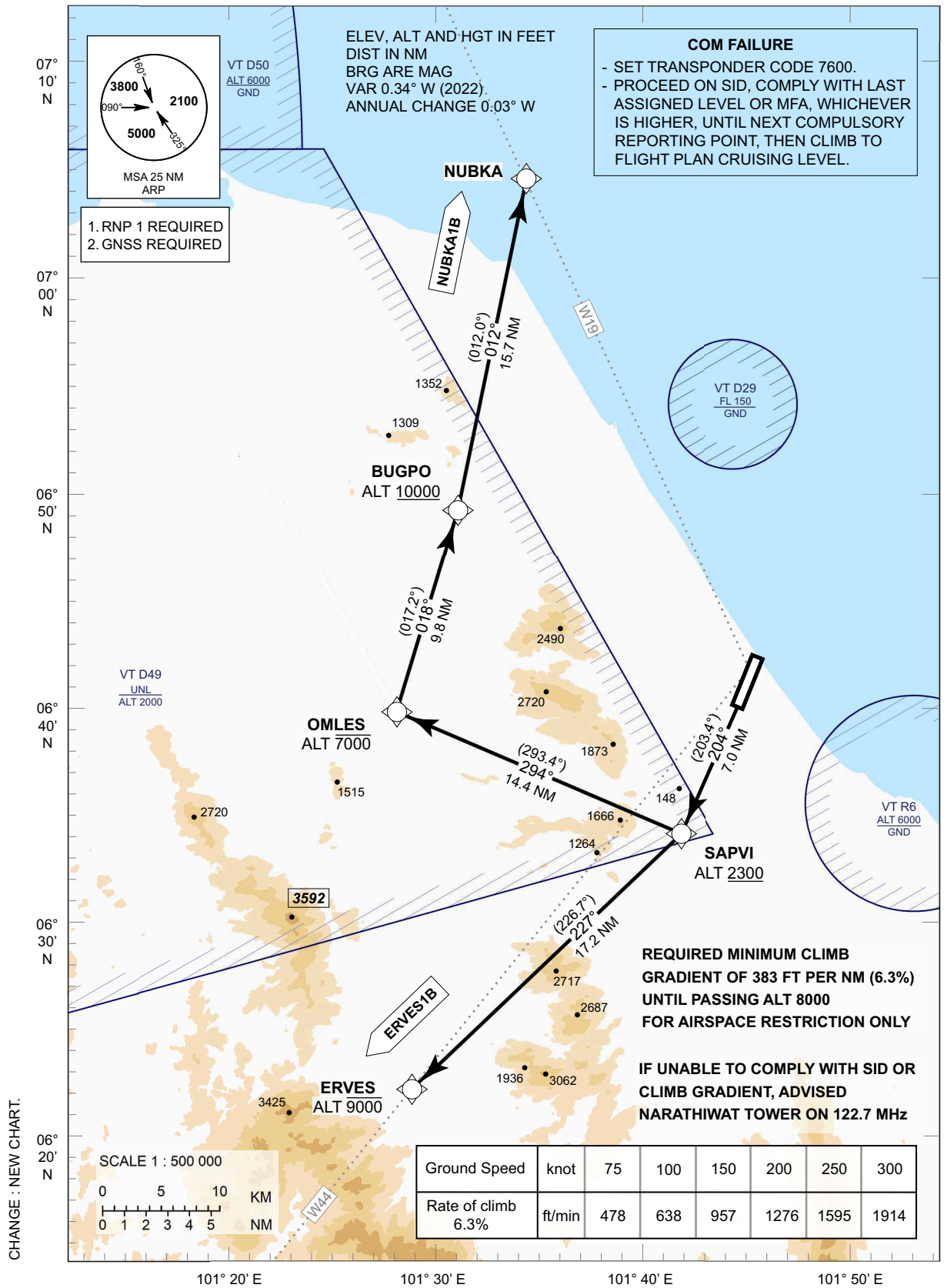
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

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.

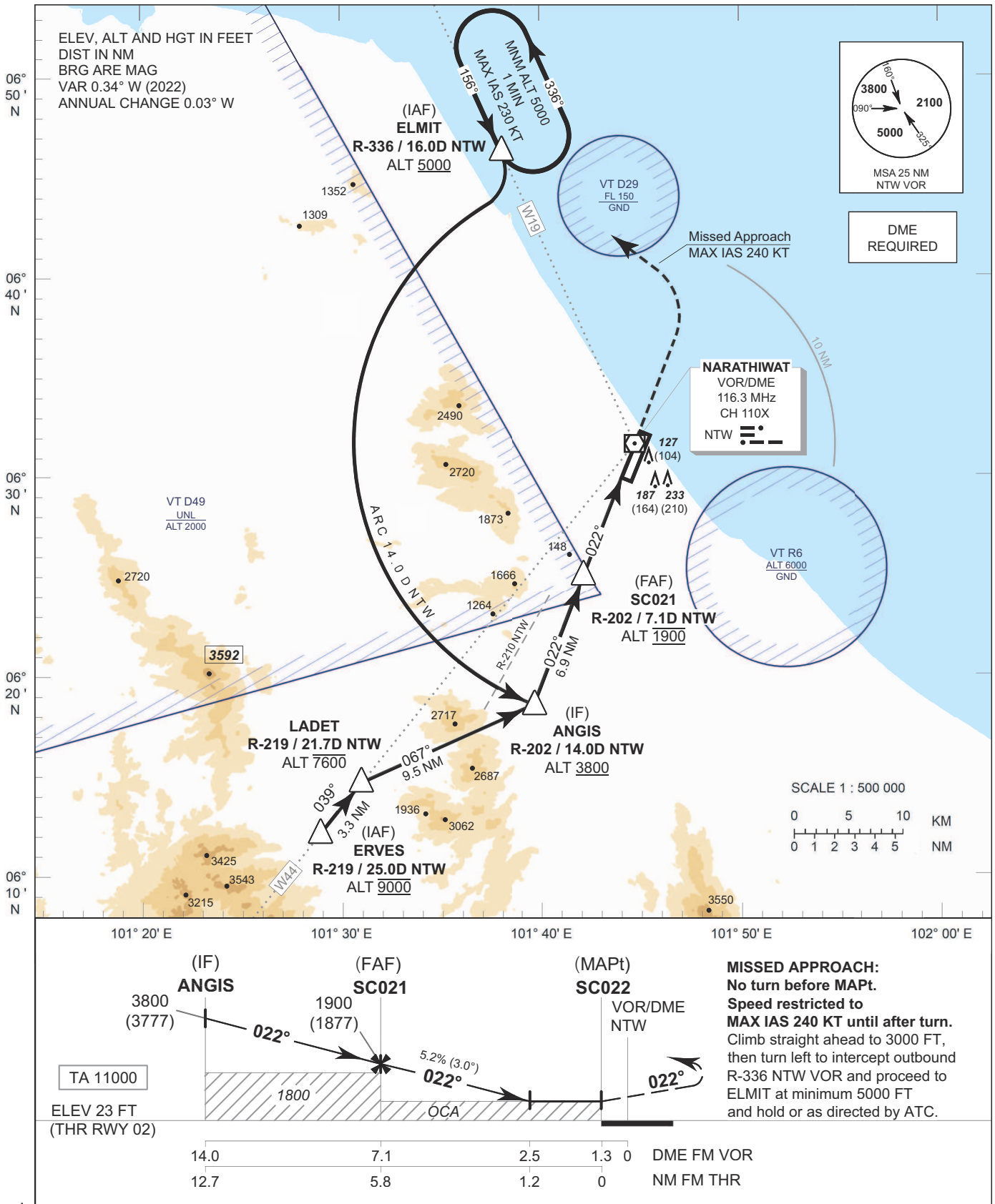
INSTRUMENT APPROACH CHART - ICAO

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' 38.24" N	101° 44' 42.48" E

CHANGE : IAF WAYPOINT.

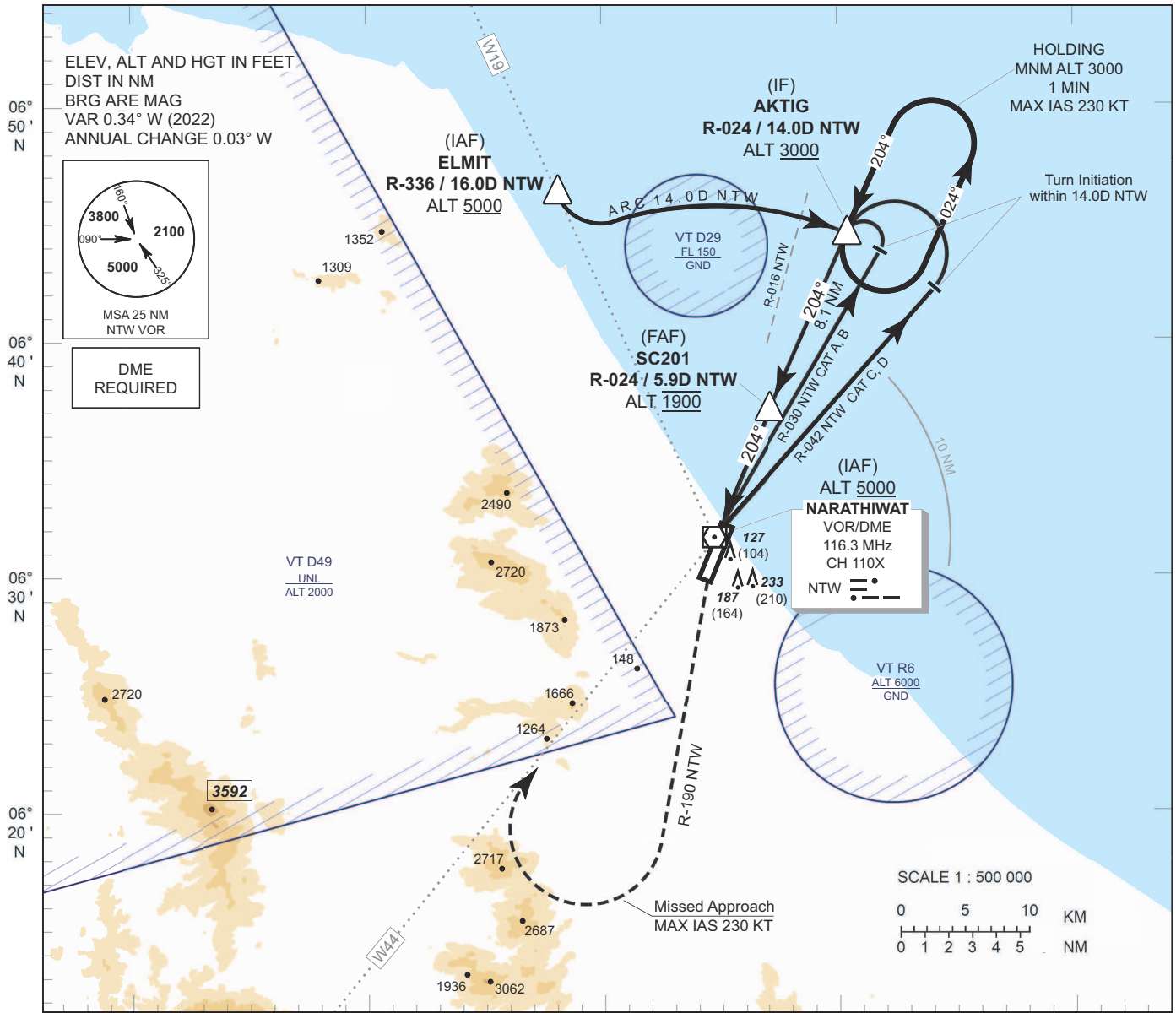
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 23 FT
HEIGHTS RELATED TO AERODROME ELEV

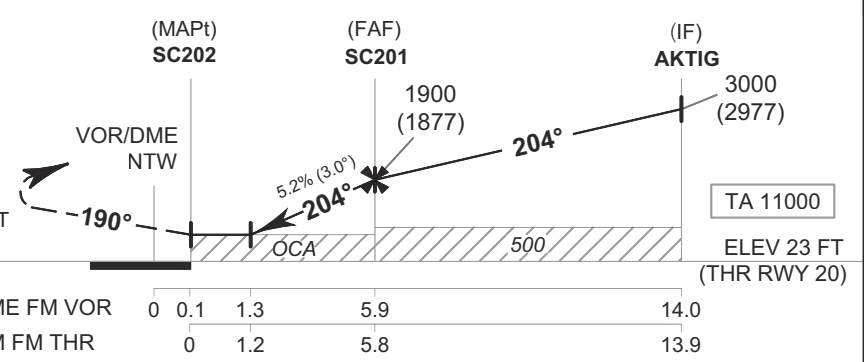
APP	: 125.55 MHz
TWR	: 122.7, 236.6 MHz
GND	: 121.9 MHz
ATIS	: 383.0 kHz

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) VOR	NTW	06° 31' 38.24" N	101° 44' 42.48" E
(IAF) ELMIT	R-336 / 16.0D NTW	06° 46' 18.49" N	101° 38' 07.93" E
(IF) AKTIG	R-024 / 14.0D NTW	06° 44' 29.84" N	101° 50' 24.60" E
(FAF) SC201	R-024 / 5.9D NTW	06° 37' 03.22" N	101° 47' 06.54" E
(MAPt) SC202	R-024 / 0.1D NTW	06° 31' 43.54" N	101° 44' 44.83" E

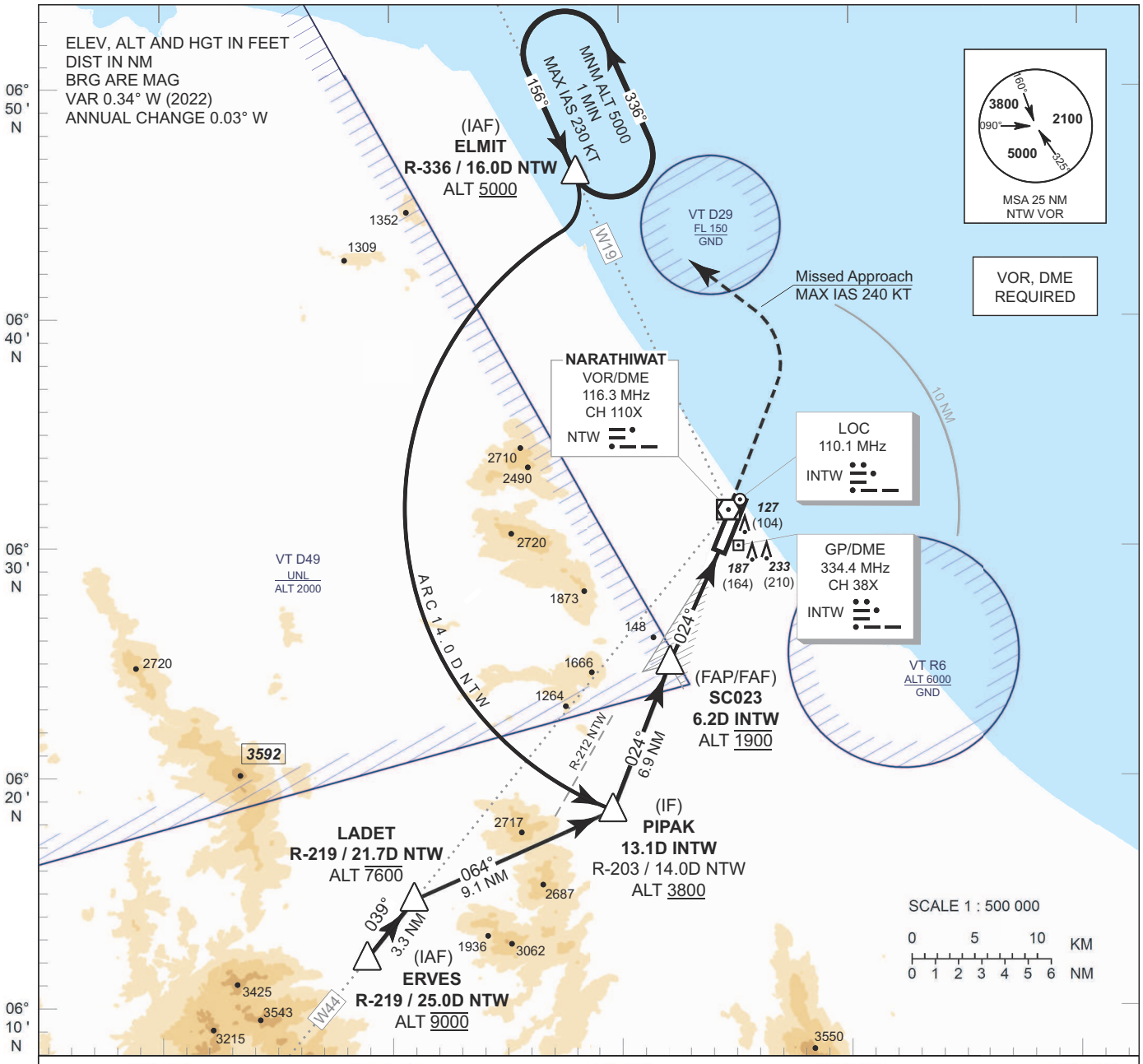
INSTRUMENT APPROACH CHART - ICAO

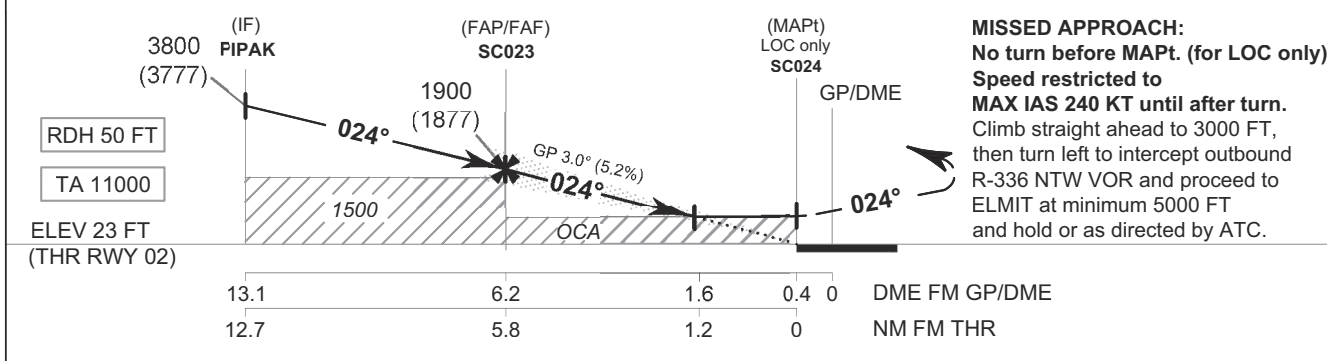
AERODROME ELEV 23 FT
HEIGHTS RELATED TO
THR RWY02 - ELEV 23 FT

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 : IAF WAYPOINT.

OCA/H		A	B	C	D
Straight - in Approach	CAT I	300 (277)			
LOC only		450 (427)			
Circling (OCH AAL)		900 (877)			

GS OUT		FAF	6D	5D	4D	3D	2D	1.6D
Distance (INTW)								
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) 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) PIPAK	13.1D INTW	06° 18' 41.73" N	101° 39' 11.78" E
(FAP/FAF) SC023	6.2D INTW	06° 25' 05.99" N	101° 41' 57.99" E
(MAPt) SC024	0.4D INTW	06° 30' 26.88" N	101° 44' 16.86" E
LOC	INTW	06° 31' 49.20" N	101° 44' 52.49" E
GP/DME	INTW	06° 30' 48.90" N	101° 44' 30.60" E
VOR	NTW	06° 31' 38.24" N	101° 44' 42.48" E

CHANGE : IAF WAYPOINT.

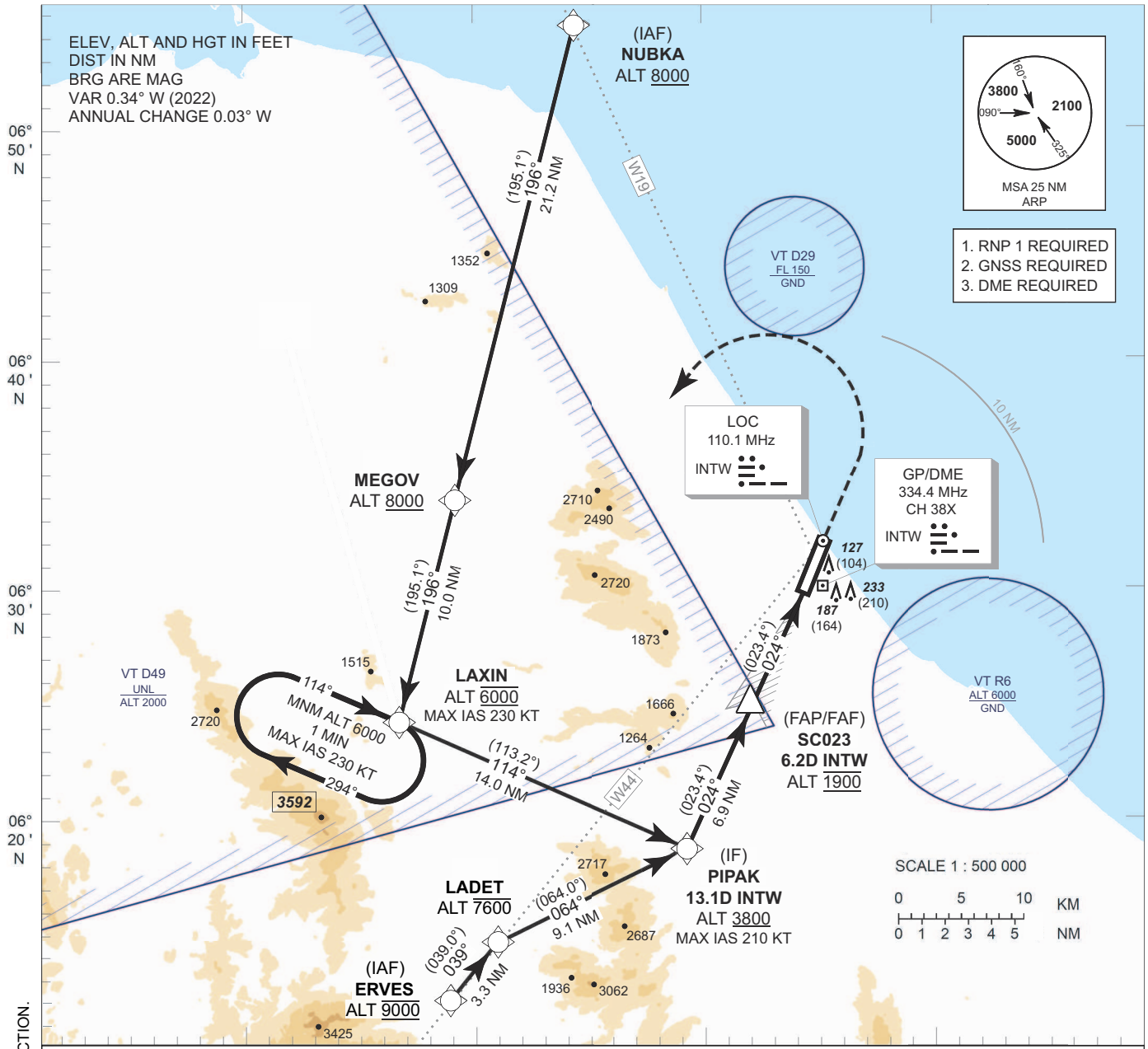
INSTRUMENT APPROACH CHART - ICAO

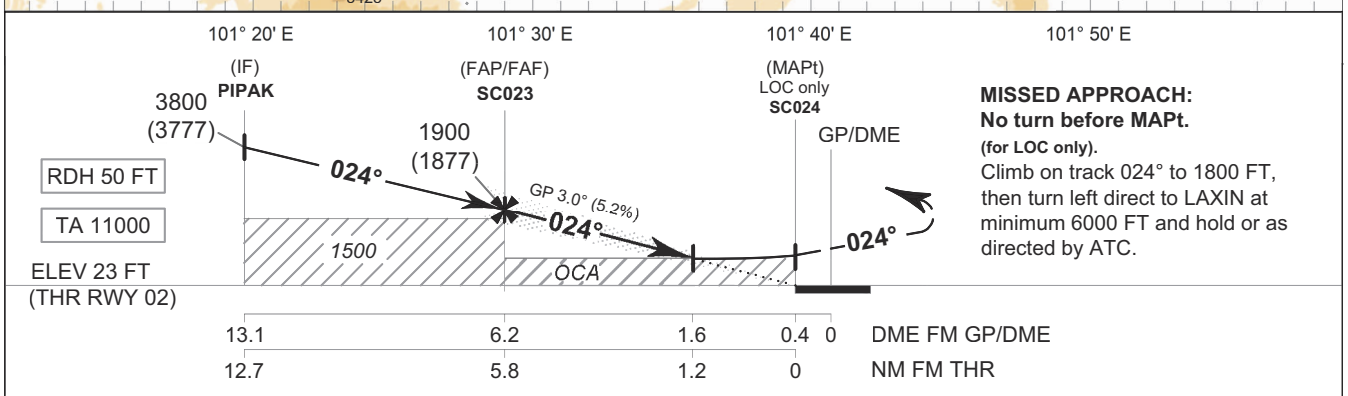
AERODROME ELEV 23 FT
HEIGHTS RELATED TO
THR RWY02 - ELEV 23 FT

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 : IAF WAYPOINT AND WAYPOINT LAXIN ALTITUDE RESTRICTION.

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	1.6D
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) PIPAK	13.1D INTW	06° 18' 41.73" N	101° 39' 11.78" E
(FAP/FAF) SC023	6.2D INTW	06° 25' 03.53" N	101° 41' 56.93" E
(MAPt @ THR02) SC024	0.4D INTW	06° 30' 26.88" N	101° 44' 16.86" E
LOC	INTW	06° 31' 49.20" N	101° 44' 52.49" E
GP/DME	INTW	06° 30' 48.90" N	101° 44' 30.60" E

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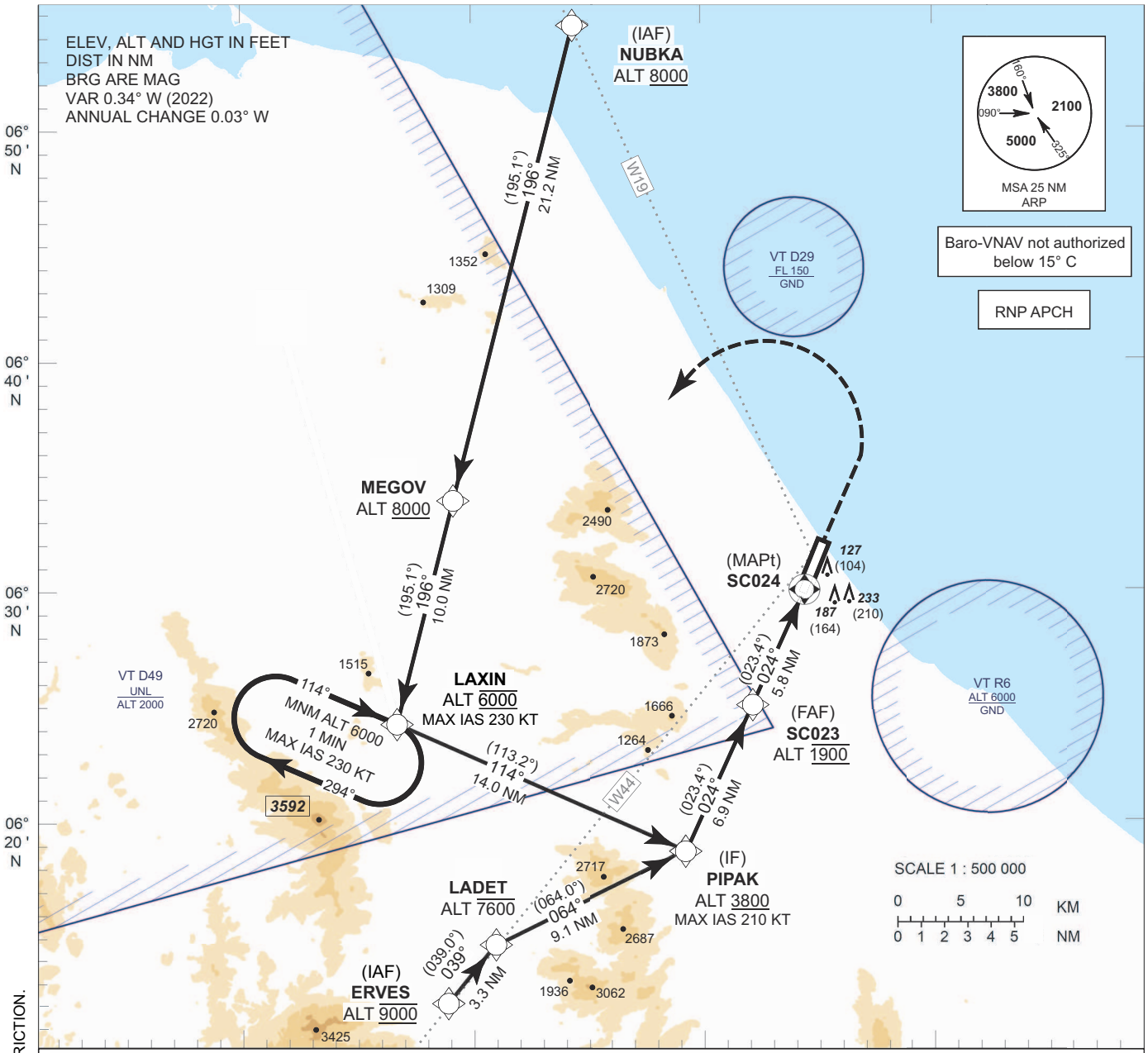
INSTRUMENT APPROACH CHART - ICAO

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



CHANGE : IAF WAYPOINT AND WAYPOINT LAXIN ALTITUDE RESTRICTION.

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

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

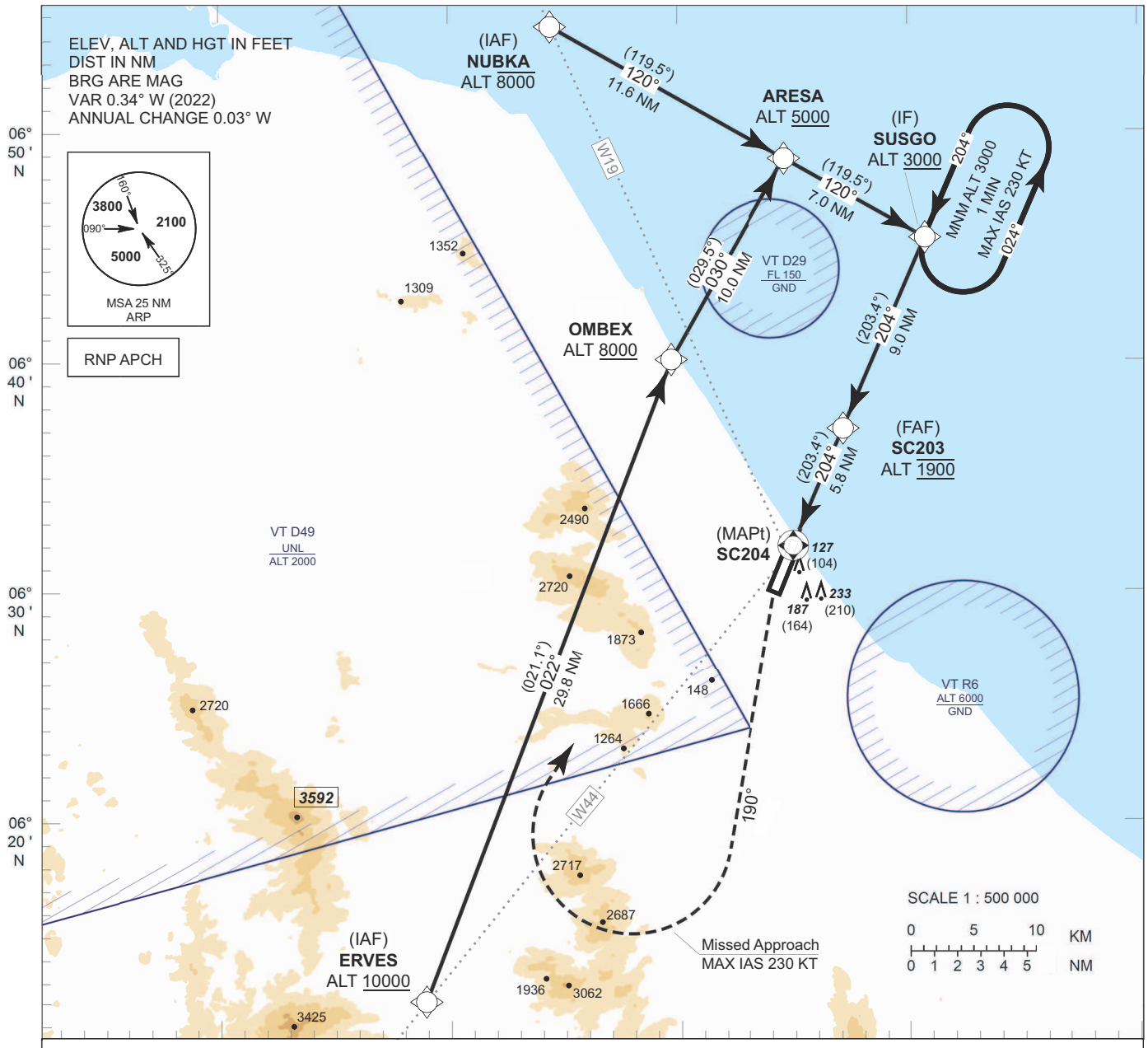
INSTRUMENT APPROACH CHART - ICAO

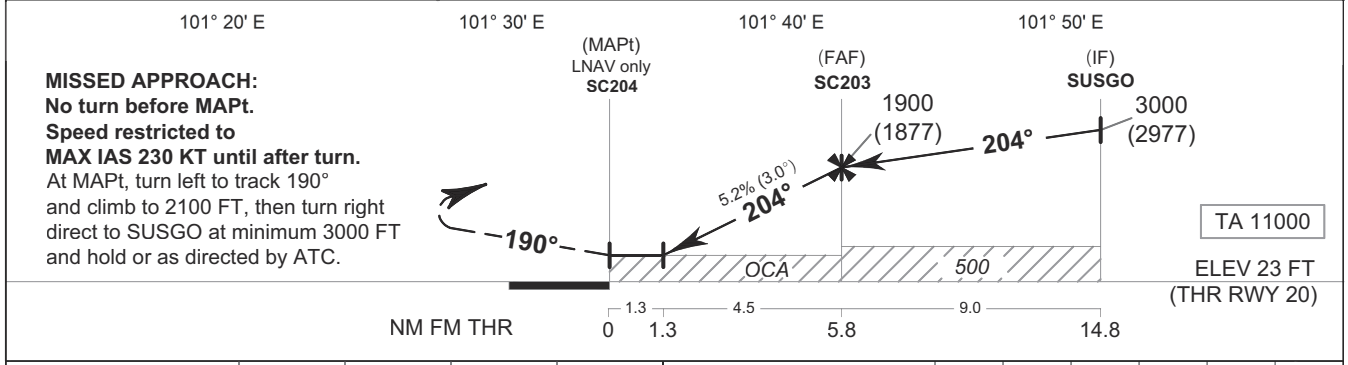
AERODROME ELEV 23 FT
HEIGHTS RELATED TO AERODROME ELEV

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 Pattani Airport Amphoe Nongjig Pattani Province 94170 Thailand Tel: +667 343 1190 +667 343 7023 Fax: +667 343 1195 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 Strength: PCN 27/F/A/Y/T
2	Taxiway width, surface and strength	Width: 20 M Surface: Concrete and asphalt 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 MET Office outside hours	NIL
3	Office responsible for TAF preparation Periods of validity	supply TAF from Southern (East coast) Regional Met. Center
4	Type of landing forecast Interval of issuance	supply TAF from Southern (East coast) Regional Met. Center
5	Briefing/consultation provided	No
6	Flight documentation 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 Concrete and asphalt	064706.12N 1010850.08E	THR 7 FT TDZ 7 FT
26	265.05°	1400x40	PCN 27/F/A/Y/T Concrete and asphalt	064709.17N 1010935.62E	THR 8 FT 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 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 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 Pattani NDB (064718.45N 1010852.51E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Pattani Tower 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 TWR	Pattani Approach Pattani Tower	126.0 MHZ 119.3 MHZ 236.6 MHZ 121.5 MHZ 1)	23:00-11:00 2) H24	1) Emergency frequency 2) Outside this period and Holiday 1 HR PN to ATC

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
NDB	PT	201 KHZ	H24	064718.45N 1010852.51E	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 - NDB RWY 08 CAT A, B	AD 2-VTSK-8-1
Instrument Approach Chart - ICAO - NDB RWY 26 CAT A, B	AD 2-VTSK-8-3
Instrument Approach Chart - ICAO - RNP RWY 08 CAT A, B	AD 2-VTSK-8-5
Instrument Approach Chart - ICAO - RNP RWY 08 CAT A, B (Tabular description)	AD 2-VTSK-8-6
Instrument Approach Chart - ICAO - RNP RWY 26 CAT A, B	AD 2-VTSK-8-7

Chart name	Page
Instrument Approach Chart - ICAO - RNP RWY 26 CAT A, B (Tabular description)	AD 2-VTSK-8-8

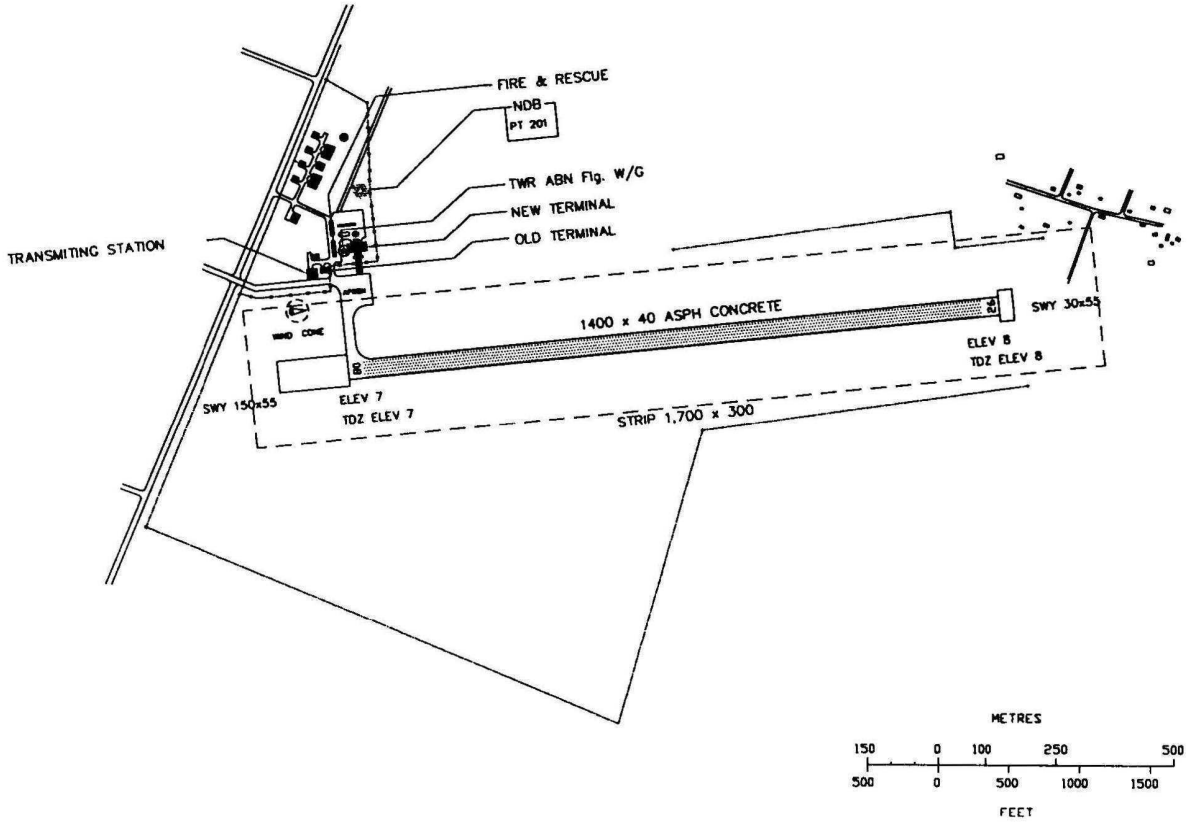
AERODROME CHART-ICAO 06° 47' 08" N 101° 09' 13" E ELEV 8 ft 2 m TWR 119.3 236.8 PATTANI/Pattani

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)

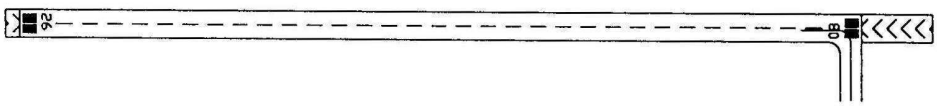
ANNUAL RATE OF CHANGE 3'E

- ELEVETIONS IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC

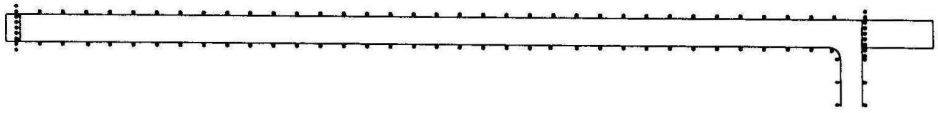


Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 08/26 AND EXIT TWY



LIGHTING AIDS RWY 08/26 AND EXIT TWY



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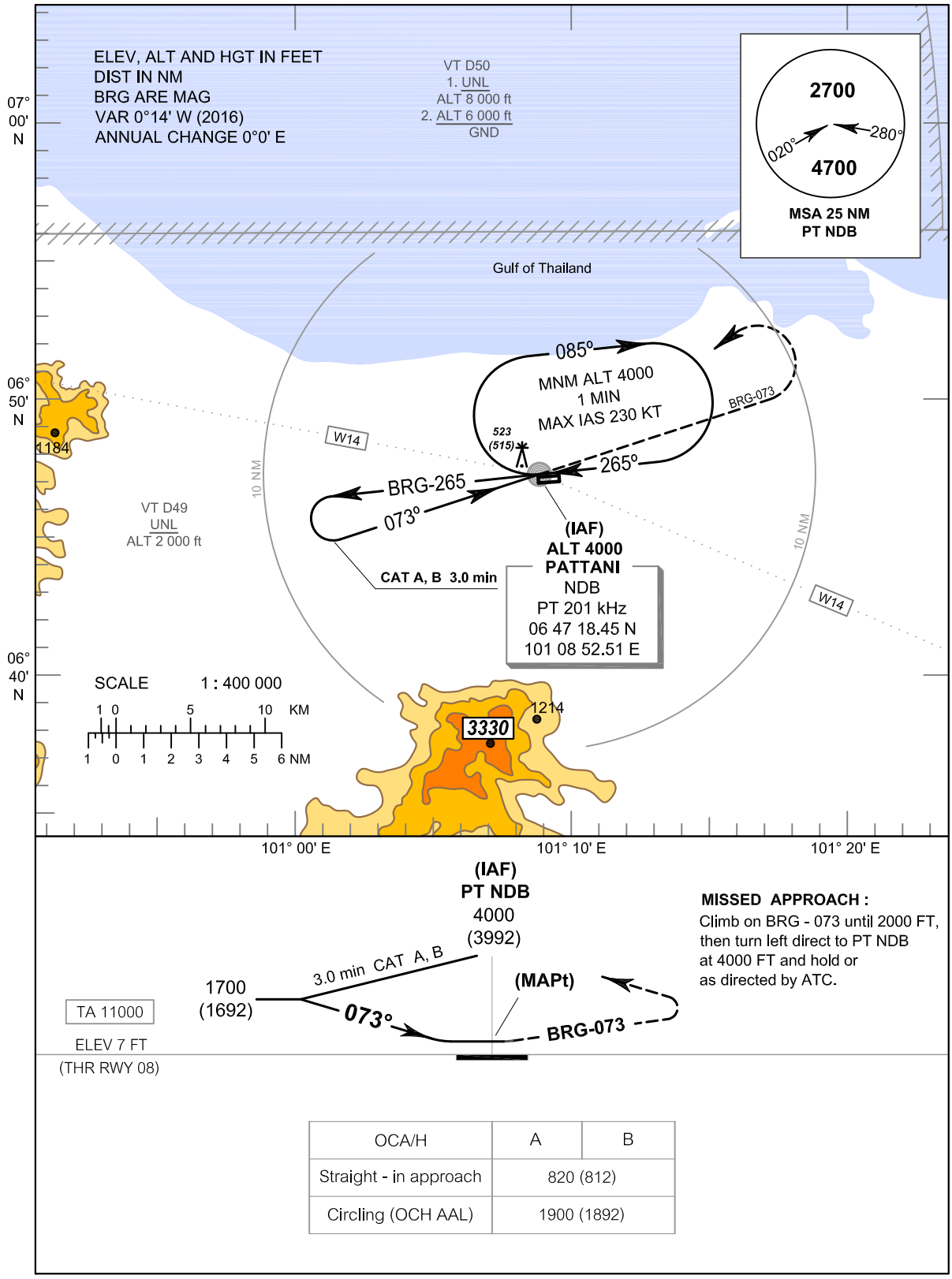
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 8 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 126.0
TWR : 119.3

PATTANI / Pattani (VTSK)
NDB RWY08
CAT A, B



OCA/H	A	B
Straight - in approach	820 (812)	
Circling (OCH AAL)	1900 (1892)	

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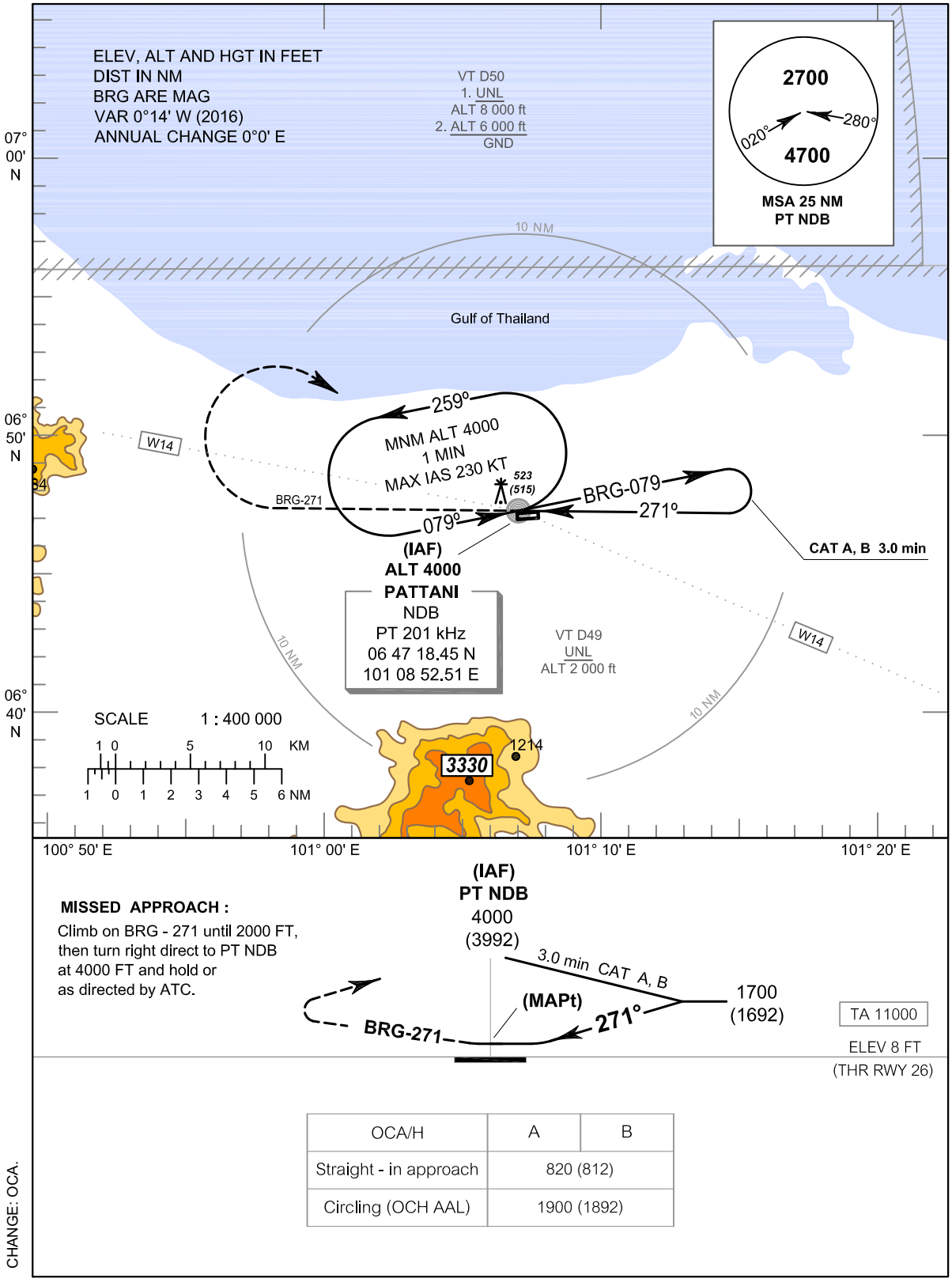
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 8 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 126.0
TWR : 119.3

PATTANI / Pattani (VTSK)
NDB RWY26
CAT A, B



MISSED APPROACH :
Climb on BRG - 271 until 2000 FT, then turn right direct to PT NDB at 4000 FT and hold or as directed by ATC.

OCA/H	A	B
Straight - in approach	820 (812)	
Circling (OCH AAL)	1900 (1892)	

CHANGE: OCA.

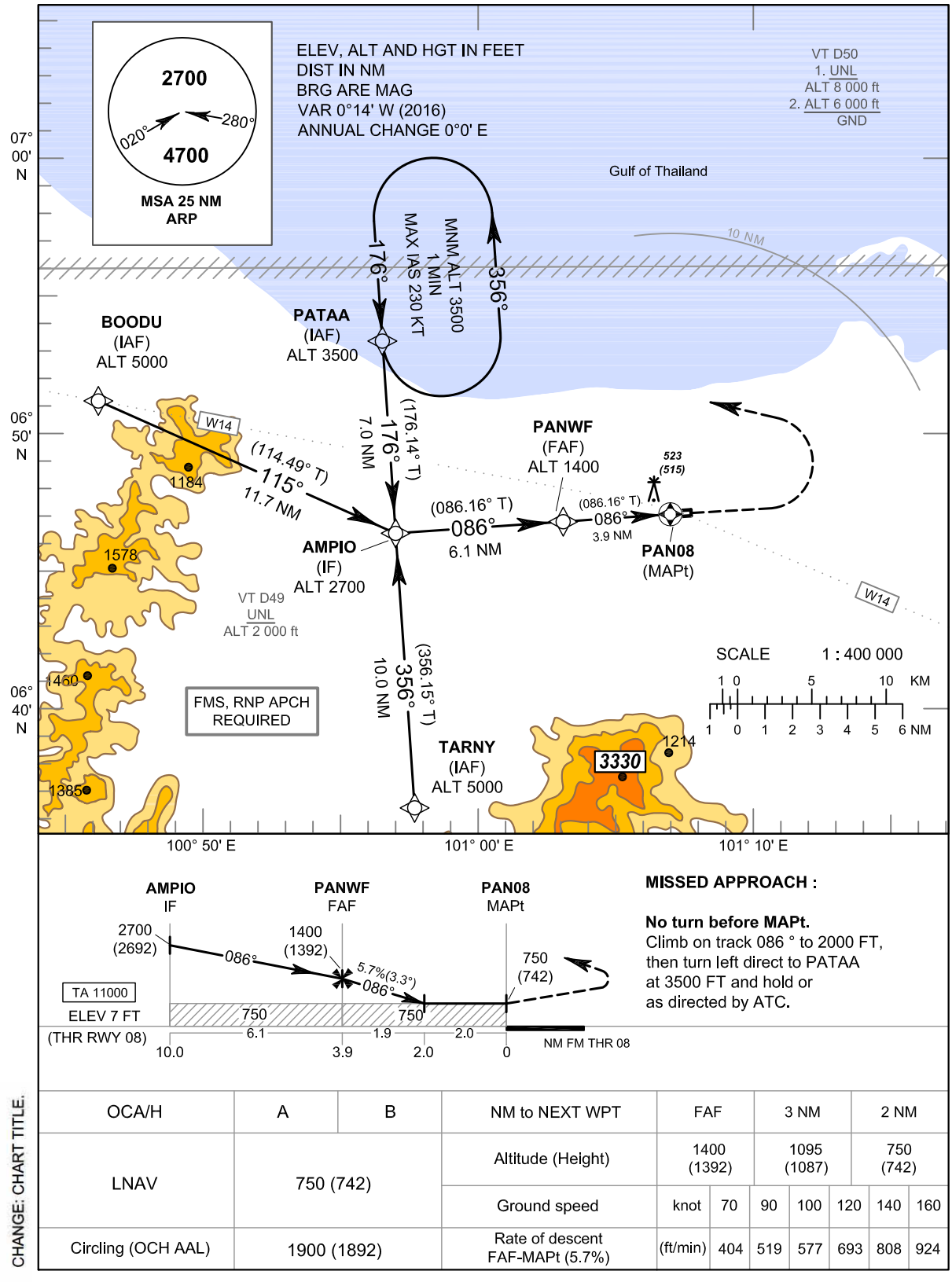
INTENTIONALLY BLANK

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: CHART TITLE.

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

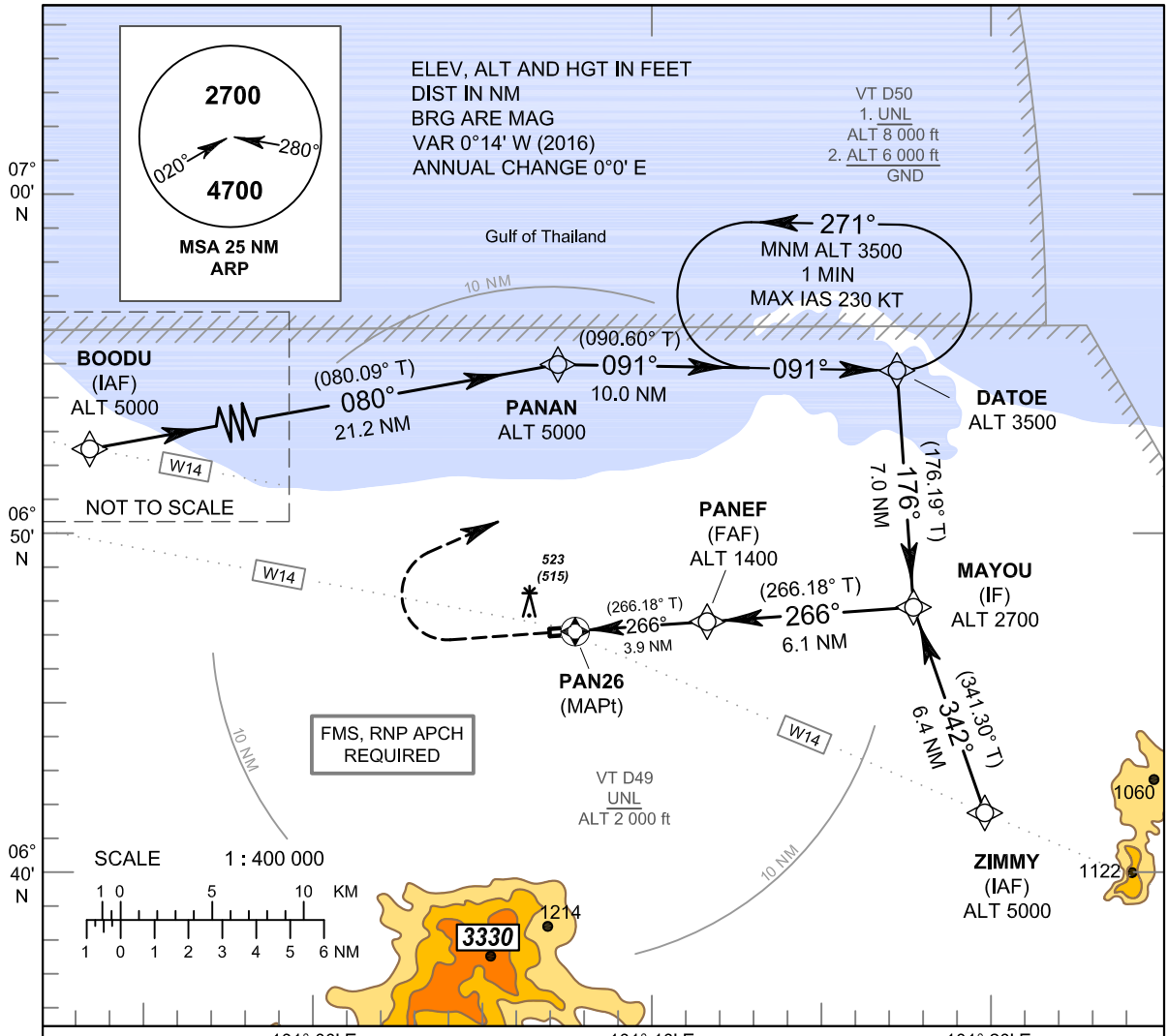
Waypoint Identifier	Coordinates	
PATAA	06° 53' 26.76" N	100° 58' 19.94" E
BOODU	06° 51' 17.61" N	100° 48' 07.49" E
TARNY	06° 36' 24.20" N	100° 59' 28.85" E
AMPIO	06° 46' 25.71" N	100° 58' 48.33" E
PANWF	06° 46' 50.39" N	101° 04' 55.39" E
PAN08 (THR 08)	06° 47' 06.12" N	101° 08' 50.08" E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 8 FT
HEIGHTS RELATED TO AERODROME ELEV

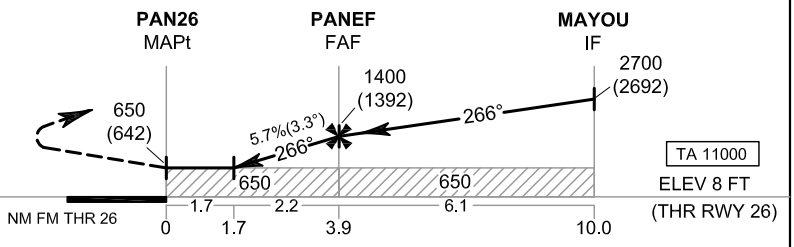
APP : 126.0
TWR : 119.3

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.



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

CHANGE: CHART TITLE.

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 Phetchabun Airport Tambon Lanbah, Amphoe Lomsak Phetchabun Province 67110, Thailand Tel: +665 671 3569 +665 671 3571 Fax: +665 671 3570 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): Located at Phitsanulok Airport (1st floor of airport building) Tel: +665 530 1078 +669 2262 3140 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 Strength: PCN 45/R/C/X/T
2	Taxiway width, surface and strength	Surface: Concrete and asphalt 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, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 482 4330 ext. 7308
6	Flight documentation 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 Observation System (AWOS), 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 IBN: NIL
2	LDI location and LGT 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. Switch - over time 10 SEC.
5	Remarks	NIL

VTPB AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 Language(s)	Phetchabun Tower 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 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: -RDL 041-180 DEG beyond 50 NM should not below 7000 FT. -RDL 181-270 DEG beyond 50 NM should not below 7100 FT. -RDL 271-340 DEG beyond 50 NM should not below 8500 FT. -RDL 341-015 DEG flown to 45 NM should not below 8500 FT. (due to border limited) -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, 1. Unusable due to roughness out of tolerance on radial 277° distance between 7-9 DME altitude 5 500 FT 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: – Radial 061°-230° beyond 30 NM altitude should not below 6 500 FT – Radial 231°-320° beyond 30 NM altitude should not below 8 000 FT – 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

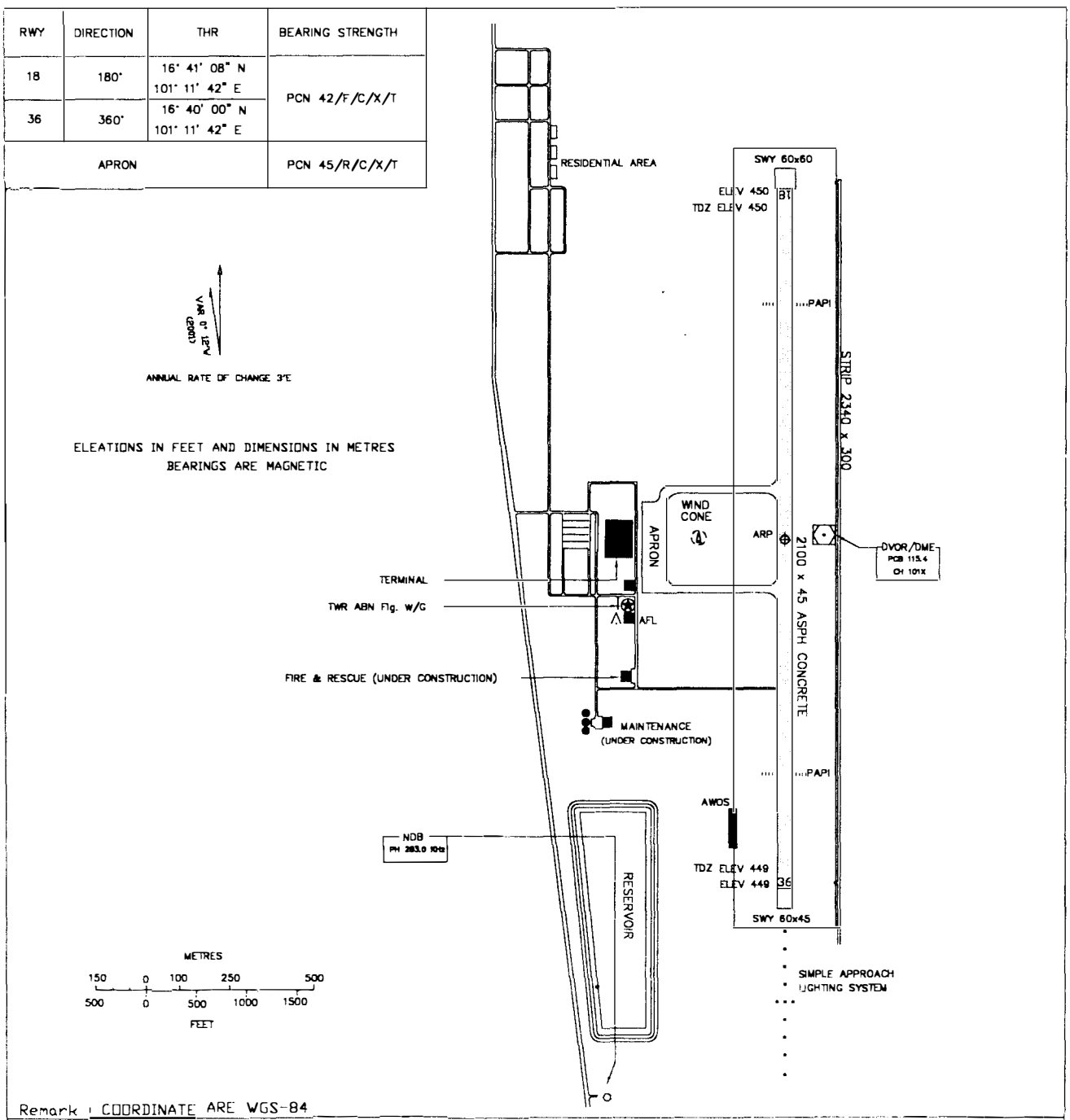
NIL

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

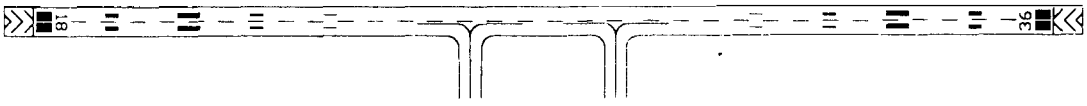
AERODROME CHART-ICAO 16° 40' 34" N 101° 11' 42" E ELEV 450 ft 137 m TWR 122.3 236.6 PHETCHABUN / Phetchabun

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

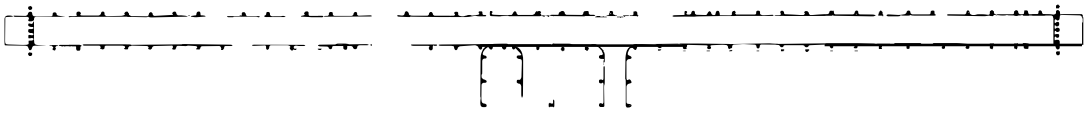


Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 18/36 AND EXIT TWY



LIGHTING AIDS RWY 18/36 AND EXIT TWY



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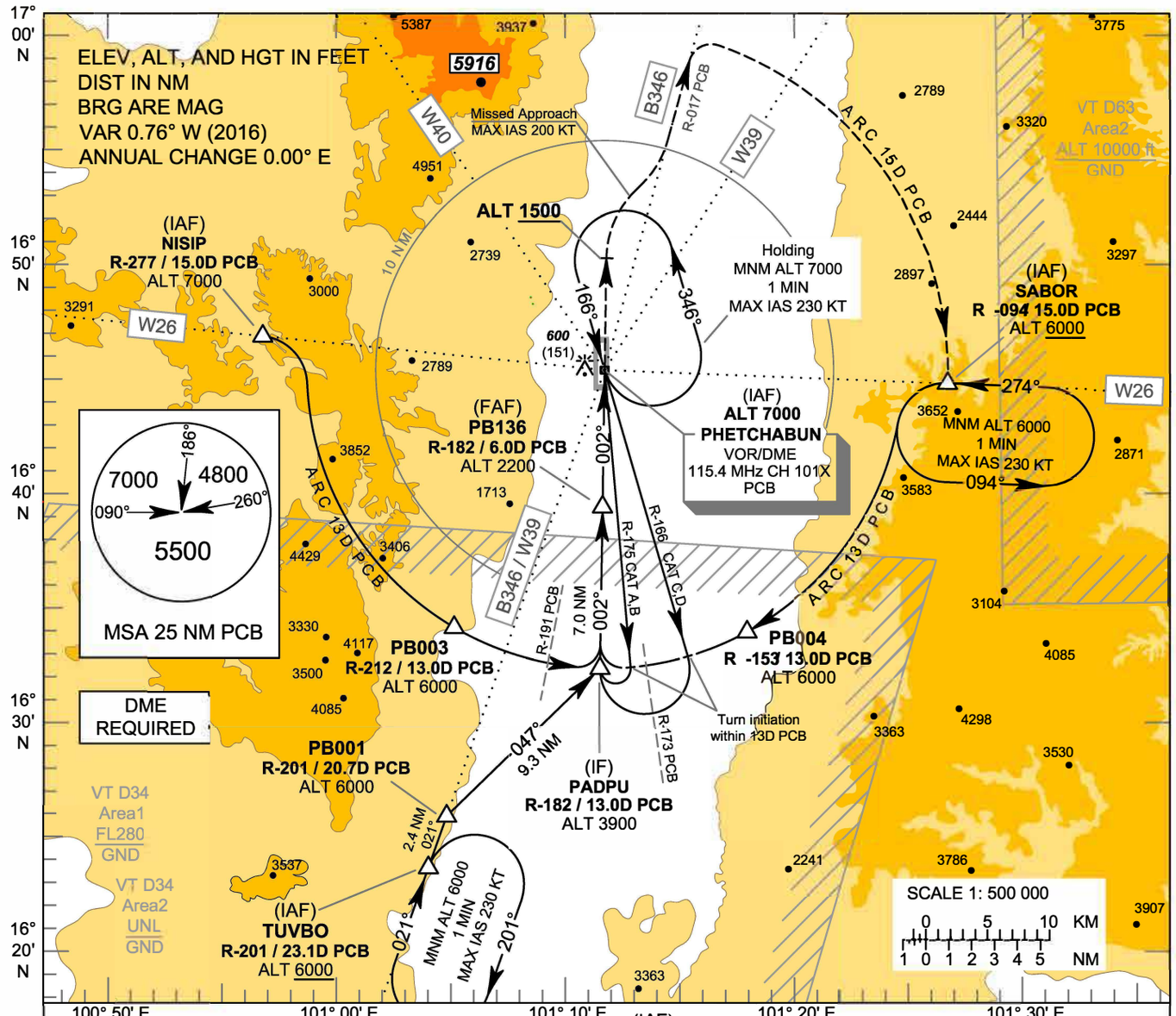
INSTRUMENT APPROACH CHART - ICAO

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

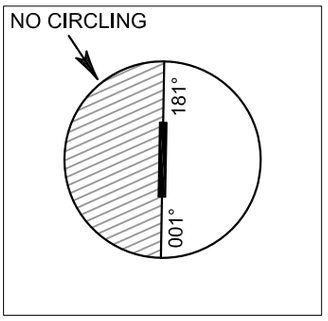
INSTRUMENT APPROACH CHART - ICAO

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.

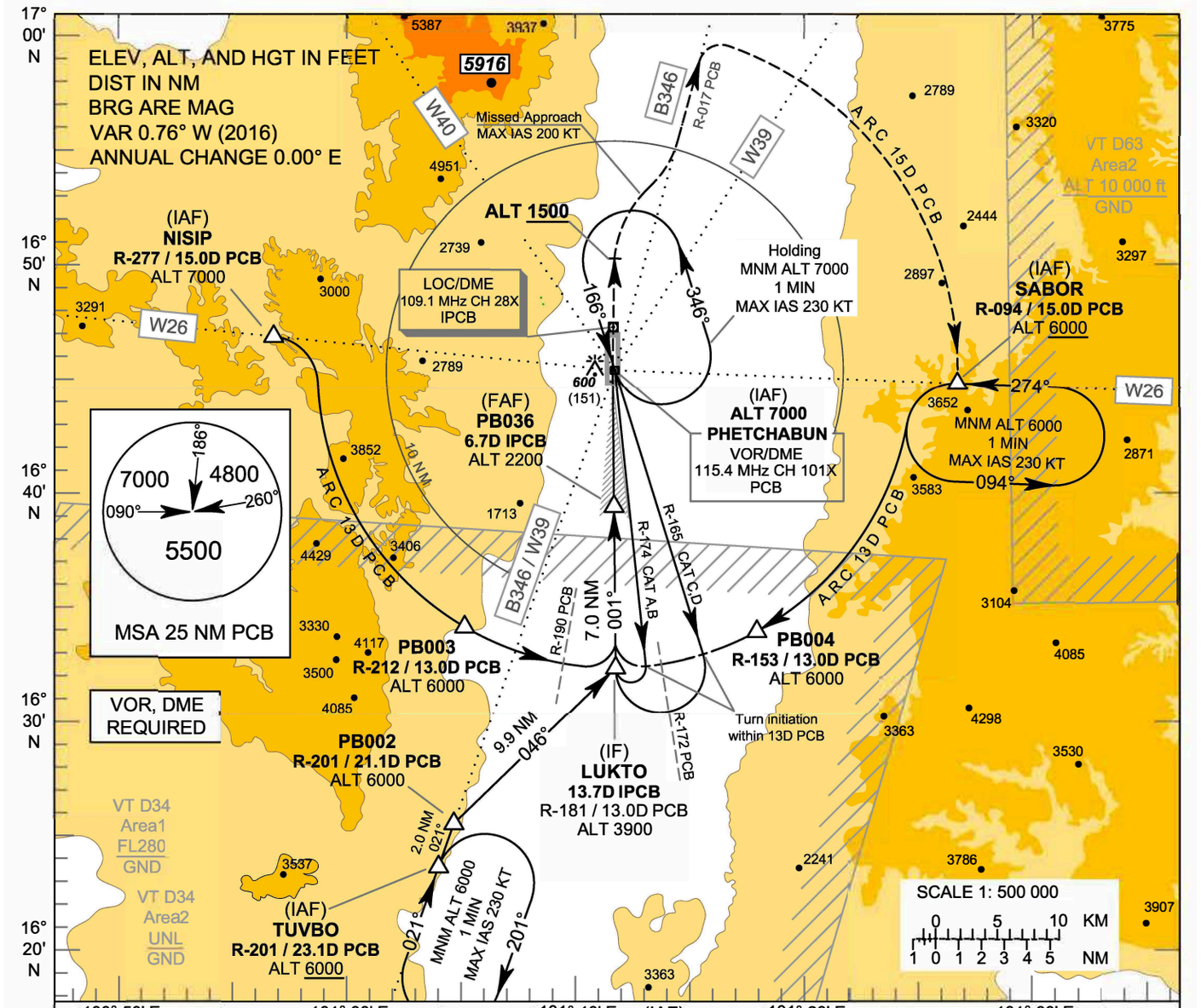
INSTRUMENT APPROACH CHART - ICAO

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

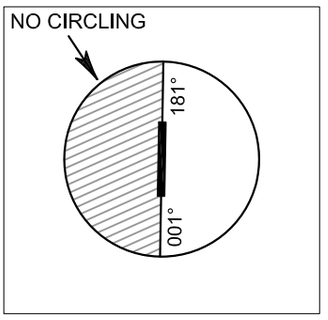
INSTRUMENT APPROACH CHART - ICAO

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.

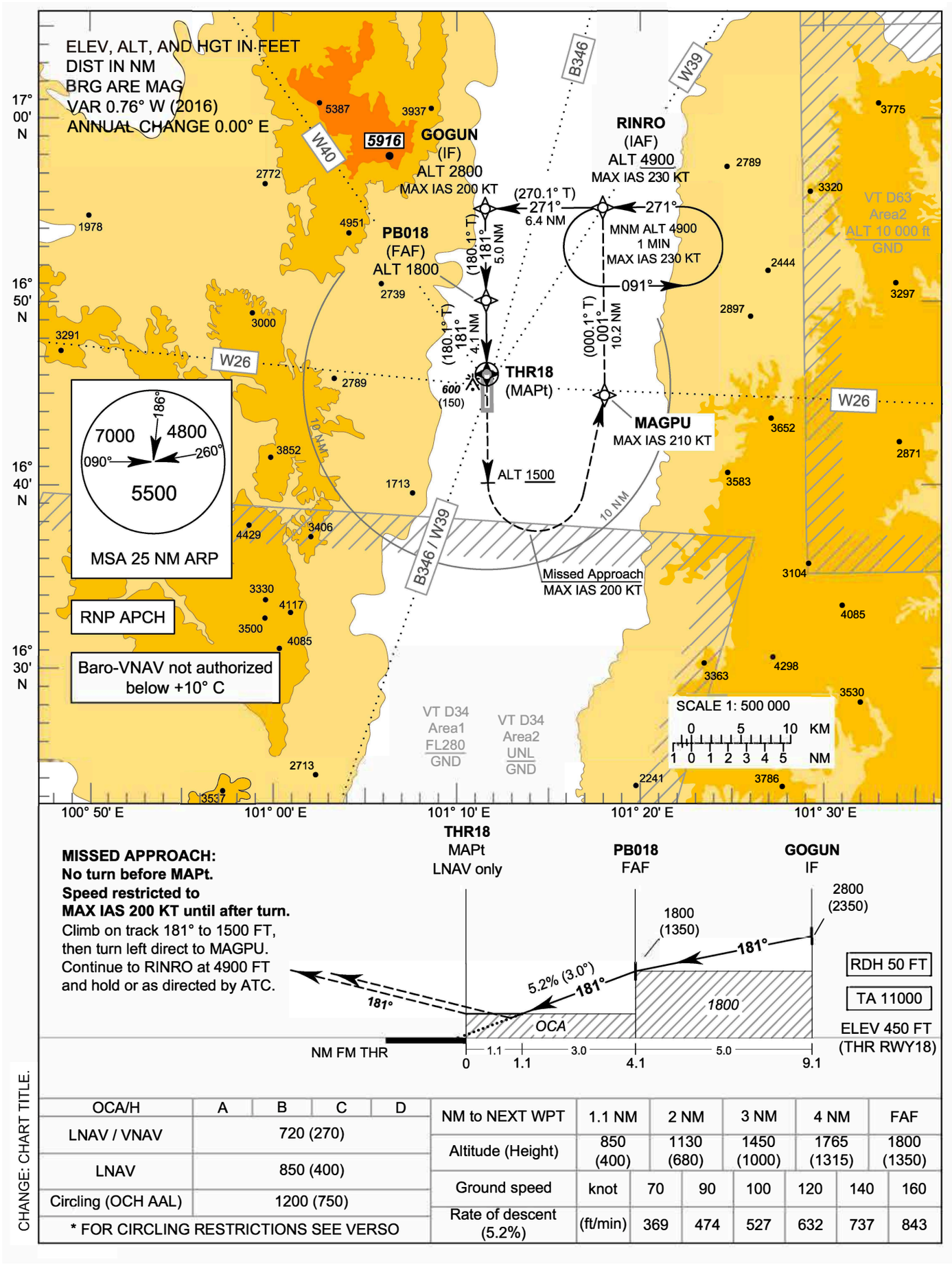
INSTRUMENT APPROACH CHART - ICAO

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

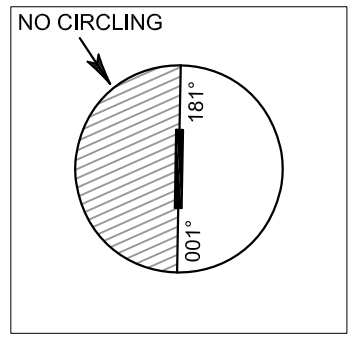
RNP RWY18

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



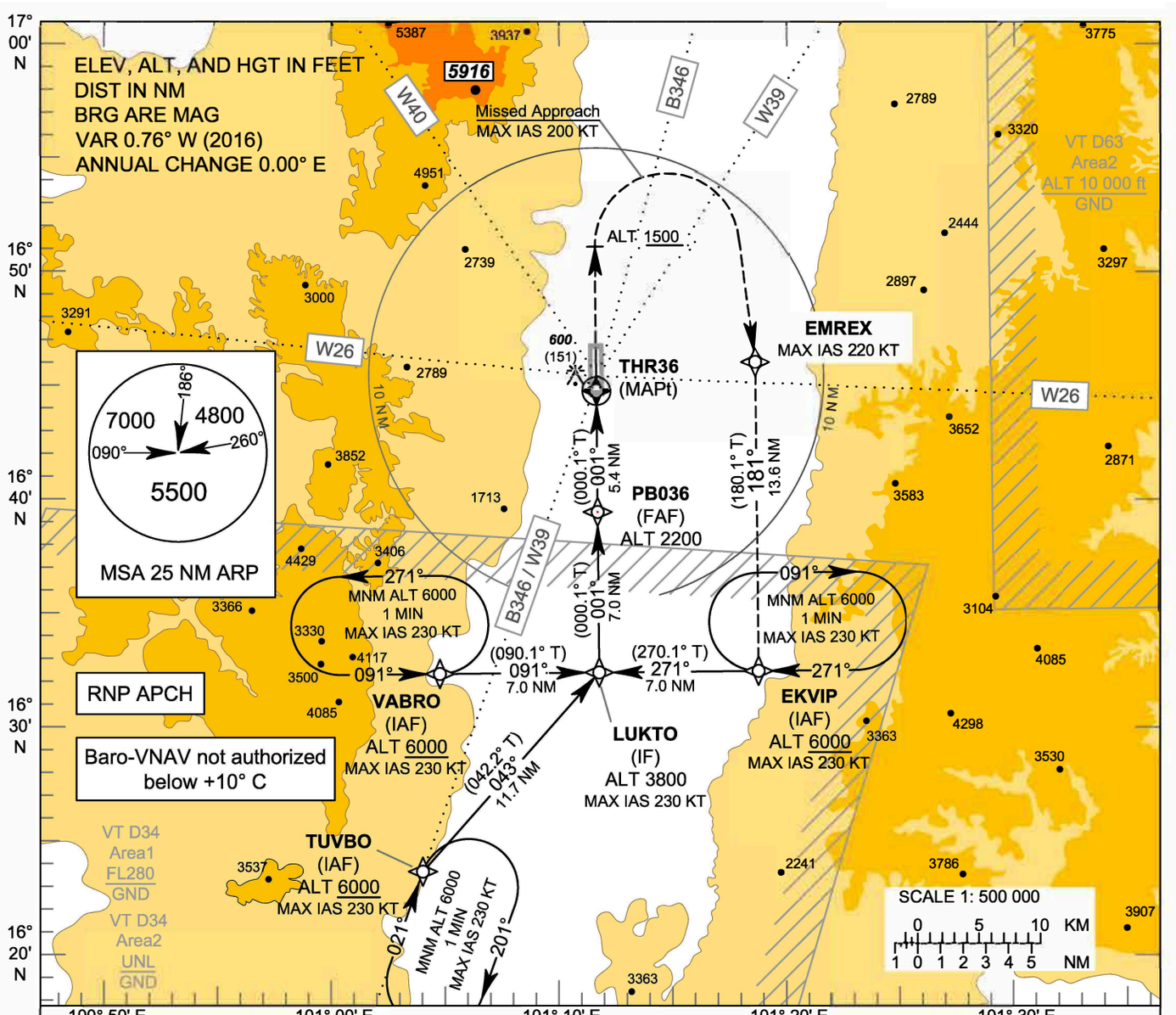
INSTRUMENT APPROACH CHART - ICAO

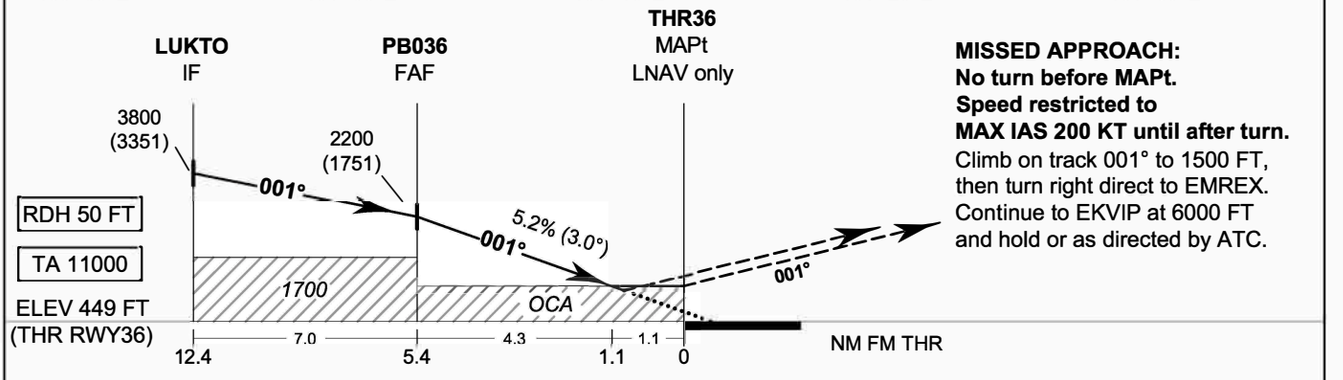
AERODROME ELEV 450 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 449 FT

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

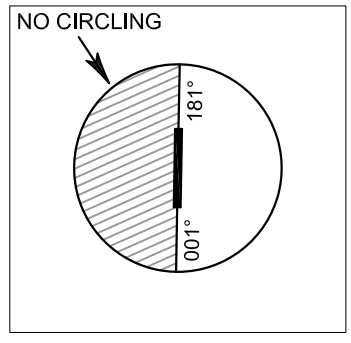
RNP RWY36

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 Phitsanulok Airport Phitsanulok Province Thailand Tel: +665 530 1010 Fax: +665 530 1009 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): Located at Phitsanulok Airport (1st floor of airport building) Tel: +665 530 1078 +669 2262 3140 Fax: +665 530 1077 Fuelling: Overtime fuelling service available on request 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 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 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 Strength: PCN 57/R/C/X/T
2	Taxiway width, surface and strength	TWY A, B, C, D and E Width: 19 M Surface: Asphaltic concrete Strength: PCN 45/F/C/X/T TWY F and I Width: 23 M Surface: Asphaltic concrete Strength: PCN 61/F/C/X/T
3	Altimeter checkpoint location and elevation	NIL
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 TWY guide lines: Yes
2	RWY and TWY markings and LGT	RWY marking: RWY Designation, THR,TDZ, RCL, Aiming Point and Side Stripe RWY LGT: THR, RWY Edge and RWY End TWY marking: CL, Edge, Intermediate Holding Position and RWY Holding Position 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 Elevation Markings/LGT**	**Coordinates**	**Obstacle type Elevation Markings/LGT**	**Coordinates**	
a	**b**	**c**	**a**	**b**	
RWY 14/ APCH RWY 32/ TKOF	TELECOMMUNICATIONS MAST 13 ELEV 366 FT (112 M) NIL/ LGTD	164906.3N 1001542.4E	AWOS 1 ELEV 183 FT (56 M) Painted red/white LGTD	164730.3N 1001625.8E	NIL
RWY 32/ APCH RWY 14/ TKOF	TELECOMMUNICATIONS MAST 18 ELEV 303 FT (92 M) Painted red/white LGTD	164530.8N 1001817.1E	AWOS 2 ELEV 185 FT (56 M) Painted red/white LGTD	164730.6N 1001625.5E	NIL
RWY 14/ APCH RWY 32/ TKOF	RADIO MAST 2 ELEV 288 FT (88 M) Painted red/white LGTD	164827.8N 1001548.0E	AWOS 3 ELEV 177 FT (54 M) Painted red/white LGTD	164631.1N 1001710.7E	NIL
RWY 14/ APCH RWY 32/ TKOF	RADIO MAST 5 ELEV 252 FT (77 M) Painted red/white LGTD	164808.6N 1001557.2E	AWOS 4 ELEV 176 FT (54 M) Painted red/white LGTD	164631.4N 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 RWY 32/ TKOF	RADIO MAST 10 ELEV 316 FT (96 M) Painted red/white LGTD	164859.7N 1001545.1E	GLIDE SLOPE ELEV 195 FT (59 M) Painted red/white LGTD	164629.9N 1001711.6E	NIL
RWY 14/ APCH RWY 32/ TKOF	RADIO MAST 12 ELEV 293 FT (89 M) Painted red/white LGTD	164838.2N 1001533.8E	TACAN ELEV 200 FT (61 M) NIL/ LGTD	164631.1N 1001713.4E	NIL
RWY 14/ APCH RWY 32/ TKOF	RADIO MAST 17 ELEV 336 FT (103 M) Painted red/white LGTD	164905.0N 1001537.2E	TELECOMMUNICATIONS MAST 5 ELEV 303 FT (92 M) NIL/ LGTD	164717.2N 1001538.1E	NIL
RWY 14/ APCH RWY 32/ TKOF	LIGHTNING ROD ELEV 268 FT (82 M) NIL/LGTD	164816.0N 1001541.2E	TELECOMMUNICATIONS MAST 14 ELEV 311 FT (95 M) Painted red/white LGTD	164712.5N 1001550.9E	NIL
RWY 14/ APCH RWY 32/ TKOF	DORMITORY BUILDING ELEV 257 FT (78 M) NIL/LGTD	164819.4N 1001553.1E	TELECOMMUNICATIONS MAST 16 ELEV 321 FT (98 M) Painted red/white LGTD	164910.6N 1001716.3E	NIL
RWY 14/ APCH RWY 32/ TKOF	APARTMENT ELEV 367 FT (112 M) NIL/LGTD	164906.2N 1001542.4E	TELECOMMUNICATIONS MAST 17 ELEV 304 FT (93 M) NIL/ LGTD	164854.7N 1001719.1E	NIL
RWY 14/ APCH RWY 32/ TKOF	BUILDING 3 ELEV 321 FT (98 M) NIL/LGTD	164819.3N 1001520.4E	TELECOMMUNICATIONS MAST 20 ELEV 303 FT (92 M) NIL/ LGTD	164502.5N 1001654.0E	NIL
			TELECOMMUNICATIONS MAST 22 ELEV 305 FT (93 M) NIL/ LGTD	164628.7N 1001547.8E	NIL
			TELECOMMUNICATIONS MAST 23 ELEV 306 FT (93 M) Painted red/white LGTD	164634.8N 1001549.5E	NIL
			RADIO MAST 3 ELEV 304 FT (93 M) Painted red/white LGTD	164700.4N 1001603.4E	NIL
			RADIO MAST 15 ELEV 292 FT (89 M) Painted red/white LGTD	164716.2N 1001613.3E	NIL
			RADIO MAST 16 ELEV 374 FT (114 M) NIL/ LGTD	164733.9N 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 ELEV 307 FT (94 M) Painted red/white LGTD	164931.3N 1001535.1E	NIL
			RADIO MAST 19 ELEV 448 FT (137 M) Painted red/white LGTD	164843.7N 1001626.8E	NIL
			RADIO MAST 20 ELEV 398 FT (121 M) NIL/ LGTD	164843.4N 1001623.3E	NIL
			RADIO MAST 21 ELEV 460 FT (140 M) Painted red/white LGTD	164848.7N 1001623.0E	NIL
			RADIO MAST 22 ELEV 305 FT (93 M) Painted red/white LGTD	164730.6N 1001422.6E	NIL
			RADIO MAST 23 ELEV 298 FT (91 M) Painted red/white LGTD	164740.4N 1001409.8E	NIL
			AIR TRAFFIC CONTROL TOWER ELEV 255 FT (78 M) Painted red/white LGTD	164656.1N 1001658.1E	NIL
			TOPLAND HOTEL BUILDING ELEV 351 FT (107 M) NIL/ LGTD	164918.6N 1001552.4E	NIL

VTPP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Phitsanulok, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2300-1300 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 530 1422 ext. 7078
6	Flight documentation 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 Asphaltic concrete	164738.03N 1001615.01E -116 FT	THR 148 FT
32	323.89°	3000x45	PCN 61/F/C/X/T Asphaltic concrete	164619.13N 1001714.75E -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 Left 3°	NIL	NIL	3000 M 60 M White, LIM	Red	NIL	NIL
32	CAT1 900 M	Green	PAPI Left 3° (15.72 M)	NIL	NIL	3000 M 60 M White, LIM	Red	60 M 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.. IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL
3	TWY edge and centre line lighting	TWY edge: All TWY TWY centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the Air Field Lighting (AFL) building. 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 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 Language(s)	Phitsanulok Tower 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 284.0 MHZ 121.5 MHZ 1) 243.0 MHZ 1)	As AD OPR HR	1) Emergency frequency
TWR	Phitsanulok Tower	118.9 MHZ 236.6 MHZ 121.5 MHZ 1) 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
NDB	PL	263 KHZ	H24	164745.5N 1001632.8E		Data refer from commissioning as follows: 40 NM clockwise orbit and result found satisfactory. – Bearing 011°-180° at altitude 6 000 FT – Bearing 181°-260° at altitude 1 500 FT – Bearing 261°-330° at altitude 5 000 FT – Bearing 331°-010° at altitude 1 500 FT
DVOR/DME	PSL	114.1 MHZ CH88X	H24	164613.3N 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: – Radial 351°-120° altitude should not below 5 500 FT – Radial 121°-270° altitude should not below 3 000 FT – Radial 271°-300° altitude should not below 5 000 FT – Radial 301°-350° altitude should not below 3 500 FT
ILS CAT I LOC RWY32	IPSL	110.1 MHZ	H24	164746.19N 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 CH38X	H24	164629.87N 1001711.63E		Glide Path 3° DME co-located with Glide Slope power output 100 watts Uni-directional
TACAN		CH99		1647.6N 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.

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
Aerodrome Ground Movement chart - ICAO	AD 2-VTPP-2-3
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 - NDB RWY 14	AD 2-VTPP-8-1
Instrument Approach Chart - ICAO - NDB RWY 32	AD 2-VTPP-8-3
Instrument Approach Chart - ICAO - VOR RWY 14	AD 2-VTPP-8-5
Instrument Approach Chart - ICAO - VOR RWY 14 (Fix and point list table)	AD 2-VTPP-8-6
Instrument Approach Chart - ICAO - VOR RWY 32	AD 2-VTPP-8-7
Instrument Approach Chart - ICAO - VOR RWY 32 (Fix and point list table)	AD 2-VTPP-8-8
Instrument Approach Chart - ICAO - ILS or LOC y RWY 32	AD 2-VTPP-8-9
Instrument Approach Chart - ICAO - ILS or LOC y RWY 32 (Fix and point list table)	AD 2-VTPP-8-10
Instrument Approach Chart - ICAO - ILS or LOC z RWY 32	AD 2-VTPP-8-11
Instrument Approach Chart - ICAO - ILS or LOC z RWY 32 (Tabular description 1)	AD 2-VTPP-8-12
Instrument Approach Chart - ICAO - ILS or LOC z RWY 32 (Tabular description 2)	AD 2-VTPP-8-13
Instrument Approach Chart - ICAO - ILS or LOC z RWY 32 (Fix and point list table)	AD 2-VTPP-8-14
Instrument Approach Chart - ICAO - RNP RWY 14	AD 2-VTPP-8-15
Instrument Approach Chart - ICAO - RNP RWY 14 (Tabular description)	AD 2-VTPP-8-16
Instrument Approach Chart - ICAO - RNP RWY 14 (Waypoint list table)	AD 2-VTPP-8-17
Instrument Approach Chart - ICAO - RNP RWY 32	AD 2-VTPP-8-19
Instrument Approach Chart - ICAO - RNP RWY 32 (Tabular description 1)	AD 2-VTPP-8-20
Instrument Approach Chart - ICAO - RNP RWY 32 (Tabular description 2)	AD 2-VTPP-8-21
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

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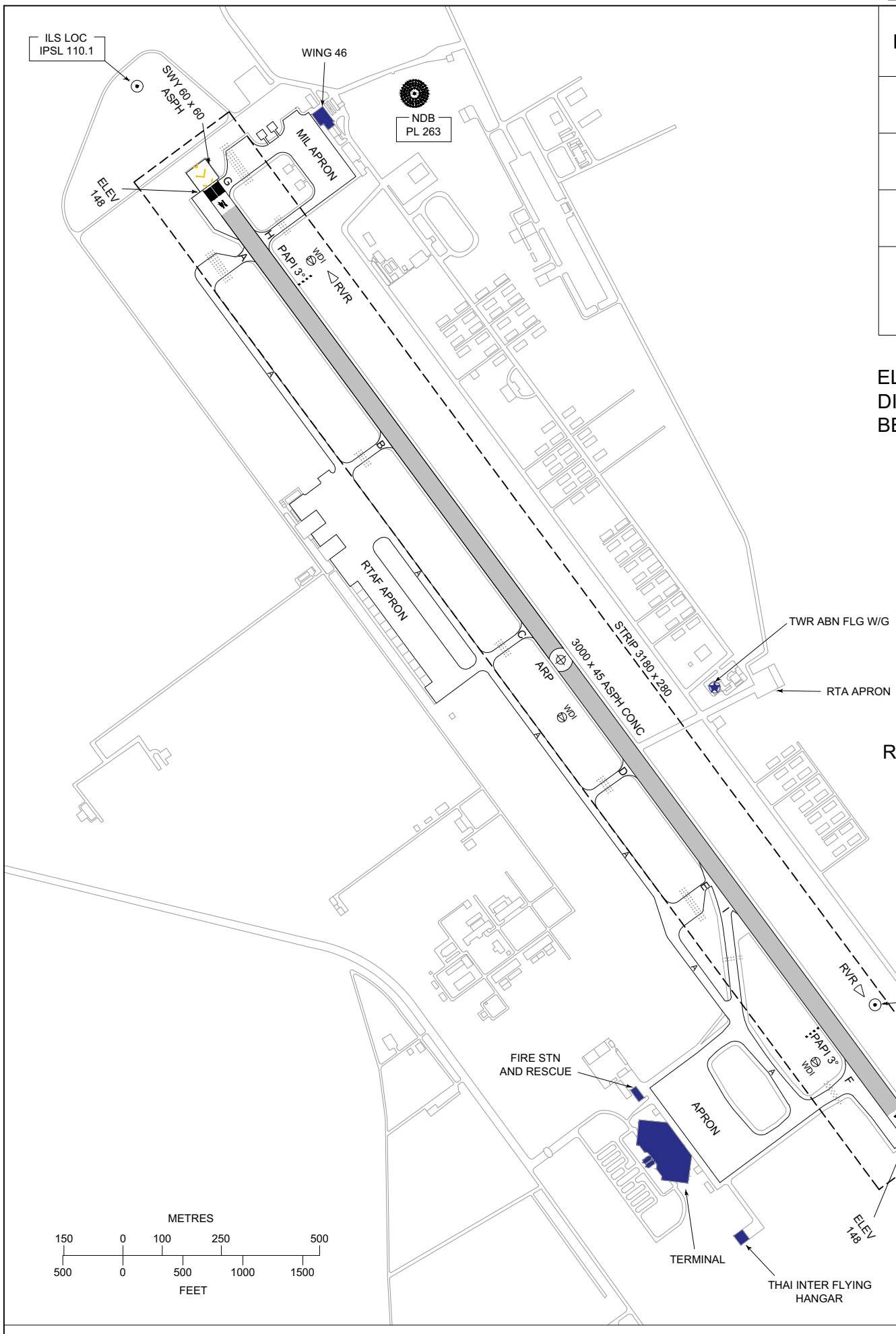
AERODROME CHART - ICAO

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 100 16 15.01E	PCN 61/F/C/X/T
32	323.89°	16 46 19.13N 100 17 14.75E	
APRON			PCN 57/R/C/X/T
TAXIWAY A, B, C, D AND E TAXIWAY F AND I TAXIWAY G AND H			PCN 45/F/C/X/T PCN 61/F/C/X/T NIL

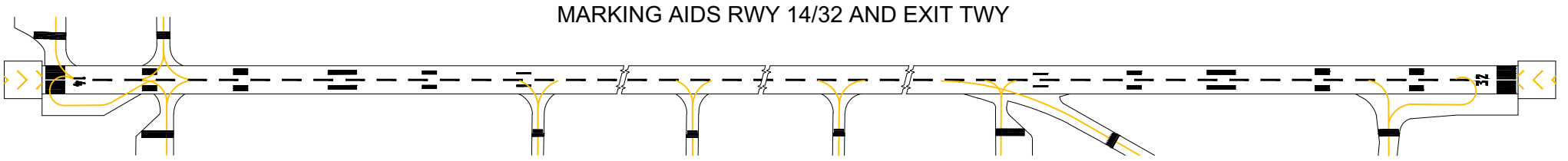
ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

VAR 1.00°W (2022)
ANNUAL RATE OF CHANGE 0.04°W

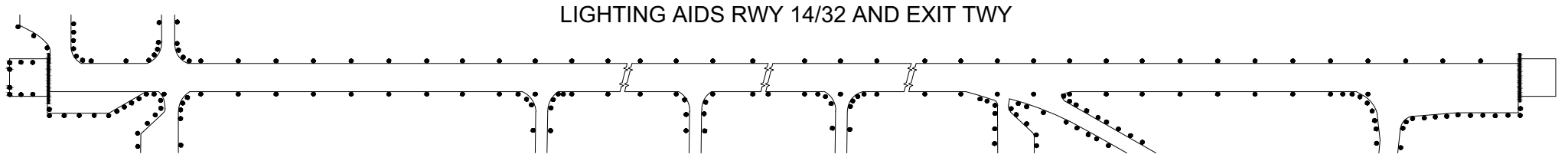
REMARKS:

- 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.

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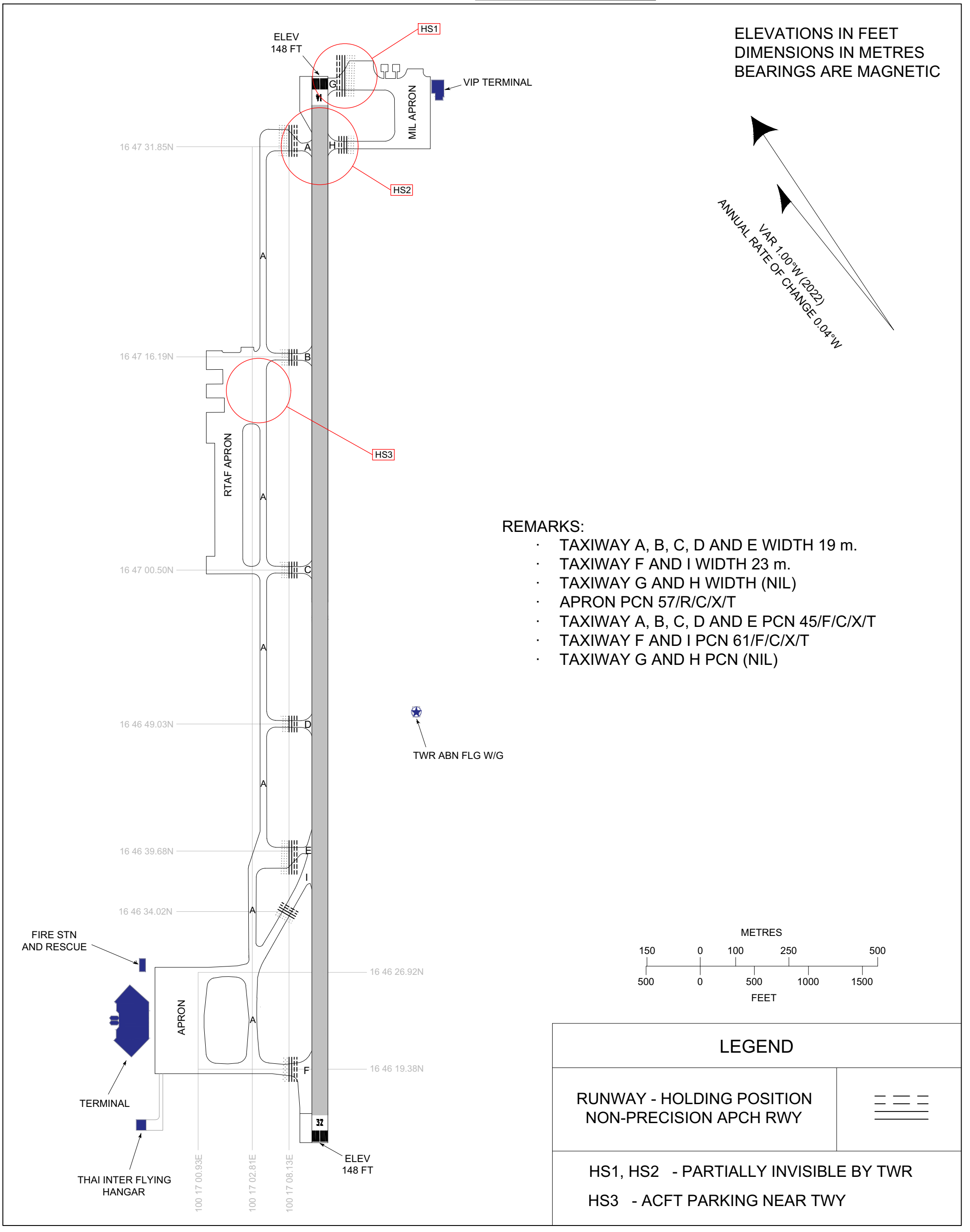
AERODROME GROUND MOVEMENT CHART - ICAO

APRON ELEV
150 FT

TWR 118.9, 236.6
GND 121.9

PHITSANULOK / Phitsanulok



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)

LEGEND

RUNWAY - HOLDING POSITION NON-PRECISION APCH RWY	

HS1, HS2 - PARTIALLY INVISIBLE BY TWR

HS3 - ACFT PARKING NEAR TWY

CHANGE: NEW CHART.

INTENTIONALLY BLANK

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

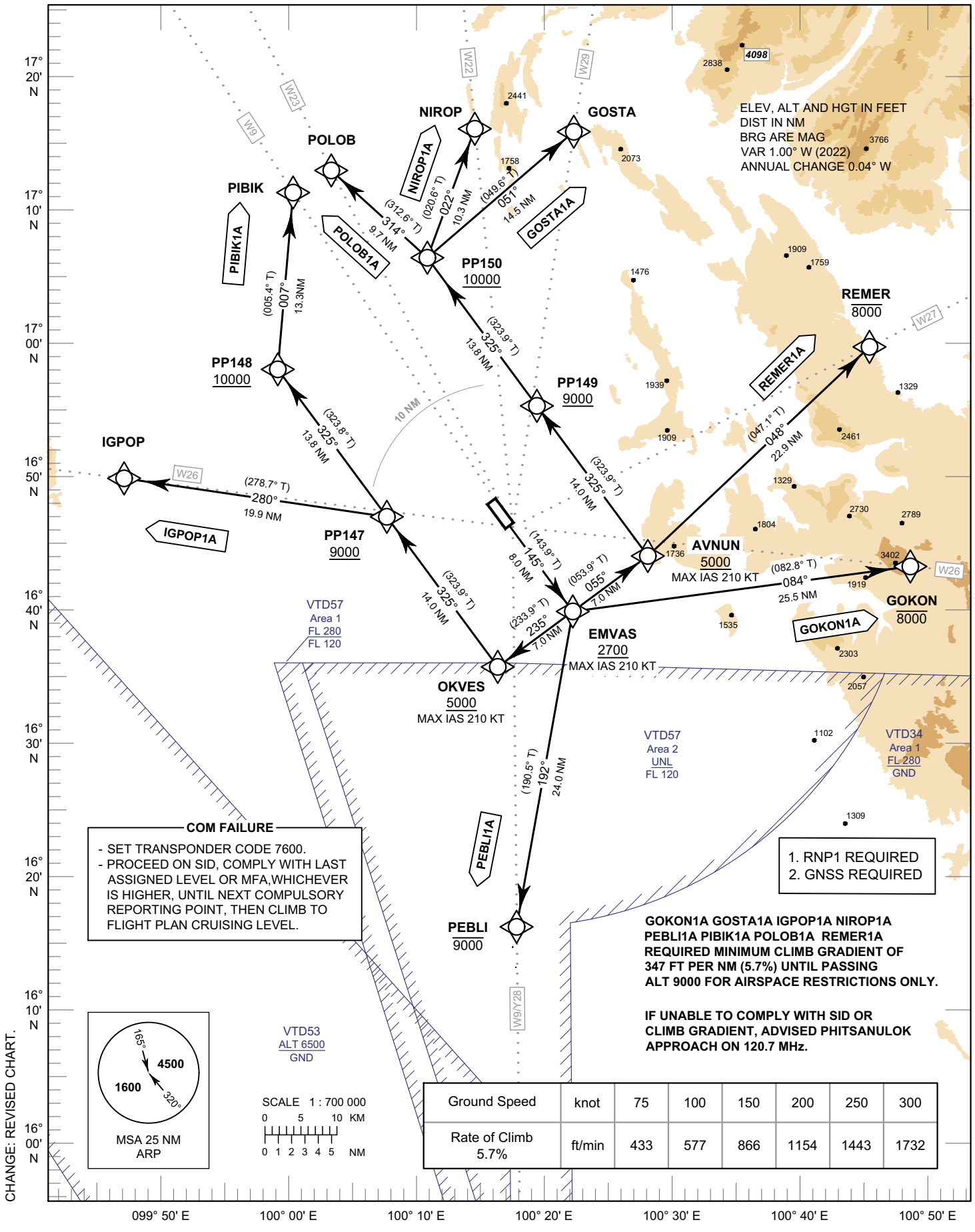
TRANSITION ALTITUDE
11000 FT

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

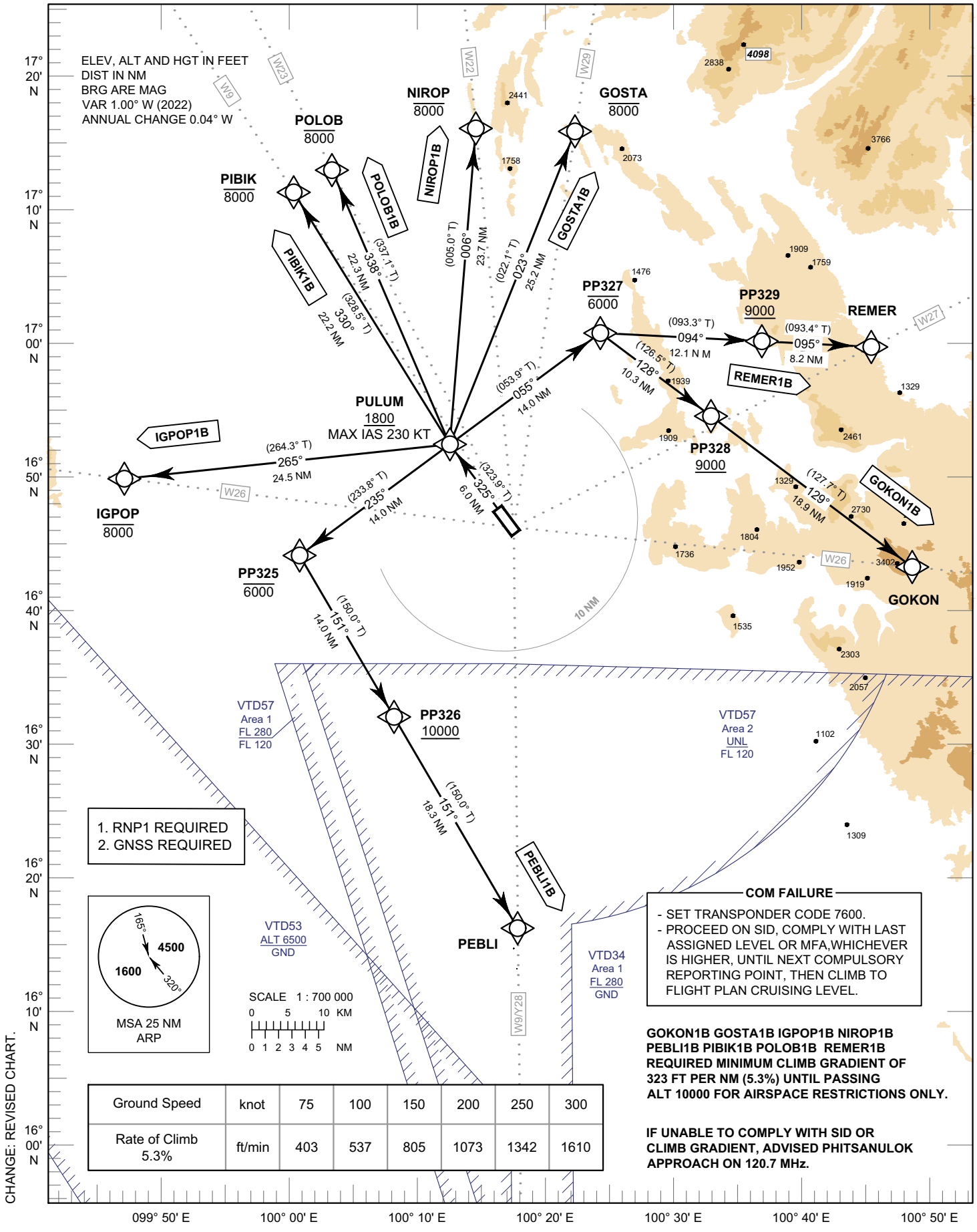
TRANSITION ALTITUDE
11000 FT

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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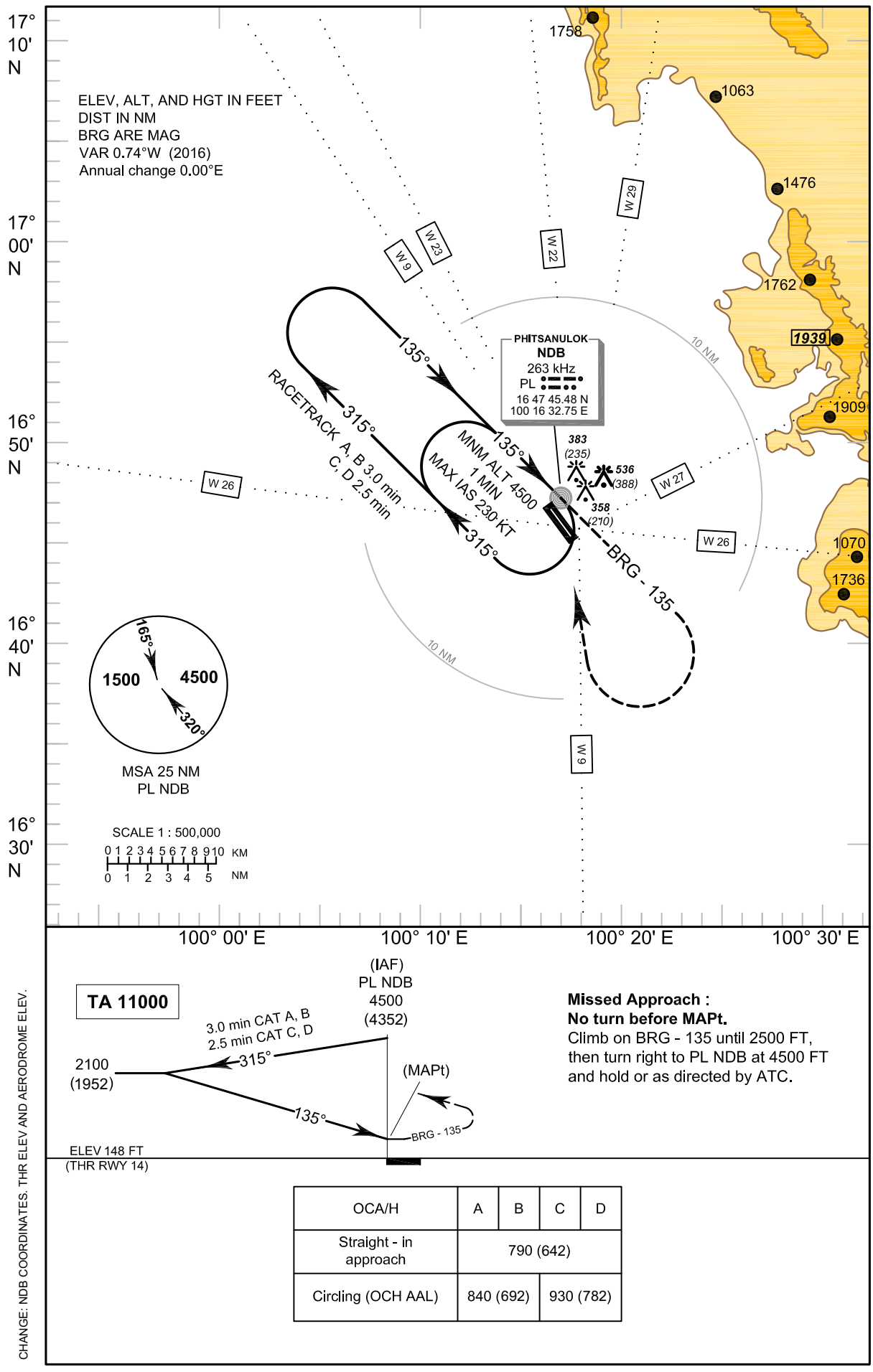
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 148 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 120.7, 284.0
TWR : 118.9, 236.6
GND : 121.9

PHITSANULOK/Phitsanulok (VTPP)
NDB RWY14



TA 11000

Missed Approach :
No turn before MAPt.
Climb on BRG - 135 until 2500 FT, then turn right to PL NDB at 4500 FT and hold or as directed by ATC.

OCA/H	A	B	C	D
Straight - in approach	790 (642)			
Circling (OCH AAL)	840 (692)		930 (782)	

CHANGE: NDB COORDINATES. THR ELEV AND AERODROME ELEV.

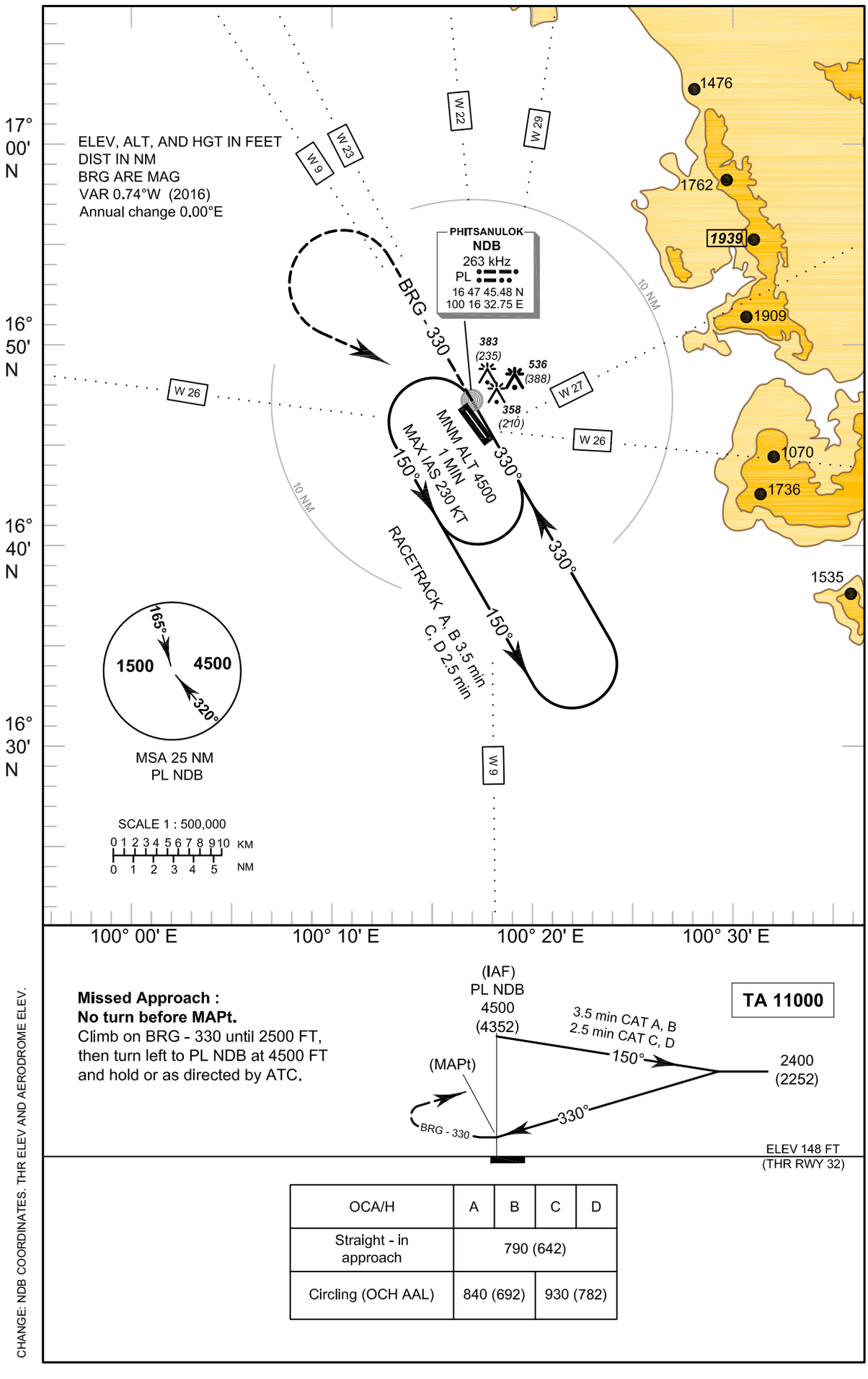
INTENTIONALLY BLANK

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 148 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 120.7, 284.0
TWR : 118.9, 236.6
GND : 121.9

PHITSANULOK/Phitsanulok (VTPP)
NDB RWY32



Missed Approach :
No turn before MAPt.
Climb on BRG - 330 until 2500 FT, then turn left to PL NDB at 4500 FT and hold or as directed by ATC.

TA 11000

OCA/H	A	B	C	D
Straight - in approach	790 (642)			
Circling (OCH AAL)	840 (692)		930 (782)	

CHANGE: NDB COORDINATES. THR ELEV AND AERODROME ELEV.

INTENTIONALLY BLANK

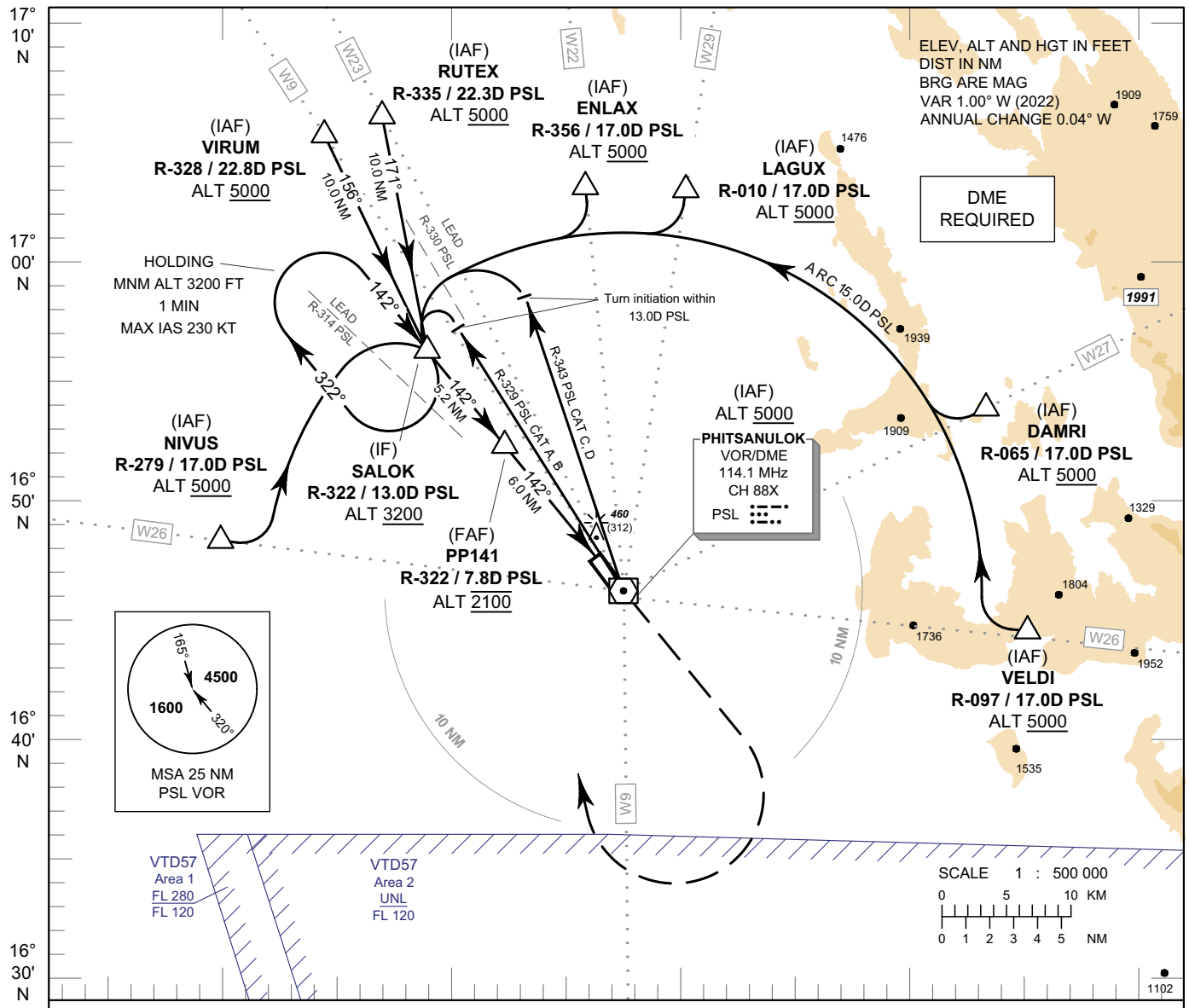
INSTRUMENT APPROACH CHART - ICAO

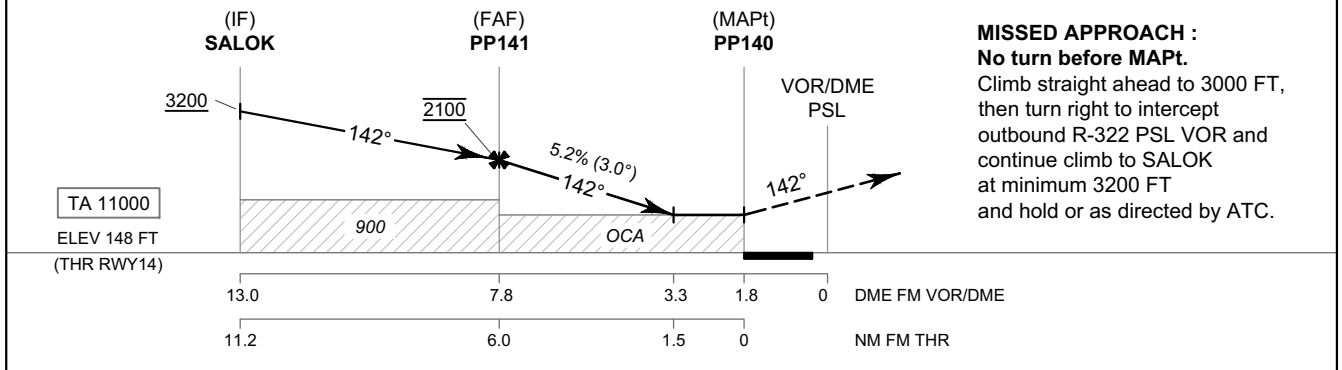
AERODROME ELEV 148 FT
HEIGHT RELATED TO AERODROME ELEV

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) VOR	PSL	16° 46' 13.27" N	100° 17' 28.95" E
(IAF) VELDI	R-097 / 17.0D PSL	16° 44' 24.79" N	100° 35' 05.73" E
(IAF) DAMRI	R-065 / 17.0D PSL	16° 53' 47.82" N	100° 33' 21.71" E
(IAF) LAGUX	R-010 / 17.0D PSL	17° 03' 04.27" N	100° 20' 19.14" E
(IAF) ENLAX	R-356 / 17.0D PSL	17° 03' 13.58" N	100° 15' 55.67" E
(IAF) NIVUS	R-279 / 17.0D PSL	16° 48' 26.33" N	099° 59' 54.50" E
(IAF) VIRUM	R-328 / 22.8D PSL	17° 05' 28.31" N	100° 04' 31.92" E
(IAF) RUTEX	R-335 / 22.3D PSL	17° 06' 15.35" N	100° 07' 03.69" E
(IF) SALOK	R-322 / 13.0D PSL	16° 56' 23.08" N	100° 08' 58.26" E
(FAF) PP141	R-322 / 7.8D PSL	16° 52' 19.59" N	100° 12' 22.32" E
(MAPt) PP140	R-322 / 1.8D PSL	16° 47' 39.41" N	100° 16' 16.88" E

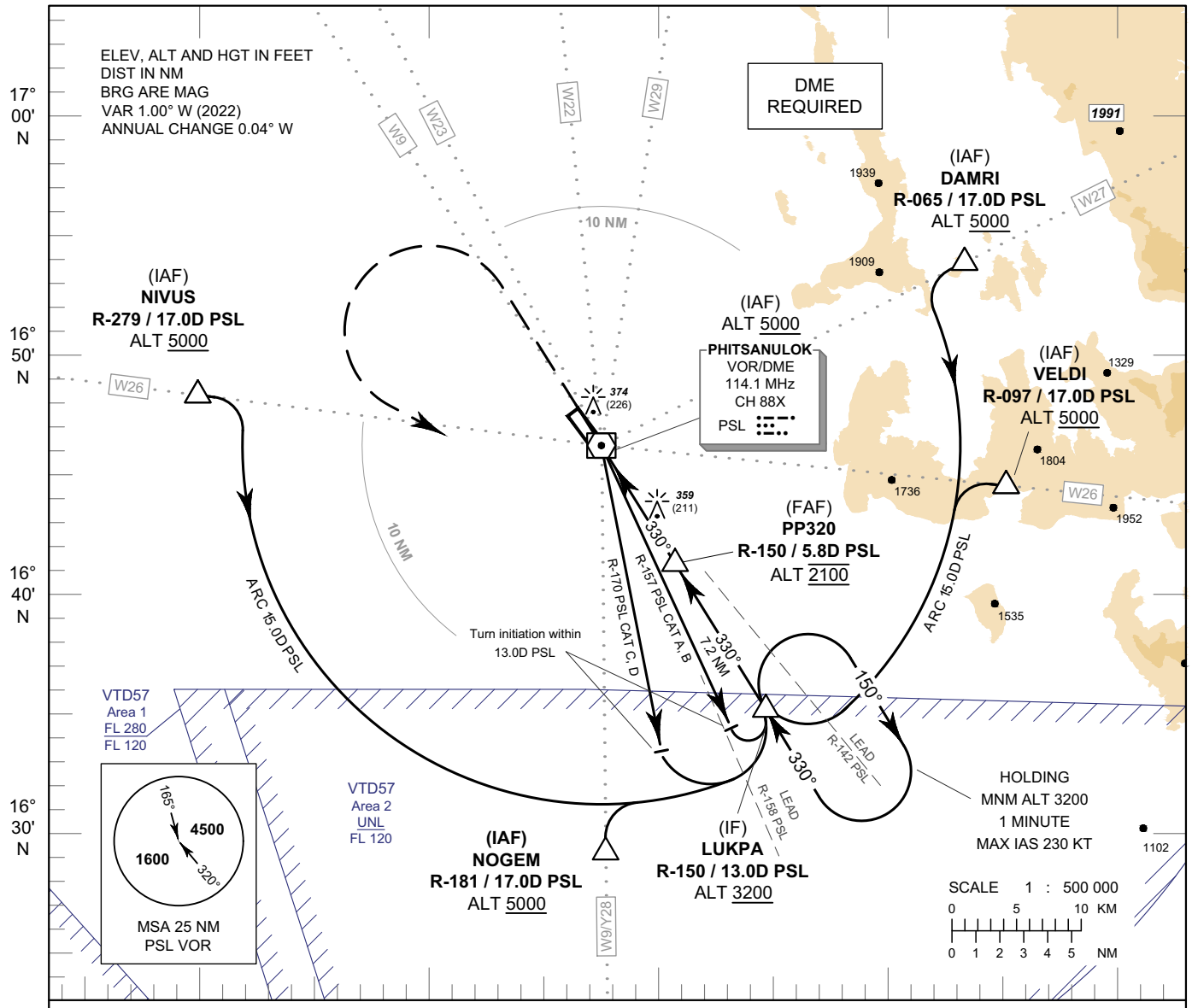
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 148 FT
HEIGHT RELATED TO AERODROME ELEV

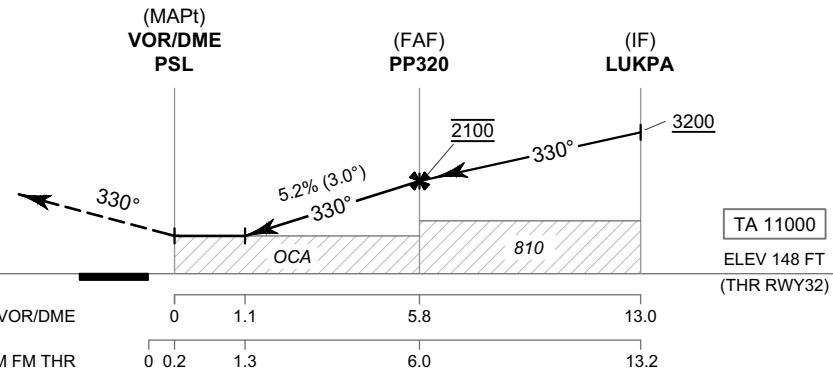
APP	: 120.7, 284.0
TWR	: 118.9 , 236.6
GND	: 121.9
ATIS	: 127.4

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) VELDI	R-097 / 17.0D PSL	16° 44' 24.79" N	100° 35' 05.73" E
(IAF) DAMRI	R-065 / 17.0D PSL	16° 53' 47.82" N	100° 33' 21.71" E
(IAF) NOGEM	R-181 / 17.0D PSL	16° 29' 09.16" N	100° 17' 32.96" E
(IAF) NIVUS	R-279 / 17.0D PSL	16° 48' 26.33" N	099° 59' 54.50" E
(IF) LUKPA	R-150 / 13.0D PSL	16° 35' 05.75" N	100° 24' 33.60" E
(FAF) 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

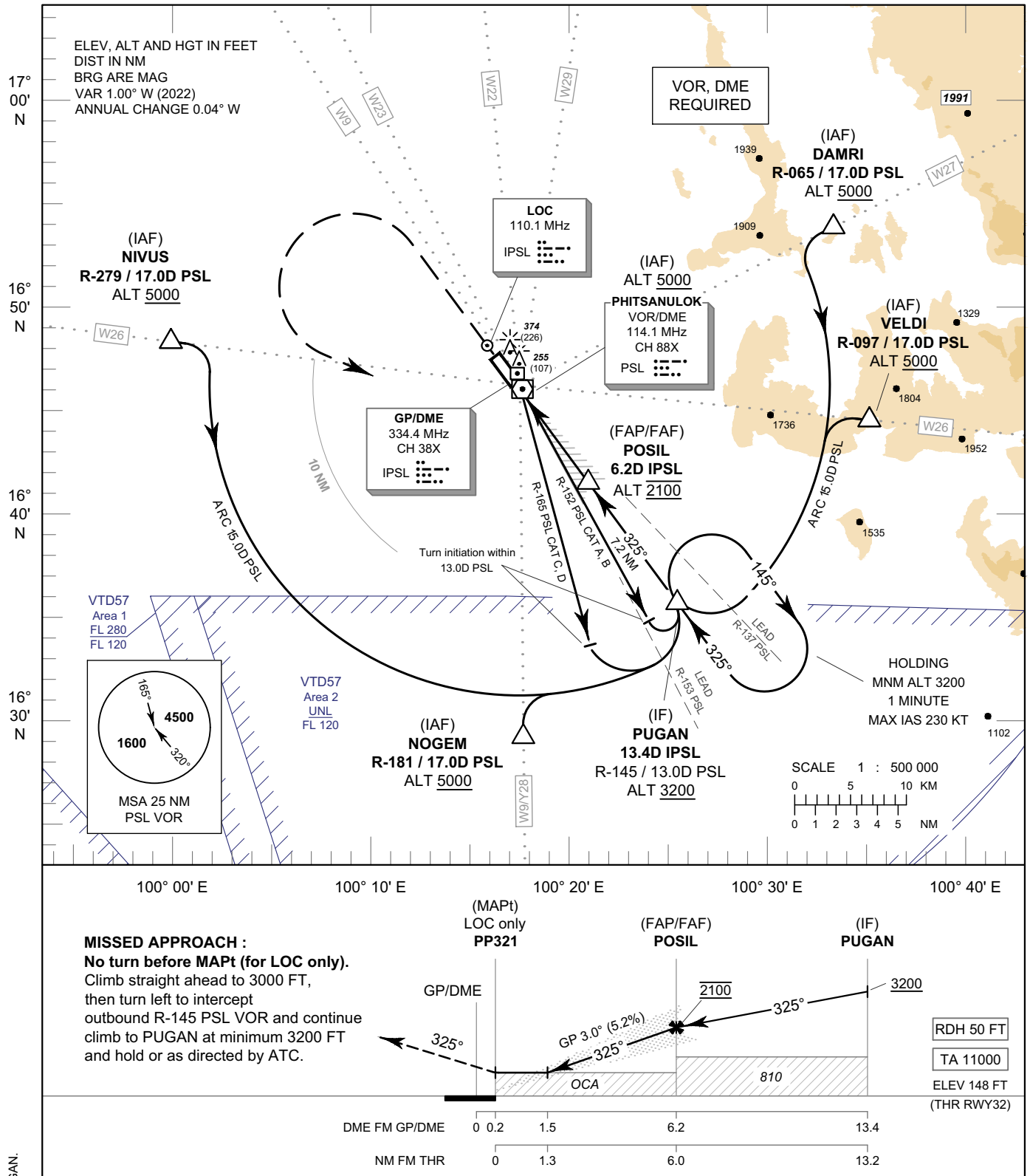
INSTRUMENT APPROACH CHART - ICAO

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) VELDI	R-097 / 17.0D PSL	16° 44' 24.79" N	100° 35' 05.73" E
(IAF) DAMRI	R-065 / 17.0D PSL	16° 53' 47.82" N	100° 33' 21.71" E
(IAF) NOGEM	R-181 / 17.0D PSL	16° 29' 09.16" N	100° 17' 32.96" E
(IAF) NIVUS	R-279 / 17.0D PSL	16° 48' 26.33" N	099° 59' 54.50" E
(IF) PUGAN	13.4D IPSL	16° 35' 35.86" N	100° 25' 21.12" E
(FAP/FAF) POSIL	6.2D IPSL	16° 41' 28.38" N	100° 20' 54.79" E
(MAPt@THR32) 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) VOR	PSL	16° 46' 13.27" N	100° 17' 28.95" E

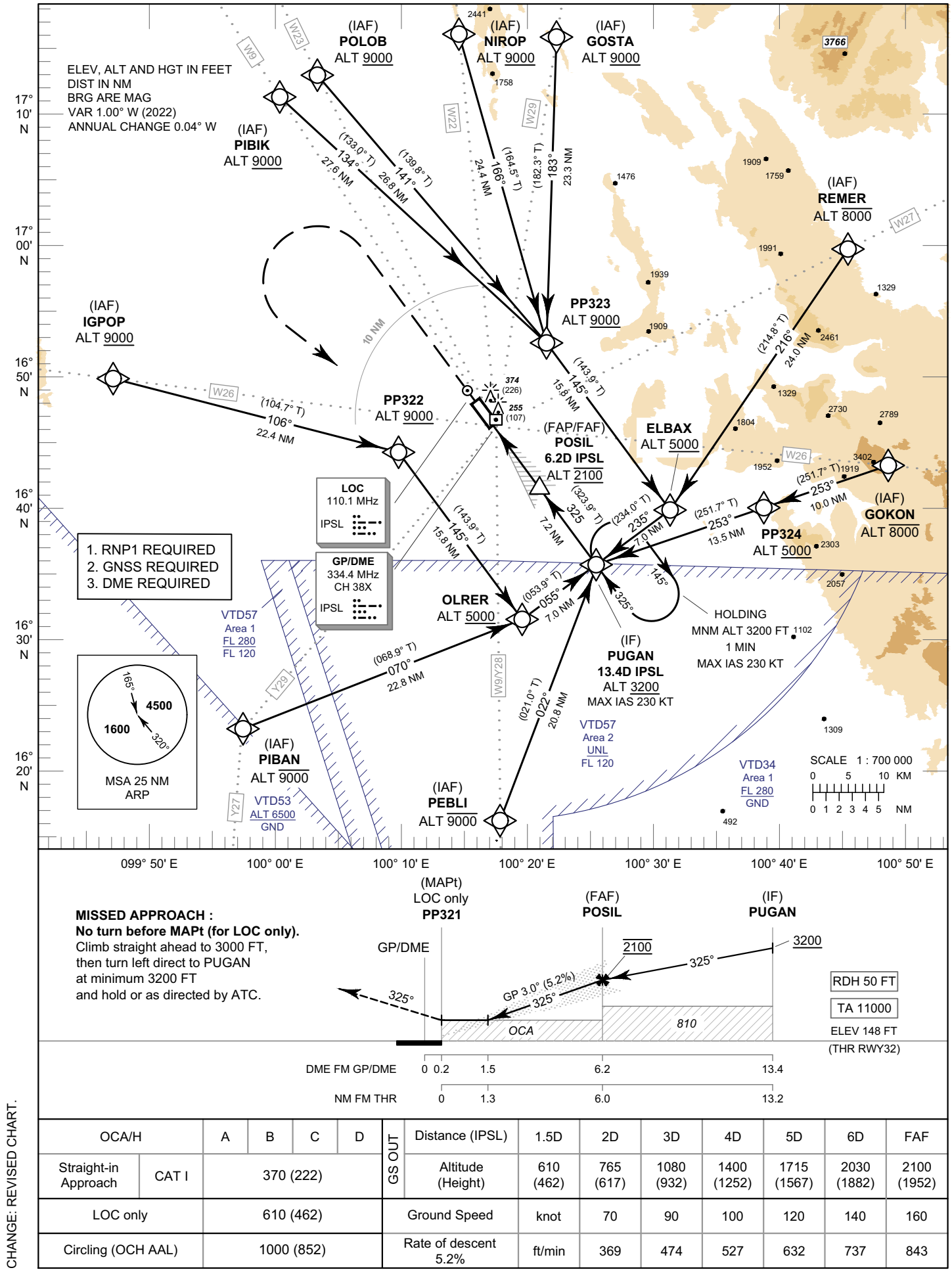
INSTRUMENT APPROACH CHART - ICAO

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) PUGAN	13.4D IPSL	16° 35' 35.86" N	100° 25' 21.12" E
(FAP/FAF) POSIL	6.2D IPSL	16° 41' 28.38" N	100° 20' 54.79" E
(MAPt@THR32) 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

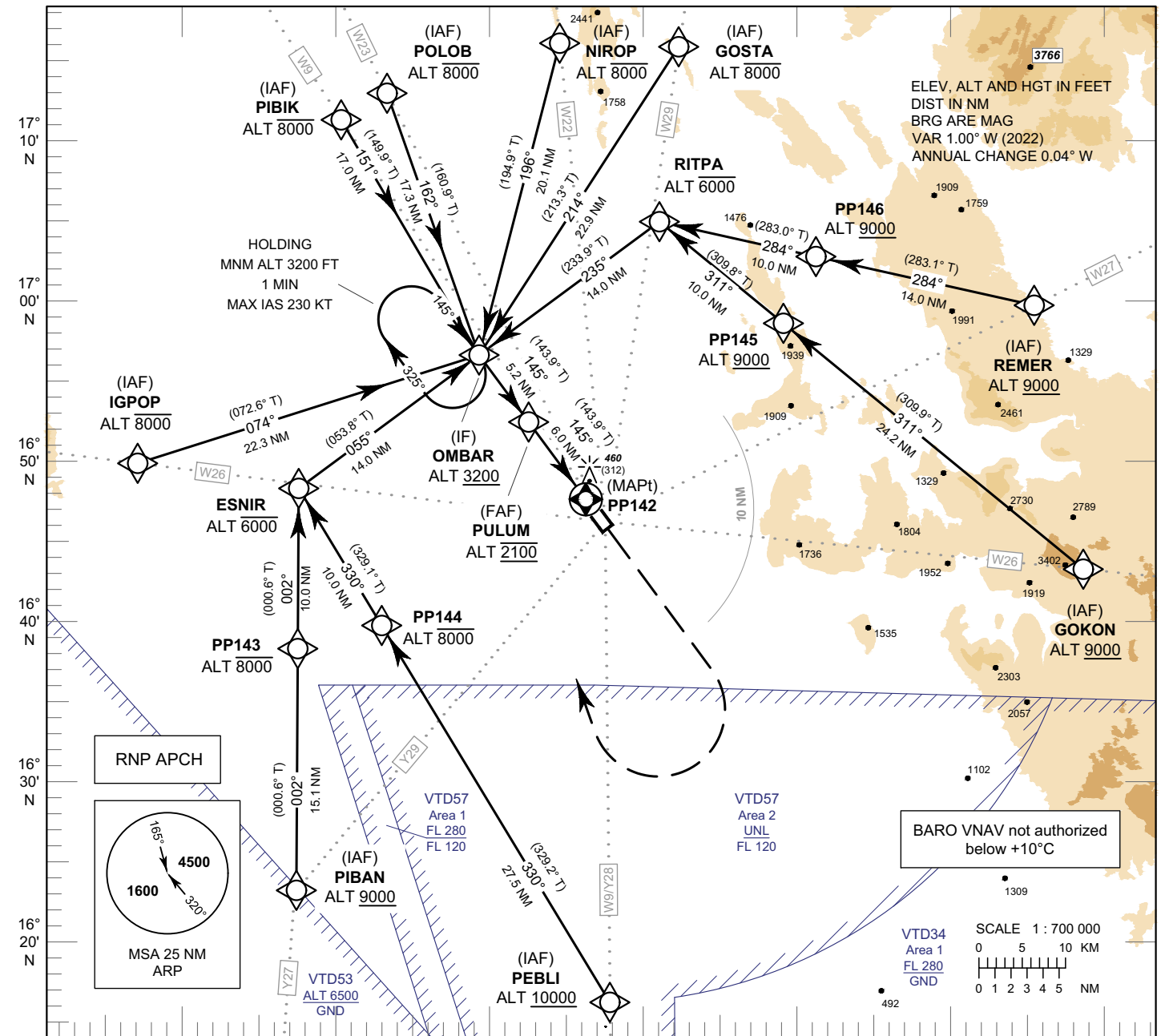
INSTRUMENT APPROACH CHART - ICAO

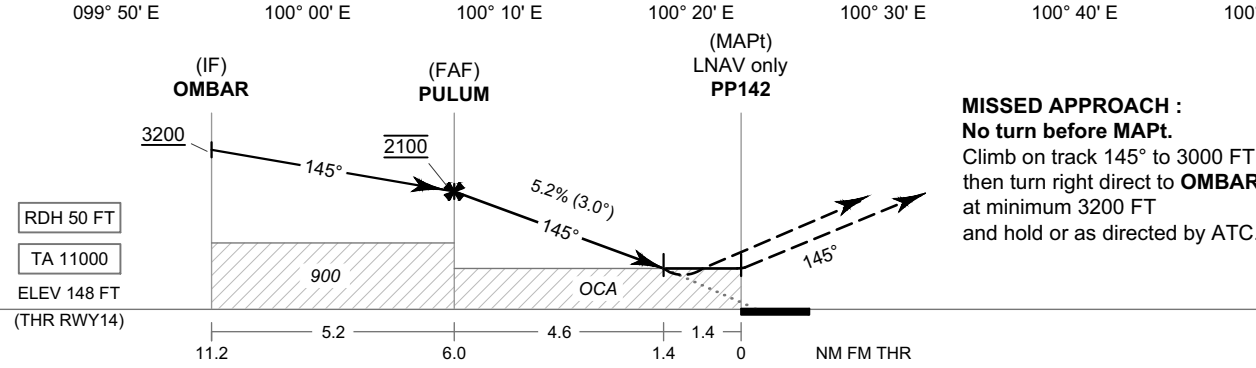
AERODROME ELEV 148 FT
HEIGHT RELATED TO
THR RWY14 - ELEV 148 FT

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

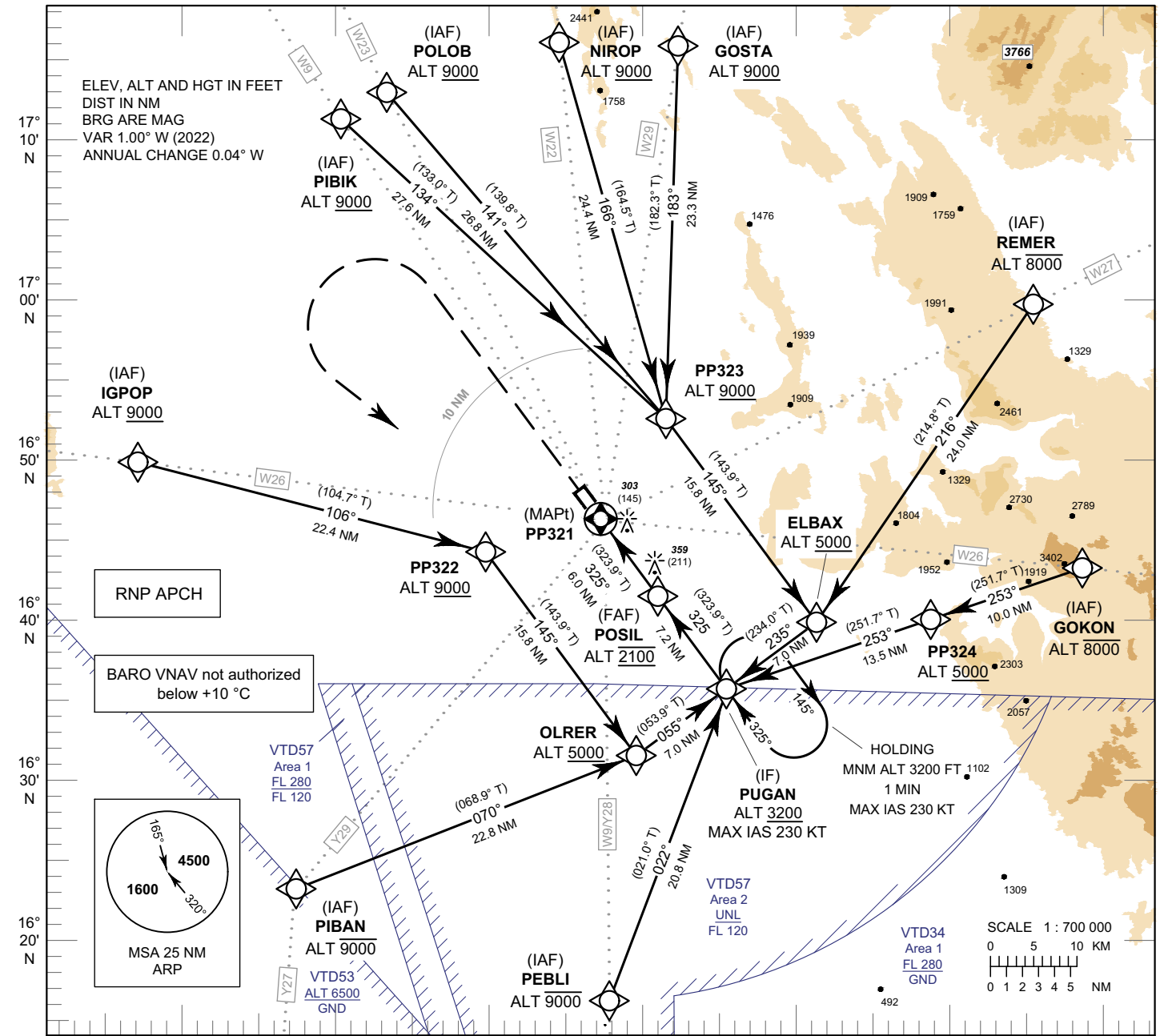
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 148 FT
HEIGHT RELATED TO
THR RWY32 - ELEV 148 FT

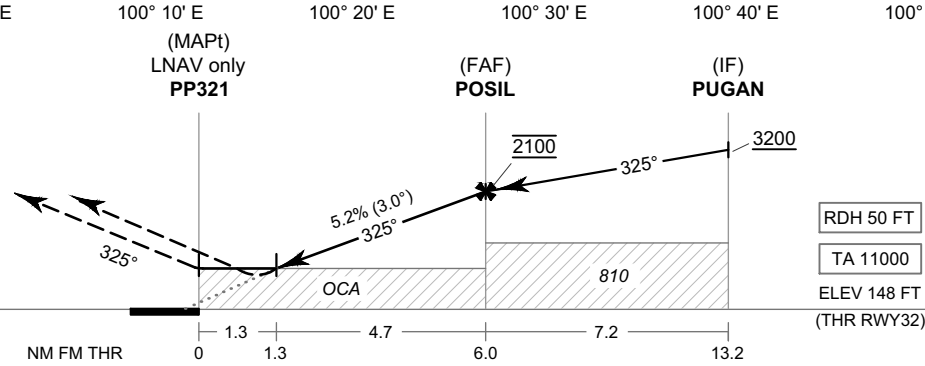
APP : 120.7, 284.0
TWR : 118.9 , 236.6
GND : 121.9
ATIS : 127.4

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

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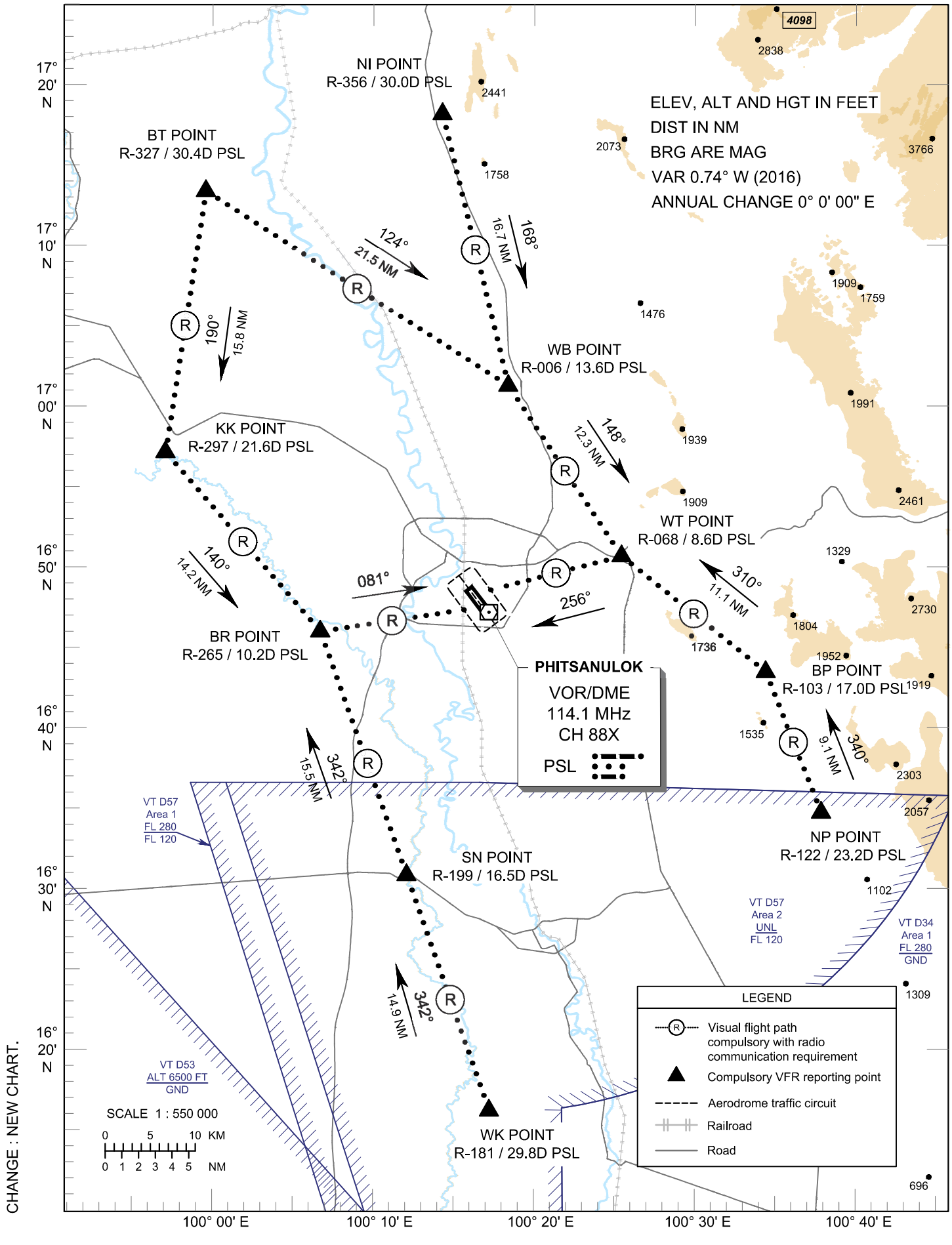
VFR ENTRY PROCEDURE CHART

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

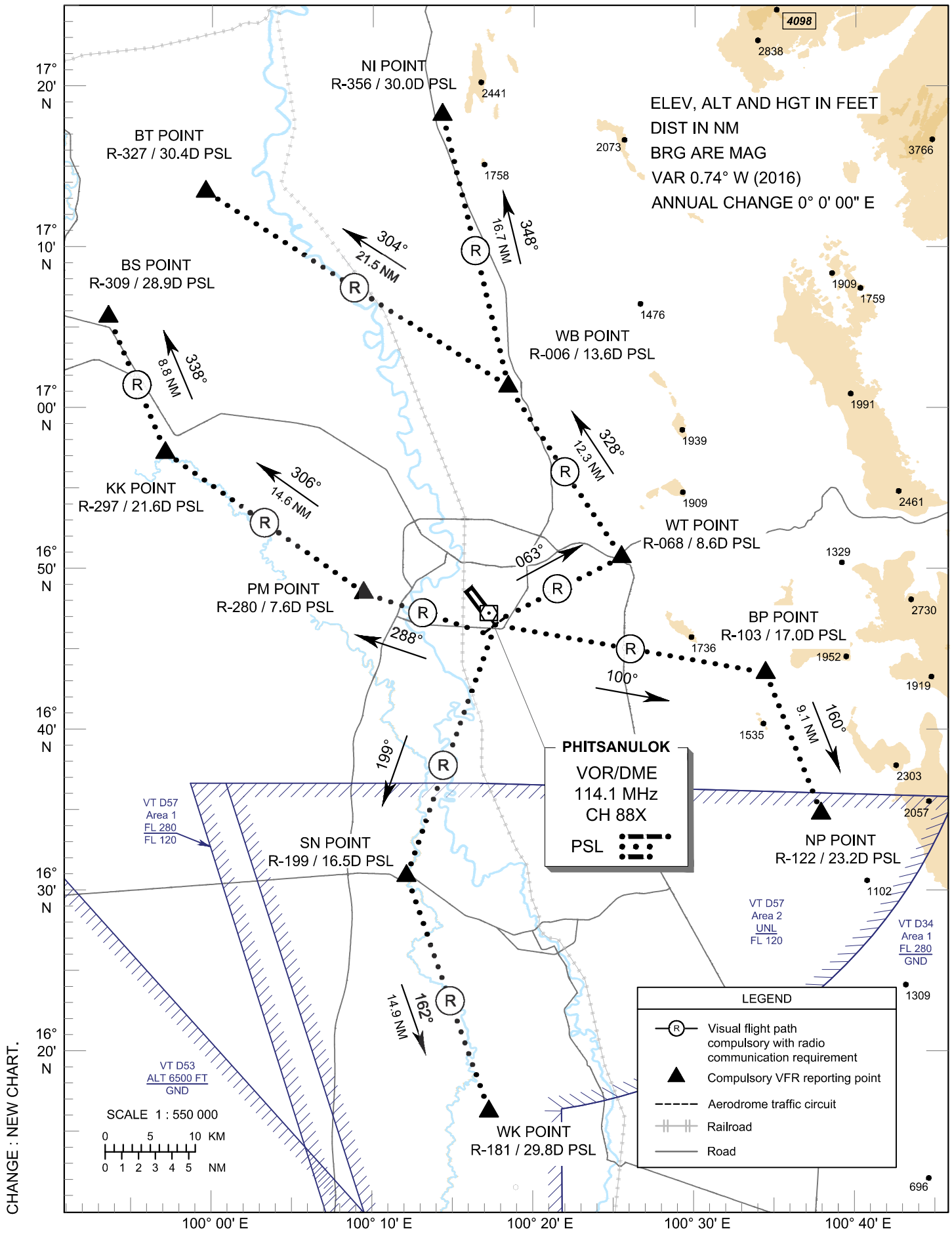
CHAGE : NEW CHART.

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, 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 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

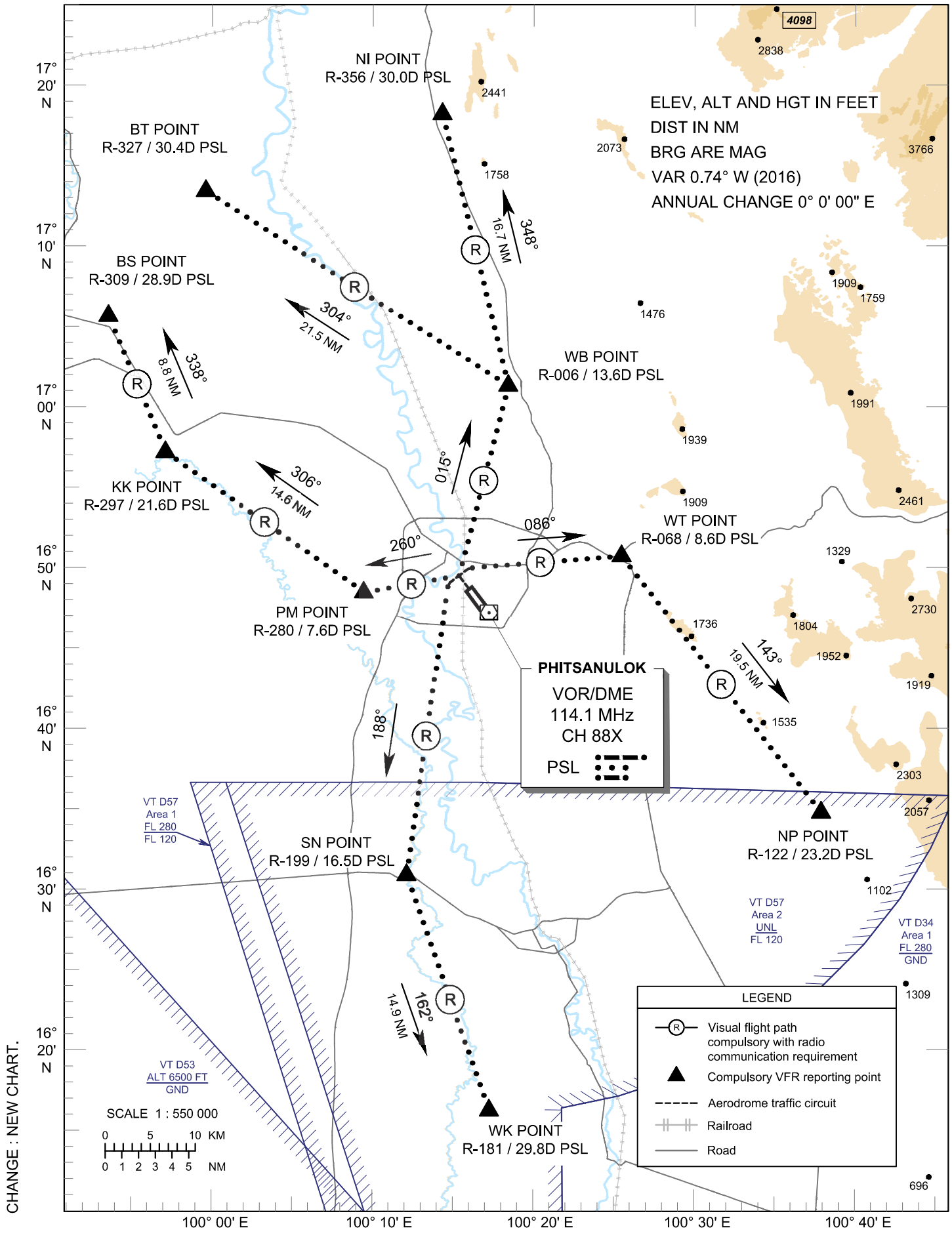
CHANGE : NEW CHART.

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 Phrae Airport 72 Chohae Road, Tambon Nachack Amphoe Muangphrae, Phrae Province 54000 Thailand Tel: +665 451 1184 +665 452 2706 Fax: +665 452 2705 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	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): Located at Phitsanulok Airport (1st floor of airport building) Tel: +665 530 1078 +669 2262 3140 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 Strength: PCN 20/F/C/X/T
2	Taxiway width, surface and strength	Width: 15 M Surface: Asphaltic concrete Strength: PCN 20/F/C/X/T
3	Altimeter checkpoint location and elevation	Location : At Apron 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 TWY guide lines: Yes 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: TWY CL, TWY Edge and RWY Holding Position 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 Elevation Markings/LGT**	**Coordinates**	**Obstacle type Elevation Markings/LGT**	**Coordinates**	
a	**b**	**c**	**a**	**b**	
RWY 01 / APCH area RWY 19 / TKOF area	Pagoda 609 FT (185.67 M) NIL / NIL	180715.66N 1000954.47E	AWOS 1 569 FT (173.49 M) Painted red/white LGTD	180808.87N 1000957.30E	NIL
	Radio mast 699 FT (213.13 M) Painted red/white LGTD	181014.02N 1001020.07E	AWOS 2 573 FT (174.73 M) Painted red/white LGTD	180808.67N 1000957.29E	
	Building 581 FT (177.23 M) NIL / NIL	180711.10N 1000945.86E	AWOS 3 576 FT (175.71 M) Painted red/white LGTD	180741.69N 1000954.98E	
			AWOS 4 572 FT (174.26 M) Painted red/white LGTD	180741.50N 1000954.95E	
			DVOR/DME 572 FT (174.33 M) Painted red/white LGTD	180802.86N 1000958.49E	
			GP 586 FT (178.66 M) Painted red/white LGTD	180740.61N 1000954.73E	
			Tree 604 FT (184.10 M) NIL / NIL	180828.42N 1001002.45E	
			Telecommunication mast 689 FT (210.15 M) Painted red/white LGTD	180907.05N 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 702 FT (213.89 M) Painted red/white LGTD	180711.37N 1001105.62E	
			Telecommunication mast 690 FT (210.32 M) Painted red/white LGTD	180607.94N 1001113.05E	
			Telecommunication mast 691 FT (210.75 M) Painted red/white LGTD	180841.98N 1001123.21E	
			Radio mast 716 FT (218.14 M) Painted red/white LGTD	180840.95N 1000833.51E	
			Radio mast 732 FT (223.03 M) Painted red/white LGTD	180851.69N 1000849.76E	
			Radio mast 713 FT (217.37 M) Painted red/white LGTD	180850.00N 1000846.64E	
			Radio mast 691 FT (210.66 M) Painted red/white LGTD	180757.67N 1000807.33E	
			Radio mast 707 FT (215.58 M) Painted red/white LGTD	180646.13N 1000814.49E	
			Radio mast 778 FT (237.14 M) Painted red/white LGTD	180651.26N 1001049.34E	
			Radio mast 692 FT (211.06 M) Painted red/white LGTD	180800.75N 1000914.89E	
			Hospital Building 691 FT (210.85 M) NIL / NIL	180759.63N 1000916.30E	
			ATC tower 645 FT (196.48 M) Painted red/white LGTD	180751.68N 1000943.98E	

VTCP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Phrae, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 453 1307 ext. 4508
6	Flight documentation 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 Observation 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 Asphaltic concrete	180731.51N 1000950.38E	THR 540 FT
19	185.39°	1500x30	PCN 20/F/C/X/T Asphaltic concrete	180820.08N 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 NIL	PAPI Left 3° (44.98 FT)	NIL	NIL	1500 M 55.56 M FM 0 M - 1000 M White, FM 1000 M - 1500 M Yellow, LIH	Red NIL	75 M Red	RTIL
19	NIL	Green NIL	PAPI Left 3.2° (45.77 FT)	NIL	NIL	1500 M 55.56 M FM 0 M - 1000 M White, FM 1000 M - 1500 M Yellow, LIH	Red NIL	75 M 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 IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL WDI: 1. Wind cone at 267 M from THR 19 off set to the left side 90 M from RCL, illuminated. 2. Wind cone at 110 M from RCL off set to the left side 50 M from TWY CL, illuminated. 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 TWY centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the Airfield Lighting (AFL) building. Switch-over time: 15 SEC.
5	Remarks	NIL

VTCP AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 Language(s)	Phrae Tower 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 121.5 MHZ 1)	As AD OPR HR	1) Emergency frequency
TWR	Phrae Tower	121.5 MHZ 1) 118.6 MHZ 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: – Bearing 001°-040° altitude should not below 7 000 FT – Bearing 041°-180° altitude should not below 8 000 FT – Bearing 181°-200° altitude should not below 5 000 FT – Bearing 201°-260° altitude should not below 8 000 FT – 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, 1. Unusable due to roughness out of tolerance on radial 146° distance between 7.0-8.0 DME altitude 7 000 FT 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: – Radial 055º-080º altitude should not below 9 000 FT – Radial 081º-160º altitude should not below 11 000 FT – Radial 161º-180º altitude should not below 8 000 FT – Radial 181º-350º altitude should not below 6 000 FT – 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

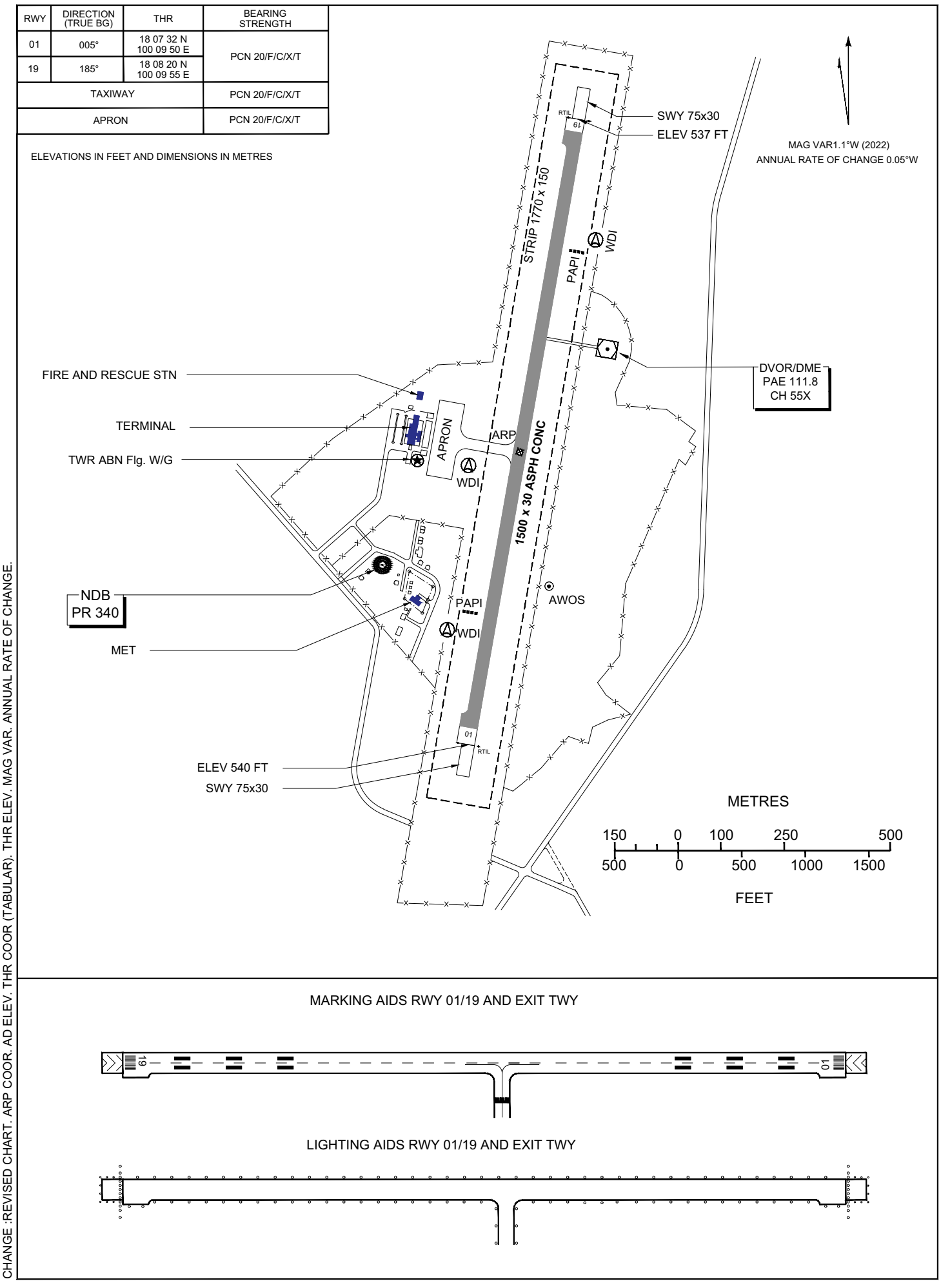
VTCP AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page
Aerodrome Chart - ICAO	AD 2-VTCP-2-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - AIZAK1B IDKOR1B OTBAD1B SUNGO1B	AD 2-VTCP-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - AIZAK1B IDKOR1B OTBAD1B SUNGO1B (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.

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STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

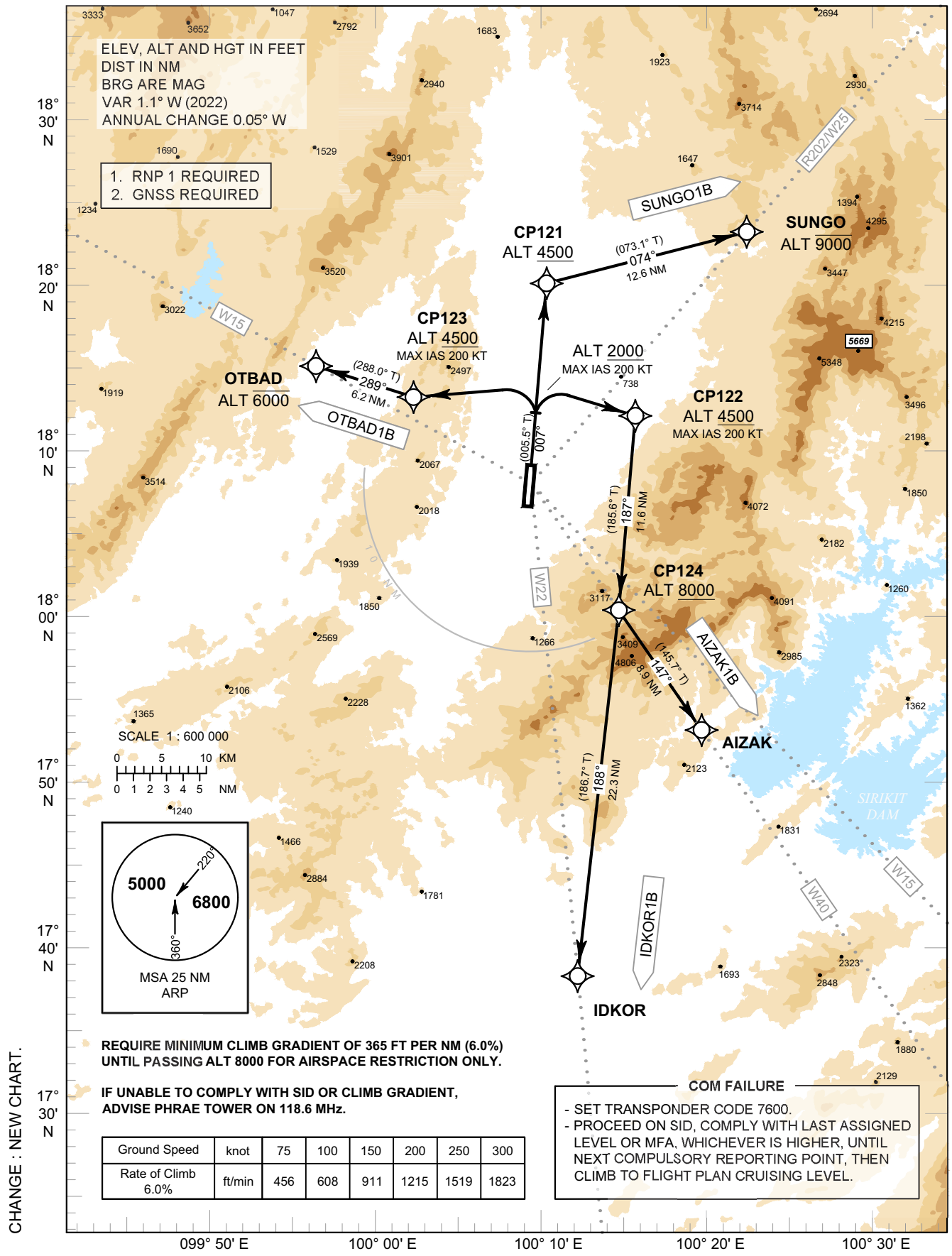
TRANSITION ALTITUDE
11000 FT

APP : 120.1 MHz
TWR : 118.6, 236.6 MHz
ATIS : 340.0 kHz

PHRAE / Phrae (VTCP)

RNAV RWY01

AIZAK1B IDKOR1B OTBAD1B SUNGO1B



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

AIZAK1B IDKOR1B OTBAD1B SUNGO1B

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
AIZAK1B 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
IDKOR1B 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
OTBAD1B 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
SUNGO1B 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

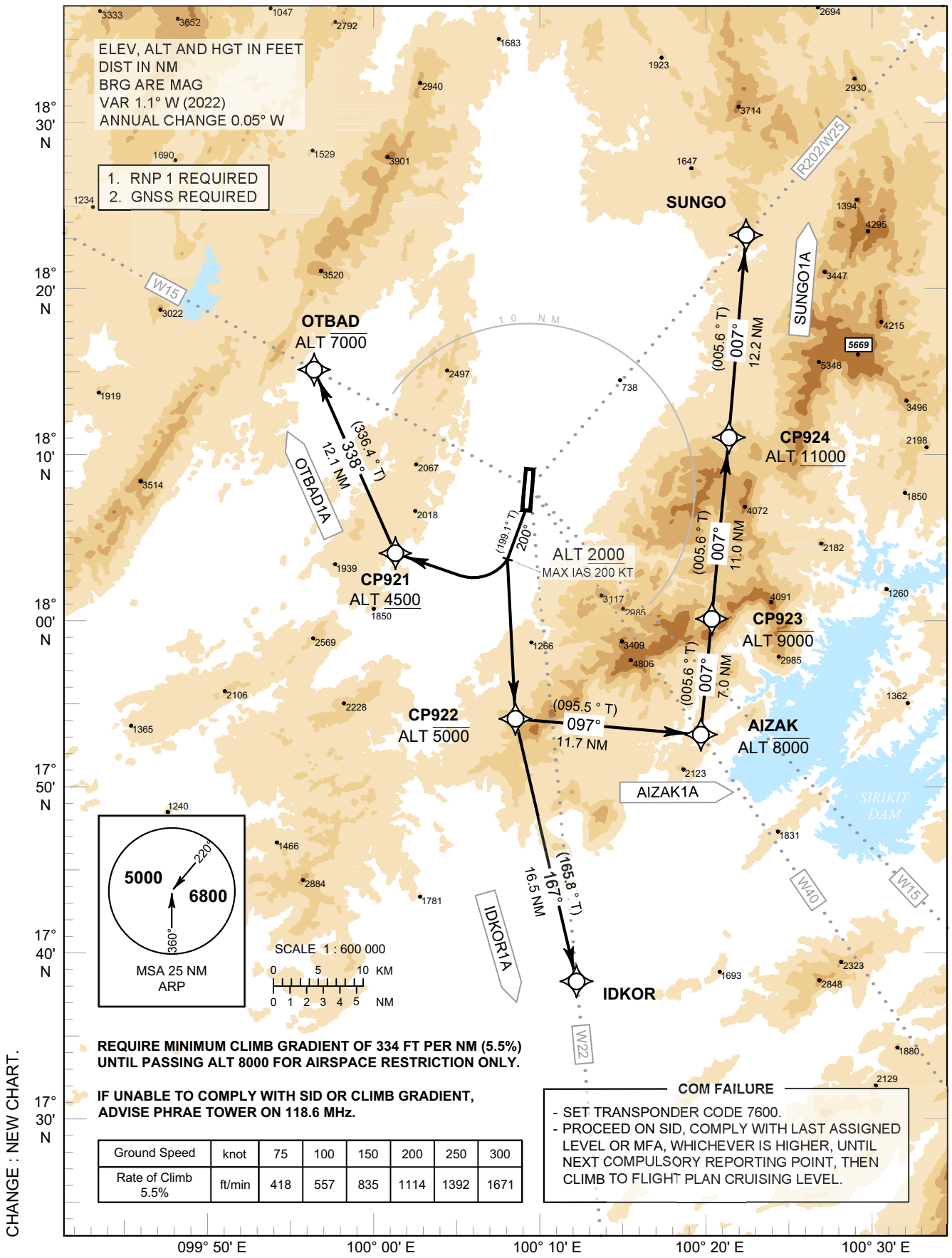
TRANSITION ALTITUDE
11000 FT

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			

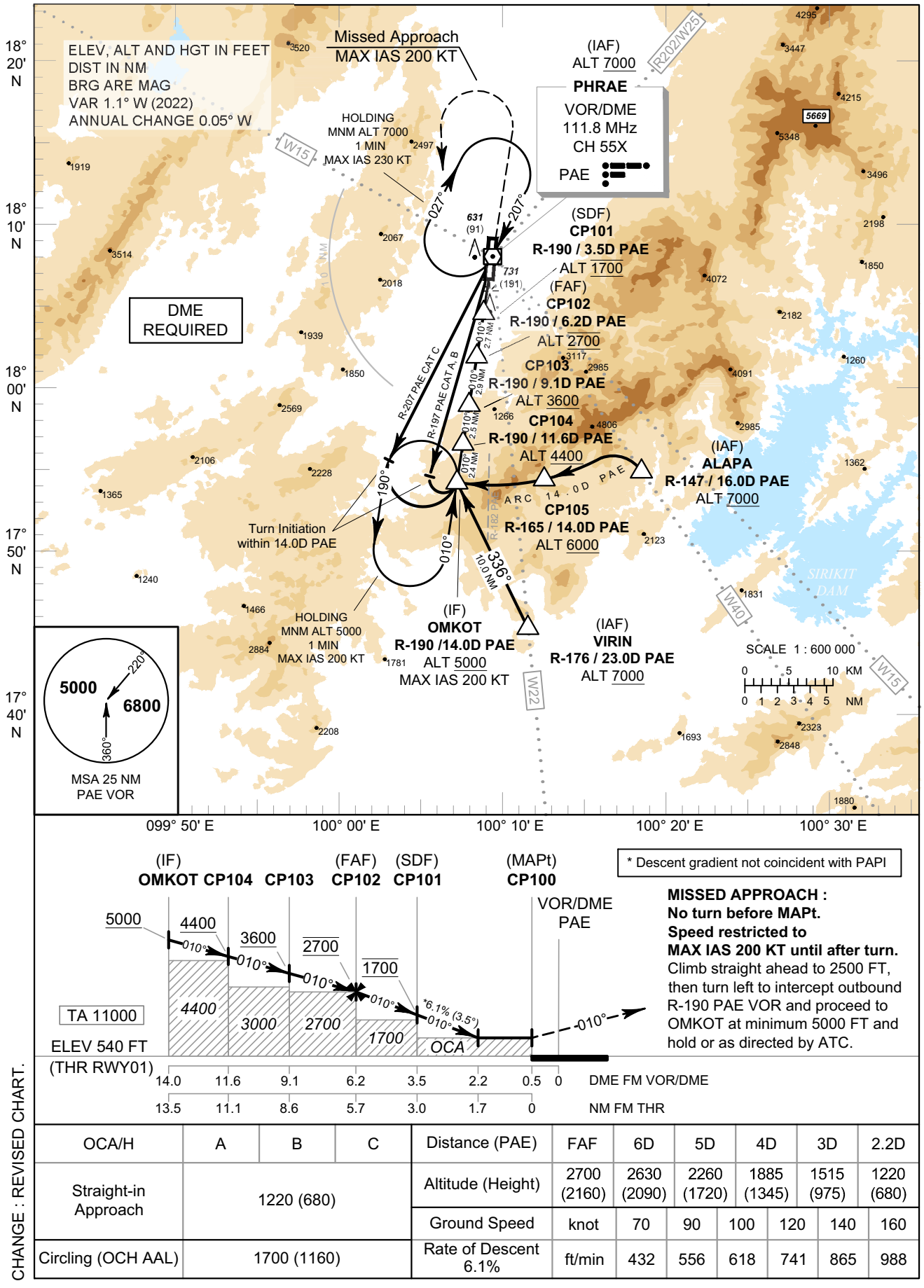
INSTRUMENT APPROACH CHART - ICAO

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

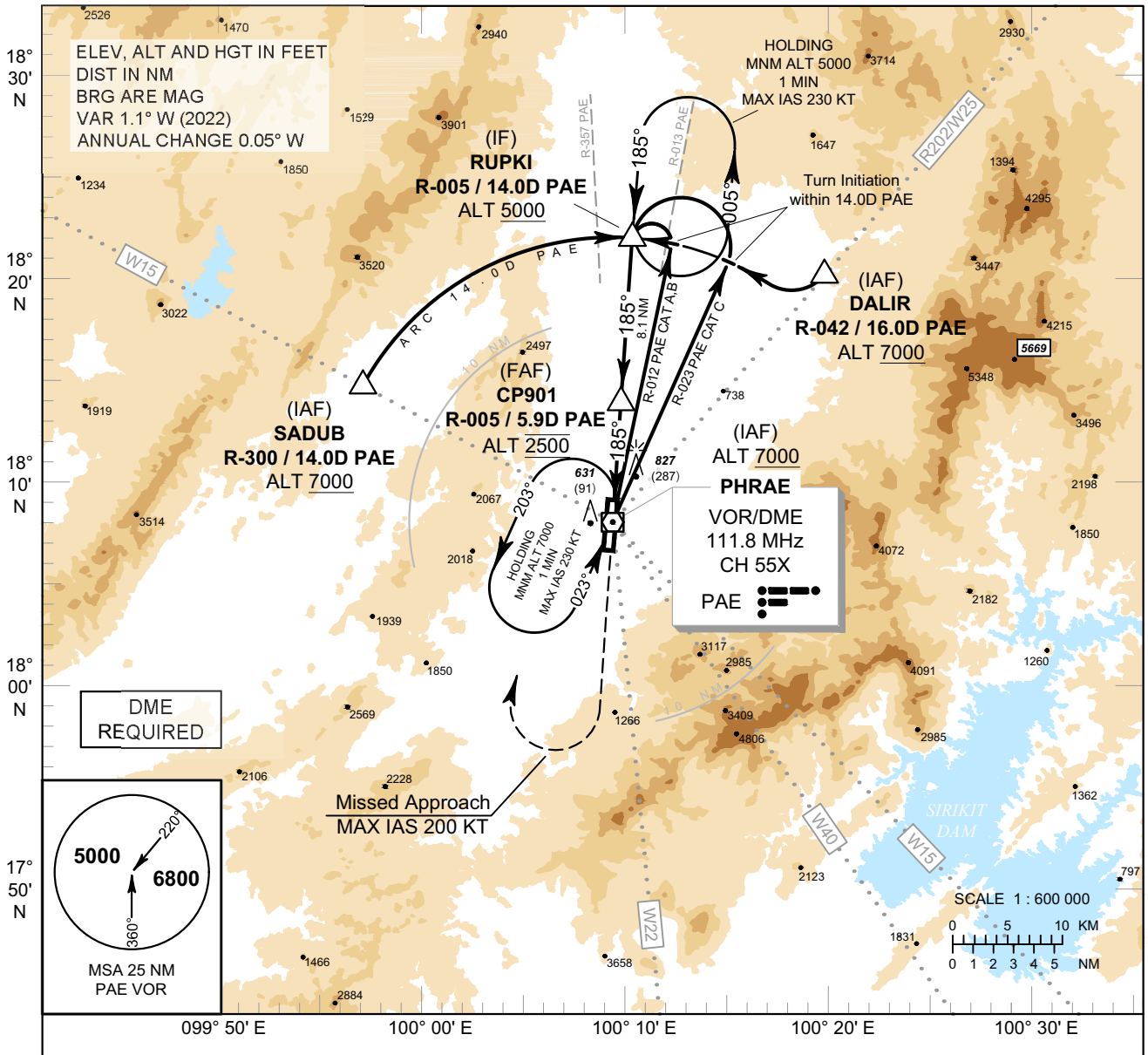
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 540 FT
HEIGHTS RELATED TO AERODROME ELEV

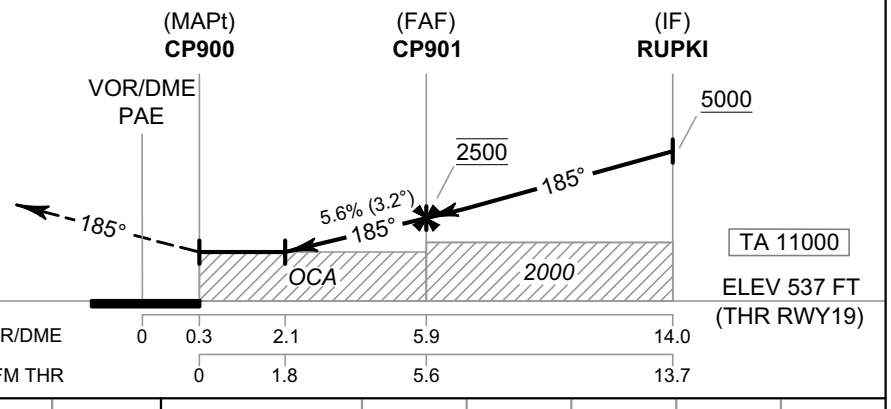
APP : 120.1 MHz
TWR : 118.6, 236.6 MHz
ATIS : 340.0 kHz

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

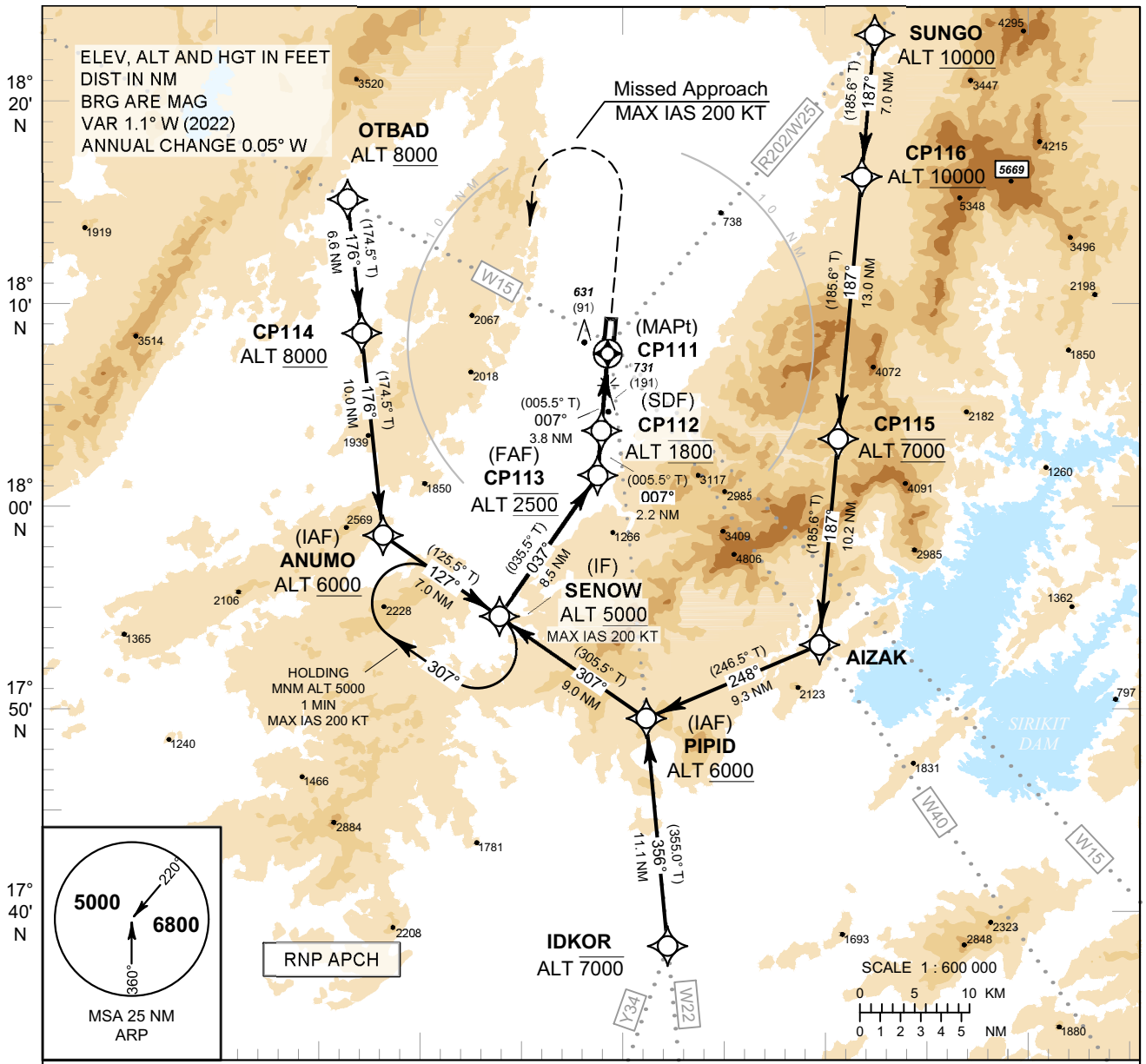
INSTRUMENT APPROACH CHART - ICAO

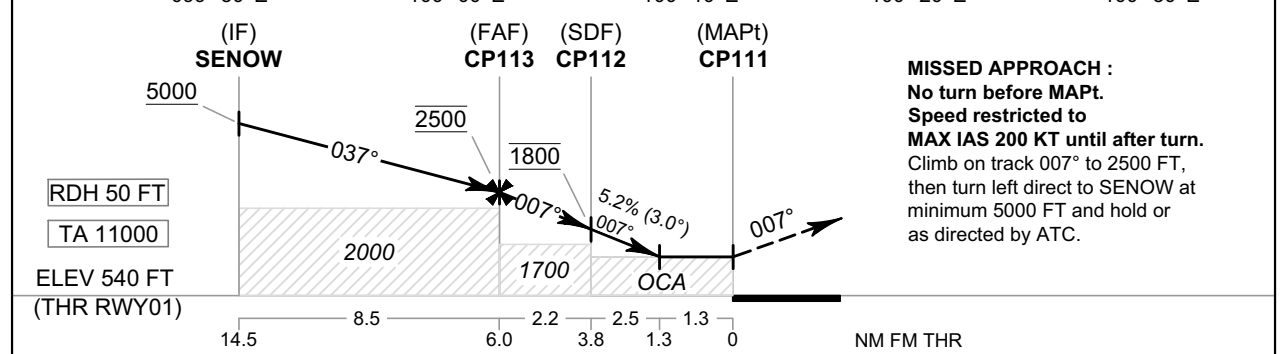
AERODROME ELEV 540 FT
HEIGHTS RELATED TO
THR RWY01 - ELEV 540 FT

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			

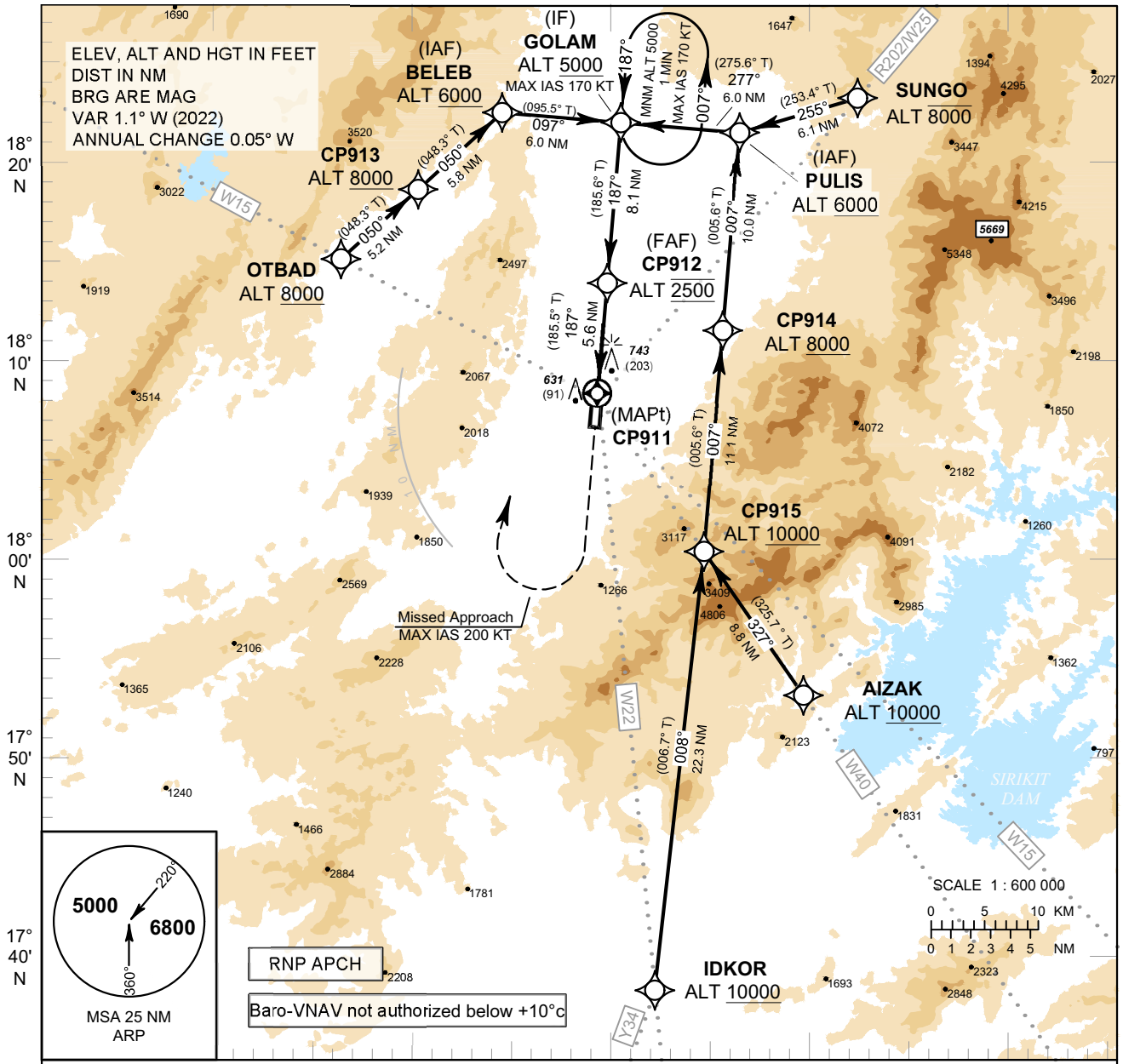
INSTRUMENT APPROACH CHART - ICAO

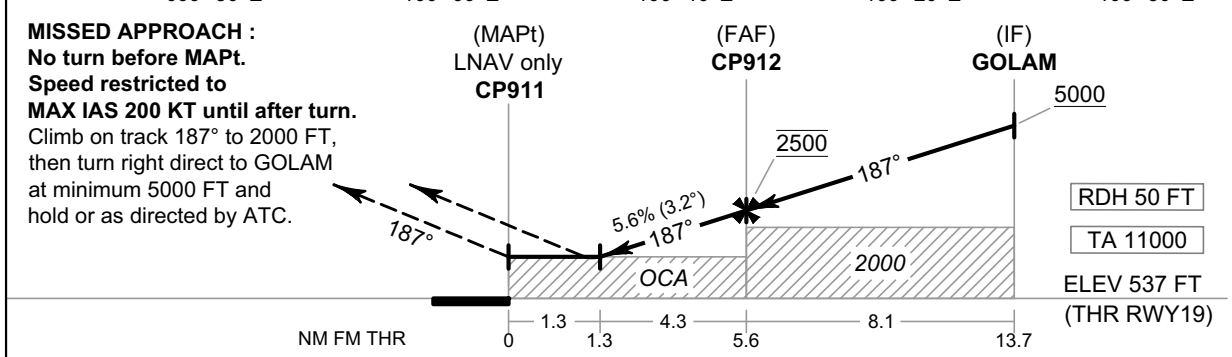
AERODROME ELEV 540 FT
HEIGHTS RELATED TO
THR RWY19 - ELEV 537 FT

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	16.847 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 Prachuap Khirikhan Province Thailand Tel: +663 260 3919 Fax: +662 534 6000 Ext.60550 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. 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, Within ATS HR; 1 fire fighting trucks with 4,000 L Of water 500 L of form, 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 Strength: PCN 45/F/B/X/T
2	Taxiway width, surface and strength	Width: TWY A 50 FT, TWY B 30 FT Surface: Asphalt 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 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. Parking follow the signalman.
2	RWY and TWY markings and LGT	RWY: Designation, THR, centre line and distance Markers lighted. Runway edge light provided For RWY 08/26 only. TWY: Taxiway edge light, Centre line and holding positions 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 Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
08/TKOF 26/APP	Mountain 273 M/896 FT NIL	114707N 0994859E	Mountain 273 M/896 FT NIL	114707N 0994859E	NIL
	Island 60 M/197 FT NIL	114729N 0994859E	Island 60 M/197 FT NIL	114729N 0994859E	
	Island 100 M/328 FT LGTD	114739N 0994922E	Island 100 M/328 FT	114730N 0994922E	
			Island 228 M/747 FT NIL	114730N 0994753E	
08/APP 18/TKOF 36/APOP	As 08/TKOF Mountain 185 M/607 FT NIL	114508N 0994746E			
	Island 60 M/197 FT NIL	114601N 0994836E			
18/APP 36/TKOF	Mountain 107 M/350 FT LGTD	114856N 0994830E	Mountain 185 M/607 FT NIL	114508N 0994746E	
	Mast 322 M/1057 FT	115420N 0994804E	Mast 108 M/356 FT LGTD	114759N 0994730E	
FINAL APP RWY08	Radio Mast HGT 51 M/167 FT Marked and LGTD	114648N 0994623E			

VTBP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Met Section Wing 5
2	Hours of service MET Office outside hours	HJ to be requested
3	Office responsible for TAF preparation Periods of validity	Met Section Wing 5 H24
4	Type of landing forecast Interval of issuance	TEMPO
5	Briefing/consultation provided	Personal Consultation
6	Flight documentation Language(s) used	Charts, plain language text Thai
7	Charts and other information available for briefing or consultation	Synoptic chart, wind aloft chart, FATHAI AD forecast ,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 080 MAG	2000x40	PCN 43/F/A/X/T Asphalt	NIL	THR 3 M/10 FT
26	256 GEO 260 MAG	2000x40	PCN 43/F/A/X/T Asphalt	NIL	THR 3 M/10 FT
18	180 GEO 180 MAG	1050x40	PCN 43/F/A/X/T Asphalt 50x40	NIL	THR 3 M/10 FT
36	360 GEO 360 MAG	1050x40	PCN 43/F/A/X/T 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 Both 3° White, LIH	NIL	NIL	2000 M 50 M	Red	NIL	NIL
26	NIL	Green	PAPI Both 5° White, LIH	NIL	NIL	2000 M 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 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 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 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 Language(s)	Prachuap Tower 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 135.9 MHZ 236.6 MHZ *121.5 MHZ *243.0 MHZ	23:00-11:00	Primary operation *Emergency Freq.
GND	Prachuap GND	257.8 MHZ 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 TX1171 MHz RX 1108 MHz	H24	114712.3851N 0994730.2153E	20 M	NIL
NDB	PCK	320 KHZ	2300-1100	114729.8861N 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 Hua Hin Airport Phetkasem Road, Amphoe Hua Hin Prachuap Khirikhan Province Thailand Tel: +663 252 0182 Fax: +663 252 0182 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): Located at Hua Hin Air Traffic Control Centre (1st floor of tower building) Tel: +663 252 2512 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 1 AVGAS 100LL Refueller @ 5,000 L 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 Strength: PCN 45/R/B/Y/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt Strength: PCN 42/F/B/Y/T
3	Altimeter checkpoint location and elevation	Location : At Apron 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 ELEV 84 FT (26 M) RED LGT on top	123759.50N 0995712.32E	
			Radio mast 2 ELEV 79 FT (24 M) RED LGT on top	123749.14N 0995717.47E	
			Radio mast 3 ELEV 132 FT (40 M) RED LGT on top	123723.63N 0995714.57E	
			Radio mast 5 ELEV 82 FT (25 M) RED LGT on top	123813.25N 0995707.22E	
			Radio mast 7 ELEV 285 FT (87 M) RED LGT on top	123509.70N 0995717.73E	
			Lightning rod welfare housing ELEV 110 FT (33 M) RED LGT on top	123755.41N 0995718.16E	
			Klai Kang Woon Special Aircraft ELEV 72 FT (22 M) RED LGT on top	123747.07N 0995716.83E	
			AWOS 1 ELEV 52 FT (16 M) RED LGT on top	123749.94N 0995708.52E	
			Water tank 2 ELEV 120 FT (40 M) RED LGT on top	123902.47N 0995654.73E	
			ATC Tower ELEV 144 FT (44 M) RED LGT on top	123754.01N 0995703.38E	
			ATC Radio mast ELEV 87 FT (26 M) RED LGT on top	123756.05N 0995703.33E	
			DVOR/DME ELEV 66 FT (20 M) RED LGT on top	123803.97N 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 ELEV 58 FT (18 M) RED LGT on top	123806.85N 0995703.77E	
			Telecommunication mast 1 ELEV 211 FT (64 M) RED LGT on top	123807.50N 0995638.52E	
			Telecommunication mast 2 ELEV 259 FT (79 M) RED LGT on top	123930.93N 0995704.55E	
			Telecommunication mast 3 ELEV 195 FT (59 M) RED LGT on top	123854.70N 0995704.80E	
			Telecommunication mast 8 ELEV 172 FT (52 M) RED LGT on top	123712.30N 0995642.75E	
			Telecommunication mast 9 ELEV 174 FT (53 M) RED LGT on top	123741.71N 0995648.40E	
			Telecommunication mast 10 ELEV 176 FT (54 M) RED LGT on top	123800.77N 0995648.63E	
			Telecommunication mast 11 ELEV 177 FT (54 M) RED LGT on top	123700.70N 0995638.32E	
			Telecommunication mast 12 ELEV 170 FT (52 M) RED LGT on top	123702.00N 0995638.64E	
			Telecommunication mast 13 ELEV 195 FT (60 M) RED LGT on top	123941.84N 0995705.68E	
			Telecommunication mast 14 ELEV 221 FT (67 M) RED LGT on top	123946.80N 0995702.82E	
			Condominium 1 (PALM PAVILLION) ELEV 167 FT (51 M) RED LGT on top	123708.37N 0995715.76E	
			Condominium 3 ELEV 228 FT (69 M) RED LGT on top	123842.78N 0995710.00E	
			Condominium 4 ELEV 207 FT (63 M) RED LGT on top	123841.05N 0995712.12E	
			Condominium 7 ELEV 109 FT (33 M) NIL	123819.32N 0995709.75E	
			Condominium 9 ELEV 176 FT (54 M) RED LGT on top	123833.91N 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 ELEV 177 FT (54 M) RED LGT on top	123816.85N 0995718.74E	
			Condominium 11 ELEV 175 FT (53 M) RED LGT on top	123814.88N 099720.00E	
			Condominium 12 ELEV 195 FT (59 M) RED LGT on top	123808.67N 0995718.40E	
			Condominium 13 ELEV 195 FT (59 M) RED LGT on top	123912.02N 0995716.65E	
			Condominium 14 ELEV 169 FT (51 M) RED LGT on top	123921.42N 0995723.22E	
			Condominium 15 ELEV 222 FT (68 M) RED LGT on top	123916.43N 0995723.57E	
			Condominium 17 ELEV 214 FT (65 M) RED LGT on top	123850.47N 0995710.28E	
			Condominium 18 ELEV 240 FT (73 M) RED LGT on top	123845.61N 0995709.36E	
			Billboard 1 ELEV 95 FT (29 M) NIL	123843.37N 0995656.20E	
			NDB 1 ELEV 120 FT (37 M) RED LGT on top	123841.17N 0995646.34E	
			NDB 2 ELEV 121 FT (37 M) RED LGT on top	123842.84N 0995646.74E	
			Wind measuring pole ELEV 73 FT (22 M) RED LGT on top	123830.25N 0995654.93E	

VTPH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Hua Hin, Southern East-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern East-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +663 252 0831 ext. 5229
6	Flight documentation 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 Observation 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 Concrete and asphalt	123841.01N 0995652.75E	THR 62 FT TDZ 62 FT
34	339.96°	2100x35	PCN 42/F/B/Y/T Concrete and asphalt	123741.54N 0995715.28E	THR 17 FT 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 Left 3° (15.72 M)	NIL	NIL	2100 M 60 M White, LIH	Red	NIL	NIL
34	NIL	NIL	NIL	NIL	NIL	2100 M 60 M 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 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. Switch-over time 12 SEC.
5	Remarks	NIL

VTPH AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (123804.04N0995704.23E). Excluding VTR3.
2	Vertical limits	2000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Hua Hin Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Hua Hin Tower	122.7 MHZ 236.6 MHZ 121.5 MHZ[1)] 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	123842.03N 0995646.49E	NIL	The coverage orbit data refer to commissioning check as follows: 1. 50 NM orbit flown from bearing 001°-179° (CW) at altitude 1 500 FT 2. 30 NM orbit flown from bearing 180°-360° (CW) at altitude 4 000 FT (due to border limited) 3. Due to the fluctuation of needle is out of tolerance from bearing 180°-330°
DVOR/DME	HHN	113.3 MHZ CH80X	H24	123804.04N 0995704.23E	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: 1. 40 NM clockwise orbit – Radial 001°-170° altitude should not below 3 000 FT – Radial 171°-210° altitude should not below 7 000 FT – Radial 301°-340° altitude should not below 10 000 FT – Radial 340°-360° altitude should not below 3 000 FT 2. 30 NM clockwise orbit (Due to border limited) – Radial 211°- 300° altitude should not below 10 000 FT 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. Crew requirements

To operate at VTPH, the Pilot-in-command must have performed there, on the last six months:

a) one landing and take-off or,
b) flight simulator training comprising landing and take-off on each runway
- If a level C or lower flight simulator is used, Line Oriented Flight Training is required (LOFT).
- No Line Oriented Flight Training (LOFT) is required if the flight simulator used is level D.

Note: The limitations above do not supersede any Operators or Aircraft Operators or Aircraft Operations Manual (AOM) limitations if these are more restrictive.

2. Operating limitation

Flight operations for aircraft are prohibited under the following conditions:

a) Crosswind velocity exceeds 25 knots, or
b) Runway (RWY) conditions are assessed as contaminated.

Note: - In case winds exceed published landing limits after an aircraft has been cleared to *land, TWR will not cancel landing clearance to avoid ATC*.

- induced circumstances and it will be pilot's responsibility to evaluate whether flight conditions are suitable to complete the approach or flight safety dictates the initiation of a missed approach / go around procedure.

- The limitations above do not supersede any Operators or Aircraft Operations Manual (AOM) limitations if these are more restrictive.

3. Designated VTPH as an alternate aerodrome

It is prohibited to designate VTPH as an alternate aerodrome.

4. 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, or aircraft shall comply with instructions issued by ATC.

5. Authorization for Non-Scheduled Civil Flights with Code B or Larger Aircraft

The operation of all civil flights utilizing aircraft classified as Code B or larger 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 details of the authorization procedure.

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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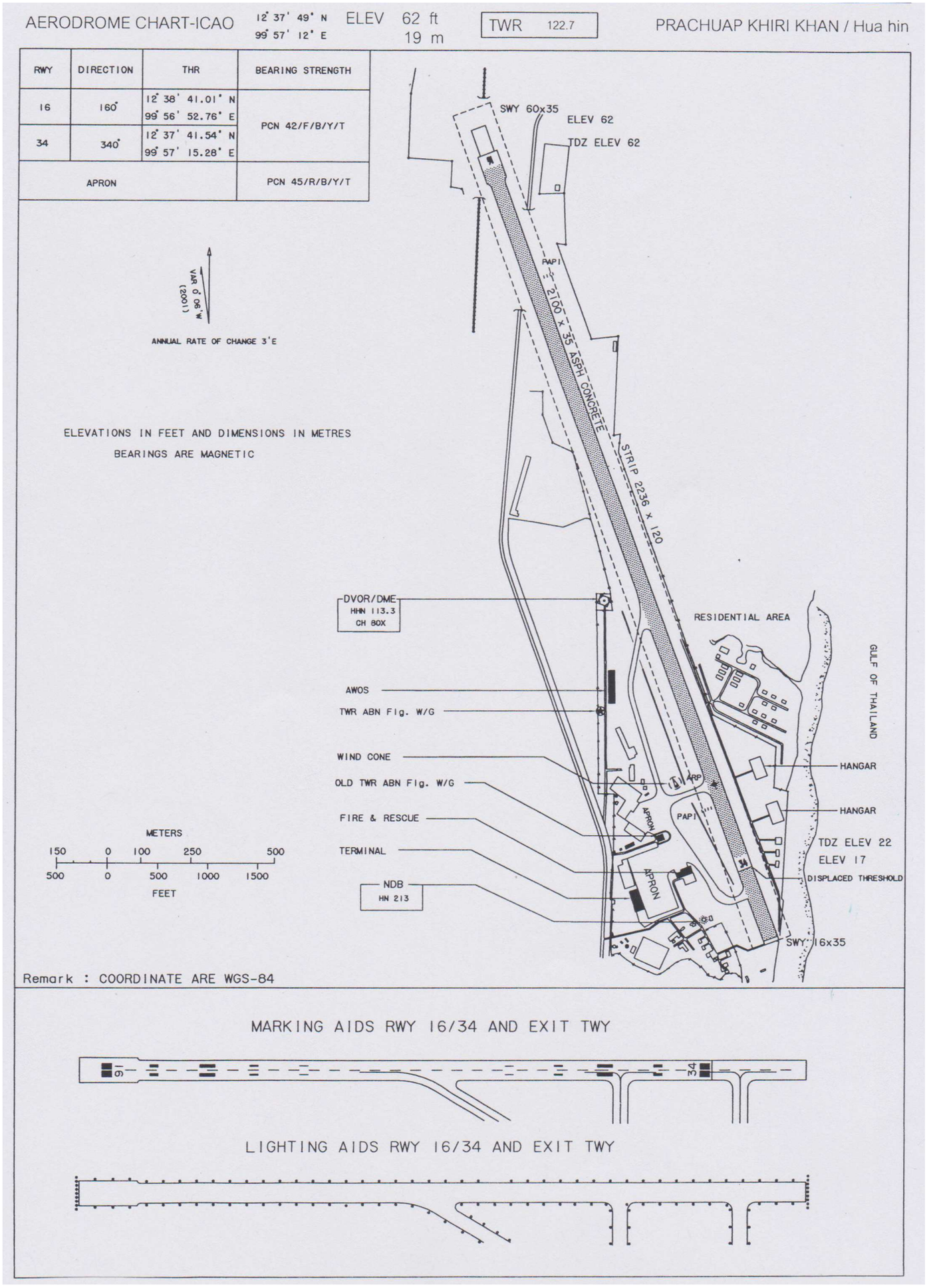
AERODROME CHART-ICAO
12° 37' 49" N
99° 57' 12" E
ELEV 62 ft
19 m
TWR 122.7
PRACHUAP KHIRI KHAN / Hua hin
RWY
DIRECTION
THR
BEARING STRENGTH
16
160°
12° 38' 41.01" N
99° 56' 52.76" E
PCN 42/F/B/Y/T
34
340°
12° 37' 41.54" N
99° 57' 15.28" E
APRON
PCN 45/R/B/Y/T
VAR 0° 06' W (2001)
ANNUAL RATE OF CHANGE 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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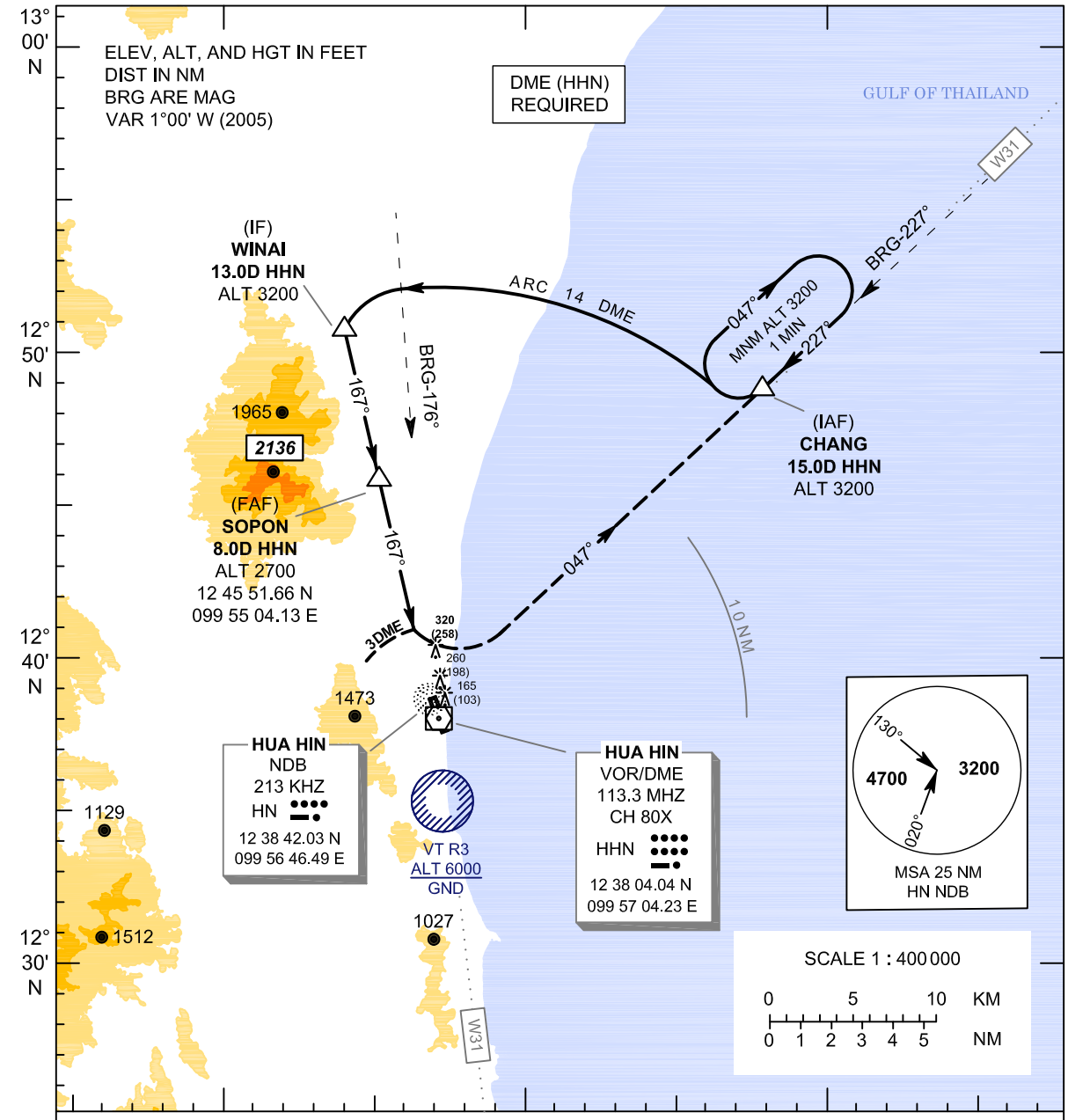
INSTRUMENT APPROACH CHART - ICAO

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	Distance	8 DME	7 DME	6 DME	5 DME	4 DME	3 DME
Straight - in Approach	940 (878)			Altitude (Height)	2700 (2638)	2350 (2288)	2000 (1938)	1650 (1588)	1300 (1238)	940 (878)
				Ground Speed	knot	100	120	140	160	180
Circling	Not Authorized			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: VTR3 BUFFER ZONE REMOVED. VTR3 ALT REVISED.
CONTOUR REVISED. MSA REVISED.

December 2019

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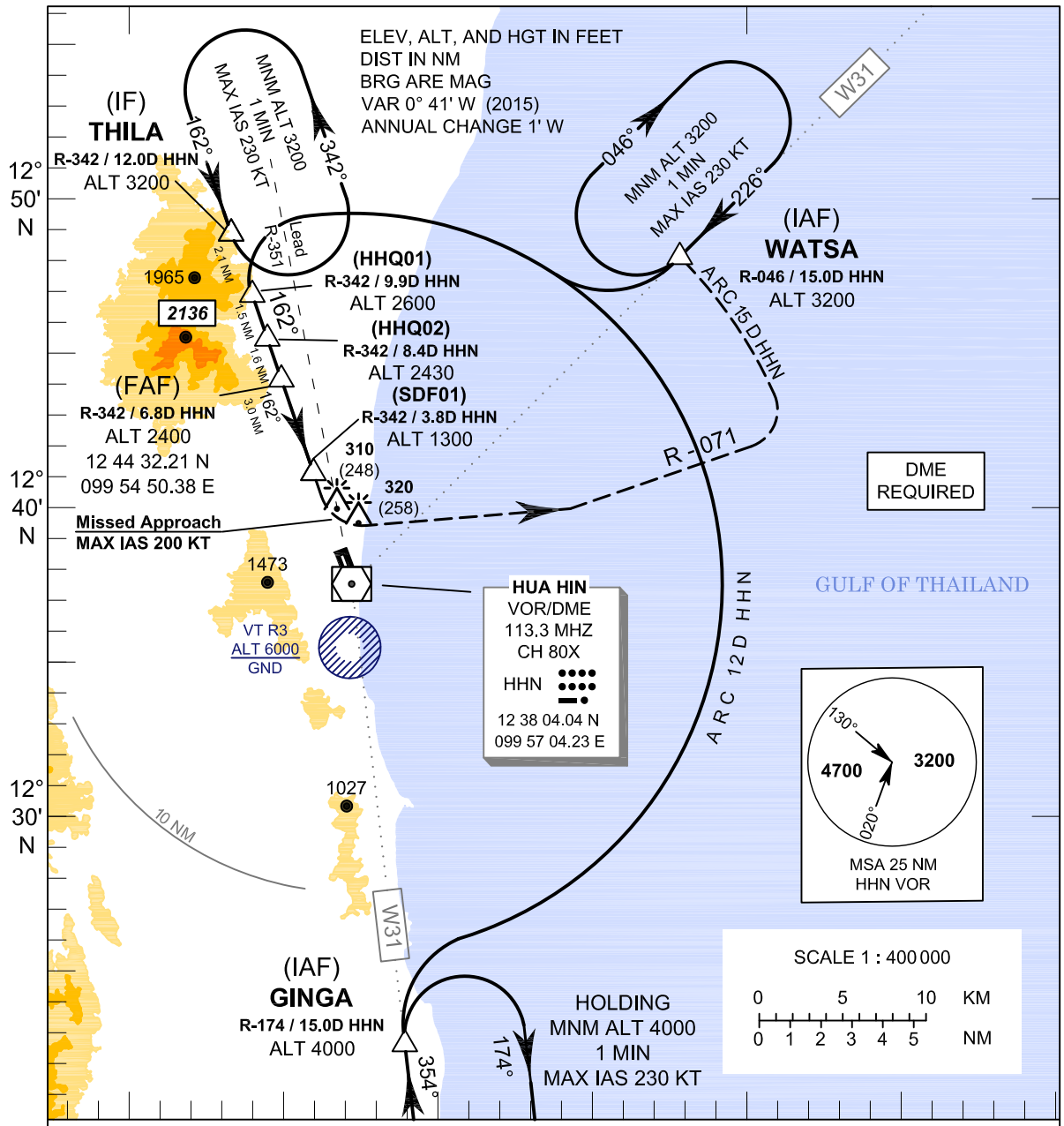
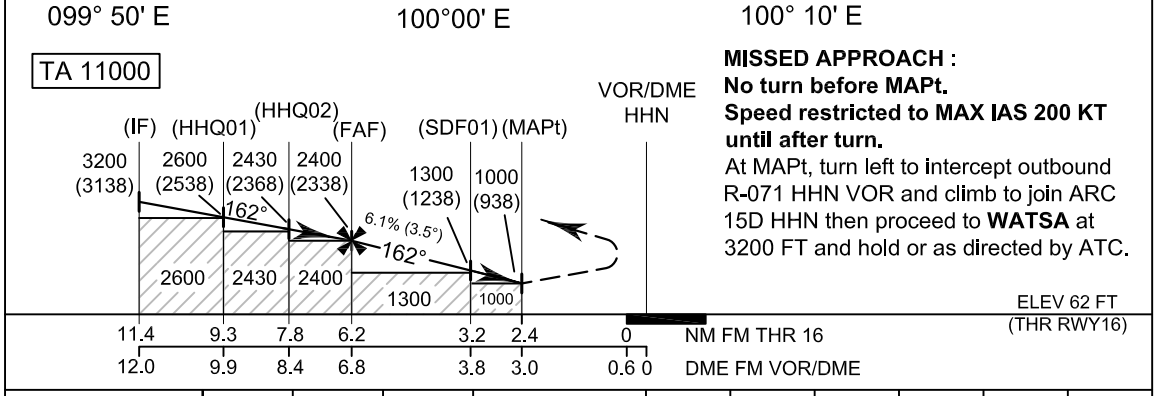
INSTRUMENT APPROACH CHART - ICAO

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: VTR3 BUFFER ZONE REMOVED. VTR3 ALT REVISED.
CONTOUR REVISED. MSA REVISED.

December 2019

**PRACHUAP KHIRIKHAN/
Hua HIn (VTPH)
VOR RWY16**

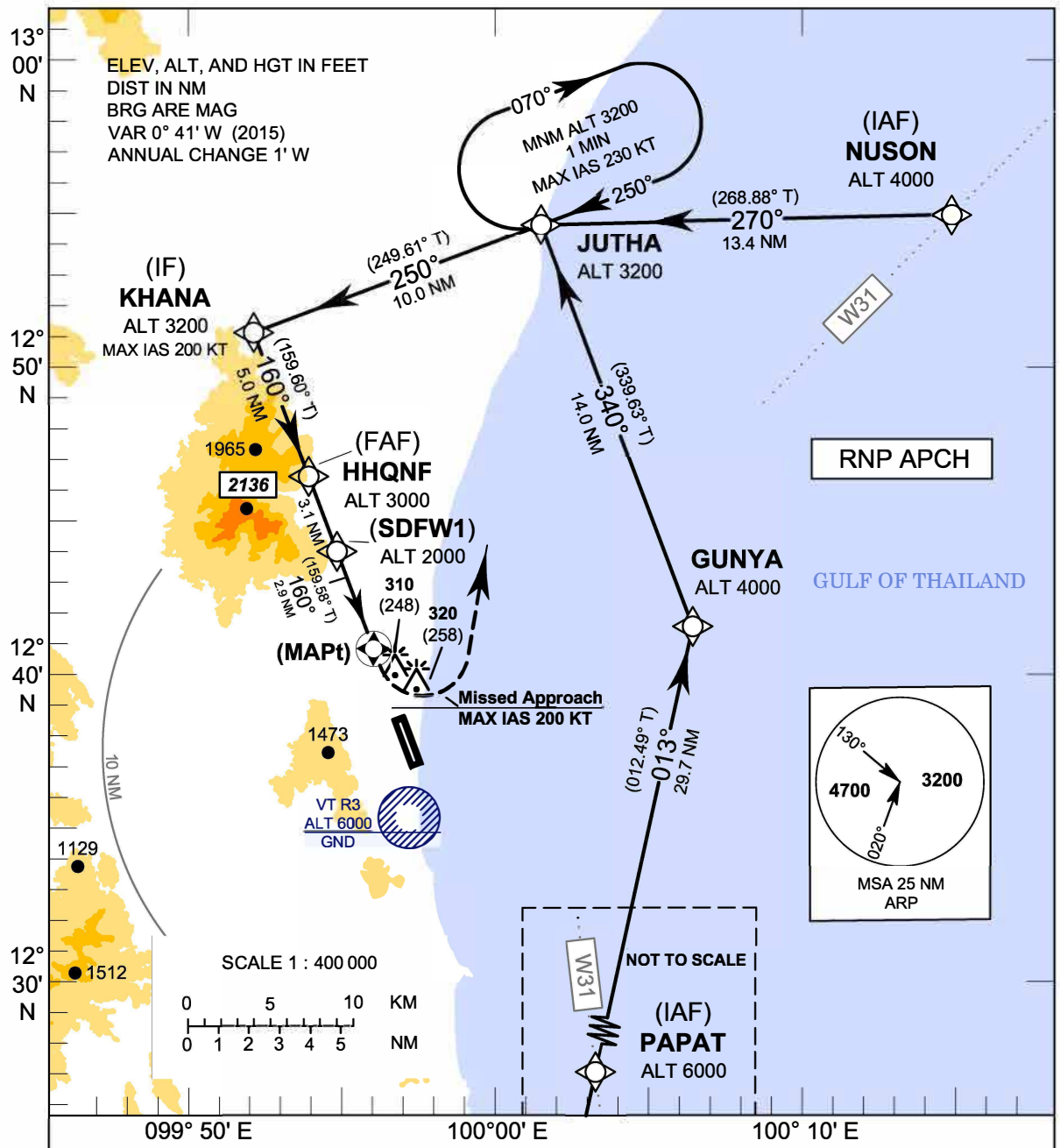
Fix / Point		Coordinates	
(IAF) GINGA	R - 174 / 15.0 D HHN	12 23 05.39 N	099 58 46.55 E
(IAF) WATSA	R - 046 / 15.0 D HHN	12 48 39.73 N	100 07 59.26 E
(IF) THILA	R - 342 / 12.0 D HHN	12 49 29.03 N	099 53 07.95 E
HHQ01	R - 342 / 9.9 D HHN	12 47 29.17 N	099 53 49.32 E
HHQ02	R - 342 / 8.4 D HHN	12 46 03.54 N	099 54 18.87 E
FAF	R - 342 / 6.8 D HHN	12 44 32.21 N	099 54 50.38 E
SDF01	R - 342 / 3.8 D HHN	12 41 40.96 N	099 55 49.45 E
MAPt	R - 342 / 3.0 D HHN	12 40 55.30 N	099 56 05.19 E
VOR	HHN	12 38 04.04 N	099 57 04.23 E

INSTRUMENT APPROACH CHART - ICAO

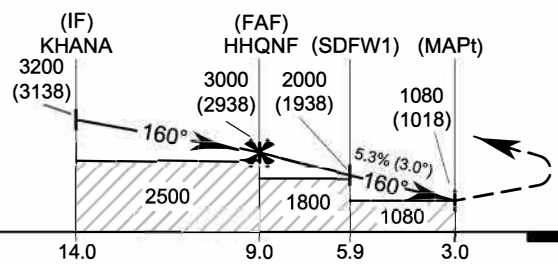
AERODROME ELEV 62 FT
HEIGHTS RELATED TO AERODROME ELEV

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

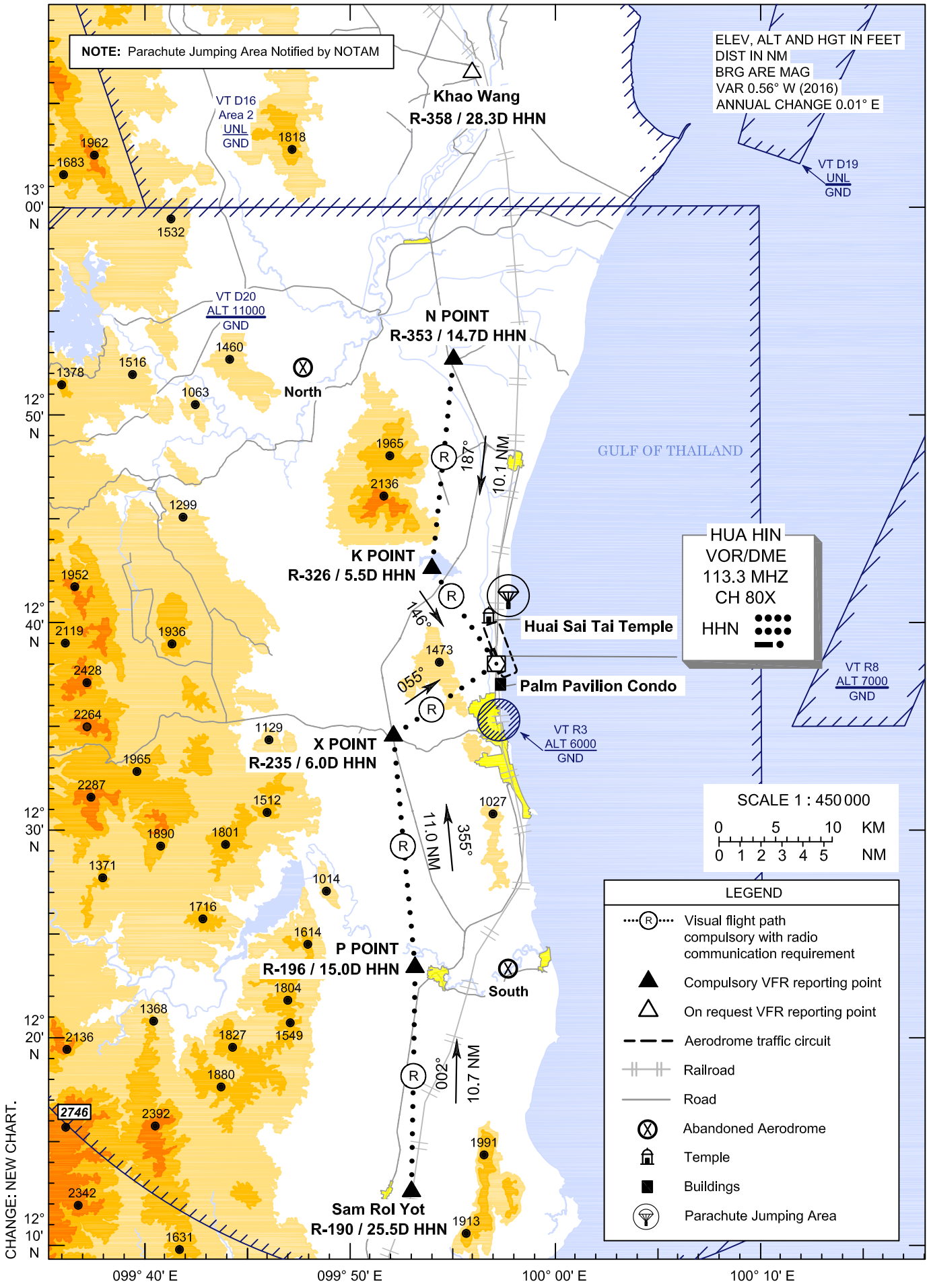
CHANGE : CHART TITLE.

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

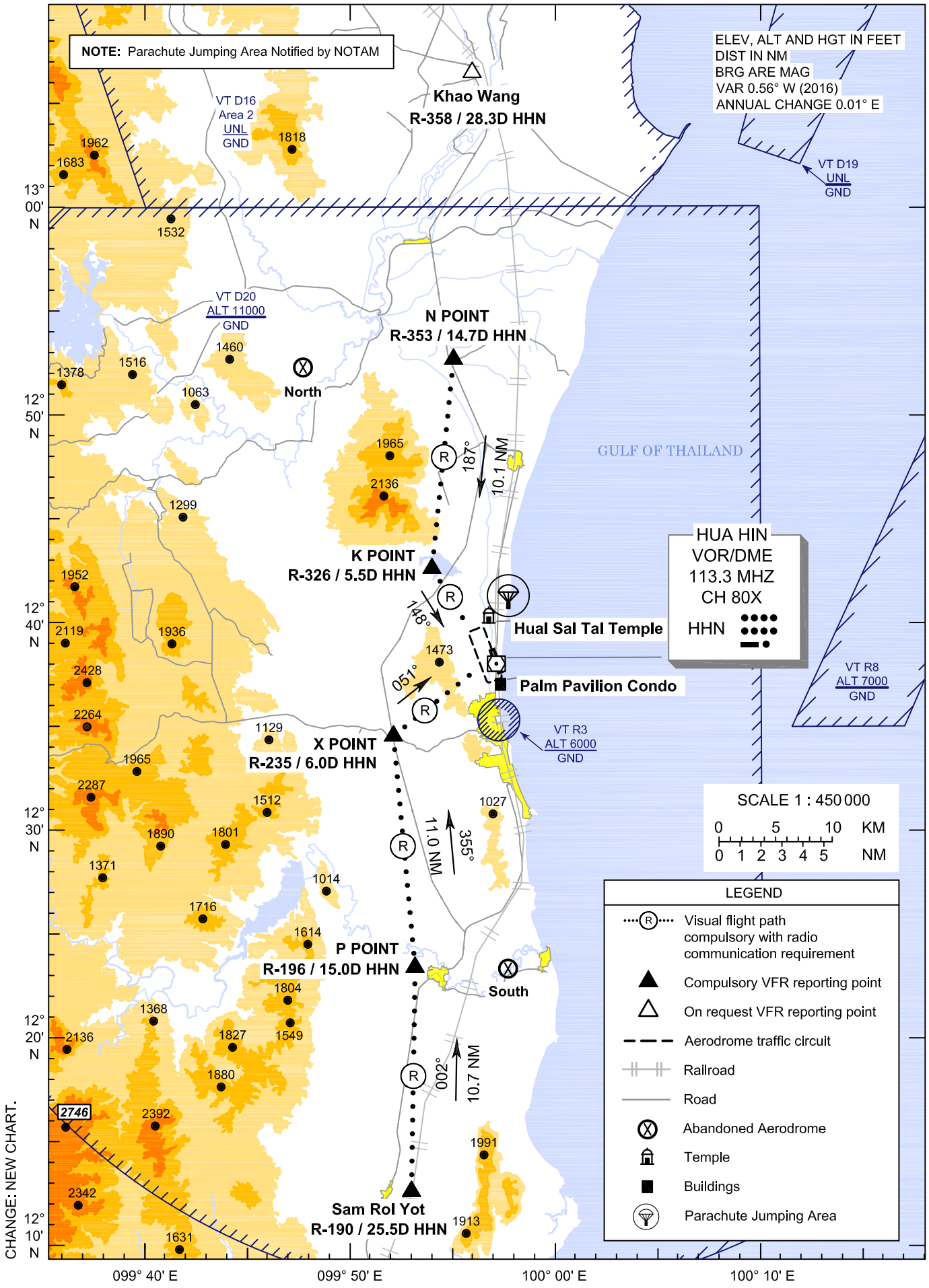
CHANGE: NEW CHART.

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

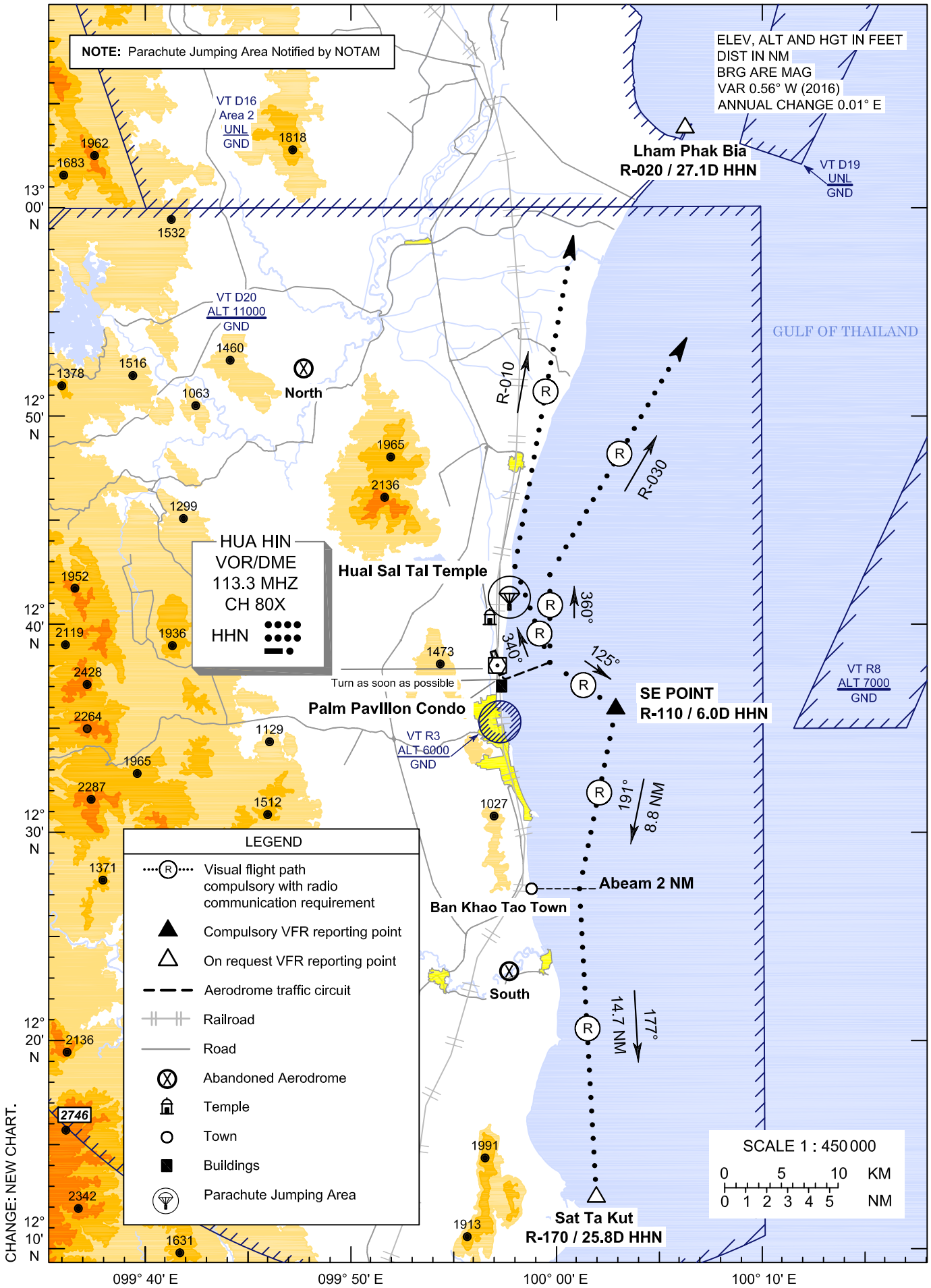
CHANGE: NEW CHART.

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

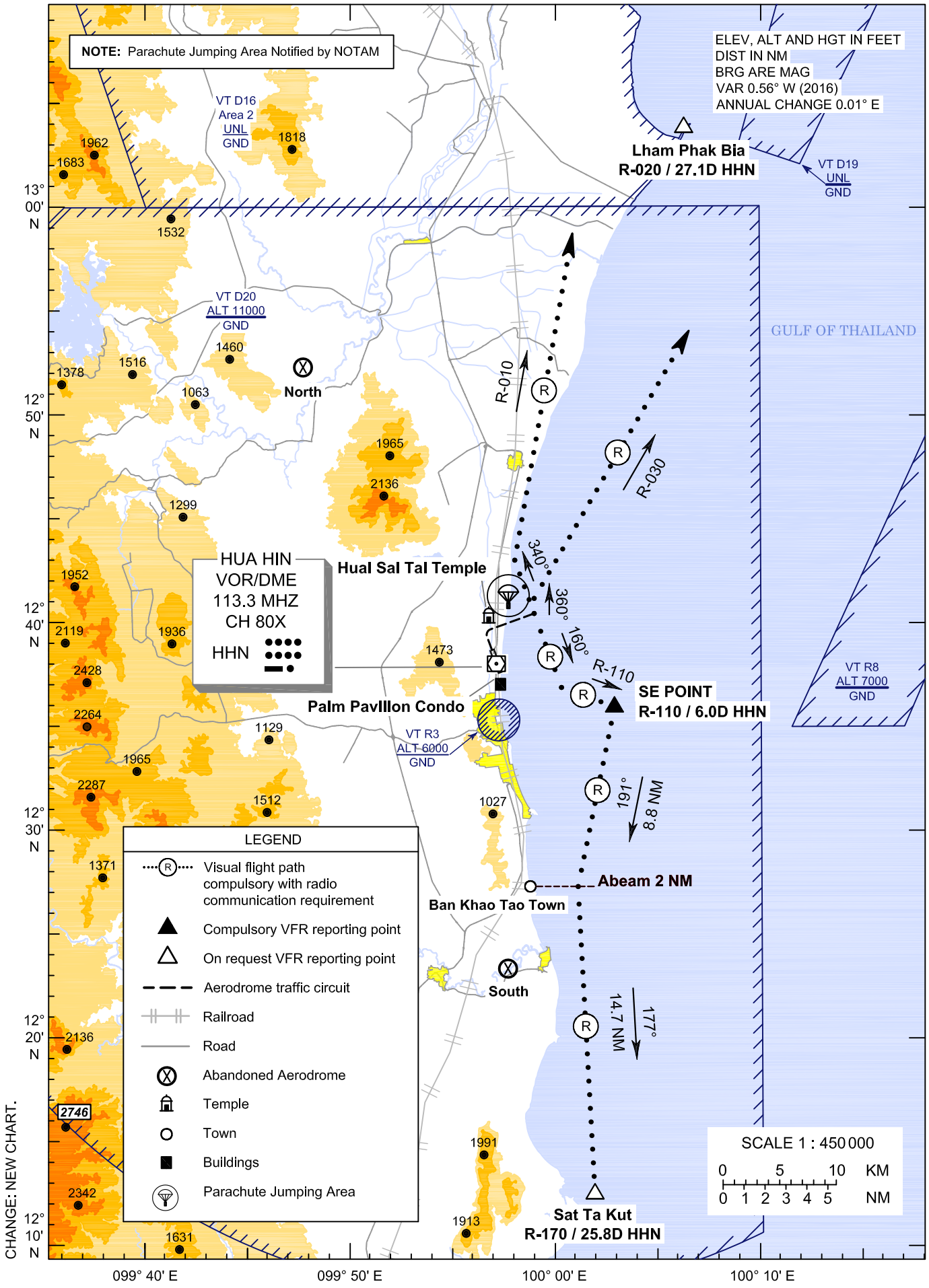
CHANGE: NEW CHART.

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

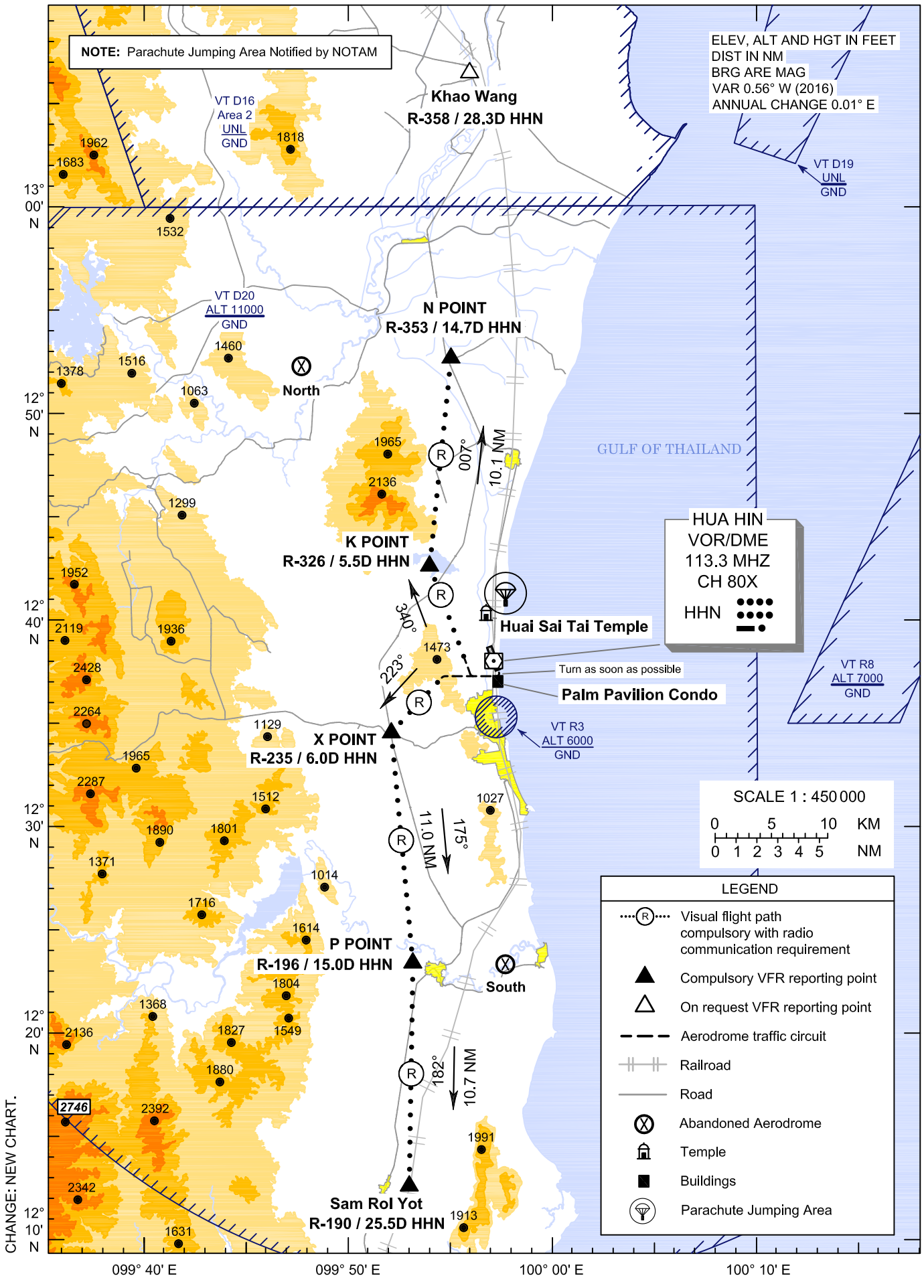
CHANGE: NEW CHART.

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

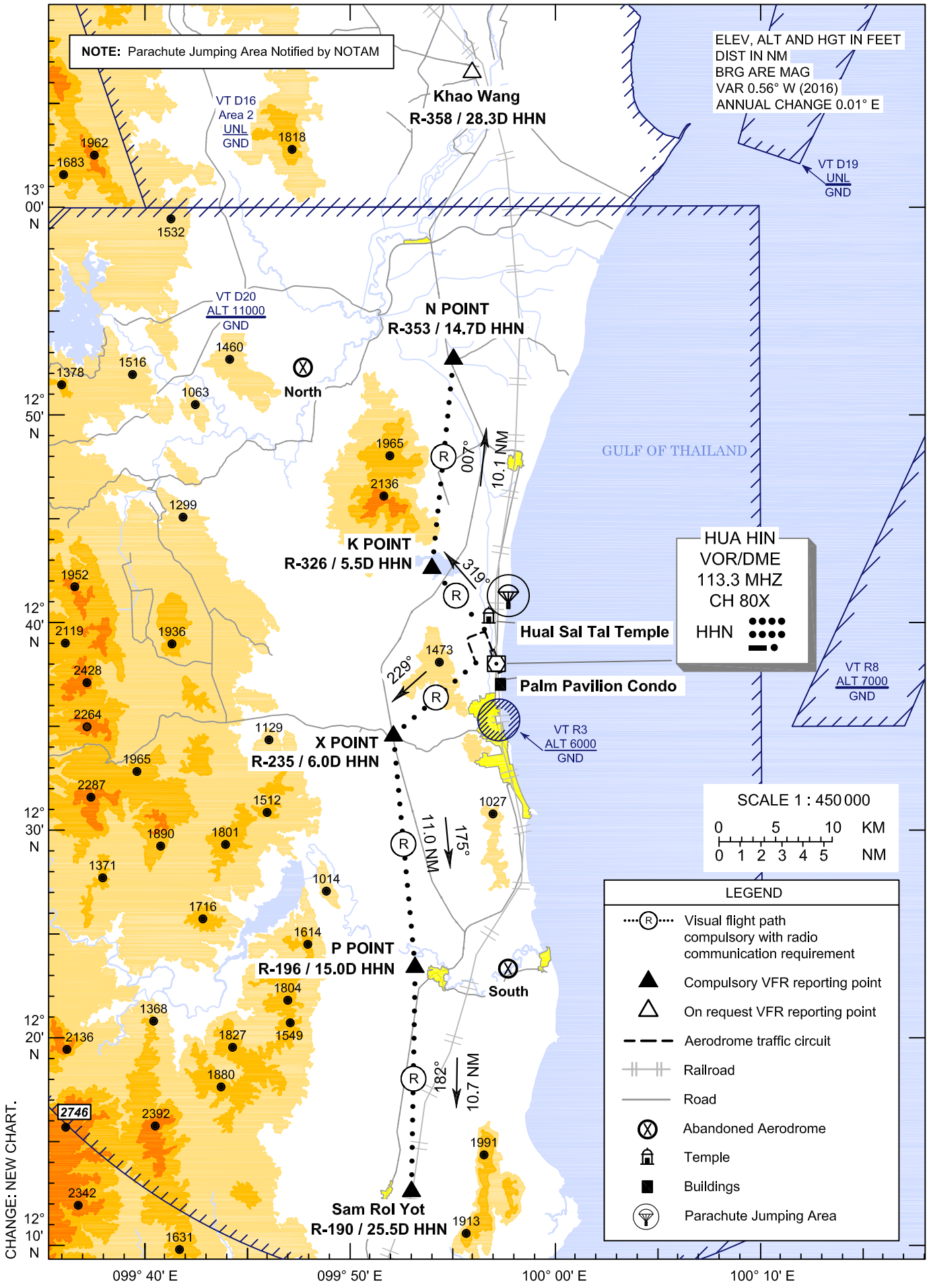
CHANGE: NEW CHART.

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 Ranong Airport Phetchakasem Road Ranong Province 85000 Thailand Tel: +667 782 4581-3 Fax: +667 782 4580 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): Located at Phuket International Airport (3rd floor of domestic terminal building) Tel: +667 632 7205 +669 2262 2141 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 Strength: PCN 41/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt 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, Southern West-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern West-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 782 8458
6	Flight documentation 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 Observation 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 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. Switch over time: 15 SEC.
5	Remarks	NIL

VTSR AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (094643.18N0983502.11E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Ranong Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Ranong Tower	122.25 MHZ 236.6 MHZ 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	094659.91N 0983527.60E		50 NM orbit flown from: – Bearing 020°-040° altitude should not below 5 000FT – Bearing 041°-140° altitude should not below 3 500FT – Bearing 141°-200° altitude should not below 5 500FT – Bearing 201°-019° unable to perform flight inspection due to border limited.
DVOR/DME	RAN	113.4 MHZ CH 81X	H24	094643.18N 0983502.11E		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: 20 NM orbit – Radial 020°-040° altitude should not below 6 000 FT – Radial 041°-060° altitude should not below 12 000 FT – Radial 061°-120° altitude should not below 16 000 FT – Radial 151°-170° altitude should not below 9 000 FT 40 NM orbit – Radial 121°-150° altitude should not below 16 000 FT – Radial 171°-187° altitude should not below 12 000 FT – Radial 188°-230° altitude should not below 7 000 FT – Radial 231°-019° unable to fly due to border limited.
ILS CAT I LOC RWY 02	IRAN	110.5 MHZ	H24	094718.17N 0983524.92E		ILS/DME RWY 02 unusable beyond 5° right of LOC course.
GP/DME		329.6 MHZ CH 42X	H24	094620.14N 0983454.88E		

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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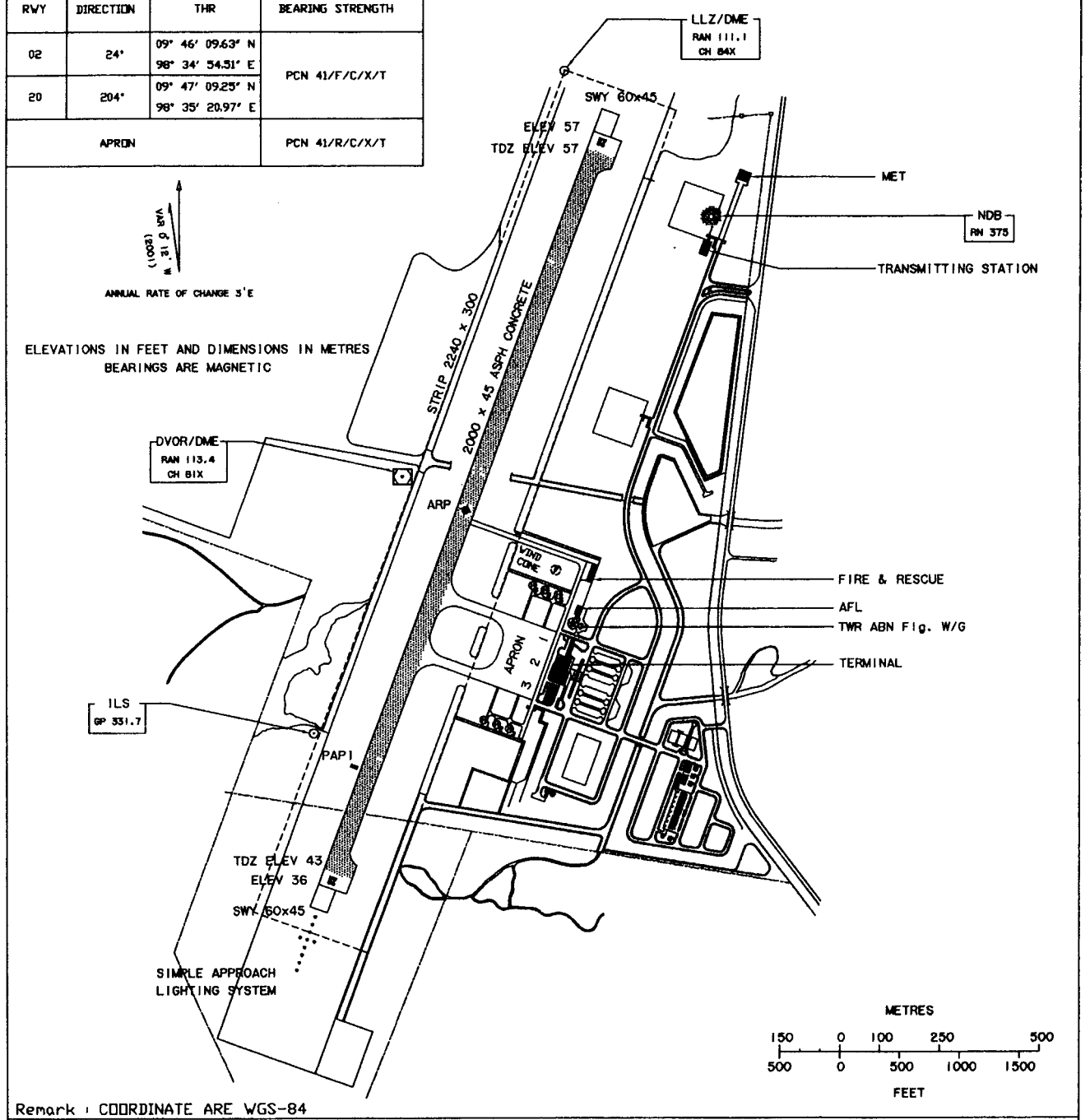
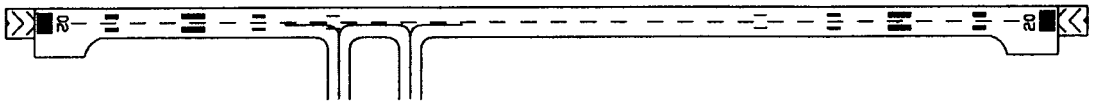
AERODROME CHART-ICAO 09° 46' 39" N 98° 35' 08" E ELEV 57 ft 17 m TWR 122.25 236.6 RANONG/Ranong

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

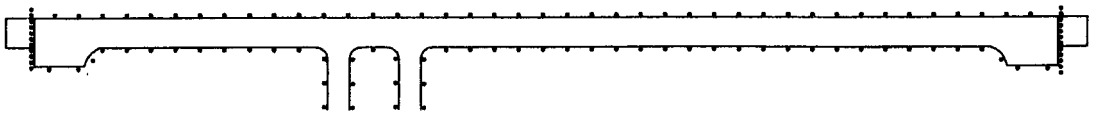


Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 02/20 AND EXIT TWY



LIGHTING AIDS RWY 02/20 AND EXIT TWY



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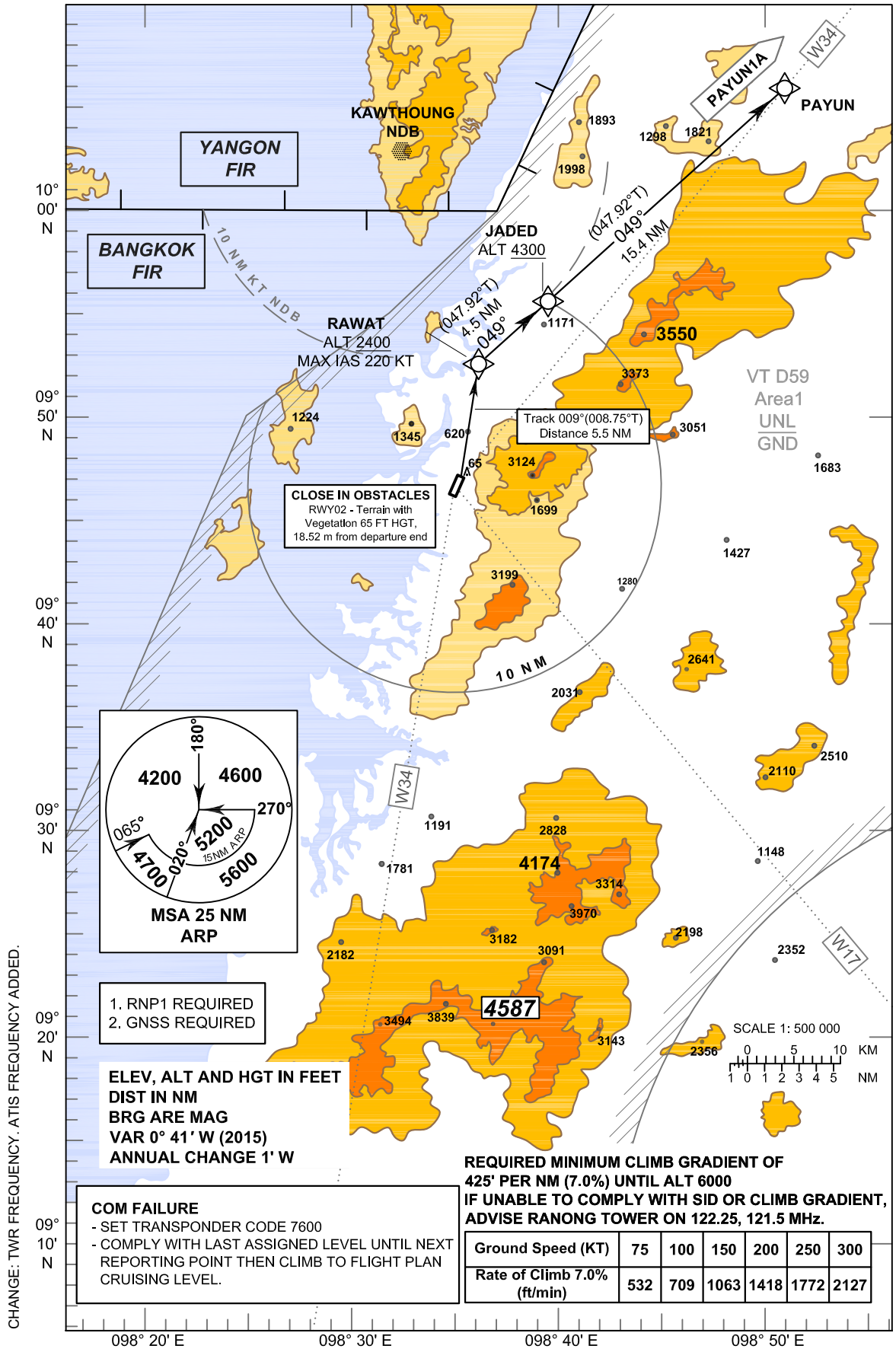
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 11000 FT

APP : 125.1
TWR : 122.25 , 236.6
ATIS : 126.475

RANONG / Ranong (VTSR)
RNAV RWY02

PAYUN1A



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

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.

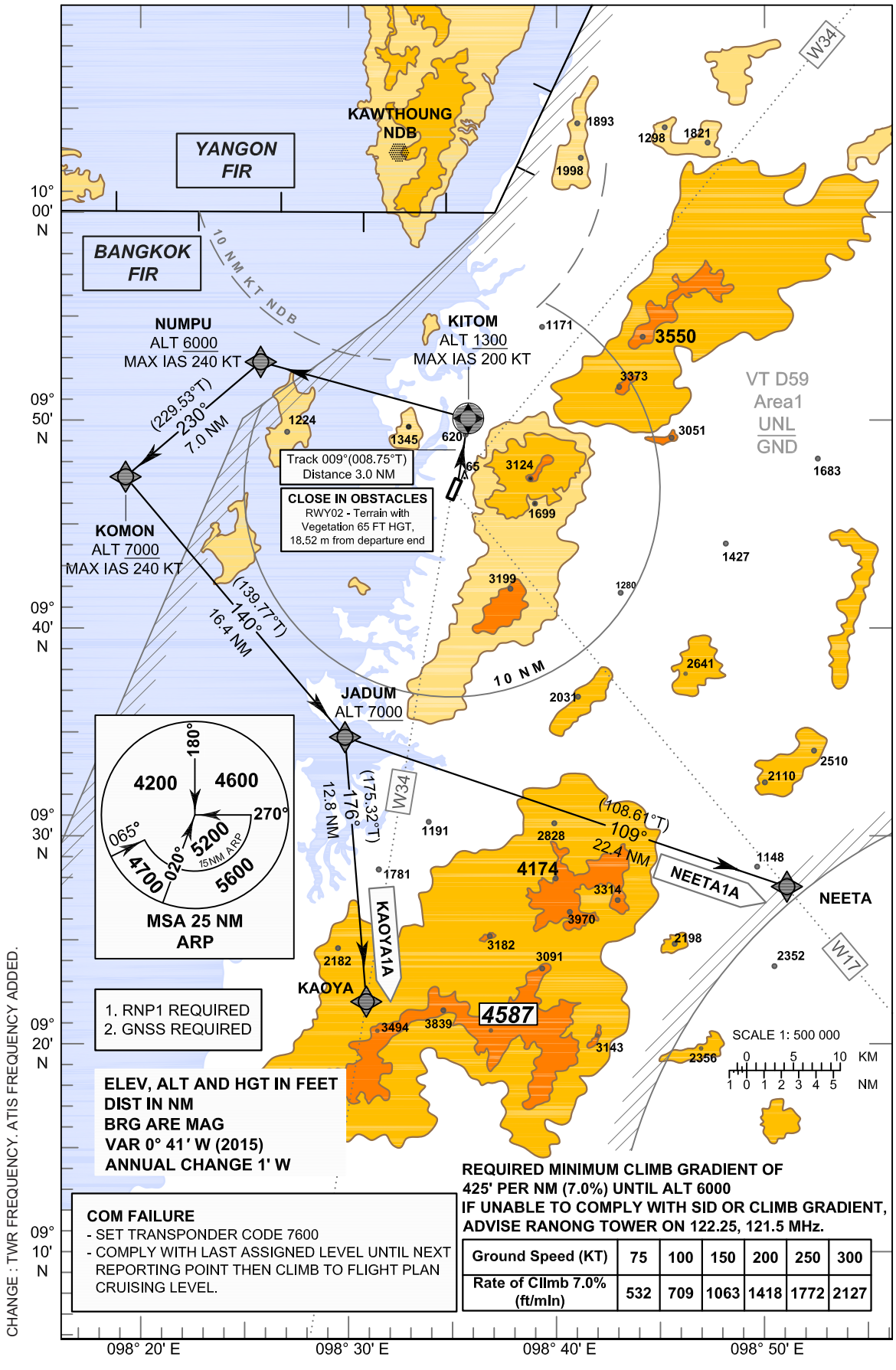
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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.

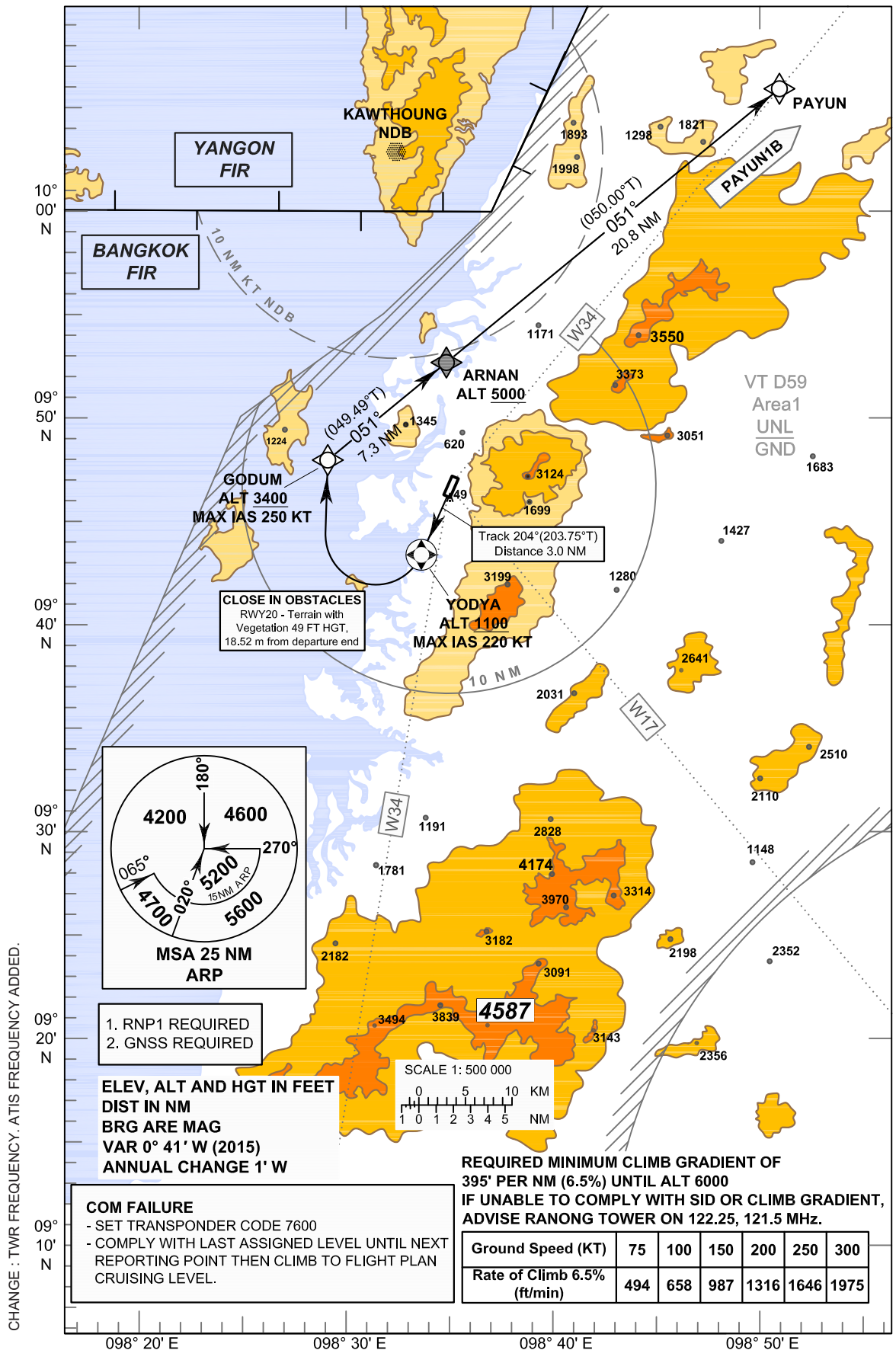
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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.

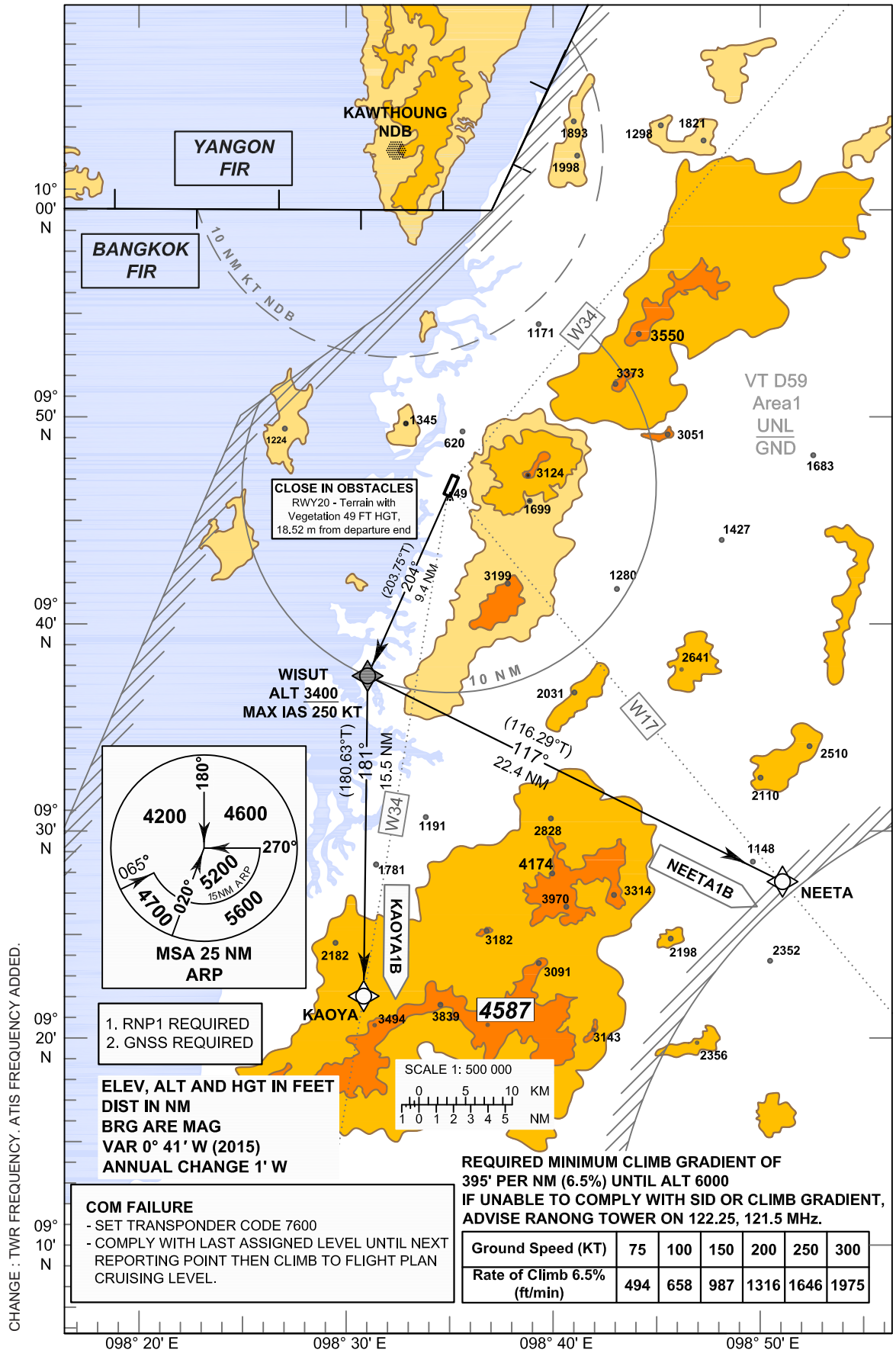
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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

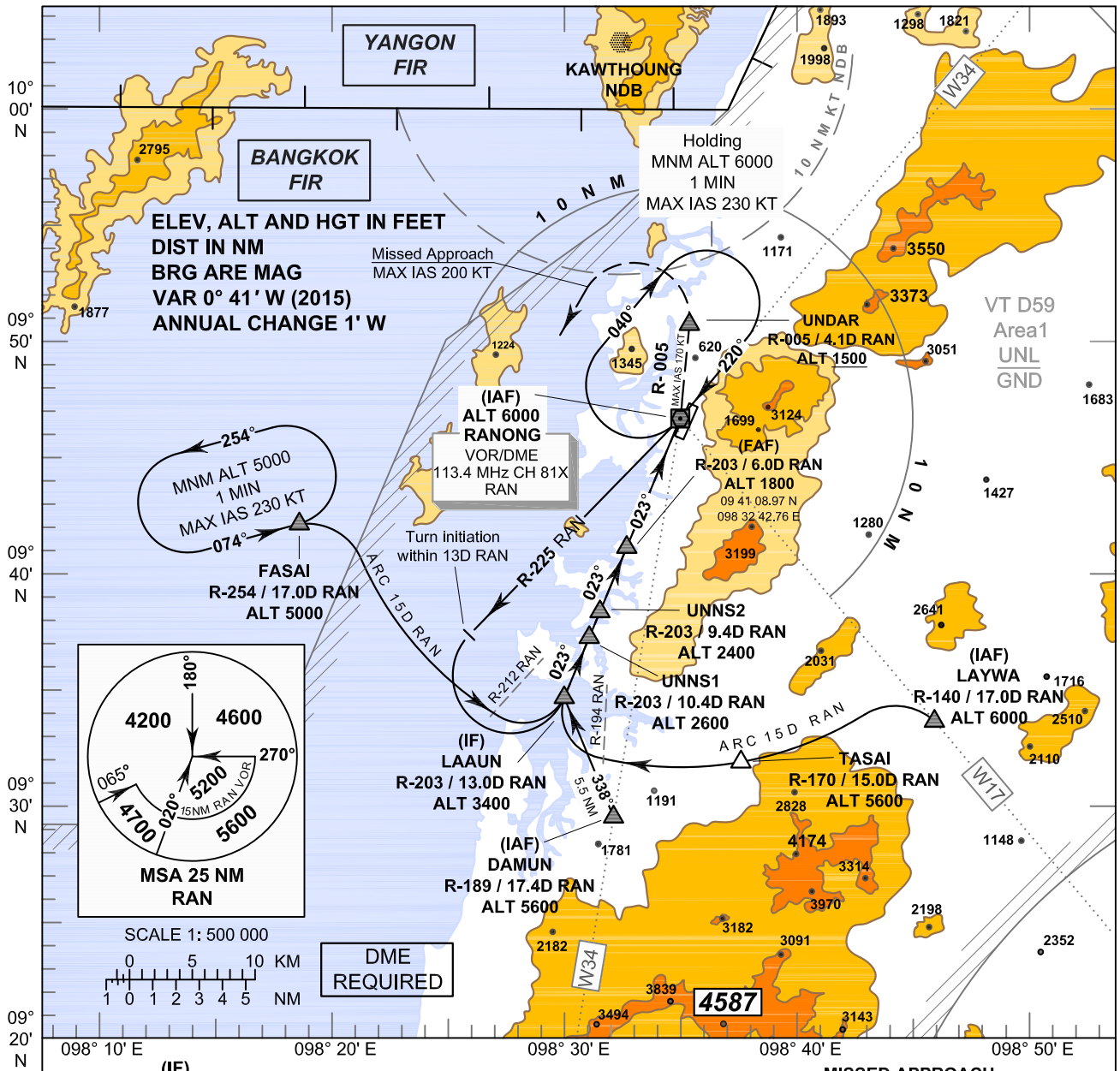
CHANGE : CANCEL FREQUENCY BOX. CANCEL TRANSITION ALTITUDE BOX.

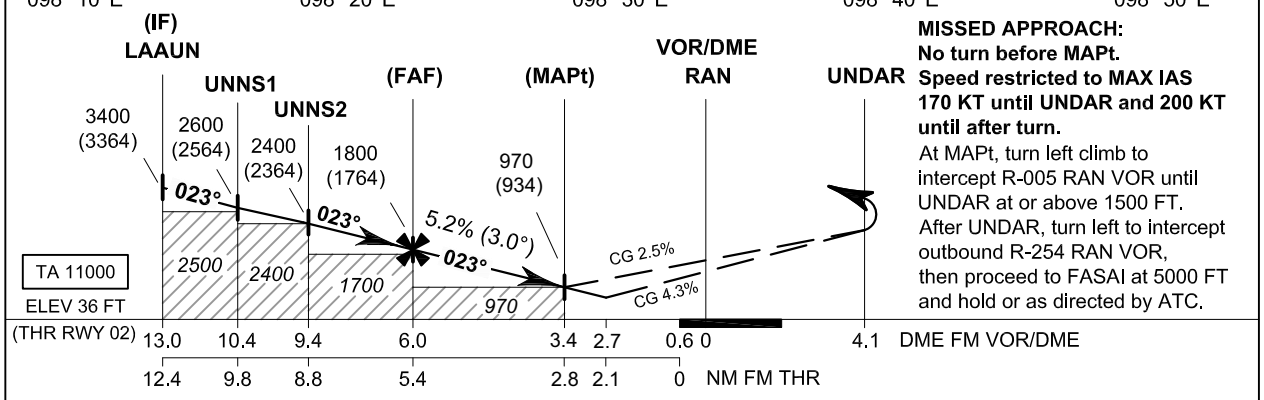
INSTRUMENT APPROACH CHART - ICAO

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-254 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 : OCA.

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-170 / 15.0 D RAN	09 31 52.58 N	098 37 41.43 E
DAMUN (IAF)	R-189 / 17.4 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 43.18 N	098 35 02.11 E
UNDAR	R-005 / 4.1 D RAN	09 50 48.28 N	098 35 19.08 E
FASAI	R-254 / 17.0 D RAN	09 42 08.62 N	098 18 26.53 E

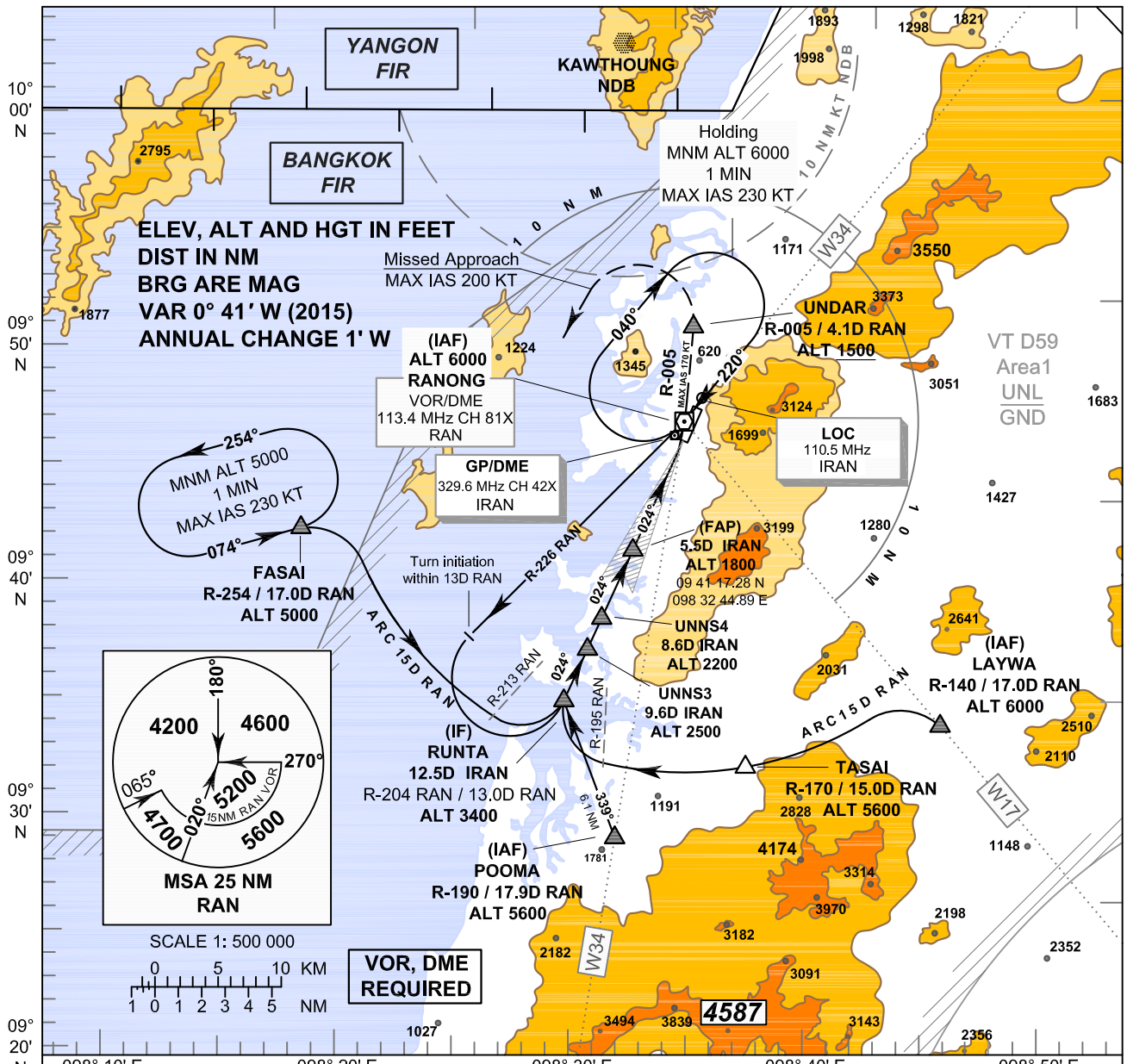
CHANGE : MAPt LOCATIONS.

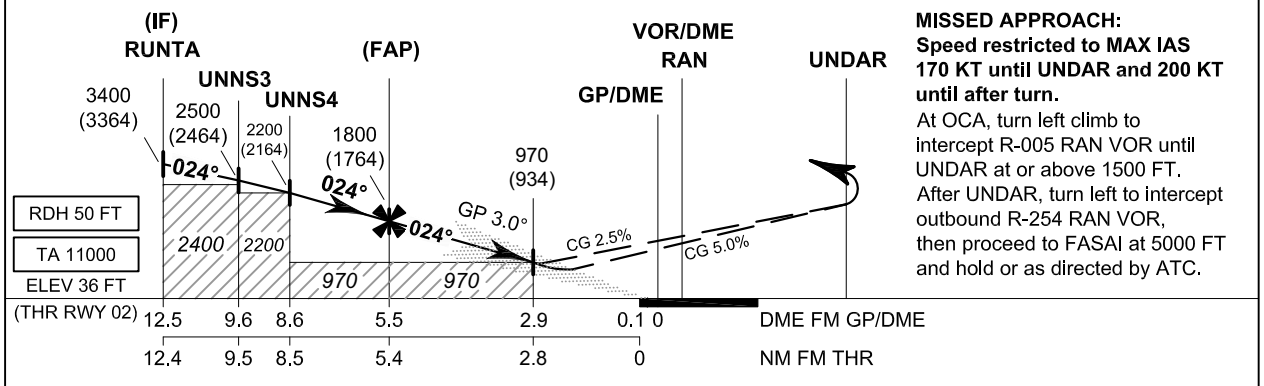
INSTRUMENT APPROACH CHART - ICAO

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)
ILS RWY02





MISSED APPROACH:
Speed restricted to MAX IAS 170 KT until UNDAR and 200 KT until after turn.
At OCA, turn left climb to intercept R-005 RAN VOR until UNDAR at or above 1500 FT.
After UNDAR, turn left to intercept outbound R-254 RAN VOR, then proceed to FASAI at 5000 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	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.

CHANGE : OCA.

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-170 / 15.0 D RAN	09 31 52.58 N	098 37 41.43 E
POOMA (IAF)	R-190 / 17.9 D RAN	09 29 00.78 N	098 32 04.23 E
RUNTA (IF)	12.5 D IRAN	09 34 45.42 N	098 29 51.20 E
UNNS3	9.6 D IRAN	09 37 31.07 N	098 31 04.58 E
UNNS4	8.6 D IRAN	09 38 26.24 N	098 31 29.04 E
FAP	5.5 D IRAN	09 41 17.28 N	098 32 44.89 E
THR RWY 02	-	09 46 09.60 N	098 34 54.54 E
GP / DME	IRAN	09 46 20.14 N	098 34 54.88 E
VOR (IAF)	RAN	09 46 43.18 N	098 35 02.11 E
LOC	IRAN	09 47 18.17 N	098 35 24.92 E
UNDAR	R-005 / 4.1 D RAN	09 50 48.28 N	098 35 19.08 E
FASAI	R-254 / 17.0 D RAN	09 42 08.62 N	098 18 26.53 E

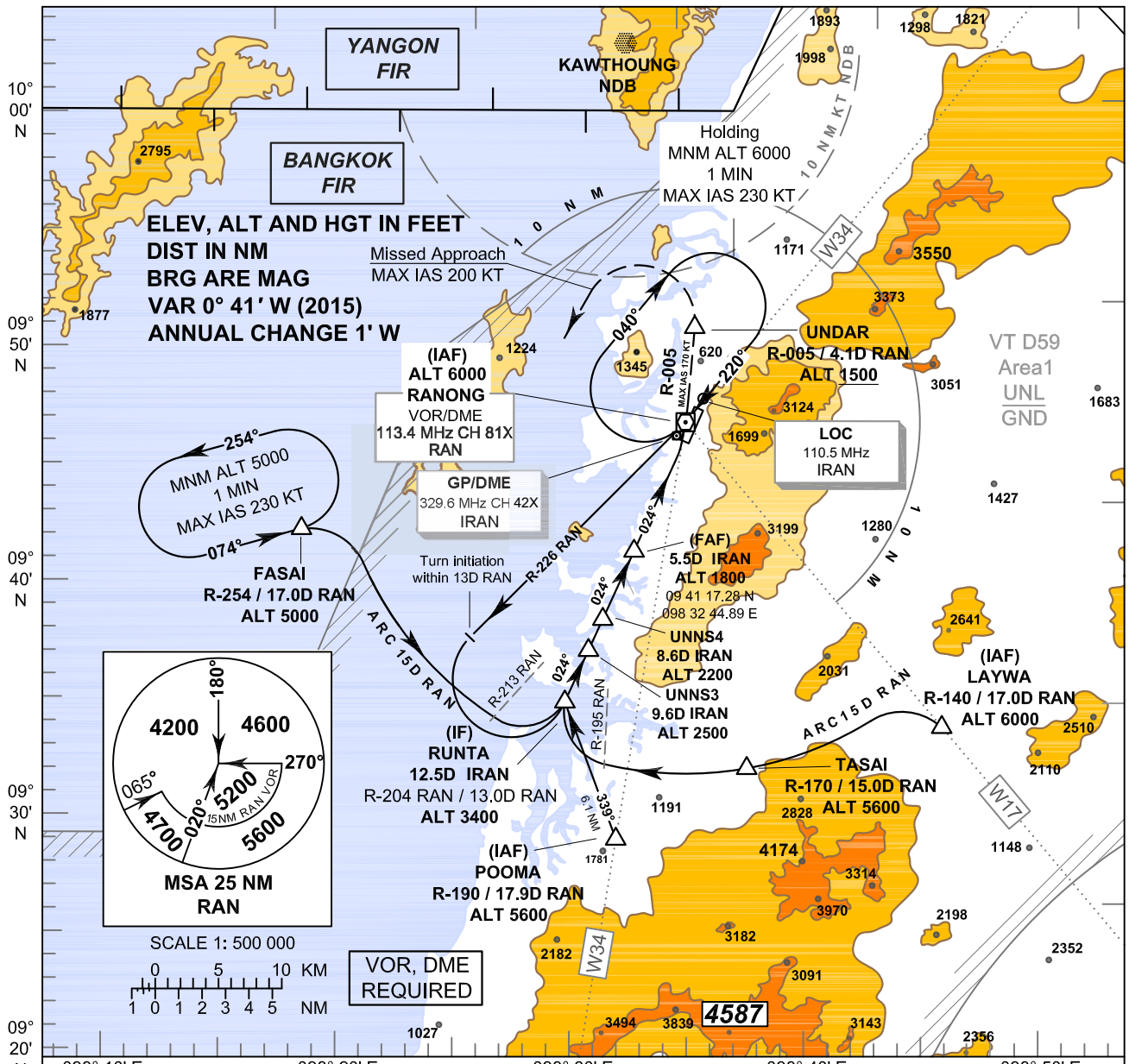
CHANGE: GP/DME ID AND LOCATION. LOC ID AND LOCATION.
CANCEL FREQUENCY BOX.

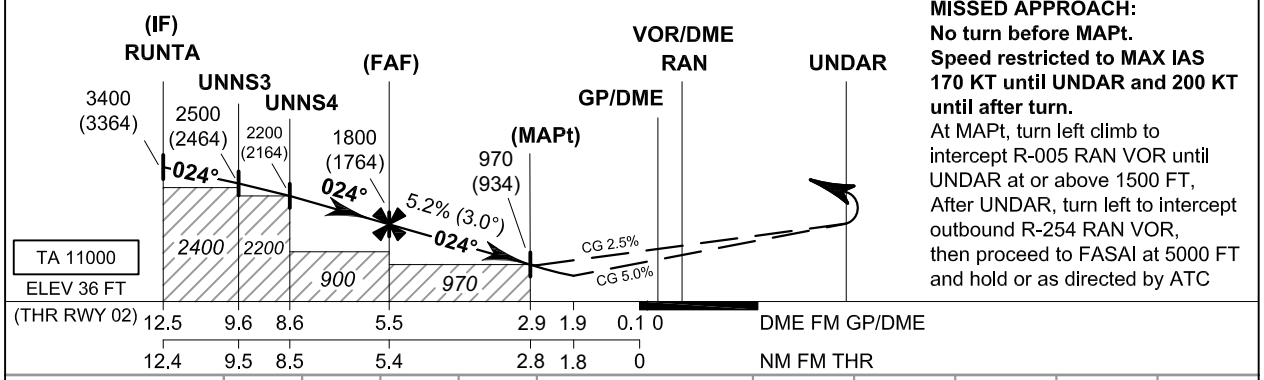
INSTRUMENT APPROACH CHART - ICAO

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)
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-254 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	2.9 D
Straight - in Approach	970 (934)				Altitude (Height)	1800 (1764)	1635 (1599)	1320 (1284)	1000 (964)	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 : OCA.

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-170 / 15.0 D RAN	09 31 52.58 N	098 37 41.43 E
POOMA (IAF)	R-190 / 17.9 D RAN	09 29 00.78 N	098 32 04.23 E
RUNTA (IF)	12.5 D IRAN	09 34 45.42 N	098 29 51.20 E
UNNS3	9.6 D IRAN	09 37 31.07 N	098 31 04.58 E
UNNS4	8.6 D IRAN	09 38 26.24 N	098 31 29.04 E
(FAF)	5.5 D IRAN	09 41 17.28 N	098 32 44.89 E
MAPt (CG 2.5%)	2.9 D IRAN	09 43 38.60 N	098 33 47.53 E
MAPt (CG 5.0%)	1.9 D IRAN	09 44 33.80 N	098 34 12.01 E
THR RWY 02	-	09 46 09.60 N	098 34 54.54 E
GP / DME	IRAN	09 46 20.14 N	098 34 54.88 E
VOR (IAF)	RAN	09 46 43.18 N	098 35 02.11 E
LOC	IRAN	09 47 18.17 N	098 35 24.92 E
UNDAR	R-005 / 4.1 D RAN	09 50 48.28 N	098 35 19.08 E
FASAI	R-254 / 17.0 D RAN	09 42 08.62 N	098 18 26.53 E

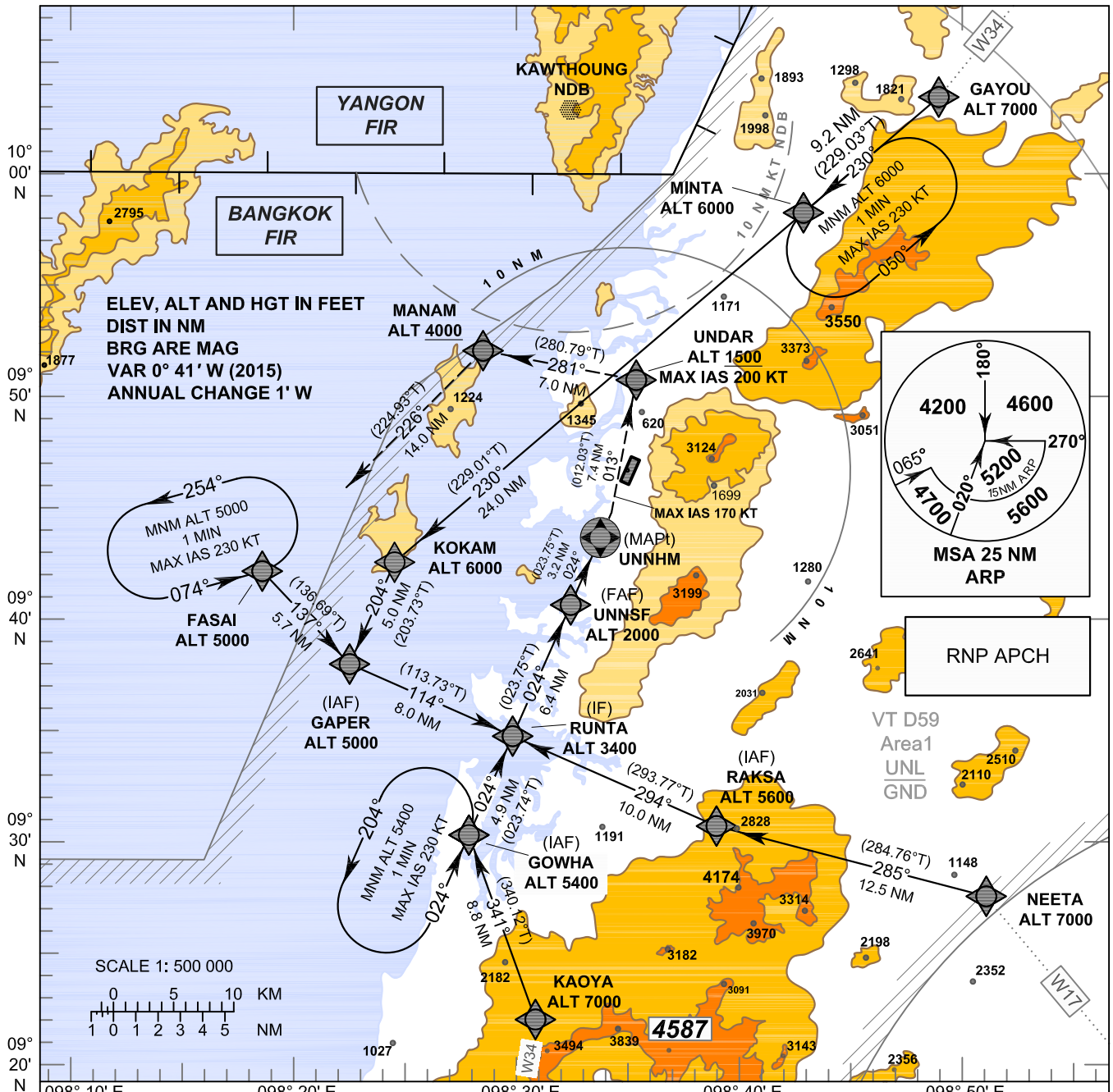
CHANGE: MAPt LOCATIONS.

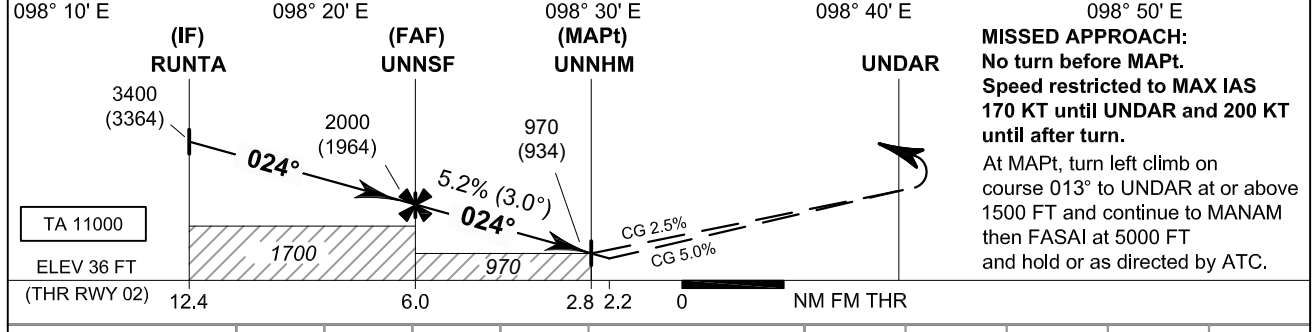
INSTRUMENT APPROACH CHART - ICAO

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 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 Roi Et Airport, Roi Et-Phonthong Road, Nongphok, Thawatburi, Roi Et, 45170 Thailand Tel: +664 351 8246-8 Fax: +664 351 8253 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): Located at Ubon Ratchathani Air Traffic Control Centre (1st floor of tower building) Tel: +664 525 6407, +668 9488 2157 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 Strength: PCN 45/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt 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, Lower Northeastern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1400 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Lower Northeastern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 351 9886 ext. 7408
6	Flight documentation 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 Observation 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 Concrete and asphalt	160734.53N 1034627.20E	THR451 FT TDZ 451 FT
36	002.69°	2100x45	PCN 42/F/D/X/T Concrete and asphalt	160626.14N 1034624.15E	THR451 FT 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 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). Switch-over time: 15 SEC
5	Remarks	NIL

VTUV AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (160700.59N 1034619.45E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Roi Et Tower 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 121.5 MHZ 1)	As AD OPR HR	1)Emergency frequency
TWR	Roi Et Tower	119.75 MHZ 236.6 MHZ 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	160638.46N 1034641.60E		Coverage orbit data refer from commissioning checked as follows: 50 NM clockwise orbit result found satisfactory. – Bearing 341°-030° at altitude 3 000 FT – Bearing 031°-060° at altitude 3 000 FT – Bearing 061°-340° at altitude 2 000 FT
DVOR/DME	ROT	111.2 MHZ CH 49X	H24	160700.59N 1034619.45E		Coverage orbit data refer from commissioning checked as follows: – 40 NM clockwise orbit flown from radial 001°-360° altitude should not below 2 000 FT – Airway W5 flown to 40 NM at 2 000 FT was checked and found satisfactory
LOC RWY36 ILS CAT I	IROT	109.5 MHZ	H24	160744.28N 1034627.64E		LOC: Designated operation coverage 18 NM, ALT 6700 FT AMSL
GP		332.6 MHZ	H24	160635.76N 1034620.54E		GP: 3 GEG, RDH 50 FT
DME	IROT	CH 32X (109.5 MHZ)	H24	160744.36N 1034625.22E	448FT	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

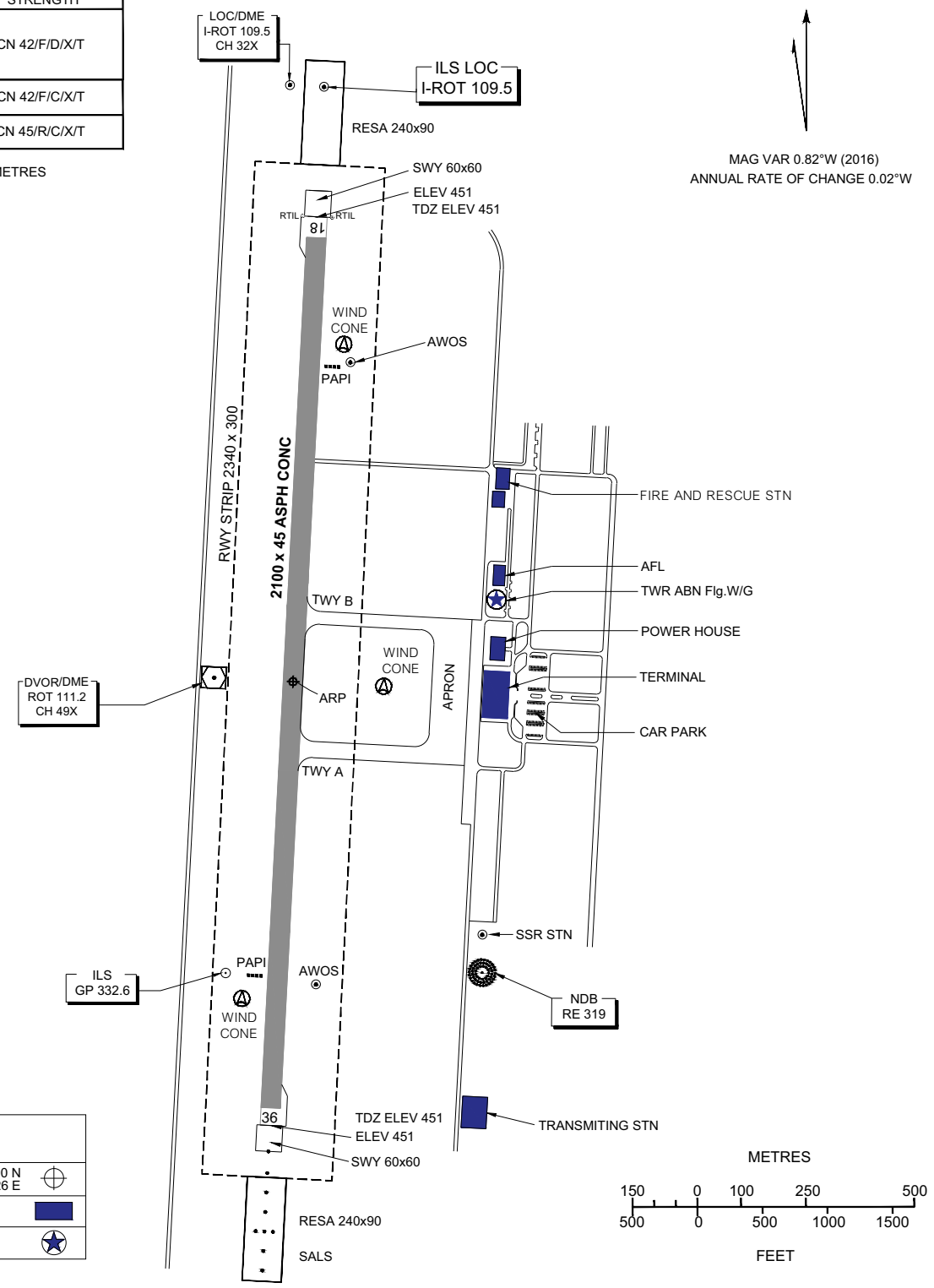
ELEV 451 FT

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

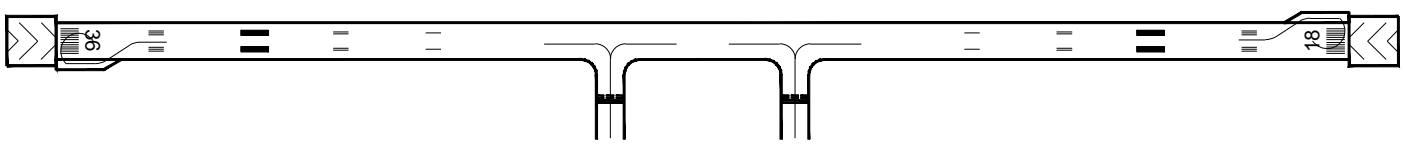
ELEVATIONS IN FEET AND DIMENSIONS IN METRES



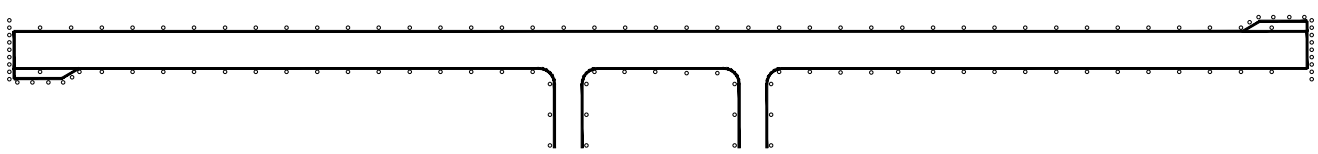
LEGEND	
AERODROME REFERENCE POINT	16 07 00 N 103 46 26 E
BUILDINGS	
TWR ABN Flg. W/G	

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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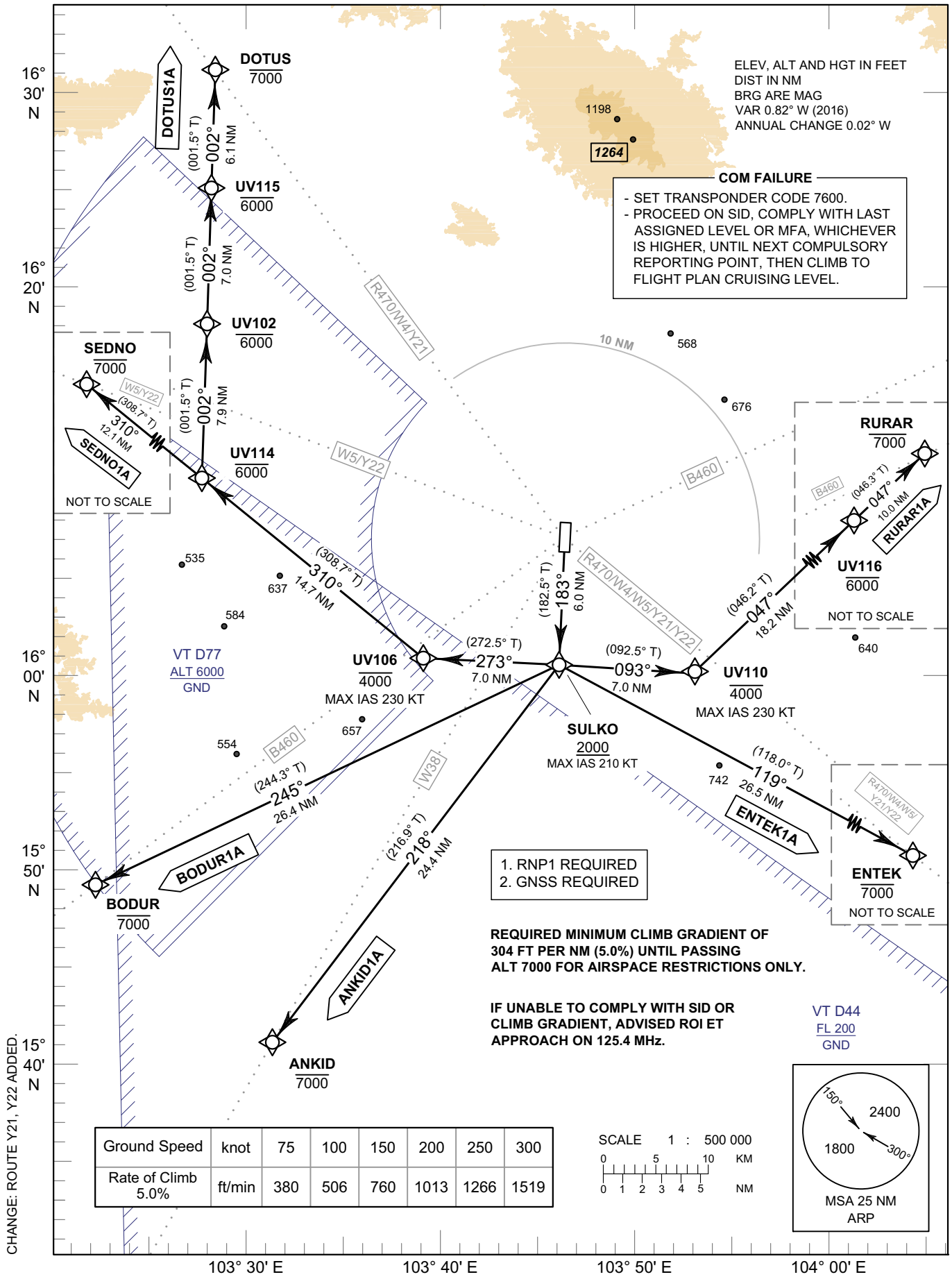
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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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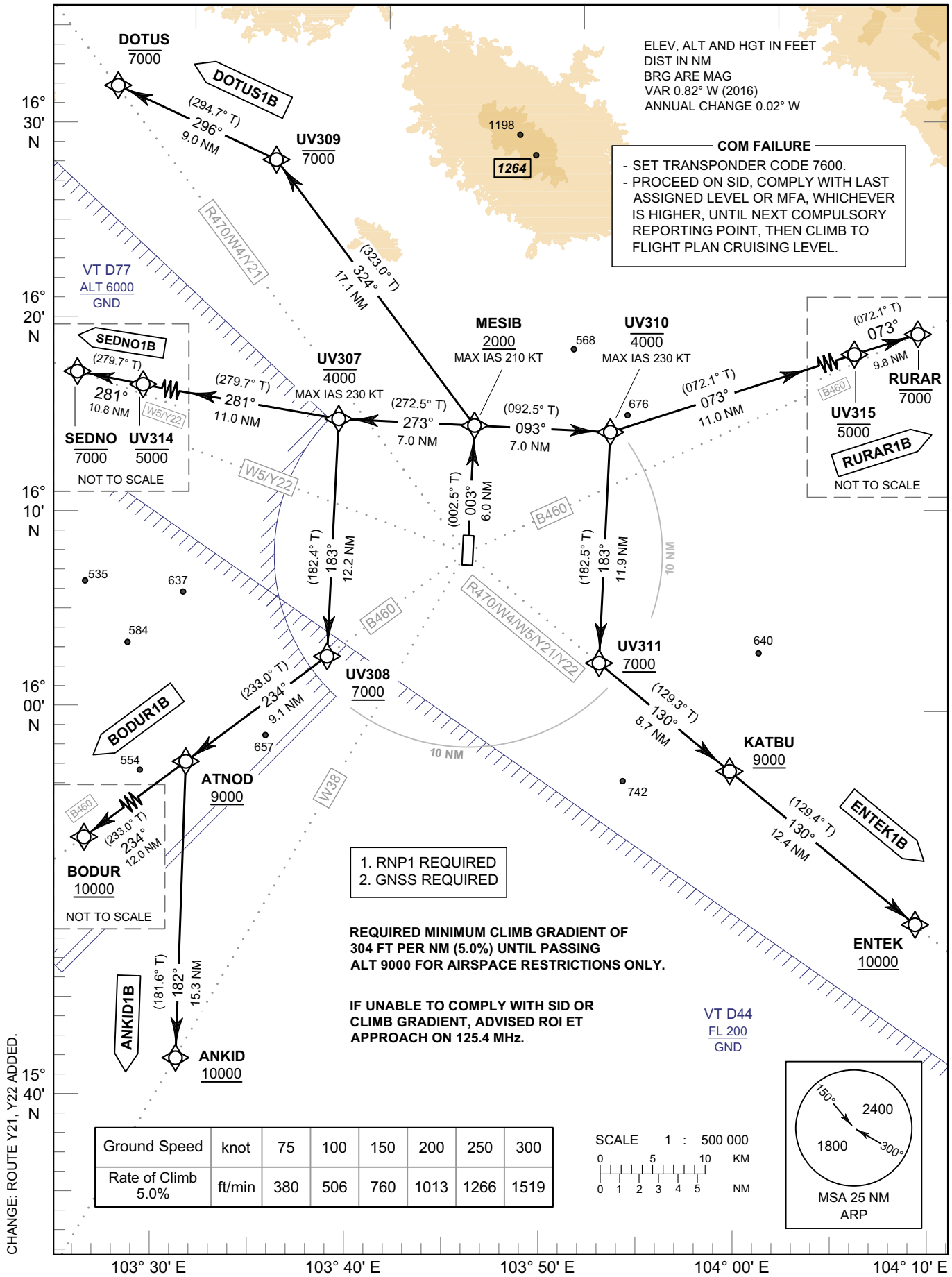
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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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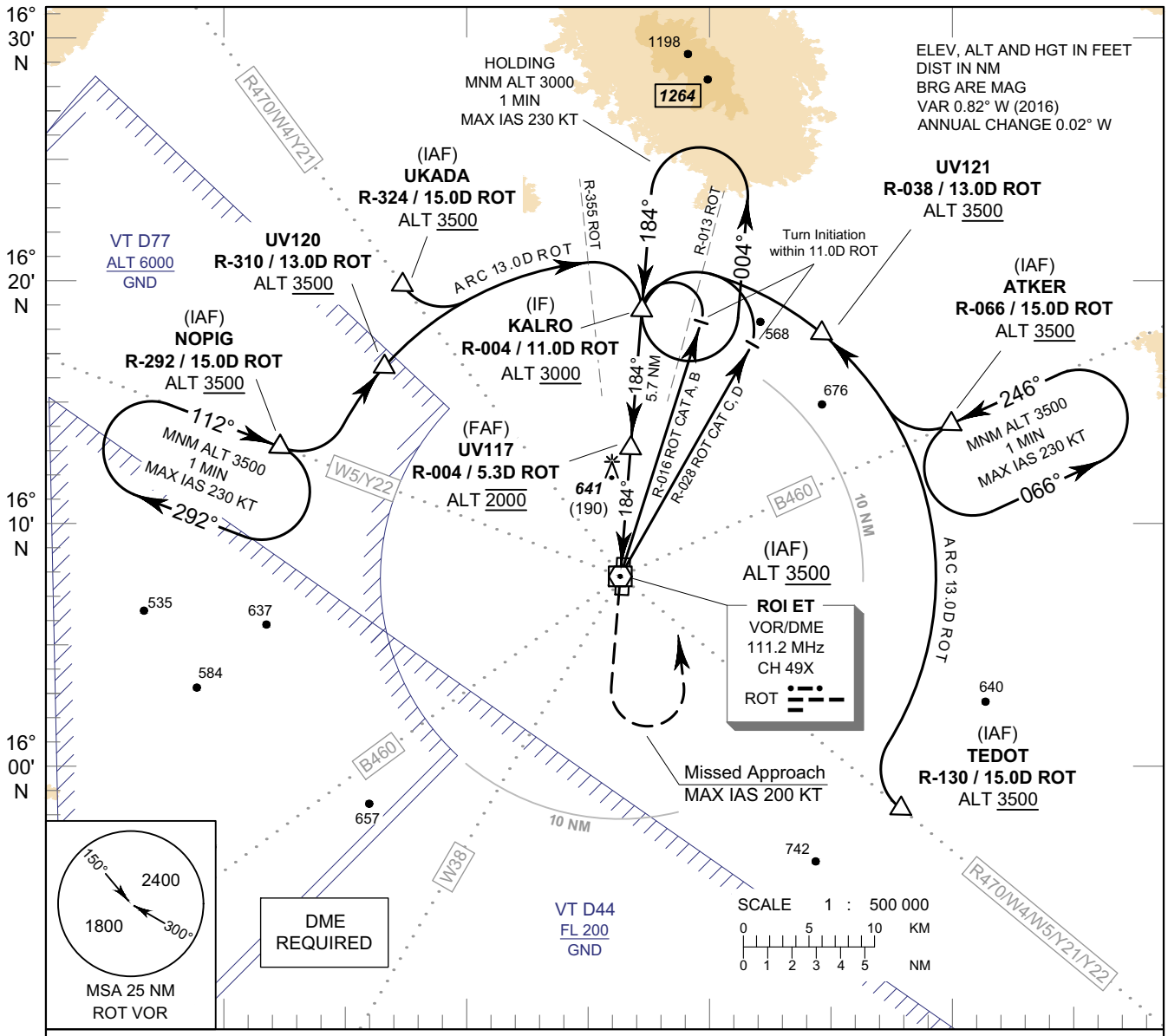
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 451 FT
HEIGHTS RELATED TO AERODROME ELEV

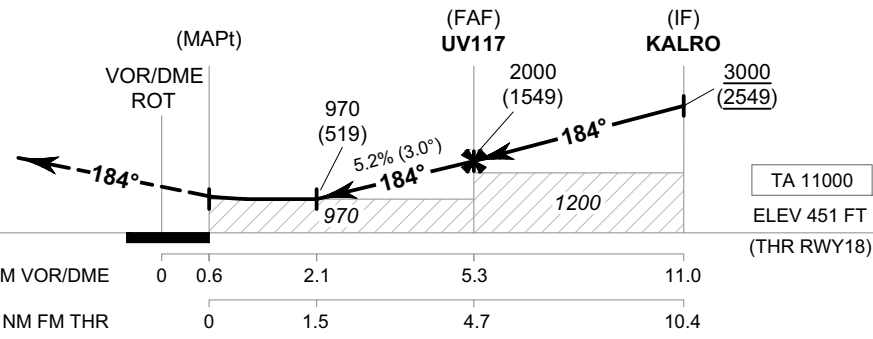
APP : 125.4
TWR : 119.75 , 236.6
ATIS : 128.275

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' 00.59" N	103° 46' 19.45" 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

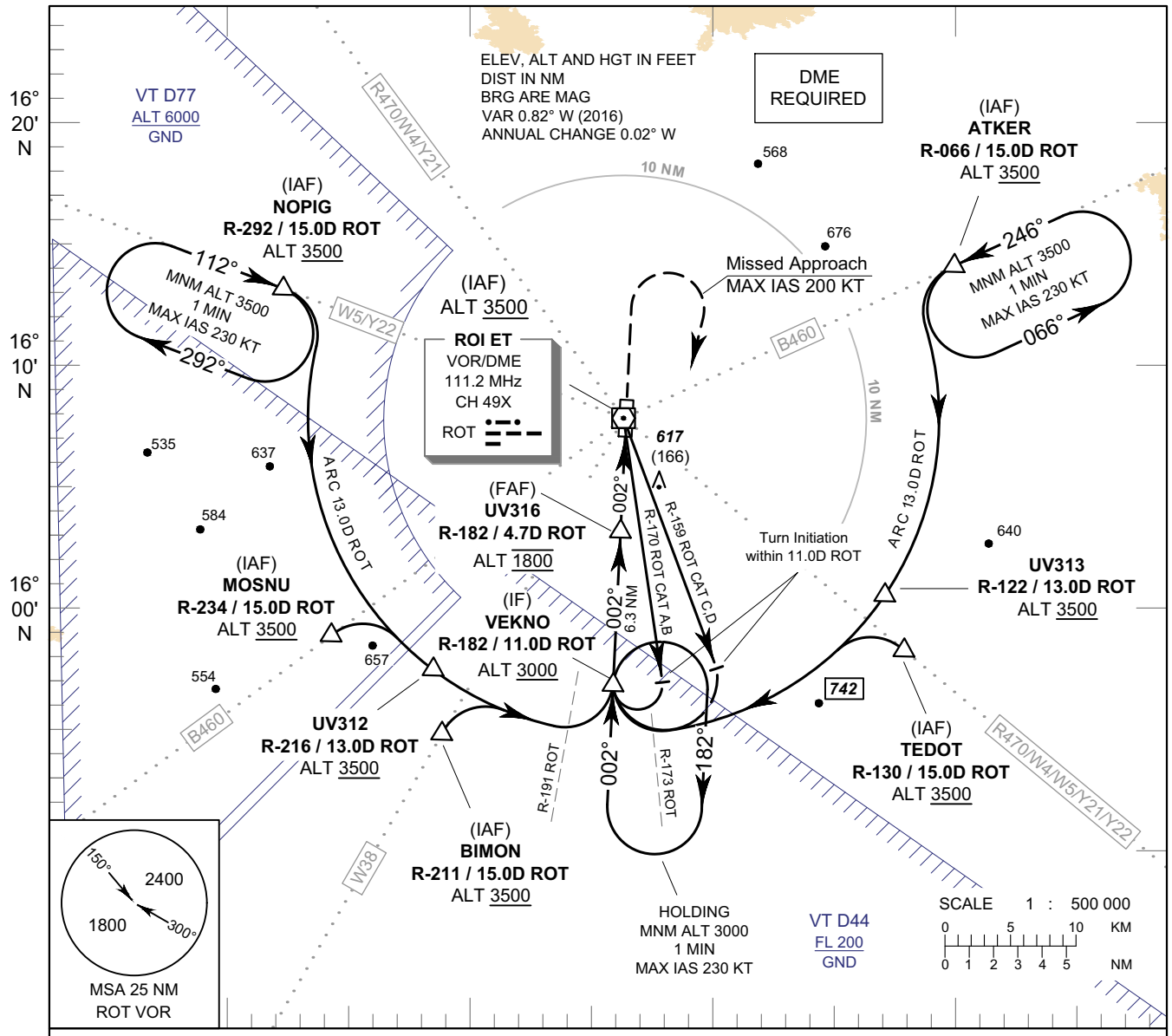
INSTRUMENT APPROACH CHART - ICAO

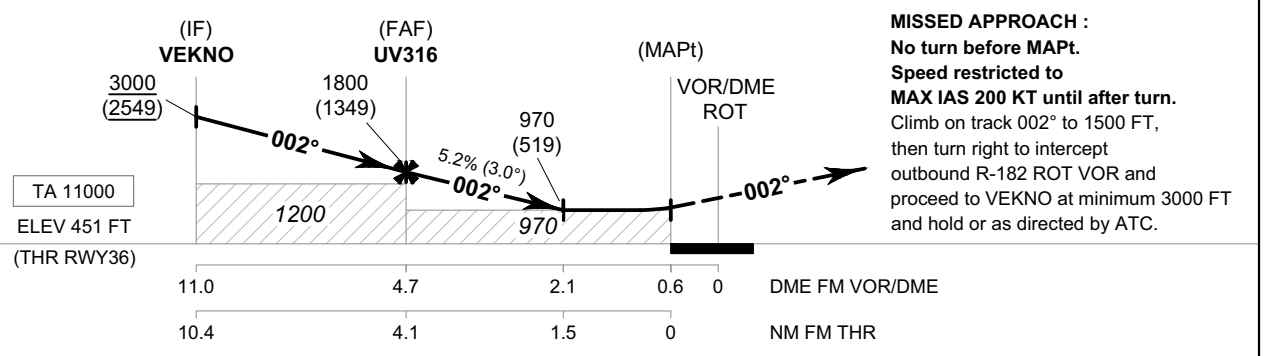
AERODROME ELEV 451 FT
HEIGHTS RELATED TO AERODROME ELEV

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' 00.59" N	103° 46' 19.45" 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

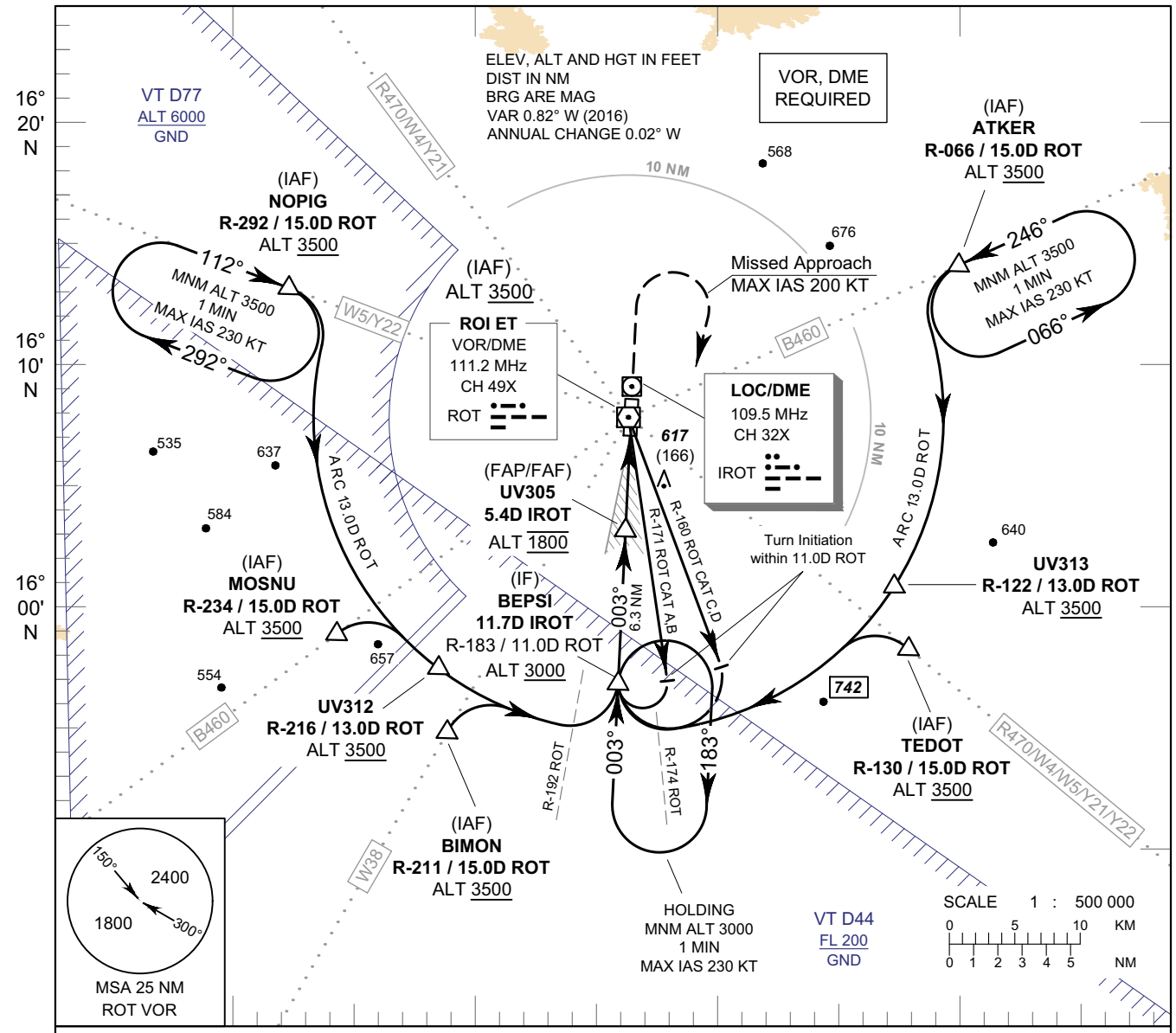
INSTRUMENT APPROACH CHART - ICAO

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) VOR	ROT	16° 07' 00.59" N	103° 46' 19.45" 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) BEPSI	11.7D IROT	15° 55' 58.22" N	103° 45' 56.13" E
(FAP/FAF) UV305	5.4D IROT	16° 02' 19.35" N	103° 46' 13.13" E
MAPt (LOC only) THR RWY36	1.3D IROT	16° 06' 26.14" N	103° 46' 24.15" E
GP		16° 06' 35.76" N	103° 46' 20.54" E
LOC/DME	IROT	16° 07' 44.28" N	103° 46' 27.64" E

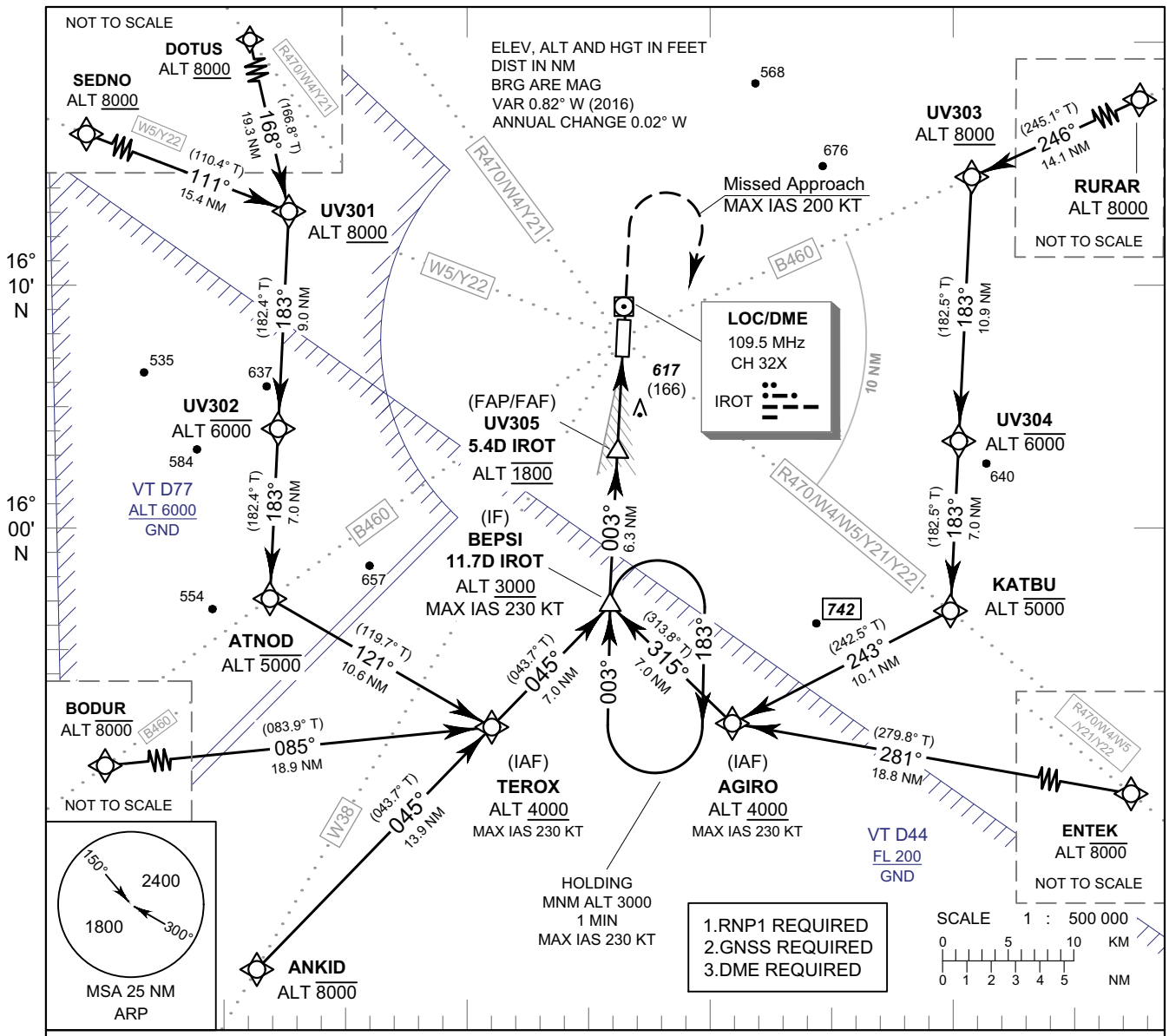
INSTRUMENT APPROACH CHART - ICAO

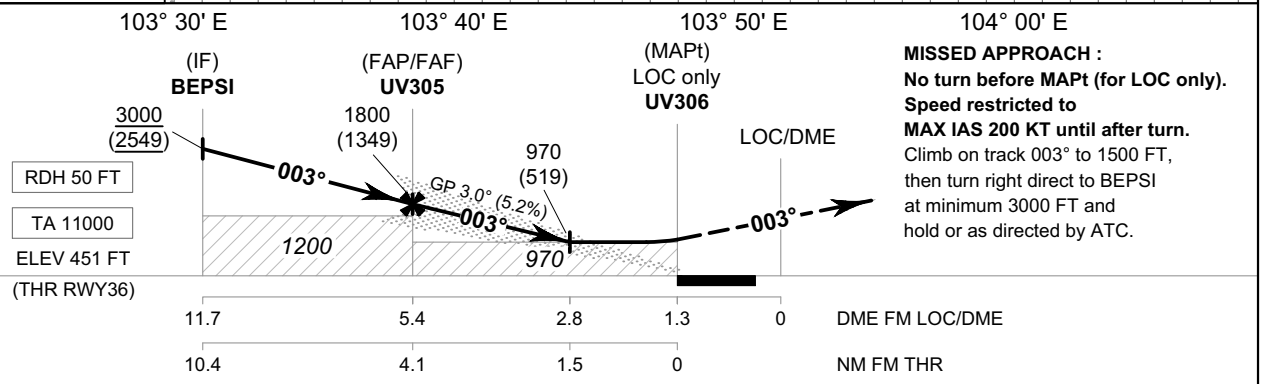
AERODROME ELEV 451 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 451 FT

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) BEPSI	11.7D IROT	15° 55' 58.22" N	103° 45' 56.13" E
(FAP/FAF) UV305	5.4D IROT	16° 02' 19.35" N	103° 46' 13.13" E
MAPt (LOC only) THR RWY36	1.3D IROT	16° 06' 26.14" N	103° 46' 24.15" E
GP		16° 06' 35.76" N	103° 46' 20.54" E
LOC/DME	IROT	16° 07' 44.28" N	103° 46' 27.64" E

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

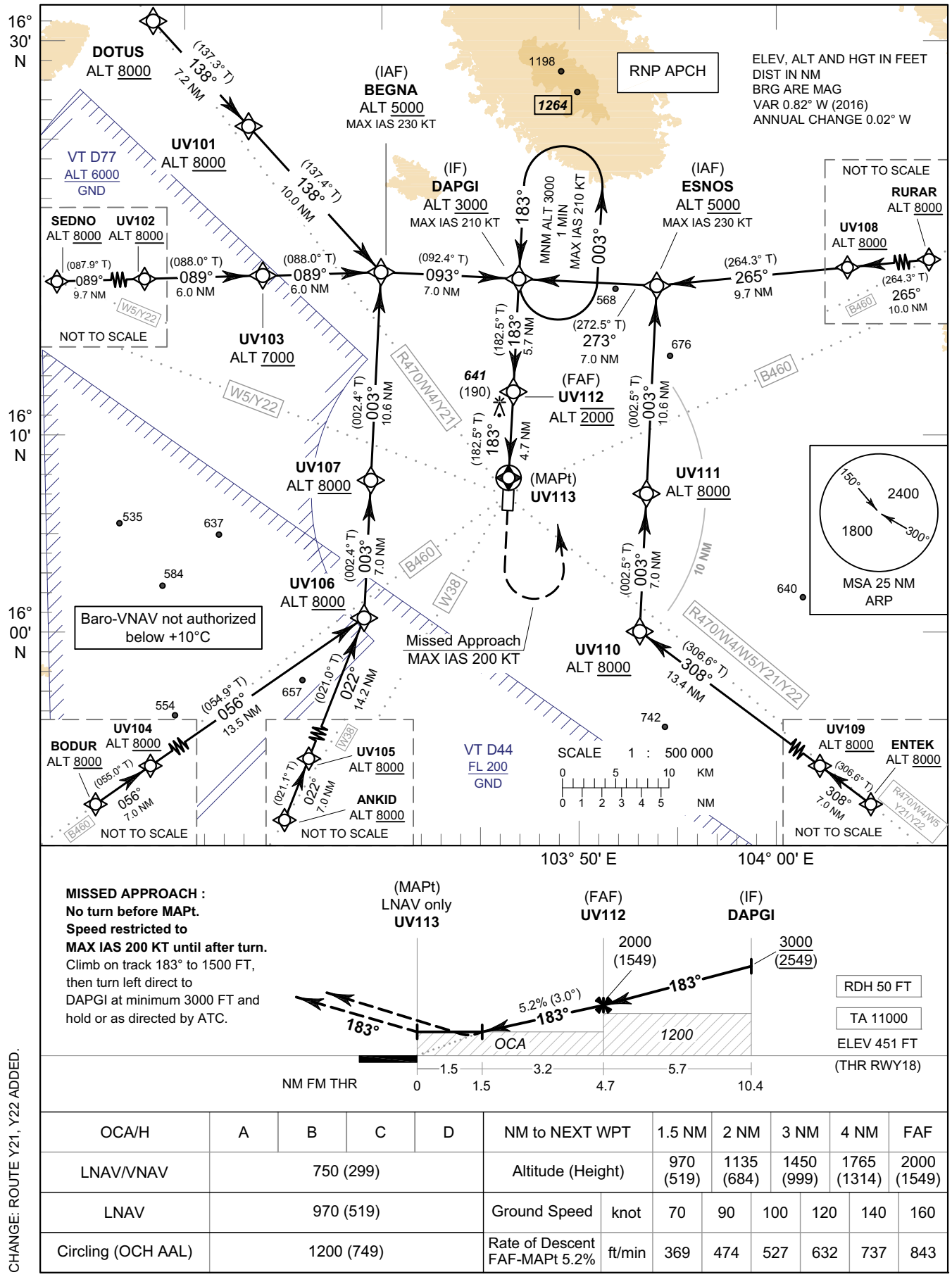
INSTRUMENT APPROACH CHART - ICAO

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.

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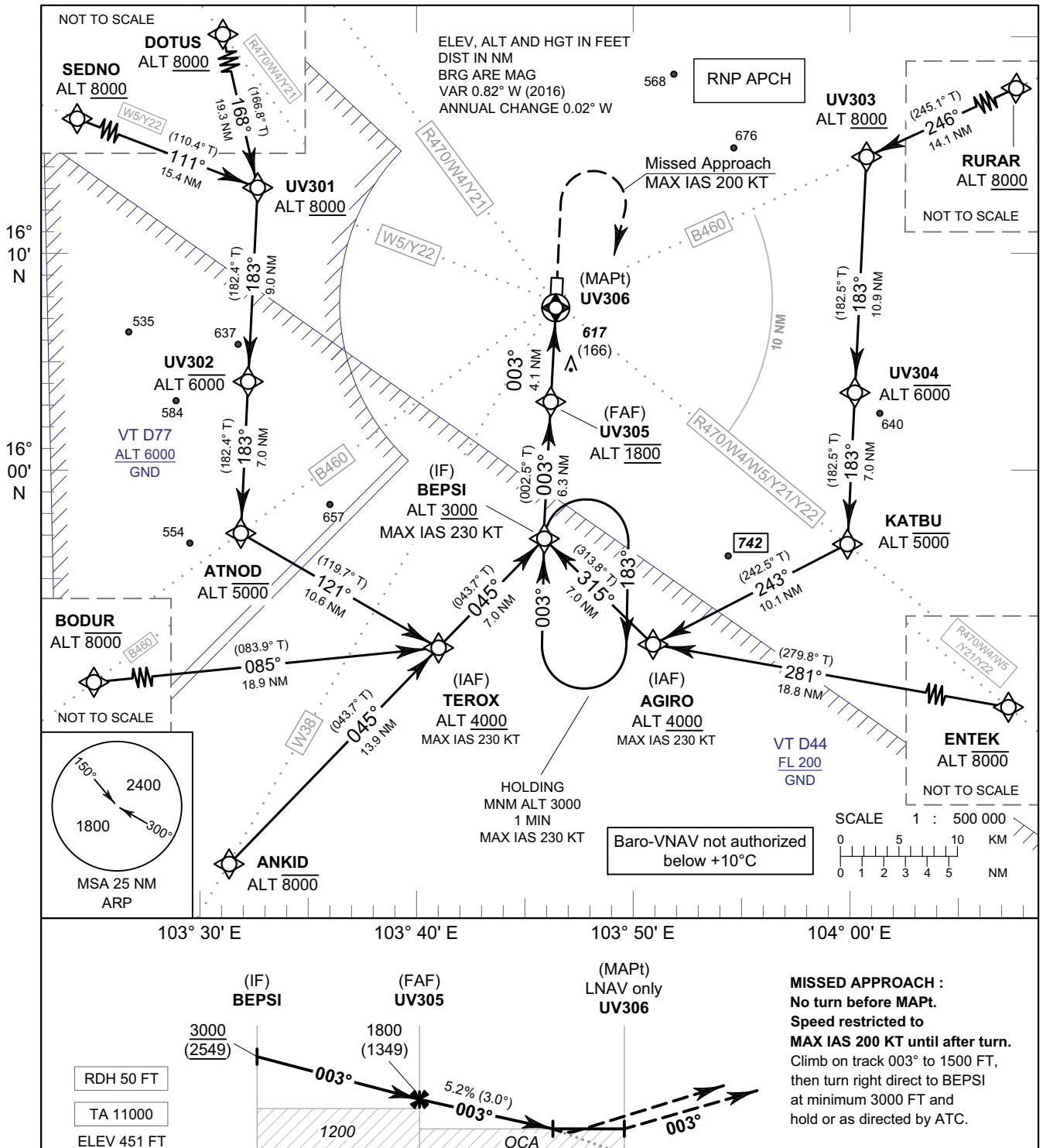
INSTRUMENT APPROACH CHART - ICAO

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.

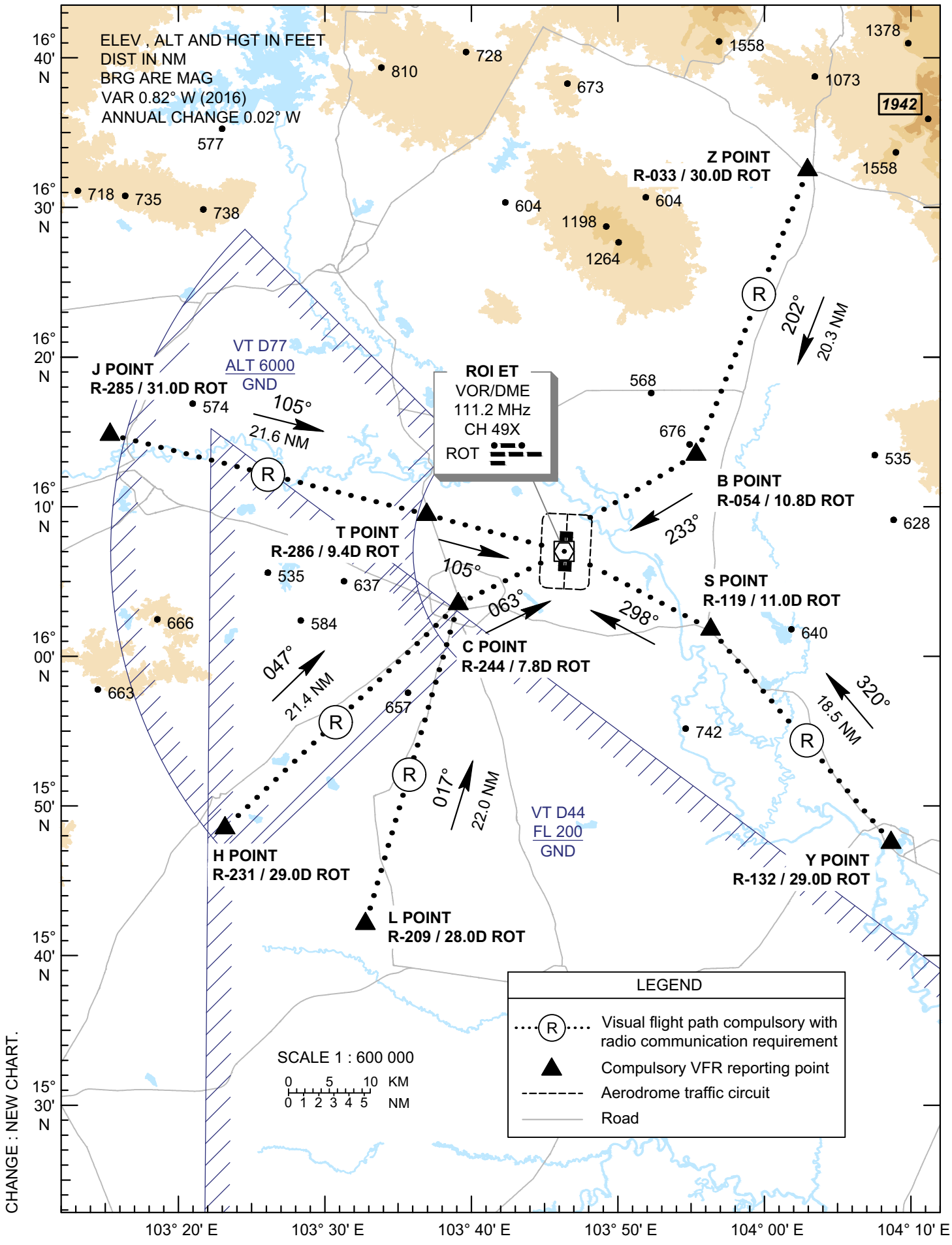
INTENTIONALLY BLANK

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

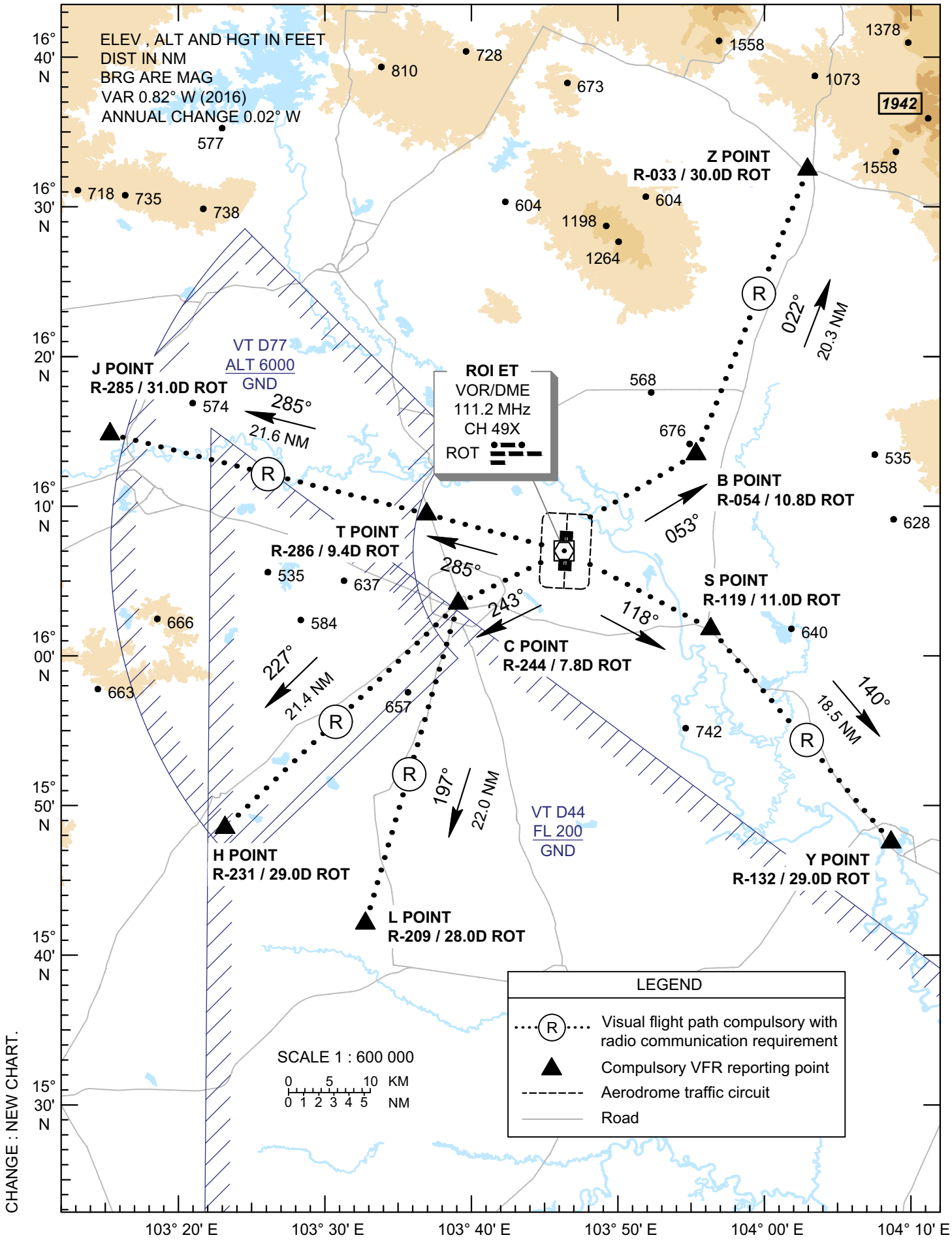
CHANGE : NEW CHART.

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
"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.

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 Sakaeo Province Thailand Tel: +663 755 0477 +662 534 6000 Ext. 42908 +662 534 6000 Ext. 42957 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. 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) Surface: Asphalt Strength:PCN 33/F/C/X/T Apron (301 Sqn.) Surface: Concrete Strength: PCN 17/R/C/W/T
2	Taxiway width, surface and strength	Taxiway A, B, C, D and E Width: 20 M Surface: Asphalt 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 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 Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
05/APP 23/TKOF	Mast HGT 132 M painted red/white LGTD on top	134512.2080N 1021733.1127E	Mast HGT 92 M painted red/white LGTD on top	134601.6368N 1021907E	NIL
			Radio mast HGT 125 M painted red/white LGTD on top	134551.8769N 1021933.5594E	
			Mast HGT 148 M painted red/white LGTD on top	134456.8591N 1021919.3544E	
			Mast HGT 150 M painted red/white LGTD on top	134420.8282N 1021917.6655E	
			Mast HGT 190 M painted red/white LGTD on top	134423.5891N 1021855.9209E	
			Mast HGT 139 M painted red/white LGTD on top	134447.7444N 1021829.3271E	
			Radio mast HGT 129 M painted red/white LGTD on top	134451.8533N 1021804.5503E	
			Mast HGT 162 M painted red/white LGTD on top	134521.6841N 1021646.3603E	
			Mast HGT 161 M painted red/white LGTD on top	134545.2971N 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 MET Office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	NIL
4	Type of landing forecast Interval of issuance	TEMPO
5	Briefing/consultation provided	Personal Consultation
6	Flight documentation Language(s) used	Charts, plain language text. Thai

7	Charts and other information available for briefing or consultation	Synoptic chart, wind aloft chart 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 Asphalt	134551.81N 1021836.88E	68 M / 225 FT
23	NIL	1500x35	PCN 40/F/C/X/T Asphalt	134623.24N 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 IBN: NIL
2	LDI location and LGT 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 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 Language(s)	Watthana Nakhon Tower 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 VHF 120.75 MHZ *121.5 MHZ *243.0 MHZ	2300-1100 Every day	Primary operation *Emergency Freq.
GND	Watthana Nakon Ground	UHF 298.0 MHZ 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 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 Sakon Nakhon Airport Sakon Nakhon-Nakhon Phanom Road, Thatnaweng, Mueang Sakon Nakhon, Sakon Nakhon 47000 Thailand Tel: +664 272 4044-5 Fax: +664 272 4041 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): Located at Udon Thani Air Traffic Control Centre (1st floor of tower building) Tel: +664 223 0124 +669 2262 3477 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) Surface: Concrete Strength: PCN 47/R/D/X/T Apron A (WEST) Surface: Concrete Strength: PCN 47/R/C/X/T
2	Taxiway width, surface and strength	TWY A, B and C Width: 23 M Surface: Asphalt Concrete Strength: PCN 43/F/D/X/T TWY D Width: 23 M Surface: Asphalt Concrete Strength: PCN 46/F/C/X/T
3	Altimeter checkpoint location and elevation	Location: At apron 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 TWY guide line: Yes VDGS of aircraft stand: NIL, 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: CL, Edge and RWY Holding Position 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 Elevation Markings/LGT**	**Coordinates**	**Obstacle type Elevation Markings/LGT**	**Coordinates**	
a	**b**	**c**	**a**	**b**	
RWY 05/APCH area RWY 23/TKOF area	Billboard 565 FT (172.21 M) NIL / NIL	171102.92N 1040631.98E	AWOS 557 FT (169.78 M) Painted red/white LGTD	171204.57N 1040725.55E	
	Road sign 565 FT (172.28 M) NIL / NIL	171108.34N 1040625.12E	AWOS 554 FT (169 M) Painted red/white LGTD	171204.71N 1040725.70E	
	Building 558 FT (170 M) NIL / NIL	171108.58N 1040627.79E	AWOS 565 FT (172.30 M) Painted red/white LGTD	171205.78N 1040726.82E	

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 685 FT (208.82 M) NIL / LGTD	171039.18N 1040542.57E	AWOS 565 FT (172.30 M) Painted red/white LGTD	171205.85N 1040726.89E	
	High voltage pole 690 FT (210.21 M) NIL / LGTD	171029.37N 1040546.69E	AWOS 566 FT (172.49 M) Painted red/white LGTD	171123.68N 1040642.27E	
RWY 05/APCH area RWY 23/TKOF area	High voltage pole 690 FT (210.35 M) NIL / LGTD	171020.33N 1040550.51E	AWOS 566 FT (172.44 M) Painted red/white LGTD	171123.63N 1040642.22E	
	High voltage pole 677 FT (206.38 M) NIL / LGTD	171011.45N 1040554.25E	Glide slope 581 FT (177.11 M) Painted red/white LGTD	171208.04N 1040728.89E	
	Telecommunication mast 692 FT (210.95 M) NIL / LGTD	171054.21N 1040556.88E	Water tank 623 FT (189.79 M) Painted red/white NIL	171108.38N 1040641.39E	
	Telecommunication mast 683 FT (208.05 M) NIL / LGTD	171051.27N 1040555.96E	Water tank 623 FT (190.02 M) Painted red/white NIL	171107.24N 1040640.83E	
RWY 05/APCH area RWY 23/TKOF area	Telecommunication mast 702 FT (213.95 M) NIL / LGTD	171049.83N 1040557.70E	Radio mast 969 FT (295.48 M) Painted red/white LGTD	171212.06N 1040612.10E	
	Building 577 FT (175.83 M) NIL / NIL	171110.20N 1040625.38E	Radio mast 943 FT (287.48 M) Painted red/white LGTD	171212.93N 1040603.60E	
	DME 552 FT (168.19 M) Painted red/white NIL	171106.04N 1040632.62E	Radio mast 748 FT (228 M) Painted red/white LGTD	171122.86N 1040541.29E	
			Radio mast 721 FT (219.72 M) Painted red/white LGTD	171118.60N 1040610.74E	
			Radio mast 714 FT (217.65 M) Painted red/white LGTD	171107.80N 1040646.47E	
			Radio mast 691 FT (210.53 M) Painted red/white LGTD	171107.13N 1040646.94E	
			Radio mast 1003 FT (305.67 M) Painted red/white LGTD	171042.72N 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 753 FT (229.57 M) Painted red/white LGTD	171142.38N 1040516.89E	
			Radio mast 739 FT (225.23 M) Painted red/white LGTD	171326.78N 1040625.77E	
			Radio mast 738 FT (224.84 M) Painted red/white LGTD	171326.98N 1040624.87E	
			Radio mast 843 FT (256.96 M) Painted red/white LGTD	170930.62N 1040747.19E	
			Radio mast 689 FT (210.16 M) Painted red/white	170924.19N 1040748.64E	
			Radio mast 753 FT (229.64 M) Painted red/white LGTD	170933.74N 1040756.50E	
			Radio mast 720 FT (219.60 M) Painted red/ white LGTD	170917.59N 1040755.09E	
			Telecommunication mast 911 FT (277.70 M) Painted red/white LGTD	171006.54N 1040837.74E	
			Telecommunication mast 682 FT (208 M) Painted red/white LGTD	171044.15N 1040736.92E	
			Telecommunication mast 708 FT (215.74 M) Painted red/white LGTD	171208.90N 1040554.81E	
			Telecommunication mast 697 FT (212.58 M) Painted red/white LGTD	171148.18N 1040536.70E	
			Telecommunication mast 710 FT (216.34 M) Painted red/white LGTD	171145.02N 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 705 FT (214.82 M) NIL / LGTD	171343.60N 1040617.66E	
			Telecommunication mast 746 FT (227.38 M) Painted red/white LGTD	171418.09N 1040630.19E	
			Telecommunication mast 717 FT (218.66 M) NIL / LGTD	170930.47N 1040746.96E	
			Telecommunication mast 700 FT (213.37 M) NIL / LGTD	170919.33N 1040711.28E	
			Telecommunication mast 794 FT (242 M) Painted red/white LGTD	170937.09N 1040819.64E	
			Apron Flood light pole 620 FT (188.95 M) NIL / LGTD	171148.83N 1040701.48E	
			Apron Flood light pole 620 FT (189.01 M) NIL / LGTD	171147.47N 1040700.05E	
			Apron Flood light pole 620 FT (189.04 M) NIL / LGTD	171146.11N 1040658.63E	
			Apron Flood light pole 621 FT (189.19 M) NIL / LGTD	171144.96N 1040657.43E	
			Apron Flood light pole 621 FT (189.15 M) NIL / LGTD	171143.82N 1040656.25E	
			Lightning rod on top of building 605 FT (184.51 M) NIL / NIL	171148.11N 1040659.37E	
			ATC tower (Old) 593 FT (180.72 M) Painted red/white NIL	171127.43N 1040700.68E	
			ATC Tower 653 FT (199.08 M) Painted red/white LGTD	171146.23N 1040657.29E	

VTUI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Sakon Nakhon, Upper Northeastern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1500 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Upper Northeastern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 271 6574 ext. 7613
6	Flight documentation 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 Observation 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 Asphaltic Concrete	171112.56N 1040635.89E	THR 529 FT TDZ 529 FT
23	225.50°	2600x45	PCN 43/F/D/X/T Asphaltic Concrete	171212.45N 1040738.22E	THR 526 FT 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 NIL	PAPI LEFT 3° (55.77 FT)	NIL	NIL	2600 M 30 M FM 0 M-2000 M White, FM 2000 M- 2600 M Yellow, LIH	Red NIL	NIL	RTIL
23	SALS 420 M LIH	Green NIL	PAPI LEFT 3° (47.48 FT)	NIL	NIL	2600 M 30 M FM 0 M-2000 M White, FM 2000 M-2600 M Yellow, LIH	Red 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. IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL 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 TWY centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply at Airfield Lighting (AFL) building Switch-over time: 15 SEC.
5	Remarks	NIL

VTUI AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (171250.89N 1040812.34E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C

4	ATS unit call sign Language(s)	Sakon Nakhon Tower 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 284.0 MHZ 121.5 MHZ 1)	As AD OPR HR	1) Emergency frequency
TWR	Sakon Nakhon Tower	119.65 MHZ 236.6 MHZ 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	171149.17N 10406653.42E	NIL	Data refer from commissioning checked as follows: 1. Bearing 181°-360° 50 NM orbit altitude should not below 3 000 FT 2. Bearing 001°-140° 50 NM orbit unable to check due to border limited 3. Bearing 141°-180° unusable beyond 15 NM
DVOR/DME	SKN	114.2 MHZ CH 89X	H24	171250.89N 1040812.34E	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: 1. 30 NM orbit (Due to border limited) – Radial 000º-130º altitude should not below 2 100 FT 2. 40 NM orbit – Radial 131º-280º altitude should not below 5 500 FT – Radial 281º-359º altitude should not below 2 100 FT
IILS CAT I RWY 23 LOC	ISKN	110.3 MHZ CH40X	H24	171107.73N 1040630.87E	NIL	Designated operation coverage 18 NM. ALT 6800 FT/AMSL.
DME				171106.06N 1040632.52E	527 FT	Paired with LOC FREQ
GP		335.0 MHZ	H24	171208.11N 1040728.88E	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

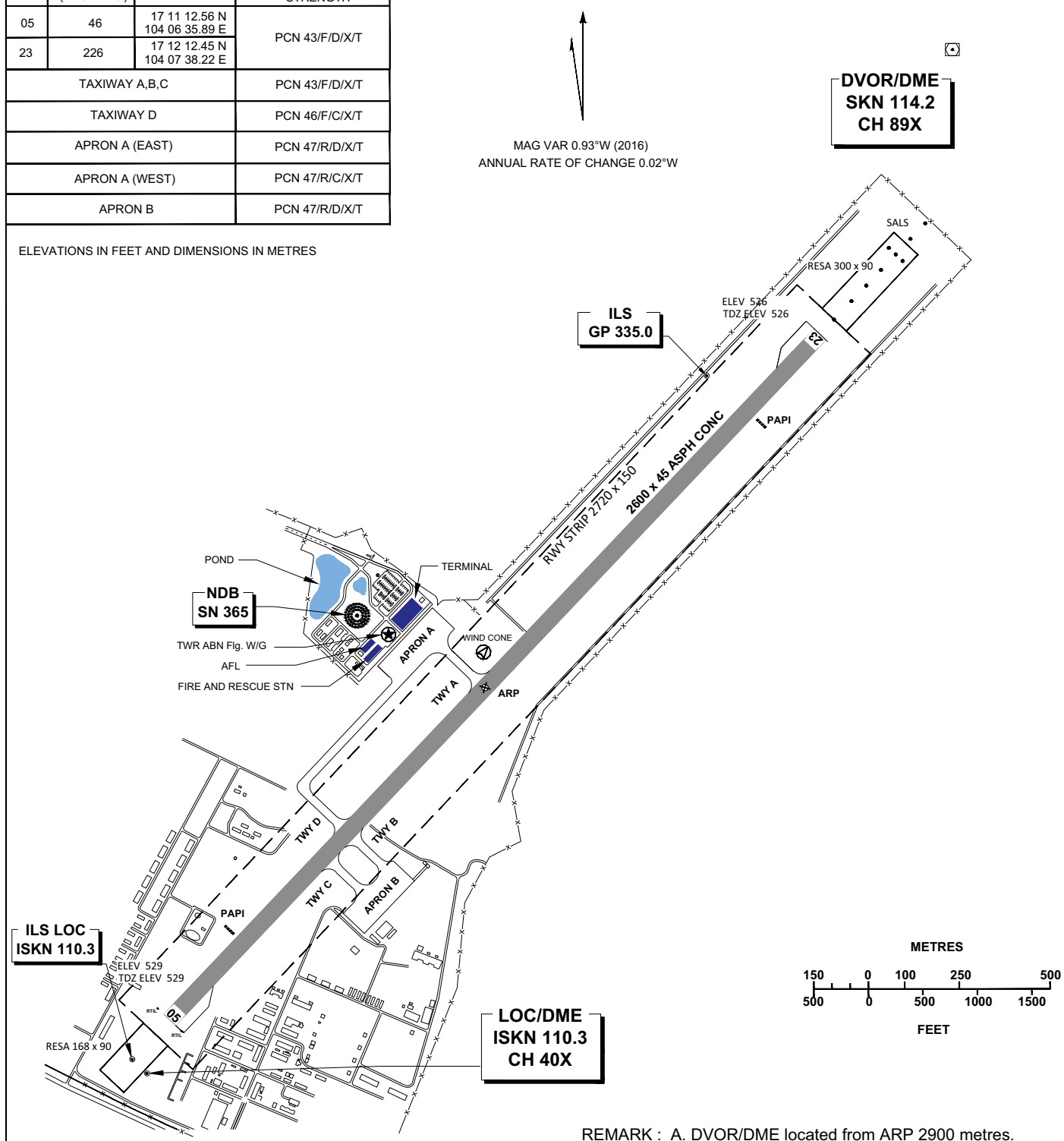
ELEV 529 FT

TWR 119.65 236.60

SAKON NAKHON / Sakon Nakhon

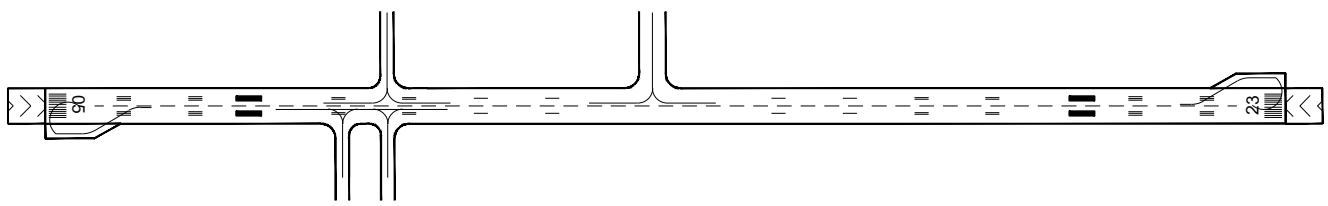
RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
05	46	17 11 12.56 N 104 06 35.89 E	PCN 43/F/D/X/T
23	226	17 12 12.45 N 104 07 38.22 E	
TAXIWAY A,B,C			PCN 43/F/D/X/T
TAXIWAY D			PCN 46/F/C/X/T
APRON A (EAST)			PCN 47/R/D/X/T
APRON A (WEST)			PCN 47/R/C/X/T
APRON B			PCN 47/R/D/X/T

ELEVATIONS IN FEET AND DIMENSIONS IN METRES

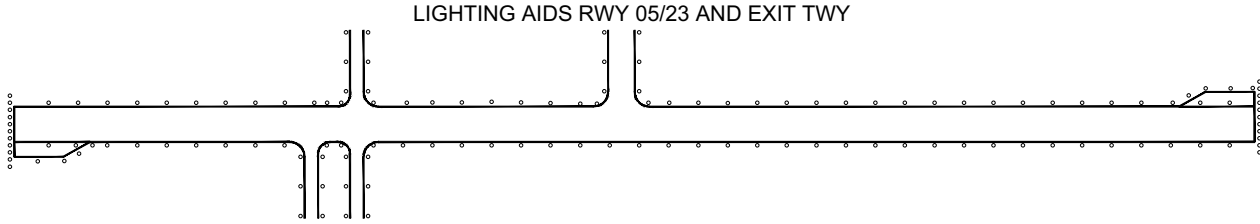


REMARK : A. DVOR/DME located from ARP 2900 metres.
B. DVOR/DME restriction due to mountainous terrain surround

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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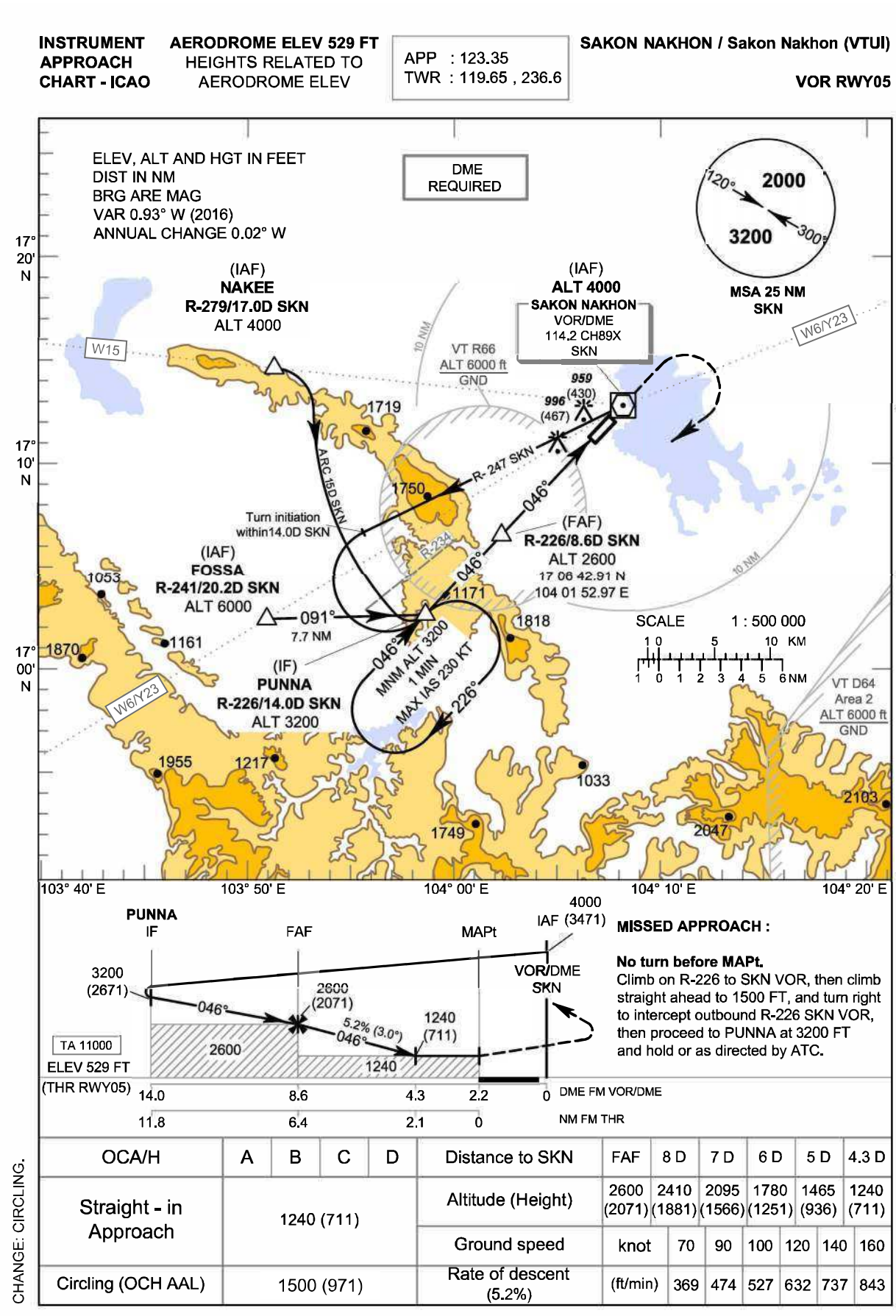
INSTRUMENT APPROACH CHART - ICAO

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 13.09 N	104 06 35.28 E
(IAF) VOR	SKN	17 12 50.89 N	104 08 12.34 E

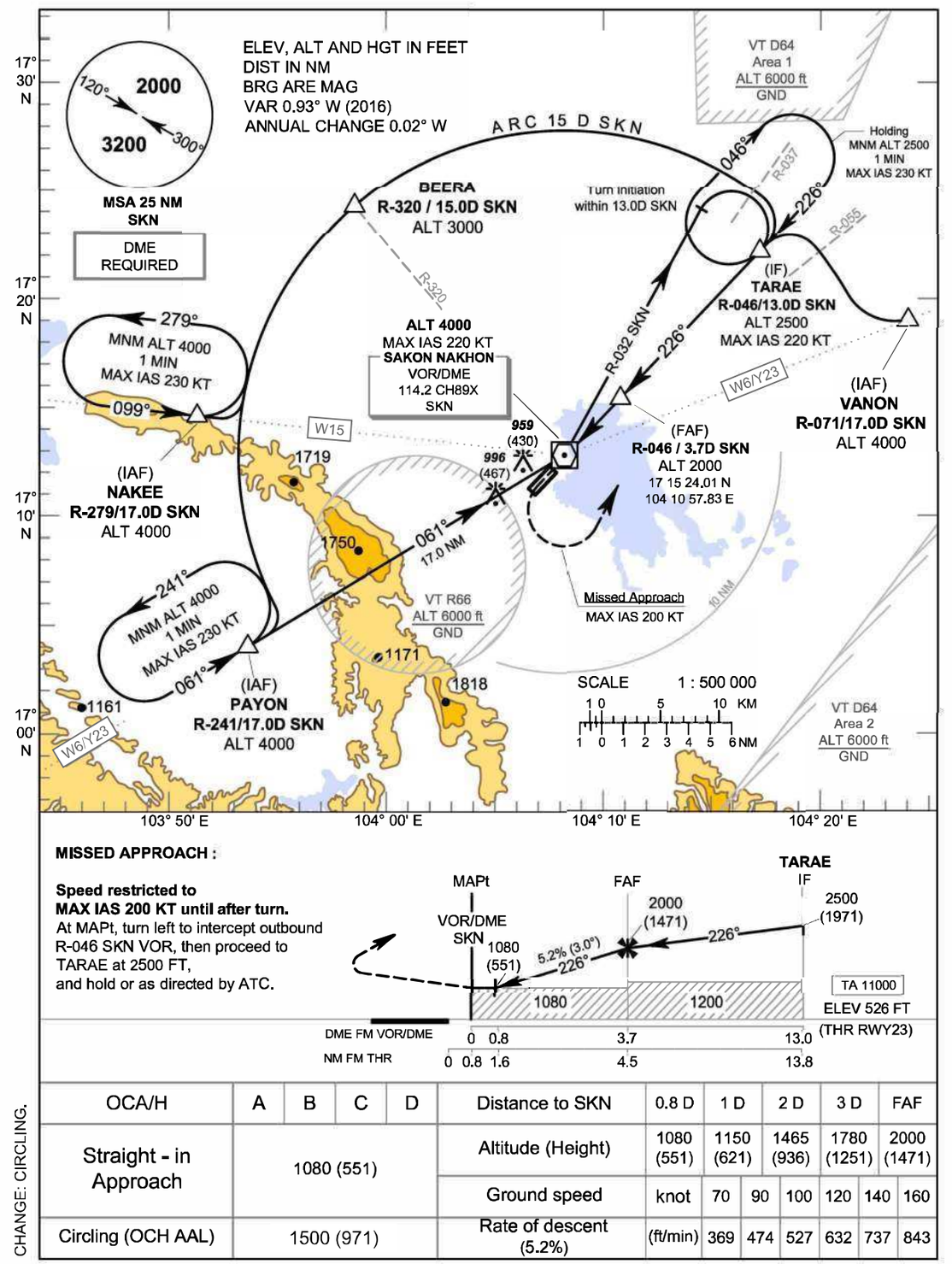
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 529 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35
TWR : 119.65 , 236.6

SAKON NAKHON / Sakon Nakhon (VTUI)

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 24.01 N	104 10 57.83 E
(MAPt) VOR	SKN	17 12 50.89 N	104 08 12.34 E

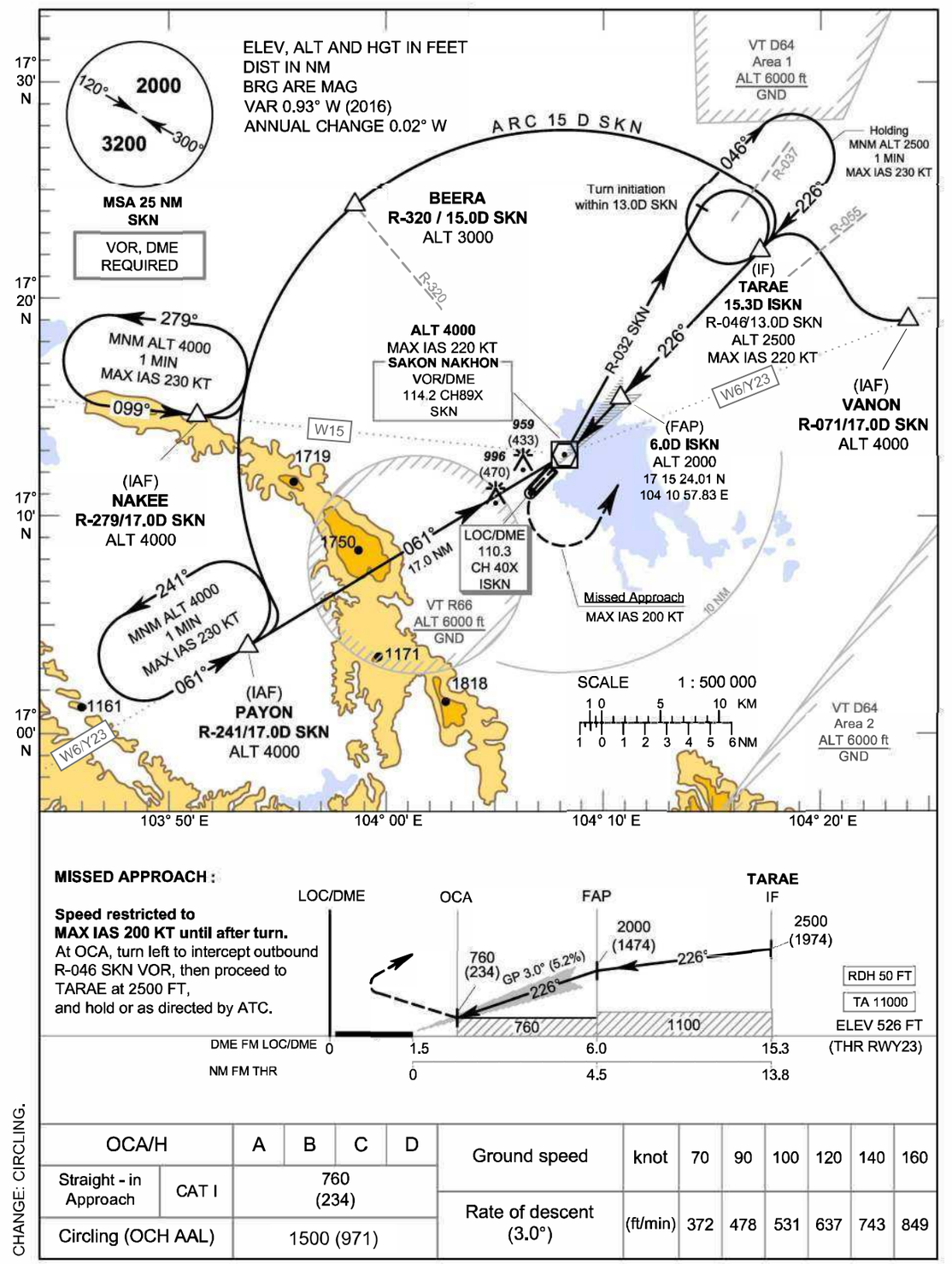
INSTRUMENT APPROACH CHART - ICAO

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.

CHANGE: CIRCLING.

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)											

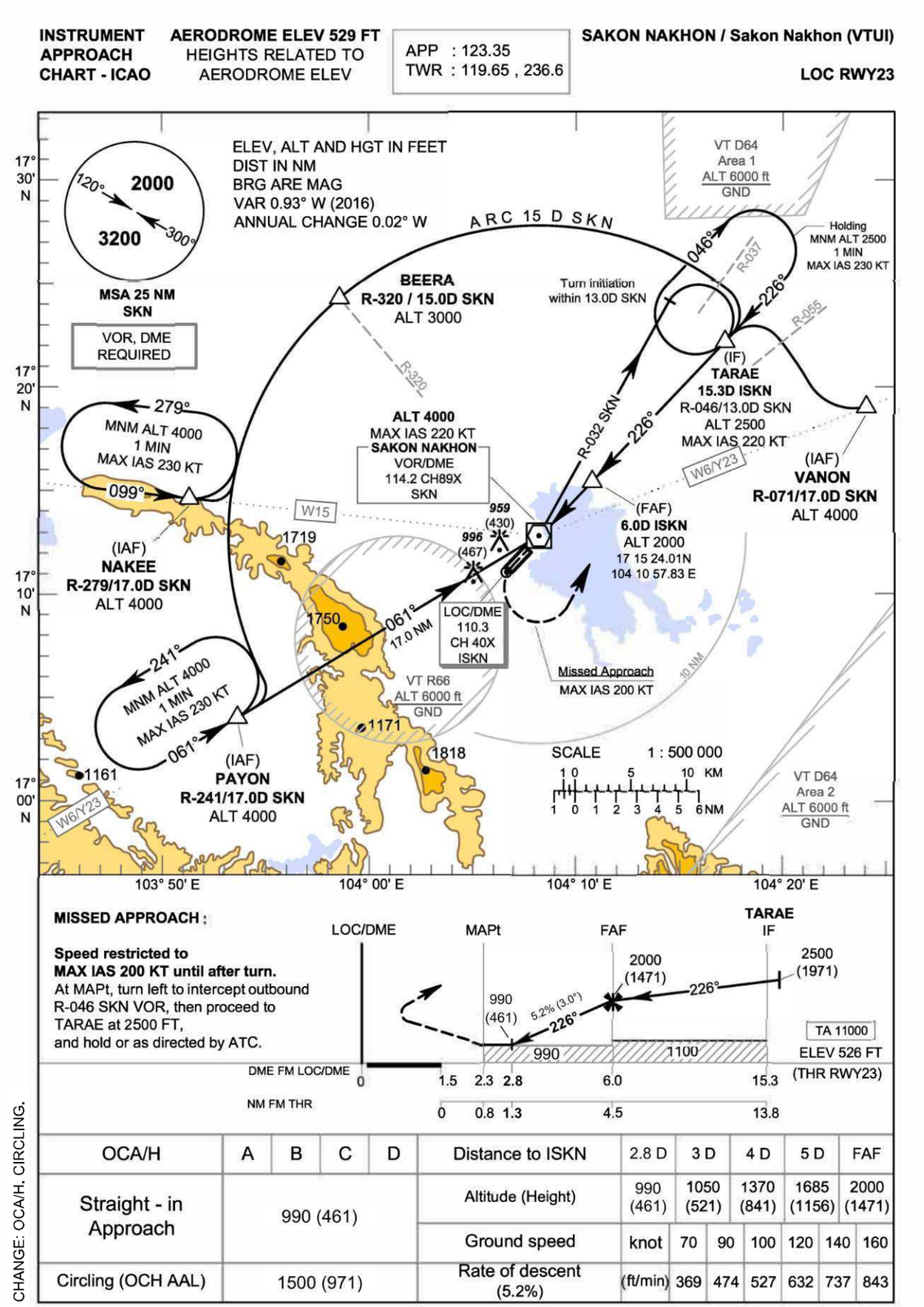
INSTRUMENT APPROACH CHART - ICAO

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	15.3D 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 07.73 N	104 06 30.87 E
VOR	SKN	17 12 50.89 N	104 08 12.34 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)
LOC RWY23
ELEV, ALT AND HGT IN FEET
DIST IN NM
BRG ARE MAG
VAR 0.93° W (2016)
ANNUAL CHANGE 0.02° W
ARC 15 D SKN
MSA 25 NM
SKN
VOR, DME REQUIRED
BEERA
R-320 / 15.0D SKN
ALT 3000
Turn initiation within 13.0D SKN
Holding
MNM ALT 2500
1 MIN
MAX IAS 230 KT
(IF)
TARAE
15.3D ISKN
R-046/13.0D SKN
ALT 2500
MAX IAS 220 KT
(IAF)
VANON
R-071/17.0D SKN
ALT 4000
ALT 4000
MAX IAS 220 KT
SAKON NAKHON
VOR/DME
114.2 CH89X
SKN
(FAF)
6.0D ISKN
ALT 2000
17 15 24.01N
104 10 57.83 E
(IAF)
NAKEE
R-279/17.0D SKN
ALT 4000
(IAF)
PAYON
R-241/17.0D SKN
ALT 4000
LOC/DME
110.3
CH 40X
ISKN
Missed Approach
MAX IAS 200 KT
VT D64
Area 1
ALT 6000 ft
GND
VT R66
ALT 6000 ft
GND
VT D64
Area 2
ALT 6000 ft
GND
SCALE 1 : 500 000
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.
LOC/DME
MAPt
FAF
IF
TARAE
TA 11000
ELEV 526 FT
(THR RWY23)
DME FM LOC/DME
NM FM THR
CHANGE: OCA/H, CIRCLING,
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	15.3D 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 07.73 N	104 06 30.87 E
VOR	SKN	17 12 50.89 N	104 08 12.34 E

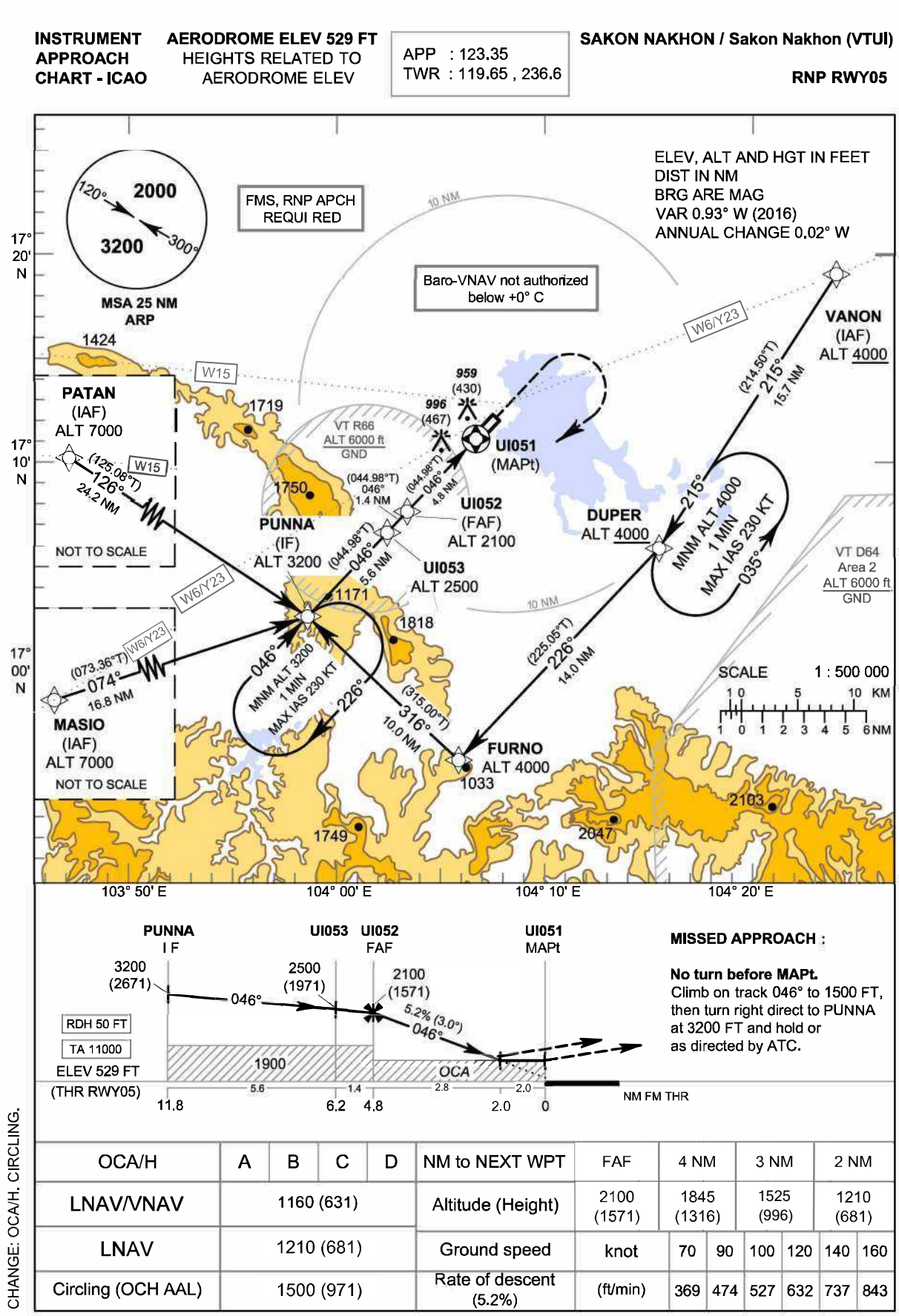
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 529 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35
TWR : 119.65 , 236.6

SAKON NAKHON / Sakon Nakhon (VTUI)

RNP 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

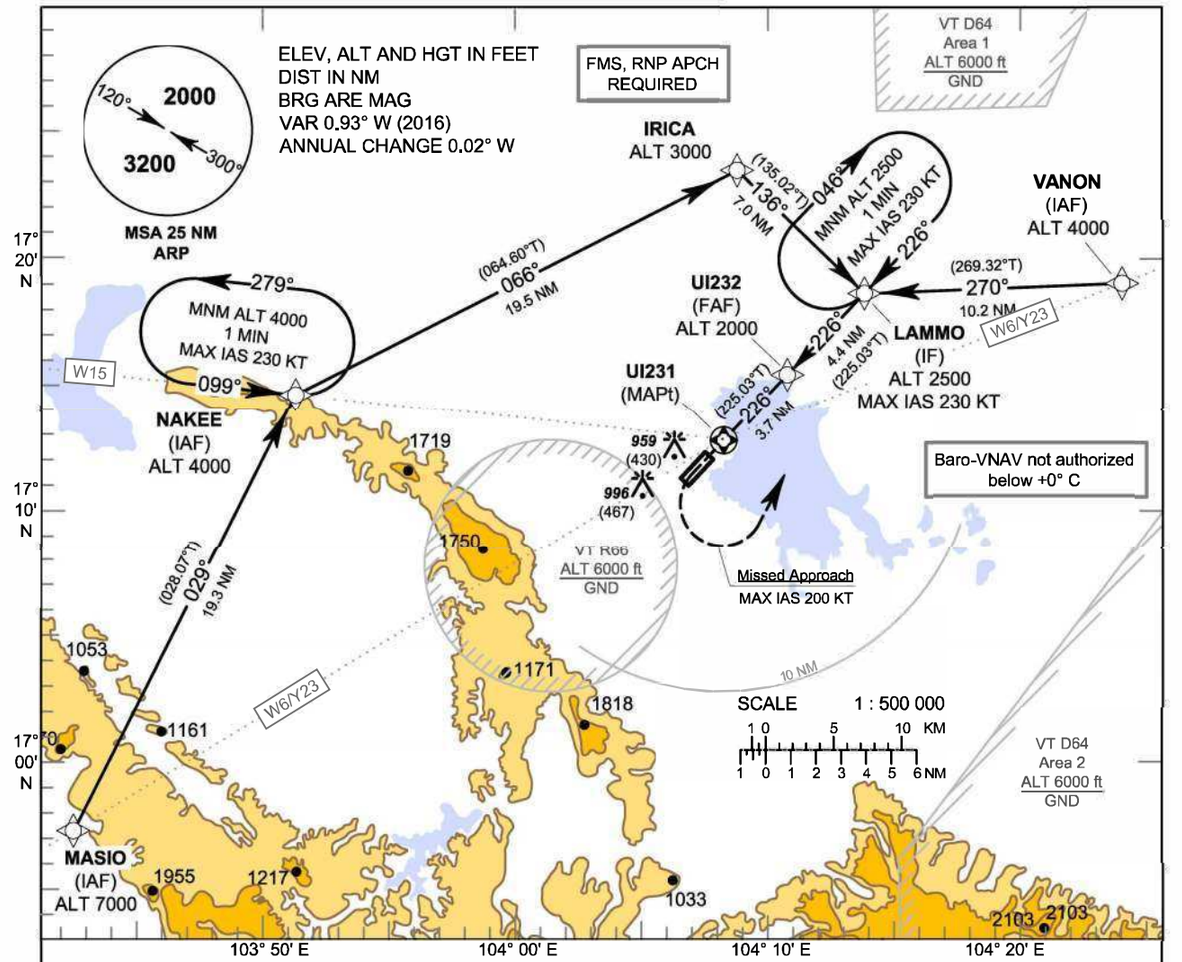
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 529 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.35
TWR : 119.65 , 236.6

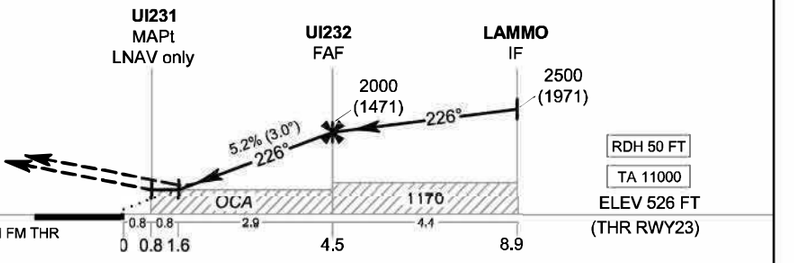
SAKON NAKHON / Sakon Nakhon (VTUI)

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 Saiburi Rd., Amphoe Muang Songkhla 90000 Thailand Tel: +667 431 1085 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 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. 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 31/TKOF	hill 350 FT LGTD	1 NM left of RWY 13	Radio mast 186 FT LGTD	North of Airfield	NIL
31/APCH 13/TKOF	hill 295 FT UNLGTD	0.4 NM left of RWY 31	Radio mast 200 FT LGTD	South of Airfield	

VTSH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	NIL
2	Hours of service MET Office outside hours	0700-1900 LT NIL
3	Office responsible for TAF preparation Periods of validity	NIL
4	Type of landing forecast Interval of issuance	NIL
5	Briefing/consultation provided	NIL
6	Flight documentation 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) +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 133 MAG	1510x45	PCN 10/F/C/Y/U Concrete and asphalt	071128.54N 1003611.45E	NIL
31	312 GEO 313 MAG	1510x45	PCN 10/F/C/Y/U 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 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 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 Language(s)	Songkhla Tower 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 126.2 MHZ 227.0 MHZ	HJ	*Emergency Freq.
AFS	Songkhla	USB 7745 KHZ USB 5443 KHZ		Domestic circuit 7745-PRI. 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 CH82X	H24	071119.65N 1003615.11E	NIL	Military Facility
NDB	SK	410 KHZ	2300-1100	071115N 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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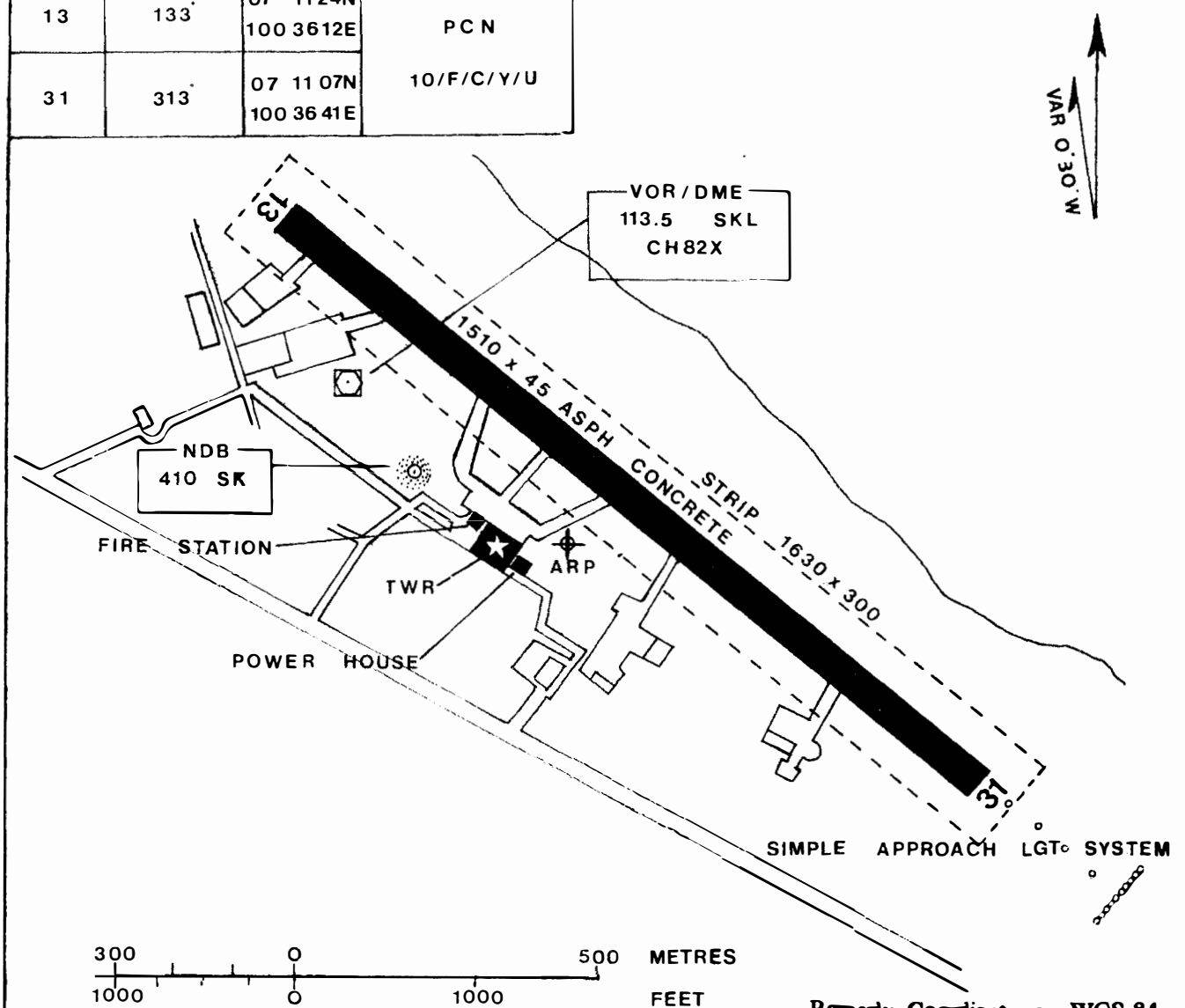
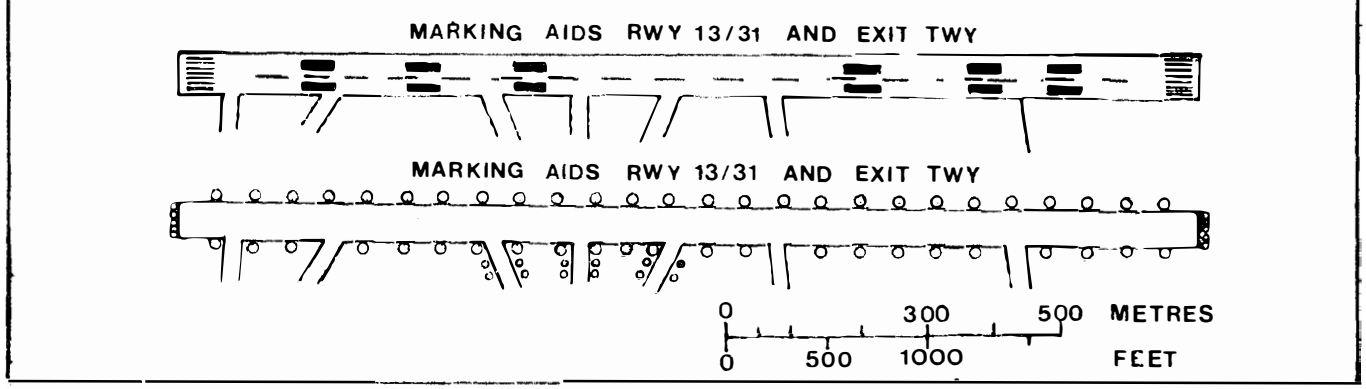
AERODROME CHART-ICAO 07° 11.0′N 100° 37.0′E ELEV 12ft TWR 126.2 SONGKHLA / Songkhla

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 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 Bangkok Airways Public Company Limited 99 Mu 4 Klongkrajong, Swankhalok District Sukhothai Thailand 64110 Tel: +665 564 7225-6 Fax: +665 564 7221 E-mail: thsairportgroup@bangkokair.com Website: http://www.sukhothaiairport.com 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 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) JET A-1 Storage Tank: 1 Tank @ 25,000 L 1 Refueller Truck @ 8,000 L AVGAS 100LL Storage Tank: 1 Tank @ 2,000 L 1 Refueller Truck @ 5,000 L 1 Trailer @ 1,600 L a. Regional Airport Manager E-mail: teerakan@bafs.co.th Tel. +668 9134 5690 b. Sukhothai Airport Station E-mail: prirat@bafsservices.co.th 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: 1. Bangkok Airways Ground Services Co., Ltd. (PGGS) E-mail: phuwanai@pg-gs.com Tel: +668 1065 8400 2. BAGS Ground Services Co., Ltd E-mail: ths-stationmanager@bagsgroundservices.com 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) Tel: +665 5616 228-9 Fax: +665 5616 228 Email: tatsukho@tat.or.th Tourist Assistance Center - TAC Sukhothai 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 Strength: PCN 44/R/C/W/T
2	Taxiway width, surface and strength	Width: 30 M Surface: Concrete and asphalt Strength: PCN 40/F/C/X/T
3	Altimeter checkpoint location and elevation	ALC location: At Apron 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 Elevation Markings/LGT	Coordinates	Obstacle type Elevation 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, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 564 7225 ext. 7251
6	Flight documentation 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°	-	-	2100 M 60 M Clear/Yellow	Red	-	RTIL
36	-	Green	PAPI LEFT 3°	-	-	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 Anemometer location and LGT	- 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 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 Language(s)	Sukhothai Tower 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 121.5 MHZ 1)	As AD OPR HR	1) Emergency frequency
TWR	Sukhothai Tower	122.9 MHZ 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 0994919.3E		1. Route coverage checked on bearing 021° from THS to PR altitude 9 000 FT flown to 57 NM found satisfactory 2. Coverage 50 NM clockwise orbit data refer from commissioning checked as follows: – Bearing 041°-100° at altitude 4 000 FT – Bearing 101°-190° at altitude 2 000 FT – 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 ILS CAT I	ISKT	109.5 MHZ	H24	171458.01N 0994906.83E		LOC: Designated Operation coverage 18 NM, ALT 6500 FT/AMSL.
GP		332.6 MHZ	H24	171351.07N 0994902.08E		
DME	ISKT	CH32X (109.5 MHZ)	H24	171457.85N 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

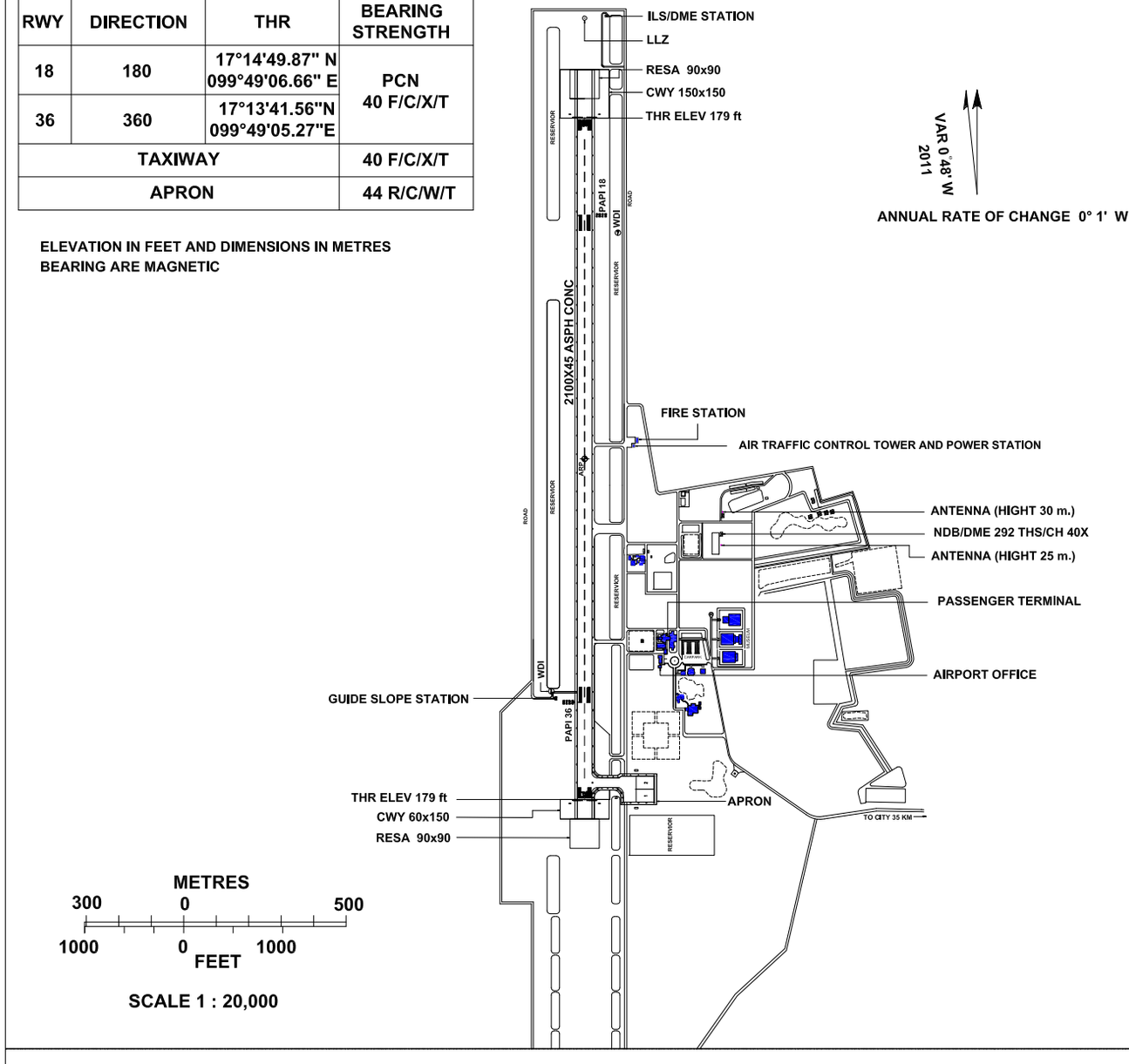
ELEV 179 ft
54.50 m

TWR 118.7

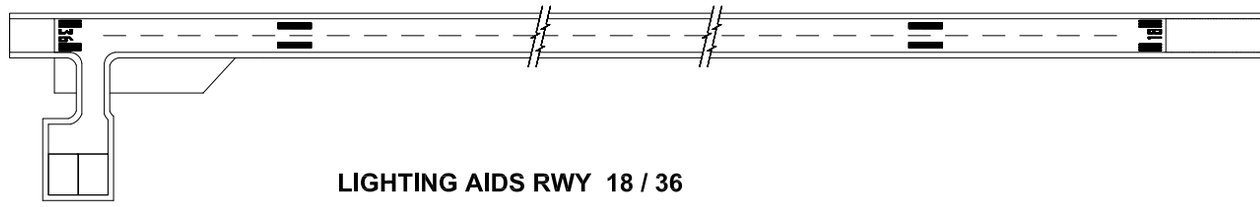
SUKHOTHAI / Sukhothai

RWY	DIRECTION	THR	BEARING STRENGTH
18	180	17°14'49.87" N 099°49'06.66" E	PCN 40 F/C/X/T
36	360	17°13'41.56"N 099°49'05.27"E	
TAXIWAY			40 F/C/X/T
APRON			44 R/C/W/T

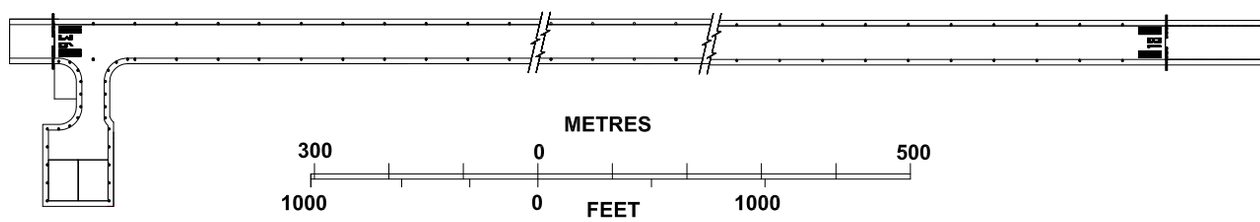
ELEVATION IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC



MARKING AIDS RWY 18 / 36



LIGHTING AIDS RWY 18 / 36



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Aerodrome Ground Movement Chart - ICAO

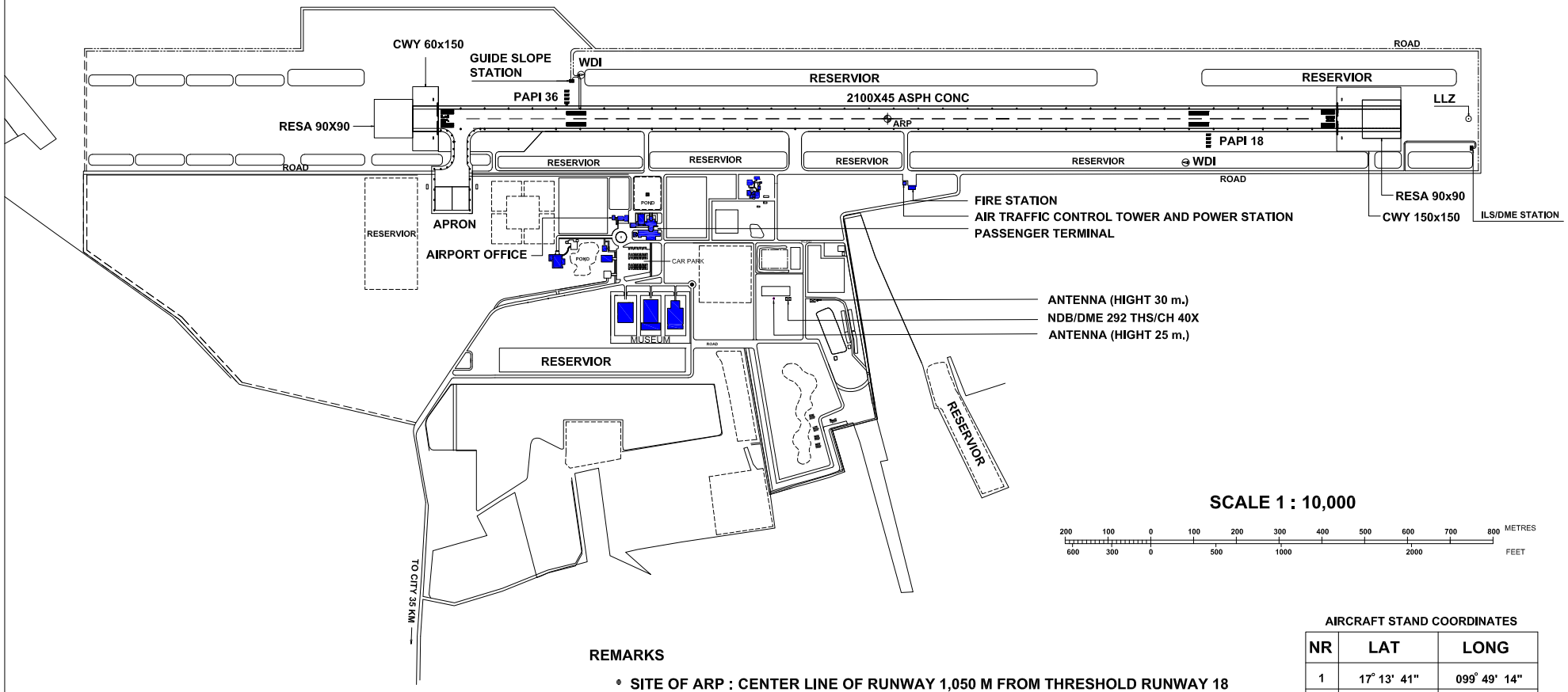
SUKHOTHAI / Sukhothai

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)

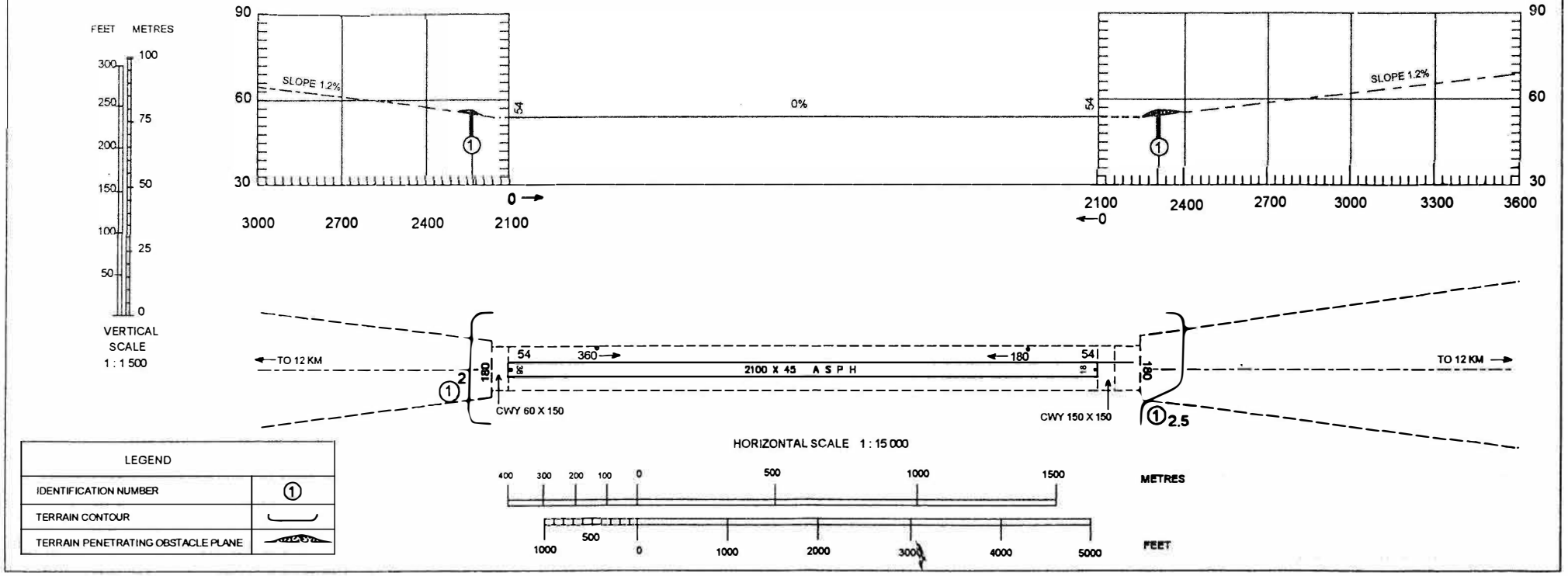
SUKHOTHAI / Sukhothai Airport

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	

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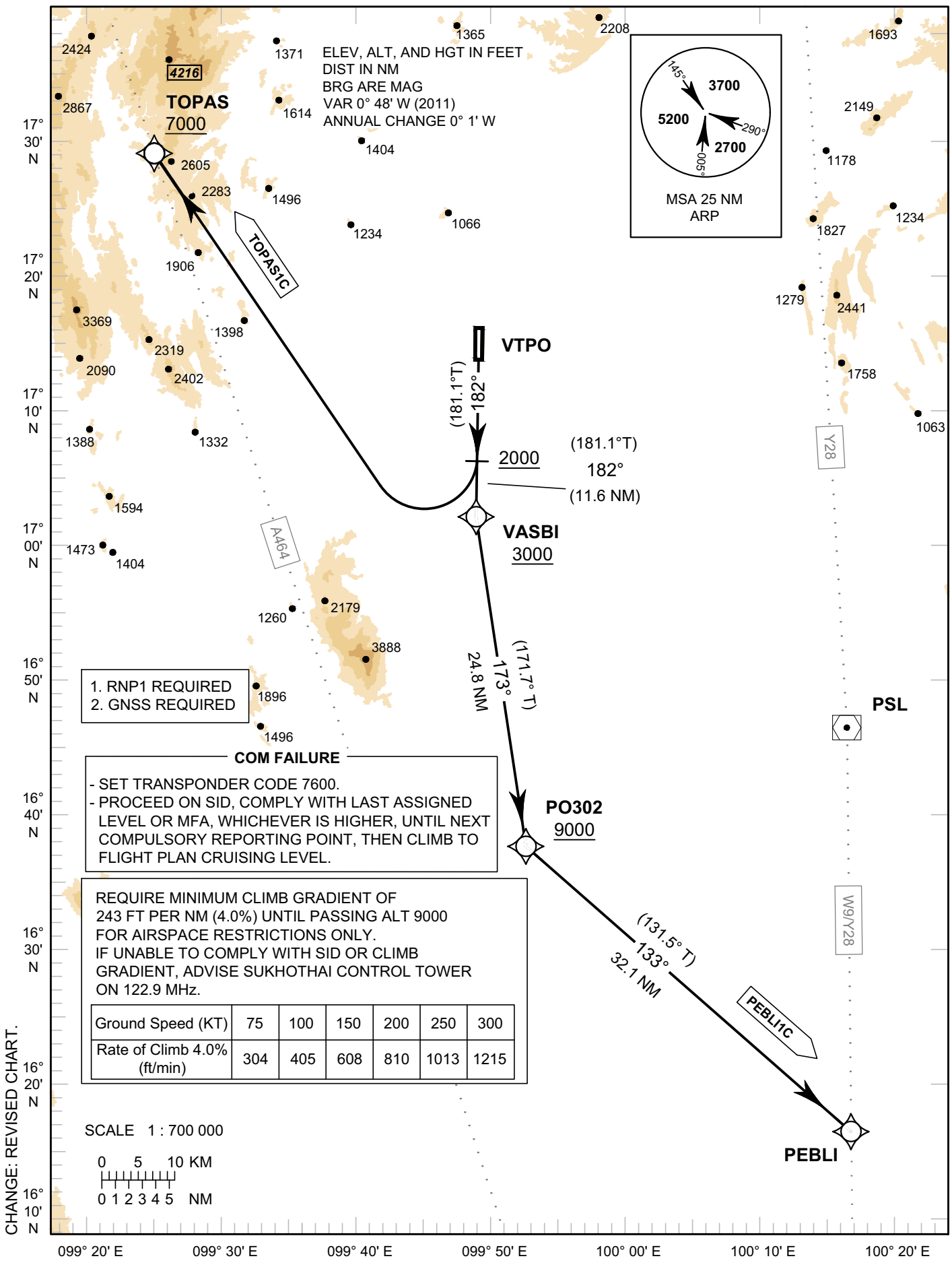
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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

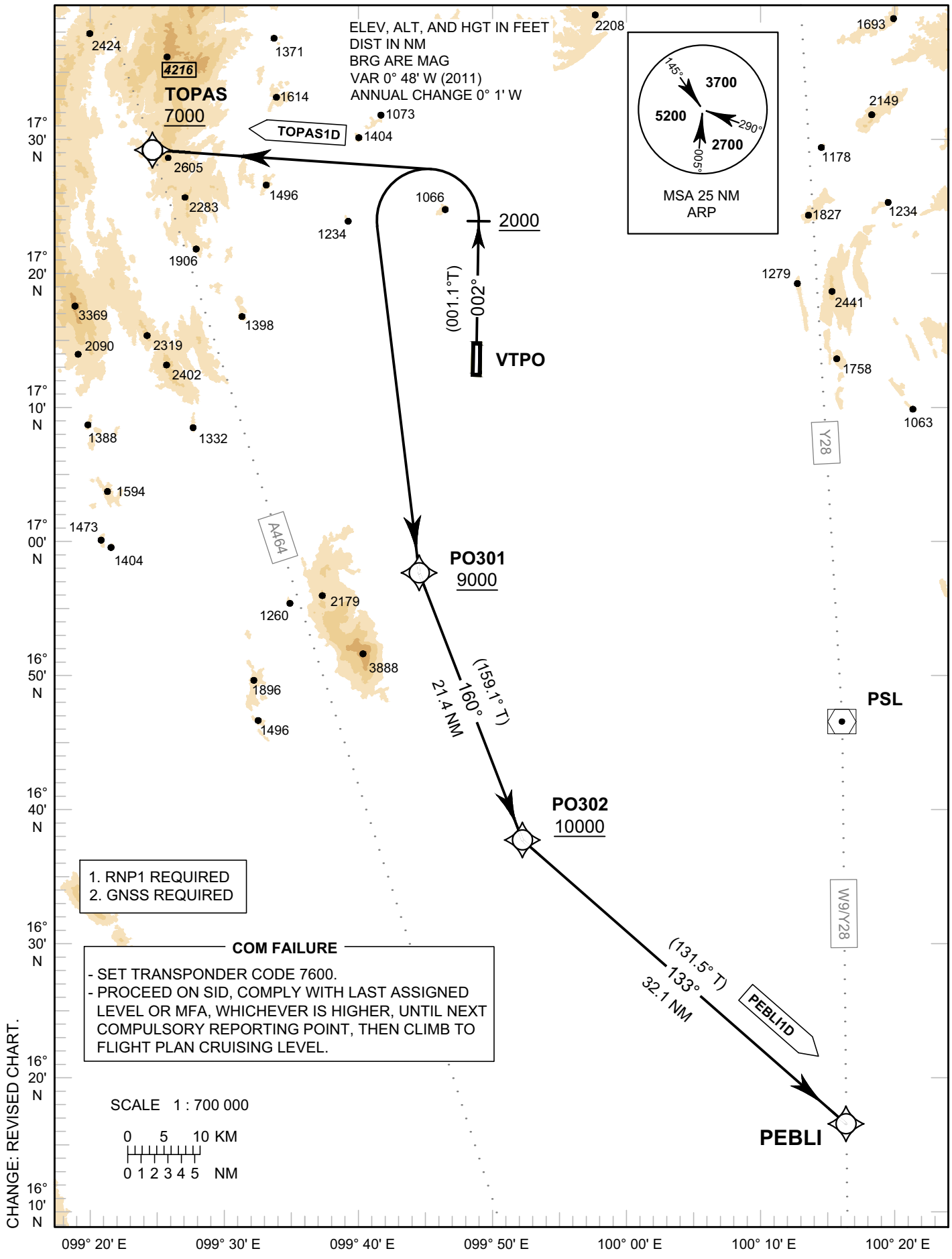
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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

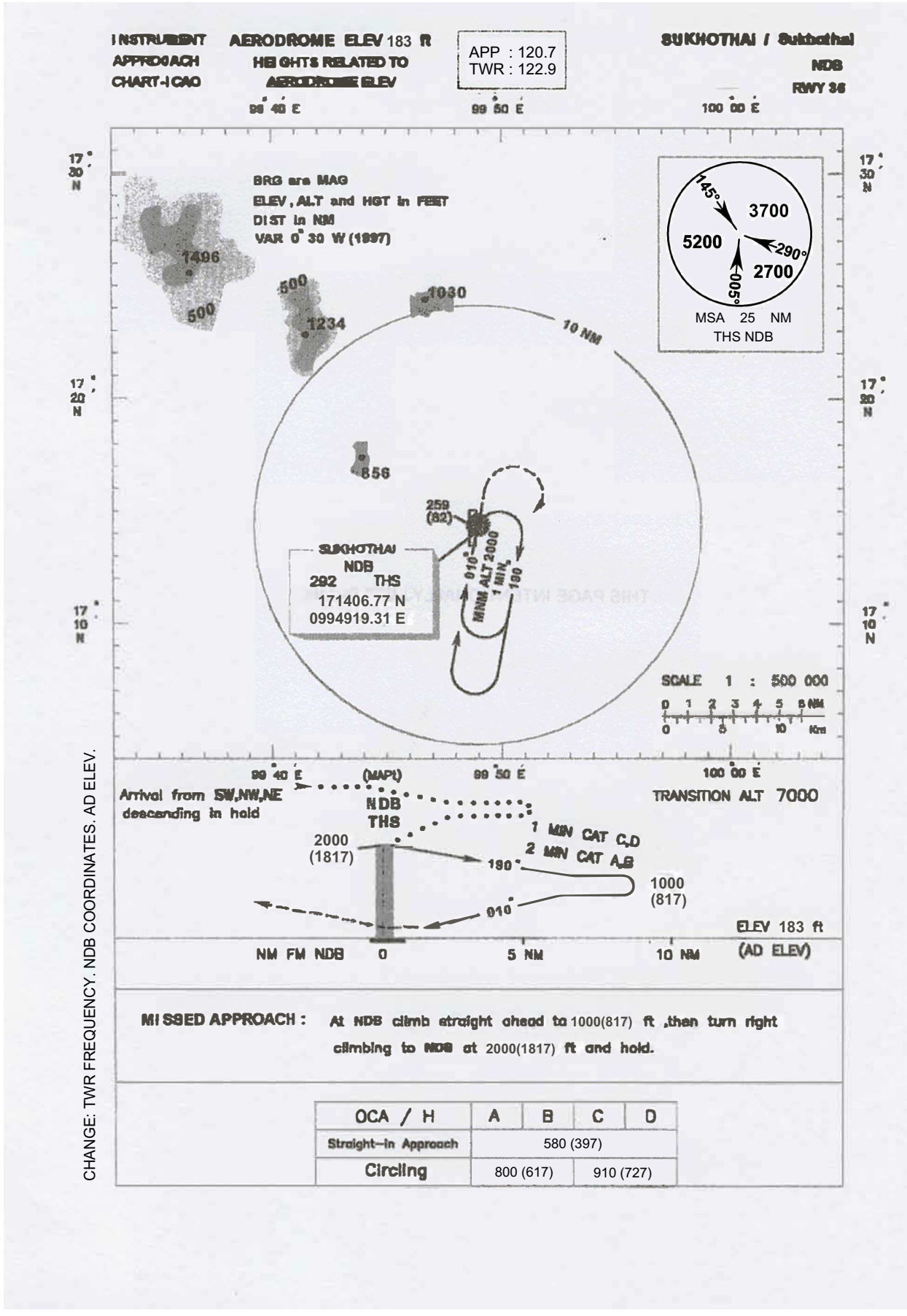
PEBLI1D TOPAS1D

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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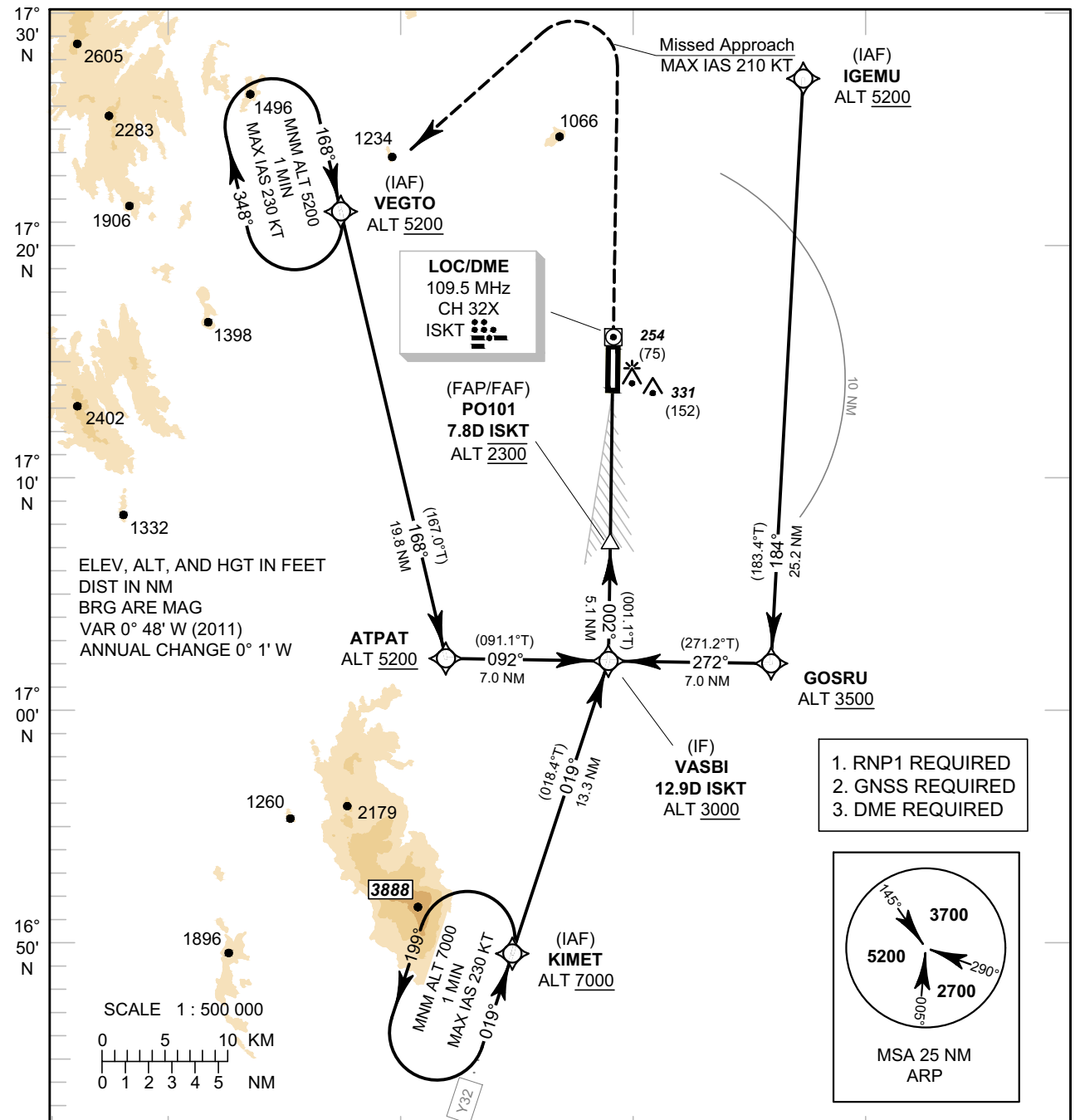
INSTRUMENT APPROACH CHART - ICAO

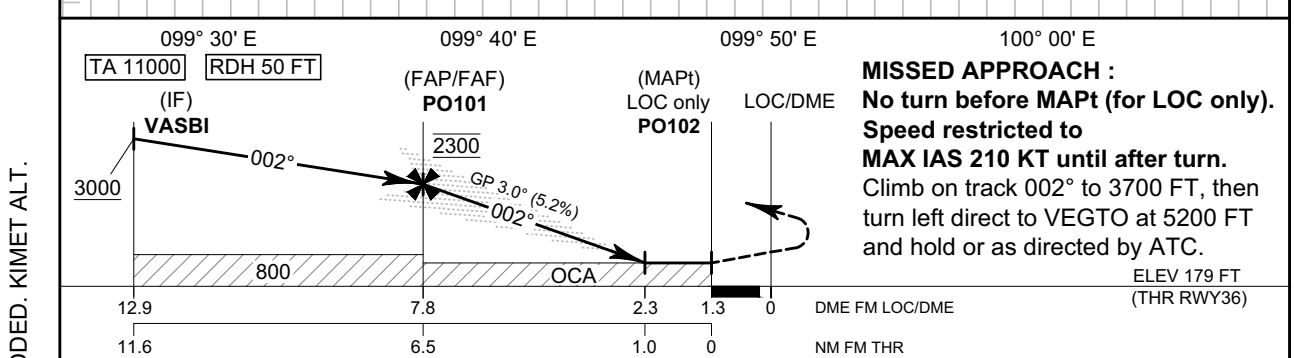
AERODROME ELEV 183 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 179 FT

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) VASBI	12.9D ISKT	17° 02' 05.51" N	099° 48' 51.12" E
(FAF) PO101	7.8D ISKT	17° 07' 10.05" N	099° 48' 57.31" E
(MAPt@THR36) 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.

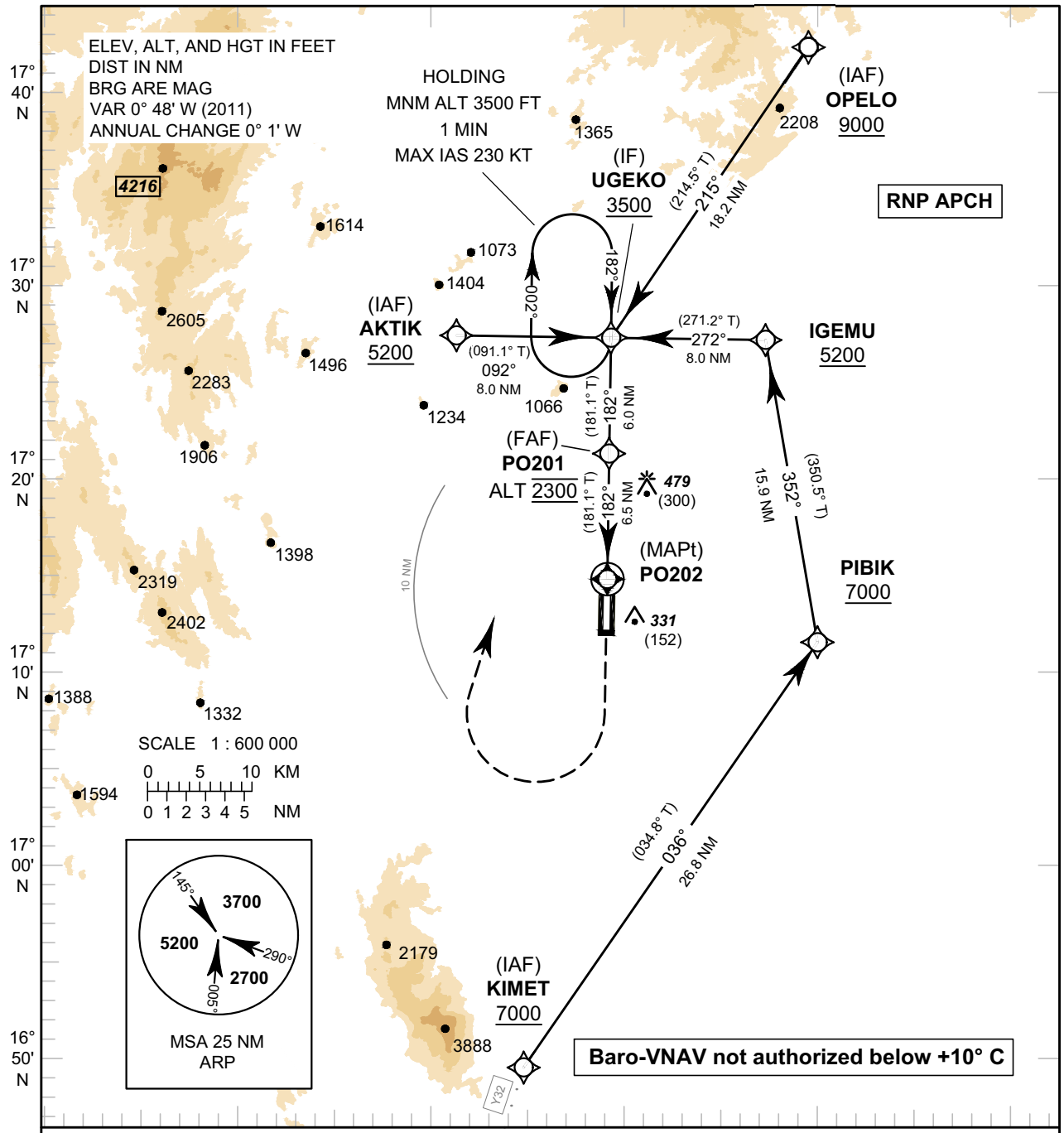
INTENTIONALLY BLANK

INSTRUMENT APPROACH CHART - ICAO

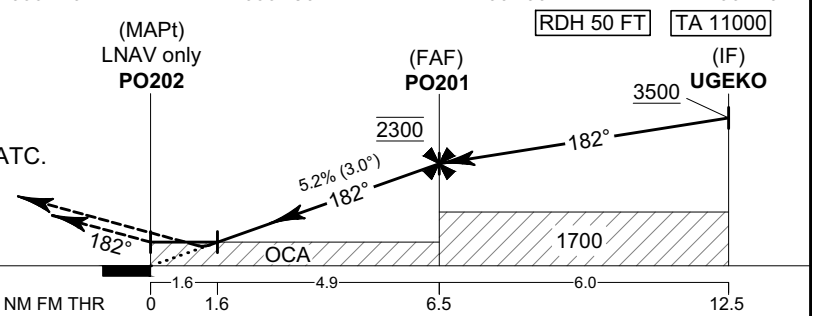
AERODROME ELEV 183 FT
HEIGHTS RELATED TO
THR RWY18 - ELEV 179 FT

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

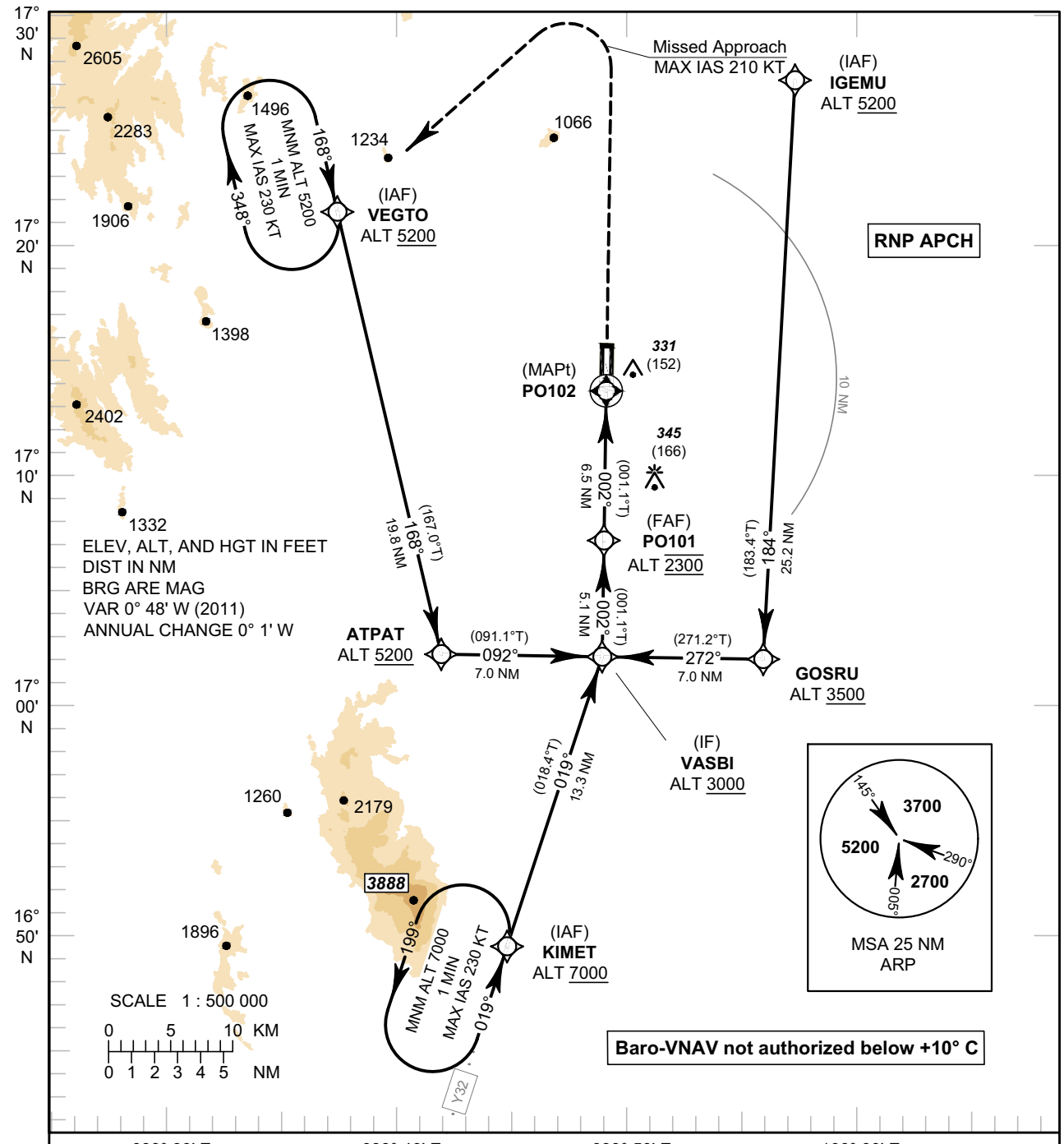
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 183 FT
HEIGHTS RELATED TO
THR RWY36 - ELEV 179 FT

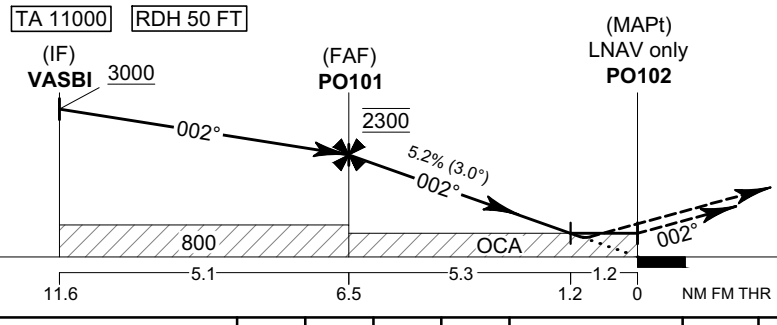
APP : 120.7
TWR : 122.9

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 Surat Thani Airport Tambon Huatoi, Amphoe Phunphin Surat Thani Province 84130 Thailand Tel: +667 744 1230 +667 744 1349 Fax: +667 744 1225 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): Located at Surat Thani Air Traffic Control Centre (1st floor of tower building) Tel: +667 744 1008 +669 1010 1837 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 1 JET A-1 Refueller @ 22,000 L 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 Strength: PCR 1200/R/C/X/T
2	Taxiway width, surface and strength	TWY A, B and M Width: 23 M Surface: Asphaltic concrete Strength: PCR 800/F/C/X/T TWY C (Parallel TWY), D, E, F, G, H, I and J Width: 23 M Surface: Concrete 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 HGT 45 M painted red/ white LGTD on top	090900N 0991000E	NIL	NIL	NIL
	Radio mast HGT 45 M painted red/ white LGTD on top	090823N 0990715E			
	Radio mast HGT 121 M painted red/ white LGTD on top	090750N 0992130E			

VTSB AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Surat Thani, Southern East-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1500 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern East-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 744 1132 ext. 5514
6	Flight documentation 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 Observation System (AWOS), Low Level Wind Shear 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 IBN: NIL
2	LDI location and LGT 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) 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 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 (090746.24N 0990805.09E)
2	Vertical limits	3000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Surat Thani Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Surat Thani Tower	122.7 MHZ 274.5 MHZ 121.5 MHZ [1)] 243.0 MHZ [1)]	As AD OPR HR	
GND	Surat Thani Ground	121.9 MHZ 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	090746.24N 0990805.09E		DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage orbit 40 NM as follow: RDL 001-070 DEG ALT should not below 1500 FT RDL 071-090 DEG ALT should not below 3500 FT RDL 091-150 DEG ALT should not below 5000 FT RDL 151-190 DEG ALT should not below 1500 FT RDL 191-360 DEG ALT should not below 4000 FT RDL 227 DEG distance approximate 10-13 DME out of tolerance roughness and scalloping.
ILS CAT I LOC RWY22	ISTN	109.5 MHZ	H24	090715.04N 0990726.77E		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	090821.76N 0990837.47E		- Glide Path 3° - 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

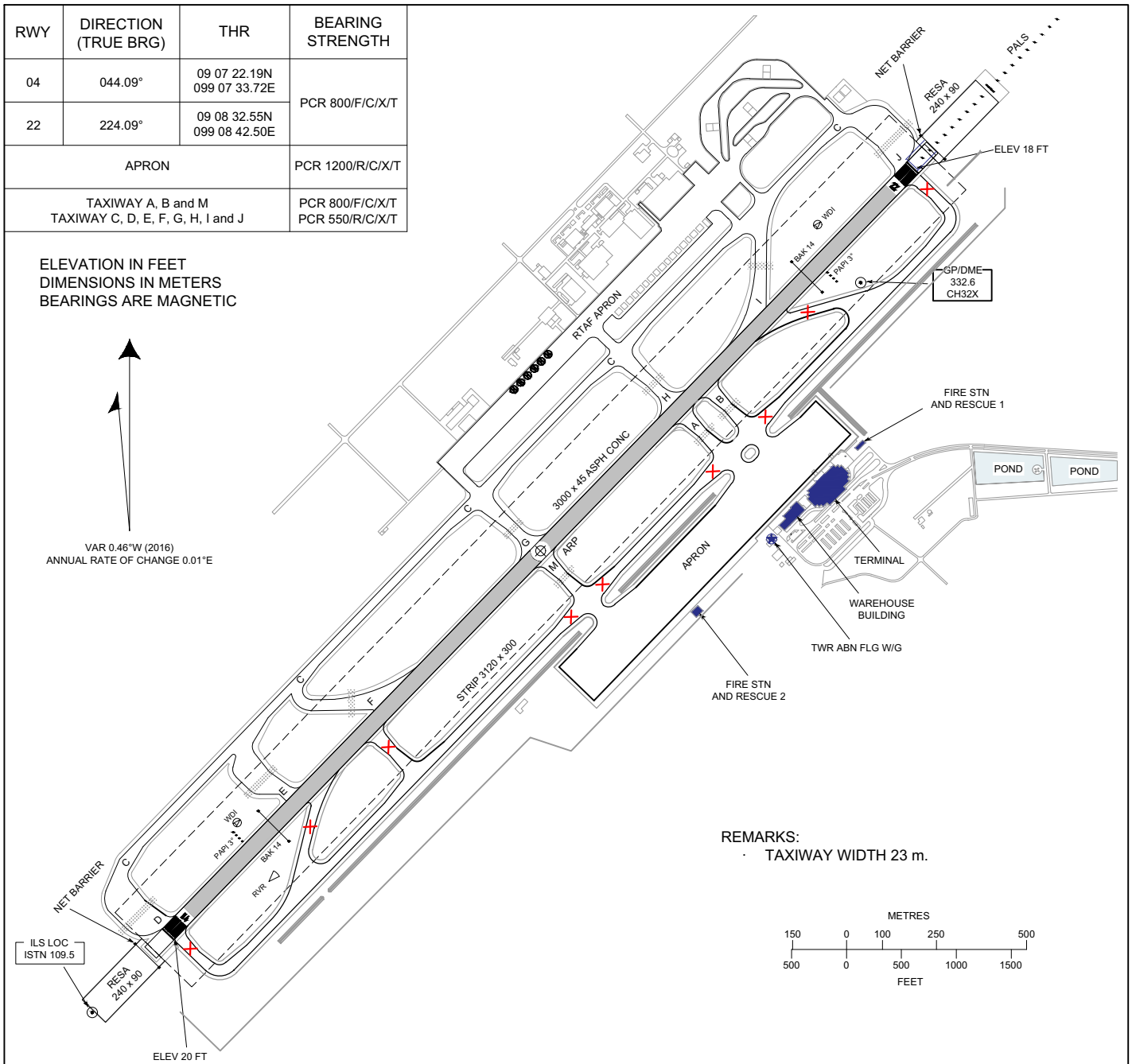
TWR 122.7, 274.5
GND 121.9, 275.8

SURAT THANI / Surat Thani

RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
04	044.09°	09 07 22.19N 099 07 33.72E	PCR 800/F/C/X/T
22	224.09°	09 08 32.55N 099 08 42.50E	
APRON			PCR 1200/R/C/X/T
TAXIWAY A, B and M TAXIWAY C, D, E, F, G, H, I and J			PCR 800/F/C/X/T PCR 550/R/C/X/T

ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC

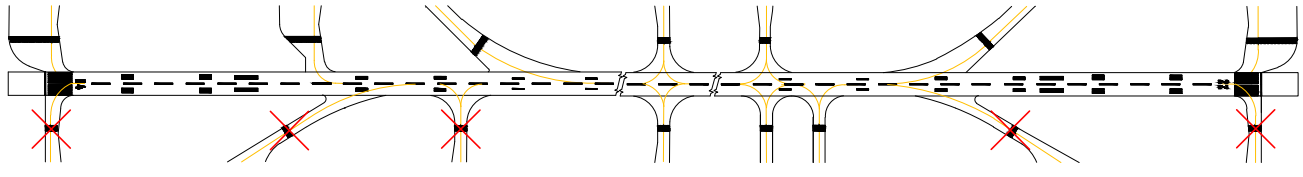
VAR 0.46°W (2016)
ANNUAL RATE OF CHANGE 0.01°E



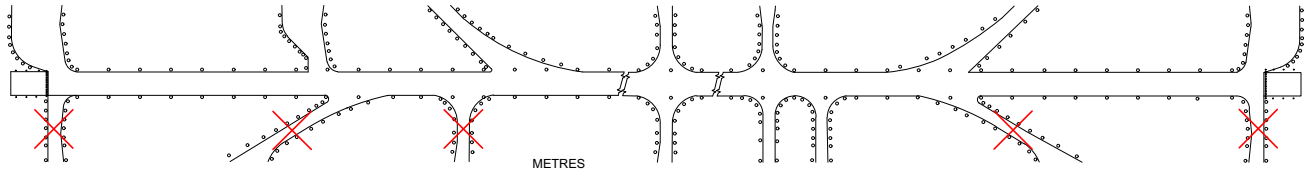
REMARKS:

- 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)

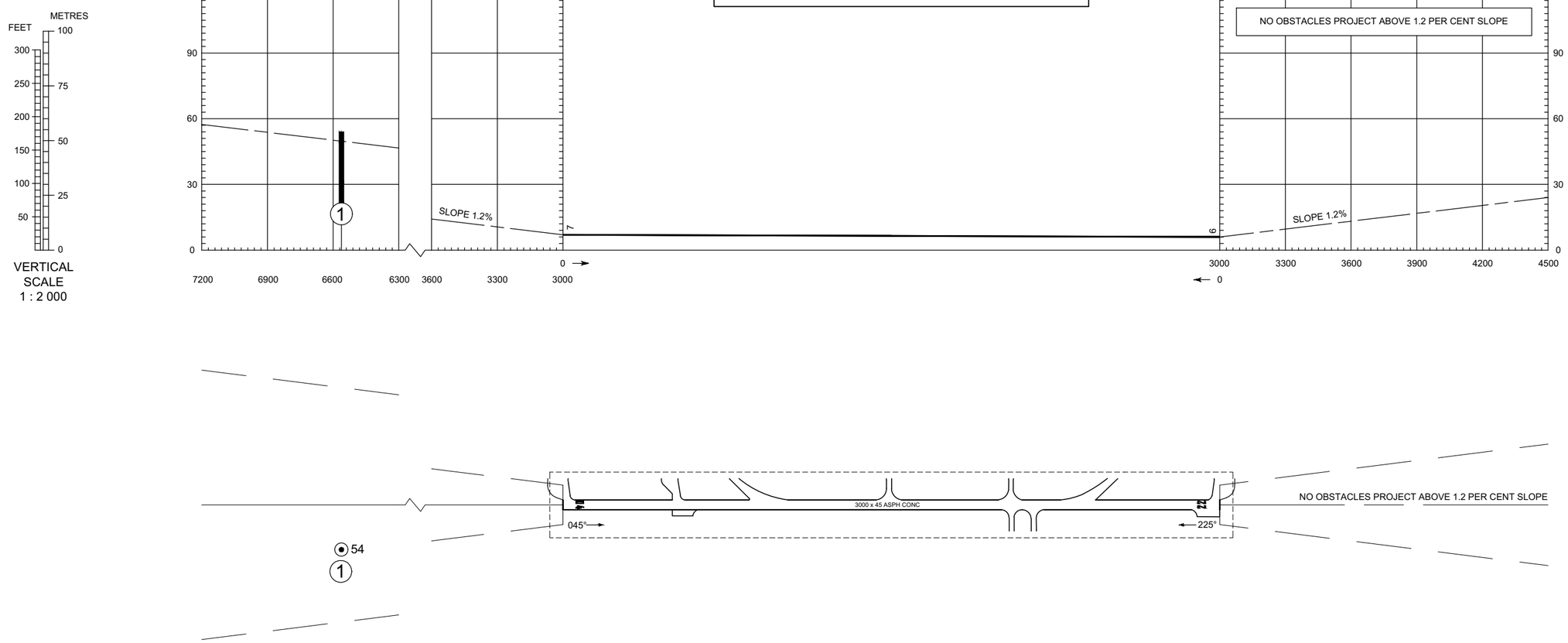
DIMENSIONS AND ELEVATIONS IN METRES

SURAT THANI / Surat Thani Airport

MAGNETIC VARIATION 0.60°W (2022)
ANNUAL RATE OF CHANGE 0.02°W

RWY 04 / 22

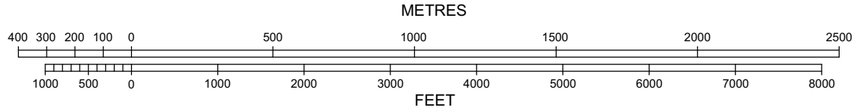
DECLARED DISTANCES		
RWY 04		RWY 22
3000	TAKE-OFF RUN AVAILABLE	3000
3000	TAKE-OFF DISTANCE AVAILABLE	3000
3000	ACCELERATE STOP DISTANCE AVAILABLE	3000
3000	LANDING DISTANCE AVAILABLE	3000



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

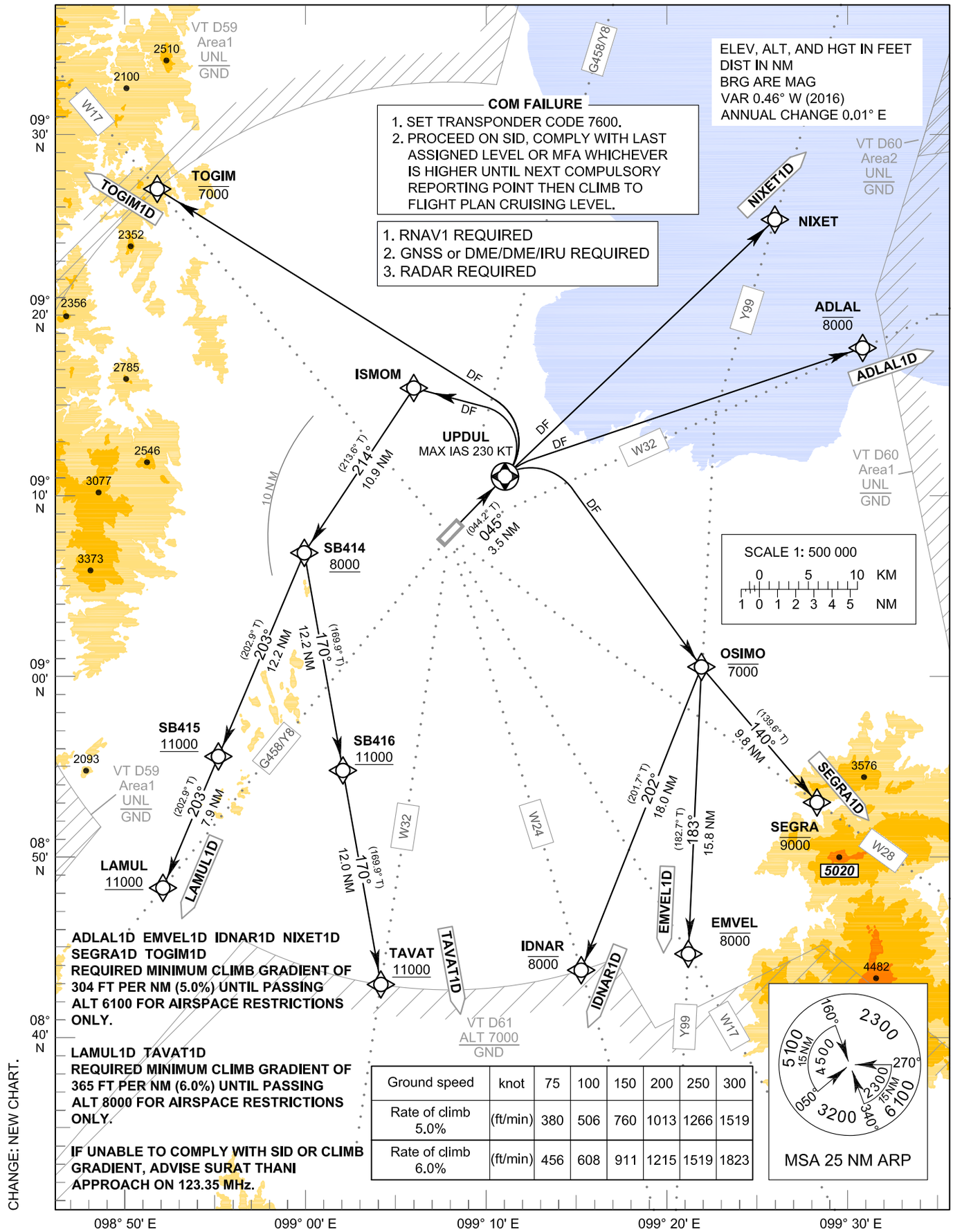
TRANSITION ALTITUDE
11000 FT

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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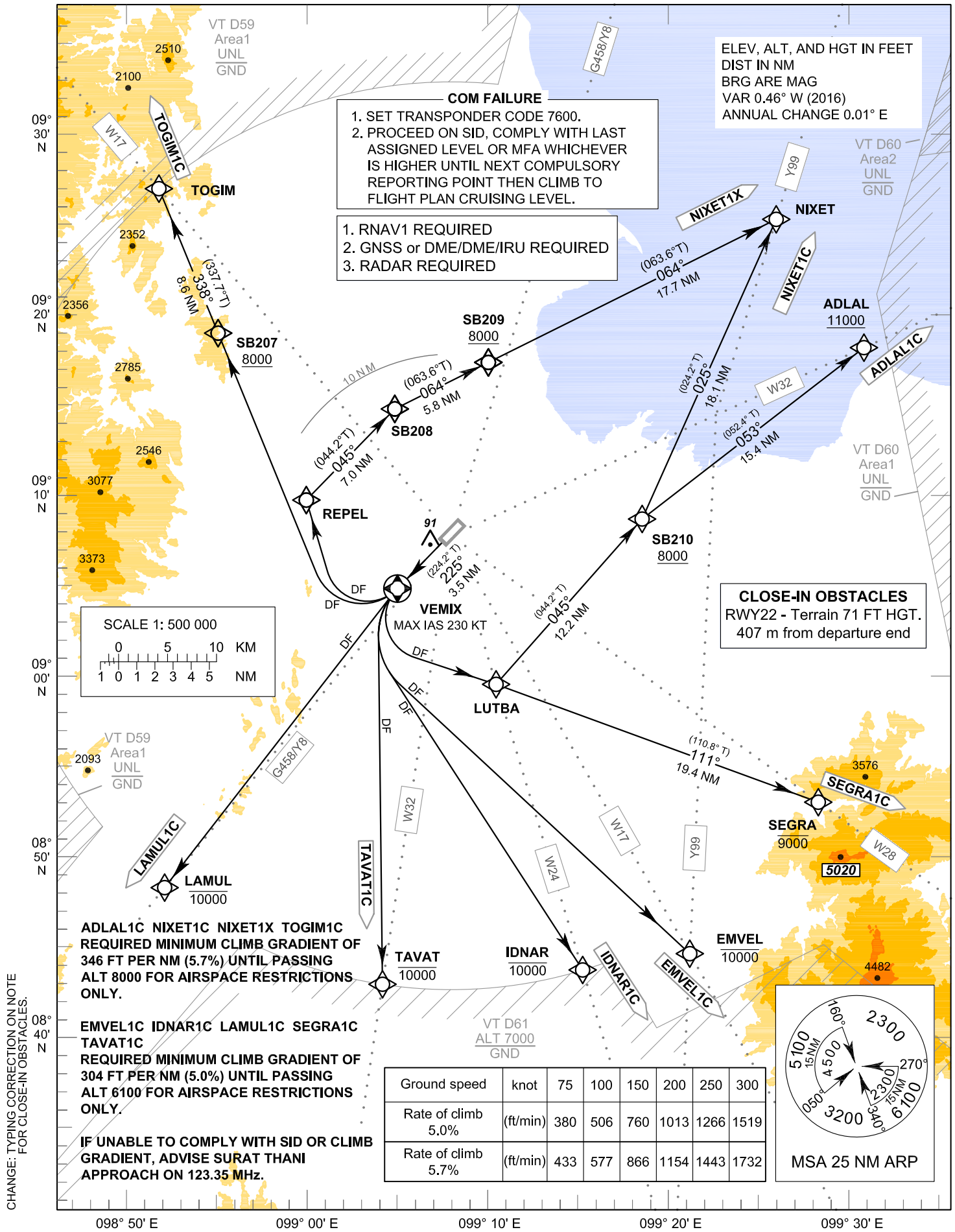
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

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

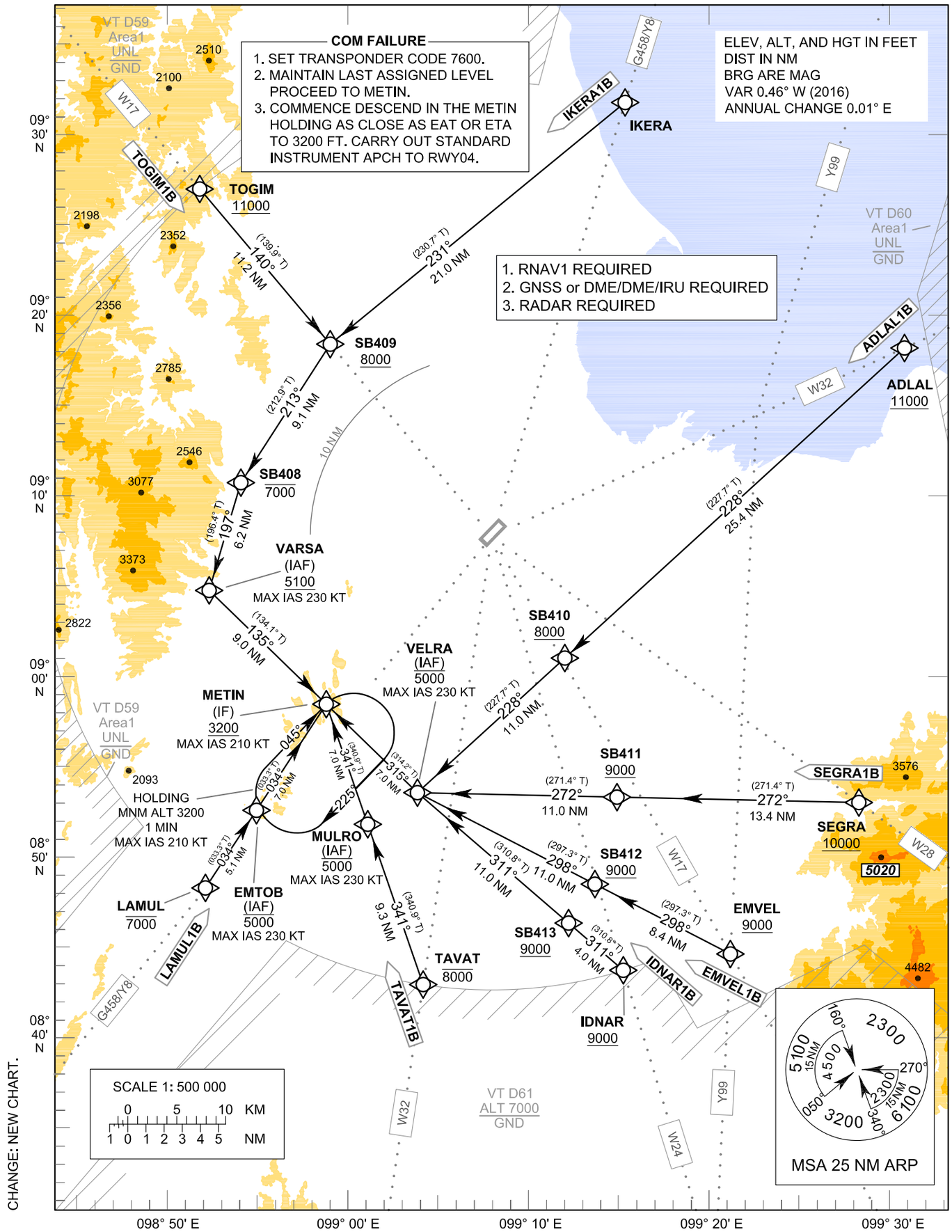
TRANSITION ALTITUDE
11000 FT

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

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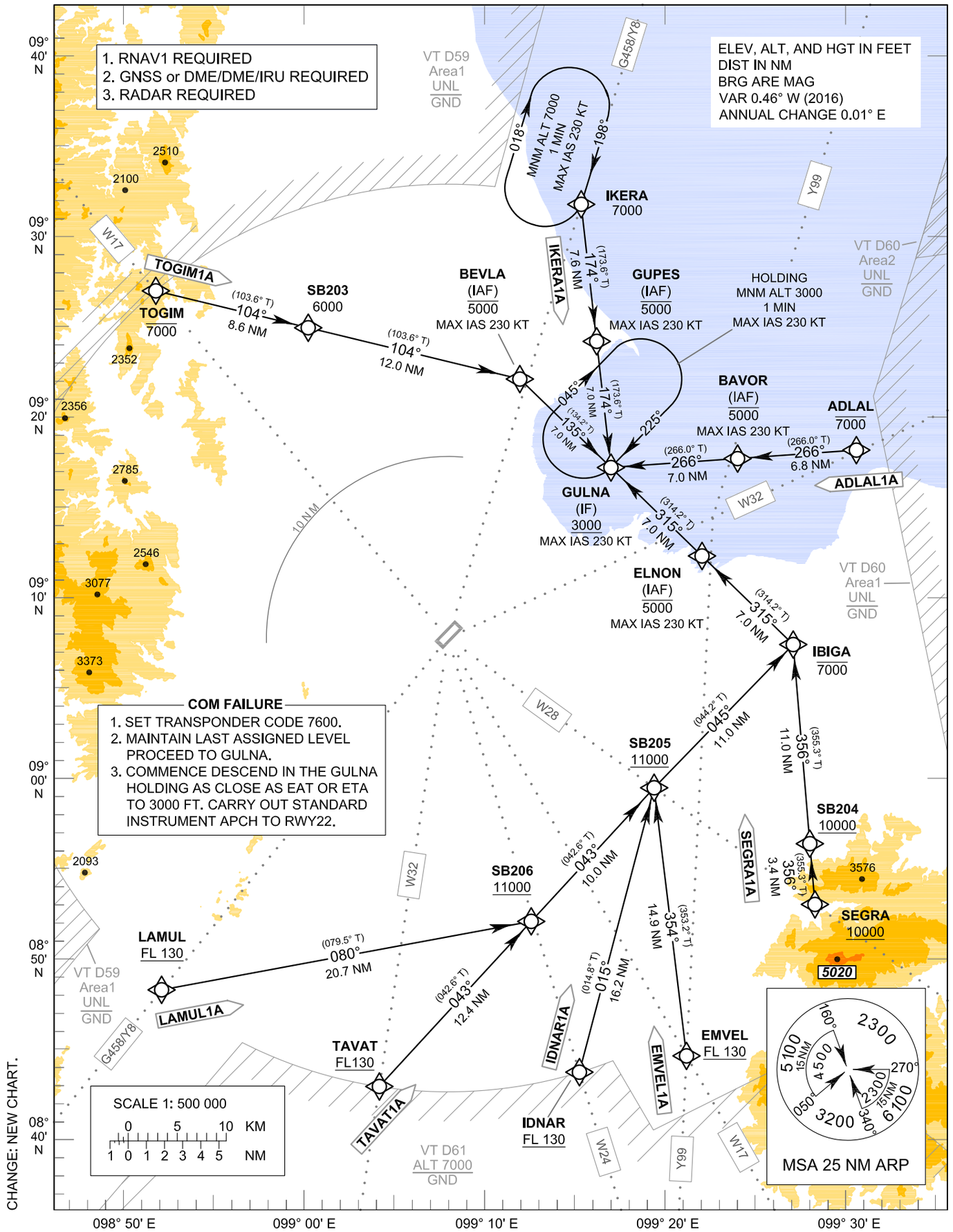
STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

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

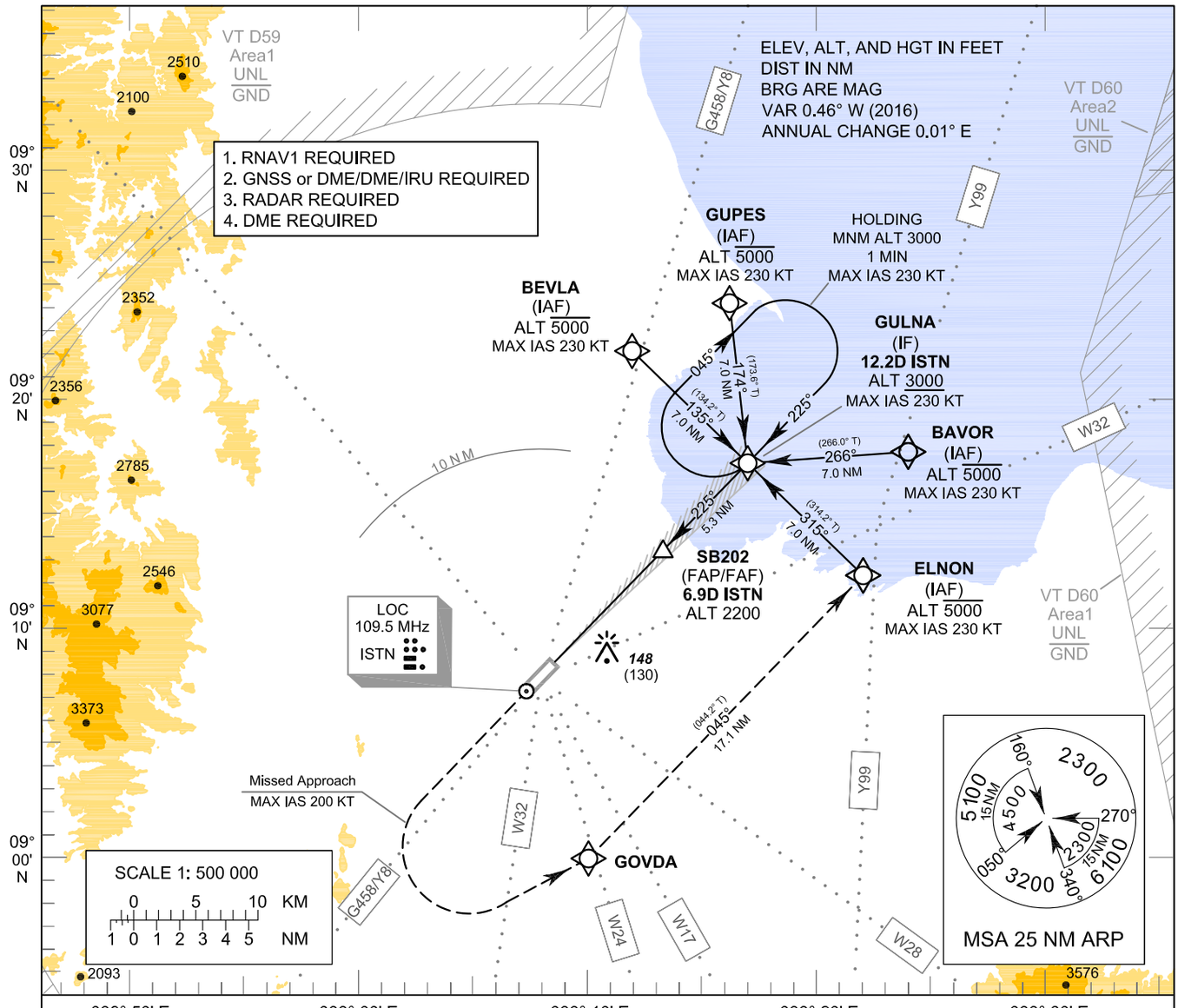
INSTRUMENT APPROACH CHART - ICAO

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

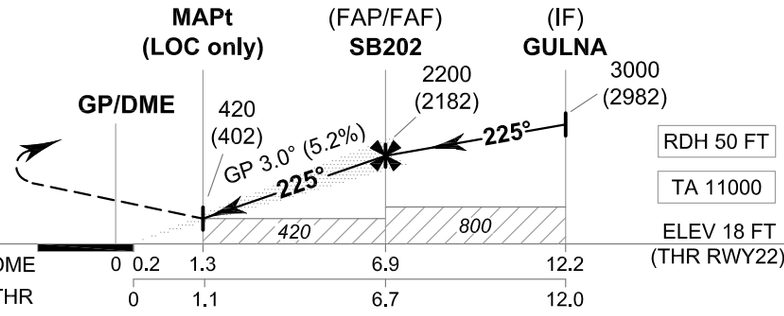
SURAT THANI / Surat Thani (VTSB)

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' 15.04" N	099° 07' 26.77" E	-
GP/DME	ISTN	09° 08' 21.76" N	099° 08' 37.47" E	-

INTENTIONALLY BLANK

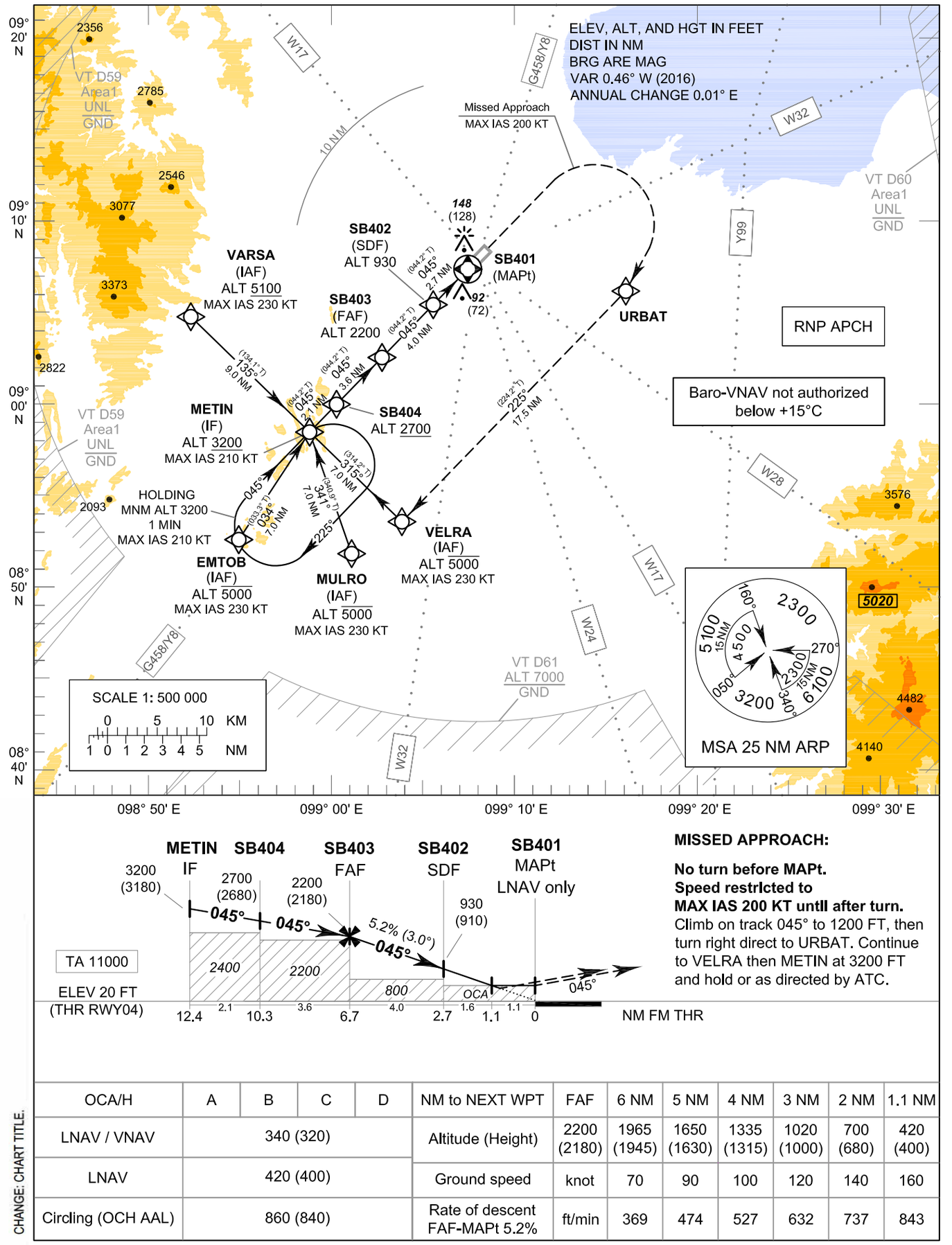
INSTRUMENT APPROACH CHART - ICAO

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.

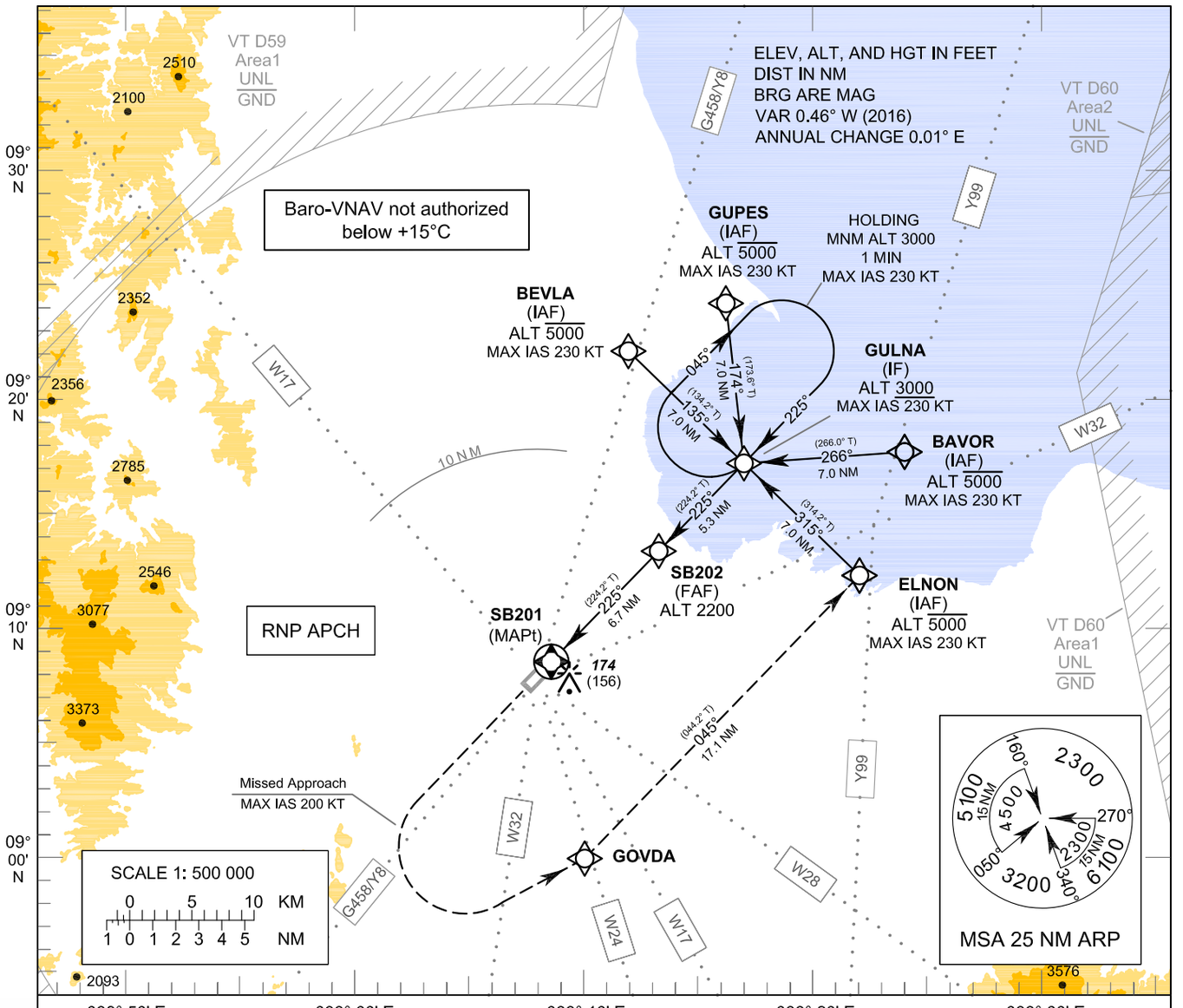
INSTRUMENT APPROACH CHART - ICAO

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

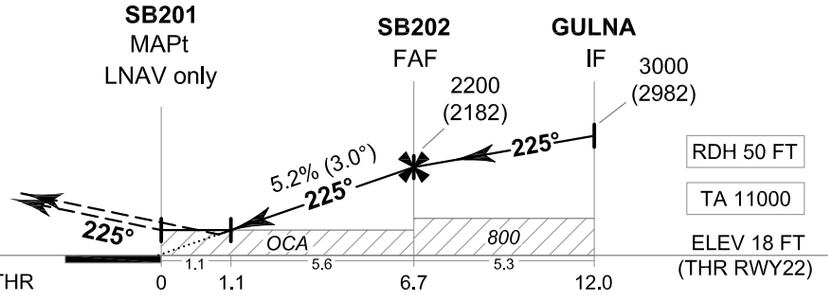
SURAT THANI / Surat Thani (VTSB)

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	-

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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 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 Samui Airport Amphoe Koh Samui Surat Thani Province 84320 Thailand Tel: +667 742 8580 Fax: +667 725 6270 E-mail: samuiairport@bangkokair.com, samui_adminairport@bangkokair.com Website:www.samuiairport.com 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) Website: www.bafsthai.com Tel: +662 834 8954 Regional Airport Manager Email: teerakan@bafs.co.th Tel. +668 9134 5690 1 Fuel Truck @ 15,000 L 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: Bangkok Airways Ground Services Co., Ltd (PGGS) Ground Handling Inquiry E-mail: office@pg-gs.com, phuwanai@pg-gs.com, phornphan@pg-gs.com 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 Car rental service
4	Medical facilities	First aid at AD
5	Bank and Post Office	Money Exchange: Available Post Office: NIL
6	Tourist Office	Tourist Office Centre (Office in town) Open H24 Phone: +667 743 0018 Airport Emergency Tourist Police Centre At AD 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: - Airport Rescue and Fire Fighting Manager Tel: +668 1956 6655 - Airport Fire Station 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 Strength: PCN 42/R/D/X/T
2	Taxiway width, surface and strength	Taxiway A, B, C, D, E and F Width: 30 M Surface: Concrete 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 28.5 M (93.5 FT) No Markings No LGT	093335.23N 1000346.24E	Hill 630 M	093324N 1000423E	See Aerodrome obstacle chart type A for details
RWY35/TKOF	Building 40 M (131 FT) No Markings No LGT	093415.23N 1000334.55E			

VTSM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Samui, Southern East-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1500 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern East-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 742 8520
6	Flight documentation 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 Concrete and asphalt	093319.40N 1000342.26E	43 FT
35	354.48°	2100x45	PCN 38/F/B/W/T 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% 1300 M / 800 M	225x45	60x45	2085x150	NIL	See below
-0.8% / 0% 800 M / 1300 M (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 Right 3° (47.53 FT)	White 2 Pairs 646M	2100 M,30 M White FM 0-1200 M, Red/White FM 1200-1800 M, Red FM 1800-2100 M, LIH	2100 M,60 M Red FM 0-200 M, White FM 200-1400 M, Yellow FM 1400-2100 M, LIH	Red	NIL	RTIL
35	NIL	Green	PAPI Left 3.2° (46.35 FT)	White 2 Pairs 647M	2100 M,30 M White FM 0-1200 M, Red/White FM 1200-1800 M, Red FM 1800-2100 M, LIH	2100 M,60 M Red FM 0-300 M, White, FM 300-1300 M, Yellow 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 2300-1500
2	LDI location and LGT 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 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 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 SAMUI NDB (093314.01N 1000335.65E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Samui Tower 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 121.5 MHZ [1)]	As AD OPR HR	1) Emergency frequency
TWR	Samui Tower	118.9 MHZ 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	093249.47N 1000342.27E	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: – Radial 000º-015º beyond 25 NM altitude should not below 4 000 FT – Radial 016º-040º beyond 25 NM altitude should not below 6 000 FT – Radial 041º-060º beyond 20 NM altitude should not below 11 000 FT – Radial 061º-070º beyond 25 NM altitude should not below 9 000 FT – Radial 071º-120º beyond 40 NM altitude should not below 11 000 FT – Radial 121º-180º beyond 40 NM altitude should not below 5 000 FT – Radial 181º-210º beyond 25 NM altitude should not below 8 000 FT – Radial 211º-260º beyond 20 NM altitude should not below 9 000 FT – Radial 261º-280º beyond 25 NM altitude should not below 7 000 FT – Radial 281º-360º beyond 40 NM altitude should not below 8 000 FT
NDB	SM	316 KHZ	H24	093314.01N 1000335.65E		

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

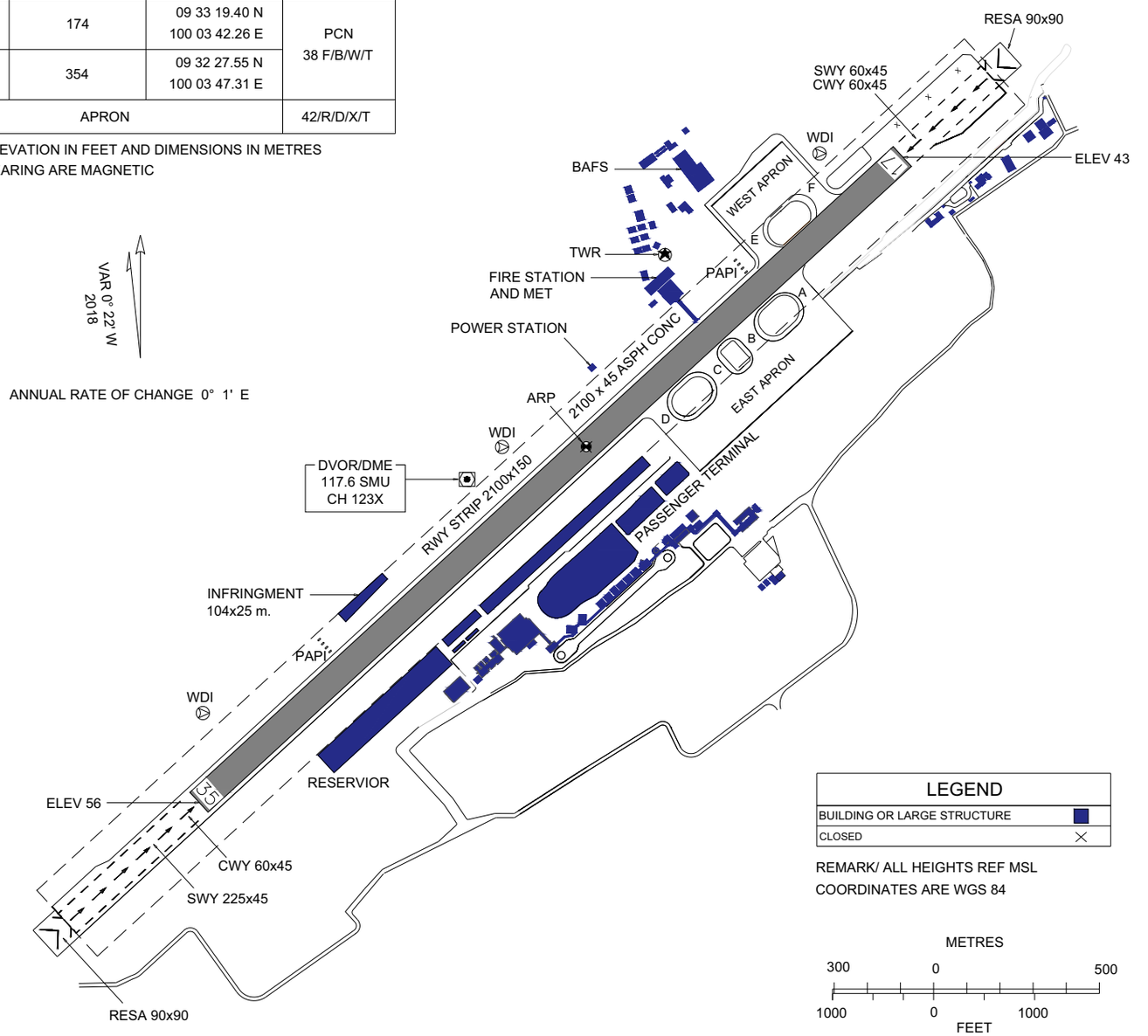
Chart name	Page
Aerodrome Chart - ICAO	AD 2-VTSM-2-1
Aircraft Parking/Docking Chart - ICAO	AD 2-VTSM-2-3
Aerodrome Ground Movement Chart - ICAO	AD 2-VTSM-2-5
Aerodrome Obstacle Chart - ICAO Type A - RWY 35/17	AD 2-VTSM-3-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 17 - DORNA1A ENRAG1A 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

Chart name	Page
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
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

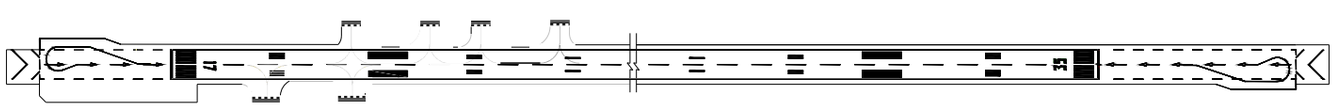
AERODROME CHART - ICAO | 09 32 56 N 100 03 45 E | ELEV 64 ft. | TWR 118.9 121.5 243.0 | SURAT THANI / Samui Airport

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

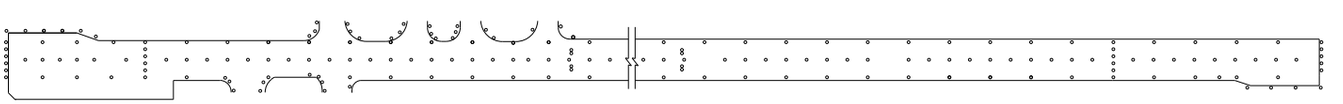
ELEVATION IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC



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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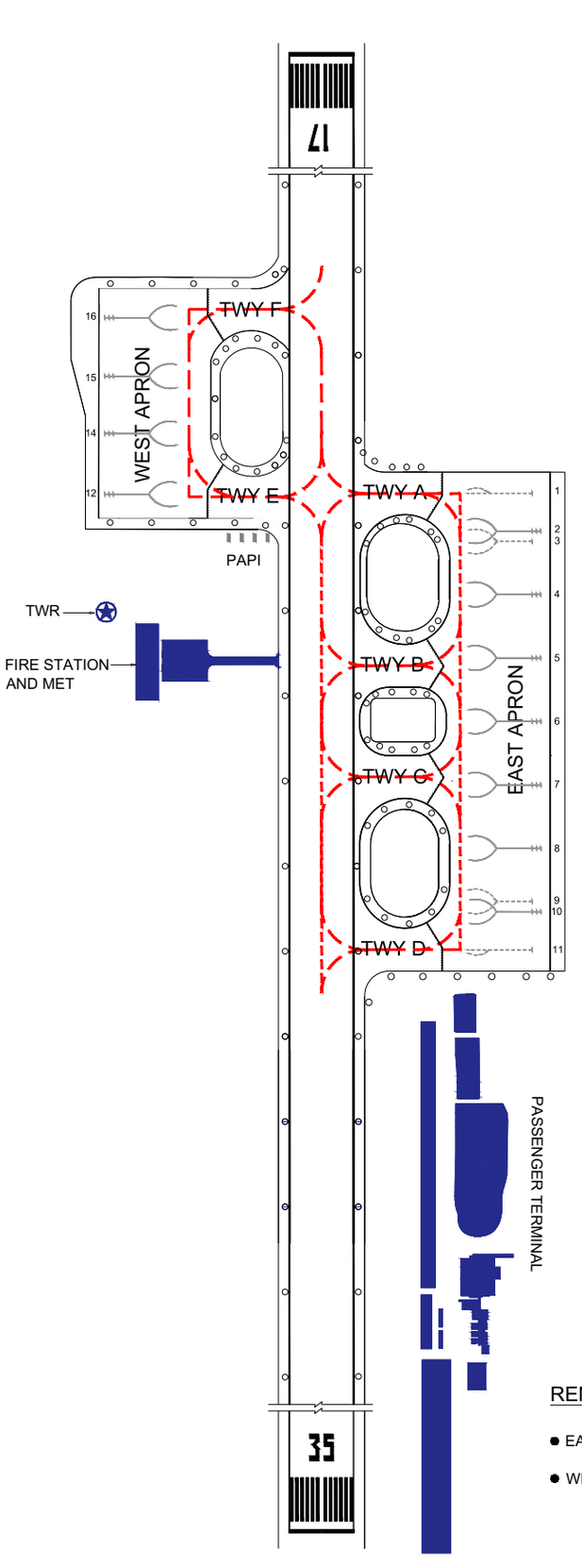
AIRCRAFT PARKING/
DOCKING CHART - ICAO

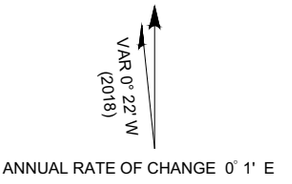
09 32 56 N
100 03 45 E

WEST APRON ELEV 47 ft.
EAST APRON ELEV 46 ft.

TWR 118.9
GND 121.9

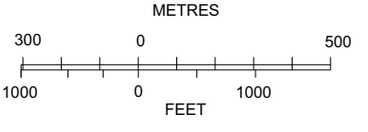
SURAT THANI / Samui Airport





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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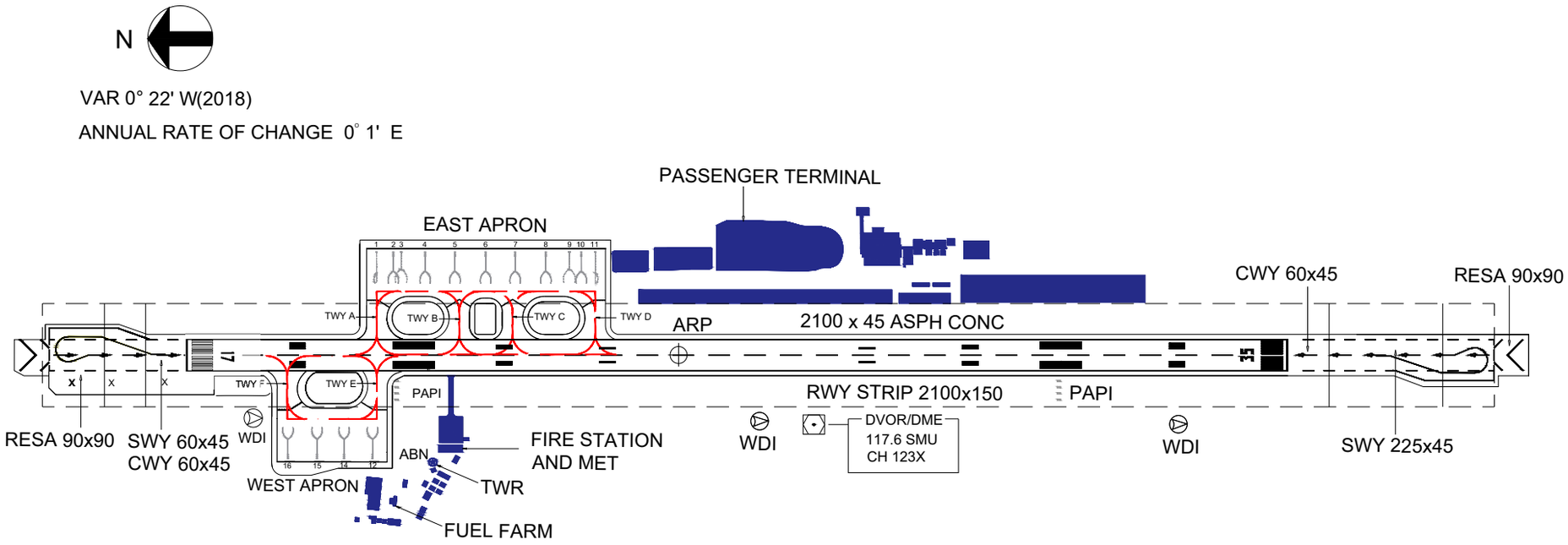
AERODROME GROUND MOVEMENT CHART - ICAO

WEST APRON ELEV 47 ft.
EAST APRON ELEV 46 ft.

TWR 118.9
GND 121.9

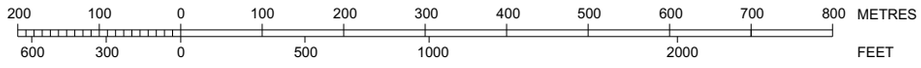
SURAT THANI / Samui Airport

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

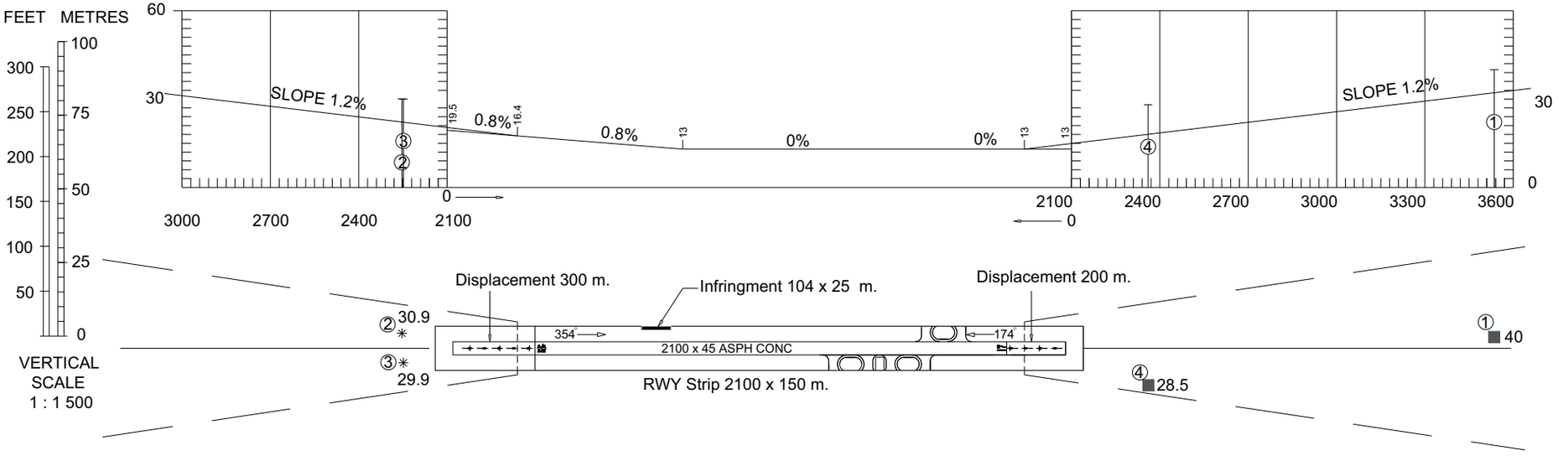
DIMENSIONS AND ELEVATIONS IN METRES
MAGNETIC VARIATION 0° 22' W (2018)

RUNWAY 35 / 17

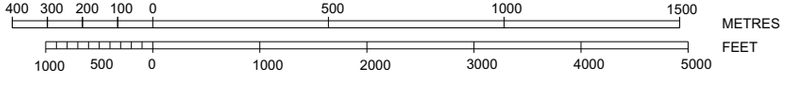
DECLARED DISTANCES		
RWY 35		RWY 17
1900	TAKE-OFF RUN AVAILABLE	1800
1960	TAKE-OFF DISTANCE AVAILABLE	1860
1960	ACCELERATE STOP DISTANCE AVAILABLE	2025
1660	LANDING DISTANCE AVAILABLE	1825

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	✳

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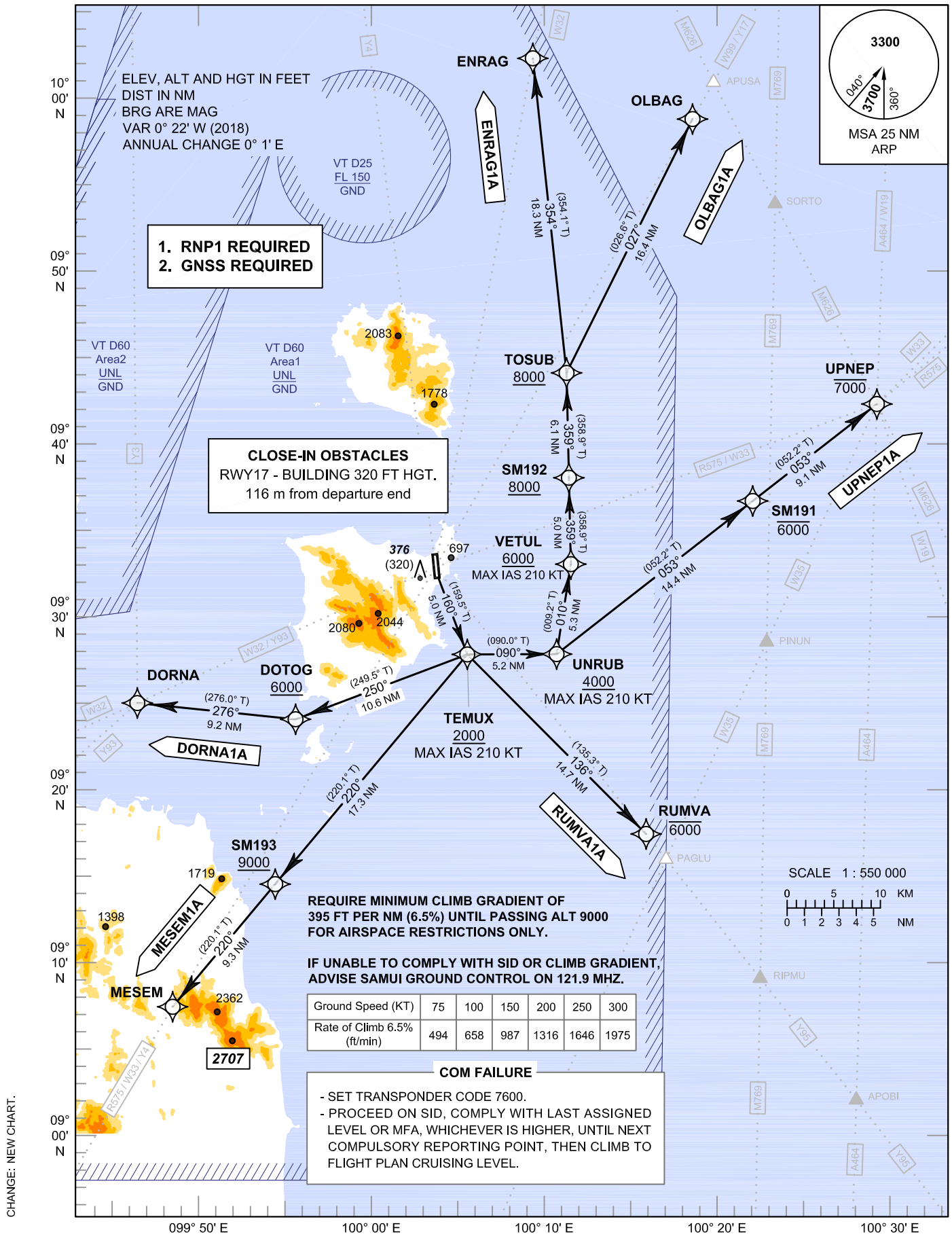
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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

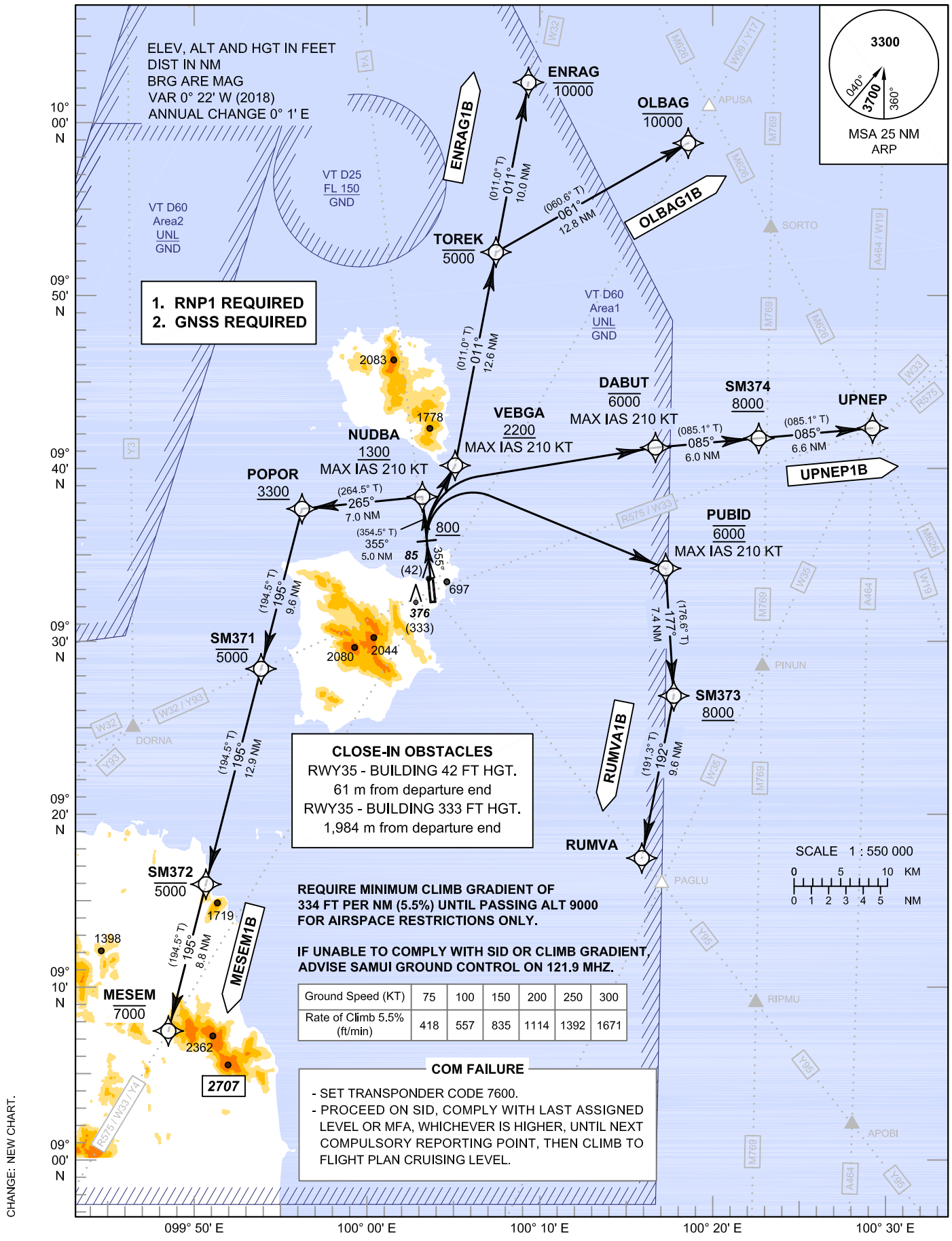
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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

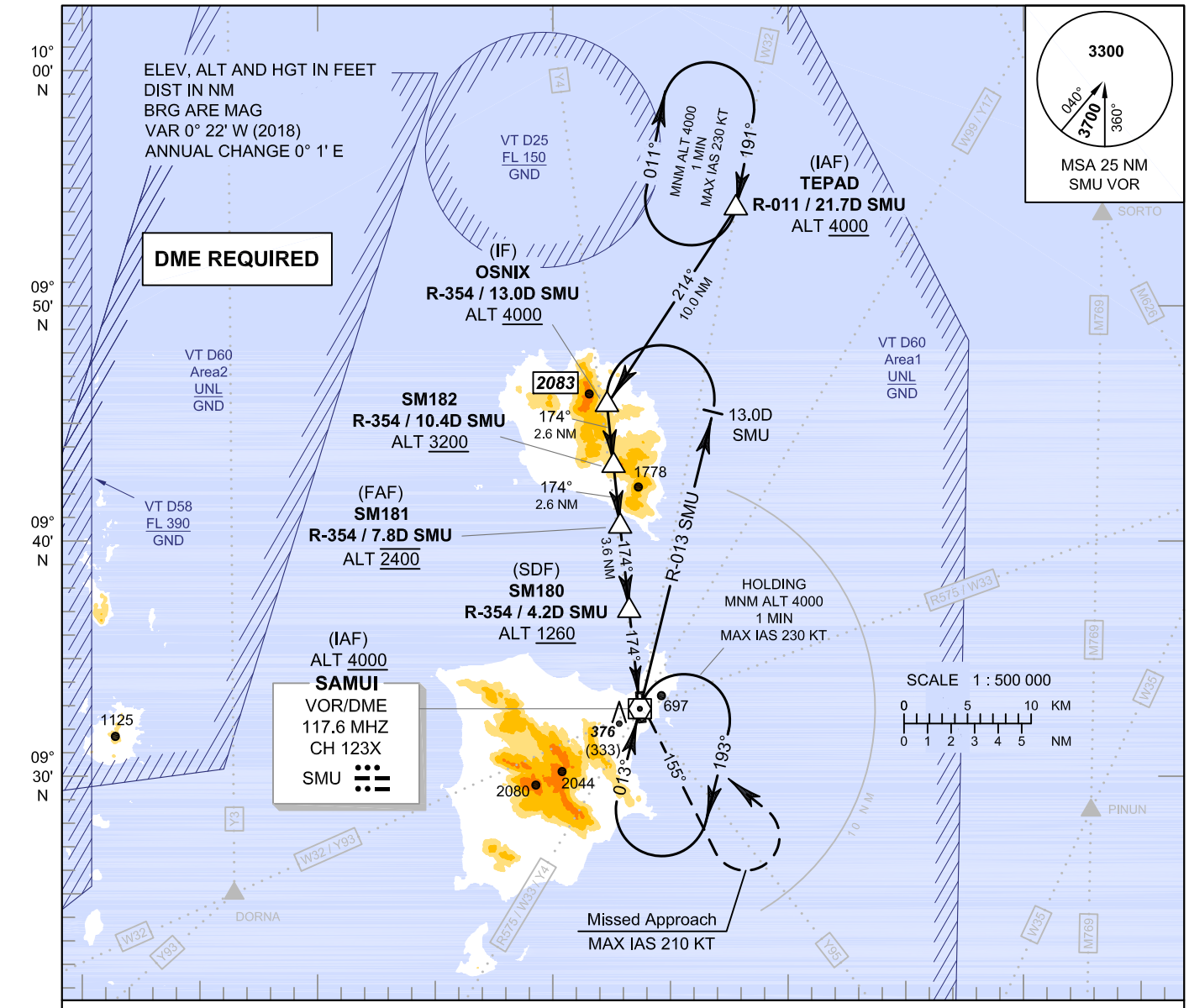
Waypoint Identifier	Coordinates	
DER RWY35	09° 33' 19.40" N	100° 03' 42.26" E
DABUT	09° 41' 08.45" N	100° 16' 53.04" E
ENRAG	10° 02' 23.31" N	100° 09' 31.07" E
MESEM	09° 07' 19.05" N	099° 48' 15.85" E
NUDBA	09° 38' 19.40" N	100° 03' 13.03" E
OLBAG	09° 58' 49.36" N	100° 18' 52.25" E
POPOR	09° 37' 38.71" 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

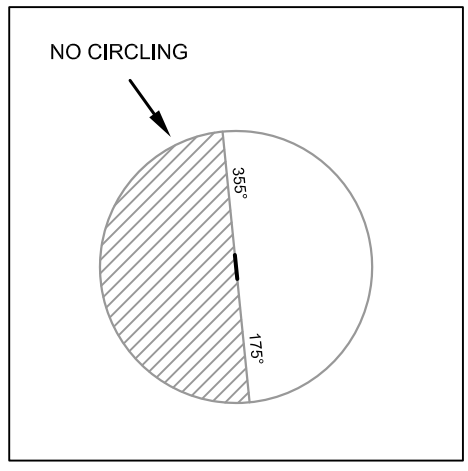
CHANGE: NEW PROCEDURES.
INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.0 NM
DUE TO TERRAIN RESTRICTIONS.

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' 49.47" N	100° 03' 42.27" E

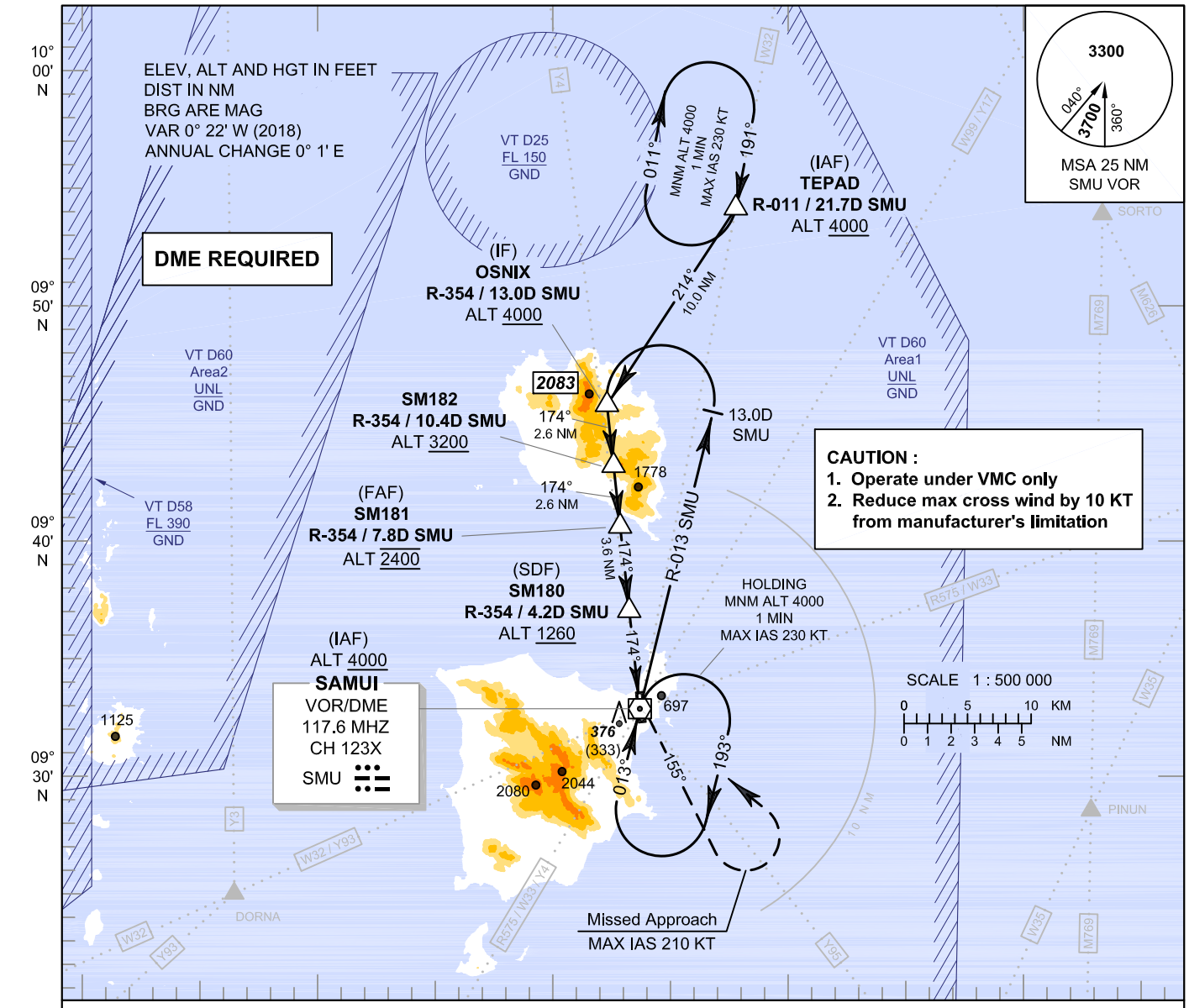


INSTRUMENT APPROACH CHART - ICAO

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 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)

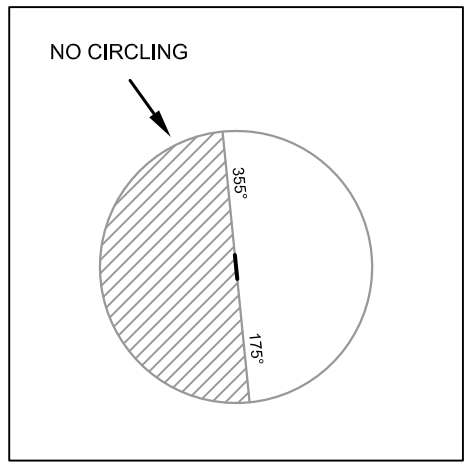
Ground Speed	knot	70	90	100	120	140	160
Rate of Descent 5.2%	ft/min	369	474	527	632	737	843

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' 49.47" N	100° 03' 42.27" E

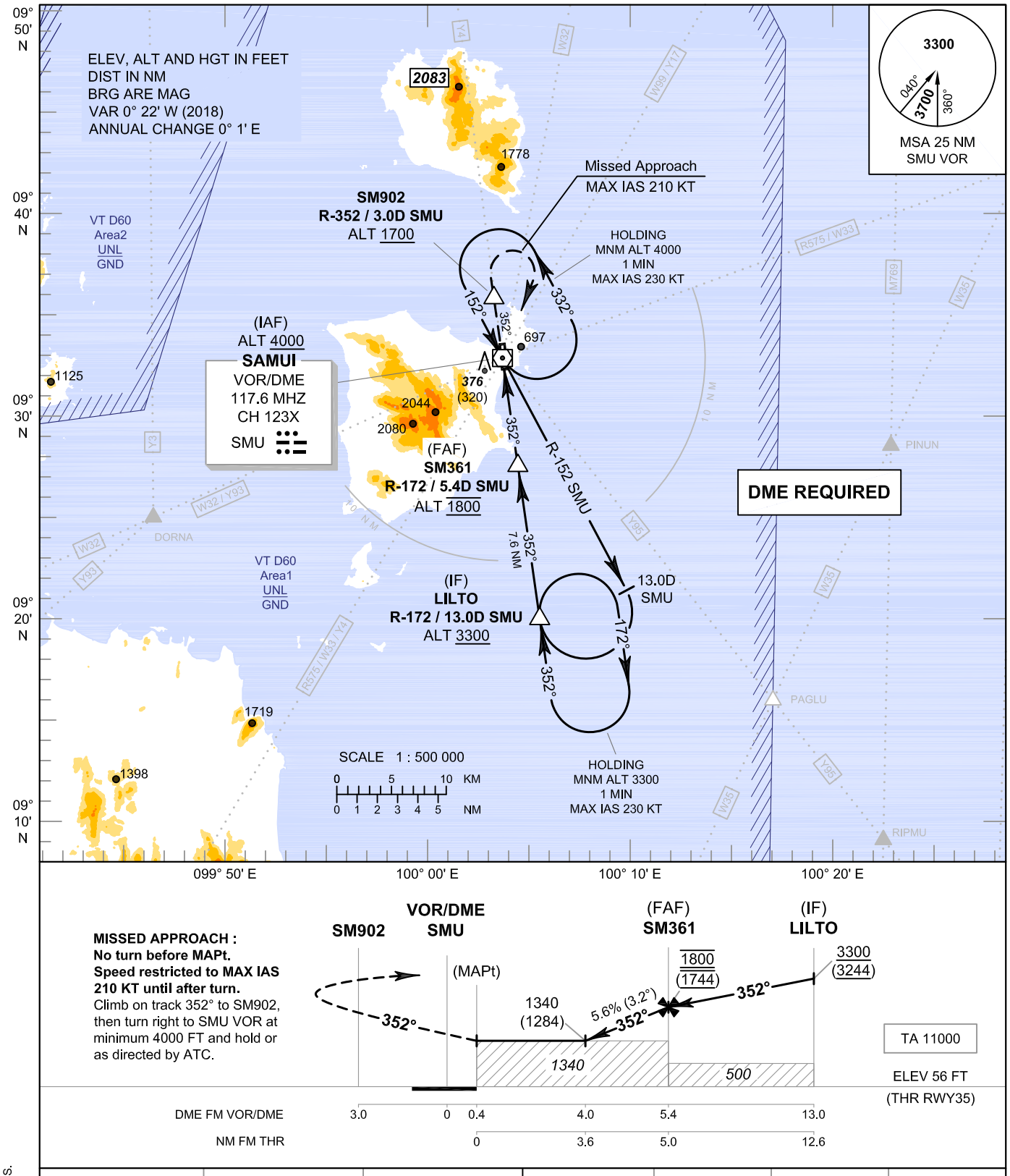


INSTRUMENT APPROACH CHART - ICAO

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

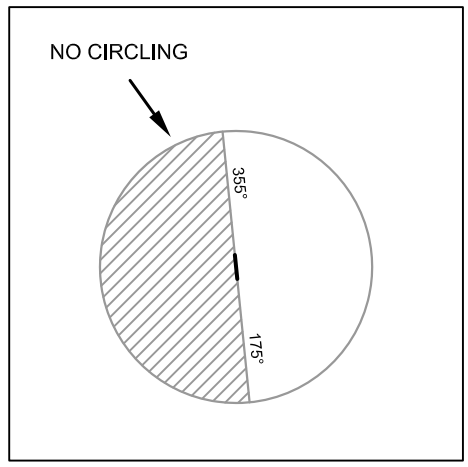
CHANGE: NEW PROCEDURES.

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' 49.47" N	100° 03' 42.27" 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

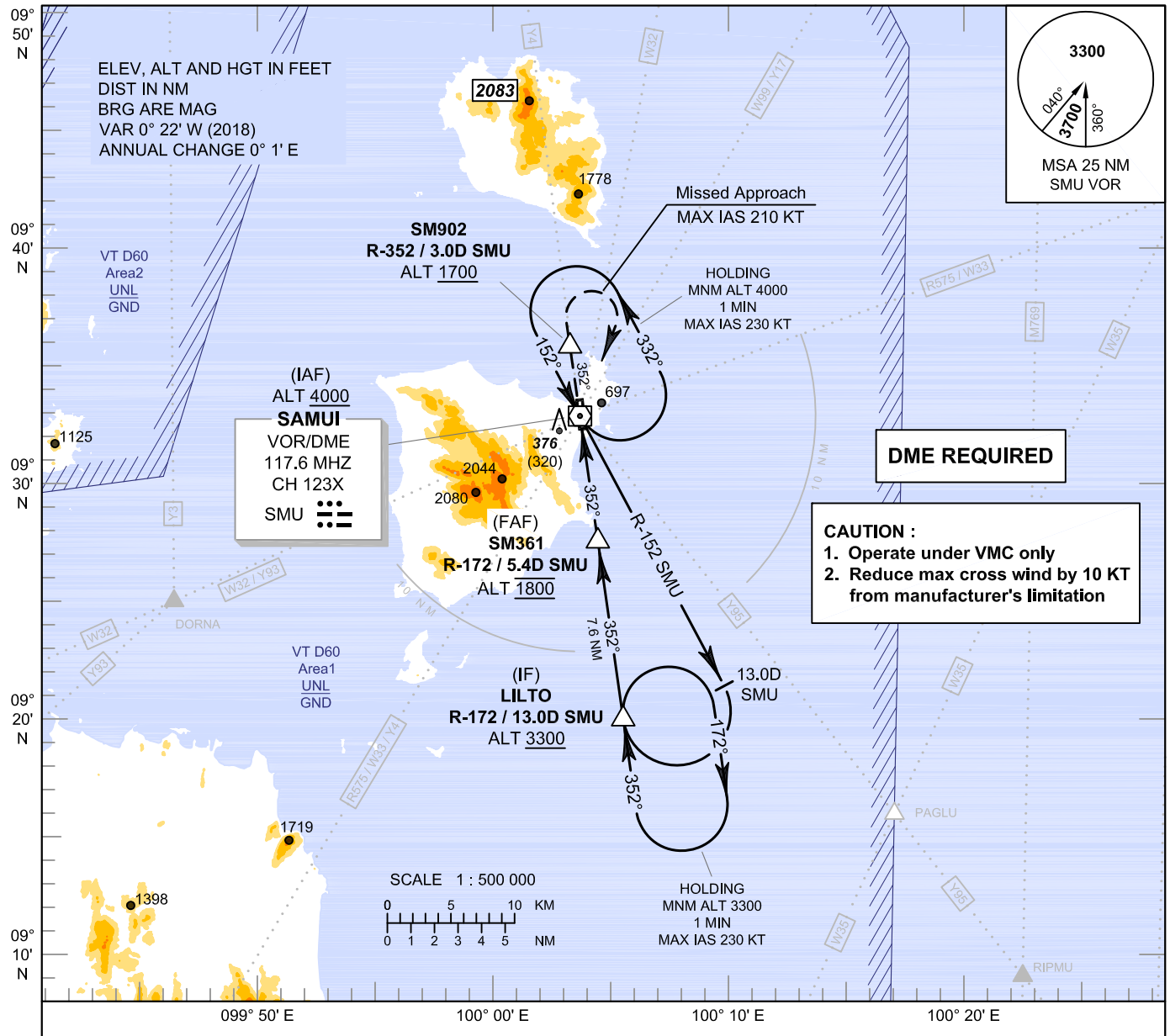


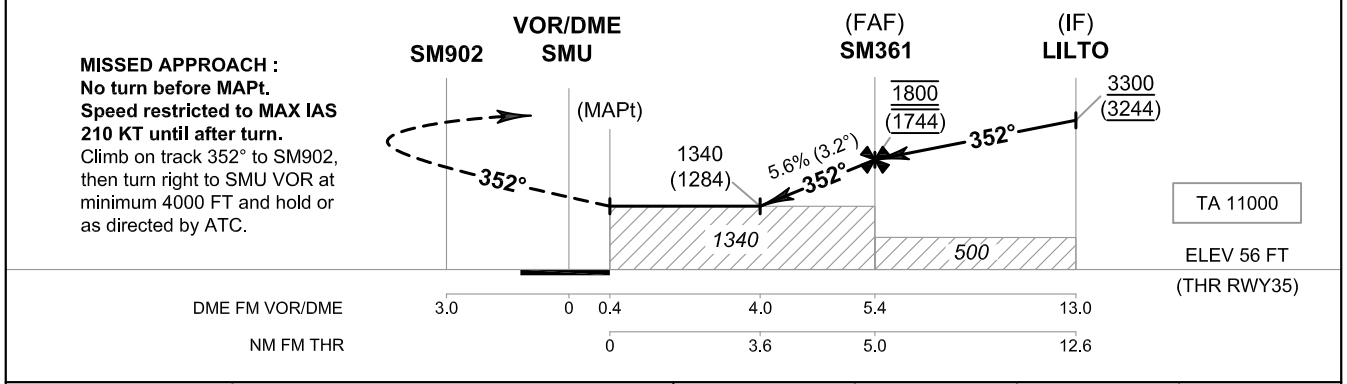
INSTRUMENT APPROACH CHART - ICAO

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)

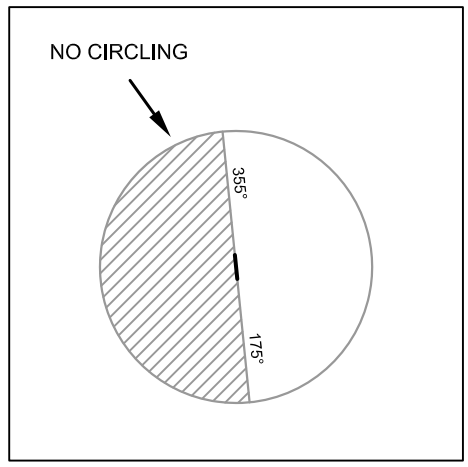
Ground Speed	knot	70	90	100	120	140	160
Rate of Descent 5.6%	ft/min	397	510	567	681	794	907

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' 49.47" N	100° 03' 42.27" 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

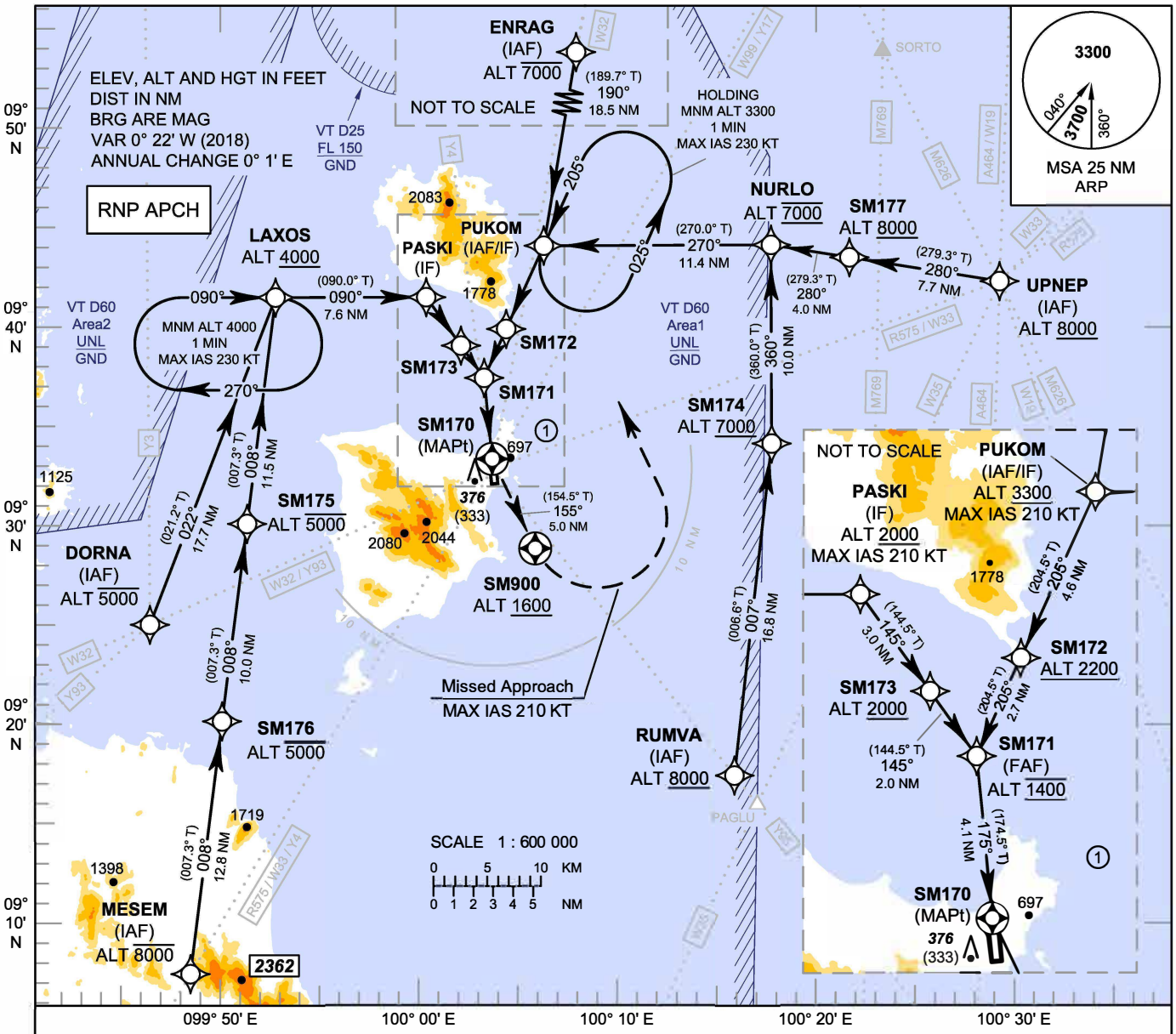


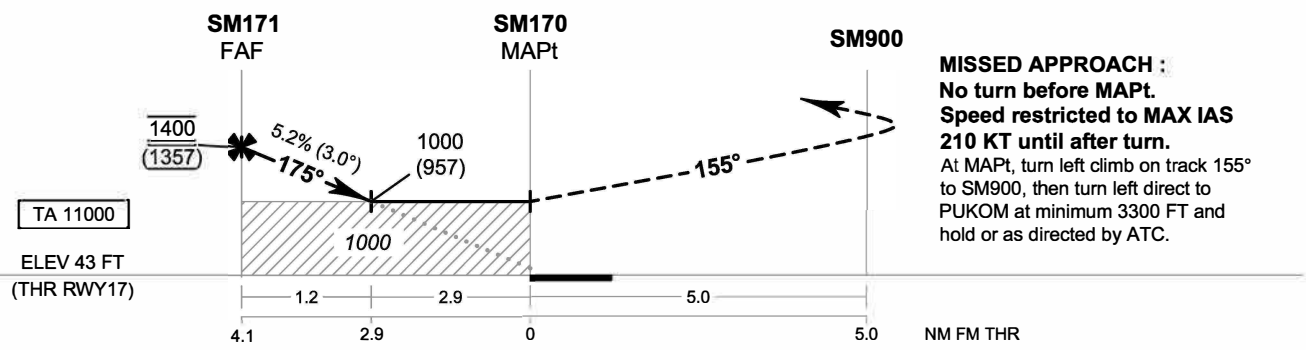
INSTRUMENT APPROACH CHART - ICAO

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

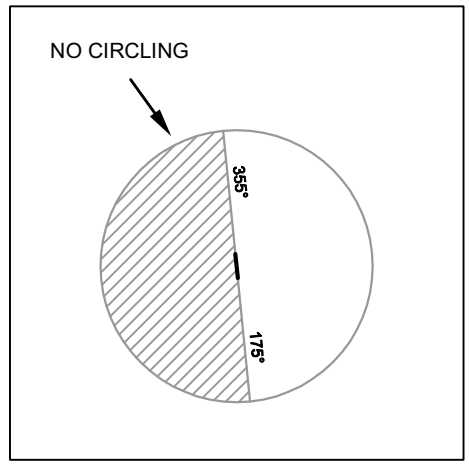
AERODROME ELEV 64 FT
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

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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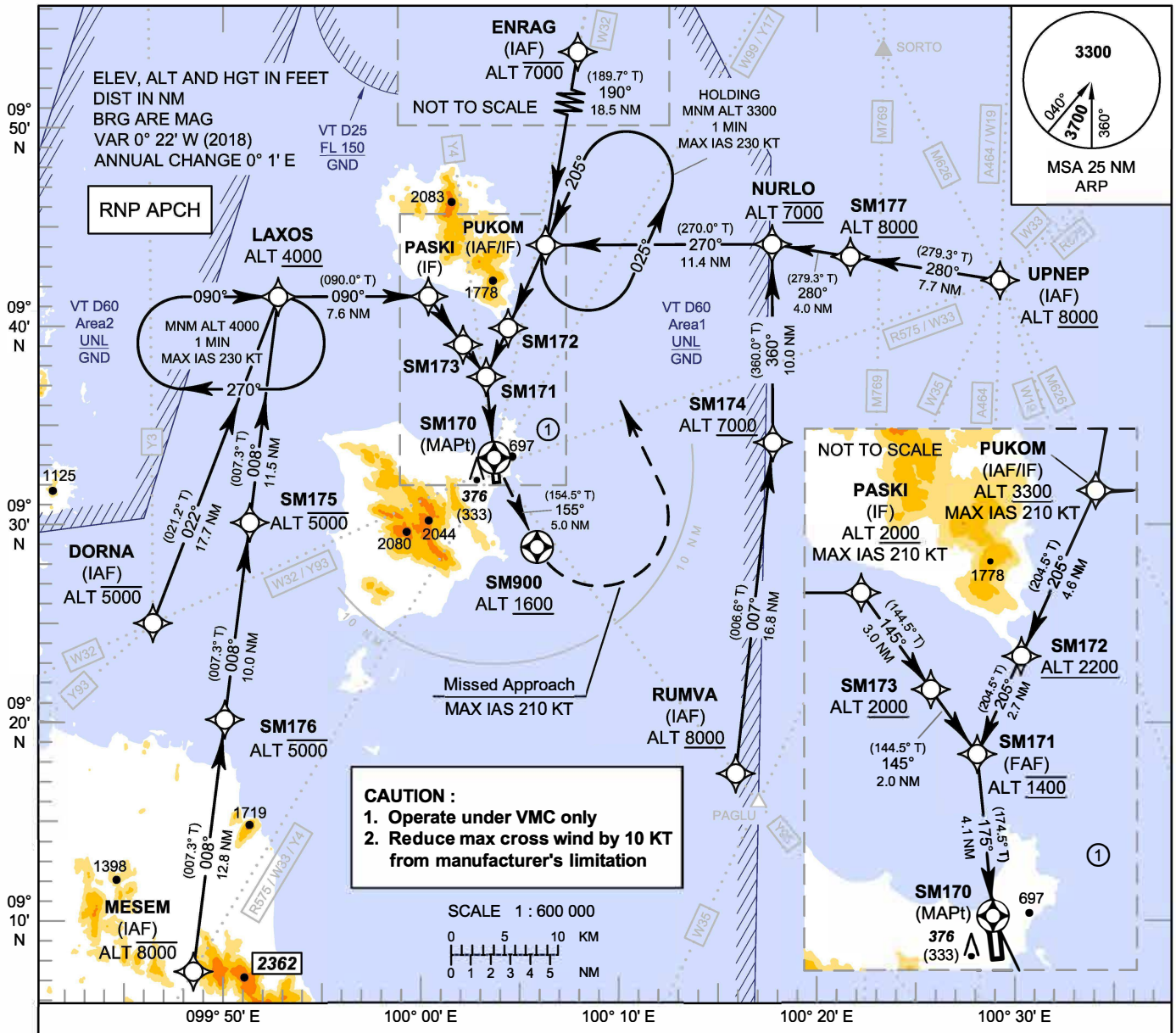
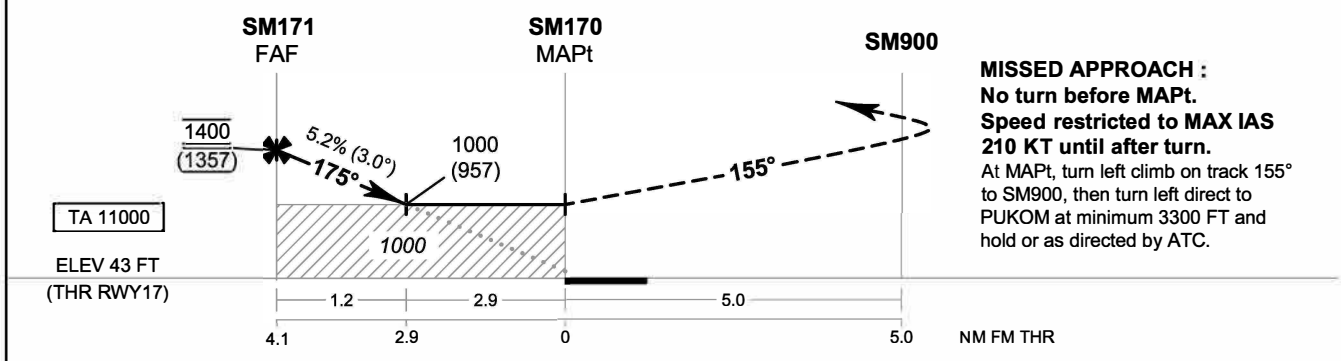
INSTRUMENT APPROACH CHART - ICAO

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

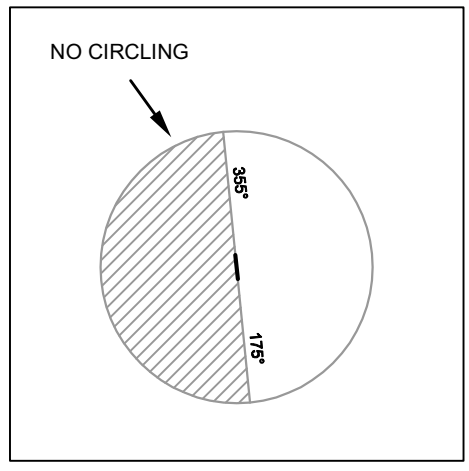
AERODROME ELEV 64 FT
HEIGHTS RELATED TO
THR RWY17 - ELEV 43 FT

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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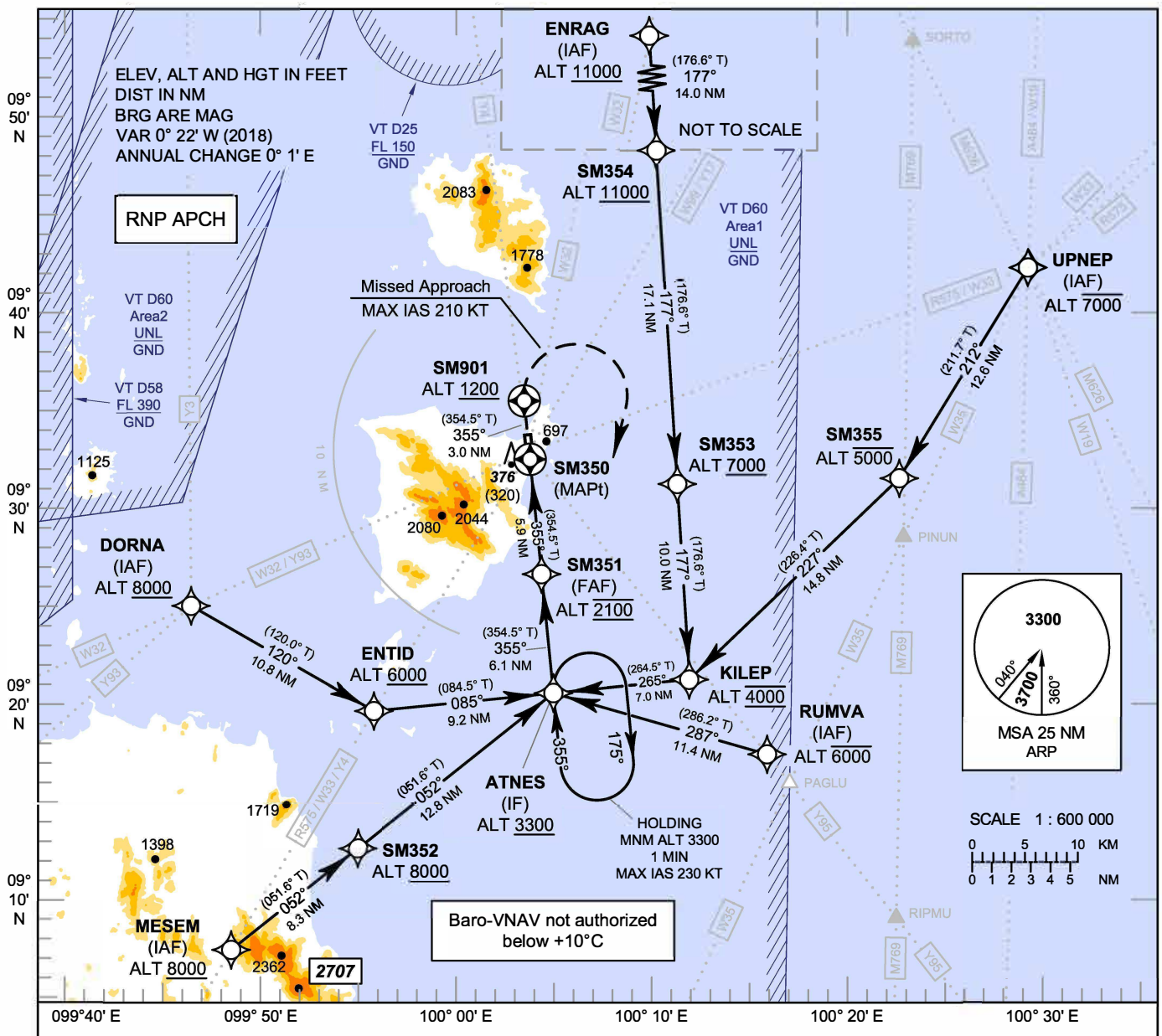
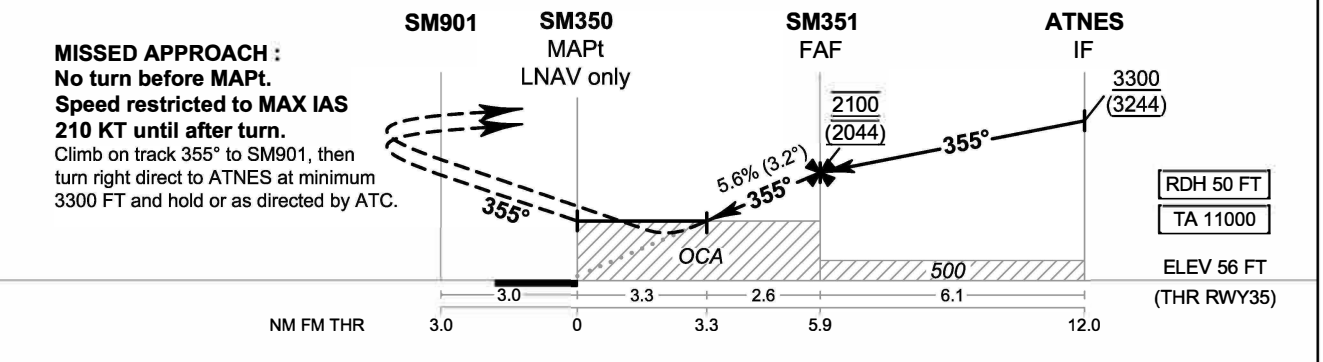
INSTRUMENT APPROACH CHART - ICAO

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

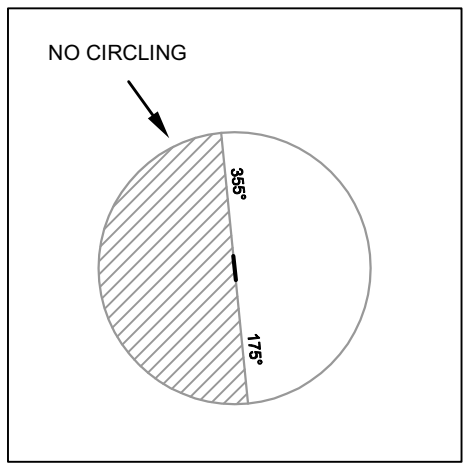
AERODROME ELEV 64 FT
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

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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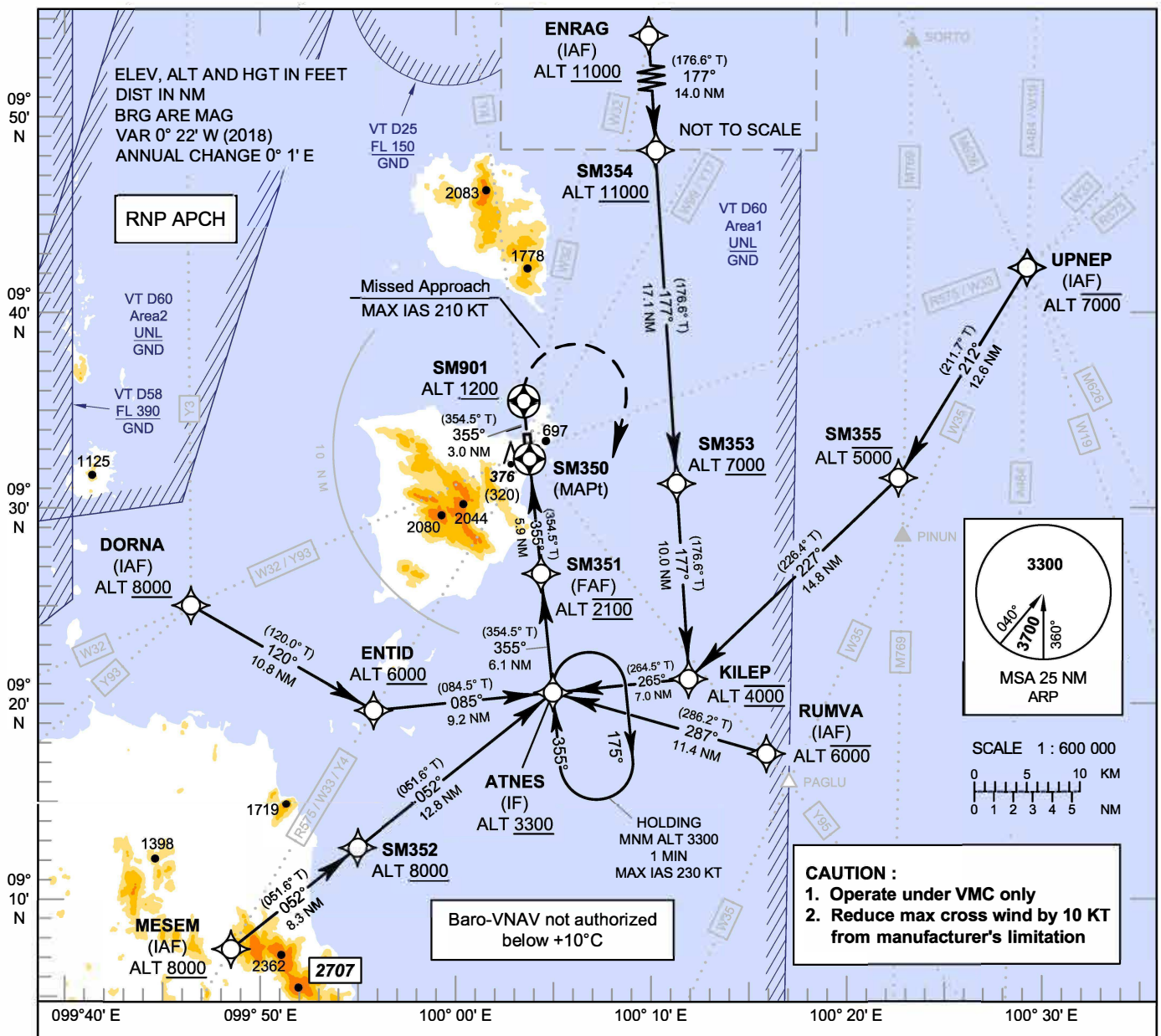
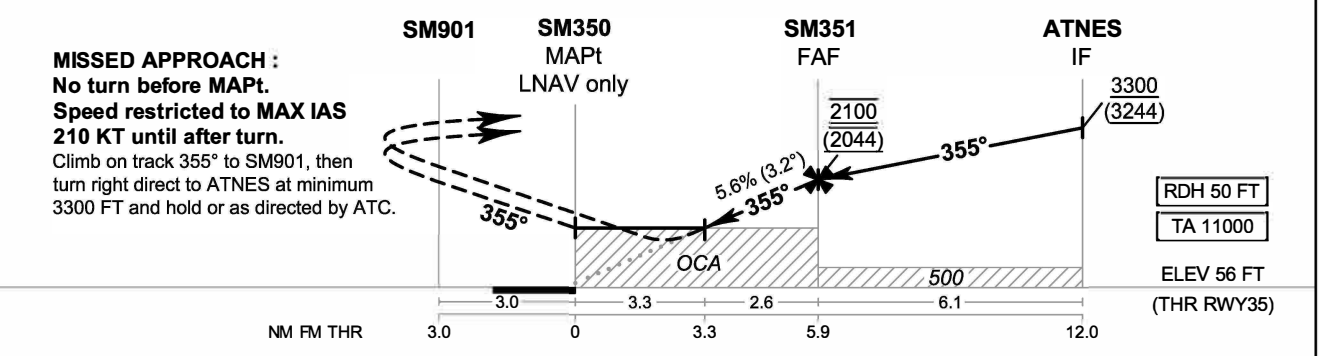
INSTRUMENT APPROACH CHART - ICAO

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

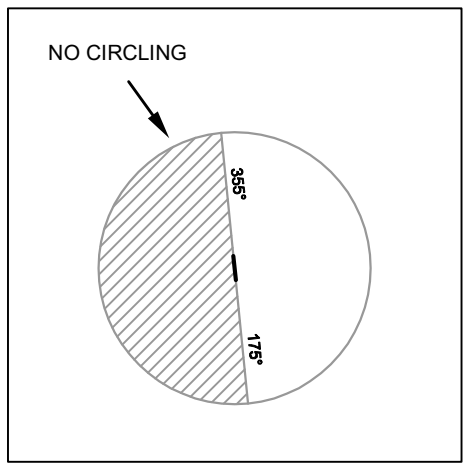
AERODROME ELEV 64 FT
HEIGHTS RELATED TO
THR RWY35 - ELEV 56 FT

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 Tak Airport Amphoe Muang Tak Province 63000 Thailand Tel: +665 551 2603 Fax: +665 551 4059 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): Located at Phitsanulok Airport (1st floor of airport building) Tel: +665 530 1078 +669 2262 3140 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 Strength: PCN 16/F/C/X/T
2	Taxiway width, surface and strength	Width: 15 M Surface: Concrete and asphalt 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 Radio mast HGT 82 FT, painted red/white LGTD on top *2 Radio mast HGT 60 M (See RMK)	164000N 0983300E 164207N 0983218E	NIL	NIL	1.DIST 600 M on radial 340 FM MST DVOR 2. DIST 1300 m on radial 270 FM MST DVOR 3. Both painted red/ white LGTD on top

VTPT AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Tak, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 551 1967
6	Flight documentation 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 Concrete and asphalt	165345.68N 0991446.72E	THR 469 FT TDZ 473 FT
27	270.54°	1500x30	PCN 16/F/C/X/T Concrete and asphalt	165345.43N 0991537.41E	THR 478 FT 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 NIL	NIL	NIL	NIL
27	NIL	NIL	PAPI BOTH 3°	NIL	NIL	1 500 M 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 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 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 Language(s)	Tak Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Tak Tower	121.5 MHZ [1)] 118.8 MHZ 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: – Bearing 098° from TK to PSL altitude 7 000 FT flown to 60 NM – Bearing 254° from TK to MST altitude 7 000 FT flown to 43 NM 2. Coverage 15 NM clockwise orbit data refer from commissioning checked as follows: – 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

AERODROME CHART-ICAO

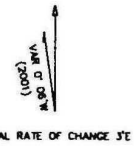
16° 53' 46" N
99° 15' 13" E

ELEV 478 ft
146 m

TWR 118.8 236.6

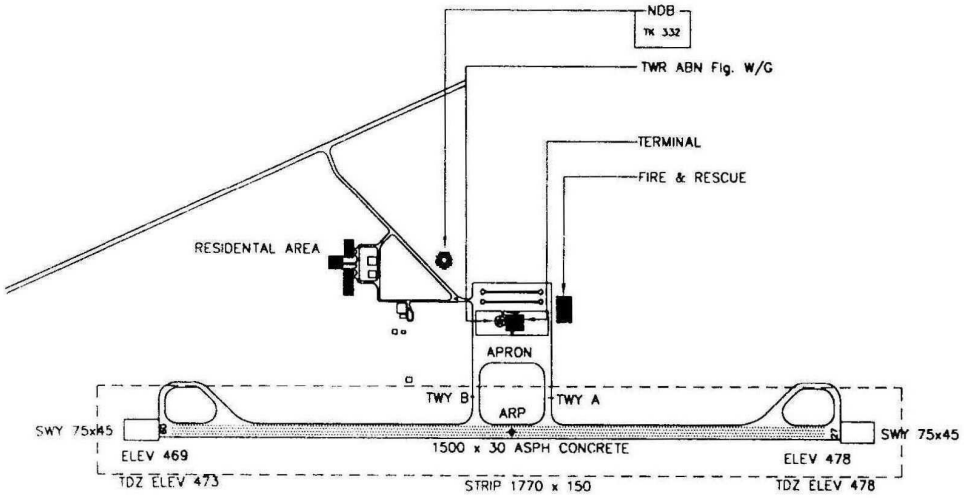
TAK / Tak

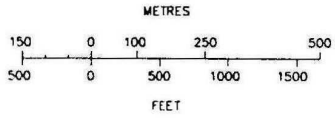
RWY	DIRECTION	THR	BEARING STRENGTH
09	91°	16° 53' 46" N 99° 14' 47" E	PCN 16/F/C/X/T
27	271°	16° 53' 45" N 99° 15' 37" E	
APRON			PCN 16/F/C/X/T



ANNUAL RATE OF CHANGE 3'E

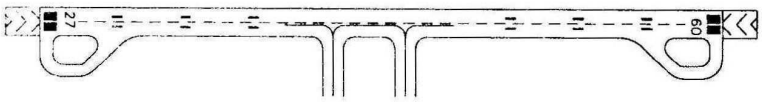
ELEVETIONS IN FEET AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC



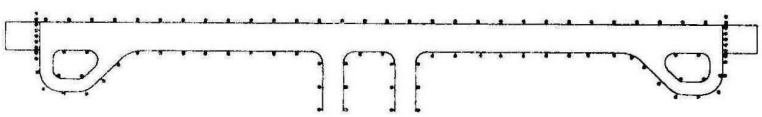


Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 09/27 AND EXIT TWY



LIGHTING AIDS RWY 09/27 AND EXIT TWY



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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 Mae Sot Airport Amphoe Mae Sot Tak Province Thailand Tel: +665 556 3620 Fax: +665 554 4593 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): Located at Phitsanulok Airport (1st floor of airport building) Tel: +665 530 1078 +669 2262 3140 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 Surface: Asphaltic concrete Strength: PCN 34/F/C/X/T Apron 2 Surface: Concrete Strength: PCN 42/R/C/X/T
2	Taxiway width, surface and strength	Taxiway A Width: 23 M Surface: Asphaltic concrete Strength: PCN 34/F/C/X/T Taxiway B and Taxiway C Width: 23 M Surface: Asphaltic concrete Strength: PCN 42/F/C/X/T
3	Altimeter checkpoint location and elevation	Location: At Apron 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 TWY guide lines: Yes Nose-wheel guide lines at apron 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: CL, Edge and RWY Holding Position 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 ELEV 958 FT (292 M) NIL/NIL	164223.83N 0983637.24E	Building ELEV 860 FT (262 M) NIL/NIL	164234.95N 0983420.96E	NIL
RWY 09/TKOF Area	Radio mast ELEV 899 FT (274 M) Painted red/white NIL	164224.43N 0983642.71E	Radio mast ELEV 860 FT (262 M) NIL/NIL	164207.53N 0983015.79E	
RWY 09/TKOF Area	Radio mast ELEV 1060 FT (323 M) NIL/NIL	164213.51N 0983707.54E	Radio mast ELEV 860 FT (262 M) Painted red/white NIL	164210.14N 0983106.43E	
			Radio mast ELEV 850 FT (259 M) NIL/NIL	164347.16N 0983334.87E	
			Radio mast ELEV 840 FT (256 M) NIL/NIL	164403.91N 0983403.58E	
			Radio mast ELEV 846 FT (258 M) NIL/NIL	164335.84N 0983504.19E	
			Radio mast ELEV 846 FT (258 M) Painted red/white NIL	164242.67N 0983424.87E	
			Radio mast ELEV 860 FT (262 M) Painted red/white NIL	164255.01N 0983505.65E	
			Radio mast ELEV 866 FT (264 M) Painted red/white 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 ELEV 863 FT (263 M) Painted red/white NIL	164259.54N 0983528.49E	
			Radio mast ELEV 1083 FT (330 M) NIL/NIL	164356.93N 0983358.99E	
			Radio mast ELEV 860 FT (262 M) NIL/NIL	164224.02N 0983424.96E	
			Radio mast ELEV 850 FT (259 M) NIL/NIL	164217.32N 0983221.44E	
			Radio mast ELEV 879 FT (268 M) NIL/NIL	164402.16N 0983358.78E	
			Radio mast ELEV 896 FT (273 M) NIL/NIL	164305.88N 0983341.53E	
			Water tank ELEV 833 FT (254 M) NIL/NIL	164219.61N 0983233.91E	
			At Aerodrome		
			Apron flood light pole ELEV 781 FT (238 M) NIL/LGTD	164206.28N 0983233.70E	
			Apron flood light pole ELEV 781 FT (238 M) NIL/LGTD	164206.30N 0983235.73E	
			Apron flood light pole ELEV 781 FT (238 M) NIL/LGTD	164206.34N 0983237.70E	
			Apron flood light pole ELEV 778 FT (237 M) NIL/LGTD	164206.36N 0983238.60E	
			Apron flood light pole ELEV 778 FT (237 M) NIL/LGTD	164208.25N 0983240.87E	
			Apron flood light pole ELEV 778 FT (237 M) NIL/LGTD	164208.30N 0983242.90E	
			Apron flood light pole ELEV 778 FT (237 M) NIL/LGTD	164208.31N 0983244.91E	
			Apron flood light pole ELEV 778 FT (237 M) 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 ELEV 771 FT (235 M) Painted red/white LGTD	164206.88N 0983235.83E	

VTPM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Mae Sot, Northern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Northern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +665 556 3286
6	Flight documentation 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 Observation 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 Asphaltic concrete	164159.42N 0983238.85E -128 FT	THR 691 FT
27	269.13°	2100x45	PCN 42/F/C/X/T Asphaltic concrete	164200.25N 0983335.89E -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 NIL	NIL	NIL	NIL	2100 M 60 M White; FM 0 M - 410 M Red, FM 410 M - 1500 M White, FM 1500 M - 2100 M Yellow, 5 steps, LIH	Red NIL	NIL	NIL
27	SALS 420 M LIH	Green NIL	PAPI Left 3.4° (53.60 FT)	NIL	NIL	2100 M 60 M White, FM 1500 M - 2100 M Yellow, 5 steps, LIH	Red 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. IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL WDI: 1. Wind cone at 322 M from THR 27 off set left side 80 M from RCL, illuminated 2. Wind cone at 1834 M from THR 27 off set right side 80 M from RCL, illuminated Anemometer: NIL
3	TWY edge and centre line lighting	Edge: All TWY Centre Line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the Airfield Lighting (AFL) building Switch- over time: 11 SEC.
5	Remarks	NIL

VTPM AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 Language(s)	Mae Sot Tower 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 121.5 MHZ 1)	As AD OPR HR	1) Emergency frequency
TWR	Mae Sot Tower	121.5 MHZ 1) 118.35 MHZ 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 0983223.25E	NIL	Data refer from commissioning as follows: – 50 NM orbit flown from bearing 340°-170° clockwise orbit at altitude 7 500 FT result found satisfactory – 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, 1. Unusable due to roughness out of tolerance – Radial 104° distance between 6.0-13.0 DME altitude 5 500 FT – Radial 012° distance between 22.0-24.0 DME altitude 5 000 FT – Radial 124° distance between 32.0-34.0 DME altitude 6 600 FT 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: – Radial 000°-030° altitude should not below 7 000 FT – Radial 031°-060° altitude should not below 9 000 FT – Radial 061°-070° altitude should not below 10 000 FT – Radial 071°-120° altitude should not below 9 000 FT – 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

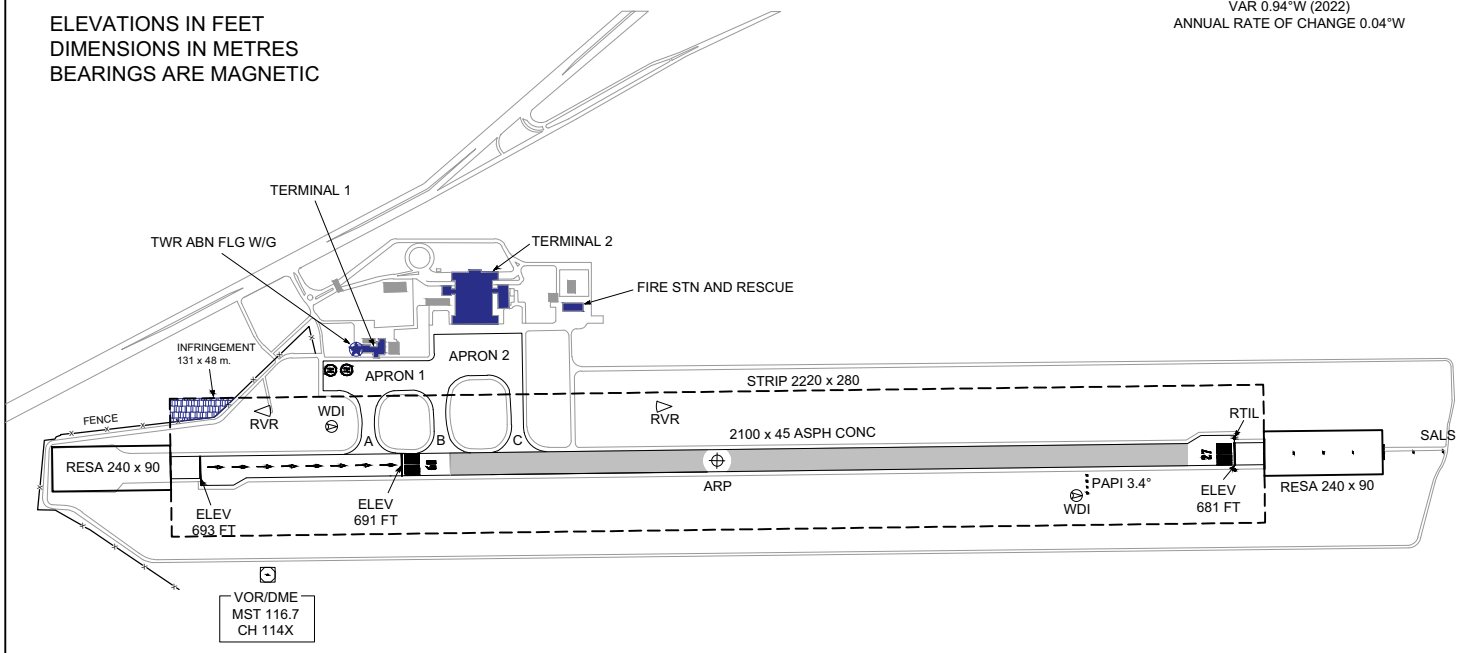
TWR 118.35
236.6

TAK / Mae Sot

RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
09	089.13°	16 41 59.42N 098 32 38.85E	PCN 42/F/C/X/T
27	269.13°	16 42 00.25N 098 33 35.89E	
APRON 1 APRON 2			PCN 34/F/C/X/T PCN 42/R/C/X/T
TAXIWAY A TAXIWAY B AND C			PCN 34/F/C/X/T PCN 42/F/C/X/T

VAR 0.94°W (2022)
ANNUAL RATE OF CHANGE 0.04°W

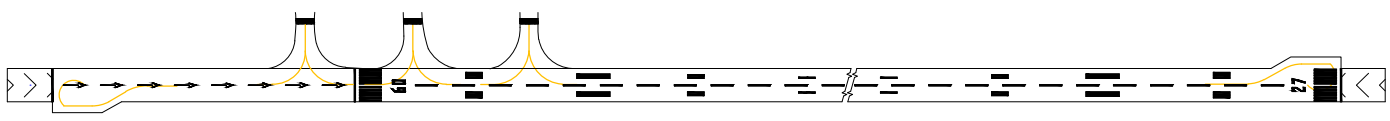
ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC



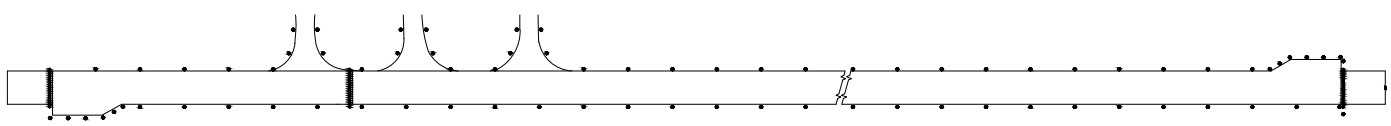
REMARKS:

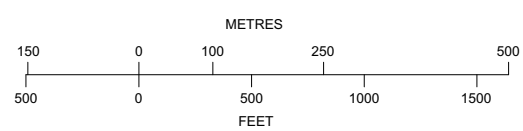
- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING CHART
- TAXIWAY WIDTH 23 m.

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

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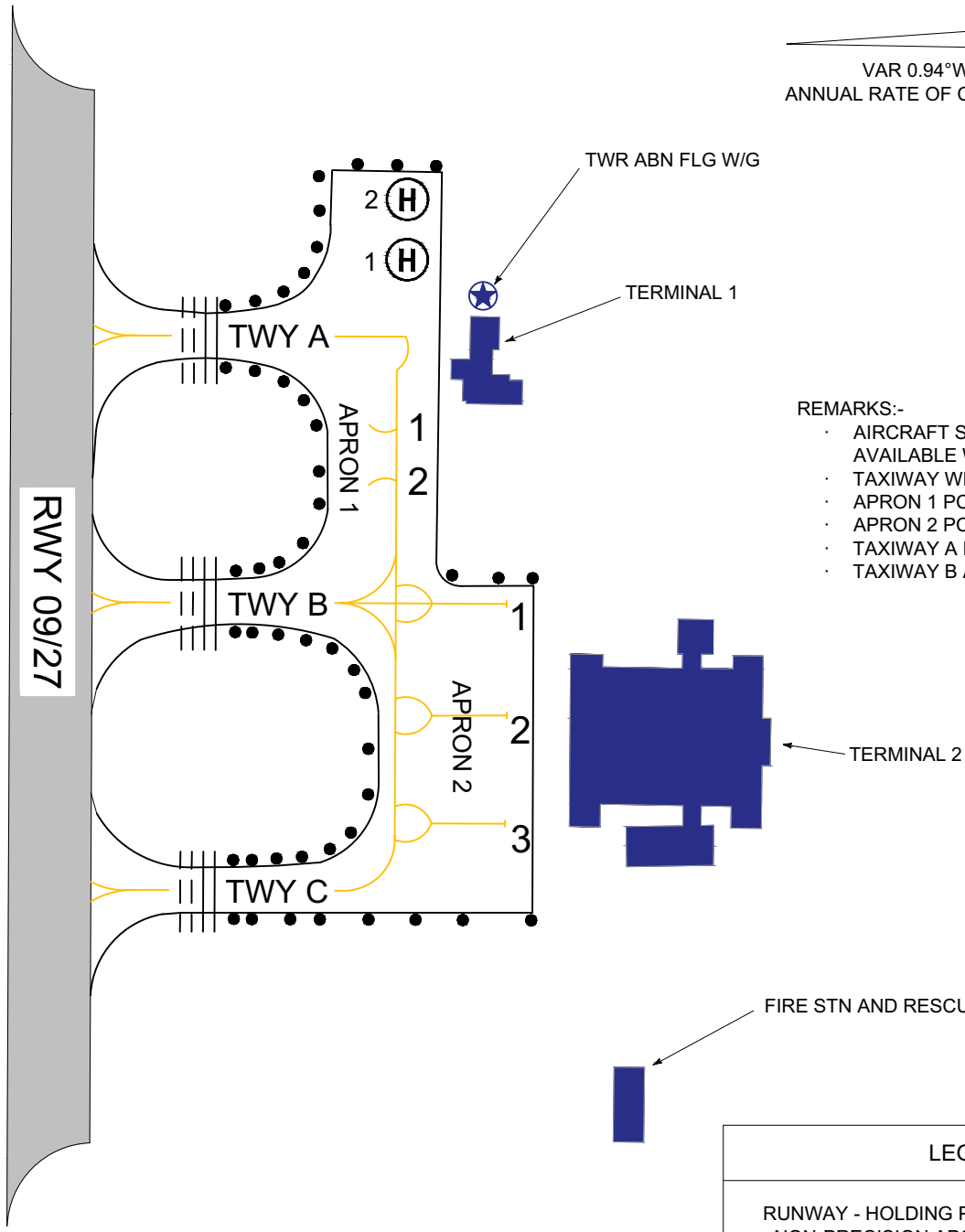
AIRCRAFT PARKING/ DOCKING CHART - ICAO

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 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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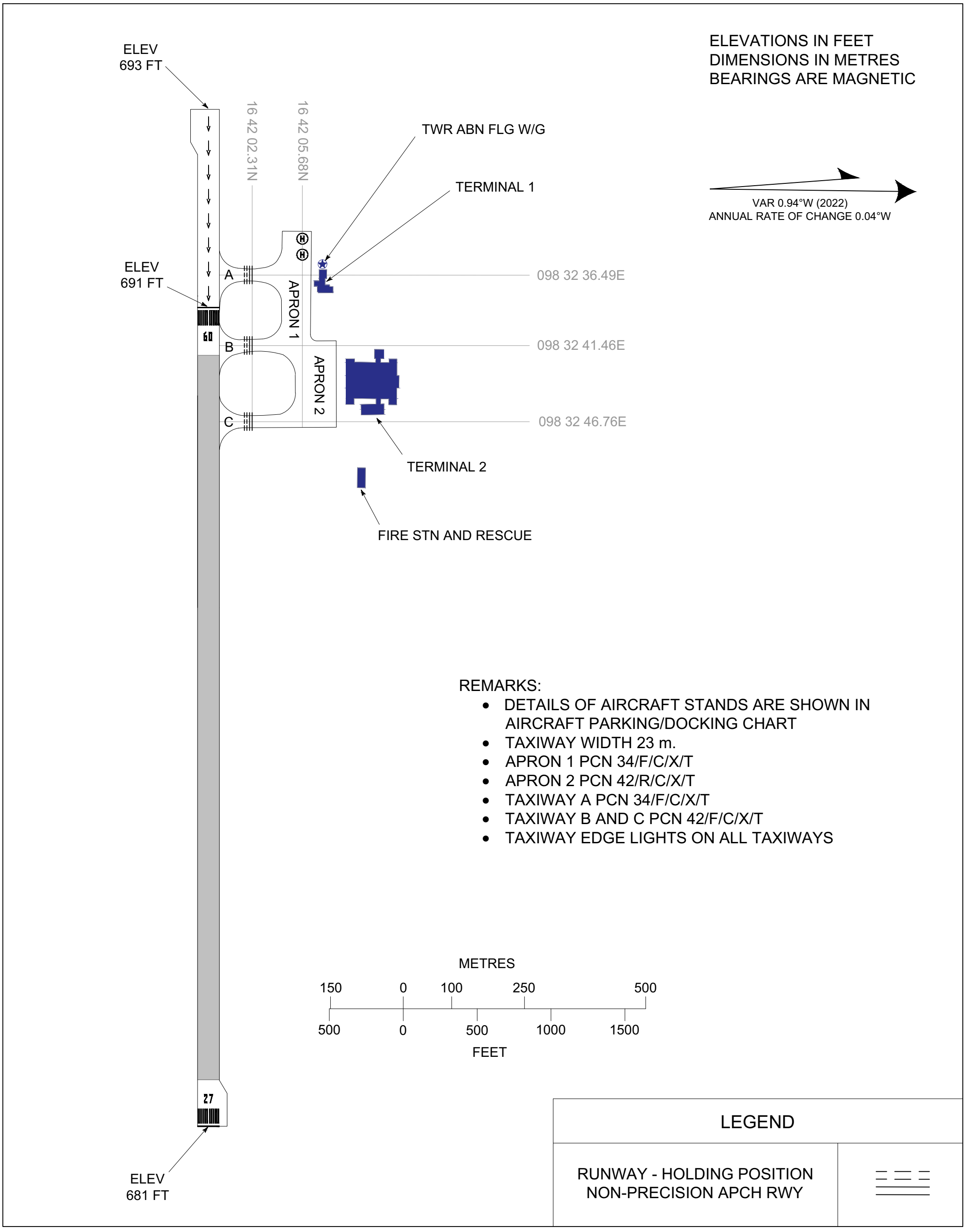
AERODROME GROUND MOVEMENT CHART - ICAO

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

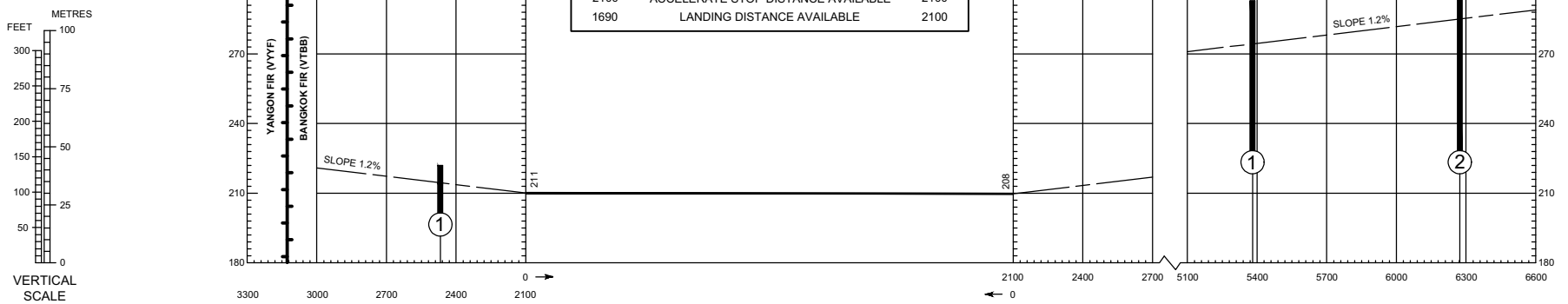
TYPE A (OPERATING LIMITATIONS)

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

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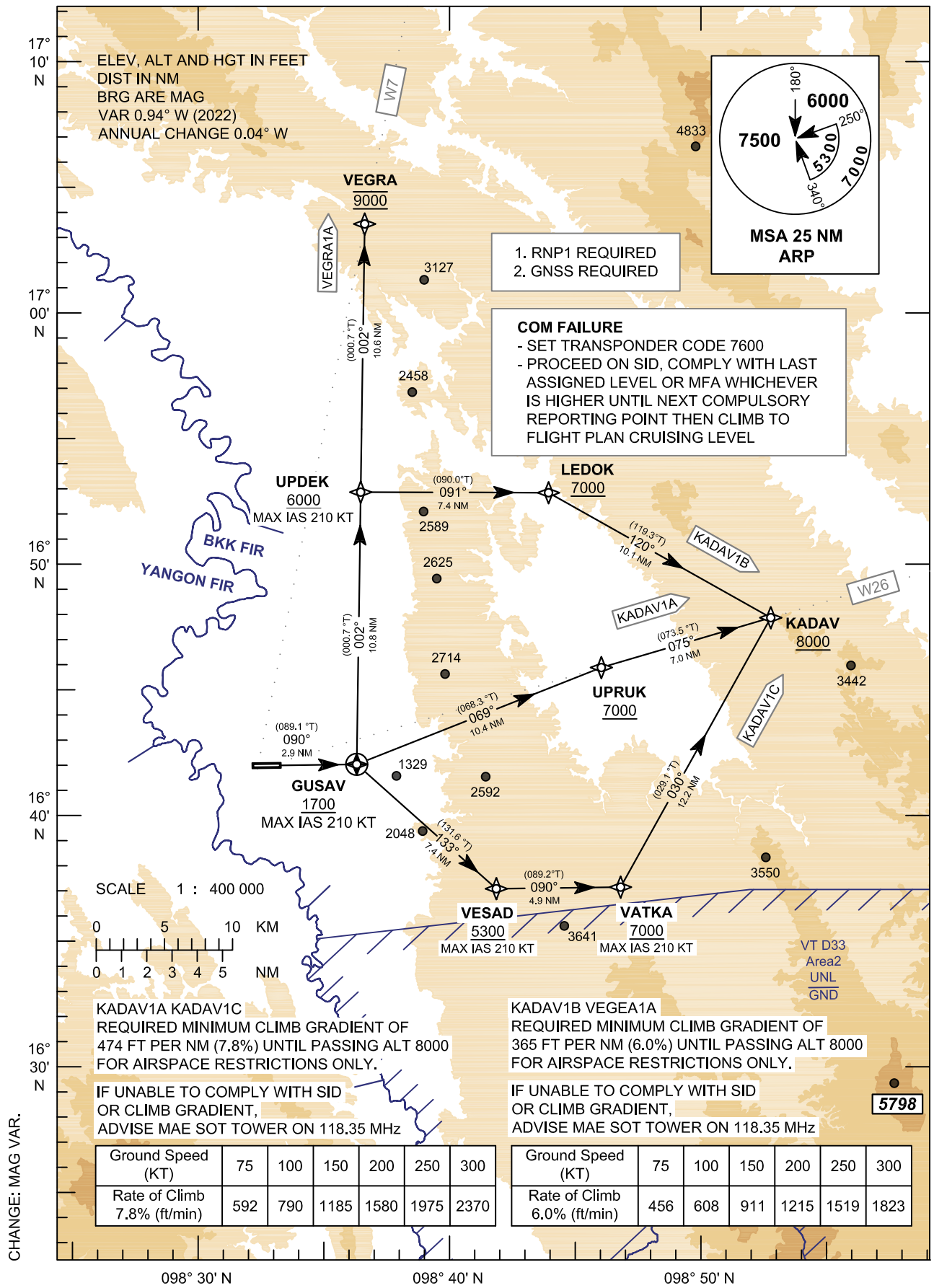
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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.

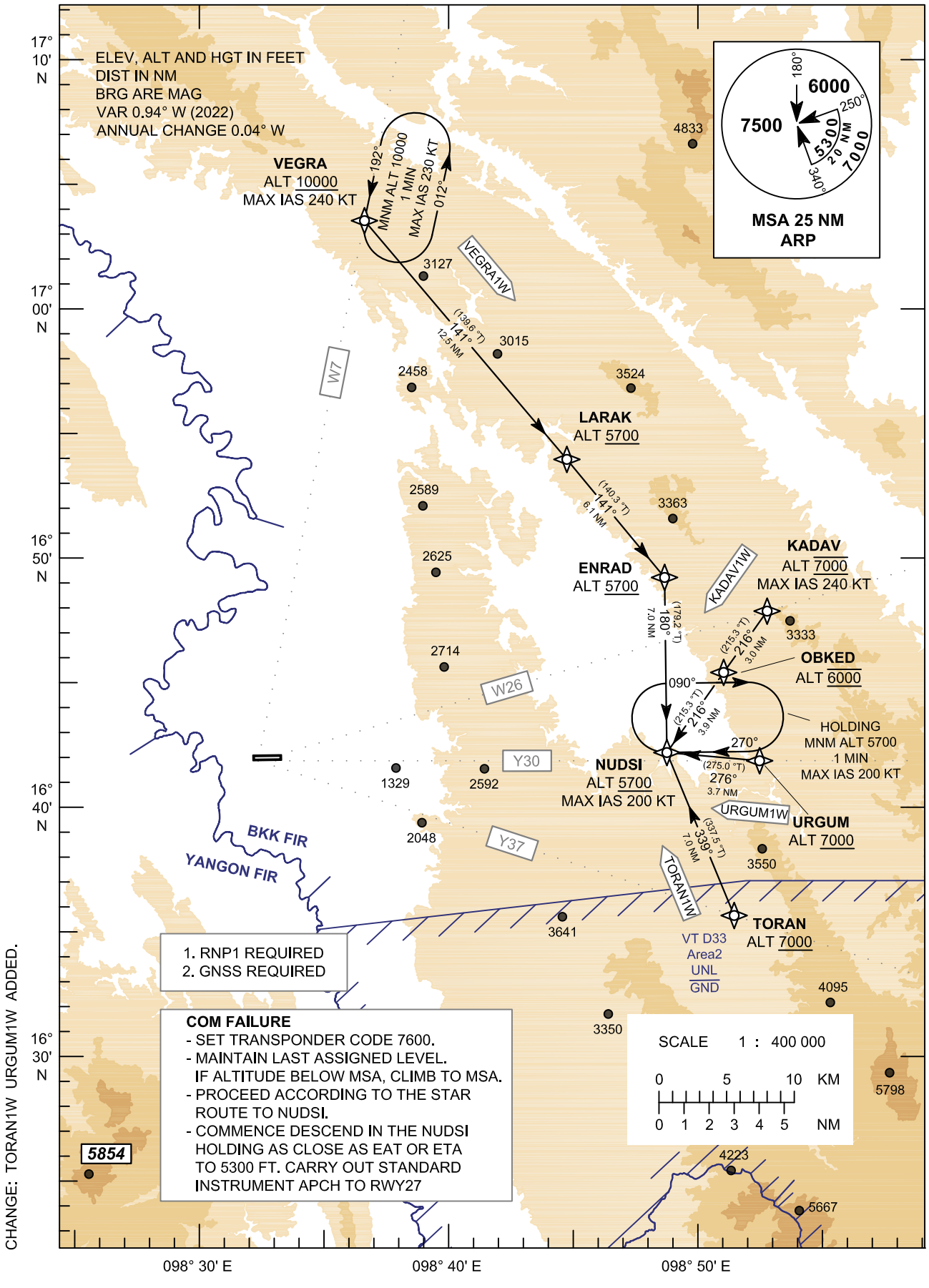
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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

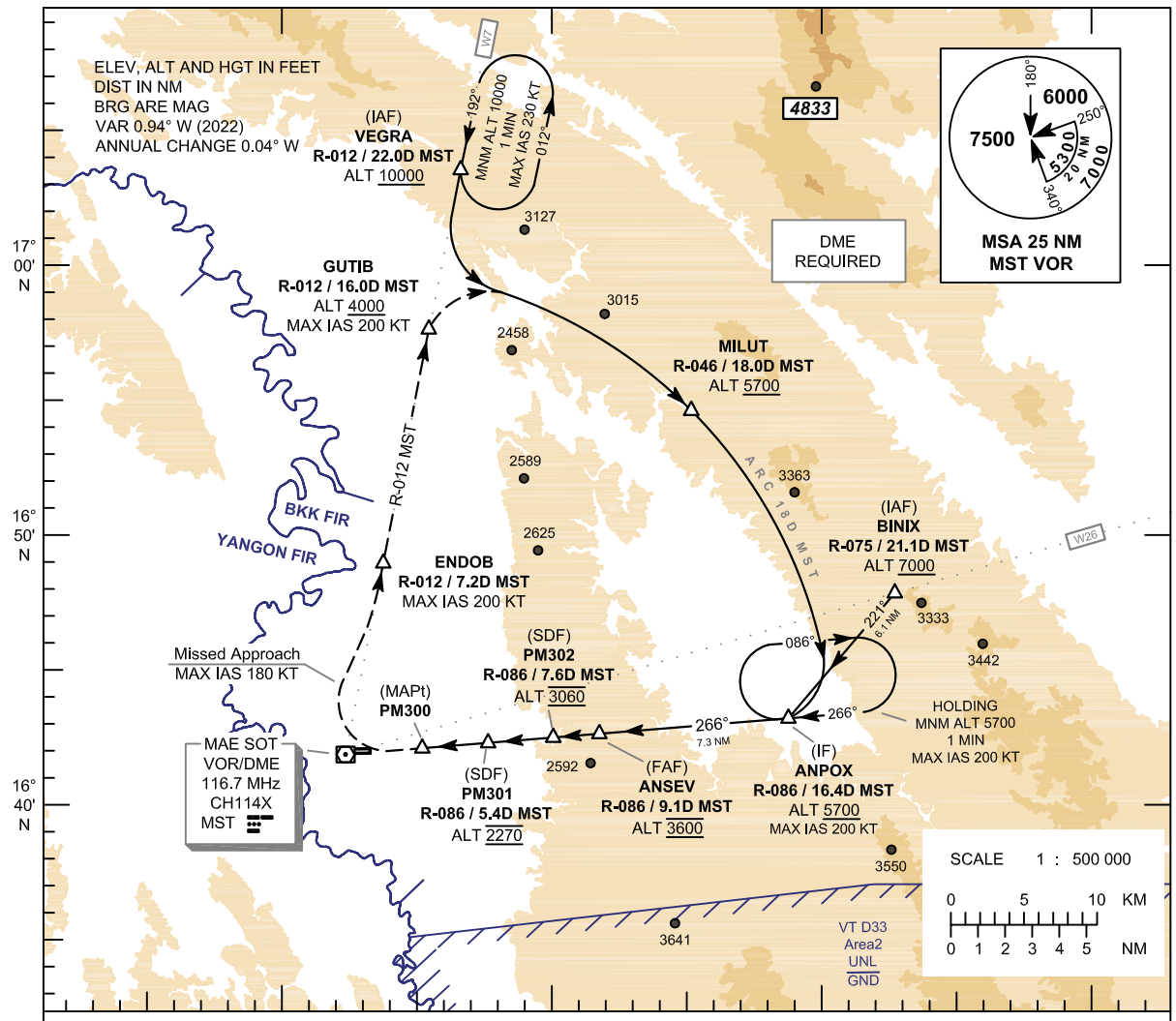
INSTRUMENT APPROACH CHART - ICAO

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

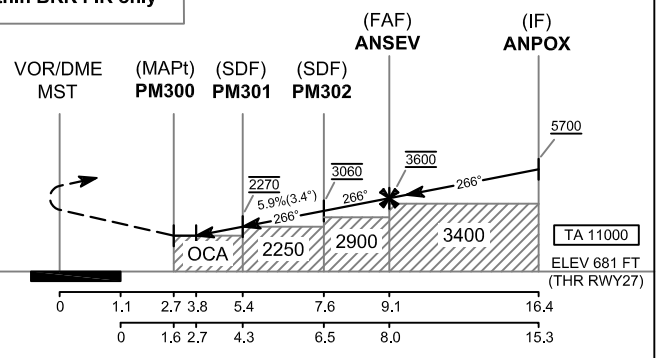
TAK / Mae Sot (VTPM)

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

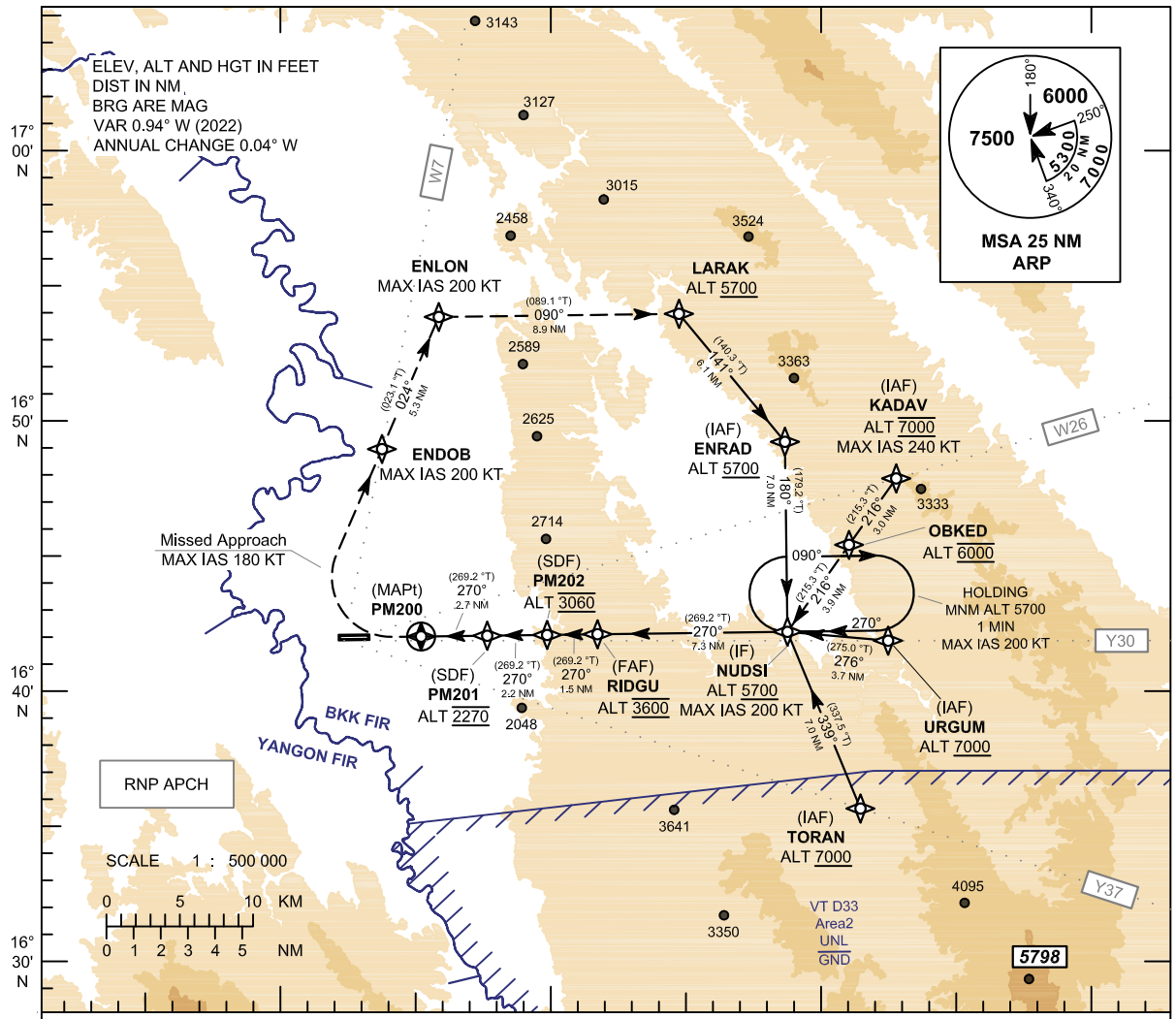
INSTRUMENT APPROACH CHART - ICAO

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

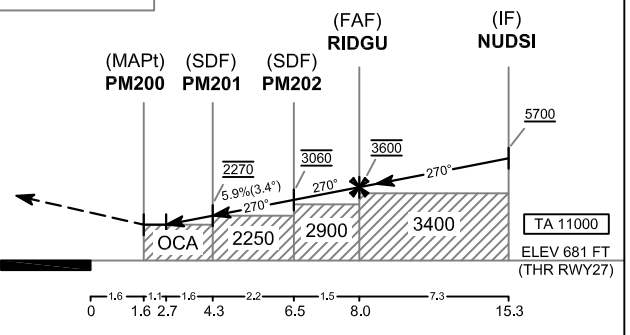
TAK / Mae Sot (VTPM)

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 Trang Airport Trang-palinan Road Amphone Muang Trang Province 92000 Thailand Tel: +667 557 2151 +667 557 2152 +667 557 2153 Fax: +667 557 2154 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): Located at Hat Yai Air Traffic Control Centre (1st floor of tower building) Tel: +669 2262 2436 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 Strength: PCN 42/F/C/X/T APRON B: Surface: Concrete Strength: PCN 45/R/C/X/T
2	Taxiway width, surface and strength	Width: TWY A = 15M TWY B and C = 23M Surface: Concrete and asphalt Strength: PCN 42/F/C/X/T
3	Altimeter checkpoint location and elevation	Location: At apron 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, Southern West-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1300 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern West-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 557 2146 Fax: +667 557 2146
6	Flight documentation 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 Observation 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 Concrete and asphalt	073026.07N 0993625.80E	THR 67 FT TDZ 67 FT
26	260.83°	2320x45	PCN 42/F/C/X/T Concrete and asphalt	073036.89N 0993733.57E	THR 52 FT 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 420M LIH	Green	PAPI Left 3.5°	NIL	NIL	2320 M 60 M White/LIH	Red	NIL	NIL
26	NIL	Green	PAPI Left 3.5°	NIL	NIL	2320 M 60 M 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. IBN: Nil
2	LDI location and LGT 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 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 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 (073032.17N 0993733.67E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Trang Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Trang Tower	118.4 MHZ 236.6 MHZ 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	073032.17N 0993733.67E		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: 1. 20 NM orbit – Radial 081°-130° altitude should not below 6 000 FT 2. 40 NM orbit – Radial 131°-350° altitude should not below 4 000 FT – Radial 351°-030° altitude should not below 6 000 FT – Radial 031°-080° altitude should not below 7 000 FT
ILS CAT I LOC/DME RWY 08	ITRN	110.3 MHZ CH 40X	H24	073038.42N 0993743.17E		LOC: Designated Operation Coverage 18 NM, ALT 6 300 FT/ AMSL
GP		335 MHZ	H24	073030.79N 0993634.69E		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

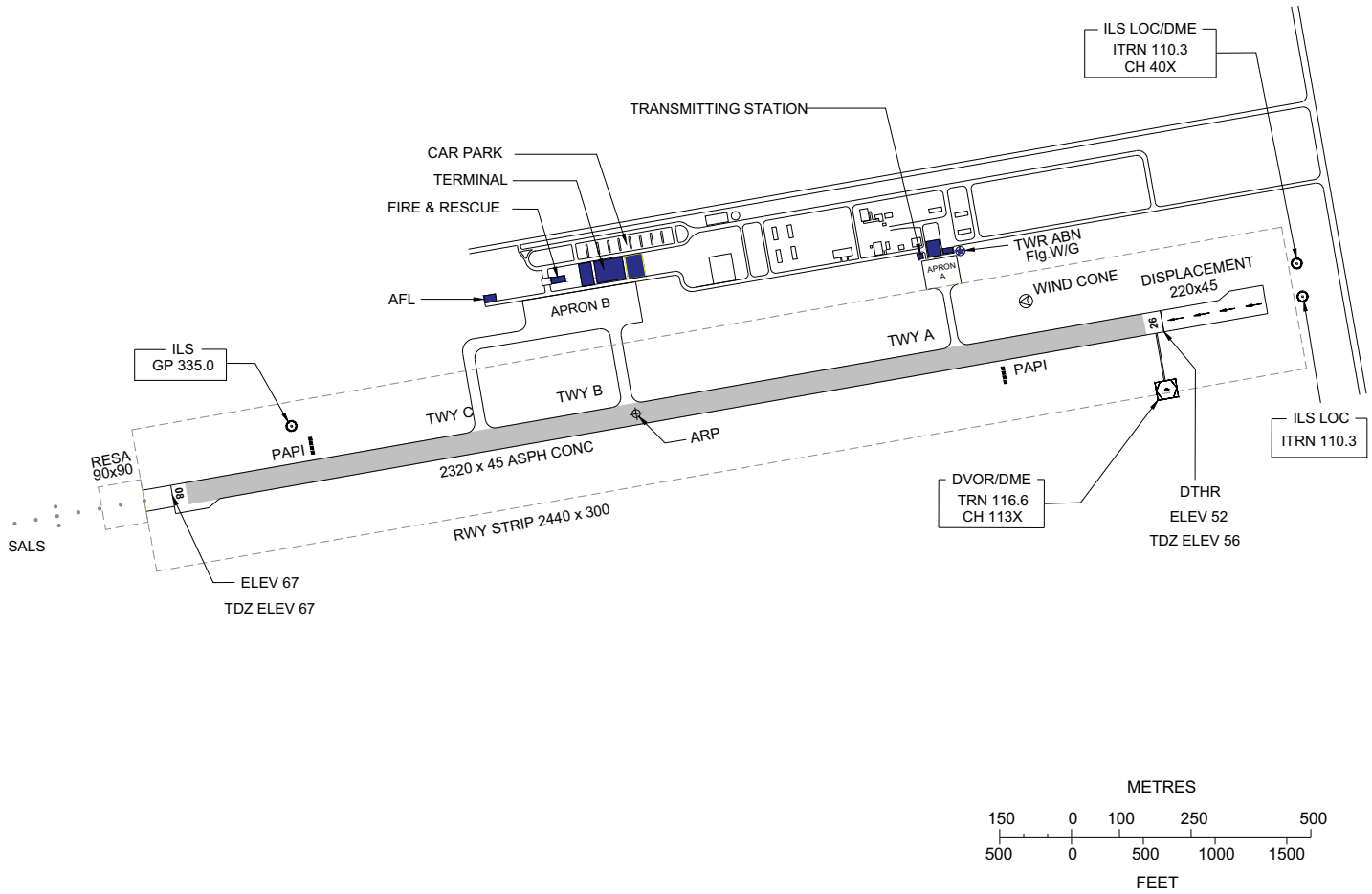
TWR 118.4

TRANG / Trang

RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
08	080.83°	07 30 26 N 099 36 26 E	PCN 42/F/C/X/T
26	261.83°	07 30 37 N 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

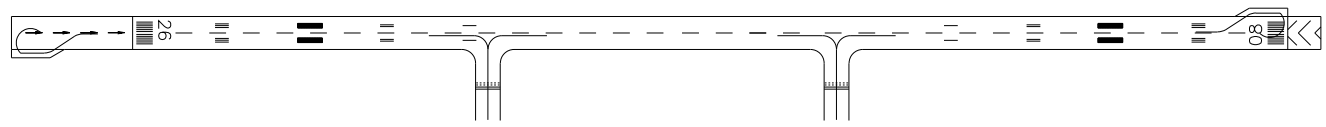
MAG VAR 0.37°W (2016)
ANNUAL RATE OF CHANGE 0.01°E

ELEVETIONS IN FEET AND DIMENTION IN METRES
BEARINGS ARE MAGNETIC

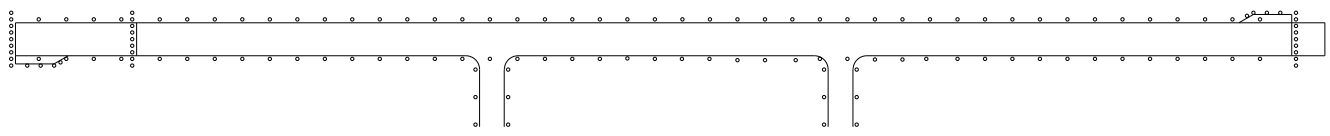


Remark : COORDINATE ARE WGS-84

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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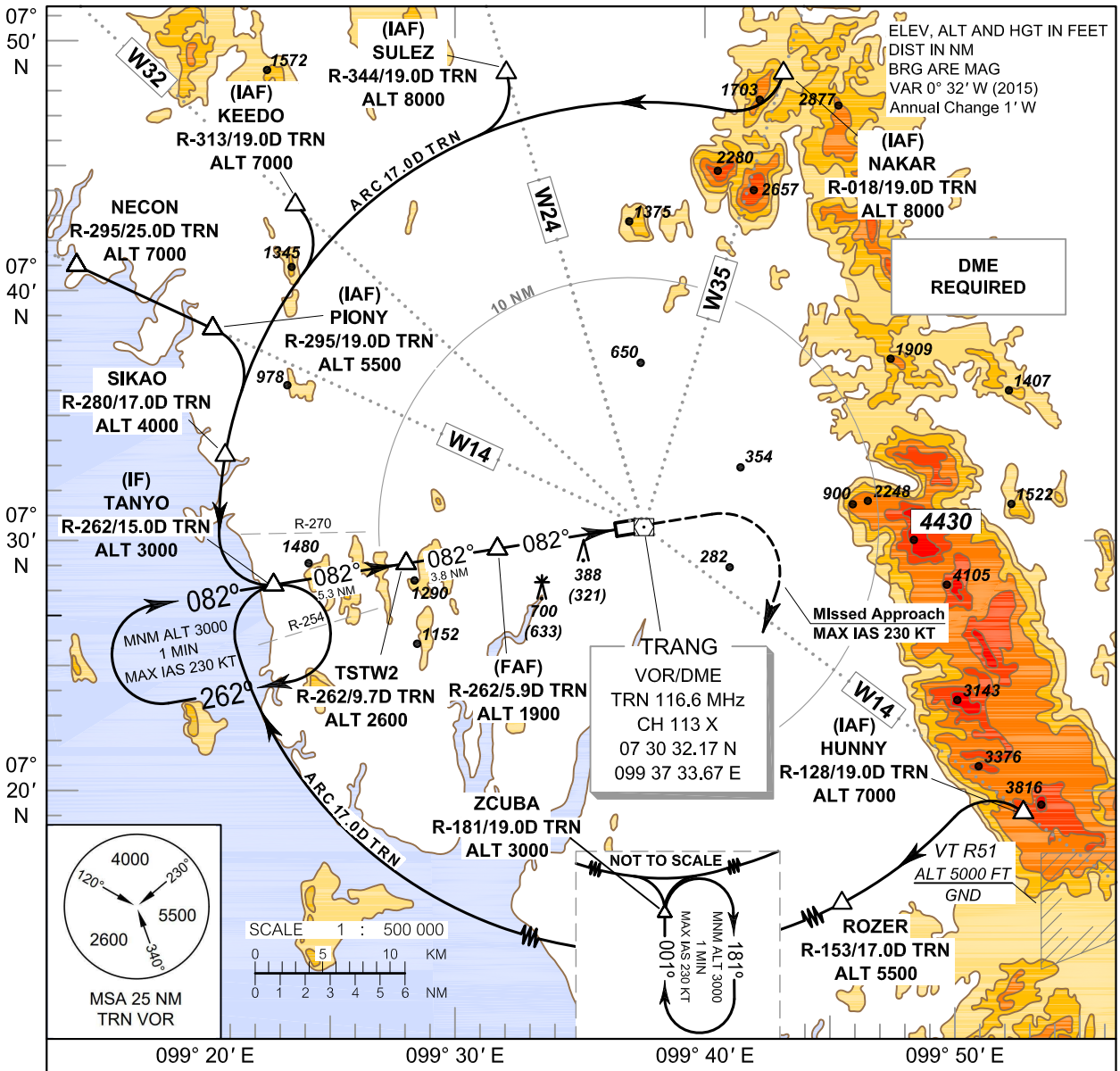
INSTRUMENT APPROACH CHART - ICAO

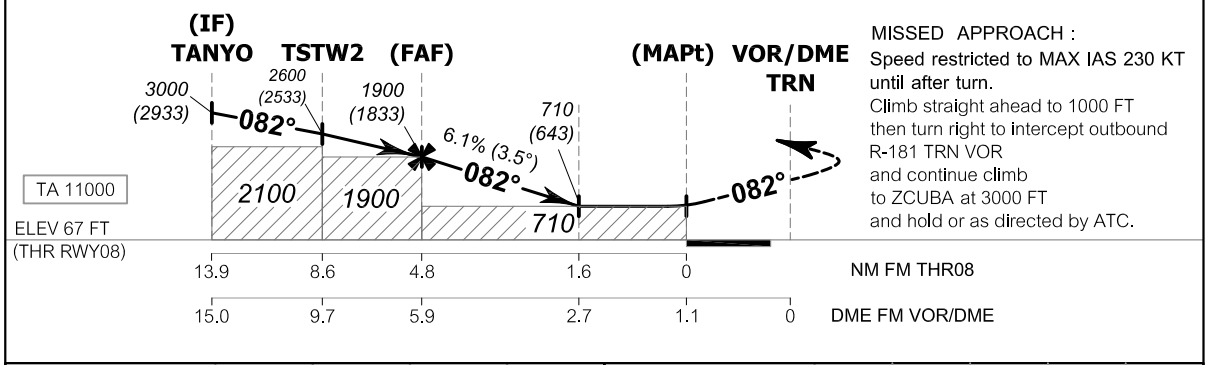
AERODROME ELEV 67 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 125.3
TWR : 118.4 , 236.6

TRANG / Trang (VTST)

VOR RWY08





MISSED APPROACH :
Speed restricted to MAX IAS 230 KT until after turn.
Climb straight ahead to 1000 FT then turn right to intercept outbound R-181 TRN VOR and continue climb to ZCUBA at 3000 FT and hold or as directed by ATC.

CHANGE: MSA.

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

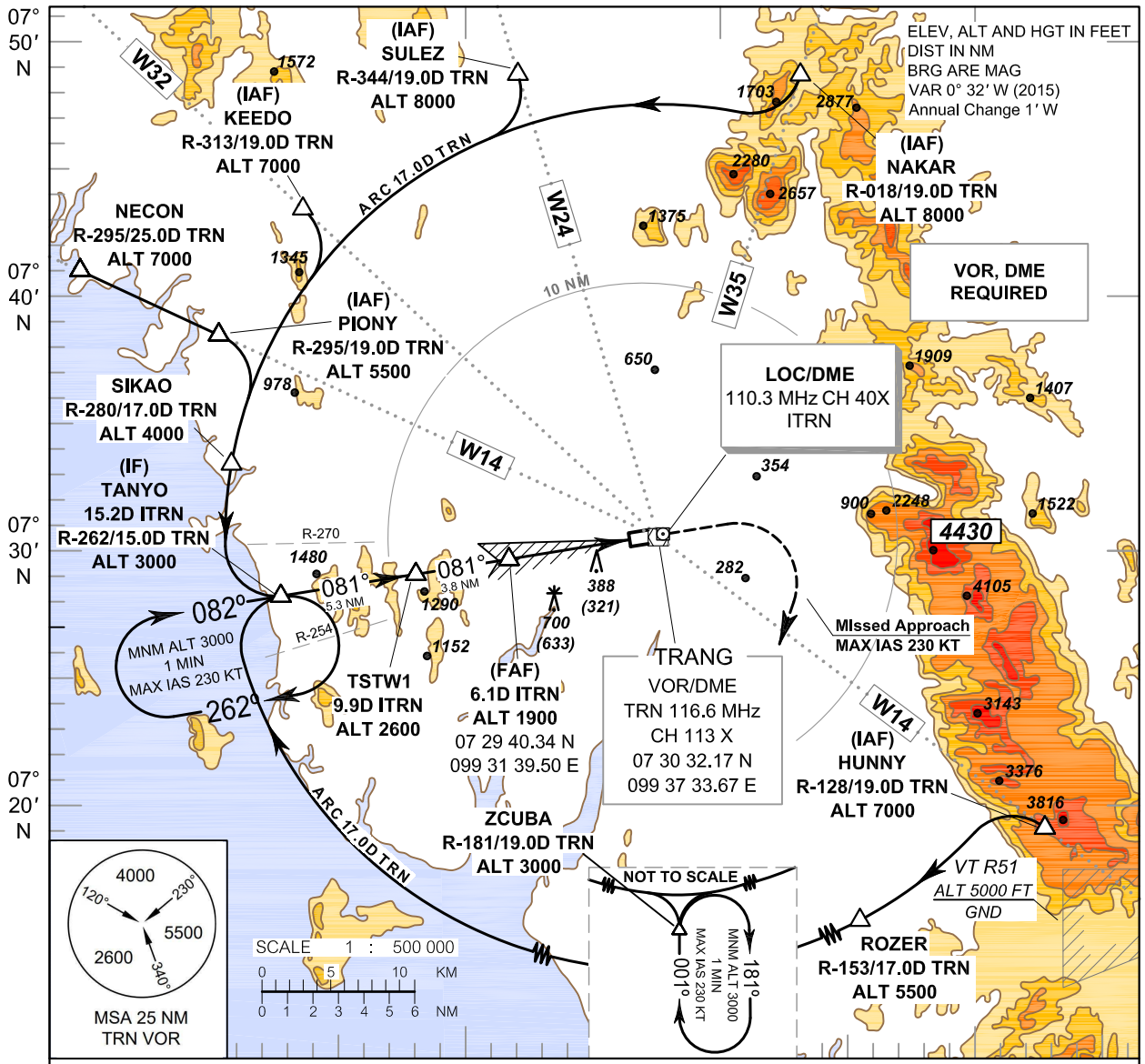
INSTRUMENT APPROACH CHART - ICAO

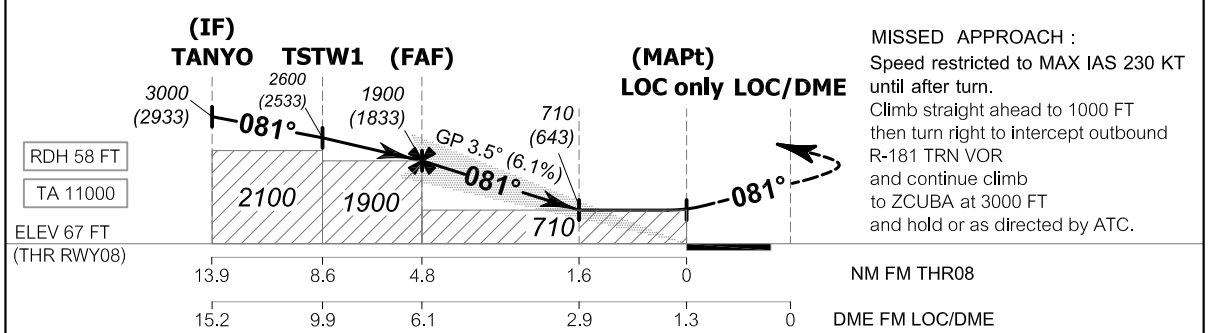
AERODROME ELEV 67 FT
HEIGHTS RELATED TO
THR RWY08 - ELEV 67 FT

APP : 125.3
TWR : 118.4 , 236.6

TRANG / Trang (VTST)

ILS or LOC RWY08





CHANGE: MSA.

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

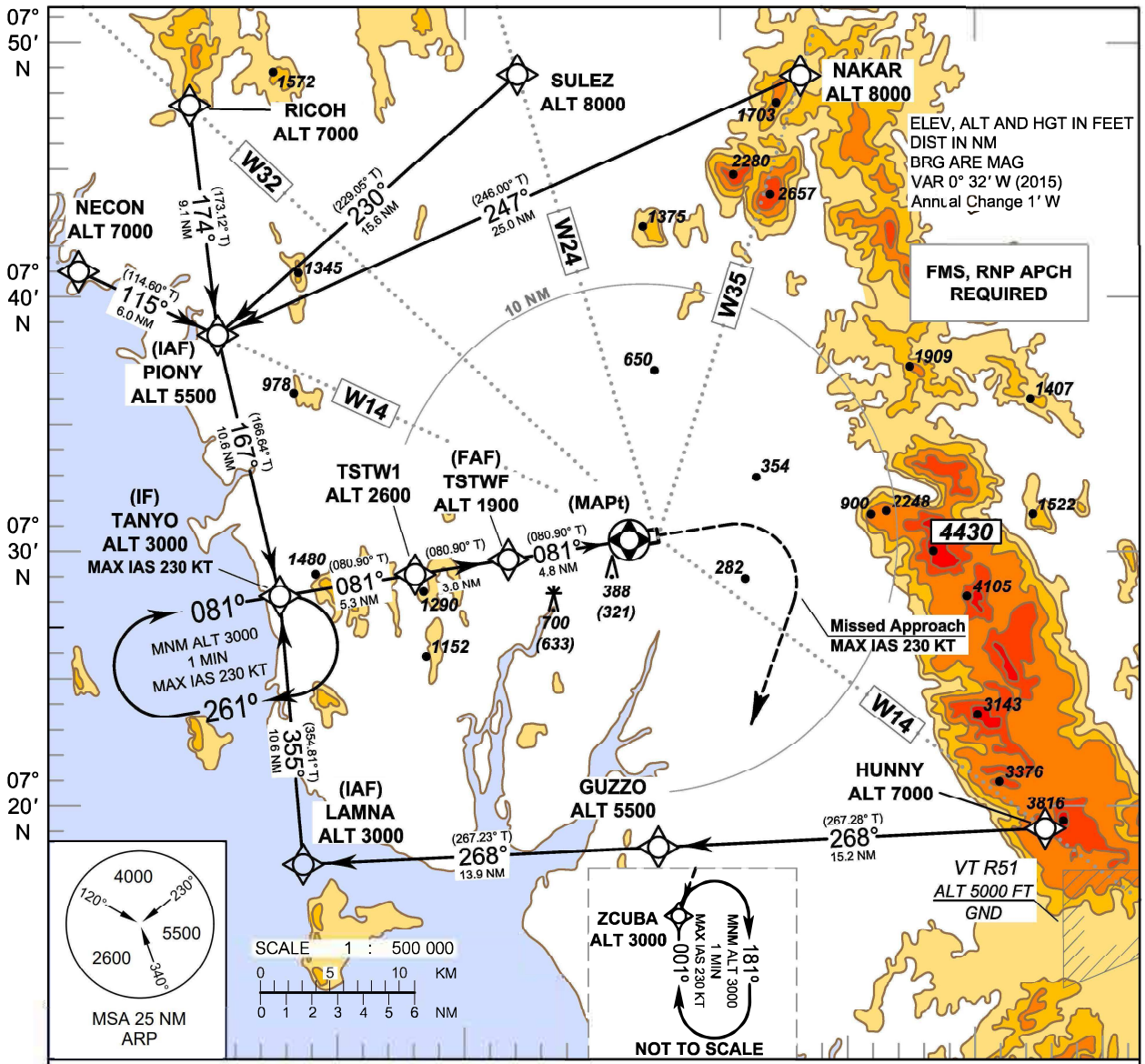
INSTRUMENT APPROACH CHART - ICAO

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 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 Bangkok Airways Public Company Limited 99 Moo 3 Tambon Tasom Khao Saming District Trat Thailand 23150 Tel: +663 952 5777 Fax: +663 952 5778 E-mail: tdxairport@bangkokair.com 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 AFS: VTBBZAZX Tel: +662 285 9695
6	MET Briefing Office	2300-1100
7	ATS	2300-1100 other this period 3 HR PN to ATC via AFS: VTBBZAZX 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) a) Regional Airport Manager E-mail: teerakan@bafs.co.th Tel: +668 9134 5690 b) Trat Airport Station E-mail: pongsak.k@bafsservices.co.th Tel: +668 1863 8602 Fuel Refueller Truck: 1, Capacity: 8,000 L 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: a) Bangkok Airways Ground Services Co., Ltd. (PGGS) Ground Handling Inquiry E-mail: office@pg-gs.com Tel: +667 742 8500 Ext. 31381 +666 3079 6696 b) BAGS Ground Services Co., Ltd. E-mail: tdx-stationmanager@bags-groundservices.com 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) Hill 206 M (676 FT) Hill 102.46 M (340 FT)	121608N 1021805E 121533N 1021909E 121601N 1021845E	NIL

VTBO AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Trat, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1100 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Aeronautical Meteorology Division 24 HR
4	Type of landing forecast Interval of issuance	NIL NIL
5	Briefing/consultation provided	Personal Consultation Tel: +663 952 5777 ext. 3433
6	Flight documentation 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, HR of OPS as ATS OPR HR
2	LDI location and LGT Anemometer location and LGT	WDI 315 M offset 100 M FM THR23 left side illuminated WDI at THR23 right side offset 88 M WDI 628 offset 88 M FM THR23 right side 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), STBY power switch-overtime 15 SEC
5	Remarks	NIL

VTBO AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (121628.10N 1021850.08E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Trat Tower 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 121.5 MHZ [1)]	As AD OPR HR	[1)]Emergency frequency
TWR	Trat Tower	122.9 MHZ 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	121628.10N 1021850.08E	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: - Bearing 001º-145º unable to performed due to border limited. - Bearing 146º-320º altitude should not below 5 000 FT - Bearing 321º-360º altitude should not below 8 000 FT
DME	TRT	Tx. 997 MHZ Rx.1060 MHZ CH36X (109.9 MHZ)	H24	121635.29N 1021908.74E	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: 1. 25 NM orbit - Radial 006º-020º altitude should not below 2 000 FT - Radial 121º-150º altitude should not below 14 000 FT - Radial 151º-190º altitude should not below 10 000 FT - Radial 191º-005º altitude should not below 7 000 FT 2. 20 NM orbit (Due to border limited) - Radial 021º-090º altitude should not below 2 000 FT - 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
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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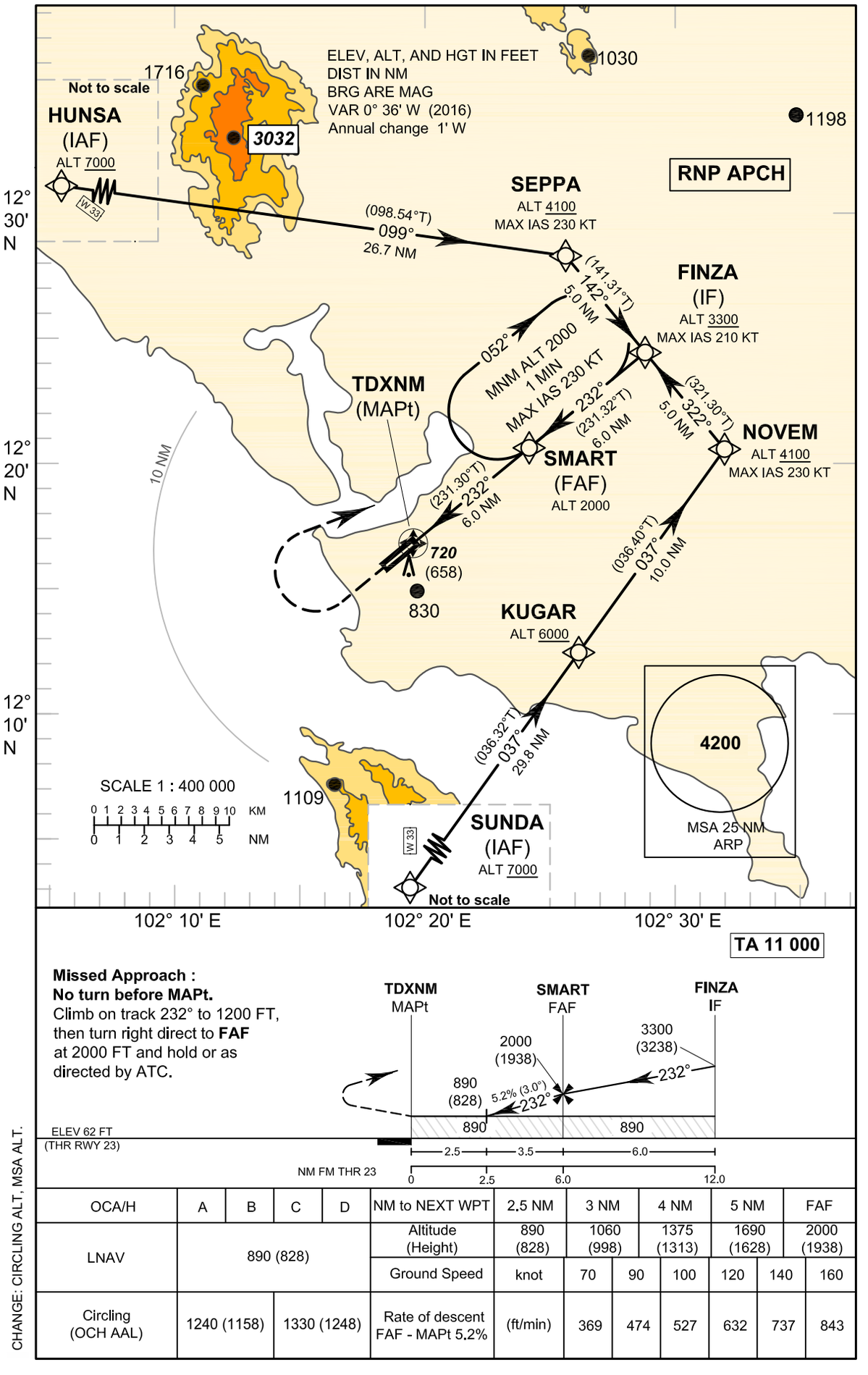
INSTRUMENT APPROACH CHART-ICAO

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.

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	151504.59N 1045212.82E
2	Direction and distance from (city)	1 KM N, from city
3	Elevation/Reference temperature	406 FT/36°C
4	Geoid Undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	0.80°W(2016)/0.02°W
6	AD Administration, address, telephone, telefax, telex, AFS	Director of Ubon Ratchathani Airport Ubon Ratchathani Airport Amphone Muang Ubon Ratchathani Province 34000 Thailand Tel: +664 524 5612-3 Fax: +664 524 4406 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): Located at Ubon Ratchathani Air Traffic Control Centre (1st floor of tower building) Tel: +664 525 6407, +668 9488 2157 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 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 Strength: PCN 61/R/C/X/T
2	Taxiway width, surface and strength	Taxiway A and B Width: 23 M Surface: Asphaltic concrete Strength: PCN 61/F/C/X/T Taxiway C, D, E, F, G, H, I and J (Military)
3	Altimeter checkpoint location and elevation	Location: At apron 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 TWY guide lines: Yes Nose-wheel guide lines at apron VDGS of aircraft stands: stand no.3 and 4, 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: CL, Edge and RWY Holding Position 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, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Lower Northeastern Meteorological Center, 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 524 4108 Fax: +664 524 4200
6	Flight documentation Language(s) used	Charts, Tabular forms and Abbreviated Plain Language Texts 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 Observation System (AWOS), Low Level Wind Shear Alert System (LLWAS) and Weather Radar
9	ATS units provided with information	Ubon Ratchathani TWR 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	051.55°	3000x45	PCN 61/F/C/X/T Asphaltic concrete	151434.17N 1045133.46E	THR 406 FT
23	231.55°	3000x45	PCN 61/F/C/X/T Asphaltic concrete	151535.02N 1045252.20E	THR 392 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 420M LIH	Green NIL	PAPI LEFT 3° (54.36 FT)	NIL	NIL	3 000 M 60 M FM 0 M - 2400 M White, FM 2400 M - 3000M Yellow, LIH	Red NIL	60 M Red	NIL
23	SALS 407M LIH	Green WBAR	PAPI LEFT 3° (49.93 FT)	NIL	NIL	3 000 M 60 M FM 0 M - 2400 M White, FM 2400 M - 3000 M Yellow, LIH	Red NIL	60 M 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. IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL Anemometer: NIL WDI: 1. Wind cone at 345 M from THR 05 off set to the left side 80 M from RCL, illuminated. 2. Wind cone at 90 M from centre line of TWY A off set to the left side 177 M from RCL, illuminated. 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 TWY Centre Line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the Air Field Lighting (AFL) building Switch – over time : 15 SEC..
5	Remarks	NIL

VTUU AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (151442.71N 1045157.30E)
2	Vertical limits	3000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Ubon Tower 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 257.8 MHZ 121.5 MHZ [1)]	As AD OPR HR	[1)] Emergency frequency
TWR	Ubon Tower	119.9 MHZ 274.5 MHZ 121.5 MHZ [1)] 243.0 MHZ [1)]	As AD OPR HR	
GND	Ubon Ground	121.9 MHZ 275.8 MHZ	As AD OPR HR	
ATIS	Ubon Airport	128.2 MHZ	As AD OPR HR	
ASR	Departure Control	335.5 MHZ 134.1 MHZ	0100-0900 [2)] MON-FRI (Except Public Holiday)	[2)] Other this period 2 HR PN TO ATC Royal Thai Air Force ASR OPS AVBL for MIL - Coverage/HGT: PSR 70 NM/30 000 FT SSR 200 NM/100 000 FT - EM: PSR 500 KW SSR 1.5 KW
	Arrival Control	282.2 MHZ 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	151425.83N 1045148.77E		Data refer from commissioning checked as follows: – 50 NM clockwise orbit, altitude 3 000 FT bearing 111°-070° found satisfactory – 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	151442.71N 1045157.30E		DVOR/DME restriction 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: a) 40 NM – Radial 111°-155° altitude should not below 3 000 FT – Radial 156°-165° altitude should not below 7 000 FT – Radial 166°-200° altitude should not below 5 000 FT – Radial 201°-070° altitude should not below 3 000 FT b) 30 NM (Due to border limit) – Radial 071°-110° altitude should not below 2 000 FT 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	151423.85N 1045120.10E		– 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 – No marker
GP/DME		334.4 MHZ	H24	151526.05N 1045247.13E		– Glide Path angle 3.0° – 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 - RWY 05 - RAMBU1B ROT1B CMP1B BUTRA1B PAKSE1B	AD 2-VTUU-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RWY 23 - RAMBU1A ROT1A CMP1A BUTRA1A PAKSE1A	AD 2-VTUU-6-3
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 05 - ARARE1B BAMBO1B CHETA1B PACER1B ROONY1B	AD 2-VTUU-6-5
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 05 - ARARE1B BAMBO1B CHETA1B PACER1B ROONY1B (Tabular description)	AD 2-VTUU-6-6
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 23 - ARARE1A BAMBO1A CHETA1A PACER1A ROONY1A	AD 2-VTUU-6-7
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 23 - ARARE1A BAMBO1A CHETA1A PACER1A ROONY1A (Tabular description)	AD 2-VTUU-6-8
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 - ILS or LOC RWY 23	AD 2-VTUU-8-5
Instrument Approach Chart - ICAO - ILS or LOC RWY 23 (Fix and point list table)	AD 2-VTUU-8-6
Instrument Approach Chart - ICAO - RNP RWY 05	AD 2-VTUU-8-7
Instrument Approach Chart - ICAO - RNP RWY 05 (Tabular description)	AD 2-VTUU-8-8
Instrument Approach Chart - ICAO - RNP RWY 23	AD 2-VTUU-8-9
Instrument Approach Chart - ICAO - RNP RWY 23 (Tabular description)	AD 2-VTUU-8-10

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AERODROME CHART - ICAO

15 15 04.59N
104 52 12.82E

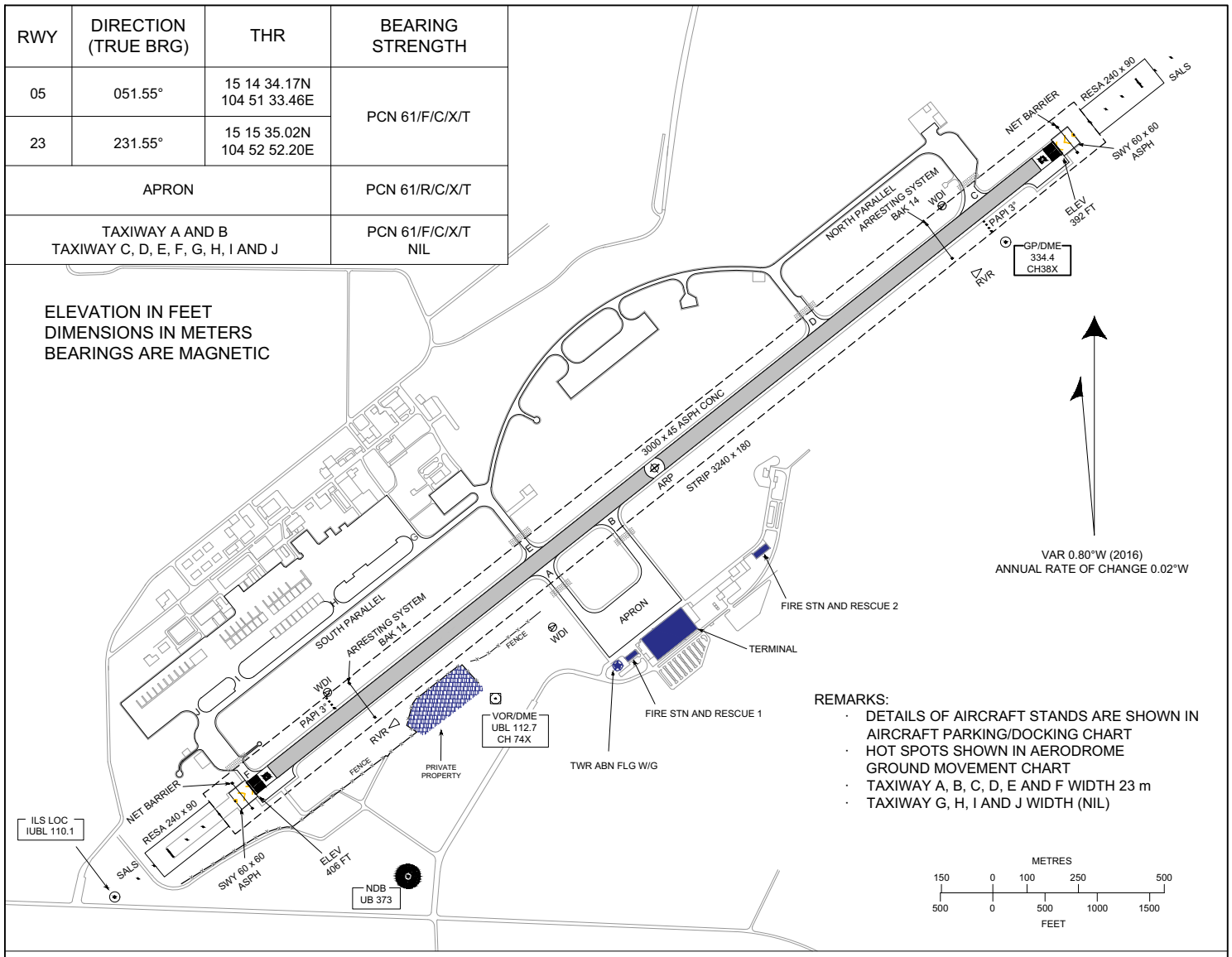
ELEV 406 FT

TWR 119.9, 274.5
GND 121.9, 275.8

UBON RATCHATHANI / Ubon Ratchathani

RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
05	051.55°	15 14 34.17N 104 51 33.46E	PCN 61/F/C/X/T
23	231.55°	15 15 35.02N 104 52 52.20E	
APRON			PCN 61/R/C/X/T
TAXIWAY A AND B TAXIWAY C, D, E, F, G, H, I AND J			PCN 61/F/C/X/T NIL

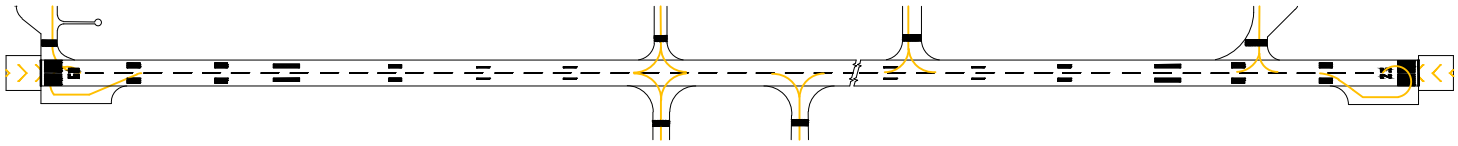
ELEVATION IN FEET
DIMENSIONS IN METERS
BEARINGS ARE MAGNETIC



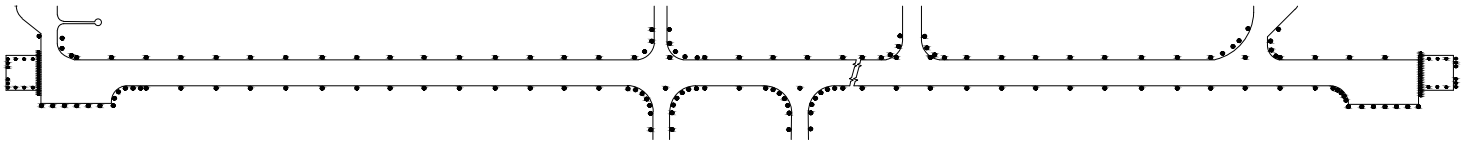
REMARKS:

- 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)

MARKING AIDS RWY 05/23 AND EXIT TWY



LIGHTING AIDS RWY 05/23 AND EXIT TWY



CHANGE: REVISED CHART. RESA RWY 05/23.

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AIRCRAFT PARKING/ DOCKING CHART - ICAO

APRON ELEV 403 FT

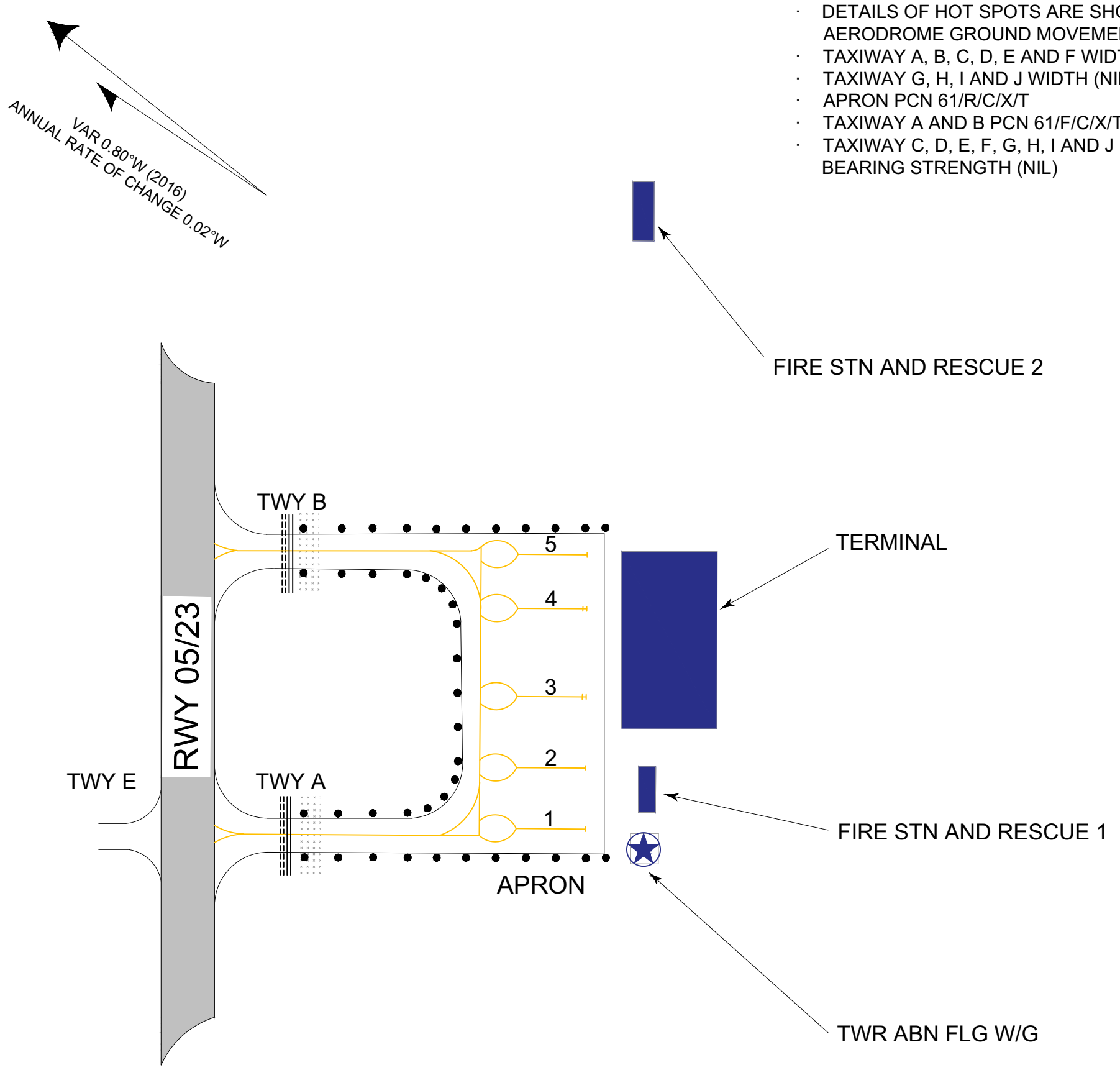
TWR 119.9, 274.5
GND 121.9, 275.8

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)



METRES
150 0 100 250
500 0 500 1000
FEET

CHANGE: NEW CHART.

LEGEND	
RUNWAY - HOLDING POSITION 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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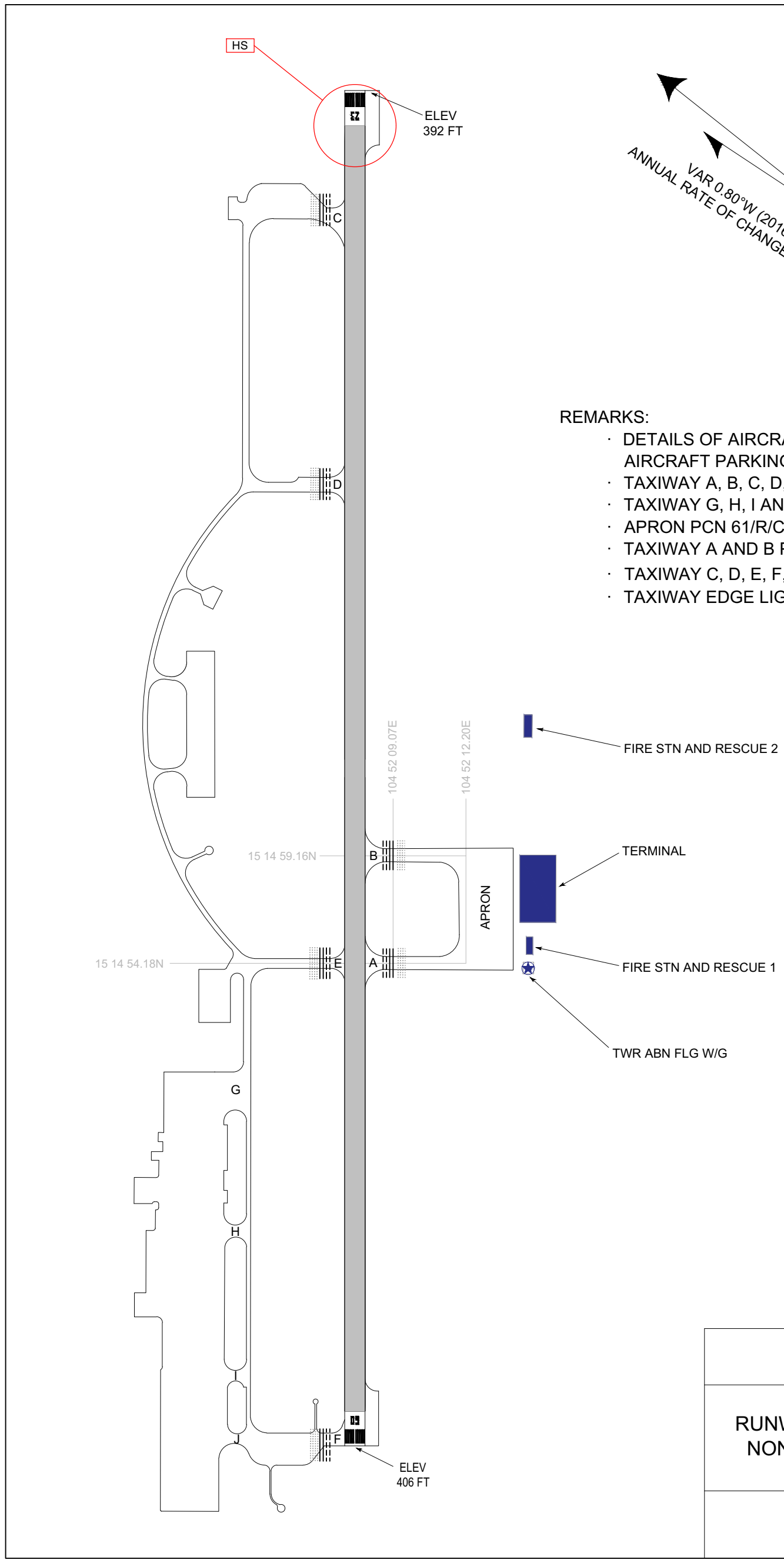
AERODROME GROUND MOVEMENT CHART - ICAO

APRON ELEV
403 FT

TWR 119.9, 274.5
GND 121.9, 275.8

UBON RATCHATHANI / Ubon Ratchathani



ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

VAR 0.80°W (2016)
ANNUAL RATE OF CHANGE 0.02°W

REMARKS:

- DETAILS OF AIRCRAFT STANDS ARE SHOWN IN AIRCRAFT PARKING/DOCKING 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)
- TAXIWAY EDGE LIGHTS ON ALL TAXIWAYS

METRES
150 0 100 250 500
500 0 500 1000 1500
FEET

CHANGE: NEW CHART.

LEGEND

RUNWAY - HOLDING POSITION NON-PRECISION APCH RWY	
HS - PARTIALLY INVISIBLE BY TWR	

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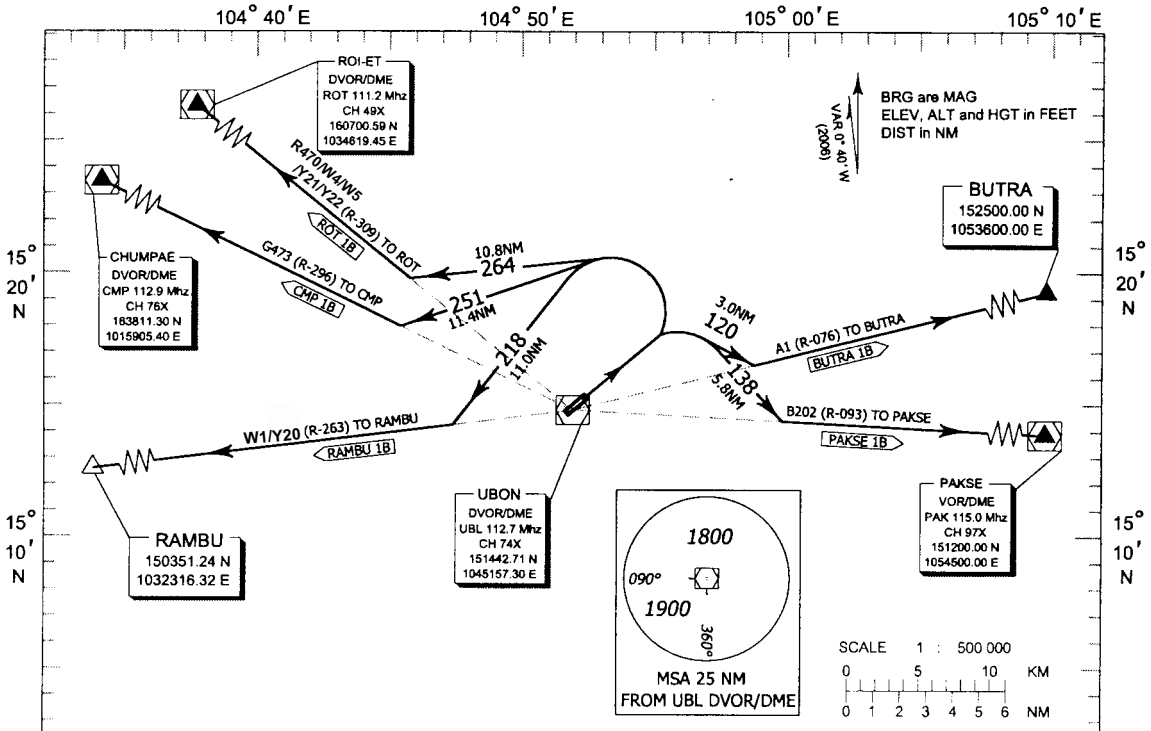
STANDARD INSTRUMENT DEPARTURE CHART
(SID) - ICAO

UBON RATCHATANI / Ubon (VTUU)
RWY 05
RAMBU 1B, ROT 1B
CMP 1B, BUTRA 1B
PAKSE 1B

APP : 123.5 , 257.8
TWR : 119.9 , 274.5



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
- Procedure Design Gradient = 3.3 %
- Max IAS 230 kts for turning after departure

RAMBU ONE BRAVO (RAMBU 1B) :	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 218 TO INTERCEPT AND PROCEED ON R-263 UBL TO RAMBU
CHUMPAE ONE BRAVO (CMP 1B) :	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 251 TO INTERCEPT AND PROCEED ON R-296 UBL TO CHUMPAE DVOR/DME
ROIET ONE BRAVO (ROT 1B) :	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 264 TO INTERCEPT AND PROCEED ON R-309 UBL TO ROIET DVOR/DME
BUTRA ONE BRAVO (BUTRA 1B) :	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1400FT OR ABOVE THEN TURN RIGHT HEADING 120 TO INTERCEPT AND PROCEED ON R-076 UBL TO BUTRA
PAKSE ONE BRAVO (PAKSE 1B) :	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1400FT OR ABOVE THEN TURN RIGHT HEADING 138 TO INTERCEPT AND PROCEED ON R-093 TO PAKSE VOR/DME

CHANGE:ROUTE Y20, Y21, Y22 ADDED.

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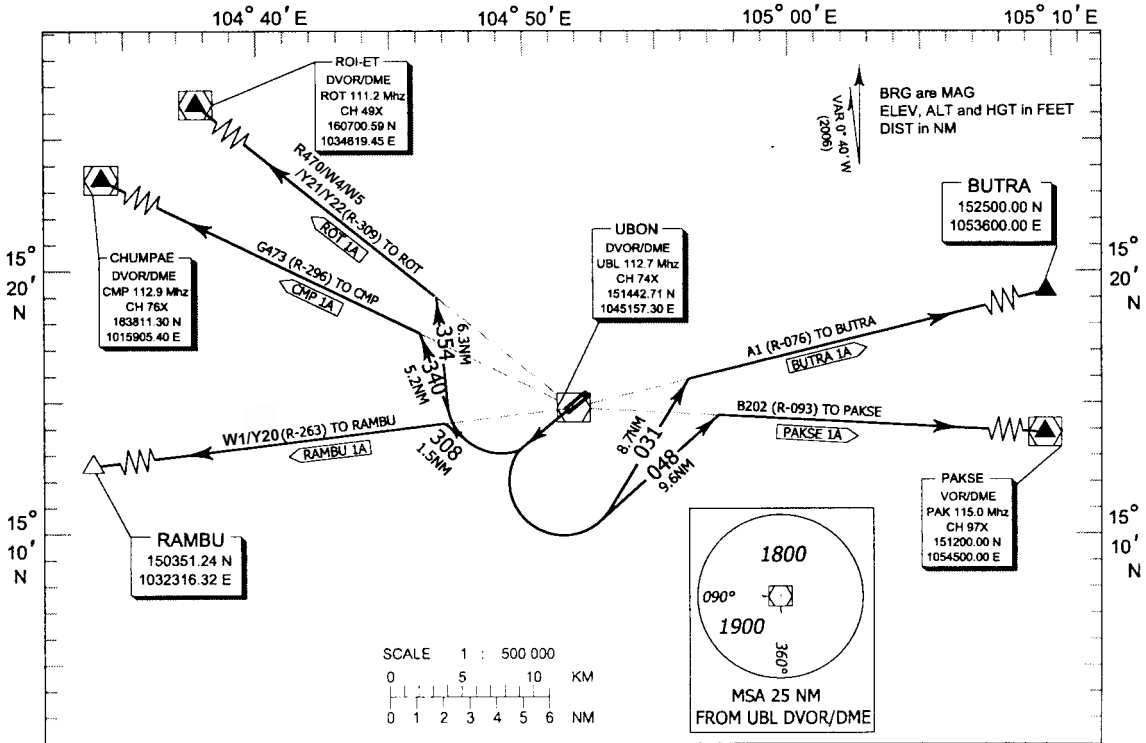
STANDARD INSTRUMENT DEPARTURE CHART
(SID) - ICAO

UBON RATCHATANI / Ubon (VTUU)
RWY 23
RAMBU 1A, ROT 1A
CMP 1A, BUTRA 1A
PAKSE 1A

APP : 123.5 , 257.8
TWR : 119.9 , 274.5



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
- Procedure Design Gradient = 4.9 % to 1200ft
- Max IAS 230 kts for turning after departure

RAMBU ONE ALPHA : (RAMBU 1A)	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN RIGHT HEADING 308 TO INTERCEPT AND PROCEED ON R-263 UBL TO RAMBU
CHUMPAE ONE ALPHA : (CMP 1A)	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN RIGHT HEADING 340 TO INTERCEPT AND PROCEED ON R-296 UBL TO CHUMPAE DVOR/DME
ROIET ONE ALPHA : (ROT 1A)	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN RIGHT HEADING 354 TO INTERCEPT AND PROCEED ON R-309 UBL TO ROIET DVOR/DME
BUTRA ONE ALPHA : (BUTRA 1A)	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 031 TO INTERCEPT AND PROCEED ON R-076 UBL TO BUTRA
PAKSE ONE ALPHA : (PAKSE 1A)	AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 048 TO INTERCEPT AND PROCEED ON R-093 TO PAKSE VOR/DME

CHANGE:ROUTE Y20, Y21, Y22 ADDED.

INTENTIONALLY BLANK

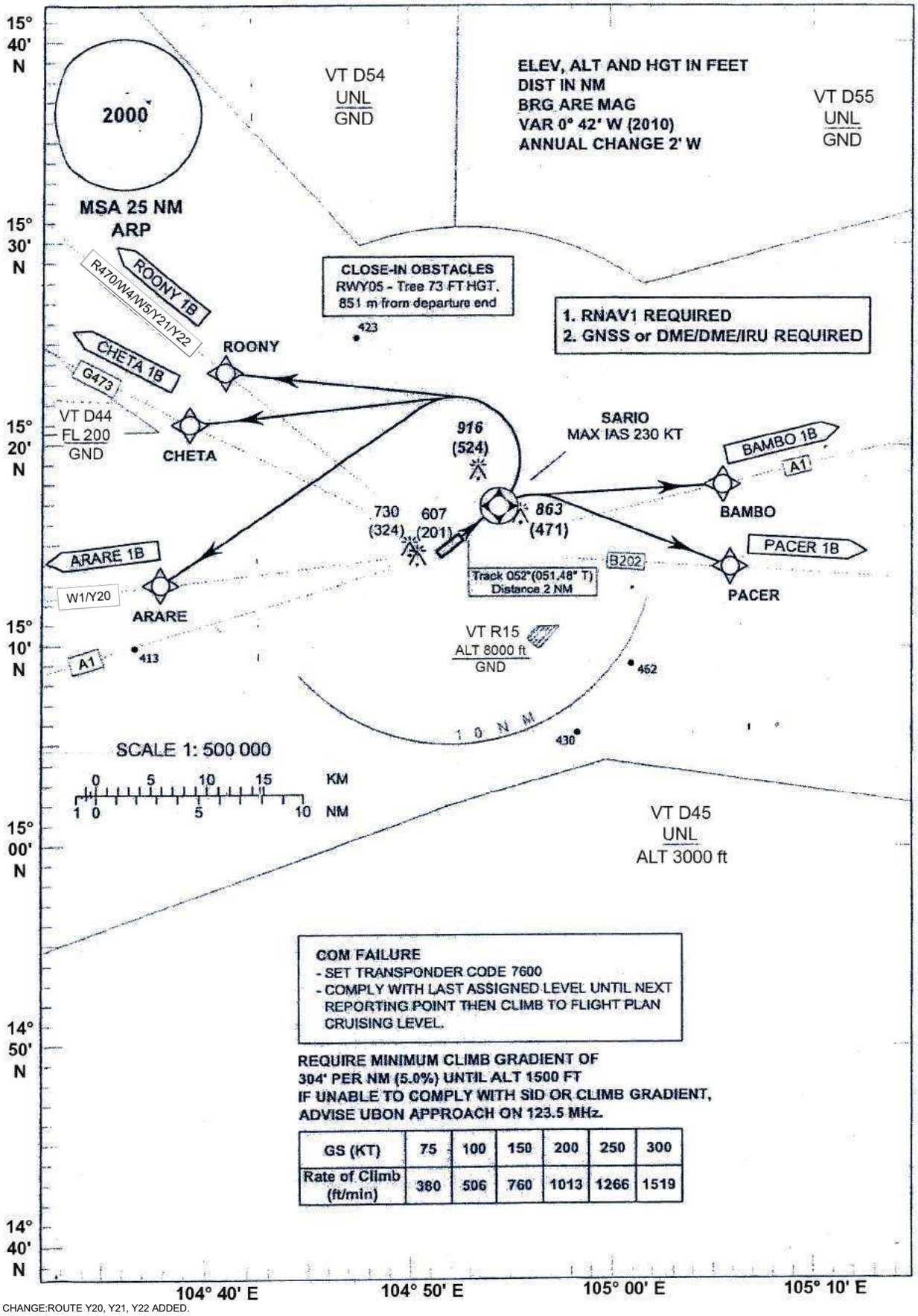
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
RNAV RWY05

ARARE1B, BAMBO1B, CHETA1B, PACER1B, ROONY1B



COM FAILURE
- SET TRANSPONDER CODE 7600
- COMPLY WITH LAST ASSIGNED LEVEL UNTIL NEXT REPORTING POINT THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

REQUIRE MINIMUM CLIMB GRADIENT OF
304' PER NM (5.0%) UNTIL ALT 1500 FT
IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT,
ADVISE UBON APPROACH ON 123.5 MHz.

GS (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	380	506	760	1013	1266	1519

CHANGE:ROUTE Y20, Y21, Y22 ADDED.

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI / Ubon Ratchathani (VTUU)
RNAV RWY05

ARARE1B, BAMBO1B, CHETA1B, PACER1B, ROONY1B

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	Longitude									
001	-	DER RWY05	15 15 35.02 N	104 52 52.20 E	-	-	0.83	-	-	-	-	-	RNAV1
002	CF	SARIO	15 16 50.07 N	104 54 29.32 E	Y	052°(051.48°)	0.83	2	L, R	-	230	-	RNAV1
003	DF	ARARE	15 12 59.33 N	104 37 34.58 E	-	-	0.83	-	-	-	-	-	RNAV1
004	DF	BAMBO	15 11 03.89 N	105 06 01.57 E	-	-	0.83	-	-	-	-	-	RNAV1
005	DF	CHETA	15 21 04.49 N	104 39 01.93 E	-	-	0.83	-	-	-	-	-	RNAV1
006	DF	PACER	15 13 55.64 N	105 06 25.14 E	-	-	0.83	-	-	-	-	-	RNAV1
007	DF	ROONY	15 23 40.20 N	104 40 46.96 E	-	-	0.83	-	-	-	-	-	RNAV1

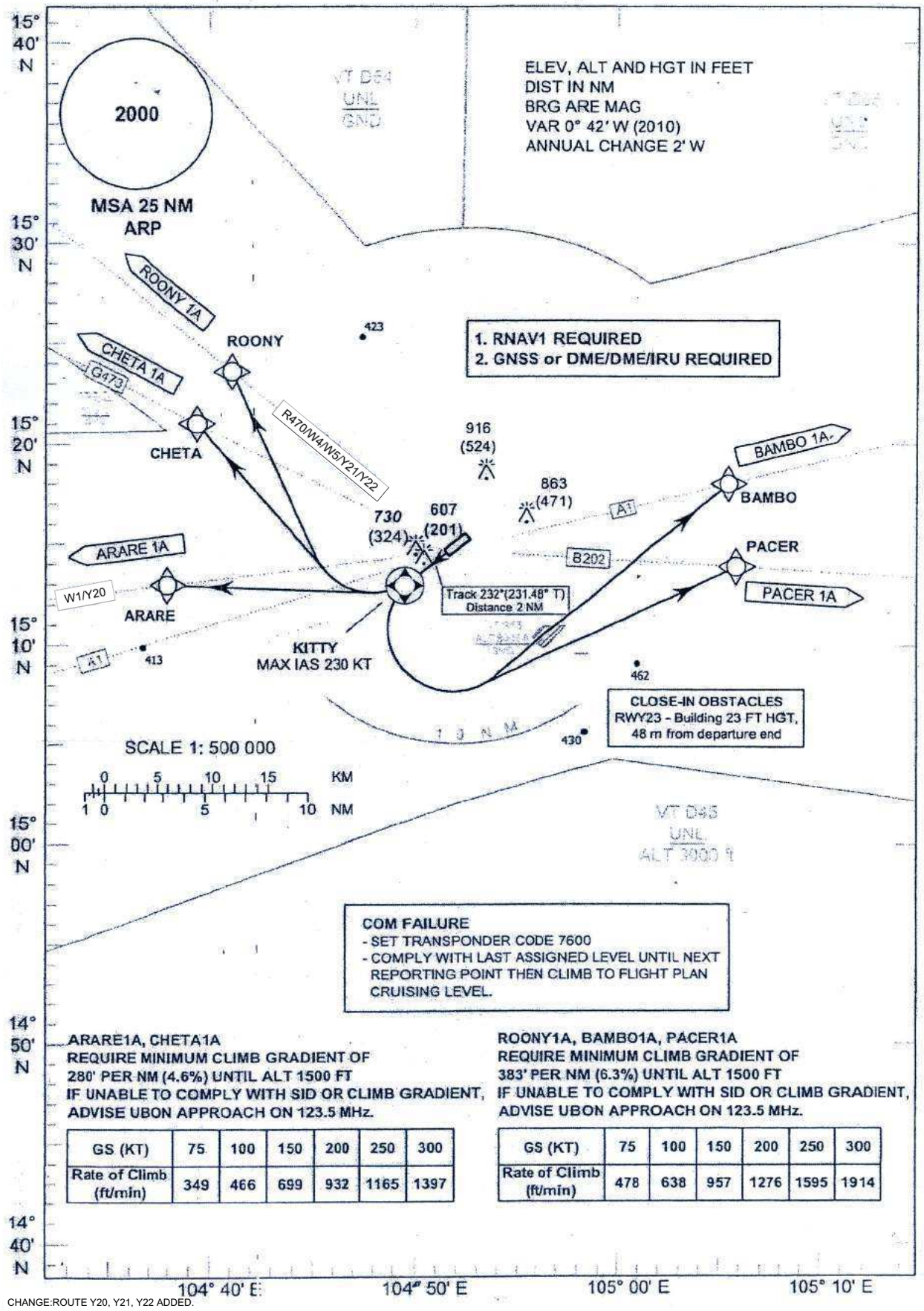
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 11000 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI / Ubon Ratchathani (VTUU)
RNAV RWY23

ARARE1A, BAMBO1A, CHETA1A, PACER1A, ROONY1A



ARARE1A, CHETA1A
REQUIRE MINIMUM CLIMB GRADIENT OF
280' PER NM (4.6%) UNTIL ALT 1500 FT
IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT,
ADVISE UBON APPROACH ON 123.5 MHz.

GS (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	349	466	699	932	1165	1397

ROONY1A, BAMBO1A, PACER1A
REQUIRE MINIMUM CLIMB GRADIENT OF
383' PER NM (6.3%) UNTIL ALT 1500 FT
IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT,
ADVISE UBON APPROACH ON 123.5 MHz.

GS (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	478	638	957	1276	1595	1914

CHANGE:ROUTE Y20, Y21, Y22 ADDED.

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

**UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
RNAV RWY23**

ARARE1A, BAMBO1A, CHETA1A, PACER1A, ROONY1A

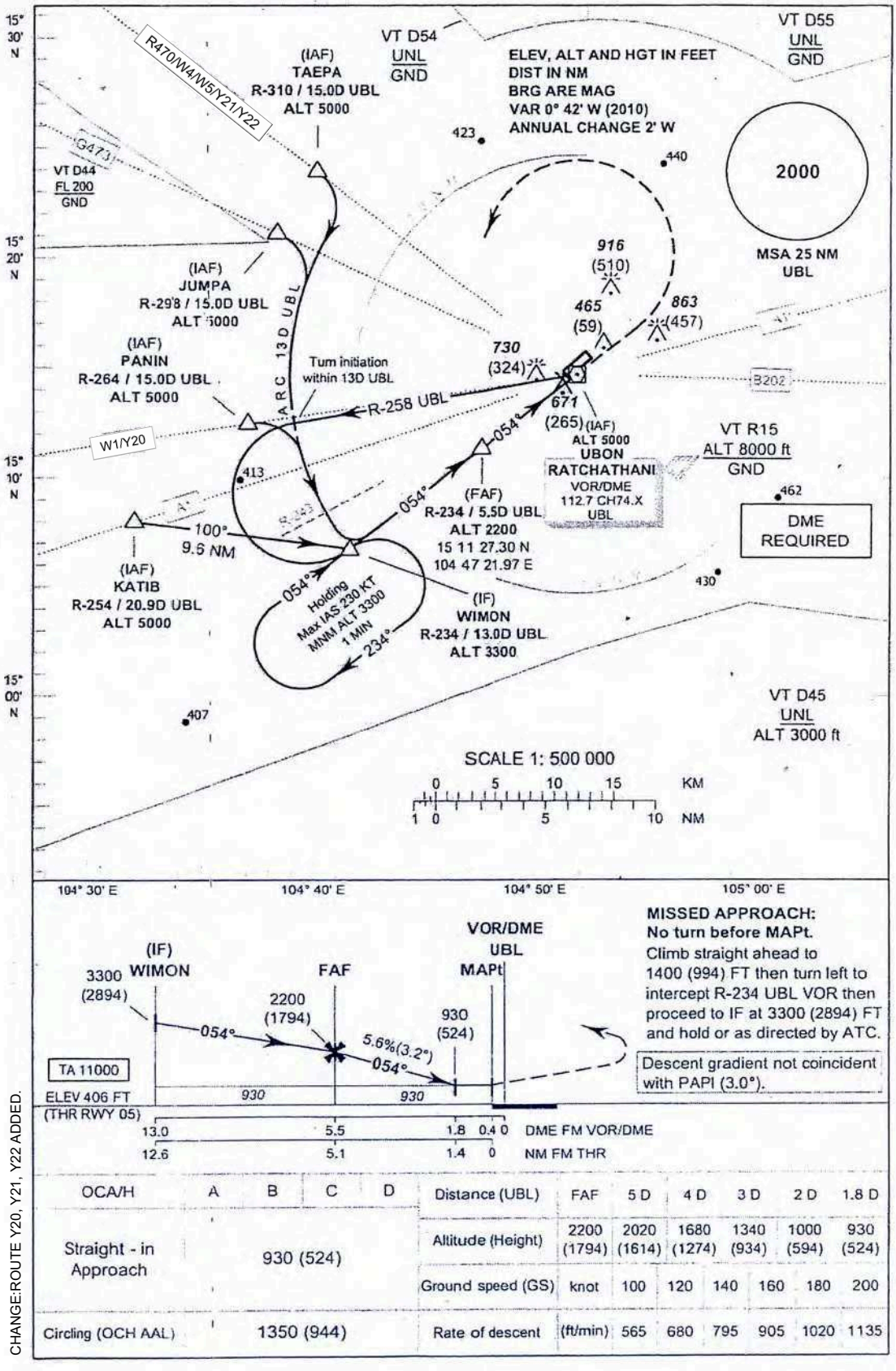
Serial Number	Path Descriptor	Waypoint Identifier	WGS-84 Coordinates		Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
			Latitude	Longitude									
001	-	DER RWY23	15 14 34.17 N	104 51 33.46 E	-	-	0.83	-	-	-	-	-	RNAV1
002	CF	KITTY	15 13 19.11 N	104 49 56.35 E	Y	232°(231.48°)	0.83	2	L,R	-	230	-	RNAV1
003	DF	ARARE	15 12 59.33 N	104 37 34.68 E	-	-	0.83	-	-	-	-	-	RNAV1
004	DF	BAMBO	15 18 03.89 N	105 06 01.57 E	-	-	0.83	-	-	-	-	-	RNAV1
005	DF	CHETA	15 21 04.49 N	104 39 01.93 E	-	-	0.83	-	-	-	-	-	RNAV1
006	DF	PACER	15 13 55.64 N	105 06 25.14 E	-	-	0.83	-	-	-	-	-	RNAV1
007	DF	ROONY	15 23 40.20 N	104 40 46.96 E	-	-	0.83	-	-	-	-	-	RNAV1

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 406 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI / Ubon Ratchathani (VTUU)
VOR RWY05



OCA/H	A	B	C	D
Straight - in Approach		930 (524)		
Circling (OCH AAL)		1350 (944)		

Distance (UBL)	FAF	5 D	4 D	3 D	2 D	1.8 D
Altitude (Height)	2200 (1794)	2020 (1614)	1680 (1274)	1340 (934)	1000 (594)	930 (524)
Ground speed (GS) knot	100	120	140	160	180	200
Rate of descent (ft/min)	565	680	795	905	1020	1135

CHANGE:ROUTE Y20, Y21, Y22 ADDED.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 406 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI / Ubon Ratchathani (VTUU)
VOR RWY05

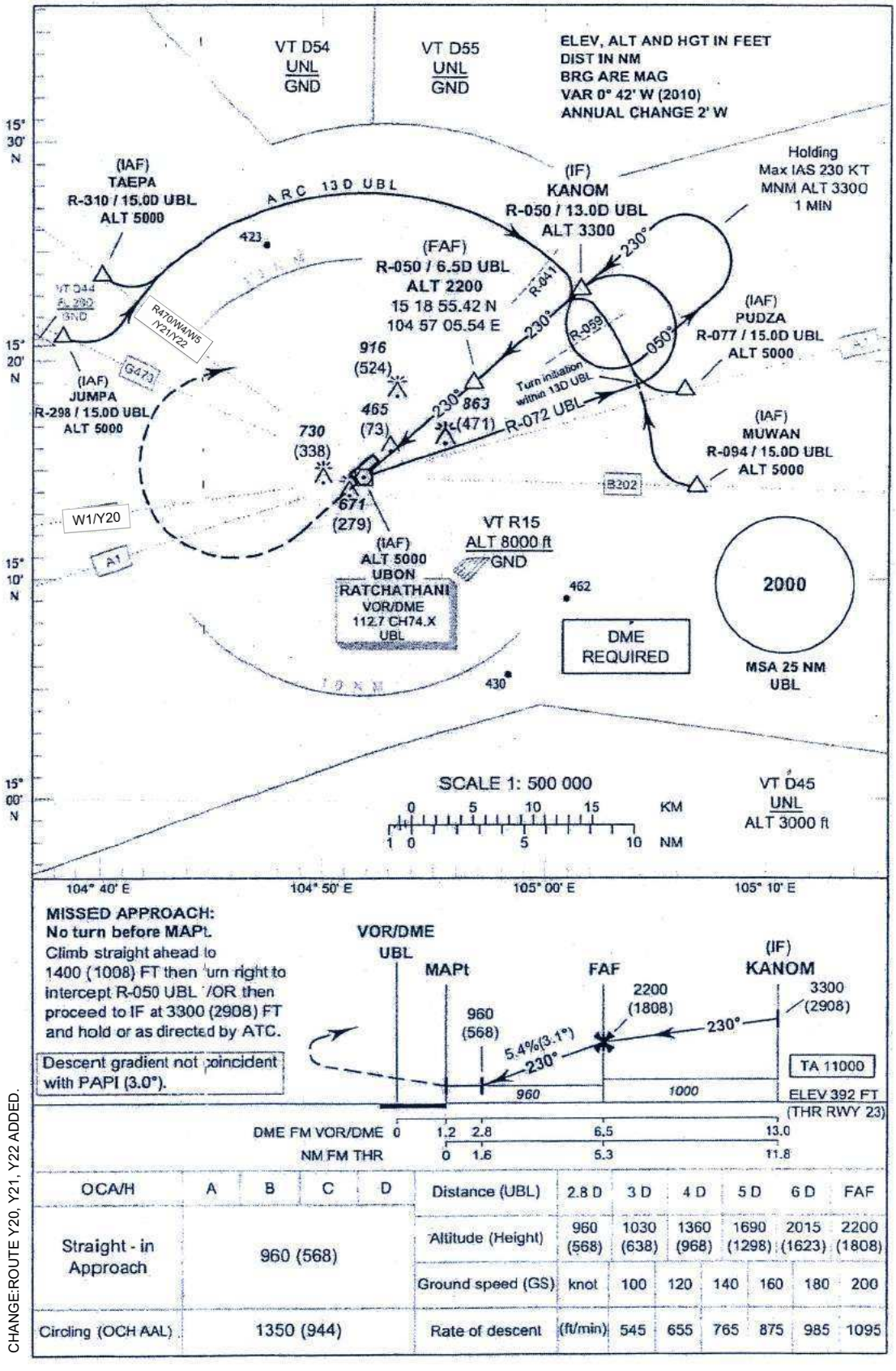
Fix / Point		Coordinates	
KATIB (IAF)	R-254 / 20.9 D UBL	15 08 28.67 N	104 31 17.73 E
PANIN (IAF)	R-264 / 15.0 D UBL	15 12 51.92 N	104 36 33.08 E
JUMPA (IAF)	R-298 / 15.0 D UBL	15 21 31.74 N	104 38 06.52 E
TAEPA (IAF)	R-310 / 15.0 D UBL	15 24 18.58 N	104 39 59.05 E
WIMON (IF)	R-234 / 13.0 D UBL	15 07 00.15 N	104 41 05.99 E
FAF	R-234 / 5.5 D UBL	15 11 27.30 N	104 47 21.97 E
MAPt	R-234 / 0.4 D UBL	15 14 28.71 N	104 51 37.57 E
THR RWY 05	-	15 14 34.17 N	104 51 33.46 E
VOR (IAF)	UBL	15 14 42.71 N	104 51 57.30 E

INSTRUMENT APPROACH CHART - ICAO

AIRODROME ELEV 406 FT
HEIGHTS RELATED TO
THR RWY 23 - ELEV 392 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI / Ubon Ratchathani (VTUU)
VOR RWY23



MISSED APPROACH:
No turn before MAPt.
Climb straight ahead to 1400 (1008) FT then turn right to intercept R-050 UBL /OR then proceed to IF at 3300 (2908) FT and hold or as directed by ATC.

Descent gradient not coincident with PAPI (3.0°).

OCA/H	A	B	C	D
Straight - in Approach	960 (568)			
Circling (OCH AAL)	1350 (944)			

Distance (UBL)	2.8 D	3 D	4 D	5 D	6 D	FAF
Altitude (Height)	960 (568)	1030 (638)	1360 (968)	1690 (1298)	2015 (1623)	2200 (1808)
Ground speed (GS)	knot	100	120	140	160	180	200
Rate of descent	(ft/min)	545	655	765	875	985	1095

CHANGE:ROUTE Y20, Y21, Y22 ADDED.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 406 FT
HEIGHTS RELATED TO
THR RWY 23 - ELEV 392 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
VOR RWY23

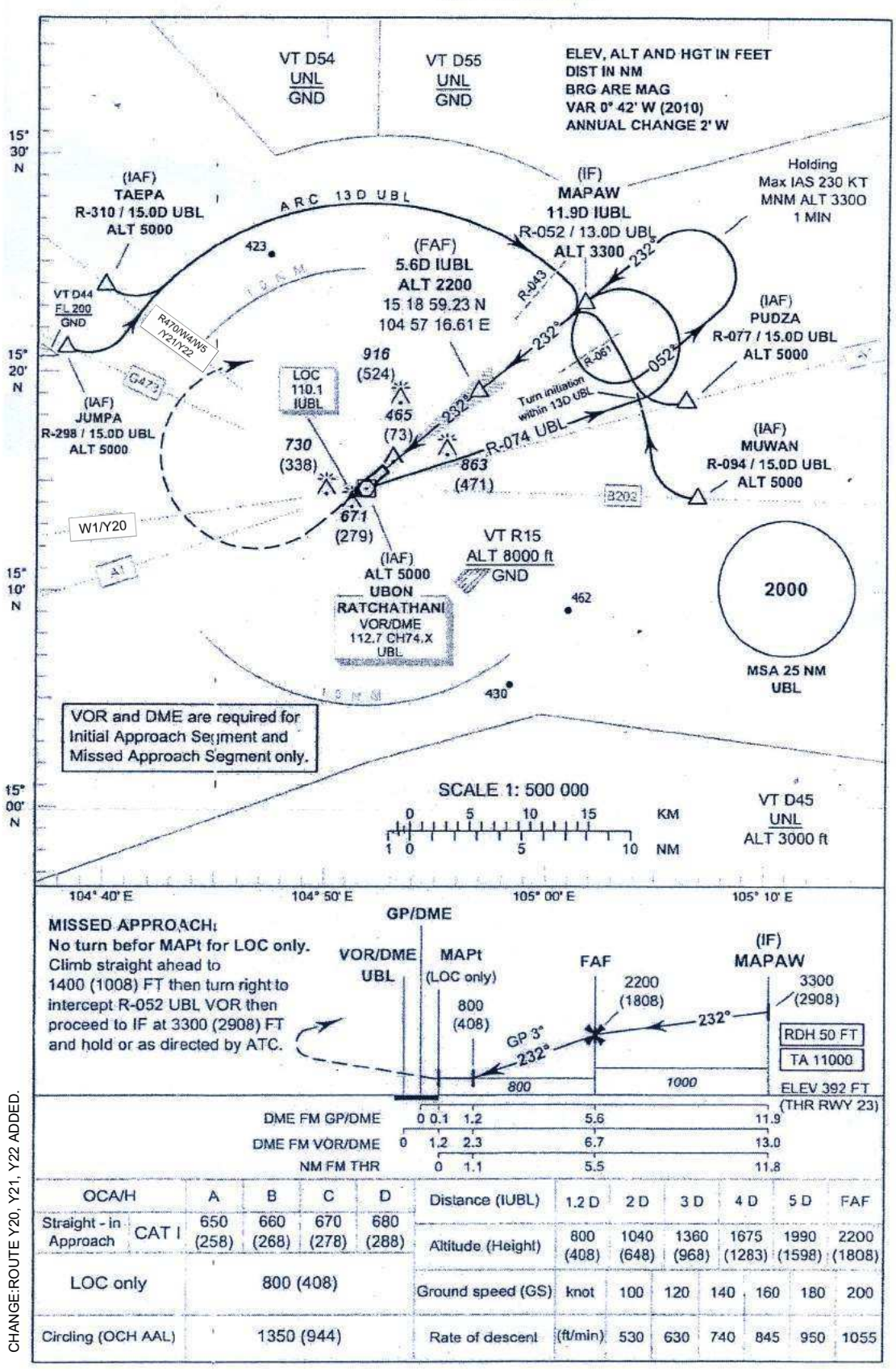
Fix / Point		Coordinates	
PUDZA (IAF)	R-077 / 15.0 D UBL	15 18 18.23 N	105 07 01.90 E
MUWAN (IAF)	R-094 / 15.0 D UBL	15 13 52.25 N	105 07 27.13 E
JUMPA (IAF)	R-298 / 15.0 D UBL	15 21 31.74 N	104 38 06.52 E
TAEPA (IAF)	R-310 / 15.0 D UBL	15 24 18.58 N	104 39 59.05 E
KANOM (IF)	R-050 / 13.0 D UBL	15 23 08.02 N	105 02 13.99 E
FAF	R-050 / 6.5 D UBL	15 18 55.42 N	104 57 05.54 E
MAPt	R-050 / 1.2 D UBL	15 15 30.67 N	104 52 55.77 E
THR RWY 23	-	15 15 35.02 N	104 52 52.20 E
VOR (IAF)	UBL	15 14 42.71 N	104 51 57.30 E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 406 FT
HEIGHTS RELATED TO
THR RWY 23 - ELEV 392 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
ILS or LOC RWY23



OCA/H		A	B	C	D
Straight - in Approach	CAT I	650 (258)	660 (268)	670 (278)	680 (288)
LOC only		800 (408)			
Circling (OCH AAL)		1350 (944)			

Distance (IUBL)		1.2 D	2 D	3 D	4 D	5 D	FAF
Altitude (Height)		800 (408)	1040 (648)	1360 (968)	1675 (1283)	1990 (1598)	2200 (1808)
Ground speed (GS)	knot	100	120	140	160	180	200
Rate of descent	(ft/min)	530	630	740	845	950	1055

CHANGE:ROUTE Y20, Y21, Y22 ADDED.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 406 FT
HEIGHTS RELATED TO
THR RWY 23 - ELEV 392 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
ILS or LOC RWY23

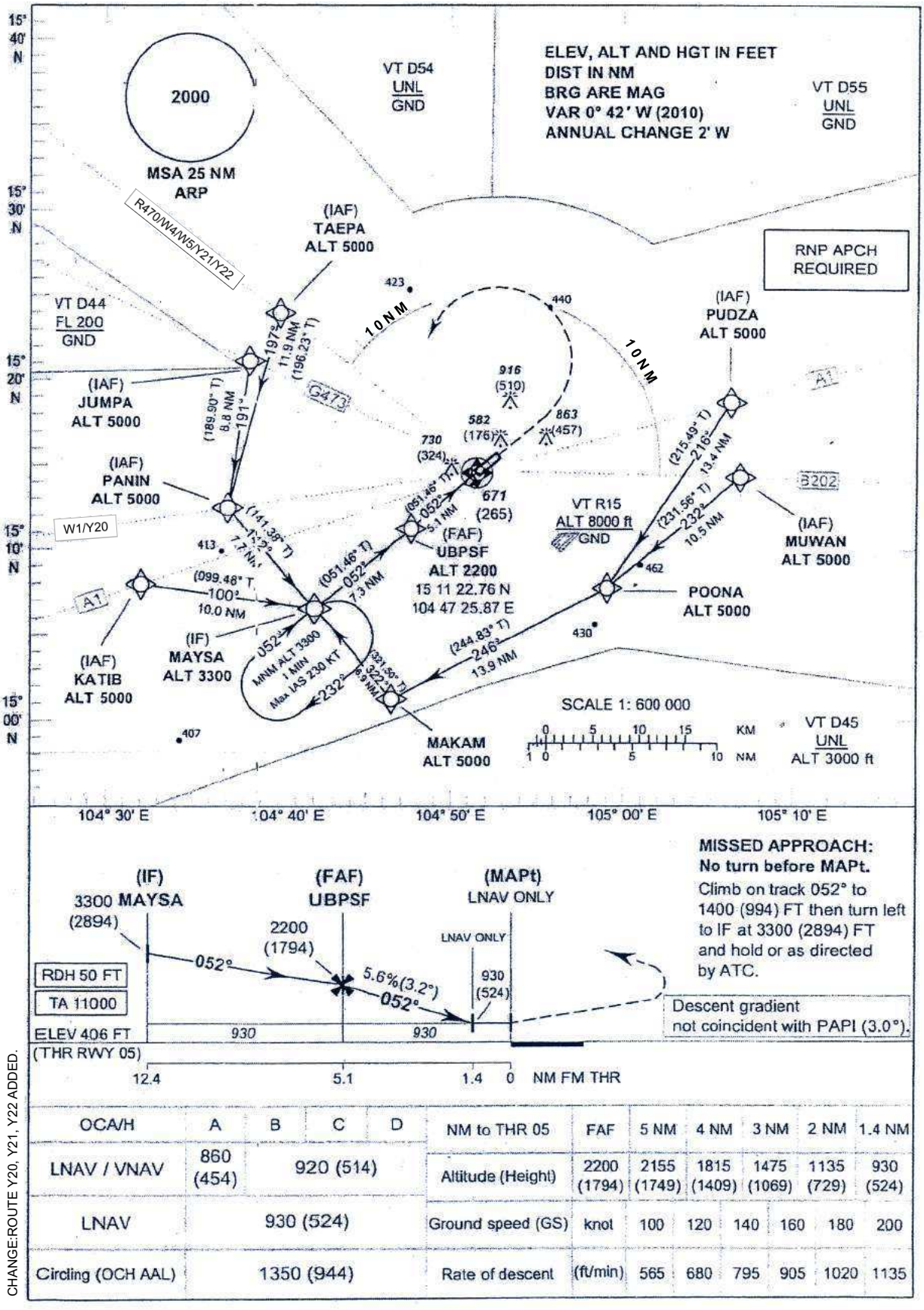
Fix / Point		Coordinates	
JUMPA (IAF)	R-298 / 15.0 D UBL	15 21 31.74 N	104 38 06.52 E
TAEPA (IAF)	R-310 / 15.0 D UBL	15 24 18.58 N	104 39 59.05 E
PUDZA (IAF)	R-077 / 15.0 D UBL	15 18 18.23 N	105 07 01.90 E
MUWAN (IAF)	R-094 / 15.0 D UBL	15 13 52.25 N	105 07 27.13 E
MAPAW (IF)	11.9 D IUBL R-052 / 13.0 D UBL	15 22 56.53 N	105 02 24.20 E
FAF	5.6 D IUBL	15 18 59.23 N	104 57 16.61 E
MAPt (LOC only)	0.1 D IUBL	15 15 35.02 N	104 52 52.20 E
THR RWY 23	-	15 15 35.02 N	104 52 52.20 E
LOC	IUBL	15 14 23.85 N	104 51 20.10 E
GP/DME	IUBL	15 15 26.05 N	104 52 47.13 E
VOR (IAF)	UBL	15 14 42.71 N	104 51 57.30 E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 406 FT
HEIGHTS RELATED TO AERODROME ELEV
BARO-VNAV NA BELOW 0°C

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
RNP RWY05



OCA/H	A	B	C	D	NM to THR 05	FAF	5 NM	4 NM	3 NM	2 NM	1.4 NM
LNAV / VNAV	860 (454)	920 (514)			Altitude (Height)	2200 (1794)	2155 (1749)	1815 (1409)	1475 (1069)	1135 (729)	930 (524)
LNAV	930 (524)				Ground speed (GS)	knot	100	120	140	160	180	200
Circling (OCH AAL)	1350 (944)				Rate of descent	(ft/min)	565	680	795	905	1020	1135

CHANGE:ROUTE Y20, Y21, Y22 ADDED.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 406 FT
HEIGHTS RELATED TO AERODROME ELEV
BARO-VNAV NA BELOW 0°C

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI / Ubon Ratchathani (VTUU)

RNP RWY 05

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	PUDZA (IAF)	15 18 18.23 N	105 07 01.90 E	-	216°(215.49°)	0.83	13.4	-	5000	-	-	RNP APCH
002	IF	MUWAN (IAF)	15 13 52.25 N	105 07 27.13 E	-	232°(231.56°)	0.83	10.5	-	5000	-	-	RNP APCH
003	TF	POONA	15 07 20.47 N	104 58 59.08 E	-	246°(244.83°)	0.83	13.9	R	5000	-	-	RNP APCH
004	TF	MAKAM	15 01 23.42 N	104 45 58.02 E	-	322°(321.50°)	0.83	6.9	R	5000	-	-	RNP APCH
005	IF	KATIB (IAF)	15 08 28.67 N	104 31 17.73 E	-	100°(099.48°)	0.83	10.0	-	5000	-	-	RNP APCH
007	IF	JUMPA (IAF)	15 21 31.74 N	104 38 06.52 E	-	191°(189.90°)	0.83	8.8	-	5000	-	-	RNP APCH
008	IF	TAEPA (IAF)	15 24 18.58 N	104 39 59.05 E	-	197°(196.23°)	0.83	11.9	-	5000	-	-	RNP APCH
006	IF/TF	PANIN (IAF)	15 12 51.92 N	104 36 33.08 E	-	142°(141.38°)	0.83	7.7	L	5000	-	-	RNP APCH
009	TF	MAYSA (IF)	15 06 48.76 N	104 41 31.61 E	-	052°(051.46°)	0.83	7.3	L, R	3300	-	-	RNP APCH
010	TF	UBPSF (FAF)	15 11 22.76 N	104 47 25.87 E	-	052°(051.46°)	0.83	5.1	-	2200	-	-	RNP APCH
011	-	MAPt (THR 05)	15 14 34.17 N	104 51 33.46 E	Y	-	0.83	-	-	930	-	-	RNP APCH
012	CA	-	-	-	-	-	0.83	-	L	1400	-	-	RNP APCH
013	DF	MAYSA (IF)	15 06 48.76 N	104 41 31.61 E	-	-	0.83	-	-	-	-	-	RNP APCH
014	HM	MAYSA (IF)	15 06 48.76 N	104 41 31.61 E	Y	052°(051.46°)	0.83	-	R	-	230	-	RNP APCH

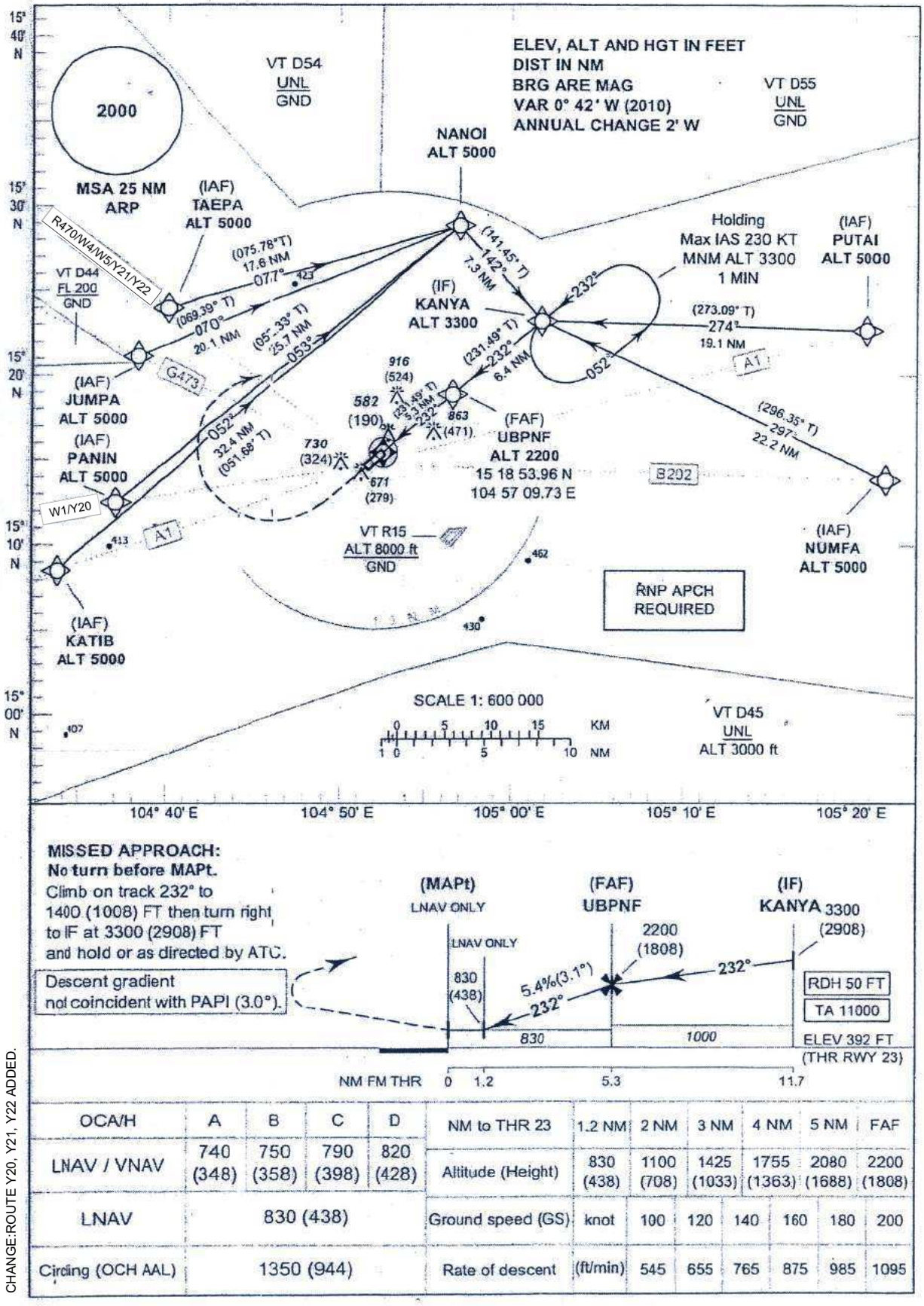
CHANGE: CHART TITLE.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 406 FT
HEIGHTS RELATED TO THR RWY 23 - ELEV 392 FT
BARO-VNAV NA BELOW 0°C

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI / Ubon Ratchathani (VTUU)
RNP RWY23



OCA/H	A	B	C	D
LNAV / VNAV	740 (348)	750 (358)	790 (398)	820 (428)
LNAV	830 (438)			
Circling (OCH AAL)	1350 (944)			

NM to THR 23	1.2 NM	2 NM	3 NM	4 NM	5 NM	FAF
Altitude (Height)	830 (438)	1100 (708)	1425 (1033)	1755 (1363)	2080 (1688)	2200 (1808)
Ground speed (GS) knot	100	120	140	160	180	200
Rate of descent (ft/min)	545	655	765	875	985	1095

CHANGE:ROUTE Y20, Y21, Y22 ADDED.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 406 FT
HEIGHTS RELATED TO
THR RWY 23 - ELEV 392 FT
BARO-VNAV NA BELOW 0°C

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
RNP RWY 23

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	POSAI (IAF)	15 21 52.72 N	105 22 06.99 E	-	274°(273.09°)	0.83	19.1	-	5000	-	-	RNP APCH
002	IF	NUMFA (IAF)	15 13 00.71 N	105 22 56.83 E	-	297°(296.35°)	0.83	22.2	-	5000	-	-	RNP APCH
003	IF	KATIB (IAF)	15 08 28.67 N	104 31 17.73 E	-	052°(051.68°)	0.83	32.4	-	5000	-	-	RNP APCH
004	IF	PANIN (IAF)	15 12 51.92 N	104 36 33.08 E	-	053°(052.33°)	0.83	25.7	-	5000	-	-	RNP APCH
005	IF	JUMPA (IAF)	15 21 31.74 N	104 38 06.52 E	-	070°(069.39°)	0.83	20.1	-	5000	-	-	RNP APCH
006	IF	TAEPA (IAF)	15 24 18.58 N	104 39 59.05 E	-	077°(075.78°)	0.83	17.6	-	5000	-	-	RNP APCH
007	TF	NANOI	15 28 38.06 N	104 57 38.09 E	-	142°(141.45°)	0.83	7.3	R	5000	-	-	RNP APCH
008	TF	KANYA (IF)	15 22 53.99 N	105 02 20.58 E	-	232°(231.49°)	0.83	6.4	L, R	3300	-	-	RNP APCH
009	TF	UBPNF (FAF)	15 18 53.96 N	104 57 09.73 E	-	232°(231.49°)	0.83	5.3	-	2200	-	-	RNP APCH
010	-	MAPt (THR 23)	15 15 35.02 N	104 52 52.20 E	Y	-	0.83	-	-	830	-	-	RNP APCH
011	CA	-	-	-	-	-	0.83	-	R	1400	-	-	RNP APCH
012	DF	KANYA (IF)	15 22 53.99 N	105 02 20.58 E	-	-	0.83	-	-	-	-	-	RNP APCH
013	HM	KANYA (IF)	15 22 53.99 N	105 02 20.58 E	Y	232°(231.49°)	0.83	-	L	-	230	-	RNP APCH

CHANGE: CHART TITLE.

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 Udon Thani Airport Makkhaeng, Muang Udon Thani 41000 Thailand Tel: +664 224 4426 Fax: +664 224 6804 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): Located at Udon Thani Air Traffic Control Centre (1st floor of tower building) Tel: +664 223 0124 +669 2262 3477 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 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 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 Strength: PCN 61/R/C/X/T
2	Taxiway width, surface and strength	TWY A - TWY N Width: 23 M Surface: Concrete Strength: PCN 61/R/C/X/T
3	Altimeter checkpoint location and elevation	Location: At Apron 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 TWY guide lines: Yes 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: CL and Edge 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/ Approach area RWY30/ Take off area	Tree HGT 132 FT AGL NIL / NIL	172336.09N 1024613.09E	AWOS 1 ELEV 613.75 FT (187.07 M) Paint red/white LGTD	172327.73 N 1024634.26E	NIL
RWY12/ Approach area RWY30/ Take off area	Radio mast ELEV 701.44 FT (213.80 M) Paint red/white LGTD	172402.44N 1024600.88E	AWOS 2 ELEV 613.65 FT (187.04 M) Paint red/white LGTD	172327.64N 1024634.44E	
RWY30/ Approach area	Radio mast ELEV 727.26 FT (221.67 M) Paint red/white LGTD	172211.25N 1024841.64E	AWOS 3 ELEV 612.40 FT (186.66 M) Paint red/white LGTD	172250.71N 1024750.63E	
RWY30/ Approach area RWY12/ Take off area	Radio mast ELEV 829.27 FT (252.76 M) Paint red/white LGTD	172144.55N 1024911.61E	AWOS 4 ELEV 612.60 FT (186.72 M) Paint red/white LGTD	172250.64N 1024750.71E	
RWY30/ Approach area RWY12/ Take off area	Telecommunication mast ELEV 634.74 FT (193.47 M) NIL / NIL	172246.27N 1024825.46E	GP ELEV 637.43 FT (194.29 M) Paint red/white LGTD	172256.83N 1024756.06E	
			Radio mast ELEV 829.56 FT (252.85 M) Paint red/white LGTD	172454.30N 1024648.57E	
			Radio mast ELEV 833.92 FT (254.18 M) Paint red/white LGTD	172421.52N 1024649.65E	

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 ELEV 807.09 FT (246 M) Paint red/white LGTD	172226.91N 1024816.60E	
			Radio mast ELEV 763.25 FT (232.64 M) Paint red/white LGTD	172417.56N 1024717.27E	
			Radio mast ELEV 983.01 FT (299.62 M) Paint red/white LGTD	172444.38N 1024742.77E	
			Radio mast ELEV 732.87 FT (223.38 M) Paint red/white LGTD	172353.89N 1024711.03E	
			Radio mast ELEV 909.28 FT (277.15 M) NIL / NIL	172320.67N 1024814.35E	
			Radio mast ELEV 917.16 FT (279.55 M) Paint red/white LGTD	172508.08N 1024806.00E	
			Radio mast ELEV 784.71 FT (239.18 M) NIL / NIL	172222.33N 1024803.13E	
			Radio mast ELEV 870.34 FT (265.28 M) Paint red/white NIL	172444.66N 1024733.74E	
			Microwave radio mast ELEV 734.51 FT (223.88 M) Paint red/white LGTD	172304.98N 1024756.02E	
			Telecommunication mast ELEV 783.17 FT (238.71 M) Paint red/white LGTD	172125.77N 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 ELEV 735.17 FT (224.08 M) NIL / NIL	172306.14N 1024539.60E	
			Telecommunication mast ELEV 780.61 FT (237.93 M) Paint red/white LGTD	172138.71N 1024535.51E	
			Telecommunication mast ELEV 765.68 FT (233.38 M) NIL / NIL	172153.95N 1024536.29E	
			Telecommunication mast ELEV 742.09 FT (226.19 M) Paint red/white NIL	172222.25N 1024619.06E	
			Telecommunication mast ELEV 745.31 FT (227.17 M) Paint red/white NIL	172224.47N 1024622.42E	
			Telecommunication mast ELEV 753.28 FT (229.60 M) Paint red/white NIL	172224.38N 1024623.49E	
			Telecommunication mast ELEV 743.01 FT (226.47 M) Paint red/white LGTD	172221.31N 1024625.98E	
			Telecommunication mast ELEV 761.91 FT (232.23 M) NIL / NIL	172117.43N 1024645.34E	
			Telecommunication mast ELEV 873.03 FT (266.10 M) Paint red/white NIL	172104.48N 1024706.73E	

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	
			Building ELEV 776.15 FT (236.57 M) Paint red/white LGTD	172202.95N 1024535.16E	
			Building ELEV 734.94 FT (224.01 M) NIL / NIL	172439.51N 1024742.31E	
			Building ELEV 754.17 FT (229.87 M) NIL / NIL	172420.21N 1024759.92E	
			Building ELEV 743.57 FT (226.64 M) NIL / LGTD	172456.73N 1024642.99E	
			Telecommunication Mast HGT 237 FT AGL NIL / NIL	172356.00N 1024618.60E	

VTUD AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Udon Thani, Upper Northeastern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1500 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Upper Northeastern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 224 6803
6	Flight documentation 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 Observation System (AWOS) and Low Level Wind Shear 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 Asphalt	172333.72N 1024631.65E	THR 579 FT TDZ 579 FT
30	297.68°	3048x45	PCN 65/F/C/X/T Asphalt	172248.62N 1024803.73E	THR 579 FT 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 420 M LIH	Green NIL	PAPI LEFT 3° (50.60 FT)	NIL	NIL	3 048 M 60 M White LIH YCZ: 600 M	Red NIL	300 M Red	NIL
30	SALS 420 M LIH	Green Green	PAPI LEFT 3° (53.84 FT)	NIL	NIL	3 048 M 60 M White LIH YCZ: 600 M	Red NIL	300 M 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.. IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL WDI: - Wind cone at 350 M from THR 12 off set to the right side 80 M from RCL, illuminated. - Wind cone at 350 M from THR 30 off set to the left side 80 M from RCL, illuminated. Anemometer: NIL
3	TWY edge and centre line lighting	Edge: All TWY Centre Line: NIL
4	Secondary power supply/switch-over time	Secondary power supply at air field lighting (AFL). Switch-over time: 15 SEC
5	Remarks	NIL

VTUD AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO 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 (172304.20N 1024630.05E)
2	Vertical limits	3000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Udon Tower 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 265.9 MHZ 119.45 MHZ[2)] 121.5 MHZ[1)]	As AD OPR HR	[1)]Emergency frequency [2)]Backup frequency
TWR	Udon Tower	121.5 MHZ[1)] 122.5 MHZ 243.0 MHZ[1)] 355.4 MHZ 119.45 MHZ[2)]	As AD OPR HR	
GND	Udon Ground	121.9 MHZ 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 CH90X	H24	172304.20N 1024630.05E		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: 1. 15 NM orbit - RDL 277º-280º ALT should not below 5000 FT 2. 20 NM orbit (due to border limited) - RDL 331º- 030º ALT should not below 2500 FT 3. 40 NM orbit - RDL 031º- 090º ALT should not below 3000 FT - RDL 091º-190º ALT should not below 4000 FT - RDL 191º- 268º ALT should not below 5000 FT - RDL 269º- 276º ALT should not below 8000 FT - RDL 281º- 330º ALT should not below 5000 FT 4.The En-route radial 275 (W15) beyond 20 NM ALT 6500 FT the DVOR/DME signal out of tolerance.
ILS CAT I LOC RWY30	IUDN	110.1 MHZ	H24	172341.25N 1024616.25E		
GP/DME		334.4 MHZ CH38X	H24	172256.70N 1024755.94E		

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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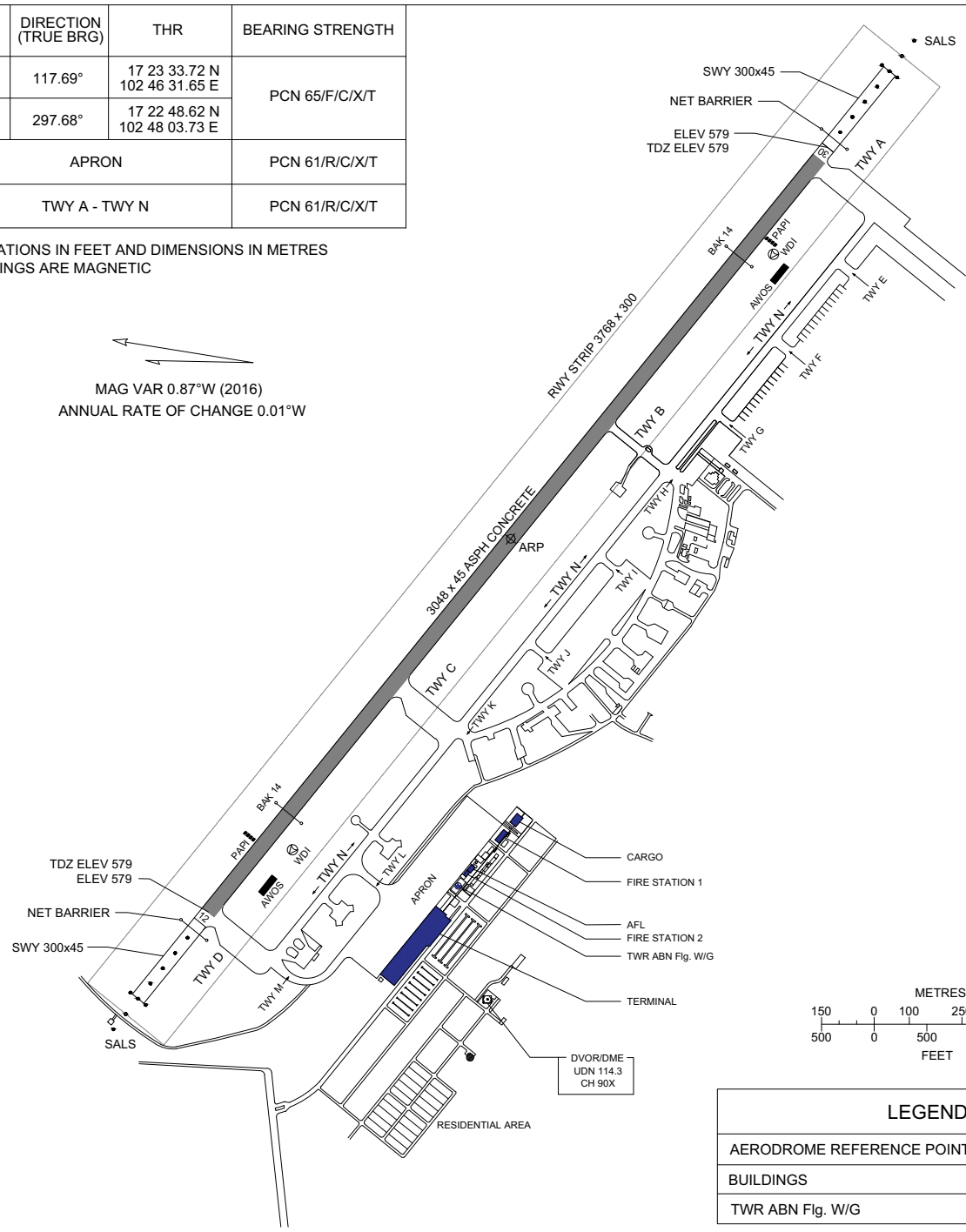
AERODROME CHART - ICAO 17 23 11 N 102 47 18 E ELEV 579 FT 176 M TWR 122.50 355.40 UDON THANI / Udon Thani

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

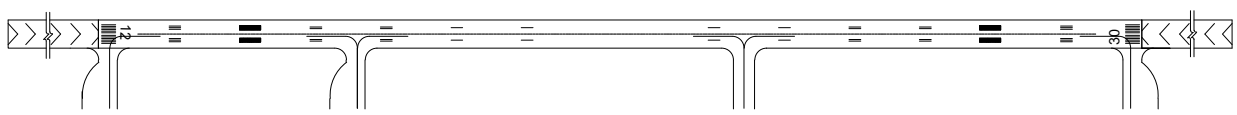
MAG VAR 0.87°W (2016)
ANNUAL RATE OF CHANGE 0.01°W



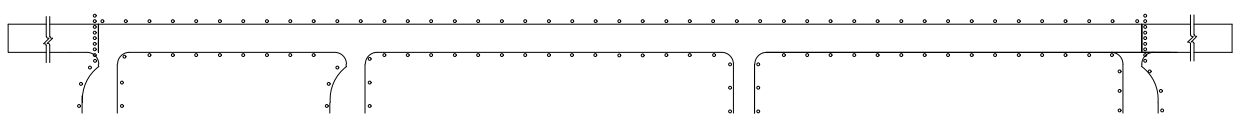
LEGEND	
AERODROME REFERENCE POINT	17 23 11 N 102 47 18 E
BUILDINGS	
TWR ABN Flg. W/G	

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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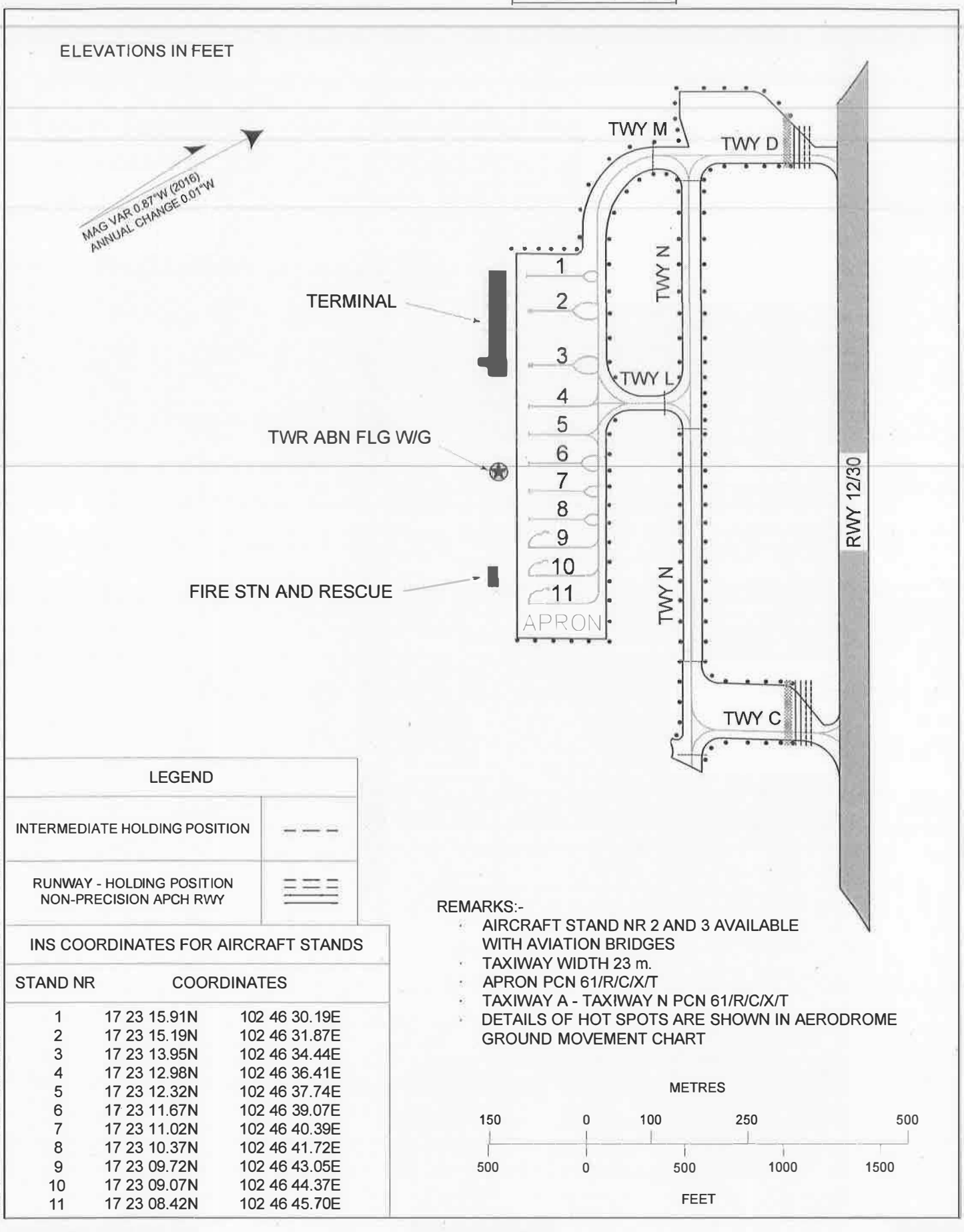
AIRCRAFT PARKING/ DOCKING CHART - ICAO

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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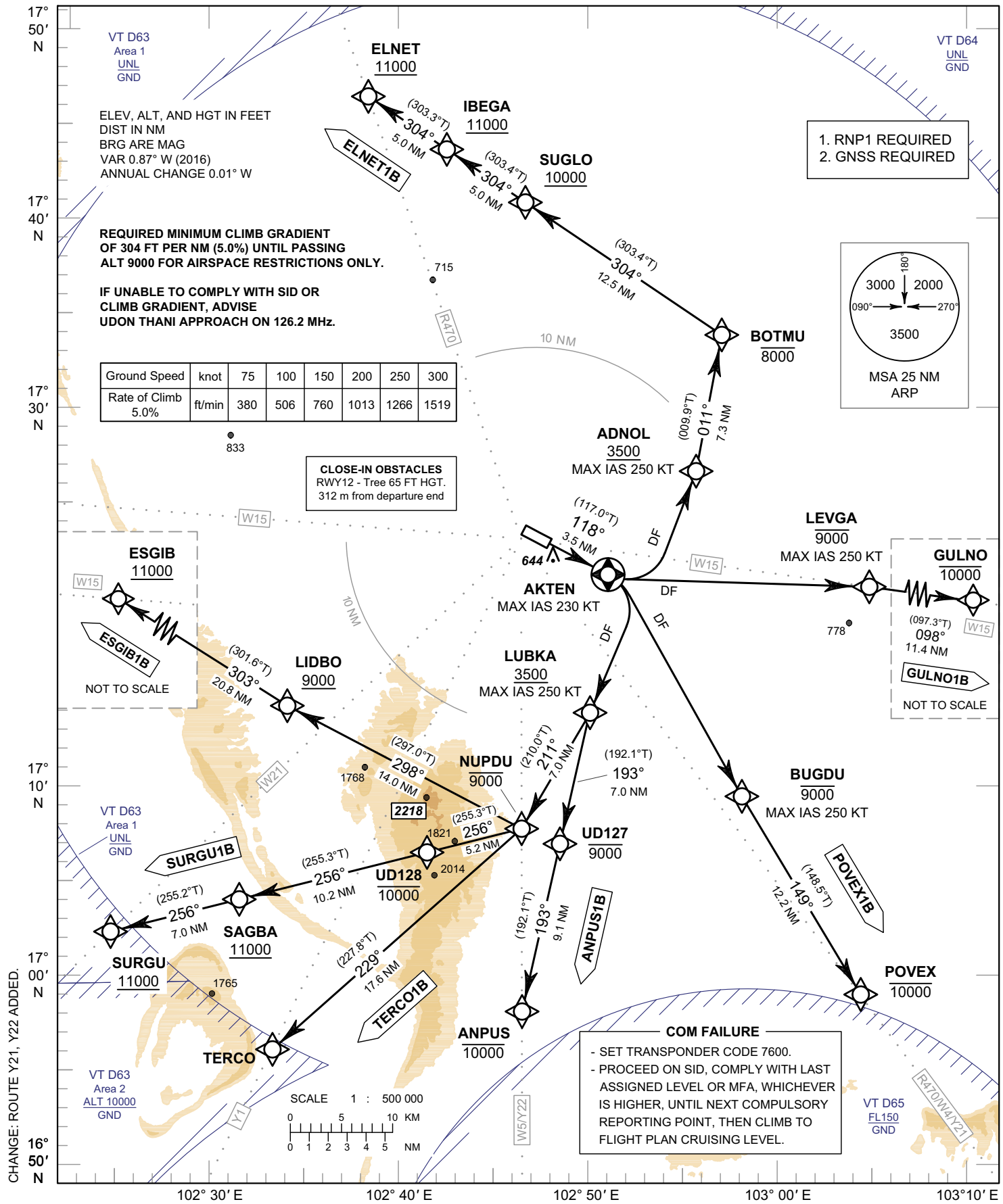
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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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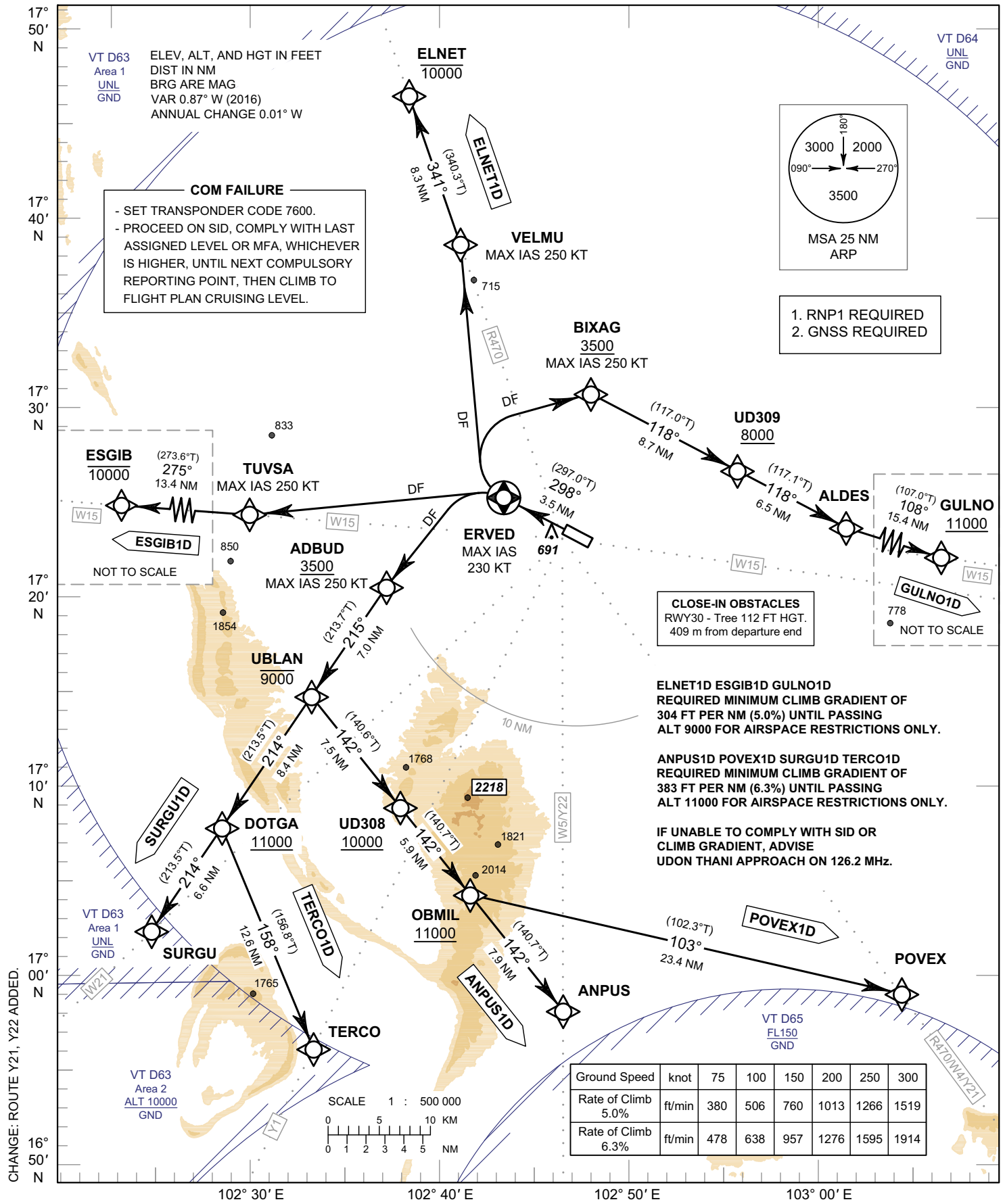
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

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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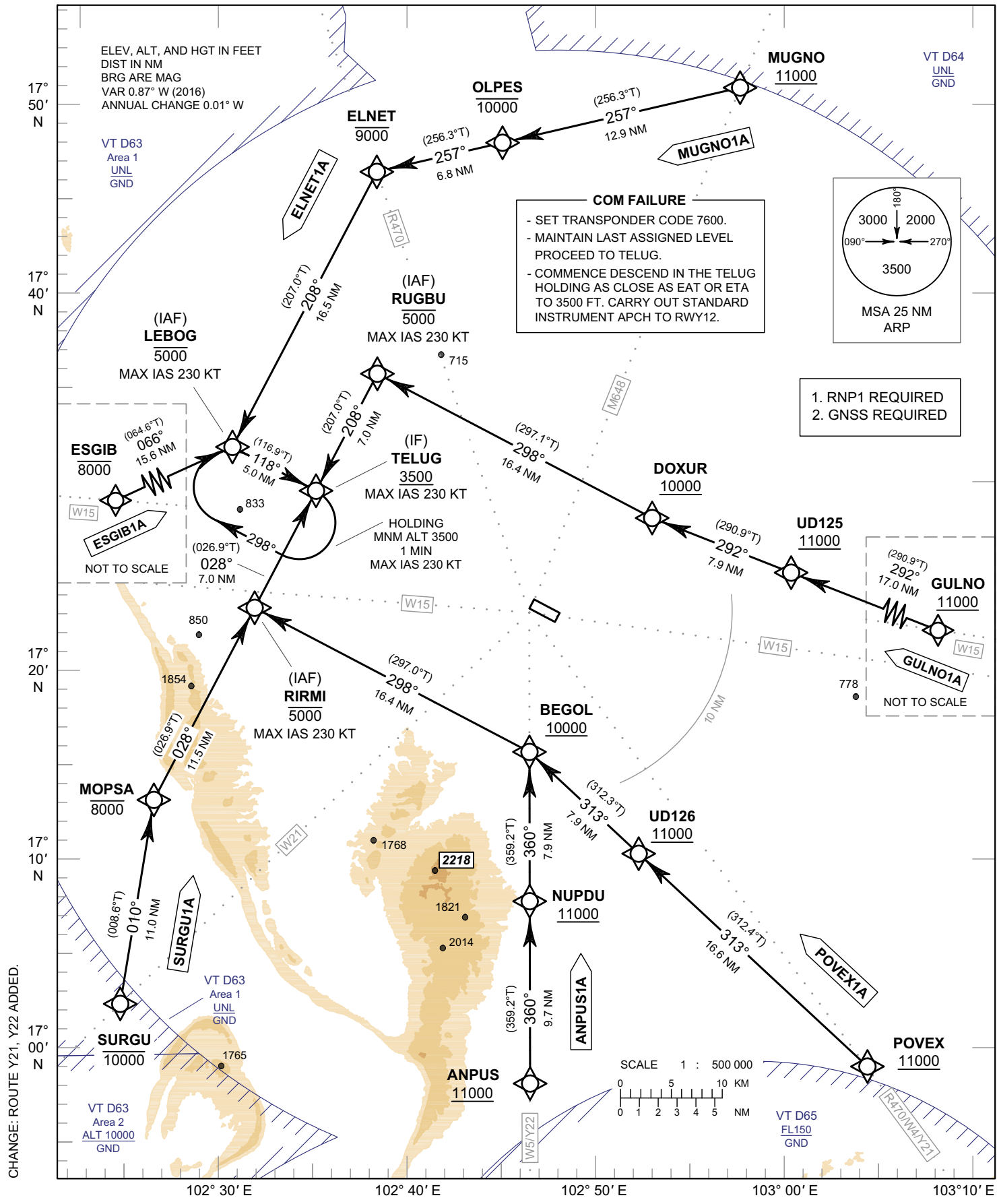
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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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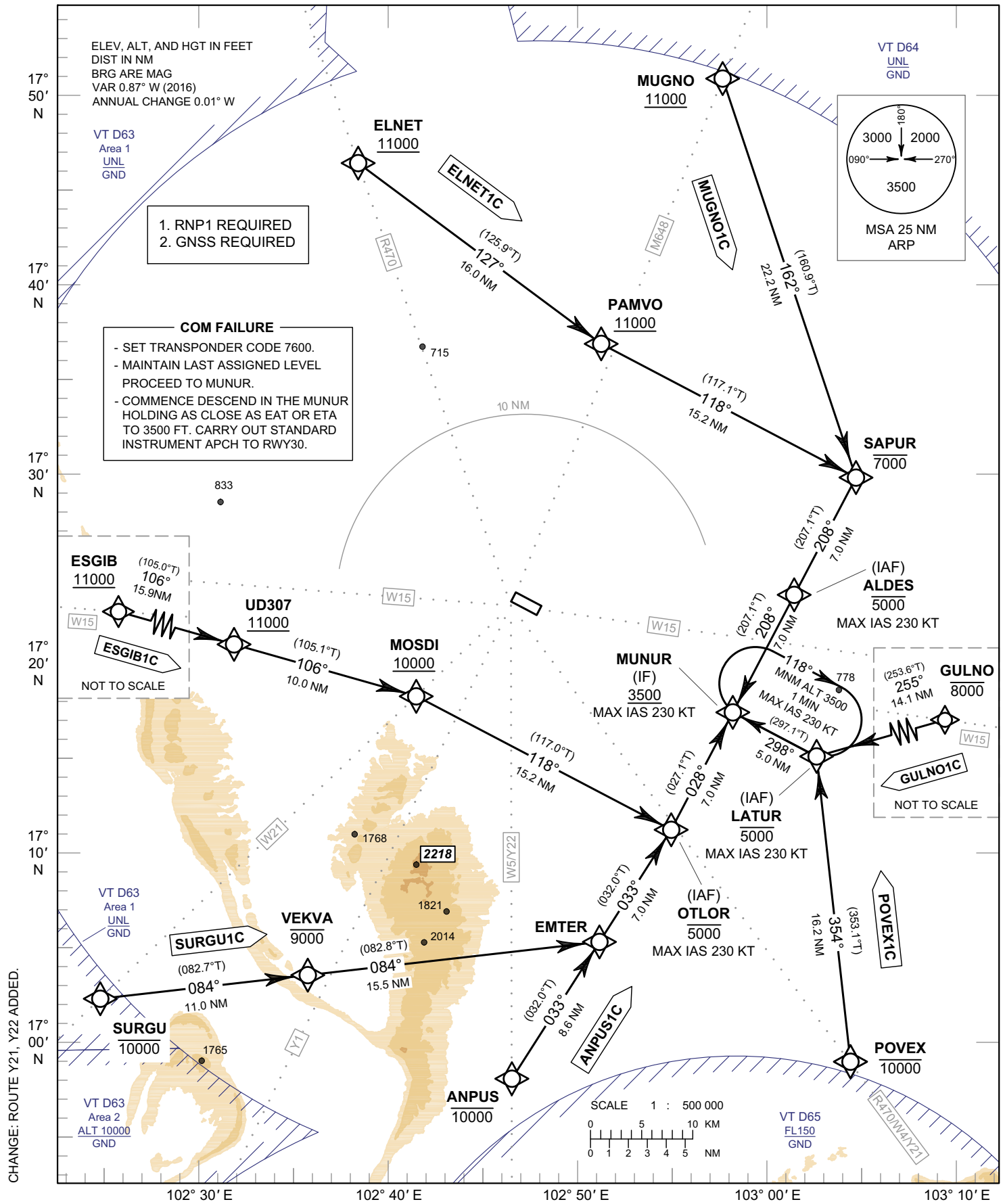
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

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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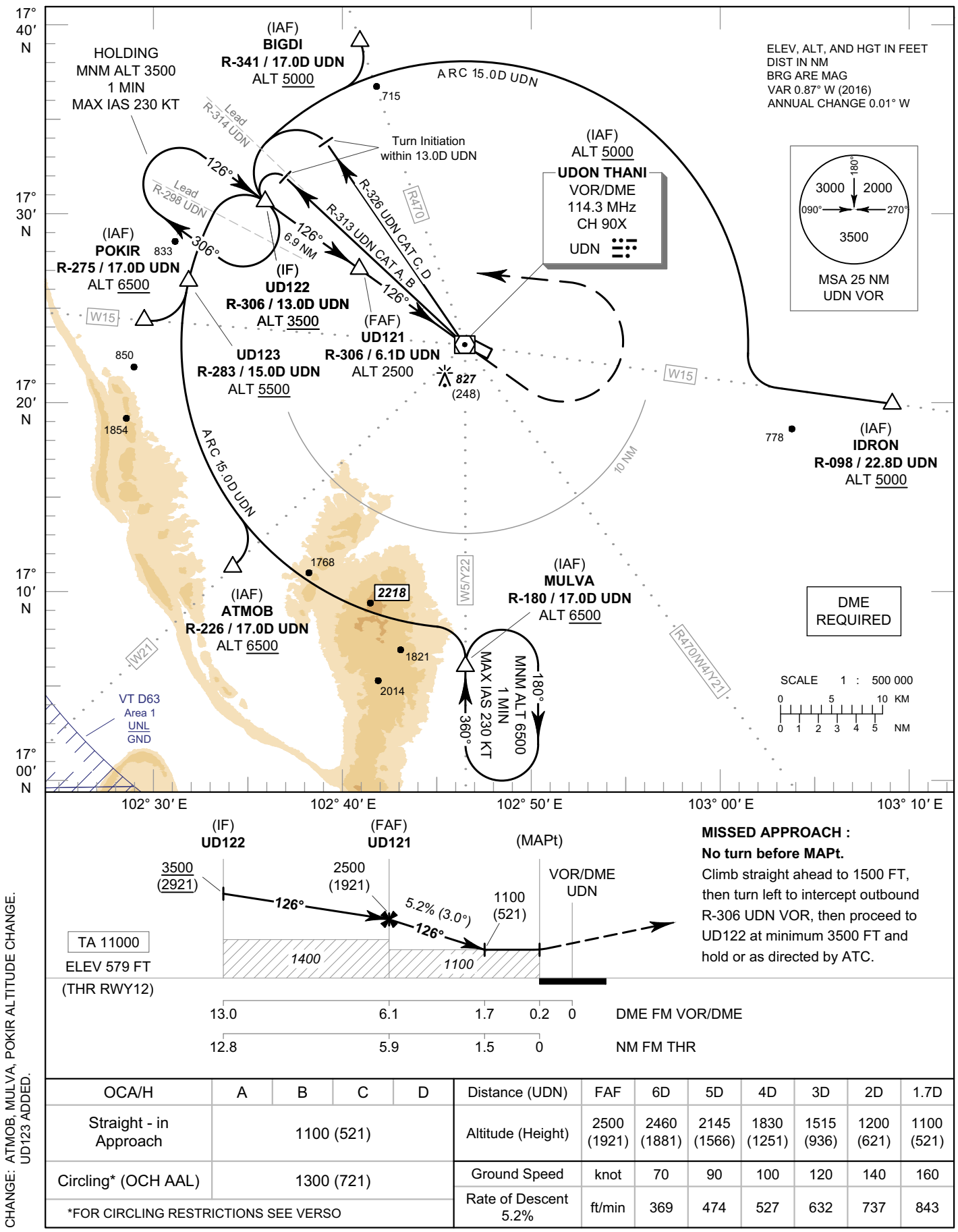
INSTRUMENT APPROACH CHART - ICAO

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



MISSED APPROACH :
No turn before MAPt.
Climb straight ahead to 1500 FT, then turn left to intercept outbound R-306 UDN VOR, then proceed to UD122 at minimum 3500 FT and hold or as directed by ATC.

CHANGE: ATMOB, MULVA, POKIR ALTITUDE CHANGE. UD123 ADDED.

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

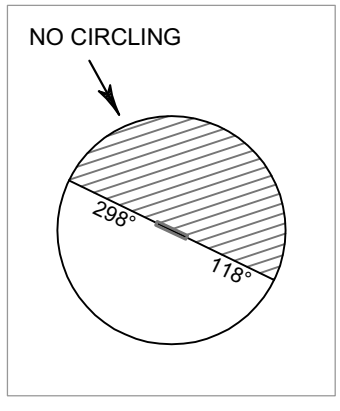
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 579 FT
HEIGHTS RELATED TO AERODROME ELEV

UDON THANI / Udon Thani (VTUD)

VOR RWY12

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) 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
UD123	R-283 / 15.0D UDN	17° 26' 13.14" N	102° 31' 09.61" E
(IF) UD122	R-306 / 13.0D UDN	17° 30' 32.93" N	102° 35' 21.36" E
(FAF) UD121	R-306 / 6.1D UDN	17° 26' 35.98" N	102° 41' 14.84" E
(MAPt) UD120	R-306 / 0.2D UDN	17° 23' 12.19" N	102° 46' 18.17" E
(IAF) VOR	UDN	17° 23' 04.20" N	102° 46' 30.05" E



CHANGE: UD123 ADDED.

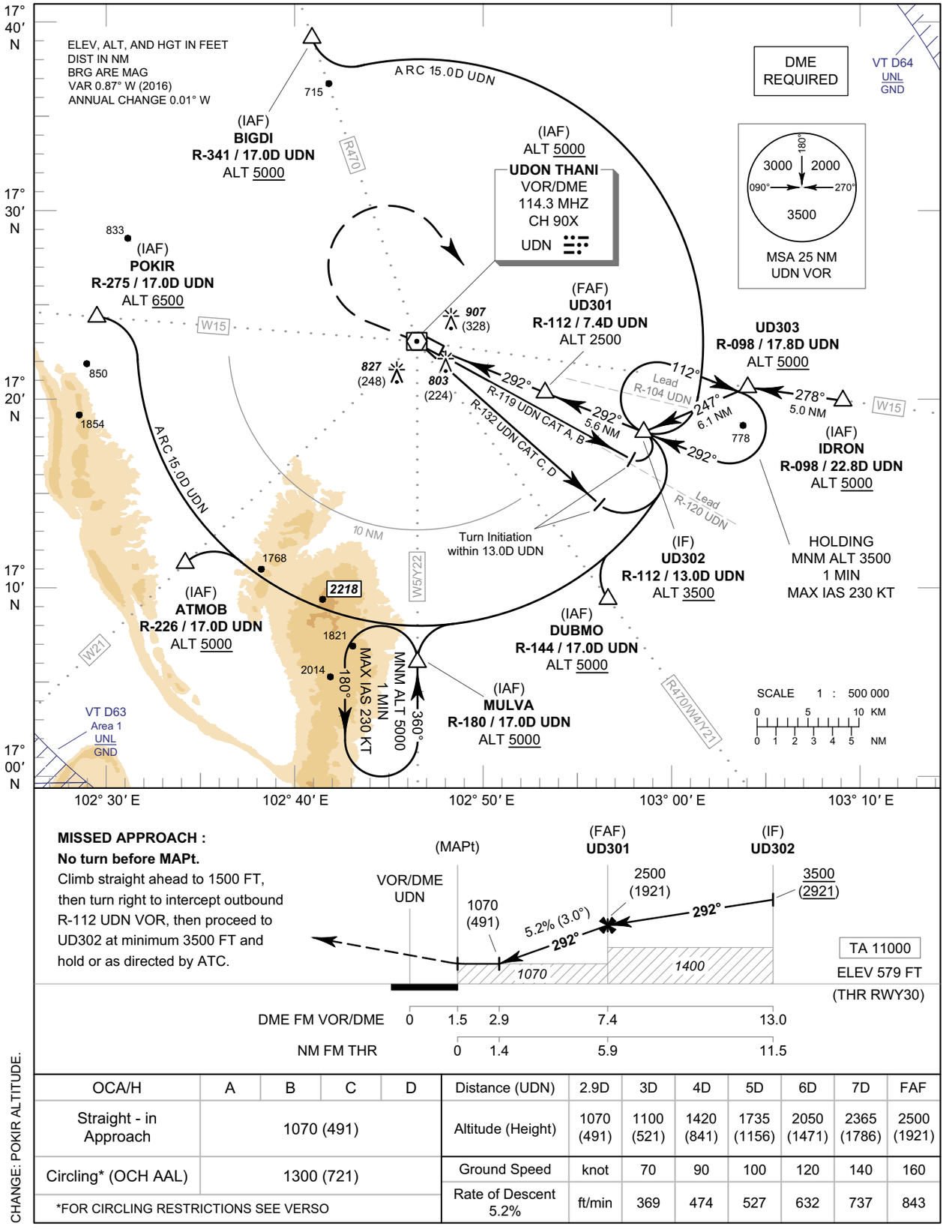
INSTRUMENT APPROACH CHART - ICAO

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.

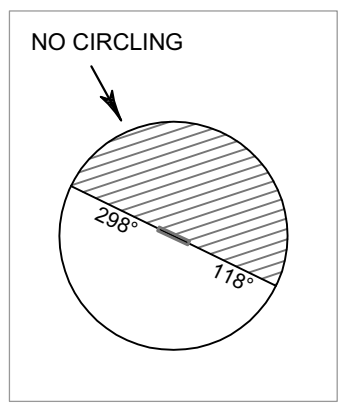
INSTRUMENT APPROACH CHART - ICAO

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' 23.92" N	102° 53' 41.25" E
(MAPt) UD300	R-112 / 1.5D UDN	17° 22' 32.24" N	102° 47' 56.10" E
(IAF) VOR	UDN	17° 23' 04.20" N	102° 46' 30.05" E



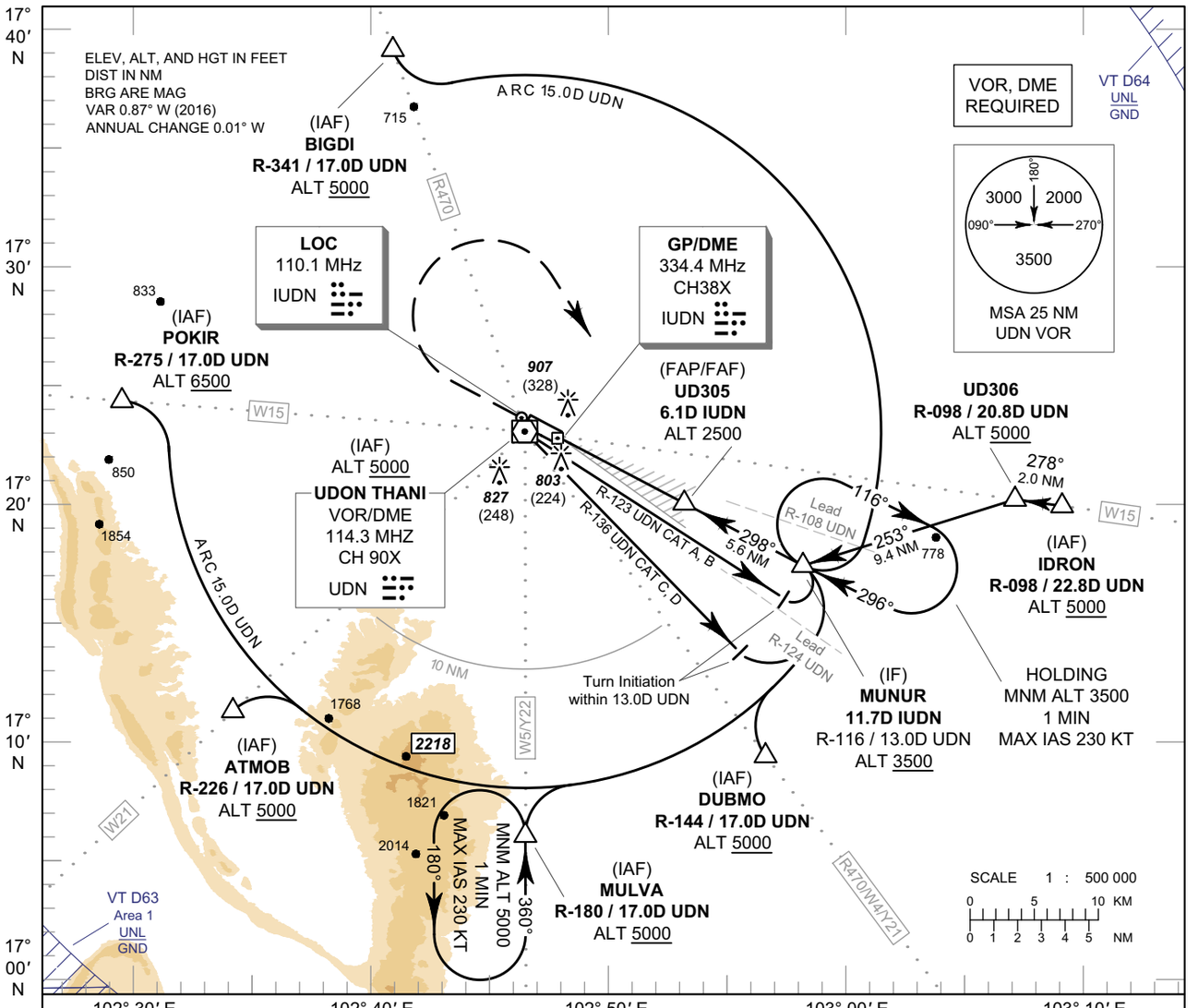
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 579 FT
HEIGHTS RELATED TO
THR RWY30 - ELEV 579 FT

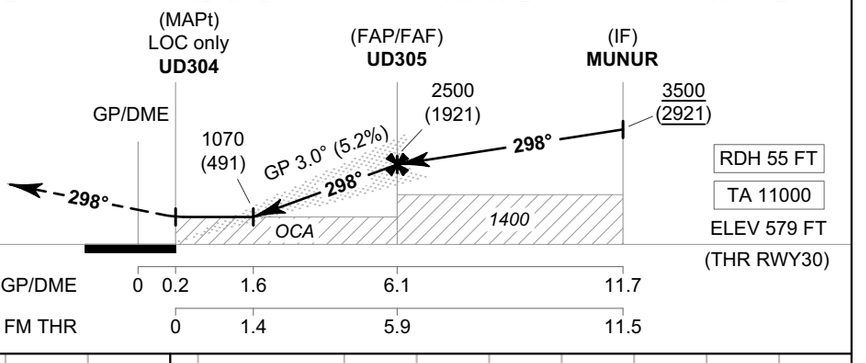
APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

UDON THANI / Udon Thani (VTUD)

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	

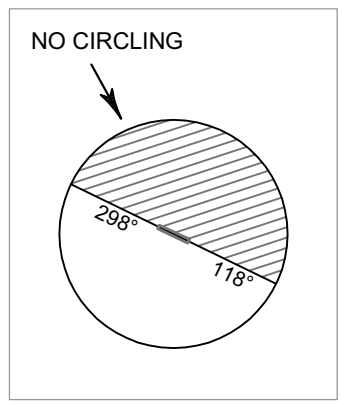
INSTRUMENT APPROACH CHART - ICAO

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) 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
UD306	R-098 / 20.8D UDN	17° 20' 25.33" N	103° 08' 06.70" E
(IF) MUNUR	11.7D IUDN	17° 17' 32.26" N	102° 58' 48.60" E
(FAP/FAF) UD305	6.1D IUDN	17° 20' 07.01" N	102° 53' 33.38" E
(MAPt@THR30) UD304	0.2D IUDN	17° 22' 48.62" N	102° 48' 03.73" E
LOC	IUDN	17° 23' 41.25" N	102° 46' 16.25" E
GP/DME	IUDN	17° 22' 56.70" N	102° 47' 55.94" E
(IAF) VOR	UDN	17° 23' 04.20" N	102° 46' 30.05" E



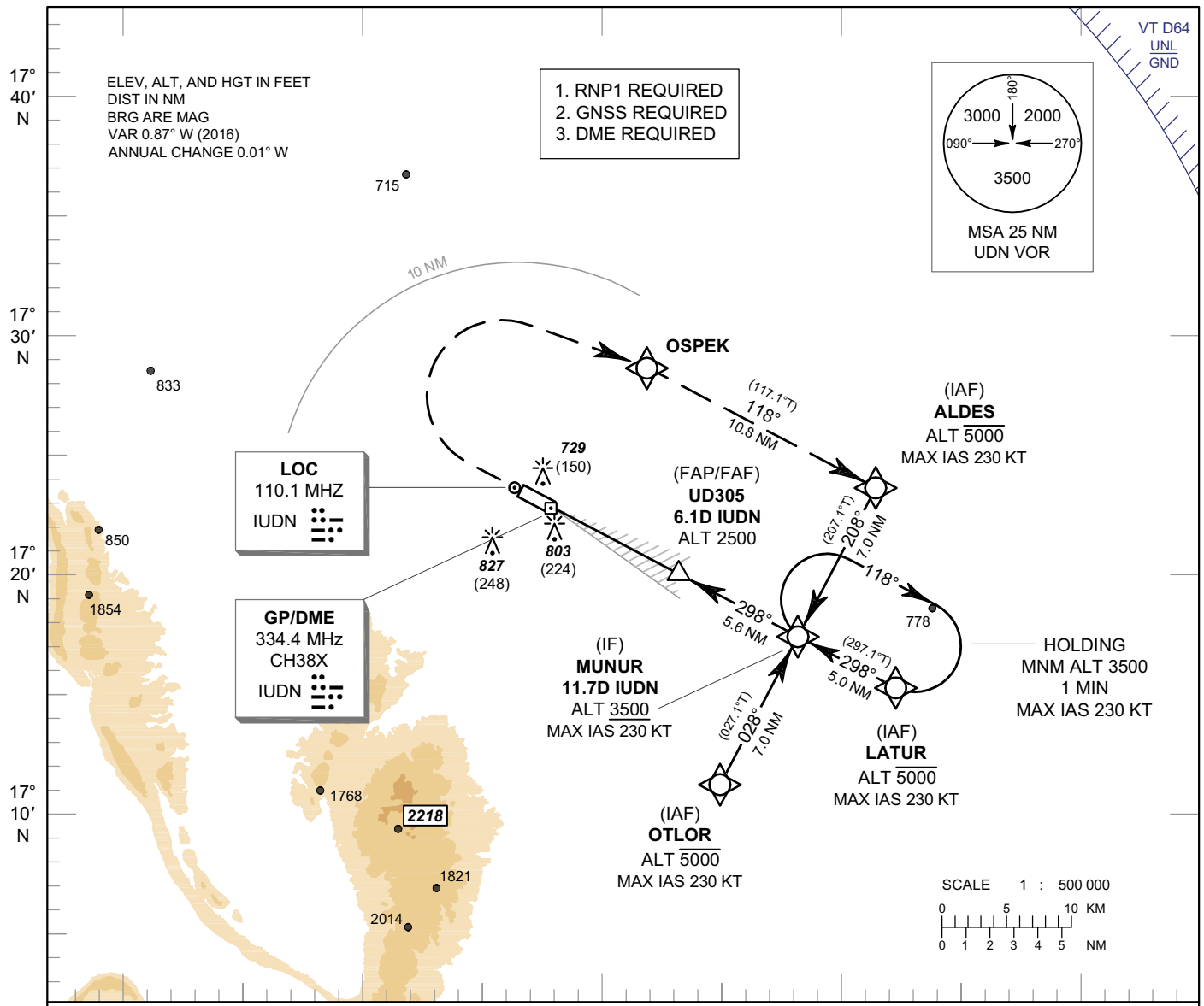
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 579 FT
HEIGHTS RELATED TO
THR RWY30 - ELEV 579 FT

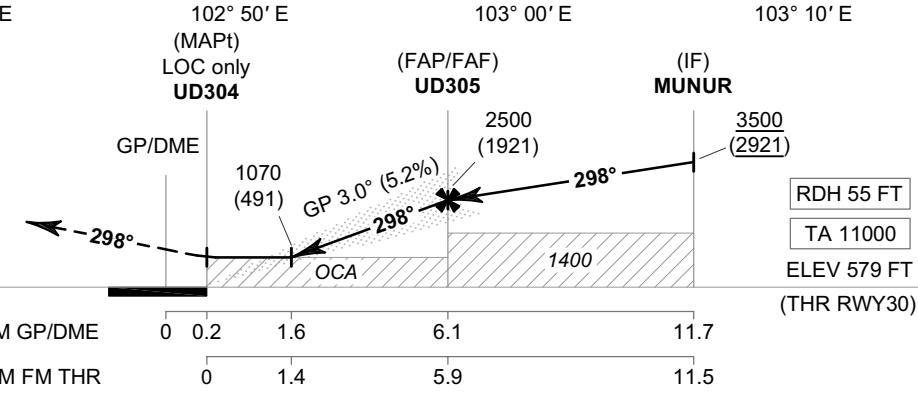
APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

UDON THANI / Udon Thani (VTUD)

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

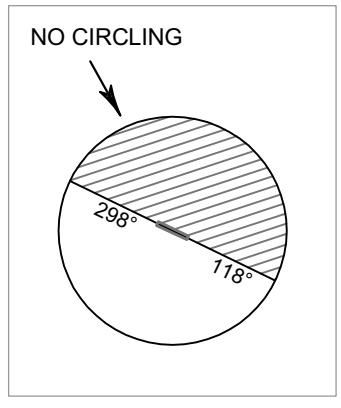
INSTRUMENT APPROACH CHART - ICAO | **AERODROME ELEV 579 FT** HEIGHTS RELATED TO THR RWY30 - ELEV 579 FT | **UDON THANI / Udon Thani (VTUD)** **ILS or LOC z RWY30**

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) MUNUR	11.7D IUDN	17° 17' 32.26" N	102° 58' 48.60" E
(FAP/FAF) UD305	6.1D IUDN	17° 20' 07.01" N	102° 53' 33.38" E
(MAPt@THR30) UD304	0.2D IUDN	17° 22' 48.62" N	102° 48' 03.73" E
LOC	IUDN	17° 23' 41.25" N	102° 46' 16.25" E
GP/DME	IUDN	17° 22' 56.70" N	102° 47' 55.94" E

INTENTIONALLY BLANK

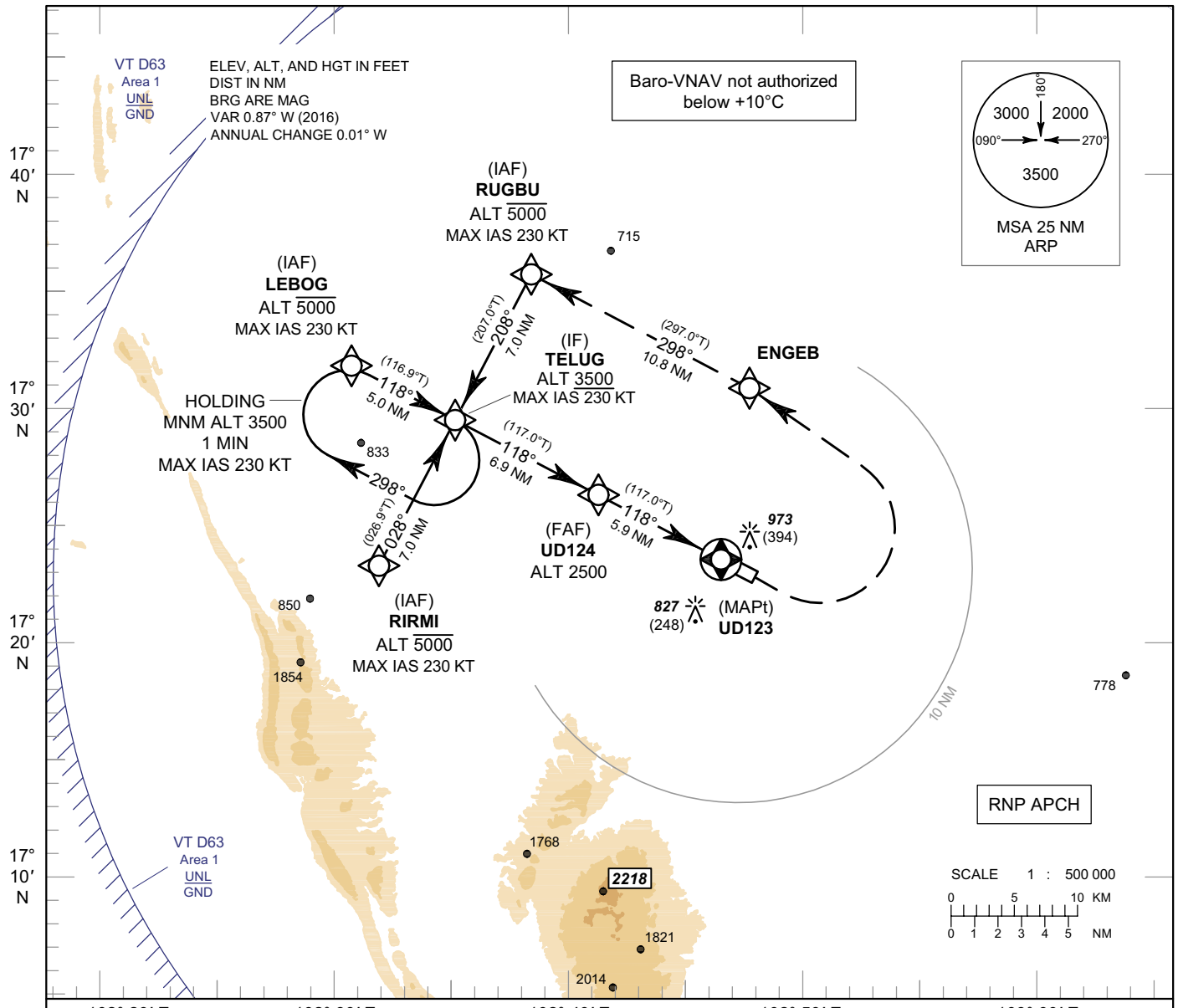
INSTRUMENT APPROACH CHART - ICAO

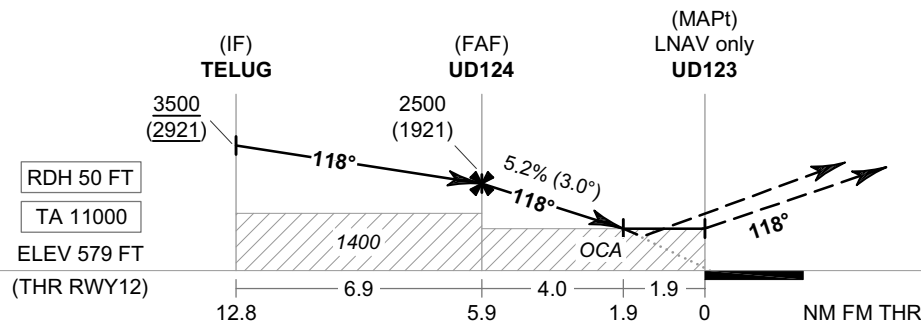
AERODROME ELEV 579 FT
HEIGHTS RELATED TO
THR RWY12 - ELEV 579 FT

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

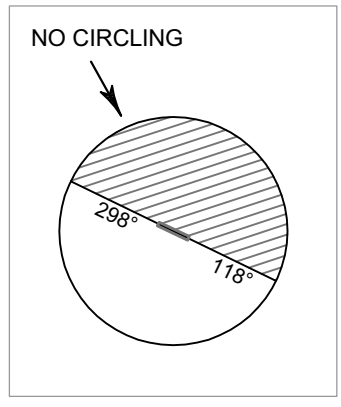
RNP RWY12

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



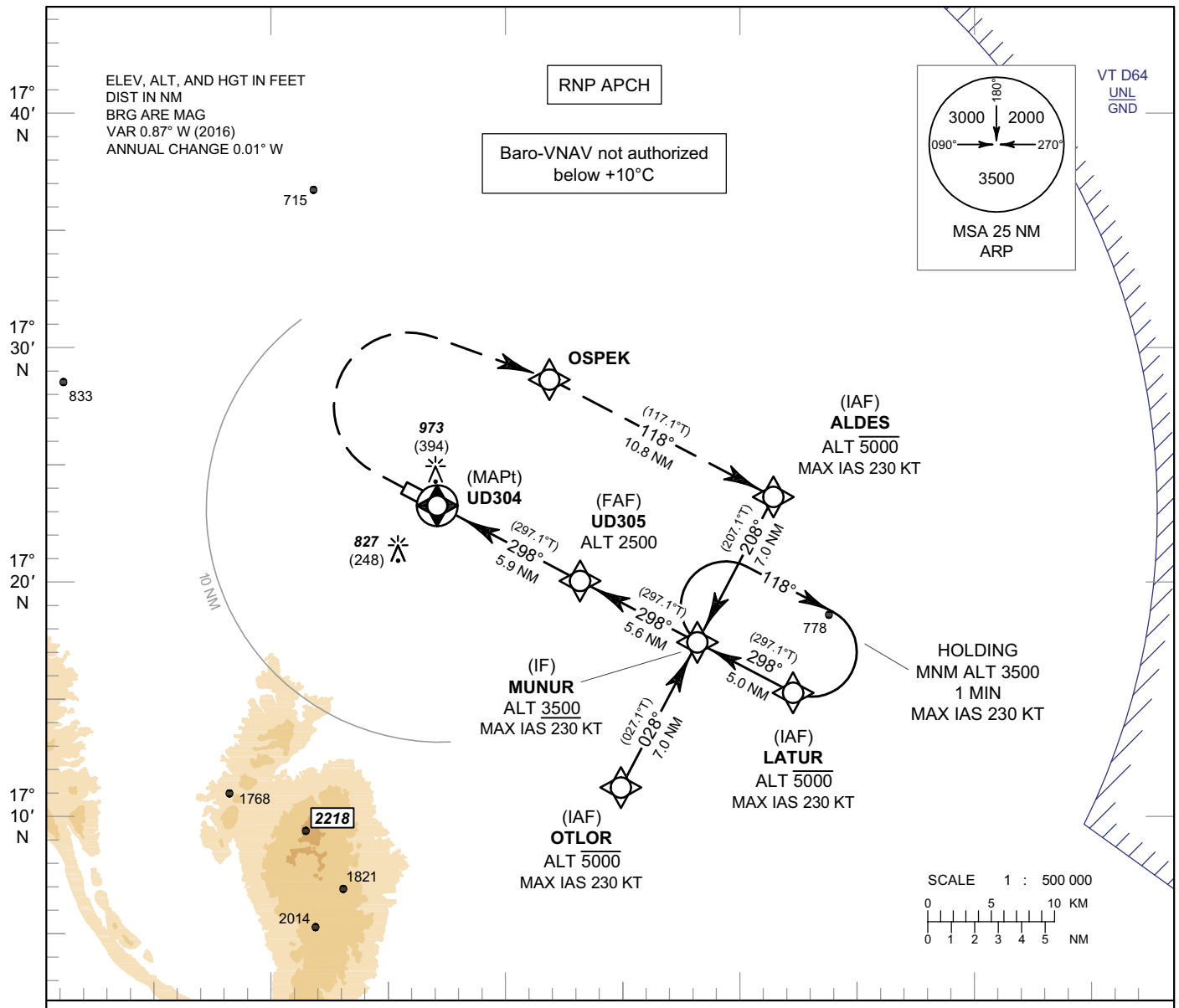
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 579 FT
HEIGHTS RELATED TO
THR RWY30 - ELEV 579 FT

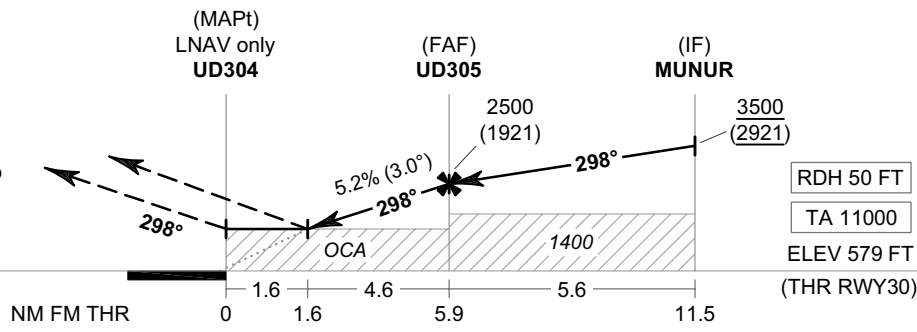
APP : 126.2, 265.9
TWR : 122.5, 355.4
GND : 121.9, 275.8
ATIS : 127.6

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

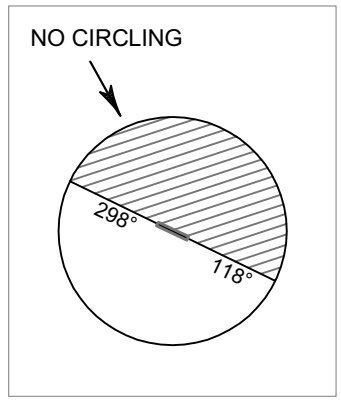
RNP RWY30

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 Betong Airport 125 Moo.8, Yarom Betong Yala 95110 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 Strength: PCN 23/R/D/X/T
2	Taxiway width, surface and strength	TWY A and B Width: 18 M Surface: Asphalt Strength: PCN 23/F/D/X/T
3	Altimeter checkpoint location and elevation	Location: 054714.33N 1010851.00E 054713.84N 1010849.62E 054713.34N 1010848.25E 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 TWY guide lines: Yes 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 RWY LGT: THR, RWY Edge and RWY End TWY marking: CL, Edge, RWY Holding Position and Intermediate Holding Position 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/ TKOF RWY 25	Tree 253.63 M (HGT 28.38 M)	054711.76N 1010817.00E	NIL	NIL	NIL
	Tree 275.27 M (HGT 50.02 M)	054657.63N 1010803.25E			
	Radio Mast 387.41 M (HGT 162.16 M) Marked and LGT	054615.47N 1010356.79E			
	Radio Mast 423.26 M (HGT 198 M) Marked and LGT	054544.82N 1010404.54E			
APCH RWY 25/ TKOF RWY 07	Mountain 415 M (HGT 195.82 M)				
	Mountain 644 M (HGT 424.82 M)	See Aerodrome Obstacle Chart - ICAO Type A			
	Mountain 954 M (HGT 734.82 M)				

VTSY AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Betong, Southern East-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	0000-1000 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern East-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +668 9283 1877
6	Flight documentation 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 Observation 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 (Non-instrument runway)	070.09°	1800x30	PCN 23/F/D/X/T Asphalt	054714.13N 1010834.47E	225.25 M (738 FT)
25 (Non-instrument runway)	250.09°	1800x30	PCN 23/F/D/X/T Asphalt	054733.96N 1010929.53E	219.18 M (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% (690M 1100M)	NIL	NIL	1920x150	240x60	NIL	NIL	NIL
0.63% 0.00% (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 420 M LIH	Green NIL	PAPI Left 3.9° (59.42 FT)	NIL	NIL	1800 M 30 M White, LIH YCZ 600 M	Red NIL	NIL	NIL
25	NIL	Green NIL	PAPI Left 4.7° (42.78 FT)	NIL	NIL	1800 M 30 M White, LIH YCZ 600 M	Red NIL	NIL	1. RTIL 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 IBN: NIL
2	LDI location and LGT Anemometer location and LGT	LDI: NIL 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 Centre line: NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at AFL Building 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 (054707.68N1010838.65E)
2	Vertical limits	4000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	BETONG TOWER 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 121.5 MHZ [1)]	23:00-11:00	[1)] Emergency frequency
TWR	Betong Tower	124.15MHZ 236.6MHZ 121.5 MHZ [1)] 243.0 MHZ [1)]	01:30-09:30	
GND	Betong Ground	122.15 MHZ 121.5 MHZ [1)] 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	113.1MHZ	H24	054707.68N 1010838.65E		DVOR/DME restrictions, 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: – Radial 350°-020° altitude should not below 8 000 FT – Radial 021°-040° altitude should not below 6 500 FT – Radial 041°-060° altitude should not below 9 000 FT – Radial 061°-075° altitude should not below 15 000 FT – Radial 076°-349° unable to check due to border limit
DME		78X	H24	054707.82N 1010838.27E		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

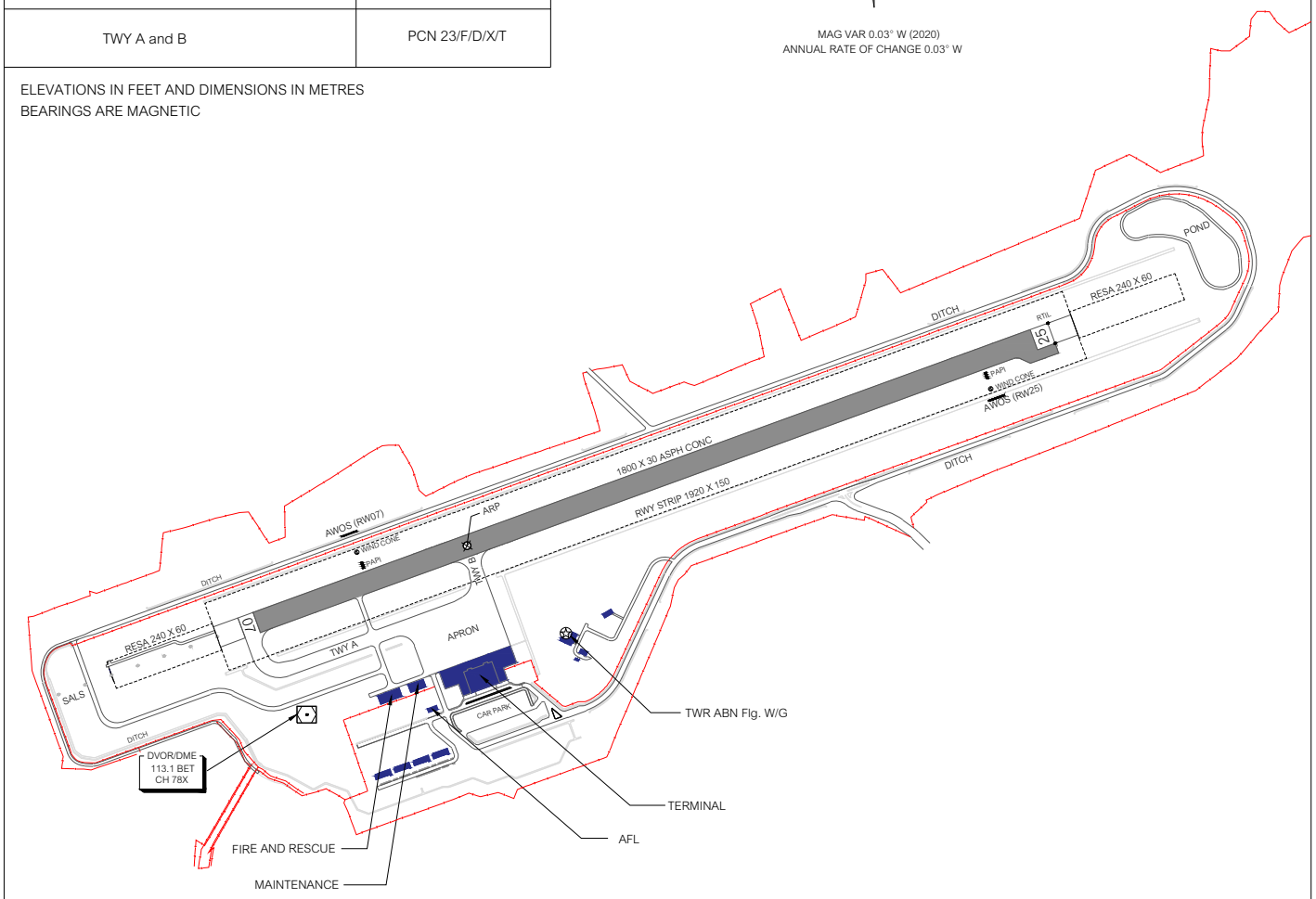
TWR 124.15

YALA / Betong

RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
07	70.09	05 47 14.13 N 101 08 34.47 E	PCN 23/F/D/X/T
25	250.09	05 47 33.96 N 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



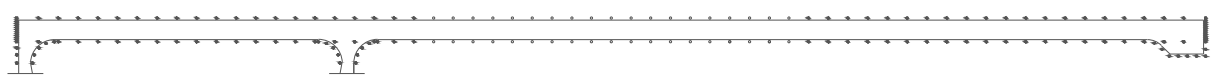
METRES
150 0 100 250 500
500 0 500 1000 1500
FEET

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.

INTENTIONALLY BLANK

AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATIONAL LIMITATIONS)

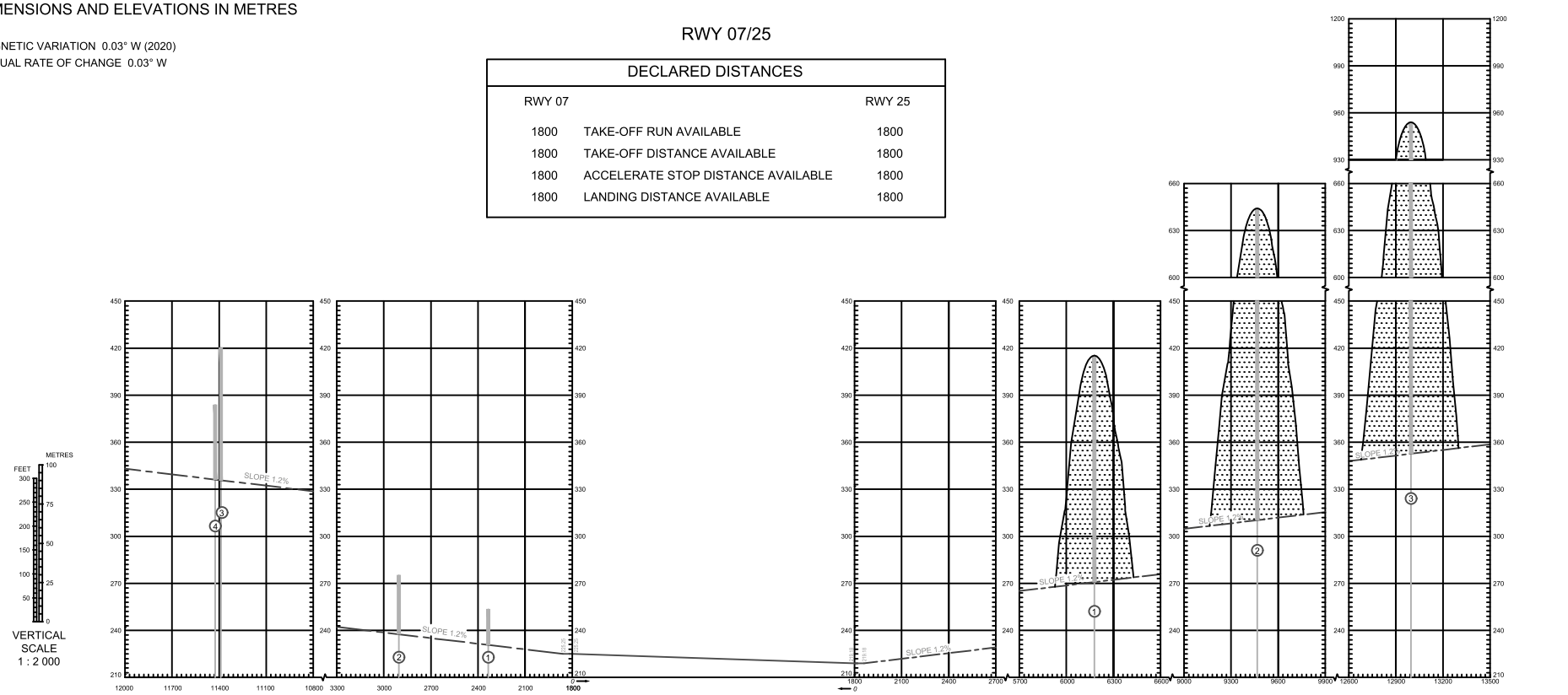
YALA / Betong Airport

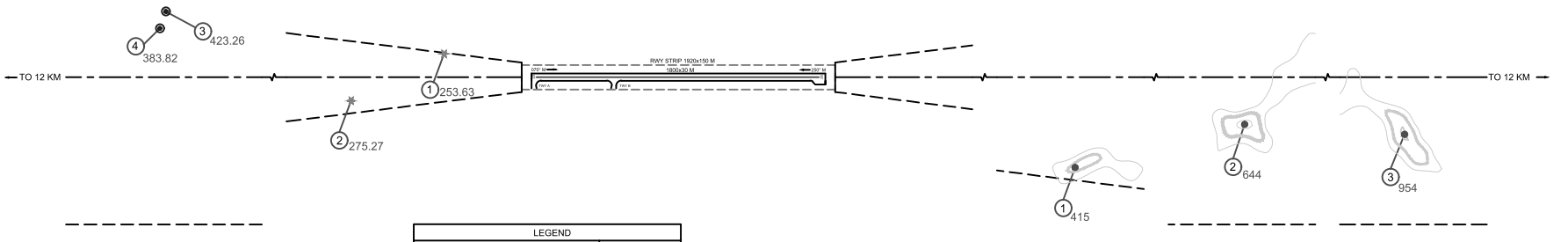
DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 0.03° W (2020)
ANNUAL RATE OF CHANGE 0.03° W

RWY 07/25

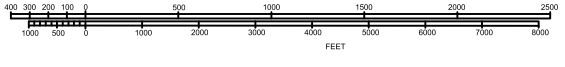
DECLARED DISTANCES		
RWY 07		RWY 25
1800	TAKE-OFF RUN AVAILABLE	1800
1800	TAKE-OFF DISTANCE AVAILABLE	1800
1800	ACCELERATE STOP DISTANCE AVAILABLE	1800
1800	LANDING DISTANCE AVAILABLE	1800





LEGEND	
IDENTIFICATION NUMBER	○
POLE, TOWER, SPIRE, ANTENNA, ETC.	◉
TERRAIN PENETRATING OBSTACLE PLANE	▲
TERRAIN CONTOUR	~
TREE OR SHRUB	✱

HORIZONTAL SCALE 1 : 20 000



CHNAGE: NEW CHART.

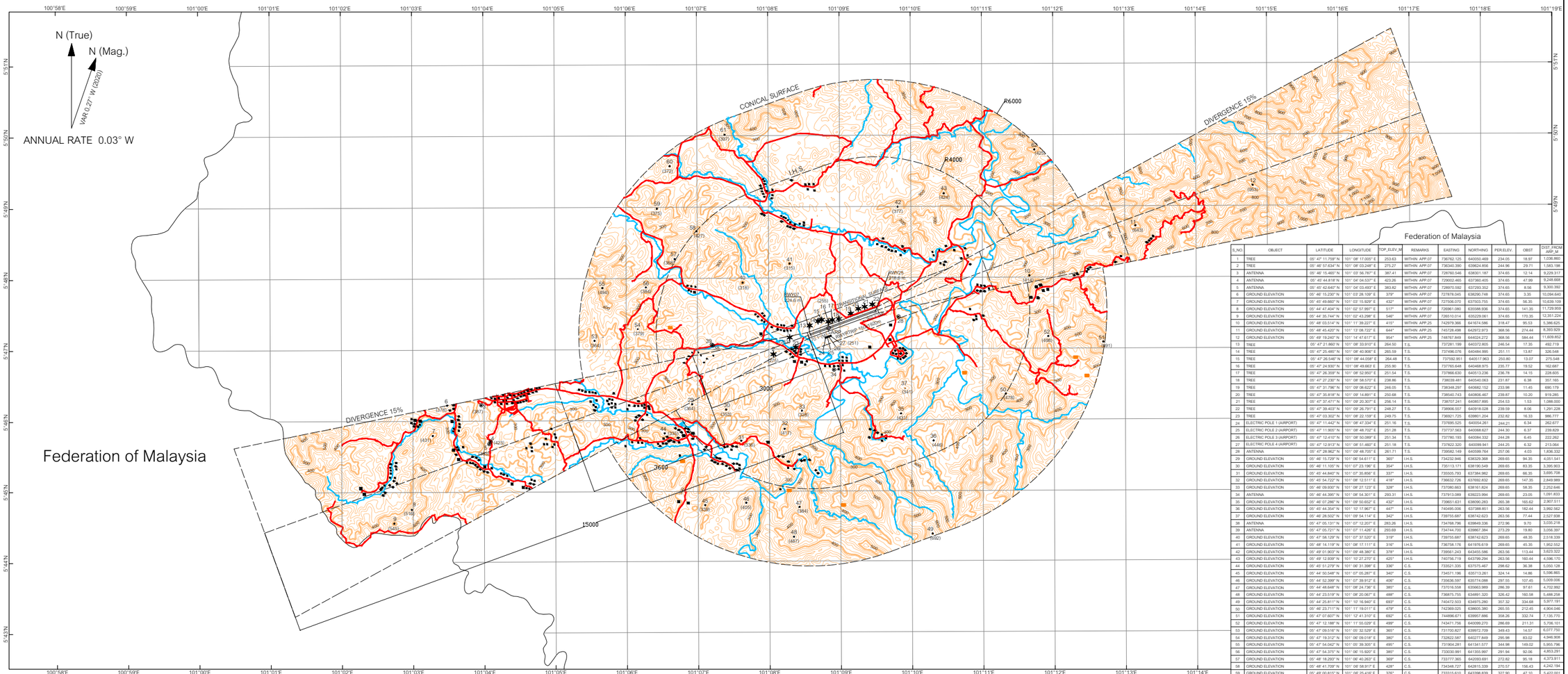
INTENTIONALLY BLANK

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

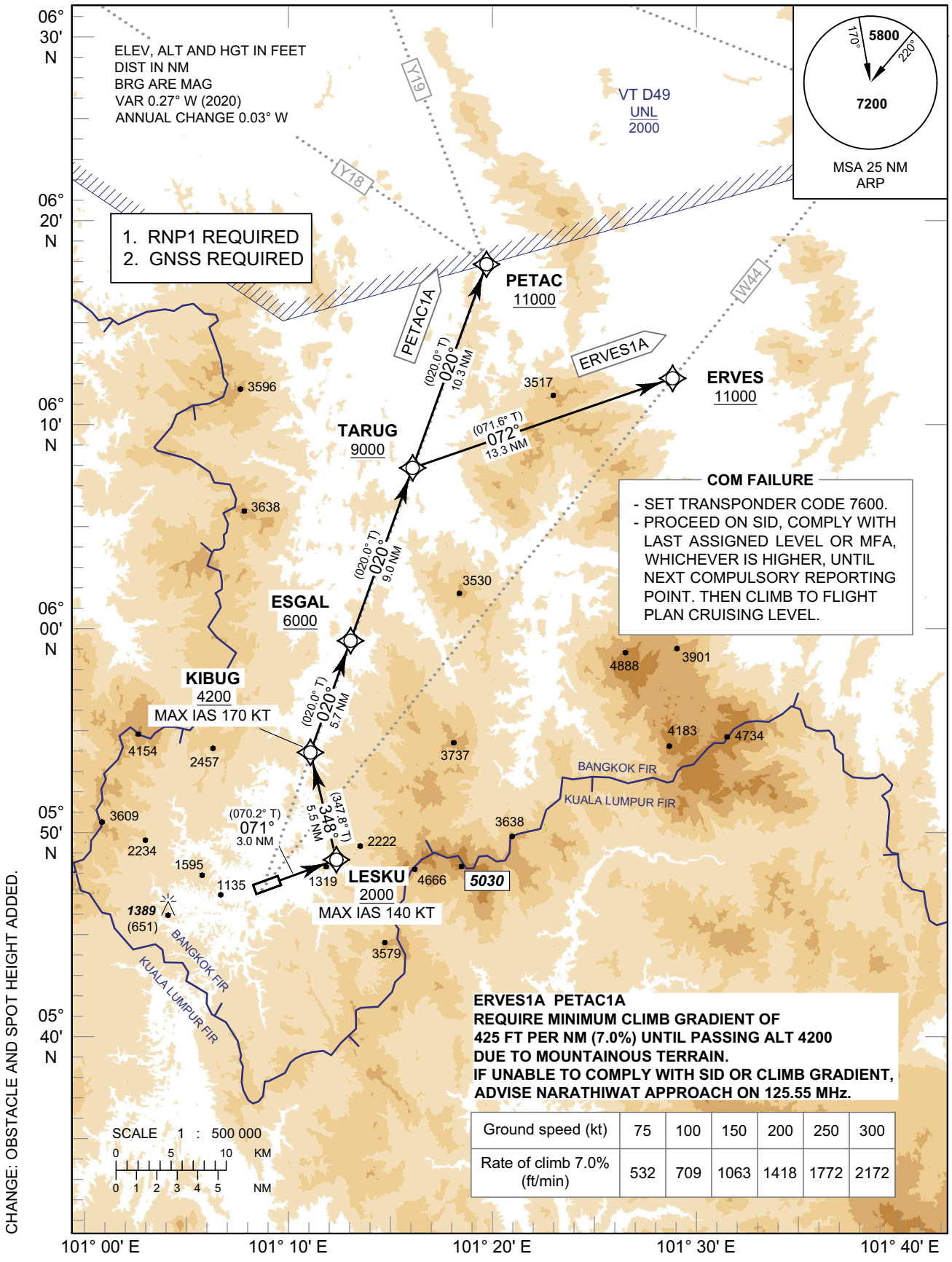
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

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

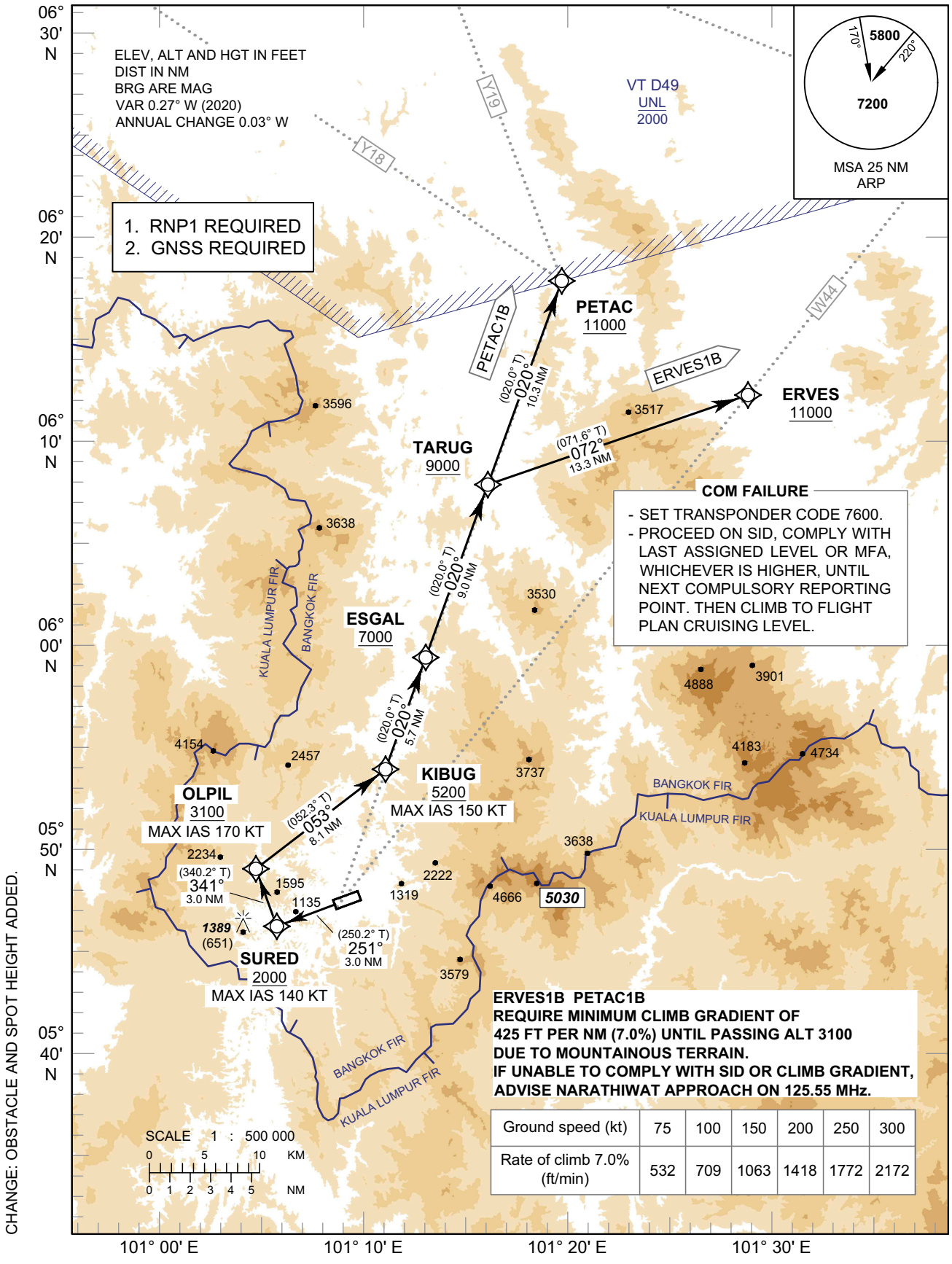
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

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

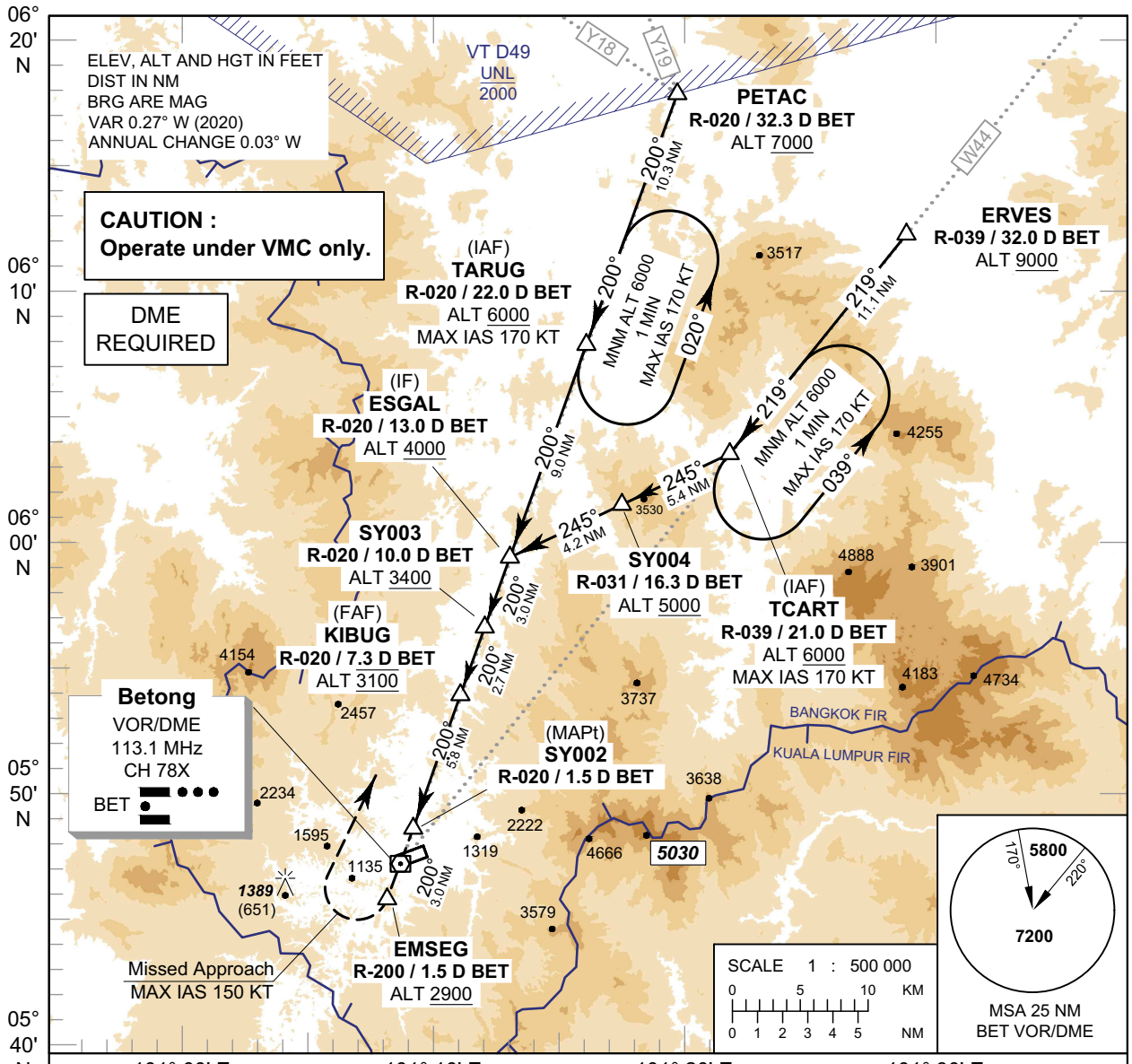
RNAV RWY25	
Waypoint Identifier	Coordinates
DER RWY25	05° 47' 14.13" N 101° 08' 34.47" E
ERVES	06° 12' 07.88" N 101° 28' 53.20" E
ESGAL	05° 59' 24.18" N 101° 13' 06.39" E
KIBUG	05° 54' 01.26" N 101° 11' 08.97" E
OLPIL	05° 49' 03.10" N 101° 04' 43.36" E
PETAC	06° 17' 39.82" N 101° 19' 45.08" E
SURED	05° 46' 12.92" N 101° 05' 44.54" E
TARUG	06° 07' 54.03" N 101° 16' 11.86" E

INSTRUMENT APPROACH CHART - ICAO

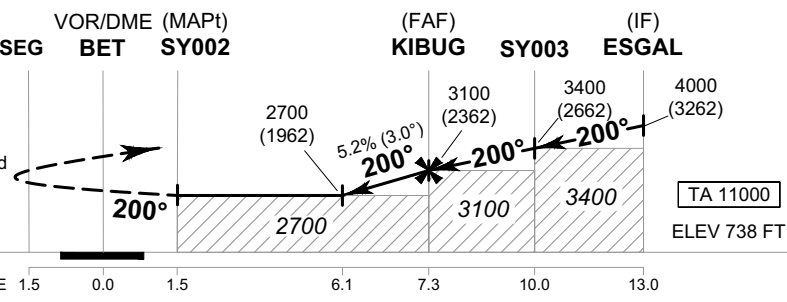
AERODROME ELEV 738 FT
HEIGHTS RELATED TO AERODROME ELEV

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.

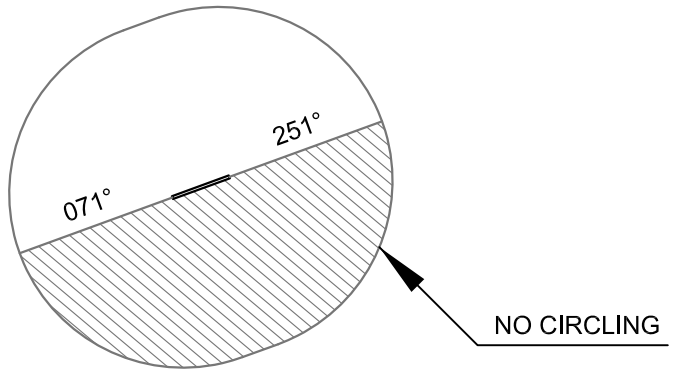
CHANGE: OBSTACLE AND SPOT HEIGHT ADDED.

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' 07.68" N	101° 08' 38.65" E
EMSEG	R-200 / 1.5 D BET	05° 45' 42.70" N	101° 08' 07.77" E

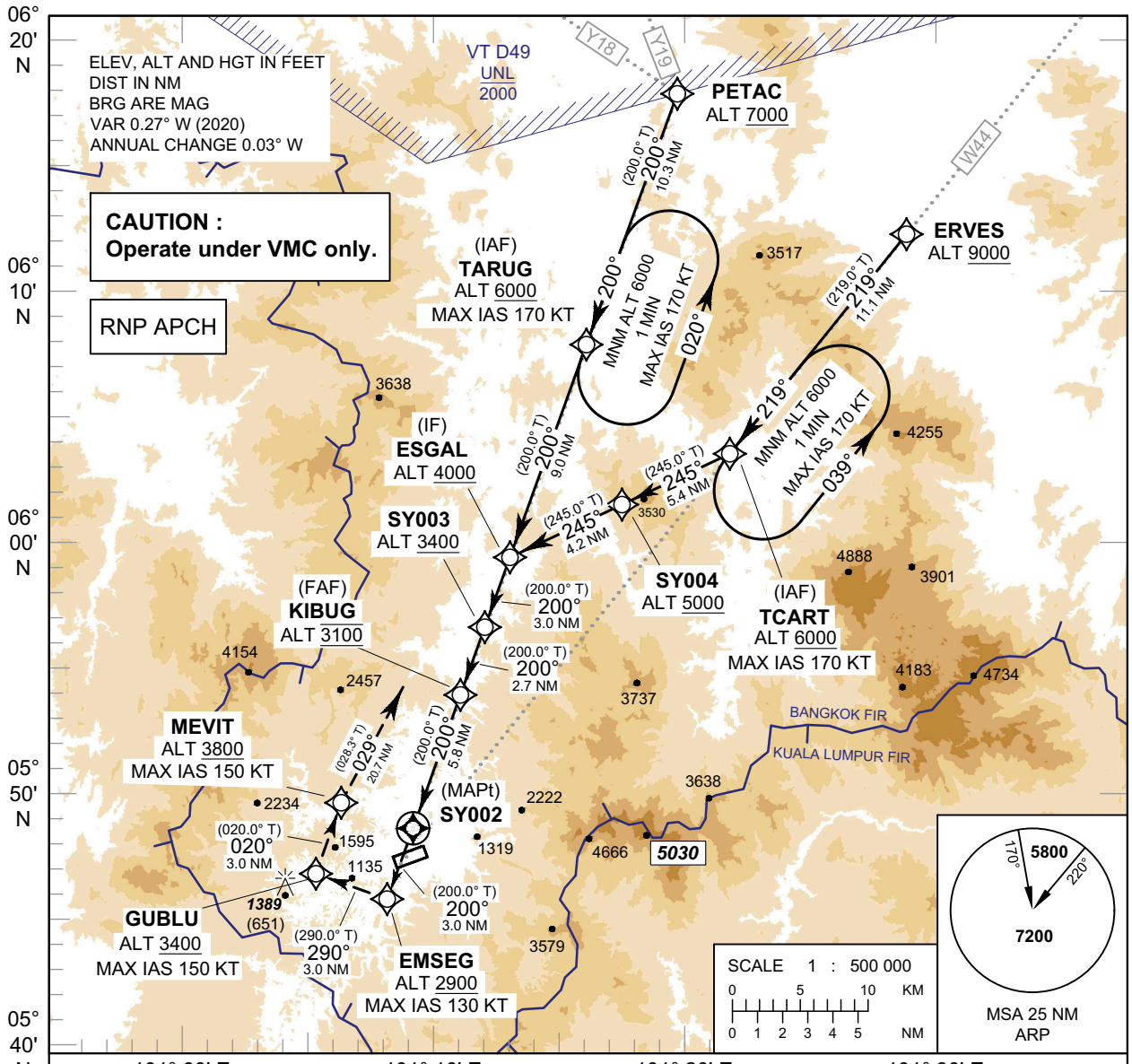


INSTRUMENT APPROACH CHART - ICAO

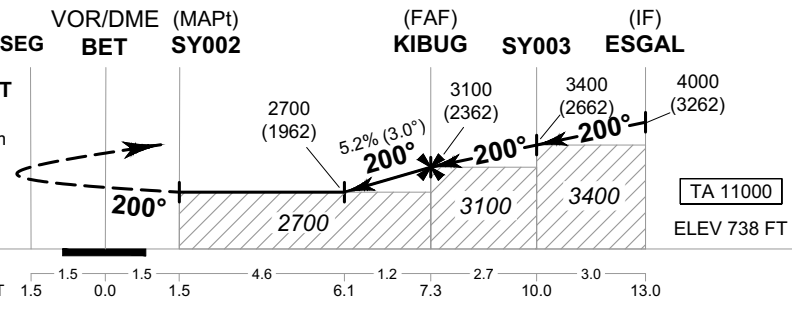
AERODROME ELEV 738 FT
HEIGHTS RELATED TO AERODROME ELEV

APP : 125.55
TWR : 124.15, 236.6
GND : 122.15
ATIS : 128.50

YALA / Betong (VTSY)
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

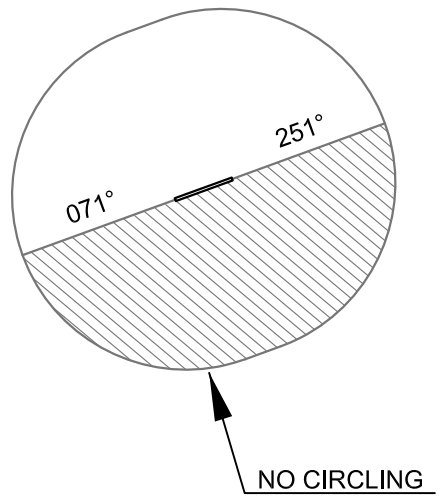
YALA / Betong (VTSY)
RNP a

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 Khon Kaen Province Thailand Tel: +662 534 6000 ext. 42302 AFS: VTUZYXYX 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 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 Strength: PCN 75/R/C/W/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Asphaltic Concrete Strength: PCN 65/F/B/X/T
3	Altimeter checkpoint location and elevation	Location: NIL 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 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 MET Office outside hours	0100-0900 MON-FRI (Except public holiday)
3	Office responsible for TAF preparation Periods of validity	NIL
4	Type of landing forecast Interval of issuance	TEMPO
5	Briefing/consultation provided	Personal Consultation
6	Flight documentation Language(s) used	Charts, plain language text. 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 Asphaltic Concrete	163831.90N 1025796.10E	711 FT
19	NIL	3050x45	PCN 65/F/B/X/T Asphaltic Concrete	164001.14N 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 Both 3°	NIL	NIL	3050 M 30 M White	Red	NIL	NIL
19	NIL	Green	PAPI Both 3°	NIL	NIL	3050 M 30 M 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 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 Language(s)	Nam Phong Tower English, Thai
5	Transition altitude	11000 FT
6	Remarks	Active by NOTAM 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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