

## 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	195708N 0995259E 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°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)	NIL
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	NIL

**VTCT AD 2.4 HANDLING SERVICES AND FACILITIES**

1	Cargo-handling facilities	2 High lifts. Handling weights up to 8 T per day. Provided by Thai Airways International Public Co.,Ltd Tel: +665 379 8200 +665 379 8201 Fax: +665 379 3059 +665 379 3060 1 Hand lift. Handling weights up to 4 T per day. Provided by Bags Ground Services Co.,Ltd Tel: +665 202 9856
2	Fuel/oil types	JET A-1
3	Fuelling facilities/capacity	1 Jet A-1 Refueller @ 12,000 L
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	Not available
6	Repair facilities for visiting aircraft	Not available
7	Remarks	NIL

**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	Yes
3	Capability for removal of disabled aircraft	NIL
4	Remarks	NIL

**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 1-4 Surface: Concrete Strength: PCN 73/R/D/X/T Apron Aircraft Stand NR 5-7 Surface: Concrete Strength: PCN 73/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt Strength: PCN 84/F/D/X/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	Taxiway centre line are painted in yellow and illuminated guidance signs are provided at various intersections. TWY edge and TWY holding position are provided. Nose-Wheel guide lines at apron. Solid Nose-Wheel guide lines at aircraft stands. Visual Docking Guidance System at aircraft stand number 3 and 4 are serviceable.
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	NIL
4	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		
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	PCN 84/F/D/X/T Asphalt	195625.75N 0995233.51E	390.23 M (1280 FT AMSL)
21	210°	3000x45	PCN 84/F/D/X/T Asphalt	195751.10N 0995323.57E	388.77 M (1275 FT AMSL)

Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
-0.05%	60x60	NIL	3240x300	NIL	NIL
0.05%	60x60	NIL	3240x300	NIL	NIL

VTCT AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
03	3000	3000	3060	3000	NIL
21	3000	3000	3060	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 BOTH 3° (65.16 FT)	NIL	NIL	3000 M 60 M White LIH	Red	Red	NIL
21	SALS 420 M LIH	Green	PAPI BOTH 3° (60.66 FT)	NIL	NIL	3000 M 60 M White LIH	Red	Red	NIL

VTCT AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: At Tower Building, 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	NIL

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	23:00-14:30	*Emergency Freq.
TWR	Chiang Rai Tower	*121.5 MHZ 118.4 MHZ 236.6 MHZ	23:00-14:30	
ATIS	Chiang Rai Intl	127.85 MHZ	23:00-14:30	

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		Coverage restricted as follows: <ul style="list-style-type: none"> <li>- 25 NM from 140°-360° at 5500 FT</li> <li>- 25 NM from 360°-280° at 7500 FT</li> <li>- 40 NM from 280°-180° at 7500 FT</li> <li>- 40 NM from 180°-140° at 6000 FT</li> </ul>
DVOR/DME	CTR	116.5 MHZ CH 112X	H24	195653.65N 0995300.12E		DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM at required altitudes and distance in various areas as following: <ul style="list-style-type: none"> <li>- Radial 271°-340° at 20 NM ALT should not below 6,500 FT (Due to border limited.)</li> <li>- Radial 341°-140° at 20 NM ALT should not below 5,000 FT (Due to border limited.)</li> <li>- Radial 141°-180° at 40 NM ALT should not below 5,000 FT</li> <li>- Radial 181°-210° at 40 NM ALT should not below 7,500 FT</li> <li>- Radial 211°-240° at 40 NM ALT should not below 9,000 FT</li> <li>- Radial 241°-260° at 40 NM ALT should not below 12,000 FT</li> <li>- Radial 261°-270° at 40 NM ALT should not below 10,000 FT</li> </ul> DVOR/DME unusable due to roughness on radial 340 distance between 7-9 DME at altitude 6,000 FT DVOR/DME unusable due to roughness on radial 143 distance between 13-15 DME at altitude 4,500 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 transmittin g 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 3°. c) Middle marker distance 1 150 M from approached of RWY 03. d) DME co - located with localizer, power output 100 watts omnidirectional.
GP		332.6 MHZ	H24	195632.60N 0995242.60E		
MM		75 MHZ	H24	195552.9N 0995214.0E		

#### 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.

#### 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. THE CONTINUOUS DESCENT OPERATIONS (CDO) FOR ARRIVALS INTO CHIANG RAI/MAE FAH LUANG- CHIANG RAI INTERNATIONAL AIRPORT

1.1 INTRODUCTION

1.1.1 As part of AEROTHAI's ongoing efforts to improve operational efficiency and air traffic management, Continuous Descent Operations (CDO) will commence from 1700 UTC on 12 October 2017 with trial period from 1700 UTC on 11 September 2017 until 1659 UTC on 12 October 2017. CDO is an operation, enabled by airspace design, procedure design and ATC facilitation, in which an aircraft descends continuously, to the greatest possible extent, by employing minimum engine thrust, ideally in a low drag configuration, prior to Final Approach Fix / Final Approach Point

1.1.2 Vertical profile of CDO aims to improve flight stability (minimal level-off), increase terrain safety, ensure environmental friendly procedures by reducing aircraft noise, fuel consumption and emissions, enhanced flight punctuality and predictability, as well as other economic benefits for flights into Chiang Rai/Mae Fah Luang-Chiang Rai International Airport.

1.2 CONDITION OF USE

1.2.1 Conditions for Conducting a CDO

1.2.1.1 CDO application can be either under surveillance or procedural environment.

1.2.1.2 CDO can be requested by pilot or initiated by ATC. Pilot should request CDO at least 5 minutes prior to reaching Top of Descent (TOD) for any type of approach.

**Note:** 1. There is limited benefit if CDO clearance is received at altitude lower than 10,000 FT

**Note:** 2. In case of CDO procedure being impractical due to an emergency, weather condition, traffic situation or any other reasons, an alternate instruction will be issued by ATC, or requested by pilot.

1.2.2 Application of Other ATC Procedures

1.2.2.1 When conducting CDO, standard ATC procedures continue to apply. ATC may issue clearance to an intermediate approach level while facilitating a CDO profile

1.2.2.2 In doing so, ATC shall endeavour to issue further descent clearance prior to the CDO flight reaching the last assigned altitude so as to prevent aircraft from levelling off.

1.2.3 Change of Runway-In-Use

1.2.3.1 In case of change on Runway-in-Use prior to aircraft reaching Final Approach Fix / Final Approach point, i.e. from RWY 03 to RWY 21 CDO procedure shall be cancelled.

1.2.3.2 Pilot should then re-plan arrival route to the revised landing runway and inform ATC if the flight would still be able to meet all required speed/altitude restrictions.

1.2.4 Aircraft Type

CDO procedure is applicable for FMS capable aircraft.

1.2.5 Arrival Routes

CDO procedure is in place for all aircraft on W22 inbound to Chiang Rai/Mae Fah Luang-Chiang Rai International Airport

1.2.6 Operations Time

CDO is available 24 hours.

1.2.7 Available Runway

CDO procedure is available for RWY 03.



## 1.2.8 Types of Approach

## 1.2.8.1 ILS OR LOC RWY 03 VIA STAR PERSY1A

## 1.2.8.2 RNAV (GNSS) RWY 03

## 1.2.9 Speed

When traffic permits, aircraft will operate at an optimum speed calculated by FMS, depending on aircraft type. The following speed guidance should be applicable in case of high traffic volume.

Flight Status	Speed Range
Above 10 000 FT	250 – 320 IAS
Below 10 000 FT	220 – 250 IAS
Final Segment (up to 4 NM)	160 – 180 IAS

## 1.2.10 Minimum Flight Altitude

1.2.10.1 Outside Chiang Rai TMA, aircraft shall comply with altitude constraints of the CDO procedure.

1.2.10.2 Inside Chiang Rai TMA during CDO, minimum safety altitudes are identical to those within Instrument Approach Procedures required.

## 1.3 CDO PROCEDURE

1.3.1 Before aircraft reaching TOD (approximately 150 NM from the airport), either pilot or ATC can initiate CDO using phraseologies described in paragraph 1.4

1.3.2 When all requirements for CDO are met and situation permits, CDO will commence.

1.3.3 Pilot shall operate aircraft FMS to plan optimal descent profile and report CDO execution commencing descent.

1.3.4 Aircraft should descend continuously on normal arrival route to Chiang Rai TMA.

1.3.5 Longitudinal separation required will be at least 10 minutes between CDO traffic.

## 1.3.6 Operations without Vectoring

## 1.3.6.1 ILS OR LOC RWY 03 VIA STAR PERSY1A Procedure

Aircraft Arriving on W22

- After passing, PERSY 30 NM from CTR DVOR, altitude not lower than 7,000 FT, then proceed to TANON altitude not lower than 6,000 FT and follow the ILS or LOC RWY03 procedure as published in AIP Thailand.
- The pilot may request permission to fly directly to Intermediate Fix (IF); however, this would be an ATC's jurisdiction whether the request can be approved, depending on traffic conditions. In this case, the pilot shall fly directly to (IF), and cross 30 NM from CTR DVOR, altitude not lower than 9,000 FT, and cross 15 NM from CTR DVOR, altitude not lower than 5,900 FT, following the ILS or LOC RWY 03 procedure as published in AIP Thailand

## 1.3.6.2 RNAV (GNSS) RWY 03 Procedure

Aircraft Arriving on W22

- After passing, PERSY 30 NM from CTR DVOR, altitude not lower than 9,000 FT, then proceed to PUSIT altitude not lower than 4,300 FT and follow the RNAV (GNSS) RWY03 procedure as published in AIP Thailand

## 1.3.7 Radio Communications Failure

1.3.7.1 In the event of radio communication failure, CDO flight will be terminated immediately.

1.3.7.2 Pilot is to apply radio failure procedures stated in AIP Thailand ENR 1.6-6 paragraph 6.

## 1.4 PHRASEOLOGY

1.4.1 The following phraseology does not phrases and regular radio telephony procedure words contain in Doc 4444 and Doc 9432, but it enables clear and concise communications between pilot and controller to maintain safety of CDO arrivals

## 1.4.2 ATC-initiated CDO

“(aircraft call sign), (ATC unit), CDO AVAILABLE, DO YOU ACCEPT?”

- 1.4.3 Pilots response to ATC-initiated CDO
  - 1.4.3.1 “(aircraft call sign), ACCEPT CDO”
  - 1.4.3.2 “(aircraft call sign), NEGATIVE CDO”
- 1.4.4 Pilot-requested CDO  
“(ATC Unit), (aircraft call sign), REQUEST CDO (type of approach) APPROACH”
- 1.4.5 Approval CDO by Bangkok Area Control Centre  
“(aircraft call sign), CDO (type of approach) APPROVED DESCEND TO (level or altitude), QNH (number)”
- 1.4.6 Denial CDO by Bangkok Area Control Centre
  - 1.4.6.1 “(aircraft call sign), UNABLE TO APPROVED, DUE TO (reason)”
  - 1.4.6.2 “(aircraft call sign), EXPECT CDO FROM CHIANG RAI APPROACH”
- 1.4.7 CDO Cleared or Approved by Chiang Rai Approach Control Unit
  - 1.4.7.1 “(aircraft call sign), DIRECT TO (point), DESCEND (level or altitude), QNH (number), CLEARED CDO (type of approach) APPROACH RWY03, REPORT ESTABLISHED”
  - 1.4.7.2 “(aircraft call sign), DESCEND TO (level), QNH (number), CDO (type of approach) APPROVED””
- 1.4.8 When vectoring for CDO  
“(aircraft call sign), FLY HEADING (three digits); TURN LEFT (or RIGHT) HEADING (three digits) VECTORING FOR CDO, POSITION (number) MILES FROM TOUCHDOWN”
- 1.4.9 CDO Cancellation
  - 1.4.9.1 “(aircraft call sign), CANCEL CDO DUE TO (reason), STOP DESCEND (level or altitude), QNH (number)”
  - 1.4.9.2 “(aircraft call sign), CDO TERMINATED DUE TO (reason)”
- 1.4.10 Resuming CDO  
“(aircraft call sign), RESUME CDO DIRECT (point), DESCEND TO (level or altitude), QNH (number), CLEAR (type of approach) APPROACH RWY03”
- 1.4.11 Pilot report leaving assigned level  
“(aircraft call sign), CDO LEAVING (level)”
- 1.4.12 Warning of aircraft below CDO Profile  
“(aircraft call sign), BELOW CDO PROFILE, ALTITUDE SHOULD BE (altitude) OR ABOVE”
- 1.5 INFORMATION/TRAINING
  - 1.5.1 Each airline must ensure that, for each type of aircraft, pilots are aware of CDO performance requirements.
  - 1.5.2 Airlines are expected to define strategy to be adopted to drag-generating parts extension to stabilize aircraft in landing configuration at an altitude in compliance with flight safety, taking into account glide path at 3° in Final Approach.

**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 miles southeast of Mae Fah Luang-Chiang Rai International Airport (radial 218 from CTR VOR).

**VTCT AD 2.24 CHARTS RELATED TO AN AERODROME**

<b>Chart name</b>	<b>Page</b>
Aerodrome chart - ICAO	AD 2-VTCT-2-1
Aircraft Parking/Docking Chart - ICAO	AD 2-VTCT-2-3

Chart name	Page
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 Instrument Departure Chart - RWY 03	AD 2-VTCT-6-1
Standard Instrument Departure Chart - RWY 21	AD 2-VTCT-6-3
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03 - BENVI1A DUBEN1A NUMDO1A PONUK1A	AD 2-VTCT-6-4
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 03 - BENVI1A DUBEN1A NUMDO1A PONUK1A (Tabular description)	AD 2-VTCT-6-5
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21 - BENVI1B DUBEN1B NUMDO1B PONUK1B	AD 2-VTCT-6-6
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 21 - BENVI1B DUBEN1B NUMDO1B PONUK1B (Tabular description)	AD 2-VTCT-6-7
Instrument Approach Chart - ICAO - NDB/DME RWY 03	AD 2-VTCT-8-1
Instrument Approach Chart - ICAO - VOR RWY 03	AD 2-VTCT-8-3
Instrument Approach Chart - ICAO - VOR RWY 03 (Fix and point list table)	AD 2-VTCT-8-4
Instrument Approach Chart - ICAO - VOR RWY 21	AD 2-VTCT-8-5
Instrument Approach Chart - ICAO - VOR RWY 21 (Fix and point list table)	AD 2-VTCT-8-6
Instrument Approach Chart - ICAO - ILS or LOC y RWY 03	AD 2-VTCT-8-7
Instrument Approach Chart - ICAO - ILS or LOC y RWY 03 (Fix and point list table)	AD 2-VTCT-8-8
Instrument Approach Chart - ICAO - ILS or LOC z RWY 03	AD 2-VTCT-8-9
Instrument Approach Chart - ICAO - ILS or LOC z RWY 03 (Fix and point list table)	AD 2-VTCT-8-10
Instrument Approach Chart - ICAO - ILS or LOC z RWY 03 (Tabular description)	AD 2-VTCT-8-11
Instrument Approach Chart - ICAO - RNP RWY 03	AD 2-VTCT-8-13
Instrument Approach Chart - ICAO - RNP RWY 03 (Tabular description)	AD 2-VTCT-8-14
Instrument Approach Chart - ICAO - RNP RWY 21	AD 2-VTCT-8-15
Instrument Approach Chart - ICAO - RNP RWY 21 (Tabular description)	AD 2-VTCT-8-16

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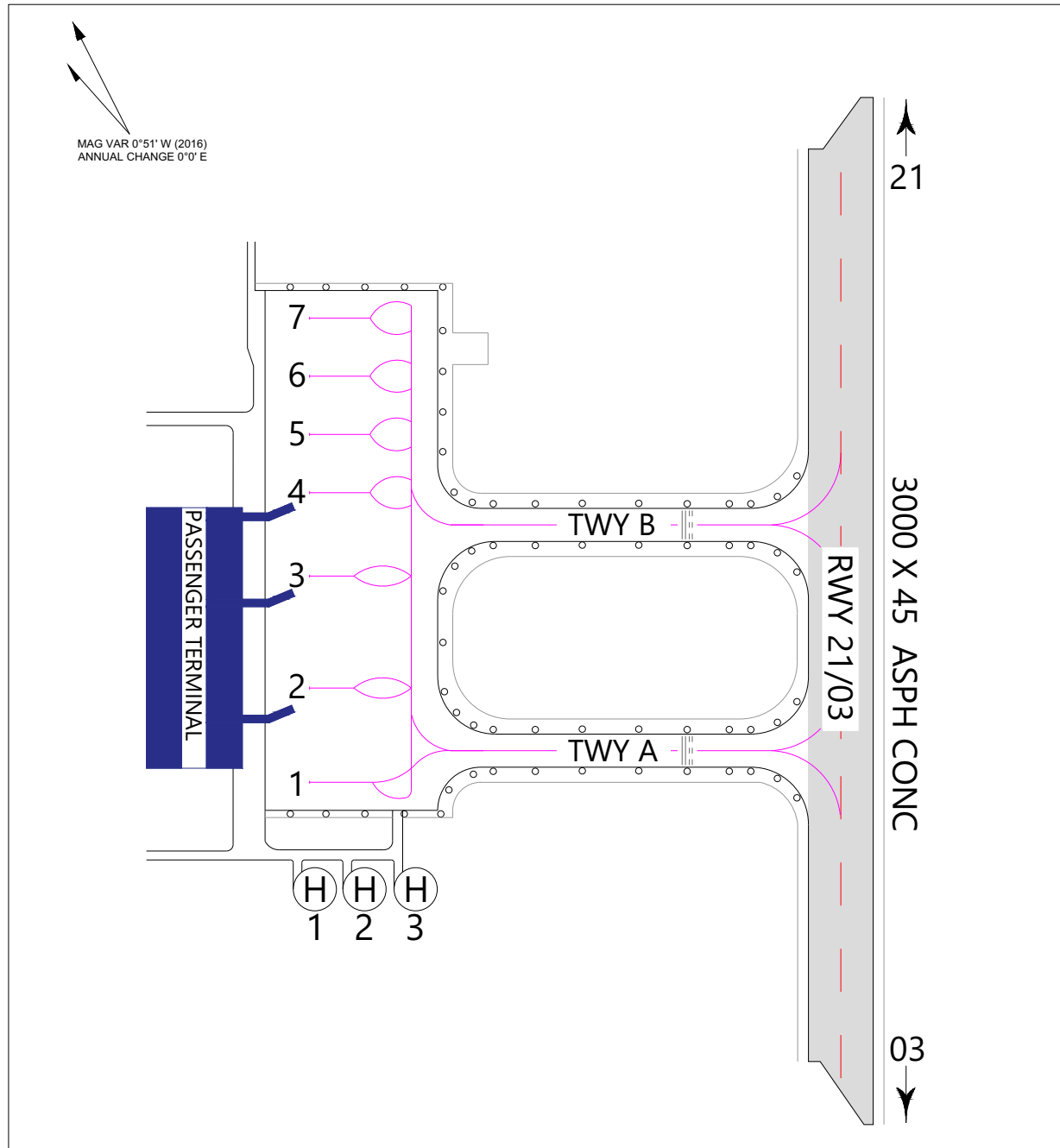
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**AIRCRAFT PARKING/  
DOCKING CHART - ICAO**

APRON ELEV  
1274 FT

TWR 118.4

**CHIANG RAI /  
Mae Fah Luang-Chiang Rai Intl**



**REMARKS**

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 , PCN 73/R/D/X/T
3. APRON ACFT STAND NR 5-7 SURFACE, STRENGTH : CONCRETE , PCN 73/R/C/X/T

LEGEND	
AIRCRAFT STAND NR	1—
TWY APRON LIGHT	o
RUNWAY HOLDING POSITION	≡≡≡
HELIPAD	(H) 1-3

AIRCRAFT STAND COORDINATES			
STAND NR	COORDINATES		ACFT UP TO
1	19 57 11.64 N	099 52 45.34 E	B737
2	19 57 13.42 N	099 52 46.57 E	B747
3	19 57 15.72 N	099 52 47.70 E	B747
4	19 57 17.16 N	099 52 49.09 E	B737-900
5	19 57 18.53 N	099 52 49.34 E	A321
6	19 57 19.69 N	099 52 50.02 E	A321
7	19 57 20.84 N	099 52 50.69 E	A321
H1	19 57 09.44 N	099 52 44.64 E	
H2	19 57 08.90 N	099 52 45.68 E	
H3	19 57 08.34 N	099 52 46.76 E	

CHANGE: APRON ACFT STAND NR 6 AND 7 ADDED. AWOS REVISED. REMARKS REVISED. LEGEND REVISED. ACFT STAND COORD REVISED.

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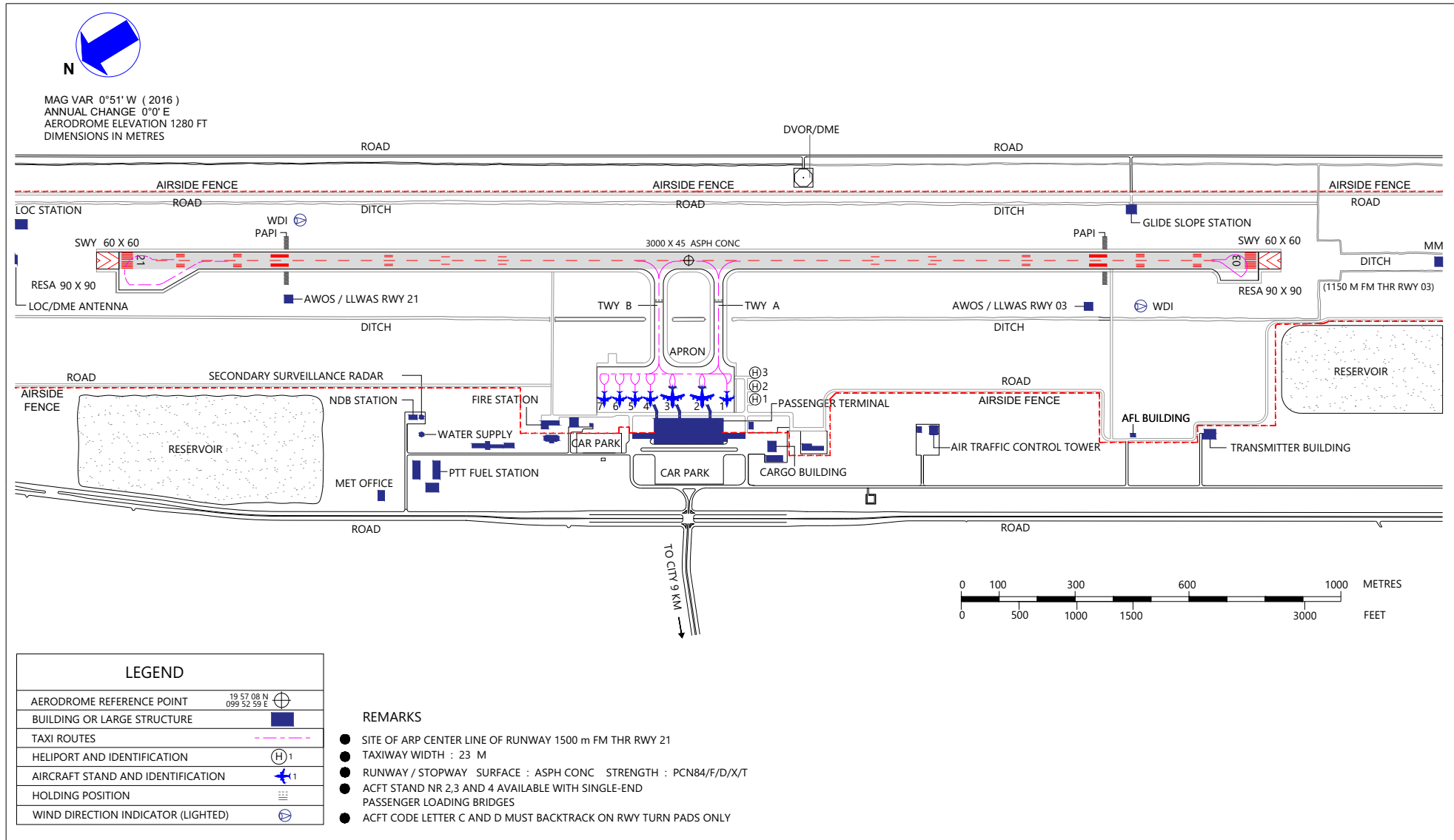


**AERODROME GROUND  
MOVEMENT CHART - ICAO**

**APRON ELEV  
1274 FT**

**TWR 118.4**

**CHIANG RAI /  
Mae Fah Luang-Chiang Rai Intl**

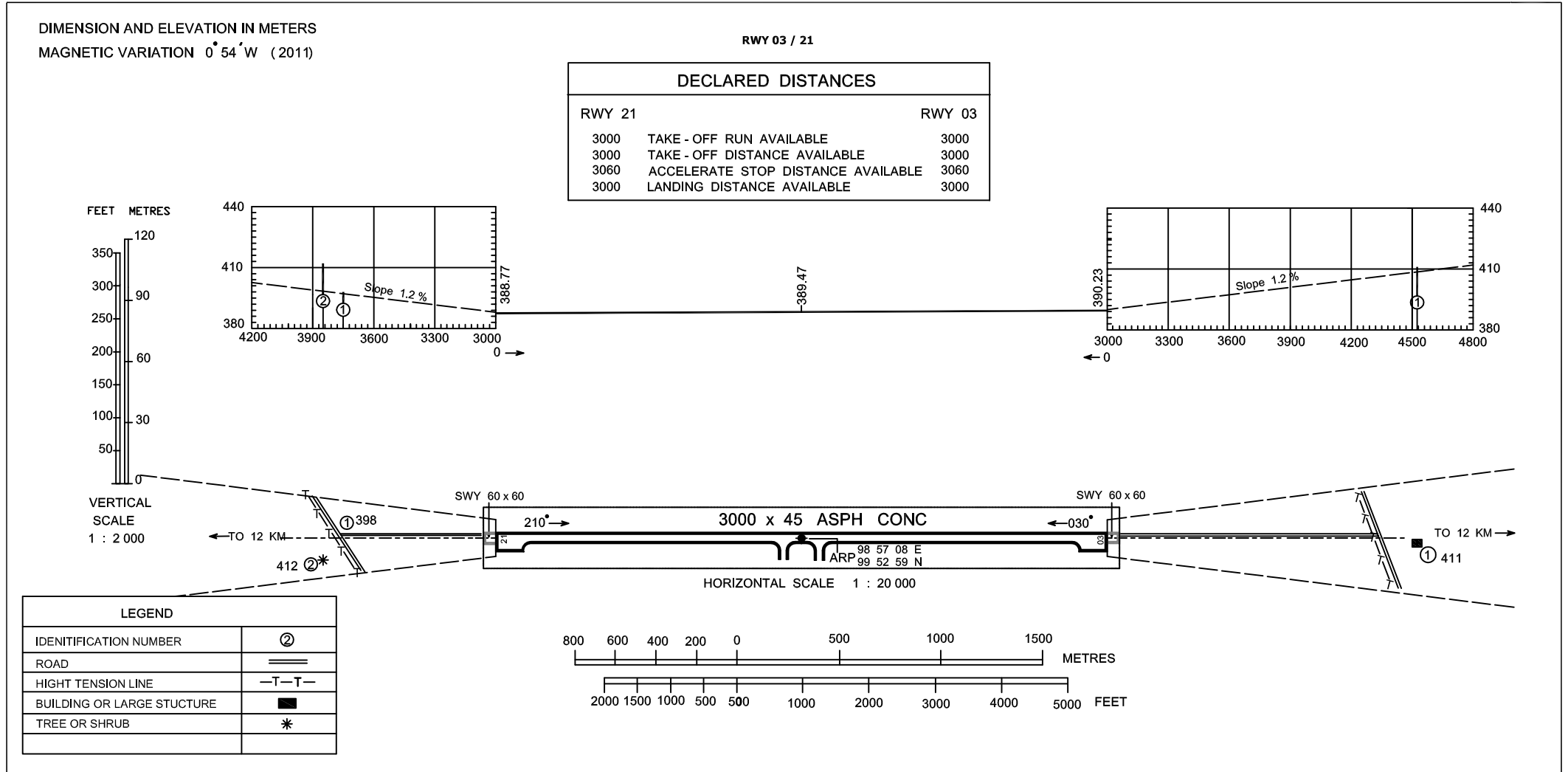


CHANGE: AIRSIDE FENCE ADDED. RESERVOIR ADDED. SSR ADDED. WDI SYMBOL. AWOS REVISED. ACFT STAND NR 6 AND 7 ADDED. APRON MANAGEMENT DELETED.

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**AERODROME OBSTACLE CHART - ICAO**  
TYPE A (OPERATING LIMITATIONS)

Mae Fah Luang-Chiang Rai International Airport



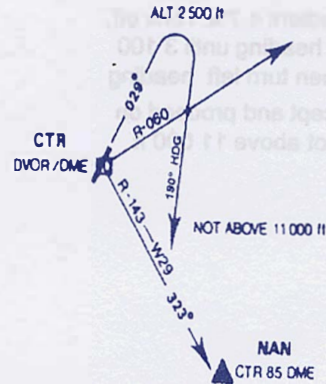
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STANDARD INSTRUMENT DEPARTURE (SID) CHIANG RAI INTERNATIONAL AIRPORT

STANDARD INSTRUMENT DEPARTURE RUNWAY 03

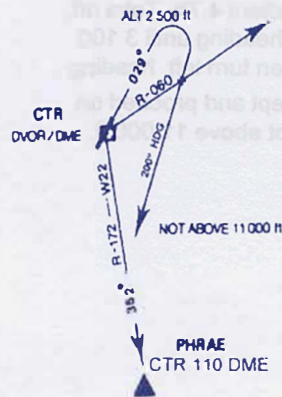
**NAN ONE ALFA (NAN 1A)**

Take off, climb runway heading until 2 500 FT or above, then turn right heading 190° to cross CTR R-060 not below 2 900 FT, to intercept and proceed on CTR R-143 not above 11 000 FT.



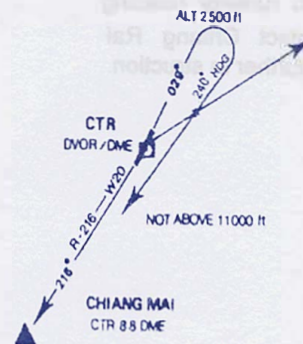
**PHRAE ONE ALFA (PAE 1A)**

Take off, climb runway heading until 2 500 FT or above, then turn right heading 200° to cross CTR R-060 not below 2 900 FT, to intercept and proceed on CTR R-172 not above 11 000 FT.



**CHIANG MAI ONE ALFA (CMA 1A)**

Take off, climb runway heading until 2 500 FT or above, then turn right heading 240° to cross CTR R-060 not below 2 900 FT, to intercept and proceed on CTR R-216 not above 11 000 FT.



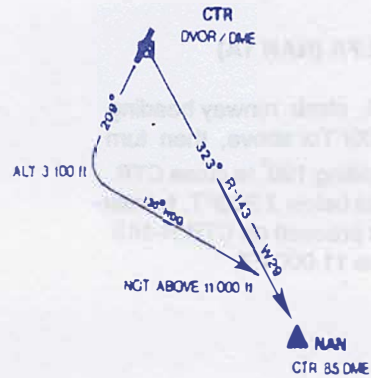
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STANDARD INSTRUMENT DEPARTURE (SID) CHIANG RAI INTERNATIONAL AIRPORT

STANDARD INSTRUMENT DEPARTURE RUNWAY 21

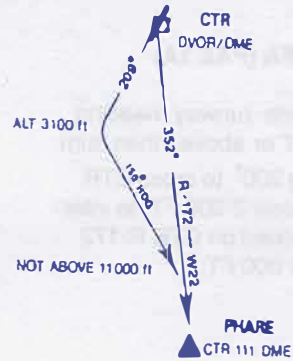
**NAN ONE BRAVO (NAN 1B)**

Departure gradient 4.7% Take off, climb runway heading until 3 100 ft or above, then turn left heading 130° to intercept and proceed on CTR R-143 not above 11 000 ft.



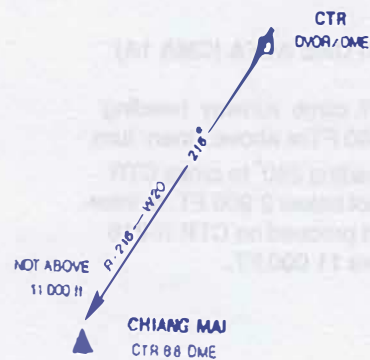
**PHRAE ONE BRAVO (PAE 1B)**

Departure gradient 4.7% Take off, climb runway heading until 3 100 ft or above, then turn left heading 150° to intercept and proceed on CTR R-172 not above 11 000 ft.



**CHIANG MAI ONE BRAVO (CMA 1B)**

Take off, climb runway heading 216° and contact Chiang Rai Approach for further instruction.



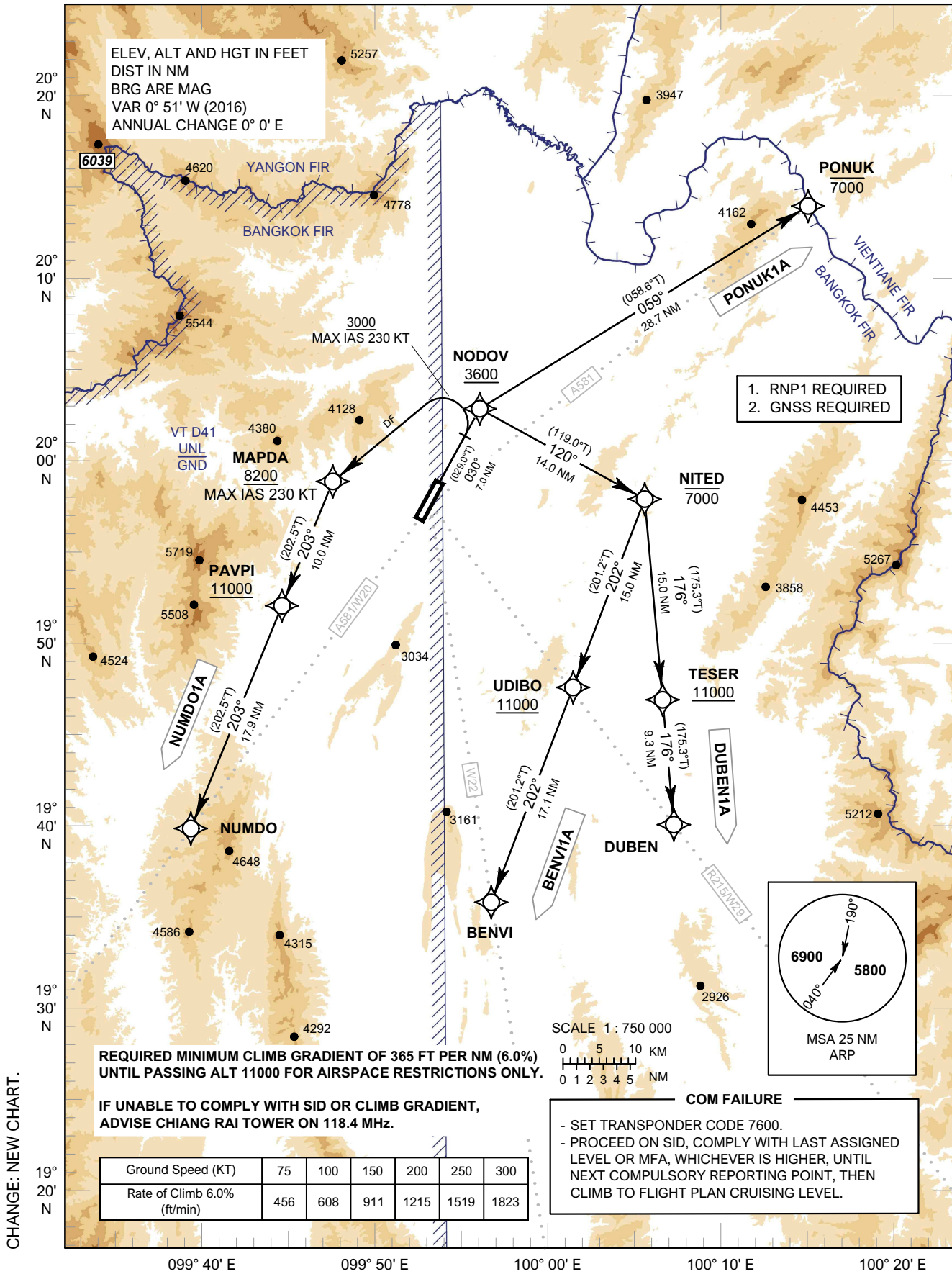
**STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO**

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**

BENV1A DUBEN1A NUMDO1A PONUK1A





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' 51.10" N 099° 53' 23.57" 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

STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO

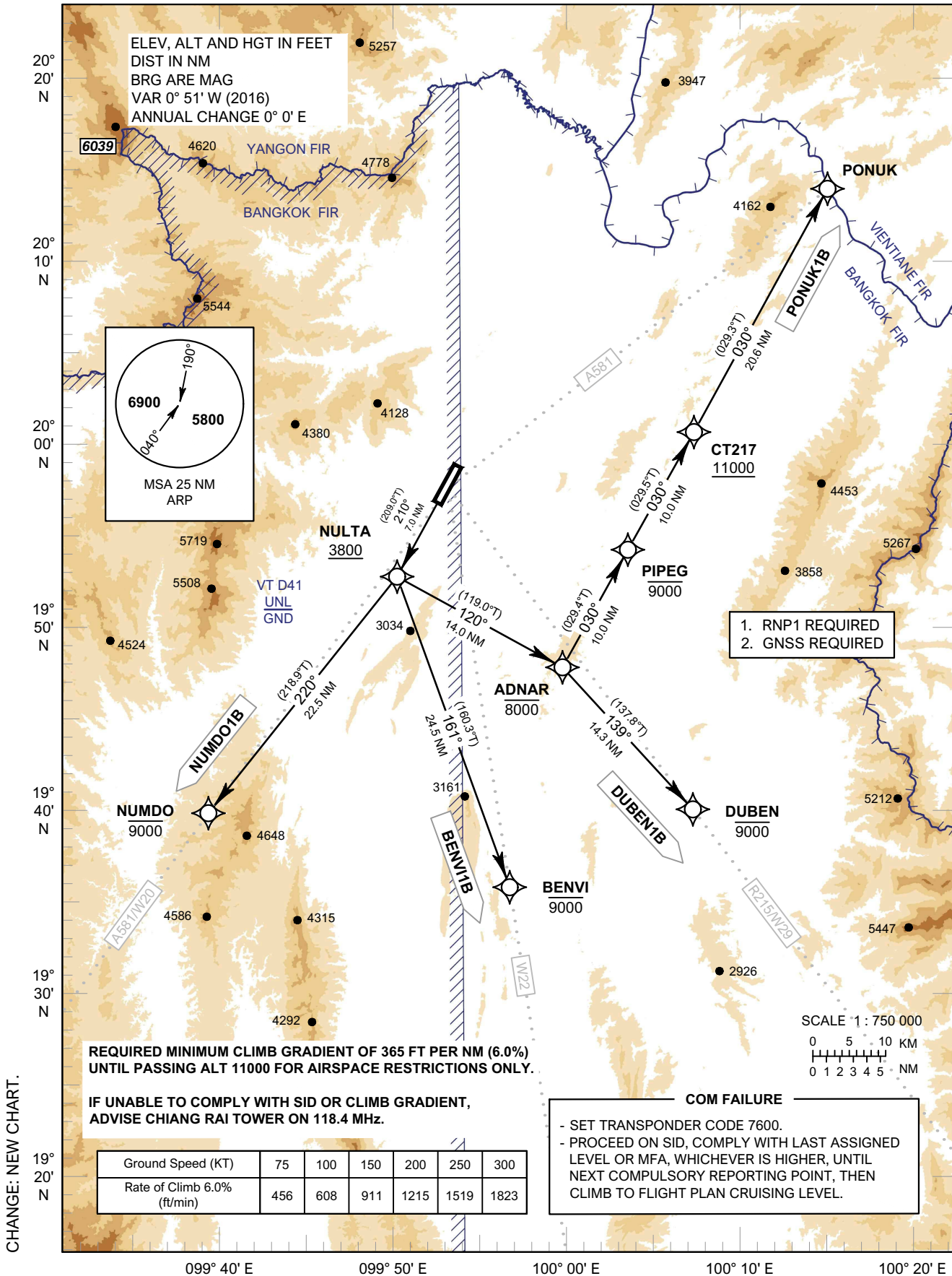
TRANSITION ALTITUDE  
11000 FT

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



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' 25.75" N 099° 52' 33.51" 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

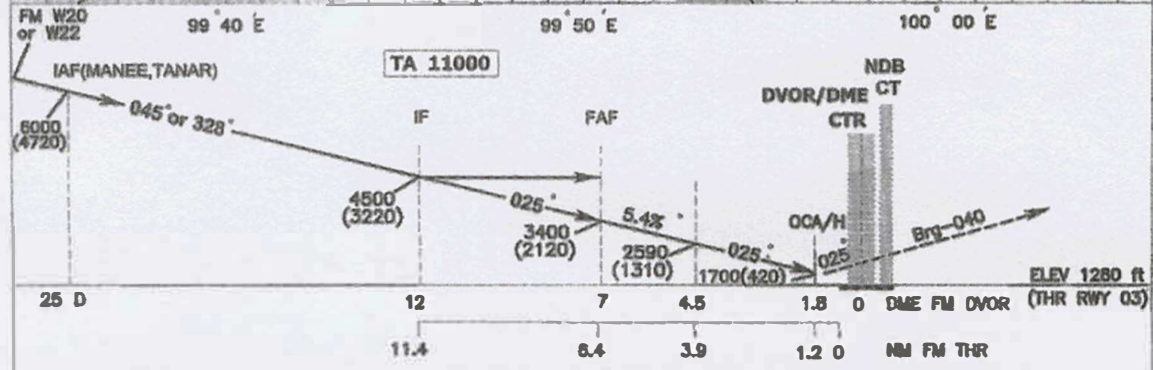
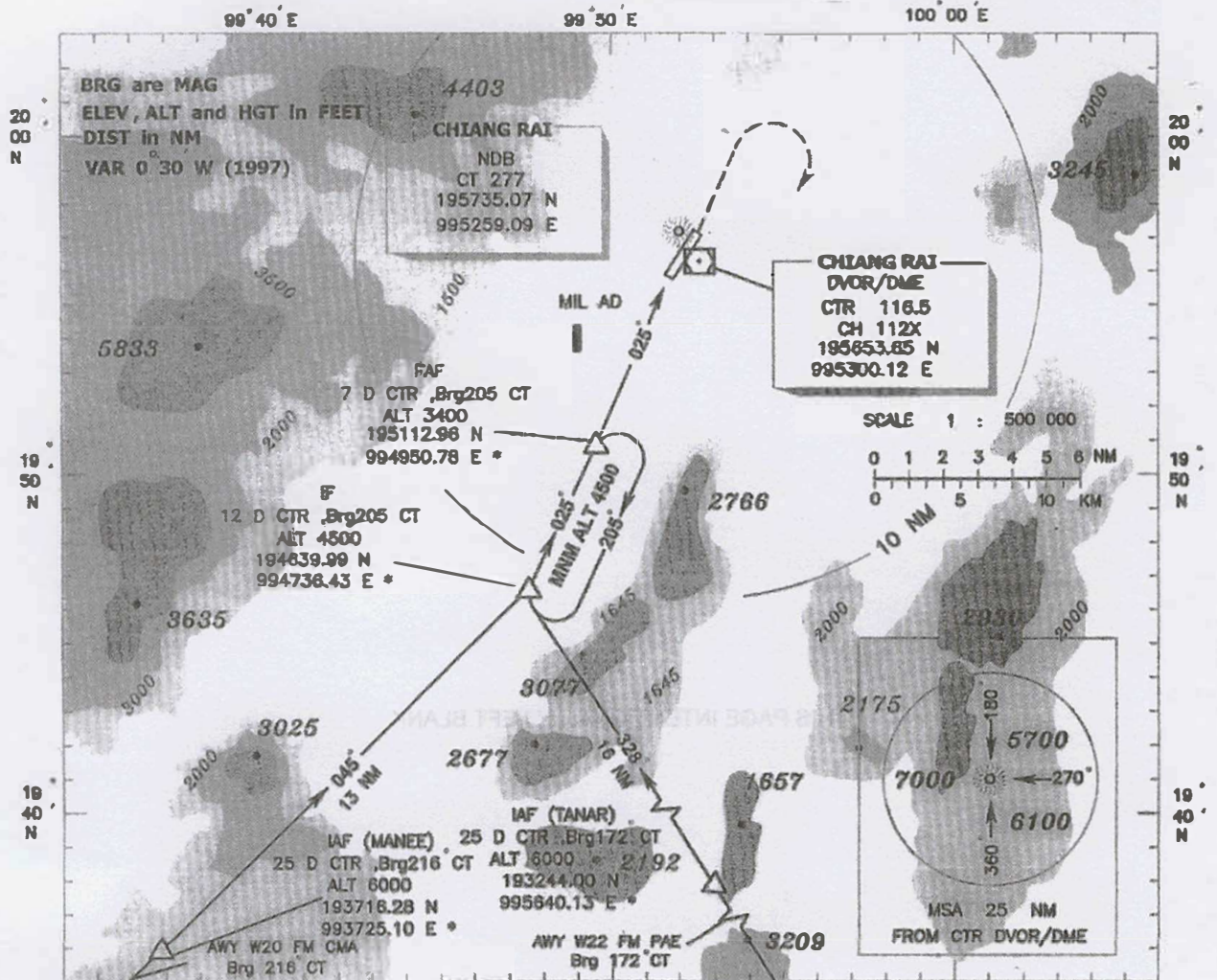
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**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 1280 ft  
HEIGHTS RELATED TO  
AERODROME ELEV**

**APP : 120.05 ,257.8  
TWR : 118.4 ,236.6**

**CHIANG RAI / Chiang Rai  
NDB/DME  
RWY 03**



**MISSED APPROACH :** Climb on track 025 to the NDB ,then climb on Brq-040 to 2600(1220) ft within 5 D ,then turn right to NDB and continuing climb on Brq 205 to FAF 4500(3220) ft and hold.  
**Remark :** ACFT CAT C and D circling to the right only.

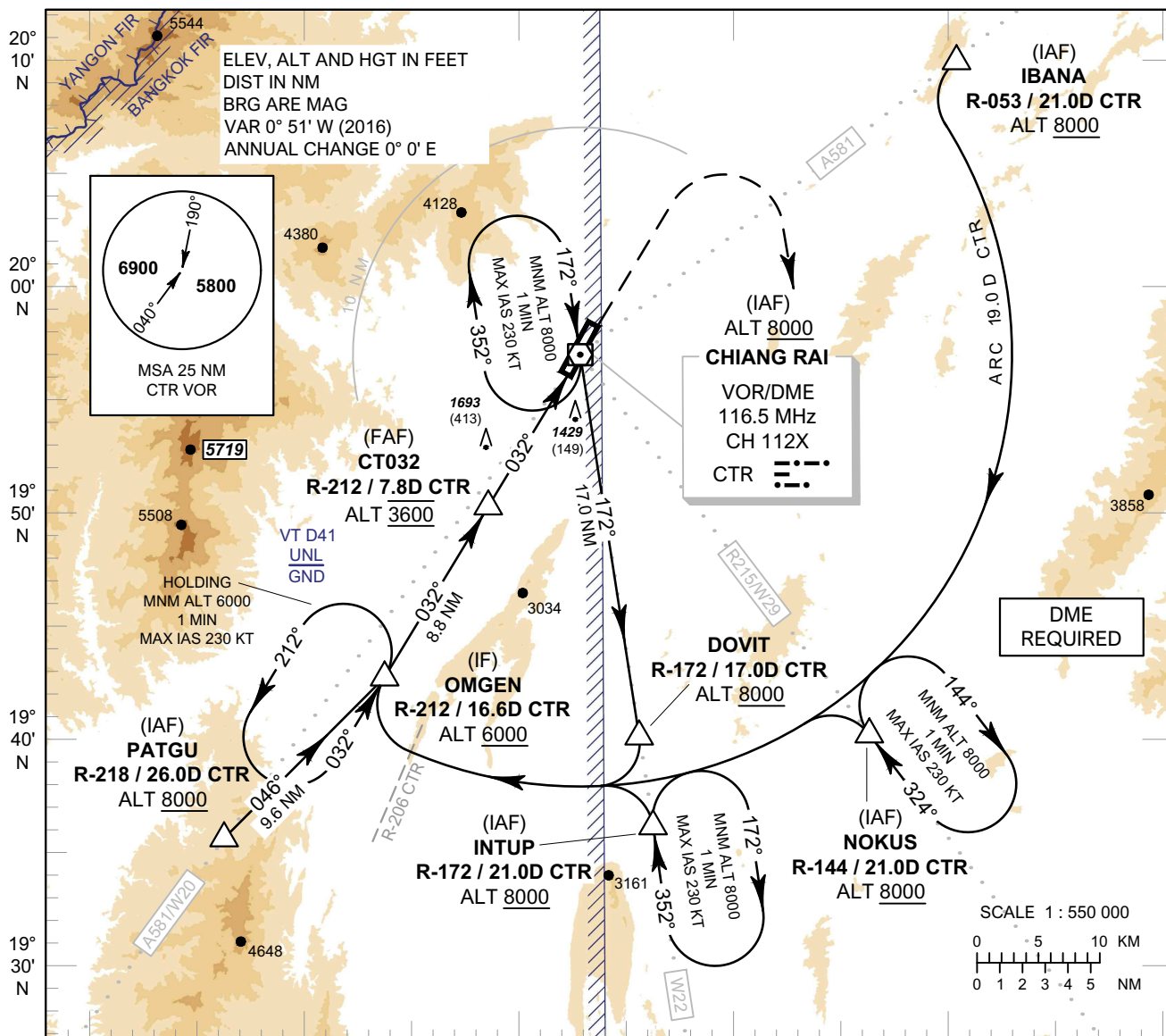
		Distance				2 D	3 D	4 D	5 D
OCA/H	A	B	C	D	Altitude(Height)	1770 (490)	2100 (820)	2425 (1145)	2755 (1475)
Straight-in approach	1700(420)				GS	knot	100	120	140
Circling	1800(520)	1870 (590)	1970 (690)		Rate of descent (ft/min)	545	655	765	875

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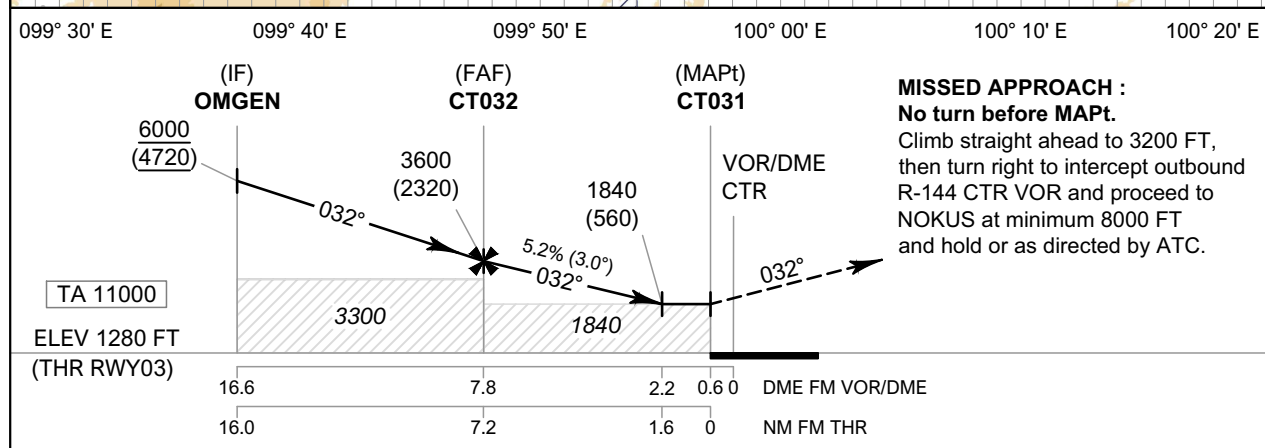
**INSTRUMENT APPROACH CHART - ICAO**  
**AERODROME ELEV 1280 FT**  
**HEIGHTS RELATED TO AERODROME ELEV**

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

**CHIANG RAI / Mae Fah Luang-Chiang Rai Intl (VTCT)**  
**VOR RWY03**



CHANGE: REVISED CHART. INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM DUE TO TERRAIN RESTRICTIONS.



OCA/H	Distance (CTR)				Distance (CTR)	FAF	7 D	6 D	5 D	4 D	3 D	2.2 D
	A	B	C	D								
Straight-in Approach	1840 (560)				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
Circling (OCH AAL)	1900 (620)		3070 (1790)		Rate of Descent 5.2%	ft/min	369	474	527	632	737	843

**INSTRUMENT** AERODROME ELEV 1280 FT  
**APPROACH** HEIGHTS RELATED TO  
**CHART - ICAO** 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' 12.68" N	099° 48' 40.28" E
(MAPt) CT031	R-212 / 0.6D CTR	19° 56' 21.62" N	099° 52' 39.35" E
(IAF) VOR	CTR	19° 56' 53.65" N	099° 53' 00.12" E

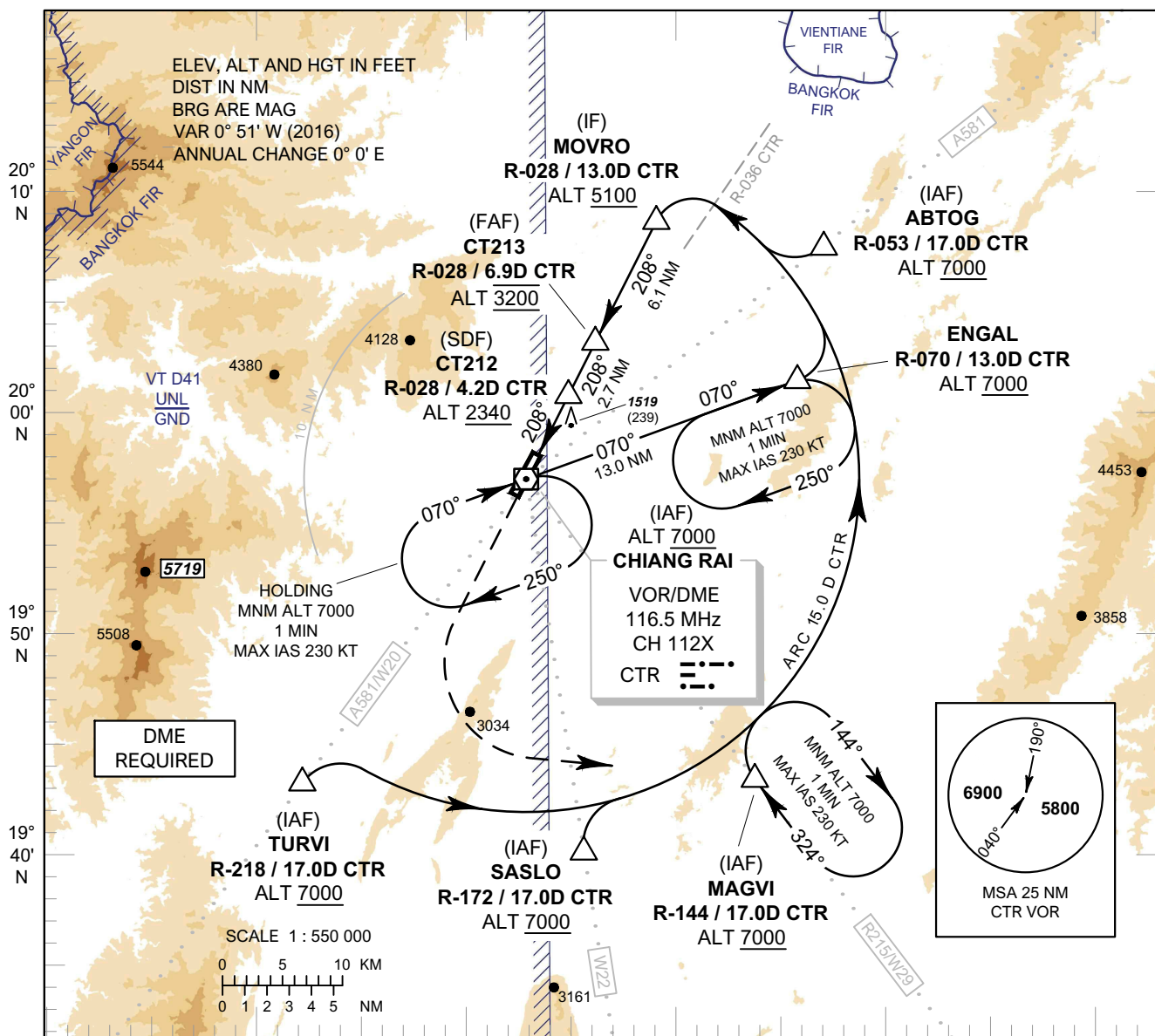


**INSTRUMENT  
APPROACH  
CHART - ICAO**

**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**



CHANGE: REVISED CHART. INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM DUE TO TERRAIN RESTRICTIONS.

		(MAPt) CT211	(SDF) CT212	(FAF) CT213	(IF) MOVRO							
<b>MISSED APPROACH :</b> <b>No turn before MAPt.</b> 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.												
		VOR/DME CTR										
		1770 (490)	2340 (1060)	3200 (1920)	5100 (3820)							
		208°	208°	208°								
		5.2% (3.0°)										
		1770	2340	2700	TA 11000							
		ELEV 1275 FT (THR RWY21)										
		DME FM VOR/DME	0	1.0	2.4	4.2	6.9	13.0				
		NM FM THR	0	1.4	3.2	5.9	12.0					
OCA/H	A	B	C	D	Distance (CTR)	2.4 D	3 D	4 D	5 D	6 D	FAF	
Straight-in Approach	1770 (490)				Altitude (Height)	1770 (490)	1960 (680)	2280 (1000)	2595 (1315)	2910 (1630)	3200 (1920)	
					Ground Speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	1900 (620)		3070 (1790)		Rate of Descent 5.2%	ft/min	369	474	527	632	737	843

**INSTRUMENT**    **AERODROME ELEV 1280 FT**  
**APPROACH**        **HEIGHTS RELATED TO**  
**CHART - ICAO**      **AERODROME ELEV**

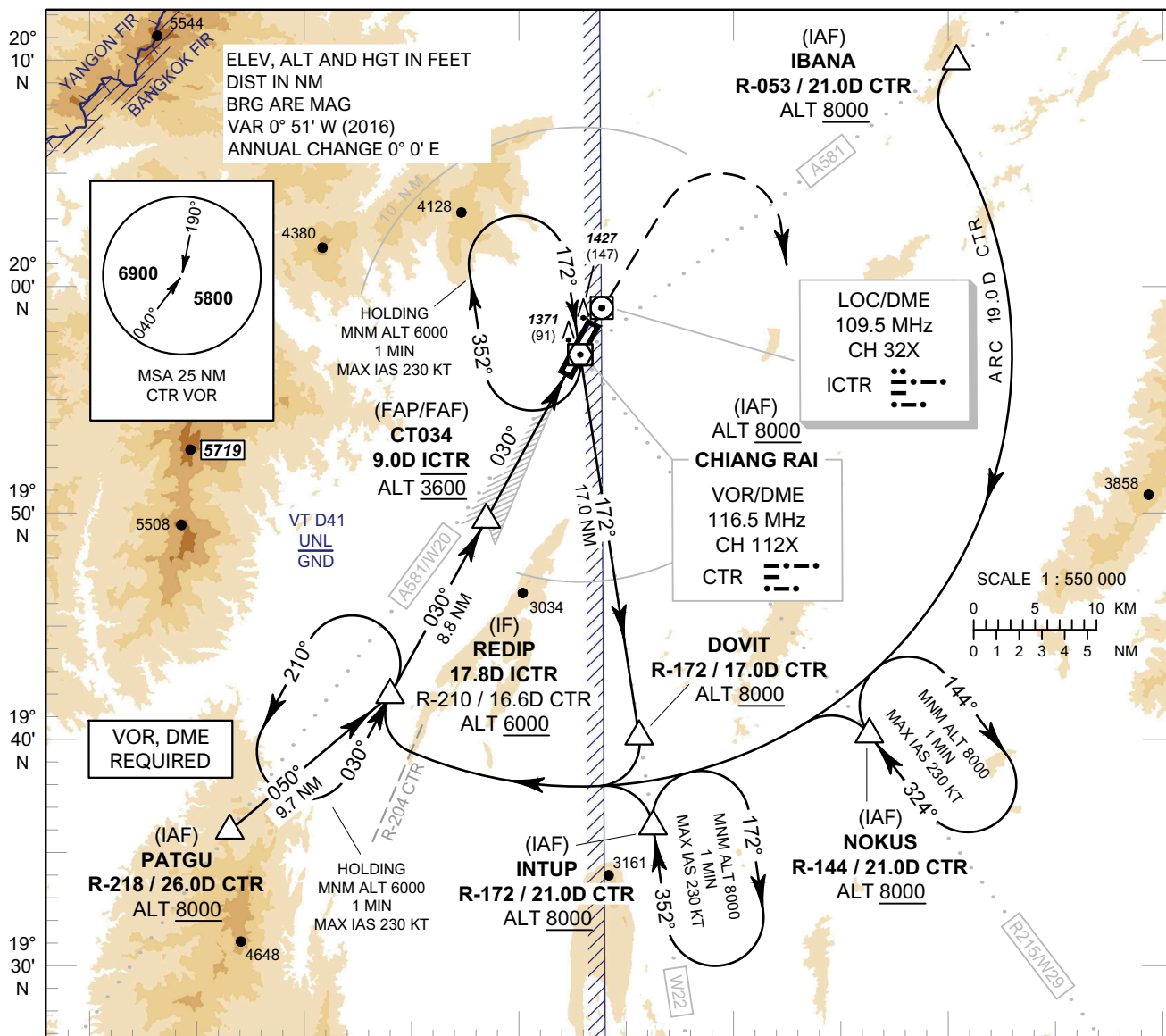
**CHIANG RAI /**  
**Mae Fah Luang-Chiang Rai Intl (VTCT)**  
**VOR RWY21**

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' 04.38" N	099° 56' 20.72" E
(SDF) CT212	R-028 / 4.2D CTR	20° 00' 40.06" N	099° 55' 02.59" E
(MAPt) CT211	R-028 / 1.0D CTR	19° 57' 48.48" N	099° 53' 29.77" E
(IAF) VOR	CTR	19° 56' 53.65" N	099° 53' 00.12" E

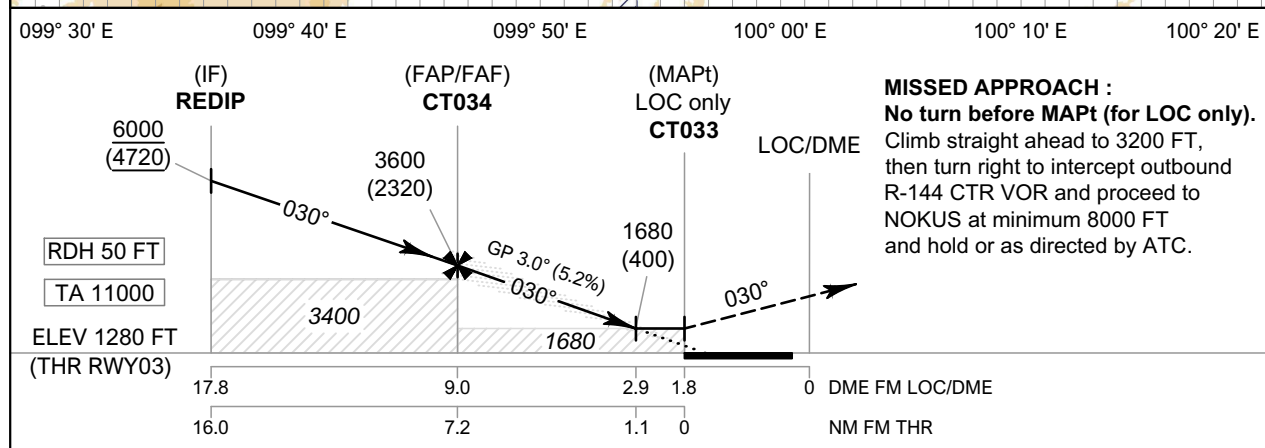
**INSTRUMENT APPROACH CHART - ICAO** **AERODROME ELEV 1280 FT**  
HEIGHTS RELATED TO THR RWY03 - ELEV 1280 FT

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



CHANGE: NEW CHART. INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM DUE TO TERRAIN RESTRICTIONS.



OCA/H	A	B	C	D	GS OUT	Distance (ICTR)	FAF	8 D	7 D	6 D	5 D	4 D	3 D	2.9 D
						Straight-in Approach	CAT I	1480 (200)				Altitude (Height)	3600 (2320)	3290 (2010)
LOC only	1680 (400)				Ground Speed	knot	70	90	100	120	140	160		
Circling (OCH AAL)	1900 (620)	3070 (1790)			Rate of Descent 5.2%	ft/min	369	474	527	632	737	843		

**INSTRUMENT** AERODROME ELEV 1280 FT  
**APPROACH** HEIGHTS RELATED TO  
**CHART - ICAO** THR RWY03 - 1280 FT

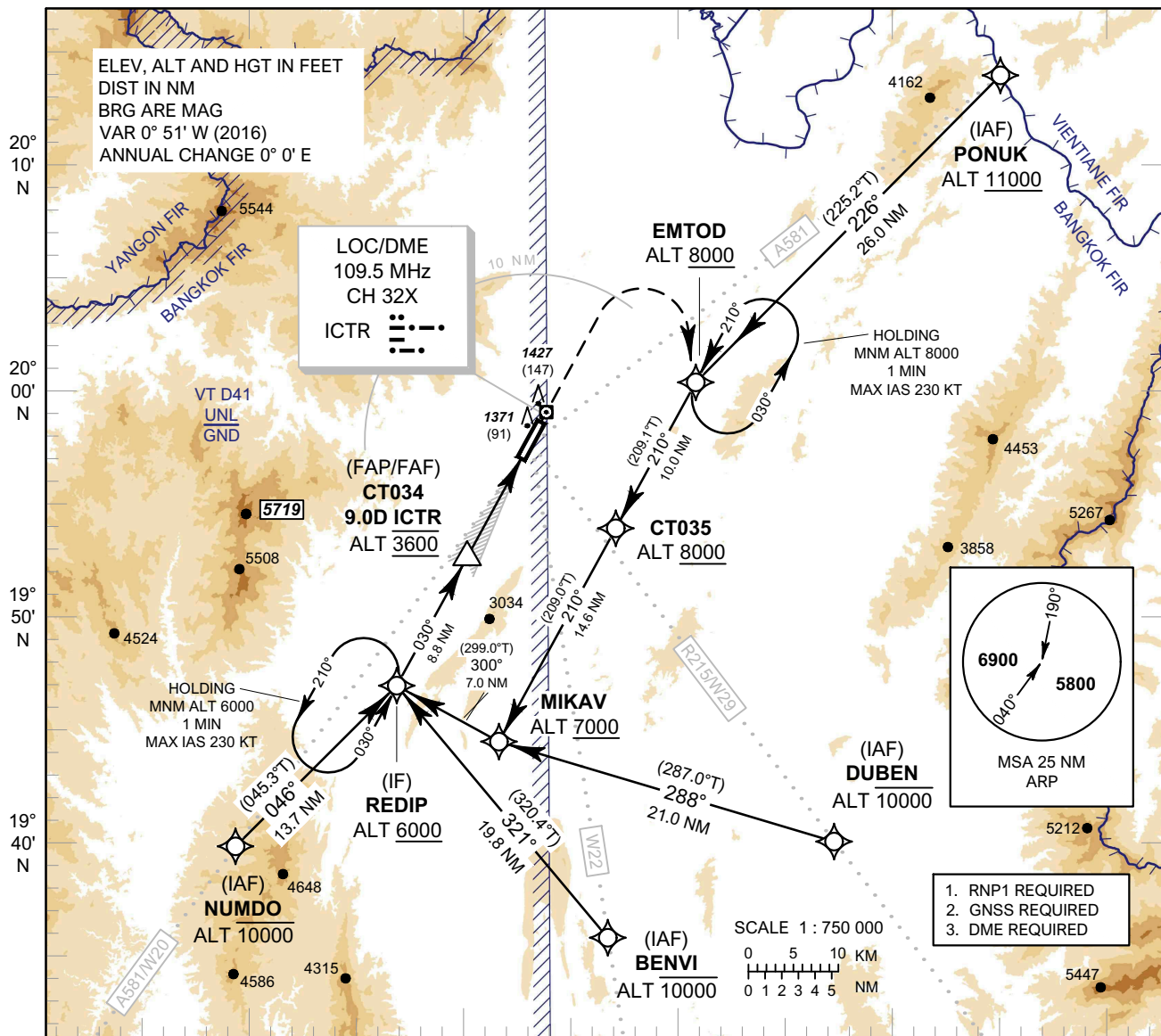
**CHIANG RAI /**  
**Mae Fah Luang-Chiang Rai Intl (VTCT)**  
**ILS or LOC y RWY03**

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' 25.75" N	099° 52' 33.51" E
LOC/DME	ICTR	19° 57' 59.50" N	099° 53' 28.50" E
GP	-	19° 56' 32.60" N	099° 52' 42.60" E
(IAF) VOR	CTR	19° 56' 53.65" N	099° 53' 00.12" E

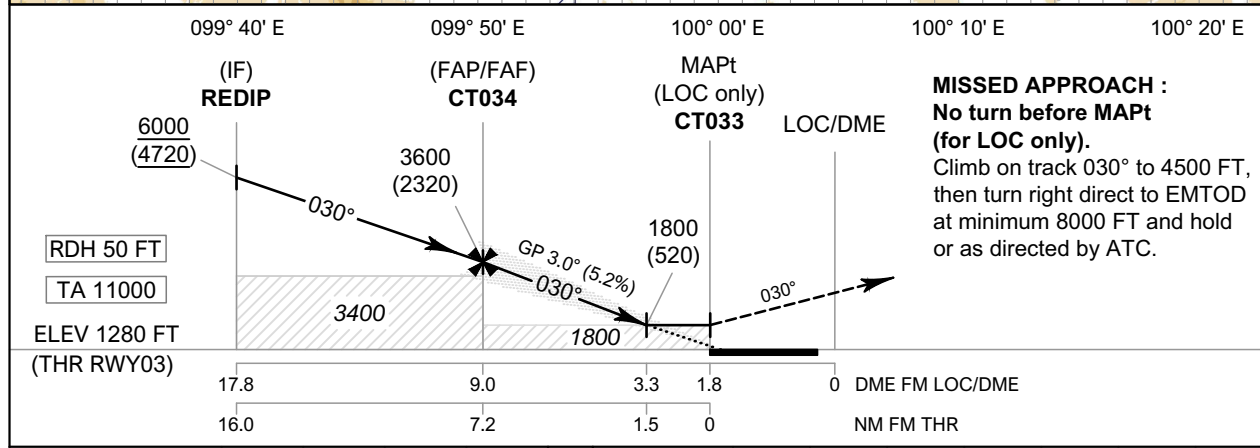
**INSTRUMENT APPROACH CHART - ICAO**  
**AERODROME ELEV 1280 FT**  
**HEIGHTS RELATED TO THR RWY03 - ELEV 1280 FT**

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**



CHANGE: NEW CHART. INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM DUE TO TERRAIN RESTRICTIONS.



OCA/H	A	B	C	D	GS OUT	Distance (ICTR)	FAF	8 D	7 D	6 D	5 D	4 D	3.3 D
						Straight-in Approach	1800 (520)				Altitude (Height)	3600 (2320)	3290 (2010)
LOC only					Ground Speed	knot	70	90	100	120	140	160	
Circling (OCH AAL)	1900 (620)		3070 (1790)		Rate of Descent	ft/min	369	474	527	632	737	843	

**NOTE :**

- 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.
- 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.

**INSTRUMENT** AERODROME ELEV 1280 FT  
**APPROACH** HEIGHTS RELATED TO  
**CHART - ICAO** 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' 25.75" N	099° 52' 33.51" E
LOC/DME	ICTR	19° 57' 59.50" N	099° 53' 28.50" E
GP	-	19° 56' 32.60" N	099° 52' 42.60" E

**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' 25.75" N 099° 52' 33.51" 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
PONUUK	20° 18' 58.10" N 100° 23' 05.80" E
REDIP	19° 42' 22.84" N 099° 44' 20.05" E

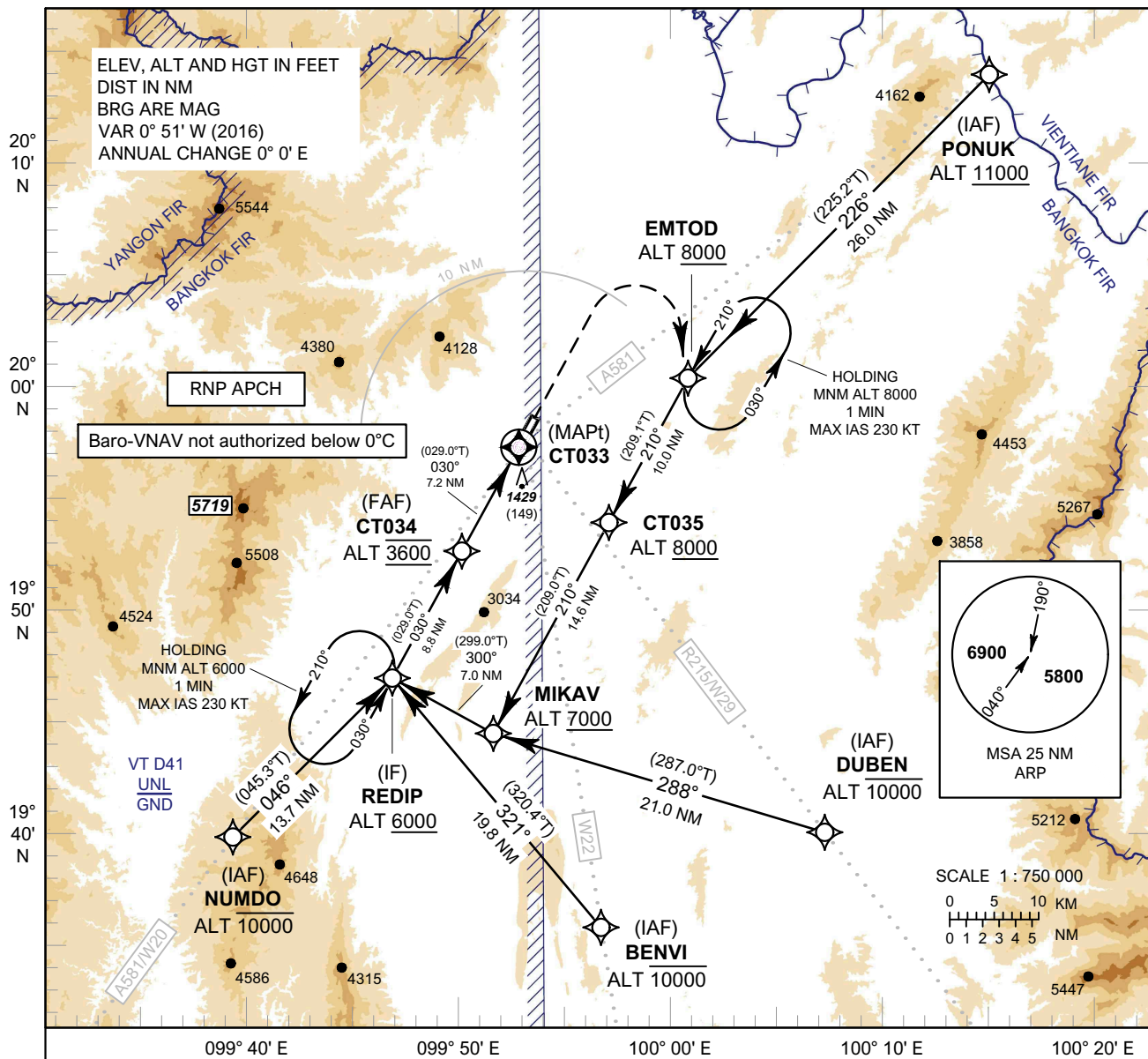
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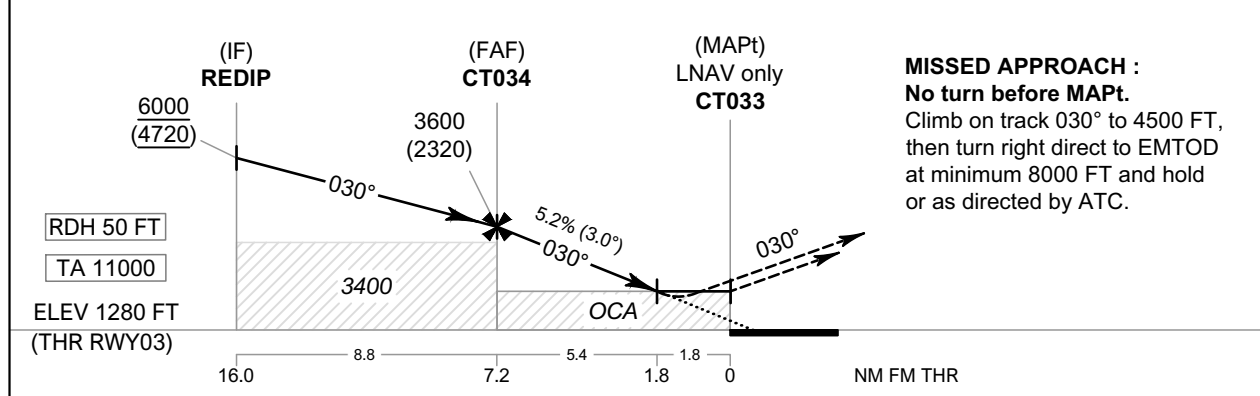
**INSTRUMENT APPROACH CHART - ICAO**  
**AERODROME ELEV 1280 FT**  
**HEIGHTS RELATED TO THR RWY03 - ELEV 1280 FT**

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

**CHIANG RAI / Mae Fah Luang-Chiang Rai Intl (VTCT)**  
**RNP RWY03**



CHANGE: REVISED CHART. INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.5 NM DUE TO TERRAIN RESTRICTIONS.



**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	NM to NEXT WPT	FAF	7 NM	6 NM	5 NM	4 NM	3 NM	2 NM	1.8 NM
LNAV / VNAV	1900 (620)				Altitude (Height)	3600 (2320)	3540 (2260)	3225 (1945)	2910 (1630)	2595 (1315)	2280 (1000)	1960 (680)	1900 (620)
LNAV					Ground Speed	knot	70	90	100	120	140	160	
Circling (OCH AAL)	1900 (620)		3070 (1790)		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.

**INSTRUMENT** AERODROME ELEV 1280 FT  
**APPROACH** HEIGHTS RELATED TO  
**CHART - ICAO** 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' 25.75" N 099° 52' 33.51" 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
PONUUK	20° 18' 58.10" N 100° 23' 05.80" E
REDIP	19° 42' 22.84" N 099° 44' 20.05" E



**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' 51.10" N 099° 53' 23.57" 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
PONUUK	20° 18' 58.10" N 100° 23' 05.80" E
TEPED	20° 04' 58.14" N 100° 06' 04.80" E