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	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	Other runway protection measures	NIL
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	PCN 84/F/D/X/T Asphalt	195625.74N 0995233.61E	390.23 M (1280 FT AMSL)
21	210°	3000x45	PCN 84/F/D/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%	60x60 NIL	NIL NIL	3180x300 3180x300	90x90 300x150	NIL NIL	YES NIL	The blast pad is provided beyond Runway 21 end; the width is 60 M and the length is 120 M.

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	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	60 M Red	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	60 M Red	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	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 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	195653.65N 0995300.12E		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) 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.

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.

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

VTCT AD 2.24 CHARTS RELATED TO AN AERODROME

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AERODROME CHART - ICAO

19 57 08 N
099 52 59 E

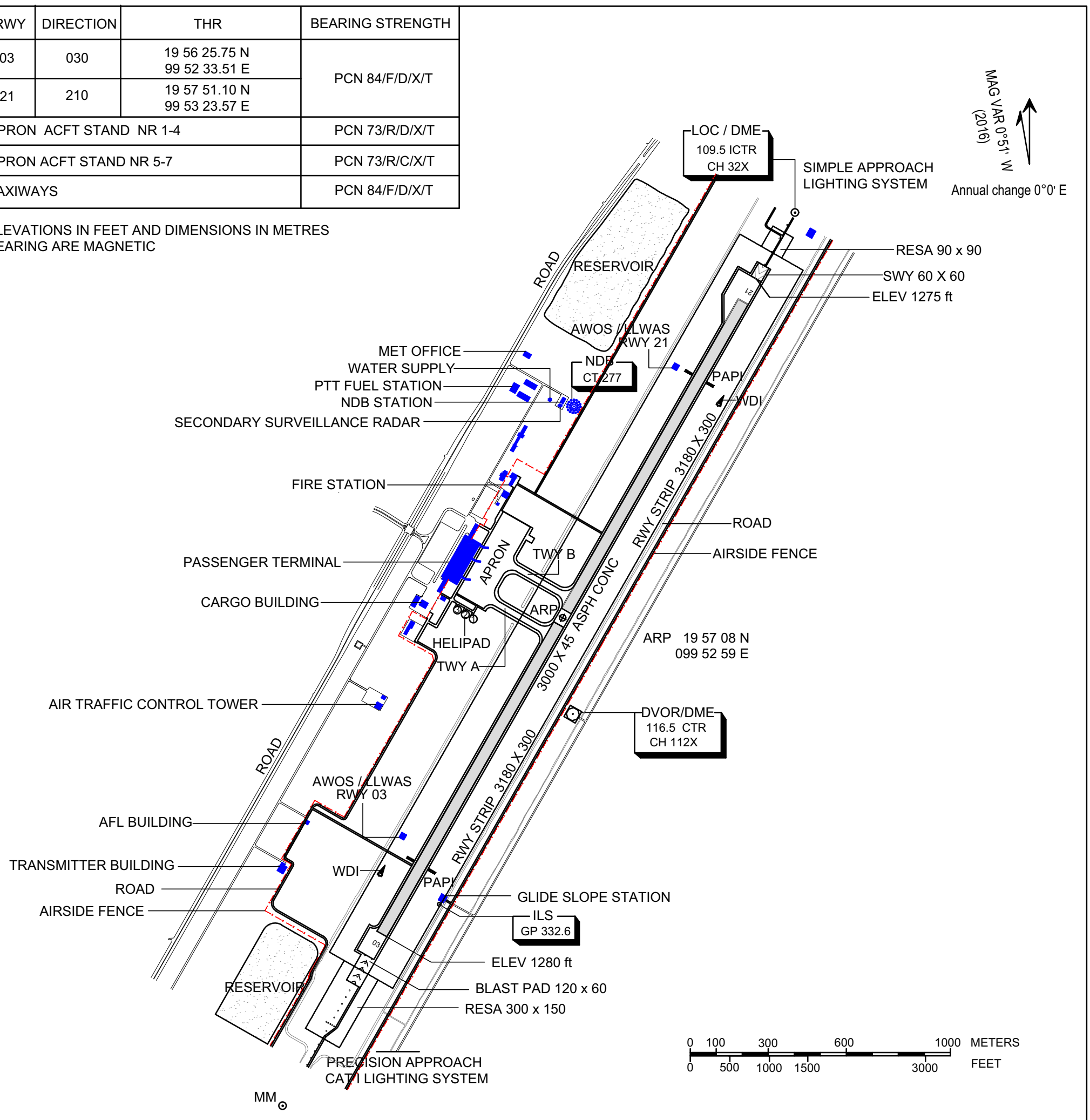
ELEV 1280 ft

TWR 118.4

CHIANG RAI / Mae Fah Laung-Chiang Rai Intl

RWY	DIRECTION	THR	BEARING STRENGTH
03	030	19 56 25.75 N 99 52 33.51 E	PCN 84/F/D/X/T
21	210	19 57 51.10 N 99 53 23.57 E	
APRON ACFT STAND NR 1-4			PCN 73/R/D/X/T
APRON ACFT STAND NR 5-7			PCN 73/R/C/X/T
TAXIWAYS			PCN 84/F/D/X/T

ELEVATIONS IN FEET AND DIMENSIONS IN METRES
BEARING ARE MAGNETIC



MARKING AIDS RWY 03/21 AND EXIT TWY

LIGHTING AIDS RWY 03/21 AND EXIT TWY

CHANGE : RESA 21 DIMENSION REVISED. SWY 21 CANCELLED. BLAST PAD 03 ADDED.

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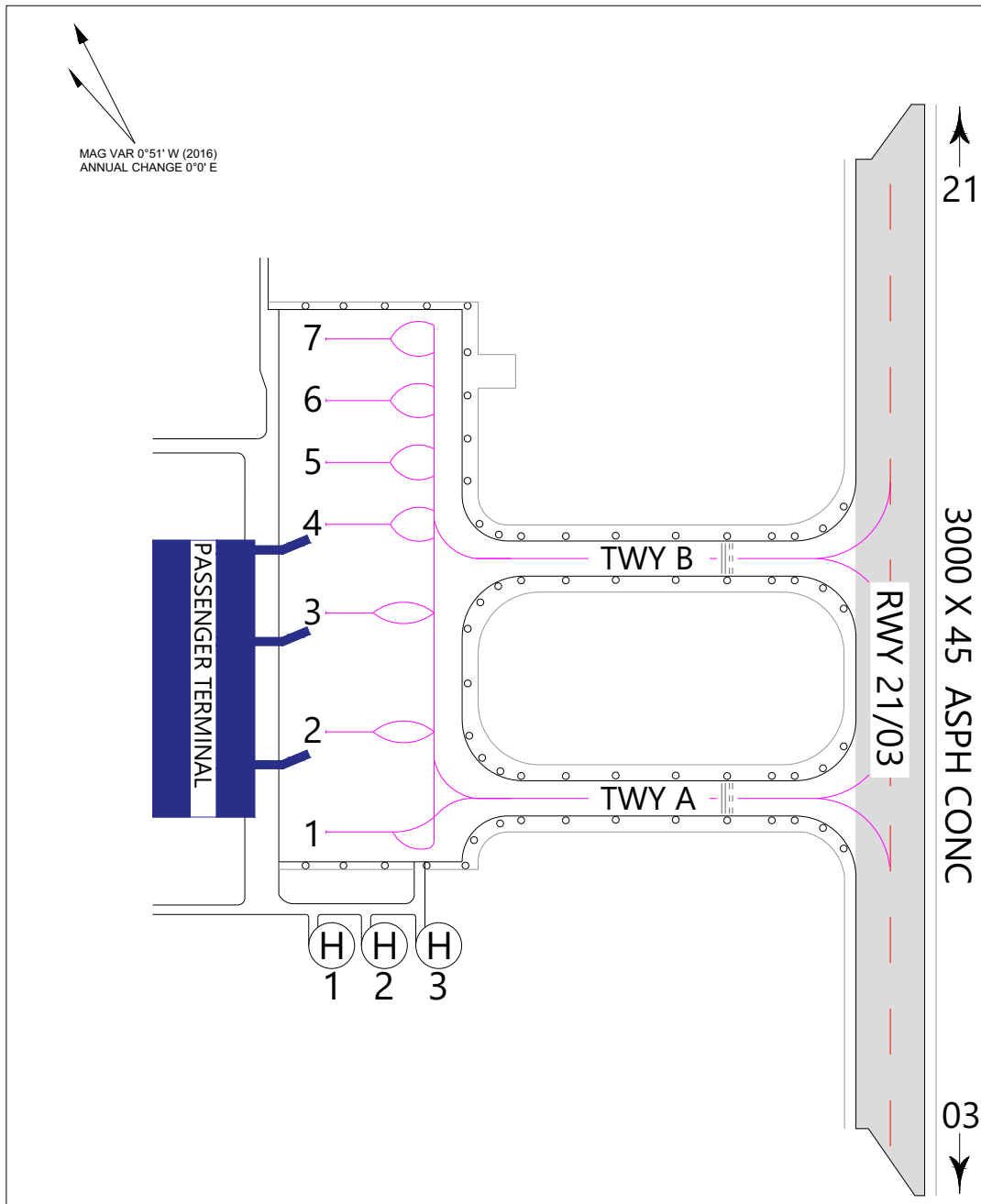
AIRCRAFT PARKING/ DOCKING CHART - ICAO

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	○
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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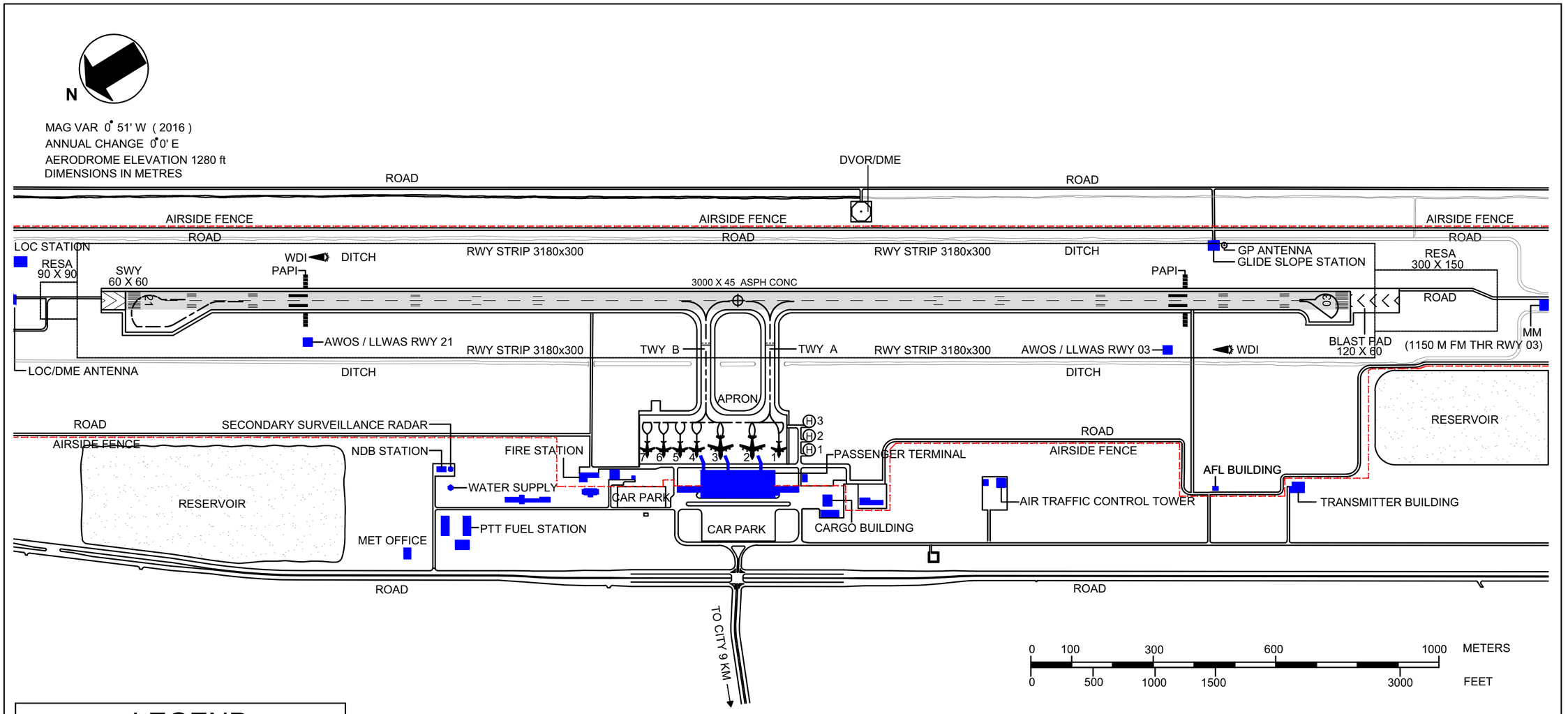
Aerodrome Ground Movement Chart - ICAO

APRON ELEV
1274 ft

TWR 118.4

CHIANG RAI / Mae Fah Laung-Chiang Rai Intl



LEGEND

AERODROME REFERENCE POINT	19 57 08 N 99 52 59 E
BUILDING OR LARGE STRUCTURE	
TAXI ROUTES	
HELIPORT AND IDENTIFICATION	H1
AIRCRAFT STAND AND IDENTIFICATION	1
HOLDING POSITION	
WIND DIRECTION INDICATOR (LIGHTED)	
ANTENNA	

REMARKS

- SITE OF ARP CENTER LINE OF RUNWAY 1500 m FM THR RWY 21
- TAXIWAY WIDTH : 23 m
- RUNWAY / STOPWAY SURFACE : ASPH CONC STRENGTH : PCN84/F/D/X/T
- ACFT STAND NR 2,3 AND 4 AVAILABLE WITH SINGLE-END PASSENGER LOADING BRIDGES
- ACFT CODE LETTER C AND D MUST BACKTRACK ON RWY TURN PADS ONLY

CHANGE : RESA 21 DIMENSION REVISED. SWY 21 CANCELLED. BLAST PAD 03 ADDED.

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AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

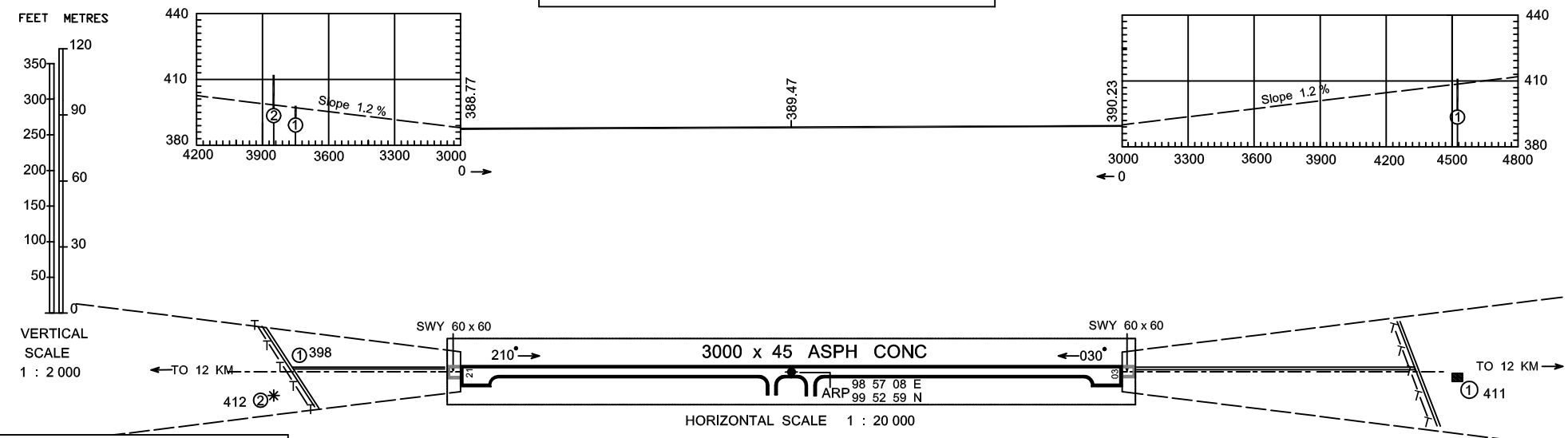
Mae Fah Luang-Chiang Rai International Airport

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	✳

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STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

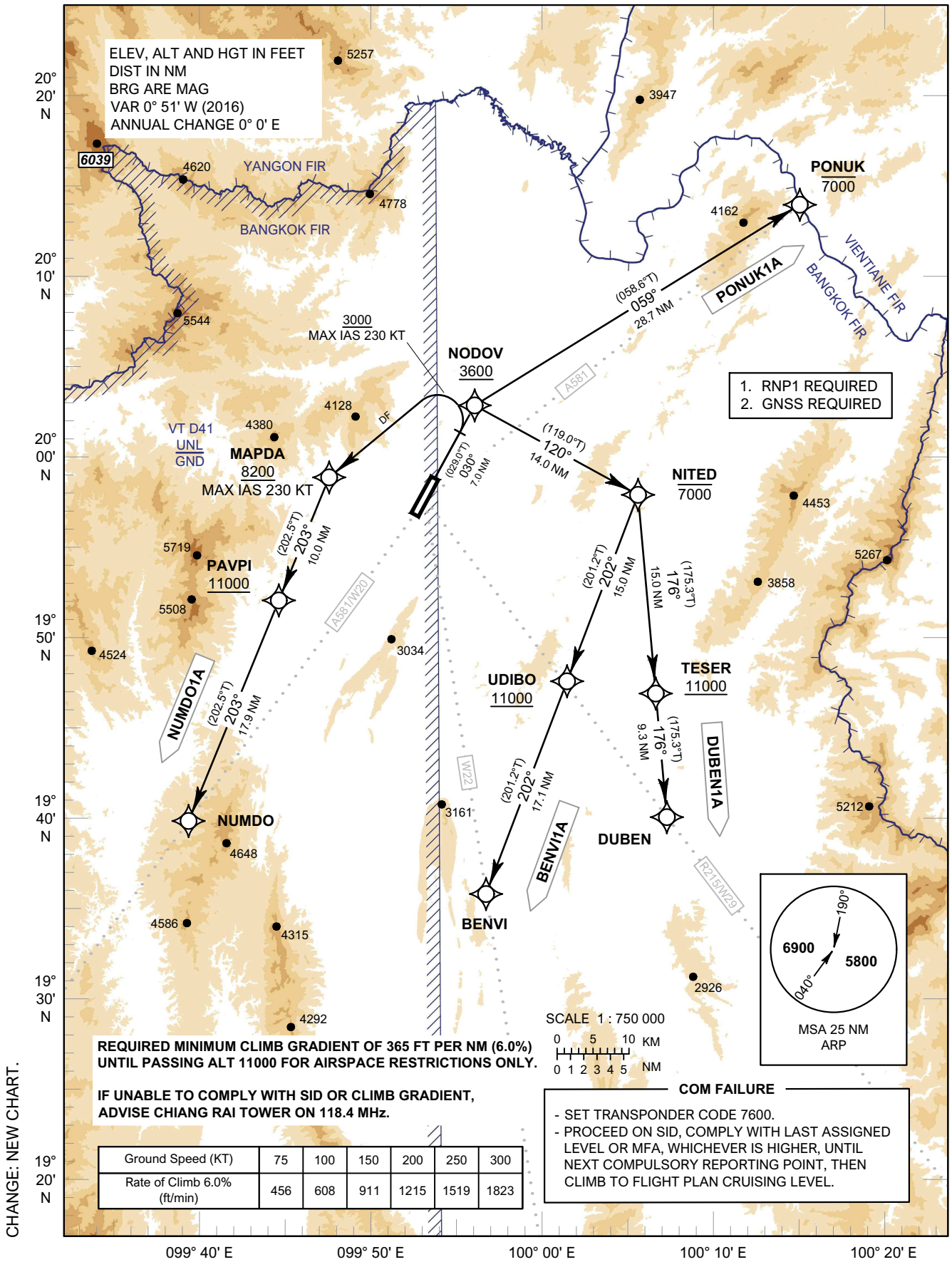
TRANSITION ALTITUDE
11000 FT

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



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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

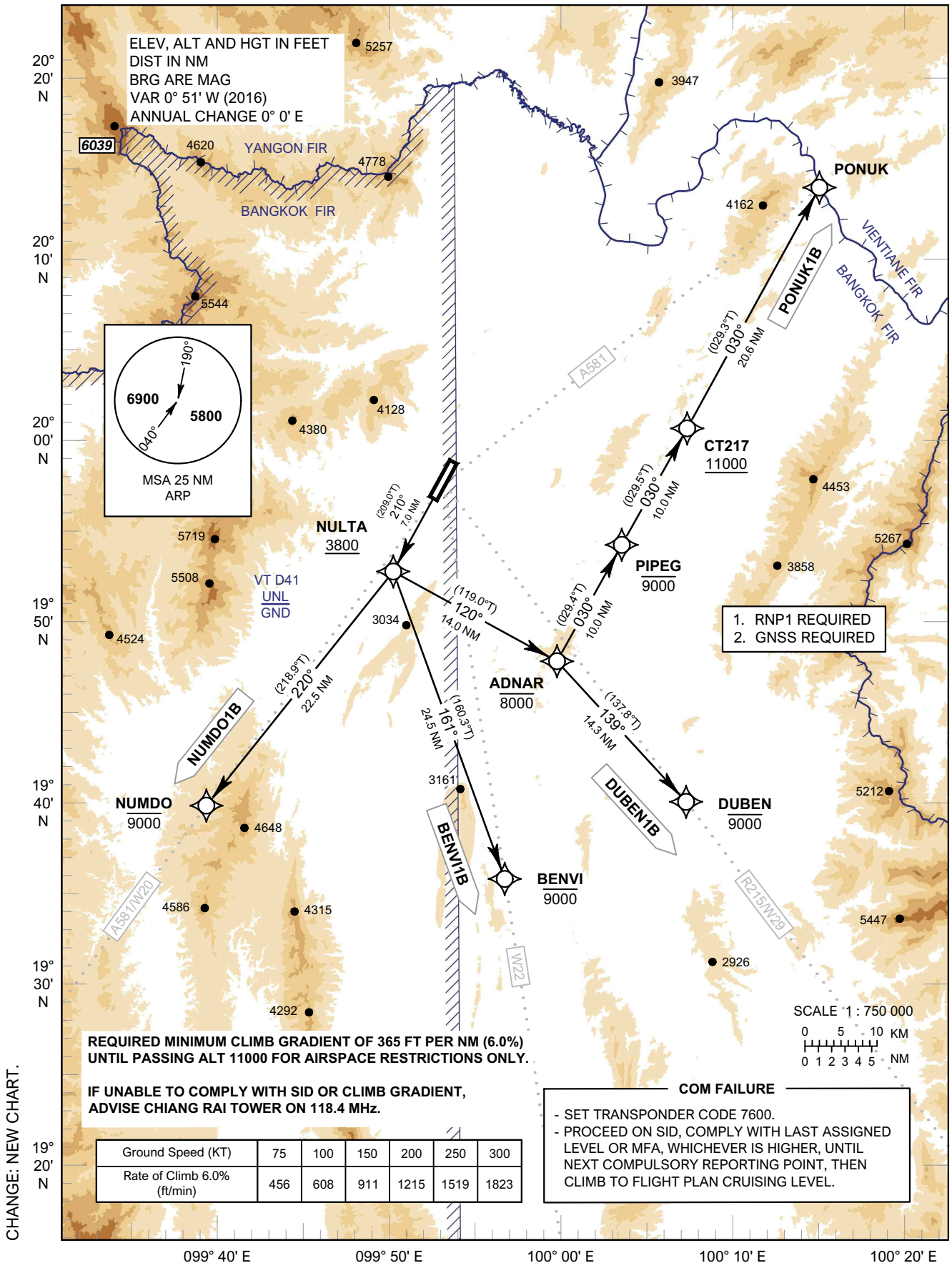
TRANSITION ALTITUDE
11000 FT

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



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.

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.

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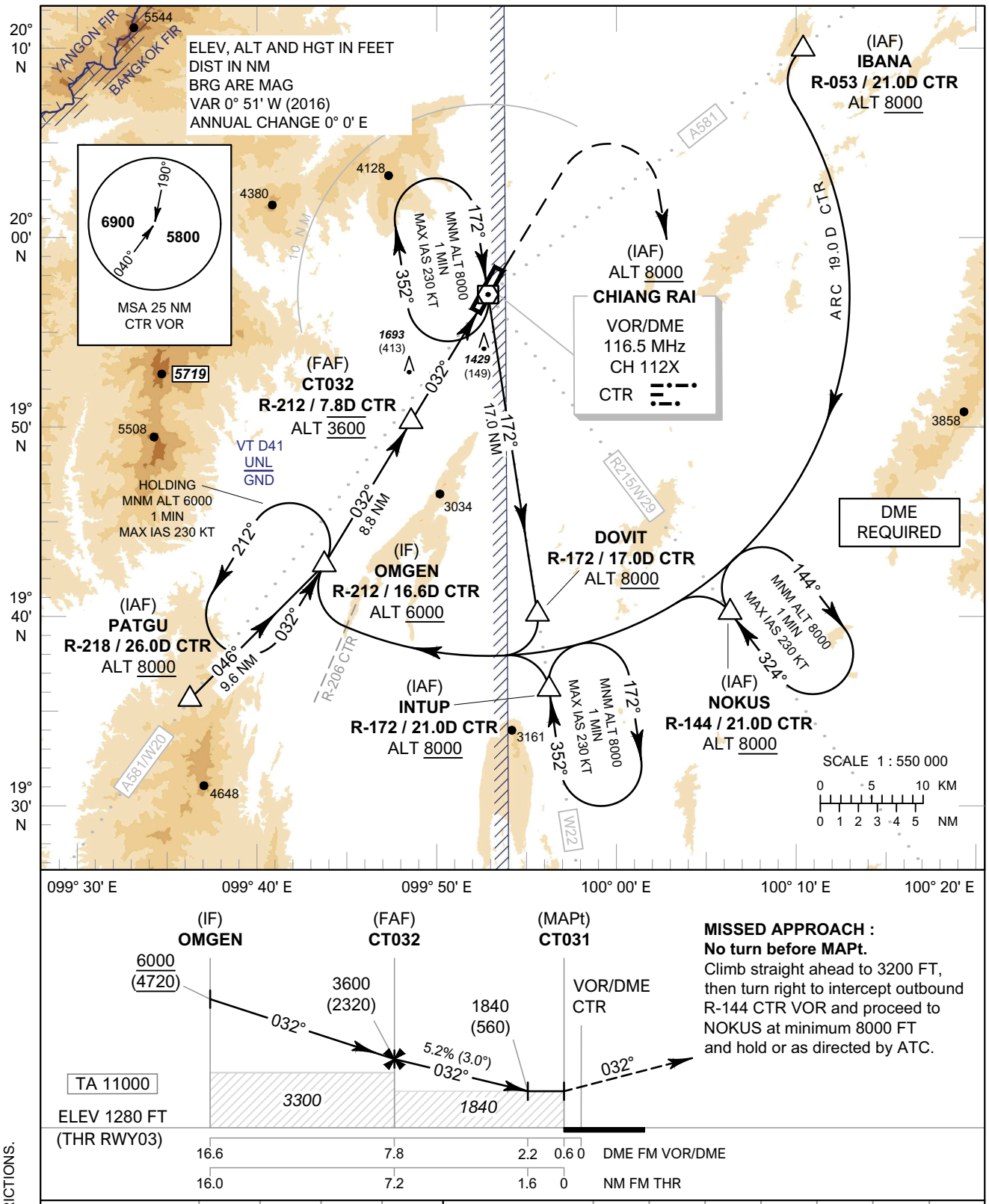
INSTRUMENT APPROACH CHART - ICAO

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



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' 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

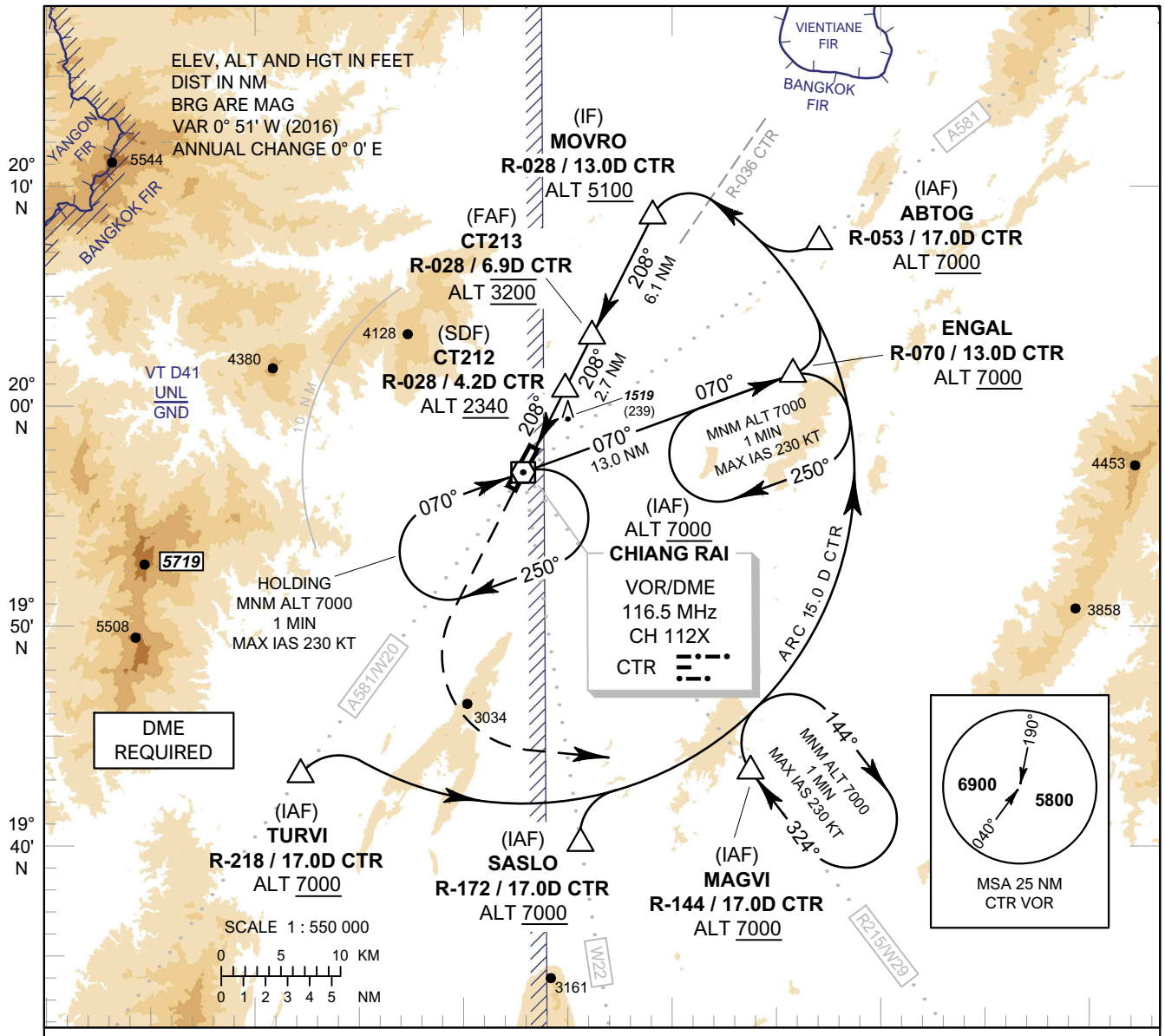
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 1280 FT
HEIGHTS RELATED TO AERODROME ELEV

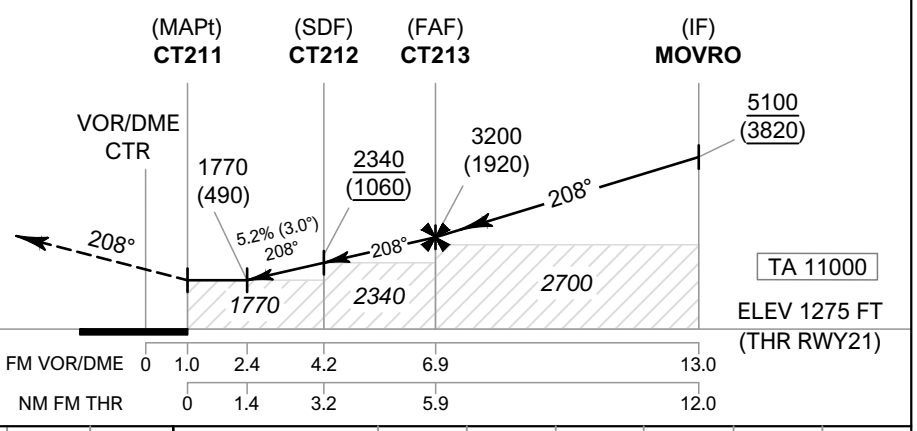
APP : 120.05 , 257.8
TWR : 118.4 , 236.6
ATIS : 127.85

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

VOR RWY21



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' 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

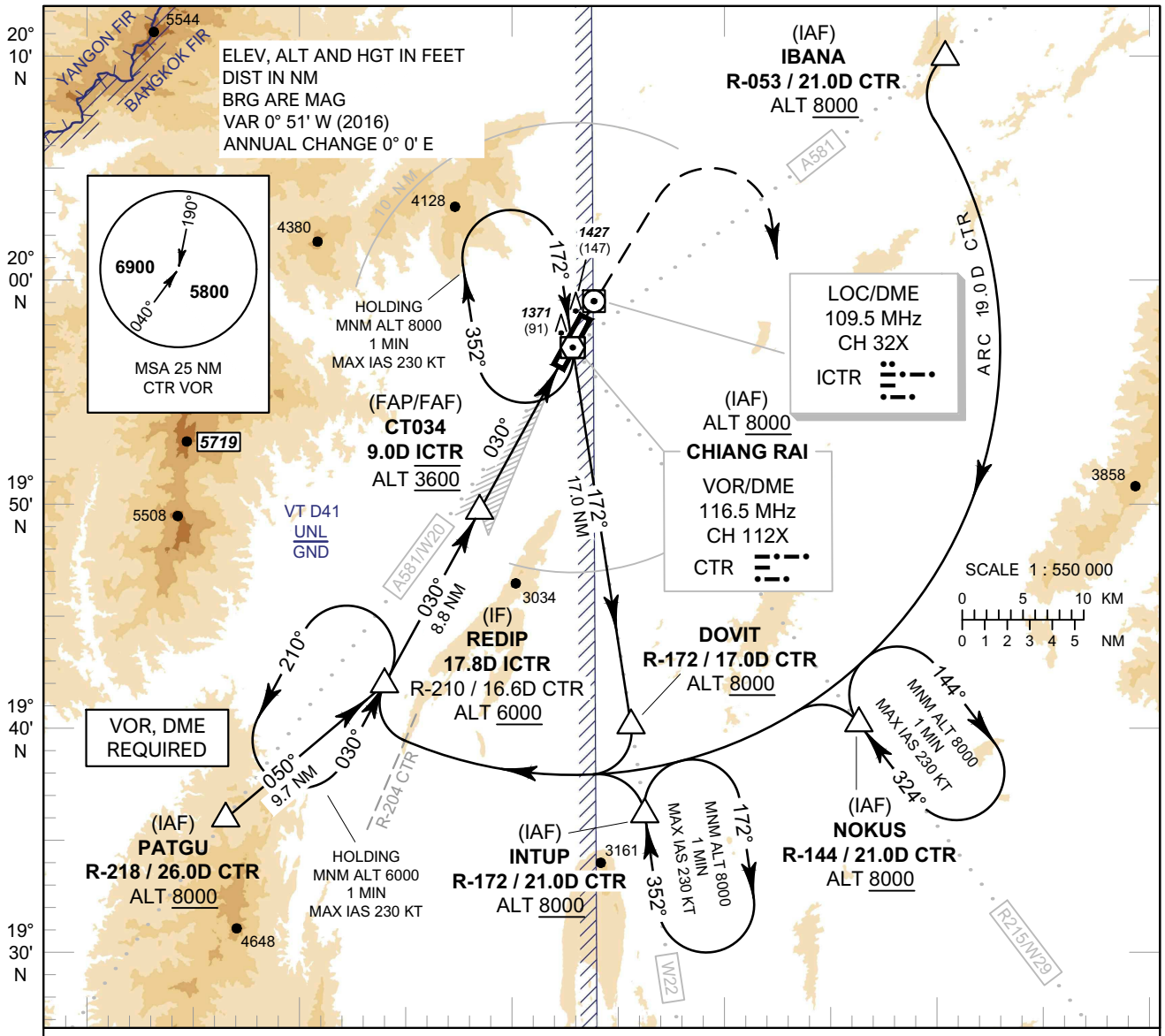
INSTRUMENT APPROACH CHART - ICAO

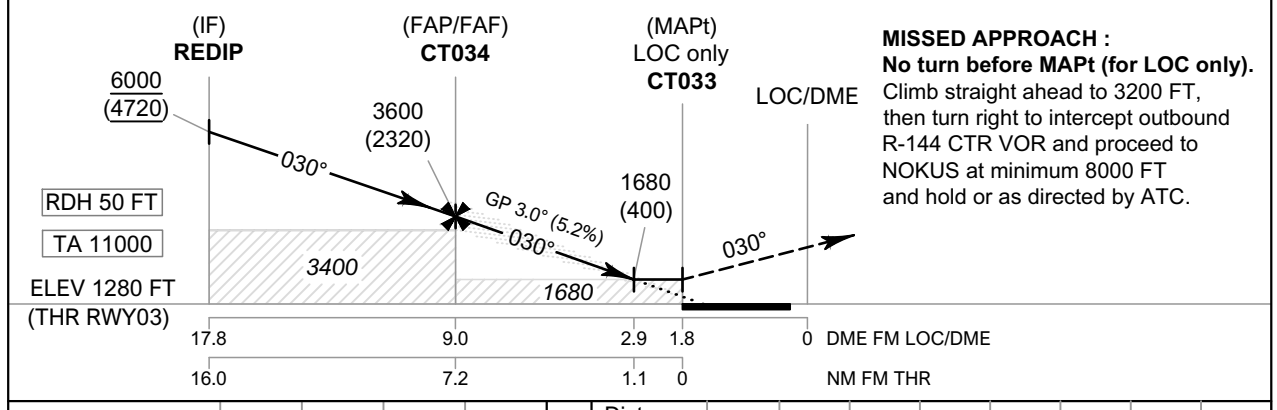
AERODROME ELEV 1280 FT
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

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





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' 59.50" 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

CHANGE: THR RWY03 COORDINATE.

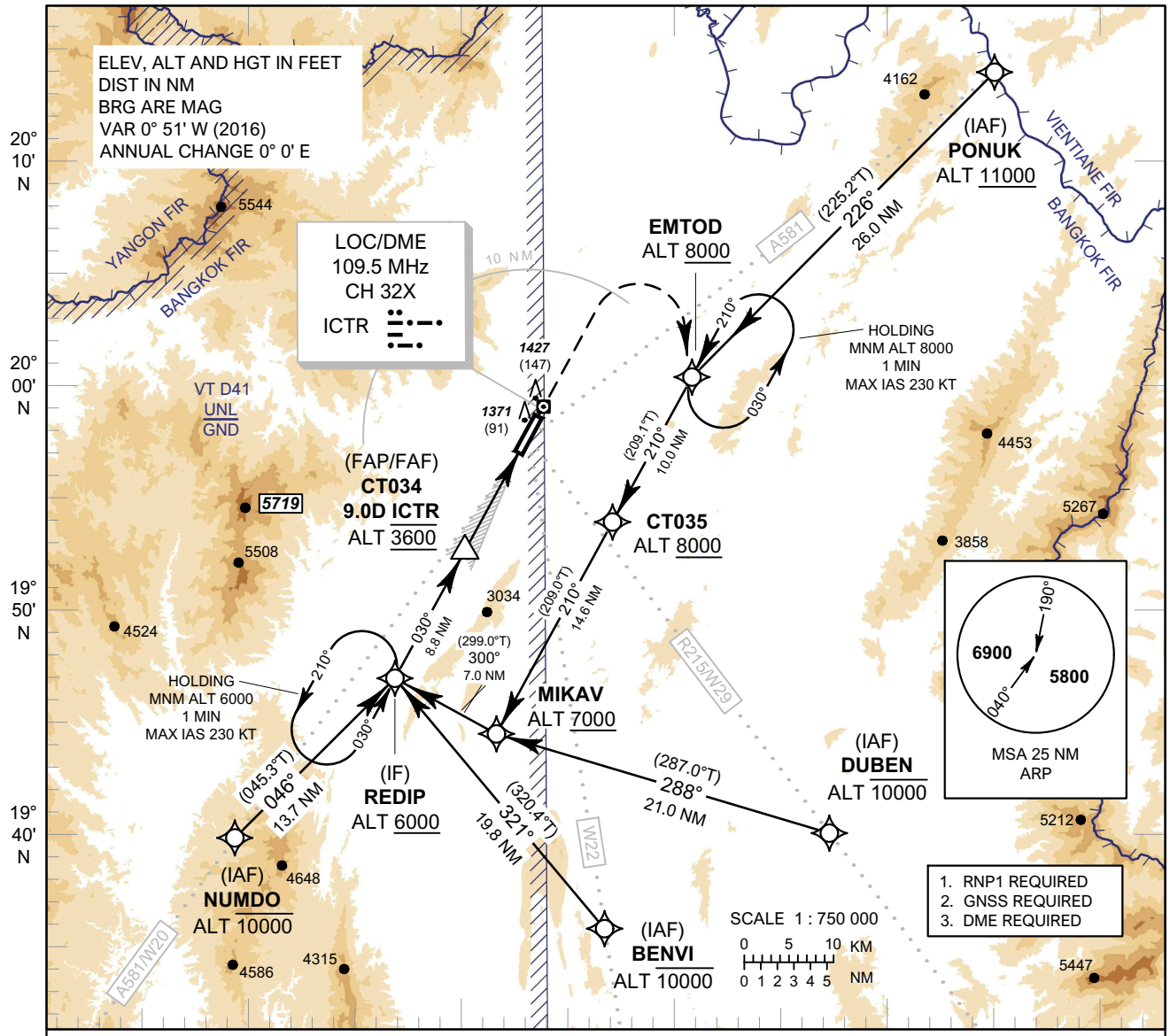
INSTRUMENT APPROACH CHART - ICAO

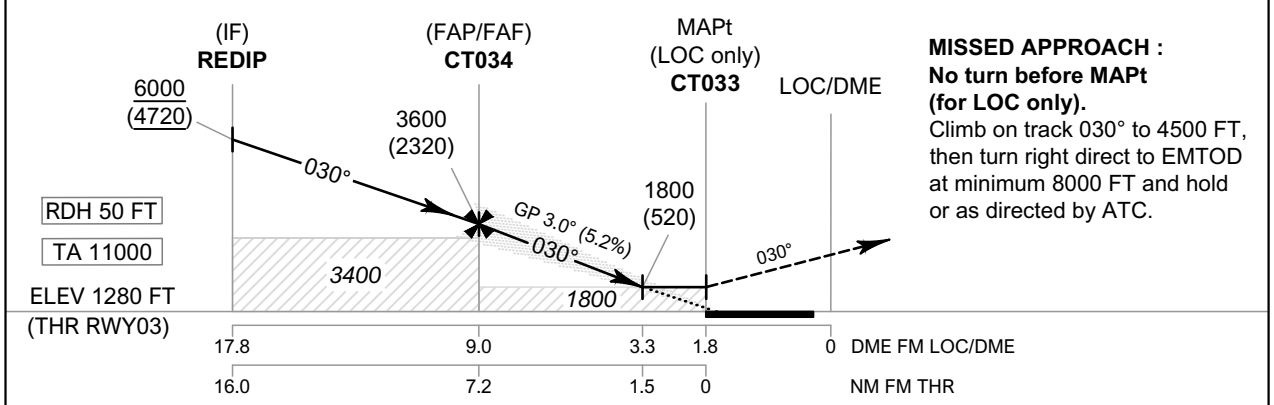
AERODROME ELEV 1280 FT
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

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' 59.50" N	099° 53' 28.50" E
GP	-	19° 56' 32.60" N	099° 52' 42.60" E

CHANGE: THR RWY03 COORDINATE.

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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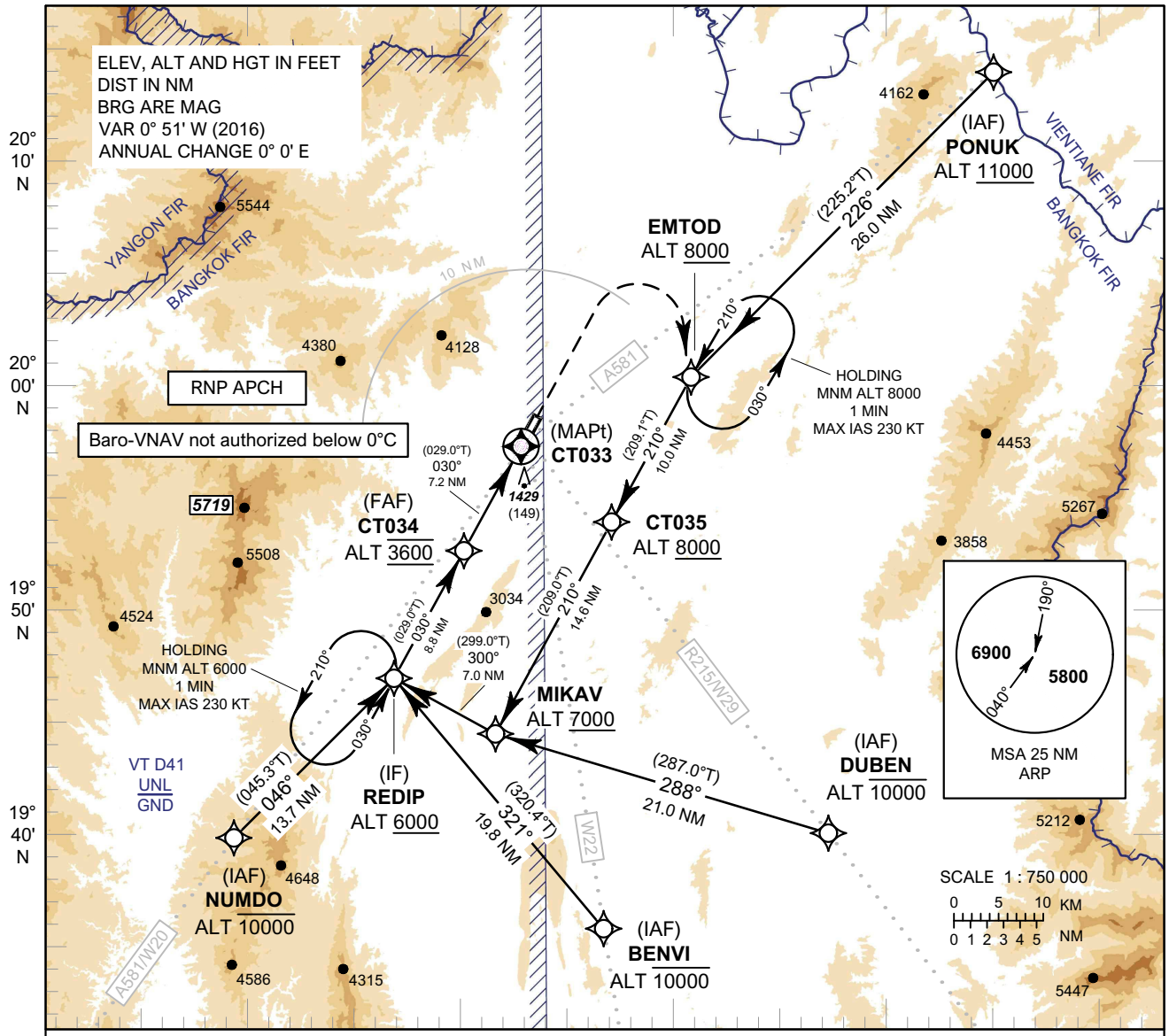
INSTRUMENT APPROACH CHART - ICAO

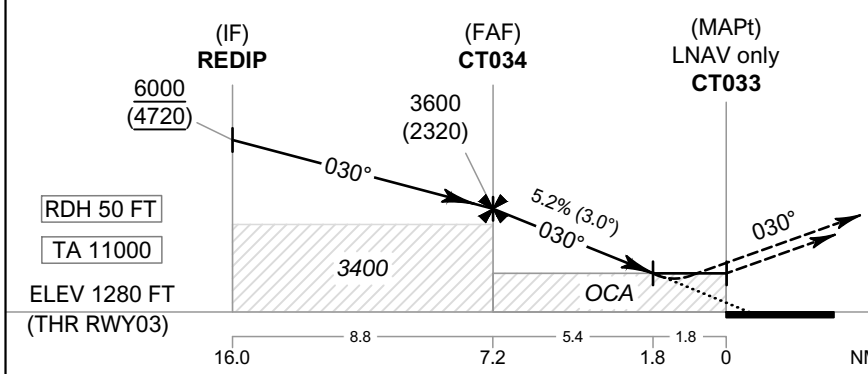
AERODROME ELEV 1280 FT
HEIGHTS RELATED TO
THR RWY03 - ELEV 1280 FT

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

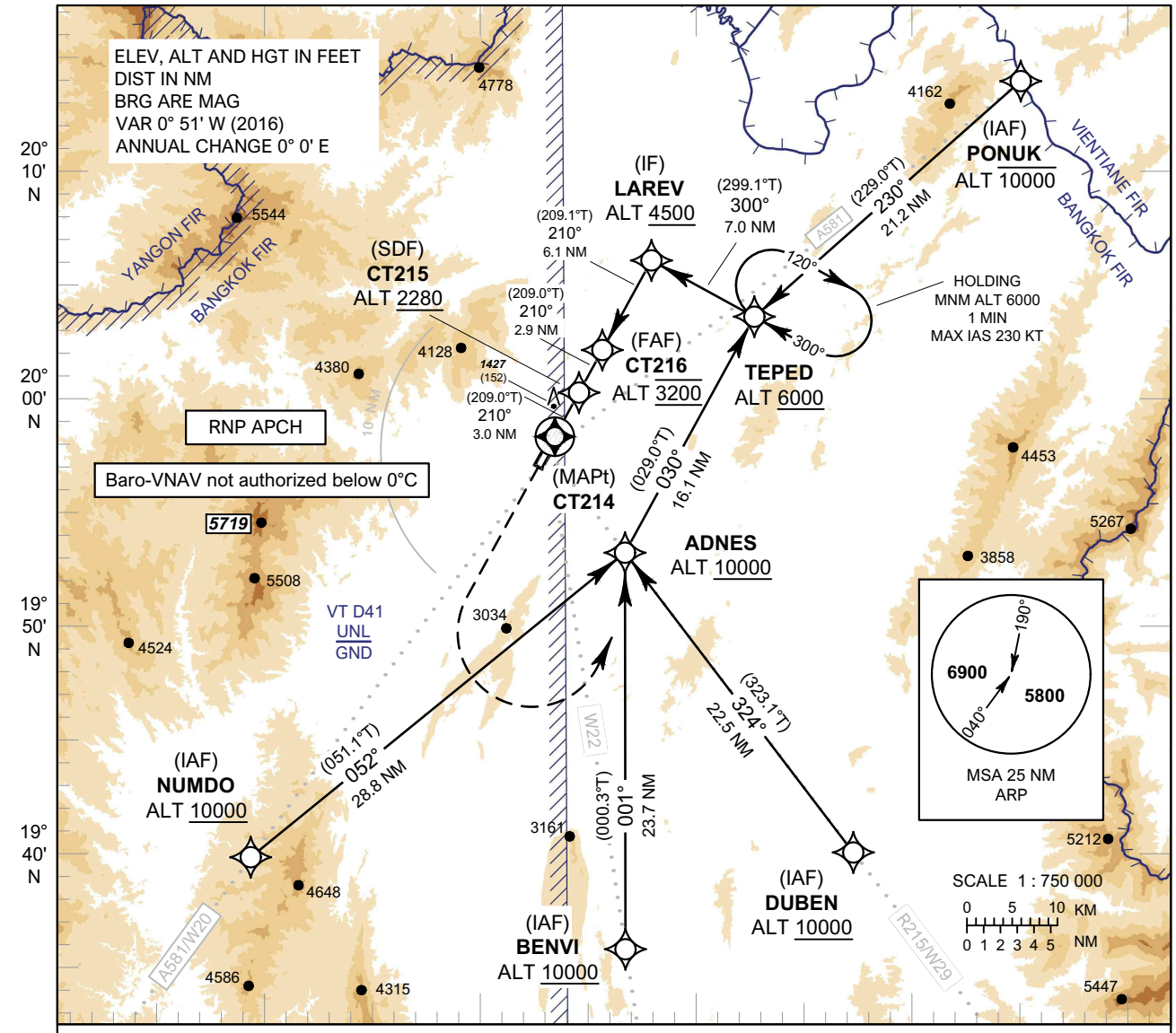
CHANGE: THR RWY03 COORDINATE.

INSTRUMENT APPROACH CHART - ICAO

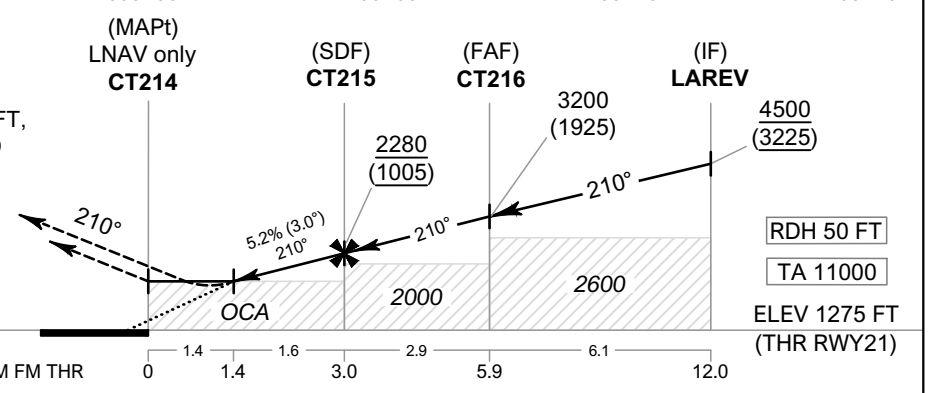
AERODROME ELEV 1280 FT
HEIGHTS RELATED TO
THR RWY21 - ELEV 1275 FT

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

CHANGE: THR RWY21 COORDINATE.

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