

## VTSR AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSR - RANONG / RANONG AIRPORT

## VTSR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	094639.44N 0983507.74E
2	Direction and distance from (city)	24 KM N from city
3	Elevation/Reference temperature	57 FT
4	Geoid Undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	0.51°W(2016)/0.01°E
6	AD Administration, address, telephone, telefax, telex, AFS	Director of Ranong Aiport Ranong Airport Phetchakasem Road Ranong Province 85000 Thailand Tel: +667 782 4581-3 Fax: +667 782 4580 AFS: VTSRYDYX
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Operator: Department of Airports

## VTSR AD 2.3 OPERATIONAL HOURS

1	Aerodrome Operator	2300-1100
2	Customs and immigration	On request
3	Health and sanitation	On request
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	2300-1100
6	MET Briefing Office	NIL
7	ATS	2300-1100
8	Fuelling	NIL
9	Handling	NIL
10	Security	NIL
11	De-icing	NIL
12	Remarks	ATS Reporting Office (ARO): Located at Phuket International Airport (3rd floor of domestic terminal building) Tel: +667 632 7205 +669 2262 2141 Fax: +667 656 3048

**VTSR AD 2.4 HANDLING SERVICES AND FACILITIES**

1	Cargo-handling facilities	NIL
2	Fuel/oil types	NIL
3	Fuelling facilities/capacity	NIL
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

**VTSR AD 2.5 PASSENGER FACILITIES**

1	Hotels	In the city
2	Restaurants	In the city
3	Transportation	Taxi, Limosine
4	Medical facilities	NIL
5	Bank and Post Office	NIL
6	Tourist Office	NIL
7	Remarks	NIL

**VTSR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

1	AD category for fire fighting	Category 6
2	Rescue equipment	Yes
3	Capability for removal of disabled aircraft	NIL
4	Remarks	NIL

**VTSR AD 2.7 SEASONAL AVAILABILITY - CLEARING**

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	NIL

**VTSR AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA**

1	Apron surface and strength	Surface: Concrete Strength: PCN 41/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt Strength: PCN 41/F/C/X/T
3	Altimeter checkpoint location and elevation	NIL
4	VOR checkpoints	NIL
5	INS checkpoints	NIL
6	Remarks	NIL

**VTSR AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS**

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Marked
2	RWY and TWY markings and LGT	RWY and TWY: Marked and lighted
3	Stop bars	Marked
4	Remarks	NIL

**VTSR AD 2.10 AERODROME OBSTACLES**

In approach/TKOF areas			In circling areas and at AD		Remarks
1			2		3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
NIL	NIL	NIL	NIL	NIL	NIL

**VTSR AD 2.11 METEOROLOGICAL INFORMATION PROVIDED**

1	Associated MET Office	Aeronautical Meteorological Station-Ranong, Southern West-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2300-1300 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern West-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 782 8458
6	Flight documentation Language(s) used	NIL
7	Charts and other information available for briefing or consultation	S, U85, Daily Weather Forecast, satellite and radar images
8	Supplementary equipment available for providing information	Automated Weather Observation System (AWOS) and Weather Radar
9	ATS units provided with information	Ranong TWR
10	Additional information (limitation of service, etc.)	NIL

VTSR AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
02	023.83°	2000x45	PCN 41/F/C/X/T Concrete and asphalt	094609.63N 0983454.51E	THR 36 FT TDZ 43 FT
20	203.83°	2000x45	PCN 41/F/C/X/T Concrete and asphalt	094709.25N 0983520.97E	THR 57 FT TDZ 57 FT

Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
NIL	60x45	NIL	2240x300	NIL	NIL
NIL	60x45	NIL	2240x300	NIL	NIL

VTSR AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
02	2000	2000	2060	2000	NIL
20	2000	2000	2060	2000	NIL

VTSR AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
02	SALS 420 M	Green WBAR LIH	PAPI Left 3°	NIL	NIL	2000 M 60 M White,LIH	Red	NIL	NIL
20	NIL	Green WBAR LIH	NIL	NIL	NIL	2000 M 60 M White,LIH	Red	NIL	NIL

VTSR AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: At Tower Building, FLG W G EV 7 SEC.
2	LDI location and LGT Anemometer location and LGT	NIL
3	TWY edge and centre line lighting	Edge: ALL TWY
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at the airport. Switch over time: 15 SEC.
5	Remarks	NIL

**VTSR AD 2.16 HELICOPTER LANDING AREA**

1	Coordinates TLOF or THR of FATO Geoid undulation	NIL
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	NIL
4	True and MAG BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	Six landing areas on both sides of apron.

**VTSR AD 2.17 ATS AIRSPACE**

1	Designation and lateral limits	A circle of 5 NM radius centred on RAN DVOR/DME (094643.18N0983502.11E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Ranong Tower English, Thai
5	Transition altitude	11000 FT
6	Remarks	NIL

**VTSR AD 2.18 ATS COMMUNICATION FACILITIES**

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Ranong Approach	125.1 MHZ 121.5 MHZ <sup>1)</sup>	As AD OPR HR	<sup>1)</sup> Emergency frequency
TWR	Ranong Tower	122.25 MHZ 236.6 MHZ 121.5 MHZ <sup>1)</sup>	As AD OPR HR	
ATIS	Ranong Airport	126.475 MHZ	As AD OPR HR	

VTSR AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
NDB	RN	375 KHZ	H24	094659.91N 0983527.60E		50 NM orbit flown from: <ul style="list-style-type: none"> <li>- Bearing 020°-040° altitude should not below 5 000FT</li> <li>- Bearing 041°-140° altitude should not below 3 500FT</li> <li>- Bearing 141°-200° altitude should not below 5 500FT</li> <li>- Bearing 201°-019° unable to perform flight inspection due to border limited.</li> </ul>
DVOR/DME	RAN	113.4 MHZ CH 81X	H24	094643.18N 0983502.11E		DVOR/DME restriction due to mountainous terrain surround DVOR/DME station coverage, check does not provide adequate signal to 40 NM at the required altitude in various areas as follows: 20 NM orbit <ul style="list-style-type: none"> <li>- Radial 020°-040° altitude should not below 6 000 FT</li> <li>- Radial 041°-060° altitude should not below 12 000 FT</li> <li>- Radial 061°-120° altitude should not below 16 000 FT</li> <li>- Radial 151°-170° altitude should not below 9 000 FT</li> </ul> 40 NM orbit <ul style="list-style-type: none"> <li>- Radial 121°-150° altitude should not below 16 000 FT</li> <li>- Radial 171°-187° altitude should not below 12 000 FT</li> <li>- Radial 188°-230° altitude should not below 7 000 FT</li> <li>- Radial 231°-019° unable to fly due to border limited.</li> </ul>
ILS CAT I LOC RWY 02	IRAN	110.5 MHZ	H24	094718.17N 0983524.92E		ILS/DME RWY 02 unusable beyond 5° right of LOC course.
GP/DME		329.6 MHZ CH 42X	H24	094620.14N 0983454.88E		

VTSR AD 2.20 LOCAL AERODROME REGULATIONS

NIL

VTSR AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VTSR AD 2.22 FLIGHT PROCEDURES

NIL

VTSR AD 2.23 ADDITIONAL INFORMATION

NIL

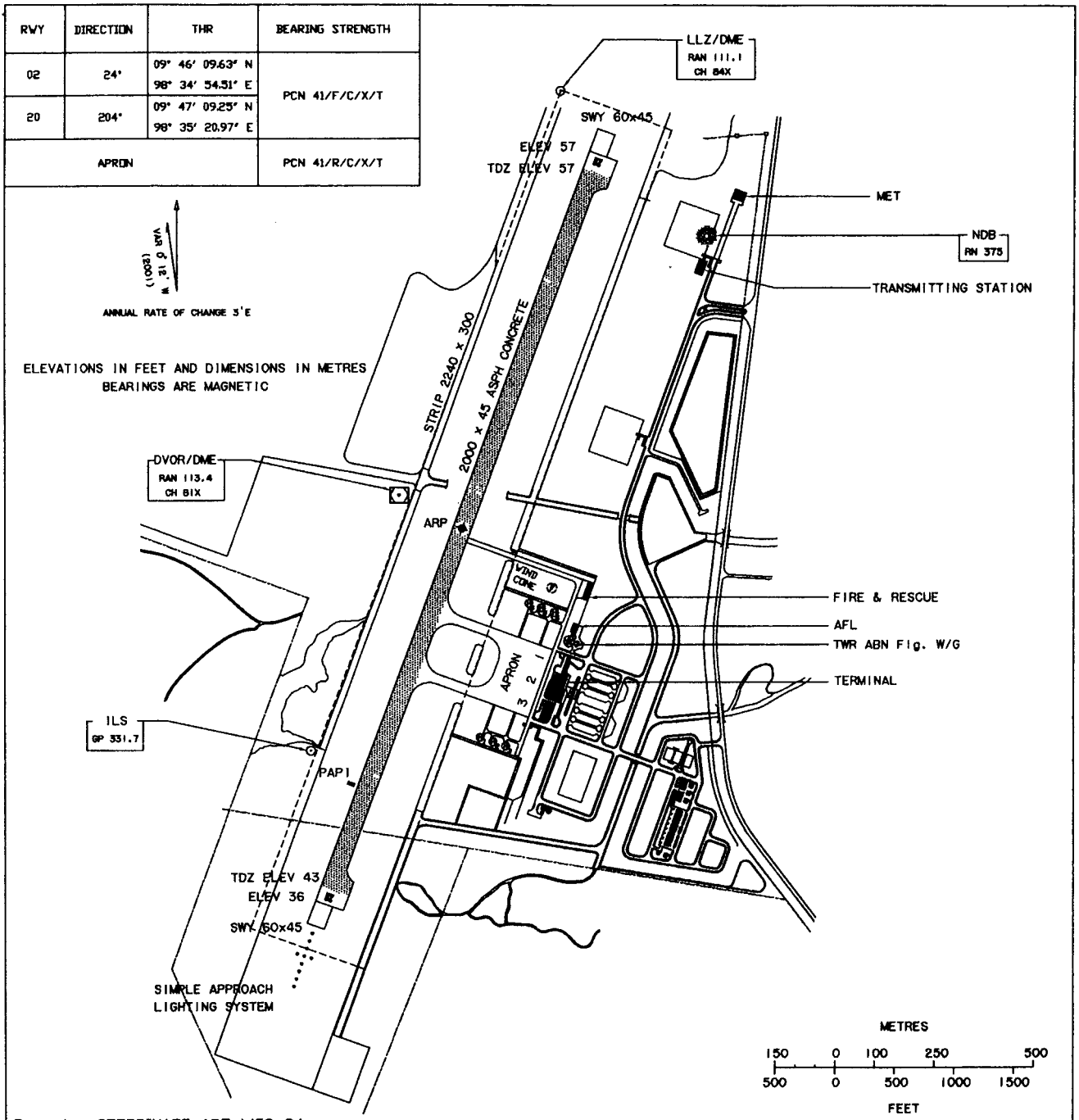
## VTSR AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page
Aerodrome Chart - ICAO	AD 2-VTSR-2-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - PAYUN1A	AD 2-VTSR-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - PAYUN1A (Tabular description)	AD 2-VTSR-6-2
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - KAOYA1A NEETA1A	AD 2-VTSR-6-3
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 02 - KAOYA1A NEETA1A (Tabular description)	AD 2-VTSR-6-4
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - PAYUN1B	AD 2-VTSR-6-5
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - PAYUN1B (Tabular description)	AD 2-VTSR-6-6
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - KAOYA1B NEETA1B	AD 2-VTSR-6-7
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 20 - KAOYA1B NEETA1B (Tabular description)	AD 2-VTSR-6-8
Instrument Approach Chart - ICAO - VOR RWY 02	AD 2-VTSR-8-1
Instrument Approach Chart - ICAO - VOR RWY 02 (Fix and point list table)	AD 2-VTSR-8-2
Instrument Approach Chart - ICAO - ILS RWY 02	AD 2-VTSR-8-3
Instrument Approach Chart - ICAO - ILS RWY 02 (Fix and point list table)	AD 2-VTSR-8-4
Instrument Approach Chart - ICAO - LOC RWY 02	AD 2-VTSR-8-5
Instrument Approach Chart - ICAO - LOC RWY 02 (Fix and point list table)	AD 2-VTSR-8-6
Instrument Approach Chart - ICAO - RNP RWY 02	AD 2-VTSR-8-7
Instrument Approach Chart - ICAO - RNP RWY 02 (Tabular description)	AD 2-VTSR-8-8

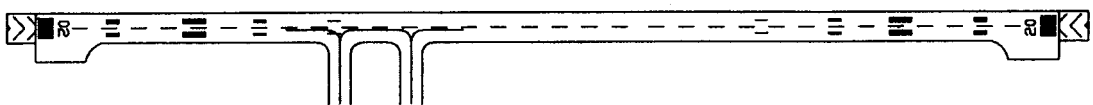
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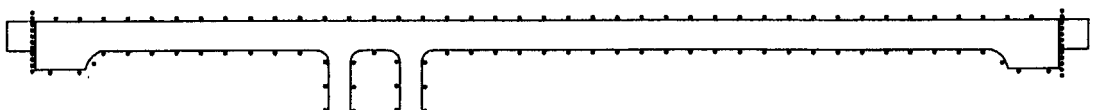
AERODROME CHART-ICAO 09° 46' 39" N ELEV 57 ft 122.25  
98° 35' 08" E 17 m 236.6 TWR RANONG/Ranong



MARKING AIDS RWY 02/20 AND EXIT TWY



LIGHTING AIDS RWY 02/20 AND EXIT TWY



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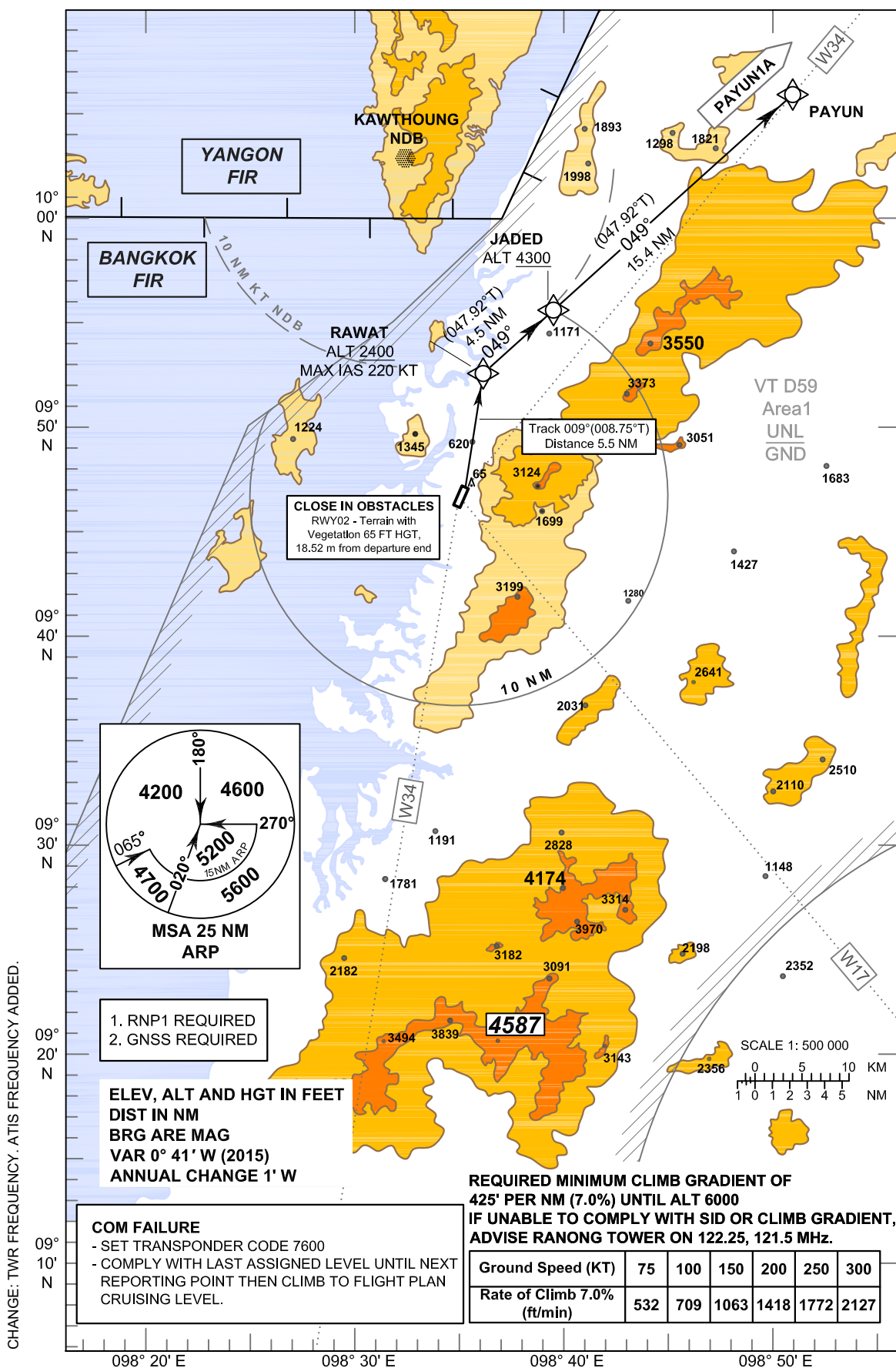
**STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE  
11000 FT

APP : 125.1  
TWR : 122.25 , 236.6  
ATIS : 126.475

**RANONG / Ranong (VTSR)  
RNAV RWY02**

**PAYUN1A**



CHANGE: TWR FREQUENCY. ATIS FREQUENCY ADDED.

- 1. RNP1 REQUIRED
- 2. GNSS REQUIRED

**ELEV, ALT AND HGT IN FEET  
DIST IN NM  
BRG ARE MAG  
VAR 0° 41' W (2015)  
ANNUAL CHANGE 1' W**

**COM FAILURE**  
- SET TRANSPONDER CODE 7600  
- COMPLY WITH LAST ASSIGNED LEVEL UNTIL NEXT REPORTING POINT THEN CLIMB TO FLIGHT PLAN CRUISING LEVEL.

**REQUIRED MINIMUM CLIMB GRADIENT OF  
425' PER NM (7.0%) UNTIL ALT 6000  
IF UNABLE TO COMPLY WITH SID OR CLIMB GRADIENT,  
ADVISE RANONG TOWER ON 122.25, 121.5 MHz.**

Ground Speed (KT)	75	100	150	200	250	300
Rate of Climb 7.0% (ft/min)	532	709	1063	1418	1772	2127

STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO

RANONG / Ranong (VTSR)  
RNAV RWY02

PAYUN1A

TABULAR DESCRIPTION

RNAV RWY02										
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	Navigation Specification
010	-	DER RWY02	-	-	0.7	-	-	-	-	RNP1
020	CF	RAWAT	-	009°(008.75°)	0.7	5.5	R	+2400	-220	RNP1
030	TF	JADED	-	049°(047.92°)	0.7	4.5	-	+4300	-	RNP1
040	TF	PAYUN	-	049°(047.92°)	0.7	15.4	-	-	-	RNP1

WAYPOINT LIST

RNAV RWY02		
Waypoint Identifier	Coordinates	
DER RWY02	09 47 09.22 N	098 35 20.99 E
RAWAT	09 52 38.27 N	098 36 12.08 E
JADED	09 55 41.30 N	098 39 36.51 E
PAYUN	10 06 03.82 N	098 51 12.48 E

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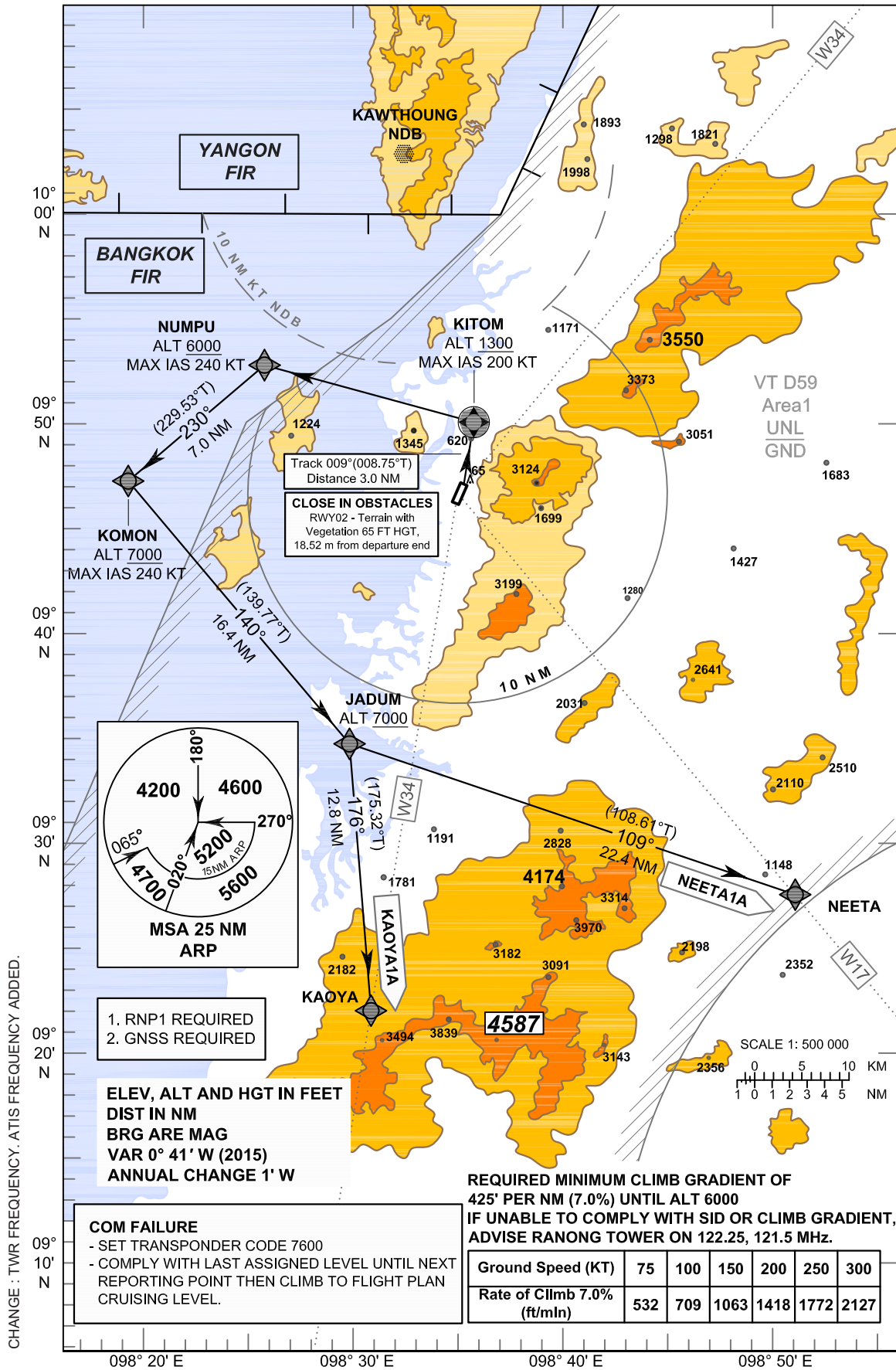
**STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE  
11000 FT

APP : 125.1  
TWR : 122.25 , 236.6  
ATIS : 126.475

**RANONG / Ranong (VTSR)  
RNAV RWY02**

**KAOYA1A, NEETA1A**



STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO

RANONG / Ranong (VTSR)  
RNAV RWY02

KAOYA1A, NEETA1A

TABULAR DESCRIPTION

RNAV RWY02										
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	Navigation Specification
010	-	DER RWY02	-	-	0.7	-	-	-	-	RNP1
020	CF	KITOM	Y	009°(008.75°)	0.7	3.0	L	+1300	-200	RNP1
030	DF	NUMPU	-	-	0.7	-	L	+6000	-240	RNP1
040	TF	KOMON	-	230°(229.53°)	0.7	7.0	L	+7000	-240	RNP1
050	TF	JADUM	-	140°(139.77°)	0.7	16.4	R	+7000	-	RNP1
060	TF	KAOYA	-	176°(175.32°)	0.7	12.8	-	-	-	RNP1
010	-	DER RWY02	-	-	0.7	-	-	-	-	RNP1
020	CF	KITOM	Y	009°(008.75°)	0.7	3.0	L	+1300	-200	RNP1
030	DF	NUMPU	-	-	0.7	-	L	+6000	-240	RNP1
040	TF	KOMON	-	230°(229.53°)	0.7	7.0	L	+7000	-240	RNP1
050	TF	JADUM	-	140°(139.77°)	0.7	16.4	L	+7000	-	RNP1
060	TF	NEETA	-	109°(108.61°)	0.7	22.4	-	-	-	RNP1

WAYPOINT LIST

RNAV RWY02		
Waypoint Identifier	Coordinates	
DER RWY02	09 47 09.22 N	098 35 20.99 E
KITOM	09 50 08.01 N	098 35 48.74 E
NUMPU	09 51 51.31 N	098 24 31.03 E
KOMON	09 47 17.34 N	098 19 07.27 E
JADUM	09 34 43.03 N	098 29 49.98 E
KAOYA	09 21 56.02 N	098 30 53.18 E
NEETA	09 27 30.64 N	098 51 21.36 E

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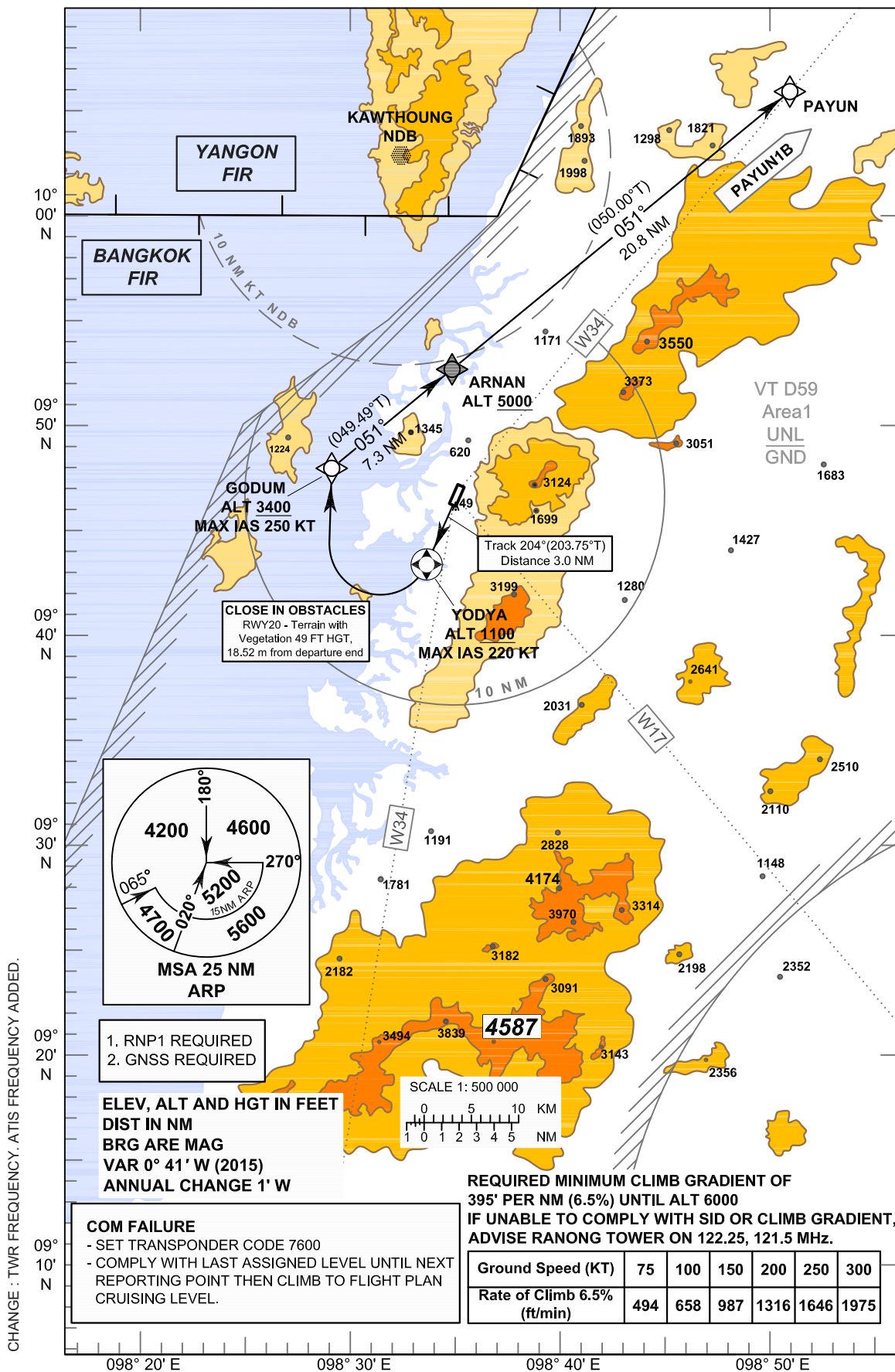
**STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE  
11000 FT

APP : 125.1  
TWR : 122.25 , 236.6  
ATIS : 126.475

**RANONG / Ranong (VTSR)  
RNAV RWY20**

**PAYUN1B**



STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO

RANONG / Ranong (VTSR)  
RNAV RWY20

PAYUN1B

TABULAR DESCRIPTION

RNAV RWY20										
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	Navigation Specification
010	-	DER RWY20	-	-	0.7	-	-	-	-	RNP1
020	CF	YODYA	Y	204°(203.75°)	0.7	3.0	R	+1100	-220	RNP1
030	DF	GODUM	-	-	0.7	-	R	+3400	-250	RNP1
040	TF	ARNAN	-	051°(049.49°)	0.7	7.3	-	+5000	-	RNP1
050	TF	PAYUN	-	051°(050.00°)	0.7	20.8	-	-	-	RNP1

WAYPOINT LIST

RNAV RWY20		
Waypoint Identifier	Coordinates	
DER RWY20	09 46 09.60 N	098 34 54.54 E
YODYA	09 43 24.08 N	098 33 41.11 E
GODUM	09 47 52.89 N	098 29 20.25 E
ARNAN	09 52 36.63 N	098 35 01.15 E
PAYUN	10 06 03.82 N	098 51 12.48 E

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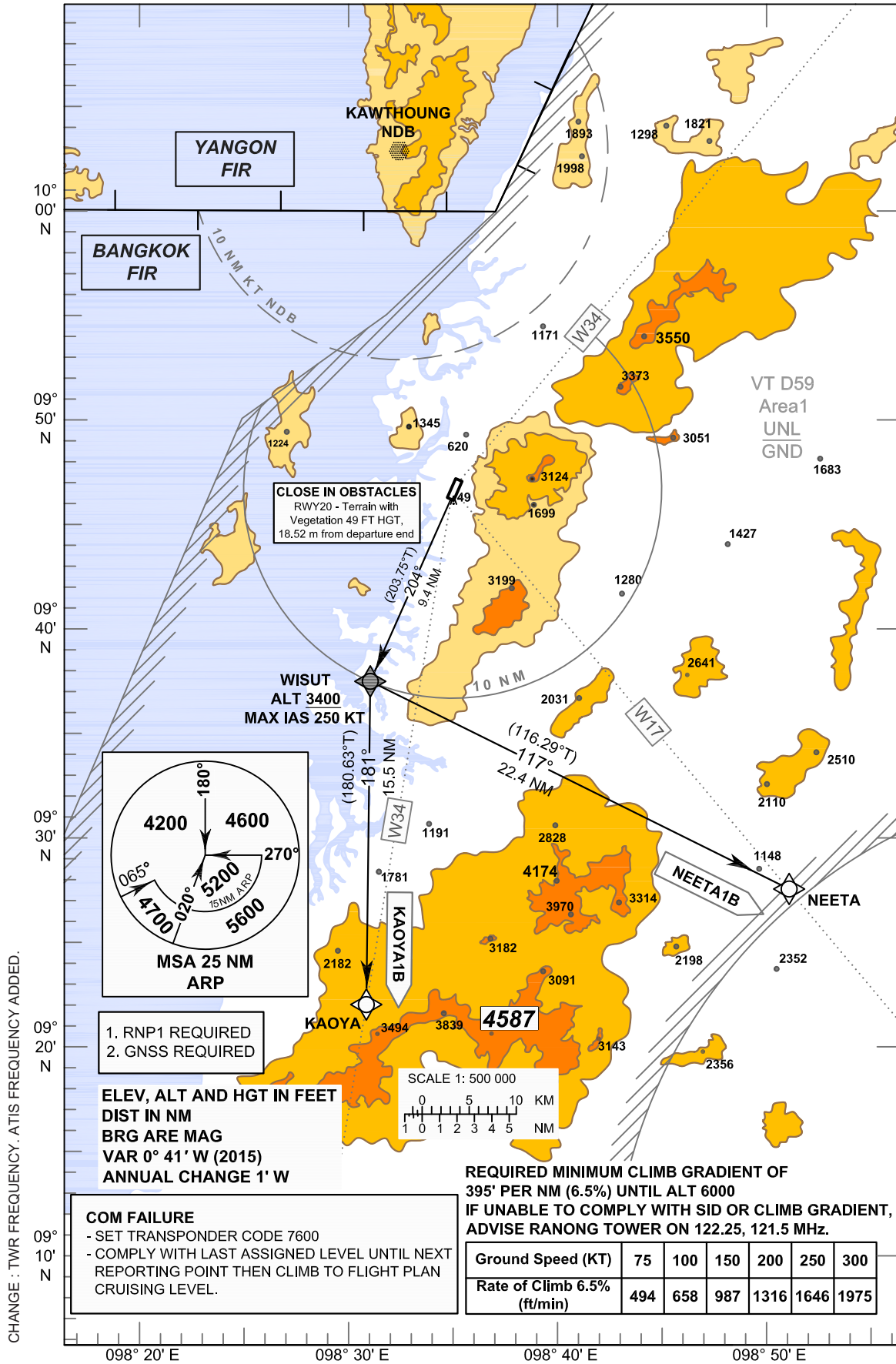
**STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE  
11000 FT

APP : 125.1  
TWR : 122.25 , 236.6  
ATIS : 126.475

**RANONG / Ranong (VTSR)  
RNAV RWY20**

**KAOYA1B, NEETA1B**



STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO

RANONG / Ranong (VTSR)  
RNAV RWY20

KAOYA1B, NEETA1B

TABULAR DESCRIPTION

RNAV RWY20										
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	Navigation Specification
010	-	DER RWY20	-	-	0.7	-	-	-	-	RNP1
020	CF	WISUT	-	204°(203.75°)	0.7	9.4	L	+3400	-250	RNP1
030	TF	KAOYA	-	181°(180.63°)	0.7	15.5	-	-	-	RNP1
010	-	DER RWY20	-	-	0.7	-	-	-	-	RNP1
020	CF	WISUT	-	204°(203.75°)	0.7	9.4	L	+3400	-250	RNP1
030	TF	NEETA	-	117°(116.29°)	0.7	22.4	-	-	-	RNP1

WAYPOINT LIST

RNAV RWY20		
Waypoint Identifier	Coordinates	
DER RWY20	09 46 09.60 N	098 34 54.54 E
WISUT	09 37 30.96 N	098 31 04.53 E
KAOYA	09 21 56.02 N	098 30 53.18 E
NEETA	09 27 30.64 N	098 51 21.36 E

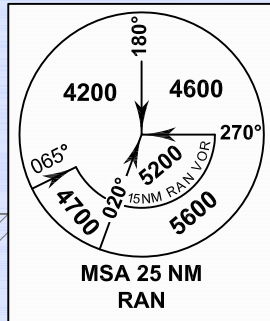
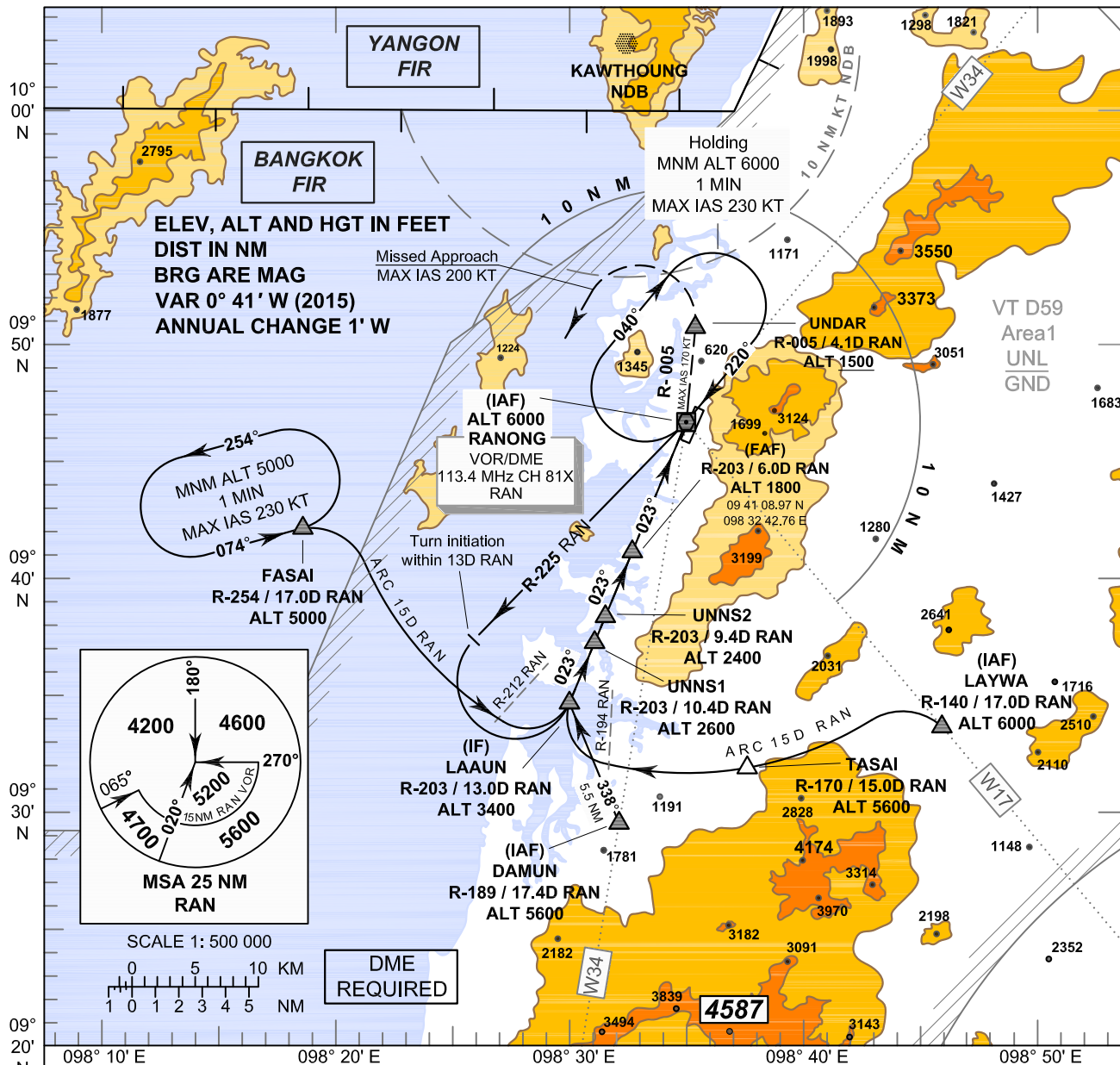
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**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 57 FT  
HEIGHTS RELATED TO  
THR RWY 02 - ELEV 36 FT**

APP : 125.1  
TWR : 122.25 , 236.6  
ATIS : 126.475

**RANONG / Ranong (VTSR)  
VOR RWY02**



SCALE 1: 500 000



**DME  
REQUIRED**

CHANGE : TWR FREQUENCY, ATIS FREQUENCY ADDED.

	(IF) LAAUN	UNNS1	UNNS2	(FAF)	(MAPt)	VOR/DME RAN	UNDAR	MISSED APPROACH:					
Altitude (Height)	3400 (3364)	2600 (2564)	2400 (2364)	1800 (1764)	720 (684)	720	1500	No turn before MAPt. Speed restricted to MAX IAS 170 KT until UNDAR and 200 KT until after turn. At MAPt, turn left climb to intercept R-005 RAN VOR until UNDAR at or above 1500 FT. After UNDAR, turn left to intercept outbound R-254 RAN VOR, then proceed to FASAI at 5000 FT and hold or as directed by ATC.					
Distance (D)	13.0	10.4	9.4	6.0	2.6	2.1	0.6	4.1	DME FM VOR/DME				
Distance (D)	12.4	9.8	8.8	5.4	2.0	1.5	0	NM FM THR					
OCA/H	A	B	C	D	Distance (RAN)		FAF	5 D	4 D	3 D	2.6 D		
Straight-in Approach	720 (684)				Altitude (Height)		1800 (1764)	1475 (1439)	1160 (1124)	845 (809)	720 (684)		
					Ground speed		knot	70	90	100	120	140	160
Circling (OCH AAL)	Not Authorized				Rate of descent		(ft/min)	369	474	527	632	737	843

**NOTE : OCA (OCH): 560 (524) FT; MAPt at 2.1 D FM VOR/DME can be achieved for all aircraft categories which can commence a missed approach climb gradient of 4.3% (261 FT/NM) until passing UNDAR.**

**INSTRUMENT  
APPROACH  
CHART - ICAO**

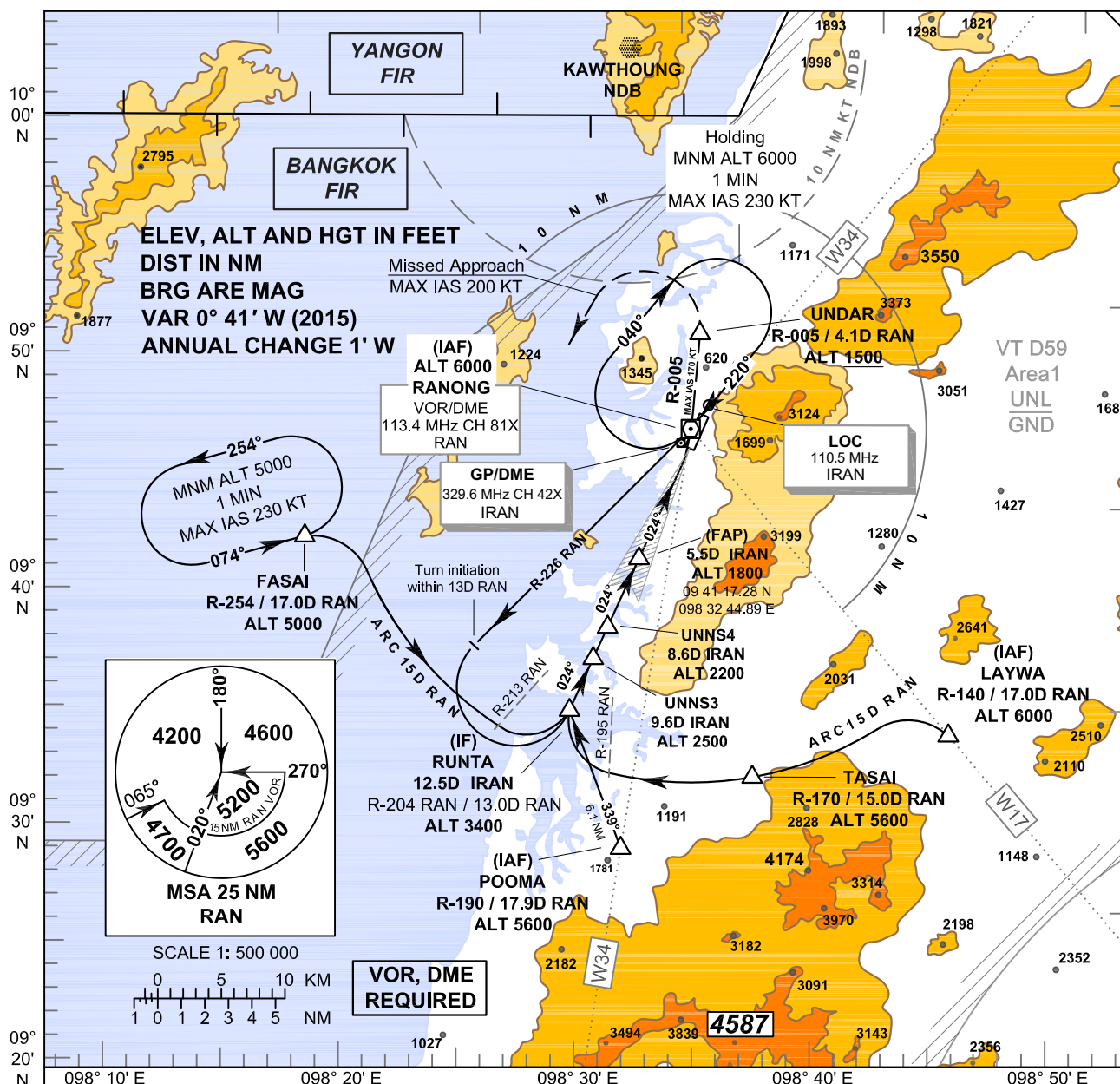
**AERODROME ELEV 57 FT  
HEIGHTS RELATED TO  
THR RWY 02 - ELEV 36 FT**

**RANONG / Ranong (VTSR)  
VOR RWY02**

Fix / Point		Coordinates	
LAYWA (IAF)	R-140 / 17.0 D RAN	09 33 39.55 N	098 46 08.20 E
TASAI	R-170 / 15.0 D RAN	09 31 52.58 N	098 37 41.43 E
DAMUN (IAF)	R-189 / 17.4 D RAN	09 29 30.56 N	098 32 09.21 E
LAAUN (IF)	R-203 / 13.0 D RAN	09 34 39.04 N	098 30 00.27 E
UNNS1	R-203 / 10.4 D RAN	09 37 03.88 N	098 31 00.61 E
UNNS2	R-203 / 9.4 D RAN	09 37 59.58 N	098 31 23.82 E
FAF	R-203 / 6.0 D RAN	09 41 08.97 N	098 32 42.76 E
MAPt (CG 2.5%)	R-203 / 2.6 D RAN	09 44 18.36 N	098 34 01.72 E
MAPt (CG 4.3%)	R-203 / 2.1 D RAN	09 44 51.74 N	098 34 15.63 E
THR RWY 02	-	09 46 09.60 N	098 34 54.54 E
VOR (IAF)	RAN	09 46 43.18 N	098 35 02.11 E
UNDAR	R-005 / 4.1 D RAN	09 50 48.28 N	098 35 19.08 E
FASAI	R-254 / 17.0 D RAN	09 42 08.62 N	098 18 26.53 E

CHANGE : CANCEL FREQUENCY BOX.

**INSTRUMENT APPROACH CHART - ICAO**      **AERODROME ELEV 57 FT**      APP : 125.1  
 HEIGHTS RELATED TO THR RWY 02 - ELEV 36 FT      TWR : 122.25 , 236.6  
**RANONG / Ranong (VTSR)**      ILS RWY02      ATIS : 126.475



CHANGE: GP/DME FREQUENCY AND LOCATION, LOC ID AND LOCATION, TWR FREQUENCY, ATIS FREQUENCY ADDED.

(IF) RUNTA 3400 (3364) RDH 50 FT TA 11000 ELEV 36 FT (THR RWY 02)	UNNS3 2500 (2464) 2400	UNNS4 2200 (2164) 2200	(FAP) 1800 (1764) 900	VOR/DME RAN 720 (684) GP 3.0° CG 2.5%	GP/DME 720 (684) CG 5.0%	UNDAR MISSED APPROACH: Speed restricted to MAX IAS 170 KT until UNDAR and 200 KT until after turn. At OCA, turn left climb to intercept R-005 RAN VOR until UNDAR at or above 1500 FT. After UNDAR, turn left to intercept outbound R-254 RAN VOR, then proceed to FASAI at 5000 FT and hold or as directed by ATC.	DME FM GP/DME								
							NM FM THR								
OCA/H	A	B	C	D	Ground speed	knot	70	90	100	120	140	160			
Straight - in Approach	CAT I	720 (684)				Rate of descent (3.0°)	(ft/min)	372	478	531	637	743	849		
Circling (OCH AAL)	Not Authorized														

**NOTE : OCA (OCH): 510 (474) FT can be achieved for all aircraft categories which can commence a missed approach climb gradient of 5.0%(304 FT/NM) until passing UNDAR.**

**INSTRUMENT  
APPROACH  
CHART - ICAO**

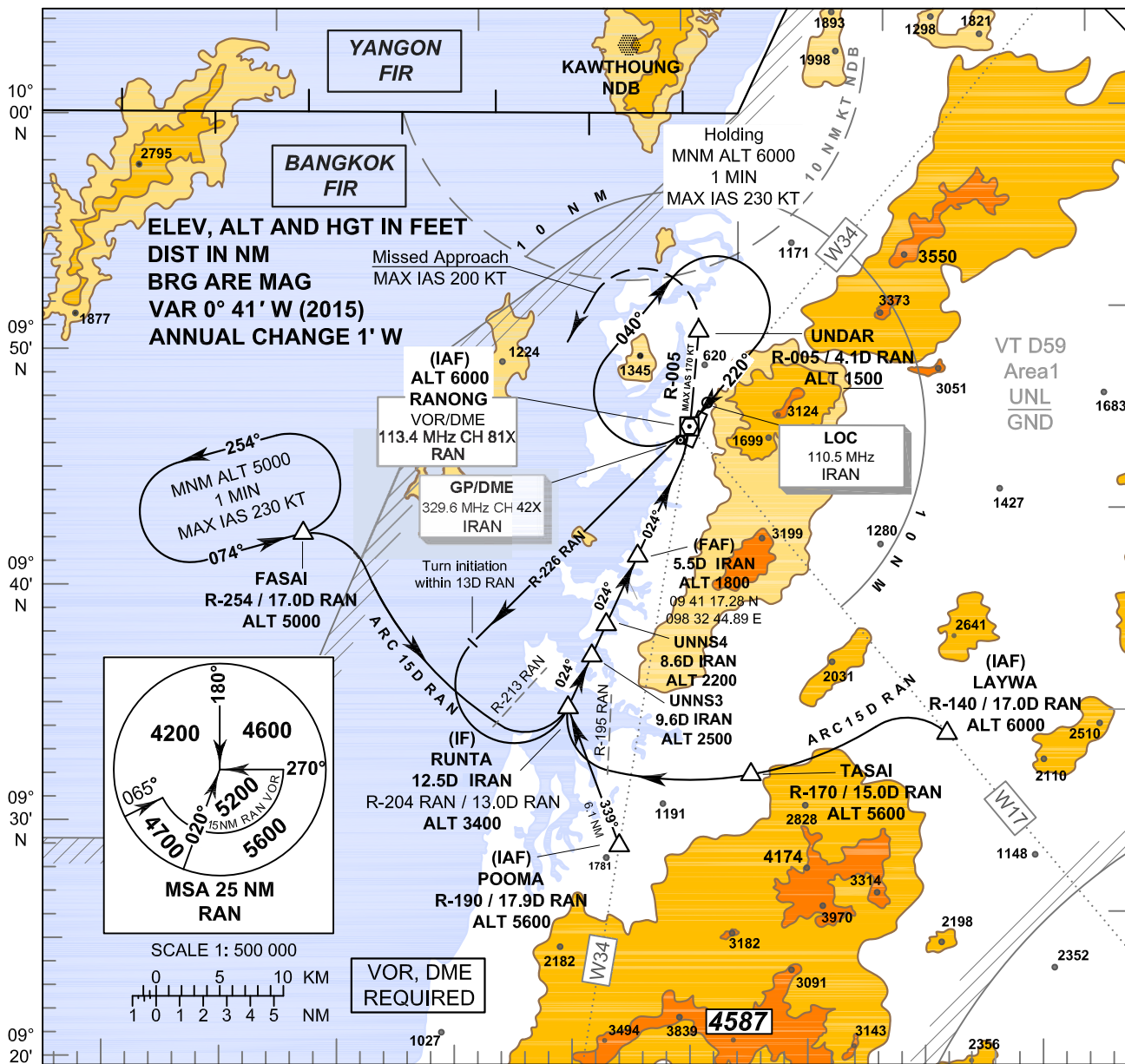
**AERODROME ELEV 57 FT  
HEIGHTS RELATED TO  
THR RWY 02 - ELEV 36 FT**

**RANONG / Ranong (VTSR)  
ILS RWY02**

Fix / Point		Coordinates	
LAYWA (IAF)	R-140 / 17.0 D RAN	09 33 39.55 N	098 46 08.20 E
TASAI	R-170 / 15.0 D RAN	09 31 52.58 N	098 37 41.43 E
POOMA (IAF)	R-190 / 17.9 D RAN	09 29 00.78 N	098 32 04.23 E
RUNTA (IF)	12.5 D IRAN	09 34 45.42 N	098 29 51.20 E
UNNS3	9.6 D IRAN	09 37 31.07 N	098 31 04.58 E
UNNS4	8.6 D IRAN	09 38 26.24 N	098 31 29.04 E
FAP	5.5 D IRAN	09 41 17.28 N	098 32 44.89 E
THR RWY 02	-	09 46 09.60 N	098 34 54.54 E
GP / DME	IRAN	09 46 20.14 N	098 34 54.88 E
VOR (IAF)	RAN	09 46 43.18 N	098 35 02.11 E
LOC	IRAN	09 47 18.17 N	098 35 24.92 E
UNDAR	R-005 / 4.1 D RAN	09 50 48.28 N	098 35 19.08 E
FASAI	R-254 / 17.0 D RAN	09 42 08.62 N	098 18 26.53 E

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

**INSTRUMENT APPROACH CHART - ICAO**      **AERODROME ELEV 57 FT**      APP : 125.1  
 HEIGHTS RELATED TO THR RWY 02 - ELEV 36 FT      TWR : 122.25 , 236.6  
**RANONG / Ranong (VTSR)**      ATIS : 126.475  
**LOC RWY02**



CHANGE: LOC FREQUENCY ID AND LOCATION. GP/DME ADDED. TWR FREQUENCY. ATIS FREQUENCY ADDED.

OCA/H	(IF) RUNTA				(FAF)		VOR/DME RAN		UNDAR		
	12.5	9.6	8.6	5.5	2.1	1.5	0.1	0	0	0	
3400 (3364)	2500 (2464)	2200 (2164)	1800 (1764)	720 (684)	720 (684)	720 (684)	720 (684)	720 (684)	720 (684)	720 (684)	
2400	2200	900	720	720	720	720	720	720	720	720	
12.4	9.5	8.5	5.4	2.0	1.4	0	0	0	0	0	
	Distance (IRAN)				FAF	5 D	4 D	3 D	2.1 D		
Straight - in Approach	720 (684)				1800 (1764)	1635 (1599)	1320 (1284)	1000 (964)	720 (684)		
					knot	70	90	100	120	140	160
Circling (OCH AAL)	Not Authorized				Rate of descent (ft/min)	369	474	527	632	737	843

**NOTE : OCA (OCH): 530 (494) FT; MAPt at 1.5 D FM GP/DME can be achieved for all aircraft categories which can commence a missed approach climb gradient of 5.0%(304 FT/NM) until passing UNDAR.**

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 57 FT  
HEIGHTS RELATED TO  
THR RWY 02 - ELEV 36 FT**

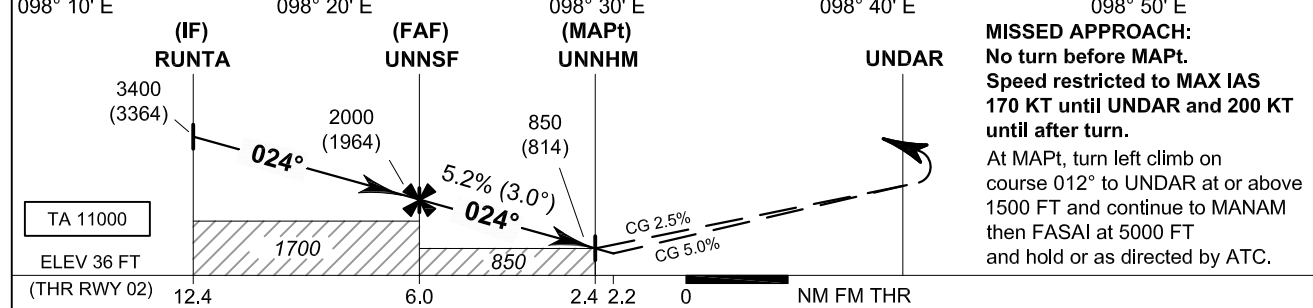
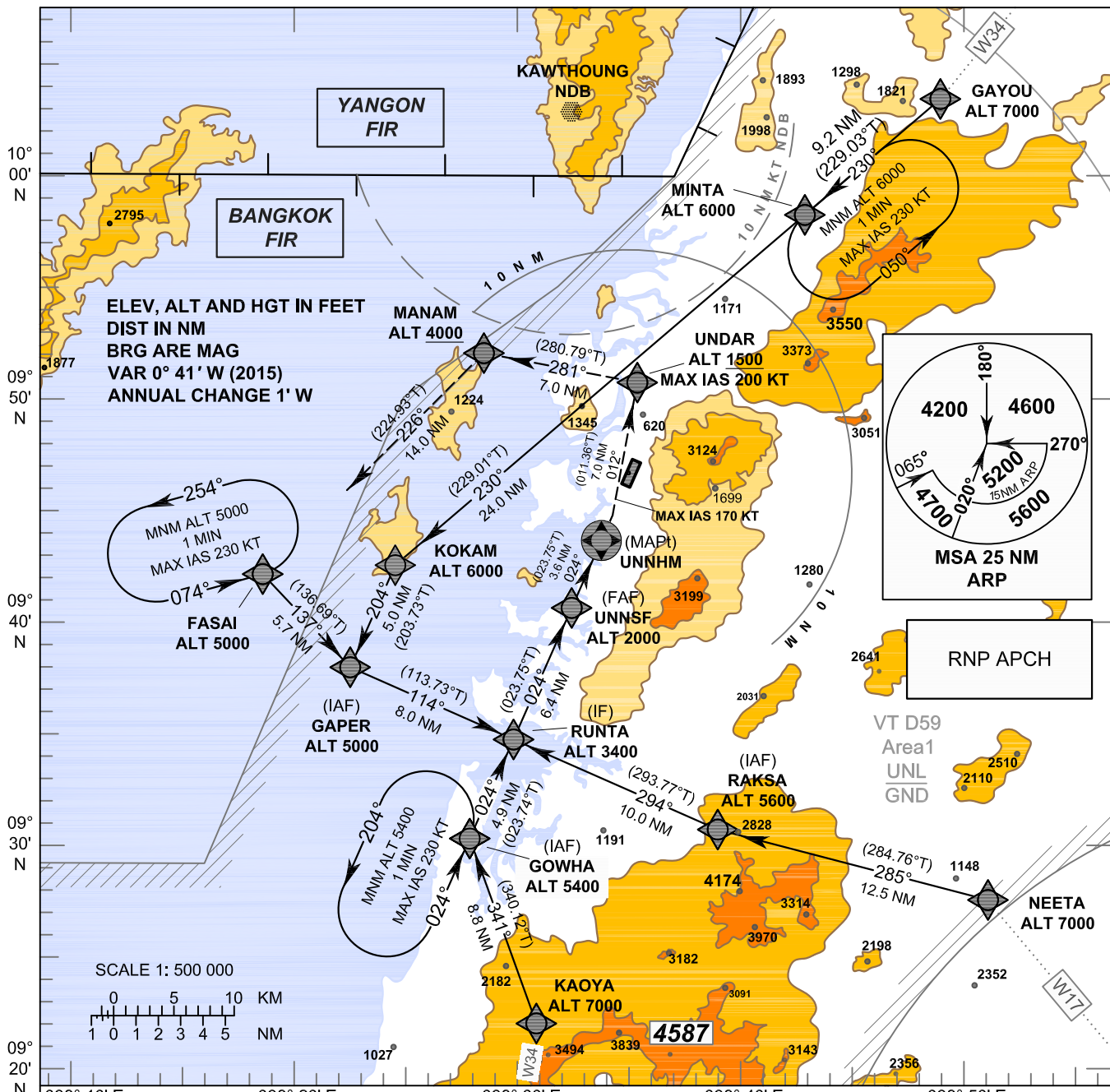
**RANONG / Ranong (VTSR)  
LOC RWY02**

Fix / Point		Coordinates	
LAYWA (IAF)	R-140 / 17.0 D RAN	09 33 39.55 N	098 46 08.20 E
TASAI	R-170 / 15.0 D RAN	09 31 52.58 N	098 37 41.43 E
POOMA (IAF)	R-190 / 17.9 D RAN	09 29 00.78 N	098 32 04.23 E
RUNTA (IF)	12.5 D IRAN	09 34 45.42 N	098 29 51.20 E
UNNS3	9.6 D IRAN	09 37 31.07 N	098 31 04.58 E
UNNS4	8.6 D IRAN	09 38 26.24 N	098 31 29.04 E
(FAF)	5.5 D IRAN	09 41 17.28 N	098 32 44.89 E
MAPt (CG 2.5%)	2.1 D IRAN	09 44 19.25 N	098 34 05.59 E
MAPt (CG 5.0%)	1.5 D IRAN	09 44 52.36 N	098 34 20.27 E
THR RWY 02	-	09 46 09.60 N	098 34 54.54 E
GP / DME	IRAN	09 46 20.14 N	098 34 54.88 E
VOR (IAF)	RAN	09 46 43.18 N	098 35 02.11 E
LOC	IRAN	09 47 18.17 N	098 35 24.92 E
UNDAR	R-005 / 4.1 D RAN	09 50 48.28 N	098 35 19.08 E
FASAI	R-254 / 17.0 D RAN	09 42 08.62 N	098 18 26.53 E

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



**INSTRUMENT APPROACH CHART - ICAO**      **AERODROME ELEV 57 FT**      APP : 125.1  
 HEIGHTS RELATED TO      TWR : 122.25 , 236.6  
 THR RWY 02 - ELEV 36 FT      ATIS : 126.475      **RANONG / Ranong (VTSR)**  
**RNP RWY02**



OCA/H	A	B	C	D	NM to THR 02	FAF	5 NM	4 NM	3 NM	2.4 NM		
LNAV	850 (814)				Altitude (Height)	2000 (1964)	1665 (1629)	1350 (1314)	1035 (999)	850 (814)		
Circling (OCH AAL)	Not Authorized				Ground speed	knot	70	90	100	120	140	160
					Rate of descent	(ft/min)	369	474	527	632	737	843

**NOTE : OCA (OCH): 780 (744) FT; MAPt at 2.2 NM FM THR can be achieved for all aircraft categories which can commence a missed approach climb gradient of 5.0% (304 FT/NM) until passing UNDAR.**

CHANGE: CHART TITLE:

**INSTRUMENT APPROACH CHART - ICAO**      **AERODROME ELEV 57 FT**  
**HEIGHTS RELATED TO THR RWY 02 - ELEV 36 FT**

**RANONG / Ranong (VTSR)**  
**RNP RWY02**

**TABULAR DESCRIPTION**

**WAYPOINT LIST**

RNP RWY02											
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/TCH	Navigation Specification
010	IF	GAYOU	-	-	0.7		-	@7000	-	-	RNP APCH
020	TF	MINTA	-	230*(229.03°)	0.7	9.2	-	@6000	-	-	RNP APCH
030	TF	KOKAM	-	230*(229.01°)	0.7	24.0	L	@6000	-	-	RNP APCH
040	TF	GAPER (IAF)	-	204*(203.73°)	0.7	5.0	L	@5000	-	-	RNP APCH
050	TF	RUNTA (IF)	-	114*(113.73°)	0.7	8.0	-	@3400	-	-	RNP APCH
010	IF	KAOYA	-	-	0.7	-	-	@7000	-	-	RNP APCH
020	TF	GOWHA (IAF)	-	341*(340.12°)	0.7	8.8	R	@5400	-	-	RNP APCH
030	TF	RUNTA (IF)	-	024*(023.74°)	0.7	4.9	-	@3400	-	-	RNP APCH
010	IF	NEETA	-	-	0.7	-	-	@7000	-	-	RNP APCH
020	TF	RAKSA (IAF)	-	285*(284.76°)	0.7	12.5	R	@5600	-	-	RNP APCH
030	TF	RUNTA (IF)	-	294*(293.77°)	0.7	10.0	-	@3400	-	-	RNP APCH
010	IF	RUNTA (IF)	-	-	0.7	-	-	@3400	-	-	RNP APCH
020	TF	UNNSF (FAF)	-	024*(023.75°)	0.7	6.4	-	@2000	-	-	RNP APCH
030	TF	UNNHM MAP1 (CG 2.5%) (2.4 NM FM THR 02)	Y	024*(023.75°)	0.7	3.6	L	@850	-170	-	RNP APCH
040	CF	UNDAR	-	012*(011.36°)	0.7	7.0	L	+1500	-200	-	RNP APCH
050	TF	MANAM	-	281*(280.79°)	0.7	7.0	L	+4000	-	-	RNP APCH
060	TF	FASAI	-	226*(224.93°)	0.7	14.0	-	@5000	-	-	RNP APCH
070	HM	FASAI	Y	074*(073°.44)	0.7	-	L	+5000	-	-	RNP APCH
010	IF	RUNTA (IF)	-	-	0.7	-	-	@3400	-	-	RNP APCH
020	TF	UNNSF (FAF)	-	024*(023.75°)	0.7	6.4	-	@2000	-	-	RNP APCH
030	TF	UNNLM MAP1 (CG 5.0%) (2.2 NM FM THR 02)	Y	024*(023.75°)	0.7	3.8	L	@780	-170	-	RNP APCH
040	CF	UNDAR	-	012*(011.00°)	0.7	6.8	L	+1500	-200	-	RNP APCH
050	TF	MANAM	-	281*(280.79°)	0.7	7.0	L	+4000	-	-	RNP APCH
060	TF	FASAI	-	226*(224.93°)	0.7	14.0	-	@5000	-	-	RNP APCH
070	HM	FASAI	Y	074*(073°.44)	0.7	-	L	+5000	-	-	RNP APCH
010	IF	FASAI	-	-	0.7	-	-	@5000	-	-	RNP APCH
020	TF	GAPER	-	137*(136.69°)	0.7	5.7	L	@5000	-	-	RNP APCH
030	TF	RUNTA (IF)	-	114*(113.73°)	0.7	8.0	-	@3400	-	-	RNP APCH

RNP RWY02		
Waypoint Identifier	Coordinates	
GAYOU	10 04 31.00 N	098 49 54.79 E
MINTA	09 58 27.09 N	098 42 52.11 E
KOKAM	09 42 35.40 N	098 24 28.72 E
GAPER	09 37 59.53 N	098 22 26.39 E
KAOYA	09 21 56.02 N	098 30 53.18 E
GOWHA	09 30 15.05 N	098 27 51.39 E
NEETA	09 27 30.64 N	098 51 21.36 E
RAKSA	09 30 42.56 N	098 39 07.01 E
RUNTA	09 34 45.42 N	098 29 51.20 E
UNNSF	09 40 38.56 N	098 32 27.72 E
UNNHM	09 43 57.18 N	098 33 55.80 E
UNNLM	09 44 08.22 N	098 34 00.70 E
UNDAR	09 50 48.28 N	098 35 19.08 E
MANAM	09 52 06.56 N	098 28 27.74 E
FASAI	09 42 08.62 N	098 18 26.53 E

CHANGE: CHART TITLE.