

VTUU AD 2.1 AERODROME LOCATION INDICATOR AND NAME

VTUU - UBON RATCHATHANI / UBON RATCHATHANI AIRPORT

VTUU AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	151504.59N 1045212.82E
2	Direction and distance from (city)	1 KM N, from city
3	Elevation/Reference temperature	406 FT/36°C
4	Geoid Undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	0.80°W(2016)/0.02°W
6	AD Administration, address, telephone, telefax, telex, AFS	Director of Ubon Ratchathani Airport Ubon Ratchathani Airport Amphone Muang Ubon Ratchathani Province 34000 Thailand Tel: +664 524 5612-3 Fax: +664 524 4406 AFS: VTUUYDYX
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Operator: Department of Airports

VTUU AD 2.3 OPERATIONAL HOURS

1	Aerodrome Operator	2230-1500
2	Customs and immigration	On request
3	Health and sanitation	On request
4	AIS Briefing Office	2300-1430
5	ATS Reporting Office (ARO)	NIL
6	MET Briefing Office	NIL
7	ATS	H24
8	Fuelling	0100-1130
9	Handling	NIL
10	Security	NIL
11	De-icing	NIL
12	Remarks	NIL

VTUU AD 2.4 HANDLING SERVICES AND FACILITIES

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

VTUU AD 2.5 PASSENGER FACILITIES

1	Hotels	In the city
2	Restaurants	In the city
3	Transportation	Limousine
4	Medical facilities	NIL
5	Bank and Post Office	Bank: Available Post office: Available
6	Tourist Office	Office in the city
7	Remarks	NIL

VTUU AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Category 8
2	Rescue equipment	Yes
3	Capability for removal of disabled aircraft	NIL
4	Remarks	NIL

VTUU AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	Types of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	The aerodrome is available all seasons.

VTUU AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Surface: Concrete Strength: PCN 61/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt Strength: PCN 61/F/C/X/T
3	Altimeter checkpoint location and elevation	NIL
4	VOR checkpoints	NIL
5	INS checkpoints	NIL
6	Remarks	NIL

VTUU AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

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

VTUU AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			In circling areas and at AD			Remarks
1			2			3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates		
a	b	c	a	b		
05	Tree 141.1(M)	151420.7N 1045121.1E	Radio Mast 178.7(M) marked	151348.6N 1045108.9E		NIL
	Sign Board 143.5 (M)	151425.0N 1045109.8E	Radio Mast 180.2(M) marked	151346.7N 1045112.3E		
	Sign Board 141.4 (M)	151421.6N 1045111.1E	Radio Mast 182.9(M) marked	151344.1N 1045117.2E		
	Sign Board 139.0 (M)	151419.0N 1045113.2E	Radio Mast 165.8(M) marked	151330.3N 1045117.1E		
	Building 143.2 (M)	151409.3N 1045113.1E	Radio Mast 179.2(M) marked/LGT	151328.7N 1045125.9E		
	Tree 153.9 (M)	151404.9N 1045045.8E	Radio Mast 174.3(M) marked	151327.0N 1045125.7E		
			Radio Mast 168.3(M) marked	151442.7N 1045052.7E		
			Radio Mast 183.1(M) marked	151445.5N 1045056.1E		
			Building 166.1(M)	151451.5N 1045107.2E		
			Radio Mast 166.7(M) marked/LGT	151504.1N 1045140.0E		
			Radio Mast 171.3(M) marked	151459.6N 1045056.8E		
			Radio Mast 219.4(M) marked/LGT	151431.5N 1045005.1E		
			Radio Mast 200.8(M) marked/LGT	151437.6N 1044919.2E		
			Radio Mast 196.1(M) marked/LGT	151445.6N 1044930.0E		
			Radio Mast 185.4(M) marked	151505.6N 1044949.7E		
			Radio Mast 180.6(M) marked/LGT	151506.6N 1045012.8E		
			Building 170.0(M)	151523.3N 1045053.9E		
			Radio Mast 210.2(M) marked/LGT	151524.8N 1045042.5E		
			Radio Mast 186.6(M) marked	151535.2N 1045049.0E		
			Radio Mast 186.3(M) marked	151517.1N 1045013.8E		
			Radio Mast 165.3(M) marked/LGT	151515.7N 1045013.7E		
			Radio Mast 170.5(M) marked	151514.5N 1044950.3E		

In approach/TKOF areas			In circling areas and at AD			Remarks
1			2			3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates		
a	b	c	a	b		
05			Radio Mast 185.4(M) marked/LGT	151551.7N	1044934.8E	NIL
			Radio Mast 189.4(M) marked	151541.1N	1044941.1E	
			Radio Mast 165.7(M) marked	151542.4N	1044950.1E	
			Radio Mast 194.9(M) marked/LGT	151542.6N	1044944.0E	
			Radio Mast 170.9(M) marked	151549.9N	1045032.8E	
			Building 180.7(M)	151548.3N	1045023.0E	
			Radio Mast 187.4(M) marked/LGT	151557.4N	1045012.3E	
			Building 170.7(M)	151602.4N	1045034.5E	
			Radio Mast 184.5(M) marked	151602.4N	1045034.5E	
			Radio Mast 178.9(M) marked/LGT	151612.9N	1045102.3E	
			Radio Mast 200.5(M) marked	151619.4N	1045056.3E	
			Radio Mast 182.0(M) marked	151609.3N	1045143.8E	
			Radio Mast 181.2(M) marked/LGT	151632.2N	1045137.5E	
			Radio Mast 208.1(M) marked/LGT	151637.2N	1045131.8E	
			Radio Mast 172.2(M) marked/LGT	151654.5N	1045200.6E	
			Radio Mast 186.5(M) marked/LGT	151718.8N	1045305.6E	
			Radio Mast 186.7(M) marked	151719.2N	1045314.8E	
			Radio Mast 177.2(M) marked	151607.7N	1045301.0E	
			Radio Mast 278.9(M) marked/LGT	151820.8N	1045337.6E	
			Radio Mast 247.1(M) marked/LGT	151821.0N	1045344.7E	
			Building 130.7 (M)	151436.9N	1045129.2E	
			Radio Pole 134.4 (M)	151502.6N	1045200.2E	
			Building 126.8 (M)	151434.2N	1045138.3E	
			Building 128.5 (M)	151433.8N	1045143.8E	

In approach/TKOF areas			In circling areas and at AD		Remarks
1			2		3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
05			Building 127.0 (M) AWOS	151523.2N 1045243.5E	NIL
			Radio Mast G/P marked/LGT 133.9(M)	151525.9N 1045247.1E	
			Building Marked DVOR/DME 133.1(M)	151442.9N 1045157.1E	
			Tower 166.4(M) Marked/LGT	151445.8N 1045209.2E	
23	Tree 131.2(M)	151541.7N 1045256.9E	Radio Mast 179.2(M) marked	151345.9N 1045136.4E	
	TACAN 130.0(M) Building/LGT	151544.7N 1045300.0E	Radio Mast 181.6(M) LGT	151333.5N 1045201.1E	
	Tree 141.7(M)	151552.8N 1045314.5E	Radio Mast 176.6(M)	151236.6N 1045141.5E	
	Tree 148.3(M)	151557.4N 1045313.7E	Radio Mast 178.0(M) marked/LGT	151602.4N 1045145.8E	
	Tree 148.4(M)	151600.5N 1045314.1E	Radio Mast 169.9(M) marked/LGT	151411.9N 1045147.1E	
	Radio Mast 167.6(M) marked	151349.8N 1045058.0E	Radio Mast 170.4(M) marked	151416.6N 1045149.2E	
			Radio Mast 174.6(M) marked/LGT	151411.4N 1045149.8E	
			Radio Mast 166.5(M) marked/LGT	151425.4N 1045200.1E	
			Radio Mast 178.6(M) marked/LGT	151409.3N 1045227.7E	
			Radio Mast 170.4(M) marked/LGT	151427.7N 1045252.7E	
			Radio Mast 170.1(M)	151512.0N 1045252.7E	
			Radio Mast 174.5(M) marked/LGT	151439.8N 1045341.1E	
			Radio Mast 172.9(M) marked/LGT	151618.3N 1045501.2E	
			Radio Mast 262.9(M) marked/LGT	151609.5N 1045544.3E	

VTUU AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Lower Northeastern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Lower Northeastern Meteorological Center, 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 524 4108 Fax: +664 524 4200
6	Flight documentation Language(s) used	Charts, Tabular forms and Abbreviated Plain Language Texts English
7	Charts and other information available for briefing or consultation	S, U85, U70, U50, U40, U30, U25, U20, SWH, SWM, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar images
8	Supplementary equipment available for providing information	Automated Weather Observation System (AWOS), Low Level Wind Shear Alert System (LLWAS) and Weather Radar
9	ATS units provided with information	Ubon Ratchathani TWR Ubon Ratchathani APP
10	Additional information (limitation of service, etc.)	NIL

VTUU AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY coordinates THR end undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
05	051.55°	3000x45	PCN 61/F/C/X/T Concrete and asphalt	151434.17N 1045133.46E	THR 406 FT TDZ 406 FT
23	231.55°	3000x45	PCN 61/F/C/X/T Concrete and asphalt	151535.02N 1045252.20E	THR 392 FT TDZ 392 FT

Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
NIL	60x60	NIL	3240x75	NIL	NIL
NIL	60x60	NIL	3240x75	NIL	NIL

VTUU AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
05	3000	3000	3060	3000	NIL
23	3000	3000	3060	3000	NIL

VTUU AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
05	SALS 420M LIH	Green WBAR	PAPI LEFT 3°	NIL	NIL	3 000 M 60 M White, LIH YCZ: 600 M	Red	NIL	NIL
23	SALS 420M LIH	Green WBAR	PAPI LEFT 3°	NIL	NIL	3 000 M 60 M White, LIH YCZ: 600 M	Red	NIL	NIL

VTUU AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: At Tower Building, FLG W G EV 4 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

VTUU AD 2.16 HELICOPTER LANDING AREA

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

VTUU AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	A circle of 5NM radius centred on UBL DVOR/DME (151442.71N 1045157.30E)
2	Vertical limits	3000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Ubon Tower English, Thai
5	Transition altitude	11000 FT
6	Remarks	NIL

VTUU AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Ubon Approach	123.5 MHZ 257.8 MHZ	**2330-1430	*Emergency Freq.
TWR	Ubon Tower	*121.5 MHZ 119.9 MHZ *243.0 MHZ 274.5 MHZ	H24	**Other this period 3 HR PN TO ATC
GND	Ubon Ground	121.9 MHZ 275.8 MHZ	H24	
ATIS	Ubon Airport	373.0 KHZ	2300-1400	
ASR	Departure Control	335.5 MHZ 134.1 MHZ	***0100-0900 MON-FRI (Except Public Holiday)	***Other this period 2 HR PN TO ATC Royal Thai Air Force ASR OPS AVBL for MIL
	Arrival Control	282.2 MHZ 125.75 MHZ		- Coverage/HGT: PSR 70 NM/30 000 FT SSR 200 NM/100 000 FT
SRA	Final Control	382.4 MHZ		- EM: PSR 500 KW SSR 1.5 KW

VTUU AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
NDB	UB	373 KHZ	H24	151425.83N 1045148.77E		Out put 100 watts
DVOR/DME	UBL	112.7 MHZ CH74X	H24	151442.71N 1045157.30E		Coverage or bit data refer from commissioning checked : - RDL 071-110 DEG at 30 NM ALT should not below 2,000 FT. (due to border limited) - RDL 111-070 DEG at 40 NM ALT should not below 2,000 FT.
ILS CAT I LOC RWY23	IUBL	110.1 MHZ CH38X	H24	151423.85N 1045120.10E		A. ILS coverage over sector of 35 either side of runway centre line, no back course and voice feature, the antenna array is located on extended runway centre line at distance 500 M from THR of RWY 05, height of antenna array is 4.1 M from ground B. Glide Path angle 3.0°. C. DME co-located with glide path power output 100 watts omnidirectional D. No marker
GP/DME		334.4 MHZ	H24	151526.05N 1045247.13E		

Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
TACAN	UBL	114.6 MHZ CH93	2300-1100 MON-FRI (Except Public Holiday)	151544.79N 1045300.00E		Other this period 2 HR PN TO ATC

VTUU AD 2.20 LOCAL AERODROME REGULATIONS

1. VFR REPORTING POINTS AND LOCAL PROCEDURES

1.1 Reporting points for VFR flight

In order to expedite and maintain an orderly flow of air traffic into Ubon Ratchathani Airport, The procedures of inbound traffic or VFR flight, conventional and prop jet aircraft be set up as follow:

- a) Aircraft entering to land from north of Ubon Ratchathani Airport, shall report over Khuang Nai District, designated as KILO NOVEMBER (1523.0N 10434.0E) and / or Nong Tae District designated as NOVEMBER (1524.4N 10447.9E which are 22 NM on R-300 and 11NM or R-337 of UBL DVOR/DME respectively. When reaching November the aircraft will be instructed to join aerodrome traffic pattern accordingly.
- b) Aircraft entering to land from west or southwest of Ubon Ratchathani Airport, shall report over Kantharom District, designated as KILO ROMEO (1505.5N 10431.5E) and/or Pak Nam Chi designated as DELTA (1511.5N 10443.5E) which are 24 NM on R-248 and 10 NM on R-250 of UBL VOR/DME respectively. When reaching DELTA the aircraft will be instructed to join aerodrome traffic pattern accordingly.
- c) Aircraft entering to land from south of Ubon Ratchathani Airport, shall report over Sri-cai Bridge, designated as SIERRA (1506.0N 10454.4E) which is 9 NM on R-167 of UBL DVOR/DME. When Reaching SIERRA the aircraft will be instructed to join aerodrome traffic pattern accordingly.

1.2 Aerodrome traffic circuit

Using both sides of traffic circuit.

1.3 Overhead approach pattern

- a) Using RWY05 by left turn pattern.
- b) Using RWY23 by right turn pattern

1.4 Landing and Take - off

In order to avoid the high percentage of noise pollution at Ubon Ratchathani Airport, If traffic and weather condition permit, Pilots are requested to land by using RWY23 and take off RWY05.

VTUU AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VTUU AD 2.22 FLIGHT PROCEDURES

1. Implementation of the Continuous Descent Operations (CDO) for arrivals at Ubon Ratchathani Airport

1.1 Introduction

1.1.1 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 Ubon Ratchathani Airport.

1.2 Condition of Use

1.2.1 Conditions for Conducting a CDO

1.2.1.1 CDO application must be under surveillance 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 endeavor to issue further descent clearance prior to the CDO flight reaching the last assigned altitude so as to prevent aircraft from leveling 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, i.e. from RWY05 to RWY23 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 RNAV- capable aircraft

1.2.5 Arrival Routes

CDO procedure is in place for all aircraft on A1 (Radial 253) inbound from Bangkok to Ubon Ratchathani Airport.

1.2.6 Operations Time

CDO is available 24 hours.

1.2.7 Available Runway

CDO procedure is available for RWY05 and RWY23.

1.2.8 Types of Approach

1.2.8.1 RNAV (GNSS) RWY05

1.2.8.2 VOR RWY05

1.2.8.3 ILS or LOC RWY23

1.2.8.4 RNAV (GNSS) RWY23

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 UBL TMA, aircraft shall comply with altitude constraints of the CDO procedure

1.2.10.2 During CDO, minimum safety altitudes are identical to those within Instrument Approach Procedures requested.

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 para 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 upon commencing descent.

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

1.3.5 Longitudinal separation required will be at least 7 minutes between CDO traffic.

1.3.6 Operations without Vectoring

1.3.6.1 RNAV (GNSS) RWY05 Procedure

Aircraft Arriving on A1

- After passing 30NM from UBL DVOR, altitude not lower than 8,000 FT then proceed to KATIB (IAF) and follow the RNAV (GNSS) RWY05 procedure as published in AIP Thailand, or
- The pilot may request permission to fly directly to (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 MAYSA (IF), altitude not lower than 3,300 FT, and cross 30NM from UBL DVOR, altitude not lower than 8,000 FT, following the RNAV (GNSS) RWY05 procedure as published in AIP Thailand.

1.3.6.2 VOR RWY05 Procedure

Aircraft Arriving on A1

- After passing 30NM from UBL DVOR, altitude not lower than 8,000 FT then proceed to KATIB (IAF) and follow the VOR RWY05 procedure as published in AIP Thailand, or
- The pilot may request permission to fly directly to (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 WIMON (IF), altitude not lower than 3,300 FT, and cross 30NM from UBL DVOR, altitude not lower than 8,000 FT, following the VOR RWY05 procedure as published in AIP Thailand.

1.3.6.3 ILS or LOC RWY23 Procedure

Aircraft Arriving on A1

- After passing, 30NM from UBL DVOR, altitude not lower than 8,000 FT, then proceed to UBL DVOR/DME (IAF) altitude not lower than 5,000 FT and follow the ILS or LOC RWY23 procedure as published in AIP Thailand, or
- The pilot may request permission to fly directly to (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 MAPAW (IF) altitude 3,300 FT, and cross 30NM from UBL DVOR, altitude not lower than 8,000 FT, following the ILS or LOC RWY23 procedure as published in AIP Thailand.

1.3.6.4 RNAV (GNSS) RWY23 Procedure

Aircraft Arriving on A1

- After passing, 30NM from UBL DVOR, altitude not lower than 8,000 FT, then proceed to NANOI altitude not lower than 5,000 FT and follow the RNAV (GNSS) RWY23 procedure as published in AIP Thailand, or
- The pilot may request permission to fly directly to (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 KANYA (IF) altitude 3,300 FT, and cross 30 NM from UBL DVOR, altitude not lower than 8,000 FT, following the RNAV (GNSS) RWY23 procedure as published in AIP Thailand.

- 1.3.7 Operations under Vectoring
 - 1.3.7.1 Pilot should receive CDO clearance at altitude not lower than 10,000 FT.
 - 1.3.7.2 ATC shall provide vectoring guidance and track mile estimate to pilot.
- 1.3.8 Radio Communications Failure
 - 1.3.8.1 In the event of radio communication failure, CDO flight will be terminated immediately.
 - 1.3.8.2 Pilot is to apply radio failure procedures stated in AIP Thailand ENR 1.6-6 para 6
- 1.4 Phraseology
 - 1.4.1 The following phraseology 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 RWY (number)”
 - 1.4.5 Approval by Bangkok Area Control Centre “(aircraft call sign), CLEARED DIRECT TO (point), CDO DESCEND [(level) or (altitude), QNH (number)]”
 - 1.4.6 Denial from Bangkok Area Control Centre
 - 1.4.6.1 “(aircraft call sign), NEGATIVE CDO, DUE TO (reason)”
 - 1.4.6.2 “(aircraft call sign), EXPECT CDO FROM UBON APPROACH”
 - 1.4.7 Approval by Ubon 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 RWY (number), REPORT ESTABLISHED”
 - 1.4.7.2 “(aircraft call sign), DESCEND INITIALLY [(level) or (altitude), QNH (number)], CDO APPROVED”
 - 1.4.8 When vectoring for CDO
 - “(aircraft call sign), VECTORING FOR CDO, FLY HEADING (number) DESCEND [(level) or (altitude), QNH (number)], TRACK MILE (number)”
 - 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), DUE TO (reason), CDO IS NOW TERMINATED”
 - 1.4.10 Resuming CDO
 - “(aircraft call sign), RESUME CDO, DCT (point), DESCEND [(level) or (altitude), QNH (number)], CLEARED (type of approach) APPROACH RWY (number)”
 - 1.4.11 Pilot report leaving
 - “(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.

VTUU AD 2.23 ADDITIONAL INFORMATION

- BAK14 RAG installed at 400 M from threshold runway 05 and 23 cable height 3 inches.
- Net Barrier installed on both side of runway 05/23 at 35 M (115 FT.) from threshold, height 1.35 M (4.5 FT.)
- Birds concentration on and in the vicinity of an aerodrome.

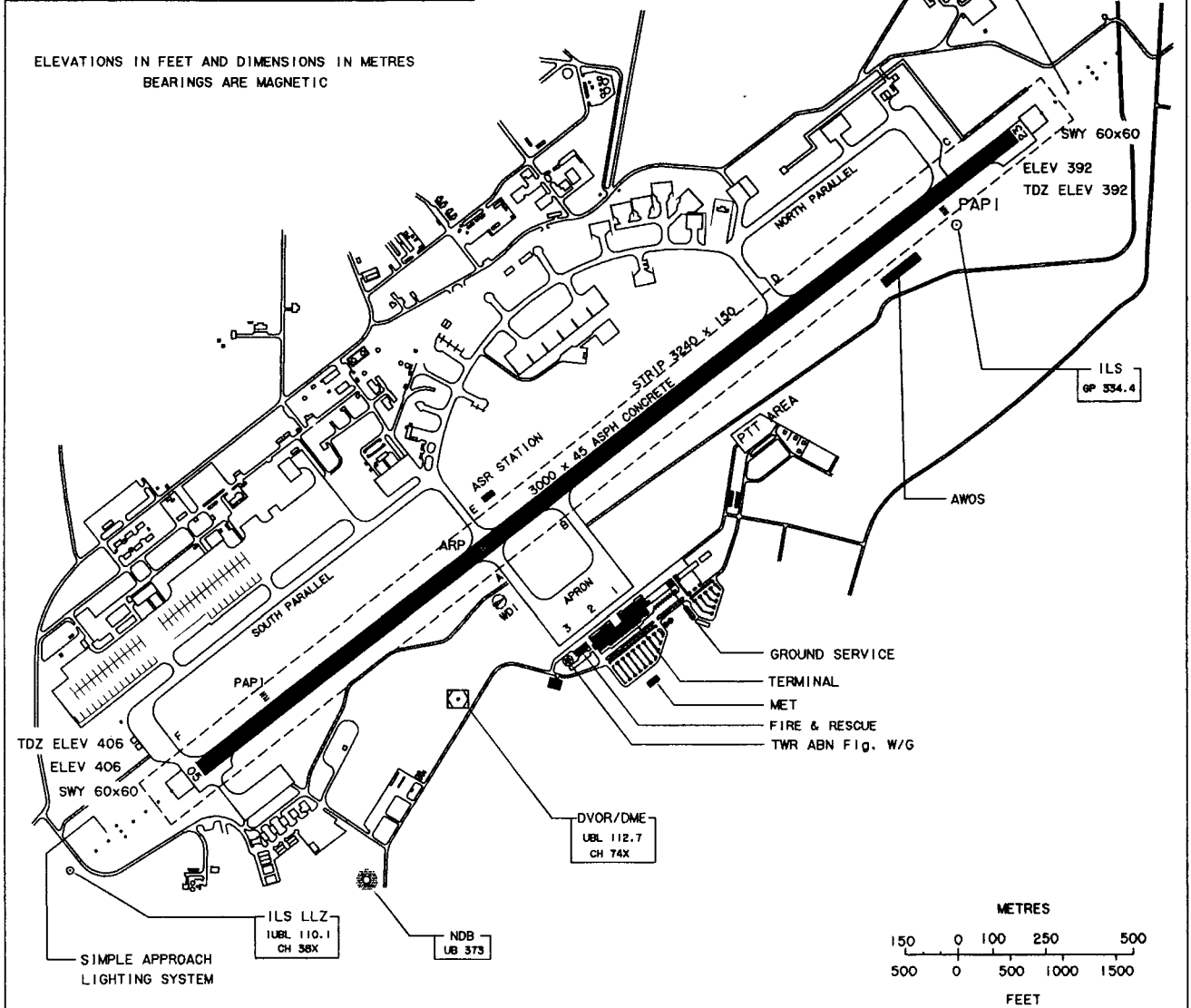
VTUU AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page
Aerodrome Chart - ICAO	AD 2-VTUU-2-1
Standard Departure Chart - Instrument (SID) - ICAO - RWY 05 - RAMBU1B ROT1B CMP1B BUTRA1B PAKSE1B	AD 2-VTUU-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RWY 23 - RAMBU1A ROT1A CMP1A BUTRA1A PAKSE1A	AD 2-VTUU-6-3
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 05 - ARARE1B BAMBO1B CHETA1B PACER1B ROONY1B	AD 2-VTUU-6-5
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 05 - ARARE1B BAMBO1B CHETA1B PACER1B ROONY1B (Tabular description)	AD 2-VTUU-6-6
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 23 - ARARE1A BAMBO1A CHETA1A PACER1A ROONY1A	AD 2-VTUU-6-7
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 23 - ARARE1A BAMBO1A CHETA1A PACER1A ROONY1A (Tabular description)	AD 2-VTUU-6-8
Instrument Approach Chart - ICAO - VOR RWY 05	AD 2-VTUU-8-1
Instrument Approach Chart - ICAO - VOR RWY 05 (Fix and point list table)	AD 2-VTUU-8-2
Instrument Approach Chart - ICAO - VOR RWY 23	AD 2-VTUU-8-3
Instrument Approach Chart - ICAO - VOR RWY 23 (Fix and point list table)	AD 2-VTUU-8-4
Instrument Approach Chart - ICAO - ILS or LOC RWY 23	AD 2-VTUU-8-5
Instrument Approach Chart - ICAO - ILS or LOC RWY 23 (Fix and point list table)	AD 2-VTUU-8-6
Instrument Approach Chart - ICAO - RNAV (GNSS) RWY 05	AD 2-VTUU-8-7
Instrument Approach Chart - ICAO - RNAV (GNSS) RWY 05 (Tabular description)	AD 2-VTUU-8-8
Instrument Approach Chart - ICAO - RNAV (GNSS) RWY 23	AD 2-VTUU-8-9
Instrument Approach Chart - ICAO - RNAV (GNSS) RWY 23 (Tabular description)	AD 2-VTUU-8-10

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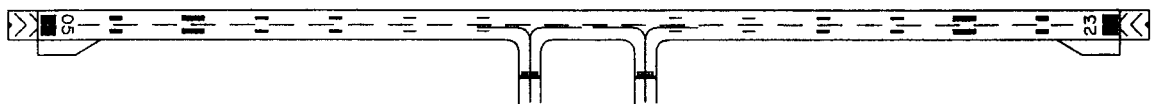
AERODROME CHART-ICAO 15° 15' 05" N ELEV 406 ft TWR 122.5
104° 52' 13" E 124 m 274.5 UBON RATCHATHANI/Ubon Ratchathani

RWY	DIRECTION	THR	BEARING STRENGTH
05	52°	15° 14' 34" N 104° 51' 33" E	PCN 61/F/C/X/T runway and taxiway A,B
23	232°	15° 15' 35" N 104° 52' 52" E	
APRON			PCN 61/R/C/X/T

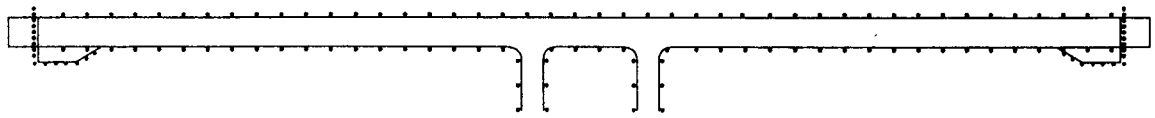


Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 05/23 AND EXIT TWY



LIGHTING AIDS RWY 05/23 AND EXIT TWY



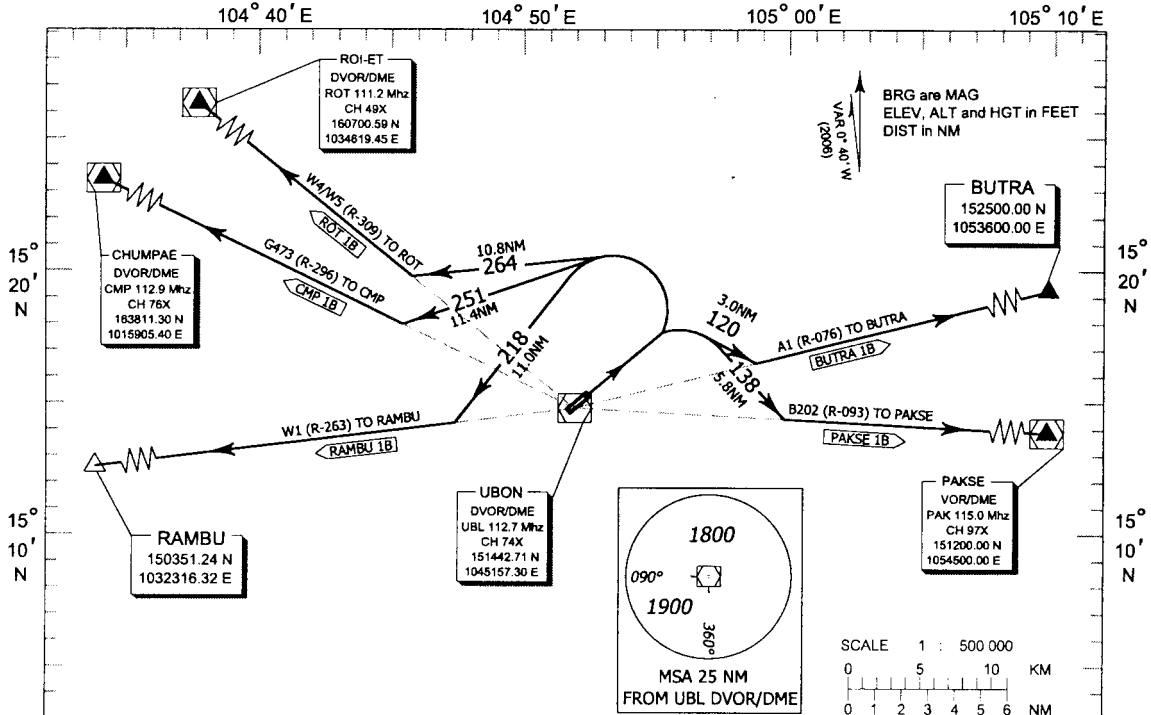
150 0 100 250 500 METRES
500 0 500 1000 1500 FEET

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STANDARD INSTRUMENT DEPARTURE CHART
(SID) - ICAO

UBON RATCHATANI / Ubon (VTUU)
RWY 05
RAMBU 1B, ROT 1B
CMP 1B, BUTRA 1B
PAKSE 1B

APP : 123.5 , 257.8
TWR : 119.9 , 274.5



COMMUNICATION FAILURE PROCEDURE
- Squawk A7600
- Comply with last assigned level until next reporting point then climb to flight plan cruising level.

Warning
- No Turn before Departure End of Runway
- Procedure Design Gradient = 3.3 %
- Max IAS 230 kts for turning after departure

RAMBU ONE BRAVO : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 218 TO INTERCEPT AND PROCEED ON R-263 UBL TO RAMBU
(RAMBU 1B)

CHUMPAE ONE BRAVO : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 251 TO INTERCEPT AND PROCEED ON R-296 UBL TO CHUMPAE DVOR/DME
(CMP 1B)

ROIET ONE BRAVO : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 264 TO INTERCEPT AND PROCEED ON R-309 UBL TO ROIET DVOR/DME
(ROT 1B)

BUTRA ONE BRAVO : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1400FT OR ABOVE THEN TURN RIGHT HEADING 120 TO INTERCEPT AND PROCEED ON R-076 UBL TO BUTRA
(BUTRA 1B)

PAKSE ONE BRAVO : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1400FT OR ABOVE THEN TURN RIGHT HEADING 138 TO INTERCEPT AND PROCEED ON R-093 TO PAKSE VOR/DME
(PAKSE 1B)

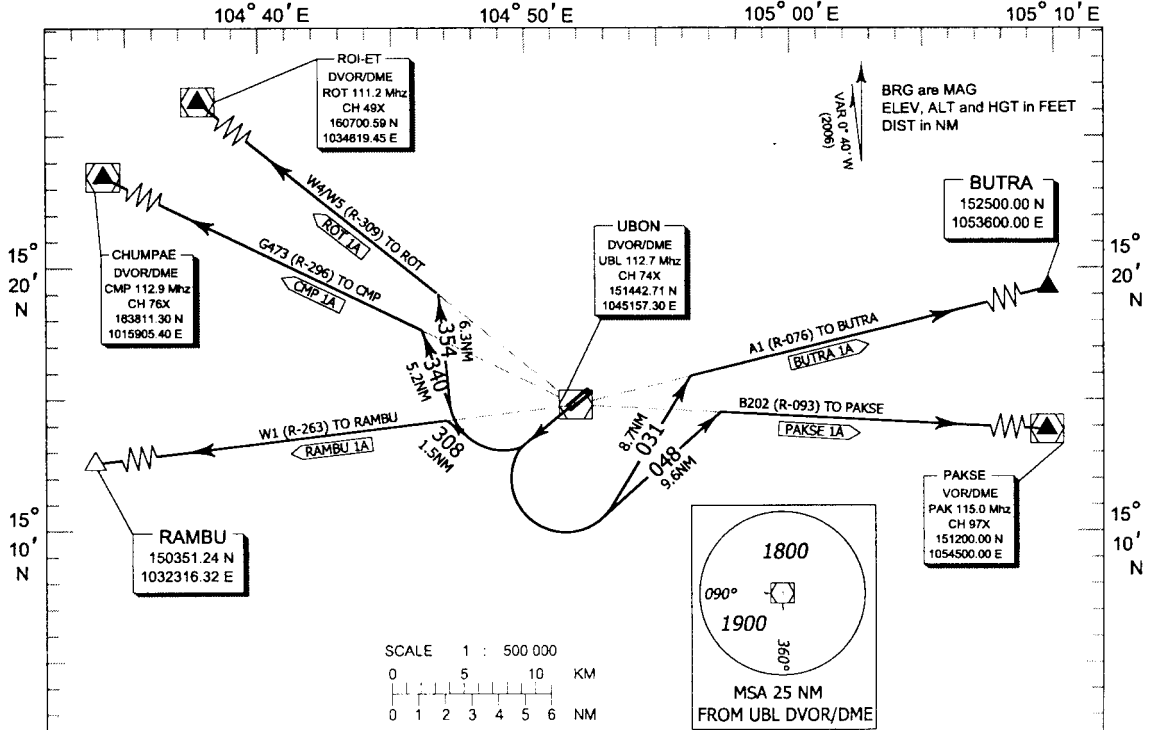
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STANDARD INSTRUMENT DEPARTURE CHART
(SID) - ICAO

UBON RATCHATANI / Ubon (VTUU)
RWY 23

APP : 123.5 , 257.8
TWR : 119.9 , 274.5

RAMBU 1A, ROT 1A
CMP 1A, BUTRA 1A
PAKSE 1A



COMMUNICATION FAILURE PROCEDURE

- Squawk A7600
- Comply with last assigned level until next reporting point then climb to flight plan cruising level.

Warning

- No turn before Departure End of Runway
- Procedure Design Gradient = 4.9 % to 1200ft
- Max IAS 230 kts for turning after departure

RAMBU ONE ALPHA : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN RIGHT HEADING 308 TO INTERCEPT AND PROCEED ON R-263 UBL TO RAMBU
(RAMBU 1A)

CHUMPAE ONE ALPHA : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN RIGHT HEADING 340 TO INTERCEPT AND PROCEED ON R-296 UBL TO CHUMPAE DVOR/DME
(CMP 1A)

ROIET ONE ALPHA : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN RIGHT HEADING 354 TO INTERCEPT AND PROCEED ON R-309 UBL TO ROIET DVOR/DME
(ROT 1A)

BUTRA ONE ALPHA : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 031 TO INTERCEPT AND PROCEED ON R-076 UBL TO BUTRA
(BUTRA 1A)

PAKSE ONE ALPHA : AFTER DEPARTURE CLIMB ON RWY HEADING UNTIL 1200FT OR ABOVE THEN TURN LEFT HEADING 048 TO INTERCEPT AND PROCEED ON R-093 TO PAKSE VOR/DME
(PAKSE 1A)

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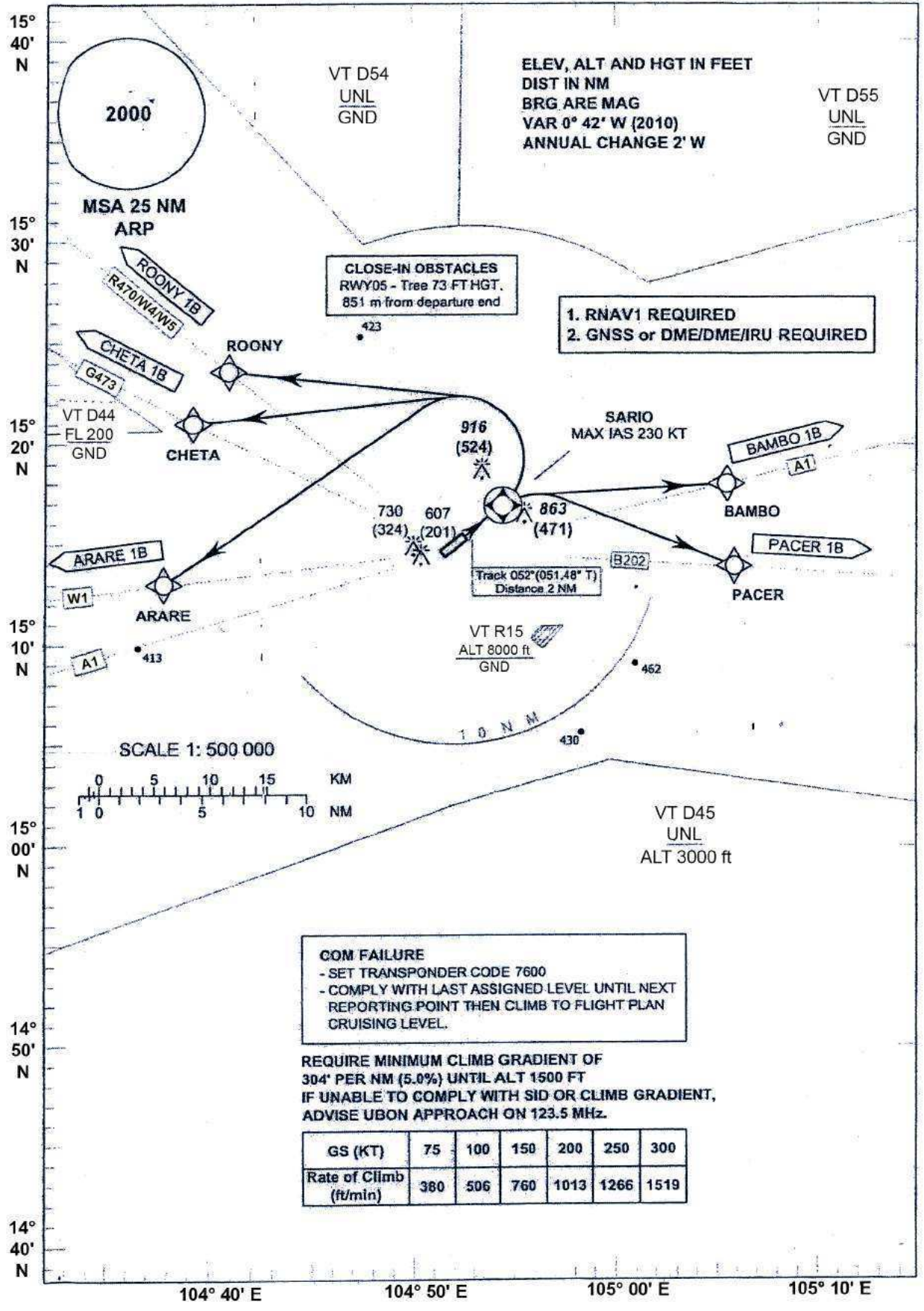
STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubun Ratchathani (VTUU)
RNAV RWY05

ARARE1B, BAMBO1B, CHETA1B, PACER1B, ROONY1B



STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
RNAV RWY05

ARARE1B, BAMBO1B, CHETA1B, PACER1B, ROONY1B

Serial Number	Path Descriptor	Waypoint Identifier	WGS-84 Coordinates		Flyover	Course * M (* T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/TCH	Navigation Specification
			Latitude	Longitude									
001	-	DER RWY05	15 15 35.02 N	104 52 52.20 E	-	-	0.83	-	-	-	-	-	RNAV1
002	CF	SARIO	15 16 50.07 N	104 54 29.32 E	Y	052*(051.48°)	0.83	2	L, R	-	230	-	RNAV1
003	DF	ARARE	15 12 59.33 N	104 37 34.68 E	-	-	0.83	-	-	-	-	-	RNAV1
004	DF	BAMBO	15 11 03.89 N	105 06 01.57 E	-	-	0.83	-	-	-	-	-	RNAV1
005	DF	CHETA	15 21 04.49 N	104 39 01.93 E	-	-	0.83	-	-	-	-	-	RNAV1
006	DF	PACER	15 13 55.64 N	105 06 25.14 E	-	-	0.83	-	-	-	-	-	RNAV1
007	DF	ROONY	15 23 40.20 N	104 40 46.96 E	-	-	0.83	-	-	-	-	-	RNAV1

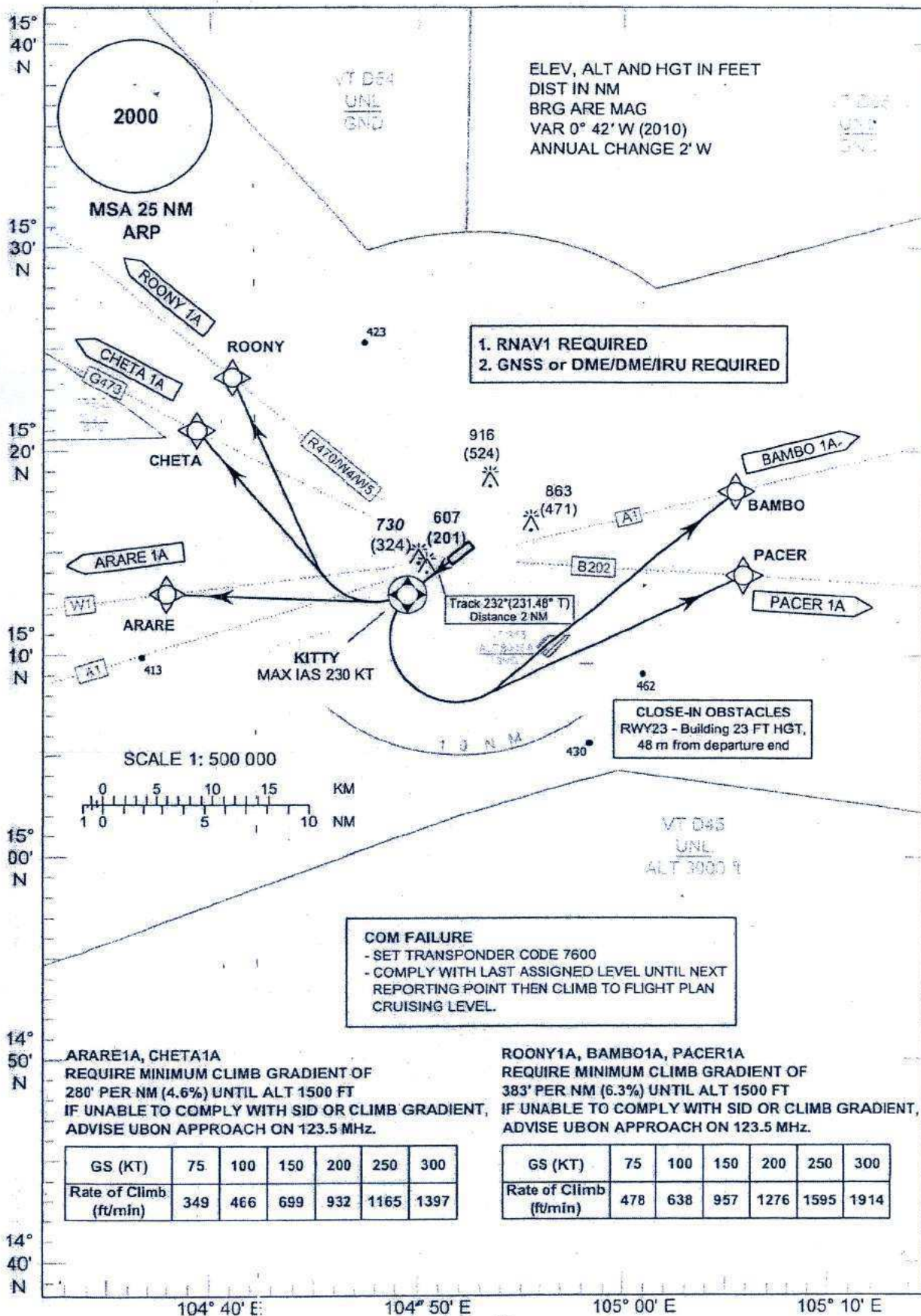
STANDARD DEPARTURE CHART -
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
RNAV RWY23

ARARE1A, BAMBO1A, CHETA1A, PACER1A, ROONY1A



STANDARD DEPARTURE CHART-
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
RNAV RWY23

ARARE1A, BAMBO1A, CHETA1A, PACER1A, ROONY1A

Serial Number	Path Descriptor	Waypoint Identifier	WGS-84 Coordinates		Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/TCH	Navigation Specification
			Latitude	Longitude									
001	-	DER RWY23	15 14 34.17 N	104 51 33.46 E	-	-	0.83	-	-	-	-	-	RNAV1
002	CF	KITTY	15 13 19.11 N	104 49 56.35 E	Y	232°(231.48°)	0.83	2	L R	-	230	-	RNAV1
003	DF	ARARE	15 12 59.33 N	104 37 34.68 E	-	-	0.83	-	-	-	-	-	RNAV1
004	DF	BAMBO	15 18 03.89 N	105 06 01.57 E	-	-	0.83	-	-	-	-	-	RNAV1
005	DF	CHETA	15 21 04.49 N	104 39 01.93 E	-	-	0.83	-	-	-	-	-	RNAV1
006	DF	PACER	15 13 55.64 N	105 06 25.14 E	-	-	0.83	-	-	-	-	-	RNAV1
007	DF	ROONY	15 23 40.20 N	104 40 46.96 E	-	-	0.83	-	-	-	-	-	RNAV1

INSTRUMENT AERODROME ELEV 406 FT
APPROACH HEIGHTS RELATED TO
CHART - ICAO AERODROME ELEV

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

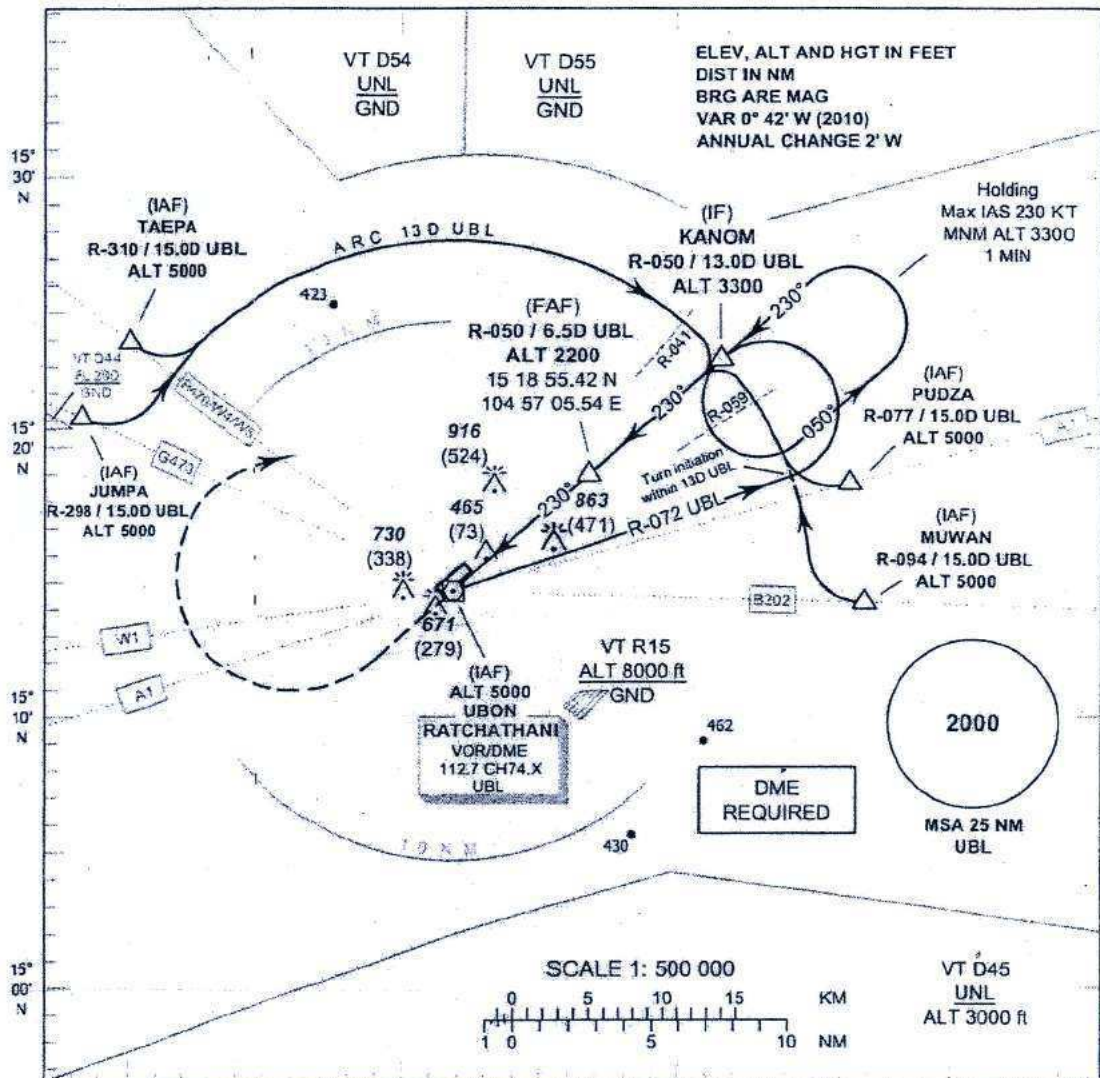
UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
VOR RWY05

Fix / Point		Coordinates	
KATIB (IAF)	R-254 / 20.9 D UBL	15 08 28.67 N	104 31 17.73 E
PANIN (IAF)	R-264 / 15.0 D UBL	15 12 51.92 N	104 36 33.08 E
JUMPA (IAF)	R-298 / 15.0 D UBL	15 21 31.74 N	104 38 06.52 E
TAEPA (IAF)	R-310 / 15.0 D UBL	15 24 18.58 N	104 39 59.05 E
WIMON (IF)	R-234 / 13.0 D UBL	15 07 00.15 N	104 41 05.99 E
FAF	R-234 / 5.5 D UBL	15 11 27.30 N	104 47 21.97 E
MAPt	R-234 / 0.4 D UBL	15 14 28.71 N	104 51 37.57 E
THR RWY 05	-	15 14 34.17 N	104 51 33.46 E
VOR (IAF)	UBL	15 14 42.71 N	104 51 57.30 E

INSTRUMENT APPROACH CHART - ICAO
AERODROME ELEV 406 FT
HEIGHTS RELATED TO THR RWY 23 - ELEV 392 FT

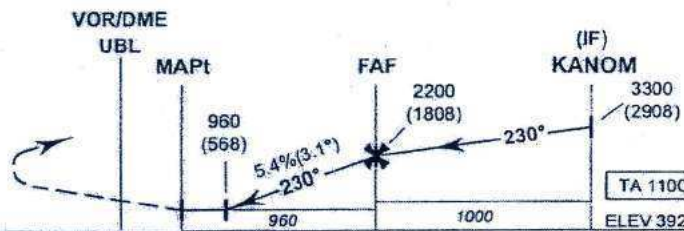
APP : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8

UBON RATCHATHANI /
Ubun Ratchathani (VTUU)
VOR RWY23



MISSED APPROACH:
No turn before MAPt.
Climb straight ahead to 1400 (1008) FT then turn right to intercept R-050 UBL /OR then proceed to IF at 3300 (2908) FT and hold or as directed by ATC.

Descent gradient not coincident with PAPI (3.0°).



DME FM VOR/DME	0	1.2	2.8	6.5	13.0
NM FM THR	0	1.6	5.3	11.8	

OCA/H	A	B	C	D	Distance (UBL)							
					2.8 D	3 D	4 D	5 D	6 D	FAF		
Straight-in Approach	960 (568)				Altitude (Height)	960 (568)	1030 (638)	1360 (968)	1690 (1298)	2015 (1623)	2200 (1808)	
					Ground speed (GS)	knot	100	120	140	160	180	200
	Circling (OCH AAL)				1350 (944)	Rate of descent (ft/min)	545	655	765	875	985	1095

INSTRUMENT AERODROME ELEV 406 FT
APPROACH HEIGHTS RELATED TO
CHART - ICAO THR RWY 23 - ELEV 392 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

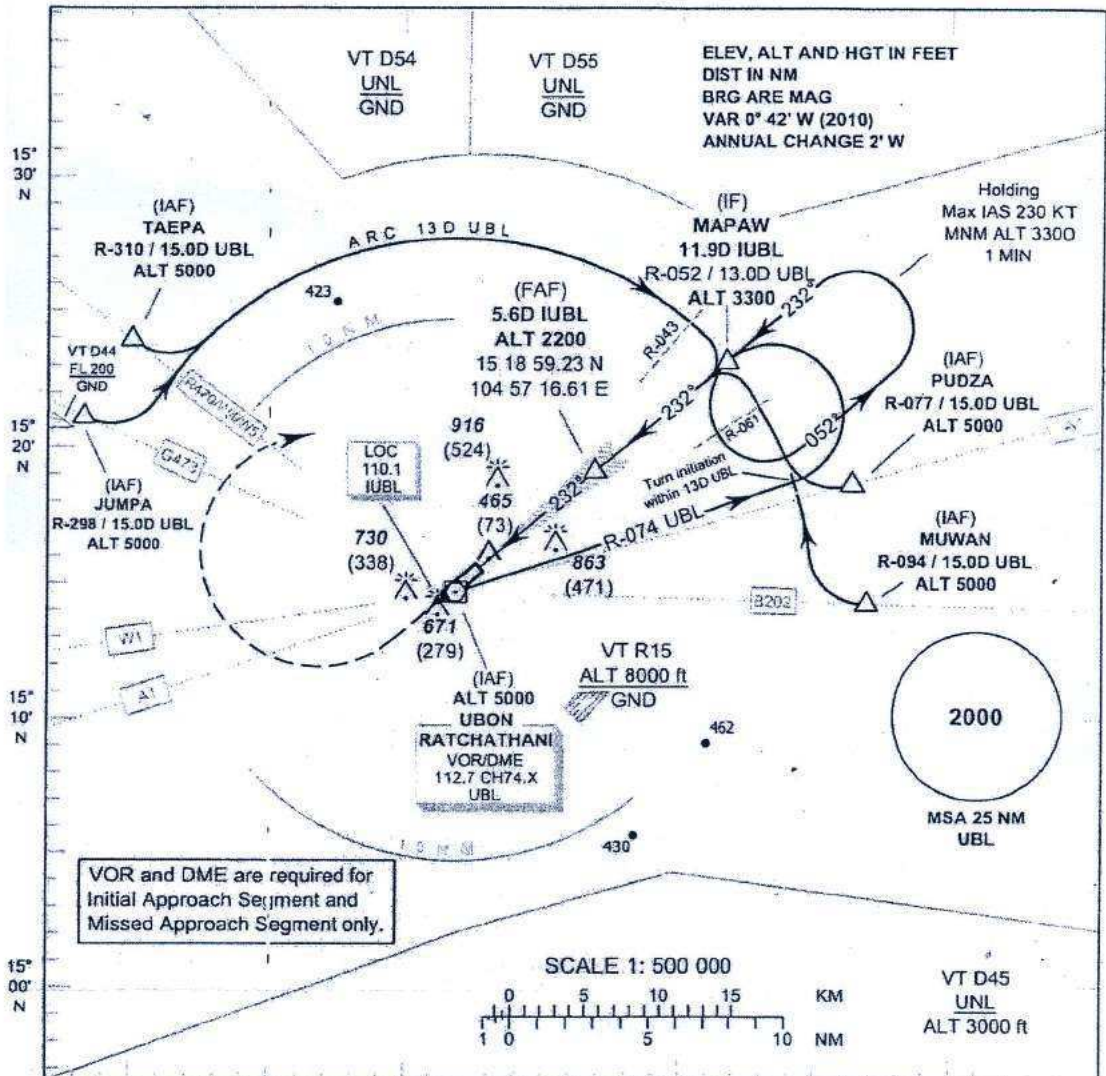
UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
VOR RWY23

Fix / Point		Coordinates	
PUDZA (IAF)	R-077 / 15.0 D UBL	15 18 18.23 N	105 07 01.90 E
MUWAN (IAF)	R-094 / 15.0 D UBL	15 13 52.25 N	105 07 27.13 E
JUMPA (IAF)	R-298 / 15.0 D UBL	15 21 31.74 N	104 38 06.52 E
TAEPA (IAF)	R-310 / 15.0 D UBL	15 24 18.58 N	104 39 59.05 E
KANOM (IF)	R-050 / 13.0 D UBL	15 23 08.02 N	105 02 13.99 E
FAF	R-050 / 6.5 D UBL	15 18 55.42 N	104 57 05.54 E
MAPt	R-050 / 1.2 D UBL	15 15 30.67 N	104 52 55.77 E
THR RWY 23	-	15 15 35.02 N	104 52 52.20 E
VOR (IAF)	UBL	15 14 42.71 N	104 51 57.30 E

INSTRUMENT APPROACH CHART - ICAO
AERODROME ELEV 406 FT
HEIGHTS RELATED TO THR RWY 23 - ELEV 392 FT

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
ILS or LOC RWY23



MISSED APPROACH:
No turn before MAPt for LOC only.
Climb straight ahead to 1400 (1008) FT then turn right to intercept R-052 UBL VOR then proceed to IF at 3300 (2908) FT and hold or as directed by ATC.

		GP/DME											
		VOR/DME UBL	MAPt (LOC only)	FAF	(IF) MAPAW								
			800 (408)	2200 (1808)	3300 (2908)	RDH 50 FT							
						TA 11000							
						ELEV 392 FT (THR RWY 23)							
		DME FM GP/DME	0 0.1 1.2	5.6	11.9								
		DME FM VOR/DME	0 1.2 2.3	6.7	13.0								
		NM FM THR	0 1.1	5.5	11.8								
OCA/H	CAT I	A	B	C	D	Distance (IUBL)	1.2 D	2 D	3 D	4 D	5 D	FAF	
Straight-in Approach		650 (258)	660 (268)	670 (278)	680 (288)	Altitude (Height)	800 (408)	1040 (648)	1360 (968)	1675 (1283)	1990 (1598)	2200 (1808)	
LOC only		800 (408)				Ground speed (GS)	knot	100	120	140	160	180	200
Circling (OCH AAL)		1350 (944)				Rate of descent (ft/min)		530	630	740	845	950	1055

INSTRUMENT AERODROME ELEV 406 FT APP : 123.5 , 257.8
 APPROACH HEIGHTS RELATED TO TWR : 119.9 , 274.5
 CHART - ICAO THR RWY 23 - ELEV 392 FT GND : 121.9 , 275.8

UBON RATCHATHANI /
 Ubon Ratchathani (VTUU)
 ILS or LOC RWY23

Fix / Point		Coordinates	
JUMPA (IAF)	R-298 / 15.0 D UBL	15 21 31.74 N	104 38 06.52 E
TAEPA (IAF)	R-310 / 15.0 D UBL	15 24 18.58 N	104 39 59.05 E
PUDZA (IAF)	R-077 / 15.0 D UBL	15 18 18.23 N	105 07 01.90 E
MUWAN (IAF)	R-094 / 15.0 D UBL	15 13 52.25 N	105 07 27.13 E
MAPAW (IF)	11.9 D IUBL R-052 / 13.0 D UBL	15 22 56.53 N	105 02 24.20 E
FAF	5.6 D IUBL	15 18 59.23 N	104 57 16.61 E
MAPt (LOC only)	0.1 D IUBL	15 15 35.02 N	104 52 52.20 E
THR RWY 23	-	15 15 35.02 N	104 52 52.20 E
LOC	IUBL	15 14 23.85 N	104 51 20.10 E
GP/DME	IUBL	15 15 26.05 N	104 52 47.13 E
VOR (IAF)	UBL	15 14 42.71 N	104 51 57.30 E

INSTRUMENT APPROACH CHART - ICAO
AERODROME ELEV 406 FT
HEIGHTS RELATED TO AERODROME ELEV
BARO-VNAV NA BELOW 0°C

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

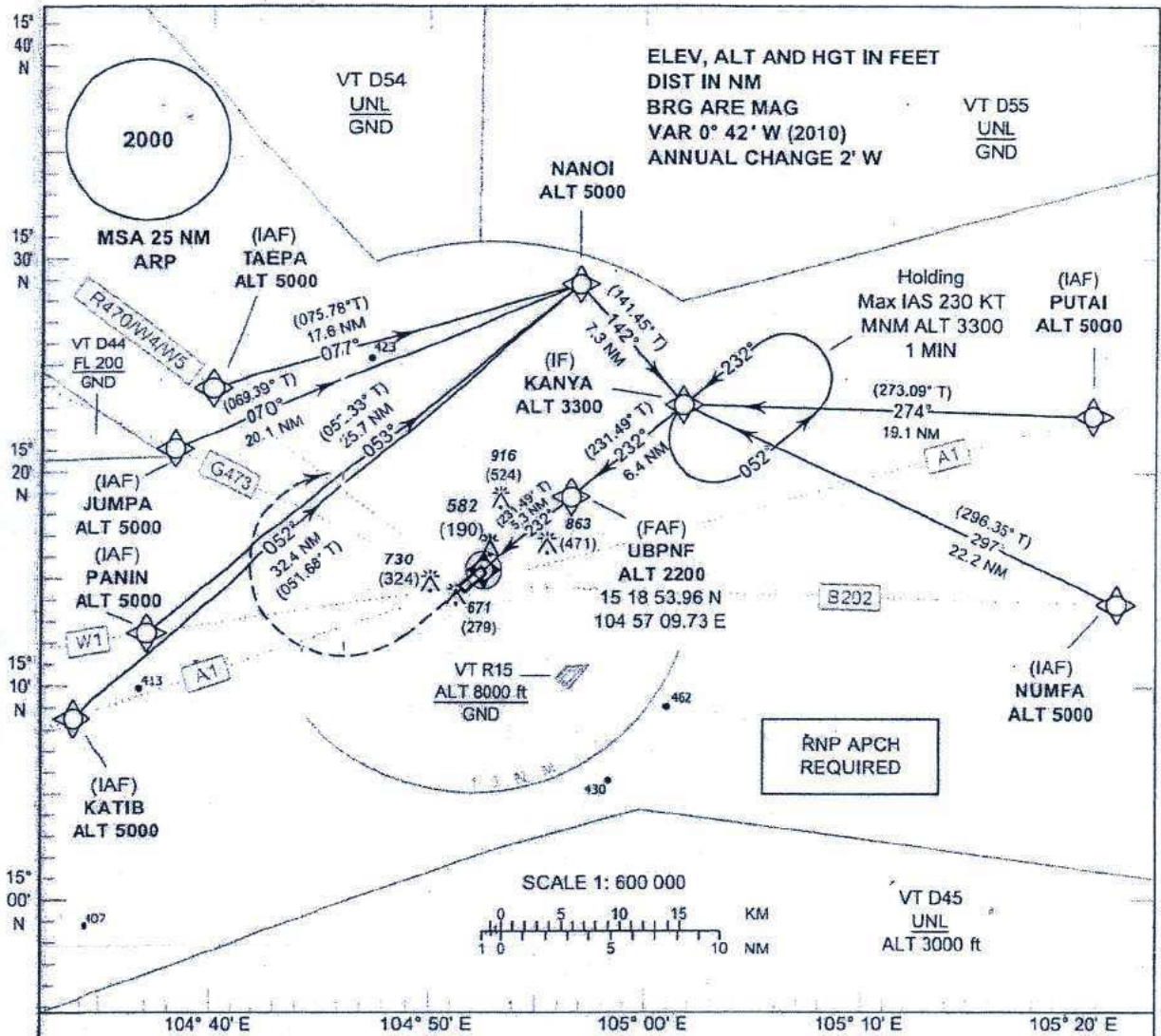
UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
RNAV (GNSS) RWY05

Serial Number	Path Descriptor	Waypoint Identifier	WGS-84 Coordinates		Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/TCH	Navigation Specification
			Latitude	Longitude									
001	IF	PUDZA (IAF)	15 18 18.23 N	105 07 01.90 E	-	216°(215.49°)	0.83	13.4	-	5000	-	-	RNP APCH
002	IF	MUWAN (IAF)	15 13 52.25 N	105 07 27.13 E	-	232°(231.56°)	0.83	10.5	-	5000	-	-	RNP APCH
003	TF	POONA	15 07 20.47 N	104 58 59.08 E	-	246°(244.83°)	0.83	13.9	R	5000	-	-	RNP APCH
004	TF	MAKAM	15 01 23.42 N	104 45 58.02 E	-	322°(321.50°)	0.83	6.9	R	5000	-	-	RNP APCH
005	IF	KATIB (IAF)	15 08 28.67 N	104 31 17.73 E	-	100°(099.48°)	0.83	10.0	-	5000	-	-	RNP APCH
007	IF	JUMPA (IAF)	15 21 31.74 N	104 38 06.52 E	-	191°(189.90°)	0.83	8.8	-	5000	-	-	RNP APCH
008	IF	TAEPA (IAF)	15 24 18.58 N	104 39 59.05 E	-	197°(196.23°)	0.83	11.9	-	5000	-	-	RNP APCH
006	F/TF	PANIN (IAF)	15 12 51.92 N	104 36 33.08 E	-	142°(141.38°)	0.83	7.7	L	5000	-	-	RNP APCH
009	TF	MAYSA (IF)	15 06 48.76 N	104 41 31.61 E	-	052°(051.46°)	0.83	7.3	L, R	3300	-	-	RNP APCH
010	TF	UBPSF (FAF)	15 11 22.76 N	104 47 25.87 E	-	052°(051.46°)	0.83	5.1	-	2200	-	-	RNP APCH
011	-	MAPT (THR 05)	15 14 34.17 N	104 51 33.46 E	Y	-	0.83	-	-	930	-	-	RNP APCH
012	CA	-	-	-	-	-	0.83	-	L	1400	-	-	RNP APCH
013	DF	MAYSA (IF)	15 06 48.76 N	104 41 31.61 E	-	-	0.83	-	-	-	-	-	RNP APCH
014	HM	MAYSA (IF)	15 06 48.76 N	104 41 31.61 E	Y	052°(051.46°)	0.83	-	R	-	230	-	RNP APCH

INSTRUMENT APPROACH CHART - ICAO
AERODROME ELEV 406 FT
HEIGHTS RELATED TO THR RWY 23 - ELEV 392 FT
BARO-VNAV NA BELOW 0°C

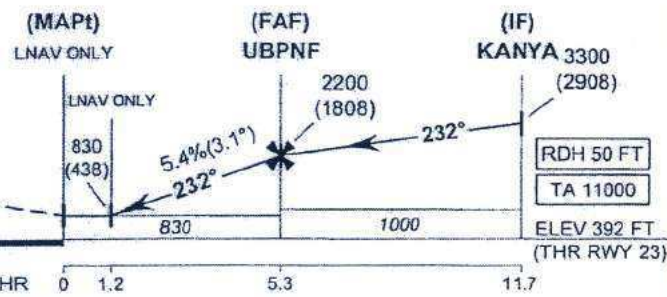
APP : 123.5, 257.8
TWR : 119.9, 274.5
GND : 121.9, 275.8

UBON RATCHATHANI / Ubon Ratchathani (VTUU)
RNAV (GNSS) RWY23



MISSED APPROACH:
No turn before MAPt.
Climb on track 232° to 1400 (1008) FT then turn right to IF at 3300 (2908) FT and hold or as directed by ATC.

Descent gradient not coincident with PAPI (3.0°).



OCA/H	A	B	C	D	NM to THR 23	1.2 NM	2 NM	3 NM	4 NM	5 NM	FAF	
LNAV / VNAV	740 (348)	750 (358)	790 (398)	820 (428)	Altitude (Height)	830 (438)	1100 (708)	1425 (1033)	1755 (1363)	2080 (1688)	2200 (1808)	
LNAV	830 (438)				Ground speed (GS)	knot	100	120	140	160	180	200
Circling (OCH AAL)	1350 (944)				Rate of descent	(ft/min)	545	655	765	875	985	1095

INSTRUMENT AERODROME ELEV 406 FT
APPROACH HEIGHTS RELATED TO
CHART - ICAO THR RWY 23 - ELEV 392 FT
BARO-VNAV NA BELOW 0°C

APP : 123.5 , 257.8
TWR : 119.9 , 274.5
GND : 121.9 , 275.8

UBON RATCHATHANI /
Ubon Ratchathani (VTUU)
RNAV (GNSS) RWY23

Serial Number	Path Descriptor	Waypoint Identifier	WGS-84 Coordinates		Flyover	Course M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/TCH	Navigation Specification
			Latitude	Longitude									
001	IF	POSAI (IAF)	15 21 52.72 N	105 22 06.99 E	-	274°(273.09°)	0.83	19.1	-	5000	-	-	RNP APCH
002	IF	NUMFA (IAF)	15 13 00.71 N	105 22 56.83 E	-	297°(296.35°)	0.83	22.2	-	5000	-	-	RNP APCH
003	IF	KATIB (IAF)	15 08 28.67 N	104 31 17.73 E	-	052°(051.68°)	0.83	32.4	-	5000	-	-	RNP APCH
004	IF	PANIN (IAF)	15 12 51.92 N	104 36 33.08 E	-	053°(052.33°)	0.83	25.7	-	5000	-	-	RNP APCH
005	IF	JUMPA (IAF)	15 21 31.74 N	104 38 06.52 E	-	070°(069.39°)	0.83	20.1	-	5000	-	-	RNP APCH
006	IF	TAEPA (IAF)	15 24 18.58 N	104 39 59.05 E	-	077°(075.78°)	0.83	17.6	-	5000	-	-	RNP APCH
007	TF	NANOI	15 28 38.06 N	104 57 38.09 E	-	142°(141.45°)	0.83	7.3	R	5000	-	-	RNP APCH
008	TF	KANYA (IF)	15 22 53.99 N	105 02 20.58 E	-	232°(231.49°)	0.83	6.4	L, R	3300	-	-	RNP APCH
009	TF	UBPNF (FAF)	15 18 53.96 N	104 57 09.73 E	-	232°(231.49°)	0.83	5.3	-	2200	-	-	RNP APCH
010	-	MAPt (THR 23)	15 15 35.02 N	104 52 52.20 E	Y	-	0.83	-	-	830	-	-	RNP APCH
011	CA	-	-	-	-	-	0.83	-	R	1400	-	-	RNP APCH
012	DF	KANYA (IF)	15 22 53.99 N	105 02 20.58 E	-	-	0.83	-	-	-	-	-	RNP APCH
013	HM	KANYA (IF)	15 22 53.99 N	105 02 20.58 E	Y	232°(231.49°)	0.83	-	L	-	230	-	RNP APCH