

## VTUL AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTUL - LOEI / LOEI AIRPORT

## VTUL AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	172620.88N 1014319.43E
2	Direction and distance from (city)	5 KM, from city
3	Elevation/Reference temperature	860 FT/30°C
4	Geoid Undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	0.82°W (2016)/0.0°E
6	AD Administration, address, telephone, telefax, telex, AFS	Director of Loei Airport Loei Airport Loei Province 42000 Thailand Tel: +664 281 2654 +664 281 1521 Fax: +664 281 2654 AFS: VTULYDYX
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Operator: Department of Airports

## VTUL AD 2.3 OPERATIONAL HOURS

1	Aerodrome Operator	2300-1100
2	Customs and immigration	NIL
3	Health and sanitation	NIL
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	2300-1100
6	MET Briefing Office	NIL
7	ATS	2300-1100
8	Fuelling	NIL
9	Handling	NIL
10	Security	NIL
11	De-icing	NIL
12	Remarks	ATS Reporting Office (ARO): Located at Udon Thani Air Traffic Control Centre (1st floor of tower building) Tel: +664 223 0124 +669 2262 3477 Fax: +664 224 2797

**VTUL AD 2.4 HANDLING SERVICES AND FACILITIES**

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

**VTUL AD 2.5 PASSENGER FACILITIES**

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

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

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

**VTUL AD 2.7 SEASONAL AVAILABILITY - CLEARING**

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

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

1	Apron surface and strength	Surface: Concrete Strength: PCN 45/R/C/X/T
2	Taxiway width, surface and strength	Width: 23 M Surface: Concrete and asphalt Strength: PCN 42/F/C/X/T
3	Altimeter checkpoint location and elevation	NIL
4	VOR checkpoints	NIL
5	INS checkpoints	NIL
6	Remarks	NIL

## VTUL AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

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

## VTUL AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			In circling areas and at AD		Remarks
1			2		3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
NIL	Radio mast HGT 110 M painted red/white LGTD on top	172800N 1014220E	NIL	NIL	NIL

## VTUL AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Loei, Upper Northeastern Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2300-1200 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Upper Northeastern Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +664 281 4639 ext. 6715
6	Flight documentation Language(s) used	NIL
7	Charts and other information available for briefing or consultation	S, U85, Daily Weather Forecast, satellite and radar images
8	Supplementary equipment available for providing information	Automated Weather Observation System (AWOS)
9	ATS units provided with information	Loei TWR
10	Additional information (limitation of service, etc.)	NIL

VTUL AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
01	016.47°	2100x45	PCN 42/F/C/X/T Concrete and asphalt	172548.12N 1014309.10E	THR 817 FT TDZ 817 FT
19	196.47°	2100x45	PCN 42/F/C/X/T Concrete and asphalt	172653.63N 1014329.77E	THR 860 FT TDZ 860 FT

Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
-0.60%	60x60	NIL	2430x150	NIL	NIL
-0.90%	60x60	NIL	2430x150	NIL	NIL

VTUL AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
01	2100	2100	2160	2100	NIL
19	2100	2100	2160	2100	NIL

VTUL AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour INTST	RWY End LGT colour WBAR	SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
01	SALS	Green	PAPI Left 3°	NIL	NIL	2100 M 60 M White, LIM	Red	NIL	NIL
19	RTIL	Green	PAPI Left 3°	NIL	NIL	2100 M 60 M White, LIM	Red	NIL	NIL

VTUL AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: At Tower Building FLG W G EV 7 SEC
2	LDI location and LGT Anemometer location and LGT	NIL
3	TWY edge and centre line lighting	EDGE: All Taxiways
4	Secondary power supply/switch-over time	Secondary power at tower and air field lighting (AFL).
5	Remarks	NIL

**VTUL AD 2.16 HELICOPTER LANDING AREA**

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

**VTUL AD 2.17 ATS AIRSPACE**

1	Designation and lateral limits	A circle of 5 NM radius centred on Loei DVOR/DME (172649.38N 1014323.12E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Loei Tower English, Thai
5	Transition altitude	11000 FT
6	Remarks	NIL

**VTUL AD 2.18 ATS COMMUNICATION FACILITIES**

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Loei Approach	122.55 MHZ 121.5 MHZ <sup>1)</sup>	As AD OPR HR	<sup>1)</sup> Emergency frequency
TWR	Loei Tower	118.35 MHZ 236.6 MHZ 121.5 MHZ <sup>1)</sup>	As AD OPR HR	
ATIS	Loei Airport	126.25 MHZ	As AD OPR HR	

**VTUL AD 2.19 RADIO NAVIGATION AND LANDING AIDS**

Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/ MLS, give declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
NDB	LY	325 KHZ	H24	172655.09N 1014335.41E	NIL	NDB: unusable due to excessive needle swing bearing 255 to 205 degrees, counter clockwise below 8000 FT.
DVOR/DME	LOY	115.9 MHZ CH106X	H24	172649.38N 1014323.12E		DVOR/DME restriction, 1. Unusable due to roughness out of tolerance – Radial 020° between 10-11 DME altitude 3 000 FT – Radial 243° between 7-8 DME altitude 6 000 FT and between 32-33 DME altitude 7 500 FT 2. Due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal to 40 NM at the required altitude in various areas as follows: 2.1 40 NM orbit – Radial 030°-050° altitude should not below 10 000 FT – Radial 051°-100° altitude should not below 7 000 FT – Radial 101°-130° altitude should not below 10 000 FT – Radial 131°-200° altitude should not below 5 000 FT – Radial 201°-250° altitude should not below 12 000 FT – Radial 251°-270° altitude should not below 13 000 FT 2.2 20 NM orbit (Due to border limited) – Radial 271°-029° altitude should not below 4 500 FT

**VTUL AD 2.20 LOCAL AERODROME REGULATIONS**

**1. 180 DEGREE TURN ON THE RUNWAY**

To prevent runway pavement damage, all aircraft code letter C or higher are not allowed to make 180 degree turn on the runway. The turn shall be made on the runway turn pad at the end of runway 01 and 19 only. Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand/The Headquarter of that operator shall be liable for the compensation caused by such violation.

**VTUL AD 2.21 NOISE ABATEMENT PROCEDURES**

NIL

**VTUL AD 2.22 FLIGHT PROCEDURES**

NIL

**VTUL AD 2.23 ADDITIONAL INFORMATION**

NIL

## VTUL AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page
Aerodrome Chart - ICAO	AD 2-VTUL-2-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - BARCE1A BOVGO1A DUBOL1A NOGAD1A RIBDO1A SWENI1A	AD 2-VTUL-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 01 - BARCE1A BOVGO1A DUBOL1A NOGAD1A RIBDO1A SWENI1A (Tabular description)	AD 2-VTUL-6-2
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - BARCE1B BOVGO1B DUBOL1B NOGAD1B RIBDO1B SWENI1B	AD 2-VTUL-6-3
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 19 - BARCE1B BOVGO1B DUBOL1B NOGAD1B RIBDO1B SWENI1B (Tabular description)	AD 2-VTUL-6-4
Instrument Approach Chart - ICAO - VOR RWY 19	AD 2-VTUL-8-1
Instrument Approach Chart - ICAO - VOR RWY 19 (Fix and point list table)	AD 2-VTUL-8-2
Instrument Approach Chart - ICAO - RNP RWY 19	AD 2-VTUL-8-3
Instrument Approach Chart - ICAO - RNP RWY 19 (Tabular description)	AD 2-VTUL-8-4
Instrument Approach Chart - ICAO - RNP RWY 19 (Waypoint list table)	AD 2-VTUL-8-5

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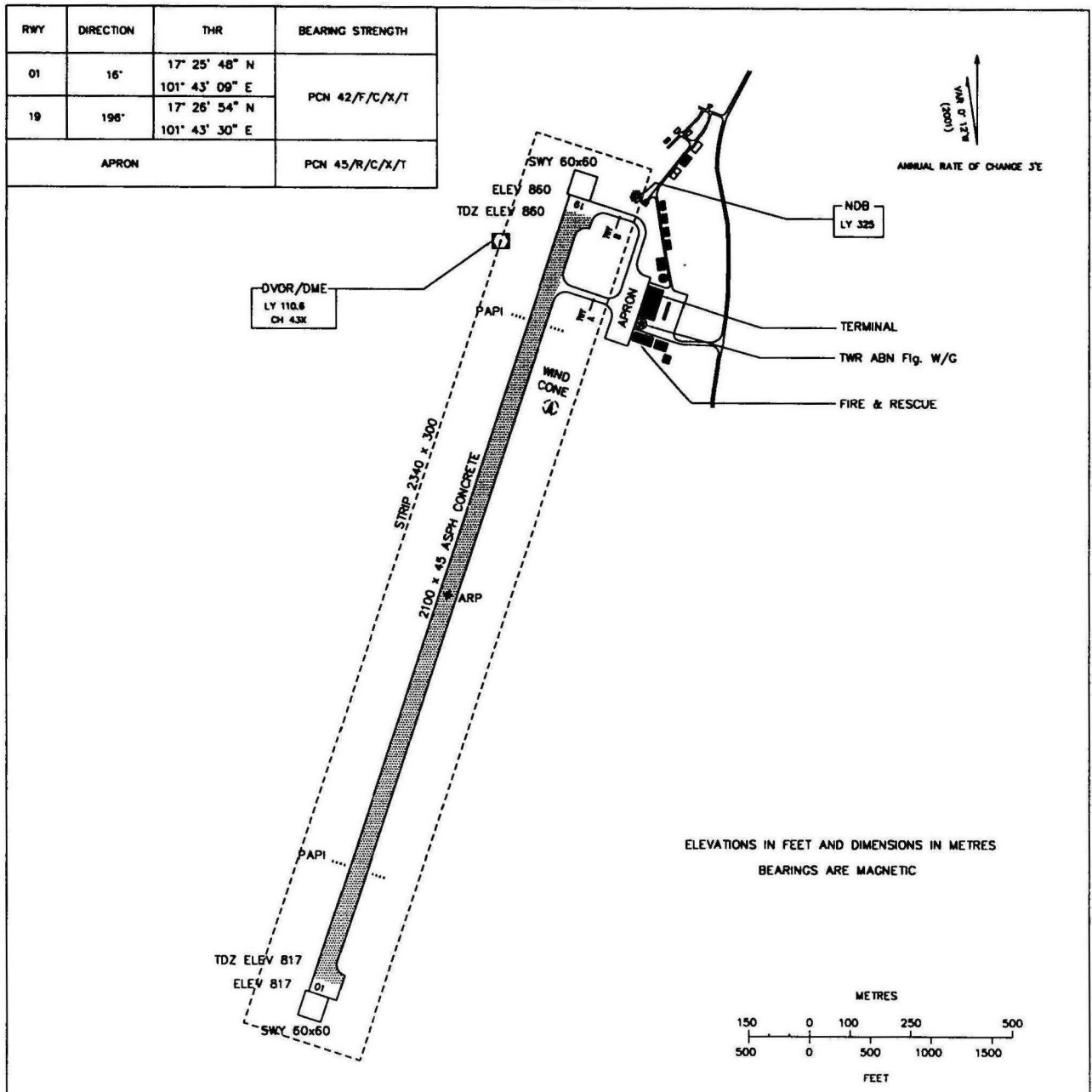
AERODROME CHART-ICAO

17° 26' 21" N  
101° 43' 19" E

ELEV 860 ft  
262 m

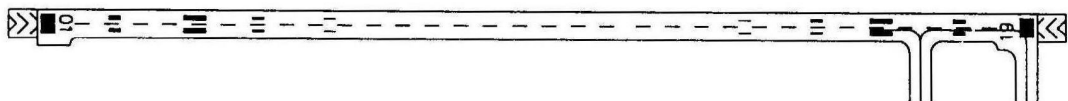
TWR 122.5

LOEI/Loei

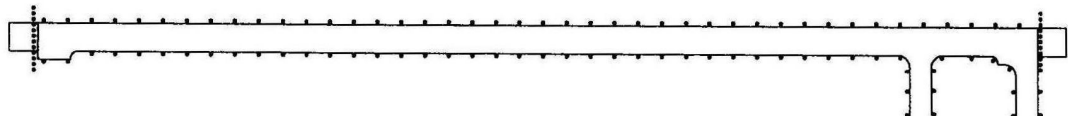


Remark : COORDINATE ARE WGS-84

MARKING AIDS RWY 01/19 AND EXIT TWY



LIGHTING AIDS RWY 01/19 AND EXIT TWY



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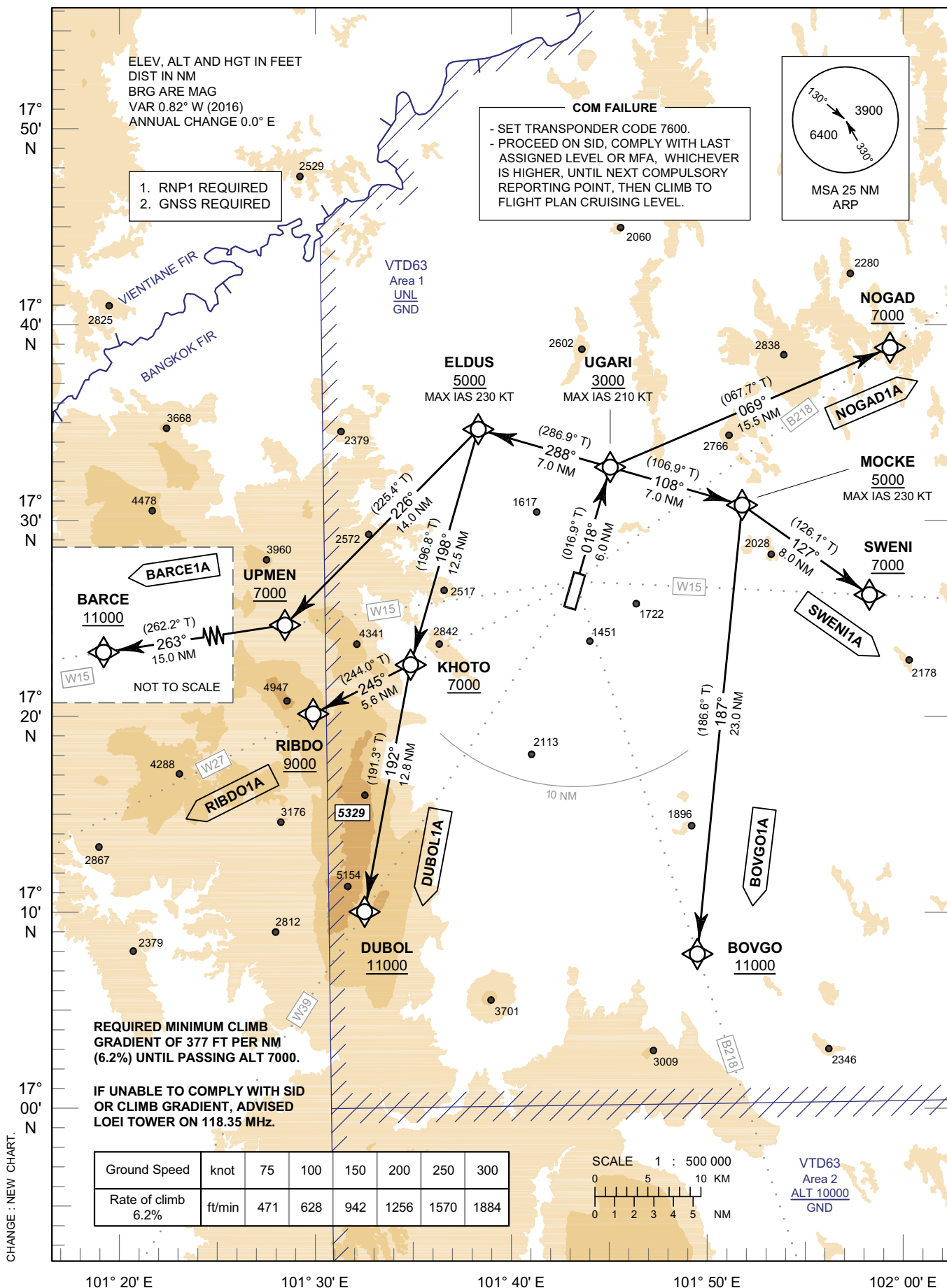
**STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE  
11000 FT

APP : 122.55  
TWR : 118.35 , 236.6  
ATIS : 126.25

**LOEI / Loei (VTUL)  
RNAV RWY01**

BARCE1A BOVGO1A DUBOL1A  
NOGAD1A RIBDO1A SWENI1A



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

**LOEI / Loei (VTUL)  
RNAV RWY01**

BARCE1A BOVGO1A DUBOL1A  
NOGAD1A RIBDO1A SWENI1A

**TABULAR DESCRIPTION**

RNAV RWY01											
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/TCH	Navigation Specification
<b>BARCE1A</b>											
010	-	DER RWY01	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	UGARI	-	018° (016.9°)	+0.82	6.0	-	+3000	-210	-	RNP 1
030	TF	ELDUS	-	288° (286.9°)	+0.82	7.0	-	+5000	-230	-	RNP 1
040	TF	UPMEN	-	226° (225.4°)	+0.82	14.0	-	+7000	-	-	RNP 1
050	TF	BARCE	-	263° (262.2°)	+0.82	15.0	-	+11000	-	-	RNP 1
<b>BOVGO1A</b>											
010	-	DER RWY01	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	UGARI	-	018° (016.9°)	+0.82	6.0	-	+3000	-210	-	RNP 1
030	TF	MOCKE	-	108° (106.9°)	+0.82	7.0	-	+5000	-230	-	RNP 1
040	TF	BOVGO	-	187° (186.6°)	+0.82	23.0	-	+11000	-	-	RNP 1
<b>DUBOL1A</b>											
010	-	DER RWY01	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	UGARI	-	018° (016.9°)	+0.82	6.0	-	+3000	-210	-	RNP 1
030	TF	ELDUS	-	288° (286.9°)	+0.82	7.0	-	+5000	-230	-	RNP 1
040	TF	KHOTO	-	198° (196.8°)	+0.82	12.5	-	+7000	-	-	RNP 1
050	TF	DUBOL	-	192° (191.3°)	+0.82	12.8	-	+11000	-	-	RNP 1
<b>NOGAD1A</b>											
010	-	DER RWY01	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	UGARI	-	018° (016.9°)	+0.82	6.0	-	+3000	-210	-	RNP 1
030	TF	NOGAD	-	069° (067.7°)	+0.82	15.5	-	+7000	-	-	RNP 1
<b>RIBDO1A</b>											
010	-	DER RWY01	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	UGARI	-	018° (016.9°)	+0.82	6.0	-	+3000	-210	-	RNP 1
030	TF	ELDUS	-	288° (286.9°)	+0.82	7.0	-	+5000	-230	-	RNP 1
040	TF	KHOTO	-	198° (196.8°)	+0.82	12.5	-	+7000	-	-	RNP 1
050	TF	RBDO	-	245° (244.0°)	+0.82	5.6	-	+9000	-	-	RNP 1
<b>SWENI1A</b>											
010	-	DER RWY01	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	UGARI	-	018° (016.9°)	+0.82	6.0	-	+3000	-210	-	RNP 1
030	TF	MOCKE	-	108° (106.9°)	+0.82	7.0	-	+5000	-230	-	RNP 1
040	TF	SWENI	-	127° (126.1°)	+0.82	8.0	-	+7000	-	-	RNP 1

**WAYPOINT LIST**

RNAV RWY01					
Waypoint Identifier	Coordinates		Waypoint Identifier	Coordinates	
DER RWY01	17° 26' 53.63" N	101° 43' 29.77" E	MOCKE	17° 30' 37.19" N	101° 52' 19.60" E
BARCE	17° 22' 44.72" N	101° 12' 18.80" E	NOGAD	17° 38' 33.69" N	102° 00' 20.87" E
BOVGO	17° 07' 39.61" N	101° 49' 35.15" E	RIBDO	17° 20' 13.68" N	101° 29' 17.58" E
DUBOL	17° 10' 03.52" N	101° 31' 53.94" E	SWENI	17° 25' 55.41" N	101° 59' 02.73" E
ELDUS	17° 34' 41.66" N	101° 38' 18.21" E	UGARI	17° 32' 39.55" N	101° 45' 18.98" E
KHOTO	17° 22' 40.76" N	101° 34' 31.47" E	UPMEN	17° 24' 47.68" N	101° 27' 50.87" E

CHANGE : NEW CHART.

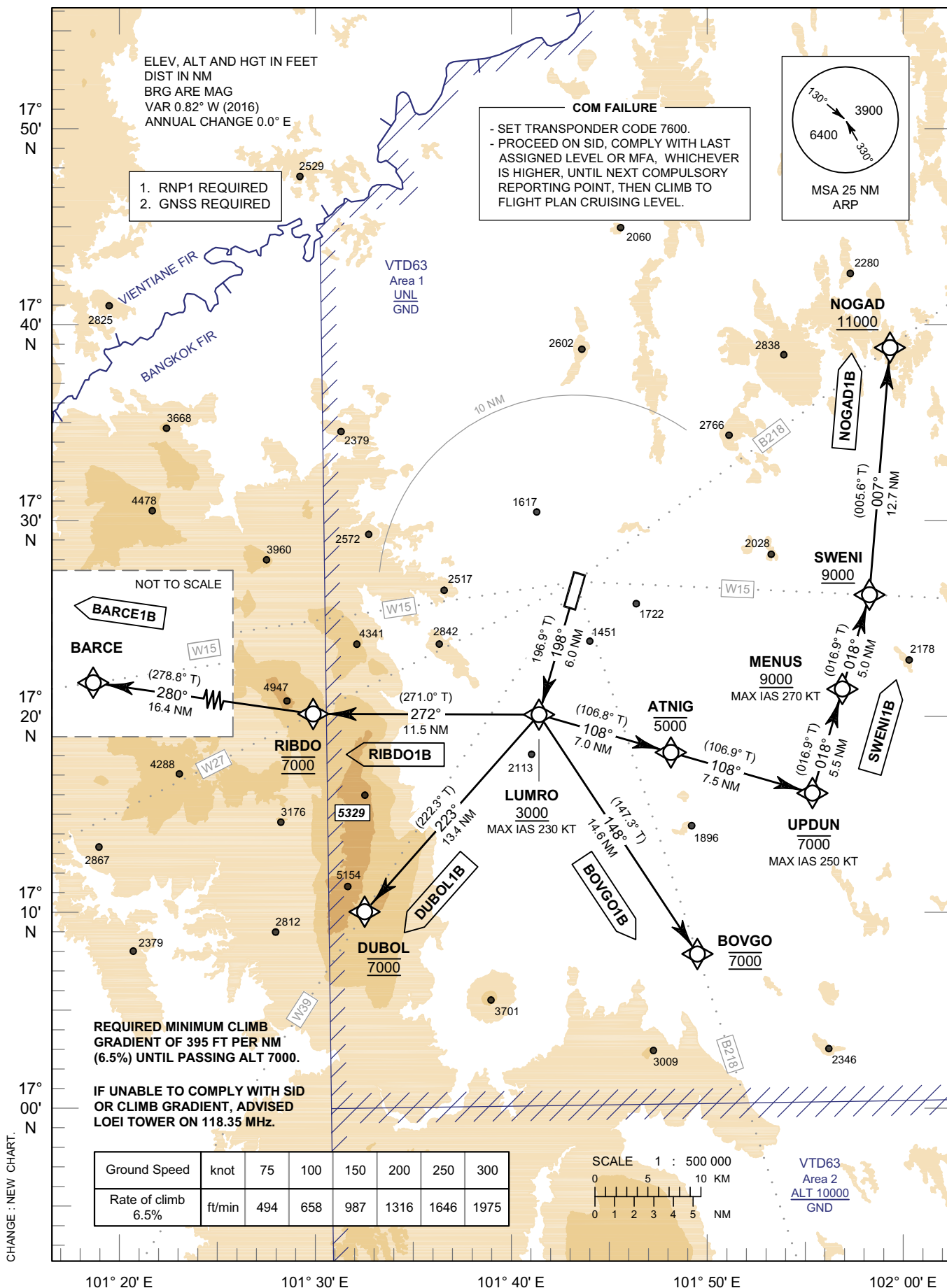
**STANDARD DEPARTURE CHART -  
INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE  
11000 FT

APP : 122.55  
TWR : 118.35 , 236.6  
ATIS : 126.25

**LOEI / Loei (VTUL)  
RNAV RWY19**

BARCE1B BOVGO1B DUBOL1B  
NOGAD1B RIBDO1B SWENI1B



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

**LOEI / Loei (VTUL)  
RNAV RWY19**

BARCE1B BOVGO1B DUBOL1B  
NOGAD1B RIBDO1B SWENI1B

**TABULAR DESCRIPTION**

RNAV RWY19											
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
BARCE1B											
010	-	DER RWY19	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	LUMRO	-	198° (196.9°)	+0.82	6.0	-	+3000	-230	-	RNP 1
030	TF	RIBDO	-	272° (271.0°)	+0.82	11.5	-	@7000	-	-	RNP 1
040	TF	BARCE	-	280° (278.8°)	+0.82	16.4	-	-	-	-	RNP 1
BOVGO1B											
010	-	DER RWY19	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	LUMRO	-	198° (196.9°)	+0.82	6.0	-	+3000	-230	-	RNP 1
030	TF	BOVGO	-	148° (147.3°)	+0.82	14.6	-	@7000	-	-	RNP 1
DUBOL1B											
010	-	DER RWY19	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	LUMRO	-	198° (196.9°)	+0.82	6.0	-	+3000	-230	-	RNP 1
030	TF	DUBOL	-	223° (222.3°)	+0.82	13.4	-	@7000	-	-	RNP 1
NOGAD1B											
010	-	DER RWY19	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	LUMRO	-	198° (196.9°)	+0.82	6.0	-	+3000	-230	-	RNP 1
030	TF	ATNIG	-	108° (106.8°)	+0.82	7.0	-	-5000	-	-	RNP 1
040	TF	UPDUN	-	108° (106.9°)	+0.82	7.5	-	-7000	-250	-	RNP 1
050	TF	MENUS	-	018° (016.9°)	+0.82	5.5	-	+9000	-270	-	RNP 1
060	TF	SWENI	-	018° (016.9°)	+0.82	5.0	-	+9000	-	-	RNP 1
070	TF	NOGAD	-	007° (005.6°)	+0.82	12.7	-	+11000	-	-	RNP 1
RIBDO1B											
010	-	DER RWY19	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	LUMRO	-	198° (196.9°)	+0.82	6.0	-	+3000	-230	-	RNP 1
030	TF	RIBDO	-	272° (271.0°)	+0.82	11.5	-	@7000	-	-	RNP 1
SWENI1B											
010	-	DER RWY19	-	-	+0.82	-	-	-	-	-	RNP 1
020	CF	LUMRO	-	198° (196.9°)	+0.82	6.0	-	+3000	-230	-	RNP 1
030	TF	ATNIG	-	108° (106.8°)	+0.82	7.0	-	-5000	-	-	RNP 1
040	TF	UPDUN	-	108° (106.9°)	+0.82	7.5	-	-7000	-250	-	RNP 1
050	TF	MENUS	-	018° (016.9°)	+0.82	5.5	-	+9000	-270	-	RNP 1
060	TF	SWENI	-	018° (016.9°)	+0.82	5.0	-	+9000	-	-	RNP 1

**WAYPOINT LIST**

RNAV RWY19					
Waypoint Identifier	Coordinates		Waypoint Identifier	Coordinates	
DER RWY19	17° 25' 48.12" N	101° 43' 09.10" E	MENUS	17° 21' 07.25" N	101° 57' 31.40" E
ATNIG	17° 18' 00.22" N	101° 48' 19.99" E	NOGAD	17° 38' 33.69" N	102° 00' 20.87" E
BARCE	17° 22' 44.72" N	101° 12' 18.80" E	RIBDO	17° 20' 13.68" N	101° 29' 17.58" E
BOVGO	17° 07' 39.61" N	101° 49' 35.15" E	SWENI	17° 25' 55.41" N	101° 59' 02.73" E
DUBOL	17° 10' 03.52" N	101° 31' 53.94" E	UPDUN	17° 15' 48.74" N	101° 55' 50.55" E
LUMRO	17° 20' 02.18" N	101° 41' 20.01" E			

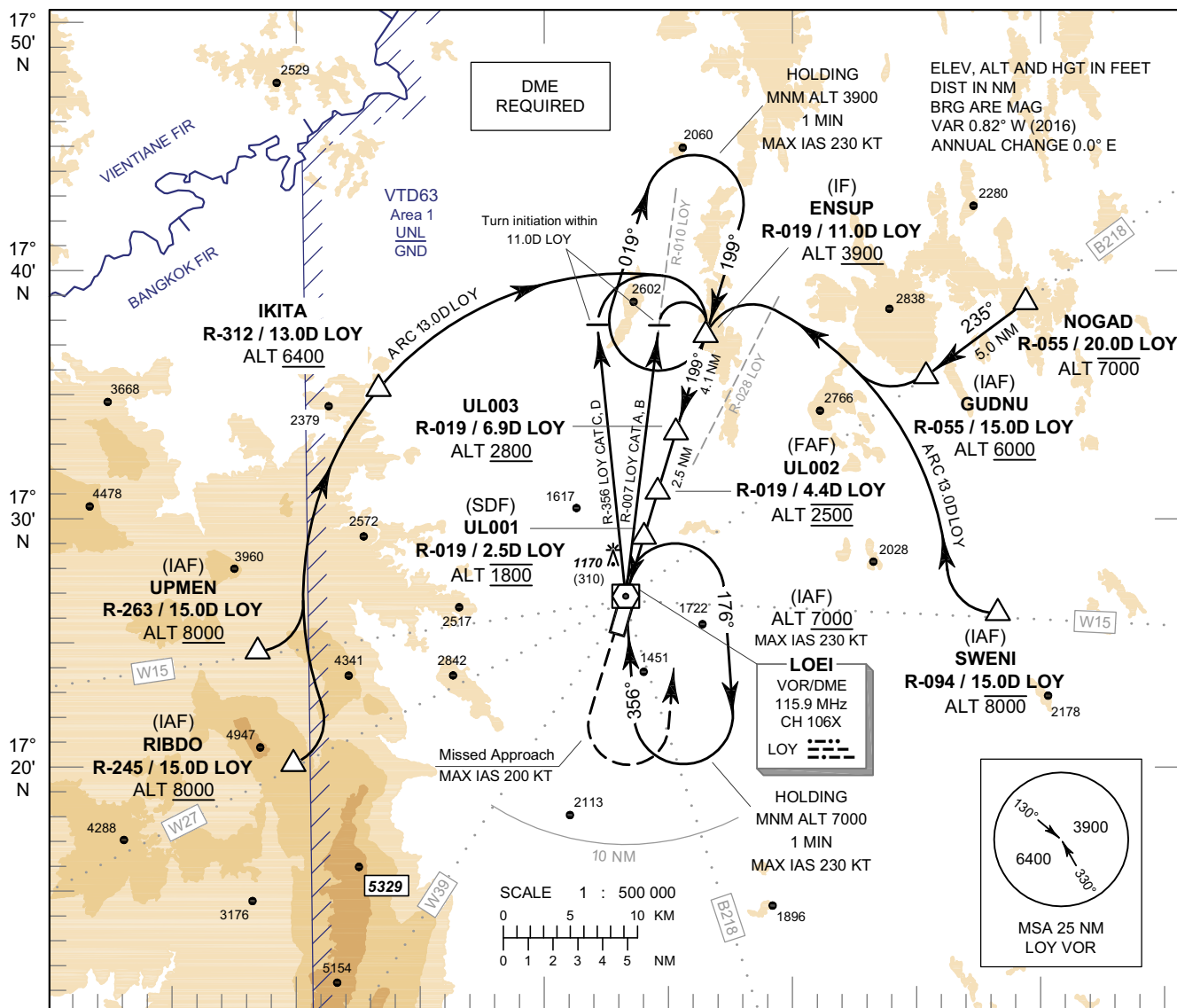
CHANGE : NEW CHART.

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 860 FT  
HEIGHT RELATED TO  
AERODROME ELEV**

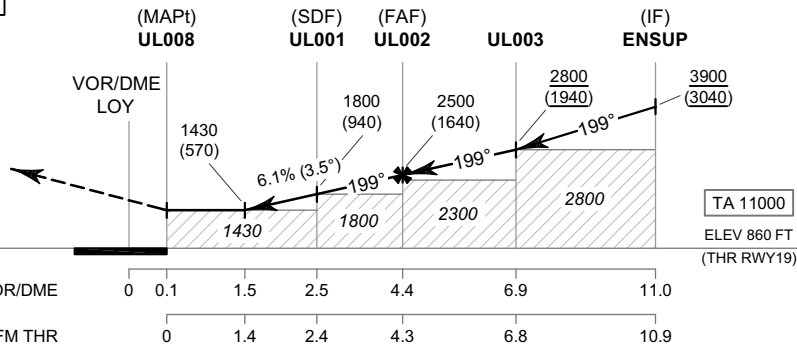
APP : 122.55  
TWR : 118.35 , 236.6  
ATIS : 126.25

**LOEI / Loei (VTUL)  
VOR RWY19**



Descent Gradient not coincident with PAPI (3.0°)

**MISSED APPROACH :**  
No turn before MAPt.  
Speed restricted to MAX IAS 200 KT until after turn.  
Climb straight ahead to 2000 FT, then turn left to intercept outbound R-019 LOY VOR and continue climb to ENSUP at minimum 3900 FT and hold or as directed by ATC.



CHANGE : MAPI NAME, SDF ALTITUDE.

OCA/H	A	B	C	D	Distance (LOY)							
					1.5D	2D	3D	4D	FAF			
Straight - in Approach	1430 (570)				1430 (570)	1615 (755)	1985 (1125)	2355 (1495)	2500 (1640)			
					Ground Speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	2400 (1540)				Rate of descent	ft/min	432	556	618	741	865	988

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 860 FT  
HEIGHT RELATED TO  
AERODROME ELEV**

**LOEI / Loei (VTUL)  
VOR RWY19**

Fix / Point		Coordinates	
(IAF) VOR	LOY	17° 26' 49.38" N	101° 43' 23.12" E
(IAF) RIBDO	R-245 / 15.0D LOY	17° 20' 13.68" N	101° 29' 17.58" E
(IAF) UPMEN	R-263 / 15.0D LOY	17° 24' 47.68" N	101° 27' 50.87" E
IKITA	R-312 / 13.0D LOY	17° 35' 20.75" N	101° 33' 05.54" E
(IAF) SWENI	R-094 / 15.0D LOY	17° 25' 55.41" N	101° 59' 02.73" E
NOGAD	R-055 / 20.0D LOY	17° 38' 33.69" N	102° 00' 20.87" E
(IAF) GUDNU	R-055 / 15.0D LOY	17° 35' 37.80" N	101° 56' 06.27" E
(IAF) ENSUP	R-019 / 11.0D LOY	17° 37' 19.65" N	101° 46' 54.81" E
UL003	R-019 / 6.9D LOY	17° 33' 25.02" N	101° 45' 35.96" E
(FAF) UL002	R-019 / 4.4D LOY	17° 31' 01.68" N	101° 44' 47.81" E
(SDF) UL001	R-019 / 2.5D LOY	17° 29' 12.73" N	101° 44' 11.23" E
(MAPt) UL008	R-019 / 0.1D LOY	17° 26' 55.11" N	101° 43' 25.04" E

CHANGE : MAPt NAME.

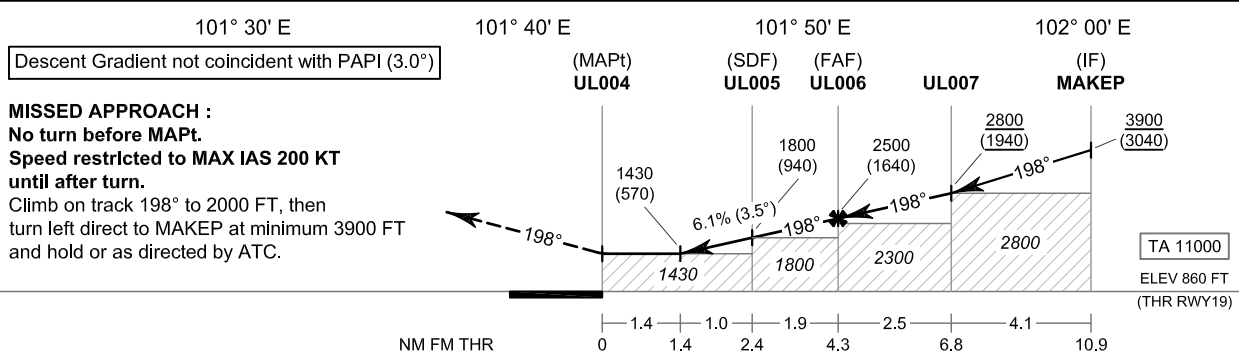
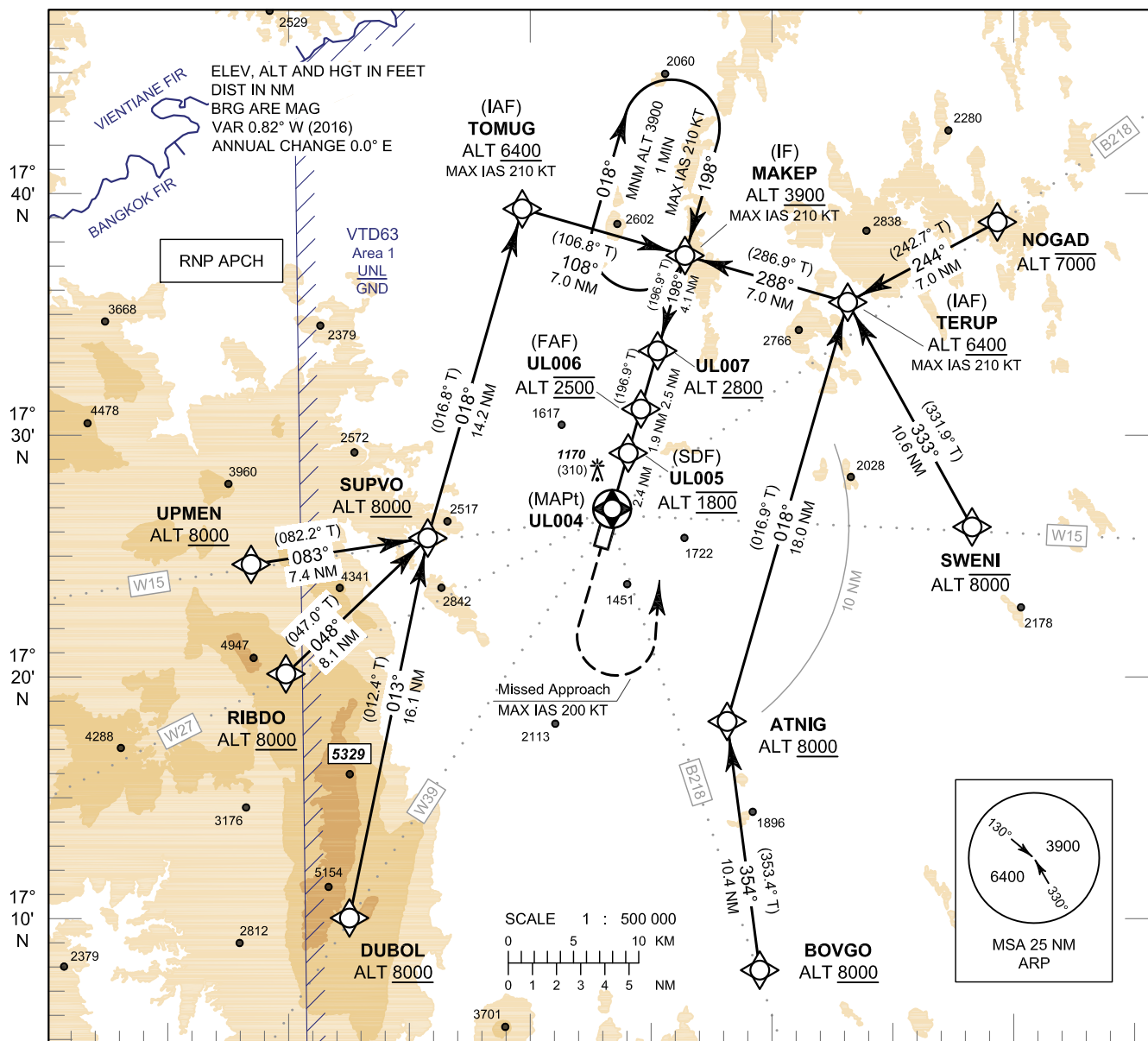


**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 860 FT  
HEIGHT RELATED TO  
AERODROME ELEV**

APP : 122.55  
TWR : 118.35 , 236.6  
ATIS : 126.25

**LOEI / Loei (VTUL)  
RNP RWY19**



CHANGE : SDF ALTITUDE.

OCA/H	A	B	C	D	NM to NEXT WPT	1.4 NM	2 NM	3 NM	4D	FAF		
LNAV	1430 (570)				Altitude (Height)	1430 (570)	1650 (790)	2020 (1160)	2395 (1535)	2500 (1640)		
					Ground Speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	2400 (1540)				Rate of descent	ft/min	432	556	618	741	865	988

**INSTRUMENT  
APPROACH  
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**AERODROME ELEV 860 FT  
HEIGHT RELATED TO  
AERODROME ELEV**

**LOEI / Loei (VTUL)  
RNP RWY19**

**TABULAR DESCRIPTION**

**RNP RWY19**

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
010	IF	DUBOL	-	-	+0.82	-	-	+8000	-	-	RNP APCH
020	TF	SUPVO	-	013°(012.4°)	+0.82	16.1	-	+8000	-	-	RNP APCH
030	TF	(IAF) TOMUG	-	018°(016.8°)	+0.82	14.2	-	+6400	-210	-	RNP APCH
040	TF	(IF) MAKEP	-	108°(106.8°)	+0.82	7.0	-	+3900	-210	-	RNP APCH
010	IF	RIBDO	-	-	+0.82	-	-	+8000	-	-	RNP APCH
020	TF	SUPVO	-	048°(047.0°)	+0.82	8.1	-	+8000	-	-	RNP APCH
030	TF	(IAF) TOMUG	-	018°(016.8°)	+0.82	14.2	-	+6400	-210	-	RNP APCH
040	TF	(IF) MAKEP	-	108°(106.8°)	+0.82	7.0	-	+3900	-210	-	RNP APCH
010	IF	UPMEN	-	-	+0.82	-	-	+8000	-	-	RNP APCH
020	TF	SUPVO	-	083°(082.2°)	+0.82	7.4	-	+8000	-	-	RNP APCH
030	TF	(IAF) TOMUG	-	018°(016.8°)	+0.82	14.2	-	+6400	-210	-	RNP APCH
040	TF	(IF) MAKEP	-	108°(106.8°)	+0.82	7.0	-	+3900	-210	-	RNP APCH
010	IF	BOVGO	-	-	+0.82	-	-	+8000	-	-	RNP APCH
020	TF	ATNIG	-	354°(353.4°)	+0.82	10.4	-	+8000	-	-	RNP APCH
030	TF	(IAF) TERUP	-	018°(016.9°)	+0.82	18.0	-	+6400	-210	-	RNP APCH
040	TF	(IF) MAKEP	-	288°(286.9°)	+0.82	7.0	-	+3900	-210	-	RNP APCH
010	IF	SWENI	-	-	+0.82	-	-	-8000	-	-	RNP APCH
020	TF	(IAF) TERUP	-	333°(331.9°)	+0.82	10.6	-	+6400	-210	-	RNP APCH
030	TF	(IF) MAKEP	-	288°(286.9°)	+0.82	7.0	-	+3900	-210	-	RNP APCH
010	IF	NOGAD	-	-	+0.82	-	-	-7000	-	-	RNP APCH
020	TF	(IAF) TERUP	-	244°(242.7°)	+0.82	7.0	-	+6400	-210	-	RNP APCH
030	TF	(IF) MAKEP	-	288°(286.9°)	+0.82	7.0	-	+3900	-210	-	RNP APCH
010	TF	(IF) MAKEP	-	-	+0.82	-	-	+3900	-210	-	RNP APCH
020	TF	UL007	-	198°(196.9°)	+0.82	4.1	-	+2800	-	-	RNP APCH
030	TF	(FAF) UL006	-	198°(196.9°)	+0.82	2.5	-	@2500	-	-	RNP APCH
040	TF	(SDF) UL005	-	198°(196.9°)	+0.82	1.9	-	@1800	-	-	RNP APCH
050	TF	(MAPt@THR19) UL004	Y	198°(196.9°)	+0.82	2.4	-	@1430	-	-	RNP APCH
060	CA	-	-	198°(196.9°)	+0.82	-	-	+2000	-200	-	RNP APCH
070	DF	(IF) MAKEP	-	-	+0.82	-	L	-	-200	-	RNP APCH
080	HM	(IF) MAKEP	Y	198°(196.9°)	+0.82	1 minute	R	+3900	-210	-	RNP APCH

CHANGE : REVISED CHART.

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 860 FT  
HEIGHT RELATED TO  
AERODROME ELEV**

**LOEI / Loei (VTUL)  
RNP RWY19**

**WAYPOINT LIST**

<b>RNP RWY19</b>	
<b>Waypoint Identifier</b>	<b>Coordinates</b>
ATNIG	17° 18' 00.22" N 101° 48' 19.99" E
BOVGO	17° 07' 39.61" N 101° 49' 35.15" E
DUBOL	17° 10' 03.52" N 101° 31' 53.94" E
MAKEP	17° 37' 22.06" N 101° 46' 48.19" E
NOGAD	17° 38' 33.69" N 102° 00' 20.87" E
RIBDO	17° 20' 13.68" N 101° 29' 17.58" E
SUPVO	17° 25' 47.60" N 101° 35' 30.10" E
SWENI	17° 25' 55.41" N 101° 59' 02.73" E
TERUP	17° 35' 19.70" N 101° 53' 48.99" E
TOMUG	17° 39' 24.17" N 101° 39' 47.24" E
UL004	17° 26' 53.63" N 101° 43' 29.77" E
UL005	17° 29' 12.00" N 101° 44' 13.44" E
UL006	17° 31' 01.54" N 101° 44' 48.02" E
UL007	17° 33' 25.68" N 101° 45' 33.53" E
UPMEN	17° 24' 47.68" N 101° 27' 50.87" E

CHANGE : REVISED CHART.

**INTENTIONALLY BLANK**