

## VTSB AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTSB - SURAT THANI / SURAT THANI AIRPORT

## VTSB AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	090810.09N 0990820.55E
2	Direction and distance from (city)	25 KM. W from city
3	Elevation/Reference temperature	20 FT/28°C
4	Geoid Undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	0.46°W(2016)/0.01°E
6	AD Administration, address, telephone, telefax, telex, AFS	Director of Surat Thani Airport Surat Thani Airport Tambon Huatoi, Amphoe Phunphin Surat Thani Province 84130 Thailand Tel: +667 744 1230 +667 744 1349 Fax: +667 744 1225 AFS: VTSBYDYX
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Operator: Department of Airports

## VTSB AD 2.3 OPERATIONAL HOURS

1	Aerodrome Operator	2300-1500
2	Customs and immigration	On request
3	Health and sanitation	On request
4	AIS Briefing Office	NIL
5	ATS Reporting Office (ARO)	2300-1500
6	MET Briefing Office	H24
7	ATS	2300-1500
8	Fuelling	0100-1200 Another time on request
9	Handling	NIL
10	Security	H24
11	De-icing	NIL
12	Remarks	ATS Reporting Office (ARO): Located at Surat Thani Air Traffic Control Centre (1st floor of tower building) Tel: +667 744 1008 +669 1010 1837 Fax: +667 744 1009

**VTSB AD 2.4 HANDLING SERVICES AND FACILITIES**

1	Cargo-handling facilities	NIL
2	Fuel/oil types	JET A-1, AVGAS
3	Fuelling facilities/capacity	1 JET A-1 Refueller @ 12,000 L 1 JET A-1 Refueller @ 22,000 L 1 AVGAS DC Motor Dispenser from drum 50 L
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	NIL

**VTSB AD 2.5 PASSENGER FACILITIES**

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

**VTSB 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

**VTSB AD 2.7 SEASONAL AVAILABILITY - CLEARING**

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

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

1	Apron surface and strength	Surface: Concrete Strength: PCN 65/R/C/X/T
2	Taxiway width, surface and strength	TWY A and B Width: 23 M Surface: Concrete and asphalt Strength: PCN 65/F/C/X/T TWY C (Parallel TWY), D, E, F, G, H, I and J Width: 23 M Surface: Concrete Strength: PCN 65/R/C/X/T
3	Altimeter checkpoint location and elevation	NIL
4	VOR checkpoints	NIL
5	INS checkpoints	NIL
6	Remarks	NIL

**VTSB 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

**VTSB AD 2.10 AERODROME OBSTACLES**

In approach/TKOF areas			In circling areas and at AD		Remarks
1			2		
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
NIL	Radio mast HGT 45 M painted red/ white LGTD on top	090900N 0991000E	NIL	NIL	NIL
	Radio mast HGT 45 M painted red/ white LGTD on top	090823N 0990715E			
	Radio mast HGT 121 M painted red/ white LGTD on top	090750N 0992130E			

**VTSB AD 2.11 METEOROLOGICAL INFORMATION PROVIDED**

1	Associated MET Office	Aeronautical Meteorological Station-Surat Thani, Southern East-Coast Meteorological Center, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	2200-1500 NIL
3	Office responsible for TAF preparation Periods of validity	Supply TAF from Southern East-Coast Meteorological Center 24 HR
4	Type of landing forecast Interval of issuance	TREND 1 HR
5	Briefing/consultation provided	Personal Consultation Tel: +667 744 1132 ext. 5514
6	Flight documentation Language(s) used	NIL
7	Charts and other information available for briefing or consultation	S, U85, Daily Weather Forecast, satellite and radar images
8	Supplementary equipment available for providing information	Automated Weather Observation System (AWOS), Low Level Wind Shear Alert System (LLWAS) and Weather Radar
9	ATS units provided with information	Surat Thani TWR
10	Additional information (limitation of service, etc.)	NIL

**VTSB 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
04	044.09°	3000x45	PCN 65/F/C/X/T Concrete and asphalt	090722.19N 0990733.72E	THR 20 FT TDZ 20 FT
22	224.09	3000x45	PCN 65/F/C/X/T Concrete and asphalt	090832.55N 0990842.50E	THR 18 FT TDZ 18 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	3270x300	NIL	NIL
NIL	60x45	NIL	3270x300	NIL	NIL

**VTSB AD 2.13 DECLARED DISTANCES**

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
04	3000	3000	3060	3000	NIL
22	3000	3000	3060	3000	NIL

**VTSB 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
04	NIL	Green	PAPI Left 3° (53.45 FT)	NIL	NIL	3000 M 60 M White, LIH	Red	NIL	NIL
22	CAT1 900M	Green	PAPI Left 3° (58.92 FT)	NIL	NIL	3000 M 60 M White, LIH	Red	NIL	NIL

**VTSB 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 IBN: NIL
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 air field lighting (AFL) Switch-over time: 20 SEC
5	Remarks	Flares 2 HR PN

**VTSB 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

**VTSB AD 2.17 ATS AIRSPACE**

1	Designation and lateral limits	A circle of 5 NM radius centred on STN DVOR/DME (090746.24N 0990805.09E)
2	Vertical limits	3000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Surat Thani Tower English, Thai
5	Transition altitude	11000 FT
6	Remarks	NIL

VTSB AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Surat Thani Approach	123.35 / 240.0 MHZ <sup>1)</sup> 129.6 / 305.4 MHZ <sup>2)</sup> 121.5 MHZ <sup>3)</sup>	As AD OPR HR	<sup>1)</sup> Primary frequency <sup>2)</sup> Secondary frequency <sup>3)</sup> Emergency frequency
TWR	Surat Thani Tower	122.7 MHZ 274.5 MHZ 121.5 MHZ <sup>3)</sup> 243.0 MHZ <sup>3)</sup>	As AD OPR HR	
GND	Surat Thani Ground	121.9 MHZ 275.8 MHZ	As AD OPR HR	
ATIS	Surat Thani Airport	125.95 MHZ	As AD OPR HR	

VTSB 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
DVOR/DME	STN	110.6 MHZ CH43X	H24	090746.24N 0990805.09E		DVOR/DME restriction, due to mountainous terrain surround DVOR/DME station coverage orbit 40 NM as follow: RDL 001-070 DEG ALT should not below 1500 FT RDL 071-090 DEG ALT should not below 3500 FT RDL 091-150 DEG ALT should not below 5000 FT RDL 151-190 DEG ALT should not below 1500 FT RDL 191-360 DEG ALT should not below 4000 FT RDL 227 DEG distance approximate 10-13 DME out of tolerance roughness and scalloping.
ILS CAT I LOC RWY22	ISTN	109.5 MHZ	H24	090715.04N 0990726.77E		Designated operational coverage 18 NM ±10° and 10 NM ±35° of localizer course, no back course and voice feature, the antenna array is located on extended runway centre line at distance 305 M from THR of runway 04.
GP/DME		332.6 MHZ CH32X	H24	090821.76N 0990837.47E		- Glide Path 3° - DME co-located with Glide Slope power output 100 watts Uni-directional
TACAN	SRT	CH79	2300-1100	0907.9N 09908.1E		Military Facility

## VTSB 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 Surat Thani Airport, the procedures of the inbound traffic of VFR flight, conventional and prop-jet aircraft be set up as follow:

- a) Aircraft entering to land from north of Surat Thani Airport, shall report over Chai Ya District, designated as CHARLIE point (0923.0N 9912.5E) which is approximately 15 NM on bearing 010° from SR NDB. When reaching CHARLIE the aircraft will be instructed to join aerodrome traffic pattern accordingly.
- b) Aircraft entering to land from east of Surat Thani Airport, shall report over Surat Thani District, designated as SIERRA point (0908.0N 9920.0E) which is approximately 12 NM on bearing 090° from SR NDB. When reaching SIERRA the aircraft will be instructed to join aerodrome traffic pattern accordingly.
- c) Aircraft entering to land from south of Surat Thani Airport, shall report over Ban Nasan District, designated as NOVEMBER point (0848.0N 9922.0E) which is approximately 25 NM on bearing 145° from SR NDB. When reaching NOVEMBER the aircraft will be instructed to join aerodrome traffic pattern accordingly.
- d) Aircraft entering to land from west of Surat Thani Airport, shall report over Khirirat Nikhom District, designated as KILO point (0902.0N 09858.0E) which is approximately 14 NM on bearing 240° from SR NDB. When reaching KILO 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 runway 04 by left turn pattern
- b) Using runway 22 by right turn pattern

## VTSB AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTSB AD 2.22 FLIGHT PROCEDURES

### 1. SPEED CONTROL PROCEDURE IN SURAT THANI TMA

- a) All arriving turbo-propeller and turbo-jet aircraft when flying below 10000 FT AMSL are subject to fly not faster than indicated air speed 250 knots unless authorized by ATC.
- b) Speed will be reduced to 220 knots during 20-25 track miles from touchdown.
- c) 180 knots at Intermediate fix (Including aircraft from RNAV STAR), or shortly before closing heading to intercept or to establish the final course,
- d) 150 to 160 knots at FAP or FAF; all speed to be flown as accurately as possible. At the other times, speed control may be applied on a tactical basis to extent determined by ATC.
- e) Pilots who unable to comply with the speed limits specifics above for reasons of flight safety and/or weather conditions should inform ATC and state the speed acceptable.
- f) ATC will notify that the aircraft may keep its preferred speed without restriction and will use the phrase "NO SPEED RESTRICTIONS". An instruction to notify that the aircraft need no longer comply with the previous issued speed restriction, the phrase "RESUME NORMAL SPEED" will be used.
- g) All aircraft navigating under conditions of RNAV STARs shall conform to speed limitation as published then at IF pilot shall comply with speed control procedures unless otherwise instructed by ATC.
- h) If the pilots do not comply, the flight shall follow ATC instruction for re-sequencing.

NOTE - an instruction to "RESUME NORMAL SPEED" does not cancel speed restrictions that applicable to published procedure of upcoming segments of flight, aircraft shall comply speed restrictions specified in a) b) c) and d)

### 2. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

### 3. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,

- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

#### 4. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 04:

SURAT OMNI 04 Departure: Required climb gradient 304 ft per NM (5.0%) until 6,100 ft.

Ground speed	Knot	65	75	100	150	200	250	300
Rate of climb 5.0%	(ft/min)	329	380	506	760	1013	1266	1519

No turn before DER.

After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft – 5,000 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 22:

SURAT OMNI 22 Departure: Required climb gradient 304 ft per NM (5.0%) until 6,100 ft.

Ground speed	Knot	65	75	100	150	200	250	300
Rate of climb 5.0%	(ft/min)	329	380	506	760	1013	1266	1519

No turn before DER.

After departure climb straight ahead until 1,500 ft (or altitude assigned by ATC between 1,500 ft – 5,000 ft), then comply with ATC clearance issued (or as directed by ATC).

#### VTSB AD 2.23 ADDITIONAL INFORMATION

- Royal Thai Air Force ASR/SSR Air-to-ground facilities operations located at Surat Thani Airport

Radio call sign	:	SURAT
APP/ARR freq	:	134.75, 342.5, 382.4 and 123.6 MHZ
DEP freq	:	134.1 and 335.5 MHZ
Cover range / height	:	ASR 70 NM / 40 000 FT SSR 200 NM / 100 000 FT
Hours of operations	:	Monday-Friday 0100-0900
Emission	:	ASR 500 KW, SSR 1.5 KW
Remarks	:	Available for Military

- Windshear Alert System installed and operations at Aerodrome.

- BAK14 RAG installed on both side 400 M from Threshold of Runway 04/22

- Aircraft code letter C and over are not allowed to make 180 degree on runway for preventing runway pavement structural damage.  
Remark : The turn shall be made on the turnpad close to runway 22 and on runway 04 near taxiway E.



## VTSB AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page
Aerodrome Chart - ICAO	AD 2-VTSB-2-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 04 - ADLAL1D EMVEL1D IDNAR1D LAMUL1D NIXET1D SEGRA1D TAVAT1D TOGIM1D	AD 2-VTSB-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 04 - ADLAL1D EMVEL1D IDNAR1D LAMUL1D NIXET1D SEGRA1D TAVAT1D TOGIM1D (Tabular description)	AD 2-VTSB-6-2
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 04 - ADLAL1D EMVEL1D IDNAR1D LAMUL1D NIXET1D SEGRA1D TAVAT1D TOGIM1D (Waypoint list table)	AD 2-VTSB-6-3
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 22 - ADLAL1C EMVEL1C IDNAR1C LAMUL1C NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C	AD 2-VTSB-6-5
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 22 - ADLAL1C EMVEL1C IDNAR1C LAMUL1C NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C (Tabular description 1)	AD 2-VTSB-6-6
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 22 - ADLAL1C EMVEL1C IDNAR1C LAMUL1C NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C (Tabular description 2)	AD 2-VTSB-6-7
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 22 - ADLAL1C EMVEL1C IDNAR1C LAMUL1C NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C (Waypoint list table)	AD 2-VTSB-6-8
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 04 - ADLAL1B EMVEL1B IDNAR1B IKERA1B LAMUL1B SEGRA1B TAVAT1B TOGIM1B	AD 2-VTSB-7-1
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 04 - ADLAL1B EMVEL1B IDNAR1B IKERA1B LAMUL1B SEGRA1B TAVAT1B TOGIM1B (Tabular description)	AD 2-VTSB-7-2
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 04 - ADLAL1B EMVEL1B IDNAR1B IKERA1B LAMUL1B SEGRA1B TAVAT1B TOGIM1B (Waypoint list table)	AD 2-VTSB-7-3
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 22 - ADLAL1A EMVEL1A IDNAR1A IKERA1A LAMUL1A SEGRA1A TAVAT1A TOGIM1A	AD 2-VTSB-7-5
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 22 - ADLAL1A EMVEL1A IDNAR1A IKERA1A LAMUL1A SEGRA1A TAVAT1A TOGIM1A (Tabular description 1)	AD 2-VTSB-7-6
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 22 - ADLAL1A EMVEL1A IDNAR1A IKERA1A LAMUL1A SEGRA1A TAVAT1A TOGIM1A (Tabular description 2)	AD 2-VTSB-7-7
Standard Arrival Chart - Instrument (STAR) - ICAO - RNAV RWY 22 - ADLAL1A EMVEL1A IDNAR1A IKERA1A LAMUL1A SEGRA1A TAVAT1A TOGIM1A (Waypoint list table)	AD 2-VTSB-7-8
Instrument Approach Chart - ICAO - ILS or LOC z RWY 22	AD 2-VTSB-8-1
Instrument Approach Chart - ICAO - ILS or LOC z RWY 22 (Tabular description)	AD 2-VTSB-8-2
Instrument Approach Chart - ICAO - ILS or LOC z RWY 22 (Fix and point list table)	AD 2-VTSB-8-3
Instrument Approach Chart - ICAO - RNP RWY 04	AD 2-VTSB-8-5
Instrument Approach Chart - ICAO - RNP RWY 04 (Tabular description)	AD 2-VTSB-8-6
Instrument Approach Chart - ICAO - RNP RWY 22	AD 2-VTSB-8-7
Instrument Approach Chart - ICAO - RNP RWY 22 (Tabular description)	AD 2-VTSB-8-8

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AERODROME CHART - ICAO

09 08 10 N  
099 08 21 E

ELEV 20 FT

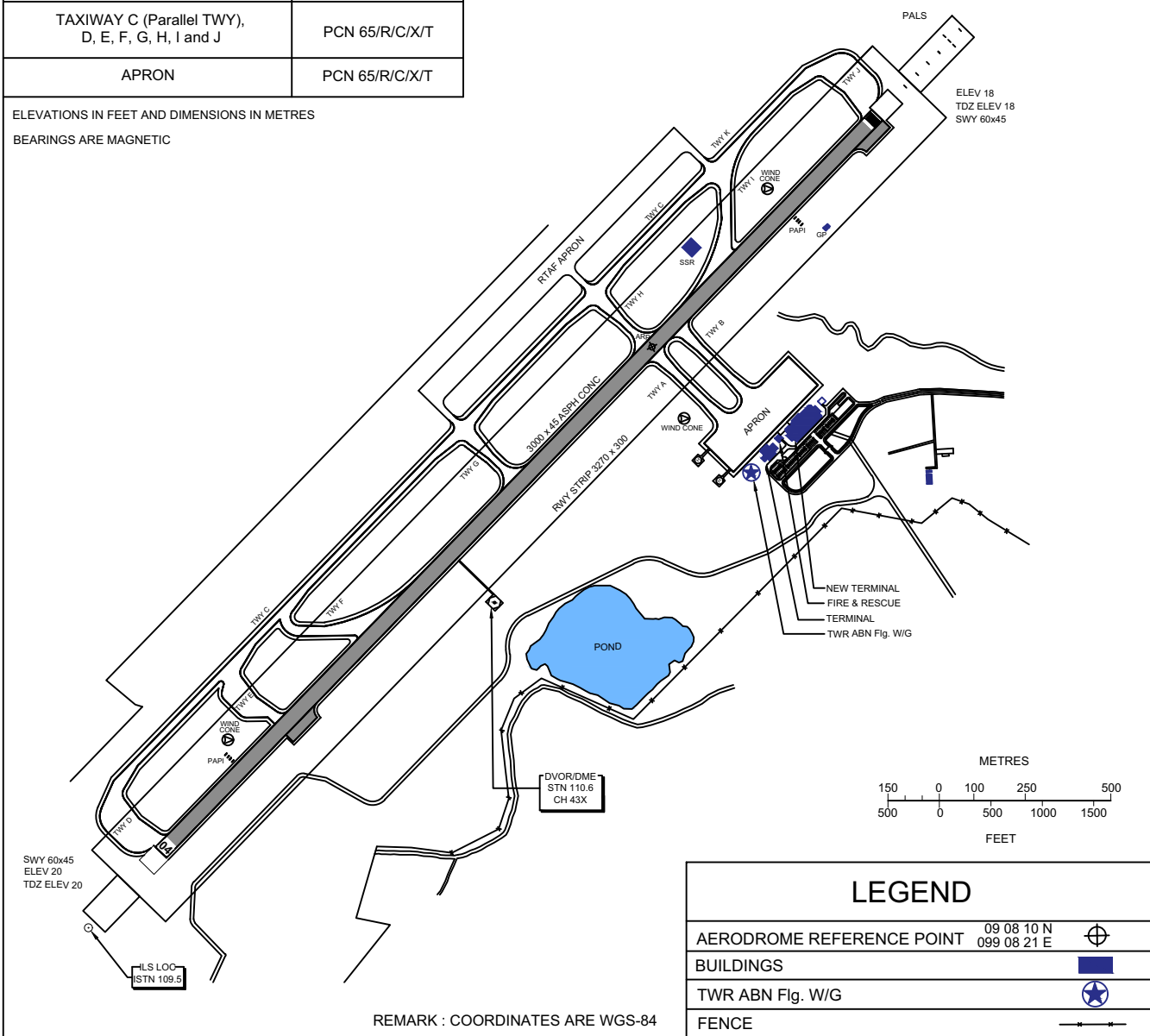
TWR 121.5 122.7  
274.5 243.0

SURAT THANI / Surat Thani

RWY	DIRECTION	THR	BEARING STRENGTH
04	44.09	09 07 22.19 N 099 07 33.72 E	PCN 65/F/C/X/T
22	224.09	09 08 32.55 N 099 08 42.50 E	
TAXIWAY A and B			PCN 65/F/C/X/T
TAXIWAY C (Parallel TWY), D, E, F, G, H, I and J			PCN 65/R/C/X/T
APRON			PCN 65/R/C/X/T

ELEVATIONS IN FEET AND DIMENSIONS IN METRES  
BEARINGS ARE MAGNETIC

CHANGE : REVISED CHART. MAG VAR. ANNUAL RATE OF CHANGE. PAPI 04/22 RIGHT CANCELLED. LOC. DVOR/DME. TWY BEARING STRENGTH. WIND CONE ADDED. TWR FREQ. NDB CANCELLED.



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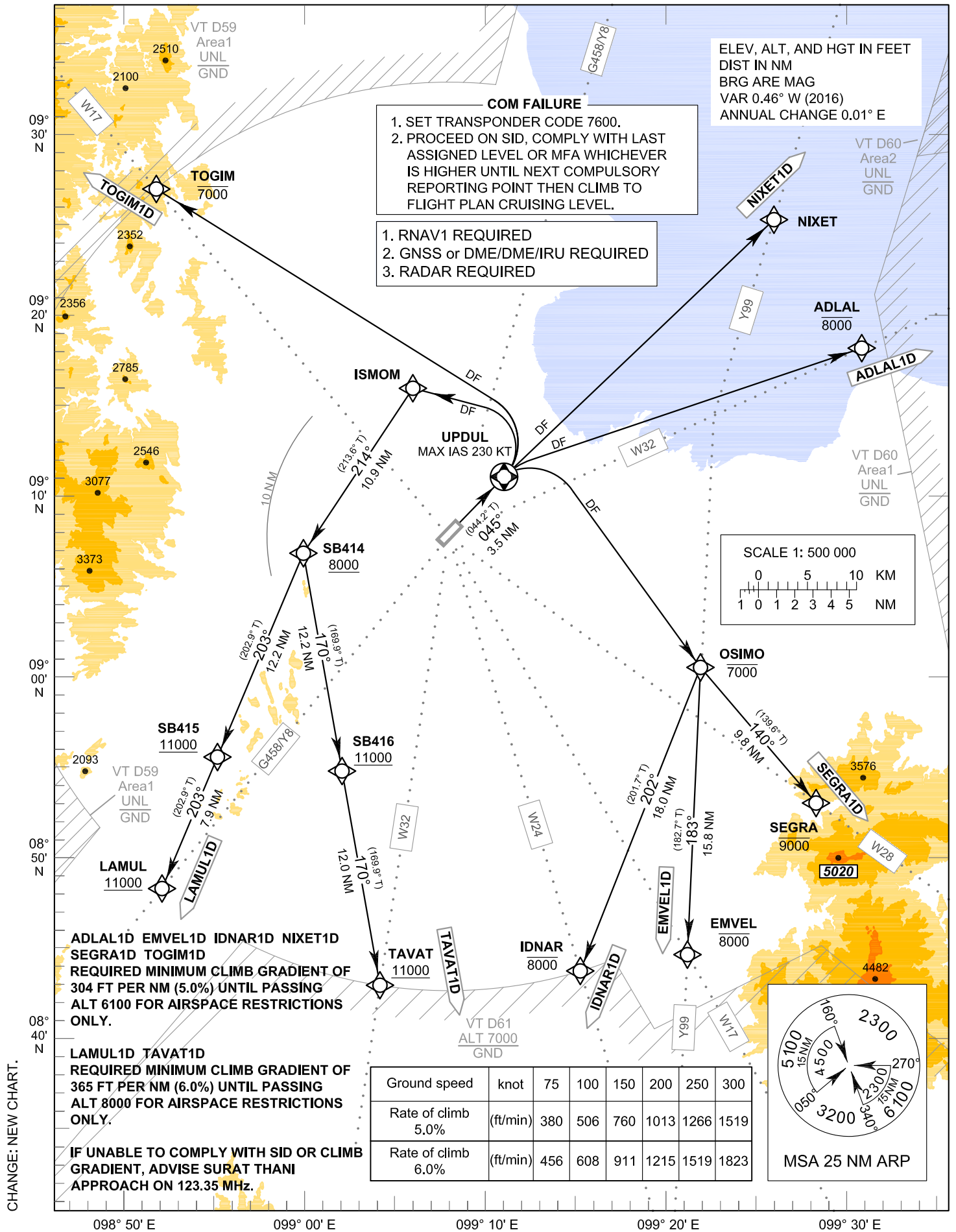
**STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE 11000 FT

APP : 123.35 , 240.0  
TWR : 122.7 , 274.5  
GND : 121.9 , 275.8  
ATIS : 125.95

**SURAT THANI / Surat Thani (VTSB) RNAV RWY04**

ADLAL1D EMVEL1D IDNAR1D LAMUL1D  
NIXET1D SEGRA1D TAVAT1D TOGIM1D



STANDARD DEPARTURE CHART-  
INSTRUMENT (SID) - ICAO

SURAT THANI / Surat Thani (VTSB)  
RNAV RWY04

ADLAL1D EMVEL1D IDNAR1D LAMUL1D  
NIXET1D SEGRA1D TAVAT1D TOGIM1D

TABULAR DESCRIPTION

RNAV RWY04											
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
ADLAL1D											
010	-	DER RWY04	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	UPDUL	Y	045°(044.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	ADLAL	-	-	+0.44	-	-	-8000	-	-	RNAV 1
EMVEL1D											
010	-	DER RWY04	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	UPDUL	Y	045°(044.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	OSIMO	-	-	+0.44	-	R	-7000	-	-	RNAV 1
040	TF	EMVEL	-	183°(182.7°)	+0.44	15.8	-	-8000	-	-	RNAV 1
IDNAR1D											
010	-	DER RWY04	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	UPDUL	Y	045°(044.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	OSIMO	-	-	+0.44	-	R	-7000	-	-	RNAV 1
040	TF	IDNAR	-	202°(201.7°)	+0.44	18.0	-	-8000	-	-	RNAV 1
LAMUL1D											
010	-	DER RWY04	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	UPDUL	Y	045°(044.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	ISMOM	-	-	+0.44	-	L	-	-	-	RNAV 1
040	TF	SB414	-	214°(213.6°)	+0.44	10.9	L	+8000	-	-	RNAV 1
050	TF	SB415	-	203°(202.9°)	+0.44	12.2	-	+11000	-	-	RNAV 1
060	TF	LAMUL	-	203°(202.9°)	+0.44	7.9	-	+11000	-	-	RNAV 1
NIXET1D											
010	-	DER RWY04	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	UPDUL	Y	045°(044.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	NIXET	-	-	+0.44	-	-	-	-	-	RNAV 1
SEGRA1D											
010	-	DER RWY04	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	UPDUL	Y	045°(044.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	OSIMO	-	-	+0.44	-	-	-7000	-	-	RNAV 1
040	TF	SEGRA	-	140°(139.6°)	+0.44	9.8	-	-9000	-	-	RNAV 1
TAVAT1D											
010	-	DER RWY04	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	UPDUL	Y	045°(044.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	ISMOM	-	-	+0.44	-	L	-	-	-	RNAV 1
040	TF	SB414	-	214°(213.6°)	+0.44	10.9	L	+8000	-	-	RNAV 1
050	TF	SB416	-	170°(169.9°)	+0.44	12.2	-	+11000	-	-	RNAV 1
060	TF	TAVAT	-	170°(169.9°)	+0.44	12.0	-	+11000	-	-	RNAV 1
TOGIM1D											
010	-	DER RWY04	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	UPDUL	Y	045°(044.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	TOGIM	-	-	+0.44	-	-	-7000	-	-	RNAV 1

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

**SURAT THANI / Surat Thani (VTSB)  
RNAV RWY04**

ADLAL1D EMVEL1D IDNAR1D LAMUL1D  
NIXET1D SEGRA1D TAVAT1D TOGIM1D

**WAYPOINT LIST**

RNAV RWY04		
Waypoint Identifier	Coordinates	Pronunciation
DER RWY04	09° 08' 32.55" N 099° 08' 42.50" E	-
ADLAL	09° 18' 10.00" N 099° 31' 06.46" E	ADD - LAN
EMVEL	08° 44' 37.58" N 099° 21' 21.67" E	EM - VEL
IDNAR	08° 43' 43.73" N 099° 15' 23.83" E	ID - NHA
ISMOM	09° 15' 57.90" N 099° 06' 05.84" E	IS - MOM
LAMUL	08° 48' 17.52" N 098° 52' 08.16" E	LAH - MUL
NIXET	09° 25' 17.11" N 099° 26' 13.25" E	NIG - SET
OSIMO	09° 00' 30.75" N 099° 22' 06.09" E	O - SI - MO
SB414	09° 06' 50.46" N 098° 59' 59.98" E	-
SB415	08° 55' 33.96" N 098° 55' 13.09" E	-
SB416	08° 54' 47.57" N 099° 02' 08.89" E	-
SEGRA	08° 53' 00.22" N 099° 28' 31.31" E	SAE - GRA
TAVAT	08° 42' 56.59" N 099° 04' 15.52" E	TA - VAT
TOGIM	09° 26' 59.13" N 098° 51' 48.08" E	TO - GIM
UPDUL	09° 11' 03.87" N 099° 11' 10.46" E	UP - DOON

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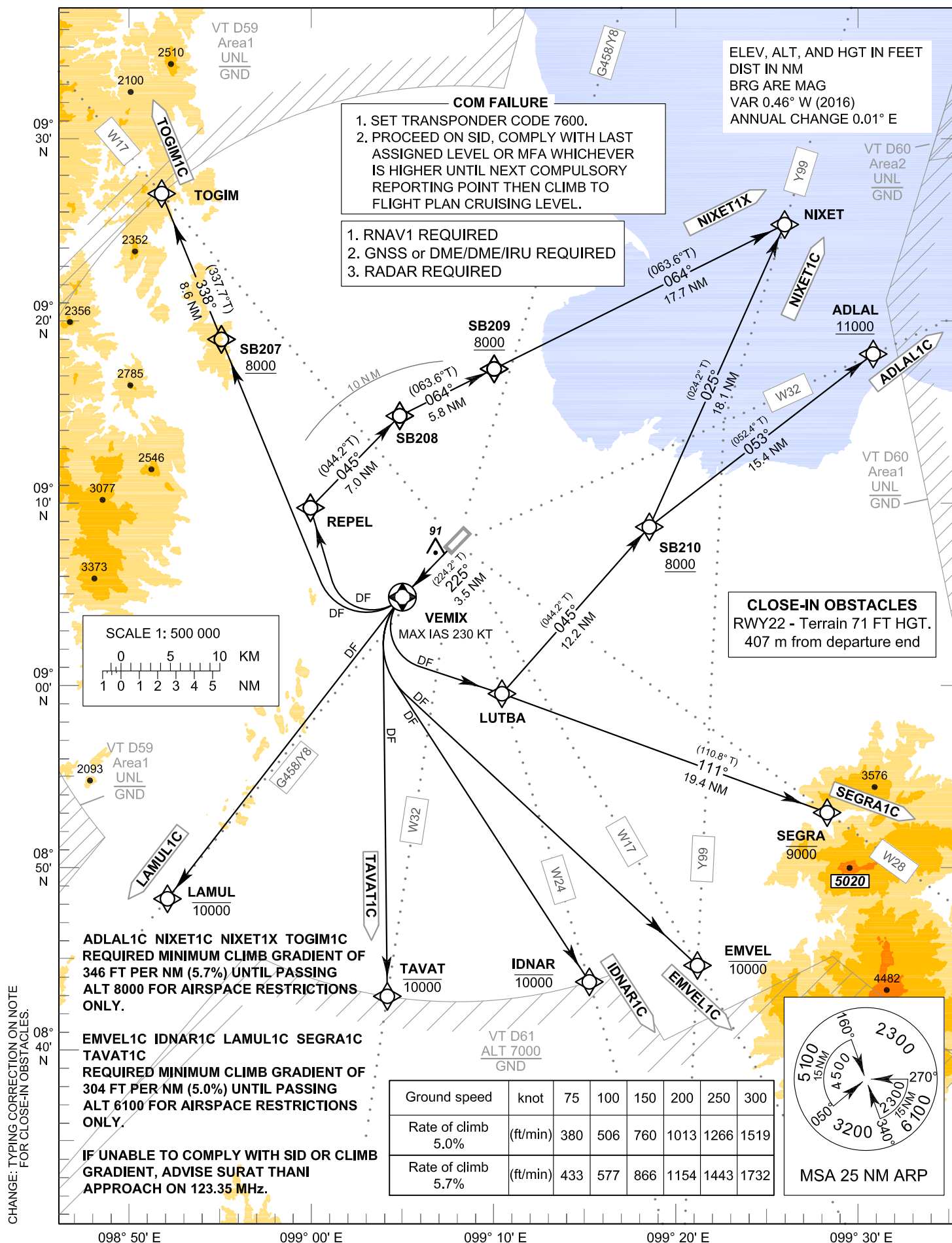
**STANDARD DEPARTURE CHART-  
INSTRUMENT (SID) - ICAO**

TRANSITION ALTITUDE  
11000 FT

APP : 123.35 , 240.0  
TWR : 122.7 , 274.5  
GND : 121.9 , 275.8  
ATIS : 125.95

**SURAT THANI / Surat Thani (VTSB)  
RNAV RWY22**

ADLAL1C EMVEL1C IDNAR1C LAMUL1C  
NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C



STANDARD DEPARTURE CHART-  
INSTRUMENT (SID) - ICAO

SURAT THANI / Surat Thani (VTSB)  
RNAV RWY22

ADLAL1C EMVEL1C IDNAR1C LAMUL1C  
NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C

TABULAR DESCRIPTION (1)

RNAV RWY22											
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
ADLAL1C											
010	-	DER RWY22	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	VEMX	Y	225°(224.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	LUTBA	-	-	+0.44	-	L	-	-	-	RNAV 1
040	TF	SB210	-	045°(044.2°)	+0.44	12.2	R	+8000	-	-	RNAV 1
050	TF	ADLAL	-	053°(052.4°)	+0.44	15.4	-	+11000	-	-	RNAV 1
EMVEL1C											
010	-	DER RWY22	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	VEMX	Y	225°(224.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	EMVEL	-	-	+0.44	-	-	-10000	-	-	RNAV 1
IDNAR1C											
010	-	DER RWY22	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	VEMX	Y	225°(224.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	IDNAR	-	-	+0.44	-	-	-10000	-	-	RNAV 1
LAMUL1C											
010	-	DER RWY22	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	VEMX	Y	225°(224.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	LAMUL	-	-	+0.44	-	-	-10000	-	-	RNAV 1
NIXET1C											
010	-	DER RWY22	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	VEMX	Y	225°(224.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	LUTBA	-	-	+0.44	-	L	-	-	-	RNAV 1
040	TF	SB210	-	045°(044.2°)	+0.44	12.2	L	+8000	-	-	RNAV 1
050	TF	NIXET	-	025°(024.2°)	+0.44	18.1	-	-	-	-	RNAV 1
NIXET1X											
010	-	DER RWY22	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	VEMX	Y	225°(224.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	REPEL	-	-	+0.44	-	R	-	-	-	RNAV 1
040	TF	SB208	-	045°(044.2°)	+0.44	7.0	R	-	-	-	RNAV 1
050	TF	SB209	-	064°(063.6°)	+0.44	5.8	-	+8000	-	-	RNAV 1
060	TF	NIXET	-	064°(063.6°)	+0.44	17.7	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-  
INSTRUMENT (SID) - ICAO

SURAT THANI / Surat Thani (VTSB)  
RNAV RWY22

ADLAL1C EMVEL1C IDNAR1C LAMUL1C  
NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C

TABULAR DESCRIPTION (2)

RNAV RWY22											
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
SEGRA1C											
010	-	DER RWY22	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	VEMIX	Y	225°(224.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	LUTBA	-	-	+0.44	-	L	-	-	-	RNAV 1
040	TF	SEGRA	-	111°(110.8°)	+0.44	19.4	-	-9000	-	-	RNAV 1
TAVAT1C											
010	-	DER RWY22	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	VEMIX	Y	225°(224.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	TAVAT	-	-	+0.44	-	-	-10000	-	-	RNAV 1
TOGIM1C											
010	-	DER RWY22	-	-	+0.44	-	-	-	-	-	RNAV 1
020	CF	VEMIX	Y	225°(224.2°)	+0.44	3.5	-	-	-230	-	RNAV 1
030	DF	SB207	-	-	+0.44	-	R	+8000	-	-	RNAV 1
040	TF	TOGIM	-	338°(337.7°)	+0.44	8.6	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-  
INSTRUMENT (SID) - ICAO

SURAT THANI / Surat Thani (VTSB)  
RNAV RWY22

ADLAL1C EMVEL1C IDNAR1C LAMUL1C  
NIXET1C NIXET1X SEGRA1C TAVAT1C TOGIM1C

WAYPOINT LIST

RNAV RWY22		
Waypoint Identifier	Coordinates	Pronunciation
DER RWY22	09° 07' 22.19" N 099° 07' 33.72" E	-
ADLAL	09° 18' 10.00" N 099° 31' 06.46" E	ADD - LAN
EMVEL	08° 44' 37.58" N 099° 21' 21.67" E	EM - VEL
IDNAR	08° 43' 43.73" N 099° 15' 23.83" E	ID - NHA
LAMUL	08° 48' 17.52" N 098° 52' 08.16" E	LAH - MUL
LUTBA	08° 59' 56.82" N 099° 10' 10.29" E	LUT - BA
NIXET	09° 25' 17.11" N 099° 26' 13.25" E	NIG - SET
REPEL	09° 09' 44.80" N 099° 00' 01.21" E	RAE - PEL
SB207	09° 18' 57.33" N 098° 55' 06.76" E	-
SB208	09° 14' 47.53" N 099° 04' 57.05" E	-
SB209	09° 17' 21.94" N 099° 10' 09.99" E	-
SB210	09° 08' 41.82" N 099° 18' 43.70" E	-
SEGRA	08° 53' 00.22" N 099° 28' 31.31" E	SAE - GRA
TAVAT	08° 42' 56.59" N 099° 04' 15.52" E	TA - VAT
TOGIM	09° 26' 59.13" N 098° 51' 48.08" E	TO - GIM
VEMIX	09° 04' 50.85" N 099° 05' 05.81" E	VE - MIX

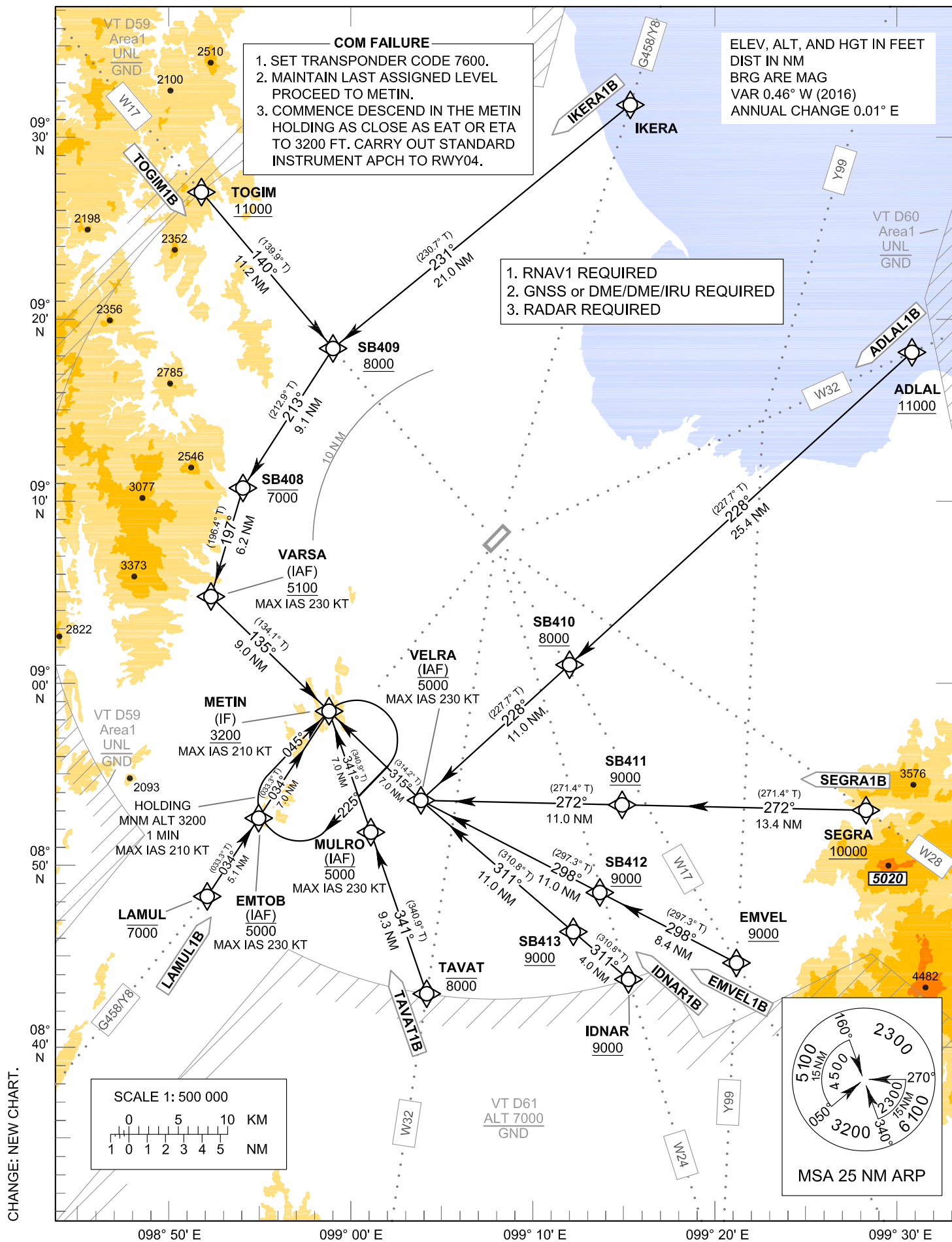
**STANDARD ARRIVAL CHART-  
INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE  
11000 FT

APP : 123.35 , 240.0  
TWR : 122.7 , 274.5  
GND : 121.9 , 275.8  
ATIS : 125.95

**SURAT THANI / Surat Thani (VTSB)  
RNAV RWY04**

ADLAL1B EMVEL1B IDNAR1B IKERA1B  
LAMUL1B SEGRA1B TAVAT1B TOGIM1B



CHANGE: NEW CHART.

STANDARD ARRIVAL CHART-  
INSTRUMENT (STAR) - ICAO

SURAT THANI / Surat Thani (VTSB)  
RNAV RWY04

ADLAL1B EMVEL1B IDNAR1B IKERA1B  
LAMUL1B SEGRA1B TAVAT1B TOGIM1B

TABULAR DESCRIPTION

RNAV RWY04											
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
ADLAL1B											
010	IF	ADLAL	-	-	+0.44	-	-	+11000	-	-	RNAV 1
020	TF	SB410	-	228°(227.7°)	+0.44	25.4	-	+8000	-	-	RNAV 1
030	TF	VELRA (IAF)	-	228°(227.7°)	+0.44	11.0	R	-5000	-230	-	RNAV 1
040	TF	METIN (IF)	-	315°(314.2°)	+0.44	7.0	-	+3200	-210	-	RNAV 1
EMVEL1B											
010	IF	EMVEL	-	-	+0.44	-	-	+9000	-	-	RNAV 1
020	TF	SB412	-	298°(297.3°)	+0.44	8.4	-	+9000	-	-	RNAV 1
030	TF	VELRA (IAF)	-	298°(297.3°)	+0.44	11.0	R	-5000	-230	-	RNAV 1
040	TF	METIN (IF)	-	315°(314.2°)	+0.44	7.0	-	+3200	-210	-	RNAV 1
IDNAR1B											
010	IF	IDNAR	-	-	+0.44	-	-	+9000	-	-	RNAV 1
020	TF	SB413	-	311°(310.8°)	+0.44	4.0	-	+9000	-	-	RNAV 1
030	TF	VELRA (IAF)	-	311°(310.8°)	+0.44	11.0	R	-5000	-230	-	RNAV 1
040	TF	METIN (IF)	-	315°(314.2°)	+0.44	7.0	-	+3200	-210	-	RNAV 1
IKERA1B											
010	IF	IKERA	-	-	+0.44	-	-	-	-	-	RNAV 1
020	TF	SB409	-	231°(230.7°)	+0.44	21.0	L	+8000	-	-	RNAV 1
030	TF	SB408	-	213°(212.9°)	+0.44	9.1	L	-7000	-	-	RNAV 1
040	TF	VARSA (IAF)	-	197°(196.4°)	+0.44	6.2	L	+5100	-230	-	RNAV 1
050	TF	METIN (IF)	-	135°(134.1°)	+0.44	9.0	-	+3200	-210	-	RNAV 1
LAMUL1B											
010	IF	LAMUL	-	-	+0.44	-	-	-7000	-	-	RNAV 1
020	TF	EMTOB (IAF)	-	034°(033.3°)	+0.44	5.1	-	-5000	-230	-	RNAV 1
030	TF	METIN (IF)	-	034°(033.3°)	+0.44	7.0	-	+3200	-210	-	RNAV 1
SEGRA1B											
010	IF	SEGRA	-	-	+0.44	-	-	+10000	-	-	RNAV 1
020	TF	SB411	-	272°(271.4°)	+0.44	13.4	-	+9000	-	-	RNAV 1
030	TF	VELRA (IAF)	-	272°(271.4°)	+0.44	11.0	R	-5000	-230	-	RNAV 1
040	TF	METIN (IF)	-	315°(314.2°)	+0.44	7.0	-	+3200	-210	-	RNAV 1
TAVAT1B											
010	IF	TAVAT	-	-	+0.44	-	-	-8000	-	-	RNAV 1
020	TF	MULRO (IAF)	-	341°(340.9°)	+0.44	9.3	-	-5000	-230	-	RNAV 1
030	TF	METIN (IF)	-	341°(340.9°)	+0.44	7.0	-	+3200	-210	-	RNAV 1
TOGIM1B											
010	IF	TOGIM	-	-	+0.44	-	-	+11000	-	-	RNAV 1
020	TF	SB409	-	140°(139.9°)	+0.44	11.2	R	+8000	-	-	RNAV 1
030	TF	SB408	-	213°(212.9°)	+0.44	9.1	L	-7000	-	-	RNAV 1
040	TF	VARSA (IAF)	-	197°(196.4°)	+0.44	6.2	L	+5100	-230	-	RNAV 1
050	TF	METIN (IF)	-	135°(134.1°)	+0.44	9.0	-	+3200	-210	-	RNAV 1

STANDARD ARRIVAL CHART-  
INSTRUMENT (STAR) - ICAO

SURAT THANI / Surat Thani (VTSB)  
RNAV RWY04

ADLAL1B EMVEL1B IDNAR1B IKERA1B  
LAMUL1B SEGRA1B TAVAT1B TOGIM1B

WAYPOINT LIST

RNAV RWY04		
Waypoint Identifier	Coordinates	Pronunciation
ADLAL	09° 18' 10.00" N 099° 31' 06.46" E	ADD - LAN
EMTOB	08° 52' 35.41" N 098° 54' 58.65" E	EM - TOB
EMVEL	08° 44' 37.58" N 099° 21' 21.67" E	EM - VEL
IDNAR	08° 43' 43.73" N 099° 15' 23.83" E	ID - NHA
IKERA	09° 31' 46.39" N 099° 15' 32.00" E	I - KEH - RA
LAMUL	08° 48' 17.52" N 098° 52' 08.16" E	LAH - MUL
METIN	08° 58' 27.96" N 098° 58' 51.85" E	ME - THIN
MULRO	08° 51' 49.15" N 099° 01' 10.50" E	MUN - RO
SB408	09° 10' 43.80" N 098° 54' 06.20" E	-
SB409	09° 18' 23.84" N 098° 59' 05.06" E	-
SB410	09° 01' 00.81" N 099° 12' 09.07" E	-
SB411	08° 53' 18.94" N 099° 15' 02.90" E	-
SB412	08° 48' 30.09" N 099° 13' 48.86" E	-
SB413	08° 46' 20.78" N 099° 12' 21.01" E	-
SEGRA	08° 53' 00.22" N 099° 28' 31.31" E	SAE - GRA
TAVAT	08° 42' 56.59" N 099° 04' 15.52" E	TA - VAT
TOGIM	09° 26' 59.13" N 098° 51' 48.08" E	TO - GIM
VARSA	09° 04' 45.80" N 098° 52' 20.21" E	VA - SA
VELRA	08° 53' 34.01" N 099° 03' 56.30" E	VEL - RA

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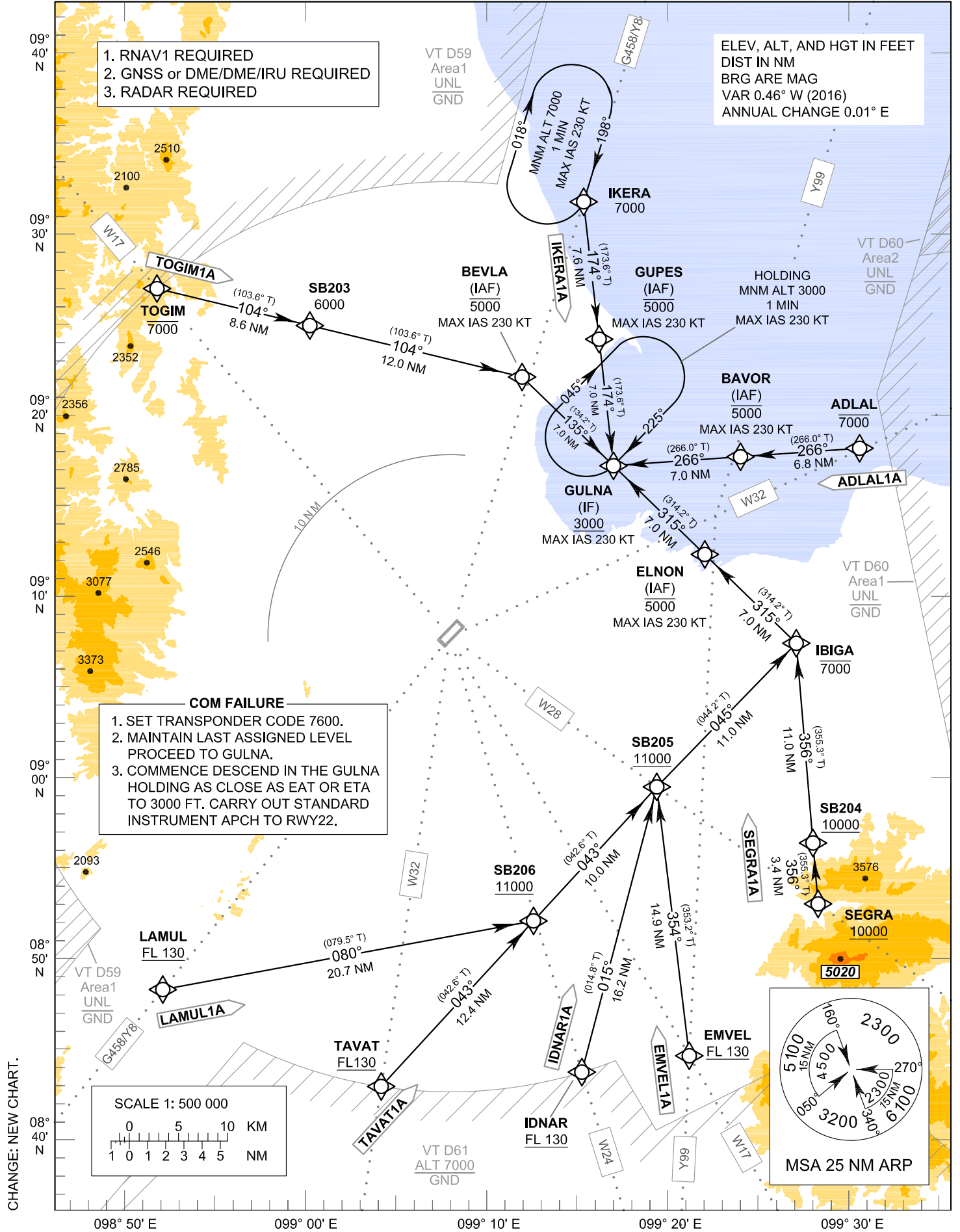
**STANDARD ARRIVAL CHART-  
INSTRUMENT (STAR) - ICAO**

TRANSITION ALTITUDE  
11000 FT

APP : 123.35 , 240.0  
TWR : 122.7 , 274.5  
GND : 121.9 , 275.8  
ATIS : 125.95

**SURAT THANI / Surat Thani (VTSB)  
RNAV RWY22**

ADLAL1A EMVEL1A IDNAR1A IKERA1A  
LAMUL1A SEGRA1A TAVAT1A TOGIM1A



STANDARD ARRIVAL CHART-  
INSTRUMENT (STAR) - ICAO

SURAT THANI / Surat Thani (VTSB)  
RNAV RWY22

ADLAL1A EMVEL1A IDNAR1A IKERA1A  
LAMUL1A SEGRA1A TAVAT1A TOGIM1A

TABULAR DESCRIPTION (1)

RNAV RWY22											
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/TCH	Navigation Specification
ADLAL1A											
010	IF	ADLAL	-	-	+0.44	-	-	-7000	-	-	RNAV 1
020	TF	BAVOR (IAF)	-	266°(266.0°)	+0.44	6.8	-	-5000	-230	-	RNAV 1
030	TF	GULNA (IF)	-	266°(266.0°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
EMVEL1A											
010	IF	EMVEL	-	-	+0.44	-	-	+FL130	-	-	RNAV 1
020	TF	SB205	-	354°(353.2°)	+0.44	14.9	R	+11000	-	-	RNAV 1
030	TF	IBIGA	-	045°(044.2°)	+0.44	11.0	L	-7000	-	-	RNAV 1
040	TF	ELNON (IAF)	-	315°(314.2°)	+0.44	7.0	-	-5000	-230	-	RNAV 1
050	TF	GULNA (IF)	-	315°(314.2°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
IDNAR1A											
010	IF	IDNAR	-	-	+0.44	-	-	+FL130	-	-	RNAV 1
020	TF	SB205	-	015°(014.8°)	+0.44	16.2	R	+11000	-	-	RNAV 1
030	TF	IBIGA	-	045°(044.2°)	+0.44	11.0	L	-7000	-	-	RNAV 1
040	TF	ELNON (IAF)	-	315°(314.2°)	+0.44	7.0	-	-5000	-230	-	RNAV 1
050	TF	GULNA (IF)	-	315°(314.2°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
IKERA1A											
010	IF	IKERA	-	-	+0.44	-	-	7000	-	-	RNAV 1
020	TF	GUPES (IAF)	-	174°(173.6°)	+0.44	7.6	-	-5000	-230	-	RNAV 1
030	TF	GULNA (IF)	-	174°(173.6°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
LAMUL1A											
010	IF	LAMUL	-	-	+0.44	-	-	+FL130	-	-	RNAV 1
020	TF	SB206	-	080°(079.5°)	+0.44	20.7	L	+11000	-	-	RNAV 1
030	TF	SB205	-	043°(042.6°)	+0.44	10.0	R	+11000	-	-	RNAV 1
040	TF	IBIGA	-	045°(044.2°)	+0.44	11.0	L	-7000	-	-	RNAV 1
050	TF	ELNON (IAF)	-	315°(314.2°)	+0.44	7.0	-	-5000	-230	-	RNAV 1
060	TF	GULNA (IF)	-	315°(314.2°)	+0.44	7.0	-	+3000	-230	-	RNAV 1

STANDARD ARRIVAL CHART-  
INSTRUMENT (STAR) - ICAO

SURAT THANI / Surat Thani (VTSB)  
RNAV RWY22

ADLAL1A EMVEL1A IDNAR1A IKERA1A  
LAMUL1A SEGRA1A TAVAT1A TOGIM1A

TABULAR DESCRIPTION (2)

RNAV RWY22											
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/TCH	Navigation Specification
SEGRA1A											
010	IF	SEGRA	-	-	+0.44	-	-	+10000	-	-	RNAV 1
020	TF	SB204	-	356°(355.3°)	+0.44	3.4	-	+10000	-	-	RNAV 1
030	TF	IBIGA	-	356°(355.3°)	+0.44	11.0	L	-7000	-	-	RNAV 1
040	TF	ELNON (IAF)	-	315°(314.2°)	+0.44	7.0	-	-5000	-230	-	RNAV 1
050	TF	GULNA (IF)	-	315°(314.2°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
TAVAT1A											
010	IF	TAVAT	-	-	+0.44	-	-	+FL130	-	-	RNAV 1
020	TF	SB206	-	043°(042.6°)	+0.44	12.4	-	+11000	-	-	RNAV 1
030	TF	SB205	-	043°(042.6°)	+0.44	10.0	R	+11000	-	-	RNAV 1
040	TF	IBIGA	-	045°(044.2°)	+0.44	11.0	L	-7000	-	-	RNAV 1
050	TF	ELNON (IAF)	-	315°(314.2°)	+0.44	7.0	-	-5000	-230	-	RNAV 1
060	TF	GULNA (IF)	-	315°(314.2°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
TOGIM1A											
010	IF	TOGIM	-	-	+0.44	-	-	-7000	-	-	RNAV 1
020	TF	SB203	-	104°(103.6°)	+0.44	8.6	-	6000	-	-	RNAV 1
030	TF	BEVLA (IAF)	-	104°(103.6°)	+0.44	12.0	R	-5000	-230	-	RNAV 1
040	TF	GULNA (IF)	-	135°(134.2°)	+0.44	7.0	-	+3000	-230	-	RNAV 1

STANDARD ARRIVAL CHART-  
INSTRUMENT (STAR) - ICAO

SURAT THANI / Surat Thani (VTSB)  
RNAV RWY22

ADLAL1A EMVEL1A IDNAR1A IKERA1A  
LAMUL1A SEGRA1A TAVAT1A TOGIM1A

WAYPOINT LIST

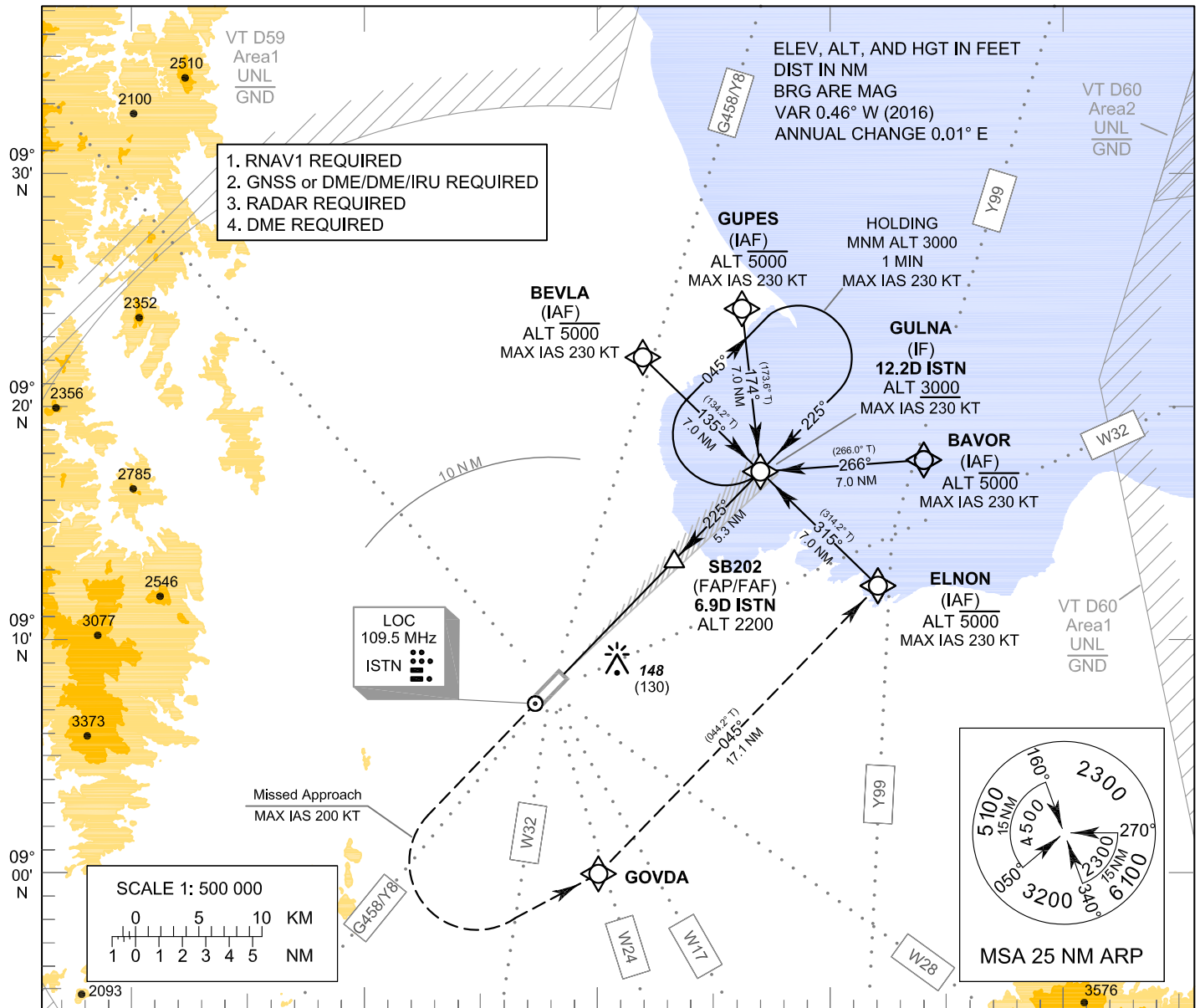
RNAV RWY22		
Waypoint Identifier	Coordinates	Pronunciation
ADLAL	09° 18' 10.00" N 099° 31' 06.46" E	ADD - LAN
BAVOR	09° 17' 41.42" N 099° 24' 14.48" E	BA - VER
BEVLA	09° 22' 06.23" N 099° 12' 06.12" E	BAVE - LA
ELNON	09° 12' 17.88" N 099° 22' 15.18" E	EL - NON
EMVEL	08° 44' 37.58" N 099° 21' 21.67" E	EM - VEL
GULNA	09° 17' 12.09" N 099° 17' 10.72" E	GUN - NA
GUPES	09° 24' 11.43" N 099° 16' 23.39" E	GU - PES
IBIGA	09° 07' 23.59" N 099° 27' 19.50" E	I - BI - GA
IDNAR	08° 43' 43.73" N 099° 15' 23.83" E	ID - NHA
IKERA	09° 31' 46.39" N 099° 15' 32.00" E	I - KEH - RA
LAMUL	08° 48' 17.52" N 098° 52' 08.16" E	LAH - MUL
SB203	09° 24' 56.69" N 099° 00' 17.92" E	-
SB204	08° 56' 22.76" N 099° 28' 14.47" E	-
SB205	08° 59' 28.43" N 099° 19' 34.44" E	-
SB206	08° 52' 05.20" N 099° 12' 43.56" E	-
SEGRA	08° 53' 00.22" N 099° 28' 31.31" E	SAE - GRA
TAVAT	08° 42' 56.59" N 099° 04' 15.52" E	TA - VAT
TOGIM	09° 26' 59.13" N 098° 51' 48.08" E	TO - GIM

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 20 FT  
HEIGHTS RELATED TO  
THR RWY22 - ELEV 18 FT**

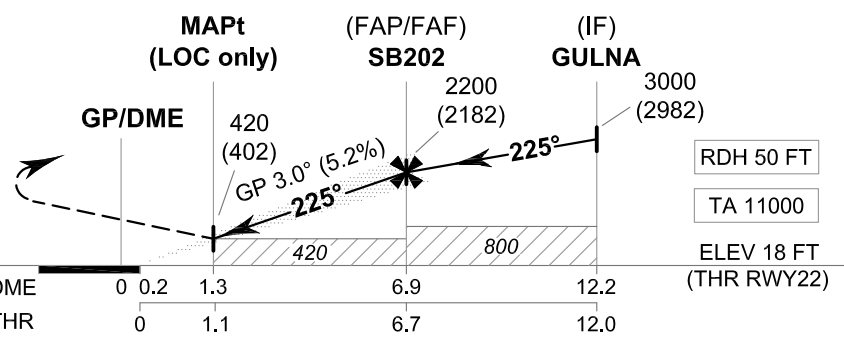
APP : 123.35 , 240.0  
TWR : 122.7 , 274.5  
GND : 121.9 , 275.8  
ATIS : 125.95

**SURAT THANI / Surat Thani (VTSB)**  
**ILS or LOC z RWY22**



**MISSED APPROACH:**

**No turn before MAPt (for LOC only).**  
**Speed restricted to  
MAX IAS 200 KT until after turn.**  
Climb on track 225° to 1200 FT,  
then turn left direct to GOVDA. Continue  
to ELNON then GULNA at 3000 FT  
and hold or as directed by ATC.



CHANGE: NEW CHART.

OCA/H		A	B	C	D	GS OUT	Distance (ISTN)	1.3 D	2 D	3 D	4 D	5 D	6 D	FAF
Straight - in Approach	CAT I	280 (262)						Altitude (Height)	420 (402)	635 (617)	950 (932)	1270 (1252)	1585 (1567)	1900 (1882)
	LOC only	420 (402)					Ground speed	knot	70	90	100	120	140	160
Circling (OCH AAL)		860 (840)					Rate of descent (5.2%)	ft/min	369	474	527	632	737	843

**INSTRUMENT APPROACH CHART - ICAO**  
**AERODROME ELEV 20 FT**  
**HEIGHTS RELATED TO THR RWY22 - ELEV 18 FT**

**SURAT THANI / Surat Thani (VTSB)**  
**ILS or LOC z RWY22**

**TABULAR DESCRIPTION**

ILS or LOC z RWY22											
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	BAVOR (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNAV 1
020	TF	GULNA (IF)	-	266°(266.0°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
010	IF	BEVLA (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNAV 1
020	TF	GULNA (IF)	-	135°(134.2°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
010	IF	ELNON (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNAV 1
020	TF	GULNA (IF)	-	315°(314.2°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
010	IF	GUPES (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNAV 1
020	TF	GULNA (IF)	-	174°(173.6°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
010	IF	GULNA (IF)	-	-	+0.44	-	-	+3000	-230	-	RNAV 1
TRANSITION TO ILS or LOC											
020	TF	SB202 (FAF)	-	225°(224.2°)	+0.44	5.3	-	@2200	-	-	ILS
030	TF	MAPt (LOC only)	Y	225°(224.2°)	+0.44	5.6	-	@420	-	-3.0/50	ILS
040	CA	-	-	225°(224.2°)	+0.44	-	-	+1200	-200	-	RNAV 1
050	DF	GOVDA	-	-	+0.44	-	L	-	-200	-	RNAV 1
060	TF	ELNON (IAF)	-	045°(044.2°)	+0.44	17.1	-	-5000	-230	-	RNAV 1
070	TF	GULNA (IF)	-	315°(314.2°)	+0.44	7.0	-	+3000	-230	-	RNAV 1
080	HM	GULNA (IF)	Y	225°(224.2°)	+0.44	1 minute	R	+3000	-230	-	RNAV 1

**WAYPOINT LIST**

ILS or LOC z RWY22		
Waypoint Identifier	Coordinates	Pronunciation
BAVOR	09° 17' 41.42" N 099° 24' 14.48" E	BA - VER
BEVLA	09° 22' 06.23" N 099° 12' 06.12" E	BAVE - LA
ELNON	09° 12' 17.88" N 099° 22' 15.18" E	EL - NON
GOVDA	08° 59' 56.82" N 099° 10' 10.29" E	GOB - DA
GULNA	09° 17' 12.09" N 099° 17' 10.72" E	GUN - NA
GUPES	09° 24' 11.43" N 099° 16' 23.39" E	GU - PES
MAPt (LOC only)	09° 09' 20.11" N 099° 09' 29.00" E	-
SB202	09° 13' 22.20" N 099° 13' 25.76" E	-

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 20 FT  
HEIGHTS RELATED TO  
THR RWY22 - ELEV 18 FT**

**SURAT THANI / Surat Thani (VTSB)  
ILS or LOC z RWY22**

Fix / Point		Coordinates		Pronunciation
GULNA (IF)	12.2D ISTN	09° 17' 12.09" N	099° 17' 10.72" E	GUN - NA
SB202 (FAP/FAF)	6.9D ISTN	09° 13' 22.20" N	099° 13' 25.76" E	-
MAPt (LOC only)	1.3D ISTN	09° 09' 20.11" N	099° 09' 29.00" E	-
LOC	ISTN	09° 07' 15.04" N	099° 07' 26.77" E	-
GP/DME	ISTN	09° 08' 21.76" N	099° 08' 37.47" E	-

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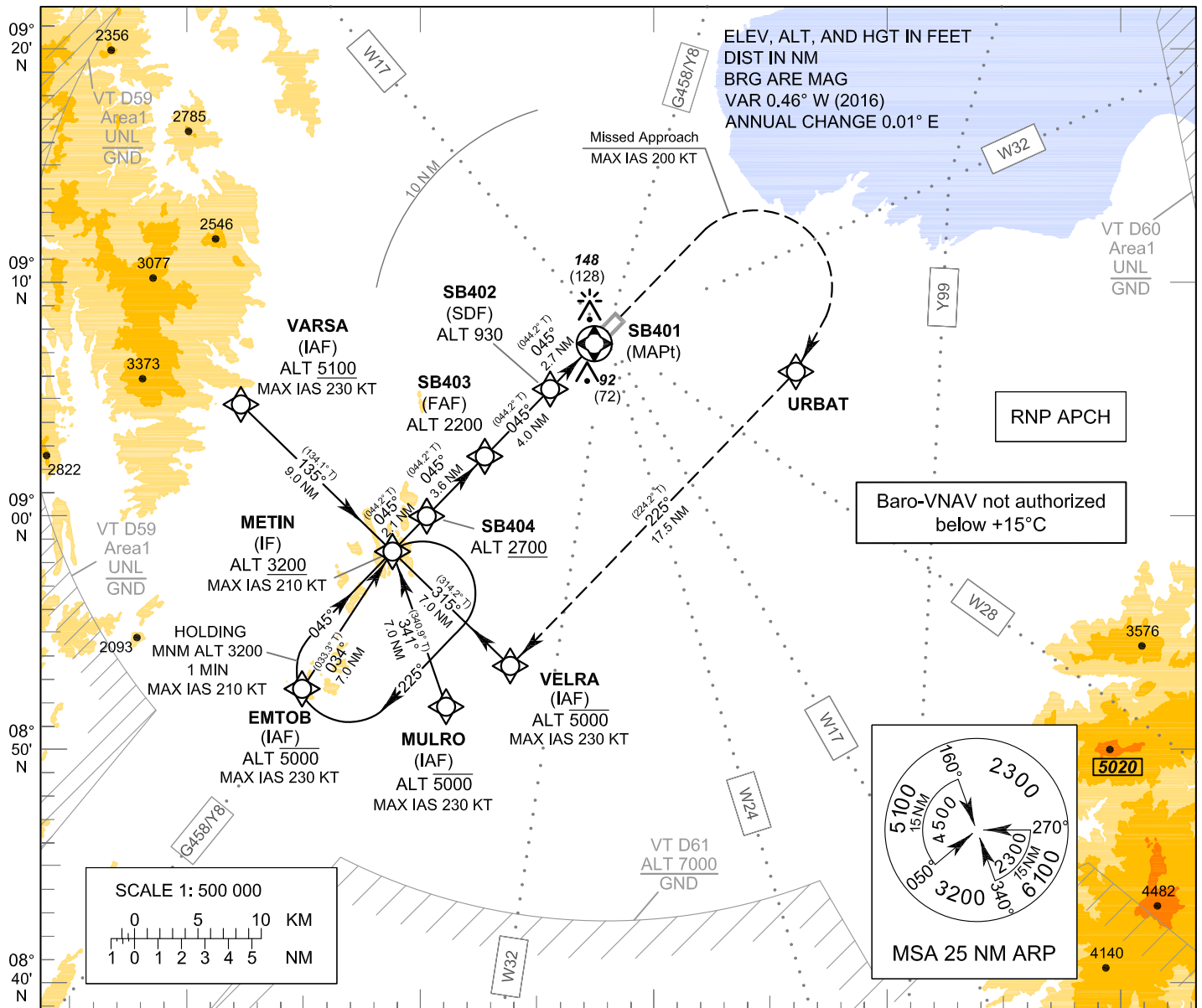


**INSTRUMENT  
APPROACH  
CHART - ICAO**

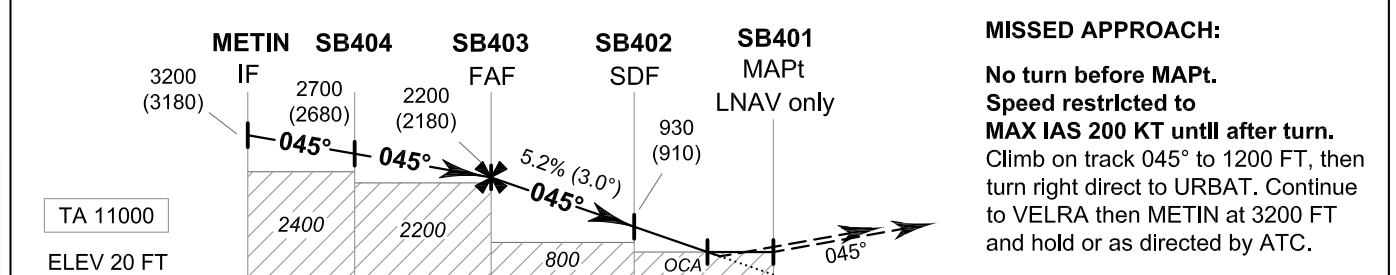
**AERODROME ELEV 20 FT  
HEIGHTS RELATED TO  
THR RWY04 - ELEV 20 FT**

APP : 123.35 , 240.0  
TWR : 122.7 , 274.5  
GND : 121.9 , 275.8  
ATIS : 125.95

**SURAT THANI / Surat Thani (VTSB)  
RNP RWY04**



098° 50' E      099° 00' E      099° 10' E      099° 20' E      099° 30' E



CHANGE: CHART TITLE.

OCA/H	A	B	C	D	NM to NEXT WPT	FAF	6 NM	5 NM	4 NM	3 NM	2 NM	1.1 NM
LNAV / VNAV	340 (320)				Altitude (Height)	2200 (2180)	1965 (1945)	1650 (1630)	1335 (1315)	1020 (1000)	700 (680)	420 (400)
LNAV	420 (400)				Ground speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	860 (840)				Rate of descent FAF-MAPt 5.2%	ft/min	369	474	527	632	737	843

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 20 FT  
HEIGHTS RELATED TO  
THR RWY04 - ELEV 20 FT**

**SURAT THANI / Surat Thani (VTSB)  
RNP RWY04**

**TABULAR DESCRIPTION**

RNP RWY04											
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	EMTOB (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNP APCH
020	TF	METIN (IF)	-	034°(033.3°)	+0.44	7.0	-	+3200	-210	-	RNP APCH
010	IF	MULRO (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNP APCH
020	TF	METIN (IF)	-	341°(340.9°)	+0.44	7.0	-	+3200	-210	-	RNP APCH
010	IF	VARSA (IAF)	-	-	+0.44	-	-	+5100	-230	-	RNP APCH
020	TF	METIN (IF)	-	135°(134.1°)	+0.44	9.0	-	+3200	-210	-	RNP APCH
010	IF	VELRA (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNP APCH
020	TF	METIN (IF)	-	315°(314.2°)	+0.44	7.0	-	+3200	-210	-	RNP APCH
010	IF	METIN (IF)	-	-	+0.44	-	-	+3200	-210	-	RNP APCH
020	TF	SB404	-	045°(044.2°)	+0.44	2.1	-	+2700	-	-	RNP APCH
030	TF	SB403 (FAF)	-	045°(044.2°)	+0.44	3.6	-	@2200	-	-	RNP APCH
040	TF	SB402 (SDF)	-	045°(044.2°)	+0.44	4.0	-	@930	-	-	RNP APCH
050	TF	SB401 (MAPt)	Y	045°(044.2°)	+0.44	2.7	-	@70	-	-3.0/50	RNP APCH
060	CA	-	-	045°(044.2°)	+0.44	-	-	+1200	-200	-	RNP APCH
070	DF	URBAT	-	-	+0.44	-	R	-	-200	-	RNP APCH
080	TF	VELRA (IAF)	-	225°(224.2°)	+0.44	17.5	-	-5000	-230	-	RNP APCH
090	TF	METIN (IF)	-	315°(314.2°)	+0.44	7.0	-	+3200	-210	-	RNP APCH
100	HM	METIN (IF)	Y	045°(044.2°)	+0.44	1 minute	R	+3200	-210	-	RNP APCH

**WAYPOINT LIST**

RNP RWY04		
Waypoint Identifier	Coordinates	Pronunciation
EMTOB	08° 52' 35.41" N 098° 54' 58.65" E	EM - TOB
METIN	08° 58' 27.96" N 098° 58' 51.85" E	ME - THIN
MULRO	08° 51' 49.15" N 099° 01' 10.50" E	MUN - RO
SB401	09° 07' 22.19" N 099° 07' 33.72" E	-
SB402	09° 05' 25.44" N 099° 05' 39.62" E	-
SB403	09° 02' 32.46" N 099° 02' 50.62" E	-
SB404	08° 59' 58.79" N 099° 00' 20.53" E	-
URBAT	09° 06' 09.76" N 099° 16' 14.93" E	ER - BAT
VARSA	09° 04' 45.80" N 098° 52' 20.21" E	VA - SA
VELRA	08° 53' 34.01" N 099° 03' 56.30" E	VEL - RA

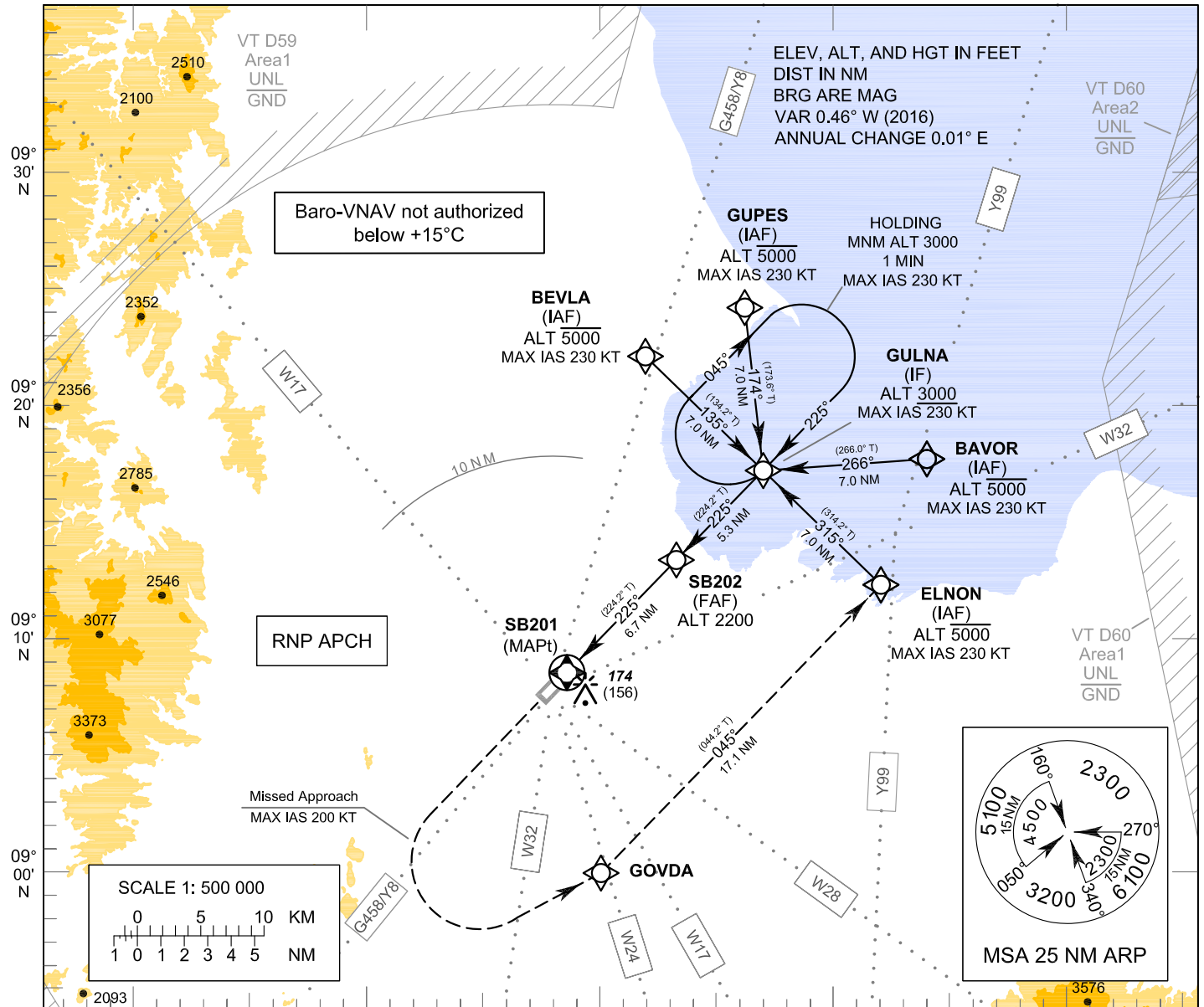
CHANGE : CHART TITLE.

**INSTRUMENT  
APPROACH  
CHART - ICAO**

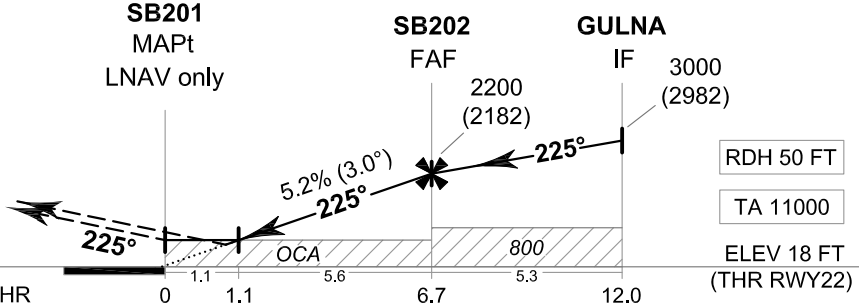
**AERODROME ELEV 20 FT  
HEIGHTS RELATED TO  
THR RWY22 - ELEV 18 FT**

APP : 123.35 , 240.0  
TWR : 122.7 , 274.5  
GND : 121.9 , 275.8  
ATIS : 125.95

**SURAT THANI / Surat Thani (VTSB)  
RNP RWY22**



**MISSED APPROACH:**  
No turn before MAPt .  
Speed restricted to  
**MAX IAS 200 KT until after turn.**  
Climb on track 225° to 1200 FT,  
then turn left direct to GOVDA. Continue  
to ELNON then GULNA at 3000 FT  
and hold or as directed by ATC.



CHANGE: CHART TITLE.

OCA/H	A	B	C	D	NM to NEXT WPT	1.1 NM	2 NM	3 NM	4 NM	5 NM	6 NM	FAF
LNAV / VNAV	350 (332)				Altitude (Height)	420 (402)	700 (682)	1015 (997)	1330 (1312)	1650 (1632)	1965 (1947)	2200 (2182)
LNAV	420 (402)				Ground speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	860 (840)				Rate of descent FAF-MAPt 5.2%	ft/min	369	474	527	632	737	843

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AERODROME ELEV 20 FT  
HEIGHTS RELATED TO  
THR RWY22 - ELEV 18 FT**

**SURAT THANI / Surat Thani (VTSB)  
RNP RWY22**

**TABULAR DESCRIPTION**

RNP RWY22											
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	BAVOR (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNP APCH
020	TF	GULNA (IF)	-	266°(266.0°)	+0.44	7.0	-	+3000	-230	-	RNP APCH
010	IF	BEVLA (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNP APCH
020	TF	GULNA (IF)	-	135°(134.2°)	+0.44	7.0	-	+3000	-230	-	RNP APCH
010	IF	ELNON (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNP APCH
020	TF	GULNA (IF)	-	315°(314.2°)	+0.44	7.0	-	+3000	-230	-	RNP APCH
010	IF	GUPES (IAF)	-	-	+0.44	-	-	-5000	-230	-	RNP APCH
020	TF	GULNA (IF)	-	174°(173.6°)	+0.44	7.0	-	+3000	-230	-	RNP APCH
010	IF	GULNA (IF)	-	-	+0.44	-	-	+3000	-230	-	RNP APCH
020	TF	SB202 (FAF)	-	225°(224.2°)	+0.44	5.3	-	@2200	-	-	RNP APCH
030	TF	SB201 (MAPt)	Y	225°(224.2°)	+0.44	6.7	-	@68	-	-3.0/50	RNP APCH
040	CA	-	-	225°(224.2°)	+0.44	-	-	+1200	-200	-	RNP APCH
050	DF	GOVDA	-	-	+0.44	-	L	-	-200	-	RNP APCH
060	TF	ELNON (IAF)	-	045°(044.2°)	+0.44	17.1	-	-5000	-230	-	RNP APCH
070	TF	GULNA (IF)	-	315°(314.2°)	+0.44	7.0	-	+3000	-230	-	RNP APCH
080	HM	GULNA (IF)	Y	225°(224.2°)	+0.44	1 minute	R	+3000	-230	-	RNP APCH

**WAYPOINT LIST**

RNP RWY22		
Waypoint Identifier	Coordinates	Pronunciation
BAVOR	09° 17' 41.42" N 099° 24' 14.48" E	BA - VER
BEVLA	09° 22' 06.23" N 099° 12' 06.12" E	BAVE - LA
ELNON	09° 12' 17.88" N 099° 22' 15.18" E	EL - NON
GOVDA	08° 59' 56.82" N 099° 10' 10.29" E	GOB - DA
GULNA	09° 17' 12.09" N 099° 17' 10.72" E	GUN - NA
GUPES	09° 24' 11.43" N 099° 16' 23.39" E	GU - PES
SB201	09° 08' 32.55" N 099° 08' 42.50" E	-
SB202	09° 13' 22.20" N 099° 13' 25.76" E	-

CHANGE : CHART TITLE