# VTSM AD 2.1 AERODROME LOCATION INDICATOR AND NAME

# VTSM - SURAT THANI / SAMUI AIRPORT

### VTSM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	093256N 1000345E Centre line of RWY, 860 M from THR 35
2	Direction and distance from (city)	17 KM, from city
3	Elevation/Reference temperature	19.5 M (64 FT) / 31.6°C
4	Geoid Undulation at AD ELEV PSN	NIL
5	MAG VAR/Annual change	0°22'W(2018)/0°1'E/year
6	AD Administration, address, telephone, telefax, telex, AFS	Director of Samui Airport Samui Airport Amphoe Koh Samui Surat Thani Province 84320 Thailand Tel: +667 742 8580 Fax: +667 725 6270 E-mail: samuiairport@bangkokair.com,
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Operator: Bangkok Airways Public Company Limited

# VTSM AD 2.3 OPERATIONAL HOURS

1	Aerodrome Operator	2300-1500	
2	Customs and immigration	Available within AD hours	
3	Health and sanitation	Available within AD hours	
4	AIS Briefing Office	NIL	
5	ATS Reporting Office (ARO)	2300-1500	
6	MET Briefing Office	NIL	
7	ATS	2300-1500	
8	Fuelling	Available within AD hours	
9	Handling	Available within AD hours	
10	Security	H24	
11	De-icing	NIL	
12	Remarks	NIL	

# VTSM AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	NIL		
2	Fuel/oil types	JET A1		
3	Fuelling facilities/capacity	Bangkok Aviation Fuel Service Public Co.,Ltd. (BAFS) Website: www.bafsthai.com Tel: +662 834 8954  Regional Airport Manager Email: teerakan@bafs.co.th Tel. +668 9134 5690 1 Fuel Truck @ 15,000 L 2 Fuel Trucks @ 12,000 L		
4	De-icing facilities	NIL		
5	Hangar space for visiting aircraft	NIL		
6	Repair facilities for visiting aircraft	NIL		
7	Remarks	The airport has provided ground handling agents as following: Bangkok Airways Ground Services Co., Ltd (PGGS) Ground Handling Inquiry E-mail: office@pg-gs.com, phuwanai@pg-gs.com, phornphan@pg-gs.com Phone: +668 1065 8400 and +666 5269 1515		

# VTSM AD 2.5 PASSENGER FACILITIES

1	Hotels	In the vicinity of AD
2	Restaurants	At AD
3	Transportation	Limousine service Car rental service
4	Medical facilities	First aid at AD
5	Bank and Post Office	Money Exchange: Available Post Office: NIL
6	Tourist Office	Tourist Office Centre (Office in town) Open H24 Phone: +667 743 0018  Airport Emergency Tourist Police Centre At AD Open: 0200-1000
7	Remarks	NIL

# VTSM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Category 6	
2 Rescue equipment 1		1 Rescue vehicle	
3	Capability for removal of disabled aircraft	Available up to A319	
4	Remarks	For removal of disabled aircraft by contracted external resource, please contact aerodrome coordinator: - Airport Rescue and Fire Fighting Manager Tel: +668 1956 6655 - Airport Fire Station Tel: +667 742 8526	

### VTSM AD 2.7 SEASONAL AVAILABILITY - CLEARING

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

### VTSM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Apron surface and strength	Surface: Concrete Strength: PCN 42/R/D/X/T
2	Taxiway width, surface and strength	Taxiway A, B, C, D, E and F Width: 30 M Surface: Concrete Strength: PCN 42/R/D/X/T
3	Altimeter checkpoint location and elevation	NIL
4	VOR checkpoints	NIL
5	INS checkpoints	NIL
6	Remarks	NIL

### VTSM 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	Taxi guidance signs and guide lines at TWY and Apron
2	RWY and TWY markings and LGT	RWY: Marked and lighted
3	Stop bars	NIL
4	Remarks	NIL

### **VTSM AD 2.10 AERODROME OBSTACLES**

1	n approach/TKOF area	ıs	In circling areas a	nd at AD	Remarks	
1			2		3	
RWY/Area affected	ed Obstacle type Coordinates Elevation Markings/LGT		Obstacle type Elevation Markings/LGT	Coordinat es		
a b		С	а	b		
RWY17/APCH	Building 28.5 M (93.5 FT) No Markings No LGT	093335.23N 1000346.24E	Hill 630 M	093324N 1000423E	See Aerodrome obstacle chart type A for details	
RWY35/TKOF	Building 40 M (131 FT) No Markings No LGT	093415.23N 1000334.55E				

# VTSM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorological Station-Samui, 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: +667 742 8520	
6	Flight documentation Language(s) used	Thai/English	
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	Barometer, Anemometer and Thermometer Screen	
9	ATS units provided with information	Samui TWR	
10	Additional information (limitation of service, etc.)	NIL	

### VTSM 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 THE geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
17	174.48°	2100x45	PCN 38/F/B/W/T Concrete and asphalt	093319.40N 1000342.26E	43 FT
35	354.48°	2100x45	PCN 38/F/B/W/T Concrete and asphalt	093227.55N 1000347.31E	56 FT

Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
0% / 0.8% 1300 M / 800 M	225x45	60x45	2085x150	NIL	See below
-0.8% / 0% 800 M / 1300 M	60x45	60x45	2020x150	NIL	See below
(See of Type A chart)					

### **Remarks**

# Infringement of RWY strips

Infringement maximum of 52.5~M start at 376~M to 480~M from runway threshold 35, located on left side of runway 35.

# VTSM AD 2.13 DECLARED DISTANCES

RWY Designator	tor (M) TODA (M)		ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
17	1800	1860	2025	1825	NIL
35	1900	1960	1960	1660	NIL

# VTSM 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	LGT LEN, spacing, colour, INTST		SWY LGT LEN (M) colour	Remarks
1	2	3	4	5	6	7	8	9	10
17	NIL	Green	PAPI Right 3° (47.53 FT)	White 2 Pairs 646M	2100 M,30 M White FM 0-1200 M, Red/White FM 1200-1800 M, Red FM 1800-2100 M, LIH	2100 M,60 M Red FM 0-200 M, White FM 200-1400 M, Yellow FM 1400-2100 M, LIH	Red	NIL	RTIL
35	NIL	Green	PAPI Left 3.2° (46.35 FT)	White 2 Pairs 647M	2100 M,30 M White FM 0-1200 M, Red/White FM 1200-1800 M, Red FM 1800-2100 M, LIH	2100 M,60 M Red FM 0-300 M, White, FM 300-1300 M, Yellow FM 1300-2100 M, LIH	Red	NIL	RTIL

# VTSM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: at Control Tower FLG/WG. EV 3 Sec 2300-1500
2	LDI location and LGT Anemometer location and LGT	LDI: 3 Wind cone with illumination at THR 17, 500 M and 800 M from THR 17 and 180 M from THR 35 Anemometer: At MET Station 410 M from THR 17
3	TWY edge and centre line lighting	TWY edge Lighted
4	Secondary power supply/switch-over time	Electrical Generator / 0 Sec (UPS)
5	Remarks	NIL

# VTSM 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

# VTSM AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	A circle of 5 NM radius centred on SAMUI NDB (093314.01N 1000335.65E)
2	Vertical limits	2000 FT/AGL
3	Airspace classification	D
4	ATS unit call sign Language(s)	Samui Tower English, Thai
5	Transition altitude	11000 FT
6	Remarks	NIL

# VTSM AD 2.18 ATS COMMUNICATION FACILITIES

	Service designation	Call sign Frequency		Hours of operation	Remarks
	1	2 3		4	5
=	APP	Samui Approach	129.6 MHZ / 305.4 MHZ 121.5 MHZ <sup>1)</sup>	As AD OPR HR	1) Emergency frequency
	TWR	Samui Tower	118.9 MHZ 121.5 MHZ <sup>1)</sup>	As AD OPR HR	
	GND	Samui Ground	121.9 MHZ	As AD OPR HR	
	ATIS	Samui Airport	128.6 MHZ	As AD OPR HR	

AD 2-VTSM-1-7 10 SEP 20

#### VTSM 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	SMU	117.6 MHZ CH123X	H24	093249.47N 1000342.27E	24M	DVOR/DME restriction due to mountainous terrain surround DVOR/DME station, coverage check does not provide adequate signal at required altitude in various areas as follows:  - Radial 000°-015° beyond 25 NM altitude should not below 4 000 FT - Radial 016°-040° beyond 25 NM altitude should not below 6 000 FT - Radial 041°-060° beyond 20 NM altitude should not below 11 000 FT - Radial 061°-070° beyond 25 NM altitude should not below 9 000 FT - Radial 071°-120° beyond 40 NM altitude should not below 11 000 FT - Radial 121°-180° beyond 40 NM altitude should not below 5 000 FT - Radial 181°-210° beyond 25 NM altitude should not below 8 000 FT - Radial 211°-260° beyond 20 NM altitude should not below 9 000 FT - Radial 211°-260° beyond 25 NM altitude should not below 9 000 FT - Radial 261°-280° beyond 25 NM altitude should not below 7 000 FT - Radial 281°-360° beyond 40 NM altitude should not below 7 000 FT
NDB	SM	316 KHZ	H24	093314.01N 1000335.65E		

### **VTSM AD 2.20 LOCAL AERODROME REGULATIONS**

NIL

### **VTSM AD 2.21 NOISE ABATEMENT PROCEDURES**

# 1. ICAO Noise Abatement Departure Procedure RWY17/35

- 1.1 ICAO have developed aircraft operating procedures, Noise Abatement Departure Procedure 1 (NADP 1) and Noise Abatement Departure Procedure 2 (NADP 2), for the take-off climb to ensure that the necessary safety of flight operations is maintained whilst minimizing exposure to noise on the ground.
- 1.2 NADP 1 is intended to provide noise reduction for noise sensitive areas in close proximity to the departure end of the runway. NADP 2 provides noise reduction to areas more distant from the runway end.
- 1.3 All operators are to adopt NADP 1 procedures for all take-offs from Samui Airport on RWY17 or RWY35
- 1.4 Full details of NADP 1 and NADP 2 are contained in ICAO Procedures for Air Navigation Services Aircraft Operations, Volume 1 Flight Procedures (PANSOPS, Doc 8168 Volume 1).
- 1.5 For Propeller and Turboprop Aeroplane, after take-off Pilot-in-Command should aim to use an airspeed giving the best rate of climb.

### 2. Noise Mitigating Measures

- 2.1 The following procedures are implemented to reduce aircraft noise levels when operating conditions permit. These measures include:
  - a) Preferential use of Runway
  - b) APU Restrictions
  - c) Reverse Thrust Use

AD 2-VTSM-1-8 AIP 30 NOV 23 THAILAND

### 2.2 Preferential use of Runway

RWY35 for take-off and RWY17 for landing are preferentially to be used. However, in order to achieve maximum flight safety, this procedure is not applied under the following circumstances.

- a) The use of other runway is necessary in consideration of safety of the aircraft operation.
- b) The condition of the specified runway is not suitable for landing or take-off.
- c) The tail wind component, including gusts, exceeds 5 KT.
- d) The cross wind component, including gusts, exceeds 15 KT.
- e) When the possibility exists that orderly flow of traffic may be impeded.

#### 2.3 APU Restrictions

For noise abatement purposes, pilots are encouraged to limit Auxiliary Power Units (APU) use to the minimum time necessary. The maximum recommended APU run-time is (30) minutes.

#### 2.4 Reverse Thrust Use

The use of reverse thrust may negatively impact the residential community surrounding the Samui Airport, particularly during night hours. The use of minimum reverse thrust necessary for safety is recommended consistent with runway conditions and available length.

### 3. Noise Level Limits

#### 3.1 Noise Operating Restrictions

Under the Environmental Protection (Aircraft Noise) Regulations, international and domestic aircraft operating to/from Samui Airport are required to be certified as compliant with the relevant ICAO Annex 16 Volume I, Aircraft Noise.

- Subsonic jets must be certified as Chapter 3 or Chapter 4.
- Aircraft with Chapter 2 noise certification are not permitted to operate.

#### 3.2 Marginally Compliant Chapter 3 (MCC3) Aircraft

The operations to flights which will be operated by subsonic jet aircraft that meet the Chapter 3 standards by a cumulative margin of not more than 5 EPNdB (Marginally Compliant Chapter 3 (MCC3) Aircraft) will be prohibited for take-off and landing at Samui Airport between 1100 UTC and 2359 UTC.

### 3.3 Exempted MCC3 Aircraft

MCC3 aircraft operated for emergency, medical and humanitarian purposes are exempted from the above restriction.

### **VTSM AD 2.22 FLIGHT PROCEDURES**

### 1. SPEED CONTROL PROCEDURE IN SAMUI 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 17:

SAMUI OMNI 17 Departure: Required climb gradient 402 ft per NM (6.6%) until 3,700 ft.

Ground speed	Knot	65	75	100	150	200	250	300
Rate of climb 6.6%	(ft/min)	435	501	668	1003	1337	1671	2005

No turn before DER.

After departure climb on heading 160° until 3,000 ft, then comply with ATC clearance issued (or as directed by ATC).

- Runway 35:

SAMUI OMNI 35 Departure: Required climb gradient 402 ft per NM (6.6%) until 3,700 ft.

Ground speed	Knot	65	75	100	150	200	250	300
Rate of climb 6.6%	(ft/min)	435	501	668	1003	1337	1671	2005

No turn before DER.

After departure climb straight ahead until 3,000 ft, then comply with ATC clearance issued (or as directed by ATC).

### **VTSM AD 2.23 ADDITIONAL INFORMATION**

### 1. BIRD CONCENTRATIONS

1.1 Bird concentrations in the vicinity of an aerodrome.

### VTSM AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page
Aerodrome Chart - ICAO	AD 2-VTSM-2-1
Aircraft Parking/Docking Chart - ICAO	AD 2-VTSM-2-3
Aerodrome Ground Movement Chart - ICAO	AD 2-VTSM-2-5
Aerodrome Obstacle Chart - ICAO Type A - RWY 35/17	AD 2-VTSM-3-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 17 - DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UPNEP1A	AD 2-VTSM-6-1
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 17 - DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UPNEP1A (Tabular description)	AD 2-VTSM-6-2

Chart name	Page
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 17 - DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UPNEP1A (Waypoint list table)	AD 2-VTSM-6-3
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 35 - ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B	AD 2-VTSM-6-5
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 35 - ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B (Tabular description)	AD 2-VTSM-6-6
Standard Departure Chart - Instrument (SID) - ICAO - RNAV RWY 35 - ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B (Waypoint list table)	AD 2-VTSM-6-7
Instrument Approach Chart - ICAO - VOR RWY 17 - CAT A, B	AD 2-VTSM-8-1
Instrument Approach Chart - ICAO - VOR RWY 17 - CAT A, B (Fix and point list table)	AD 2-VTSM-8-2
Instrument Approach Chart - ICAO - VOR RWY 17 - CAT C	AD 2-VTSM-8-3
Instrument Approach Chart - ICAO - VOR RWY 17 - CAT C (Fix and point list table)	AD 2-VTSM-8-4
Instrument Approach Chart - ICAO - VOR RWY 35 - CAT A, B	AD 2-VTSM-8-5
Instrument Approach Chart - ICAO - VOR RWY 35 - CAT A, B (Fix and point list table)	AD 2-VTSM-8-6
Instrument Approach Chart - ICAO - VOR RWY 35 - CAT C	AD 2-VTSM-8-7
Instrument Approach Chart - ICAO - VOR RWY 35 - CAT C (Fix and point list table)	AD 2-VTSM-8-8
Instrument Approach Chart - ICAO - RNP RWY 17 - CAT A, B	AD 2-VTSM-8-9
Instrument Approach Chart - ICAO - RNP RWY 17 - CAT A, B (Tabular description)	AD 2-VTSM-8-10
Instrument Approach Chart - ICAO - RNP RWY 17 - CAT A, B (Waypoint list table)	AD 2-VTSM-8-11
Instrument Approach Chart - ICAO - RNP RWY 17 - CAT C	AD 2-VTSM-8-13
Instrument Approach Chart - ICAO - RNP RWY 17 - CAT C (Tabular description)	AD 2-VTSM-8-14
Instrument Approach Chart - ICAO - RNP RWY 17 - CAT C (Waypoint list table)	AD 2-VTSM-8-15
Instrument Approach Chart - ICAO - RNP RWY 35 - CAT A, B	AD 2-VTSM-8-17
Instrument Approach Chart - ICAO - RNP RWY 35 - CAT A, B (Tabular description)	AD 2-VTSM-8-18
Instrument Approach Chart - ICAO - RNP RWY 35 - CAT A, B (Waypoint list table)	AD 2-VTSM-8-19
Instrument Approach Chart - ICAO - RNP RWY 35 - CAT C	AD 2-VTSM-8-21
Instrument Approach Chart - ICAO - RNP RWY 35 - CAT C (Tabular description)	AD 2-VTSM-8-22
Instrument Approach Chart - ICAO - RNP RWY 35 - CAT C (Waypoint list table)	AD 2-VTSM-8-23

TWR 118.9 09 32 56 N AERODROME CHART - ICAO ELEV 64 ft. 121.5 SURAT THANI / Samui Airport 100 03 45 E 243.0 BEARING RWY DIRETION THR STRENGTH 09 33 19.40 N RESA 90x90 17 174 100 03 42.26 E PCN 38 F/B/W/T 09 32 27.55 N SWY 60x45 CWY 60x45 35 354 100 03 47.31 E APRON 42/R/D/X/T ELEVATION IN FEET AND DIMENSIONS IN METRES ELEV 43 BEARING ARE MAGNETIC FIRE STATION AND MET POWER STATION ANNUAL RATE OF CHANGE 0° 1' E DVOR/DME 117.6 SMU CH 123X INFRINGMENT 104x25 m RESERVIOR **LEGEND** ELEV 56 BUILDING OR LARGE STRUCTURE CLOSED **CWY 60x45** REMARK/ ALL HEIGHTS REF MSL COORDINATES ARE WGS 84 **SWY 225x45** METRES 300 500 1000 1000 RESA 90x90 FEET SCALE 1: 20,000 MARKING AIDS RWY 17/35 AND EXIT TWY LIGHTING AIDS RWY 17/35 AND EXIT TWY

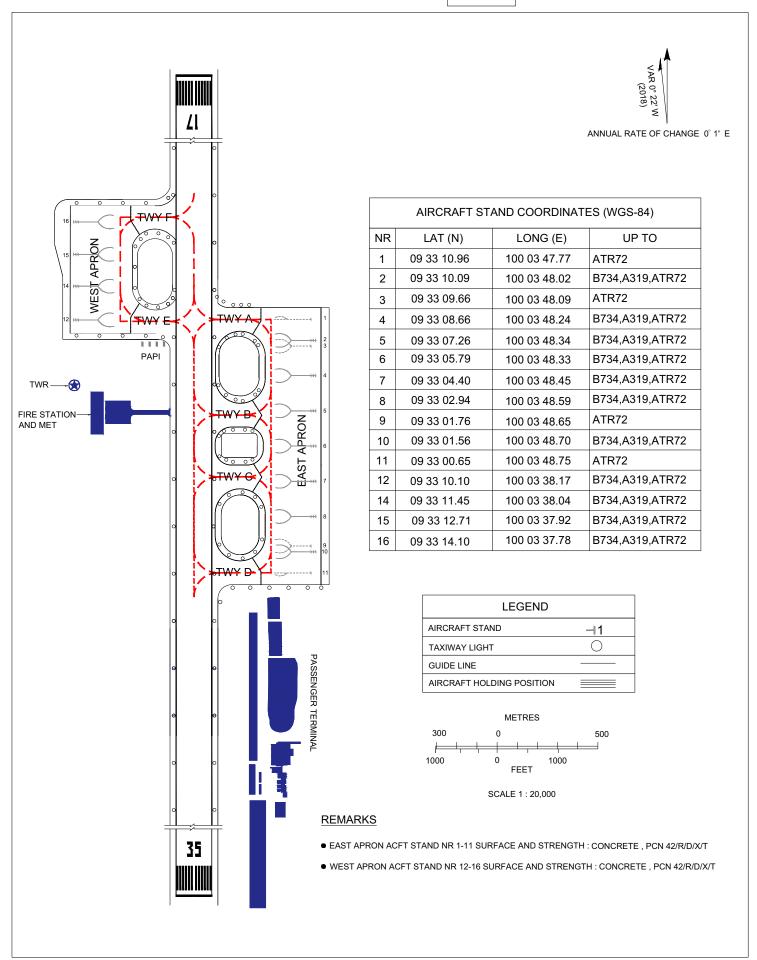


AIRCRAFT PARKING/ DOCKING CHART - ICAO 09 32 56 N 100 03 45 E

WEST APRON ELEV 47 ft. EAST APRON ELEV 46 ft.

TWR 118.9 GND 121.9

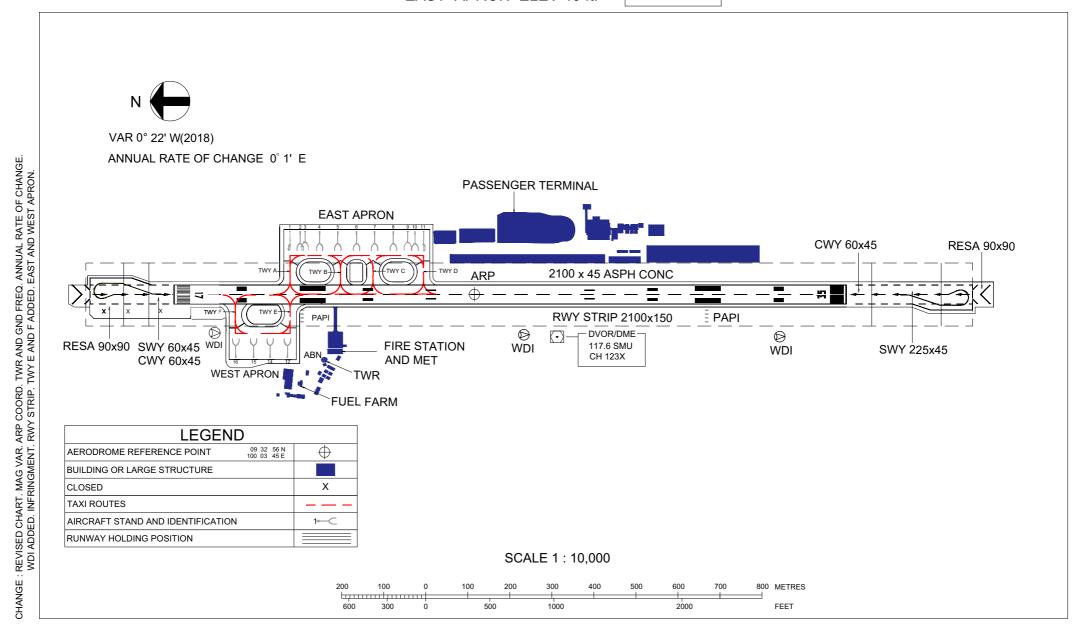
SURAT THANI / Samui Airport





AERODROME GROUND MOVEMENT CHART - ICAO WEST APRON ELEV 47 ft. EAST APRON ELEV 46 ft.

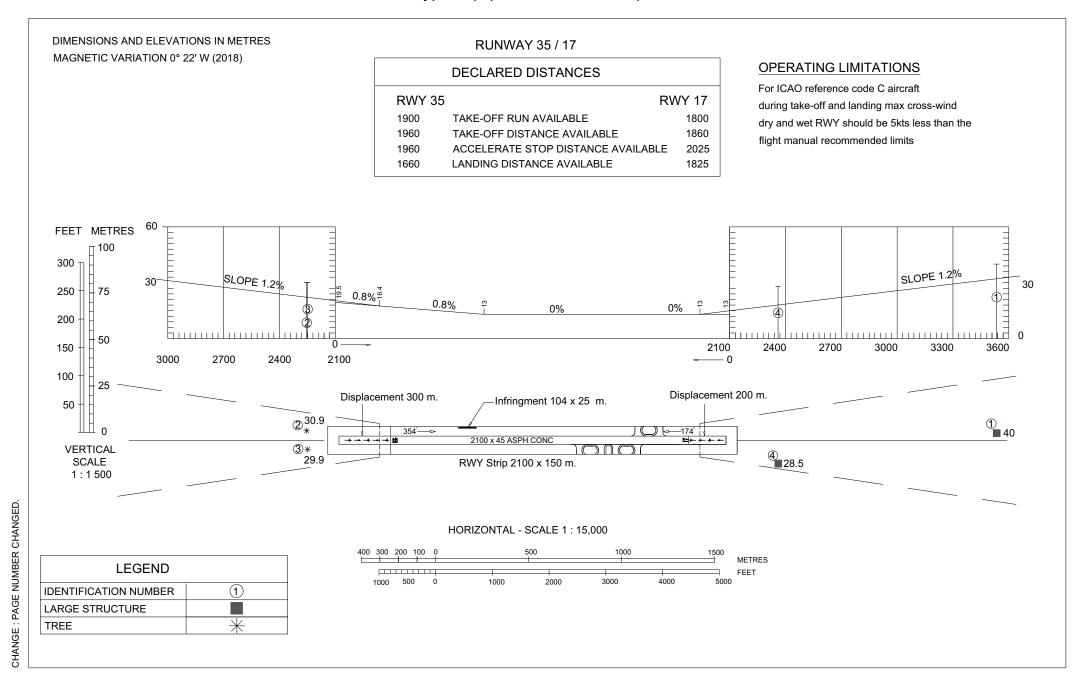
TWR 118.9 GND 121.9 SURAT THANI / Samui Airport





# Aerodrome Obstacle Chart - ICAO Type A (Operation Limitations)

SURAT THANI / Samui Airport

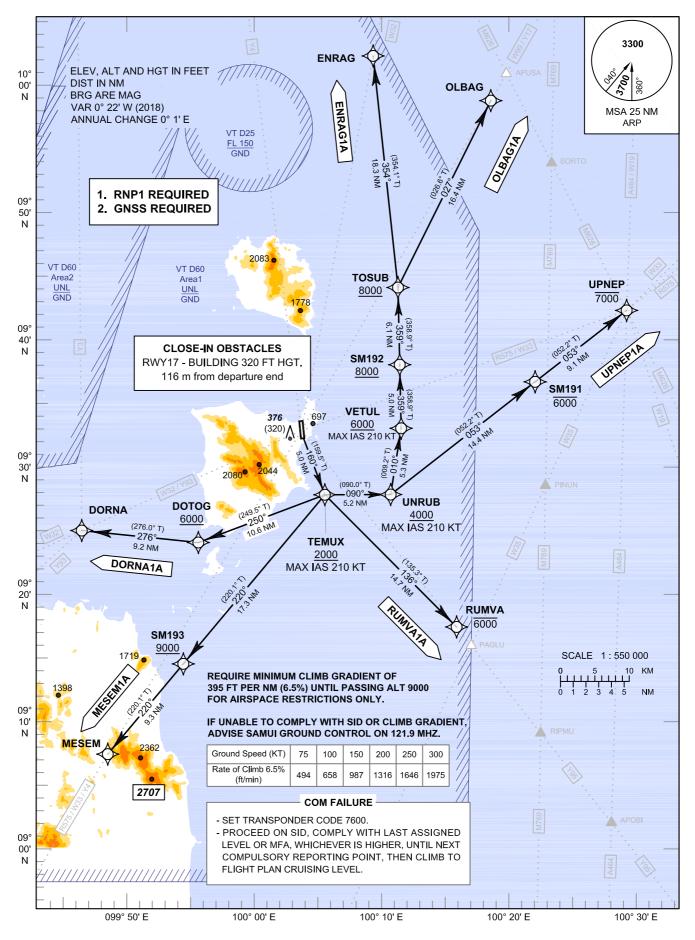




TRANSITION ALTITUDE 11000 FT APP: 129.6 TWR: 118.9 GND: 121.9 ATIS: 128.6

SURAT THANI / Samui (VTSM) RNAV RWY17

DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UPNEP1A



CHANGE: NEW CHART

# SURAT THANI / Samui (VTSM) RNAV RWY17

DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UPNEP1A

### **TABULAR DESCRIPTION**

Serial	Path	rial Path			Course	Magnetic	Distance	Turn	Altitude	Speed	VPA/	Navigation
Number	Descriptor	Waypoint Identifier	Flyover	° M (° T)	Variation	(NM)	Direction	(FT)	(KT)	тсн	Specification	
DORNA1A		<u> </u>	l .									
010	-	DER RWY17	_	-	+0.33	-	L	-	_	-	RNP 1	
020	CF	TEMUX	-	160°(159.5°)	+0.33	5.0	R	+2000	-210	-	RNP 1	
030	TF	DOTOG	-	250°(249.5°)	+0.33	10.6	R	+6000	-	-	RNP 1	
040	TF	DORNA	-	276°(276.0°)	+0.33	9.2	-	-	-	-	RNP 1	
ENRAG1A					I							
010	-	DER RWY17	-	-	+0.33	-	L	-	-	-	RNP 1	
020	CF	TEMUX	-	160°(159.5°)	+0.33	5.0	L	+2000	-210	-	RNP 1	
030	TF	UNRUB	-	090°(090.0°)	+0.33	5.2	L	+4000	-210	-	RNP 1	
040	TF	VETUL	-	010°(009.2°)	+0.33	5.3	L	+6000	-210	-	RNP 1	
050	TF	SM192	-	359°(358.9°)	+0.33	5.0	-	+8000	-	-	RNP 1	
060	TF	TOSUB	-	359°(358.9°)	+0.33	6.1	L	+8000	-	-	RNP 1	
070	TF	ENRAG	-	354°(354.1°)	+0.33	18.3	-	-	-	-	RNP 1	
MESEM1A												
010	-	DER RWY17	-	-	+0.33	-	L	-	-	-	RNP 1	
020	CF	TEMUX	-	160°(159.5°)	+0.33	5.0	R	+2000	-210	-	RNP 1	
030	TF	SM193	-	220°(220.1°)	+0.33	17.3	-	+9000	-	-	RNP 1	
040	TF	MESEM	-	220°(220.1°)	+0.33	9.3	-	-	-	-	RNP 1	
OLBAG1A												
010	-	DER RWY17	-	-	+0.33	-	L	-	-	-	RNP 1	
020	CF	TEMUX	-	160°(159.5°)	+0.33	5.0	L	+2000	-210	-	RNP 1	
030	TF	UNRUB	-	090°(090.0°)	+0.33	5.2	L	+4000	-210	-	RNP 1	
040	TF	VETUL	-	010°(009.2°)	+0.33	5.3	L	+6000	-210	-	RNP 1	
050	TF	SM192	-	359°(358.9°)	+0.33	5.0	-	+8000	-	-	RNP 1	
060	TF	TOSUB	-	359°(358.9°)	+0.33	6.1	R	+8000	-	-	RNP 1	
070	TF	OLBAG	-	027°(026.6°)	+0.33	16.4	-	-	-	-	RNP 1	
RUMVA1A												
010	-	DER RWY17	-	-	+0.33	-	L	-	-	-	RNP 1	
020	CF	TEMUX	-	160°(159.5°)	+0.33	5.0	L	+2000	-210	-	RNP 1	
030	TF	RUMVA	-	136°(135.3°)	+0.33	14.7	-	-6000	-	-	RNP 1	
UPNEP1A												
010	-	DER RWY17	-	-	+0.33	-	L	-	-	-	RNP 1	
020	CF	TEMUX	-	160°(159.5°)	+0.33	5.0	L	+2000	-210	-	RNP 1	
030	TF	UNRUB	-	090°(090.0°)	+0.33	5.2	L	+4000	-210	-	RNP 1	
040	TF	SM191	-	053°(052.2°)	+0.33	14.4	-	-6000	-	-	RNP 1	
050	TF	UPNEP	-	053°(052.2°)	+0.33	9.1	-	-7000	-	-	RNP 1	

SURAT THANI / Samui (VTSM) RNAV RWY17

DORNA1A ENRAG1A MESEM1A OLBAG1A RUMVA1A UPNEP1A

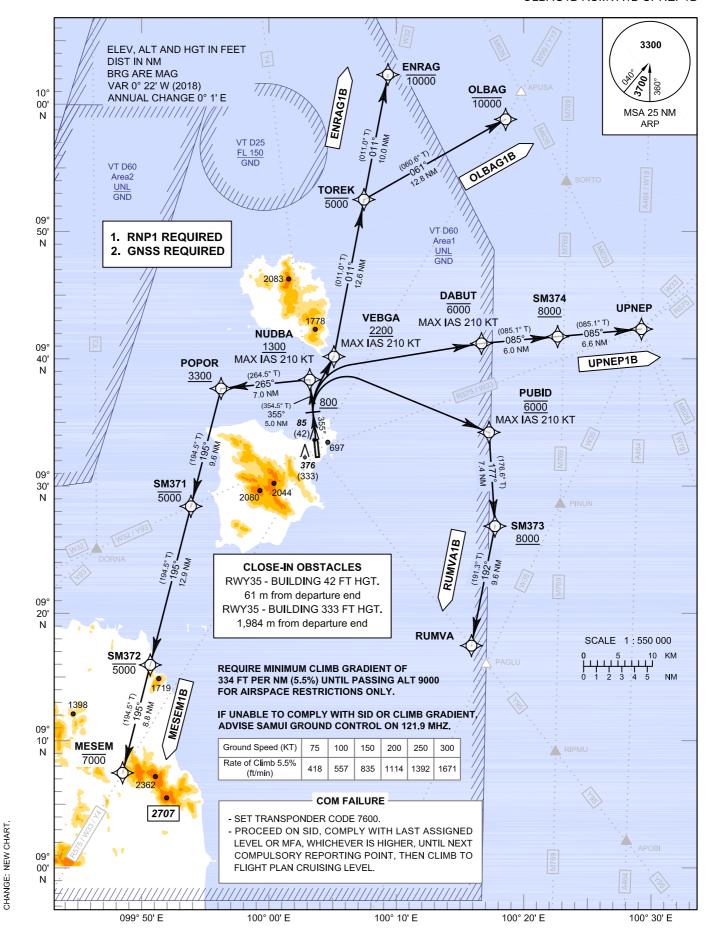
# **WAYPOINT LIST**

NAV RWY17				
Waypoint Identifier	Coordinates			
DER RWY17	09° 32' 27.55" N	100° 03' 47.31" E		
DORNA	09° 24' 58.70" N	099° 46' 14.10" E		
DOTOG	09° 24' 00.75" N	099° 55' 29.95" E		
ENRAG	10° 02' 23.31" N	100° 09' 31.07" E		
MESEM	09° 07' 19.05" N	099° 48' 15.85" E		
OLBAG	09° 58' 49.36" N	100° 18' 52.25" E		
RUMVA	09° 17' 16.93" N	100° 15' 59.72" E		
SM191	09° 36' 36.69" N	100° 22' 18.46" E		
SM192	09° 38' 00.18" N	100° 11' 32.87" E		
SM193	09° 14' 25.82" N	099° 54' 16.76" E		
TEMUX	09° 27' 45.27" N	100° 05' 33.73" E		
TOSUB	09° 44' 05.84" N	100° 11' 25.88" E		
UNRUB	09° 27' 45.24" N	100° 10' 47.51" E		
UPNEP	09° 42' 13.10" N	100° 29' 36.40" E		
VETUL	09° 32' 58.84" N	100° 11' 38.63" E		

TRANSITION ALTITUDE 11000 FT APP : 129.6 TWR : 118.9 GND : 121.9 ATIS : 128.6

### SURAT THANI / Samui (VTSM) RNAV RWY35

ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B



# SURAT THANI / Samui (VTSM) RNAV RWY35

ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B

T A			DEC	CRIP.	
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Serial	Path	Waypoint Identifier		Course	Magnetic	Distance	Turn	Altitude	Speed	VPA/	Navigation
Number	Descriptor		Flyover	° M (° T)	Variation	(NM)	Direction	(FT)	(KT)	тсн	Specification
ENRAG1B					1				I		
010	-	DER RWY35	-	-	+0.33	-	-	-	-	-	RNP 1
020	CA	-	-	355°(354.5°)	+0.33	-	-	+800	-	-	RNP 1
030	DF	VEBGA		-	+0.33	-	R	+2200	-210	-	RNP 1
040	TF	TOREK	-	011°(011.0°)	+0.33	12.6	-	-5000	-	-	RNP 1
050	TF	ENRAG	-	011°(011.0°)	+0.33	10.0	-	-10000	-	-	RNP 1
MESEM1B									1		
010	-	DER RWY 35	-	-	+0.33	-	-	-	-	-	RNP 1
020	CF	NUDBA	-	355°(354.5°)	+0.33	5.0	L	+1300	-210	-	RNP 1
030	TF	POPOR	-	265°(264.5°)	+0.33	7.0	L	+3300	-	-	RNP 1
040	TF	SM371	-	195°(194.5°)	+0.33	9.6	-	-5000	-	-	RNP 1
050	TF	SM372	-	195°(194.5°)	+0.33	12.9	-	-5000	-	-	RNP 1
060	TF	MESEM	-	195°(194.5°)	+0.33	8.8	-	-7000	-	-	RNP 1
OLBAG1B											
010	-	DER RWY35	-	-	+0.33	-	-	-	-	-	RNP 1
020	CA	-	-	355°(354.5°)	+0.33	-	-	+800	-	-	RNP 1
030	DF	VEBGA	-	-	+0.33	-	R	+2200	-210	-	RNP 1
040	TF	TOREK	-	011°(011.0°)	+0.33	12.6	R	-5000	-	-	RNP 1
050	TF	OLBAG	-	061°(060.6°)	+0.33	12.8	-	-10000	-	-	RNP 1
RUMVA1B											
010	-	DER RWY35	-	-	+0.33	-	-	-	-	-	RNP 1
020	CA	-	-	355°(354.5°)	+0.33	-	-	+800	-	-	RNP 1
030	DF	PUBID	-	-	+0.33	-	R	@6000	-210	-	RNP 1
040	TF	SM373	-	177°(176.6°)	+0.33	7.4	R	+8000	-	-	RNP 1
050	TF	RUMVA	-	192°(191.3°)	+0.33	9.6	-	-	-	-	RNP 1
UPNEP1B	'			li .	ıı.		'				
010	-	DER RWY35	-	-	+0.33	-	-	-	-	-	RNP 1
020	CA	-	-	355°(354.5°)	+0.33	-	-	+800	-	-	RNP 1
030	DF	DABUT	-	-	+0.33	-	R	-6000	-210	-	RNP 1
040	TF	SM374	-	085°(085.1°)	+0.33	6.0	-	+8000	-	-	RNP 1
050	TF	UPNEP	-	085°(085.1°)	+0.33	6.6	-	_	-	_	RNP 1

# SURAT THANI / Samui (VTSM) RNAV RWY35

ENRAG1B MESEM1B OLBAG1B RUMVA1B UPNEP1B

# WAYPOINT LIST

NAV RWY35			
Waypoint Identifier	Coordinates		
DER RWY35	09° 33' 19.40" N	100° 03' 42.26" E	
DABUT	09° 41' 08.45" N	100° 16' 53.04" E	
ENRAG	10° 02' 23.31" N	100° 09' 31.07" E	
MESEM	09° 07' 19.05" N	099° 48' 15.85" E	
NUDBA	09° 38' 19.40" N	100° 03' 13.03" E	
OLBAG	09° 58' 49.36" N	100° 18' 52.25" E	
POPOR	09° 37' 38.71" N	099° 56' 09.81" E	
PUBID	09° 34' 07.10" N	100° 17' 27.30" E	
RUMVA	09° 17' 16.93" N	100° 15' 59.72" E	
SM371	09° 28' 21.11" N	099° 53' 44.42" E	
SM372	09° 15' 50.22" N	099° 50' 28.85" E	
SM373	09° 26' 42.51" N	100° 17' 53.96" E	
SM374	09° 41' 39.27" N	100° 22' 56.23" E	
TOREK	09° 52' 31.68" N	100° 07' 34.62" E	
UPNEP	09° 42' 13.10" N	100° 29' 36.40" E	
VEBGA	09° 40' 08.36" N	100° 05' 08.47" E	

**INSTRUMENT** 

**AERODROME ELEV 64 FT** 

**SURAT THANI / Samui (VTSM)** 

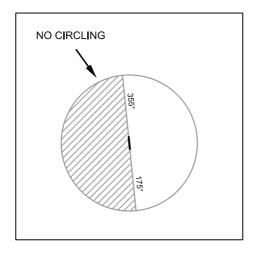
TWR 118.9 APPROACH HEIGHTS RELATED TO **VOR RWY17** GND 121.9 **CHART - ICAO** THR RWY17 - ELEV 43 FT CAT A, B ATIS 128.6 3300 10° 00' ELEV, ALT AND HGT IN FEET DIST IN NM MNM ALT 4000 1 MIN MAX IAS 230 KT BRG ARE MAG VAR 0° 22' W (2018) VT D25 FL 150 GND ANNUAL CHANGE 0° 1' E (IAF) MSA 25 NM **TEPAD** SMU VOR R-011 / 21.7D SMU ALT <u>4000</u> (IF) **DME REQUIRED** OSNIX 09 R-354 / 13.0D SMU 50' ALT <u>4000</u> VT D60 VT D60 Area2 UNL GND 2083 SM182 13.0D 174 R-354 / 10.4D SMU ALT 3200 1778 (FAF) 2.6 NM SM181 099 FL 390 GND R-354 / 7.8D SMU 40' ALT <u>2400</u> (SDF) HOLDING MNM ALT 4000 SM180 R-354 / 4.2D SMU 1 MIN ALT 1260 MAX IAS 230 KT (**I**AF) ALT <u>4000</u> SCALE 1:500 000 SAMUI VOR/DME 1125 117.6 MHZ CH 123X 09° SMU :: 30' N Missed Approach MAX IAS 210 KT 099° 40' E 099° 50' E 100° 00' E 100° 10' E 100° 20' E (IF) (FAF) (SDF) VOR/DME **OSNIX** SM182 SM181 SM180 SMU MISSED APPROACH: CHANGE: NEW PROCEDURES. INTERMEDIATE APPROACH SEGMENT - NO HORIZONTAL DISTANCE 1.0 NM DUE TO TERRAIN RESTRICTIONS. No turn before MAPt. 3200 4000 2400 (MAPt) Speed restricted to MAX IAS (3157)1260 (3957)(2357) 210 KT until after turn. At MAPt, turn left climb on track (1217)1740 920 5.2% (3.0°) 155° to 2000 FT, then turn left to (877)SMU VOR at minimum 4000 FT and hold or as directed by ATC. TA 11000 2600 2300 1200 ELEV 43 FT 920 (THR RWY17) 13.0 10.4 7.8 4.2 3.1 0.5 0 DME FM VOR/DME 12.5 9.9 7.3 3.7 2.6 0 NM FM THR OCA/H Α В Distance (SMU) 6 D 5 D 4 D 3.1 D 2400 2145 1830 1515 1200 920 Altitude (Height) Straight - in (2102)(1787)(1472)(1157)(877)920 (877) (2357)Approach **Ground Speed** 70 90 160 1400 (1336) Circling\* (OCH AAL) Rate of Descent ft/min 369 474 527 632 737 843 FOR CIRCLING RESTRICTIONS SEE VERSO. 5.2%

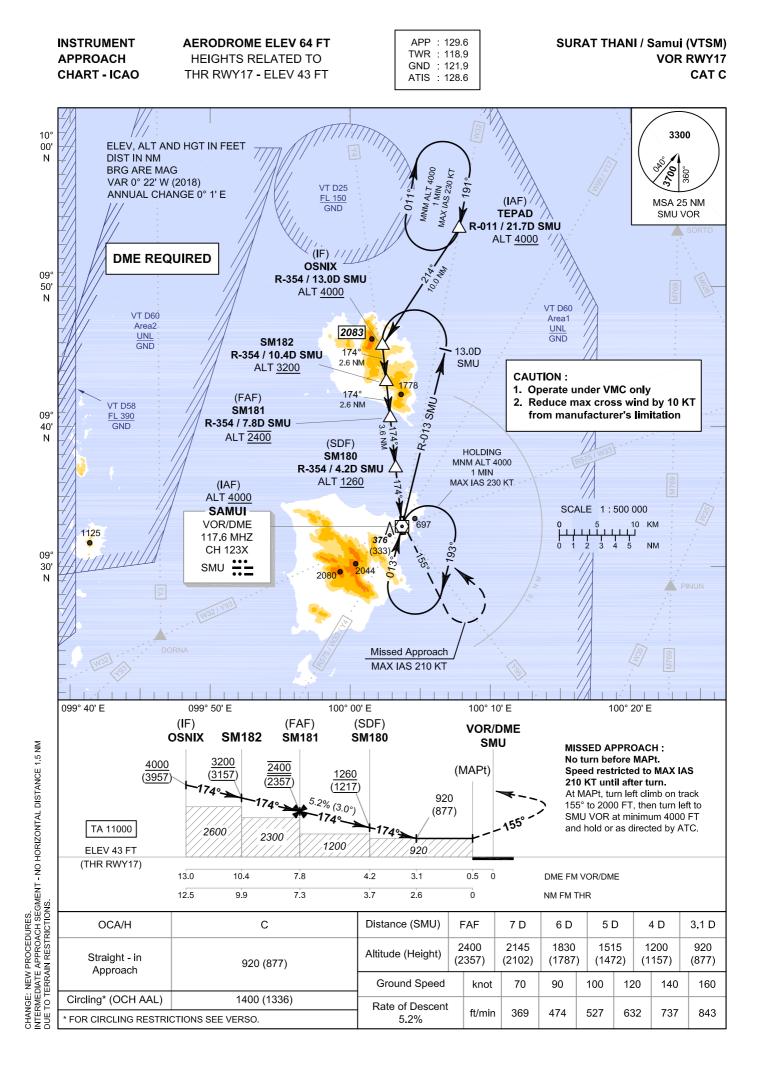
APP

129.6

AERODROME ELEV 64 FT HEIGHTS RELATED TO THR RWY17 - ELEV 43 FT SURAT THANI / Samui (VTSM) VOR RWY17 CAT A, B

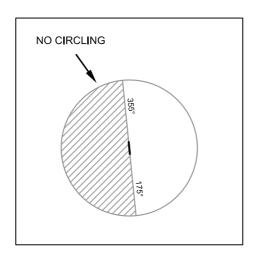
	Fix / Point	Coord	dinates
(IAF) TEPAD	R-011 / 21.7D SMU	09° 54' 11.99" N	100° 07' 54.35" E
(IF) OSNIX	R-354 / 13.0D SMU	09° 45' 48.80" N	100° 02' 19.70" E
SM182	R-354 / 10.4D SMU	09° 43' 12.94" N	100° 02' 36.22" E
(FAF) SM181	R-354 / 7.8D SMU	09° 40' 37.07" N	100° 02' 52.74" E
(SDF) SM180	R-354 / 4.2D SMU	09° 37' 00.86" N	100° 03' 15.65" E
MAPt	R-354 / 0.5D SMU	09° 33' 19.09" N	100° 03' 39.13" E
(IAF) VOR	SMU	09° 32' 49.47" N	100° 03' 42.27" E

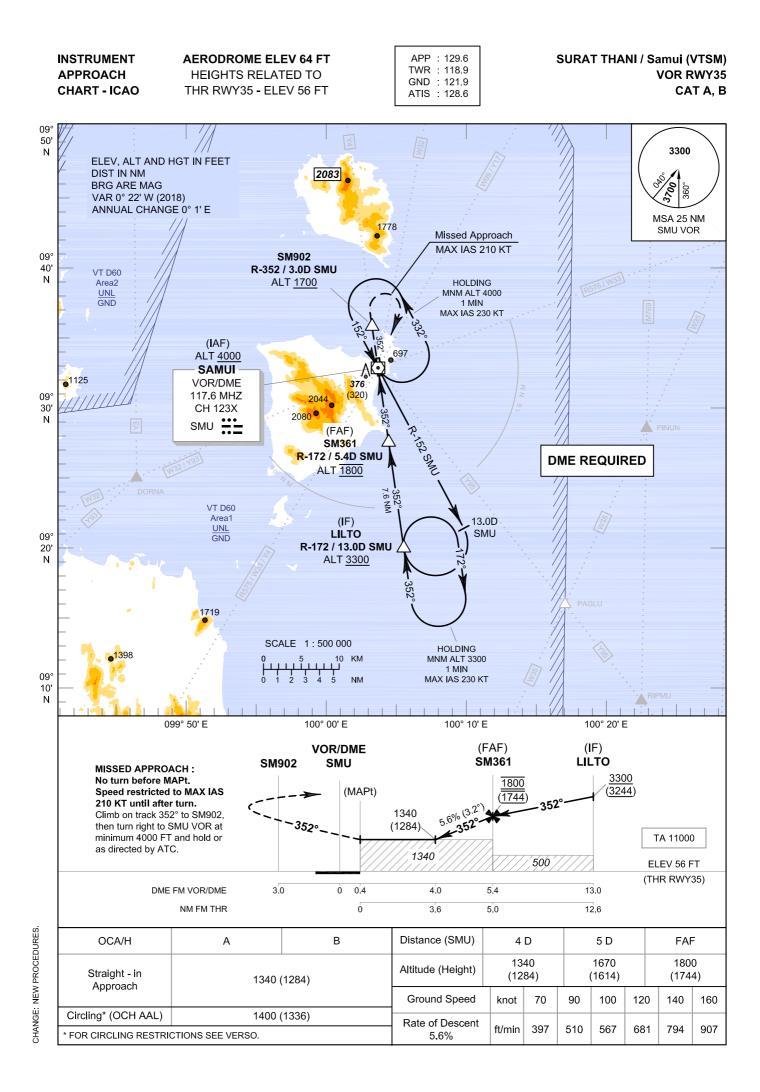




AERODROME ELEV 64 FT HEIGHTS RELATED TO THR RWY17 - ELEV 43 FT SURAT THANI / Samui (VTSM) VOR RWY17 CAT C

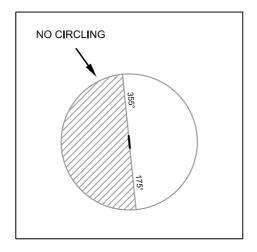
	Fix / Point	Coord	dinates
(IAF) TEPAD	R-011 / 21.7D SMU	09° 54' 11.99" N	100° 07' 54.35" E
(IF) OSNIX	R-354 / 13.0D SMU	09° 45' 48.80" N	100° 02' 19.70" E
SM182	R-354 / 10.4D SMU	09° 43' 12.94" N	100° 02' 36.22" E
(FAF) SM181	R-354 / 7.8D SMU	09° 40' 37.07" N	100° 02' 52.74" E
(SDF) SM180	R-354 / 4.2D SMU	09° 37' 00.86" N	100° 03' 15.65" E
MAPt	R-354 / 0.5D SMU	09° 33' 19.09" N	100° 03' 39.13" E
(IAF) VOR	SMU	09° 32' 49.47" N	100° 03' 42.27" E

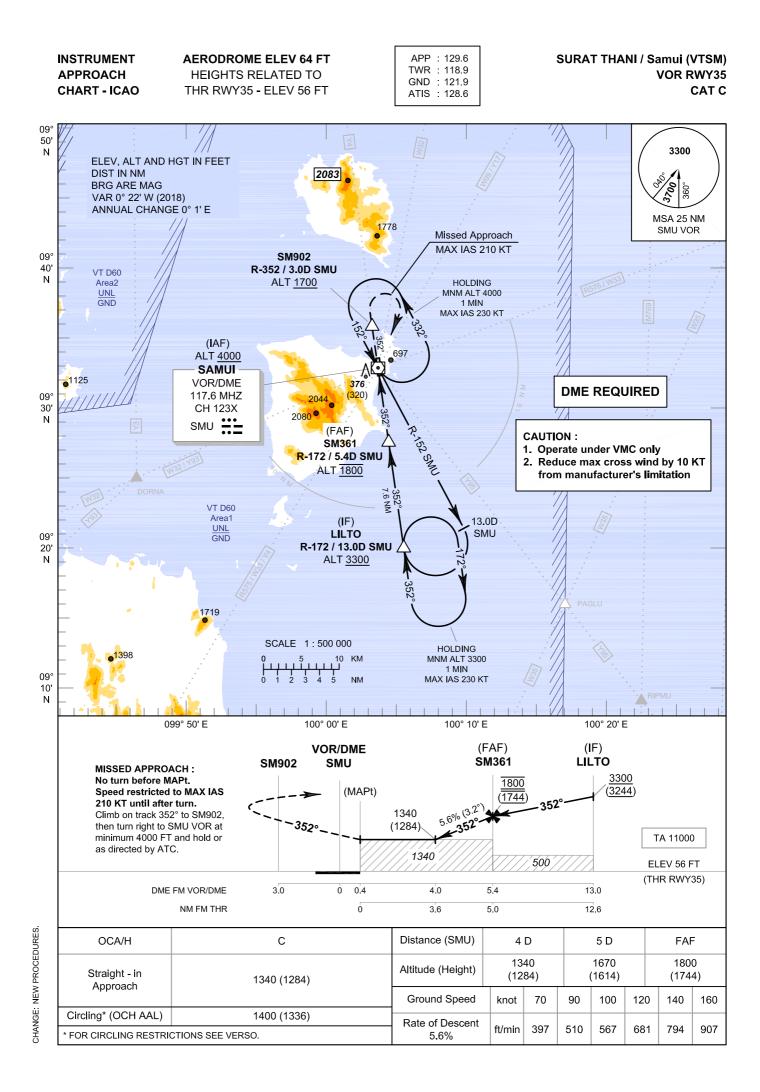




AERODROME ELEV 64 FT HEIGHTS RELATED TO THR RWY35 - ELEV 56 FT SURAT THANI / Samui (VTSM) VOR RWY35 CAT A, B

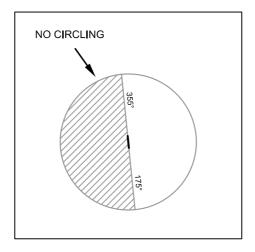
	Fix / Point	Coord	dinates
(IAF) VOR	SMU	09° 32' 49.47" N	100° 03' 42.27" E
(IF) LILTO	R-172 / 13.0D SMU	09° 19' 53.35" N	100° 05' 31.31" E
(FAF) SM361	R-172 / 5.4D SMU	09° 27' 28.88" N	100° 04' 27.33" E
MAPt	R-172 / 0.4D SMU	09° 32' 27.20" N	100° 03' 45.40" E
SM902	R-352 / 3.0D SMU	09° 35' 48.57" N	100° 03' 17.09" E





AERODROME ELEV 64 FT HEIGHTS RELATED TO THR RWY35 - ELEV 56 FT SURAT THANI / Samui (VTSM) VOR RWY35 CAT C

	Fix / Point	Coord	dinates
(IAF) VOR	SMU	09° 32' 49.47" N	100° 03' 42.27" E
(IF) LILTO	R-172 / 13.0D SMU	09° 19' 53.35" N	100° 05' 31.31" E
(FAF) SM361	R-172 / 5.4D SMU	09° 27' 28.88" N	100° 04' 27.33" E
MAPt	R-172 / 0.4D SMU	09° 32' 27.20" N	100° 03' 45.40" E
SM902	R-352 / 3.0D SMU	09° 35' 48.57" N	100° 03' 17.09" E



**INSTRUMENT** 

**APPROACH** 

**AERODROME ELEV 64 FT** 

HEIGHTS RELATED TO

SURAT THANI / Samui (VTSM)

**RNP RWY17** 

GND 121.9 THR RWY17 - ELEV 43 FT CAT A, B **CHART - ICAO** ATIS : 128.6 **ENRAG** (IAF) 3300 ALT 7000 (189.7° T) ELEV, ALT AND HGT IN FEET 190° 18.5 NM HOLDING MNM ALT 3300 1 MIN DIST IN NM NOT TO SCALE 09° **BRG ARE MAG** 50' VAR 0° 22' W (2018) MAX IAS 230 KT Ν FL 150 GND ANNUAL CHANGE 0° 1' E MSA 25 NM ARP **NURLO** 2083 SM177 RNP APCH ALT 7000 ALT 8000 **PUKOM** (270.0° T) **LAXOS** PASKI (IAF/IF ALT <u>4000</u> 11.4 NM (IF) 280% (279.3° T) UPNEP 090° **VT D60** 4.0 NM 09° 7.6 NM VT D60 (IAF) Area2 UNL GND Area1 UNL GND 40' MNM ALT 4000 ALT <u>8000</u> - 360°-SM172 1 MIN MAX IAS 230 F SM173 SM171 SM174 SM170 ALT 7000 1 **PUKOM** NOT TO SCALE (IAF/IF) 1125 **PASKI ALT 3300 376** (333) SM175 09° 155 (IF) MAX IAS 210 KT 30' N ALT 5000 ALT 2000 2044 DORNA MAX IAS 210 KT 1204.5 605°5 (IAF) SM900 (006.6° T) 007° 16.8 NM ALT 5000 ALT <u>1600</u> SM172 **ALT 2200** Missed Approach SM173 099 MAX IAS 210 KT ALT 2000 20' SM176 RUMVA SM171 (144.5° T) 145° 2.0 NM ALT 5000 (IAF) (FAF) ALT 8000 ALT 1400 4.1 NM SCALE 1:600 000 1 1398 SM170 09° MESEM (MAPt) 10' (IAF) 376 (333) ALT 8000 2362 099° 50' E 100° 00' E 100° 10' E 100° 20' E 100° 30' E SM171 **SM170** SM900 FAF **MAPt MISSED APPROACH:** No turn before MAPt. Speed restricted to MAX IAS 5.2% (3.0°) 1400 1000 210 KT until after turn. (1357) At MAPt, turn left climb on track 155° (957)to SM900, then turn left direct to TA 11000 PUKOM at minimum 3300 FT and hold or as directed by ATC. 1000 ELEV 43 FT (THR RWY17) 5.0 2.9 5.0 NM FM THR 4.1 CHART TITLE. OCA/H NM to NEXT WPT 3 NM 2.9 NM 4 NM 1400 1355 1040 1000 LNAV 1000 (957) Alfitude (Height) (957) (1357)(997)(1312)CHANGE Circling\* (OCH AAL) 1400 (1336) **Ground Speed** knot 70 90 100 120 140 160 Rate of Descent \* FOR CIRCLING RESTRICTIONS SEE VERSO. 474 527 632 737 843 ft/ min 369 FAF - MAPt 5.2%

APP: 129.6

: 118.9

TWR

AD 2-VTSM-8-10
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INSTRUMENT AERODROME ELEV 64 FT
APPROACH HEIGHTS RELATED TO
CHART - ICAO THR RWY17 - ELEV 43 FT

SURAT THANI / Samui (VTSM) RNP RWY17 CAT A, B

# **TABULAR DESCRIPTION**

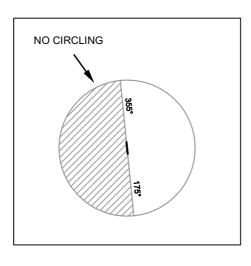
Serial	Path	Mounaint Identifier	Ehravar	Course	Magnetic	Distance	Turn	Altitude	Speed	VPA/	Navigation
Number	Descriptor	Waypoint Identifier	Flyover	° M (° T)	Variation	(NM)	Direction	(FT)	(KT)	тсн	Specification
010	IF	RUMVA (IAF)	-	-	+0.33	-	-	+8000	-	-	RNP APCH
020	TF	SM174	-	007°(006.6°)	+0.33	16.8	L	+7000	-	-	RNP APCH
030	TF	NURLO	-	360°(360.0°)	+0.33	10.0	L	@7000	-	-	RNP APCH
040	TF	PUKOM (IAF/IF)	-	270°(270.0°)	+0.33	11.4	L	+3300	-210	-	RNP APCH
050	TF	SM172	-	205°(204.5°)	+0.33	4.6	-	+2200	-	-	RNP APCH
060	TF	SM171 (FAF)	-	205°(204.5°)	+0.33	2.7	-	@1400	-	-	RNP APCH
010	IF	UPNEP (IAF)	-	-	+0.33	-	-	+8000	-	-	RNP APCH
020	TF	SM177	-	280°(279.3°)	+0.33	7.7	-	+8000	-	-	RNP APCH
030	TF	NURLO	-	280°(279.3°)	+0.33	4.0	L	@7000	-	-	RNP APCH
040	TF	PUKOM (IAF/IF)	-	270°(270.0°)	+0.33	11.4	L	+3300	-210	-	RNP APCH
050	TF	SM172	-	205°(204.5°)	+0.33	4.6	-	+2200	-	-	RNP APCH
060	TF	SM171 (FAF)	-	205°(204.5°)	+0.33	2.7	-	@1400	-	-	RNP APCH
010	IF	ENRAG (IAF)	_	-	+0.33	_	_	-7000	-	-	RNP APCH
020	TF	PUKOM (IAF/IF)	_	190°(189.7°)	+0.33	18.5	R	+3300	-210	_	RNP APCH
030	TF	SM172	_	205°(204.5°)	+0.33	4.6	-	+2200	-	_	RNP APCH
040	TF	SM171 (FAF)	-	205°(204.5°)	+0.33	2.7	-	@1400	-	-	RNP APCH
010	IF	MESEM (IAF)	-	-	+0.33	-	-	-8000	-	-	RNP APCH
020	TF	SM176	-	008°(007.3°)	+0.33	12.8	-	-5000	-	-	RNP APCH
030	TF	SM175	-	008°(007.3°)	+0.33	10.0	-	-5000	-	-	RNP APCH
040	TF	LAXOS	-	008°(007.3°)	+0.33	11.5	R	+4000	-	-	RNP APCH
050	TF	PASKI (IF)	-	090°(090.0°)	+0.33	7.6	R	+2000	-210	-	RNP APCH
060	TF	SM173	-	145°(144.5°)	+0.33	3.0	-	+2000	-	-	RNP APCH
070	TF	SM171 (FAF)	-	145°(144.5°)	+0.33	2.0	-	@1400	-	-	RNP APCH
010	IF	DORNA (IAF)	-	-	+0.33	-	-	-5000	-	-	RNP APCH
020	TF	LAXOS	-	022°(021.2°)	+0.33	17.7	R	+4000	-	-	RNP APCH
030	TF	PASKI (IF)	-	090°(090.0°)	+0.33	7.6	R	+2000	-210	-	RNP APCH
040	TF	SM173	-	145°(144.5°)	+0.33	3.0	-	+2000	-	-	RNP APCH
050	TF	SM171 (FAF)	-	145°(144.5°)	+0.33	2.0	-	@1400	-	-	RNP APCH
010	IF	PUKOM (IAF/IF)	-	-	+0.33	-	_	+3300	-210	-	RNP APCH
020	TF	SM172		205°(204.5°)	+0.33	4.6	-	+2200	-210		RNP APCH
030	TF		-	205°(204.5°)	+0.33					-	RNP APCH
	11	SM171 (FAF)	-	200 (204.0 )	.0.33	2.7	-	@1400	-	-	NINE AFOR
010	IF	SM171 (FAF)	-	-	+0.33	-	-	@1400	-	-	RNP APCH
020	TF	SM170 (MAPt)	Υ	175°(174.5°)	+0.33	4.1	-	@93	-	-3.0 / 50	RNP APCH
030	TF	SM900	Υ	155°(154.5°)	+0.33	5.0	L	+1600	-	-	RNP APCH
040	DF	PUKOM (IAF/IF)	-	-	+0.33	-	L	+3300	-210	-	RNP APCH
050	НМ	PUKOM (IAF/IF)	Υ	205°(204.5°)	+0.33	1 minute	L	+3300	-230	_	RNP APCH

CHANGE: CHART TITLE.

AERODROME ELEV 64 FT HEIGHTS RELATED TO THR RWY17 - ELEV 43 FT SURAT THANI / Samui (VTSM) RNP RWY17 CAT A, B

# **WAYPOINT LIST**

Waypoint Identifier	Coordinates				
Truy point luonanoi	550.				
DORNA	09° 24' 58.70" N	099° 46' 14.10" E			
ENRAG	10° 02' 23.31" N	100° 09' 31.07" E			
LAXOS	09° 41' 30.78" N	099° 52' 40.85" E			
MESEM	09° 07' 19.05" N	099° 48' 15.85" E			
NURLO	09° 44' 05.89" N	100° 17' 57.36" E			
PASKI	09° 41' 30.69" N	100° 00' 21.81" E			
PUKOM	09° 44' 05.87" N	100° 06' 22.07" E			
RUMVA	09° 17' 16.93" N	100° 15' 59.72" E			
SM170	09° 33' 19.40" N	100° 03' 42.26" E			
SM171	09° 37' 25.40" N	100° 03' 18.29" E			
SM172	09° 39' 53.52" N	100° 04' 26.25" E			
SM173	09° 39' 03.52" N	100° 02' 07.71" E			
SM174	09° 34' 03.10" N	100° 17' 57.17" E			
SM175	09° 30' 04.04" N	099° 51' 12.06" E			
SM176	09° 20' 06.14" N	099° 49' 54.83" E			
SM177	09° 43' 27.23" N	100° 21' 57.26" E			
SM900	09° 28 47.41" N	100° 05' 53.06" E			
UPNEP	09° 42' 13.10" N	100° 29' 36.40" E			





**INSTRUMENT** 

**APPROACH** 

**AERODROME ELEV 64 FT** 

**HEIGHTS RELATED TO** 

SURAT THANI / Samui (VTSM)

**RNP RWY17** 

GND 121.9 THR RWY17 - ELEV 43 FT **CHART - ICAO CAT C** ATIS : 128.6 **ENRAG** (IAF) 3300 ALT 7000 (189.7° T) ELEV, ALT AND HGT IN FEET 190° 18.5 NM HOLDING MNM ALT 3300 1 MIN DIST IN NM NOT TO SCALE 09° **BRG ARE MAG** 50' VAR 0° 22' W (2018) MAX IAS 230 KT Ν FL 150 GND ANNUAL CHANGE 0° 1' E MSA 25 NM ARP **NURLO** 2083 SM177 RNP APCH ALT 7000 ALT 8000 **PUKOM** (270.0° T) **LAXOS** PASKI (IAF/IF ALT <u>4000</u> 11.4 NM (IF) 280% UPNEP (279.3° T) 280° 4.0 NM (IAF) 090° **VT D60** VT D60 09° ALT <u>8000</u> Area2 UNL GND 40' MNM ALT 4000 Area1 UNL GND (360.0° T) 360° 10.0 NM SM172 1 MIN MAX IAS 230 F SM173 SM171 SM174 SM170 ALT 7000 1 **PUKOM** NOT TO SCALE (IAF/IF) 1125 **PASKI ALT 3300 376** (333) SM175 09° 155 (IF) MAX IAS 210 KT 30' N ALT 5000 ALT 2000 DORNA MAX IAS 210 KT 1204.5 6.05°5 (IAF) SM900 (006.6° T) 007° 16.8 NM ALT 5000 ALT <u>1600</u> SM172 **ALT 2200** Missed Approach SM173 **RUMVA** 099 MAX IAS 210 KT ALT 2000 (IAF) 20' SM176 ALT 8000 SM171 (144.5° T) 145° 2.0 NM ALT 5000 (FAF) ALT 1400 **CAUTION:** 1. Operate under VMC only 4.1 NM 2. Reduce max cross wind by 10 KT 1 from manufacturer's limitation 1398 SM170 09° 697 MESEM SCALE 1:600 000 (MAPt) 10' (IAF) 376 (333) ALT 8000 2362 3 4 5 099° 50' E 100° 00' E 100° 10' E 100° 20' E 100° 30' E SM171 SM170 SM900 FAF **MAPt** MISSED APPROACH: No turn before MAPt. Speed restricted to MAX IAS 5.2% (3.0°) 1400 1000 210 KT until after turn. (1357) (957)At MAPt, turn left climb on track 155° to SM900, then turn left direct to TA 11000 PUKOM at minimum 3300 FT and hold or as directed by ATC. 1000 ELEV 43 FT (THR RWY17) 5.0 2.9 5.0 NM FM THR 4.1 CHANGE : CHART TITLE. OCA/H С NM to NEXT WPT FAF 3 NM 2.9 NM 4 NM 1400 1355 1040 1000 LNAV 1000 (957) Altitude (Height) (997)(1312)(957)(1357)Ground Speed Circling\* (OCH AAL) 1400 (1336) 140 knot 70 90 100 120 160 Rate of Descent \* FOR CIRCLING RESTRICTIONS SEE VERSO. 369 474 527 632 737 843 ft/min FAF - MAPt 5.2%

APP: 129.6

: 118.9

TWR

AD 2-VTSM-8-14 AIP 15 JUL 21 THAILAND

INSTRUMENT **AERODROME ELEV 64 FT** APPROACH HEIGHTS RELATED TO CHART - ICAO THR RWY17 - ELEV 43 FT

SURAT THANI / Samui (VTSM) RNP RWY17 CAT C

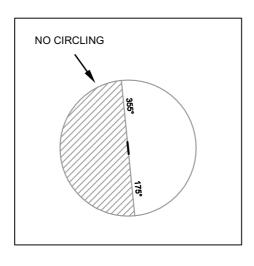
# **TABULAR DESCRIPTION**

Serial Path	Path									Course	Magnetic	Distance	Turn	Altitude	Speed	VPA/	Navigation
Number	Descriptor	Waypoint Identifier	Flyover	° M (° T)	Variation	(NM)	Direction	(FT)	(KT)	тсн	Specification						
010	IF	RUMVA (IAF)	-	-	+0.33	-	-	+8000	-	-	RNP APCH						
020	TF	SM174	-	007°(006.6°)	+0.33	16.8	L	+7000	-	-	RNP APCH						
030	TF	NURLO	-	360°(360.0°)	+0.33	10.0	L	@7000	-	-	RNP APCH						
040	TF	PUKOM (IAF/IF)	-	270°(270.0°)	+0.33	11.4	L	+3300	-210	-	RNP APCH						
050	TF	SM172	-	205°(204.5°)	+0.33	4.6	-	+2200	-	-	RNP APCH						
060	TF	SM171 (FAF)	-	205°(204.5°)	+0.33	2.7	-	@1400	-	-	RNP APCH						
010	IF	UPNEP (IAF)	-	-	+0.33	-	-	+8000	-	-	RNP APCH						
020	TF	SM177	-	280°(279.3°)	+0.33	7.7	-	+8000	-	-	RNP APCH						
030	TF	NURLO	-	280°(279.3°)	+0.33	4.0	L	@7000	-	-	RNP APCH						
040	TF	PUKOM (IAF/IF)	-	270°(270.0°)	+0.33	11.4	L	+3300	-210	-	RNP APCH						
050	TF	SM172	-	205°(204.5°)	+0.33	4.6	-	+2200	-	-	RNP APCH						
060	TF	SM171 (FAF)	-	205°(204.5°)	+0.33	2.7	-	@1400	-	-	RNP APCH						
010	IF	ENRAG (IAF)	_	-	+0.33	-	-	-7000	-	-	RNP APCH						
020	TF	PUKOM (IAF/IF)	-	190°(189.7°)	+0.33	18.5	R	+3300	-210	-	RNP APCH						
030	TF	SM172	-	205°(204.5°)	+0.33	4.6	-	+2200	-	-	RNP APCH						
040	TF	SM171 (FAF)	-	205°(204.5°)	+0.33	2.7	-	@1400	-	-	RNP APCH						
010	IF	MESEM (IAF)	_	-	+0.33	_	_	-8000	<u>-</u>	-	RNP APCH						
020	TF	SM176	_	008°(007.3°)	+0.33	12.8	_	-5000	-	_	RNP APCH						
030	TF	SM175	-	008°(007.3°)	+0.33	10.0	-	-5000	_	-	RNP APCH						
040	TF	LAXOS	-	008°(007.3°)	+0.33	11.5	R	+4000	-	-	RNP APCH						
050	TF	PASKI (IF)	-	090°(090.0°)	+0.33	7.6	R	+2000	-210	-	RNP APCH						
060	TF	SM173	-	145°(144.5°)	+0.33	3.0	-	+2000	-	-	RNP APCH						
070	TF	SM171 (FAF)	-	145°(144.5°)	+0.33	2.0	-	@1400	-	-	RNP APCH						
010	IF	DORNA (IAF)	_	_	+0.33	-	_	-5000	<u>-</u>	-	RNP APCH						
020	TF	LAXOS	_	022°(021.2°)	+0.33	17.7	R	+4000	-	_	RNP APCH						
030	TF	PASKI (IF)	-	090°(090.0°)	+0.33	7.6	R	+2000	-210	-	RNP APCH						
040	TF	SM173	-	145°(144.5°)	+0.33	3.0	-	+2000	-	-	RNP APCH						
050	TF	SM171 (FAF)	-	145°(144.5°)	+0.33	2.0	-	@1400	-	-	RNP APCH						
010	IF	PUKOM (IAF/IF)	-	-	+0.33	-	-	+3300	-210	-	RNP APCH						
020	TF	SM172	-	205°(204.5°)	+0.33	4.6	-	+2200	-	-	RNP APCH						
030	TF	SM171 (FAF)	-	205°(204.5°)	+0.33	2.7	-	@1400	-	-	RNP APCH						
010	IF	SM171 (FAF)	-	-	+0.33	-	-	@1400	-	-	RNP APCH						
020	TF	SM170 (MAPt)	Y	175°(174.5°)	+0.33	4.1	-	@93	-	-3.0 / 50	RNP APCH						
030	TF	SM900	Y	155°(154.5°)	+0.33	5.0	L .	+1600	-	-	RNP APCH						
040	DF HM	PUKOM (IAF/IF) PUKOM (IAF/IF)	- Y	- 205°(204.5°)	+0.33	- 1 minute	L	+3300	-210 -230	-	RNP APCH						

AERODROME ELEV 64 FT HEIGHTS RELATED TO THR RWY17 - ELEV 43 FT SURAT THANI / Samui (VTSM) RNP RWY17 CAT C

# **WAYPOINT LIST**

RNP RWY17					
Waypoint Identifier	aypoint Identifier Coordinates				
DORNA	09° 24' 58.70" N	099° 46' 14.10" E			
ENRAG	10° 02' 23.31" N	100° 09' 31.07" E			
LAXOS	09° 41' 30.78" N	099° 52' 40.85" E			
MESEM	09° 07' 19.05" N	099° 48' 15.85" E			
NURLO	09° 44' 05.89" N	100° 17' 57.36" E			
PASKI	09° 41' 30.69" N	100° 00' 21.81" E			
PUKOM	09° 44' 05.87" N	100° 06' 22.07" E			
RUMVA	09° 17' 16.93" N	100° 15' 59.72" E			
SM170	09° 33' 19.40" N	100° 03' 42.26" E			
SM171	09° 37' 25.40" N	100° 03' 18.29" E			
SM172	09° 39' 53.52" N	100° 04' 26.25" E			
SM173	09° 39' 03.52" N	100° 02' 07.71" E			
SM174	09° 34' 03.10" N	100° 17' 57.17" E			
SM175	09° 30' 04.04" N	099° 51' 12.06" E			
SM176	09° 20' 06.14" N	099° 49' 54.83" E			
SM177	09° 43' 27.23" N	100° 21' 57.26" E			
SM900	09° 28 47.41" N	100° 05' 53.06" E			
UPNEP	09° 42' 13.10" N	100° 29' 36.40" E			





**INSTRUMENT** 

**AERODROME ELEV 64 FT** 

SURAT THANI / Samui (VTSM)

TWR : 118.9 **APPROACH** HEIGHTS RELATED TO **RNP RWY35** GND 121.9 **CHART - ICAO** THR RWY35 - ELEV 56 FT CAT A, B ATIS : 128.6 **ENRAG** (IAF) (176.6° T) 177° 14.0 NM ALT 11000 ELEV, ALT AND HGT IN FEET DIST IN NM 099 **BRG ARE MAG** NOT TO SCALE **VT D25** VAR 0° 22' W (2018) ANNUAL CHANGE 0° 1' E FL 150 GND SM354 2083 ALT 11000 VT D60 RNP APCH Area1 UNL 1778 (IAF) Missed Approach 17.1 NM 09° VT D60 ALT 7000 MAX IAS 210 KT Area2 UNL GND 40' SM901 VT D58 FL 390 GND ALT <u>1200</u> (354.5° T) 355° SM355 376 32' SM353 ALT 5000 1125 ALT 7000 SM350 (MAPt) 099 (320)30' 2044 DORNA M (IAF) SM351 (FAF) LT 8000 ALT 2100 3300 355 **ENTID** KILEP ALT <u>6000</u> 09° ALT 4000 20' (286.2° T) **RUMVA** (IAF) MSA 25 NM 287 11.4 NM ALT 6000 **ATNES** (IF) HOLDING MNM ALT 3300 1 MIN MAX IAS 230 KT ALT 3300 SCALE 1:600 000 SM352 ALT 8000 09° 10' Ν Baro-VNAV not authorized MESEM below +10°C (IAF) ALT 8000 2707 099°40' E 099° 50' E 100° 00' E 100° 10' E 100° 20' E 100° 30' E SM350 SM351 **ATNES** SM901 MISSED APPROACH: MAPt **FAF** IF No turn before MAPt. LNAV only 3300 Speed restricted to MAX IAS 2100 (3244)210 KT until after turn. Climb on track 355° to SM901, then turn right direct to ATNES at minimum RDH 50 FT 3300 FT and hold or as directed by ATC. TA 11000 OÇA ELEV 56 FT 500'/////// 3.0 2.6 6.1 (THR RWY35) NM FM THR 3.0 3.3 12.0 5.9 CHANGE: CHART TITLE. OCA/H В NM to NEXT WPT 3.3 NM 4 NM 5 NM FAF 1120 (1064) LNAV/VNAV 1470 1220 1810 2100 Altitude (Height) (2044)(1164)(1414)(1754)LNAV 1220 (1164) Circling\* (OCH AAL) 1400 (1336) Ground Speed knot 70 90 100 120 140 160 Rate of Descent \* FOR CIRCLING RESTRICTIONS SEE VERSO. ft/min 397 510 567 681 794 907 FAF - MAPt 5.6%

APP: 129.6

AD 2-VTSM-8-18
15 JUL 21
AIP
THAILAND

INSTRUMENT AERODROME ELEV 64 FT
APPROACH HEIGHTS RELATED TO
CHART - ICAO THR RWY35 - ELEV 56 FT

SURAT THANI / Samui (VTSM) RNP RWY35 CAT A, B

# **TABULAR DESCRIPTION**

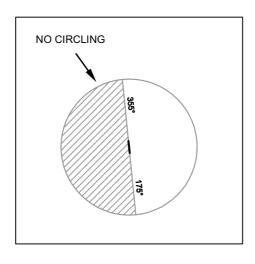
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
010	IF IF	UPNEP (IAF)	_	-	+0.33	- (14171)	- Direction	-7000	-	-	RNP APCH
020	TF	SM355	_	212°(211.7°)	+0.33		R	-5000			RNP APCH
				, ,		12.6					
030	TF	KILEP	-	227°(226.4°)	+0.33	14.8	R	@4000	-	-	RNP APCH
040	TF	ATNES (IF)	-	265°(264.5°)	+0.33	7.0	-	+3300	-	-	RNP APCH
010	IF	ENRAG (IAF)	-	-	+0.33	-	-	+11000	-	-	RNP APCH
020	TF	SM354	-	177°(176.6°)	+0.33	14.0	-	+11000	-	-	RNP APCH
030	TF	SM353	-	177°(176.6°)	+0.33	17.1	-	+7000	-	-	RNP APCH
040	TF	KILEP	-	177°(176.6°)	+0.33	10.0	R	@4000	-	-	RNP APCH
050	TF	ATNES (IF)	-	265°(264.5°)	+0.33	7.0	-	+3300	-	-	RNP APCH
010	IF	RUMVA (IAF)	-	-	+0.33	-	-	-6000	-	-	RNP APCH
020	TF	ATNES (IF)	-	287°(286.2°)	+0.33	11.4	-	+3300	-	-	RNP APCH
010	IF	MESEM (IAF)	-	-	+0.33	-	-	+8000	-	-	RNP APCH
020	TF	SM352	-	052°(051.6°)	+0.33	8.3	-	+8000	-	-	RNP APCH
030	TF	ATNES (IF)	-	052°(051.6°)	+0.33	12.8	-	+3300	-	-	RNP APCH
010	IF	DORNA (IAF)	_	_	+0.33		_	+8000	_	_	RNP APCH
020	TF	ENTID	_	120°(120.0°)	+0.33	10.8	L	+6000		_	RNP APCH
030	TF	ATNES (IF)	_	085°(084.5°)	+0.33	9.2	_	+3300	_	_	RNP APCH
		7(11 <b>4</b> 20 (ii )		000 (00 1.0 )	70.00	0.2		10000			144 74 511
010	IF	ATNES (IF)	-	-	+0.33	-	-	+3300	-	-	RNP APCH
020	TF	SM351 (FAF)	-	355°(354.5°)	+0.33	6.1	-	@2100	-	-	RNP APCH
030	TF	SM350 (MAPt)	Y	355°(354.5°)	+0.33	5.9	-	@106	-	-3.2 / 50	RNP APCH
040	TF	SM901	Y	355°(354.5°)	+0.33	3.0	-	+1200	-	-	RNP APCH
050	DF	ATNES (IF)	-	-	+0.33	-	R	+3300	-210	-	RNP APCH
060	НМ	ATNES (IF)	Y	355°(354.5°)	+0.33	1 minute	R	+3300	-230	-	RNP APCH

AERODROME ELEV 64 FT HEIGHTS RELATED TO THR RWY35 - ELEV 56 FT SURAT THANI / Samui (VTSM) RNP RWY35 CAT A, B

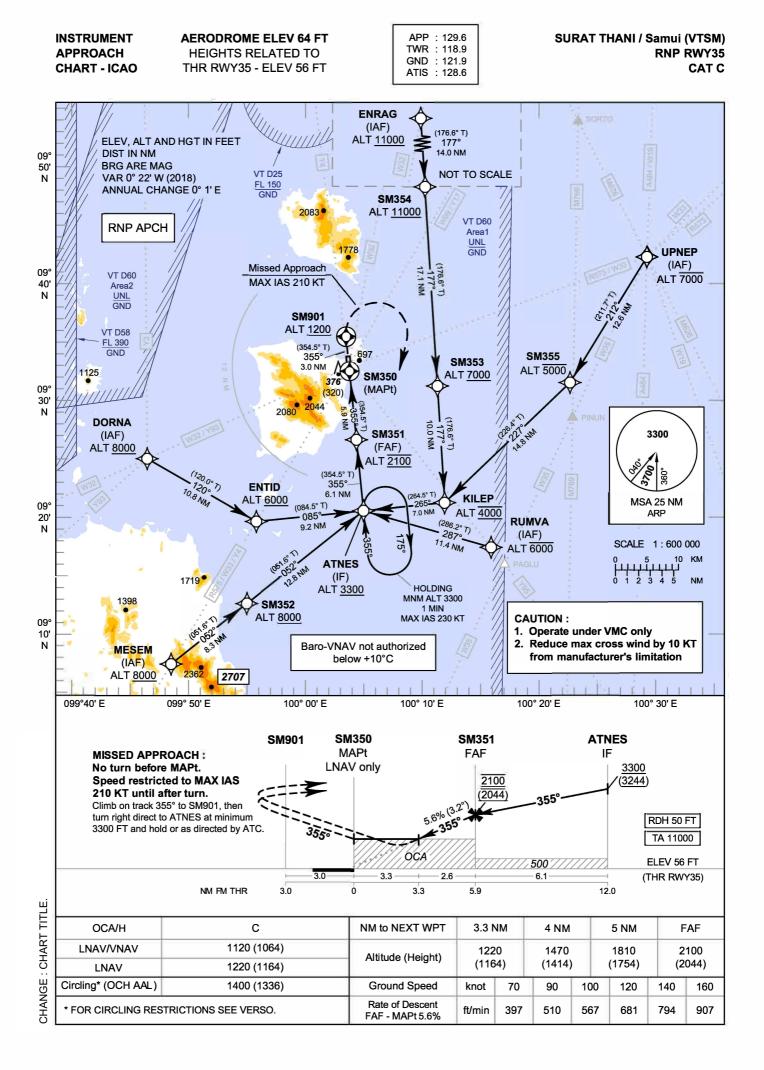
# **WAYPOINT LIST**

RNP RWY35

	T					
Waypoint Identifier	Coordinates					
ATNES	09° 20' 27.55" N	100° 04' 57.39" E				
DORNA	09° 24' 58.70" N	099° 46' 14.10" E				
ENRAG	10° 02' 23.31" N	100° 09' 31.07" E				
ENTID	09° 19' 33.96" N	099° 55' 40.38" E				
KILEP	09° 21' 08.06" N	100° 12' 00.28" E				
MESEM	09° 07' 19.05" N	099° 48' 15.85" E				
RUMVA	09° 17 16.93" N	100° 15' 59.72" E				
SM350	09° 32' 27.55" N	100° 03' 47.31" E				
SM351	09° 26' 33.55" N	100° 04' 21.78" E				
SM352	09° 12' 29.52" N	099° 54' 49.95" E				
SM353	09° 31' 09.79" N	100° 11' 24.06" E				
SM354	09° 48' 20.10" N	100° 10' 21.97" E				
SM355	09° 31' 25.18" N	100° 22' 53.12" E				
SM901	09° 35' 27.55" N	100° 03' 29.78" E				
UPNEP	09° 42' 13.10" N	100° 29' 36.40" E				







INSTRUMENT AERODROME ELEV 64 FT
APPROACH HEIGHTS RELATED TO
CHART - ICAO THR RWY35 - ELEV 56 FT

SURAT THANI / Samui (VTSM) RNP RWY35 CAT C

# **TABULAR DESCRIPTION**

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	UPNEP (IAF)	-	-	+0.33	-	-	-7000	-	-	RNP APCH
020	TF	SM355	-	212°(211.7°)	+0.33	12.6	R	-5000	-	-	RNP APCH
030	TF	KILEP	-	227°(226.4°)	+0.33	14.8	R	@4000	1	-	RNP APCH
040	TF	ATNES (IF)	-	265°(264.5°)	+0.33	7.0	-	+3300	-	-	RNP APCH
010	IF	ENRAG (IAF)	-	-	+0.33	-	-	+11000	-	-	RNP APCH
020	TF	SM354	-	177°(176.6°)	+0.33	14.0	-	+11000	-	-	RNP APCH
030	TF	SM353	-	177°(176.6°)	+0.33	17.1	-	+7000		-	RNP APCH
040	TF	KILEP	-	177°(176.6°)	+0.33	10.0	R	@4000		-	RNP APCH
050	TF	ATNES (IF)	-	265°(264.5°)	+0.33	7.0	-	+3300	-	-	RNP APCH
010	IF	RUMVA (IAF)	-	-	+0.33	-	-	-6000	-	-	RNP APCH
020	TF	ATNES (IF)	-	287°(286.2°)	+0.33	11.4	-	+3300	-	-	RNP APCH
010	IF	MESEM (IAF)	_	_	+0.33	_	_	+8000	_	-	RNP APCH
020	TF	SM352	-	052°(051.6°)	+0.33	8.3	-	+8000		-	RNP APCH
030	TF	ATNES (IF)	-	052°(051.6°)	+0.33	12.8	-	+3300	-	-	RNP APCH
010	IF	DORNA (IAF)	_	_	+0.33	_	_	+8000		-	RNP APCH
020	TF	ENTID	_	120°(120.0°)	+0.33	10.8	L	+6000	_	-	RNP APCH
030	TF	ATNES (IF)	-	085°(084.5°)	+0.33	9.2	-	+3300	-	-	RNP APCH
010	IF	ATNES (IF)	_	_	+0.33	_	_	+3300	_	-	RNP APCH
020	TF	SM351 (FAF)	_	355°(354.5°)	+0.33	6.1	_	@2100		-	RNP APCH
030	TF	SM350 (MAPt)	Y	355°(354.5°)	+0.33	5.9	_	@106		-3.2 / 50	RNP APCH
040	TF	SM901	Y	355°(354.5°)	+0.33	3.0	_	+1200		-3.2730	RNP APCH
050	DF	ATNES (IF)	<u>'</u>	-	+0.33	-	R	+3300	-210	-	RNP APCH
060	HM	ATNES (IF)	Y	355°(354.5°)	+0.33	1 minute	R	+3300	-230	_	RNP APCH

AERODROME ELEV 64 FT HEIGHTS RELATED TO THR RWY35 - ELEV 56 FT SURAT THANI / Samui (VTSM) RNP RWY35 CAT C

# **WAYPOINT LIST**

RNP RWY35

	T	
Waypoint Identifier	Coord	dinates
ATNES	09° 20' 27.55" N	100° 04' 57.39" E
DORNA	09° 24' 58.70" N	099° 46' 14.10" E
ENRAG	10° 02' 23.31" N	100° 09' 31.07" E
ENTID	09° 19' 33.96" N	099° 55' 40.38" E
KILEP	09° 21' 08.06" N	100° 12' 00.28" E
MESEM	09° 07' 19.05" N	099° 48' 15.85" E
RUMVA	09° 17 16.93" N	100° 15' 59.72" E
SM350	09° 32' 27.55" N	100° 03' 47.31" E
SM351	09° 26' 33.55" N	100° 04' 21.78" E
SM352	09° 12' 29.52" N	099° 54' 49.95" E
SM353	09° 31' 09.79" N	100° 11' 24.06" E
SM354	09° 48' 20.10" N	100° 10' 21.97" E
SM355	09° 31' 25.18" N	100° 22' 53.12" E
SM901	09° 35' 27.55" N	100° 03' 29.78" E
UPNEP	09° 42' 13.10" N	100° 29' 36.40" E

