VTBS AD 2.1 AERODROME LOCATION INDICATOR AND NAME

VTBS - BANGKOK/SUVARNABHUMI INTERNATIONAL AIRPORT

VTBS AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	134109N 1004456E Midpoint between taxiways G, H, H2 and H3
2	Direction and distance from (city)	25 KM East of Bangkok
3	Elevation/Reference temperature	4.2 FT (1.3 M) / 32.4°C
4	Geoid undulation at AD ELEV PSN	-97.5 FT (-29.7 M)
5	MAG VAR/Annual change	0° 35' W (2016) / 0° 0' E
6	AD Administration, address, telephone, telefax, telex, AFS	999 Moo 1 Nong Prue, Bangphli, Samut Prakan 10540, Thailand Tel: +662 132 1888 Fax: +662 132 1889 Website: https://suvarnabhumi.airportthai.co.th AFS: VTBSYDYX
7	Types of traffic permitted (IFR/VFR)	IFR / Authorized VFR
8	Remarks	Operator: Airports of Thailand Public Company Limited (AOT)

VTBS AD 2.3 OPERATIONAL HOURS

1	Aerodrome operator	H24
2	Customs and immigration	H24
3	Health and sanitation	H24
4	AIS Briefing Office	H24
5	ATS Reporting Office (ARO)	H24
6	MET Briefing Office	H24
7	ATS	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	NIL
12	Remarks	AIS Briefing Office and ATS Reporting Office (ARO): Located at 2nd floor, the central block building, Don Mueang International Airport Tel: +66 2131 3901-3 Fax: +66 2131 3904 AFTN: VTBSZPZX E-mail: vtbszpzx@aerothai.co.th

VTBS AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Available from Thai Airways International Plc.and WFS-PG Cargo Co., Ltd. (BFS Cargo)
2	Fuel/oil types	Jet A1
3	Fuelling facilities/capacity	a) Bangkok Aviation Fuel Service Public Company Limited (BAFS) Website:www.bafsthai.com E-mail: poomravit@bafs.co.th wanijcha@bafs.co.th Tel: +662 834 8959 Fax: +662 929 5480 Fuel Dispenser Truck: 40 Fuel Refueller Truck: 4 - 2 Capacity: 65,000 L - 1 Capacity: 40,000 L - 1 Capacity: 35,000 L b) Aircraft Service International Group (THAILAND) CO.,LTD. (ASIG) Website:www.menziesaviation.com E-mail: n.boonpithaksap@johnmenzies.aero Tel: +662 327 3293-7 Fax: +662 327 3298 Fuel Dispenser Truck: 10 Fuel Refueller Truck: 2 Capacity: 35,000 L
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	Limited, operated by Thai Airways International Plc.
6	Repair facilities for visiting aircraft	Major and minor repair available from Thai Airways International Plc. and line maintenance from International Airlines Technical Pool.

7	Remarks	The Airport has provided ground handling agents as following: a) Worldwide Flight Services Bangkok Air Ground Handling Co., Ltd. (BFS Ground) Website:www.bangkokflightservices.com **Schedule Airlines and Seasonal Charter:** Robert Ruesz, General Manager, Sales and Ground Services E-mail: RobertR@BFSASIA.com Tel: +668 8002 4975 Fax: +662 131 5099 **Ad Hoc Charter and Corporate Jet:** Ekpol Mekvishai, Contracts Manager E-mail: EkpolM@BFSASIA.com Tel: +668 5055 7671 Fax: +662 131 5099 **General Inquiry:** E-mail: marketing@bfsasia.com Tel: +662 131 5000 Fax: +662 131 5077 +662 131 5099 b) Thai Airways International Public Co.Ltd. (TG) Website:www.thaiairways.com **Ground Handling Services:** E-mail: thaigroundservices@thaiairways.com SITA: BKKKATG Tel: +662 137 1610 Fax: +662 137 1675 **Ad Hoc Charter Handling Services:** E-mail: tg.charter@thaiairways.com SITA: BKKZMTG Tel: +662 134 5067-8 **Catering Services:** Website: www.thaicatering.com E-mail: cat.info@thaiairways.com SITA: BKKDCTG Tel: +662 137 2101-5 +662 137 2410 Fax: +662 137 2450 c) LSG SKY CHEFS Website:www.lsgskychefs.com E-mail: DL.APAC.BKK.CustomerServices@lsgskychefs.com Tel: +662 131 1900 +662 131 1952 (24 hrs) +668 7970 3884 (24 hrs) d) Bangkok Air Catering Co, Ltd. (BAC) Website:www.bangkokaircatering .com E-mail: sales@bangkokaircatering.com Tel: +662 131 7500 Fax: +662 131 7599

VTBS AD 2.5 PASSENGER FACILITIES

1	Hotels	At AD and in the city.
2	Restaurants	At AD and in the city.
3	Transportation	Airport Rail Link, buses, taxis and car hire from the AD.
4	Medical facilities	Medical clinic which provides first aid and emergency response at AD is open 24 hours. Emergency number is +662 132 7777.
5	Bank and Post Office	At AD.
6	Tourist Office	At AD.
7	Remarks	For further information visit Internet address : https://suvarnabhumi.airportthai.co.th

VTBS AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Category 10
2	Rescue equipment	Adequately provided as recommended by ICAO
3	Capability for removal of disabled aircraft	Capable of handling all aircraft up to B744 dimensions & weight, operated by Thai Airways International Plc.
4	Remarks	For removal of disabled aircraft, please contact: Airside Operations Department Tel: +662 132 6801 +668 9202 0341 (24 hrs) Fax: +662 132 6819 E-mail: airside06.vtbs@airportthai.co.th

VTBS AD 2.7 SEASONAL AVAILABILITY - CLEARING

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

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

1	Apron surface and strength	Surface: Concrete Main Apron, East Apron and West Apron Strength: PCN 126/R/D/X/T SAT-1 Apron Strength: PCN 131/R/D/X/T
2	Taxiway width, surface and strength	Minimum Width: 30 M Taxiways: B, B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12 and B13 C, C1, C2, C3, C4, C5, C6, C7, C8, C9 and C10 D (D1-D9), D1, D2, D3, D4, D5, D6, D7, D8 and D9 E, E1, E2, E5, E6, E7, E8, E9, E12, E13, E15, E17, E19 and E21 G H, H1, H2, H3 and H4 Taxilanes: T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16 and T17 Surface: Asphalt Strength: PCN 137/F/D/X/T Taxiways: D (D9-D11), D10 and D11 J, J1, J2, J3 and J4 K Taxilanes: T18 and T19 Surface: Concrete Strength: PCN 131/R/D/X/T Taxiways: H5 and H6 Surface: Concrete Strength: PCN 131/R/D/X/T Surface: Asphalt Strength: PCN 137/F/D/X/T
3	Altimeter checkpoint location and elevation	Location : At Apron Elevation : 4 FT
4	VOR checkpoints	NIL
5	INS checkpoints	See Aircraft Parking/Docking Chart - ICAO (Versos) for coordinates of aircraft stand.
6	Remarks	NIL

VTBS AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guidelines and visual docking/parking guidance system of aircraft stands	Taxiing guidance signs at all intersections with TWY and RWY and at all holding positions. Guidelines at apron. Nose-in guidance at aircraft stands.
2	RWY and TWY markings and LGT	RWY: Designation, THR, TDZ, Centre line, edge and runway end marked and lighted. TWY: Centre line and edge marked and lighted.
3	Stop bars	Stop bars are installed at following locations: - Taxiway B1, B2, B3, B11, B12, B13 - Taxiway E1, E2, E5, E15, E19, E21
4	Remarks	Intermediate holding positions are provided at some TWY/TWY intersections.

VTBS AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			In circling areas and at AD		Remarks
1			2		3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
19R/APCH 01L/TKOF			Control Tower Top of Antenna 475.4 FT (144.9 M) LGTD	134147.2N 1004458.3E	NIL
			Tower on top of building 178.2 FT (54.3 M) LGTD	134124.1N 1004346.5E	
01L/APCH 19R/TKOF	Tower on top of building 174.6 FT (53.2 M) LGTD	133808.2N 1004340.2E	Tower 160.8 FT (49.0 M) LGTD	133943.8N 1004259.5E	
	Tower on top of building 179.8 FT (54.8 M) LGTD	133751.8N 1004354.2E	Tower on top of building 191.0 FT (58.2 M) LGTD	133810.0N 1004233.7E	
			Tower 381.9 FT (116.4 M) LGTD	133802.9N 1004217.7E	NIL
			Tower 300.5 FT (91.6 M) LGTD	133747.5N 1004226.1E	
			Tower 160.8 FT (49.0 M) LGTD	133806.3N 1004237.6E	
19L/APCH 01R/TKOF	Tower on top of building 256.3 FT (78.1 M) LGTD	134339.8N 1004620.6E			
	Tower 145.7 FT (44.4 M) LGTD	134316.9N 1004549.8E			
	Hangar roof 153.2 FT (46.7 M) LGTD	134224.7N 1004534.8E			NIL
	Hangar corner 130.3 FT (39.7 M) LGTD	134222.0N 1004538.9E			
	Tower on top of building 160.4 FT (48.9 M) LGTD	134332.3N 1004617.2E			

In approach/TKOF areas			In circling areas and at AD		Remarks
1			2		3
RWY/Area affected	Obstacle type Elevation Markings/LGT	Coordinates	Obstacle type Elevation Markings/LGT	Coordinates	
a	b	c	a	b	
01R/APCH 19L/TKOF	Building 334.0 FT (101.8 M) LGTD	133512.8N 1004425.7E			NIL
	Tower 350.1 FT (106.7 M) LGTD	133458.3N 1004430.7E			
	Tower 389.5 FT (118.7 M) LGTD	133458.1N 1004429.0E			

VTBS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Aeronautical Meteorology Division, Thai Meteorological Department (TMD)
2	Hours of service MET Office outside hours	H24 NIL
3	Office responsible for TAF preparation Periods of validity	Aeronautical Meteorology Division 30 HR
4	Trend forecast Interval of issuance	TREND 30 Min
5	Briefing/consultation provided	Personal Consultation Tel: +662 134 0006-07 Fax: +662 134 0009
6	Flight documentation Language(s) used	Charts, Tabular Forms and Abbreviated Plain Language Texts English
7	Charts and other information available for briefing or consultation	S, U85, U70, U50, U40, U30, U25, U20, SWH, SWM, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar pictures
8	Supplementary equipment available for providing information	Automated Weather Observation System (AWOS), Low Level Wind Shear Alert System (LLWAS), Weather Radar, Local Lightning Warning System (LLWS), Light Detection and Ranging (LIDAR)
9	ATS units provided with information	Suvarnabhumi TWR Bangkok APP Bangkok ACC
10	Additional information (limitation of service, etc.)	NIL

VTBS 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
01L	014.42°	3700x60	PCN 137/F/D/X/T Asphalt	134016.60N 1004404.79E -97.5 FT (-29.7 M)	THR/TDZ 4.2 FT (1.3 M)
19R	194.42°	3700x60	PCN 137/F/D/X/T Asphalt	134213.21N 1004435.44E -97.5 FT (-29.7 M)	THR/TDZ 4.0 FT (1.2 M)
01R	014.42°	4000x60	PCN 137/F/D/X/T Asphalt	133924.11N 1004506.59E -97.1 FT (-29.6 M)	THR/TDZ 3.7 FT (1.1 M)
19L	194.42°	4000x60	PCN 137/F/D/X/T Asphalt	134130.17N 1004539.72E -97.1 FT (-29.6 M)	THR/TDZ 3.7 FT (1.1 M)

Slope of RWY-SWY	SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of arresting system	OFZ	Remarks
7	8	9	10	11	12	13	14
0%	NIL	1100x150	3820x300	240x150	NIL	Yes	Paved jet blast protection areas at runway ends; 120 M long and 75 M wide. Runway 01L/19R surface is grooved; Runway 01R/19L surface is not grooved. Concrete drainage channels are located in the runway strips, parallel to and at 120 M offset from the runway centre lines.
0%	NIL	700x150	3820x300	240x150	NIL	Yes	
0%	NIL	NIL	4120x300	240x150	NIL	Yes	
0%	NIL	550x150	4120x300	240x150	NIL	Yes	

VTBS AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
01L	3700	4800	3700	3700	The TORA/ASDA when entering RWY from TWY E19 is 3590 M.
19R	3700	4400	3700	3700	The TORA/ASDA when entering RWY from TWY E2 is 3590 M.
01R	4000	4000	4000	4000	The TORA/ASDA when entering RWY from TWY B12 is 3890 M.
19L	4000	4550	4000	4000	The TORA/ASDA when entering RWY from TWY B2 is 3870 M.

VTBS 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
01L	CAT II 900 M 5 steps LIH; with FLG	Green	PAPI LEFT/3° (63.82 FT)	900 M	3700 M, 30 M White, FM 2800 M Red / White FM 3400 M Red 5 steps LIH	3700 M, 60 M White, FM 3100 M Yellow 5 steps LIH	Red	NIL	NIL
19R	CAT II 900 M 5 steps LIH; with FLG	Green	PAPI LEFT/3° (63.82 FT)	900 M	3700 M, 30 M White, FM 2800 M Red / White FM 3400 M Red 5 steps LIH	3700 M, 60 M White, FM 3100 M Yellow 5 steps LIH	Red	NIL	NIL
01R	CAT II 900 M 5 steps LIH; with FLG	Green	PAPI LEFT/3° (63.82 FT)	900 M	4000 M, 30 M White, FM 3100 M Red/White FM 3700 M, Red 5 steps LIH	4000 M, 60 M White, FM 3400 M Yellow 5 steps LIH	Red	NIL	NIL
19L	CAT II 900 M 5 steps LIH; with FLG	Green	PAPI LEFT/3° (63.82 FT)	900 M	4000 M, 30 M White, FM 3100 M Red/White FM 3700 M, Red 5 steps LIH	4000 M, 60 M White, FM 3400 M Yellow 5 steps LIH	Red	NIL	NIL

VTBS AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: On top of ATC tower (134147N 1004458E), H24, Flashing White/ Green every 2 - 3 seconds IBN: NIL
2	LDI location and LGT Anemometer location and LGT	4 WDIs 300 M from THR 01L, THR 19R, THR 01R, THR 19L, 115 M off-set from RWY Centre Line. All Lighted. 4 Anemometers 350 M from THR 01L, THR 19R, THR 01R, THR 19L and Lighted.
3	TWY edge and centre line lighting	All Taxiways
4	Secondary power supply/switch-over time	Secondary power supply to all airfield lighting at AD Switch-over time: Lights Associated to Runway 0 sec (UPS) include - Approach Lights Systems - Runway Edge Lights - Runway Touchdown Zone Lights - Runway Centre Line Lights - Precision Approach Path Indicator Systems - Stop Bars - Runway Guard Lights - Runway End Lights - Runway Threshold Lights : Other lighting 15 sec
5	Remarks	NIL

VTBS 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 BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	NIL

VTBS AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Suvarnabhumi Aerodrome Traffic Zone (ATZ) a circle, radius 5 NM centred on 134108.59N 1004456.24E (ARP)
2	Vertical limits	SFC to 2000 FT. MSL
3	Airspace classification	C
4	ATS unit call sign Language(s)	Suvarnabhumi Tower English, Thai
5	Transition altitude	11000 FT MSL
6	Remarks	See VTBS AD 2.20 section 1

VTBS AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Bangkok Approach	122.35 MHZ / 262.5 MHZ 124.35 MHZ / 262.5 MHZ 125.2 MHZ / 262.5 MHZ 133.4 MHZ / 262.5 MHZ 119.1 MHZ / 262.5 MHZ 120.3 MHZ / 262.5 MHZ 125.8 MHZ 2) 121.5 MHZ 1) / 243 MHZ 1)	H24	1) Emergency frequency 2) Clearance delivery for aircraft departing to adjacent aerodromes and helicopters operating within BKK CTR 3) For RWY 01R/19L 4) For RWY 01L/19R 5) Arrival ATIS 6) Departure ATIS
APP	Suvarnabhumi Departure	119.25 MHZ / 262.5 MHZ 121.5 MHZ 1) / 243.0 MHZ 1)	H24	
ARR	Suvarnabhumi Arrival	121.1 MHZ / 262.5 MHZ 126.3 MHZ / 262.5 MHZ 121.5 MHZ 1) / 243.0MHZ 1)	H24	
TWR	Suvarnabhumi Tower	118.2 MHZ 3) / 274.5 MHZ 119.0 MHZ 4) 121.5 MHZ 1) / 243.0 MHZ 1)	H24	
SMC	Suvarnabhumi Ground	121.65 MHZ / 275.8 MHZ 121.75 MHZ 121.95 MHZ	H24	
CDC	Suvarnabhumi Delivery	128.7 MHZ 133.8 MHZ	H24	
ATIS	Suvarnabhumi Airport	133.6 MHZ 5) / 278.6 MHZ 5) / 127.65 MHZ 6)	H24	D-ATIS Synthesis Voice Broadcast

VTBS 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	SVB	111.4 MHZ CH 51X	H24	133932.5N 1004353.2E	-	DVOR/DME restriction due to terrain surround DVOR/DME station, coverage check does not provide adequate signal 40 NM at required altitude in various areas as follows: – Radial 131°-150° altitude should not below 4 000 FT – Radial 151°-250° altitude should not below 2 000 FT – Radial 251°-130° altitude should not below 2 500 FT
ILS CAT II LOC/DME RWY 01L	I-SWS	109.1 MHZ CH 28X	H24	134222.3N 1004437.8E	-	RWY01L/19R and RWY01R/19L ILS LOC coverage expanded service volume up to 25 DME altitude not below 2 500 FT AMSL.
GP		331.4 MHZ	H24	134027.8N 1004403.6E	-	

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
ILS CAT II LOC/DME RWY 19R	I-SWN	109.5 MHZ CH 32X	H24	134007.5N 1004402.4E	-	
GP		332.6 MHZ	H24	134203.9N 1004428.9E	-	
ILS CAT II LOC/DME RWY 01R	I-SES	110.1 MHZ CH 38X	H24	134139.3N 1004542.1E	-	
GP		334.4 MHZ	H24	133933.4N 1004513.1E	-	
ILS CAT II LOC/DME RWY 19L	I-SEN	110.5 MHZ CH 42X	H24	133915.0N 1004504.2E	-	
GP		329.6 MHZ	H24	134119.0N 1004540.9E	-	

VTBS AD 2.20 LOCAL AERODROME REGULATIONS

1. Airport Regulations

1.1 Suvarnabhumi Aerodrome Traffic Zone (ATZ) airspace is classified as class C.

1.2 IFR and only authorized VFR flights are permitted. All flights are provided with air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights.

1.3 To retain the defined value of runway capacity at Suvarnabhumi International Airport, and to provide efficient separation between aircraft for the safety of flight and orderly flow of air traffic, only aircraft category B or above with the minimum final approach speed of 110 KT. are permitted to use Suvarnabhumi International Airport. However, other aircraft may be authorized to operate within Suvarnabhumi ATZ if:

1.3.1 The aircraft is being used for or in connection with:

a) a search and rescue operation;
b) a medical emergency; or
c) a flight inspection of air navigation facilities.

1.3.2 The pilot of the aircraft has declared an in-flight emergency.

1.3.3 The aircraft constitutes VIP flight.

1.3.4 The aircraft is as may be determined by the appropriate authority.

1.4 The following school and training flights are not permitted:

a) school and training flights;
b) continuous take-off and landing exercises;
c) solo flight during basic flight training.

2. Provision of Aerodrome Air Traffic Services

2.1 Aerodrome air traffic services are generally sectorized as follows:

2.1.1 Tower Control on frequency 118.20 MHZ for arrivals and departures on runway 01R/19L or East runway.

2.1.2 Tower Control on frequency 119.00 MHZ for arrivals and departures on runway 01L/19R or West runway.

2.1.3 Ground Control on frequency 121.65 MHZ for operations on East apron:

a) Aircraft parking stands:

A1, A2, A3, A4, A5, A6
B1, B2, B3, B4, B5, B6
C1, C3, C5, C7, C9
101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134
201, 202, 203

Including:

b) Taxiway B, B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13
c) Taxiway C, C1, C2, C3, C4, C5, C6, C7, C8, C9, C10
d) Taxiway G between taxiway C and taxiway H4
e) Taxiway H between taxiway C and taxiway H4
f) Taxiway H4
g) Aircraft stand taxilane T1, T2, T3, T4, T5, T6, T7

2.1.4 Ground Control on frequency 121.75 MHZ for operations on Main apron and SAT-1 apron:

a) Aircraft parking stands:

C2, C4, C6, C8, C10
D1, D2, D3, D4, D5, D6, D7, D8
E1, E3, E5, E7, E9
301, 302, 303, 304, 305, 306, 307, 308
S101, S102, S103, S104, S105, S106, S107, S108, S109, S110, S111, S112, S113, S114, S115, S116, S117, S118, S119, S120, S121, S122, S123, S124, S125, S126, S127, S128

Including:

b) Taxiway G between taxiway H2 and taxiway H4
c) Taxiway H2, H3, H5, H6
d) Taxiway J1, J2
e) Aircraft stand taxilane T8, T9, T10, T11, T12, T18, T19

2.1.5 Ground Control on frequency 121.95 MHZ for operations on West apron:

a) Aircraft parking stands:

E2, E4, E6, E8, E10
F1, F2, F3, F4, F5, F6
G1, G2, G3, G4, G5
401, 402, 403
501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525

Including:

b) Taxiway D, D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11
c) Taxiway E, E1, E2, E5, E6, E7, E8, E9, E12, E13, E15, E17, E19, E21
d) Taxiway G between taxiway D and taxiway H2
e) Taxiway H between taxiway D and taxiway H4
f) Taxiway H1
g) Taxiway J, J3, J4
h) Taxiway K
i) Aircraft stand taxilane T13, T14, T15, T16, T17

3. Ground Movement

3.1 General

3.1.1 All surface movement of aircraft, vehicles and personnel on the manoeuvring area is subject to prior permission from ATC.

3.1.2 Within the movement area, pilots will be cleared to and from the aircraft stands under general direction from Ground Control. Pilots are reminded of the extreme importance of maintaining a careful look out at all times.

3.1.3 Directions issued by ATC should be followed specifically. RTF transmissions shall be brief, concise and kept to the minimum number.

3.2 Operation of mode S transponders on the ground

3.2.1 Suvarnabhumi International Airport is equipped with an Advanced Surface Movement Radar utilizing mode S multilateration. Aircraft operators intending to use Suvarnabhumi International Airport should ensure that mode S transponders are able to operate when the aircraft

is on the ground.

3.2.2 For aircraft that are capable of reporting aircraft identification (i.e. call signs used in flight), the aircraft identification should also be entered via FMS or control panel. The ICAO defined format for aircraft identification (i.e. same format as used in ICAO flight plan e.g. THA640, CPA701, SIA068) shall be used.

3.2.3 Flight crew should select XPDR or the equivalent according to specific installation. It shall also be ensured that the transponder is operating (i.e. OUT OF STAND-BY or OFF POSITION) and the assigned mode A code is selected in accordance with the following:

a) for a departing flight, upon received airway clearance; except that subject to ATFM measures or departure time restrictions, the action should be done when starting up engine.
b) for an arriving flight, continuously until the aircraft is fully parked at the stand.

3.2.4 To prevent possible interference to radar surveillance systems, TCAS should be functioned:

a) for departure, when aircraft are entering the runway or line up clearance is received;
b) for arrival, until aircraft have vacated the runway.

3.2.5 During on ground, pilot of aircraft not equipped with mode S transponder shall operate the transponder and select mode A code as individually directed by the ATC unit:

a) for departure, when starting up engine;
b) for arrival, until aircraft have completely parked.

3.2.6 Tracking and identifications of airport surface vehicles

To provide tracking and identification of authorized movements, any authorized vehicle intended to be used on the manoeuvring area at Suvarnabhumi International Airport shall be equipped with mode S squitter box to inform mode S multilateration system of its position.

4. Push Back Procedures

4.1 Scope

The procedure covers and details the activities to be carried out by ATC staff, AOT staff and airport agencies staff when involved in the process of an aircraft start up and push back at Suvarnabhumi International Airport.

4.2 Objective

4.2.1 The procedure “Aircraft start up and push back” applies to all persons involved in handling the process of aircraft start up and push back.

4.2.2 The procedure also implies conditions for operations during low visibility conditions at the airport.

4.3 General

4.3.1 Aircraft which are parked either nose in to the terminal building on a stand attached to a Passenger Loading Bridge or nose in on a remote stand will need to be pushed back from the stand towards the taxilane centre line taking into account the standard taxiway routing.

4.3.2 Once the pilot-in-command of an aircraft has decided that the aircraft is fully ready for departure he/she will contact Ground Control for start-up, stating the parking position and after that for push back permission.

Note: *fully ready in this sense means all passengers, hold and cargo doors are closed, the Passenger Loading Bridge is disconnected and back in its rest position, the tug is connected to the aircraft and the ground engineer is in position and in contact with the pilot-in-command.*

4.3.3 When the anti-collision beacons of the aircraft have been switched on no vehicular movement is permitted behind the aircraft.

4.3.4 ATC may deviate from the standard push back procedure as stated below for reasons such as traffic or work in progress. The deviation will be given in the push back permission and the pilot-in-command has to make sure that the ground engineer fully understands the deviation.

4.3.5 The pilot-in-command shall use minimum break away power and minimum taxi power when operating on the aprons and taxilanes.

4.3.6 Nose wheel positions have been marked on the taxilane centre line to indicate to the tug/tractor driver where the push or pull manoeuvre has to be stopped and the tug can be disconnected.

4.3.7 A340-600 aircraft may only be pushed back using a towbarless tow tractor. This is to avoid blocking the road in front of the aircraft by a tractor with towbar.

4.3.8 To avoid jet blast in the apron areas pilots are urgently requested to adhere strictly to the start-up and push back procedures and to use minimum break away power and taxi power when operating on the aprons and taxilanes. Furthermore, the aircraft shall be pushed back and towed forward on the yellow taxilane centre line marking.

4.4 Push Back Procedures

4.4.1 Aircraft parking at East Apron (54 stands)

Aircraft stands	Frequency Ground Control	Push Back Instructions
A1, A2	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T5 until nose wheel is on marking 1.
A3, A4, A5, A6	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T5.
101	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T5 then towed forward until nose wheel is on marking 2.
102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T5.
115, 116, 117	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T5.
118	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T5 then towed forward until nose wheel is on marking 2.
119, 120,121, 122, 123, 124, 125, 126, 127, 128, 129	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T5.
130	121.65 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T1.
131, 132, 133	121.65 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T1, towed forward until abeam stand 131.
134	121.65 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxilane T5.
B1, B3	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T5 until nose wheel is on marking 1.
B2, B4	121.65 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T6 until nose wheel is on marking on taxilane.
B5	121.65 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T4 then towed forward until nose wheel is on marking on taxilane.
B6	121.65 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T6 then towed forward until nose wheel is on marking on taxilane.
C1	121.65 MHZ	Aircraft shall be pushed back to face west onto aircraft stand taxilane T6 then towed forward until nose wheel is on marking on taxilane..
C3, C5	121.65 MHZ	Aircraft shall be pushed back to face south onto aircraft stand taxilane T7 then towed forward until nose wheel is on marking 2.
C7, C9	121.65 MHZ	Aircraft shall be pushed back to face south onto aircraft stand taxilane T7 then towed forward until nose wheel is on marking 1.
201, 202	121.65 MHZ	Aircraft shall be pushed back to face south onto aircraft stand taxilane T7 then towed forward until nose wheel is on marking 2.
203	121.65 MHZ	Aircraft shall be pushed back to face south onto aircraft stand taxilane T7 then towed forward until nose wheel is on marking 1.

4.4.2 Aircraft parking at Main Apron (26 stands)

Aircraft stands	Frequency Ground Control	Push Back Instructions
C2	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 until nose wheel is on marking 1.
C4, C6	121.75 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T8 then towed forward until nose wheel is on marking 2.
C8, C10	121.75 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T8 then towed forward until nose wheel is on marking 1.
301	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxilane T9 until nose wheel is on marking 1.
302	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxilane T9 then towed forward until nose wheel is on marking 1.
303	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxilane T9 until nose wheel is on marking 2.
304	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxilane T9 then towed forward until nose wheel is on marking 2.
305	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxilane T10 until nose wheel is on marking 1.
306	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxilane T10 then towed forward until nose wheel is on marking 1.
307	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxilane T10 until nose wheel is on marking 2.
308	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxilane T10 then towed forward until nose wheel is on marking 2.
D1	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 until nose wheel is on marking 1.
D2	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 then towed forward until nose wheel is on marking 1.
D3	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 until nose wheel is on marking 2.
D4	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T12 then towed forward until nose wheel is on marking 2.
D5	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 then towed forward until nose wheel is on marking 3.
D6	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 until nose wheel is on marking 3.
D7	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 then towed forward until nose wheel is on marking 4.
D8	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 until nose wheel is on marking 4.
E1	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T12 until nose wheel is on marking 4.
E3, E5	121.75 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T11 then towed forward until nose wheel is on marking 2.
E7, E9	121.75 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxilane T11 then towed forward until nose wheel is on marking 1.

4.4.3 Aircraft parking at West Apron (44 stands)

Aircraft stands	Frequency Ground Control	Push Back Instructions
E2	121.95 MHZ	Aircraft shall be pushed back to face east onto aircraft stand taxilane T14 until nose wheel is on marking on taxilane
E4, E6	121.95 MHZ	Aircraft shall be pushed back to face south onto aircraft stand taxilane T13 then towed forward until nose wheel is on marking 2.
E8, E10	121.95 MHZ	Aircraft shall be pushed back to face south onto aircraft stand taxilane T13 then towed forward until nose wheel is on marking 1.
401, 402	121.95 MHZ	Aircraft shall be pushed back to face south onto aircraft stand taxilane T13 until nose wheel is on marking 2.
403	121.95 MHZ	Aircraft shall be pushed back to face south onto aircraft stand taxilane T13 then towed forward until nose wheel is on marking 1.
F1, F3	121.95 MHZ	Aircraft shall be pushed back to face east onto aircraft stand taxilane T14 until nose wheel is on marking on taxilane
F5	121.95 MHZ	Aircraft shall be pushed back to face east onto aircraft stand taxilane T14 then towed forward until nose wheel is on marking on taxilane
F2, F4	121.95 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T15 until nose wheel is on marking on taxilane.
F6	121.95 MHZ	Aircraft shall be pushed back to face east onto aircraft stand taxilane T15 then towed forward until nose wheel is on marking on taxilane.
G1, G2	121.95 MHZ	Aircraft shall be pushed back to face east onto aircraft stand taxilane T15 until nose wheel is on marking on taxilane
G3, G4	121.95 MHZ	Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 2.
G5	121.95 MHZ	Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 1.
501	121.95 MHZ	Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 1.
502, 503	121.95 MHZ	Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 2.
504, 505	121.95 MHZ	Aircraft shall be pushed back to face north onto aircraft stand taxilane T17 then towed forward until nose wheel is on marking 1.
506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521	121.95 MHZ	Aircraft shall be pushed back to face south onto taxiway D.
522, 523, 524, 525	121.95 MHZ	Aircraft shall be pushed back to face south onto taxiway D, then towed forward until abeam stand 522 with nose wheel is on marking on taxiway.

4.4.4 Aircraft parking at SAT-1 Apron (28 stands)

Aircraft Stands	Ground Control Frequency	Push Back Instructions
S101	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T18.
S102	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T19.
S103	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T18.
S104	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T19.
S105	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T18.
S106	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T19.
S107	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T18.
S108	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T19.
S109	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T18.
S110	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T19.
S111	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T18.
S112	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T19.
S113	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T18.
S114	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T19.
S115	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T18.
S116	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T19.
S117	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T18.
S118	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T19.
S119	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T18.
S120	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxilane T19.
S121	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T18.
S122	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T19.
S123	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T18.
S124	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T19.
S125	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T18.
S126	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T19.
S127	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T18.
S128	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxilane T19.

4.5 Responsibilities

4.5.1 Responsibilities of the pilot-in-command

When the aircraft is fully ready the pilot-in-command is responsible to obtain the start-up and push back permission, stating the parking position.

4.5.2 Responsibilities of the ground engineer

The ground engineer of the Airline or Ground Handling Agent is responsible for a safe process of aircraft start up and push back and to report to the pilot-in-command when he/she and the tug are clear of the taxiway in the event of low visibility condition.

4.5.3 Responsibilities of the tug driver

The tug driver is responsible to ensure that the aircraft is pushed back (and pulled forward if required) toward the right direction onto the taxilane.

4.5.4 Responsibilities of the Apron Control Tower

The Apron Controller is responsible to monitor the engine start up and push back activities and to ensure that the aircraft will be pushed back toward the right direction onto the taxilane.

4.6 Actions to be taken

4.6.1 Actions to be taken by the pilot-in-command

When the aircraft is fully ready the pilot-in-command shall:

a) Ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or push back of aircraft commences. This is to be done using standard phraseology in communication with the ground operations headset operator.
b) Ensure that prior to the start-up, the pilot shall be certain that the propellers or the air flows caused by the engine cannot cause injuries or damage to persons or properties on ground. This is to be done by using standard phraseology in communication with the ground operations headset operator.
c) Contact Ground Control for permission to start up the engine(s). In normal operations, the engine start-up at the aircraft parking position is not allowed.
d) Ensure that the ground engineer, or the person responsible for ground to cockpit communications who is in direct intercom-radio contact with the pilot-in-command, acknowledges the start-up permission. In the event intercom-radio contact is not available, the use of standard hand signals will be used.
e) Ensure that the anti-collision beacons of the aircraft have been switched on before pushing back or starting the engine and to obtain an “all-clear” signal from the ground operations headset operator.
f) During push back operations, all aircraft shall be pushed back with its fuselage longitudinally centred over, and parallel to, a taxiway centre line before commencing the engine start. Should the engine start be performed at the aircraft parking positions, ensure that the requirements for such engine start up conditions are met.
g) Ensure that the ground engineer or ground operations headset operator acknowledges the permission.
h) Ensure that the aircraft is being pushed back in the right direction onto the taxilane.
i) Request permission from Ground Control to taxi when the tug has been disconnected as confirmed by the ground engineer and the ground engineer or ground operations headset operator has given the “all clear” signal.

4.6.2 Actions to be taken by the ground engineer

The ground engineer of the Airline or Handling Agent shall:

a) Ensure that the stand area is clear of any obstacle and FOD.
b) Ensure that the tug is connected to the aircraft and that the tug driver is completely ready to perform the push-back.
c) Acknowledge the Ground Control permission to start up the engine(s) to the pilot-in-command.
d) Ensure that the anti-collision beacons of the aircraft are switched on.
e) Monitor the engine(s) start up sequence.
f) Acknowledge the Ground Control permission for push back to the pilot-in-command.
g) Ensure that the tug driver understood the push back permission (by hand -signaling to the tug driver) and starting the push back manoeuvre.
h) Ensure that the aircraft is pushed back toward the right direction onto the taxilane.
i) Make sure that during the push back manoeuvre he/she will be in contact with the pilot-in-command at all times.
j) Ensure that the tug has been disconnected from the aircraft on the taxilane stop position and confirm so to the pilot-in-command.
k) When disconnected from the radio contact with the pilot-in-command, give the “all clear” signal to the pilot-in-command, being well clear of the aircraft’s path of taxiing.
l) Return to the stand area.

During low visibility conditions (CAT II) the ground engineer will, together with the tug driver, return behind the double white marking line on the apron surface as soon as possible and will indicate to the pilot-in-command that both of them are clear of the taxiway.

Note: *CAT II: Runway Visual Range of less than 550 M or cloud base of less than 200 FT.*

4.6.3 Actions to be taken by the tug driver

The tug driver of the Airline or Handling Agent shall:

a) Ensure that the tug is properly connected to the aircraft
b) Start the push back manoeuvre when permission to do so has been given by the ground engineer.
c) Make sure that the aircraft is pushed back toward the right direction onto the taxilane stop position.
d) Disconnect the tug from the aircraft when in position on the taxilane.
e) Return to the stand area.

During low visibility conditions (CAT II) the tug driver will, together with the ground engineer, return behind the red clearance line marking on the apron surface as soon as possible.

Note: *CAT II: Runway Visual Range of less than 550 M or cloud base of less than 200 FT.*

4.6.4 Actions to be taken by the Apron Control Tower

The Apron Controller will:

a) Monitor the engine(s) start up and push back activities.
b) Ensure that the aircraft will be pushed back toward the right direction onto the taxilane.

5. Taxi Procedures

5.1 Taxi Instructions

5.1.1 For departing aircraft, Ground Controller shall issue taxi instructions containing the following items in the order listed:

a) holding position;
b) runway designator;
c) taxi routes;
d) any other pertinent information.

For example:

"…C/S… TAXI TO HOLDING POINT RUNWAY ONE NINE LEFT VIA TANGO FOUR, CHARLIE, CHARLIE THREE, BRAVO ONE."

5.1.2 For arriving aircraft, Ground Controller shall issue taxi instructions containing the following items in the order listed:

a) taxi routes;
b) parking stand;
c) any other pertinent information.

For example:

"…C/S… TAXI VIA ECHO, DELTA SEVEN, GOLF, TANGO ONE ZERO, TANGO ONE TWO, YOUR STAND DELTA SIX."

5.2 In case the standard taxi route in item 5.6 is used, following procedures will be applied.

5.2.1 For departing aircraft, the standard taxi routes to the runway holding position are provided in relation to the relevant parking area, the taxi-out position of an aircraft and runway-in-use. The clearance limit shall be at the holding position of runway- in-use.

For example:

"…C/S... TAXI VIA ROUTE ECHO TANGO FOUR, RUNWAY ONE NINE LEFT."

5.2.2 For arriving aircraft, the standard taxi routes to aircraft parking stand are provided in relation to landing runway followed by series of relevant taxiways, and parking area.

For example:

"…C/S…TAXI VIA ROUTE ONE NINE RIGHT, MIKE TANGO ONE ZERO, YOUR STAND DELTA SIX."

5.2.3 The standard taxi routes provided by aerodrome controller shall be in effect until:

a) the departing aircraft reaches the holding position of active runway;
b) the arriving aircraft, completely parks at the assigned stand.

Pilots are reminded that, in no case shall the taxi instruction received on initial contact be altered, except approved otherwise specified by ATC.

5.3 Extra caution is required when crossing service roads in the manoeuvring area.

5.4 On the main apron where additional 180 degrees turn markings are established, the markings T9A and T9B connect taxilane T9 with taxilane T8 and the markings T10A and T10B connect taxilane T10 with taxilane T11 are provide. The routes may only be used when instructed to do so by ATC (ATC discretion).

5.5 Taxilanes T8, T9, T10, T11 and T12 are able to accommodate aircraft up to code E (wingspan less than 65 M).

5.6 The standard taxi routes for arriving and departing aircraft

5.6.1 Inbound taxi route runway 19R

EAST APRON				
RUNWAY	APRON	TAXIROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19R	EAST	19R/ET3	EXIT ONTO E, D8, H, C, T3, T5	A1, A2, A3, A4, A5, A6, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129
			EXIT ONTO E, D8, H, C, T3, T5, T4	B1, B3, B5
			EXIT ONTO E, D8, H, C, T3, T5, T1	130, 131, 132, 133, 134
		19R / ET6	EXIT ONTO E, D8, H, C, T6	B2, B4, B6
			EXIT ONTO E, D8, H, C, T6, T7	C1, C3, C5, C7, C9, 201, 202, 203

MAIN APRON				
RUNWAY	APRON	TAXIROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19R	MAIN	19R / MT9	EXIT ONTO E, D7, G, T9	301, 302, 303, 304
			EXIT ONTO E, D7, G, T9, T12	D1, D2, D3, D4
			EXIT ONTO E, D7, G, T9, T12, T8	C2, C4, C6, C8, C10
		19R / MT10	EXIT ONTO E, D7, G, T10	305, 306, 307, 308
			EXIT ONTO E, D7, G, T10, T12	D5, D6, D7, D8
			EXIT ONTO E, D7, G, T10, T12, T11	E1, E3, E5, E7, E9

WEST APRON				
RUNWAY	APRON	TAXIROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19R	WEST	19R / WD1	EXIT ONTO E, D1, D	510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
		19R / WD3	EXIT ONTO E, D3, D	506, 507, 508, 509
		19R / WT14	EXIT ONTO E, D6, T14, T13	E2, E4, E6, E8, E10, 401, 402, 403
			EXIT ONTO E, D6, T14	F1, F3, F5
		19R / WT15	EXIT ONTO E, D5, T15	F2, F4, F6
			EXIT ONTO E, D5, T15, T17	G1, G2, G3, G4, G5, 501, 502, 503, 504, 505

SAT-1 APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19R	SAT-1	19R / SH5	EXIT ONTO E, D8, H, H5, T18	S115, S117, S119, S121, S123, S125, S127
		19R / SH6	EXIT ONTO E, D8, H, H6, T18	S101, S103, S105, S107, S109, S111, S113
		19R / SJ1	EXIT ONTO E, D11, K, J3, J1, T19	S116, S118, S120, S122, S124, S126, S128
		19R / SJ2	EXIT ONTO E, D11, K, J4, J2, T19	S102, S104, S106, S108, S110, S112, S114

5.6.2 Inbound taxi route runway 19L

EAST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19L	EAST	19L / ET3	EXIT ONTO B, C7, C, T3, T5	A1, A2, A3, A4, A5, A6, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129
			EXIT ONTO B, C7, C, T3, T5, T4	B1, B3, B5
			EXIT ONTO B, C7, C, T3, T5, T1	130, 131, 132, 133, 134
		19L / ET6	EXIT ONTO B, C7, C, T6	B2, B4, B6
			EXIT ONTO B, C7, C, T6, T7	C1, C3, C5, C7, C9, 201, 202, 203

MAIN APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19L	MAIN	19L / MT9	EXIT ONTO B, C6, G, T9	301, 302, 303, 304
			EXIT ONTO B, C6, G, T9, T12	D1, D2, D3, D4
			EXIT ONTO B, C6, G, T9, T12, T8	C2, C4, C6, C8, C10
		19L / MT10	EXIT ONTO B, C6, G, T10	305, 306, 307, 308
			EXIT ONTO B, C6, G, T10, T12	D5, D6, D7, D8
			EXIT ONTO B, C6, G, T10, T12, T11	E1, E3, E5, E7, E9

WEST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19L	WEST	19L / WD1	EXIT ONTO B, C7, H, D8, E, D1, D	510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
		19L / WD3	EXIT ONTO B, C7, H, D8, E, D3, D	506, 507, 508, 509
		19L / WT14	EXIT ONTO B, C7, H, D8, E, D6, T14, T13	E2, E4, E6, E8, E10, 401, 402, 403
			EXIT ONTO B, C7, H, D8, E, D6, T14	F1, F3, F5
		19L / WT15	EXIT ONTO B, C7, H, D8, E, D5, T15	F2, F4, F6
			EXIT ONTO B, C7, H, D8, E, D5, T15, T17	G1, G2, G3, G4, G5, 501, 502, 503, 504, 505

SAT-1 APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19L	SAT-1	19L / SH5	EXIT ONTO B, C10, C, H, H5, T18	S115, S117, S119, S121, S123, S125, S127
		19L / SH6	EXIT ONTO B, C10, C, H, H6, T18	S101, S103, S105, S107, S109, S111, S113
		19L / SJ1	EXIT ONTO B, C10, C, K, J3, J1, T19	S116, S118, S120, S122, S124, S126, S128
		19L / SJ2	EXIT ONTO B, C10, C, K, J4, J2, T19	S102, S104, S106, S108, S110, S112, S114

5.6.3 Inbound taxi route runway 01R

EAST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	EAST	01R/ET3	EXIT ONTO B, C2, T3, T5	A1, A2, A3, A4, A5, A6, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129
			EXIT ONTO B, C2, T3, T5, T4	B1, B3, B5
			EXIT ONTO B, C2, T3, T5, T1	130, 131, 132, 133, 134
		01R / ET6	EXIT ONTO B, C5, T6	B2, B4, B6
			EXIT ONTO B, C5, T6, T7	C1, C3, C5, C7, C9, 201, 202, 203

MAIN APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	MAIN	01R / MT9	EXIT ONTO B, C6, G, T9, T12, T8	C2, C4, C6, C8, C10
			EXIT ONTO B, C6, G, T9, T12	D1, D2, D3, D4
			EXIT ONTO B, C6, G, T9	301, 302, 303, 304
		01R / MT10	EXIT ONTO B, C6, G, T10, T12, T11	E1, E3, E5, E7, E9
			EXIT ONTO B, C6, G, T10, T12	D5, D6, D7, D8
			EXIT ONTO B, C6, G, T10	305, 306, 307, 308

WEST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	WEST	01R / WD1	EXIT ONTO B, C7, H, D8, E, D1, D	510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
		01R / WD3	EXIT ONTO B, C7, H, D8, E, D3, D	506, 507, 508, 509
		01R / WT14	EXIT ONTO B, C7, H, D8, E, D6, T14, T13	E2, E4, E6, E8, E10, 401, 402, 403
			EXIT ONTO B, C7, H, D8, E, D6, T14	F1, F3, F5
		01R / WT15	EXIT ONTO B, C7, H, D8, E, D5, T15	F2, F4, F6
			EXIT ONTO B, C7, H, D8, E, D5, T15, T17	G1, G2, G3, G4, G5, 501, 502, 503, 504, 505

SAT-1 APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	SAT-1	01R / SH5	EXIT ONTO B, C7, H, H5, T18	S115, S117, S119, S121, S123, S125, S127
		01R / SH6	EXIT ONTO B, C7, H, H6, T18	S101, S103, S105, S107, S109, S111, S113
		01R / SJ1	EXIT ONTO B, C7, C, K, J3, J1, T19	S116, S118, S120, S122, S124, S126, S128
		01R / SJ2	EXIT ONTO B, C7, C, K, J4, J2, T19	S102, S104, S106, S108, S110, S112, S114

5.6.4 Inbound taxi route runway 01L

EAST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	EAST	01L / ET3	EXIT ONTO E, D8, H, C, T3, T5	A1, A2, A3, A4, A5, A6, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129
			EXIT ONTO E, D8, H, C, T3, T5, T4	B1, B3, B5
			EXIT ONTO E, D8, H, C, T3, T5, T1	130, 131, 132, 133, 134
		01L / ET6	EXIT ONTO E, D8, H, C, T6	B2, B4, B6
			EXIT ONTO E, D8, H, C, T6, T7	C1, C3, C5, C7, C9, 201, 202, 203

MAIN APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	MAIN	01L / MT9	EXIT ONTO E, D7, G, T9, T12, T8	C2, C4, C6, C8, C10
			EXIT ONTO E, D7, G, T9, T12	D1, D2, D3, D4
			EXIT ONTO E, D7, G, T9	301, 302, 303, 304
		01L / MT10	EXIT ONTO E, D7, G, T10, T12, T11	E1, E3, E5, E7, E9
			EXIT ONTO E, D7, G, T10, T12	D5, D6, D7, D8
			EXIT ONTO E, D7, G, T10	305, 306, 307, 308

WEST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	WEST	01L / WD1	EXIT ONTO E, D1, D	510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
		01L / WD3	EXIT ONTO E, D3, D	506, 507, 508, 509
		01L / WT14	EXIT ONTO E, D6, T14, T13	E2, E4, E6, E8, E10, 401, 402, 403
			EXIT ONTO E, D6, T14	F1, F3, F5
		01L / WT15	EXIT ONTO E, D5, T15	F2, F4, F6
			EXIT ONTO E, D5, T15, T17	G1, G2, G3, G4, G5, 501, 502, 503, 504, 505

SAT-1 APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	SAT-1	01L / SH5	EXIT ONTO E, D8, H, H5, T18	S115, S117, S119, S121, S123, S125, S127
		01L / SH6	EXIT ONTO E, D8, H, H6, T18	S101, S103, S105, S107, S109, S111, S113
		01L / SJ1	EXIT ONTO E, D11, K, J3, J1, T19 (for aircraft exit via E1, E2, E5, E7)	S116, S118, S120, S122, S124, S126, S128
			EXIT ONTO E, D8, D, K, J3, J1, T19 (for aircraft exit via E12)	
		01L / SJ2	EXIT ONTO E, D11, K, J4, J2, T19 (for aircraft exit via E1, E2, E5, E7)	S102, S104, S106, S108, S110, S112, S114
			EXIT ONTO E, D8, D, K, J4, J2, T19 (for aircraft exit via E12)	

5.6.5 Outbound taxi route runway 19R

EAST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19R	EAST	ET1 / 19R	T1, C, H, D8, E TO HOLDING POSITION E1	130, 131, 132, 133, 134
		ET2 / 19R	T5, T2, C, H, D8, E TO HOLDING POSITION E1	108, 109, 110, 111, 112, 113, 114, 124, 125, 126, 127, 128, 129
		ET4 / 19R	T4, C, H, D8, E TO HOLDING POSITION E1	B1, B3, B5
			T5, T4, C, H, D8, E TO HOLDING POSITION E1	A1, A2, A3, A4, A5, A6, 101, 102, 103, 104, 105, 106, 107, 115, 116, 117, 118, 119, 120, 121, 122, 123
		ET7 / 19R	T6, T7, H4, H, D8, E TO HOLDING POSITION E1	B2, B4, B6
			T7, H4, H, D8, E TO HOLDING POSITION E1	C1, C3, C5, C7, C9, 201, 202, 203

MAIN APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19R	MAIN	MT8 / 19R	T8, G, D7, E TO HOLDING POSITION E1	C2, C4, C6, C8, C10
			T12, T8, G, D7, E TO HOLDING POSITION E1	D1, D2, D3, D4
			T9, T12, T8, G, D7, E TO HOLDING POSITION E1	301, 302, 303, 304
		MT11 / 19R	T11, G, D7, E TO HOLDING POSITION E1	E1, E3, E5, E7, E9
			T12, T11, G, D7, E TO HOLDING POSITION E1	D5, D6, D7, D8
			T10, T12, T11, G, D7, E TO HOLDING POSITION E1	305, 306, 307, 308

WEST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19R	WEST	WD2 / 19R	D, D2 TO HOLDING POSITION E1	511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
		WD4 / 19R	D, D4, E TO HOLDING POSITION E1	506, 507, 508, 509, 510
		WT13 / 19R	T13, G, D7, E TO HOLDING POSITION E1	E2, E4, E6, E8, E10, 401, 402, 403
			T14, T13, G, D7, E TO HOLDING POSITION E1	F1, F3, F5
		WT16 / 19R	T15, T17, T16, D4, E TO HOLDING POSITION E1	F2, F4, F6
			T17, T16, D4, E TO HOLDING POSITION E1	G1, G2, G3, G4, G5, 501, 502, 503, 504, 505

SAT-1 APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19R	SAT-1	SH5 / 19R	T18, H5, H, D8, E TO HOLDING POSITION E1	S115, S117, S119, S121, S123, S125, S127
		SH6 / 19R	T18, H6, H, D8, E TO HOLDING POSITION E1	S101, S103, S105, S107, S109, S111, S113
		SJ1 / 19R	T19, J1, J, D10, E TO HOLDING POSITION E1	S116, S118, S120, S122, S124, S126, S128
		SJ2 / 19R	T19, J2, J, D10, E TO HOLDING POSITION E1	S102, S104, S106, S108, S110, S112, S114

5.6.6 Outbound taxi route runway 19L

EAST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19L	EAST	ET1 / 19L	T1, C, C2, B TO HOLDING POSITION B1	130, 131, 132, 133, 134
		ET2 / 19L	T5, T2, C, C2, B TO HOLDING POSITION B1	108, 109, 110, 111, 112, 113, 114, 124, 125, 126, 127, 128, 129
		ET4 / 19L	T4, C, C3, TO HOLDING POSITION B1	B1, B3, B5
			T5, T4, C, C3, TO HOLDING POSITION B1	A1, A2, A3, A4, A5, A6, 101, 102, 103, 104, 105, 106, 107, 115, 116, 117, 118, 119, 120, 121, 122, 123
		ET7 / 19L	T6, T7, G, C6, B HOLDING POSITION B1	B2, B4, B6
			T7, G, C6, B HOLDING POSITION B1	C1, C3, C5, C7, C9, 201, 202, 203

MAIN APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19L	MAIN	MT8 / 19L	T8, G, C6, B TO HOLDING POSITION B1	C2, C4, C6, C8, C10
			T12, T8, G, C6, B TO HOLDING POSITION B1	D1, D2, D3, D4
			T9, T12, T8, G, C6, B TO HOLDING POSITION B1	301, 302, 303, 304
		MT11 / 19L	T11, G, C6, B TO HOLDING POSITION B1	E1, E3, E5, E7, E9
			T12, T11, G, C6, B TO HOLDING POSITION B1	D5, D6, D7, D8
			T10, T12, T11, G, C6, B TO HOLDING POSITION B1	305, 306, 307, 308

WEST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19L	WEST	WD / 19L	D, H, C7, B TO HOLDING POSITION B1	506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
		WT13 / 19L	T13, H1, H, C7, B TO HOLDING POSITION B1	E2, E4, E6, E8, E10, 401, 402, 403
			T14, T13, H1, H, C7, B TO HOLDING POSITION B1	F1, F3, F5
		WT16 / 19L	T15, T17, T16, D, H, C7, B TO HOLDING POSITION B1	F2, F4, F6
			T17, T16, D, H, C7, B TO HOLDING POSITION B1	G1, G2, G3, G4, G5, 501, 502, 503, 504, 505

SAT-1 APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
19L	SAT-1	SH5 / 19L	T18, H5, H, C7, B TO HOLDING POSITION B1	S115, S117, S119, S121, S123, S125, S127
		SH6 / 19L	T18, H6, H, C7, B TO HOLDING POSITION B1	S101, S103, S105, S107, S109, S111, S113
		SJ1 / 19L	T19, J1, J, C9, B TO HOLDING POSITION B1	S116, S118, S120, S122, S124, S126, S128
		SJ2 / 19L	T19, J2, J, C9, B TO HOLDING POSITION B1	S102, S104, S106, S108, S110, S112, S114

5.6.7 Outbound taxi route runway 01R

EAST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	EAST	ET1 / 01R	T1, C, C10, B TO HOLDING POSITION B13	130, 131, 132, 133, 134
		ET2 / 01R	T5, T2, C, C10, B TO HOLDING POSITION B13	108, 109, 110, 111, 112, 113, 114, 124, 125, 126, 127, 128, 129
		ET4 / 01R	T4, C, C10, B TO HOLDING POSITION B13	B1, B3, B5
			T5, T4, C, C10, B TO HOLDING POSITION B13	A1, A2, A3, A4, A5, A6, 101, 102, 103, 104, 105, 106, 107, 115, 116, 117, 118, 119, 120, 121, 122, 123
		ET7 / 01R	T6, T7, G, C, C10, B TO HOLDING POSITION B13	B2, B4, B6
			T7, G, C, C10, B TO HOLDING POSITION B13	C1, C3, C5, C7, C9, 201, 202, 203

MAIN APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	MAIN	MT8 / 01R	T8, G, C, C10, B TO HOLDING POSITION B13	C2, C4, C6, C8, C10
			T12, T8, G, C, C10, B TO HOLDING POSITION B13	D1, D2, D3, D4
			T9, T12, T8, G, C, C10, B TO HOLDING POSITION B13	301, 302, 303, 304
		MT11 / 01R	T11, G, C, C10, B TO HOLDING POSITION B13	E1, E3, E5, E7, E9
			T12, T11, G, C, C10, B TO HOLDING POSITION B13	D5, D6, D7, D8
			T10, T12, T11, G, C, C10, B TO HOLDING POSITION B13	305, 306, 307, 308

WEST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	WEST	WD / 01R	D, H, C, C10, B TO HOLDING POSITION B13	506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
		WT13 / 01R	T13, H1, H, C, C10, B TO HOLDING POSITION B13	E2, E4, E6, E8, E10, 401, 402, 403
			T14, T13, H1, H, C, C10, B TO HOLDING POSITION B13	F1, F3, F5
		WT16 / 01R	T15, T17, T16, D, H, C, C10, B TO HOLDING POSITION B13	F2, F4, F6
			T17, T16, D, H, C, C10, B TO HOLDING POSITION B13	G1, G2, G3, G4, G5, 501, 502, 503, 504, 505

SAT-1 APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	SAT-1	SH5 / 01R	T18, H5, H, C, C10, B TO HOLDING POSITION B13	S115, S117, S119, S121, S123, S125, S127
		SH6 / 01R	T18, H6, H, C, C10, B TO HOLDING POSITION B13	S101, S103, S105, S107, S109, S111, S113
		SJ1 / 01R	T19, J1, J, C, C10, B TO HOLDING POSITION B13	S116, S118, S120, S122, S124, S126, S128
		SJ2 / 01R	T19, J2, J, C, C10, B TO HOLDING POSITION B13	S102, S104, S106, S108, S110, S112, S114

5.6.8 Outbound taxi route runway 01L

EAST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	EAST	ET1 / 01L	T1, C, H, D8, E TO HOLDING POSITION E21	130, 131, 132, 133, 134
		ET2 / 01L	T5, T2, C, H, D8, E TO HOLDING POSITION E21	108, 109, 110, 111, 112, 113, 114, 124, 125, 126, 127, 128, 129
		ET4 / 01L	T4, C, H, D8, E TO HOLDING POSITION E21	B1, B3, B5
			T5, T4, C, H, D8, E TO HOLDING POSITION E21	A1, A2, A3, A4, A5, A6, 101, 102, 103, 104, 105, 106, 107, 115, 116, 117, 118, 119, 120, 121, 122, 123
		ET7 / 01L	T6, T7, H4, H, D8, E TO HOLDING POSITION E21	B2, B4, B6
			T7, H4, H, D8, E TO HOLDING POSITION E21	C1, C3, C5, C7, C9, 201, 202, 203

MAIN APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	MAIN	MT8 / 01L	T8, G, D7, E TO HOLDING POSITION E21	C2, C4, C6, C8, C10
			T12, T8, G, D7, E TO HOLDING POSITION E21	D1, D2, D3, D4
			T9, T12, T8, G, D7, E TO HOLDING POSITION E21	301, 302, 303, 304
		MT11 / 01L	T11, G, D7, E TO HOLDING POSITION E21	E1, E3, E5, E7, E9
			T12, T11, G, D7, E TO HOLDING POSITION E21	D5, D6, D7, D8
			T10, T12, T11, G, D7, E TO HOLDING POSITION E21	305, 306, 307, 308

WEST APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	WEST	WD / 01L	D, D7, E TO HOLDING POSITION E21	506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
		WT13 / 01L	T13, G, D7, E TO HOLDING POSITION E21	E2, E4, E6, E8, E10, 401, 402, 403
			T14, T13, G, D7, E TO HOLDING POSITION E21	F1, F3, F5
		WT16 / 01L	T15, T17, T16, D, D7, E TO HOLDING POSITION E21	F2, F4, F6
			T17, T16, D, D7, E TO HOLDING POSITION E21	G1, G2, G3, G4, G5, 501, 502, 503, 504, 505

SAT-1 APRON				
RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	SAT-1	SH5 / 01L	T18, H5, H, D8, E TO HOLDING POSITION E21	S115, S117, S119, S121, S123, S125, S127
		SH6 / 01L	T18, H6, H, D8, E TO HOLDING POSITION E21	S101, S103, S105, S107, S109, S111, S113
		SJ1 / 01L	T19, J1, J, D10, E TO HOLDING POSITION E21	S116, S118, S120, S122, S124, S126, S128
		SJ2 / 01L	T19, J2, J, D10, E TO HOLDING POSITION E21	S102, S104, S106, S108, S110, S112, S114

6. Runway Utilization Procedures

6.1 Runway-in-use

The runway-in-use is selected by Suvarnabhumi Control Tower as the best for general purpose. If it is unsuitable for a particular operation, the pilot can obtain permission from ATC to use another but must accept that he may thereby incur a delay.

6.2 Runway Friction Measurement

6.2.1 The friction coefficient of runway surface is measured periodically by the use of a Surface Friction Tester (SFT) Vehicle, SAAB or VOLVO. This tester which is equipped with self wetting features uses the fifth wheel with a tire that meets the requirements of ASTM E1551 incorporating with measuring system and computerized data processing and records.

6.2.2 The test will be performed on the surface at a speed of 95 KM/HR with 1 MM thick water depth underneath the testing wheel, it will be carried out in two directions over the usable length of runway at approximately 3 and 6 M each side of the runway centre line. The test results provide average of friction values of 100 M segments along the length of the runway. Should the friction value fall to 0.34 or less, NOTAM will be promulgated to notify that the runway may be slippery when wet.

Friction Value	Determination of the value
>0.34	Normal
≤0.34	(NOTAM will be promulgated) May be slippery when wet

6.3 Departure sequence

6.3.1 Departure shall normally be cleared in the order in which they are ready for take-off, except that deviations may be made from this

order of priority to facilitate the maximum number of departures with the least average delay.

6.3.2 To increase runway capacity and to comply with slot times if required, ATC may re-order departure sequence at any time. In addition, intersections will be assigned for departure. Pilots unable to accept the reduced take-off run available for the assigned intersection, shall inform ATC directly.

6.4 Departure clearance

6.4.1 The order in which aircraft are given take-off clearances will be determined on the basis of normal traffic priorities, the application of wake turbulence standard separation and departure slot allocations and management.

6.4.2 Under normal circumstances all departing aircraft will be issued with SIDs. If, for traffic management reason, a SID has to be cancelled, the pilot will be given a specific departure instruction.

6.5 Intersection departure

Departing aircraft will normally be directed by ATC to use the full length of the runway for take-off. Pilots-in-command may request or ATC may propose an intersection departure to resolve a particular runway or manoeuvring area conflict. The final decision whether to make an intersection departure rests with the pilot-in-command.

6.6 Clearance for immediate take-off

A pilot receiving an immediate take-off instruction is required to act as follows:

a) if waiting clear of the runway, taxi immediately on to it and begin his take off run without stopping his aircraft;
b) if already lined up on the runway, take off without delay;
c) if unable to comply with the instruction, inform ATC immediately.

6.7 Departures – Minimum Runway Occupancy Time

6.7.1 On receipt of line-up clearance pilots should ensure, commensurate with safety and standard operation procedures, that they are able to taxi into the correct position at the hold and line up on the runway as soon as the preceding aircraft has commenced its take off roll.

6.7.2 Whenever possible, cockpit checks should be completed prior to line up and any checks requiring completion whilst on the runway should be kept to the minimum required. Pilots should ensure that they are able to commence the take off roll immediately after take off clearance is issued.

6.7.3 Pilots not able to comply with these requirements should notify ATC as soon as possible.

6.7.4 Pilots shall prepare for the following take-off run available (TORA):

RUNWAY 19L	TORA (M)
B1	4 000
B2	3 870

RUNWAY 19R	TORA (M)
E1	3 700
E2	3 590

RUNWAY 01R	TORA (M)
B13	4 000
B12	3 890

RUNWAY 01L	TORA (M)
E21	3 700
E19	3 590

6.7.5 In order to expedite departure traffic, the runway declared distance at each additional available departing point when entering from

taxiway, are as follows:-

RUNWAY 19L	TORA (M)
B3	2 970

RUNWAY 19R	TORA (M)
E5	2 780

RUNWAY 01L	TORA (M)
E15	2 670

RUNWAY 01R	TORA (M)
B11	2 780

Remarks: The aircraft take-off from these points shall be approved when traffic permitted in VMC only.

6.8 Arrivals – Minimum Runway Occupancy Time

6.8.1 Pilots are reminded that rapid exit from the landing runway enables ATC to apply minimum spacing on final approach that will achieve maximum runway utilization and will minimize the occurrence of 'go-arounds'.

6.8.2 The procedures for Minimum Runway Occupancy Time shall be strictly applied in order to achieve the highest possible rate for arrivals and departures.

6.9 High Intensity Runway Operation

6.9.1 To achieve the highest possible rate/hour for arrivals and departures, runway occupancy times are to be reduced to a minimum, as a rule. Runways shall be vacated via high speed turn-offs.

6.9.2 Whenever runway conditions permit, pilots should prepare their landing so as to vacate the runways via the following high speed turn-offs.

RUNWAY 19L	DISTANCE TO TURN OFF (M)
B8	1640
B10	2050
B11	2560

RUNWAY 19R	DISTANCE TO TURN OFF (M)
E9	1470
E13	2050
E15	2440

RUNWAY 01R	DISTANCE TO TURN OFF (M)
B7	1770
B5	2350
B3	2740

RUNWAY 01L	DISTANCE TO TURN OFF (M)
E12	1360
E7	2050
E5	2560

Remarks: Distance to turn off is the distance of the respective runway to turn-off intersection.

6.9.3 The procedures for Minimum Runway Occupancy Time shall be strictly applied in order to achieve the highest possible rate for

arrivals and departures.

7. Low Visibility Operations

7.1 General

7.1.1 Low visibility procedures will be established for operation in a visibility of less than RVR 550 M or a cloud base of less than 200 FT.

7.1.2 Special ATC procedures and safeguarding will be applied during CAT II operations to protect aircraft operating in low visibility and to avoid interference to the ILS signals in accordance with ICAO Doc 9365: Manual of all-weather operations. Pilots will be informed when these procedures are in operation by ATIS or RTF.

7.1.3 Runway 19L/01R and runway 19R/01L, subject to serviceability of the required facilities, are suitable for Cat II operations by operators whose minima have been accepted by the The Civil Aviation Authority of Thailand (CAAT).

7.2 Arrival

7.2.1 Cat II approach and landing

7.2.1.1 Pilots who wish to carry out an ILS Cat II approach shall inform Bangkok Approach on initial contact.

7.2.1.2 Pilots may carry out a practice ILS Cat II approach at any time. But the full safeguarding procedures will not be applied and pilots should anticipate the possibility of ILS signal interference.

7.2.1.3 When Low Visibility Procedures are in operation, a much reduced landing rate can be expected due to the requirement for increased spacing between arriving aircraft.

7.2.1.4 Aircraft will be vectored to intercept the ILS localizer at least 10 NM from touchdown.

7.2.2 Runway exits

7.2.2.1 All runway exits are equipped with green/yellow coded taxiway centre line lights to indicate the boundary of the localizer sensitive area.

7.2.2.2 Pilots are required to make a “RUNWAY VACATED” call giving due allowance for the size of the aircraft to ensure that the entire aircraft has vacated the localizer sensitive area.

7.2.2.3 Aircraft shall vacate the runway via the first convenient exist taxiways which are designated as follows:

- Runway 19L via B8, B10, B11,B12, B13
- Runway 01R via B7, B5, B3, B2, B1
- Runway 19R via E9, E13, E15, E17, E19, E21
- Runway 01L via, E12, E7, E5, E2, E1

Pilots not able to comply with these requirements should notify ATC immediately.

7.3 Departure

7.3.1 Runway holding positions

7.3.1.1 ATC will require departing aircraft to use the Cat II holding positions listed below:

- Runway 19L : B1, B2
- Runway 01R : B13, B12
- Runway 19R : E1, E2
- Runway 01L : E21, E19

7.3.1.2 Except as described above, other intersection take-offs are not permitted.

7.3.2 Low visibility take-off

7.3.2.1 Pilots wishing to conduct an ILS guided take-off shall inform ATC on start up in order to ensure that the protection of the localizer sensitive area is provided.

7.4 Taxiing aircraft

7.4.1 Taxiing aircraft must follow the lighted taxiway centre line in relation to the standard taxi route provided by ATC. The deviation from the standard taxi route may be approved for traffic reason.

7.4.2 When low visibility operating procedures are in operation pilots-in-command shall adjust aircraft taxiing speeds to ensure that they

are able to comply with ATC instructions.

7.5 Towing of aircraft

7.5.1 Aircraft towing will be restricted when the RVR down to less than 550 M.

7.6 Aircraft guidance under all-weather operations category II

7.6.1 Taxiway centre line lights

7.6.1.1 As soon as the operation of category II low visibility procedures is announced, aircraft will be only permitted to taxi on taxiways with operating centre line lights.

7.6.1.2 Taxiway centre line lights within the ILS sensitive area are colour-coded (Green/Yellow) from runway 19L/01R to taxiway B and from runway 19R/01L to taxiway E. To indicate that the aircraft has vacated the ILS sensitive area, pilots are to delay the call “RUNWAY VACATED” until the aircraft has completely passed the end of the Green/Yellow colour–coded taxiway centre line lights.

7.6.2 Stop bars

7.6.2.1 Taxiing across stop bars is strictly prohibited as long as they are in operation. No kind of clearance includes permission to taxi across a stop bar in operation.

7.6.2.2 Stop bar is provided to assist in preventing inadvertent incursions of aircraft and vehicles onto the runway.

7.6.2.3 Stop bars are installed at following locations:

- Taxiway B1, B2, B3, B11, B12, B13
- Taxiway E1, E2, E5, E15, E19, E21

7.6.3 No-entry bar

7.6.3.1 No-entry bar is provided across a taxiway which is intended to be used as an exit only taxiway to assist in preventing inadvertent access of traffic to that taxiway.

7.6.3.2 No-entry bar is provided to prevent traffic from entering the taxiway in the wrong direction.

7.6.3.3 No-entry bars are installed at following locations:

- Taxiway B5, B7, B8, B10
- Taxiway E7, E9, E12, E13

7.6.4 Intermediate holding position lights

7.6.4.1 Taxiing across intermediate holding position lights is allowed.

7.6.4.2 Intermediate holding position lights are installed at some intermediate holding position.

7.6.4.3 Intermediate holding position lights consist of three fixed unidirectional lights showing yellow in the direction of approach to intermediate holding position.

7.7 Adverse weather warning

7.7.1 Aircraft will not be refused permission to land or take off at Suvarnabhumi International airport solely because of adverse weather conditions. The pilot-in-command of a commercial air transport aircraft shall be responsible for operation in accordance with applicable company weather minima.

8. Adverse Weather Condition & Procedures

Adverse Weather Condition Warning at Suvarnabhumi International airport : Adverse weather condition that causes thunderstorms and/or strong wind and even lightning may endanger airside operation to a large extent. Therefore, when it is predicted to occur, the effective warning system shall be deployed for airside workers and vehicle operators. The objective of this warning is to elaborate how the situations of each phase are and to alert all the airside personnel to work more carefully and safely in the airfield. Adverse Weather Condition Warning at Suvarnabhumi International airport can be defined into 3 levels;

Level 1 Thunderstorms Observations Reporting: The report is used when thunderstorms are detected within 50 KM from Aerodrome Reference Point (ARP) and their directions are heading Suvarnabhumi International airport.

Level 2 Thunderstorms and/or Strong Wind Warning: This warning is used when thunderstorms and/or strong wind are more than 25 KT within 16 KM from Aerodrome Reference Point (ARP) and their directions are towards or over Suvarnabhumi International airport.

Level 3 Lightning Warning: The warning is employed when thunderstorms are over Suvarnabhumi International airport and lightning characteristic is obviously detected.

8.1 Level 1 : Thunderstorms Observation Reporting

- Suvarnbhumi International airport will notify all concerned units by announcing “Thunderstorms Warning” when adverse weather condition level 1 takes place. The details how the announcement is made has already distributed to the operators concerned by means of official letter.
- When the condition of adverse weather condition level 1 terminates, Suvarnabhumi International airport will announce “Thunderstorms Warning Terminated”.

Airlines, Ground Service Providers, and Airside Operator’s Procedures

When receive the adverse weather condition level 1;

- Report the situation to their staff.
- Operate with carefulness, be alert of the aircraft and vehicle’ safety and tightly secure all ground service equipments.

8.2 Level 2 : Thunderstorm and/or strong wind warning

- When thunderstorms and/or strong wind are more than 25 KT within 16 KM from Aerodrome Reference Point (ARP) and their direction are towards or over the aerodrome, Suvarnabhumi International airport will notify all concerned units by announcing “Thunderstorms and Strong Wind Warning”
- And when receive the cancellation of adverse weather condition, Suvarnabhumi International airport will announce as “Thunderstorms and Strong Wind Warning Terminated”

Airlines, Ground Service providers, and Airside Operator’s Procedures

When receive the adverse weather condition level 2;

- Report the situation to their staff.
- Remove the stair from the aircraft and tie the gantry securely to the ground and also close the front part of stair.
- Ensure aircraft parking brake is applied during on the parking stand.
- Ensure aerobridge is parked on the assigned markings and close the front part of it.
- Bond the aircraft ground receptacle.
- Ensure that light aircraft are parked facing head wind and secured to the ground.

8.3 Level 3 : Lightning warning

- When thunderstorms are over Suvarnabhumi International airport and may likely cause lightning, Suvarnabhumi International airport will notify all concerned units by announcing “Lightning Warning” and instantly turn on the red warning light and siren.
- And when receive the cancellation of adverse weather condition, turn off the red warning light and siren and announce as “Lightning Warning Terminated”.

Suvarnabhumi Air Traffic Control Center’s Procedures

When receive the adverse weather condition warning level 3 from Airside Operations Control Center (AOCC), keep monitoring the situation and inform Flight Operation of the airlines concerned about the adverse weather condition warning level 3 at Suvarnabhumi International airport and/or announce through Automatic Terminal Information Service (ATIS).

Airlines, Ground Service Providers, and Airside Operator’s Procedures

When receive the adverse weather condition level 3;

- Restrain from operating and stay in the nearby buildings, or vehicles, or lightning shelters, or high mass light poles within 22.60 M, or under aircraft with ground receptacle bonded and monitor the weather conditions outside periodically.
- Avoid contacting or staying near the aircraft without ground receptacle connected.
- When receive the lightning warning while being outside the building, do not lie down on the floor. Do sit on feet together with knees up in order to least contact with the ground and decrease the overall body height which might induce electricity through the body from the lightning currents.
- Refrain from refueling the aircraft.
- Airlines informs ground service providers the adverse weather condition warning level 3 and recommend them the temporary suspension of ground operations and cease the communication with pilot.

Arrival Aircraft

a) Aircraft designated to park at parking bay with Visual Docking Guidance System: VDGS;

- While the aircraft is approaching to the parking bay, the License Mechanic who is responsible for aircraft conveyance shall monitor the aircraft movement in order to make sure the moving aircraft is safe. This should be done while he/she is in the safe area.
- When the aircraft reaches the parking bay and is in the right position of stand markings, the License Mechanic shall coordinate with pilots to apply parking brake and bond the aircraft’s nose gear and aircraft ground receptacle. Also, wait for the cancellation of adverse weather condition warning from Suvarnabhumi International airport. Then, the operations could be done as normal.

b) Aircraft arranged to park at parking bay without Visual Docking Guidance System: VDGS;

- Airlines and ground service providers must provide the License Mechanic who is responsible for aircraft conveyance to perform as Marshaller leading the aircraft to its parking bay.
- When the aircraft reaches the parking bay and is in the right position of stand markings, the License Mechanic shall coordinate with pilots to apply parking brake and bond the aircraft's nose gear and aircraft ground receptacle. And also, wait for the cancellation of adverse weather condition warning from Suvarnabhumi International airport. Then, the operations should be done as normal.

Departure Aircraft

Departure aircraft operating at parking bay should be done as follows;

a) While the aircraft is being pushed back from parking bay and/or being on the taxilane ready to take off with all engines started, operate a normal procedures until they are completed and the aircraft has taken off.
b) In case the aircraft is being pushed back but the engine is not started yet. If the ground service providers consider bringing the aircraft back to its parking bay and wait for the cancellation of adverse weather condition warning from Suvarnabhumi International airport, airline or ground service providers must inform AOCC of that decision. This is because the airport is needed to rearrange the parking bay for another arriving aircraft.
c) For the aircraft in no.2 which arranged to park at the Contact Gate that has passenger loading bridges, while waiting for the adverse weather condition warning to be cancelled and airline or ground service provider considers that the aircraft bridge is needed again, inform the Airside Operations Control Center (AOCC) accordingly. Also, follow the procedures for facility request from Suvarnabhumi International airport properly.

Suspending the operations of airlines and/or ground service providers is conducted solely for the sake of safety of all operators which was mutually decided between airline members/ ground service providers and the airport operator. Therefore, in case of flight delays, airlines and ground service providers shall not claim any compensation from Suvarnabhumi International airport or concerned units.

9. Modes of Operation

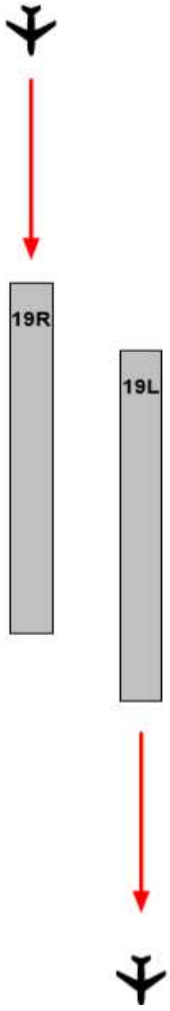
9.1 Selected Modes of Operation for Suvarnabhumi International airport

Segregated Parallel Approaches / Departures (Mode 4) will be the standard operating mode for Suvarnabhumi International airport. There may be semi-mixed operations, i.e. one runway is used exclusively for departures, while the other runway is used for a mixture of approaches and departures; or, one runway is used exclusively for approaches while the other is used for a mixture of approaches and departures, there may also be mixed operations, i.e. simultaneous parallel approaches with departures interspersed on both runways (ICAO DOC 9643). Several types of parallel runway operations, which are described as operational models may be conducted in segregated parallel approaches and departures.

9.2 The utilization of operational models shall be based on traffic situations at the time with the purpose to achieve an orderly and expeditious flow of traffic. The criteria shall also meet the most effectiveness of runway utilization. However, as far as the operational model is selected, the basic concept of operating aircraft on ground movement area shall not aim at the shortest taxi route to the active runway but the respective departure direction. In addition, the selected model should support the independent parallel departure operation with safety and maximum runway capacity.

9.3 Operational models

The operational models applicable to Suvarnabhumi are described, together with related RNAV SIDs as follows.

<table>
<tr><td colspan="5">MODEL 1 SEGREGATED PARALLEL OPERATION</td></tr>
<tr><td colspan="5">OPERATIONAL CONDITIONS
• DEPARTURE RUNWAY 19L
• ARRIVAL RUNWAY 19R</td></tr>
<tr><td>FIGURE</td><td>AIRWAYS</td><td colspan="2">DEPARTURE RUNWAY</td><td>RNAV SIDs</td></tr>
<tr><td rowspan="15"> 
</td><td>W1,A202</td><td></td><td>19L</td><td>COSMO 1C DEPARTURE
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SELKA TRANSITION</td></tr>
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BATOK TRANSITION</td></tr>
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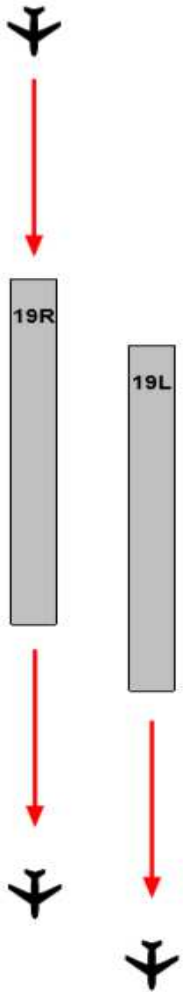
GOMES TRANSITION</td></tr>
<tr><td>N891</td><td></td><td>19L</td><td>SIMON 1C DEPARTURE
RYN TRANSITION</td></tr>
<tr><td>R201</td><td></td><td>19L</td><td>SIMON 1C DEPARTURE
BUT TRANSITION</td></tr>
<tr><td>A464, M751,
W19</td><td></td><td>19L</td><td>SEESA 1C DEPARTURE
REGOS TRANSITION</td></tr>
<tr><td>G458, W31</td><td></td><td>19L</td><td>SEESA 1C DEPARTURE
HOTEL TRANSITION</td></tr>
<tr><td>R468</td><td></td><td>19L</td><td>ANTIC 1C DEPARTURE
TANEK TRANSITION</td></tr>
<tr><td>G463, P646</td><td></td><td>19L</td><td>ANTIC 1C DEPARTURE
BETNO TRANSITION</td></tr>
<tr><td>A1, L507</td><td></td><td>19L</td><td>NESTA 1C DEPARTURE
LIMLA TRANSITION</td></tr>
<tr><td>A464</td><td></td><td>19L</td><td>NESTA 1C DEPARTURE
BEKOD TRANSITION</td></tr>
<tr><td>W9</td><td></td><td>19L</td><td>NESTA 1C DEPARTURE
TL TRANSITION</td></tr>
<tr><td>B346, W21</td><td></td><td>19L</td><td>NESTA 1C DEPARTURE
NOBER TRANSITION</td></tr>
<tr><td>R474</td><td></td><td>19L</td><td>NESTA 1C DEPARTURE
ALBOS TRANSITION</td></tr>
</table>

MODEL 2 SEMI - MIXED OPERATION

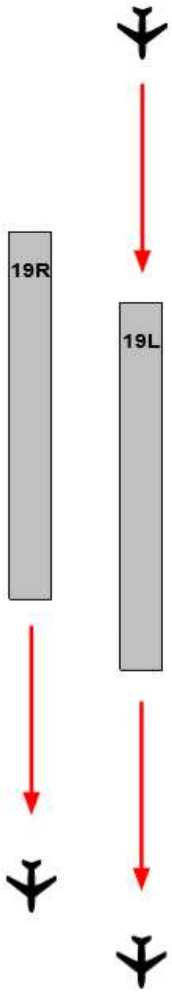
OPERATIONAL CONDITIONS
- DEPARTURE RUNWAY 19L AND 19R
  - OUTBOUND ROUTES W1, A1, A202, G474, R468, N891, R201, A464, M751, W19 DEPARTURE RUNWAY 19L
  - OUTBOUND ROUTES G458, W31, R468, G463, P646, A1, L507, A464, W9, B346, W21, R474 DEPARTURE RUNWAY 19R
- ARRIVAL RUNWAY 19R

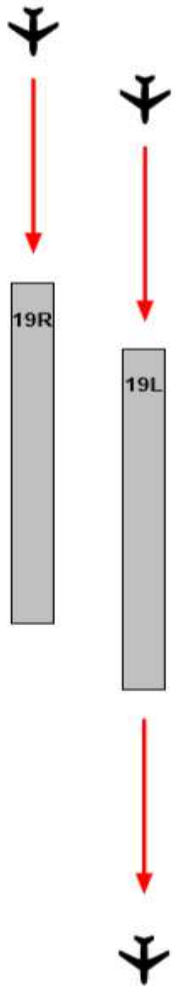
FIGURE	AIRWAYS	DEPARTURE RUNWAY		RNAV SIDs
	W1,A202		19L	COSMO 1C DEPARTURE KRT TRANSITION
	A1		19L	COSMO 1C DEPARTURE SELKA TRANSITION
	G474		19L	COSMO 1C DEPARTURE BATOK TRANSITION
	R468		19L	COSMO 1C DEPARTURE GOMES TRANSITION
	N891		19L	SIMON 1C DEPARTURE RYN TRANSITION
	R201		19L	SIMON 1C DEPARTURE BUT TRANSITION
	A464, M751, W19		19L	SEESA 1C DEPARTURE REGOS TRANSITION
	G458, W31	19R		COMET 1B DEPARTURE HOTEL TRANSITION
	R468	19R		ANTIC 1B DEPARTURE TANEK TRANSITION
	G463, P646	19R		ANTIC 1B DEPARTURE BETNO TRANSITION
	A1, L507	19R		NESTA 1B DEPARTURE LIMLA TRANSITION
	A464	19R		NESTA 1B DEPARTURE BEKOD TRANSITION
	W9	19R		NESTA 1B DEPARTURE TL TRANSITION
	B346, W21	19R		NESTA 1B DEPARTURE NOBER TRANSITION
	R474	19R		NESTA 1B DEPARTURE ALBOS TRANSITION

MODEL 3 SEMI - MIXED OPERATION

OPERATIONAL CONDITIONS

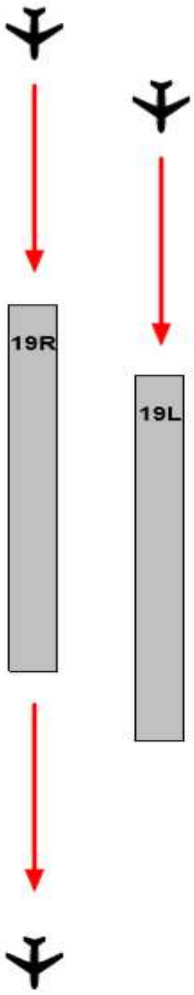
- DEPARTURE RUNWAY 19L AND 19R
  - OUTBOUND ROUTES W1, A1, A202, G474, R468, N891, R201, A464, M751, W19 DEPARTURE RUNWAY 19L
  - OUTBOUND ROUTES G458, W31, R468, G463, P646, A1, L507, A464, W9, B346, W21, R474 DEPARTURE RUNWAY 19R
- ARRIVAL RUNWAY 19L

FIGURE	AIRWAYS	DEPARTURE RUNWAY		RNAV SIDs
	W1,A202		19L	COSMO 1C DEPARTURE KRT TRANSITION
	A1		19L	COSMO 1C DEPARTURE SELKA TRANSITION
	G474		19L	COSMO 1C DEPARTURE BATOK TRANSITION
	R468		19L	COSMO 1C DEPARTURE GOMES TRANSITION
	N891		19L	SIMON 1C DEPARTURE RYN TRANSITION
	R201		19L	SIMON 1C DEPARTURE BUT TRANSITION
	A464, M751, W19		19L	SEESA 1C DEPARTURE REGOS TRANSITION
	G458, W31	19R		COMET 1B DEPARTURE HOTEL TRANSITION
	R468	19R		ANTIC 1B DEPARTURE TANEK TRANSITION
	G463, P646	19R		ANTIC 1B DEPARTURE BETNO TRANSITION
	A1, L507	19R		NESTA 1B DEPARTURE LIMLA TRANSITION
	A464	19R		NESTA 1B DEPARTURE BEKOD TRANSITION
	W9	19R		NESTA 1B DEPARTURE TL TRANSITION
	B346, W21	19R		NESTA 1B DEPARTURE NOBER TRANSITION
	R474	19R		NESTA 1B DEPARTURE ALBOS TRANSITION

MODEL 4 SEMI - MIXED OPERATION				
OPERATIONAL CONDITIONS • DEPARTURE RUNWAY 19L • ARRIVAL RUNWAY 19L AND 19R				
FIGURE	AIRWAYS	DEPARTURE RUNWAY		RNAV SIDs
	W1, A202		19L	COSMO 1C DEPARTURE KRT TRANSITION
	A1		19L	COSMO 1C DEPARTURE SELKA TRANSITION
	G474		19L	COSMO 1C DEPARTURE BATOK TRANSITION
	R468		19L	COSMO 1C DEPARTURE GOMES TRANSITION
	N891		19L	SIMON 1C DEPARTURE RYN TRANSITION
	R201		19L	SIMON 1C DEPARTURE BUT TRANSITION
	A464, M751, W19		19L	SEESA 1C DEPARTURE REGOS TRANSITION
	G458, W31		19L	SEESA 1C DEPARTURE HOTEL TRANSITION
	R468		19L	ANTIC 1C DEPARTURE TANEK TRANSITION
	G463, P646		19L	ANTIC 1C DEPARTURE BETNO TRANSITION
	A1, L507		19L	NESTA 1C DEPARTURE LIMLA TRANSITION
	A464		19L	NESTA 1C DEPARTURE BEKOD TRANSITION
	W9		19L	NESTA 1C DEPARTURE TL TRANSITION
	B346, W21		19L	NESTA 1C DEPARTURE NOBER TRANSITION
	R474		19L	NESTA 1C DEPARTURE ALBOS TRANSITION

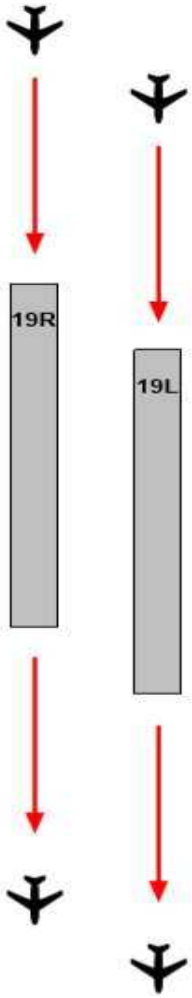
MODEL 5 SEMI - MIXED OPERATION

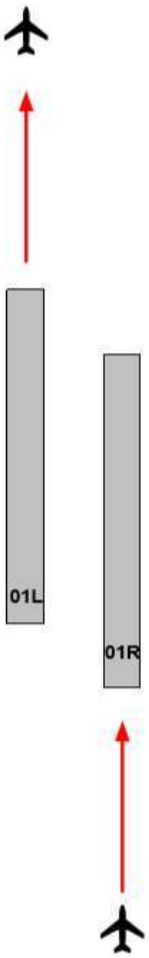
OPERATIONAL CONDITIONS
- DEPARTURE RUNWAY 19R
- ARRIVAL RUNWAY 19L AND 19R

FIGURE	AIRWAYS	DEPARTURE RUNWAY		RNAV SIDs
	W1, A202	19R		COSMO 1 B DEPARTURE KRT TRANSITION
	A1	19R		COSMO 1B DEPARTURE SELKA TRANSITION
	G474	19R		COSMO 1B DEPARTURE BATOK TRANSITION
	R468	19R		COSMO 1B DEPARTURE GOMES TRANSITION
	N891	19R		SIMON 1B DEPARTURE RYN TRANSITION
	R201	19R		SIMON 1B DEPARTURE BUT TRANSITION
	A464, M751, W19	19R		COMET 1B DEPARTURE REGOS TRANSITION
	G458, W31	19R		COMET 1B DEPARTURE HOTEL TRANSITION
	R468	19R		ANTIC 1B DEPARTURE TANEK TRANSITION
	G463, P646	19R		ANTIC 1B DEPARTURE BETNO TRANSITION
	A1, L507	19R		NESTA 1B DEPARTURE LIMLA TRANSITION
	A464	19R		NESTA 1B DEPARTURE BEKOD TRANSITION
	W9	19R		NESTA 1B DEPARTURE TL TRANSITION
	B346, W21	19R		NESTA 1B DEPARTURE NOBER TRANSITION
	R474	19R		NESTA 1B DEPARTURE ALBOS TRANSITION

MODEL 6 MIXED OPERATION

OPERATIONAL CONDITIONS
- DEPARTURE RUNWAY 19L AND 19R
  - OUTBOUND ROUTES W1, A1, A202, G474, R468, N891, R201, A464, M751, W19 DEPARTURE RUNWAY 19L
  - OUTBOUND ROUTES G458, W31, R468, G463, P646, A1, L507, A464, W9, B346, W21, R474 DEPARTURE RUNWAY 19R
- ARRIVAL RUNWAY 19L AND 19R

FIGURE	AIRWAYS	DEPARTURE RUNWAY		RNAV SIDs
	W1, A202		19L	COSMO 1C DEPARTURE KRT TRANSITION
	A1		19L	COSMO 1C DEPARTURE SELKA TRANSITION
	G474		19L	COSMO 1C DEPARTURE BATOK TRANSITION
	R468		19L	COSMO 1C DEPARTURE GOMES TRANSITION
	N891		19L	SIMON 1C DEPARTURE RYN TRANSITION
	R201		19L	SIMON 1C DEPARTURE BUT TRANSITION
	A464, M751, W19		19L	SEESA 1C DEPARTURE REGOS TRANSITION
	G458, W31	19R		COMET 1B DEPARTURE HOTEL TRANSITION
	R468	19R		ANTIC 1B DEPARTURE TANEK TRANSITION
	G463, P646	19R		ANTIC 1B DEPARTURE BETNO TRANSITION
	A1, L507	19R		NESTA 1B DEPARTURE LIMLA TRANSITION
	A464	19R		NESTA 1B DEPARTURE BEKOD TRANSITION
	W9	19R		NESTA 1B DEPARTURE TL TRANSITION
	B346, W21	19R		NESTA 1B DEPARTURE NOBER TRANSITION
	R474	19R		NESTA 1B DEPARTURE ALBOS TRANSITION

MODEL 7 SEGREGATED PARALLEL OPERATION				
OPERATIONAL CONDITIONS • DEPARTURE RUNWAY 01L • ARRIVAL RUNWAY 01R				
FIGURE	AIRWAYS	DEPARTURE RUNWAY		RNAV SIDs
	W1, A202	01L		CHEST 1B DEPARTURE KRT TRANSITION
	A1	01L		CHEST 1B DEPARTURE SELKA TRANSITION
	G474	01L		CHEST 1B DEPARTURE BATOK TRANSITION
	R468	01L		CHEST 1B DEPARTURE GOMES TRANSITION
	N891	01L		CHEST 1B DEPARTURE RYN TRANSITION
	R201	01L		FIRNN 1B DEPARTURE BUT TRANSITION
	A464, M751, W19	01L		FIRNN 1B DEPARTURE REGOS TRANSITION
	G458, W31	01L		FIRNN 1B DEPARTURE HOTEL TRANSITION
	R468	01L		JEANS 1B DEPARTURE TANEK TRANSITION
	G463, P646	01L		JEANS 1B DEPARTURE BETNO TRANSITION
	A1, L507	01L		JEANS 1B DEPARTURE LIMLA TRANSITION
	A464	01L		JEANS 1B DEPARTURE BEKOD TRANSITION
	W9	01L		JEANS 1B DEPARTURE TL TRANSITION
	B346, W21	01L		JORGE 1B DEPARTURE NOBER TRANSITION
	R474	01L		JORGE 1B DEPARTURE ALBOS TRANSITION

9.4 For air traffic management and effective traffic flow, runway 19L and 01L shall be mainly used for departure while runway 19R and 01R shall be used for arrival. The use of runway different from this requirement may be possible as considered necessary under special circumstances, such as adverse weather conditions or operational necessity, in normal situation, only when traffic permits ATC may initiate pilots to depart and land on the appropriate runway.

10. Removal of disabled aircraft.

10.1 When the aircraft is involved in an accident at Suvarnabhumi International Airport, the aircraft operator or the registered owner is responsible for removal of its disabled aircraft. If the accident is likely to cause danger or obstruction to the movement of other aircraft or vehicles, the General Manager of Suvarnabhumi International Airport or his authorized representative may order the aircraft operator or the registered owner to remove its disabled aircraft without delay.

10.2 If the aircraft operator or the registered owner does not comply with such order, the General Manager of Suvarnabhumi International Airport or authorized representative shall empower to remove the aircraft himself. The expense incurred in removing such aircraft shall be recovered from aircraft operator or the registered owner. The General Manager of Suvarnabhumi International Airport or authorized

representative shall not be responsible for any damage occurring to the aircraft during its removal.

11. Hot Spot (HS) Areas.

11.1 HS1 – Due to several intersections around this area which connect to rapid exit taxiways, all aircraft are required to hold, as instructed by ATC, at intermediate holding position marking / lights. As taxiing from taxiway D8 to E for runway 01L is 90 degrees turn, pilot should be aware of unintentionally executing runway incursion through taxiway E12.

11.2 HS2 – Due to several intersections around this area which connect to rapid exit taxiways, all aircraft are required to hold, as instructed by ATC, at intermediate holding position marking / lights. As taxiing from taxiway C7 to B for runway 01R is 90 degrees turn, pilot should be aware of unintentionally executing runway incursion through taxiway B5.

12. Starting and Running of Aircraft Engine Procedures.

12.1 Starting or Running of Aircraft Engine(s)

12.1.1 In normal operations, engine start up at the aircraft parking position is not allowed. Aircraft operators wishing to start or run aircraft engine at the aircraft parking positions, shall ensure that the following conditions are met:

12.1.1.1 The aircraft engine(s) are running at minimum idle power.

12.1.1.2 The aircraft is properly parked with its fuselage longitudinally centred over the lead line and nose gear on top of the parking position painted nose block marking.

12.1.1.3 The aircraft operator shall provide additional ground staff as wing walkers to lookout on both sides of the aircraft; he/she shall keep an eye on specific parts of the aircraft when it is moving and safeguard the rear movement of the aircraft to ensure safe clearance and to prevent collision. He/she shall be in constant communications with the person in charge of the operation.

12.1.1.4 The aircraft operator seeks permission from the Ground Control prior to starting the engine(s).

12.1.1.5 No other aircraft despite ground crew in attendance is on the taxiway centre line or about to push back from an adjacent stand on to the centre line behind the aircraft waiting to start.

12.1.1.6 The pilot-in-command receives an “all-clear” visual and audible signal from the ground engineer or the ground operations headset operator that it is safe to start the engine(s). The pilot-in-command shall bear in mind that even though the start engine permission is received from the Ground Control, the ground engineer or the ground operations headset operator has the final authority that the environment around the aircraft is safe for the engine(s) to be started.

12.1.1.7 The ground crew shall ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or push back of aircraft commences.

12.1.1.8 Minimum power idle engine runs are limited to ten (10) minutes in duration. Otherwise, the operations shall be done at the run up area or aircraft parking position with no operations conducted in the adjacent area, or as stipulated/directed by the Airside Operations Control Center (AOCC) Tel: +66 2 132 4110.

12.1.2 For the purpose of noise and carbon emission reduction on the apron area, any aircraft that is designated to park at the stand served with passenger loading bridges shall utilize the fixed ground power supply (400HZ) and fixed pre-conditioned air supply provided by the airport if serviceable.

12.1.2.1 Fixed ground power supply (400HZ) - Operators are recommended to reduce electric load immediately after parking. If fixed ground power supply is out of service, mobile GPU or APU may be used with consent from AOCC.

12.1.2.2 APU shall not be used more than 10 minutes before off-block time and 5 minutes after parking.

12.1.2.3 If the operator needs to run an APU more than the mentioned time length, they shall seek approval from the AOCC. Any acts of non-compliance by the aircraft operator will result in actions being taken by the airport authority, including the assignment of parking stand to a remote area.

12.1.2.4 Aircraft operators that would like to run an APU for an extended period of time shall notify the ground staff to ensure that they are prepared for the effect of extra ground noise or exhaust fumes.

12.1.2.5 Fixed Pre-Conditioned Air (PCA) supply -Operators are recommended to turn off the cabin air re-circulation system to prevent outside air mixing with PC-Air. If fixed PCA is out of service, mobile ACU may be used with consent from AOCC.

12.1.3 No aircraft engine shall be started or run unless a licensed pilot or certified mechanic is attending the aircraft controls. Wheel blocks equipped with ropes or other suitable means of chocking the wheels of an aircraft to deter movement shall always be placed in front of the main landing wheels before starting the engine(s), unless the aircraft is locked into position by functioning locking brakes.

12.1.4 All aircraft shall be started and run-up in locations, including leased premises, designated for such purposes by the AOCC (Tel. +662 132 4110). Maintenance run of aircraft engines shall not be performed in the passenger ramp, apron, cargo and public parking areas.

12.1.5 During push back operations, all aircraft should be pushed back with its fuselage longitudinally centred over, and parallel to a taxiway centre line before commencing engine start. If the pilot-in-command wishes to start the engine(s) during push-back, he/she shall coordinate

with the ground crew.

12.1.6 Running an aircraft engine is prohibited unless reasonably necessary for maintenance purposes, testing or repairing of such engine. The instruction of mechanics or pilots, or the movement/flight operation of such aircraft shall be done with strict compliance to Suvarnabhumi International Airport Noise Abatement and safety procedures.

12.1.7 Turbo jet and turbo fan cross-bleed engine air-start of multi-engine jet aircraft may be conducted on taxiways, provided that the following conditions are met:

12.1.7.1 The aircraft Auxiliary Power Units (APU) is inoperative.

12.1.7.2 The aircraft operator seeks permission from the Ground Control prior to starting engines.

12.1.7.3 Cross-bleed engine start procedure is conducted while the aircraft is longitudinally centred over and parallel to a taxiway centre line while the engine start is being performed.

12.1.8 Aircraft of departing flights on aircraft parking positions that are subject to delay are prohibited from running the engine(s). Aircraft power supply shall be provided by either: the Passenger Boarding Bridge, APU, or other Ground Power Unit (GPU).

12.1.9 The starting or operating of aircraft engines inside any hangar or within 7.5 M radius of any building or other structures is prohibited.

12.1.10 No aircraft engine exhaust, blast, and/or propeller wash shall be directed in such a manner that may cause injury, damage, or hazard to any person, aircraft, vehicles, equipment, or structure. If it is impossible to taxi the aircraft without compliance with the above, the engine(s) shall be shut off and the aircraft shall be towed.

12.1.11 Aircraft engines shall not be operated during refueling or defueling operations; or, during a fuel spill unless otherwise approved by the Aircraft Rescue and Fire Fighting (ARFF) Officer in Charge.

12.2 Run-Up of Aircraft Engines

12.2.1 High power run of aircraft engines is strictly prohibited at all aircraft parking positions.

12.2.2 All preflight engine run-ups shall be conducted during the hours of 07.00 – 22.00 local time at the run up area located at the north end of Taxiway E between D1 – D2.

12.2.3 Aircraft engines shall not be run in hangars, except in approved engine test areas. Aircraft engines shall be run-up only in designated areas. At no times shall engines be run-up when aircraft is inside any hangar or within 7.5 M radius of any building or other structures, or when persons in observation areas are in the proximity of the propeller slipstream or jet blast.

12.2.4 Aircraft operators shall obtain location approval and instructions from AOCC (Tel. +662 132 4110), before conducting an extended run of any aircraft engine above minimum idle power; high power engine operation, or engine run.

12.2.5 Leak checks, one (1) engine power at idle thrust only per start, may be performed at aircraft parking areas that is limited to ten (10) minutes, provided that the operator provides adequate measures to protect personnel and equipment operating behind the aircraft, and the leak check does not interfere with the use of adjacent gate operations.

12.2.6 Idle engine checks and auxiliary power units are to be operated at the minimum time required to accomplish the necessary maintenance or preflight check.

13. VISUAL DOCKING GUIDANCE SYSTEM

13.1 Introduction

13.1.1 Suvarnabhumi International Airport is equipped with 3 types of Visual Docking Guidance System (VDGS), installed at aircraft parking stands as follow:

13.1.1.1 A1, A2, A3, A4, A5, A6
B1, B2, B3, B4, B5, B6
C1, C2, C3, C4, C5, C6, C7, C8, C9, C10
D1, D2, D3, D4, D5, D6, D7, D8
E1, E2, E3, E4, E5, E6, E7, E8, E9, E10
F1, F2, F3, F4, F5, F6
G1, G2, G3, G4, G5
115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129
201, 202, 203
301, 302, 303, 304, 305, 306, 307, 308
401, 402, 403
501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525
Description of system see VTBS AD 2.20 item 13.2.1

13.1.1.2 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114

Description of system see VTBS AD 2.20 item 13.2.2

13.1.1.3 S101, S102, S103, S104, S105, S106, S107, S108, S109, S110, S111L, S111, S111R, S112L, S112, S112R, S113L, S113, S113R, S114L, S114, S114R, S115L, S115, S115R, S116L, S116, S116R, S117L, S117, S117R, S118L, S118, S118R S119, S120, S121, S122, S123, S124, S125, S126, S127, S128
Description of system see VTBS AD 2.20 item 13.2.3

13.2 Description of system

13.2.1 The Advanced Visual Docking Guidance System (A-VDGS) is provided at aircraft parking stands A1-A6, B1-B6, C1-C10, D1-D8, E1-E10, F1-F6, G1-G5, 115-129, 201-203, 301-308, 401-403 and 501-525.

13.2.1.1 System Overview

The RLG GIS206-2 Laser Guided Docking System is a fully automatic aircraft docking guidance system for various types of modern aircraft.

The system utilizes 2-axis laser scanning technique to track both the lateral and longitudinal positions of the incoming aircraft and guide the aircraft to the programmed stopping position. In addition, the system also has aircraft ID verification feature to identify the incoming aircraft and check it against the one selected by the operator. If the incoming aircraft fails to match the expected aircraft, an 'ID FAIL' indication is immediately issued via display information console to both the pilot and the co-pilot.

Aircraft type, continuous closing distance, and azimuth guidance, etc., are presented on a single console clearly visible to both the pilot and co-pilot, simultaneously. Figure A shows the Aircraft Display console, mounted on the terminal in front of the aircraft stand.

The system is operated only in the automatic mode. If the system fails, the aircraft must then be marshalled into the stand manually.

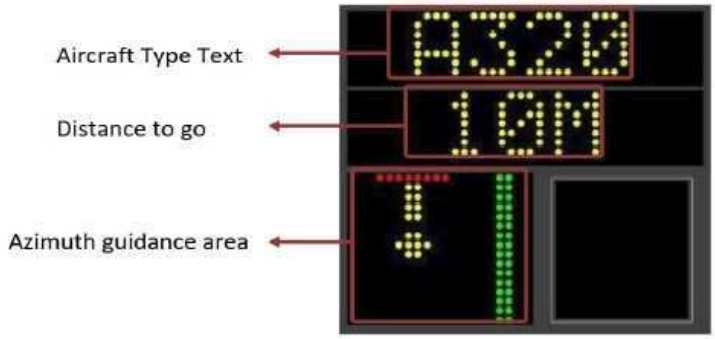


Figure A

13.2.1.1.1 General warning

Pilot must stop the aircraft immediately if he or she sees that:

a) The docking system is not activated.
b) A wrong aircraft type is display.
c) The word STOP is displayed.
d) A wrong type of aircraft indicates 'ID FAIL' is displayed.

13.2.1.1.2 Overshoot Procedure

Passenger loading bridges will be activated in the range as follows:

a) between 0.01-1.50 M are normally serviceable.
b) between 1.51 – 2.00 M, passenger loading bridge (PLB) called "L1" is only serviceable, if the PLB called "L2" is required, the aircraft shall push back to correct stop-position.
c) the distance over 2.00 M, passenger loading bridges are unserviceable, if required the aircraft shall pushed back to correct stop-position.
d) Any overshoot distance is made by A380, push back to correct stop position is needed when passenger loading bridges are required.

Remark: The identification of passenger loading bridge (L1 or L2) is followed by aircraft door positions.

13.2.1.1.3 Emergency Stop Button information

Emergency stop buttons are available at both of contact gates and remote parking stand. When unsafe situation is considered, the emergency stop button shall be pressed by bridge driver, marshaller or the ground engineer of the airline or handling agent. Emergency stop buttons are installed in the locations as follows:

a) At the control panel in the bridge cab
b) At the bridge rotunda
c) At the stand identification posts

13.2.1.2 Docking Procedure

The pilot display of the Advanced Visual Docking Guidance System (A-VDGS) is shown below:

PARKING SEQUENCE:

	In this picture the aircraft is at a distance greater than 30 metres from the parking position and is directly at the centre line. Note that the progress bar and digital close-in distance are not displayed when the aircraft is greater than 30 metres away from the docking position. Airbus 320 aircraft is expected.
	In this picture the aircraft is at exactly 30 metres from the docking position, but is off to the right of the centre line. Starting at 30 metres, the digital close-in distance (second line of display) is displayed, in 1 metre decrements. The progress meter (lower left) will also be activated at this distance.
	The aircraft is at 20 metres from the docking position and has returned to the centre line. Note the position of progress meter. The arrow will advance one position every 2.5 metres.
	In this picture the aircraft is at 10 metres and is on the centre line
	The aircraft is now at 3.2 metres from the stop position and is on the centre line. Note that at below 5 metres, the close-in distance is displayed in 0.2 M decrements.
	Finally the aircraft is perfectly parked at the stop position, and perfectly centred. The word “STOP” is displayed in red. Note also the merging of the arrow and the stop line on the progress meter.

	The word “OK” is displayed in yellow. Docking is successful.

SLOW:

	During the docking process, the pilot must taxi into the aircraft stand at minimum speed. The system will display “SLOW” alternating SLOW message if the system detects the aircraft taxi speed is beyond the range of the preset speed and causing too fast for reliable detection. The “SLOW” message will return to close-in distance information once the aircraft speed is back to normal speed range.

ID FAIL:

 	For this aircraft type ID verification features, the incoming aircraft must be identified and verified at least 12 metres before the stopping position or otherwise, the system will display “ID FAIL” alternating ID/FAIL in the first row of the display. The second row of the docking screen will indicate “STOP”. At this point, the aircraft must be manually guided in by a marshaller.

TOO FAR:

	If the aircraft overshoots the preset range, the word “TooFar” will be displayed. The second row of the docking screen will indicate “STOP”. The aircraft shall stop immediately.

ERROR STOP:

	The system will display “Error” message as indicated if the system detects any hardware error that might affect the normal docking process. The second row of the display will indicate “STOP” and no aircraft is to be allowed to march in until the maintenance personnel has rectified the issue.

EMERGENCY STOP:

	The first and second row of the display will show “STOP”. The docking is aborted and aircraft must be manually guided in by a marshaller.

13.2.2 The Visual Docking Guidance System (VDGS) is provided at aircraft parking stands 101-114.

13.2.2.1 System Overview

13.2.2.1.1 General Warning

The VDGS System has built in error detection program to inform the aircraft pilot of impending dangers during the docking procedure.

Warning: If the pilot is unsure of the information, being shown on the VDGS display unit, he must immediately stop the aircraft and obtain further information for clearance.

13.2.2.1.2 Items to check before entering the stand area

Warning: The pilot shall not enter the stand area unless the docking system first is showing the vertical running arrows. The pilot must not proceed beyond the bridge unless these arrows have been superseded by the closing rate bar.

Warning: The pilot shall not enter the stand area unless the aircraft type displayed is equal to the approaching aircraft. The correctness of other information, such as “Door 2” shall also be checked.

13.2.2.1.3 The SBU Message

The message STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance.

Warning: DO NOT TRY TO RESUME DOCKING WITHOUT MANUAL GUIDANCE.

13.2.2.1.4 Overshoot Procedure

Passenger loading bridges will be activated in the range as follows:

a) between 0.01-1.50 M are normally serviceable.
b) between 1.51 – 2.00 M, passenger loading bridge (PLB) called “L1” is only serviceable, if the PLB called “L2” is required, the aircraft shall push back to correct stop-position.
c) the distance over 2.00 M, passenger loading bridges are unserviceable, if required the aircraft shall pushed back to correct stop-position.
d) Any overshoot distance is made by A380, push back to correct stop position is needed when passenger loading bridges are required.

Remark: The identification of passenger loading bridge (L1 or L2) is followed by aircraft door positions.

13.2.2.1.5 Emergency Stop Button information

Emergency stop buttons are available at both of contact gates and remote parking stand. When unsafe situation is considered, the emergency stop button shall be pressed by bridge driver, marshaller or the ground engineer of the airline or handling agent. Emergency stop buttons are installed in the locations as follows:

a) At the control panel in the bridge cab
b) At the bridge rotunda
c) At the stand identification posts

13.2.2.2 Docking Procedure

START-OF-DOCKING

	Pressing one of the aircraft type buttons on the Operator Panel starts the system. When the button has been pressed, WAIT will be displayed.

CAPTURE

	The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft. The pilot shall check that the correct aircraft type is displayed. The lead-in line shall be followed. The flight number for the approaching aircraft is displayed on the second line of the display if the information is available. The pilot must not proceed beyond the bridge unless the arrows have been superseded by the closing rate bar.

TRACKING

	When the laser has caught the aircraft, the floating arrows are replaced by the yellow centre line indicator. A flashing red arrow indicates the direction to turn. The vertical yellow arrow shows position in relation to the centre line. This indicator gives correct position and azimuth guidance.

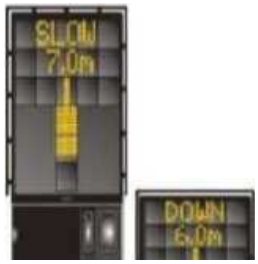
CLOSING RATE

	Display of digital countdown will start when the aircraft is 20 M from stop position. This information is shown instead of the flight number. When the aircraft is less than 12 M from the stop position, the closing rate is indicated by turning off one row of the centre line symbol per 0.5 M of the remaining distance, covered by the aircraft toward the stop position of the stand. The picture illustrates the aircraft 10 M from stop position, slightly left of the centre line. The red arrow indicates the direction to steer.

ALIGNED TO CENTRE

	The aircraft is 8 metres from the stop position. The absence of direction arrow indicates an aircraft on the centre line.

SLOW DOWN

	If the aircraft is approaching faster than the accepted speed, the system will show SLOW DOWN as a warning to the pilot.

AZIMUTH GUIDANCE

	The yellow arrow indicates an aircraft to the right of the centre line and the red flashing arrow indicates the direction to turn. The aircraft is 4 M from the stop position in this example.

STOP POSITION REACHED

	When the correct stop position is reached, the display will show STOP and red lights will be lit.

DOCKING COMPLETED

	When the aircraft has parked, OK will be displayed.

OVERSHOOT

	If the aircraft has overshoot the stop position, TOO FAR will be displayed.

STOP SHORT

	If the aircraft is found standing still but has not reached the intended stop position, the message STOP OK will be shown after a while. Also the red lights are lit.

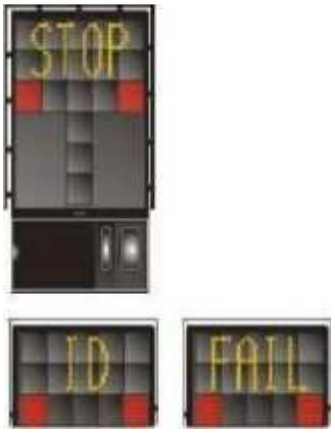
WAIT

	If the detected aircraft is lost during docking, before 12 M to STOP, the display will show WAIT. The docking will continue as soon as the system detects the aircraft again and the closing-rate bar is shown. The pilot must not proceed beyond the bridge unless the “WAIT” message has been superseded by the closing rate bar.

BAD WEATHER CONDITION

 	During heavy fog, rain or snow, the visibility for the docking system can be reduced. When the system is activated and in capture mode, and a downgrade condition is detected, the pilot display will start flashing the Aircraft Type, show a DOWN GRADE message and replace the rolling arrows with a blank lead-in display. The blank lead-in display will be replaced with the normal lead-in bar, once Safedock has been able to acquire a lock onto the aircraft. The DOWN GRADE message and the flashing aircraft type will remain in the display throughout the docking procedure. The pilot must not proceed beyond the bridge unless the closing rate bar is shown.

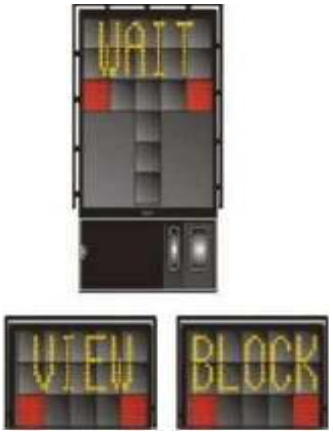
AIRCRAFT VERIFICATION FAILURE

	During entry into the stand, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 12 M before the stop position, the display will first show WAIT and make a second verification check. If this fails STOP and ID FAIL will be displayed. The text will be alternating on the upper two rows of the display. The pilot must not proceed beyond the bridge unless the WAIT message has been superseded by the closing rate bar.

GATE BLOCKED

	If an object is found blocking the view from the VDGS to the planned stop position for the aircraft, the docking procedure will be halted with a wait and GATE BLOCK message. The docking procedure will resume as soon as the blocking object has been removed. The pilot must not proceed beyond the bridge unless the WAIT message has been superseded by the closing rate bar.

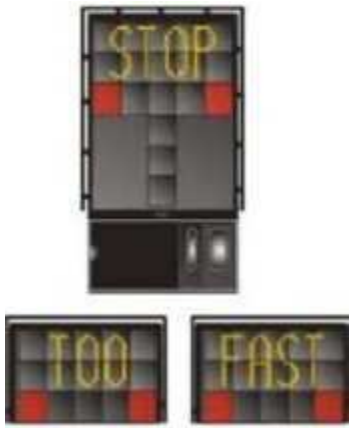
VIEW BLOCKED

	If the view towards the approaching aircraft is hindered for instance by dirt on the window, the VDGS will report a View block condition. Once the system is able to see the aircraft through the dirt, the message will be replaced with a closing rate display. The pilot must not proceed beyond the bridge unless the WAIT message has been superseded by the closing rate bar.

SBU-STOP

	Any unrecoverable error during the docking procedure will generate an SBU (safety backup) condition. The display will show red stop bar and the text STOP SBU. A manual backup procedure must be used for docking guidance.

TOO FAST

	If the aircraft approaches with a speed higher than the docking system can handle, the message STOP (with red squares) and TOO FAST will be displayed. The docking system must be re-started or the docking procedure completed by manual guidance.

EMERGENCY STOP

	When the Emergency Stop button is pressed, STOP is displayed with red squares.

CHOCK ON

	CHOCK ON will be displayed, when the ground staff has put the chocks in front of the nose wheel and pressed the “Chocks On” button on the Operator Panel.

ERROR

	If a system error occurs, the message ERROR is display with an error code. The code is used for maintenance purposes and explained elsewhere.

SYSTEM BREAKDOWN

	In case of a severe system failure, the display will go black except for a red stop indicator. A manual backup procedure must be used for docking guidance.

POWER FAILURE

	In case of a power failure, the display will be completely black. A manual backup procedure must be used for docking guidance.

13.2.3 The Advanced Visual Docking Guidance System (A-VDGS) is provided at aircraft parking stands S101-S128.

13.2.3.1 System Overview

This manual is structured in three main parts. The first chapter contains some introductory information about the APIS and important instructions for how to use this manual. The second chapter instructs how to mechanically install the Operator Panel and how to mount the APIS display unit and necessary supports.

The third chapter instructs you how to configure the AEC industrial computer and LADAR. The appendices in this manual contain all installation information specific to your site.

Please note that the instructions and figures in this manual are general instructions on how to install APIS (except for the information found in the appendices). Minor details in this manual may differ from your site.

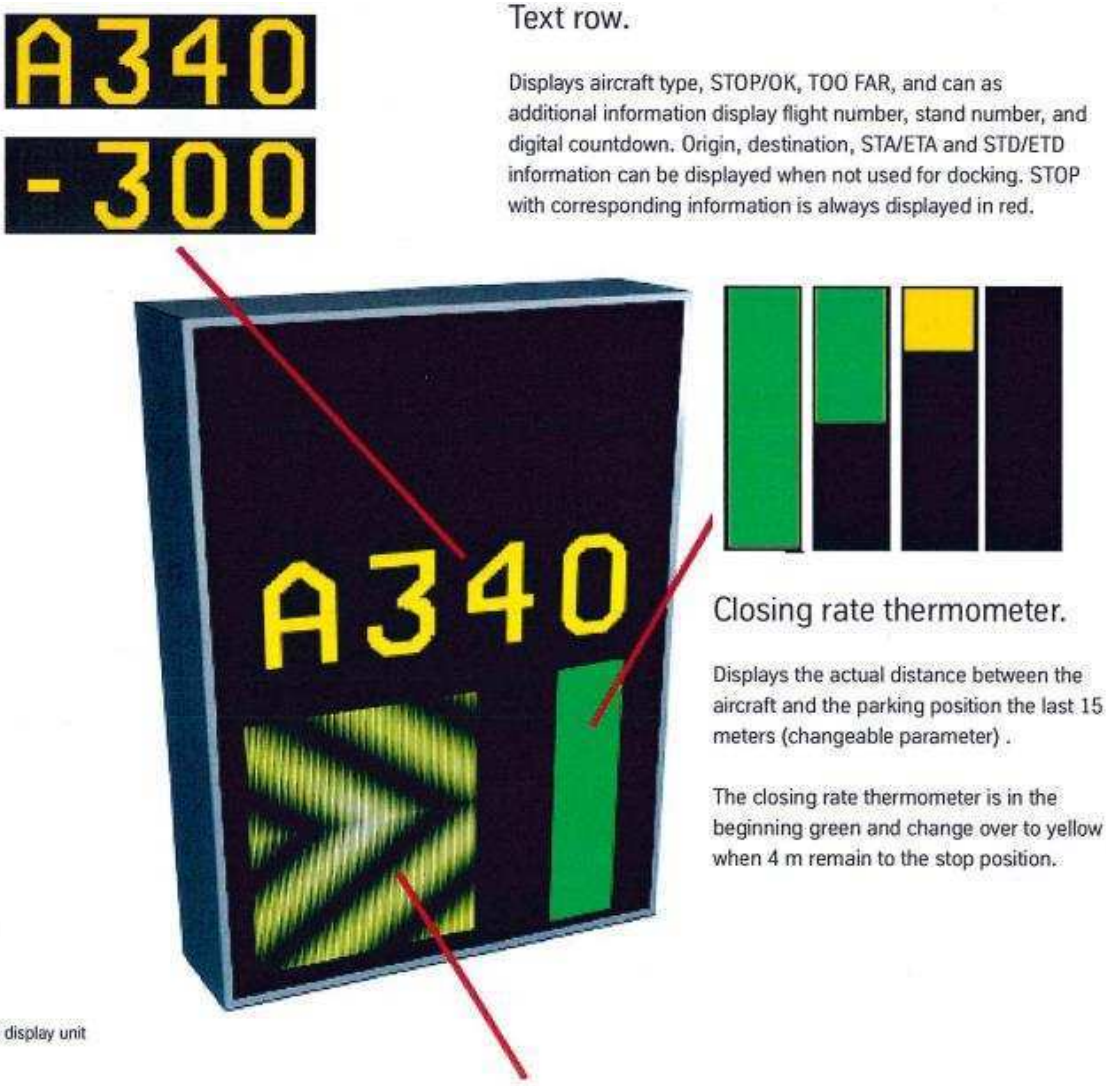


Figure 1: APIS display unit

Text row.

Displays aircraft type, STOP/OK, TOO FAR, and can as additional information display flight number, stand number, and digital countdown. Origin, destination, STA/ETA and STD/ETD information can be displayed when not used for docking. STOP with corresponding information is always displayed in red.

Closing rate thermometer.

Displays the actual distance between the aircraft and the parking position the last 15 meters (changeable parameter) .

The closing rate thermometer is in the beginning green and change over to yellow when 4 m remain to the stop position.

Azimuth guidance.

Displays an arrow when viewed from either side (left or right). The arrow pattern will become a straight line when viewed directly in front of the APIS display unit and First Officer azimuth guidance, respectively.

Safety instructions with essential information on risks associated with certain operations or recommended appropriate preventive measures are incorporated into the text.

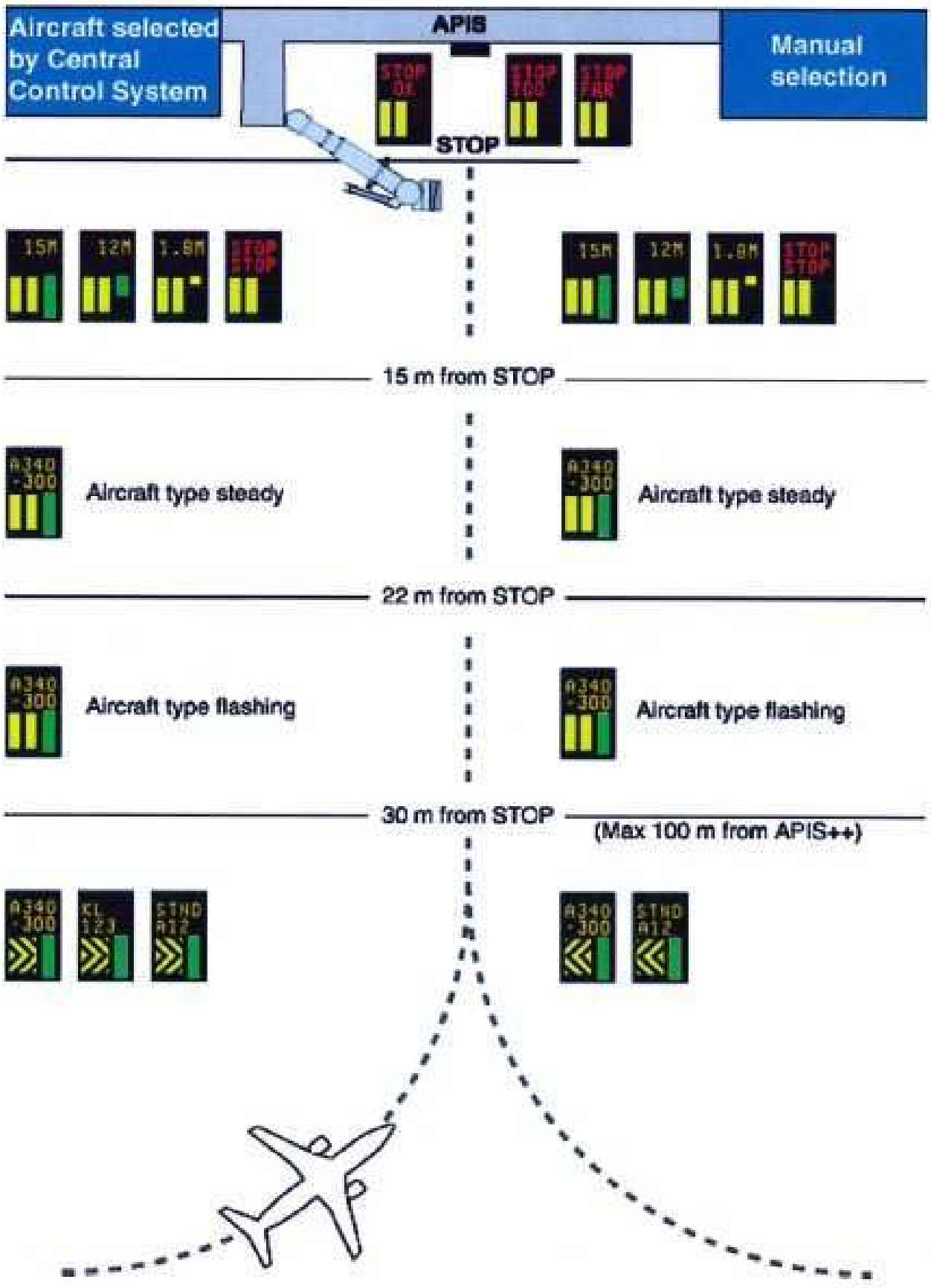
Three levels of safety instructions are used in this manual:

WARNING
Risk for personal injury or physical damage to equipment, structures and surroundings.

IMPORTANT
Important information that if neglected could result in damage to or erroneous function of equipment

NOTE
Correct practice recommendation or emphasized information.

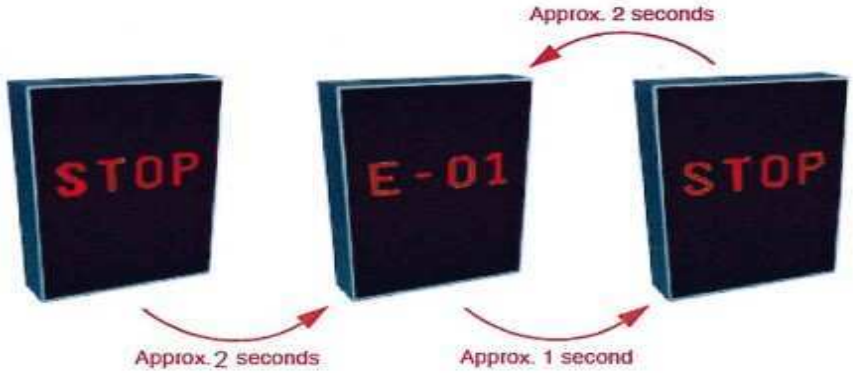
13.2.3.2 Docking Procedures



System detections

The internal computer in the APIS continuously checks for faults and errors. If a fault or error is detected, the text row will display STOP and the error code and the operator panel will display the error message.

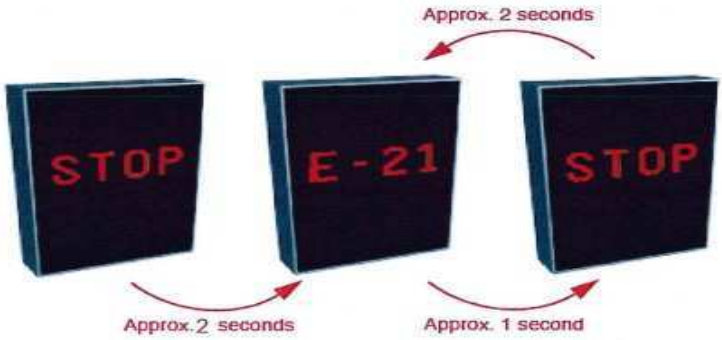
If there is more than one fault, the one with the highest priority will be displayed. The other faults will also be stored in the control computer's error log. If the APIS is configured with dual colour LEDs it will display STOP and all other error messages in RED colour.



Continuous check during docking

During aircraft docking the internal computer is monitoring the LADAR, and if there is any fault or error it will stop the docking and the APIS will display the corresponding error code, see picture below.

The communication with the LED displays is also continuously checked by a watch-dog message and if a display panel does not receive information from the internal computer within a specified time, the text row will automatically display STOP, the closing rate and azimuth guidance will be turned off.



Bridge in stop

Safety interlocks

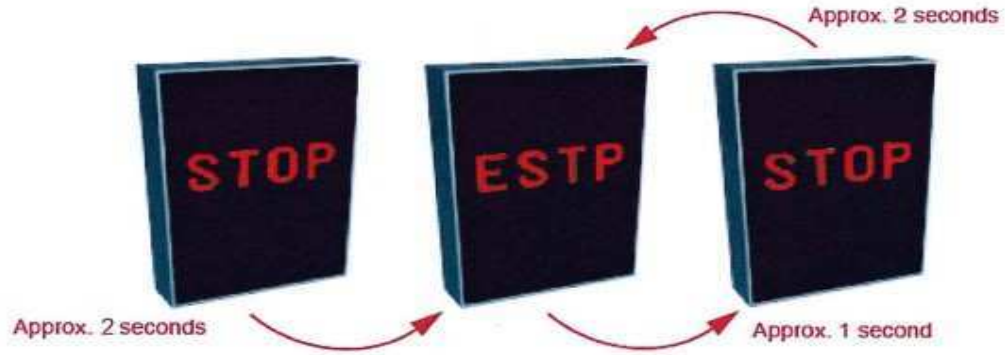
If interfaced to a Passenger Boarding Bridge the APIS does not allow docking unless the bridge is at its parked safe position. If the bridge is not in a safe position the APIS display will show a message indicating which bridge that is out of safe position, STOP BR 1 (BRidge 1). The operator panel will show the same information. There can be up to three separate bridges interlocked to each APIS at the same time.

Emergency stop

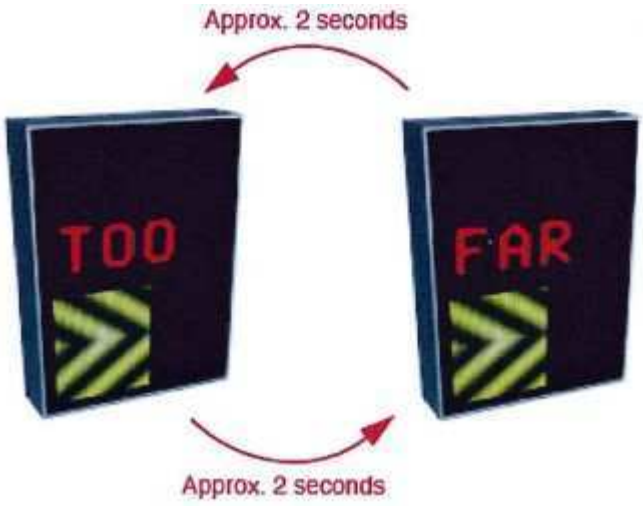
The emergency stop button is used when the approaching aircraft is in danger. When the emergency stop is activated, the text row will display STOP. After a while the text row displays ESTP and STOP until the emergency stop button is released.

During the time the emergency stop is activated all interlocks to other stand equipment are normally released. When the emergency stop button is released the APIS will revert to the status it had before the emergency stop was activated.

If a docking is active the sequence will proceed at the point it is at the moment of release. If the APIS is configured with dual colour LEDs it will display STOP in RED colour.



Too Far



Docking

When the APIS detects that the aircraft has passed the programmable tolerance of the stopping position it will display: TOO FAR

13.3 For the aircraft parking stands where VDGS are not available or unserviceable, Airlines or Ground service providers shall provide a License Mechanic performed as Marshaller to guide the aircraft from taxilane to the parking position (on stand).

13.4 No pilot shall taxi an aircraft on its own into the parking bay without aid of docking system or a Marshaller.

VTBS AD 2.21 NOISE ABATEMENT PROCEDURES

1. NOISE ABATEMENT PROCEDURES AT SUVARNABHUMI INTERNATIONAL AIRPORT DETAIL AS FOLLOW:

1.1 Take-off

All departing aircraft are required to apply noise abatement procedure with thrust reduction at 1 500 FT AGL, And acceleration at 3 000 FT AGL.

1.2 Landing

1.2.1 Flap setting: Set minimum certified landing flaps according to the airplane flight manual for the applicable condition.

1.2.2 Thrust reverser: After landing, limit the use of reverse thrust to idle between 1900 to 2300 UTC, unless it adversely affects the safety of aircraft operation.

1.3 All take-off/landing aircraft are required to adhere noise abatement procedures at Suvarnabhumi International airport strictly.

VTBS AD 2.22 FLIGHT PROCEDURES

1. Provision of Radar Services

1.1 Bangkok Approach is responsible for providing radar service to aircraft operating within Bangkok Terminal Control Area and Bangkok Control Zone (see ENR 2.1-6, ENR 2.1-7).

1.2 Arriving aircraft intending to land at Suvarnabhumi International Airport (VTBS) will be transferred to Suvarnabhumi Arrival on frequency 121.1 MHZ, and to Don Mueang Arrival on frequency 133.0 MHZ for aircraft landing at Don Mueang International Airport (VTBD).

2. Approach Procedures with Radar Control

2.1 All procedures are designed to maximize departure and arrival capacity in Bangkok TMA and to minimize noise disturbance in areas overflown.

2.2 The final approach may be carried out by means of ILS or other available instrument approach system at the discretion of the pilot.

2.3 The spacing provided between aircraft will be designed to achieve maximum runway utilization within the parameters of safe separation minima including vortex effect and runway occupancy. It is important to validity of the separation provide, and to the achievement of optimum runway capacity, that runway occupancy time is kept to a minimum consistent with the prevailing conditions.

2.4 The horizontal radar separation minimum shall be 5 NM except within Bangkok TMA, Bangkok CTR and Suvarnabhumi ATZ a reduced separation of 3 NM may be applied.

2.5 Missed approach

2.5.1 As directed by ATC.

2.5.2 In the absence of instructions from ATC, aircraft shall follow the missed approach procedures which contained on the Instrument Approach Charts. (see VTBS AD 2.24)

3. Standard Instrument Departures/Arrivals (RNAV SIDs/STARs)

Aircraft departing from or arriving at Suvarnabhumi International Airport will normally be assigned the RNAV SIDs /STARs detailed in VTBS AD 2.24.

Note: *Pilots of Non-RNAV equipped aircraft shall inform ATC and request for radar vectors.*

4. Speed Control and Altitude Restrictions Promulgation in Bangkok TMA

In order to facilitate the air traffic flow procedure of departing and arriving aircraft within Bangkok TMA, speed control procedures and altitude restricted must be applied to optimize the spacing between aircraft and reduce the overall delay of traffic.

4.1 Speed control

4.1.1 Speed control shall be in force at all times unless otherwise instructed. Pilots will be individually advised by ATC when speed control is cancelled.

4.1.2 All departing and arriving aircraft are to apply speed of not more than IAS 250 KT when flying at or below altitude of 10000 FT.

4.1.3 Departing aircraft shall comply with speed control restrictions as published in the RNAV SIDs Procedures unless otherwise advised by ATC.

4.1.4 Arriving aircraft shall comply with speed control restrictions as published on the RNAV STARs Charts and Instrument Approach

Procedures unless otherwise advised by ATC.

4.1.5 En route and terminal holding speed shall be in accordance with ICAO standard holding speeds requirement. Pilots shall resume speed control procedures when leaving the holding fix.

4.1.6 ATC may issue further speed adjustment instructions during various flight phases or/and when required by traffic situation.

4.1.7 All speed restrictions are to be flown as accurately as possible. If unable to conform to these procedures, pilots should immediately inform ATC and state the speed to be used so that an alternative action can be taken.

4.2 Altitude restrictions

When a departing aircraft on a SID is cleared to climb to a level higher than the initially cleared level or the level(s) specified in the SID, the aircraft shall nevertheless follow the published vertical profile, unless such restrictions are explicitly cancelled by ATC.

4.2.1 Departing aircraft intending to cruise below the transition level shall follow an appropriate SID track and comply with individual ATC climb instructions.

4.2.2 When an arriving aircraft on a STAR is cleared to descend to a level lower than the level or the level(s) specified in the STAR, the aircraft shall nevertheless follow the published vertical, unless such restrictions are explicitly cancelled by ATC. Published minimum levels based on terrain clearance shall always be strictly applied.

4.2.3 To facilitate safe traffic integration and provide vertical separation between converging traffic in Bangkok TMA, pilots shall plan their descent profile in accordance with the published STAR procedures or their descent profile against distance to touchdown.

4.2.4 All altitude restrictions are to be flown as accurately as possible. If unable to conform to these restrictions, pilots should immediately inform ATC so that an alternative action can be taken.

5. TCAS RA Warning

Avoidance of unnecessary TCAS RA warning, aircraft shall strictly use rate of climb or rate of descent at 1500 FPM or less within 2000 FT to the assigned altitude or flight level, then use rate of climb or rate of descend at 1000 FPM or less within 1000 FT to the assigned altitude or flight level when flight crew is made aware of another aircraft at or approaching an adjacent altitude or flight level, unless otherwise instructed by ATC.

6. Operational for safety and more effective Air Traffic Management in Bangkok TMA.

Suvarnabhumi Departure shall be established to provide Air Traffic Control Service at Suvarnabhumi International airport, the operational procedures shall be as follows:

6.1 All departing aircraft, before transferring to relevant approach sectors (East, West, South and North), are strictly required to contact Suvarnabhumi Departure on frequency 119.25 MHZ immediately after airborne unless otherwise instructed by ATC.

6.2 Pilot shall be reminded that, to reduce communication workload, the departure frequency shall not be included in take off clearance.

6.3 Air Traffic Management for flight operating on ATS route A202, departure aircraft shall flight plan via A1 SELKA DCT RAMEI A202.

7. Reduce communication workload

7.1 To reduce communication workload, additional Arrival Control Frequency 126.30 MHZ shall be established and used during the congested traffic periods. The control of arriving aircraft shall be transferred from Arrival Control frequency 121.1 MHZ to Arrival Control frequency 126.30 MHZ.

8. Delay during severe weather

8.1 All aircraft may be delayed. Departure/arrival interval will be applied as follows:

a) 4 minutes or more between successive departures on the same SID or between aircraft intending to fly in the direction where severe weather is reported
b) 4 minutes or more between successive arrivals on the same STAR/at the same IAWP or between aircraft intending to fly in the direction where severe weather is reported

8.2 When severe weather has an effect on landing/ take-off, domestic flights intending to land at Suvarnabhumi International Airport may be requested to delay at airport of departure.

9. VFR Flights at VTBS

9.1 Special VFR Flight

A pilot wishing to conduct special VFR flight is to call Bangkok Approach on frequency 125.8 MHz for special VFR clearance.

9.2 VFR Entry and Exit Procedures in Bangkok Control Zone

The details of VFR entry and exit procedures are given in ENR 2.2, Item 1. VFR ENTRY AND EXIT PROCEDURES IN BANGKOK CONTROL ZONE.

9.3 Radio Communication Failure for VFR flights

9.3.1 Departing aircraft

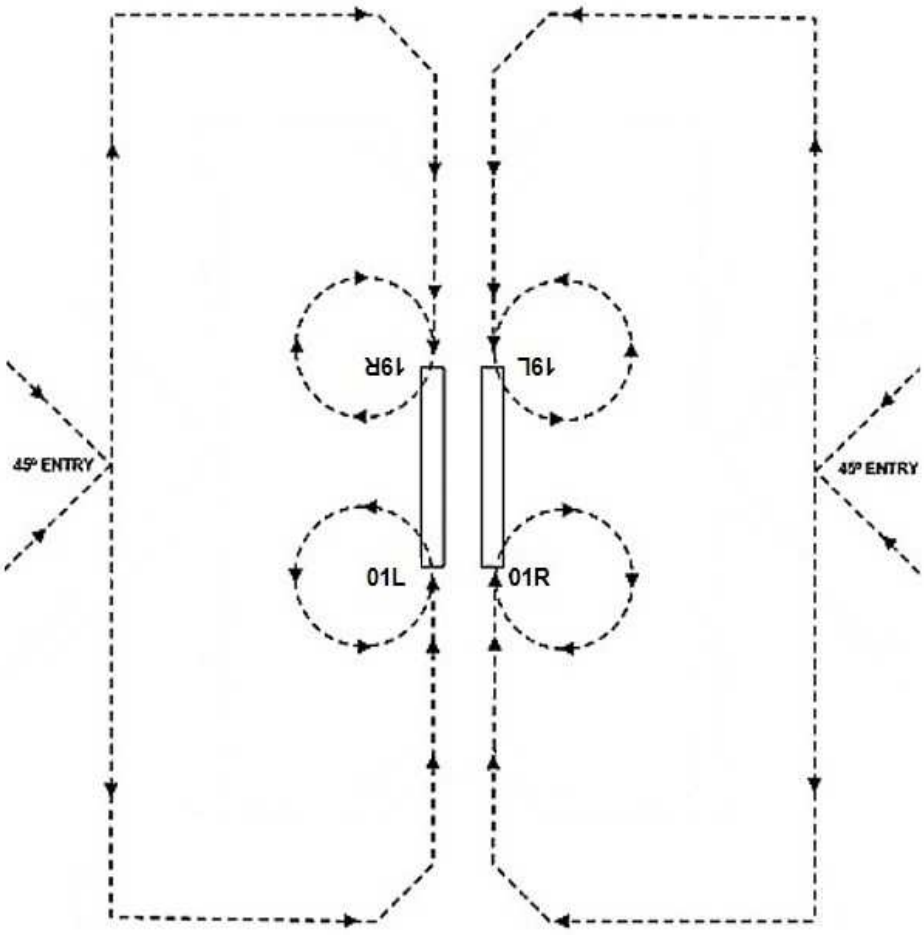
Aircraft will not be permitted to take off unless two-way radio communications can be maintained with the control tower.

9.3.2 Arriving aircraft

a) Report their position, distance, heading and altitude as well as departure point when approaching 50 NM from BKK VOR by blind transmission.
b) Observe the direction of traffic in pattern and enter downwind with the flow of traffic.
c) Conform to the altitude for the type of aircraft as listed in Note below.
d) Make a low approach along the runways at an altitude of 500 FT, and rock the wings of the aircraft.
e) Re-enter downwind leg and observe light signals.

Note: *Traffic Patterns and Altitudes:*
a) Jet aircraft 1500 FT
b) Light aircraft 1000 FT
c) Helicopter 500 FT

Traffic Pattern is shown below:
Illustration of Traffic Pattern



10. ATC Clearance Procedures

10.1 Issuance of en route clearance

10.1.1 When flight formalities have been completed and aircraft is ready for departure (all doors are closed), all aircraft are to call Suvarnabhumi Clearance Delivery Control (CDC) for ATC clearance on the following frequencies:

Frequency	Outbound routes
128.7 MHZ	A464 (Northbound), A464 (Southbound), B346, G458, G463, L301, L507, M502, M751, M757, P646, R474, W9, W19, W21, W31, Y6, Y8
133.8 MHZ	A1, G474, M904, N891, R201, R468, Y11, Y16

Remark: IFR aircraft departing to VTBD, VTBU, VTBK, VTBL, VTPI and VTPH at or below FL160 are to call Bangkok Approach on 125.8 MHz

10.1.2 When requesting ATC Clearance, Pilots are to inform the following information:

a) Call sign
b) Type of aircraft
c) Destination
d) Route
e) Proposed flight level, if different from the filed flight plan and,
f) When applicable, special requirements (e.g. inability to comply with SID climb profile).

10.1.3 To improve tactical management of air traffic, minimize delay, as well as reduce controllers and pilots workload, the following procedure will be applied:

a) Under normal circumstances, altitude 6000 FT shall be initially assigned.
b) First airborne first flight level selection principle.
c) No one ground flight level negotiation and reservations.
d) Cruising level shall be assigned by Bangkok Control after airborne.

10.2 Departure Time Restriction

10.2.1 Departure time restrictions may be imposed for Air Traffic Management when so required.

10.2.2 When ATC clearance includes departure time restrictions, pilots shall:

a) Keep listening watch on relevant Suvarnabhumi Ground Control frequency at all times for additional or revised ATC clearance and in readiness for push back; and
b) Call Ground Control in the appropriate time with the departure time restriction.

10.3 Cancellation of en route clearance

10.3.1 Once an ATC clearance has been received, unless there is a departure time restriction included in ATC clearance or other restriction resulting from Air Traffic Management, the aircraft must be push back within 5 minutes from the time ATC clearance is received otherwise the ATC clearance will be cancelled. Additionally, in order to provide a more flexible ground traffic movement, all domestic departures shall no longer be required to push back within 5 minutes after clearance received.

10.3.2 Pilot who fail to comply with para. 10.2.2 will result in cancellation of ATC clearance.

10.4 After ATC clearance received, pilot shall contact defined ground control frequency according to the parking stand for start-up and push back.

11. Fuel Dumping Procedure and In-flight Management Procedures

11.1 Introduction

An aircraft in emergency or other urgent situations may need to dump fuel so as to reduce to maximum landing mass in order to affect a safe landing.

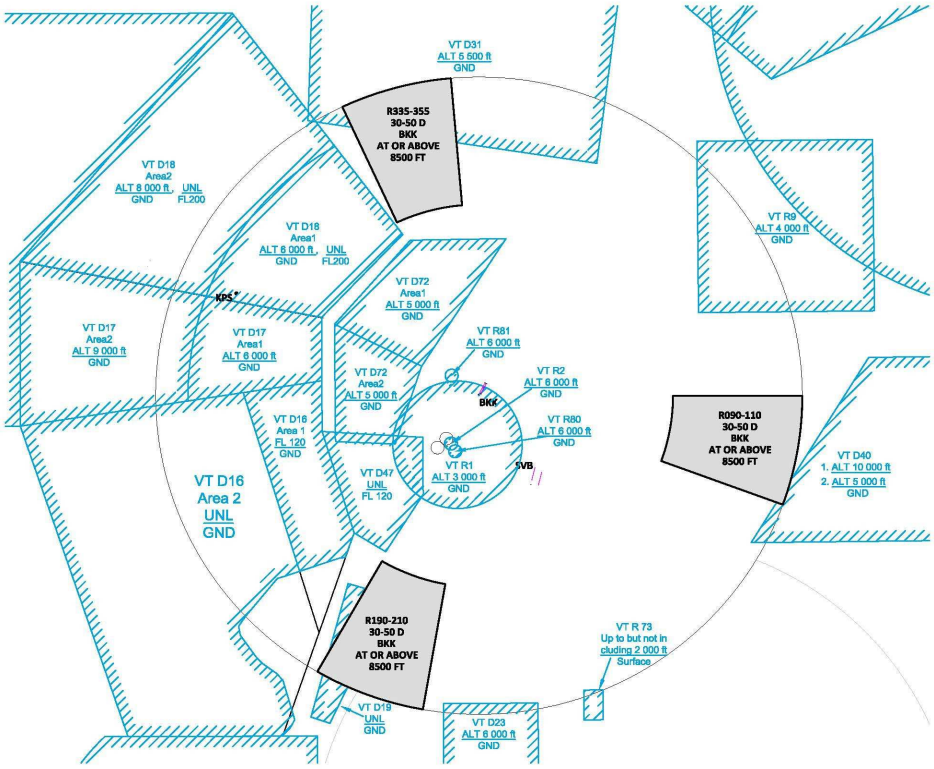
11.2 Fuel dumping areas

11.2.1 North fuel dumping area: between R-335 and R-355, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500 FT.

11.2.2 East fuel dumping area: between R-090 and R-110, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500 FT.

11.2.3 South fuel dumping area: between R-190 and R-210, distance of 30 to 50 NM from BKK VOR, altitude at or above 8500 FT.

Illustration of Fuel dumping areas



11.3 In-flight fuel management procedures

11.3.1 Definition

Minimum fuel: The term used to describe a situation in which an aircraft's fuel supply has reached a state where the flight is committed to land at a specific aerodrome and no additional delay can be accepted.

Mayday fuel: Describes the nature of the distress conditions when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel

11.3.2 Actions taken by pilot

11.3.2.1 The pilot-in-command shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome where a safe landing can be made with the planned final reserve fuel remaining upon landing.

11.3.2.2 The pilot-in-command shall request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome with less than the final reserve fuel plus the fuel required either to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome.

11.3.2.3 The pilot-in-command shall advise ATC of a minimum fuel state by declaring "MINIMUM FUEL" when, having committed to land at a specific aerodrome, the pilot calculates that any changes to the existing clearance to that aerodrome may result in landing with less than planned final reserve fuel.

Note 1: *The declaration of "MINIMUM FUEL" informs ATC that all planned aerodrome options have been reduced to a specific aerodrome of intended landing and any changes to the existing clearance may result in landing with less than planned final reserve fuel. This is not an emergency situation but an indication that an emergency situation is possible should any additional delays occur.*

Note 2: *It should be noted that Pilots should not expect any form of priority handling as a result of a "MINIMUM FUEL" declaration. ATC will, however, advise the flight crew of any additional expected delays as well as coordinate when transferring control of the aircraft to ensure that other ATC units are aware of the flight's fuel state.*

11.3.2.4 The pilot-in-command shall declare a situation of distress related to the amount of fuel available on board the aircraft by broadcasting "MAYDAY, MAYDAY, MAYDAY, FUEL" when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome where a safe landing can be made is less than the planned final reserve fuel.

Note 1: *The planned final reserve fuel refers to the value calculated in Annex 6 - Operation of Aircraft, Chapter4, item 4.3.6.3 e) 1) or 2) and is the minimum amount of fuel required upon landing at any aerodrome.*

Note 2: *The words "MAYDAY FUEL" describe the nature of the distress conditions as required in Annex 10, Volume II, Chapter 5, Item 5.3.2.1, b) 3).*

Note 3: *Guidance on procedures for in-flight fuel management is contained in the Fuel Planning Manual (Doc 9976).*

11.3.3 Actions taken by ATC

11.3.3.1 When a pilot reports a state of “MINIMUM FUEL”, ATC shall respond to the pilot who indicates or suggests that he is becoming short of fuel or who has declared “MINIMIM FUEL” as follows:

11.3.3.1.1 Inform the pilot of either:

a) The estimated delay, if pilots are en-route to, joining or are established in holding point such as IAWPs; or
b) The estimated track mileage, if pilots are being vectored to an instrument approach; or

11.3.3.1.2 Coordinate when transferring control of the aircraft to ensure other ATC units to be aware of the flight’s fuel state.

11.3.3.1.3 Standard phraseology

Pilot transmission: (C/S), MINIMUM FUEL
Controller transmission: (C/S), ROGER [NO DELAY EXPECTED or EXPECT (delay information)]

11.3.3.2 When a pilot reports a state of “MAYDAY, MAYDAY, MAYDAY FUEL”. This is an emergency and the aircraft shall be given priority over other traffic in the landing sequence. The aircraft will be committed to a landing, as in the event of any delay or a go-around, there may be insufficient fuel remaining for a safe landing.

11.3.3.2.1 Standard phraseologies

Pilot Transmission: (C/S) MAYDAY, MAYDAY, MAYDAY FUEL
Controller transmission: (C/S) ROGER MAYDAY

12. Aircraft Transponder Failure Procedures

12.1 Control of aircraft experiencing transponder failure procedure.

12.1.1 When a transponder failure is detected to be unserviceable prior to departure, ATC shall confirm with the pilot of his transponder operations using the following phraseologies.

Phraseologies
“C/S, CONFIRM TRANSPONDER ON”, or
“C/S, CHECK YOUR TRANSPONDER OPERATED NORMALLY”, or
“C/S, TRANSPONDER NOT RECEIVED, CHECK FUNCTIONALITY”

When it has been confirmed that aircraft transponder fails, ATC shall advice the pilot to repair it before departure. However, the surface radar blind spot, where the transponder might not be easily detected, should be taken into consideration.

Phraseologies
“C/S, ADVISE TRANSPONDER REPAIRED BEFORE DEPARTURE”, or
“C/S, ADVISE RETURN TO BAY FOR TRANSPONDER REPAIRING”

12.1.2 When transponder appears to be unserviceable after the aircraft is airborne, ATC must inform the pilot of his transponder failure using the following phraseologies.

Phraseologies
“C/S, CONFIRM TRANSPONDER ON”, or
“C/S, CHECK YOUR TRANSPONDER OPERATED NORMALLY”, or
“C/S, TRANSPONDER NOT RECEIVED, CHECK FUNCTIONALITY”

When it has been confirmed that the aircraft transponder fails, ATC shall advice the pilot to return to his departure airport as well as relay all necessary information to Aerodrome Control Tower and all concerned units.

Phraseologies
“C/S, ADVISE RETURN TO LAND AT (DEPARTURE AERODROME) FOR TRANSPONDER REPAIRING, REQUEST YOUR INTENTION”,
“C/S, ADVISE RETURN TO BAY FOR TRANSPONDER REPAIRING”

In case pilot decide to proceed to first intended landing or nearest suitable aerodrome, primary radar separation shall be provided. However, the pilot shall be reminded that delays can be expected and some requests might not be granted e.g. route to be flown, cruising altitude/level.

12.2 Control of aircraft overflying Bangkok FIR or aircraft intending to land at Suvarnabhumi International Airport with its failed transponder procedure

12.2.1 ATC must immediately inform the pilot of his transponder failure so that he could check its operations and repair it.

12.2.2 ATC shall control, according to the filed flight plan, the aircraft experiencing transponder failure to land safely at Suvarnabhumi International Airport.

12.2.3 ATC shall control, according to the filed flight plan, the over-fly aircraft experiencing transponder failure to land safely at the destination aerodrome.

12.2.4 Approach Control shall coordinate closely with Suvarnabhumi Tower and/or other concerned units regarding the problem.

12.3 The above procedures shall be applied to all aircraft except state aircraft and military aircraft.

12.4 Aircraft intending to land at Suvarnabhumi International Airport with its failed transponder might be assigned to fly along an RNAV STAR and controlled solely by Suvarnabhumi PSR which normally covers up to 80 NM.

13. Radio communication failure procedure

13.1 General

13.1.1 Radio communication is considered to be failed, if during two minutes that the pilot or the ATC unit doesn't answer the repeated calls through all available communication channels.

13.1.2 The transponder is set to be Mode A code 7600 as soon as the pilot has detected communication failure.

13.1.3 The pilot shall use all available facilities to re-establish communication with ATC unit directly or by means of the other aircraft. If necessary, the emergency frequency 121.5 MHz may be used.

13.1.4 In any case of radio communication failure, the pilot shall continue listening on the appropriate radio frequency and transmitting the position reports, actions and flight conditions. The pilot shall comply with one of the following procedures.

13.2 Total radio communication failure for arriving aircraft

13.2.1 If in VMC, continue to fly in VMC and land at the nearest suitable aerodrome.

13.2.2 If in IMC or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with para 13.2.1 above, the pilot shall:

13.2.2.1 If a specific STAR procedure has been designated and acknowledged prior to the occurrence of radio communication failure, comply with the radio communication failure procedures.

Proceed according to the STAR route to the termination point (WALTZ/EKCHO for RWY 19L/R or WOCAL/ENKAA for RWY 01L/R) and descend in accordance with the published all speed and altitude restrictions of the relevant STAR procedure, thence:

a) For RWY 19L/R: After passing WALTZ/EKCHO, the pilot shall fly heading 015 and maintain altitude 6 000 FT for next 10 NM, then turn right/left and descend to 2 000 FT and carry out the appropriate ILS approach procedure.
b) For RWY 01L/R: After passing WOCAL/ENKAA, the pilot shall fly heading 195 and maintain altitude 6 000 FT for next 10 NM, then turn right/left and descend to 2 000 FT and carry out the appropriate ILS approach procedure.

13.2.2.2 If no specific STAR procedure has been designated or acknowledged prior to the occurrence of radio communication failure, endeavor to ascertain the landing direction from any available means in para 13.5 below. The pilot then should proceed in accordance with the STAR procedure appropriate to its ATS route and landing direction and comply with the radio communication failure procedures.

13.2.3 When an arriving aircraft is being radar vectored, if no transmissions are heard on the frequency in use for a period of two minutes, a radio frequency check is to be made. If the radio frequency check indicates a radio communication failure. Pilot should proceed in the most direct manner possible to rejoin the STAR procedure appropriate to its ATS route and landing direction.

13.2.4 Pilots should ensure that they remain at or above the minimum sector altitude. If the aircraft is below the minimum sector altitude, pilots shall immediately climb to the minimum sector altitude.

13.3 Total radio communication failure for missed approach aircraft

13.3.1 The pilot shall set the aircraft transponder to Mode A code 7600 and fly to or proceed direct to (in case of radar vector) the appropriate approach holding point at 3 000 FT and hold.

13.3.2 The pilot then shall climb and maintain 4 000 FT in the holding pattern and complete one holding then start commencing an appropriate approach procedure and landing direction in accordance with para 13.5 below, or

13.3.3 The pilot shall maintain altitude 4 000 FT and proceed to SVB VOR then transition to IAF and commence an appropriate approach procedure.

13.4 Partial radio communication failure for arriving aircraft

13.4.1 Aircraft unable to receive: pilots shall adopt the total radio communication failure procedures specified in para 13.2 above.

13.4.2 Aircraft able to receive: following verification that aircraft is able to receive ground transmissions by squawk ident, ATC will continue to issue and repeat instructions and/or clearance to the pilot.

13.5 Identification of Runway in use

13.5.1 A pilot endeavors to obtain information on the landing runway from the following sources: ATIS, D-ATIS, ACARS, satellite phone, etc.If unable, the pilot should rely on the best available information such as aerodrome weather forecasts, meteorological reports or any other relevant information obtained prior to the communication failure and should decide on the most appropriate landing direction.

13.5.2 To assist the pilot in ascertaining the landing direction, the ILS and approach lighting for the runway in use will be switched on. If the approach lights for the runway-in-use are sighted but the ILS signal is not received, the pilot shall assume that the ILS is inoperative and shall proceed to land on the runway on which the approach lights have been sighted.

13.6 Total radio communication failure for departing aircraft

13.6.1 The pilot shall set the aircraft transponder to Mode A Code 7600 and comply with the last acknowledged clearance up to the next reporting point on the SID, then climb to the planned cruising level in accordance with the published speed and altitude restrictions of the relevant SID procedure. Thereafter, the pilot shall comply with the flight planned routing.

13.6.2 Whenever a pilot experiences total radio communication failure immediately after departure and it is deemed unsafe for the flight to continue to its destination, the pilot shall adhere to the procedures below:

13.6.2.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

13.6.2.2 The pilot shall comply with the last assigned altitude in accordance with the published speed and altitude restrictions of the relevant SID procedure.

13.6.2.3 The pilot shall climb/descend to maintain 8 500 FT for 2 minutes then proceed direct to BKK VOR and hold. If fuel dumping is necessarily required before making an approach to land, after maintaining altitude at 8 500 FT for 2 minutes, the pilot shall proceed to the nearest suitable fuel dumping area and start dumping fuel. When it is completed, the pilot must fly direct to BKK VOR and hold.

13.6.2.4 The pilot is required to make a left holding pattern over BKK VOR with inbound course 120 and one minute leg to complete one holding then start commencing an appropriate approach procedure and landing direction in accordance with para 13.5 above.

13.7 Partial radio communication failure for departing aircraft

13.7.1 Aircraft unable to receive: pilots shall adopt the total radio failure procedures specified in para 13.6.2 above.

13.7.2 Aircraft able to receive: following verification that aircraft is able to receive ground transmissions by squawk ident, ATC will continue to issue and repeat instructions and/or clearances to the pilot.

13.8 Aircraft overflying Bangkok TMA

13.8.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

13.8.2 If in VMC, the pilot shall continue to fly in VMC and land at the nearest suitable aerodrome.

13.8.3 If in IMC, or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with para 13.8.2 above, the pilot shall maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of ten minutes following the aircraft's failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan.

13.9 Departing or overflying aircraft under radar control

13.9.1 The pilot shall set the aircraft transponder to Mode A Code 7600.

13.9.2 The pilot shall maintain the last assigned heading, speed and level, or minimum flight altitude if higher, for a period of two minutes following:

13.9.2.1 The time the last assigned level or minimum flight altitude is reached; or

13.9.2.2 The time the transponder is set to 7600; or

13.9.2.3 The aircraft's failure to report its position over a compulsory reporting point. Whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan.

13.9.3 After a period of two minutes, the pilot shall proceed in the most direct manner possible to rejoin the SID procedure appropriate to its ATS route or the flight planned route no later than the next significant point, taking into consideration to the applicable minimum flight altitude.

13.10 Alternative methods for communicating with ATC
Pilots may endeavour to communicate with ATC by telephone network.
The telephone numbers are as follows:

– Don Mueang Tower	Tel: +662 515 3282, +662 515 3288, +6681710 7449
– Suvarnabhumi Tower	Tel: +662 131 3610-3, +6686 399 9030
– Bangkok Approach	Tel: +662 131 3621, +662131 2622, +6685 150 2288 and +6685 150 3300

VTBS AD 2.23 ADDITIONAL INFORMATION

1. Bird concentrations

1.1 Bird concentrations in the vicinity of Suvarnabhumi International Airport.

1.1.1 It has been observed that migratory birds in sizeable numbers appear on or in the vicinity of Suvarnabhumi International Airport mostly during the rainy season (May to October) and the winter season (October to February), while the resident birds are present in variable numbers every month. Pilots are requested to report bird strikes to the General Manager of the airport via

Wildlife Hazard Control staff
Phone +662 132 6981, +662 132 6982
E-mail: birdstrikevtbs@airportthai.co.th

Highly endangered kinds are as follows:

Species	Weight (KG)	Period
Open-billed stork	2.3 - 4.4	All year (mostly in June - July)
Painted stork	2 - 3	All year (mostly in June - July)
Cattle Egret	0.3 - 0.4	All year (mostly in July - November)
Oriental Pratincole	0.07 - 0.095	February - November
Black-winged Stilt	0.25 - 0.3	All year (mostly in April - February)
Red Collared Dove	0.08 - 0.1	All year (mostly in June - October)

Remark: Bird concentrations chart is shown in page AD2-VTBS-9-1 Dated 18 July 2019

1.1.2 There could be some activities to reduce birds and make the area unattractive for birds such as mowing the grass and other plants, removing aquatic weeds from drainage canals and using chemical substances to eliminate snails.

1.2 Grass mowing program

1.2.1 Grass mowing in the airside may take place daily during 0100-1000 UTC

1.2.2 The mowing work is carried out in the following areas:

– grass areas outside the boundary of runways strip and the critical area.

– grass areas outside the boundary of taxiways strip. For safety reason, the work will temporary stop when taxiing aircraft approaches.

1.2.3 Presence of workers and machines are under ATC and AOT staff supervision.

1.2.4 All grass mowing activities will attract birds, therefore, pilots are advised to exercise with caution.

VTBS AD 2.24 CHARTS RELATED TO AN AERODROME

Chart name	Page

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AERODROME CHART - ICAO

13 41 09 N
100 44 56 E

ELEV 4 FT

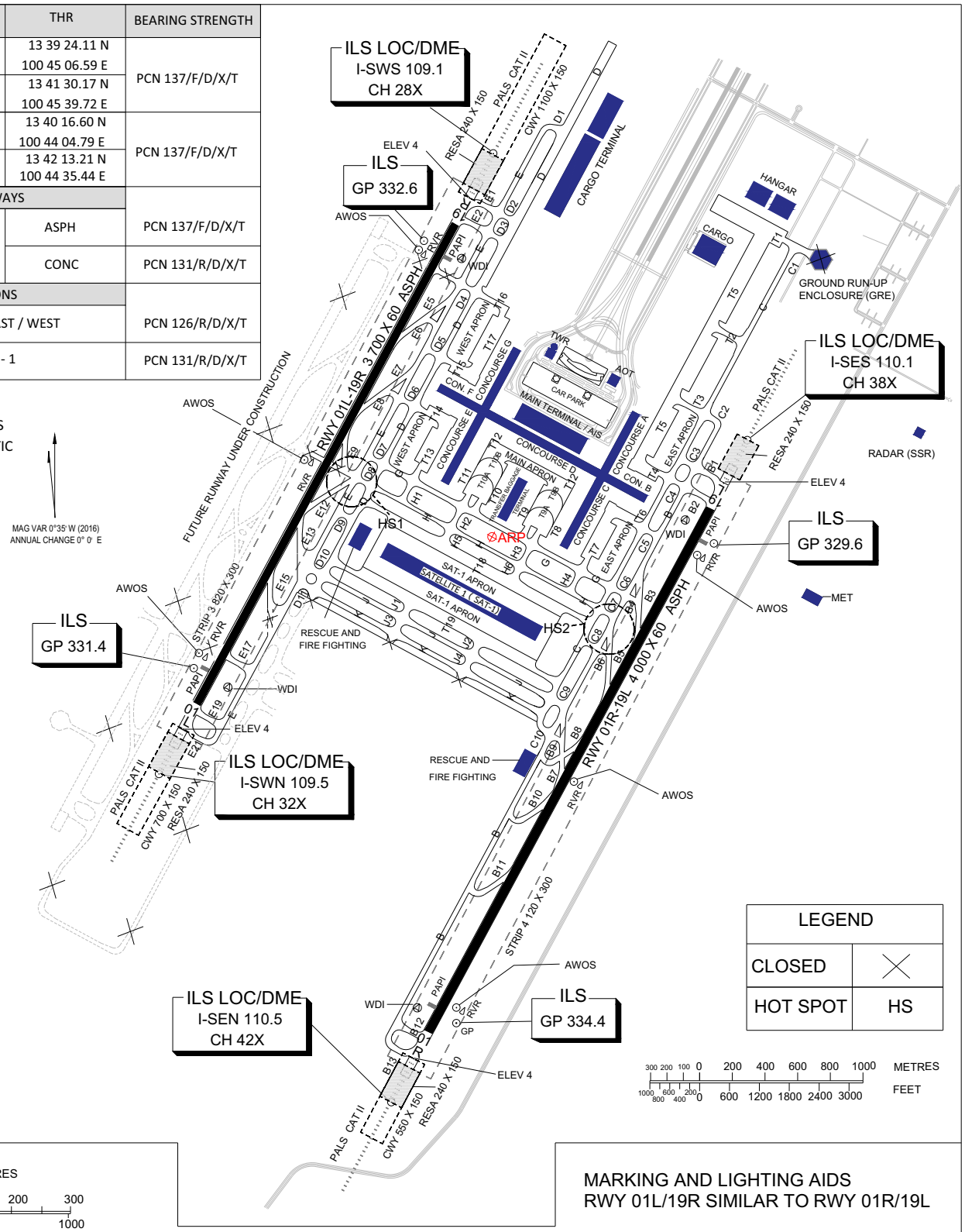
TWR		
118.2	274.5	
119.0		
121.5	243.0	

BANGKOK / Suvarnabhumi Intl

RWY	DIRECTION (TRUE BRG)	THR	BEARING STRENGTH
01R	14	13 39 24.11 N 100 45 06.59 E	PCN 137/F/D/X/T
19L	194	13 41 30.17 N 100 45 39.72 E	
01L	14	13 40 16.60 N 100 44 04.79 E	PCN 137/F/D/X/T
19R	194	13 42 13.21 N 100 44 35.44 E	
TAXIWAYS			
SURFACE TYPE		ASPH	PCN 137/F/D/X/T
		CONC	PCN 131/R/D/X/T
APRONS			
MAIN / EAST / WEST			PCN 126/R/D/X/T
SAT - 1			PCN 131/R/D/X/T

ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

MAG VAR 0°35' W (2016)
ANNUAL CHANGE 0° 0' E

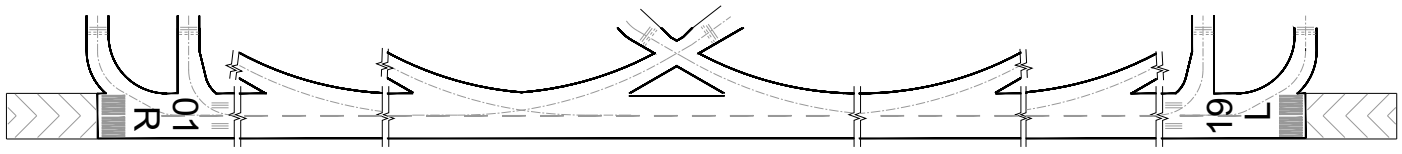


LEGEND	
CLOSED	✕
HOT SPOT	HS

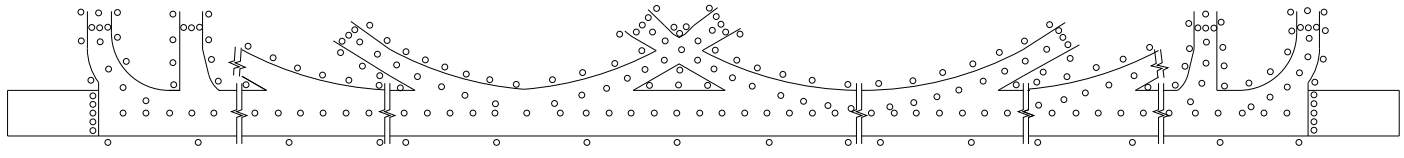
METRES
0 50 100 200 300
0 500 1000
FEET

MARKING AND LIGHTING AIDS
RWY 01L/19R SIMILAR TO RWY 01R/19L

MARKING AIDS RWY 01R/19L AND EXIT TWY



LIGHTING AIDS RWY 01R/19L AND EXIT TWY



CHANGE : REVISED CHART

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AIRCRAFT PARKING / DOCKING CHART-ICAO

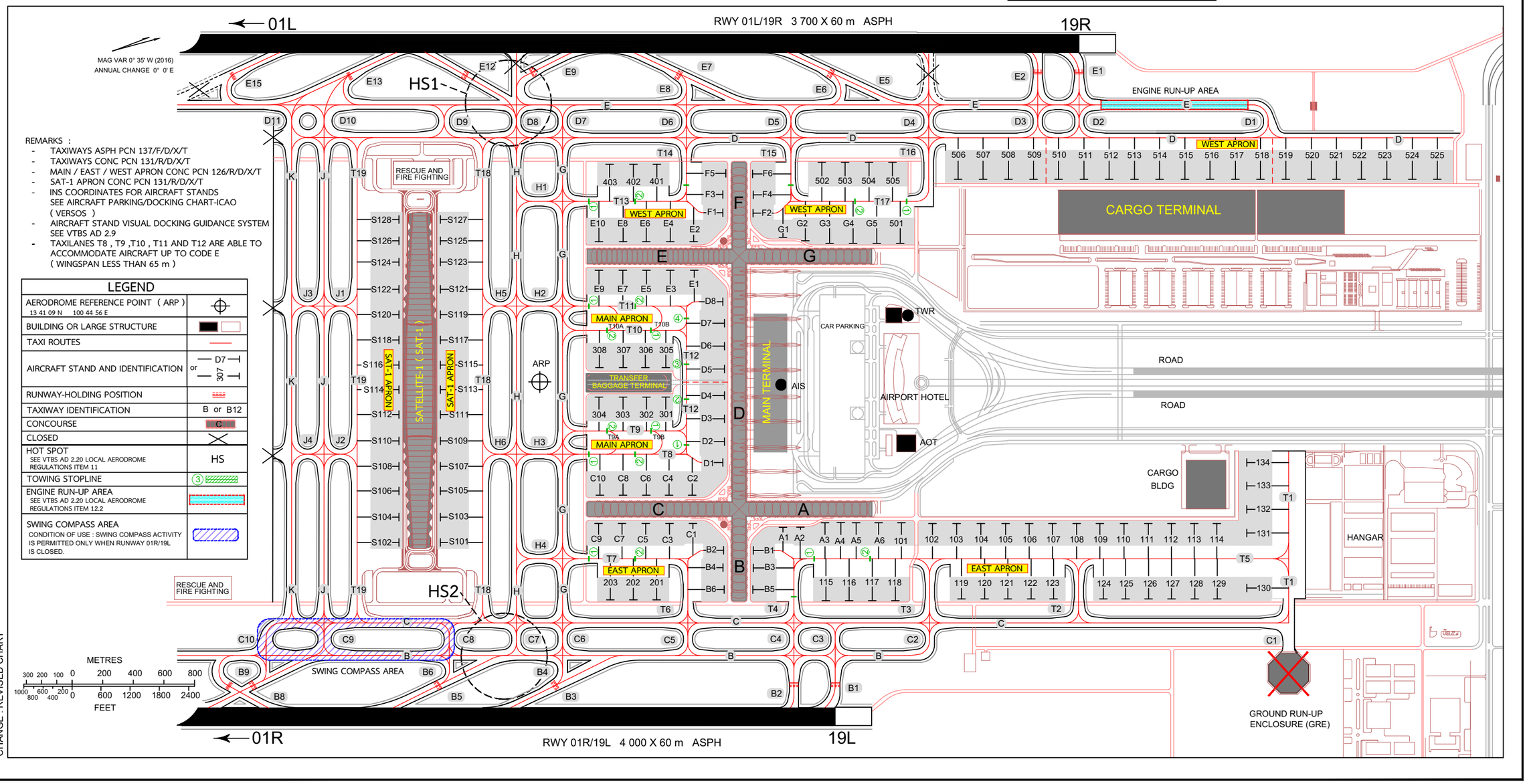
13 41 09 N
100 44 56 E

APRON ELEV 4 FT

TWR FREQ 119.0 (RWY 19R/01L)
TWR FREQ 118.2 (RWY 19L/01R)

GND FREQ 121.95 (WEST APRON)
GND FREQ 121.75 (MAIN APRON ,SAT-1 APRON)
GND FREQ 121.65 (EAST APRON)

BANGKOK / Suvarnabhumi Intl



**AIRCRAFT PARKING/
DOCKING CHART - ICAO**

BANGKOK/Suvarnabhumi International

INS COORDINATES FOR AIRCRAFT STANDS

LOCATION	STAND NR	COORDINATES	
EAST APRON	A1	13 41 30.11N	100 45 17.81E
	A2	13 41 31.95N	100 45 18.44E
	A3	13 41 34.19N	100 45 18.72E
	A4	13 41 35.91N	100 45 19.54E
	A5	13 41 37.77N	100 45 19.77E
	A6	13 41 40.11N	100 45 20.27E
	B1	13 41 26.73N	100 45 19.83E
	B3	13 41 26.38N	100 45 21.79E
	B5	13 41 25.74N	100 45 23.97E
	101L	13 41 41.76N	100 45 21.25E
	101	13 41 42.44N	100 45 20.82E
	101R	13 41 42.92N	100 45 21.56E
	102L	13 41 44.78N	100 45 21.73E
	102	13 41 45.40N	100 45 21.89E
	102R	13 41 46.01N	100 45 22.05E
	103L	13 41 47.24N	100 45 22.37E
	103	13 41 47.86N	100 45 22.54E
	103R	13 41 48.47N	100 45 22.70E
	104L	13 41 49.70N	100 45 23.02E
	104	13 41 50.31N	100 45 23.18E
	104R	13 41 50.93N	100 45 23.34E
	105L	13 41 52.16N	100 45 23.67E
	105	13 41 52.77N	100 45 23.83E
	105R	13 41 53.39N	100 45 23.99E
	106L	13 41 54.62N	100 45 24.31E
	106	13 41 55.23N	100 45 24.48E
	106R	13 41 55.85N	100 45 24.64E
	107L	13 41 57.07N	100 45 24.96E
	107	13 41 57.69N	100 45 25.12E
	107R	13 41 58.30N	100 45 25.28E
	108L	13 41 59.53N	100 45 25.61E
	108	13 42 00.15N	100 45 25.77E
	108R	13 42 00.76N	100 45 25.93E
	109L	13 42 01.99N	100 45 26.25E
	109	13 42 02.61N	100 45 26.41E

LOCATION	STAND NR	COORDINATES	
EAST APRON	109R	13 42 03.22N	100 45 26.58E
	110L	13 42 04.45N	100 45 26.90E
	110	13 42 05.06N	100 45 27.06E
	110R	13 42 05.68N	100 45 27.22E
	111L	13 42 06.91N	100 45 27.55E
	111	13 42 07.52N	100 45 27.71E
	111R	13 42 08.14N	100 45 27.87E
	112L	13 42 09.36N	100 45 28.19E
	112	13 42 09.98N	100 45 28.35E
	112R	13 42 10.59N	100 45 28.51E
	113L	13 42 11.82N	100 45 28.84E
	113	13 42 12.44N	100 45 29.00E
	113R	13 42 13.05N	100 45 29.16E
	114L	13 42 14.28N	100 45 29.48E
	114	13 42 14.90N	100 45 29.65E
	114R	13 42 15.51N	100 45 29.81E
	115L	13 41 32.69N	100 45 26.76E
	115	13 41 32.06N	100 45 26.65E
	115R	13 41 31.46N	100 45 26.44E
	116L	13 41 35.15N	100 45 27.41E
	116	13 41 34.52N	100 45 27.30E
	116R	13 41 33.92N	100 45 27.09E
	117L	13 41 37.60N	100 45 28.05E
	117	13 41 36.98N	100 45 27.94E
	117R	13 41 36.37N	100 45 27.73E
	118L	13 41 40.06N	100 45 28.70E
	118	13 41 39.43N	100 45 28.59E
	118R	13 41 38.83N	100 45 28.38E
	119L	13 41 46.52N	100 45 30.46E
	119	13 41 45.91N	100 45 30.30E
	119R	13 41 45.29N	100 45 30.13E
	120L	13 41 48.98N	100 45 31.10E
	120	13 41 48.36N	100 45 30.94E
	120R	13 41 47.75N	100 45 30.78E
	121L	13 41 51.44N	100 45 31.75E

LOCATION	STAND NR	COORDINATES	
EAST APRON	121	13 41 50.82N	100 45 31.59E
	121R	13 41 50.21N	100 45 31.43E
	122L	13 41 53.90N	100 45 32.40E
	122	13 41 53.28N	100 45 32.24E
	122R	13 41 52.67N	100 45 32.07E
	123L	13 41 56.35N	100 45 33.04E
	123	13 41 55.74N	100 45 32.88E
	123R	13 41 55.12N	100 45 32.72E
	124	13 42 01.03N	100 45 34.27E
	125L	13 42 03.73N	100 45 34.98E
	125	13 42 03.11N	100 45 34.82E
	125R	13 42 02.57N	100 45 34.68E
	126L	13 42 06.19N	100 45 35.63E
	126	13 42 05.57N	100 45 35.47E
	126R	13 42 04.96N	100 45 35.31E
	127L	13 42 08.64N	100 45 36.28E
	127	13 42 08.03N	100 45 36.11E
	127R	13 42 07.41N	100 45 35.95E
	128L	13 42 11.10N	100 45 36.92E
	128	13 42 10.49N	100 45 36.76E
	128R	13 42 09.87N	100 45 36.60E
	129L	13 42 13.56N	100 45 37.57E
	129	13 42 12.95N	100 45 37.41E
	129R	13 42 12.33N	100 45 37.24E
	130	13 42 16.57N	100 45 37.23E
	131	13 42 18.24N	100 45 31.74E
	132	13 42 18.83N	100 45 29.41E
	133	13 42 18.87N	100 45 27.33E
	134	13 42 19.55N	100 45 24.62E
	B2	13 41 22.94N	100 45 18.94E
	B4	13 41 22.65N	100 45 20.91E
	B6	13 41 22.24N	100 45 23.16E
	C1	13 41 20.86N	100 45 15.21E
	C3	13 41 18.45N	100 45 14.58E
	C5	13 41 16.04N	100 45 13.94E

CHANGE : REVISED CHART

**AIRCRAFT PARKING/
DOCKING CHART - ICAO**

BANGKOK/Suvarnabhumi International

INS COORDINATES FOR AIRCRAFT STANDS

LOCATION	STAND NR	COORDINATES	
EAST APRON	C7	13 41 13.62N	100 45 13.31E
	C9	13 41 11.17N	100 45 12.85E
	201L	13 41 15.92N	100 45 22.35E
	201	13 41 15.30N	100 45 22.24E
	201R	13 41 14.69N	100 45 22.03E
	202L	13 41 13.46N	100 45 21.71E
	202	13 41 12.84N	100 45 21.60E
	202R	13 41 12.23N	100 45 21.38E
	203L	13 41 11.01N	100 45 21.06E
	203	13 41 10.38N	100 45 20.95E
	203R	13 41 09.78N	100 45 20.74E
MAIN APRON	C2	13 41 21.71N	100 45 11.83E
	C4	13 41 19.29N	100 45 11.20E
	C6	13 41 16.88N	100 45 10.57E
	C8	13 41 14.47N	100 45 09.93E
	C10	13 41 12.06N	100 45 09.30E
	D1	13 41 25.32N	100 45 09.71E
	D2	13 41 26.16N	100 45 07.54E
	D3	13 41 26.76N	100 45 05.17E
	D4	13 41 27.37N	100 45 02.76E
	D5	13 41 27.83N	100 44 59.52E
	D6	13 41 28.69N	100 44 57.48E
	D7	13 41 29.29N	100 44 55.11E
	D8	13 41 29.58N	100 44 52.80E
	E1	13 41 27.42N	100 44 49.11E
	E3	13 41 25.01N	100 44 48.47E
	E5	13 41 22.59N	100 44 47.84E
	E7	13 41 20.18N	100 44 47.20E
	E9	13 41 17.73N	100 44 46.74E
	301	13 41 21.43N	100 45 01.43E
	302	13 41 19.29N	100 45 00.78E
	303	13 41 16.93N	100 45 00.16E
	304	13 41 14.47N	100 44 59.52E
	305	13 41 22.27N	100 44 58.08E
	306	13 41 20.09N	100 44 57.60E

LOCATION	STAND NR	COORDINATES	
MAIN APRON	307	13 41 17.73N	100 44 56.97E
	308	13 41 15.27N	100 44 56.33E
WEST APRON	E2	13 41 28.27N	100 44 45.73E
	E4	13 41 25.86N	100 44 45.09E
	E6	13 41 23.45N	100 44 44.46E
	E8	13 41 21.03N	100 44 43.83E
	E10	13 41 18.62N	100 44 43.19E
	F1	13 41 32.04N	100 44 43.65E
	F3	13 41 32.37N	100 44 41.65E
	F5	13 41 33.03N	100 44 39.50E
	401	13 41 26.72N	100 44 36.79E
	402	13 41 24.26N	100 44 36.15E
	403	13 41 21.80N	100 44 35.50E
	F2	13 41 35.77N	100 44 44.53E
	F4	13 41 36.26N	100 44 42.57E
	F6	13 41 36.53N	100 44 40.32E
	G1	13 41 37.62N	100 44 48.03E
	G2	13 41 39.74N	100 44 48.49E
	G3	13 41 42.02N	100 44 49.34E
	G4	13 41 44.43N	100 44 49.98E
	G5	13 41 46.95N	100 44 50.19E
	501	13 41 49.24N	100 44 51.31E
	502	13 41 43.48N	100 44 41.20E
	503	13 41 45.94N	100 44 41.85E
	504	13 41 48.40N	100 44 42.49E
	505	13 41 50.86N	100 44 43.14E
	506L	13 41 57.99N	100 44 45.65E
	506	13 41 57.17N	100 44 46.07E
	506R	13 41 56.65N	100 44 45.30E
	507L	13 42 00.67N	100 44 46.36E
	507	13 41 59.85N	100 44 46.78E
	507R	13 41 59.33N	100 44 46.00E
	508L	13 42 03.35N	100 44 47.06E
	508	13 42 02.53N	100 44 47.48E
	508R	13 42 02.01N	100 44 46.71E

LOCATION	STAND NR	COORDINATES	
WEST APRON	509L	13 42 06.03N	100 44 47.76E
	509	13 42 05.21N	100 44 48.18E
	509R	13 42 04.69N	100 44 47.41E
	510L	13 42 08.71N	100 44 48.47E
	510	13 42 07.89N	100 44 48.89E
	510R	13 42 07.37N	100 44 48.12E
	511L	13 42 11.38N	100 44 49.17E
	511	13 42 10.61N	100 44 49.40E
	511R	13 42 10.05N	100 44 48.82E
	512L	13 42 14.06N	100 44 49.88E
	512	13 42 13.29N	100 44 50.10E
	512R	13 42 12.73N	100 44 49.52E
	513L	13 42 16.74N	100 44 50.58E
	513	13 42 15.97N	100 44 50.81E
	513R	13 42 15.40N	100 44 50.23E
	514L	13 42 19.42N	100 44 51.29E
	514	13 42 18.65N	100 44 51.51E
	514R	13 42 18.08N	100 44 50.93E
	515L	13 42 22.10N	100 44 51.99E
	515	13 42 21.33N	100 44 52.22E
	515R	13 42 20.76N	100 44 51.64E
	516L	13 42 24.78N	100 44 52.69E
	516	13 42 24.01N	100 44 52.92E
	516R	13 42 23.44N	100 44 52.34E
	517L	13 42 27.46N	100 44 53.40E
	517	13 42 26.69N	100 44 53.63E
	517R	13 42 26.12N	100 44 53.05E
	518L	13 42 30.14N	100 44 54.10E
	518	13 42 29.37N	100 44 54.33E
	518R	13 42 28.80N	100 44 53.75E
	519L	13 42 32.81N	100 44 54.81E
	519	13 42 32.04N	100 44 55.03E
	519R	13 42 31.48N	100 44 54.45E
	520L	13 42 35.49N	100 44 55.51E
	520	13 42 34.72N	100 44 55.74E

CHANGE : REVISED CHART

**AIRCRAFT PARKING/
DOCKING CHART - ICAO**

BANGKOK/Suvarnabhumi International

INS COORDINATES FOR AIRCRAFT STANDS

LOCATION	STAND NR	COORDINATES	
WEST APRON	520R	13 42 34.15N	100 44 55.16E
	521L	13 42 38.17N	100 44 56.22E
	521	13 42 37.40N	100 44 56.44E
	521R	13 42 36.83N	100 44 55.86E
	522L	13 42 40.85N	100 44 56.92E
	522	13 42 40.08N	100 44 57.15E
	522R	13 42 39.51N	100 44 56.57E
	523	13 42 42.54N	100 44 57.80E
	524	13 42 45.00N	100 44 58.44E
	525	13 42 47.42N	100 44 59.08E
SAT-1 APRON	S101	13 40 54.76N	100 45 09.93E
	S102	13 40 49.88N	100 45 08.51E
	S103	13 40 55.35N	100 45 07.60E
	S104	13 40 50.47N	100 45 06.18E
	S105	13 40 55.94N	100 45 05.26E
	S106	13 40 51.05N	100 45 03.84E
	S107	13 40 56.53N	100 45 02.92E
	S108	13 40 51.64N	100 45 01.50E
	S109	13 40 57.11N	100 45 00.59E
	S110	13 40 52.23N	100 44 59.17E
	S111L	13 40 58.38N	100 44 58.81E
	S111	13 40 57.71N	100 44 58.00E
	S111R	13 40 57.51N	100 44 57.81E
	S112L	13 40 52.27N	100 44 55.73E
	S112	13 40 52.92N	100 44 56.60E
	S112R	13 40 53.13N	100 44 56.83E
	S113L	13 40 59.08N	100 44 56.04E
	S113	13 40 58.42N	100 44 55.18E
	S113R	13 40 58.22N	100 44 54.94E

LOCATION	STAND NR	COORDINATES	
SAT-1 APRON	S114L	13 40 52.97N	100 44 52.91E
	S114	13 40 53.63N	100 44 53.78E
	S114R	13 40 53.83N	100 44 54.01E
	S115L	13 40 59.79N	100 44 53.22E
	S115	13 40 59.13N	100 44 52.36E
	S115R	13 40 58.92N	100 44 52.12E
	S116L	13 40 53.68N	100 44 50.09E
	S116	13 40 54.34N	100 44 50.96E
	S116R	13 40 54.54N	100 44 51.19E
	S117L	13 41 00.49N	100 44 50.40E
	S117	13 40 59.84N	100 44 49.54E
	S117R	13 40 59.63N	100 44 49.30E
	S118L	13 40 54.38N	100 44 47.32E
	S118	13 40 55.05N	100 44 48.14E
	S118R	13 40 55.25N	100 44 48.32E
	S119	13 41 00.53N	100 44 46.97E
	S120	13 40 55.65N	100 44 45.55E
	S121	13 41 01.12N	100 44 44.63E
	S122	13 40 56.24N	100 44 43.21E
	S123	13 41 01.71N	100 44 42.30E
	S124	13 40 56.82N	100 44 40.87E
	S125	13 41 02.29N	100 44 39.96E
	S126	13 40 57.41N	100 44 38.54E
	S127	13 41 02.88N	100 44 37.62E
	S128	13 40 58.00N	100 44 36.20E

Remark :

1. Special general, corporate, private, government and military aviation operations are subject to authorization from AEROTHAI and AOT. Aircraft may be assigned parking positions on Stands 124 – 129 or 521 – 525.
2. Coordinates are provided for forward most nose-wheel stopping position.
3. Aircraft parking stand 131-134 are the maintenance aprons operated by Thai Airways International Plc. under the supervision of AOT and AEROTHAI.

CHANGE : REVISED CHART

AERODROME GROUND
MOVEMENT CHART - ICAO

APRON ELEV 4 FT

TWR FREQ 119.0 (RWY 19R/01L)
TWR FREQ 118.2 (RWY 19L/01R)

GND FREQ 121.95 (WEST APRON)
GND FREQ 121.75 (MAIN APRON , SAT-1 APRON)
GND FREQ 121.65 (EAST APRON)

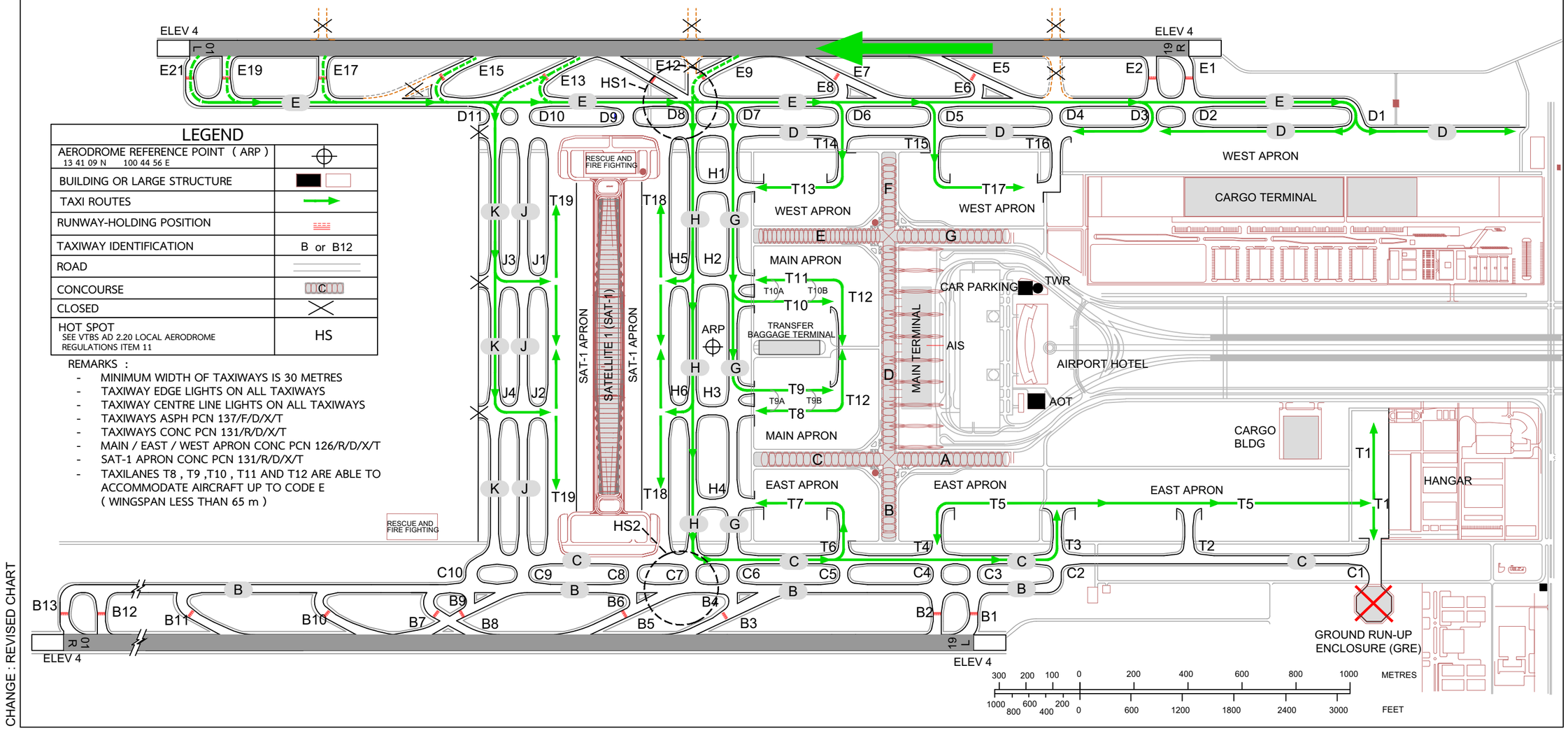
BANGKOK / Suvarnabhumi Intl

STANDARD TAXI ROUTES

ELEVATIONS IN FEET
BEARINGS ARE MAGNETIC

MAG VAR 0° 35' W (2016)
ANNUAL CHANGE 0° 0' E

INBOUND TAXI ROUTES - LANDING RUNWAY 19R



LEGEND	
AERODROME REFERENCE POINT (ARP) 13 41 09 N 100 44 56 E	
BUILDING OR LARGE STRUCTURE	
TAXI ROUTES	
RUNWAY-HOLDING POSITION	
TAXIWAY IDENTIFICATION	B or B12
ROAD	
CONCOURSE	C
CLOSED	
HOT SPOT SEE VTBS AD 2.20 LOCAL AERODROME REGULATIONS ITEM 11	HS

REMARKS :

- MINIMUM WIDTH OF TAXIWAYS IS 30 METRES
- TAXIWAY EDGE LIGHTS ON ALL TAXIWAYS
- TAXIWAY CENTRE LINE LIGHTS ON ALL TAXIWAYS
- TAXIWAYS ASPH PCN 137/F/D/X/T
- TAXIWAYS CONC PCN 131/R/D/X/T
- MAIN / EAST / WEST APRON CONC PCN 126/R/D/X/T
- SAT-1 APRON CONC PCN 131/R/D/X/T
- TAXILANES T8 , T9 ,T10 , T11 AND T12 ARE ABLE TO ACCOMMODATE AIRCRAFT UP TO CODE E (WINGSPAN LESS THAN 65 m)

CHANGE : REVISED CHART

INTENTIONALLY BLANK

AERODROME GROUND
MOVEMENT CHART - ICAO

APRON ELEV 4 FT

TWR FREQ 119.0 (RWY 19R/01L)
TWR FREQ 118.2 (RWY 19L/01R)

GND FREQ 121.95 (WEST APRON)
GND FREQ 121.75 (MAIN APRON , SAT-1 APRON)
GND FREQ 121.65 (EAST APRON)

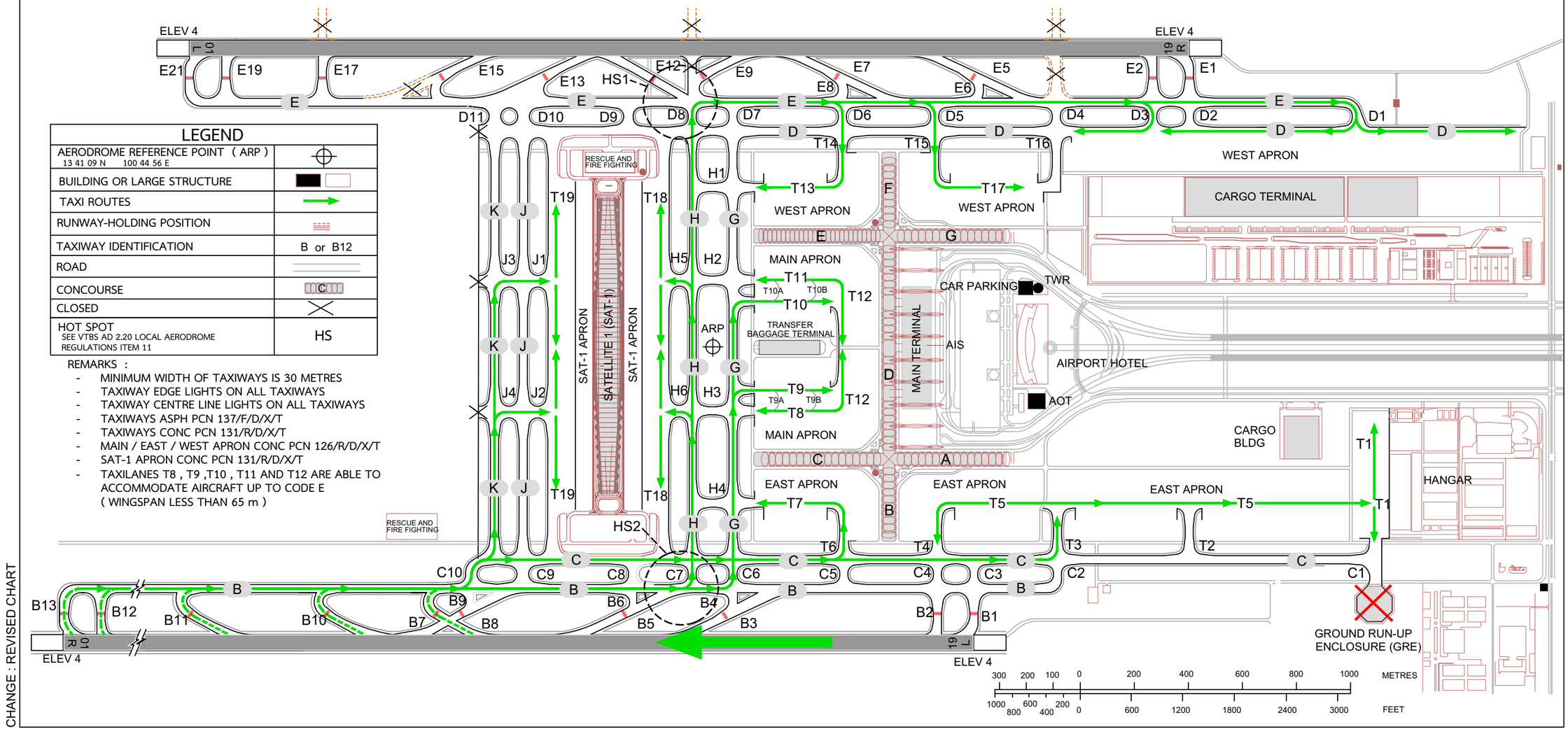
BANGKOK / Suvarnabhumi Intl

STANDARD TAXI ROUTES

INBOUND TAXI ROUTES - LANDING RUNWAY 19L

ELEVATIONS IN FEET
BEARINGS ARE MAGNETIC

MAG VAR 0° 35' W (2016)
ANNUAL CHANGE 0° 0' E



LEGEND	
AERODROME REFERENCE POINT (ARP) 13 41 09 N 100 44 56 E	
BUILDING OR LARGE STRUCTURE	
TAXI ROUTES	
RUNWAY-HOLDING POSITION	
TAXIWAY IDENTIFICATION	B or B12
ROAD	
CONCOURSE	C
CLOSED	
HOT SPOT SEE VTBS AD 2.20 LOCAL AERODROME REGULATIONS ITEM 11	HS

REMARKS :

- MINIMUM WIDTH OF TAXIWAYS IS 30 METRES
- TAXIWAY EDGE LIGHTS ON ALL TAXIWAYS
- TAXIWAY CENTRE LINE LIGHTS ON ALL TAXIWAYS
- TAXIWAYS ASPH PCN 137/F/D/X/T
- TAXIWAYS CONC PCN 131/R/D/X/T
- MAIN / EAST / WEST APRON CONC PCN 126/R/D/X/T
- SAT-1 APRON CONC PCN 131/R/D/X/T
- TAXILANES T8 , T9 ,T10 , T11 AND T12 ARE ABLE TO ACCOMMODATE AIRCRAFT UP TO CODE E (WINGSPAN LESS THAN 65 m)

CHANGE : REVISED CHART

INTENTIONALLY BLANK

AERODROME GROUND
MOVEMENT CHART - ICAO

APRON ELEV 4 FT

TWR FREQ 119.0 (RWY 19R/01L)
TWR FREQ 118.2 (RWY 19L/01R)

GND FREQ 121.95 (WEST APRON)
GND FREQ 121.75 (MAIN APRON , SAT-1 APRON)
GND FREQ 121.65 (EAST APRON)

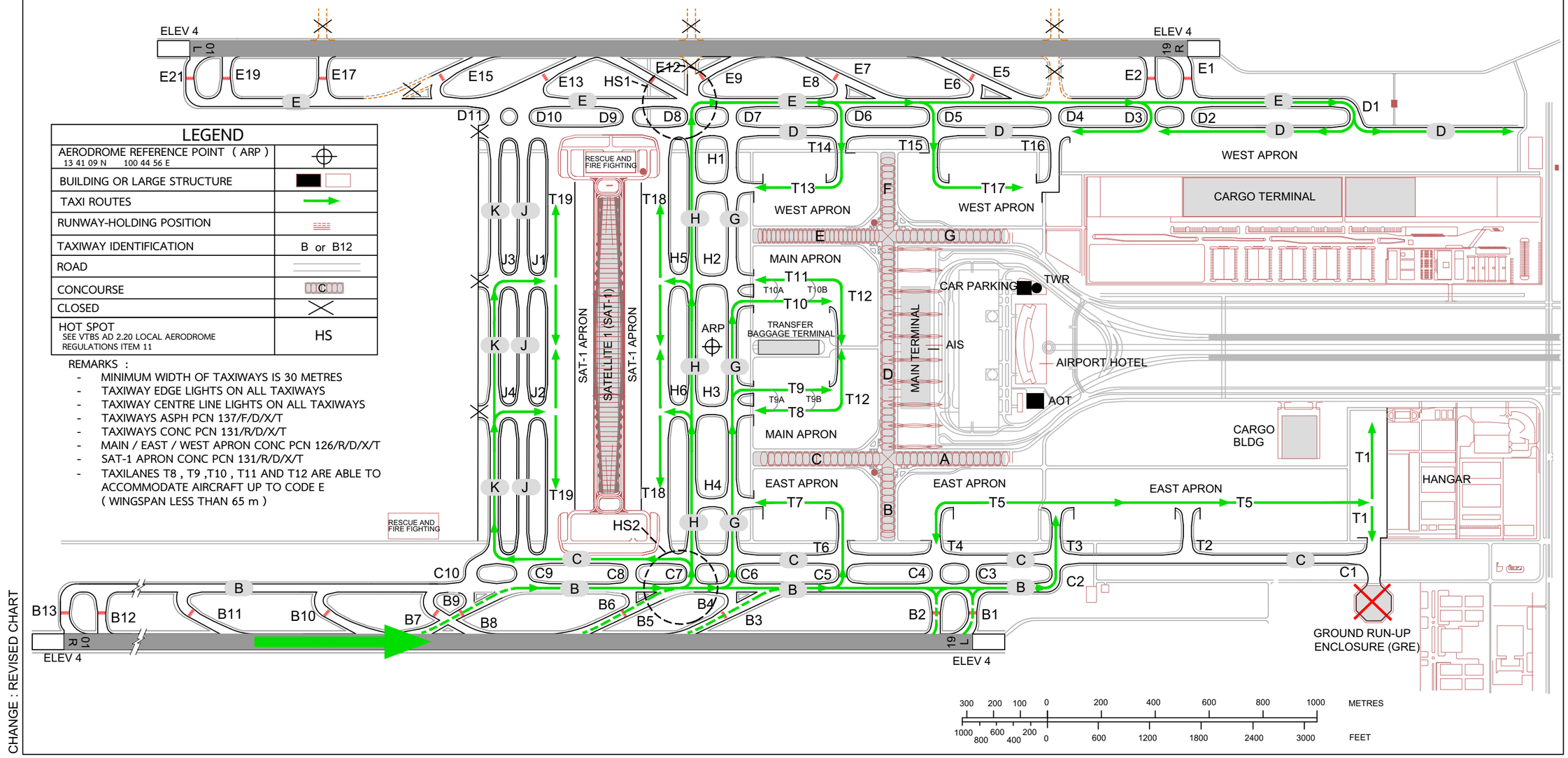
BANGKOK / Suvarnabhumi Intl

STANDARD TAXI ROUTES

INBOUND TAXI ROUTES - LANDING RUNWAY 01R

ELEVATIONS IN FEET
BEARINGS ARE MAGNETIC

MAG VAR 0° 35' W (2016)
ANNUAL CHANGE 0° 0' E



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INTENTIONALLY BLANK

AERODROME GROUND
MOVEMENT CHART - ICAO

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BANGKOK / Suvarnabhumi Intl

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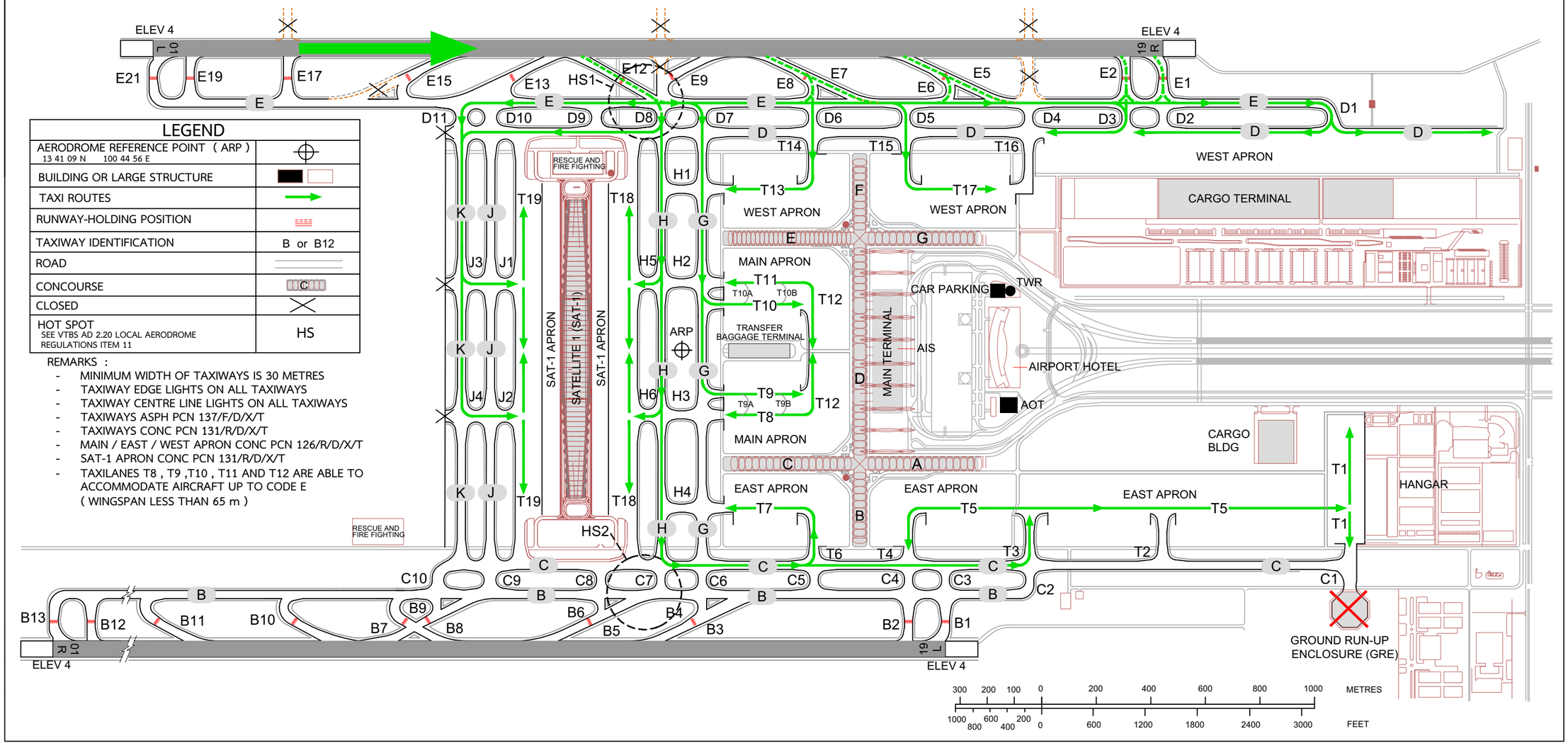
ELEVATIONS IN FEET
BEARINGS ARE MAGNETIC

MAG VAR 0° 35' W (2016)
ANNUAL CHANGE 0° 0' E

INBOUND TAXI ROUTES - LANDING RUNWAY 01L



LEGEND	
AERODROME REFERENCE POINT (ARP) 13 41 09 N 100 44 56 E	
BUILDING OR LARGE STRUCTURE	
TAXI ROUTES	
RUNWAY-HOLDING POSITION	
TAXIWAY IDENTIFICATION	B or B12
ROAD	
CONCOURSE	C
CLOSED	
HOT SPOT SEE VTBS AD 2.20 LOCAL AERODROME REGULATIONS ITEM 11	HS

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AERODROME GROUND
MOVEMENT CHART - ICAO

APRON ELEV 4 FT

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TWR FREQ 118.2 (RWY 19L/01R)

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GND FREQ 121.75 (MAIN APRON , SAT-1 APRON)
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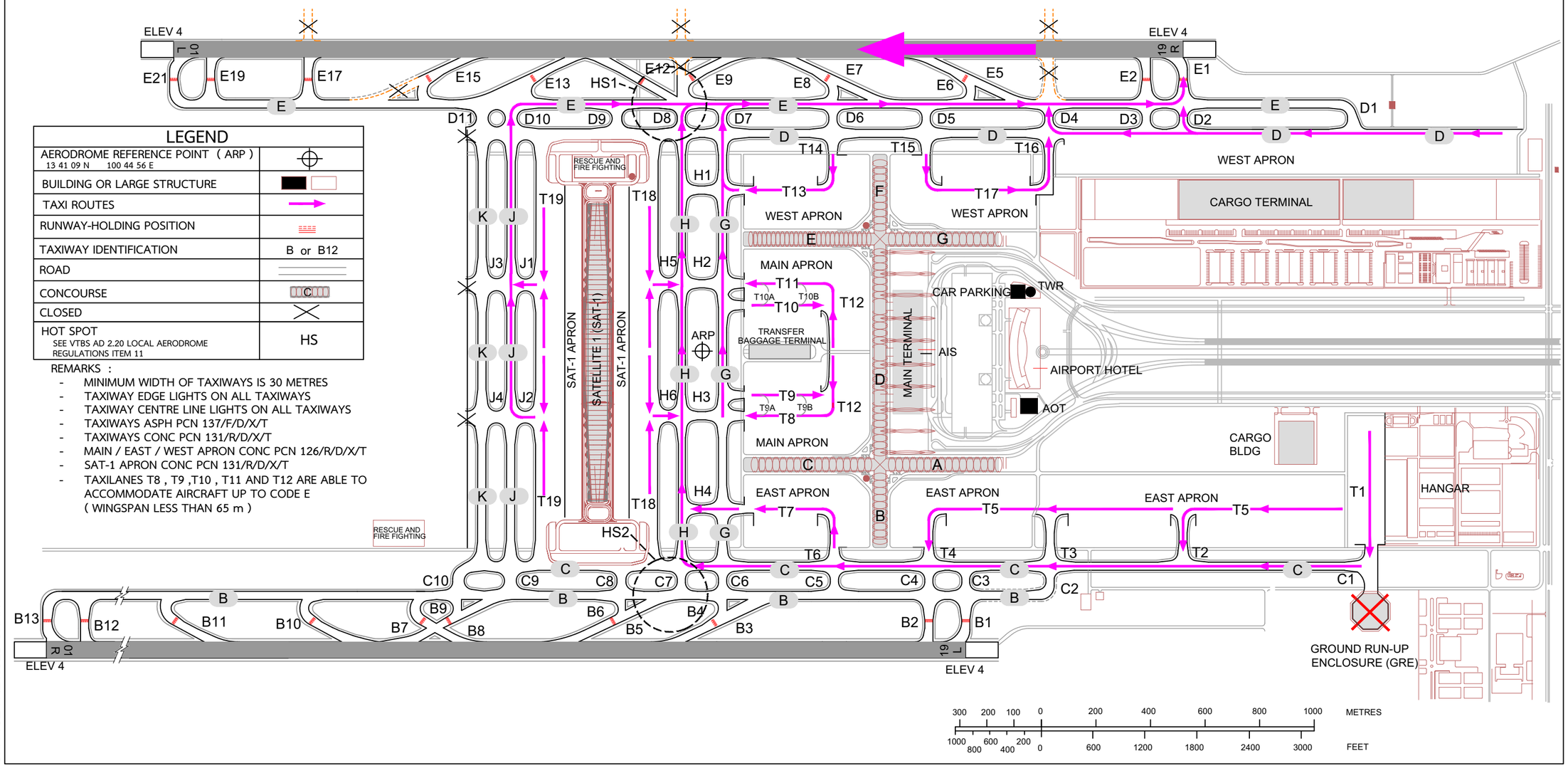
BANGKOK / Suvarnabhumi Intl

STANDARD TAXI ROUTES

OUTBOUND TAXI ROUTES - TAKE - OFF RUNWAY 19R

ELEVATIONS IN FEET
BEARINGS ARE MAGNETIC

MAG VAR 0° 35' W (2016)
ANNUAL CHANGE 0° 0' E



LEGEND	
AERODROME REFERENCE POINT (ARP) 13 41 09 N 100 44 56 E	⊕
BUILDING OR LARGE STRUCTURE	■ □
TAXI ROUTES	→
RUNWAY-HOLDING POSITION	≡≡≡
TAXIWAY IDENTIFICATION	B or B12
ROAD	———
CONCOURSE	C
CLOSED	✕
HOT SPOT SEE VTBS AD 2.20 LOCAL AERODROME REGULATIONS ITEM 11	HS

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AERODROME GROUND
MOVEMENT CHART - ICAO

APRON ELEV 4 FT

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BANGKOK / Suvarnabhumi Intl

STANDARD TAXI ROUTES

OUTBOUND TAXI ROUTES - TAKE - OFF RUNWAY 19L

ELEVATIONS IN FEET
BEARINGS ARE MAGNETIC

MAG VAR 0° 35' W (2016)
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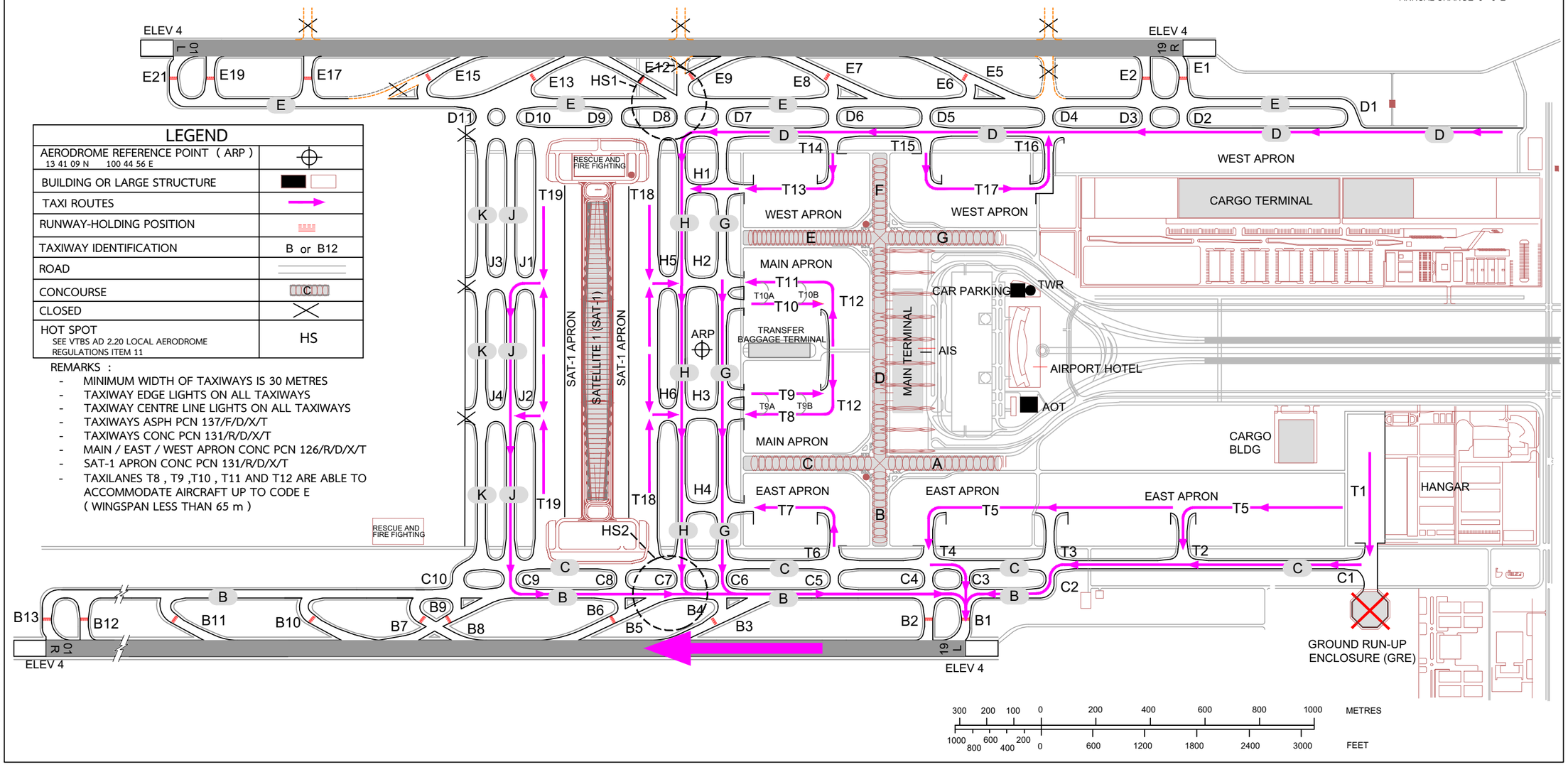

LEGEND	
AERODROME REFERENCE POINT (ARP) 13 41 09 N 100 44 56 E	
BUILDING OR LARGE STRUCTURE	
TAXI ROUTES	
RUNWAY-HOLDING POSITION	
TAXIWAY IDENTIFICATION	B or B12
ROAD	
CONCOURSE	C
CLOSED	
HOT SPOT SEE VTBS AD 2.20 LOCAL AERODROME REGULATIONS ITEM 11	HS

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AERODROME GROUND
MOVEMENT CHART - ICAO

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BANGKOK / Suvarnabhumi Intl

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ELEVATIONS IN FEET
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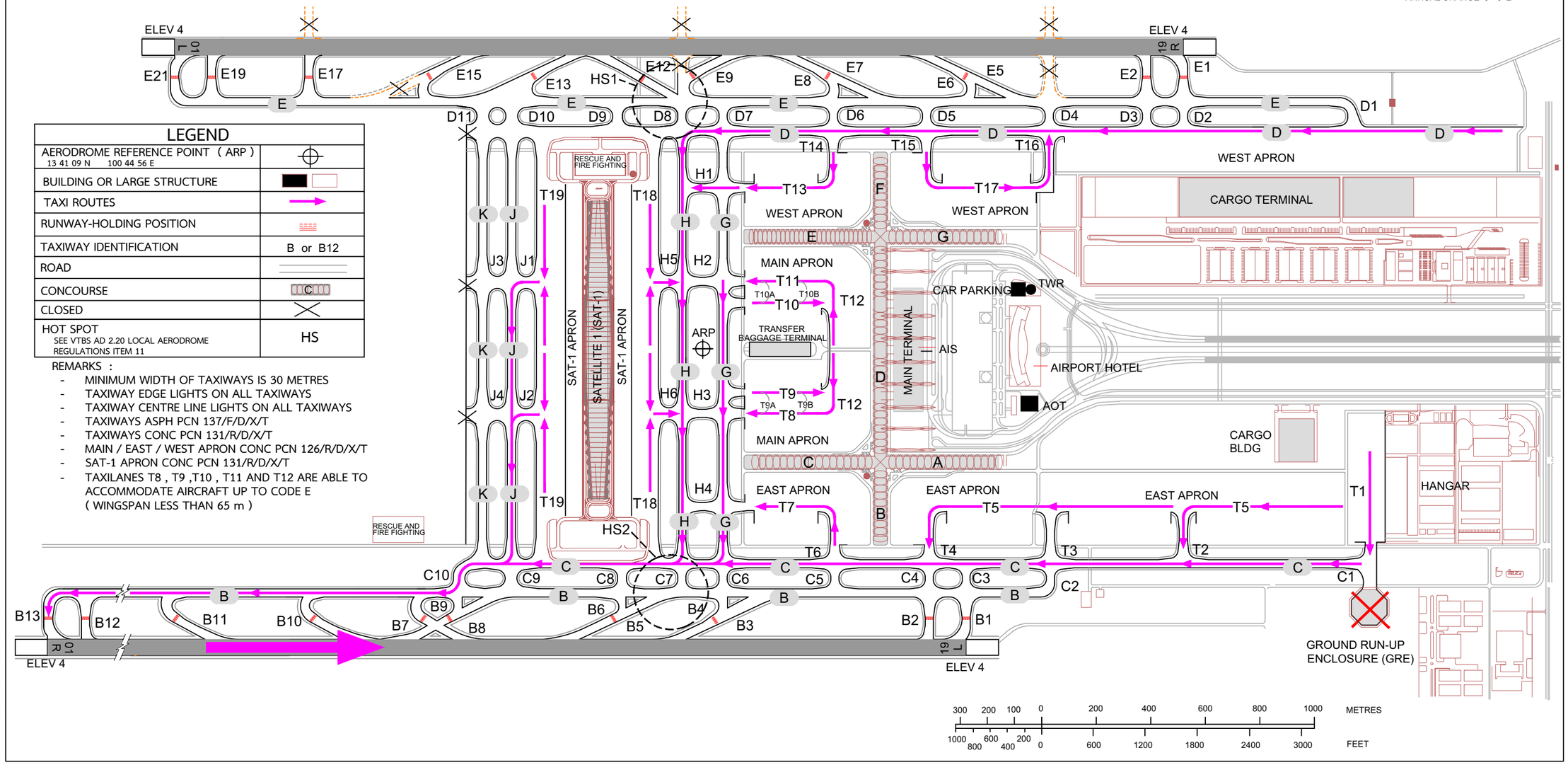
ANNUAL CHANGE 0° 0' E



LEGEND	
AERODROME REFERENCE POINT (ARP) 13 41 09 N 100 44 56 E	
BUILDING OR LARGE STRUCTURE	
TAXI ROUTES	
RUNWAY-HOLDING POSITION	
TAXIWAY IDENTIFICATION	B or B12
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AERODROME GROUND
MOVEMENT CHART - ICAO

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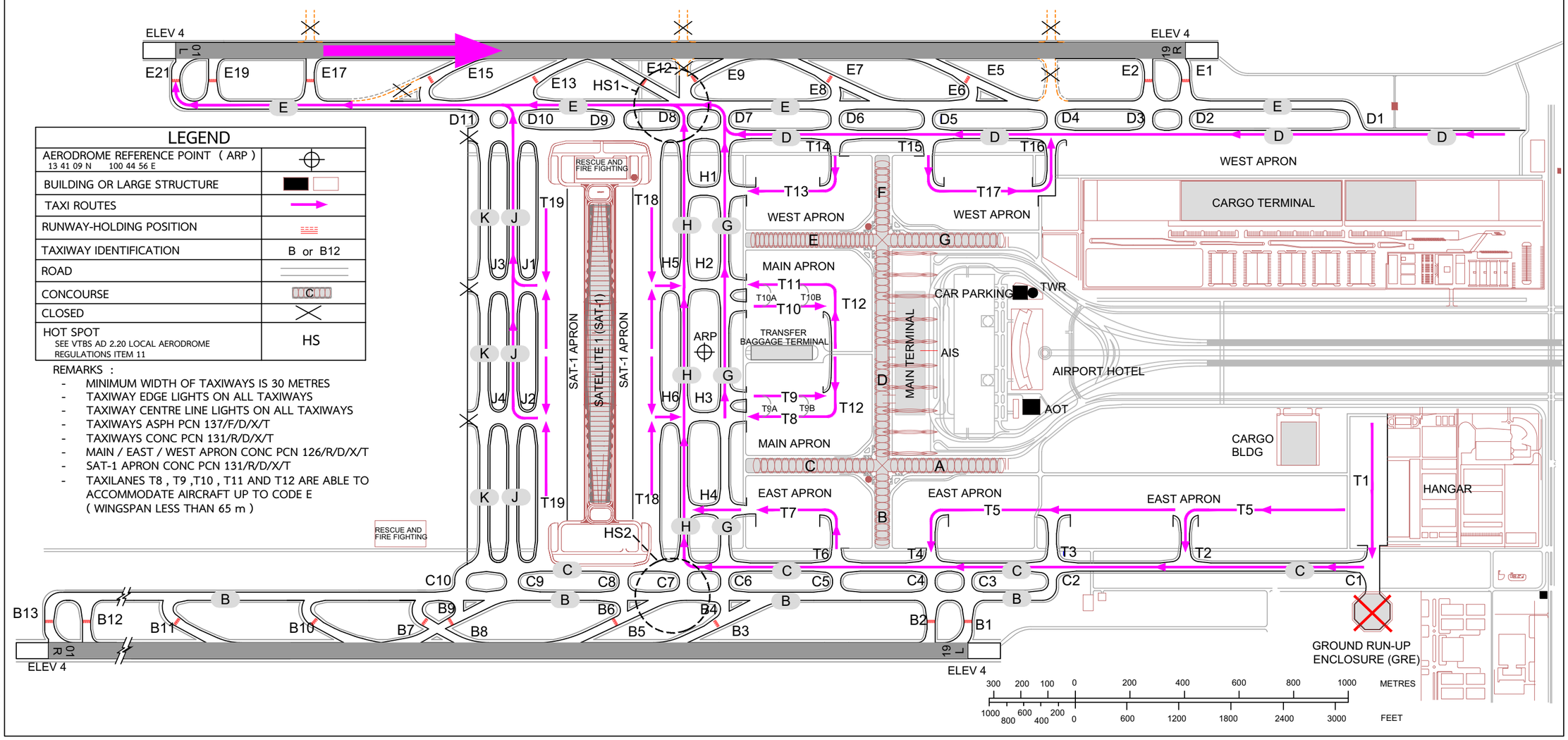
BANGKOK / Suvarnabhumi Intl

ELEVATIONS IN FEET
BEARINGS ARE MAGNETIC

MAG VAR 0° 35' W (2016)
ANNUAL CHANGE 0° 0' E

OUTBOUND TAXI ROUTES - TAKE - OFF RUNWAY 01L



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BUILDING OR LARGE STRUCTURE	
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CHANGE : REVISED CHART

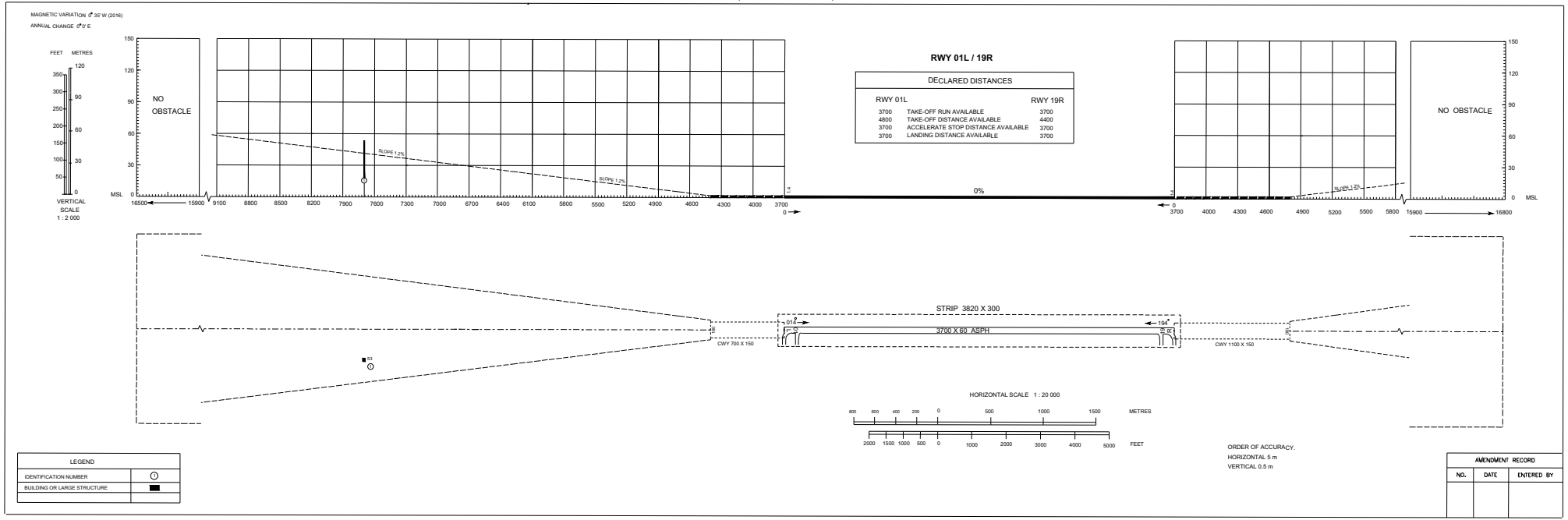
INTENTIONALLY BLANK

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

BANGKOK / Suvarnabhumi International

DIMENSIONS AND ELEVATIONS IN METRES

MAGNETIC VARIATION 0° 35' W (2016)
ANNUAL CHANGE 0° 0' E



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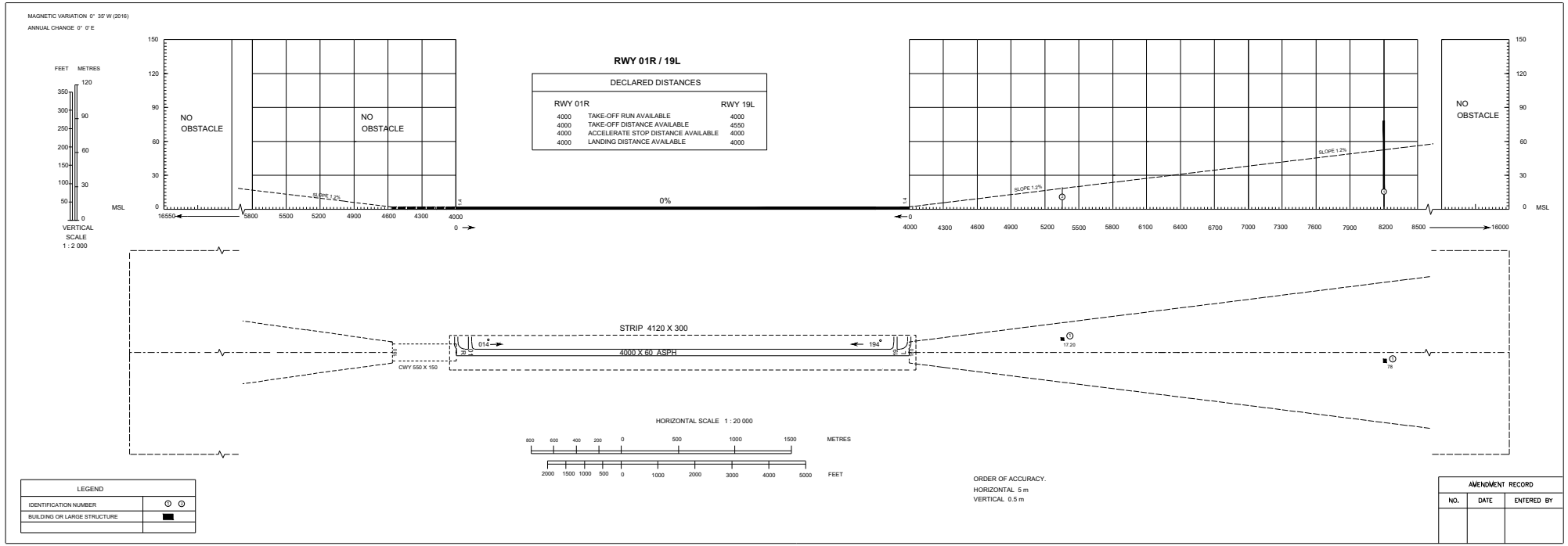
AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN METRES

BANGKOK / Suvarnabhumi International



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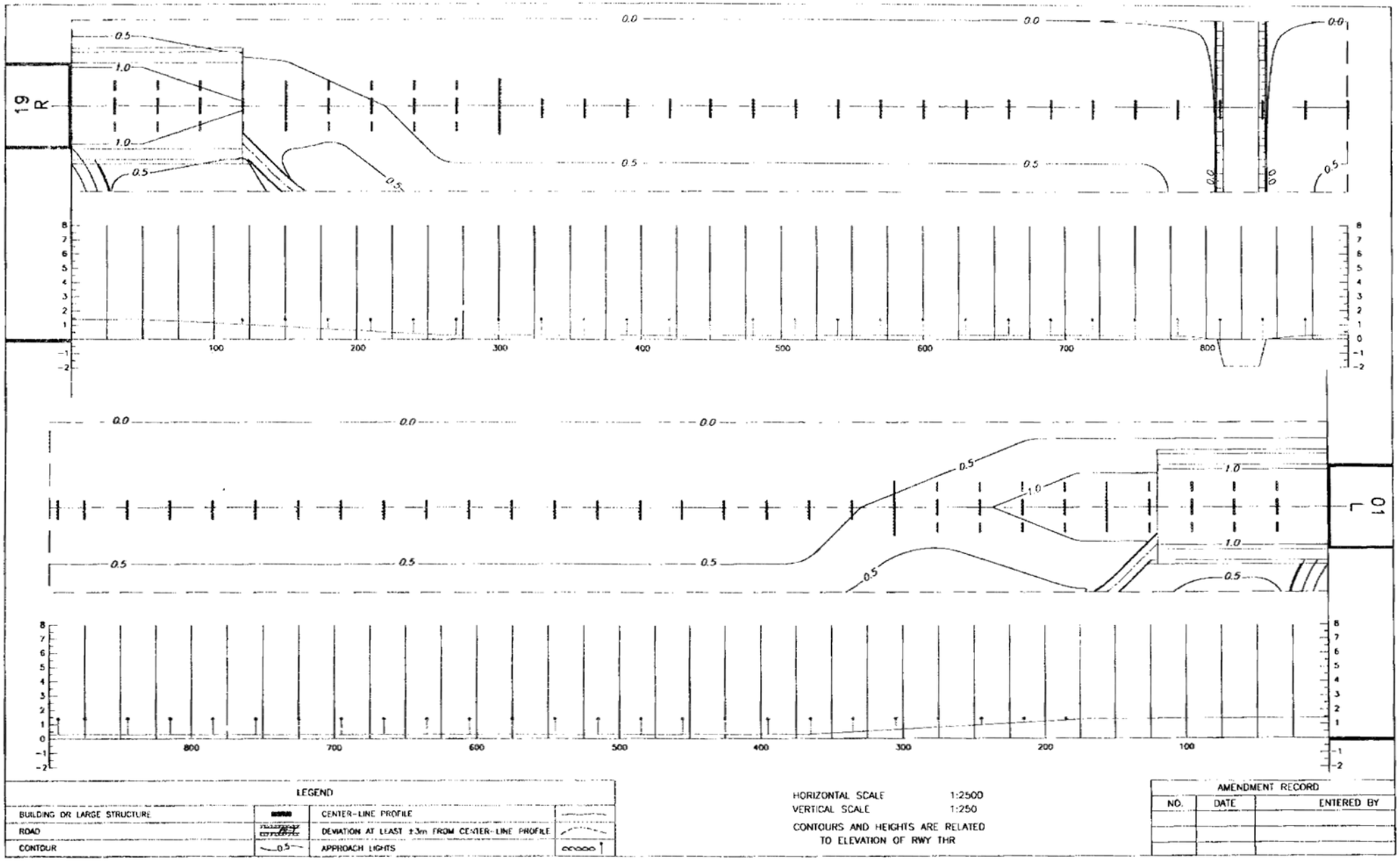
DIMENSIONS AND ELEVATIONS IN METRES

PRECISION APPROACH TERRAIN CHART – ICAO

BANGKOK/Suvarnabhumi International
RWY01L/19R



LEGEND			
BUILDING OR LARGE STRUCTURE		CENTER-LINE PROFILE	
ROAD		DEVIATION AT LEAST ±3m FROM CENTER-LINE PROFILE	
CONTOUR	0.5	APPROACH LIGHTS	

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:250

CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR

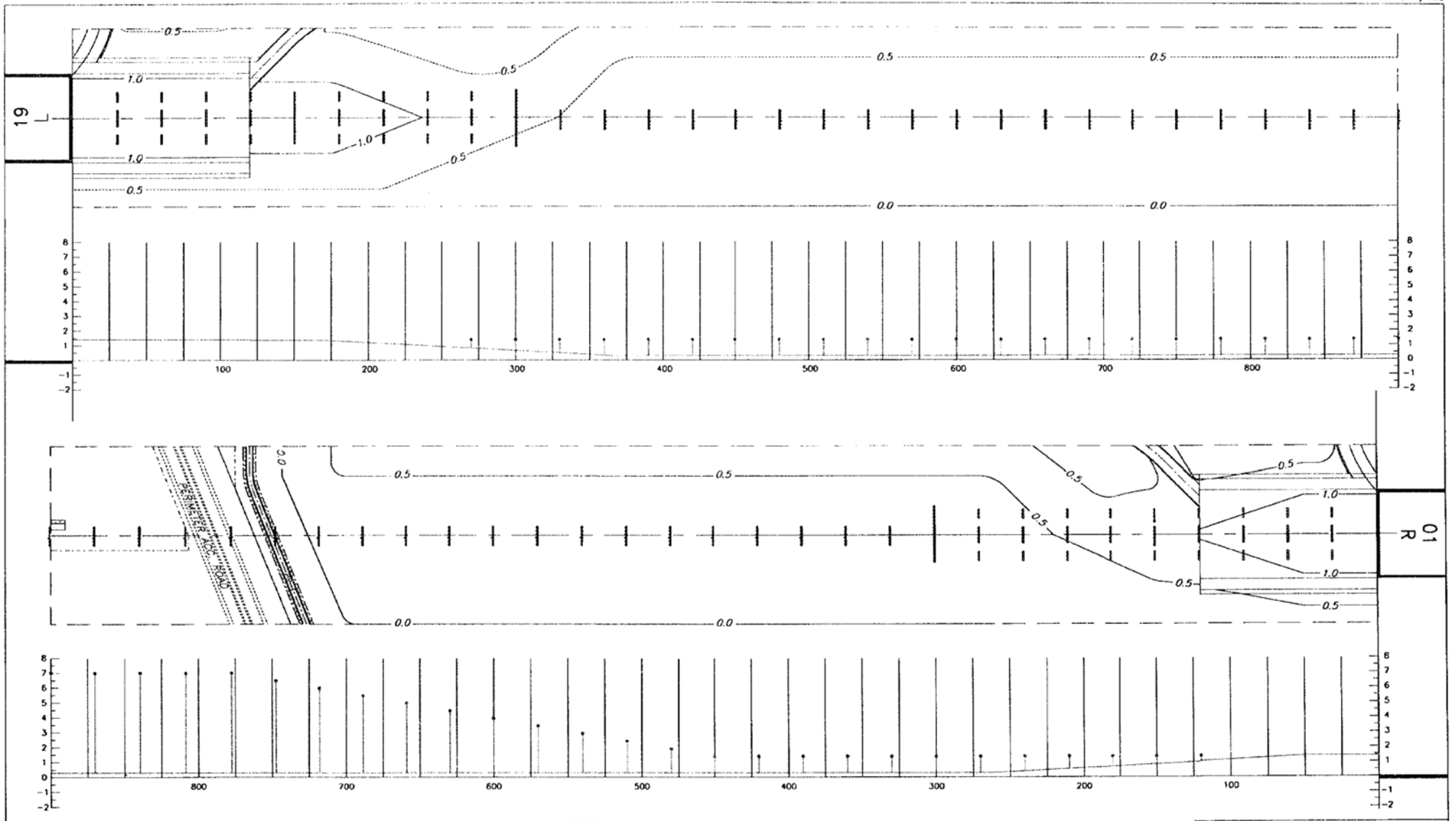
AMENDMENT RECORD		
NO.	DATE	ENTERED BY

INTENTIONALLY BLANK

DIMENSIONS AND ELEVATIONS IN METRES

PRECISION APPROACH TERRAIN CHART – ICAO

BANGKOK/Suvarnabhumi International
RWY 01R/19L



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BUILDING OR LARGE STRUCTURE		CENTER-LINE PROFILE	
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HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:250
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

INTENTIONALLY BLANK

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

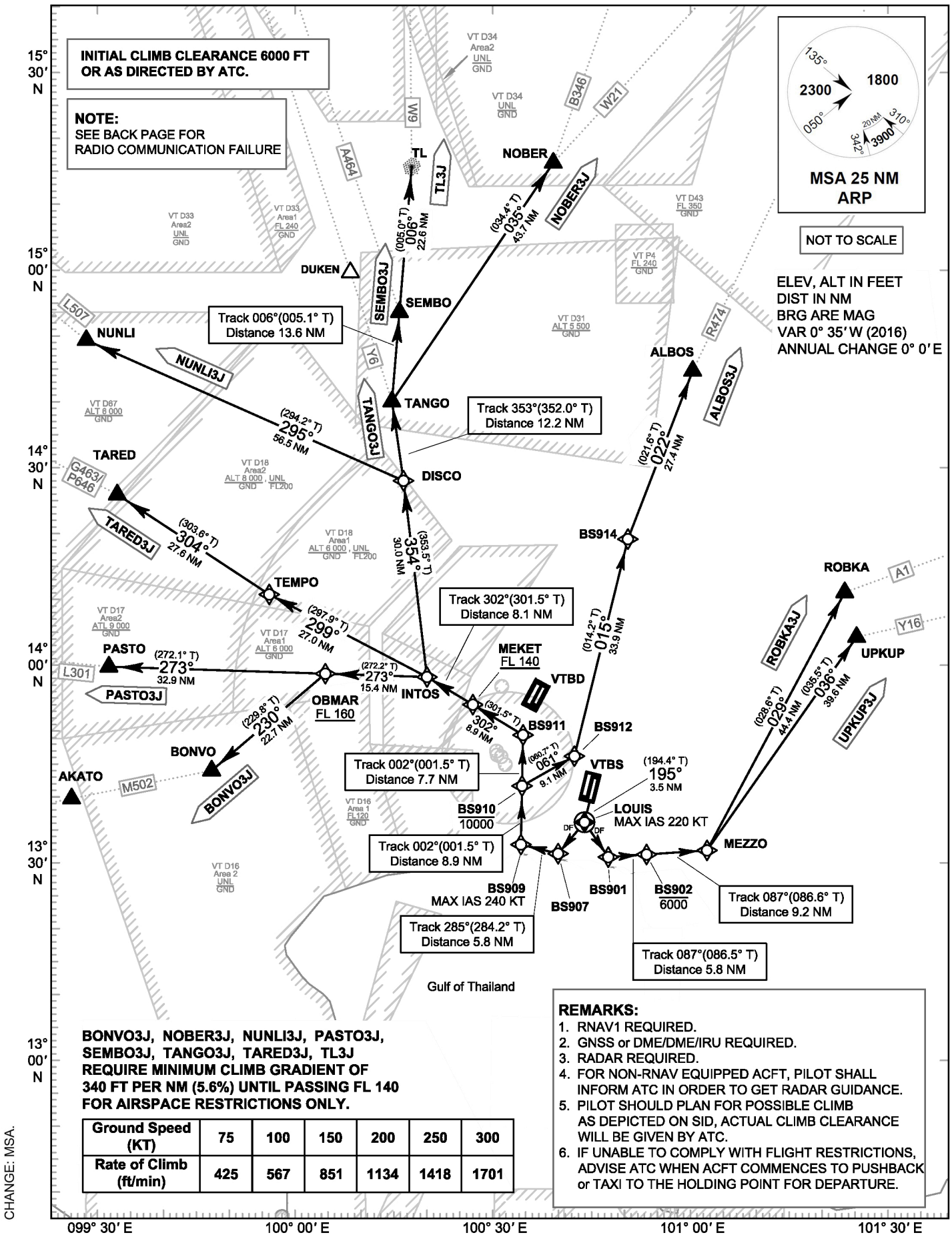
TRANSITION ALTITUDE
11000 FT

SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
DEP ATIS	: 127.65

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L

ALBOS3J BONVO3J
NOBER3J NUNLI3J PASTO3J
ROBKA3J SEMBO3J TANGO3J
TARED3J TL3J UPKUP3J



Ground Speed (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	425	567	851	1134	1418	1701

CHANGE: MSA.

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L

ALBOS3J BONVO3J
NOBER3J NUNLI3J PASTO3J
ROBKA3J SEMBO3J TANGO3J
TARED3J TL3J UPKUP3J

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
3	WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
DER RWY19L	-	MEKET	MEH - KET
ALBOS	AL - BOSS	MEZZO	MES - ZOH
BONVO	BONG - VOH	NOBER	NO - BER
BS901	-	NUNLI	NUN - LEE
BS902	-	OBMAR	OB - MAR
BS907	-	PASTO	PAS - TOW
BS909	-	ROBKA	ROB - KAH
BS910	-	SEMBO	SEM - BO
BS911	-	TANGO	TANG - GO
BS912	-	TARED	TAH - RED
BS914	-	TEMPO	TEM - POH
DISCO	DIS - KOH	TL	TA - KLEE
INTOS	IN - TOSS	UPKUP	UP - CUP
LOUIS	LOO - ISS		

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L

ALBOS3J BONVO3J
NOBER3J NUNLI3J PASTO3J
ROBKA3J SEMBO3J TANGO3J
TARED3J TL3J UPKUP3J

TABULAR DESCRIPTION (1)

RNAV RWY19L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
ALBOS3J TO R474											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	R	-10000	-	-	RNAV 1
060	TF	BS912	-	061°(060.7°)	+0.58	9.1	L	-	-	-	RNAV 1
070	TF	BS914	-	015°(014.2°)	+0.58	33.9	R	-	-	-	RNAV 1
080	TF	ALBOS	-	022°(021.6°)	+0.58	27.4	-	-	-	-	RNAV 1
BONVO3J TO M502											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	L	-	-	-	RNAV 1
090	TF	OBMAR	-	273°(272.2°)	+0.58	15.4	L	+FL160	-	-	RNAV 1
100	TF	BONVO	-	230°(229.8°)	+0.58	22.7	-	-	-	-	RNAV 1
NOBER3J TO B346, W21											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
110	TF	NOBER	-	035°(034.4°)	+0.58	43.7	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L

ALBOS3J BONVO3J
NOBER3J NUNLI3J PASTO3J
ROBKA3J SEMBO3J TANGO3J
TARED3J TL3J UPKUP3J

TABULAR DESCRIPTION (2)

RNAV RWY19L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
NUNLI3J TO L507											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	NUNLI	-	295°(294.2°)	+0.58	56.5	-	-	-	-	RNAV 1
PASTO3J TO L301											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	L	-	-	-	RNAV 1
090	TF	OBMAR	-	273°(272.2°)	+0.58	15.4	-	+FL160	-	-	RNAV 1
100	TF	PASTO	-	273°(272.1°)	+0.58	32.9	-	-	-	-	RNAV 1
ROBKA3J TO A1											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.6°)	+0.58	9.2	L	-	-	-	RNAV 1
060	TF	ROBKA	-	029°(028.6°)	+0.58	44.4	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L**

ALBOS3J BONVO3J
NOBER3J NUNLI3J PASTO3J
ROBKA3J SEMBO3J TANGO3J
TARED3J TL3J UPKUP3J

TABULAR DESCRIPTION (3)

RNAV RWY19L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
SEMBO3J TO A464											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
110	TF	SEMBO	-	006°(005.1°)	+0.58	13.6	-	-	-	-	RNAV 1
TANGO3J TO Y6											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	TANGO	-	353°(352.0°)	+0.58	12.2	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L

ALBOS3J BONVO3J
NOBER3J NUNLI3J PASTO3J
ROBKA3J SEMBO3J TANGO3J
TARED3J TL3J UPKUP3J

TABULAR DESCRIPTION (4)

RNAV RWY19L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
TARED3J TO G463/P646											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	L	-	-	-	RNAV 1
090	TF	TEMPO	-	299°(297.9°)	+0.58	27.0	R	-	-	-	RNAV 1
100	TF	TARED	-	304°(303.6°)	+0.58	27.6	-	-	-	-	RNAV 1
TL3J TO W9											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
110	TF	SEMBO	-	006°(005.1°)	+0.58	13.6	-	-	-	-	RNAV 1
120	TF	TL	-	006°(005.0°)	+0.58	22.6	-	-	-	-	RNAV 1
UPKUP3J TO Y16											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.6°)	+0.58	9.2	L	-	-	-	RNAV 1
060	TF	UPKUP	-	036°(035.5°)	+0.58	39.6	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L**

ALBOS3J BONVO3J
NOBER3J NUNLI3J PASTO3J
ROBKA3J SEMBO3J TANGO3J
TARED3J TL3J UPKUP3J

WAYPOINT LIST

RNAV RWY19L	
Waypoint Identifier	**Coordinates**
DER RWY19L	13° 39' 24.11" N 100° 45' 06.59" E
ALBOS	14° 44' 41.70" N 101° 01' 41.90" E
BONVO	13° 44' 10.47" N 099° 46' 06.72" E
BS901	13° 30' 39.63" N 100° 47' 52.93" E
BS902	13° 31' 00.74" N 100° 53' 51.07" E
BS907	13° 31' 14.42" N 100° 40' 03.93" E
BS909	13° 32' 40.09" N 100° 34' 16.99" E
BS910	13° 41' 36.08" N 100° 34' 31.08" E
BS911	13° 49' 22.54" N 100° 34' 43.38" E
BS912	13° 46' 05.33" N 100° 42' 42.85" E
BS914	14° 19' 08.00" N 100° 51' 18.42" E
DISCO	14° 28' 15.59" N 100° 16' 17.24" E
INTOS	13° 58' 18.55" N 100° 19' 47.12" E
LOUIS	13° 35' 59.82" N 100° 44' 12.92" E
MEKET	13° 54' 02.87" N 100° 26' 54.95" E
MEZZO	13° 31' 33.78" N 101° 03' 16.41" E
NOBER	15° 16' 35.60" N 100° 40' 06.00" E
NUNLI	14° 51' 27.45" N 099° 23' 03.60" E
OBMAR	13° 58' 53.52" N 100° 03' 54.64" E
PASTO	14° 00' 04.50" N 099° 30' 06.94" E
ROBKA	14° 10' 42.95" N 101° 25' 07.95" E
SEMBO	14° 53' 59.16" N 100° 15' 47.92" E
TANGO	14° 40' 22.25" N 100° 14' 32.54" E
TARED	14° 26' 19.52" N 099° 31' 28.87" E
TEMPO	14° 11' 00.89" N 099° 55' 11.97" E
TL	15° 16' 33.45" N 100° 17' 51.11" E
UPKUP	14° 03' 52.65" N 101° 26' 54.84" E

INTENTIONALLY BLANK

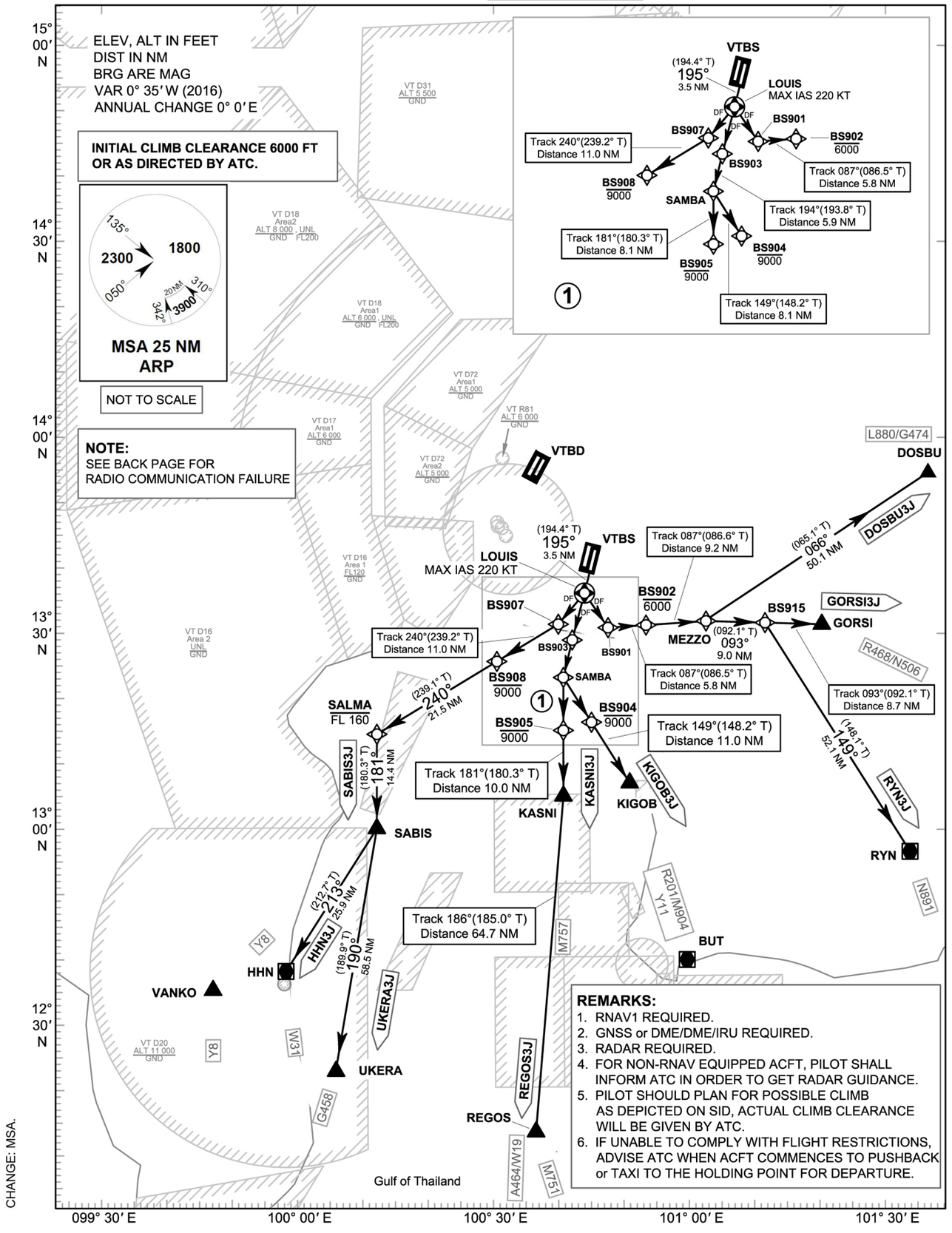
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT
SPEED RESTRICTION MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
DEP ATIS	: 127.65

BANGKOK/Suvarnabhumi Intl (VTBS) RNAV RWY19L

DOSBU3J GORSI3J HHN3J KASNI3J KIGOB3J REGOS3J RYN3J SABIS3J UKERA3J



REMARKS:

1. RNAV1 REQUIRED.
2. GNSS or DME/DME/IRU REQUIRED.
3. RADAR REQUIRED.
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE.
5. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK or TAXI TO THE HOLDING POINT FOR DEPARTURE.

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L

DOSBU3J GORSI3J HHN3J
KASNI3J KIGOB3J REGOS3J
RYN3J SABIS3J UKERA3J

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
3	WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
DER RWY19L	-	KASNI	KAS - NEE
BS901	-	KIGOB	KEE - GOB
BS902	-	LOUIS	LOO - ISS
BS903	-	MEZZO	MES - ZOH
BS904	-	NITRO	NAI - TRO
BS905	-	REGOS	REE - GOSS
BS907	-	RYN	RA - YONG
BS908	-	SABIS	SAH - BISS
BS915	-	SALMA	SAL - MAH
DOSBU	DOS - BU	SAMBA	SAM - BAH
GORSI	GOR - SEE	UKERA	U - KEY - RAH
HHN	HUA - HIN		

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L

DOSBU3J GORSI3J HHN3J
KASNI3J KIGOB3J REGOS3J
RYN3J SABIS3J UKERA3J

TABULAR DESCRIPTION (1)

RNAV RWY19L											
Serial Number	**Path Descriptor**	**Waypoint Identifier**	**Flyover**	**Course °M (°T)**	**Magnetic Variation**	**Distance (NM)**	**Turn Direction**	**Altitude (FT)**	**Speed (KT)**	**VPA/ TCH**	**Navigation Specification**
DOSBU3J TO L880/G474											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.5°)	+0.58	9.2	L	-	-	-	RNAV 1
060	TF	DOSBU	-	066°(065.1°)	+0.58	50.1	-	-	-	-	RNAV 1
GORSI3J TO R468/N506											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.5°)	+0.58	9.2	R	-	-	-	RNAV 1
060	TF	BS915	-	093°(092.1°)	+0.58	9.0	-	-	-	-	RNAV 1
070	TF	GORSI	-	093°(092.1°)	+0.58	8.7	-	-	-	-	RNAV 1
HHN3J TO W31											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS908	-	240°(239.2°)	+0.58	11.0	-	-9000	-	-	RNAV 1
050	TF	SALMA	-	240°(239.1°)	+0.58	21.5	L	-FL160	-	-	RNAV 1
060	TF	SABIS	-	181°(180.3°)	+0.58	14.4	R	-	-	-	RNAV 1
070	TF	HHN	-	213°(212.7°)	+0.58	25.9	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L

DOSBU3J GORSI3J HHN3J
KASNI3J KIGOB3J REGOS3J
RYN3J SABIS3J UKERA3J

TABULAR DESCRIPTION (2)

RNAV RWY19L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
KASNI3J TO M757											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	-	-	-220	-	RNAV 1
030	DF	BS903	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	SAMBA	-	194°(193.8°)	+0.58	5.9	L	-	-	-	RNAV 1
050	TF	BS905	-	181°(180.3°)	+0.58	8.1	-	-9000	-	-	RNAV 1
060	TF	KASNI	-	181°(180.3°)	+0.58	10.0	-	-	-	-	RNAV 1
KIGOB3J TO R201/M904/Y11											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	-	-	-220	-	RNAV 1
030	DF	BS903	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	SAMBA	-	194°(193.8°)	+0.58	5.9	L	-	-	-	RNAV 1
050	TF	BS904	-	149°(148.2°)	+0.58	8.1	-	-9000	-	-	RNAV 1
060	TF	KIGOB	-	149°(148.2°)	+0.58	11.0	-	-	-	-	RNAV 1
REGOS3J TO A464/W19, M751											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	-	-	-220	-	RNAV 1
030	DF	BS903	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	SAMBA	-	194°(193.8°)	+0.58	5.9	L	-	-	-	RNAV 1
050	TF	BS905	-	181°(180.3°)	+0.58	8.1	-	-9000	-	-	RNAV 1
060	TF	KASNI	-	181°(180.3°)	+0.58	10.0	R	-	-	-	RNAV 1
070	TF	REGOS	-	186°(185.0°)	+0.58	64.7	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L

DOSBU3J GORSI3J HHN3J
KASNI3J KIGOB3J REGOS3J
RYN3J SABIS3J UKERA3J

TABULAR DESCRIPTION (3)

RNAV RWY19L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
RYN3J TO N891											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.6°)	+0.58	9.2	R	-	-	-	RNAV 1
060	TF	BS915	-	093°(092.1°)	+0.58	9.0	R	-	-	-	RNAV 1
070	TF	RYN	-	149°(148.1°)	+0.58	52.1	-	-	-	-	RNAV 1
SABIS3J TO Y8											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS908	-	240°(239.2°)	+0.58	11.0	-	-9000	-	-	RNAV 1
050	TF	SALMA	-	240°(239.1°)	+0.58	21.5	L	-FL160	-	-	RNAV 1
060	TF	SABIS	-	181°(180.3°)	+0.58	14.4	-	-	-	-	RNAV 1
UKERA3J TO G458											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	LOUIS	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS908	-	240°(239.2°)	+0.58	11.0	-	-9000	-	-	RNAV 1
050	TF	SALMA	-	240°(239.1°)	+0.58	21.5	L	-FL160	-	-	RNAV 1
060	TF	SABIS	-	181°(180.3°)	+0.58	14.4	R	-	-	-	RNAV 1
070	TF	UKERA	-	190°(189.9°)	+0.58	58.5	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L**

DOSBU3J GORSI3J HHN3J
KASNI3J KIGOB3J REGOS3J
RYN3J SABIS3J UKERA3J

WAYPOINT LIST

RNAV RWY19L	
Waypoint Identifier	**Coordinates**
DER RWY19L	13° 39' 24.11" N 100° 45' 06.59" E
BS901	13° 30' 39.63" N 100° 47' 52.93" E
BS902	13° 31' 00.74" N 100° 53' 51.07" E
BS903	13° 28' 47.51" N 100° 42' 14.54" E
BS904	13° 16' 08.08" N 100° 45' 10.75" E
BS905	13° 14' 54.79" N 100° 40' 45.31" E
BS907	13° 31' 14.42" N 100° 40' 03.93" E
BS908	13° 25' 34.36" N 100° 30' 22.74" E
BS915	13° 31' 13.98" N 101° 12' 33.29" E
DOSBU	13° 52' 40.26" N 101° 50' 01.98" E
GORSI	13° 30' 54.64" N 101° 21' 28.05" E
HHN	12° 38' 04.04" N 099° 57' 04.23" E
KASNI	13° 04' 50.17" N 100° 40' 41.88" E
KIGOB	13° 06' 46.46" N 100° 51' 06.33" E
LOUIS	13° 35' 59.82" N 100° 44' 12.92" E
MEZZO	13° 31' 33.78" N 101° 03' 16.41" E
NITRO	13° 42' 28.69" N 101° 26' 07.28" E
REGOS	12° 00' 06.50" N 100° 34' 54.30" E
RYN	12° 46' 48.30" N 101° 40' 41.70" E
SABIS	12° 59' 58.53" N 100° 11' 24.53" E
SALMA	13° 14' 28.89" N 100° 11' 28.72" E
SAMBA	13° 23' 02.66" N 100° 40' 48.12" E
UKERA	12° 02' 07.25" N 100° 01' 09.59" E

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

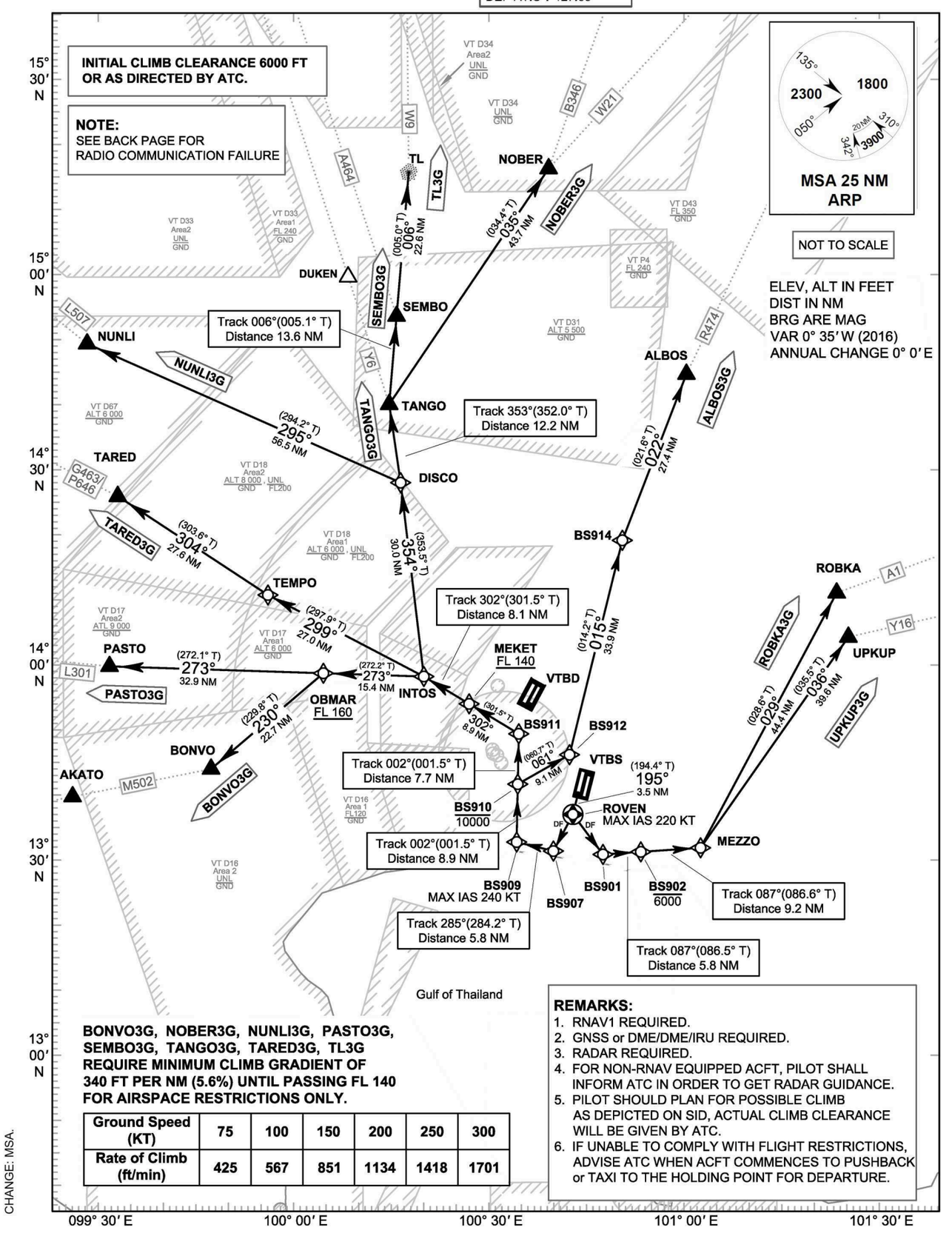
TRANSITION ALTITUDE
11000 FT

SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
DEP ATIS	: 127.65

BANGKOK/Suvarnabhumi Intl (VTBS) RNAV RWY19R

ALBOS3G BONVO3G
NOBER3G NUNLI3G PASTO3G
ROBKA3G SEMBO3G TANGO3G
TARED3G TL3G UPKUP3G



STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhuml Intl (VTBS)
RNAV RWY19R

ALBOS3G BONVO3G
NOBER3G NUNLI3G PASTO3G
ROBKA3G SEMBO3G TANGO3G
TARED3G TL3G UPKUP3G

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
3	WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
DER RWY19R	-	MEZZO	MES - ZOH
ALBOS	AL - BOSS	NOBER	NO - BER
BONVO	BONG - VOH	NUNLI	NUN - LEE
BS901	-	OBMAR	OB - MAR
BS902	-	PASTO	PAS - TOW
BS907	-	ROBKA	ROB - KAH
BS909	-	ROVEN	ROH - VEN
BS910	-	SEMBO	SEM - BO
BS911	-	TANGO	TANG - GO
BS912	-	TARED	TAH - RED
BS914	-	TEMPO	TEM - POH
DISCO	DIS - KOH	TL	TA - KLEE
INTOS	IN - TOSS	UPKUP	UP - CUP
MEKET	MEH - KET		

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19R**

ALBOS3G BONVO3G
NOBER3G NUNLI3G PASTO3G
ROBKA3G SEMBO3G TANGO3G
TARED3G TL3G UPKUP3G

TABULAR DESCRIPTION (1)

RNAV RWY19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
ALBOS3G TO R474											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	R	-10000	-	-	RNAV 1
060	TF	BS912	-	061°(060.7°)	+0.58	9.1	L	-	-	-	RNAV 1
070	TF	BS914	-	015°(014.2°)	+0.58	33.9	R	-	-	-	RNAV 1
080	TF	ALBOS	-	022°(021.6°)	+0.58	27.4	-	-	-	-	RNAV 1
BONVO3G TO M502											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	L	-	-	-	RNAV 1
090	TF	OBMAR	-	273°(272.2°)	+0.58	15.4	L	+FL160	-	-	RNAV 1
100	TF	BONVO	-	230°(229.8°)	+0.58	22.7	-	-	-	-	RNAV 1
NOBER3G TO B346, W21											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
110	TF	NOBER	-	035°(034.4°)	+0.58	43.7	-	-	-	-	RNAV 1

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RNAV RWY19R

ALBOS3G BONVO3G
NOBER3G NUNLI3G PASTO3G
ROBKA3G SEMBO3G TANGO3G
TARED3G TL3G UPKUP3G

TABULAR DESCRIPTION (2)

RNAV RWY19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
NUNLI3G TO L507											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	NUNLI	-	295°(294.2°)	+0.58	56.5	-	-	-	-	RNAV 1
PASTO3G TO L301											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	L	-	-	-	RNAV 1
090	TF	OBMAR	-	273°(272.2°)	+0.58	15.4	-	+FL160	-	-	RNAV 1
100	TF	PASTO	-	273°(272.1°)	+0.58	32.9	-	-	-	-	RNAV 1
ROBKA3G TO A1											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.6°)	+0.58	9.2	L	-	-	-	RNAV 1
060	TF	ROBKA	-	029°(028.6°)	+0.58	44.4	-	-	-	-	RNAV 1

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RNAV RWY19R**

ALBOS3G BONVO3G
NOBER3G NUNLI3G PASTO3G
ROBKA3G SEMBO3G TANGO3G
TARED3G TL3G UPKUP3G

TABULAR DESCRIPTION (3)

RNAV RWY19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
SEMBO3G TO A464											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
110	TF	SEMBO	-	006°(005.1°)	+0.58	13.6	-	-	-	-	RNAV 1
TANGO3G TO Y6											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	TANGO	-	353°(352.0°)	+0.58	12.2	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19R

ALBOS3G BONVO3G
NOBER3G NUNLI3G PASTO3G
ROBKA3G SEMBO3G TANGO3G
TARED3G TL3G UPKUP3G

TABULAR DESCRIPTION (4)

RNAV RWY19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
TARED3G TO G463/P646											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	L	-	-	-	RNAV 1
090	TF	TEMPO	-	299°(297.9°)	+0.58	27.0	R	-	-	-	RNAV 1
100	TF	TARED	-	304°(303.6°)	+0.58	27.6	-	-	-	-	RNAV 1
TL3G TO W9											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS909	-	285°(284.2°)	+0.58	5.8	R	-	-240	-	RNAV 1
050	TF	BS910	-	002°(001.5°)	+0.58	8.9	-	-10000	-	-	RNAV 1
060	TF	BS911	-	002°(001.5°)	+0.58	7.7	L	-	-	-	RNAV 1
070	TF	MEKET	-	302°(301.5°)	+0.58	8.9	-	+FL140	-	-	RNAV 1
080	TF	INTOS	-	302°(301.5°)	+0.58	8.1	R	-	-	-	RNAV 1
090	TF	DISCO	-	354°(353.5°)	+0.58	30.0	L	-	-	-	RNAV 1
100	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
110	TF	SEMBO	-	006°(005.1°)	+0.58	13.6	-	-	-	-	RNAV 1
120	TF	TL	-	006°(005.0°)	+0.58	22.6	-	-	-	-	RNAV 1
UPKUP3G TO Y16											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.6°)	+0.58	9.2	L	-	-	-	RNAV 1
060	TF	UPKUP	-	036°(035.5°)	+0.58	39.6	-	-	-	-	RNAV 1

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RNAV RWY19R**

ALBOS3G BONVO3G
NOBER3G NUNLI3G PASTO3G
ROBKA3G SEMBO3G TANGO3G
TARED3G TL3G UPKUP3G

WAYPOINT LIST

RNAV RWY19R	
Waypoint Identifier	**Coordinates**
DER RWY19R	13° 40' 16.60" N 100° 44' 04.79" E
ALBOS	14° 44' 41.70" N 101° 01' 41.90" E
BONVO	13° 44' 10.47" N 099° 46' 06.72" E
BS901	13° 30' 39.63" N 100° 47' 52.93" E
BS902	13° 31' 00.74" N 100° 53' 51.07" E
BS907	13° 31' 14.42" N 100° 40' 03.93" E
BS909	13° 32' 40.09" N 100° 34' 16.99" E
BS910	13° 41' 36.08" N 100° 34' 31.08" E
BS911	13° 49' 22.54" N 100° 34' 43.38" E
BS912	13° 46' 05.33" N 100° 42' 42.85" E
BS914	14° 19' 08.00" N 100° 51' 18.42" E
DISCO	14° 28' 15.59" N 100° 16' 17.24" E
INTOS	13° 58' 18.55" N 100° 19' 47.12" E
MEKET	13° 54' 02.87" N 100° 26' 54.95" E
MEZZO	13° 31' 33.78" N 101° 03' 16.41" E
NOBER	15° 16' 35.60" N 100° 40' 06.00" E
NUNLI	14° 51' 27.45" N 099° 23' 03.60" E
OBMAR	13° 58' 53.52" N 100° 03' 54.64" E
PASTO	14° 00' 04.50" N 099° 30' 06.94" E
ROBKA	14° 10' 42.95" N 101° 25' 07.95" E
ROVEN	13° 36' 52.30" N 100° 43' 11.13" E
SEMBO	14° 53' 59.16" N 100° 15' 47.92" E
TANGO	14° 40' 22.25" N 100° 14' 32.54" E
TARED	14° 26' 19.52" N 099° 31' 28.87" E
TEMPO	14° 11' 00.89" N 099° 55' 11.97" E
TL	15° 16' 33.45" N 100° 17' 51.11" E
UPKUP	14° 03' 52.65" N 101° 26' 54.84" E

INTENTIONALLY BLANK

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

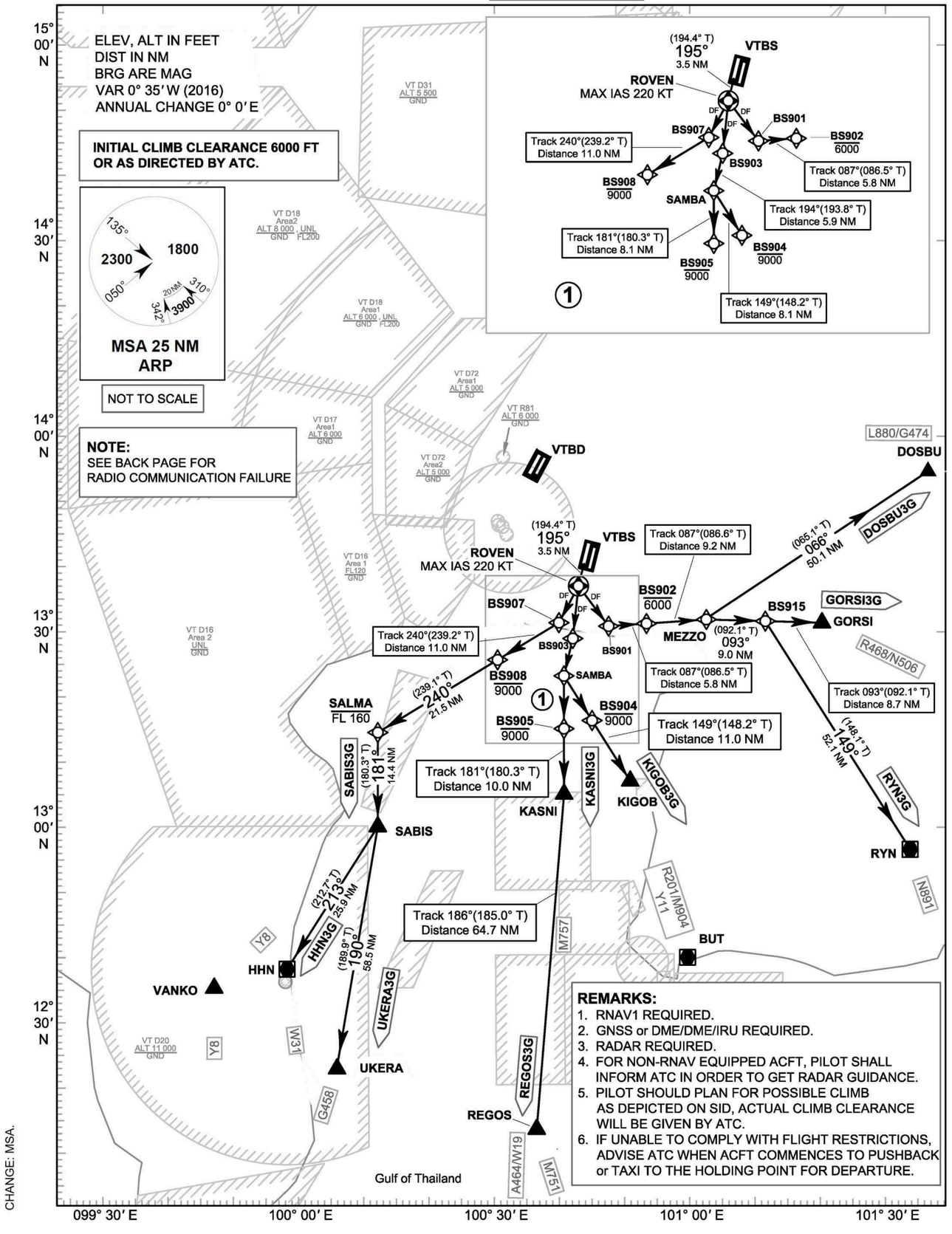
TRANSITION ALTITUDE 11000 FT

SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
DEP ATIS	: 127.65

BANGKOK/Suvarnabhumi Intl (VTBS) RNAV RWY19R

DOSBU3G GORSI3G HHN3G
KASNI3G KIGOB3G REGOS3G
RYN3G SABIS3G UKERA3G



CHANGE: MSA.

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19R

DOSBU3G GORSI3G HHN3G
KASNI3G KIGOB3G REGOS3G
RYN3G SABIS3G UKERA3G

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
3	WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
DER RWY19R	-	KASNI	KAS - NEE
BS901	-	KIGOB	KEE - GOB
BS902	-	MEZZO	MES - ZOH
BS903	-	NITRO	NAI - TRO
BS904	-	REGOS	REE - GOSS
BS905	-	ROVEN	ROH - VEN
BS907	-	RYN	RA - YONG
BS908	-	SABIS	SAH - BISS
BS915	-	SALMA	SAL - MAH
DOSBU	DOS - BU	SAMBA	SAM - BAH
GORSI	GOR - SEE	UKERA	U - KEY - RAH
HHN	HUA - HIN		

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19R

DOSBU3G GORSI3G HHN3G
KASNI3G KIGOB3G REGOS3G
RYN3G SABIS3G UKERA3G

TABULAR DESCRIPTION (1)

RNAV RWY19R											
Serial Number	**Path Descriptor**	**Waypoint Identifier**	**Flyover**	**Course °M (°T)**	**Magnetic Variation**	**Distance (NM)**	**Turn Direction**	**Altitude (FT)**	**Speed (KT)**	**VPA/ TCH**	**Navigation Specification**
DOSBU3G TO L880/G474											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.5°)	+0.58	9.2	L	-	-	-	RNAV 1
060	TF	DOSBU	-	066°(065.1°)	+0.58	50.1	-	-	-	-	RNAV 1
GORSI3G TO R468/N506											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.5°)	+0.58	9.2	R	-	-	-	RNAV 1
060	TF	BS915	-	093°(092.1°)	+0.58	9.0	-	-	-	-	RNAV 1
070	TF	GORSI	-	093°(092.1°)	+0.58	8.7	-	-	-	-	RNAV 1
HHN3G TO W31											
010	-	DER RWY19L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS908	-	240°(239.2°)	+0.58	11.0	-	-9000	-	-	RNAV 1
050	TF	SALMA	-	240°(239.1°)	+0.58	21.5	L	-FL160	-	-	RNAV 1
060	TF	SABIS	-	181°(180.3°)	+0.58	14.4	R	-	-	-	RNAV 1
070	TF	HHN	-	213°(212.7°)	+0.58	25.9	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19R

DOSBU3G GORSI3G HHN3G
KASNI3G KIGOB3G REGOS3G
RYN3G SABIS3G UKERA3G

TABULAR DESCRIPTION (2)

RNAV RWY19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
KASNI3G TO M757											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS903	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	SAMBA	-	194°(193.8°)	+0.58	5.9	L	-	-	-	RNAV 1
050	TF	BS905	-	181°(180.3°)	+0.58	8.1	-	-9000	-	-	RNAV 1
060	TF	KASNI	-	181°(180.3°)	+0.58	10.0	-	-	-	-	RNAV 1
KIGOB3G TO R201/M904/Y11											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS903	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	SAMBA	-	194°(193.8°)	+0.58	5.9	L	-	-	-	RNAV 1
050	TF	BS904	-	149°(148.2°)	+0.58	8.1	-	-9000	-	-	RNAV 1
060	TF	KIGOB	-	149°(148.2°)	+0.58	11.0	-	-	-	-	RNAV 1
REGOS3G TO A464/W19, M751											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS903	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	SAMBA	-	194°(193.8°)	+0.58	5.9	L	-	-	-	RNAV 1
050	TF	BS905	-	181°(180.3°)	+0.58	8.1	-	-9000	-	-	RNAV 1
060	TF	KASNI	-	181°(180.3°)	+0.58	10.0	R	-	-	-	RNAV 1
070	TF	REGOS	-	186°(185.0°)	+0.58	64.7	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19R

DOSBU3G GORSI3G HHN3G
KASNI3G KIGOB3G REGOS3G
RYN3G SABIS3G UKERA3G

TABULAR DESCRIPTION (3)

RNAV RWY19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
RYN3G TO N891											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	L	-	-220	-	RNAV 1
030	DF	BS901	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS902	-	087°(086.5°)	+0.58	5.8	-	-6000	-	-	RNAV 1
050	TF	MEZZO	-	087°(086.6°)	+0.58	9.2	R	-	-	-	RNAV 1
060	TF	BS915	-	093°(092.1°)	+0.58	9.0	R	-	-	-	RNAV 1
070	TF	RYN	-	149°(148.1°)	+0.58	52.1	-	-	-	-	RNAV 1
SABIS3G TO Y8											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS908	-	240°(239.2°)	+0.58	11.0	-	-9000	-	-	RNAV 1
050	TF	SALMA	-	240°(239.1°)	+0.58	21.5	L	-FL160	-	-	RNAV 1
060	TF	SABIS	-	181°(180.3°)	+0.58	14.4	-	-	-	-	RNAV 1
UKERA3G TO G458											
010	-	DER RWY19R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	ROVEN	Y	195°(194.4°)	+0.58	3.5	R	-	-220	-	RNAV 1
030	DF	BS907	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS908	-	240°(239.2°)	+0.58	11.0	-	-9000	-	-	RNAV 1
050	TF	SALMA	-	240°(239.1°)	+0.58	21.5	L	-FL160	-	-	RNAV 1
060	TF	SABIS	-	181°(180.3°)	+0.58	14.4	R	-	-	-	RNAV 1
070	TF	UKERA	-	190°(189.9°)	+0.58	58.5	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19R**

DOSBU3G GORSI3G HHN3G
KASNI3G KIGOB3G REGOS3G
RYN3G SABIS3G UKERA3G

WAYPOINT LIST

RNAV RWY19R	
Waypoint Identifier	**Coordinates**
DER RWY19R	13° 40' 16.60" N 100° 44' 04.79" E
BS901	13° 30' 39.63" N 100° 47' 52.93" E
BS902	13° 31' 00.74" N 100° 53' 51.07" E
BS903	13° 28' 47.51" N 100° 42' 14.54" E
BS904	13° 16' 08.08" N 100° 45' 10.75" E
BS905	13° 14' 54.79" N 100° 40' 45.31" E
BS907	13° 31' 14.42" N 100° 40' 03.93" E
BS908	13° 25' 34.36" N 100° 30' 22.74" E
BS915	13° 31' 13.98" N 101° 12' 33.29" E
DOSBU	13° 52' 40.26" N 101° 50' 01.98" E
GORSI	13° 30' 54.64" N 101° 21' 28.05" E
HHN	12° 38' 04.04" N 099° 57' 04.23" E
KASNI	13° 04' 50.17" N 100° 40' 41.88" E
KIGOB	13° 06' 46.46" N 100° 51' 06.33" E
MEZZO	13° 31' 33.78" N 101° 03' 16.41" E
NITRO	13° 42' 28.69" N 101° 26' 07.28" E
REGOS	12° 00' 06.50" N 100° 34' 54.30" E
ROVEN	13° 36' 52.30" N 100° 43' 11.13" E
RYN	12° 46' 48.30" N 101° 40' 41.70" E
SABIS	12° 59' 58.53" N 100° 11' 24.53" E
SALMA	13° 14' 28.89" N 100° 11' 28.72" E
SAMBA	13° 23' 02.66" N 100° 40' 48.12" E
UKERA	12° 02' 07.25" N 100° 01' 09.59" E

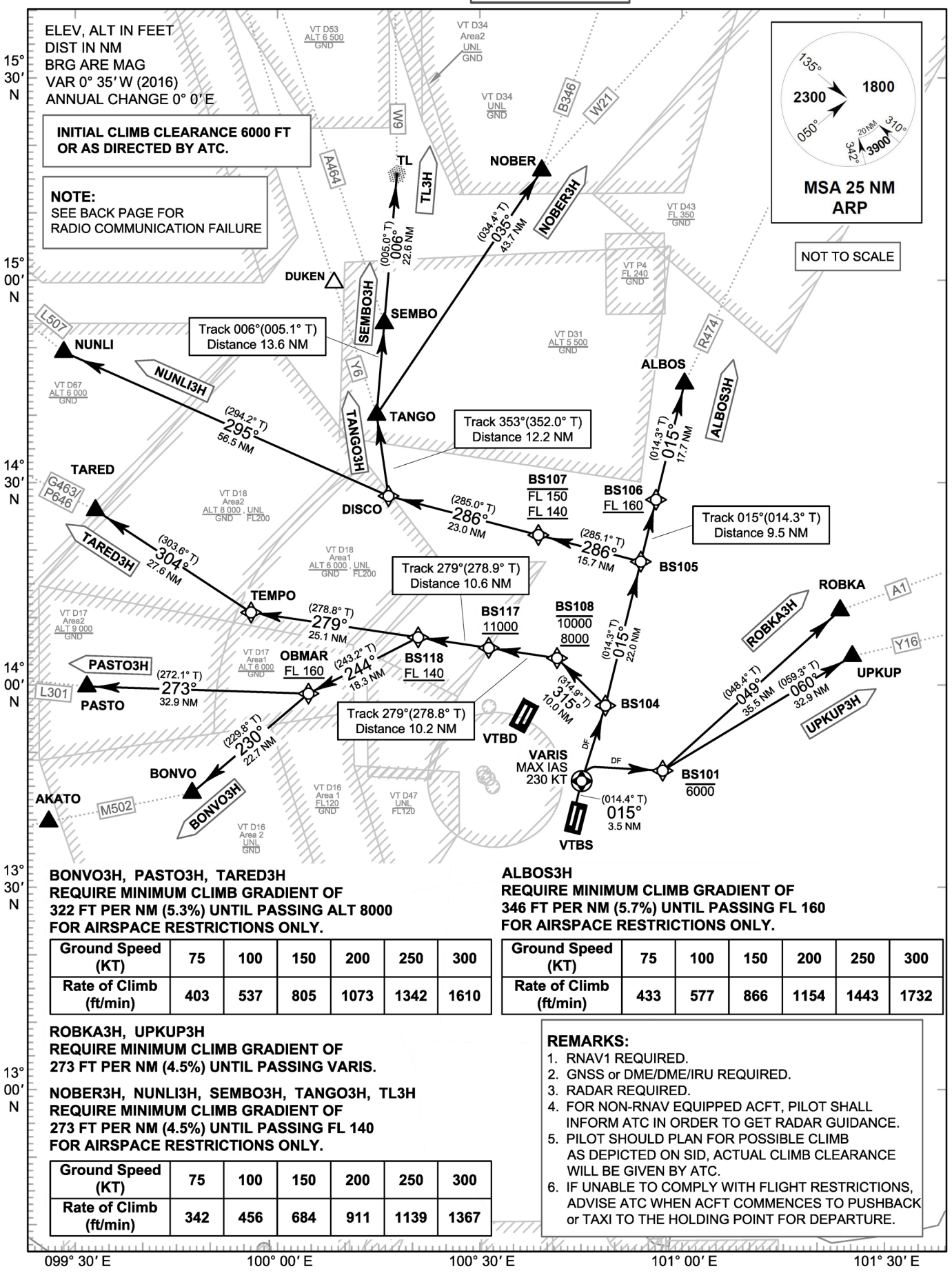
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT
SPEED RESTRICTION MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
DEP ATIS	: 127.65

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L

ALBOS3H BONVO3H
NOBER3H NUNLI3H PASTO3H
ROBKA3H SEMBO3H TANGO3H
TARED3H TL3H UPKUP3H



BONVO3H, PASTO3H, TARED3H
REQUIRE MINIMUM CLIMB GRADIENT OF
322 FT PER NM (5.3%) UNTIL PASSING ALT 8000
FOR AIRSPACE RESTRICTIONS ONLY.

Ground Speed (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	403	537	805	1073	1342	1610

ALBOS3H
REQUIRE MINIMUM CLIMB GRADIENT OF
346 FT PER NM (5.7%) UNTIL PASSING FL 160
FOR AIRSPACE RESTRICTIONS ONLY.

Ground Speed (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	433	577	866	1154	1443	1732

ROBKA3H, UPKUP3H
REQUIRE MINIMUM CLIMB GRADIENT OF
273 FT PER NM (4.5%) UNTIL PASSING VARIS.

NOBER3H, NUNLI3H, SEMBO3H, TANGO3H, TL3H
REQUIRE MINIMUM CLIMB GRADIENT OF
273 FT PER NM (4.5%) UNTIL PASSING FL 140
FOR AIRSPACE RESTRICTIONS ONLY.

Ground Speed (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	342	456	684	911	1139	1367

REMARKS:
1. RNAV1 REQUIRED.
2. GNSS or DME/DME/IRU REQUIRED.
3. RADAR REQUIRED.
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE.
5. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK or TAXI TO THE HOLDING POINT FOR DEPARTURE.

CHANGE: MSA.

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L

ALBOS3H BONVO3H
NOBER3H NUNLI3H PASTO3H
ROBKA3H SEMBO3H TANGO3H
TARED3H TL3H UPKUP3H

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
3	WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
DER RWY01L	-	NOBER	NO - BER
ALBOS	AL - BOSS	NUNLI	NUN - LEE
BONVO	BONG - VOH	OBMAR	OB - MAR
BS101	-	PASTO	PAS - TOW
BS104	-	ROBKA	ROB - KAH
BS105	-	SEMBO	SEM - BO
BS106	-	TANGO	TANG - GO
BS107	-	TARED	TAH - RED
BS108	-	TEMPO	TEM - POH
BS117	-	TL	TA - KLEE
BS118	-	UPKUP	UP - CUP
DISCO	DIS - KOH	VARIS	VAH - RISS

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L**

ALBOS3H BONVO3H
NOBER3H NUNLI3H PASTO3H
ROBKA3H SEMBO3H TANGO3H
TARED3H TL3H UPKUP3H

TABULAR DESCRIPTION (1)

RNAV RWY01L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
ALBOS3H TO R474											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	-	-	-	-	RNAV 1
050	TF	BS106	-	015°(014.3°)	+0.58	9.5	-	+FL160	-	-	RNAV 1
060	TF	ALBOS	-	015°(014.3°)	+0.58	17.7	-	-	-	-	RNAV 1
BONVO3H TO M502											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	OBMAR	-	244°(243.2°)	+0.58	18.3	L	+FL160	-	-	RNAV 1
080	TF	BONVO	-	230°(229.8°)	+0.58	22.7	-	-	-	-	RNAV 1
NOBER3H TO B346, W21											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
080	TF	NOBER	-	035°(034.4°)	+0.58	43.7	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L

ALBOS3H BONVO3H
NOBER3H NUNLI3H PASTO3H
ROBKA3H SEMBO3H TANGO3H
TARED3H TL3H UPKUP3H

TABULAR DESCRIPTION (2)

RNAV RWY01L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
NUNLI3H TO L507											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	NUNLI	-	295°(294.2°)	+0.58	56.5	-	-	-	-	RNAV 1
PASTO3H TO L301											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	OBMAR	-	244°(243.2°)	+0.58	18.3	R	+FL160	-	-	RNAV 1
080	TF	PASTO	-	273°(272.1°)	+0.58	32.9	-	-	-	-	RNAV 1
ROBKA3H TO A1											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	ROBKA	-	049°(048.4°)	+0.58	35.5	-	-	-	-	RNAV 1
SEMBO3H TO A464											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
080	TF	SEMBO	-	006°(005.1°)	+0.58	13.6	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L

ALBOS3H BONVO3H
NOBER3H NUNLI3H PASTO3H
ROBKA3H SEMBO3H TANGO3H
TARED3H TL3H UPKUP3H

TABULAR DESCRIPTION (3)

RNAV RWY01L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
TANGO3H TO Y6											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	TANGO	-	353°(352.0°)	+0.58	12.2	-	-	-	-	RNAV 1
TARED3H TO G463/P646											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	-	+FL140	-	-	RNAV 1
070	TF	TEMPO	-	279°(278.8°)	+0.58	25.1	R	-	-	-	RNAV 1
080	TF	TARED	-	304°(303.6°)	+0.58	27.6	-	-	-	-	RNAV 1
TL3H TO W9											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
080	TF	SEMBO	-	006°(005.1°)	+0.58	13.6	-	-	-	-	RNAV 1
090	TF	TL	-	006°(005.0°)	+0.58	22.6	-	-	-	-	RNAV 1
UPKUP3H TO Y16											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	UPKUP	-	060°(059.3°)	+0.58	32.9	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L

ALBOS3H BONVO3H
NOBER3H NUNLI3H PASTO3H
ROBKA3H SEMBO3H TANGO3H
TARED3H TL3H UPKUP3H

WAYPOINT LIST

RNAV RWY01L

Waypoint Identifier	Coordinates
DER RWY01L	13° 42' 13.21" N 100° 44' 35.44" E
ALBOS	14° 44' 41.70" N 101° 01' 41.90" E
BONVO	13° 44' 10.47" N 099° 46' 06.72" E
BS101	13° 47' 04.50" N 100° 57' 50.60" E
BS104	13° 56' 50.27" N 100° 49' 11.95" E
BS105	14° 18' 13.51" N 100° 54' 46.31" E
BS106	14° 27' 25.68" N 100° 57' 10.58" E
BS107	14° 22' 18.62" N 100° 39' 09.50" E
BS108	14° 03' 57.63" N 100° 41' 52.58" E
BS117	14° 05' 32.89" N 100° 31' 27.63" E
BS118	14° 07' 10.87" N 100° 20' 41.58" E
DISCO	14° 28' 15.59" N 100° 16' 17.24" E
NOBER	15° 16' 35.60" N 100° 40' 06.00" E
NUNLI	14° 51' 27.45" N 099° 23' 03.60" E
OBMAR	13° 58' 53.52" N 100° 03' 54.64" E
PASTO	14° 00' 04.50" N 099° 30' 06.94" E
ROBKA	14° 10' 42.95" N 101° 25' 07.95" E
SEMBO	14° 53' 59.16" N 100° 15' 47.92" E
TANGO	14° 40' 22.25" N 100° 14' 32.54" E
TARED	14° 26' 19.52" N 099° 31' 28.87" E
TEMPO	14° 11' 00.89" N 099° 55' 11.97" E
TL	15° 16' 33.45" N 100° 17' 51.11" E
UPKUP	14° 03' 52.65" N 101° 26' 54.84" E
VARIS	13° 45' 37.45" N 100° 45' 29.14" E

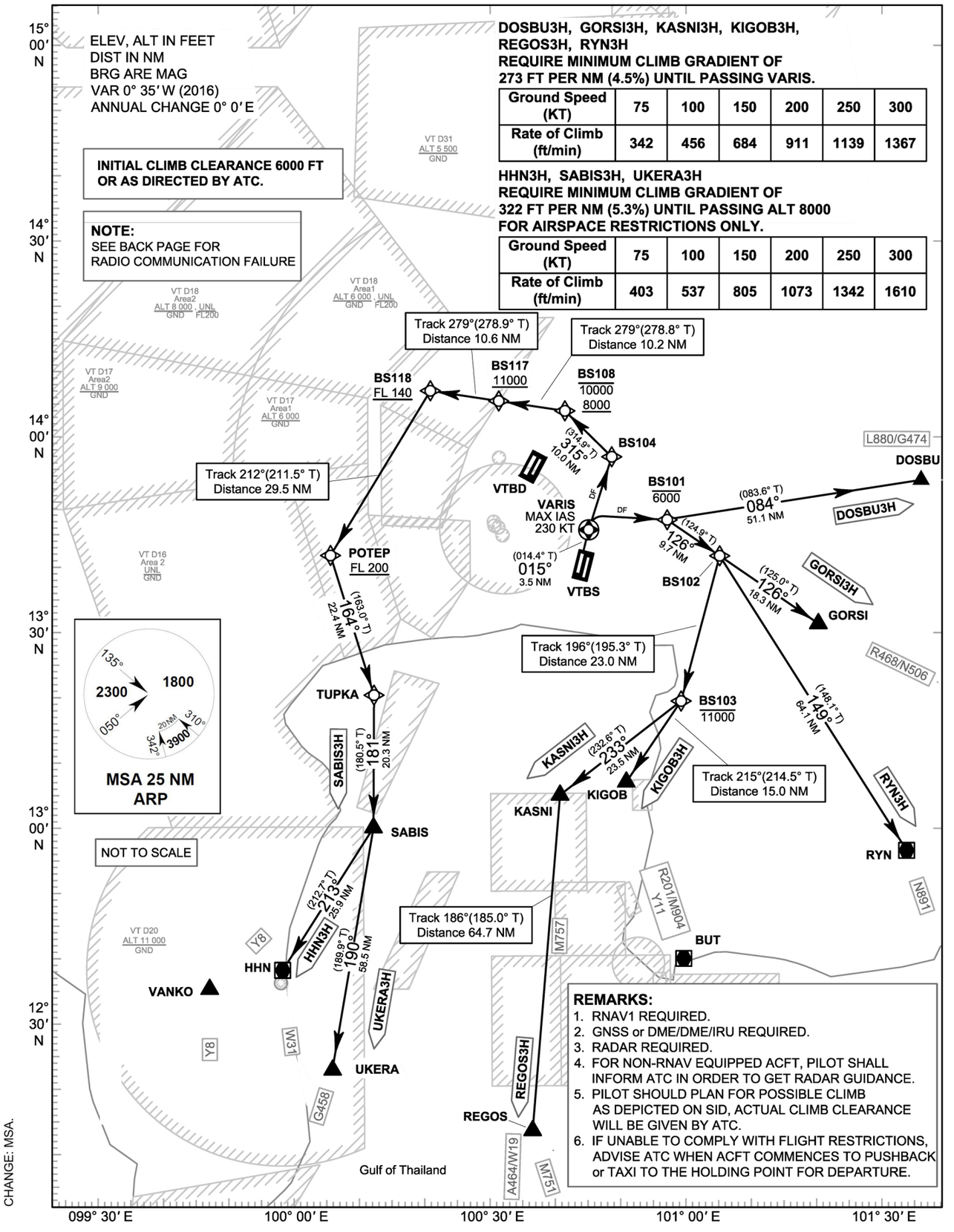
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 11000 FT
SPEED RESTRICTION MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
DEP ATIS	: 127.65

BANGKOK/Suvarnabhumi Intl (VTBS) RNAV RWY01L

DOSBU3H GORSI3H HHN3H
KASNI3H KIGOB3H REGOS3H
RYN3H SABIS3H UKERA3H



STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L

DOSBU3H GORSI3H HHN3H
KASNI3H KIGOB3H REGOS3H
RYN3H SABIS3H UKERA3H

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
3	WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
DER RWY01L	-	HHN	HUA - HIN
BS101	-	KASNI	KAS - NEE
BS102	-	KIGOB	KEE - GOB
BS103	-	POTEP	POH - TEP
BS104	-	REGOS	REE - GOSS
BS108	-	RYN	RA - YONG
BS117	-	SABIS	SAH - BISS
BS118	-	TUPKA	TUP - KAH
DOSBU	DOS - BU	UKERA	U - KEY - RAH
GORSI	GOR - SEE	VARIS	VAH - RISS

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L

DOSBU3H GORSI3H HHN3H
KASNI3H KIGOB3H REGOS3H
RYN3H SABIS3H UKERA3H

TABULAR DESCRIPTION (1)

RNAV RWY01L											
Serial Number	**Path Descriptor**	**Waypoint Identifier**	**Flyover**	**Course °M (°T)**	**Magnetic Variation**	**Distance (NM)**	**Turn Direction**	**Altitude (FT)**	**Speed (KT)**	**VPA/ TCH**	**Navigation Specification**
DOSBU3H TO L880/G474											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	DOSBU	-	084°(083.6°)	+0.58	51.1	-	-	-	-	RNAV 1
GORSI3H TO R468/N506											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	-	-	-	-	RNAV 1
050	TF	GORSI	-	126°(125.0°)	+0.58	18.3	-	-	-	-	RNAV 1
HHN3H TO W31											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	POTEP	-	212°(211.5°)	+0.58	29.5	L	+FL200	-	-	RNAV 1
080	TF	TUPKA	-	164°(163.0°)	+0.58	22.4	R	-	-	-	RNAV 1
090	TF	SABIS	-	181°(180.5°)	+0.58	20.3	R	-	-	-	RNAV 1
100	TF	HHN	-	213°(212.7°)	+0.58	25.9	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L

DOSBU3H GORSI3H HHN3H
KASNI3H KIGOB3H REGOS3H
RYN3H SABIS3H UKERA3H

TABULAR DESCRIPTION (2)

RNAV RWY01L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
KASNI3H TO M757											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	R	-	-	-	RNAV 1
050	TF	BS103	-	196°(195.3°)	+0.58	23.0	R	-11000	-	-	RNAV 1
060	TF	KASNI	-	233°(232.6°)	+0.58	23.5	-	-	-	-	RNAV 1
KIGOB3H TO R201/M904/Y11											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	R	-	-	-	RNAV 1
050	TF	BS103	-	196°(195.3°)	+0.58	23.0	R	-11000	-	-	RNAV 1
060	TF	KIGOB	-	215°(214.5°)	+0.58	15.0	-	-	-	-	RNAV 1
REGOS3H TO A464/W19, M751											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	R	-	-	-	RNAV 1
050	TF	BS103	-	196°(195.3°)	+0.58	23.0	R	-11000	-	-	RNAV 1
060	TF	KASNI	-	233°(232.6°)	+0.58	23.5	L	-	-	-	RNAV 1
070	TF	REGOS	-	186°(185.0°)	+0.58	64.7	-	-	-	-	RNAV 1
RYN3H TO N891											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	R	-	-	-	RNAV 1
050	TF	RYN	-	149°(148.1°)	+0.58	64.1	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L**

DOSBU3H GORSI3H HHN3H
KASNI3H KIGOB3H REGOS3H
RYN3H SABIS3H UKERA3H

TABULAR DESCRIPTION (3)

RNAV RWY01L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
SABIS3H TO Y8											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	POTEP	-	212°(211.5°)	+0.58	29.5	L	+FL200	-	-	RNAV 1
080	TF	TUPKA	-	164°(163.0°)	+0.58	22.4	R	-	-	-	RNAV 1
090	TF	SABIS	-	181°(180.5°)	+0.58	20.3	-	-	-	-	RNAV 1
UKERA3H TO G458											
010	-	DER RWY01L	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	VARIS	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	POTEP	-	212°(211.5°)	+0.58	29.5	L	+FL200	-	-	RNAV 1
080	TF	TUPKA	-	164°(163.0°)	+0.58	22.4	R	-	-	-	RNAV 1
090	TF	SABIS	-	181°(180.5°)	+0.58	20.3	R	-	-	-	RNAV 1
100	TF	UKERA	-	190°(189.9°)	+0.58	58.5	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L**

DOSBU3H GORSI3H HHN3H
KASNI3H KIGOB3H REGOS3H
RYN3H SABIS3H UKERA3H

WAYPOINT LIST

RNAV RWY01L	
Waypoint Identifier	**Coordinates**
DER RWY01L	13° 42' 13.21" N 100° 44' 35.44" E
BS101	13° 47' 04.50" N 100° 57' 50.60" E
BS102	13° 41' 28.08" N 101° 06' 02.84" E
BS103	13° 19' 09.98" N 100° 59' 48.37" E
BS104	13° 56' 50.27" N 100° 49' 11.95" E
BS108	14° 03' 57.63" N 100° 41' 52.58" E
BS117	14° 05' 32.89" N 100° 31' 27.63" E
BS118	14° 07' 10.87" N 100° 20' 41.58" E
DOSBU	13° 52' 40.26" N 101° 50' 01.98" E
GORSI	13° 30' 54.64" N 101° 21' 28.05" E
HHN	12° 38' 04.04" N 099° 57' 04.23" E
KASNI	13° 04' 50.17" N 100° 40' 41.88" E
KIGOB	13° 06' 46.46" N 100° 51' 06.33" E
POTEP	13° 41' 54.24" N 100° 04' 50.87" E
REGOS	12° 00' 06.50" N 100° 34' 54.30" E
RYN	12° 46' 48.30" N 101° 40' 41.70" E
SABIS	12° 59' 58.53" N 100° 11' 24.53" E
TUPKA	13° 20' 22.25" N 100° 11' 34.96" E
UKERA	12° 02' 07.25" N 100° 01' 09.59" E
VARIS	13° 45' 37.45" N 100° 45' 29.14" E

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

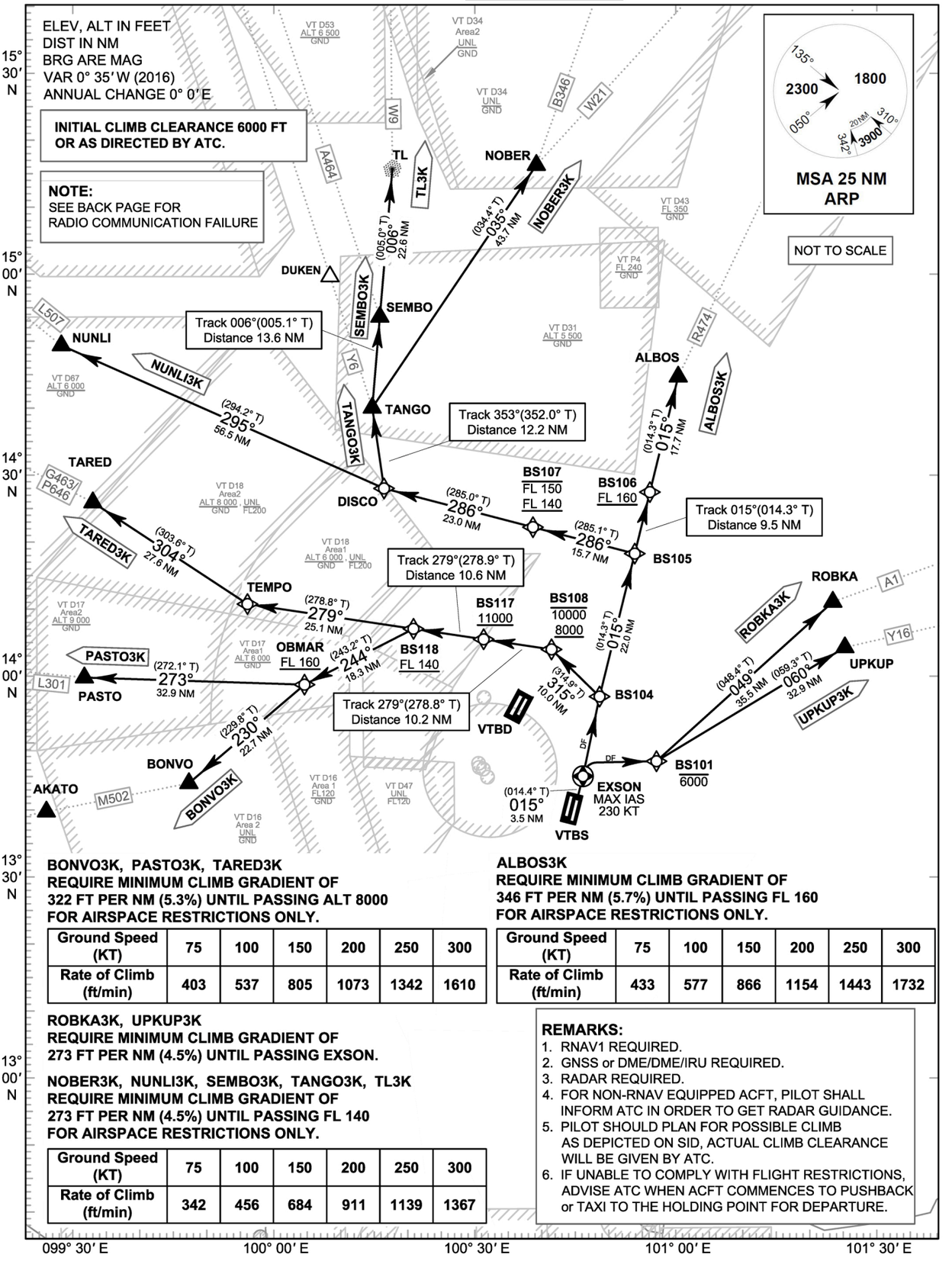
TRANSITION ALTITUDE
11000 FT

SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
DEP ATIS	: 127.65

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

ALBOS3K BONVO3K
NOBER3K NUNLI3K PASTO3K
ROBKA3K SEMBO3K TANGO3K
TARED3K TL3K UPKUP3K



BONVO3K, PASTO3K, TARED3K
REQUIRE MINIMUM CLIMB GRADIENT OF
322 FT PER NM (5.3%) UNTIL PASSING ALT 8000
FOR AIRSPACE RESTRICTIONS ONLY.

Ground Speed (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	403	537	805	1073	1342	1610

ALBOS3K
REQUIRE MINIMUM CLIMB GRADIENT OF
346 FT PER NM (5.7%) UNTIL PASSING FL 160
FOR AIRSPACE RESTRICTIONS ONLY.

Ground Speed (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	433	577	866	1154	1443	1732

ROBKA3K, UPKUP3K
REQUIRE MINIMUM CLIMB GRADIENT OF
273 FT PER NM (4.5%) UNTIL PASSING EXSON.

NOBER3K, NUNLI3K, SEMBO3K, TANGO3K, TL3K
REQUIRE MINIMUM CLIMB GRADIENT OF
273 FT PER NM (4.5%) UNTIL PASSING FL 140
FOR AIRSPACE RESTRICTIONS ONLY.

Ground Speed (KT)	75	100	150	200	250	300
Rate of Climb (ft/min)	342	456	684	911	1139	1367

REMARKS:
1. RNAV1 REQUIRED.
2. GNSS or DME/DME/IRU REQUIRED.
3. RADAR REQUIRED.
4. FOR NON-RNAV EQUIPPED ACFT, PILOT SHALL INFORM ATC IN ORDER TO GET RADAR GUIDANCE.
5. PILOT SHOULD PLAN FOR POSSIBLE CLIMB AS DEPICTED ON SID, ACTUAL CLIMB CLEARANCE WILL BE GIVEN BY ATC.
6. IF UNABLE TO COMPLY WITH FLIGHT RESTRICTIONS, ADVISE ATC WHEN ACFT COMMENCES TO PUSHBACK or TAXI TO THE HOLDING POINT FOR DEPARTURE.

CHANGE: MSA.

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

ALBOS3K BONVO3K
NOBER3K NUNLI3K PASTO3K
ROBKA3K SEMBO3K TANGO3K
TARED3K TL3K UPKUP3K

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
3	WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
DER RWY01R	-	EXSON	ECKS - SON
ALBOS	AL - BOSS	NOBER	NO - BER
BONVO	BONG - VOH	NUNLI	NUN - LEE
BS101	-	OBMAR	OB - MAR
BS104	-	PASTO	PAS - TOW
BS105	-	ROBKA	ROB - KAH
BS106	-	SEMBO	SEM - BO
BS107	-	TANGO	TANG - GO
BS108	-	TARED	TAH - RED
BS117	-	TEMPO	TEM - POH
BS118	-	TL	TA - KLEE
DISCO	DIS - KOH	UPKUP	UP - CUP

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

ALBOS3K BONVO3K
NOBER3K NUNLI3K PASTO3K
ROBKA3K SEMBO3K TANGO3K
TARED3K TL3K UPKUP3K

TABULAR DESCRIPTION (1)

RNAV RWY01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
ALBOS3K TO R474											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	-	-	-	-	RNAV 1
050	TF	BS106	-	015°(014.3°)	+0.58	9.5	-	+FL160	-	-	RNAV 1
060	TF	ALBOS	-	015°(014.3°)	+0.58	17.7	-	-	-	-	RNAV 1
BONVO3K TO M502											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	OBMAR	-	244°(243.2°)	+0.58	18.3	L	+FL160	-	-	RNAV 1
080	TF	BONVO	-	230°(229.8°)	+0.58	22.7	-	-	-	-	RNAV 1
NOBER3K TO B346, W21											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
080	TF	NOBER	-	035°(034.4°)	+0.58	43.7	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

ALBOS3K BONVO3K
NOBER3K NUNLI3K PASTO3K
ROBKA3K SEMBO3K TANGO3K
TARED3K TL3K UPKUP3K

TABULAR DESCRIPTION (2)

RNAV RWY01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
NUNLI3K TO L507											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	NUNLI	-	295°(294.2°)	+0.58	56.5	-	-	-	-	RNAV 1
PASTO3K TO L301											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	OBMAR	-	244°(243.2°)	+0.58	18.3	R	+FL160	-	-	RNAV 1
080	TF	PASTO	-	273°(272.1°)	+0.58	32.9	-	-	-	-	RNAV 1
ROBKA3K TO A1											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	ROBKA	-	049°(048.4°)	+0.58	35.5	-	-	-	-	RNAV 1
SEMBO3K TO A464											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
080	TF	SEMBO	-	006°(005.1°)	+0.58	13.6	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

ALBOS3K BONVO3K
NOBER3K NUNLI3K PASTO3K
ROBKA3K SEMBO3K TANGO3K
TARED3K TL3K UPKUP3K

TABULAR DESCRIPTION (3)

RNAV RWY01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
TANGO3K TO Y6											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	TANGO	-	353°(352.0°)	+0.58	12.2	-	-	-	-	RNAV 1
TARED3K TO G463/P646											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	-	+FL140	-	-	RNAV 1
070	TF	TEMPO	-	279°(278.8°)	+0.58	25.1	R	-	-	-	RNAV 1
080	TF	TARED	-	304°(303.6°)	+0.58	27.6	-	-	-	-	RNAV 1
TL3K TO W9											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS105	-	015°(014.3°)	+0.58	22.0	L	-	-	-	RNAV 1
050	TF	BS107	-	286°(285.1°)	+0.58	15.7	-	-FL150 ; +FL140	-	-	RNAV 1
060	TF	DISCO	-	286°(285.0°)	+0.58	23.0	R	-	-	-	RNAV 1
070	TF	TANGO	-	353°(352.0°)	+0.58	12.2	R	-	-	-	RNAV 1
080	TF	SEMBO	-	006°(005.1°)	+0.58	13.6	-	-	-	-	RNAV 1
090	TF	TL	-	006°(005.0°)	+0.58	22.6	-	-	-	-	RNAV 1
UPKUP3K TO Y16											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	UPKUP	-	060°(059.3°)	+0.58	32.9	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

ALBOS3K BONVO3K
NOBER3K NUNLI3K PASTO3K
ROBKA3K SEMBO3K TANGO3K
TARED3K TL3K UPKUP3K

WAYPOINT LIST

RNAV RWY01R

Waypoint Identifier	Coordinates
DER RWY01R	13° 41' 30.17" N 100° 45' 39.72" E
ALBOS	14° 44' 41.70" N 101° 01' 41.90" E
BONVO	13° 44' 10.47" N 099° 46' 06.72" E
BS101	13° 47' 04.50" N 100° 57' 50.60" E
BS104	13° 56' 50.27" N 100° 49' 11.95" E
BS105	14° 18' 13.51" N 100° 54' 46.31" E
BS106	14° 27' 25.68" N 100° 57' 10.58" E
BS107	14° 22' 18.62" N 100° 39' 09.50" E
BS108	14° 03' 57.63" N 100° 41' 52.58" E
BS117	14° 05' 32.89" N 100° 31' 27.63" E
BS118	14° 07' 10.87" N 100° 20' 41.58" E
DISCO	14° 28' 15.59" N 100° 16' 17.24" E
EXSON	13° 44' 54.41" N 100° 46' 33.44" E
NOBER	15° 16' 35.60" N 100° 40' 06.00" E
NUNLI	14° 51' 27.45" N 099° 23' 03.60" E
OBMAR	13° 58' 53.52" N 100° 03' 54.64" E
PASTO	14° 00' 04.50" N 099° 30' 06.94" E
ROBKA	14° 10' 42.95" N 101° 25' 07.95" E
SEMBO	14° 53' 59.16" N 100° 15' 47.92" E
TANGO	14° 40' 22.25" N 100° 14' 32.54" E
TARED	14° 26' 19.52" N 099° 31' 28.87" E
TEMPO	14° 11' 00.89" N 099° 55' 11.97" E
TL	15° 16' 33.45" N 100° 17' 51.11" E
UPKUP	14° 03' 52.65" N 101° 26' 54.84" E

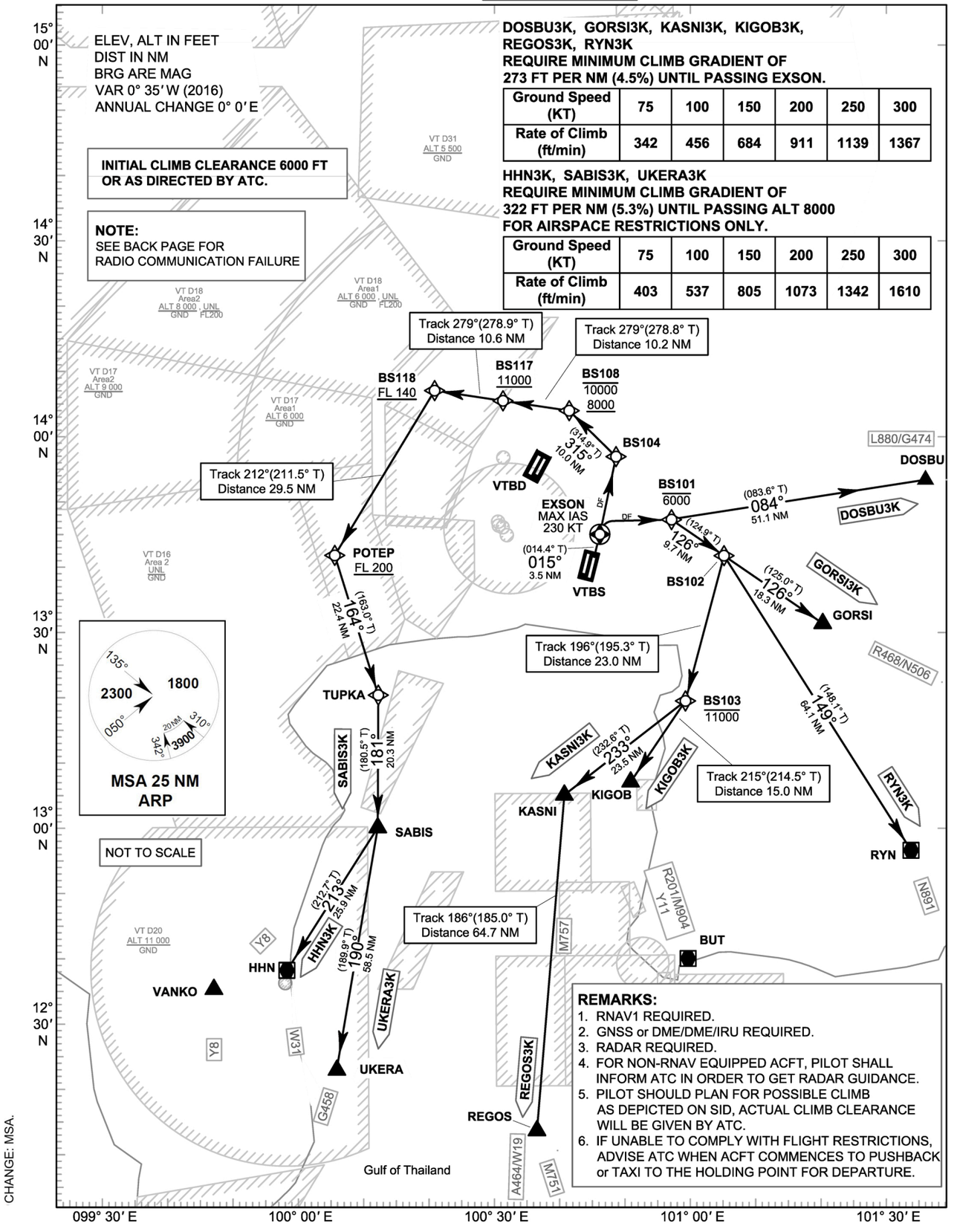
STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE 11000 FT
SPEED RESTRICTION MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
DEP ATIS	: 127.65

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

DOSBU3K GORSI3K HHN3K
KASNI3K KIGOB3K REGOS3K
RYN3K SABIS3K UKERA3K



STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

DOSBU3K GORSI3K HHN3K
KASNI3K KIGOB3K REGOS3K
RYN3K SABIS3K UKERA3K

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	COMPLY WITH THE LAST ACKNOWLEDGED CLEARANCE ***UP TO THE NEXT REPORTING POINT IN THE SID, THEN CLIMB TO THE FLIGHT PLANNED CRUISING LEVEL*** IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT SID PROCEDURE. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
3	WHEN **A DEPARTING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF ***TWO MINUTES***, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. THE PILOT SHALL MAINTAIN THE LAST ASSIGNED HEADING, SPEED AND LEVEL, OR MINIMUM FLIGHT ALTITUDE IF HIGHER. AFTER PERIOD OF ***TWO MINUTES***, THE FLIGHT SHALL REJOIN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE SID PROCEDURE APPROPRIATE TO ITS ATS ROUTE OR THE FLIGHT PLAN ROUTE NO LATER THAN THE NEXT SIGNIFICANT POINT. THEREAFTER COMPLY WITH THE FLIGHT PLANNED ROUTING AND LEVEL.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
DER RWY01L	-	HHN	HUA - HIN
BS101	-	KASNI	KAS - NEE
BS102	-	KIGOB	KEE - GOB
BS103	-	POTEP	POH - TEP
BS104	-	REGOS	REE - GOSS
BS108	-	RYN	RA - YONG
BS117	-	SABIS	SAH - BISS
BS118	-	TUPKA	TUP - KAH
DOSBU	DOS - BU	UKERA	U - KEY - RAH
GORSI	GOR - SEE	VARIS	VAH - RISS

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

DOSBU3K GORSI3K HHN3K
KASNI3K KIGOB3K REGOS3K
RYN3K SABIS3K UKERA3K

TABULAR DESCRIPTION (1)

RNAV RWY01R											
Serial Number	**Path Descriptor**	**Waypoint Identifier**	**Flyover**	**Course °M (°T)**	**Magnetic Variation**	**Distance (NM)**	**Turn Direction**	**Altitude (FT)**	**Speed (KT)**	**VPA/ TCH**	**Navigation Specification**
DOSBU3K TO L880/G474											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	DOSBU	-	084°(083.6°)	+0.58	51.1	-	-	-	-	RNAV 1
GORSI3K TO R468/N506											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	-	-	-	-	RNAV 1
050	TF	GORSI	-	126°(125.0°)	+0.58	18.3	-	-	-	-	RNAV 1
HHN3K TO W31											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	POTEP	-	212°(211.5°)	+0.58	29.5	L	+FL200	-	-	RNAV 1
080	TF	TUPKA	-	164°(163.0°)	+0.58	22.4	R	-	-	-	RNAV 1
090	TF	SABIS	-	181°(180.5°)	+0.58	20.3	R	-	-	-	RNAV 1
100	TF	HHN	-	213°(212.7°)	+0.58	25.9	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

DOSBU3K GORSI3K HHN3K
KASNI3K KIGOB3K REGOS3K
RYN3K SABIS3K UKERA3K

TABULAR DESCRIPTION (2)

RNAV RWY01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
KASNI3K TO M757											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	R	-	-	-	RNAV 1
050	TF	BS103	-	196°(195.3°)	+0.58	23.0	R	-11000	-	-	RNAV 1
060	TF	KASNI	-	233°(232.6°)	+0.58	23.5	-	-	-	-	RNAV 1
KIGOB3K TO R201/M904/Y11											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	R	-	-	-	RNAV 1
050	TF	BS103	-	196°(195.3°)	+0.58	23.0	R	-11000	-	-	RNAV 1
060	TF	KIGOB	-	215°(214.5°)	+0.58	15.0	-	-	-	-	RNAV 1
REGOS3K TO A464/W19, M751											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	R	-	-	-	RNAV 1
050	TF	BS103	-	196°(195.3°)	+0.58	23.0	R	-11000	-	-	RNAV 1
060	TF	KASNI	-	233°(232.6°)	+0.58	23.5	L	-	-	-	RNAV 1
070	TF	REGOS	-	186°(185.0°)	+0.58	64.7	-	-	-	-	RNAV 1
RYN3K TO N891											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	R	-	-230	-	RNAV 1
030	DF	BS101	-	-	+0.58	-	-	-6000	-	-	RNAV 1
040	TF	BS102	-	126°(124.9°)	+0.58	9.7	R	-	-	-	RNAV 1
050	TF	RYN	-	149°(148.1°)	+0.58	64.1	-	-	-	-	RNAV 1

STANDARD DEPARTURE CHART-INSTRUMENT (SID) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R

DOSBU3K GORSI3K HHN3K
KASNI3K KIGOB3K REGOS3K
RYN3K SABIS3K UKERA3K

TABULAR DESCRIPTION (3)

RNAV RWY01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
SABIS3K TO Y8											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	POTEP	-	212°(211.5°)	+0.58	29.5	L	+FL200	-	-	RNAV 1
080	TF	TUPKA	-	164°(163.0°)	+0.58	22.4	R	-	-	-	RNAV 1
090	TF	SABIS	-	181°(180.5°)	+0.58	20.3	-	-	-	-	RNAV 1
UKERA3K TO G458											
010	-	DER RWY01R	-	-	+0.58	-	-	-	-	-	RNAV 1
020	CF	EXSON	Y	015°(014.4°)	+0.58	3.5	L	-	-230	-	RNAV 1
030	DF	BS104	-	-	+0.58	-	-	-	-	-	RNAV 1
040	TF	BS108	-	315°(314.9°)	+0.58	10.0	L	-10000 ; +8000	-	-	RNAV 1
050	TF	BS117	-	279°(278.8°)	+0.58	10.2	-	+11000	-	-	RNAV 1
060	TF	BS118	-	279°(278.9°)	+0.58	10.6	L	+FL140	-	-	RNAV 1
070	TF	POTEP	-	212°(211.5°)	+0.58	29.5	L	+FL200	-	-	RNAV 1
080	TF	TUPKA	-	164°(163.0°)	+0.58	22.4	R	-	-	-	RNAV 1
090	TF	SABIS	-	181°(180.5°)	+0.58	20.3	R	-	-	-	RNAV 1
100	TF	UKERA	-	190°(189.9°)	+0.58	58.5	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01R**

DOSBU3K GORSI3K HHN3K
KASNI3K KIGOB3K REGOS3K
RYN3K SABIS3K UKERA3K

WAYPOINT LIST

RNAV RWY01R	
Waypoint Identifier	**Coordinates**
DER RWY01R	13° 41' 30.17" N 100° 45' 39.72" E
BS101	13° 47' 04.50" N 100° 57' 50.60" E
BS102	13° 41' 28.08" N 101° 06' 02.84" E
BS103	13° 19' 09.98" N 100° 59' 48.37" E
BS104	13° 56' 50.27" N 100° 49' 11.95" E
BS108	14° 03' 57.63" N 100° 41' 52.58" E
BS117	14° 05' 32.89" N 100° 31' 27.63" E
BS118	14° 07' 10.87" N 100° 20' 41.58" E
DOSBU	13° 52' 40.26" N 101° 50' 01.98" E
EXSON	13° 44' 54.41" N 100° 46' 33.44" E
GORSI	13° 30' 54.64" N 101° 21' 28.05" E
HHN	12° 38' 04.04" N 099° 57' 04.23" E
KASNI	13° 04' 50.17" N 100° 40' 41.88" E
KIGOB	13° 06' 46.46" N 100° 51' 06.33" E
POTEP	13° 41' 54.24" N 100° 04' 50.87" E
REGOS	12° 00' 06.50" N 100° 34' 54.30" E
RYN	12° 46' 48.30" N 101° 40' 41.70" E
SABIS	12° 59' 58.53" N 100° 11' 24.53" E
TUPKA	13° 20' 22.25" N 100° 11' 34.96" E
UKERA	12° 02' 07.25" N 100° 01' 09.59" E

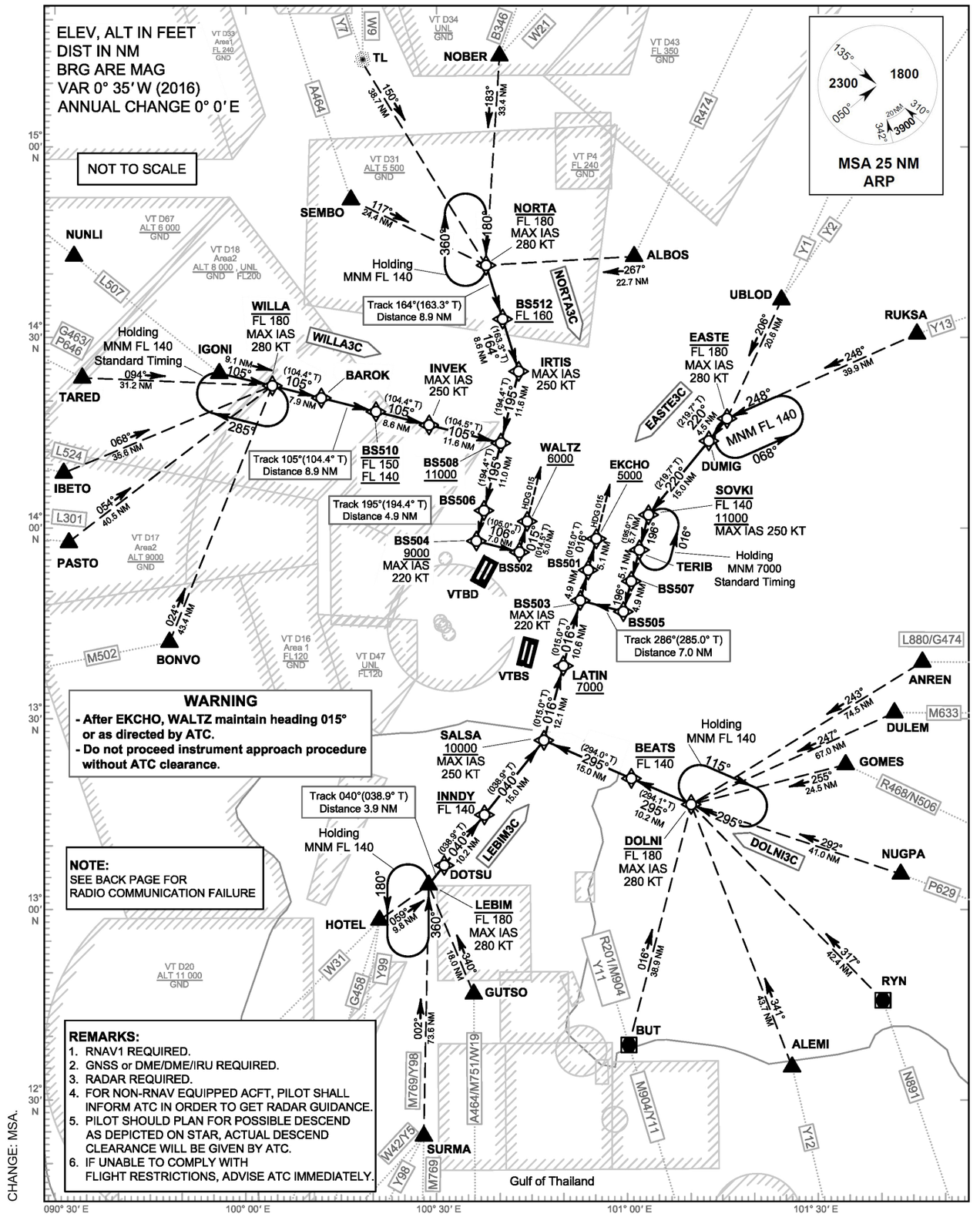
STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11000 FT
SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L/19R

DOLNI3C EASTE3C
LEBIM3C NORTA3C WILLA3C



STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L/19R

DOLNI3C EASTE3C
LEBIM3C NORTA3C WILLA3C

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	PROCEED ACCORDING TO THE STAR ROUTE TO THE TERMINATION POINT WALTZ/EKCHO, DESCEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, THENCE: AFTER PASSING WALTZ/EKCHO FLY HEADING 015 AND MAINTAIN ALTITUDE 6000 FT FOR NEXT 10 NM, THEN TURN RIGHT/LEFT AND DESCEND TO 2000 FT AND CARRY OUT THE APPROPRIATE ILS APPROACH PROCEDURE.
3	WHEN **AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF **TWO MINUTES**, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. PILOT SHOULD PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
ALBOS	AL - BOSS	DOLNI	DOL - NEE	NOBER	NO - BER
ALEMI	AH - LAY - MEE	DOTSU	DOT - TSU	NORTA	NOR - TAH
ANREN	AN - REN	DULEM	DU - LEM	NUGPA	NUK - PAH
BAROK	BAH - ROCK	DUMIG	DOO - MIG	PASTO	PAS - TOW
BEATS	BEATS	EASTE	EAST - TE	RUKSA	RUCK - SA
BONVO	BONG - VOH	EKCHO	EK - KO	RYN	RA - YONG
BS501	-	GOMES	GO - MESS	SALSA	SAL - SAH
BS502	-	GUTSO	GUTT - SOH	SEMBO	SEM - BO
BS503	-	HOTEL	HO - TEL	SOVKI	SOV - KEE
BS504	-	IBETO	YI - BAY - TOH	SURMA	SUR - MAR
BS505	-	IGONI	YI - GO - NEE	TARED	TAH - RED
BS506	-	INNDY	IN - DEE	TERIB	TEH - RIB
BS507	-	INVEK	INN - VECK	TL	TA - KLEE
BS508	-	IRTIS	ER - TISS	UBLOD	UB - LOD
BS510	-	LATIN	LAH - TIN	WALTZ	WALTZ
BS512	-	LEBIM	LAY - BIM	WILLA	WILL - LAH
BUT	U - TAH - PAO				

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L/19R**

DOLNI3C EASTE3C
LEBIM3C NORTA3C WILLA3C

TABULAR DESCRIPTION (1)

RNAV RWY19L/19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
DOLNI3C											
TRANSITION ANREN		FROM L880/G474									
010	IF	ANREN	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	243°(242.6°)	+0.58	74.5	-	-FL180	-280	-	RNAV 1
TRANSITION DULEM		FROM M633									
010	IF	DULEM	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	247°(246.9°)	+0.58	67.0	-	-FL180	-280	-	RNAV 1
TRANSITION NUGPA		FROM P629									
010	IF	NUGPA	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	292°(291.1°)	+0.58	41.0	-	-FL180	-280	-	RNAV 1
TRANSITION GOMES		FROM R468/N506									
010	IF	GOMES	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	255°(254.9°)	+0.58	24.5	-	-FL180	-280	-	RNAV 1
TRANSITION RYN		FROM N891									
010	IF	RYN	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	317°(316.5°)	+0.58	42.4	-	-FL180	-280	-	RNAV 1
TRANSITION ALEMI		FROM Y12									
010	IF	ALEMI	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	341°(340.2°)	+0.58	43.7	-	-FL180	-280	-	RNAV 1
TRANSITION BUT		FROM M904/Y11									
010	IF	BUT	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	016°(015.7°)	+0.58	38.9	-	-FL180	-280	-	RNAV 1
010	IF	DOLNI	-	-	+0.58	-	-	-FL180	-280	-	RNAV 1
020	TF	BEATS	-	295°(294.1°)	+0.58	10.2	-	-FL140	-	-	RNAV 1
030	TF	SALSA	-	295°(294.0°)	+0.58	15.0	R	+10000	-250	-	RNAV 1
040	TF	LATIN	-	016°(015.0°)	+0.58	12.1	-	+7000	-	-	RNAV 1
050	TF	BS503	-	016°(015.0°)	+0.58	10.6	-	-	-220	-	RNAV 1
060	TF	BS501	-	016°(015.0°)	+0.58	4.9	-	-	-	-	RNAV 1
070	TF	EKCHO	-	016°(015.0°)	+0.58	5.1	-	+5000	-	-	RNAV 1
080	VM	-	-	015°(-)	+0.58	-	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L/19R**

DOLNI3C EASTE3C
LEBIM3C NORTA3C WILLA3C

TABULAR DESCRIPTION (2)

RNAV RWY19L/19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
EASTE3C											
TRANSITION UBLOD		FROM Y1, Y2									
010	IF	UBLOD	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	EASTE	-	206°(205.2°)	+0.58	20.6	-	-FL180	-280	-	RNAV 1
TRANSITION RUKSA		FROM Y13									
010	IF	RUKSA	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	EASTE	-	248°(247.7°)	+0.58	39.9	-	-FL180	-280	-	RNAV 1
010	IF	EASTE	-	-	+0.58	-	-	-FL180	-280	-	RNAV 1
020	TF	DUMIG	-	220°(219.7°)	+0.58	4.5	-	-	-	-	RNAV 1
030	TF	SOVKI	-	220°(219.7°)	+0.58	15.0	L	-FL140 ; +11000	-250	-	RNAV 1
040	TF	TERIB	-	196°(195.0°)	+0.58	5.7	-	-	-	-	RNAV 1
050	TF	BS507	-	196°(195.0°)	+0.58	5.1	-	-	-	-	RNAV 1
060	TF	BS505	-	196°(195.0°)	+0.58	4.9	R	-	-	-	RNAV 1
070	TF	BS503	-	286°(285.0°)	+0.58	7.0	R	-	-220	-	RNAV 1
080	TF	BS501	-	016°(015.0°)	+0.58	4.9	-	-	-	-	RNAV 1
090	TF	EKCHO	-	016°(015.0°)	+0.58	5.1	-	+5000	-	-	RNAV 1
100	VM	-	-	015°(-)	+0.58	-	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L/19R**

DOLNI3C EASTE3C
LEBIM3C NORTA3C WILLA3C

TABULAR DESCRIPTION (3)

RNAV RWY19L/19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
LEBIM3C											
TRANSITION GUTSO		FROM A464/M751/W19									
010	IF	GUTSO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	LEBIM	-	340°(339.4°)	+0.58	18.0	-	-FL180	-280	-	RNAV 1
TRANSITION SURMA		FROM M769/Y98									
010	IF	SURMA	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	LEBIM	-	002°(001.4°)	+0.58	73.6	-	-FL180	-280	-	RNAV 1
TRANSITION HOTEL		FROM G458 ,W31, Y99									
010	IF	HOTEL	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	LEBIM	-	059°(058.6°)	+0.58	9.8	-	-FL180	-280	-	RNAV 1
010	IF	LEBIM	-	-	+0.58	-	-	-FL180	-280	-	RNAV 1
020	TF	DOTSU	-	040°(038.9°)	+0.58	3.9	-	-	-	-	RNAV 1
030	TF	INNDY	-	040°(038.9°)	+0.58	10.2	-	-FL140	-	-	RNAV 1
040	TF	SALSA	-	040°(038.9°)	+0.58	15.0	L	+10000	-250	-	RNAV 1
050	TF	LATIN	-	016°(015.0°)	+0.58	12.1	-	+7000	-	-	RNAV 1
060	TF	BS503	-	016°(015.0°)	+0.58	10.6	-	-	-220	-	RNAV 1
070	TF	BS501	-	016°(015.0°)	+0.58	4.9	-	-	-	-	RNAV 1
080	TF	EKCHO	-	016°(015.0°)	+0.58	5.1	-	+5000	-	-	RNAV 1
090	VM	-	-	015°(-)	+0.58	-	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhuml Intl (VTBS)
RNAV RWY19L/19R**

DOLNI3C EASTE3C
LEBIM3C NORTA3C WILLA3C

TABULAR DESCRIPTION (4)

RNAV RWY19L/19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
NORTA3C											
TRANSITION SEMBO		FROM A464									
010	IF	SEMBO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	NORTA	-	117°(116.3°)	+0.58	24.4	-	-FL180	-280	-	RNAV 1
TRANSITION TL		FROM W9, Y7									
010	IF	TL	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	NORTA	-	150°(149.2°)	+0.58	38.7	-	-FL180	-280	-	RNAV 1
TRANSITION NOBER		FROM B346, W21									
010	IF	NOBER	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	NORTA	-	183°(182.9°)	+0.58	33.4	-	-FL180	-280	-	RNAV 1
TRANSITION ALBOS		FROM R474									
010	IF	ALBOS	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	NORTA	-	267°(266.1°)	+0.58	22.7	-	-FL180	-280	-	RNAV 1
010	IF	NORTA	-	-	+0.58	-	-	-FL180	-280	-	RNAV 1
020	TF	BS512	-	164°(163.3°)	+0.58	8.9	-	+FL160	-	-	RNAV 1
030	TF	IRTIS	-	164°(163.3°)	+0.58	8.6	R	-	-250	-	RNAV 1
040	TF	BS508	-	195°(194.4°)	+0.58	11.6	-	+11000	-	-	RNAV 1
050	TF	BS506	-	195°(194.4°)	+0.58	11.0	-	-	-	-	RNAV 1
060	TF	BS504	-	195°(194.4°)	+0.58	4.9	L	+9000	-220	-	RNAV 1
070	TF	BS502	-	106°(105.0°)	+0.58	7.0	L	-	-	-	RNAV 1
080	TF	WALTZ	-	015°(014.5°)	+0.58	5.0	-	+6000	-	-	RNAV 1
090	VM	-	-	015°(-)	+0.58	-	-	-	-	-	RNAV 1

STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L/19R

DOLNI3C EASTE3C
LEBIM3C NORTA3C WILLA3C

TABULAR DESCRIPTION (5)

RNAV RWY19L/19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
WILLA3C											
TRANSITION IGONI		FROM L507									
010	IF	IGONI	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	105°(104.3°)	+0.58	9.1	-	-FL180	-280	-	RNAV 1
TRANSITION TARED		FROM G463/P646									
010	IF	TARED	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	094°(093.7°)	+0.58	31.2	-	-FL180	-280	-	RNAV 1
TRANSITION IBETO		FROM L524									
010	IF	IBETO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	068°(067.4°)	+0.58	35.6	-	-FL180	-280	-	RNAV 1
TRANSITION PASTO		FROM L301									
010	IF	PASTO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	054°(053.4°)	+0.58	40.5	-	-FL180	-280	-	RNAV 1
TRANSITION BONVO		FROM M502									
010	IF	BONVO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	024°(023.0°)	+0.58	43.4	-	-FL180	-280	-	RNAV 1
010	IF	WILLA	-	-	+0.58	-	-	-FL180	-280	-	RNAV 1
020	TF	BAROK	-	105°(104.4°)	+0.58	7.9	-	-	-	-	RNAV 1
030	TF	BS510	-	105°(104.4°)	+0.58	8.9	-	-FL150 ; + FL140	-	-	RNAV 1
040	TF	INVEK	-	105°(104.4°)	+0.58	8.6	-	-	-250	-	RNAV 1
050	TF	BS508	-	105°(104.5°)	+0.58	11.6	R	+11000	-	-	RNAV 1
060	TF	BS506	-	195°(194.4°)	+0.58	11.0	-	-	-	-	RNAV 1
070	TF	BS504	-	195°(194.4°)	+0.58	4.9	L	+9000	-220	-	RNAV 1
080	TF	BS502	-	106°(105.0°)	+0.58	7.0	L	-	-	-	RNAV 1
090	TF	WALTZ	-	015°(014.5°)	+0.58	5.0	-	+6000	-	-	RNAV 1
100	VM	-	-	015°(-)	+0.58	-	-	-	-	-	RNAV 1

STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY19L/19R

DOLNI3C EASTE3C
LEBIM3C NORTA3C WILLA3C

WAYPOINT LIST

RNAV RWY19L/19R	
Waypoint Identifier	**Coordinates**
ALBOS	14° 44' 41.70" N 101° 01' 41.90" E
ALEMI	12° 36' 25.55" N 101° 25' 59.92" E
ANREN	13° 52' 12.48" N 102° 18' 37.95" E
BAROK	14° 22' 18.30" N 100° 11' 30.61" E
BEATS	13° 21' 51.18" N 101° 01' 12.46" E
BONVO	13° 44' 10.47" N 099° 46' 06.72" E
BS501	13° 54' 49.86" N 100° 54' 30.27" E
BS502	13° 57' 44.32" N 100° 43' 24.90" E
BS503	13° 50' 02.28" N 100° 53' 11.48" E
BS504	13° 59' 33.39" N 100° 36' 27.83" E
BS505	13° 48' 13.24" N 101° 00' 08.22" E
BS506	14° 04' 21.71" N 100° 37' 43.57" E
BS507	13° 53' 00.98" N 101° 01' 27.19" E
BS508	14° 15' 01.03" N 100° 40' 31.77" E
BS510	14° 20' 05.56" N 100° 20' 20.84" E
BS512	14° 34' 36.53" N 100° 40' 57.87" E
BUT	12° 40' 00.02" N 101° 00' 01.71" E
DOLNI	13° 17' 39.62" N 101° 10' 48.41" E
DOTSU	13° 08' 19.84" N 100° 30' 56.81" E
DULEM	13° 44' 15.58" N 102° 13' 59.75" E
DUMIG	14° 15' 04.59" N 101° 14' 11.33" E
EASTE	14° 18' 34.80" N 101° 17' 10.48" E
EKCHO	13° 59' 46.52" N 100° 55' 51.75" E
GOMES	13° 24' 06.10" N 101° 35' 05.70" E
GUTSO	12° 48' 19.94" N 100° 34' 54.30" E

RNAV RWY19L/19R	
Waypoint Identifier	**Coordinates**
HOTEL	13° 00' 06.20" N 100° 19' 48.30" E
IBETO	14° 10' 36.14" N 099° 29' 45.68" E
IGONI	14° 26' 32.73" N 099° 54' 30.29" E
INNDY	13° 16' 15.65" N 100° 37' 28.68" E
INVEK	14° 17' 56.26" N 100° 28' 55.92" E
IRTIS	14° 26' 19.82" N 100° 43' 30.68" E
LATIN	13° 39' 43.82" N 100° 50' 21.89" E
LEBIM	13° 05' 14.81" N 100° 28' 24.51" E
NOBER	15° 16' 35.60" N 100° 40' 06.00" E
NORTA	14° 43' 07.64" N 100° 38' 20.46" E
NUGPA	13° 02' 54.16" N 101° 49' 59.29" E
PASTO	14° 00' 04.50" N 099° 30' 06.94" E
RUKSA	14° 33' 51.00" N 101° 55' 12.34" E
RYN	12° 46' 48.30" N 101° 40' 41.70" E
SALSA	13° 27' 58.73" N 100° 47' 08.94" E
SEMBO	14° 53' 59.16" N 100° 15' 47.92" E
SOVKI	14° 03' 29.32" N 101° 04' 19.78" E
SURMA	11° 51' 22.45" N 100° 26' 32.65" E
TARED	14° 26' 19.52" N 099° 31' 28.87" E
TERIB	13° 57' 57.63" N 101° 02' 48.61" E
TL	15° 16' 33.45" N 100° 17' 51.11" E
UBLOD	14° 37' 15.43" N 101° 26' 11.66" E
WALTZ	14° 02' 36.02" N 100° 44' 42.21" E
WILLA	14° 24' 16.98" N 100° 03' 35.36" E

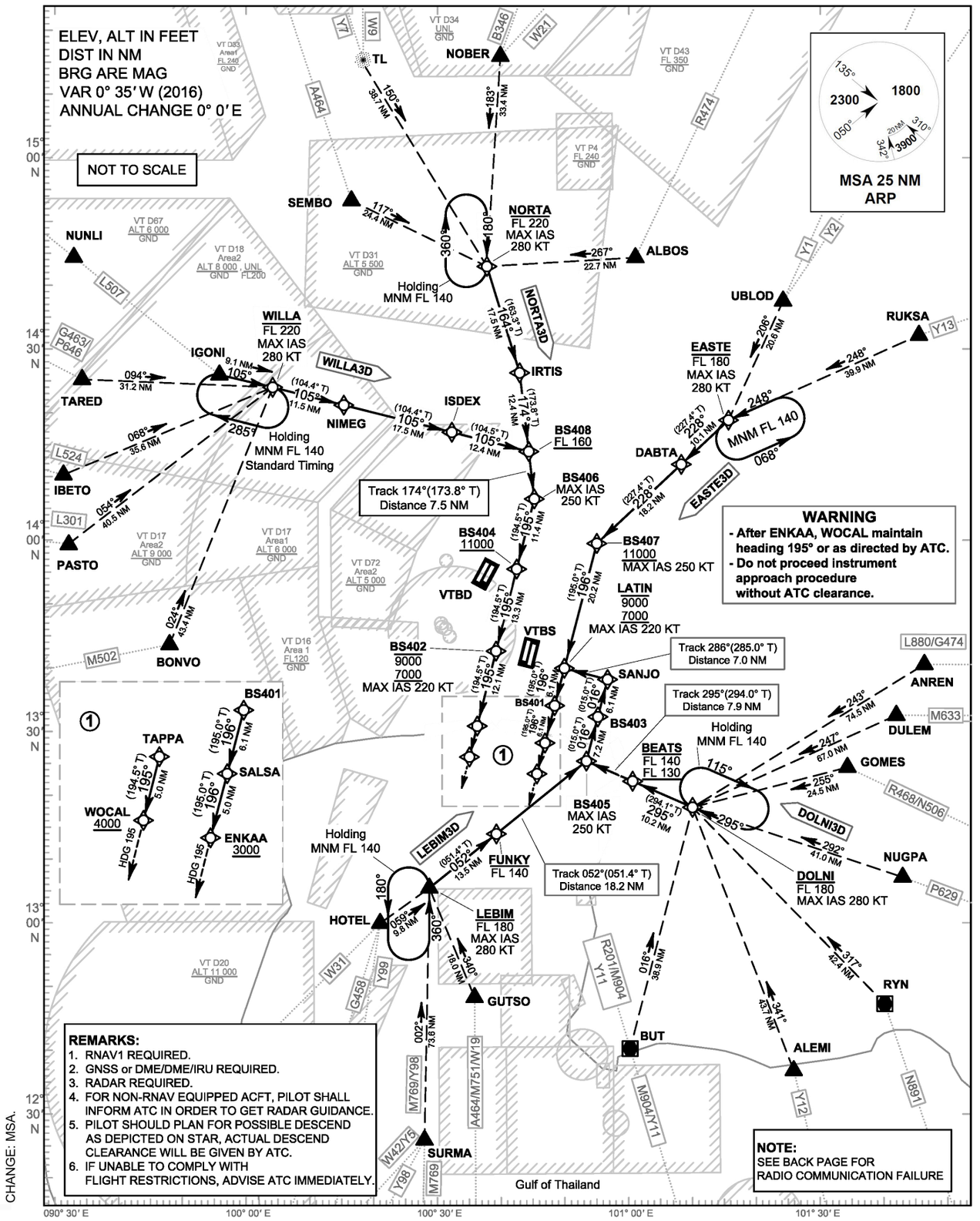
STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11000 FT
SPEED RESTRICTION
MAX IAS 250 KT AT OR BELOW ALT 10000 FT UNLESS OTHERWISE AUTHORIZED BY ATC.

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L/01R

DOLNI3D EASTE3D
LEBIM3D NORTA3D WILLA3D



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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L/01R**

DOLNI3D EASTE3D
LEBIM3D NORTA3D WILLA3D

RADIO COMMUNICATION FAILURE

1	SET THE AIRCRAFT TRANSPONDER TO MODE A/C CODE 7600
2	PROCEED ACCORDING TO THE STAR ROUTE TO THE TERMINATION WOCAL/ENKAA, DESCEND IN ACCORDANCE WITH THE PUBLISHED ALL SPEED AND ALTITUDE RESTRICTIONS OF THE RELEVANT STAR PROCEDURE, THENCE: AFTER PASSING WOCAL/ENKAA FLY HEADING 195 AND MAINTAIN ALTITUDE 6000 FT FOR NEXT 10 NM, THEN TURN LEFT/RIGHT AND DESCEND TO 2000 FT AND CARRY OUT THE APPROPRIATE ILS APPROACH PROCEDURE.
3	WHEN **AN ARRIVING AIRCRAFT IS BEING RADAR VECTORED**, IF NO TRANSMISSIONS ARE HEARD ON THE FREQUENCY IN USE FOR A PERIOD OF **TWO MINUTES**, A RADIO FREQUENCY CHECK IS TO BE MADE. IF THE RADIO FREQUENCY CHECK INDICATES A RADIO COMMUNICATION FAILURE. PILOT SHOULD PROCEED IN THE MOST DIRECT MANNER POSSIBLE TO REJOIN THE STAR PROCEDURE APPROPRIATE TO ITS ATS ROUTE AND LANDING DIRECTION AND THEN COMPLY WITH THE PROCEDURES IN ITEM 2 ABOVE.
4	FOR MORE INFORMATION OR OTHER CASES. REFER TO AIP VTBS AD 2.22, RADIO COMMUNICATION FAILURE.

WAYPOINT PRONUNCIATION

Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation	Waypoint Identifier	Pronunciation
ALBOS	AL - BOSS	DULEM	DU - LEM	NORTA	NOR - TAH
ALEMI	AH - LAY - MEE	EASTE	EAST - TE	NUGPA	NUK - PAH
ANREN	AN - REN	ENKAA	EN - KA	PASTO	PAS - TOW
BEATS	BEATS	FUNKY	FUNG - KEE	RUKSA	RUCK - SA
BONVO	BONG - VOH	GOMES	GO - MESS	RYN	RA - YONG
BS401	-	GUTSO	GUTT - SOH	SALSA	SAL - SAH
BS402	-	HOTEL	HO - TEL	SANJO	SAN - JOH
BS403	-	IBETO	YI - BAY - TOH	SEMBO	SEM - BO
BS404	-	IGONI	YI - GO - NEE	SURMA	SUR - MAR
BS405	-	IRTIS	ER - TISS	TAPPA	TAP - PAH
BS406	-	ISDEX	ISS - DEKS	TARED	TAH - RED
BS407	-	LATIN	LAH - TIN	TL	TA - KLEE
BS408	-	LEBIM	LAY - BIM	UBLOD	UB - LOD
BUT	U - TAH - PAO	NIMEG	NAI - MEG	WILLA	WILL - LAH
DABTA	DAB - TAH	NOBER	NO - BER	WOCAL	WO - CALL
DOLNI	DOL - NEE				

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L/01R**

DOLNI3D EASTE3D
LEBIM3D NORTA3D WILLA3D

TABULAR DESCRIPTION (1)

RNAV RWY01L/01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
DOLNI3D											
TRANSITION ANREN		FROM L880/G474									
010	IF	ANREN	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	243°(242.6°)	+0.58	74.5	-	-FL180	-280	-	RNAV 1
TRANSITION DULEM		FROM M633									
010	IF	DULEM	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	247°(246.9°)	+0.58	67.0	-	-FL180	-280	-	RNAV 1
TRANSITION NUGPA		FROM P629									
010	IF	NUGPA	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	292°(291.1°)	+0.58	41.0	-	-FL180	-280	-	RNAV 1
TRANSITION GOMES		FROM R468/N506									
010	IF	GOMES	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	255°(254.9°)	+0.58	24.5	-	-FL180	-280	-	RNAV 1
TRANSITION RYN		FROM N891									
010	IF	RYN	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	317°(316.5°)	+0.58	42.4	-	-FL180	-280	-	RNAV 1
TRANSITION ALEMI		FROM Y12									
010	IF	ALEMI	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	341°(340.2°)	+0.58	43.7	-	-FL180	-280	-	RNAV 1
TRANSITION BUT		FROM M904/Y11									
010	IF	BUT	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	DOLNI	-	016°(015.7°)	+0.58	38.9	-	-FL180	-280	-	RNAV 1
010	IF	DOLNI	-	-	+0.58	-	-	-FL180	-280	-	RNAV 1
020	TF	BEATS	-	295°(294.1°)	+0.58	10.2	-	-FL140 ; +FL130	-	-	RNAV 1
030	TF	BS405	-	295°(294.0°)	+0.58	7.9	R	-	-250	-	RNAV 1
040	TF	BS403	-	016°(015.0°)	+0.58	7.2	-	-	-	-	RNAV 1
050	TF	SANJO	-	016°(015.0°)	+0.58	6.1	L	-	-	-	RNAV 1
060	TF	LATIN	-	286°(285.0°)	+0.58	7.0	L	-9000 ; +7000	-220	-	RNAV 1
070	TF	BS401	-	196°(195.0°)	+0.58	6.1	-	-	-	-	RNAV 1
080	TF	SALSA	-	196°(195.0°)	+0.58	6.1	-	-	-	-	RNAV 1
090	TF	ENKAA	-	196°(195.0°)	+0.58	5.0	-	+3000	-	-	RNAV 1
100	VM	-	-	195°(-)	+0.58	-	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L/01R**

DOLNI3D EASTE3D
LEBIM3D NORTA3D WILLA3D

TABULAR DESCRIPTION (2)

RNAV RWY01L/01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
EASTE3D											
TRANSITION UBLOD FROM Y1, Y2											
010	IF	UBLOD	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	EASTE	-	206°(205.2°)	+0.58	20.6	-	-FL180	-280	-	RNAV 1
TRANSITION RUKSA FROM Y13											
010	IF	RUKSA	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	EASTE	-	248°(247.7°)	+0.58	39.9	-	-FL180	-280	-	RNAV 1
010	IF	EASTE	-	-	+0.58	-	-	-FL180	-280	-	RNAV 1
020	TF	DABTA	-	228°(227.4°)	+0.58	10.1	-	-	-	-	RNAV 1
030	TF	BS407	-	228°(227.4°)	+0.58	18.2	L	+11000	-250	-	RNAV 1
040	TF	LATIN	-	196°(195.0°)	+0.58	20.2	-	-9000 ; +7000	-220	-	RNAV 1
050	TF	BS401	-	196°(195.0°)	+0.58	6.1	-	-	-	-	RNAV 1
060	TF	SALSA	-	196°(195.0°)	+0.58	6.1	-	-	-	-	RNAV 1
070	TF	ENKAA	-	196°(195.0°)	+0.58	5.0	-	+3000	-	-	RNAV 1
080	VM	-	-	195°(-)	+0.58	-	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L/01R**

DOLNI3D EASTE3D
LEBIM3D NORTA3D WILLA3D

TABULAR DESCRIPTION (3)

RNAV RWY01L/01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
LEBIM3D											
TRANSITION GUTSO		FROM A464/M751/W19									
010	IF	GUTSO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	LEBIM	-	340°(339.4°)	+0.58	18.0	-	-FL180	-280	-	RNAV 1
TRANSITION SURMA		FROM M769/Y98									
010	IF	SURMA	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	LEBIM	-	002°(001.4°)	+0.58	73.6	-	-FL180	-280	-	RNAV 1
TRANSITION HOTEL		FROM G458 ,W31, Y99									
010	IF	HOTEL	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	LEBIM	-	059°(058.6°)	+0.58	9.8	-	-FL180	-280	-	RNAV 1
010	IF	LEBIM	-	-	+0.58	-	-	-FL180	-280	-	RNAV 1
020	TF	FUNKY	-	052°(051.4°)	+0.58	13.5	-	-FL140	-	-	RNAV 1
030	TF	BS405	-	052°(051.4°)	+0.58	18.2	L	-	-250	-	RNAV 1
040	TF	BS403	-	016°(015.0°)	+0.58	7.2	-	-	-	-	RNAV 1
050	TF	SANJO	-	016°(015.0°)	+0.58	6.1	L	-	-	-	RNAV 1
060	TF	LATIN	-	286°(285.0°)	+0.58	7.0	L	-9000 ; +7000	-220	-	RNAV 1
070	TF	BS401	-	196°(195.0°)	+0.58	6.1	-	-	-	-	RNAV 1
080	TF	SALSA	-	196°(195.0°)	+0.58	6.1	-	-	-	-	RNAV 1
090	TF	ENKAA	-	196°(195.0°)	+0.58	5.0	-	+3000	-	-	RNAV 1
100	VM	-	-	195°(-)	+0.58	-	-	-	-	-	RNAV 1

STANDARD ARRIVAL CHART-INSTRUMENT (STAR) - ICAO

BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L/01R

DOLNI3D EASTE3D
LEBIM3D NORTA3D WILLA3D

TABULAR DESCRIPTION (4)

RNAV RWY01L/01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
NORTA3D											
TRANSITION SEMBO		FROM A464									
010	IF	SEMBO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	NORTA	-	117°(116.3°)	+0.58	24.4	-	-FL220	-280	-	RNAV 1
TRANSITION TL		FROM W9, Y7									
010	IF	TL	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	NORTA	-	150°(149.2°)	+0.58	38.7	-	-FL220	-280	-	RNAV 1
TRANSITION NOBER		FROM B346, W21									
010	IF	NOBER	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	NORTA	-	183°(182.9°)	+0.58	33.4	-	-FL220	-280	-	RNAV 1
TRANSITION ALBOS		FROM R474									
010	IF	ALBOS	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	NORTA	-	267°(266.1°)	+0.58	22.7	-	-FL220	-280	-	RNAV 1
010	IF	NORTA	-	-	+0.58	-	-	-FL220	-280	-	RNAV 1
020	TF	IRTIS	-	164°(163.3°)	+0.58	17.5	R	-	-	-	RNAV 1
030	TF	BS408	-	174°(173.8°)	+0.58	12.4	-	+FL160	-	-	RNAV 1
040	TF	BS406	-	174°(173.8°)	+0.58	7.5	R	-	-250	-	RNAV 1
050	TF	BS404	-	195°(194.5°)	+0.58	11.4	-	+11000	-	-	RNAV 1
060	TF	BS402	-	195°(194.5°)	+0.58	13.3	-	-9000 ; +7000	-220	-	RNAV 1
070	TF	TAPPA	-	195°(194.5°)	+0.58	12.1	-	-	-	-	RNAV 1
080	TF	WOCAL	-	195°(194.5°)	+0.58	5.0	-	+4000	-	-	RNAV 1
090	VM	-	-	195°(-)	+0.58	-	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L/01R**

DOLNI3D EASTE3D
LEBIM3D NORTA3D WILLA3D

TABULAR DESCRIPTION (5)

RNAV RWY01L/01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
WILLA3D											
TRANSITION IGONI		FROM L507									
010	IF	IGONI	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	105°(104.3°)	+0.58	9.1	-	-FL220	-280	-	RNAV 1
TRANSITION TARED		FROM G463/P646									
010	IF	TARED	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	094°(093.7°)	+0.58	31.2	-	-FL220	-280	-	RNAV 1
TRANSITION IBETO		FROM L524									
010	IF	IBETO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	068°(067.4°)	+0.58	35.6	-	-FL220	-280	-	RNAV 1
TRANSITION PASTO		FROM L301									
010	IF	PASTO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	054°(053.4°)	+0.58	40.5	-	-FL220	-280	-	RNAV 1
TRANSITION BONVO		FROM M502									
010	IF	BONVO	-	-	+0.58	-	-	-	-	-	RNAV 1
020	TF	WILLA	-	024°(023.0°)	+0.58	43.4	-	-FL220	-280	-	RNAV 1
010	IF	WILLA	-	-	+0.58	-	-	-FL220	-280	-	RNAV 1
020	TF	NIMEG	-	105°(104.4°)	+0.58	11.5	-	-	-	-	RNAV 1
030	TF	ISDEX	-	105°(104.4°)	+0.58	17.5	-	-	-	-	RNAV 1
040	TF	BS408	-	105°(104.5°)	+0.58	12.4	R	+FL160	-	-	RNAV 1
050	TF	BS406	-	174°(173.8°)	+0.58	7.5	R	-	-250	-	RNAV 1
060	TF	BS404	-	195°(194.5°)	+0.58	11.4	-	+11000	-	-	RNAV 1
070	TF	BS402	-	195°(194.5°)	+0.58	13.3	-	-9000 ; +7000	-220	-	RNAV 1
080	TF	TAPPA	-	195°(194.5°)	+0.58	12.1	-	-	-	-	RNAV 1
090	TF	WOCAL	-	195°(194.5°)	+0.58	5.0	-	+4000	-	-	RNAV 1
100	VM	-	-	195° (-)	+0.58	-	-	-	-	-	RNAV 1

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

**BANGKOK/Suvarnabhumi Intl (VTBS)
RNAV RWY01L/01R**

DOLNI3D EASTE3D
LEBIM3D NORTA3D WILLA3D

WAYPOINT LIST

RNAV RWY01L/01R	
Waypoint Identifier	**Coordinates**
ALBOS	14° 44' 41.70" N 101° 01' 41.90" E
ALEMI	12° 36' 25.55" N 101° 25' 59.92" E
ANREN	13° 52' 12.48" N 102° 18' 37.95" E
BEATS	13° 21' 51.18" N 101° 01' 12.46" E
BONVO	13° 44' 10.47" N 099° 46' 06.72" E
BS401	13° 33' 51.29" N 100° 48' 45.37" E
BS402	13° 42' 30.15" N 100° 39' 23.08" E
BS403	13° 32' 02.02" N 100° 55' 42.15" E
BS404	13° 55' 24.52" N 100° 42' 47.93" E
BS405	13° 25' 04.96" N 100° 53' 48.04" E
BS406	14° 06' 26.65" N 100° 45' 43.48" E
BS407	13° 59' 21.04" N 100° 55' 45.03" E
BS408	14° 13' 54.95" N 100° 44' 53.56" E
BUT	12° 40' 00.02" N 101° 00' 01.71" E
DABTA	14° 11' 41.75" N 101° 09' 29.56" E
DOLNI	13° 17' 39.62" N 101° 10' 48.41" E
DULEM	13° 44' 15.58" N 102° 13' 59.75" E
EASTE	14° 18' 34.80" N 101° 17' 10.48" E
ENKAA	13° 23' 07.66" N 100° 45' 49.41" E
FUNKY	13° 13' 42.70" N 100° 39' 14.72" E
GOMES	13° 24' 06.10" N 101° 35' 05.70" E
GUTSO	12° 48' 19.94" N 100° 34' 54.30" E
HOTEL	13° 00' 06.20" N 100° 19' 48.30" E

RNAV RWY01L/01R	
Waypoint Identifier	**Coordinates**
IBETO	14° 10' 36.14" N 099° 29' 45.68" E
IGONI	14° 26' 32.73" N 099° 54' 30.29" E
IRTIS	14° 26' 19.82" N 100° 43' 30.68" E
ISDEX	14° 17' 02.47" N 100° 32' 29.78" E
LATIN	13° 39' 43.82" N 100° 50' 21.89" E
LEBIM	13° 05' 14.81" N 100° 28' 24.51" E
NIMEG	14° 21' 24.76" N 100° 15' 04.64" E
NOBER	15° 16' 35.60" N 100° 40' 06.00" E
NORTA	14° 43' 07.64" N 100° 38' 20.46" E
NUGPA	13° 02' 54.16" N 101° 49' 59.29" E
PASTO	14° 00' 04.50" N 099° 30' 06.94" E
RUKSA	14° 33' 51.00" N 101° 55' 12.34" E
RYN	12° 46' 48.30" N 101° 40' 41.70" E
SALSA	13° 27' 58.73" N 100° 47' 08.94" E
SANJO	13° 37' 54.54" N 100° 57' 18.72" E
SEMBO	14° 53' 59.16" N 100° 15' 47.92" E
SURMA	11° 51' 22.45" N 100° 26' 32.65" E
TAPPA	13° 30' 43.35" N 100° 36' 16.52" E
TARED	14° 26' 19.52" N 099° 31' 28.87" E
TL	15° 16' 33.45" N 100° 17' 51.11" E
UBLOD	14° 37' 15.43" N 101° 26' 11.66" E
WILLA	14° 24' 16.98" N 100° 03' 35.36" E
WOCAL	13° 25' 51.57" N 100° 34' 59.62" E

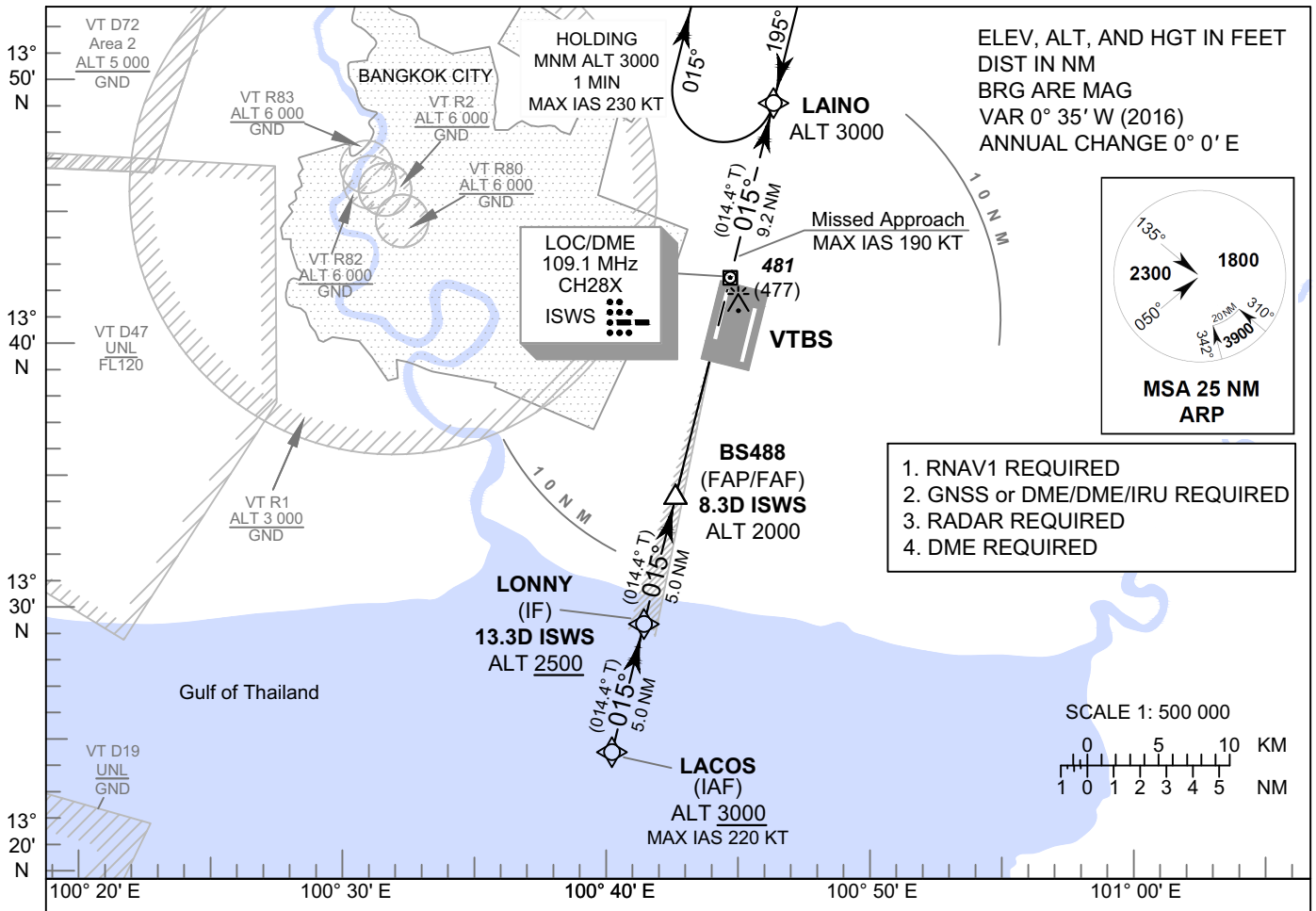
INSTRUMENT APPROACH CHART - ICAO

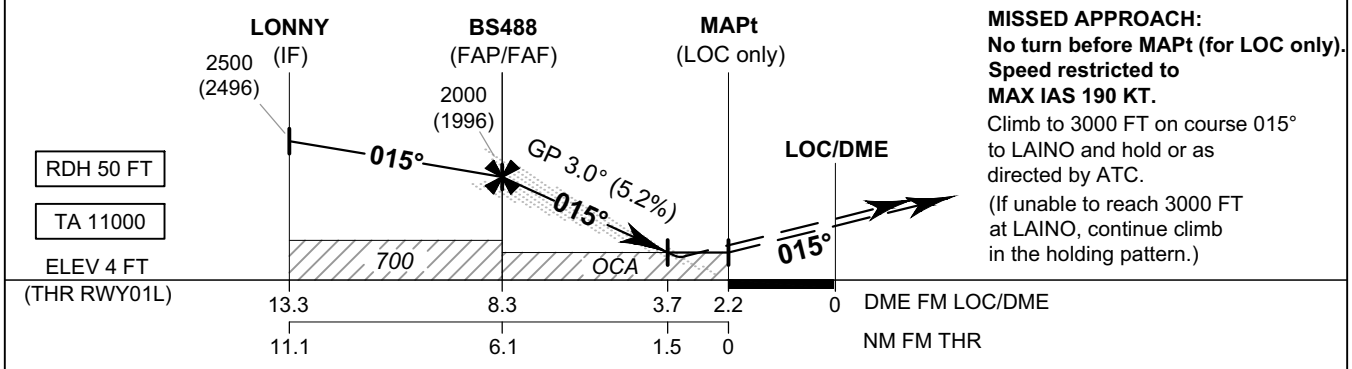
AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01L - ELEV 4 FT

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY01L
CAT II





OCA/H		A	B	C	D
Straight-in Approach	CAT I	230 (226) *			
	CAT II	105 (101) **			
LOC only		530 (526)			
Circling (OCH AAL)		800 (796)		900 (896)	

GS OUT								
Distance (ISWS)	FAF	8 D	7 D	6 D	5 D	4 D	3.7 D
Altitude (Height)	2000 (1996)	1890 (1886)	1570 (1566)	1255 (1251)	940 (936)	625 (621)	530 (526)
Ground speed	knot	70	90	100	120	140	160
Rate of descent (5.2%)	ft/min	369	474	527	632	737	843

* These procedures require a missed approach climb gradient of 5% (304 FT/NM) until passing ALT 1000 FT. For aircraft which only achieve a 2.5% (152 FT/NM) climb gradient, the CAT I OCA (OCH) is 370 (366) FT

** These procedures require a missed approach climb gradient of 4% (243 FT/NM) until passing ALT 1000 FT. For aircraft which only achieve a 2.5% (152 FT/NM) climb gradient, the CAT II OCA (OCH) is 295 (291) FT

CHANGE: MSA. AD ELEV. THR ELEV.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01L - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY01L
CAT II

TABULAR DESCRIPTION

ILS or LOC z RWY01L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ RDH	Navigation Specification
010	IF	LACOS (IAF)	-	-	+0.58	-	-	+3000	-220	-	RNAV 1
020	TF	LONNY (IF)	-	015°(014.4°)	+0.58	5.0	-	+2500	-	-	RNAV 1
TRANSITION TO ILS or LOC											
030	TF	BS488 (FAP/FAF)	-	015°(014.4°)	+0.58	5.0	-	@2000	-	-	ILS
040	TF	MAPt (LOC only) @ RW01L	Y	015°(014.4°)	+0.58	6.1	-	@54	-	-3.0/50	ILS
050	CF	LAINO	-	015°(014.4°)	+0.58	9.2	-	-	-190	-	RNAV 1
060	HM	LAINO	Y	195°(194.3°)	+0.58	1 minute	R	+3000	-230	-	RNAV 1

WAYPOINT LIST

ILS or LOC z RWY01L

Waypoint Identifier	Coordinates	Pronunciation
LACOS	13° 24' 36.37" N 100° 39' 57.98" E	LAH - COSS
LONNY	13° 29' 28.22" N 100° 41' 14.53" E	LON - NEE
BS488	13° 34' 20.54" N 100° 42' 31.34" E	-
RW01L	13° 40' 16.60" N 100° 44' 04.79" E	-
LAINO	13° 49' 16.40" N 100° 46' 25.67" E	LAI - NOH

CHANGE: AD ELEV. THR ELEV.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01L - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY01L
CAT II

FIX / POINT		COORDINATES	
LONNY (IF)	13.3D ISWS	13° 29' 28.22" N	100° 41' 14.53" E
BS488 (FAP/FAF)	8.3D ISWS	13° 34' 20.54" N	100° 42' 31.34" E
MAPt (LOC only) @ RW01L	2.2D ISWS	13° 40' 16.60" N	100° 44' 04.79" E
LOC/DME	ISWS	13° 42' 22.30" N	100° 44' 37.80" E
GP	ISWS	13° 40' 27.80" N	100° 44' 03.60" E

CHANGE: AD ELEV. THR ELEV.

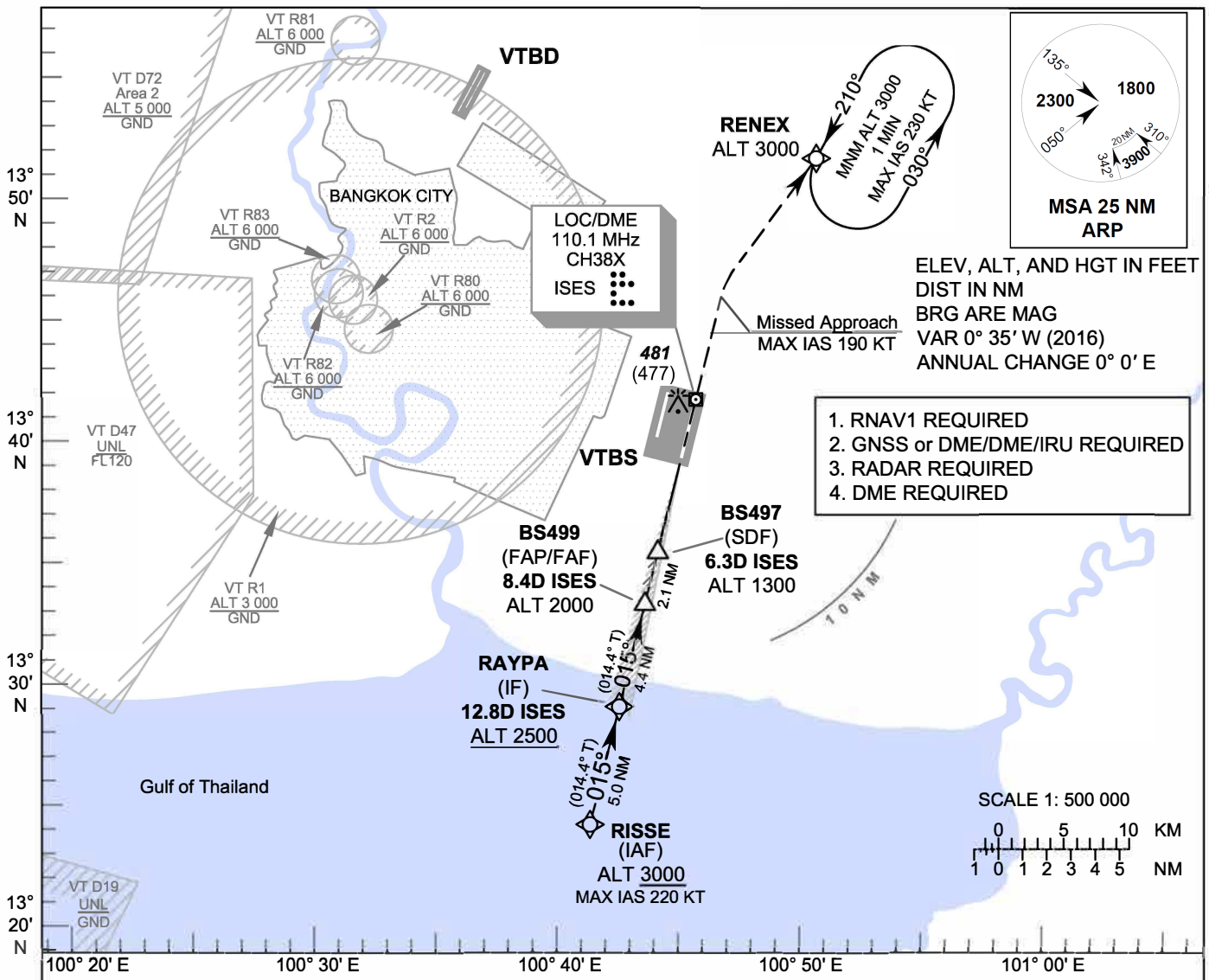
INSTRUMENT APPROACH CHART - ICAO

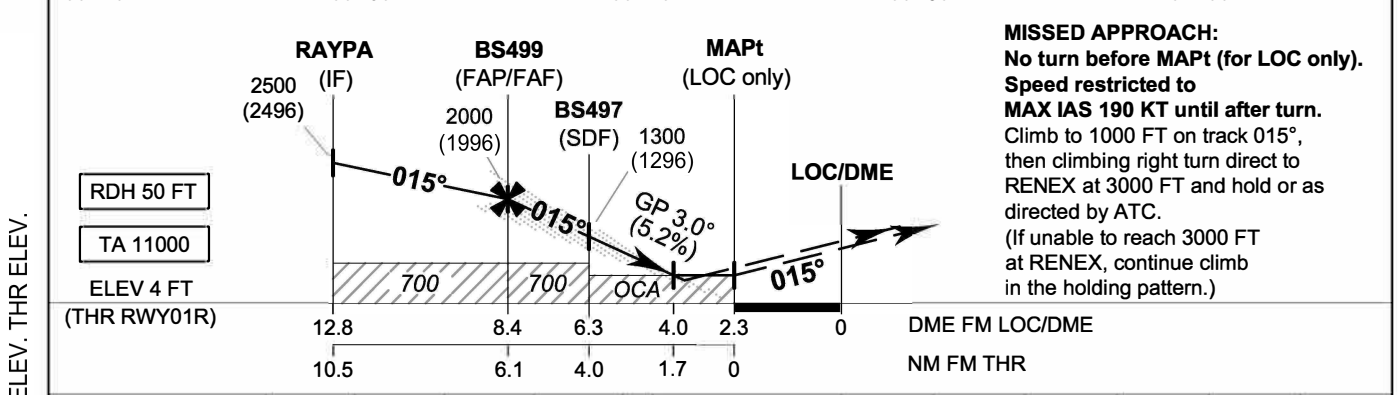
AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01R - ELEV 4 FT

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY01R
CAT II





MISSED APPROACH:
No turn before MAPt (for LOC only).
Speed restricted to
MAX IAS 190 KT until after turn.
Climb to 1000 FT on track 015°,
then climbing right turn direct to
RENEX at 3000 FT and hold or as
directed by ATC.
(If unable to reach 3000 FT
at RENEX, continue climb
in the holding pattern.)

CHANGE: MSA. AD ELEV. THR ELEV.

OCA/H		A	B	C	D
Straight-in Approach	CAT I	205 (201)			
	CAT II	105 (101)			
LOC only		600 (596)			
Circling (OCH AAL)		800 (796)		900 (896)	

GS OUT	Distance (ISES)	FAF	8 D	7 D	6 D	5 D	4 D
	Altitude (Height)	2000 (1996)	1855 (1851)	1540 (1536)	1225 (1221)	910 (906)	600 (596)
	Ground speed	knot	70	90	100	120	140	160
	Rate of descent (5.2%)	ft/min	369	474	527	632	737	843

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01R - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY01R
CAT II

TABULAR DESCRIPTION

ILS or LOC z RWY01R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ RDH	Navigation Specification
010	IF	RISSE (IAF)	-	-	+0.58	-	-	+3000	-220	-	RNAV 1
020	TF	RAYPA (IF)	-	015°(014.4°)	+0.58	5.0	-	+2500	-	-	RNAV 1
TRANSITION TO ILS or LOC											
030	TF	BS499 (FAP/FAF)	-	015°(014.4°)	+0.58	4.4	-	@2000	-	-	ILS
040	TF	BS497 (SDF)	-	015°(014.4°)	+0.58	2.1	-	@1300	-	-	ILS
050	TF	MAPt (LOC only) @ RW01R	Y	015°(014.4°)	+0.58	4.0	-	@54	-	-3.0/50	ILS
060	CA	-	-	015°(014.4°)	+0.58	-	-	+1000	-190	-	RNAV 1
070	DF	RENEX	-	-	+0.58	-	R	-	-190	-	RNAV 1
080	HM	RENEX	Y	210°(209.3°)	+0.58	1 minute	L	+3000	-230	-	RNAV 1

WAYPOINT LIST

ILS or LOC z RWY01R

Waypoint Identifier	Coordinates	Pronunciation
RISSE	13° 24' 18.49" N 100° 41' 08.88" E	RIS - SAY
RAYPA	13° 29' 10.33" N 100° 42' 25.43" E	RAY - PAH
BS499	13° 33' 28.06" N 100° 43' 33.12" E	-
BS497	13° 35' 33.14" N 100° 44' 05.91" E	-
RW01R	13° 39' 24.11" N 100° 45' 06.59" E	-
RENEX	13° 51' 48.03" N 100° 50' 55.97" E	RAY - NEKS

CHANGE: AD ELEV. THR ELEV.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01R - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY01R
CAT II

FIX / POINT		COORDINATES	
RAYPA (IF)	12.8D ISES	13° 29' 10.33" N	100° 42' 25.43" E
BS499 (FAP/FAF)	8.4D ISES	13° 33' 28.06" N	100° 43' 33.12" E
BS497 (SDF)	6.3D ISES	13° 35' 33.14" N	100° 44' 05.91" E
MAPt (LOC only) @ RW01R	2.3D ISES	13° 39' 24.11" N	100° 45' 06.59" E
LOC/DME	ISES	13° 41' 39.30" N	100° 45' 42.10" E
GP	ISES	13° 39' 33.40" N	100° 45' 13.10" E

CHANGE: AD ELEV. THR ELEV.

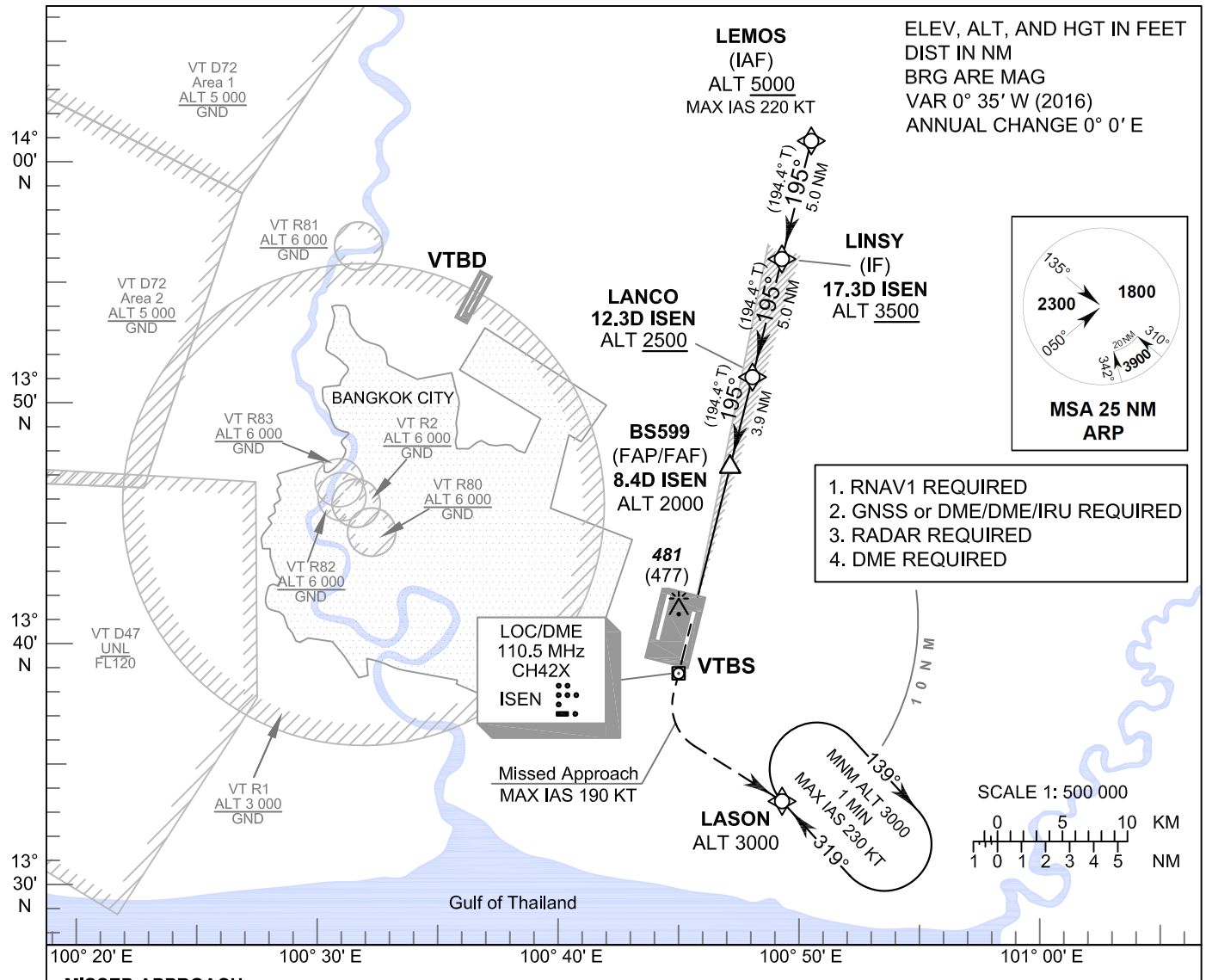
INSTRUMENT APPROACH CHART - ICAO

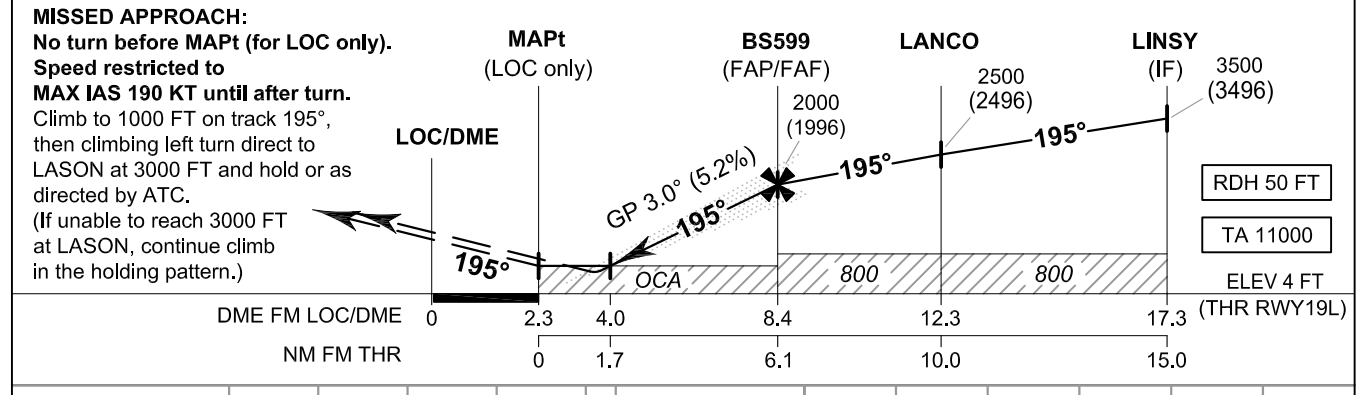
AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19L - ELEV 4 FT

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY19L
CAT II





OCA/H		A	B	C	D
Straight-in Approach	CAT I	205 (201)			
	CAT II	105 (101)			
LOC only		590 (586)			
Circling (OCH AAL)		800 (796)		900 (896)	

GS OUT							
Distance (ISEN)	4 D	5 D	6 D	7 D	8 D	FAF	
Altitude (Height)	590 (586)	910 (906)	1225 (1221)	1540 (1536)	1855 (1851)	2000 (1996)	
Ground speed	knot	70	90	100	120	140	160
Rate of descent (5.2%)	ft/min	369	474	527	632	737	843

CHANGE: MSA. AD ELEV. THR ELEV.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19L - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY19L
CAT II

TABULAR DESCRIPTION

ILS or LOC z RWY19L

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ RDH	Navigation Specification
010	IF	LEMOS (IAF)	-	-	+0.58	-	-	+5000	-220	-	RNAV 1
020	TF	LINSY (IF)	-	195°(194.4°)	+0.58	5.0	-	+3500	-	-	RNAV 1
TRANSITION TO ILS or LOC											
030	TF	LANCO	-	195°(194.4°)	+0.58	5.0	-	+2500	-	-	ILS
040	TF	BS599 (FAP/FAF)	-	195°(194.4°)	+0.58	3.9	-	@2000	-	-	ILS
050	TF	MAPt (LOC only) @ RW19L	Y	195°(194.4°)	+0.58	6.1	-	@54	-	-3.0/50	ILS
060	CA	-	-	195°(194.4°)	+0.58	-	-	+1000	-190	-	RNAV 1
070	DF	LASON	-	-	+0.58	-	L	-	-190	-	RNAV 1
080	HM	LASON	Y	319°(318.3°)	+0.58	1 minute	R	+3000	-230	-	RNAV 1

WAYPOINT LIST

ILS or LOC z RWY19L

Waypoint Identifier	Coordinates	Pronunciation
LEMOS	14° 01' 03.35" N 100° 50' 48.54" E	LAY - MOSS
LINSY	13° 56' 08.45" N 100° 49' 30.83" E	LINN - SEE
LANCO	13° 51' 13.81" N 100° 48' 13.24" E	LAN - COH
BS599	13° 47' 26.20" N 100° 47' 13.33" E	-
RW19L	13° 41' 30.17" N 100° 45' 39.72" E	-
LASON	13° 33' 32.40" N 100° 49' 20.92" E	LAH - SON

CHANGE: AD ELEV. THR ELEV.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19L - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY19L
CAT II

FIX / POINT		COORDINATES	
LINSY (IF)	17.3D ISEN	13° 56' 08.45" N	100° 49' 30.83" E
LANCO	12.3D ISEN	13° 51' 13.81" N	100° 48' 13.24" E
BS599 (FAP/FAF)	8.4D ISEN	13° 47' 26.20" N	100° 47' 13.33" E
MAPt (LOC only) @ RW19L	2.3D ISEN	13° 41' 30.17" N	100° 45' 39.72" E
LOC/DME	ISEN	13° 39' 15.00" N	100° 45' 04.20" E
GP	ISEN	13° 41' 19.00" N	100° 45' 40.90" E

CHANGE: AD ELEV. THR ELEV.

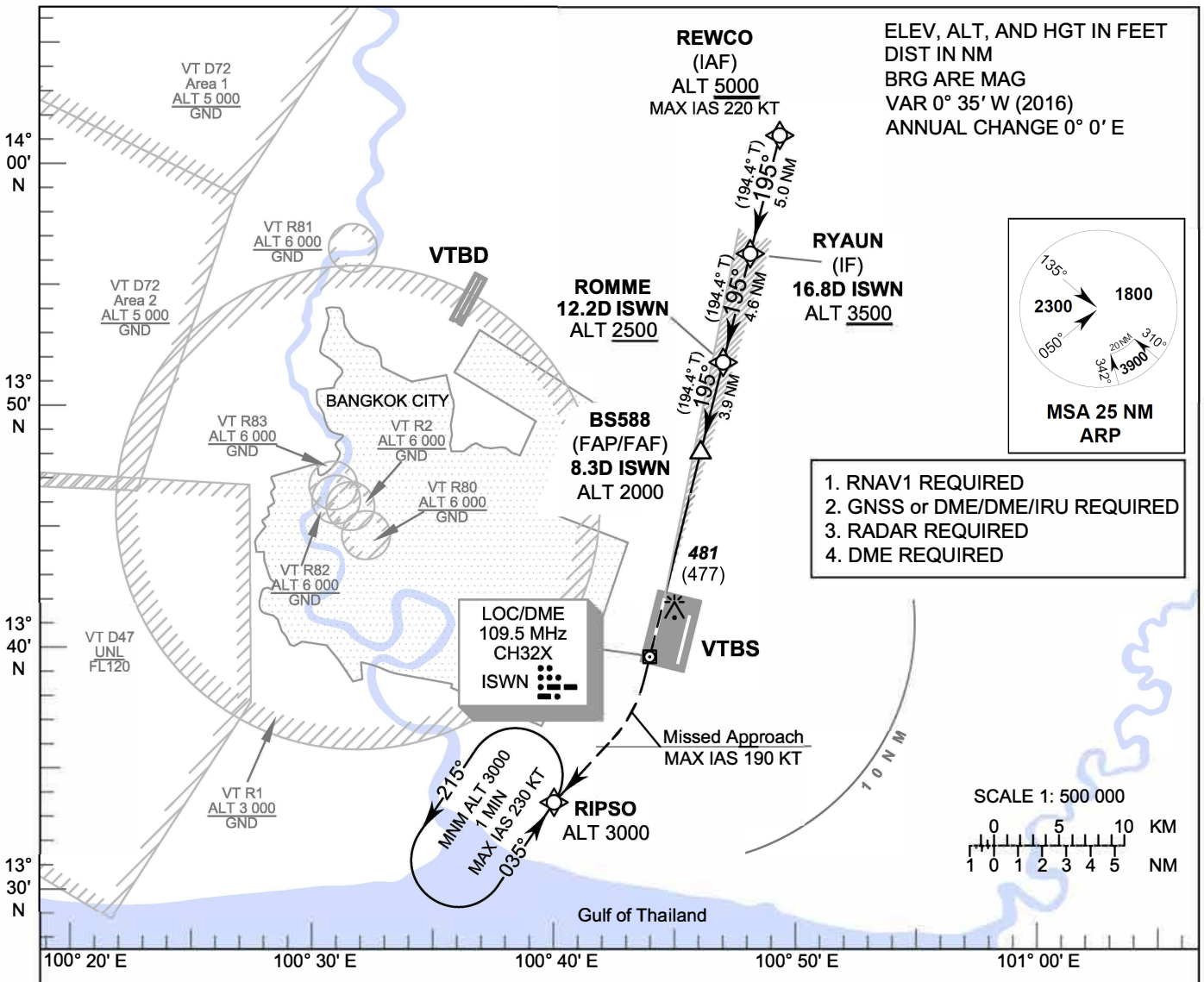
INSTRUMENT APPROACH CHART - ICAO

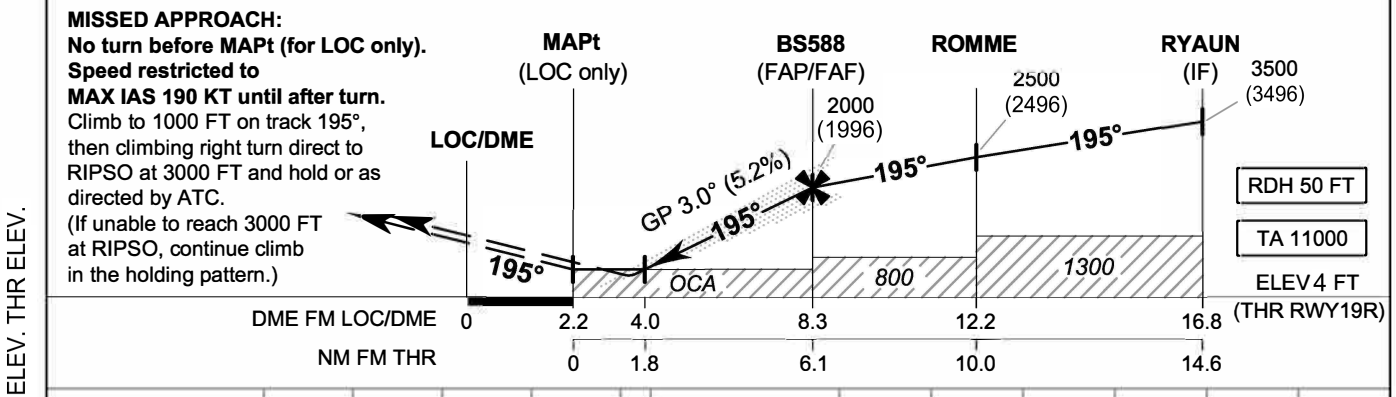
AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19R - ELEV 4 FT

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY19R
CAT II





OCA/H		A	B	C	D
Straight-in Approach	CAT I	205 (201)			
	CAT II	105 (101)			
LOC only		620 (616)			
Circling (OCH AAL)		800 (796)		900 (896)	

GS OUT							
Distance (ISWN)	4 D	5 D	6 D	7 D	8 D	FAF
Altitude (Height)	620 (616)	940 (936)	1255 (1251)	1570 (1566)	1890 (1886)	2000 (1996)
Ground speed	knot	70	90	100	120	140	160
Rate of descent (5.2%)	ft/min	369	474	527	632	737	843

CHANGE: MSA. AD ELEV. THR ELEV.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19R - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY19R
CAT II

TABULAR DESCRIPTION

ILS or LOC z RWY19R

Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ RDH	Navigation Specification
010	IF	REWCO (IAF)	-	-	+0.58	-	-	+5000	-220	-	RNAV 1
020	TF	RYAUN (IF)	-	195°(194.4°)	+0.58	5.0	-	+3500	-	-	RNAV 1
TRANSITION TO ILS or LOC											
030	TF	ROMME	-	195°(194.4°)	+0.58	4.6	-	+2500	-	-	ILS
040	TF	BS588 (FAP/FAF)	-	195°(194.4°)	+0.58	3.9	-	@2000	-	-	ILS
050	TF	MAPt (LOC only) @ RW19R	Y	195°(194.4°)	+0.58	6.1	-	@54	-	-3.0/50	ILS
060	CA	-	-	195°(194.4°)	+0.58	-	-	+1000	-190	-	RNAV 1
070	DF	RIPSO	-	-	+0.58	-	R	-	-190	-	RNAV 1
080	HM	RIPSO	Y	035°(034.3°)	+0.58	1 minute	L	+3000	-230	-	RNAV 1

WAYPOINT LIST

ILS or LOC z RWY19R

Waypoint Identifier	Coordinates	Pronunciation
REWCO	14° 01' 21.29" N 100° 49' 37.68" E	REW - COH
RYAUN	13° 56' 26.99" N 100° 48' 20.12" E	RAI - AAN
ROMME	13° 51' 56.84" N 100° 47' 08.98" E	ROM - MEE
BS588	13° 48' 09.23" N 100° 46' 09.07" E	-
RW19R	13° 42' 13.21" N 100° 44' 35.44" E	-
RIPSO	13° 33' 44.05" N 100° 39' 50.12" E	RIP - SO

CHANGE: AD ELEV. THR ELEV.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19R - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

ILS or LOC z RWY19R
CAT II

FIX / POINT		COORDINATES	
RYAUN (IF)	16.8D ISWN	13° 56' 26.99" N	100° 48' 20.12" E
ROMME	12.2D ISWN	13° 51' 56.84" N	100° 47' 08.98" E
BS588 (FAP/FAF)	8.3D ISWN	13° 48' 09.23" N	100° 46' 09.07" E
MAPt (LOC only) @ RW19R	2.2D ISWN	13° 42' 13.21" N	100° 44' 35.44" E
LOC/DME	ISWN	13° 40' 07.50" N	100° 44' 02.40" E
GP	ISWN	13° 42' 03.90" N	100° 44' 28.90" E

CHANGE: AD ELEV. THR ELEV.

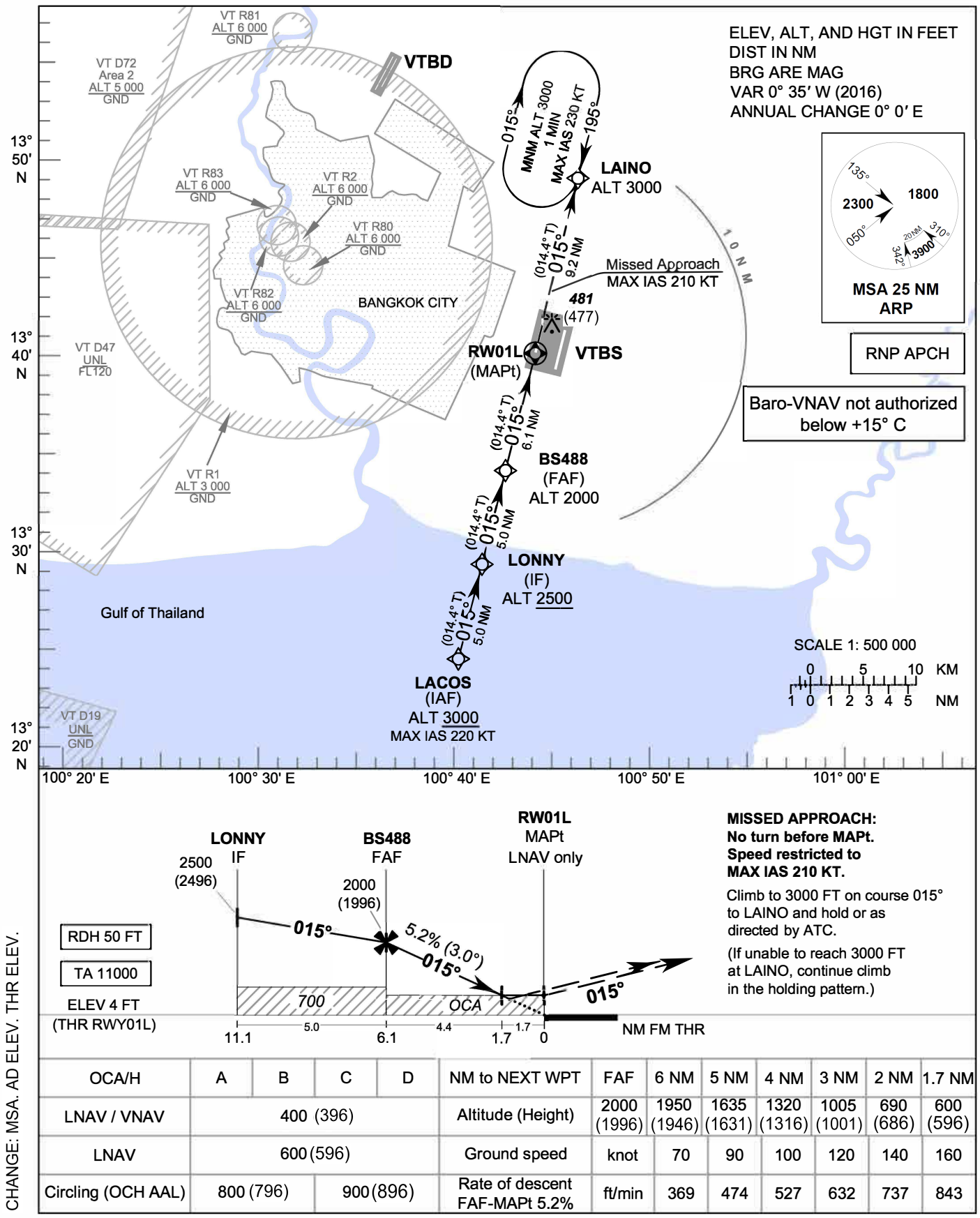
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01L - ELEV 4 FT

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK / Suvarnabhumi Intl (VTBS)

RNP RWY01L



CHANGE: MSA. AD ELEV. THR ELEV.

OCA/H	A	B	C	D	NM to NEXT WPT	FAF	6 NM	5 NM	4 NM	3 NM	2 NM	1.7 NM
LNAV / VNAV	400 (396)				Altitude (Height)	2000 (1996)	1950 (1946)	1635 (1631)	1320 (1316)	1005 (1001)	690 (686)	600 (596)
LNAV	600 (596)				Ground speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	800 (796)		900 (896)		Rate of descent FAF-MAPt 5.2%	ft/min	369	474	527	632	737	843

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01L - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

RNP RWY01L

TABULAR DESCRIPTION

RNP RWY01L

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	LACOS (IAF)	-	-	+0.58	-	-	+3000	-220	-	RNP APCH
020	TF	LONNY (IF)	-	015°(014.4°)	+0.58	5.0	-	+2500	-	-	RNP APCH
030	TF	BS488 (FAF)	-	015°(014.4°)	+0.58	5.0	-	@2000	-	-	RNP APCH
040	TF	RW01L (MAPt)	Y	015°(014.4°)	+0.58	6.1	-	@54	-	-3.0/50	RNP APCH
050	CF	LAINO	-	015°(014.4°)	+0.58	9.2	-	-	-210	-	RNP APCH
060	HM	LAINO	Y	195°(194.3°)	+0.58	1 minute	R	+3000	-230	-	RNP APCH

WAYPOINT LIST

RNP RWY01L

Waypoint Identifier	Coordinates	Pronunciation
LACOS	13° 24' 36.37" N 100° 39' 57.98" E	LAH - COSS
LONNY	13° 29' 28.22" N 100° 41' 14.53" E	LON - NEE
BS488	13° 34' 20.54" N 100° 42' 31.34" E	-
RW01L	13° 40' 16.60" N 100° 44' 04.79" E	-
LAINO	13° 49' 16.40" N 100° 46' 25.67" E	LAI - NOH

CHANGE: AD ELEV. THR ELEV.

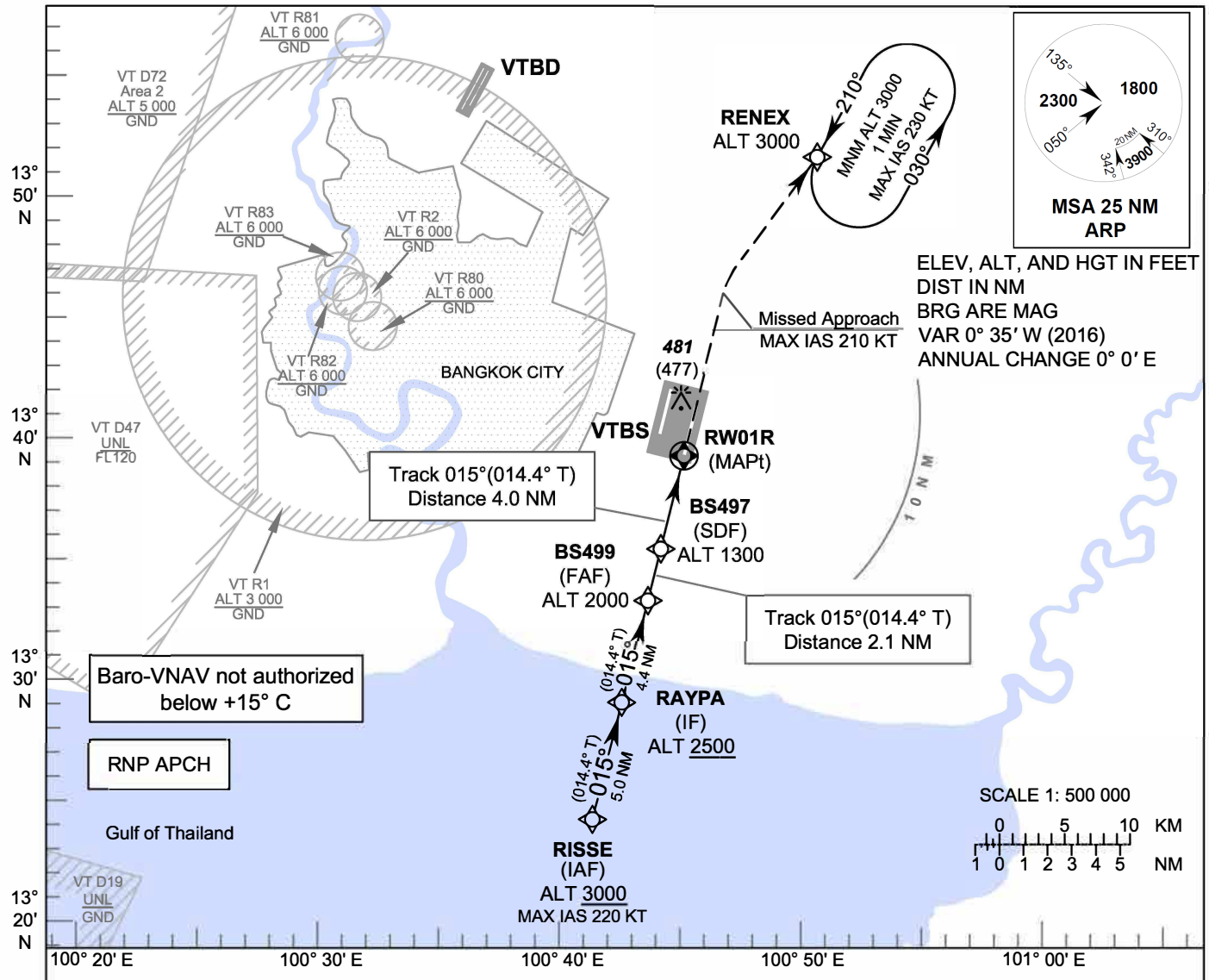
INSTRUMENT APPROACH CHART - ICAO

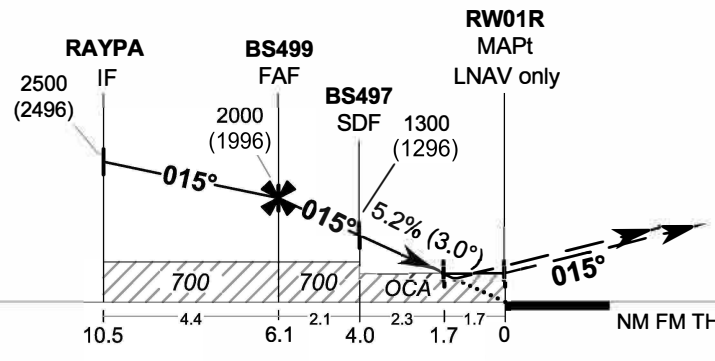
AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01R - ELEV 4 FT

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK / Suvarnabhumi Intl (VTBS)

RNP RWY01R





MISSED APPROACH:
No turn before MAPt.
Speed restricted to
MAX IAS 210 KT until after turn.

Climb to 1500 FT on track 015°, then climbing right turn direct to RENEX at 3000 FT and hold or as directed by ATC.

(If unable to reach 3000 FT at RENEX, continue climb in the holding pattern.)

OCA/H	A	B	C	D	NM to NEXT WPT	FAF	6 NM	5 NM	4 NM	3 NM	2 NM	1.7 NM
LNAV / VNAV	540 (536)				Altitude (Height)	2000 (1996)	1950 (1946)	1635 (1631)	1320 (1316)	1005 (1001)	690 (686)	600 (596)
LNAV	600 (596)				Ground speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	800 (796)		900 (896)		Rate of descent FAF-MAPt 5.2%	ft/min	369	474	527	632	737	843

CHANGE: MSA. AD ELEV. THR ELEV.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY01R - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

RNP RWY01R

TABULAR DESCRIPTION

RNP RWY01R

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	RISSE (IAF)	-	-	+0.58	-	-	+3000	-220	-	RNP APCH
020	TF	RAYPA (IF)	-	015°(014.4°)	+0.58	5.0	-	+2500	-	-	RNP APCH
030	TF	BS499 (FAF)	-	015°(014.4°)	+0.58	4.4	-	@2000	-	-	RNP APCH
040	TF	BS497 (SDF)	-	015°(014.4°)	+0.58	2.1	-	@1300	-	-	RNP APCH
050	TF	RW01R (MAPt)	Y	015°(014.4°)	+0.58	4.0	-	@54	-	-3.0/50	RNP APCH
060	CA	-	-	015°(014.4°)	+0.58	-	-	+1500	-210	-	RNP APCH
070	DF	RENEX	-	-	+0.58	-	R	-	-210	-	RNP APCH
080	HM	RENEX	Y	210°(209.3°)	+0.58	1 minute	L	+3000	-230	-	RNP APCH

WAYPOINT LIST

RNP RWY01R

Waypoint Identifier	Coordinates	Pronunciation
RISSE	13° 24' 18.49" N 100° 41' 08.88" E	RIS - SAY
RAYPA	13° 29' 10.33" N 100° 42' 25.43" E	RAY - PAH
BS499	13° 33' 28.06" N 100° 43' 33.12" E	-
BS497	13° 35' 33.14" N 100° 44' 05.91" E	-
RW01R	13° 39' 24.11" N 100° 45' 06.59" E	-
RENEX	13° 51' 48.03" N 100° 50' 55.97" E	RAY - NEKS

CHANGE: AD ELEV. THR ELEV.

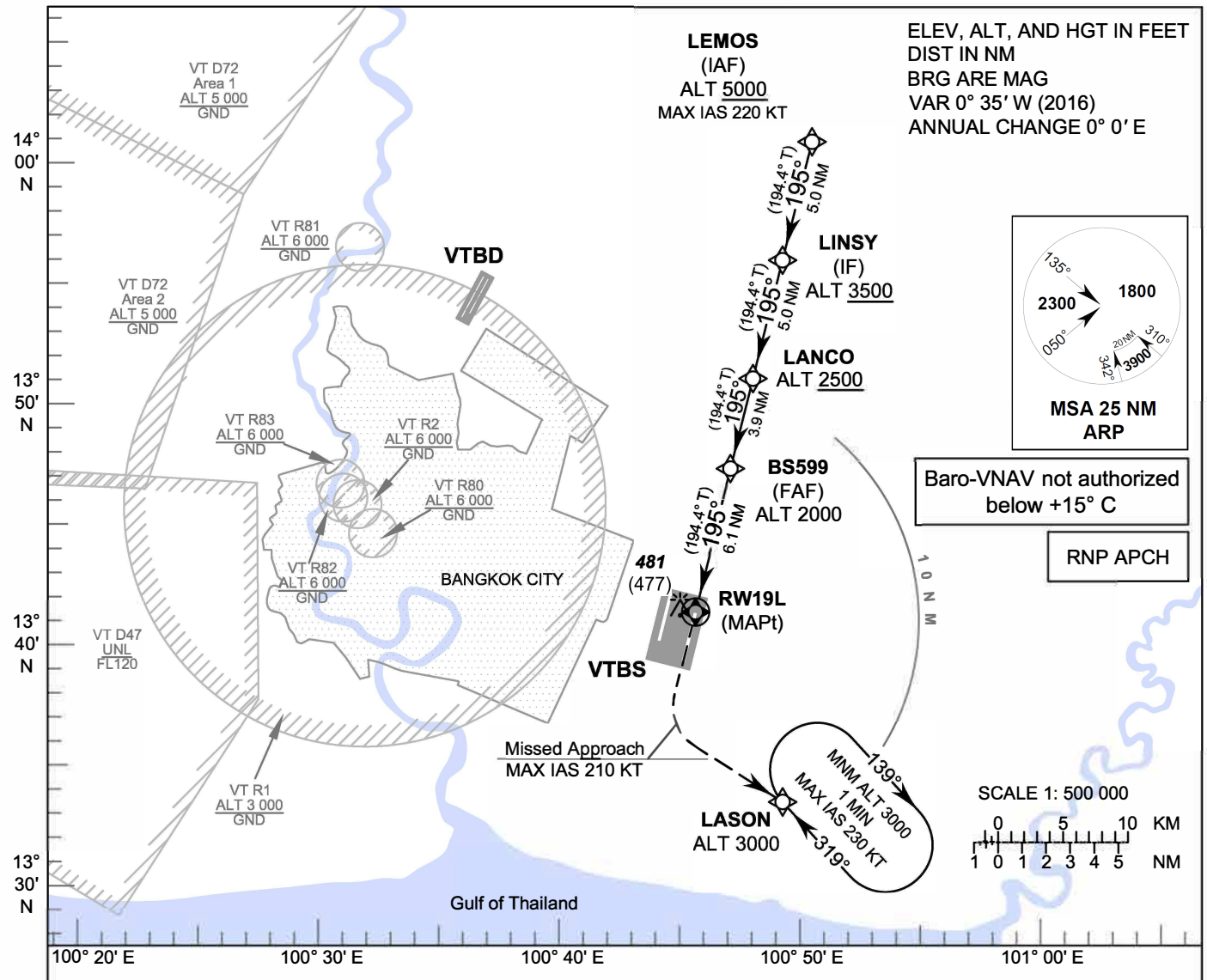
INSTRUMENT APPROACH CHART - ICAO

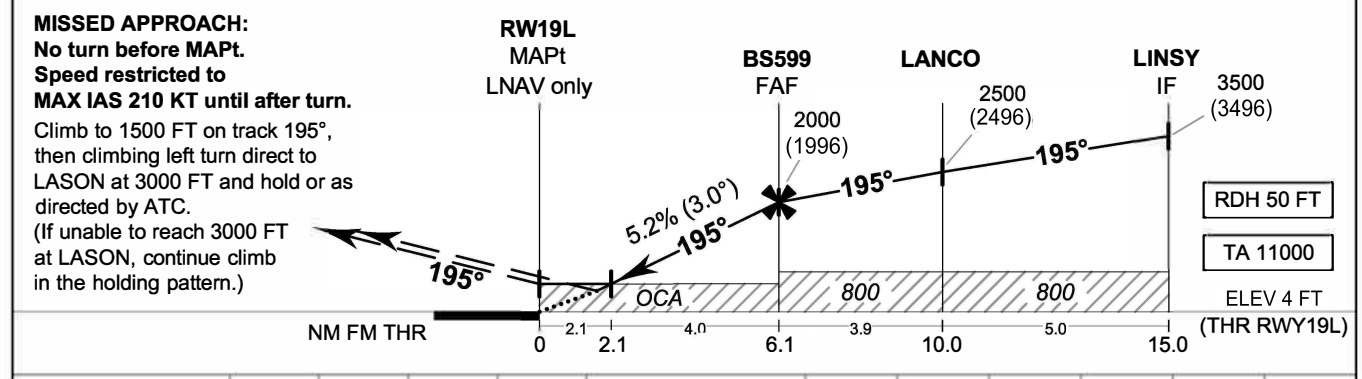
AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19L - ELEV 4 FT

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK / Suvarnabhumi Intl (VTBS)

RNP RWY19L





CHANGE: MSA. AD ELEV. THR ELEV.

OCA/H	A	B	C	D	NM to NEXT WPT	2.1 NM	3 NM	4 NM	5 NM	6 NM	FAF
LNAV / VNAV	600 (596)				Altitude (Height)	730 (726)	1005 (1001)	1320 (1316)	1635 (1631)	1950 (1946)	2000 (1996)
LNAV	730 (726)				Ground speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	800 (796)		900 (896)		Rate of descent FAF-MAPt 5.2%	ft/min	369	474	527	632	737	843

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19L - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

RNP RWY19L

TABULAR DESCRIPTION

RNP RWY19L

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	LEMOS (IAF)	-	-	+0.58	-	-	+5000	-220	-	RNP APCH
020	TF	LINSY (IF)	-	195°(194.4°)	+0.58	5.0	-	+3500	-	-	RNP APCH
030	TF	LANCO	-	195°(194.4°)	+0.58	5.0	-	+2500	-	-	RNP APCH
040	TF	BS599 (FAF)	-	195°(194.4°)	+0.58	3.9	-	@2000	-	-	RNP APCH
050	TF	RW19L (MAPt)	Y	195°(194.4°)	+0.58	6.1	-	@54	-	-3.0/50	RNP APCH
060	CA	-	-	195°(194.4°)	+0.58	-	-	+1500	-210	-	RNP APCH
070	DF	LASON	-	-	+0.58	-	L	-	-210	-	RNP APCH
080	HM	LASON	Y	319°(318.3°)	+0.58	1 minute	R	+3000	-230	-	RNP APCH

WAYPOINT LIST

RNP RWY19L

Waypoint Identifier	Coordinates	Pronunciation
LEMOS	14° 01' 03.35" N 100° 50' 48.54" E	LAY - MOSS
LINSY	13° 56' 08.45" N 100° 49' 30.83" E	LINN - SEE
LANCO	13° 51' 13.81" N 100° 48' 13.24" E	LAN - COH
BS599	13° 47' 26.20" N 100° 47' 13.33" E	-
RW19L	13° 41' 30.17" N 100° 45' 39.72" E	-
LASON	13° 33' 32.40" N 100° 49' 20.92" E	LAH - SON

CHANGE: AD ELEV. THR ELEV.

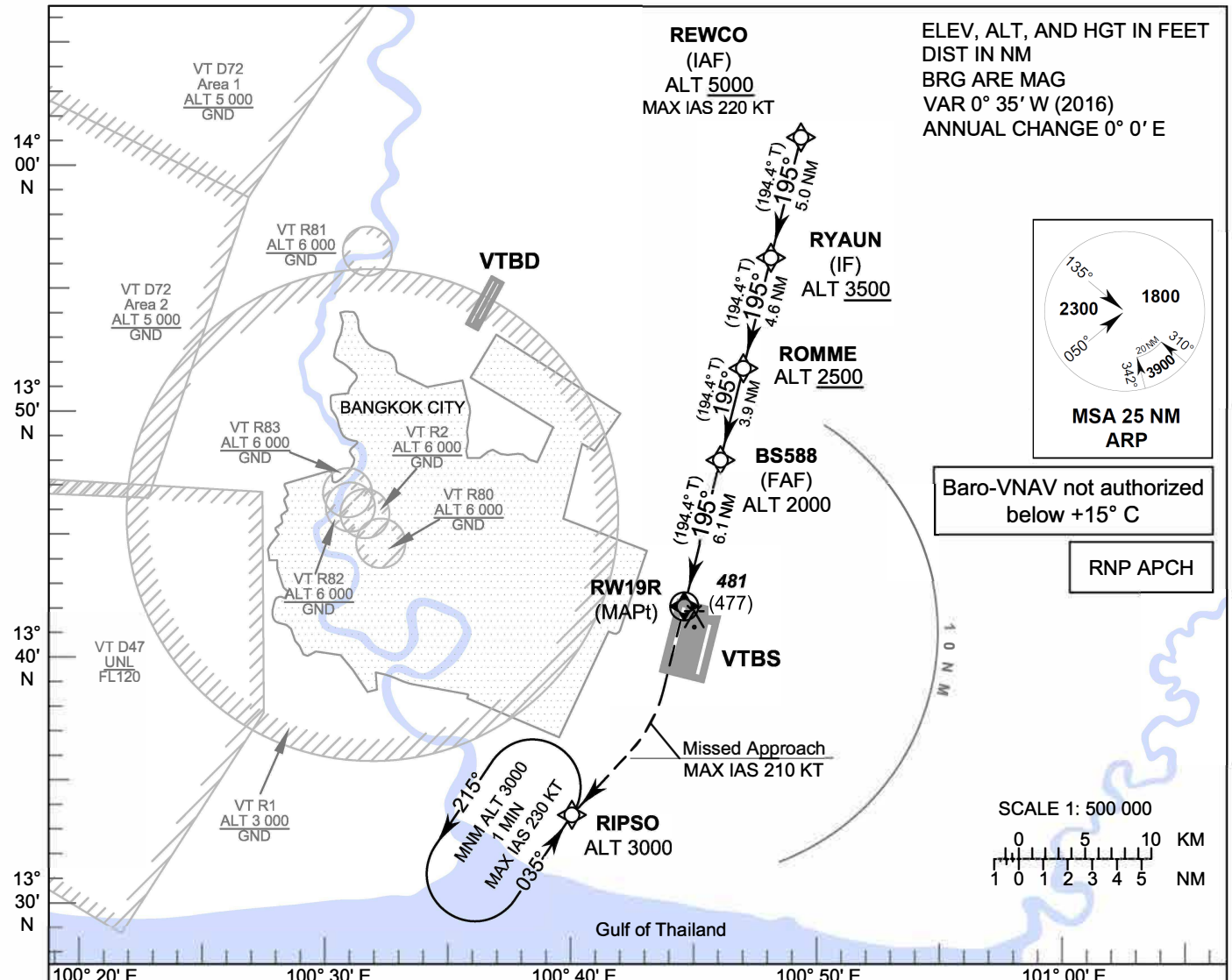
INSTRUMENT APPROACH CHART - ICAO

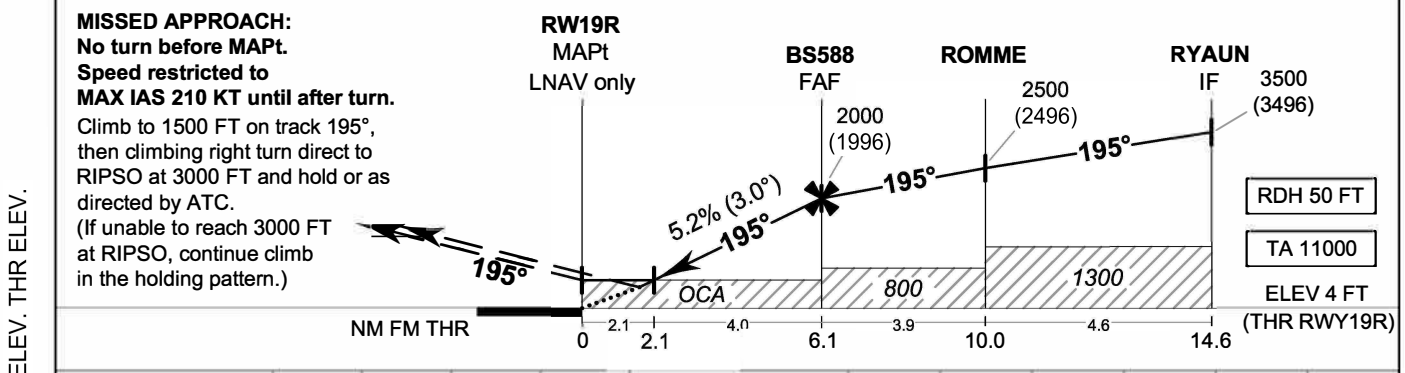
AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19R - ELEV 4 FT

APP	: 119.1, 262.5
	: 120.3, 262.5
	: 133.4, 262.5
	: 122.35, 262.5
	: 124.35, 262.5
	: 125.2, 262.5
ARR	: 121.1
	: 126.3
TWR	: 118.2, 274.5
	: 119.0
ARR ATIS	: 133.6, 278.6

BANGKOK / Suvarnabhumi Intl (VTBS)

RNP RWY19R





OCA/H	A	B	C	D	NM to NEXT WPT	2.1 NM	3 NM	4 NM	5 NM	6 NM	FAF
LNAV / VNAV	600 (596)				Altitude (Height)	730 (726)	1005 (1001)	1320 (1316)	1635 (1631)	1950 (1946)	2000 (1996)
LNAV	730 (726)				Ground speed	knot	70	90	100	120	140	160
Circling (OCH AAL)	800 (796)		900 (896)		Rate of descent FAF-MAPt 5.2%	ft/min	369	474	527	632	737	843

CHANGE: MSA. AD ELEV. THR ELEV.

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 4 FT
HEIGHTS RELATED TO
THR RWY19R - ELEV 4 FT

BANGKOK / Suvarnabhumi Intl (VTBS)

RNP RWY19R

CHANGE: AD ELEV. THR ELEV.

TABULAR DESCRIPTION

RNP RWY19R

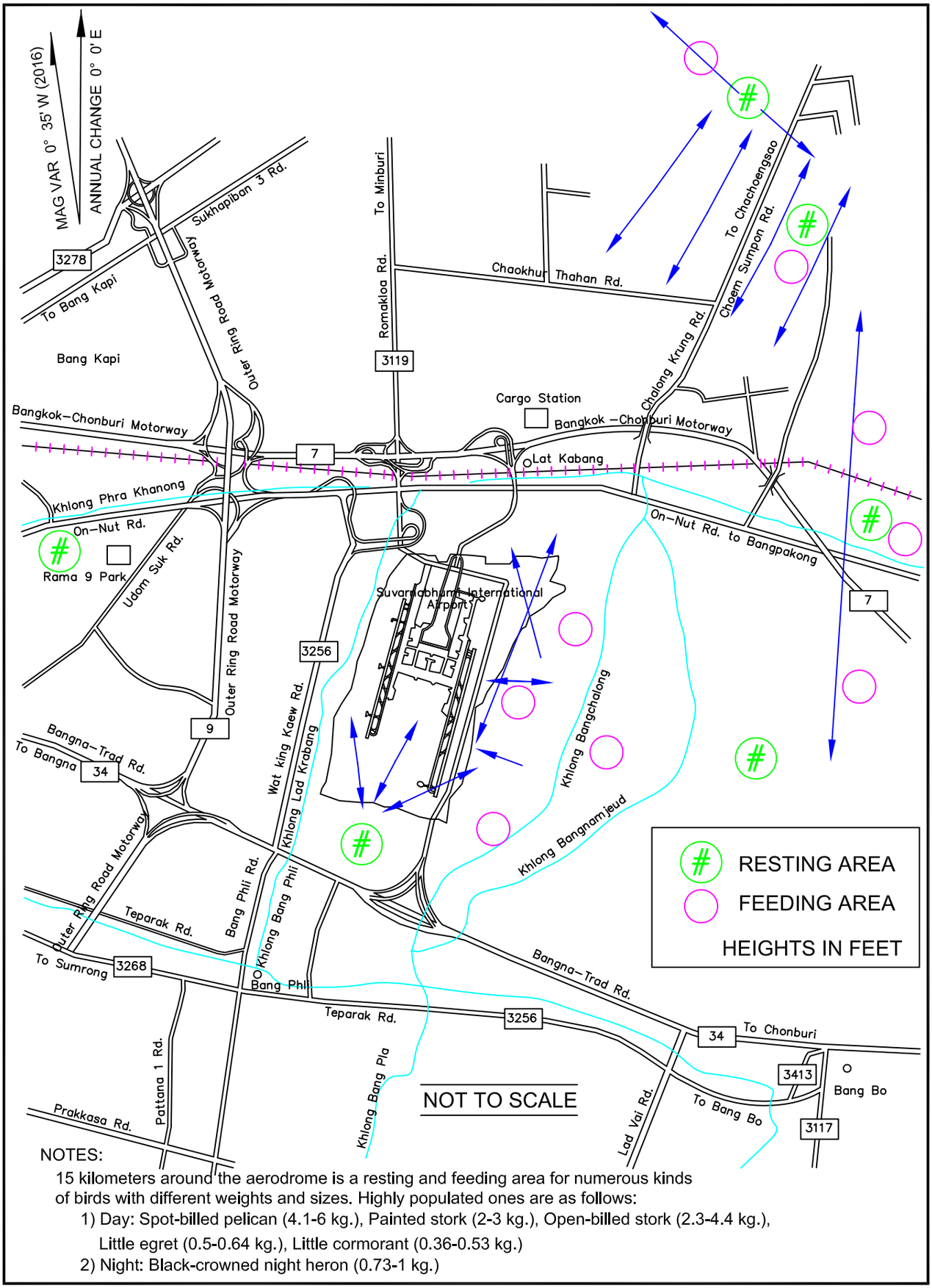
Serial Number	Path Descriptor	Waypoint Identifier	Flyover	Course ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KT)	VPA/ TCH	Navigation Specification
010	IF	REWCO (IAF)	-	-	+0.58	-	-	+5000	-220	-	RNP APCH
020	TF	RYAUN (IF)	-	195°(194.4°)	+0.58	5.0	-	+3500	-	-	RNP APCH
030	TF	ROMME	-	195°(194.4°)	+0.58	4.6	-	+2500	-	-	RNP APCH
040	TF	BS588 (FAF)	-	195°(194.4°)	+0.58	3.9	-	@2000	-	-	RNP APCH
050	TF	RW19R (MAPt)	Y	195°(194.4°)	+0.58	6.1	-	@54	-	-3.0/50	RNP APCH
060	CA	-	-	195°(194.4°)	+0.58	-	-	+1500	-210	-	RNP APCH
070	DF	RIPSO	-	-	+0.58	-	R	-	-210	-	RNP APCH
080	HM	RIPSO	Y	035°(034.3°)	+0.58	1 minute	L	+3000	-230	-	RNP APCH

WAYPOINT LIST

RNP RWY19R

Waypoint Identifier	Coordinates	Pronunciation
REWCO	14° 01' 21.29" N 100° 49' 37.68" E	REW - COH
RYAUN	13° 56' 26.99" N 100° 48' 20.12" E	RAI - AAN
ROMME	13° 51' 56.84" N 100° 47' 08.98" E	ROM - MEE
BS588	13° 48' 09.23" N 100° 46' 09.07" E	-
RW19R	13° 42' 13.21" N 100° 44' 35.44" E	-
RIPSO	13° 33' 44.05" N 100° 39' 50.12" E	RIP - SO

BIRD CONCENTRATIONS - BANGKOK / SUVARNABHUMI INTERNATIONAL



NOTES:

15 kilometers around the aerodrome is a resting and feeding area for numerous kinds of birds with different weights and sizes. Highly populated ones are as follows:

1) Day: Spot-billed pelican (4.1-6 kg.), Painted stork (2-3 kg.), Open-billed stork (2.3-4.4 kg.), Little egret (0.5-0.64 kg.), Little cormorant (0.36-0.53 kg.)

2) Night: Black-crowned night heron (0.73-1 kg.)

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