VTBS AD 2. AERODROMES

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	1.4 m (4.6 ft) / 35.1 °C
4	Geoid undulation at AD ELEV PSN	- 29.7 m (-97.5 ft)
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 Telephone : +66 2132 1888 Telefax : +66 2132 1885 E-mail : suvarnnab_suggestion@airportthai.co.th URL : www.suvarnabhumiairport.com 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	AD Administration	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 located at level 4 in the passenger terminal building. The type of services via AFTN, internet : www.aerothai.co.th , fax, phone and E-mail : aisservices@aerothai.co.th

VTBS AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Available from Thai Airways International Plc. and Bangkok Flight Services Cargo
2	Fuel/oil types	Jet A1
3	Fuelling facilities/capacity	a) Bangkok Aviation Fuel Service Public Company Limited (BAFS) Internet : www.bafsthai.com Phone : +66 2326 3800 Fax : +66 2326 3888 Fuel Dispenser Truck : 37 Fuel Truck : 3 Capacity : 65,000 liters b) Aircraft Service International Group (THAILAND) CO.,LTD. (ASIG) Internet : www.asig.com Email : BKK.Operations@asig.co.th Gornvipha.jaimun@asig.co.uk Seksun.chantakeaw@asig.co.uk Phone : +66 2327 3316-9 Fax : +66 2327 3298 Fuel Dispenser Truck : 10 Fuel Truck : 2 Capacity : 35,000 liters
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) **Bangkok Flight Services Co, Ltd. (BFS)** Internet : www.bangkokflightservices.com **Schedule Airlines and Seasonal Charter** : Robert Ruesz, General Manager, Sales and Ground Services Email : RobertR@BFSASIA.com Phone : +668 8002 4975, Fax :+66 2131 5099 **Ad Hoc Charter and Corporate Jet :** Ekpol Mekvishai, Contracts Manager E-mail: EkpolM@BFSASIA.com Phone :+668 5055 7671, Fax : +66 2131 5099 **General Inquiry :** E- mail : marketing@bfsasia.com Phone :+66 2131 5000, Fax:+66 2131 5077,+66 2131 5099 **Bangkok Air Catering Co, Ltd. (BAC)** Internet : www bangkokaircatering .com E-mail : sales@bangkokaircatering.com Phone : +66 2131 7500 Ext. 8600, Fax :+66 2131 7599 b) **Thai Airways International Public Co, Ltd.(TG)** Internet : www.thaiair.com **Ground Handling Services :** E-mail : thaigroundservice@thaiairways.com , SITA : BKKKATG Phone : +66 2137 1610, Fax : +66 2137 1675 **Ad Hoc Charter Handling Services :** E-mail : tg.charter@thaiairways.com , SITA : BKKZMTG Phone : +66 2134 5067-8, Fax : +66 2134 5066 **Catering Services :** Internet : www.thaicatering.com , SITA : BKKCYTG Phone : +66 2137 2101-5 , Fax : +66 2137 2450 c) **LSG SKY CHEFS** Internet : www.lsgskychefs.com Email : DL.APCA.BKK.CustomerService@lsgskychefs.com Phone : +66 2131 1900

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+66 2132 7777.
5	Bank and Post Office	At AD.
6	Tourist Office	At AD.
7	Remarks	For further information visit Internet address : www.suvarnabhumiairport.com

VTBS AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 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 International Plc.
4	Remarks	Nil

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 Strength : PCN 126 / R / D / X / T		
2	Taxiway width, surface and strength	Width : 30 m. Surface : Asphalt Strength : PCN 137 / F / D / X / T		
3	Altimeter checkpoint location and elevation	Location : At Apron Elevation : 1.8 m (5.9 ft)		
4	VOR checkpoints	Nil		
5	INS checkpoints	Aircraft Parking Stand Identification	Geographical Co-ordinates	
			Latitude	Longitude
		A1	13° 41′ 30.11″ N	100° 45′ 17.81″ E
		A2	13° 41′ 31.95″ N	100° 45′ 18.44″ E
		A3	13° 41′ 34.19″ N	100° 45′ 18.72″ E
		A4	13° 41′ 35.91″ N	100° 45′ 19.54″ E
		A5	13° 41′ 37.77″ N	100° 45′ 19.77″ E
		A6	13° 41′ 40.11″ N	100° 45′ 20.27″ E
		B1	13° 41′ 26.73″ N	100° 45′ 19.83″ E
		B3	13° 41′ 26.38″ N	100° 45′ 21.79″ E
		B5	13° 41′ 25.74″ N	100° 45′ 23.97″ E
		101L	13° 41′ 41.76″ N	100° 45′ 21.25″ E
		101	13° 41′ 42.44″ N	100° 45′ 20.82″ E
		101R	13° 41′ 42.92″ N	100° 45′ 21.56″ E
		102L	13° 41′ 44.78″ N	100° 45′ 21.73″ E
		102	13° 41′ 45.40″ N	100° 45′ 21.89″ E
		102R	13° 41′ 46.01″ N	100° 45′ 22.05″ E
		103L	13° 41′ 47.24″ N	100° 45′ 22.37″ E
		103	13° 41′ 47.86″ N	100° 45′ 22.54″ E
		103R	13° 41′ 48.47″ N	100° 45′ 22.70″ E
		104L	13° 41′ 49.70″ N	100° 45′ 23.02″ E
		104	13° 41′ 50.31″ N	100° 45′ 23.18″ E
		104R	13° 41′ 50.93″ N	100° 45′ 23.34″ E

5	INS checkpoints	Aircraft Parking Stand Identification	Geographical Co-ordinates	
			Latitude	Longitude
		105L	13° 41′ 52.16″ N	100° 45′ 23.67″ E
		105	13° 41′ 52.77″ N	100° 45′ 23.83″ E
		105R	13° 41′ 53.39″ N	100° 45′ 23.99″ E
		106L	13° 41′ 54.62″ N	100° 45′ 24.31″ E
		106	13˚ 41' 55.23" N	100˚ 45' 24.48" E
		106R	13˚ 41' 55.85" N	100˚ 45' 24.64" E
		107L	13˚ 41' 57.07" N	100˚ 45' 24.96" E
		107	13˚ 41' 57.69" N	100˚ 45' 25.12" E
		107R	13˚ 41' 58.30" N	100˚ 45' 25.28" E
		108L	13˚ 41' 59.53" N	100˚ 45' 25.61" E
		108	13˚ 42' 00.15" N	100˚ 45' 25.77" E
		108R	13˚ 42' 00.76" N	100˚ 45' 25.93" E
		109L	13˚ 42' 01.99" N	100˚ 45' 26.25" E
		109	13˚ 42' 02.61" N	100˚ 45' 26.41" E
		109R	13˚ 42' 03.22" N	100˚ 45' 26.58" E
		110L	13˚ 42' 04.45" N	100˚ 45' 26.90" E
		110	13˚ 42' 05.06" N	100˚ 45' 27.06" E
		110R	13˚ 42' 05.68" N	100˚ 45' 27.22" E
		111L	13˚ 42' 06.91" N	100˚ 45' 27.55" E
		111	13˚ 42' 07.52" N	100˚ 45' 27.71" E
		111R	13˚ 42' 08.14" N	100˚ 45' 27.87" E
		112L	13˚ 42' 09.36" N	100˚ 45' 28.19" E
		112	13˚ 42' 09.98" N	100˚ 45' 28.35" E
		112R	13˚ 42' 10.59" N	100˚ 45' 28.51" E
		113L	13˚ 42' 11.82" N	100˚ 45' 28.84" E
		113	13˚ 42' 12.44" N	100˚ 45' 29.00" E
		113R	13˚ 42' 13.05" N	100˚ 45' 29.16" E

5	INS checkpoints	Aircraft Parking Stand Identification	Geographical Co-ordinates	
			Latitude	Longitude
		114L	13˚ 42' 14.28" N	100˚ 45' 29.48" E
		114	13˚ 42' 14.90" N	100˚ 45' 29.65" E
		114R	13˚ 42' 15.51" N	100˚ 45' 29.81" E
		115L	13˚ 41' 32.69" N	100˚ 45' 26.76" E
		115	13˚ 41' 32.06" N	100˚ 45' 26.65" E
		115R	13˚ 41' 31.46" N	100˚ 45' 26.44" E
		116L	13˚ 41' 35.15" N	100˚ 45' 27.41" E
		116	13˚ 41' 34.52" N	100˚ 45' 27.30" E
		116R	13˚ 41' 33.92" N	100˚ 45' 27.09" E
		117L	13˚ 41' 37.60" N	100˚ 45' 28.05" E
		117	13˚ 41' 36.98" N	100˚ 45' 27.94" E
		117R	13˚ 41' 36.37" N	100˚ 45' 27.73" E
		118L	13˚ 41' 40.06" N	100˚ 45' 28.70" E
		118	13˚ 41' 39.43" N	100˚ 45' 28.59" E
		118R	13˚ 41' 38.83" N	100˚ 45' 28.38" E
		119L	13˚ 41' 46.52" N	100˚ 45' 30.46" E
		119	13˚ 41' 45.91" N	100 45' 30.30" E
		119R	13˚ 41' 45.29" N	100˚ 45' 30.13" E
		120L	13˚ 41' 48.98" N	100˚ 45' 31.10" E
		120	13˚ 41' 48.36" N	100˚ 45' 30.94" E
		120R	13˚ 41' 47.75" N	100˚ 45' 30.78" E
		121L	13˚ 41' 51.44" N	100˚ 45' 31.75" E
		121	13˚ 41' 50.82" N	100˚ 45' 31.59" E
		121R	13˚ 41' 50.21" N	100˚ 45' 31.43" E
		122L	13˚ 41' 53.90" N	100˚ 45' 32.40" E
		122	13˚ 41' 53.28" N	100˚ 45' 32.24" E
		122R	13˚ 41' 52.67" N	100˚ 45' 32.07" E

5	INS checkpoints	Aircraft Parking Stand Identification	Geographical Co-ordinates	
			Latitude	Longitude
		123L	13° 41' 56.35" N	100° 45' 33.04" E
		123	13° 41' 55.74" N	100° 45' 32.88" E
		123R	13° 41' 55.12" N	100° 45' 32.72" E
		124	13° 42' 01.03" N	100° 45' 34.27" E
		125L	13° 42' 03.73" N	100° 45' 34.98" E
		125	13° 42' 03.11" N	100° 45' 34.82" E
		125R	13° 42' 02.57" N	100° 45' 34.68" E
		126L	13° 42' 06.19" N	100° 45' 35.63" E
		126	13° 42' 05.57" N	100° 45' 35.47" E
		126R	13° 42' 04.96" N	100° 45' 35.31" E
		127L	13° 42' 08.64" N	100° 45' 36.28" E
		127	13° 42' 08.03" N	100° 45' 36.11" E
		127R	13° 42' 07.41" N	100° 45' 35.95" E
		128L	13° 42' 11.10" N	100° 45' 36.92" E
		128	13 42' 10.49" N	100° 45' 36.76" E
		128R	13° 42' 09.87" N	100° 45' 36.60" E
		129L	13° 42' 13.56" N	100° 45' 37.57" E
		129	13° 42' 12.95" N	100° 45' 37.41" E
		129R	13° 42' 12.33" N	100° 45' 37.24" E
		130	13° 42' 16.57" N	100° 45' 37.23" E
		131	13° 42' 18.24" N	100° 45' 31.74" E
		132	13° 42' 18.83" N	100° 45' 29.41" E
		B2	13° 41' 22.94" N	100° 45' 18.94" E
		B4	13° 41' 22.65" N	100° 45' 20.91" E
		B6	13° 41' 22.24" N	100° 45' 23.16" E
		C1	13° 41' 20.86" N	100° 45' 15.21" E
		C3	13° 41' 18.45" N	100° 45' 14.58" E

5	INS checkpoints	Aircraft Parking Stand Identification	Geographical Co-ordinates	
			Latitude	Longitude
		C5	13˚ 41' 16.04" N	100˚ 45' 13.94" E
		C7	13˚ 41' 13.62" N	100˚ 45' 13.31" E
		C9	13˚ 41' 11.17" N	100˚ 45' 12.85" E
		201L	13˚ 41' 15.92" N	100˚ 45' 22.35" E
		201	13˚ 41' 15.30" N	100˚ 45' 22.24" E
		201R	13˚ 41' 14.69" N	100˚ 45' 22.03" E
		202L	13˚ 41' 13.46" N	100˚ 45' 21.71" E
		202	13˚ 41' 12.84" N	100˚ 45' 21.60" E
		202R	13˚ 41' 12.23" N	100˚ 45' 21.38" E
		203L	13˚ 41' 11.01" N	100˚ 45' 21.06" E
		203	13˚ 41' 10.38" N	100˚ 45' 20.95" E
		203R	13˚ 41' 09.78" N	100˚ 45' 20.74" E
		C2	13˚ 41' 21.71" N	100˚ 45' 11.83" E
		C4	13˚ 41' 19.29" N	100˚ 45' 11.20" E
		C6	13˚ 41' 16.88" N	100˚ 45' 10.57" E
		C8	13˚ 41' 14.47" N	100˚ 45' 09.93" E
		C10	13˚ 41' 12.06" N	100˚ 45' 09.30" E
		D1	13˚ 41' 25.32" N	100˚ 45' 09.71" E
		D2	13˚ 41' 26.16" N	100˚ 45' 07.54" E
		D3	13˚ 41' 26.76" N	100˚ 45' 05.17" E
		D4	13˚ 41' 27.37" N	100˚ 45' 02.76" E
		D5	13˚ 41' 27.83" N	100˚ 44' 59.52" E
		D6	13˚ 41' 28.69" N	100˚ 44' 57.48" E
		D7	13˚ 41' 29.29" N	100˚ 44' 55.11" E
		D8	13˚ 41' 29.58" N	100˚ 44' 52.80" E

5	INS checkpoints	Aircraft Parking Stand Identification	Geographical Co-ordinates	
			Latitude	Longitude
		E1	13˚ 41' 27.42" N	100˚ 44' 49.11" E
		E3	13˚ 41' 25.01" N	100˚ 44' 48.47" E
		E5	13˚ 41' 22.59" N	100˚ 44' 47.84" E
		E7	13˚ 41' 20.18" N	100˚ 44' 47.20" E
		E9	13˚ 41' 17.73" N	100˚ 44' 46.74" E
		301	13˚ 41' 21.43" N	100˚ 45' 01.43" E
		302	13˚ 41' 19.29" N	100˚ 45' 00.78" E
		303	13˚ 41' 16.93" N	100˚ 45' 00.16" E
		304	13˚ 41' 14.47" N	100˚ 44' 59.52" E
		305	13˚ 41' 22.27" N	100˚ 44' 58.08" E
		306	13˚ 41' 20.09" N	100˚ 44' 57.60" E
		307	13˚ 41' 17.73" N	100˚ 44' 56.97" E
		308	13˚ 41' 15.27" N	100˚ 44' 56.33" E
		E2	13˚ 41' 28.27" N	100˚ 44' 45.73" E
		E4	13˚ 41' 25.86" N	100˚ 44' 45.09" E
		E6	13˚ 41' 23.45" N	100˚ 44' 44.46" E
		E8	13˚ 41' 21.03" N	100˚ 44' 43.83" E
		E10	13˚ 41' 18.62" N	100˚ 44' 43.19" E
		F1	13˚ 41' 32.04" N	100˚ 44' 43.65" E
		F3	13˚ 41' 32.37" N	100˚ 44' 41.65" E
		F5	13˚ 41' 33.03" N	100˚ 44' 39.50" E
		401	13˚ 41' 26.72" N	100˚ 44' 36.79" E
		402	13˚ 41' 24.26" N	100˚ 44' 36.15" E
		403	13˚ 41' 21.80" N	100˚ 44' 35.50" E

5	INS checkpoints	Aircraft Parking Stand Identification	Geographical Co-ordinates	
			Latitude	Longitude
		F2	13˚ 41' 35.77" N	100˚ 44' 44.53" E
		F4	13˚ 41' 36.26" N	100˚ 44' 42.57" E
		F6	13˚ 41' 36.53" N	100˚ 44' 40.32" E
		G1	13˚ 41' 37.62" N	100˚ 44' 48.03" E
		G2	13˚ 41' 39.74" N	100˚ 44' 48.49" E
		G3	13˚ 41' 42.02" N	100˚ 44' 49.34" E
		G4	13˚ 41' 44.43" N	100˚ 44' 49.98" E
		G5	13˚ 41' 46.95" N	100˚ 44' 50.19" E
		501	13˚ 41' 49.24" N	100˚ 44' 51.31" E
		502	13˚ 41' 43.48" N	100˚ 44' 41.20" E
		503	13˚ 41' 45.94" N	100˚ 44' 41.85" E
		504	13˚ 41' 48.40" N	100˚ 44' 42.49" E
		505	13˚ 41' 50.86" N	100˚ 44' 43.14" E
		506L	13˚ 41' 57.99" N	100˚ 44' 45.65" E
		506	13˚ 41' 57.17" N	100˚ 44' 46.07" E
		506R	13˚ 41' 56.65" N	100˚ 44' 45.30" E
		507L	13˚ 42' 00.67" N	100˚ 44' 46.36" E
		507	13˚ 41' 59.85" N	100˚ 44' 46.78" E
		507R	13˚ 41' 59.33" N	100˚ 44' 46.00" E
		508L	13˚ 42' 03.35" N	100˚ 44' 47.06" E
		508	13˚ 42' 02.53" N	100˚ 44' 47.48" E
		508R	13˚ 42' 02.01" N	100˚ 44' 46.71" E
		509L	13˚ 42' 06.03" N	100˚ 44' 47.76" E
		509	13˚ 42' 05.21" N	100˚ 44' 48.18" E
		509R	13˚ 42' 04.69" N	100˚ 44' 47.41" E

5	INS checkpoints	Aircraft Parking Stand Identification	Geographical Co-ordinates	
			Latitude	Longitude
		510L	13° 42' 08.71" N	100° 44' 48.47" E
		510	13° 42' 07.89" N	100° 44' 48.89" E
		510R	13° 42' 07.37" N	100° 44' 48.12" E
		511L	13° 42' 11.38" N	100° 44' 49.17" E
		511	13° 42' 10.61" N	100° 44' 49.40" E
		511R	13° 42' 10.05" N	100° 44' 48.82" E
		512L	13° 42' 14.06" N	100° 44' 49.88" E
		512	13° 42' 13.29" N	100° 44' 50.10" E
		512R	13° 42' 12.73" N	100° 44' 49.52" E
		513L	13° 42' 16.74" N	100° 44' 50.58" E
		513	13° 42' 15.97" N	100° 44' 50.81" E
		513R	13° 42' 15.40" N	100° 44' 50.23" E
		514L	13° 42' 19.42" N	100° 44' 51.29" E
		514	13° 42' 18.65" N	100° 44' 51.51" E
		514R	13° 42' 18.08" N	100° 44' 50.93" E
		515L	13° 42' 22.10" N	100° 44' 51.99" E
		515	13° 42' 21.33" N	100° 44' 52.22" E
		515R	13° 42' 20.76" N	100° 44' 51.64" E
		516L	13° 42' 24.78" N	100° 44' 52.69" E
		516	13° 42' 24.01" N	100° 44' 52.92" E
		516R	13° 42' 23.44" N	100° 44' 52.34" E
		517L	13° 42' 27.46" N	100° 44' 53.40" E
		517	13° 42' 26.69" N	100° 44' 53.63" E
		517R	13° 42' 26.12" N	100° 44' 53.05" E
		518L	13° 42' 30.14" N	100° 44' 54.10" E
		518	13° 42' 29.37" N	100° 44' 54.33" E
		518R	13° 42' 28.80" N	100° 44' 53.75" E

5	INS checkpoints	Aircraft Parking Stand Identification	Geographical Co-ordinates	
			Latitude	Longitude
		519L	13° 42' 32.81" N	100° 44' 54.81" E
		519	13° 42' 32.04" N	100° 44' 55.03" E
		519R	13° 42' 31.48" N	100° 44' 54.45" E
		520L	13° 42' 35.49" N	100° 44' 55.51" E
		520	13° 42' 34.72" N	100° 44' 55.74" E
		520R	13° 42' 34.15" N	100° 44' 55.16" E
		521L	13° 42' 38.17" N	100° 44' 56.22" E
		521	13° 42' 37.40" N	100° 44' 56.44" E
		521R	13° 42' 36.83" N	100° 44' 55.86" E
		522L	13° 42' 40.85" N	100° 44' 56.92" E
		522	13° 42' 40.08" N	100° 44' 57.15" E
		522R	13° 42' 39.51" N	100° 44' 56.57" E
		523	13° 42' 42.54" N	100° 44' 57.80" E
		524	13° 42' 45.00" N	100° 44' 58.44" E
		525	13° 42' 47.42" N	100° 44' 59.08" E
6	Remarks	1. Special general, corporate, private, government and military aviation operations 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.		

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 at runway holding positions on all TWY/RWY intersections.
4	Remarks	Intermediate holding positions are provided at some TWY/TWY intersections

VISUAL DOCKING GUIDANCE SYSTEM

1. Safety Procedures

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.

If the pilot is unsure of the information, being shown of the VDGS display unit, He must immediate stop the aircraft and obtain further information for clearance.

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

1.3 The SBU MESSAGE

The massage STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance. DO NOT TRY TO RESUME DOCKING WITHOUT MANUAL GUIDANCE.

1.4 OVERSHOOT PROCEDURES

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

a) between 0.01-1.50 meters are normally serviceable.

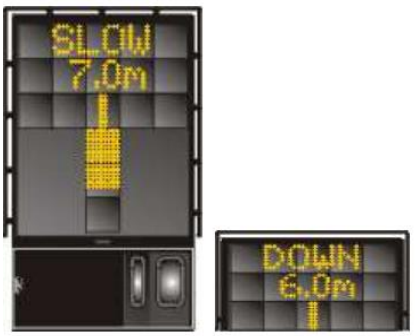
b) between 1.51 – 2.00 meters, passenger loading bridge(PLB) called “L1” is only serviceable, if the PLB called “L2” is required, the aircraft shall push back to correct stop-position.

c) the distance over 2.00 meters, 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.

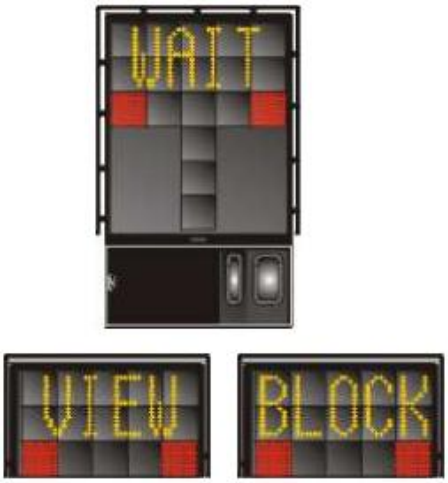
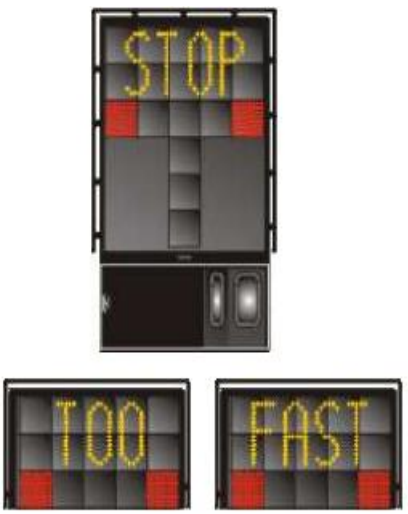
2. Docking procedure

2.1 START-OF-DOCKING The system is started by pressing one of the aircraft type buttons on the Operator Panel. When the button has been pressed, WAIT will be displayed	
2.2 CAPTURE The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft. It shall be checked that the correct aircraft type is displayed. The lead-in line shall be followed. The pilot must not proceed beyond the bridge, unless the arrows have been superseded by the closing rate bar.	
2.3 TRACKING When the aircraft has been caught by the laser, the floating arrow is 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	
2.4 CLOSING RATE Display of digital countdown will start when the aircraft is 20 meters from stop position. When the aircraft is less than 12 meters from the stop position, the closing rate is indicated by turning off one row of the centre line symbol per 0.5 meters, covered by the aircraft. Thus, when the last row is turned off, 0.5 meter remains to stop	

2.5 ALIGNED TO CENTRE The aircraft is eight meters from the stop position. The absence of direction arrow indicates an aircraft on the centre line.	
2.6 SLOW DOWN The aircraft is approaching faster than accepted speed, the system will show SLOW DOWN as a warning to the pilot.	
2.7 AZIMUTH GUIDANCE The aircraft is four meters from the stop position. The yellow arrow indicates an aircraft to the right of the centre line, and the direction to turn.	
2.8 STOP POSITION REACHED When the correct stop-position is reached, the display will show STOP and red lights will be lit.	

2.9 DOCKING COMPLETED When the aircraft has parked, OK will be displayed.	
2.10 OVERSHOOT If the aircraft has overshot the stop position, TOO FAR will be displayed for 120 second.	
2.11 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.	
2.12 WAIT If some object is blocking the view toward the approaching aircraft or the detected aircraft is lost during docking before 12 meters to STOP, the display will show WAIT. The docking will continue as soon as the blocking object has disappeared or the system detects the aircraft again. The pilot must not proceed beyond the bridge, unless the “wait” message has been superseded by the closing rate bar	

2.13 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, the display will disable the floating arrows and display SLOW and the Aircraft Type. As soon as the system detects the approaching aircraft, the vertical closing-rate bar will appear. If the system has been configured in this mode to make a shortened ID verification (check of engine position excluded), the aircraft symbol will blink to give attention. The pilot must not proceed beyond the bridge, unless the closing-rate bar is shown	 
2.14 AIRCRAFT VERIFICATION FAILURE During entry into the stand, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 12 meters 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 without manual guidance, Unless the wait message has been superseded by the closing rate bar.	 
2.15 GATE BLOCKED If an object is found blocking the view from the DGS 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 without manual guidance, unless the wait message has been superseded by the closing rate bar.	 

2.16 VIEW BLOCKED If the view towards the approaching aircraft is hindered, for instance by dirt on the window, the DGS will report a View blocked 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 without manual guidance, unless the with message has been superseded by the closing rate bar	
2.17 SBU-STOP Any unrecoverable error during/the docking procedure will generate an SBU (safety backup) condition. The display will show red stop bar and text STOP SBU. A manual backup procedure must be used for docking guidance	
2.18 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.	

2.19 EMERGENCY STOP When the Emergency Stop button is pressed. STOP is displayed. [2]	
2.20 CHOCKS 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.	
2.21 MANUAL DOCKING When a docking is to be performed manually the system will display “MAN” on the tableau. The system will not give any guidance for the docking operation.	
2.22 ERROR If a system error occurs, the message ERROR is displayed with an error code. The code is used for maintenance purposes and explained elsewhere.	

2.23 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.	
2.24 POWER FAILURE In case of a power failure, the display will be completely black. A manual backup procedure must be used for docking guidance.	

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

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

VTBS AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			In circling area and at AD		Remarks
1			2		3
RWY NR/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 144.9 m (475.4 ft) LGTD	13°41'47.2"N 100°44'58.3"E	
			Tower on top of building 54.3 m (178.2 ft)	13°41'24.1"N 100°43'46.5"E	
01L/APCH 19R/TKOF	Tower on top of building 53.2 m (174.6 ft)	13°38'08.2"N 100°43'40.2"E	Tower 49.0 m (160.8 ft)	13°39'43.8"N 100°42'59.5"E	
	Tower on top of building 54.8 m (179.8 ft)	13°37'51.8"N 100°43'54.2"E	Tower on top of building 58.2 m (191.0 ft)	13°38'10.0"N 100°42'33.7"E	
			Tower 116.4 m (381.9 ft)	13°38'02.9"N 100°42'17.7"E	
			Tower 91.6 m (300.5 ft)	13°37'47.5"N 100°42'26.1"E	
			Tower 49.0 m (160.8 ft)	13°38'06.3"N 100°42'37.6"E	
19L/APCH 01R/TKOF	Tower on top of building 78.1 m (256.3 ft)	13°43'39.8"N 100°46'20.6"E			
	Tower 44.4 m (145.7 ft)	13°43'16.9"N 100°45'49.8"E			
	Hangar roof 46.7 m (153.2 ft) LGTD	13°42'24.7"N 100°45'34.8"E			
	Hangar corner 39.7 m (130.3 ft) LGTD	13°42'22.0"N 100°45'38.9"E			
	Tower on top of building 48.9 m (160.4 ft)	13°43'32.3"N 100°46'17.2"E			
01R/APCH 19L/TKOF	Building 101.8 m (334.0 ft)	13°35'12.8"N 100°44'25.7"E	Tower 69.8 m (229.0 ft)	13°37'22.2"N 100°45'36.0"E	
	Tower 106.7 m (350.1 ft)	13°34'58.3"N 100°44'30.7"E			
	Tower 118.7 m (389.5 ft)	13°34'58.1"N 100°44'29.0"E			

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
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 Telephone : +66 2134 0006-07, Fax : +66 2134 0009-10
6	Flight documentation Language (s) used	Charts, Tabular Forms and Abbreviated Plain English Language Texts.
7	Charts and other information available for briefing or consultation	S, U85, U70, U50, U40, U30, U25 U20, SWH, SWL, P85, P70, P50, P40, P30, P25, P20, P15, satellite and radar pictures.
8	Supplementary equipment available for providing information	AWOS, Low Level Wind Shear Alert System (LLWAS), Weather Radar, Local Lightning Warning System (LLWS)
9	ATS units provided with information	Suvarnabhumi TWR Suvarnabhumi APP Suvarnabhumi 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	14.42 °	3700 x 60	PCN 137/F/D/X/T Asphalt	13◦ 40' 16.60" N 100◦ 44' 04.79" E -29.7 m (-97.5 ft)	THR/TDZ 1.38 m (4.53 ft)
19R	194.42 °	3700 x 60	PCN 137/F/D/X/T Asphalt	13◦ 42' 13.21" N 100◦ 44' 35.44" E - 29.7 m (-97.5 ft)	THR/TDZ 1.36 m. (4.46 ft)
01R	14.42 °	4000 x 60	PCN 137/F/D/X/T Asphalt	13◦ 39' 24.11" N 100◦ 45' 06.59" E -29.6 m (-97.1 ft)	THR/TDZ 1.36 m. (4.46 ft)
19L	194.42 °	4000 x 60	PCN 137/F/D/X/T Asphalt	13◦ 41' 30.17" N 100◦ 45' 39.72" E - 29.6 m (-97.1 ft)	THR/TDZ 1.34 m. (4.40 ft)
Slope of RWY-SWY	SWY dimensions (m)	CWY dimensions (m)	Strip dimensions (m)	OFZ	Remarks
7	8	9	10	11	12
0 %	Nil	1100 x 150	3820 x 300	Provided for all runways to precision approach category 2 requirements.	Paved jet blast protection areas at runway ends; 120 m long and 75 m wide. Runway end safety areas are 240 m long and 150 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	700 x 150	3820 x 300		
0 %	Nil	Nil	4120 x 300		
0 %	Nil	550 x 150	4120 x 300		

VTBS AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
01L	3 700	4 800	3 700	3 700	The TORA/ASDA when entering RWY from TWY E19 is 3 590 m.
19R	3 700	4 400	3 700	3 700	The TORA/ASDA when entering RWY from TWY E2 is 3 590 m.
01R	4 000	4 000	4 000	4 000	The TORA/ASDA when entering RWY from TWY B12 is 3 890 m.
19L	4 000	4 550	4 000	4 000	The TORA/ASDA when entering RWY from TWY B2 is 3 870 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/3º (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/3º (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/3º (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/3º (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 (13°41'47"N, 100°44'58"E), H24, Flashing White/Green every 4 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 and THR 19R, 400 m from THR 01R and THR 19L, 110 m off-set from RWY centre line
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) 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 121.7 MHz / 262.5 MHz 125.8 MHZ (2) 121.5 MHz(1) / 243.0 MHz (1)		(1) Emergency frequency (2) Clearance delivery for aircraft departing to adjacent aerodromes and helicopters operating within BKK CTR
APP	Suvarnabhumi Departure	119.25 MHz		(3) For RWY 01R/19L (4) For RWY 01L/19R
ARR	Suvarnabhumi Arrival	133.6 MHz 126.3 MHz 133.4 MHz 121.5 MHz	H24	
TWR	Suvarnabhumi Tower	118.2 MHz (3) / 274.5 MHz 119.0 MHz (4) 121.5 MHz (1)/ 243.0 MHz (1)		
SMC	Suvarnabhumi Ground	121.65 MHz / 275.8 MHz 121.75 MHz 121.95 MHz		
ATIS	Suvarnabhumi Airport	127.8 MHz / 278.6 MHz		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 CH51X		13 39 32.5 N 100 43 53.2 E		
ILS CAT II LOC/DME RWY 01L	I-SWS	109.1 MHz CH28X		13 42 22.3 N 100 44 37.8 E		
GP		331.4 MHz		13 40 27.8 N 100 44 03.6 E		
ILS CAT II LOC/DME RWY 19R	I-SWN	109.5 MHz CH32X		13 40 07.5 N 100 44 02.4 E		
GP		332.6 MHz	H24	13 42 03.9 N 100 44 28.9 E		RWY01L/19R and RWY01R/19L ILS LOC coverage expanded service volume up to 25 DME altitude not below 2 500 ft AMSL.
ILS CAT II LOC/DME RWY 01R	I-SES	110.1 MHz CH38X		13 41 39.3 N 100 45 42.1 E		
GP		334.4 MHz		13 39 33.4 N 100 45 13.1 E		
ILS CAT II LOC/DME RWY 19L	I-SEN	110.5 MHz CH42X		13 39 15.0 N 100 45 04.2 E		
GP		329.6 MHz		13 41 19.0 N 100 45 40.9 E		

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 authorized VFR flights only are permitted, all flights are subject to air traffic control service and separated from each other.

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 19L / 01R or East runway.

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

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

- 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:
- Aircraft stand taxilane T1, T2, T3, T4, T5, T6, T7
- Taxiway B, B1, B2, B3, B4, B5, B6, B7, B8, B9, B10,B11, B12, B13
- Taxiway C, C1, C2, C3, C4, C5, C6, C7, C8, C10
- Taxiway G between taxiway C and taxiway H4 including taxiway H4
- Taxiway H between taxiway C and taxiway H3

2.1.4 Ground Control on frequency 121.75 MHz for operations on Main apron:

- 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

Including:
- Aircraft stand taxilane T8, T9, T10, T11, T12
- Taxiway G between taxiway H4 and taxiway H2 including taxiway H2
- Taxiway H between taxiway H1 and taxiway H3 including taxiway H3

2.1.5 Ground Control on frequency 121.95 MHz for operations on West apron:
- 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:
- Aircraft stand taxilane T13, T14, T15, T16, T17
- Taxiway D, D1, D2, D3, D4, D5, D6, D7, D8, D9
- Taxiway E, E1, E2, E5, E6, E7, E8, E9, E12, E13, E15, E19, E21
- Taxiway G between taxiway D and taxiway H2
- Taxiway H between taxiway D and taxiway H1 including taxiway H1

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 must 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 must 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 allocated wheels up time (AWUT) 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. ATC Clearance Procedures

4.1 Issuance of en route clearance

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

Frequency	Outbound routes
120.8 MHz	A464 (SOUTHBOUND), G458, M751, W19, W31
133.8 MHz	A1 (EASTBOUND), A202, W1
135.8 MHz	N891, G474, R468 (EASTBOUND)
128.7 MHz	A1/L507, A464 (NORTHBOUND), B346, G463/P646, R468 (WESTBOUND), R474, W9, W21

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

A call as in para 4.1 above shall include the aircraft call sign and proposed flight level, if different from flight plan.

4.2 Cancellation of en route clearance

After the ATC clearance received, pilots will be instructed to call the relevant Ground Control frequency for push back and start up, and should give parking stand number or location and received ATIS information.

4.2.1 Unless other ATC restriction is imposed, 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

4.2.2 If ATC clearance includes a departure time restrictions in order to establish longitudinal separation, 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 that Ground Control in the appropriate time with the departure time restriction.

Pilot who fail to comply with 4.2.2a and/or 4.2.2b will result in cancellation of ATC clearance.

4.3 Pilots shall give aircraft type when requesting ATC clearance, and shall contact defined ground control frequency accordingly to the parking stand for start up and push back, after ATC clearance received.

4.4 To reduce communication between pilot and tower controller, take off clearance provided by ATC shall not Include departure frequency pilots are required to contact relevant approach frequency when airborne.

5. Push Back Procedures

5.1 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.

5.2 Objective

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

5.2.2 The procedure also implies conditions for operations during Low Visibility Conditions at the airport.

5.3 General

5.3.1 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.

5.3.2 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.

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

5.3.4 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.

5.3.5 The P.i.C. shall use minimum break away power and minimum taxi power when operating on the aprons and taxilanes.

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

5.3.7 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.

5.3.8 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 operation on the aprons and taxilanes. Furthermore, the aircraft shall be pushed back and towed forward on the yellow taxilane centre line marking.

5.4 Push Back Procedures

5.4.1 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 taxi lane T12 until aircraft nose wheel is on marking 1.
C4, C6	121.75 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T8 and then towed forward until aircraft nose wheel is on marking 2.
C8, C10	121.75 MHz	Aircraft shall be pushed back to face south on to aircraft stand taxi lane T8 and then towed forward until aircraft nose wheel is on marking 1.
301	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T9 aircraft nose wheel is on marking 1.
302	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T9 and then towed forward until aircraft nose wheel is on marking 1.
303	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T9 aircraft nose wheel is on marking 2.
304	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane 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 taxi lane T10 until nose wheel is on marking 1.
306	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane 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 taxi lane T10 until nose wheel is on marking 2.
308	121.75 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane 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 taxi lane T12 until nose wheel is on marking 1.
D2	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxi lane 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 taxi lane T12 until nose wheel on marking 2.
D4	121.75 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T12 and 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 taxi lane T12 and then towed forward until nose wheel on marking 3.
D6	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T12 until nose wheel on marking 3.
D7	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T12 and then towed forward until nose wheel on marking 4.
D8	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T12 until nose wheel on marking 4.
E1	121.75 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T12 until nose wheel on marking 4.
E3, E5	121.75 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane 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 taxi lane T11 then towed forward until nose wheel is on marking 1.

5.4.2 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 taxi lane 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 taxi lane T5
101	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5 then towed forward until nose wheel is on marking 2.
102, 103	121.65 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T5 then towed forward until nose wheel is on marking 3.
104, 105, 106, 107	121.65 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T5
108, 109	121.65 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T5 then towed forward until nose wheel is on marking 4
110, 111, 112, 113, 114	121.65 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T5
115, 116, 117	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5
118	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5 then towed forward until nose wheel is on marking 2.
119	121.65 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T5 then towed forward until nose wheel is on marking 3.
120, 121, 122, 123	121.65 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T5
124	121.65 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T5 then towed forward until nose wheel is on marking 4.
125, 126, 127, 128, 129	121.65 MHz	Aircraft shall be pushed back to face north onto aircraft stand taxi lane T5
130 -134	121.65 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T1
B1, B3	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T5 until nose wheel is on marking 1.
B2, B4	121.65 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T6 until nose wheel on marking on taxilane.
B5	121.65 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T4 then towed forward until nose wheel on marking on taxilane.
B6	121.65 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxi lane T6 then towed forward until nose wheel on marking on taxilane.
C1	121.65 MHz	Aircraft shall be pushed back to face west onto aircraft stand taxi lane 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 taxi lane T7 then towed forward until nose wheel on marking 2.
C7, C9	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T7 then towed forward until nose wheel on marking 1.
201, 202	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T7 then towed forward until nose wheel on marking 2.
203	121.65 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane T7 then towed forward until nose wheel on marking 1.

5.4.3 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 taxi lane T14 until nose wheel on marking on taxilane
E4, E6	121.95 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane 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 taxi lane 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 taxi lane T13 until nose wheel is on marking 2.
403	121.95 MHz	Aircraft shall be pushed back to face south onto aircraft stand taxi lane 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 taxi lane T14 until nose wheel is on marking on taxilane
F2, F4	121.95 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T15 until nose wheel is on marking on taxilane
F5	121.95 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T14 then towed forward until nose wheel is on marking on taxilane
F6	121.95 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxi lane T15 then towed forward until nose wheel is on marking 1.
G1, G2	121.95 MHz	Aircraft shall be pushed back to face east onto aircraft stand taxi lane 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 taxi lane 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 taxi lane 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 taxi lane 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 taxi lane 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 taxi lane T17 then towed forward until nose wheel is on marking 1.
506 - 521	121.95 MHz	Aircraft shall be pushed back to face south onto taxiway D.
522 - 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 on marking on taxiway.

5.5 Responsibilities

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

5.5.2 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.

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

5.5.4 Responsibilities of the Apron Control Tower

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

5.6 Actions to be taken

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

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

- Ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or pushback of aircraft commences. This is to be done using standard phraseology in communication with the ground operations headset operator.
- Ensure that prior to start-up, the pilot must be certain that the propellers or the air flows caused by the engine cannot cause injuries or damage to persons or property on ground. This is to be done using standard phraseology in communication with the ground operations headset operator.
- Contact Ground Control for permission to start up the engines. In normal operations, the engine start-up at the aircraft parking position is not allowed. Should the engine start be performed at the aircraft parking positions, ensure that the requirements for such engine start up conditions are met.
- 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.
- Ensure that the anti-collision beacons of the aircraft have been switched on before pushing back or starting the engine. Ensure to obtain an “all-clear” signal from the ground operations headset operator.
- During pushback operations, all aircraft shall be pushed back with its fuselage longitudinally centered over, and parallel to, a taxiway centre line before commencing engine start.
- Ensure that the ground engineer or ground operations headset operator acknowledges the permission
- Ensure that the aircraft is being pushed back in the right direction onto the taxilane.
- 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

5.6.2 Actions to be taken by the ground engineer

The ground engineer of the Airline or Handling Agent shall:

- Ensure that the stand area is clear of any obstacle and FOD.
- Ensure that the tug is connected to the aircraft and that the tug driver is ready.
- Acknowledge the Ground Control permission to start up the engine(s) to the pilot-in-command.
- Ensure that the anti-collision beacons of the aircraft are switched on.
- Monitor the engine(s) start up sequence.
- Acknowledge the Ground Control permission for push back to the pilot-in-command.
- Ensure that the tug driver understood the push back permission (by hand-signaling to the tug driver) and is starting the push back manoeuvre.
- Ensure that the aircraft is pushed back into the right direction onto the taxilane.
- Make sure that during the push back manoeuvre he/she will be in contact with the pilot-in-command at all times.
- Ensure that the tug has been disconnected from the aircraft on the taxilane stop position and confirm so to the pilot-in-command.
- 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.
- 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 meters or cloud base of less than 200 feet.

5.6.3 Actions to be taken by the tug driver

The tug driver of the Airline or Handling Agent shall:

- Ensure that the tug is well connected to the aircraft
- Start the push back manoeuvre when permission to do so has been given by the ground engineer.
- Make sure that the aircraft is pushed back into the right direction onto the taxilane stop position.
- Disconnect the tug from the aircraft when in position on the taxilane.

- 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 meters or cloud base of less than 200 feet.

5.6.4 Actions to be taken by the Apron Control Tower

The Apron Controller will:
- Monitor the engines start up and push back activities.
- Ensure that the aircraft will be pushed back into the right direction onto the taxilane.

6. Taxi Procedures

6.1 When issuing taxi instructions to departing aircraft, Ground controller shall provide a standard taxi route which is in accordance with 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.
The following phrase will be transmitted:
"…C/S...TAXI VIA ROUTE MIKE TANGO ONE ZERO, RUNWAY ONE NINE LEFT."

6.2 If traffic permits or in any cases the standard taxi route shall not be provided, the detailed taxi instruction may be applicable including the following items in the order list:
a) taxi routes;

b) holding position;
c) runway designator;
d) any other pertinent information.
The following phrase will be transmitted:
"…C/S… TAXI VIA C, C3, B1 TO HOLDING POSITION RUNWAY ONE NINE LEFT."

6.3 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.
The following phrase will be transmitted:
"…C/S…TAXI VIA ROUTE ONE NINE RIGHT, ECHO TANGO THREE TO STAND ONE ZERO THREE."

6.4 If traffic permits or in any cases the standard taxi route shall not be provided, the detailed taxi instruction may be applicable including the following items in the order list:
a) taxi routes ;
b) parking stand ;
c) any other pertinent information.
The following phrase will be transmitted :
"…C/S… TAXI VIA E, D7, G, T10 TO STAND D6."

6.5 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.

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

6.7 On the main apron additional 180 degrees turn markings have been established. The markings T9A and T9B connect taxiway T9 with taxiway T8. The markings T10A and T10B connect taxiway T10 with taxiway T11. The routes may only be used when instructed to do so by ATC (ATC discretion).

6.8 The standard taxi routes for arriving and departing aircraft

6.8.1 Inbound taxi route runway 19R

MAIN APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	MAIN APRON	19R / MT9	EXIT ONTO E , D7, G, T9 THEN TURN RIGHT T12, T8	C2	C4	C6	C8
				C10			
			EXIT ONTO E, D7, G, T9	301	302	303	304
			EXIT ONTO E, D7, G, T9 THEN TURN RIGHT T12	D1	D2		
			EXIT ONTO E, D7, G, T9 THEN TURN LEFT T12	D3	D4		

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	MAIN APRON	19R / MT10	EXIT ONTO E, D7, G,T10 THEN TURN RIGHT T12	D5	D6		
			EXIT ONTO E, D7, G, T10 THEN TURN LEFT T12	D7	D8		
			EXIT ONTO E, D7, G, T10 THEN TURN LEFT T12, T11	E1	E3	E5	E7
				E9			
			EXIT ONTO E, D7, G, T10	305	306	307	308

EAST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	EAST APRON	19R / ET3	EXIT ONTO E, D7, G THEN TURN LEFT C, T3 THEN TURN LEFT T5	A1	A2	A3	A4
				A5	A6	101	115
				116	117	118	
			EXIT ONTO E D7, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5	102	103	104	105
				106	107	108	109
				110	111	112	113
				114	119	120	121
				122	123	124	125
				126	127	128	129
			EXIT ONTO E, D7, G THEN TURN LEFT C, T3 THEN TURN LEFT T5, T4	B1	B3	B5	
			EXIT ONTO E, D7, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5, T1	130	131	132	133
				134			

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	EAST APRON	19R / ET6	EXIT ONTO E, D7, G THEN TURN LEFT C T6	B2	B4	B6	
			EXIT ONTO E, D7, G THEN TURN LEFT C T6, T7	C1	C3	C5	C7
				C9	201	202	203

WEST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	WEST APRON	19R / WD1	EXIT ONTO E, D1	510	511	512	513
			THEN TURN RIGHT D	514	515	516	517
				518			
			EXIT ONTO E, D1	519	520	521	522
			THEN TURN LEFT D	523	524	525	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	WEST APRON	19R / WD3	EXIT ONTO E, D3	506	507	508	509
			THEN TURN RIGHT D				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	WEST APRON	19R / WT14	EXIT ONTO E, D6,	E2	E4	E6	E8
			T14, T13	E10	401	402	403
			EXIT ONTO E, D6,	F1	F3	F5	
			T14				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	WEST APRON	19R / WT15	EXIT ONTO E, D5,	F2	F4	F6	
			T15				
			EXIT ONTO E , D5,	G1	G2	G3	G4
			T15, T17	G5	501	502	503
				504	505		

6.8.2 Inbound taxi route runway 19L

MAIN APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	MAIN APRON	19L / MT9	EXIT ONTO B, C7, H, H3, T9 THEN TURN RIGHT T12, T8	C2	C4	C6	C8
				C10			
			EXIT ONTO B, C7, H, H3, T9	301	302	303	304
			EXIT ONTO B, C7, H, H3, T9 THEN TURN RIGHT T12	D1	D2		
			EXIT ONTO B, C7, H, H3 T9 THEN TURN LEFT T12	D3	D4		

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	MAIN APRON	19L / MT10	EXIT ONTO B, C7, H, H2, T10 THEN TURN RIGHT T12	D5	D6		
			EXIT ONTO B, C7, H, H2, T10 THEN TURN LEFT T12	D7	D8		
			EXIT ONTO B, C7, H, H2, T10 THEN TURN LEFT T12, T11	E1	E3	E5	E7
				E9			
			EXIT ONTO B, C7, H, H2, T10	305	306	307	308

EAST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	EAST APRON	19L / ET3	EXIT ONTO B, C7	A1	A2	A3	A4
			THEN TURN RIGHT C,	A5	A6	101	115
			T3 THEN TURN LEFT T5	116	117	118	
			EXIT ONTO B, C7	102	103	104	105
			THEN TURN RIGHT C,	106	107	108	109
			T3 THEN TURN RIGHT T5	110	111	112	113
				114	119	120	121
				122	123	124	125
				126	127	128	129
			EXIT ONTO B, C7	B1	B3	B5	
			THEN TURN RIGHT C,				
			T3, THEN TURN LEFT				
			T5, T4				
			EXIT ONTO B, C7	130	131	132	133
			THEN TURN RIGHT C,	134			
			T3 THEN TURN RIGHT				
			T5, T1				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	EAST APRON	19L / ET6	EXIT ONTO B, C7	B2	B4	B6	
			THEN TURN RIGHT C,				
			T6				
			EXIT ONTO B, C7	C1	C3	C5	C7
			THEN TURN RIGHT C,	C9	201	202	203
			T6, T7				

WEST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	WEST APRON	19L / WD1	EXIT ONTO B, C7, H, D8 THEN TURN RIGHT E, D1 THEN TURN RIGHT D	510	511	512	513
				514	515	516	517
				518			
			EXIT ONTO B, C7 H, D8 THEN TURN RIGHT E, D1 THEN TURN LEFT D	519	520	521	522
				523	524	525	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	WEST APRON	19L / WD3	EXIT ONTO B, C7, H, D8 THEN TURN RIGHT E, D3 THEN TURN RIGHT D	506	507	508	509

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	WEST APRON	19L / WT14	EXIT ONTO B, C7, H, D8 THEN TURN RIGHT E, D6, T14, T13	E2	E4	E6	E8
				E10	401	402	403
			EXIT ONTO B, C7, H, D8 THEN TURN RIGHT E, D6, T14	F1	F3	F5	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	WEST APRON	19L / WT15	EXIT ONTO B, C7, H, D8 THEN TURN RIGHT E, D5, T15	F2	F4	F6	
			EXIT ONTO B, C7, H, D8 THEN TURN RIGHT E, D5, T15, T17	G1	G2	G3	G4
				G5	501	502	503
				504	505		

6.8.3 Outbound taxi route runway 19R

MAIN APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	MAIN APRON	MT8 / 19R	T12, T8, H3 THEN TURN RIGHT H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1	D1	D2	D3	D4
			T9 THEN TURN RIGHT T12, T8, H3 THEN TURN RIGHT H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1	301	302	303	304
			T8, H3 THEN TURN RIGHT H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1	C2	C4	C6	C8
				C10			

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	MAIN APRON	MT11 / 19R	T12, T11, H2 THEN TURN RIGHT H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1	D5	D6	D7	D8
			T11, H2 THEN TURN RIHGT H , D8 THEN TURN RIGHT E TO HOLDING POSITION E1	E1	E3	E5	E7
				E9			
			T10 THEN TURN LEFT T12, T11, H2 THEN TURN RIGHT H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1	305	306	307	308

EAST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	EAST APRON	ET1 / 19R	T5, T1, C, C2, B, C7, H, D8	109	110	111	112
			THEN TURN RIGHT E TO	113	114	124	125
			HOLDING POSITION E1	126	127	128	129
			T1, C, C2, B, C7, H, D8	130	131	132	133
			THEN TURN RIGHT E TO	134			
			HOLDING POSITION E1				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	EAST APRON	ET2 / 19R	T5, T2 THEN TURN RIGHT	102	103	104	105
			C, C2, B, C7, H, D8 THEN	106	107	108	119
			TURN RIGHT E TO	120	121	122	123
			HOLDING POSITION E1				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	EAST APRON	ET4 / 19R	T5, T4 ,C4 THEN TURN RIGHT B, C7, H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1	A1	A2	A3	A4
				A5	A6	101	115
				116	117	118	
			T4, C4 THEN TURN RIGHT B, C7, H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1	B1	B3	B5	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	EAST APRON	ET7 / 19R	T6, T7, H4, THEN TURN RIGHT H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1	B2	B4	B6	
			T7, H4 THEN TURN RIGHT H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1	C1	C3	C5	C7
				C9	201	202	203

WEST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	WEST APRON	WD2 / 19R	D, D2 TO HOLDING POSITION E1	511	512	513	514
				515	516	517	518
				519	520	521	522
				523	524	525	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	WEST APRON	WD4 / 19R	D, D4 THEN TURN RIGHT E TO HOLDING POSITION E1	506	507	508	509
				510			

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	WEST APRON	WT13 / 19R	T13, H1 THEN TURN	E2	E4	E6	E8
			RIGHT H, D8 THEN	E10	401	402	403
			TURN RIGHT E TO HOLDING POSITION E1				
			T14, T13, H1 THEN	F1	F3	F5	
			TURN RIGHT H, D8 THEN TURN RIGHT E TO HOLDING POSITION E1				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19R	WEST APRON	WT16 / 19R	T15, T17, T16, D4 THEN	F2	F4	F6	
			TURN RIGHT E TO HOLDING POSITION E1				
			T17, T16, D4 THEN	G1	G2	G3	G4
			TURN RIGHT E TO	G5	501	502	503
			HOLDING POSITION E1	504	505		

6.8.4 Outbound taxi route runway 19L

MAIN APORN

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	MAIN APRON	MT8 / 19L	T8 THEN TURN LEFT G THEN TURN LEFT C C2 , B TO HOLDING POSITION B1	C2	C4	C6	C8
				C10			
			T9 THEN TURN RIGHT T12, T8 THEN TURN LEFT G THEN TURN LEFT C, C2, B TO HOLDING POSITION B1	301	302	303	304
			T12 ,T8 THEN TURN LEFT G THEN TURN LEFT C, C2, B TO HOLDING POSITION B1	D1	D2	D3	D4

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	MAIN APRON	MT11 / 19L	T12,T11, THEN TURN LEFT G THEN TURN LEFT C, C2 , B TO HOLDING POSITION B1	D5	D6	D7	D8
			T11 THEN TURN LEFT G THEN TURN LEFT C, C2 , B TO HOLDING POSITION B1	E1	E3	E5	E7
				E9			
			T10 THEN TURN LEFT T12, T11 THEN TURN LEFT G THEN TURN LEFT C, C2, B TO HOLDING POSITION B1	305	306	307	308

EAST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	EAST APRON	ET1 /19L	T5 THEN TURN RIGHT T1,	109	110	111	112
			C, C2 ,B TO	113	114	124	125
			HOLDING POSITION B1	126	127	128	129
			T1, C, C2 , B TO	130	131	132	133
			HOLDING POSITION B1	134			

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	EAST APRON	ET2 / 19L	T5,T2 THEN	102	103	104	105
			TURN RIGHT C, C2,	106	107	108	119
			B TO HOLDING	120	121	122	123
			POSITION B1				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	EAST APRON	ET4 / 19L	T5, T4, THEN TURN LEFT	A1	A2	A3	A4
			C, C2 , B TO HOLDING	A5	A6	101	115
			POSITION B1	116	117	118	
			T4, THEN TURN LEFT	B1	B3	B5	
			C, C2 B TO				
			HOLDING POSITION B1				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	EAST APRON	ET7 / 19L	T6, T7 THEN TURN LEFT	B2	B4	B6	
			G THEN TURN LEFT C, C2,				
			B TO HOLDING				
			POSITION B1				
			T7 THEN TURN LEFT G	C1	C3	C5	C7
			THEN TURN LEFT C, C2	C9	201	202	203
			B TO HOLDING				
			POSITION B1				

WEST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	WEST APRON	WD / 19L	STRAIGHT AHEAD	506	507	508	509
			ON D, G THEN TURN LEFT	510	511	512	513
			C, C2 , B TO HOLDING	514	515	516	517
			POSITION B1	518	519	520	521
				522	523	524	525

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	WEST APRON	WT13 / 19L	T13 THEN TURN	E2	E4	E6	E8
			LEFT G THEN TURN LEFT	E10	401	402	403
			C, C2 , B TO HOLDING POSITION B1				
			T14, T13 THEN TURN	F1	F3	F5	
			LEFT G THEN TURN LEFT C, C2 , B TO HOLDING POSITION B1				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
19L	WEST APRON	WT16 / 19L	T15, T17, T16 THEN TURN	F2	F4	F6	
			LEFT D , G THEN TURN LEFT C, C2 , B TO HOLDING POSITION B1				
			T17, T16 THEN TURN	G1	G2	G3	G4
			LEFT D, G THEN	G5	501	502	503
			TURN LEFT C, C2 , B	504	505		
			TO HOLDING POSITION B1				

6.8.5 Inbound taxi route runway 01L

MAIN APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	MAIN APRON	01L/MT9	EXIT ON E12 THEN TURN LEFT E, D7, G, T9 THEN TURN RIGHT T12, T8	C2	C4	C6	C8
				C10			
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G, T9 THEN TURN RIGHT T12,T8				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G, T9 THEN TURN RIGHT T12,T8				
			EXIT ON E2, D3 THEN TURN RIGHT D, G, T9 THEN TURN RIGHT T12, T8				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	MAIN APRON	01L/MT9	EXIT ON E12 THEN TURN LEFT E, D7, G, T9	301	302	303	304
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G, T9				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G, T9				
			EXIT ON E2, D3 THEN TURN RIGHT D, G, T9				
			EXIT ON E12 THEN TURN LEFT E, D7, G, T9 THEN TURN RIGHT T12	D1	D2		
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G, T9 THEN TURN RIGHT T12				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G, T9 THEN TURN RIGHT T12				
			EXIT ON E2, D3 THEN TURN RIGHT D, G, T9 THEN TURN RIGHT T12				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	MAIN APRON	01L/MT9	EXIT ON E12 THEN TURN LEFT E, D7, G, T9 THEN TURN LEFT T12	D3 D4
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G, T9 THEN TURN LEFT T12	
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G, T9 THEN TURN LEFT T12	
			EXIT ON E2, D3 THEN TURN RIGHT D, G, T9 THEN TURN LEFT T12	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	MAIN APRON	01L/MT10	EXIT ON E12 THEN TURN LEFT E, D7, G, T10 THEN TURN RIGHT T12	D5 D6
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G, T10 THEN TURN RIGHT T12	
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G, T10 THEN TURN RIGHT T12	
			EXIT ON E2, D3 THEN TURN RIGHT D, G, T10 THEN TURN RIGHT T12	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	MAIN APRON	01L/MT10	EXIT ON E12 THEN TURN LEFT E, D7, G, T10 THEN TURN LEFT T12	D7 D8
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G, T10 THEN TURN LEFT T12	
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G, T10 THEN TURN LEFT T12	
			EXIT ON E2, D3 THEN TURN RIGHT D, G, T10 THEN TURN LEFT T12	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	MAIN APRON	01L/MT10	EXIT ON E12 THEN TURN LEFT E, D7, G, T10 THEN TURN LEFT T12, T11	E1 E3 E5 E7 E9
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G, T10 THEN TURN LEFT T12, T11	
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G, T10 THEN TURN LEFT T12, T11	
			EXIT ON E2, D3 THEN TURN RIGHT D, G, T10 THEN TURN LEFT T12, T11	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	MAIN APRON	01L/MT10	EXIT ON E12 THEN TURN LEFT E, D7, G, T10	305	306	307	308
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G, T10				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G, T10				
			EXIT ON E2, D3 THEN TURN RIGHT D, G, T10				

EAST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	EAST APRON	01L/ET3	EXIT ON E12 THEN TURN LEFT E, D7, G THEN TURN LEFT C, T3 THEN TURN LEFT T5	A1	A2	A3	A4
				A5	A6	101	115
				116	117	118	
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN LEFT T5				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN LEFT T5				
			EXIT ON E2, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN LEFT T5				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	EAST APRON	01L/ET3	EXIT ON E12 THEN TURN LEFT E, D7, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5	102	103	104	105
				106	107	108	109
				110	111	112	113
				114	119	120	121
				122	123	124	125
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5	126	127	128	129
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5				
			EXIT ON E2, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	EAST APRON	01L/ET3	EXIT ON E12 THEN TURN LEFT E, D7, G THEN TURN LEFT C, T3 THEN TURN LEFT T5, T4	B1 B3 B5
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN LEFT T5, T4	
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN LEFT T5, T4	
		LEFT T5, T4	TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN LEFT T5, T4	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	EAST APRON	01L/ET3	EXIT ON E12 THEN TURN LEFT E, D7, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5, T1	130, 131, 132, 133, 134
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5, T1	
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5, T1	
			EXIT ON E2, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T3 THEN TURN RIGHT T5, T1	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01L	EAST APRON	01L/ET6	EXIT ON E12 THEN TURN LEFT E, D7, G THEN TURN LEFT C, T6	B2, B4, B6
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G THEN TURN LEFT C, T6	
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T6	
			EXIT ON E2, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T6	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	EAST APRON	01L/ET6	EXIT ON E12 THEN TURN LEFT E, D7, G THEN TURN LEFT C, T6, T7	C1	C3	C5	C7
				C9	201	202	203
			EXIT ON E7, E8, D6 THEN TURN RIGHT D, G THEN TURN LEFT C, T6,T7				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T6, T7				
			EXIT ON E2, D3 THEN TURN RIGHT D, G THEN TURN LEFT C, T6, T7				

WEST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	WEST APRON	01L/WD1	EXIT ON E12 THEN TURN LEFT E, D1 THEN TURN RIGHT D	510	511	512	513
				514	515	516	517
				518			
			EXIT ON E7 THEN TURN LEFT E, D1 THEN TURN RIGHT D				
			EXIT ON E5 THEN TURN LEFT E, D1 THEN TURN RIGHT D				
			EXIT ON E2, THEN TURN LEFT E, D1 THEN TURN RIGHT D				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	WEST APRON	01L/WD1	EXIT ON E12 THEN TURN LEFT E, D1 THEN TURN LEFT D	519	520	521	522
				523	524	525	
			EXIT ON E7 THEN TURN LEFT E, D1 THEN TURN LEFT D				
			EXIT ON E5 THEN TURN LEFT E, D1 THEN TURN LEFT D				
			EXIT ON E2, THEN TURN LEFT E, D1 THEN TURN LEFT D				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	WEST APRON	01L/WD3	EXIT ON E12 THEN TURN LEFT E, D3 THEN TURN RIGHT D	506	507	508	509
			EXIT ON E7 THEN TURN LEFT E, D3 THEN TURN RIGHT D				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D				
			EXIT ON E2, D3 THEN TURN RIGHT D				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	WEST APRON	01L/WT14	EXIT ON E12 THEN TURN LEFT E, D6, T14, T13	E2	E4	E6	E8
				E10	401	402	403
			EXIT ON E7, E8, D6, T14, T13				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, T14, T13				
			EXIT ON E2, D3 THEN TURN RIGHT D, T14, T13				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS		
01L	WEST APRON	01L/WT14	EXIT ON E12 THEN TURN LEFT E, D6, T14	F1	F3	F5
			EXIT ON E7, E8, D6, T14,			
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, T14			
			EXIT ON E2, D3 THEN TURN RIGHT D, T14			

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	WEST APRON	01L/WT15	EXIT ON E12 THEN TURN LEFT E, D5, T15	F2	F4	F6	
			EXIT ON E7 THEN TURN LEFT E, D5, T15				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, T15				
			EXIT ON E2, D3 THEN TURN RIGHT D, T15				
			EXIT ON E12 THEN TURN LEFT E, D5, T15, T17	G1	G2	G3	G4
				G5	501	502	503
				504	505		
			EXIT ON E7 THEN TURN LEFT E, D5, T15, T17				
			EXIT ON E5 THEN TURN LEFT E, D3 THEN TURN RIGHT D, T15, T17				
			EXIT ON E2, D3 THEN TURN RIGHT D, T15, T17				

6.8.6 Inbound taxi route runway 01R

MAIN APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	MAIN APRON	01R / MT9	EXIT ON B7, B9, C10, C, H, H3, T9 THEN TURN RIGHT T12, T8	C2	C4	C6	C8
				C10			
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, H3, T9 THEN TURN RIGHT T12, T8				
			EXIT ON B3, B4 THEN TURN LEFT B, C7, H, H3,T9 THEN TURN RIGHT T12, T8				
			EXIT ON B2 THEN TURN LEFT B, C7, H, H3, T9 THEN TURN RIGHT T12,T8				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	MAIN APRON	01R / MT9	EXIT ON B8, B9, C10, C, H, H3, T9	301	302	303	304
			EXIT ON B5, B6, C8, THEN TURN RGHT C, H, H3, T9				
			EXIT ON B3, B4 THEN TURN LEFT B, C7, H, H3,T9				
			EXIT ON B2 THEN TURN LEFT B, C7, H, H3, T9				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	MAIN APRON	01R / MT9	EXIT ON B7, B9, C10, C, H, H3, T9 THEN TURN RIGHT T12	D1 D2
			EXIT ON B5, B6, C8, THEN TURN RIGHT C, H, H3, T9 THEN TURN RIGHT T12	
			EXIT ON B3, B4 THEN TURN LEFT B, C7, H, H3,T9 THEN TURN RIGHT T12	
			EXIT ON B2 THEN TURN LEFT B, C7, H, H3, T9 THEN TURN RIGHT T12	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	MAIN APRON	01R / MT9	EXIT ON B8, B9, C10, C, H, H3, T9 THEN TURN LEFT T12	D3 D4
			EXIT ON B5, B6, C8, THEN TURN RIGHT C, H, H3, T9 THEN TURN LEFT T12	
			EXIT ON B3, B4 THEN TURN LEFT B, C7, H, H3,T9 THEN TURN LEFT T12	
			EXIT ON B2 THEN TURN LEFT B, C7, H, H3, T9 THEN TURN LEFT T12	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	MAIN APRON	01R / MT10	EXIT ON B7, B9, C10, C, H, H2, T10 THEN TURN RIGHT T12	D5 D6
			EXIT ON B5, B6, C8, THEN TURN RIGHT C, H, H2, T10 THEN TURN RIGHT T12	
			EXIT ON B3, B4 THEN TURN LEFT B, C7, H, H2, T10 THEN TURN RIGHT T12	
			EXIT ON B2 THEN TURN LEFT B, C7, H, H2, T10 THEN TURN RIGHT T12	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	MAIN APRON	01R / MT10	EXIT ON B7, B9, C10, C, H, H2, T10 THEN TURN LEFT T12	D7 D8
			EXIT ON B5, B6, C8, THEN TURN RIGHT C, H, H2, T10 THEN TURN LEFT T12	
			EXIT ON B3, B4 THEN TURN LEFT B, C7, H, H2, T10 THEN TURN LEFT T12	
			EXIT ON B2 THEN TURN LEFT B, C7, H, H2, T10 THEN TURN LEFT T12	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	MAIN APRON	01R / MT10	EXIT ON B7, B9, C10, C, H, H2, T10 THEN TURN LEFT T12, T11	E1 E3 E5 E7 E9
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, H2, T10 THEN TURN LEFT T12, T11	
			EXIT ON B3, B4 THEN TURN LEFT B, C7, H, H2, T10 THEN TURN LEFT T12, T11	
			EXIT ON B2 THEN TURN LEFT B, C7, H, H2, T10 THEN TURN LEFT T12,T11	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	MAIN APRON	01R / MT10	EXIT ON B7, B9, C10, C, H, H2, T10	305 306 307 308
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, H2, T10	
			EXIT ON B3, B4 THEN TURN LEFT B, C7, H, H2, T10	
			EXIT ON B2 THEN TURN LEFT B, C7, H, H2, T10	

EAST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	EAST APRON	01R / ET3	EXIT ON B7, B9, C10, C,T3 THEN TURN LEFT T5	A1	A2	A3	A4
				A5	A6	101	115
				116	117	118	
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, T3 THEN TURN LEFT T5				
			EXIT ON B3, B4 THEN TURN LEFT B, C7 THEN TURN RIGHT C, T3 THEN TURN LEFT T5				
			EXIT ON B2 THEN TURN LEFT B, C5 THEN TURN RIGHT C, T3 THEN LEFT T5				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	EAST APRON	01R / ET3	EXIT ON B7, B9, C10, C,T3 THEN TURN RIGHT T5	102	103	104	105
				106	107	108	109
				110	111	112	113
			EXIT ON B5, B6, C8THEN TURN RIGHT C, T3 THEN TURN RIGHT T5	114	119	120	121
				122	123	124	125
				126	127	128	129
			EXIT ON B3, B4 THEN TURN LEFT B, C7 THEN TURN RIGHT C, T3 THEN TURN RIGHT T5				
			EXIT ON B2 THEN TURN LEFT B, C5 THEN TURN RIGHT C, T3 THEN RIGHT T5				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	EAST APRON	01R / ET3	EXIT ON B7, B9, C10, C,T3 THEN TURN LEFT T5, T4	B1 B3 B5
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, T3THEN TURN LEFT T5, T4	
			EXIT ON B3, B4 THEN TURN LEFT B, C7 THEN TURN RIGHT C, T3 THEN TURN LEFT T5, T4	
			EXIT ON B2 THEN TURN LEFT B, C5 THEN TURN RIGHT C, T3 THEN LEFT T5, T4	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	EAST APRON	01R / ET3	EXIT ON B7, B9, C10, C,T3 THEN TURN RIGHT T5, T1	130 131 132 133 134
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, T3 THEN TURN RIGHT T5, T1	
			EXIT ON B3, B4 THEN TURN LEFT B, C7 THEN TURN RIGHT C, T3 THEN TURN RIGHT T5, T1	
			EXIT ON B2 THEN TURN LEFT B, C5 THEN TURN RIGHT C, T3 THEN RIGHT T5, T1	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	EAST APRON	01R / ET6	EXIT ON B7, B9, C10, C,T6	B2	B4	B6	
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, T6				
			EXIT ON B3, B4 THEN TURN LEFT B, C7 THEN TURN RIGHT C, T6				
			EXIT ON B2 THEN TURN LEFT B, C5, T6				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	EAST APRON	01R / ET6	EXIT ON B7, B9, C10, C,T6, T7	C1	C3	C5	C7
				C9	201	202	203
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, T6, T7				
			EXIT ON B3, B4 THEN TURN LEFT B, C7 THEN TURN RIGHT C, T6, T7				
			EXIT ON B2 THEN TURN LEFT B, C5, T6, T7				

WEST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	WEST APRON	01R/ WD1	EXIT ON B7, B9, C10, C, H, D8 THEN TURN RIGHT E, D1 THEN TURN RIGHT D	510	511	512	513
				514	515	516	517
				518			
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, D8 THEN TURN RIGHT E, D1 THEN TURN RIGHT D				
			EXIT ON B3, B4 THEN LEFT B, C7, H, D8 THEN TURN RIGHT E, D1 THEN TURN RIGHT D				
			EXIT ON B2 THEN TURN LEFT B, C7, H, D8 THEN TURN RIGHT E, D1 THEN TURN RIGHT D				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	WEST APRON	01R / WD1	EXIT ON B7, B9, C10, C, H, D8 THEN TURN RIGHT E, D1 THEN TURN LEFT D	519	520	521	522
				523	524	525	
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, D8 THEN TURN RIGHT E, D1 THEN TURN LEFT D				
			EXIT ON B3, B4 THEN LEFT B, C7, H, D8 THEN TURN RIGHT E, D1 THEN TURN LEFT D				
			EXIT ON B2 THEN TURN LEFT B, C7, H, D8 THEN TURN RIGHT E, D1 THEN TURN LEFT D				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	WEST APRON	01R / WD3	EXIT ON B7, B9, C10, C, H, D8 THEN TURN RIGHT E, D3 THEN TURN RIGHT D	506	507	508	509
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, D8 THEN TURN RIGHT E, D3 THEN TURN RIGHT D				
			EXIT ON B3, B4 THEN LEFT B, C7, H, D8 THEN TURN RIGHT E, D3 THEN TURN RIGHT D				
			EXIT ON B2 THEN TURN LEFT B, C7, H, D8 THEN TURN RIGHT E, D3 THEN TURN RIGHT D				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	WEST APRON	01R / WT14	EXIT ON B7, B9, C10, C, H, D8 THEN TURN RIGHT E, D6, T14, T13	E2	E4	E6	E8
				E10	401	402	403
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, D8 THEN TURN RIGHT E, D6, T14, T13				
			EXIT ON B3, B4 THEN LEFT B, C7, H, D8 THEN TURN RIGHT E, D6, T14, T13				
			EXIT ON B2 THEN TURN LEFT B, C7, H, D8 THEN TURN RIGHT E, D6, T14, T13				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	WEST APRON	01R / WT14	EXIT ON B7, B9, C10, C, H, D8 THEN TURN RIGHT E, D6, T14	F1 F3 F5
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, D8 THEN TURN RIGHT E, D6, T14	
			EXIT ON B3, B4 THEN LEFT B, C7, H, D8 THEN TURN RIGHT E, D6, T14	
			EXIT ON B2 THEN TURN LEFT B, C7, H, D8 THEN TURN RIGHT E, D6, T14	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS
01R	WEST APRON	01R / WT15	EXIT ON B7, B9, C10, C, H, D8 THEN TURN RIGHT E, D5, T15	F2 F4 F6
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, D8 THEN TURN RIGHT E, D5, T15	
			EXIT ON B3, B4 THEN TURN LEFT B, C7, H, D8 THEN TURN RIGHT E, D5, T15	
			EXIT ON B2 THEN TURN LEFT B, C7, H, D8 THEN TURN RIGHT E, D5, T15	

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	WEST APRON	01R / WT15	EXIT ON B7, B9, C10, C, H, D8 THEN TURN RIGHT E, D5, T15, T17	G1	G2	G3	G4
				G5	501	502	503
				504	505		
			EXIT ON B5, B6, C8 THEN TURN RIGHT C, H, D8 THEN TURN RIGHT E, D5, T15, T17				
			EXIT ON B3, B4 THEN LEFT B, C7, H, D8 THEN TURN RIGHT E, D5, T15, T17				
			EXIT ON B2 THEN TURN LEFT B, C7, H, D8 THEN TURN RIGHT E, D5, T15, T17				

6.8.7 Outbound taxi route runway 01L

MAIN APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	MAIN APRON	MT8 / 01L	T8, H3 THEN TURN RIGHT H THEN TURN LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21	C2	C4	C6	C8
				C10			
			T9 THEN TURN RIGHT T12, T8, H3 THEN TURN RIGHT H THEN TURN LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21	301	302	303	304
			T12, T8, H3 THEN TURN RIGHT H THEN TURN LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21	D1	D2	D3	D4

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	MAIN APRON	MT11 / 01L	T12, T11, H2 THEN TURN RIGHT H THEN TURN LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21	D5	D6	D7	D8
			T11, H2 THEN TURN RIGHT H THEN TURN LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21	E1	E3	E5	E7
				E9			
			T10 THEN TURN LEFT T12, T11, H2 THEN TURN RIGHT H THEN TURN LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21	305	306	307	308

EAST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	EAST APRON	ET1 / 01L	T5, T1 THEN TURN RIGHT	109	110	111	112
			C,C2,B,C7,H THEN TURN	113	114	124	125
			LEFT D, D9 THEN TURN	126	127	128	129
			LEFT E TO HOLDING POSITION E21				
			T1 C, C2, B,	130	131	132	133
			C7, H THEN TURN	134			
			LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	EAST APRON	ET2 / 01L	T5, T2 THEN TURN RIGHT	102	103	104	105
			C,C2,B,C7,H THEN TURN	106	107	108	119
			LEFT D,D9 THEN TURN	120	121	122	123
			LEFT E TO HOLDING POSITION E21				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	EAST APRON	ET4 / 01L	T5, T4 ,C4 THEN TURN	A1	A2	A3	A4
			RIGHT B, C7 ,H THEN	A5	A6	101	115
			TURN LEFT D,D9 THEN	116	117	118	
			TURN LEFT E TO HOLDING POSITION E21				
			T4 ,C4 THEN TURN	B1	B3	B5	
			RIGHT B, C7 ,H THEN TURN LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	EAST APRON	ET7 /01L	T6, T7, H4, THEN TURN	B2	B4	B6	
			RIGHT H THEN TURN LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21				
			T7, H4, THEN TURN	C1	C3	C5	C7
			RIGHT H THEN TURN	C9	201	202	203
			LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21				

WEST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	WEST APRON	WD / 01L	STRAIGHT AHEAD ON D, D9	506	507	508	509
			THEN TURN LEFT E TO	510	511	512	513
			HOLDING POSITION E21	514	515	516	517
				518	519	520	521
				522	523	524	525

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	WEST APRON	WT13 / 01L	T13, H1 THEN TURN RIGHT H	E2	E4	E6	E8
			THEN LEFT D,D9 THEN TURN	E10	401	402	403
			LEFT E TO HOLDING POSITION E21				
			T14,T13, H1 THEN TURN	F1	F3	F5	
			RIGHT H THEN TURN LEFT D,D9 THEN TURN LEFT E TO HOLDING POSITION E21				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01L	WEST APRON	WT16 / 01L	T15, T17, T16 THEN TURN	F2	F4	F6	
			LEFT D, D9 THEN TURN LEFT E TO HOLDING POSITION E21				
			T17, T16 THEN TURN	G1	G2	G3	G4
			LEFT D, D9 THEN TURN	G5	501	502	503
			LEFT E TO HOLDING	504	505		
			POSITION E21				

6.8.8 Outbound taxi route runway 01R

MAIN APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	MAIN APRON	MT8 / 01R	T8 THEN TURN LEFT G ,C6 THEN TURN RIGHT B TO HOLDING POSITION B13	C2	C4	C6	C8
				C10			
			T9 THEN TURN RIGHT T12, T8 THEN TURN LEFT G,C6 THEN TURN RIGHT B TO HOLDING POSITION B13	301	302	303	304
			T12, T8 THEN TURN LEFT G, C6 THEN TURN RIGHT B TO HOLDING POSITION B13	D1	D2	D3	D4

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	MAIN APRON	MT11 / 01R	T12, T11 THEN TURN LEFT G, C6 THEN TURN RIGHT B TO HOLDING POSITION B13	D5	D6	D7	D8
			T11 THEN TURN LEFT G,C6 THEN TURN RIGHT B TO HOLDING POSITION B13	E1	E3	E5	E7
				E9			
			T10 THEN TURN LEFT T12, T11 THEN TURN LEFT G,C6 THEN TURN RIGHT B TO HOLDING POSITION B13	305	306	307	308

EAST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	EAST APRON	ET1/01R	T5 THEN TURN RIGHT	109	110	111	112
			T1, C, C2, B TO HOLDING	113	114	124	125
			POSITION B13	126	127	128	129
			T1, C, C2, B TO HOLDING	130	131	132	133
			POSITION B13	134			

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	EAST APRON	ET2 / 01R	T5, T2 THEN TURN	102	103	104	105
			RIGHT C, C2, B TO	106	107	108	119
			HOLDING POSITION B13	120	121	122	123

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	EAST APRON	ET4 / 01R	T5, T4, C4 THEN TURN	A1	A2	A3	A4
			RIGHT B TO HOLDING	A5	A6	101	115
			POSITION B13	116	117	118	
			T4, C4 THEN TURN	B1	B3	B5	
			RIGHT B TO HOLDING				
			POSITION B13				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	EAST APRON	ET7 /01R	T6, T7 THEN TURN LEFT	B2	B4	B6	
			G, C6 THEN TURN RIGHT				
			B TO HOLDING POSITION				
			B13				
			T7 THEN TURN LEFT G,	C1	C3	C5	C7
			C6 THEN RIGHT B TO	C9	201	202	203
			HOLDING POSITION B13				

WEST APRON

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	WEST APRON	WD / 01R	STRAIGHT AHEAD ON D	506	507	508	509
			THEN TURN LEFT G, C6	510	511	512	513
			THEN TURN RIGHT B	514	515	516	517
			TO HOLDING POSITION	518	519	520	521
			B13	522	523	524	525

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	WEST APRON	WT13 / 01R	T13 THEN TURN LEFT	E2	E4	E6	E8
			G, C6 THEN TURN RIGHT	E10	401	402	403
			B TO HOLDING POSITION B13				
			T14,T13 THEN TURN	F1	F3	F5	
			LEFT G, C6 THEN TURN RIGHT B TO HOLDING POSITION B13				

RUNWAY	APRON	TAXI ROUTE DESIGNATOR	TAXI ROUTE DETAIL	AIRCRAFT STANDS			
01R	WEST APRON	WT16 / 01R	T15, T17, T16 THEN TURN	F2	F4	F6	
			LEFT D THEN TURN LEFT G, C6 THEN TURN RIGHT B TO HOLDING POSITION B13				
			T17, T16 THEN TURN	G1	G2	G3	G4
			LEFT D THEN TURN	G5	501	502	503
			LEFT G, C6 THEN TURN	504	505		
			RIGHT B TO HOLDING POSITION B13				

7. Runway Utilization Procedures

7.1 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.

7.2 Runway Friction Measurement

7.2.1 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.

7.2.2 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 meters each side of the runway centre line. The test results provide average of friction values of 100 meter 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	May be slippery when wet (NOTAM will be promulgated)

7.3 Departure sequence

7.3.1 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.

7.3.2 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.

7.4 Departure clearance

7.4.1 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.

7.4.2 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.

7.5 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.

7.6 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.

7.7 Departures – Minimum Runway Occupancy Time

7.7.1 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.

7.7.2 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.

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

7.7.4 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

7.7.5 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.

7.8 Arrivals – Minimum Runway Occupancy Time

7.8.1 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’.

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

7.9 High Intensity Runway Operation

7.9.1 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.

7.9.2 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

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

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

8. Low Visibility Operations

8.1 General

8.1.1 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.

8.1.2 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.

8.1.3 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 Civil Aviation Authority of Thailand (CAAT).

8.2 Arrival

8.2.1 Cat II approach and landing

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

8.2.1.2 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.

8.2.1.3 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.

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

8.2.2 Runway exits

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

8.2.2.2 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.

8.2.2.3 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, E19, E21
Runway 01L via, E12, E7, E5, E2, E1

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

8.3 Departure

8.3.1 Runway holding positions

8.3.1.1 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

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

8.3.2 Low visibility take-off

8.3.2.1 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.

8.4 Taxiing aircraft

8.4.1 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.

8.4.2 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.

8.5 Towing of aircraft

8.5.1 Aircraft towing will be restricted when the RVR down to less than 550 m.

8.6 Aircraft guidance under all-weather operations category II

8.6.1 Taxiway centre line lights

8.6.1.1 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.

8.6.1.2 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.

8.6.2 Stop bars

8.6.2.1 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.

8.6.2.2 Stop bars are installed at every runway holding position to assist in preventing inadvertent incursions of aircraft and vehicles onto the runway.

8.6.3 Intermediate holding position lights

8.6.3.1 Taxiing across intermediate holding position lights is allowed.

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

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

8.7 Adverse weather warning

8.7.1 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.

9. 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 kilometers 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 knots within 16 kilometers 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.

9.1 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.

9.2 Level 2 : Thunderstorm and/or strong wind warning

- When thunderstorms and/or strong wind are more than 25 knots within 16 kilometers 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.

9.3 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 meters, 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

- Aircraft designated to park at parking bay with Visual Docking Guidance System: VDGS;
    1) 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.

    2) 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.

- Aircraft arranged to park at parking bay without Visual Docking Guidance System : VDGS;
    1) 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.

    2) 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;

1) 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.

2) 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.

3) 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.

10. Modes of Operation

10.1 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.

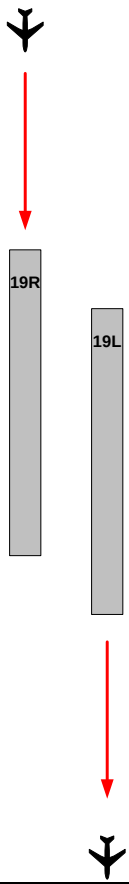
10.2 The utilization of operational models shall be based on traffic situations at the time with the purpose to achieve an orderly and expeditious flow of traffic. The criteria shall also meet the most effectiveness of runway utilization. However, as far as the operational model is selected, the basic 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.

10.3 Operational models

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

MODEL 1 SEGREGATED PARALLEL OPERATION

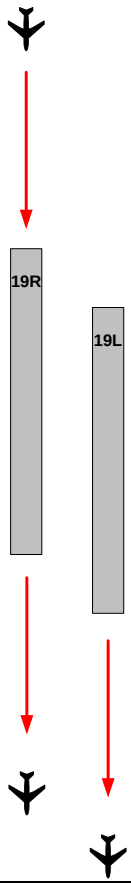
OPERATIONAL CONDITIONS
- ✦ DEPARTURE RUNWAY 19L
- ✦ ARRIVAL RUNWAY 19R

FIGURE	AIRWAYS	DEPARTURE RUNWAY		RNAV SIDs
10 DEC 08 	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 2 SEMI - MIXED OPERATION

OPERATIONAL CONDITIONS

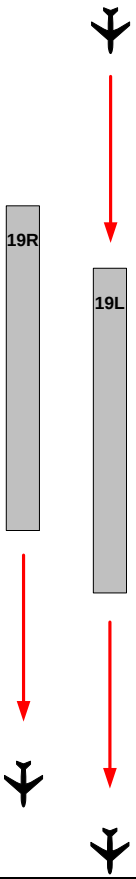
- ✦ DEPARTURE RUNWAY 19L AND 19R
  - – OUTBOUND ROUTES W1, A1, A202, G474, R468, N891, R201, A464, M751, W19 DEPARTURE RUNWAY 19L
  - – OUTBOUND ROUTES G458, W31, R468, G463, P646, A1, L507, A464, W9, B346, W21, R474 DEPARTURE RUNWAY 19R
- ✦ ARRIVAL RUNWAY 19R

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

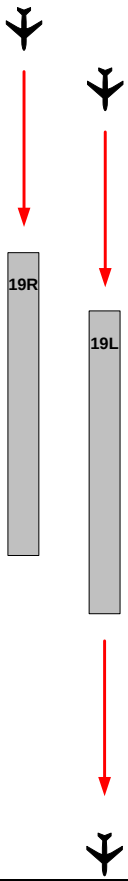
OPERATIONAL CONDITIONS

- ✦ 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

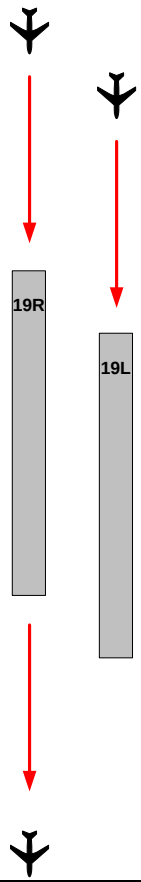
MODEL 4 SEMI - MIXED OPERATION

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

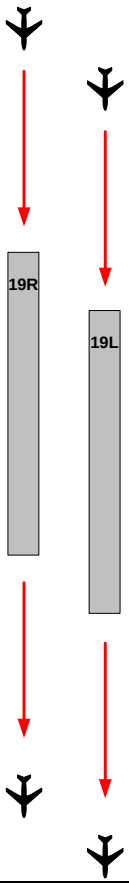
OPERATIONAL CONDITIONS
- ✦DEPARTURE RUNWAY 19R
- ✦ARRIVAL RUNWAY 19L AND 19R

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

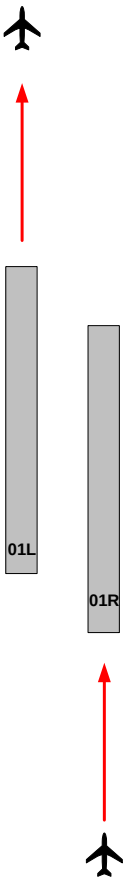
OPERATIONAL CONDITIONS

- ✦ 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

10.4 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.

11. Removal of disabled aircraft.

11.1 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.

11.2 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.

12. Hot Spot (HS) areas.

12.1 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.

12.2 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.

13. **Starting and running of aircraft engines procedures.**

13.1 STARTING OR RUNNING OF AIRCRAFT ENGINES

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

(1) The aircraft engine(s) are running at minimum idle power.
(2) The aircraft is properly parked with its fuselage longitudinally centered over the lead line and nose gear on top of the parking position painted nose block marking.
(3) The aircraft operator shall provide additional ground staff as wing walkers to lookout on both sides of the aircraft; he/she must 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 must be in constant communications with the person in charge of the operation.
(4) The aircraft operator seeks permission from the Ground Control prior to starting the engine(s).
(5) No other aircraft with ground crew in attendance is on the taxiway centre line or about to pushback from an adjacent stand on to the centre line behind the aircraft waiting to start.
(6) The PIC 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 PIC must bear in mind that even though the start engine’s 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.
(7) The ground crew must ensure that the area behind an aircraft is clear of vehicles, equipment and other obstructions before the start-up or pushback of aircraft commences.
(8) Minimum power idle engine runs are limited to ten (10) minutes in duration. Otherwise, the operations must 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.

b. 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.

(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.
(2) APU shall not be used more than 10 minutes before off-block time and 5 minutes after parking.
(3) If the operator needs to run an APU more than the mentioned time length, they must 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.

(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.
(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.

c. 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.

d. All aircraft shall be started and run-up in locations, including leased premises, designated for such purposes by the AOCC (Tel. +66 2 132 4110). Maintenance run of aircraft engines shall not be performed in the passenger ramp, apron, cargo and public parking areas.

e. During pushback operations, all aircraft should be pushed back with its fuselage longitudinally centered over, and parallel to a taxiway centre line before commencing engine start. If the PIC wishes to start the engine(s) during push-back, he/she shall coordinate with the ground crew.

f. 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 must be done with strict compliance to Suvarnabhumi Airport Noise Abatement procedures.

g. 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:

(1) The aircraft Auxiliary Power Units (APU) is inoperative.
(2) The aircraft operator seeks permission from the Ground Control prior to starting engines.
(3) Cross-bleed engine start procedure is conducted while the aircraft is longitudinally centered over and parallel to a taxiway centre line while the engine start is being performed.

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

i. The starting or operating of aircraft engines inside any hangar or within 7.5 m radius of any building or other structure is prohibited.

j. No aircraft engine exhaust, blast, and/or propeller wash shall be directed in such a manner as to 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) must be shut off and the aircraft must be towed.

k. 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.

13.2 Run-Up of Aircraft Engines

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

b. All non-essential preflight engine run-ups shall be conducted during the hours of 07.00 – 22.00 local time (in case of urgency, the extension of operation hours may be extended up to 02.00LT) at the run up area located at the south end of Taxiway C, between C8-C10. Given the proximity of noise sensitive areas, it is the responsibility of all airport users to strictly limit the engine run-ups that are done on an urgency basis. For those that are absolutely critical and cannot be postponed until the next day, the run-ups may performed beyond 0200LT.

c. 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.

d. Aircraft operators must obtain location approval and instructions from AOCC (Tel. +66 2 132 4110), before conducting an extended run of any aircraft engine above minimum idle power; high power engine operation, or engine run.

e. Leak checks, one (1) engines 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.

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

VTBS AD 2.21 NOISE ABATEMENT PROCEDURES

NOISE ABATEMENT PROCEDURES AT SUVARNABHUMI INTERNATIONAL AIRPORT DETAIL AS FOLLOW :

1. Take-off

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

2. Landing

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

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.

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. Para.3)

1.2. Arriving aircraft intending to land at Suvarnabhumi International Airport (VTBS) will be transferred to Suvarnabhumi Arrival on frequency 124.7 MHz, and to Bangkok Approach on frequency 119.4 MHz for aircraft landing at Bangkok 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 utillization 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 achievment of optimum runway capacity, that runway occupancy time is kept to a minimum consistent with the prevailling conditions.

2.4. The horizontal radar separation minimum shall be 5 NM except within BKK TMA, BKK 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)

3.1 Departing aircraft

3.1.1 Aircraft departing from Suvarnabhumi Airport will normally be assigned via the RNAV SIDs detailed in AD VTBS 2.24.

3.1.2 If, after take-off, a pilot experiences radio failure, shall comply with communication failure procedures as published in the RNAV SID Charts.

3.2 Arriving aircraft

3.2.1 Aircraft inbound to Suvarnabhumi Airport via the airways system, will be instructed to fly on the appropriate RNAV STARs by ATC.

3.2.2 In the event of an aircraft radio failure, a pilot shall select mode A code 7600 continue on cleared transition to final approach and comply with the vertical constraints depicted on the procedure.

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

4. Speed limitation

4.1 All aircraft when flying below 10 000 ft. are subject to a speed limitation of 250 kt unless previously removed by ATC. ATC will endeavour to remove the speed limitation as soon as possible and will use the phrase 'No ATC speed restrictions'.

4.2 Procedures required that aircraft should fly at 210 kt during the intermediate approach phase. ATC will request speed reductions to within the band 160 kt to 180 kt on, or shortly before closing heading to the ILS, and 160 kt when established on the ILS to final approach points; all speeds to be flown as accurately as posible. Aircraft unable to conform to these speeds should inform ATC and state what speed will be used.

4.3 At other times, speed control may be applied on a tactical basis to the extent determined by the Radar Controller. Pilots unable to conform to speed specified by the Radar Controller should immediately inform ATC stating what speeds will be used.

4.4 Except as detailed in 4.1, 4.2, and 4.3, all aircraft navigating under conditions of RNAV (GNSS) SIDs/STARs shall conform to speed limitation as published in the procedures.

4.5 En-route holding and IAWP holding will be in accordance with ICAO standard holding speeds requirment.
Note: - *En-route holding ; MOCHI, BATOK, GOMES, RYN, JASSY, PASTA, TARDY, OSUKA, TL, NOBER.*
- *IAWP holding ; ARONS, CAROS, DANNY, NAUTY, SILVA, CABIN, DAREN, GIPSY, NUMAN, TERRY.*

5. 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 follow:

5.1 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.

5.2 Standard Instrument Departures (SIDs), profiles and speed control of maximum IAS 250 kt, below 10 000 ft as specified in AIP shall be followed unless otherwise instructed by ATC.

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

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

6. Reduce communication workload

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 133.60 MHz to Arrival Control frequency 126.30 MHz.

7. VFR ENTRY AND EXIT PROCEDURES FOR LIGHT AIRCRAFTS AND HELICOPTERS

7.1 The details of VFR entry and exit procedures are given in ENR 2.2 VFR ENTRY AND EXIT PROCEDUES IN BANGKOK CONTROL ZONE.

VTBS AD 2.23 ADDITIONAL INFORMATION

Bird concentrations

1.Bird concentrations in the vicinity of Suvarnabhumi International Airport.

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 +66 2132 6981, +66 2132 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 VTBS AD 2-187 Dated 1 February 2018

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.

2.Grass mowing program

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

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