

**AD 2 AERODROMES****VABB****VABB AD 2.1 AERODROME LOCATION INDICATOR AND NAME****VABB - CHHATRAPATI SHIVAJI MAHARAJ INTERNATIONAL AIRPORT, MUMBAI**

VABB	AD 2.2	AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA								
1	Aerodrome reference point coordinates and its site	190530N 0725158E 328.97 DEG/368.7 M from intersection of RWYs.								
2	Direction and distance of aerodrome reference point from the center of the city or town which the aerodrome serves	021.5 DEG, 14Km from Mumbai Central Railway station								
3	Aerodrome elevation and reference temperature	40 FT / 34.6 DEG C								
4	Magnetic variation, date of information and annual change	0.75 DEG W (2010) /0.0333 DEG E								
5	Name of aerodrome operator, address, telephone, telefax, e-mail address, AFS address, website (if available)	<p>Mumbai International Airport Limited, 1st Floor, Terminal - 1, Chhatrapati Shivaji Maharaj International Airport, MUMBAI -400099.,</p> <table border="1"> <tr> <td>Telephone:</td> <td>91 22 66850900 91 22 66860901</td> </tr> <tr> <td>Fax:</td> <td>91 22 66852059</td> </tr> <tr> <td>AFS:</td> <td>---</td> </tr> <tr> <td>Email:</td> <td></td> </tr> </table>	Telephone:	91 22 66850900 91 22 66860901	Fax:	91 22 66852059	AFS:	---	Email:	
Telephone:	91 22 66850900 91 22 66860901									
Fax:	91 22 66852059									
AFS:	---									
Email:										
6	Types of traffic permitted (IFR/VFR)	IFR/VFR								

		Non Scheduled Aircraft operates are required to file their slot request with aocc.planning@adani.com for clearance. All non scheduled/General Aviation movements will be subject to positive approval from Airport Operations Control Centre(AOCC). <p>1.1 Request for International movement must be forwarded at least 72hrs in advance.</p> <p>1.2 Request for Domestic movement must be forwarded at least 12hrs in advance.</p> <p>2. Aerodrome Reference is Code 4F.</p>
7	Remarks	

VABB	AD 2.3	OPERATIONAL HOURS
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1	Aerodrome Operator	MON-SAT 0330-1200 UTC (0900-1730 IST) 2nd & 4th SAT and all SUN-NIL
2	Custom 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	Air Traffic Service	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	NIL
12	Remarks	Between 0230-0430 and 1130-1400 UTC daily, General Aviation and Military aircraft including helicopters are not permitted to operate. Only VIP and Scheduled flights are permitted.  All civil helicopters shall use Juhu Airport for operations instead of Mumbai International Airport except helicopters carrying VVIP, Ministers in Union Government, Chief Ministers, Deputy Chief Minister, Governors, Ambulance helicopters or any person notified as VIP by government of Maharashtra. Suitable equipped IFR helicopter flights may operate through Mumbai International Airport

during night time for embraking/disembraking purpose only. Night flying shall be subject to other restrictions applicable for the operation of non-scheduled flights at Mumbai International Airport.

	<p>Peak Capacity for RWY 27 (0800 to 1000 IST) and (1700-1930 1ST):</p> <p>Maximum no.of Arrival &amp; Departure----- 44 (Balanced NR of ARR and DEP)</p> <p>Maximum no.of Arrival Only-----29</p> <p>Maximum no.of Departure Only----- 35</p> <p>Peak Capacity for RWY 27 (In remaining hours):</p> <p>Maximum no.of Arrival &amp; Departure-----42 (Balanced NR of ARR and DEP)</p> <p>Maximum no.of Arrival Only-----29</p> <p>Maximum no.of Departure Only-----35</p>
Hourly runway traffic handling capacity	<p>Peak Capacity for RWY 09 (0800 to 1000 IST &amp; 1700 to 1930 1ST):</p> <p>Maximum no.of Arrival &amp; Departure----- 43 (Balanced NR of ARR and DEP)</p> <p>Maximum no.of Arrival Only-----29</p> <p>Maximum no.of Departure Only-----35</p> <p>Peak Capacity for RWY 09 (In remaining hours):</p> <p>Maximum no.of Arrival &amp; Departure----- 42 (Balanced NR of ARR and DEP)</p> <p>Maximum no.of Arrival Only-----29</p> <p>Maximum no.of Departure Only-----35</p>
	<p>Peak Capacity for RWY 14/32:</p> <p>Maximum no.of Arrival &amp; Departure----- 36 (When either Taxiway W5, W6 or W7 is not available)</p>
	<p>Maximum no.of Arrival &amp; Departure----- 38 (When either Taxiway W5, W6 or W7 is available)</p> <p>Maximum no.of Arrival Only-----26</p> <p>Maximum no.of Departure Only-----31</p> <p>Note:</p> <ol style="list-style-type: none"> <li>1. The Capacity proposed reflects total Aircraft Movements from Air Traffic Management (ATM) perspective only including the General Aviation, Military and Medical Flights etc.</li> <li>2. The peak traffic handling capacity proposed above is given considering balanced, code 'C' aircraft movements. In case of movements of higher code i.e. code 'E' and 'F' one movement should be</li> </ol>

		treated as 1.5 normal movements. 3. The peak traffic handling capacity proposed above is not sustainable throughout the 24-hour period. Hence a profiled scheduling must be implemented wherein there should be a 10% reduction from the peak in the hour preceding and following the peak hour. 4. For the period of monsoon (15th June to 15th Sept) there should be a 05% reduction in the peak handling capacity stated above.
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VABB	AD 2.4	HANDLING SERVICES AND FACILITIES
1	Cargo-handling facilities	1) Facilities: Export Perishable Terminal, Import Cold Zone, Export Unitization Zone, Export Heavy and Bonded Cargo Terminal, Cold Storage Facilities, Dangerous Goods Storage, Valuable & Vulnerable Cargo Storage. 2) Handling Equipment: Forklifts (10T/5T/3T), Weighing Scales (30T/5T/3T/1T), Hydraulic Pallet Trucks, Truck Docks, Dock Levelers, Platform Trolleys, Work stations for ULD Buildup, Multilevel Racking Systems. 3) IT/Systems: Dedicated Cargo Management System, Air Cargo Community Portal (GMAX), Cargo Mobile Application.
2	Fuel and Oil types	Jet A1 , AV Gas ( Handled by IOCL Only Barrels, ) WMM , JP 5 handled by IOCL , No Refuelling facility for product handled by IOCL
3	Fuelling facilities and capacity	Storage for Jet A1 at Sahar T2 30,000 KL, At Santacruz 17,000 KL. T2 refuelling is carried out through Hydrant Refuelling System (HRS), Dispensers: 34 (IOSL 19, BSSPL 15) Refuellers: 15,000 Litres - 8 27,000 Litres - 7
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	At Air India (NACIL) and Jet Airways Hanger subject to availability.
6	Repair facilities for visiting aircraft	Available for all types with Air India (NACIL). For details please contact Air India on email maintrol@airindia.in or telephone Nos: +91-22-8318281 / 28318289 / 26819601 2. Available with Jet Airways with type of Aircraft restriction.
7	Remarks	NIL

VABB	AD 2.5	PASSENGER FACILITIES
1	Hotel(s) at or in the vicinity of aerodrome	Near the AD and in the city.
2	Restaurant(s) at or in the vicinity of aerodrome	At AD and in the city.

3	Transportation possibilities	Buses, taxies and car hire.	
4	Medical Facilities	First aid at AD. Hospital in the city.	
5	Bank and post office at or in the vicinity of aerodrome	Banks: ATMs at AD H24 Post office: At terminal T2-H24	
6	Tourist office	NA	
7	Remarks	NIL	

VABB	AD 2.6	RESCUE AND FIRE FIGHTING SERVICES
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1	Aerodrome category for fire fighting	Within ATS HR: CAT-10
2	Rescue equipment	Available as per category.
3	Capability for removal of disabled aircraft	<p>1. The critical aircraft identified for Rescue and Fire Fighting is A-380. In case A-380 is disabled at Mumbai (VABB), the affected airline will make arrangements for airlifting the disabled aircraft removal kit.</p> <p>Capability for removal of disabled aircraft-Up to B747 with Air India Engineering Services Limited.</p> <p>2. Primary responsibility for removal of disabled aircraft rests with the concerned airline.</p> <p>3.The airlines may contact 'Aerodrome Coordinator for Disabled Aircraft Removal Operations' for coordinating with the agencies having Disabled Aircraft Recovery Kit.</p> <p>4. Contact Details of Aerodrome Coordinator for Disabled Aircraft Removal Operations:</p> <p>[Detail of Aerodrome coordinator] AVP- Airside Operations - Mr. Suryanarayanan Pichumani</p> <p>[Contact Nos. M-9426206472</p> <p>Land Line:02266850397 ]</p> <p>[Email: suryanarayanan.pichumani@adani.com]</p>
4	Remarks	The critical aircraft identified for Rescue and Fire Fighting is A-380. In case A-380 is disabled at Mumbai (VABB), the affected airline will make arrangements for airlifting the disabled aircraft removal kit.

VABB	AD 2.7	SEASONAL AVAILABILITY CLEARING
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1	Type(s) of clearing equipment	FOD Mat, Mechanical Sweeper, Flipper machine
2	Clearance priorities	High Priority-available 24x7
3	Remarks	NIL

VABB	AD 2.8	APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA
1	Designation, surface and strength of aprons	Designation: Refer Aerodrome chart Surface : Refer Parking-Docking chart. Strength : Refer AD 2.23.
2	Designation, width, surface and strength of taxiways	Refer AD 2.23
3	Location and elevation of altimeter checkpoints	Location On all Parking stands APRON ELEVATION (FT.) Apron A 22 Apron C 33 Apron G 31 Apron K 26 Apron J 21 Apron R 29 Apron S 27 Apron V 31
4	Location of VOR checkpoints	i. Short of holding point RWY 14 on Taxilane W7. ii. On TWY N1 near beginning of RWY 27. iii. On TWY N short of TWY N11.
5	Position of INS checkpoints	
6	Remarks	1. Primary isolation bay (when RWY in use 09/27): TWY E9 2. Secondary isolation bay (when RWY in use 14/32): At the end of RWY 27 BTN TWY N11 and abandoned pavement ABM THR marking of RWY 09. ACFT shall be parked facing S only. ACFT to be taken to isolation bay under follow me service.

VABB	AD 2.9	SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS
1	Use of aircraft stand identification signs, taxiway guidelines and visual docking/parking guidance system at aircraft stands	i. Aircraft stand identification sign has been provided for all contact aircraft parking Stands. ii. On all non - contact (remote) aircraft stands pole mounted stand identification Sign has been provided on Apron A (Except A12), Apron C (Except C10, C11, C12, C13, C14, C15, C16, C17, C20, C21, C22, C23, C24, C25, C26, C29 and C80), G, K, J (Except J9, J10), S, and R along with associated ground marking. iii. Advanced Visual Docking Guidance System (AVDGS) provided on contact stands: A1 TO A8, V4 TO V32 (including Multiple Aircraft Receiving Stands (MARS) L and R).

		<p>iv. Advanced Visual Docking Guidance System (AVDGS) not provided on contact stands: V28, V30, V31 and V32.</p> <p>v. Advanced Visual Docking Guidance System (AVDGS) provided on remote stands: A9, A10, A11, C86, C87, C88, G1, G2, G3, G4L, G4, G4R, G5, G6, G7, G8, K1, K2, K3L, K3R, K4L, K4R, K5L, K5R, K6L, K6R, S1, S1L, S2, S2R, S3, R1, R2, V3L and V3R.</p> <p>vi. Advanced Visual Docking Guidance System (AVDGS) not provided on remote stands: A12, C10 TO C33, C80 to C85, K3, K4, K5, K6, R1L, R1R, R2L, R2R, R3, R4, R5, S3L, S3R, G5L, G5R, J1 to J10.</p> <p>Note: Common AVDGS unit serving two stands are: 1) S1 &amp; S1L, 2) S2 &amp; S2R, 3) V18 &amp; V18R, 4) V21 &amp; V21R, 5) V26 &amp; V26R, 6) V27 &amp; V27R</p>
2	Runway and taxiway markings and lights	<p>RWY</p> <p>Marking</p> <p>Designation, Centerline, Transverse strip, Threshold, Displaced Threshold, TDZ, Side Stripes, Aiming point.</p> <p>Lighting</p> <p>THR, Centerline, Edge, End, TDZ (TDZ Only for RWY 27)</p> <p>TWY</p> <p>Marking</p> <p>Centerline, Holding position, Intermediate Holding Position, Edge. (Enhanced RWY holding position are marked on all TWYs connected with RWYs)</p> <p>Lighted</p> <p>Centerline, Holding position, Intermediate Holding Position, Edge.</p>
3	Stop bars (if any)	Refer AD 2.20 (Local Aerodrome Regulations), Para IV for complete details of Stopbars and No-entry bars
4	Remarks	<p>Note:</p> <p>i. 'Configuration 'A' RWY Guard Lights provided at locations on TWY N, N1, E10, E9, E8, E7, E5, E3, E4, E1, W6, W7, W4, F5, F4 and W1 on RWY 09/27 East and West of Intersection of RWYs for RWY 14/32 on TWY N, N1, N3, N4, N5, N6, N8, N9, N10, N11, W, Q, E, E1, D1, F1 and on RWY 14 North &amp; South of intersection for RWY 09/27.</p> <p>ii. RWY Guard Lights 'Configuration B' provided on RWY 14 short of intersection of RWYs.</p> <p>iii. A-VDGS is operational H24 in all-weather/ visibility conditions on the above mentioned aircraft parking stands. NOTAM is promulgated whenever A-VDGS is unserviceable.</p>

VABB	AD 2.10	AERODROME OBSTACLES
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## In Approach/Take-off/Circling Area and at AD

1	2	3	4	5	6
RWY/Area affected	Obstacle type	Coordinates	Elevation	Marking/LGT	Remarks
27/TKOF 09/APCH	BUILDING	190508.0N 0725016.1E	94 FT	NO	NIL
27/TKOF 09/APCH	BUILDING	190520.1N 0725023.9E	76 FT	NO	NIL
27/TKOF 09/APCH	TREE	190515.2N 0725036.1E	71 FT	NO	NIL
27/TKOF 09/APCH	BUILDING	190525.5N 0725031.5E	65 FT	NO	NIL
27/TKOF 09/APCH	BUILDING	190523.5N 0725031.3E	61 FT	NO	NIL
27/TKOF 09/APCH	BUILDING	190519.1N 0725029.9E	60 FT	NO	NIL
27/TKOF 09/APCH	BUILDING	190517.6N 0725031.3E	60 FT	NO	NIL
27/TKOF 09/APCH	BUILDING	190525.8N 0725027.0E	66 FT	NO	NIL
27/TKOF 09/APCH	BUILDING	190522.4N 0725018.6E	92 FT	NO	NIL
27/TKOF 09/APCH	BUILDING	190510.8N 0725018.2E	90 FT	NO	NIL
27/TKOF 09/APCH	BUILDING	190510.1N 0725016.5E	93 FT	NO	NIL
27/TKOF 09/APCH	ELECTRICAL SYSTEM	190524.8N 0725034.4E	52 FT	NO	Electric Traction Overhead Frame
27/TKOF 09/APCH	BUILDING	190510.6N 0725013.2E	105 FT	NO	NIL

27/TKOF 09/APCH	BUILDING	190507.4N 0725008.1E	112 FT	NO	NIL	
27/TKOF 09/APCH	OTHER	190523.6N 0725017.2E	94 FT	NO	Hoarding on Building	
27/TKOF 09/APCH	OTHER	190524.5N 0725010.2E	100 FT	NO	Cellphone Mast on Building LGT	
27/TKOF 09/APCH	TREE	190517.3N 0725035.9E	65 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190518.4N 0725036.0E	52 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190511.3N 0725030.9E	79 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190522.9N 0725024.4E	84 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190521.8N 0725020.6E	83 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190521.4N 0725018.4E	90 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190507.9N 0725015.1E	89 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190508.0N 0725014.2E	101 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190521.1N 0725031.6E	64 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190519.6N 0725030.9E	63 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190518.8N 0725031.7E	63 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190518.3N 0725031.0E	63 FT	NO	NIL	

27/TKOF 09/APCH	BUILDING	190522.3N 0725016.7E	98 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190523.4N 0725036.0E	50 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190514.5N 0725040.4E	44 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190512.3N 0725038.2E	50 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190513.6N 0725037.9E	52 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190514.6N 0725037.5E	51 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190511.4N 0725010.3E	98 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190512.4N 0725008.3E	108 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190507.9N 0725006.1E	119 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190517.1N 0725016.8E	86 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190524.1N 0725035.4E	50 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190509.8N 0725006.1E	114 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190510.3N 0725025.9E	83 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190524.1N 0725018.8E	92 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190520.5N 0725029.9E	79 FT	NO	NIL	

27/TKOF 09/APCH	TREE	190520.7N 0725030.8E	71 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190517.2N 0725030.8E	74 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190515.0N 0725039.8E	53 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190516.6N 0725036.1E	55 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190522.1N 0725034.6E	73 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190519.4N 0725034.3E	66 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190519.5N 0725032.2E	68 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190519.7N 0725029.4E	64 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190520.5N 0725027.1E	74 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190521.2N 0725030.5E	63 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190521.6N 0725030.6E	59 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190517.4N 0725029.5E	67 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190513.6N 0725045.1E	46 FT	NO	NIL	
27/TKOF 09/APCH	ELECTRICAL SYSTEM	190516.4N 0725033.1E	54 FT	NO	Electric Traction Overhead Frame	
27/TKOF 09/APCH	ANTENNA	190520.1N 0725040.9E	38 FT	NO	Antenna on LOC Building	

27/TKOF 09/APCH	ELECTRICAL SYSTEM	190522.6N 0725033.9E	52 FT	NO	Electric Traction Overhead Frame	
27/TKOF 09/APCH	BUILDING	190514.2N 0725043.2E	35 FT	NO	Pucca House	
27/TKOF 09/APCH	BUILDING	190523.6N 0725035.1E	50 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190519.4N 0725034.8E	53 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190520.3N 0725023.6E	75 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190522.5N 0725035.8E	49 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190520.2N 0725031.7E	59 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190514.2N 0725037.6E	50 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190516.6N 0725036.2E	48 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190517.0N 0725036.2E	50 FT	NO	NIL	
27/TKOF 09/APCH	BUILDING	190519.4N 0725034.8E	55 FT	NO	NIL	
27/TKOF 09/APCH	POLE	190513.9N 0725040.2E	51 FT	NO	Light Pole	
27/TKOF 09/APCH	OTHER	190515.6N 0725041.9E	37 FT	NO	Hut	
27/TKOF 09/APCH	ANTENNA	190519.9N 0725014.4E	103 FT	NO	Antenna on Building	
27/TKOF 09/APCH	TREE	190518.9N 0725029.4E	72 FT	NO	NIL	

27/TKOF 09/APCH	TREE	190520.8N 0725028.4E	72 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190520.4N 0725027.2E	72 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190522.5N 0725027.0E	70 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190523.3N 0725026.7E	82 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190523.7N 0725026.7E	80 FT	NO	Pipal	
27/TKOF 09/APCH	TREE	190514.6N 0725043.1E	47 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190514.0N 0725044.6E	43 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190513.2N 0725045.8E	39 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190520.0N 0725032.0E	57 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190519.2N 0725030.7E	80 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190520.0N 0725030.8E	67 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190517.4N 0725030.7E	78 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190522.2N 0725034.5E	68 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190520.1N 0725032.1E	57 FT	NO	Mango	
27/TKOF 09/APCH	TREE	190521.5N 0725034.4E	58 FT	NO	NIL	

27/TKOF 09/APCH	TREE	190520.9N 0725034.4E	57 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190521.6N 0725031.0E	61 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190517.3N 0725030.6E	65 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190517.5N 0725029.9E	62 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190516.9N 0725029.1E	75 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190516.8N 0725029.1E	73 FT	NO	NIL	
27/TKOF 09/APCH	OTHER	190522.3N 0725035.1E	52 FT	NO	Hut	
27/TKOF 09/APCH	OTHER	190516.1N 0725035.5E	57 FT	NO	Hoarding	
27/TKOF 09/APCH	BUILDING	190515.1N 0725042.8E	36 FT	NO	Pucca House	
27/TKOF 09/APCH	TREE	190524.3N 0725036.6E	55 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190520.7N 0725028.2E	67 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190520.7N 0725027.9E	66 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190522.6N 0725027.5E	77 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190511.0N 0725026.3E	77 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190513.1N 0725027.1E	86 FT	NO	NIL	

27/TKOF 09/APCH	TREE	190510.0N 0725026.0E	89 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190520.5N 0725024.3E	84 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190520.1N 0725023.9E	86 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190520.4N 0725025.4E	77 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190518.8N 0725030.1E	70 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190521.2N 0725029.4E	70 FT	NO	Group of Trees	
27/TKOF 09/APCH	TREE	190522.2N 0725032.5E	74 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190521.8N 0725028.9E	78 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190522.0N 0725028.8E	78 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190522.2N 0725028.7E	74 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190522.1N 0725028.0E	82 FT	NO	Group of Trees	
27/TKOF 09/APCH	TREE	190518.1N 0725034.1E	68 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190517.8N 0725034.5E	58 FT	NO	Group of Trees	
27/TKOF 09/APCH	TREE	190517.3N 0725035.9E	65 FT	NO	Coconut	
27/TKOF 09/APCH	TREE	190516.2N 0725036.2E	57 FT	NO	NIL	

27/TKOF 09/APCH	TREE	190514.9N 0725035.3E	69 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190514.7N 0725036.1E	68 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190514.8N 0725036.7E	60 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190515.1N 0725037.7E	50 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190515.4N 0725039.5E	53 FT	NO	Group of Trees	
27/TKOF 09/APCH	TREE	190523.0N 0725028.5E	79 FT	NO	Group of Trees	
27/TKOF 09/APCH	TREE	190513.1N 0725046.0E	39 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190513.2N 0725045.8E	41 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190513.3N 0725045.5E	40 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190513.5N 0725045.2E	40 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190514.0N 0725043.9E	41 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190514.1N 0725042.6E	42 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190515.0N 0725043.3E	35 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190513.9N 0725042.2E	48 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190514.3N 0725042.1E	53 FT	NO	NIL	

27/TKOF 09/APCH	TREE	190515.2N 0725043.1E	39 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190515.6N 0725041.8E	48 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190515.6N 0725041.2E	53 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190515.7N 0725040.4E	52 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190516.2N 0725040.0E	45 FT	NO	NIL	
27/TKOF 09/APCH	TREE	190516.4N 0725040.5E	48 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190519.8N 0725312.2E	73 FT	NO	Factory	
27/APCH 09/TKOF	BUILDING	190517.5N 0725330.6E	129 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190519.9N 0725332.1E	124 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190517.6N 0725332.8E	143 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190540.9N 0725452.3E	196 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190523.0N 0725259.1E	75 FT	NO	Mosque	
27/APCH 09/TKOF	BUILDING	190516.0N 0725352.0E	155 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190516.1N 0725410.1E	197 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190507.2N 0725431.9E	202 FT	NO	NIL	

27/APCH 09/TKOF	BUILDING	190528.8N 0725434.3E	220 FT	NO	NIL
27/APCH 09/TKOF	OTHER	190506.5N 0725445.7E	205 FT	NO	Mast on Building
27/APCH 09/TKOF	OTHER	190510.8N 0725447.2E	211 FT	NO	Cellphone Mast on Building
27/APCH 09/TKOF	OTHER	190521.5N 0725254.9E	64 FT	NO	Speaker on Mosque
27/APCH 09/TKOF	BUILDING	190523.5N 0725254.6E	64 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190527.3N 0725317.6E	147 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190509.8N 0725447.7E	208 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190530.5N 0725343.4E	174 FT	NO	NIL
27/APCH 09/TKOF	OTHER	190533.1N 0725348.7E	202 FT	NO	Hut
27/APCH 09/TKOF	BUILDING	190532.6N 0725353.2E	220 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190534.0N 0725447.7E	225 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190515.2N 0725331.5E	168 FT	NO	Mosque
27/APCH 09/TKOF	BUILDING	190513.1N 0725314.8E	83 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190519.0N 0725254.5E	61 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190518.9N 0725256.1E	63 FT	NO	NIL

27/APCH 09/TKOF	BUILDING	190518.5N 0725257.2E	63 FT	NO	NIL	
27/APCH 09/TKOF	OTHER	190518.0N 0725258.9E	66 FT	NO	Speaker on Mosque	
27/APCH 09/TKOF	BUILDING	190518.0N 0725300.2E	68 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190517.6N 0725301.3E	71 FT	NO	NIL	
27/APCH 09/TKOF	OTHER	190521.5N 0725257.8E	76 FT	NO	Shed	
27/APCH 09/TKOF	OTHER	190521.5N 0725258.5E	77 FT	NO	NIL	
27/APCH 09/TKOF	OTHER	190521.4N 0725259.2E	75 FT	NO	Shed	
27/APCH 09/TKOF	OTHER	190521.2N 0725300.1E	71 FT	NO	Shed	
27/APCH 09/TKOF	BUILDING	190520.6N 0725305.3E	65 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190519.2N 0725307.7E	66 FT	NO	NIL	
27/APCH 09/TKOF	OTHER	190522.6N 0725306.7E	75 FT	NO	Shed	
27/APCH 09/TKOF	ANTENNA	190528.9N 0725406.6E	181 FT	NO	Antenna on Building	
27/APCH 09/TKOF	BUILDING	190523.9N 0725255.0E	60 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190525.1N 0725255.4E	59 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190525.1N 0725253.6E	83 FT	NO	NIL	

27/APCH 09/TKOF	BUILDING	190524.3N 0725253.7E	68 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190516.5N 0725320.3E	122 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190523.5N 0725319.3E	117 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190521.8N 0725318.6E	90 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190524.9N 0725317.7E	107 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190526.4N 0725317.5E	136 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190525.8N 0725500.1E	206 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190504.7N 0725451.0E	192 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190525.3N 0725449.3E	207 FT	NO	NIL
27/APCH 09/TKOF	OTHER	190536.9N 0725419.0E	220 FT	NO	Hut
27/APCH 09/TKOF	BUILDING	190534.4N 0725413.4E	204 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190536.0N 0725409.4E	186 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190528.2N 0725346.1E	143 FT	NO	Mosque
27/APCH 09/TKOF	OTHER	190520.3N 0725336.9E	135 FT	NO	Hut
27/APCH 09/TKOF	OTHER	190518.0N 0725337.2E	127 FT	NO	Hut

27/APCH 09/TKOF	ANTENNA	190515.5N 0725335.1E	166 FT	NO	Antenna on Building
27/APCH 09/TKOF	ANTENNA	190515.0N 0725351.5E	160 FT	NO	Antenna on Building
27/APCH 09/TKOF	BUILDING	190516.5N 0725352.1E	159 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190545.2N 0725504.1E	241 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190534.7N 0725450.7E	194 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190514.1N 0725331.4E	143 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190518.6N 0725330.3E	147 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190522.4N 0725328.3E	114 FT	NO	Mosque
27/APCH 09/TKOF	BUILDING	190523.3N 0725325.5E	22 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190519.6N 0725319.5E	90 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190519.9N 0725321.9E	95 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190517.3N 0725322.3E	127 FT	NO	Mosque
27/APCH 09/TKOF	POLE	190519.1N 0725253.4E	54 FT	NO	Light Pole
27/APCH 09/TKOF	TREE	190520.5N 0725257.6E	70 FT	NO	NIL
27/APCH 09/TKOF	TREE	190520.9N 0725301.5E	71 FT	NO	NIL

27/APCH 09/TKOF	TREE	190517.5N 0725308.7E	86 FT	NO	NIL
27/APCH 09/TKOF	TREE	190531.1N 0725402.5E	185 FT	NO	NIL
27/APCH 09/TKOF	TREE	190515.9N 0725252.8E	74 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190516.9N 0725252.7E	61 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190512.5N 0725314.5E	100 FT	NO	NIL
27/APCH 09/TKOF	TREE	190515.6N 0725315.0E	93 FT	NO	NIL
27/APCH 09/TKOF	TREE	190516.4N 0725316.5E	84 FT	NO	NIL
27/APCH 09/TKOF	TREE	190531.4N 0725418.3E	269 FT	NO	Group of Trees (Coconut)
27/APCH 09/TKOF	TREE	190528.8N 0725340.0E	147 FT	NO	Group of Trees (Coconut)
27/APCH 09/TKOF	TREE	190530.7N 0725340.1E	168 FT	NO	NIL
27/APCH 09/TKOF	TREE	190515.4N 0725340.4E	135 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190520.4N 0725338.6E	134 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190527.4N 0725335.8E	148 FT	NO	Coconut
27/APCH 09/TKOF	TREE	190528.4N 0725337.5E	152 FT	NO	NIL
27/APCH 09/TKOF	TREE	190525.4N 0725336.3E	122 FT	NO	NIL

27/APCH 09/TKOF	TREE	190524.2N 0725334.4E	140 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190511.2N 0725334.8E	128 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190511.4N 0725332.3E	133 FT	NO	NIL
27/APCH 09/TKOF	TREE	190515.8N 0725330.4E	152 FT	NO	NIL
27/APCH 09/TKOF	TREE	190521.5N 0725327.9E	146 FT	NO	NIL
27/APCH 09/TKOF	OTHER	190519.9N 0725253.5E	55 FT	NO	Mobile Road Traffic
27/APCH 09/TKOF	OTHER	190520.1N 0725253.9E	51 FT	NO	Security Hut
27/APCH 09/TKOF	TANK	190532.4N 0725418.6E	248 FT	NO	Group of Tank
27/APCH 09/TKOF	OTHER	190525.0N 0725326.3E	137 FT	NO	Cellphone Mast Tower
27/APCH 09/TKOF	OTHER	190520.0N 0725255.4E	54 FT	NO	Approach Light
27/APCH 09/TKOF	OTHER	190520.1N 0725300.5E	55 FT	NO	Approach Light
27/APCH 09/TKOF	ANTENNA	190522.2N 0725253.0E	50 FT	NO	ASMGCS M-LAT Antenna
27/APCH 09/TKOF	FENCE	190523.5N 0725254.0E	50 FT	NO	Airport Boundary Wall with fencing on top
27/APCH 09/TKOF	GATE	190521.4N 0725253.3E	45 FT	NO	Crash Gate (RWY 27)
27/APCH 09/TKOF	BUILDING	190523.6N 0725254.9E	62 FT	NO	Pucca House

27/APCH 09/TKOF	BUILDING	190516.4N 0725320.3E	118 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190526.6N 0725317.5E	134 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190521.7N 0725327.7E	135 FT	NO	Mosque
27/APCH 09/TKOF	BUILDING	190519.1N 0725254.1E	59 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190519.1N 0725255.3E	57 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190518.9N 0725255.6E	63 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190518.3N 0725259.4E	59 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190518.1N 0725300.9E	64 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190517.7N 0725302.0E	67 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190517.9N 0725302.2E	60 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190517.5N 0725302.8E	67 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190517.8N 0725302.9E	59 FT	NO	NIL
27/APCH 09/TKOF	OTHER	190521.2N 0725259.9E	69 FT	NO	Shed
27/APCH 09/TKOF	OTHER	190521.2N 0725301.1E	70 FT	NO	Shed
27/APCH 09/TKOF	BUILDING	190521.0N 0725302.1E	62 FT	NO	NIL

27/APCH 09/TKOF	BUILDING	190521.4N 0725302.6E	70 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190521.0N 0725304.9E	64 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190520.8N 0725305.4E	64 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190520.3N 0725305.4E	64 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190519.2N 0725253.8E	57 FT	NO	NIL	
27/APCH 09/TKOF	BUILDING	190524.2N 0725255.2E	57 FT	NO	Pucca House	
27/APCH 09/TKOF	BUILDING	190525.3N 0725255.6E	58 FT	NO	Pucca House	
27/APCH 09/TKOF	BUILDING	190524.7N 0725253.5E	76 FT	NO	Pucca House	
27/APCH 09/TKOF	BUILDING	190524.8N 0725253.6E	77 FT	NO	Pucca House	
27/APCH 09/TKOF	BUILDING	190524.5N 0725253.6E	71 FT	NO	Pucca House	
27/APCH 09/TKOF	BUILDING	190524.1N 0725254.0E	62 FT	NO	Pucca House	
27/APCH 09/TKOF	BUILDING	190523.3N 0725254.5E	56 FT	NO	Pucca House	
27/APCH 09/TKOF	BUILDING	190516.8N 0725320.4E	121 FT	NO	Pucca House	
27/APCH 09/TKOF	BUILDING	190516.5N 0725320.0E	117 FT	NO	Pucca House	
27/APCH 09/TKOF	BUILDING	190523.0N 0725319.0E	107 FT	NO	Pucca House	

27/APCH 09/TKOF	BUILDING	190523.4N 0725319.4E	115 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190522.9N 0725319.1E	101 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190523.0N 0725319.0E	102 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190524.0N 0725317.8E	93 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190526.4N 0725317.5E	130 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190526.2N 0725317.4E	134 FT	NO	Pucca House
27/APCH 09/TKOF	OTHER	190520.7N 0725319.7E	116 FT	NO	Group of Cellphone Mast on Pucca House
27/APCH 09/TKOF	OTHER	190520.6N 0725319.9E	118 FT	NO	Cellphone Mast on Pucca House
27/APCH 09/TKOF	BUILDING	190520.9N 0725319.4E	99 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190521.2N 0725319.3E	100 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190521.2N 0725319.6E	105 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190521.3N 0725319.3E	100 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190524.5N 0725459.1E	195 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190529.8N 0725418.2E	214 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190529.6N 0725418.3E	208 FT	NO	Pucca House

27/APCH 09/TKOF	BUILDING	190529.5N 0725418.5E	197 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190529.7N 0725418.4E	202 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190530.3N 0725420.0E	208 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190531.9N 0725418.3E	243 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190531.9N 0725420.1E	231 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190532.1N 0725419.9E	240 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190531.5N 0725420.4E	214 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190532.0N 0725420.2E	227 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190531.7N 0725420.5E	212 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190531.4N 0725420.8E	198 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.5N 0725419.3E	238 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.0N 0725419.7E	234 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.8N 0725419.4E	226 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190534.7N 0725419.6E	207 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.3N 0725419.7E	222 FT	NO	Pucca House

27/APCH 09/TKOF	BUILDING	190534.0N 0725420.2E	195 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190531.6N 0725418.0E	239 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190532.1N 0725418.3E	243 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190532.4N 0725419.0E	245 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190532.6N 0725419.0E	245 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190532.6N 0725419.0E	244 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190532.7N 0725418.8E	241 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.1N 0725418.5E	237 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.4N 0725418.8E	237 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.5N 0725418.7E	234 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.5N 0725418.4E	226 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.2N 0725418.1E	228 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.0N 0725418.1E	229 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.5N 0725418.1E	219 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190533.7N 0725418.8E	231 FT	NO	Pucca House

27/APCH 09/TKOF	BUILDING	190533.7N 0725419.2E	234 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190534.4N 0725418.7E	225 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190534.2N 0725418.8E	228 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190534.0N 0725418.9E	228 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190535.2N 0725418.9E	204 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190535.2N 0725419.2E	206 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190535.3N 0725418.9E	199 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190535.6N 0725419.0E	197 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190536.1N 0725418.7E	203 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190536.4N 0725419.1E	207 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190536.9N 0725418.3E	213 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190537.3N 0725419.1E	220 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190537.4N 0725418.7E	217 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190537.7N 0725418.8E	218 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190527.2N 0725459.4E	201 FT	NO	NIL

27/APCH 09/TKOF	BUILDING	190519.3N 0725337.8E	128 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190519.5N 0725338.0E	124 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190519.8N 0725337.9E	128 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190520.7N 0725338.1E	126 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190523.2N 0725338.5E	126 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190511.4N 0725334.6E	130 FT	NO	Pucca House
27/APCH 09/TKOF	BUILDING	190514.4N 0725331.1E	142 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190515.4N 0725330.0E	121 FT	NO	Mosque
27/APCH 09/TKOF	BUILDING	190515.3N 0725330.3E	126 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190518.9N 0725330.0E	132 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190515.1N 0725330.1E	116 FT	NO	Hut
27/APCH 09/TKOF	BUILDING	190521.0N 0725328.4E	125 FT	NO	NIL
27/APCH 09/TKOF	OTHER	190522.2N 0725326.6E	125 FT	NO	Shed
27/APCH 09/TKOF	BUILDING	190517.5N 0725318.7E	89 FT	NO	NIL
27/APCH 09/TKOF	BUILDING	190519.5N 0725320.9E	97 FT	NO	Hut

27/APCH 09/TKOF	POLE	190522.4N 0725327.7E	113 FT	NO	Light Pole
27/APCH 09/TKOF	GATE	190519.9N 0725253.6E	47 FT	NO	NIL
27/APCH 09/TKOF	FENCE	190519.8N 0725253.6E	48 FT	NO	Airport boundary wall with fencing on top
27/APCH 09/TKOF	BUILDING	190525.9N 0725322.0E	139 FT	NO	Mosque
27/APCH 09/TKOF	OTHER	190526.2N 0725324.8E	136 FT	NO	Hut on Hill
27/APCH 09/TKOF	OTHER	190519.2N 0725327.9E	121 FT	NO	Hut
27/APCH 09/TKOF	OTHER	190517.2N 0725328.5E	136 FT	NO	Hut on Hill
27/APCH 09/TKOF	OTHER	190517.8N 0725329.0E	138 FT	NO	Hut on Hill
27/APCH 09/TKOF	OTHER	190516.0N 0725323.5E	130 FT	NO	Hut on Hillock
27/APCH 09/TKOF	OTHER	190515.7N 0725320.5E	116 FT	NO	Hut on Hillock
27/APCH 09/TKOF	OTHER	190515.0N 0725320.0E	106 FT	NO	Hut on Hillock
27/APCH 09/TKOF	OTHER	190515.3N 0725321.9E	118 FT	NO	Hut
27/APCH 09/TKOF	OTHER	190515.6N 0725320.0E	115 FT	NO	Hut
27/APCH 09/TKOF	ANTENNA	190527.8N 0725315.5E	123 FT	NO	Mobile Antenna on Hut
27/APCH 09/TKOF	OTHER	190525.8N 0725315.9E	106 FT	NO	Hut

27/APCH 09/TKOF	BUILDING	190528.6N 0725317.3E	151 FT	NO	Mosque	
27/APCH 09/TKOF	OTHER	190526.7N 0725318.2E	147 FT	NO	Hut	
27/APCH 09/TKOF	OTHER	190518.0N 0725254.7E	65 FT	NO	Hut	
27/APCH 09/TKOF	OTHER	190517.6N 0725255.6E	63 FT	NO	Hut	
27/APCH 09/TKOF	OTHER	190518.5N 0725254.5E	62 FT	NO	Hut	
27/APCH 09/TKOF	OTHER	190518.3N 0725255.7E	65 FT	NO	Hut	
27/APCH 09/TKOF	OTHER	190525.0N 0725259.1E	87 FT	NO	Hut	
27/APCH 09/TKOF	OTHER	190524.8N 0725259.1E	88 FT	NO	Hut	
27/APCH 09/TKOF	OTHER	190523.9N 0725256.6E	76 FT	NO	Hut	
27/APCH 09/TKOF	OTHER	190523.7N 0725255.8E	70 FT	NO	Hut	
27/APCH 09/TKOF	OTHER	190524.8N 0725256.7E	69 FT	NO	Hut	
27/APCH 09/TKOF	TREE	190520.4N 0725256.0E	53 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190518.2N 0725308.0E	80 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190516.2N 0725318.0E	98 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190529.7N 0725417.5E	223 FT	NO	NIL	

27/APCH 09/TKOF	TREE	190532.5N 0725421.2E	213 FT	NO	NIL
27/APCH 09/TKOF	TREE	190534.7N 0725418.2E	221 FT	NO	NIL
27/APCH 09/TKOF	TREE	190530.1N 0725340.2E	161 FT	NO	NIL
27/APCH 09/TKOF	TREE	190523.7N 0725338.3E	139 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190524.0N 0725338.4E	138 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190527.2N 0725335.5E	143 FT	NO	Coconut Tree
27/APCH 09/TKOF	TREE	190527.6N 0725335.8E	146 FT	NO	Coconut Tree
27/APCH 09/TKOF	TREE	190528.3N 0725337.3E	146 FT	NO	Coconut Tree
27/APCH 09/TKOF	TREE	190529.2N 0725337.8E	148 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190527.2N 0725335.1E	142 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190511.6N 0725331.5E	113 FT	NO	NIL
27/APCH 09/TKOF	TREE	190513.4N 0725330.9E	142 FT	NO	NIL
27/APCH 09/TKOF	TREE	190521.7N 0725328.7E	123 FT	NO	NIL
27/APCH 09/TKOF	TREE	190521.4N 0725328.2E	142 FT	NO	NIL
27/APCH 09/TKOF	TREE	190522.4N 0725327.6E	109 FT	NO	NIL

27/APCH 09/TKOF	TREE	190519.4N 0725330.6E	142 FT	NO	NIL
27/APCH 09/TKOF	TREE	190519.1N 0725329.8E	119 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190524.1N 0725253.6E	71 FT	NO	NIL
27/APCH 09/TKOF	TREE	190524.1N 0725255.2E	81 FT	NO	NIL
27/APCH 09/TKOF	TREE	190532.5N 0725417.9E	262 FT	NO	Coconut
27/APCH 09/TKOF	TREE	190530.0N 0725341.5E	202 FT	NO	NIL
27/APCH 09/TKOF	TREE	190531.8N 0725344.3E	206 FT	NO	NIL
27/APCH 09/TKOF	TREE	190511.6N 0725335.2E	155 FT	NO	Group of Trees
27/APCH 09/TKOF	TREE	190515.9N 0725330.5E	157 FT	NO	NIL
27/APCH 09/TKOF	OTHER	190531.1N 0725417.2E	229 FT	NO	Hill Top
27/APCH 09/TKOF	OTHER	190505.2N 0725457.7E	229 FT	NO	Pylon Mast
27/APCH 09/TKOF	OTHER	190520.0N 0725253.0E	55 FT	NO	Mobile Road Traffic
27/APCH 09/TKOF	OTHER	190520.1N 0725253.2E	53 FT	NO	Mobile Road Traffic
27/APCH 09/TKOF	OTHER	190519.4N 0725252.9E	52 FT	NO	Mobile Road Traffic
27/APCH 09/TKOF	OTHER	190520.9N 0725253.5E	53 FT	NO	Mobile Road Traffic

27/APCH 09/TKOF	TREE	190522.3N 0725329.5E	138 FT	NO	NIL	
27/APCH 09/TKOF	POLE	190513.6N 0725505.3E	234 FT	NO	Pylon Light	
27/APCH 09/TKOF	TREE	190520.9N 0725254.5E	69 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190521.0N 0725255.0E	70 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190520.7N 0725254.9E	64 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190520.8N 0725255.5E	65 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190520.7N 0725255.6E	59 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190520.9N 0725256.1E	61 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190520.9N 0725257.1E	66 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190520.8N 0725257.3E	66 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190520.3N 0725259.6E	61 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190518.7N 0725253.4E	61 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190524.5N 0725253.8E	79 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190524.2N 0725253.4E	78 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190521.8N 0725254.6E	59 FT	NO	NIL	

27/APCH 09/TKOF	TREE	190522.0N 0725255.3E	77 FT	NO	Coconut	
27/APCH 09/TKOF	TREE	190521.4N 0725254.9E	62 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190521.8N 0725255.3E	69 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190518.7N 0725254.0E	62 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190518.4N 0725254.7E	67 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190516.2N 0725252.9E	69 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190516.3N 0725253.2E	78 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190516.6N 0725254.1E	74 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190517.4N 0725252.9E	54 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190517.2N 0725252.7E	59 FT	NO	NIL	
27/APCH 09/TKOF	TREE	190522.0N 0725255.3E	75 FT	NO	Coconut	
27/APCH 09/TKOF	TREE	190517.5N 0725256.3E	74 FT	NO	Coconut	
27/APCH 09/TKOF	TREE	190517.2N 0725254.6E	66 FT	NO	NIL	
In circling area and at AD	BUILDING	190508.9N 0725036.4E	86 FT	NO	NIL	
In circling area and at AD	BUILDING	190507.0N 0725023.1E	108 FT	NO	NIL	

In circling area and at AD	POLE	190525.6N 0725038.2E	56 FT	NO	Light Pole
In circling area and at AD	BUILDING	190509.8N 0725029.6E	79 FT	NO	NIL
In circling area and at AD	BUILDING	190509.1N 0725027.7E	103 FT	NO	NIL
In circling area and at AD	OTHER	190512.1N 0725042.8E	42 FT	NO	Hut
In circling area and at AD	BUILDING	190511.5N 0725038.6E	53 FT	NO	NIL
In circling area and at AD	BUILDING	190507.3N 0725013.9E	98 FT	NO	NIL
In circling area and at AD	BUILDING	190506.7N 0725011.8E	105 FT	NO	NIL
In circling area and at AD	BUILDING	190508.2N 0725022.1E	88 FT	NO	NIL
In circling area and at AD	POLE	190526.4N 0725036.2E	72 FT	NO	Light Pole
In circling area and at AD	POLE	190526.3N 0725029.7E	68 FT	NO	Light Pole
In circling area and at AD	POLE	190526.5N 0725031.4E	71 FT	NO	Light Pole
In circling area and at AD	POLE	190511.4N 0725041.6E	57 FT	NO	Light Pole
In circling area and at AD	TREE	190525.0N 0725036.7E	51 FT	NO	NIL
In circling area and at AD	TREE	190512.4N 0725048.1E	41 FT	NO	NIL
In circling area and at AD	TREE	190512.3N 0725052.0E	40 FT	NO	NIL

In circling area and at AD	BUILDING	190538.4N 0725001.4E	206 FT	NO	NIL
In circling area and at AD	OTHER	190526.3N 0725049.2E	68 FT	NO	Wind Sock
In circling area and at AD	NAVAID	190514.7N 0725109.0E	68 FT	NO	GP Antenna (RWY 09)
In circling area and at AD	NAVAID	190514.6N 0725107.5E	39 FT	NO	GP Monitor Antenna (RWY 09)
In circling area and at AD	BUILDING	190511.6N 0725039.4E	50 FT	NO	NIL
In circling area and at AD	OTHER	190525.1N 0725038.0E	54 FT	NO	Hoarding
In circling area and at AD	POLE	190510.9N 0725042.1E	55 FT	NO	Light Pole
In circling area and at AD	POLE	190526.4N 0725036.1E	68 FT	NO	Light Pole
In circling area and at AD	TREE	190512.5N 0725047.8E	34 FT	NO	NIL
In circling area and at AD	TREE	190511.5N 0725040.1E	56 FT	NO	NIL
In circling area and at AD	TREE	190512.4N 0725049.1E	38 FT	NO	NIL
In circling area and at AD	TREE	190509.9N 0725028.0E	86 FT	NO	Group of Trees
In circling area and at AD	TREE	190512.4N 0725048.0E	41 FT	NO	NIL
In circling area and at AD	TREE	190512.5N 0725047.8E	34 FT	NO	NIL
In circling area and at AD	TREE	190512.7N 0725046.1E	45 FT	NO	NIL

In circling area and at AD	OTHER	190513.1N 0725303.4E	86 FT	NO	Chimney
In circling area and at AD	BUILDING	190528.4N 0725259.3E	107 FT	NO	NIL
In circling area and at AD	BUILDING	190516.2N 0725251.1E	59 FT	NO	Pucca House
In circling area and at AD	BUILDING	190529.0N 0725253.8E	107 FT	NO	Mosque
In circling area and at AD	BUILDING	190528.3N 0725258.1E	102 FT	NO	NIL
In circling area and at AD	BUILDING	190542.9N 0725420.6E	273 FT	NO	Temple
In circling area and at AD	BUILDING	190533.4N 0725346.0E	196 FT	NO	Pucca House
In circling area and at AD	BUILDING	190500.8N 0725437.2E	206 FT	NO	NIL
In circling area and at AD	BUILDING	190544.3N 0725450.7E	209 FT	NO	NIL
In circling area and at AD	BUILDING	190549.2N 0725459.4E	280 FT	NO	NIL
In circling area and at AD	BUILDING	190514.8N 0725252.0E	55 FT	NO	Pucca House
In circling area and at AD	BUILDING	190515.8N 0725252.0E	62 FT	NO	Pucca House
In circling area and at AD	BUILDING	190515.9N 0725250.3E	63 FT	NO	Pucca House
In circling area and at AD	BUILDING	190526.3N 0725255.2E	66 FT	NO	Pucca House
In circling area and at AD	OTHER	190526.9N 0725257.5E	84 FT	NO	Shed

In circling area and at AD	BUILDING	190529.1N 0725257.8E	100 FT	NO	NIL
In circling area and at AD	OTHER	190529.2N 0725302.3E	114 FT	NO	Cellphone Mast on Building
In circling area and at AD	BUILDING	190540.2N 0725419.7E	236 FT	NO	Pucca House
In circling area and at AD	BUILDING	190540.1N 0725418.4E	234 FT	NO	Pucca House
In circling area and at AD	BUILDING	190541.0N 0725416.7E	206 FT	NO	NIL
In circling area and at AD	BUILDING	190546.2N 0725502.8E	233 FT	NO	NIL
In circling area and at AD	CRANE	190552.4N 0725513.5E	349 FT	NO	Crane Top of Building
In circling area and at AD	BUILDING	190454.8N 0725418.8E	201 FT	NO	NIL
In circling area and at AD	BUILDING	190501.1N 0725421.8E	212 FT	NO	NIL
In circling area and at AD	BUILDING	190547.6N 0725449.2E	197 FT	NO	NIL
In circling area and at AD	BUILDING	190550.1N 0725447.6E	199 FT	NO	NIL
In circling area and at AD	BUILDING	190548.5N 0725452.0E	231 FT	NO	Under Construction
In circling area and at AD	BUILDING	190556.7N 0725507.8E	359 FT	NO	NIL
In circling area and at AD	BUILDING	190554.5N 0725504.9E	218 FT	NO	NIL
In circling area and at AD	BUILDING	190556.0N 0725503.8E	247 FT	NO	NIL

In circling area and at AD	BUILDING	190557.7N 0725504.7E	218 FT	NO	NIL
In circling area and at AD	POLE	190513.4N 0725252.0E	65 FT	NO	Light Pole
In circling area and at AD	POLE	190525.9N 0725255.9E	71 FT	NO	Light Pole
In circling area and at AD	TREE	190528.4N 0725253.5E	97 FT	NO	NIL
In circling area and at AD	TOWER	190511.7N 0725312.9E	88 FT	NO	Microwave
In circling area and at AD	TANK	190511.1N 0725315.5E	99 FT	NO	Over Head Water Tank
In circling area and at AD	CRANE	190605.3N 0725300.4E	226 FT	NO	Crane Top on Building
In circling area and at AD	CRANE	190603.5N 0725244.7E	202 FT	NO	Crane Top on Building
In circling area and at AD	OTHER	190611.5N 0725427.4E	497 FT	NO	Hill Top
In circling area and at AD	FENCE	190516.5N 0725252.0E	52 FT	NO	Airport boundary wall with Fencing on Top
In circling area and at AD	OTHER	190517.2N 0725217.7E	24 FT	NO	PAPI (RWY27)
In circling area and at AD	OTHER	190524.0N 0725233.8E	46 FT	NO	Wind Sock
In circling area and at AD	NAVAID	190523.3N 0725231.9E	29 FT	NO	Transmissometer Transmitter
In circling area and at AD	NAVAID	190523.2N 0725234.1E	46 FT	NO	Aws Antenna
In circling area and at AD	SIGN	190521.3N 0725235.9E	26 FT	NO	N3 Sign Board

In circling area and at AD	SIGN	190521.3N 0725233.5E	25 FT	NO	N4 Sign Board
In circling area and at AD	NAVAID	190515.7N 0725222.3E	74 FT	NO	GP Antenna 27
In circling area and at AD	NAVAID	190515.8N 0725224.8E	41 FT	NO	GP NF Antenna 27
In circling area and at AD	OTHER	190518.9N 0725251.8E	41 FT	NO	Blast Fence
In circling area and at AD	NAVAID	190520.1N 0725252.3E	49 FT	NO	LOC 09 Monitor Antenna
In circling area and at AD	FENCE	190516.1N 0725249.1E	48 FT	NO	Airport boundary wall with fencing on top
In circling area and at AD	NAVAID	190520.3N 0725252.1E	40 FT	NO	RWY 09 LOC
In circling area and at AD	OTHER	190520.5N 0725252.1E	41 FT	NO	Lightning Arrestor on RWY 09 LOC
In circling area and at AD	OTHER	190528.1N 0725219.2E	80 FT	NO	Flood Light
In circling area and at AD	BUILDING	190515.4N 0725252.2E	56 FT	NO	Pucca House
In circling area and at AD	BUILDING	190526.9N 0725255.3E	65 FT	NO	Pucca House
In circling area and at AD	BUILDING	190514.2N 0725252.0E	55 FT	NO	Pucca House
In circling area and at AD	BUILDING	190515.8N 0725252.1E	57 FT	NO	Pucca House
In circling area and at AD	BUILDING	190516.0N 0725251.7E	59 FT	NO	Pucca House
In circling area and at AD	BUILDING	190516.0N 0725251.6E	59 FT	NO	Pucca House

In circling area and at AD	BUILDING	190515.8N 0725251.6E	60 FT	NO	Pucca House
In circling area and at AD	BUILDING	190526.2N 0725255.1E	65 FT	NO	Pucca House
In circling area and at AD	BUILDING	190526.6N 0725255.2E	65 FT	NO	Pucca House
In circling area and at AD	BUILDING	190526.4N 0725255.7E	57 FT	NO	Pucca House
In circling area and at AD	OTHER	190529.3N 0725301.6E	106 FT	NO	Cellphone Mast on Building
In circling area and at AD	BUILDING	190512.0N 0725314.6E	88 FT	NO	NIL
In circling area and at AD	BUILDING	190501.0N 0725422.3E	202 FT	NO	NIL
In circling area and at AD	BUILDING	190549.5N 0725452.7E	226 FT	NO	NIL
In circling area and at AD	BUILDING	190549.8N 0725448.9E	199 FT	NO	NIL
In circling area and at AD	POLE	190526.6N 0725256.2E	70 FT	NO	Light Pole
In circling area and at AD	BUILDING	190529.9N 0725318.8E	182 FT	NO	Mosque
In circling area and at AD	BUILDING	190530.2N 0725317.4E	190 FT	NO	Mosque
In circling area and at AD	OTHER	190530.1N 0725318.4E	183 FT	NO	Hut
In circling area and at AD	OTHER	190530.5N 0725318.2E	184 FT	NO	Hut
In circling area and at AD	TREE	190530.4N 0725318.0E	179 FT	NO	NIL

In circling area and at AD	OTHER	190529.5N 0725318.2E	176 FT	NO	Hut on Hillock
In circling area and at AD	OTHER	190529.8N 0725317.6E	170 FT	NO	Hut on Hillock
In circling area and at AD	OTHER	190513.3N 0725249.6E	68 FT	NO	Hut
In circling area and at AD	OTHER	190513.0N 0725249.6E	69 FT	NO	Hut
In circling area and at AD	OTHER	190526.3N 0725253.3E	81 FT	NO	Hut on Hillock
In circling area and at AD	OTHER	190512.8N 0725253.4E	82 FT	NO	Chimney Top
In circling area and at AD	OTHER	190513.6N 0725253.9E	79 FT	NO	Chimney Top
In circling area and at AD	TREE	190516.0N 0725252.1E	68 FT	NO	Group of Trees
In circling area and at AD	TREE	190515.4N 0725251.1E	90 FT	NO	Group of Trees
In circling area and at AD	TREE	190516.1N 0725250.3E	71 FT	NO	Group of Trees
In circling area and at AD	TREE	190525.4N 0725253.5E	97 FT	NO	NIL
In circling area and at AD	TREE	190525.5N 0725254.7E	96 FT	NO	NIL
In circling area and at AD	TREE	190528.5N 0725253.8E	101 FT	NO	NIL
In circling area and at AD	TREE	190529.2N 0725253.9E	111 FT	NO	NIL
In circling area and at AD	TOWER	190513.2N 0725253.8E	77 FT	NO	Tower Top

In circling area and at AD	OTHER	190456.7N 0725450.1E	213 FT	NO	Pylon Mast
In circling area and at AD	POLE	190516.0N 0725252.2E	54 FT	NO	Light Pole
In circling area and at AD	POLE	190515.3N 0725252.2E	54 FT	NO	Light Pole
In circling area and at AD	OTHER	190526.4N 0725258.6E	80 FT	NO	Hut
In circling area and at AD	TREE	190527.2N 0725256.7E	83 FT	NO	Group of Trees
In circling area and at AD	POLE	190514.6N 0725252.2E	55 FT	NO	Light Pole
In circling area and at AD	POLE	190514.0N 0725252.1E	65 FT	NO	Light Pole
In circling area and at AD	TREE	190515.1N 0725252.0E	83 FT	NO	NIL
In circling area and at AD	TREE	190515.2N 0725251.8E	73 FT	NO	NIL
In circling area and at AD	TREE	190515.6N 0725245.7E	56 FT	NO	Coconut
In circling area and at AD	TREE	190514.1N 0725246.5E	60 FT	NO	NIL
In circling area and at AD	TREE	190515.8N 0725248.1E	54 FT	NO	NIL
In circling area and at AD	TREE	190515.0N 0725248.6E	64 FT	NO	NIL
In circling area and at AD	TREE	190515.0N 0725252.1E	85 FT	NO	NIL
In circling area and at AD	TREE	190515.0N 0725252.6E	79 FT	NO	NIL

In circling area and at AD	TREE	190515.0N 0725243.1E	53 FT	NO	NIL
In circling area and at AD	TREE	190513.7N 0725248.6E	67 FT	NO	NIL
In circling area and at AD	BUILDING	190129.9N 0725028.3E	676 FT	NO	NIL
In circling area and at AD	BUILDING	190752.3N 0725233.4E	406 FT	NO	NIL
In circling area and at AD	OTHER	190229.9N 0725317.7E	418 FT	NO	Chimney
In circling area and at AD	OTHER	190650.7N 0725454.2E	453 FT	NO	HILL
In circling area and at AD	OTHER	190611.5N 0725427.4E	497 FT	NO	HILL
In circling area and at AD	CRANE	190552.4N 0725513.5E	349 FT	NO	NIL
In circling area and at AD	CRANE	190556.7N 0725507.8E	359 FT	NO	NIL
In circling area and at AD	ANTENNA	190539.4N 0725118.1E	330 FT	LGTD	Lightning Arrestor on ATC Tower
In circling area and at AD	POLE	190314.7N 0725257.6E	266 FT	NO	Pylon Light
In circling area and at AD	BUILDING	190538.4N 0725001.4E	206 FT	NO	NIL
In circling area and at AD	BUILDING	190703.4N 0725100.5E	201 FT	NO	NIL
In circling area and at AD	BUILDING	190653.9N 0725100.3E	211 FT	NO	NIL
In circling area and at AD	BUILDING	190655.6N 0725102.0E	218 FT	NO	NIL

In circling area and at AD	BUILDING	190655.6N 0725104.3E	219 FT	NO	NIL	
In circling area and at AD	BUILDING	190641.9N 0725123.2E	215 FT	NO	NIL	
In circling area and at AD	BUILDING	190812.1N 0725046.2E	283 FT	NO	NIL	
In circling area and at AD	BUILDING	190914.5N 0725119.8E	557 FT	NO	NIL	
In circling area and at AD	BUILDING	190914.3N 0725121.0E	558 FT	NO	NIL	
In circling area and at AD	BUILDING	190323.3N 0725052.2E	243 FT	NO	NIL	
In circling area and at AD	BUILDING	190325.4N 0725053.5E	243 FT	NO	NIL	
In circling area and at AD	BUILDING	190326.7N 0725055.9E	246 FT	NO	NIL	
In circling area and at AD	BUILDING	190815.9N 0725148.4E	258 FT	NO	NIL	
In circling area and at AD	BUILDING	190816.0N 0725158.7E	282 FT	NO	NIL	
In circling area and at AD	BUILDING	190821.0N 0725200.0E	307 FT	NO	NIL	
In circling area and at AD	BUILDING	190825.2N 0725156.0E	391 FT	NO	NIL	
In circling area and at AD	BUILDING	190825.0N 0725153.9E	400 FT	NO	NIL	
In circling area and at AD	BUILDING	190826.8N 0725148.3E	391 FT	NO	NIL	
In circling area and at AD	BUILDING	190605.3N 0725300.4E	226 FT	NO	NIL	

In circling area and at AD	BUILDING	190627.6N 0725300.1E	188 FT	NO	NIL	
In circling area and at AD	BUILDING	190615.7N 0725350.2E	309 FT	NO	NIL	
In circling area and at AD	BUILDING	190614.8N 0725352.1E	300 FT	NO	NIL	
In circling area and at AD	BUILDING	190618.8N 0725354.8E	301 FT	NO	NIL	
In circling area and at AD	BUILDING	190618.7N 0725353.3E	301 FT	NO	NIL	
In circling area and at AD	BUILDING	190618.5N 0725358.5E	266 FT	NO	NIL	
In circling area and at AD	BUILDING	190615.5N 0725358.2E	305 FT	NO	NIL	
In circling area and at AD	BUILDING	190613.9N 0725356.5E	291 FT	NO	NIL	
In circling area and at AD	BUILDING	190643.2N 0725133.2E	191 FT	NO	NIL	
In circling area and at AD	BUILDING	190645.6N 0725133.0E	193 FT	NO	NIL	
In circling area and at AD	BUILDING	190723.8N 0725343.7E	377 FT	NO	NIL	
In circling area and at AD	BUILDING	190724.9N 0725342.5E	376 FT	NO	NIL	
In circling area and at AD	BUILDING	190402.6N 0725211.3E	262 FT	NO	NIL	
In circling area and at AD	BUILDING	190401.2N 0725210.3E	263 FT	NO	NIL	
In circling area and at AD	BUILDING	190603.5N 0725244.7E	202 FT	NO	NIL	

In circling area and at AD	BUILDING	190715.8N 0725506.4E	576 FT	NO	NIL	
In circling area and at AD	BUILDING	190626.2N 0725456.1E	405 FT	NO	NIL	
In circling area and at AD	BUILDING	190320.9N 0725220.4E	253 FT	NO	NIL	
In circling area and at AD	OTHER	190626.3N 0725441.4E	272 FT	NO	Hill	
In circling area and at AD	BUILDING	190905.0N 0725026.8E	527 FT	NO	NIL	
In circling area and at AD	BUILDING	190042.4N 0724931.6E	742 FT	NO	NIL	
In circling area and at AD	BUILDING	190039.7N 0724924.8E	836 FT	NO	NIL	
In circling area and at AD	TOWER	190026.7N 0724912.6E	1018 FT	LGTD	Doordarshan Tower	
In circling area and at AD	BUILDING	191016.1N 0725150.5E	675 FT	NO	NIL	
In circling area and at AD	BUILDING	191015.2N 0725214.6E	713 FT	NO	NIL	
In circling area and at AD	OTHER	190047.4N 0725425.7E	529 FT	NO	Chimney	
32/TKOF 14/APCH	BUILDING	190613.8N 0725101.0E	98 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190602.1N 0725117.3E	60 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190615.9N 0725113.3E	97 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190642.1N 0725030.1E	183 FT	NO	NIL	

32/TKOF 14/APCH	BUILDING	190602.6N 0725114.2E	76 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190604.0N 0725114.5E	69 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190603.6N 0725110.8E	73 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190619.8N 0725052.7E	124 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190613.0N 0725051.9E	116 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190614.5N 0725111.3E	90 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190619.9N 0725105.3E	110 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190618.6N 0725056.1E	129 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190619.8N 0725054.6E	119 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190620.6N 0725058.3E	116 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190621.6N 0725058.2E	115 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190603.8N 0725108.2E	84 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190628.2N 0725059.1E	124 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190621.9N 0725100.3E	130 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190610.9N 0725058.4E	103 FT	NO	NIL	

32/TKOF 14/APCH	BUILDING	190612.2N 0725055.1E	120 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190620.1N 0725102.0E	118 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190616.5N 0725101.8E	107 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190617.2N 0725102.3E	104 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190600.1N 0725111.7E	74 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190601.0N 0725112.8E	73 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190558.8N 0725112.3E	87 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190609.2N 0725113.5E	90 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190615.2N 0725057.3E	113 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190615.7N 0725058.7E	109 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190715.0N 0725024.0E	258 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190711.4N 0725020.2E	195 FT	NO	NIL	
32/TKOF 14/APCH	ANTENNA	190700.2N 0725036.6E	202 FT	NO	Antenna on Building	
32/TKOF 14/APCH	TREE	190613.8N 0725114.3E	101 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190615.9N 0725112.1E	113 FT	NO	Coconut	

32/TKOF 14/APCH	TREE	190600.1N 0725114.6E	75 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190613.8N 0725107.7E	98 FT	NO	Group of Trees	
32/TKOF 14/APCH	TREE	190605.1N 0725121.1E	73 FT	NO	Group of Trees	
32/TKOF 14/APCH	TREE	190602.8N 0725119.6E	69 FT	NO	Group of Trees	
32/TKOF 14/APCH	TREE	190614.9N 0725101.7E	116 FT	NO	NIL	
32/TKOF 14/APCH	OTHER	190557.6N 0725115.6E	76 FT	LGTD	Mast on Fob	
32/TKOF 14/APCH	BUILDING	190608.9N 0725102.1E	101 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190612.0N 0725117.3E	85 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190610.2N 0725114.5E	81 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190600.0N 0725117.7E	59 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190610.8N 0725110.0E	86 FT	NO	NIL	
32/TKOF 14/APCH	OTHER	190613.6N 0725111.5E	98 FT	LGTD	Mast on Building	
32/TKOF 14/APCH	BUILDING	190623.2N 0725039.8E	157 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190615.1N 0725110.0E	92 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190617.2N 0725109.6E	95 FT	NO	NIL	

32/TKOF 14/APCH	BUILDING	190621.8N 0725057.3E	122 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190620.8N 0725059.4E	118 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190623.4N 0725057.7E	122 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190605.5N 0725105.5E	86 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190611.7N 0725105.4E	94 FT	NO	NIL	
32/TKOF 14/APCH	ANTENNA	190627.3N 0725100.0E	127 FT	NO	Antenna on Building	
32/TKOF 14/APCH	BUILDING	190624.8N 0725100.6E	117 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190629.0N 0725102.2E	123 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190612.6N 0725058.6E	108 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190612.9N 0725100.2E	106 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190613.4N 0725102.5E	103 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190623.3N 0725102.8E	117 FT	NO	NIL	
32/TKOF 14/APCH	ANTENNA	190620.5N 0725104.3E	124 FT	NO	Antenna on Building	
32/TKOF 14/APCH	BUILDING	190618.5N 0725104.6E	111 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190656.1N 0725008.5E	192 FT	NO	NIL	

32/TKOF 14/APCH	BUILDING	190702.5N 0724943.9E	242 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190717.0N 0724948.7E	195 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190716.3N 0724950.3E	198 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190623.1N 0725107.8E	111 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190603.2N 0725124.1E	62 FT	NO	Pucca House	
32/TKOF 14/APCH	BUILDING	190600.9N 0725126.8E	64 FT	NO	Pucca House	
32/TKOF 14/APCH	OTHER	190552.8N 0725120.9E	54 FT	NO	Hut	
32/TKOF 14/APCH	OTHER	190554.4N 0725118.9E	52 FT	NO	Hut	
32/TKOF 14/APCH	OTHER	190557.5N 0725117.9E	55 FT	NO	Hut	
32/TKOF 14/APCH	BUILDING	190732.0N 0724955.9E	197 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190731.3N 0724955.2E	198 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190814.5N 0724937.4E	417 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190750.5N 0724939.5E	354 FT	NO	NIL	
32/TKOF 14/APCH	OTHER	190618.6N 0725112.5E	121 FT	NO	Hoarding	
32/TKOF 14/APCH	OTHER	190605.5N 0725116.6E	70 FT	NO	Hoarding	

32/TKOF 14/APCH	POLE	190611.2N 0725115.5E	82 FT	NO	Light Pole
32/TKOF 14/APCH	OTHER	190603.3N 0725121.5E	59 FT	NO	Security Hut
32/TKOF 14/APCH	FENCE	190601.8N 0725124.8E	54 FT	NO	Airport Boundary Wall Fencing on Top
32/TKOF 14/APCH	TREE	190602.4N 0725115.2E	95 FT	NO	NIL
32/TKOF 14/APCH	TREE	190600.9N 0725115.1E	113 FT	NO	NIL
32/TKOF 14/APCH	TREE	190558.3N 0725116.1E	60 FT	NO	NIL
32/TKOF 14/APCH	TREE	190559.1N 0725112.5E	107 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190604.8N 0725111.6E	91 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190608.6N 0725111.7E	84 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190606.8N 0725110.4E	86 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190610.2N 0725111.5E	100 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190618.1N 0725110.9E	115 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190618.2N 0725106.2E	107 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190616.7N 0725107.8E	119 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190614.6N 0725107.7E	114 FT	NO	Coconut

32/TKOF 14/APCH	TREE	190610.2N 0725107.6E	97 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190606.1N 0725107.9E	81 FT	NO	Group of Trees	
32/TKOF 14/APCH	TREE	190604.4N 0725107.8E	116 FT	NO	Coconut	
32/TKOF 14/APCH	TREE	190606.7N 0725102.2E	102 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190608.3N 0725103.1E	94 FT	NO	Coconut	
32/TKOF 14/APCH	TREE	190610.3N 0725105.3E	103 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190607.6N 0725059.4E	100 FT	NO	Coconut	
32/TKOF 14/APCH	TREE	190614.7N 0725102.6E	104 FT	NO	Coconut	
32/TKOF 14/APCH	TREE	190612.9N 0725106.4E	101 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190605.8N 0725122.0E	71 FT	NO	Group of Trees	
32/TKOF 14/APCH	TREE	190604.7N 0725120.0E	67 FT	NO	Group of Trees	
32/TKOF 14/APCH	TREE	190604.6N 0725118.1E	69 FT	NO	Group of Trees	
32/TKOF 14/APCH	TREE	190616.1N 0725100.7E	115 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190616.7N 0725103.3E	109 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190601.6N 0725113.6E	109 FT	NO	Coconut	

32/TKOF 14/APCH	TREE	190603.7N 0725122.4E	70 FT	NO	NIL
32/TKOF 14/APCH	TREE	190601.8N 0725125.2E	80 FT	NO	NIL
32/TKOF 14/APCH	TREE	190553.4N 0725121.4E	84 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190554.6N 0725119.8E	78 FT	NO	NIL
32/TKOF 14/APCH	TREE	190555.6N 0725117.5E	67 FT	NO	NIL
32/TKOF 14/APCH	OTHER	190558.5N 0725121.7E	49 FT	NO	Approach Light
32/TKOF 14/APCH	OTHER	190559.9N 0725120.2E	55 FT	NO	Approach Light
32/TKOF 14/APCH	OTHER	190601.2N 0725118.8E	62 FT	NO	Approach Light
32/TKOF 14/APCH	NAVAID	190555.1N 0725119.5E	56 FT	NO	ASMGCS MLAT -S04 Antenna
32/TKOF 14/APCH	OTHER	190556.5N 0725123.9E	41 FT	NO	Approach Light
32/TKOF 14/APCH	FENCE	190600.6N 0725126.2E	53 FT	NO	Airport Boundary Wall Fencing on Top
32/TKOF 14/APCH	OTHER	190557.5N 0725115.6E	69 FT	NO	Pedestrian Overbridge Top
32/TKOF 14/APCH	SIGN	190605.5N 0725116.5E	69 FT	NO	Sign Board
32/TKOF 14/APCH	BUILDING	190600.2N 0725111.0E	69 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190600.7N 0725111.0E	69 FT	NO	NIL

32/TKOF 14/APCH	BUILDING	190609.7N 0725111.9E	84 FT	NO	NIL
32/TKOF 14/APCH	ANTENNA	190623.5N 0725040.6E	143 FT	NO	Antenna on Building
32/TKOF 14/APCH	BUILDING	190618.0N 0725055.8E	118 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190612.8N 0725111.4E	86 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190616.2N 0725110.0E	92 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190615.7N 0725110.0E	92 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190616.0N 0725109.5E	92 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190616.3N 0725107.1E	96 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190623.2N 0725101.7E	113 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190610.5N 0725057.7E	103 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190618.2N 0725104.5E	108 FT	NO	NIL
32/TKOF 14/APCH	ANTENNA	190620.1N 0725104.1E	120 FT	NO	Antenna on Building
32/TKOF 14/APCH	BUILDING	190623.0N 0725103.6E	114 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190620.8N 0725105.2E	108 FT	NO	NIL
32/TKOF 14/APCH	OTHER	190606.2N 0725122.5E	64 FT	NO	Pucca House

32/TKOF 14/APCH	OTHER	190604.4N 0725121.1E	63 FT	NO	Pucca House
32/TKOF 14/APCH	BUILDING	190601.8N 0725124.8E	55 FT	NO	NIL
32/TKOF 14/APCH	BUILDING	190601.6N 0725125.8E	61 FT	NO	Pucca House
32/TKOF 14/APCH	BUILDING	190601.3N 0725125.9E	60 FT	NO	Pucca House
32/TKOF 14/APCH	BUILDING	190601.1N 0725126.2E	60 FT	NO	Pucca House
32/TKOF 14/APCH	OTHER	190553.1N 0725120.8E	51 FT	NO	Hut
32/TKOF 14/APCH	OTHER	190555.1N 0725117.9E	53 FT	NO	Hut
32/TKOF 14/APCH	OTHER	190558.8N 0725118.7E	56 FT	NO	Hut
32/TKOF 14/APCH	BUILDING	190615.9N 0725102.1E	106 FT	NO	NIL
32/TKOF 14/APCH	OTHER	190614.9N 0725113.6E	85 FT	NO	Hoarding
32/TKOF 14/APCH	POLE	190612.1N 0725115.3E	85 FT	NO	Light Pole
32/TKOF 14/APCH	POLE	190613.0N 0725115.1E	84 FT	NO	Light Pole
32/TKOF 14/APCH	POLE	190613.8N 0725114.9E	85 FT	NO	Light Pole
32/TKOF 14/APCH	POLE	190614.6N 0725114.7E	83 FT	NO	Light Pole
32/TKOF 14/APCH	POLE	190615.6N 0725114.5E	85 FT	NO	Light Pole

32/TKOF 14/APCH	POLE	190557.8N 0725115.7E	68 FT	NO	Light Pole
32/TKOF 14/APCH	POLE	190558.7N 0725115.3E	64 FT	NO	Light Pole
32/TKOF 14/APCH	POLE	190559.3N 0725115.5E	63 FT	NO	Light Pole
32/TKOF 14/APCH	ANTENNA	190648.3N 0725048.0E	194 FT	NO	Dish Antenna
32/TKOF 14/APCH	TREE	190614.5N 0725113.7E	91 FT	NO	NIL
32/TKOF 14/APCH	TREE	190615.8N 0725112.4E	109 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190616.6N 0725112.8E	103 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190616.8N 0725113.0E	94 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190603.6N 0725116.0E	83 FT	NO	NIL
32/TKOF 14/APCH	TREE	190602.2N 0725115.6E	98 FT	NO	NIL
32/TKOF 14/APCH	TREE	190601.6N 0725113.6E	106 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190559.1N 0725116.6E	62 FT	NO	NIL
32/TKOF 14/APCH	TREE	190559.0N 0725116.2E	62 FT	NO	NIL
32/TKOF 14/APCH	TREE	190558.3N 0725113.7E	75 FT	NO	NIL
32/TKOF 14/APCH	TREE	190559.2N 0725113.3E	96 FT	NO	Group of Trees

32/TKOF 14/APCH	TREE	190601.0N 0725110.9E	106 FT	NO	Coconut Tree
32/TKOF 14/APCH	TREE	190600.7N 0725111.3E	69 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190602.3N 0725111.6E	98 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190606.0N 0725111.6E	86 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190609.4N 0725111.1E	93 FT	NO	NIL
32/TKOF 14/APCH	TREE	190614.3N 0725108.9E	103 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190616.3N 0725109.8E	102 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190616.8N 0725111.2E	98 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190617.5N 0725112.1E	92 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190615.6N 0725057.4E	117 FT	NO	NIL
32/TKOF 14/APCH	TREE	190614.6N 0725107.3E	113 FT	NO	NIL
32/TKOF 14/APCH	TREE	190616.9N 0725107.7E	111 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190616.6N 0725107.4E	105 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190609.3N 0725107.5E	94 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190607.8N 0725108.6E	92 FT	NO	Coconut

32/TKOF 14/APCH	TREE	190604.9N 0725107.4E	97 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190606.9N 0725104.2E	100 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190608.0N 0725102.8E	91 FT	NO	NIL
32/TKOF 14/APCH	TREE	190607.0N 0725102.8E	102 FT	NO	NIL
32/TKOF 14/APCH	TREE	190607.3N 0725102.5E	95 FT	NO	NIL
32/TKOF 14/APCH	TREE	190609.4N 0725104.5E	95 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190610.0N 0725104.8E	99 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190606.7N 0725100.9E	96 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190624.9N 0725100.5E	125 FT	NO	NIL
32/TKOF 14/APCH	TREE	190610.2N 0725058.5E	108 FT	NO	NIL
32/TKOF 14/APCH	TREE	190616.3N 0725102.0E	120 FT	NO	Coconut
32/TKOF 14/APCH	TREE	190613.8N 0725104.6E	105 FT	NO	Group of Trees
32/TKOF 14/APCH	TREE	190624.7N 0725102.9E	114 FT	NO	NIL
32/TKOF 14/APCH	TREE	190621.8N 0725104.0E	114 FT	NO	NIL
32/TKOF 14/APCH	TREE	190605.8N 0725122.0E	79 FT	NO	Group of Trees

32/TKOF 14/APCH	TREE	190616.8N 0725057.3E	112 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190615.6N 0725102.0E	104 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190616.1N 0725101.0E	106 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190601.0N 0725114.7E	88 FT	NO	Coconut	
32/TKOF 14/APCH	TREE	190603.1N 0725123.1E	76 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190603.0N 0725123.3E	67 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190603.0N 0725124.0E	87 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190602.5N 0725125.2E	69 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190602.3N 0725125.1E	75 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190602.1N 0725125.2E	78 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190553.6N 0725121.1E	71 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190553.4N 0725121.1E	69 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190553.7N 0725120.7E	83 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190553.1N 0725120.6E	70 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190554.7N 0725119.5E	67 FT	NO	NIL	

32/TKOF 14/APCH	TREE	190555.2N 0725118.9E	74 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190555.3N 0725118.7E	74 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190556.3N 0725118.1E	67 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190557.4N 0725118.4E	63 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190646.0N 0725032.7E	191 FT	NO	NIL	
32/TKOF 14/APCH	ANTENNA	190610.2N 0725112.8E	98 FT	NO	Antenna on Building	
32/TKOF 14/APCH	BUILDING	190619.8N 0725108.6E	109 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190627.3N 0725058.8E	124 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190603.1N 0725107.7E	81 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190615.8N 0725059.7E	105 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190611.6N 0725058.7E	107 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190558.6N 0725113.0E	92 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190603.7N 0725122.9E	57 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190603.3N 0725124.0E	61 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190600.7N 0725126.6E	62 FT	NO	NIL	

32/TKOF 14/APCH	BUILDING	190604.2N 0725121.2E	61 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190605.1N 0725121.9E	64 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190600.3N 0725127.0E	62 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190600.0N 0725127.2E	62 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190604.1N 0725122.8E	58 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190603.6N 0725123.1E	58 FT	NO	NIL	
32/TKOF 14/APCH	BUILDING	190603.3N 0725123.4E	60 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190601.7N 0725115.5E	86 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190558.8N 0725114.2E	86 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190602.9N 0725113.5E	99 FT	NO	Coconut	
32/TKOF 14/APCH	TREE	190601.7N 0725112.6E	115 FT	NO	Coconut	
32/TKOF 14/APCH	TREE	190559.3N 0725119.3E	57 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190559.0N 0725119.2E	55 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190555.2N 0725118.5E	73 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190555.0N 0725119.0E	68 FT	NO	NIL	

32/TKOF 14/APCH	TREE	190554.8N 0725119.3E	60 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190554.1N 0725120.2E	68 FT	NO	NIL	
32/TKOF 14/APCH	TREE	190612.2N 0725102.3E	109 FT	NO	Coconut	
32/APCH 14/TKOF	BUILDING	190438.1N 0725244.6E	72 FT	NO	NIL	
32/APCH 14/TKOF	OTHER	190149.2N 0725503.7E	1074 FT	LGTD	Communication Mast	
32/APCH 14/TKOF	OTHER	190149.9N 0725503.6E	1058 FT	LGTD	Communication Mast	
32/APCH 14/TKOF	OTHER	190150.4N 0725503.3E	1046 FT	LGTD	Communication Mast	
32/APCH 14/TKOF	OTHER	190150.7N 0725502.8E	1042 FT	LGTD	Communication Mast	
32/APCH 14/TKOF	OTHER	190150.2N 0725502.6E	1054 FT	LGTD	Communication Mast - Vhf Link	
32/APCH 14/TKOF	OTHER	190149.4N 0725502.4E	1054 FT	LGTD	Communication Mast	
32/APCH 14/TKOF	OTHER	190148.1N 0725500.2E	1022 FT	LGTD	Passive Reflector Mast	
32/APCH 14/TKOF	OTHER	190146.3N 0725503.3E	1035 FT	LGTD	Communication Mast	
32/APCH 14/TKOF	OTHER	190144.8N 0725503.0E	1062 FT	LGTD	Communication Mast	
32/APCH 14/TKOF	OTHER	190144.3N 0725503.5E	1067 FT	LGTD	Communication Mast	
32/APCH 14/TKOF	OTHER	190145.5N 0725503.7E	1074 FT	LGTD	Communication Mast	

32/APCH 14/TKOF	OTHER	190145.4N 0725503.4E	1073 FT	LGTD	Communication Mast
32/APCH 14/TKOF	BUILDING	190439.7N 0725248.0E	64 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190438.3N 0725244.5E	70 FT	NO	NIL
32/APCH 14/TKOF	POLE	190426.0N 0725253.8E	88 FT	NO	Pylon Light
32/APCH 14/TKOF	POLE	190428.6N 0725256.7E	96 FT	NO	Pylon Light
32/APCH 14/TKOF	POLE	190431.3N 0725301.3E	108 FT	NO	Pylon Light
32/APCH 14/TKOF	POLE	190433.9N 0725305.9E	90 FT	NO	Pylon Light
32/APCH 14/TKOF	POLE	190342.0N 0725331.1E	208 FT	NO	Pylon Light
32/APCH 14/TKOF	POLE	190348.3N 0725338.3E	208 FT	NO	Pylon Light
32/APCH 14/TKOF	POLE	190354.9N 0725347.7E	226 FT	NO	Pylon Light
32/APCH 14/TKOF	POLE	190355.2N 0725353.7E	230 FT	NO	Pylon Light
32/APCH 14/TKOF	BUILDING	190433.0N 0725255.5E	76 FT	NO	NIL
32/APCH 14/TKOF	ANTENNA	190444.5N 0725251.7E	81 FT	NO	Antenna Top on Building
32/APCH 14/TKOF	POLE	190441.9N 0725237.8E	41 FT	NO	Light Pole
32/APCH 14/TKOF	ANTENNA	190442.3N 0725249.3E	75 FT	NO	Antenna Top on Building

32/APCH 14/TKOF	BUILDING	190436.0N 0725243.5E	67 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190323.1N 0725405.3E	212 FT	NO	NIL	
32/APCH 14/TKOF	OTHER	190447.1N 0725247.7E	63 FT	NO	Chimney Top on Building	
32/APCH 14/TKOF	BUILDING	190442.2N 0725253.6E	68 FT	NO	Mosque	
32/APCH 14/TKOF	BUILDING	190438.0N 0725251.3E	66 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190434.3N 0725247.7E	86 FT	NO	Mosque	
32/APCH 14/TKOF	BUILDING	190439.9N 0725253.6E	67 FT	NO	Mosque	
32/APCH 14/TKOF	OTHER	190438.7N 0725255.6E	94 FT	LGTD	Cellphone Mast on Building	
32/APCH 14/TKOF	OTHER	190430.4N 0725253.0E	102 FT	LGTD	Cellphone Mast on Building	
32/APCH 14/TKOF	OTHER	190435.1N 0725257.0E	86 FT	LGTD	Cellphone Mast on Building	
32/APCH 14/TKOF	BUILDING	190436.4N 0725301.0E	98 FT	NO	NIL	
32/APCH 14/TKOF	OTHER	190430.0N 0725311.8E	107 FT	LGTD	Cellphone Mast on Building	
32/APCH 14/TKOF	OTHER	190414.6N 0725305.6E	115 FT	LGTD	Cellphone Mast on Building	
32/APCH 14/TKOF	BUILDING	190318.8N 0725349.1E	207 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190322.6N 0725354.6E	205 FT	NO	NIL	

32/APCH 14/TKOF	BUILDING	190316.9N 0725354.0E	212 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190342.7N 0725336.6E	194 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190442.2N 0725247.2E	64 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190429.3N 0725248.2E	75 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190435.0N 0725245.7E	71 FT	NO	NIL	
32/APCH 14/TKOF	OTHER	190444.0N 0725252.7E	81 FT	LGTD	Cellphone Mast on Building	
32/APCH 14/TKOF	OTHER	190437.7N 0725256.4E	92 FT	LGTD	Cellphone Mast on Building	
32/APCH 14/TKOF	BUILDING	190340.1N 0725337.8E	195 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190441.5N 0725249.8E	76 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190443.8N 0725235.4E	46 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190436.9N 0725301.8E	110 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190417.5N 0725302.1E	106 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190427.8N 0725258.8E	90 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190427.2N 0725300.3E	94 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190307.0N 0725409.0E	232 FT	NO	NIL	

32/APCH 14/TKOF	BUILDING	190318.0N 0725349.1E	193 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190327.4N 0725359.1E	196 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190327.8N 0725407.9E	211 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190307.0N 0725357.0E	275 FT	NO	NIL
32/APCH 14/TKOF	OTHER	190314.3N 0725403.8E	224 FT	NO	Hoarding on Building
32/APCH 14/TKOF	BUILDING	190314.0N 0725406.8E	196 FT	NO	NIL
32/APCH 14/TKOF	POLE	190358.8N 0725354.0E	211 FT	NO	Pylon Light
32/APCH 14/TKOF	POLE	190337.3N 0725427.0E	194 FT	NO	Pylon Light
32/APCH 14/TKOF	TREE	190439.8N 0725244.9E	82 FT	NO	Coconut
32/APCH 14/TKOF	TREE	190436.5N 0725245.8E	72 FT	NO	Group of Trees Coconut
32/APCH 14/TKOF	TREE	190437.2N 0725247.6E	73 FT	NO	Group of Trees Coconut
32/APCH 14/TKOF	TREE	190438.2N 0725249.4E	73 FT	NO	Coconut
32/APCH 14/TKOF	BUILDING	190442.1N 0725240.9E	62 FT	NO	NIL
32/APCH 14/TKOF	OTHER	190444.7N 0725241.9E	43 FT	NO	Approach Light
32/APCH 14/TKOF	SIGN	190446.4N 0725236.8E	31 FT	NO	Sign Board

32/APCH 14/TKOF	POLE	190446.5N 0725236.1E	30 FT	NO	Light Pole
32/APCH 14/TKOF	OTHER	190448.1N 0725238.2E	29 FT	NO	Approach Light
32/APCH 14/TKOF	NAVAID	190445.8N 0725239.9E	32 FT	NO	LOC 14
32/APCH 14/TKOF	NAVAID	190445.4N 0725237.9E	42 FT	NO	LOC Building
32/APCH 14/TKOF	OTHER	190442.7N 0725247.7E	52 FT	NO	Chimney on Building
32/APCH 14/TKOF	ANTENNA	190439.5N 0725244.5E	68 FT	NO	Antenna on Building
32/APCH 14/TKOF	BUILDING	190434.4N 0725246.4E	70 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190435.5N 0725246.3E	67 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190435.4N 0725247.1E	66 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190439.0N 0725247.1E	58 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190439.0N 0725249.7E	70 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190439.5N 0725249.5E	66 FT	NO	NIL
32/APCH 14/TKOF	OTHER	190442.2N 0725248.2E	61 FT	NO	Hoarding on Building
32/APCH 14/TKOF	BUILDING	190435.5N 0725300.8E	86 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190314.9N 0725404.8E	194 FT	NO	NIL

32/APCH 14/TKOF	POLE	190441.6N 0725239.4E	44 FT	NO	Light Pole
32/APCH 14/TKOF	POLE	190441.3N 0725239.0E	42 FT	NO	Light Pole
32/APCH 14/TKOF	POLE	190441.6N 0725238.5E	47 FT	NO	Light Pole
32/APCH 14/TKOF	POLE	190442.4N 0725236.9E	47 FT	NO	Light Pole
32/APCH 14/TKOF	POLE	190442.9N 0725236.0E	51 FT	NO	Light Pole
32/APCH 14/TKOF	POLE	190442.2N 0725237.6E	50 FT	NO	Light Pole
32/APCH 14/TKOF	POLE	190426.2N 0725252.8E	85 FT	NO	Pylon Light
32/APCH 14/TKOF	ANTENNA	190433.1N 0725252.7E	85 FT	NO	Antenna on Building
32/APCH 14/TKOF	TREE	190445.9N 0725247.2E	61 FT	NO	Group of Trees
32/APCH 14/TKOF	TREE	190444.9N 0725247.0E	56 FT	NO	NIL
32/APCH 14/TKOF	TREE	190439.9N 0725244.6E	70 FT	NO	Coconut
32/APCH 14/TKOF	TREE	190436.2N 0725247.4E	70 FT	NO	Group of Trees (Coconut)
32/APCH 14/TKOF	TREE	190441.2N 0725245.4E	52 FT	NO	NIL
32/APCH 14/TKOF	TREE	190441.8N 0725246.0E	53 FT	NO	NIL
32/APCH 14/TKOF	BUILDING	190315.9N 0725359.3E	224 FT	NO	NIL

32/APCH 14/TKOF	BUILDING	190323.1N 0725413.2E	201 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190321.6N 0725413.4E	218 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190314.7N 0725406.3E	197 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190323.5N 0725411.2E	195 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190315.6N 0725400.7E	206 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190337.3N 0725414.4E	193 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190333.6N 0725413.3E	193 FT	NO	NIL	
32/APCH 14/TKOF	BUILDING	190434.8N 0725258.6E	77 FT	NO	NIL	
In circling area and at AD	BUILDING	190550.9N 0725120.0E	74 FT	NO	NIL	
In circling area and at AD	BUILDING	190551.5N 0725122.5E	52 FT	NO	NIL	
In circling area and at AD	BUILDING	190627.5N 0725107.9E	150 FT	NO	NIL	
In circling area and at AD	BUILDING	190635.3N 0725101.6E	159 FT	NO	NIL	
In circling area and at AD	BUILDING	190650.2N 0725048.6E	214 FT	NO	NIL	
In circling area and at AD	BUILDING	190551.6N 0725116.6E	106 FT	NO	NIL	
In circling area and at AD	BUILDING	190552.7N 0725116.8E	97 FT	NO	NIL	

In circling area and at AD	BUILDING	190548.0N 0725117.6E	126 FT	NO	NIL
In circling area and at AD	BUILDING	190548.9N 0725118.8E	129 FT	NO	NIL
In circling area and at AD	BUILDING	190625.5N 0725110.4E	149 FT	NO	NIL
In circling area and at AD	OTHER	190618.0N 0725115.3E	111 FT	NO	Hoarding
In circling area and at AD	OTHER	190614.9N 0725116.1E	107 FT	NO	Hoarding
In circling area and at AD	TREE	190609.1N 0725125.4E	121 FT	NO	Group of Trees
In circling area and at AD	ANTENNA	190614.6N 0725047.2E	124 FT	NO	Antenna on Building
In circling area and at AD	BUILDING	190630.2N 0725104.0E	131 FT	NO	NIL
In circling area and at AD	ANTENNA	190628.3N 0725105.4E	141 FT	NO	Antenna on Building
In circling area and at AD	BUILDING	190626.2N 0725106.6E	117 FT	NO	NIL
In circling area and at AD	BUILDING	190603.0N 0725125.7E	68 FT	NO	Pucca House
In circling area and at AD	BUILDING	190549.3N 0725119.2E	146 FT	NO	NIL
In circling area and at AD	OTHER	190620.0N 0725112.5E	126 FT	NO	Hoarding
In circling area and at AD	BUILDING	190631.5N 0725104.4E	175 FT	NO	NIL
In circling area and at AD	POLE	190608.8N 0725120.8E	70 FT	NO	Light Pole

In circling area and at AD	FENCE	190559.1N 0725128.9E	55 FT	NO	Airport Boundary Wall Fencing on Top
In circling area and at AD	POLE	190542.5N 0725133.6E	46 FT	NO	Light Pole
In circling area and at AD	BUILDING	190544.8N 0725130.1E	59 FT	LGTD	Airside Building
In circling area and at AD	POLE	190539.6N 0725130.2E	125 FT	NO	Flood Light
In circling area and at AD	POLE	190553.0N 0725122.6E	46 FT	NO	Light Pole
In circling area and at AD	TREE	190606.3N 0725125.5E	99 FT	NO	Group of Trees
In circling area and at AD	TREE	190543.5N 0725131.7E	66 FT	NO	NIL
In circling area and at AD	TREE	190544.3N 0725129.0E	78 FT	NO	NIL
In circling area and at AD	TREE	190546.3N 0725126.9E	74 FT	NO	NIL
In circling area and at AD	TREE	190545.6N 0725125.8E	99 FT	NO	NIL
In circling area and at AD	TREE	190548.1N 0725123.4E	86 FT	NO	NIL
In circling area and at AD	TREE	190552.3N 0725122.5E	88 FT	NO	NIL
In circling area and at AD	TREE	190550.9N 0725123.4E	72 FT	NO	NIL
In circling area and at AD	BUILDING	190703.4N 0725100.5E	201 FT	NO	NIL
In circling area and at AD	BUILDING	190653.9N 0725100.3E	211 FT	NO	NIL

In circling area and at AD	BUILDING	190653.3N 0725102.0E	219 FT	NO	NIL
In circling area and at AD	BUILDING	190655.6N 0725104.3E	219 FT	NO	NIL
In circling area and at AD	BUILDING	190641.9N 0725123.2E	215 FT	NO	NIL
In circling area and at AD	BUILDING	190543.5N 0725130.9E	56 FT	LGTD	NIL
In circling area and at AD	BUILDING	190547.8N 0725145.8E	123 FT	LGTD	NIL
In circling area and at AD	BUILDING	190548.7N 0725146.9E	154 FT	LGTD	NIL
In circling area and at AD	BUILDING	190547.8N 0725146.5E	123 FT	LGTD	NIL
In circling area and at AD	OTHER	190548.7N 0725126.0E	58 FT	LGTD	Shed
In circling area and at AD	OTHER	190550.1N 0725124.8E	60 FT	LGTD	Line Maintenance Shed
In circling area and at AD	OTHER	190555.1N 0725140.6E	119 FT	LGTD	Air India Hangar No 1
In circling area and at AD	POLE	190539.6N 0725150.0E	44 FT	NO	Light Pole
In circling area and at AD	SIGN	190545.4N 0725133.8E	41 FT	NO	Taxiway K Sign Board
In circling area and at AD	SIGN	190558.0N 0725129.3E	42 FT	NO	Min. Trust Sign Board
In circling area and at AD	SIGN	190548.9N 0725138.6E	40 FT	NO	E10-E7 Sign Board
In circling area and at AD	OTHER	190536.8N 0725147.2E	36 FT	NO	PAPI - RWY 14

In circling area and at AD	SIGN	190538.4N 0725145.9E	38 FT	NO	E8 Sign Board
In circling area and at AD	SIGN	190537.3N 0725142.6E	39 FT	NO	W6 Sign Board
In circling area and at AD	SIGN	190546.2N 0725140.3E	40 FT	NO	E7-E1 Sign Board
In circling area and at AD	POLE	190537.4N 0725129.9E	135 FT	NO	Flood Light
In circling area and at AD	OTHER	190553.7N 0725133.0E	63 FT	LGTD	Wind Sock (RWY 14 Side)
In circling area and at AD	NAVAID	190540.7N 0725147.1E	91 FT	LGTD	GP Antenna
In circling area and at AD	NAVAID	190542.4N 0725145.2E	61 FT	LGTD	GP Antenna NF
In circling area and at AD	NAVAID	190540.7N 0725147.3E	52 FT	LGTD	GP DME Antenna
In circling area and at AD	OTHER	190550.2N 0725123.0E	52 FT	NO	Shed
In circling area and at AD	BUILDING	190550.2N 0725122.7E	52 FT	NO	NIL
In circling area and at AD	BUILDING	190550.6N 0725122.9E	55 FT	NO	NIL
In circling area and at AD	BUILDING	190551.6N 0725123.3E	53 FT	NO	NIL
In circling area and at AD	BUILDING	190550.5N 0725123.4E	48 FT	NO	NIL
In circling area and at AD	BUILDING	190551.7N 0725122.2E	56 FT	NO	NIL
In circling area and at AD	BUILDING	190552.1N 0725122.1E	53 FT	NO	NIL

In circling area and at AD	BUILDING	190606.0N 0725123.1E	65 FT	NO	Pucca House
In circling area and at AD	BUILDING	190602.9N 0725126.4E	65 FT	NO	Pucca House
In circling area and at AD	BUILDING	190602.6N 0725126.0E	60 FT	NO	Pucca House
In circling area and at AD	OTHER	190550.6N 0725124.1E	48 FT	NO	Hut
In circling area and at AD	OTHER	190551.0N 0725124.0E	48 FT	NO	Hut
In circling area and at AD	OTHER	190551.3N 0725123.6E	48 FT	NO	Hut
In circling area and at AD	OTHER	190551.5N 0725123.5E	47 FT	NO	Hut
In circling area and at AD	OTHER	190551.6N 0725123.4E	50 FT	NO	Hut
In circling area and at AD	OTHER	190551.7N 0725123.2E	49 FT	NO	Hut
In circling area and at AD	BUILDING	190553.5N 0725115.8E	85 FT	NO	NIL
In circling area and at AD	BUILDING	190553.2N 0725116.8E	84 FT	NO	NIL
In circling area and at AD	POLE	190551.8N 0725122.6E	54 FT	NO	Light Pole
In circling area and at AD	POLE	190607.3N 0725122.8E	72 FT	NO	Light Pole
In circling area and at AD	ANTENNA	190648.9N 0725050.3E	196 FT	NO	NIL
In circling area and at AD	TREE	190615.4N 0725116.4E	100 FT	NO	NIL

In circling area and at AD	TREE	190553.0N 0725118.8E	85 FT	NO	NIL
In circling area and at AD	TREE	190606.9N 0725122.5E	71 FT	NO	Group of Trees
In circling area and at AD	TREE	190542.1N 0725131.3E	58 FT	NO	NIL
In circling area and at AD	TREE	190542.5N 0725131.1E	63 FT	NO	NIL
In circling area and at AD	TREE	190543.7N 0725131.6E	62 FT	NO	NIL
In circling area and at AD	TREE	190544.0N 0725131.6E	51 FT	NO	NIL
In circling area and at AD	TREE	190543.6N 0725129.9E	71 FT	NO	NIL
In circling area and at AD	TREE	190543.9N 0725129.8E	72 FT	NO	NIL
In circling area and at AD	TREE	190544.1N 0725129.4E	72 FT	NO	NIL
In circling area and at AD	TREE	190546.0N 0725127.3E	72 FT	NO	NIL
In circling area and at AD	TREE	190550.2N 0725122.4E	76 FT	NO	NIL
In circling area and at AD	ANTENNA	190631.5N 0725103.9E	176 FT	NO	NIL
In circling area and at AD	ANTENNA	190631.5N 0725106.7E	177 FT	NO	Mobile Antenna
In circling area and at AD	ANTENNA	190626.1N 0725109.3E	152 FT	NO	Antenna on Building
In circling area and at AD	TANK	190603.7N 0725127.1E	84 FT	NO	NIL

In circling area and at AD	BUILDING	190436.2N 0725407.0E	197 FT	NO	NIL
In circling area and at AD	BUILDING	190447.1N 0725248.5E	54 FT	NO	NIL
In circling area and at AD	OTHER	190432.5N 0725404.3E	229 FT	NO	Mast on Building
In circling area and at AD	OTHER	190427.3N 0725247.6E	112 FT	NO	Pylon Light
In circling area and at AD	ANTENNA	190441.1N 0725259.6E	119 FT	NO	Antenna Top of Building
In circling area and at AD	ANTENNA	190442.9N 0725235.1E	61 FT	NO	Antenna Top on Building
In circling area and at AD	ANTENNA	190450.7N 0725247.3E	74 FT	NO	Antenna Top of Building
In circling area and at AD	BUILDING	190447.5N 0725250.5E	79 FT	NO	NIL
In circling area and at AD	TREE	190445.9N 0725252.3E	72 FT	NO	Coconut
In circling area and at AD	POLE	190315.0N 0725258.4E	267 FT	NO	Pylon Light
In circling area and at AD	BUILDING	190438.7N 0725309.2E	156 FT	NO	NIL
In circling area and at AD	BUILDING	190431.6N 0725315.2E	147 FT	NO	NIL
In circling area and at AD	OTHER	190403.7N 0725356.3E	205 FT	NO	Hoarding on Building
In circling area and at AD	BUILDING	190436.6N 0725310.8E	149 FT	NO	NIL
In circling area and at AD	OTHER	190431.2N 0725244.6E	89 FT	LGTD	Cellphone Mast on Building

In circling area and at AD	BUILDING	190319.2N 0725327.4E	198 FT	NO	NIL
In circling area and at AD	BUILDING	190319.5N 0725322.9E	196 FT	NO	NIL
In circling area and at AD	POLE	190401.7N 0725357.4E	193 FT	NO	Pylon Light
In circling area and at AD	POLE	190335.8N 0725324.0E	234 FT	NO	Pylon Light
In circling area and at AD	POLE	190335.3N 0725322.4E	208 FT	NO	Pylon Light
In circling area and at AD	BUILDING	190401.2N 0725210.3E	263 FT	NO	NIL
In circling area and at AD	BUILDING	190320.9N 0725220.4E	253 FT	NO	NIL
In circling area and at AD	OTHER	190229.9N 0725317.7E	418 FT	NO	Chimney
In circling area and at AD	SIGN	190503.8N 0725223.3E	24 FT	NO	E-3 Sign Board
In circling area and at AD	SIGN	190454.4N 0725233.5E	28 FT	NO	E-1 Sign Board
In circling area and at AD	SIGN	190452.0N 0725231.7E	27 FT	NO	W-1 Sign Board
In circling area and at AD	SIGN	190454.8N 0725235.2E	27 FT	NO	32 E1 Sign Board
In circling area and at AD	SIGN	190459.7N 0725231.1E	45 FT	LGTD	Wind Sock
In circling area and at AD	POLE	190500.1N 0725217.1E	38 FT	NO	Light Pole
In circling area and at AD	FENCE	190452.6N 0725239.8E	29 FT	NO	Fence on Airport Boundary Wall

In circling area and at AD	POLE	190447.8N 0725241.1E	30 FT	NO	Light Pole
In circling area and at AD	NAVAID	190508.5N 0725234.3E	126 FT	NO	SMR 2
In circling area and at AD	BUILDING	190318.7N 0725349.6E	191 FT	NO	NIL
In circling area and at AD	POLE	190444.0N 0725233.9E	47 FT	NO	Light Pole
In circling area and at AD	POLE	190315.5N 0725257.7E	259 FT	NO	Pylon Light
In circling area and at AD	OTHER	190440.2N 0725237.6E	49 FT	NO	Hoarding
In circling area and at AD	BUILDING	190305.6N 0725350.5E	210 FT	NO	NIL
In circling area and at AD	TREE	190500.1N 0725216.5E	67 FT	NO	Group of Trees
In circling area and at AD	TREE	190457.8N 0725215.6E	77 FT	NO	Group of Trees
In circling area and at AD	BUILDING	190439.3N 0725302.6E	120 FT	NO	NIL
In circling area and at AD	BUILDING	190443.5N 0725257.5E	101 FT	NO	Staircase on Building (Mumtee)

VABB	AD 2.11	METEOROLOGICAL INFORMATION PROVIDED
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1	Name of the associated meteorological office	MWO Mumbai
2	Hours of service and, where applicable, the designation of the responsible meteorological office outside these hours	H 24
3	Office responsible for preparation of TAFs and periods of validity and interval of issuance of the forecasts	Mumbai TAFs Valid 30 hrs for International Flights 00-06 / 06-12 / 12-18 / 18-24 (Only for VABB) TAFs Valid 09 hrs for National Flights Valid 00-09 / 03-12 / 06-15 / 09-18 / 12-21 / 15-24 / 18-03 / 21-06

(For VABB/ VAAU/ VOND/ VASD/ VOLT/ VASL/ VAKP/ VOSR/ VAJL)

4	Availability of the trend forecast for the aerodrome and interval of issuance	Trend forecast appended to each METAR at every half an hour HH+10 & HH+40 UTC. Also appended to each SPECI as and when issued.
5	Information on how briefing and/or consultation is provided	Provided Round the clock manually as well as through On Line Briefing
6	Types of flight documentation supplied and language(s) used in flight documentation	Chart form English as per ICAO code
7	Charts and other information displayed or available for briefing or consultation	Charts and other information available for briefing or consultation. SIG Wx. (SWM for FL 100-250 & SWH for FL 250-630) Area Forecast/ Local Forecast/ Take off data Upper Level Charts: - 100, 150, 200, 250, 300, 400, 500, 600, 700, 850. hPa. (i.e. From U10, U15, U20, U25, U30, U40, U50, U60, U70, U85)
8	Supplementary equipment available for providing information on meteorological conditions, e.g. weather radar and receiver for satellite images;	AMSS, DMDD, Tele-Fax, ,On Line Briefing system (OLBS) available. All the Met briefing products like METARs/ SPECIs/TAFORS/SIGMETS/ Warnings/ Area Forecasts/Satellite pictures/ Radar pictures/ Upper Air charts along with SIG Wx charts below FL630 issued from WAFC centre, are uploaded in OLBS at scheduled timings. These products can be accessed on this office website: <a href="http://amssmumbai.gov.in">http://amssmumbai.gov.in</a> by the registered users who are provided with user Id and pass word on request. This OLBS facility is in addition to existing standard practice of manual Met briefing as well as centralized OLBS available on IMD website: <a href="http://amssdelhi.gov.in">http://amssdelhi.gov.in</a>
9	The air traffic services unit(s) provided with meteorological information	Mumbai ATS & ACS
10	Additional information, e.g. concerning any limitation of service.	<ul style="list-style-type: none"> <li>• Tel 022-26819493/Fax-022-26828009</li> <li>E mail: <a href="mailto:supterm01@rediffmail.com">supterm01@rediffmail.com</a>&amp; <a href="mailto:aviationmomumbai@gmail.com">aviationmomumbai@gmail.com</a></li> <li>• Drishti Transmissometer available for RWY 09/14 &amp; 27.</li> <li>• IAAMS (Integrated Airport Automatic Met system ) installed for current weather observations with laser ceilometers and transmissometer at RWY 09/14 &amp; 27.</li> <li>• Doppler Weather Radar available at Colaba used to track and know</li> </ul>

Convective clouds CB /TCU and their heights /distance.

- DCWI system with Ceilometer available on RWY 32.

- Tel 022-26819493

VABB	AD 2.12	RUNWAY PHYSICAL CHARACTERISTICS		
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Designations	TRUE Bearings	Dimensions of RWY (M)	Strength of pavement (PCN) and associated data) and surface of runway and associated stopways	Geographical coordinates for threshold and runway end
1	2	3	4	5
14	134.52 DEG	2871 x 45 M	132/F/A/W/T Asphalt	THR: 190545.64N 0725135.71E RWY END: 190449.70N 0725236.42E
32	314.52 DEG	2871 x 45 M	132/F/A/W/T Asphalt	THR: 190454.19N 0725231.56E RWY END: 190554.67N 0725125.90E
09	89.52 DEG		100/F/A/W/T Asphalt	THR: 190518.44N 0725057.29E RWY END: 190519.90N 0725241.51E
27	269.52 DEG		100/F/A/W/T Asphalt	THR: 190519.79N 0725233.88E RWY END: 190518.37N 0725052.48E

THR elevation and highest elevation of	Slope of runway and associated	Dimensions of stopway (M)	Dimensions of clearway (M)	Dimensions of strips (M)
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<b>TDZ of precision APP RWY</b>	<b>stopway</b>				
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	
THR: 39.7FT TDZ: 39.3FT	0.18%	NIL	NIL	2991 x 300 M	
THR: 25.2FT TDZ: 24.5FT	0.18%	NIL	NIL	2991 x 300 M	
THR: 16.4FT TDZ: 16.0FT	0.15%	NIL	NIL	NIL	
THR: 23.4FT TDZ: 22.6FT	0.15%	NIL	NIL	NIL	

<b>Dimensions of runway end safety areas</b>	<b>Location and description of arresting system (if any)</b>	<b>Existence of an obstacle-free zone</b>	<b>Remarks.</b>
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>
90M x 90M		Not Defined	<p>1. PCN 150/R/D/W/T (Rigid Pavement)</p> <p>2. Portion of RWY 14 between TWY W7 up to TWY N-N1 Junction used as taxiway. Dual lighting system provided between TWY W6 &amp; TWY N/N1 intersections.</p> <p>3. Shoulder width of RWY 14/32 is 15m.</p>
150M x 100M		Not Defined	<p>1. PCN 150/R/D/W/T (Rigid Pavement)</p> <p>2. Shoulder width of RWY 14/32 is 15 M.</p> <p>3. PAPI RWY 32 at a distance of 387 M from THR RWY 32</p>
240M x 120M		Not Defined	<p>1. Dimension of RWY 09 : 3188M × 60M.</p> <p>2. Dimension of strip : 3308M × 300M.</p> <p>3. Shoulder width of RWY 09/27 is 7.5m.</p>
240M x 120M		Not Defined	<p>1. Dimension of RWY 27 : 3448M × 60M.</p> <p>2. Dimension of strip : 3568M × 300M.</p> <p>3. Shoulder width of RWY 09/27 is 7.5m.</p>



VABB	AD 2.13		DECLARED DISTANCES		
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RWY Designator	Take-off run available TORA (M)	Take-off distance available TODA (M)	Accelerate distance available ASDA (M)	Landing distance available LDA (M)	Remarks (including runway entry or start point where alternative reduced declared distances have been declared)
1	2	3	4	5	6
14	2871	2871	2871	2471	E9 - 2774 M (TORA, TODA, ASDA), W7 - 2409 M (TORA, TODA, ASDA), W6 - 2311 M (TORA, TODA, ASDA), W4 - 1794 M (TORA, TODA, ASDA)
32	2871	2871	2871	2673	W1 - 2823 M (TORA, TODA, ASDA), F5 - 1869 M (TORA, TODA, ASDA), F4 - 1824 M (TORA, TODA, ASDA), RWY Intersection - 1559 M (TORA, TODA, ASDA)
09	3188	3188	3188	3048	N11 - 3048 M (TORA, TODA, ASDA), N10 - 2849 M (TORA, TODA, ASDA), F1 - 2021 M (TORA, TODA, ASDA), N6 - 1882 M (TORA, TODA, ASDA), Q - 1320 M (TORA, TODA, ASDA)
27	3448	3448	3448	2965	N1R - 3383 M (TORA,TODA,ASDA) N3 - 3188 M (TORA,TODA,ASDA), N4 - 2814 M (TORA,TODA,ASDA), E1- 2394 M (TORA,TODA,ASDA), E - 2349 M (TORA,TODA,ASDA), Q - 1878 M (TORA,TODA,ASDA),

VABB	AD 2.14	APPROACH AND RUNWAY LIGHTING		
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Runway Designator	Type, length and intensity of approach lighting system	Runway threshold lights, colour and wing bars	Type of visual slope indicator system	Length of runway touchdown zone lights
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1	2	3	4	5
14	CAT I 740 M LIH	Green WBAR lights on each side of RWY.	PAPI LEFT/3.00 DEG MEHT (64.17FT)	
32	SALS 420 M LIH	Green WBAR lights on each side of RWY.	PAPI LEFT/3.26 DEG MEHT (66.71FT)	
09	CAT I 540 M LIH	Green N/A	PAPI RIGHT/3.00 DEG MEHT (73.93FT)	
27	CAT II 900 M LIH	Green WBAR lights on each side of RWY.	PAPI LEFT/3.00 DEG MEHT (73.93FT)	900 M

Length, spacing, colour and intensity of runway centre line lights	Length, spacing, colour and intensity of runway edge lights	Colour of runway end lights and wing bars	Length and colour of stopway lights	Remarks
6	7	8	9	10
2871 M 15 M LIH	2871 M 60 M LIH	Red		<p>1. RWY CL Lights Variable White, Last 300M Red, BTN last 300M to last 900M alternate Red</p> <p>2. RWY Edge Lights Variable White, 400M pre THR Red, Last 600m Yellow in approach direction.</p> <p>3. PAPI RWY 14 at a distance of 410 m from THR of RWY 14.</p> <p>4. Barrette with cross bar at 300M, 1st 450M inset. Rest elevated.</p>

				1. RWY CL Lights Variable white, Last 300M Red, BTN last 300M to last 900M alternate Red 2. RWY Edge Lights Variable white, 198M pre THR Red, Last 600m Yellow in approach direction. 3. PAPI RWY 32 at a distance of 387 m from THR of RWY 32. 4. 1st 240M inset.
2871 M 15 M LIH	2871 M 60 M LIH	Red		1. RWY CL Lights Variable white, Last 300M Red, BTN last 300M to last 900M alternate Red 2. RWY Edge Lights Variable white, 140M pre THR Red, Last 600m Yellow in approach direction. 3. PAPI RWY 09 location 475 m from THR of RWY 09 on right. 4. Barrett/ Truncated Cross Bar at 300 M, 1st 150M. Inset. Rest elevated LIH, INTST LVL.
3188 M 30 M LIH	3188 M 60 M LIH	Red		1. RWY CL Lights Variable white, Last 300M Red, BTN last 300M to last 900M alternate Red 2. RWY Edge Lights Variable white, 483M Pre THR Red, Last 600M Yellow in approach direction. 3. PAPI RWY 27 at a distance of 408 m from THR of RWY 27. 4. Barrett with cross bar at 150M and 300M. 1st 480M inset. Rest Elevated LIH. 5. LIH sequenced FLG LGT supplementing ALS of RWY 27 commissioned. LGT are operated under following conditions: i. BTN 1st Day of OCT upto last Day of MAY whenever reported VIS 3000M or Less, ii. BTN 1st Day of JUN upto last Day of SEP whenever reported VIS 5000M or Less, iii. Whenever reported WX HZ/RA/TS/FU/FG and BKN Clouds with Base 1500FT or less, iv. LGT Intensity adjustable on Pilot request.
VABB	AD 2.15	<b>OTHER LIGHTING, SECONDARY POWER SUPPLY</b>		

1	Location, characteristics and hours of operation of aerodrome beacon/identification beacon (if any)	ABN	Above New ATC Tower Building, Flashes alternating with white flashes - Frequency 20 per minute, H24	
		IBN	NIL	
2	Location and lighting (if any) of anemometer/landing direction indicator;	LDI	Not available	
		Anemometer	Anemometers is part of Integrated Airport instrument system only.	
3	Taxiway edge and taxiway centre line lights;	Edge	REFER AD 2.23	
		Centre Line	REFER AD 2.23	
4	Secondary power supply including switch-over time;	Secondary power supply to all lighting at AD. Switch Overtime: 15 sec.		
5	Remarks	<p>Rapid Exit Taxiways Indicator Lights Provided:</p> <p>On RWY 27 for Rapid Exit TWY N7, Rapid Exit TWY N8 &amp; Rapid Exit TWY N9.</p> <p>On RWY 09 for Rapid Exit TWY N5.</p> <p>On RWY 14 for Rapid Exit TWY E4.</p> <p>On RWY 32 for Rapid Exit TWY E8 and Rapid Exit TWY W5.</p>		

VABB	AD 2.16	HELICOPTER LANDING AREA
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1	Geographical coordinates of the geometric centre of touchdown and lift-off (TLOF) or of each threshold of final approach and take-off (FATO) area	Not Established
2	TLOF and/or FATO area elevation:	Not Established
3	TLOF and FATO area dimensions to the nearest metre or foot, surface type, bearing strength and marking;	Not Established
4	True bearings of FATO;	Not Established
5	Declared distances available	Not Established
6	Approach and FATO lighting;	Not Established

7	Remarks	Not Established
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VABB	AD 2.17	AIR TRAFFIC SERVICE AIRSPACE
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1	Airspace designation, geographical coordinates and lateral limits	CTR: Circular area centered on 190530N 0725158E within a 12NM radius.
2	Vertical limits	FL 65
3	Airspace classification	D
4	Call sign and language(s) of the air traffic services unit providing service;	Mumbai Tower / Mumbai Approach, English
5	Transition altitude	4000 FT
6	Hours of applicability	H24
7	Remarks	<p>1. Airspace below 4000 FT AMSL is classified as Class 'D' and airspace at or above 4000 FT AMSL is classified as Class 'C'.</p> <p>2. Except for airspace in the APCH and TKOF path of VABB RWY 09/27 and 14/32 and airspace under jurisdiction of Shikra ATC, airspace between radial 200 to 340 clockwise up to 25NM from BBB and airspace between radial 341 to 199 clockwise up to 12 NM from BBB up to 1200 FT AMSL for operation of VFR and special VFR flights shall be under jurisdiction of Juhu ATC.</p> <p>3. All Helicopters operating within 25 NM from BBB shall address FPL to VAJJZTZX in addition to VABFZQZX.</p> <p>4. Except departures from Mumbai all helicopters departing as VFR within 25 NM from BBB shall obtain positive clearance from Juhu ATC prior to departure.</p> <p>5. Except when instructed otherwise, all helicopters operating under VFR and special VFR within 30 NM from BBB between radial 200 to 340 clockwise and within 15NM from BBB between radial 341 TO 199 clockwise shall contact JUHU ATC on VHF 124.350 MHZ/118.750 MHZ.</p>

VABB	AD 2.18	AIR TRAFFIC SERVICES COMMUNICATION FACILITIES
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<b>Service Designation</b>	<b>Call sign</b>	<b>Channel(s)</b>	<b>SATVOICE Number(s), if available</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
SAR	-	123.100 MHZ	SHORT CODE :441931 PSTN : 8991117564
APP	Mumbai Approach	119.300 MHZ	
APP	Mumbai Approach	120.350 MHZ	
APP	Mumbai Approach	127.900 MHZ	
TWR	Mumbai Tower	118.100 MHZ	
TWR	Mumbai Tower	122.500 MHZ	
ATIS	Mumbai information	126.400 MHZ	
ACC	MUMBAI CONTROL/RADAR	133.425 MHZ	
ACC	Mumbai Control/Radar	120.500 MHZ	SHORT CODE : 441901 PSTN : 0091 22 20888088
ACC	Mumbai Control/Radar	125.350 MHZ	SHORT CODE : 441901 PSTN : 0091 22 20888088
ACC	Mumbai Control/Radar	127.150 MHZ	SHORT CODE : 441920 PSTN : 8991117565
ACC	Mumbai Control/Radar	132.700 MHZ	SHORT CODE : 441901 PSTN : 0091 22 20888088
ACC	Mumbai Control/Radar	133.300 HZ	SHORT CODE : 441901 PSTN : 0091 22 20888088

ACC	Mumbai Control/Radar	133.850 MHZ	SHORT CODE : 441901 PSTN : 0091 22 20888088
ACC	Mumbai Control/Radar	133.925 MHZ	
ACC	Mumbai Control/Radar	135.750 MHZ	SHORT CODE : 441920 PSTN : 8991117565
ALRS	----	121.500 MHZ	
SMC	Mumbai Delivery	121.850 MHZ	
SMC	Mumbai Ground	121.750 MHZ	
SMC	Mumbai Ground	121.900 MHZ	

Logon address, as appropriate	Hours of operation	Remarks
5	6	7
	H24	Search and Rescue
	H24	Approach Arrival
	H24	Approach Backup Frequency
	H24	Approach Departure
	H24	NIL
	H24	Tower Backup Frequency
	H24	NIL
	H24	Lower Area Control 1
	H24	RSR (Backup Frequency)
	H24	RSR (S), RCAG at Goa
	H24	NIL

	H24	RSR (N), RCAG at VAAU & VAPR	<input checked="" type="checkbox"/>
	H24	Area West, RCAG facility at VAPR	
	H24	Area Backup Frequency, RCAG facility at VASU	
	H24	Lower Area Control 2	
	H24	REMOTE OPERATION AT VAPR	
	H24	Emergency Frequency	
	H24	Clearence Delivery	
	H24	SMC-2	
	H24	SMC-1	

VABB	AD 2.19	RADIO NAVIGATION AND LANDING AIDS	
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Type of aids, magnetic variation and type of supported operation for ILS/MLS, basic GNSS, SBAS and GBAS, and for VOR/ILS/MLS station used for technical lineup of the aid	Identification	Frequency(ies), Channel number(s), Service provider, and reference path identifier(s) (RPI), as appropriate	Hours of operation, as appropriate;
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
LOC 27 CAT I	ISCZ	110.300 MHz	H24
LOC 09 CAT I	IBOM	109.500 MHz	H24
LOC 14 CAT I	IBBY	110.100 MHz	H24
GP 27		335.000 MHz	H24
GP 09	IBOM	332.600 MHz	H24

GP 14		334.400 MHz	H24	
DME ILS 27	ISCZ	CH40X	H24	
DME ILS 09	IBOM	CH32X	H24	
DME ILS 14	IBBY	CH38X	H24	
DVOR/DME	BBB	116.600 MHz CH113X	H24	

<b>Geographical coordinates of the position of the transmitting antenna</b>	<b>Elevation of transmitting antenna of DME/ elevation of GBAS reference point</b>	<b>Service volume radius from the GBAS reference point</b>	<b>Remarks</b>			
			<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
190518.2N 0725042.0E			LOC inner Coverage of +/- 35 DEG available at 17 NM and outer coverage of +/- 10 DEG available at 25 NM above 3500 FT (AMSL). As per IAP Chart highest obstruction in the INNER SECT is 2690 FT.			
190520.0N 0725252.0E						
190446.2N 0725240.2E						
190515.6N 0725222.3E			GP ANGLE 3 DEG. GP Azimuth Coverage +/- 8 DEG available at 2000 FT (AMSL) at 10NM (Obstruction of 1329 FT 9.7 NM)			
190514.6N 0725109.0E			GLIDE ANGLE: 3.0 DEG Glidepath Coverage restricted to 7.5 Degree on left side of the centreline			
190540.7N 0725147.1E			GP ANGLE 3 DEG. GP Coverage is restricted to 1700FT ABV THR at 10NM.			
190515.5N 0725222.3E	34 FT		1. Collocated with GP27 2. Elevation in EGM-08			

190514.6N 0725109.0E	29 FT		Collocated with GP09
190540.8N 0725147.2E	59 FT		Elevation in EGM-08
190510.2N 0725228.9E	43 FT		

VABB	AD 2.20	LOCAL AERODROME REGULATIONS

#### I. AIRCRAFT PUSHBACK AND STARTUP PROCEDURES:

1. These procedures shall apply to activities of all agencies involved in aircraft pushback and start-up at Mumbai Airport.
2. The objective of the pushback and startup procedure is to reduce ground conflicts in pushback and startup of aircraft, reduce ground delays and reduce radiotelephony congestion thereby enhancing the operational efficiency of Mumbai Airport.
3. All departures should request for startup within five minutes of the filed EOBT. The aircraft, which fails to request start up within five minutes of the filed EOBT will lose its priority and be considered for startup depending upon the traffic situation and subject to delay
4. The aircraft should be in a position to commence its taxi not more than five minutes after the issue of startup clearance failing which the startup clearance will be cancelled and the aircraft will lose its priority and be considered for startup depending upon the traffic situation and subject to delay.
5. Aircraft on all stands at CSMI Airport, except on stands C21 to C26, shall be pushed back from the stand towards the taxilane/taxiway centerline, taking into account the taxi route to be followed.
6. MUMBAI GROUND (on frequency 121.9/121.75 MHz, or any alternate frequency) shall be contacted for pushback and startup permission only after the Pilot-In-Command has established that the aircraft is ‘ready’ for pushback/start up.

Note: For the purpose of clarity, ‘ready’ means all doors of the aircraft are closed, the Passenger Boarding Bridge (s) (PBB) / Step Ladder (s) are disconnected / withdrawn, the tug is connected to the aircraft and the ground engineer is in position and in contact with the Pilot-In-Command (PIC).

7. On receiving the above mentioned information, ATC will allow pushback and startup of the aircraft depending on the traffic.
8. ATC may deviate from the standard pushback procedures as stated vide pushback charts for reasons such as traffic or work in progress.
9. Simultaneous push back from adjacent stands is not permitted.

Note: Adjacent stands shall include associated 'L' (left) and 'R' (right) stands except wherever specified otherwise.

10. Simultaneous startup of aircraft engine(s) at adjacent stands may be allowed subject to the airline operator / GHA ensuring safety of personnel / aircraft / property.

11. To approve the pushback and startup request from pilot, phraseology used by ATC may be as given below:

"ATC: [Call sign of Aircraft] -- GROUND, RUNWAY--, PUSHBACK AND STARTUP APPROVED"

12. When deviating from the standard pushback procedure due to any reason, ATC may use any other phraseology other than the one mentioned above.

13. The pilot shall adhere strictly to SOP by aircraft manufacturer/ relevant operational manuals for starting up engine(s) at idle power or breakaway at locations as described below.

14. At all times ground crew must strictly follow the safety instructions on hazard zones set out by aircraft manufacturer / relevant operational manuals.

15. Deployment of wing walkers/wing guards by airline is mandatory prior to undertaking pushback from any stand at CSMI Airport.

16. On receipt of the clearance, the PIC shall read back the pushback clearance given by ATC, then co-ordinate with the ground crew for the pushback and start-up of the aircraft. The ground crew must ensure that the area in the front, behind and around the aircraft is clear of personnel, vehicles, equipment and other obstructions before commencing pushback and startup of the aircraft.

17. The PIC may start one engine, on idle power, before commencing pushback on the aircraft stand, in coordination with the ground crew.

18. Starting of 2nd engine on idle power, before commencing pushback on the aircraft stand, shall be permitted after PIC confirms to ATC that the 2nd engine is being started with appropriate power unit and necessary ground precautions have been ensured.

19. No cross-bleed startup by aircraft is permitted till the pushback and/or pull ahead procedure is complete and the Aircraft is aligned with the taxilane / taxiway centerline marking. Prior to starting the cross bleed, PIC shall seek confirmation from the ground crew for hazard free zone. At all times ground crew must follow the safety instructions on hazard zones set out by aircraft manufacturer/ relevant Operational manuals.

20. Ground crew of aircraft intending to do a cross bleed start must assess the clearance behind and in-front of aircraft and in case they feel that there is insufficient clearance, they shall request SMC for repositioning the aircraft to a position from where cross bleed start can take place. As a broad guideline a separation distance equivalent to 3 (three) aircraft length should be clear behind the aircraft so that there is no jet blast impact behind the aircraft due to cross bleed start.

21. Vehicle or movement of personnel is NOT permitted behind the aircraft once the Anti-collision beacons of the aircraft have been switched ON.
22. For aircraft stands without dedicated pushback lines, stand lead-in line may be used for pushback guidance.
23. Tug Release Points have been provided, wherever necessary, for ease of identifying the point for releasing tug.

24. Nomenclature for Tug release points begins with letter 'T' followed by a numeral / or combination of numeral followed by letter.

25. Pilots shall adhere to the pushback and startup procedures and will use minimum breakaway power.

NOTE: At South East Pier of Apron V, the majority of aircraft operations consist of Code C, whereas the aircraft parking stands provided are MARS which can accommodate parking of two Code C or one Code E type alternatively.

26. Refer AD 2.24 for Pushback charts of respective stands.

Note:

i. At Old Airport (General Aviation apron, South of RWY 09/27), parking of aircraft is non-standard and is Owner's/Operator's responsibility.

ii. Aircraft on all stands at CSMI Airport, except on stands C21 to C26, shall be pushed back from the stand towards the taxilane/taxiway centerline, taking into account the taxi route to be followed for taxiing.

iii. TWYs/taxilane W6, W7, is suitable for aircraft wing span up to but not including 36 m.

iv. The ground marking and lights of centerlines of TWYs/Taxilanes at South East Pier apron as is given below:

a. B1, B3, B4, Y1, Y3, Y4, Link 4, Link 5, Link 6 & Link 7: Yellow / Centerline lights Green.

b. H1, H3 & portion of TWY M4 between TWY Y1 & Taxilane H1: Interrupted (broken) Orange / Centerline lights alternate Orange & Green.

v. All stands on Apron A, G, K, R, S and V have fuel hydrant facility (Except A12, G5L, G5, G5R, G6, G7, G8, V3L and V3R).

vi. To enhance usability, MARS (Multiple Aircraft Receiving Stand) stands have been provided with multiple marking of stand lead line, wherein main parking stand is marked in continuous yellow colour and 'L' and / or 'R' stand marked in interrupted yellow colour.

vii. To enhance usability, Code E Stands S1, S2 and S3 can alternatively be used for parking Code C aircraft on stands S1L, S1R, S2R, S3L and S3R respectively. In such alternative arrangement of parking following restrictions shall apply:

a. When a Code E aircraft is parked on S1 code C aircraft cannot be parked on Stand S1L or S1R.

- b. When a Code E aircraft is parked on S2 code C aircraft cannot be parked on Stand S2R, S1R or S3L.
- c. When a Code E aircraft is parked on S3 code C aircraft cannot be parked on Stand S3L or S3R.
- viii. Pushback from any of the stands V26, V27, V28, onto Taxilane B3, pilot to take caution to ensure clearance from aircraft pushing back from any of the stands K4, K5 or K6 onto Taxilane Y3.
- ix. Intermediate holding positions are provided on taxiways/taxilanes as appropriate. However, the following restriction shall apply:
- a. When an aircraft above Code C is holding on taxiway M5, short of taxiway M, it will prohibit aircraft taxiing on Taxilane H to H1 and vice versa.
- b. However, when a Code C aircraft is holding on taxiway M5, short of taxiway M, aircraft up to Code C can taxi behind it.
- x. Simultaneous aircraft movement to/from adjacent stands is not permitted.
- xi. PCN value of General Aviation Apron: 60/F/A/W/T (Asphalt), 10/F/A/W/T (Asphalt), 150/R/D/W/T (Concrete)
- xii. Portion of H1 (between TWY B1 and Link 5 northern segment), portion of TWY M4 (between TWY Y1 & Taxilane H1) and taxilane H3 shall be used under Follow Me service only.

## **II. Taxiing Restrictions:**

### 1.Bifurcation and Jurisdiction of SMC:

When RWY in Use 14/32:

SMC-1 : West of RWY 14/32.

SMC-2 : East of RWY 14/32 Excluding TWY E7, E8, E9 and E10 which will be under jurisdiction of TWR

When RWY in use 27:

SMC-1 : West of TWY M7 including Gate V15

SMC-2 : East Of TWY M7 including TWY M7

When RWY in use 09:

SMC-2 : Portion of the MOV Area

In North East of INT of Rwy 09/27 and 14/32

I EXC TWY E7,E8,E9,E10,E5, P, Z, Z1,T and

II EXC portion of TWY H BTW TWY T and TWY M8

SMC-1 : Area EXC under SMC-2

SMC-2 OPR as and when TFC demands

2. Aircraft holding on TWY N1 at holding position RWY 14/32 will prohibit aircraft taxing on TWY E.

3. Aircraft holding on TWY N at holding position RWY 14/32 will prohibit aircraft taxing on TWY W4.

4. Aircraft holding on TWY N at holding position RWY 09/27 will prohibit aircraft taxing on TWY N11:

5. Aircraft holding on TWY N11, N10, N6, W and W4 will prohibit aircraft to taxi on TWY N.
6. Aircraft holding on portion of TWY E (between TWY N1 and RWY 09/27) will prohibit aircraft taxiing on TWY N1, behind it.
7. Aircraft holding on TWY N3 or N4 at holding position RWY 27:
  - a. If a code C aircraft is holding at RWY 27 holding position on TWY N3 - aircraft up to code C only, can taxi on TWY N1 behind TWY N3.
  - b. If a code C aircraft is holding at RWY 27 holding position on TWY N4 - aircraft up to code C only, can taxi on TWY N1 behind TWY N4.
8. Aircraft holding on TWY F5 at RWY holding position RWY 14/32 will prohibit aircraft taxing on TWY E1 behind.
9. Simultaneous taxiing on TWYs B1/Y1, taxilane B3/Y3 and TWYs B4/Y4 by aircraft up to Code C is permitted.
10. Aircraft taxiing on parallel code C TWYs B1 / Y1 and TWY B4 / Y4 shall not exceed taxiing speed of 10 knots.
11. When RWY 27 is in use, entry to Apron A is only via TWY L1 and Exit only via TWY L4. TWY L3 to be used only in case of contingency.
12. Portion of taxilane W7 from its junction with TWY 'N' up to holding point RWY 14 designated as Taxilane W7 and the portion beyond holding position RWY14 up to junction of RWY 14 is TWY W7.

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13. Portion of TWY W6 from its junction with TWY 'N' up to holding point RWY14 designated as taxilane W6 and the portion beyond holding position RWY14 up to junction of RWY14 is TWY W6.
14. Portion of TWY W1 between holding position RWY 32 up to behind aircraft stand J8 designated as aircraft stand taxilane W1.
15. Aircraft for stand no. C21 to C26 to taxi in from South to North only, via TWY N and taxilane W6 and taxi out via taxilane W7 with right turn only.
16. Aircraft entering RWY 27 from TWY N1 to strictly follow the centerline marking and lights. No lock turn for lining up on RWY 27 from TWY N1 is permitted.
17. Aircraft to use minimum thrust while entering/lining up on RWY 14 from TWY E10.
18. ACFT shall cross RWY in use only after obtaining Positive Clearance on TWR FREQ 118.1
19. Pilots/Operators shall take all ground precautions and use minimum required power in exiting the stands notified as power-in/push-back stands.
20. Air taxiing of Helicopter not allowed in old Airport Apron.

21. Discretion to line up from taxiway N1 or taxiway N1R (right) lies with the pilot in order to improve runway capacity by reducing runway occupancy time.
22. Taxiway F1 will be preferred exit taxiway for Runway 27 for aircraft up to code C allotted parking at General Aviation.
23. TWY F1 meets all requirements of Rapid Exit Taxiway (RET) as per DGCA Civil Aviation Requirements though the same is currently not published as a RET.
24. Aircraft up to code C (wing span up to but not including 36 m) vacating RWY 27 via TWY F1 shall continue on Taxiway F1 up to Taxiway F1 / F3 junction and turn left on Taxiway F3 for parking on General Aviation.
25. No aircraft is permitted to turn left after vacating Runway 27 via taxiway F1 to join taxiway 'D1' for parking at General Aviation Apron, Taxiway F3 shall be used for access to General Aviation Apron
26. Taxiway intermediate holding position provided on south of side Taxiway F1 / F3 junction for holding of aircraft taxiing / towing from Jet Airways and Indian Navy hangar.
27. TTaxiway centerline lights for taxiway F1 are provided until the junction of taxiway F1 with taxiway F3.
28. Taxiway F3 is suitable for taxiing of aircraft up to Code C (wing span up to but not including 36m) only.
29. Aircraft above Code C is not permitted to taxi on Taxiway F3.
30. Link 'C9' available for taxiing of aircraft up to Code C only. Change over from Taxilane W7 to Taxilane W6 or vice versa is permitted after coordination with ATC.
31. Intermediate Holding Position short of Link 'C9' is provided for holding of aircraft on Taxilane W7 clear of Link 'C9'.
32. ACFT HLDG on RWY HLDG PSN TWY N11 for RWY 09 will restrict taxi and HLDG of ACFT on TWY N behind. ACFT HLDG on RWY HLDG PSN TWY N for RWY 09 will restrict taxi and HLDG of ACFT on TWY N11behind.
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33. Taxi of ACFT A380 permitted on TWY N1, N1R, N3, N4, N5,N6, W, N8, N9, N10, N11, N, M, M5, M6, M7, M8, E, E1, E3, E4, E5, F5, W4, E7, E8, E9, E10, portion of M4 BTN TWY N1 and TWY M, and portion of taxilane H BTN TWY M7 and TWY M5.

34. Under Follow Me service Towing or Taxi of A380 permitted on portion of Taxilane P BTN TWY E5 and Taxilane H and portion of Taxilane H BTN Taxilane P and TWY M7.

35. Portion of Taxilane H1 between junction of TWY B1/H1 up to TWY Link-5 not available for ACFT taxi, However portion is available for ACFT towing under Follow Me Service.

36. Portion of Taxilane H3 between TWY Link 6 up to behind ACFT Stand V31 not available for ACFT taxi, However portion is available for ACFT towing under Follow Me Service.

37. Simultaneous holding or taxiing of ACFT at RWY holding position TWY E9 and RWY holding position TWY E10 not permitted.

38. The following precautions and restrictions are applicable for use of TWY Z:

- i. During the hours of operation of TWY Z, pilots are advised to exercise caution and ensure heightened attention when taxiing on TWY Z.
- ii. TWY Z is closed for operations by placing yellow/red barricades, as necessary during hours of closure and by placing temporary red obstruction lights during night as per DGCA CAR, Series 4B, Part-1.
- iii. Movement of ground support equipment and vehicles plying adjacent to active taxilane/taxiways and in the vicinity of TWY Z are controlled by traffic marshaller deployed near stand G6.
- iv. Whenever there is pushback from stands V3L to V6R. Aircraft taxiing via taxiway Z shall hold on to intermediate holding position on TWY Z abeam stand G8.
- v. Aircraft are to engage minimum power when using TWY Z while joining TXL T due to the proximity of ground vehicular operations on service road adjacent to TWY Z in this area.
- vi. Aircraft movement on TWY Z and TXL T are interdependent beyond TWY Z abeam stand G8.

39. At SE Pier Apron from stands V23 up to V32 and from stands K3 up to K6 code D & E aircraft shall Tow / Taxi under follow-me service only.

### **III. AIRPORT COLLABORATIVE DECISION MAKING (A-CDM, MUMBAI)**

#### **1. INTRODUCTION**

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1.1 Efficiency of Air Transport System is highly dependent on traffic predictability. A-CDM effectively enhances predictability (this reduces buffer times for resource planning and flight times), overall efficiency and punctuality by linking and sharing of accurate and timely information amongst Aircraft Operators, Airport Operator, ATC etc.

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1.2 A-CDM is a Common Information Sharing Platform introduced to process timely and accurate information for quick and precise decision making. A-CDM takes into consideration the ETAs of arriving aircraft, Target Off Block Times of departures, Runway-in-use and the handling capacity of the runway, and determines the arrival and departure sequence. Based on the sequence and the parking position, it calculates the Target Take-Off Times & Target Start up Times of departures and Target In-Block Times for arrivals.

## 2. TWO KEY PARAMETERS OF A-CDM: TOBT and TSAT

### 2.1 TARGET OFF-BLOCK TIME (TOBT)

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2.1.1 Definition: The time that an Aircraft Operator estimates that an aircraft will be ready, all doors closed, boarding bridge removed, push back vehicle available and ready to start up/push back immediately upon reception of clearance from the SMC (GROUND). It is the real time target of ensuring readiness of an aircraft and therefore, more accurate than the static departure time mentioned in the flight plan and hence, an ideal milestone to be used by all airport partners.

#### 2.1.2 Communication of TOBT:

In case, 'No delay' is expected:

If there is no revision of EOBT, EOBT will be treated as the TOBT. There is no need of any communication from the Aircraft Operator to the ARO.

In case, delay is expected:

i. If delay is within the validity period of Air Defence Clearance (ADC), TOBT shall be changed in ACDM interface by the Aircraft Operator and optionally EOBT may be revised via AFTN through DLA/CHG message or by informing ARO. ARO will originate DLA/CHG message on receiving such information.

ii. If delay is outside the validity period of Air Defence Clearance (ADC), EOBT shall be revised through DLA message or by informing ARO. (Option of change of TOBT will not be available in this case).

iii. ADC Validity Period: (-)15 minutes to (+)45 minutes of EOBT in FPL or subsequent revision of EOBT by DLA/CHG message.

Once Target Start-up Approval Time (TSAT) is allocated by system, at TOBT- 30 minutes, the TOBT can be updated thrice.

2.1.3 Accuracy: TOBTs must be updated to an accuracy of +/- 5 minutes.

### 2.2 TARGET START UP APPROVAL TIME (TSAT)

2.2.1 Definition: The time calculated by A-CDM application taking into account TOBT, CTOT and/or the traffic situation that an aircraft can expect to start-up/push back for departure.

Note: In case there is no congestion, ATC may allow the aircraft actual start up approval (ASAT) even before the TSAT.

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2.2.2 Calculation of TSAT: TSAT is calculated automatically by A-CDM Application. The TSAT is calculated by taking into account TOBT, priority of aircraft, variable taxi times, and the runway capacity. Any revision of EOBT will trigger the A-CDM application to recalculate a new TSAT for that flight as well as to re-allocate earlier TSAT to next flight who meets the requisite conditions. TSAT is displayed in various ACDM interfaces in the following colour coded information.

- Blue colour: TSAT -15 minutes up to TSAT -5 minutes
- Green colour: TSAT -5 minutes up to TSAT +5 minutes
- Red colour: After TSAT +5 minutes.

2.2.3 Generation of TSAT: TSAT is generated by ACDM interface at TOBT - 30minutes.

2.2.4 Communication of TSAT: TSAT will be displayed in various A-CDM interfaces. The AO/GHA shall advise flight crew of TSAT, displayed in the A-CDM interface.

2.2.5 Priorities for generation of TSAT:

The following aircraft will be accorded priority by A-CDM application at the time of generating TSATs:

- VVIP flights
- Ambulance aircraft
- Aircraft in relief missions
- Aircraft returning to stand after push back/taxiing out for any reason.

2.2.6 Airlines/GHAs are required to monitor the A-CDM interface regularly to get information on the revised TSAT if any, in respect of their aircraft. It may please be noted that the earlier allocated TSAT may get changed due to the following reasons:

- i. Change of runway
  - ii. Change in taxi times
  - iii. Revised TOBT of the subject aircraft
  - iv. Cancellation/ revision in TOBT of other aircraft in the departure sequence.
  - v. Priority handling
  - vi. Unusual Occurrences, etc.
  - vii. Application of ATFM regulation or ATC restriction resulting in new CTOT or start up delay
  - viii. Inclement Weather
  - ix. Bird activity\*
  - x. Change of route (SID)\*
- \* [Future provision]

2.2.7 Accuracy: The TSAT will remain valid for +/- 5 minutes.

### 3. Co-ordination with the Air Traffic Flow Management Unit (ATFMU)

3.1 A fully automatic data exchange with the ATFMU is established. A-CDM system is receiving ELDT and CTOT from C-ATFM.

3.2 The data sent from A-CDM to C-ATFM enables accurate and efficient CTOT calculations.

### 4. A-CDM Start-up/Push-back procedures

4.1 Pre-Departure Sequence: Pre-Departure sequence is the order, in which the ATC plans the aircraft to depart from their Gate/Stands. It should not be confused with the Pre-Take-off sequence where ATC decides on the order in which the aircraft at holding points of the runway will depart.

#### 4.2 Start-Up and Push-Back Procedure:

i. The aircraft must be ready for Start-up/Push-back at TOBT. Any revisions in TOBT shall be updated by the aircraft operator at the earliest.

ii. The Pilot will contact Clearance Delivery (CLD) and request for Pre-Departure Clearance between TSAT -15 minutes to TSAT- 5 minutes. (Blue Zone)

iii. Pilot shall contact SMC (GROUND) for Start-up/Push-back between TSAT-5 minutes and TSAT+ 5 minutes (Green Zone), subject to change over from CLD.

Note: The system may prepone TSAT up to TOBT

iv. If by TSAT +5 minutes (Red Zone after TSAT+5 minutes), ATC has not received Start-up/Push-back request, the aircraft will lose its position in sequence. In such case:

a. Aircraft Operator shall update the TOBT

b. A revised TSAT will be issued because of resequencing done based on new TOBT.

v. ATC should normally be able to issue start-up/push-back at TSAT. Pilots will be informed by ATC if there is a delay.

vi. Taxi clearance shall be requested within 5 minutes of Start-up/Push-back approval time.

Note: If this has not occurred, SMC (GROUND) must be notified of the extent of delay. In such cases, aircraft may lose its departure slot and a new TOBT may be required. Aircraft Operator shall be responsible to obtain new ADC number from IAF-MLU.

vii. The Pre-Departure (Off-block) Sequence will be determined in accordance with Target Start up Approval Time (TSAT) and NOT in accordance with the Start-up Request. Pre-Departure Sequence will not have any bearing on Actual Departure sequence.

(Note: Actual Departure sequence may differ from pre-departure sequence in order to optimize the Runway and Airspace utilization.)

## 5. INFORMATION DISSEMINATION TO A-CDM STAKEHOLDERS

Relevant information for stakeholders, available with A-CDM system, is disseminated through following means:

- i. Access controlled application interface provided to representatives of Airline Operators, Ground Handlers and Airport Operator.
- ii. Web interface, [www.acdm.in](http://www.acdm.in) that can be accessed after registering on the website.
- iii. Display boards on the airside at certain parking stands, in the viewable area of cockpit crew, where limited information is disseminated.

## 6. TERMS AND ABBREVIATIONS

All Acronyms are time parameters which have a standard length of four characters and have been arranged as per aircraft movement sequence.

[While developing the A-CDM procedures, the guidance material published by Euro control, ICAO and other Organizations has been used].

S. NO.	ACRONYMS	DEFINITION	EXPLANATION
6.1	ELDT	Estimated Landing Time	The estimated time that an aircraft will touchdown on the runway. (Equivalent to ATC ETA = Estimated Time of Arrival = landing).
6.2	ALDT	Actual Landing Time	The time that an aircraft lands on a runway. (Equivalent to ATC ATA = Actual Time of Arrival = Landing, ACARS = ON).
6.3	EXIT	Estimated Taxi-In Time	The estimated taxi time between landing and in- Block.
6.4	AXIT	Actual Taxi-In Time	AXIT = AIBT - ALDT
6.5	SIBT	Scheduled In-Block Time	The time that an aircraft is scheduled to arrive at its first parking position.
6.6	EIBT	Estimated In-Block Time	The estimated time that an aircraft will arrive in-blocks. (Equivalent to Aircraft Operator's ETA = Estimated Time of Arrival).
6.7	AIBT	Actual In-Block Time	The time that an aircraft arrives in-blocks.

(Equivalent to Aircraft Operator's ATA = Actual Time of Arrival, ACARS = IN).

6.8	STTT	Scheduled Turnaround Time	STTT = SOBT - SIBT
6.9	ETTT	Estimated Turnaround Time	The time estimated by the AO/GH on the day of operation to turnaround a flight taking into account the operational constraints.
6.10	MTTT	Minimum Turnaround Time	The minimum turnaround time agreed with an AO/GH for a specified flight or aircraft type.
6.11	ATTT	Actual Turnaround Time	ATTT = AOBT - AIBT
6.12	ASRT	Actual Start Up Request Time	Time the pilot requests start up clearance.
6.13	TSAT	Target Start Up Approval Time	The time provided by ATC taking into account TOBT, CTOT* and/or the traffic situation that an Aircraft can expect start-up / push back approval. Note: The actual start up approval (ASAT) can be given in advance of TSAT.
6.14	ASAT	Actual Start Up Approval Time	Time that an aircraft receives its start-up approval.
6.15	SOBT	Scheduled Off-Block Time	The time that an aircraft is scheduled to depart from its parking position.
6.16	EOBT	Estimated Off-Block Time	The estimated time at which the aircraft will start movement associated with departure (ICAO).
6.17	TOBT	Target Off-Block Time	The time that an Aircraft Operator estimates that an aircraft will be ready, all doors closed, boarding bridge removed, push back vehicle available and ready to start up / push back immediately upon reception of clearance from the SMC (GROUND).
6.18	AOBT	Actual Off-Block Time	Time the aircraft pushes back / vacates the parking position. (Equivalent to Aircraft Operator's ATD = Actual Time of Departure & ACARS = OUT)
6.19	ARDT	Actual Ready Time (for Movement)	When the aircraft is ready for start-up/push back or taxi immediately after clearance delivery, meeting the requirements set by the TOBT definition.
6.20	EXOT	Estimated Taxi-Out Time	The estimated taxi time between off-block and take off. This estimate includes any delay buffer time at the holding point prior to take off.
6.21	AXOT	Actual Taxi-Out	AXOT = ATOT - AOBT



		Time	
6.22	ETOT	Estimated Take Off Time	The estimated take off time taking into account the EOBT plus EXOT.
6.23	CTOT*	Calculated Take Off Time*	A time calculated and issued by the appropriate Central Management unit, as a result of tactical slot allocation, at which a flight is expected to become airborne. (ICAO Doc 7030/4 - EUR, Table 7)*
6.24	TTOT	Target Take Off Time	The Target Take Off Time taking into account the TOBT/TSAT plus the EXOT. Each TTOT on one runway is separated from other TTOT or TLDT to represent vortex and/or SID separation between Aircraft.
6.25	ATOT	Actual Take Off Time	The time that an aircraft takes off from the runway. (Equivalent to ATC ATD = Actual Time of Departure, ACARS = OFF).

#### IV. STOP BARS AND NO-ENTRY BARS:

##### 1. SYSTEM DESCRIPTION OF STOP BAR AND NO-ENTRY BAR:

###### 1.1 Stop bar

1.1.1 Stop bar consists of lights spaced at uniform intervals of not more than 3m across the taxiway, showing red in the intended direction of approach to the runway - holding position.

1.1.2 Stop bars installed at a runway-holding position are unidirectional and shall show red in the direction of approach to the runway.

1.1.3 Total twenty-four (24) stop bars are installed at CSMIA across the taxiways at runway holding positions as given below:

a) For RWY 09/27 - TWY N1 (TWY N1 at beginning of RWY 27), TWY N3, TWY N4, TWY E, TWY E1 (E1 holding position for RWY 09/27), TWY W, TWY Q, TWY N6, TWY N10 and TWY N11, TWY N (TWY N at beginning of RWY 09 ).

b) For RWY 14/32 -TWY E10, TWY E9, TWY E7, TWY W7, TWY W6, TWY W4, TWY E5, TWY N (at intersection of TWY N and RWY 14/32), TWY N1 (intersection of TWY N1 and RWY 14/32), TWY F5, TWY F4, TWY E3 and TWY E1.

c) Stop Bars are not available at following locations:

- (i) For RWY 09/27: on TWY D1 and TWY F1.
- (ii) For RWY 14/32: On TWY W1.

1.1.4 When a stop bar is illuminated, any taxiway centreline lights installed beyond the stop bar shall not be illuminated for a distance of at least 90m.

1.1.5 Taxiways where taxiway centreline lights are installed beyond stop bars are:

- (a) For RWY 09/27 - TWY N1 (TWY N1 at beginning of RWY 27), TWY N3, TWY N4, TWY E, TWY E1 (E1 holding position for RWY 09/27), TWY W, TWY Q, TWY N10 and TWY N11, TWY N (TWY N at beginning of RWY 09).
- (b) For RWY 14/32 - TWY E5, TWY W4, TWY W7, TWY N (at TWY N and RWY 14/32 intersection), TWY N1 (at TWY N1 and RWY 14/32 intersection).

1.1.6 Taxiway centreline lights are not installed beyond the Stop bars on following nine (09) locations on taxiways:

(a) For RWY 09/27 - TWY N6.

(b) For RWY 14/32 - TWY E1, TWY E3, TWY F4, TWY F5, TWY W6, TWY E7, TWY E9, TWY E10.

1.1.7 Stop bars are interlocked with the taxiway centreline lights such that when a stop bar is ON, taxiway centreline lights beyond the stop bar are OFF and vice versa.

## 1.2 No-entry Bar

2.2.1 A no-entry bar should be located across the taxiway at the end of an exit only taxiway where it is desired to prevent traffic from entering the taxiway in the wrong direction.

1.2.2 No-entry bar consists of unidirectional lights spaced at uniform intervals of not more than 3 m showing red in the intended direction(s) of approach to the runway

1.2.3 At CSMIA, no-entry bars are installed at RET N5, RET N8, RET N9 and RET W5.

1.2.4 No-entry bars are not installed at RET N7, RET E4, and RET E8.

## 2. OPERATING PROCEDURE FOR STOP BARS:

2.1 ATC clearance issued on tower frequency shall be the primary clearance to enter / cross the runway in use and stop bar indications shall be additional visual clearance. Both primary and visual clearance, wherever applicable, are mandatory for entering the runway in use except the conditions mentioned in para 2.1.2.2.

2.1.1 Operations of stop bars by Tower Controller: Stop bars shall be operated manually by tower controller. Stop bars can be operated either in sequence control mode or static control mode.

(a) Sequence Control Mode Operation: Switching off of a Stop bar through sequence control switch turns OFF a stop bar and turns ON the taxiway centreline lights at least up to a distance of 90 meters ahead of the stop bar (wherever provided) for a duration of 30 seconds after which the system shall automatically turn ON the stop bar and turn OFF the taxiway centreline line lights.

(b) Static Control Mode Operation: When a Stop Bar is switched off from static control switch, the stop bar remains OFF and the taxiway centreline lights at least up to a distance of 90 meters ahead of the stop bar (wherever provided) remain ON until the static control switch is again operated by tower controller to turn ON the stop bar lights and turn OFF the taxiway centreline lights.

### 2.1.2 Operations of Stop bars as per prevalent RVR conditions:

2.1.2.1 Operations of Stop bars when RVR is less than 550M: All available stop bars provided on taxiways associated with Runway in use shall be ‘ON’, and tower controller will operate the stop bar(s) in sequence control mode wherever required.

### 2.1.2.2 Operations of Stop bars when RVR is 550M or more:

2.1.2.2.1 As per the runway in use, given below is the status of stop bars:

(a) RWY in use 27 :

(i) Stop Bars at the following taxiways shall be kept ‘ON’: TWY N4, TWY E, TWY W, TWY Q , TWY N6 , TWY N10 , TWY N11 , TWY N and TWY E1 (at Runway holding position RWY 09/27)

(ii) Stop Bars at the following taxiways shall be kept in ‘OFF’ position: TWY N1 (at Runway holding position 27) and TWY N3.

(b) RWY in use 09:

(i) Stop Bars at the following taxiways shall be kept ‘ON’: TWY N11, TWY N6, TWY W, TWY Q, TWY E (at Runway holding position RWY 09 /27 ), TWY N4, TWY N3, TWY N1, TWY E1 (at Runway holding position RWY 09/27)

(ii) Stop Bars installed at the following taxiways shall be kept in ‘OFF’ position: TWY N (at Runway holding position RWY 09), and TWY N10.

(c) RWY in use 14:

(i) Stop Bars at the following taxiways shall be kept ‘ON’ : TWY E1, TWY E3, TWY F4, TWY N (at Runway holding position RWY 14/32), TWY W4, TWY E7, TWY E9, TWY F5.

(ii) Stop Bars at the following shall be kept in ‘OFF’ position : TWY N1 (at Runway holding position RWY 14/32) , TWY E5, TWY E10, TWY W7, TWY W6.

(d) RWY in use 32:

(i) Stop Bars installed at the following taxiways shall be kept ‘ON’ : TWY E3, TWY F5, TWY N1 (at Runway holding position RWY 14/32) , TWY E5, TWY E10, TWY W7, TWY W6, TWY W4, TWY F4, TWY E7, TWY E9.

(ii) Stop Bars installed at the following taxiways shall be kept in ‘OFF’ position: TWY E1, TWY N (at Runway holding position RWY 14/32).

**CAUTION:** Aircraft and Vehicles are not permitted to enter / cross the runway without positive clearance from ATC on radio telephony even though the stop bars ahead are non-illuminated.

2.1.3 Stop bars associated with the runway not in use for takeoff and landing shall normally be kept ‘OFF’.

2.1.4 Operations of Stop Bars during change of runway: During the realignment of the traffic on ground when runway in use is being changed, tower controller shall operate stop bars as per the traffic scenario.

2.1.5 Notwithstanding the above, Air Traffic controller may deviate from the Above mentioned procedures in the interest of flight safety and operational efficiency.

3. Information about unserviceability / maintenance of stop bars and no-entry bars will be promulgated through NOTAM.

## V. ADVERSE WEATHER OPERATIONS PLAN:

### 1.0 INTRODUCTION

1.1 The purpose of this Adverse Weather Operations Plan (AWOP) is to ensure that aviation operations at Chhatrapati Shivaji Maharaj International Airport, Mumbai, are carried out safely with minimum possible and anticipated disruptions causing least passenger inconvenience.

1.2 The procedures mentioned hereunder highlight the important aspects of the Adverse Weather Operations Plan (AWOP) of CSMI Airport to be used by the concerned stakeholders (Airlines, ANSP, Regulator, etc.) during adverse weather at the airport.

### 2.0 OBJECTIVE

2.1 The objective of the AWOP is to have a response that is predetermined and agreed upon by all stakeholders, to an adverse weather that is likely to endanger any operation in airside.

### 3.0 SCOPE

3.1 Mumbai typically faces the following adverse weather conditions:

- a) Strong winds (due to gale, squall, storm, tropical cyclone, etc.)
- b) Rain (causing flooding in some cases)
- c) Thunderstorm
- d) Low visibility (due to rain / fog / smog)

3.2 AWOP therefore covers only the above listed adverse weather phenomena from (a) through (d), and does not cover others such as ice, frost, freezing rain, snow, etc.

3.3 The AWOP covers aircraft and airside operations at CSMI Airport, Mumbai.

#### 4.0 APPLICABILITY

4.1 It applies to all concerned stakeholders in airside operations, Airlines, Ground Handling Agencies, Air Navigation Services Provider (ATM, CNS, AIM of AAI), India Meteorological Department (IMD), Aircraft Fuelling Companies, etc.

#### 5.0 ACTIVATION AND WITHDRAWAL OF PROVISIONS IN ADVERSE WEATHER OPERATIONS PLAN.

5.1 Depending on the present and forecast weather information received from IMD, the aerodrome operator will decide on activating or withdrawal of the provisions laid down in the adverse weather operations plan.

NOTE:

- i) Stakeholders, on their part, shall continue to monitor the developing adverse weather situation themselves for taking necessary incident/accident prevention measures and not wait for the aerodrome to inform them of the approaching adverse weather.
- ii) Stakeholders shall comply with the DGCA / Manufacturer / Company requirements and guidelines with respect to all weather / adverse weather operations as issued from time to time.
- iii) Stakeholders shall follow company operating minima or AWOP minima, whichever is more restrictive.

#### 6.0 HANDLING OF AIRCRAFT EMERGENCIES DURING ADVERSE WEATHER

- a) Restrictions specified in AWOP will not be applicable to aircraft under emergency.
- b) The Pilot-In-Command of an aircraft shall have final authority as to the operations of the aircraft while in command.

#### 7.0 HIGHLIGHTS OF RESTRICTIONS IMPOSED DURING ADVERSE WEATHER CONDITIONS

##### 7.1 Strong Winds

A) When surface wind speed greater than or equal to 27 kts

- i) Ensure passenger safety in airside on non-contact stands. Consider ceasing operations from non-contact stands  
(Action By: Airlines, GHA, Aerodrome Operator)

B) When surface wind speed greater than or equal to 37 kts

- i) Shut down all activities in airside (aviation and non-aviation) and staff be advised to stay indoors, except when responding to an emergency. (Action By: Airlines, GHA, Aerodrome Operator)

ii) No vehicle / equipment movement to be allowed in airside except that for the purposes of emergency, safety and security.

(Action By: Airlines, GHA, Aerodrome Operator)

iii) Aircraft boarding / de-boarding to be stopped and PBBs to be secured in its parking position using chocks.

(Action By: Airlines, GHA, Aerodrome Operator)

iv) Aircraft cargo loading / offloading to be stopped and equipment, etc. to be taken to its normal parking locations and secured properly. (Action By: Airlines, GHA)

v) Notify temporary non-availability of runways for landing and takeoff to aircraft, airlines, GHA, C-ATFM and other stakeholders. (Action By: ATC, Aerodrome Operator)

### 7.2 Rain

A) When rainfall intensity is heavy or higher and surface wind speed greater than or equal to 27 kts:

i) No vehicle / equipment movement to be allowed in airside except that for the purposes of emergency, safety and security.

(Action By: Airlines, GHA, Aerodrome Operator)

ii) Notify temporary non-availability of runways for landing and takeoff to aircraft, airlines, GHA, C-ATFM and other stakeholders. (Action By: ATC, Aerodrome Operator)

iii) Aircraft cargo loading / offloading to be stopped and equipment, etc. to be taken to its normal parking locations and secured properly. (Action By: Airlines, GHA)

B) When the rainfall intensity is very heavy or higher:

i) No vehicle / equipment movement to be allowed in airside except that for the purposes of emergency, safety and security.

(Action By: Airlines, GHA, Aerodrome Operator)

C) When the rainfall intensity is extremely heavy:

i) Shut down all activities in airside (aviation and non-aviation) and staff be advised to stay indoors, except when responding to an emergency. (Action By: Airlines, GHA, Aerodrome Operator)

Note: Rain is liquid precipitation in the form of water drops of radius between about 500 micrometer and 2500 micrometer and may be classified as hereunder in Table 1:

Table 1

Descriptive Term Used	Rainfall Amount Per Hour
No Rain	0.0 mm
Very light Rain	0.1- 2.4 mm
Light Rain	2.5 - 15.5 mm
Moderate Rain	15.6 - 64.4 mm
Heavy Rain	64.5 - 115.5 mm
Very Heavy Rain	115.6 - 204.4 mm
Extremely Heavy Rain	> 204.4 mm

### 7.3 Thunderstorm

A) When there is heavy lightening over the airfield and its immediate surroundings:

i) The following activities on the airside shall be stopped:

- Fueling of aircraft

- Carrying headsets and use of headset connection with aircraft

- Loading/unloading (inclusive catering)

- To be out in the open or beneath an aircraft

(Action By: Airlines, GHA, Aerodrome Operator)

**7.4 Low visibility**

A) When reported RVR < 550 m:

- i) Notify temporary non-availability of runways for landing and take-off to aircraft, airlines, GHA, C-ATFM and other stakeholders. (Action By: ATC, Aerodrome Operator)

B) When reported RVR < 300 m:

- i) Shut down all activities in airside (aviation and non-aviation), except for emergency response to any event.

(Action By: Airlines, GHA, Aerodrome Operator)

- ii) No vehicle / equipment movement to be allowed in airside except that for the purposes of emergency, safety and security.

(Action By: Airlines, GHA, Aerodrome Operator)

<b>VABB</b>	<b>AD 2.21</b>	<b>NOISE ABATEMENT PROCEDURES</b>
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Consistent with safety of aircraft operations and in consideration of high intensity runway operations, pilots should minimize the use of reverse thrust after landing to reduce disturbance in areas adjacent to the aerodrome.

<b>VABB</b>	<b>AD 2.22</b>	<b>FLIGHT PROCEDURES</b>
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**I. RUNWAY CAPACITY ENHANCEMENT MEASURES**

Runway Occupancy Time (ROT) is one of the key determinants of the airport runway capacity and is especially critical for an airport like Chhatrapati Shivaji Maharaj International Airport (CSMIA) which is experiencing a robust growth in air traffic in recent years. Following procedures are aimed at reducing the ROT and enhancing runway utilization and capacity at CSMIA.

**1. Taxi procedure**

1.1 Taxiing aircraft should maintain a minimum taxiing speed of not less than 15 Knots on the straight portion of taxiways and between 8-12 knots during turning manoeuvres.

1.2 ATC may alter the departure sequence of an aircraft, which is not adhering to the procedure enumerated in Para 1.1, to optimize the runway utilization.

1.3 Based on the aircraft type and its performance characteristics, ATC may issue taxi instructions so as to depart from the nearest runway intersection from where adequate take-off run is available. Pilot unable to accept departure from intersection may request ATC for alternate take-off position. Pilots requiring departure from the beginning of runway should make such request at the time of Pushback/Start-up. However, such requests will be considered by ATC subject to delay.

**2. Take - off procedure**

2.1 Pilot shall complete all mandatory pre-departure checks and cabin procedures before entering the active runway for departure.

2.2 When the aircraft is issued with line-up and take-off clearance at the runway holding position, it shall be in a position to line-up and initiate an immediate take-off in one continuous movement. In case aircraft is unable to do so, pilot shall advise ATC accordingly.

2.3 When the aircraft is issued with take-off clearance after lining up on the runway, it shall commence take-off roll immediately.

2.4 If the controller observes a delay in aircraft commencing Take-off run after issuance of take-off clearance, the take-off clearance will be cancelled and the aircraft shall be instructed to vacate the runway immediately at the nearest taxiway to make way for the subsequent arrival or departure.

Note: With the objective of expediting the flow of traffic, ATC may authorize departure from other intersections also.

2.5 Unless instructed otherwise by ATC, airborne aircraft shall contact Mumbai Radar on 127.9 MHz after passing 800 feet.

2.6 Refer AD 2.24 for charts related to Take-off Run Available from different entry taxiways in respect of RWY 27, RWY 09, RWY 32 and RWY 14.

### 3. Arrivals

3.1 Pilots are advised that rapid exits from the runway enable ATC to apply minimum spacing between aircraft on final approach to maximise runway utilization.

3.2 Unless instructed otherwise, aircraft vacating the runway should not stop on any Rapid Exit Taxiway (RET) or exit taxiway, but proceed to the next taxiway as instructed by ATC.

3.3 Unless instructed otherwise by ATC, pilots shall contact Surface Movement Control frequency (121.9 MHz) after vacating the runway.

3.4 To facilitate realization of minimum Runway Occupancy Time on RWY 27-09, standard runway markings, signage and lightings have been provided, in compliance with the ICAO design specifications.

3.5 Rapid Exit Taxiway Indicator Lights (RETILs) are provided for RETs N7, N8 & N9 on RWY 27, and RET N5 for RWY 09, providing a 3-2-1 countdown pattern in accordance with ICAO Aerodrome Design Manual (DOC 9157-Part-2).

3.6 Taxiway centreline lights are provided for RETs N5, N7, N8 & N9 in accordance with ICAO Annex-14.

3.7 When Runway 27 is in use, Pilots of all Code C, D, E & F aircraft shall plan to vacate Runway 27 via RET N8. In case the aircraft is unable to vacate RWY 27 via RET N8, the pilot shall endeavour to vacate using RET N9.

3.8 Exit Taxiways N10, N11 & N should be used only in case the aircraft is unable to vacate the runway using the preferred taxiways.

3.9 General Aviation aircraft, Code A, B and C, should vacate runway 27 via TWY F1.

3.10 Pilots unable to vacate runway via the preferred RET/taxiways due to operational reasons, should notify Aerodrome Control tower, as early as feasible.

3.11 The spacing between the successive arrivals is provided based on the assumption that aircraft would vacate RWY 27 as specified at Para 3.12 and will continue taxiing.

3.12 The preferred exit points for RWY 27 and 09 are:

RWY Designation	Aircraft Type	TWY	Distance (M)	Design Exit Speed
27	Code C, D, E and F	RET N8	1878*	Code C: 50 KTS Code D/E/F: 30 KTS
27	Code B, AT42, AT72, Q400 & CRJ	RET N7	1574*	50 KTS
27	General Aviation Aircraft Code A, B and C	TWY F1	1753	Code C 30 KTS
09	Code C, D, E and F	RET N5	2014*	Code C/D/E: 50 KTS Code F: 30 KTS

\*Distance: The distances mentioned are the distances from the runway threshold to the RET Turn off curve i.e. the point at which an aircraft starts the turn to exit the RWY.

3.13 Refer AD 2.24 for charts related to locations of exit taxiways including Rapid Exit Taxiways (RETs), with respect to threshold for all runways.

## II. Procedure for Issuing Landing Clearance based on Anticipated Separation at CSMIA Mumbai:

1. When ATC PROC specified in local SOP are complied with, RWY surface is dry, visibility is 3000M or more, tailwind is 5KT or less and no WS is reported, AD controller may issue LDG CLR to an ACFT on its final APCH when there is reasonable assurance that it will not cross the RWY THR until the preceding DEP ACFT has crossed the end of the RWY-in-use, or has started a turn, or preceding LDG ACFT is clear of RWY in use.

2. The TFC INFO to LDG ACFT on final shall be passed by ATC If preceding LDG ACFT is yet to CLR RWY in use or preceding DEP ACFT has not crossed the end of the RWY in use, or has not started a turn.

3. ATC shall ensure wake turb separation minima while applying anticipated separation.

4. ACFT shall not land on a RWY that is occupied by another ACFT, even if a CLR to land was received for that RWY. A pilot should not hesitate to ask the controller about the TFC on the RWY. If the FLY CREW at any point during APP perceives that it is not safe to continue APCH then they must initiate Go Around.

5. PROC is applicable BTN 30 MIN after Sunrise to 30 MIN before Sunset only.

6. Specific condition for RWY 27 - TWY N8, N9 with rapid exit TWY indicator lights shall be AVBL.

7. Specific condition for RWY 09, RWY 14 and RWY 32 -PROC Applicable only BTN preceding departing and LDG ACFT

### III. Speed control Procedure:

a) Speed control Procedure under non Radar environment shall be as specified in ENR1.1 para 2.5 of eAIP India.

b) Speed control procedure under Radar environment refer ENR 1.6 para 8 of eAIP India.

IV. All scheduled flights equipped with Aircraft Communications Addressing and Reporting System (ACARS) and compliant with AEEC 623 (Airlines Electronic Engineering Committee) operating from Mumbai are required to include AFTN address VABBZTZD in the FPL/CHG/DLA message addresses for DCL utilization.

### V. MUMBAI TMA ROUTING

Route Designator	Mumbai TMA routing	Remarks
L 301 (From West)	KARKU (N210902.5 E0680000) - EXOLU (N201249.8 E0713410.4) - 134 DEG (R-314)/100NM - MUMBAI BBB VOR (N190511.2 E0725226.8)	
L 301 (From East)	BUSBO (N191458.2 E0780730.3) - OPAKA (N193621 E0743258) - 253 DEG (R- 073)/100NM MUMBAI BBB VOR (N190511.2 E0725226.8)	
N 571 (From West)	SUGID (N193303 E0692059.4) - AROTA (N190803 E0701259) - 092 DEG (R-272) / 151NM MUMBAI BBB VOR (N190511.2 E0725226.8).	
N 571 (From East)	AGELA (N163624 E0752757)-317 DEG (R137)/210NM - MUMBAI BBB VOR (N190511.2 E0725226.8).	
P 574	BBM VOR (N155122.2 E0743701) - 319 DEG /106NM MABTA (N170828.8 E0732145.6) - 347DEG (R-167) /120NM MUMBAI BBB VOR (N190511.2 E0725226.8).	

### VI. RADIO COMMUNICATION FAILURE PROCEDURES:

#### 1. GENERAL:

1.1 RCF can be of four types:

1.1.1 Aircraft receiver failure but transmitter functioning.

1.1.2 Aircraft receiver and transmitter both failed.

1.1.3 Aircraft transmitter failure but receiver functioning.

1.1.4 Ground communication failure

1.2 In cases 1.1.1 and 1.1.2 above Pilot is not able to receive any transmission. In case 1.1.3 the cockpit crew will be able to receive instructions from ATC. Ground communication failures are rare however temporary failure of a specific ground frequency for very short duration cannot be ruled out.

1.3. Ground station communication failure must be first ruled out prior to proceeding with other causes of communication failure. Cockpit crew can ascertain this by testing functionality of RT kit on board with nearby airborne stations or ground stations. A non-functional RT Kit would possibly mean Ground comm. failure.

1.4. In case of likely ground communication failure, cockpit crew may change frequency to that of the previous control unit or the next expected control unit and inform the COMM status and follow instructions issued by ATC. Aircraft that are FANS 1A data link capable may logon to VABF and inform COMM status.

1.5. In case the cockpit crew is able to receive instructions from ATC on VHF, ATC will issue appropriate instruction to guide the crew and the crew shall comply with the instructions issued by ATC.

[Standard ATC instructions in such cases would instruct crew to squawk ident, execute specific turn manoeuvres, etc.to confirm receipt of ATC transmissions]

1.6. In case the cockpit crew is unable to receive instructions from ATC on VHF the under mentioned procedures given in Para 3 & 4 shall be followed.

1.7. In case of RCF, whether complete or partial, cockpit crew must make a blind transmission of all his actions on RT, e.g. descending/climbing to FL, proceeding to way- point/destination, returning to departure station, proceeding for the jettisoning of fuel, or commencing approach etc. This will ensure ATC has information of the flight manoeuvres.

1.8. In all cases of RCF the cockpit crew will set SQUAWK 7600 at the earliest.

[Note: This Requirement of Setting transponder to Mode A/C code 7600 in no way imposes any restriction on the pilot's decision to set transponder to Mode A/C code 7500 or 7700, whenever required].

1.9. If the Communication Failure occurs during the departure phase of flight while either on radar vectors or on pilot navigations, the procedure to be implemented by the pilot must ensure that the aircraft remains in the controlled airspace and has the required obstacle clearance.

1.10. Pilot shall not overfly VAP 2 (Prohibited Area) situated 09 NM South West of Mumbai Airport under any circumstances.

## 2. ASSIGNED RUNWAY AND ITS AVAILABILITY FOR RCF AIRCRAFT

2.1. In case of arriving aircraft, when Runway for landing has already been advised to the aircraft by ATC, such runway shall be considered as assigned runway. In case arriving aircraft has not been advised any runway, Runway 27 shall be considered as assigned runway for such arrival. During the notified periods of maintenance/closure of Runway 27, Runway 14 shall be considered as assigned runway.

2.2. In case of departures from Mumbai returning on account of RCF, the departure runway of such aircraft shall be considered as assigned runway for landing except during the notified periods of maintenance/closure of departure runway.

2.3 Runway lights, PAPI & Approach lights in ‘SWITCHED ON’ mode shall indicate the availability of runway for aircraft experiencing RCF. Switch off ILS for RWY not in use.

2.4. Irrespective of visibility/weather conditions, Runway and Approach light in ‘SWITCHED OFF’ mode shall indicate non-availability of runway for aircraft experiencing RCF. In such cases, alternate runway shall be made available for such aircraft.

2.5. Aerodrome operator will verify the status of runway lights when so requested by ATC.

### 3 ACTION BY PILOT IN CASE OF RCF AT DIFFERENT STAGES OF FLIGHT AFTER DEPARTURE:

PHASE OF FLIGHT	PIC INTENTIONS	
	PROCEED TO DESTINATION	RETURN TO DEPARTURE STATION
Immediately after departure (no contact with departure control)	<p>Climb to FL070. Maintain FL070 on SID or as per heading/track last issued and acknowledged. Squawk 7600. 2 minutes after setting squawk 7600 climb to FL090. Maintain FL090 for further 2min. thereafter Climb to filed flight planned level. Continue to follow the SID and flight planned route to destination.</p>	<p>Climb to FL070. Maintain FL070 on SID or as per heading/track last issued and acknowledged. Squawk 7600. 2 minutes after setting squawk 7600 climb to FL100. Maintain FL100 for further 2 mins. Thereafter make shorter arc to come over BBB. Join BBB hold. Descend to FL055 in hold and leave BBB follow the laid down procedure for assigned runway up to landing. [refer para 2 for assigned runway and landing clearance]</p>
RCF after establishing contact with radar	<p>Squawk 7600 Initially Climb to cleared flight level or F090 whichever is higher Maintain cleared heading or SID until 2 minutes after setting code 7600. Thereafter, proceed to the next point of Flight Planned Route. 2 minutes after setting code 7600 also climb to filed flight planned level and continue to destination.</p>	<p>Squawk 7600. If below FL100, continue on current clearance until 2 minutes after setting code 7600. Thereafter climb to FL100. Reaching FL100, make a shorter arc to join BBB hold. If above FL100, continue on current clearance until 2 minutes after setting code 7600. Thereafter, stop climb and make a shorter arc to join BBB hold descending to FL100. Descend to FL055 in hold and leave BBB follow the laid down procedure for assigned runway.</p>

Aircraft intending to return to Mumbai and requiring fuel jettisoning	Aircraft requiring to jettison the fuel will join the Hold at F100 and after one hold overhead will proceed on R220 to the jettisoning area defined by R205 to R245 BBB between 25NM to 45NM from BBB-DME.  After jettisoning the fuel aircraft will come over BBB via R230 at F100 and then descend to FL55 in the hold and then leave BBB for the laid down procedure and continue descend as per procedure.	
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## ACTION BY PILOT IN CASE OF RCF AT DIFFERENT STAGES OF FLIGHT ARRIVING AT MUMBAI

PHASE OF ARRIVAL	PICPROCEDURES	ACTION BY CONTROLLER (ON MONITORING SQUAWK 7600 FOR 2 MINUTES)
Any phase except final approach	<p>Squawk 7600.</p> <p>2 minutes after squawking 7600 proceed direct to BBB and join BBB hold for the assigned runway.</p> <p>Within 100NM BBB, may commence descend to 3800 feet and join BBB hold for assigned runway. Cross 25 NM BBB at or above FL070.</p> <p>d. Follow the laid down procedure for assigned runway.</p>	ATC will provide appropriate separation to the RCF aircraft.
If landing clearance not received	<p>If aircraft on final approach has not received landing clearance, it will carry out missed approach,</p> <p>Squawk 7600</p> <p>Proceed for next approach from BBB for the same runway.</p>	ATC will keep the runway approach light in switched on mode for next approach.

## Note:

- In case of arrival, if RCF happens to be outside of Mumbai TMA, the PIC shall commence RCF manoeuvre after 2 minutes of squawking 7600 or entering Mumbai TMA, whichever is later.
- The PIC must maintain the last assigned clearance for minimum of 2 minutes after squawking 7600 in all cases to alert the controller.
- The above procedures do not restrict the PIC from taking appropriate action as deemed fit in case the aircraft receives GPWS / TCAS warning at any phase of the flight.

3.1. In the event of communications failure after being informed by ATC to expect/or is being vectored for RNP Y approach, the pilot of arrival aircraft should follow the procedures detailed in para-VI. Proceed direct to BBB descending to FL070, after reaching BBB follow the procedure given below:

For RWY 09:

Proceed direct to BB092; descending to FL060 and carry out RNP Y RWY 09 approach via IAF BB092.

For RWY 14:

Proceed direct to BB481; descending to 3800FT and carry out RNP Y RWY 14 approach via IAF BB481.

For RWY 27:

Proceed direct to EMROS; descending to FL055 and carry out RNP Y RWY 27 approach via IAF EMROS.

When an aircraft has been cleared for RNP Y approach but has not received landing clearance it should carry out a missed approach or an aircraft carrying out MAP experiences RCF, then;

For RWY 09:

Proceed to BB092 at 3800 FT, make one hold at BB092 and carry out RNP Y RWY 09 Approach.

For RWY 14:

Proceed to BB489 climbing to FL080, make one hold at BB489 and then proceed to BB481 descending to 3800FT for approach,

For RWY 27:

Proceed to EMROS climbing to FL055, make one hold at EMROS and carry out RNP Y RWY 27 Approach

## VII. SURVEILLANCE RADAR APPROACH PROCEDURES CSI AIRPORT, MUMBAI:

RWY	THR ELEV	Inbound Track	IF (Dist. From touch down)	Altitude over IF	FAF (Dis. From touch down)	Altitude over FAF	MAPt (Dist. From touch down)	OCA (Straight-in)
	Ft	Deg	NM	Ft	NM	Ft	NM	Ft
27	23	271	12	2600	7	2500	2	980
09	16	091	11	2600	5.6	1800	2	660
14	40	136	11	2600	5.5	1800	2	680

### 2. Missed Approach procedure

- i. RWY 27: Climb straight ahead to 2600 ft., then Climbing turn right to join VOR (116.6 BBB) holding at 3800 ft., or as instructed by ATC.
- ii. RWY 09: Climb straight ahead to 2600ft, then climbing turn left to join VOR (116.6 BBB) holding at 3800ft., or as instructed by ATC.

- iii. RWY 14: Climb straight ahead to 2600ft, then climbing turn right to join VOR (116.6 BBB) holding at 3800ft., or as instructed by ATC.

### 3. Distance from touch down/altitude information

RWY	Distance / Altitude Information							Descent Gradient
27	Dist. (NM)	7	6	5	4	3	2.7	5.8% (3.3 DEG)
	Altitude (Ft)	2500	2140	1790	1430	1080	980	
09	Dist. (NM)	5.6	5	4	3	2	-	5.25% (3 DEG)
	Altitude (Ft)	1800	1610	1290	970	660	-	
14	Dist (NM)	5.5	5	4	3	2	-	5.28% (3 DEG)
	Altitude (Ft)	1800	1640	1320	1000	680	-	

### 4. OCA Circling:

CAT A/B: 1380 FT

CAT C: 1480 FT

CAT D: 1700 FT

Note: - Visual Circling East of RWY 14 and North of RWY 27 of the intersecting RWY 14 & RWY 27 is not permitted.

### 5. Minimum Sector Altitude:

- a) Sector from 340 DEG -200 DEG (Clockwise): 2800 FT up to 12 NM and 3800 FT from 12 NM to 25 NM.
- b) Sector from 200 DEG -340 DEG: 2600 FT up to 25 NM.

### 6. Holding procedures:

- a) RWY 09: One-minute right hand pattern inbound track 273 DEG (M) R-093. Minimum holding altitude 3800 FT.
- b) RWY 14: One-minute right hand pattern inbound track 313 DEG (M) R-133. Minimum holding altitude 3800 FT.
- c) RWY 27: One-minute left hand pattern inbound track 086 DEG (M) R-266. Minimum holding altitude 3800 FT.

### 7. NON - RNAV Holdings in Mumbai Terminal Area:

- i. KETOR (BBB VOR R230/60D FIX): 1min/1.5min left hand race-track pattern. inbound track 045 DEG M. minimum holding altitude FL120. maximum holding altitude FL220.
- ii. EMRAK (BBB VOR R071/60D FIX): 1min/1.5min left hand race-track pattern. inbound track 252 DEG M. minimum holding altitude FL120. maximum holding altitude FL220.
- iii. IGBAN (BBB VOR R018/60D FIX): 1min/1.5min left hand race-track pattern. inbound track 195 DEG M. minimum holding altitude FL120. maximum holding altitude FL220.
- iv. MOLGO (BBB VOR R153/60D FIX): 1min/1.5min right hand race-track pattern, inbound track 338 DEG M. minimum holding altitude FL120. maximum holding altitude FL220.

v. POKON (BBB VOR R313/60D FIX): 1min/1.5min right hand race-track pattern. inbound track 134 DEG M. minimum holding altitude FL120. maximum holding altitude FL220.

#### 8. Radio communication failure procedure:

i. In case radio communication failure takes place prior to establishing final approach track, maintain the last assigned altitude or 3800 FT whichever is higher and proceed to VOR (116.6 BBB) via the shortest route to join holding procedure (RWY 09, 27 or 14) as specified at Para 7.

ii. In case radio communication failure takes place after establishing the final approach track, aircraft may continue the approach and land if visual, or carry out the missed approach and join the VOR (116.6 BBB) holding procedure (RWY 09, 27 or 14) as specified at Para 7.

iii. After joining the VOR holding procedure aircraft carry out the instrument approach procedure applicable to the RWY for which SRA was being provided.

### VIII. TRANSPONDER OPERATING PROCEDURES ON GROUND

#### 1. Introduction:

Advanced Surface Movement Guidance and Control System (A-SMGCS) using Mode-S Multi-lateration has been commissioned at Bangalore, Chennai, Delhi, Hyderabad, Kolkata & Mumbai International Airports.

The Aircraft Transponder Operating Procedures, particularly in the movement area of the airport(s), where A-SMGCS has been commissioned, is as given below:

#### 2. Departure:

##### i. At the Gate/Stand:

Select STBY

Enter the discrete SSR code received from Clearance Delivery/Surface Movement Control. Enter the three letter ICAO designator followed by the flight identification number (e.g. AIC748) through the FMS or the Transponder control panel, depending on the avionics.

##### ii. On requesting Pushback/Taxi (whichever is earlier):

Select Transponder or equivalent and AUTO if available

This action will enable the aircraft ID, used as the Call sign by ATC, to be displayed on the surveillance display of ATC. ATC can verify the data and use it for necessary identification.

##### iii. When Lining up:

Select TCAS

Select TCAS only after receiving the clearance to line up, to ensure that the performance of systems based on SSR frequencies (including airborne TCAS units, SSR and A-SMGCS) is not compromised.

### 3. ARRIVAL:

#### 1. When on the Runway:

Keep TCAS selected

## 2. After vacating the Runway:

Select Transponder or equivalent and AUTO if available

There is a need that the Transponder remains able to exchange data with the A-SMGCS system. However to ensure that the performance of systems based on SSR frequencies (including airborne TCAS Unit, SSR & A-SMGCS) is not compromised, TCAS shall be deselected when vacating the Runway.

## 3. Parked on Stand:

Select STBY

The Transponder will not reply to interrogation. The discrete SSR Code given to that particular flight can now be recycled for other flights.

Note: When on ground the aircraft must squawk Mode C, in order to provide the altitude information to the surveillance system, and thereby prevent:

- i) clutter on Terminal Approach Radar Display (and)
- ii) false automatic detection of departure for aircraft still on ground.

VABB	AD 2.23	ADDITIONAL INFORMATION
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## I. AIRCRAFT PARKING STAND DETAILS

### APRON - A

STAND NO.	WING SPAN (M)	LENGTH (M)	PCN	COORDINATES	REMARKS
A1	36	46	150/R/D/W/T	190529.98N0725121.65E	A321 (WL), B737 Max 10
A2	36	46	150/R/D/W/T	190529.97N0725120.26E	A321 (WL), B737 Max 10
A3	36	46	150/R/D/W/T	190529.95N0725118.88E	A321 (WL), B737 Max 10
A4	36	46	150/R/D/W/T	190529.93N0725117.49E	A321 (WL), B737 Max 10
A5	36	46	150/R/D/W/T	190529.91N0725116.11E	A321 (WL), B737 Max 10
A6	36	46	150/R/D/W/T	190529.90N0725114.72E	A321 (WL), B737 Max 10

A7	36	46	150/R/D/W/T	190529.94N0725113.14E	A321 (WL), B737 Max 10
A8	42	48	150/R/D/W/T	190529.92N0725111.22E	B757-200 (WL)
A9	42	48	150/R/D/W/T	190529.89N0725109.11E	B757-200 (WL)
A10	42	48	150/R/D/W/T	190529.88N0725107.29E	B757-200 (WL)
A11	42	48	150/R/D/W/T	190529.85N0725105.62E	B757-200 (WL)
A12	42	48	150/R/D/W/T	190529.94N0725103.94E	B757-200 (WL)

- i. Aircraft Parking Stands of ‘Apron A’ from Stand A1 to A7 are ‘Code C’ stands suitable for most critical aircraft up to A321 (Neo) and B737 (Max10).
- ii. Aircraft Parking Stands of ‘Apron A’ from Stand A8 to A12 are ‘Code D’ stands suitable for most critical aircraft up to maximum wing span of 41.15 m and B757-200 (WL).
- iii. All Aircraft Parking Stand of ‘Apron A’ are Power in-Pushback stands.
- iv. Aircraft Parking Stands of ‘Apron A’ from A1 to A8 are Contact parking stands. Aircraft Parking Stands of ‘Apron A’ from A9 to A12 are remote parking stands. However, stand A8 will be used as remote stand for B757-200 (WL) aircraft due to operational limitations.
- v. Aircraft Parking Stands A1 to A11 have been provide with fuel hydrant points and AVDGS. A-VDGS will be operational, 24X7 in all weather conditions..

#### APRON - C

STAND NO.	WING SPAN (M)	LENGTH (M)	PCN	COORDINATES	REMARKS
C10	27.5	46	150/R/D/W/T	190539.40N 0725132.06E	ATR 72
C11	36	46	150/R/D/W/T	190537.98N 0725131.28E	B-739, A-321
C12	36	46	150/R/D/W/T	190536.84N 0725130.58E	B-739, A-321
C13	36	46	150/R/D/W/T	190535.71N 0725129.88E	B-739, A-321
C14	36	46	150/R/D/W/T	190534.57N 0725129.18E	B-739, A-321
C15	36	46	150/R/D/W/T	190533.43N 0725128.48E	B-739, A-321
C16	36	46	150/R/D/W/T	190532.29N 0725127.78E	B-739, A-321
C17	36	46	150/R/D/W/T	190531.20N 0725127.26E	B-739, A-321

C18	36	46	150/R/D/W/T	190529.78N 0725126.40E	B-739, A-321	
C19	36	46	150/R/D/W/T	190528.36N 0725125.54E	B-739, A-321	
C20	29	46	150/R/D/W/T	190527.95N 0725124.53E	ATR 72	
C21	36	46	64/F/A/W/T	190536.51N 0725134.32E	B-739, A-321	
C22	36	46	64/F/A/W/T	190534.92N 0725133.34E	B-739, A-321	
C23	36	46	64/F/A/W/T	190533.30N 0725132.34E	B-739, A-321	
C24	36	46	64/F/A/W/T	190531.70N 0725131.35E	B-739, A-321	
C25	36	46	64/F/A/W/T	190530.10N 0725130.37E	B-739, A-321	
C26	36	46	64/F/A/W/T	190528.49N 0725129.38E	B-739, A-321	
C27	29	46	70/R/B/W/T	190534.63N 0725137.92E	Q-400	
C28	36	46	70/R/B/W/T	190533.56N 0725137.30E	B-739, A-321	
C29	36	46	70/R/B/W/T	190532.31N 0725136.64E	B-739, A-321	
C30	36	46	70/R/B/W/T	190531.15N 0725135.82E	B-739, A-321	
C31	36	46	70/R/B/W/T	190530.01N 0725135.12E	B-739, A-321	
C32	36	46	70/R/B/W/T	190528.87N 0725134.43E	B-739, A-321	
C33	36	46	70/R/B/W/T	190527.73N 0725133.72E	B-739, A-321	
C80	35.9	45	64/F/A/W/T	190528.278N 0725145.160E	B739WL, A321, Q-400	
C81	35.9	45	150/R/D/W/T	190529.647N 0725143.284E	B738WL, A321	
C82	35.9	44.5	150/R/D/W/T	190530.551N 0725142.291E	B-739, A-321	
C83	35.9	44.5	150/R/D/W/T	190531.469N 0725141.287E	B-739, A-321	
C84	35.9	44.5	150/R/D/W/T	190532.382N 0725140.290E	B-739, A-321	
C85	35.9	42.25	150/R/D/W/T	190533.303N 0725139.288E	B739, A320	
C86	35.9	42.25	150/R/D/W/T	190527.865N 0725138.775E	B739, A320	

C87	35.9	42.25	150/R/D/W/T	190528.776N 0725137.785E	B739, A320	
C88	35.9	42.25	150/R/D/W/T	190529.697N 0725136.794E	B739, A320	

\*All parking stands are remote stands.

Note:

- i. Pilots to use minimum engine power while taxing in and out of stands.
- ii. Single engine taxi-in to aircraft parking stands of Apron C is not permitted; pilots are advised to taxi on both engines.
- iii. Single engine taxi-out from aircraft parking stands of C21 to C26 is not permitted.
- iv. Aircraft Parking Stand C29 is kept vacant to provide the connectivity between the TWY U and taxilane W6. However, this stand is used as last arrival and first departure from Apron C.

## APRON - G

STAND NO.	WING SPAN (M)	LENGTH (M)	PCN	COORDINATES	REMARKS
G1	36	47	150/R/D/W/T	190539.96N 0725159.88E	A321
G2	44	48	150/R/D/W/T	190541.20N 0725201.11E	A310, B752
G3	65	74	150/R/D/W/T	190542.99N 0725202.28E	B744
G4L	36	46	150/R/D/W/T	190543.67N 0725204.31E	A321 (Neo), B737 Max 10
G4	65	74	150/R/D/W/T	190544.57N 0725204.12E	B744
G4R	36	46	150/R/D/W/T	190544.55N 0725205.37E	A321 (Neo), B737 Max 10
G5L	36	46	150/R/D/W/T	190545.66N 0725206.72E	B737 Max 10, A321 (Neo)
G5	74	71	150/R/D/W/T	190546.68N 0725206.76E	B744, A124
G5R	36	46	150/R/D/W/T	190546.59N 0725207.82E	B737 Max 10, A321 (Neo)
G6	36	46	110/R/C/W/T	190546.89N 0725212.53E	A321 (Neo), B737 Max 10
G7	36	46	110/R/C/W/T	190547.91N 0725213.58E	A321 (Neo), B737 Max 10
G8	36	46	110/R/C/W/T	190548.94N 0725214.64E	A321 (Neo),

## Notes:

- i. Aircraft Stand G1, G2, G3, G4L, G4, G4R, G5L, G5, G5R, G6, G7 and G8 are Power in and Pushback stands.
- ii. Aircraft Stands of G1, G2, G3, G4L, G4, G4R, G5L, G5, G5R, G6, G7 and G8 are remote parking stands.
- iii. Aircraft Stands G1, G2, G3 and G4 have been provided with fuel hydrant facility. However stands G4L, G4R, G5L, G5, G5R, G6, G7 and G8 do not have fuel hydrants facility.
- iv. Aircraft Stands G1, G2, G3, G4L, G4, G4R, G5, G6, G7 and G8 have been provided with aircraft stand identification signs and A-VDGS.
- v. Aircraft Stands, G5L and G5R have been provided with aircraft stand identification signs. A-VDGS not provided.

**APRON - K**

STAND NO.	WING SPAN (M)	LENGTH (M)	PCN	COORDINATES	REMARKS
K1	35.9	45	110/R/C/W/T	190541.985N 0725246.009E	A321, B739
K2	35.9	45	110/R/C/W/T	190543.195N 0725246.726E	A321, B739
K3L	35.9	45	110/R/C/W/T	190545.992N 0725248.127E	A321, B739
K3	65	76	110/R/C/W/T	190545.646N 0725248.091E	B744,A346
K3R	35.9	45	110/R/C/W/T	190544.445N 0725247.203E	A321, B739
K4L	35.9	45	110/R/C/W/T	190549.032N 0725246.904E	A321, B739
K4	65	76	110/R/C/W/T	190548.456N 0725247.543E	B744,A346
K4R	35.9	45	110/R/C/W/T	190547.643N 0725247.878E	A321, B739
K5L	35.9	45	110/R/C/W/T	190551.744N 0725245.244E	A321, B739
K5	65	76	110/R/C/W/T	190551.140N 0725245.648E	B744,A346
K5R	35.9	45	110/R/C/W/T	190550.621N 0725246.281E	A321, B739
K6L	35.9	45	110/R/C/W/T	190553.411N 0725243.199E	A321, B739
K6	65	76	110/R/C/W/T	190553.005N 0725243.546E	B744,A346
K6R	35.9	45	110/R/C/W/T	190552.338N 0725243.927E	A321, B739

All aircraft parking stands are remote stands.

**APRON - J**

STAND NO.	WING SPAN (M)	LENGTH (M)	PCN	COORDINATES	REMARKS
J1	30	30	77/R/C/W/T	190450.178N 0725224.052E	AT72
J2	30	30	77/R/C/W/T	190450.639N 0725223.084E	AT72
J3	35.9	45	77/R/C/W/T	190451.251N 0725222.030E	B739, A321
J4	35.9	45	77/R/C/W/T	190451.840N 0725220.791E	B739, A321
J5	35.9	45	77/R/C/W/T	190452.427N 0725219.552E	B739, A321
J6	35.9	45	77/R/C/W/T	190453.013N 0725218.311E	B739, A321
J7	35.9	45	77/R/C/W/T	190453.603N 0725217.070E	B739, A321
J8	35.9	45	77/R/C/W/T	190454.195N 0725215.828E	B739, A321
J9	30	30	77/R/C/W/T	190456.459N 0725219.800E	AT72
J10	30	30	77/R/C/W/T	190456.918N 0725218.835E	AT72

\*All parking stands are remote stands.

**APRON - R**

STAND NO.	WING SPAN (M)	LENGTH (M)	PCN	COORDINATES	REMARKS
R1L	35.9	45	110/R/C/W/T	190534.140N 0725228.738E	A321, B739
R1	65	76	110/R/C/W/T	190534.566N 0725227.877E	B744, A346
R1R	35.9	45	110/R/C/W/T	190535.325N 0725227.974E	A321, B739
R2L	35.9	45	110/R/C/W/T	190532.648N 0725231.254E	A321, B739
R2	80	76	110/R/C/W/T	190532.656N 0725230.348E	A388
R2R	35.9	45	110/R/C/W/T	190533.293N 0725230.015E	A321, B739
R3	35.9	45	110/R/C/W/T	190532.419N 0725232.513E	A321, B739
R4	35.9	45	110/R/C/W/T	190532.096N 0725228.758E	A321, B739

R5	35.9	45	110/R/C/W/T	190533.413N 0725228.736E	A321, B739	
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All aircraft parking stands are remote stands.

#### APRON - S

STAND NO.	WING SPAN (M)	LENGTH (M)	PCN	COORDINATES	REMARKS
S1L	35.9	45	110/R/C/W/T	190532.198N 0725207.784E	A321, B739 WL
S1	65	76	110/R/C/W/T	190531.909N 0725207.219E	B744, A346
S1R	35.9	45	110/R/C/W/T	190532.844N 0725206.518E	A321, B739 WL
S2	65	76	110/R/C/W/T	190533.590N 0725205.480E	B744, A346
S2R	35.9	45	110/R/C/W/T	190533.953N 0725205.710E	A321, B739 WL
S3L	35.9	45	110/R/C/W/T	190534.975N 0725204.827E	A321, B739 WL
S3	68.5	76	110/R/C/W/T	190534.860N 0725204.070E	B748, A346
S3R	35.9	45	110/R/C/W/T	190535.660N 0725203.603E	A321, B739 WL

All aircraft parking stands are remote stands.

#### APRON - V

STAND NO.	WING SPAN (M)	LENGTH (M)	PCN	COORDINATES	REMARKS
V3L	36	46	110/R/C/W/T	190555.127N 0725218.278E	B739,A321
V3R	36	46	110/R/C/W/T	190554.137N 0725220.523E	B739,A321
V4L	35.9	45	110/R/C/W/T	190552.423N 0725220.624E	B739,A321
V4	65	76	110/R/C/W/T	190552.328N 0725221.957E	B744, A346
V4R	35.9	45	110/R/C/W/T	190552.042N 0725222.223E	B739,A321
V5	65	76	110/R/C/W/T	190548.638N 0725223.150E	B744, A346
V6L	35.9	45	110/R/C/W/T	190546.992N 0725220.998E	B739,A321

V6	65	76	110/R/C/W/T	190545.706N 0725221.035E	B744, A346	
V6R	35.9	45	110/R/C/W/T	190545.511N 0725220.653E	B739,A321	
V7L	35.9	45	110/R/C/W/T	190545.067N 0725219.035E	B739,A321	
V7	65	76	110/R/C/W/T	190543.747N 0725219.007E	B744, A346	
V7R	35.9	45	110/R/C/W/T	190543.586N 0725218.589E	B739,A321	
V8L	35.9	45	110/R/C/W/T	190543.175N 0725217.147E	B739,A321	
V8	65	76	110/R/C/W/T	190542.003N 0725217.214E	B744, A346	
V8R	35.9	45	110/R/C/W/T	190541.891N 0725216.929E	B739,A321	
V9	65	76	110/R/C/W/T	190540.378N 0725215.346E	B744, A346	
V10	65	76	110/R/C/W/T	190539.021N 0725213.745E	B744, A346	
V11	65	76	110/R/C/W/T	190537.664N 0725212.469E	B744, A346	
V12	65	76	110/R/C/W/T	190536.704N 0725214.035E	B744, A346	
V13	65	76	110/R/C/W/T	190536.286N 0725215.751E	B744, A346	
V14	65	76	110/R/C/W/T	190536.435N 0725217.384E	B744, A346	
V15	65	76	110/R/C/W/T	190536.468N 0725219.377E	B744, A346	
V16	65	76	110/R/C/W/T	190537.030N 0725220.906E	B744, A346	
V17L	35.9	45	110/R/C/W/T	190538.433N 0725222.176E	A321,B739 WL	
V17	80	76	110/R/C/W/T	190539.407N 0725221.516E	B744, A346, A380	
V17R	35.9	45	110/R/C/W/T	190539.835N 0725221.728E	A321, B739 WL	
V18L	35.9	45	110/R/C/W/T	190540.822N 0725223.871E	A321, B739	
V18	80	76	110/R/C/W/T	190541.950N 0725223.870E	A388	
V18R	35.9	45	110/R/C/W/T	190542.204N 0725223.941E	A321, B739	
V19	65	76	110/R/C/W/T	190543.675N 0725226.829E	B744,A346	
V20L	35.9	45	110/R/C/W/T	190542.539N 0725230.266E	A321, B739	

V20	80	45	110/R/C/W/T	190542.905N 0725231.232E	A388	
V20R	35.9	76	110/R/C/W/T	190542.697N 0725231.559E	A321, B739	
V21L	35.9	45	110/R/C/W/T	190540.84N 0725232.39E	A321, B739	
V21	80	76	110/R/C/W/T	190541.362N 0725233.539E	A388	
V21R	35.9	45	110/R/C/W/T	190541.343N 0725233.704E	A321, B739	
V22	65	76	110/R/C/W/T	190539.688N 0725235.219E	B744,A346	
V23	65	76	110/R/C/W/T	190540.695N 0725236.595E	B744,A346	
V24	65	76	110/R/C/W/T	190542.042N 0725237.335E	B744,A346	
V25	65	76	110/R/C/W/T	190543.416N 0725238.226E	B744,A346	
V26L	35.9	45	110/R/C/W/T	190544.492N 0725238.265E	A321, B739	
V26	65	76	110/R/C/W/T	190544.673N 0725237.147E	B744,A346	
V26R	35.9	45	110/R/C/W/T	190544.901N 0725236.854E	A321, B739	
V27L	35.9	45	110/R/C/W/T	190546.145N 0725236.268E	A321, B739	
V27	65	76	110/R/C/W/T	190546.043N 0725234.872E	B744,A346	
V27R	35.9	45	110/R/C/W/T	190546.250N 0725234.740 E	A321, B739	
V28L	35.9	45	110/R/C/W/T	190548.593N 0725234.100E	A321, B739	
V28	65	76	110/R/C/W/T	190549.326N 0725233.484E	B744,A346	
V28R	35.9	45	110/R/C/W/T	190549.799N 0725232.902E	A321, B739	
V29	65	76	110/R/C/W/T	190552.818N 0725234.074E	B744,A346	
V30L	35.9	45	110/R/C/W/T	190553.790N 0725236.290E	A321, B739	
V30	65	76	110/R/C/W/T	190554.980N 0725235.968E	B744,A346	
V30R	35.9	45	110/R/C/W/T	190555.390N 0725236.227E	A321, B739	
V31L	35.9	45	110/R/C/W/T	190556.000N 0725237.794E	A321, B739	
V31	65	76	110/R/C/W/T	190557.247N 0725237.391E	B744,A346	

V31R	35.9	45	110/R/C/W/T	190557.542N 0725237.666E	A321, B739	
V32L	35.9	45	110/R/C/W/T	190558.310N 0725239.100E	A321, B739	
V32	65	72	110/R/C/W/T	190559.508N 0725238.720E	B772,B744	
V32R	35.9	45	110/R/C/W/T	190559.723N 0725239.155E	A321, B739	

All aircraft parking stands are contact stands.

Notes (Stands V3L and V3R):

- i. Aircraft Stands V3L and V3R are Power-in and Pushback stands.
- ii. Aircraft Stands V3L and V3R are remote stands.
- iii. Aircraft Stands V3L and V3R, stands do not have fuel hydrants facility.
- iv. Aircraft Stands V3L and V3R have been provided with aircraft stand identification signs and A-VDGS. A-VDGS will be operational, 24X7.

## II. Taxiways

Designation	Width/ Shoulders (M)	PCN	Location	Lighting system	Remarks / Length (M)
N	25/17.5	a) 150/R/C/W/T from RWY 09 beginning up to junction of TWY N7/N.  b) 64/F/A/W/T from junction of TWY N7/N up to junction of TWY N6/N.  c) 150/R/C/W/T from junction of TWY N6/N up to RWY 14/32.	127.9m before RWY 09 Threshold, at 90 DEG North of RWY. TWY N joins extremity of RWY 09 to RWY 14 on the west.	Edge / centreline	Code F / 2006
N11	25/17.5	110/R/C/W/T	12.5m beyond RWY 09 Threshold, at 90 DEG North of RWY.	Edge/ centreline	Code F / 163

N10	25/17.5	110/R/C/W/T	211m beyond RWY 09 Threshold, at 90 DEG North of RWY.	Edge/ centreline	Code F / 180
RET N9	25/17.5	150/R/D/W/T	525m beyond RWY 09 Threshold, at 150 DEG North of RWY.	Edge/ centreline/ RETILs (Yellow colour lights, in 3-2-1 countdown pattern)	Code F / Distance from RWY 27 threshold 2300 m. & distance at point of turn off 2152 m. / Length 375.
RET N8	25/17.5	150/R/D/W/T	825m beyond RWY 09 Threshold, at 155 DEG North of RWY.	Edge/ centreline/ RETILs (Yellow colour lights, in 3-2-1 countdown pattern)	Code F / Distance from RWY 27 threshold 2000 m. & distance at point of turn off 1878M. / Length 334.
F1	23/10.5	110/R/C/W/T	1072m beyond RWY 09 threshold at 150 DEG South of RWY	Edge/ centreline/RETILs (Yellow colour lights, in 3-2-1 countdown pattern)	Code E / Distance from RWY 27 threshold 1702 m & distance at point of turn off 1574m / TWY Length 361m up to TWY F3 junction / Length 542
RET N7	23/10.5	79/R/C/W/T	1123m beyond RWY 09 Threshold, at 148 DEG North of RWY.	Edge/ centreline/RETILs (Yellow colour lights, in 3-2-1 countdown pattern)	Code E / Distance from RWY 27 threshold 1702m & distance at point of turn off 1574m / Length 358
N6	23/10.5	71/F/B/W/U	1072m beyond RWY 09 Threshold, at 40 DEG North of RWY.	Edge	Code F / 294
Q	25/17.5	110/R/C/W/T	1688m beyond RWY 09 Threshold, at 45 DEG South of RWY.	Edge	Code F / 269

W	25/17.5	110/R/C/W/T	1688m beyond RWY 09 Threshold, at 135 DEG North of RWY	Edge / centreline	Code F / 269
E	23/10.5	110/R/C/W/T	2215m beyond RWY 09 Threshold, at 135 DEG North of RWY	Edge/ centreline (C/L provided between RWY 27 and TWY P)	Code F / 635
E1	23/10.5	150/R/D/W/T	2215m beyond RWY 09 Threshold, at 45 DEG South of RWY. TWY E1 joins RWY 09 to the extremity of RWY 32 on the east.	Edge	Code F / 1179
RET N5	25/17.5	110/R/C/W/T	2145m from threshold, at 30 DEG North of RWY 09	Edge / centreline / RETILs (Yellow colour lights, in 3-2-1 countdown pattern)	Code F / Distance at point of turn off 2014M./ TWY length 415 M.
N4	23/10.5	110/R/C/W/T	2662m beyond RWY 09 Threshold, at 89 DEG North of RWY.	Edge / centreline	Code F / 190
N3	25/17.5	110/R/C/W/T	3035m beyond RWY 09 Threshold, at 90 DEG North of RWY. TWY N3 is last exit TWY during RWY 09 operations.	Edge / centreline	Code F / 190
N1	25/17.5	110/R/C/W/T	440m before RWY 27 Threshold, at 90 DEG North of RWY 27. TWY N1 joins extremity of RWY 27 to RWY 14 on the East.	Edge/ centreline	Code F / 1701
N1R	25/17.5	90/F/B/W/T	South-West of TWY N1 Centre line after 20m from RWY holding position on TWY N1	Edge/ centreline	Code F / 151

E10	25/17.5	110/R/C/W/T	387m before RWY 14 Threshold, at 90 DEG East of RWY.	Edge	Code F / 598
E9	25/17.5	110/R/C/W/T	290m before RWY 14 Threshold, at 90 DEG East of RWY.	Edge	Code F / 190
RET E8	25/17.5	110/R/C/W/T	101m beyond RWY 14 Threshold, at 150 DEG East of RWY.	Edge/ centreline RETILs (Yellow colour lights, in 3-2-1 countdown pattern)	Code F / Distance from RWY 32 threshold 2175 m & distance at point of turn off 2054m / Length 380.
E7	25/17.5	110/R/C/W/T	69m beyond RWY 14 Threshold, at 104 DEG East of RWY.	Edge	Code F / 196
W7	23/10.5	149/R/D/W/T	69m beyond RWY 14 Threshold, at 76 DEG West of RWY.	Edge /centreline	Code C /Centreline / Edge lights (Between RWY holding position to RWY 14) / Length 677m
W6	23/10.5	110/R/B/W/T	167m beyond RWY 14 Threshold, at 76 DEG West of RWY.	Edge	Code C / Edge lights provided on TWY W6 beyond holding position of RWY 14 / Length 597
RET W5	18/10	58/R/D/W/T ( From edge of RWY a length of 150m) 56/R/B/W/T ( From edge of rigid portion up to TWY W6 for a length of 84m)	822m beyond RWY 14 beginning, at 150 degrees west of RWY 14	Edge/ centreline RETILs (Yellow colour lights, in 3-2-1 countdown pattern)	Code C / Distance from RWY 32 threshold 1851m & point of turn off at 1706m from threshold of RWY 32 / Designed exit Speed-50 knots (93kmph) /

					Length 261
W4	23/10.5	77/R/B/W/U	692m beyond RWY 14 Threshold, at 95 DEG West of RWY.	Edge/ centreline	Code F / 223
E5	23/10.5	100/F/A/W/T	691m beyond RWY 14 Threshold, at 85 DEG East of RWY.	Edge/ centreline	Code F / 191
N	25/17.5	a) 150/R/C/W/T from RWY 09 beginning up to junction of TWY N7/N. b) 64/F/A/W/T from junction of TWY N7/N up to junction of TWY N6/N. c) 150/R/C/W/T from junction of TWY N6/N up to RWY 14/32	887m beyond RWY 14 Threshold, at 134 DEG West of RWY. TWY N joins west of RWY 14 up to extremity of RWY 09.	Edge/ centreline	Code F / 2006
N1	25/17.5	110/R/C/W/T	887m beyond RWY 14 Threshold, at 46 DEG East of RWY. TWY N1 joins east of RWY 14 up to extremity of RWY 27.	Edge/ centreline	Code F / 1701
F5	25/17.5	110/R/C/W/T	1429m beyond RWY 14 Threshold, at 45 DEG East of RWY.	Edge	Code F / 258
F4	25/17.5	150/R/D/W/T	1429m beyond RWY 14 Threshold, at 135 DEG West of RWY.	Edge	Code E / 269
E3	23/10.5	67/R/C/W/T	2115m beyond RWY 14 Threshold, at 30 DEG East of RWY.	Edge/ centreline	Code F / 253
RET E4	23/10.5	67/R/C/W/T	1700m beyond RWY 14 Threshold, at 30	Edge/ centreline/ RETILs	Code F / Distance at point of turn off

			DEG East of RWY.  (Yellow colour lights, in 3-2-1 countdown pattern)		1573m / Length 364
E1	23/10.5	150/R/D/W/T	2436m beyond RWY 14 Threshold, at 90 DEG East of RWY.	Edge	Code F / 1179
W1	25/17.5	110/R/C/W/T	2411m beyond RWY 14 Threshold, at 90 DEG West of RWY.	Edge	Code C / 619
D1	18/3.5	150/R/D/W/T	Off TWY F1 across Non-Scheduled Area.	Edge	Code C / 146
F3	15/5	79/R/C/W/T	Between Taxiway F1 up to Taxiway D1	Edge	Code C / 222
Taxi lane L	23/10.5	90/R/D/W/T	From TWY L1 up to behind Aircraft Stand A1.	Edge/ centreline	Code D / Compliant for taxiing of aircraft up to wing span of 41.15M & for B757-200 (WL) / Length 521
L1	23/10.5	85/R/B/W/T	Off TWY N onto Apron A.	Edge/ centreline	Code D / Compliant for taxiing of aircraft up to wing span of 41.15M & for B757-200 (WL) / Length 77M
L3	84/10.5	85/R/B/W/T	Off TWY N onto Apron A.	Edge/ centreline	Code D / Compliant for taxiing of aircraft up to wing span of 41.15M & for B757-200 (WL) / Length 77M
L4	23/10.5	85/R/B/W/T	Off TWY N onto Apron A.	Edge/ centreline	Code D / Compliant for taxiing of aircraft up to wing span

					of 41.15M & for B757-200 (WL) / Length 77
U	23/10.5	66/R/D/W/T	North of TWY N on to Apron D.	None	Code C / 299
Taxi lane P	23/10.5	100/F/A/W/T	From the junction of TWY E5/E up to behind Aircraft Stand G5	Edge/ centreline	Code E (Flexible use up to Code F) / 497
Taxi lane T	23/10.5	110/R/C/W/T	From Taxi lane H up to behind Aircraft Stand V4L	Centreline	Code E / 538
Taxi lane H	23/10.5	110/R/C/W/T	From Taxi lane P up to TWY M7	Centreline	Code E (Flexible use up to Code F) / 565
	25/17.5		Between TWY M7 and TWY M5	Centreline	Code F/ 634
Taxi lane H1	23/10.5	110/R/C/W/T	From TWY M5 up to northern segment of TWY Link 5, between TWY B1 and TWY Y1.	Centreline (Alternate orange and green light)	Code E/ (Marked with interrupted orange colour)/ Length 488
Taxi lane H3	23/10.5	110/R/C/W/T	Between TWY Link 6 up to behind stand V31	Centreline (Alternate orange and green light)	Code E/ (Marked with interrupted orange colour)/ Length 216
M8	23/10.5	110/R/C/W/T	Between TWY M and taxi lane H, west of TWY M7	Centreline	Code F / 110
M7	25/17.5	110/R/C/W/T	North of TWY N1 from TWY N1 to taxi lane H	Edge/ centreline	Code F / 191
M6	25/17.5	110/R/C/W/T	From Taxiway N1 up to TWY M	Edge/ centreline	Code F / 98

M5	25/17.5	110/R/C/W/T	Between TWY M and Taxi lane H	Centreline	Code F / 133
	25/17.5		Between TWY N1 and TWY M	Edge / Centreline	Code F / 125
M4	23/10.5	110/R/C/W/T	Between TWY M up to Taxilane H1	Edge ( Edge lights provided at east side only)/ Centreline (Alternate Orange & Green between TWY Y1 & Taxilane H1)	Code E / 255
M	25/17.5	110/R/C/W/T	Between TWY M6 and TWY M4, parallel to TWY N1 on North.	Edge (only at Southern side)/ Centreline	Code F / 370
	25/17.5		Between TWY E and TWY M7, parallel to TWY N1 on North.	Edge (only at southern side)/ Centreline	Code F / 529
B1	18/3.5	110/R/C/W/T	From Taxi lane H1 up to southern segment of TWY Link 5, parallel to TWY Y1	Centreline	Code C / 313
Y1	18/3.5	110/R/C/W/T	From TWY M4 up to southern segment of TWY Link 5, Parallel to TWY B1	Centreline	Code C / 370
Taxilane B3	23/10.5	110/R/C/W/T	Between northern segment of TWY Link 5 and TWY Link 6, parallel to Taxi lane Y3	Centreline	Code E / 215
Taxilane Y3	23/10.5	110/R/C/W/T	Between northern segment of TWY Link 5 and TWY Link 6, parallel to taxi lane B3	Centreline	Code E / 146
B4	18/3.5	110/R/C/W/T	Between TWY Link 6 up to behind aircraft stand V32R	Centreline	Code C / 309

Y4	18/3.5	110/R/C/W/T	Between TWY Link 6 up to behind aircraft stand V31R	Centreline	Code C / 229
Z	15/5	110/R/C/W/T	Northeast of TXL P, Parallel to TXL T	Centre Line Lights: Not Provided  Edge Lights: Not Provided	Code C / 348
Z1	49/15	110/R/C/W/T	Northeast of TWY Z and TXL T.	Centre Line Lights: Not Provided  Edge Lights: Not Provided	Code C / 49
Link 1	23/10.5	110/R/C/W/T	Connecting Taxi lane P to Taxi lane T and Vice versa.	Centreline	Code E / 112 (Southern Segment)
			Connecting TWY Z to TXL T and Vice versa.	Centreline	Code C / 111 (North segment)
Link 4	18/3.5	110/R/C/W/T	Linking TWYs B1 and Y1	Centreline	Code C / 69
Link 5	23/10.5	110/R/C/W/T	Behind stand K5/V26, linking TWYs B3/Y3.	Centreline	Code E / 118 (Northern segment)
	18/3.5	110/R/C/W/T	Behind stand K4, linking TWYs B1/Y1	Centreline	Code C / 98 (Southern segment)
Link 6	23/10.5	110/R/C/W/T	Behind stand V27R/K6R, linking Taxi lanes Y3 / B3.	Centreline	Code E / 118
Link 7	18/3.5	110/R/C/W/T	Linking TWYs B4 and Y4 (Behind Stand V31)	Centreline	Code C / 69

Link C1	18/3	110/R/C/W/T	Behind parking stand V23 linking TWY B1 & Y1	NONE	Code C / 99
Link C3	18/3	110/R/C/W/T	Behind parking stand V30 linking TWY B4 & Y4.	NONE	Code C / 89
Link C4	112/18	110/R/C/W/T	TWY B1 to TWY Y1 and vice versa.	Centre Line Lights: Not Provided  Edge Lights: Not Provided	Code C / 112
Link C9	15/5	64/F/A/W/T	Connecting Taxilanes W7 and W6 behind aircraft parking stand C27	NONE	Code C / 141

**Note 1:**

- i. Taxiway L1, L3, L4 and Taxilane L are suitable for taxiing of aircraft up to wing Span 41.15m and compliant for taxiing of B757-200 (WL).
- ii. Pilots are advised to use minimum engine power while taxiing in and out from Apron A.

**Note 2:**

- i. Rapid Exit Taxiway W5 is suitable for aircraft up to Code C only.
- ii. Rapid Exit Taxiway W5 is NOT suitable for Code D, E and F aircraft.
- iii. Code D, E and F aircraft are not permitted to vacate RWY 32 via RET W5.
- iv. Entry on TWY W5 is not permitted from TWY W6; NO ENTRY BAR is installed at TWY W6 and TWY W5 junction.
- v. Taxiway N1 centerline lights will be kept ON and Taxiway N1R centerline lights will be kept in OFF position. The taxiway centerline lights of taxiway N1R will be switched ON only in case requested by pilot

**Note 3 (TWY Z):**

- i. **TWY Z is available for taxiing of aircraft up to Code C only.**
- ii. **TWY Z can be used for bidirectional taxiing of aircraft from TXL P till TXL T and for parking on stand V4, V4L, V4R, V5 and V6L.**
- iii. **Intermediate Holding Position abeam stand G8, is provided for holding of aircraft on TWY Z clear of TWY Z1.**
- iv. **Pilots to use minimum thrust while executing right turn to join TXL T from TWY Z.**
- v. **Retroreflective centerline marking is provided for adequate conspicuity.**
- vi. **Hours of Operation of TWY Z:**
  - a) **0130 UTC to 1630 UTC, TWY Z will be operational. Stands G6, G7 and G8 will be closed for operations.**
  - b) **1630 UTC to 0130 UTC, TWY Z will be closed. Aircraft will operate from stands G6, G7 and G8.**

**Note 4 (TWY Z, Z1 and TWY Link C4):**

- i. **Taxiway Z is compatible for aircraft up to Code C only and aircraft can taxi bidirectionally on taxiway Z and taxilane T.**

- ii. Taxiway Z1 connects taxiway Z with taxilane T which can help aircraft to dock into stand V4L.**
- iii. Taxiway Link C4 is compatible for aircraft up to Code C only which connects taxiway B1 to taxiway Y1 and vice versa. Aircraft taxiing on taxiway link C4 is clear-off an aircraft holding on tug release point T24 after push back.**
- iv. Retroreflective centre line marking is provided for adequate conspicuity.**

**Hours of Operation of TWY Z:**

- i. 0130 UTC to 1630 UTC TWY Z will be operational. Stands G6, G7 and G8 will be closed for operations.**
- ii. 1630 UTC to 0130 UTC TWY Z will be closed. Aircraft will operate from stands G6, G7 and G8.**

### **III. FLEXIBLE USE OF TAXIWAY W7**

#### **1. INTRODUCTION**

During the use of Runway 09/27, Taxiway W7 is used for taxiing of aircraft up to Code C. However, during the period when Runway 14/32 is in use, to eliminate any requirement for backtrack on the runway by aircraft above Code C, taxiway W7 can be temporarily upgraded up to Code F after implementing mitigation measures for safe aircraft operations.

The procedures described below are used when TWY W7 is upgraded for taxing of aircraft upto code F during the specified periods.

##### **1.1 Specifications of TWY W7 as Code C TWY:**

The specification of TWY W7 are given in table above in Para II Taxiway.

##### **1.2 Additional Information:**

- i) Taxiway minimum separation distances for aircraft stand taxilane centreline to object of 22.5m for Aircraft Code C is provided as per DGCA CAR Section 4, Series-B, Part 1, Table 3-1.**

##### **1.3 Specifications of Taxiway W7 as Code F Taxiway:**

Specification mentioned vide Table above in Para II Taxiway remains unchanged, however,

###### **a) Additional Information:**

- i) Taxiway minimum separation distances for Taxiway other than aircraft stand taxilane, centreline to object of 51m for Aircraft Code F is provided as per DGCA CAR Section 4, Series-B, Part 1, Table 3-1.**

Note:

- I) Minimum turning radius (radius of curve) of 48.75m (suitable for aircraft up to A-380) is provided at the junction of RWY 14.**
- II) Transverse and longitudinal slope requirements of Apron / aircraft stand taxilane are compliant.**

##### **2.0 Procedure:**

Taxiway W7 shall be used as a Code C Taxiway when Runway 09/27 is in use. But the said taxiway shall be used as a Code F taxiway during use of Runway 14/32, which may be due to the following reasons.

##### **2.1 Planned use of runway 14/32 (during maintenance of Runway 09/27 etc.)**

- 2.1.1 Mondays (0830 UTC to 1015 UTC) and Thursdays, (0815 UTC to 1015 UTC),**

Runway 09/27 is closed for maintenance and Runway 14/32 is used.

The following actions shall be taken for using taxiway W7 as Code F:

- 2.1.1.1 Aircraft stands of Apron C from C10 to C20 and from C21 to C26 shall be closed and kept vacant 01 hour prior to the upgradation of W7 until Runway 14-32 is in operation to provide minimum separation distance required for Code F i.e. 51m.**

- 2.1.1.2 Red (obstruction) flags shall be placed at a distance of 51 m from centreline of W7 on North West of TWY W7 to demarcate and delineate the Code F Taxiway strip.**

2.1.1.3 Head of stand (HOS) road provided in front of Stand 21 to 26 will be closed for vehicle operations by placing obstruction lights/markers.

2.1.1.4 Vehicular lane provided between C10 and C11 stands to C21 shall be closed by placing barricades for vehicular traffic.

2.1.1.5 No vehicle, person or equipment is allowed within the demarcated Taxiway strip of code F. Enhanced vigil by ‘Follow Me’ vehicle shall be maintained to ensure the compliance.

2.1.1.6 Any extension of Taxiway W7 upgradation for code F shall be notified by promulgating a separate NOTAM.

2.1.1.7 Upgradation of Taxiway W7 as Code F shall be broadcasted in D-ATIS for information of all concerned.

Note: NOTAM shall be promulgated when TWY W7 is not upgraded as Code F taxiway on planned days as mentioned in para 2.1.1 above i.e. Mondays and Thursdays.

## 2.2 Reversal of W7 from Code F Taxiway to Code C taxilane:

2.2.1 Once the operations on RWY 14/32 are suspended, ATC shall intimate Apron Control for reversal of Taxiway W7 from Code F to Code C.

2.2.2 After completion of all action points mentioned below Apron Control shall intimate to ATC on R/T that Taxiway W7 is downgraded as Code C.

2.2.2.1 Red flags deployed for demarcation of Code F Taxiway strip and the obstruction lights deployed for road closure shall be removed.

2.2.2.2 Barricades deployed to close the vehicular lane between the C10 and C11 shall be removed.

2.2.2.3 After completion of action mentioned above from 2.2.2.1 and 2.2.2.2 Apron Control shall intimate AOCC about availability stands from C10 to C26 of Apron C.

2.2.2.4 Reversal of Taxiway W7 from Code F to Code C Taxiway will be broadcast on ATIS up to 30 minutes after the suspension of operations on RWY 14/32.

2.3 Procedure for upgradation of Taxiway W7 during unplanned / emergency use of Runway 14/32, (non-availability of Runway 09/27, non-availability of a critical taxiway or any reason whatsoever). The duration of the estimated emergency closure for Runway 09/27 and its impact on the operations will be assessed by Mumbai International Airport Ltd. (MIAL) in coordination with concerned department including WSO (AAI ATC).

If the duration and impact on operations mandates the upgradation of Taxiway W7 for Code F operations. MIAL AOCC shall coordinate with respective airlines and initiate the process of shifting of aircraft parked on stands from C10 to C26. After coordination with airlines about the shifting of aircraft, Apron Control will determine the time by which the Taxiway W7 can be upgraded and intimated to all concerned.

NOTAM shall be promulgated regarding upgradation of TWY W7 as code F and broadcasted on ATIS.

Note:

Unplanned / Emergency upgradation of TWY W7 for code F cannot be foreseen and anticipated. The duration of upgradation of TWY W7 is subject to the conditions prevailing during such emergency situation and shall be dependent on various other operational parameters and availability of resources.

3.Roof top heliport(Jio heliport) under private use CAT established At LCA Dhirubhai Ambani International Convention And Exhibition Centre(DAICEC) Bandra Kurla Complex(BKC) Mumbai

With Geographical Coord 190346.69N 0725158.22E in Mumbai FIR.



#### IV. PERIODIC CLOSURE OF RUNWAY FOR PREVENTIVE MAINTENANCE

1. RWY 09/27 closed for preventive maintenance every Monday 0830-1015 UTC and Thursday between 0815-1015 UTC subject to weather and visibility. RWY restoration time 30min.
2. RWY 14/32 closed for preventive maintenance every Wednesday between 0545 UTC up to 0745 UTC. Runway will be restored within 30 minutes with prior notice.
3. RWY 09/27 and RWY 14/32 closed daily except Friday between 2150 UTC to 2230 UTC for landing and take-off due to periodic maintenance of intersection of runways. In case of emergency runway restoration period is 10 minutes.
4. Intersection of RWY 09/27 and RWY 14/32 closed on every Monday between 0815 UTC and 0830 UTC for inspection of RWY Intersection area.

#### V. ADS/CPDLC SYSTEM

1. Available 24 HRs within Mumbai FIR on segments of ATS routes N519, L301, L505, N571, P574, N563, M300, P570, L894, P751, UL425, UM551, P323, G450, G424, B459, T940, A474, G465, N628, R461, L875 and L756 over Arabian sea oceanic airspace. The service is available to all aircraft suitably equipped with data link capability. The data link capable ACFT while operating in Mumbai FIR shall follow procedures as given below:
  - i. Data link and ADS capability shall be indicated in the FPL by indicating appropriate designator in item 10 and 18.
  - ii. The AFN log on address of Mumbai FIR is 'VABF'.
  - iii. The arriving ACFT shall log on 10 min prior to entering Mumbai FIR. ADS/CPDLC capable aircraft entering Mumbai FIR via ORLID to LOGON VABF 15 minutes prior to enter Mumbai FIR.
  - iv. Aircraft departing/transiting from/within Mumbai FIR shall LOGIN within 15 minutes prior to leaving Mumbai TMA limits.
  - v. CPDLC will be the primary means of communication and VHF/HF will be secondary means of communication for the aircraft successfully logged on to ADS/CPDLC when operating in Mumbai OCC. When operating inside TMA, VHF shall be primary means of communication for the aircraft.
  - vi. During the period when aircraft is logged on to ADS/CPDLC, voice position reporting will be to supplement CPDLC Position report only when requested by ATC.
  - vii. SELCAL checking is required to verify the HFRT connectivity.
  - viii. VOICE positioning shall be resumed in case of ADS/CPDLC link failure. Pilots unable to establish data link connection shall inform appropriate ATS unit through Voice communication on VHF 132.700, 125.350, 133.300, 133.425, 135.750, 133.925, 133.850, 120.500, 127.150 MHZ or HF 10018/13288/5658/3467/6661/8879/3476KHZ.
2. In keeping with the policy BEST EQUIPPED BEST SERVED, Mumbai Oceanic Control will accord priority to FANS-1A aircraft LOGIN ON to Mumbai ADS-C/CPDLC over other aircraft in allocation of preferred cruising level on ATS routes UL425, M300, N571, P570 and P574. Aircraft equipped with ADS-C/CPDLC are encouraged to LOG ON while operating in Arabian sea region for optimum use of airspace.

**VI. ACC SECTORS:**

1. H-24 VABB ACC sectors reorganized into four sectors as ACC NORTH, ACC SOUTH, ACC WEST and LOWER AREA CONTROL (LAC) within TMA.

2. Lower Area Control between FL145 to FL245 up to 50 NM from BBB and FL070 to FL245 from 50 NM to 100 NM from BBB.

3. Sector North bounded by BBB VOR R353 to R100 excluding area within LAC.

4. Sector South bounded by BBB VOR R100 to R172 clockwise excluding area within LAC.

5. Sector West bounded by BBB VOR R172 to R353 clockwise excluding area within LAC.

6. Depending on the traffic, ATC may change the sector configuration.

7. Vertical limits are same as published in AIP INDIA.

8. RCAG frequency 125.350 MHz VABB/VOGO sector commissioned & operational.

9. RCAG frequency 132.700 MHz VABB/VAAU and VABB/VAPR sector commissioned & operational.

10. RCAG frequency 133.300 MHz VABB/VAPR sector commissioned & operational.

11. All West bound flights on L301/L505, N571 and P574 must report position KARKU, SUGID AND BISET respectively to VABB Radio in addition to VABB AREA CONTROL

VII. Pilot shall not initiate request for DCT routing between FL 140 on Mumbai Approach Control Frequency 127.900 MHz and 119.300 MHz to reduce radio telephony congestion.

VIII. Bird activity in and around the airfield due to grass cutting operations along the basic strip of RWY. Pilot to exercise caution.

IX. No turn Pad available for RWY 09, 27, 14 and 32.

X. Last available exit TWY for RWY 09 is TWY N3.

XI. H24 Aircraft taxing or towing shall not cross any RWY without positive clearance from tower.

XII. RWY 14/32 upgraded for ACFT OPS upto CODE F.

XIII. ACFT OPS upto CODE F permitted from all RWY.

XIV. ASMGCS commissioned to enhance visual surveillance.

**XV. Exemptions Granted by DGCA:**

- (a) DGCA India has granted exemption vide letter dated 30.08.2022 for the period up to 31.12.2026 for the following:
- (i) Security fence on southern side of RWY 27 beginning is located within the runway strip against provisions in CAR Section 4 Series B Part I Para 3.4.6.
  - (ii) Security fence on eastern and western side of RWY 14 beginning is located within the runway strip against provisions in CAR Section 4 Series B Part I Para 3.4.6.
  - (iii) Jet airways GSD and Engg. Structures located on western side of RWY 14/32 are situated within RWY strip.
  - (iv) General Aviation, Navy & Airforce Hangars penetrating transitional surface of RWY 09/27 against provisions in CAR Section 4 Series B Part I Para 4.2.21.
  - (v) ATS Technical block and Antenna penetrating transitional surface of RWY 14/32 against provisions in CAR Section 4 Series B Part I Para 4.2.21.
  - (vi) General Aviation aircraft are parked on GA apron (old airport) without standard clearances between stands against provisions in CAR Section 4 Series B Part I Para 3.13.6.

**XVI. Tug Release Points:**

<b>Tug Release point</b>	<b>Location</b>	<b>Coordinates</b>	<b>Remarks</b>
T6A	<b>On Taxilane W6 behind Stand C30</b>	<b>190532.19N 0725133.91E</b>	<b>Compliant for aircraft up to code C only</b>
T11B	<b>On Taxilane T behind Stand V4L</b>	<b>190551.24N 0725218.40E</b>	<b>Compliant for aircraft up to code C only</b>
T23A	<b>On Taxilane H between stand V21 and stand V22</b>	<b>190535.71N 0725233.38E</b>	<b>Compliant for aircraft up to code C only</b>
T26A	<b>On Taxiway B1 behind stand V25</b>	<b>190542.73N 0725241.87E</b>	<b>Compliant for aircraft up to code C only</b>
T25A	<b>On Taxiway Y1 between Link 4 and stand K1</b>	<b>190541.28N 0725242.81E</b>	<b>Compliant for aircraft up to code C only</b>

<b>VABB</b>	<b>AD 2.24</b>	<b>CHARTS RELATED TO AN AERODROME</b>
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1	Aerodrome Chart (16 May 2024)
2	Aerodrome Chart - Hot Spot (16 May 2024)
3	Aerodrome Chart - Colour Coded TWY/Taxilane compatibility (16 May 2024)
4	Aerodrome Chart - Tug Release Points (16 May 2024)
5	Aircraft Parking/Docking Chart - Apron A

6	Aircraft Parking/Docking Chart - Apron C (16 May 2024)
7	Aircraft Parking/Docking Chart - Apron C (When Taxilane W7 is upgraded as Code F TWY)
8	Aircraft Parking/Docking Chart - Apron G (16 May 2024)
9	Aircraft Parking/Docking Chart - Apron K (16 May 2024)
10	Aircraft Parking/Docking Chart - Apron J
11	Aircraft Parking/Docking Chart - Apron R
12	Aircraft Parking/Docking Chart - Apron S
13	Aircraft Parking/Docking Chart - Apron V (16 May 2024)
14	Aerodrome Obstacle Chart - Type A (Operating Limitations) Runway 09 (03 October 2024)
15	Aerodrome Obstacle Chart - Type A (Operating Limitations) Runway 27 (03 October 2024)
16	Aerodrome Obstacle Chart - Type A (Operating Limitations) Runway 14 (03 October 2024)
17	Aerodrome Obstacle Chart - Type A (Operating Limitations) Runway 32 (03 October 2024)
18	Take-off Run Available from Intersection RWY 09
19	Take-off Run Available from Intersection RWY 27
20	Take-off Run Available from Intersection RWY 14
21	Take-off Run Available from Intersection RWY 32
22	Location of Different Exit TWYs RWY 09
23	Location of Different Exit TWYs RWY 27
24	Location of Different Exit TWYs RWY 14
25	Location of Different Exit TWYs RWY 32
26	Ground Movement Chart - Apron V (Code C Aircraft on TXL T) (16 May 2024)
27	Ground Movement Chart - Apron V (Code E Aircraft on TXL T) (16 May 2024)
28	Aircraft Pushback Procedure RWY 09, Stands: A1, A2, A3 & A4
29	Aircraft Pushback Procedure RWY 09, Stands: A5 to A12

30	Aircraft Pushback Procedure (For Code D) RWY 09, Stands: A8-A12	
31	Aircraft Pushback Procedure RWY 14/32/27, Stands: A1 - A4	
32	Aircraft Pushback Procedure RWY 14/32/27, Stands: A5 - A8	
33	Aircraft Pushback Procedure RWY 14/32/27, Stands: A9, A10, A11 & A12	
34	Aircraft Pushback Procedure (For Code D) RWY 14/32/27, Stands: A8-A12	
35	Aircraft Pushback Procedure RWY 32, Stands: C10 & C11	
36	Aircraft Pushback Procedure RWY 32, Stands: C12 TO C20	
37	Aircraft Pushback Procedure RWY 09, Stands: C10 TO C18	
38	Aircraft Pushback Procedure RWY 09, Stands: C19 & C20	
39	Aircraft Pushback Procedure RWY 14/27, Stands: C10 TO C16	
40	Aircraft Pushback Procedure RWY 14/27, Stands: C17 TO C20	
41	Aircraft Pushback Procedure RWY 14/09/27, Stands: C21 TO C26 (16 May 2024)	
42	Aircraft Pushback Procedure RWY 32, Stands: C21 TO C26 (16 May 2024)	
43	Aircraft Pushback Procedure RWY 09, Stands: C27 TO C33 (16 May 2024)	
44	Aircraft Pushback Procedure RWY 14/27 Stands: C27 TO C33 (16 May 2024)	
45	Aircraft Pushback Procedure RWY 32, Stands: C27 TO C33 (16 May 2024)	
46	Aircraft Pushback Procedure RWY 14/32/09/27, Stands: C80	
47	Aircraft Pushback Procedure RWY 14/09, Stands: C81-C85	
48	Aircraft Pushback Procedure RWY 27/32, Stands: C81-C85	
49	Aircraft Pushback Procedure RWY 14/09, Stands: C86-C88	
50	Aircraft Pushback Procedure RWY 27/32, Stands: C86-C88	
51	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: G1 to G5 (16 May 2024)	
52	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: K1-K2 (16 May 2024)	
53	Aircraft Pushback Procedure RWY 09/27/14/32 Stands: K3L-K3R (16 May 2024)	

54	Aircraft Pushback Procedure (For Code D & E ACFT) RWY 09/27/14/32, Stands: K3 (16 May 2024)	
55	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: K4R, K4L, K5R, K5L, K6R, K6L (16 May 2024)	
56	Aircraft Pushback Procedure (For Code D & E ACFT) RWY 09/27/14/32, Stands: K4, K5 & K6 (16 May 2024)	
57	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: J1 to J5	
58	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: J6 to J10	
59	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: R1L, R1, R1R, R2L, R2, R2R	
60	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: R3	
61	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: R4 - R5	
62	Aircraft Pushback Procedure RWY 09/14, Stands: S1L - S3R	
63	Aircraft Pushback Procedure RWY 27/32, Stands: S1L - S3R	
64	Aircraft Pushback Procedure RWY 09/27/14/32 Stands: V3L - V3R (16 May 2024)	
65	Aircraft Pushback Procedure (For Code C) RWY 09/27/14/32 Stands: V4L, V4R & V5 (16 May 2024)	
66	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V4 - V8 (16 May 2024)	
67	Aircraft Pushback Procedure RWY 09/27/14/32 Stands: V6L - V6R (16 May 2024)	
68	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V7L - V8R (16 May 2024)	
69	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V 9 & V 10 (16 May 2024)	
70	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V11 (16 May 2024)	
71	Aircraft Pushback Procedure RWY 09/14, Stands: V12 - V15	
72	Aircraft Pushback Procedure RWY 27/32, Stands: V12 - V15	
73	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V 16 - V 17	
74	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V18L, V18, V18R & V19	
75	Aircraft Pushback Procedure RWY 09/27/14/32 Stands: V20L, V20R & V21L (16 May 2024)	
76	Aircraft Pushback Procedure (For Code C) RWY 09/27/14/32 Stands: V21R & V22 (16 May 2024)	
77	Aircraft Pushback Procedure (For Code D & E) RWY 09/27/14/32 Stands: V20, V21 & V22 (16 May 2024)	

78	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V 23 & V 24 (16 May 2024)	
79	Aircraft Pushback Procedure (For Code D & E ACFT) RWY 09/27/14/32, Stands: V23 & V24 (16 May 2024)	
80	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V25 (16 May 2024)	
81	Aircraft Pushback Procedure (For Code D & E ACFT) RWY 09/27/14/32, Stands: V25 (16 May 2024)	
82	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V 26L, V 26R, V 27L & V27R (16 May 2024)	
83	Aircraft Pushback Procedure (For Code D & E ACFT) RWY 09/27/14/32, Stands: V26 & V27 (16 May 2024)	
84	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V28L & V28R	
85	Aircraft Pushback Procedure (For Code D & E ACFT) RWY 09/27/14/32, Stands: V28	
86	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V29, V30L, V30R & V31L	
87	Aircraft Pushback Procedure (For Code D & E ACFT) RWY 09/27/14/32, Stands: V29, V30 & V31	
88	Aircraft Pushback Procedure RWY 09/27/14/32, Stands: V 31R, V 32L & V 32R	
89	Aircraft Pushback Procedure RWY 09/27/14/32 Stands: G6 to G8 (16 May 2024)	
90	Aircraft Pushback Procedure RWY 09/14, Stands: General Aviation	
91	Aircraft Pushback Procedure RWY 27/32, Stands: General Aviation	
92	Instrument Approach Chart - ILS Procedure RWY09	
93	Instrument Approach Chart - ILS (Z) (DME Required) Procedure RWY 27	
94	Instrument Approach Chart - ILS (Y) Procedure RWY27	
95	Instrument Approach Chart - ILS Procedure RWY 14	
96	Instrument Approach Chart - RNP Y Procedure RWY 09	
97	Coding Table - RNP Y Procedure RWY 09	
98	Instrument Approach Chart - RNP Y Procedure RWY 14	
99	Coding Table - RNP Y Procedure RWY 14	
100	Instrument Approach Chart - VOR Procedure RWY 09	
101	Instrument Approach Chart - VOR Procedure RWY 27	

102	Instrument Approach Chart - VOR Procedure RWY 14	<input type="checkbox"/>
103	Instrument Approach Chart - VOR Procedure RWY 32	<input type="checkbox"/>
104	ATC Surveillance Minimum Altitude Chart	<input type="checkbox"/>
105	Location Of Stop Bars & No Entry Bars (16 May 2024)	<input type="checkbox"/>

<b>VABB</b>	<b>AD 2.25</b>	<b>VISUAL SEGMENT SURFACE (VSS) PENETRATION</b>
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<b>Procedure</b>	<b>Procedure Minima</b>	<b>VSS Penetration</b>
<b>1</b>	<b>2</b>	<b>3</b>



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- [VABB-ADC-TRP.pdf](#)
- [VABB-ADC-HOT SPOT.pdf](#)
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- [VABB-PDC-APRON-V.pdf](#)
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- [VABB-PB-RWY-09-A5-A12.pdf](#)
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