AD 2. AERODROMES

VIDP AD 2.1 AERODROME LOCATION INDICATOR AND NAME

VIDP - INDIRA GANDHI INTERNATIONAL AIRPORT,DELHI / INTL

VIDP AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	Aerodrome reference point coordinates and its site	283407N 0770644E 117 DEG /321M from intersection RWY 09/27 and TWY E	
2	Direction and distance of aerodrome reference point from the center of the city or town which the aerodrome serves	BRG 228DEG /15Km from Delhi Railway Station.	
3	Aerodrome elevation and reference temperature	778 FT / 41.0 DEG C	
4	Magnetic variation, date of information and annual change	0.75 DEG E (2010) /0.033 DEG E	
5	Name of aerodrome operator, address, telephone, telefax, e-mail address, AFS address, website (if available)	Chief Operations Officer, Delhi International Airport Ltd, New Udaan Bhawan, Opp. Terminal-3 Indira Gandhi International Airport, New Delhi – 110037.,	
		Telephone:	+91-11-47197589
		Fax:	+91-11-47197842
		AFS:	VIDPDIAL
		Email:	Douglas.Webster@gmrgroup.in .
6	Types of traffic permitted (IFR/VFR)	IFR/VFR	
7	Remarks	website: www.newdelhiairport.in	

VIDP AD 2.3 OPERATIONAL HOURS

1	Aerodrome Operator	MON - FRI : 0400 - 1230 UTC (0930 - 1800 IST) SAT & 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	NIL
7	Air Traffic Service	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	NIL

12	Remarks	1. Non-Sked flights not permitted to OPR at IGI AP WO a valid Delhi AP ARR CLR NR (DACN) or Delhi AP DEP CLR NR (DDCN) as the case may be, issued by IGIA-AOCC. Non-sked FLT operators, shall apply for DACN/DDCN to IGIA-AOCC at email ids: flight.data@gmrgroup.in and dial.aocc@gmrgroup.in . The detailed procedure for obtaining CLR AVBL at http:// www.newdelhiairport.in/general-aviation.aspx . 2.All international Non-Sked flights shall obtain night parking approval from flight data unit, DIAL (flight.data@gmrgroup.co.in) at least 5 days in advance and shall arrange Tow Bar themselves. 3.Only VVIP aircraft (President, Vice President, Prime Minister and SPG Protectees), all State Government owned aircraft except those which are licensed/hired, Defence aircraft and Sked Civil Flight operated by Sked airlines are permitted to Operate on RWY 09/27. 4.All Flights departing from uncontrolled airfield within Delhi control zone shall take ATC clearance on telephone no.011-25653454 before departure. 5.The approved hourly RWY traffic handling capacity is as follows: i.For mixed mode operation when all three RWY are AVBL a.Max number of ARR and DEP - 67 (62 Sked + 05 Non-Sked) b.Max number of ARR only - 37 c.Max number of DEP only - 45 ii.When RWY 28/10 not AVBL a.Max number of ARR and DEP - 60 (58 Sked + 02 Non-Sked) b.Max number of ARR only - 37 c.Max number of DEP only - 45 iii.When RWY 27/09 not AVBL a.Max number of ARR and DEP - 60 (58 Sked + 02 Non-Sked) b.Max number of ARR only - 37 c.Max number of DEP only - 45 iv.When RWY 29/11 not AVBL a.Max number of ARR and DEP - 45 (43 Sked + 02 Non-Sked) b.Max number of ARR only - 20 c.Max number of DEP only – 30

VIDP AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	3 Cargo terminals equipped with advanced storage stacker, material and pallet container handling systems, computerized cargo information, data and documentation systems.
2	Fuel and Oil types	JET A1 All types

3	Fuelling facilities and capacity	IOC: Terminal - 1 Refuellers Capacity:11KL,16KL and 27KL Discharge rate: 400-700 Litres/Min IOST: Terminal - 3 and Terminal- 2 Total No. of hydrant dispensers-20 Discharge rate: 3800 Litres/Min. BPCL: Terminal - 1 Refuellers Capacity: 36KL, 25KL and 11KL Total Capacity: 133 Kilolitres (6- Refuellers). Discharge rate: 1000 Litres/Min. BSSPL: Terminal - 3 and Terminal- 2 Total No. of dispensers-16. Discharge rate:3500 litres/Min HPCL: Terminal - 1 Refuellers Capacity: 27KL and 16KL Total Capacity: 86Kilotitres (4 Refuellers). Discharge rate: 2400 and 1500 Litres/Min respectively.
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	Due to realignment of aircraft stands at general aviation apron at I.G.I Airport Delhi, all general aviation operators are required to notify AOCC for the movements of their respective flights via fax no.011-61239208 or flight.data@gmrgroup.in and to obtain parking stand for their arrivals. RWY11/29 and associated TWYs are compatible for operations of code-F aircraft. Fixed ground power supply and pre-conditioned air are available at every contact stand at Terminal-3.

VIDP AD 2.5 PASSENGER FACILITIES

1	Hotel(s) at or in the vicinity of aerodrome	93 Rooms hotel at Terminal-3 and in the city.
2	Restaurant(s) at or in the vicinity of aerodrome	At AD and in the city
3	Transportation possibilities	Buses,metro rail,taxis and car rental service from AD
4	Medical Facilities	First aid and ambulance at AD. Hospital in the city.
5	Bank and post office at or in the vicinity of aerodrome	Banks: At AD H-24 Post office: At AD H-24
6	Tourist office	At AD and in the city
7	Remarks	NIL

VIDP AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	Within ATS HR: CAT-10
2	Rescue equipment	Available as per category. Additional: 1) One portable lighting unit for night operations. 2) One Mobile Command Post (Bus) to deal with aircraft emergencies.
3	Capability for removal of disabled aircraft	Airlines subscribe to the International Airlines Technical Pool (IATP) to obtain the required specialized personnel and equipment for the salvage of their aircraft whenever needed. Airlines who are not affiliated to IATP should make their own arrangements. If aircraft is not removed in reasonable time, DIAL will do it at the cost of airlines.

4	Remarks	All ARFF Personnel are trained in rescue and fire-fighting as well as medical first –aid

VIDP AD 2.7 SEASONAL AVAILABILITY CLEARING

1	Type(s) of clearing equipment	NIL
2	Clearance priorities	NIL
3	Remarks	NIL

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

1	Designation, surface and strength of aprons	Refer Aircraft Parking/Docking Chart
2	Designation, width, surface and strength of taxiways	Refer Aircraft Parking/Docking Charts & VIDP AD 2.23
3	Location and elevation of altimeter checkpoints	Location: Tug disconnect points on Aprons may be used as Pre Flight Altimeter Check location (ACL). Tug disconnect points are marked on all Aprons. Elevation: Front Apron: 764 FT Satellite Apron: 754 FT General Aviation Apron: 750 FT Apron II: 732 FT Cargo Apron: 737 FT Apron 31: 723 FT Apron 32: 723 FT Apron 33: 726 FT Apron 34: 729 FT Apron 35: 737 FT
4	Location of VOR checkpoints	On TWYs E3, D (RWY 09/27), D (RWY 10/28), M, M2, N, L, W, P, K (RWY 10), K (RWY 09), E4, E (RWY 27), E (RWY 28), B, C, C1, S4, S5, CW2.
5	Position of INS checkpoints	
6	Remarks	

VIDP 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	Continuous nose-wheel guide lines available at MARS (Multiple Aircraft Ramp System) Centre stands for use of wide body aircraft and in single aircraft stands. Broken nose-wheel guide lines of left & right MARS stand for narrow bodied ACFT. All stands are provided with stand identification signs. Nose-wheel guide lines at apron. Taxing guidance signages are provided on all TWY intersections, straight section and holding positions as per ICAO Annex-14 Advanced Visual Docking Guidance System (AVDGS) are provided by Safegate available on nose-in parking stands of T-3 AVDGS not available at following contact stands at T-3: (1) L & R stands of A08, A10, A12, A14, A01, A03 (2) Central stands of C27, C28, C29, C30, C31, C32 and 34. (3) Remote stands except R02 and R03. Docking of aircraft is done with the help of marshaller at remote parking stands and other contact stands where AVDGS is not provided at Apron I, II, III and cargo.
2	Runway and taxiway markings and lights	RWY Markings Designation, THR, TDZ,Center line, Edge, Ends Lights THR, TDZ, Centre Line, Edge, Ends, Wing Bars, RETIL, Stop way (RWY 11) TWY Marking Centerline, Holding position, (Pattern A & B) TWY Edge, Intermediate Holding Position, Enhanced RWY Holding Position markings Lights Edge LGTS on curves except E1, F1 and F4, Intermediate Holding Position TWY S2 north of TWY Z, TWY S4 north of TWY Z and TWY S5 north of TWY Z. Runway crossing lights between TWY C & W, M & D, N & K and vice versa & CL LGTS.
3	Stop bars (if any)	At TWY C, D (RHP28), E (RHP28), E4, K (RHP28), P1, W, M, M2, N, CE1, CE2, S4, S5, Z1, Z2, Z3, Z4, Z5, Z6, Z7, Z8, Z9, Y (AT two locations EAST OF CW1/Y intersection and west OF CW2/Y intersection), T (east of CW1/T intersection), CW1(south OF S/CW1 intersection),CW2 (at two locations: north of T/CW2 intersection, south of S/CW2 intersection)
4	Remarks	1. RWY guard lights are provided at each RWY and TWY intersection. 2.TWY Center lines LGT of RWY 09/27 are uniformly offset to the south side of RWY CL with a lateral separation of 15m BTN LGT. 3.TWY Edge LGT AVBL on curved portion of TWY S, E2, E, E4, B, C, F, D, D1, R, R1, L1, M1, L, V, W, P1, E3, E5, N, C1, A, M and K. 4. An illuminated wind direction indicator in the form of truncated cone made of fabric of black and white colour in bands has been installed between TWY D and K (Coordinates 283401.9N 0770529.7E) near RWY10.

VIDP AD 2.10 AERODROME OBSTACLES

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
28/APCH 10/TKOF	ELECTRICAL EXIT LIGHT	283330.9N 0770722.3E	778 FT	LGTD	APP LGTS
28/APCH 10/TKOF	ELECTRICAL EXIT LIGHT	283330.6N 0770723.3E	779 FT	LGTD	APP LGTS
28/APCH 10/TKOF	ELECTRICAL EXIT LIGHT	283330.4N 0770724.5E	780 FT	LGTD	APP LGTS
28/APCH 10/TKOF	ANTENNA	283329.2N 0770729.5E	790 FT	NIL	LOC Antenna
28/APCH 10/TKOF	BUILDING	283327.0N 0770729.2E	794 FT	NIL	LOC Building
28/APCH 10/TKOF	BUILDING	283332.7N 0770745.5E	817 FT	NIL	Disused Hut
28/APCH 10/TKOF	BUILDING	283323.7N 0770951.7E	947 FT	NIL	Hotel Antenna Vasant
28/APCH 10/TKOF	WALL	283331.9N 0770742.2E	811 FT	NIL	Ap Bnd Wall
28/APCH 10/TKOF	OTHER	283332.1N 0770742.1E	817 FT	NIL	Mobile Traffic Rd
27/TKOF 09/APCH	ELECTRICAL EXIT LIGHT	283414.0N 0770515.8E	718 FT	LGTD	APP LGTS
27/TKOF 09/APCH	ELECTRICAL EXIT LIGHT	283414.0N 0770514.6E	718 FT	LGTD	APP LGTS
27/TKOF 09/APCH	TREE	283413.9N 0770701.0E	784 FT	NIL	Group of Trees
27/APCH 09/TKOF	BUILDING	283413.2N 0770700.8E	761 FT	NIL	Security hut
27/APCH 09/TKOF	OTHER	283413.1N 0770702.3E	768 FT	NIL	Mobile Traffic Rd
27/APCH 09/TKOF	FENCE	283413.2N 0770701.8E	760 FT	NIL	Wire Fencing
27/APCH 09/TKOF	TREE	283413.9N 0770706.2E	798 FT	NIL	Group of Trees
27/APCH 09/TKOF	TREE	283414.8N 0770710.5E	817 FT	NIL	Group of Trees
27/APCH 09/TKOF	BUILDING	283413.1N 0770708.8E	769 FT	NIL	Pumphouse
27/APCH 09/TKOF	TREE	283413.5N 0770709.5E	798 FT	NIL	Group of Trees
27/APCH 09/TKOF	POLE	283413.5N 0770711.2E	782 FT	NIL	Electric Pole
27/APCH 09/TKOF	TREE	283407.6N 0770713.8E	807 FT	NIL	Pipal Tree
27/APCH 09/TKOF	TREE	283406.7N 0770716.8E	810 FT	NIL	Pipal Tree
27/APCH 09/TKOF	TREE	283414.5N 0770716.3E	816 FT	NIL	Tree
27/APCH 09/TKOF	POLE	283414.0N 0770716.1E	784 FT	NIL	Pole
27/APCH 09/TKOF	TREE	283413.0N 0770716.8E	787 FT	NIL	Tree
27/APCH 09/TKOF	POLE	283413.5N 0770719.6E	785 FT	NIL	Electric Pole

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/APCH 09/TKOF	TREE	283411.7N 0770717.0E	801 FT	NIL	Tree
27/APCH 09/TKOF	TREE	283410.7N 0770717.2E	798 FT	NIL	Tree
27/APCH 09/TKOF	HEAT COOL SYSTEM	283409.1N 0770718.3E	786 FT	NIL	Vent Pipe
27/APCH 09/TKOF	TREE	283408.5N 0770719.4E	799 FT	NIL	Tree
27/APCH 09/TKOF	WALL	283407.7N 0770719.0E	782 FT	NIL	Bound.Wall
27/APCH 09/TKOF	TREE	283407.7N 0770719.2E	811 FT	NIL	Tree
27/APCH 09/TKOF	ANTENNA	283413.6N 0770733.4E	811 FT	NIL	Buliding Antenna top
27/APCH 09/TKOF	BUILDING	283417.6N 0770739.5E	824 FT	NIL	Buliding
27/APCH 09/TKOF	TREE	283403.5N 0770742.9E	847 FT	NIL	Tree
27/APCH 09/TKOF	TREE	283405.7N 0770747.2E	846 FT	NIL	Group of Trees
27/APCH 09/TKOF	TREE	283418.2N 0770809.5E	872 FT	NIL	Tree
27/APCH 09/TKOF	TREE	283404.2N 0770748.3E	844 FT	NIL	Group of Trees
27/APCH 09/TKOF	BUILDING	283407.5N 0770712.6E	782 FT	NIL	Buliding
27/APCH 09/TKOF	POLE	283414.3N 0770712.1E	778 FT	NIL	Electrical Pole
27/APCH 09/TKOF	TREE	283320.3N 0770739.5E	811 FT	NIL	Tree
28/TKOF 10/APCH	BUILDING	283407.4N 0770503.8E	723 FT	NIL	Structure

Remarks: Pitampura Obstruction LGT Not Available.

VIDP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Name of the associated meteorological office	Delhi
2	Hours of service and, where applicable, the designation of the responsible meteorological office outside these hours	H24
3	Office responsible for preparation of TAFs and periods of validity and interval of issuance of the forecasts	Delhi 9 and 24HR
4	Availability of the trend forecast for the aerodrome and interval of issuance	Trend 30 Min
5	Information on how briefing and/or consultation is provided	Provided
6	Types of flight documentation supplied and language(s) used in flight documentation	Chart form and Tabular form English
7	Charts and other information displayed or available for briefing or consultation	S,U85,U70,U50,U30,U25,U15,U10, P30, P25, P20 SW [UPTO FL460]

8	Supplementary equipment available for providing information on meteorological conditions, e.g. weather radar and receiver for satellite images;	Telex, Telefax, Satellite display work Station
9	The air traffic services unit(s) provided with meteorological information	VIDP Delhi ATC AND ACS
10	Additional information, e.g. concerning any limitation of service.	1.Integrated Aviation METROLOGICAL System at RWY 27 AVBL. The System will provide following information on Digital Display: PAGE 1: I Wind Direction 2 Minute Average II Wind Speed 2Minute Average III RVR Actual Reading below 2000 M and 2001M when it exceeds above 2000M PAGE 2: I Wind Direction: 2 Minute Max II RVR Optimal: Actual Reading III RVR Trend: U for up, D for down, N for no change. PAGE3: I Air Temperature: Actual Dry Bulb Temperature II Humidity: Actual Humidity in Percent III DEW Point Temperature: In Degree Celsius PAGE4: I Air Pressure: on HPA II QNH: in HPA. 2. Transmissometer at TDZ RWY 09 AVBL. RVR displayed actual reading between 50 to 2000M 3. RVR System DRISHTI installed at RWY29 beginning and RWY11 beginning. The system will provide RVR and MOR data displaced on PC monitor as follows: I.) RVR: Actual reading displayed from 50m to 2000m in following steps: 000M to 800M in step of 25M 800M to 1200M in step of 50M 1200M to 2000M in step of 100M A value of 2000M is displayed when RVR is equal to or above 2000M. A value of 25M is displayed when RVR is less than 50M. II.) RVR TREND: Displayed upward arrow for uptrend and downward arrow for down trend. 1.MOR: Actual MOR is displayed from 50M to 2.3000M in following steps. 000M to 800M in step of 25M 800M to 1200M in step of 50M 1200M to 2000M in step of 100M A value of 3000M is displayed when MOR is equal to or above 3000M 5.LASER ceilometers installed near TDZ RWY 28.The system will provide the height of base of low cloud (in Meters/Feet) in two layers as well as vertical visibility, Laser ceilometers will give height of base of low cloud from 10M up to 7500M with resolution of 10M.

VIDP AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

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
10	104.25 DEG	3813 x 45 M	135/F/B/W/T 135/F/B/W/T	THR: 283402.03N 0770505.54E RWY END: 283330.73N 0770721.27E
28	284.25 DEG	3813 x 45 M	135/F/B/W/T 135/F/B/W/T	THR: 283330.73N 0770721.27E RWY END: 283402.03N 0770505.54E
11	103.25 DEG		93/F/C/W/T	THR: 283244.86N 0770418.85E RWY END: 283215.85N 0770634.16E
29	283.25 DEG		93/F/C/W/T	THR: 283227.04N 0770541.97E RWY END: 283249.81N 0770355.80E
09	91.25 DEG	2816 x 45 M	90/F/B/W/T	THR: 283413.98N 0770517.28E RWY END: 283411.62N 0770700.84E
27	271.25 DEG	2816 x 45 M	90/F/B/W/T	THR: 283411.74N 0770655.30E RWY END: 283413.98N 0770517.28E

THR elevation and highest elevation of TDZ of precision APP RWY	Slope of runway and associated stopway	Dimensions of stopway (M)	Dimensions of clearway (M)	Dimensions of strips (M)
6	7	8	9	10
THR: 720.5FT TDZ: 725.0FT	0.46%	NIL	NIL	3933 x 300 M
THR: 778.3FT TDZ: 775.0FT	-0.46%	NIL	274 x 300	3933 x 300 M
THR: 725.0FT TDZ: 727.0FT	0.39%	320 x 60 M	NIL	4550 x 300 M
THR: 752.2FT TDZ: 750.0FT	-0.38%	NIL	NIL	4550 x 300 M
THR: 718.4FT TDZ: 721.0FT	0.38%	NIL	433 x 150	2936 x 150 M

THR elevation and highest elevation of TDZ of precision APP RWY	Slope of runway and associated stopway	Dimensions of stopway (M)	Dimensions of clearway (M)	Dimensions of strips (M)
6	**7**	**8**	**9**	**10**
THR: 752.2FT TDZ: 751.0FT	-0.38%	NIL	700 x 150	2936 x 150 M

Dimensions of runway end safety areas	Location and description of arresting system (if any)	Existence of an obstacle-free zone	Remarks.
11	**12**	**13**	**14**
240M x 150M		NIL	PCN: 0 to 98M: 75/R/A/W/T (Concrete) 98M to 3661M: 135/F/B/W/T (Flexible) 3661M to 3813M: 74/R/A/W/T (Concrete) Slope: +0.46% 1% (Transverse slope)
240M x 150M		NIL	PCN: 0 to 152M: 74/R/A/W/T (Concrete) 152M to 3715M: 135/F/B/W/T (Flexible) 3715M to 3813M: 75/R/A/W/T (Concrete) Slope: -0.46% 1% (Transverse slope)
240M x 120M		Nil	RWY Dimension: 4110 M X 60 M PCN: 0 to 438M: 110/R/C/W/T (Concrete) 438M to 4166M: 93/F/C/W/T (Flexible) 4166M to 4430M: 110/R/C/W/T (Concrete)
240M x 120M		NIL	RWY Dimension:4430 M X 60 M PCN: 0 to 264M: 110/R/C/W/T (Concrete) 264M to 3992M: 93/F/C/W/T (Flexible) 3992M to 4430M: 110/R/C/W/T (Concrete)
240M x 90M		NIL	PCN: 0 to 520M: 84/R/B/W/T (Concrete) 520M to 2816M: 90/F/B/W/T (Flexible)
240M x 90M		NIL	PCN: 0 to 2296M: 90/F/B/W/T (Flexible) 2296M to 2816M: 84/R/B/W/T (Concrete)

VIDP AD 2.13 DECLARED DISTANCES

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**
10	3813	3813	3813	3813	
28	3813	4087	3813	3813	
11	4110	4110	4430	3465	THR displaced by 645M
29	4430	4430	4430	2970	THR displaced by 1460M

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**
09	2816	3249	2816	2816	
27	2816	3516	2816	2665	THR displaced by 152M

VIDP AD 2.14 APPROACH AND RUNWAY LIGHTING

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
1	**2**	**3**	**4**	**5**
10	CAT I 600 M LIH	Green	PAPI LEFT/3.20 DEG MEHT (68.18FT)	
28	900 M CATIIIB LIH	Green	PAPI LEFT/3.20 DEG MEHT (76.48FT)	900 M
11	900 M CATIIIB LIH	Green	PAPI BOTH/3.00 DEG MEHT (69.95FT)	900 M
29	900 M CATIIIB LIH	Green	PAPI LEFT/3.00 DEG MEHT (69.19FT)	900 M
09	SALS 420 M LIH	Green	PAPI LEFT/3.20 DEG MEHT (68.83FT)	
27	CAT I 570 M LIH	Green	PAPI LEFT/3.00 DEG MEHT (65.29FT)	

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**
3813 M 30 M LIH	3813 M 60 M LIH	Red		1. RWY Centreline lights from physical beginning upto 900M from RWY End - variable White; between 900M (from RWY END) and 300M from RWY END – alternate variable White and Red between 300M (from RWY END) and RWY END - Red 2. RWY Edge Lights from physical beginning upto 600M (from RWY END) – variable White; between 600M (from RWY END) and RWY END – Yellow. 3. The portion of RWY 10 CAT I approach lights between 600m to 900m from RWY 10 THR beyond railway line unserviceable due to pilferage etc. However, approach lights upto 600m from RWY 10 THR having crossbars at 150, 300, 450 and 600m are serviceable.
3813 M 15 M LIH	3813 M 60 M LIH	Red		1. RWY Centreline lights fro physical beginning upto 900M from RWY End - variable White; between 900M (from RWY END) and 300M from RWY END – alternate variable White and Red between 300M (from RWY END) and RWY END – Red. 2. The centreline lights are uniformly spaced at 30M in CAT I conditions and 15 M in CAT II/III conditions. 3. RWY Edge Lights from physical beginning upto 600M (from RWY END) – variable White; between 600M (from RWY END) and RWY END – Yellow. 4.Rapid Exit Taxiways Indicator Lights (RETILS) installed at RWY 28 for TWY D1, L, 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**
	4430 M 60 M LIH	Red		1. RWY Centerline lights from physical beginning upto 900M from RWY End - variable White; between 900M (from RWY END) and 300M from RWY END – alternate variable White and Red between 300M (from RWY END) and RWY END – Red. 2. RWY Edge Lights from physical beginning upto 645M (Displaced threshold) – Red; between 645M (from physical beginning) and 600M (from RWY END) – variable White; between 600M (from RWY END) and RWY END – Yellow. 3. Rapid Exit Taxiways Indicator Lights (RETILS) installed at RWY 11 for TWY Z5, Z4, Z3. 4. 'Displaced threshold of runway 11 provided with flashing white RWY threshold identification lights at a distance of 645 M from physical extremity of RWY 11.

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**
4430 M 15 M LIH	4430 M 60 M LIH	Red		1. Due to displaced THR, the aeronautical ground LGT arrangement under mixed mode OPS on RWY29 in PRE THR area is as follows: i. Physical beginning of RWY29 to 560M - single sourced RWY centerline LGT. ii. FM 560M till THR RWY29 - Combination of single sourced RWY center line LGT and Calvert Type APCH LGT. 2. 'Displaced threshold of runway 29 provided with flashing white RWY threshold identification lights at a distance of 1460 M from physical extremity of RWY 29. 3. RWY Centerline lights from physical beginning upto 900M from RWY End - variable White; between 900M (from RWY END) and 300M from RWY END – alternate variable White and Red between 300M (from RWY END) and RWY END – Red. 4. RWY Edge Lights from physical beginning upto 1460M (Displaced threshold) – Red; between 1460M (from physical beginning) and 600M (from RWY END) – variable White; between 600M (from RWY END) and RWY END – Yellow. 5. Rapid Exit Taxiways Indicator Lights (RETILS) installed at RWY 29 for TWY Z6,Z7.

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**
2816 M 30 M LIH	2816 M 60 M LIH	Red		1. RWY Centrelinelights from physical beginning upto 900M from RWY End - variable White; between 900M (from RWY END) and 300M from RWY END – alternate variable White and Red between 300M (from RWY END) and RWY END - Red 2. RWY Edge Lights from physical beginning upto 600M (from RWY END) – variable White; between 600M (from RWY END) and RWY END – Yellow 3. RWY centre line LGT are uniformly offset to the North side of RWY centerline by not more than 60 cm.
2665 M 30 M LIH	2816 M 60 M LIH	Red		1. RWY Centerline lights from physical beginning upto 151M (Displaced Threshold) – No Lights between 151M (from physical beginning) and 900M from RWY END – variable White between 900M (from RWY END) and 300M from RWY END – alternate variable White and Red between 300M (from RWY End) and RWY END – Red. 2. RWY Edge Lights from physical beginning upto 151M (Displaced threshold) – Red; between 151M (from physical beginning) and 600M (from RWY END) – variable White; between 600M (from RWY END) and RWY END – Yellow. 3. RWY centre line LGT are uniformly offset to the North side of RWY centerline by not more than 60 cm. 4. Displaced threshold of RWY 27 provided with flashing white RWY Threshold Identification Lights at a distance of 151M from physical extremity of RWY27.

VIDP AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Location, characteristics and hours of operation of aerodrome beacon/identification beacon (if any)	ABN	283337N 0770536E, Rotating green /white beacon on top of Apron Management service tower (Apron- II). FLG W AND G, 24FPM, 400,000 Cd, SUNSET TO SUNRISE
		IBN	NIL
2	Location and lighting (if any) of anemometer/ landing direction indicator;	LDI	On west of TWY C and north of RWY 10/28
		Anemometer	1. 390M from THR28, Lighted 2. 300M from THR10, Lighted 3. 780M from THR27, Lighted. 4. 460M from THR29, Lighted 5. 480M from THR11, Lighted
3	Taxiway edge and taxiway centre line lights;	Edge	All TWY curves except TWY J and TWY H which have reflective edge markers
		Centre Line	TWY P, N,M,M1,M2,L,L1,L2,R,R1,R2 ,R3,R4,S,U,V,W,P1,K,D,D1,C,C1,B,B2,B3,E2,E3,E4 E5,F,F2,F3,A,RWY 27/09 and All Taxiways Of Terminal-3
4	Secondary power supply including switch-over time;	SECONDARY POWER SUPPLY TO ALL LIGHTING. SWITCH OVER TIME : CAT- IIIB : 1 SEC CAT- II : 2 SEC CAT- I : 15 SEC ONLINE UPS AVBL FOR CRITICAL CIRCUITS.	
5	Remarks	CAT-III A/B BSES supply through online UPS as primary source and DG supply as secondary source.	

VIDP AD 2.16 HELICOPTER LANDING AREA

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

VIDP AD 2.17 AIR TRAFFIC SERVICE AIRSPACE

1	Airspace designation, geographical coordinates and lateral limits	CTR: Area bounded by 290200.0N 0771455.4E, then along greater arc of circle of radius 30NM centered at DPN VOR to 283600.2N 0773855.2E to 283700.2N 0772955.3E to 283700.2N 0771555.4E, and then along river Yamuna to 285600.0N 0771155.4E to 290200.0N 0771455.4E.
2	Vertical limits	FL 50
3	Airspace classification	D
4	Call sign and language(s) of the air traffic services unit providing service;	Delhi Tower, English

5	Transition altitude	4000 FT
6	Hours of applicability	
7	Remarks	

VIDP AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service Designation	Call sign	Channel(s)	SATVOICE Number(s), if available
1	**2**	**3**	**4**
OTHER	CLEARANCE DELIVERY	121.950 MHZ	
OTHER	DELHI APPROACH	118.825 MHZ	
OTHER	DELHI APPROACH	124.200 MHZ	
OTHER	DELHI APPROACH	126.350 MHZ	
ACS	DELHI CONTROL	120.900 MHZ	
ACS	DELHI CONTROL	124.550 MHZ	
ACS	DELHI CONTROL	125.700 MHZ	
ACS	DELHI CONTROL	125.950 MHZ	
ACS	DELHI CONTROL	132.150 MHZ	
ACS	DELHI CONTROL	132.850 MHZ	
ACS	DELHI CONTROL	133.900 MHZ	
ACS	DELHI CONTROL	134.500 MHZ	
ATFM	Delhi flow control	132.500 MHZ	
OTHER	ENROUTE	127.100 MHZ	
SAR	-	123.100 MHZ	
TWR	Delhi Tower	118.100 MHZ	
TWR	Delhi Tower	118.250 MHZ	
TWR	Delhi Tower	118.750 MHZ	
TWR	Delhi Tower	125.850 MHZ	
AIS	Delhi Information	126.400 MHZ	
ALRS	Emergency Frequency	121.500 MHZ	
SMC	Delhi Ground	121.625 MHZ	
SMC	Delhi Ground	121.750 MHZ	
SMC	Delhi Ground	121.900 MHZ	

Logon address, as appropriate	Hours of operation	Remarks
5	**6**	**7**
	H24	NIL
	H24	DELHI DEPARTURE
	H24	DELHI ARRIVAL
	H24	DELHI APPROACH
	H24	ACC NORTH EAST
	H24	ACC NORTH WEST
	H24	ACC SOUTH EAST
	H24	SDBY
	H24	ACC SOUTH WEST

Logon address, as appropriate	Hours of operation	Remarks
	H24	SDBY
	H24	SDBY
	H24	SDBY
	H24	NIL
	H24	NIL
	H24	NIL
	H24	TWR MIDDLE
	H24	TWR SDBY
	H24	TWR NORTH
	H24	TWR SOUTH
	H24	NIL
	H24	NIL
	H24	SMC SOUTH
	H24	SMC NORTH
	H24	SMC MIDDLE

VIDP AD 2.19 RADIO NAVIGATION AND LANDING AIDS

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;
1	**2**	**3**	**4**
LOC 10	IDEL	109.500 MHz	H24
LOC 11	IDMR	111.300 MHz	H24
LOC 29	IDGM	110.900 MHz	H24
LOC 28	IPLM	110.300 MHz	H24
LOC 27	IDLH	110.500 MHz	H24
LOC 09	IDIA	108.500 MHz	H24
GP 27		329.600 MHz	H24
GP 10	IDEL	332.600 MHz	H24
GP 29	IDGM	330.800 MHz	
GP 11	IDMR	332.300 MHz	H24
GP 28	IPLM	335.000 MHz	H24
GP 09	IDIA	329.900 MHz	H24
DME ILS 10	IDEL	CH32X	H24
DME ILS 28	IPLM	CH40X	H24
DME ILS 27	IDLH	CH42X	H24
DME ILS 09	IDIA	CH22X	H24
DME ILS 11	IDMR	CH50X	H24
DME ILS 29	IDGM	CH46X	H24
OM	DPOM	75.000 MHz	H24

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;
MKR	PL	75.000 MHz	H24
DVOR/DME	DPN	116.100 MHz CH108X	H24
VOR/DME	DIG	114.600 MHz CH93X	H24
NDB	DH	202 kHz	H24
NDB	DP	274 kHz	H24

Geographical coordinates of the position of the transmitting antenna	Elevation of transmitting antenna of DME/ elevation of GBAS reference point	Service volume radius from the GBAS reference point	Remarks
5	6	7	8
283328.2N 0770732.3E			CAT-I
283213.4N 0770645.4E			
283252.4N 0770343.7E			
283405.3N 0770451.5E			10 DEG of either side of RWY centreline upto 22 NM, from 10 to 35 DEG on either side of RWY centreline at 17NM.
283414.5N 0770456.2E			
283411.5N 0770706.3E			
283408.5N 0770642.1E			3°,RDH /50FT
283403.3N 0770518.0E			3 DEG
283226.0N 0770527.9E			3 DEG
283238.5N 0770429.4E			3 DEG
283337.7N 0770708.9E			3 DEG 08 DEG on either side of RWY centreline at 10 NM, Upto 4 DEG in elevation above glide path
283417.7N 0770528.8E			CAT-I
283403.1N 0770518.2E	737 FT		Colocated with GP 10
283337.8N 0770708.7E	783 FT		Colocated with GP 28
283408.5N 0770642.1E	760 FT		Collocated with GP27
283417.9N 0770528.9E	738 FT		Collocated with GP09
283238.4N 0770429.5E	742 FT		Collocated with GP11
283226.1N 0770527.8E	760 FT		Collocated with GP29
283227.2N 0771156.6E			
283227.2N 0771156.6E			
283400.9N 0770536.7E	760 FT		
283231.9N 0770449.7E	760 FT		

283352.2N 0771208.4E			
283511.6N 0765952.6E			

VIDP AD 2.20 LOCAL AERODROME REGULATIONS

I.The TWY E1 and TWY B3 available for taxiing of Code letter C aircraft only. Portion of TWY E BTN E1 and TWY E2 AVBL for up to code letter C ACFT only.

II.ITH marking provided for ACFT exiting from parking stands 31 to 40C facing west and TWY E.

III.Taxiway centreline marking/guidelines connecting TWY E with TWY C are provided. Simultaneous use of TWY B3 and E1 (Dotted yellow line is available for code letter C aircraft).

IV.Access to TWY B3 and TWY E1 will be available via dotted yellow line. In case of head on situation aircraft will hold on TWY E or TWY C.

V.North side of disused RWY 15/33 available for taxiing of IAF aircraft for operation.

VI.TWY B is suitable for all code letter C ACFT and code letter D ACFT with outer main gear wheel span upto 9.54M

VII.OPS of code F aircraft on RWY 10/28 at IGI Airport has been approved subject to condition that code F Aircraft while taxiing on code E TWY shall maintain outer engines on idle power.

VIII.To reduce RT congestion, flight crew is encouraged not to request direct routings in Delhi TMA ATC will provide direct routings as and when feasible subject to traffic conditions

I.**PUSHBACK PROCEDURES**

Aircraft Stands	**Procedure**	
	RWY in use 28	**RWY in use 09/27/11/29/10**
Front Apron 1		
1-12	The aircraft shall be pushed back onto taxilane facing South and to be towed up to tug disconnecting point X1(1-4), X2(5-9), X3(10-12) respectively and follow further instructions from ATC	The aircraft shall be pushed back onto taxilane facing North and to be towed up to tug disconnecting point Y1(1-4) or Y2(5-9) or Y3(10-12) respectively and follow further instructions from ATC
15-17	The aircraft shall power out onto taxilane facing South and follow further instructions from ATC	The aircraft shall power out onto taxi lane facing North and follow further instructions from ATC
19-30	The aircraft shall power out onto taxi lane facing South, follow further instructions from ATC	The aircraft shall power out onto taxi lane facing North, follow further instructions from ATC
31-40C	The aircraft shall power out onto taxi lane facing South follow further instructions from ATC	
Satellite Apron 1		
120-132	The aircraft shall power out onto taxi lane facing South-East, follow further instructions from ATC	The aircraft shall power out onto taxi lane facing North-West, follow further instructions from ATC
135-142	The aircraft shall be pushed back onto taxilane facing South East and to be towed up to tug disconnecting point X4, follow further instructions from ATC	The aircraft shall be pushed back onto taxilane facing North West and to be towed up to tug disconnecting point Y4, follow further instructions from ATC
143-147	The aircraft shall be pushed back onto taxilane, facing South East and to be towed up to tug disconnecting point X5, follow further instructions from ATC	The aircraft shall be pushed back onto taxilane, facing North West and to be towed up to tug disconnecting point Y5, follow further instructions from ATC
148-152	The aircraft shall be pushed back onto taxilane facing South East and to be towed up to tug disconnecting point X6, follow further instructions from ATC	The aircraft shall be pushed back onto taxilane facing North West and to be towed up to tug disconnecting point Y6, follow further instructions from ATC
General Aviation Apron		
161-188	The aircraft shall power out onto central taxilane joining F4, follow further instructions from ATC	

Note:
i.The Apron layout in the front two rows of parking stands is divided into 04 blocks as under:

Block	Bay Nos	TDP Area
01	1 to 4	X1 & Y1
02	5 to 9	X2 & Y2
03	10 to 12	X3 & Y3
04	15 to 17	

ii.TUG DISCONNETING POINT (TDP) areas have ground marking of two yellow triangles with three white dots in between on the left side of the centerline. The nose wheel should be aligned in between the triangles on the centerline.
iii.Location of TDPs (Tug Disconnect Points)
X1: Behind Stand 04 X4: Behind Stand 138
Y1: Behind Stand 01 Y4: Behind Stand137
X2: Behind Stand 08 X5: Behind Stand 143
Y2: Behind Stand 05 Y5: Behind Stand 147
X3: Behind Stand 11 & 12 X6: Behind Stand 148
Y3: Behind Stand 10 Y6: Behind Stand 152
iv.TDP Starting with 'X' denote Facing South
TDP starting with 'Y' denote facing north
v.There shall be only one aircraft per block in one TDP Area.
vi.Push back clearance with/without engines running in the same direction is to be separated by 03 stands and if in opposite direction should be separated by four (04) stands.
vii.Following procedure shall be adopted in starting the aircraft engine on idle power during push back in Apron-1:
a)Aircraft asks ATC for permission to push back.

b)Based on sequence, ATC gives push back and start-up permission on the Designated Push Back Block.
c)On getting permission to push and start by ATC, aircraft may start 01/02 engine only at Idle Power during push back subject to and in accordance with its company policy.
d)Respective Ground Handler/Airline shall exercise caution and ensure that all equipment/ manpower are removed from behind the engine so that the process is completely safe.
e)At a time only one Aircraft will pushback from any Pushback Block.
f) During LVP, engine start up on pushback stands, in case of APU failure, is permitted only at idle power with prior approval from Apron Control.
viii.A second departing aircraft likely to obstruct taxiing path of earlier push back aircraft normally cannot be given push back, hence considerable delay for departing aircraft.
ix.Arrivals coming for bays 1-12, can only be hold on 'TDP Areas' on 'A' Apron taxi lane.
x.Separation between arrivals going to bay 1-12 and departure holding on TDP area for taxi is of two (02) bays (i.e. arriving aircraft can taxi uninterrupted, if the allotted bay is separated by 02 bays, from the departing aircraft holding on TDP area). Hence, there will be considerable delay for arrivals going to front bays as well.
xi.Power in / Power out arrangement on stand 15-17 is for aircraft up to code letter 'C'
xii.TWY E1 and B3 can be used simultaneously up to code letter 'C' aircraft only.
xiii.Entry /Exit of aircraft on bays 31-40C will be via E1
xiv.Push back and taxi instructions will be issued by SMC Controller as per the RWY-in use and present traffic scenario.
xv.If RWY27 is being used for departure then aircraft taxiing on TWY C may require holding on Intermediate Taxi Holding abeam stand number 22 to regulate vehicular traffic crossing on TWY C.

A nose wheel point, north of the vehicular lane abeam stand number 25 has been provided as holding point of aircraft to protect vehicular traffic from jet blast.

xvi.**General Aviation apron**
a.The apron has been provided with three apron taxi lanes i.e. Northern taxi lane, Southern taxi lane and central taxilane.
b.Taxiway F4 shall be used for entry and exit both, for all stands.
c.Aircraft taxiing to a stand number from 161 to 175 shall enter via TWY F4 and proceed straight on Southern apron taxilane (behind the stands 161 to 175) to park on the vacant stand.
d.Aircraft taxiing to a stand number from 176 to 188 shall enter via TWY F4 and turn right for Northern apron taxilane (behind the said stands 176 to 188) to park on the vacant stand.
e.Aircraft parked on any stand in General Aviation apron shall taxi out on the Central apron taxi lane in front of the stands and exit via TWY F4.
f.There is one intermediate taxi holding position marked short of TWY F4 abeam stand number 161 where the outgoing aircraft can hold to give way to incoming aircraft via TWY F4. The aircraft parked on stand number 161 shall hold on parking stand till the aircraft taxiing in is clear of TWY F4.

General Aviation Maintenance Apron		
General Aviation Hangar	**Procedure**	
	RWY in use 28	**RWY in use 09/27/11/29/10**
Hangar 1, 2	Push back up to TDP GA1 facing south and follow further instructions from ATC	Push back up to TDP GA1 facing north and follow further instructions from ATC

Hangar 3, 4	Push back up to TDP GA2 facing south and follow further instructions from ATC.	Push back up to TDP GA2 facing north and follow further instructions from ATC.

Note:
i.Location of TDPs (Tug Disconnect Points)
GA1: Abeam stand 131 on TWY E, for aircraft parked in front of hangars 1, 2
GA2: Abeam stand 129 on TWY E, for aircraft parked in front of hangars 3, 4

- GA1 & GA2 will be used for start-up facing north or south depending upon RWY in use
- Start-up can be given at both GA1 & GA2 simultaneously.

ii.Start –up procedure:
Start-up at GA1 facing north
Stand no 132, 131, 130, 129 are blocked.
TWY E2-E junction will be available for taxiing.
Start-up at GA1 facing south
Stand no 132, 131, 130 are blocked.
TWY E2-E junction will be available for taxiing.
Start-up at GA2 facing north
Stand no 130, 129, 128 and 127 are blocked.
(Aircraft can taxi in/out of stands 131 and 126)
Start-up at GA2 facing South
Stand no 128, 129, 130, 131 are blocked.
(Aircraft can taxi in/out of stands 132 and 127)
Shifting of aircraft to General Aviation Hangars:
The aircraft has to shut down engine at the dispersal area and then tow up to the respective hangar.

APRON-II	
Aircraft Stands	**Procedure**
41-44, 45L	The aircraft shall be pushed back onto TWY R1 facing North and to be towed abeam stand 43 and follow further instructions from ATC
45R, 46L, 46R	The aircraft shall be pushed back onto TWY R3 facing East or west as per the RWY in use and follow further instructions from ATC.
47L/47R, 48	The aircraft shall be pushed back onto TWY R2 facing North-East and to be towed abeam stand 47R and follow further instructions from ATC.
49	The aircraft shall be pushed back onto TWY R4 facing South-east and to be towed abeam stand 47R and follow further instructions from ATC.
81R-92	The aircraft shall be pushed back onto Taxiway R3 facing East or West as per the RWY in use and follow further instructions from ATC.
Note: i. On stands 41 – 45L (Block 1), only one pushback allowed at a time. ii. On stands 45R, 46L and 46R (Block 2), only one pushback allowed at a time iii. On stands 47L – 49 (Block 3), only one pushback allowed at a time. iv. On stands 81R-92, Pushback clearance is to be separated by three stands.	
CARGO APRON	
AIRCRAFT STANDS	**PROCEDURE**
Departure via TWY L2	
98, 99, 100, 104 & 105	Push back on to taxiway R facing east and tow up to tug disconnect point CA1. Only one push back is allowed from these stands at a time.
101, 102, 103 & 106	Push back on to taxiway R facing east and tow up to tug disconnect point CA2. Only one push back is allowed from these stands at a time.
Departure via TWY L1	
98, 99, 100,104 & 105	Push back on taxiway R facing west and tow up to tug disconnect point CA3. Only one push back is allowed from these stands at a time.
101, 102, 103 & 106	Push back on taxiway R facing west and tow up to tug disconnect point CA4. Only one push back is allowed from these stands at a time.

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Note:
i.TDPs (Tug Disconnect Points)
CA1: Behind Stands 98 and 99
CA2: Behind Stands 101 and 102
CA3: Behind Stands 99 and 100
CA4: Behind Stands102 and 103
(CA1 & CA2 will be used for pushback facing east and CA3 & CA4 will be used for pushback facing west).
ii.The arriving aircraft from TWY L1/TWY L2 shall hold at the Intermediate Holding Position Marking short of TWY "R" on TWY L1/TWY L2, when any aircraft is pushing back on the cargo apron.
iii.Simultaneous pushback from adjacent stand no. 105 & 106, 100 & 101, 100 & 106, and 101 & 105 not allowed.

AIRCRAFT STANDS	PROCEDURE
RWY IN USE 10-28 OR 11-29	
APRON 31	
A06 TO A14	The aircraft shall be pushed back onto taxilane facing North West and to be towed up to tug disconnecting point A1, follow further instructions from ATC
APRON 32	
A07 TO A13	The aircraft shall be pushed back onto taxi lane facing North West and to be towed up to tug disconnecting point A2 , Taxi via W3, follow further instructions from ATC
A01 TO 03	The aircraft shall be pushed back onto taxilane facing North and to be towed up to tug disconnecting point A3, Taxi via W3, follow further instructions from ATC
B15 TO B21	The aircraft shall be pushed back onto taxilane, facing North East and to be towed up to tug disconnecting point A4, Taxi via W3, follow further instructions from ATC
R01 TO R02	The aircraft shall be pushed back onto taxilane facing North West and to be towed up to tug disconnecting point A2, Taxi via W3, follow further instructions from ATC
R03 TO R04	The aircraft shall be pushed back onto taxilane, facing North East and to be towed up to tug disconnecting point A4, Taxi via W3, follow further instructions from ATC
APRON 33	
B18 TO B22	The aircraft shall be pushed back onto taxi lane facing South West and to be towed up to tug disconnecting point B1, Taxi via W1, follow further instructions from ATC
B24 TO B26	The aircraft shall be pushed back onto taxi lane facing South West and to be towed up to tug disconnecting point B2, Taxi via W1, follow further instructions from ATC
C28 TO C30	The aircraft shall be pushed back onto taxilane, facing South West and to be towed up to tug disconnecting point C1, Taxi via T3, follow further instructions from ATC
C32 TO C36	The aircraft shall be pushed back onto taxilane facing South West and to be towed up to tug disconnecting point C2, Taxi via T3, follow further instructions from ATC
APRON 34	
C27 TO C33	**RWY IN USE 28/29**
	The aircraft shall be pushed back onto taxilane facing North East and to be towed up to tug disconnecting point D5; Taxi via S3, follow further instructions from ATC
	RWY IN USE 10/11
	The aircraft shall be pushed back onto taxilane facing South West and to be towed up to tug disconnecting point C3; Taxi via T2, follow further instructions from ATC
D37 TO D41	**RWY IN USE 28/29**
	The aircraft shall be pushed back onto taxilane facing East and to be towed up to tug disconnecting point D4, Taxi via S3, follow further instructions from ATC
	RWY IN USE 10/11
	The aircraft shall be pushed back onto taxilane facing West and to be towed up to tug disconnecting point C4, Taxi via T2, follow further instructions from ATC

D43 TO D55	**RWY IN USE 28/29**
	The aircraft shall be pushed back onto taxilane facing South East and to be towed up to tug disconnecting point D3, Taxi via S3, follow further instructions from ATC.
	RWY IN USE 10/11
	The aircraft shall be pushed back onto taxilane facing North West and to be towed up to tug disconnecting point C5, Taxi via T2, follow further instructions from ATC.
R05 TO R06	**RWY IN USE 28/29**
	The aircraft shall be pushed back onto taxilane facing North East and to be towed up to tug disconnecting point D5; Taxi via S3, follow further instructions from ATC
	RWY IN USE 10/11
	The aircraft shall be pushed back onto taxilane facing South West and to be towed up to tug disconnecting point C3; Taxi via T2, follow further instructions from ATC
R07 TO R08	**RWY IN USE 28/29**
	The aircraft shall be pushed back onto taxilane facing East and to be towed up to tug disconnecting point D4, Taxi via S3, follow further instructions from ATC
	RWY IN USE 10/11
	The aircraft shall be pushed back onto taxilane facing West and to be towed up to tug disconnecting point C4, Taxi via T2, follow further instructions from ATC
R09	**RWY IN USE 28/29**
	The aircraft shall be pushed back onto taxilane facing South East and to be towed up to tug disconnecting point D3, Taxi via S3, follow further instructions from ATC
	RWY IN USE 10/11
	The aircraft shall be pushed back onto taxilane facing North West and to be towed up to tug disconnecting point C5, Taxi via T2, follow further instructions from ATC
APRON 35	
RWY IN USE 10-28 OR 11-29	
D46 TO D52	The aircraft shall be pushed back onto taxilane facing South East and to be towed up to tug disconnecting point D1, Taxi via T1, follow further instructions from ATC
D54 TO D62	The aircraft shall be pushed back onto taxilane facing South East and to be towed up to tug disconnecting point D2, Taxi via T1, follow further instructions from ATC
E64 TO E68	The aircraft shall be pushed back onto taxilane facing South East and to be towed up to tug disconnecting point E1, Taxi via T1A, follow further instructions from ATC
E70 TO E72	The aircraft shall be pushed back onto taxilane facing South East and to be pulled forward up to tug disconnecting point E1, Taxi via T1A,follow further instructions from ATC
E74 TO E84	The aircraft shall be pushed back onto taxilane behind the stand facing South East, Taxi via T1A, follow further instructions from ATC

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Note:

i.PCN Value of aprons 31 to 35 is revised to 110/R/C/W/T

ii.**Location of TDPs (Tug Disconnect Points)**

a) Apron 31

A1: Behind Stand A12

b) Apron 32

A2: BTN stands A09 & A1 B3: Behind stand B17R
A3: Behind stand A03 B4: Behind stand A01
A4: Behind stand B15 B5: Behind stand A07

c) Apron 33A

B1: Behind Stand B22L B2: Behind stand B26L

d) Apron 33B

C1: Behind stand C32 C2: Behind stand C36

e) Apron 34

C3: BTN stands C29L D3: Behind stand D51
C4: Behind stand D37 D4: Behind stand D41
C5: Behind stand D45 D5: Behind stand C27L

f) Apron 35

D1: Behind stand D54
D2: Behind stand D62
E1: Behind stand E70

g)Push-back of both Wide-body and Narrow-body Aircraft from Bays A14, A12, A13, A11, B19, B21, C33, C31, D53 and D55 onto Aprons infringe the taxi clearance strip for S, CW1 and T taxiways respectively with either Tail or Wingtip. Arriving aircraft will taxi on outside Taxiways CW2 and Y and these aircraft may be required to hold short of adjoining taxiways such as R5, W3, W2, T2 and S3 on CW2 or Y. Departing aircraft taxiing R3-S-CW1-T may be required to hold short of the adjoining taxiways such as R5, W3, W2, T2 and S3 on CW1 or T respectively until tail / wing-tip of push back aircraft has cleared the intersections. Additional CCTV feeds to monitors in the tower will assist SMC in ensuring that affected taxiways are clear of obstructions prior to instructing holding aircraft to proceed.

h) For a Wide-body Code D/E/F aircraft pushing back from an aircraft bay, there should always be 2 Code E/F stands (respectively) separation from another aircraft pushing back from adjacent bays. AOCC will not allocate an adjacent aircraft bay to aircraft requiring push-back within 20 minutes of an another aircraft push-back within 2 parking stands.

i)In case of APU failure, aircraft may be permitted to start one/both starboard side engines on idle power, at the parking stand itself with the aerobridge attached.

j)In case of corner stands A06, A13, B21, B18, C28, C33, D55 and D46 in T3 apron, aircraft can start 01 engine at idle power only while being pulled forward to the respective Tug Disconnect Point. No engine start up permitted during push back.

k)No Cross-Bleed start by aircraft is permitted during push back. It is permissible only after the towing of the aircraft (push back and pull forward) is complete.

l)During LVP, start up with idle power during push back is not permitted.

m)With respect to Corner Parking Stands, the following limitations for push-back instructions are to be observed by ATCOs when Code E/F aircraft is pushing back from the following stands:

iii.Push-Back from B15:

•To TDP A4, stand A01 shall not push-back (A03 to push-back to A3)
•To TDP B4, stand A01 and A03 shall not push-back

iv.Push-Back from B18/C28L:

•Simultaneous push-back from stands B18 and C28L not allowed.

v.Push-back from A01:

•To TDP A: A03, B15 and B17 shall not push-back (B15 & 17 can push-back to TDP A4 once aircraft on A01 has completed pushed back and pulled to A3)
•To TDP B4: B15, A03 & A07 shall not push-back (A07 can push back to TDP B5 once A01 has completed pushed back and pulled to B4)

vi.Push-back from A03:
•To TDP A3: A01, B15 may not push-back (B15 may push-back to A4 once aircraft from A03 has completed pushed back and pulled to A3)
•To TDP B4: B15, A01, A07 and A09 may not push-back (A07 & A09 may push-back to B5 once A03 has completed pushed back and pulled to B4)

vii.Push-back from A07:
•To TDP A2: A01, A03 and A09 shall not pushback (A01 & A03 can push-back to TDP A3 once aircraft on A07 has completed pushed back and pulled to A2)
•To TDP B: A03 & A09 shall not push-back

viii.Push-back from C27:
•To TDP D5: C29 and D37 shall not pushback (D39 can push back to D4 once aircraft on C27 has completed pushed back and pulled to D5)
•To TDP C: D37, D39 shall not push-back (D37 or D39 can push-back to C4 once C27 has completed pushed back and pulled to C3)

ix.Push-back from D37:
•To TDP D: C27, C29 and D39 shall not pushback (D39 can push-back to D4 once aircraft on C27 has completed pushed back and pulled to D5)
•To TDP C3: D37, D39 shall not push back (D37 or D39 can push back to C4 once C27 has completed pushed back and pulled to C3)

x.Push-back from D39:
•To TDP D4: D41, D37 and C27 shall not pushback (C27 can push back to D5 once aircraft on D39 has completed pushed back and pulled to D4)

•To TDP C4: D43, D41, D37 and C27 shall not pushback (D41 & D43 can push back to C5 once D39 has completed pushed back and pulled to C4)

xi.Push-back from D41:
•To TDP D4: D43, D39 shall not push back (D37 can push back to D5 once aircraft on D41 has completed pushed back and pulled to D4)
•To TDP C4: D43, D45, D39 and D37 shall not pushback (D43/D45 can push back to C5 once D41 has completed pushed back and pulled to C4)
xii.For all other Code C stands, there should be at least 2 Code C stands (1 Code E/F MARS Stand) separating push-backs.
xiii.**From** Apron-33A, only one Code – E aircraft can push back at one time

xiv.**For Apron 35**-
a.Only one push back from stands E64 to E72 is permitted at a time
b.In case of push back of A320 or equivalent aircraft on E64 –E68, no push back/pull forward is permitted for aircraft parked on D46 to D56 and E70 and E72.
c.When aircraft on stand D46 to D56 will push back, no push back is allowed from E64 to E68.
d.Simultaneous push back from adjacent parking stands is not permitted
e.Similar restriction on leaving one adjacent stand will be applicable between arrival/arrival and arrival/pushing back aircraft.
f.The aircraft taxiing in/out on stands D46 to D62 shall use taxilane T1
g.Aircraft taxiing in/out stands E68 to E84 shall use taxilane T1A
h.Arriving aircraft to stands E64 to E66 shall use T1

4.A-320 HANGAR
i. TDPs (Tug Disconnect Point)
GA4: On TWY-J between service road and A-320 dispersal area
ii. **Start –up procedure:**
Fixed wing aircraft/ Helicopter
At TDP GA4, facing north
TWY-P will be available

iii. **Engine Run up at Idle Power:**

Fixed wing aircraft

a) On any of the vacant parking stands, to be allocated by AOCC, or
b) At TDP GA4, nose facing north
c) At the run up bay adjacent to stand-1 in apron-1, or
d) At dumbbell of TWY-T, east of TWY-Z2

Helicopter

On GA4, nose facing north

iv. Engine run up at high power:

Fixed wing aircraft/Helicopter

a) At the run up bay adjacent to stand-1 in apron-1, up to type code C or
b) At dumbbell of TWY -T, east of TWY-Z2, up to type code F

5. <u>STANDS 801, 802</u>

Sl.No	Aircraft Stand No.	Co-ordinates (WGS 84)	Surface	PCN	Elevation	Suitability Aircraft
1	801	283417.55N 0770629.59E	Asphalt	38/F/B/W/T	740 FT	Up to Code Letter E
2	802	283238.84N 0770631.36E	Asphalt	93/F/C/W/T	766 FT	Up to Code Letter F

Note1:
I. All the stands are remote stands & power-in push back.
II. Re-fuelling can be done with fuel bowser.
III.Pushback Procedure:
From stand 801: Pushback on RWY 27 facing East/West and further taxi as per ATC instruction.
From stand 802: Pushback on TWY Z2 facing North or on TWY T facing East and further taxi as per ATC instructions.

A.1 LOCATION OF AIRCRAFT PARKING STANDS:

a. Stand 801- At TWY 15/33 facing North-West.
b. Stand 802- At TWY ‘T’ dumbbell facing East.
c. Stand 803- At Junction of TWY ‘S5-Y’ facing West.

A.2 TAXIING PROCEDURE:

i. Taxiing Procedure for stand 801

	EXIT VIA	TAXI ROUTING
Arrival RWY 28	TWY D1	CONTINUE TAXI VIA TWY D1-TWY D- RWY 09 - TWY 15/33 TO STAND 801
	TWY D	CONTINUE TAXI VIA TWY D- RWY 09 - TWY 15/33 TO STAND 801
	TWY E4	CONTINUE TAXI VIA TWY E4- TWY E3 - RWY 09 -TWY 15/33 TO STAND 801
	TWY K	CONTINUE TAXI VIA TWY K - RWY 09 - TWY 15/33 TO STAND 801
Arrival RWY 10	TWY F	CONTINUE TAXI VIA TWY F- TWY E- CROSS RWY 09 - TWY 15/33 TO STAND 801
	TWY B	TAXI VIA TWY E- CROSS RWY 09 - TWY 15/33 TO STAND 801.
	TWY E	CONTINUE TAXI VIA TWY E- CROSS RWY 09 - TWY 15/33 TO STAND 801
	TWY C	CONTINUE TAXI VIA TWY C- TWY C1-RWY 27 - TWY 15/33 TO STAND 801
Arrival RWY 09	TWY 15/33	TAXI VIA TWY 15/33 TO STAND 801

Arrival RWY 27	TWY D	CONTINUE TAXI VIA TWY D- TWY E2- TWY E-CROSS RWY 09 - TWY 15/33 TO STAND 801
	TWY E5	CONTINUE TAXI VIA TWY E5- TWY E2- TWY E-CROSS RWY 09 - TWY 15/33 TO STAND 801
	TWY E3	TAXI VIA TWY E2- TWY E-CROSS RWY 09 - TWY 15/33 TO STAND 801

ii. Taxiing Procedure for stand 802

	EXIT VIA	**TAXI ROUTING**
Arrival RWY 29	TWY Z6, TWY Z7, TWY S5 OR TWY Z8	TAXI VIA TWY Z-TWY S4 –TWY T-TWY T DUMBBELL TO STAND 802
	TWY S4	CONTINUE TAXI VIA TWY S4- TWY T-TWY T DUMBBELL TO STAND 802
Arrival RWY 11	TWY Z5, TWY Z4 OR TWY Z3	TAXI VIA TWY Z- TWYZ2 – TWY T-TWY T DUMBBELL TO STAND 802.
	TWY Z2	CONTINUE TAXI VIA TWY Z2-TWY T-TWY T DUMBBELL TO STAND 802.
Arrival RWY 28	TWY L OR TWY M	TAXI VIA TWY P – TWY N – TWY S – TWY CW1/CW2- TWY T -TWY T DUMBBELL - TO STAND 802
	TWY N	CONTINUE TAXI VIA TWY N – TWY S – TWY CW1/CW2- TWY T -TWY T DUMBBELL - TO STAND 802
Arrival RWY 10	TWY U, TWY V OR TWY W	TAXI VIA TWY P – TWY N – TWY S – TWY CW1/ CW2 - TWY T -TWY T DUMBBELL - TO STAND 802
	TWY P1	TAXI VIA TWY P – TWY N – TWY S – TWY CW1/CW2- TWY T -TWY T DUMBBELL - TO STAND 802

VIDP AD 2.21 NOISE ABATEMENT PROCEDURES

I.CONTINUOUS DESCENT ARRIVAL (CDA) PROCEDURES

1.In order to mitigate the aircraft noise within the areas located below the flight path in the vicinity of IGI airport, the concept of continuous descent approach (CDA) is implemented. All the turbojet aircraft landing at IGI Airport between 1630 UTC and 0030 UTC may participate in CDA subject to clearance from ATC.

2.CDA will be operated when radar and ILS facilities are available.

3.Operation of CDA should not impact the airport capacity adversely.

4.Aircraft shall normally be cleared via a STAR. Since, the STARs for IGI Airport are open ended, aircraft may expect radar vectors for turn on base leg and final approach. Profile/crossing restrictions are well depicted in the STARs. Aircraft shall be provided information regarding the distance to touchdown from the beginning of CDA and subsequently any revision thereafter.

5.For track shortening or lengthening for sequencing purposes, the aircraft may be radar vectored off the STAR and subsequently, be re-cleared to a point along the STAR or vectored to intercept the final approach track.

6.When radar vectors are issued, ATC shall provide an estimate of distance to touch down.

7.Pilots participating in CDA should request CDA within 10 minutes of top of descent (TOD) and provide the estimates of VOR (SSB), SAPLO, AKBAN and VOR (SAMPLA) as the case may be. ATC may issue clearance for CDA depending upon the traffic conditions.

8.When following STARs, ATC may add further altitude restrictions, in addition to the promulgated restrictions, if necessary for the purpose of traffic separation.

9.Radar controller will ensure that in case of STARs merging, adequate radar separation exists between the successive aircraft at the conflict point.

10.It is preferable if CDA is commenced from top of descent. If it is not feasible due to ATC constraints, it may be commenced from any intermediate level preferably before crossing FL100. Once CDA is commenced there will be continuous descent to 3600 feet AMSL before intercepting the glide path.

11.Once CDA is cleared by ATC, pilot should report the beginning of the descent to ATC.

12.Radar controller shall provide 20 NM distance to touch down (DTD) information when the speed shall be reduced to 210KT IAS maximum

13.Speed shall be reduced to 180 KT IAS maximum when 10NM from touchdown.

14.During CDA operations Glide path interception and commencement of final approach shall take place at 3600 feet.

15.ATC may suspend or cancel the CDA due to traffic conditions even after CDA is cleared. Alternate instructions will be issued when CDA is suspended or cancelled.

16.All aircraft have to follow the noise abatement procedure during the final approach.

17.Guidance material for CDA operations is available at DGCA website (dgca.nic.in) as Air Navigation Services (ANS) Circular NO.01/2010.

II.RUNWAY USE PLAN FOR NOISE ABATEMENT

1.The following Runway use plan based on the mixed mode operations for noise abatement is as follows.

1.1	**Schedule for dates from 01st to 08th and 17th to 23rd of each month.**				
Time Slot (IST)	RWY For **Westerly** flow of traffic		RWY For **Easterly** flow of traffic		Remarks
	RWY29	RWY28/27	RWY11	RWY10/09	
0601– 2300	Arrivals and Departures	Arrivals and Departures	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations
2301 - 0300	Departures only	Arrivals and Departures	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations RWY 28/27 and RWY 11/ 10/09
0301 - 0600	Arrivals and Departures	Departures only	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations RWY 29 and RWY 11/10/ 09
1.2	**Schedule for dates from 09th to 16th and 24th till end of the month**				
Time Slot (IST)	RWY For **Westerly** flow of traffic		RWY For **Easterly** flow of traffic		Remarks
	RWY29	RWY28/27	RWY11	RWY10/09	
0601– 2300	Arrivals and Departures	Arrivals and Departures	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations
2301 - 0300	Arrivals and Departures	Departures only	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations RWY 29 and RWY 11/10/ 09
0301 - 0600	Departures only	Arrivals and Departures	Arrivals and Departures	Arrivals and Departures	Mixed Mode operations RWY 28/27 and RWY 11/ 10/09

2. **Benefits:**

i.The basic concept of distribution of aircraft noise to all the areas located below the flight path has been retained.

ii.The noise level will be distributed to all the localities as the arrivals and departures are distributed to both the runways during the mixed mode operations.

iii.During the night time (2301 to 0600 Hrs IST), the residents will have complete freedom from the aircraft noise during the specified time when a particular runway is used only for departures on the rotation basis.

iv.Efficiency of the ATC system expected to improve by at least 15% as the plan provides the flexibility to ATC to utilize the traffic handling capacity of the airport to the optimum level by balancing the traffic as per the requirement during the period of mixed mode operations (0601 to 2300 IST). Similarly, during the night time (2301-0600 IST) the nearest Runway will be used for departures.

v.Improvement in efficiency of ATC system will result in reducing delays for arriving and departing aircraft.

vi.Airlines will be able to improve the on-time performance and save the fuel as the aircraft will be able to use the nearest runway available for operation.

vii.Aircraft operating from T-1 and IAF technical area need not cross the active runway, which is otherwise a safety concern.

3.The plan will not be applicable when one of the runways is either under maintenance or not available for operations due to any other reasons. In such cases, ATC may plan the available runway in order to maintain safe and efficient flow of traffic.

4.Every effort will be made to follow the published runway use plan. However, ATC may implement the alternate plan, as and when, traffic situation warrants in the interest to safety, regularity and efficiency of the aircraft movements to reduce the congestion and delays.

5.This is applicable for use of two runways at a time. As and when traffic demands necessitate the use of all three runways at a time, separate procedures shall be formulated.

6.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.

III.OPERATIONS OF CHAPTER-2 AIRCRAFT

Between 1630-0030 UTC daily, operations of chapter-2 aircraft as contained in annex-16 vol-1 are not permitted to operate at IGI Airport Delhi for noise abatement. However, ministry of defense (Govt. of India) chapter-2 aircrafts is allowed to operate on Runway 27/09 only.

VIDP AD 2.22 FLIGHT PROCEDURES

I.SURVEILLANCE RADAR APPROACH
1.Surveillance Radar Approach Procedures at IGI Airport, New Delhi

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
28	777	284	11	2600	5.7	2600	2	1420
27	750	271	11	2600	5.8	2600	2	1390
10	719	104	11	2600	5.9	2600	2	1360
09	717	091	11	2600	5.9	2600	2	1360
29	751	283	11	2600	5.7	2600	2	1400
11	723	103	11	2600	5.8	2600	2	1370
09	717	091	11	2600	5.9	2600	2	1360
29	751	283	11	2600	5.7	2600	2	1400
11	723	103	11	2600	5.8	2600	2	1370

2.Missed Approach procedure

i.**RWY 28**: Climb straight ahead to F70, crossing NDB (274 DP) or 5 DME DPN turn right on heading 345ºM to intercept R-316 (116.1 DPN) to join holding at SAMPLA VOR (117.0 SAM) at F70 or as instructed by ATC.

ii.**RWY 27**: Climb straight ahead to F70 crossing abeam NDB (274 DP) or 5 DME DPN turn right on heading 345 DEG M to intercept R-316 (116.1DPN) to join holding at SAMPLA VOR (117.0 SAM) at F70 or as instructed by ATC.

iii.**RWY 10:** Climb straight ahead to 2600 FT. Climbing turn right on heading 120 DEG(M) to intercept R-107 (116.1 DPN) to join holding at SSB VOR (112.4 SSB) at FL 70 or as instructed by ATC.

iv.**RWY29**: Climb straight ahead to 2600Ft then turn left to establish R-265 (114.6 DIG. After crossing 10D (DIG) Climb to FL 70 and turn left to proceed to VOR (116.8 CHI) VIA R-045 (CHI) to join holding procedure or as instructed by ATC.

v.**RWY11**: Climb straight ahead to 2600Ft then turn right to establish R-125 (114.6 DIG). After crossing 16D (DIG) Climb to FL 70 and turn left to proceed to VOR (112.4 SSB) VIA R-270 (SSB) to join holding procedure or as instructed by ATC.

vi. **RWY 09**: Climb straight ahead to 2600 FT. Climbing turn right on heading 130 DEG(M) to intercept R-107 (116.1 DPN) to join holding at SSB VOR (112.4 SSB) at FL 65 or as instructed by ATC.

3.Distance from touch down/altitude information

RWY	Distance/ Altitude Information						Descent Gradient
28	Dist.(NM)	5.7	5	4	3	2	5.27% (3 Deg)
	Altitude (Ft)	2600	2380	2060	1740	1420	
27	Dist.(NM)	5.8	5	4	3	2	5.26% (3 Deg)
	Altitude(Ft)	2600	2350	2030	1710	1390	
10	Dist.(NM)	5.9	5	4	3	2	5.25% (3 Deg)
	Altitude(Ft)	2600	2320	2000	1680	1360	
09	Dist.(NM)	5.9	5	4	3	2	5.25% (3 Deg)
	Altitude(Ft)	2600	2320	2000	1680	1360	
29	Dist.(NM)	5.7	5	4	3	2	5.3% (3 Deg)
	Altitude(Ft)	2600	2400	2000	1700	1400	
11	Dist.(NM)	5.8	5	4	3	2	5.3% (3 Deg)
	Altitude(Ft)	2600	2400	2000	1700	1370	

4. OCA for Visual Circling

CAT A/B:1470 FT
CAT C/D:1570 FT

5. Minimum Radar Vectoring Altitude:

2600 FT within 25 NM in all sectors.

6. Holding procedures:

a)SAMPLA VOR (117.0 SAM). One-minute left hand pattern in bound track 136º (M). Minimum holding level F70.

b)SAKRAS VOR (117.2 SKA) One-minute right hand pattern inbound track 006º (M). Minimum holding level F70.

c)SIKANDARABAD VOR (112.4 SSB) One-minute right hand pattern inbound track 288º (M). Minimum holding level F70. Maximum holding level F140.

d)CHHILERKI VOR (116.8 CHI) One-minute left hand pattern in bound track 060deg (M). Minimum holding level F70. (For SRA from RWY29/11)

7.Radio Communication Failure Procedure

i.In case communication failure takes place prior to establishing on final approach track, maintain the last assigned level or F70 whichever is higher and proceed to SKA VOR (117.2) via the shortest route to join holding procedure as specified at Para 6.

ii.In case radio communication failure takes place after establishing the final approach track, aircraft may continue the approach and land if visual or climb straight ahead to 2600 ft then climbing turn left/right to join SKA VOR (117.2) holding procedure at F70 as specified at para 6.

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

8.Aerodrome Operating Minima

The aerodrome operating minima of surveillance radar approach procedure (RWY 29 and RWY 11) IGI Airport, Delhi is amended as given below:

NORMAL MINIMA								
	CAT A		CAT B		CAT C		CAT D	
	VISIBILITY/RVR		VISIBILITY/RVR		VISIBILITY/RVR		VISIBILITY/RVR	
PROCEDURE	WITH ALS	W/O ALS	WITH ALS	W/O ALS	WITH ALS	W/O ALS	WITH ALS	W/O ALS
SRA PROCE-DURE RWY11	1800	2600	1800	2600	3200	4000	3600	4400
SRA PROCE-DURE RWY 29	1800	2600	1800	2600	3200	4000	3600	4400
RESTRICTED MINIMA								
	CAT A		CAT B		CAT C		CAT D	
	VISIBILITY/RVR		VISIBILITY/RVR		VISIBILITY/RVR		VISIBILITY/RVR	
PROCEDURE	WITH ALS	W/O ALS	WITH ALS	W/O ALS	WITH ALS	W/O ALS	WITH ALS	W/O ALS
SRA PROCE-DURE RWY11	2200	3000	2200	3000	4000	4800	4400	5000

SRA PROCE-DURE RWY 29	2200	3000	2200	3000	4000	4800	4400	5000

NOTE: If required by ATC the length of intermediate segment may be reduced to less than 5 NM.

II.RADIO COMMUNICATION FAILURE PROCEDURE
1.INTRODUCTION:

Radio communication failure procedures are described in Para 15.3 of ICAO PANS ATM DOC 4444, 15th edition 2007. Based on these provisions, following radio communication failure procedures are established, to standardize the actions to be taken by the pilot of arriving and departing aircraft at IGI airport.

2.GENERAL:

2.1.All Transponder equipped aircraft experiencing Radio Communication failure shall set transponder to Mode A/C code 7600 as soon as practicable.

(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).

2.2.Pilot shall not overfly VIP 89 (Prohibited area) situated 5.8 NM North East of Delhi Airport under any circumstances.

3.ASSIGNED RUNWAY AND ITS AVAILABILITY FOR RCF AIRCRAFT:

3.1.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, except as given in para 3.3 below. In case arriving aircraft has not been advised any runway, Runway 28 shall be considered as assigned runway for such arrival. During the period of notified periods of maintenance/ closure of Runway 28, Runway 29 shall be considered as assigned Runway.

3.2.In case of departures from Delhi returning on account of RCF, the departure runway of such aircraft shall be considered as assigned runway for landing, except as given in para 3.3 below.

3.3.Runway 09 or 27 is not to be used by RCF aircraft except as under para 3.4 & 3.5 below. Runway 28, therefore, shall be treated as assigned Runway for aircraft to which Runway 27 had been assigned previously as per para 3.1 and departure from Runway 27 as per para 3.2 above. Similarly, Runway 10 shall be treated as assigned Runway for aircraft to which Runway 09 had been assigned previously as per para 3.1 and departure from Runway 09 as per para 3.2 above.

3.4.Notwithstanding anything contained in para 3.3 above, if Radio communication failure occurs after the final/interception turn, the aircraft may continue its approach to land on such Runway.

3.5.It is reiterated for clarity, aircraft experiencing RCF shall not make an approach for Runway 27 or Runway 09 unless final turn/interception heading has already been given to aircraft for Runway 27 or Runway 09 (see para 3.4).

3.6.Runway lights and Approach lights in 'SWITCHED ON' position shall indicate the availability of such Runway for aircraft experiencing RCF.

3.7.Irrespective of visibility/weather conditions, Runway and Approach lights in 'SWITCHED OFF' position shall indicate non- availability of such Runway for aircraft experiencing RCF. In such cases, alternate runway shall be made available for such aircraft. Runway 29 shall be alternate to Runway 28 and Runway 11 shall be alternate to Runway 10. Accordingly, Runway 28 shall be alternate to Runway 29 and Runway 10 shall be alternate to Runway 11.

3.8.In strong tail wind conditions for assigned Runway, aircraft experiencing RCF will carry out a missed approach on assigned runway and after following complete missed approach for such approach, aircraft will carry out published ILS/VOR DME ARC approach procedure for the runway which is in opposite direction to the assigned Runway. For example, Runway 10 in case of Runway 28 and Runway 11 in case of Runway 29 and vice versa.

4.PROCEDURE FOR ARRIVALS:

4.1.ARRIVING AIRCRAFT – STAR-ASSIGNED

When STAR has been assigned to arrival:

4.1.1Except when descend clearance has already been received from ATC, pilot shall not commence descend before 100 NM from 'DPN VOR'. Aircraft shall continue on assigned STAR following all level and speed restrictions applicable to STAR, as far as practicable. This allows ATC to resolve any possible traffic conflict.

4.1.2At the end of the STAR, descend to 2600 ft and take a convenient turn to intercept localizer or final approach track of the published procedure for the assigned runway.

4.2.ARRIVING AIRCRAFT – STAR NOT ASSIGNED

Aircraft to which a STAR has not been assigned by ATC, on experiencing radio communication failure, shall

4.2.1.Continue on ATS route, (Re-join ATS route if given heading or flying offset), maintaining/descending to cleared flight level or FL 70 whichever is higher. At 40 miles to 'DPN VOR', take a turn (avoiding VIP 89) to proceed direct to 'SKA' VOR. If higher, descend to FL 70 in 'SKA' hold.

4.2.2.If RCF takes place within 40 NM of 'DPN VOR', continue to 'DPN VOR' and at 10 miles to 'DPN VOR' take a turn (avoiding VIP 89) to proceed direct to 'SKA' VOR maintaining last assigned level or FL 70 whichever is higher. If below FL 70, climb and reach FL 70 before crossing 25 NM outbound from 'DPN VOR'. If higher, descend to FL 70 in 'SKA' hold.

4.2.3.Leave 'SKA VOR' at FL 70 to carry out published ILS/VOR DME ARC approach procedure for assigned runway.

4.3.ARRIVING AIRCRAFT BEING RADAR VECTORED

Aircraft being radar vectored for approach, on experiencing RCF, shall maintain last assigned level and heading for 3 minutes after detecting RCF or selecting MODE A/C 7600, whichever is later, and then take a convenient turn (Avoiding VIP 89) to proceed direct to 'SKA' climbing/maintaining last assigned level, or FL 70 whichever is higher.

If below FL 70, climb and reach FL 70 before crossing 25 NM outbound from 'DPN VOR'. If higher, descend to FL 70 in 'SKA' hold

4.3.1.Leave 'SKA' VOR at FL70 to carry out published ILS/VOR DME ARC approach procedure for assigned runway.

5.PROCEDURE FOR DEPARTURES:

5.1.DEPARTURE INTENDING TO CONTINUE TO DESTINATION

Any departing aircraft experiencing RCF and intending to continue to its filed plan destination shall:

5.1.1.Continue on assigned SID or heading climbing to or maintaining cleared level or FL70, whichever is higher.

5.1.2.Three minutes after setting Mode A/C code 7600 or reaching FL 70 or cleared Flight level (if higher than FL70) whichever is later:

i.If following 'SID', continue on SID to join ATS route and climb to filed Flight level and continue as per the filed flight plan.

ii.If following Radar heading, turn (avoiding VIP 89) to join ATS route by shortest route maintaining cleared flight level/FL 70 as per para 5.1.1. After joining ATS route, climb to filed Flight level and Continue as per the filed flight plan

5.2DEPARTURE INTENDING TO LAND BACK AT DELHI:

Any departing aircraft experiencing RCF after departure and intending to land back at IGI Airport shall

5.2.1Continue on assigned SID or heading climbing to or maintaining cleared level or FL70, whichever is higher.

5.2.2Three minutes after setting Mode A/C code 7600 or reaching FL70 or cleared Flight level (if higher than FL70) whichever is later, take a turn (avoiding VIP 89) to proceed direct to 'SKA' VOR.

5.2.3If higher, descend to FL70 in 'SKA' hold.

5.2.4If required, Jettison fuel while in 'SKA' hold, taking all necessary precautions.

5.2.5Leave 'SKA' VOR at FL70 to carry out published ILS/VOR DME ARC approach procedure for assigned runway.

III.ARRIVAL, DEPARTURE PROCEDURE AND RUNWAY CAPACITY ENHANCEMENT MEASURES

The traffic has been growing at Delhi Airport at a faster rate which necessitates the optimum use of resources to meet our requirement of safe, efficient and expeditious handling of air traffic. Runway Occupancy Time has been one of the important factors affecting such requirement. The following procedures and important Aerodrome data are published (TORA/LDA from different entry/exit TWYs) which will facilitate the Airlines/Pilots in achieving minimum Runway Occupancy Time for common goal of enhancing runway capacity utilizing the existing available resources.

1.DEPARTURE PROCEDURE

1.1.The aircraft should be in a position to commence its taxi not more than five minutes after the issue of start-up clearance failing which the start-up clearance will be cancelled and the aircraft will lose its priority and be considered for start-up depending upon the traffic situation and subject to delay.

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

1.3.Any aircraft if observed, by the Controller, to be too slow taxiing and thereby adversely affecting the efficient aircraft movement shall be taken out of the sequence and will be considered for departure as a last priority depending upon the traffic situation subject to delay.

1.4.Based on the aircraft type and its performance characteristics, ATC will issue taxiing instructions so as to depart from the nearest runway intersection from where adequate take off run is available for departure. Pilots 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 Push back/Start-up. However, such requests will be considered by ATC subject to delay.

1.5.Pilot shall complete all mandatory pre-departure checks before entering the active runway for departure so that the aircraft is in a position to take off immediately upon receipt of take-off clearance.

1.6.When the aircraft is issued with a line-up and take-off clearance at the taxi holding position it shall be in a position to line up and affect an immediate take- off in one continuous movement.

1.7.When the aircraft is issued with a take- off clearance after lining up on the runway it shall commence take-off roll immediately upon receipt of take- off clearance.

1.8.If the Controller observes a delay in respect of the departing aircraft commencing its take off run after issuance of take- off clearance, the take- off clearance will be cancelled and the aircraft be advised to vacate the runway immediately at the nearest taxiway to make way for the subsequent arrival or departure. Necessary entries in this regard shall be recorded in the Log Book.

1.9.Refer AD 2.24 for charts related to Take-off Run Available from different intersections.

NOTE: With the objective of expediting the flow of traffic, ATC may authorize Departure from intersections also.

2.ARRIVALS

2.1 Pilots are reminded that rapid exit from the runway enables ATC to apply minimum spacing on final approach that will achieve maximum runway utilisation and will minimise the occurrences of 'go around’.

2.2 Pilots of small and medium aircraft are requested to consider which Rapid Exit Taxiway offers the best opportunity for a safe and expeditious exit from the runway in order to reduce delays and maximise utilisation.

2.3Aircraft are expected to vacate the runway via first available RET depending on aircraft performance.

2.4Refer AD 2.24 for charts related to the locations of exit taxiways with respect to threshold for all the runways.

IV.DELHI AIRPORT COLLABORATIVE DECISION MAKING (DA-CDM)

1 BACKGROUND

1.1The Delhi Airport - Collaborative Decision Making (DA-CDM) undertaken at IGI Airport is a joint programme among all airport partners –

•Air Navigation Service Provider (ATC)

•Airline Operators (AO)

•Air Traffic Flow Management Unit (ATFMU)*

•Delhi International Airport Pvt. Limited (DIAL)

•Ground Handlers (GH)

•Support services (Police, Customs and Immigration, Air Force Movement Liaison Unit, etc.)

All the partners are required to work in close collaboration to ensure the successful operation of DA-CDM.

1.2The efficiency of the Air Transport System is highly dependent on traffic predictability. DA-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 Airlines, Airport Operator, ATC, etc.

1.3The primary objective of DA-CDM is to facilitate the sharing of operational data for a better informed, well planned and transparent decision making to ensure more precise overall operational processes. It leads to an optimized utilization of resources, an efficient turn round process and everyone has a common awareness of the situation.

1.4Through implementation of DA-CDM, long-lasting benefits can be reaped.

Benefits of DA-CDM are:

•Improved overall efficiency of the operation

•Reduced delays and increased punctuality

•Reduced ATFM slot wastage*

•Optimized en-route capacity

•Optimized use of the airport infrastructure

•Reduced apron and taxiway congestion

•Cost savings

•Reduction of carbon emission and noise pollution

•Enhanced predictability

•Optimized use of ground handling resources

•Optimized use of stands, gates and terminals

•Enables flexible pre-departure planning

2 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 DA-CDM procedures, the guidance material published by Euro control, ICAO and other Organizations has been used].

S. NO.	ACRONYMS	DEFINITION	EXPLANATION
2.1	ELDT	Estimated Landing Time	The estimated time that an aircraft will touchdown on the runway. (Equivalent to ATC ETA = Estimated Time of Arrival = landing).
2.2	TLDT	Target Landing Time	Targeted Time from the Arrival management process at the threshold, taking runway sequence and constraints into account. It is not a constraint but a progressively refined planning time used to coordinate between arrival and departure management processes. Each TLDT on one runway is separated from other TLDT or TTOT to represent vortex and/or SID separation between aircraft.
2.3	ALDT	Actual Landing Time	The time that an aircraft lands on a runway. (Equivalent to ATC ATA = Actual Time of Arrival = landing, ACARS = ON).
2.4	EXIT	Estimated Taxi-In Time	The estimated taxi time between landing and in-block.
2.5	AXIT	Actual Taxi-In Time	AXIT = AIBT – ALDT
2.6	SIBT	Scheduled In-Block Time	The time that an aircraft is scheduled to arrive at its first parking position.
2.7	EIBT	Estimated In-Block Time	The estimated time that an aircraft will arrive in-blocks. (Equivalent to Airline/Handler ETA = Estimated Time of Arrival).
2.8	AIBT	Actual In-Block Time	The time that an aircraft arrives in-blocks. (Equivalent to Airline/Handler ATA = Actual Time of Arrival, ACARS = IN).
2.9	ACGT	Actual Commence of Ground Handling Time	The time when ground handling on an aircraft starts, can be equal to AIBT *(to be determined locally)*
2.10	ASBT	Actual Start Boarding Time	Time passengers are entering the bridge or bus to the aircraft.
2.11	AEGT	Actual End of Ground handling Time	The time when ground handling on an aircraft ends, can be equal to ARDT *(to be determined locally)*
2.12	AGHT	Actual Ground Handling Time	The total duration of the ground handling of the aircraft. AGHT = ACGT – AEGT
2.13	STTT	Scheduled Turn-round Time	STTT = SOBT – SIBT
2.14	ETTT	Estimated Turn-round Time	The time estimated by the AO/GH on the day of operation to turn-round a flight taking into account the operational constraints.
2.15	MTTT	Minimum Turn-round Time	The minimum turn-round time agreed with an AO/GH for a specified flight or aircraft type.
2.16	ATTT	Actual Turn-round Time	ATTT = AOBT – AIBT
2.17	ASRT	Actual Start Up Request Time	Time the pilot requests start up clearance.
2.18	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.
2.19	ASAT	Actual Start Up Approval Time	Time that an aircraft receives its start-up approval.
2.20	SOBT	Scheduled Off-Block Time	The time that an aircraft is scheduled to depart from its parking position.
2.21	EOBT	Estimated Off-Block Time	The estimated time at which the aircraft will start movement associated with departure (ICAO).
2.22	TOBT	Target Off-Block Time	The time that an Aircraft Operator or Ground Handler 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).
2.23	AOBT	Actual Off-Block Time	Time the aircraft pushes back / vacates the parking position. (Equivalent to Airline / Handlers ATD = Actual Time of Departure & ACARS = OUT)
2.24	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.
2.25	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.

2.26	AXOT	Actual Taxi-Out Time	AXOT = ATOT – AOBT
2.27	ETOT	Estimated Take Off Time	The estimated take off time taking into account the EOBT plus EXOT.
2.28	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)*
2.29	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.
2.30	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).

3 TWO KEY PARAMETERS OF DA-CDM: TOBT and TSAT.

3.1TARGET OFF-BLOCK TIME (TOBT)

3.1.1Definition: The time that an Aircraft Operator or Ground Handler 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).

3.1.2Purpose: It is a fact that Air Traffic Management (ATM), based on FPL-data only, is insufficient to guarantee smooth and efficient operations on the ground and in the air. The main reason for this is the incorrect updating/no updating at all, of the Estimated Off-Block Time (EOBT) of the flight plan. The result is that airport partners have an incorrect idea about the actual status of that specific flight.

Target Off-Block Time (TOBT) is the dynamic target on the operational readiness of a flight thus, more accurate than the static departure time of a flight plan and is therefore, an ideal milestone to be used by all airport partners.

3.1.3When/How to calculate TOBT: In order to create an initial time reference, at EOBT - 45 minutes, TOBT will be calculated by adding Estimated In-block Time (EIBT) + Minimum Turn-round Time (MTTT) for distribution and to derive further updates.

When the aircraft arrives on stand at Actual In-Block Time (AIBT), TOBT is updated by AO/GH based on MTTT or the Scheduled Off-Block Time (SOBT). These MTTT’s are regularly updated and Aircraft Operators are consulted for the most accurate times.

Refining of TOBT (Example)

TOBT based on EOBT [At EOBT - 45 minutes]

TOBT = EIBT (ELDT issued at ELDT-20 minutes + EXIT) + MTTT

TOBT = EIBT (ELDT at 10NM from touchdown + EXIT) + MTTT

TOBT = EIBT (ALDT + EXIT) + MTTT

TOBT = AIBT + MTTT

3.1.4Originator(s): Airlines Operator/Ground Handler.

3.1.5Communication of Target Off Block Time (TOBT):

(i)AO/GH shall update their TOBTs via DA-CDM portal.

(ii)If there is no input in DA-CDM portal, EOBT itself will be treated as TOBT.

3.1.6When to update: The aim of the Target Off-Block Time (TOBT) is to provide a timely, accurate and reliable estimate to the DA-CDM partners, of an aircraft's off block time. Accurate TOBTs enhance operations on the ground as they provide all airport partners with a clear picture of the intentions of aircraft on the ground.

TOBTs only need to be updated if the time that the aircraft will be ready to leave stand changes.

Once Target Start-up Approval Time (TSAT) is allocated by ATC at TOBT- 20 minutes, the TOBT may be updated thrice (equal to or less than TSAT).

3.1.7Accuracy: TOBTs must be updated to an accuracy of +/- 5 minutes.

3.2TARGET START UP APPROVAL TIME (TSAT)

3.2.1Definition: 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.

3.2.2Purpose: TSATs provide an optimized start-up sequence, leading to Pre-Departure sequence. TSATs reduce queuing times at the runway holding points, while maintaining a high degree of runway utilization. ATC will continue to maximize departure rates and optimize the departure order for creating the right mix of traffic.

3.2.3How to calculate/generate TSAT: The TSAT is calculated by taking into account TOBT, Calculated Take-Off Time (CTOT)*, wake vortex, Standard Instrument Departure (SID) routing, variable taxi times, and any capacity constraints such as Low Visibility Procedures.

ELDT + EXIT = EIBT
EIBT + MTTT = TOBT
TOBT + EXOT + Constraints = TTOT
TTOT - EXOT = TSAT
ELDT: Estimated Landing Time
EXIT: Estimated Taxi-In Time
EIBT: Estimated In-Block Time
MTTT: Minimum Turn-round Time
TOBT: Target Off-Block Time
EXOT: Estimated Taxi-Out Time
TTOT : Target Take Off Time
TSAT: Target Start Up Approval Time

Note: A re-assessment of a flight on the network (re-calculation of CTOT) will be done if the TTOT is outside the Slot Tolerance Window (STW = CTOT-5 till CTOT+10 minutes). The Calculated Take-Off Time becomes tailor-made where possible.*

3.2.4 Originator(s): ATC.

3.2.5 When to issue TSAT: At TOBT - 20 minutes by ATC in DA-CDM portal.

3.2.6 Communication of Target Start-up Approval Time (TSAT): The Target Start-up Approval Time (TSAT) will be displayed in the DA-CDM portal. Pilots will be informed of their Target Start-up Approval Time (TSAT) through DA-CDM portal and any changes to it by ATC. The AO/GH shall advise flight crew of TSAT, displayed in the DA-CDM portal.

3.2.7When to update: The factors that may cause a revision of TSAT include but not limited to:

(i) Change of runway

(ii) Change in taxi time

(iii) Revised TOBT

(iv) Change of route (SID)

(v) Change of aircraft type

(vi) Application of ATFM regulation or ATC restriction resulting in new CTOT or start up delay*

(vii) Inclement Weather

(viii) Priority handling

(ix) Bird activity

(x) Unusual Occurrences, etc.

In case of TSAT revision, ATC will re-calculate a new TSAT and an alert in the DA-CDM portal will notify the AO/GH. The pilot will be informed by ATC of any revised TSAT if there is a delay to TSAT in excess of 5 minutes.

3.2.8Accuracy: TSAT +/- 5 minutes.

3.3 Co-ordination with the Air Traffic Flow Management Unit (ATFMU)*

3.3.1 A permanent and fully automatic data exchange with the ATFMU will be established. The data transfer will enable highly accurate early predictions of landing and departure times.*

3.3.2 Furthermore, it allows for more accurate and efficient CTOT calculations due to the use of more accurate local target take-off times.*

4 TOBT and TSAT based DA-CDM Start-up/Push-back procedures

4.1A Flight Plan Check shall be performed by DA-CDM Cell, to the extent possible, two hours prior to SOBT/EOBT to verify the consistency between SOBT and EOBT. The EOBT must correspond to the SOBT. If the EOBT deviates from the SOBT, the relevant contact person will be informed by DA-CDM Cell and advised to adjust the times accordingly. AO/GH shall be responsible to obtain ADC number from IAF-MLU.

4.2Estimated Landing Time (ELDT): ATC will input Estimated Landing Time (ELDT) at ELDT - 20 minutes on DA-CDM portal. At 10 NM to touchdown, report is generated automatically by ATC automation system [AutoTrac III (AT3)] and sent to DIAL through AODB link.

4.3Estimated In-block Time (EIBT): This estimate will be calculated by adding Variable Taxi Time (VTT) [Estimated Taxi-In Time (EXIT)] from the RWY to the Stand/Gate automatically by DA-CDM portal using VTT matrix.

4.4Pre-Departure Sequence: Pre-Departure sequence is the order, in which the ATC plans the aircraft to depart from their Gate/Stands (Push-off blocks). 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.

4.5. Data link clearance facility is operational at IGI airport,DELHI. In accordance with best equipped best served policy the flights receiving clearance through data link may contact relevant SMC/GROUND frequency directly as per the TSAT(TArget Start-up Approval Time) issued.

4.5 Start-Up and Push-Back Procedure

i.The pilot should contact Clearance Delivery (CLD) to request en-route clearance and SID between TOBT - 15 minutes to TOBT - 5 minutes.

ii.The aircraft must be ready to Start-up/Push-back at TOBT and request SMC (GROUND) for Start-up/Push-back at TOBT. (Note: TSAT can be preponed up to TOBT)

iii.If at TOBT +5 minutes, ATC has not received Start-up/Push-back request, the aircraft may lose its position in sequence.

a.ATC will advise the pilot that a new TOBT is required.

b.On receipt of new TOBT, the flight will be re-sequenced according to new TOBT and a new TSAT with a subsequent delay will be issued.

iv.ATC should normally be able to issue start-up/push-back at TSAT. Pilots will be informed by ATC of any revised TSAT if there is a delay to TSAT in excess of 5 minutes.

v.Taxi clearance must 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 in DA-CDM portal. AO/GH shall be responsible to obtain new ADC number from IAF-MLU).

vi.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.)

* [Future provision kept for incorporating with India – Central Air Traffic Flow Management]

V. INORMATION REGARDING INTERSECTION DEPARTURES

A During non-availability period of all the entry TWY Z1, CE1, CE2 and Z2 to RWY29, Rapid Exit TWY of RWY 11 Z3 and Z4 can be used as entry TWY for Aircraft intending to depart from RWY 29 under the following conditions.

i. In day time only when visibility is above 2000m

ii. up to CODE C Aircraft only.

iii. Simultaneous use of RET Z3 and Z4 not permitted.

1. New entry taxi routes via Z3 and Z4 for Runway 29 are:

i. TWYS2- TWY Z- TWY Z3- RWY 29.

ii. TWY S2- TWY Z- TWY Z4- RWY 29.

iii. TWY Z- TWY Z4- RWY29.

2. Holding point markings and stop bars provided on TWY S2 short of TWY Z and on Z short of TWY Z4 (west side) but during operation the stop bars on these TWYs may be kept in off mode

3.Necessary signage boards have been placed.

Runway (ii)	Taxiway (iii)	TORA from Taxiway given in (iii) (iv) Meters	Cat of ACFT (v)
28	C	3338	E
	W	3356	F
	P1	3813	F
	E	3178	E
10	E4	3265	E
	M	2839	E
	N	3813	F
	K	3813	E
	D	2752	E
	M2	3235	E
27	A	2816	E
	C1	2776	E
	E	2106	E
09	E3	2682	E
	K	2816	E
	D	1856	E
29	Z5	2535	F
	Z4	2885	F
	Z3	3286	F
	Z2	3932	F
	Z1	4430	F
	CE2	4334	F
	CE1	4430	F
11	S5	3933	F
	S4	3834	F
	Z8	4110	F
	Z9	4110	F

4.When RWY in use is 29, intersection departure from TWY Z2 is recommended by airport operator in order to ensure minimum spacing on final approach and to avoid delay to arrivals.

B.Location of different Exit TWYs from THR:

Runway	Exit Taxiway	Distance of exit TWY from THR(M)
29	Z6(RET)	2067
29	Z7(RET)	2316
29	S4	2700
29	S5	2800

29	Z8	2970
11	Z5(RET)	1898
11	Z4(RET)	2247
11	Z3(RET)	2648
11	Z2	3294
28	L (RET)	2212
28	D1 (RET)	2312
28	M (RET)	2839
28	D	2752
28	E4	3265
28	K	3813
28	M2	3235
28	N	3813
10	F	2436
10	U (RET)	2436
10	B	2961
10	V(RET)	2961
10	E	3178
10	C	3338
10	W	3356
10	P1	3813
27	D	1856
27	E5 (RET)	2328
27	E3	2682
27	K	2816
09	E	2106
09	C1	2776
09	A	2816

C) Preferred Exit Taxiways

RWY DESIG.	ACFT CODE	PREFERRED EXIT TWY (PET)	DIST.FROM THR (IN MTR)
29	A, B And All Turbo Prop Acft	Z6	2067
29	C, D, E	Z7	2316

29	F	S4	2700
11	A,B	Z5	1898
11	C,D	Z4	2247
11	E,F	Z3	2648
28	A,B,C,D	L (Exiting Towards South)	2212
28	E	M (Exiting Towards South)	2839
28	F	N (Exiting Towards South)	3813
28	A,B,C	D1 (Exiting Towards North)	2312
28	D,E	D (Exiting Towards North)	2752
10	A,B,C,D	U (Exiting Towards South)	2436
10	E	V (Exiting Towards South)	2961
10	F	P1 (Exiting Towards South)	3813
10	A,B,C	F (Exiting Towards North)	2436
10	D,E	C (Exiting Towards North)	3338
27	A,B,C	E5	2328

VI. 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.

VII. IMPLEMENTATION OF TACTICAL AIR TRAFFIC FLOW PROCEDURES (T-ATFP)

1 Introduction

1.1 In order to reduce airspace congestion, arrival delays and holding in Delhi TMA, Tactical Air Traffic Flow Control Procedure (T-ATFP) is introduced. For this purpose, sequenced entry into airspaces is established and maintained.

1.2 T-ATFP is applied to aircraft landing at Delhi airport, classified as follows:

1.2.1 Arrivals from airports within Delhi FIR;

1.2.2 Arrivals from airports outside Delhi FIR but within 10 min flying time from Delhi FIR boundary;

1.2.3 Arrivals from airports other than those in 1.2.1 & 1.2.2

2 Acronyms used in the document and associated expansion

AAO	Airline and aircraft operators
CTO	Calculated Time Over
ETO	Estimated Time Over
RTO	Required Time Over
T-ATFP	Tactical Air Traffic Flow Procedures
TM	Traffic Manager (for the purpose of T-ATFP)

3 Terminology and their meaning

3.1 AAO (Airline and aircraft operators) – includes all aircraft operators including defence, State Govt., paramilitary etc.

3.2 Block Time – Time required for arriving over runway THR following a STAR flight path and adhering to STAR speed restrictions.

3.3 Calculated Time Over (CTO) – Time at which departure from airports at 1.2.1 & 1.2.2 should arrive over the arrival holding fix to fit into established arrival sequence. By back calculation, the time of takeoff can be computed.

3.4 Required Time Over (RTO) – Time at which arrivals in 1.2.3 should arrive over the arrival holding fix to avoid joining the holding.

4 Traffic Manager (TM)

4.1 The Traffic Manager (TM) position is established within Delhi ATC for the implementation of T-ATFP. TM will have access to flight plans and estimates and revisions to estimates of all arrivals landing at Delhi airport.

4.2 Functions of TM

4.2.1 Establishing a sequence of arrivals landing at Delhi airport based on touchdown time.

4.2.2 Assign landing runways to arrivals; whenever more than one runway is available for landing.

4.2.3 Advise CTO/RTO to ACC Sector controller.

4.2.4 Advise CTO/RTO, arrival sequence and assigned landing runway to Approach (Arrival) Controller.

4.3 For effective and efficient management of arrival sequence, TM shall:

4.3.1 Make available a CTO arrival holding fix for the departures from airports as in 1.2.1 & 1.2.2.

4.3.2 Provide information to arrivals as in 1.2.3, regarding RTO arrival holding fix.

4.4 Based on the ETO at arrival holding fix, sequence of arrivals will be determined by TM.

5 Essential requirements

5.1Arrivals landing at Delhi airport shall flight plan via arrival route (STAR) appropriate to the ATS route. To maintain arrival sequence, non-RNAV arrivals to expect routing/vectors along RNAV STAR.

5.2All flight-plans for landing at Delhi airport shall provide ETO arrival holding fix - AKBAN, SAM, SSB & SAPLO as appropriate, for determination of arrival sequence based on time required to reach runway touchdown point from the arrival holding fix.

5.3Departures from airports within Delhi FIR and within 10 min flying time from Delhi FIR shall coordinate with TM for CTO. Uncoordinated departure from such airports shall be refused entry into Delhi TMA or will be subject to extended delays.

6 Tactical Flow Management Process

6.1For ensuring efficient flow during T-ATFP, speed management of sequenced aircraft is a critical factor. Approach (Arrival) Controller shall enforce adherence to speed restrictions.

6.2Delhi ACC Sector controllers will clear all arrivals via STAR. Delhi Radar shall vector Non-RNAV arrivals along appropriate STAR route segment with speed control instructions consistent with STAR segment, so as to ensure that the arrival sequence computed by TM is maintained.

6.3The arrival sequence is calculated based on the Block Time plus separation at touchdown point between successive arrivals. During the initial phases of T-ATFP implementation; the separation over touchdown point will be 2 min.

6.3.1The separation over touchdown point is dependent on dynamic factors such as:

•Weather

•Equipment outage

•Runway closure

•Airspace closure

•Contingency such as RCF, Unlawful interference etc

6.4TM shall advise Delhi ACC sector controller and Approach (Arrival) controller information on RTO. Accordingly, arrivals will be advised of RTO thereby facilitating in gaining/losing time so as to arrive over arrival holding fix at RTO.

6.5For ensuring efficient flow based on the arrival sequence, speed management is critical. Approach (Arrival) controller may enforce speed control based on the STAR restrictions and on final approach.

6.6Safety being primary, minimal radar vectoring may be resorted thereby permitting aircraft to adhere to FMS managed flight profile/path of RNAV STAR.

6.7The arrival runway allocation and sequence established by TM, may not be altered by Delhi Approach; as far as practicable, except during emergency, RCF, unlawful interference or during events requiring priority handling.

6.8When adverse conditions such as weather, equipment outage, runway closure and/or airspace closure etc affect Delhi airport/Delhi TMA, the capacity of the airport and TMA could be severely degraded, resulting in unoptimised traffic flows. Therefore, in order to avoid excessive holding, airborne delay and congestion during such events; following T-ATFP measures will be implemented:

6.8.1Departure airport ATS units shall be advised of the restricted arrival capacity at Delhi and CTO to be provided for all departures before start-up based on flight-plan ETD. Any delay beyond flight-plan ETD will require revised CTO arrival holding fix to be obtained.

6.8.2During events enumerated in Para 6.8, departures from airports within Delhi FIR and within 10 min flying time from Delhi FIR do not have the option to take-off and absorb delay enroute or by holding within Delhi TMA.

7 AAO responsibility

7.1AAOs are to ensure they are fully informed on the following procedures:

7.1.1AAOs shall adhere to the speed control restrictions of the STAR or speed control instructions issued by Delhi ATC.

7.1.2AAOs shall arrange the departure of their flights to comply with the CTO issued.

7.1.3Non-adherence to CTO may result re-sequencing. TM will issue RTO which may result in disproportionate arrival delay.

8 ATS Unit responsibility

8.1ATS Units shall make every effort to enable departing flights to comply with CTO.

8.2ATC shall provide all possible assistance to AAOs to meet CTO/RTO.

9 Arrivals exempted from T-ATFP

9.1The following flights are exempted from T-ATFP:

9.1.1Arrival in a state of emergency, including flights subject to unlawful interference

9.1.2Arrival conducting search and rescue operations

9.1.3Arrival carrying notified VIP

9.1.4Arrival with medical emergencies

VIII.FOR 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.

IX. LOW VISIBILITY PROCEDURES (LVP)

Every year due to low visibility conditions during the period From 15 DEC to 15 FEB, aircraft operator are not permitted to file IGI airport as alternate airport, if the latest met forecasted general visibility is expected to be below 550 Meter, at estimated time of use.

1. DEFINITIONS & ABBREVIATIONS

1.1 Instrument Approach Operations. An approach and landing using instruments for navigation guidance based on an instrument approach procedure. There are two methods for executing instrument approach operations:

a) a two-dimensional (2D) instrument approach operation, using lateral navigation guidance only; and
b) a three-dimensional (3D) instrument approach operation, using both lateral and vertical navigation guidance.

Note. — Lateral and vertical navigation guidance refers to the guidance provided either by:

a) a ground-based radio navigation aid; or
b) computer-generated navigation data from ground-based, space-based, self-contained navigation aids or a combination of these.
Instrument approach operations shall be classified based on the designed lowest operating minima below which an approach operation shall only be continued with the required visual reference as follows:

a) Type A: a minimum descent height or decision height at or above 75 m (250 ft); and
b) Type B: a decision height below 75 m (250 ft).

Type B instrument approach operations are categorized as:
1) Category I (CAT I): a decision height not lower than 60 m (200 ft) and with either a visibility not less than 800 m or a runway visual range not less than 550 m;
2) Category II (CAT II): a decision height lower than 60 m (200 ft), but not lower than 30 m (100 ft) and a runway visual range not less than 300 m;
3) Category IIIA (CAT IIIA): a decision height lower than 30 m (100 ft) or no decision height and a runway visual range not less than 175 m;
4) Category IIIB (CAT IIIB): a decision height lower than 15 m (50 ft), or no decision height and a runway visual range less than 175 m but not less than 50 m; and
5) Category IIIC (CAT IIIC): no decision height and no runway visual range limitations.

Note 1.— Where decision height (DH) and runway visual range (RVR) fall into different categories of operation, the instrument approach operation would be conducted in accordance with the requirements of the most demanding category (e.g. an operation with a DH in the range of CAT IIIA but with an RVR in the range of CAT IIIB would be considered a CAT IIIB operation or an operation with a DH in the range of CAT II but with an RVR in the range of CAT I would be considered a CAT II operation).
Note 2. — The required visual reference means that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In the case of a circling approach operation the required visual reference is the runway environment.
Note 3.— Guidance on approach classification as it relates to instrument approach operations, procedures, runways and navigation systems is contained in the All Weather Operations Manual (Doc 9365).
1.2 Decision Height: A specified altitude or height in a 3D instrument approach operation at which a missed approach must be initiated if the required visual reference to continue the approach has not been established.
Note. — Decision altitude (DA) is referenced to mean sea level and decision height (DH) is referenced to the threshold elevation.

1.3 ILS Critical Area: An area of defined dimensions about the localizer and glide path antennas where aircraft and vehicles are excluded during all ILS operations. The critical area is protected because the presence of vehicles / or aircraft inside its boundaries will cause unacceptable disturbance to the ILS signal-in-space.

1.4 ILS Sensitive Area: An area extending beyond the ILS critical area where the parking and/or movement of vehicles, including aircraft, are controlled to prevent the possibility of unacceptable interference to the ILS signal during ILS operations. The sensitive area is protected to provide protection against interferences cause by large moving objects outside the critical area but still normally within the airfield boundary.

1.5 Low Visibility Procedures: Specific procedures applied at an aerodrome for the purpose of ensuring safe operations during Categories II and III approaches and/or low visibility take-offs.

1.6 Low Visibility Take-Off (LVTO): A term used in relation to flight operations referring to a take-off on a runway where the RVR is less than 400m.

1.7 Obstacle Free Zone: The airspace above the inner approach surface, inner transitional surface and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than of low mass and frangible mounting, required for air navigation purposes.

1.8 Runway Visual Range: The range over which the pilot of an aircraft on the centerline of a runway can see the runway surface markings or the lights delineating the runway or identifying its centerline.

1.9 Safeguarding Procedures: Safeguarding Procedures (SP) are instructions for relevant airport departments and airside operators to prepare ground services and facilities for low visibility operations, in order that when LVP are implemented all SP are complete and airport is configured for Low Visibility Procedures and Low Visibility Take-offs.

1.10 The abbreviations used in descriptions of Low Visibility Procedures have the following meanings:

ADC	Aerodrome Control
ADM	Airport Duty Manager
ARFF	Airport Rescue & Fire Fighting
AGL	Aeronautical Ground Light
ASMGCS	Advance Surface Movement Guidance Control System
AOCC	Airport Operations Control Centre
ATC	Air Traffic Control
ATIS	Aerodrome Terminal Information Service
GP	Glide Path
IHP	Intermediate Holding Position
ILS	Instrument Landing System
LOC	Localizer
LSA	Localizer Sensitive Area
LVP	Low Visibility Procedure
MET	Meteorology
MID	Mid Point
ODM	Operations Duty Manager
RVR	Runway Visual Range
SMC	Surface Movement Control
SP	Safeguarding Procedures
SSO	Shift Supervisory Officer
TDZ	Touch-down Zone
WSO	Watch Supervisory Officer

2. INTRODUCTION

2.1 General

2.1.1 Runway 28, Runway 29 and Runway 11 at IGI Airport are equipped for the CAT II/ CATIIIA/CAT IIIB operations.
2.1.2 The following equipment shall be serviceable to the required standard to support CAT II/CAT IIIA/CAT IIIB operations: -

a) ILS localizer, Glide path and ILS DME or Outer Marker.
b) Aeronautical ground lighting (AGL) System
c) RVR system
d) Standby power for ILS and aeronautical ground lighting system
e) SMR for CAT II/CAT IIIA/CAT IIIB operations/LVTO (for RVR below 350M).
(DGCA CAR Section 4 Series B Part 1, Para 9.8.7. — Surface movement radar for the maneuvering area shall be provided at an aerodrome intended for use in runway visual range conditions less than a value of 350 m.)
The pilot shall ensure that he is suitably qualified and certified to carry out the required category of ILS approach.

2.2 Safeguarding Procedures (SP)

2.2.1 Safeguarding Procedures are the necessary actions to prepare the airport for Low Visibility Procedures. They include:
a. inspection of aeronautical ground lighting system,
b. termination of all work in progress in the localizer and glide path sensitive area and the maneuvering area,
c. removal of all equipment/material from localizer and glide path sensitive area and the maneuvering area,
d. restrictions on the movement of vehicles on the maneuvering area and aprons.
2.2.2 Watch Supervisory Officer at IGI Airport will co-coordinate with all the concerned agencies for implementation of Low Visibility Procedures.
2.2.3 SP shall be initiated whenever ATC considers the introduction of Low Visibility Procedure is necessary.

2.3 Low Visibility Procedures (LVP)

2.3.1 Low Visibility Procedures are the actions to ensure the safe operation of aircraft during periods of reduced visibility or low cloud base.
2.3.2 LVP shall only be implemented when Safeguarding Procedures (SP) has been completed and the airport is configured for low visibility operations.

2.4 ILS Sensitive and Critical Areas

2.4.1 **Note:** Signage indicating the limits of localizer and glide paths sensitive areas are provided.
2.4.2 Diagram indicating the Critical and Sensitive area of ILS for all runways shall be available with apron control, control tower and WSO.
2.4.3 Refer VIDP AD 2.24 for ILS critical and sensitive areas of RWY 29, RWY 11 and RWY 28

2.5 Reporting of RVR Values

2.5.1 Touch-down zone RVR needs to be reported for Cat I operations, touch-down and mid zone RVR for Cat II operations, touch-down, mid and roll-out zone RVR for Cat III operations. In all cases, touch-down zone will always be controlling, however if any other RVR is reported and is relevant (operator shall not define relevant depending on runway length/aircraft stopping distance unless approved by FSD, DGCA) it also becomes controlling. The mid zone and roll-out zone can be lower than the touch-down zone provided conditions enumerated in Note 1 below are met. The following table is to be used for reference;

Type of Operation	**RVR**		
	Touch-down Zone	**Mid zone**	**Roll-out zone**
CAT I	550 M	125 M	125 M
CAT II	300 M	125 M	125 M
CAT III A	175 M	125 M	125 M

CAT III B (with roll-out guidance)	75/50 M	75/50 M	75/50 M

Note 1: The use of minimum RVRs in the table above is subject to:
* operator authorization;
* aeroplane authorization;
* flight crew training and qualification; and
* aerodrome facilities.

Note 2: The use of minimum RVR of 75m or 50m depends on value approved for operators and aeroplanes with roll-out guidance system.
Note 3: The values in bold font are required for the type of operation.

2.5.2 When reporting RVR to pilots, the TDZ RVR shall always be passed for the concerned Landing RWY.
2.5.3 In addition to Para 2.5.2
a) For CAT II Operations - If TDZ RVR is below 550m then MID RVR shall also be passed.
b) For CAT IIIA Operations - If TDZ RVR is below 300m, MID and END RVR reading shall also be passed. TDZ, MID and END RVR shall be available.
c) For CAT IIIB Operations - If TDZ RVR is below 175m, MID and END RVR shall also be passed. TDZ, MID and END RVR shall be available.

3. IMPLEMENTATION OF SAFEGUARDING PROCEDURES (SP) AND LOW VISIBILITY PROCEDRUES (LVP)

3.1 Safeguarding Procedures (SP)

3.1.1 Criteria for Safeguarding Procedures:
Safeguarding Procedures shall be initiated when at either of the runways in use:
a) The RVR is less than 1200 m or visibility is forecast to deteriorate to 800m or less;and/or
b) The cloud ceiling is 400 ft and forecast to fall to 200 ft or less.

3.1.2 Actions to be taken for initiation of Safeguarding Procedures by WSO:
3.1.2.1 When meteorological conditions meet the criteria for initiation of SP as stipulated in Para 3.1.1, the Watch Supervisory Officer will inform AOCC, the Communication/Technical Supervisor and the Aerodrome Tower Supervisor.

3.1.2.2 When all the concerned agencies have completed their necessary actions they shall report to WSO (ATC) that their Safeguarding Procedure (SP) is completed and the airport is safeguarded for LVP operations.

3.2 Low Visibility Procedures (LVP)
3.2.1 Criteria for implementation of Low Visibility Procedures:
Low Visibility Procedures shall be implemented when –
a) Either, TDZ, MID or END RVR is less than 800 m; and/or Cloud ceiling is less than200 ft; and
b) Safeguarding Procedures (SP) have been completed and the airport is safeguarded.

(Note: Though LVP is implemented when RVR is less than 800m, ILS CAT I operation will continue till TDZ RVR is not less than 550m)
3.2.2 Actions to be taken upon Implementation of Low Visibility Procedures
3.2.2.1 When meteorological conditions meet the criteria for LVP as stipulated in Para 3.2.1, WSO shall implement Low Visibility Procedure and inform:
a) Aerodrome Tower Supervisor.
b) Approach Radar Controller
c) Communication/Technical Shift Supervisory Officer (SSO)
d) Duty Met. Officer

WSO will also ensure that **“LOW VISIBILITY PROCEDURE IN FORCE”** is included in ATIS Broadcast.

3.2.2.2 Upon implementation of LVP, Tower Supervisor will inform:
a) Fire station
b) AOCC
c) include “LOW VISIBILITY PROCEDURE IN FORCE” in ATIS Broadcast.

3.3 Cancellation of Safeguarding Procedures (SP) & Low Visibility Procedures (LVP)

3.3.1 WSO may terminate LVP when –
a) Meteorological conditions improve and TDZ, MID & END RVR are 800 m or more and the cloud ceiling is 200 ft or higher, and trend is for improvement for both runways.
b) Facilities and equipment (listed in Para 2.1.2) necessary for CAT II/CAT IIIA/CAT IIIB operations are degraded and/or the prevailing conditions are considered unsafe for such operations.
3.3.2 WSO should consult Meteorological Office for forecast before cancelling SP and LVP.
3.3.3 On cancelling LVP, Aerodrome Control shall include it in the subsequent two ATIS broadcasts that "LOW VISIBILITY PROCEDURES ARE CANCELLED". Aerodrome Tower Controller will inform all the concerned agencies.
3.3.4 If SP are completed and LVP are not subsequently implemented and meteorological conditions improve and the visibility/RVR is more than 1200 m and the cloud ceiling is 400 ft or higher and both are forecast to remain above the required SP criteria, WSO may cancel SP.

4. LOW VISIBILITY PROCEDURE OPERATIONS

4.1 Approach/ Radar Control Procedures
4.1.1 During LVP the Approach Radar Controller shall have the following information
a) Status of ILS
b) Serviceability of visual aids
c) RVR information of TDZ, MID and END.
4.1.2 In addition to the information normally transmitted by Approach Radar Controller, the information specified in 2.5.2 and 2.5.3 must be passed to the arriving aircraft on first contact or as soon as possible along-with the unserviceability, if any, of any component parts of CAT II/CAT IIIA/IIIB facilities not previously broadcast on ATIS.
4.1.3 Approach/Radar Controller should vector the arriving aircraft to intercept the localizer at a distance not less than 10NM from touchdown.
4.1.4 Suitable spacing between the arriving aircraft may be provided to ensure that the arriving aircraft can be given a landing clearance by 2 NM from touchdown. If there is a departure between the two arrivals, the spacing between the arriving aircraft may be suitably increased to ensure that the departing aircraft passes overhead the Localizer before the inbound aircraft reaches 2NM from touchdown.
4.1.5 Approach Radar Controller shall not subject an aircraft carrying out CAT II/CAT IIIA/CAT IIIB approaches to any speed control when within 20NM from touchdown.

4.2 Aerodrome Control Procedures
4.2.1 Arriving aircraft shall be issued landing clearance not later than 2NM from touchdown. If landing clearance cannot be issued when the aircraft is 2NM from touchdown it shall be instructed to carry out a missed approach.
4.2.2 Arriving aircraft should be given unimpeded taxi route to allow it to clear the localizer sensitive area expeditiously.
4.2.3 Landing clearance shall not be issued until: -
A preceding landing aircraft has vacated Localizer Sensitive Area [LSA] AND confirmed by the pilot.
A preceding departing aircraft is airborne and has passed over the localizer antenna.
4.2.4 The LSA in front of an arriving aircraft shall not be infringed from the time it is 2NM from the touchdown until it has completed its landing roll.
4.2.5 ADC shall initiate emergency action if an aircraft is not seen on the CWP/Radar Display and is not in radio contact as expected.

4.3 Surface Movement Control Procedures

4.3.1 Pilots need additional guidance and information when taxiing during periods of reduced visibility. The view from the cockpit of the aircraft is very limited. Therefore, taxi instructions and essential traffic information should be passed in a clear and concise manner.
4.3.2 Taxiing aircraft should be routed in accordance with the prescribed Low Visibility Routes to ensure a simple one-way traffic flow is maintained, however it may be necessary for operational reasons to sometimes route aircraft via alternative taxiways.
4.3.3 AGL team / Follow Me vehicles shall monitor the status of taxiway lights and immediately advise ATC Tower of any unserviceability affecting the taxiways during LVP operations.

During the period of LVP, the lights on taxiways that are not being used may be switched off.
4.3.4 Surface Movement Controller should monitor the progress of arriving aircraft on ASMGCS Display as they vacate the runway after landing and ensure that they do not stop within the Localizer Sensitive Area [LSA] thereby degrading ILS integrity for subsequent landing aircraft. Pilots shall report runway vacated on RTF when the aircraft has reached the color coded part of the exit taxiway centerline light after making allowance for aircraft size to ensure that the entire aircraft is clear of the ILS sensitive area.
4.3.5 Vehicle movement, when RVR is less than 550m, should be restricted. Only operationally essential vehicle duly authorized by Apron Control should be permitted to operate on the maneuvering area. These vehicles shall remain outside the Localizer Sensitive Area [LSA].
Any movement of vehicle on the manoeuvring area shall be coordinated with ATC. During CAT II/ CAT III operations, vehicles fitted with transponders (vehicle locators) should only be permitted on the manoeuvring area. However, other vehicles crossing taxiways on service road and Terminal-3 taxiways shall be regulated by official of apron control deploying manpower.

4.4 Low Visibility Procedure Taxi Route

4.4.1 Once LVP is declared, AGL team will ensure that the lead-in lights of all CATII/III compatible stands are switched ON.
4.4.2 (a) During CAT IIIA/CAT IIIB conditions “FOLLOW ME” service will be provided to arriving /departing aircraft on request. “FOLLOW ME” service can be put into use up to a minimum visibility of 50m.
(b) If any immediate portion of exit taxiways not available, ATC will guide the aircraft to the nearest exit through ASMGCS.
4.4.3 Person providing “FOLLOW ME” service shall be trained and fully familiar with the taxi routes intersections and other manoeuvring area/apron/parking stands.
4.4.4 During CAT II/CAT IIIA/CAT IIIB ILS operations, the preferred taxi routing as per runway in use is provided below:

Table: 2

WESTERLY FLOW		
RWY 29	To Terminal 1	Vacate via TWY S5, taxi via T, CW2, S, R3, R, M1, M2, Cross RWY 28, E4, E2 and via i. A for stands 1-12 ii. C1 for stands 15-17 iii. E, B3 for stands 20-22 iv. B2 for stands 23-30 v. F2 for stands 135-142
RWY 29	To Terminal 2 and Terminal 3	Vacate via TWY S5 taxi via TWY T and via i. T1/T1A for Apron 35 ii. T2 for Apron 34 iii. CW2, W1 for Apron 33A iv. T3 for Apron 33B v. CW2, W2 for Apron 32 vi. CW2, S, R5 for Apron 31 vii. CW2, S, R4/R3/R1/R2 for stands 41-49 viii. CW2, S, R3 for stands 81L to 83R, 88 & 89 ix. CW2, S, R3, R for cargo 98-106
RWY 28	To Terminal 1	Vacate via TWY D1 taxi via D, E2 and via i. A for stands 1-12 ii. C1 for stands 15-17 iii. E, B3 for stands 20-22 iv. B2 for stands 23-30 v. F2 for stands 135-142 Note: 1. If RWY 28 is vacated via E4, then taxi via E2 and taxi further as above. 2. In case the aircraft is not able to vacate on D1/D/E4, then vacate via TWY N and then taxi via S, R3, R, M1, M2, Cross RWY 28, E4, E2 and taxi further as above.

RWY 28	To Terminal 2 and Terminal 3	Vacate via TWY N taxi via S, OR Vacate via M taxi via P, N, S i. CW1, T, T1/T1A for Apron 35 ii. CW1, T, T2 for Apron 34 iii. CW1, W1 for Apron 33A iv. CW1, T, T3 for Apron 33B v. CW1, W2 for Apron 32 vi. R5 for Apron 31 vii. R4/R3/R1/R2 for stands 41-49 viii. R3 for stands 81L to 83R, 88 & 89 ix. R3, R for Cargo 98-106
RWY 29	From Terminal 1	i. Stands 1-12: A, RWY 27, K, cross RWY 28, N, S, CW1, T, Z2/(Z, CE1) **NOTE:** In case of RWY 28 departure, push back facing south, and in case of RWY 29 departure push back facing north. Controller to exercise caution while giving push back for departures. ii. Stands 15-17: A, RWY 27, K, cross RWY28, N, S, CW1, T, Z2/ (Z, CE1) iii. Stands 20-30: C1, RWY 27, K, cross RWY 28, N, S, CW1, T, Z2/ (Z, CE1) iv. Stands 135-142: F3, F, E, RWY 27, K, cross RWY 28, N, S, CW1, T, Z2/ (Z, CE1)
RWY 29	From Terminal 2 and Terminal 3	i.Apron 35: T1/T1A, T, Z2/ (Z, CE1) ii. Apron 34: S3, T, Z2/ (Z, CE1) iii. Apron 33A: W1, CW1, T, Z2/ (Z, CE1) iv. Apron 33B: T3, T, Z2/ (Z, CE1) v. Apron 32: W3, CW1, T, Z2/ (Z, CE1) vi. Apron 31: R5, S, CW1, T, Z2/ (Z, CE1) vii. Stands 41-49: R1/R2, M1, P, N, S, CW1, T, Z2/ (Z, CE1) viii. Stands 81L to 83R, 88 & 89: R3, M1, P, N, S, CW1, T, Z2/(Z, CE1) ix. Cargo 98-106: R, L1, P, N, S, CW1, T, Z2/ (Z, CE1)
RWY 28	From Terminal 1	i. Stands 1-12: A, C ii. Stands 15-17: Push back and taxi via C1,C iii. Stands 20-30: C1, C iv. Stands 135-142: F3, F, B3, stand 19, C
RWY 28	From Terminal 2 and Terminal 3	i. Apron 35: T1/T1A,Y,CW2,S, R3, R, L1, P, TWY P1 ii. Apron 34: S3, Y, CW2, S, R3, R, L1, P, TWY P1 iii. Apron 33A: W1, CW2, S, R3, R, L1, P, TWY P1 iv. Apron 33B: T3, Y, CW2, S, R3, R, L1, P, TWY P1 v. Apron 32: W3, CW2, S, R3, R, L1, P, TWY P1 vi. Apron 31: R5, R3, R, L1, P, TWY P1 vii. Stands 41-49: R3/R2/R1, R, L1, P, TWY P1 viii. Stands 81L to 83R, 88 & 89: R3, R, L1, P ix. Cargo 98-106: R, L2, P, TWY P1

Table: 3
EASTRERLY FLOW

RWY 11	For Terminal 1	Vacate via TWY Z2, taxi via Y, CW2, N, P i. Cross RWY 10 from W to C, taxi lane A for stands 1-12 ii. Cross RWY 10 from W to C, C1 for stands 15-17 iii. Cross RWY 10 from W TO C, E2, [F2, F3, F, B3 for Stands 20-22]/[B2 for stands 23-30] iv. Cross RWY 10 from W to C, E2, F2 for stands 135-142
RWY 11	For Terminal 2 and Terminal 3	Vacate via TWY Z2, taxi via Y i. T1/T1A for Apron 35 ii. S3 for Apron 34 iii. CW2, W1 for Apron 33A iv. T3 for Apron 33B v. CW2, W2 for Apron 32 vi. CW2, S, R5 for Apron 31 vii. CW2, N, P, M1, R3/R2/R1 for Stands 41-49 viii. CW2, N, P, M1, R3, for Stands 81L to 83R, 88 & 89 ix. CW2, N, P, L2, R for Cargo 98-106
DEPARTURE		
RWY 11	From Terminal 1	i. Stands 1-12: A, RWY 27, D, cross RWY 10 from D to M,M1,R3, S, CW1, Y, S5 ii. Stands 15-17: A, RWY 27, D, cross RWY 10 from D to M,M1,R3, S, CW1, Y, S5 iii. Stands 20-30: C/C1, RWY 27, D, cross RWY 10 from D to M, M1, R3, S, CW1,Y, S5 iv. Stands 135-142: F3, F, E, RWY 27, D, cross RWY 10 from D to M, M1, R3, S,CW1, Y, S5
RWY 11	From Terminal 2 and Terminal 3	i. Apron 35: T1/T1A, Y, S5 ii. Apron 34: T2, Y, S5 iii. Apron 33A: W1, CW1, Y, S5 iv. Apron 33B: T3, Y, S5 v. Apron 32: W3, CW1, Y, S5 vi. Apron 31: R5, S, CW1, Y, S5 vii. Stands 41-49: R1/R2/R3, S, CW1, Y, S5 viii.Stands 81L to 83R, 88 & 89: R3/S, CW1, Y, S5 ix. Cargo 98-106: R, R3/S, CW1, Y, S5
RWY 10	From Terminal 1	i. Stands 1-12: A, RWY 27, K ii. Stands 15-17: A, RWY 27, K iii. Stands 20-30: C/C1, RWY 27, K iv. Stands 135-142: F3, F, E RWY 27, K
RWY 10	From Terminal 2 and Terminal 3	i. Apron 35: T1/T1A, Y, CW2, S, N ii. Apron 34: T2, Y, CW2, S, N iii. Apron 33A: W1, CW2, S, N iv. Apron 33B: T3, Y, CW2, S, N v. Apron 32: W3, CW2, S, N vi. Apron 31: R5, S, N vii. Stands 41-49: R1/R2/R3, S, N viii.Stands 81L to 83R, 88 & 89: R3, S, N ix. Cargo 98-106: R, R3, S, N

4.4.5.1 Follow Me services shall be provided, whenever a crossing is involved from M2 to E4 and vice-versa on Runway 28/ 10, as there is no crossing lights from M2 to E4 and vice-versa.

4.5 Lighting Inspection Procedures

4.5.1 The appropriate aeronautical ground lights must have been inspected during the hour preceding implementation of LVP. DIAL AGL team to carry out close monitoring of serviceability of AGL through monitoring system.
4.5.2 Operations Duty Manager is responsible for organizing lighting inspections. He shall arrange an inspection of the relevant aeronautical ground lighting. To ensure minimum delay in completing the inspection, separate teams may inspect the landing runway, associated taxiways and apron area and confirm that they are clear of runway/taxiway/apron to ATC.
4.5.3 For SP and LVP only the lighting for the active runway and associated taxiways are inspected.

5. DESCRIPTION OF EQUIPMENT AND SERVICES
5.1 Runway Visual Range (RVR)
5.1.1 There are three transmissometers for RWY 28 to record RVR values. One transmissometer is located each at touchdown zone, runway midpoint, and end of runway. RVR values always refer to Touchdown RVR (TDZ), Mid-point RVR (MID) and Stop End RVR (END).

5.1.2 RWY 29/11 has 5 transmissometers at following locations:
a) Physical beginning of RWY-29, termed as 'A'
b) Near displaced threshold of RWY-29, termed as 'B'
c) Mid of RWY 11/29, termed as 'C'
d) Near displaced threshold of RWY-11, termed as 'D'
e) Physical beginning of RWY-11, termed as 'E.
5.1.3 The RVR information available for Rwy – 29/11 should be used as following:

Table: 4

RWY	Dep/Arr	Beginning	TDZ	MID		END	
				Primary	Standby	Primary	Standby
29	Dep	A	-	B	C	E	D
29	Arr	-	B	C	-	D	E
11	Dep	E	-	C	-	A	B
11	Arr	-	D	C	-	B	A

5.1.4 RVR is reported in the following scales:
a) From 2000m to 1200m, increments of 100m
b) From 1200m to 800m, increments of 50m
c) From 800m to 50m, increments of 25m

5.1.5 Equipment serviceability for CAT II/CAT IIIA/CAT IIIB operations:
a) For CAT II operations TDZ and MID RVR shall be available.
b) For CAT III A/ IIIB operations TDZ, MID and END RVR shall be available.

5.2 Aeronautical Ground Lighting (AGL) System

5.2.1 The Precision Approach lighting system for CAT II/CAT IIIA/CAT IIIB operations are installed on RWY 28, RWY 29, and RWY 11 at IGI Airport.
5.2.2 During LVP operation irrespective of the RVRs, the state electricity board (BSES) power supply will be the primary source through online UPS for the systems which require a maximum of one second switchover time and the DGs shall be in auto operation mode to meet the requirements in case of power failure. The power changeover for the other systems which are not covered with UPS backup shall be getting the power supply through DGs within 15 seconds from the time of power failure. For the systems covered with UPS back up, the changeover will be zero seconds. There is no specific requirement for keeping the DG source as primary source when BSES power source is available during the LVP operations.

5.2.3 The following taxiways have CAT III A/IIIB standard taxiway lighting:
Taxiway P,P1, L, L1, L2, M, M1, M2, N, S, R, R1, R2, R3, R5, W, CE1, CE2, CW1, CW2, W1, W2, W3, S3, S4, S5, T, T1, T1A, T2, T3, Y, Z, Z1, Z2, Z3, Z4, Z5, Z6, Z7, Z8, Z9 Taxiway A, B, B2, B3, C, C1, D, D1, E, E2, E3, E4, E5, F, F2, F3, K, RWY 09-27, Taxi-lane A and taxi-lane joining C1 and C.

5.2.4 The following parking stands have been provided with the Cat IIIA / IIIB Centerline lighting system:
a) Parking stand 1 to 12, 15 to 17, 20 to 30 and 135 to 142 in Apron-1
b) Parking stand 41 to 44, 45L/45R, 46L/46R, 47L/47R, 48, 49, 81L to 83R, 88, 89 and 98 to 106 in Apron-II
c) Parking stands in Apron 31-Apron 35

Table: 5

APRON	AIRCRAFT STAND NUMBER	TOTAL AIRCRAFT STANDS
APRON 31	A06, A08, A10	3
APRON 32	A01, A03, A07, A07L, A07R, A09, A09L, A09R, B15, B15L, B15R, B17, B17L, B17R, R02, R03	12
APRON 33A	B18, B20, B20L, B20R, B22, B22L,B22R, B24, B24L, B24R, B26, B26L, B26R,	9
APRON 33B	C28L, C28R, C30L, C30R, C32L, C32R, C34L, C34R, C36	9
APRON 34	C27L, C27R, C29L, C29R, D37, D37L, D37R, D39, D39L, D39R , D41, D43, D45, D47, D49, D51	14
APRON 35	D46, D48, D50, D52, D54, D56, D58, D60, D62, E70, E72, E74, E76, E78, E80, E82, E84	17
	Total including MARS stands	64
	Total not including MARS stands	54
Note: Remote Stands in T3 apron (except R02, R03) do not have stand manoeuvring guidance lights.		

5.2.5 Stop Bar: Stop bars have been provided on the following taxi tracks:
-- N, M, P1, W, CE1, CE2, CW1, CW2, S4, S5, T, Y (Short of CW2), Z, Z1, Z2, Z3,Z4, Z8, Z9
-- K, D, E4, C, E5.2.6 No clearance bar has been provided.
5.2.7 The alternate yellow and green lights have been provided on the undermentioned taxi tracks. When the aircraft has crossed these alternate yellow and green lights the aircraft is clear of ILS sensitive areas:
a) Rwy 28/10: D, D1, E4, K, N, M, L, U, V, F, E, C, B, W and P1
b) Rwy 29/11: Z3, Z4, Z5, Z6, Z7, Z8, S4 and S5
5.2.8 RWY 10-28 crossing light have been provided at the following points:
a) W-C
b) M-D
c) N-K
and vice versa

5.2.9 Intermediate Holding Position (IHP) lights have been provided on the following taxi track:

R1 (Short of intersection of R, M1 and R3)
M1 (Short of intersection of R, R1 and R3)
S (Short of R3/R4)
M1 (Short of P)
P (West Short of intersection of M and M1)
P (East Short of intersection of M and M1)
P (Short of L2 east side)
P (Short of L2 west side)
P Short of N
L1 (Short of intersection P and L)
L2 (Short of P)
R [Short of L1 (East of L1)]
ON TWY 'Z': East & West of Z3
East & West of Z4
East & West of Z5
East of Z6
East of Z7
Short of intersection S4 (Eastern side S4)
S4 North of S4 intersection Y
S5 North of S5 intersection Y&T
Y Short of intersection S4, short of Y5 both sides & Short of CW2
T Short of intersection S5, short of Y5 both sides, short of CW2 & short of CW1
CW1, CW2 Both sides short of W1, W2 & W3
CW1, CW2 At intersection TWY S
A (Short of RWY27)
B (Short of C)
E2 West of taxiway „D? (Short of intersection E2 and D)
E2 East of taxiway „D? (Short of intersection E2 and D)
E2 (West of intersection of E, E2)
E2 (Short of intersection of E4, E3)
E Short of RWY-27
F West of TWY E- intersection E& F
F Short of F3 (west side)
C1 South of E2 short of E2
E2 West of B2 short of intersection E2 & B2
E2 West of C1 short of intersection E2 & C1
E2 East of C1 short of intersection E2 & C1
E2 Short of F2 (west side)
N Short of P
T Short of CW2
T Short of Y5 (west)
N Short of P
S5 Short of Y
CW2 Short of Y
Y Short of T1

5.2.10 When LVP is in force the AGL must comply with the minimum serviceability requirement: -

Table: 6

AGL Facility Unserviceability	CAT II/CATIIIA/CATIIIB	Restrictions
Approach Lights	The inner 450 meters- more than 5 % of all lights	Suspend CAT II / CAT IIIA / CAT IIIB operations
	Beyond 450 meters more than 15% of all lights	
Runway Edge lights	More than 5% of all Lights	Suspend CAT II / CATIIIA / CAT IIIB operations
	Two adjacent lamps	

Runway Center-line lights	More than 5% of all Lights	Suspend CAT II / CATIIIA / CAT IIIB operations
	Two adjacent lamps	
Touchdown Zone lights	More than 10% of all Lights	Suspend CAT II / CATIIIA / CAT IIIB operations
	Two lamp in Barrette	
Threshold lights	More than 5% of all Lights	Suspend CAT II / CATIIIA / CAT IIIB operations
	Two adjacent lamps	
Runway End lights	More than 25% of all Lights	Suspend CAT II / CATIIIA / CAT IIIB operations
	Two adjacent lamps	
Taxiway Centre-line lights	Not applicable to CAT II operation	Close affected taxiways, use alternate taxi route.
	Two adjacent lamps	
Standby Generators	Generators in any one substation.	Suspend CAT II / CATIIIA / CAT IIIB operations in the affected Runway.

NOTE 1:
Under CAT II/III operations, in the stop bar:
a) Not more than two lights will remain unserviceable; and
b) Two adjacent lights will not remain unserviceable unless the light spacing is significantly less than that specified (Ref Para 10.4.8, DGCA-CAR).

NOTE 2:
Unserviceability of any of the following facilities does not affect CAT II/ CAT IIIA/CAT III B Operations.
a) PAPI.
b) Taxiway Edge Lights on curves.
c) Taxiway clearance lights on TWY N and D, D1, E4 [alternate green and yellow lights]

5.3 Non-Visual Ground Surveillance System:

5.3.1 IGI Airport has been equipped with Surface Movement Radar. The system provides nonvisual electronics surveillance of manoeuvring area and facilitates the controllers to identify potential ground conflict and runway incursions.
5.3.2 For CAT IIIA/CATIIIB and CAT II operations below 350m availability of Non-Visual Surveillance System such as Surface Movement Radar is mandatory.

5.4 Navigational Aids
5.4.1 RWY 28, RWY 11, and RWY 29 have been equipped with Instrument Landing System (ILS) for CATII/CATIIIA/CAT IIIB.
5.4.2 The ILS Category Monitor Panel at the Control Tower console indicates the ILS category availability by monitoring the following equipment:
a) Main and standby localizer transmitters
b) Main and standby glide path transmitters

5.4.3 The status of the following facilities is monitored and displayed by a separate nav-aid status indicator panel:
a) ILS DME
b) Outer Marker

5.4.4 ILS equipment serviceability required for CAT II/CAT IIIA/CAT IIIB operations: -
a) Both main and standby localizer transmitters;
b) Both main and standby glide path transmitters;
c) One standby power generator in each unit.
d) Outer marker/ ILS DME

NOTE 1 - Unserviceable ILS DME will not change the status of ILS provided OM and Glide Path are serviceable for runway 28 only.
NOTE 2 - Unserviceable Outer Marker will not change the status of ILS provided ILS DME is operational for runway 28 only.

5.5 Airport Rescue & Fire Fighting Service (ARFF)

5.5.1 During SP following predetermined positions will be taken by ARFF vehicles
a) One CFT north of RWY28/10 near TWY D1
b) One CFT north of RWY28/10 near TWY E
c) One CFTs north of Z opposite Z5
5.5.2 In the event of an incident when LVP are in force, ADC and SMC should provide the maximum assistance in directing ARFF to required location.

6. LOW VISIBILITY TAKE-OFF (LVTO)

6.1 LVTO pertains to take off when the RVR is below 400 m and is applicable whenever the reported RVR in any zone (touch-down/mid/roll-out RVR) is below 400 m. The facilities and conditions of the undermentioned Table 7 required will be as per the lowest RVR reported in any zone (e.g. if the RVR is 400/300/300 representing the three zones, then the 300 m will be the RVR for reckoning facilities and conditions of Table 7. If the RVR is 300/150/Not Reported, then 150 m will be the reckoning RVR and as the RVR is below 200 m all three RVRs are required).

Table: 7

Take-Off RVR/Visibility	
Facilities	RVR/Visibility* CAT A, B,C & D
Adequate visual reference** (Day only)	500 M
Runway Edge Lights or Runway Center Line Markings***	400 M
Runway Edge Lights or Runway Center Line Markings***	300 M
Runway Edge Lights and Runway Center Line Lights	200 M
Runway Edge Lights and Runway Center Line Lights and relevant RVR information****	150 M
High Intensity Runway Edge Lights and Runway Center Line Lights (Spacing 15 m or less) and relevant RVR information****	125 M
High Intensity Runway Edge Lights and Runway Center Line Lights (Spacing 15 m or less), approved lateral guidance system and relevant RVR information****	75 M

*****The TDZ RVR/VIS may be assessed by the pilot
******Adequate Visual reference means, that a pilot is able to continuously identify the take-off surface and maintain directional control.
***For night operations at least runway edge lights or center line lights and runway end lights are available.
**** The required RVR must be achieved for all relevant RVR reporting points (touchdown, mid- point and stop-end/roll-out). The governing RVR shall be the lowest of the reported RVRs.

6.2 An operator shall not conduct low visibility take-offs in less than 400 m RVR unless approved by DGCA.

6.3 An operator shall not conduct take-off with visibility/RVR less than Category I conditions unless low visibility procedures are enforced.

7. SUMMARY OF THE LOW VISIBILITY PROCEDURES

7.1 Subject to completion of Safeguarding Procedures, LVP comes into operation:
a) When either TDZ, MID or END RVR below 800m, and/or
b) cloud ceiling below 200ft

7.2 Vehicular movement
a) Vehicles shall not be cleared to cross the runway, once an inbound aircraft is 8NM from touchdown.
b) Vehicular movement on the manoeuvring area shall be restricted to essential vehicles.
c) During CATII /CAT III operations only vehicles equipped with transponder (Vehicle Locator) shall operate in manoeuvring area. However, other vehicles crossing taxiways on service road shall be regulated by official of Apron Control by deploying man power.
d) Vehicles shall not be held at any point closer to the runway than the CAT II/ CATIIIA/CAT IIIB holding point/stop-bar.

7.3 Aircraft Movement

a) Aircraft shall not be cleared to cross the runway once an inbound aircraft is 8NM from touchdown.
b) Aircraft shall not be held at any point closer to the runway than the CAT II/CATIIIA/CAT IIIB holding point/stop-bar.
c) Aircraft shall not be permitted to enter the runway at any point other than P, C, W, E for departure from runway 28, from S5/S4 for departure from RWY 11 and from CE1/Z2 for departure from RWY 29.
d) Under CAT IIIA/CAT IIIB aircraft shall not be permitted to exit the runway 28 at any point other than N, M, E4, D1 & D, runway 29 via S5/S4/Z7/Z6 and RWY 11 via Z2/Z3/Z4.
e) If ‘N’ North of ‘P’ is not available the CAT IIIA/CAT IIIB operations from Rwy 28 will be suspended and downgraded to CAT II for aircraft parking south of RWY 28 only (aircraft turning left from RWY 28). Aircraft will back track and exit via ‘M’.
f) In case Twy 'D' is not available the aircraft proceeding to Apron I, technical Area, General Aviation Parking will exit via TWY E4 or N.
g) In case ‘D’, ‘E4’ and ‘K’ are not available the CAT IIIA/CAT IIIB operations shall be suspended and downgraded to CAT II for aircraft parking North of RWY 28 only (aircraft turning right from RWY 28). Aircraft will back track and taxi via ‘F’, ‘C’ for respective parking positions.
h) Aircraft which have landed are not to be instructed to hold on a runway turnoff

8. ACTIONS TO BE TAKEN BY VARIOUS AGENCIES

8.1. Before commencement of winter season, a meeting will be held by Chief Operating Officer, Delhi International Airport Private Ltd. and Regional Executive Director (Northern Region)/ GM (ATM), IGI Airport, AAI in the month of November every year to inform all airlines and agencies operating at airport about their roles/ responsibilities and create awareness to ensure cooperation for safe airport operations during periods of low visibility.
8.2. All the agencies shall ensure that staff and drivers are suitably trained during CAT III operations.

8.3. Action by Watch Supervisory Officer (WSO), AAI

8.3.1 Implementing Safeguarding Procedures - When RVR is less than 1200m and visibility is forecast to deteriorate 800m or below and/or the cloud ceiling is 400ft and is forecast to fall to 200ft or less, WSO will inform -
a) AOCC,
b) Communication/ Technical supervisor (SSO), AAI
c) Tower Supervisor, AAI -for implementation of Safeguarding Procedures.

8.3.2 Implementing LVP

8.3.2.1 WSO shall implement Low Visibility Procedures when either
a) TDZ, MID or END RVR is less than 800m; and/or
Cloud ceiling is less than 200ft.
AND
c) Safeguarding Procedures (SP) have been completed and the airport is safeguarded.

8.3.2.2 WSO shall inform Aerodrome Tower Controller and Approach/Radar Controller,Duty Met. Officer and Communication/Technical Shift Supervisor Officer (SSO) and to ensure that "**LOW VISIBILITY PROCEDURE IN FORCE**" is included in ATIS broadcast.

8.3.3 WSO may terminate LVP when;

a) Meteorological conditions improve and TDZ, MID & END RVR are 800 m or more and the cloud ceiling is 200 ft or higher, and trend is for improvement for both runways.
b) Facilities, equipment and services necessary for CAT II/CAT III operations are degraded and/or the prevailing conditions are considered unsafe for such operations.

8.3.3.1 WSO will intimate Aerodrome Tower Controller, Approach/Radar Controller and Communication Technical Shift Supervisory Officer (SSO) regarding the Termination of LVP operation.

8.4. Action by Tower Supervisor:

8.4.1 On being notified by WSO that ILS CAT II/CAT III Low Visibility Procedures are to commence, the Aerodrome Tower Controller will:

a) inform Aerodrome Rescue & Fire Fighting Services & AOCC,
b) check ILS status
c) check lighting is correctly selected and operating properly
d) check transmissometer displays
e) check ASMGCS (for operations below RVR 350 m)

8.4.2 After the commencement of ILS CAT II/CAT III operations, the Aerodrome Tower Controller shalla) Check ATIS broadcast and include the message that "ILS CAT II/CAT III Low Visibility Procedures in Force".
b) Give landing clearance to aircraft not later than 2NM from touchdown.
c) Inform changes in RVR readings to the landing aircraft.
d) Give an unimpeded taxi route to arriving aircraft to allow it to clear the Localizer Sensitive Area expeditiously.
e) Inform pilots of all failures of ILS, lighting system, transmissometers relevant to ILS CAT II/ CAT III Low Visibility Operations.
f) Initiate emergency action if aircraft on CAT II/CAT III ILS is not seen (on radar display or otherwise) or is not in radio contact, as expected.

8.4.2.1 Record of the above actions with time be maintained and signed by the officer taking action.

8.5. Action by Approach/Radar Controller

8.5.1 On being advised by WSO that ILS CAT II/CAT III Low Visibility Procedures are in force, the Approach/Radar Controller shall:-
a) Inform the arriving aircraft "ILS CAT II/CAT IIIA/CAT IIIB "Low VisibilityProcedures in Force".
(**Note:** Ensure that Pilot acknowledges of being cleared for ILS CAT II/CAT IIIA/CAT IIIB approach.)
b) Inform TDZ RVR to arriving aircraft and in addition:
(i) For CAT II operations - If TDZ RVR is below 550m then MID RVR shall also be passed.
(ii) For CAT IIIA operations – If TDZ is below 300m, then MID & End RVR readings shall also be passed.
(iii) For CAT IIIB operations - If TDZ is below 175m then MID and END RVR shall be passed.
NOTE: After an aircraft is 8NM from Touch Down or has passed outer marker, RVR observations need not be passed unless there is changes in RVR values.
c) vector the aircraft to intercept the localizer not less than 10NM from touchdown.
d) Not subject an aircraft to any speed control when within 20NM from touchdown.
e) issue landing clearance to arriving aircraft not later than 2NM from touchdown.

8.6. Action by Surface Movement Controller

6.1 During the period the Low Visibility Procedures are effective the Surface Movement Controller shall:
a) Monitor all surface movement of aircraft and vehicles on the manoeuvring area.
b) Inform all taxiing aircraft of the preceding taxiing or holding aircraft.
c) Hand over only one aircraft at a time to Tower Controller.
d) Permit only the vehicles equipped with transponder in the manoeuvring area during Cat IIIB operations. However, other vehicles crossing taxiway crossings on service road shall be regulated by official of Airside Operations, DIAL by deploying man power.

8.7. Action by Communication/Technical/Electronics Shift Supervisory Officer (SSO)

8.7.1 On receipt of "Outlook for LVP" from the WSO, the Communication/Technical/Shift Supervisory Officer [SSO] will inform the Duty Officer, Equipment Room and have the ILS equipment and its status indicators in ATC units checked up. He will inform WSO of any unserviceability in the equipment which is likely to affect ILS CAT II/CAT III operation.

8.7.2 On receipt of "Advisory Message" from WSO that LVP are to be made effective SSO will maintain continuous watch on the performance of ILS equipment and will inform WSO of any un-serviceability which may affect ILS CAT II/CAT III operation.

9. Action by AOCC & Airside Operations, DIAL:

9.1 Action by Manager, AOCC
9.1.1 On receipt of advice from WSO to implement Low Visibility Procedures, the Duty Manager AOCC, will immediately inform the following:

a) Airport Duty Manager (Shift)
b) Operations Duty Manager
c) Shift Engineer (electrical) on company channel
d) Manager (Civil), Operational Area Maintenance to ensure that all civil works in progress in manoeuvring area, are stopped and that the work area is restored in complete serviceable condition and confirm to ODM/Apron Control accordingly. During ILS CAT II/CAT III Low Visibility Operations, no equipment, manpower or material shall be present in sensitive areas of localizer and glide path.
e) Central Industrial Security Force (CISF) Control Room Cargo at 25601051
f) Domestic and International airlines via e-mail/SITA network.

9.2 Action by Operations Duty Manager/Apron Control
9.2.1 Operations Duty Manager/ Apron Control shall deploy manpower at barrier near gate no.2 to stop vehicular movement on the perimeter road around Runway 28 approach, except DIAL operational vehicles fitted with R/T and Transponders and operating with prior clearance from ATC.

9.2.2 Operations Duty Manager shall ensure through follow me vehicle that vehicles do not operate on the service road beyond Gate No. 2. Signboards indicating CAT II/ CAT III operations shall be switched “ON”.
9.2.3 ODM/Apron Control shall deploy manpower at barrier on service road parallel to taxiway "P" for closing the barrier and stopping the vehicular movement.
9.2.4 During CAT II/CAT III operations, ODM/ Apron Control may authorize operations of vehicles, equipped with VELO, on manoeuvring area, including the crossing of taxiways, with the prior permission from ATC Tower. However, the vehicles, not equipped with VELO, crossing taxiway crossings on service road shall be regulated by official of Airside Operations, DIAL by deploying man power.

NOTE: Barrier near Gate No. 2 shall be in lowered position whenever LVP is in progress.

9.3 Follow-me vehicles:

9.3.1 Such vehicles shall ensure that
a) No vehicle/person enters or is present in the sensitive/critical areas of localizer and glide path.
b) All civil/electrical works in progress are to be stopped in the manoeuvring area immediately and men/material/equipment to be removed from the sensitive/critical areas of localizer and glide path.
9.3.2 After ensuring above, Follow-me vehicles will confirm the same to the ODM.
9.3.3 Subsequently, follow-me vehicle shall remain available in apron and will maintain listening watch on their respective frequencies, i.e., R/T 121.625 MHz, 121.90 Mhz and 121.75 MHz frequency.
9.3.4 On receipt of information about unserviceability of any of the runway visual aids or power supply system, ODM through AOCC will immediately inform ATC Tower accordingly.
9.3.5 No vehicles shall enter/cross in the vicinity of runway without permission from ATC Control Tower. Such vehicles shall be equipped with VELO and able to communicate with ATC. The vehicles of the ARFF services, civil, electrical division or of any other agency which are not equipped with VELO and/ or RT but has to enter the runway or taxi track for urgent operational requirement shall be escorted by the follow me jeep all the time.
9.3.6 None of the workers/vehicles of grass cutting contractor, garbage removal contractor, and electrical/civil contractor shall enter the manoeuvring area during the operations of ILS CAT II/CAT III Low Visibility Procedures.
9.3.7 All coordination with DIAL units and ATC shall be carried out by AOCC.
9.3.8 ODM would advise ATC Tower/Watch Supervisory Officer when all actions are completed for commencement of LVP.

9.4 Action by Shift Engineers (Electrical)

9.4.1 On receipt of advice to implement Low Visibility Procedures from AOCC, respective Shift Engineer of T1, T2 & T3 (Electrical) along with ODM, will check that following visual aids associated with RWY28/29/11 are serviceable and can be operated at full intensity.

a) Approach lighting system
b) Approach supplementary lighting
c) Runway edge lights
d) Runway threshold and end lights
e) Runway centre line lights
f) Runway touchdown zone lights
g) Stop Bar Lights
h) Intermediate holding position lights
i) RWY guard lights
j) TWY C/L lights
k) Stand manoeuvring lights

(**NOTE -** No adjustment in light intensity shall be made without permission from ATC Tower during LVP)

9.4.2 They shall ensure that no electrical maintenance works is carried out during LVP either in power house or on any other electrical facilities used during CAT II/CAT III operations.
9.4.3 They will ensure that runway switch room is manned and position themselves at CCR halls for standby power supply requirements and will maintain a listening watch on company frequency. They will ensure availability of power supply to meet CAT III requirement.

9.4.4 They will inform the un-serviceability or any change in status of any facility/systems to OMD immediately.
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9.5 Action by Airport Duty Manager (ADM) – shift

9.5.1 ADM will be overall responsible for ensuring smooth coordination between all DIAL units and other concerned agencies. He shall inform regarding implementation of LVP to

a) Terminal Duty Manager, Terminal ID
b) Terminal Duty Manager, Terminal III

9.6 Action by Terminal Duty Manager-III To inform:
• CISF Control Room
•Duty Officer Cargo
• PRO Customs
• AFRRO (Assistant Foreigners Regional Registration Officer)
• Inspector, Delhi Traffic Police

9.7 Action by Fire Station-3 and Fire Station-1

9.7.1 Station Duty officer II will ensure that ARFF (Airport Rescue and Fire Fighting) vehicles equipped with serviceable transponder take predetermined positions. Following predetermined positions will be taken by ARFF vehicles:-
a) One CFT North of RWY28/10 near TWY D1
b) One CFT North of RWY 28/10 near TWY E.
c) One CFTs North of Z opposite Z5.

10. Action by Airport Security Police (CISF)

10.1 Chief Airport Security Officer shall ensure by deploying adequate manpower that power house and other vital electrical installations are properly secured and protected against any unauthorized intrusion.

10.2 The Inspector in charge, Control Room cargo, on receipt of advice to implement Low Visibility Procedures, will immediately inform all access gates and CISF posts under their respective controls in operational area to restrict and guide all the vehicles to use the service road towards RWY10 side only, for proceeding to Terminal-II and vice versa, till such time he is informed of termination of ILS CAT II / CAT III Low Visibility Procedures. They will not permit labour to enter operational area while LPV are in force.

10.3 For carrying out security checks of their security personnel on RWY28 side, Inspector In-Charge of CISF Control Room I/II would be escorted by “Follow-Me Vehicles” equipped with transponder during CAT IIIB operations for which they would liaise with ODM.

11. Action by Duty Officer (Meteorological Office)

11.1 Duty Meteorological Officer would issue an 'Outlook for Low Visibility Procedures' to the Watch Supervisory Officer [WSO] of air traffic services whenever he expects that the RVR and/or cloud ceiling will fall below 800 m and/or 200ft or less respectively.

11.2 Whenever Duty Meteorological Officer visualizes that RVR is likely to fall below 800 m and/or cloud ceiling to 200ft or less within next 2 hours, he will issue an 'Advisory Message' to WSO to this effect.
11.3 When the RVR and/or cloud ceiling are 800m and/or 200ft respectively and the trend is towards improvement in these elements of weather Conditions the Duty Met Officer may, when requested by WSO, advise him about such improving weather conditions for the purpose of termination of LVP.
11.4 The Duty Met Officer would ensure that the RVR displays in ATC units in the Control Tower and Approach Control are serviceable. He would also ensure that RVR/visibility recorders of Touch-down zone, Mid-point and end positions are serviceable.
NOTE: Due to high variability of meteorological elements in space and time and the limitations of forecasting techniques available, it may not be always possible to issue a precise forecast of RVR particularly in case of transient weather phenomenon within two hours.

12. Action by Other agencies at airport such as - Airlines, Re-fuelling Companies,Catering Agencies, Airport Police, Customs, Immigration, Health

12.1 All agencies operating in the operational area shall ensure that minimum number of their vehicles, as are absolutely essential for aircraft operations, operate in the operational area. The drivers of these vehicles should keep a look out for taxing aircraft and other vehicles to prevent incident/ accidents. During CAT IIIB operations only vehicles equipped with serviceable transponder shall be permitted to operate in manoeuvring area.

12.2 All the vehicles must have their obstruction/ anti-collision lights “ON” during operation of low visibility procedures.
12.3 All vehicles operating between Terminal-I & Terminal-II/III shall use service road around RWY10 approach only.
12.4 Follow all instructions/sign boards provided on vehicular movement area/ service roads.
12.5 No vehicle/equipment/personnel shall enter in and around the vicinity of the runways or taxi-tracks except with prior permission of ODM, who in turn shall coordinate with aerodrome control tower.

13. TERMINATION OF LOW VISIBILITY PROCEDURES

13.1 When met conditions improve and TDZ, MID and END RVR are 800m or moreand the cloud ceiling is 200ft or higher and trend shows improvement, the WSO would terminate operation of LVP. He may obtain advice from Duty Met Officer, as provided at Para 10.3, about the improving weather conditions for the purpose of termination of LVP operations.

13.2 The WSO will intimate the following regarding termination of LVP operations

a) Aerodrome Tower Supervisor
b) Approach/Radar Controller
c) Communication/Technical Shift Supervisory Officer (SSO)

13.3 Aerodrome Tower Supervisor will in turn inform AOCC, who will advise all thepreviously notified personnel to resume normal operations.

VIDP AD 2.23 ADDITIONAL INFORMATION

I.AIRCRAFT STAND DETAILS IN APRON-II

S. No.	Aircraft Stand No.	Aircraft Stand Co-ordinates (WGS 84)	PCN	Surface	Contact/ Remote	Aircraft Suitability
1	41	283329.15N 0770519.28E	56/R/B/W/T	Concrete	Contact	Code C
2	42	283330.23N 0770519.20E	56/R/B/W/T	Concrete	Contact	Code C
3	43	283332.46N 0770520.15E	56/R/B/W/T	Concrete	Contact	Code C
4	44	283334.67N 0770520.59E	56/R/B/W/T	Concrete	Contact	Code C
5	45L	283336.23N 0770522.03E	56/R/B/W/T	Concrete	Remote	Code C
6	45R	283337.11N 0770521.84E	56/R/B/W/T	Concrete	Remote	Code C
7	46L	283337.93N 0770520.65E	56/R/B/W/T	Concrete	Remote	Code C
8	46R	283338.75N 0770519.46E	56/R/B/W/T	Concrete	Remote	Code C
9	47L	283338.71N 0770517.88E	56/R/B/W/T	Concrete	Remote	Code C
10	47R	283337.87N 0770515.79E	56/R/B/W/T	Concrete	Remote	Code C
11	48	283336.38N 0770514.20E	56/R/B/W/T	Concrete	Contact	Code D*
12	49	283334.94N 0770512.09E	56/R/B/W/T	Concrete	Contact	Code D*
13	81R	283344.31N 0770522.63E	56 R/B/W/T	Concrete	Remote	Code C
14	81L	283344.66N 0770521.19E	56 R/B/W/T	Concrete	Remote	Code C
	82R	283345.00N 0770519.75E	56 R/B/W/T	Concrete	Remote	Code C
	82L	283345.35N 0770518.31E	56 R/B/W/T	Concrete	Remote	Code C
17	83R	283345.67N 0770516.87E	56 R/B/W/T	Concrete	Remote	Code C
18	83L	283345.99N 0770515.42E	56 R/B/W/T	Concrete	Remote	Code C
19	84R	283346.31N 0770513.98E	56 R/B/W/T	Concrete	Remote	Code C
20	84L	283346.66N 0770512.54E	56 R/B/W/T	Concrete	Remote	Code C
25	85	283347.21N 0770510.28E	63 R/B/W/U	Concrete	Remote	Code C

26	86	283347.54N 0770508.83E	63 R/B/W/U	Concrete	Remote	Code C
27	87	283347.88N 0770507.38E	63 R/B/W/U	Concrete	Remote	Code C
28	88	283349.11N 0770505.18E	63/R/B/W/U	Concrete	Remote	Code D*
29	89	283349.71N 0770502.68E	63/R/B/W/U	Concrete	Remote	Code D*
30	90	283350.29N 0770500.05E	63/R/B/W/U	Concrete	Remote	Code D*
31	91	283350.91N 0770457.51E	63/R/B/W/U	Concrete	Remote	Code D*
32	92	283351.45N 0770454.86E	63/R/B/W/U	Concrete	Remote	Code D*

Note:

i. All the stands are power-in pushback stands.
ii. *Stands 48 and 49 are suitable for B747-300 type of aircraft.
iii. *Stands 88-92 are suitable for B747-400 type of aircraft.
iv. Coordinates of stands 85, 86 & 87 are revised as per new survey.
v. Fuel hydrant facility is available at stands 42, 43, 44, 48, 49, 81R, 84R, 84L, 85 & 88-92.
vi. Refueling at stands 41, 45L, 45R, 46L, 46R, 47L, 47R,81L, 82R, 82L, 83R, 83L, 86 & 87 is carried out through fuel bowsers.

II. SPECIAL RESTRICTIONS

1. Closure of Airspace in and around Delhi for Air Force Day fly past

Indian Air Force will carry out fly past rehearsal on 3rd, 4th, and 6th October, and final day fly past on 8th October every year on the occasion of Air Force Day.In view of the above, the airspace of following dimensions will remain closed between 0230-0430 UTC on 3rd, 4th, 6th and 8th October every year for all aircraft except those participating in the rehearsal/final day fly past:

i.Within a radius of 20NM from IGI Airport, New Delhi: Ground level to FL130.
ii.Within a circular area between 20NM and 40NM radius of IGI Airport, New Delhi: Ground Level to FL150.

2.Airspace Closure and flying restrictions in Delhi FIR during celebrations connected with Independence Day and Republic Day

i.The following flying restrictions shall be applied within Delhi FIR during the under mentioned dates and time every year in connection with the celebrations of Independence Day and Republic Day.
ii.Dates and Timings of Airspace Restrictions are as under:

Date	Time
22nd January	1400 - 1830 IST
26th January	0700 - 1230 IST, & 1400 - 1830 IST
29th January	1400 - 1900 IST
15th August	0600 - 1000 IST, & 1600 - 1900 IST

iii.No flight shall be permitted to take off / land / over fly at Delhi and other airports within 300 KMS zone around it except:

a.Routine Commercial flights,
b.IAF, BSF and ARC flights,
c.State owned aircraft/helicopters flying Governor or Chief Minister within the state.
iv.Flights of Micro light aircraft and hang gliders from flying clubs and other airports shall not be permitted in the above mentioned zone and period around Delhi.
v.Safdarjung airport shall remain closed during the above-mentioned dates and period except for IAF helicopters, which may be deployed on emergency duty or VVIP duty.
3.Surface Movement Radar-I and II available and ASMGCS EQUIPMENT available. Coverage of ASMGCS has been extended to cover the additional area TWYS T, Y, Z2, S2, S3, T1, T2, T3, E2 and TERMINAL-III aprons in operational.
4.RWY 11/29 and associated taxiways are compatible for operations of code F aircraft.
5.MODE-S capability is operational with DELHI ATC. All the aircraft operators are advised to keep flight id and six digit hexadecimal ICAO 24-bit address updated in the aircraft avionics to avoid misleading information to ATC

III. DETAILS OF THE TAXIWAYS AND BAYS IN ADDITION TO AERODROME/ PARKING/ DOCKING CHARTS:

S. No.	Designation	Taxiway Width(M)	Surface	PCN	Remarks
1.	A	23	Tarmacadum	36/F/B/W/T	
2.	B	23	Concrete	64/R/C/W/T	TWY B is suitable for all Code Letter C aircraft and Code Letter D aircraft with outer main gear wheel span upto 9.54M
3	B2	18	Concrete	64/R/C/W/T	
4	B3	23	Concrete	54/R/C/X/T	
5	C	23	Concrete	38/F/B/W/T	
6	C1	23	Concrete	38/F/B/W/T	
7	D	23	Tarmacadum	34/F/B/W/T	
8	D1	23	Concrete	64/R/C/W/T	
9	E	23	Concrete	38/F/B/W/T	
10	E1	23	Concrete	38/F/B/W/T	
11	E2 (West of TWY E)	23	Concrete	64/R/C/W/T	
12	E2 (East of TWY E)	18	Concrete	64/R/C/W/T	
13	E3	23	Concrete	64/R/C/W/T	
14	E4	23	Concrete	64/R/C/W/T	
15	E5	23	Concrete	64/R/C/W/T	
16	F	23	Concrete	64/R/C/W/T	
17	F1	23	Concrete	54/R/B/X/T	
18	F2	23	Concrete	54/R/B/X/T	
19	F3	23	Concrete	54/R/B/X/T	
20	F4	23	Concrete	54/R/B/X/T	
21	H	23	Concrete	N/A	

22	J	23	Concrete	N/A	
23	K	23	Concrete	69/R/B/W/T	
24	L	23	Concrete	50/R/C/W/T	
25	L1	23	Tarmacadum Concrete	55/F/B/W/T 50/R/C/W/T	
26	L2	25	Concrete	103/R/B/W/T	
27	M	23	Concrete	45/R/B/W/T	
28	M1	23	Concrete	55/F/B/W/T	
29	M2	23	Flexible	135/F/B/W/T	
30	N	23	Concrete	56/R/C/W/T	
31	P	23	Tarmacadum	72/F/B/W/T	
32	P1	25	Rigid	101/R/B/W/T	Located east of TWY H, connecting TWY 'P' and RWY 10/28. Coordinate of junction of centre line of RWY 10/28 and TWY P1: 283331.29N 0770718.89E Coordinate of junction of centre line of TWY P and TWY P1 : 283324.89N 0770717.03E
33	R	23	Concrete	53/R/B/W/T	
34	R1	23	Concrete	53/R/B/W/T	
35	R2	23	Concrete	56/R/B/W/T	
36	R3	23	Concrete	60/R/B/W/T	
37	R4	23	Concrete	56/R/B/W/T	
38	S	23	Concrete	63/R/B/W/T	
39	U	23	Concrete	64/R/C/W/T	
40	V	25	Concrete	64/R/C/W/T	
41	W	25	Concrete	72/R/B/W/T	TWY 'W' is Code F compliant Taxiway.

IV. OTHER DETAILS OF DOMESTIC TWYS

1.TWY W: Shoulder 17.5m on either side AVBL.
2.The Apron taxi lane behind the bays 1-13, is designated as 'A'. Apron Taxi lane, suitable up to code letter 'C' aircraft.
3.TWY 'A' is north of stand No.1 joining RWY 27/09.
4.TWY E3 and E4: Shoulder width is 10.5M either side.
5.Rapid exit TWY E5: AVBL for RWY27.Distance 2100m from beginning of RWY 27, Angle of turn30 DEG, Radius of turn off curve 550m, fillets adequate for rapid exit, shoulder 10.5m either side, length 379m.Suitable for aircraft upto code letter E.

6.Rapid exit TWY D1: for RWY28, DIST from beginning of RWY28 2250M, angle of turn 30deg, radius of turn off curve 550m, fillets adequate for rapid exit, Shoulder 10.5M either side, LEN 460m, Suitable for code letter A, B, C, ACFT.
7.TWY F1: Connects TWY E2 to stand 133 front side. LEN 134.75M, shoulder 7.5M either side.
8.TWY F2: Connects TWY E2 to stand 133 rear side, LEN 52.525m, Shoulder 7.5M either side
9.TWY B3: Joins TWY E with domestic APRON, LEN 54m, Shoulder 11.5M either side, Suitable for code letter up to C aircraft
10.Exit TWY B: Connects to RWY 10 leading to domestic main APRON, Cross TWY E & merges old TWY B, distance from THR RWY10 2875m, Angle of turn 30 deg, Radius of turn off curve:160m, Shoulders 10.5M on both sides. Suitable for letter A, B, C, D, E. Dist. from C/L C TO C/L E 216M, from RWY 10-28 C/L to C/L E 108M, Total LEN 324m
11.TWY E2: Parallel to RWY 09/27, at a DIST 250 from CL RWY 09/27, towards south side of RWY 09/27, beginning from TWY E AVBL, LEN 1925m, Shoulders 10.5m either side, C/L LGT CAT-III. Due to presence of open drains on TWY strips all code letter E ACFT to exercise caution while taxing.
12.Extended portion of TWY E2: TWY E2 extended towards east from TWY E/E2 junction up to TWY A
Distance of TWY C1/E2 junction is 165M from centreline RWY27.
Distance of TWY A/E2 junction is 168 M from centerline RWY 27.
Surface: Concrete, Length: 798M, Width: 18M, Shoulders: 3.5M either side, PCN: 64/R/C/W/T.
Markings: Centerline, Edge, Lights: Centerline, Edge lights only on the curves suitable for Code A, B, C Aircraft

13.Link TWY B2: joins the extended portion of TWY E2 with taxi lane behind stand NR 31 to 40C.Surface: Concrete, Length: 65M, Width: 18M, PCN: 64/R/C/W/T. Markings: Centerline, Edge, Lights: Centerline, Edge lights only on the curves suitable for Code A, B, C Aircrafts
14.TWY F: Connects RWY 10 to TWY E & further leads to domestic APRON, for code letter C, Dist. from RWY 10 to THR 2350m, LEN 571M, Angle of turn 30 deg., Radius of Exit Curve 160m, Radius of Turn off Curve 160m, Width of TWY23m, Shoulder 10.5m on both sides, PCN: 64/R/C/W/T, entry to general aviation managed via. TWY F4. TWYF4 for code letter B.
15.TWY U: Rapid exit, suitable fillet AVBL, DIST. From RWY 10 THR 2350 M, 2875M, LEN 408M from RWY centerline up to TWY centerline P. Rigid Pavement. Shoulders 10.5m on both sides. Radius of turn off curve 550M. Angle of turn 30 degree. Compatibility code letter E. Fillets are AVBL for turning right to join TWY P.
16.TWY V: Rapid exit, suitable fillet AVBL, DIST: from RWY 10 THR 2875M., LEN 408M from RWY centerline up to TWY centerline P. Rigid Pavement. Shoulders 17.5m on both sides. Radius of turn off curve 550M. Angle of turn 30 deg. Compatibility code letter F aircraft. Fillets are AVBL (at intersection with TWY P) for turning right to join TWY P.
17.Taxiway M2 commissioned Length: 201.37, Width: 23M, Width of shoulder: 10.5M, Angle with RWY 115W/65E, Turning Radius: 50m, distance between TWY C/L lights: 15M on straight portion and 7.5M on curves, Pavement: Flexible, PCN:135/ F/B/W/T, Transverse Slope:1.5%, Longitudinal Slope: Less than 1.5%, Coordinates: 283357.54N 0770524.91E Intersection with CL of RWY 28, 283350.07N 070527.59E Intersection with CL of TWY P.
18.Taxiway L2 commissioned Length: 277M, Width: 25M, Width of shoulder: 10.5M, Angle with TWY P 90 DEG, Turning Radius: 50m W/50m E, distance between TWY C/L lights: 15M on straight portion and 7.5M on curves, Pavement: Concrete, PCN:103/R/B/W/T, Transverse Slope: less than 1.5%, Longitudinal Slope: Less than 1%, Coordinates: 283339.19N 0770614.93E Intersection point of CL of TWY P & TWY L2, 283329.72N 0770612.13E Intersection point of CL of TWY R & TWY L2.
19.Taxiway P1 commissioned Length: 181.3 M, Width: 25M, Width of shoulder: 17.5M, Angle with RWY - 90 DEG, Turning Radius:48.75 M (C/L), Pavement: Rigid, PCN:101/R/B/W/T, Transverse Slope on Main :0.81 % (W), Carriage Way-0.65 % (E), Transverse Slope on Shoulder 2.5%.Aircraft Sutability: Upto Code letter 'F' Aircraft, Standard CAt II/CAT IIIB lights provided.

V. INTERNATIONAL TWYS

S. No	TWY	Surface	Width Minimum (M)	Length (M)	PCN	Remarks
1.	Z	Asphalt	25	4456	93/F/C/W/T	.....
2.	Z1	Asphalt	25	318	93/F/C/W/T	TWY Z1 AVBL for taxiing/ turning of Code letter F Aircraft
3.	Z2	Asphalt	25	190	93/F/C/W/T	.....
4.	Z3,Z4, Z5	Asphalt	25	531	93/F/C/W/T	Drain in TWY strip at distance of 33m west to TWY Centre line.
5.	Z6	Asphalt	25	531	93/F/C/W/T	Drain in TWY strip at distance of 34m east to TWY centre line.
6	Z7	Asphalt	25	531	93/F/C/W/T	Drain in TWY strip at distance of 33m east to TWY centre line.

7.	Z8	Asphalt	25	218	93/F/C/W/T	.....
8	Z9	Asphalt	25	269	93/F/C/W/T	TWY Z9 AVBL for taxiing/ turning of code letter F Aircraft
9	CE1	Asphalt	25	190	93/F/C/W/T	.....
10	CE2	Asphalt	25	190	93/F/C/W/T	.....
11	CW1	Asphalt	25	1484	93/F/C/W/T	.....
12	CW2	Asphalt	25	1948	93/F/C/W/T	.....
13	W1	Asphalt	25	98	93/F/C/W/T	.....
14	W2	Asphalt	25	98	93/F/C/W/T	.....
15	W3	Asphalt	25	98	93/F/C/W/T	.....
16	S2		25	498	93/F/C/W/T	Code F Centre line Lights, Edge lights on curves
17	S3	Flexible	25	516	93/F/C/W/T	Provided Blue Edge LGT with 15M spacing. Shoulders- 17.5m
18	S4	Asphalt	25	737	93/F/C/W/T	.....
19	S5	Asphalt	25	767	93/F/C/W/T	.....
20	Y	Asphalt	25	817	93/F/C/W/T	.....
21	T	Flexible	25	2064	93/F/C/W/T	Provided Blue Edge LGT with 15M spacing. Shoulder width- 17.5m Newly added portion .
22	T1A		18		65/R/C/W/T	
23	T1	Flexible	25	98	93/F/C/W/T	Provided Blue Edge LGT with 15M spacing. Shoulders- 17.5m.
24	T2	Flexible	25	98	93/F/C/W/T	Provided Blue Edge LGT with 15M spacing. Shoulders- 17.5m
25	T3	Flexible	25	98	93/F/C/W/T	Provided Blue Edge LGT with 15M spacing. Shoulders- 17.5m.
26	Y5	Asphalt	25	97.5	93/F/C/W/T	.....

2. Link TWY S3 joining TWY Z at coordinates 283239.82N 0770511.80E with TWY Y at coordinates 283253.03N 0770515.43E. Length: 418M TWY Z CL to TWY Y CL, Width: 25M, Shoulders: 17.5M either side, PCN: 93/F/C/W/T Suitable for Aircraft: CODE F, Light: Centre Line, Edge Light: provided only at curves, Markings: Edge Line, Centre line, Intermediate Taxi Holding.

3. Existing TWY Y extended towards east up to a distance of 3632m from junction of TWY CW1 and TWY Y. Length of extended portion: 3632M, Width: 25M, Shoulders: 17.5m either side, PCN: 93/F/C/W/T, Suitable for aircraft: code F, Light: centreline, Edge light provided only at curves, Markings: edge line, centreline, intermediate Taxi Holding.

4. Existing TWY Z2 extended towards North up to a distance of 717M from junction of TWY Z2 and TWY Z. Length of extended portion: 717M, Width: 25M, Shoulders: 17.5M either side, PCN: 93/F/C/W/T Suitable for Aircraft: Code F, Light: Centre Line, Edge Light: Provided only at curves

Markings: Edge line, Centre line, Intermediate TAXI Holding.
5.Link TWY S2 joining TWY Z at coordinates 283231.84N 0770549.00E with TWY Y at coordinates 283244.47N 0770552.48E and with TWY T at coordinates 283247.54N 0770553.39E.
Length : 498M TWY Z CL to TWY T CL, Width: 25M, Shoulders: 17.5M either side, PCN: 93/F/C/W/T Suitable for Aircraft: Code F, Light: Centre Line, Edge Light: Provided only at curves.
Markings: Edge line, Centre Line, Intermediate TAXI Holding.
6.Portion of TWY T BTN TWY Z2 and S2, parallel to extended portion of TWY Y, starting from junction with extended TWY Z2 coordinates 283240.97N 0770621.81E towards West up to a distance of 800M. Length: 800M, Width: 25M, Shoulders: 17.5M either side, PCN: 93/F/C/W/T
Suitable for Aircraft: CODE F, Light: Centre Line, Edge Light Provided only at curves
Markings: Edge line, Centre line, Intermediate TAXI holding.

VI.SUITABILITY AND OTHER INFORMATION ABOUT AIRCRAFT PARKING STANDS

1.Apron I
i.Refer Aircraft Parking/Docking Chart

2.Terminal - II
i.Refer Aircraft Parking/Docking Chart
3.Aerobridges

i.One Aerobridge for L-2 door on stand nos. 44, 46, 47 & 49.
ii.Two Fingers (L1 & L2) doors on stand numbers 42, 43, 45 and 48.
iii. Aerobridges: Available on stands 41, 42, 43, 44, 48 & 49
4.Visual Docking Guidance System

i. Available on stands 41 to 44, 48 &49

5.Parallax Aircraft Parking Aids (PAPA)/Ground Markings Nose wheel bars/Marking for the following types of aircraft is also provided on stands 41 to 49.
i.Stand 41: B763, B762/DC10, A300, A310, and A330/340.
ii.Stand 42: B747, B763, B777, A300, A310, IL96, and A330/340.
iii.Stand 43: B747, B74S, B757, B763, B762/DC10, B777, A310, A320/ B737, A330/340.
iv.Stand 44: B747, B74S, B757, B767, A310, B777, and A330/340.
v.Stand 45: B747, B74S, B757, B767, B763, A320, and A330/340.
vi.Stand 46: B747, A310, A320, B737, IL96, and B777.
vii.Stand 47: B747, B757, B767, A300, A310, B777, DC10, IL96, A330/340, and A346.
viii.Stand 48: B747, B74S, B767, A300, A310, A330/340, A346,B747-300
ix.Stand 49: B747, B74S, B767, A300, A310, A320/B737, DC10, and A330/A340,B747-300.
x. Stand 88-92:B747-400.
6.Cargo Aron
i.Refer Aircraft Parking/Docking Chart
7.Apron 31-35
i.Refer respective Aircraft Parking/Docking Charts
8.Aircraft Stands 801, 802.
i.Refer related Aircraft Parking/Docking Charts

VIDP AD 2.24 CHARTS RELATED TO AN AERODROME

1.Aerodrome Chart
2.Aerodrome Chart Hot Spot
3.Aircraft Parking/Docking Chart Front Apron I
4.Aircraft Parking/Docking Chart Satellite Apron I
5.Aircraft Parking/Docking Chart General Aviation Apron
6.Aircraft Parking/Docking Chart General Aviation Maintenance Apron
7.Aircraft Parking/Docking Chart Apron II
8.Aircraft Parking/Docking Chart Apron 31
9.Aircraft Parking/Docking Chart Apron 32
10.Aircraft Parking/Docking Chart Apron 33
11.Aircraft Parking/Docking Chart Apron 34
12.Aircraft Parking/Docking Chart Apron 35
13.Aircraft Parking/Docking Chart Cargo Apron
14.Aircraft Parking/Docking Chart TWY 15/33
15.Aircraft Parking/Docking Chart TWY T Dumbbell
16. Aerodrome Obstacle Chart Type – A (Operating limitations) RWY 09
17. Aerodrome Obstacle Chart Type – A (Operating limitations) RWY 10
18. Aerodrome Obstacle Chart Type – A (Operating limitations) RWY 11
19. Aerodrome Obstacle Chart Type – A (Operating limitations) RWY 27
20. Aerodrome Obstacle Chart Type – A (Operating limitations) RWY 28
21. Aerodrome Obstacle Chart Type – A (Operating limitations) RWY 29
22.Take Off Run Available from Intersection RWY 09
23. Take Off Run Available from Intersection RWY 10
24. Take Off Run Available from Intersection RWY 11
25. Take Off Run Available from Intersection RWY 27
26. Take Off Run Available from Intersection RWY 28
27. Take Off Run Available from Intersection RWY 29
28. Location of Different Exit TWYs RWY 09
29. Location of Different Exit TWYs RWY 10
30. Location of Different Exit TWYs RWY 11
31. Location of Different Exit TWYs RWY 27
32. Location of Different Exit TWYs RWY 28
33. Location of Different Exit TWYs RWY 29
34. ILS CAT III B Critical And Sensitive Areas- RWY 11
35. ILS CAT III B Critical And Sensitive Areas- RWY 28
36. ILS CAT III B Critical And Sensitive Areas- RWY 29
37. Taxi Routing During Low Visibility Procedures: Westerly Arrival
38. Taxi Routing During Low Visibility Procedures: Westerly Departure
39. Taxi Routing During Low Visibility Procedures: Easterly Arrival
40. Taxi Routing During Low Visibility Procedures: Easterly Departure
41. Precision Approach Terrain Chart RWY 09
42. Precision Approach Terrain Chart RWY 10
43. Precision Approach Terrain Chart RWY 11
44. Precision Approach Terrain Chart RWY 27
45. Precision Approach Terrain Chart RWY 28
46. Precision Approach Terrain Chart RWY 29
47.. ILS Procedure RWY 09
48. ILS Procedure RWY 27
49. ILS Procedure RWY 10
50. ILS Procedure (CAT-I) RWY 28
51.. ILS Procedure (CAT-II/IIIA/IIIB) RWY 28
52. ILS Procedure RWY 11
53. ILS Procedure (CAT-II/IIIA/IIIB) RWY 11

54. ILS (CAT-II/IIIA/IIIB) Procedure RWY 29
55. ILS Procedure (CAT-I) RWY 29
56. VOR (Z) Procedure RWY 09
57. VOR (Z) Procedure RWY 10
58. VOR (Z) Procedure RWY 28
59. VOR Procedure RWY 11
60. VOR Procedure RWY 29
61. NDB (Z) Procedure RWY 27
62. Tactical Air Traffic Flow Procedures (T-ATFP) in Delhi FIR – RNAV STAR RWY 09, 10, 11 & ATS Route Structure in Delhi TMA
63. Tactical Air Traffic Flow Procedures (T-ATFP) in Delhi FIR – RNAV STAR RWY 27, 28, 29 & ATS Route Structure in Delhi TMA
64. Tactical Air Traffic Flow Procedures (T-ATFP) in Delhi FIR – Establishing Arrival Sequence, CTO and RTO computation for RWY 27, 28 & 29

AERODROME CHART — INDIA–DELHI/IGI AIRPORT

ARP 28° 34' 07.439"N 077° 06' 44.717"E — ELEVATION 778 Ft

TWR RWY 27 – 118.75 NORTH; RWY 28 – 118.10 MIDDLE; RWY 29 – 125.85 SOUTH
SMC RWY 27 – 121.75 NORTH; RWY 28 – 121.90 MIDDLE; RWY 29 – 121.625 SOUTH
CLD 121.95 DCL DELCFYA
DVOR DPN 116.1 DVOR DIG 114.60

RUNWAY 27 THRESHOLD DISPLACED	151 m
RUNWAY 11 THRESHOLD DISPLACED	645 m
RUNWAY 29 THRESHOLD DISPLACED	1460 m

RWY	DIRECTION (MAG)	THR. ELEV.	THRESHOLD COORDINATES	BEARING STRENGTH
09	091°	718ft	28°34'13.982"N 077°05'17.282"E	84/R/B/W/T 0 to 520m (CONCRETE) 90/F/B/W/T 520 to 2816m (FLEXIBLE)
27	271°	752ft	28°34'11.741"N 077°06'55.307"E	90/F/B/W/T 0 to 2296m (FLEXIBLE) 84/R/B/W/T 2296 to 2816m (CONCRETE)
10	104°	721ft	28°34'02.036"N 077°05'05.542"E	75/R/A/W/T 0 to 98m (CONCRETE) 135/F/B/W/T 98 to 3661m (FLEXIBLE) 74/R/A/W/T 3661 to 3813m (CONCRETE)
28	284°	778ft	28°33'30.737"N 077°07'21.270"E	74/R/A/W/T 0 to 152m (CONCRETE) 135/F/B/W/T 152 to 3715m (FLEXIBLE) 75/R/A/W/T 3715 to 3813m (CONCRETE)
11	103°	725ft	28°32'44.860"N 077°04'18.858"E	110/R/C/W/T 0 to 438m (CONCRETE) 93/F/C/W/T 438 to 4166m (FLEXIBLE) 110/R/C/W/T 4166 to 4430m (CONCRETE)
29	283°	752ft	28°32'27.048"N 077°05'41.973"E	110/R/C/W/T 0 to 264m (CONCRETE) 93/F/C/W/T 264 to 3992m (FLEXIBLE) 110/R/C/W/T 3992 to 4430m (CONCRETE)

LEGEND
- RUNWAY HOLDING POSITION
- INTERMEDIATE HOLDING POSITION
- RUNWAY VISUAL RANGE
- VOR CHECK POINTS
- BOUNDARIES OF TOWER FREQUENCY
- DVOR/DME

RWY	HIGHEST ELEVATION OF TOUCH DOWN ZONE
09	721 ft
27	751 ft
10	725 ft
28	775 ft
11	727 ft
29	750 ft

DATUM : WGS 84
ELEVATION ARE IN FEET
DIMENSIONS ARE IN METERS
BEARINGS ARE MAGNETIC
GEOID MODEL – EGM 2008

RUNWAY PAVEMENT
- FLEXIBLE
- RIGID

AERONAUTICAL INFORMATION UPTO JAN– 2018

PRODUCING ORGANIZATION : DELHI INTERNATIONAL AIRPORT LIMITED
Airside.planning@gmrgroup.in

AERODROME CHART – HOTSPOT

ARP 28° 34' 07.439"N 077° 06' 44.717"E

ELEVATION 778 Ft

TWR RWY 27 – 118.75 NORTH
RWY 28 – 118.10 MIDDLE
RWY 29 – 125.85 SOUTH

SMC RWY 27 – 121.75 NORTH
RWY 28 – 121.90 MIDDLE
RWY 29 – 121.625 SOUTH

CLD 121.95 DVOR DPN 116.1
DCL DELCFYA DVOR DIG 114.60

INDIA–DELHI/IGI AIRPORT

RUNWAY 27 THRESHOLD DISPLACED	151 m
RUNWAY 11 THRESHOLD DISPLACED	645 m
RUNWAY 29 THRESHOLD DISPLACED	1460 m

RWY	DIRECTION (MAG)	THR. ELEV.	THRESHOLD COORDINATES	BEARING STRENGTH
09	091°	718ft	28°34'13.982"N 077°05'17.282"E	84/R/B/W/T 0 to 520m (CONCRETE) 90/F/B/W/T 520 to 2816m (FLEXIBLE)
27	271°	752ft	28°34'11.741"N 077°06'55.307"E	90/F/B/W/T 0 to 2296m (FLEXIBLE) 84/R/B/W/T 2296 to 2816m (CONCRETE)
10	104°	721ft	28°34'02.036"N 077°05'05.542"E	75/R/A/W/T 0 to 98m (CONCRETE) 135/F/B/W/T 98 to 3661m (FLEXIBLE) 74/R/A/W/T 3661 to 3813m (CONCRETE)
28	284°	778ft	28°33'30.737"N 077°07'21.270"E	74/R/A/W/T 0 to 152m (CONCRETE) 135/F/B/W/T 152 to 3715m (FLEXIBLE) 75/R/A/W/T 3715 to 3813m (CONCRETE)
11	103°	725ft	28°32'44.860"N 077°04'18.858"E	110/R/C/W/T 0 to 438m (CONCRETE) 93/F/C/W/T 438 to 4166m (FLEXIBLE) 110/R/C/W/T 4166 to 4430m (CONCRETE)
29	283°	752ft	28°32'27.048"N 077°05'41.973"E	110/R/C/W/T 0 to 264m (CONCRETE) 93/F/C/W/T 264 to 3992m (FLEXIBLE) 110/R/C/W/T 3992 to 4430m (CONCRETE)

LEGEND	
	RUNWAY HOLDING POSITION
	INTERMEDIATE HOLDING POSITION
	RUNWAY VISUAL RANGE
	VOR CHECK POINTS
	BOUNDARIES OF TOWER FREQUENCY
	DVOR/DME

RWY	HIGHEST ELEVATION OF TOUCH DOWN ZONE
09	721 ft
27	751 ft
10	725 ft
28	775 ft
11	727 ft
29	750 ft

DATUM : WGS 84
ELEVATION ARE IN FEET
DIMENSIONS ARE IN METERS
BEARINGS ARE MAGNETIC
GEOID MODEL – EGM 2008

RUNWAY PAVEMENT
FLEXIBLE
RIGID

Pilot must exercise caution while crossing Hot spot	
HS 1	Intersection of TWY T1 with TWY T & TWY Y near apron 35
HS 2	Intersection of TWY S3 with TWY T & TWY Y near apron 34
HS 3	Intersection of TWY T2 with TWY T & TWY Y near apron 34
HS 4	Intersection of TWY T3 with TWY T & TWY Y near apron 33B
HS 5	Intersection of TWY T & TWY Y with TWY CW1 & TWY CW2
HS 6	Intersection of TWY W1 with TWY CW1 & TWY CW2 near apron 33A
HS 7	Intersection of TWY W2 with TWY CW1 & TWY CW2 near apron 32
HS 8	Intersection of TWY W3 with TWY CW1 & TWY CW2 near apron 32
HS 9	Intersection of TWY Z2 with TWY Z
HS 10	Intersection of TWY D1 with TWY D
HS 11	Intersection of TWY F4 with TWY F near GA Apron
HS 12	Intersection of TWY M2 with TWY P & TWY M
HS 13	Intersection of TWY S with TWY CW1 & TWY CW2
HS 14	Intersection of TWY E with TWY E2
HS 15	Intersection of TWY E with TWY B3/E1 & TWY F

AERONAUTICAL INFORMATION UPTO JAN– 2018

PRODUCING ORGANIZATION : DELHI INTERNATIONAL AIRPORT LIMITED
Airside.planning@gmrgroup.in

AIRCRAFT PARKING / DOCKING CHART FRONT APRON I

TWR NORTH 118.75
TWR MIDDLE 118.10

SMC NORTH 121.75
SMC MIDDLE 121.90

CLD 121.95
DCL DELCFYA

INDIA/DELHI
IGI AIRPORT

BAY DETAILS						
STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
1	45 / R / B / W / T	28° 34' 03.182" N	077° 07' 08.610" E	A321/A320	Power in - Push back	Remote
2	45 / R / B / W / T	28° 34' 01.929" N	077° 07' 08.621" E	A321/A320	Power in - Push back	Remote
3	45 / R / B / W / T	28° 34' 00.670" N	077° 07' 08.625" E	A321/A320	Power in - Push back	Remote
4	45 / R / B / W / T	28° 33' 59.336" N	077° 07' 08.651" E	B738/W/L	Power in - Push back	Remote
5	48 / R / D / W / T	28° 33' 57.605" N	077° 07' 08.641" E	B738/W/L	Power in - Push back	Remote
6	45 / R / B / W / T	28° 33' 56.294" N	077° 07' 08.743" E	B738/W/L	Power in - Push back	Remote
7	45 / R / B / W / T	28° 33' 54.991" N	077° 07' 08.983" E	B738/W/L	Power in - Push back	Remote
8	45 / R / B / W / T	28° 33' 53.687" N	077° 07' 09.237" E	B738/W/L	Power in - Push back	Remote
9	45 / R / B / W / T	28° 33' 52.391" N	077° 07' 09.473" E	B738/W/L	Power in - Push back	Remote
10	45 / R / B / W / T	28° 33' 50.280" N	077° 07' 08.105" E	B738/W/L	Power in - Push back	Remote
11	45 / R / B / W / T	28° 33' 49.355" N	077° 07' 07.049" E	B738/W/L	Power in - Push back	Remote
12	45 / R / B / W / T	28° 33' 48.428" N	077° 07' 05.989" E	B738/W/L	Power in - Push back	Remote
15	45 / R / B / W / T	28° 34' 01.217" N	077° 07' 04.251" E	A321/B739	Power in - Power out	Remote
16	33 / R / B / W / T	28° 33' 58.944" N	077° 07' 04.289" E	A321/B739	Power in - Power out	Remote
17	37 / R / B / W / T	28° 33' 56.746" N	077° 07' 04.327" E	A321/B739	Power in - Power out	Remote
19	45 / R / B / W / T	28° 33' 47.471" N	077° 07' 00.283" E	B737-800	Power in - Power out	Remote
20	45 / R / B / W / T	28° 33' 49.030" N	077° 07' 00.049" E	B737-800	Power in - Power out	Remote
21	45 / R / B / W / T	28° 33' 50.318" N	077° 06' 59.881" E	B737-800	Power in - Power out	Remote
22	45 / R / B / W / T	28° 33' 51.604" N	077° 06' 59.662" E	B737-800	Power in - Power out	Remote
23	39 / R / B / W / T	28° 33' 53.198" N	077° 06' 59.410" E	B737-800	Power in - Power out	Remote
24	39 / R / B / W / T	28° 33' 54.495" N	077° 06' 59.204" E	B737-800	Power in - Power out	Remote
25	39 / R / B / W / T	28° 33' 55.848" N	077° 06' 58.998" E	B737-800	Power in - Power out	Remote
26	39 / R / B / W / T	28° 33' 57.198" N	077° 06' 58.799" E	B737-800	Power in - Power out	Remote
27	39 / R / B / W / T	28° 33' 58.553" N	077° 06' 58.584" E	B737-800	Power in - Power out	Remote
28	39 / R / B / W / T	28° 34' 01.223" N	077° 06' 58.185" E	B737-800	Power in - Power out	Remote
29	39 / R / B / W / T	28° 34' 02.579" N	077° 06' 57.966" E	B737-800	Power in - Power out	Remote
30	39 / R / B / W / T	28° 34' 03.887" N	077° 06' 57.765" E	B737-800	Power in - Power out	Remote
31	38 / F / B / W / T	28° 33' 51.922" N	077° 06' 55.183" E	CRJ 7 / ATR 72	Power in - Power out	Remote
32	38 / F / B / W / T	28° 33' 52.897" N	077° 06' 55.008" E	B 734	Power in - Power out	Remote
33	17 / R / C / W / T	28° 33' 53.973" N	077° 06' 54.829" E	B 734	Power in - Power out	Remote
34	20 / R / C / W / T	28° 33' 55.050" N	077° 06' 54.665" E	B 734	Power in - Power out	Remote
35	31 / R / C / W / T	28° 33' 56.133" N	077° 06' 54.508" E	B 734	Power in - Power out	Remote
36	48 / R / C / W / T	28° 33' 57.210" N	077° 06' 54.335" E	B 734	Power in - Power out	Remote
37	47 / R / C / W / T	28° 33' 58.467" N	077° 06' 54.142" E	B 734	Power in - Power out	Remote
38	36 / R / C / W / T	28° 33' 59.553" N	077° 06' 53.967" E	B 734	Power in - Power out	Remote
39	36 / R / B / W / T	28° 34' 01.103" N	077° 06' 53.787" E	B 734	Power in - Power out	Remote
40 A	10 / R / C / W / T	28° 34' 02.169" N	077° 06' 53.487" E	ATR 42	Power in - Power out	Remote
40 B	9 / R / C / W / T	28° 34' 03.183" N	077° 06' 53.354" E	ATR 42	Power in - Power out	Remote
40 C	9 / R / C / W / T	28° 34' 04.204" N	077° 06' 53.235" E	ATR 42	Power in - Power out	Remote

Pre-flight altimeter check location
APRON ELEV. 764 ft.

LEGEND	
AIRCRAFT STAND	○
IHP	
TUG DISCONNECT POINT	▶
RHP	

0 50 100 150 200 Metres

NOTE :
1. AERONAUTICAL LIGHTS ARE NOT SHOWN IN THIS CHART.
2. AIRCRAFT STAND MANOEUVRING GUIDANCE LIGHTS (ASMGL) NOT AVAILABLE FROM 31-40C.
3. ADVANCE VISUAL DOCKING GUIDANCE SYSTEM (AVDGS) NOT AVAILABLE AT ANY STAND.
4. IHP - INTERMEDIATE HOLDING POSITION.
5. STAND 19 WILL BE USED FOR TAXIING OF AIRCRAFT.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
Airside.Planning@gmrgroup.in

AIRCRAFT PARKING / DOCKING CHART SATELLITE APRON-I

TWR NORTH 118.75 TWR MIDDLE 118.10	SMC NORTH 121.75 SMC MIDDLE 121.90	CLD 121.95 DCL DELCFYA

INDIA/DELHI

IGI AIRPORT

PARKING STAND DETAILS						
STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
120	54 / R / B / X / T	28° 33' 46.970" N	077° 06' 48.552" E	A321/B739WL	Power in - Power out	Remote
121	54 / R / B / X / T	28° 33' 48.140" N	077° 06' 47.717" E	A321/B739WL	Power in - Power out	Remote
122	54 / R / B / X / T	28° 33' 49.576" N	077° 06' 46.700" E	A321/B739WL	Power in - Power out	Remote
123	54 / R / B / X / T	28° 33' 50.696" N	077° 06' 45.906" E	A321/B739WL	Power in - Power out	Remote
124	54 / R / B / X / T	28° 33' 51.811" N	077° 06' 45.113" E	A321/B739WL	Power in - Power out	Remote
125	54 / R / B / X / T	28° 33' 52.927" N	077° 06' 44.314" E	A321/B739WL	Power in - Power out	Remote
126	54 / R / B / X / T	28° 33' 54.504" N	077° 06' 43.191" E	A321/B739WL	Power in - Power out	Remote
127	54 / R / B / X / T	28° 33' 55.655" N	077° 06' 42.376" E	A321/B739WL	Power in - Power out	Remote
128	54 / R / B / X / T	28° 33' 56.808" N	077° 06' 41.552" E	A321/B739WL	Power in - Power out	Remote
129	54 / R / B / X / T	28° 33' 57.963" N	077° 06' 40.731" E	A321/B739WL	Power in - Power out	Remote
130	54 / R / B / X / T	28° 33' 59.464" N	077° 06' 39.666" E	A321/B739WL	Power in - Power out	Remote
131	54 / R / B / X / T	28° 34' 00.621" N	077° 06' 38.838" E	A321/B739WL	Power in - Power out	Remote
132	54 / R / B / X / T	28° 34' 01.784" N	077° 06' 38.012" E	A321/B739WL	Power in - Power out	Remote
135	54 / R / B / X / T	28° 33' 58.900" N	077° 06' 35.742" E	B738WL	Power in - Push back	Remote
136	54 / R / B / X / T	28° 33' 57.743" N	077° 06' 36.565" E	B738WL	Power in - Push back	Remote
137	54 / R / B / X / T	28° 33' 56.241" N	077° 06' 37.632" E	B738WL	Power in - Push back	Remote
138	54 / R / B / X / T	28° 33' 55.088" N	077° 06' 38.449" E	B738WL	Power in - Push back	Remote
139	54 / R / B / X / T	28° 33' 53.938" N	077° 06' 39.271" E	B738WL	Power in - Push back	Remote
140	54 / R / B / X / T	28° 33' 52.787" N	077° 06' 40.086" E	B738WL	Power in - Push back	Remote
141	54 / R / B / X / T	28° 33' 51.212" N	077° 06' 41.209" E	B738WL	Power in - Push back	Remote
142	54 / R / B / X / T	28° 33' 50.094" N	077° 06' 42.007" E	B738WL	Power in - Push back	Remote
143	54 / R / B / X / T	28° 33' 49.658" N	077° 06' 41.218" E	CRJ7	Power in - Push back	Remote
144	54 / R / B / X / T	28° 33' 50.774" N	077° 06' 40.428" E	B738	Power in - Push back	Remote
145	54 / R / B / X / T	28° 33' 52.352" N	077° 06' 39.306" E	B738WL	Power in - Push back	Remote
146	54 / R / B / X / T	28° 33' 53.494" N	077° 06' 38.513" E	B738WL	Power in - Push back	Remote
147	54 / R / B / X / T	28° 33' 54.653" N	077° 06' 37.668" E	B738WL	Power in - Push back	Remote
148	54 / R / B / X / T	28° 33' 55.796" N	077° 06' 36.819" E	B738WL	Power in - Push back	Remote
149	54 / R / B / X / T	28° 33' 57.306" N	077° 06' 35.779" E	B738WL	Power in - Push back	Remote
150	54 / R / B / X / T	28° 33' 58.462" N	077° 06' 34.954" E	B738WL	Power in - Push back	Remote
151	54 / R / B / X / T	28° 33' 59.622" N	077° 06' 34.125" E	B738WL	Power in - Push back	Remote
152	54 / R / B / X / T	28° 34' 00.725" N	077° 06' 33.336" E	B734	Power in - Push back	Remote

Pre-flight altimeter check location
APRON ELEV. 754 ft.

LEGEND	
AIRCRAFT STAND	○
IHP	═ : ═ : ═ : ═
TUG DISCONNECT POINT	▶
RHP	═══

0 30 60 120 180 240 300 Metres

NOTES :
1. AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.
2. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
Airside.Planning@gmrgroup.in

AIRCRAFT PARKING / DOCKING CHART GENERAL AVIATION APRON

TWR NORTH 118.75 TWR MIDDLE 118.10	SMC NORTH 121.75 SMC MIDDLE 121.90	CLD 121.95 DCL DELCFYA

DATUM: WGS 84
GEOID MODEL - EGM 2008
ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

PARKING STAND DETAILS

STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT (Max. Wing Span Upto)	REMARKS	CONTACT / REMOTE
161	26 / R / C / W / T	28° 33' 48.484" N	077° 06' 36.565" E	24 m	Power in - Power out	Remote
162	26 / R / C / W / T	28° 33' 48.722" N	077° 06' 35.607" E	24 m	Power in - Power out	Remote
163	26 / R / C / W / T	28° 33' 48.930" N	077° 06' 34.640" E	24 m	Power in - Power out	Remote
164	26 / R / C / W / T	28° 33' 49.157" N	077° 06' 33.674" E	24 m	Power in - Power out	Remote
165	26 / R / C / W / T	28° 33' 49.387" N	077° 06' 32.706" E	24 m	Power in - Power out	Remote
166	26 / R / C / W / T	28° 33' 49.604" N	077° 06' 31.736" E	24 m	Power in - Power out	Remote
167	26 / R / C / W / T	28° 33' 49.834" N	077° 06' 30.772" E	24 m	Power in - Power out	Remote
168	26 / R / C / W / T	28° 33' 50.050" N	077° 06' 29.802" E	24 m	Power in - Power out	Remote
169	26 / R / C / W / T	28° 33' 50.273" N	077° 06' 28.836" E	24 m	Power in - Power out	Remote
170	26 / R / C / W / T	28° 33' 50.495" N	077° 06' 27.871" E	24 m	Power in - Power out	Remote
171	26 / R / C / W / T	28° 33' 50.720" N	077° 06' 26.893" E	24 m	Power in - Power out	Remote
172	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 50.907" N	077° 06' 26.084" E	15 m	Power in - Power out	Remote
173	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 51.052" N	077° 06' 25.444" E	15 m	Power in - Power out	Remote
174	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 51.200" N	077° 06' 24.803" E	15 m	Power in - Power out	Remote
175	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 51.346" N	077° 06' 24.159" E	15 m	Power in - Power out	Remote
176	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 50.159" N	077° 06' 34.988" E	18 m	Power in - Power out	Remote
177	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 50.443" N	077° 06' 33.770" E	18 m	Power in - Power out	Remote
178	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 50.610" N	077° 06' 33.023" E	18 m	Power in - Power out	Remote
179	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 50.785" N	077° 06' 32.277" E	18 m	Power in - Power out	Remote
180	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 51.054" N	077° 06' 31.096" E	18 m	Power in - Power out	Remote
181	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 51.225" N	077° 06' 30.352" E	18 m	Power in - Power out	Remote
182	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 51.405" N	077° 06' 29.603" E	18 m	Power in - Power out	Remote
183	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 51.676" N	077° 06' 28.418" E	18 m	Power in - Power out	Remote
184	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 51.843" N	077° 06' 27.675" E	18 m	Power in - Power out	Remote
185	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 52.024" N	077° 06' 26.927" E	18 m	Power in - Power out	Remote
186	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 52.195" N	077° 06' 26.181" E	18 m	Power in - Power out	Remote
187	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 52.368" N	077° 06' 25.434" E	18 m	Power in - Power out	Remote
188	MAXIMUM AUW UPTO 5700 Kgs	28° 33' 52.540" N	077° 06' 24.686" E	18 m	Power in - Power out	Remote

Pre-flight altimeter check location
APRON ELEV. 750 ft.

LEGEND	
AIRCRAFT STAND	○
IHP	
RHP	

0 20 40 80 120 160 Metres

NOTE :
1. AERONAUTICAL GROUND LIGHTS ARE NOT AVAILABLE.
2. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
Airside.Planning@gmrgroup.in

AIRCRAFT PARKING / DOCKING CHART GA MAINTENANCE APRON

TWR NORTH 118.75 TWR MIDDLE 118.10	SMC NORTH 121.75 SMC MIDDLE 121.90	CLD 121.95 DCL DELCFYA

PARKING STAND DETAILS					
STAND NO.	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
M3	28° 34' 03.09" N	077° 06' 42.54" E	Upto Wing Span 18 m	Power in - Push back	Remote
M4	28° 34' 03.17" N	077° 06' 43.31" E	Upto Wing Span 18 m	Power in - Push back	Remote
M5	28° 34' 03.26" N	077° 06' 44.07" E	Upto Wing Span 18 m	Power in - Push back	Remote
M6	28° 34' 01.20" N	077° 06' 43.80" E	Upto Wing Span 18 m	Power in - Push back	Remote
M7	28° 34' 01.28" N	077° 06' 44.57" E	Upto Wing Span 18 m	Power in - Push back	Remote
M8	28° 34' 01.31" N	077° 06' 43.46" E	Upto Wing Span 12 m	Power in - Push back	Remote
M9	28° 34' 01.37" N	077° 06' 44.01" E	Upto Wing Span 12 m	Power in - Push back	Remote
M10	28° 34' 01.44" N	077° 06' 44.55" E	Upto Wing Span 12 m	Power in - Push back	Remote
M11	28° 34' 00.50" N	077° 06' 44.35" E	Upto Wing Span 12 m	Power in - Push back	Remote
M12	28° 33' 59.12" N	077° 06' 45.10" E	Upto Wing Span 18 m	Power in - Push back	Remote

Pre-flight altimeter check location
APRON ELEV. 758 ft.

LEGEND	
AIRCRAFT STAND	○
IHP	═:═:═
TUG DISCONNECT POINT	▶

0 10 20 40 60 80 100 Metres

NOTE :
1. AERONAUTICAL GROUND LIGHTS ARE NOT AVAILABLE.
2. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
Airside.Planning@gmrgroup.in

AIRCRAFT PARKING/
DOCKING CHART

TWR MIDDLE 118.10
TWR SOUTH 125.85

SMC MIDDLE 121.90
SMC SOUTH 121.625

CLD 121.95
DCL DELCFYA

INDIA/DELHI
IGI AIRPORT

APRON II

Aircraft stands

Stands 41- 44,48 & 49 are Aerobridge stands
Rest all are non-aerobridge stands
All stands are Power-in push back
Stands 41- 49 & 81R- 84L PCN 56/R/B/W/T
Stands 85- 92 PCN 63/R/B/W/U
Surface : Concrete
ASMGL avbl at 41-44, 45L/R, 46L/R, 47L/R, 48, 49, 81L/R, 82L/R, 83L/R, 88 & 89
VDGS avbl at stands 41-44, 48 & 49

Pre-flight altimeter check location

Apron elevation : 732 feet

STAND NO.	WGS 84 CO-ORDINATE		TYPE OF AIRCRAFT
41	28°33'29.15"N	077°05'19.28"E	Code C
42	28°33'30.23"N	077°05'19.20"E	Code C
43	28°33'32.46"N	077°05'20.15"E	Code C
44	28°33'34.67"N	077°05'20.59"E	Code C
45L	28°33'36.23"N	077°05'22.03"E	Code C
45R	28°33'37.11"N	077°05'21.84"E	Code C
46L	28°33'37.93"N	077°05'20.65"E	Code C
46R	28°33'38.75"N	077°05'19.46"E	Code C
47L	28°33'38.71"N	077°05'17.88"E	Code C
47R	28°33'37.87"N	077°05'15.79"E	Code C
48	28°33'36.38"N	077°05'14.20"E	Code D*
49	28°33'34.94"N	077°05'12.09"E	Code D*

STAND NO.	WGS 84 CO-ORDINATE		TYPE OF AIRCRAFT
81L	28°33'44.66"N	077°05'21.19"E	Code C
81R	28°33'44.31"N	077°05'22.63"E	Code C
82L	28°33'45.35"N	077°05'18.31"E	Code C
82R	28°33'45.00"N	077°05'19.75"E	Code C
83L	28°33'45.99"N	077°05'15.42"E	Code C
83R	28°33'45.67"N	077°05'16.87"E	Code C
84L	28°33'46.66"N	077°05'12.54"E	Code C
84R	28°33'46.31"N	077°05'13.98"E	Code C
85	28°33'47.21"N	077°05'10.28"E	Code C
86	28°33'47.54"N	077°05'08.83"E	Code C
87	28°33'47.88"N	077°05'07.38"E	Code C
88	28°33'49.11"N	077°05'05.18"E	Code D*
89	28°33'49.71"N	077°05'02.68"E	Code D*
90	28°33'50.29"N	077°05'00.05"E	Code D*
91	28°33'50.91"N	077°04'57.51"E	Code D*
92	28°33'51.45"N	077°04'54.86"E	Code D*

Note;
(1) Aeronautical ground lights are not shown in chart.
(2) IHP- Intermediate Holding Position
(3) *Stand 48 & 49 are suitable for B747-300 type of aircraft
(4) *Stand 88 to 92 are suitable for B747-400 type of aircraft

Date of Aeronautical Publication
JANUARY 2018

Producing Organization
Delhi International Airport Limited
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AIRCRAFT PARKING / DOCKING CHART APRON 31

TWR MIDDLE 118.10 TWR SOUTH 125.85	SMC MIDDLE 121.90 SMC SOUTH 121.625	CLD 121.95 DCL DELCFYA

INDIA/DELHI

IGI AIRPORT

Pre-flight altimeter check location
APRON ELEV. 723 ft.

PARKING STAND DETAILS

STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
A 06	110 / R / C / W / T	28° 33' 36.025" N	077° 05' 00.468" E	CODE-C	Power in - Push back	Contact
A 08	110 / R / C / W / T	28° 33' 37.454" N	077° 04' 58.281" E	CODE-E	Power in - Push back	Contact
A 08L	110 / R / C / W / T	28° 33' 37.208" N	077° 04' 59.421" E	CODE-C	Power in - Push back	Contact
A 08R	110 / R / C / W / T	28° 33' 37.721" N	077° 04' 58.005" E	CODE-C	Power in - Push back	Contact
A 10	110 / R / C / W / T	28° 33' 39.767" N	077° 04' 56.748" E	CODE-E	Power in - Push back	Contact
A 10L	110 / R / C / W / T	28° 33' 39.520" N	077° 04' 57.887" E	CODE-C	Power in - Push back	Contact
A 10R	110 / R / C / W / T	28° 33' 40.032" N	077° 04' 56.474" E	CODE-C	Power in - Push back	Contact
A 12	110 / R / C / W / T	28° 33' 42.080" N	077° 04' 55.217" E	CODE-E	Power in - Push back	Contact
A 12L	110 / R / C / W / T	28° 33' 41.832" N	077° 04' 56.355" E	CODE-C	Power in - Push back	Contact
A 12R	110 / R / C / W / T	28° 33' 42.345" N	077° 04' 54.942" E	CODE-C	Power in - Push back	Contact
A 14	110 / R / C / W / T	28° 33' 44.392" N	077° 04' 53.682" E	CODE-E (B773 MAX)	Power in - Push back	Contact
A 14L	110 / R / C / W / T	28° 33' 44.145" N	077° 04' 54.822" E	CODE-C	Power in - Push back	Contact
A 14R	110 / R / C / W / T	28° 33' 44.657" N	077° 04' 53.407" E	CODE-C	Power in - Push back	Contact

LEGEND	
AIRCRAFT STAND	○
IHP	═:═:═:═
TUG DISCONNECT POINT	▶

NOTE :
1. AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.
2. AIRCRAFT STAND MANOEUVRING GUIDANCE LIGHTS (ASMGL) NOT AVAILABLE AT STANDS A08L, A08R, A10L, A10R, A12L, A12R, A14L, A14R.
3. ADVANCE VISUAL DOCKING GUIDANCE SYSTEM (AVDGS) NOT AVAILABLE AT STANDS A08L, A08R, A10L, A10R, A12L, A12R, A14L, A14R.
4. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

0 25 50 100 150 200 Metres

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
Airside.Planning@gmrgroup.in

AIRCRAFT PARKING / DOCKING CHART APRON 32

TWR MIDDLE 118.10
TWR SOUTH 125.85

SMC MIDDLE 121.90
SMC SOUTH 121.625

CLD 121.95
DCL DELCFYA

INDIA/DELHI

IGI AIRPORT

PARKING STAND DETAILS						
STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
A 01	110 / R / C / W / T	28° 33' 25.494" N	077° 04' 58.036" E	CODE-E	Power in - Push back	Contact
A 01L	110 / R / C / W / T	28° 33' 26.380" N	077° 04' 57.426" E	CODE-C	Power in - Push back	Contact
A 01R	110 / R / C / W / T	28° 33' 25.133" N	077° 04' 58.016" E	CODE-C	Power in - Push back	Contact
A 03	110 / R / C / W / T	28° 33' 28.086" N	077° 04' 58.806" E	CODE-E	Power in - Push back	Contact
A 03L	110 / R / C / W / T	28° 33' 28.975" N	077° 04' 58.198" E	CODE-C	Power in - Push back	Contact
A 03R	110 / R / C / W / T	28° 33' 27.726" N	077° 04' 58.785" E	CODE-C	Power in - Push back	Contact
A 07	110 / R / C / W / T	28° 33' 32.281" N	077° 04' 58.397" E	CODE-F	Power in - Push back	Contact
A 07L	110 / R / C / W / T	28° 33' 32.475" N	077° 04' 57.230" E	CODE-D (B753 MAX)	Power in - Push back	Contact
A 07R	110 / R / C / W / T	28° 33' 31.931" N	077° 04' 58.724" E	CODE-C	Power in - Push back	Contact
A 09	110 / R / C / W / T	28° 33' 34.819" N	077° 04' 56.712" E	CODE-F	Power in - Push back	Contact
A 09L	110 / R / C / W / T	28° 33' 35.014" N	077° 04' 55.544" E	CODE-D (B753 MAX)	Power in - Push back	Contact
A 09R	110 / R / C / W / T	28° 33' 34.470" N	077° 04' 57.040" E	CODE-C	Power in - Push back	Contact
A 11	110 / R / C / W / T	28° 33' 37.570" N	077° 04' 54.886" E	CODE-F	Power in - Push back	Contact
A 11L	110 / R / C / W / T	28° 33' 37.766" N	077° 04' 53.723" E	CODE-D (B753 MAX)	Power in - Push back	Contact
A 11R	110 / R / C / W / T	28° 33' 37.220" N	077° 04' 55.213" E	CODE-C	Power in - Push back	Contact
A 13	110 / R / C / W / T	28° 33' 39.900" N	077° 04' 53.341" E	CODE-E	Power in - Push back	Contact
B 15	110 / R / C / W / T	28° 33' 22.102" N	077° 04' 55.268" E	CODE-F	Power in - Push back	Contact
B 15L	110 / R / C / W / T	28° 33' 23.131" N	077° 04' 55.487" E	CODE-D (B753 MAX)	Power in - Push back	Contact
B 15R	110 / R / C / W / T	28° 33' 21.813" N	077° 04' 54.875" E	CODE-C	Power in - Push back	Contact
B 17	110 / R / C / W / T	28° 33' 20.614" N	077° 04' 52.391" E	CODE-F	Power in - Push back	Contact
B 17L	110 / R / C / W / T	28° 33' 21.645" N	077° 04' 52.613" E	CODE-D (B753 MAX)	Power in - Push back	Contact
B 17R	110 / R / C / W / T	28° 33' 20.325" N	077° 04' 51.997" E	CODE-C	Power in - Push back	Contact
B 19	110 / R / C / W / T	28° 33' 19.002" N	077° 04' 49.278" E	CODE-F	Power in - Push back	Contact
B 19L	110 / R / C / W / T	28° 33' 20.035" N	077° 04' 49.501" E	CODE-D (B753 MAX)	Power in - Push back	Contact
B 19R	110 / R / C / W / T	28° 33' 18.716" N	077° 04' 48.882" E	CODE-C	Power in - Push back	Contact
B 21	110 / R / C / W / T	28° 33' 17.651" N	077° 04' 46.660" E	CODE-E	Power in - Push back	Contact
R 01	110 / R / C / W / T	28° 33' 31.863" N	077° 04' 49.121" E	CODE-C	Power in - Push back	Remote
R 02	110 / R / C / W / T	28° 33' 29.420" N	077° 04' 49.199" E	CODE-F	Power in - Push back	Remote
R 02L	110 / R / C / W / T	28° 33' 29.375" N	077° 04' 50.714" E	CODE-C	Power in - Push back	Remote
R 02R	110 / R / C / W / T	28° 33' 30.608" N	077° 04' 49.897" E	CODE-C	Power in - Push back	Remote
R 03	110 / R / C / W / T	28° 33' 28.707" N	077° 04' 49.077" E	CODE-F	Power in - Push back	Remote
R 03L	110 / R / C / W / T	28° 33' 27.415" N	077° 04' 48.998" E	CODE-C	Power in - Push back	Remote
R 03R	110 / R / C / W / T	28° 33' 28.142" N	077° 04' 50.393" E	CODE-C	Power in - Push back	Remote
R 04	110 / R / C / W / T	28° 33' 26.635" N	077° 04' 47.637" E	CODE-C	Power in - Push back	Remote

Pre-flight altimeter check location
APRON ELEV. 723 ft

LEGEND	
AIRCRAFT STAND	○
IHP	═:═:═:═:
TUG DISCONNECT POINT	▶

0 50 100 200 300 400 Metres

NOTE :
1. AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.
2. AIRCRAFT STAND MANOEUVRING GUIDANCE LIGHTS (ASMGL) NOT AVAILABLE AT STANDS A01L, A01R, A03L, A03R, R01, R02L, R02R, R03L, R03R, R04.
3. ADVANCE VISUAL DOCKING GUIDANCE SYSTEM (AVDGS) NOT AVAILABLE AT STANDS A01L, A01R, A03L, A03R, R01, R02L, R02R, R03L, R03R, R04.
4. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
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AIRCRAFT PARKING / DOCKING CHART

APRON 33

TWR MIDDLE 118.10
TWR SOUTH 125.85

SMC MIDDLE 121.90
SMC SOUTH 121.625

CLD 121.95
DCL DELCFYA

INDIA/DELHI

IGI AIRPORT

PARKING STAND DETAILS						
STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
B 18	110 / R / C / W / T	28° 33' 18.727" N	077° 04' 54.400" E	CODE-C	Power in - Push back	Contact
B 20	110 / R / C / W / T	28° 33' 17.800" N	077° 04' 52.448" E	CODE-E	Power in - Push back	Contact
B 20L	110 / R / C / W / T	28° 33' 16.791" N	077° 04' 52.161" E	CODE-C	Power in - Push back	Contact
B 20R	110 / R / C / W / T	28° 33' 18.038" N	077° 04' 52.749" E	CODE-C	Power in - Push back	Contact
B 22	110 / R / C / W / T	28° 33' 16.392" N	077° 04' 49.895" E	CODE-E	Power in - Push back	Contact
B 22L	110 / R / C / W / T	28° 33' 15.383" N	077° 04' 49.614" E	CODE-C	Power in - Push back	Contact
B 22R	110 / R / C / W / T	28° 33' 16.633" N	077° 04' 50.195" E	CODE-C	Power in - Push back	Contact
B 24	110 / R / C / W / T	28° 33' 15.037" N	077° 04' 47.275" E	CODE-E	Power in - Push back	Contact
B 24L	110 / R / C / W / T	28° 33' 14.029" N	077° 04' 46.996" E	CODE-C	Power in - Push back	Contact
B 24R	110 / R / C / W / T	28° 33' 15.278" N	077° 04' 47.577" E	CODE-C	Power in - Push back	Contact
B 26	110 / R / C / W / T	28° 33' 13.682" N	077° 04' 44.656" E	CODE-E	Power in - Push back	Contact
B 26L	110 / R / C / W / T	28° 33' 12.674" N	077° 04' 44.377" E	CODE-C	Power in - Push back	Contact
B 26R	110 / R / C / W / T	28° 33' 13.924" N	077° 04' 44.959" E	CODE-C	Power in - Push back	Contact
C 28	110 / R / C / W / T	28° 33' 09.493" N	077° 04' 59.170" E	CODE-E	Power in - Push back	Contact
C 28L	110 / R / C / W / T	28° 33' 10.565" N	077° 04' 59.408" E	CODE-C	Power in - Push back	Contact
C 28R	110 / R / C / W / T	28° 33' 09.310" N	077° 04' 58.816" E	CODE-C	Power in - Push back	Contact
C 30	110 / R / C / W / T	28° 33' 08.137" N	077° 04' 56.549" E	CODE-E	Power in - Push back	Contact
C 30L	110 / R / C / W / T	28° 33' 09.210" N	077° 04' 56.787" E	CODE-C	Power in - Push back	Contact
C 30R	110 / R / C / W / T	28° 33' 07.953" N	077° 04' 56.192" E	CODE-C	Power in - Push back	Contact
C 32	110 / R / C / W / T	28° 33' 06.784" N	077° 04' 53.930" E	CODE-E	Power in - Push back	Contact
C 32L	110 / R / C / W / T	28° 33' 07.855" N	077° 04' 54.167" E	CODE-C	Power in - Push back	Contact
C 32R	110 / R / C / W / T	28° 33' 06.598" N	077° 04' 53.577" E	CODE-C	Power in - Push back	Contact
C 34	110 / R / C / W / T	28° 33' 05.431" N	077° 04' 51.312" E	CODE-E	Power in - Push back	Contact
C 34L	110 / R / C / W / T	28° 33' 06.501" N	077° 04' 51.549" E	CODE-C	Power in - Push back	Contact
C 34R	110 / R / C / W / T	28° 33' 05.244" N	077° 04' 50.959" E	CODE-C	Power in - Push back	Contact
C 36	110 / R / C / W / T	28° 33' 05.208" N	077° 04' 48.729" E	CODE-C	Power in - Push back	Contact

Pre-flight altimeter check location
APRON ELEV. 726 ft.

LEGEND	
AIRCRAFT STAND	○
IHP	═:═:═:═
TUG DISCONNECT POINT	▶

0 75 150 225 300 Metres

NOTE :
1. AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.
2. AIRCRAFT STAND MANOEUVRING GUIDANCE LIGHTS (ASMGL) NOT AVAILABLE AT STANDS C28, C30, C32, C34.
3. ADVANCE VISUAL DOCKING GUIDANCE SYSTEM (AVDGS) NOT AVAILABLE AT STANDS C28, C30, C32, C34.
4. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
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AIRCRAFT PARKING / DOCKING CHART APRON 34

TWR MIDDLE 118.10
TWR SOUTH 125.85

SMC MIDDLE 121.90
SMC SOUTH 121.625

CLD 121.95
DCL DELCFYA

INDIA/DELHI

IGI AIRPORT

PARKING STAND DETAILS						
STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
C 27	110 / R / C / W / T	28° 33' 08.959" N	077° 05' 03.812" E	CODE-F	Power in - Push back	Contact
C 27L	110 / R / C / W / T	28° 33' 07.930" N	077° 05' 03.591" E	CODE-D (B753)	Power in - Push back	Contact
C 27R	110 / R / C / W / T	28° 33' 09.249" N	077° 05' 04.207" E	CODE-C	Power in - Push back	Contact
C 29	110 / R / C / W / T	28° 33' 07.471" N	077° 05' 00.938" E	CODE-F	Power in - Push back	Contact
C 29L	110 / R / C / W / T	28° 33' 06.443" N	077° 05' 00.709" E	CODE-D (B753)	Power in - Push back	Contact
C 29R	110 / R / C / W / T	28° 33' 07.762" N	077° 05' 01.329" E	CODE-C	Power in - Push back	Contact
C 31	110 / R / C / W / T	28° 33' 05.831" N	077° 04' 57.751" E	CODE-F	Power in - Push back	Contact
C 31L	110 / R / C / W / T	28° 33' 04.801" N	077° 04' 57.534" E	CODE-D (B753)	Power in - Push back	Contact
C 31R	110 / R / C / W / T	28° 33' 06.121" N	077° 04' 58.146" E	CODE-C	Power in - Push back	Contact
C 33	110 / R / C / W / T	28° 33' 04.476" N	077° 04' 55.575" E	CODE-C	Power in - Push back	Contact
D 37	110 / R / C / W / T	28° 33' 09.409" N	077° 05' 09.015" E	CODE-E	Power in - Push back	Contact
D 37L	110 / R / C / W / T	28° 33' 08.872" N	077° 05' 08.005" E	CODE-C	Power in - Push back	Contact
D 37R	110 / R / C / W / T	28° 33' 09.392" N	077° 05' 09.422" E	CODE-C	Power in - Push back	Contact
D 39	110 / R / C / W / T	28° 33' 08.731" N	077° 05' 11.950" E	CODE-E	Power in - Push back	Contact
D 39L	110 / R / C / W / T	28° 33' 08.194" N	077° 05' 10.946" E	CODE-C	Power in - Push back	Contact
D 39R	110 / R / C / W / T	28° 33' 08.715" N	077° 05' 12.358" E	CODE-C	Power in - Push back	Contact
D 41	110 / R / C / W / T	28° 33' 07.516" N	077° 05' 13.945" E	CODE-C	Power in - Push back	Contact
D 43	110 / R / C / W / T	28° 33' 06.071" N	077° 05' 15.847" E	CODE-C	Power in - Push back	Contact
D 45	110 / R / C / W / T	28° 33' 04.810" N	077° 05' 16.682" E	CODE-C	Power in - Push back	Contact
D 47	110 / R / C / W / T	28° 33' 03.550" N	077° 05' 17.515" E	CODE-C	Power in - Push back	Contact
D 49	110 / R / C / W / T	28° 33' 02.286" N	077° 05' 18.357" E	CODE-C	Power in - Push back	Contact
D 51	110 / R / C / W / T	28° 33' 01.026" N	077° 05' 19.189" E	CODE-C	Power in - Push back	Contact
D 53	110 / R / C / W / T	28° 32' 59.499" N	077° 05' 20.204" E	CODE-C	Power in - Push back	Contact
D 55	110 / R / C / W / T	28° 32' 58.233" N	077° 05' 21.040" E	CODE-C	Power in - Push back	Contact
R 05	110 / R / C / W / T	28° 33' 01.414" N	077° 05' 04.779" E	CODE-C (B733 MAX)	Power in - Push back	Remote
R 06	110 / R / C / W / T	28° 33' 01.683" N	077° 05' 06.312" E	CODE-C	Power in - Push back	Remote
R 07	110 / R / C / W / T	28° 33' 01.158" N	077° 05' 07.581" E	CODE-F	Power in - Push back	Remote
R 07L	110 / R / C / W / T	28° 33' 01.899" N	077° 05' 08.636" E	CODE-C	Power in - Push back	Remote
R 07R	110 / R / C / W / T	28° 33' 02.243" N	077° 05' 07.141" E	CODE-C	Power in - Push back	Remote
R 08	110 / R / C / W / T	28° 33' 00.589" N	077° 05' 10.456" E	CODE-E	Power in - Push back	Remote
R 08L	110 / R / C / W / T	28° 33' 00.724" N	077° 05' 11.544" E	CODE-C	Power in - Push back	Remote
R 08R	110 / R / C / W / T	28° 33' 01.542" N	077° 05' 10.186" E	CODE-C	Power in - Push back	Remote
R 09	110 / R / C / W / T	28° 32' 59.814" N	077° 05' 11.801" E	CODE-C	Power in - Push back	Remote

Pre-flight altimeter check location
APRON ELEV. 729 ft.

LEGEND	
AIRCRAFT STAND	○
IHP	═:═:═:═
TUG DISCONNECT POINT	▶

0 25 50 100 150 200 Metres

NOTE :
1. AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.
2. AIRCRAFT STAND MANOEUVRING GUIDANCE LIGHTS (ASMGL) NOT AVAILABLE AT STANDS C27, C29, C31, R05, R06, R07, R07L, R07R, R08, R08R, R08L, R09.
3. ADVANCE VISUAL DOCKING GUIDANCE SYSTEM (AVDGS) NOT AVAILABLE AT STANDS C27, C29, C31, R05, R06, R07, R07L, R07R, R08, R08R, R08L, R09.
4. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
Airside.Planning@gmrgroup.in

AIRCRAFT PARKING / DOCKING CHART APRON 35

TWR MIDDLE 118.10 TWR SOUTH 125.85	SMC MIDDLE 121.90 SMC SOUTH 121.625	CLD 121.95 DCL DELCFYA

INDIA/DELHI

IGI AIRPORT

PARKING STAND DETAILS						
STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
D 46	110 / R / C / W / T	28° 33' 07.414" N	077° 05' 18.467" E	CODE-C	Power in - Push back	Contact
D 48	110 / R / C / W / T	28° 33' 06.153" N	077° 05' 19.299" E	CODE-C	Power in - Push back	Contact
D 50	110 / R / C / W / T	28° 33' 04.891" N	077° 05' 20.142" E	CODE-C	Power in - Push back	Contact
D 52	110 / R / C / W / T	28° 33' 03.628" N	077° 05' 20.977" E	CODE-C	Power in - Push back	Contact
D 54	110 / R / C / W / T	28° 33' 02.368" N	077° 05' 21.812" E	CODE-C	Power in - Push back	Contact
D 56	110 / R / C / W / T	28° 33' 01.105" N	077° 05' 22.649" E	CODE-C	Power in - Push back	Contact
D 58	110 / R / C / W / T	28° 32' 59.844" N	077° 05' 23.484" E	CODE-C	Power in - Push back	Contact
D 60	110 / R / C / W / T	28° 32' 58.582" N	077° 05' 24.319" E	CODE-C	Power in - Push back	Contact
D 62	110 / R / C / W / T	28° 32' 57.322" N	077° 05' 25.160" E	CODE-C	Power in - Push back	Contact
E 64	110 / R / C / W / T	28° 33' 07.664" N	077° 05' 24.129" E	CODE-C	Power in - Push back	Remote
E 66	110 / R / C / W / T	28° 33' 07.304" N	077° 05' 25.705" E	CODE-C	Power in - Push back	Remote
E 68	110 / R / C / W / T	28° 33' 06.097" N	077° 05' 27.804" E	CODE-C	Power in - Push back	Remote
E 70	110 / R / C / W / T	28° 33' 04.835" N	077° 05' 28.642" E	CODE-C	Power in - Push back	Remote
E 72	110 / R / C / W / T	28° 33' 03.573" N	077° 05' 29.479" E	CODE-C	Power in - Push back	Remote
E 74	110 / R / C / W / T	28° 33' 02.313" N	077° 05' 30.315" E	CODE-C	Power in - Push back	Remote
E 76	110 / R / C / W / T	28° 33' 01.051" N	077° 05' 31.153" E	CODE-C	Power in - Push back	Remote
E 78	110 / R / C / W / T	28° 32' 59.773" N	077° 05' 31.957" E	CODE-C	Power in - Push back	Remote
E 80	110 / R / C / W / T	28° 32' 58.511" N	077° 05' 32.791" E	CODE-C	Power in - Push back	Remote
E 82	110 / R / C / W / T	28° 32' 57.265" N	077° 05' 33.655" E	CODE-C	Power in - Push back	Remote
E 84	110 / R / C / W / T	28° 32' 56.003" N	077° 05' 34.491" E	CODE-C	Power in - Push back	Remote

Pre-flight altimeter check location
Complete APRON
APRON ELEV. 737 ft.

LEGEND	
AIRCRAFT STAND	○
IHP	═ : ═ : ═
TUG DISCONNECT POINT	▶

0 25 50 100 150 200 Metres

NOTES :
1. AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.
2. AIRCRAFT STAND MANOEUVRING GUIDANCE LIGHTS (ASMGL) IS AVAILABLE AT EACH STAND.
3. ADVANCE VISUAL DOCKING GUIDANCE SYSTEM (AVDGS) NOT AVAILABLE FROM STAND E64-E84.
4. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
Airside.Planning@gmrgroup.in

AIRCRAFT PARKING/ DOCKING CHART-ICAO

TWR MIDDLE 118.10
TWR SOUTH 125.85

SMC MIDDLE 121.90
SMC SOUTH 121.625

CLD 121.95
DCL DELCFYA

INDIA/DELHI
IGI AIRPORT

CARGO APRON

Pre-flight altimeter check Location
Apron Elevation : 743 Feet

S. No	Aircraft Stand No.	Aircraft Stand Co-ordinates (WGS 84)	PCN	Surface	Contact/ Remote	Aircraft Suitability
1	201	28°33'33.54"N 077°06'05.99"E	109 R/B/W/T	Concrete	Remote	Code A*
2	202	28°33'33.72"N 077°06'05.17"E	109 R/B/W/T	Concrete	Remote	Code A*
3	203	28°33'33.91"N 077°06'04.35"E	109 R/B/W/T	Concrete	Remote	Code A*
4	204	28°33'34.09"N 077°06'03.53"E	109 R/B/W/T	Concrete	Remote	Code A*
5	205	28°33'34.28"N 077°06'02.72"E	109 R/B/W/T	Concrete	Remote	Code A*
6	206	28°33'34.47"N 077°06'01.90"E	109 R/B/W/T	Concrete	Remote	Code A*
7	207	28°33'34.66"N 077°06'01.09"E	109 R/B/W/T	Concrete	Remote	Code A*
8	208	28°33'35.20"N 077°06'06.32"E	109 R/B/W/T	Concrete	Remote	Code A*
9	209	28°33'35.44"N 077°06'05.31"E	109 R/B/W/T	Concrete	Remote	Code A*
10	210	28°33'35.63"N 077°06'04.49"E	109 R/B/W/T	Concrete	Remote	Code A*
11	211	28°33'35.81"N 077°06'03.68"E	109 R/B/W/T	Concrete	Remote	Code A*

S. No	Aircraft Stand No	Aircraft Stand Co-ordinates (WGS 84)	PCN	Surface	Contact/ Remote	Aircraft Suitability
12	212	28° 33' 36.00"N 077° 06' 02.86" E	109 / R / B / W / T	Concrete	Remote	Code A*
13	213	28° 33' 36.26"N 077° 06' 01.77" E	109 / R / B / W / T	Concrete	Remote	Code A*
14	214	28° 33' 36.45" N 077° 06' 00.95" E	109 / R / B / W / T	Concrete	Remote	Code A*
15	98	28° 33' 25.941" N 077° 06' 11.03" E	56 / R / B / W / T	Concrete	Remote	Code E
16	99	28° 33' 27.056" N 077° 06' 06.30" E	56 / R / B / W / T	Concrete	Remote	Code E
17	100	28° 33' 27.713" N 077° 06' 03.75" E	56 / R / B / W / T	Concrete	Remote	Code E
18	101	28° 33' 28.768" N 077° 05' 59.07" E	56 / R / B / W / T	Concrete	Remote	Code E
19	102	28° 33' 29.371" N 077° 05' 56.50" E	63 / R / B / W / U	Concrete	Remote	Code E
20	103	28° 33' 30.386" N 077° 05' 51.52" E	56 / R / B / W / T	Concrete	Remote	Code F
21	104	28° 33' 34.623" N 077° 06' 09.20" E	109 / R / B / W / T	Concrete	Remote	Code E

NOTE:
* STANDS 201-214 ARE SUITABLE FOR AIRCRAFT WITH WINGSPAN UPTO 20M & FUSELAGE LENGTH 20M
1.AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART
2.ADVANCE VISUAL DOCKING GUIDANCE SYSTEM(AVDGS) NOT AVAILABLE AT ANY STAND
3.IHP-INTERMEDIATE HOLDING POSITION
4.STANDS 98-104 ARE POWER IN PUSH BACK
5.STANDS 201-207 ARE POWER IN-POWER OUT
6.STANDS 208-214 ARE POWER IN PUSH BACK
7.TAXILANE L1A & L2A ARE SUITABLE FOR CODE B TYPE OF AIRCRAFT

DATE OF AERONAUTICAL PUBLICATION
FEBRUARY 2018

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
DIAL-AIRSIDE-PLANNING@gmrgroup.in

AIRCRAFT PARKING / DOCKING CHART TWY 15/33

TWR NORTH 118.75 TWR MIDDLE 118.10	SMC NORTH 121.75 SMC MIDDLE 121.90	CLD 121.95 DCL DELCFYA

INDIA/DELHI
IGI AIRPORT

Pre-flight altimeter check location
APRON ELEV. 740 ft.

PARKING STAND DETAILS						
STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
801	38 / F / B / W / T	28° 34' 17.550" N	077° 06' 29.590" E	UPTO CODE LETTER E	Power in - Push back	Remote

LEGEND	
AIRCRAFT STAND	○
RHP	

0 15 30 60 90 120 Metres

NOTE :
1. AERONAUTICAL GROUND LIGHTS ARE NOT AVAILABLE.
2. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
Airside.Planning@gmrgroup.in

AIRCRAFT PARKING / DOCKING CHART TWY T DUMBBELL

TWR MIDDLE 118.10 TWR SOUTH 125.85	SMC MIDDLE 121.90 SMC SOUTH 121.625	CLD 121.95 DCL DELCFYA

INDIA/DELHI

IGI AIRPORT

DATUM: WGS 84
GEOID MODEL - EGM 2008
ELEVATIONS IN FEET
DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

Pre-flight altimeter check location
APRON ELEV. 770 ft.

PARKING STAND DETAILS						
STAND NO.	PCN	WGS 84 CO-ORDINATES		TYPE OF AIRCRAFT	REMARKS	CONTACT / REMOTE
802	93 / F / C / W / T	28° 32' 38.578" N	077° 06' 32.436" E	UPTO CODE LETTER F	Power in - Push back	Remote

LEGEND	
AIRCRAFT STAND	○
IHP	═ : ═ : ═ : ═ : ═ : ═

0 25 50 100 150 200 Metres

NOTE :
1. AERONAUTICAL GROUND LIGHTS ARE NOT AVAILABLE.
2. IHP - INTERMEDIATE HOLDING POSITION.

AERONAUTICAL INFORMATION UPTO JUNE 2016.

PRODUCING ORGANIZATION
DELHI INTERNATIONAL AIRPORT LIMITED
Airside.Planning@gmrgroup.in

AERODROME OBSTACLE CHART

INDIA / DELHI

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

TYPE - A (OPERATING LIMITATIONS)

IGI AIRPORT / RWY 09

MAGNETIC VARIATION 0° 45' E (2010)

DECLARED DISTANCES

RWY 09		RWY 27
2816	TAKE-OFF RUN AVAILABLE	2816
3249	TAKE-OFF DISTANCE AVAILABLE	3516
2816	ACCELERATE STOP DISTANCE AVAILABLE	2816
2816	LANDING DISTANCE AVAILABLE	2665

LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	1	
CELLPHONE MAST / LIGHT POLE		
ELECTRIC TRACTION OVERHEAD FRAME		1
TREE		
OVERHEAD WATER TANK		
RWY ELEV. (SPOT)	▪ 718	

ORDER OF ACCURACY

HORIZONTAL : 3.0 m
VERTICAL : 1.0 ft

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are AMSL.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy direction rounded to nearest degree.(Magnetic) (In degree minute : Rwy 09/27 = 90°44'/270°44) (taken upto 2016)
6. Considering App.Lights and LLZ Antenna as frangible are not taken in this chart.
7. All obstacles shown in this chart are based on aeronautical obstacle Survey of February, 2016 to June,2016 and DIAL ltr no.4800122788 DT 28 Oct 2015.

AMENDMENT RECORD

NO.	DATE	ENTERED BY

AERODROME OBSTACLE CHART

INDIA / DELHI

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

TYPE - A (OPERATING LIMITATIONS)

IGI AIRPORT / RWY 10

MAGNETIC VARIATION 0° 45' E (2010)

RWY 10/28

DECLARED DISTANCES		
RWY 10		RWY 28
3813	TAKE-OFF RUN AVAILABLE	3813
3813	TAKE-OFF DISTANCE AVAILABLE	3813
3813	ACCELERATE STOP DISTANCE AVAILABLE	3813
3813	LANDING DISTANCE AVAILABLE	3813

HORIZONTAL SCALE 1 : 15000

METRES

500 0 500 1,000 1,500

1,000 0 1,000 2,000 3,000 4,000

FEET

LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	1	
LIGHT POLE		
TREE		
BUILDING		
RWY ELEV. (SPOT)	721	

ORDER OF ACCURACY	
HORIZONTAL	: 3.0 m
VERTICAL	: 1.0 ft

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are AMSL.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy direction rounded to nearest degree.(Magnetic) (In degree minute : Rwy 10/28 = 103°59'/283°59) (taken upto 2016)
6. Considering App.Lights and LLZ Antenna as frangible are not taken in this chart.
7. All obstacles shown in this chart are based on aeronautical obstacle Survey of February, 2016 to June,2016 and DIAL ltr no.4800122788 DT 28 Oct 2015.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERODROME OBSTACLE CHART

INDIA / DELHI

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

TYPE - A (OPERATING LIMITATIONS)

IGI AIRPORT / RWY 11

MAGNETIC VARIATION 0° 45' E (2010)

RWY 11/29

DECLARED DISTANCES		
RWY 11		RWY 29
4110	TAKE-OFF RUN AVAILABLE	4430
4110	TAKE-OFF DISTANCE AVAILABLE	4430
4430	ACCELERATE STOP DISTANCE AVAILABLE	4430
3465	LANDING DISTANCE AVAILABLE	2970

HORIZONTAL SCALE 1 : 20000

METRES

500 0 500 1,000 1,500

1,000 0 1,000 2,000 3,000 4,000

FEET

LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	1	
PYLON / CELLPHONE MAST/ LIGHT POLE		
TREE		
BUILDING		
RWY ELEV. (SPOT)	721	

ORDER OF ACCURACY	
HORIZONTAL	: 3.0 m
VERTICAL	: 1.0 ft

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are AMSL.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy direction rounded to nearest degree.(Magnetic) (In degree minute : Rwy 11/29 = 102°54'/282°54') (taken upto 2016)
6. Considering App.Lights and LLZ Antenna as frangible are not taken in this chart.
7. All obstacles shown in this chart are based on aeronautical obstacle Survey of February, 2016 to June,2016 and DIAL ltr no.4800122788 DT 28 Oct 2015.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERODROME OBSTACLE CHART

INDIA / DELHI

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

TYPE - A (OPERATING LIMITATIONS)

IGI AIRPORT / RWY 27

MAGNETIC VARIATION 0° 45' E (2010)

RWY 09/27

DECLARED DISTANCES		
RWY 09		RWY 27
2816	TAKE-OFF RUN AVAILABLE	2816
3249	TAKE-OFF DISTANCE AVAILABLE	3516
2816	ACCELERATE STOP DISTANCE AVAILABLE	2816
2816	LANDING DISTANCE AVAILABLE	2665

HORIZONTAL SCALE 1 : 15000

METRES

500 0 500 1,000 1,500

1,000 0 1,000 2,000 3,000 4,000

FEET

LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	1	
CELLPHONE MAST	⊙	
TREE	✳	
BUILDING	■	
RWY ELEV. (SPOT)	▪718	

ORDER OF ACCURACY	
HORIZONTAL	: 3.0 m
VERTICAL	: 1.0 ft

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are AMSL.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy direction rounded to nearest degree.(Magnetic) (In degree minute : Rwy 09/27 = 90°44'/270°44) (taken upto 2016)
6. Considering App.Lights and LLZ Antenna as frangible are not taken in this chart.
7. All obstacles shown in this chart are based on aeronautical obstacle Survey of February, 2016 to June,2016 and DIAL ltr no.4800122788 DT 28 Oct 2015.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERODROME OBSTACLE CHART

INDIA / DELHI

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

TYPE - A (OPERATING LIMITATIONS)

IGI AIRPORT / RWY 28

MAGNETIC VARIATION 0° 45' E (2010)

RWY 10/28

DECLARED DISTANCES		
RWY 10		RWY 28
3813	TAKE-OFF RUN AVAILABLE	3813
3813	TAKE-OFF DISTANCE AVAILABLE	3813
3813	ACCELERATE STOP DISTANCE AVAILABLE	3813
3813	LANDING DISTANCE AVAILABLE	3813

HORIZONTAL SCALE 1 : 15000

METRES

500 0 500 1,000 1,500

1,000 0 1,000 2,000 3,000 4,000

FEET

LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	1	
CELLPHONE MAST		
TREE		
BUILDING		
RWY ELEV. (SPOT)	▪721	

ORDER OF ACCURACY	
HORIZONTAL	: 3.0 m
VERTICAL	: 1.0 ft

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are AMSL.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy direction rounded to nearest degree.(Magnetic) (In degree minute : Rwy 10/28 = 103°59'/283°59) (taken upto 2016)
6. Considering App.Lights and LLZ Antenna as frangible are not taken in this chart.
7. All obstacles shown in this chart are based on aeronautical obstacle Survey of February, 2016 to June,2016 and DIAL ltr no.4800122788 DT 28 Oct 2015.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERODROME OBSTACLE CHART

INDIA / DELHI

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

TYPE - A (OPERATING LIMITATIONS)

IGI AIRPORT / RWY 29

MAGNETIC VARIATION 0° 45' E (2010)

RWY 11/29

DECLARED DISTANCES		
RWY 11		RWY 29
4110	TAKE-OFF RUN AVAILABLE	4430
4110	TAKE-OFF DISTANCE AVAILABLE	4430
4430	ACCELERATE STOP DISTANCE AVAILABLE	4430
3465	LANDING DISTANCE AVAILABLE	2970

HORIZONTAL SCALE 1 : 15000

METRES

500 0 500 1,000 1,500

1,000 0 1,000 2,000 3,000 4,000

FEET

LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	①	①
TREE	✳	
LIGHT POLE	⊙	
RWY ELEV. (SPOT)	▪721	

ORDER OF ACCURACY	
HORIZONTAL	: 3.0 m
VERTICAL	: 1.0 ft

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are AMSL.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy direction rounded to nearest degree.(Magnetic) (In degree minute : Rwy 11/29 = 102°54'/282°54') (taken upto 2016)
6. Considering App.Lights and LLZ Antenna as frangible are not taken in this chart.
7. All obstacles shown in this chart are based on aeronautical obstacle Survey of February, 2016 to June,2016 and DIAL ltr no.4800122788 DT 28 Oct 2015.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

DEPARTURE RUNWAY 09

TAKE-OFF RUN AVAILABLE FROM DIFFERENT RUNWAY INTERSECTIONS

RUNWAY 09			
ENTRY TWY	K	E3	D
TORA (M)	2816	2682	1856

NOT TO SCALE

DEPARTURE RUNWAY 10

TAKE-OFF RUN AVAILABLE FROM DIFFERENT RUNWAY INTERSECTIONS

RUNWAY 10					
ENTRY TWY	N	K	E4	M	D
TORA (M)	3813	3813	3265	2839	2752

NOT TO SCALE

DEPARTURE RUNWAY 11

TAKE-OFF RUN AVAILABLE FROM DIFFERENT RUNWAY INTERSECTIONS

RUNWAY 11				
ENTRY TWY	Z9	Z8	S5	S4
TORA (M)	4110	4110	3933	3834

NOT TO SCALE

DEPARTURE RUNWAY 27

TAKE-OFF RUN AVAILABLE FROM DIFFERENT RUNWAY INTERSECTIONS

RUNWAY 27			
ENTRY TWY	A	C1	E
TORA (M)	2816	2776	2106

NOT TO SCALE

DEPARTURE RUNWAY 28

TAKE-OFF RUN AVAILABLE FROM DIFFERENT RUNWAY INTERSECTIONS

RUNWAY 28				
ENTRY TWY	P1	W	C	E
TORA (M)	3813	3356	3338	3178

NOT TO SCALE

DEPARTURE RUNWAY 29

TAKE-OFF RUN AVAILABLE FROM DIFFERENT RUNWAY INTERSECTIONS

RUNWAY 29				
ENTRY TWY	Z1	CE1	CE2	Z2
TORA (M)	4430	4430	4334	3932

NOT TO SCALE

ARRIVAL RUNWAY 09

LOCATION OF DIFFERENT EXIT TAXIWAYS FROM THRESHOLD

RUNWAY 09			
EXIT TWY	E	C1	A
DISTANCE FROM THR. (M)	2106	2776	2816

NOT TO SCALE

ARRIVAL RUNWAY 10

LOCATION OF DIFFERENT EXIT TAXIWAYS FROM THRESHOLD

RUNWAY 10								
EXIT TWY	F	U RET	B	V RET	E	C	W	P1
DISTANCE FROM THR. (M)	2436	2436	2961	2961	3178	3338	3356	3813

RET: RAPID EXIT TAXIWAY

ARRIVAL RUNWAY 11

LOCATION OF DIFFERENT EXIT TAXIWAYS FROM THRESHOLD

RUNWAY 11				
EXIT TWY	Z5 RET	Z4 RET	Z3 RET	Z2
DISTANCE FROM THR. (M)	1898	2247	2648	3294

RET- RAPID EXIT TAXIWAY

NOT TO SCALE

ARRIVAL RUNWAY 27

LOCATION OF DIFFERENT EXIT TAXIWAYS FROM THRESHOLD

RUNWAY 27				
EXIT TWY	D	E5 RET	E3	K
DISTANCE FROM THR. (M)	1856	2328	2682	2816

NOT TO SCALE

ARRIVAL RUNWAY 28

LOCATION OF DIFFERENT EXIT TAXIWAYS FROM THRESHOLD

RUNWAY 28							
EXIT TWY	L	D1 RET	M	D	E4	K	N
DISTANCE FROM THR. (M)	2212	2312	2839	2752	3265	3813	3813

RET- RAPID EXIT TAXIWAY UP TO CODE LETTER 'C' AIRCRAFT

NOT TO SCALE

ARRIVAL RUNWAY 29

LOCATION OF DIFFERENT EXIT TAXIWAYS FROM THRESHOLD

RUNWAY 29					
EXIT TWY	Z6 RET	Z7 RET	S4	S5	Z8
DISTANCE FROM THR. (M)	2067	2316	2700	2800	2970

RET: RAPID EXIT TAXIWAY

NOT TO SCALE

Runway 11 ILS CAT IIIB Critical and Sensitive Areas

Runway 28 ILS CAT IIIB Critical and Sensitive Areas

Runway 29 ILS CAT IIIB Critical and Sensitive Areas

LVP TAXI ROUTING - WESTERLY ARRIVAL - RWY 28 & RWY 29

LVP TAXI ROUTING - WESTERLY DEPARTURE - RWY 28 & RWY 29

LVP TAXI ROUTING - EASTERLY ARRIVAL - RWY 11
Easterly Arrival
ARRIVAL RWY 11
INTERMEDIATE HOLDING POSITION LIGHTS
RUNWAY HOLDING POSITION
STOP BAR
N
27
09
10
28
11
29
2816m
RUNWAY 09-27
3813m
RUNWAY 10-28
4430m
RUNWAY 11-29
ARP
HANGARS
DOMESTIC APRON
SATELLITE APRON
FS 4
DOMESTIC ARRIVAL
TERMINAL 1D
TERMINAL 1A
FIRE STATION 3
GENERAL AVIATION APRON
REMOTE APRON
AIR INDIA ENGG COMPLEX
APRON 31
APRON 32
APRON 33A
APRON 33B
APRON 34
APRON 35
TERMINAL 2
TERMINAL 3
CARGO APRON
CARGO TERMINAL
MAINTENANCE APRON
CONTROL TOWER
ATS COMPLEX
FIRE STATION 2
FIRE STATION 1
Curve portion lights shall be off. These lights can be "put on" when stop bar is switched off
Straight portion lights upto 90 mtr lights shall be off. These lights can be "Put on" when stop bar is switched off.
Straight portion upto 90 mtrs and curve portion lights shall be off. These lights can be "put on" when the stop bar of respective route is switched off.
NOT TO SCALE

LVP TAXI ROUTING - EASTERLY DEPARTURE - RWY 10 & RWY 11
Easterly Departure
DEPARTURE RWY 10
DEPARTURE RWY 11
INTERMEDIATE HOLDING POSITION LIGHTS
STOP BARS
RUNWAY HOLDING POSITION
HOT SPOT
N
09
27
10
28
11
29
2816m
RUNWAY 09-27
3813m
RUNWAY 10-28
4430m
RUNWAY 11-29
ARP
SATELLITE APRON
DOMESTIC APRON
HANGARS
DOMESTIC ARRIVAL
TERMINAL 1D
TERMINAL 1A
FS 4
GENERAL AVIATION APRON
FIRE STATION 3
REMOTE APRON
AIR INDIA ENGG COMPLEX
APRON 31
CARGO APRON
CARGO TERMINAL
MAINTENANCE APRON
CONTROL TOWER
ATS COMPLEX
TERMINAL 2
FIRE STATION 2
APRON 32
TERMINAL 3
APRON 33A
APRON 33B
APRON 34
APRON 35
FIRE STATION 1
Curve portion lights shall be off. These lights can be "put on" when stop bar is switched off
Straight portion lights upto 90 mtr lights shall be off. These lights can be "Put on" when stop bar is switched off.
Straight portion upto 90 mtrs and curve portion lights shall be off. These lights can be "put on" when the stop bar of respective route is switched off.
NOT TO SCALE

PRECISION APPROACH TERRAIN CHART

INDIA / DELHI

DISTANCES AND ELEVATIONS IN METRES

CONSULT NOTAM FOR LATEST INFORMATION

IGI AIRPORT / RWY 09

HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 500

CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR.

LEGEND	
CONTOUR	1
CENTERLINE PROFILE	
APPROACH LIGHTS	

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO - JUNE 2016

BASED ON GOSOFT SURVEY FEB 2016 - JUNE 2016

Map Ref. : QA.PAT.IGI:IN 1/1
Date of Issue : 01-09-2016
Supersedes Date : Original

PRECISION APPROACH TERRAIN CHART

INDIA / DELHI

DISTANCES AND ELEVATIONS IN METRES

CONSULT NOTAM FOR LATEST INFORMATION

IGI AIRPORT / RWY 10

HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 500

CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR.

LEGEND	
CONTOUR	1
CENTERLINE PROFILE	
APPROACH LIGHTS	

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO - JUNE 2016

BASED ON GOSOFT SURVEY FEB 2016 - JUNE 2016

Map Ref. : QA.PAT.IGI:IN 1/1
Date of Issue : 06-09-2016
Supersedes Date : Original

PRECISION APPROACH TERRAIN CHART

INDIA / DELHI

DISTANCES AND ELEVATIONS IN METRES

CONSULT NOTAM FOR LATEST INFORMATION

IGI AIRPORT / RWY 11

HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 500

CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR.

LEGEND	
CONTOUR	1
CENTERLINE PROFILE	
APPROACH LIGHTS	

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO - JUNE 2016

BASED ON GOSOFT SURVEY FEB 2016 - JUNE 2016

Map Ref. : QA.PAT.IGI:IN 1/1
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PRECISION APPROACH TERRAIN CHART

INDIA / DELHI

DISTANCES AND ELEVATIONS IN METRES

CONSULT NOTAM FOR LATEST INFORMATION

IGI AIRPORT / RWY 27

HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 500

CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR.

LEGEND	
CONTOUR	1
CENTERLINE PROFILE	
APPROACH LIGHTS	

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO - JUNE 2016

BASED ON GOSOFT SURVEY FEB 2016 - JUNE 2016

Map Ref. : QA.PAT.IGI:IN 1/1
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PRECISION APPROACH TERRAIN CHART

INDIA / DELHI

DISTANCES AND ELEVATIONS IN METRES

CONSULT NOTAM FOR LATEST INFORMATION

IGI AIRPORT / RWY 28

HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 500

CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR.

LEGEND	
CONTOUR	1
CENTERLINE PROFILE	
APPROACH LIGHTS	

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO - JUNE 2016

BASED ON GOSOFT SURVEY FEB 2016 - JUNE 2016

Map Ref. : QA.PAT.IGI:IN 1/1
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PRECISION APPROACH TERRAIN CHART

INDIA / DELHI

DISTANCES AND ELEVATIONS IN METRES

CONSULT NOTAM FOR LATEST INFORMATION

IGI AIRPORT / RWY 29

HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 500

CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RWY THR.

LEGEND	
CONTOUR	1
CENTERLINE PROFILE	
APPROACH LIGHTS	

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO - JUNE 2016

BASED ON GOSOFT SURVEY FEB 2016 - JUNE 2016

Map Ref. : QA.PAT.IGI:IN 1/1
Date of Issue : 06-09-2016
Supersedes Date : Original

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 09–ELEV 717ft

DELHI
INDIA
ILS RWY 09

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

O C A (H)			Distance (IDIA)/Altitude information for G.P.inoperative procedure					
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	5.9	5	4	3	2
STRAIGHT–IN	920(203)	920(203)	Altitude (ft.)	2600	2310	1990	1670	1360
VISUAL CIRCLING	1470(693)	1570(793)	Rate of Descent /Ground speed information					
G.P.Inoperative procedure			Ground speed (kt.)		80	100	120	140	160	180
STRAIGHT–IN	1180(463)	1180(463)	Rate of descent (ft/min)		420	525	630	735	845	950
VISUAL CIRCLING	1470(693)	1570(793)								
DRG. NO. AAI/23–IALC/11/01.05.2016										

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 27–ELEV 750ft

DELHI
INDIA
ILS RWY 27

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

Missed Approach

Turn right on heading 300° M to establish R-316 (116.1DPN) climbing to F2600ft. At 10 DME (DPN) climb to FL70 to join holding at SAMPLA VOR (117.0 SAM) at F70 or as instructed by ATC (Caution:-No turn before MAPt).

NAUTICAL MILES FROM THR RWY 27 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

O C A (H)			Distance (IDLH) / Altitude information for G.P.inoperative Procedure					
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	5.8D	5D	4D	3D	2D
STRAIGHT–IN	1020(270)	1020(270)	Altitude(Ft.)	2600	2350	2030	1710	1390
VISUAL CIRCLING	1470(693)	1570(793)	Time & Rate of Descent information for G.P.inoperative Procedure					
GP In–Operative procedure			Distance from FAF to MAPt 4.8NM					
STRAIGHT–IN	1190(440)	1190(440)	Ground speed (kt.)	80	100	120	140	160	180
VISUAL CIRCLING	1470(693)	1570(793)	Time(Min :Sec)	3:36	2:53	2:24	2:03	1:48	1:36
			Rate of descent (ft/min)	425	530	640	745	850	955

DRG. NO. AAI/20–IALC/04/01.05.2016

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 10 ELEV 719ft

DELHI
INDIA
ILS RWY 10

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

O C A (H)		
CATEGORY OF AIRCRAFT	A/B	C/D
STRAIGHT-IN	970(251)	990(271)
VISUAL CIRCLING	1470(693)	1570(793)
G.P.Inoperative procedure		
STRAIGHT-IN	1120(401)	1120(401)
VISUAL CIRCLING	1470(693)	1570(793)

Distance (IDEL)/Altitude information for G.P.inoperative procedure					
Distance(NM)	6	5	4	3	2
Altitude (ft.)	2600	2300	1990	1670	1360

Rate of Descent /Ground speed information						
DISTANCE FROM FAF to MAPt : 5 NM						
Ground speed (kt.)	80	100	120	140	160	180
Time (Min:Sec)	3:45	3:00	2:30	2:08	1:52	1:40
Rate of descent (ft/min)	420	525	630	735	845	950

DRG. NO. AAI/22-IALC/04/01.05.2016

INSTRUMENT
APPROACH
CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 28–ELEV 777ft

DELHI
INDIA
ILS (CAT–I) RWY 28

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

MISSED APPROACH

Climb straight ahead 2600ft, Crossing NDB(274 DP) or 5D (116.1DPN) turn RIGHT on heading 345°M to establish R–316(116.1DPN) at 10D climb at FL70 to join holding at SAMPLA VOR(117.0 SAM) at FL70 or as instructed by ATC.

NAUTICAL MILES FROM THR RWY 28 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

O C A (H)			Distance (IPLM) / Altitude information for G.P.inoperative Procedure				
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	4.3D	4D	3D	2D
STRAIGHT–IN	986(209)	1006(229)	Altitude(Ft.)	2140	2040	1720	1400
VISUAL CIRCLING	1470(693)	1570(793)	Rate of Descent information for G.P.inoperative Procedure				
GP In–Operative procedure			MAPt – 1D (ILS–DME)				
STRAIGHT–IN	1220(443)	1220(443)	Ground speed (kt.)	100	120	140	160	180
VISUAL CIRCLING	1470(693)	1570(793)	Rate of descent (ft/min)	530	635	745	850	955

DRG. NO. AAI/20–IALC/08/19.07.2018

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 28–ELEV 777ft

DELHI
INDIA
ILS (CAT–II/IIIA/IIIB) RWY 28

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

MISSED APPROACH

Climb straight ahead to 2600ft, Crossing NDB(274 DP) or 5D (116.1DPN) turn RIGHT on heading 345°M to establish R–316(DPN).At 10D(DPN) climb to FL70 to join holding at SAMPLA VOR(117.0 SAM) at FL70 or as instructed by ATC.

		OCA(FT)	DH(FT)	RVR(M)
STRAIGHT–IN	Cat II	877	100	300
	Cat IIIA	NA	50	175
	Cat IIIB	NA	NA	50

RA 95

DRG. NO. AAI/17–IALC/04/19.07.2018

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.

HEIGHTS RELATED TO THR RWY 11 ELEV 723ft

DELHI

INDIA

ILS(Cat–1) RWY 11

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

Transition Alt 4000

Missed Approach

Climb straight ahead,at 1.5D(IDMR) after the THR Turn RIGHT on heading 140 to establish R–125(114.6DIG) climbing to 2600ft. crossing 16D (DIG) Turn left to proceed to VOR(112.4 SSB) VIA R–270(SSB),crossing 16D(SSB) climb to FL70 to join holding procedure or as instructed by ATC.

ILS RDH 50

17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 NAUTICAL MILES FROM THR RWY 11

O C A (H)		
CATEGORY OF AIRCRAFT	A/B	C/D
STRAIGHT–IN	924(201)	924(201)
VISUAL CIRCLING	1470(693)	1570(793)
G.P.Inoperative procedure		
STRAIGHT–IN	1180(457)	1180(457)
VISUAL CIRCLING	1470(693)	1570(793)

Distance (IDMR)/Altitude information for G.P.inoperative procedure

Distance(NM)	5.9D	5D	4D	3D	2D
Altitude (ft.)	2600	2310	2000	1680	1360

Rate of Descent /Ground speed information

DISTANCE FROM FAF to MAPt : 5 NM

Ground speed (kt.)	80	100	120	140	160	180
Rate of descent (ft/min)	420	525	630	735	845	950

DRG. NO. AAI/21–IALC/08/01.05.2016

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO THR RWY 11 ELEV 723ft

DELHI
INDIA
ILS (CAT–II/IIIA/IIIB) RWY 11

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

Missed Approach

Climb straight ahead,at 1.5D(IDMR) after the THR Turn RIGHT on heading 140 to establish R–125(114.6DIG) climbing to 2600ft. crossing 16D (DIG) Turn left to proceed to VOR(112.4 SSB) VIA R–270(SSB),crossing 16D(SSB) climb to FL70 to join holding procedure or as instructed by ATC.

		OCA (ft)	DH(ft)	RVR(m)
STRAIGHT–IN	Cat II	824	100	300
	Cat IIIA	NA	50	175
	Cat IIIB	NA	NA	50

RA 102

DRG. NO. AAI/18–IALC/09/01.05.2016

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 29–ELEV 751ft

DELHI
INDIA

ILS (CAT–II/IIIA/IIIB) RWY 29

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

		OCA (ft)	DH(ft)	RVR(m)
STRAIGHT–IN	Cat II	851	100	300
	Cat IIIA	NA	50	175
	Cat IIIB	NA	NA	50

RA 92

DRG. NO. AAI/16–IALC/08/01.05.2016

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 29–ELEV 751ft

DELHI
INDIA
ILS (CAT–I) RWY 29

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

O C A (H)			Distance (IDGM) / Altitude information for G.P.inoperative Procedure					
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	5.8D	5D	4D	3D	2D
STRAIGHT–IN	951(200)	951(200)	Altitude(Ft.)	2600	2340	2020	1700	1380
VISUAL CIRCLING	1470(693)	1570(793)	Time & Rate of Descent information for G.P.inoperative Procedure					
GP In–Operative procedure			Ground speed (kt.)	100	120	140	160	180
STRAIGHT–IN	1280(529)	1280(529)	Rate of descent (ft/min)	530	635	745	850	955
VISUAL CIRCLING	1470(693)	1570(793)						

DRG. NO. AAI/19–IALC/08/01.05.2016

INSTRUMENT
APPROACH
CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 09 ELEV 717ft

DELHI
INDIA
VOR(Z) RWY 09

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

O C A (H)			Distance VOR-DME (DPN) Altitude information						
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	6.2	6	5	4	3	2
STRAIGHT-IN	1270(553)	1270(553)	Altitude (ft.)	2600	2550	2230	1920	1600	1280
VISUAL CIRCLING	1470(693)	1570(793)	Rate of Descent /Ground speed information						
			Ground speed (kt.)			80	100	120	140	160	180
			Rate of descent (ft/min)			420	525	630	735	845	950

DRG. NO. AAI/14-IALC/08/01.05.2016

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 10 ELEV 719ft

DELHI
INDIA
VOR (Z) RWY 10

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

Transition Alt. 4000

Missed Approach

Climb straight ahead to 2600ft., climbing turn RIGHT on heading 120°M to establish R-107 (116.1 DPN) to join holding at SSB VOR at FL70 or as instructed by ATC.

O C A (H)			Distance VOR-DME (DPN) Altitude information						
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	6.3	6	5	4	3	2
STRAIGHT-IN	1270(551)	1270(551)	Altitude (ft.)	2600	2500	2180	1870	1550	1240
VISUAL CIRCLING	1470(693)	1570(793)	Rate of Descent /Ground speed information						
			Ground speed (kt.)			80	100	120	140	160	180
			Rate of descent (ft/min)			420	525	630	735	845	950

DRG. NO. AAI/13-IALC/08/01.05.2016

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 28–ELEV 777ft

DELHI
INDIA
VOR (Z) RWY 28

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

MISSED APPROACH

Climb straight ahead, Crossing NDB(274 DP) or 5D (116.1DPN) turn RIGHT on heading 345°M to establish R–316(116.1DPN) climbing at FL70 to join holding at SAMPLA VOR(117.0 SAM) at FL70 or as instructed by ATC.

NAUTICAL MILES FROM THR RWY 28 — 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

O C A (H)			Distance VOR–DME (DPN) Altitude information						
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	7.1	7	6	5	4	3
STRAIGHT–IN	1300(523)	1300(523)	Altitude (ft.)	2600	2560	2250	1930	1610	1300
VISUAL CIRCLING	1470(693)	1570(793)	Rate of Descent /Ground speed information						
			Ground speed (kt.)	80	100	120	140	160	180
			Rate of descent (ft/min)	420	525	630	735	845	950

DRG. NO. AAI/12–IALC/08/01.05.2016

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 11 ELEV 723ft

DELHI
INDIA
VOR RWY 11

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

Transition Alt. 4000

Transition Alt. 4000

Missed Approach

Turn RIGHT on heading 140°M Climbing to 2600ft. then proceed to VOR (112.4 SSB),crossing 20D (SSB) climb to FL70 to join holding procedure or as instructed by ATC.

NOTE: No turn before 2D(DIG)

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 NAUTICAL MILES FROM THR RWY 11

O C A (H)			Distance VOR-DME (DIG) Altitude information						
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	6.3D	6D	5D	4D	3D	2D
STRAIGHT-IN	1180(457)	1180(457)	Altitude (ft.)	2600	2520	2200	1880	1570	1250
VISUAL CIRCLING	1470(693)	1570(793)	Rate of Descent /Ground speed information						
			Ground speed (kt.)	80	100	120	140	160	180
			Rate of descent (ft/min)	405	505	610	710	810	910

DRG. NO. AAI/11-IALC/08/01.05.2016

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 29–ELEV 751ft

DELHI
INDIA
VOR RWY 29

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

MISSED APPROACH

Turn LEFT on heading 250°M
Climbing to 2600ft. then proceed to VOR (116.8 CHI),crossing 8D(CHI) climb to FL70 to join holding procedure or as instructed by ATC.

NOTE: No turn before 2D(DIG)

NAUTICAL MILES FROM THR RWY 29: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

O C A (H)			Distance VOR–DME (DIG) Altitude information					
CATEGORY OF AIRCRAFT	A/B	C/D	Distance(NM)	6.5D	6D	5D	4D	3D
STRAIGHT–IN	1300(549)	1300(549)	Altitude (ft.)	2600	2460	2150	1830	1510
VISUAL CIRCLING	1470(693)	1570(793)	Rate of Descent /Ground speed information					
			Ground speed (kt.)	80	100	120	140	160	180
			Rate of descent (ft/min)	405	505	610	710	810	910

DRG. NO. AAI/10–IALC/08/01–05–2016

INSTRUMENT APPROACH CHART

AERODROME ELEV 777ft.
HEIGHTS RELATED TO
THR RWY 27–ELEV 750ft

DELHI
INDIA
NDB (Z) RWY 27

TWR	APP
125.85, 118.1,118.75,118.25	124.2,126.35

MISSED APPROACH

Climb straight ahead, Crossing NDB(274 DP) or 5D (116.1DPN) turn RIGHT on heading 345°M to establish R–316(116.1DPN) climbing to FL70 to join holding at SAMPLA VOR(117.0 SAM) at FL70 or as instructed by ATC.

O C A (H)		
CATEGORY OF AIRCRAFT	A/B	C/D
STRAIGHT–IN	1340(590)	1340(590)
VISUAL CIRCLING	1470(693)	1570(793)

Time & Rate of Descent information

Distance from FAF to MApt 4.6NM

Ground speed (kt.)	80	100	120	140	160	180
Time(Min :Sec)	3:27	2:46	2:18	1:58	1:44	1:32
Rate of descent (ft/min)	420	525	630	735	845	950

DRG. NO. AAI/15–IALC/08/01.05.2016

RNAV STARS RW09, 10, 11
& ATS Route Structure
SP
ELKUX
A466, W30E,
W31E
W35
HW
IGINO
SAM
L626
DPN
TIGER
CHI
W37
PUMOT
AKBAN
LKA
G452
SIBAD
R594
BADAT
SAPLO
LETPU
JAL
DIPAS
OSRAM
W10N, W33N, L760
W65
R218
POSIG
AGG
W13.
A347
JJP
W20
GWA
JJO
UKBAB
BAVOX

RNAV STAR RW27, 28, 29 & ATS Route Structure in Delhi TMA
ATS Route Structure from DPN VOR
RNAV STAR Enroute Transition
RNAV STAR Runway Transition
SP
ELKUX
A466, W30E, W31E
IGINO
W35
HW
L626
SAM
DPN
SIBAD
TIGER
W37
PUMOT
LKA
G452
CHI
SSB
R594
AKBAN
BADAT
SAPLO
LETPU
JAL
DIPAS
OSRAM
W10N, W33N, L760
POSIG
AGG
R218
W65
W13N, A347
W20
JJP
GWA
JJO
UKBAB
BAVOX

Establishing Arrival Sequence, CTO and RTO computation for RWY 27, 28 & 29

Arrival Holding Fix	Block Time (Medium/ Heavy Jet) (Min)
AKBAN	00:18
SAPLO	00:17
SAM	00:17
SSB	00:08
Sepn. over TD	00:02

AIRCRAFT ESTIMATE OVER ARRIVAL HOLDING FIX						ESTABLISHING ARRIVAL SEQUENCE			TACTICAL ADJUSTMENT	
Callsign	Type	AKBAN	SAPLO	SAM	SSB	Estimate at Touchdown	Add Sepn. at TD between successive arrivals	Arrival sequnce	RTO arrival holding fix	Gain/ (-) Lose time to arrive at holding fix (in min)
xx	B747	*00:01*				00:19		1	00:01	No Delay
xx	A320		*00:03*			00:20	00:21	2	00:04	1
xx	B777			*00:04*		00:21	00:23	3	00:06	2
xx	B737			*00:04*		00:21	00:25	4	00:08	4
xx	A320	*00:05*				00:23	00:27	5	00:09	4
xx	B737	*00:06*				00:24	00:29	6	00:11	5
xx	B737	*00:07*				00:25	00:31	7	00:13	6
xx	B777	*00:07*				00:25	00:33	8	00:15	8
xx	A330			*00:07*		00:24	00:35	9	00:18	11
xx	B737	*00:07*				00:25	00:37	10	00:19	12
xx	A320	*00:09*				00:27	00:39	11	00:21	12
xx	B737		*00:12*			00:29	00:41	12	00:24	12
xx	B737		*00:18*			00:35	00:43	13	00:26	8
xx	A330			*00:24*		00:41	00:45	14	00:28	4
xx	B767	*00:30*				00:48	00:47	15	00:29	-1
xx	B777				*00:35*	00:43	00:49	16	00:41	6
xx	A320	*00:35*				00:53	00:51	17	00:33	-2
xx	B737		*00:36*			00:53	00:53	18	00:36	No Delay

SAMPLE