

AD 2. AERODROMES**VEBN AD 2.1 AERODROME LOCATION INDICATOR AND NAME**

VEBN - LAL BAHADUR SHASTRI AIRPORT, VARANASI

VEBN AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	Aerodrome reference point coordinates and its site	252705N 0825131E 267 DEG /1170M From Extremity of RWY27
2	Direction and distance of aerodrome reference point from the center of the city or town which the aerodrome serves	320 DEG/18KM from Varanasi Railway Station
3	Aerodrome elevation and reference temperature	266 FT / 42.0 DEG C
4	Magnetic variation, date of information and annual change	0.12 DEG W (2010) /0.016 DEG E
5	Name of aerodrome operator, address, telephone, telefax, e-mail address, AFS address, website (if available)	Airport Director Airports Authority of India, Lal Bahadur Shastri Airport, Varanasi, Varanasi-221006, Telephone: +91-542-2622155, +91-542-2622081-85 +91-9415223071 Fax: +91-542-2622320 AFS: VEBNYHYX Email: apdvns@aai.aero
6	Types of traffic permitted (IFR/VFR)	IFR/VFR
7	Remarks	NIL

VEBN AD 2.3 OPERATIONAL HOURS

1	Aerodrome Operator	MON-FRI 0400-1230 UTC (0930-1800 IST) SAT,SUN+HOL: NIL
2	Custom and immigration	AS ATS See Serial No. 12, Remark No. 2
3	Health and sanitation	AS ATS
4	AIS briefing office	As ATSAAs ATS
5	ATS reporting office (ARO)	As ATS
6	MET Briefing office	AS ATS
7	Air Traffic Service	Consult current NOTAM
8	Fuelling	AS ATS
9	Handling	AS ATS
10	Security	AS ATS
11	De-icing	NIL

12	Remarks	<p>1. Outside of ATS HR services are available O/R with 24HRS PN to Airport Director.</p> <p>2. Customs and immigration facilities are provided on limited basis to cover operations of scheduled intl. Flights. The facilities can be arranged to cover any authorized non-sked operations O/R with 24HRS PN to Airport Director.</p> <p>3. Non Sked flights to obtain positive Clearance prior to departure due shortage of parking stands.</p> <p>4. The ATS Approved Hourly Runway Traffic Handling Capacity is as Follows: For RWY27 Maximum Number of Arrival and Departure- 12 Maximum Number of Arrival Only – 08 Maximum Number of Departure Only – 10 For RWY 09 Maximum Number of Arrival and Departure- 12 Maximum Number of Arrival Only – 06 Maximum Number Of Departure Only – 15</p>
----	---------	---

VEBN AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Manual - Limited
2	Fuel and Oil types	Jet A1 NIL
3	Fuelling facilities and capacity	10 BOWSERS:1 of 27000Ltrs, 7 of 16000 Ltrs., 1 of 11000 Ltrs & 1 of 6000Ltrs.;13.3Ltrs/Sec
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	Mooring Facility: NIL

VEBN AD 2.5 PASSENGER FACILITIES

1	Hotel(s) at or in the vicinity of aerodrome	In the city
2	Restaurant(s) at or in the vicinity of aerodrome	At AD and in the city
3	Transportation possibilities	Bus, Taxi, Car hire from AD
4	Medical Facilities	First aid at AD. Hospital in the city.
5	Bank and post office at or in the vicinity of aerodrome	Banks: ATM available Post office: Extension Counter AVBL
6	Tourist office	In the City.
7	Remarks	NIL

VEBN AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	Within ATS HR: CAT-7
2	Rescue equipment	Available as per Category
3	Capability for removal of disabled aircraft	NIL
4	Remarks	NIL

VEBN AD 2.7 SEASONAL AVAILABILITY CLEARING

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

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

1	Designation, surface and strength of aprons	Designator: Apron Surface: Concrete Strength: PCN 68/R/C/W/T Concrete (Parking stands 1 to7)
2	Designation, width, surface and strength of taxiways	Designator: TWY A Width: 23 M Surface: Concrete Strength: PCN 68/R/C/W/T Designator: TWY B Width: 23 M Surface: Macadam Strength: PCN 68/R/C/W/T Designator: TWY C Width: 23 M Surface: Concrete Strength: PCN 68/R/C/W/T
3	Location and elevation of altimeter checkpoints	Location At apron Elevation 264 FT
4	Location of VOR checkpoints	At Holding position on TWY B
5	Position of INS checkpoints	NIL
6	Remarks	NIL

VEBN 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	Taxiing guidance signs at all the intersection with TWY and RWY and at all holding position Guidelines at Apron
2	Runway and taxiway markings and lights	RWY Markings: Designation, THR, TDZ, Centreline, Edge, Lights: THR, RWY Edge, RWY End TWY Marking: Centreline, Edge Holding Positions, Lights :Edge
3	Stop bars (if any)	NIL
4	Remarks	NIL

VEBN 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
27/TKOF 09/APCH	TREE	252702.2N 0825246.4E	292 FT	NIL	TREE
27/TKOF 09/APCH	OTHER	252715.8N 0825038.4E	287 FT	NIL	HOUSE
27/TKOF 09/APCH	OTHER	252712.0N 0825040.3E	291 FT	NIL	HOUSE

In Approach/Take-off/Circling Area and at AD					
1	2	3	4	5	6
RWY/Area affected	Obstacle type	Coordinates	Elevation	Marking/LGT	Remarks
27/TKOF 09/APCH	OTHER	252715.2N 0825038.9E	295 FT	NIL	HOUSE
27/TKOF 09/APCH	TREE	252709.7N 0825028.8E	325 FT	NIL	TREE
27/TKOF 09/APCH	OTHER	252715.8N 0825047.7E	281 FT	NIL	LIGHT POST
27/TKOF 09/APCH	OTHER	252707.9N 0825044.0E	288 FT	NIL	HOARDING
27/TKOF 09/APCH	FENCE	252706.8N 0825044.7E	281 FT	NIL	FENCING ON B. WALL
27/TKOF 09/APCH	OTHER	252707.4N 0825057.6E	281 FT	NIL	MOBILE ROAD TRAFFIC
27/TKOF 09/APCH	OTHER	252704.5N 0825044.0E	293 FT	NIL	HOUSE
27/TKOF 09/APCH	TREE	252711.1N 0825037.1E	331 FT	NIL	TREE
27/TKOF 09/APCH	TREE	252707.9N 0825035.3E	319 FT	NIL	GROUP OF TREES
27/TKOF 09/APCH	OTHER	252710.5N 0825241.4E	280 FT	NIL	SECURITY HUT
27/TKOF 09/APCH	OTHER	252711.1N 0825034.9E	296 FT	NIL	HOUSE
27/TKOF 09/APCH	ANTENNA	252710.5N 0825048.1E	271 FT	NIL	LOCALIZER MONITOR ANTENNA
27/APCH 09/TKOF	POLE	252708.0N 0825244.8E	287 FT	NIL	ELECTRIC POLE
27/APCH 09/TKOF	POLE	252709.9N 0825244.5E	287 FT	NIL	ELECTRIC POLE
27/APCH 09/TKOF	POLE	252710.2N 0825244.2E	286 FT	NIL	ELECTRIC POLE
27/APCH 09/TKOF	POLE	252710.8N 0825242.5E	284 FT	NIL	ELECTRIC POLE
27/APCH 09/TKOF	TREE	252710.3N 0825250.8E	326 FT	NIL	GROUP OF TREES
27/APCH 09/TKOF	TREE	252711.1N 0825259.5E	312 FT	NIL	GROUP OF TREES
27/APCH 09/TKOF	TREE	252711.1N 0825253.1E	339 FT	NIL	TREE
27/APCH 09/TKOF	OTHER	252708.0N 0825241.3E	278 FT	NIL	MOBILE ROAD TRAFFIC
27/APCH 09/TKOF	OTHER	252710.5N 0825239.6E	280 FT	NIL	MOBILE ROAD TRAFFIC
27/APCH 09/TKOF	OTHER	252702.2N 0825222.6E	268 FT	NIL	TEMPLE
27/APCH 09/TKOF	OTHER	252709.3N 0825219.8E	273 FT	NIL	SECURITY HUT
27/APCH 09/TKOF	OTHER	252710.0N 0825208.6E	275 FT	NIL	SECURITY HUT
27/APCH 09/TKOF	OTHER	252702.1N 0825219.5E	274 FT	NIL	NEW G.P. HUT
27/APCH 09/TKOF	TREE	252709.8N 0825248.6E	325 FT	NIL	GROUP OF TREES

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	POLE	252700.5N 0825243.0E	283 FT	NIL	ELECTRIC POLE
27/APCH 09/TKOF	POLE	252658.8N 0825249.8E	296 FT	NIL	ELECTRIC POLE
In circling area and at AD	POLE	252710.9N 0825239.8E	282 FT	NIL	ELECTRIC POLE
In circling area and at AD	TREE	252711.4N 0825245.2E	313 FT	NIL	TREE
In circling area and at AD	OTHER	252711.1N 0825244.9E	289 FT	NIL	HOUSE
In circling area and at AD	TREE	252713.4N 0825249.3E	347 FT	NIL	TREE
In circling area and at AD	POLE	252711.4N 0825234.8E	287 FT	NIL	ELECTRIC POLE
In circling area and at AD	OTHER	252743.2N 0825239.1E	429 FT	NIL	CELLPHONE MAST
In circling area and at AD	OTHER	252631.3N 0825230.8E	428 FT	NIL	CELLPHONE MAST
In circling area and at AD	BUILDING	252700.4N 0825116.2E	330 FT	NIL	INTERNATIONAL TERMINAL BUILDING
In circling area and at AD	ANTENNA	252659.9N 0825114.5E	337 FT	NIL	ANTENNA ON ATC BUILDING
In circling area and at AD	OTHER	252700.5N 0825112.6E	322 FT	NIL	FLOOD LIGHT MAST
In circling area and at AD	OTHER	252712.8N 0825127.8E	283 FT	NIL	WIND DIRECTION INDICATOR
In circling area and at AD	ANTENNA	252712.6N 0825131.1E	288 FT	NIL	DVOR MONITOR ANTENNA
In circling area and at AD	ANTENNA	252712.6N 0825134.4E	285 FT	NIL	DVOR MAIN ANTENNA
In circling area and at AD	OTHER	252712.6N 0825133.8E	295 FT	NIL	DVOR /DME
In circling area and at AD	OTHER	252703.9N 0825038.7E	294 FT	NIL	HOUSE
In circling area and at AD	TREE	252718.3N 0825042.9E	318 FT	NIL	GROUP OF TREES
In circling area and at AD	OTHER	252715.8N 0825050.4E	281 FT	NIL	LIGHT POST
In circling area and at AD	OTHER	252716.8N 0825048.1E	291 FT	NIL	TEMPLE
In circling area and at AD	TREE	252717.7N 0825056.2E	330 FT	NIL	GROUP OF TREES
In circling area and at AD	TREE	252703.6N 0825035.0E	357 FT	NIL	GROUP OF TREES
In circling area and at AD	OTHER	252651.5N 0825049.1E	432 FT	NIL	MAST
In circling area and at AD	TREE	252707.0N 0825252.7E	338 FT	NIL	TREE
In circling area and at AD	OTHER	252703.1N 0825128.1E	312 FT	NIL	FIRE SECURITY WATCH TOWER
In circling area and at AD	TREE	252701.8N 0825143.5E	315 FT	NIL	GROUP OF TREES

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
In circling area and at AD	TREE	252716.3N 0825123.5E	317 FT	NIL	TREE
In circling area and at AD	POLE	252701.9N 0825143.1E	285 FT	NIL	ELECTRIC POLE
In circling area and at AD	POLE	252701.9N 0825144.5E	284 FT	NIL	ELECTRIC POLE
In circling area and at AD	OTHER	252703.9N 0825203.9E	271 FT	NIL	SECURITY HUT
In circling area and at AD	ANTENNA	252702.7N 0825204.2E	284 FT	NIL	G.P. MONITOR ANTENNA
In circling area and at AD	OTHER	252702.7N 0825201.2E	290 FT	NIL	G.P./DME
In circling area and at AD	ANTENNA	252703.0N 0825201.2E	308 FT	NIL	G.P. MAIN ANTENNA
In circling area and at AD	OTHER	252703.0N 0825200.8E	276 FT	NIL	G.P. HUT
In circling area and at AD	OTHER	252712.3N 0825218.0E	294 FT	NIL	HOUSE
In circling area and at AD	OTHER	252659.8N 0825216.1E	291 FT	NIL	HOUSE
In circling area and at AD	TREE	252659.0N 0825216.3E	324 FT	NIL	GROUP OF TREES

VEBN AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Name of the associated meteorological office	Varanasi
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	Lucknow 9 HR
4	Availability of the trend forecast for the aerodrome and interval of issuance	Trend AVBL. Interval of issuance half hour during watch hour and one hour beyond watch hour of tower.
5	Information on how briefing and/or consultation is provided	NIL
6	Types of flight documentation supplied and language(s) used in flight documentation	Tabular form English
7	Charts and other information displayed or available for briefing or consultation	NIL
8	Supplementary equipment available for providing information on meteorological conditions, e.g. weather radar and receiver for satellite images;	NIL
9	The air traffic services unit(s) provided with meteorological information	Aerodrome Control Tower, ACC and CNS (AMSS)
10	Additional information, e.g. concerning any limitation of service.	i.Wind Panel No DIWE-03 Installed at Varanasi TWR ii.Documents available on request iii.New Transmissiometer (DRISHTI) Installed And Commissioned For RVR Estimation Of Runway 27

VEBN 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
09	93.15 DEG	2745 x 45 M	68/F/C/W/T Macadam	THR: 252709.70N 0825102.10E RWY END:
27	273.15 DEG	2745 x 45 M	68/F/C/W/T Macadam	THR: 252705.50N 0825231.90E RWY END:

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: 264.0FT TDZ:		NIL	NIL	2865 x 150 M
THR: 265.0FT TDZ: 264.0FT		NIL	NIL	2865 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
		NIL	NIL
		NIL	NIL

VEBN 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
09	2745	2745	2745	2512	Threshold Displaced by 233M
27	2745	2745	2745	2745	

VEBN 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
09	SALS 420 M LIH	Green	PAPI LEFT/3.00 DEG	
27	SALS 420 M LIH	Green	PAPI LEFT/3.00 DEG	

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
	2745 M 60 M White LIH	Red		SALS from beginning of displaced THR RWY09 with three inset LGT
	2745 M 60 M White LIH	Red		NIL

VEBN AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Location, characteristics and hours of operation of aerodrome beacon/identification beacon (if any)	ABN IBN	At Tower Building, FLGW&G EV2SEC NIL
2	Location and lighting (if any) of anemometer/landing direction indicator;	LDI Anemometer	Available Wind Panel at TWR
3	Taxiway edge and taxiway centre line lights;	Edge Centre Line	All TWY ---
4	Secondary power supply including switch-over time;	Secondary Power supply to all lighting at AD.Switch-over time :15 SEC.	
5	Remarks	NIL	

VEBN 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

VEBN AD 2.17 AIR TRAFFIC SERVICE AIRSPACE

1	Airspace designation, geographical coordinates and lateral limits	CTR: Circular area centered on ARP VEBN (252705N 0825131E) within a 30NM radius.
2	Vertical limits	FL 105
3	Airspace classification	D
4	Call sign and language(s) of the air traffic services unit providing service;	Varanasi Tower, English
5	Transition altitude	4000 FT
6	Hours of applicability	HO
7	Remarks	Micro light training flight activity 5NM east south east Banaras Hindu University airfield. Lower limit: GND, Upper limit: 1000FT AMSL.

VEBN AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service Designation	Call sign	Channel(s)	SATVOICE Number(s), if available
1	2	3	4
APP	Varanasi Approach	119.000 MHZ	
APP	Varanasi Approach	123.875 MHZ	
TWR	Varanasi Tower	118.100 MHZ	
TWR	Varanasi Tower	119.000 MHZ	
ATIS	Varanasi Information	126.200 MHZ	
ACC	Varanasi Control/ Radar	118.950 MHZ	
ACC	Varanasi Control/ Radar	119.275 MHZ	
ACC	Varanasi Control/ Radar	119.275 MHZ	
ACC	Varanasi Control/ Radar	128.150 MHZ	
ALRS	-----	121.500 MHZ	

Logon address, as appropriate	Hours of operation	Remarks
5	6	7
	AS ATS	SDBY
	AS ATS	NIL
	AS ATS	When Tower and Approach is combined Main Fequancy-118.1 MHz Standby Fequancy-119.0 MHz
	AS ATS	SDBY - When Tower and Approach is combined Main Fequancy-118.1 MHz Standby Fequancy-119.0 MHz
	AS ATS	NIL
	H24	NIL
	H24	RSR (N) SDBY
	H24	RSR (S) SDBY
	H24	RSR (N)
	H24	NIL

VEBN 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 27	IVNS	109.900 MHz	AS ATS
GP 27	IVNS	333.800 MHz	AS ATS
DME ILS 27	IVNS	CH36X	
DVOR/DME	BBN	113.900 MHz CH86X	H24
NDB	BN	222 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
252710.5N 0825044.9E			
252701.8N 0825219.6E			
252702.0N 0825219.5E	285 FT		
252715.2N 0825134.1E	295 FT		
252645.4N 0825057.8E			

VEBN AD 2.20 LOCAL AERODROME REGULATIONS

Between 0430-1230, Parking Arrangement at apron will be as follows:

- i.Scheduled aircraft without pushback facility will be parked on stand numbers 1, 2, 3 & 4 at old apron.
- ii.Scheduled aircraft with pushback facility will be accommodated at new apron.
- iii.Non-scheduled aircraft will be accommodated at new apron.
- iv.Taxi guidance will be provided by control tower for parking in the new apron.

VEBN AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VEBN AD 2.22 FLIGHT PROCEDURES**1.RADIO COMMUNICATION FAILURE****1.INTRODUCTION:**

Radio communication failure (RCF) procedures are prescribed 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 Varanasi 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)

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. If radio communication failure occurs after the receipt of final /interception turn or approach clearance, the aircraft may continue its approach to land on such Runway.

3.2.In case arriving aircraft has not been advised of any runway for landing, Runway 27 shall be considered as assigned runway for such arrival.

3.3.In case of departing aircraft from Varanasi returning on account of RCF, the departure runway of such aircraft shall be considered as assigned runway for landing.

3.4.Varanasi ATC shall ensure approach and runway lights of the assigned runway in 'SWITCHED ON' position for RCF aircraft irrespective of day/night/visibility/weather conditions. Approach lights in 'SWITCHED OFF' position shall indicate that the approach should be made from the opposite end of runway. Runway and Approach lights on both sides in 'SWITCHED OFF' position shall indicate non- availability of Runway for aircraft experiencing RCF.

3.5.In strong tail wind conditions for assigned Runway, aircraft will carry out a missed approach on assigned runway and after following complete missed approach procedure for such approach, will carry out any of the published instrument approach procedure for the opposite runway.

4.PROCEDURE FOR ARRIVALS:**4.1.ARRIVING AIRCRAFT – STAR- ASSIGNED**

When STAR has been assigned to arrival,

4.1.1Aircraft shall continue on assigned STAR following all level and speed restrictions of STAR, as far as practicable.

4.1.2At the end of the STAR, descend to 2000 FT and make a convenient turn to intercept localizer or final approach track of the published instrument approach procedure for the assigned runway.

4.2.ARRIVING AIRCRAFT – STAR NOT ASSIGNED

When STAR has not been assigned to arrival by ATC, aircraft shall

4.2.1.Continue on ATS route, (if flying offset re-join ATS route as soon as practicable), maintaining/descending to cleared flight level and join 'BBN' VOR hold as published.

4.2.2.If higher, descend to 3000 FT in 'BBN' hold. Leave 'BBN' VOR at 3000 FT to carry out any of the published instrument 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 and then take a convenient turn to proceed direct to 'BBN' VOR descending/maintaining last assigned level, or 3000 FT whichever is higher. If higher, descend to 3000 FT in 'BBN' hold.

4.3.1.Leave 'BBN' VOR at 3000 FT to carry out any of the published instrument approach procedure for assigned runway.

5.PROCEDURE FOR DEPARTURES:

5.1.DEPARTURE INTENDING TO CONTINUE TO DESTINATION

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 following level restrictions of the assigned SID as far as practicable.

5.1.2.Three minutes after setting Mode A/C code 7600 or reaching cleared Flight level whichever is later:

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

ii.If following Radar heading, turn to join flight plan route by shortest route. Joining ATS route, climb to filed Flight level and Continue as per the filed flight plan.

5.2DEPARTURE INTENDING TO LAND BACK AT VARANASI:

Departing aircraft experiencing RCF and intending to land back at VARANASI airport shall

5.2.1Continue on Radar heading or assigned SID, climbing to or maintaining the cleared Flight level. However, in case the RCF is experienced below FL150 and the cleared flight level is above FL150, aircraft shall maintain FL150.

5.2.2 One minute after setting Mode A/C code 7600 or reaching the appropriate level as given in 5.2.1, whichever is later; take a turn to proceed direct to 'BBN' VOR maintaining level.

5.2.3Descend to 3000 FT in 'BBN' hold. Leave 'BBN' VOR at 3000 FT to carry out any of the published instrument approach procedure for assigned runway.

NOTE: The provisions relating to SIDs and STARs in Para 4 and para 5 of the RCF procedure shall become applicable on the date of publication of PBN SIDs and STARs for Varanasi airport.

LOW VISIBILITY PROCEDURE

1. BACKGROUND:

Until the latest amendment of DGCA Civil Aviation Requirements (CAR), Section 8, Series 'C', Part-I on All-weather Operations, Low Visibility Procedures were required at aerodromes for the purpose of ensuring safe operations during **CAT II and CAT III** approaches and/or low visibility take-offs (**LVTO**).

However, in latest amendment to CAR (Rev. 10) para 5.3 following provision regarding Low Visibility Procedures is added. "Quote" **An operator shall not conduct take-off with RVR/visibility less than standard Category I conditions of 550m RVR/800 m visibility unless low visibility procedures are enforced.** "Unquote". This provision necessitated the need of Low Visibility Procedures for accommodating/permitting departures in Visibility/RVR less than 800M/550M even at such airports where there are No CAT II and CAT III operations.

As per provisions of Aerodrome Design and Operations CAR and ICAO Annex 14, Runway centre line lights are required for take-off in RVR below 400 M. Further, as per Aerodrome Design and operations CAR para 9.8.7, Surface Movement Radar (SMR) need to be provided at an aerodrome intended for use in Runway Visual Range conditions less than a value of 350 M. Accordingly, Low visibility Procedures have been developed for Varanasi airport to accommodate/permit departures in Visibility/RVR less than 800M/550M from RWY 27 (runway served with RVR instruments).

As there are no runway Centre line Lights and/or ASMGCS at Varanasi airport, these procedures will be applicable for take-off in VIS/RVR below 800M/550M but not less than 400M RVR.

2. DEFINATIONS AND ABBREVIATIONS:

2.1 Low Visibility Procedures (LVP): 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.

Note: as per para 5.3 of CAR on All Weather Operations, an operator shall not conduct Take-off with RVR/Visibility less than standard CAT-I conditions of 550M RVR/800M Visibility unless low visibility procedures are enforced.

2.2 Manoeuvring Area: That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

2.3 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.

2.4 Aerodrome Operating Minima: The limits of usability of an aerodrome for:

- a. Take off, expressed in terms of runway visual range and / or visibility and, if necessary, cloud conditions.
- b. landing in 2 D instrument approach operations, expressed in terms of visibility and/or runway visual range; minimum descent altitude/height (MDA/H) and, if necessary, cloud conditions; and
- c. landing in 3D instrument approach operations, expressed in terms of visibility and/or runway visual range and decision altitude/height(DA/H) appropriate to the type and/or category of the operation.

2.5 Visibility - Visibility for aeronautical purposes is the greater of:

- a. the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background;
- b. The greatest distance at which lights in the vicinity of 1000 candelas can be seen and identified against an unlit background.

Note 1. — The two distances have different values in air of a given extinction coefficient, and the latter b) varies with the background illumination. The former a) is represented by the meteorological optical range (MOR).

Note 2. — The definition applies to the observations of visibility in local routine and special reports, to the observations of prevailing and minimum visibility reported in METAR and SPECI and to the observations of ground visibility.

2.6 Abbreviations:

ADC :	Aerodrome Control
ARFF :	Airport Rescue and Fire Fighting Services
ATC :	Air Traffic Control
ATM :	Air Traffic Management
CFT :	Crash Fire Tender
DATI :	Digital Automatic Terminal Information Service
DG :	Diesel Generating Set
LVP :	Low Visibility Procedures
MET :	Meteorology
RWY :	Runway
RVR :	Runway Visual Range
SMC :	Surface Movement Control
SP :	Safeguarding Procedures
TDZ :	Touchdown Zone
TWR SUP :	Tower Supervisor
TWY :	Taxiway
WSO :	Watch Supervisory Officer

3. GENERAL:

The Low Visibility Procedure (LVP) incorporates safeguarding measures to mitigate runway incursions and defines operational restrictions to ensure safe Airside. Operations taking into account the available Aerodrome facilities.

3.1 Varanasi Airport is equipped with CAT-I ILS system for Runway 27.

4. MINIMUM REQUIREMENTS:

The following aeronautical Ground lights and RVR equipment shall be serviceable to the required standard to support Low Visibility Procedures.

- a. Runway edge lights,
- b. Runway end lights,
- c. Real time TDZ RVR.
- d. Standby Power supply to maintain switch over time of one Second for Runway Edge Lights and Runway End Lights. This requirement can be met with the help of DG Set.

4.1 Unserviceability of Aeronautical Ground Lights/ Equipment before Implementation of LVP.

Low Visibility Procedures will not be implemented when any of the light/equipment mentioned in Para 4 above is unserviceable or is not maintained as per the required standard.

Aeronautical Ground Lighting Facility	Un-serviceability	Restrictions
Runway Edge lights	More than 15% of all lights are unserviceable	LVP operations will be suspended
	Any two consecutive lights or more are unserviceable	
	Any one of the two circuits serving the power supply goes unserviceable	
Runway End lights	More than 15% of all lights are unserviceable	LVP operations will be suspended.
	Any two consecutive lights or more are unserviceable.	
Standby Generators	Any of the generators is unserviceable	LVP operations will be suspended.

4.2 Unserviceability of Aeronautical Ground Lights/ Equipment after Implementation of LVP.

When any of the light/equipment mentioned in Para 4 above becomes un-serviceable or fails to meet the required standard during periods of LVP, TWR/SMC shall advise the aircraft accordingly and LVP shall be suspended and information to this effect shall be included in ATIS broadcast.

5. SAFEGUARDING PROCEDURES (SP):

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 Safeguarding procedures are complete. The Duty Officer TWR in consultation with other relevant units shall give confirmation to WSO that SP is completed before implementation of Low Visibility Procedures.

5.1 Safeguarding Procedures shall be initiated when:

- The Visibility/RVR is less than 1200M and visibility/RVR is forecast to deteriorate to 800M or less; and/or
- The cloud ceiling is less than 400FT and forecast to fall to 200FT or less.

5.2 Safeguarding Procedures include:

- Runway inspection, which shall be carried out by ATCO along with electrical engineer on duty and shall not be carried out by the fire staff.
- Positioning of 1 CFT in front of main fire station.
- Stopping of all works on the manoeuvring area and the associated strip area as well as removal of all men and mobile equipment from the said area;
- Implementation of secondary power supply in RVR conditions less than 550 meters.

Note: RWY Edge and Rwy End lights may continue to operate on main power supply during Safe Guarding Procedures. Whenever, LVP is to be implemented as per para 6 below, the RWY Edge and Rwy End lights shall be put on Standby Power Supply (DG set). This operation need to be completed before LVP is implemented. In case of DG set, Main power supply shall act as stand by power.

- The appropriate Aeronautical ground lights must have been inspected during the hour preceding implementation of LVP, and thereafter once every two-hour period. These lighting inspections should be accorded priority and, if necessary, aircraft operations may have to be delayed.
- Duty Officer TWR shall co-ordinate with electrical wing to ensure that DG set is performing normally.

6. LOW VISIBILITY PROCEDURES:

6.1 Implementation of Low Visibility Procedures:

SMC shall inform Tower Supervisor whenever Visibility/RVR reduces to 800M or below and/ or cloud ceiling is at 200FT or below. Tower shall coordinate with all the agencies to confirm whether the Safeguarding procedures have been completed or not. When Visibility/RVR falls below 800M/550M and or Cloud Ceiling is 200FT or below and safeguarding procedures are complete, Tower will implement Low Visibility Procedures. Duty Officer Tower shall inform ARFF, Electrical and Civil departments of the imposition of low visibility procedures.

6.2 Action by various units during LVP:

- a) Duty MET Officer shall keep Duty Officer Tower/Tower Supervisor informed of any change in Visibility/ RVR.
- b) SMC/Apron control shall ensure that the towing of aircraft is done under escort of "Follow Me" vehicles. "Follow Me" shall follow the route cleared by ATC;
- c) The number of the vehicles on the manoeuvring area shall be restricted to bare minimum and records of all vehicles operating on the manoeuvring area shall be maintained by SMC/Apron control.
- d) SMC shall not permit any ground run on the manoeuvring area except idle power run on the stands;
- e) Duty officer TWR shall permit towing of only one aircraft at a time on the Apron/Manoeuvring area.
- f) The following may be included in ATIS "Low Visibility Take-off Procedures in force".
- g) TWR shall permit departures only from the beginning of the Runway 27.
- h) Whenever visibility/ RVR is less than 800/550M, duty officer tower shall confirm from pilot that the reported RVR value is within minima before issuing take-off clearance.
- i) Duty officer TWR shall inform Electrical wing when RVR improves above 550 meters to enable transfer of power supply from DG set to Main power.
- j) In-Charge Electrical shall continuously monitor the main and Standby Power supply to ensure change over time of maximum one second for RWY Edge and Rwy End lights during low visibility operations and report any unserviceability to Tower immediately.

7. TERMINATION OF LOW VISIBILITY PROCEDURES:

- a) When Visibility/RVR improves to 800M/550 M or more and cloud ceiling is 200 feet or Higher and trend is for improvement, Tower Supervisor/Duty Officer Tower would terminate operations of LVP. He may obtain advice from Duty Met. Officer regarding improvement in weather conditions before the termination of LVP.
- b) The Tower Supervisor will intimate OPS/ARFF/ In-Charge Electrical Engineering. Regarding the termination of LVP operations.
- c) On cancelling of LVP, following message shall be included in two subsequent ATIS broadcasts. "LOW VISIBILITY PROCEDURES CANCELLED".
- d) If SP are implemented and LVP are not subsequently implemented and the visibility/RVR improves and is more than 1200m and/or the cloud ceiling is 400FT or higher and both are forecast to remain above the required SP criteria, Tower Supervisor/Duty Officer Tower may cancel SP.

8. ACTIONS BY OTHER AGENCIES (AIRLINES, REFUELING COMPANIES, CATERING AGENCIES, ETC.)

- a) Every year before commencement of monsoon/winter season, a meeting will be held by Airport Director, 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.
- b) All the agencies shall ensure that staff and drivers are suitably trained during Low Visibility operations.
- c) A refresher program for ATCO's and personnel responsible for airside operations shall be conducted every year.
- d) All agencies operating in the operational area shall ensure that only those vehicles that are absolutely essential for aircraft operations operate in the operational area during periods of low visibility. The drivers of these vehicles should keep a look out for taxiing aircraft and other vehicles to prevent accidents.
- e) All the vehicles must have their obstruction lights "ON" during Low Visibility Procedures operations.
- f) All instructions/sign boards provided for vehicular movement area/service roads, must be followed while operating in the operational area.

VEBN AD 2.23 ADDITIONAL INFORMATION

1. ADS-B Ground Equipment Commissioned and Operational.
2. Indra Automation System commissioned and operational w.e.f 04th MAY 2017 .

VEBN AD 2.24 CHARTS RELATED TO AN AERODROME

1. ILS Procedure RWY 27
2. VOR (Z) Procedure RWY 09
3. VOR (Z) Procedure RWY 27
4. NDB Procedure RWY 09
5. ATC Surveillance Minimum Altitude Chart