

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

VIAR - Sri Guru Ram Dass Jee International Airport, Amritsar / INTL

**VIAR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	Aerodrome reference point coordinates and its site	314217N 0744807E 325 DEG /11KM from Amritsar
2	Direction and distance of aerodrome reference point from the center of the city or town which the aerodrome serves	325 DEG /11KM from Amritsar
3	Aerodrome elevation and reference temperature	758 FT / 40.0 DEG C
4	Magnetic variation, date of information and annual change	1.50 DEG E (2010) /0.033 DEG E
5	Name of aerodrome operator, address, telephone, telefax, e-mail address, AFS address, website (if available)	Airport Director Airports Authority of India Sri Guru Ram Dass Jee International Airport, Amritsar-143101,  Telephone: +91-183-2214118 +919464662200 Fax: +91-183-2214358 AFS: VIARYHYX Email: apdasr@aai.aero
6	Types of traffic permitted (IFR/VFR)	IFR/VFR
7	Remarks	

**VIAR AD 2.3 OPERATIONAL HOURS**

1	Aerodrome Operator	MON-FRI 0400-1230 UTC (0930-1800 IST) SAT, SUN + HOL : Nil
2	Custom and immigration	H24
3	Health and sanitation	Available
4	AIS briefing office	Combined with aerodrome control tower (H24)
5	ATS reporting office (ARO)	Combined with aerodrome control tower (H24)
6	MET Briefing office	H24
7	Air Traffic Service	H24
8	Fuelling	H24
9	Handling	H24 with prior coordination with Authorized Ground Handling Agency
10	Security	H24 (CISF)
11	De-icing	NIL
12	Remarks	ATS approved hourly runway traffic handling capacity Maximum number of arrival and departure- 12(minimum spacing between two successive arrivals shall be more than five minutes) Maximum number of arrival only – 06 Maximum number of departure only -10

**VIAR AD 2.4 HANDLING SERVICES AND FACILITIES**

1	Cargo-handling facilities	500MT import / export cargo. 80MT Perishable Cargo
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2	Fuel and Oil types	JET A1 ATF
3	Fuelling facilities and capacity	2363KL
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	NIL
6	Repair facilities for visiting aircraft	NIL
7	Remarks	Handling services with prior arrangement

#### VIAR AD 2.5 PASSENGER FACILITIES

1	Hotel(s) at or in the vicinity of aerodrome	Available in the vicinity and in the city
2	Restaurant(s) at or in the vicinity of aerodrome	AVBL in the terminal building
3	Transportation possibilities	Pre Paid & Radio Taxi Service AVBL
4	Medical Facilities	MI Room AVBL
5	Bank and post office at or in the vicinity of aerodrome	Banks: AVBL in the vicinity, Two ATMs AVBL in terminal building Post office: AVBL in the vicinity
6	Tourist office	AVBL
7	Remarks	Helpdesk AVBL. Contact No. 9888398888, Wi-Fi facility AVBL

#### VIAR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	Aerodrome category for fire fighting	Within ATS HR: CAT-8 ( Can be upgraded to CAT-9 on request/ need basis.)
2	Rescue equipment	Standard equipment as per category AVBL.
3	Capability for removal of disabled aircraft	NIL
4	Remarks	NIL

#### VIAR AD 2.7 SEASONAL AVAILABILITY CLEARING

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

#### VIAR AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	Designation, surface and strength of aprons	Designator: APRON-Amritsar International Airport Surface: Concrete Strength: PCN 64/R/B/W/T
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2	Designation, width, surface and strength of taxiways	<p>Surface: Bituminous Strength: 91/F/C/W/T</p> <p>Designator: TWY E Width: 23 M Surface: Asphalt Strength: PCN 92/F/C/W/T</p> <p>Designator: TWY F Width: 23 M Surface: Concrete Strength: PCN 103/R/B/W/T</p> <p>Designator: TWY G Width: 23 M Surface: Asphalt Strength: PCN 92/F/C/W/T</p> <p>Designator: TWY L Width: 23 M Surface: Concrete Strength: PCN 85/R/B/W/T</p> <p>Designator: TWY P Width: 23 M Surface: Concrete Strength: PCN 85/R/B/W/T</p>
3	Location and elevation of altimeter checkpoints	Location At Holding Point of TWY 'F' (Coordinate:314214.19N 0744803.77E) Elevation 753.2 FT
4	Location of VOR checkpoints	TWY 'F' Holding Point Coordinate: 314215.367N 0744806.586E (R148/1.7NM FM 'AAR' VOR)  TWY 'E' HOLDING POINT (R149 AAR/1.3NM)
5	Position of INS checkpoints	NIL
6	Remarks	NIL

**VIAR 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 AVBL. Guidelines at Apron. Nose-in Guidance at aircraft stands, VDGS AVBL for parking bays 3 & 5.
2	Runway and taxiway markings and lights	RWY Markings Designation, Aiming Point, THR, TDZ, Centreline, Edge, Fillet, Side Strip, Lighting Centreline, TDZ, THR, RWY edge, RWY end. TWY Markings Centreline, Edge, Fillet Lighting Edge
3	Stop bars (if any)	At TWY E, F and P.
4	Remarks	Acft Stand Manoeuvring Guidance Lights:- Avbl On Bay 3,4,5 And 11.

**VIAR 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
34/TKOF 16/APCH	OTHER	314305.6N 0744732.9E	764 FT	NIL	SEC. HUT
34/TKOF 16/APCH	OTHER	314308.0N 0744739.7E	777 FT	NIL	STRUCTURE
34/TKOF 16/APCH	OTHER	314307.0N 0744728.8E	781 FT	NIL	LIGHTEN. ROD
34/TKOF 16/APCH	OTHER	314307.9N 0744728.7E	777 FT	NIL	STRUCTURE
34/TKOF 16/APCH	OTHER	314306.5N 0744737.5E	764 FT	NIL	STRUCTURE
34/TKOF 16/APCH	OTHER	314309.9N 0744738.0E	770 FT	NIL	STRUCTURE
34/TKOF 16/APCH	TREE	314315.2N 0744736.0E	771 FT	NIL	TREE
34/TKOF 16/APCH	ANTENNA	314315.3N 0744730.1E	768 FT	NIL	LOC ANTENNA
34/TKOF 16/APCH	OTHER	314316.0N 0744732.3E	770 FT	NIL	LOC HUT
34/TKOF 16/APCH	POLE	314316.5N 0744736.5E	783 FT	NIL	ELECT. POLE
34/TKOF 16/APCH	POLE	314312.5N 0744724.3E	782 FT	NIL	ELECT. POLE
34/TKOF 16/APCH	POLE	314313.3N 0744724.1E	782 FT	NIL	ELECT. POLE
34/TKOF 16/APCH	POLE	314322.9N 0744732.9E	784 FT	NIL	ELECT. POLE
34/TKOF 16/APCH	TREE	314323.6N 0744731.9E	825 FT	NIL	TREE
34/TKOF 16/APCH	TREE	314325.1N 0744730.8E	813 FT	NIL	TREE
34/TKOF 16/APCH	TREE	314330.7N 0744721.8E	803 FT	NIL	TREE
34/TKOF 16/APCH	OTHER	314152.2N 0744812.5E	778 FT	NIL	BLAST PAN
34/TKOF 16/APCH	TREE	314148.6N 0744809.0E	790 FT	NIL	TREE
34/TKOF 16/APCH	TREE	314148.4N 0744809.9E	794 FT	NIL	TREE
34/APCH 16/TKOF	TREE	314149.6N 0744813.4E	788 FT	NIL	TREE
34/APCH 16/TKOF	POLE	314148.7N 0744814.5E	766 FT	NIL	ELECT. POLE
34/APCH 16/TKOF	POLE	314149.3N 0744815.0E	769 FT	NIL	ELECT. POLE
34/APCH 16/TKOF	TREE	314146.5N 0744815.7E	807 FT	NIL	TREE
34/APCH 16/TKOF	POLE	314146.4N 0744810.5E	771 FT	NIL	ELECT. POLE
34/APCH 16/TKOF	POLE	314146.3N 0744809.3E	771 FT	NIL	ELECT. POLE
34/APCH 16/TKOF	TREE	314143.3N 0744811.7E	803 FT	NIL	TREE

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
34/APCH 16/TKOF	TREE	314140.9N 0744816.0E	796 FT	NIL	TREE

**VIAR AD 2.11 METEOROLOGICAL INFORMATION PROVIDED**

1	Name of the associated meteorological office	Amritsar
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 9Hrs
4	Availability of the trend forecast for the aerodrome and interval of issuance	AVBL, issued every half an hour BTN 0800 IST and 2000 IST
5	Information on how briefing and/or consultation is provided	AVBL with prior coordination
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;	RVR Transmissometer instrument AVBL at TDZ, MID and end of RWY16/34.
9	The air traffic services unit(s) provided with meteorological information	VIAR Amritsar TWR/APP
10	Additional information, e.g. concerning any limitation of service.	Class III Met Office. RVR system 'DRISHTI' commissioned at RWY34 end. The system provides RVR data BTN 50M to 2000M. Instrument RVR observation AVBL in ATC tower.

**VIAR 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
16	157.50 DEG	3658 x 45 M	91/F/C/W/T	THR: 314335.40N 0744720.81E
34	337.50 DEG	3658 x 45 M	91/F/C/W/T	THR: 314145.65N 0744813.83E

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: 757.9FT TDZ:	-0.05%	NIL	NIL	3778 x 300 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: 752.3FT TDZ:	0.05%	NIL	NIL	3778 x 300 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
90M x 90M		NIL	1. Transverse slope for RWY 34/16 is 1 percent throughout 2. PCN 103/R/B/W/T Concrete for first 868M and 91/F/C/W/T Bituminous for rest 2789 M.
300M x 240M		AVBL	1. Transverse slope for RWY 34/16 is 1 percent throughout 2. PCN 91/F/C/W/T Bituminous for first 2789 and 103/R/B/W/T Concrete for rest 868 M. 3. Intermediate turn pad at a distance of 2798 M from the begining of RWY 34 is AVBL upto Code 'C' aircraft during daylight. PCN:91/F/C/W/T.

**VIAR 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
16	3658	3658	3658	3658	1:50
34	3658	3658	3658	3658	1:50

**VIAR 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
16	SALS 420 M LIH	Green	PAPI LEFT/3.00 DEG	NIL
34	900 M CAT III-B LIH	Green	PAPI LEFT/3.00 DEG	900 M

Length, spacing, colour and intensity of runway centre line lights	Length, spacing, colour and intensity of runway edge lights	Colour of runway end lights and wing bars	Length and colour of stopway lights	Remarks
6	7	8	9	10
	3658 M 60 M White	Red		NIL
3658 M 15 M LIH White	3658 M 30 M White	Red		<p>1. CAT 3-B APP light with crossbars at 150M, 300M, 450M, 600M and 750M. Barrettes at first 270M from THR.</p> <p>2. Colour of centre lights white from THR to point 900M from RWY end. Alternate and variable white from 900M to 300M to the end and red from 300M to the RWY end.</p> <p>3. TDZ light spacing 30M, Intensity - High</p> <p>4. RWY turnpad light: AVBL at turn pad at the end of RWY 34</p>

**VIAR AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY**

1	Location, characteristics and hours of operation of aerodrome beacon/identification beacon (if any)	ABN	At top of Tower Building, FLG W&G EV2SEC. AS ATS
		IBN	Not AVBL
2	Location and lighting (if any) of anemometer/ landing direction indicator;	LDI	AVBL
		Anemometer	NIL
3	Taxiway edge and taxiway centre line lights;	Edge	All TWYs
		Centre Line	AVBL ON TWY E,G,F,L AND P.
4	Secondary power supply including switch-over time;	Secondary power supply to all lighting at AD. Switch over time: 15 Sec	
5	Remarks	Apron edge and flood lights available.	

**VIAR 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

**VIAR AD 2.17 AIR TRAFFIC SERVICE AIRSPACE**

1	Airspace designation, geographical coordinates and lateral limits	CTR: Circular area centered on DVOR AAR (314341N 0744709E) within a 25NM radius.
2	Vertical limits	FL 100
3	Airspace classification	D
4	Call sign and language(s) of the air traffic services unit providing service;	Amritsar Approach, English
5	Transition altitude	4000 FT
6	Hours of applicability	H24
7	Remarks	TWR & APP unit combined

**VIAR AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES**

Service Designation	Call sign	Channel(s)	SATVOICE Number(s), if available
1	2	3	4
APP	Amritsar Approach	121.150 MHZ	
TWR	Amritsar Tower	118.150 MHZ	
TWR	Amritsar Tower	124.350 MHZ	
ATIS	---	127.650 MHZ	

Logon address, as appropriate	Hours of operation	Remarks
5	6	7
	H24	Emergency 121.500 MHz
	H24	Alternate Frequency
	H24	NIL
	H24	NIL

**VIAR 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 34	IAMR	109.500 MHz	H24
GP 34	IAMR	332.600 MHz	H24
DME ILS 34	IAMR	CH32X	H24
DVOR/DME	AAR	115.500 MHz CH102X	H24
NDB	AR	351 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
314344.6N 0744716.3E			
314157.2N 0744813.5E			3 DEG
314157.2N 0744813.5E	772 FT		Colocated with GP34
314341.1N 0744709.2E	780 FT		
314231.0N 0744851.5E			

**VIAR AD 2.20 LOCAL AERODROME REGULATIONS**

1.RWY34 DEP not AVBL for ACFT above A321 FM beginning of RWY due non availability of turn pad. ACFT above A321 can use TWY 'F' INT for DEP. TORA for TWY 'F' INT DEP is 2740M.

**VIAR AD 2.21 NOISE ABATEMENT PROCEDURES**

Not Established

## IDENT AD 2.22 FLIGHT PROCEDURES

### LOW VISIBILITY PROCEDURES

#### 1. DEFINITIONS AND 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 caused 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 Missed approach procedure: -**

The procedure to be followed if the approach cannot be continued.

**1.11 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.

**1.12 Touchdown Zone-** The portion of a runway, beyond the threshold, where it is intended landing aeroplanes first contact the runway.

**1.13 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 1 000 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.

**1.14 ABBREVIATIONS: -**

ABBREVIATIONS	DETAIL MEANING
ADC	Aerodrome Control
AFSS	Airport Fire Safety Services
AGL	Airfield Ground Lighting
ASMGCS	Advance Surface Movement Guidance Control System
ATC	Air traffic Control
ATIS	Aerodrome Terminal Information Service
IHP	Intermediate Holding Position
ILS	Instrument Landing System
LOC	Localizer
LSA	Localizer Sensitive Area
LVP	Low Visibility Procedure
MET	Meteorology
MID	Mid Point
OFZ	Obstacle Free Zone
RVR	Runway Visual Range
DO	Duty Officer
SMC	Surface Movement Control
SP	Safeguarding Procedures
SOP	Standard Operating Procedures
TDZ	Touch-down Zone
WSO	Watch Supervisory Officer

## 2. INTRODUCTION

### 2.1 Requirement of LVP

- a. RWY-34 at SGRDJI Airport, Amritsar is equipped for ILS CAT-I/CATII/CAT-III A/ CAT-IIIB Operations. Low visibility procedures (LVP) shall be implemented at the airport before the conduct of ILS CAT-II/CAT-III A/CAT-IIIB Operations.
- b. Low visibility procedures shall also be implemented for departures in Visibility/RVR less than 800M/550 M.
- c. It will be the responsibility of the Pilot to decide the category of ILS Approach. He/she may wish to carry out under the given conditions
- d. Safeguarding Procedures (SP) shall be initiated whenever Duty Officer (Tower) considers that the introduction of Low Visibility Procedures is necessary. Keeping in view the traffic density at SGRDJ International Airport Amritsar, actions for Safeguarding Procedures will be initiated only when there is any likely arrival or departure within one-hour period under above mentioned conditions.
- e. Duty officer (Tower) will co-coordinate with all the concerned agencies for implementation of Low Visibility Procedures.
- f. Safeguarding procedures (SP) must be complete before implementation of LVP.

### 2.2 EQUIPMENT

- 2.2.1 The following equipment shall be serviceable to the required standard.

- a) ILS localizer Transmitters (Both Main and Stand by)
- b) ILS glide path Transmitter (Both Main and Stand by)
- c) Airfield ground lighting system (AGL). (Runway Edge Lights, Runway Center Line lights, Precision Approach CATII/III lights, Stop Bars)
- d) RVR system (TDZ, MID and END)
- e) Standby power supply for ILS and airport ground lighting system
- f) Surface Movement Radar

- 2.2.2 The unserviceability of the above-mentioned items will affect the operations as given in the table Below.:

Facility	Unserviceability	Restrictions	
		Arrivals	Departures
ILS Localizer	One transmitter unserviceable	Suspend CAT II / CATIIIA / CATIIIB operations.	No restriction
ILS Glide Path	One transmitter unserviceable	Suspend CAT II / CATIIIA / CATIIIB operations.	No restriction
ILS DME	One transmitter unserviceable	Suspend CAT II / CATIIIA / CATIIIB operations.	No restriction

RVR System	TDZ RVR	Suspend CAT II / CATIIIA / CATIIIB operations.	Suspend Departures below 800 M Visibility.
	MID RVR	Suspend CATIIIA / CATIIIB operations.	Suspend Departures below 400 M RVR.
	END RVR	Suspend CATIIIA / CATIIIB operations.	Suspend Departures below 400 M RVR.
	MID and END RVR	Suspend CAT II / CATIIIA / CATIIIB operations.	Suspend Departures below 400 M RVR.
Stand By Power Supply lights	Generator unserviceable	Suspend CAT II / CATIIIA / CATIIIB operations	Suspend Departures below 400 M RVR.
Stop Bars		Suspend CATIIIA / CATIIIB operations	Suspend Departures below 400 M RVR.
Approach Lights	The inner 450 meters- more than 5 % of all lights	Suspend CAT II / CATIIIA / CATIIIB operations	No restriction
	Beyond 450 meters more than 15% of all lights		
Runway Edge lights	More than 5% of all Lights	Suspend CAT II / CATIIIA / CATIIIB operations	Suspend Departures below 800 M Visibility
	Two adjacent lamps		
Runway Center-line	More than 5% of all Lights	Suspend CAT II / CATIIIA / CATIIIB operations	Suspend Departures below 400 M RVR
	Two adjacent lamps		
Touchdown Zone lights	More than 10% of all Lights	Suspend CAT II / CATIIIA / CATIIIB operations	No restriction
	Two lamp in Barrette		
Threshold lights	More than 5% of all Lights	Suspend CAT II / CATIIIA / CATIIIB operations	No restriction
	Two adjacent lamps		
Runway End lights	More than 25% of all Lights	Suspend CAT II / CATIIIA / CATIIIB operations	Suspend Departures below 800 M/550M Visibility/ RVR
	Two adjacent lamps		

Taxiway Centre-line lights	Not applicable to CATII operation	Close affected taxiways, use alternate taxi route.	Close affected taxiways, use alternate taxi route. Alternate stop departures below 400 M RVR
	Two adjacent lamps		

NOTE: - Un-serviceability of any of the following facilities does not affect CAT-II/CATIIIA/ CAT-IIIB operations:

- i) PAPI
- ii) Taxiway edge lights (during day time only)

### **2.3 ILS CRITICAL & SENSITIVE AREA:**

2.3.1 The ILS critical and sensitive areas have been marked as per diagram in Appendix A. Protection of these areas during CAT-II/CAT-III operations will be ensured as per Standard Operating Procedures (Appendix- A).

**NOTE:** Signage's indicating the limits of localizer and glide paths sensitive areas have been provided.

### **3. SAFEGUARDING AND LOW VISIBILITY PROCEDURE**

#### **3.0 INITIATION OF SAFEGUARDING PROCEDURES-.**

#### **3.1 CRITERIA FOR INITIATING SAFEGUARDING PROCEDURES**

Safeguarding Procedures shall be initiated by Duty Officer (Tower) when:

- a) The RVR is less than 1200M or visibility is likely to deteriorate to 800M or less; and/or
- b) The cloud ceiling is 400 feet and likely to fall to 200 feet or less.

#### **3.2 Initiating Safeguarding Procedure**

3.2.1 When it is anticipated that low visibility procedures will need to be implemented, and criteria as specified in para 3.1 for safe guarding procedures is met, D.O. (Tower) will initiate safe guarding procedures and inform the following officers/agencies to complete the safe guarding procedures.

- a) Duty Officer (Equipment Room) to check serviceability of ILS and stand by supply.
- b) Shift in Charge Electrical/Power House to switch "ON" generator and carry out inspection of AGL. During LVP, the standby generator will take over as primary power source and the mains supply becomes the back-up power source to achieve switch over time of one second.
- c) Fire Station for positioning CFTs/Ambulances at PDPs and runway crossing traffic light.
- d) CISF Control Room for positioning guards for protection of LLZ and GP sensitive and critical area as per SOP.
- e) Airport Police Station to deploy guards to protect GP sensitive areas outside AAI boundary wall as per SOP.
- f) IAF Main Guard Room/Base Operations Office (through IAF Exchange) to inform all sections of IAF.
- g) Duty Officer (IMD) to check serviceability of RVR System
- h) Work Supervisors to stop maintenance work in maneuvering area.

**3.2.2** On receipt of the above information, all the concerned agencies will take action as per their assigned duties for proper planning and implementation of LVP. All the concerned agencies shall report to DO (Tower) on completion of their actions along with any significant information related to implementation of LVP.

### **3.3 LOW VISIBILITY PROCEDURES**

#### **3.3.1 CRITERIA FOR IMPLEMENTING LOW VISIBILITY PROCEDURES (LVP):**

Low Visibility Procedures shall be implemented by Duty Officer (Tower) when:

- a) Either the TDZ or MID RVR or END RVR is less than 800M or
- b) Cloud ceiling is less than 200 feet; and
- c) SP has been completed and the airport is safeguarded.

#### **3.4 IMPLEMENTATION OF LOW VISIBILITY PROCEDURES: -**

**3.4.1** Duty officer (Tower) shall implement Low Visibility Procedures when either TDZ RVR, MID RVR or END RVR is less than 800M and/or the cloud ceiling is less than 200 feet. Before implementing LVP, Duty officer (Tower) shall ensure that all safeguarding procedures are completed.

He shall inform the following about implementation of LVP: -

- a) Duty Officer (Equipment Room)
- b) Shift in Charge Power House and to confirm that generator is “ON” and Switch over time of 1 second is to be maintained.
- c) Duty MET Officer
- d) Fire Station

He will also ensure that, “**LOW VISIBILITY PROCEDURES IN OPERATION**” is included in ATIS broadcast.

#### **3.5 CANCELLATION OF SAFEGUARDING PROCEDURES AND LOW VISIBILITY PROCEDURES: -**

##### **3.5.1** DO (Tower) may terminate LVP when:

- a) Meteorological conditions improve and TDZ, MID & END RVR are 800M or more and the cloud ceiling is 200 feet or higher, and trend is for improvement.
- b) Facilities, equipment and services necessary for CAT-II/CAT-III/A/CAT-III/B operations are degraded and/or the prevailing conditions are considered unsafe for such operations.
- c) There is no flight movement during the next one hour.
- d) Duty officer (ATC) should consult Meteorological Office for forecast before cancelling SP and LVP.

**3.5.2** When LVP are cancelled DO(Tower) shall ensure to include in the subsequent two ATIS broadcasts that “**LOW VISIBILITY PROCEDURES ARE CANCELLED**” and Inform all the concerned agencies as specified at Para 3.4.1

**3.5.3** If SP are implemented and LVP are not subsequently initiated and MET conditions improve and the visibility/RVR is more than 1200M and the cloud ceiling is 400 feet or higher and both are likely to remain above the required SP criteria, Duty Officer (Tower) may cancel SP.

### **4. AIR TRAFFIC CONTROL PROCEDURES**

#### **4.1.1** During LVP, the Aerodrome Control and Approach control shall have the following information:

- a) Status of ILS
- b) Serviceability of visual aids
- c) RVR information of TDZ, MID & END.

**4.1.2** Following information shall be passed to aircraft on first contact or as soon as possible thereafter:

The current TDZ RVR, and

- a) For CAT-II operations- if TDZ RVR is below 550M then MID RVR shall also be passed.
- b) For CAT-III A operations- if TDZ RVR is below 300M then MID & END RVR shall also be passed.
- c) For CAT-III B operations- if TDZ RVR is below 175M then MID & END RVR shall also be passed.
- d) For LVTO- MID RVR and END RVR shall also be passed.
- e) The un-serviceability of any essential facility/AGL/component parts of CATII/CAT-III A/ CAT-III B facilities not previously broadcast on ATIS as applicable.
- f) Any significant change in any of the above information.

**4.1.3 Departing aircraft-**

**4.1.3.1** To ensure that the departing aircraft passes overhead the localizer before the inbound aircraft reaches 5D (ILS DME), the departing aircraft must commence take-off run before the arriving aircraft passes 10D (ILS-DME).

**4.1.3.2** During take-off in CAT II/III A/III B conditions, The LSA in front of a departing aircraft shall not be infringed from the time take-off clearance is issued until the aircraft has departed and passed over the localizer aerial.

**4.1.4 Arriving aircraft-**

**4.1.4.1** Adequate spacing must be ensured between the successive arriving aircraft so that landing clearance may be issued by at least 5 ILS DME. Special precaution may be exercised to take account of time taken for vacating runway as aircraft will be backtracking for vacation via TWY "E" or TWY "F" after landing.

**4.1.4.2** Arriving aircraft shall be issued landing clearance not later than 5D (ILS DME). If landing clearance cannot be issued when the aircraft is 5D (ILS DME), it shall be instructed to carry out a missed approach.

**4.1.4.3** Approach Control shall ensure that second arrival is cleared for CAT-II/ CAT-III A/CAT-III B ILS approach only after first aircraft has landed & vacated runway after backtrack or has carried out missed approach.

**4.1.4.4** The LSA in front of an arriving aircraft shall not be infringed from the time it is 5D (ILS DME) until it has completed its landing roll.

**4.1.4.5** Arriving aircraft should be given unimpeded taxi route to allow it to clear the localizer sensitive area expeditiously.

**4.1.4.6** Landing clearance shall not be issued until:

- a) Preceding landing aircraft reports that it has vacated the RWY.
- b) Preceding departing aircraft is airborne and has passed over the localizer antenna.

**4.1.5** ATC shall initiate emergency action if an aircraft is not seen/observed or not in radio contact as expected.

**4.1.6** Record of all the actions with time shall be maintained and signed by the officer taking action.

**4.2 SURFACE MOVEMENT CONTROL PROCEDURES: -**

**4.2.1** 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.

**4.2.2** SMC shall monitor the status of taxiway lights and immediately advise the aircraft under its control of any un-serviceability affecting the LVP taxiways.

**4.2.3** ADC/SMC should monitor the progress of arriving aircraft as they vacate the runway after landing and ensure that they do not stop within the limits of LSA, thereby degrading ILS integrity for subsequent landing aircraft. DC/SMC shall also monitor surface movement of aircraft and essential vehicles on the maneuvering area.

**4.2.4** Pilots shall report RWY vacated when aircraft is clear of the ILS sensitive area. Runway vacation boards have been provided at a distance of 160M from runway Centerline on TWY "E" or TWY "F" which will be used exclusively for Runway vacation report after landing.

**4.2.5** When RVR is less than 550M, vehicle movement should be restricted. Only operationally essential vehicles duly authorized by ATC should be permitted to operate. These vehicles shall remain outside the GP/LLZ critical and sensitive area. Any movement of vehicle on the maneuvering area shall be coordinated with ATC.

**4.2.6 ADC/SMC shall inform all taxiing aircraft of the preceding taxiing or holding aircraft.**

**4.3 LOW VISIBILITY PROCEDURE TAXI ROUTE: -**

The Low Visibility Taxi Routes are intended to assist the pilots in determining their location on the airport during the periods of low visibility.

**4.3.1** When LVP is in force, aircraft shall be routed in accordance with the pre-designated taxi routes.

**4.3.2** During CAT-II/CAT-III/A/CAT-IIIB conditions i.e. when RVR is reduced to less than 550M, "Follow Me" service will be provided to arriving aircraft and departing aircraft will be provided "Follow Me" service on request.

**NOTE: "Follow Me" service shall be provided by trained personnel who are fully familiar with the taxi routes and other maneuvering area/apron/bays.**

**4.3.3** The following taxi routes shall be used for arrivals:

A) CAT II operations (RVR not below 350 M) After landing on RWY 34 make 180-degree turn on intermediate turning pad or at the end of runway and backtrack to vacate runway via TWY 'E'. Taxi to allotted parking stand from 1 to 5 or 11 to 14 provided with parking stand guidance lights.

B) CAT III A/B operations (RVR below 350 M but not below 50 M)

After landing on runway 34 make 180-degree turn at the end of runway and backtrack to vacate runway via TWY- 'E' then taxi via TWY 'G' to parking stand no. 3 or to vacate runway via TWY 'F' and taxi to parking stand no. 4, 5 or 11 provided with parking stand guidance lights.

**4.3.4** Airline operators will be responsible for ensuring that the aircraft stand taxi lane & parking stand area is clear of all equipment when aircraft is taxiing in for parking or taxing out for departure.

**4.3.5** All departing aircraft shall pushback facing south only and taxi via main apron, TWY 'L' and 'P' to holding point RWY 34.

**NOTE:**

(i) There are total 14 parking bays numbered from 1 to 14. All parking bays are Power-in/Push Back. During LVP, parking bays along the Eastern Side of Apron i.e. bays 1 to 5 and 11 to 14 will only be used to avoid crossing of apron.

(ii) Simultaneous push back from adjacent bays is not permissible

(iii) TWY centerline lights are provided at TWY 'F' and 'E' and from there to parking bay no. 1 to 5 and 11 to 14. however, during CAT-II/CAT-III/A/ CAT-IIIB operations all aircraft after landing will be provided 'follow me' service, on request, from TWY 'E' or TWY 'F' to parking stand.

(iv) The airline operators will ensure that push-back area is clear of all equipment before push back is commenced.

**5. DESCRIPTION OF EQUIPMENT RUNWAY VISUAL RANGE (RVR)**

**5.1 PROVISION OF EQUIPMENTS FOR CAT-II/ CAT-III/A/ CAT-IIIB OPERATIONS: -**

**5.1.1 RUNWAY VISUAL RANGE (RVR): -**

i) There are three transmissometers recording RVR values for RWY-34.

ii) One unit is located at the touch down zone (TDZ) and second unit at runway mid-point (MID) and third unit at END RVR RWY34. RVR values always refer to as Touchdown RVR (TDZ), Mid-point RVR (MID) and END RVR.

**5.1.2 RVR IS REPORTED IN THE FOLLOWING SCALES: -**

a) In the increments 25M when less than 400M.

b) In the increments 50M when RVR greater than 400M but less than 800M.

c) In the increments 100M when 800M or more.

d) The maximum reportable value of RVR is 2000M. When RVR is above 2000M, it is reported as 2001M.

**5.2 AIRFIELD GROUND LIGHTING (AGL) SYSTEM: -**

**5.2.1** The Precision Approach Lighting systems for CAT-II/CAT-III/A/ CAT-IIIB operations are installed on RWY-34 at SGRDJ International Airport, Amritsar.

**5.2.2** During Low visibility operations, the standby generator will take over as primary power source to achieve switch over time of one second and the mains supply becomes the back-up power source.

**5.2.3** TWY 'E', 'G', 'F', 'L' and 'P' have CAT IIIA/IIIB standard taxiway lighting.

**5.2.4** The following parking stands shall be used in LVP operations:

CAT II operations : Parking stands - 1 TO 5 and 11 TO14

CAT III A/B operations : Parking stands 3, 4, 5 AND 11.

**5.2.5 STOP BAR:** -Stop bars have been provided on TWY- "F", "E" and "P".

### **5.3 INSPECTIONS OF AIRFIELD GROUND LIGHTING SYSTEM:-**

**5.3.1** Appropriate airfield ground lights must have been inspected during the hour preceding implementation of LVP, and thereafter every subsequent two hour period. The lighting inspections should be accorded high priority and in view of this, inspections of Airfield Ground Lighting System will be carried out at the time of initiating safeguarding procedures before any arrival or departure under low visibility conditions. Routine inspections of AGL system will be conducted daily by EnggElect in coordination with ATC Tower.

**5.3.2** Duty officer (Tower) is responsible for organizing lighting inspections and he shall inform Shift-in Charge Power House for this. On receipt of information from DO (Tower) regarding initiation of safeguarding procedures, Shift-in-Charge (Power House) shall arrange for an inspection of the relevant airfield ground lighting system on priority. To ensure minimum delay in completing the inspection, a dedicated team along with a vehicle will be kept ready in Power House during low visibility conditions. In-Charge Engineering (Elect) shall issue necessary instructions regarding this.

**5.3.3** For LVP, only the lighting for the active runway and associated taxiways are to be inspected.

### **5.4 Non-Visual Ground Surveillance System:**

**5.4.1** SGRDJ Airport Amritsar has been equipped with Advanced Surface Movement Guidance and Control System (ASMGCs). The system provides non-visual electronics surveillance of maneuvering area and facilitates the controllers to identify potential ground conflict and runway incursions.

### **5.5 NAVIGATIONAL AIDS: -**

**5.5.1** RWY-34 has been equipped with CAT-II/CAT-III/A/ CAT-IIIB Instrument Landing System (ILS).

**5.5.2** The ILS category monitor panel at the Control Tower console indicates ILS Category availability by monitoring the following equipment:

- i) Main or Standby localizer transmitter (Both Main & Standby Transmitter status monitoring is available in equipment room).
- ii) Main or standby glide path transmitters (Both Main & Standby Transmitter status monitoring is available in equipment room).
- iii) The runway Centre line lights are bidirectional.

**5.5.3** The status of the ILS DME is monitored and displayed by a separate Nav. Aid status indicator panel.

### **5.6 AIRPORT FIRE SAFETY SERVICES (AFSS):-**

**5.6.1** On receipt of information from ATC Tower regarding SP, CFTs will take position on following re-determined positions (PDPs):

- i) On Holding Positions on IAF Parallel Taxiway (Western Side) joining RWY- 34 & RWY-16.
- ii) In front of Fire station on the approach road to runway.

**5.6.2** In the event of an incident when LVP is in force, ATC Tower should provide the maximum assistance in directing AFSS to required location.

## **6. ACTIONS BY VARIOUS AGENCIES**

### **6.1 ACTION BY DUTY OFFICER (EQUIPMENT ROOM):-**

On receipt of information from DO (Tower) regarding initiation of SP, Duty Officer (Equipment Room) will:

- i. Check the status of:
  - a. Main and standby ILS system (LLZ/Glide Path/ILS-DME); and
  - b. Status Indicators in the ATC units
  - c. Inform Duty Officer (TOWER) of any un-serviceability in the equipment which is likely to affect ILS CAT-II/CAT-III/A/ CAT-IIIB operation.
- ii. On receipt of message from DO (Tower) that LVP is implemented: Duty Officer (Equipment Room) will continuously monitor the performance of ILS system and intimate DO (TOWER) of any un-serviceability which may affect ILS CAT-II/CAT-III/A/ CAT-IIIB operations.

## **6.2 ACTION BY SHIFT-IN-CHARGE POWER HOUSE (ELECTRICAL ENGINEERING): -**

On receipt of information from DO (Tower) regarding initiation of SP, Shift-in-Charge Power House will:

- i) Check that the following AGL associated with RWY-34 is serviceable and can be operated at full intensity.
  - a) Approach lighting system
  - b) Runway Edge lights
  - c) Runway threshold and end lights
  - d) Runway Centre line lights
  - e) Runway touch-down zone lights
  - f) Stop Bar lights
  - g) Taxiway edge lights

### **NOTE: -No adjustment of light intensities shall be made without permission from Control Tower.**

- ii) Inform the un-serviceability beyond permissible limits of above visual lighting aids to Duty Officer (TOWER).
- iii) Ensure that standby generator takes over as primary power source and the mains supply becomes the backup power source when informed by DO (TOWER) regarding implementation of safeguarding/ Low Visibility Procedures.
- iv) Ensure that CCR Hall is manned by competent personnel and shall remain available on telephone or maintain a listening watch on Walkie-Talkie.
- v) Coordinate for inspection of AGL and inform the un-serviceability or any change in status of any facility/systems to DO (TOWER) immediately.

## **6.3 ACTION BY CISF CONTROL ROOM: -**

- i) Position CISF Guards at designated locations on perimeter road on both sides towards runway-34. Any vehicular movement beyond the barriers provided at these locations shall be in coordination with ATC Tower as per SOP.
- ii) Stop movement of people going to "Gurudwara Santsar Shaib" after implementation of safeguarding procedures. Any crossing of taxiway "G" for movement to/from gurudwara shall be positively coordinated with ATC Tower as per SOP.
- iii) In charge, CISF Control Room will immediately inform all access gates and CISF Posts in operational area/Perimeter Road to keep surveillance on movement of vehicles/personnel and inform ATC Tower immediately of any possible runway incursion.
- iv) After initiation of Safeguarding Procedures, Shift in Charge (CISF) shall immediately inform all access gates and CISF Posts in operational area/Perimeter Road to keep surveillance on movement of vehicles/personnel and inform ATC Tower immediately of any vehicle/person entering or present in the sensitive/critical areas of localizer and glide path or any possible runway incursion.

## **6.4 ACTION BY BASE OPS/ AIRFORCE GUARD ROOM AT IAF MAIN GATE:**

### **6.4.1 Inform Station Commander and COO.**

- i) On receipt of information regarding implementation of Low Visibility Procedures, the IAF personnel on Duty at main guard room will immediately inform all sections of IAF and access gates/DSC Guard Posts in operational area.
- ii) All work in operational area on Western side of runway shall be stopped.
- iii) Use of IAF Parallel Taxi Track is prohibited till the termination of LVP.

## **6.5 ACTION BY TERMINAL MANAGER & E & M SECTION: -**

- i) E & M Section will position the "Follow Me" jeep in front of arrival in airside on apron with Walkie Talkie. The driver of the "Follow Me" jeep will be keeping listening watch on Walkie-Talkie and will remain in the jeep. (Call sign-"Follow Me" jeep).
- ii) The "Follow Me" jeep will proceed to Fire station immediately when instructed by ATC Tower to provide "Follow Me" service to arriving aircraft by Fire Service personnel.
- iii) Terminal Manager will deploy staff on airside to ensure that airside regulations are being followed strictly by all agencies.
- iv) Inform ATC Tower in case any violations of the LVP procedures on apron are noticed.

**6.6 ACTION BY FIRE STATION: -**

- i) Ensure that AFSS are on standby at the pre-determined position (PDPs) whenever safeguarding procedures are in force.
- ii) Fire Watch Tower shall keep proper surveillance of aircraft movement and take immediate action in case of any incident in coordination with ATC Tower
- iii) Use of IAF PTT is prohibited after safeguarding procedures are initiated. CFTs at PDPs on IAF PTT on both ends must keep surveillance of any vehicular movement on IAF PTT and intimate ATC Tower of any violations.
- iv) Carry out runway inspections and provide "Follow Me" service whenever informed by ATC Tower. ATC Tower will send the "Follow Me" jeep to Fire Station for this purpose.

**6.7 ACTION BY DUTY OFFICER-METEOROLOGY: -**

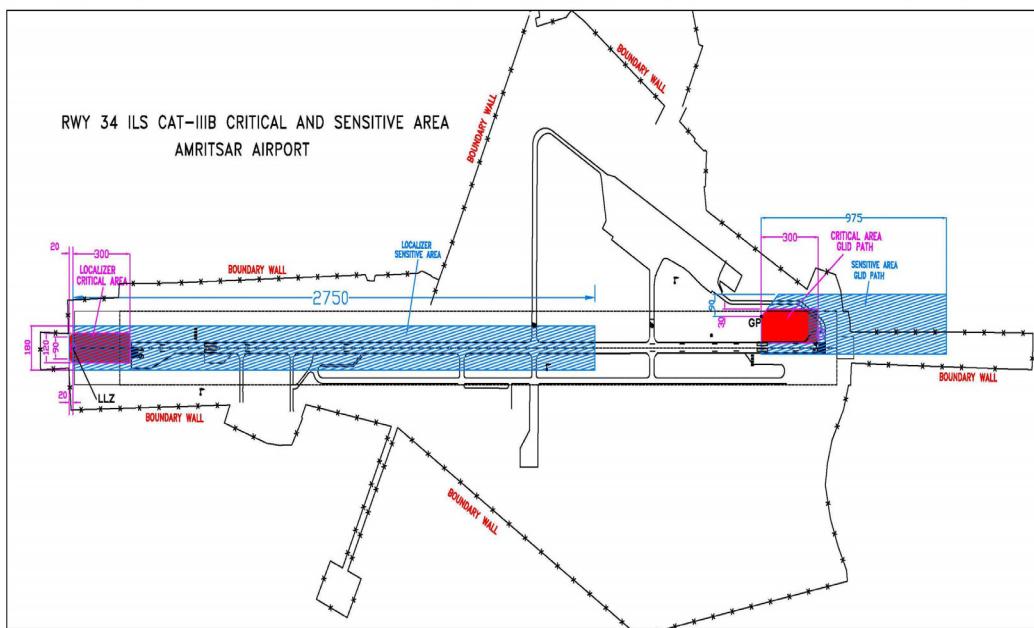
- i) Duty Met. Officer should advise DO (ATC) about probability of Low Visibility conditions whenever he expects that the RVR RWY-34 and/or cloud ceiling will fall below 800M and/or 200 feet or less respectively.
- ii) Whenever the RVR and/or cloud ceiling are 800M and/or 200 feet respectively and the trend is towards improvement in these elements of weather conditions, the Duty Met Officer may, when requested by DO (ATC), advise him about such improving weather conditions for the purpose of termination of SP/LVP operation.
- iii) The Duty Met. Officer would ensure that the RVR displays in ATC units in the Control Tower are serviceable. He would also ensure that RVR/visibility recorders of Touch-down zone (TDZ), Mid-Point (MID) and RVR positions are serviceable.

**NOTE:-Due to non-availability of weather forecast at SGRDJ INTERNATIONAL, it may not be always possible to predict precise anticipated values of RVR/ceiling.**

**6.8 ACTION BY AIRLINE OPERATORS, GROUND HANDLING AGENCIES AND OTHER AGENCIES: -**

- i) All agencies like airlines, ground handling agencies, refueling companies, catering agencies, Customs, Immigration, etc. operating in the airside shall ensure that only those vehicles that are absolutely essential for aircraft operations are in use. The drivers of these vehicles should keep a look out for taxiing aircraft and other vehicles to prevent accidents.
- ii) All the vehicles must have their obstruction lights "ON" during Low Visibility Procedures operations and strictly follow vehicular lane.
- iii) Follow all instructions/sign boards provided for vehicular movement area/service roads
- iv) No vehicle/equipment/personnel shall enter in and around the vicinity of the runways or taxi-tracks except with prior permission of Duty Officer (TOWER).
- iv) Airlines/ground handling agencies must ensure that push back area and taxiing path of aircraft on apron shall be kept clear of equipment/vehicles.

Appendix - A



**Appendix-B**

**STANDARD OPERATING PROCEDURES**

**1. SOP FOR CONTROL OF VEHICULAR MOVEMENT IN APPROACH FUNNEL AND PROTECTION OF LOCALIZER CRITICAL AREA & GLIDE PATH SENSITIVE AREA**

Some portion of the perimeter road on Eastern & Western Side of runway-34 side is falling in the approach funnel. Also, some portion of perimeter road beyond localizer building & new DVOR building is falling in localizer critical area. In addition to this, on Eastern side of runway-34, some portion of perimeter road is in the sensitive area of Glide Path. As a permanent measure, barriers, which will be controlled from ATC Tower, will be installed on locations "A" & "B" shown in the enclosed map to control the vehicular traffic and perimeter road will be re-alignment to protect localizer critical area. As a temporary measure, in order to control the vehicular movement in the above areas, the following standard operating procedure will be followed:

- i) To control the vehicular movement towards approach funnel and glide path sensitive area of runway-34 on Eastern Side, a CISF guard with Walkie-Talkie will be positioned at location "A" near CISF barrack. He will positively coordinate with ATC Tower via CISF Control Room before allowing any vehicle beyond this point. A barrier has been provided at this location which will be operated manually by CISF guard.
- ii) To control the vehicular movement towards approach funnel of runway-34 on Western Side, a CISF guard with Walkie-Talkie will be positioned at location "B" near ORPs. He will positively coordinate with ATC Tower via CISF Control Room before allowing any vehicle beyond this point. A barrier has been provided at this location which will be operated manually by CISF guard.
- iii) To protect localizer critical area towards runway-16, CISF Guards with WalkieTalkie positioned at new DVOR building and Localizer building will be repositioned on perimeter road. These guards will not allow any vehicle/persons beyond the barrier installed bear new DVOR and localizer building without clearance from ATC Tower. He will positively coordinate with ATC Tower via CISF Control Room before allowing any vehicle beyond this barrier which will be operated manually by CISF guard.

**LOCATION "A" & "B"**



## **2. SOP FOR CONTROL OF RUNWAY CROSSING BY IAF VEHICLES/ PERSONNEL & CROSSING OF TAXIWAY "G" FOR MOVEMENT TO/FROM GURUDWARA**

At SGRDJ International Airport, Gurudwara Santsar is located on West of Taxiway "G". To control the movement of devotees to/from gurudwara, the following procedure will be followed:

- a) On receipt of information regarding implementation of safeguarding procedures, CISF Control Room will instruct the CISF guards on duty to coordinate all movement to/from gurudwara with ATC Tower.
- b) Crossing of Taxiway "G" shall not be allowed for movement to/from gurudwara unless positively coordinated with ATC Tower.

## **3. SOP FOR CONTROL OF CONSTRUCTION ACTIVITY, ERECTION OF POLES/ LINES, MOVEMENT OF VEHICLES/ MACHINERY ETC. IN GLIDE PATH SENSITIVE AREA IN AGRICULTURAL LAND OUTSIDE AAI BOUNDARY WALL**

At SGRDJ International Airport, on Eastern side of runway-34, some portion of sensitive area of Glide Path is falling outside AAI boundary wall in the private agricultural land. The Distt. Administration/Local Police will sensitize the owner of the agricultural land about the importance of requirement to protect sensitive area of glide path.

In order to control the movement of vehicles, machinery, erection of electric poles/lines, construction activity etc in this area, the following standard operating procedure is formulated in consultation with Airport Police Station/Distt Administration:

- i) Whenever visibility is at or below 1200m, safeguarding procedures are implemented by ATC Tower. As soon as safeguarding procedures are implemented, ATC Tower will intimate Airport Police Station on Tele- 0183- 2214099 or in person in case of no contact on telephone. The Airport Police Station which is located within airport premises will inform the owner of the agricultural land to take out any vehicle/machinery from the earmarked area.
- ii) Airport Police Station will position two police posts on the locations marked on enclosed map. They will not allow any vehicle/machinery to enter the glide path sensitive area as shown in the map and ask the owner of the agricultural land to remove any vehicle/machinery present in the sensitive area.
- iii) The Police personnel deployed in the sensitive area will intimate ATC Tower of any unauthorized vehicles/machinery in the sensitive area and also confirm to ATC Tower that any vehicle/machinery present in the sensitive area has been removed.

**NOTE:** - No construction activity or erection of electric poles/lines will be allowed in the sensitive area outside AAI boundary wall by enforcing provisions of Aircraft Act 1934.



### **GLIDE PATH SENSITIVE AREA OUTSIDE AAI BOUNDARY WALL**

**VIAR AD 2.23 ADDITIONAL INFORMATION**

- 1.ADS-B Ground System Commissioned
- 2.Intermediate Turning Pad AVBL for RWY 16, TORA 3289M.
- 3.Taxiway 'F' Intersection Departure for runway 34 available as follows:

RWY	INTERSECTION	TORA	TODA	ASDA
34	F	2740M	2740M	2740M

4. All operators to make their own arrangement or positively coordinate with AIR INDIA OR authorized ground handling agency for pushback facility before operating flights to/from VIAR.\

5. Permanent commissioning of ASR-MSSR.

6. Details of Taxiway P:

Location:From beginning Runway34

Length:546M

Shoulder: 10.5M

Aircraft Suitability: Code 'E'

Edge light Colour/Spacing: Blue / 60M

7.Details of Taxiway L:

Location:From P End to Apron

Length: 110 M

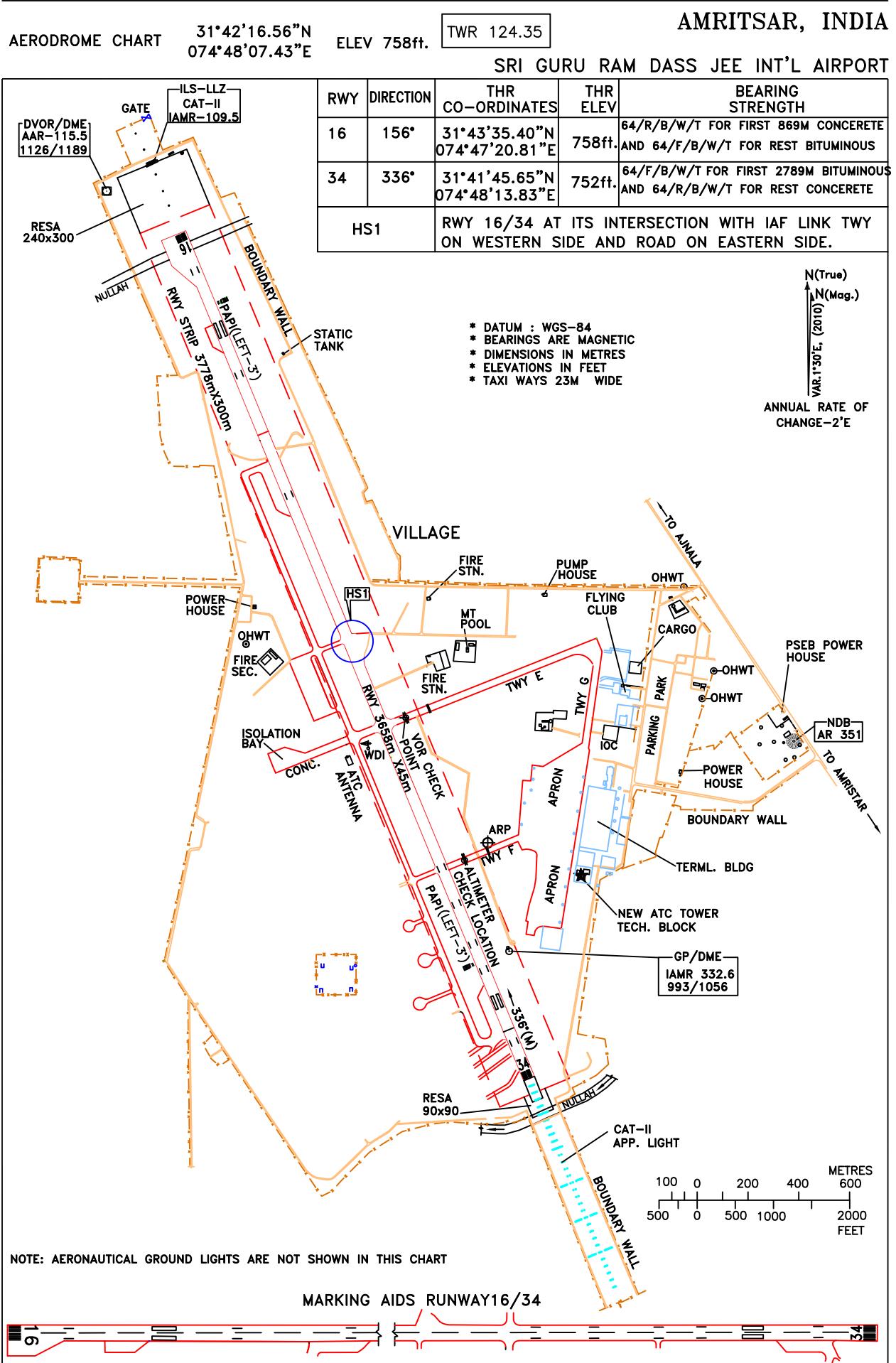
Shoulder: 10.5M

Aircraft Suitability: Code 'E'

Edge light Colour/Spacing: Blue / 60M

**VIAR AD 2.24 CHARTS RELATED TO AN AERODROME**

- 1.Aerodrome Chart Hot-Spot
- 2.Aircraft Parking/Docking Chart
- 3.Aerodrome Obstacle Chart Type – A, (Operating Limitations) RWY 16
- 4.Aerodrome Obstacle Chart Type – A, (Operating Limitations) RWY 34
- 5.Aerodrome Chart
- 6.ILS (Z) CAT I Procedure RWY 34
- 7.ILS (Y) CAT I Procedure RWY 34
- 8.ILS CAT II Procedure RWY 34
- 9.VOR Procedure RWY 16
- 10.VOR Procedure RWY 34
- 11.ATC Surveillance Minimum Altitude Chart



AIRCRAFT PARKING/  
DOCKING CHART

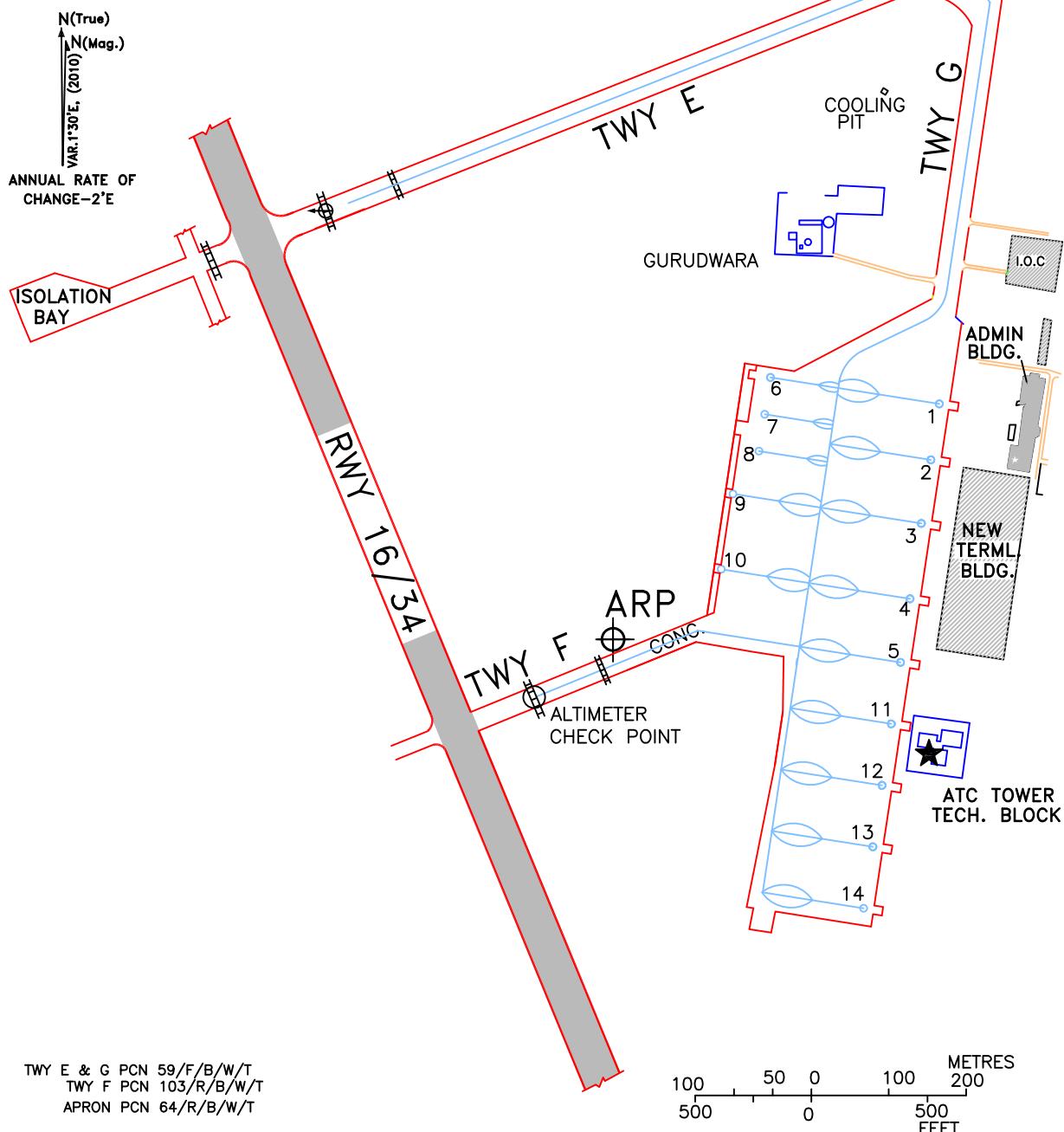
APRON ELEV 754ft

TWR 124.35

AMRITSAR, INDIA

SRI GURU RAM DASS JEE INT'L AIRPORT

\* DATUM : WGS-84  
 \* DIMENSIONS IN METRES  
 \* ELEVATIONS IN FEET  
 \* TAXI WAYS 23M WIDE



LEGEND	
AIRCRAFT STAND	14
TAXI-HOLDING POSITION	====
VOR CHECK POINT	○

AIRCRAFT STANDS 1,9 & 10 FOR UPTO B764 (CODE-D)  
 AIRCRAFT STANDS 2 TO 5, 11 TO 14 FOR UPTO A346/B744 (CODE-E)  
 AIRCRAFT STANDS 6 TO 8 FOR UPTO A321/B739 (CODE-C)

BAY No.	WGS CO-ORDINATES	ELEV.	BAY No.	WGS CO-ORDINATES	ELEV.
1.	31°42'24.8"N 074°48'21.8"N	753ft.	8.	31°42'23.0"N 074°48'13.7"N	751ft.
2.	31°42'22.7"N 074°48'21.5"N	753ft.	9.	31°42'22.4"N 074°48'12.6"N	751ft.
3.	31°42'20.3"N 074°48'21.1"N	753ft.	10.	31°42'18.5"N 074°48'12.2"N	751ft.
4.	31°42'17.4"N 074°48'20.5"N	753ft.	11.	31°42'12.7"N 074°48'19.7"N	753ft.
5.	31°42'15.0"N 074°48'20.2"N	753ft.	12.	31°42'10.4"N 074°48'19.3"N	753ft.
6.	31°42'26.0"N 074°48'14.3"N	750ft.	13.	31°42'08.8"N 074°48'18.8"N	753ft.
7.	31°42'24.4"N 074°48'14.0"N	751ft.	14.	31°42'05.7"N 074°48'18.5"N	753ft.

NOTE: AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART

DATE OF AERONAUTICAL INFORMATION  
JUNE 2013

ELEVATIONS IN FEET  
ALL OTHER DIMENSIONS IN METRES

# AERODROME OBSTACLE CHART

TYPE-A (OPERATING LIMITATIONS)

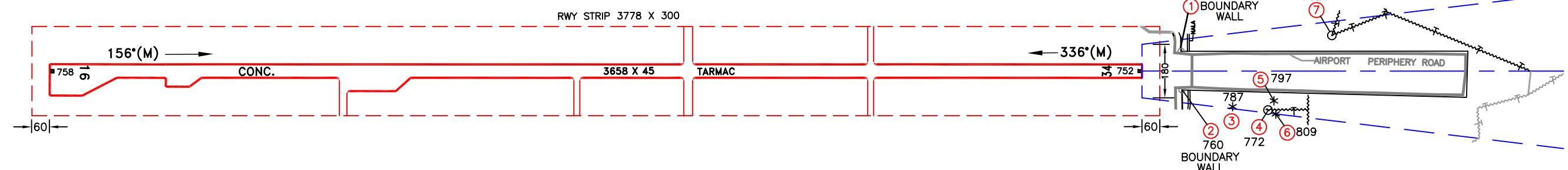
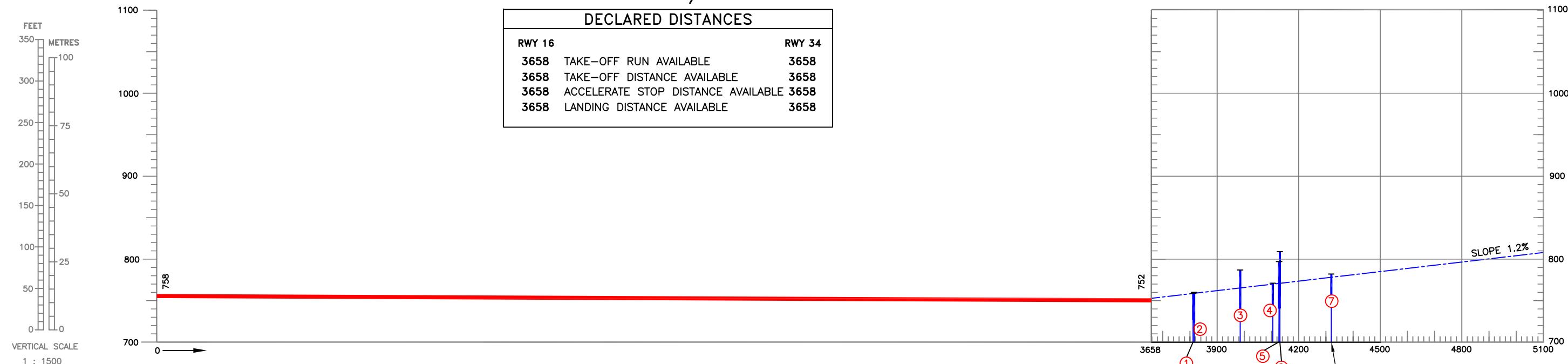
INDIA / AMRITSAR  
SRI GURU RAM DASS JEE INTL. AIRPORT - RWY 16

MAGNETIC VARIATION 2°E 2010

RWY-16/34

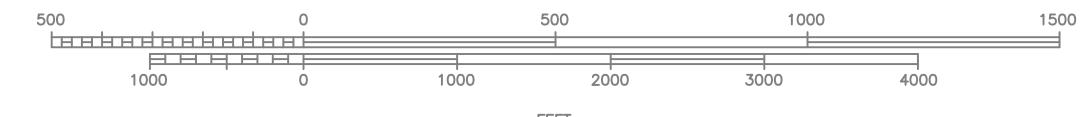
## DECLARED DISTANCES

RWY 16	RWY 34
3658 TAKE-OFF RUN AVAILABLE	3658
3658 TAKE-OFF DISTANCE AVAILABLE	3658
3658 ACCELERATE STOP DISTANCE AVAILABLE	3658
3658 LANDING DISTANCE AVAILABLE	3658



HORIZONTAL SCALE - 1 : 15000

METRES



## LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
TREE OR SHRUB	*	
POLE, TOWER, SPIRE, ANTENNA ETC.	○	①
HIGH TENSION LINE	~~~~~	
ROAD	—	
HEIGHT(AMSL)	759	

## ORDER OF ACCURACY

HORIZONTAL - 3.0m  
VERTICAL - 1ft.

## NOTES:

- The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
- Obstructions in the form of trees which are being cut or pruned have not been taken into consideration for establishing threshold displacement.
- Datum - All Elevations are AMSL.
- Periphery road without traffic is no obstacle.
- Consult Notam for latest information.
- All obstacles shown in this chart are based on aeronautical obstacle Survey March, 2011.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY
1.	08.06.12	AMND. as per Amritsar Jt. GM(ATM) Itr. no. AAI/ASR/ATM/12/234, DT.25.05.12. R.S.

AERONAUTICAL INFORMATION UPTO - AUG.2013  
वैमानिक सूचना . अगस्त 2013 तक

COMPILED BY - AERONAUTICAL CHART CELL, AIRPORTS AUTHORITY OF INDIA  
संग्रहित किया : वैमानिक मानचित्र प्रकोष्ठ, भारतीय विमानपत्तन प्राधिकरण

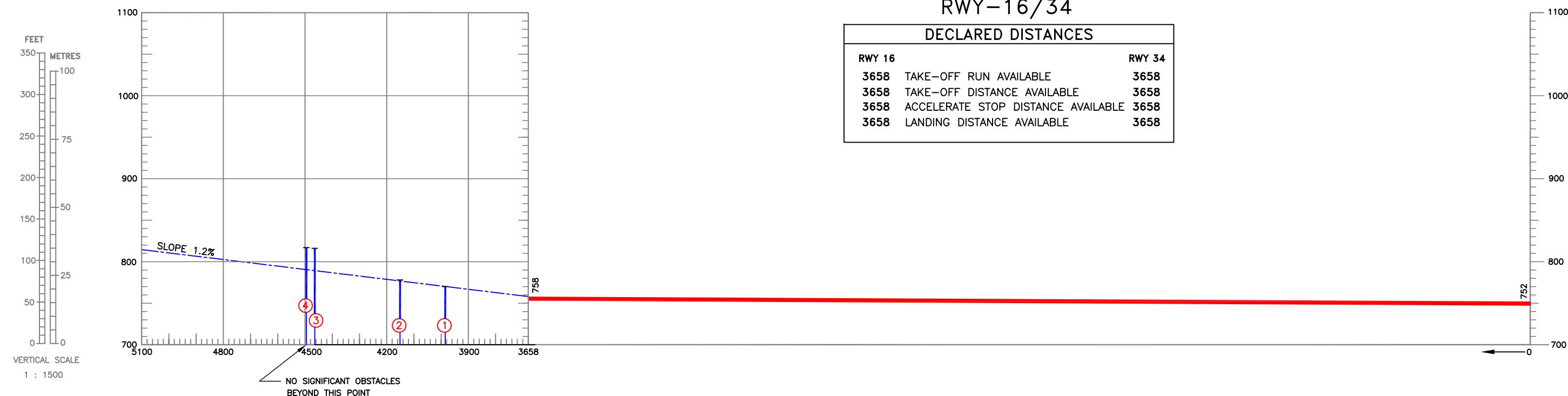
CHART No.AAI/13-OBS/ACC/2013  
चार्ट सं. भा.विप्रा./13-अव./वै.मा.प्र./2013

ELEVATIONS IN FEET  
ALL OTHER DIMENSIONS IN METRES

# AERODROME OBSTACLE CHART TYPE-A (OPERATING LIMITATIONS)

INDIA / AMRITSAR  
SRI GURU RAM DASS JEE INTL. AIRPORT - RWY 34

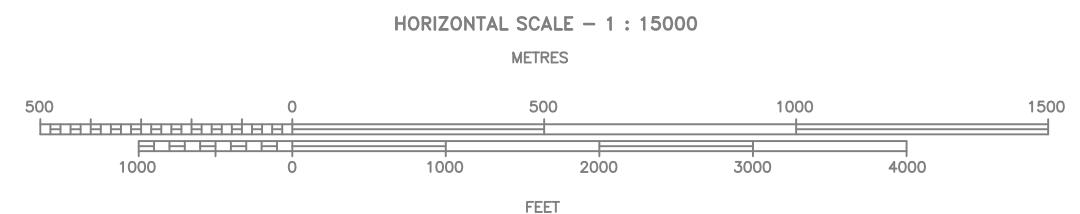
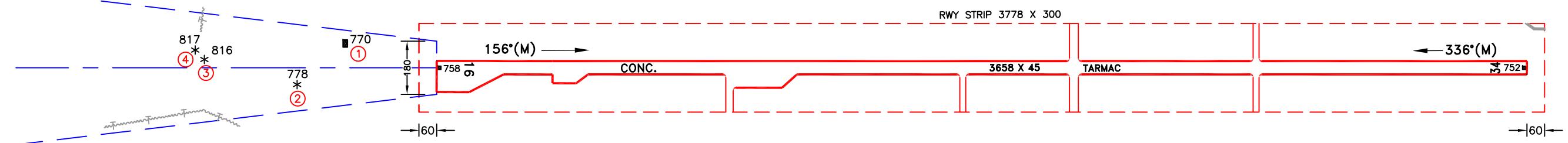
MAGNETIC VARIATION 2°E 2010



RWY-16/34

### DECLARED DISTANCES

RWY 16	RWY 34
3658 TAKE-OFF RUN AVAILABLE	3658
3658 TAKE-OFF DISTANCE AVAILABLE	3658
3658 ACCELERATE STOP DISTANCE AVAILABLE	3658
3658 LANDING DISTANCE AVAILABLE	3658



LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	①	①
TREE OR SHRUB	*	
BUILDING OR LARGE STRUCTURE	■	
HIGH TENSION LINE	~~~~~	
HEIGHT(AMSL)	778	

ORDER OF ACCURACY	
HORIZONTAL	- 3.0m
VERTICAL	- 1ft.

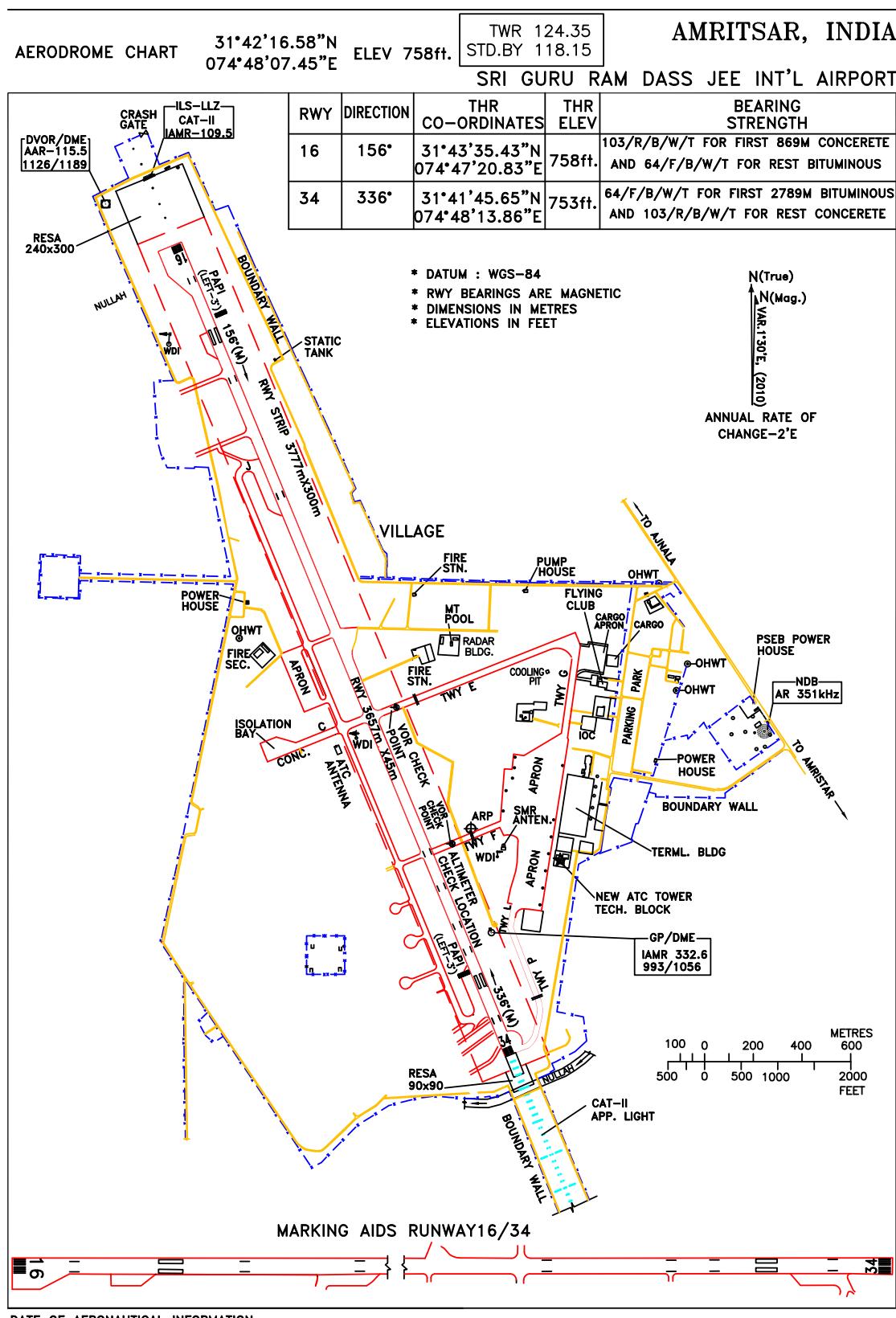
- NOTES:
- The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
  - Obstructions in the form of trees which are being cut or pruned have not been taken into consideration for establishing threshold displacement.
  - Datum - All Elevations are AMSL.
  - Periphery road without traffic is no obstacle.
  - Consult Notam for latest information.
  - All obstacles shown in this chart are based on aeronautical obstacle Survey March,2011.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY
1.	08.06.12	AMND. as per Amritsar Jt. GM(ATM) Itr. no. AAI/ASR/ATM/12/234, DT.25.05.12. R.S.

AERONAUTICAL INFORMATION UPTO - AUG.2013  
वैमानिक सूचना . अगस्त 2013 तक

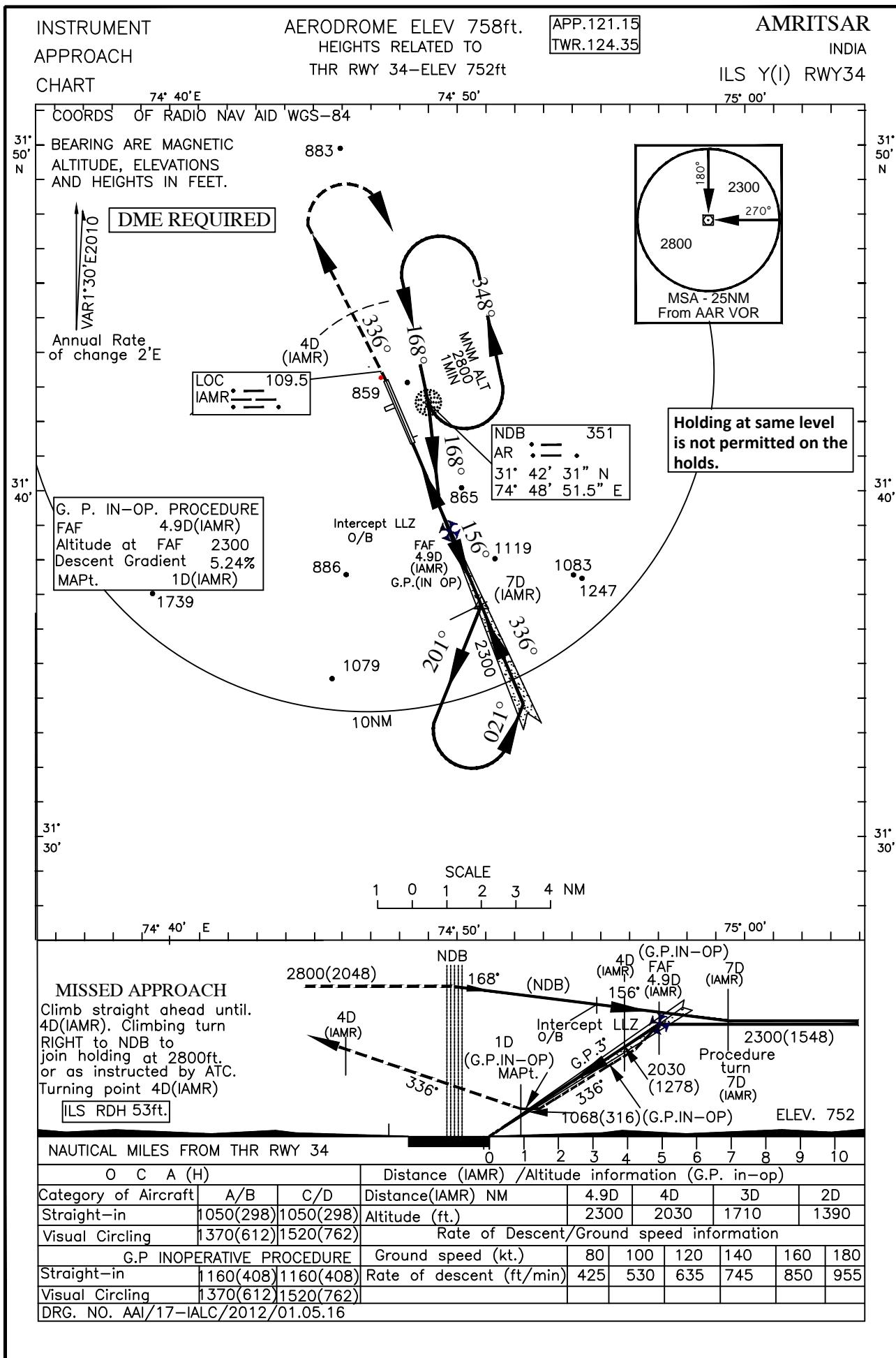
COMPILED BY-AERONAUTICAL CHART CELL, AIRPORTS AUTHORITY OF INDIA  
संग्रहित किया : कार्टोग्राफी यूनिट, भारतीय विमानपत्तन प्राधिकरण

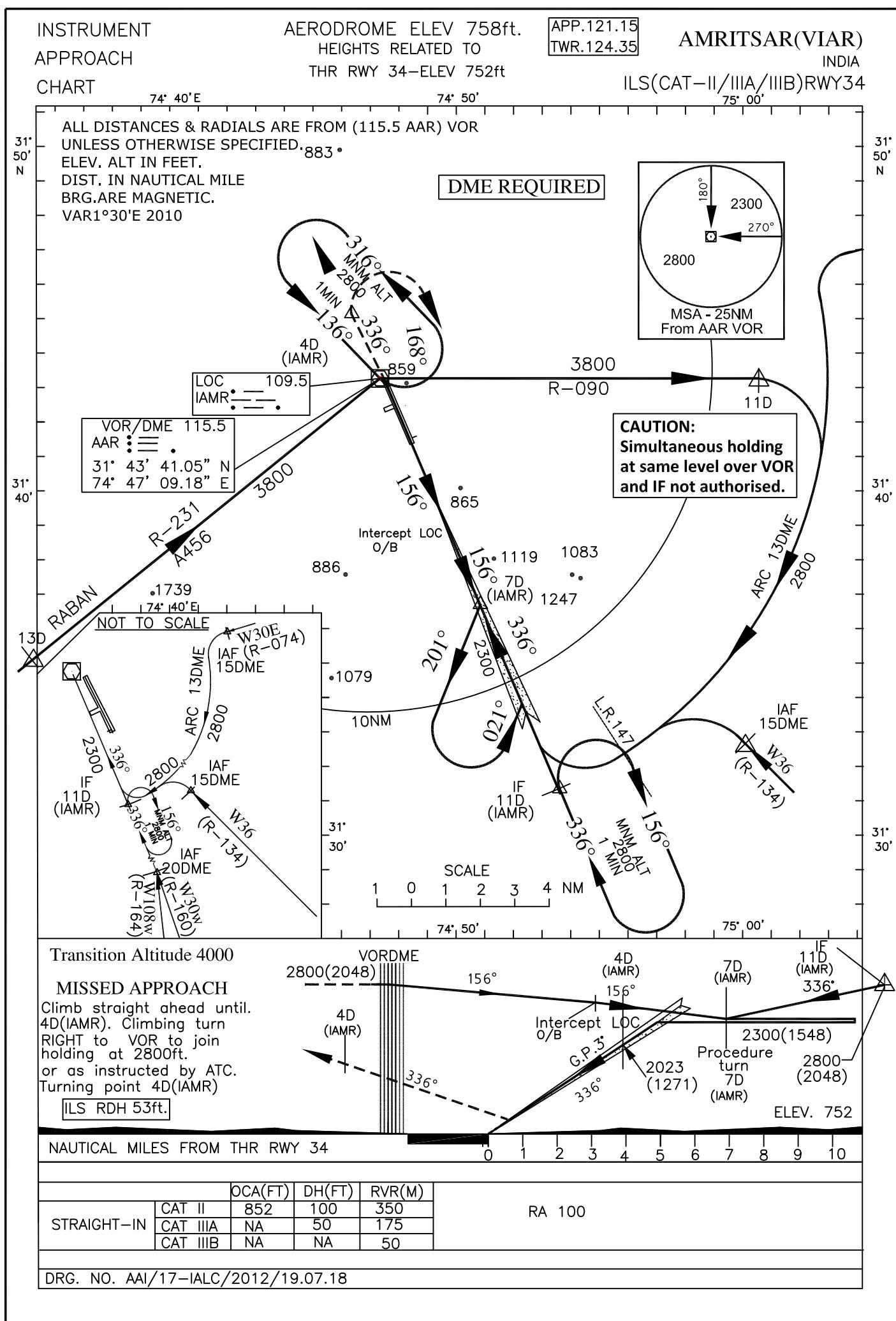
CHART No.AAI/14-OBS/ACC/2013  
चार्ट सं. भा.वि.प्रा./14-अव./वै.मा.प्र./2013

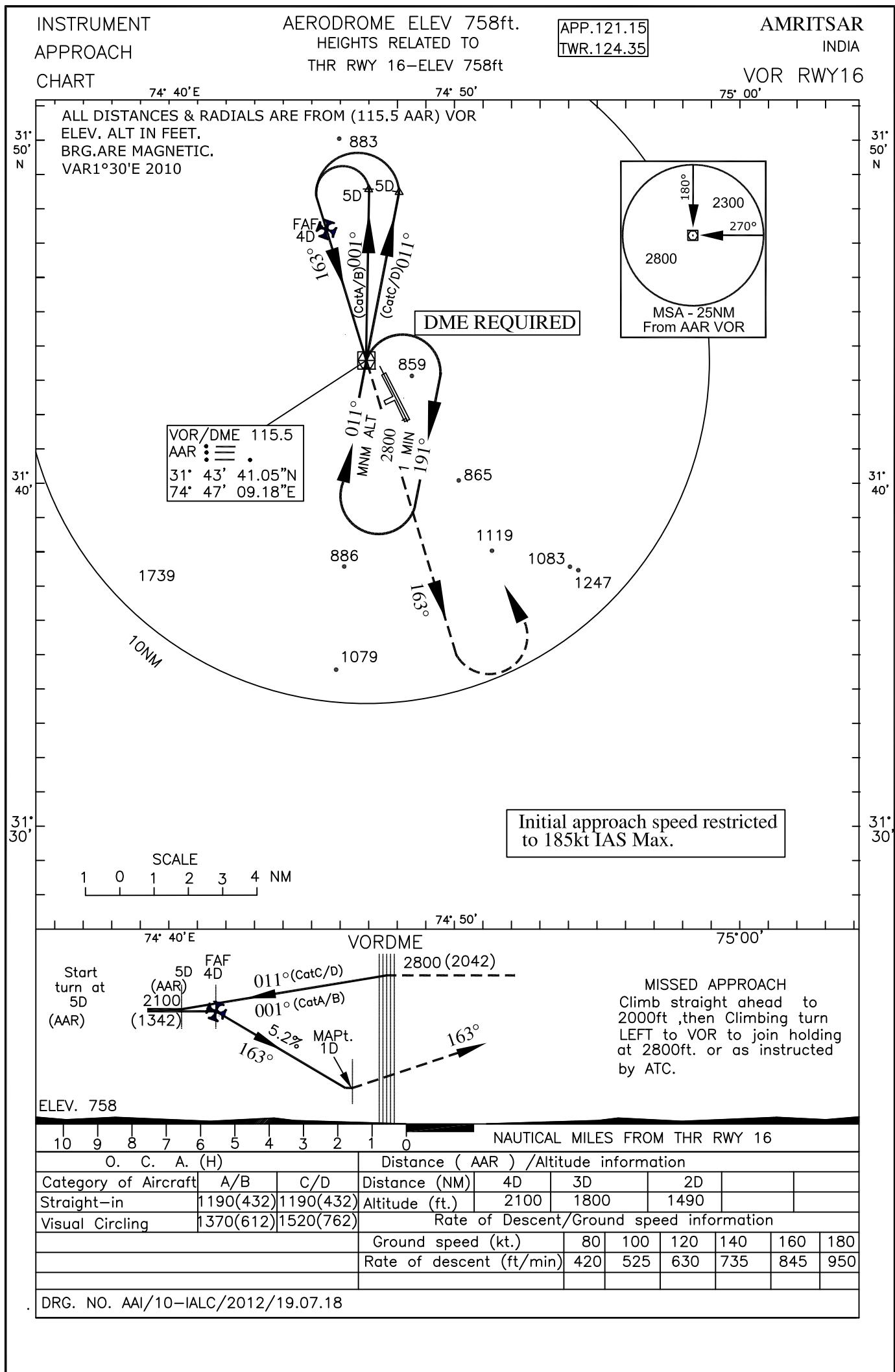


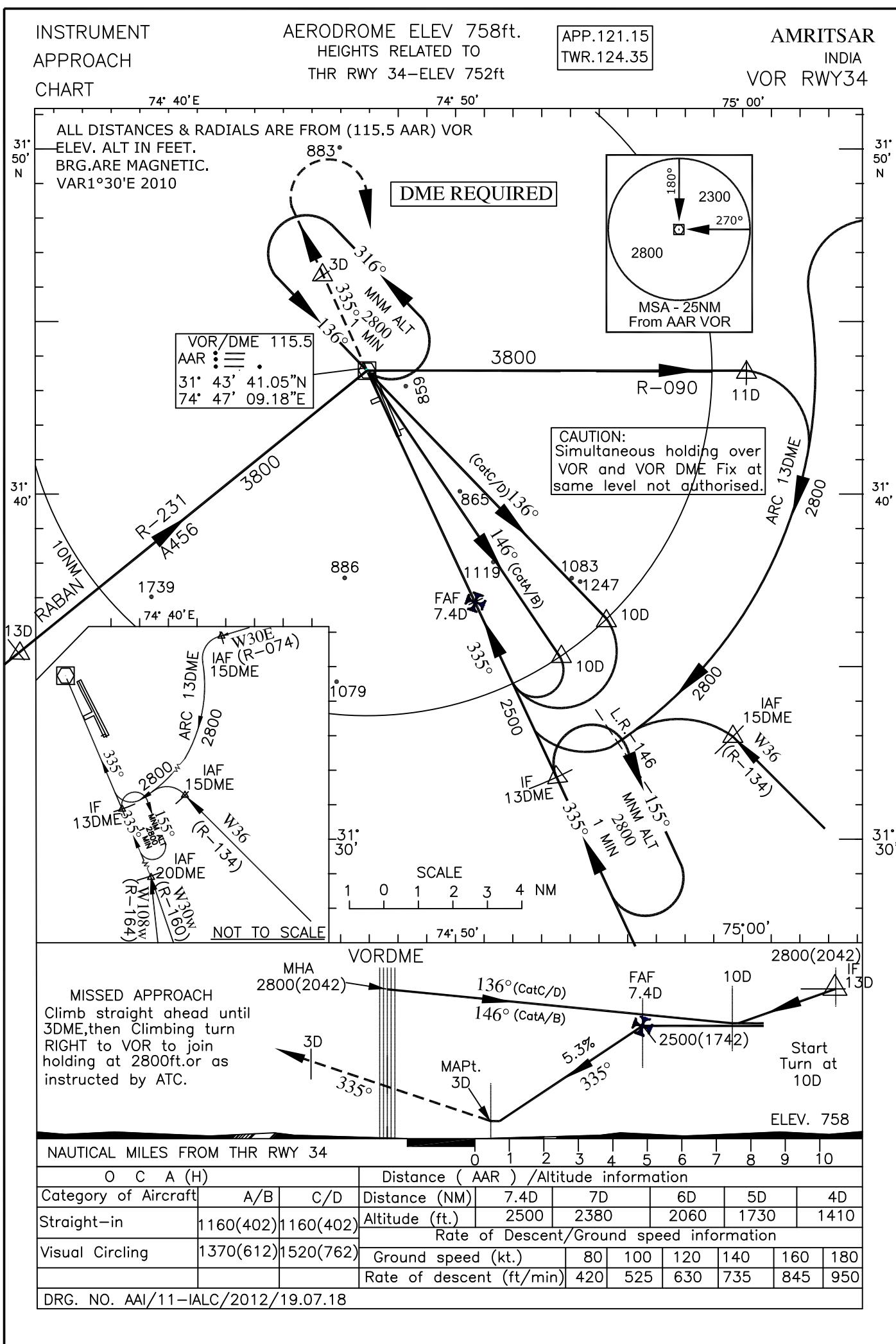
DATE OF AERONAUTICAL INFORMATION  
OCTOBER 2017







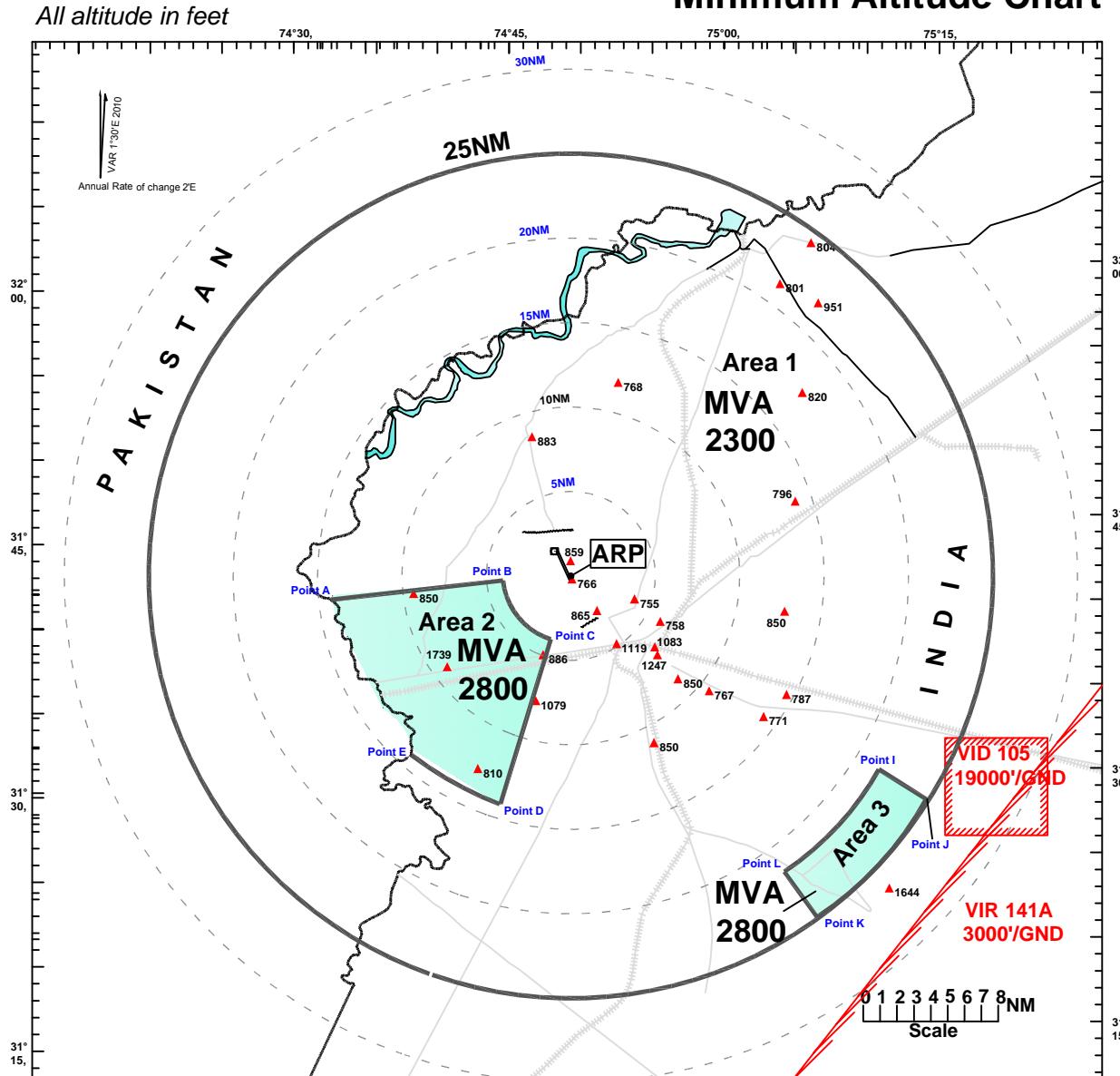




Ad. Elev-758  
Transition Alt.-4000  
Mag. Var. - 1°30' E (2010)

APP 121.15  
TWR 124.35

## AMRITSAR (VIAR) ATC Surveillance Minimum Altitude Chart



S.No	Boundary Points	Latitude	Longitude
1	ARP	314217.00N	0744807.00E
2	A	314123.32N	0743130.33E
3	B	314202.10N	0744326.21E
4	C	313828.86N	0744637.94E
5	D	312847.02N	0744251.38E
6	E	313153.71N	0743737.01E
7	I	313015.67N	0750917.44E
8	J	312825.66N	0751230.17E
9	K	312137.52N	0750440.07E
10	L	312421.25N	0750229.40E

**Radio Communication Failure Procedure:**  
When providing navigational guidance to aircraft based on the use of an air traffic service surveillance system for pilot interpreted final approach aid, following radio communication failure procedure shall be applicable-

- If radio communication failure takes place prior to interception of final approach track, aircraft shall maintain the last assigned altitude or 2800Ft whichever is higher and proceed to AAR VOR/NDB AR via shortest route to join the holding procedure. After joining the holding procedure aircraft shall carryout the instrument approach procedure for which navigational guidance was provided.
- If radio communication failure occurs after interception of the final approach track, aircraft should continue the approach and land if visual or carryout the missed approach and join the AAR VOR/NDB AR holding at 2800Ft. After joining the holding procedure aircraft shall carryout the instrument approach procedure for which navigational guidance was provided.

**NOTE:**

- Altitudes shown are based on QNH.
- Only significant spot elevations are shown.
- ATC Surveillance Minimum Altitudes are established within 25 NM of ARP (314217N 0744807E).
- Chart may only be used for cross-checking of altitude assigned while the aircraft is identified.