AD 2. AERODROMES

VEGT AD 2.1 AERODROME LOCATION INDICATOR AND NAME

VEGT - GUWAHATI / INTL

VEGT AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	Aerodrome reference point coordinates and its site	260618N 0913508E 280DEG/ 195M from ATC tower	
2	Direction and distance of aerodrome reference point from the center of the city or town which the aerodrome serves	242 DEG,18Km from Guwahati Railway station	
3	Aerodrome elevation and reference temperature	162 FT / 32.0 DEG C	
4	Magnetic variation, date of information and annual change	0.37 DEG W (2010) /0.00	
5	Name of aerodrome operator, address, telephone, telefax, e-mail address, AFS address, website (if available)	Airports Authority of India, Lokapriya Gopinath Bordoloi International Airport Guwahati -781015,	
		Telephone:	+91-361-2841909
		Fax:	+91-361-2840406
		AFS:	VEGTYHYX.
		Email:	apdght@AAI.AERO
6	Types of traffic permitted (IFR/VFR)	IFR/VFR	
7	Remarks	NIL	

VEGT 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, See remark no. 1
3	Health and sanitation	NIL
4	AIS briefing office	As ATS
5	ATS reporting office (ARO)	H24
6	MET Briefing office	H24
7	Air Traffic Service	H24
8	Fuelling	H24
9	Handling	H24
10	Security	H24
11	De-icing	NIL
12	Remarks	1.Custom and Immigration facilities are provided on limited basis to cover operations of schedule flights. The facilities can be arranged to cover any authorized non-sked operations with prior notice to AD 2.Non- sked flights to obtain positive clearance 24 hr before operating to Guwahati.

VEGT AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Cargo Terminal Area 96.44 sq m, Capacity to handle approx. 5 MT each of Export & Import cargo daily.

2	Fuel and Oil types	JET A1
3	Fuelling facilities and capacity	IOC: 8 nos. of Bowzers of various capacity ranging from 6 KL to 16KL. BPCL: 2 nos. of Bowzers each having 15 KL capacity. Reliance: Total refueller stock 77 KL.
4	De-icing facilities	NIL
5	Hangar space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	NIL

VEGT AD 2.5 PASSENGER FACILITIES

1	Hotel(s) at or in the vicinity of aerodrome	Available near the Airport and In the city.
2	Restaurant(s) at or in the vicinity of aerodrome	At AD and in the city.
3	Transportation possibilities	Taxis and ASTC buses.
4	Medical Facilities	First aid at AD. Hospitals in the city.
5	Bank and post office at or in the vicinity of aerodrome	Banks: Near AD & in City Post office: Near AD & in City
6	Tourist office	At AD.
7	Remarks	NIL

VEGT 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	Local arrangements available as per Disabled aircraft removal plan
4	Remarks	NIL

VEGT AD 2.7 SEASONAL AVAILABILITY CLEARING

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

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

1	Designation, surface and strength of aprons	Designator: Apron I (Bay Number 1 and 2) Surface: Concrete Strength: PCN 61/R/C/W/T Designator: Apron I (Bay Number 3 to 9) Surface: Concrete Strength: PCN 66/R/C/W/T Designator: Apron II Surface: Concrete Strength: PCN 68/R/C/W/T

2	Designation, width, surface and strength of taxiways	Designator: L1 Width: 15 M Surface: Concrete Strength: Designator: L2 Width: 15 M Surface: Concrete Strength: Designator: L3 Width: 15 M Surface: Concrete Strength: Designator: L4 Width: 15 M Surface: Concrete Strength: Designator: TWY E Width: 23 M Surface: Concrete Strength: PCN 50/R/C/W/T Designator: TWY F Width: 23 M Surface: Asphalt Strength: PCN 56/F/C/W/T Designator: TWY G Width: 23 M Surface: Concrete Strength: PCN 68/R/C/W/T Designator: TWY H Width: 23 M Surface: Asphalt Strength: PCN 62/F/C/W/T Designator: TWY J Width: 23 M Surface: Concrete Strength: PCN 68/R/C/W/T
3	Location and elevation of altimeter checkpoints	Apron-I 160 FT
4	Location of VOR checkpoints	TWY E: R193/1.7NM FROM GGT VOR/DME TWY F: R191/1.8NM FROM GGT VOR/DME TWY G: R197/0.9NM FROM GGT VOR/DME
5	Position of INS checkpoints	

6	Remarks	1.TWY L1, L2, L3 & L4 leading to IAF dispersal from RWY 02/20. 2.Stand 1, 2 & 10 -Power-in/Power-out/Remote. 3.Stand 3 & 4-Power-in/Push-back/Contact. 4.Stand 5 to 9-Power-in/Push-back/Remote. 5.Stand 21 to 31-Power-in/Power-out/Remote 6.Aircraft Stand No. 10 available for parking only when Aircraft Stand Nos. 7, 8 and 9 are vacant. 7.Refer ACFT Parking & Docking Chart for Details 8.Isolation Bay PCN: 68/R/C/W/T 9 Middle Hanger for Aircraft (A321) PCN: 64/R/C/W/T and Two Side Hangers for Aircraft (ATR) PCN:19/R/C/W/T

VEGT 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 intersection of TWY and RWY and at holding positions Guidelines at apron.
2	Runway and taxiway markings and lights	RWY Markings Designation, THR, TDZ, Centre line, Fixed Distance Lights THR, Edge, RWY End TWY Marking Centerline, Holding Positions at all TWY. Lights Edge
3	Stop bars (if any)	Nil
4	Remarks	To prevent damage to RWY surface. ACFT not to make Pivotal turn on RWY and make 180 DEG turn at Dumbell only.

VEGT 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
20/APCH 02/TKOF	TREE	260711.4N 0913526.4E	188 FT	NIL	Tree
02/APCH 02/TKOF	OTHER	260534.5N 0913446.7E	175 FT	NIL	Security room
20/TKOF 02/APCH	TREE	260534.6N 0913446.9E	184 FT	NIL	Tree
20/TKOF 02/APCH	OTHER	260534.7N 0913446.3E	171 FT	NIL	Water tank
20/TKOF 02/APCH	OTHER	260535.8N 0913444.5E	177 FT	NIL	Mobile road traffic
20/TKOF 02/APCH	TREE	260523.5N 0913438.5E	226 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
20/TKOF 02/APCH	TREE	260526.6N 0913434.7E	220 FT	NIL	Group of trees
20/TKOF 02/APCH	TREE	260505.2N 0913428.8E	250 FT	NIL	Group of trees
20/TKOF 02/APCH	TREE	260522.8N 0913443.3E	233 FT	NIL	Group of trees
20/TKOF 02/APCH	TREE	260518.0N 0913429.6E	226 FT	NIL	Group of trees
20/TKOF 02/APCH	TREE	260512.2N 0913434.9E	223 FT	NIL	Group of trees
20/TKOF 02/APCH	TREE	260513.3N 0913428.4E	227 FT	NIL	Group of trees
20/APCH 02/TKOF	OTHER	260711.6N 0913526.4E	176 FT	NIL	LOC hut

VEGT AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Name of the associated meteorological office	Guwahati
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	Guwahati 9HR
4	Availability of the trend forecast for the aerodrome and interval of issuance	Trend 30 MIN
5	Information on how briefing and/or consultation is provided	Provided
6	Types of flight documentation supplied and language(s) used in flight documentation	Tabular Form English
7	Charts and other information displayed or available for briefing or consultation	S,U85,U70,U50,U30,U20
8	Supplementary equipment available for providing information on meteorological conditions, e.g. weather radar and receiver for satellite images;	Telex, Telefax, Satellite Display Work Station Wx Radar.
9	The air traffic services unit(s) provided with meteorological information	VEGT Guwahati ATC and ACS
10	Additional information, e.g. concerning any limitation of service.	WX Radar AVBL. BTN 0000-1630 & 2230-2359 UTC DLY.

VEGT 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
02	22.00 DEG	3103 x 45 M	59/F/C/W/T	THR: 260541.60N 0913447.30E
20	202.00 DEG	3103 x 45 M	59/F/C/W/T	THR: 260714.20N 0913530.00E

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: 161.7FT TDZ:		NIL	NIL	3223 x 150 M
THR: 159.4FT TDZ:		NIL	NIL	3223 x 150 M

Dimensions of runway end safety areas	Location and description of arresting system (if any)	Existence of an obstacle-free zone	Remarks.
11	12	13	14
240M x 140M		NIL	PCN 78/F/C/X/T in last 360 m of RWY 02
90M x 90M		NIL	PCN 78/F/C/X/T in first 360 m of RWY 20

VEGT 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
02	3103	3103	3103	3103	
20	3103	3103	3103	3103	

VEGT 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
02	SALS 180 M ABRIDGED	Green	PAPI LEFT/3.25 DEG MEHT (56.96FT)	
20	SALS 420 M	Green	PAPI LEFT/3.00 DEG MEHT (53.41FT)	

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
	3103 M 60 M White LIH	Red		NIL
	3103 M 60 M White LIH	Red		NIL

VEGT AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	Location, characteristics and hours of operation of aerodrome beacon/identification beacon (if any)	ABN	At Tower Building, FLG W & G Ev 2 SEC, As ATS HR
		IBN	Nil
2	Location and lighting (if any) of anemometer/ landing direction indicator;	LDI	100M SW OF ATC TOWER.
		Anemometer	On tower building lighted
3	Taxiway edge and taxiway centre line lights;	Edge	All TWY.
		Centre Line	------
4	Secondary power supply including switch-over time;	Secondary Power supply to all lighting at AD. Switch-over time: 15 SEC.	
5	Remarks	NIL	

VEGT 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

VEGT AD 2.17 AIR TRAFFIC SERVICE AIRSPACE

1	Airspace designation, geographical coordinates and lateral limits	CTR: Area bounded by lines joining points 262702N 0921448E; 260737N 0922332E; 260715N 0922155E; 254720N 0921620E; 253502N 0922948E; 253502N 0905949E; 262702N 0905949E to point of origin.
2	Vertical limits	FL 85
3	Airspace classification	D
4	Call sign and language(s) of the air traffic services unit providing service;	Guwahati Tower, English
5	Transition altitude	9000 FT
6	Hours of applicability	HO
7	Remarks	NIL

VEGT AD 2.18 AIR TRAFFIC SERVICES COMMUNICATION FACILITIES

Service Designation	Call sign	Channel(s)	SATVOICE Number(s), if available
1	**2**	**3**	**4**
ACS	Guwahati Control	120.500 MHZ	
ACS	Guwahati Control	123.900 MHZ	
TAR	Guwahati Radar	123.900 MHZ	
TAR	Guwahati Radar	127.950 MHZ	
SAR	-	123.100 MHZ	
TWR	Guwahati Tower	118.750 MHZ	
ATIS	Guwahati Information	126.600 MHZ	
ALRS	GUWAHATI EMERGENCY	121.500 MHZ	
RADAR	Guwahati Radar	120.500 MHZ	
RADAR	Guwahati Radar	123.900 MHZ	
SMC	Guwahati Ground	121.900 MHZ	

Logon address, as appropriate	Hours of operation	Remarks
5	**6**	**7**
	As ATS	ACC MAIN

Logon address, as appropriate	Hours of operation	Remarks
	As ATS	ACC SDBY
	As ATS	Main
	As ATS	SDBY
	As ATS	NIL
	As ATS	NIL
	As ATS	NIL
		NIL
	As ATS	NIL
	As ATS	SDBY
	As ATS	NIL

VEGT 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 02	IGHT	110.300 MHz	As ATS
GP 02		335.000 MHz	As ATS
DME ILS 02	IGHT	CH40X	As ATS
DVOR/DME	GGT	117.600 MHz CH123X	AS ATS
NDB	GT	360 kHz	As ATS
L	GH	401.000 kHz	As ATS

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
260739.1N 0913541.7E			
260547.8N 0913454.7E			3.25°, RDH/51FT
260547.8N 0913454.7E	205 FT		Co-located with GP 02
260802.8N 0913552.5E	189 FT		
260631.8N 0913609.6E			
260216.8N 0913312.7E			

VEGT AD 2.20 LOCAL AERODROME REGULATIONS

NIL

VEGT AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VEGT AD 2.22 FLIGHT PROCEDURES

1.GENERAL

i.Radar vectoring shall be provided to intercept final approach track prior to 12 NM from touch down at 3500FT. Final approach track for ILS and VOR DME procedure is 023 DEG M and 023 DEG M (R-203) respectively.

ii.Radar service shall be terminated when aircraft is established on final approach track and not earlier than 11 miles from touch down.

iii.Radar controller shall give " 20 miles from touch down " position report to the aircraft.

iv.When radar vectoring is provided, aircraft speed shall be restricted as given below: -
a)220 KTS IAS maximum on passing F100.
b)185 KTS IAS maximum when 20 NM from touch down position information is given by radar controller.

v.In case of ILS procedure final approach descent shall commence on interception of glide path at 3000FT.

vi.ILS with Glide path inoperative procedure shall be applicable for aircraft equipped with ILS DME. Aircraft shall leave 3000FT for 2300FT at 12D (ILS DME) after interception of localizer (110.3 IGHT) inbound track 023 DEG M.

vii.In case of VOR DME procedure aircraft shall leave 3500FT for 2800FT at 13D (VOR DME) when established on final approach track 023 DEG M (R-203).

viii.When being vectored via predetermined tracks aircraft shall arrange the descent profile in such a way, so as to reach 3500FT prior 12NM from touch down on final approach track.

2.RADAR VECTORING PROCEDURES

i.ATS Route R472
At 30 NM from MSSR aircraft may be descended to 5000FT. At 25NM aircraft shall be radar vectored to fly predetermined track 090 DEG M. On passing 230 DEG M/20NM from MSSR aircraft shall be descended to 3500FT and after crossing 214 DEG M from MSSR given left turn to follow track 065 DEG M to intercept the final approach track.

ii.ATS Route W137
At 30 NM, aircraft shall be given radar vector to fly predetermined track 141 DEG M descending to 6000FT. At 233 DEG M/ 19 NM from MSSR aircraft shall be given left turn to fly track 090 DEG M as specified for ATS Route R472 descending to 3500FT and thereafter procedure as given in (i) above for interception of final approach track shall be followed.

iii.ATS Route W53
At 25NM, aircraft shall be descended to 6000FT. At 18NM aircraft shall be vectored to fly predetermined track 270 DEG M descending to 5000FT. Passing 169 DEG M/13NM from MSSR aircraft shall be given descent to 3500FT and thereafter crossing bearing 195 DEG from MSSR given right turn on heading 340 to intercept the final approach track.

iv.ATS Route B593
At 25NM aircraft shall be radar vectored to fly predetermined track 325 DEG M descending to 7000FT/6000FT/5000FT as appropriate as per minimum vectoring altitudes. At 214 DEG M/18NM from MSSR aircraft shall be directed to turn right to follow track 065 DEG M as specified for ATS Route R472 and descended to 3500FT to intercept the final approach track.

v.ATS Route W51
At 25NM, aircraft shall be radar vectored via predetermined track 220 DEG M descending to 6000FT. At 147 DEG M/15NM from MSSR aircraft shall be given right turn to follow predetermined track 270 DEG M descending to 5000FT. Thereafter procedure as given in (iii) for ATS route W53 shall be followed.

vi.Basic Radar Circuit Runway 02
Aircraft shall be radar vectored from 9NM abeam the MSSR on to predetermined track 205 DEG M for left hand down wind and descended to 6000FT. When on track 205 DEG M aircraft shall be directed to turn left at 233 DEG/18NM from MSSR to follow track 090 DEG M as specified for ATS route R472 descending to 3500FT and thereafter procedure as explained in 2(i) for interception of final approach track of ILS or VOR DME approach shall be followed.

3.Radar controller may at his discretion, provide radar vectoring when aircraft is within Guwahati TMA for establishing it on the predetermined tracks, provided interception of final approach track takes place prior to 12NM from touch down at 3500FT.

4.RADIO COMMUNICATION FAILURE PROCEDURES.

i.If radio communication failure takes place prior to interception of final approach track, aircraft shall maintain the last assigned altitude or 4000FT whichever is higher and proceed to VOR via shortest route and carry out the ILS/ VOR DME procedure RWY 02 as appropriate.

ii.If radio communication failure takes place after interception of final approach track aircraft shall continue ILS/ VOR DME approach RWY 02.

NOTE: -
a)Care has been taken, while designing the procedures, to provide 5NM lateral clearance between the obstacles and the intended position of the aircraft following the procedures prior to commencement of the final approach. Controllers and pilots shall strictly adhere to the laid down procedures.
b)Aircraft operating VFR between Guwahati and Shillong/South sector must follow via Dispur to avoid Approach funnel of RWY 02. All aircraft operating in VEGT FIR/TMA should keep transponder on. All helicopters from RANGIA to GUWAHATI to route as follows: - RANGIA – 209 DEG 12.5 NM – ALPHA – 180 DEG 8.7 NM – BRAVO – 090 DEG 5 NM – GGT GUWAHATI.

VEGT AD 2.23 ADDITIONAL INFORMATION

1.BTN 1230-0030 UTC next day. Daily Solar power obstacle light (SPOL) functioning on:

i.Sajanpara Hill BRG 142.5 DEG, HGT 755FT, DIST 2.3 NM from ARP.

ii.Barashilla Hill BRG 101.5 DEG, HGT 712 FT, DIST 2.5 NM from ARP.

iii.Obstacle light provided on Mirza Hill BRG 247.5 DEG, HGT 748FT, DIST 2.54 NM from ARP with main Power supply. SDBY Power supply not AVBL.

2.Ambulift facility available. Twelve (12) hours prior notice is required to avail the facility.

3.High thrust may affect building in the operational area. Pilots to taxi on low Power.

4.ADS-B Ground Equipment Commissioned and Operational

5.Taxiway 'E' and Taxiway 'G' declared as hot spot. Pilots to exercise caution while taxing

6. Low Visibility Procedure Guwahati Airport (VEGT):

6.1 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 Categories II and 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/800M 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.

Accordingly, Low Visibility Procedures have been developed for Guwahati Airport to accommodate/permit departures in visibility/ RVR less than 800M/550M from RWY 02 (Runway Served With RVR Instruments).

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

6.2. DEFINITIONS:

6.2.1 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.

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

6.2.3 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 centreline.

6.2.4 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.

6.2.5 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.

6.3. 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.

6.4. 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. Stand by Power supply to maintain switch over time of 1 Second for Runway Edge Lights and Runway End Lights. This requirement can be met with the help of DG Set and/or UPS.

6.4.1 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 un-serviceable or is not maintained as per the required standard.

6.4.2 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.

6.5. 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 Safeguarding procedures are complete.

Duty Officer Tower/Tower Supervisor will initiate and co-coordinate with all the concerned agencies for completion of safeguarding procedures before implementation of Low Visibility Procedures.

6.5.1 Safeguarding Procedures shall be initiated when:

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

6.5.2 Safeguarding procedures include:

a. Positioning of 1 CFT each at the two predetermined positions L2 and at fire approach road on fire access road.
b. Stopping of all maintenance works on the manoeuvring area as well as removal of all men and mobile equipment from the said area.
c. Ensuring availability of secondary power supply for change over time of maximum one second for RWY Edge and Rwy End lights supported by UPS.
(**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 or UPS). This operation need to be completed before LVP is implemented.

In case of DG set, Main power supply shall act as stand by power. At airports where UPS is capable of maintaining the required AGL system with one second of Switch Over time with Main Supply, the main supply can continue to be primary supply and the Generator Supply can be kept as Stand by Power supply.

d. 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 be delayed.

6.6. LOW VISIBILITY PROCEDURES:

6.1 Implementation of Low Visibility Procedures:

Duty MET Officer shall inform Tower Supervisor whenever Visibility/RVR reduces to 800 Meters or below and/ or cloud ceiling is at 200 ft or below. Tower Supervisor 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 200 FT or below and safeguarding procedures are complete, Tower supervisor will implement Low Visibility Procedures. Duty Officer Tower/Tower Supervisor shall inform all users 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. 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. SMC shall not permit any ground run on the manoeuvring area except idle power run on the stands;

d. Apron control shall ensure that "Follow Me" services are provided to pilots on request;

e. 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.

f. The following may be included in ATIS. "Low Visibility Procedures in force".

g. TWR shall permit departures only from the beginning of the Runway in use.

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. 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.

6.7. TERMINATION OF LOW VISIBILITY PROCEDURES.

a. When Visibility/RVR improves to 800M 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 Apron Control/SMC/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.

6.8 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.

VEGT AD 2.24 CHARTS RELATED TO AN AERODROME

1.Aerodrome Charts

2.Aircraft Parking/Docking Chart

3.Aerodrome Obstacle Chart - Type A, Guwahati International Airport Runway 02

4.Aerodrome Obstacle Chart - Type A, Guwahati International Airport Runway 20

5.ILS (Z) Procedure RWY 02

6.ILS (Y) Procedure RWY 02

7.ILS (X) Procedure RWY 02

8.VOR Procedure RWY 02

9.VOR Procedure RWY 20

10.ATC Surveillance Minimum Altitude Chart

AERODROME CHART

26°06'18.06"N
091°35'07.55"E

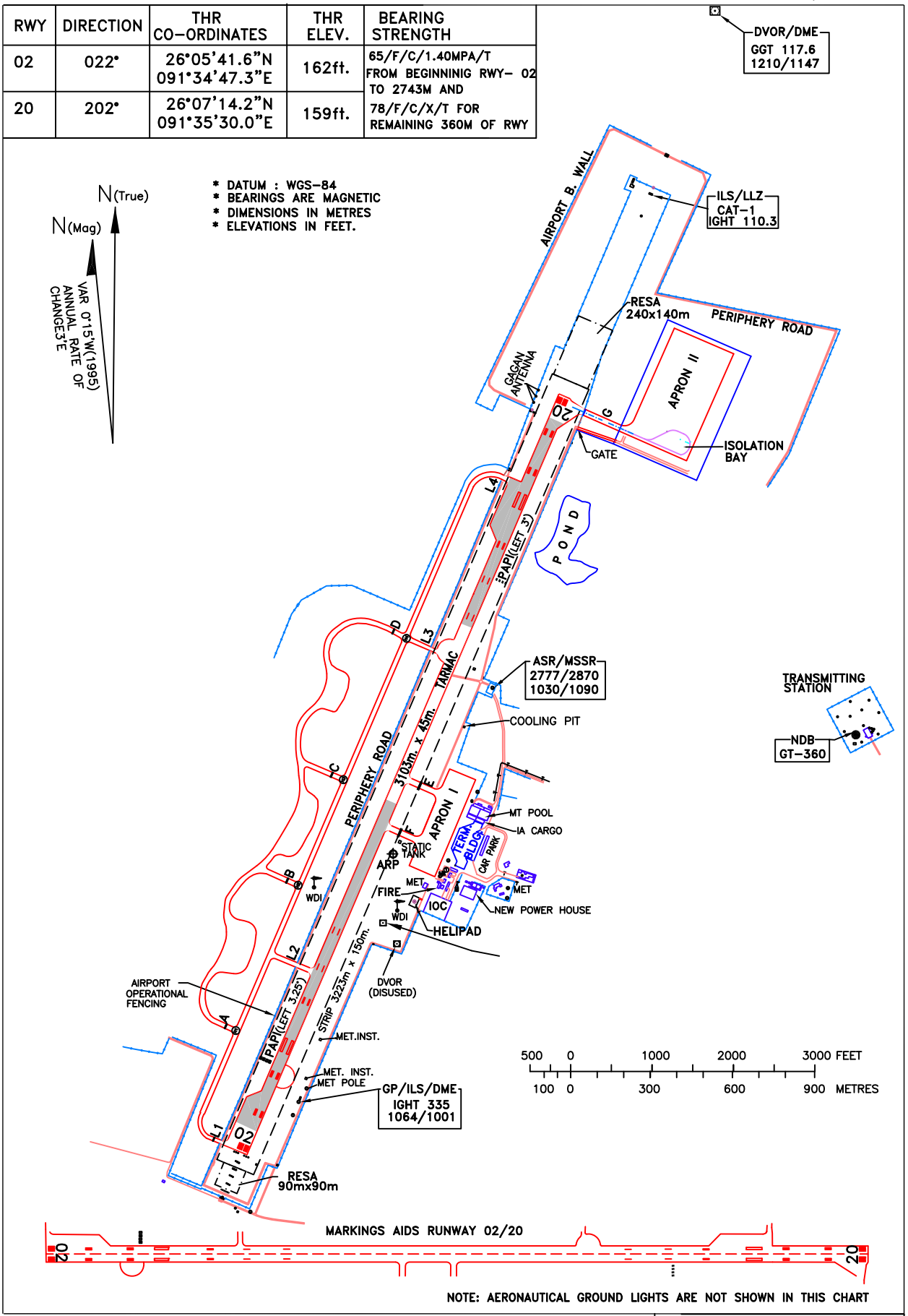
ELEV. 162ft.

TWR 118.75
SMC 121.9

GUWAHATI, INDIA

LGB INT'L AIRPORT, GUWAHATI

RWY	DIRECTION	THR CO-ORDINATES	THR ELEV.	BEARING STRENGTH
02	022°	26°05'41.6"N 091°34'47.3"E	162ft.	65/F/C/1.40MPA/T FROM BEGINNINIG RWY- 02 TO 2743M AND 78/F/C/X/T FOR REMAINING 360M OF RWY
20	202°	26°07'14.2"N 091°35'30.0"E	159ft.	



DATE OF AERONAUTICAL INFORMATION
AUGUST 2014

AMENDMENT RECORD		
1.	16.09.14	DVOR RECOLATED

Airports Authority of India, Cartography Unit

AIRCRAFT PARKING/ DOCKING CHART

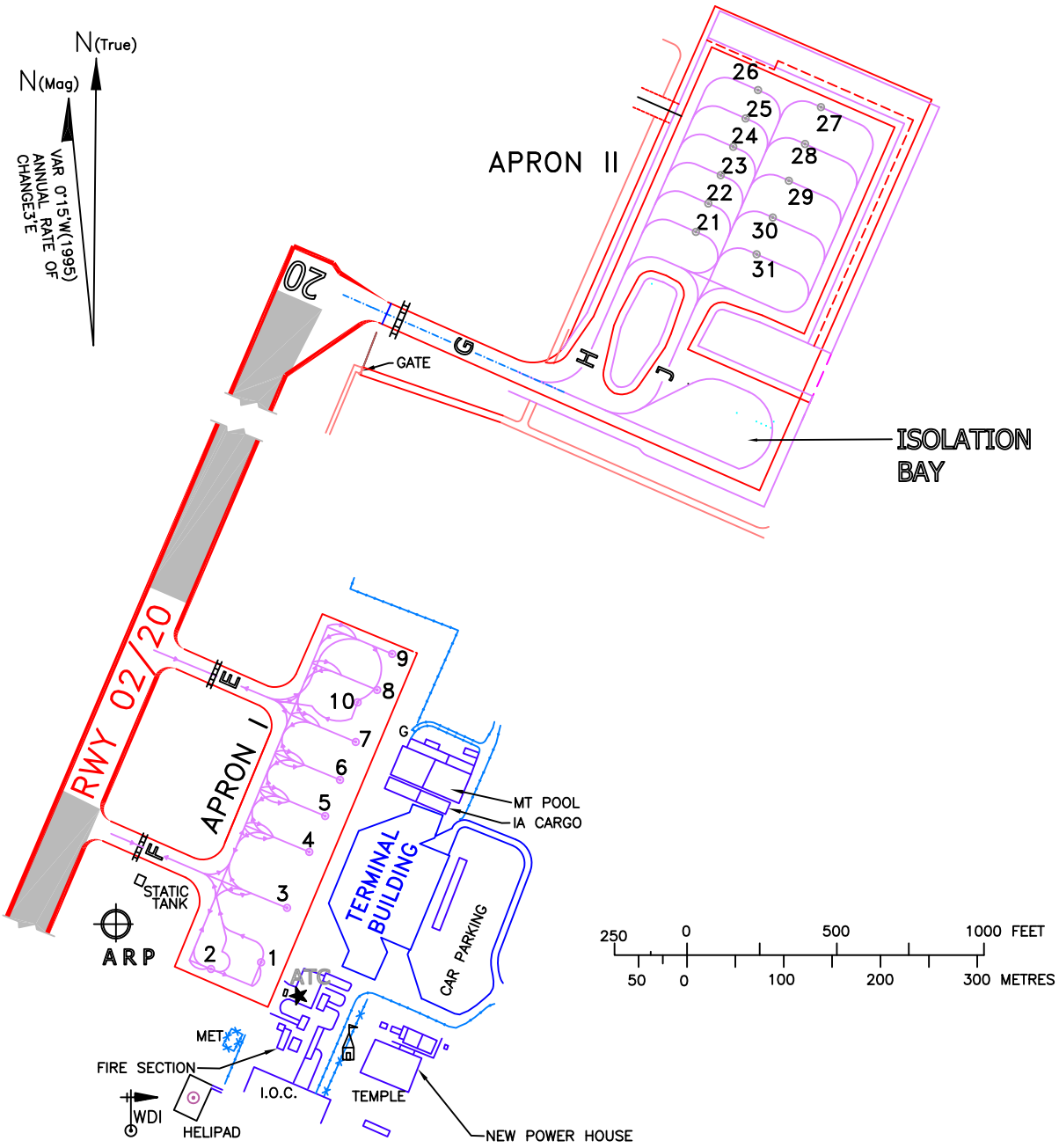
APRON–I ELEV. 160ft.
APRON–II ELEV. 159ft.

TWR 118.75
SMC 121.9

GUWAHATI, INDIA

LGB INT'L AIRPORT, GUWAHATI

* DATUM : WGS–84
* DIMENSIONS IN METRES
* ELEVATIONS IN FEET.



LEGEND	
AIRCRAFT STAND	21
TAXI–HOLDING POSITION	

WGS CO–ORDINATES FOR AIRCRAFT STANDS – I	WGS CO–ORDINATES FOR AIRCRAFT STANDS – II
1. 26°06'16.67"N 091°35'12.37"E	21. 26°07'15.19"N 091°35'44.19"E
2. 26°06'16.47"N 091°35'10.73"E	22. 26°07'16.15"N 091°35'44.64"E
3. 26°06'18.44"N 091°35'13.43"E	23. 26°07'17.11"N 091°35'45.08"E
4. 26°06'20.37"N 091°35'14.53"E	24. 26°07'18.09"N 091°35'45.53"E
5. 26°06'21.59"N 091°35'15.07"E	25. 26°07'19.04"N 091°35'45.97"E
6. 26°06'22.77"N 091°35'15.60"E	26. 26°07'20.00"N 091°35'46.42"E
7. 26°06'24.00"N 091°35'16.17"E	27. 26°07'19.47"N 091°35'48.95"E
8. 26°06'25.80"N 091°35'17.04"E	28. 26°07'18.21"N 091°35'48.37"E
9. 26°06'27.02"N 091°35'17.60"E	29. 26°07'16.95"N 091°35'47.78"E
10. 26°06'25.39"N 091°35'16.21"E	30. 26°07'15.69"N 091°35'47.20"E
	31. 26°07'14.47"N 091°35'46.62"E

APRON – I PCN 68/R/C/W/T
APRON – II PCN 75/R/C/W/T
TWY E PCN 45/R/D/W/T
TWY F PCN 70/F/C/1.4Mpa/T
TWY G PCN 75/R/C/W/T
TWY H PCN 78/F/C/X/T
TWY J PCN 75/R/C/W/T

AIRCRAFT STANDS 1&2 FOR ATR72
AIRCRAFT STANDS 3 TO 9 FOR B739/A321
AIRCRAFT STAND 10 FOR CODE"D" AIRCRAFT
AIRCRAFT STAND 21 FOR WINGSPAN UPTO 15M
AIRCRAFT STANDS 22 TO 26 FOR ATR72
AIRCRAFT STANDS 27 TO 31 FOR B739/A321

NOTE: –
1. AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART
2. AIRCRAFT STAND 10 IS AVAILABLE ONLY WHEN AIRCRAFT STANDS 7,8 & 9 ARE VACANT.

DATE OF AERONAUTICAL INFORMATION
JAN.2012

Airports Authority of India, Cartography Unit

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

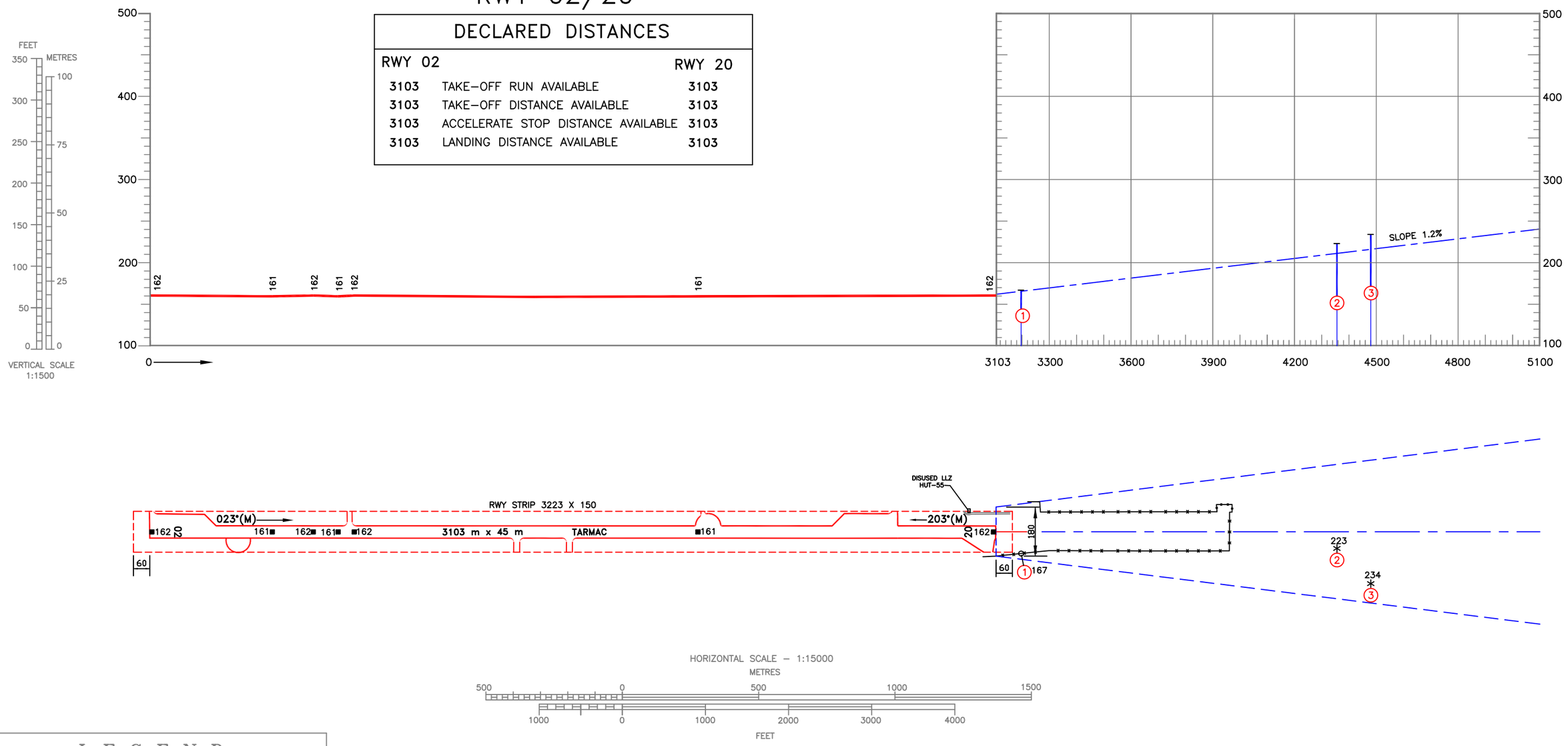
INDIA/GUWAHATI
GUWAHATI INT'L AIRPORT– RWY 02

MAGNETIC VARIATION 1°W (2010)

RWY 02/20

DECLARED DISTANCES

RWY 02		RWY 20
3103	TAKE–OFF RUN AVAILABLE	3103
3103	TAKE–OFF DISTANCE AVAILABLE	3103
3103	ACCELERATE STOP DISTANCE AVAILABLE	3103
3103	LANDING DISTANCE AVAILABLE	3103



LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
TREE OR SHRUB	*	
FENCING		
RWY ELEVATION (SPOT)	■161	
HEIGHT AMSL(ft.)	223	

ORDER OF ACCURACY

HORIZONTAL –	3.0m
VERTICAL –	1ft.

NOTES:–

1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Obstructions in the form of trees which are being cut or pruned have not been taken into consideration for establishing threshold displacement.
3. Datum – All Elevations are AMSL.
4. Periphery road without traffic is no obstacle.
5. Consult Notam for latest information.
6. All obstacles shown in this chart are based on aeronautical obstacle Survey Sept. 2009.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO – JULY 2013
वैमानिक सूचना . जुलाई 2013 तक

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

CHART No. AAI/31–OBS/ACC/2013
चार्ट सं भा.विप्रा./31–अव./वैमा.प्र./2013

AERODROME OBSTACLE CHART

TYPE –A (OPERATING LIMITATIONS)

INDIA/GUWAHATI

GUWAHATI INT'L AIRPORT– RWY 20

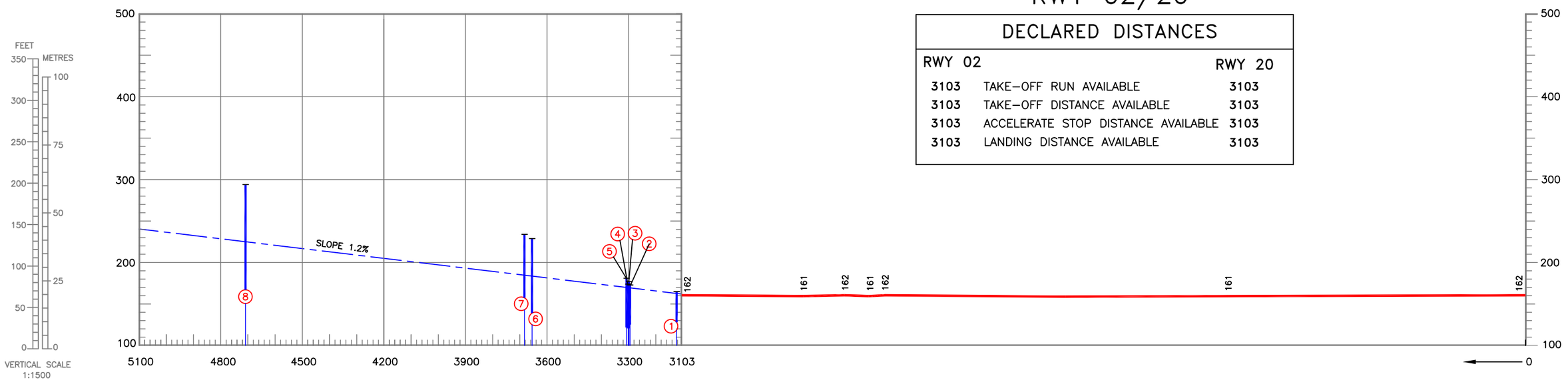
ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

MAGNETIC VARIATION 1°W (2010)

RWY 02/20

DECLARED DISTANCES

RWY 02		RWY 20
3103	TAKE–OFF RUN AVAILABLE	3103
3103	TAKE–OFF DISTANCE AVAILABLE	3103
3103	ACCELERATE STOP DISTANCE AVAILABLE	3103
3103	LANDING DISTANCE AVAILABLE	3103



L E G E N D

	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
TREE OR SHRUB	*	
BUILDING OR LARGE STRUCTURE	■	
POLE.TOWER,SPIRE,ANTENNA ETC...	⊙	
WATER TANK	o	
RWY ELEVATION (SPOT)	■161	
HEIGHT AMSL(ft.)	173	

ORDER OF ACCURACY

HORIZONTAL – 3.0m
VERTICAL – 1ft.

NOTES:–

1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Obstructions in the form of trees which are being cut or pruned have not been taken into consideration for establishing threshold displacement.
3. Datum – All Elevations are AMSL.
4. Periphery road without traffic is no obstacle.
5. Consult Notam for latest information.
6. All obstacles shown in this chart are based on aeronautical obstacle Survey Sept. 2009.

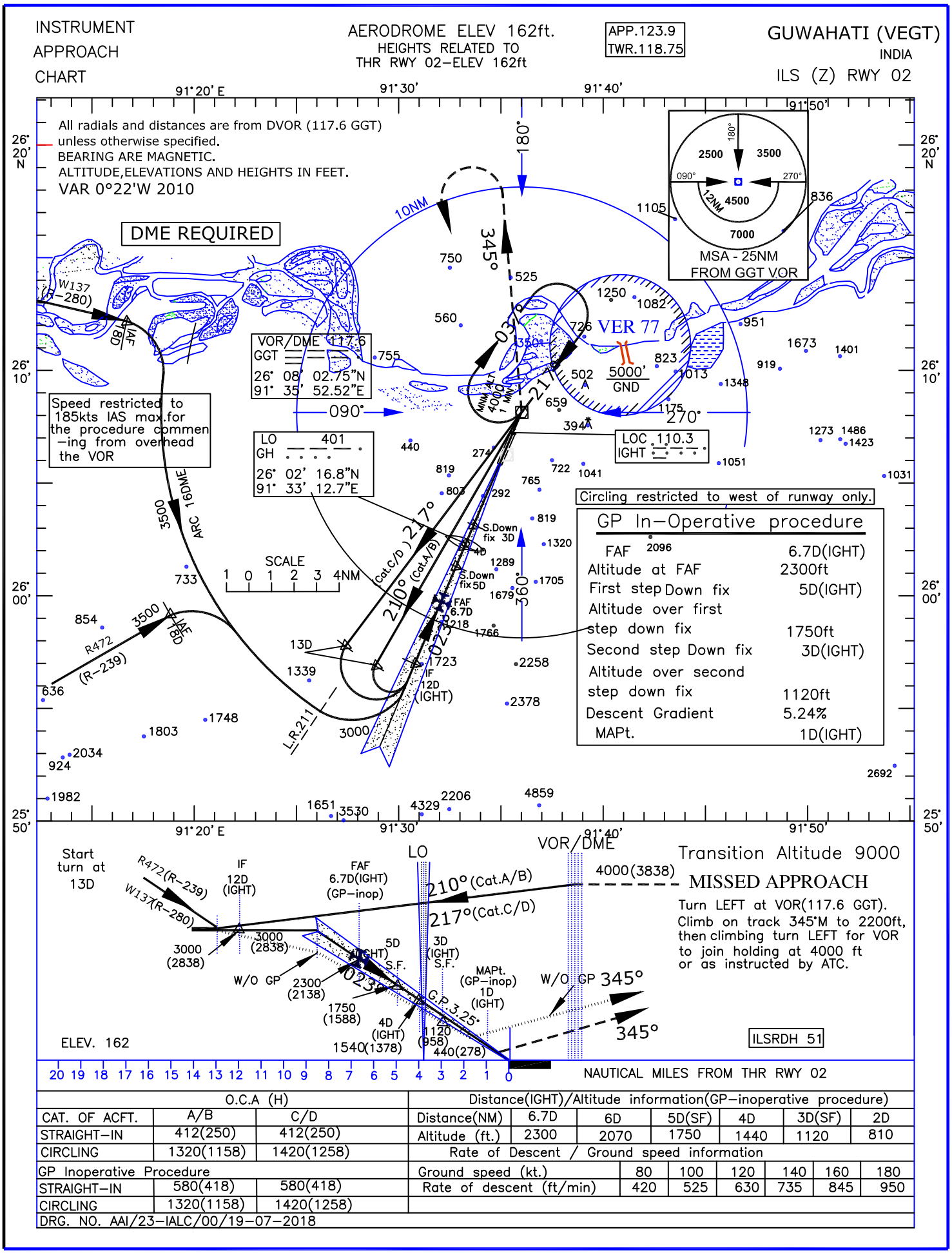
AMENDMENT RECORD

NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO – JULY 2013
वैमानिक सूचना . जुलाई 2013 तक

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

CHART No. AAI/32–OBS/ACC/2013
चार्ट सं. भा.विप्रा./32-अव./वै.मा.प्र./2013

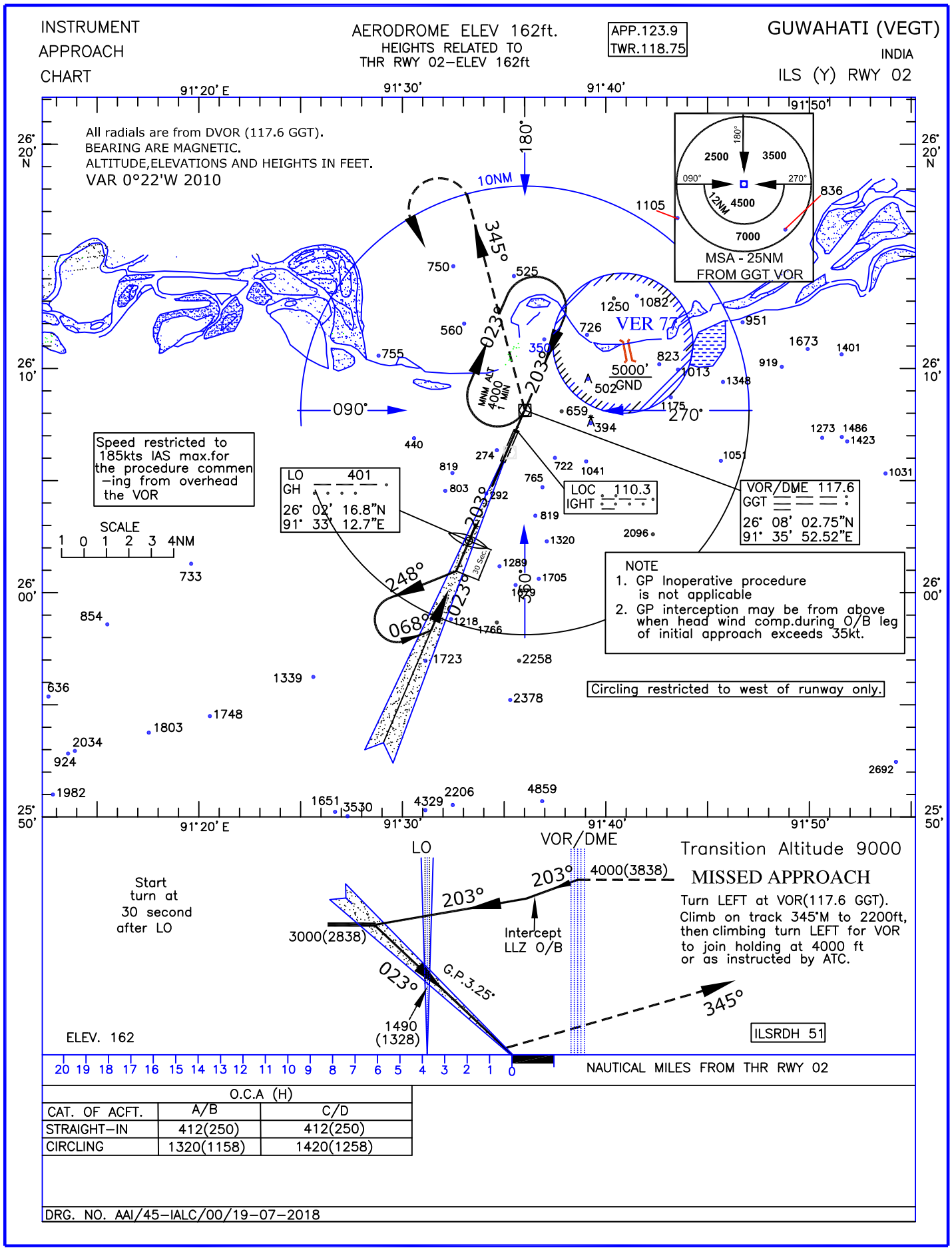


O.C.A (H)		
CAT. OF ACFT.	A/B	C/D
STRAIGHT–IN	412(250)	412(250)
CIRCLING	1320(1158)	1420(1258)
GP Inoperative Procedure		
STRAIGHT–IN	580(418)	580(418)
CIRCLING	1320(1158)	1420(1258)

Distance(IGHT)/Altitude information(GP–inoperative procedure)						
Distance(NM)	6.7D	6D	5D(SF)	4D	3D(SF)	2D
Altitude (ft.)	2300	2070	1750	1440	1120	810

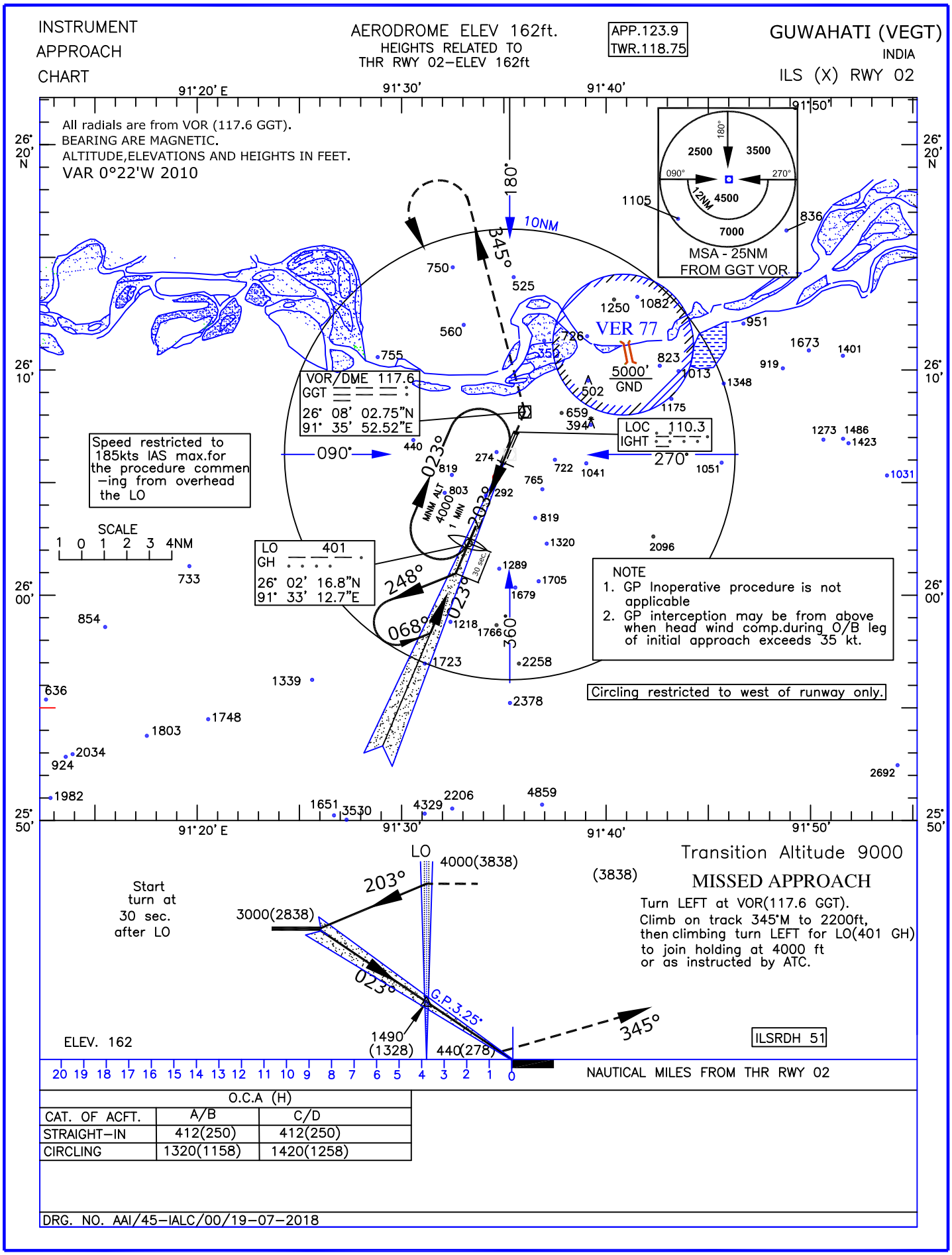
Rate of Descent / Ground speed information						
Ground speed (kt.)	80	100	120	140	160	180
Rate of descent (ft/min)	420	525	630	735	845	950

DRG. NO. AAI/23–IALC/00/19–07–2018



O.C.A (H)		
CAT. OF ACFT.	A/B	C/D
STRAIGHT–IN	412(250)	412(250)
CIRCLING	1320(1158)	1420(1258)

DRG. NO. AAI/45–IALC/00/19–07–2018

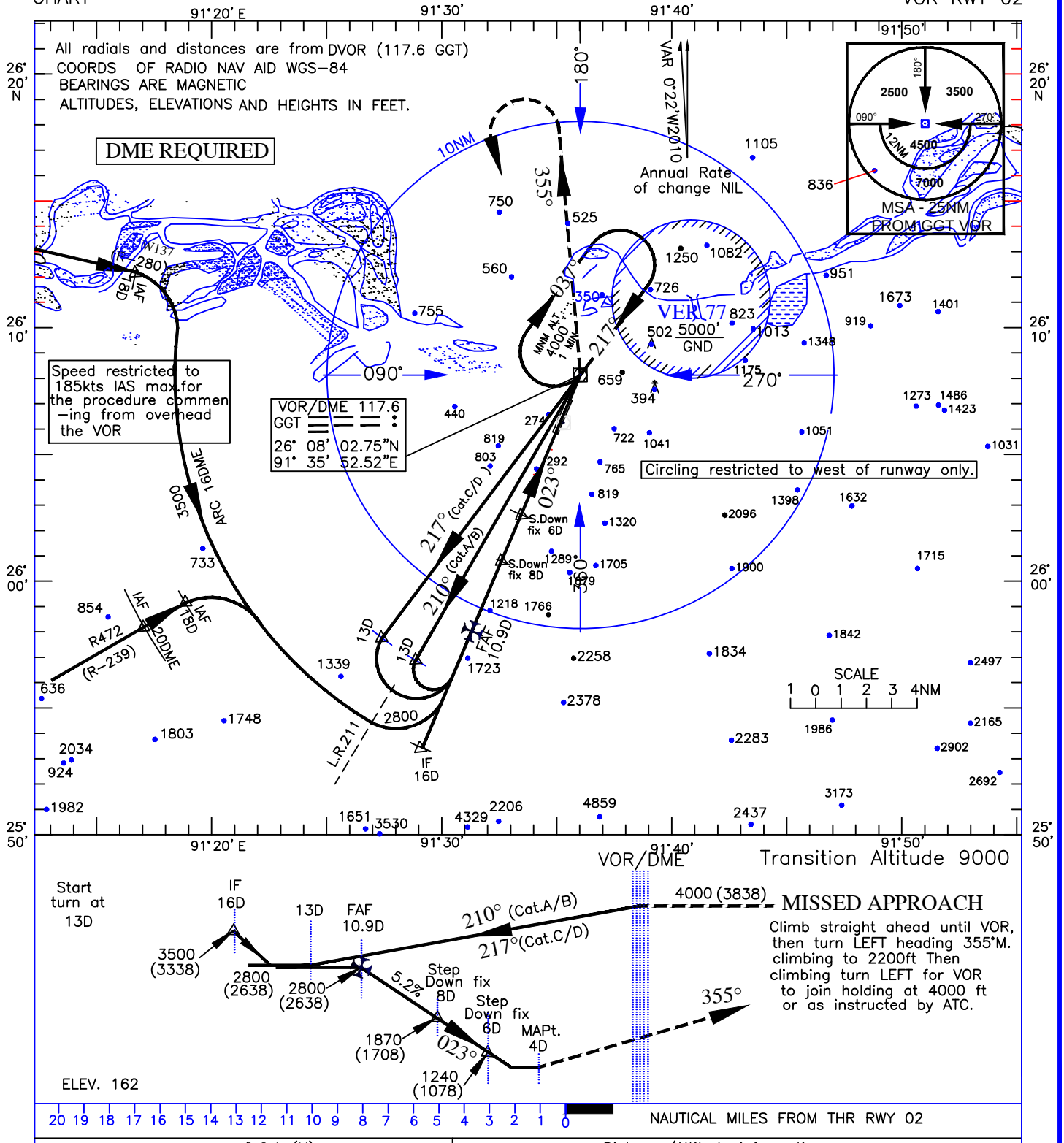

INSTRUMENT
APPROACH
CHART
AERODROME ELEV 162ft.
HEIGHTS RELATED TO
THR RWY 02–ELEV 162ft
APP.123.9
TWR.118.75
GUWAHATI (VEGT)
INDIA
ILS (X) RWY 02
All radials are from VOR (117.6 GGT).
BEARING ARE MAGNETIC.
ALTITUDE,ELEVATIONS AND HEIGHTS IN FEET.
VAR 0°22'W 2010
MSA - 25NM
FROM GGT VOR
2500
3500
4500
7000
12NM
10NM
VOR/DME 117.6
GGT
26° 08' 02.75"N
91° 35' 52.52"E
LOC 110.3
IGHT
LO 401
GH
26° 02' 16.8"N
91° 33' 12.7"E
VER 77
5000'
GND
Speed restricted to
185kts IAS max.for
the procedure commen
–ing from overhead
the LO
SCALE
1 0 1 2 3 4NM
NOTE
1. GP Inoperative procedure is not applicable
2. GP interception may be from above when head wind comp.during O/B leg of initial approach exceeds 35 kt.
Circling restricted to west of runway only.
Transition Altitude 9000
MISSED APPROACH
Turn LEFT at VOR(117.6 GGT).
Climb on track 345°M to 2200ft,
then climbing turn LEFT for LO(401 GH)
to join holding at 4000 ft
or as instructed by ATC.
Start
turn at
30 sec.
after LO
4000(3838)
3000(2838)
G.P 3.25°
1490
(1328)
440(278)
ELEV. 162
ILSRDH 51
NAUTICAL MILES FROM THR RWY 02
O.C.A (H)
CAT. OF ACFT. | A/B | C/D
STRAIGHT–IN | 412(250) | 412(250)
CIRCLING | 1320(1158) | 1420(1258)
DRG. NO. AAI/45–IALC/00/19–07–2018

INSTRUMENT APPROACH CHART

AERODROME ELEV 162ft.
HEIGHTS RELATED TO
THR RWY 02–ELEV 162ft

APP.123.9
TWR.118.75

GUWAHATI
INDIA
VOR RWY 02



O.C.A (H)		
CAT. OF ACFT.	A/B	C/D
STRAIGHT–IN	650(488)	650(488)
CIRCLING	1320(1158)	1420(1258)

Distance/Altitude information							
Distance(NM)	10.9D	10D	9D	8D	7D	6D	5D
Altitude (ft.)	2800	2510	2190	1870	1560	1240	930

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

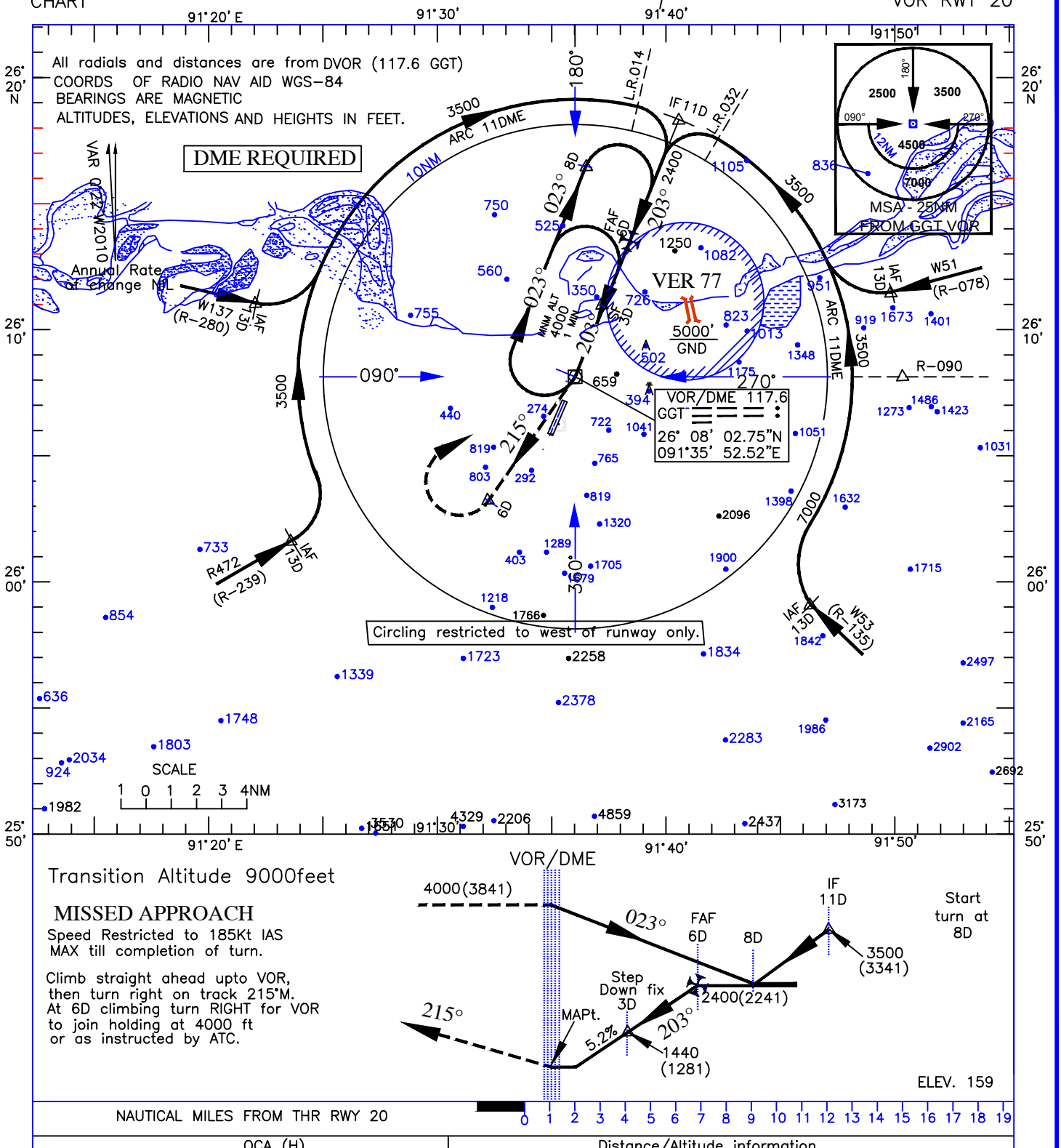
DRG. NO. AAI/01–IALC/00/01–05–2014

INSTRUMENT APPROACH CHART

AERODROME ELEV 162ft.
HEIGHTS RELATED TO THR RWY 20–ELEV 159ft

APP.123.9
TWR.118.75

GUWAHATI
INDIA
VOR RWY 20



Transition Altitude 9000feet

MISSED APPROACH

Speed Restricted to 185Kt IAS MAX till completion of turn.

Climb straight ahead upto VOR, then turn right on track 215°M. At 6D climbing turn RIGHT for VOR to join holding at 4000 ft or as instructed by ATC.

NAUTICAL MILES FROM THR RWY 20

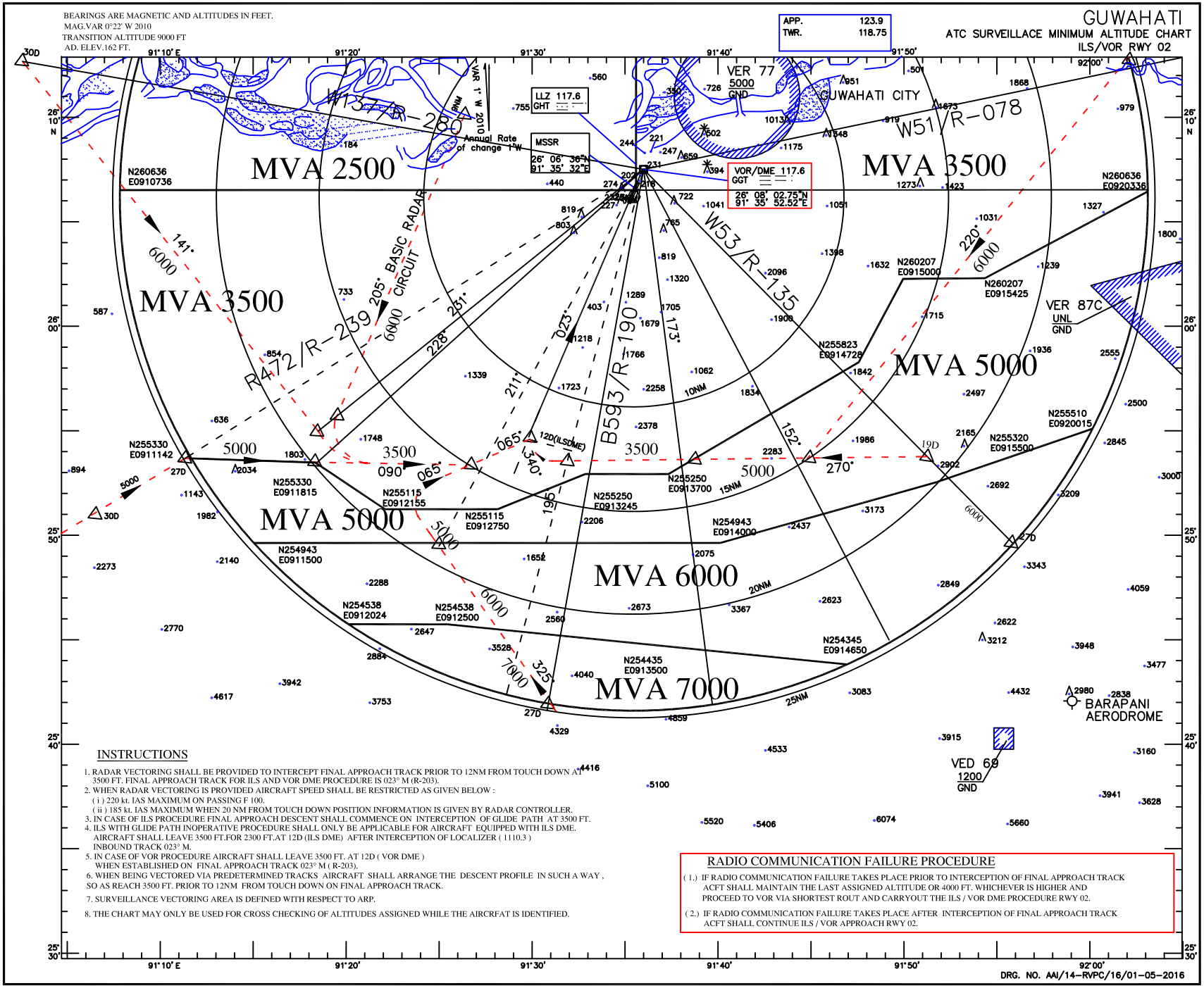
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

OCA (H)		
CAT. OF ACFT.	A/B	C/D
STRAIGHT–IN	660(498)	660(498)
CIRCLING	1320(1158)	1420(1258)

Distance/Altitude information						
Distance(NM)	6D	5D	4D	3D	2D	1D
Altitude (ft.)	2400	2070	1755	1440	1125	810

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

DRG. NO. AAI/15–IALC/05/01–05–2016



INSTRUCTIONS

1. RADAR VECTORING SHALL BE PROVIDED TO INTERCEPT FINAL APPROACH TRACK PRIOR TO 12NM FROM TOUCH DOWN AT 3500 FT. FINAL APPROACH TRACK FOR ILS AND VOR DME PROCEDURE IS 023° M (R-203).
2. WHEN RADAR VECTORING IS PROVIDED AIRCRAFT SPEED SHALL BE RESTRICTED AS GIVEN BELOW :
   (i) 220 kt. IAS MAXIMUM ON PASSING F 100.
   (ii) 185 kt. IAS MAXIMUM WHEN 20 NM FROM TOUCH DOWN POSITION INFORMATION IS GIVEN BY RADAR CONTROLLER.
3. IN CASE OF ILS PROCEDURE FINAL APPROACH DESCENT SHALL COMMENCE ON INTERCEPTION OF GLIDE PATH AT 3500 FT.
4. ILS WITH GLIDE PATH INOPERATIVE PROCEDURE SHALL ONLY BE APPLICABLE FOR AIRCRAFT EQUIPPED WITH ILS DME. AIRCRAFT SHALL LEAVE 3500 FT.FOR 2300 FT.AT 12D (ILS DME) AFTER INTERCEPTION OF LOCALIZER (1110.3) INBOUND TRACK 023° M.
5. IN CASE OF VOR PROCEDURE AIRCRAFT SHALL LEAVE 3500 FT. AT 12D (VOR DME) WHEN ESTABLISHED ON FINAL APPROACH TRACK 023° M (R-203).
6. WHEN BEING VECTORED VIA PREDETERMINED TRACKS AIRCRAFT SHALL ARRANGE THE DESCENT PROFILE IN SUCH A WAY , SO AS REACH 3500 FT. PRIOR TO 12NM FROM TOUCH DOWN ON FINAL APPROACH TRACK.
7. SURVEILLANCE VECTORING AREA IS DEFINED WITH RESPECT TO ARP.
8. THE CHART MAY ONLY BE USED FOR CROSS CHECKING OF ALTITUDES ASSIGNED WHILE THE AIRCRFAT IS IDENTIFIED.

RADIO COMMUNICATION FAILURE PROCEDURE

(1.) IF RADIO COMMUNICATION FAILURE TAKES PLACE PRIOR TO INTERCEPTION OF FINAL APPROACH TRACK ACFT SHALL MAINTAIN THE LAST ASSIGNED ALTITUDE OR 4000 FT. WHICHEVER IS HIGHER AND PROCEED TO VOR VIA SHORTEST ROUT AND CARRYOUT THE ILS / VOR DME PROCEDURE RWY 02.

(2.) IF RADIO COMMUNICATION FAILURE TAKES PLACE AFTER INTERCEPTION OF FINAL APPROACH TRACK ACFT SHALL CONTINUE ILS / VOR APPROACH RWY 02.

DRG. NO. AAI/14-RVPC/16/01-05-2016