

AD 2. AERODROME**VNDH AD 2.1 AERODROME LOCATION INDICATOR AND NAME****VNDH – Dhangadhi/Domestic****VNDH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1.	ARP Coordinates and site at AD	284516 N* 0803459 E
2.	Direction and Distance from (city	12 Km, North of Dhangadhi City
3.	Elevation/Reference Temperature	189m (621ft.) / 41.4 ⁰ C
4.	MAG VAR/Annual Change	-
5.	AD Administration, address Telephone, Telefax, Telex AFS	Civil Aviation Authority of Nepal Dhangadhi Civil Aviation Office, Dhangadhi Te1-977- 091 – 575119 (Office), 977- 091 – 575219 (Tower) Fax -977- 091 - 575119 AFS - VNDHYDYX
6.	Types of traffic permitted (IFR/VFR	IFR, VFR
7.	Remarks	-

VNDH AD 2.3 OPERATIONAL HOURS

1.	AD Administration	SUN – THU 10:00 - 17:00 LT (SUMMER) 10:00 - 16:00 LT (WINTER) FRI 10:00 - 15:00 LT
2.	Customs and immigration	NIL
3.	Health and sanitation	NIL
4.	AIS Briefing Office	NIL
5.	ATS Reporting Office ARO)	NIL
6.	MET Briefing	NIL
7.	ATS	1) From 16 Feb - 15 Nov (0015 - 1815) UTC** 2) From 16 Nov - 15 Feb (0045 - 1815) UTC**
8.	Fuelling	Jet A1 during Operation Hours
9.	Handling Cargo)	NIL
10.	Security	H - 24
11.	Remarks	Any change will be notified by NOTAM

* WGS 84 Coordinates

**For operations other than above, Prior Co-ordination is required

VNDH AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Available with local Airlines Operator
2.	Fuel/Oil Types	Jet A1/Not Available
3.	Fuelling facilities/capacity	Storage Capacity (KL): Physical -45, Mobile-18 Storage Type: UG Tank (15×3) Refueller Details: AR31 (11KL), AR9 (7KL)
4.	De-icing facilities	NIL
5.	Hangar space for visiting aircraft	NIL
6.	Repair facilities for visiting aircraft	NIL
7.	Remarks	-

VNDH AD 2.5 PASSENGER FACILITIES

1.	Hotels	In the City Area (12 Km South)
2.	Restaurants	In the City Area
3.	Transportation	Taxi, Van and E-Rickshaw
4.	Medical Facilities	Hospitals in the City
5.	Bank and Post Office	ATM (Sanima Bank) at Airport
6.	Tourist Office	In the City
7.	Remarks	-

VNDH AD 2.6 RESCUE AND FIRE FIGHTING SERVICE

1.	AD category for fire fighting	Nil
2.	Rescue equipment	Nil
3.	Capability for removal of disabled aircraft	Nil
4.	Remarks	Complementary Extinguishing Agents and Fire Extinguishers (wheel type fire extinguishers also) Available. Small Fire Vehicle Available.

VNDH AD 2.7 SEASONAL AVAILABILITY

Aerodrome available throughout the year

. VNDH 2.8 APRONS, TAXIWAYS AND CHECK LOCATION DATA

1.	Apron surface and strength	Asphalt Concrete and 21/F/A/Y/T
2.	Taxiway width, surface and strength	20m, Asphalt Concrete and 22/F/A/Y/T
3.	ACL location and elevation	-
4.	VOR/INS checkpoints	-
5.	Remarks	-

**VNDH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL
SYSTEM AND MARKINGS**

1.	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Guide lines at Apron
2.	RWY and TWY markings and LGT	RWY: 09/27, THR, TDZ, Center line, RWY edge marked and RWY END, THR, RWY edge have lights. TWY: TWY/RWY marked and edge with blue light
3.	Stop bars	-
4.	Remarks	-

VNDH AD 2.10 AERODROME OBSTACLES

In Area 2					
OBST ID/ Designation	OBST Type	OBST Position	ELEV/HGT m/ft.	Marking Type color	Remarks
a	b	c	d	e	f
DH4001	ATC Tower	28°45'11.395"N 080°34'58.784"E	205/674		
DH4002	Tree	28°45'25.474"N 080°34'57.732"E	218/715		
DH4003	Tree	28°45'36.375"N 080°35'47.954"E	207/678		
DH4004	Tower	28°45'27.867"N 080°36'34.916"E	213/698		
DH4005	Tree	28°45'21.012"N 080°35'46.681"E	199/653		
DH4006	Tree	28°45'13.262"N 080°35'41.483"E	209/686		
DH4007	Tree	28°45'11.921"N 080°35'36.982"E	198/650		
DH4008	Tree	28°45'10.542"N 080°35'03.613"E	209/688		
DH4009	Antenna	28°45'8.837"N 080°35'04.078"E	209/684		
DH4010	Flood Light	28°45'12.100"N 080°34'58.346"E	205/671		
DH4011	Flood Light	28°45'12.046"N 080°34'56.579"E	205/672		
DH4012	Tower	28°44'44.032"N 080°34'31.781"E	220/721		
DH4013	Factory	28°44'51.004"N 080°33'55.683"E	221/724		
DH4014	Tree	28°45'08.364"N 08 0°33'35.031"E	224/734		
DH4015	R P Floor Mill	28°45'53.632"N 080°33'26.732"E	220/722		
DH4016	Tree	28°45'44.438"N 080°33'46.865"E	214/701		
DH4017	Chimney	28°45'35.394"N 080°34'36.755"E	212/695		
DH4018	Light House	28°45'22.731"N 08 0°35'19.442"E	195/641		
DH4019	House	28°45'23.612"N 080°35'33.301"E	195/640		
DH4020	Tree	28°45'10.868"N 080°34'22.533"E	213/700		
DH4021	Tree	28°45'14.794"N 080°34'17.737"E	208/682		
DH4022	House	28°45'25.341"N 080°34'23.970"E	196/643		

VNDH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	-
2	Hours of service MET office outside hours	-
3	Office responsible for TAF preparation periods of validity	-
4	Type of landing forecast interval of issuance	-
5	Briefing/Consultation provided	-
6	Flight documentation languages used	-
7	Charts and other information available for briefing or consultation	-
8	Supplementary equipment available for providing information	-
9	ATS units provided with information	-
10	Additional information (limitation of service, etc.)	-

VNDH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designation RWY NR	TRUE & MAG BRG	Dimensions of RWY (M)	Strength(PCN and surface of RWY and SWY	THR Coordinates	THR elevation
1	2	3	4	5	6
09	089 ⁰	1800×30	24/F/B/Y/T Asphalt Concrete	284518.490 N* 0803427.129 E	188m
27	269 ⁰	1800×30	24/F/B/Y/T Asphalt Concrete	284519.553 N* 0803533.471 E	189m
7	8	9	10	11	12
.....					

VNDH AD 2.13 DECLARED DISTANCES

RWY Designator	TORA m	TODA m	ASDA m	LDA m	Remarks
1	2	3	4	5	6
09	1800	1800	1800	1800	
27	1800	1800	1800	1670	Displaced Threshold by 130m towards RWY 27

VNDH AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	THR LGT color WBAR	VASI S	TDZ LGT LEN	RWY Center Line LGT Length, spacing color, INTST	RWY edge LGT LEN, spacing color INTST	RWY End LGT color	SWY LGT LEN M color	Remarks
1	2	3	PAPI	5	6	7	8	9	10
09	NIL	Green	PAPI 3.00°	NIL	NIL	1800m, 60m White, LIM	Red	NIL	
27	Simple Approach Light System (SALS) 420m LIM	Green	PAPI 3.00°	NIL	NIL	1800m, 60m White, LIM	Red	NIL	-

VNDH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1.	ABN Location, characteristics and hours of operation	ABN: At above Aerodrome Control Tower, Green flashes alternating with white flashes, 28 flashes per minute normally after sunset.
2.	LDI Location and LGT Anemometer Location and LGT	-
3.	TWY edge and Centre line lighting	Edge : All TWY Centre Line :NIL
4.	Secondary power supply / switch over time	Stand-by Diesel Generator to all lighting and Uninterrupted Power Supply to Airfield Ground Lighting (AGL) System at AD with 30 minutes back up.
5.	Runway Threshold Identification Light (RTIL) Location and Characteristics	Location : RWY Threshold 09/27, Flashing white light with flash frequency 120 per minute.

VNDH AD 2.16 HELICOPTER LANDING AREA

Not specified

VNDH AD 2.17 ATS AIRSPACE

1. Designation and lateral limits	Dhangadhi CTR: An area bounded by 28°42'21"N; 080° 18'16"E then along an arc of a circle of 15 NM radius centered at Dhangadhi ARP to 28°49'09"N; 080°51'27"E to 28°46'32"N; 080°57'40"E then along an arc of a circle of 20 NM radius centered at Dhangadhi ARP to 28°36'24"N; 080°55'21"E to 28°38'34"N; 080°50'13"E then along an arc of a circle of 15 NM radius centered at Dhangadhi ARP to 28°33'56"N; 080°46'10"E and along Kathmandu FIR VNSM to 28°42'21"N; 080°18'16"E Dhangadhi ATZ: An area of a circle of 5NM radius centered at Dhangadhi ARP and to the south up to VNSM FIR.	
2. Vertical Limits	CTR	ATZ
	9500ft AMSL GND	2000ft AGL GND
3. Airspace classification	C	
4. ATS units call sign/language	Dhangadhi TWR/English	
5. Transition Altitude	13500ft AMSL	
6. Remarks	-	

VNDH AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	Call Sign	Frequency	Hours of Operation**	Remarks
1	2	3	4	5
TWR	Dhangadhi Tower	122.3MHZ	1) From 16 Feb - 15 Nov (0015 - 1815) UTC** 2) From 16 Nov - 15 Feb (0045 - 1815) UTC**	

VNDH AD 2.19 RADIO NAVIGATION AND LANDING AID

Type of Aid	Identification	Frequency	OPR Hours	Coordinates	Remarks
1	2	3	4	5	6
VOR/DME	-	-	-	-	-

* WGS 84 Coordinates

**For operations other than above, Prior Co-ordination is required

VNDH AD 2.20 LOCAL TRAFFIC REGULATIONS

To be developed

VNDH AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VNDH AD 2.22 FLIGHT PROCEDURES

To be developed

VNDH AD 2.23 ADDITIONAL INFORMATION

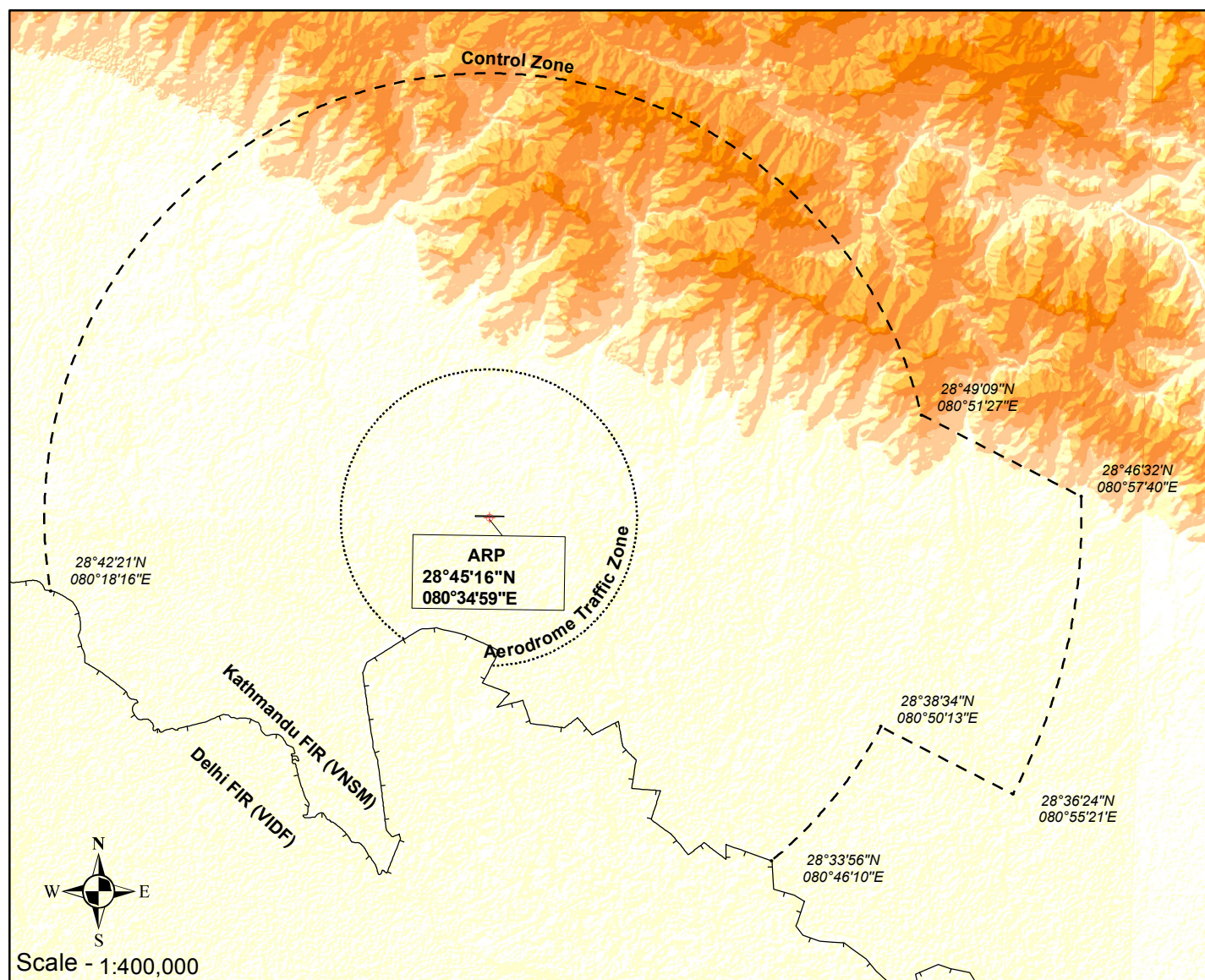
1. Bird Activity

- a Sometimes cases of bird concentrations in the vicinity of aerodrome may be encountered.
- b) No Special procedures have been adopted to control these bird concentrations except driving them through guards and security personnel.

VNDH AD 2.24 CHARTS & PROCEDURES RELATED TO DHANGADHI AIRPORT

Control Zone and Aerodrome Traffic Zone		VNDH AD 2-12
RNAV GNSS approach procedure at Dhangadhi Airport	VNDH AD 2-13	VNDH AD 2-16
Standart Departure Chart - Instrument (SID) - ICAO	VNDH AD 2-17	VNDH AD 2-18
Standart Arrival Chart - Instrument (STAR) - ICAO		VNDH AD 2-19
Instrument Approach Chart - ICAO		VNDH AD 2-20

Control Zone (CTR) and Aerodrome Traffic Zone (ATZ) Dhangadhi Airport



AIRSPACE	IDENT	Lateral Limit	Vertical Limit
Aerodrome Traffic Zone	ATZ	An area of a circle of 5 NM radius centered at Dhangadhi ARP and to the South up to VNSM FIR.	<u>2000 ft AGL</u> GND
Control Zone	CTR	An area bounded by (28°42'21"N; 080°18'16"E) then along an arc of a circle of 15 NM radius centered at Dhangadhi ARP to (28°49'09"N; 080°51'27"E) to (28°46'32"N; 080°57'40"E) then along an arc of a circle of 20 NM radius centered at Dhangadhi ARP to (28°36'24"N; 080°55'21"E) to (28°38'34"N; 080°50'13"E) then along an arc of a circle of 15 NM radius centered at Dhangadhi ARP to (28°33'56"N; 080°46'10"E) and along Kathmandu FIR (VNSM) to (28°42'21"N; 080°18'16"E).	<u>9500 ft AMSL</u> GND

RNAV GNSS approach procedure at Dhangadhi Airport (VNDH)

1. INTRODUCTION

- 1.1 The following RNP Approach [RNAV (GNSS)] Procedure is designed for VNDH in accordance with the criteria as stipulated in the ICAO PANS-OPS (DOC 8168 Vol. II).
- 1.2 The RNAV (GNSS) Instrument Approach Procedure to VNDH is designed to enhance the safety and efficiency of the aircraft operations to materialize the National PBN Implementation Plan of Nepal.
- 1.3 This RNAV (GNSS) approach procedure along with two RNP 1 STARs and three SIDs have been designed with LNAV Specification only and utilizes GNSS as primary navigation system as stipulated in ICAO PBN Manual DOC 9613.
- 1.4 A full arrival, approach and missed approach trajectories along with associated holdings have been designed.

2. APPROVED USERS, EQUIPMENT AND OPERATIONS

- 2.1 For the RNAV (GNSS) Approach Procedure, the operators shall ensure that they hold the all necessary operational approvals from Civil Aviation Authority of Nepal (CAAN).
- 2.2 The aircraft shall be equipped with GNSS as specified in Nepalese Flight Operations Requirements (FOR) and governed by the AIC 001/2011 dated 01 August 2011 (ATS Requirements for PBN in Nepalese Airspace).
- 2.3 All necessary navigation system are to installed onboard so as to keep the track keeping accuracy while commencing RNP1, RNP Approach and associated Missed Approach.
- 2.4 Before commencing the procedure, pilot in command must ensure that the navigation database is current and the aircraft's capability of conducting the procedure like GNSS availability, system performance, etc.

3. NAMING OF PROCEDURES

There are two RNP1 STARs, three RNP1 SIDs and one RNP Approach (LNAV only) procedures to Dhangadhi Runway 27 and are named in accordance with the ICAO naming convention as tabulated below.

RWY	SIDs	STARs	APPROACH
27	SUKET 1A TULVI 1D CHAIT 1A	SUKET 1R TULVI 1C	RNP RWY 27 (LNAV Only)

4. RNP CAPABILITY LOST

If the RNP Approach capability is lost, ATC shall be informed as soon as possible the alternate course of action from the pilots of the concerned aircraft.

5. List of Significant points:

Waypoint Identifier	Coordinates	
TULVI	28°06'42.0"N	082°17'30.0"E
SUKET	28°35'16.0"N	081°38'06.0"E
GOTHI	28°27'11.5"N	081°27'22.0"E
AMKHA (IAF)	28°42'18.6"N	080°54'01.6"E
DH963 (IF)	28°45'29.9"N	080°46'56.0"E
DH962 (FAF)	28°45'24.9"N	080°41'14.7"E
MAPt (RW27)	28°45'19.5"N	080°35'33.5"E
DANGA (MAHF)	28°47'03.5"N	080°24'21.0"E
CHAIT	28°48'18.9"N	080°34'27.1"E

6. Coding Table: SUKET 1R Arrival

Serial No.	Path Descriptor	Waypoint Identifier	Flyover	Course/Track (°M/°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH	Navigation Specification
001	IF	SUKET	-	-	-	-	-	+16000	-	-	RNP-1
002	TF	AMKHA (IAF)	-	280°	-	39.4	-	+6500	-180	-	RNP-1

7. Coding Table: TULVI 1C Arrival

Serial No.	Path Descriptor	Waypoint Identifier	Fly-over	Course/Track (°M/°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH	Navigation Specification
001	IF	TULVI	-	-	-	-	-	+10500	-	-	RNP-1
002	TF	GOTHI	-	295°	-	48.7	-	+8500	-	-	RNP-1
003	TF	AMKHA (IAF)	-	297°	-	33.0	-	+6500	-180	-	RNP-1

8. Coding Table: RNP RWY 27 (LNAV Only)

Serial No.	Path Descriptor	Waypoint Identifier	Fly-over	Course/Track (°M/°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kts)	VPA/TCH	Navigation Specification
001	IF	AMKHA (IAF)	-	-	-	-	-	+6500	-	-	RNP APCH
002	TF	DH963 (IF)	-	297°	-	7.0	L	@3900	-180	-	RNP APCH
003	TF	DH962 (FAF)	-	269°	-	5.0	-	@2300	-	-	RNP APCH
004	TF	RW27 (MAPt)	Y	269°	-	5.0	R	@671	-	3.03/50	RNP APCH
005	DF	DANGA	-	-	-	-	-	+4000	-180	-	RNP APCH
	HM	DANGA (MAHF)	-	100°	-	-	L	+4000	-180	-	RNP1

9. Coding Table: RNP1 SID SUKET 1A RWY 27

Serial No.	Path Descriptor	Waypoint Identifier	Flyover	Course/Track (°M/°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
001	CA	-	-	269°	-	-	R	@3500	-	-	RNP-1
002	DF	CHAIT	-	-	-	-	R	+6500	-180	-	RNP-1
003	TF	AMKHA	-	109°	-	18.2	L	-	-	-	RNP-1
004	TF	SUKET	-	100°	-	39.4	-	+FL160	-	-	RNP-1

10. Coding Table: RNP1 SID TULVI 1D RWY 27

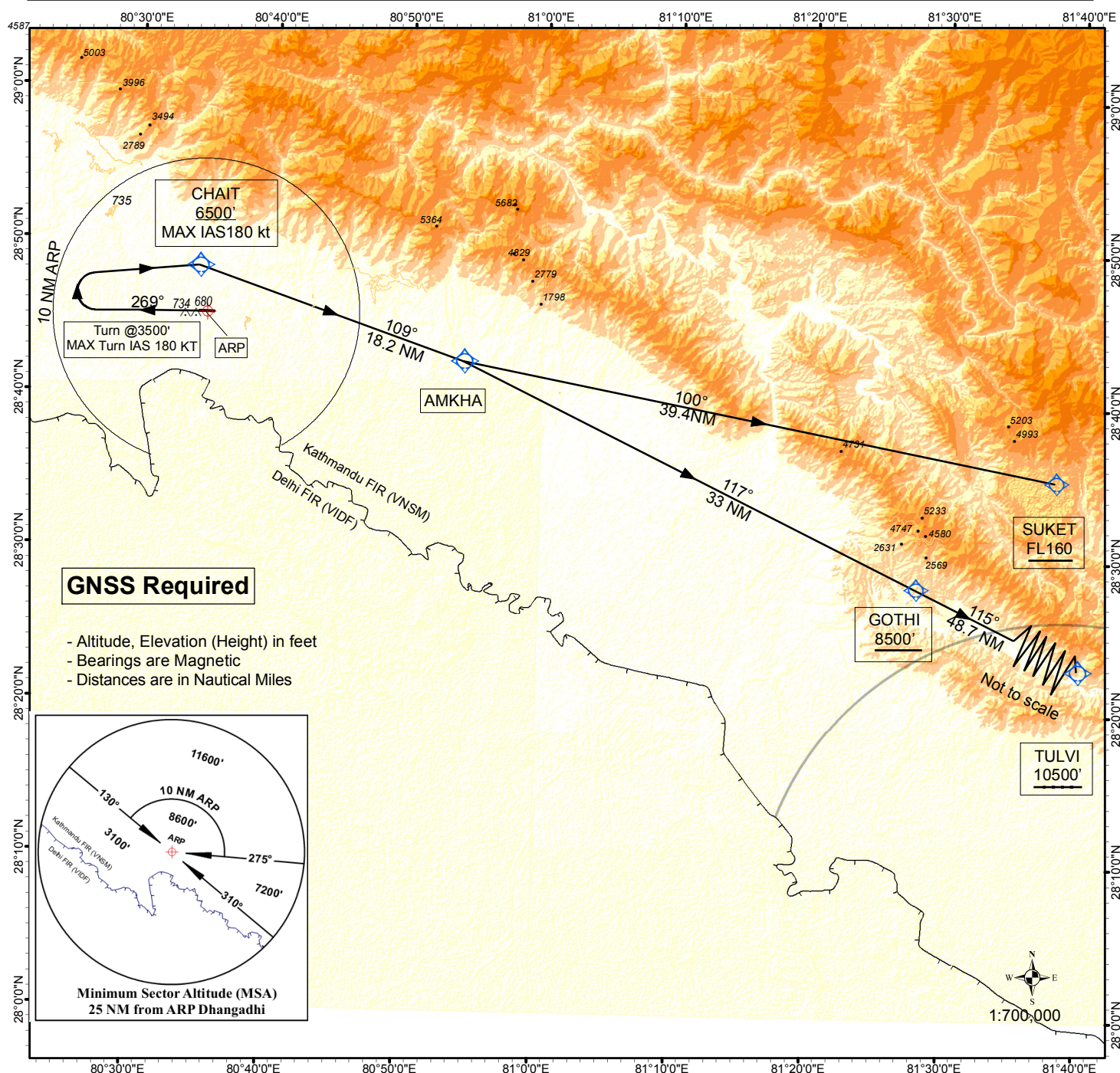
Serial No.	Path Descriptor	Waypoint Identifier	Flyover	Course/Track (°M/°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA/TCH	Navigation Specification
001	CA	-	-	269°	-	-	R	@3500	-	-	RNP-1
002	DF	CHAIT	-	-	-	-	R	+6500	-180	-	RNP-1
003	TF	AMKHA	-	109°	-	18.2	-	-	-	-	RNP-1
004	TF	GOTHI	-	117°	-	33.0	-	+8500	-	-	RNP-1
005	TF	TULVI	-	115°	-	48.7	-	+10500	-	-	RNP-1

11. Coding Table: RNP1 SID CHAIT 1A RWY 27

<i>Serial No.</i>	<i>Path Descriptor</i>	<i>Waypoint Identifier</i>	<i>Flyover</i>	<i>Course/Track (°M/°T)</i>	<i>Magnetic Variation</i>	<i>Distance (NM)</i>	<i>Turn Direction</i>	<i>Altitude (ft)</i>	<i>Speed (kt)</i>	<i>VPA/TCH</i>	<i>Navigation Specification</i>
001	CA	-	-	269°	-	-	R	@3500	-180	-	RNP-1
002	DF	CHAIT	-	-	-	-	R	+6500	-	-	RNP-1

STANDARD DEPARTURE
CHART- INSTRUMENT
(SID) - ICAOAERODROME ELEV 621'
TRANS LEVEL: FL150
TRANS ALT: 13500 ft.
Mag Var. 0°W (2010)

TWR 122.3

DHANGADHI, NEPAL
Dhangadhi Airport
RNP1 SID RWY 27
SUKET 1A, TULVI 1D

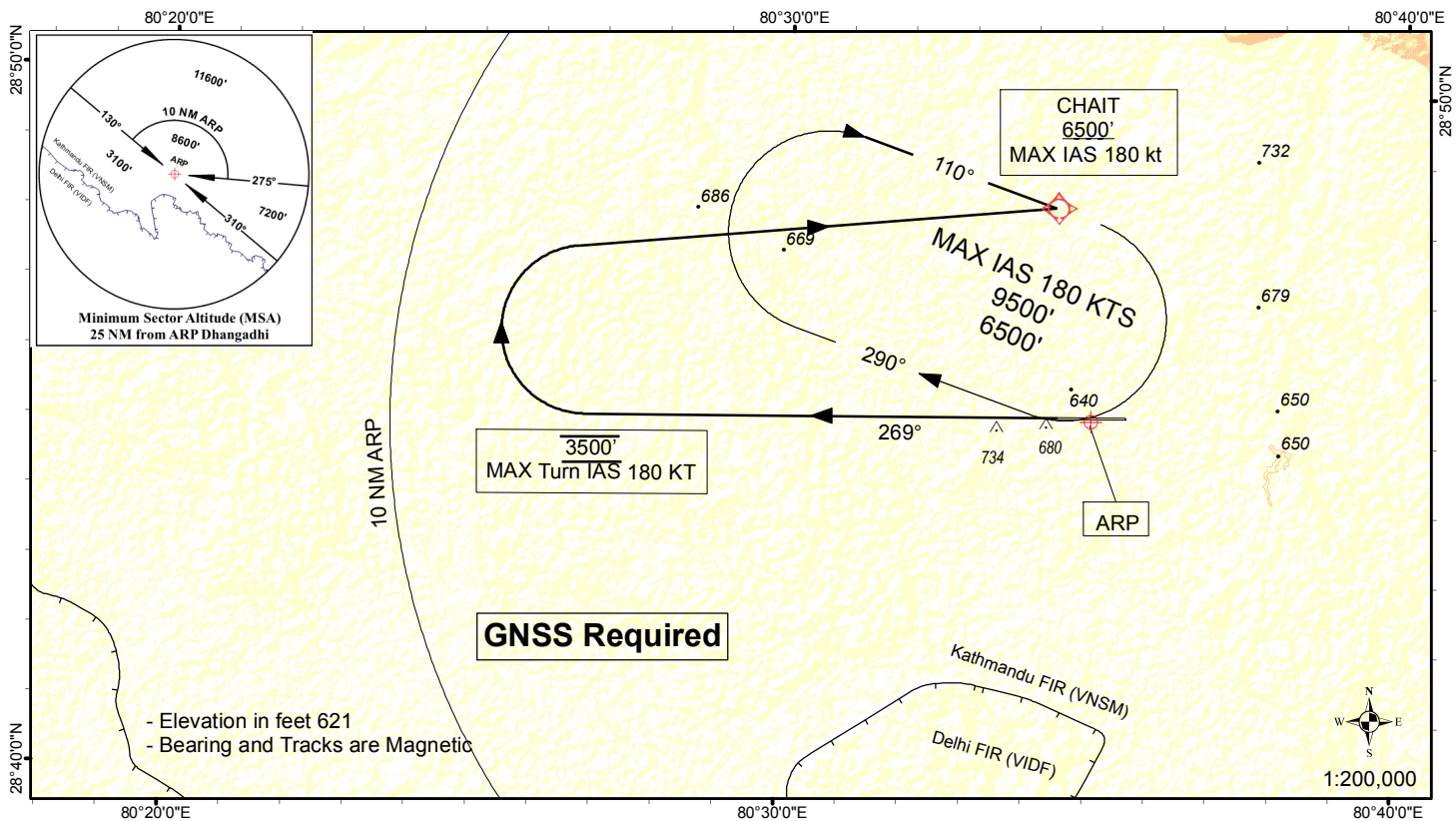
Minimum Visibility Required - 1600 m

SID SUKET 1A RWY 27 (PDG 7.0%)*Maximum turn IAS 180 KTS*

Climb on runway axis. At 3500 ft AMSL, turn right direct to CHAIT at or above 6500 ft. Then track 109° to AMKHA. Then track 100° to SUKET at or above FL 160.

SID TULVI 1D RWY 27 (PDG 7.0%)*Maximum turn IAS 180 KTS*

Climb on runway axis. At 3500 ft AMSL, turn right direct to CHAIT at or above 6500 ft. Then track 109° to AMKHA. Then track 117° to GOTH at or above 8500 ft. Then track 115° to TULVI at or above 10500 ft.

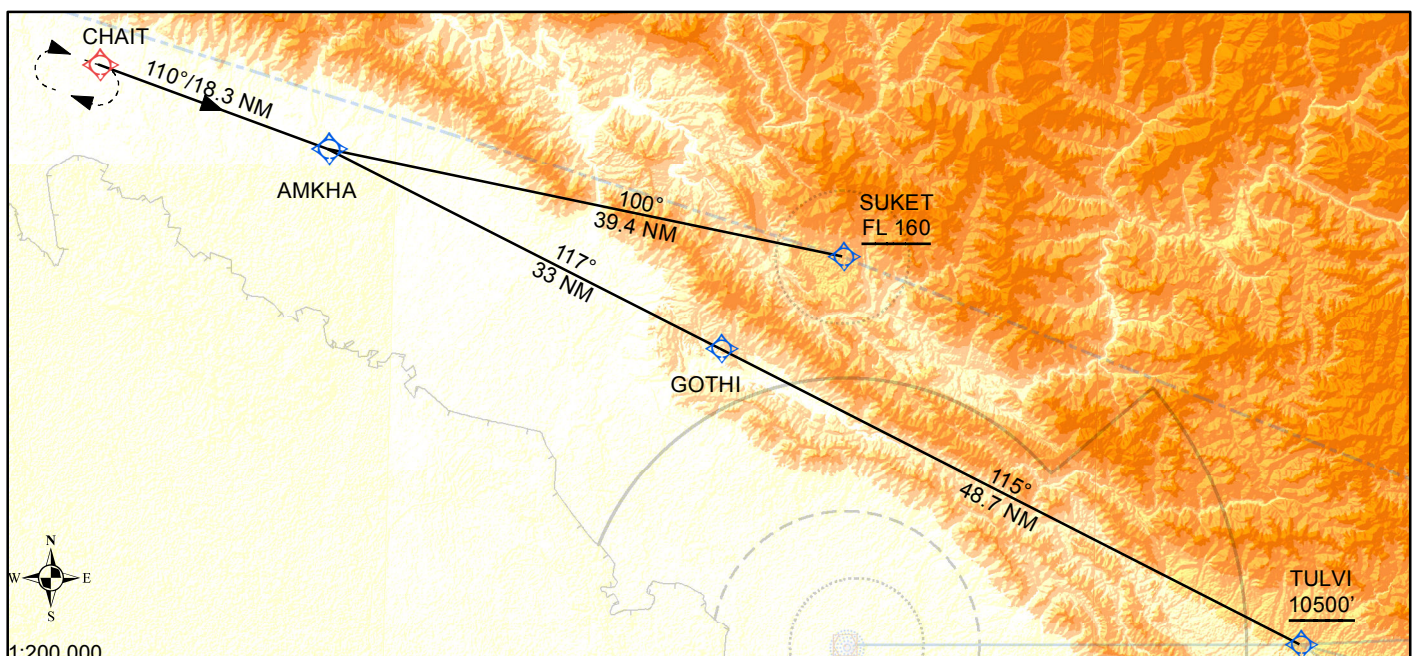
**STANDARD DEPARTURE
CHART- INSTRUMENT
(SID) - ICAO****AERODROME ELEV 621'
TRANS LEVEL: FL150
TRANS ALT: 13500 ft.
Mag Var. 0°W (2010)****TWR 122.3****DHANGADHI, NEPAL
Dhangadhi Airport
RNP1 SID RWY 27
CHAIT 1A****Minimum Visibility Required - 1600 m****SID CHAIT 1A RWY 27 (PDG 7.0%)***Maximum turn IAS 180 KTS*

Climb on runway axis. At 3500 ft AMSL, turn right direct to CHAIT H.P.
at or above 6500 ft. Then follow ATC Instruction.

Transition to Routes:

To L626 From CHAIT track direct to AMKHA then SUKET at or above FL 160.

To W17 From CHAIT track direct to AMKHA then TULVI at or above 10500 ft via GOTH.

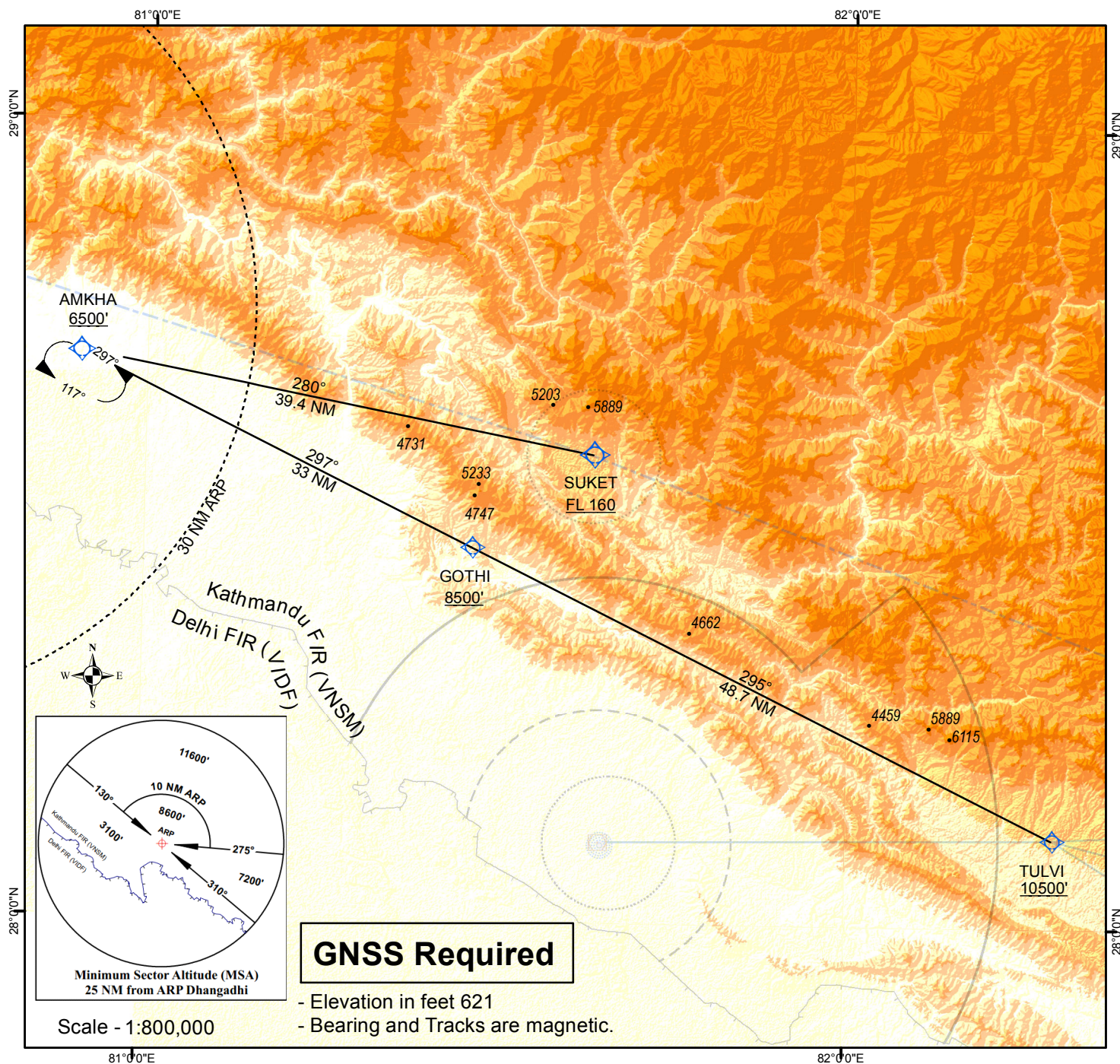


**STANDARD ARRIVAL
CHART - INSTRUMENT
(STAR) - ICAO**

**AERODROME ELEV 621'
TRANS LEVEL: FL150
TRANS ALT: 13500 ft.
Mag Var. 0°E**

TWR 122.3

**DHANGADHI, NEPAL
Dhangadhi Airport
RNP 1 STAR
SUKET 1R, TULVI 1C**



SUKET 1R ARRIVAL

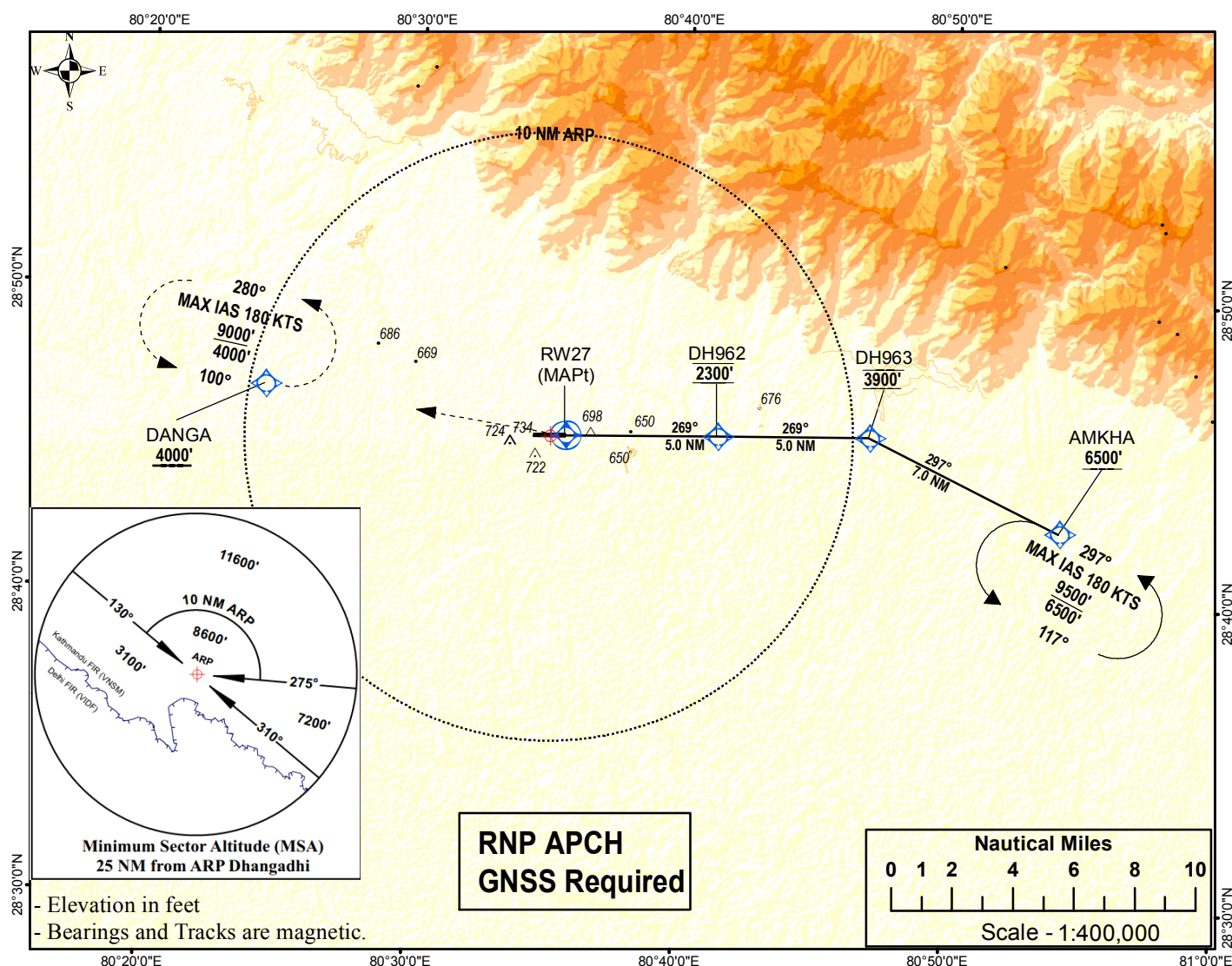
From SUKET track 280° to AMKHA at or above 6500 ft.

TULVI 1C ARRIVAL

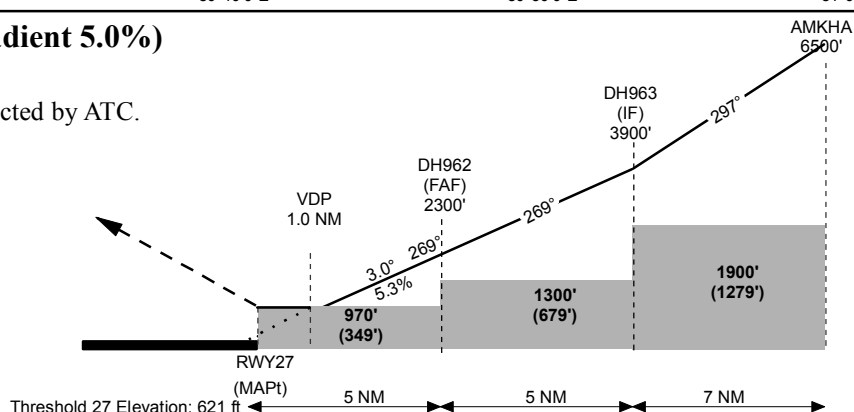
From TULVI track 295° to GOTH at or above 8500 ft. Then track 297° to AMKHA at or above 6500 ft.

AERODROME ELEV 621'
TRANS LEVEL: FL150
TRANS ALT: 13500 ft.
Mag Var. 0°E

DHANGADHI, NEPAL
Dhangadhi Airport
RNP RWY 27 (LNAV Only)



At MAPt, turn right direct to DANGA H.P.
Reach DANGA at or above 4000' or as instructed by ATC.



LNAV	Aircraft Category					
	A		B		C	
	OCA (OCH)	Visibility (m)	OCA (OCH)	Visibility (m)	OCA (OCH)	Visibility (m)
Straight-in	970' (349')	1700	970' (349')	1700	970' (349')	1700
Circling	1040' (419')	2000	1120' (499')	2300	1220' (599')	2800
NOT AUTHORIZED AT NIGHT						
<i>Note: In case of no Approach Lighting System visibility required 2100m</i>						

Note: In case of no Approach Lighting System visibility required 2100m