VNJP 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	Taxiing guidance signs at intersections with TWY and RWY and at holding positions. Guide lines at apron.
2.	RWY and TWY markings and LGT	RWY: 09/27, THR TDZ, Center line, RWY edge marked. RWY: 09/27, THR edge and RWY end have Lights. TWY edge with blue lights. TWY: Center line, holding positions at all TWY/RWY intersections marked.
3.	Stop bars	…...
4.	Remarks	-

VNJP AD 2.10 AERODROME OBSTACLES

Janakpur Airport-Obstacle Data-2018						
S. No.	**Obstacle Name**	**Obstacle ID**	**Latitude**	**Longitude**	**Top Elevation**	**Remarks**
1	ATC Tower (Existing)	JP3001	26°42'38.720"N	85°55'26.624"E	80.997	ATC Tower
2	ATC Tower (New)	JP3002	26°42'40.435"N	85°55'26.413"E	97.493	ATC Tower (New)
3	VHF Antenna Mast	JP3003	26°42'41.245"N	85°55'27.770"E	92.530	VHF Antenna
4	NDB Mast-1	JP3004	26°42'40.938"N	85°55'18.554"E	88.978	NDB Mast-1
5	NDB Mast-2	JP3005	26°42'40.935"N	85°55'21.840"E	88.870	NDB Mast-2
6	Old NDB Mast-1	JP3006	26°42'52.366"N	85°55'40.605"E	92.711	Old NDB Mast-1
7	Old NDB Mast-2	JP3007	26°42'52.692"N	85°55'42.464"E	94.561	Old NDB Mast-2
8	Old NDB Mast-3	JP3008	26°42'55.014"N	85°55'42.773"E	95.080	Old NDB Mast-3
9	Office Quarter	JP3009	26°42'43.349"N	85°55'32.345"E	83.060	Office Quarter
10	Fire Station	JP3010	26°42'38.626"N	85°55'30.660"E	79.414	Fire Station
11	Flood Light	JP3011	26°42'37.798"N	85°55'25.903"E	80.772	Flood Light
12	Water Tank	JP3012	26°42'39.084"N	85°55'21.919"E	83.669	Water Tank
13	House	JP3013	26°42'42.960"N	85°55'30.455"E	81.188	House
14	Tree	JP3014	26°42'42.081"N	85°55'33.240"E	86.029	Tree
15	Tree	JP3015	26°42'36.571"N	85°55'40.743"E	86.221	Tree
16	NTC Tower	JP3016	26°42'37.138"N	85°55'41.841"E	81.963	NTC Tower
17	House	JP3017	26°42'39.818"N	85°55'41.492"E	80.511	House
18	Tree	JP3018	26°42'39.795"N	85°55'40.974"E	75.897	Tree
19	Tree	JP3019	26°42'35.731"N	85°55'43.939"E	88.223	Tree
20	Tree	JP3020	26°42'38.159"N	85°55'47.712"E	99.029	Tree
21	Tree	JP3021	26°42'34.983"N	85°55'45.933"E	88.125	Tree
22	House	JP3022	26°42'34.261"N	85°55'48.205"E	81.517	House
23	Tree	JP3023	26°42'33.298"N	85°55'48.381"E	83.453	Tree
24	Hut	JP3024	26°42'32.796"N	85°55'48.176"E	75.647	Hut
25	Tree	JP3025	26°42'32.710"N	85°55'48.228"E	80.311	Tree
26	Tree	JP3026	26°42'32.496"N	85°55'48.433"E	79.920	Tree
27	House	JP3027	26°42'30.504"N	85°55'51.355"E	79.947	House
28	Tree	JP3028	26°42'30.704"N	85°55'49.943"E	81.925	Tree
29	House	JP3029	26°42'29.728"N	85°55'49.301"E	81.570	House
30	Electric Pole	JP3030	26°42'29.472"N	85°55'48.536"E	79.343	Electric Pole
31	Pillar on House Top	JP3031	26°42'28.603"N	85°55'48.275"E	78.878	Pillar on House
32	Tree	JP3032	26°42'30.244"N	85°55'48.736"E	81.967	Tree

S. No.	Obstacle Name	Obstacle ID	Latitude	Longitude	Top Elevation	Remarks
33	House	JP3033	26°42'29.334"N	85°55'48.146"E	76.289	House
34	Tree	JP3034	26°42'25.950"N	85°55'50.565"E	91.037	Tree
35	Tree	JP3035	26°42'27.974"N	85°55'47.046"E	88.072	Tree
36	Tree	JP3036	26°42'27.588"N	85°55'45.897"E	87.107	Tree
37	Tree	JP3037	26°42'25.801"N	85°55'44.057"E	89.298	Tree
38	Tree	JP3038	26°42'27.209"N	85°55'42.499"E	89.337	Tree
39	Tree	JP3039	26°42'24.214"N	85°55'37.972"E	94.815	Tree
40	Tree	JP3040	26°42'24.935"N	85°55'36.538"E	93.446	Tree
41	Tree	JP3041	26°42'28.295"N	85°55'38.722"E	81.247	Tree
42	Tree	JP3042	26°42'27.332"N	85°55'37.931"E	85.764	Tree
43	Tree	JP3043	26°42'28.011"N	85°55'34.129"E	80.237	Tree
44	Tree	JP3044	26°42'26.876"N	85°54'57.158"E	93.539	Tree
45	Tree	JP3045	26°42'27.773"N	85°54'54.745"E	93.117	Tree
46	Tree	JP3046	26°42'27.802"N	85°54'54.291"E	92.429	Tree
47	Tree	JP3047	26°42'21.996"N	85°54'51.140"E	95.765	Tree
48	Tree	JP3048	26°42'23.816"N	85°54'48.742"E	89.307	Tree
49	Tree	JP3049	26°42'22.772"N	85°54'46.362"E	86.980	Tree
50	House	JP3050	26°42'23.842"N	85°54'45.966"E	77.605	House
51	Tree	JP3051	26°42'26.615"N	85°54'46.456"E	90.969	Tree
52	Tree	JP3052	26°42'27.181"N	85°54'45.666"E	85.481	Tree
53	Electric Pole	JP3053	26°42'28.868"N	85°54'48.526"E	77.123	Electric Pole
54	House	JP3054	26°42'28.722"N	85°54'46.657"E	73.908	House
55	Tree	JP3055	26°42'27.656"N	85°54'44.554"E	87.487	Tree
56	Tree	JP3056	26°42'27.471"N	85°54'42.339"E	88.384	Tree
57	House	JP3057	26°42'28.398"N	85°54'43.933"E	75.869	House
58	Electric Pole	JP3058	26°42'29.621"N	85°54'46.412"E	77.603	Electric Pole
59	Tree	JP3059	26°42'27.892"N	85°54'39.143"E	84.358	Tree
60	Electric Pole	JP3060	26°42'30.798"N	85°54'47.022"E	77.785	Electric Pole
61	Tree	JP3061	26°42'30.005"N	85°54'30.012"E	84.731	Tree
62	Tree	JP3062	26°42'30.728"N	85°54'31.225"E	85.429	Tree
63	Tree	JP3063	26°42'32.180"N	85°54'39.994"E	81.613	Tree
64	House	JP3064	26°42'33.001"N	85°54'48.021"E	73.720	House
65	Tree	JP3065	26°42'36.756"N	85°54'37.339"E	83.861	Tree
66	Tree	JP3066	26°42'43.383"N	85°54'07.721"E	99.322	Tree
67	Tree	JP3067	26°42'37.622"N	85°54'37.841"E	79.546	Tree
68	Tree	JP3068	26°42'47.592"N	85°54'09.637"E	97.596	Tree
69	Tree	JP3069	26°42'39.708"N	85°54'36.560"E	84.696	Tree
70	Chimney	JP3070	26°43'08.851"N	85°53'29.612"E	101.308	Chimney
71	Tree	JP3071	26°42'38.229"N	85°54'44.592"E	83.433	Tree
72	Tree	JP3072	26°42'45.912"N	85°54'34.554"E	87.579	Tree
73	Tree	JP3073	26°42'41.606"N	85°54'41.736"E	86.025	Tree
74	Temple	JP3074	26°42'37.554"N	85°54'50.080"E	83.056	Temple
75	Tree	JP3075	26°42'37.412"N	85°54'50.726"E	84.661	Tree
76	Tree	JP3076	26°42'41.294"N	85°54'53.238"E	87.551	Tree
77	Tree	JP3077	26°42'40.394"N	85°54'55.720"E	90.452	Tree
78	Tree	JP3078	26°42'41.588"N	85°55'01.078"E	89.161	Tree
79	Tree	JP3079	26°42'37.872"N	85°55'00.931"E	91.913	Tree
80	House	JP3080	26°42'46.145"N	85°55'10.124"E	83.520	House
81	House	JP3081	26°42'39.613"N	85°55'07.307"E	79.838	House
82	Tree	JP3082	26°42'42.708"N	85°55'17.976"E	99.000	Tree
83	Tree	JP3083	26°42'36.085"N	85°55'06.029"E	85.038	Tree
84	Tree	JP3084	26°42'27.170"N	85°55'21.890"E	91.519	Tree

S. No.	Obstacle Name	Obstacle ID	Latitude	Longitude	Top Elevation	Remarks
85	Tree	JP3085	26°42'27.642"N	85°55'19.826"E	90.089	Tree
86	Chimney	JP3086	26°42'03.140"N	85°55'16.429"E	97.416	Chimney
87	Tree	JP3087	26°42'27.574"N	85°55'17.527"E	92.888	Tree
88	Tree	JP3088	26°42'27.378"N	85°55'15.455"E	88.357	Tree
89	Tree	JP3089	26°42'27.384"N	85°55'09.248"E	90.042	Tree
90	Tree	JP3090	26°42'28.124"N	85°55'06.128"E	95.347	Tree
91	Tree	JP3091	26°42'36.876"N	85°55'16.321"E	83.868	Tree
92	Tree	JP3092	26°42'42.222"N	85°55'16.499"E	97.918	Tree
93	Tree	JP3093	26°42'43.027"N	85°55'21.366"E	91.203	Tree
94	Mobile Tower	JP3094	26°42'44.752"N	85°55'50.275"E	92.890	Mobile Tower
95	Water Tank	JP3095	26°42'41.515"N	85°55'44.958"E	86.749	Water Tank
96	House	JP3096	26°42'40.530"N	85°55'41.287"E	81.181	House
97	District Education Off	JP3097	26°42'23.295"N	85°55'59.096"E	84.740	District Education
98	Training Centre	JP3098	26°42'22.549"N	85°55'56.431"E	88.810	Training Centre
99	Tree	JP3099	26°42'27.707"N	85°56'03.873"E	93.477	Tree
100	Tree	JP3100	26°42'25.045"N	85°56'19.180"E	98.507	Tree
101	Tree	JP3101	26°42'33.267"N	85°55'52.862"E	86.711	Tree
102	Mobile Tower	JP3102	26°42'09.781"N	85°56'08.129"E	95.689	Mobile Tower
103	House	JP3103	26°42'39.523"N	85°55'52.441"E	85.145	House
104	Mobile Tower	JP3104	26°43'03.519"N	85°55'50.890"E	95.495	Mobile Tower
105	House	JP3105	26°42'30.806"N	85°55'51.206"E	78.890	House
106	House	JP3106	26°42'31.227"N	85°55'52.295"E	79.287	House
107	House	JP3107	26°42'31.231"N	85°55'53.004"E	78.344	House
108	House	JP3108	26°42'31.162"N	85°55'53.853"E	79.362	House
109	House	JP3109	26°42'32.017"N	85°55'53.942"E	79.621	House
110	House	JP3110	26°42'34.008"N	85°55'52.936"E	81.900	House
111	House	JP3111	26°42'34.977"N	85°55'51.200"E	82.749	House
112	House	JP3112	26°42'32.241"N	85°55'56.514"E	80.776	House
113	School	JP3113	26°42'26.223"N	85°56'01.119"E	78.598	School
114	Chimney	JP3114	26°41'29.280"N	85°54'02.529"E	96.570	Chimney
115	Chimney	JP3115	26°41'14.489"N	85°54'14.382"E	100.449	Chimney
116	Chimney	JP3116	26°41'25.085"N	85°53'48.422"E	98.019	Chimney
117	Chimney	JP3117	26°41'44.767"N	85°53'26.794"E	98.155	Chimney
118	Chimney	JP3118	26°41'39.910"N	85°52'51.085"E	96.082	Chimney
119	Chimney	JP3119	26°42'31.186"N	85°52'26.614"E	93.446	Chimney
120	Mobile Tower	JP3120	26°43'26.311"N	85°55'02.214"E	109.463	Mobile Tower
121	Mobile Tower	JP3121	26°43'13.884"N	85°55'02.535"E	114.865	Mobile Tower
122	FM Tower	JP3122	26°43'29.053"N	85°55'05.045"E	114.326	FM Tower
123	Telephone Tower	JP3123	26°43'54.252"N	85°55'05.589"E	102.963	Telephone Tower
124	Tower	JP3124	26°44'03.661"N	85°55'06.994"E	125.485	Tower
125	Nepal Telecom Tower	JP3125	26°43'34.891"N	85°55'16.443"E	166.524	Highest Obstacle
126	Nepal Telecom Tower	JP3126	26°43'34.067"N	85°55'16.717"E	158.415	2nd Highest
127	Mobile Tower	JP3127	26°43'18.796"N	85°55'35.143"E	96.691	Mobile Tower
128	FM Tower	JP3128	26°43'19.490"N	85°55'40.821"E	121.451	FM Tower
129	Mobile Tower	JP3129	26°43'46.966"N	85°55'40.834"E	103.290	Mobile Tower
130	Gate (Ramananda Ch)	JP3130	26°44'09.358"N	85°55'07.898"E	96.899	Gate (Ramananda Cho)
131	FM Tower	JP3131	26°43'57.911"N	85°55'28.462"E	117.205	FM Tower
132	Water Tank	JP3132	26°43'57.917"N	85°55'32.256"E	105.379	Water Tank
133	FM Tower	JP3133	26°43'52.806"N	85°55'51.571"E	110.354	FM Tower
134	Mobile Tower	JP3134	26°44'07.103"N	85°55'26.172"E	99.755	Mobile Tower

S. No.	Obstacle Name	Obstacle ID	Latitude	Longitude	Top Elevation	Remarks
135	FM Tower	JP3135	26°43'57.841"N	85°55'48.208"E	117.135	FM Tower
136	FM Tower	JP3136	26°43'56.944"N	85°55'57.619"E	107.758	FM Tower
137	Mobile Tower	JP3137	26°43'56.671"N	85°56'00.373"E	111.728	Mobile Tower
138	FM Tower	JP3138	26°43'59.204"N	85°55'53.175"E	117.673	FM Tower
139	Mobile Tower	JP3139	26°44'02.416"N	85°55'59.779"E	107.217	Mobile Tower
140	Mobile Tower	JP3140	26°44'03.892"N	85°55'50.597"E	109.050	Mobile Tower
141	Mobile Tower	JP3141	26°44'11.058"N	85°55'01.729"E	98.989	Mobile Tower
142	Mobile Tower	JP3142	26°44'12.272"N	85°56'05.559"E	118.288	Mobile Tower
143	Water Tank	JP3143	26°44'13.689"N	85°55'13.907"E	102.328	Water Tank
144	House	JP3144	26°44'23.386"N	85°55'22.615"E	101.105	House
145	Mobile Tower	JP3145	26°44'17.131"N	85°55'12.634"E	99.452	Mobile Tower
146	Mobile Tower	JP3146	26°44'35.501"N	85°55'25.929"E	113.211	Mobile Tower
147	Mobile Tower	JP3147	26°44'37.373"N	85°55'26.255"E	106.434	Mobile Tower
148	Mobile Tower	JP3148	26°44'32.427"N	85°55'21.728"E	102.517	Mobile Tower
149	FM Tower	JP3149	26°44'39.797"N	85°55'13.938"E	117.256	FM Tower
150	Chimney	JP3150	26°45'19.857"N	85°53'25.020"E	110.375	Chimney
151	Chimney	JP3151	26°44'49.676"N	85°53'06.525"E	105.907	Chimney
152	Chimney	JP3152	26°44'28.307"N	85°53'52.813"E	110.537	Chimney
153	Chimney	JP3153	26°43'19.649"N	85°53'54.666"E	99.051	Chimney
154	House	JP3154	26°42'18.847"N	85°56'02.277"E	91.455	House
155	Tree	JP3155	26°42'26.725"N	85°55'24.518"E	93.738	Tree
156	Tree	JP3156	26°42'27.533"N	85°54'47.969"E	93.489	Tree
157	Tree	JP3157	26°42'31.951"N	85°55'59.119"E	89.642	Tree
158	Tree	JP3158	26°42'29.531"N	85°55'50.638"E	87.314	Tree
159	House	JP3159	26°42'34.215"N	85°55'48.469"E	80.1258	TP6
160	House	JP3160	26°42'35.406"N	85°55'53.288"E	83.369	TP7
161	Sita Palace Hotel	JP3161	26°44'10.652"N	85°55'05.735"E	96.733	TP12
162	School	JP3162	26°44'10.363"N	85°55'18.334"E	97.5891	TP13
163	Hotel Sita Sharan	JP3163	26°43'15.363"N	85°54'42.746"E	93.0136	TP14

VNJP AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1.	Associated MET Office	Met Office, Janakpur Airport
2.	Hours of service MET office outside hours	As ATS
3.	Office responsible for TAF preparation periods of validity	NIL
4.	Type of landing forecast interval of issuance	NIL
5.	Briefing/Consultation provided	METAR
6.	Flight documentation language(s) used	Charts or Tabular forms Text English
7.	Charts and other information available for briefing or consultation	NIL
8.	Supplementary equipment available for providing information	Self- briefing terminal
9.	ATS units provided with information	Janakpur TWR
10.	Additional information (limitation of service, etc.)	--

VNJP AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designation RWY NR	TRUE & MAG BRG	Dimensions of RWY M	Strength CN and surface of RWY and SWY	THR Coordinates	THR elevation
1	2	3	4	5	6
09	092	1300 x 30	Bitumen	26 42 32.01N* 085 54 55.09E	75.46 m AMSL
27	272	1300 x 30	Bitumen	26 42 31.61N* 085 55 42.41E	75.43 m AMSL
Slope of RWY-SWY	SWY Dimensions M	CWY Dimensions M	Strip Dimensions M	OFZ	Remarks
7	8	9	10	11	12
…….	…….	…….	. . . .	…….	…….

VNJP AD 2.13 DECLARED DISTANCES

RWY Designator	TORA m	TODA m	ASDA m	LDA m	Remarks
1	2	3	4	5	6
09	1300	1300	1300	1300	
27	1300	1300	1300	1300	

VNJP AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator 1	APCH LGT type LEN INTST	THR LGT color WBAR	VASIS PAPI	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
	2	3	4	5	6	7	8	9	10
09	NIL	Green	PAPI 3.0°	NIL	NIL	1306m, 60m, White, LIM	NIL	NIL	
27	NIL	Green	PAPI 3.0°	NIL	NIL	1306m, 60m, White, LIM	NIL	NIL	

VNJP 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	LDI: Anemometer: TWR BLDG, not lighted
3.	TWY edge and Centre line lighting	Edge: All TWY and 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.

VNJP AD 2.16 HELICOPTER LANDING AREA

Not specified

VNJP AD 2.17 ATS AIRSPACE

1. Designation and lateral limits	**Janakpur CTR:** An area bounded by 26°38'13.550"N; 085°45'27.065"E then along an arc of a circle of 10 NM radius centered at Janakpur ARP to 26°48'28.131"N; 085°46'23.133"E to 26°54'29.644"N; 085°43'25.318"E then along Kathmandu TMA boundary to 26°59'25.528"N; 085°53'13.663"E to 26°52'36.997"N; 085°56'33.681"E then along an arc of a circle of 10 NM radius centered at Janakpur ARP to 26°38'28.306"N; 086°05'37.255"E then along Kathmandu FIR boundary to 26°38'13.550"N; 085°45'27.065"E. **Janakpur ATZ:** An area of a circle of 5 NM radius centered at Janakpur ARP and to the South up to VNSM FIR.	
2. Vertical Limits	CTR	ATZ
	12000' AMSL GND	2000' AGL GND
3. Airspace classification	C	
4. ATS units call sign/languages	Janakpur TWR/English	
5. Transition Altitude	13500' AMSL	
6. Remarks	-	

VNJP AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	Call Sign	Frequency	Hours of Operation**	Remarks
1	2	3	4	5
TWR	Janakpur Tower	122.5 MHZ	*1) From 16 Feb - 15 Nov (0015 - 1300) UTC* *2) From 16 Nov - 15 Feb (0045 - 1215) UTC*	

VNJP AD 2.19 RADIO NAVIGATION AND LANDING AID

Type of Aid MAG VAR Type of supported OP for VOR/ILS/MLS give declinations	ID	Frequency	OPR Hours	Position of Transmitting Antenna Coordinates	Elevation of DME Transmitting Antenna	Remarks
1	2	3	4	5	6	7
NDB	JKP	287 KHZ	H24	264244N, 0855518E*	-	

VNJP AD 2.20 LOCAL TRAFFIC REGULATIONS

To be developed

VNJP AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VNJP AD 2.22 FLIGHT PROCEDURES

To be developed

VNJP AD 2.23 ADDITIONAL INFORMATION

1. Bird Activity

a) Sometimes cases of bird concentrations in the vicinity of aerodrome may be encountered.
b) 2. No Special procedures have been adopted to control these bird concentrations except driving them through guards and security personnel.

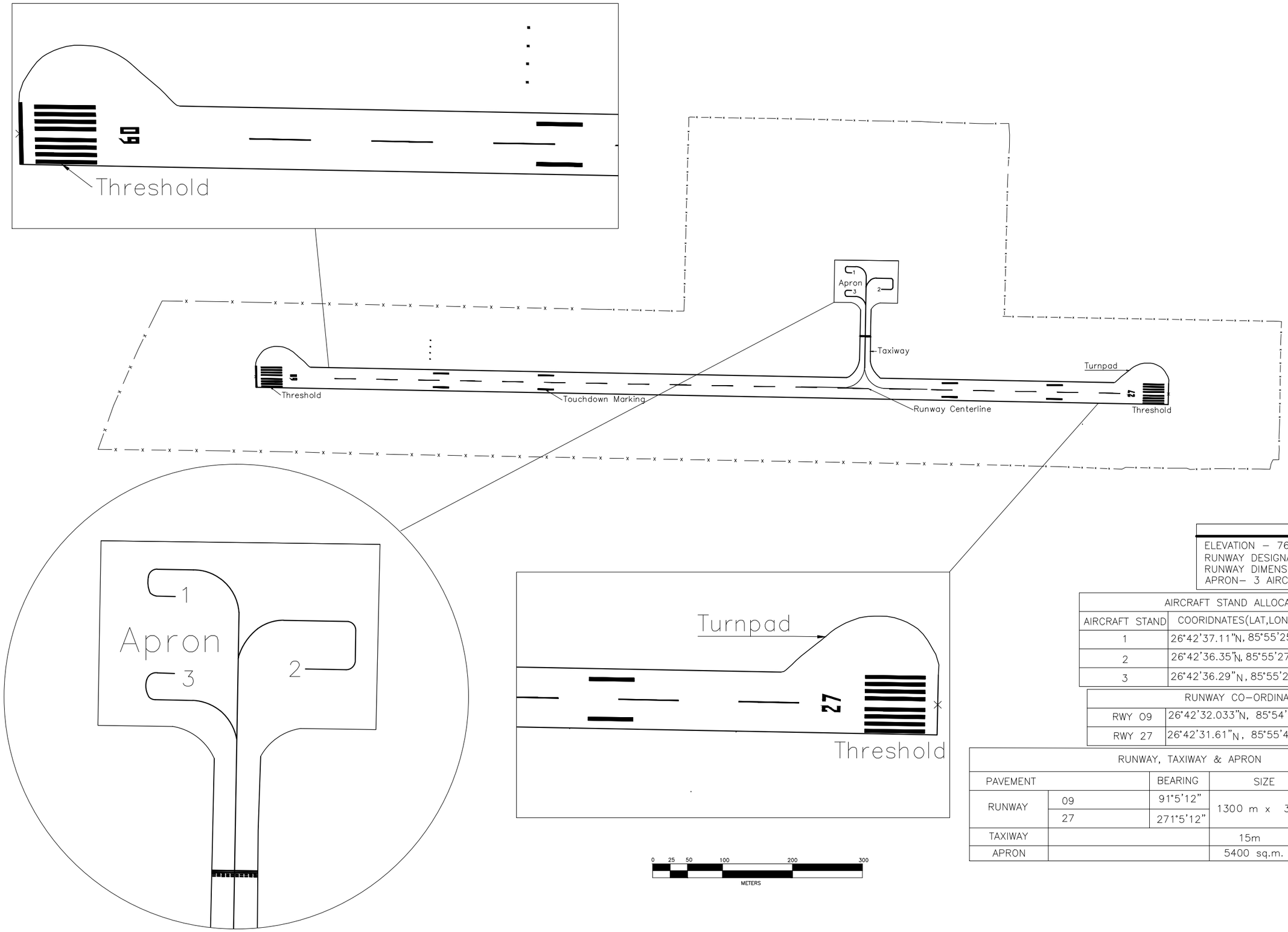
VNJP AD 2.24 CHARTS RELATED TO JANKPUR AIRPORT

Aerodrome Chart VNJP AD 2-13
CTR and ATZ VNJP AD 2-14
IFR Holding Points VNJP AD 2-15
RNAV GNSS approach procedure at
Janakpur Airport VNJP AD 2-16 - VNJP AD 2-24

AERODROME CHART

TWR 122.5 MHZ

JANAKPUR AIRPORT



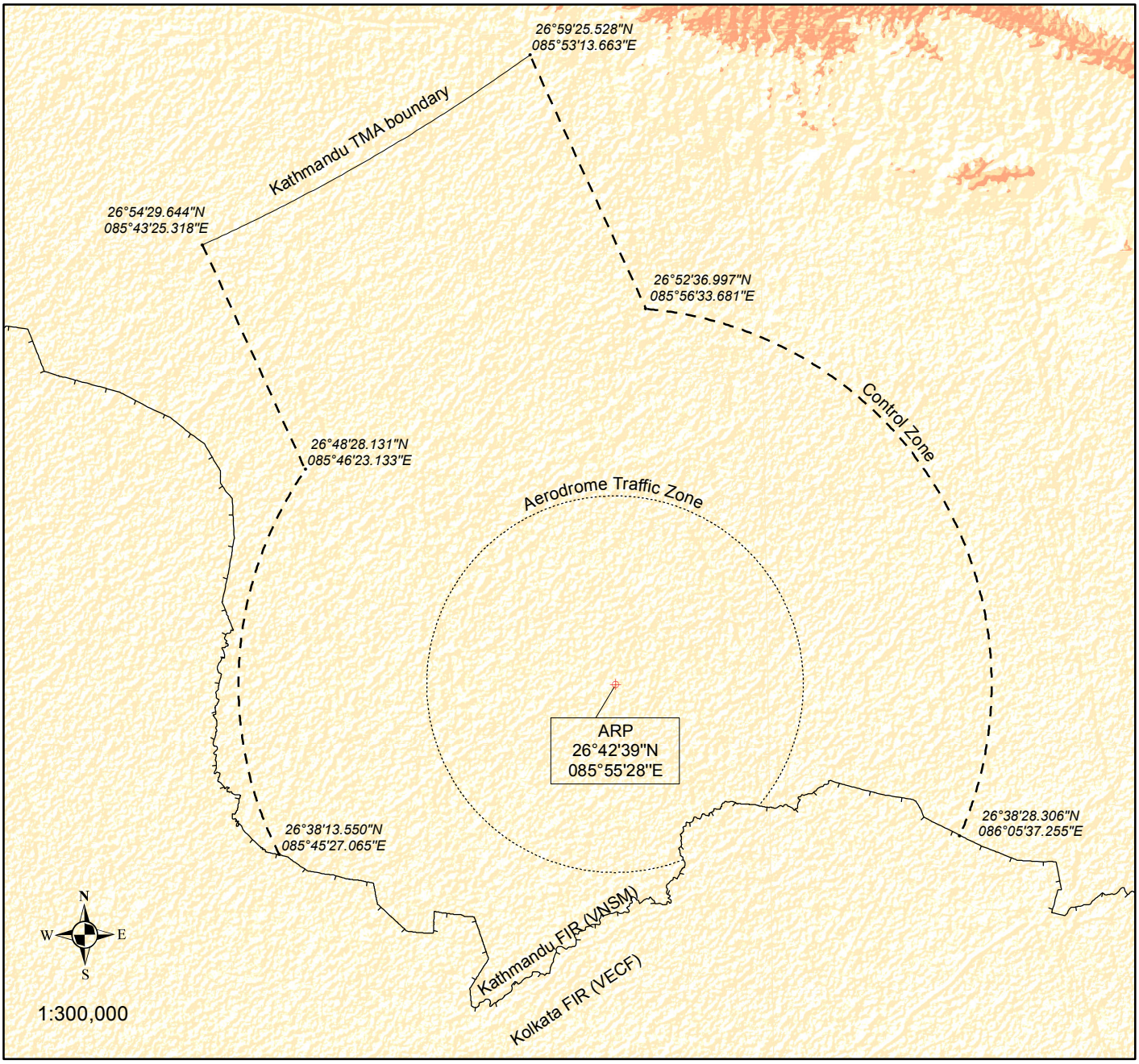
PROFILE
ELEVATION – 76.444m
RUNWAY DESIGNATYION – 09/27
RUNWAY DIMENSION – 1300m X 30m
APRON– 3 AIRCRAFTS

AIRCRAFT STAND ALLOCATION		
AIRCRAFT STAND	COORIDNATES(LAT,LONG)	ELEV· (m.AMSL)
1	26°42'37.11"N, 85°55'25.95" E	75.462
2	26°42'36.35"N, 85°55'27.503" E	75.435
3	26°42'36.29"N, 85°55'25.95"E	75.458

RUNWAY CO–ORDINATES		
RWY 09	26°42'32.033"N, 85°54'55.134"E	75.462±0.05
RWY 27	26°42'31.61"N, 85°55'42.41" E	75.435

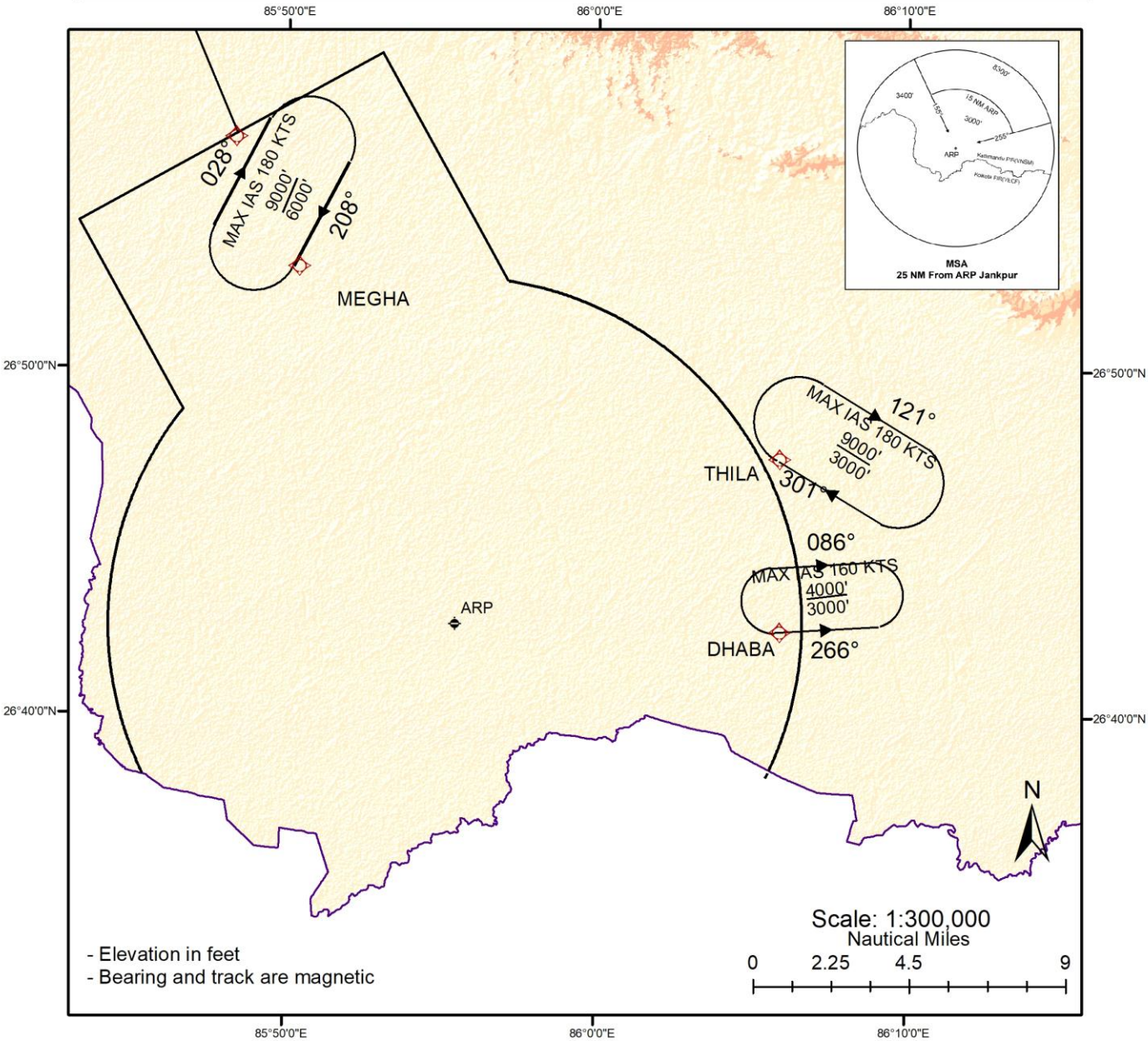
RUNWAY, TAXIWAY & APRON				
PAVEMENT		BEARING	SIZE	SURFACE TYPE
RUNWAY	09	91°5'12"	1300 m x 30 m	ASPHALT
	27	271°5'12"		
TAXIWAY			15m	ASPHALT
APRON			5400 sq.m.	CONCRETE

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



AIRSPACE	IDENT	Lateral Limit	Vertical Limit
Aerodrome Traffic Zone	ATZ	An area of a circle of 5 NM radius centered at Janakpur ARP and to the South up to VNSM FIR.	2000 ft AGL / GND
Control Zone	CTR	An area bounded by (26°38'13.550"N; 085°45'27.065"E) then along an arc of a circle of 10 NM radius centered at Janakpur ARP to (26°48'28.131"N; 085°46'23.133"E) to (26°54'29.644"N; 085°43'25.318"E) then along Kathmandu TMA boundary to (26°59'25.528"N; 085°53'13.663"E) to (26°52'36.997"N; 085°56'33.681"E) then along an arc of a circle of 10 NM radius centered at Janakpur ARP to (26°38'28.306"N; 086°05'37.255"E) then along Kathmandu FIR boundary to (26°38'13.550"N; 085°45'27.065"E).	12000 ft AMSL / GND

AERODROME ELEV: 236' TRANS LEVEL : FL 150 TRANS ALT : 13500 ft. Mag.Var: 0° E	TWR 122.5	JANAKPUR,NEPAL Janakpur Airport
IFR HOLDING POINTS		



Holding	Location	Max.Altitude / Min.Altitude	Max.IAS	Pattern	Inbound Track	Outbound Leg
MEGHA	Over MEGHA	9000 ft AMSL 6000 ft AMSL	180 KTS	Right	207.6°	1 Minute
DHABA	Over DHABA	4000 ft AMSL 3000 ft AMSL	160 KTS	Right	266.0°	1 Minute
THILA	Over THILA	9000 ft AMSL 3000 ft AMSL	180 KTS	Right	301.2°	1 Minute

Note: 1. MEGHA Holding is laterally separated with DHABA and THILA holdings.
2. DHABA and THILA holdings are Not Laterally separated.
3. A/C holding over DHABA at 4000 ft shall remain within Kathmandu FIR (VNSM)

RNAV GNSS approach procedures at JANAKPUR AIRPORT (VNJP)

RNAV GNSS approach procedures at Janakpur Airport (VNJP) has been newly established.

1. INTRODUCTION

1.1 The following RNP1 SIDs/STARs and RNP APCH and associated Missed Approach Procedures are designed for VNJP in accordance with the criteria as stipulated in the ICAO PANS-OPS (DOC 8168 Vol. II).

1.2 The RNP1 SIDs/STARs and RNP APCH Procedures at VNJP is designed to enhance the safety and efficiency of the aircraft operations to materialize the National PBN Implementation Plan of Nepal.

1.3 Two RNAV (GNSS) approach procedure with LNAV Specification only along with two RNP1 STARs and Three RNP1 SIDs have been designed utilizes GNSS as a navigation system as stipulated in ICAO PBN Manual DOC 9613.

1.4 A full arrival, approach and missed approach trajectories along with associated holding have been designed.

2. APPROVED USERS, EQUIPMENT AND OPERATIONS

2.1 For the RNP1 SIDs/STARs, RNP APCH and associated Missed Approach, 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 APCH 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, two RNP1 SIDs and one RNP APCH (LNAV only) procedures to Janakpur Runway 09 and 27 are named in accordance with the ICAO naming convention as tabulated below.

RWY	SIDs	STARs	APPROACH
09	**DAMAR 1A**	**DAMAR 1 C**	**RNP RWY 09(LNAV Only)**
27	**DAMAR 1A** **THILA 1A**	**DAMAR 1 D**	**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 Waypoints and their Coordinates:

Waypoint Identifier	*Coordinates*	
DAMAR	*27°15'21.06015"N*	*85°39'46.41251"E*
LALBA	*26°56'50.00000"N*	*85°48'23.00000"E*
MEGHA	*26°52'56.95487"N*	*85°50'11.04876"E*
THILA	*26°47'26.22950"N*	*86°05'43.78299"E*
DHABA	*26°42'25.36504"N*	*86°05'45.30427"E*
JP965	*26°42'27.82646"N*	*86°01'50.82041"E*
JP964	***26°42'29.38537"N***	***85°59'16.72952"E***
JP963	*26°47'37.00793"N*	*85°47'04.58006"E*
JP962	*26°42'36.14360"N*	*85°47'06.10138"E*
JP961	***26°42'33.90651"N***	***85°51'20.69418"E***
RW09	*26°42'31.92587"N*	*85°54'55.08611"E*
RW27	*26°42'31.47700"N*	*85°55'42.34028"E*

6. Coding Table: DAMAR 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	DAMAR	-	-	-	-	-	+13500	-	-	RNP-1
002	TF	LALBA	-	157.4°	-	20.0	-	+7500	-	-	RNP-1
003	TF	MEGHA	-	157.4°	-	4.2	-	+6000	-	-	RNP-1

7. Coding Table DAMAR 1DArrival

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	DAMAR	-	-	-	-	-	+13500	-	-	RNP-1
002	TF	LALBA	-	157.4°	-	20.0	L	+3000	-180	-	RNP-1
003	TF	THILA	-	121.1°	-	18.1	R	+3000	-180	-	RNP-1
004	TF	DHABA	-	179.7°	-	5.0	-	+3000	-	-	RNP-1

8. Coding Table : RNP RWY 09

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	MEGHA (IAF)	-	-	-	-	-	+6000	-	-	RNP APCH
002	TF	JP963 (SDF)	-	207.6°	-	6.0	L	@3800	-	-	RNP APCH
003	TF	JP962 (IF)	-	179.7°	-	5.0	L	@2200	-	-	RNP APCH
004	TF	JP961 (FAF)	-	090.6°	-	3.8	-	**@**1300	-	-	RNP APCH
005	TF	RW09 (MAPt)	Y	090.6°	-	3.2	-	-	-	- 3.00/50	RNP APCH
006	TF	DHABA (MAHF)	-	090.6°	-	9.7	-	+3000	-	-	RNP APCH
007	HM	DHABA	-	266°	-	-	R	+3000	-160	-	RNP APCH

9. Coding Table : RNP RWY27

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	DHABA (IAF)	-	-	-	-	-	+3000	-	-	RNP APCH
002	TF	JP965 (IF)	-	270.6°	-	3.5	-	@1800	-	-	RNP APCH
003	TF	JP964 (FAF)	-	270.6°	-	2.3	-	**@**1300	-	-	RNP APCH
004	TF	RW27 (MAPt)	Y	270.6°	-	3.2	-	-	-	**-3.00**/50	RNP APCH
005	FA	RW27	-	270.6°	-	-	-	@1000	-	-	RNP APCH
006	DF	DHABA (MAHF)	-	-	-	-	-	+3000	-	-	RNP APCH
007	HM	DHABA (MAHF)	Y	266	-	-	R	+3000	-160	-	RNP APCH

10. Coding Table : SID DAMAR 1A RWY 27

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	CA	-	-	270.6°	-	-	R	@2000	-	-	RNP-1
002	DF	LALBA	-	-	-	-	-	+7500	-	-	RNP-1
003	TF	DAMAR	-	337.4°	-	20.0	-	+12500	-	-	RNP-1

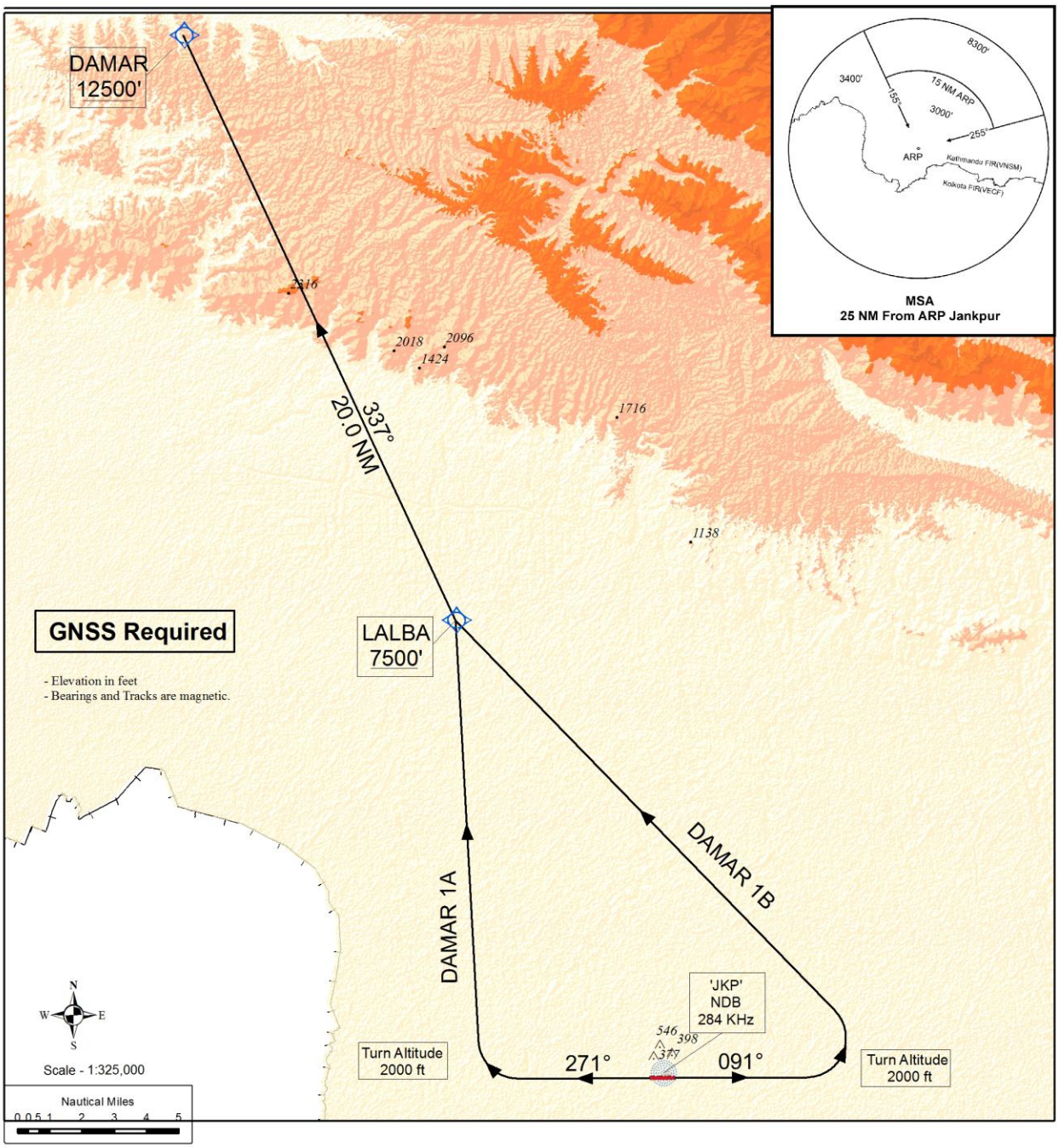
11. Coding Table : SID DAMAR 1B RWY 09

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	CA	-	-	090.6°	-	-	L	@2000	-	-	RNP-1
002	DF	LALBA	-	-	-	-	-	+7500	-	-	RNP-1
003	TF	DAMAR	-	337.4°	-	20.0	-	+12500	-	-	RNP-1

12. Coding Table - SID THILA 1A RWY 09

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	CA	-	-	090.6°	-	-	L	@1000	-	-	RNP-1
002	DF	THILA	-	-	-	-	-	+3000	-	-	RNP-1

STANDARD INSTRUMENT DEPARTURE CHART - ICAO	AERODROME ELEV 233' TRANS LEVEL: FL150 TRANS ALT: 13500 ft. Mag Var. 0°E	TWR 122.5	JANAKPUR, NEPAL Janakpuri Airport RNP 1 SID DAMAR 1A, DAMAR 1B



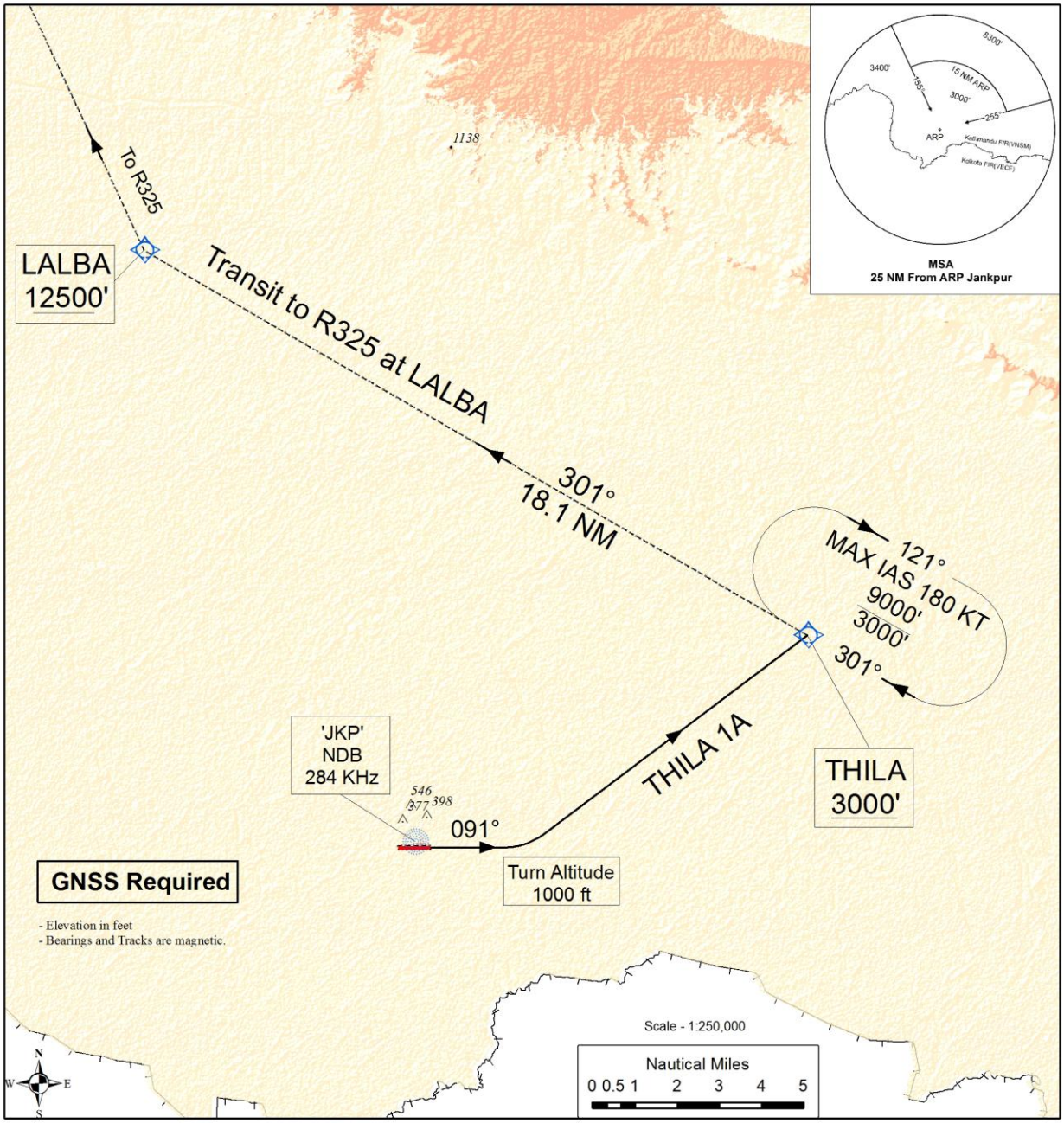
DAMAR 1A RWY 27 (PDG 7.4%)

Climb on runway axis. At 2000 ft AMSL, turn right direct to LALBA at or above 7500 ft. Then track 337.4° to DAMAR at or above 12500 ft.

DAMAR 1B RWY 09 (PDG 4.8%)

Climb on runway axis. At 2000 ft AMSL, turn left direct to LALBA at or above 7500 ft. Then track 337.4° to DAMAR at or above 12500 ft.

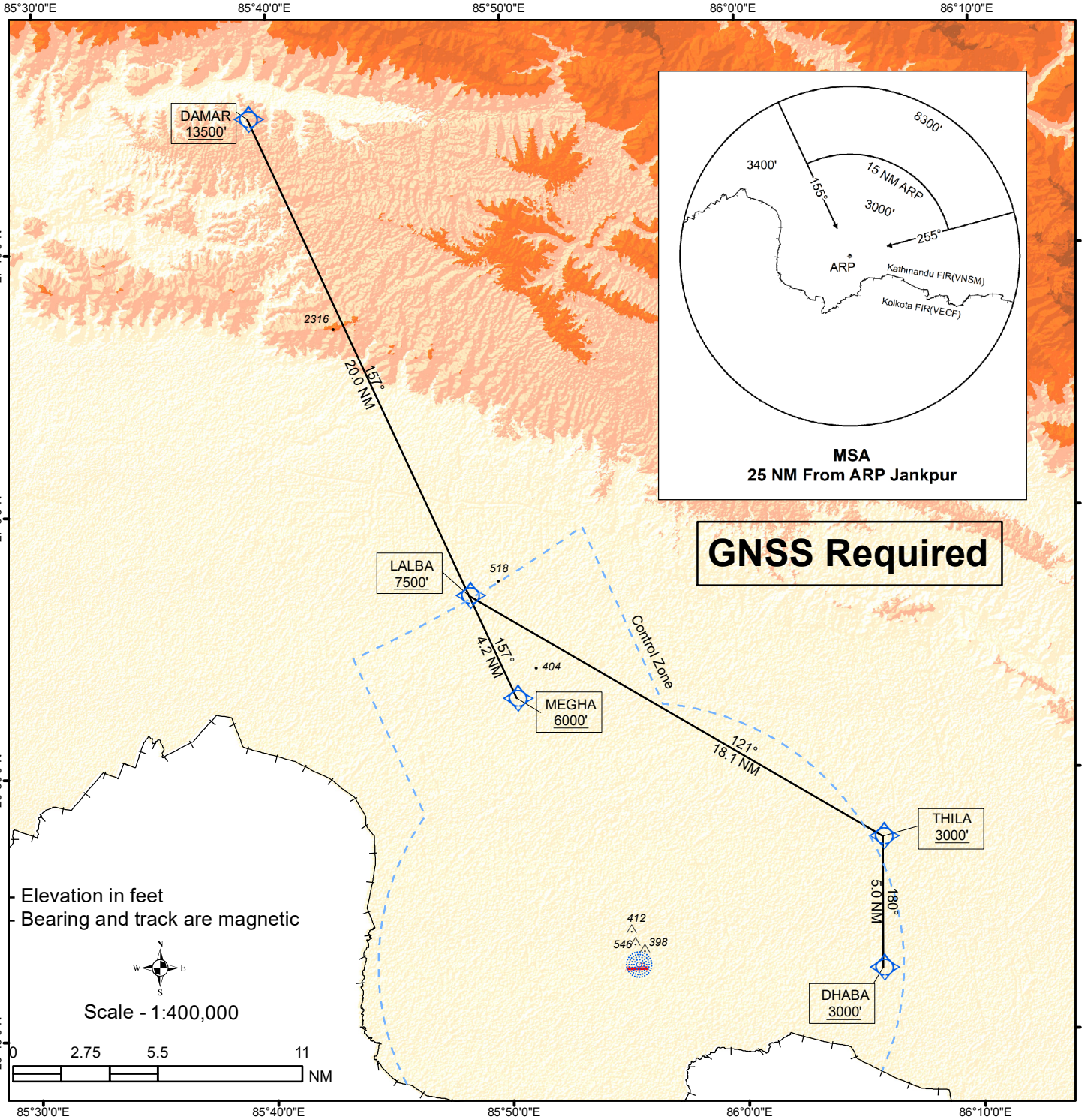
STANDARD INSTRUMENT DEPARTURE CHART - ICAO	AERODROME ELEV 233' TRANS LEVEL: FL150 TRANS ALT: 13500 ft. Mag Var. 0°E	TWR 122.5	JANAKPUR, NEPAL Janakpuri Airport RNP 1 SID THILA 1A



THILA 1A RWY 09 (PDG 4.8%)
Climb on runway axis. At 1000 ft turn left direct to THILA at or above 3000 ft.

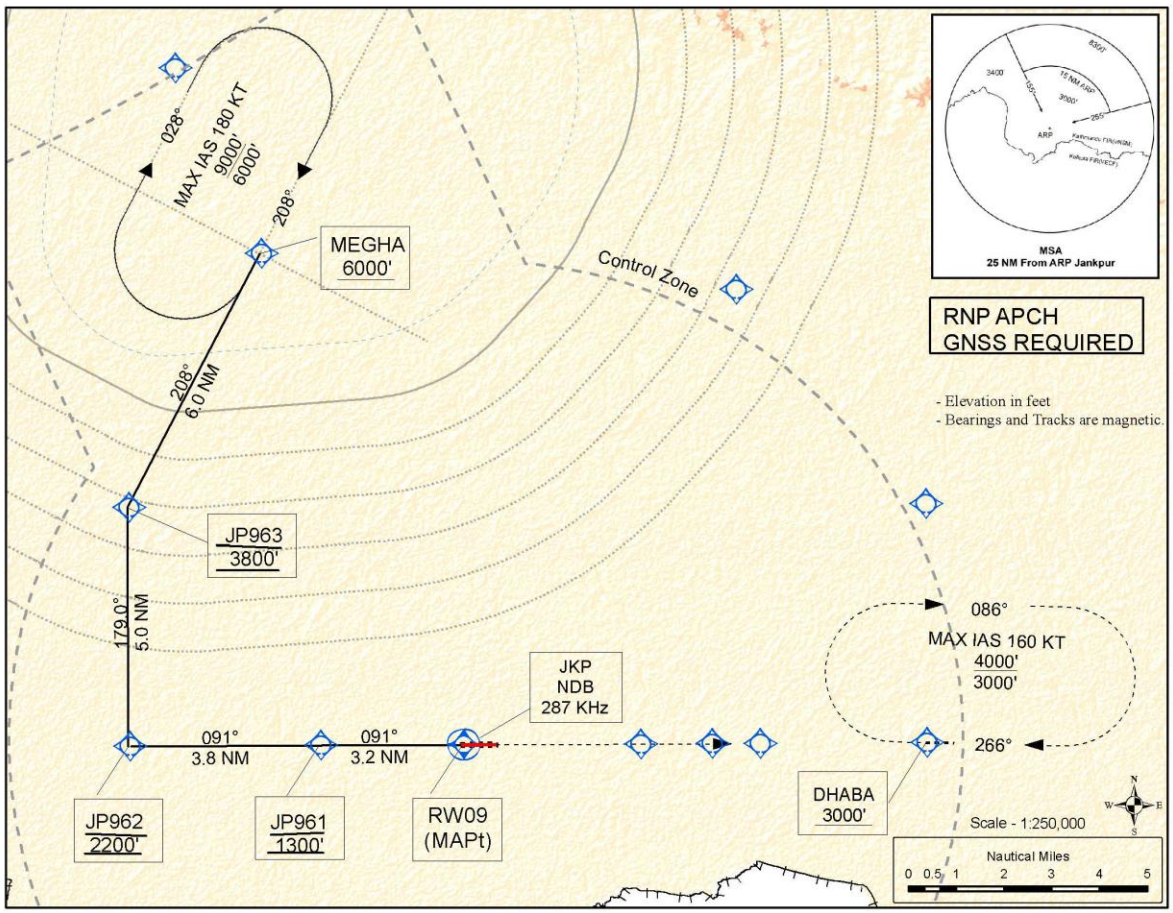
Transition to Routes:	
To R325	Reach 7000 ft over THILA then track 301.2° to LALBA at or above 12500 ft or as instructed by ATC.

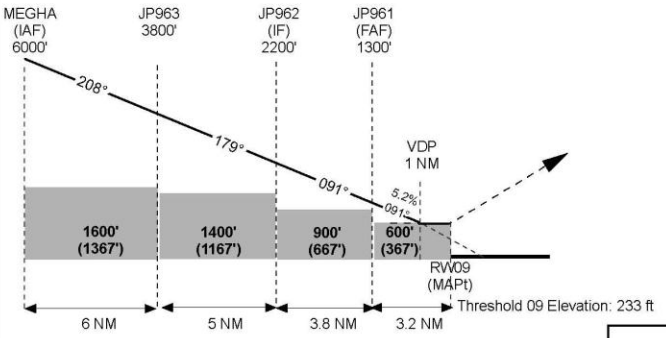
STANDARD ARRIVAL CHART INSTRUMENT(STAR)-ICAO	AERODROME ELEV 233' TRANS LEVEL: FL150 TRANS ALT: 13500 ft. Mag Var. 0°E	TWR 122.5	JANAKPUR, NEPAL Janakpur Airport RNP 1 STAR DAMAR 1C, DAMAR 1D



RNP 1 STAR	Routing
DAMAR 1C	From DAMAR descend to 7500 ft or above at LALBA. Then to MEGHA at or above 6000 ft.
DAMAR 1D	From DAMAR descend to 7500 ft or above at LALBA. Then to THILA and hen to DHABA at or above 3000 ft.

INSTRUMENT APPROACH CHART – ICAO	AERODROME ELEV 233' TRANS LEVEL: FL150 TRANS ALT: 13500 ft. Mag Var. 0°E	TWR 122.5	JANAKPUR, NEPAL Janakpur Airport RNP RWY 09(LNAV ONLY)





MISSED APPROACH:

(Minimum MA climb gradient is 4.1%.)

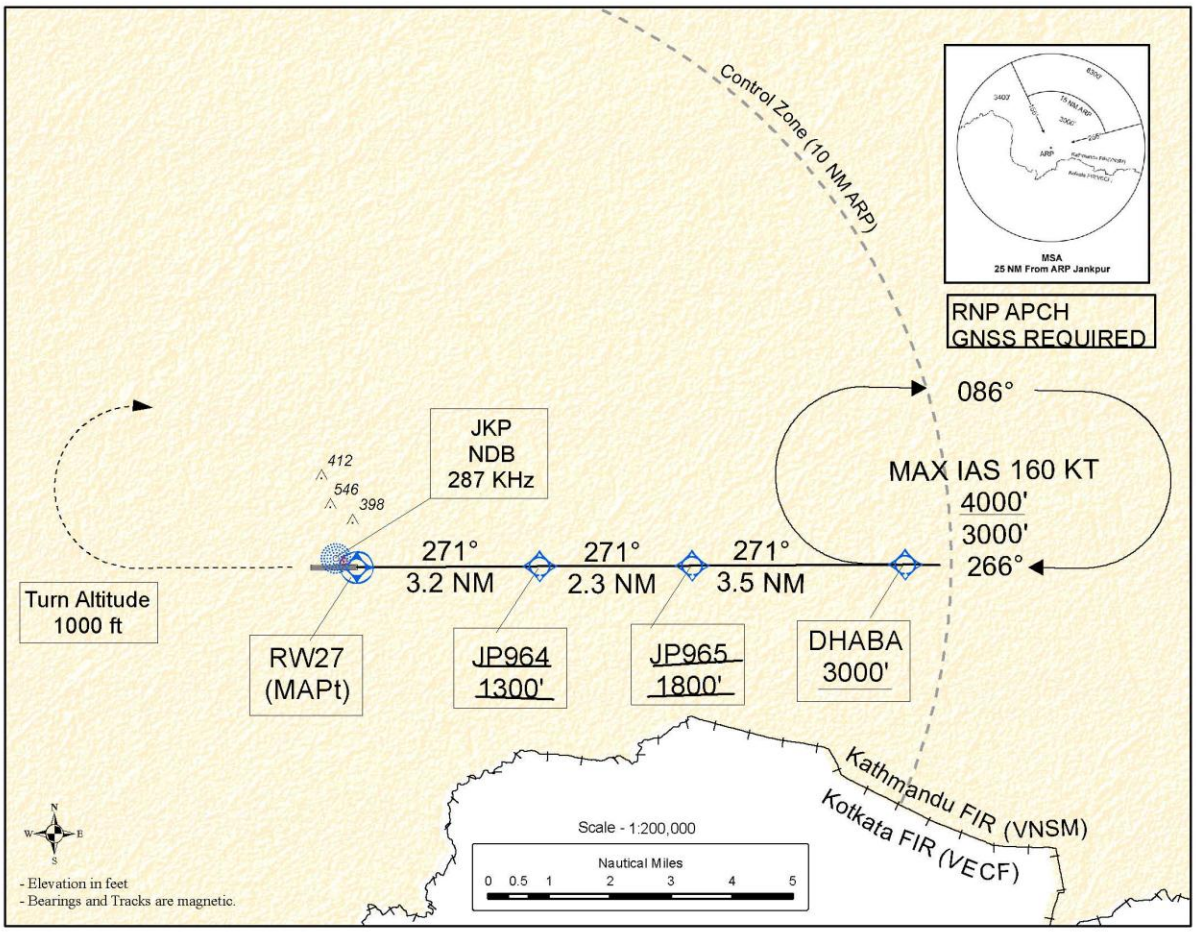
Direct to DHABA H.P. at or above 3000' or as instructed by ATC.

	FAF to TH 09 : 3.2 NM			
GS(kt)	60	90	120	150
Min:Sec	3.12	2.08	1.36	1.16
Feet/min@ 5.2 %	318	477	637	796

LNAV	Aircraft Category			
	A		B	
	OCA (OCH)	Visibility	OCA (OCH)	Visibility
Straight-in	600' (367')	1700 m	600' (367')	1700 m
Circling	850' (617')	2900 m	850' (617')	2900 m
	NOT AUTHORIZED AT NIGHT			

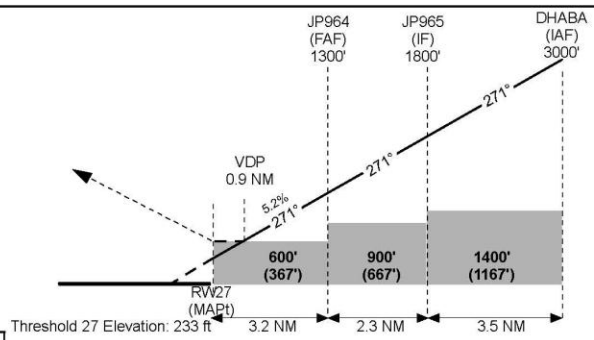
Note: Approach Lighting System NOT available at Janakpur Airport.

INSTRUMENT APPROACH CHART – ICAO	AERODROME ELEV 233' TRANS LEVEL: FL150 TRANS ALT: 13500 ft. Mag Var. 0°E	TWR 122.5	JANAKPUR, NEPAL Janakpur Airport RNP RWY 27(LNAV ONLY)



MISSED APPROACH:

(Minimum MA climb gradient is 2.7%.)
Climb on runway axis. At 1000 ft, turn right direct to DHABA H.P. at or above 3000' or as instructed by ATC.



LNAV	Aircraft Category			
	A		B	
	OCA (OCH)	Visibility	OCA (OCH)	Visibility
Straight-in	600' (367')	1700 m	600' (367')	1700 m
Circling	850' (617')	2900 m	850' (617')	2900 m
	NOT AUTHORIZED AT NIGHT			

Note: Approach Lighting System NOT available at Janakpur Airport.

	FAF to TH 27 : 3.2 NM			
GS	60	90	120	150
Min:Sec	3.12	2.8	1.36	1.16
Feet/min@ 5.2 %	318	477	637	796