AD 2. AERODROME

VNBW AD 2.1 AERODROME LOCATION INDICATOR AND NAME VNBW – GAUTAM BUDDHA/International

VNBW AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	273026N, 0832505E
2	Direction and Distance from (city)	3 Km, West of Bhairahawa City
3	Elevation/Reference Temperature	105.6 m (346.5 ft) (ARP)/ 37.3° C (May)
4	MAG VAR/Annual Change	0° E
5	AD Administration, address Telephone, Telefax, Telex AFS	Civil Aviation Authority of Nepal Gautam Buddha International Airport Civil Aviation Office (GBIACAO) Bhairahawa Siddharthanagar Municipality -04, Rupandehi Lumbini Province Tel- +977-71-597021 Fax- +977-71-455004 AFS- VNBWYDYX Email-gautambuddha_cao@caanepal.gov.np
6	Types of traffic permitted (IFR/VFR)	IFR/VFR
7	Remarks	-

VNBW AD 2.3 OPERATIONAL HOURS

1	AD Administration	SUN-THU 10:00 -17:00 LT (SUMMER), 10:00-1600 LT (WINTER) FRI 10:00-1500 LT
2	Customs and Immigration	As ATS
3	Health and sanitation	As ATS
4	AIS Briefing Office	As ATS
5	ATS Reporting Office ARO	As ATS
6	MET Briefing	As ATS
7	ATS	H-18: 0015 - 1815 UTC
8	Fueling	As ATS
9	Handling Cargo	As ATS
10	Security	H-24
11	Remarks	Any change will be notified by NOTAM

VNBW AD 2.4 HANDLING SERVICE AND FACILITIES

1	Cargo-handling facilities	AVAILABLE
2	Fuel/Oil Types	JET A-1/NOT AVAILABLE
3	Fueling facilities/capacity	Storage Capacity : Physical -406KL, Mobile-66KL Storage Type : Undergrand Tank-(70KL*5Nos., 14 KL *4Nos.) Aircraft Refueller: AR-20 (12KL), AR-48 (27 KL) and AR-49 (27KL)
4	De-icing facilities	Nil
5	Hanger space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	-

VNBW AD 2.5 PASSENGER FACILITIES

1	Hotels	Hotels in the city
2	Restaurants	Available at AD and in the city
3	Transportation	Taxi Service, City Bus service,
4	Medical Facilities	First Aid treatment, restroom, ambulances available at AD, Hospitals in the city
5	Bank and Post Office	Bank : Available at AD and Post Office in the City
6	Tourist Office	Not available
7	Remarks	-

VNBW AD 2.6 RESCUE AND FIRE FIGHTING SERVICE

1	AD Category for fire fighting	Within AD HR: Category 9
2	Rescue equipment	Available as per Category
3	Capability for removal of disabled aircraft	Available
4	Remarks	-

VNBW AD 2.7 SEASONAL AVAILABILITY

Aerodrome is available throughout the year

VNBW AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATION DATA

1.	Apron surface and strength	Surface - Cement Concrete Strength - PCN 80 R/B/W/T
2.	Taxiway width, surface and strength	Width - 23 m Surface – Asphalt Concrete Strength - 1. TWY A, B, C, D: 80/F/A/W/T 2. FIRST AND LAST SECTION OF TWY E (200M EITHER SIDE) 80/F/A/W/T 3. TWY E BTN TWY B AND TWY C INTERSECTION: 35/F/C/W/T 4. REST PORTION OF TWY E: 56/F/C/W/T
3.	Altimeter check Point location and elevation	Location:- At all area of Apron Elevation :- 105.237 m (345.265 ft)
4.	VOR checkpoint	TWY A: 27°30'12.66" N, 083°25'32.96"E TWY D: 27°30'21.96" N, 083°24'25.34"E
5.	INS checkpoint	NIL
6.	Remarks	-

VNBW 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 available at all intersections with TWY and RWY and at all holding positionslilghted. Guide lines at apron. Aircraft and ID signs available at all international aircraft stands. Nose-in guidance at aircraft stands. Visual docking guidance system not available.
2.	RWY and TWY markings and LGT	RWY-Marked: Designation, THR, TDZ, Aiming Point, Center Line, RWY Edge. RWY-Lighted: THR, TDZ, Edge, End, Center Line. TWY-Marked: Center Line, Edge, RWY Holding Positions all all TWY/RWY Intersections. TWY-Lighted; Edge with blue lights.
3.	Stop bars	Available
4.	Other runway protection measures	Nil
5.	Remarks	-

VNBW AD 2.10 AERODROME OBSTACLES

Obstacle ID	Obstacle Type	Obstacle type	Latitudes	Longitudes	Obstacle Elevation (m/ft)	Markings/ Type, Color	Remarks
BWA-1	Chimney	Chimney	27°30'25.4"N	83°28'04.5"E	143/469		
BWA-2	Water Tank	Water Tank	27°30'19.9"N	83°29'25.3"E	130/426		
BWA-3	Telephone Tower	Telephone Tower	27°30'26.4"N	83°28'21.5"E	159/520		
BWA-4	House Tindharke	House	27°30'27.9"N	83°28'30.4"E	125/410		
BWA-5	NTC Tower	NTC Tower	27°30'33.7"N	83°27'09.3"E	161/527		
BWA-6	Tin Dharke Ghar (Hotel Red Sun)	Hotel	27°30'27.9"N	83°28'30.4"E	125/412		
BWA-7	House White	House	27°30'54.6"N	83°27'16.4"E	130/426		
BWA-8	Telephone Tower	Telephone Tower	27°30'53.7"N	83°27'11.1"E	145/475		
BWA-9	F.M. Tower	FM Tower	27°30'56.3"N	83°27'10.0"E	147/481		
BWA-10	House Factory	Factory	27°31'44.4"N	83°27'14.1"E	139/457		
BWA-11	Communication Tower	Communication Tower	27°30'35.4"N	83°27'05.1"E	143/469		
BWA-13	Tower (PaniTanki North)	Tower	27°30'59.4"N	83°26'56.5"E	154/504		
BWA-14	PaniTanki Red	Water Tank	27°31'3.8"N	83°26'52.5"E	132/433		
BWA-17	Aarghakhachi Cement	Cement Factory	27°31'55.3"N	83°24'13.5"E	136/447		
BWA-18	Aarghakhachi Cement Pakki	Cement Factory	27°32'0.1"N	83°24'34.0"E	235/772		
BWA-19	Chimney	Chimney	27°31'16.8"N	83°25'37.2"E	139/455		
BWA-21	Chimney	Chimney	27°31'8.5"N	83°25'39.9"E	136/446		
BWA-22	House	House	27°31'3.3"N	83°25'38.8"E	138/452		
BWA-24	Chimney	Chimney	27°30'56.5"N	83°25'41.3"E	143/469		
BWA-25	House	House	27°30'22.6"N	83°27'33.2"E	121/398		
BWA-26	Tower	Tower	27°30'22.4"N	83°27'15.8"E	140/460		
BWA-27	House Under Construction	House	27°30'14.2"N	83°27'22.1"E	136/447		
BWA-29	Chimney	Chimney	27°29'7.8"N	83°27'27.9"E	139/456		
BWA-32	Tower	Tower	27°30'20.1"N	83°27'03.2"E	144/473		
BWA-33	Hospital	Hospital	27°29'16.5"N	83°26'55.0"E	129/423		
BWA-34	F.M. Tower	FM Tower	27°30'26.1"N	83°27'02.7"E	138/454		
BWA-35	F.M. Tower	FM Tower	27°30'30.7"N	83°27'03.8"E	136/445		
BWA-36	Hospital	Hospital	27°29'17.9"N	83°26'55.2"E	127/415		
BWA-38	WaterTank	Water Tank	27°30'55.0"N	83°27'07.8"E	129/425		
BWA-39	F.M. Tower	FM Tower	27°30'52.7"N	83°26'49.0"E	153/504		
BWA-40	Telephone Tower	Telephone Tower	27°30'57.8"N	83°27'10.2"E	141/461		
BWA-41	Bhandari House Tower	Tower	27°31'0.2"N	83°27'10.5"E	138/454		
BWA-43	Temple Road West	Temple	27°31'7.8"N	83°27'09.8"E	131/428		
BWA-44	Tower Road West	Tower	27°31'8.8"N	83°27'13.3"E	139/457		
BWA-46	House Tower	Tower	27°31'6.7"N	83°27'15.2"E	133/435		
BWA-47	Tower	Tower	27°31'19.6"N	83°27'20.2"E	134/439		
BWA-49	House	House	27°31'34.5"N	83°27'44.3"E	133/437		
BWA-50	House Tower	Tower	27°31'24.7"N	83°27'42.5"E	125/409		
BWA-51	Tall Tower	Tower	27°31'34.4"N	83°27'55.1"E	140/461		

Obstacle ID	Obstacle Type	Obstacle type	Latitudes	Longitudes	Obstacle Elevation (m/ft)	Markings/ Type, Color	Remarks
BWA-52	Tower	Tower	27°31'3.2"N	83°27'26.0"E	137/451		
BWA-53	Chimney	Chimney	27°31'49.5"N	83°29'28.9"E	146/478		
BWA-55	Chimney	Chimney	27°31'42.0"N	83°29'34.4"E	146/479		
BWA-56	Temple	Temple	27°31'0.8"N	83°27'24.4"E	129/422		
BWA-57	House	House	27°30'41.0"N	83°27'34.8"E	129/422		
BWA-58	House	House	27°30'31.5"N	83°27'18.1"E	131/429		
BWA-60	Tower	Tower	27°30'50.7"N	83°26'39.4"E	149/489		
BWA-61	House	House	27°31'27.2"N	83°27'18.3"E	125/410		
BWA-63	House	House	27°31'38.0"N	83°27'03.4"E	119/390		
BWA-64	House	House	27°31'43.8"N	83°27'18.3"E	126/413		
BWA-66	Factory	Factory	27°32'36.6"N	83°27'26.9"E	140/459		
BWA-67	Telephone Antenna	Telephone Tower	27°31'41.2"N	83°27'22.7"E	130/425		
BWA-68	Black Chimney	Chimney	27°32'23.5"N	83°27'38.1"E	142/465		
BWA-69	Factory	Factory	27°32'23.3"N	83°27'42.4"E	136/445		
BWA-71	Temple	Temple	27°32'6.8"N	83°27'38.9"E	127/416		
BWA-76	Chimney	Chimney	27°30'31.1"N	83°24'40.5"E	138/452		
BWA-77	Group of Tree	Tree	27°30'31.6"N	83°24'45.8"E	126/412		
BWA-78	Terminal Building	Terminal Building	27°30'29.2"N	83°24'58.3"E	125/410		
BWA-79	Control Tower	Control Tower	27°30'26.9"N	83°25'03.5"E	134/439		
BWA-80	Light Tower	Light Tower	27°30'25.3"N	83°25'09.9"E	126/414		
BWA-81	ATC Tower	ATC Tower	27°30'25.7"N	83°25'12.4"E	116/380		
BWA-82	V.H.F Mast	V.H.F Mast	27°30'25.6"N	83°25'13.1"E	128/421		
BWA-83	WaterTank	Water Tank	27°30'25.1"N	83°25'15.4"E	117/383		
BWA-84	FireHouse	Fire House	27°30'25.0"N	83°25'16.4"E	120/393		
BWA-85	V.H.F	V.H.F	27°30'27.1"N	83°25'13.6"E	127/417		
BWA-86	V.H.F	V.H.F	27°30'29.3"N	83°25'12.9"E	127/418		
BWA-87	Tree	Tree	27°30'28.0"N	83°25'14.8"E	121/397		
BWA-88	Tree	Tree	27°30'27.3"N	83°25'17.1"E	126/412		
BWA-89	White House (Black Tank)	Water Tank	27°30'32.7"N	83°25'13.1"E	121/399		
BWA-90	WaterTank	Water Tank	27°30'29.4"N	83°25'19.7"E	129/424		
BWA-91	House	House	27°30'34.3"N	83°25'19.3"E	123/404		
BWA-92	Coconut Tree	Tree	27°30'33.1"N	83°25'23.3"E	120/392		
BWA-95	Telephone Tower	Telephone Tower	27°30'35.0"N	83°25'28.4"E	124/408		
BWA-97	Tree Yesla	Tree	27°30'37.1"N	83°25'31.6"E	129/425		
BWA-98	WhiteHouse	House	27°31'3.9"N	83°25'37.0"E	138/453		
BWA-99	N.D.B Mast	N.D.B Mast	27°30'30.6"N	83°25'34.8"E	128/419		
BWA-100	Tree	Tree	27°30'26.0"N	83°25'35.1"E	123/402		
BWA-101	N.D.B Tower	N.D.B Tower	27°30'32.1"N	83°25'36.8"E	128/419		
BWA-102	Chimney	Chimney	27°30'56.4"N	83°25'41.6"E	143/469		
BWA-103	N.D.B Tower	N.D.B Tower	27°30'29.8"N	83°25'37.3"E	128/419		
BWA-104	House	House	27°30'27.9"N	83°25'39.8"E	117/383		
BWA-108	Chimney	Chimney	27°30'33.8"N	83°26'5.0"E	136/447		
BWA-109	Ncell Tower	Ncell Tower	27°30'30.3"N	83°26'0.3"E	126/413		
BWA-110	Red Roof	House	27°30'31.5"N	83°26'9.1"E	123/403		
BWA-111	White Tank	Water Tank	27°30'29.8"N	83°26'8.5"E	123/403		
BWA-114	House	House	27°30'26.2"N	83°26'26.8"E	123/404		
BWA-115	House with no cursor	House	27°30'26.4"N	83°26'33.8"E	126/415		
BWA-116	Tree	Tree	27°30'20.8"N	83°26'26.3"E	123/405		

Obstacle ID	Obstacle Type	Obstacle type	Latitudes	Longitudes	Obstacle Elevation (m/ft)	Markings/ Type, Color	Remarks
BWA-117	House	House	27°30'16.1"N	83°26'12.3"E	115/377		
BWA-118	Widening of Tree	Tree	27°30'16.0"N	83°26'20.7"E	132/433		
BWA-119	VoR DME old	VoR DME old	27°30'12.3"N	83°25'57.2"E	114/374		
BWA-120	Widening of Tree	Tree	27°30'14.0"N	83°26'32.8"E	128/420		
BWA-121	Electric pole (II)	Electric pole	27°30'10.2"N	83°26'4.5"E	113/370		
BWA-122	Tree	Tree	27°30'9.7"N	83°26'26.8"E	125/411		
BWA-123	Tree	Tree	27°30'7.9"N	83°26'23.3"E	121/396		
BWA-124	House	House	27°30'7.4"N	83°26'2.2"E	114/373		
BWA-125	Tree	Tree	27°30'3.9"N	83°26'23.9"E	121/398		
BWA-127	Tree(south-East corner)	Tree	27°30'5.4"N	83°25'57.8"E	120/393		
BWA-142	Chimney	Chimney	27°29'3.5"N	83°23'47.4"E	141/464		
BWA-143	Chimney	Chimney	27°29'12.3"N	83°23'45.0"E	140/461		
BWA-172	House made of five Stones	House	27°30'44.6"N	83°24'32.8"E	126/413		
BWA-173	Chimney	Chimney	27°31'2.2"N	83°24'34.9"E	141/462		
BWA-174	Chimney	Chimney	27°30'37.2"N	83°24'39.0"E	122/400		
BWA-175	Chimney	Chimney	27°30'56.7"N	83°24'55.1"E	132/434		
BWA-176	Chimney	Chimney	27°30'42.7"N	83°24'51.4"E	124/408		
BWA-177	Chimney	Chimney	27°30'27.2"N	83°24'44.8"E	120/393		
BWA-178	House	House	27°30'17.0"N	83°23'35.8"E	116/382		
BWA-179	Electric pole	Electric pole	27°30'21.4"N	83°23'35.8"E	111/366		
BWA-180	Electric pole	Electric pole	27°30'23.6"N	83°23'36.7"E	111/366		
BWA-182	Electric pole	Electric pole	27°30'27.8"N	83°23'38.4"E	111/366		
BWA-183	Electric pole	Electric pole	27°30'29.8"N	83°23'39.2"E	111/365		
BWA-184	House	House	27°30'41.4"N	83°23'44.6"E	111/363		
BWA-185	House	House	27°30'42.0"N	83°23'53.7"E	111/364		
BWA-186	House	House	27°30'45.3"N	83°23'57.4"E	117/383		
BWA-187	House	House	27°30'43.6"N	83°24'0.9"E	110/362		
BWA-188	House (White)	House	27°30'42.9"N	83°24'7.0"E	110/362		
BWA-189	House	House	27°30'42.9"N	83°24'9.5"E	117/383		
BWA-190	House	House	27°30'41.3"N	83°24'12.6"E	115/377		
BWA-193	Tree	Tree	27°30'20.7"N	83°27'49.0"E	133/438		
BWA-195	House	House	27°30'20.3"N	83°27'32.8"E	122/401		
BWA-196	House	House	27°30'8.1"N	83°27'39.9"E	121/396		
BWA-198	Siddhartha Cement	Siddhartha Cement	27°30'27.0"N	83°27'23.9"E	123/404		
BWA-199	House	House	27°30'22.3"N	83°27'26.1"E	125/409		
BWA-200	Tree	Tree	27°29'30.3"N	83°27'47.1"E	138/451		
BWA-201	House	House	27°30'20.4"N	83°27'25.5"E	104/341		
BWA-204	Tower	Tower	27°30'7.5"N	83°27'28.3"E	133/435		
BWA-205	Hotel City Centre	City Centre	27°30'18.8"N	83°27'22.4"E	125/410		
BWA-206	SS Complex	SS Complex	27°30'21.2"N	83°27'21.5"E	126/413		
BWA-207	Tower	Tower	27°30'17.4"N	83°27'21.5"E	145/477		
BWA-208	House	House	27°30'10.6"N	83°27'19.7"E	123/404		
BWA-209	House (Tanki)	Water Tank	27°30'27.0"N	83°27'11.9"E	128/419		
BWA-210	Tower	Tower	27°30'20.2"N	83°27'3.32"E	144/473		
BWA-211	Tower	Tower	27°30'29.7"N	83°27'12.5"E	131/430		
BWA-212	Tower	Tower	27°30'23.6"N	83°27'3.9"E	134/439		
BWA-213	House (Black Color)	House	27°30'31.7"N	83°27'13.5"E	128/421		
BWA-218	FM	FM Tower	27°30'31.2"N	83°27'5.2"E	130/427		

Obstacle ID	Obstacle Type	Obstacle type	Latitudes	Longitudes	Obstacle Elevation (m/ft)	Markings/ Type, Color	Remarks
BWA-220	Hotel Lacaul	Hotel	27°30'11.1"N	83°27'28.1"E	118/388		
BWA-222	House	House	27°30'4.7"N	83°27'32.2"E	122/400		
BWA-223	Hotel	House	27°30'4.1"N	83°27'29.2"E	128/419		
BWA-224	Tower	Tower	27°29'57.8"N	83°27'31.3"E	130/427		
BWA-225	Hotel Castal	Hotel	27°29'53.7"N	83°27'32.1"E	126/412		
BWA-226	CityMax	CityMax	27°30'2.6"N	83°27'25.6"E	128/420		
BWA-227	Chimney	Chimney	27°29'7.5"N	83°27'27.9"E	140/458		
BWA-228	House	Hostel	27°29'48.8"N	83°27'24.8"E	120/393		
BWA-229	House	House	27°29'38.0"N	83°27'16.5"E	117/385		
BWA-230	Tanki (Green Color)	Water Tank	27°29'58.8"N	83°27'16.3"E	120/394		
BWA-231	House (White color 5-Storied)	House	27°30'10.5"N	83°27'19.9"E	122/402		
BWA-232	Black Tanki	Water Tank	27°30'9.9"N	83°26'59.9"E	125/411		
BWA-235	House (Tree pachadi)	House	27°30'3.1"N	83°27'20.5"E	128/419		
BWA-236	Yellow Mathi Red	House	27°30'28.5"N	83°26'48.7"E	121/396		
BWA-237	Tower	Tower	27°29'11.1"N	83°28'4.8"E	132/432		
BWA-238	Pani Tanki	Water Tank	27°29'9.3"N	83°28'26.5"E	125/408		
BWA-240	House	House	27°28'38.6"N	83°28'21.8"E	120/394		
BWA-241	Tower	Tower	27°28'42.3"N	83°28'10.4"E	136/446		
BWA-243	House(Hotel)	House	27°28'44.8"N	83°28'3.2"E	130/425		
BWA-244	House	House	27°28'50.1"N	83°27'57.5"E	120/395		
BWA-245	Tower	Tower	27°30'15.5"N	83°28'10.0"E	128/421		
BWA-246	Masjeet	Masjeet	27°30'22.3"N	83°28'13.2"E	121/399		
BWA-247	School (Aamar Jyoti)	School	27°29'45.2"N	83°26'50.0"E	122/400		
BWA-248	Tower II	Tower	27°29'31.3"N	83°26'41.4"E	121/398		
BWA-249	Hospital Hostel	Hospital	27°29'18.1"N	83°26'47.2"E	123/403		
BWA-251	House (Jasta vayeko)	House	27°29'22.6"N	83°26'27.0"E	115/379		
BWA-252	Tower	Tower	27°29'55.4"N	83°25'29.1"E	128/421		
BWA-253	Chimney	Chimney	27°29'2.9"N	83°23'46.2"E	140/460		
BWA-255	Chimney	Chimney	27°31'6.9"N	83°25'30.3"E	135/443		
BWA-256	House	House	27°31'9.1"N	83°25'36.5"E	135/441		
BWA-257	Tower	Tower	27°31'9.3"N	83°25'38.1"E	141/462		
BWA-258	House (White color Factory)	Factory	27°31'3.8"N	83°25'37.3"E	138/454		
BWA-259	Water Tank (White Color)	Water Tank	27°31'11.7"N	83°26'17.1"E	127/417		
BWA-260	Chimney	Chimney	27°31'3.2"N	83°24'44.1"E	127/417		
BWA-261	House	House	27°30'44.6"N	83°24'33.4"E	126/413		
BWA-262	Tanki	Water Tank	27°30'41.0"N	83°25'9.5"E	121/397		
BWA-263	Chimney	Chimney	27°30'4.9"N	83°20'59.5"E	133/435		
BWA-264	House	House	27°30'2.1"N	83°20'55.6"E	138/453		
BWA-265	Chimney	Chimney	27°30'1.7"N	83°20'49.3"E	131/428		
BWA-267	Chimney (Reliance Cement)	Chimney	27°30'23.4"N	83°20'47.7"E	134/440		
BWA-268	Cement Factory	Cement Factory	27°30'33.0"N	83°20'48.0"E	131/431		
BWA-272	Jagadamba	Jagadamba Cement	27°30'14.5"N	83°21'57.9"E	134/440		
BWA-273	Chimney	Chimney	27°30'12.8"N	83°21'22.6"E	134/440		
BWA-275	Chimney	Chimney	27°29'57.9"N	83°22'17.7"E	142/467		
BWA-277	Chimney	Chimney	27°29'58.2"N	83°22'18.3"E	142/467		

Obstacle ID	Obstacle Type	Obstacle type	Latitudes	Longitudes	Obstacle Elevation (m/ft)	Markings/ Type, Color	Remarks
BWA-278	Pani Tanki	Water Tank	27°30'13.1"N	83°22'22.5"E	130/427		
BWA-279	Pakki	House	27°30'19.1"N	83°22'25.7"E	129/424		
BWA-280	Chimney	Chimney	27°30'21.5"N	83°22'27.2"E	135/443		
BWA-281	House	House	27°30'25.0"N	83°22'23.9"E	140/459		
BWA-282	Chimney	Chimney	27°30'22.1"N	83°22'32.8"E	130/428		
BWA-283	House	House	27°30'34.4"N	83°22'26.6"E	135/442		
BWA-284	Brick	Chimney	27°30'38.9"N	83°22'29.9"E	143/470		
BWA-285	Pakki	House	27°30'34.7"N	83°22'37.1"E	134/439		
BWA-286	Pakki	House	27°30'34.7"N	83°22'38.3"E	137/449		
BWA-287	Chimney	Chimney	27°30'33.3"N	83°22'21.5"E	137/449		
BWA-145	Generator Chimney (West)	Chimney	27°31'53.1"N	83°24'33.8"E	129/424		
BWA-146	Generator Chimney (East)	Chimney	27°31'53.0"N	83°24'33.7"E	130/426		
BWA-147	Baangaai Brick Factory	Brick Factory	27°31'10.5"N	83°25'1.9"E	144/473		
BWA-148	Bishal Cement	Cement Factory	27°32'15.4"N	83°24'1.7"E	144/472		

VNBW AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1.	Associated MET Office	Gautam Buddha International Airport Aero-Synoptic Station
2.	Hours of Service	As ATS
3.	Office responsible for TAF preparation/ periods of validity	GBIA Met Office / Every 6 Hours with 24 hours of validity (except 2300Z)
4.	Type of landing forecast interval of issuance	Trend 30 Min (valid for next 2 hours)
5.	Briefing/Consultation provided	Personal Consultation +977-071-507262
6.	Flight documentation language(s) used	Charts or Tabular forms/ Text English
7.	Charts and other information available for briefing or consultation	Satellite Image, NWP Products (Wind Temp information at different level (850, 500, 200 hpa etc.)
8.	Supplementary equipment available for information	Automated Weather Observation System (AWOS), Satellite display workstation.
9.	ATS units provided with information	Bhairahawa TWR, Bhairahawa APP
10.	Additional information (limitation of service, etc.)	Tel: (MET Office) +977-071-507262

VNBW AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designation RW NR	TRUE & MAG BRG	Dimensions of RWY m	Strength PCN and surface of RWY and SWY	THR Coordinates RWY end coordinates	THR elevation
1	2	3	4	5	6
10	098.85°	3000 x 45	80 F/A/W/T Asphalt Concrete	27°30'24.61" N 083°23'44.89"E	105.648
28	278.85°	3000 x 45	80 F/A/W/T Asphalt Concrete	27°30'09.70"N 083°25'32.91"E	105.639
Slope of RWY-SWY	SWY Dimension m	CWY Dimension m	Strip Dimension m	RESA Dimension m	Remarks
7	8	9	10	11	12
0%	NA	300×150 300×150	3120×280	RWY:10/28 240×90	

VNBW AD 2.13 DECLARED DISTANCE

RWY Designator	TORA m	TODA m	ASDA m	LDA m	Remarks
1	2	3	4	5	6
10 28	3000 3000	3300 3300	3000 3000	3000 3000	

VNBW AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH Light Type Length INTST	THR Light color WBAR	VASIS PAPI	TDZ Light LEN	RWY Center line Light length spacing, color INTST	RWY edge LGT LEN, spacing color INTST	RWY end LGT color	SWY LGT LEN (M) color	Remarks
1	2	3	4	5	6	7	8	9	10
28	CAT I 900m LIH	Green	PAPI Left/ 3.00^0 MEHT 18.98m	Yes 900m	3000m 15m apart, Bidirectional variable white red inset, High Intensity	3000m 60m apart, Bidirectional variable white yellow elevated High Intensity	Red	Nil	CAT I APP Lights Barrette type with Sequential Flasher
10	SALS 300m LIH	Green	PAPI Left/ 3.00^0 MEHT 18.80m	Nil	3000m 15m Apart, Bidirectional variable white red inset, High Intensity	3000m 60m Apart, Bidirectional variable white yellow elevated High Intensity	Red	Nil	

VNBW AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN / IBN Location, characteristics and hours of operation	ABN: Above Aerodrome Control Tower, Green Flashes alternating with white flashes, 24 flashes per minute normally after sunset IBN : Nil
2	LDI Location and LGT Anemometer Location and LGT	LDI: Not Available Anemometer : Available (385m from THR 10/28)
3	TWY edge and Centre line lighting	Edge All TWY Center line: YES (Except TWY C and E)
4	Secondary power supply/switch over time	Secondary power supply to all lighting at AD. Switch over time: 15 sec
5	Remarks	RTIL at RWY 10 and Apron Flood Lights available.

VNBW AD 2.16 HELICOPTER LANDING AREA

Not specified

VNBW AD 2.17 ATS AIRSPACE

1. Designation and lateral limits	**Bhairahawa CTR** : An area bounded by VNSM from 272704N 0830409E then along 20 DME arc to 274515N 0831143E to 275121N 0830551E, then along 28 DME arc to 275807N 0832613E to 275006N 0832616E, then along 20 DME arc to 272317N 0834734E then along Kathmandu FIR boundary to 272704N 0830409E. **Bhairahawa ATZ**: An area of a circle of radius 5 NM centered at ARP and to the south bounded by VNSM boundary.	
2. Vertical Limits	CTR	ATZ
	7500ft AMSL GND	2000ft AGL GND
3. Airspace classification	C	
4. ATS units call sign/language (s)	Bhairahawa Approach / Bhairahawa Tower (English)	
5. Transition Altitude	13500 ft	
6. Remarks		

VNBW AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	Call Sign	Frequency	Hours of Operation	Remarks
1	2	3	4	5
TWR	Bhairahawa Tower	119.55 MHz 122.5 MHz[2)] 121.5 MHz[1)]	As ATS	[1)]Emergency frequency [2)]Backup frequency [3)]Ground to ground
GND	Bhairahawa Ground	123.30 MHz	As ATS	
APP	Bhairahawa Approach	124.95 MHz 123.275 MHz[2)] 121.5 MHz[1)]	As ATS	
ATIS	Bhairahawa Terminal	128.05 MHz	As ATS	
HF	Bhairahawa Radio	5805.5 KHz[3)]	As ATS	

VNBW AD 2.19 RADIO NAVIGATION AND LANDING AID

Type of Aid	ID	Frequency	Hours of Operation	Position of Transmitting Antenna Coordinates	Remarks
1	2	3	4	5	6
DVOR/DME	BWA	117 MHz CH 117X	H24	273003N 0832623E	
LLZ 28 ILS CAT I	IBWA	109.3 MHz	As ATS	273026 N 0832334E	Need to take care of Indo Nepal Border
GP		332 MHz	As ATS	2730 07N 0832520E	3°
DME ILS 28	IBWA	CH 30X	As ATS	273007N 0832520E	DME co-located with GP

VNBW AD 2.20 LOCAL TRAFFIC REGULATIONS

To be developed

VNBW AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

VNBW AD 2.22 FLIGHT PROCEDURES

To be developed

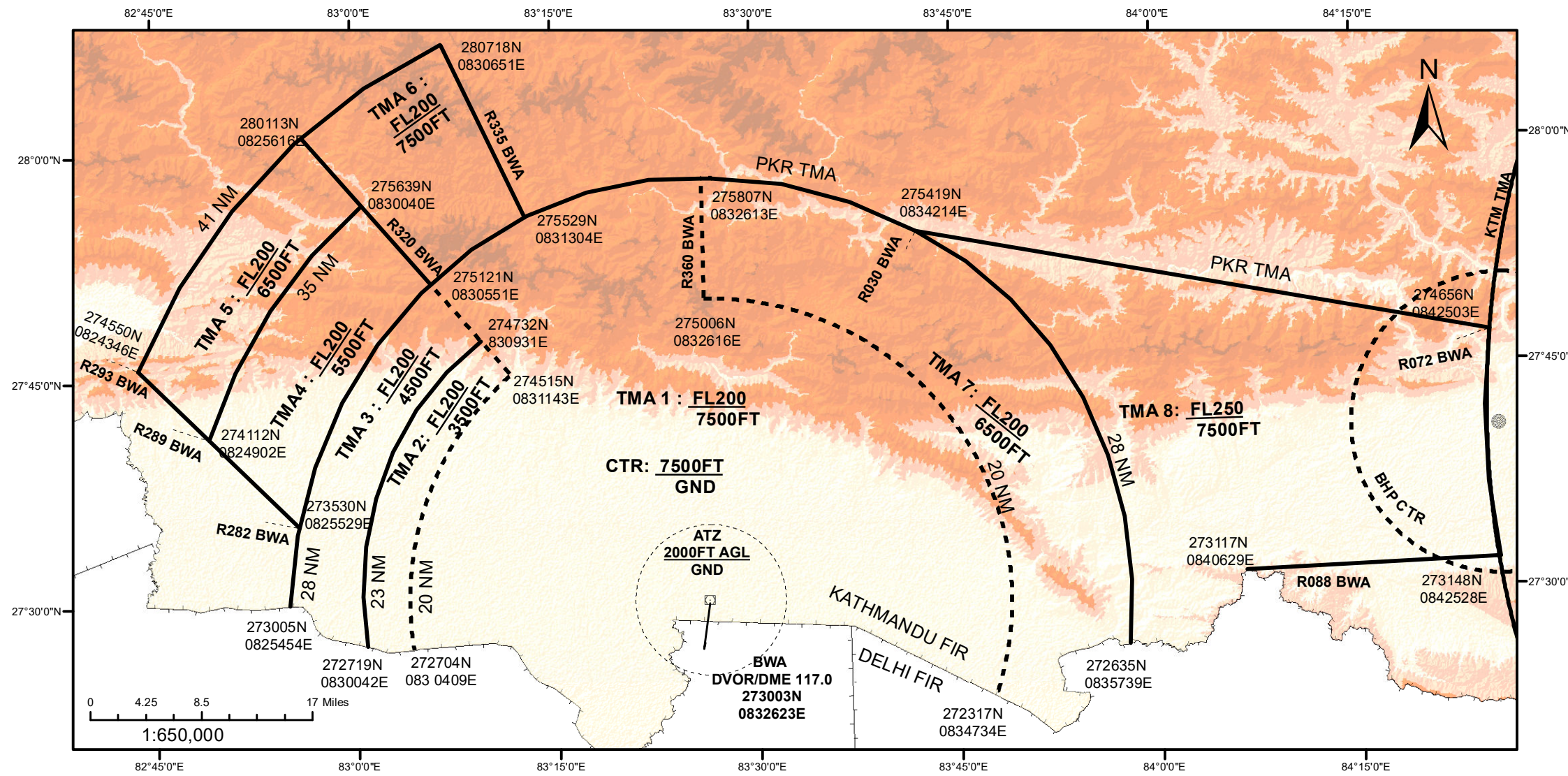
VNBW AD 2.23 ADDITIONAL INFORMATION

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.

VNBW AD 2.24 CHARTS & PROCEDURES RELATED TO GAUTAM BUDDHA INTERNATIONAL AIRPORT

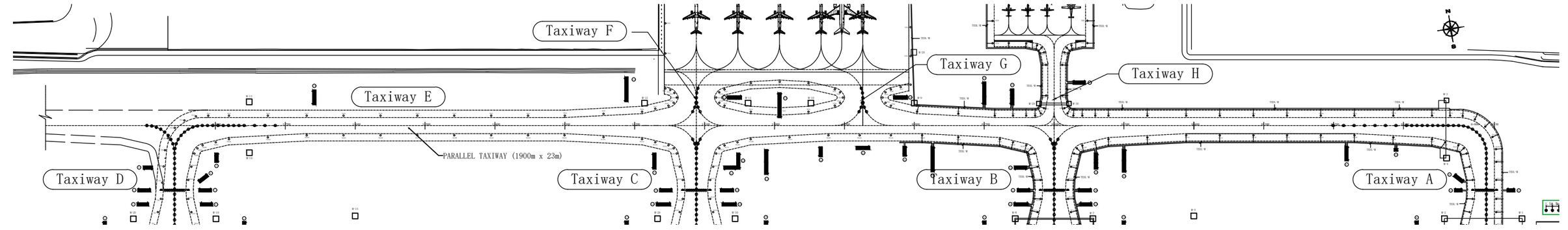
GAUTAM BUDDHA INTERNATIONAL AIRPORT, BHAIRAHAWA (VNBW) TERMINAL CONTROL AREA (TMA), CONTROL ZONE (CTR) AND AERODROME TRAFFIC ZONE (ATZ)

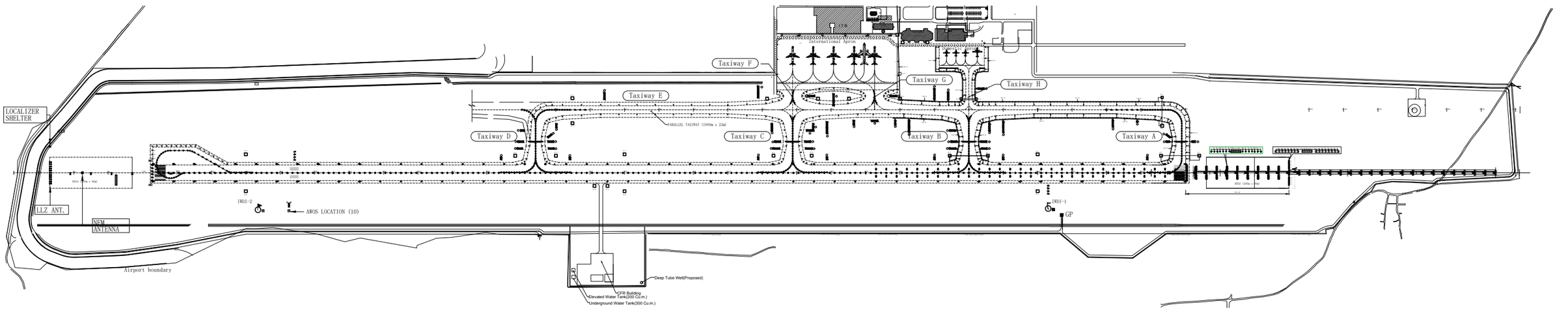


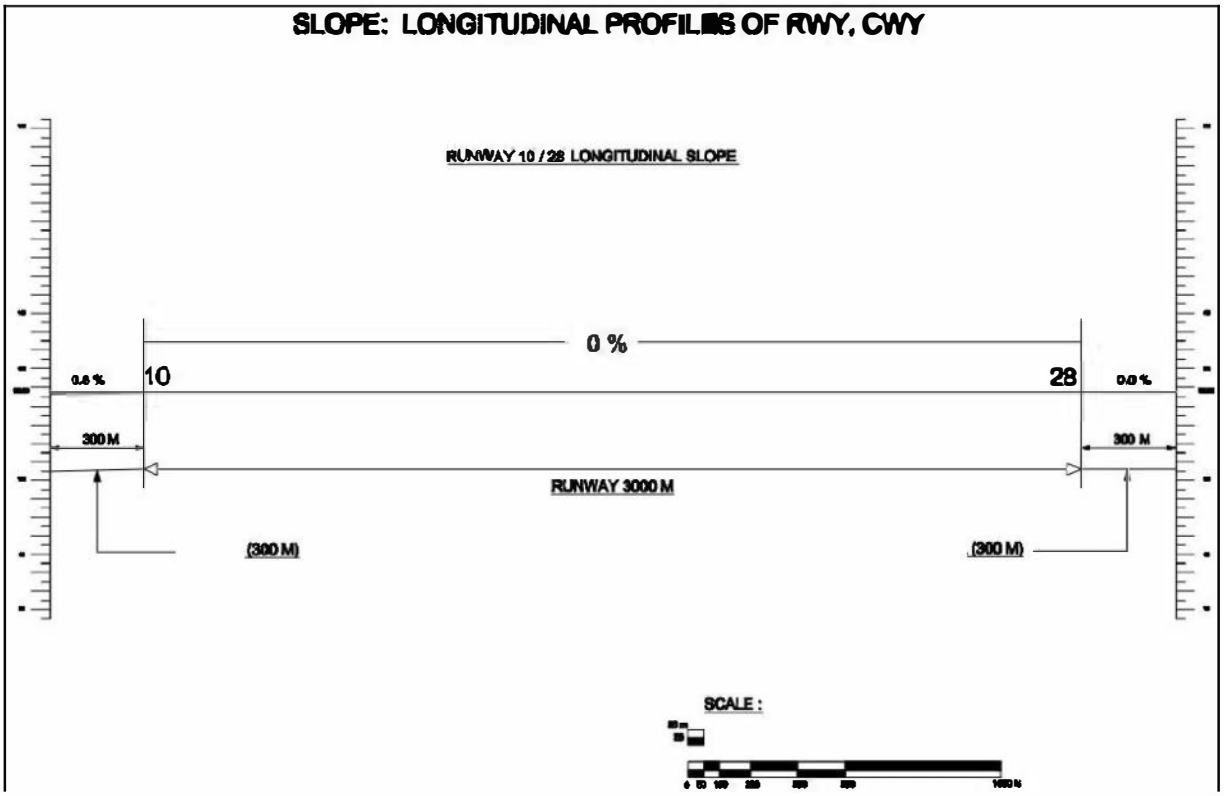
AERODROME CHART - ICAO

AERODROME ELEV. 104.6 m

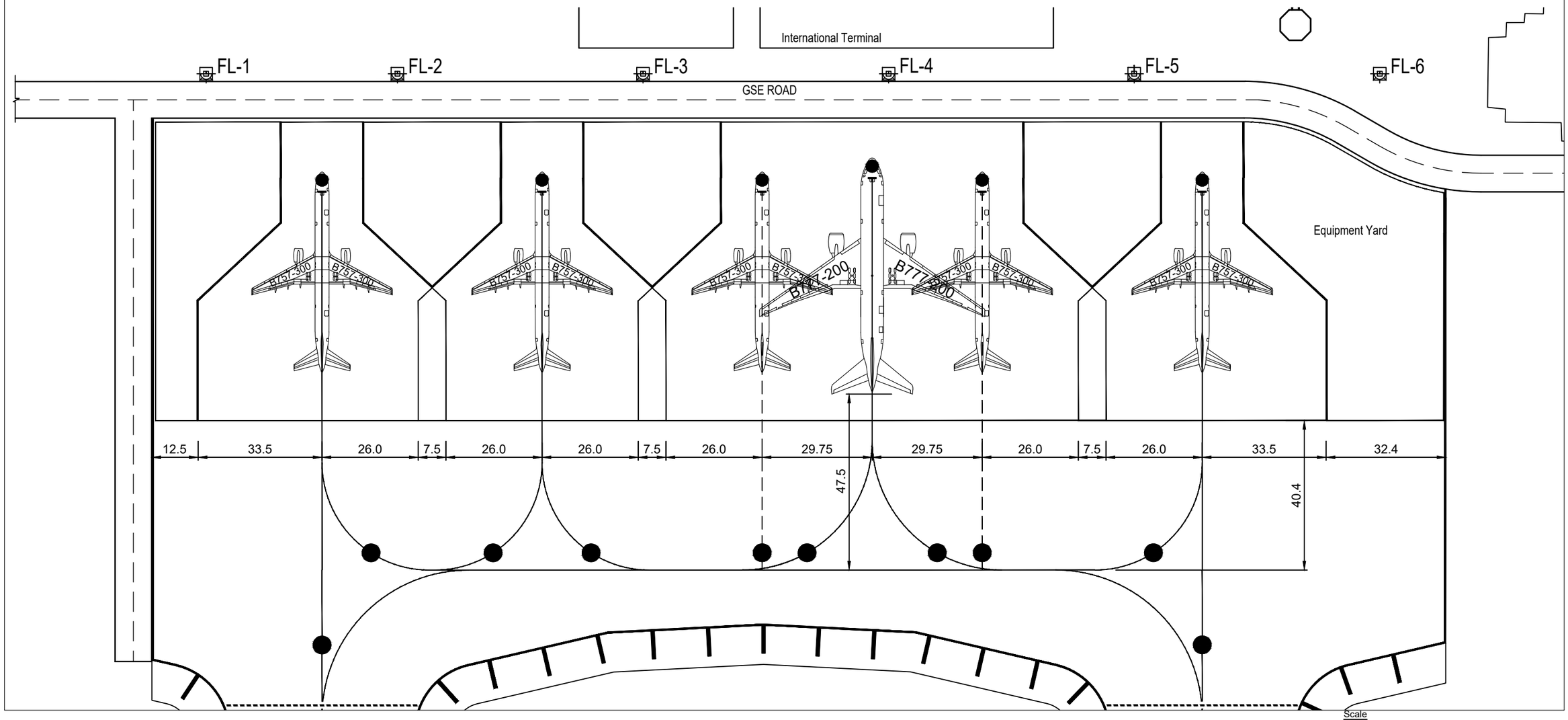
BHAIRAHAWA, GAUTAM BUDDHA
INTERNATIONAL AIRPORT






SLOPE: LONGITUDINAL PROFILES OF RWY, CWY
RUNWAY 10 / 28 LONGITUDINAL SLOPE
0 %
0.0 %
10
28
0.0 %
300 M
300 M
RUNWAY 3000 M
(300 M)
(300 M)
SCALE :

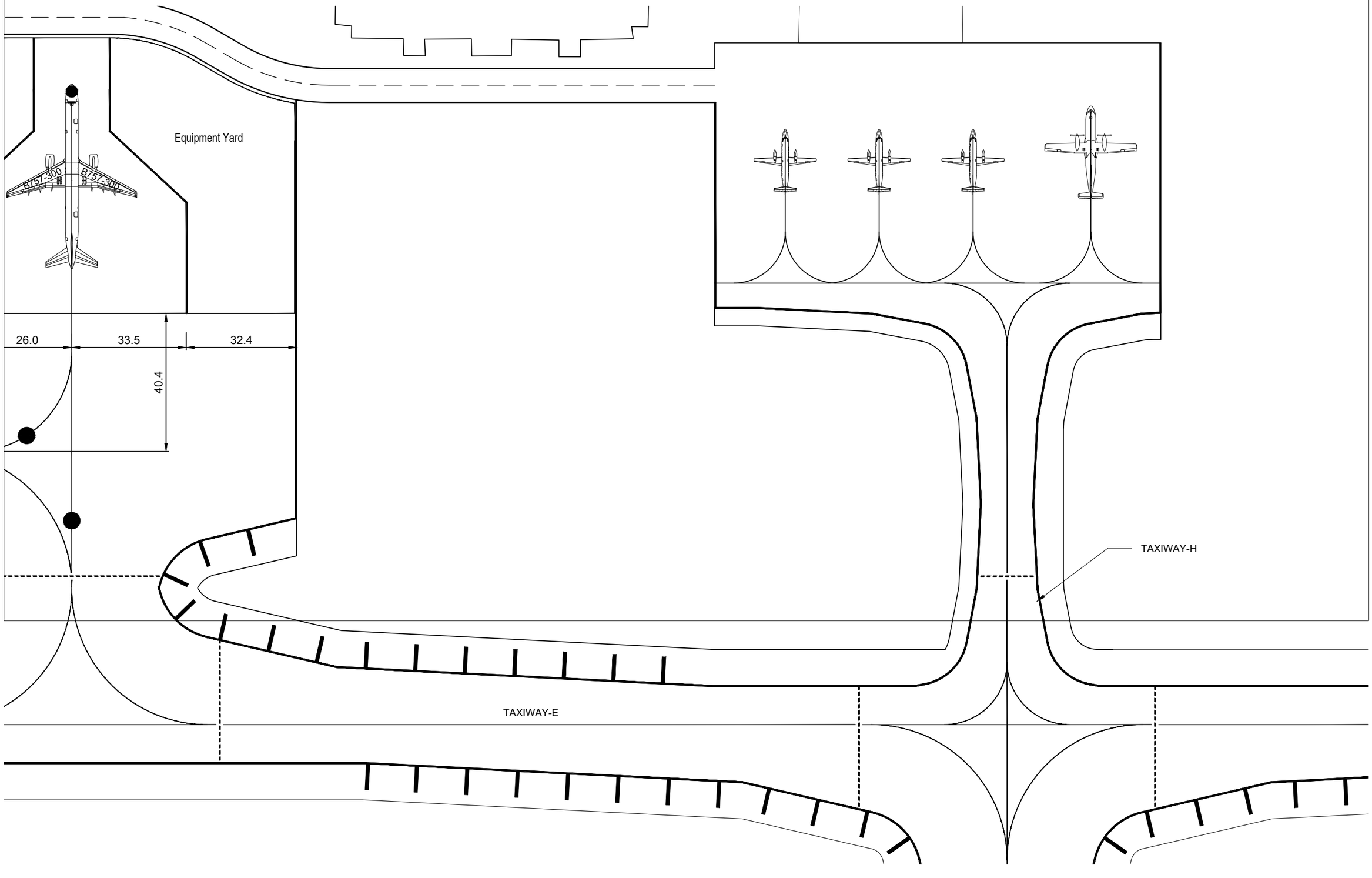
AIRCRAFT PARKING CHART-ICAO (INTERNATIONAL)



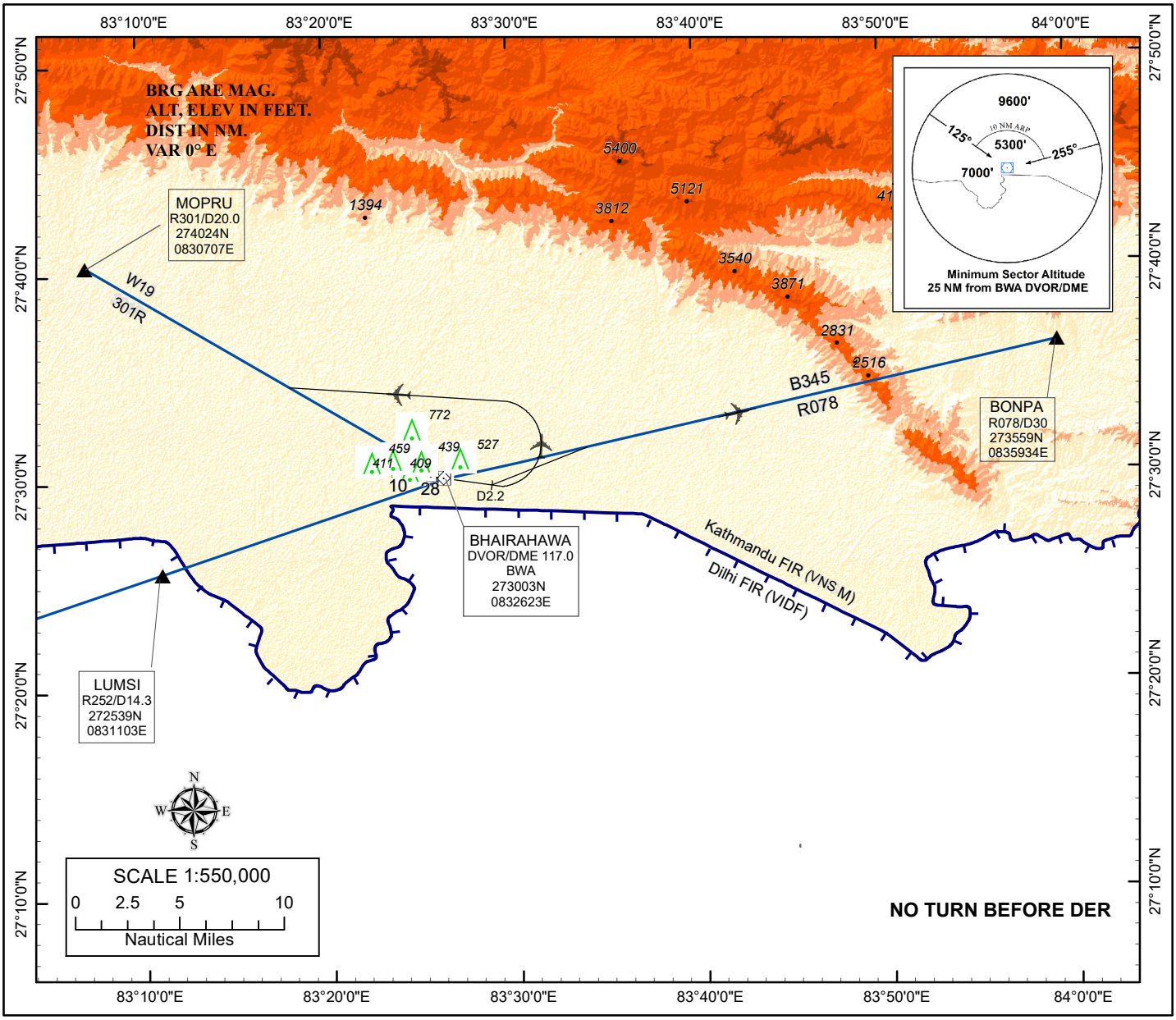
Aircraft Stand	COORDINATE (Lat,Long)	ELEVATION (m. AMSL)	AIRCRAFT TYPE	SURFACE AND STRENGTH
BAY-1	27° 30' 26.09"N, 83° 25'02.42"E	105.277	B- 757- 300 and similar aircraft types	CEMENT CONCRETE PCN80/R/B/W/T
BAY-2	27° 30' 26.64"N, 83° 24'59.20"E	105.263	B-777-200 and similar aircraft types	
BAY-2R	27° 30' 26.36"N, 83° 25'00.25"E	105.237	B- 757- 300 and similar aircraft types	
BAY-2L	27° 30' 26.88"N, 83° 24'58.13"E	105.237	B- 757- 300 and similar aircraft types	
BAY-3	27° 30' 26.97"N, 83° 24'55.97"E	105.245	B- 757- 300 and similar aircraft types	
BAY-4	27° 30' 27.22"N, 83° 24'53.79"E	105.239	B- 757- 300 and similar aircraft types	

INS Coordinates for aircraft stands including elevation

AIRCRAFT PARKING CHART-ICAO (DOMESTIC)

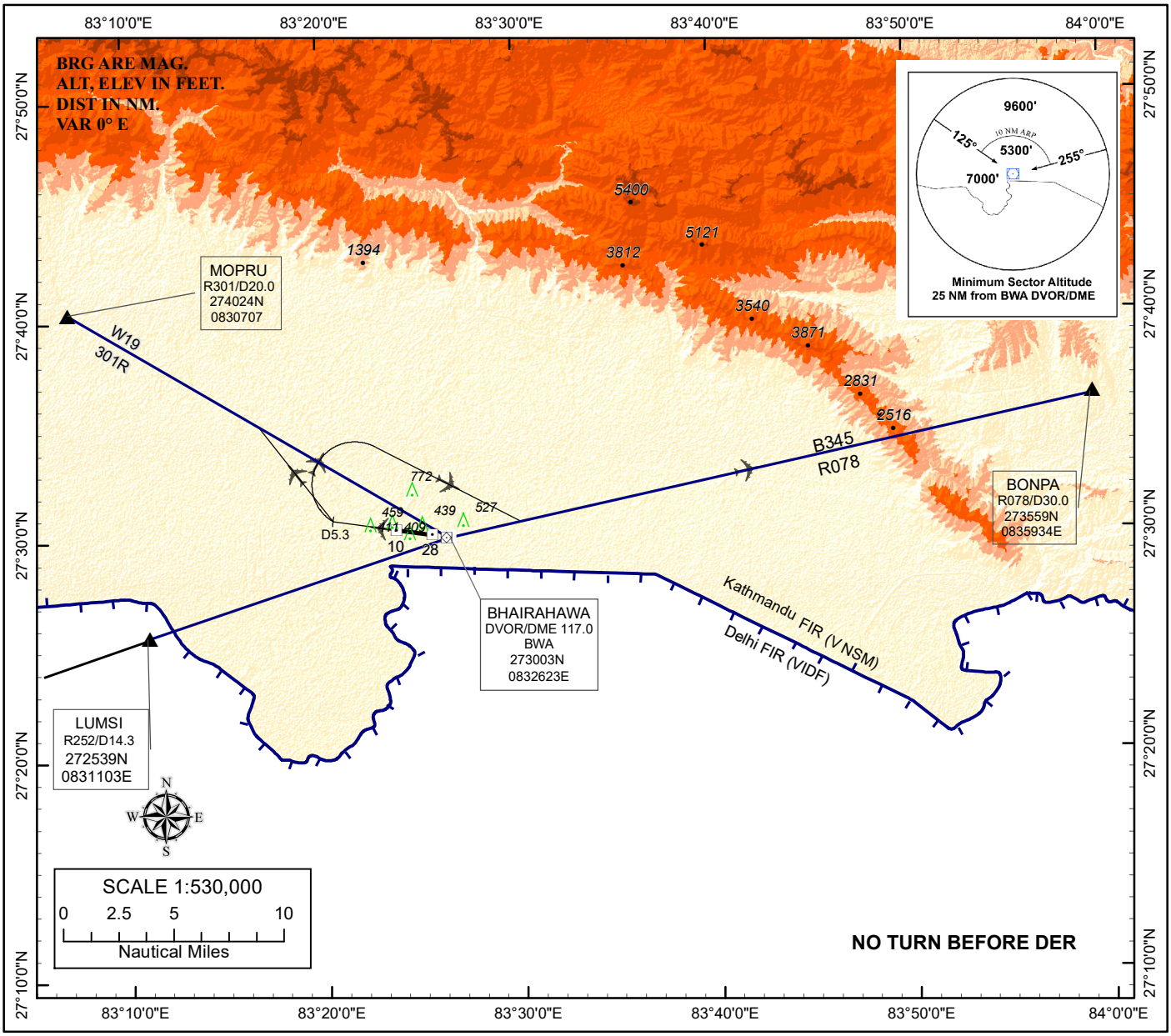


STANDARD DEPARTURE CHART – INSTRUMENT (SID) - ICAO	AERODROME ELEV 347' TRANS LEVEL: FL 150 TRANSALT: 13,500 ft.	TWR 119.55 MHz APP 124.95 MHz ATIS 128.05 MHz	BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport RWY 10 BONPA 1C, MOPRU 1C



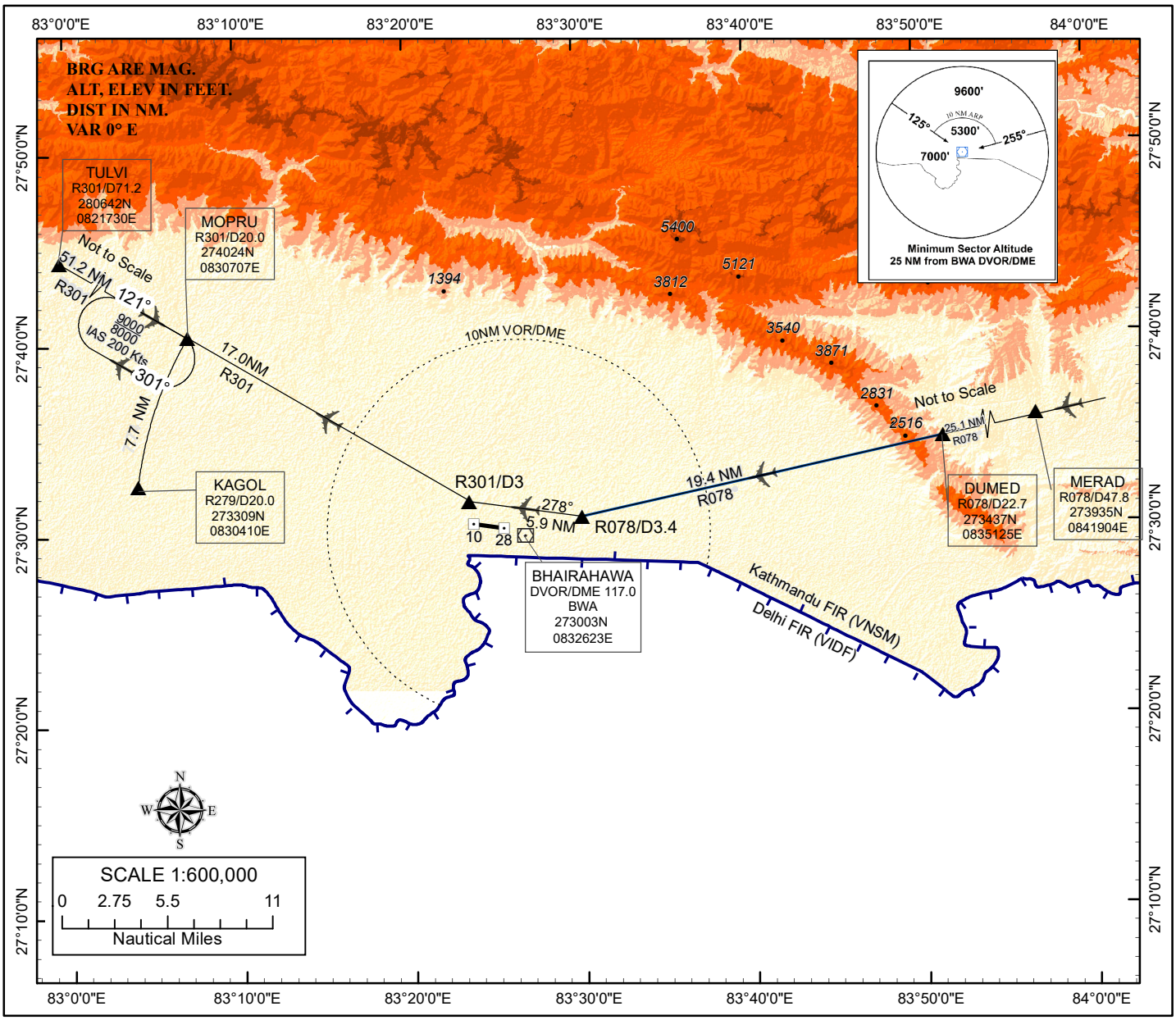
SID	ROUTING
BONPA 1C Climb Gradient 5.5 %	Climb straight ahead at 2.2 DME BWA turn left (MAX IAS 220Kts) to join airways B345 to BONPA at or above10500ft.
MOPRU 1C Climb Gradient 5.7 %	Climb straight ahead at 2.2 DME BWA turn left (turn IAS 220Kts) heading 274° to join W19/301R BWA to MOPRU at or above 8000ft.

STANDARD DEPARTURE CHART – INSTRUMENT (SID) - ICAO	AERODROME ELEV 347' TRANS LEVEL: FL 150 TRANSALT: 13,500 ft.	TWR 119.55 MHz APP 124.95 MHz ATIS 128.05 MHz	BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport RWY 28 BONPA 1D, MOPRU 1D



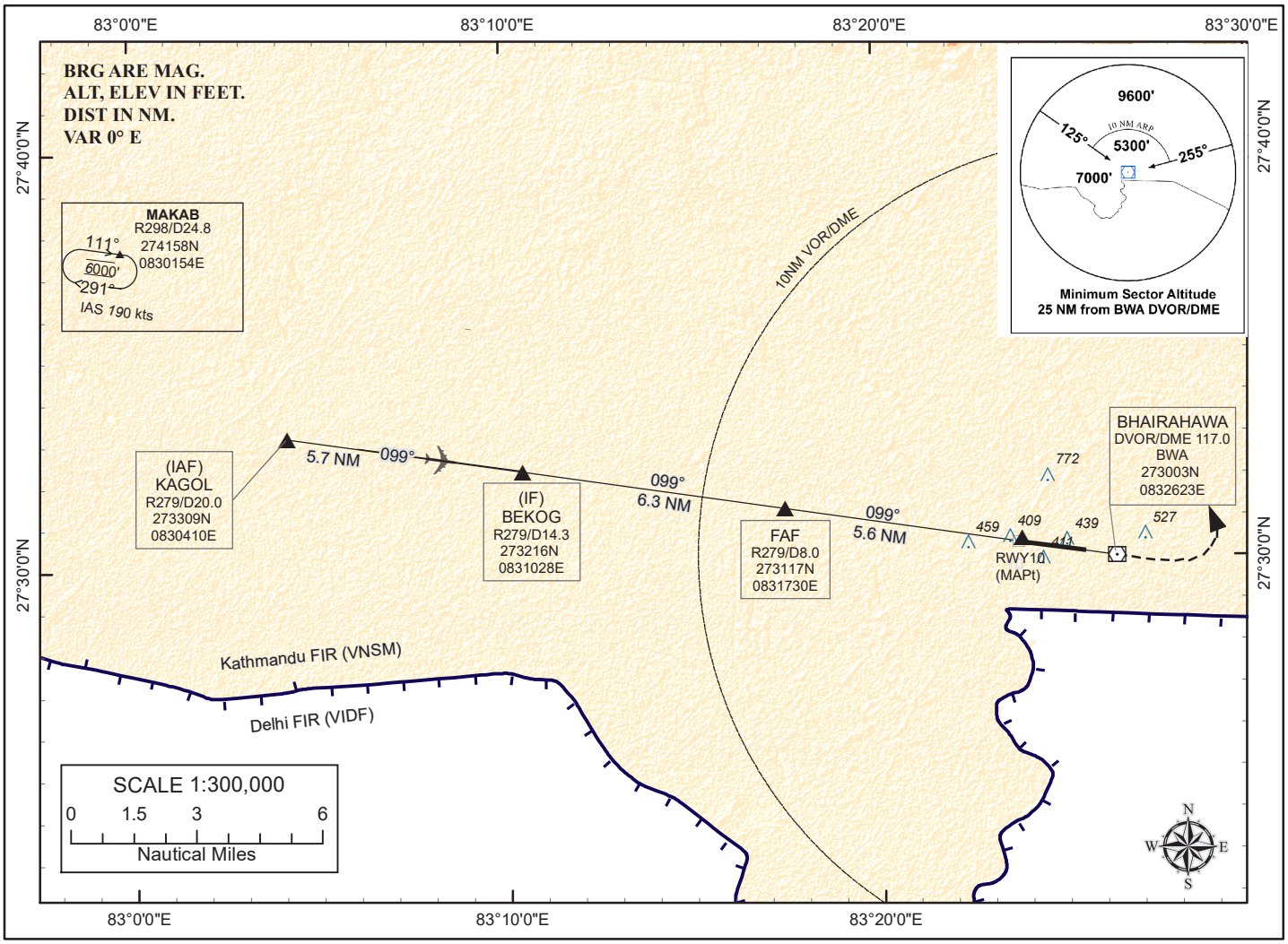
SID	ROUTING
BONPA 1D Climb Gradient 4.8 %	Climb straight ahead at 5.3 DME BWA turn right (MAX IAS 220Kts) heading 118° to intercept R078 BWA to BONPA on climb to 10500ft or above.
MOPRU 1D Climb Gradient 7.0%	Climb straight ahead at 5.3 DME BWA turn right (MAX IAS 220Kts) to join W19/301R to MOPRU at or above 8000ft.

STANDARD ARRIVAL CHART – INSTRUMENT (STAR) - ICAO	AERODROME ELEV 347' TRANS LEVEL: FL 150 TRANSALT: 13,500 ft.	TWR 119.55 MHz APP 124.95 MHz ATIS 128.05 MHz	BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport RWY 10 MERAD 1G TULVI 1G

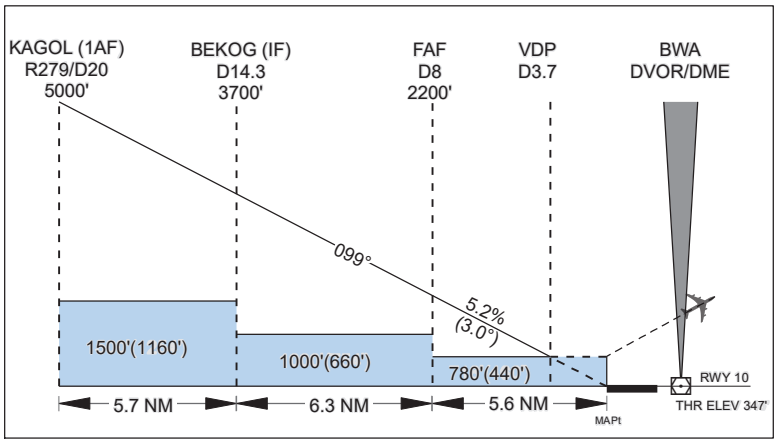


STAR	ROUTING
MERAD1G	From MERAD proceed to DUMED then to fix (R078/3.4DME BWA) then heading 278° to fix (R301/3DME BWA) follow outbound R301 to MOPRU make 20DME arc BWA to KAGOL at or above 5000ft
TULVI 1G	From TULVI proceed to MOPRU make 20 DME arc BWA to KAGOL at or above 5000ft.

INSTRUMENT APPROACH CHART - ICAO	AERODROME ELEV 347' HEIGHTS RELATED TO THR RWY 10 - ELEV 347'	TWR 119.55 MHz APP 124.95 MHz ATIS 128.05 MHz	BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport VOR RWY 10



TRANSITION LEVEL F150
TRANSITION ALT A135



Missed Approach : climb gradient 3.5%

Climb straight ahead at BWA turn left (Max IAS 220Kts) follow outbound R298 to MAKAB at or above 5700ft climb to 6000ft and hold over MAKAB or as instructed by ATC.

Category	CAT A	CAT B	CAT C	CAT D
OCA/OCH	780'(440')			
Vis	1800 m.			

* For ALS OUT, increase VIS by 300m

RNAV GNSS approach procedures at Gautam Buddha International Airport, Bhairahawa (VNBW)

1. INTRODUCTION

1.1 RNP1 SIDs/STARs and RNP APCH and associated Missed Approach Procedures are designed for VNBW 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 VNBW is designed to enhance the safety and efficiency of the aircraft operations to materialize the National PBN Implementation Plan of Nepal.

1.3 Two RNP approach procedure with LNAV/VNAV and LNAV only specification along with six RNP1 STARs and six RNP1 SIDs have been designed utilizing GNSS as a navigation system as stipulated in ICAO PBN Manual DOC 9613.

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 be 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 seven RNP1 STARs, six RNP1 SIDs and two RNP APCH (LNAV/ VNAV, LNAV only) procedures to Bhairahawa runway 10 and 28 are named in accordance with the ICAO naming convention as tabulated below.

RWY	SIDs	STAR	RNP Approach
10	KAKUN 1A LAMES 1A THARA 1A	LAMES 1T LAMES 1U KAKUN 1T	RNP RWY 10 (LNAV ONLY)
28	NARAN 1B LAMES 1B THARA 1B	LAMES 1R LAMES 1S NARAN 1R NARAN 1S	RNP RWY 28 (LNAV/VNAV , 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 :

5LNC	Latitude	Longitude
BASUB	27°31'32.9" N	083°43'28.1" E
BEGAV	27°38'16.2" N	083°10'48.8" E
BIMAL	27°40'03.3" N	084°01'43.0" E
BOBAD	27°36'37.3" N	083°22'51.0" E
BUVOS	27°38'25.18" N	083°52'52.86" E
BWA	27°30'03" N	083°26'23"E
BW101	27°29'54.1" N	083°35'47.9" E
BW501	27°43'04.1" N	083°25'25.2" E
BW502	27°42' 29.8" N	083°14' 22.2" E
BW515	27°29'42.0" N	083°28'52.9" E
BW584	27°30'49.6" N	083°20'23.2" E
BW585	27°37'50.4" N	083°04'05.9" E
BW616	27°31'33.9" N	083°15'21.1" E

BW704	27°41'51.9" N	084°01' 50.6" E
GUTAM	27°51'05.8" N	082°55'50.0" E
HARRE	27°43'30.0" N	083°00'00.0" E
KALGA	27°35'12.1" N	083°34'58.8" E
KAGOL	27°33'08.7" N	083°04'09.8" E
KABIG	27°34'13.2" N	084°02'54.9" E
KAKUN	27°37'48.9" N	084°09'11.2" E
KASBO	27°37'41.3" N	083°23'10.9" E
LAMES	27°51'14.0" N	082°45'54.5" E
LUMSI	27°25'39.0" N	083°11'03.0" E
MALIR	27°30'00.6" N	083°45'40.8" E
MAKAB	27°41'57.5" N	083°01'54.3" E
MAKPA	27°31'20.3" N	083°52'57.0" E
NARAN	27°40'46.0" N	084°25'47.0" E
NIVOV	27°33'12.5" N	084°03'14.6" E
PIBOD	27°32'19.4" N	083°09'47.6" E
REPOX	27°36'41.3" N	083°43'35.4" E
RUKSO	27°37'07.3" N	083°45'29.8" E
RWY10	27°30'24.6" N	083°23'44.9" E
RWY28	27°30'09.7" N	083°25'32.9" E
RWY28 FTH	27°30'02.3" N	083°25'32.2" E
SABOS	27°44'12.8" N	082°51'11.9" E
SARED	27°38'54.5" N	084°19'16.0" E

6. RNP 1 SID CODING TABLE

KAKUN 1A SID CODING TABLE

Serial No.	*Path Descriptor*	*Waypoint Identifier*	*Flyover*	*Course/Track (°M)*	*Magnetic Variation*	*Distance (NM)*	*Turn Direction*	*Altitude (ft)*	*Speed (kts)*	*VPA/ TCH*	*Navigation Specification*
001	CF	BW515	-	098	0.0	-	-	–	200	-	RNP-1
002	TF	MALIR	-	089	0.0	14.9	L	+6000	-	-	RNP-1
003	TF	NIVOV	-	079	0.0	15.9	L	+11500	-	-	RNP-1
004	TF	KAKUN	-	049	0.0	7	L	-	-	-	RNP-1

LAMES 1A SID CODING TABLE

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	-	-	098	0.0	-	L	@960	200	-	RNP-1
002	DF	BOBAD	-	-	0.0	-	L	+1900	-	-	RNP-1
003	TF	GUTAM	-	301	0.0	28	L	+7000	-	-	RNP-1
004	TF	LAMES	-	270	0.0	8.8	-	+8000	-	-	RNP-1

THARA 1A SID CODING TABLE

Serial No.	*Path Descriptor*	*Waypoint Identifier*	*Flyover*	*Course/Track (°M)*	*Magnetic Variation*	*Distance (NM)*	*Turn Direction*	*Altitude (ft)*	*Speed (kts)*	*VPA/ TCH*	*Navigation Specification*
001	CA	-	-	098	0.0	-	L	@960	-	-	RNP-1
002	DF	BW501	-	-	0.0	-	L	@5000	-	-	RNP-1
003	TF	THARA	-	302	0.0	26.7	-	+10500	-	-	RNP-1

NARAN 1B SID CODING TABLE

Serial No.	*Path Descriptor*	*Waypoint Identifier*	*Flyover*	*Course/Track (°M)*	*Magnetic Variation*	*Distance (NM)*	*Turn Direction*	*Altitude (ft)*	*Speed (kts)*	*VPA/ TCH*	*Navigation Specification*
001	CA	-	-	278	0.0	-	R	@1060	-	-	RNP-1
002	DF	KALGA	-	-	0.0	-	L	+5000	-	-	RNP-1
003	TF	RUKSO	-	078	0.0	9.5	L	+7500	-	-	RNP-1
004	TF	BW704	-	071	0.0	15.2	R	+11500			RNP-1
005	TF	NARAN	-	092	0.0	21.2		-			RNP-1

LAMES 1B SID CODING TABLE

Serial No.	*Path Descriptor*	*Waypoint Identifier*	*Flyover*	*Course/Track (°M)*	*Magnetic Variation*	*Distance (NM)*	*Turn Direction*	*Altitude (ft)*	*Speed (kts)*	*VPA/ TCH*	*Navigation Specification*
001	CF	BW584	-	278	0.0	-	-	-	-	-	RNP-1
002	TF	BW585	-	296	0.0	16	R	-	-	-	RNP-1
003	TF	SABOS	-	299	0.0	13	R	+8000	-	-	RNP-1
004	TF	LAMES	-	326	0.0	8.4	R	-	-	-	RNP-1

THARA 1B SID CODING TABLE

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	-	-	278°	0.0	-	R	@1000	-	-	RNP-1
002	DF	BW502	-	-	0.0	-	L	@5000	-	-	RNP-1
003	TF	THARA	-	318°	0.0	19.5	-	+10500	-	-	RNP-1

7. RNP 1 STARs CODING TABLE

LAMES 1R STAR CODING TABLE

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	LAMES	-	-	-	-	-	+10500	-	-	RNP-1
002	TF	BEGAV	-	120°	-	25.6	L	-	-	-	RNP-1
003	TF	KASBO		092°	-	11.0	-	+7500	-	-	RNP-1
004	TF	REPOX	-	092°	-	18.1	-	+6500	-	-	RNP-1

LAMES 1S STAR CODING TABLE

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	LAMES	-	-	-	-	-	+10500	-	-	RNP-1
002	TF	GUTAM	-	090°	-	8.8	R	-	-	-	RNP-1
003	TF	KASBO	-	118°	-	27.7	L	+7500	-	-	RNP-1
004	TF	REPOX	-	092°	-	18.1	-	+6500	-	-	RNP-1

NARAN 1S STAR CODING TABLE

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	NARAN	-	-	-	-	-	+10500	-	-	RNP-1
002	TF	KABIG	-	252°	-	21.3	-	-	-	-	RNP-1
003	TF	MAKPA	-	252°	-	9.3	-	+7500	-	-	RNP-1

LAMES 1T STAR CODING TABLE

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	LAMES	-	-	-	-	-	+10500	-	-	RNP-1
003	TF	HARRE	-	121°	-	14.7	L	-	-	-	RNP-1
004	TF	BEGAV	-	118°	-	11.0	-	+6000	-	-	RNP-1

LAMES 1U STAR CODING TABLE

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	LAMES	-	-	-	-	-	+10500	-	-	RNP-1
003	TF	SABOS	-	146°	-	8.4	L	-	-	-	RNP-1
004	TF	KAGOL	-	133°	-	15.9	-	+5200	-	-	RNP-1

KAKUN 1T STAR CODING TABLE

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	KAKUN	-	-	-	-	-	+10500	-	-	RNP-1
003	TF	BIMAL	-	289°	-	7	L	+10500	-	-	RNP-1
004	TF	KALGA	-	259°	-	24.2	R	+9500	-	-	RNP-1
005	TF	BOBAD	-	278°	-	10.9	-	+8500	-	-	RNP-1
006	TF	BEGAV	-	278°	-	10.8	-	+6000	-	-	RNP-1

NARAN 1R STAR CODING TABLE

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	NARAN	-	-	-	-	-	+10500	-	-	RNP-1
003	TF	BIMAL	-	268°	-	21.3	L	-	-	-	RNP-1
004	TF	BUVOS	-	258°	-	8	-	+8000	-	-	RNP-1
005	TF	REPOX	-	258°	-	8.4	-	+6500	-	-	RNP-1

8. RNP APPROACH CODING TABLE

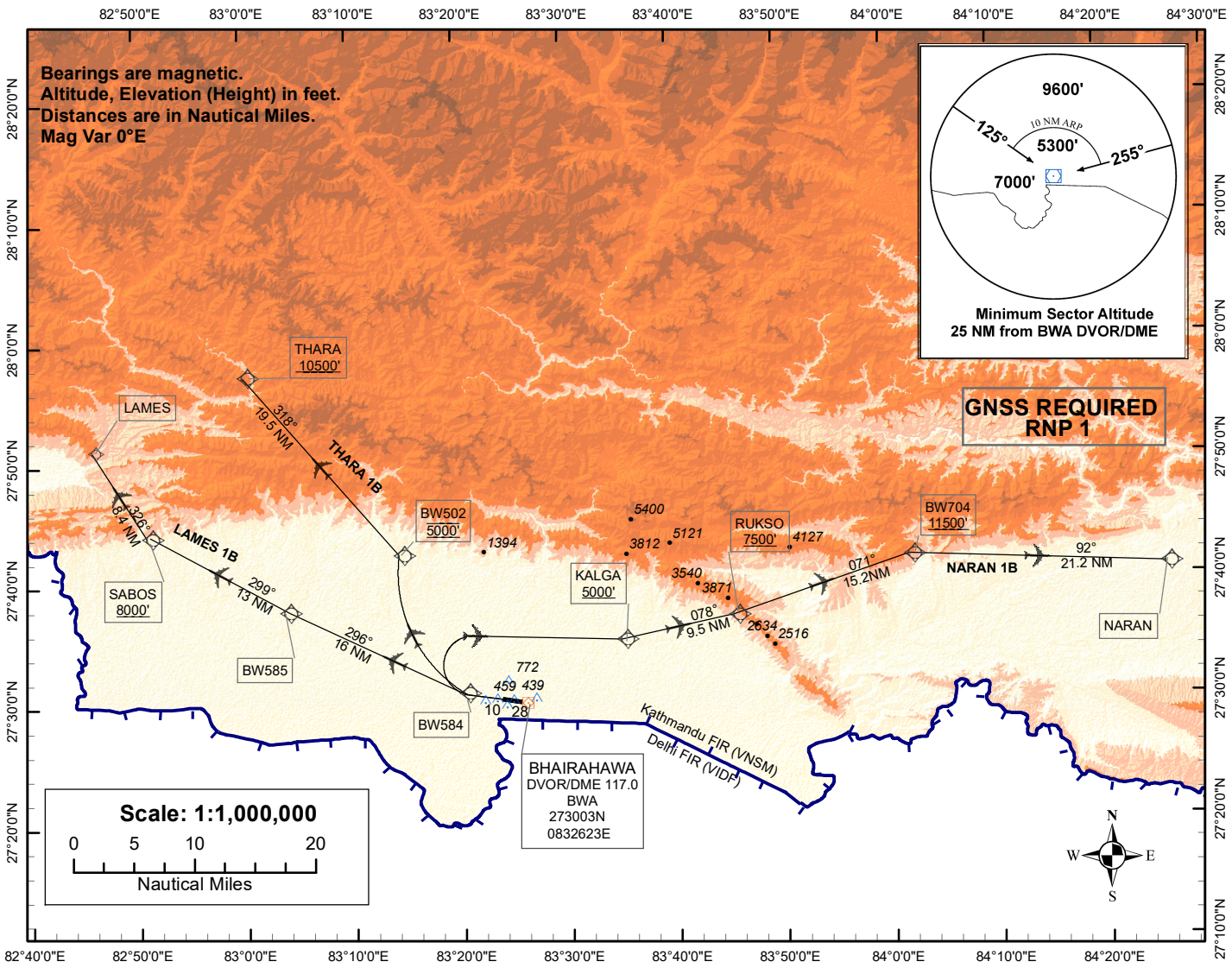
RNP RWY 10 (LNAV ONLY) APPROACH CODING TABLE

Serial No.	*Path Descriptor*	*Waypoint Identifier*	*Fly-over*	*Course/Track (°M)*	*Magnetic Variation*	*Distance (NM)*	*Turn Direction*	*Altitude (ft)*	*Speed (kts)*	*VPA/ TCH*	*Navigation Specification*
001	IF	BEGAV (IAF)	-	-	0.0	-	-	+5700	-	-	RNP APCH
002	TF	PIBOD (IF)	-	189°	0.0	6.0	L	+4000	-	-	RNP APCH
001	IF	KAGOL (IAF)	-	-	0.0	-	-	+5200	-	-	RNP APCH
002	TF	PIBOD (IF)	-	98°	0.0	5.0	-	+4000	-	-	RNP APCH
001	**TF**	PIBOD (IF)	-	-	0.0	-	-	+4000	-	-	RNP APCH
002	TF	BW616 (FAF)	-	98°	0.0	5.0	-	+2800	-	-	RNP APCH
003	TF	RWY10	Y	98°	0.0	7.6	-	+397	-	3.00/50	RNP APCH
004	CA	RWY10	-	98°	0.0	-	L	@ 780	-	-	RNP APCH
005	DF	BOBAD	-	-	0.0	-	-	+2600	-	-	RNP APCH
006	TF	BEGAV	-	278°	0.0	10.8	-	+5700	-	-	RNP APCH
007	HM	BEGAV (MAHF)	-	120°	0.0	-	R	+6000	-190	-	RNP1

| RNP Y RWY 28 (LNAV/VNAV, LNAV ONLY) APPROACH CODING TABLE

Serial No.	*Path Descriptor*	*Waypoint Identifier*	*Fly-over*	*Course/Track (°M)*	*Magnetic Variation*	*Distance (NM)*	*Turn Direction*	*Altitude (ft)*	*Speed (kts)*	*VPA/ TCH*	*Navigation Specification*
001	IF	MAKPA (IAF)	-		0.0°	-	-	+7500	-	-	RNP APCH
002	TF	BASUB (IF)	-	271°	0.0°	8.4	L	+5100	-	-	RNP APCH
001	IF	REPOX (IAF)			0.0°			+6500			RNP APCH
002	TF	BASUB (IF)	-	181°	0.0°	5.1	R	+5100	-	-	RNP APCH
001	IF	BASUB (IF)	-	-	0.0°	-	-	+5100	-	-	RNP APCH
002	TF	BW101 (FAF)	-	256°	0.0°	7.0	R	+ 3300	-	-	RNP APCH
003	TF	RWY28 (MAPt)	Y	270°	0.0°	9.1	-	+ 397		3.00/50	RNP APCH
004	CA	RWY28 (MAPt)	-	270°	0.0°	-	R	@770	-160	-	RNP APCH
005	DF	MAKAB (MAHF)	-	-	0.0°	-	-	+5700	-	-	RNP APCH
006	HM	MAKAB (MAHF)	-	111°	0.0°	-	R	@6000	-190	-	RNP1

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO	AERODROME ELEV 347' TRANS LEVEL: FL 150 TRANS ALT: 13,500 ft.	TWR 119.55 MHz APP 124.95 MHz ATIS 128.05 MHz	BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport RWY 28 NARAN 1B, LAMES 1B,THARA 1B

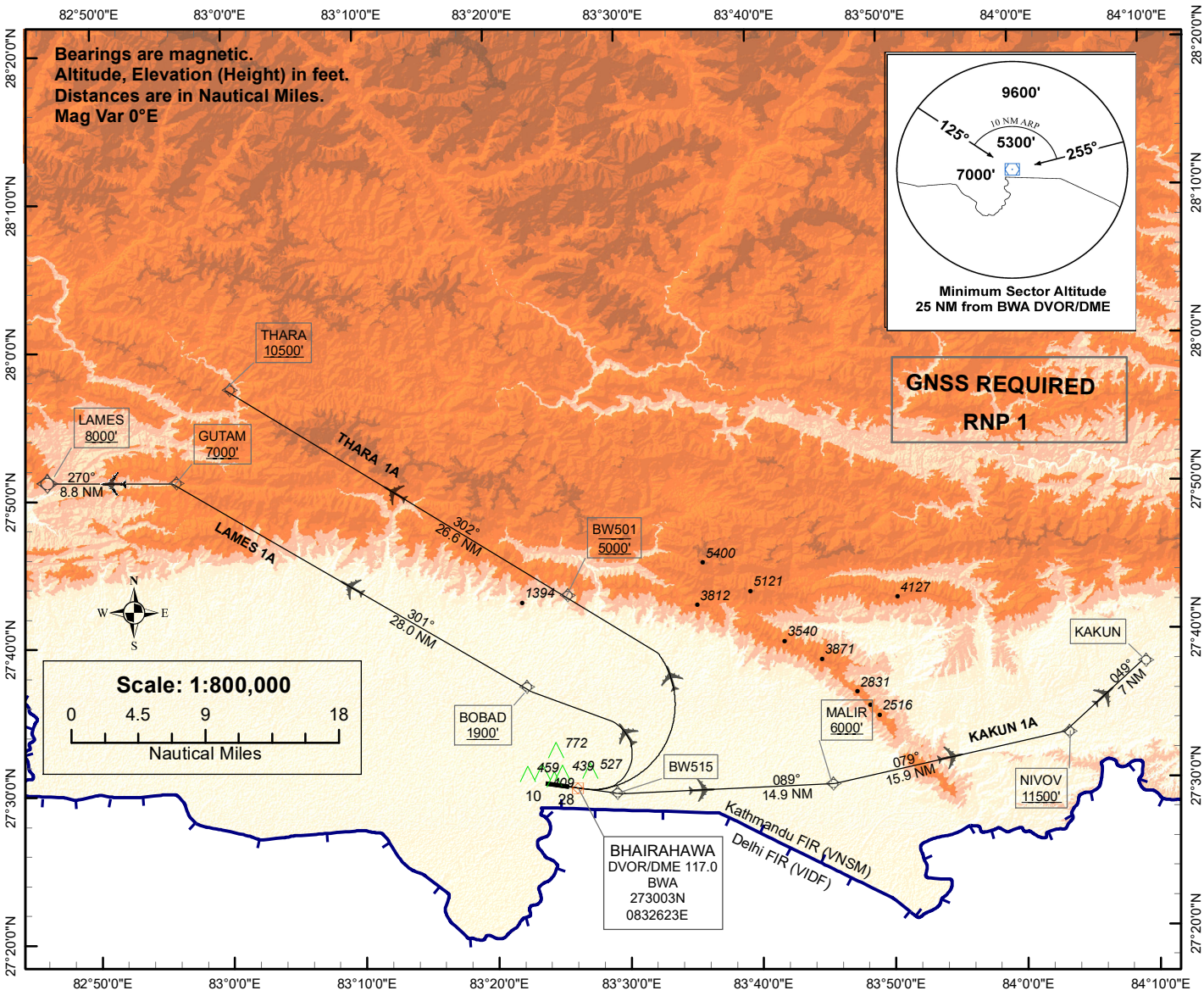


NARAN 1 B (PDG 5%)
Climb on runway course passing 1060ft turn right direct to KALGA at or above 5000 ft then to RUKSO at or above 7500 ft then to BW704 at or above 11500 ft then to NARAN.

LAMES 1 B (PDG 4%)
Climb on runway course to BW584 and then to BW585 then to SABOS at or above 8000ft. then to LAMES.

THARA 1 B (PDG 5%)
Climb on runway course at 1000' ft turn right direct to BW502 at 5000 ft then to THARA at or above 10500ft.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO	AERODROME ELEV 347' TRANS LEVEL: FL 150 TRANS ALT: 13,500 ft.	TWR 119.55 MHz APP 124.95 MHz ATIS 128.05 MHz	BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport RWY 10 KAKUN 1A, LAMES 1A, THARA 1A



KAKUN 1 A (Climb Graident 5.6%)

Climb on runway course to BW515 (MAX IAS 200Kt) then MALIR at or above 6000 ft then to NIVOV at or above 11500 ft then to KAKUN .

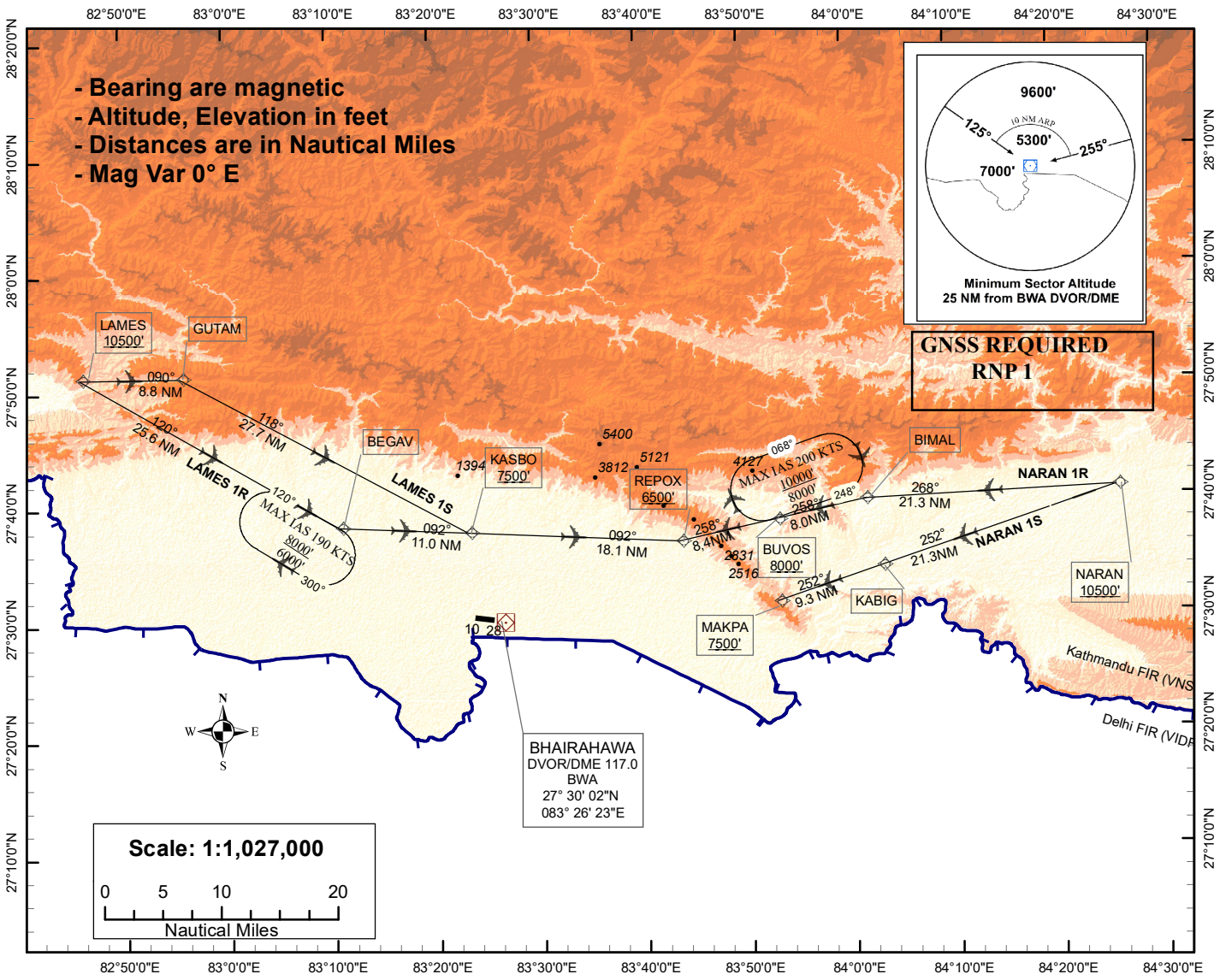
LAMES 1 A

Climb on runway course (MAX IAS 200Kt) at 960ft. turn left direct to BOBAD at or above 1900 ft. then to GUTAM at or above 7000 ft then to LAMES at or above 8000ft.

THARA 1 A (Climb Graident 5.0%) (No turn before DER)

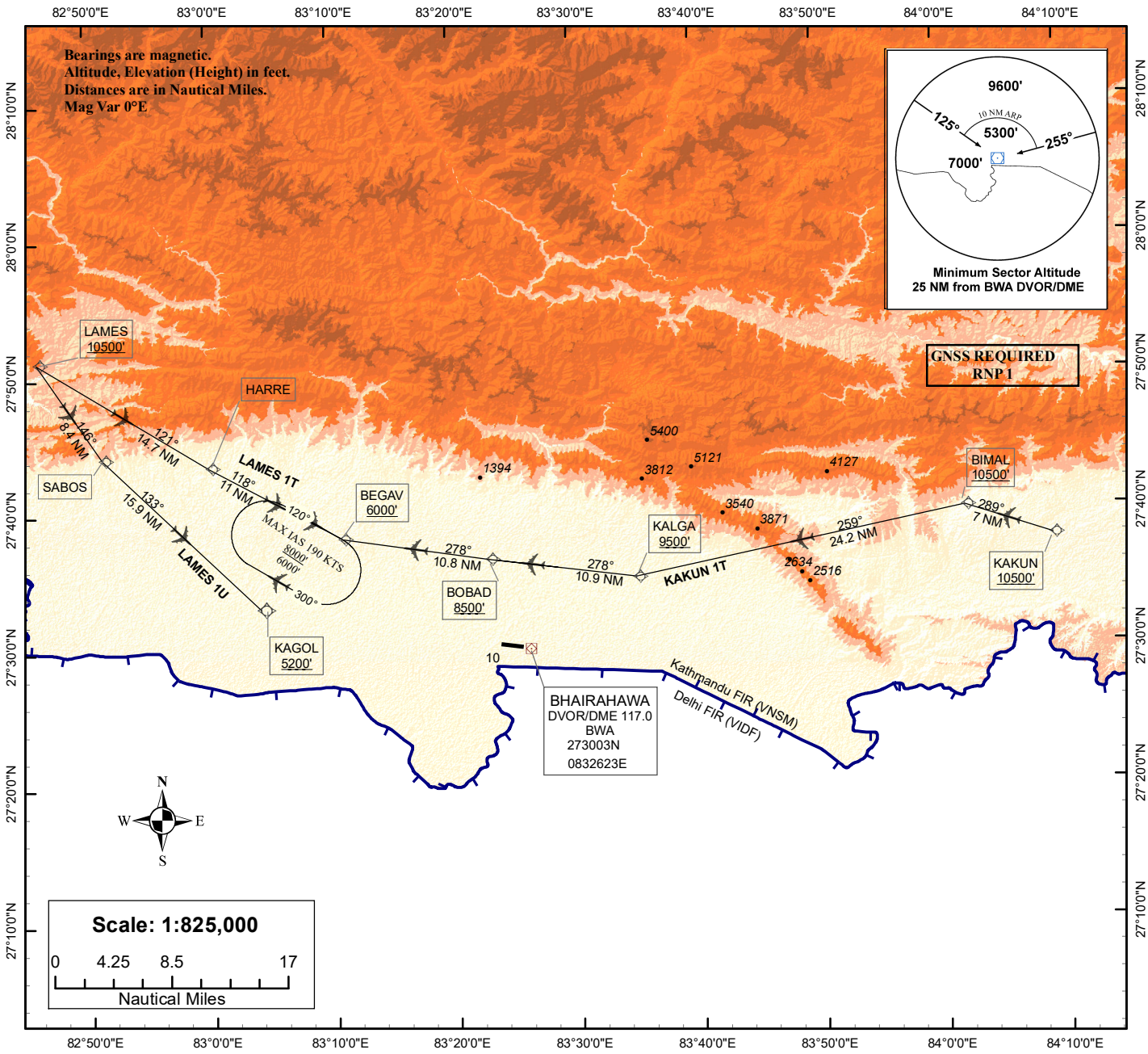
Climb on runway course at 960ft. turn left direct to BW501 at 5000 ft then to THARA at or above 10500ft.

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO	**AERODROME ELEV 347' TRANS LEVEL: FL 150 TRANS ALT: 13,500 ft.**	**TWR 119.55 MHz APP 124.95 MHz ATIS 128.05 MHz**	**BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport RWY 28 LAMES 1R, LAMES 1S NARAN 1R, NARAN 1S,**



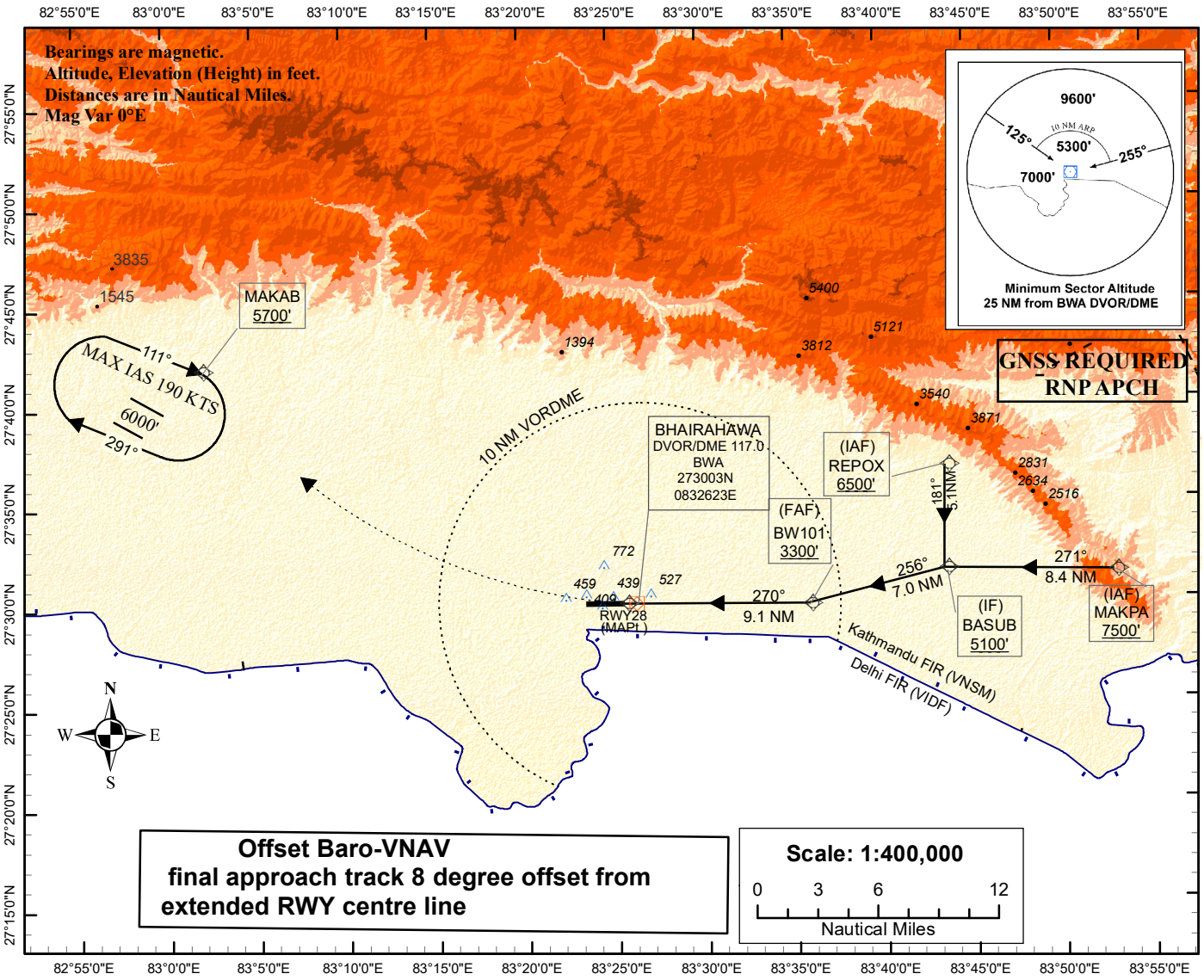
STAR	Routes
LAMES 1 R	From LAMES to BEGAV then to KASBO at or above 7500 ft then to REPOX at or above 6500 ft.
LAMES 1S	From LAMES to GUTAM then to KASBO at or above 7500 ft then to REPOX at or above 6500 ft.
NARAN 1R	From NARAN to BIMAL then to BUVOS at or above 8000ft and then to REPOX at or above 6500 ft .
NARAN 1S	From NARAN to KABIG and then to MAKPA at or above 7500 ft .

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO	AERODROME ELEV 347' TRANS LEVEL: FL 150 TRANS ALT: 13,500 ft.	TWR 119.55 MHz APP 124.95 MHz ATIS 128.05 MHz	BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport RWY 10 LAMES 1T, LAMES 1U, KAKUN 1T

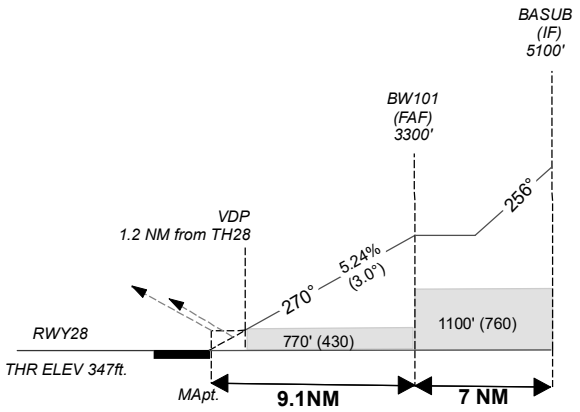


STAR	Routes
LAMES 1 T	From LAMES to HARRE then to BEGAV at or above 6000 ft.
LAMES 1 U	From LAMES to SABOS then to KAGOL at or above 5200 ft.
KAKUN 1 T	From KAKUN track to BIMAL at or above 10500 ft then to KALGA at or above 9500 ft and then to BOBAD at or above 8500 ft then to BEGAV at or above 6000 ft.

INSTRUMENT APPROACH CHART-ICAO	AERODROME ELEV 347' HEIGHT RELATED TO THR RWY 28 - ELEV 347' ATIS 128.05 MHz	TWR 119.55 MHz APP 124.95 MHz LNAV/VNAV Temp Range 0° C to 61° C	BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport RNP Y RWY 28 (LNAV/VNAV, LNAV Only)



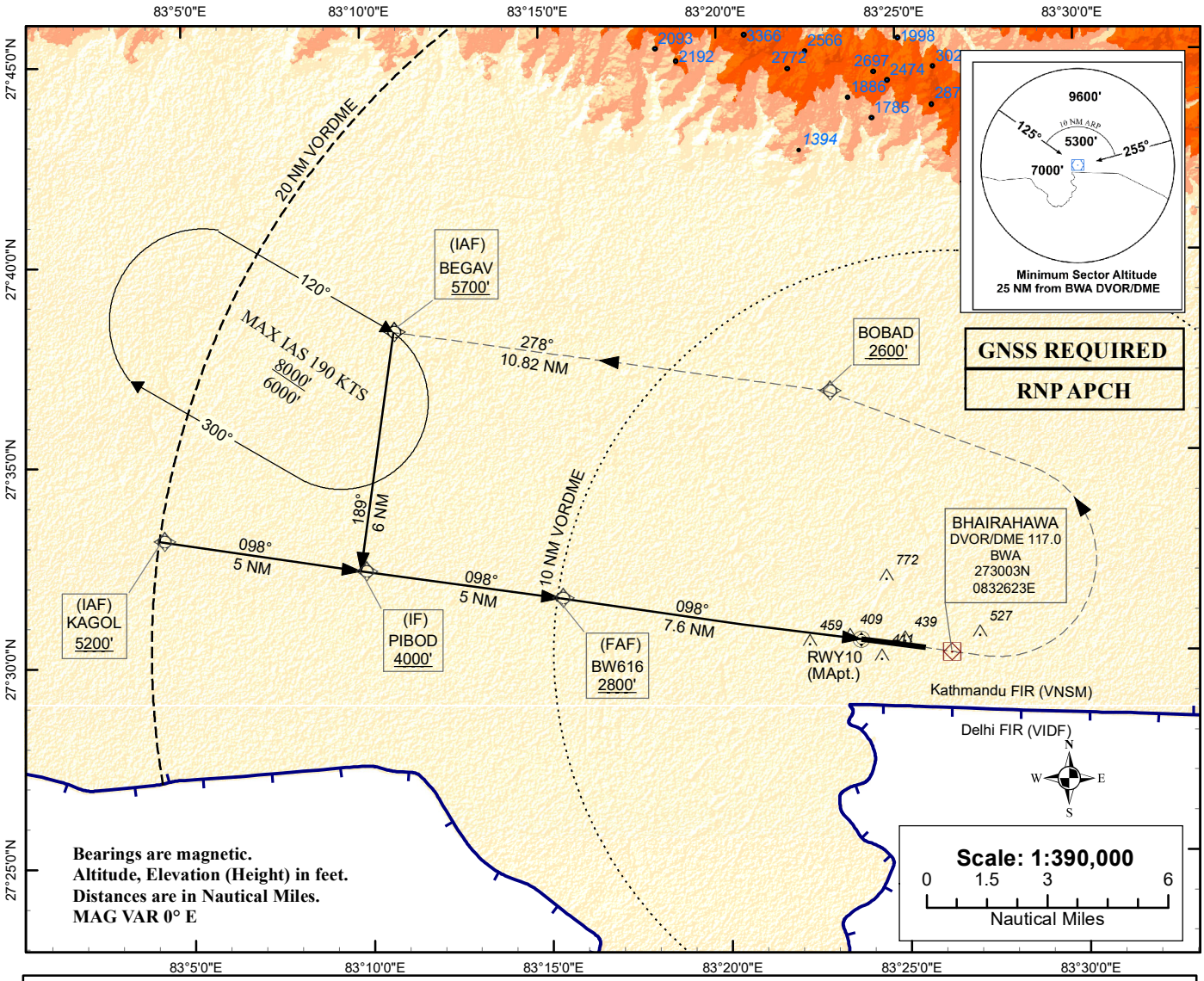
MISSED APPROACH: (Climb Graident 3.5 %) Climb straight ahead at 770ft. then turn right (Maximum turning IAS 160Kts) direct to MAKAB at or above 5700ft then hold at MAKAB at 6000ft or as instructed by ATC.

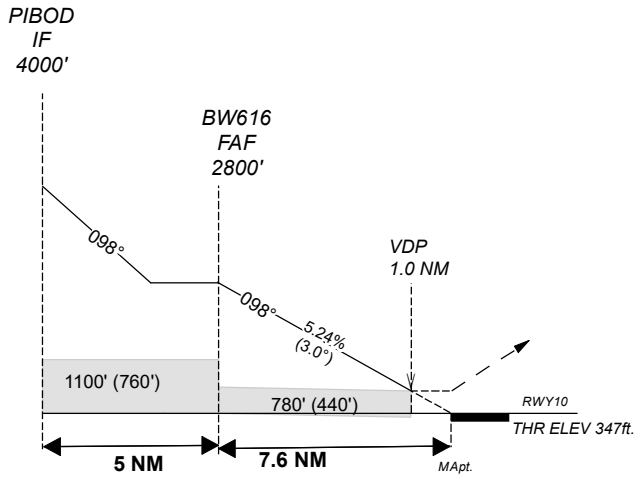


Category		CAT A	CAT B	CAT C
LNAV/VNAV	DA/DH	770' (430')		
	VIS*	2200m		
LNAV	OCH	770' (430')		
	VIS*	2200m		
CIRCLING*	OCH	1070' (730')		1170' (830')
	VIS	3400m		3800m
	CIRCLING AT NIGHT IS NOT AUTHORIZED			

* Circling to the South of Runway is prohibited

INSTRUMENT APPROACH CHART-ICAO	AERODROME ELEV 347' HEIGHT RELATED TO THR RWY 10 - ELEV 347'	TWR 119.55 MHz APP 124.95 MHz ATIS 128.05 MHz	BHAIRAHAWA, NEPAL (VNBW) Gautam Buddha International Airport RNP RWY 10 (LNAV Only)





MISSED APPROACH:(Climb gradient 4.8 %)

Turn left (MAX IAS 185kts) direct to BOBAD at or above 2600 ft then to BEGAV at or above 5700 ft or follow ATC Instruction.

Category		CAT A	CAT B	CAT C	CAT D
LNAV	OCA(OCH)	780' (440')			
	VIS*	1800m			
CIRCLING*	OCA(OCH)	1070' (730')		1170' (830')	
	VIS	3400m		3800m	
	CIRCLING IS NOT AUTHORIZED AT NIGHT				

* FOR ALS OUT, increase VIS by 300m
* Circling to the South of Runway is prohibited

RNP AR (Authorization Required) approach procedure at GAUTAM BUDDHA INTERNATIONA AIRPORT (VNBW)

1. INTRODUCTION

1.1 This RNP AR Approach Procedure is designed for VNBW in accordance with the criteria as stipulated in the ICAO RNP AR Manual (DOC 9905).

1.2 A full arrival, approach and missed approach procedure have been designed for Runway 28.

1.3 The RNP AR Approach Procedure to VNBW is designed to enhance the overall safety of the operation by facilitating the aircraft energy management and to improve the airport access, while taking into account ATC constraints.

2. APPROVED USERS, EQUIPMENT AND OPERATIONS

2.1 For the RNP AR Instrument Approach Procedure, the operators shall ensure that they hold all the necessary operational approvals as part of the Operations Specifications of the AOC from its authority including the Baro VNAV Approval in order to conduct the RNP AR Approach to VNBW. (Ref to ICAO PBN Manual, Doc 9613)

2.2 The operator must have a Special Authorization from its authority in order to use the RNP AR approaches to VNBW. (Ref to EASA AMC 20-26, FAA AC 90-101A or equivalent)

2.3 The operators shall seek authorization from Civil Aviation Authority of Nepal to conduct VNBW RNP AR Approach procedure at GBIA.

2.4 The operator is responsible of conducting a Flight Operational Safety Assessment (FOSA) including the Flight Simulation of the procedure.

2.5 The RNP AR approach procedures require a navigation accuracy of RNP 0.3 and RF-leg capability.

2.6 The vertical guidance is based on Baro VNAV with GNSS and requires RNAV equipment which uses barometric altimeter input.

3. NAMING OF PROCEDURES

There is one RNP AR approach procedure to runway 28. The ICAO naming convention isused as RNP RWY28 (AR).

RWY	Name of Approach
28	RNP RWY 28 (AR)

4. RAIM-CHECK

During flight planning or before dispatching the aircraft, the pilot shall ensure a RAIM check with a mask angle appropriate to the terrain (Minimum mask angle 5°).

5. LIMITATIONS OF THE PROCEDURES

The procedure is designed for a temperature down to 0°C. (Temperature correction of the barometric altimeter is not required).

6. RNP CAPABILITY LOST

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

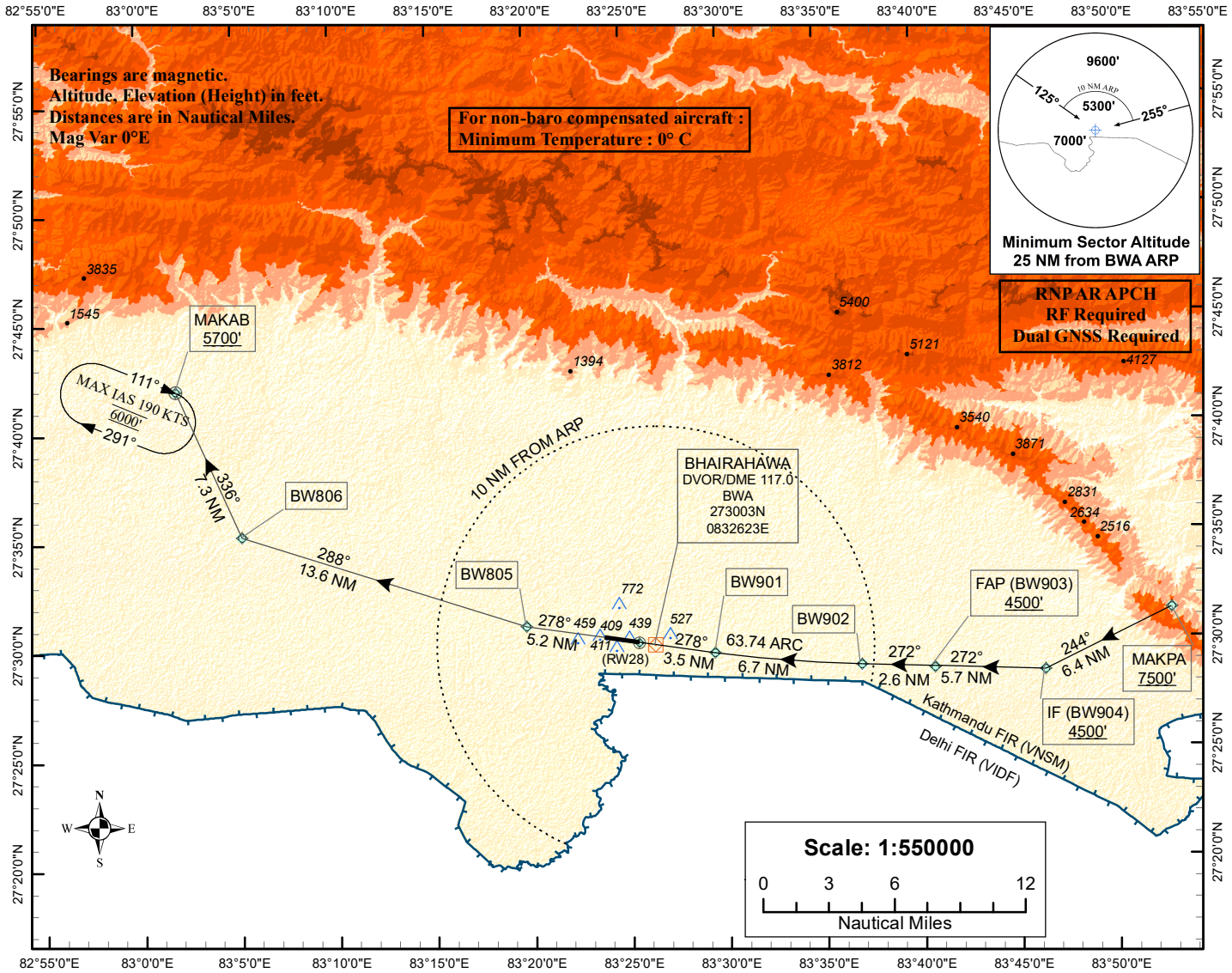
7. LIST OF WAYPOINTS

MAKPA	27°31' 20.3360" N / 083°52' 57.0390" E
BW904	27°28' 35.4235" N / 083°46' 25.2536" E
BW903	27°28' 51.0625" N / 083°39' 56.9588" E
BW902	27°28' 58.0948" N / 083°36' 59.8709" E
BW901	27°29' 37.4169" N / 083°29' 26.0378" E
RW28	27°30' 09.6890" N / 083°25' 32.9289" E
BW805	27°30' 57.4685" N / 083°19' 46.2920" E
BW806	27°35' 15.0752" N / 083°05' 13.5822" E
MAKAB	27°41' 57.4672" N / 083°01' 54.2732" E
BWC91 (ARC CENTER)	28°32' 47.5916" N / 083°40' 13.7344" E

8. APPROACH CODING TABLE

Serial Number	Path Descriptor	Waypoint Identifier	Fly-Over	Course/Track ° M (° T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (Kt)	VPA/TCH	Navigation Specification
010	IF	MAKPA	-		-	-	-	+7500	-	-	RNP1
020	TF	BW904	-	244 (244.7)	-	6.4	-	+4500	-	-	RNP1
010	IF	BW904	-	-	-	-	-	+4500	-	-	RNP1
020	TF	BW903	-	272(272.6)	-	5.7	-	+4500	-	-	RNP0.3
030	TF	BW902	-	272(272.6)	-	2.6	-	-	-	-	RNP 0.3
040	RF Center:BWC91 r=63.74 NM	BW901	-	-	-	-	R	-	-	-	RNP 0.3
050	TF	RW28	Y	278(272.8)	-	3.5	-	@395	-	3/50	RNP 0.3
060	TF	BW805	-	278(278.8)	-	5.2	-	-	-	-	RNP1
070	TF	BW806	-	288(288.3)	-	13.6	-	-	-	-	RNP1
080	TF	MAKAB	Y	336(336.2)		7.3	-	+5700			RNP1
090	HM	MAKAB	-	111(111.9)	-	1 minute	R	@ 6000	190	-	RNP1

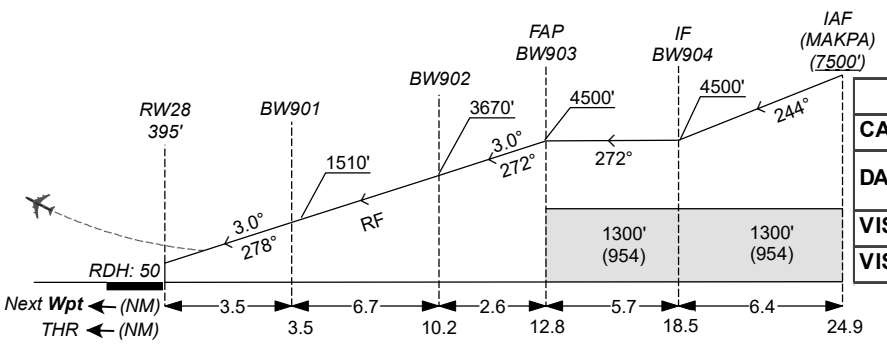
INSTRUMENT APPROACH CHART-ICAO	AERODROME ELEV 347' HEIGHT RELATED TO THR RWY 28 - ELEV 347'	TWR 119.55 MHz APP 124.95 MHz Temp Range 0° C to 61° C	BHAIRAHAWA, NEPAL (VNBW) Gautambuddha International Airport RNP Z RWY 28 (AR)



Trans Alt: 13500'

MISSED APPROACH: (Climb Gradient 2.5%)

To BW805 then to BW806 turn right to MAKAB at or above 5700 ft.



RNP 0.3				
CAT	A	B	C	D
DA (H)	580 (233)	590 (243)	600 (253)	610 (263)
VIS (m) ALS	800		900	
VIS (m) no ALS	1200		1300	