## **AD 2 AERODROME**

## **ROAH AD 2.1 AERODROME LOCATION INDICATOR AND NAME**

## **ROAH - NAHA**

## ROAH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	261136N/1273823E
		197°/1.86km from RWY 18L THR
2	Direction and distance from (city)	4km (2nm) W of Naha city office
3	Elevation/ Reference temperature	11ft / 32°C (2004-2008)
4	Geoid undulation at AD ELEV PSN	103ft
5	MAG VAR/ Annual change	5°W (2008) / 1.8 ' W
6	AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses	Naha Airport Office (CAB) 531-3,Ashimine Naha City, Okinawa Pref. AFS:ROAHYFYX Tel:098(857)1101, 098(857)1107(ATS)
7	Types of traffic permitted(IFR/VFR)	IFR/VFR
8	Remarks	Nil

## **ROAH AD 2.3 OPERATIONAL HOURS**

1	AD Administration	H24
2	Customs and immigration	Customs: H24 Immigration: 2130-1300
3	Health and sanitation	Quarantine(human): 0000-0600 Quarantine(animal): 2200-1330 Quarantine(plant): 2230-1300
4	AIS Briefing Office	H24
5	ATS Reporting Office(ARO)	Nil
6	MET Briefing Office	H24
7	ATS	H24
8	Fuelling	H24
9	Handling	H24
10	Security	2130 - 1200
11	De-icing	Nil
12	Remarks	Nil

## **ROAH AD 2.4 HANDLING SERVICES AND FACILITIES**

1	Cargo-handling facilities	All modern facilities handling weights up to 249,250lb / 113,000kg.
2	Fuel/ oil types	Fuel grades : (CIV) JET A-1, 100/130 (JSDF) JET A-1 PLUS Oil grades : Turbine grade on prior arrangement. All piston grades
3	Fuelling facilities/ capacity	Fuel truck refueling / Ask AD administration
4	De-icing facilities	Nil
5	Hangar space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

## **ROAH AD 2.5 PASSENGER FACILITIES**

1	Hotels	Hotels in the city
2	Restaurants	At airport
3	Transportation	Monorail, buses and taxis
4	Medical facilities	Hospitals in the city
5	Bank and Post Office	At airport
6	Tourist Office	At airport
7	Remarks	Nil

## **ROAH AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

1	AD category for fire fighting	CAT 9
2	Rescue equipment	Chemical fire fighting truck x 3 Water supply truck Lighting power supply truck Emergency medical equipments conveyance truck
3	Capability for removal of disabled aircraft	Ask AD administration
4	Remarks	Nil

## **ROAH AD 2.7 SEASONAL AVAILABILITY-CLEARING**

1	Types of clearing equipment	Not applicable
2	Clearance priorities	Not applicable
3	Remarks	Nil

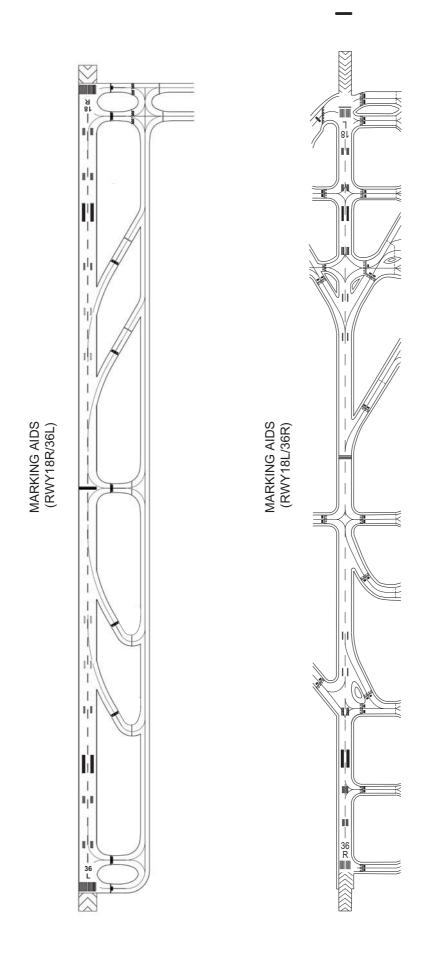
## ROAH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	Surface: Concrete and asphalt Strength: PCN 74/R/B/X/TNR1, NR2, NR3, NR4, NR5, NR6, NR7 PCN 62/R/B/X/TWEST apron, TYPHOON EVACUATION apron PCN 48/R/B/X/TRUNUP AREA PCN 22/F/A/X/TLIGHT AIRCRAFT spot	
2	Taxiway width, surface and strength	Surface: Concrete and asphalt Strength: PCN 74/R/B/X/TA1 PCN 66/F/B/X/TA2, A3 PCN 66/R/B/X/TA4, A5 PCN 76/R/B/X/TA6 PCN 102/F/C/X/TA7 PCN 84/F/B/X/TA8, A9 PCN 104/F/B/X/TB PCN 108/F/C/X/TE1 PCN 56/F/A/X/TE2 PCN 81/F/A/X/TE3 PCN 105/F/B/X/TE4 PCN 81/F/B/X/TE4 PCN 81/F/B/X/TE5 PCN 91/F/C/X/TE5 PCN 91/F/C/X/TE5 PCN 91/F/C/X/TE8 PCN 108/F/C/X/TE8 PCN 108/F/C/X/TE8 PCN 108/F/C/X/TE8 PCN 108/F/C/X/TE8 PCN 108/F/C/X/TE8 PCN 108/F/A/X/TW1 PCN 96/F/A/X/TW1 PCN 96/F/A/X/TW1 PCN 94/F/B/X/TW3 PCN 74/F/B/X/TW3 PCN 74/F/B/X/TW3 PCN 74/F/B/X/TW4 PCN 59/F/A/X/TW5 PCN 74/R/B/X/TJ1, J2, R PCN 92/F/A/X/TT5 PCN 63/F/C/X/TT5 PCN 63/F/C/X/TT5 PCN 97/F/A/X/TT8, T9 PCN 92/F/A/X/TT8, T9 PCN 92/F/A/X/TC	
		Width:  34mE2, E6, E8S, E9, W4  30mE1, E3, E4, E4C, E5, E7, E8, W2,	
3	ACL and elevation	Not available	
4	VOR checkpoints	Not available	

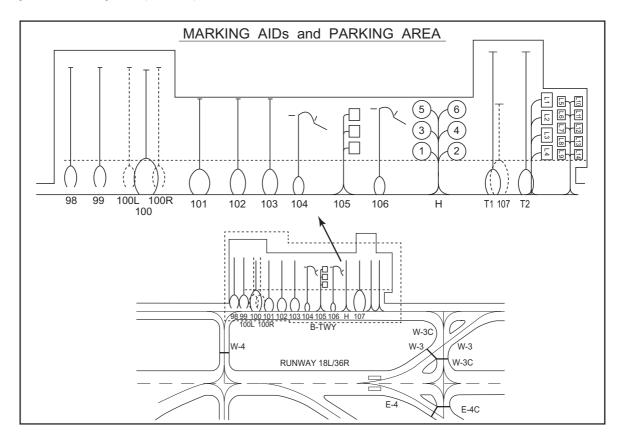
5	INS checkpoints	Spot NR	
		11 : 261210.16N/1273900.76E	100L : 261144.55N/1273830.84E
		12 : 261210.09N/1273858.76E	100 : 261145.33N/1273830.94E
		12M: 261209.66N/1273858.68E	100R : 261145.86N/1273830.78E
		13 : 261210.01N/1273856.78E	101 : 261147.83N/1273832.26E
		13M : 261209.58N/1273856.59E	102 : 261149.54N/1273832.16E
		14 : 261209.94N/1273854.80E	103 : 261151.00N/1273832.09E
		15 : 261208.84N/1273854.34E	104 : 261153.07N/1273833.10E
		13 . 201200.0+N/1213034.3+L	105 : 261154.27N/1273832.70E
		04 . 004045 04N/4072000 205	
		21 : 261215.84N/1273900.38E	106 : 261156.66N/1273832.67E
		22 : 261216.31N/1273858.00E	H : 261158.60N/1273831.87E
		23 : 261216.36N/1273855.70E	107 : 261201.28N/1273831.75E
		24 : 261217.81N/1273854.77E	
		25 : 261219.25N/1273855.50E	
		26 : 261219.51N/1273857.85E	
		27 : 261219.95N/1273900.35E	
		31 : 261225.90N/1273859.91E	
		32 : 261226.46N/1273857.58E	
		33 : 261226.45N/1273855.26E	
		34 : 261227.87N/1273854.30E	
		35 : 261229.24N/1273855.08E	
		36 : 261229.72N/1273857.04E	
		37 : 261231.50N/1273859.89E	
		41 : 261234.36N/1273859.19E	
		43R : 261238.15N/1273859.65E	
		43 : 261238.72N/1273859.61E	
		43L : 261239.58N/1273858.62E	
		44R : 261241.07N/1273859.52E	
		44 : 261241.50N/1273859.55E	
		44L : 261242.50N/1273858.48E	
		45C: 261243.35N/1273859.18E	
		45 : 261243.97N/1273858.60E	
		46C: 261245.16N/1273859.10E	
		46 : 261245.43N/1273858.53E	
		51R: 261247.61N/1273857.57E	
		51 : 261248.48N/1273858.37E	
		51L : 261249.07N/1273857.51E	
		52 : 261250.52N/1273857.42E	
		57D: 261254.40N/1273858.52E	
		61 261355 201//272000 205	
		61 : 261255.39N/1273900.89E	
		62 : 261256.57N/1273902.92E	
		63 : 261257.30N/1273904.91E	
		63E : 261257.53N/1273905.52E	
		64 : 261258.02N/1273906.89E	
		65 : 261258.74N/1273908.89E	
		65E : 261258.95N/1273909.45E	
		66 : 261259.46N/1273910.88E	
		71 : 261235.71N/1273853.69E	
		73 : 261240.74N/1273853.60E	
		74 : 261242.81N/1273853.51E	
		98 : 261141.92N/1273830.97E	
		99 : 261143.23N/1273830.90E	
6	Remarks	Nil	

## ROAH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

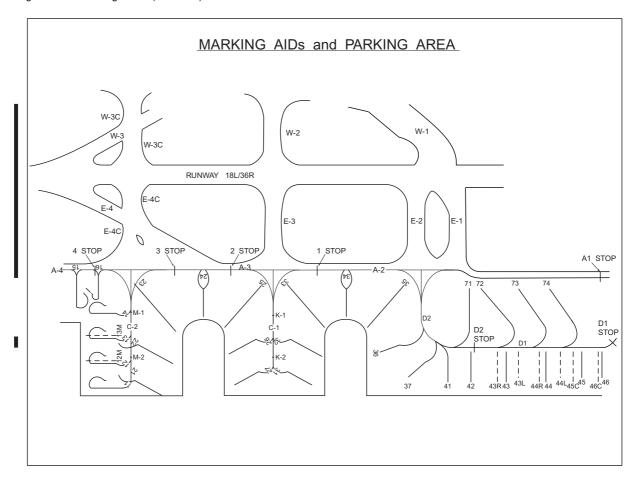
1	Use of aircraft stand ID signs,TWY guide lines and Visual docking/ parking guidance system of aircraft stands	<ul> <li>C1, C2, D1, D2, N1, N2, N3 are designated as aircraft stand taxilane intended to provide access to aircraft stands at NR1, NR2, NR3, NR4, NR5, NR6 and NR7 apron.</li> <li>Aircraft stand identification sign: SPOT NR21 - 27, 31 - 37, 41 - 44</li> </ul>
2	RWY and TWY markings and LGT	RWY: RWY18L/36R, 18R/36L (Marking) RWY designation, RWY CL, RWY THR, Aiming point, TDZ, RWY side stripe (LGT) REDL, RCLL, RTHL, RENL, RTZL(RWY36R, 18R/36L), WBAR  TWY: All TWY (Marking) TWY CL, RWY HLDG PSN, TWY side stripe, Mandatory instruction (LGT) TWY edge LGT, Taxiing guidance sign  TWY: E1 - E10, W1 - W5, A1 - A9, B, J1, J2, T1 - T9, C, R, ACFT stand taxilane C1, C2, D1, D2, N1 - N3 (LGT) TWY CL LGT  TWY: E1 - E10, W1 - W5, T1 - T9 (LGT) RWY guard LGT  TWY: E1, E2, E3, E4, E4C, E5, E6, E7, E8, E9, A2 - A4, B, J1, J2, T3 - T7 (Marking) Intermediate HLDG PSN (See Figure "Marking AIDs and Parkings Area (East side)")  TWY: A8, T1, T2 (Marking) Intermediate HLDG PSN LGT  TWY: E1, E2 (LGT) RWY Entrance LGT (RWY status LGT) (See attached chart)  TWY: T3, T4, T6, T7 (LGT) Rapid exit TWY indicator LGT
3	Stop bars	Stop bar LGT: E1, E2, E4, E5 - E10, T1 - T9 Stop bar lights Operations  1) Stop bar lights are installed at each taxi holding position associated with Runway 18L/36R, 18R/36L.  2) Stop bar lights will be operated when the visibility or the lowest RVR of the runway 18L/36R and/or 18R/36L is at or less than 600m.  3) Stop bar lights on taxiways E1, E2, E9, E10, T1, T2, T8 and T9 are controlled individually by ATC.  4) Stop bar lights on taxiways E4, E5 THRU E8S and T3 THRU T7 are not controlled individually by ATC.  5) During the period stop bar lights operated, taxiways E4, E5 THRU E8S and T3 THRU T7 are not available for departure aircraft.
4	Remarks	(Marking) Overrun area, Stop line(N2, N3) (LGT) Apron flood LGT



Marking AIDs and Parkings Area (West side)

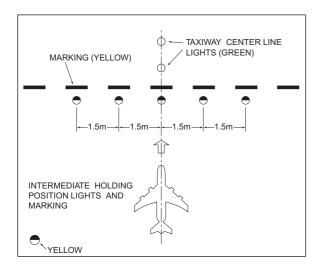


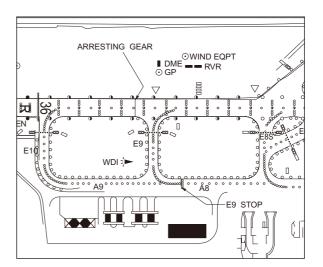
Marking AIDs and Parkings Area (East side)



## Intermediate Holding Position Marking and Intermediate Holding Position Lights

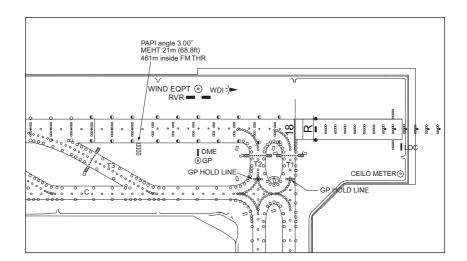
The Intermediate Holding Position Marking indicates the position where aircraft is to hold to prevent collision with other aircraft on the taxiway. The Intermediate Holding Position Lights are collocated with the Intermediate Holding Position Marking and synchronized with the taxiway center line lights. The Intermediate Holding Position Lights consist of 5 yellow lights and the Intermediate Holding Position Marking is a single broken line as illustrated in the figure below;

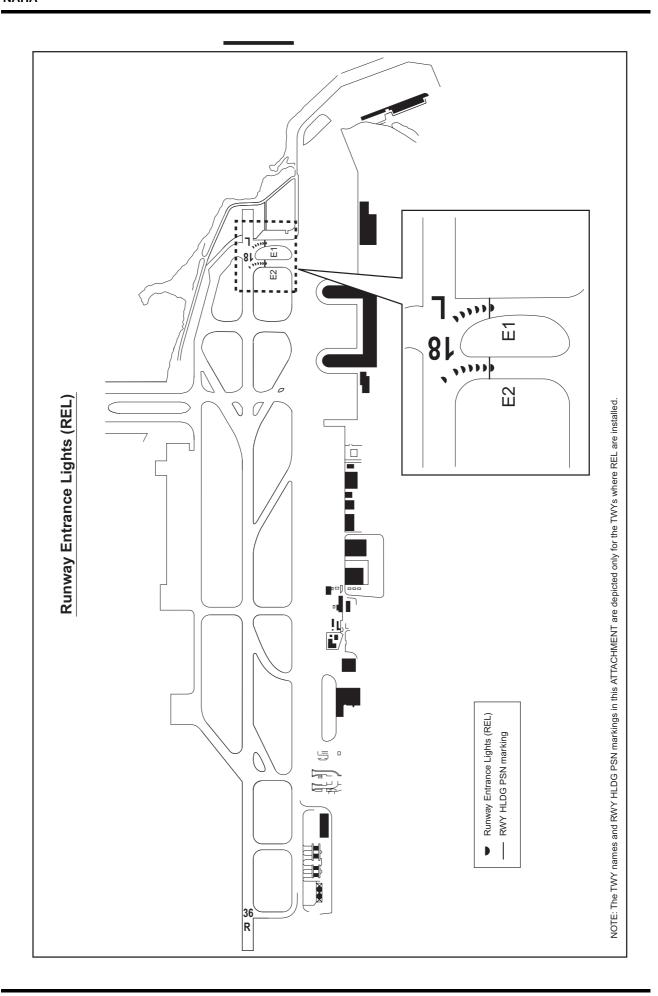




# **GP HOLD LINE**

The "GP HOLD LINE" is installed on TWY T1 AND T2, consists of Intermediate holding position lights and marking. (see below figure, and AD2.24-ADC-1 AD CHART) REF AD2.20.2.2.1 for taxiing procedure on the "GP HOLD LINE".





AIP Japan NAHA

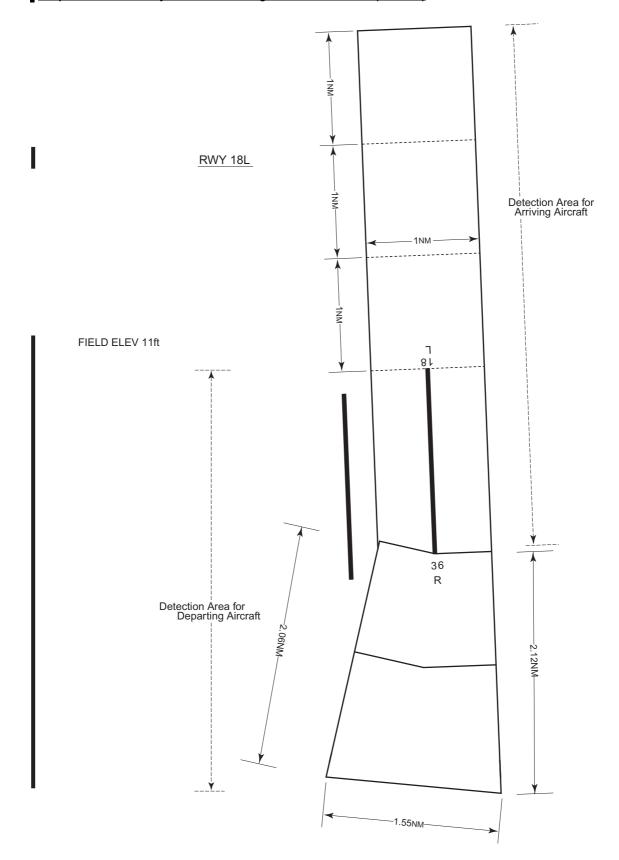
## **ROAH AD 2.10 AERODROME OBSTACLES**

- In Area2 See Obstacle data
- In Area3 To be developed

## **ROAH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED**

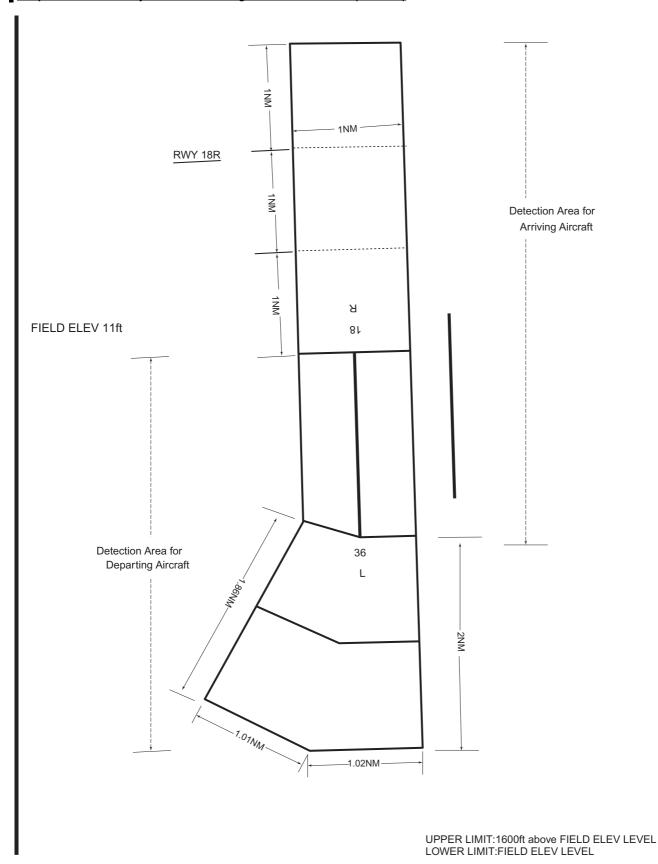
1	Associated MET Office	NAHA
2	Hours of service MET Office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	NAHA 30 Hours
4	Trend forecast Interval of issuance	Nil
5	Briefing/consultation provided	P,Ja,En
6	Flight documentation Language(s) used	C En
7	Charts and other information available for briefing or consultation	$\begin{split} &S_{6},U_{85},U_{7},U_{5},U_{3},U_{25},U_{2}/T_{r},P_{S},P_{5},P_{3},P_{25},P_{SWE},P_{SWF},P_{SWG},P_{SWI},\\ &P_{SWM},P_{SW}(\text{domestic}),E,C,W_{E},W_{F},W_{G},W_{I},W,N \end{split}$
8	Supplementary equipment available for providing information	Doppler Radar for Airport Weather (See attached chart)
9	ATS units provided with information	TWR, GCA, APP, ATIS
10	Additional information(limitation of service, etc.)	Nil

## Airspace for the advisory service concerning low level wind shear (RWY18L)

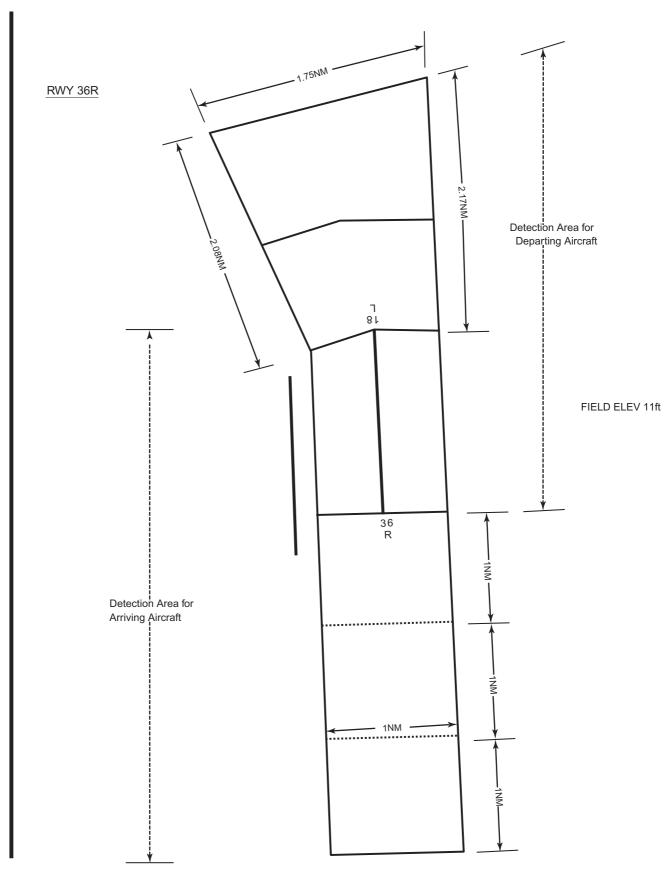


UPPER LIMIT:1600ft above FIELD ELEV LEVEL LOWER LIMIT:FIELD ELEV LEVEL

## Airspace for the advisory service concerning low level wind shear (RWY18R)

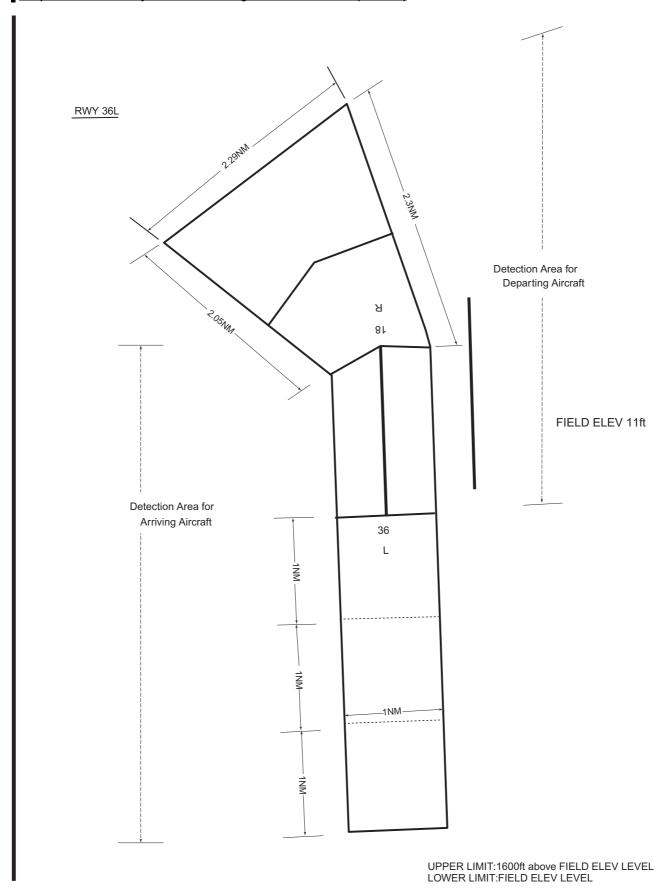


## Airspace for the advisory service concerning low level wind shear (RWY36R)



UPPER LIMIT:1600ft above FIELD ELEV LEVEL LOWER LIMIT:FIELD ELEV LEVEL

## Airspace for the advisory service concerning low level wind shear (RWY36L)



## **ROAH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS**

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength(PCN) and surface of RWY	THR coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY	
1	2	3	4	5	6	
18L	177.30°	3000 × 45	PCN 115/F/A/X/T Asphalt	261233.63N/ 1273842.84E 104FT	THR ELEV: 11FT TDZ ELEV: 11.5FT	
36R	357.30°	3000 × 45	PCN 115/F/A/X/T Asphalt	261056.24N/ 1273847.41E 103FT	THR ELEV: 9.1FT TDZ ELEV: 10.7FT	
18R	177.30°	2700 × 60	PCN 78/F/A/X/T Asphalt	261211.00N/ 1273756.64E 103FT	THR ELEV: 16.3FT TDZ ELEV: 13.8FT	
36L	357.30°	2700 × 60	PCN 78/F/A/X/T Asphalt	261043.34N/ 1273800.77E 103FT	THR ELEV: 14.0FT TDZ ELEV: 14.0FT	
Slope o	f RWY	Strip Dimensions(M)		(Overrun) sions (M)	Remarks	
7 7		10		11	14	
See attach	ed chart	3120 × 300	90×(MNM:195 MAX:300)*		RWY grooving: 3000 x 30r	
		3120 × 300	•	190 MAX:290)* airport administrator		
See attach	ed chart	2820 × 300	240	0×300	RWY grooving: 2700 × 40r	
		2820 × 300	240	0×300		
RWY36F	92 9.1 10.0	10.8 0.04% 0.	10.9 10.1 11.7 01% 0.14% 0.22% 1 <sub>0.0</sub>	06% 0.07% 0.08% 0.16% 0.14% LEV	RWY18L  11.4 11.5 11.5 11.0  /EL0.03% 0.01% 0.06%	
	250 287 410	990	1190 1350 1500 1570	1695 1817 1920 2060 2200		
14.0	14.0 L 0.25%	123			163 123 0.55%	
LEVE	1					

## **ROAH AD 2.13 DECLARED DISTANCES**

	TORA	TODA	ASDA	LDA	
RWY Designator	(m)	(m)	(m)	(m)	Remarks
1	2	3	4	5	6
18L	3000	3000	3000	3000	9843ft
TWY: E2	2904	2904	2904		9528ft
TWY: E3, W2	2604	2604	2604		8544ft
TWY: E4C, W3C	2294	2294	2294		7527ft
TWY: E4	2018	2018	2018		6621ft
TWY: W3	1999	1999	1999		6559ft
TWY: E5	1512	1512	1512		4961ft
TWY: E6, W4	1321	1321	1321		4334ft
TWY: E8S, W5	606	606	606		1988ft
TWY: E9	258	258	258		846ft
36R	3000	3000	3000	3000	9843ft
TWY: E9	2628	2628	2628		8622ft
TWY: E8S	2310	2310	2310		7579ft
TWY: W5	2257	2257	2257		7405ft
TWY: E8	2052	2052	2052		6733ft
TWY: E7, E6, W4	1558	1558	1558		5112ft
TWY: E4C, W3C	606	606	606		1988ft
TWY: E3, E2	296	296	296		971ft
18R	2700	2700	2700	2700	8859ft
TWY: T2	2530	2530	2530		8301ft
TWY: T3	1800	1800	1800		5906ft
TWY: T4	1500	1500	1500		4922ft
TWY: T5	1290	1290	1290		4232ft
36L	2700	2700	2700	2700	8859ft
TWY: T8	2530	2530	2530		8301ft
TWY: T7	1800	1800	1800		5906ft
TWY: T6	1500	1500	1500		4922ft
TWY: T5	1290	1290	1290		4232ft

誘導路の TORA, TODA 及び ASDA は、誘導路中心線と滑走路中心線の交点から滑走路末端までの距離を示す。 (TORA, TODA and ASDA for TWY indicate distances BTN the point where TWY CL meets RWY CL and RWY THR.)

## **ROAH AD 2.14 APPROACH AND RUNWAY LIGHTING**

	ABOUL		DADI		DOLL	DEDI		
	APCH LGT		PAPI (VASIS)		RCLL LEN	REDL LEN		
	type	RTHL	Angle		Spacing	Spacing	RENL	STWL
RWY	LEN	Color	DIST FM THR	RTZL	Color	Color	Color	LEN
Designator	INTST	WBAR	MEHT	LEN	INTST	INTST	WBAR	Color
1	2	3	4	5	6	7	8	9
18L	PALS	Green	PAPI	Nil	3000m	3000m	Red	Nil
	480m	Green	3.00 %LEFT		30m	60m		(*1)
	LIH		453m		Coded color	Coded color		
			70ft		(White/Red)	(White/Yellow)		
					LIH	LIH		
36R	PALS	Green	PAPI	900m	3000m	3000m	Red	Nil
	(CAT I)	Green	3.00 %LEFT		30m	60m		(*2)
	900m		447m		Coded color	Coded color		` ,
	LIH		70ft		(White/Red)	(White/Yellow)		
					LIH	LIH		
18R	PALS	Green	PAPI	900m	2700m	2700m	Red	Nil
	(CAT I)	Green	3.00 %LEFT		30m	60m		(*3)
	900m		461m		Coded color	Coded color		
	LIH		68.8ft		(White/Red)	(White/Yellow)		
					LIH	LIH		
36L	PALS	Green	PAPI	900m	2700m	2700m	Red	Nil
	(CAT I)	Green	3.00 %LEFT		30m	60m		(*3)
	900m		436m		Coded color	Coded color		
	LIH		67.2ft		(White/Red)	(White/Yellow)		
					LIH	LIH		
				Remarks				
				10				
Overrun area e	edge LGT(LE	N:150m Co	olor:Red) (*1)					
Overrun area e								
Overrun area e	dae I GT(I F	N:60m Col	or:Red) (*3)					

## **ROAH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY**

1	ABN/IBN location, characteristics and hours of operation	ABN: 261248N/1273908E, White/Green EV4.3sec, HO
2	LDI location and LGT Anemometer location and LGT	LDI: Nil Anemometer: RWY18L: 295m from RWY18L THR, lighted RWY36R: 432m from RWY36R THR, lighted RWY18R: 300m from RWY18R THR, lighted RWY36L: 325m from RWY36L THR, lighted
3	TWY edge and center line lighting	TWY edge and center line lights installed, see AD2.9
4	Secondary power supply / switch-over time	Within 1 sec : REDL, RENL, RTHL, WBAR, RCLL, Overrun area edge LGT, Stop bar LGT, Runway Entrance Lights  Within 15 sec : Other LGT
5	Remarks	Nil

## **ROAH AD 2.16 HELICOPTER LANDING AREA**

Nil

## **ROAH AD 2.17 ATS AIRSPACE**

	Designation and lateral limits	Vertical limits (ft)	Airspace classification	ATS unit call sign Language	Remarks		
	1	2	3	4	6		
Naha	(1) Area within a radius of 5nm of NAHA ARP (2612N/12738E), in the west side of a line extending from 261429N1274125E on 052°56'T and 125°31'T	2000 (EXC 2000)	D	Naha Tower En			
CTR	(2) Area within a radius of 19nm of NHC VORTAC, in the west side of NHC 015R and in the north side of NHC 315R, excluding area(1) and area within a radius of 5nm of Kadena ARP(2621N/12746E).	700 (EXC 700)	В	Naha APP/DEP Naha RADAR Naha ARR En			
Naha PCA	See attached chart		В	Naha APP/DEP Naha RADAR Naha ARR Kadena ARR En			
Naha ACA	ISee attached chart		ISee attached chart		E	Naha APP/DEP Naha RADAR Naha ARR Kadena ARR En	
Naha TCA	See attached chart		E	Naha TCA En			

那覇特別管制区

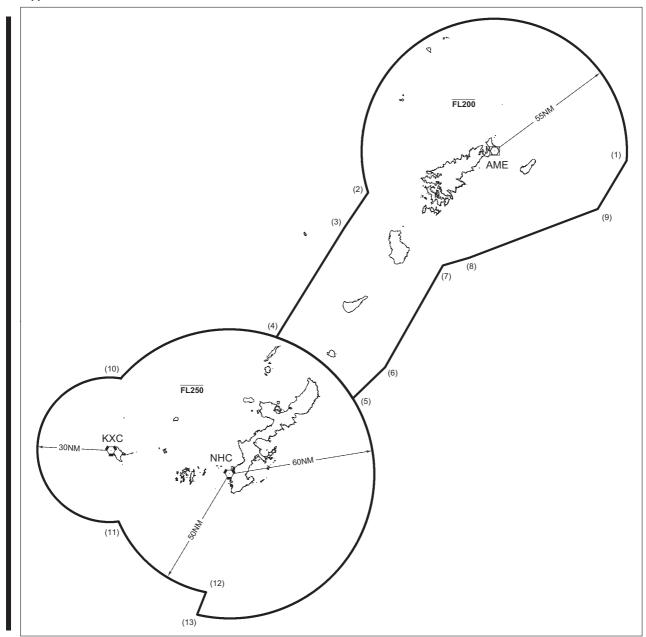
## Naha Positive Control Area (Class B)

		UPPER LIMIT (AMSL)	UNIT	
NAME	LATERAL LIMITS	LOWER LIMIT (AMSL) M(ft)	PROVIDING SERVICE	REMARKS
1	2	3	4	5
那覇 Naha	下記に示される区域 The area shown below		1. 那覇VORTACのR050及びR230の線の北西で飛行する航空機: Naha APP 119.1MHz/335.8MHz  1. Aircraft operating northwest of the Naha VORTAC 050/230 radials: Naha APP 119.1MHz/335.8MHz  2. 那覇VORTACのR050及びR230の線の南東で飛行する航空機: Naha APP 126.5MHz/258.3MHz	当該空域を飛行しようとする航空機は 入域前に那覇アプローチに連絡し、 コールサイン、現在位置、高度及び 意図を通報し指示を受けること。 (当該空域と重複する那覇管制圏を 飛行しようとする航空機に対しては、 那覇アプローチから当該管制圏内の 飛行に係る指示が発出される。) All aircrafts requiring transit of Naha Positive Control Area must call Naha Approach prior to the point of entry to provide aircraft
			2. Aircraft operating southeast of the Naha VORTAC 050/230 radials: Naha APP 126.5MHz/258.3MHz	identification, position, altitude and intention. (Pilots intending to fly in the portion of the overlapping Naha CTR with Naha PCA should maintain contact with Naha Approach for ATC clearances and instructions.)
	NHC 3	80NM NHC 19N	W-178 R-171 Kadena	CAMR SCHWAB
	2NM 1000 2000 2000 P P P P P P P P P P P P P	0 W <sub>1C</sub> P375	10000 3143 Futenma CTR 10000 2246	10000 2000 (EXC 2000)
	, king		NI IC TONIV	

**AIP Japan** ROAH AD2-20 **NAHA** 

那覇進入管制区

## Naha Approach Control Area

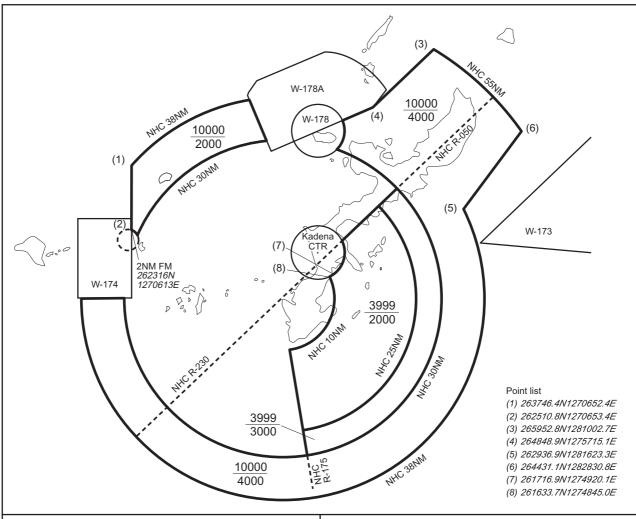


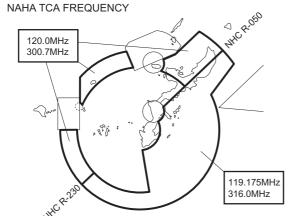
## Point list

- 282121N/1304450E
- (2) 280927N/1284315E
- (3) 275507N/1283205E
- (4) 270928N/1280014E
- (5) (6) (7) 264352N/1283540E
- 265648N/1285042E 273900N/1291757E
- (8) 274201N/1293022E (9) 280130N/1303045E
- (10) 265159N/1264807E
- (11) 255229N/1264740E
- (12) 252316N/1272802E (13) 251400N/1272404E

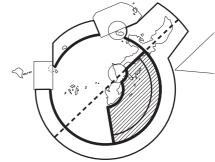
## 那覇ターミナルコントロールエリア

### Naha Terminal Control Area





## Naha Terminal Control Area and Naha Positive Control Area



那覇ターミナルコントロールエリアは、太線部及び網掛け部において 那覇特別管制区と接している。 Naha Terminal Control Area borders on Naha Positive Control Area

on bold lines and hatched area.

- 1. パイロットは、那覇ターミナルコントロールエリアと 那覇特別管制区の境界に留意し、那覇特別管制区に許可 なく入域しないこと。
- 2. 那覇特別管制区への入域を要求する場合、パイロットは 那覇TCAにその旨を通報し指示に従うこと。

## CAUTION

- 1. Pilots shall pay attention to the boundary between Naha Terminal Control Area and Naha Positive Control Area, and shall remain outside Naha Positive Control Area unless obtained clearance.
- 2. When intending to enter Naha Positive Control Area, pilots shall inform Naha TCA of their intention, and shall follow the instruction.

## **ROAH AD 2.18 ATS COMMUNICATION FACILITIES**

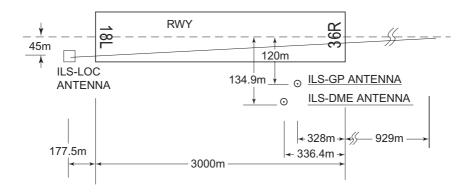
Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
DEP	Naha Departure	119.1MHz(1) 335.8MHz(1) 126.5MHz(2) 258.3MHz(2) 119.65MHz 228.2MHz	H24	(1) Primary for airspace northwest of Naha VORTA( R050/R230 (2) Primary for airspace southeast of Naha VORTA( R050/R230
APP	Naha Approach	119.1MHz(1) 335.8MHz(1) 126.5MHz(2) 258.3MHz(2) 119.65MHz 228.2MHz 121.2MHz 124.95MHz(3) 280.1MHz(3)	H24	(3) Primary for airspace within 55NM from Kasari VOR/DMI
ARR	Naha Arrival	118.85MHz(4) 278.5MHz(4)	H24	(4) Primary for aircraft landing at Naha Airport
	Kadena Arrival	135.9MHz(5) 255.8MHz(5) 285.4MHz	H24	<ul><li>(5) Primary for aircraft landing at Kadena AB and MCAS Futenma</li></ul>
ASR	Naha Radar	120.0MHz 121.1MHz 122.45MHz 125.55MHz 119.65MHz 121.2MHz 228.2MHz 257.5MHz 261.4MHz 270.6MHz 287.8MHz 289.4MHz 290.3MHz 297.2MHz	H24	
		310.0MHz 317.8MHz 321.5MHz 363.8MHz 121.5MHz(E) 243.0MHz(E)		
TCA	Naha TCA	120.0MHz(6) 310.0MHz 122.45MHz 321.5MHz 119.175MHz(7)	2230-1130	(6) Primary for Naha Termin Control Area northwest Naha VORTAC R050/R230
		300.7MHz(6) 316.0MHz(7)		(7) Primary for Naha Termin Control Area southeast Naha VORTAC R050/R230
TWR	Naha Tower	118.1MHz 126.2MHz 236.6MHz 308.6MHz 121.5MHz(E) 243.0MHz(E) 118.75MHz 247.8MHz	H24	
GND	Naha Ground	121.8MHz 284.6MHz 121.9MHz 284.4MHz	H24	
DLVRY	Naha Delivery	122.075MHz 256.0MHz	H24	

Service designation	Call sign	Frequ	ency	Hours of operation	Remarks
1	2	3		4	5
GCA-ASR -PAR	Naha GCA	119.5MHz 121.1MHz 124.7MHz 261.4MHz 288.1MHz 289.4MHz 296.3MHz 121.5MHz(E) 243.0MHz(E)	119.05MHz 120.6MHz 123.85MHz 236.8MHz 304.5MHz 318.2MHz	0100-1200	GLIDE PATH (1) RWY 18L: 3.0° (2) RWY 36R: 3.0° (3) RWY 18R: 3.0° (4) RWY 36L: 3.0°
ATIS	Naha Airport	127.8MHz 293.0MHz		H24	

## **ROAH AD 2.19 RADIO NAVIGATION AND LANDING AIDS**

Type of aid (VOR declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR (5°W/2014)	NHC	116.5MHz	H24	261230.71N/1273834.32E		
TACAN	NHC	1199MHz (CH-112X)	H24	261229.51N/1273833.44E	56.8ft	TACAN AZM Unusable:  340°-030° beyond 35nm BLW 3,000ft. 060°-070° beyond 35nm BLW 3,000ft. 070°-120° beyond 30nm BLW 3,000ft. 120°-130° beyond 20nm BLW 3,000ft. 130°-150° beyond 25nm BLW 3,000ft. 150°-160° beyond 30nm BLW 3,000ft. 170°-180° beyond 35nm BLW 3,000ft. 240°-300° beyond 35nm BLW 3,000ft.
ILS-LOC 36R	IOK	110.3MHz	H24	261239.35N/1273840.95E		LOC: 177.5m (582ft) away FM RWY 18L THR. 45m(148ft) W of RCL. LOC off-set 0.63° BRG (MAG) 002°
ILS-GP 36R	-	335.0MHz	H24	261106.67N/1273842.59E		GP: 328m (1076ft) inside FM RWY 36R THR. 120m(394ft) W of RCL. Angle 3.0° HGT of ILS Ref datum 17.4m(57ft).
ILS-DME 36R	IOK	1001MHz (CH-40X)	H24	261107.00N/1273841.98E	28ft	DME: 336.4m(1104ft) inside FM RWY 36R THR. 134.9m(443ft) W of RCL.
ILS-LOC 18R	ION	110.15MHz	H24	261033.64N/1273803.22E		LOC: 301.5m (990ft) away FM RWY 36L THR. 55m(180ft) E of RCL. LOC off-set 0.84° BRG (MAG) 182°
ILS-GP 18R	-	334.25MHz	H24	261200.70N/1273801.29E		GP: 322.6m (1058ft) inside FM RWY 18R THR. 115m(377ft) E of RCL. Angle 3.0° HGT of ILS Ref datum 15.8m(52ft).
ILS-DME 18R	ION	1125MHz (CH-38Y)	H24	261200.55N/1273801.65E	31ft	DME: 327.6m(1075ft) inside FM RWY 18R THR. 125m(410ft) E of RCL.
ILS-LOC 36L	IOW	111.7MHz	H24	261221.27N/1273756.17E		LOC : 316.0m (1037ft) away FM RWY 18R THR. BRG (MAG) 003°
ILS-GP 36L	-	333.5MHz	H24	261053.50N/1273755.98E		GP: 317.7m (1042ft) inside FM RWY 36L THR. 120m(394ft) W of RCL. Angle 3.0° HGT of ILS Ref datum 16.5m(55ft).
ILS-DME 36L	IOW	1015MHz (CH-54X)	H24	261053.81N/1273755.60E	32ft	DME: 327.7m(1075ft) inside FM RWY 36L THR. 130m(427ft) W of RCL.
MSAS	-	1575.42MHz	H24			Transmitting antennas are satellite based

## ILS for RWY 36R



## **REMARKS:**

 1. LOC OFFSET Angle
 0.63°

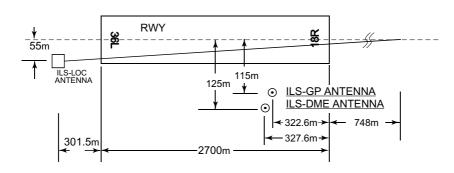
 2. LOC beam BRG (MAG)
 002°

 3. GP Angle
 3.0°

 4. HGT of ILS REF datum
 17.4m (57ft)

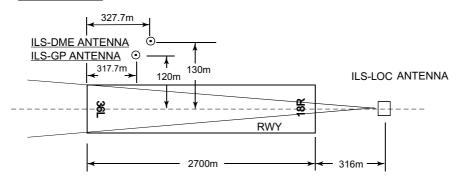
 5. ELEV of ILS-DME
 8.48m (28ft)

## ILS for RWY18R



REMARKS: 1. LOC OFFSET Angle 0.84°
2. LOC beam BRG(MAG) 182°
3. GP Angle 3.0°
4. HGT of ILS REF datum 5. ELEV of ILS-DME 9.3m(31ft)

## ILS for RWY36L



REMARKS : 1 . LOC beam BRG (MAG) 003°
2 . GP Angle 3.0°
3 . HGT of ILS REF datum 16.5m(55ft)
4 · ELEV of ILS-DME 9.6m(32ft)

### **ROAH AD 2.20 LOCAL TRAFFIC REGULATIONS**

### 1. Airport regulations

### 1.1 定期便以外の航空機の取扱い

定期便以外の航空機による当空港の使用については、事前 に空港管理者と調整すること。詳細については、大阪航空局 那覇空港事務所航空管制運航情報官に連絡すること。

(電話:098-857-1107)

#### 1.1 Aircraft other than scheduled

Use of this airport by aircraft other than scheduled is all subject to prior arrangments with the airport administrator. Contact JCAB Naha operations for further details. (Tel:098-857-1107)

### 1.2 管制方式

航空機の運航者は、次に掲げる方式に従うこと。

#### (1) 一般事項

- A. パイロットは、那覇空港の標準計器出発方式、標準計器到着方式及び計器進入方式に公示される高度制限について、事前確認を徹底した上で、確実に高度制限を遵守して飛行すること。
- B. 第 6 エプロン内には、管制塔からの不可視区域が存在 する

#### (2) 出発機

- A. 全ての IFR 出発機は、エンジン始動 5 分前に那覇デリバリーと通信設定し、次に掲げる事項を通報すること。
  - a) 航空機呼出符号
  - b) 目的地
  - c) 要求高度(代替要求高度がある場合は、当該高度)
  - d) 駐機位置 (スポット番号)
- B. パイロットは、プッシュバック及び / 又はエンジン始動が遅れる場合、又はそれが予想される場合は、管制官に対してその旨通報すること。ただし、他の航空機の地上交通による遅延、又は出発制御時刻等が付加されたために生じる遅延を除く。
- C. 那覇特別管制区を飛行しようとする VFR 機は、地上走行前に那覇グランド/タワーに対して、当該管制圏を離脱する飛行方向又は飛行経路及び要求高度を通報すること。那覇グランド/タワーは、那覇レーダーと通信設定を行う周波数及び二次レーダー個別コードを指定する。

### (3) インターセクション・デパーチャー

- A. 出発機はパイロットの同意なしに誘導路 E2、T2 及び T8 からのインターセクション・デパーチャーを指示されることがある。誘導路 E2、T2 及び T8 から出発できない場合は、管制官に対してその旨通報すること。
- B. AD1.1.6.3.2.2(2)2) に記載されている出発機間の管制間隔は、次に掲げる誘導路から出発する航空機には適用されない。

AD1.1.6.3.2.2(2)2)における間隔を必要とする航空機は、那覇グランド/タワーに対してその旨通報すること。

### 1.2 ATC Procedures

Aircraft operators shall comply with the following procedures.

#### (1) General

- A. Pilots shall certainly pre-check and surely comply with altitude restrictions published on standard instrument departures, standard instrument arrivals and instrument approach procedures at Naha Airport.
- B. Invisible areas from control tower exist within APRON NR-6

### (2) Departure

- A. All IFR departing aircraft shall contact Naha Delivery 5 minutes prior to starting engines and advise the following information.
  - a) call sign
  - b) destination
  - c) proposed flight level/altitude (alternative flight levels/altitudes, if any)
  - d) parking position (spot number)
- B. Pilots shall advise ATC if any delay in push-back and/or engine start-up is experienced or anticipated except when delay has been caused by other ground traffic or departure time restriction such as release time.
- C. VFR aircraft intending to operate within the Naha Positive Control area shall advise the Naha ground/ tower prior to taxi of intended direction or route of flight and proposed altitude to depart from respective Control Zone. The Naha ground/tower will assign a frequency to contact Naha Radar and discrete beacon code.

## (3) Intersection departure

- A. Departing aircraft may be instructed intersection departure from TWY E2, T2, T8 without pilot's consent. Aircraft unable to depart from TWY E2, T2, T8 shall advise ATC accordingly.
- B. Separation for departure as in AD1.1.6.3.2.2(2)2) will not be applied to aircraft departing from the following TWYs. Aircraft requiring separation in AD1.1.6.3.2.2(2)2) shall advise "NAHA GROUND/TOWER" accordingly.

滑走路 RWY	先行機が出発する誘導路 TWY where a leading aircraft departing	後続機が出発する誘導路 TWY where a succeeding aircraft departing
18L	E1, W1	E2
	E3	W2
	E4	W3
	E4C	W3C
36R	E8S	W5
18R	T1	T2
36L	Т9	Т8

#### (4) 到着機

- A. 全ての民間 IFR 到着機は、那覇タワー /GCA との最初の 通信設定時において、駐機位置 (スポット番号) を通報す ること。
- B. 後続機は他の周波数にいる場合があることから、パイロットは、最寄りの誘導路経由で、又は管制官の指示に従い、遅滞なく滑走路を離脱することによって、滑走路占有時間の短縮に努めること。
- C. 全ての到着機は、管制官から指定された二次レーダー個別コードを、着陸するまで変更しないこと。ただし、管制官から別途指示された場合は、この限りでない。
- D. 那覇特別管制区を飛行しようとする VFR 機は、那覇レーダーと通信設定を行う前に ATIS を聴取するよう努め、通信設定時に ATIS 情報を受信した旨、飛行経路及び要求高度を通報すること。
- E. 那覇タワーと通信設定する VFR 機は、以下の管轄周波数に連絡し、コールサイン、現在位置、高度及び意図を通報し指示を受けること。
  - a) 空港標点から東象限を飛行する航空機 (VRP:PARCO CITY,AJA,YONABARU,MABUNI) Naha TWR:118.1MHz/308.6MHz
  - b) 空港標点から西象限を飛行する航空機 (VRP:SANDO,DONATSU,MAEJIMA, KERAMA NORTH,KERAMA SOUTH) Naha TWR:118.75MHz/247.8MHz

### (5) 視認進入

- A. 視認進入を許可された航空機は、進入許可発出時の指定 高度にかかわらず、自機に適用される場周経路高度まで速 やかに降下すること。ただし、管制官から別途指示された 場合は、この限りでない。
- B. 視認進入を行う航空機は、回転翼機及び後方乱気流区分がライトの固定翼機を除き、騒音軽減のため海上を飛行すること。
- (6) CDO (Continuous Descent Operation) 那覇空港への CDO は次に掲げる方式に従うこと。

### 1) 適用時間

THETA, KUKUL, SEIFA, VIGER 通過予定時刻が 0130JST から 0555JST の間。

### 2) 対象経路

- A. 滑走路 36 運用時
- a)OKUMA から RESORT SOUTH ARRIVAL を経由する経路。
- b)GUPTI から GUPTI SOUTH ARRIVAL を経由する経路。
- c)VELNO から VELNO SOUTH ARRIVAL を経由する経路。
- d)ENTOK から ENTOK SOUTH ARRIVAL を経由する経路。

### B. 滑走路 18 運用時

- a)OKUMA から RESORT NORTH ARRIVAL を経由する経路。
- b)GUPTI から GUPTI NORTH ARRIVAL を経由する経路。
- c)VELNO から VELNO NORTH ARRIVAL を経由する経路。
- d)ENTOK から ENTOK NORTH ARRIVAL を経由する経路。

### (4) Arrival

- A. All civil IFR arriving aircraft shall advise parking position (spot number) on initial contact with Naha Tower/GCA.
- B. Pilots are encouraged to reduce RWY occupancy time by exiting the RWY without delay at the first available taxiway or as instructed by ATC, for succeeding aircraft which may be on a different frequency.
- C. All arriving aircraft shall remain on discrete beacon code assigned by ATC until making a full stop landing, unless otherwise instructed by ATC.
- D. VFR aircraft intending to operate within the Naha Positive Control area should monitor ATIS broadcast prior to contacting Naha Radar, and advise ATIS code received, route of flight, and proposed altitude on initial contact
- E. VFR aircraft should call Naha TWR to provide the aircraft identification, position, altitude and intention using the following frequency.
  - a) Aircraft operating east side of Naha Control Zone (VRP:PARCO CITY,AJA,YONABARU,MABUNI)
     Naha TWR:118.1MHz/308.6MHz
  - b) Aircraft operating west side of Naha Control Zone (VRP:SANDO,DONATSU,MAEJIMA, KERAMA NORTH,KERAMA SOUTH) Naha TWR:118.75MHz/247.8MHz

### (5) Visual approach

- A. Aircraft cleared for visual approach shall descend to appropriate traffic pattern altitude regardless of the assigned altitude when the approach clearance is issued, unless otherwise instructed by ATC.
- B. Aircraft, except fixed wing aircraft in light wake turbulence category and rotary wing aircraft, shall remain over the water when conducting visual approach due to noise abatement.
- (6) CDO (Continuous Descent Operation)

Pilot Shall comply following procedures when conduct CDO at Naha AP.

1)Applicable time ETA at THETA, KUKUL, SEIFA or VIGER between 1630UTC and 2055UTC.

- 2)Routes applicable for CDO
- A.When RWY36 in use
- a)Arrival routes via OKUMA and join RESORT SOUTH ARRIVAL.
- b)Arrival routes via GUPTI and join GUPTI SOUTH ARRIVAL.
- c)Arrival routes via VELNO and join VELNO SOUTH ARRIVAL.
- d)Arrival routes via ENTOK and join ENTOK SOUTH ARRIVAL.
- B.When RWY18 in use
- a)Arrival routes via OKUMA and join RESORT NORTH
- b)Arrival routes via GUPTI and join GUPTI NORTH ARRIVAL.
- c)Arrival routes via VELNO and join VELNO NORTH ARRIVAL.
- d)Arrival routes via ENTOK and join ENTOK NORTH ARRIVAL.

#### 3) 実施方式

### A.CDO の要求及び承認

- a) 航空機からの CDO の要求及び管制機関からの承認は、次表の CDO 経路名を用いて行う。CDO 経路には高度制限が付加されていることに留意すること。
- b) 使用滑走路が変更になった場合、CDO が再承認されるか、 中止が指示される。

### B.CDO の要求時期

航空機は、降下開始点に到達する時刻の10分前までに、THETA, KUKUL, SEIFA, VIGER 通過予定時刻及び降下開始点を付して、 管制機関に対して CDO の要求を行うこと。

### 3)Procedures

- A.Request and clearance of CDO
- a)CDO route name listed below is used when pilot requests CDO and when ATC clears CDO. There are altitude restrictions on CDO routes.
- b)ATC reclears or cancels CDO when RWY in use is changed.

### B.Timing for requesting CDO

Pilot should request CDO not later than 10minutes before reaching Top of Descent(TOD) with position of TOD and estimated time over THETA, KUKUL, SEIFA or VIGER.

Runway	36
--------	----

CDR Route name	Route
Runway 36 CDO Number 1	ONC A582 OKUMA "RESORT SOUTH ARRIVAL"  [Altitude Restriction]  Cross HASSA at or above 11,000ft and cross SEIFA at or above 2,000ft.
Runway 36 CDO Number 2	GUPTI "GUPTI SOUTH ARRIVAL"  [Altitude Restriction]  Cross GUPTI at or above FL200, cross HASSA at or above 11,000ft and cross SEIFA at or above 2,000ft.
Runway 36 CDO Number 3	MJC Y57 VELNO "VELNO SOUTH ARRIVAL"  [Altitude Restriction]  Cross VIGER at or above 2,000ft.
Runway 36 CDO Number 4	ENTOK "ENTOK SOUTH ARRIVAL"  [Altitude Restriction]  Cross ENTOK at or above FL170 and cross VIGER at or above 2,000ft.
Runway 18	
CDR Route name	Route
Runway 18 CDO Number 1	ONC A582 OKUMA "RESORT NORTH ARRIVAL"  [Altitude Restriction]  Cross CLIFF at or above 2,700ft and cross KUKUL at or above 2,000ft.
Runway 18 CDO Number 2	GUPTI "GUPTI NORTH ARRIVAL"  [Altitude Restriction]  Cross GUPTI at or above FL200 and cross KUKUL at or above 2,000ft.
Runway 18 CDO Number 3	MJC Y57 VELNO "VELNO NORTH ARRIVAL" [Altitude Restriction] Cross THETA at or above 2,000ft.
Runway 18 CDO Number 4	ENTOK "ENTOK NORTH ARRIVAL"  [Altitude Restriction]  Cross ENTOK at or above FL170, cross YEEZY at or above 2,100ft and cross THETA at or above 2,000ft.

## 1.3 PDA (parts departing aircraft) reporting to Airport Administration

In order to secure the safety of aircraft operations and to rectify the issue of falling objects from aircraft operating in the vicinity of Naha Airport, aircraft operators are required to notify Airport Administration (Tel 098-857-1107) of any "Parts Departing Aircraft" from flights operating to/from Naha Airport, without delay. This information shall be shared by relevant parties in order to prevent recurrence of such.

### 1.4 補助動力装置 (APU) の使用制限

航空機が固定動力設備付きのスポットを使用する場合は、 管理者が特に必要と認める場合を除き、次に掲げる時間を超 えて補助動力装置を使用してはならない。

- (1) 出発予定時刻前の 30 分間
- (2) 到着後、固定動力設備が使用可能となるまでの最小限度 の時間
- (3) 航空機が点検整備のため補助動力装置を必要とする場合は、それに要する最小限度の時間

#### 備者

スポット 21 ~ 27 及び 31 ~ 37 は、固定動力設備が設置されている。

# 1.4 Restrictions about the use of auxiliary power units(APU)

The APU should be operated only within the following time period the aircraft is on an aircraft parking stand with fixed power facilities. Exceptions apply when airport authority deems it necessary.

- (1)Within 30 minutes prior to the estimated time of departure(ETD).
- (2)For the minimum time required for switching over to the fixed power facilities.
- (3)For the minimum time required for aircraft maintenance purposes, if needed.

### NOTE:

Aircraft parking stands 21-27 and 31-37 are equipped with fixed power facilities.

2. Taxiing to and from stands

### 2.1 Taxiing procedure

All aircraft are required to hold at "GP HOLD LINE" on TWY T1 and T2 for RWY18R until receiving taxi clearance to protect the ILS glide slope signal.

### 2.2 エプロンにおける安全対策について

- 1) エプロン内においては、正確に黄色い導入線に沿って走行すること。
- 2) ジェットブラストによる地上の車両、設備及び隣接スポットの他の航空機への影響を回避するため、エプロン内においては、エンジン出力を最小にすること。
- 2.2 Safety measures in Aprons
  - While operating in the apron area, follow strictly yellow guide line.
  - In order to avoid jet blast damage to ground vehicles, equipment and other aircraft in adjacent spots, engine power should be kept to minimum within APRON.
- 3. Parking area for small aircraft(General aviation)

See AD2.9 Marking AIDs and Parkings Area(West side)

4. Parking area for helicopters

See AD2.9 Marking AIDs and Parkings Area(West side)

5. Apron - taxiing during winter conditions

Nil	

6. Taxiing - limitations

1.	Wing tip	clearance	at the	TWY	intersection	(RFF.	AD1.1	6	8)
т.	wing tib	ciearance	at the	1 44 1	intersection	(KEF.	AUI.I	. O.	ľ

Wing tip clearance at the TWY intersection between the aircraft holding at the stop marking on the TWY and the other aircraft taxiing behind it are as follows.

(1) When B744 holding at the stop marking on TWY E1, E2, E3, E4C, E6, E8S, E9

Wing Span (WS) of aircraft taxiing on TWY A1-A4, A5-A6 or A7-A9	WS=< 51.1m	51.1m <ws=< 68.1m<="" th=""><th>WS&gt; 68.1m</th></ws=<>	WS> 68.1m
Wing tip clearance	*A	*B	*C

(2) When B744 holding at the stop marking on TWY W2

Wing Span (WS) of aircraft taxiing on TWY B	WS=< 52.1m	52.1m <ws=< 69.1m<="" th=""><th>WS&gt; 69.1m</th></ws=<>	WS> 69.1m
Wing tip clearance	*A	*B	*C

(3) When B744 holding at the stop marking on TWY T1, T2, T8

Wing Span (WS) of aircraft taxiing on TWY C	WS=< 18.1m	18.1m <ws=< 35.1m<="" th=""><th>WS&gt; 35.1m</th></ws=<>	WS> 35.1m
Wing tip clearance	*A	*B	*C

Legend:

\*A : wing tip clearance >= 15m

\*B: 6.5m =< wing tip clearance < 15m

\*C: wing tip clearance < 6.5m

### 2. Restricted TWY

Taxiing from E5 to A5, and vice versa, AVBL wheelbase 9.8m or less, YS11, P3, C1, C130 and US1, for example.

•	舫	σb	144	垂.	٥.	انگ	阳

誘導路 A8 及び W5 を使用する A350-900 型機においては、 航空機重量が下表の値を超えてはならない。

## 3.Aircraft weight restriction

When A350-900 using TWY A8 and W5, aircraft weight shall not exceed the values listed in the table below.

誘導路 TWY	A8				/5
航空機重量	(lb)	(kg)	(lb)	(kg)	
Aircraft weight	533,500	242,000	474,200	215,100	

<ol><li>School and training flights - technical test flights - use of ru</li></ol>	nwavs

Nil
-----

8. Helicopter traffic - limitation

Nil
-----

9. Removal of disabled aircraft from runways

Nil
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## **ROAH AD 2.21 NOISE ABATEMENT PROCEDURES**

Nil	

## **ROAH AD 2.22 FLIGHT PROCEDURES**

## 1. TAKE OFF MINIMA

RWY ACFT CAT		REDL & RCLL		REDL or RCLL or RCL marking		NIL (DAYTIME ONLY)		
		OAI	RVR	VIS	RVR	VIS	RVR	VIS
Multi-Engine	18L		400m	400m	400m	400m	-	500m
ACFT with	18R	A,B,C,D	400m	400m	400m	400m	-	500m
TKOF ALTN AP FILED	36R	А,Б,С,Б	400m	400m	400m	400m	-	500m
AF FILED	36L		400m	400m	400m	400m	-	500m
OTHER	18L 18R 36R 36L	A,B,C,D	AVBL LDG MINIMA					

## 2. WX MINIMA CONCERNING PAR APCH PROCEDURE

PAR RWY 18L

PAR RWY 36R

MINIM	MINIMA THR ELEV: 11 A		AD ELEV: 11	
CAT	PAR		CIRCLING	
DA(H)		RVR/CMV	MDA(H)	VIS
Α				1600
В	211(200)	750 620(609		1000
С	211(200)	730	020(009)	2400
D				3200

MINIMA	THR ELEV: 9 AD ELEV: 11				
CAT	PAR		CIRCLING		
	DA(H)	RVR/CMV	MDA(H)	VIS	
Α	219(210)	600	620(609)	1600	
В	229(220)			1000	
С	239(230)			2400	
D	249(240)			3200	

AD ELEV: 11

MDA(H)

620(609)

CIRCLING

VIS

1600

2400

3200

Circling to WEST side of RWY only

Circling to WEST side of RWY only

THR ELEV: 14

PAR

RVR/CMV

550

## PAR RWY 18R

PAR	RWY	36L

MINIMA

CAT

Α

В

С

MINIM	A THR E	LEV: 16	AD ELEV: 11	
CAT	PAR		CIRCLING	
OAI	DA(H)	RVR/CMV	MDA(H)	VIS
A B	216(200)	550	620(609)	1600
D				3200

DA(H)

214(200)

Circling to WEST side of RWY only

### 3. PAR Missed Approach Procedure

Unless otherwise instructed by ATC, execute each missed approach procedure as follows.

 $\hbox{(1) RWY18L:} \qquad \hbox{At guidance limit, climb to 1200FT via NHC R182 to NHC15.0DME, climb to 2000FT via NHC 15.0DME } \\$ 

clockwise ARC to OLVAL and hold. Contact NAHA APP.

(2) RWY36R: At guidance limit, climb to 1200FT on HDG 003° to NHC 2.4DME, turn left, via NHC R341 to NHC 15.0DME,

climb to 2000FT via NHC 15.0DME counterclockwise ARC to OLVAL and hold. Contact NAHA APP.

(3) RWY18R: At guidance limit, turn right, climb to 1200FT via NHC R226 to NHC 15.0DME, climb to 2000FT via NHC

15.0DME clockwise ARC to OLVAL and hold. Contact NAHA APP.

(4) RWY36L: At guidance limit, turn left, climb to 1200FT via NHC R308 to NHC 8.5DME, climb to 2000FT via NHC R308 to

NHC 15.0DME, via NHC 15.0DME counterclockwise ARC to OLVAL and hold. Cross NHC R308/12.0DME at or

above 1400FT. Contact NAHA APP.

### 4. Lost communication procedures for arrival aircraft under radar navigational guidance

If radio communications with Naha Approach/Arrival/GCA are lost for 1 minute, or 5 seconds on final approach(PAR), squawk Mode A/3 Code 7600 and :

- (1) Contact Naha Tower.
- (2) If unable, proceed in accordance with Visual Flight Rules.
- (3) If unable

Proceed to OLVAL at the last assigned altitude or 2,000FT whichever is higher and execute Instrument Approach.

Note: Procedures other than above will be issued when required.

### 5. Trajectorized Airport Traffic Data Processing System (TAPS)

那覇アプローチの指示のもとに、当該進入管制区を飛行する航空機は、モード A/3 の二次レーダー個別コード及びモード Cによる応答を指示される。

二次レーダー個別コードを搭載していない航空機が、当該コードによる応答を指示された場合は、管制官に対してその旨通報すること。

Aircraft flying under control of Naha Approach in the Approach Control Area will be instructed to reply with discrete beacon code on Mode A/3 and Mode C.

If an aircraft with non-discrete beacon code capability is instructed to reply with discrete beacon code, it shall advise ATC accordingly.

#### 6. 場周経路高度 6. Traffic Pattern Altitude (1) East side (1) 東側場周経路 A.FIXED-WING AIRCRAFT A. 固定翼機 Maximum take-off weight 7000kg or less-----最大離陸重量 7000kg 以下 · · · · · 1,000ft B.ROTARY-WING AIRCRAFT..... B. 回転翼機…… 800ft 800ft (2) West side (2) 西側場周経路 A.FIXED-WING AIRCRAFT A. 固定翼機 a) JET Fighter and Trainer----a) ジェット機 1,700ft 戦闘機及び練習機……1,700ft Others-----その他·····1,000ft 1,000ft b) プロペラ機 b) PROPELLER 最大離陸重量 7000kg 超······ 1.000ft Maximum take-off weight more than 7000kg----1,000ft 最大離陸重量 7000kg 以下 · · · · · 700ft Maximum take-off weight 7000kg or less-----B.ROTARY-WING AIRCRAFT..... B. 回転翼機………500ft 500ft

### **ROAH AD 2.23 ADDITIONAL INFORMATION**

### 1. RWY18L 進入区域の船舶の通過

航空機の運航に影響がある高さの船舶が RWY18L 進入区域を通過する場合、以下の対応が取られる。

- 1) NOTAM ROAH 又は ATC により船舶の情報提供が行われる。
- 2) 以下の場合において、船舶が A 点~ B 点を通過する間、 待機が指示されることがある。
  - a) RWY18L 着陸時

船舶高 35m(115ft)/MSL 超の場合、PAR 進入を行う到着 機

船舶高 43m(142ft)/MSL 超の場合、全ての到着機

b) RWY36R 出発時及び着陸時 船舶高 65m(214ft)/MSL 超の場合、IFR 出発機

船舶高 96m(315ft)/MSL 超の場合、IFR 到着機

### 1. Passage of vessel across RWY18L approach area

While vessel with height that affects ACFT operations is passing across RWY18L approach area, the following action will be taken.

- 1) The information of vessel will be provided by NOTAM ROAH or ATC.
- While vessel is crossing between point A and point B, holding instruction may be issued in the following situations
  - a) ACFT for landing RWY18L

When vessel height is above 35m(115ft)/MSL : arrival ACFT to conduct PAR APCH

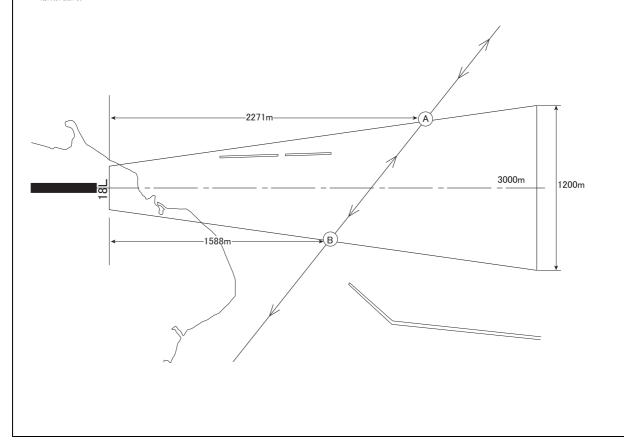
When vessel height is above 43m(142ft)/MSL: all arrival ACFT

b) ACFT for take-off/landing RWY36R

When vessel height is above 65m(214ft)/MSL: IFR departure ACFT

When vessel height is above 96m(315ft)/MSL: IFR arrival ACFT

船舶経路 VESSEL COURSE



## 2. 滑走路上での維持工事

滑走路及び空港施設の維持工事のため、計画的な滑走路閉鎖 が行われる。

(NOTAM ROAH 参照)

## 2. Schedule maintenance on the RWY

Scheduled RWY unserviceability due to RWY and facilities maintenance.

(See NOTAM ROAH)

#### 3. その他

(1) アレスティングギア(型式: BAK-12)

1) 位置

滑走路上の以下の場所にアレスティングギアが装備されている。(飛行場面図 参照)

- a) RWY36R 進入端から 250M(820ft) 内側
- b) RWY36R 進入端から 877M(2,877ft) 内側
- c) RWY18L 進入端から 278M(912ft) 内側
- d) RWY36L 進入端から 20M(65.6ft) 外側
- e) RWY36L 進入端から 589.1M(1,931.5ft) 内側
- f) RWY18R 進入端から 20M(65.6ft) 外側
- g) RWY18R 進入端から 589.1M(1,931.5ft) 内側
- 2) 通常の運用形態

使用 RWY に応じて、以下のアレスティングギアが RWY 上に張られた状態になっている。

RWY18L: 上記 1) の a) RWY36R: 上記 1) の c)

以下のアレスティングギアが過走帯内に張られた状態になっている。

RWY36L: 上記 1) の d) RWY18R: 上記 1) の f)

(2) ジェットバリア (MEN)

MEN が RWY36R 及び RWY18L の過走帯端に設置されている。

(3) ジェットバリア(型式:BAK-12/15) BAK-12/15 が RWY36L 及び RWY18R の過走帯端に設置されている。

(4) ノース及びサウスヘリパッド ノースヘリパッド及びサウスヘリパッドが B TWY 上に設置されている。

(飛行場面図 参照)

### 3. Other

- (1) Arresting-gear (Type BAK-12)
  - 1) Location

Arresting-gears are installed on the RWY as follow. (See Aerodrome Chart)

- a) 250M(820ft) from RWY36R THR
- b) 877M(2,877ft) from RWY36R THR
- c) 278M(912ft) from RWY18L THR
- d) 20M(65.6ft) from outside RWY36L THR
- e) 589.1M(1,931.5ft) from inside RWY36L THR
- f) 20M(65.6ft) from outside RWY18R THR
- g) 589.1M(1,931.5ft) from inside RWY18R THR
- 2) Normal configuration

The following arresting-gear shall remain in the ready position for the RWY in use.

RWY18L: paragraph 1) a) above RWY36R: paragraph 1) c) above

The following arresting-gear shall remain in the ready position for the overrun.

RWY36L: paragraph 1) d) above RWY18R: paragraph 1) f) above

(2) Jet barrier (MEN)

MENs are located on RWY36R overrun and RWY18L overrun end.

(3) Jet barrier (Type BAK-12/15)

BAK-12/15s are located on RWY36L overrun and RWY18R overrun end.

(4) North and South Helipad

North helipad and South helipad are located on B TWY. (See Aerodrome Chart)

### **ROAH AD 2.24 CHARTS RELATED TO AN AERODROME**

Aerodrome/Heliport Chart -1

Aerodrome/Heliport Chart -2

Aerodrome Obstacle Chart - ICAO Type A (RWY18L/36R) Aerodrome Obstacle Chart - ICAO Type A (RWY18R/36L)

Aerodrome Obstacle Chart - ICAO Type B

Standard Departure Chart - Instrument (NAHA NORTH, LAVON, OLVAL, NAHA SOUTHWEST)

Standard Departure Chart - Instrument (ESKOB-RNAV)

Standard Departure Chart - Instrument (KIZNA-RNAV)

Standard Departure Chart - Instrument (DORIS, GANJU-RNAV)

Standard Arrival Chart - Instrument (SCUBA, LAVON, LAFTY)

Standard Arrival Chart - Instrument (IHEYA NORTH, VELNO NORTH-RNAV)

Standard Arrival Chart - Instrument (RESORT NORTH-RNAV)

Standard Arrival Chart - Instrument (GUPTI NORTH, ENTOK NORTH-RNAV)

Standard Arrival Chart - Instrument (IHEYA SOUTH, VELNO SOUTH-RNAV)

Standard Arrival Chart - Instrument (RESORT SOUTH-RNAV)

Standard Arrival Chart - Instrument (GUPTI SOUTH, ENTOK SOUTH-RNAV)

Instrument Approach Chart (ILS Z or LOC Z RWY36R)

Instrument Approach Chart (ILS Y or LOC Y RWY36R)
Instrument Approach Chart (ILS X or LOC X RWY36R)

Instrument Approach Chart (ILS Z or LOC Z RWY36L)

Instrument Approach Chart (ILS 2 of LOC 2 RW136L)
Instrument Approach Chart (ILS Y or LOC Y RWY36L)

Instrument Approach Chart (ILS X or LOC X RWY36L)

Instrument Approach Chart (ILS X or LOC X RWY36)
Instrument Approach Chart (ILS or LOC RWY18R)

Instrument Approach Chart (RNP RWY36R)

Instrument Approach Chart (RNP RWY36L)

Instrument Approach Chart (RNP RWY18R)

Instrument Approach Chart (RNP RWY18L)

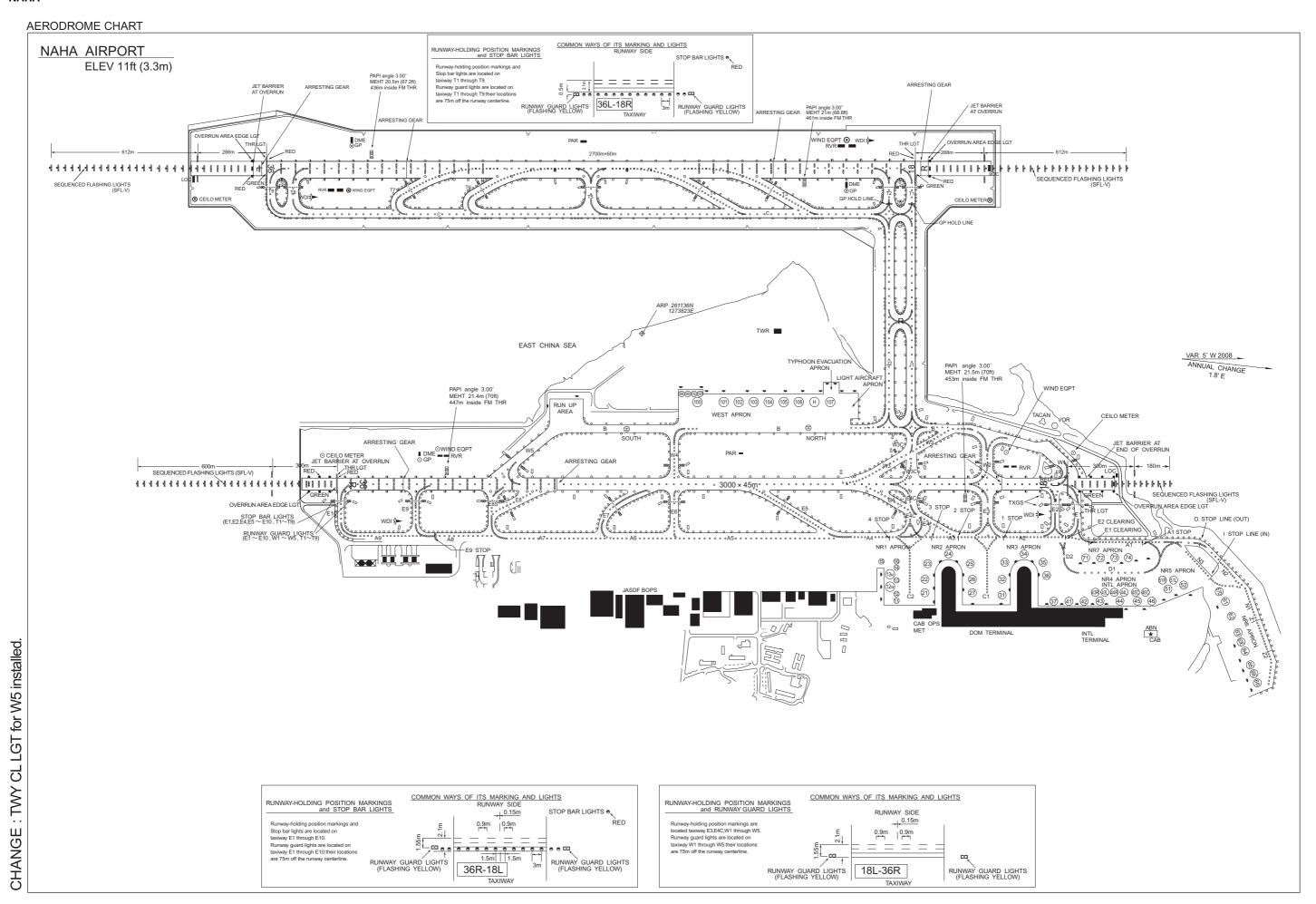
Instrument Approach Chart (VOR A or TACAN B)

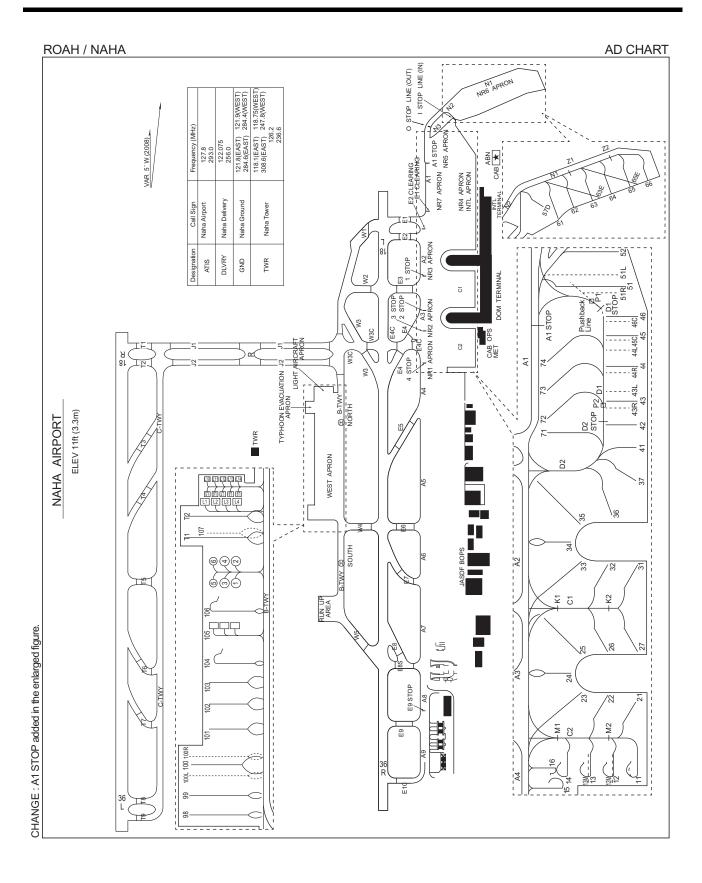
Instrument Approach Chart (VOR C)

Instrument Approach Chart (TACAN D)

Other Chart (Visual REP)

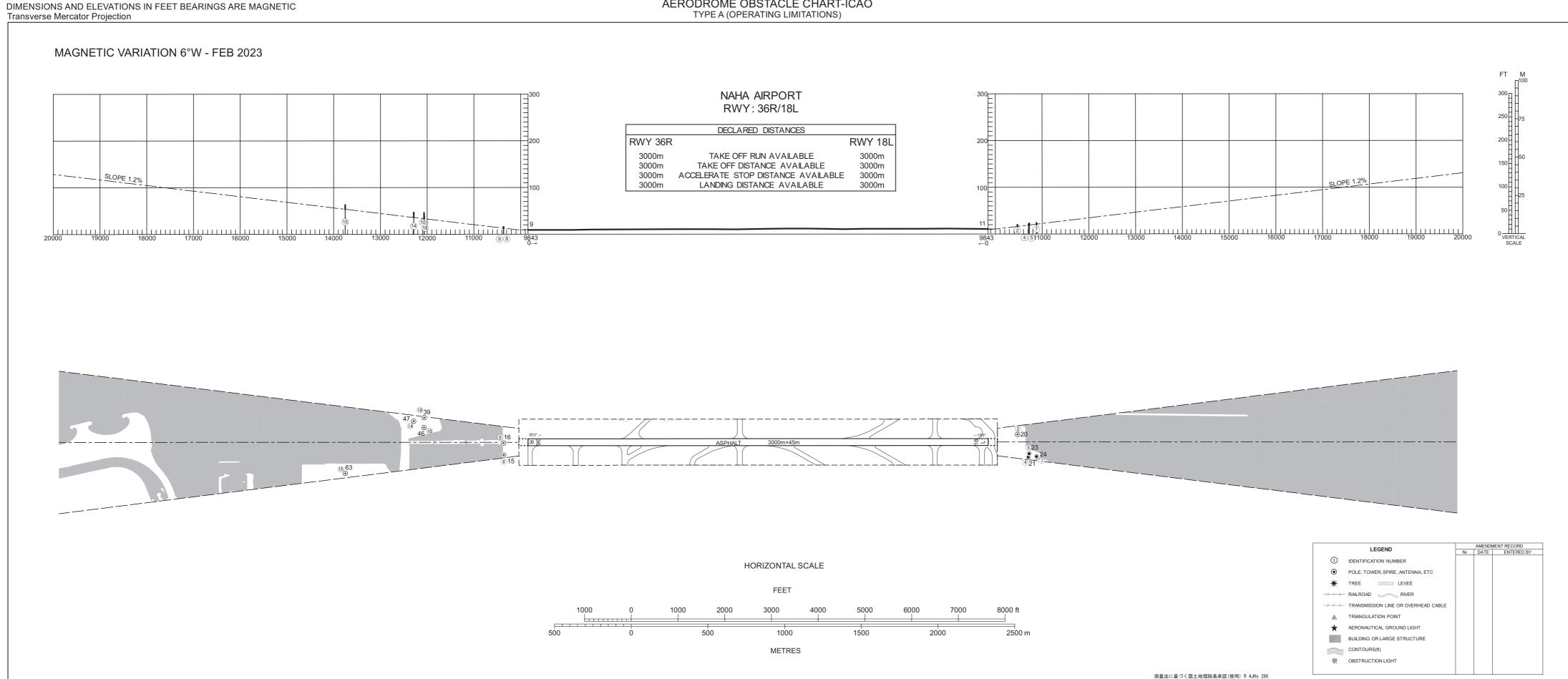
Other Chart (MVA CHART)







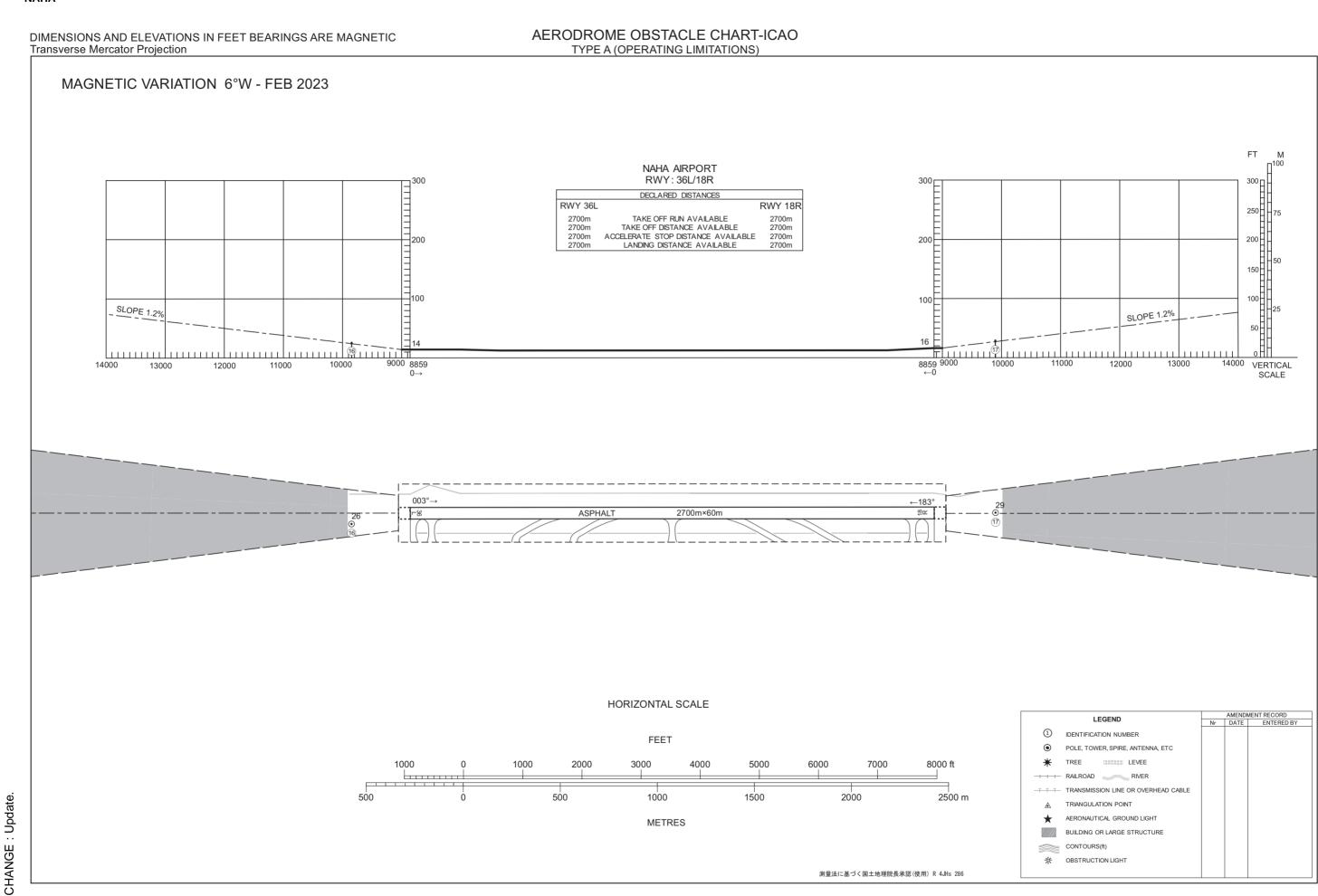
AERODROME OBSTACLE CHART-ICAO

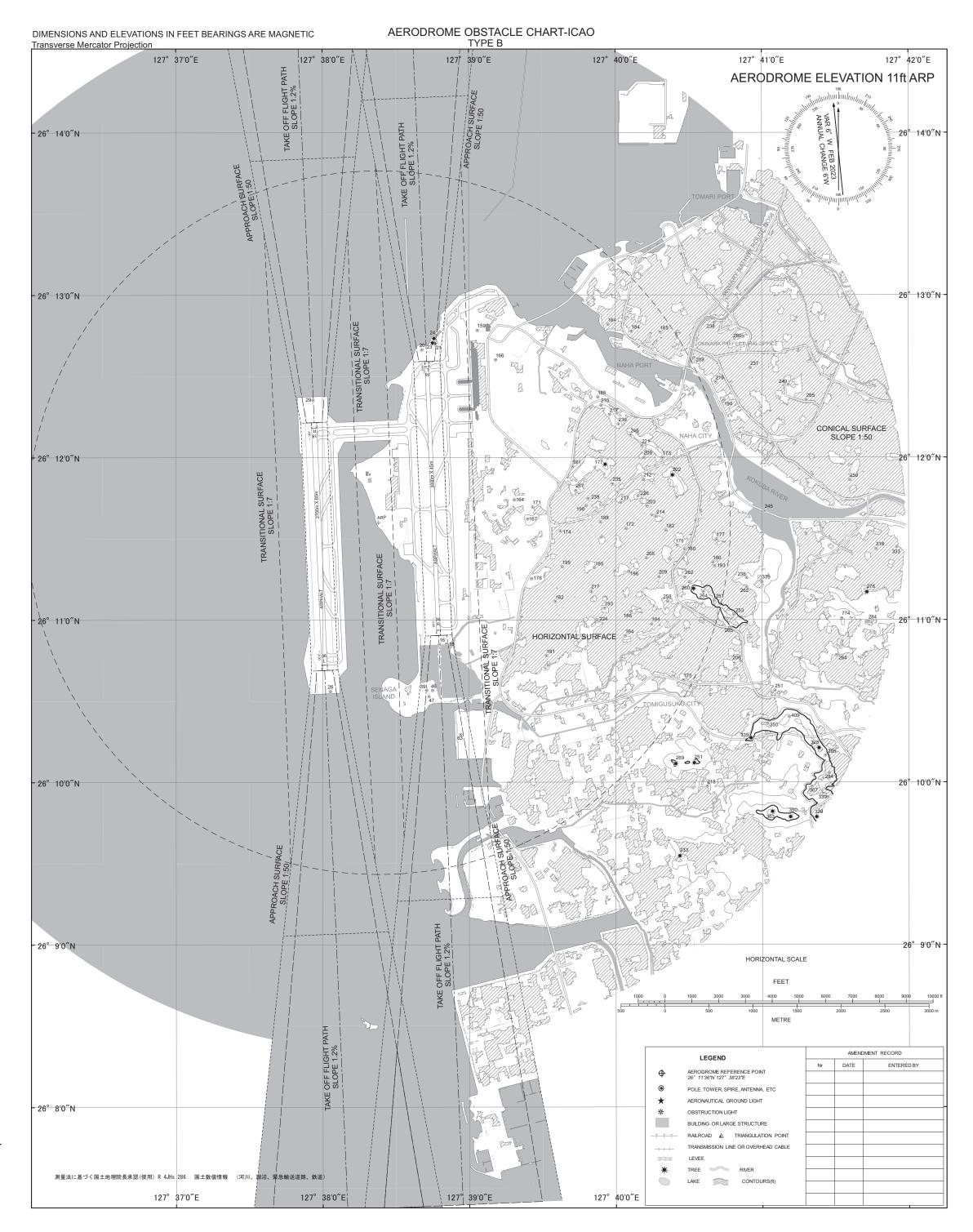


CONTOURS(ft)

測量法に基づく国土地理院長承認(使用) R 4JHs 286

OBSTRUCTION LIGHT





ROAH/ NAHA SID

### NAHA NORTH FOUR DEPARTURE

RWY18L/18R: (Not established)

RWY36R: Climb RWY HDG to NHC 2.4DME,...

RWY36L: Climb RWY HDG to 500FT,...

...turn left, via NHC R341 to EISAR.

Note RWY36R/36L: 5.0% climb gradient required up to 500FT.

#### **SCUBA TRANSITION**

From over EISAR, via NHC R341 to 24.1DME, turn right to intercept NHC R344 to SCUBA. Cross SCUBA at or above 4000FT.

#### LAVON ONE DEPARTURE

RWY18L: Climb RWY HDG to NHC 4.7DME, turn right, via NHC R196...

RWY18R: Climb RWY HDG to 600FT, turn right, via NHC R211...

... to intercept and proceed via NHC 15.0DME clockwise ARC to LAVON.

RWY36R: Climb RWY HDG to NHC 2.4DME, turn left, via NHC R341...

RWY36L: Climb RWY HDG to 500FT, turn left, via NHC R308...

...to intercept and proceed via NHC 15.0DME counterclockwise ARC to LAVON.

Note RWY36R/36L: 5.0% climb gradient required up to 500FT.

### **OLVAL ONE DEPARTURE**

RWY18L: Climb RWY HDG to NHC 4.7DME, turn right, via NHC R196...

RWY18R: Climb RWY HDG to 600FT, turn right, via NHC R211...

... to intercept and proceed via NHC 15.0DME clockwise ARC to OLVAL.

RWY36R: Climb RWY HDG to NHC 2.4DME, turn left, via NHC R341...

RWY36L: Climb RWY HDG to 500FT, turn left, via NHC R308...

...to intercept and proceed via NHC 15.0DME counterclockwise ARC to OLVAL.

Note RWY36R/36L: 5.0% climb gradient required up to 500FT.

### NAHA SOUTHWEST FOUR DEPARTURE

RWY18L: Climb RWY HDG to NHC 4.7DME,...

RWY18R: Climb RWY HDG to 500FT,...

... turn right, via NHC R196 to LAFTY.

RWY36R/36L: (Not established)



ROAH/NAHA **RNAV SID ESKOB THREE DEPARTURE** Basic RNP1 Note GNSS required. VAR 6°W **KIZNA** 262612.8N 1273141.7E **GELMA** 262037.9N 1272431.2E H6R00 261455.3N 1273836.2E **TACAN** CHINEN 1176 TIT 16.5 500 <u>500</u> **VORTAC** NAHA 116.5 NHC CH-112X **□:∴.** 26°12′31″W127°38′34″E 100FT 183 <u>500</u> 500 **ESKOB** 261009.5N 1275727.6E 30.0 084 CHANGE: Description of VAR and PROC name. OLVAL 260411.0N 1272441.3E AH801 260041.6N **KYANN** 1274429.6E 260029.7N 1273916.8E RWY18L: Climb on HDG183° at or above 500FT, direct to KYANN, to AH801, to ESKOB. RWY18R: Climb on HDG183° at or above 500FT, direct to KYANN, to AH801, to ESKOB. RWY36R: Climb on HDG003° at or above 500FT, direct to H6R00, turn left direct to KIZNA, to GELMA, to OLVAL, to ESKOB.

RWY36L: Climb on HDG003° at or above 500FT, turn left direct to KIZNA, to GELMA, to OLVAL, to ESKOB.

NOTE RWY36R/36L: 5.0% climb gradient required up tp 500FT.

ROAH/NAHA RNAV SID

### **ESKOB THREE DEPARTURE**

### RWY18L

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	183 (177.6)	-5.6	-	-	+500	-	-	Basic RNP1
002	DF	KYANN	-	-	-5.6	-	-	-	-	-	Basic RNP1
003	TF	AH801	-	093 (087.6)	-5.6	4.7	-	-	-	-	Basic RNP1
004	TF	ESKOB	-	056 (050.9)	-5.6	15.0	-	-	-	-	Basic RNP1

### RWY18R

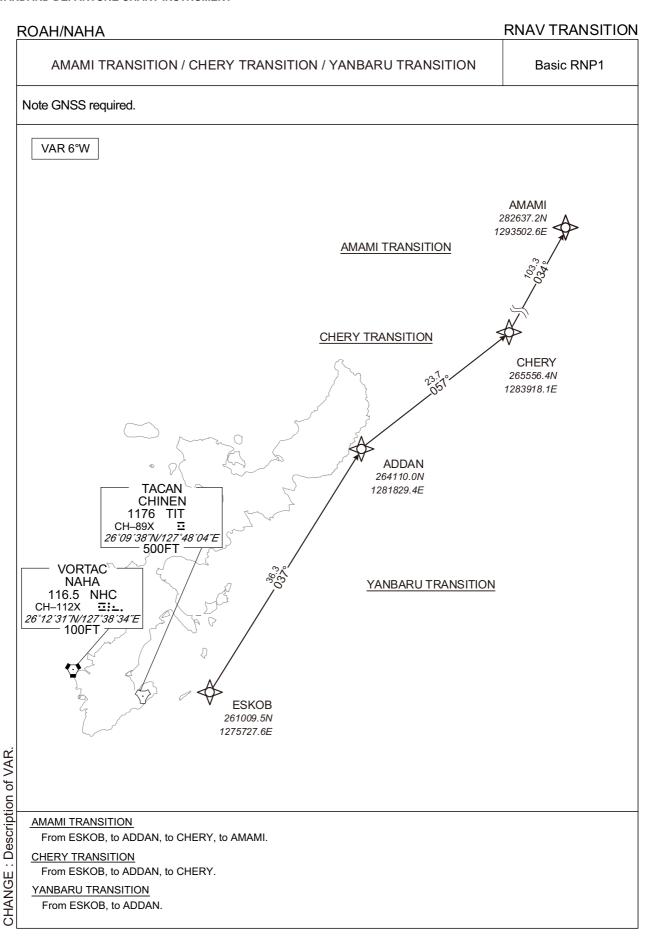
	•										
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	183 (177.6)	-5.6	-	-	+500	-	-	Basic RNP1
002	DF	KYANN	-	-	-5.6	-	-	-	-	-	Basic RNP1
003	TF	AH801	-	093 (087.6)	-5.6	4.7	-	-	-	-	Basic RNP1
004	TF	ESKOB	-	056 (050.9)	-5.6	15.0	-	-	-	-	Basic RNP1

### RWY36R

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	003 (357.6)	-5.6	-	-	+500	-	-	Basic RNP1
002	DF	H6R00	Υ	-	-5.6	-	-	-	-	-	Basic RNP1
003	DF	KIZNA	-	-	-5.6	-	L	-	-	-	Basic RNP1
004	TF	GELMA	-	235 (229.0)	-5.6	8.5	-	-	-	-	Basic RNP1
005	TF	OLVAL	-	185 (179.5)	-5.6	16.5	-	-	-	-	Basic RNP1
006	TF	ESKOB	_	084 (078.4)	-5.6	30.0	-	-	-	_	Basic RNP1

## RWY36L

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	003 (357.6)	-5.6	-	-	+500	-	-	Basic RNP1
002	DF	KIZNA	-	ı	-5.6	1	L	ı	-	-	Basic RNP1
003	TF	GELMA	-	235 (229.0)	-5.6	8.5	-	ı	-	-	Basic RNP1
004	TF	OLVAL	-	185 (179.5)	-5.6	16.5	-	-	-	-	Basic RNP1
005	TF	ESKOB	-	084 (078.4)	-5.6	30.0	-	-	-	-	Basic RNP1



### ROAH/NAHA

### **RNAV TRANSITION**

### **AMAMI TRANSITION**

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	ESKOB	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	ADDAN	-	037 (031.2)	-5.6	36.3	-	-	-	-	Basic RNP1
003	TF	CHERY	-	057 (051.4)	-5.6	23.7	-	-	-	-	Basic RNP1
004	TF	AMAMI	-	034 (028.3)	-5.6	103.3	-	-	-	-	Basic RNP1

## **CHERY TRANSITION**

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	ESKOB	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	ADDAN	-	037 (031.2)	-5.6	36.3	-	-	-	-	Basic RNP1
003	TF	CHERY	-	057 (051.4)	-5.6	23.7	-	-	-	-	Basic RNP1

### YANBARU TRANSITION

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	ESKOB	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	ADDAN	-	037 (031.2)	-5.6	36.3	-	-	-	-	Basic RNP1

# **RNAV SID and TRANSITION** ROAH/NAHA KIZNA TWO DEPARTURE Basic RNP1 RESORT TRANSITION Note GNSS required. VAR 6°W **OKUMA** 264017.0N 1280219.1E **RESORT TRANSITION KIZNA** 262612.8N 1273141.7E H6R00 **KIZNA TWO DEPARTURE** 261455.3N 1273836.2E <u>500</u> **TACAN VORTAC** CHINEN NAHA 1176 TIT 116.5 NHC CH-89X CH-112X **≡**:-26°09′38″N/127°48′04″E 500FT 26°12′31″N/127°38′34″E 100FT KIZNA TWO DEPARTURE CHANGE: Description of VAR. RWY18L/18R: (Not established) $RWY36R: Climb \ on \ HDG003^{\circ} \ at \ or \ above \ 500FT, \ direct \ to \ \underline{H6R00}, \ turn \ left \ direct \ to \ KIZNA \ .$ $RWY36L: Climb \ on \ HDG003^{\circ}$ at or above 500FT, turn left direct to KIZNA . NOTE RWY36R/36L: 5.0% climb gradient required up to 500FT. **RESORT TRANSITION** From KIZNA, to OKUMA.

### ROAH/NAHA

### **RNAV SID and TRANSITION**

### **KIZNA TWO DEPARTURE**

### RWY36R

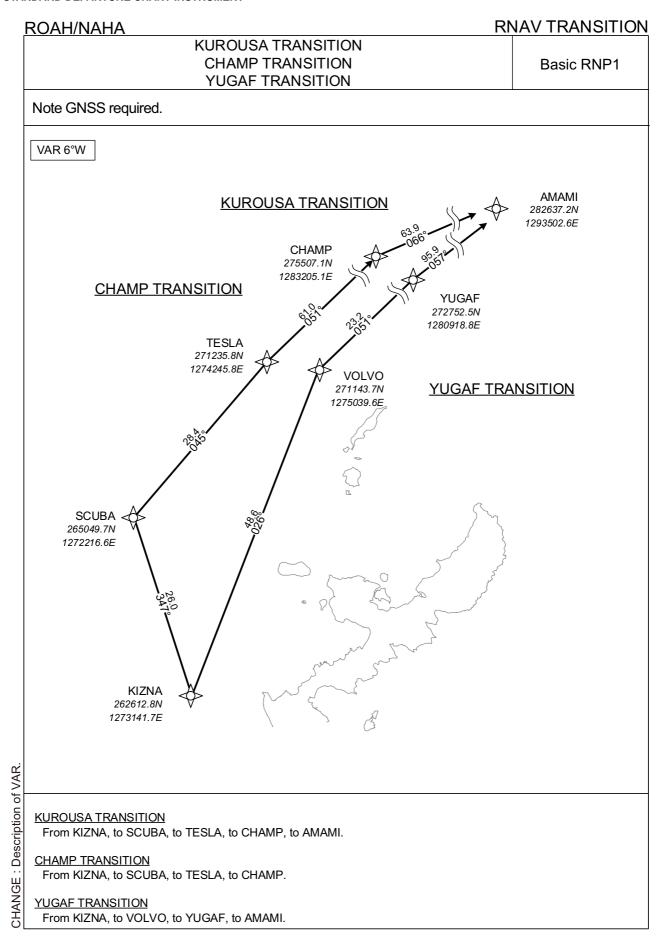
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	003 (357.6)	-5.6	-	-	+500	-	-	Basic RNP1
002	DF	H6R00	Υ	-	-5.6	-	-	-	-	-	Basic RNP1
003	DF	KIZNA	-	-	-5.6	-	L	-	-	-	Basic RNP1

### RWY36L

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	003 (357.6)	-5.6	-	-	+500	-	-	Basic RNP1
002	DF	KIZNA	-	-	-5.6	-	L	-	-	-	Basic RNP1

## **RESORT TRANSITION**

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	KIZNA	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	OKUMA	-	068 (062.7)	-5.6	30.8	-	-	-	-	Basic RNP1



### ROAH/NAHA

## **RNAV TRANSITION**

## **KUROUSA TRANSITION**

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	KIZNA	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	SCUBA	-	347 (341.2)	-5.6	26.0	-	-	-	-	Basic RNP1
003	TF	TESLA	-	045 (039.9)	-5.6	28.4	-	-	-	-	Basic RNP1
004	TF	CHAMP	-	051 (045.6)	-5.6	61.0	-	-	-	-	Basic RNP1
005	TF	AMAMI	-	066 (060.2)	-5.6	63.9	-	-	-	-	Basic RNP1

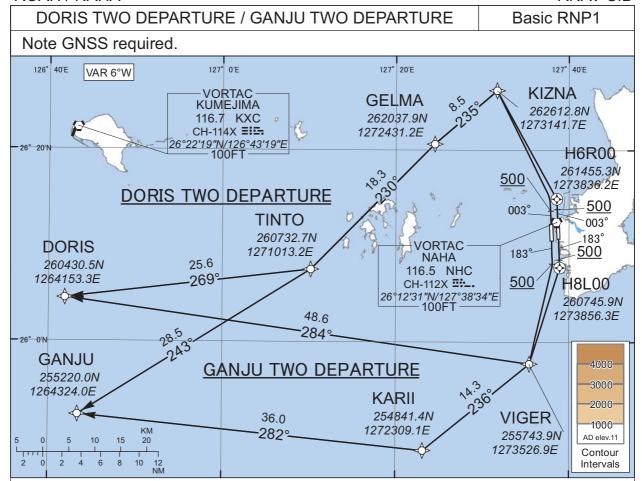
### **CHAMP TRANSITION**

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	KIZNA	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	SCUBA	-	347 (341.2)	-5.6	26.0	-	-	-	-	Basic RNP1
003	TF	TESLA	-	045 (039.9)	-5.6	28.4	-	-	-	-	Basic RNP1
004	TF	CHAMP	-	051 (045.6)	-5.6	61.0	-	-	-	-	Basic RNP1

## **YUGAF TRANSITION**

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	KIZNA	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	VOLVO	-	026 (020.3)	-5.6	48.6	-	-	-	-	Basic RNP1
003	TF	YUGAF	-	051 (045.7)	-5.6	23.2	-	-	-	-	Basic RNP1
004	TF	AMAMI	-	057 (051.9)	-5.6	95.9	-	-	-	-	Basic RNP1

ROAH / NAHA RNAV SID



### **DORIS TWO DEPARTURE**

RWY18L: Climb on HDG183° at or above 500FT, direct to H8L00, turn right direct to VIGER, to DORIS.

RWY18R: Climb on HDG183° at or above 500FT, turn right direct to VIGER, to DORIS.

RWY36R : Climb on HDG003° at or above 500FT, direct to <u>H6R00</u>, turn left direct to KIZNA, to GELMA, to TINTO, to DORIS.

RWY36L: Climb on HDG003° at or above 500FT, turn left direct to KIZNA, to GELMA, to TINTO, to DORIS.

Note RWY36R/36L: 5.0% climb gradient required up to 500FT.

### GANJU TWO DEPARTURE

RWY18L: Climb on HDG183° at or above 500FT, direct to H8L00, turn right direct to VIGER, to KARII, to GANJU.

RWY18R: Climb on HDG183° at or above 500FT, turn right direct to VIGER, to KARII, to GANJU.

RWY36R : Climb on HDG003° at or above 500FT, direct to H6R00, turn left direct to KIZNA, to GELMA, to TINTO, to GANJU.

RWY36L: Climb on HDG003° at or above 500FT, turn left direct to KIZNA, to GELMA, to TINTO, to GANJU.

Note RWY36R/36L: 5.0% climb gradient required up to 500FT.

ROAH / NAHA RNAV SID

## **DORIS TWO DEPARTURE**

### RWY18L

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	ı	183 (177.6)	-5.6	ı	ı	+500	ı	ı	Basic RNP1
002	DF	H8L00	Y	-	-5.6	ı	ı	ı	ı	ı	Basic RNP1
003	DF	VIGER	1	-	-5.6	1	R	-	-	1	Basic RNP1
004	TF	DORIS	-	284 (278.2)	-5.6	48.6	-	-	-	-	Basic RNP1

### RWY18R

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	183 (177.6)	-5.6	1	1	+500	1	1	Basic RNP1
002	DF	VIGER	-	-	-5.6	1	R	-	-	1	Basic RNP1
003	TF	DORIS	-	284 (278.2)	-5.6	48.6	-	-	-	-	Basic RNP1

### RWY36R

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	003 (357.6)	-5.6	-	1	+500	1	-	Basic RNP1
002	DF	H6R00	Υ	1	-5.6	-	-	ı	ı	-	Basic RNP1
003	DF	KIZNA	-	1	-5.6	ı	Г	-	-	ı	Basic RNP1
004	TF	GELMA	-	235 (229.0)	-5.6	8.5	1	ı	ı	-	Basic RNP1
005	TF	TINTO	ı	230 (224.5)	-5.6	18.3	-	-	ı	ı	Basic RNP1
006	TF	DORIS	ı	269 (263.3)	-5.6	25.6	-	-	-	-	Basic RNP1

### RWY36L

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	003 (357.6)	-5.6	-	-	+500	ı	ı	Basic RNP1
002	DF	KIZNA	ı	ı	-5.6	ı	L	ı	ı	ı	Basic RNP1
003	TF	GELMA	1	235 (229.0)	-5.6	8.5	1	ı	1	1	Basic RNP1
004	TF	TINTO	ı	230 (224.5)	-5.6	18.3	-	ı	ı	ı	Basic RNP1
005	TF	DORIS	ı	269 (263.3)	-5.6	25.6	-	ı	ı	ı	Basic RNP1

ROAH / NAHA	RNAV SID

ROAH	/ NAHA										RNAV SIL
GANJ	U TWO	DEPAR	TURI								
RWY	18L										
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	183 (177.6)	-5.6	-	-	+500	1	-	Basic RNP1
002	DF	H8L00	Υ	-	-5.6	-	-	-	1	-	Basic RNP1
003	DF	VIGER	-	-	-5.6	-	R	-	1	-	Basic RNP1
004	TF	KARII	-	236 (230.8)	-5.6	14.3	-	-	-	-	Basic RNP1
005	TF	GANJU	-	282 (276.0)	-5.6	36.0	-	-	-	-	Basic RNP1
RWY	18R										
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	ı	ı	183 (177.6)	-5.6	-	-	+500	ı	ı	Basic RNP1
002	DF	VIGER	-	-	-5.6	i	R	-	ı	ı	Basic RNP1
003	TF	KARII	-	236 (230.8)	-5.6	14.3	-	-	ı	1	Basic RNP1
004	TF	GANJU	-	282 (276.0)	-5.6	36.0	-	-	ı	1	Basic RNP1
RWY	36R										
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	003 (357.6)	-5.6	-	-	+500	ı	-	Basic RNP1
002	DF	H6R00	Υ	-	-5.6	-	-	-	-	-	Basic RNP1
003	DF	KIZNA	-	-	-5.6	-	L	-	-	-	Basic RNP1
004	TF	GELMA	-	235 (229.0)	-5.6	8.5	-	-	1	-	Basic RNP1
005	TF	TINTO	-	230 (224.5)	-5.6	18.3	-	-	-	ı	Basic RNP1
006	TF	GANJU	-	243 (237.8)	-5.6	28.5	-	-	ı	ı	Basic RNP1
RWY	36L										
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	003 (357.6)	-5.6	-	-	+500	-	-	Basic RNP1
002	DF	KIZNA	-	-	-5.6	-	L	-	-	-	Basic RNP1
003	TF	GELMA	-	235 (229.0)	-5.6	8.5	-	-	-	-	Basic RNP1
004	TF	TINTO	-	230 (224.5)	-5.6	18.3	-	-	-	-	Basic RNP1
005	TF	GANJU	-	243 (237.8)	-5.6	28.5	-	-	-	-	Basic RNP1
-			-	/ .		-			-	-	

CHANGE: PROC renamed. Navigation specification.

ROAH/NAHA STAR

### **SCUBA ARRIVAL**

From over SCUBA, via NHC R344 to 28.1 DME, turn right to intercept and proceed via NHC R341 to EISAR.

Cross NHC R344/28.1DME at or above 3000FT, cross EISAR at or above 2000FT.

### **LAVON ARRIVAL**

From over LAVON, via NHC 15.0DME counterclockwise ARC to VIGER. Cross VIGER at or above 2000FT.

(When using NHC TACAN only)

From over LAVON at or above 5000FT, via NHC 15.0DME counterclockwise ARC to VIGER.

Cross VIGER at or above 4400FT.

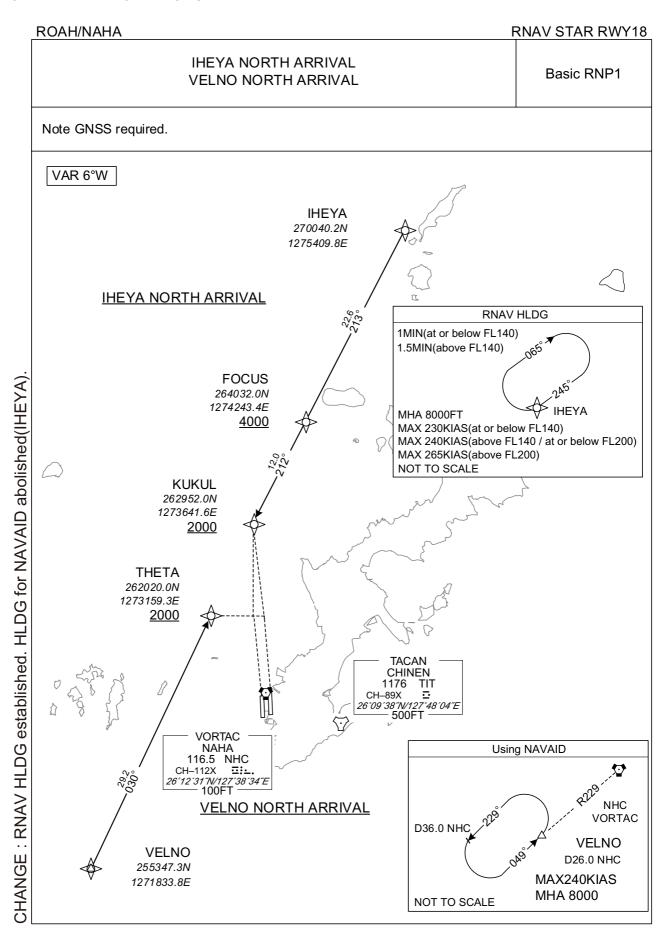
### LAFTY ARRIVAL

From over LAFTY, via NHC R196 to VIGER. Cross VIGER at or above 2000FT.

(When using NHC TACAN only) From over LAFTY, via NHC R196 to VIGER. Cross VIGER at or above 4400FT.

CHANGE: New PROC





### ROAH / NAHA

## **RNAV STAR RWY18**

### **IHEYA NORTH ARRIVAL**

From IHEYA, to FOCUS at or above 4000FT, to KUKUL at or above 2000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	IHEYA	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	FOCUS	-	213 (206.9)	-5.6	22.6	-	+4000	-	-	Basic RNP1
003	TF	KUKUL	-	212 (206.8)	-5.6	12.0	-	+2000	-	-	Basic RNP1

Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	IHEYA	245 (239.1)	-5.8	1.0(-14000) 1.5(+14001)	R	8000	-	-230(-14000) -240(14001-20000) -265(+20001)	Basic RNP1

### **VELNO NORTH ARRIVAL**

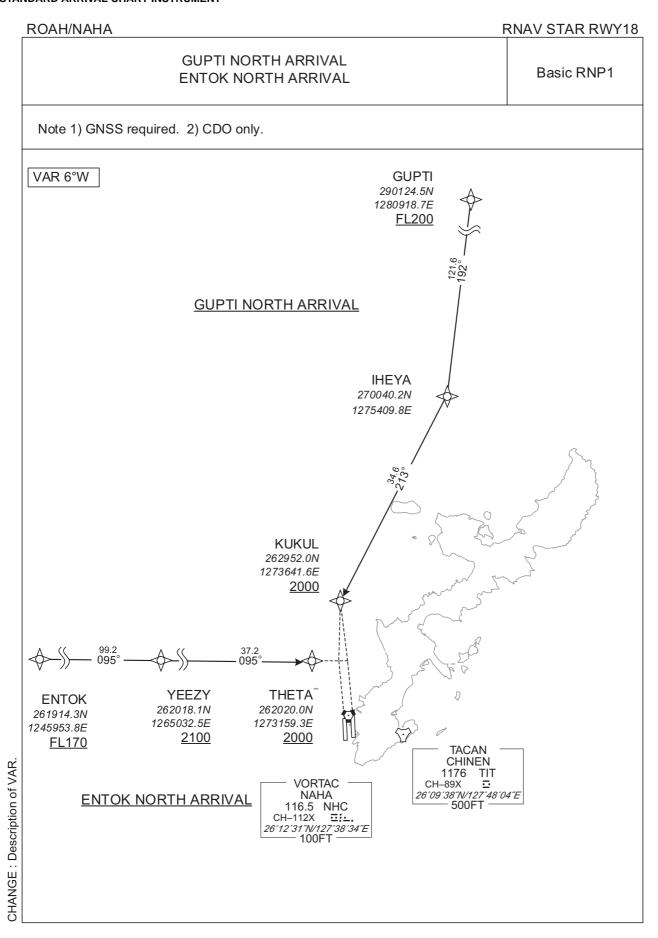
From VELNO, to THETA at or above 2000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	VELNO	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	THETA	-	030 (024.4)	-5.6	29.2	-	+2000	-	-	Basic RNP1

ROAH/NAHA **RNAV STAR RWY18** Basic RNP1 RESORT NORTH ARRIVAL Note 1) GNSS required. 2) CDO only. VAR 6°W **OKUMA** 264017.0N 1280219.1E **CLIFF** 263312.5N 1274453.2E Using NAVAID 2700 D45.0 NHC **KUKUL** MHA 5000 MAX 250KIAS 262952.0N 1273641.6E OKUMA 2000 D35.0 NHC NHC VORTAC NOT TO SCALE **VORTAC** NAHA **TACAN** 116.5 NHC CH-112X =:-. 26°12′31″W/127°38′34″E 100FT CHINEN 1176 TIT CH-89X 26°09′38″N/127°48′04″E 500FT

From OKUMA, to CLIFF at or above 2700FT, to KUKUL at or above 2000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	OKUMA	-	-	-5.6	-		-	-	1	Basic RNP1
002	TF	CLIFF	-	251 (245.7)	-5.6	17.1	-	+2700	-	-	Basic RNP1
003	TF	KUKUL	-	251 (245.5)	-5.6	8.1	-	+2000	-	1	Basic RNP1



### ROAH / NAHA

## **RNAV STAR RWY18**

### **GUPTI NORTH ARRIVAL**

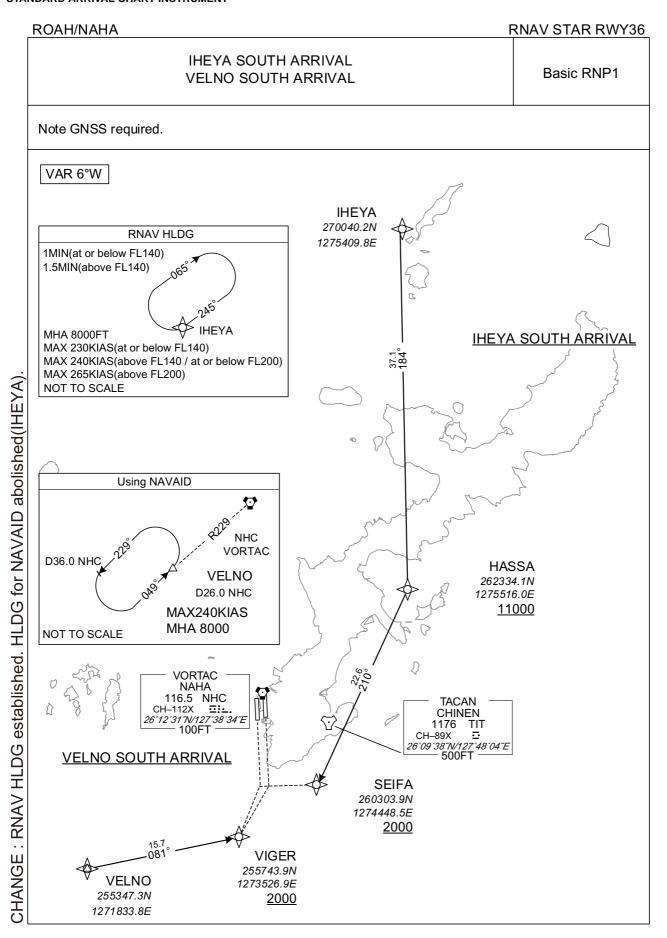
From GUPTI at or above FL200, to IHEYA, to KUKUL at or above 2000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	GUPTI	-	-	-5.6	-	-	+FL200	-	-	Basic RNP1
002	TF	IHEYA	-	192 (186.4)	-5.6	121.6	-	-	-	-	Basic RNP1
003	TF	KUKUL	-	213 (206.9)	-5.6	34.6	-	+2000	-	-	Basic RNP1

### **ENTOK NORTH ARRIVAL**

From ENTOK at or above FL170, to YEEZY at or above 2100FT, to THETA at or above 2000FT.

ı												
	Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
	001	IF	ENTOK	-	-	-5.6	-	-	+FL170	-	-	Basic RNP1
	002	TF	YEEZY	-	095 (089.0)	-5.6	99.2	-	+2100	-	-	Basic RNP1
ĺ	003	TF	THETA	-	095 (089.8)	-5.6	37.2	-	+2000	-	-	Basic RNP1



### ROAH / NAHA

### **RNAV STAR RWY36**

### **IHEYA SOUTH ARRIVAL**

From IHEYA, to HASSA at or above 11000FT, to SEIFA at or above 2000FT.

1	Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
	001	IF	IHEYA	-	-	-5.6	-	-	-	-	-	Basic RNP1
	002	TF	HASSA	-	184 (178.5)	-5.6	37.1	-	+11000	-	-	Basic RNP1
	003	TF	SEIFA	-	210 (204.6)	-5.6	22.6	-	+2000	-	-	Basic RNP1

Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Holo	IHEYA	245 (239.1)	-5.8	1.0(-14000) 1.5(+14001)	R	8000	1	-230(-14000) -240(14001-20000) -265(+20001)	Basic RNP1

### **VELNO SOUTH ARRIVAL**

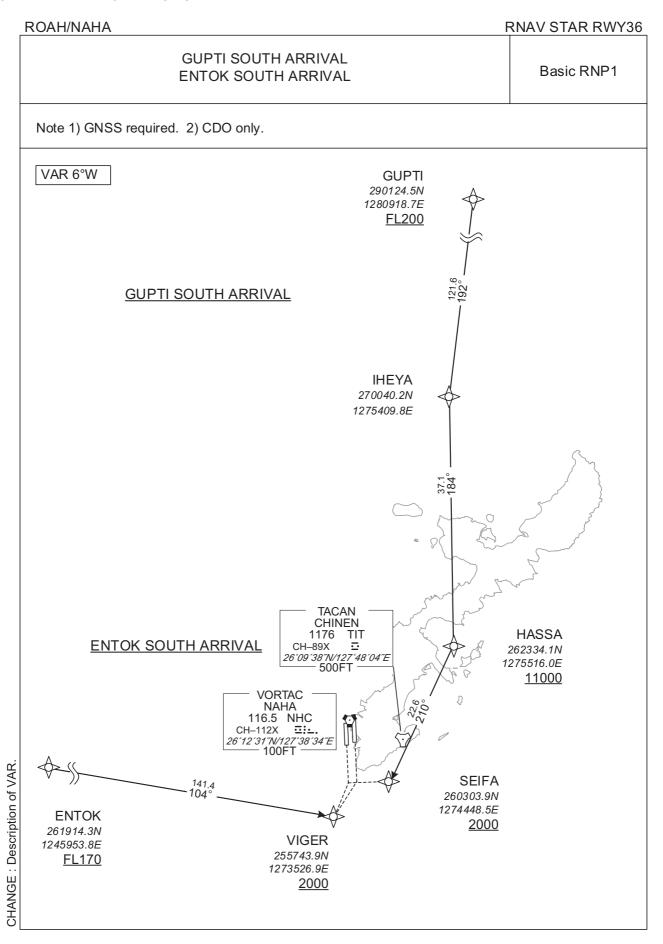
From VELNO, to VIGER at or above 2000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	VELNO	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	VIGER	-	081 (075.4)	-5.6	15.7	-	+2000	-	-	Basic RNP1

ROAH/NAHA **RNAV STAR RWY36** RESORT SOUTH ARRIVAL Basic RNP1 Note 1) GNSS required. 2) CDO only. VAR 6°W Using NAVAID D45.0 NHC **OKUMA** 264017.0N MHA 5000 1280219.1E MAX 250KIAS **OKUMA** D35.0 NHC NHC **VORTAC** NOT TO SCALE TACAN **CHINEN HASSA** 1176 TIT CH-89X 262334.1N 26°09′38″N/127°48′04″E 500FT 1275516.0E 11000 VORTAC NAHA 116.5 NHC CH-112X 26°12′31″N/127°38′34″E 100FT SEIFA 260303.9N 1274448.5E 2000

From OKUMA, to HASSA at or above 11000FT, to SEIFA at or above 2000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	OKUMA	-	-	-5.6	-	-	-	-	-	Basic RNP1
002	TF	HASSA	-	206 (200.7)	-5.6	17.9	-	+11000	-	-	Basic RNP1
003	TF	SEIFA	-	210 (204.6)	-5.6	22.6	-	+2000	-	-	Basic RNP1



### ROAH / NAHA

## **RNAV STAR RWY36**

### **GUPTI SOUTH ARRIVAL**

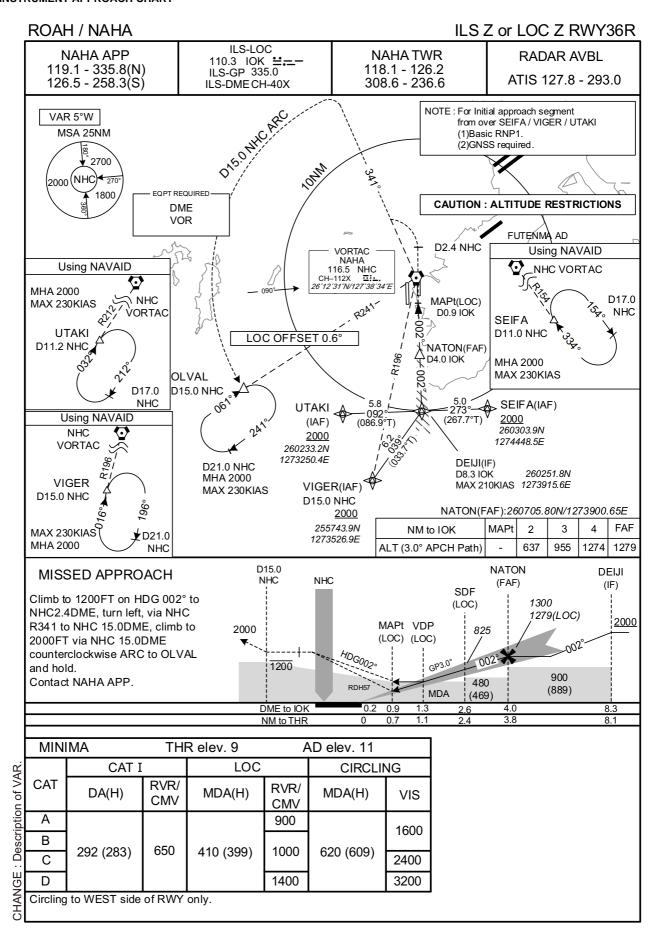
From GUPTI at or above FL200, to IHEYA, to HASSA at or above 11000FT, to SEIFA at or above 2000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	GUPTI	-	-	-5.6	-	-	+FL200	-	-	Basic RNP1
002	TF	IHEYA	-	192 (186.4)	-5.6	121.6	-	-	-	-	Basic RNP1
003	TF	HASSA	-	184 (178.5)	-5.6	37.1	-	+11000	-	-	Basic RNP1
004	TF	SEIFA	-	210 (204.6)	-5.6	22.6	-	+2000	-	-	Basic RNP1

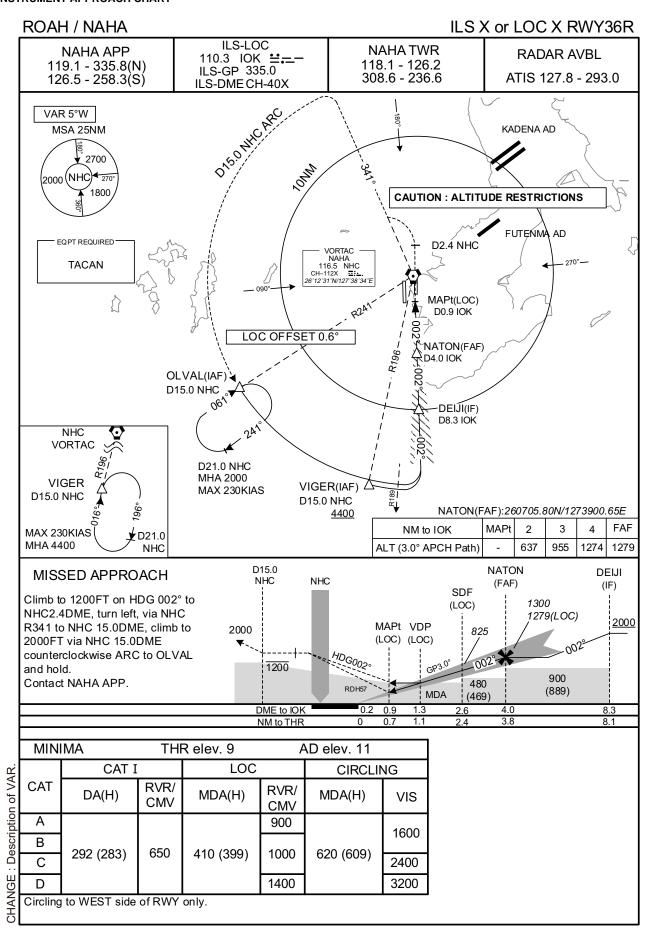
### **ENTOK SOUTH ARRIVAL**

From ENTOK at or above FL170, to VIGER at or above 2000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	ENTOK	-	-	-5.6	-	-	+FL170	-	-	Basic RNP1
002	TF	VIGER	-	104 (098.2)	-5.6	141.4	-	+2000	-	-	Basic RNP1



#### **ROAH / NAHA** ILS Y or LOC Y RWY36R ILS-LOC 110.3 IOK ≌... ILS-GP 335.0 ILS-DME CH-40X NAHA APP **NAHATWR** RADAR AVBL 119.1 - 335.8(N) 118.1 - 126.2 ATIS 127.8 - 293.0 126.5 - 258.3(S) 308.6 - 236.6 VAR 5°W 180 KADENA AD MSA 25NM °2700 (2000 (NHC)<del>< 270</del> 1800 **CAUTION: ALTITUDE RESTRICTIONS** FUTENMA AΠ EQPT REQUIRED VORTAC D2.4 NHC NAHA 116.5 NHC CH–112X ☲:-. 26°12'31"N/127"38'34"E DME 270° VOR MAPt(LOC) D<sub>0.9</sub> IOK LOC OFFSET 0.6° NATON(FAF) 104.0 IOK OLVAL(IAF) D15.0 NHC DEIJI(IF) D8.3 IOK NHC **VORTAC** D21.0 NHC MHA 2000 **VIGER** VIGER(IAF) MAX 230KIAS D15.0 NHC D15.0 NHC NATON(FAF):260705.80N/1273900.65E 2000 MAPt 2 3 FAF 4 NM to IOK MAX 230KIAS D21.0 MHA 2000 1274 ALT (3.0° APCH Path) 637 955 1279 NHC D15.0 NATON DEIJI MISSED APPROACH NHC (FAF) (IF) SDF Climb to 1200FT on HDG 002° to 1300 (LOC) NHC2.4DME, turn left, via NHC 1279(LOC) 2000 R341 to NHC 15.0DME, climb to MAPt VDP 2000 825 2000FT via NHC 15.0DME (LOC) (LOC) HDG002 counterclockwise ARC to OLVAL GP3.0° 1200 and hold. 900 Contact NAHA APP. (889)MDA (469)DME to IOK 0.2 0.9 4.0 8.3 8 1 **MINIMA** THR elev. 9 AD elev. 11 LOC CAT I **CIRCLING** Description of VAR CAT RVR/ RVR/ DA(H) MDA(H) MDA(H) VIS CMV CMV Α 900 1600 В 650 292 (283) 410 (399) 1000 620 (609) С 2400 CHANGE D 1400 3200 Circling to WEST side of RWY only.

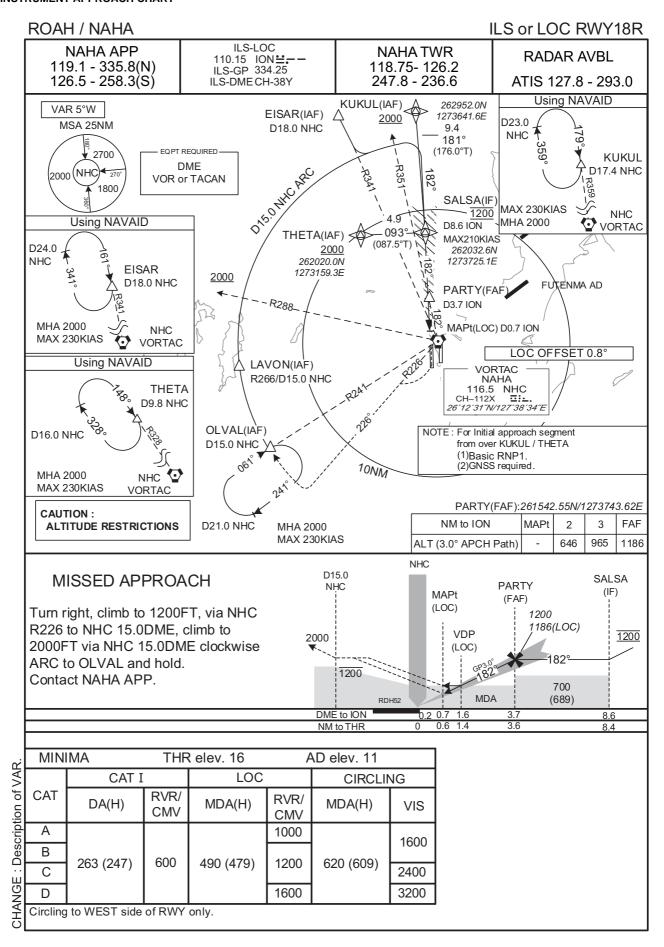


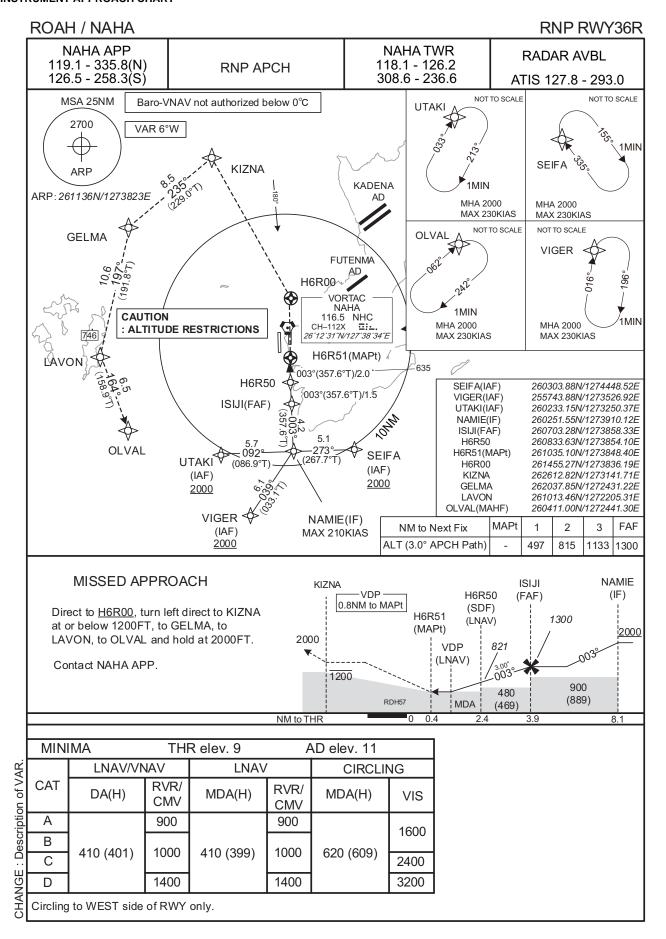
#### ILS Z or LOC Z RWY36L ROAH / NAHA ILS-LOC NAHA APP **NAHATWR** RADAR AVBL 111.7 IOW **∺** 119.1 - 335.8(N) 118.75 - 126.2 ILS-GP 333.5 ATIS 127.8 - 293.0 126.5 - 258.3(S) 247.8 - 236.6 ILS-DME CH-54X Using NAVAID Using NAVAID VAR 5°W NHC NHC VORTAC MHA 2000 MSA 25NM VORTAC **CAUTION: ALTITUDE RESTRICTIONS** MAX 230KIAS 3, D17.0 2700 D15.0 NHC ARC UTAKI OTH NHC (<sub>2000</sub> (NHC)<del>< 27</del>0 D11.2 NHC **SEIFA** D11.0 NHC 1800 <sup>3</sup>0⊗° MHA 2000 D17.0 MAX 230KIAS NHC VORTAC NAHA 116.5 NHC CH–112X ☲:-. 26°12'31'W/127'38'34'E - EQPT REQUIRED NOTE: For Initial approach segment DME from over SEIFA / VIGER / UTAKI .090° (1)Basic RNP1. VOR (2)GNSS required. MAPt(LOC) D0 6 IOW R241 BOOST(FAF) Using NAVAID **D4.0 IOW** NHC SEIFA **OLVAL VORTAC** (IAF) D15.0 NHC 2000 UTAKI 061, 5.0 5.8 ◈ (IAF) **VIGER** 092 (267.6°T) 260303.9N 2000 D15.0 NHC (086.9° 1274448.5E 96, 260233.2N 1273250.4E BLISS(IF) D8.1 IOW MHA 2000 MAX 230KIAS D21.0 MAX210KIAS MAX 230KIAS D21.0 NHC MHA 2000 NHC 260249.3N 1273823.0E BOOST(FAF):260653.15N/127381 1.59E VIGER(IAF) 255743.9N D15.0 NHC MAPt FAF 2 4 NM to IOW 1273526.9F 2000 ALT (3.0° APCH Path) 641 959 1278 1282 MISSED APPROACH D12.0 **BLISS BOOST** Turn left, climb to 1200FT via NHC NHC NHC (IF) (FAF) D8.5 R 308 to NHC8.5DME, climb to 2000FT 1300 NHC via NHC R308 to NHC 15.0DME, via 1282(LOC) 2000 MAPt <sub>VDP</sub> NHC 15.0DME counterclockwise ARC 2000 (LOC) (LOC) to OLVAL and hold. Cross NHC R308/12.0DME at or above 1200 003 1400FT. 700 Contact NAHA APP. (689)MDA DME to IOW 0.6 8.1 4.0 0.5 NM to THR MINIMA THR elev. 14 AD elev. 11 CAT I LOC **CIRCLING** Description of VAR CAT RVR/ RVR/ DA(H) MDA(H) MDA(H) VIS CMV **CMV** Α 900 1600 В 550 214 (200) 430 (419) 1000 620 (609) C 2400 CHANGE 1400 3200 D Circling to WEST side of RWY only.

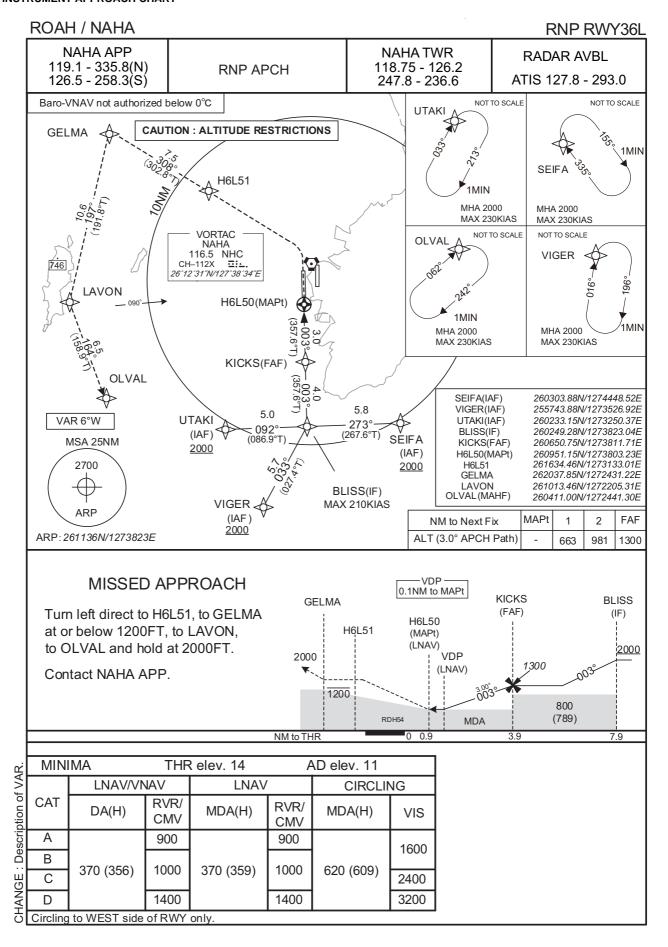
#### **ROAH / NAHA** ILS Y or LOC Y RWY36L ILS-LOC NAHA APP NAHA TWR RADAR AVBL 111.7 IOW **∺** ILS-GP 333.5 119.1 - 335.8(N) 118.75 - 126.2 247.8 - 236.6 ATIS 127.8 - 293.0 126.5 - 258.3(S) ILS-DME CH-54X VAR 5°W KADENA AD **CAUTION: ALTITUDE RESTRICTIONS** MSA 25NM 2700 <sub>(2000</sub> (NHC) EQPT REQUIRED DME VOR FUTÉNMA\AD 270°-VORTAC NAHA 116.5 NHC CH–112X □:-CH-112X **2:-.** 26°12′31″N/127°38′34″E MAPt(LOC) D0.6 IOW BOOST(FAF) NHC D4.0 IOW VORTAC OLVAL(IAF) -003 D15.0 NHC **VIGER** BLISS(IF) D15.0 NHC **D8.1 IOW** MAX 230KIAS D21.0 MHA 2000 MHA 2000 NHC D21.0 NHC MAX 230KIAS BOOST(FAF):260653.15N/127381 1.59E VIGER(IAF) R193 D15.0 NHC MAPt FAF NM to IOW 2 3 4 2000 ALT (3.0° APCH Path) 641 959 1278 1282 MISSED APPROACH D12.0 **BLISS** BOOST NHC Turn left, climb to 1200FT via NHC NHC (IF) (FAF) R308 to NHC8.5DME, climb to 2000FT 1300 D8.5 via NHC R308 to NHC 15.0DME, via $_{2000}$ 1282(LOC) 2000 MAPt **VDP** NHC 15.0DME counterclockwise ARC ▼、 (LOC) (LOC) to OLVAL and hold. 1400 GP3.0° Cross NHC R308/12.0DME at or above -003° 1200 700 1400FT. (689)Contact NAHA APP MDA DME to IOW 0.2 0.6 8.1 4.0 0.5 NM to THR **MINIMA** THR elev. 14 AD elev. 11 Description of VAR CAT I LOC **CIRCLING** CAT RVR/ RVR/ DA(H) MDA(H) MDA(H) VIS CMV CMV Α 900 1600 В 550 1000 214 (200) 430 (419) 620 (609) С 2400 CHANGE 1400 3200 D Circling to WEST side of RWY only.

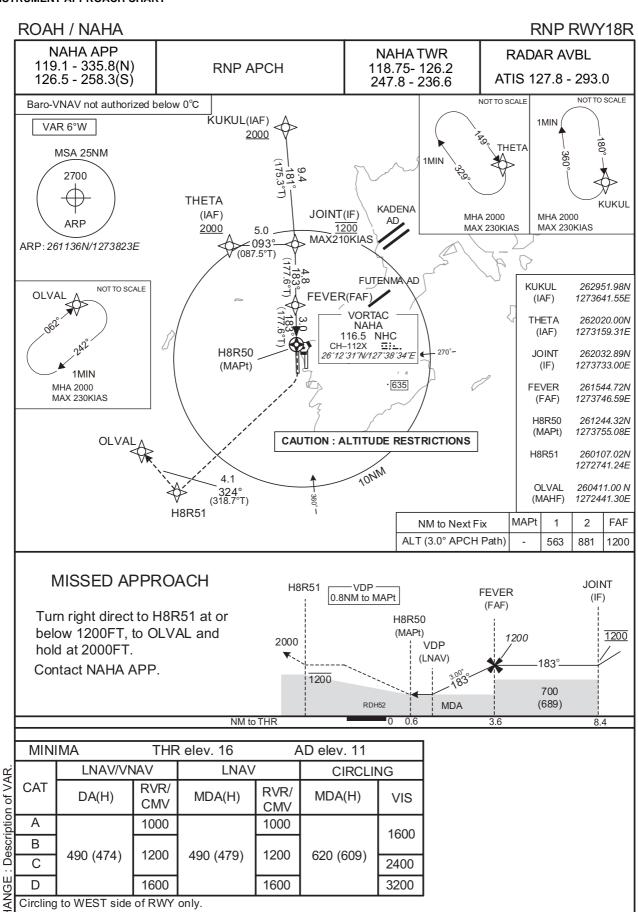
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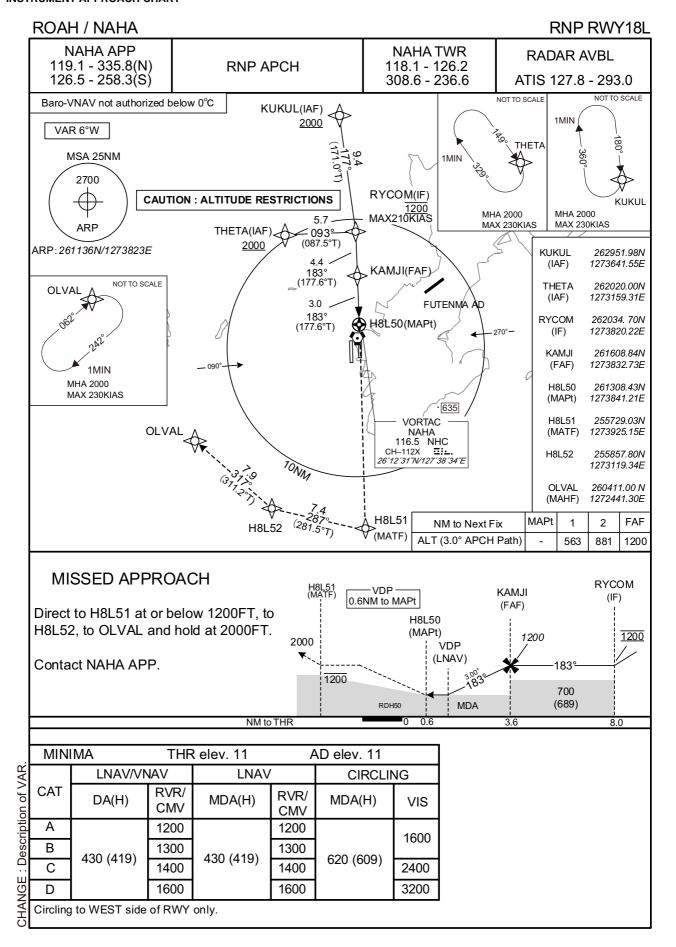
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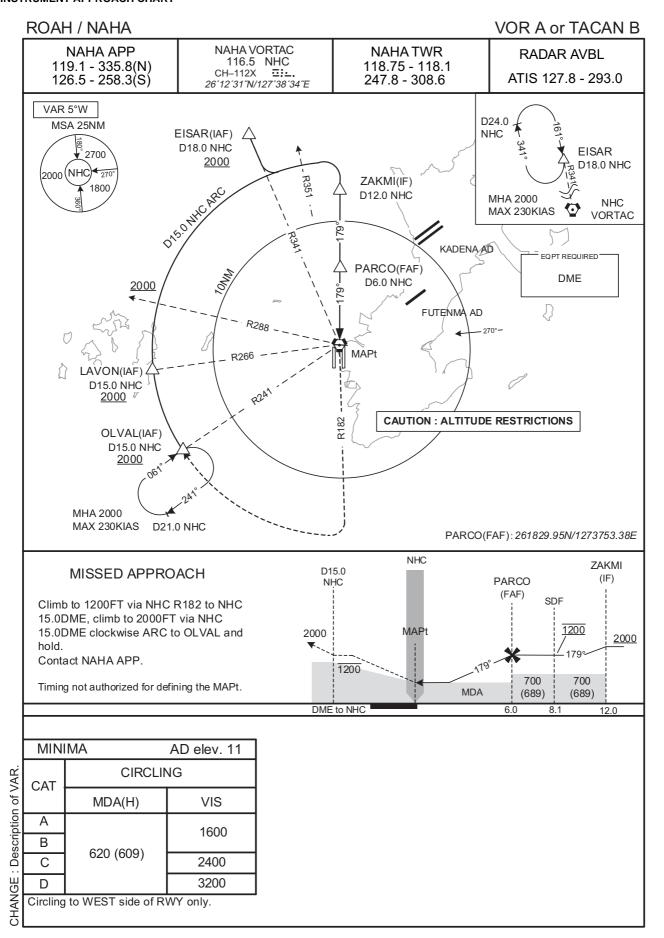


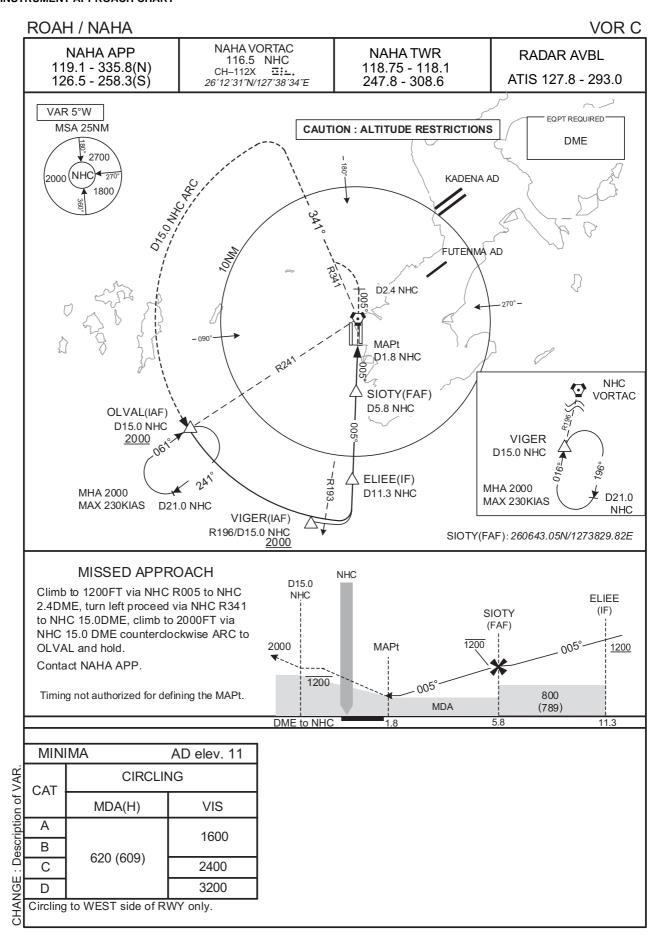


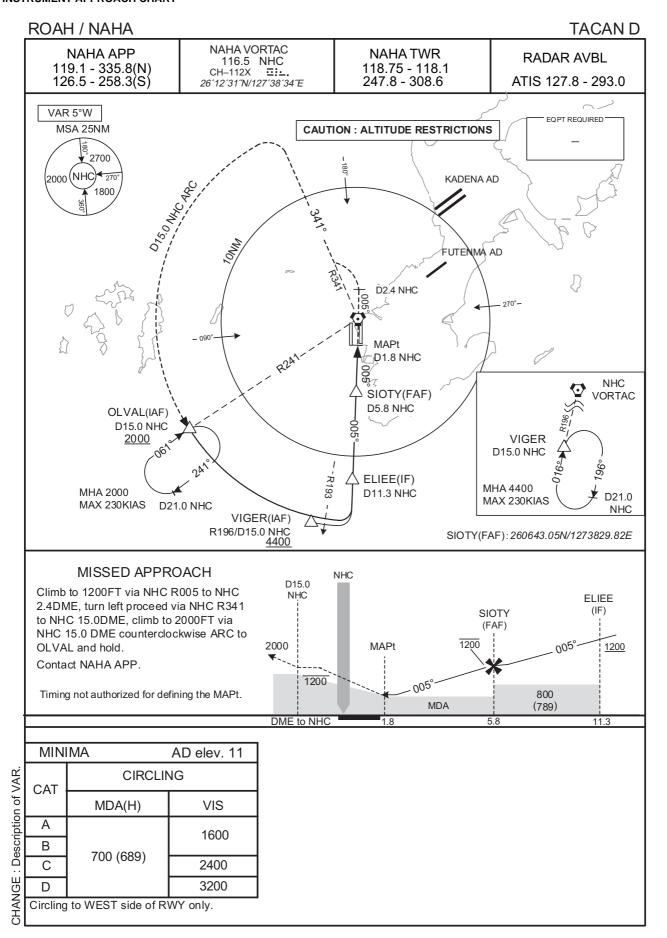














※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

snea	Call sign	BRG / DIST from ARP	Remarks
estabilished(	サンド Sando	311°T / 6.6NM	ナガンヌ島 Island
ב ב ב	慶良間ノース Kerama North	277°T / 15.4NM	渡嘉敷島北端 North edge of island
visuai	前島 Maejima	276°T / 10.5NM	前島 Island
.	慶良間サウス Kerama South	260°T / 16.1NM	渡嘉敷島南端 South edge of island
BRG/DIST ITOIL	ドーナツ Donatsu	227°T / 7.8NM	ルカン礁 Coral reef
1010/c	パルコシティ Parco City	037°T / 5.2NM	パルコシティ Shopping mall
	安謝 Aja	043°T / 4.0NM	国道58号線安謝橋 Bridge
iviap updated.	小禄 Oroku	083°T / 1.5NM	モノレール小禄駅 Station
iviap u	与那原 Yonabaru	085°T / 6.2NM	国道329号線与那原交叉点 Intersection
	とよみ Toyomi	090°T / 2.5NM	とよみ大橋と爬龍橋の交点 Intersection
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