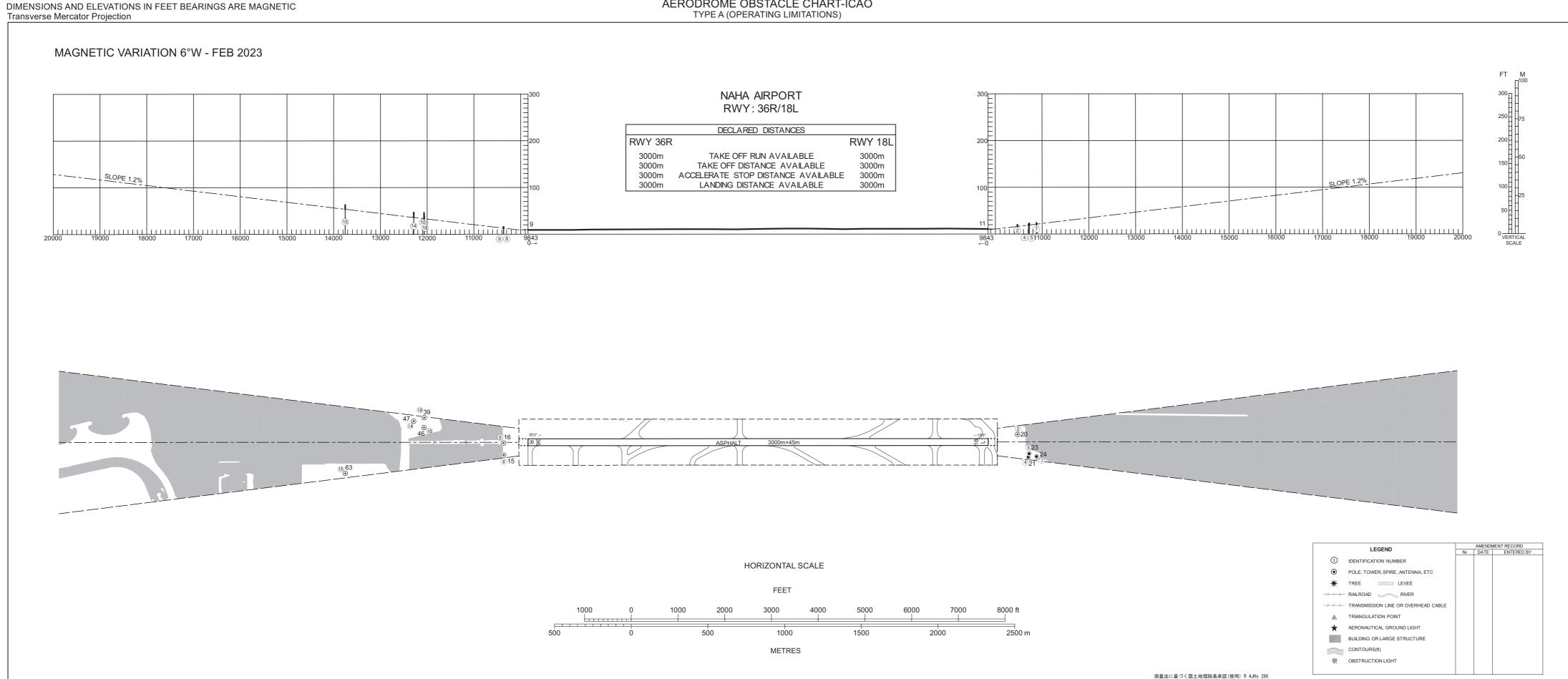




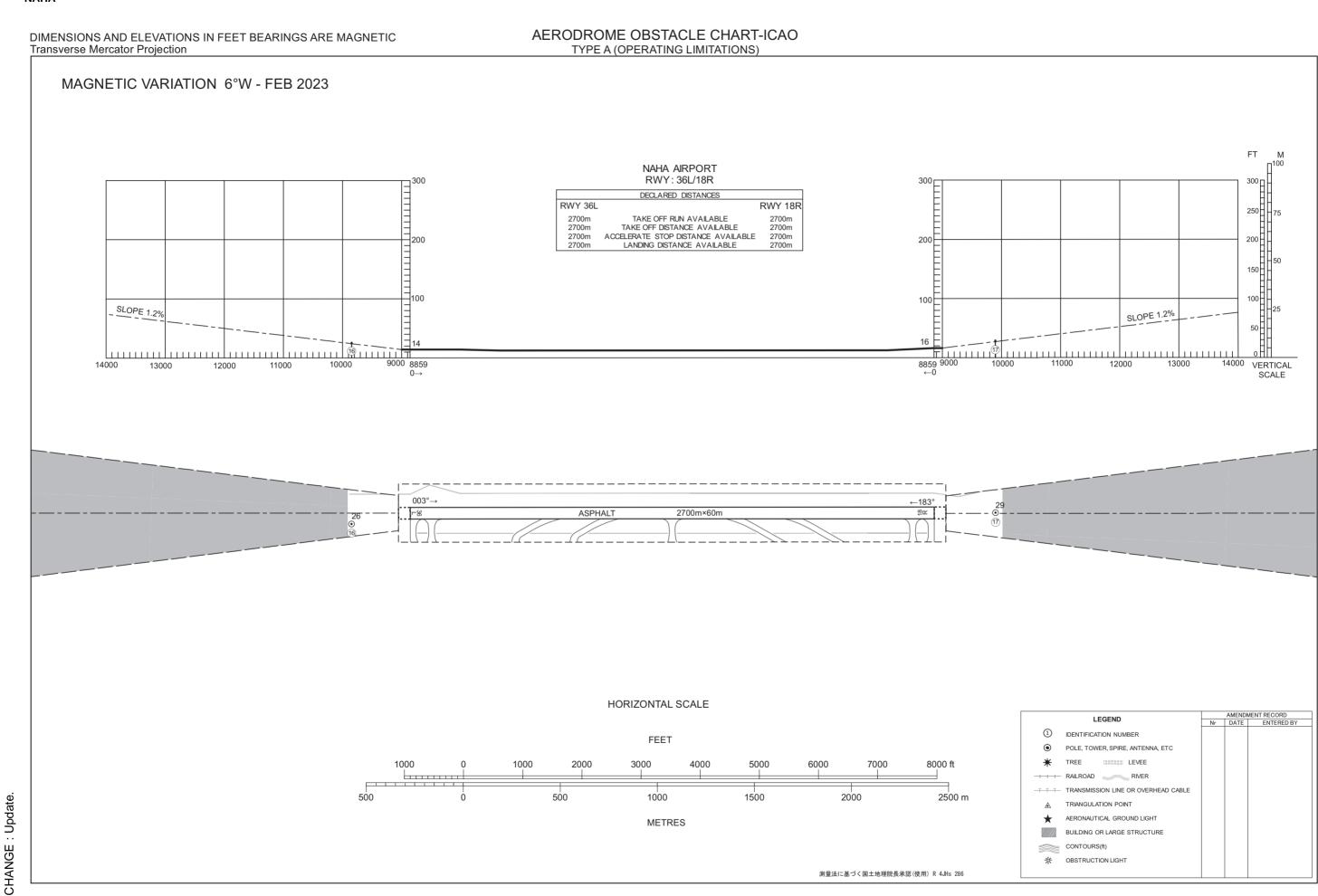
AERODROME OBSTACLE CHART-ICAO

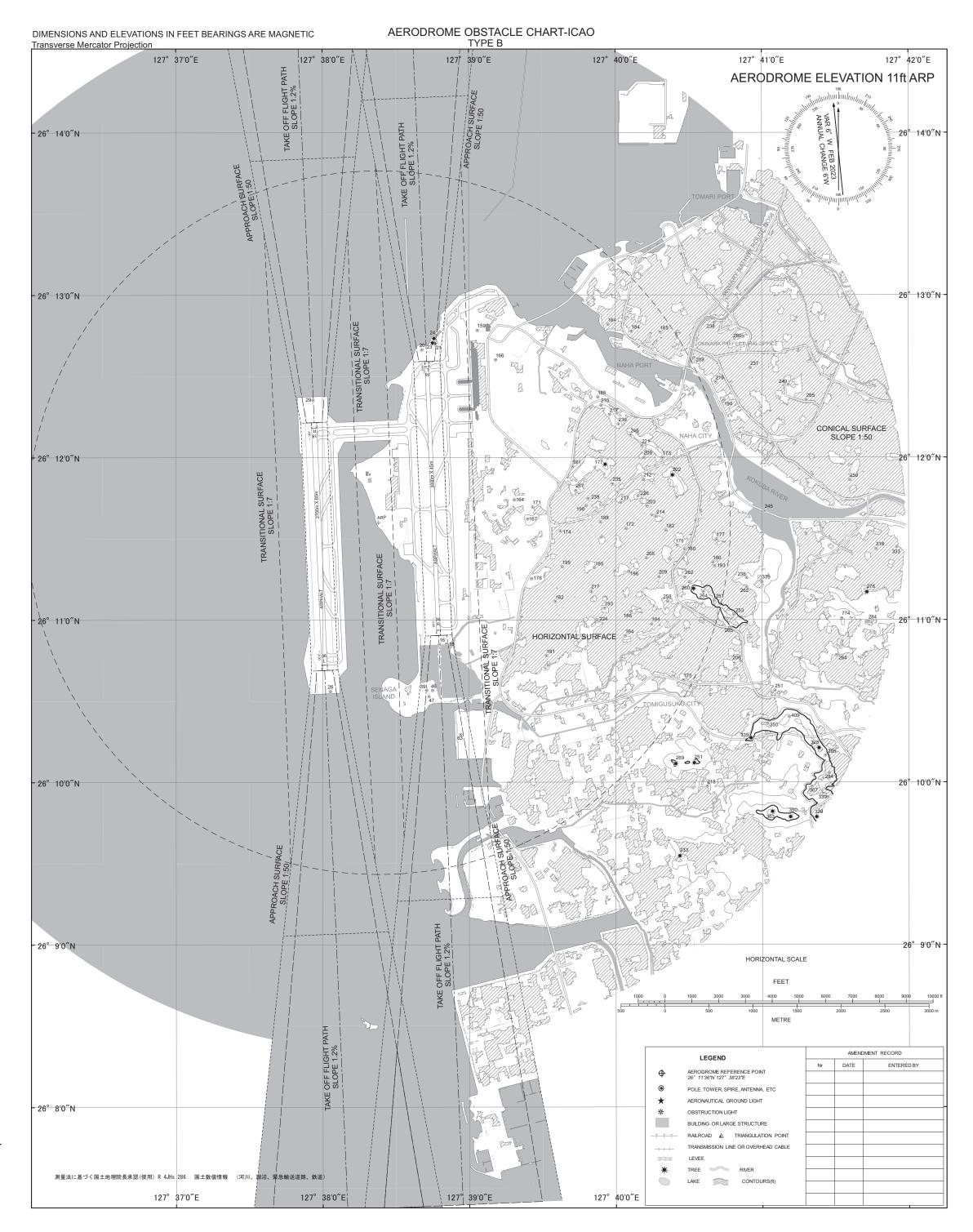


CONTOURS(ft)

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)

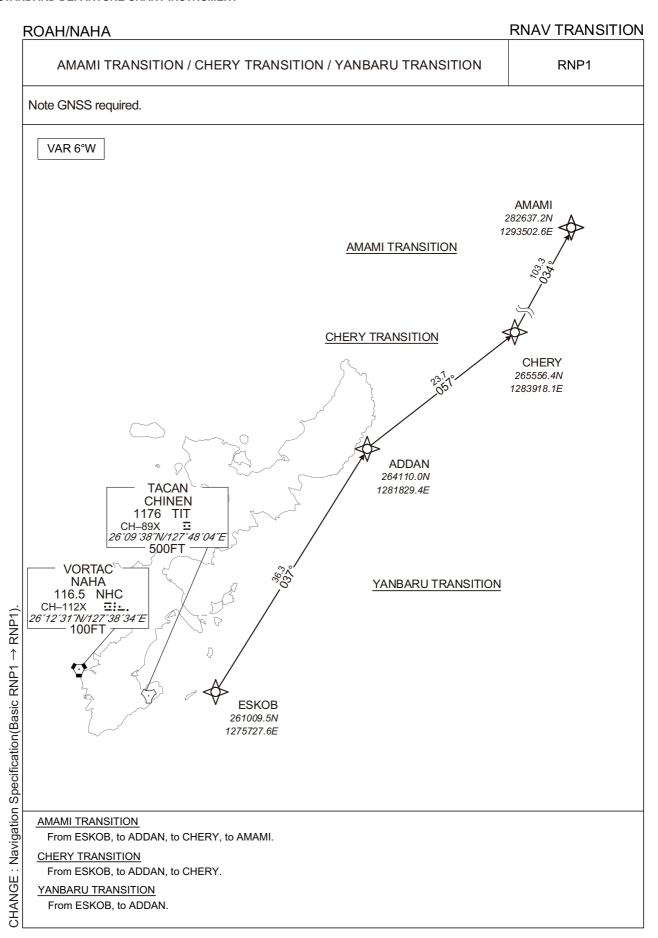


**RNAV SID** ROAH/NAHA **ESKOB THREE DEPARTURE** RNP1 Note GNSS required. VAR 6°W **KIZNA** 262612.8N 1273141.7E **GELMA** 262037.9N 1272431.2E H6R00 261455.3N TACAN CHINEN 1273836.2E 1176 TIT CH-89X **Ξ** 26°09′38″W/127°48′04″E / 500FT 16.5 <u>500</u> <u>500</u> **VORTAC** NAHA 116.5 NHC CH-112X *26°12′31″N/127°38′34″E* ——— 100FT ——— 183 <u>500</u> <u>500</u> **ESKOB** CHANGE : Navigation Specification(Basic RNP1 → RNP1) 261009.5N 1275727.6E 30.0 n84 **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.

FSK	AR THRI	EE DEPA	RTI	IRF											
RWY				<u> </u>											
Serial Number	Path	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	-	-	RNP1				
002	DF	KYANN	-	-	-5.6	-	-	-	-	-	RNP1				
003	TF	AH801	-	093 (087.6)	-5.6	4.7	-	-	-	-	RNP1				
004	TF	ESKOB	-	056 (050.9)	-5.6	15.0	-	-	-	-	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 Specificatio				
001	VA	-	-	183 (177.6)	-5.6	-	-	+500	-	-	RNP1				
002	DF	KYANN	-	-	-5.6	-	-	-	-	-	RNP1				
003	TF	AH801	-	093 (087.6)	-5.6	4.7	-	-	-	-	RNP1				
004	TF	ESKOB	-	056 (050.9)	-5.6	15.0	-	-	-	-	RNP1				
RWY	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 Specificatio				
001	VA	-	-	003 (357.6)	-5.6	-	-	+500	-	-	RNP1				
002	DF	H6R00	Υ	-	-5.6	-	-	-	-	-	RNP1				
003	DF	KIZNA	-	-	-5.6	-	L	-	-	-	RNP1				
004	TF	GELMA	-	235 (229.0)	-5.6	8.5	-	-	-	-	RNP1				
005	TF	OLVAL	-	185 (179.5)	-5.6	16.5	1	-	-	1	RNP1				
006	TF	ESKOB	-	084 (078.4)	-5.6	30.0	-	-	-	-	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	-	-	RNP1				
002	DF	KIZNA	-	-	-5.6	-	L	-	-	-	RNP1				
003	TF	GELMA	-	235 (229.0)	-5.6	8.5	-	-	-	-	RNP1				
004	TF	OLVAL	-	185 (179.5)	-5.6	16.5	-	-	-	-	RNP1				
005	TF	ESKOB	_	084 (078.4)	-5.6	30.0	-	-	_	_	RNP1				



# ROAH / NAHA

# **RNAV TRANSITION**

# **AMAMI TRANSITION**

STANDARD DEPARTURE CHART-INSTRUMENT

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	-	-	-	-	-	RNP1
002	TF	ADDAN	-	037 (031.2)	-5.6	36.3	-	-	-	1	RNP1
003	TF	CHERY	-	057 (051.4)	-5.6	23.7	-	-	-	1	RNP1
004	TF	AMAMI	-	034 (028.3)	-5.6	103.3	-	-	-	-	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	-	-	-	-	-	RNP1
002	TF	ADDAN	-	037 (031.2)	-5.6	36.3	-	-	-	1	RNP1
003	TF	CHERY	-	057 (051.4)	-5.6	23.7	-	ı	1	1	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	1	-	-5.6	-	-	-	1	1	RNP1
002	TF	ADDAN	-	037	-5.6	36.3	-	-	_	-	RNP1

# **RNAV SID and TRANSITION** ROAH/NAHA KIZNA TWO DEPARTURE 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 2 <u>500</u> **TACAN VORTAC** CHINEN NAHA 1176 TIT 116.5 NHC CH-89X CH–112X **Ξ:⊥.** 26°12′31″W/127°38′34″E 100FT CHANGE : Navigation Specification(Basic RNP1 → RNP1) *26°09′38″N/127°48′04″E* 500FT — KIZNA TWO DEPARTURE RWY18L/18R: (Not established) RWY36R: Climb on HDG003° at or above 500FT, direct to H6R00, turn left direct to KIZNA. RWY36L: Climb on HDG003° 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.

# CHANGE: Navigation Specification(Basic RNP1 → RNP1).

# STANDARD DEPARTURE CHART-INSTRUMENT

# ROAH/ NAHA

# RNAV SID and TRANSITION

# **KIZNA TWO DEPARTURE**

# RWY36R

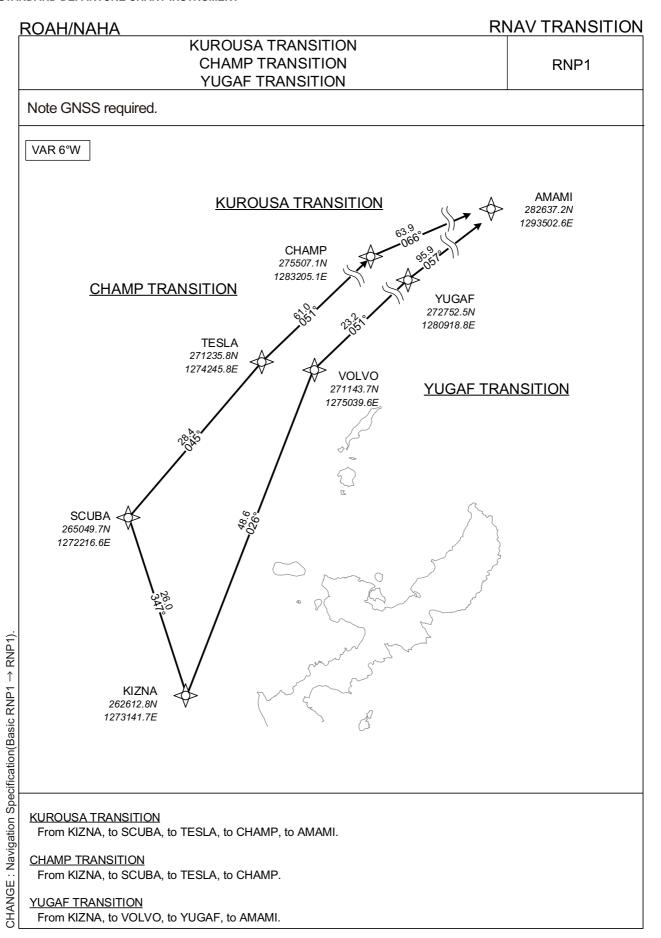
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	ı	1	003 (357.6)	-5.6	ı	ı	+500	1	1	RNP1
002	DF	H6R00	Υ	1	-5.6		1	-		-	RNP1
003	DF	KIZNA	-	-	-5.6	-	L	-	-	,	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	-	1	003 (357.6)	-5.6	-	ı	+500	1	1	RNP1
002	DF	KIZNA	1	-	-5.6	-	L	-	1	-	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	1	-	-5.6	-	-	-	-	1	RNP1
002	TF	OKUMA	-	068 (062.7)	-5.6	30.8	-	-	-	-	RNP1



# **ROAH / NAHA**

# **RNAV 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	1	-	-5.6	-	-	-	1	-	RNP1
002	TF	SCUBA	1	347 (341.2)	-5.6	26.0	-	-	1		RNP1
003	TF	TESLA	1	045 (039.9)	-5.6	28.4	ı	ı	1	1	RNP1
004	TF	CHAMP	1	051 (045.6)	-5.6	61.0	1	1		-	RNP1
005	TF	AMAMI	1	066 (060.2)	-5.6	63.9	-	-	1	-	RNP1

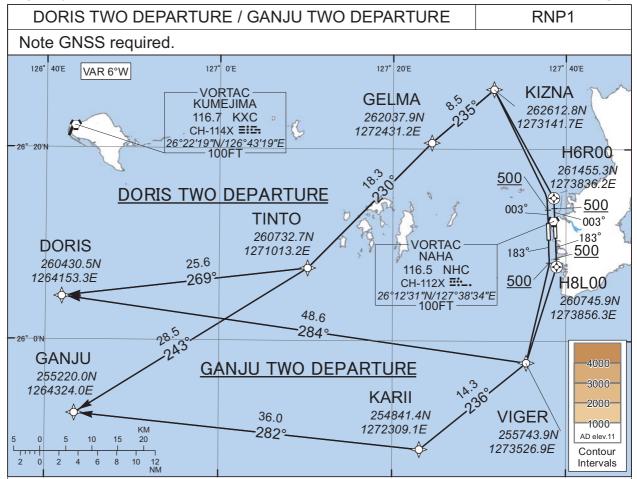
# **CHAMP TRANSITION**

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	1	-	-5.6	-	-	-	-	1	RNP1
002	TF	SCUBA	1	347 (341.2)	-5.6	26.0	-	-	-	-	RNP1
003	TF	TESLA	1	045 (039.9)	-5.6	28.4	-	-	-		RNP1
004	TF	CHAMP	1	051 (045.6)	-5.6	61.0	-	-	-	-	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	-	1	-5.6	-	-	-	-	1	RNP1
002	TF	VOLVO	-	026 (020.3)	-5.6	48.6	-	-	-	-	RNP1
003	TF	YUGAF	-	051 (045.7)	-5.6	23.2	-	-	-		RNP1
004	TF	AMAMI	-	057 (051.9)	-5.6	95.9	-	-	-	-	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.

# 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	1	-	RNP1
002	DF	H8L00	Υ	1	-5.6	ı	ı	ı	1	1	RNP1
003	DF	VIGER	1	-	-5.6	1	R	-	-	1	RNP1
004	TF	DORIS	-	284 (278.2)	-5.6	48.6	-	-	-	-	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	RNP1
002	DF	VIGER	-	-	-5.6	1	R	-	-	1	RNP1
003	TF	DORIS	-	284 (278.2)	-5.6	48.6	-	-	-	1	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	1	-	003 (357.6)	-5.6	-	1	+500	1	-	RNP1
002	DF	H6R00	Υ	i	-5.6	-	ı	1	1	ı	RNP1
003	DF	KIZNA	-	ı	-5.6	-	L	1	1	ı	RNP1
004	TF	GELMA	-	235 (229.0)	-5.6	8.5	1	1	1	ı	RNP1
005	TF	TINTO	-	230 (224.5)	-5.6	18.3	1	-	-	-	RNP1
006	TF	DORIS	-	269 (263.3)	-5.6	25.6	-	-	-	-	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	-	1	003 (357.6)	-5.6	-	1	+500	1	1	RNP1
002	DF	KIZNA	1	1	-5.6	1	L	ı	1	1	RNP1
003	TF	GELMA	1	235 (229.0)	-5.6	8.5	1	ı	1	1	RNP1
004	TF	TINTO	1	230 (224.5)	-5.6	18.3	1	ı	1	1	RNP1
005	TF	DORIS	ı	269 (263.3)	-5.6	25.6	-	-	1	ı	RNP1

ROAH / NAHA	RNAV SID
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	/ NAHA										RNAV SII
<u>GANJ</u>	JU TWO	DEPAR	TURI	<u>E</u>							
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	-	-	RNP1
002	DF	H8L00	Υ	-	-5.6	-	-	-	-	-	RNP1
003	DF	VIGER	-	ı	-5.6	-	R	-	-	-	RNP1
004	TF	KARII	1	236 (230.8)	-5.6	14.3	-	-	-	-	RNP1
005	TF	GANJU	-	282 (276.0)	-5.6	36.0	-	-	-	1	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	-	-	183 (177.6)	-5.6	-	-	+500	-	-	RNP1
002	DF	VIGER	-	-	-5.6	-	R	-	-	-	RNP1
003	TF	KARII	-	236 (230.8)	-5.6	14.3	-	-	-	-	RNP1
004	TF	GANJU	-	282 (276.0)	-5.6	36.0	-	-	-	-	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	-	-	RNP1
002	DF	H6R00	Υ	-	-5.6	-	-	-	-	-	RNP1
003	DF	KIZNA	-	-	-5.6	-	L	-	-	-	RNP1
004	TF	GELMA	-	235 (229.0)	-5.6	8.5	-	-	-	-	RNP1
005	TF	TINTO	_	230 (224.5)	-5.6	18.3	-	-	-	-	RNP1
006	TF	GANJU	-	243 (237.8)	-5.6	28.5	-	-	-	-	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	_	-	RNP1
002	DF	KIZNA	-	-	-5.6	-	L	-	-	-	RNP1
003	TF	GELMA	<u>-</u>	235 (229.0)	-5.6	8.5	-	=	-	-	RNP1
				230	F.C.	18.3			_	_	RNP1
004	TF	TINTO	-	(224.5)	-5.6	10.3		-			

CHANGE: Navigation Specification(Basic RNP1 → RNP1).

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.

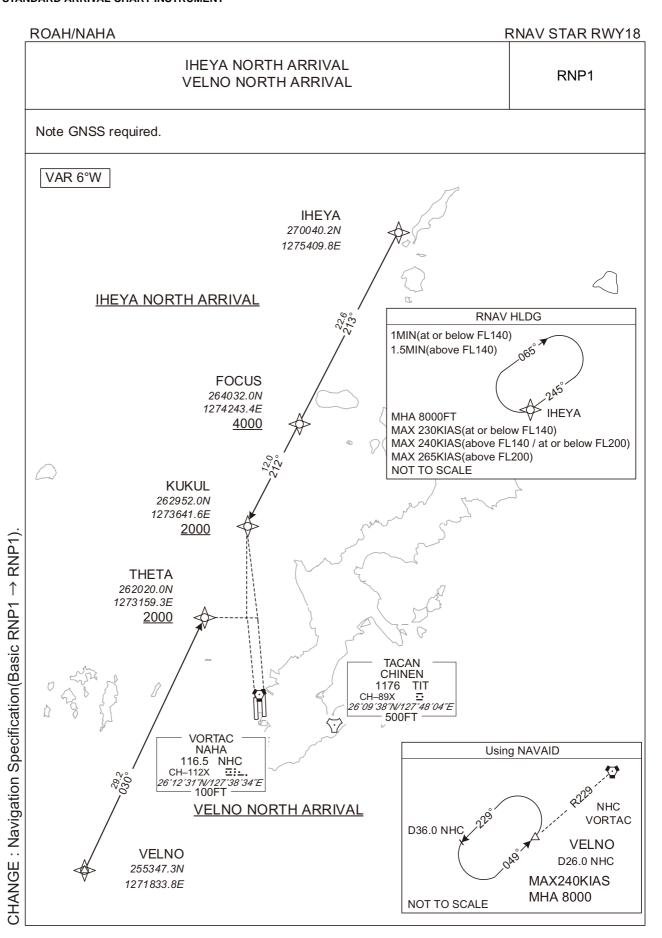
# LAFTY ARRIVAL

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





# CHANGE: Navigation Specification(Basic RNP1 → RNP1).

# STANDARD ARRIVAL CHART-INSTRUMENT

# 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	ı	ı	ı	1	-	RNP1
002	TF	FOCUS	-	213 (206.9)	-5.6	22.6	-	+4000	-	-	RNP1
003	TF	KUKUL	-	212 (206.8)	-5.6	12.0	1	+2000	-	1	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)		8000	1	-230 (-14000) -240 (14001-20000) -265 (+20001)	RNP1

# **VELNO NORTH ARRIVAL**

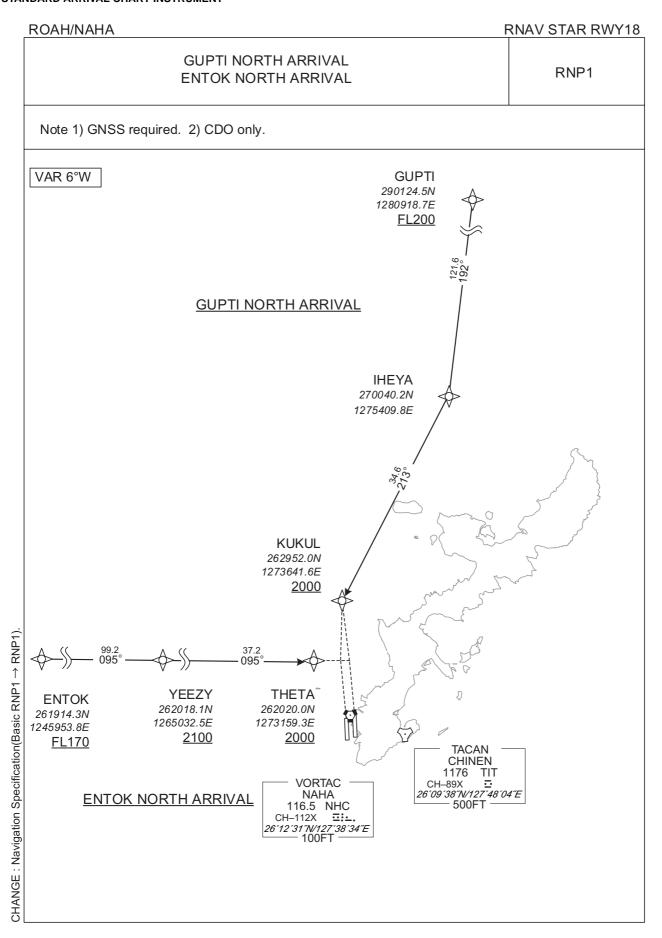
From VELNO, to THETA at or above 2000FT.

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	1	-	-5.6	-	-	-	-	-	RNP1
002	TF	THETA	-	030 (024.4)	-5.6	29.2	-	+2000	-	-	RNP1

ROAH/NAHA **RNAV STAR RWY18** 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 D35.0 NHC 2000 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	-	-	-	-	-	RNP1
002	TF	CLIFF	-	251 (245.7)	-5.6	17.1	-	+2700	-	-	RNP1
003	TF	KUKUL	-	251 (245.5)	-5.6	8.1	-	+2000	-	-	RNP1



# **ROAH / NAHA**

**RNAV STAR RWY18** 

# **GUPTI NORTH ARRIVAL**

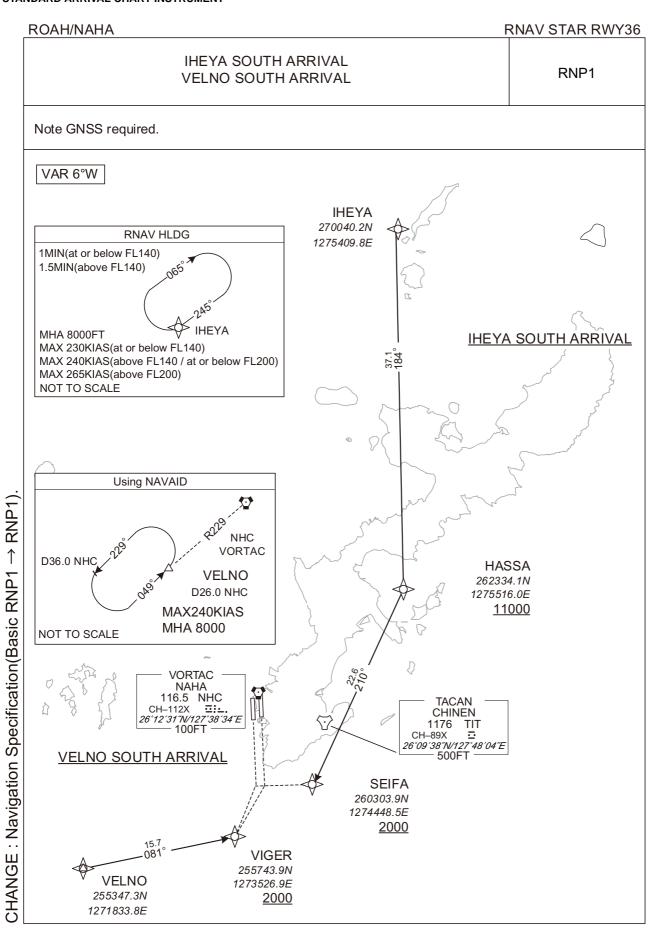
From GUPTI at or above FL200, to IHEYA, to KUKUL at or above 2000FT.

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	-	1	-5.6	-	-	+FL200	-	1	RNP1
002	TF	IHEYA	-	192 (186.4)	-5.6	121.6	-	-	1	1	RNP1
003	TF	KUKUL	1	213 (206.9)	-5.6	34.6	1	+2000	1	1	RNP1

# **ENTOK NORTH ARRIVAL**

From ENTOK at or above FL170, to YEEZY at or above 2100FT, 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	ENTOK	-	-	-5.6	-	-	+FL170	-	1	RNP1
002	TF	YEEZY	-	095 (089.0)	-5.6	99.2	-	+2100	-	-	RNP1
003	TF	THETA	-	095 (089.8)	-5.6	37.2	-	+2000	-	-	RNP1



# ROAH / NAHA

# **RNAV STAR RWY36**

# **IHEYA SOUTH ARRIVAL**

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

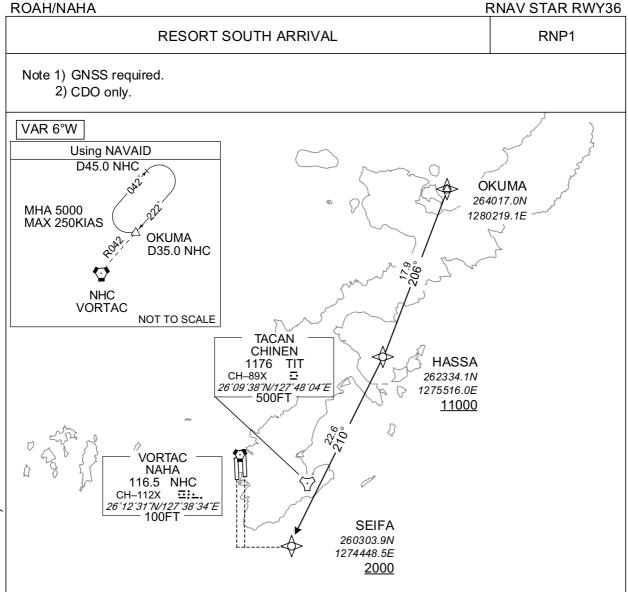
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	IHEYA	1	1	-5.6	1	-	ı		-	RNP1
002	TF	HASSA	1	184 (178.5)	-5.6	37.1	-	+11000	-	-	RNP1
003	TF	SEIFA	-	210 (204.6)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

# **VELNO SOUTH ARRIVAL**

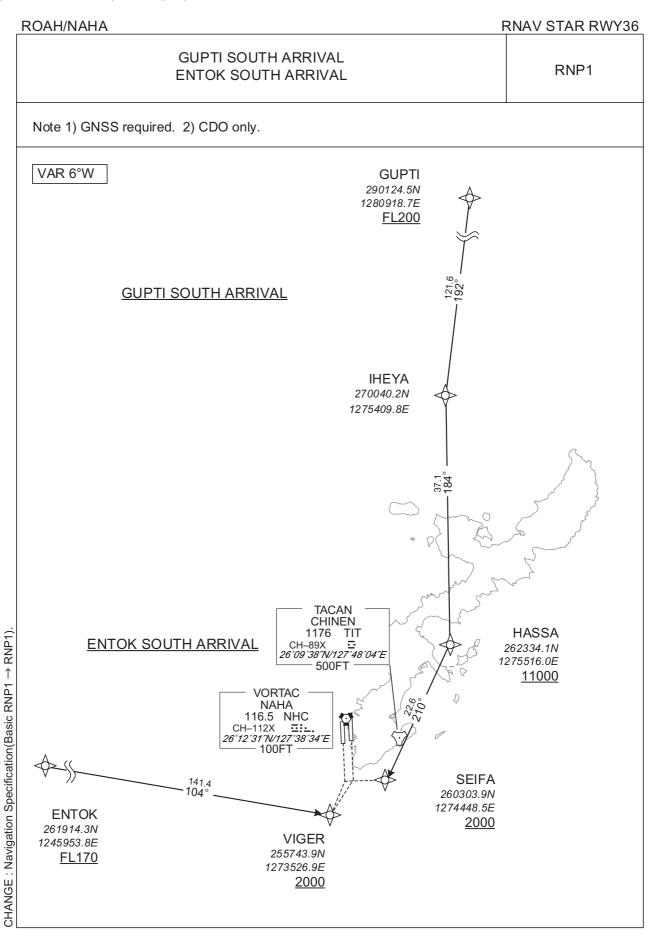
From VELNO, to VIGER at or above 2000FT.

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	-	-	-	-	-	RNP1
002	TF	VIGER	-	081 (075.4)	-5.6	15.7	-	+2000	-	-	RNP1



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	-	-	-	-	-	RNP1
002	TF	HASSA	-	206 (200.7)	-5.6	17.9	ı	+11000	i	ı	RNP1
003	TF	SEIFA	-	210 (204.6)	-5.6	22.6	-	+2000	-	-	RNP1



# CHANGE: Navigation Specification(Basic RNP1 → RNP1).

### STANDARD ARRIVAL CHART-INSTRUMENT

# ROAH / NAHA

# **RNAV STAR RWY36**

# **GUPTI SOUTH ARRIVAL**

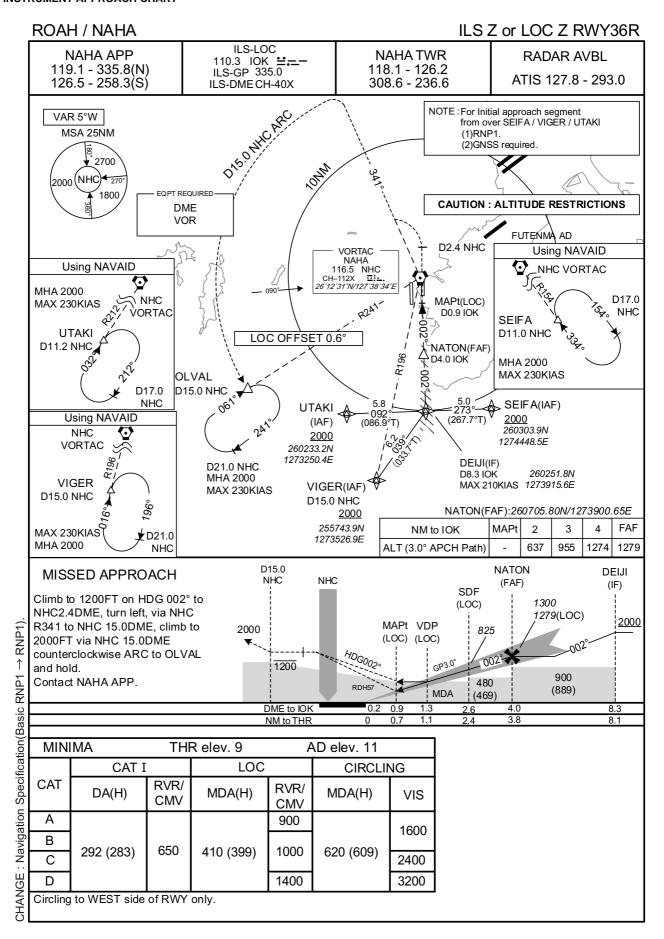
From GUPTI at or above FL200, to IHEYA, to HASSA at or above 11000FT, to SEIFA at or above 2000FT.

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	-	1	RNP1
002	TF	IHEYA	-	192 (186.4)	-5.6	121.6	-	-	-	,	RNP1
003	TF	HASSA	-	184 (178.5)	-5.6	37.1	-	+11000	-	1	RNP1
004	TF	SEIFA	-	210 (204.6)	-5.6	22.6	-	+2000	-	-	RNP1

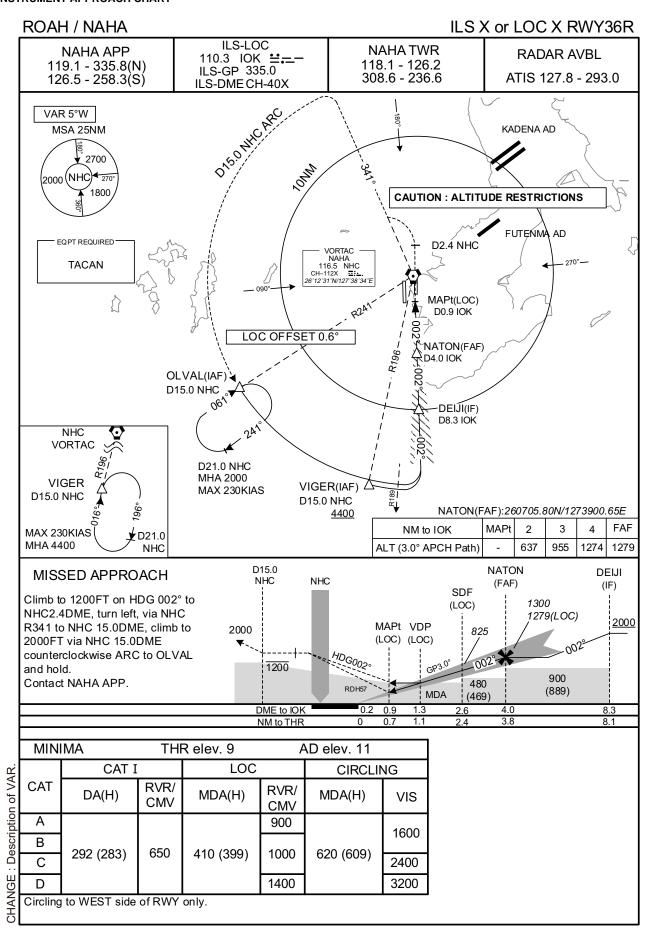
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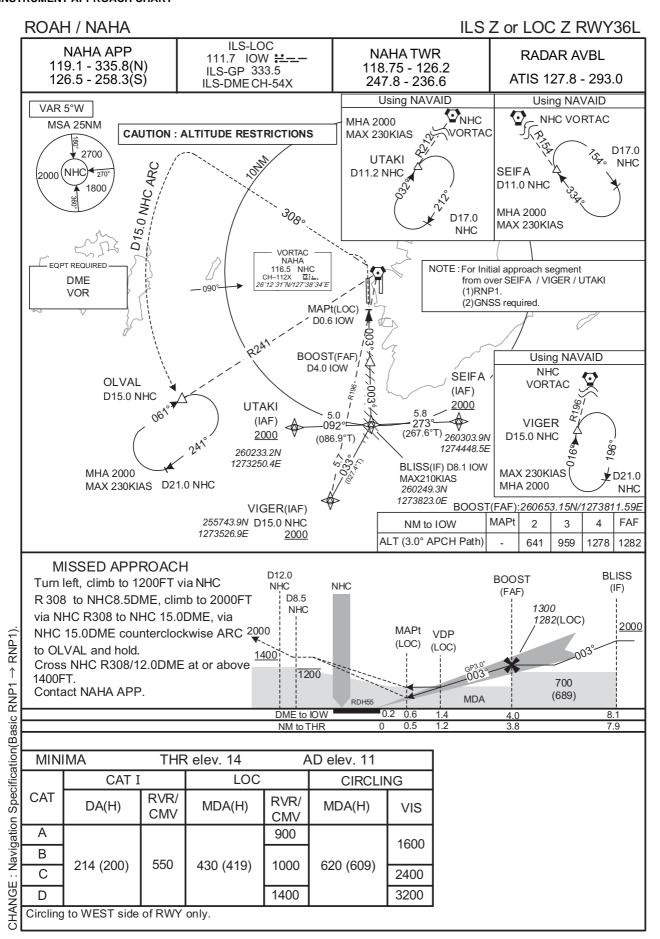
From ENTOK at or above FL170, to VIGER at or above 2000FT.

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	1	-	-5.6	-	-	+FL170	1	1	RNP1
002	TF	VIGER	-	104 (098.2)	-5.6	141.4	-	+2000	-	-	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) C 2400 CHANGE D 1400 3200 Circling to WEST side of RWY only.

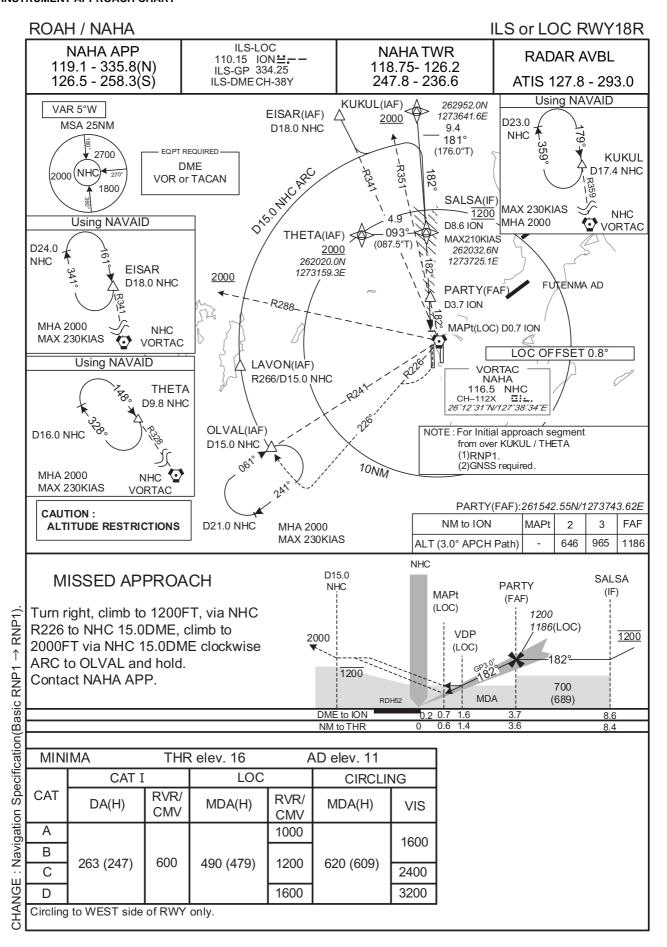


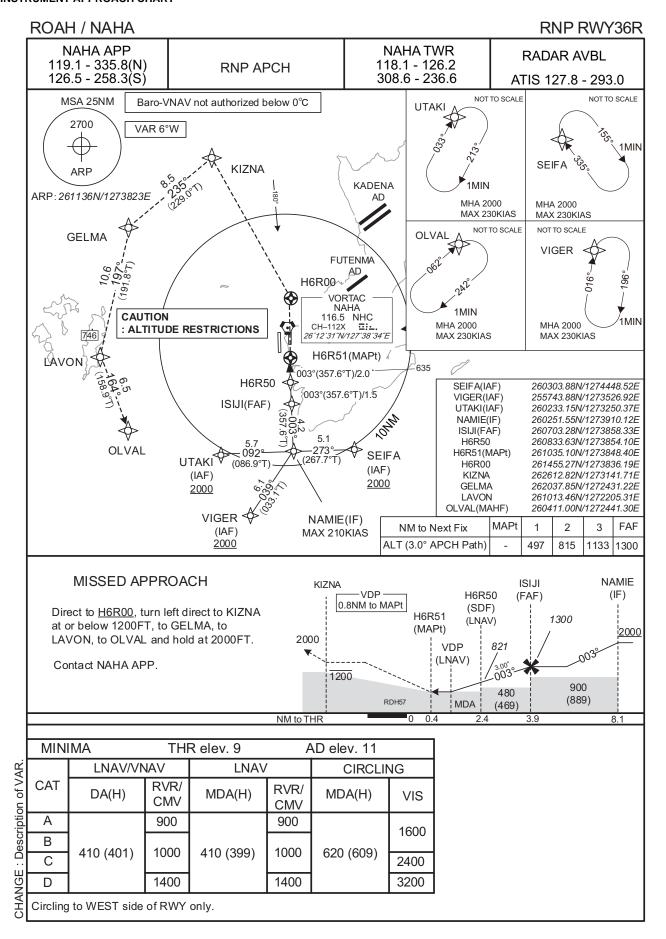


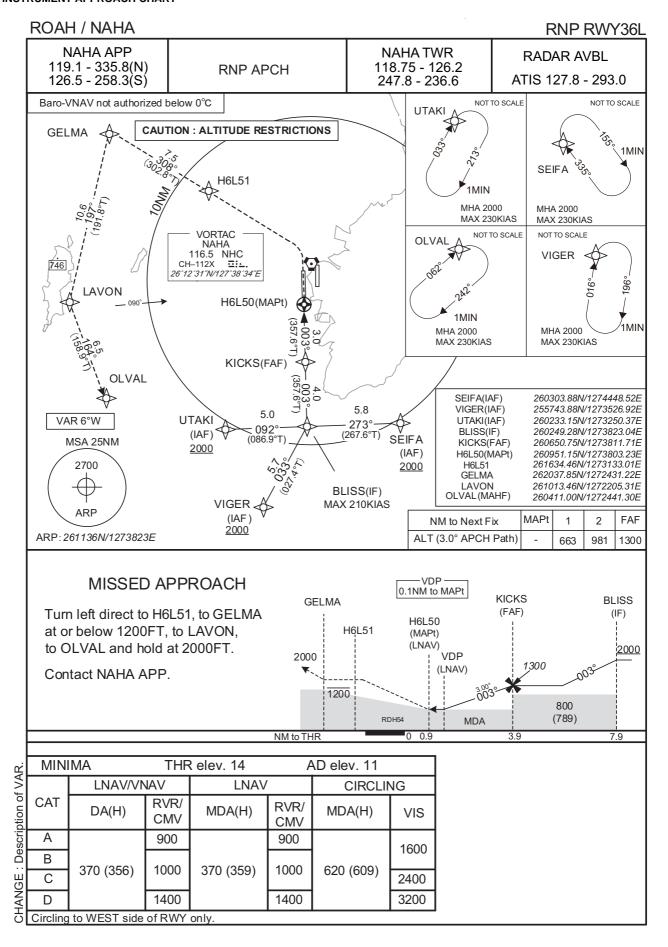
### ROAH / NAHA ILS Y or LOC Y RWY36L ILS-LOC NAHA APP NAHA TWR RADAR AVBL 111.7 IOW **∺** ILS-GP 333.5 119.1 - 335.8(N) 118.75 - 126.2 247.8 - 236.6 ATIS 127.8 - 293.0 126.5 - 258.3(S) ILS-DME CH-54X VAR 5°W KADENA AD **CAUTION: ALTITUDE RESTRICTIONS** MSA 25NM 2700 <sub>(2000</sub> (NHC) EQPT REQUIRED 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.

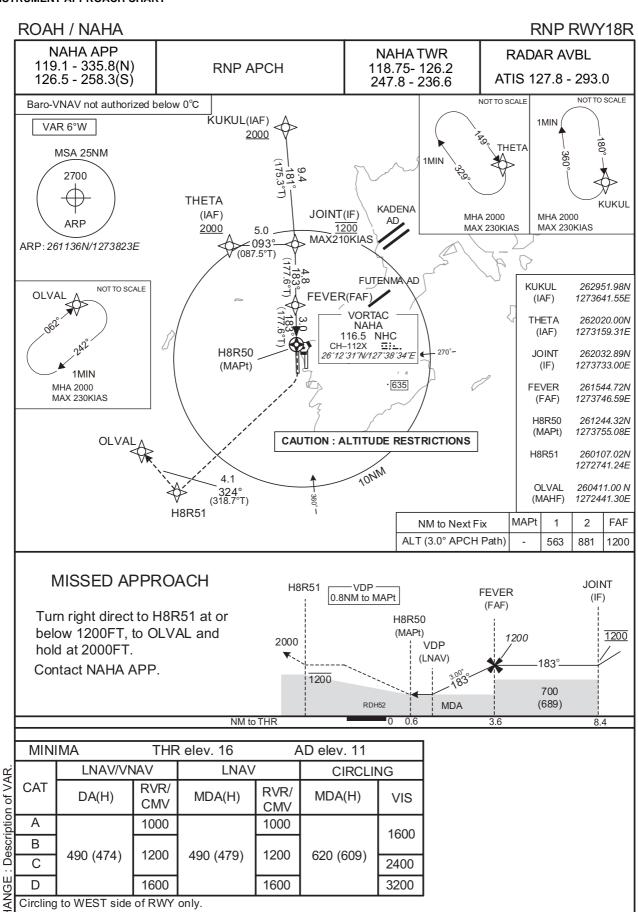
### **ROAH / NAHA** ILS X or LOC X RWY36L ILS-LOC NAHA APP **NAHATWR** RADAR AVBL 111.7 IOW **∺** ILS-GP 333.5 119.1 - 335.8(N) 118.75 - 126.2 ATIS 127.8 - 293.0 126.5 - 258.3(S) 247.8 - 236.6 ILS-DME CH-54X VAR 5°W KADENA AD **CAUTION: ALTITUDE RESTRICTIONS** MSA 25NM D15.0 NHC ARC OH 2700 EQPT REQUIRED (<sub>2000</sub> (NHC) 1800 **TACAN** FUT/ÉNMA AD 270°-VORTAC NAHA 116.5 NHC CH–112X <u>□:</u>... 26°12'31"N/127'38'34"E MAPt(LOC) D0.6 IOW R241 BOOST(FAF) NHC D4.0 IOW VORTAC OLVAL(IAF) -003 D15.0 NHC 061, **VIGER** BLISS(IF) D15.0 NHC D8.1 IOW MAX 230KIAS D21.0 MHA 2000 MHA 4400 NHC D21.0 NHC MAX 230KIAS BOOST(FAF):260653.15N/127381 1.59E VIGER(IAF) MAPt D15.0 NHC FAF 4 NM to IOW 2 3 4400 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) R308 to NHC8.5DME, climb to 2000FT D8.5 1300 via NHC R308 to NHC 15.0DME, via NHC 1282(LOC) 2000 MAPt NHC 15.0DME counterclockwise ARC 2000 VDP (LOC) (LOC) to OLVAL and hold. Cross NHC R308/12.0DME at or above -003° 1200 1400FT. 700 Contact NAHA APP. (689)MDA 0.2 0.6 DME to IOW 8.1 4.0 NM to THR MINIMA THR elev. 14 AD elev. 11 of VAR CAT I LOC **CIRCLING** CAT RVR/ RVR/ DA(H) MDA(H) MDA(H) VIS CMV Description **CMV** Α 900 1600 В 550 214 (200) 430 (419) 1000 620 (609) С 2400 CHANGE 1400 3200 D

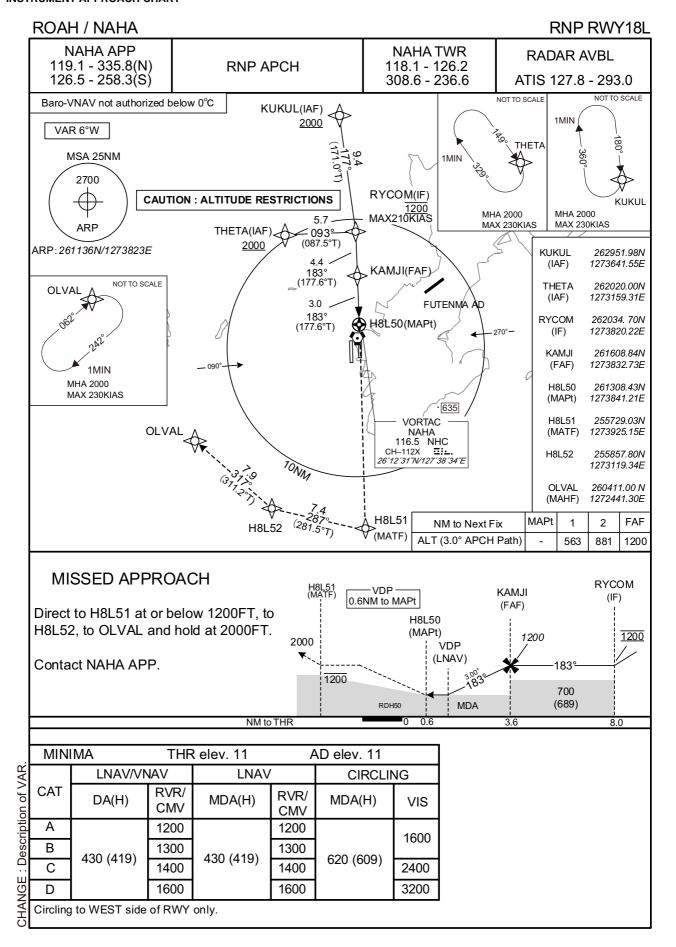
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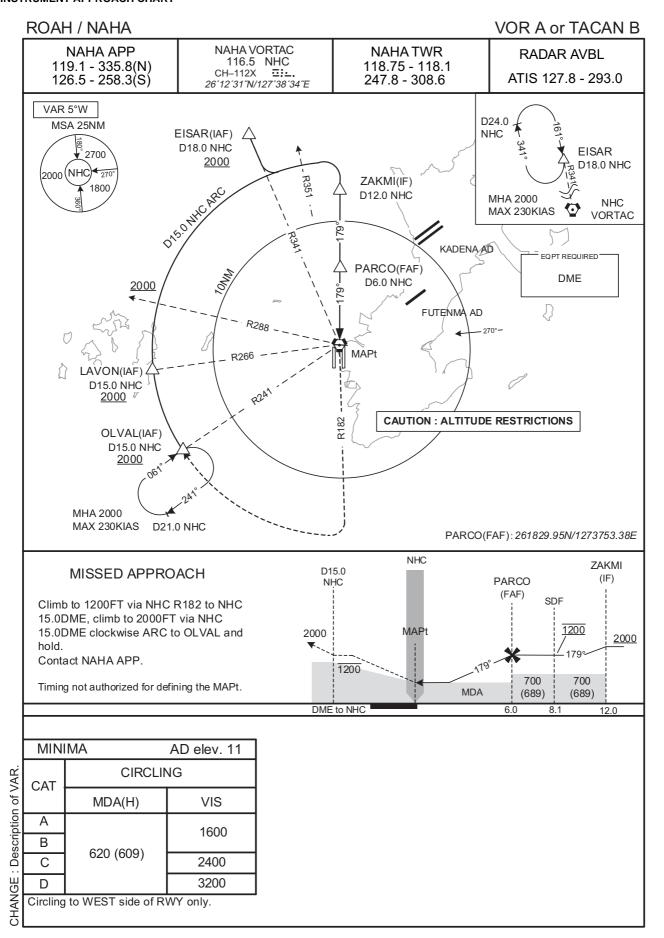


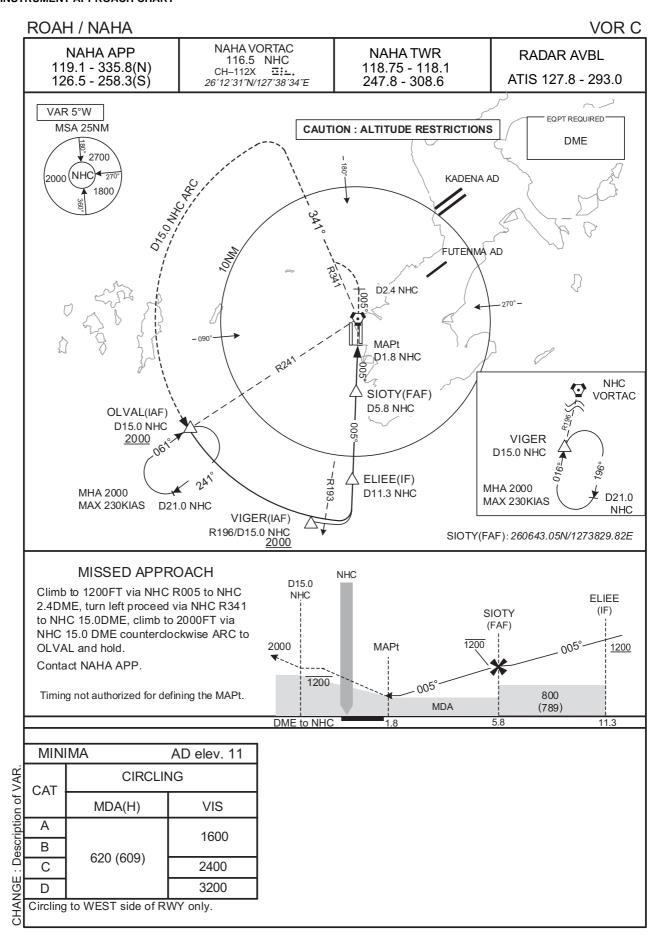


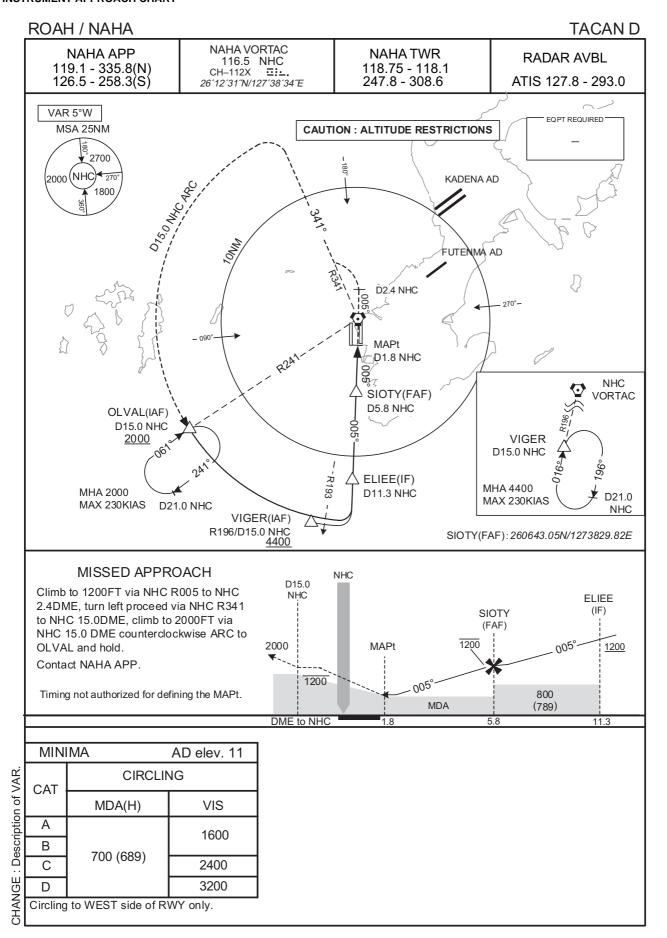














※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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
500/6	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
֝֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֝֟֟ ֓֓֓֓֞֓֓֓֞֓֞֓֓֞֞֓֓֞֞֓֓֓֞֞֓	摩文仁 Mabuni	143°T / 7.5NM	平和祈念公園 Park

