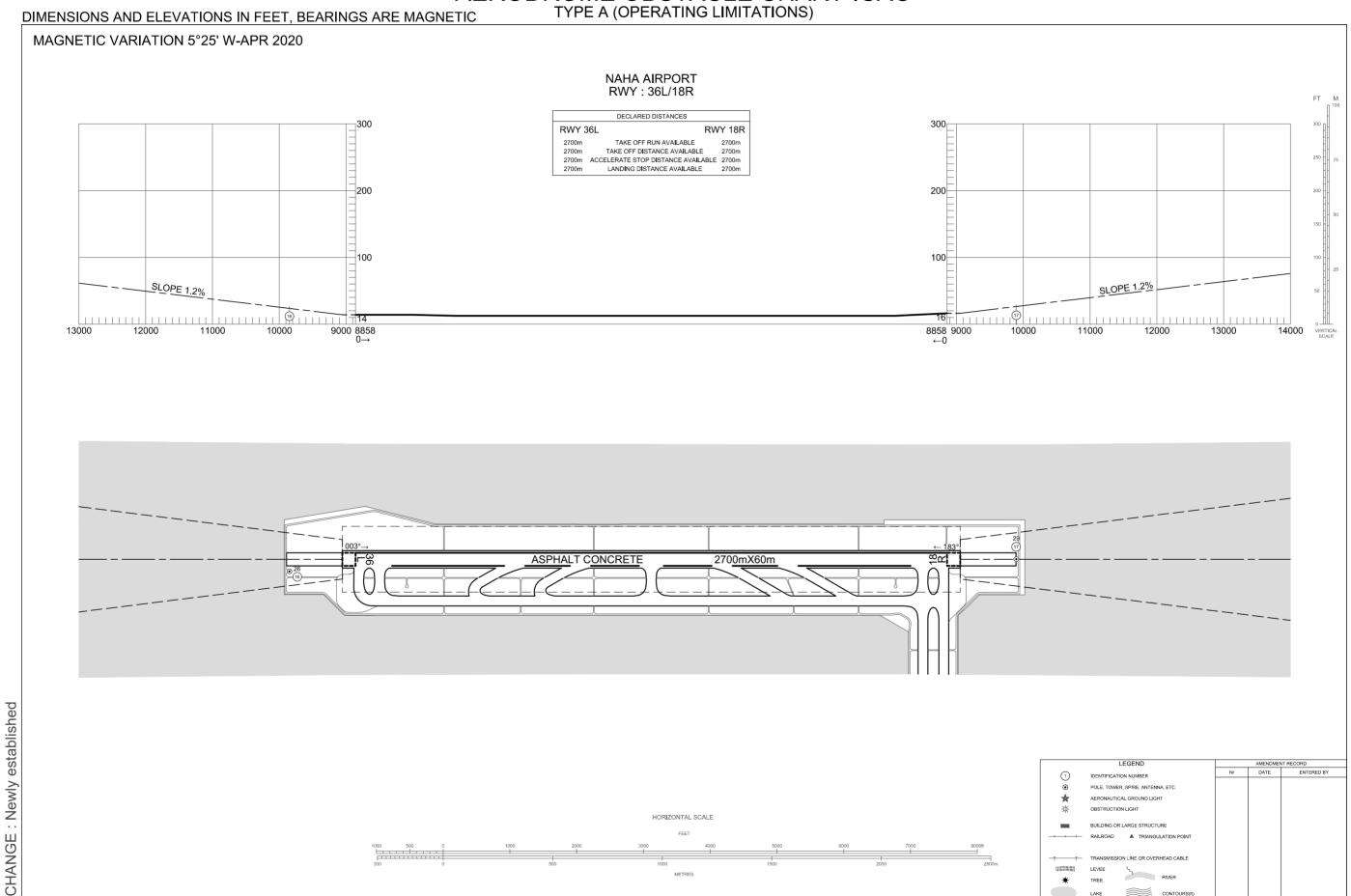


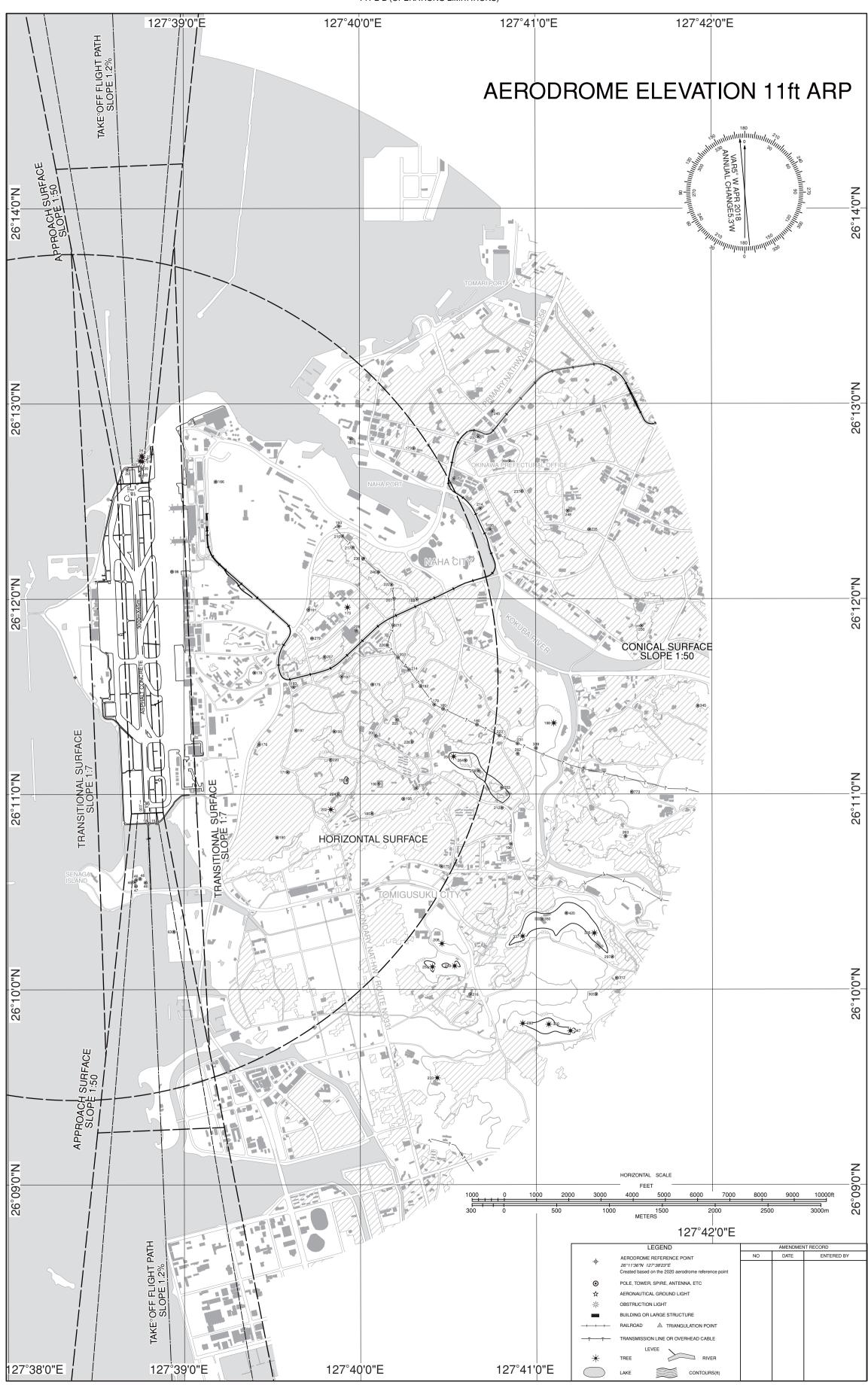
# AERODROME OBSTACLE CHART-ICAO



DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

## AERODROME OBSTACLE CHART - ICAO

TYPE B (OPERATIONG LIMITATIONS)



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,...

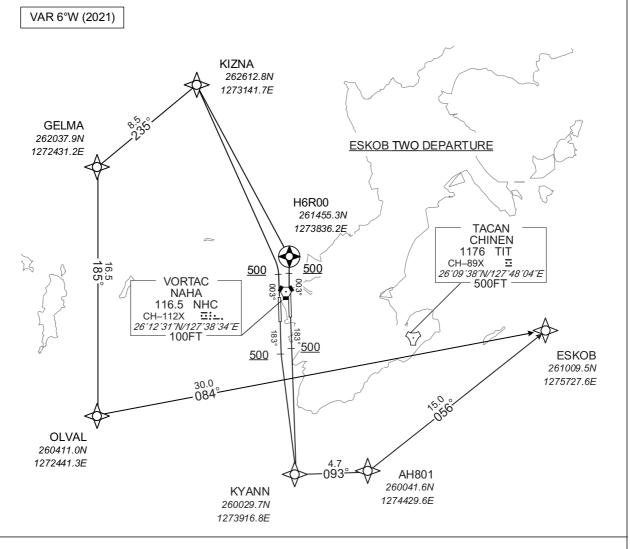
RWY18R: Climb RWY HDG to 500FT,...

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

RWY36R/36L: (Not established)



ROAH/NAHA **RNAV SID ESKOB TWO DEPARTURE** RNAV1 Note 1) DME/DME/IRU or GNSS required. RWY36R /36L %The aircraft equipped with only DME/DME/IRU NHC:23.6NM to ESKOB - 8.1NM to ESKOB Critical DME must be able to update its position without delay TIT :23.6NM to ESKOB - 8.1NM to ESKOB added at the starting point of take-off roll. 2) RADAR service required. RWY18L /18R: DER - ESKOB CHANGE: VAR. PROC renamed. PROC for RWY36R/36L established. Critical DME. DME GAP added(RWY36R/36L). NOTE DME GAP RWY36R /36L : DER - 23.6NM to ESKOB Inappropriate See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1. 8.1NM to ESKOB - ESKOB Navaids



#### **ESKOB TWO DEPARTURE**

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 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	-	-	183 (177.6)	-5.6	-	-	+500	-	-	RNAV1
002	DF	KYANN	-	-	-5.6	-	-	-	-	-	RNAV1
003	TF	AH801	-	093 (087.6)	-5.6	4.7	-	-	-	-	RNAV1
004	TF	ESKOB	-	056 (050.9)	-5.6	15.0	-	-	-	-	RNAV1

### RWY18R

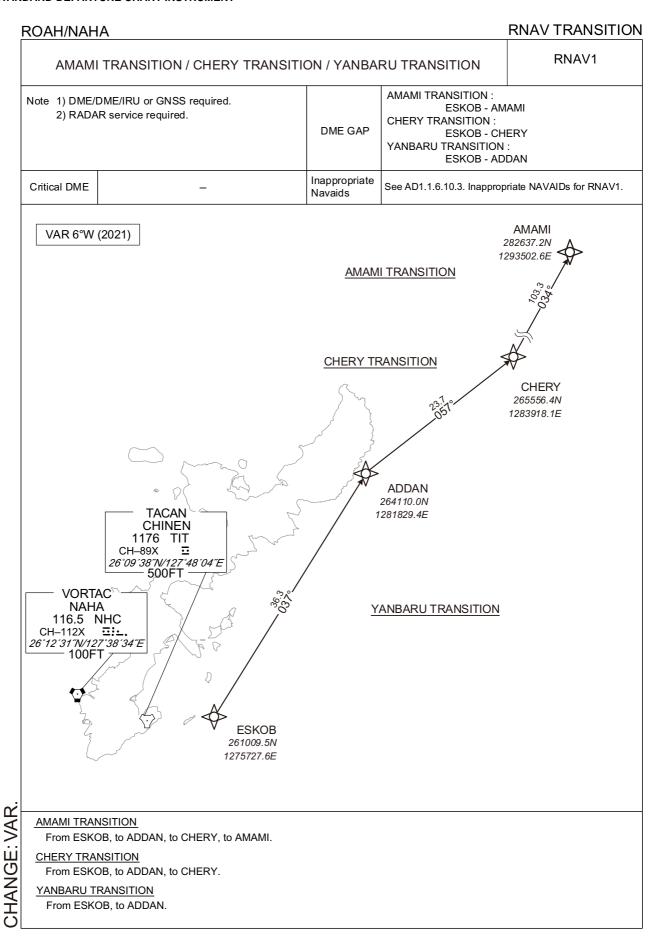
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	183 (177.6)	-5.6	-	-	+500	-	-	RNAV1
002	DF	KYANN	-	-	-5.6	-	-	-	-	-	RNAV1
003	TF	AH801	-	093 (087.6)	-5.6	4.7	-	-	-	-	RNAV1
004	TF	ESKOB	-	056 (050.9)	-5.6	15.0	-	-	-	-	RNAV1

### 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	-	-	RNAV1
002	DF	H6R00	Υ	-	-5.6	-	-	-	-	-	RNAV1
003	DF	KIZNA	-	-	-5.6	-	L	-	-	-	RNAV1
004	TF	GELMA	-	235 (229.0)	-5.6	8.5	-	-	-	-	RNAV1
005	TF	OLVAL	-	185 (179.5)	-5.6	16.5	-	-	-	-	RNAV1
006	TF	ESKOB	-	084 (078.4)	-5.6	30.0	-	-	-	-	RNAV1

### 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	-	1	+500	-	-	RNAV1
002	DF	KIZNA	-	-	-5.6	ı	L	ı	-	-	RNAV1
003	TF	GELMA	-	235 (229.0)	-5.6	8.5	-	-	-	-	RNAV1
004	TF	OLVAL	-	185 (179.5)	-5.6	16.5	-	-	-	-	RNAV1
005	TF	ESKOB	-	084 (078.4)	-5.6	30.0	-	-	-	-	RNAV1



### 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	-	-	-	-	-	RNAV1
002	TF	ADDAN	-	037 (031.2)	-5.6	36.3	-	-	-	-	RNAV1
003	TF	CHERY	-	057 (051.4)	-5.6	23.7	-	-	-	-	RNAV1
004	TF	AMAMI	-	034 (028.3)	-5.6	103.3	-	-	-	-	RNAV1

### **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	-	-	ı	-	-	RNAV1
002	TF	ADDAN	-	037 (031.2)	-5.6	36.3	-	-	-	-	RNAV1
003	TF	CHERY	-	057 (051.4)	-5.6	23.7	-	-	-	-	RNAV1

### 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	-	-	-	-	-	RNAV1
002	TF	ADDAN	-	037 (031.2)	-5.6	36.3	-	-	-	-	RNAV1

### RNAV SID and TRANSITION ROAH/NAHA KIZNA ONE DEPARTURE RNAV1 RESORT TRANSITION Note 1) DME/DME/IRU or GNSS required. RWY36R: DER - KIZNA $\frak{\frak{\%}}$ The aircraft equipped with only DME/DME/IRU RWY36L : DER - KIZNA must be able to update its position without delay DME GAP **RESORT TRANSITION:** at the starting point of take-off roll. KIZNA - OKUMA 2) RADAR service required. Inappropriate Critical DME See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1. Navaids VAR 6°W (2021) **OKUMA** 264017.0N 1280219.1E **RESORT TRANSITION KIZNA** 262612.8N 1273141.7E H6R00 KIZNA ONE 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 ONE 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. CHANGE: VAR NOTE RWY36R/36L: 5.0% climb gradient required up to 500FT. **RESORT TRANSITION** From KIZNA, to OKUMA.

### ROAH/NAHA

### **RNAV SID and TRANSITION**

### KIZNA ONE DEPARTURE

### RWY36R

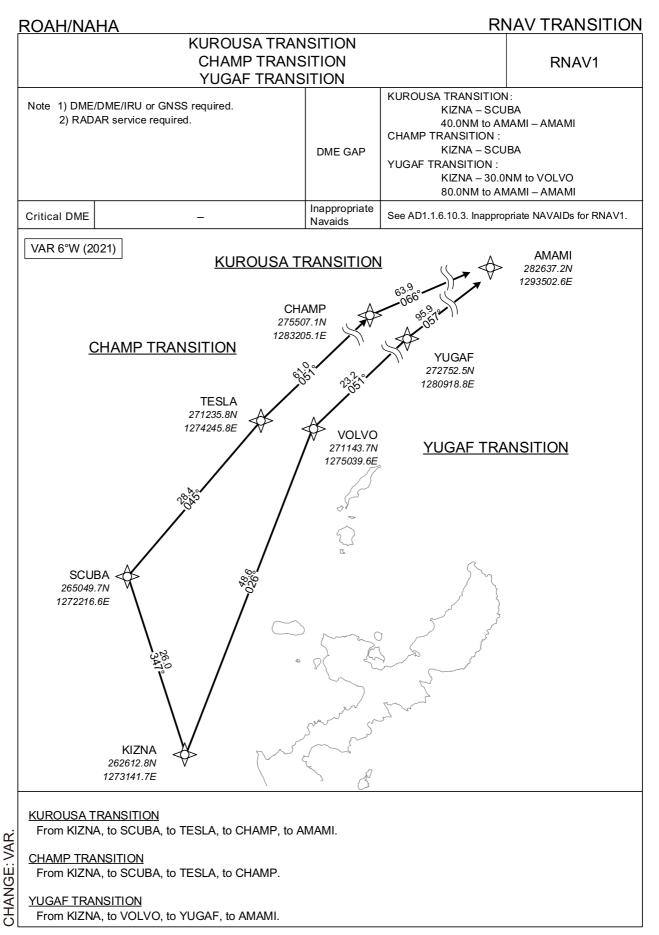
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	003 (357.6)	-5.6	-	-	+500	-	-	RNAV1
002	DF	H6R00	Υ	-	-5.6	-	-	-	-	-	RNAV1
003	DF	KIZNA	-	-	-5.6	-	L	-	-	-	RNAV1

### 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	-	-	RNAV1
002	DF	KIZNA	-	-	-5.6	-	L	-	-	-	RNAV1

### **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	-	-	-	-	-	RNAV1
002	TF	OKUMA	-	068	-5.6	30.8	-	-	-	-	RNAV1



### 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	-	-	-	-	-	RNAV1
002	TF	SCUBA	-	347 (341.2)	-5.6	26.0	-	-	-	-	RNAV1
003	TF	TESLA	-	045 (039.9)	-5.6	28.4	-	-	-	-	RNAV1
004	TF	CHAMP	-	051 (045.6)	-5.6	61.0	-	-	-	-	RNAV1
005	TF	AMAMI	-	066 (060.2)	-5.6	63.9	ı	-	-	ı	RNAV1

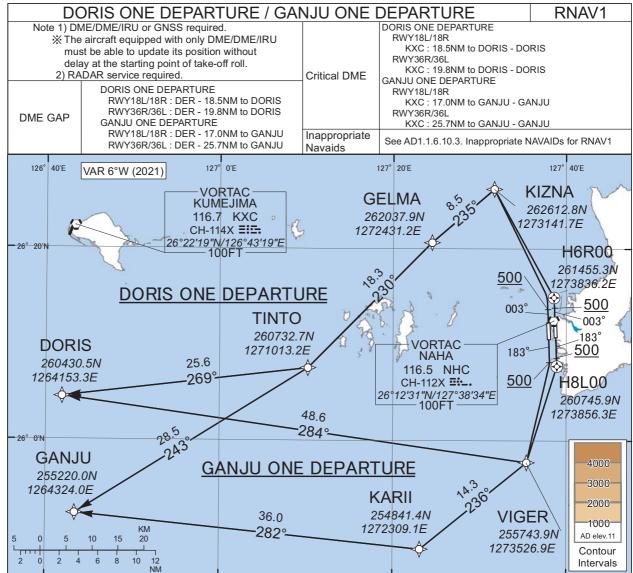
### **CHAMP TRANSITION**

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	-	-	-	-	-	RNAV1
002	TF	SCUBA	-	347 (341.2)	-5.6	26.0	-	-	-	-	RNAV1
003	TF	TESLA	-	045 (039.9)	-5.6	28.4	-	-	-	-	RNAV1
004	TF	CHAMP	-	051 (045.6)	-5.6	61.0	-	-	-	-	RNAV1

### **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	-	1	-	-	-	RNAV1
002	TF	VOLVO	-	026 (020.3)	-5.6	48.6	-	-	-	-	RNAV1
003	TF	YUGAF	-	051 (045.7)	-5.6	23.2	-	-	-	-	RNAV1
004	TF	AMAMI	-	057 (051.9)	-5.6	95.9	ı	-	-	-	RNAV1

ROAH / NAHA RNAV SID



#### DORIS ONE 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 ONE 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 <u>H6R00</u>, 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 ONE 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	-	ı	+500	ı	ı	RNAV1
002	DF	H8L00	Υ	ı	-5.6	-	ı	ı	ı	1	RNAV1
003	DF	VIGER	-	-	-5.6	-	R	-	-	-	RNAV1
004	TF	DORIS	-	284 (278.2)	-5.6	48.6	-	-	-	-	RNAV1

### 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	-	ı	+500	ı	-	RNAV1
002	DF	VIGER	-	1	-5.6	1	R		-	1	RNAV1
003	TF	DORIS	-	284 (278.2)	-5.6	48.6	-	-	-	-	RNAV1

CHANGE: New PROC.

ROAH / NAHA RNAV SID

### **DORIS ONE 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	+500	ı	1	RNAV1
002	DF	H6R00	Υ	ı	-5.6	-	ı	ı	ı	ı	RNAV1
003	DF	KIZNA	ı	ı	-5.6	-	اـ	ı	ı	ı	RNAV1
004	TF	GELMA	ı	235 (229.0)	-5.6	8.5	ı	ı	ı	ı	RNAV1
005	TF	TINTO	-	230 (224.5)	-5.6	18.3	-	-	-	-	RNAV1
006	TF	DORIS	1	269 (263.3)	-5.6	25.6	-	-	-	-	RNAV1

### 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	ı	-	003 (357.6)	-5.6	-	ı	+500	-	-	RNAV1
002	DF	KIZNA	-	ı	-5.6	-	١	ı	I	ı	RNAV1
003	TF	GELMA	-	235 (229.0)	-5.6	8.5	ı	ı	ı	ı	RNAV1
004	TF	TINTO	-	230 (224.5)	-5.6	18.3	ı	ı	1	ı	RNAV1
005	TF	DORIS	-	269 (263.3)	-5.6	25.6	-	-	-	-	RNAV1

CHANGE: New PROC.

ROAH / NAHA RNAV SID

### **GANJU ONE 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	-	-	RNAV1
002	DF	H8L00	Y	ı	-5.6	ı	ı	ı	ı	ı	RNAV1
003	DF	VIGER	-	-	-5.6	-	R	-	-	-	RNAV1
004	TF	KARII	-	236 (230.8)	-5.6	14.3	-	-	-	-	RNAV1
005	TF	GANJU	-	282 (276.0)	-5.6	36.0	-	-	-	-	RNAV1

### 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	-	ı	+500	-	-	RNAV1
002	DF	VIGER	ı	ı	-5.6	ı	R	ı	I	ı	RNAV1
003	TF	KARII	1	236 (230.8)	-5.6	14.3	-	-	-	-	RNAV1
004	TF	GANJU	-	282 (276.0)	-5.6	36.0	-	-	-	-	RNAV1

ROAH / NAHA RNAV SID

## **GANJU ONE 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	-	003 (357.6)	-5.6	ı	ı	+500	ı	ı	RNAV1
002	DF	H6R00	Υ	-	-5.6	ı	ı	-	ı	ı	RNAV1
003	DF	KIZNA	ı	ı	-5.6	ı	L	ı	ı	ı	RNAV1
004	TF	GELMA	-	235 (229.0)	-5.6	8.5	ı	ı	ı	ı	RNAV1
005	TF	TINTO	-	230 (224.5)	-5.6	18.3	-	-	- 1	-	RNAV1
006	TF	GANJU	-	243 (237.8)	-5.6	28.5	-	-	-	-	RNAV1

### 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	-	-	RNAV1
002	DF	KIZNA	ı	ı	-5.6	ı	L	ı	ı	1	RNAV1
003	TF	GELMA	ı	235 (229.0)	-5.6	8.5	ı	ı	ı	1	RNAV1
004	TF	TINTO	ı	230 (224.5)	-5.6	18.3	ı	ı	ı	1	RNAV1
005	TF	GANJU	-	243 (237.8)	-5.6	28.5	-	-	-	-	RNAV1

CHANGE: New PROC.

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.

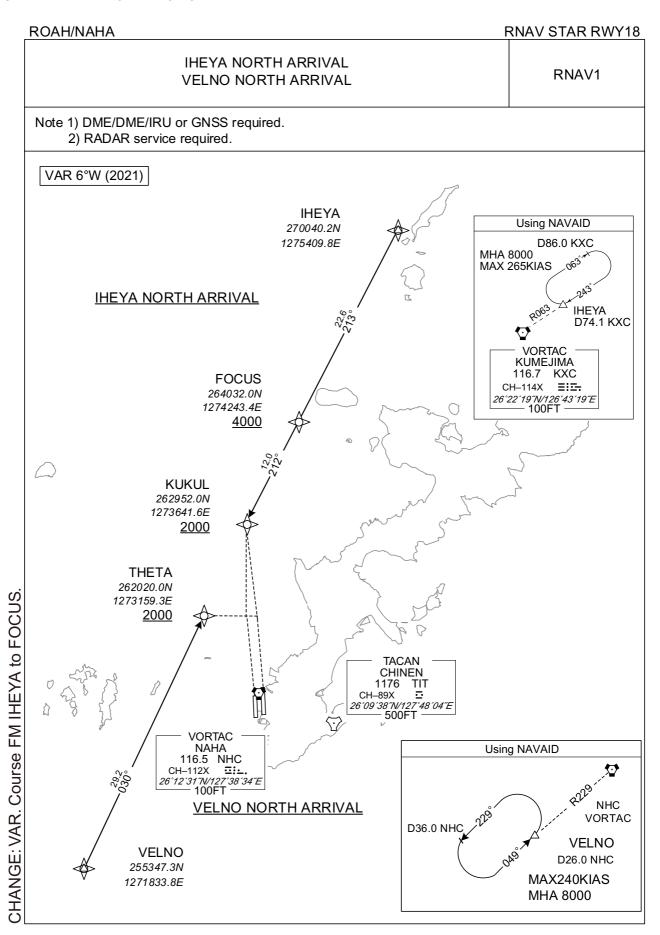
### LAFTY ARRIVAL

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.

Critical DME	_
DME GAP	IHEYA - KUKUL
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1.

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	-	-	-	-	-	RNAV1
002	TF	FOCUS	-	213 (206.9)	-5.6	22.6	-	+4000	-	-	RNAV1
003	TF	KUKUL	-	212 (206.8)	-5.6	12.0	-	+2000	-	-	RNAV1

### **VELNO NORTH ARRIVAL**

From VELNO, to THETA at or above 2000FT.

Critical DME	-
DME GAP	VELNO - THETA
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1.

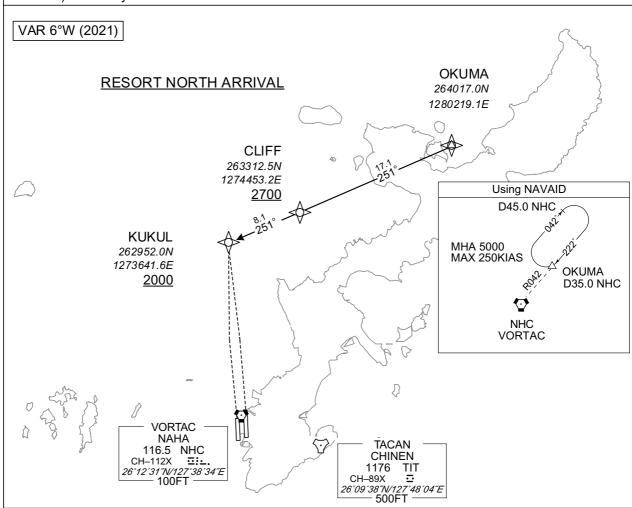
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	VELNO	-	-	-5.6	-	-	-	-	-	RNAV1
002	TF	THETA	-	030 (024.4)	-5.6	29.2	-	+2000	-	-	RNAV1

ROAH/NAHA RNAV STAR RWY18

**RESORT NORTH ARRIVAL** 

RNAV1

- Note 1) DME/DME/IRU or GNSS required.
  - 2) RADAR service required.
  - 3) CDO only.

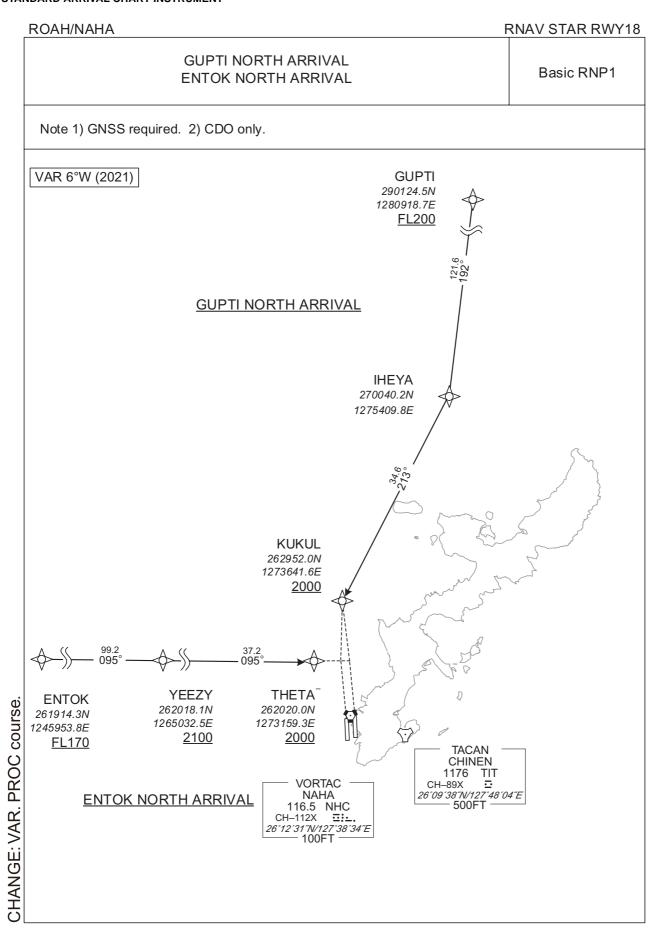


### **RESORT NORTH ARRIVAL**

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

Critical DME	-
DME GAP	OKUMA – KUKUL
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1.

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	-	-	-	RNAV1
002	TF	CLIFF	-	251 (245.7)	-5.6	17.1	-	+2700	-	-	RNAV1
003	TF	KUKUL	-	251 (245.5)	-5.6	8.1	-	+2000	-	-	RNAV1



### ROAH / NAHA

### **RNAV STAR RWY18**

### **GUPTI NORTH ARRIVAL**

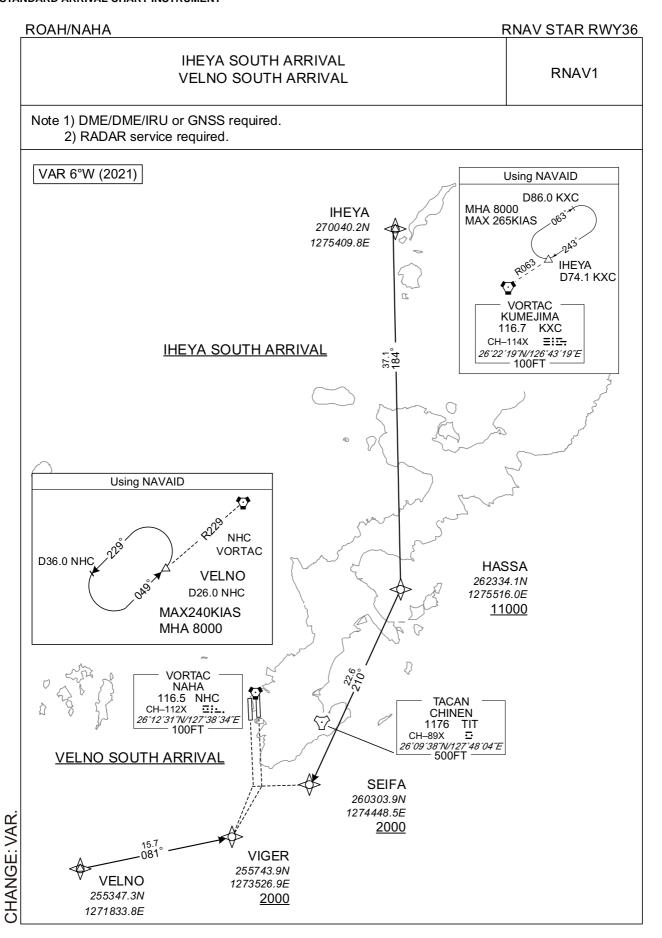
From GUPTI at or above FL200, to IHEYA, to KUKUL at or above 2000FT.

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
	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.

Critical DME	-
DME GAP	20.0NM to HASSA - SEIFA
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1.

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	-	-	-	-	-	RNAV1
002	TF	HASSA	-	184 (178.5)	-5.6	37.1	-	+11000	-	-	RNAV1
003	TF	SEIFA	-	210 (204.6)	-5.6	22.6	-	+2000	-	-	RNAV1

### **VELNO SOUTH ARRIVAL**

From VELNO, to VIGER at or above 2000FT.

Critical DME	-
DME GAP	VELNO - VIGER
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1.

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	-	-	-	-	-	RNAV1
002	TF	VIGER	-	081 (075.4)	-5.6	15.7	-	+2000	-	-	RNAV1

CHANGE·VAR

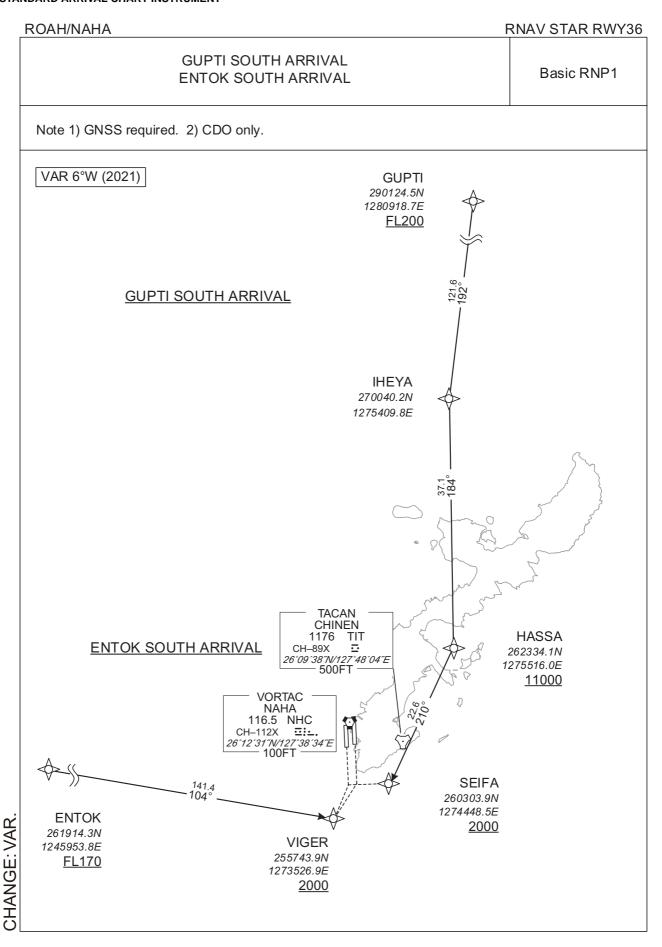
### ROAH/NAHA **RNAV STAR RWY36** RNAV1 RESORT SOUTH ARRIVAL Note 1) DME/DME/IRU or GNSS required. 2) RADAR service required. 3) CDO only. VAR 6°W (2021) Using NAVAID D45.0 NHC **OKUMA** 264017.0N MHA 5000 1280219.1E MAX 250KIAS **OKUMA** D35.0 NHC NHC **VORTAC** TACAN **CHINEN HASSA** 1176 TIT CH-89X 262334.1N 26°09′38″N/127°48′04″E 500FT 1275516.0E 11000 () VORTAC NAHA **RESORT SOUTH ARRIVAL** 116.5 NHC CH-112X 2:L. 26°12′31″N/127°38′34″E 100FT SEIFA 260303.9N 1274448.5E 2000

### **RESORT SOUTH ARRIVAL**

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

Critical DME	-
DME GAP	OKUMA - SEIFA
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1.

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	1	-	-5.6	-	-	-	-	-	RNAV1
002	TF	HASSA	-	206 (200.7)	-5.6	17.9	-	+11000	-	-	RNAV1
003	TF	SEIFA	-	210 (204.6)	-5.6	22.6	-	+2000	-	-	RNAV1



### 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.

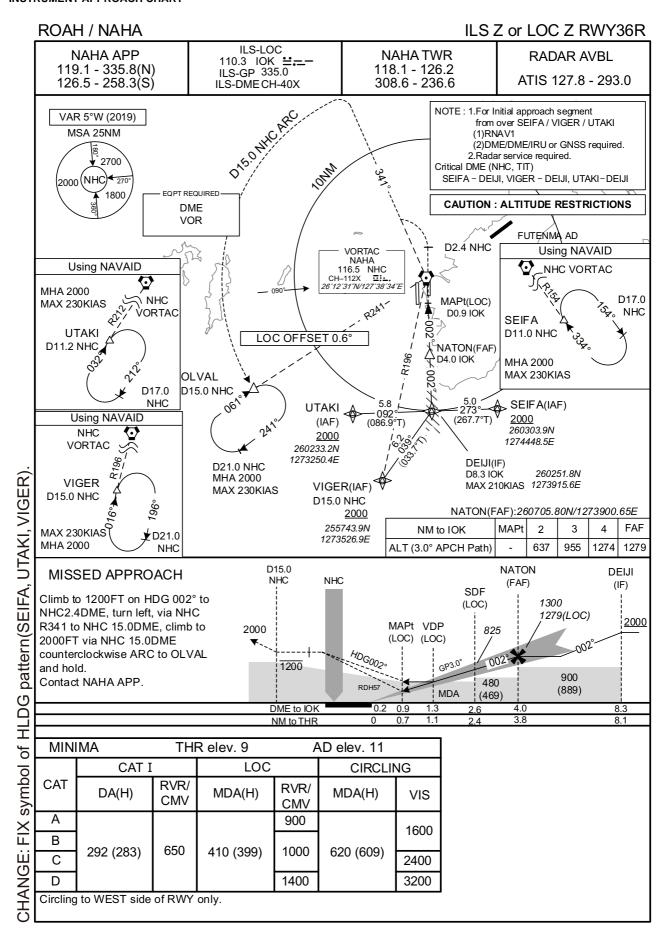
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	GUPTI	-	-	-5.6	-	-	+FL200	-	-	Basic RNP1
002	TF	IHEYA	-	192 (186.4)	-5.6	121.6	-	-	-	-	Basic RNP1
003	TF	HASSA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

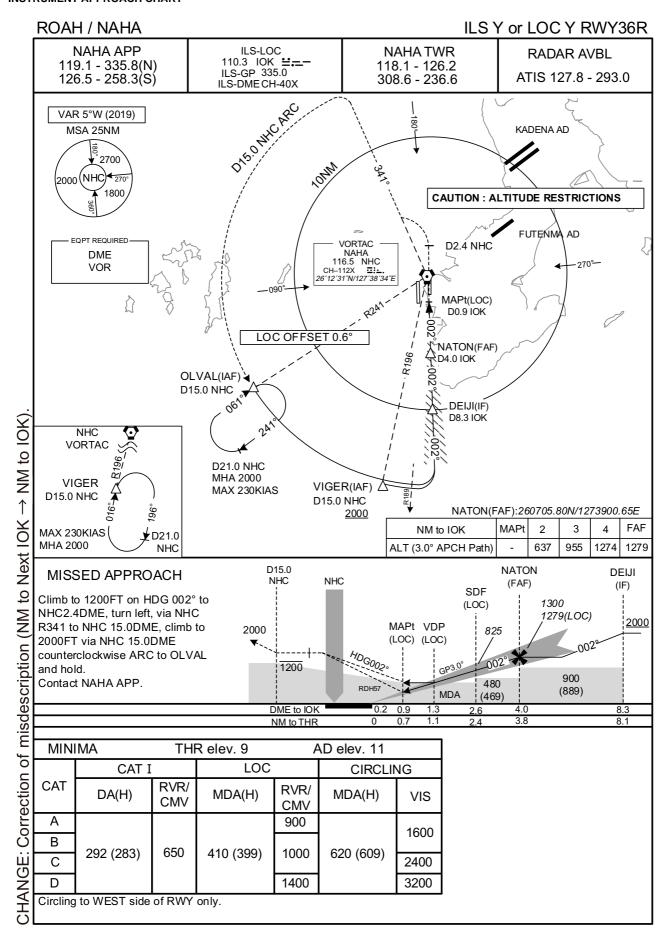
From ENTOK at or above FL170, to VIGER at or above 2000FT.

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

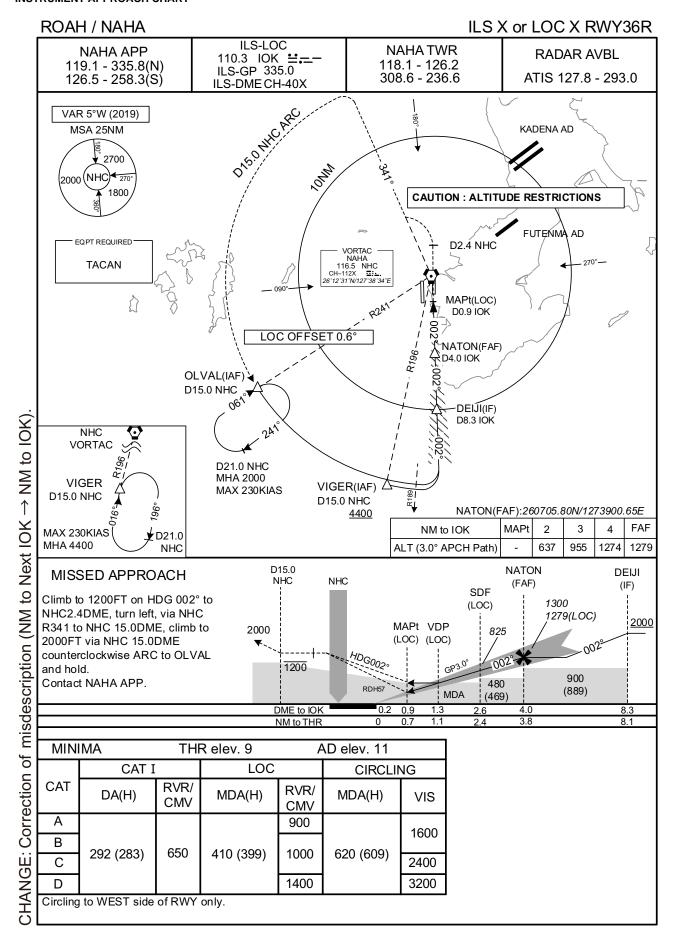
#### **INSTRUMENT APPROACH CHART**

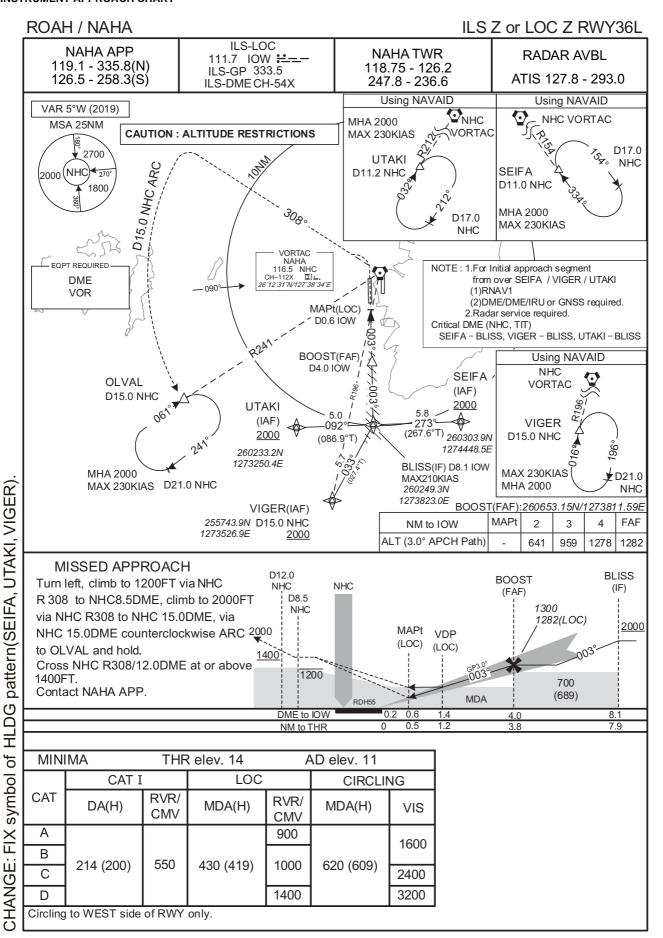


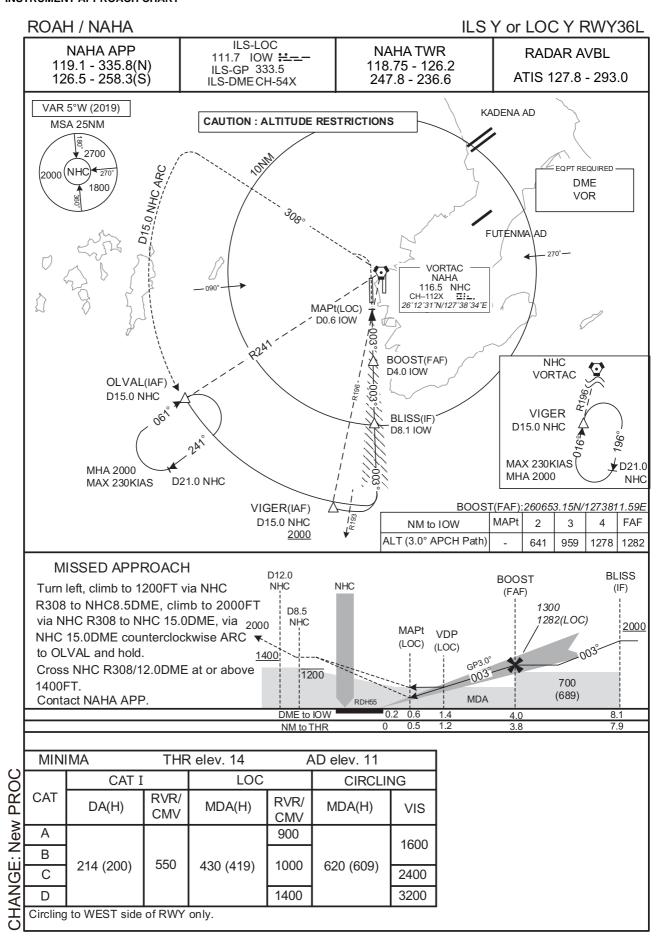
#### **INSTRUMENT APPROACH CHART**



#### **INSTRUMENT APPROACH CHART**



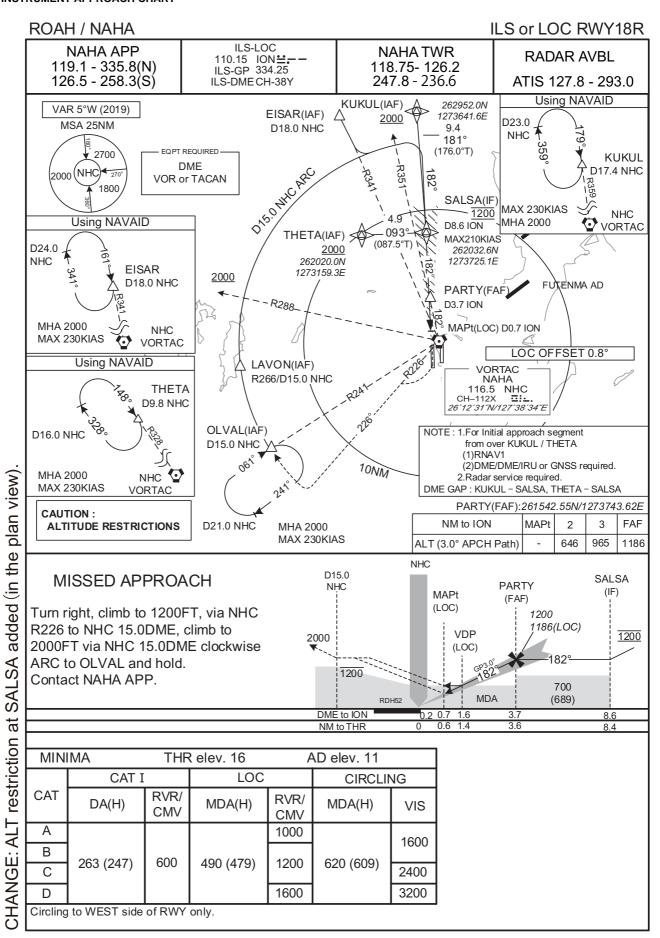


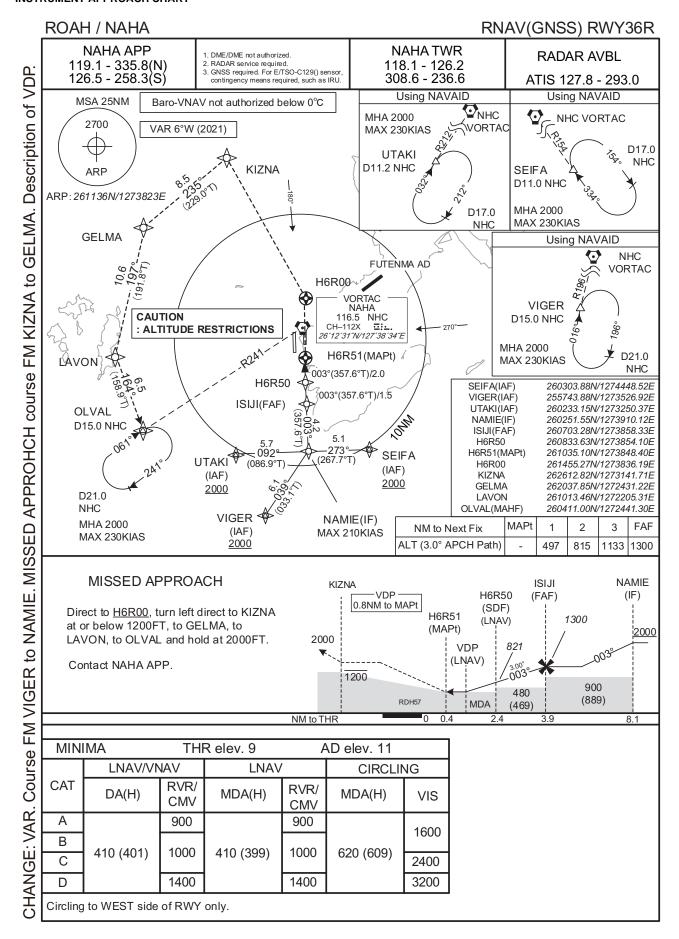


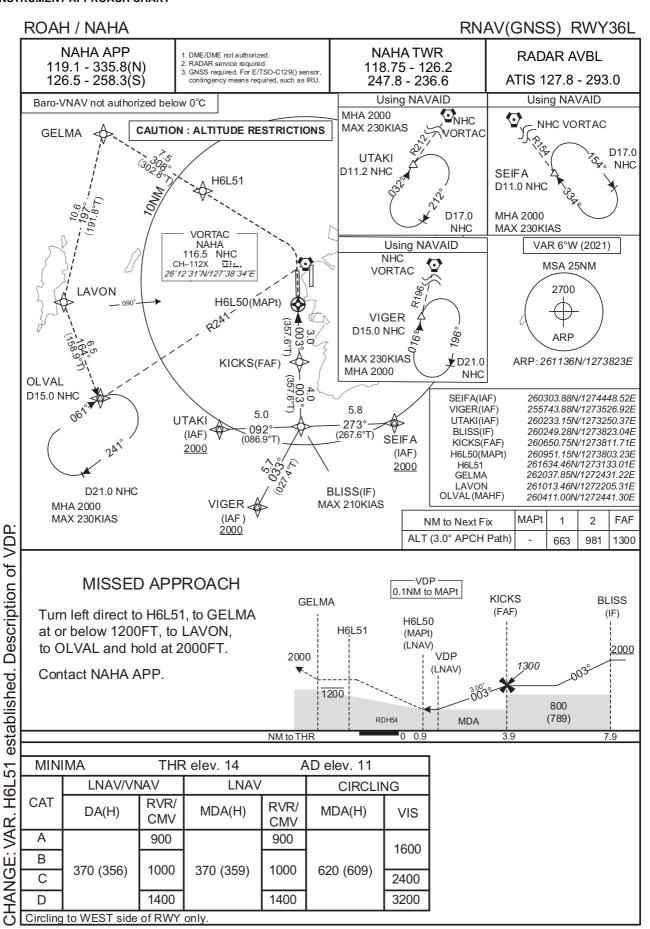
## **ROAH / NAHA** ILS X or LOC X RWY36L ILS-LOC NAHA APP **NAHATWR** RADAR AVBL 111.7 IOW **∺** ILS-GP 333.5 119.1 - 335.8(N) 118.75 - 126.2 ATIS 127.8 - 293.0 126.5 - 258.3(S) 247.8 - 236.6 ILS-DME CH-54X VAR 5°W (2019) KADENA AD **CAUTION: ALTITUDE RESTRICTIONS** MSA 25NM D15.0 NHC ARC 2700 (<sub>2000</sub> (NHC EQPT REQUIRED 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 4.0 3.8 8.1 NM to THR MINIMA THR elev. 14 AD elev. 11 ANGE: New PROC CAT I LOC **CIRCLING** CAT RVR/ RVR/ DA(H) MDA(H) MDA(H) VIS CMV **CMV** Α 900 1600 В 550 214 (200) 430 (419) 1000 620 (609) С 2400 1400 3200 D

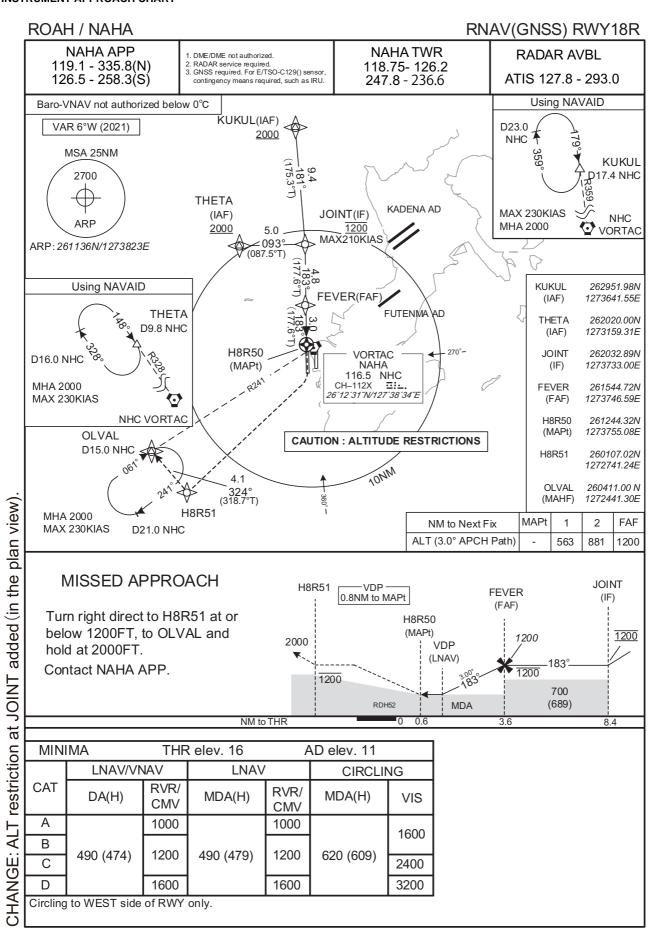
Circling to WEST side of RWY only.

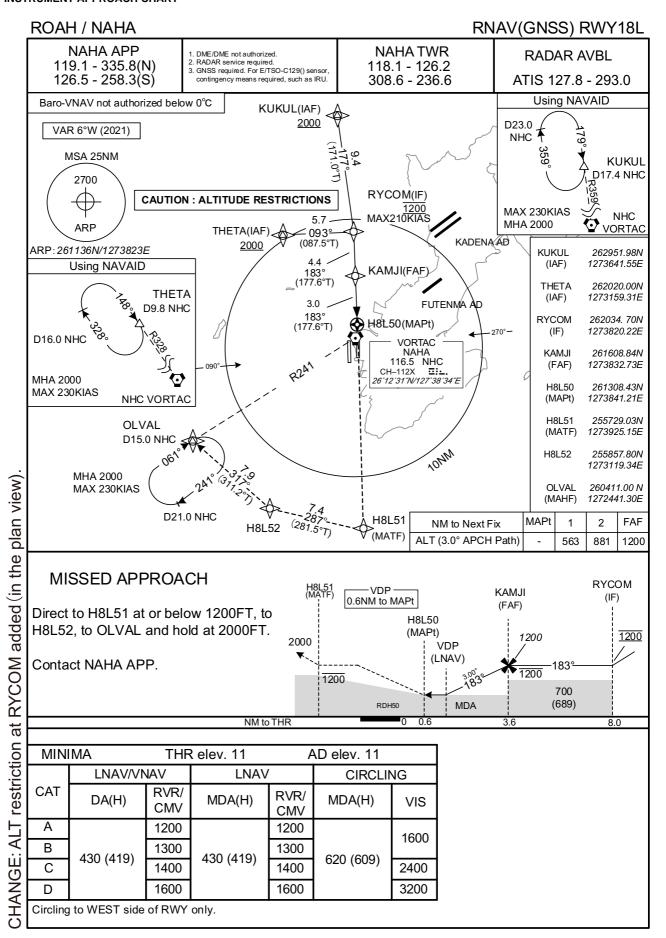
CH

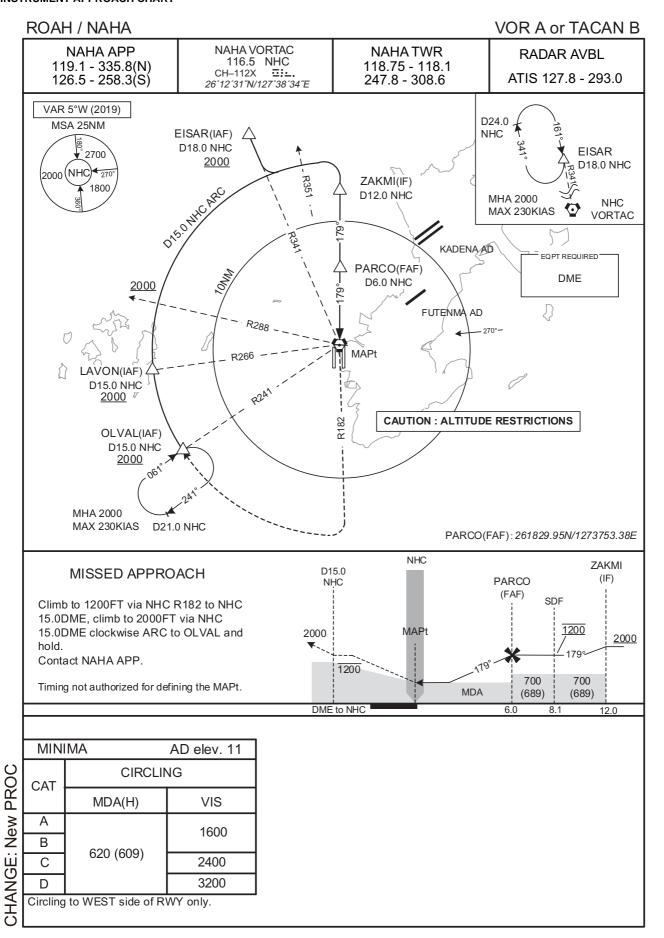


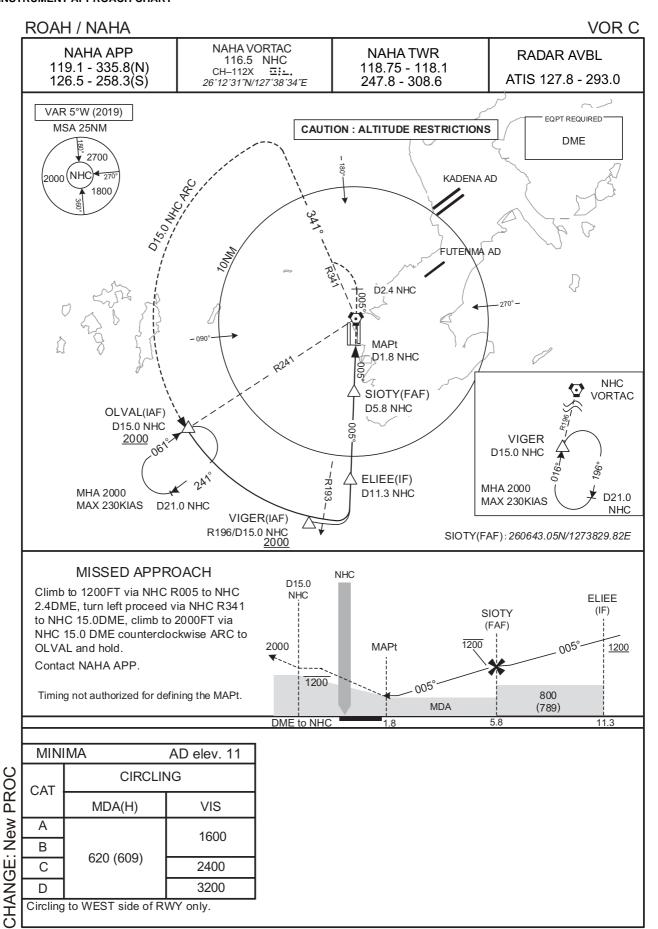


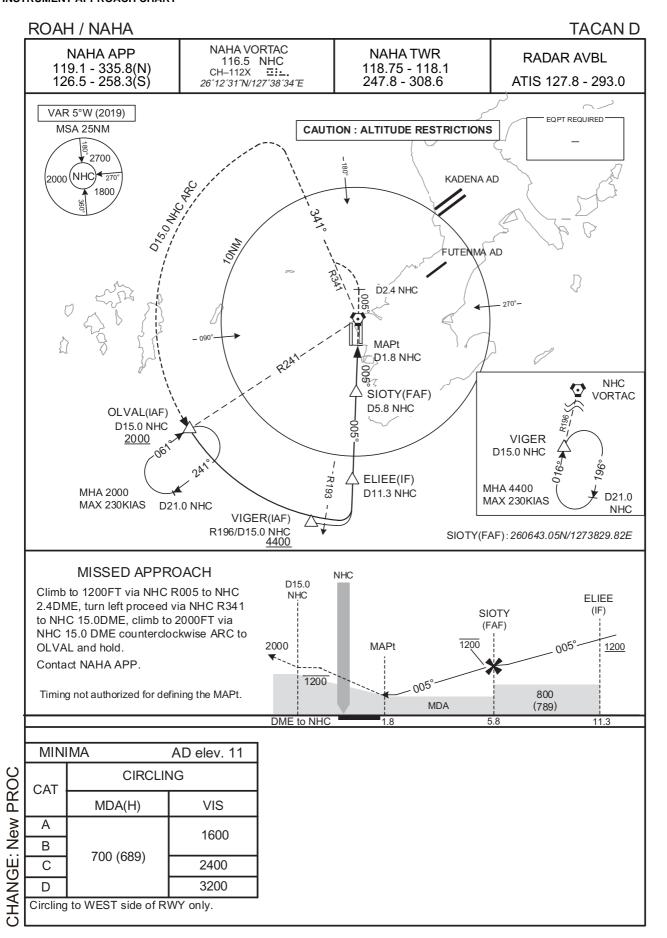












Call sign	BRG / DIST from ARP	Remarks
サンド Sando	310°/ 6.7NM	ナガンヌ島 Island
前 Maejima	277°/10.8NM	前島 Island
慶良間ノース Kerama North	277°/15.5NM	渡嘉敷島北端 North edge of island
慶良間サウス Kerama South	258°/16.5NM	渡嘉敷島南端 South edge of island
ドーナツ Dohnatsu	230°/ 8.5NM	ルカン礁 Coral reef
摩 文 仁 Mabuni	150°/ 7.4NM	平和祈念公園 Park
与 那 原 Yonabaru	090°/ 6.2NM	国道329号線与那原交叉点 Intersection
安 Aja	045°/ 3.5NM	国道58号線安謝橋 Bridge

