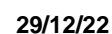


## AD CHART

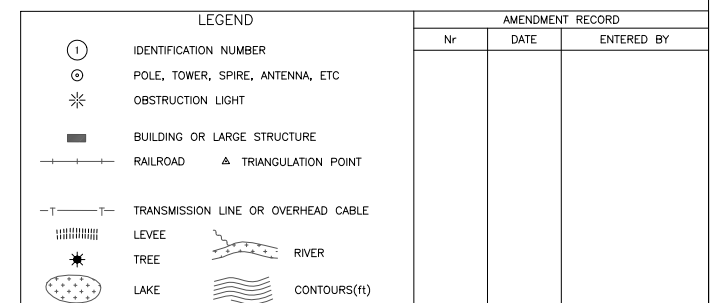
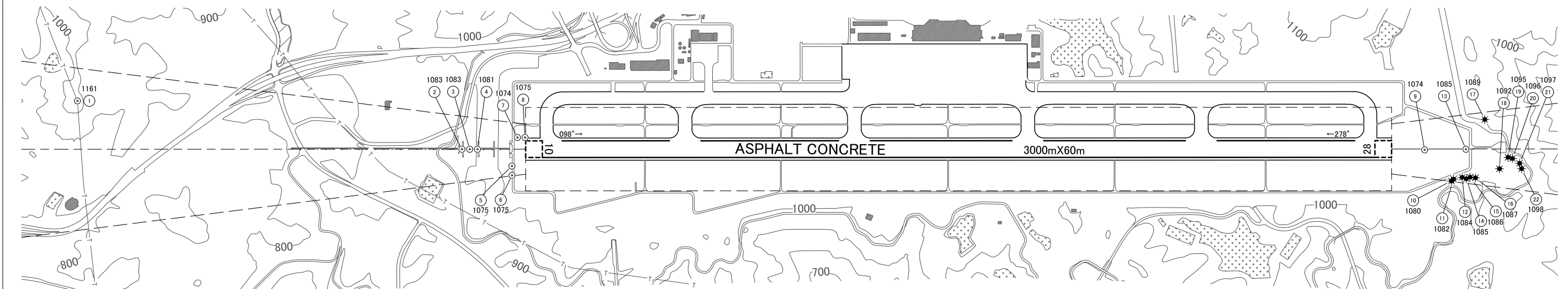


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DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

HIROSHIMA AIRPORT  
RWY : 10/28

Figure 1 is a graph showing the relationship between the number of iterations (X-axis) and the number of iterations required to reach a certain level of accuracy (Y-axis). The X-axis ranges from 16000 to 9842, and the Y-axis ranges from 1300 to 1072. A dashed line indicates a slope of 1.2%. Data points are plotted as circles with vertical error bars. The points are labeled 1 through 8. Point 1 is at approximately (15500, 1072). Points 2 through 8 are clustered between 11000 and 9842 iterations, with Y-values ranging from approximately 1072 to 1080. A horizontal line is drawn at Y=1072.

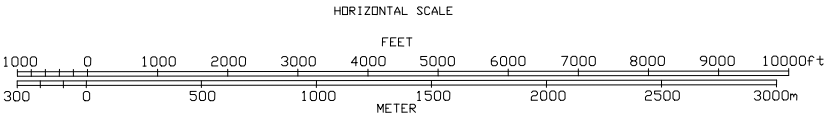
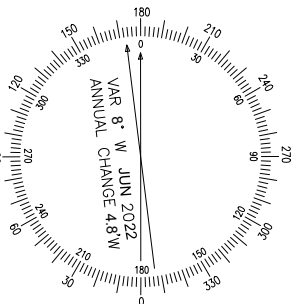


11/8/22

AERODROME OBSTACLE CHART-ICAO  
TYPE B (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

AERODROME ELEVATION 1086ft ARP



LEGEND	AMENDMENT RECORD		
	NO	DATE	ENTERED BY
✦ AERODROME REFERENCE POINT 54°26'10"N 132°55'10"E			
⊙ POLE, TOWER, SPIRE, ANTENNA, ETC			
★ AERONAUTICAL GROUND LIGHT			
✧ OBSTRUCTION LIGHT			
■ BUILDING OR LARGE STRUCTURE			
—+—+— TERRAIN PENETRATING OBSTACLE PLANE			
—T—T— TRANSMISSION LINE OR OVERHEAD CABLE			
— LEVEE			
✧ TREE			
⊙ LAKE			
— RIVER			
— CONTOURS(11)			

CHANGE : VAR.

PRECISION APPROACH TERRAIN CHART-ICAO

PRCISION APPROACH TERRAIN CHART



STANDARD DEPARTURE CHART - INSTRUMENT

RJOA / HIROSHIMA

SID

HONGO REVERSAL FOUR DEPARTURE

RWY 10 : Climb RWY HDG to HGE 4.6DME(4.0NM FM DER), turn left....,  
RWY 28 : Climb on HDG 271° to HGE 5.0DME(4.0NM FM DER), turn right....,  
....direct to HGE VOR/DME. Cross HGE VOR/DME at or above 5000FT.

Note : RWY10 : 3.8% climb gradient required up to 2300FT.  
OBST ALT 2002FT located at 088°/5.7NM FM DER.  
RWY28 : 3.8% climb gradient required up to 1600FT.  
OBST ALT 2559FT located at 338°/7.7NM FM DER.



CHANGE : PROC renamed. PROC course. Note RWY10(OBST). Note RWY28(Climb gradient, OBST).

STANDARD DEPARTURE CHART - INSTRUMENT

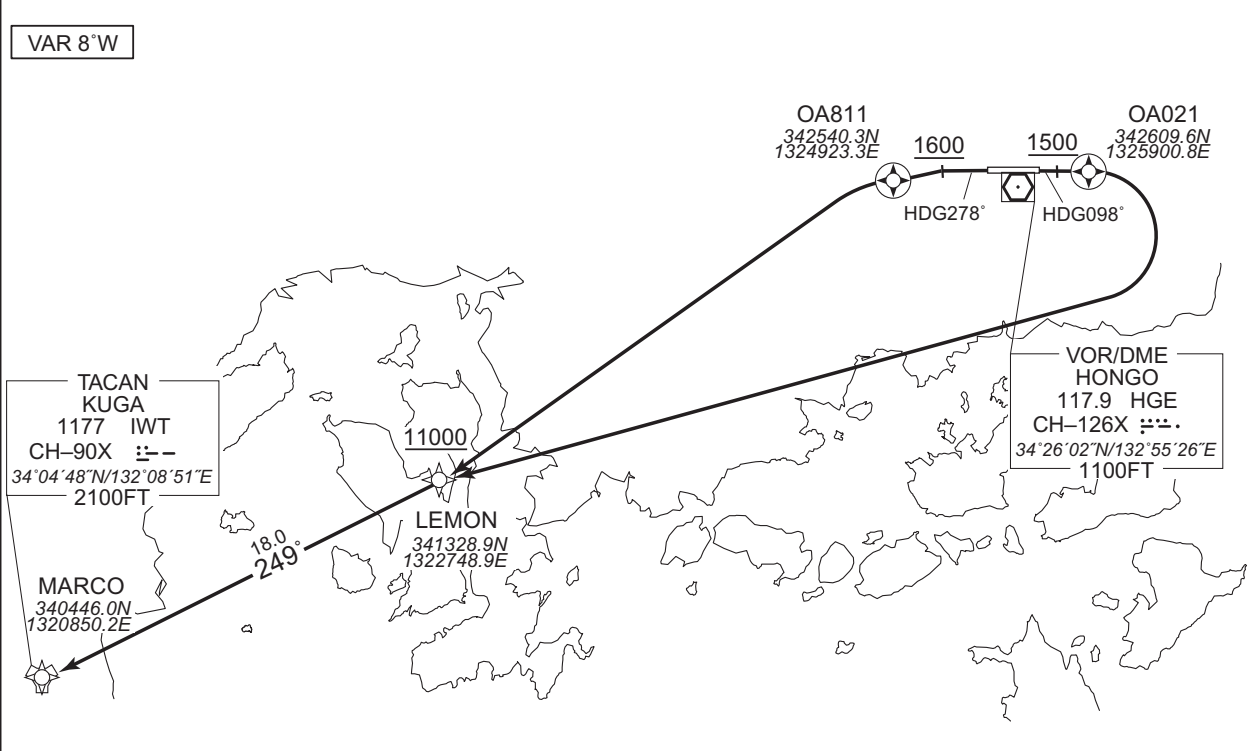
RJOA / HIROSHIMA

RNAV SID

MARCO TWO DEPARTURE

RNP1

Note GNSS required.



RWY10 : Climb on HDG098° at or above 1500FT, direct to OA021, turn right direct to LEMON at or above 11000FT, to MARCO.

RWY28 : Climb on HDG278° at or above 1600FT, direct to OA811, turn left direct to LEMON at or above 11000FT, to MARCO.

NOTE RWY10 : 5.0% climb gradient required up to 1500FT.  
RWY28 : 3.6% climb gradient required up to 1600FT.

RWY10

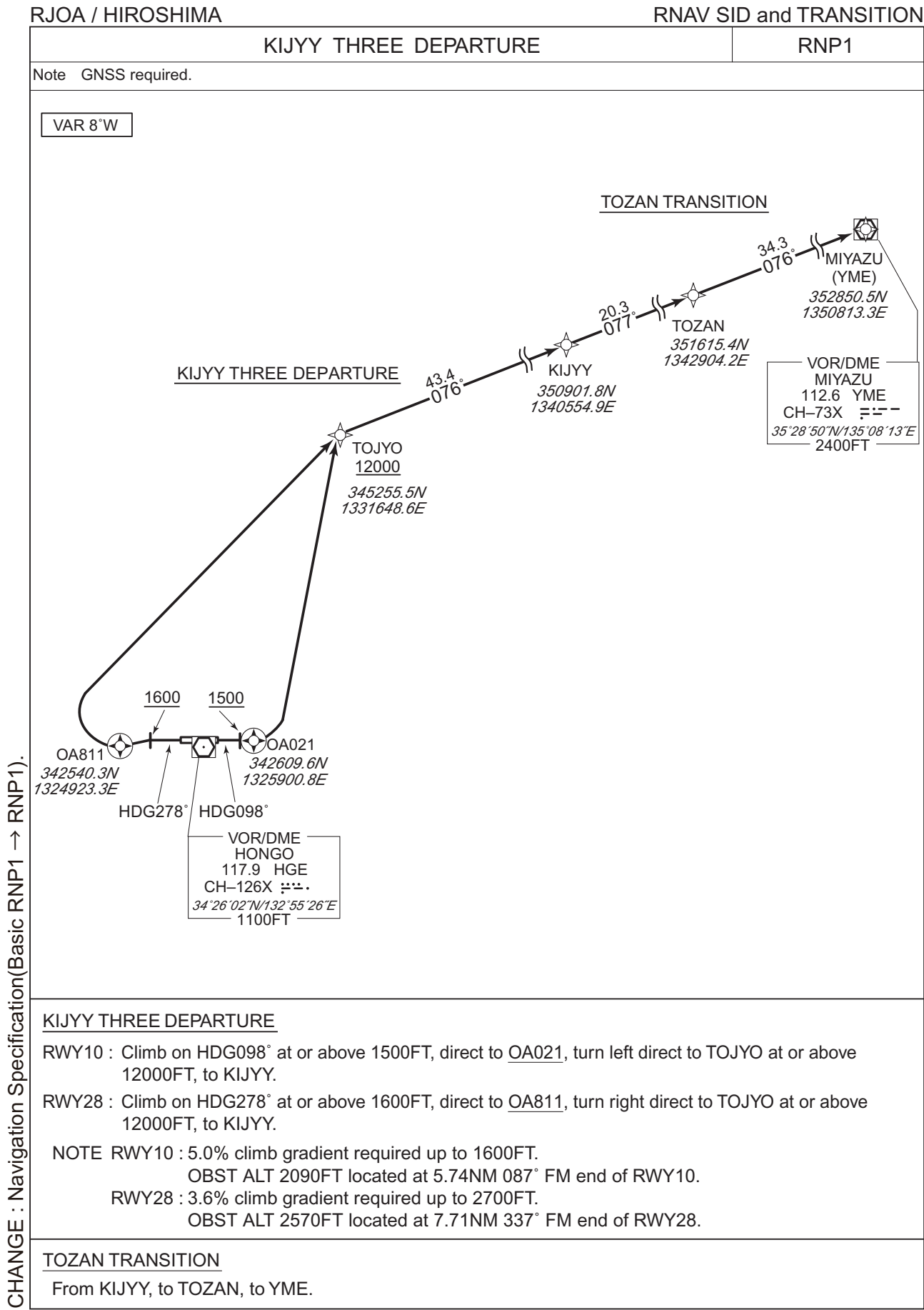
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	—	—	098 (090.0)	-8.1	—	—	+1500	—	—	RNP1
002	DF	OA021	Y	—	-8.1	—	—	—	—	—	RNP1
003	DF	LEMON	—	—	-8.1	—	R	+11000	—	—	RNP1
004	TF	MARCO	—	249 (241.1)	-8.1	18.0	—	—	—	—	RNP1

RWY28

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	—	—	278 (270.0)	-8.1	—	—	+1600	—	—	RNP1
002	DF	OA811	Y	—	-8.1	—	—	—	—	—	RNP1
003	DF	LEMON	—	—	-8.1	—	L	+11000	—	—	RNP1
004	TF	MARCO	—	249 (241.1)	-8.1	18.0	—	—	—	—	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART - INSTRUMENT





STANDARD DEPARTURE CHART - INSTRUMENT

RJOA / HIROSHIMA

RNAV SID and TRANSITION

KIJYY THREE DEPARTURE

RWY10

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	-	-	098 (090.0)	-8.1	-	-	+1500	-	-	RNP1
002	DF	OA021	Y	-	-8.1	-	-	-	-	-	RNP1
003	DF	TOJYO	-	-	-8.1	-	L	+12000	-	-	RNP1
004	TF	KIJYY	-	076 (067.9)	-8.1	43.4	-	-	-	-	RNP1

RWY28

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	-	-	278 (270.0)	-8.1	-	-	+1600	-	-	RNP1
002	DF	OA811	Y	-	-8.1	-	-	-	-	-	RNP1
003	DF	TOJYO	-	-	-8.1	-	R	+12000	-	-	RNP1
004	TF	KIJYY	-	076 (067.9)	-8.1	43.4	-	-	-	-	RNP1

TOZAN TRANSITION

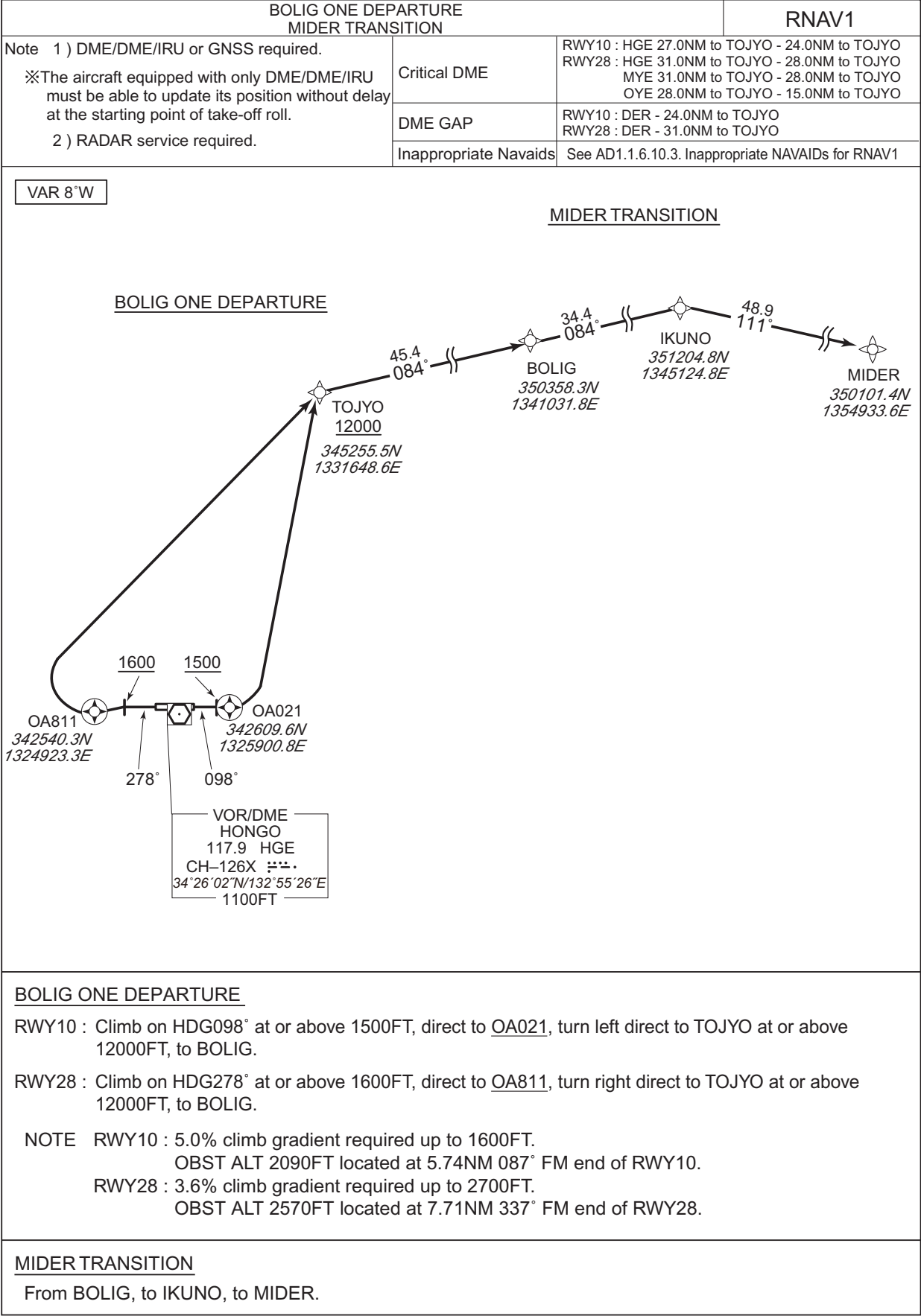
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	KIJYY	-	-	-8.1	-	-	-	-	-	RNP1
002	TF	TOZAN	-	077 (069.0)	-8.1	20.3	-	-	-	-	RNP1
003	TF	YME	-	076 (068.3)	-8.1	34.3	-	-	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART - INSTRUMENT

RJOA / HIROSHIMA

RNAV SID and TRANSITION



## STANDARD DEPARTURE CHART - INSTRUMENT

RJOA / HIROSHIMA

RNAV SID and TRANSITION

BOLIG ONE DEPARTURE

## RWY10

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	—	—	098 (090.0)	-8.2	—	—	+1500	—	—	RNAV1
002	DF	OA021	Y	—	-8.2	—	—	—	—	—	RNAV1
003	DF	TOJYO	—	—	-8.2	—	L	+12000	—	—	RNAV1
004	TF	BOLIG	—	084 (075.7)	-8.2	45.4	—	—	—	—	RNAV1

## RWY28

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	—	—	278 (270.0)	-8.2	—	—	+1600	—	—	RNAV1
002	DF	OA811	Y	—	-8.2	—	—	—	—	—	RNAV1
003	DF	TOJYO	—	—	-8.2	—	R	+12000	—	—	RNAV1
004	TF	BOLIG	—	084 (075.7)	-8.2	45.4	—	—	—	—	RNAV1

MIDER TRANSITION

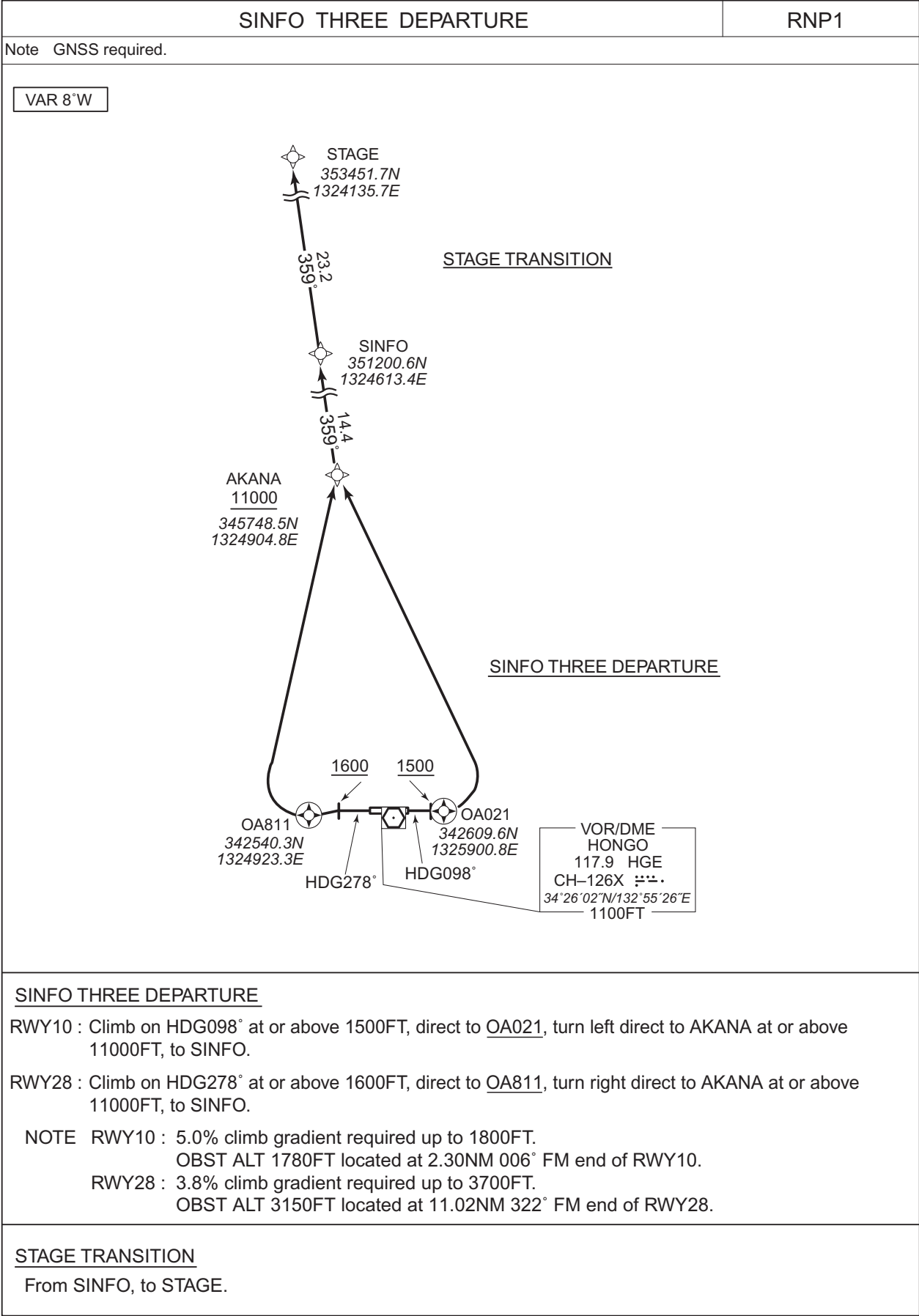
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	BOLIG	—	—	-8.2	—	—	—	—	—	RNAV1
002	TF	IKUNO	—	084 (076.2)	-8.2	34.4	—	—	—	—	RNAV1
003	TF	MIDER	—	111 (102.8)	-8.2	48.9	—	—	—	—	RNAV1

CHANGE : New PROC.

STANDARD DEPARTURE CHART -INSTRUMENT

RJOA / HIROSHIMA

RNAV SID and TRANSITION



CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART -INSTRUMENT

RJOA / HIROSHIMA

RNAV SID and TRANSITION

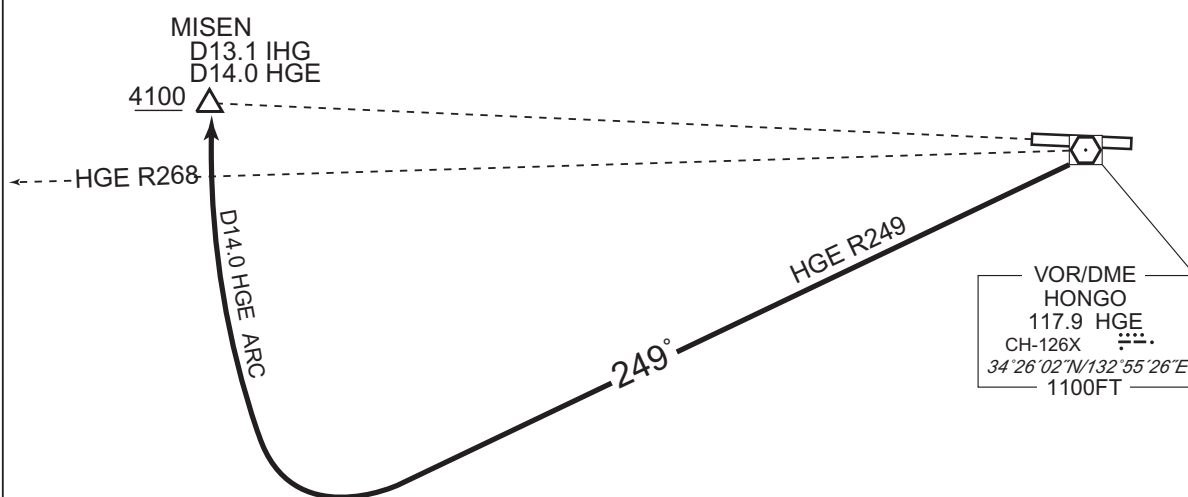
SINFO THREE DEPARTURE											
RWY10											
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	098 (090.0)	-8.1	-	-	+1500	-	-	RNP1
002	DF	OA021	Y	-	-8.1	-	-	-	-	-	RNP1
003	DF	AKANA	-	-	-8.1	-	L	+11000	-	-	RNP1
004	TF	SINFO	-	359 (350.7)	-8.1	14.4	-	-	-	-	RNP1
RWY28											
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	-	-	278 (270.0)	-8.1	-	-	+1600	-	-	RNP1
002	DF	OA811	Y	-	-8.1	-	-	-	-	-	RNP1
003	DF	AKANA	-	-	-8.1	-	R	+11000	-	-	RNP1
004	TF	SINFO	-	359 (350.7)	-8.1	14.4	-	-	-	-	RNP1
STAGE 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	SINFO	-	-	-8.1	-	-	-	-	-	RNP1
002	TF	STAGE	-	359 (350.6)	-8.1	23.2	-	-	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

## RJOA / HIROSHIMA

STAR

From over HGE VOR/DME, via HGE R249 to intercept and proceed via HGE 14.0DME clockwise ARC to MISEN.  
Cross MISEN at or above 4100FT.



CHANGE : Course FM HGE to MISEN.

## STANDARD ARRIVAL CHART -INSTRUMENT

RJOA / HIROSHIMA

RNAV STAR RWY10

## MISEN ARRIVAL

RNAV1

Note 1 ) DME/DME/IRU or GNSS required.

2 ) RADAR service required.

VAR 8°W



From AMURO at or above 8000FT, to SAILA at or above 7000FT, to SEAWA at or above 5500FT, to MISEN at or above 4100FT.

Critical DME	—
DME GAP	—
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1.

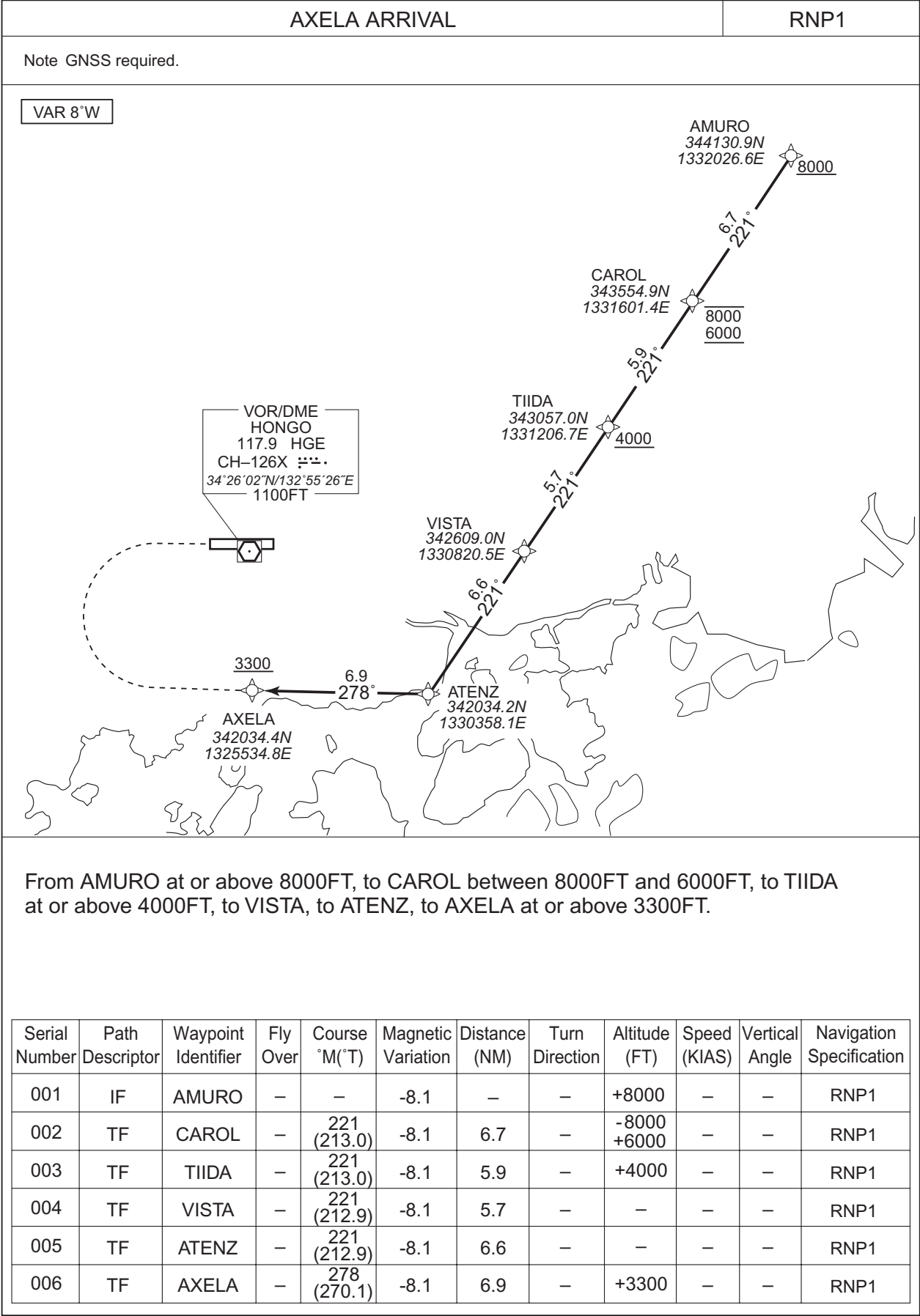
CHANGE : Description of VAR.

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	AMURO	—	—	-7.6	—	—	+8000	—	—	RNAV1
002	TF	SAILA	—	262 (254.5)	-7.6	6.7	—	+7000	—	—	RNAV1
003	TF	SEAWA	—	262 (254.4)	-7.6	29.2	—	+5500	—	—	RNAV1
004	TF	MISEN	—	187 (179.8)	-7.6	5.7	—	+4100	—	—	RNAV1

STANDARD ARRIVAL CHART-INSTRUMENT

RJOA / HIROSHIMA

RNAV STAR RWY10



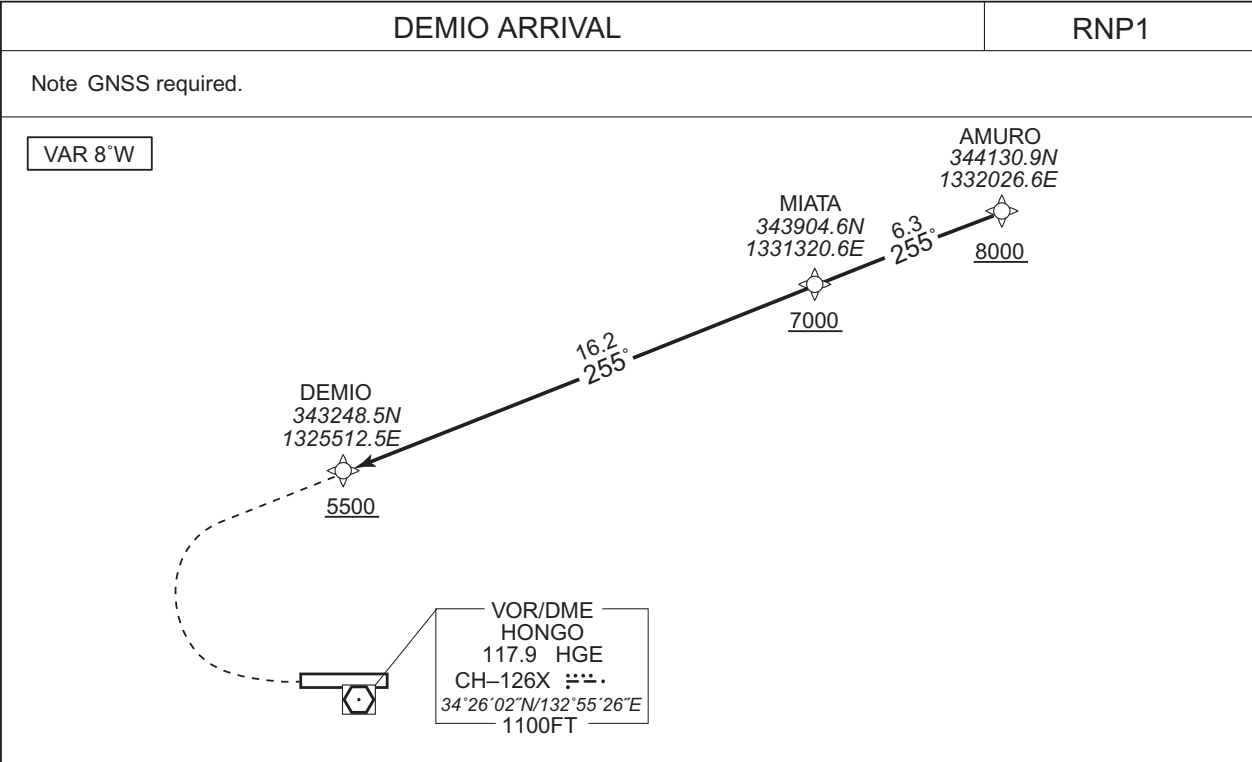
CHANGE : Navigation Specification(Basic RNP1 → RNP1).



STANDARD ARRIVAL CHART-INSTRUMENT

RJOA / HIROSHIMA

RNAV STAR RWY10



From AMURO at or above 8000FT, to MIATA at or above 7000FT, to DEMIO at or above 5500FT.

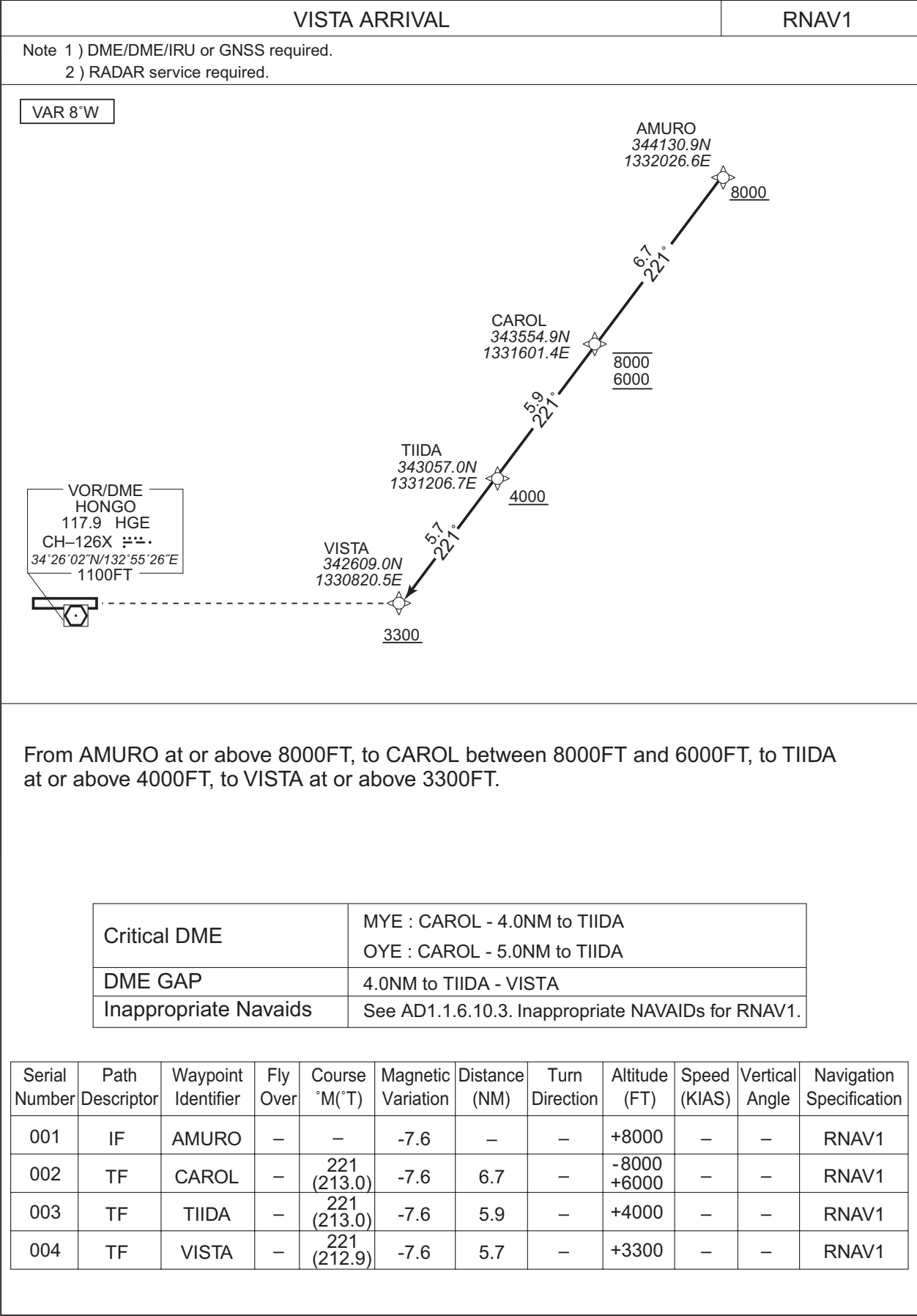
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	AMURO	—	—	-8.1	—	—	+8000	—	—	RNP1
002	TF	MIATA	—	255 (247.4)	-8.1	6.3	—	+7000	—	—	RNP1
003	TF	DEMIO	—	255 (247.3)	-8.1	16.2	—	+5500	—	—	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART -INSTRUMENT

RJOA / HIROSHIMA

RNAV STAR RWY28



STANDARD ARRIVAL CHART -INSTRUMENT

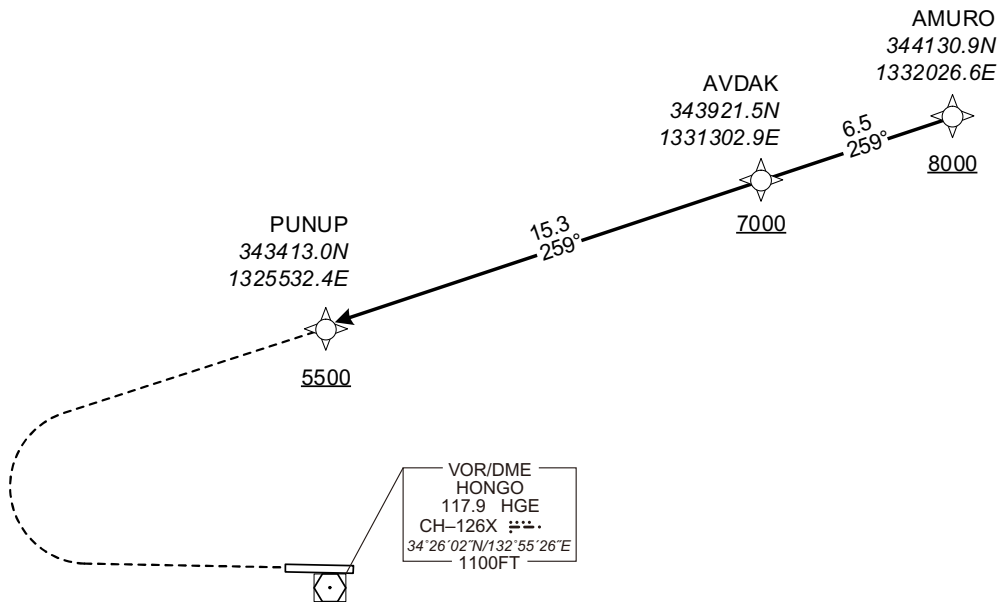
RJOA / HIROSHIMA

RNAV STAR RWY10

PUNUP ARRIVAL	RNP1
---------------	------

Note GNSS required.

VAR 8°W



From AMURO at or above 8000FT, to AVDAK at or above 7000FT, to PUNUP at or above 5500FT.

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	AMURO	—	—	-8.1	—	—	+8000	—	—	RNP1
002	TF	AVDAK	—	259 (250.5)	-8.1	6.5	—	+7000	—	—	RNP1
003	TF	PUNUP	—	259 (250.4)	-8.1	15.3	—	+5500	—	—	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

ILS Z or LOC RWY10 (CAT III)

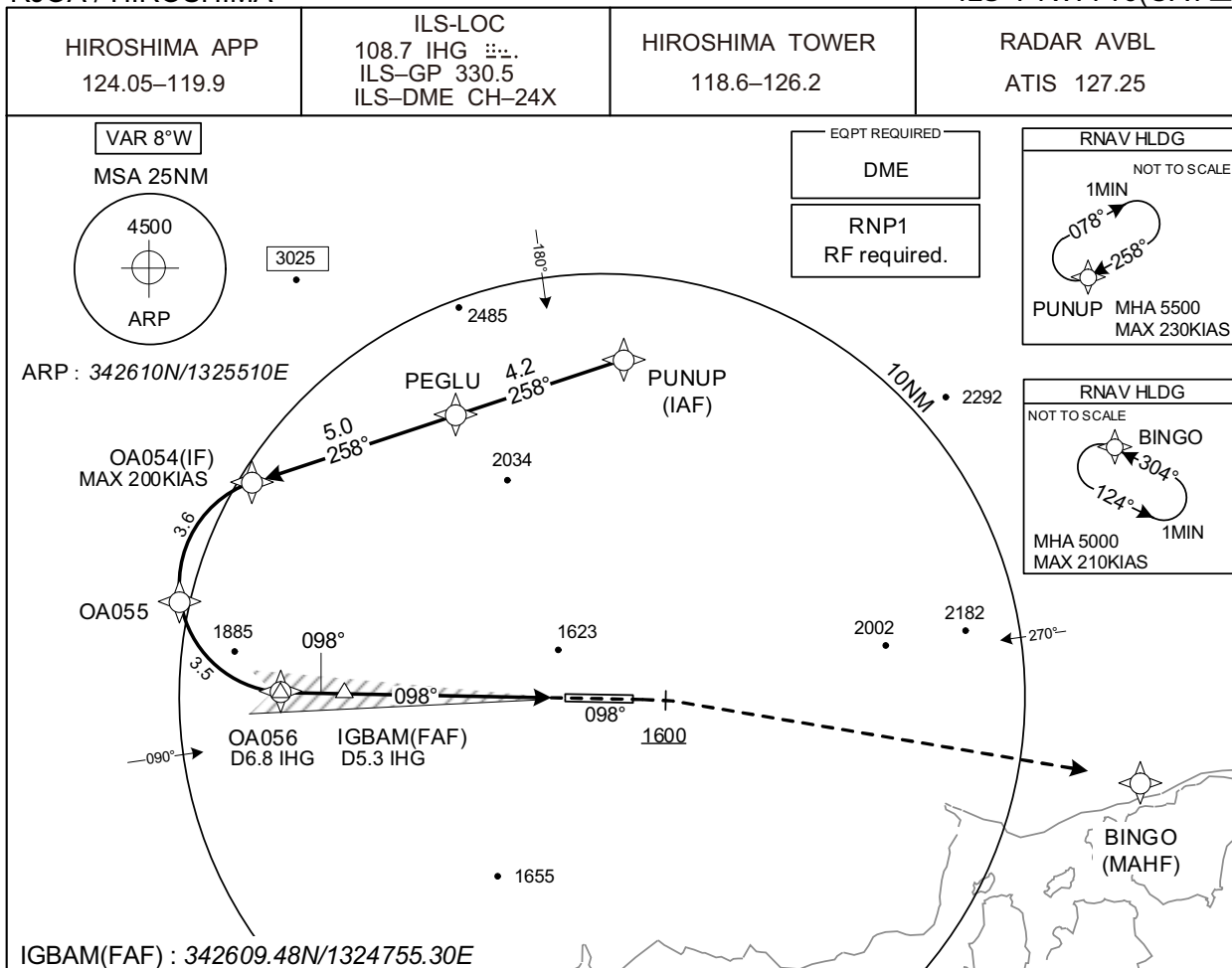


CHANGE : PROC renamed. Description of VAR.

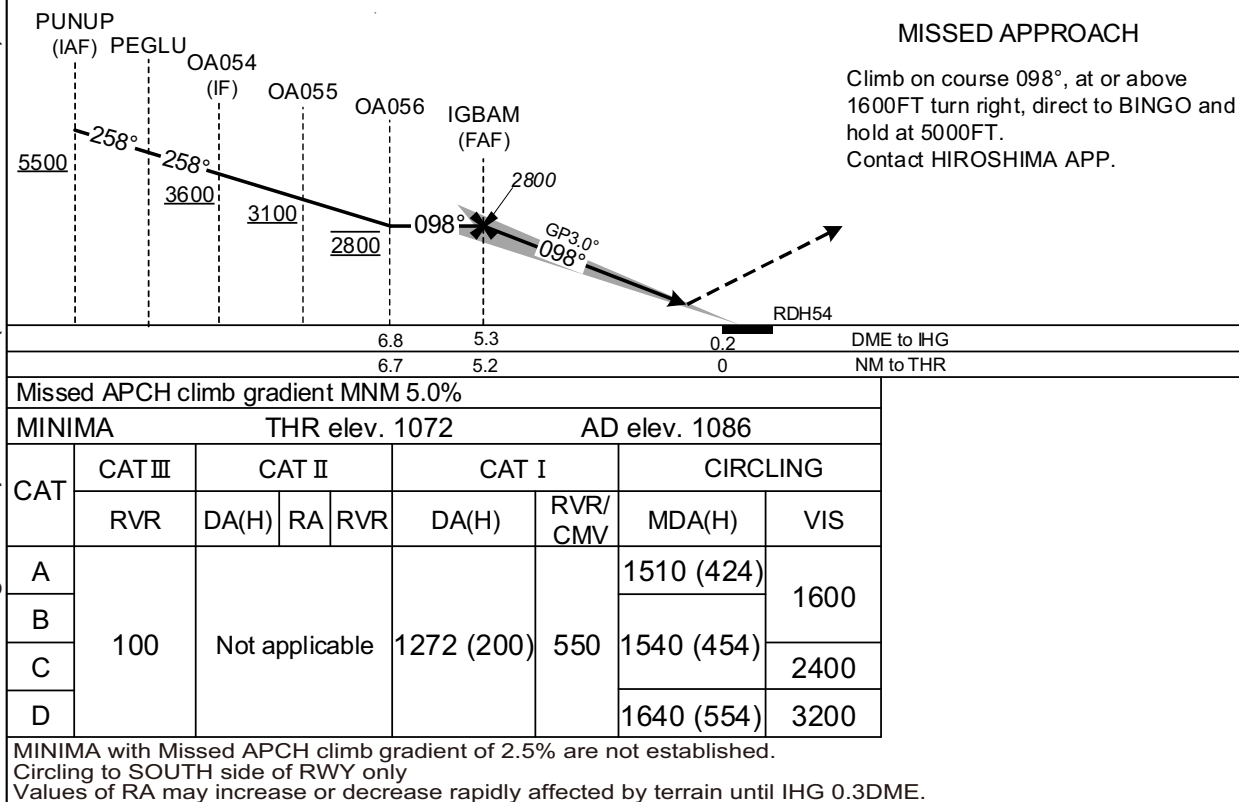
## INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

ILS Y RWY10(CAT III)



CHANGE : Navigation Specification(Basic RNP1 → RNP1).



INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

ILS Y RWY10(CATⅢ)

CHANGE : Correction of misdescription(HLDG speed, Minimum ALT at BINGO).

Coding Table

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	PUNUP	-	-	-8.1	-	-	+5500	-	-	RNP1
002	TF	PEGLU	-	258 (250.3)	-8.1	4.2	-	-	-	-	RNP1
003	TF	OA054	-	258 (250.2)	-8.1	5.0	-	+3600	-200	-	RNP1
004	RF Center: OARF3 r=2.55NM	OA055	-	-	-8.1	3.6	L	+3100	-	-	RNP1
005	RF Center: OARF3 r=2.55NM	OA056	-	-	-8.1	3.5	L	2800	-	-	RNP1
001	CA	-	-	098 (090.0)	-8.1	-	-	+1600	-	-	RNP1
002	DF	BINGO	-	-	-8.1	-	R	5000	-	-	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	PUNUP	258 (250.3)	-8.1	1.0 (-14000)	R	5500	FL140	-230 (-14000)	RNP1
Hold	BINGO	304 (296.1)	-8.1	1.0 (-14000)	L	5000	FL140	-210 (-14000)	RNP1

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
PUNUP	343412.97N / 1325532.36E	OARF3	342842.60N / 1324606.23E
PEGLU	343248.19N / 1325045.55E		
OA054	343106.85N / 1324503.74E		
OA055	342814.80N / 1324304.26E		
OA056	342609.36N / 1324606.51E		
BINGO	342425.72N / 1331040.68E		

INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

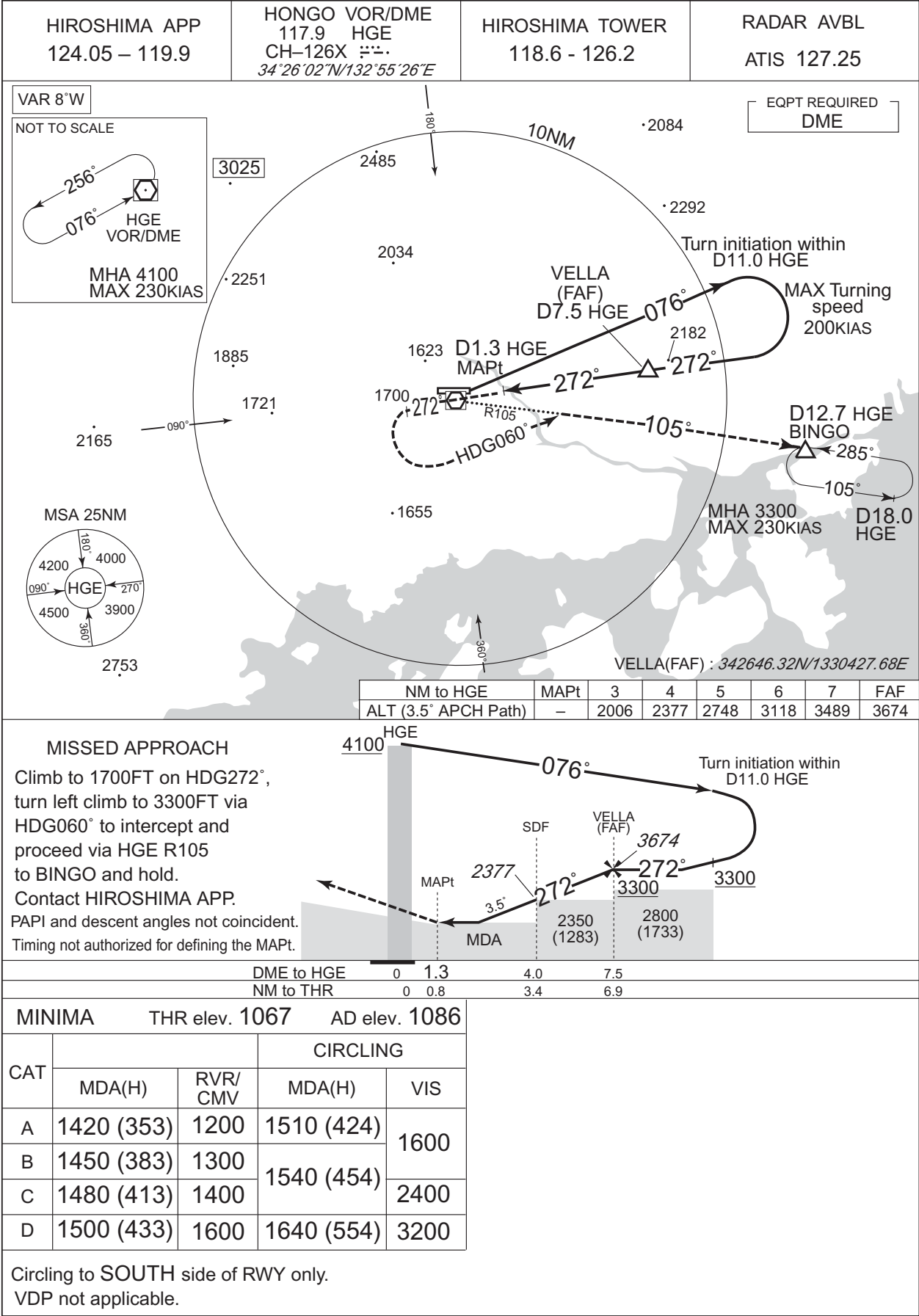
VOR RWY10



INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

VOR RWY28

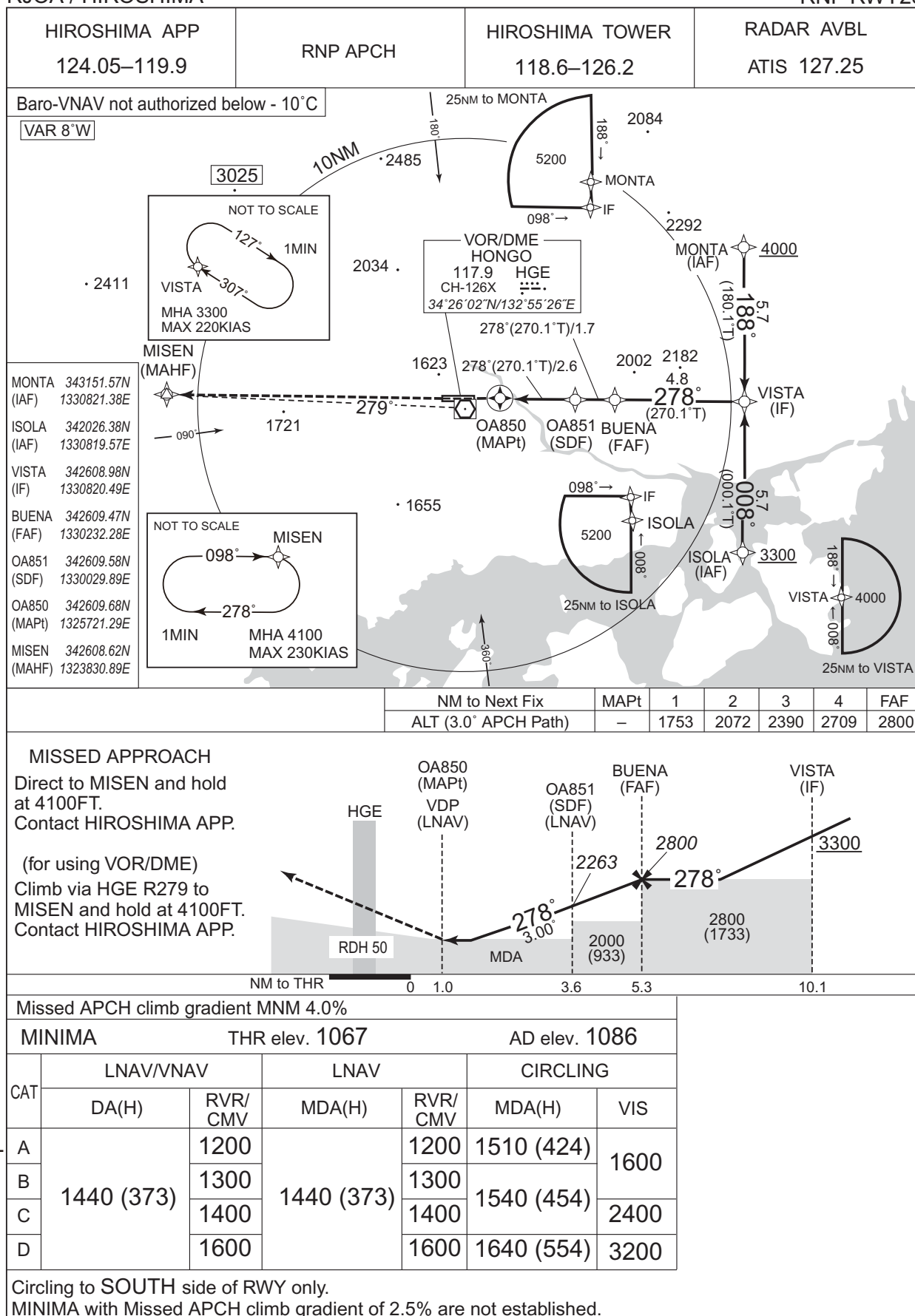




## INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

RNP RWY28



INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

RNP Z RWY10(AR)



CHANGE : Description of VAR.

## INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

RNP Z RWY10(AR)

Coding Table

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/RDH (°/FT)	RNP Value
001	IF	DEMIO	-	-	-8.1	-	-	+5500	-	-	-
002	TF	OA050	-	255 (247.1)	-8.1	4.5	-	+3200	-185	-	1.0
003	RF Center: OARF1 r=2.54NM	OA051	-	-	-8.1	2.8	L	3200	-	-	1.0
004	RF Center: OARF1 r=2.54NM	OA052	-	-	-8.1	4.2	L	1874	-	-3.00	0.10 0.30
005	TF	RW10	Y	098 (090.0)	-8.1	2.3	-	1126	-	-3.00/54	0.10 0.30
006	TF	OA053	-	098 (090.0)	-8.1	6.2	-	-	-	-	1.0
007	TF	BINGO	-	111 (103.2)	-8.1	7.6	-	5000	-	-	1.0

Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	DEMIO	255 (247.1)	-8.1	1.0 (-14000)	R	5500	FL140	-230(-14000)	1.0
Hold	BINGO	304 (296.1)	-8.1	1.0 (-14000)	L	5000	FL140	-210(-14000)	1.0

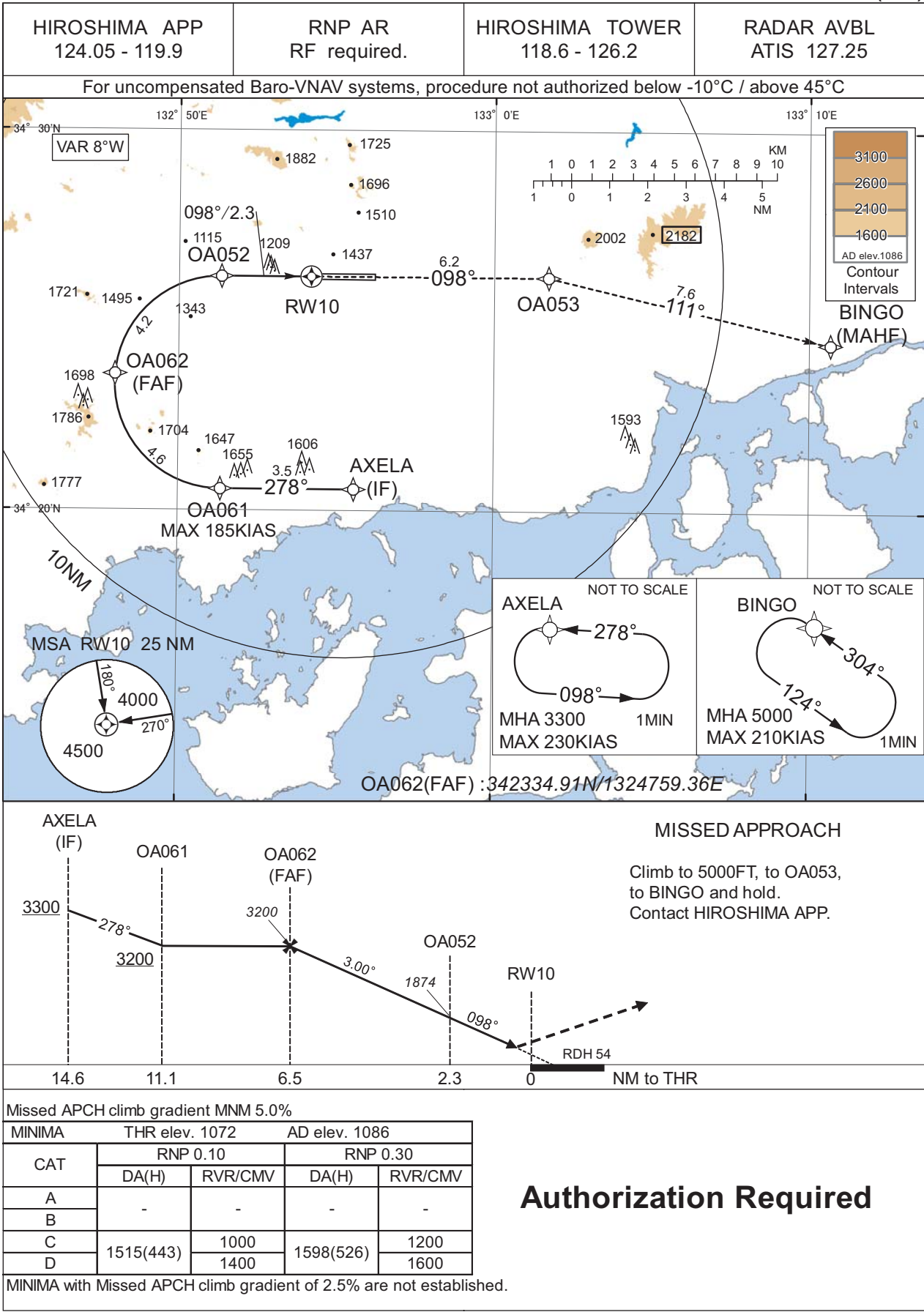
Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
DEMIO	343248.47N / 1325512.50E	OARF1	342842.28N / 1325120.72E
OA050	343102.99N / 1325009.23E		
OA051	342852.58N / 1324816.81E		
OA052	342609.63N / 1325120.84E		
RW10	342609.69N / 1325411.25E		
OA053	342609.67N / 1330143.51E		
BINGO	342425.72N / 1331040.68E		

INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

RNP Y RWY10(AR)



CHANGE : Description of VAR.

## INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA

RNP Y RWY10(AR)

Coding Table

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	AXELA	-	-	-8.1	-	-	+3300	-	-	1.0
002	TF	OA061	-	278 (270.0)	-8.1	3.5	-	+3200	-185	-	1.0
003	RF Center: OARF2 r=2.79NM	OA062	-	-	-8.1	4.6	R	3200	-	-	1.0
004	RF Center: OARF2 r=2.79NM	OA052	-	-	-8.1	4.2	R	1874	-	-3.00	0.10 0.30
005	TF	RW10	Y	098 (090.0)	-8.1	2.3	-	1126	-	-3.00/54	0.10 0.30
006	TF	OA053	-	098 (090.0)	-8.1	6.2	-	-	-	-	1.0
007	TF	BINGO	-	111 (103.2)	-8.1	7.6	-	5000	-	-	1.0

Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	AXELA	278 (270.0)	-8.1	1.0 (-14000)	L	3300	FL140	-230(-14000)	1.0
Hold	BINGO	304 (296.1)	-8.1	1.0 (-14000)	L	5000	FL140	-210(-14000)	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
AXELA	342034.40N / 1325534.80E	OARF2	342321.96N / 1325120.96E
OA061	342034.29N / 1325121.21E		
OA062	342334.91N / 1324759.36E		
OA052	342609.63N / 1325120.84E		
RW10	342609.69N / 1325411.25E		
OA053	342609.67N / 1330143.51E		
BINGO	342425.72N / 1331040.68E		



RJOA / HIROSHIMA

Visual REP



※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).

CHANGE : VAR.

Call sign	BRG / DIST from ARP	Remarks
白竜 Hakuryu	345°T / 4.3NM	湖 Lake
小佐木 Kosagi	115°T / 10.1NM	小佐木島 Kosagi - Island
竹原 Takehara	184°T / 5.8NM	竹原駅 Railway Station
三永サウス Minaga South	251°T / 8.4NM	東広島駅 Railway Station
新庄 Shinjo	209°T / 2.9NM	新庄交差点 Shinjo Intersection



RJOA / HIROSHIMA

Minimum Vectoring Altitude CHART

VAR 8°W (2022)



CENTER : 342602N/1325458E (RADAR SITE)

CHANGE : VAR.