



### **AERODROME OBSTACLE CHART-ICAO**

TYPE A (OPERATING LIMITATIONS)



# AERODROME OBSTACLE CHART-ICAO TYPE B (OPERATING LIMITATIONS)



#### PRECISION APPROACH TERRAIN CHART-ICAO

PRICISION APPROACH TERRAIN CHART



RJOA / HIROSHIMA SID

#### HONGO REVERSAL FOUR DEPARTURE

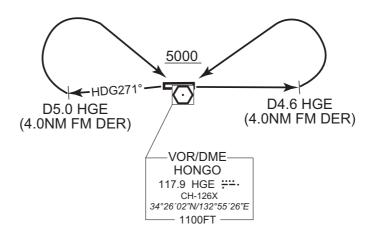
RWY 10: Climb RWY HDG to HGE 4.6DME(4.0NM FM DER), turn left...., RWY 28: Climb on HDG 271° to HGE 5.0DME(4.0NM FM DER), turn right...., ....direct to HGE VOR/DME. Cross HGE VOR/DME at or above 5000FT.

Note: RWY10: 3.8% climb gradient required up to 2300FT.

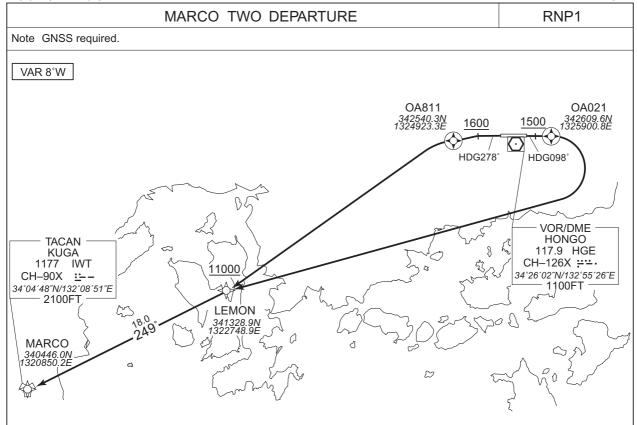
OBST ALT 2002FT located at 088°/5.7NM FM DER.

RWY28: 3.8% climb gradient required up to 1600FT.

OBST ALT 2559FT located at 338°/7.7NM FM DER.



**RNAV SID** 



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

RWY28 : Climb on HDG278 $^{\circ}$  at or above 1600FT, direct to <u>OA811</u>, 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	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	VA	_	_	098 (090.0)	-8.1	_	_	+1500	_	_	RNP1
002	DF	OA021	Υ	_	-8.1	_	_	_	_	_	RNP1
003	DF	LEMON	_	_	-8.1	_	R	+11000	_	_	RNP1
004	TF	MARCO	_	249 (241.1)	-8.1	18.0	_	_	_	_	RNP1

#### RWY28

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	VA	_	_	278 (270.0)	-8.1	_	_	+1600	_	_	RNP1
002	DF	OA811	Υ	_	-8.1	_	_	_	ı	_	RNP1
003	DF	LEMON	_	_	-8.1	_	L	+11000	_	_	RNP1
004	TF	MARCO	_	249 (241.1)	-8.1	18.0	_	_	_	_	RNP1

#### RJOA / HIROSHIMA RNAV SID and TRANSITION KIJYY THREE DEPARTURE RNP1 Note GNSS required. VAR 8°W **TOZAN TRANSITION** MIYAZU (YME) 352850.5N 1350813.3E TOZAN 351615.4N 1342904.2E VOR/DME KIJYY KIJYY THREE DEPARTURE MIYAZU 350901.8N 112.6 YME 1340554.9E CH-73X =:-35°28′50″N/135°08′13″E 2400FT TOJYO 12000 345255.5N 1331648.6E 1600 1500 **♥**OA021 OA811 342609.6N RNP1) 342540.3N 1325900.8E 1324923.3E HDG278 HDG098° CHANGE : Navigation Specification(Basic RNP1 → VOR/DME HONGO 117.9 HGE CH-126X :: :- · 34°26′02″N/132°55′26″E 1100FT KIJYY THREE DEPARTURE RWY10: Climb on HDG098° at or above 1500FT, direct to OA021, turn left direct to TOJYO at or above 12000FT, to KIJYY. RWY28: Climb on HDG278° at or above 1600FT, direct to OA811, turn right direct to TOJYO at or above 12000FT, to KIJYY. NOTE RWY10: 5.0% climb gradient required up to 1600FT. OBST ALT 2090FT located at 5.74NM 087° FM end of RWY10. RWY28: 3.6% climb gradient required up to 2700FT. OBST ALT 2570FT located at 7.71NM 337° FM end of RWY28. **TOZAN TRANSITION** From KIJYY, to TOZAN, to YME.

### 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	-	ı	098 (090.0)	-8.1	-	ı	+1500	1	1	RNP1
002	DF	OA021	Υ	1	-8.1	-	ı	ı	ı	-	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	1	1	278 (270.0)	-8.1	ı	ı	+1600	1	1	RNP1
002	DF	OA811	Υ	1	-8.1	1	ı	ı	1	1	RNP1
003	DF	TOJYO	1	-	-8.1	-	R	+12000	-	1	RNP1
004	TF	KIJYY	ı	076 (067.9)	-8.1	43.4	ı	-	-	-	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	ı	1	-8.1	1	ı	-	1	1	RNP1
002	TF	TOZAN	-	077 (069.0)	-8.1	20.3	-	-	-	-	RNP1
003	TF	YME	-	076 (068.3)	-8.1	34.3	-	-	-	-	RNP1

### RJOA / HIROSHIMA RNAV SID and TRANSITION **BOLIG TWO DEPARTURE** RNP1 MIDER TRANSITION Note GNSS required. VAR 8°W MIDER TRANSITION **BOLIG TWO DEPARTURE** 48.9 **IKUNO** 351204.8N 084°-**BOLIG** 1345124.8E MIDER 350358.3N 350101.4N TOJYO 1341031.8E 1354933.6E <u>12000</u> 345255.5N 1331648.6E 1600 1500 OA021 OA811 342609.6N 342540.3N 1325900.8E 1324923.3E Note. Navigation Specification. 278° VOR/DME HONGO 117.9 HGE CH-126X :: -·- · 34°26′02″N/132°55′26″E 1100FT **BOLIG TWO DEPARTURE** RWY10: Climb on HDG098° at or above 1500FT, direct to OA021, turn left direct to TOJYO at or above 12000FT, to BOLIG. renamed. RWY28: Climb on HDG278° at or above 1600FT, direct to OA811, turn right direct to TOJYO at or above 12000FT, to BOLIG. NOTE RWY10: 5.0% climb gradient required up to 1600FT. CHANGE: PROC OBST ALT 2090FT located at 5.74NM 087° FM end of RWY10. RWY28: 3.6% climb gradient required up to 2700FT. OBST ALT 2570FT located at 7.71NM 337° FM end of RWY28. MIDER TRANSITION From BOLIG, to IKUNO, to MIDER.

#### RJOA / HIROSHIMA

#### RNAV SID and TRANSITION

#### **BOLIG TWO DEPARTURE**

#### RWY10

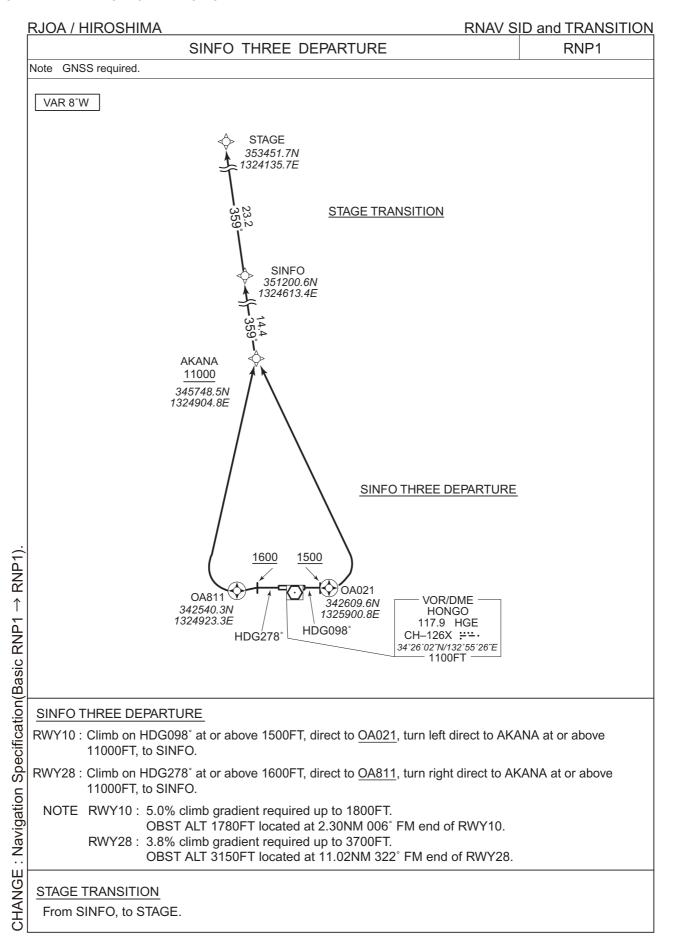
Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	VA	_	_	098 (090.0)	-8.2	_	_	+1500	_	_	RNP1
002	DF	OA021	Υ	_	-8.2	_	_	_	_	_	RNP1
003	DF	TOJYO	-	_	-8.2	_	L	+12000	_	_	RNP1
004	TF	BOLIG	_	084 (075.7)	-8.2	45.4	_	_	_	_	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)	-8.2	_	_	+1600	_	_	RNP1
002	DF	OA811	Υ	_	-8.2	_	_	_	_	_	RNP1
003	DF	TOJYO	_	_	-8.2	_	R	+12000	_	_	RNP1
004	TF	BOLIG	_	084 (075.7)	-8.2	45.4	_	_	_	_	RNP1

#### MIDER TRANSITION

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	BOLIG	_	_	-8.2	_	_	_	_	_	RNP1
002	TF	IKUNO	_	084 (076.2)	-8.2	34.4	_	_	_	_	RNP1
003	TF	MIDER	-	111 (102.8)	-8.2	48.9	_	_	_	_	RNP1



### 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	-	ı	098 (090.0)	-8.1	ı	i	+1500	1	ı	RNP1
002	DF	OA021	Υ	ı	-8.1	-	ı	1	1	1	RNP1
003	DF	AKANA	1	-	-8.1	-	L	+11000	-	1	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	-	1	278 (270.0)	-8.1	ı	ı	+1600	1	-	RNP1
002	DF	OA811	Υ	ı	-8.1	ı	ı	ı	1	ı	RNP1
003	DF	AKANA	ı	ı	-8.1	ı	R	+11000	1	ı	RNP1
004	TF	SINFO	1	359 (350.7)	-8.1	14.4	ı	-	1	-	RNP1

## **STAGE TRANSITION**

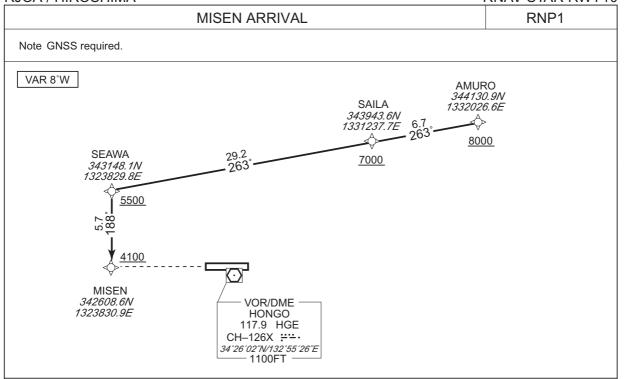
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	SINFO	1	-	-8.1	-	1	-	-	1	RNP1
002	TF	STAGE	1	359 (350.6)	-8.1	23.2	-	-	-	-	RNP1

#### STANDARD ARRIVAL CHART -INSTRUMENT



#### RJOA / HIROSHIMA

**RNAV STAR RWY10** 



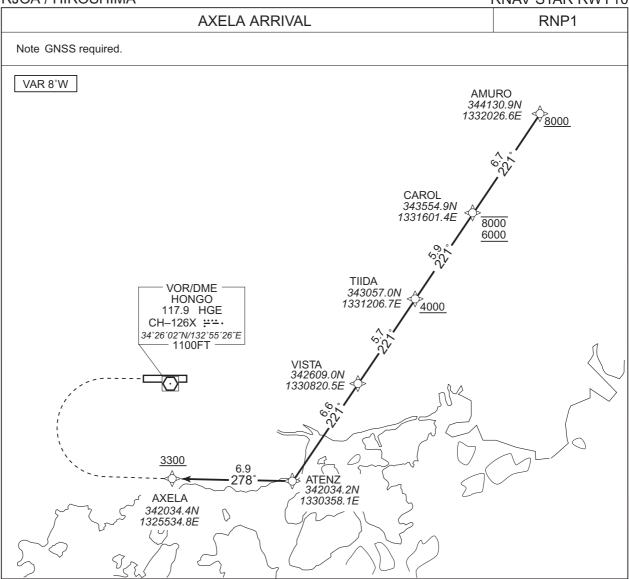
From AMURO at or above 8000FT, to SAILA at or above 7000FT, to SEAWA at or above 5500FT, to MISEN at or above 4100FT.

l	Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
l	Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
	001	IF	AMURO	_	-	-8.1	_	-	+8000	-	_	RNP1
	002	TF	SAILA	_	263 (254.5)	-8.1	6.7	1	+7000	ı	_	RNP1
	003	TF	SEAWA	_	263 (254.4)	-8.1	29.2	_	+5500	1	_	RNP1
	004	TF	MISEN	_	188 (179.8)	-8.1	5.7	_	+4100	_	_	RNP1
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#### STANDARD ARRIVAL CHART-INSTRUMENT

#### RJOA / HIROSHIMA

**RNAV STAR RWY10** 

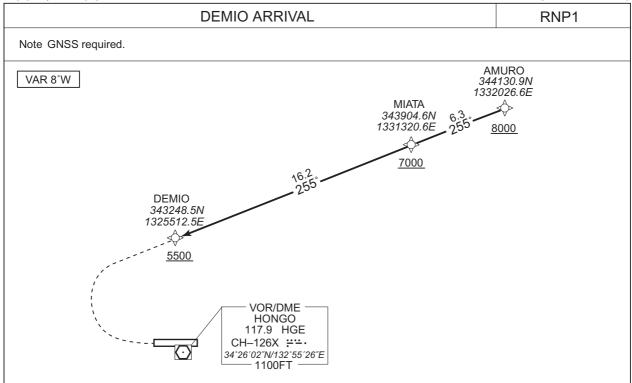


From AMURO at or above 8000FT, to CAROL between 8000FT and 6000FT, to TIIDA at or above 4000FT, to VISTA, to ATENZ, to AXELA at or above 3300FT.

	Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
	Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
	001	IF	AMURO	_	_	-8.1	_	-	+8000	1	_	RNP1
	002	TF	CAROL	_	221 (213.0)	-8.1	6.7	_	-8000 +6000	1	_	RNP1
	003	TF	TIIDA	_	221 (213.0)	-8.1	5.9	_	+4000	_	_	RNP1
	004	TF	VISTA	_	221 (212.9)	-8.1	5.7	_	_	-	_	RNP1
	005	TF	ATENZ	_	221 (212.9)	-8.1	6.6	-	_	-	_	RNP1
	006	TF	AXELA	_	278 (270.1)	-8.1	6.9	_	+3300	_	_	RNP1
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#### STANDARD ARRIVAL CHART-INSTRUMENT

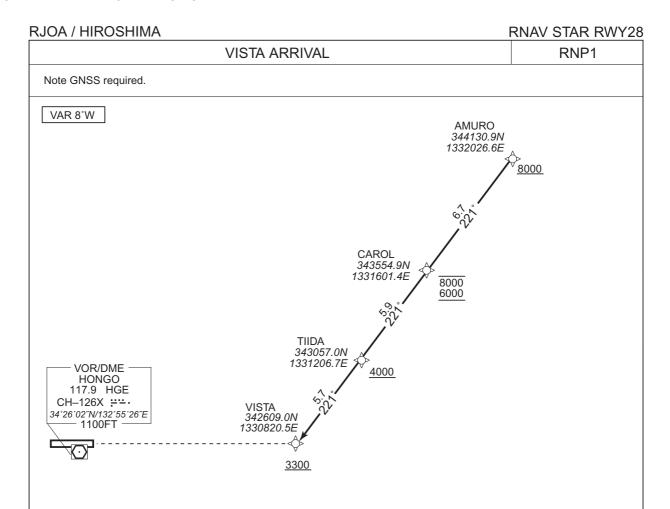
RJOA / HIROSHIMA RNAV STAR RWY10



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		Turn Direction		Speed (KIAS)	I	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

#### STANDARD ARRIVAL CHART-INSTRUMENT



From AMURO at or above 8000FT, to CAROL between 8000FT and 6000FT, to TIIDA at or above 4000FT, to VISTA at or above 3300FT.

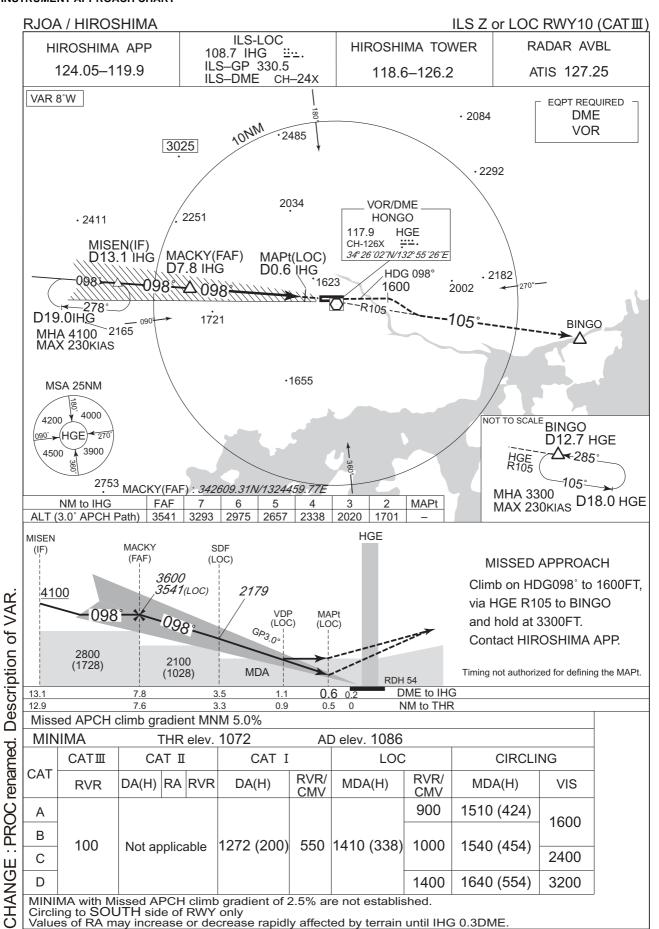
Serial	Path	Waypoint	Fly	Course	Magnetic	l		Altitude			
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	AMURO	_	_	-8.1	_	_	+8000	_	_	RNP1
002	TF	CAROL	_	221 (213.0)	-8.1	6.7	_	-8000 +6000	_	_	RNP1
003	TF	TIIDA	ı	221 (213.0)	-8.1	5.9	1	+4000	_	_	RNP1
004	TF	VISTA	_	221 (212.9)	-8.1	5.7	_	+3300	_	_	RNP1

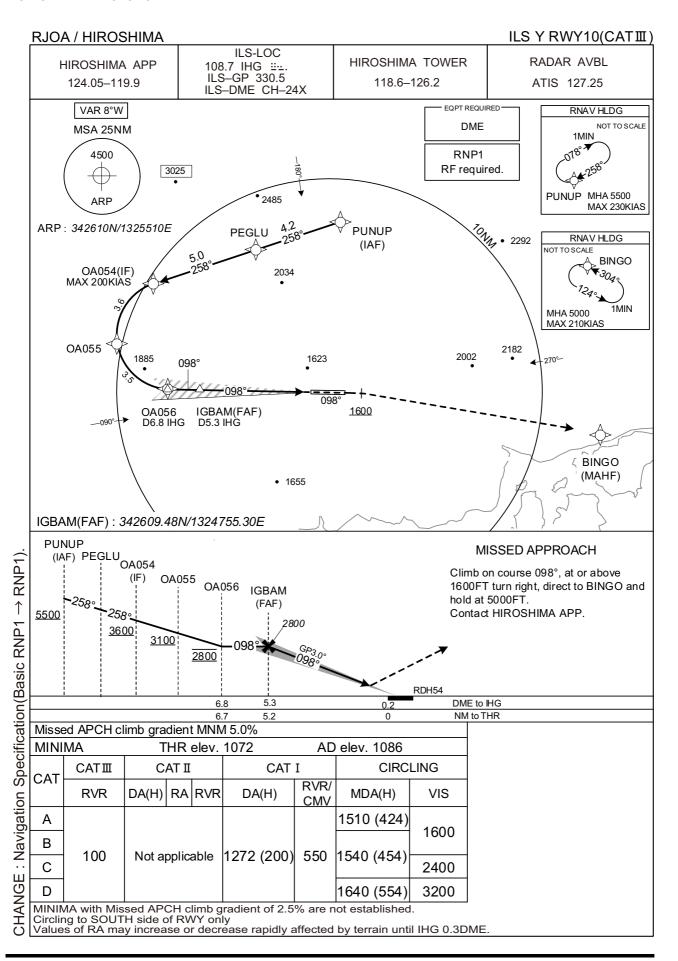
#### STANDARD ARRIVAL CHART -INSTRUMENT

### RJOA / HIROSHIMA **RNAV STAR RWY10 PUNUP ARRIVAL** RNP1 Note GNSS required. **AMURO** VAR 8°W 344130.9N 1332026.6E AVDAK 343921.5N 1331302.9E <u>8000</u> 15.3 -259 **PUNUP** <u>7000</u> 343413.0N 1325532.4E <u>5500</u> VOR/DME HONGO 117.9 HGE CH–126X ∺⊶ 34°26′02″N/132°55′26″E 1100FT

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





### RJOA / HIROSHIMA

## ILS Y RWY10(CATⅢ)

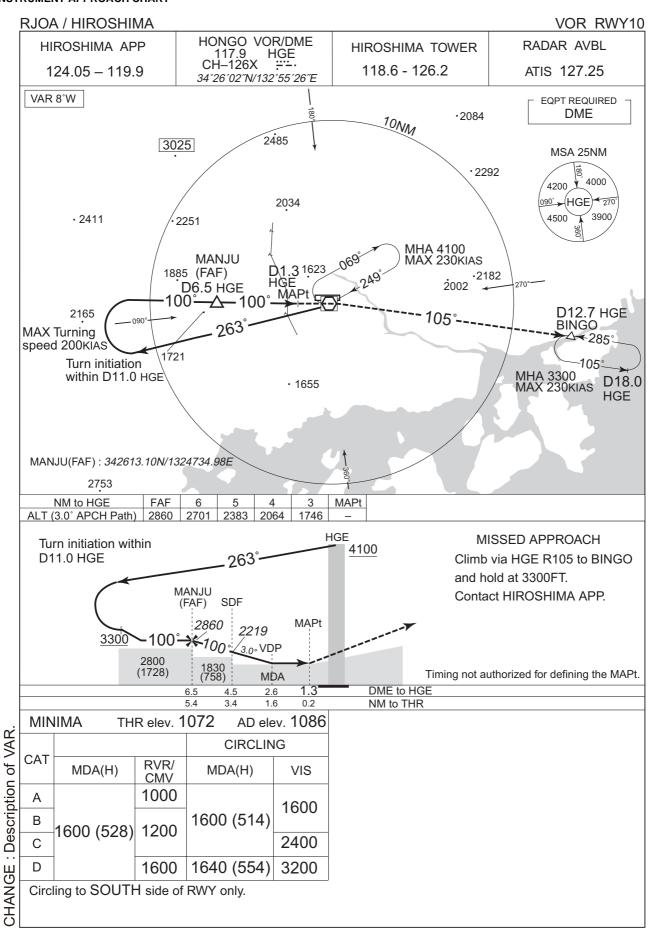
### Coding Table

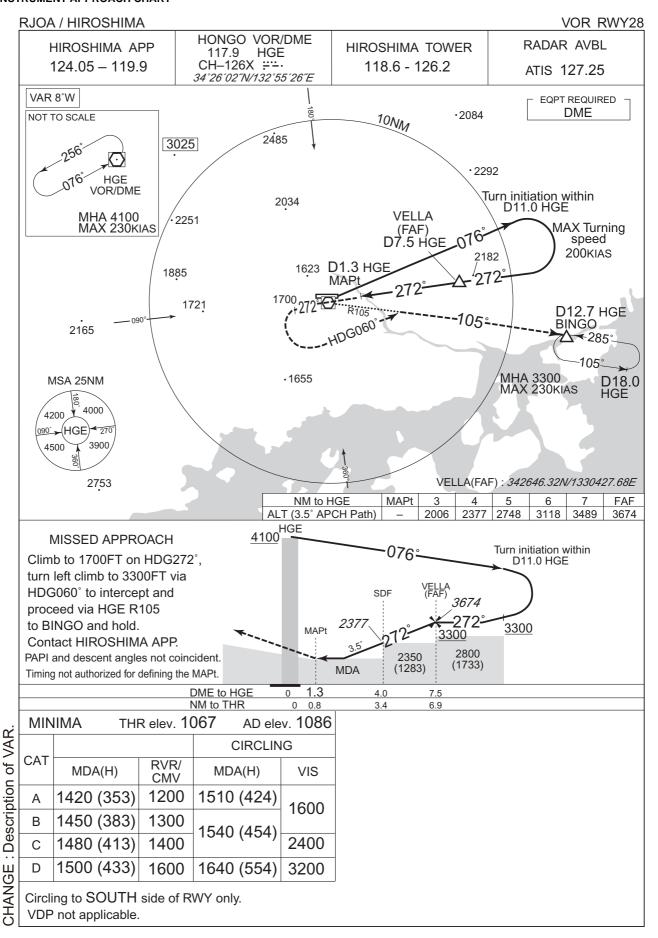
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	PUNUP	1	-	-8.1	-	-	+5500	-	-	RNP1
002	TF	PEGLU	-	258 (250.3)	-8.1	4.2	-		-	-	RNP1
003	TF	OA054	-	258 (250.2)	-8.1	5.0	-	+3600	-200	-	RNP1
004	RF Center: OARF3 r=2.55NM	OA055	1	-	-8.1	3.6	L	+3100	-	-	RNP1
005	RF Center: OARF3 r=2.55NM	OA056	-	-	-8.1	3.5	L	2800	-	-	RNP1
		ı			ı	1				1	I
001	CA	-	-	098 (090.0)	-8.1	-	-	+1600	-	-	RNP1
002	DF	BINGO	-	-	-8.1	-	R	5000	-	-	RNP1

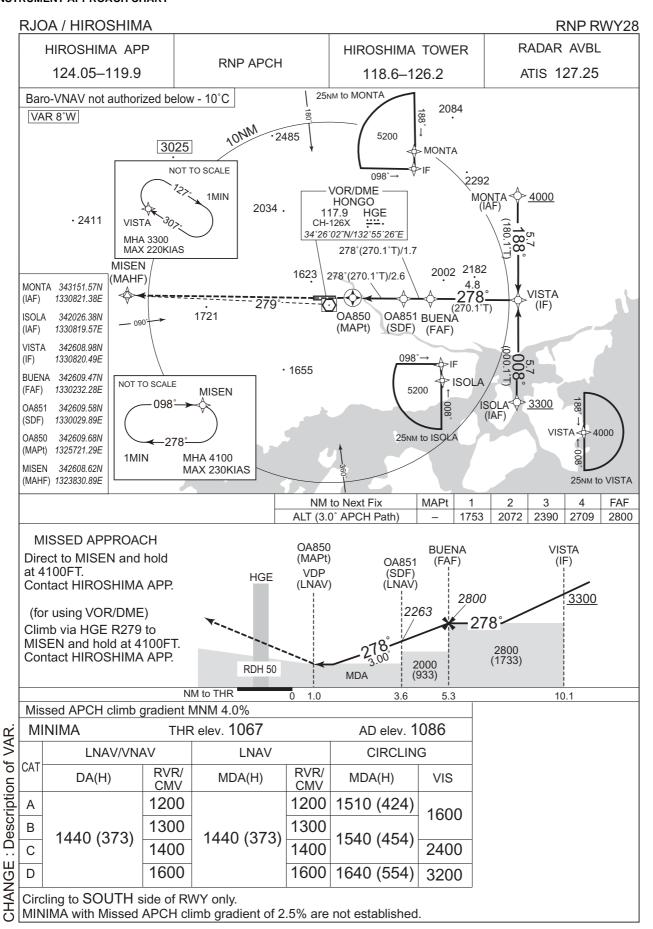
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	lime	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	PUNUP	258 (250.3)	-8.1	1.0 (-14000)	R	5500	FL140	-230 (-14000)	RNP1
Hold	BINGO	304 (296.1)	-8.1	1.0 (-14000)	L	5000	FL140	-210 (-14000)	RNP1

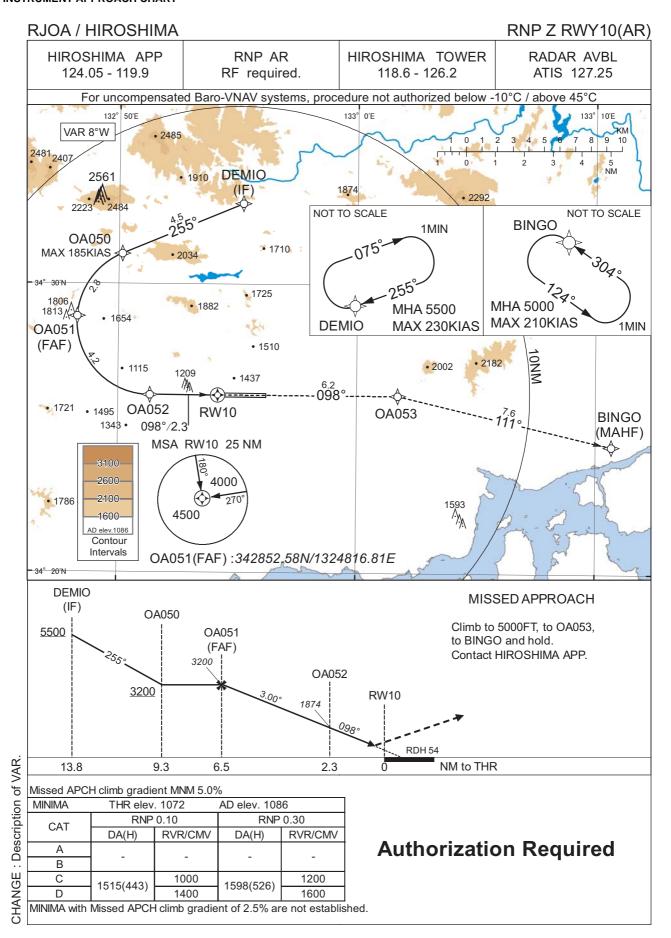
## Waypoint Coordinates

	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		
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## RJOA / HIROSHIMA

## RNP Z RWY10(AR)

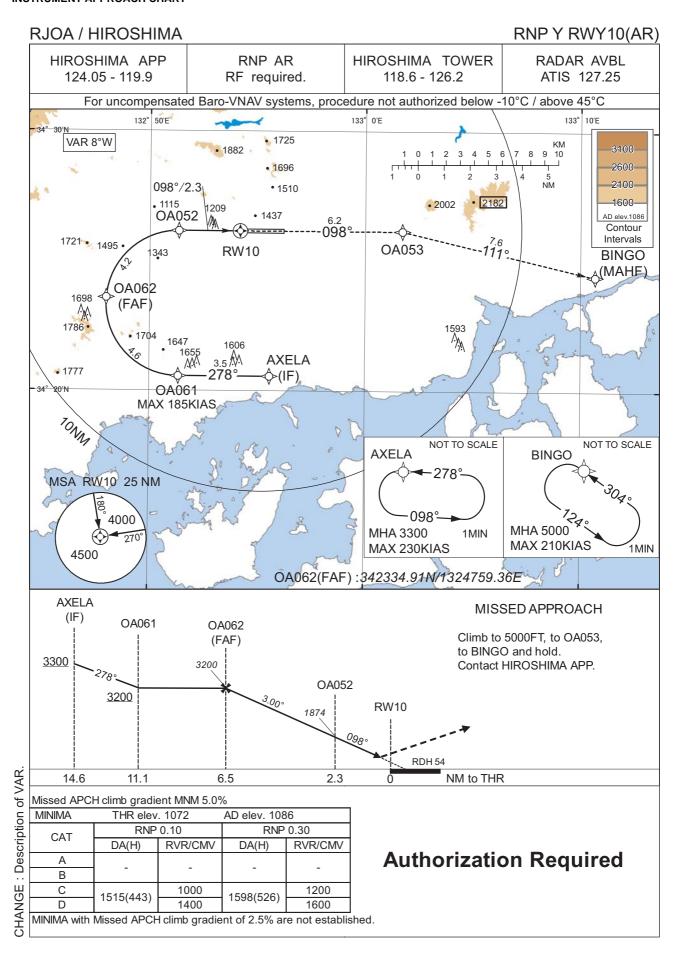
## Coding Table

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	1	-	-8.1	2.8	L	3200	-	•	1.0
004	RF Center: OARF1 r=2.54NM	OA052	ı	1	-8.1	4.2	L	1874	ı	-3.00	0.10 0.30
005	TF	RW10	Υ	098 (090.0)	-8.1	2.3	i	1126	ı	-3.00/54	0.10 0.30
006	TF	OA053	-	098 (090.0)	-8.1	6.2		-	ı	ı	1.0
007	TF	BINGO	-	111 (103.2)	-8.1	7.6	-	5000	-	ı	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		



## 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	ı	ı	-8.1	4.2	R	1874	ı	-3.00	0.10 0.30
005	TF	RW10	Υ	098 (090.0)	-8.1	2.3	ı	1126	ı	-3.00/54	0.10 0.30
006	TF	OA053	-	098 (090.0)	-8.1	6.2	ı			ı	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	Altitude	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			



※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).

	Call sign	BRG / DIST from ARP	Remarks	
	白竜 Hakuryu	345°T / 4.3NM	湖 Lake	
IGE : VAR.	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	
CHANGE:	新庄 Shinjo	209°T / 2.9NM	新庄交差点 Shinjo Intersection	

