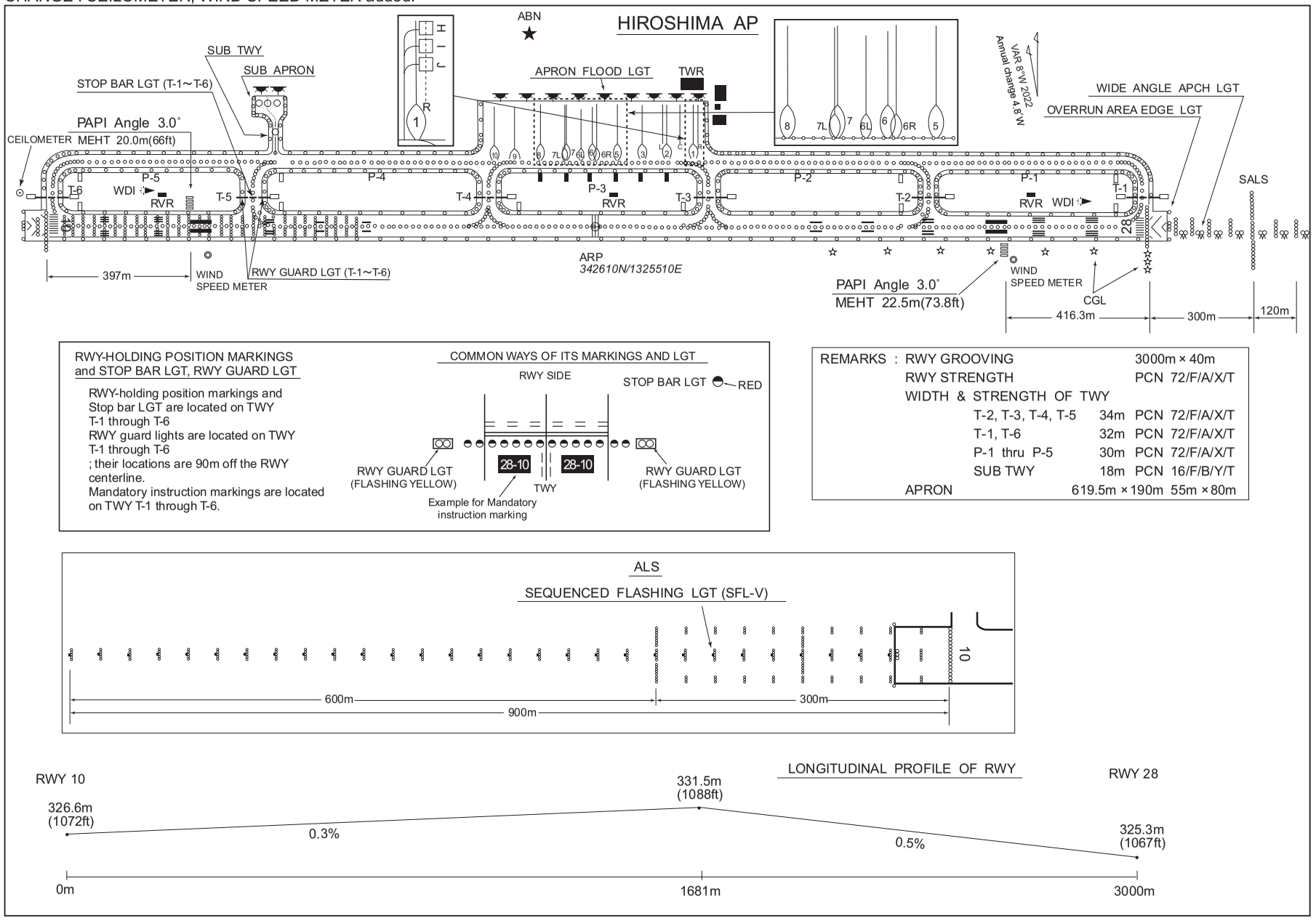
CHANGE : CEILOMETER, WIND SPEED METER added.




RWY-HOLDING POSITION MARKINGS and STOP BAR LGT, RWY GUARD LGT

RWY-holding position markings and Stop bar LGT are located on TWY T-1 through T-6
RWY guard lights are located on TWY T-1 through T-6
; their locations are 90m off the RWY centerline.
Mandatory instruction markings are located on TWY T-1 through T-6.

COMMON WAYS OF ITS MARKINGS AND LGT




REMARKS :

| | | |
|---|---|---|
| RWY GROOVING | | 3000m × 40m |
| RWY STRENGTH | | PCN 72/F/A/X/T |
| WIDTH & STRENGTH OF TWY | | |
| | T-2, T-3, T-4, T-5 34m | PCN 72/F/A/X/T |
| | T-1, T-6 32m | PCN 72/F/A/X/T |
| | P-1 thru P-5 30m | PCN 72/F/A/X/T |
| | SUB TWY 18m | PCN 16/F/B/Y/T |
| APRON | 619.5m × 190m | 55m × 80m |

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# AERODROME OBSTACLE CHART-ICAO

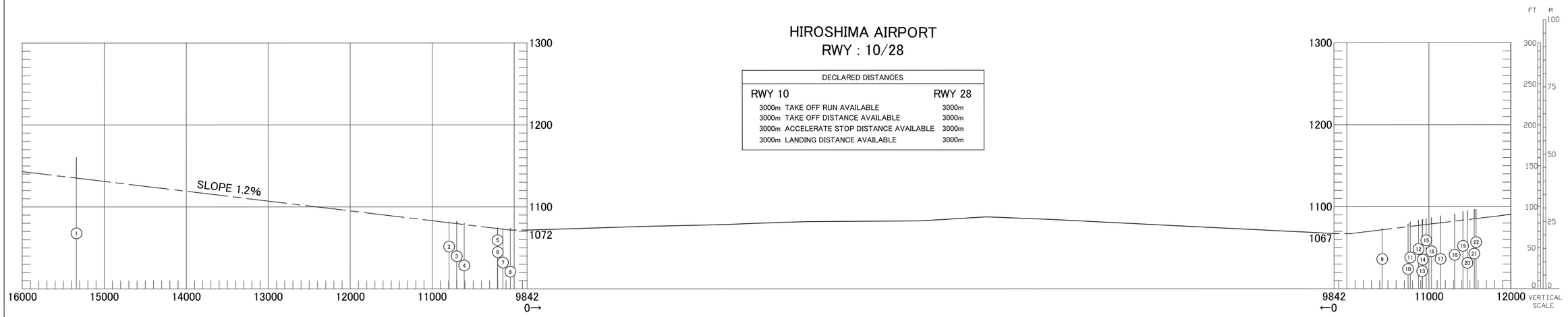
TYPE A (OPERATING LIMITATIONS)

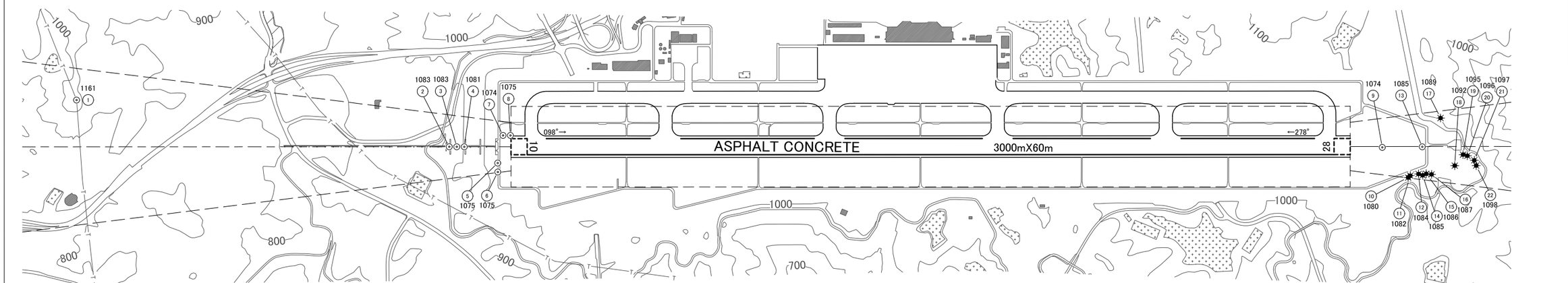
DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

MAGNETIC VARIATION 8° W–JUN 2022

## HIROSHIMA AIRPORT
## RWY : 10/28

| DECLARED DISTANCES | |
|---|---|
| RWY 10 | RWY 28 |
| 3000m TAKE OFF RUN AVAILABLE | 3000m |
| 3000m TAKE OFF DISTANCE AVAILABLE | 3000m |
| 3000m ACCELERATE STOP DISTANCE AVAILABLE | 3000m |
| 3000m LANDING DISTANCE AVAILABLE | 3000m |




HORIZONTAL SCALE

FEET

1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000ft

300 0 500 1000 1500 2000 2500m

METER

| LEGEND | |
|---|---|
| ① | IDENTIFICATION NUMBER |
| ⊙ | POLE, TOWER, SPIRE, ANTENNA, ETC |
| ✳ | OBSTRUCTION LIGHT |
| ▬ | BUILDING OR LARGE STRUCTURE |
| ─┼─ | RAILROAD |
| △ | TRIANGULATION POINT |
| ─T─T─ | TRANSMISSION LINE OR OVERHEAD CABLE |
| ▥ | LEVEE |
| ✱ | TREE |
| ⬭ | LAKE |
| ≈ | RIVER |
| ≈ | CONTOURS(ft) |

| AMENDMENT RECORD | | |
|---|---|---|
| Nr | DATE | ENTERED BY |
| | | |

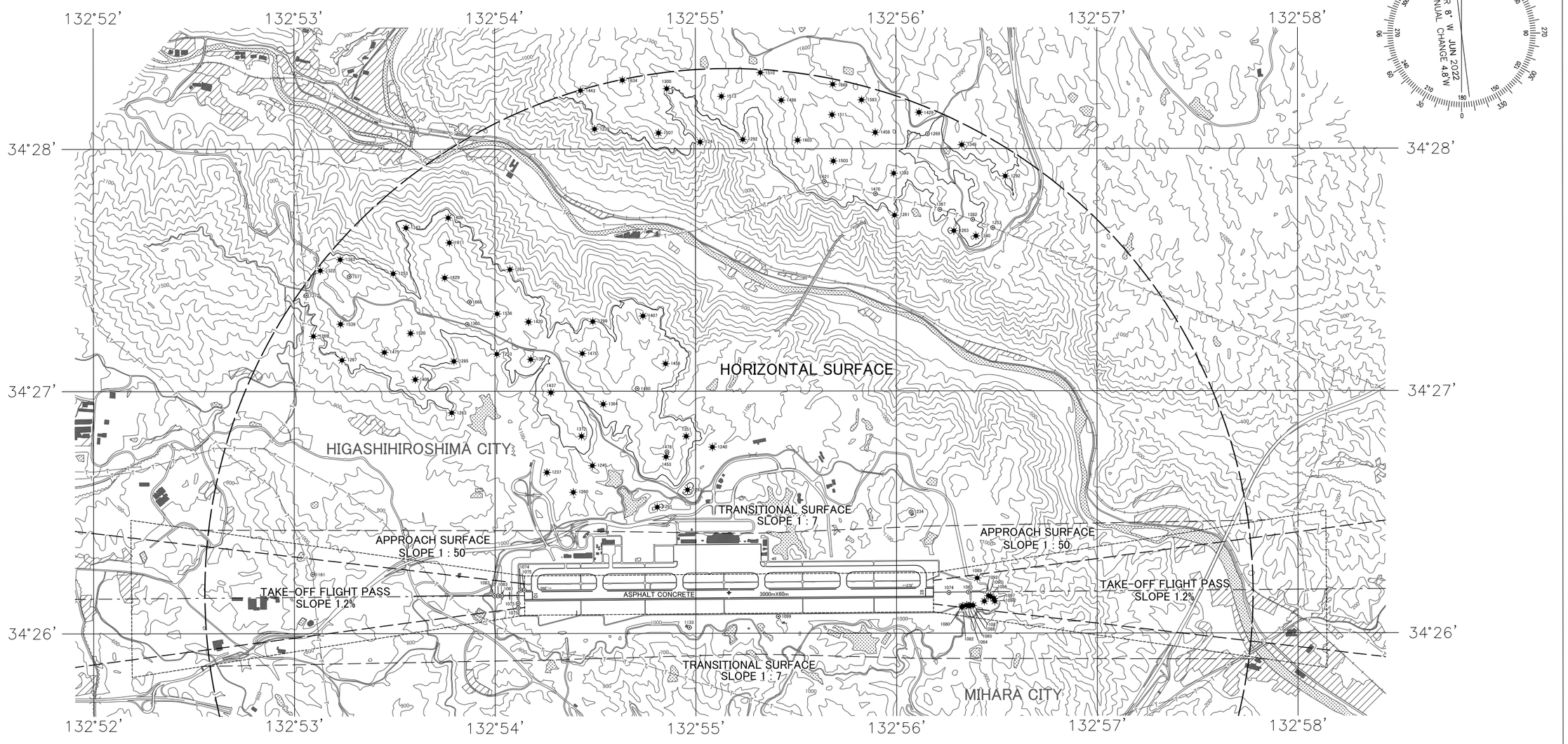
CHANGE : VAR.

# AERODROME OBSTACLE CHART-ICAO

TYPE B (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

AERODROME ELEVATION 1086ft ARP




HORIZONTAL SCALE

FEET
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000ft

METER
300 0 500 1000 1500 2000 2500 3000m

LEGEND

- AERODROME REFERENCE POINT 34°26'10"N 132°55'10"E
- POLE, TOWER, SPIRE, ANTENNA, ETC
- AERONAUTICAL GROUND LIGHT
- OBSTRUCTION LIGHT
- BUILDING OR LARGE STRUCTURE
- RAILROAD
- TERRAIN PENETRATING OBSTACLE PLANE
- TRANSMISSION LINE OR OVERHEAD CABLE
- LEVEE
- TREE
- RIVER
- LAKE
- CONTOURS(ft)

| AMENDMENT RECORD | | |
|---|---|---|
| NO | DATE | ENTERED BY |

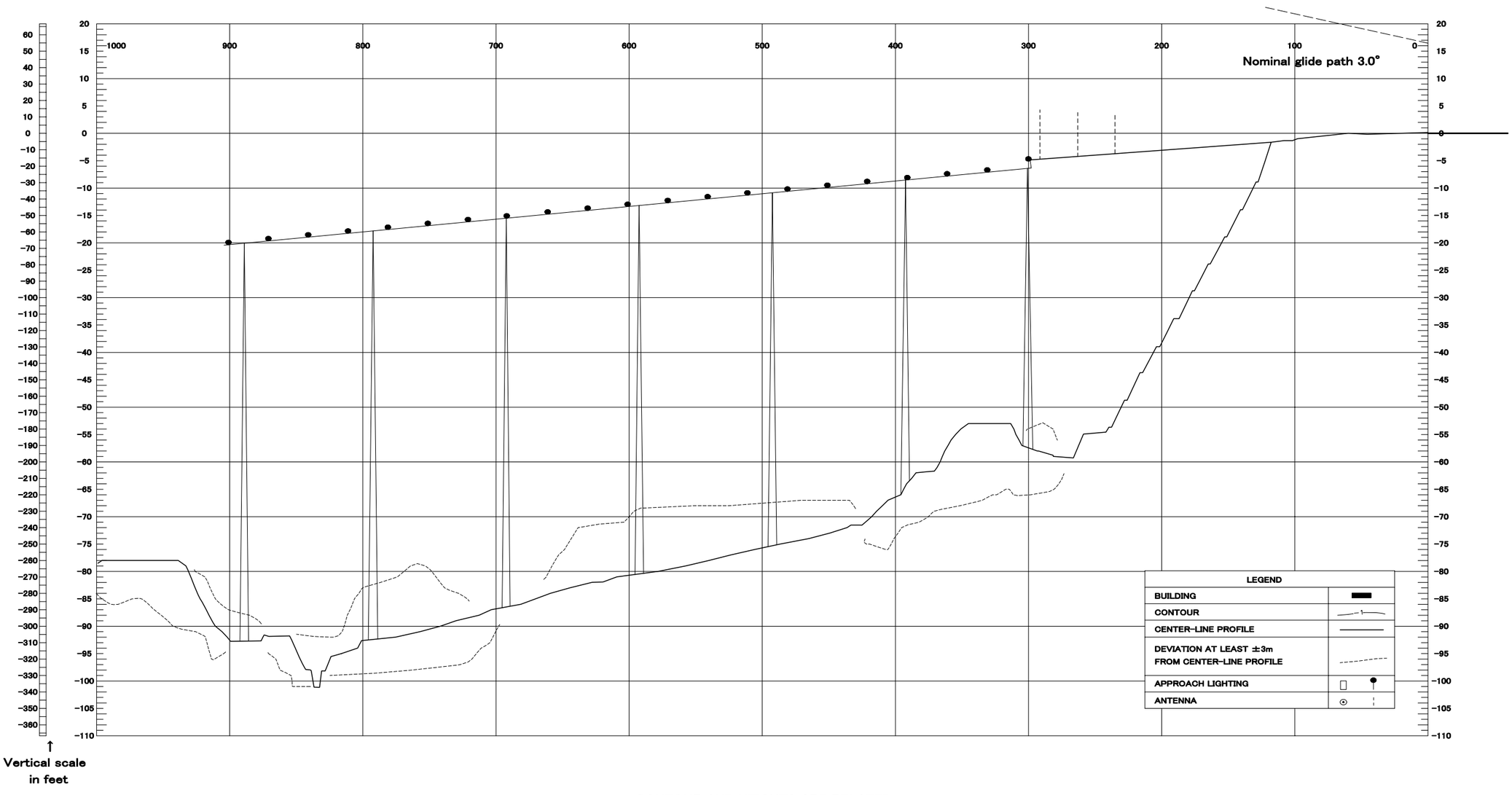
CHANGE : VAR.

# PRECISION APPROACH TERRAIN CHART-ICAO

PRICISION APPROACH TERRAIN CHART

DISTANCES AND HEIGHTS IN METERS

## RWY 10


CONTOUR AND HEIGHTS ARE RELATED
TO ELEVATION OF RWY THR

**STANDARD DEPARTURE CHART - INSTRUMENT**

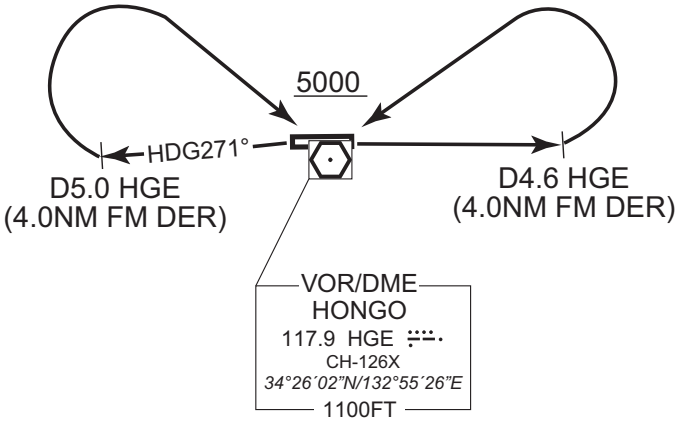
RJOA / HIROSHIMA SID

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

## 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.



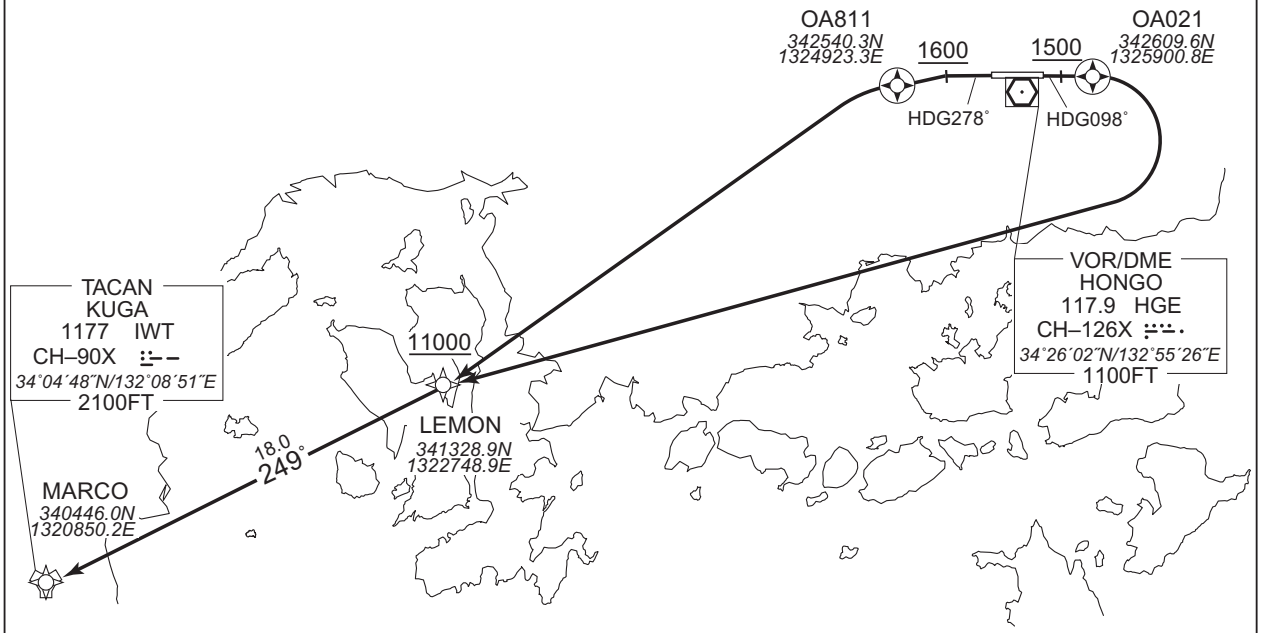
**STANDARD DEPARTURE CHART - INSTRUMENT**

RJOA / HIROSHIMA — RNAV SID

## MARCO TWO DEPARTURE — RNP1

Note GNSS required.

VAR 8˚W




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.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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 |

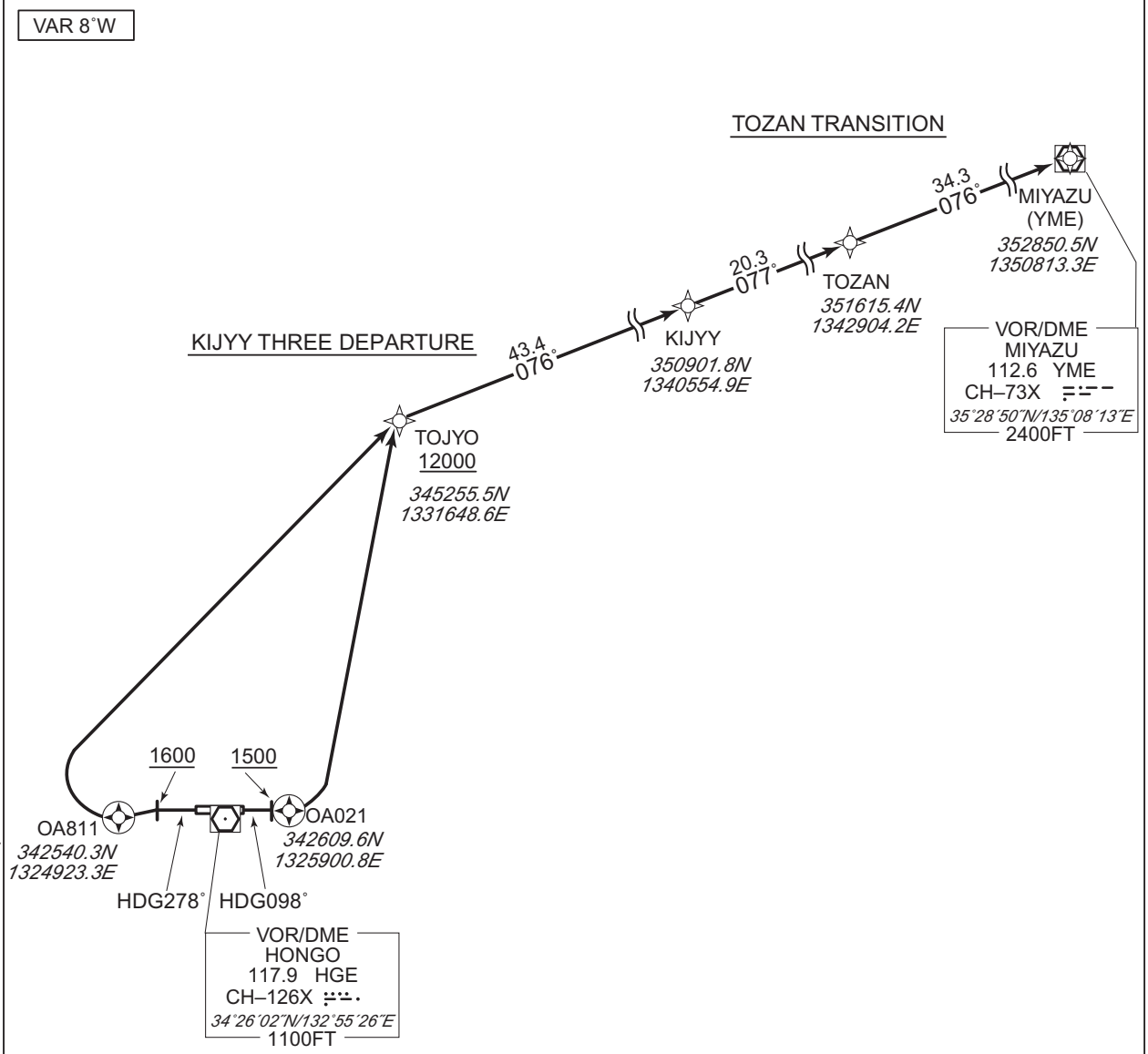
**STANDARD DEPARTURE CHART - INSTRUMENT**

RJOA / HIROSHIMA — RNAV SID and TRANSITION

| KIJYY THREE DEPARTURE | RNP1 |
|---|---|

Note GNSS required.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).




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.

**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 |

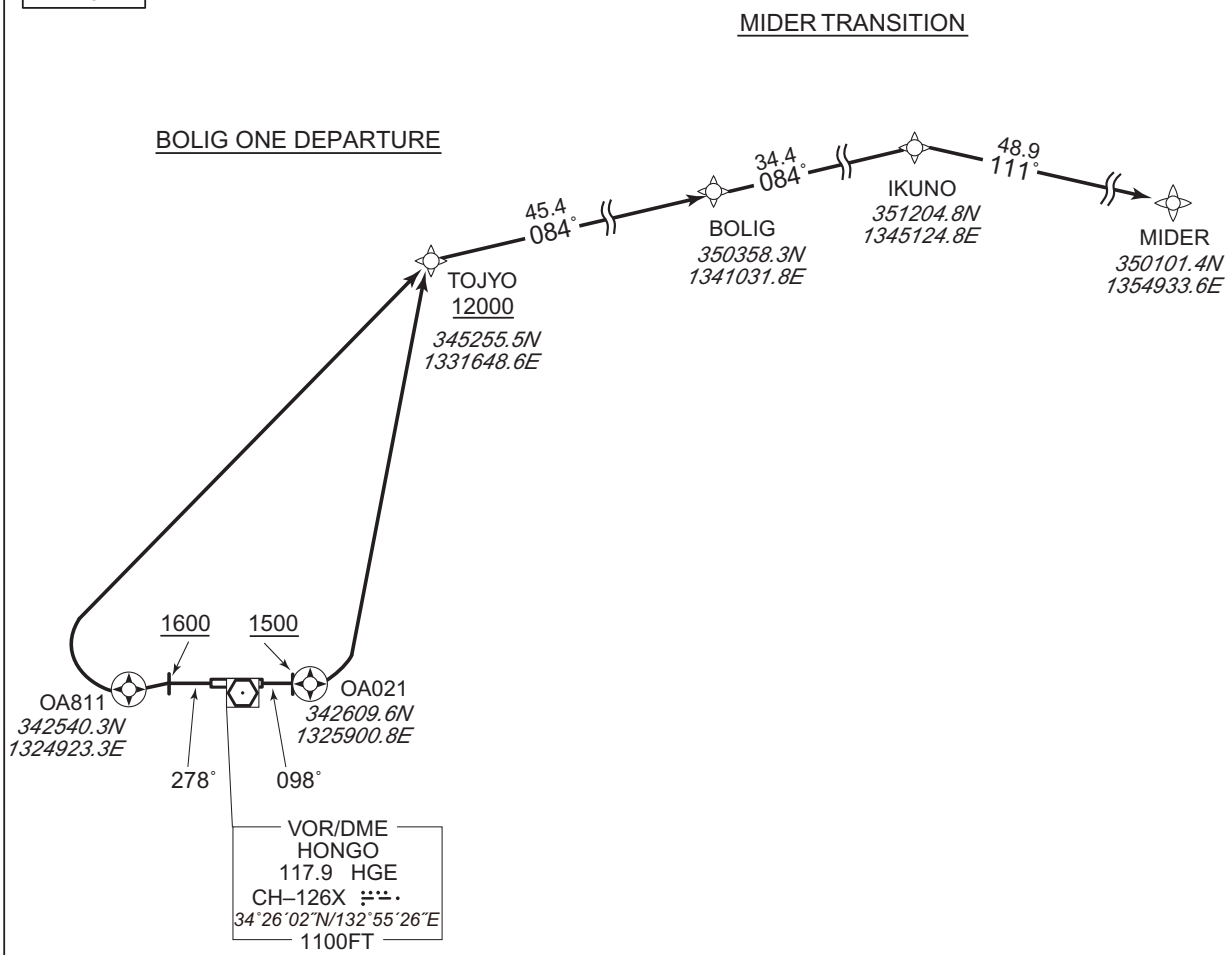
CHANGE : Navigation Specification(Basic RNP1 → RNP1).

**STANDARD DEPARTURE CHART - INSTRUMENT**

RJOA / HIROSHIMA — RNAV SID and TRANSITION

| BOLIG ONE DEPARTURE<br>MIDER TRANSITION | | RNAV1 |
|---|---|---|
| Note 1 ) DME/DME/IRU or GNSS required.<br>※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll.<br>2 ) RADAR service required. | Critical DME | RWY10 : HGE 27.0NM to TOJYO - 24.0NM to TOJYO<br>RWY28 : HGE 31.0NM to TOJYO - 28.0NM to TOJYO<br>MYE 31.0NM to TOJYO - 28.0NM to TOJYO<br>OYE 28.0NM to TOJYO - 15.0NM to TOJYO |
| | DME GAP | RWY10 : DER - 24.0NM to TOJYO<br>RWY28 : DER - 31.0NM to TOJYO |
| | Inappropriate Navaids | See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1 |

VAR 8˚W




CHANGE : Critical DME. DME GAP.

BOLIG ONE DEPARTURE

RWY10 : Climb on HDG098˚ at or above 1500FT, direct to OA021, turn left direct to TOJYO at or above 12000FT, to BOLIG.

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.
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.

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.

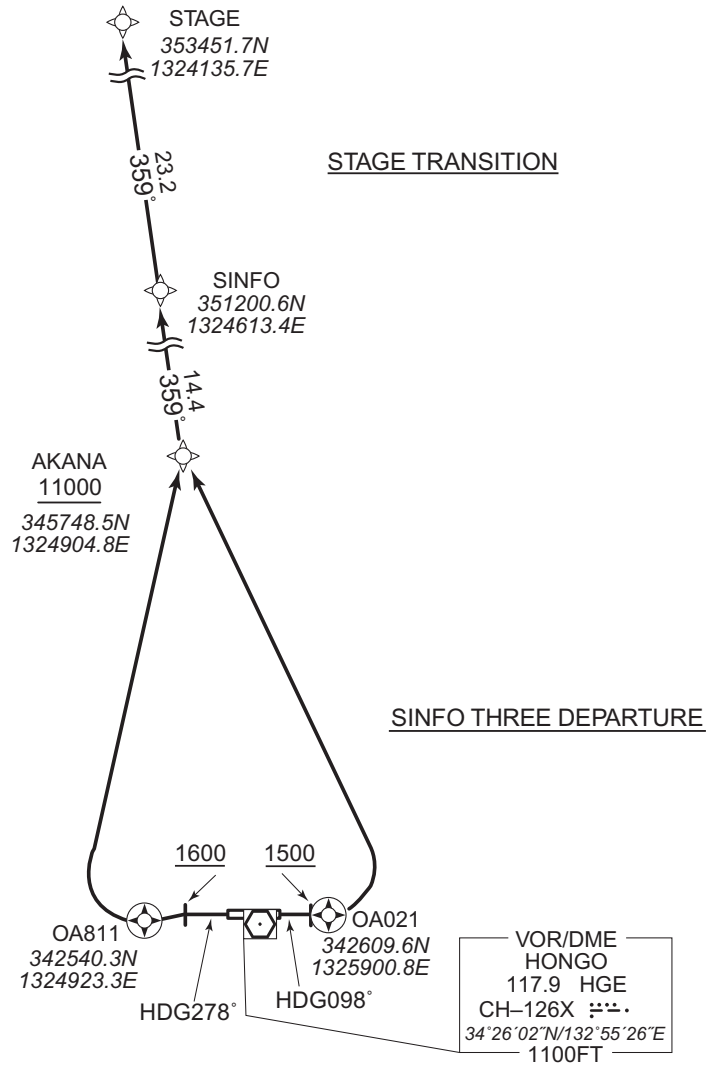
**STANDARD DEPARTURE CHART -INSTRUMENT**

RJOA / HIROSHIMA — RNAV SID and TRANSITION

| SINFO THREE DEPARTURE | RNP1 |
|---|---|

Note GNSS required.

VAR 8˚W




SINFO THREE DEPARTURE

RWY10 : Climb on HDG098˚ at or above 1500FT, direct to OA021, turn left direct to AKANA at or above 11000FT, to SINFO.

RWY28 : Climb on HDG278˚ at or above 1600FT, direct to OA811, turn right direct to AKANA at or above 11000FT, to SINFO.

NOTE RWY10 : 5.0% climb gradient required up to 1800FT.
OBST ALT 1780FT located at 2.30NM 006˚ FM end of RWY10.
RWY28 : 3.8% climb gradient required up to 3700FT.
OBST ALT 3150FT located at 11.02NM 322˚ FM end of RWY28.

STAGE TRANSITION

From SINFO, to STAGE.

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 |

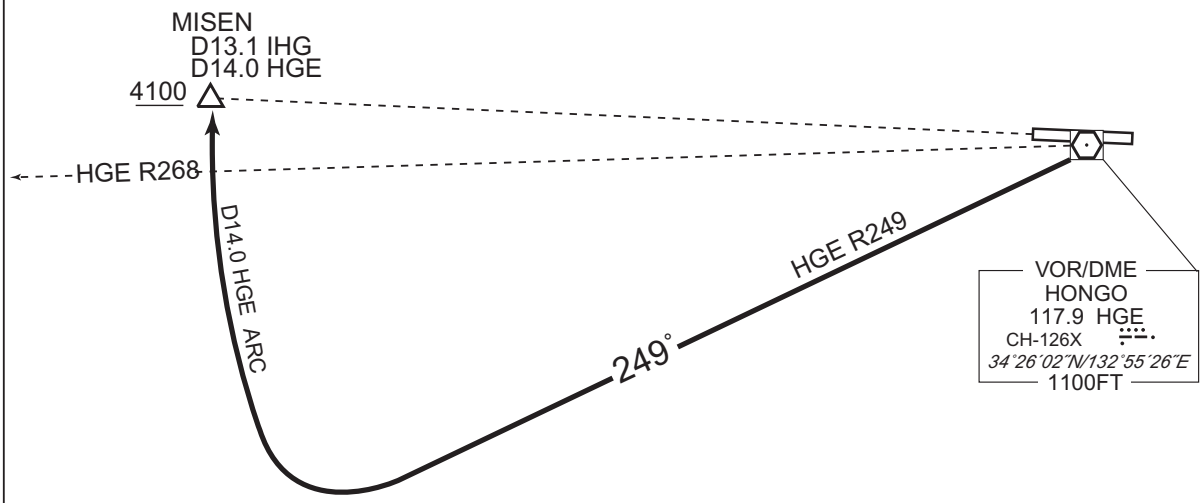
CHANGE : Navigation Specification(Basic RNP1 → RNP1).

**STANDARD ARRIVAL CHART -INSTRUMENT**

RJOA / HIROSHIMA STAR

## HONGO ARRIVAL

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.



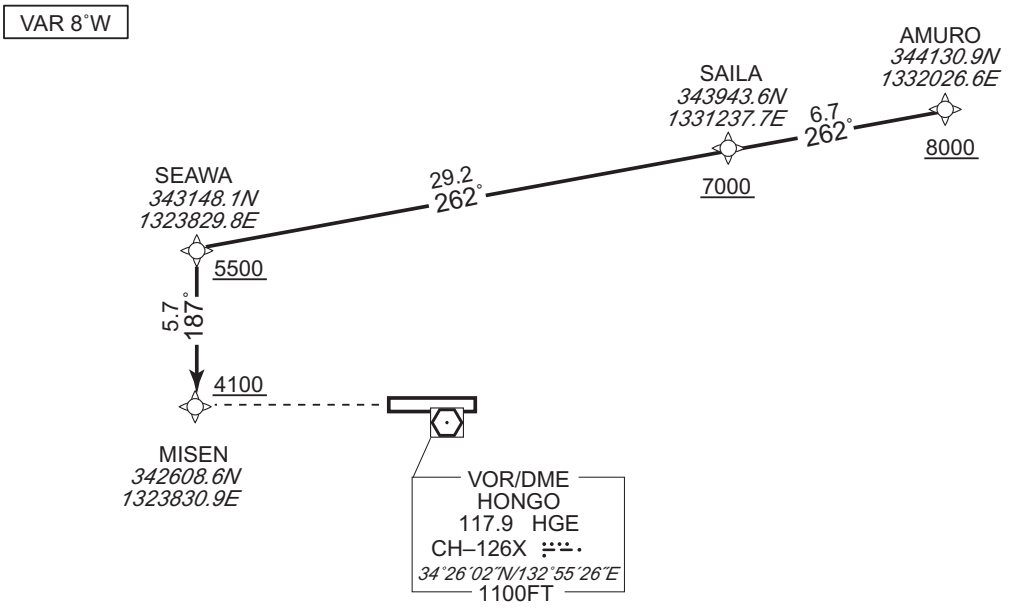

CHANGE : Course FM HGE to MISEN.

**STANDARD ARRIVAL CHART -INSTRUMENT**

RJOA / HIROSHIMA — RNAV STAR RWY10

| MISEN ARRIVAL | RNAV1 |
|---|---|

Note 1 ) DME/DME/IRU or GNSS required.
2 ) RADAR service required.




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. |

| 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 |

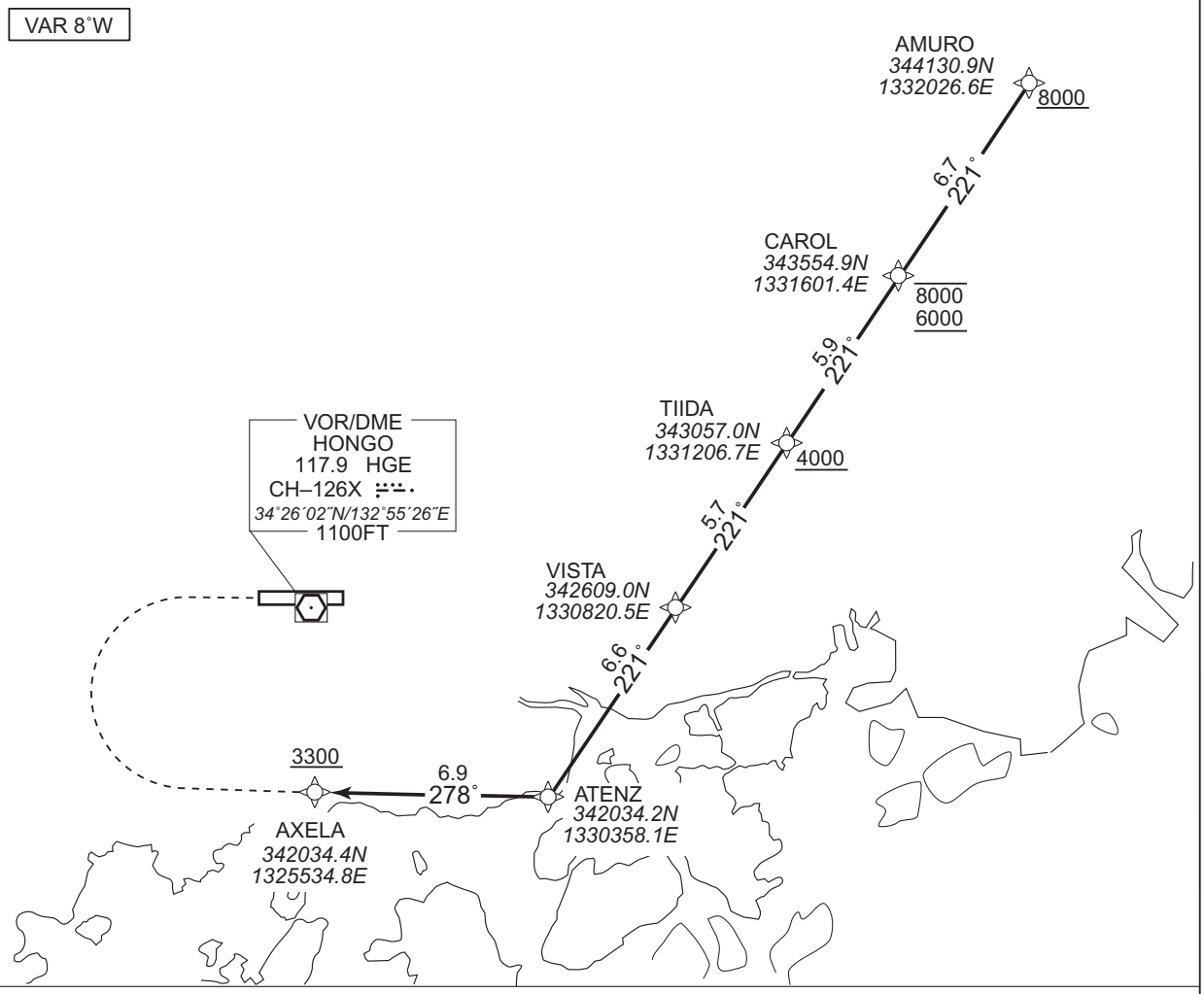
CHANGE : Description of VAR.

**STANDARD ARRIVAL CHART-INSTRUMENT**

RJOA / HIROSHIMA — RNAV STAR RWY10

| AXELA ARRIVAL | RNP1 |
|---|---|

Note GNSS required.




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 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 | CAROL | – | 221 (213.0) | -8.1 | 6.7 | – | -8000 +6000 | – | – | 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 |

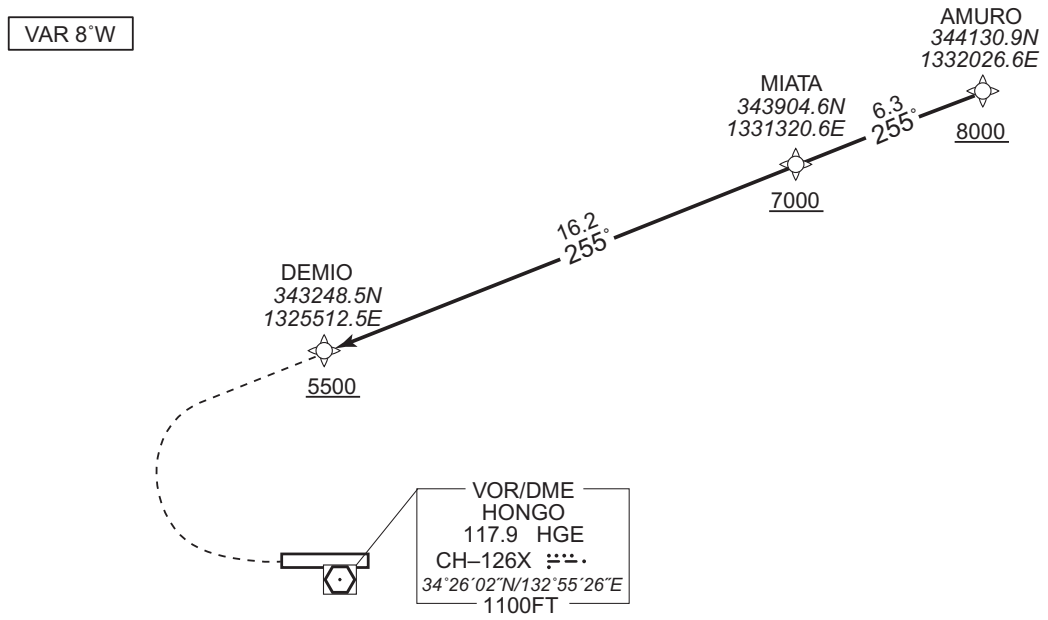
CHANGE : Navigation Specification(Basic RNP1 → RNP1).

**STANDARD ARRIVAL CHART-INSTRUMENT**

RJOA / HIROSHIMA — RNAV STAR RWY10

| DEMIO ARRIVAL | RNP1 |
|---|---|

Note GNSS required.




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 |

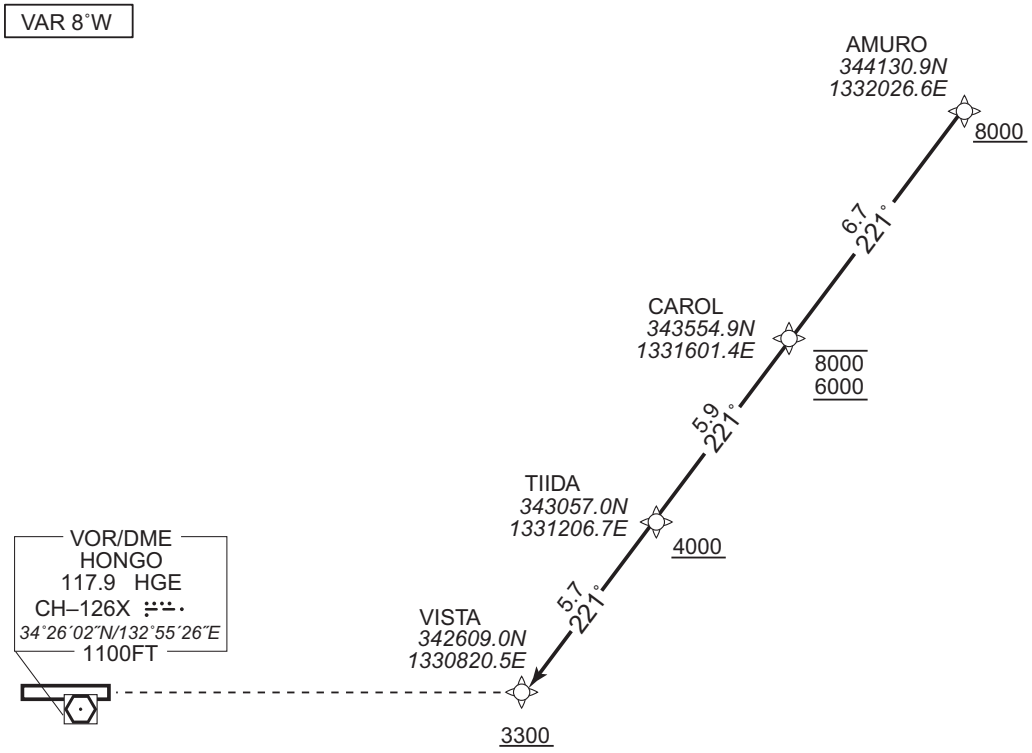
CHANGE : Navigation Specification(Basic RNP1 → RNP1).

**STANDARD ARRIVAL CHART -INSTRUMENT**

RJOA / HIROSHIMA — RNAV STAR RWY28

| VISTA ARRIVAL | RNAV1 |
|---|---|

Note 1 ) DME/DME/IRU or GNSS required.
2 ) RADAR service required.




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

| | |
|---|---|
| Critical DME | MYE : CAROL - 4.0NM to TIIDA<br>OYE : CAROL - 5.0NM to TIIDA |
| DME GAP | 4.0NM to TIIDA - VISTA |
| 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 | AMURO | – | – | -7.6 | – | – | +8000 | – | – | RNAV1 |
| 002 | TF | CAROL | – | 221 (213.0) | -7.6 | 6.7 | – | -8000 +6000 | – | – | RNAV1 |
| 003 | TF | TIIDA | – | 221 (213.0) | -7.6 | 5.9 | – | +4000 | – | – | RNAV1 |
| 004 | TF | VISTA | – | 221 (212.9) | -7.6 | 5.7 | – | +3300 | – | – | RNAV1 |

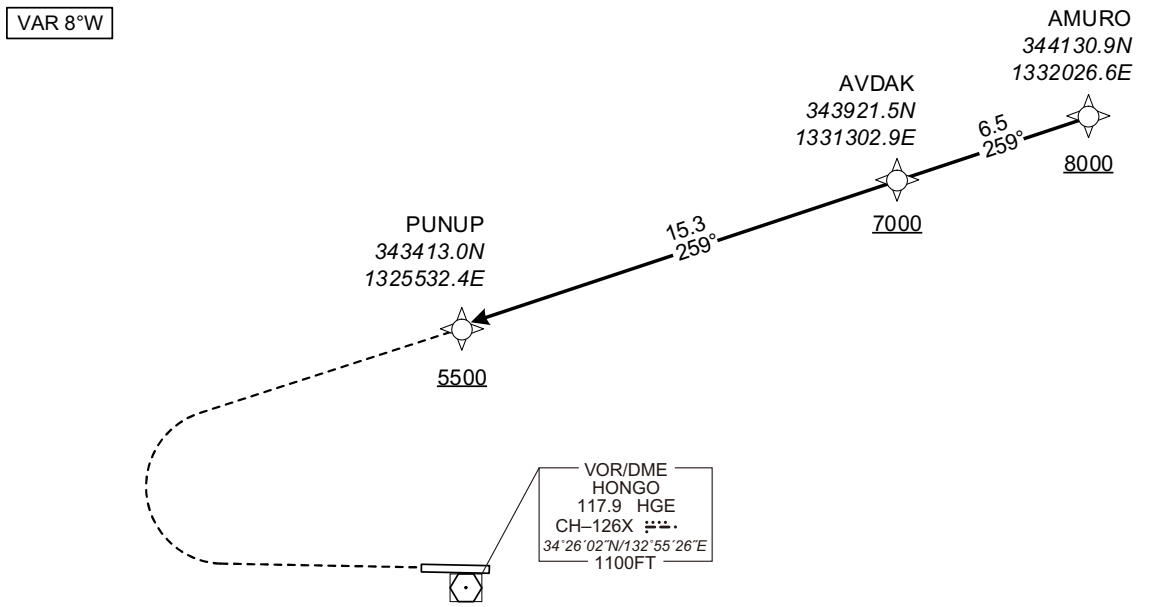
CHANGE : Critical DME, DME GAP added.

**STANDARD ARRIVAL CHART -INSTRUMENT**

RJOA / HIROSHIMA — RNAV STAR RWY10

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

Note GNSS required.




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

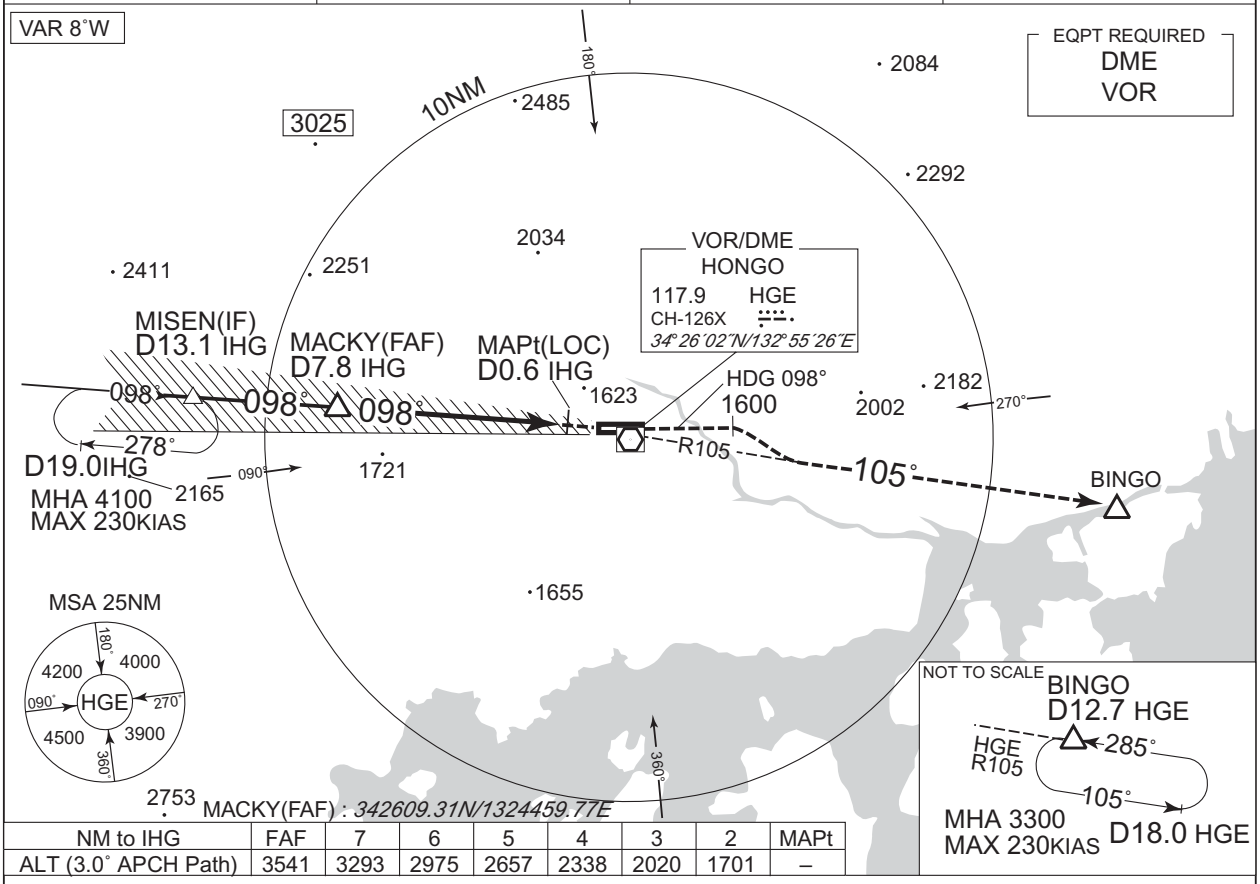
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | IF | AMURO | — | — | -8.1 | — | — | +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).

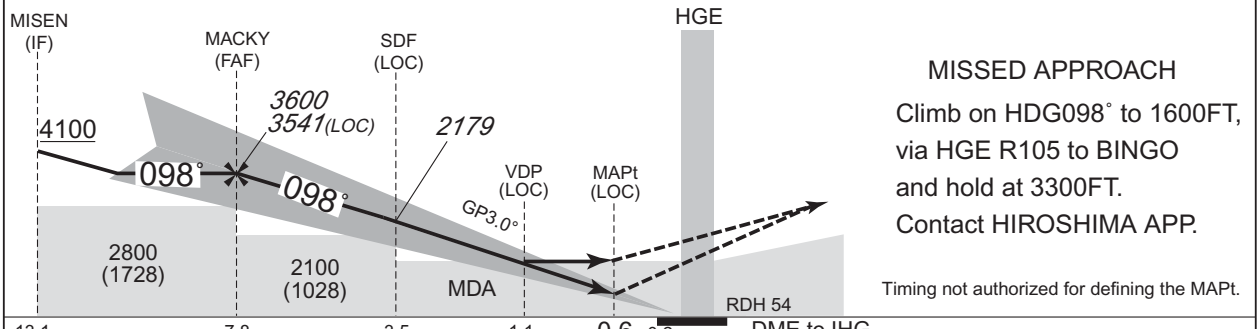
**INSTRUMENT APPROACH CHART**

RJOA / HIROSHIMA — ILS Z or LOC RWY10 (CAT Ⅲ)

| HIROSHIMA APP | ILS-LOC | HIROSHIMA TOWER | RADAR AVBL |
|---|---|---|---|
| 124.05–119.9 | 108.7 IHG<br>ILS–GP 330.5<br>ILS–DME CH–24X | 118.6–126.2 | ATIS 127.25 |




| NM to IHG | FAF | 7 | 6 | 5 | 4 | 3 | 2 | MAPt |
|---|---|---|---|---|---|---|---|---|
| ALT (3.0° APCH Path) | 3541 | 3293 | 2975 | 2657 | 2338 | 2020 | 1701 | – |




MISSED APPROACH

Climb on HDG098° to 1600FT,
via HGE R105 to BINGO
and hold at 3300FT.
Contact HIROSHIMA APP.

Timing not authorized for defining the MAPt.

Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 1072 AD elev. 1086

| CAT | CAT Ⅲ | CAT Ⅱ | | | CAT Ⅰ | | LOC | | CIRCLING | |
|---|---|---|---|---|---|---|---|---|---|---|
| | RVR | DA(H) | RA | RVR | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 100 | Not applicable | | | 1272 (200) | 550 | 1410 (338) | 900 | 1510 (424) | 1600 |
| B | | | | | | | | 1000 | 1540 (454) | |
| C | | | | | | | | | | 2400 |
| D | | | | | | | | 1400 | 1640 (554) | 3200 |

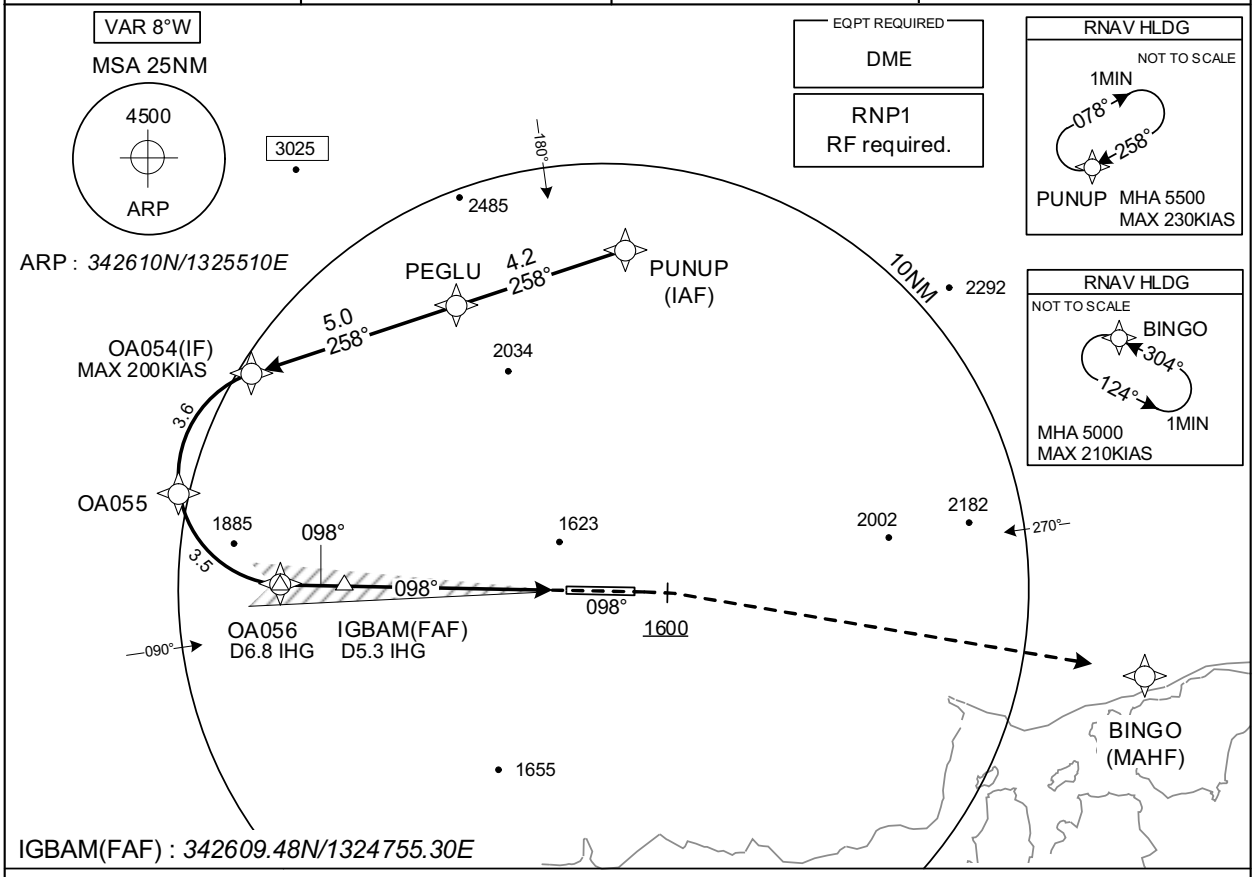
MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to SOUTH side of RWY only
Values of RA may increase or decrease rapidly affected by terrain until IHG 0.3DME.

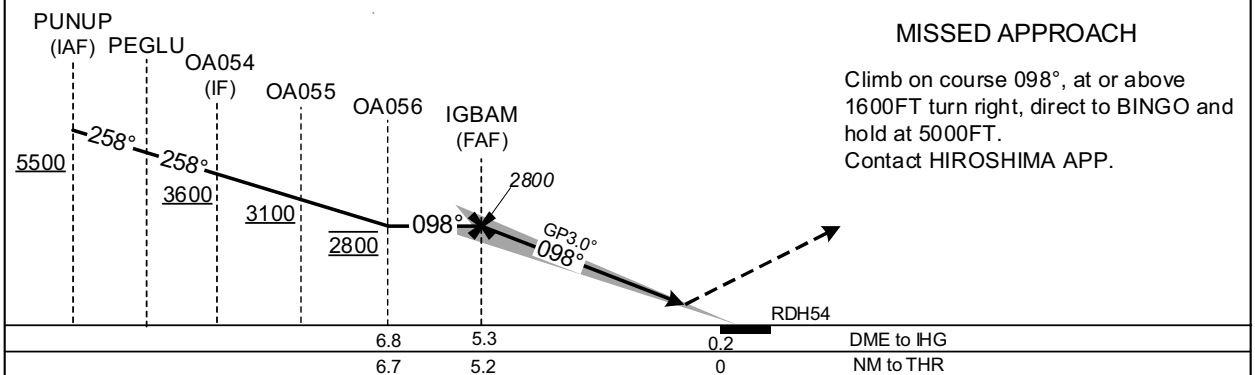
CHANGE : PROC renamed. Description of VAR.

**INSTRUMENT APPROACH CHART**

RJOA / HIROSHIMA — ILS Y RWY10(CAT Ⅲ)

| HIROSHIMA APP | ILS-LOC | HIROSHIMA TOWER | RADAR AVBL |
|---|---|---|---|
| 124.05–119.9 | 108.7 IHG<br>ILS–GP 330.5<br>ILS–DME CH–24X | 118.6–126.2 | ATIS 127.25 |




MISSED APPROACH

Climb on course 098°, at or above 1600FT turn right, direct to BINGO and hold at 5000FT.
Contact HIROSHIMA APP.

Missed APCH climb gradient MNM 5.0%

MINIMA — THR elev. 1072 — AD elev. 1086

| CAT | CAT Ⅲ | CAT Ⅱ | | | CAT Ⅰ | | CIRCLING | |
|---|---|---|---|---|---|---|---|---|
| | RVR | DA(H) | RA | RVR | DA(H) | RVR/CMV | MDA(H) | VIS |
| A | 100 | Not applicable | | | 1272 (200) | 550 | 1510 (424) | 1600 |
| B | | | | | | | 1540 (454) | |
| C | | | | | | | | 2400 |
| D | | | | | | | 1640 (554) | 3200 |

MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to SOUTH side of RWY only
Values of RA may increase or decrease rapidly affected by terrain until IHG 0.3DME.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

INSTRUMENT APPROACH CHART

RJOA / HIROSHIMA ILS Y RWY10(CATⅢ)

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

## 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 | 5500 | FL140 | -230 (-14000) | RNP1 |

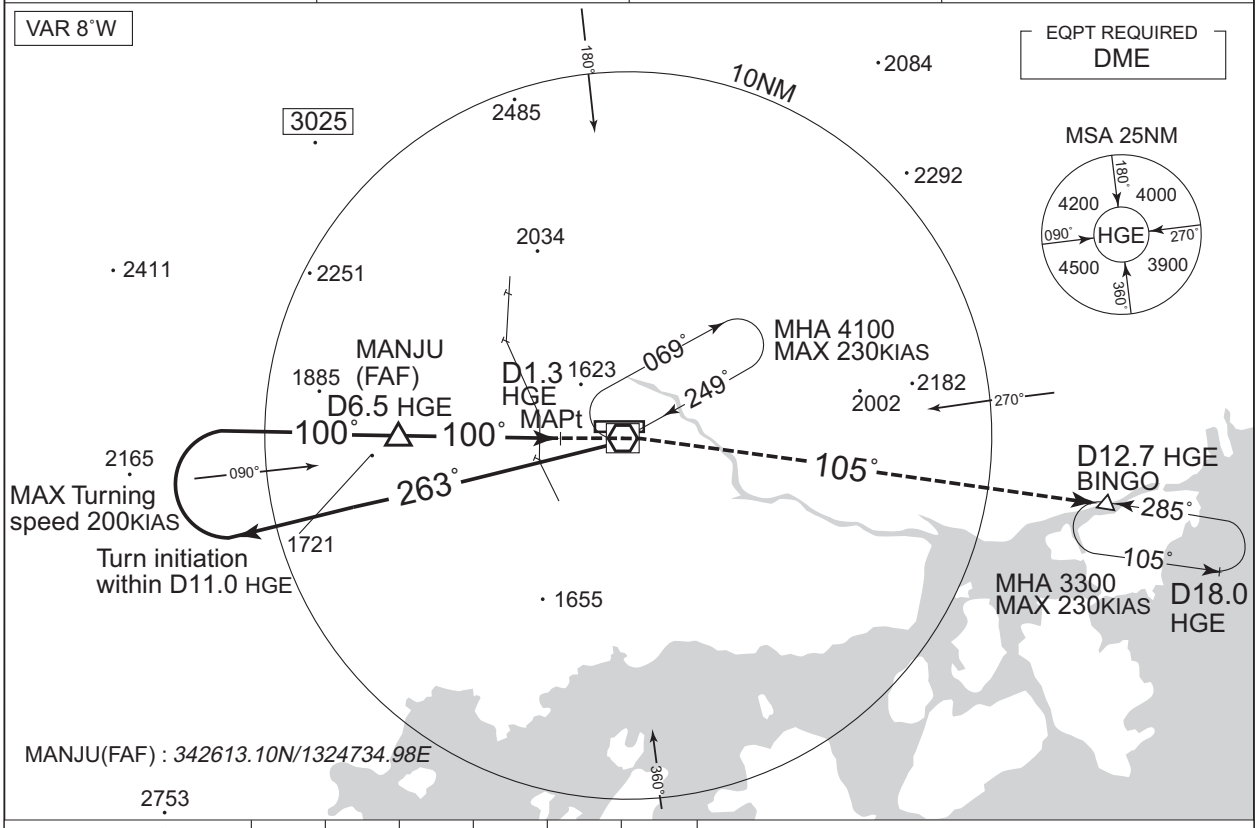
## Waypoint Coordinates

| 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* | | |

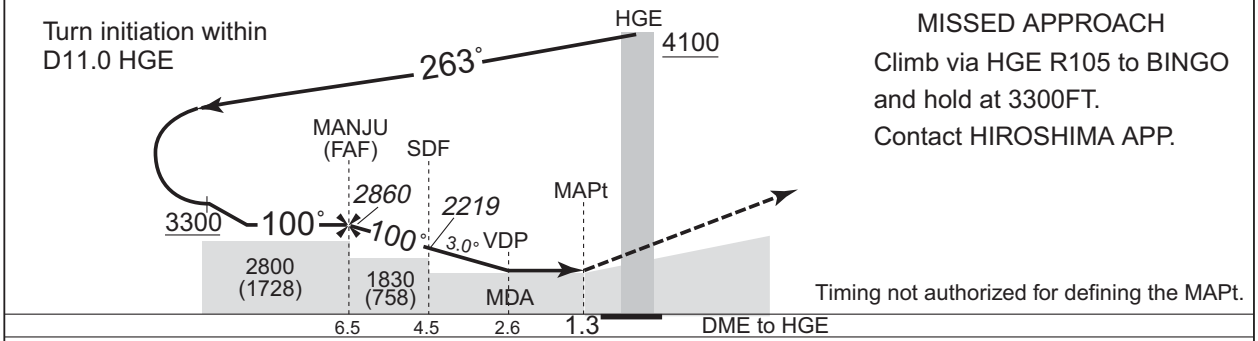
**INSTRUMENT APPROACH CHART**

RJOA / HIROSHIMA — VOR RWY10

| HIROSHIMA APP | HONGO VOR/DME 117.9 HGE CH–126X 34°26′02″N/132°55′26″E | HIROSHIMA TOWER | RADAR AVBL |
|---|---|---|---|
| 124.05 – 119.9 | | 118.6 - 126.2 | ATIS 127.25 |




| NM to HGE | FAF | 6 | 5 | 4 | 3 | MAPt |
|---|---|---|---|---|---|---|
| ALT (3.0° APCH Path) | 2860 | 2701 | 2383 | 2064 | 1746 | – |




MISSED APPROACH
Climb via HGE R105 to BINGO
and hold at 3300FT.
Contact HIROSHIMA APP.

Timing not authorized for defining the MAPt.

MINIMA THR elev. 1072 AD elev. 1086

| CAT | | | CIRCLING | |
|---|---|---|---|---|
| | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 1600 (528) | 1000 | 1600 (514) | 1600 |
| B | | 1200 | | |
| C | | | | 2400 |
| D | | 1600 | 1640 (554) | 3200 |

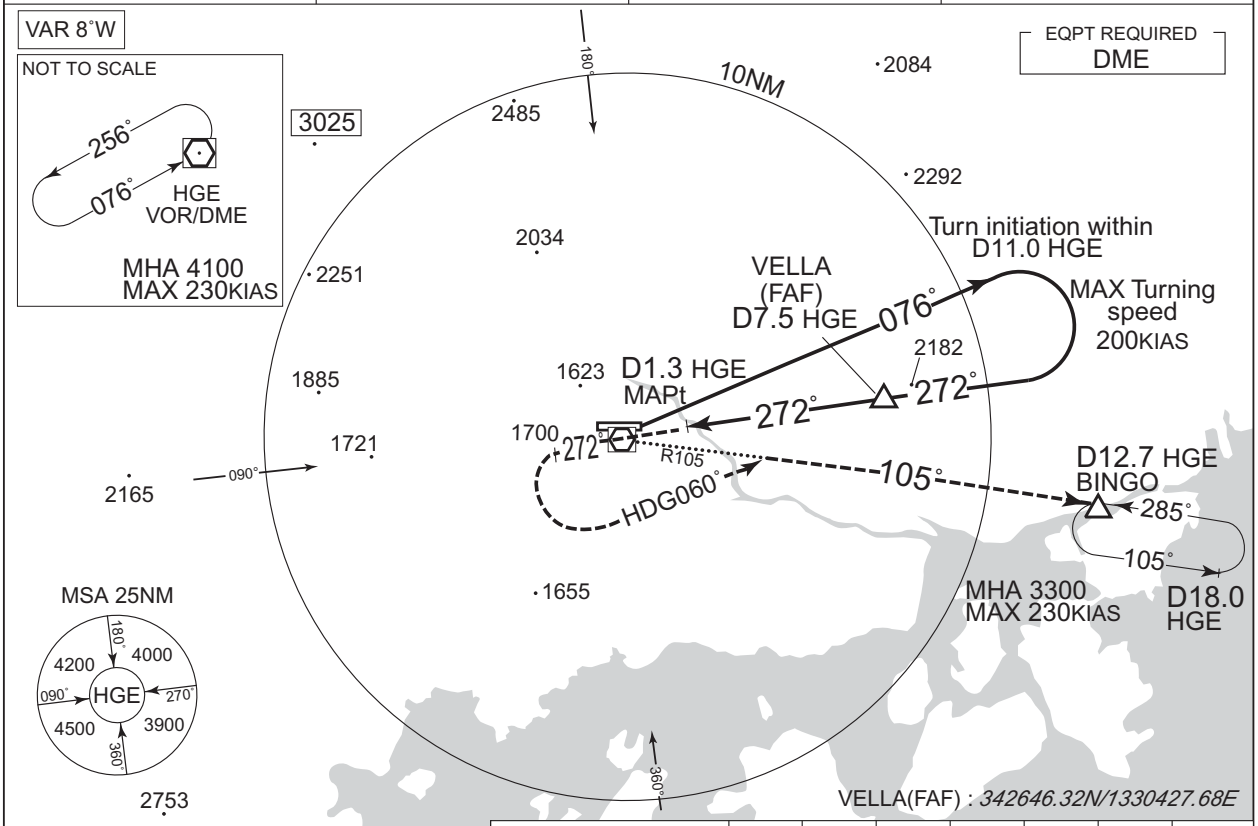
Circling to SOUTH side of RWY only.

CHANGE : Description of VAR.

**INSTRUMENT APPROACH CHART**

RJOA / HIROSHIMA — VOR RWY28

| HIROSHIMA APP | HONGO VOR/DME | HIROSHIMA TOWER | RADAR AVBL |
|---|---|---|---|
| 124.05 – 119.9 | 117.9 HGE<br>CH–126X<br>34˚26′02″N/132˚55′26″E | 118.6 - 126.2 | ATIS 127.25 |

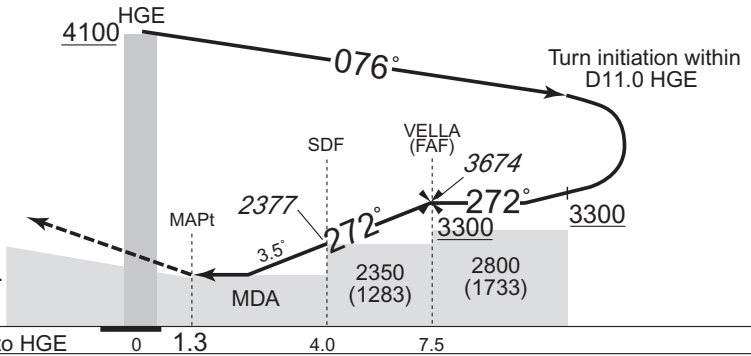



| NM to HGE | MAPt | 3 | 4 | 5 | 6 | 7 | FAF |
|---|---|---|---|---|---|---|---|
| ALT (3.5˚ APCH Path) | – | 2006 | 2377 | 2748 | 3118 | 3489 | 3674 |

MISSED APPROACH

Climb to 1700FT on HDG272˚,
turn left climb to 3300FT via
HDG060˚ to intercept and
proceed via HGE R105
to BINGO and hold.
Contact HIROSHIMA APP.

PAPI and descent angles not coincident.
Timing not authorized for defining the MAPt.




| | | | | |
|---|---|---|---|---|
| DME to HGE | 0 | 1.3 | 4.0 | 7.5 |
| NM to THR | 0 | 0.8 | 3.4 | 6.9 |

MINIMA THR elev. 1067 AD elev. 1086

| CAT | | | CIRCLING | |
|---|---|---|---|---|
| | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 1420 (353) | 1200 | 1510 (424) | 1600 |
| B | 1450 (383) | 1300 | 1540 (454) | |
| C | 1480 (413) | 1400 | | 2400 |
| D | 1500 (433) | 1600 | 1640 (554) | 3200 |

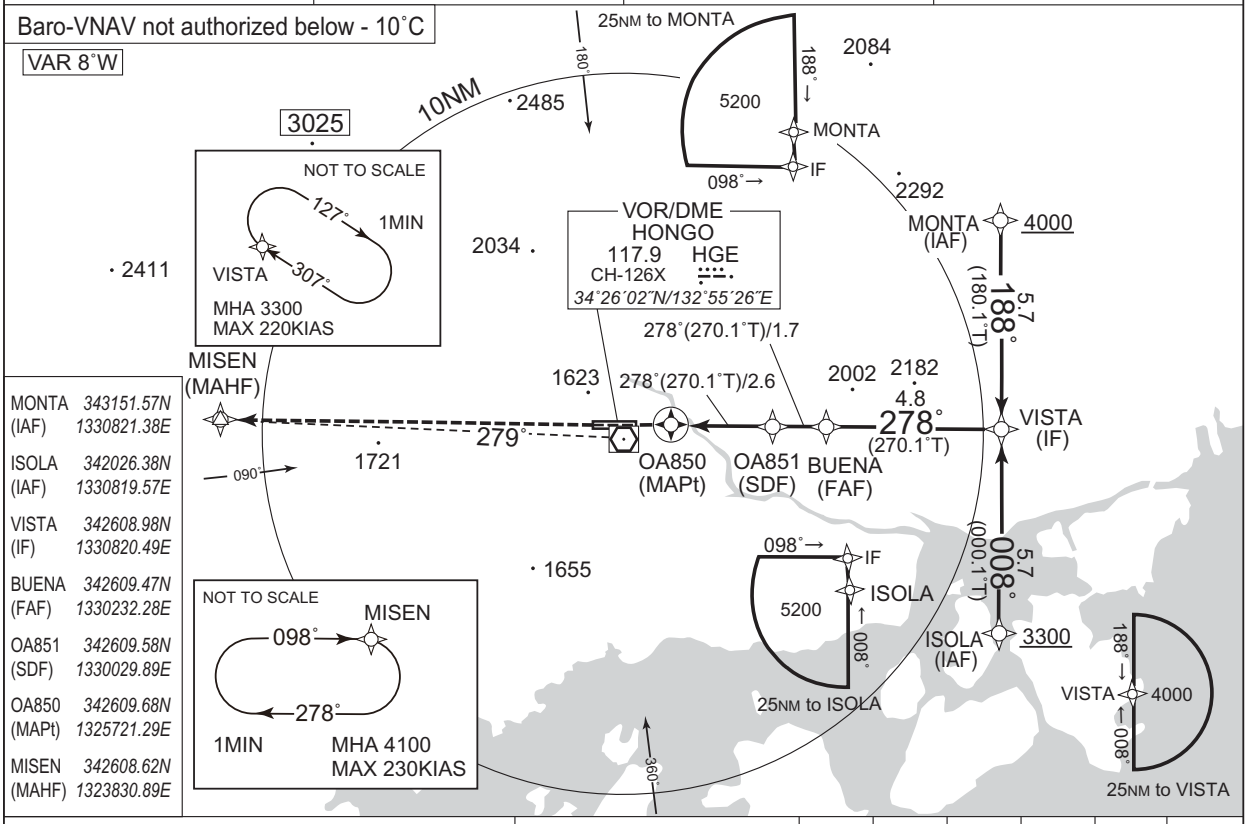
Circling to SOUTH side of RWY only.
VDP not applicable.

CHANGE : Description of VAR.

**INSTRUMENT APPROACH CHART**

RJOA / HIROSHIMA — RNP RWY28

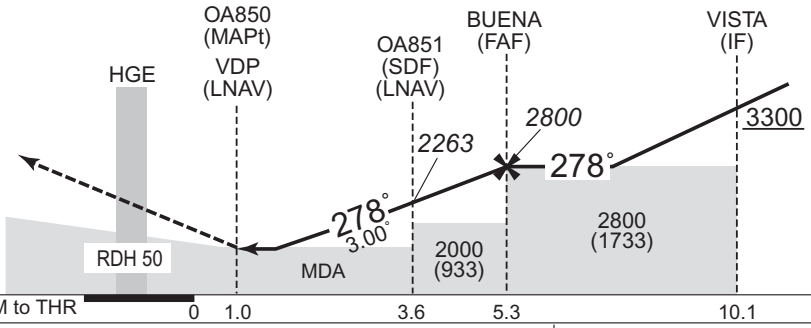
| HIROSHIMA APP | RNP APCH | HIROSHIMA TOWER | RADAR AVBL |
|---|---|---|---|
| 124.05–119.9 | | 118.6–126.2 | ATIS 127.25 |




| NM to Next Fix | MAPt | 1 | 2 | 3 | 4 | FAF |
|---|---|---|---|---|---|---|
| ALT (3.0˚ APCH Path) | – | 1753 | 2072 | 2390 | 2709 | 2800 |

MISSED APPROACH
Direct to MISEN and hold at 4100FT.
Contact HIROSHIMA APP.

(for using VOR/DME)
Climb via HGE R279 to MISEN and hold at 4100FT.
Contact HIROSHIMA APP.




Missed APCH climb gradient MNM 4.0%

MINIMA — THR elev. 1067 — AD elev. 1086

| CAT | LNAV/VNAV | | LNAV | | CIRCLING | |
|---|---|---|---|---|---|---|
| | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 1440 (373) | 1200 | 1440 (373) | 1200 | 1510 (424) | 1600 |
| B | | 1300 | | 1300 | 1540 (454) | |
| C | | 1400 | | 1400 | | 2400 |
| D | | 1600 | | 1600 | 1640 (554) | 3200 |

Circling to SOUTH side of RWY only.
MINIMA with Missed APCH climb gradient of 2.5% are not established.

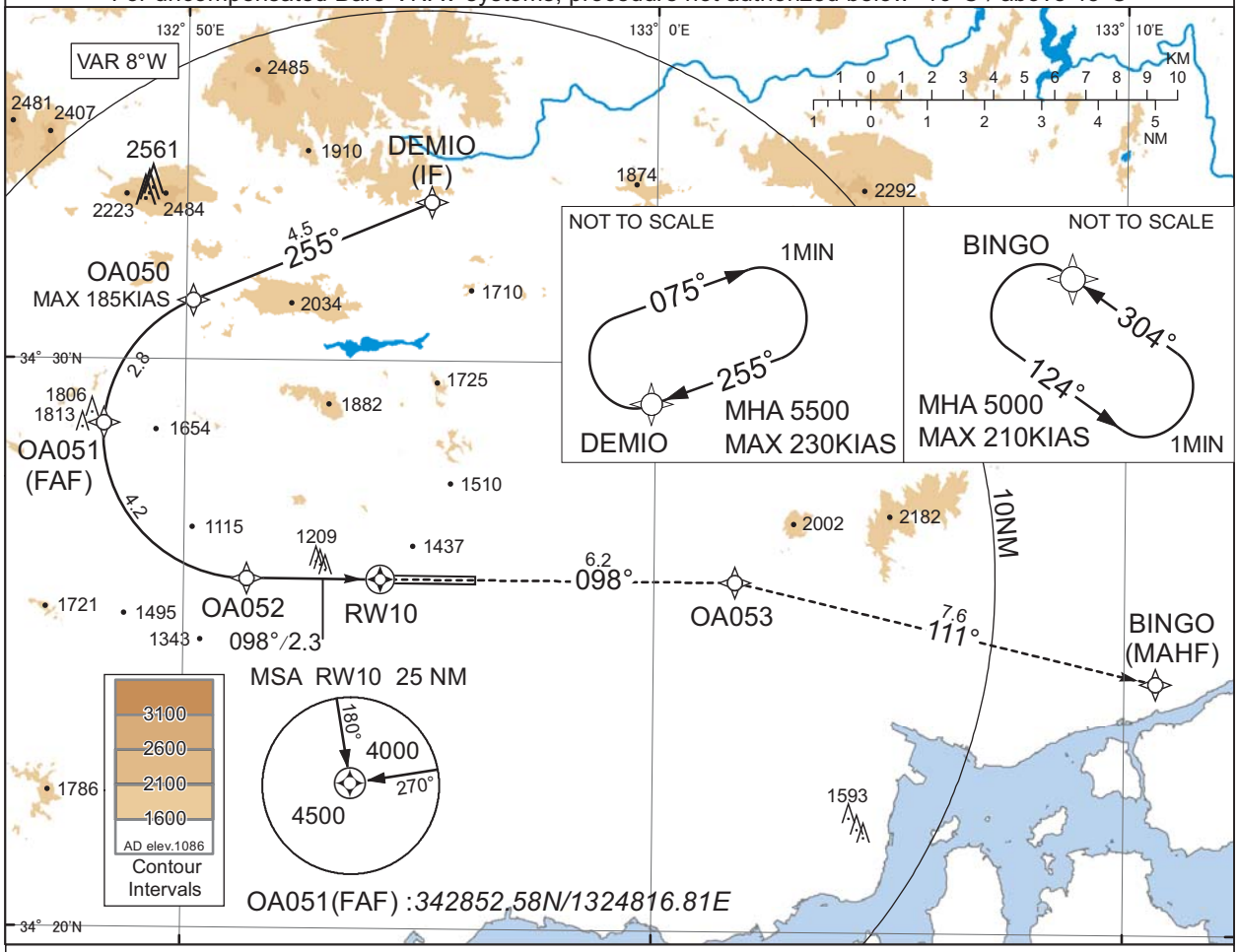
CHANGE : Description of VAR.

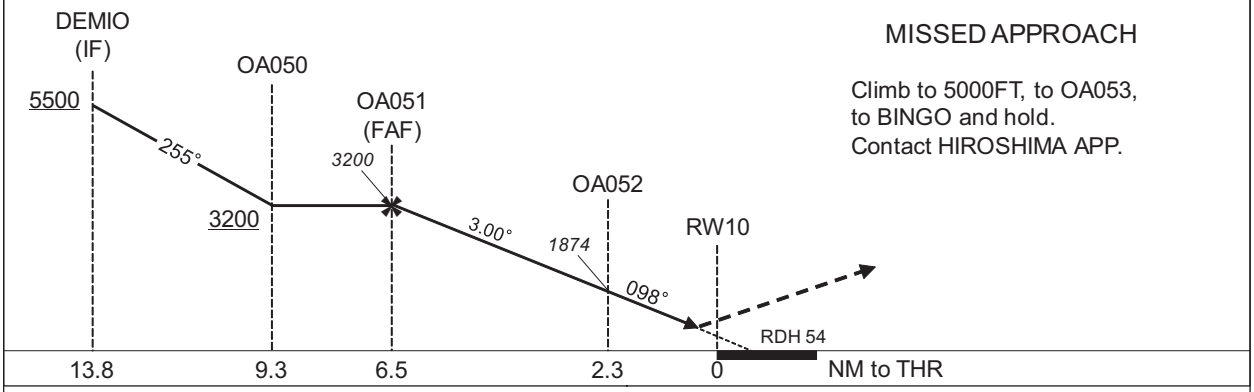
**INSTRUMENT APPROACH CHART**

RJOA / HIROSHIMA — RNP Z RWY10(AR)

| HIROSHIMA APP<br>124.05 - 119.9 | RNP AR<br>RF required. | HIROSHIMA TOWER<br>118.6 - 126.2 | RADAR AVBL<br>ATIS 127.25 |
|---|---|---|---|

For uncompensated Baro-VNAV systems, procedure not authorized below -10°C / above 45°C




MISSED APPROACH

Climb to 5000FT, to OA053,
to BINGO and hold.
Contact HIROSHIMA APP.

Missed APCH climb gradient MNM 5.0%

| MINIMA | THR elev. 1072 | | AD elev. 1086 | |
|---|---|---|---|---|
| CAT | RNP 0.10 | | RNP 0.30 | |
| | DA(H) | RVR/CMV | DA(H) | RVR/CMV |
| A | - | - | - | - |
| B | | | | |
| C | 1515(443) | 1000 | 1598(526) | 1200 |
| D | | 1400 | | 1600 |

MINIMA with Missed APCH climb gradient of 2.5% are not established.

**Authorization Required**

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

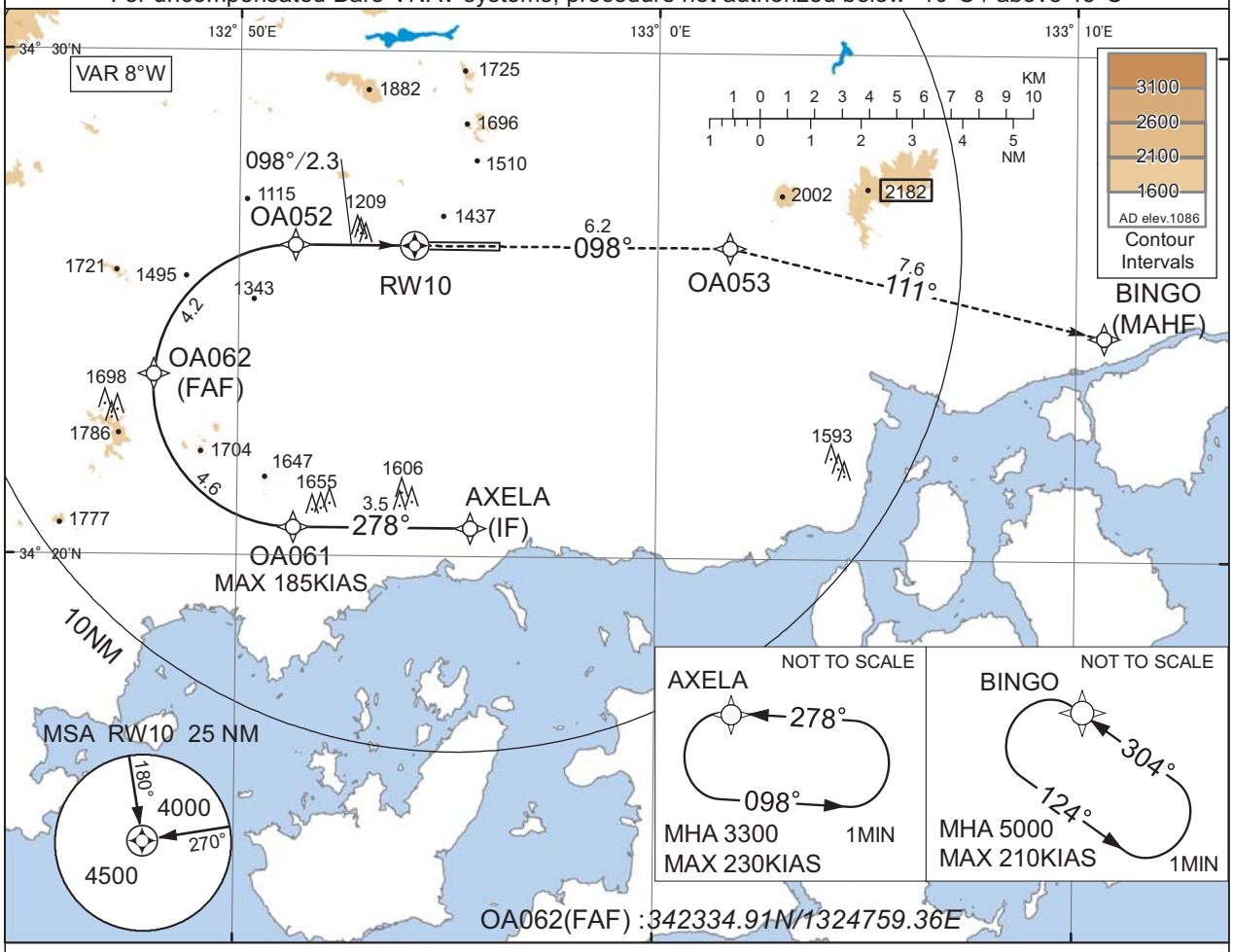
| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---|---|---|---|
| DEMIO | *343248.47N / 1325512.50E* | OARF1 | *342842.28N / 1325120.72E* |
| OA050 | *343102.99N / 1325009.23E* | | |
| OA051 | *342852.58N / 1324816.81E* | | |
| OA052 | *342609.63N / 1325120.84E* | | |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

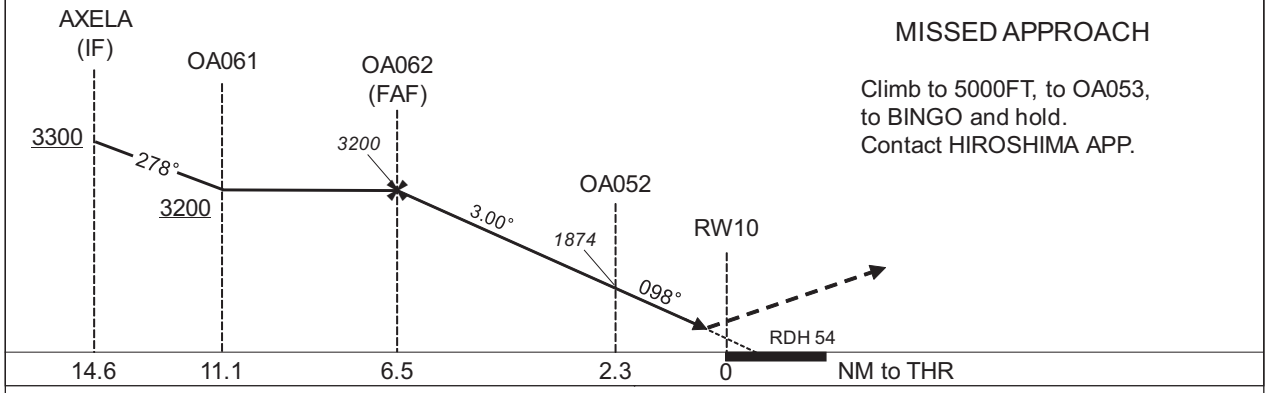
**INSTRUMENT APPROACH CHART**

RJOA / HIROSHIMA — RNP Y RWY10(AR)

| HIROSHIMA APP<br>124.05 - 119.9 | RNP AR<br>RF required. | HIROSHIMA TOWER<br>118.6 - 126.2 | RADAR AVBL<br>ATIS 127.25 |
|---|---|---|---|

For uncompensated Baro-VNAV systems, procedure not authorized below -10°C / above 45°C




Missed APCH climb gradient MNM 5.0%

| MINIMA | THR elev. 1072 | | AD elev. 1086 | |
|---|---|---|---|---|
| CAT | RNP 0.10 | | RNP 0.30 | |
| | DA(H) | RVR/CMV | DA(H) | RVR/CMV |
| A | - | - | - | - |
| B | | | | |
| C | 1515(443) | 1000 | 1598(526) | 1200 |
| D | | 1400 | | 1600 |

MINIMA with Missed APCH climb gradient of 2.5% are not established.

**Authorization Required**

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* | | |

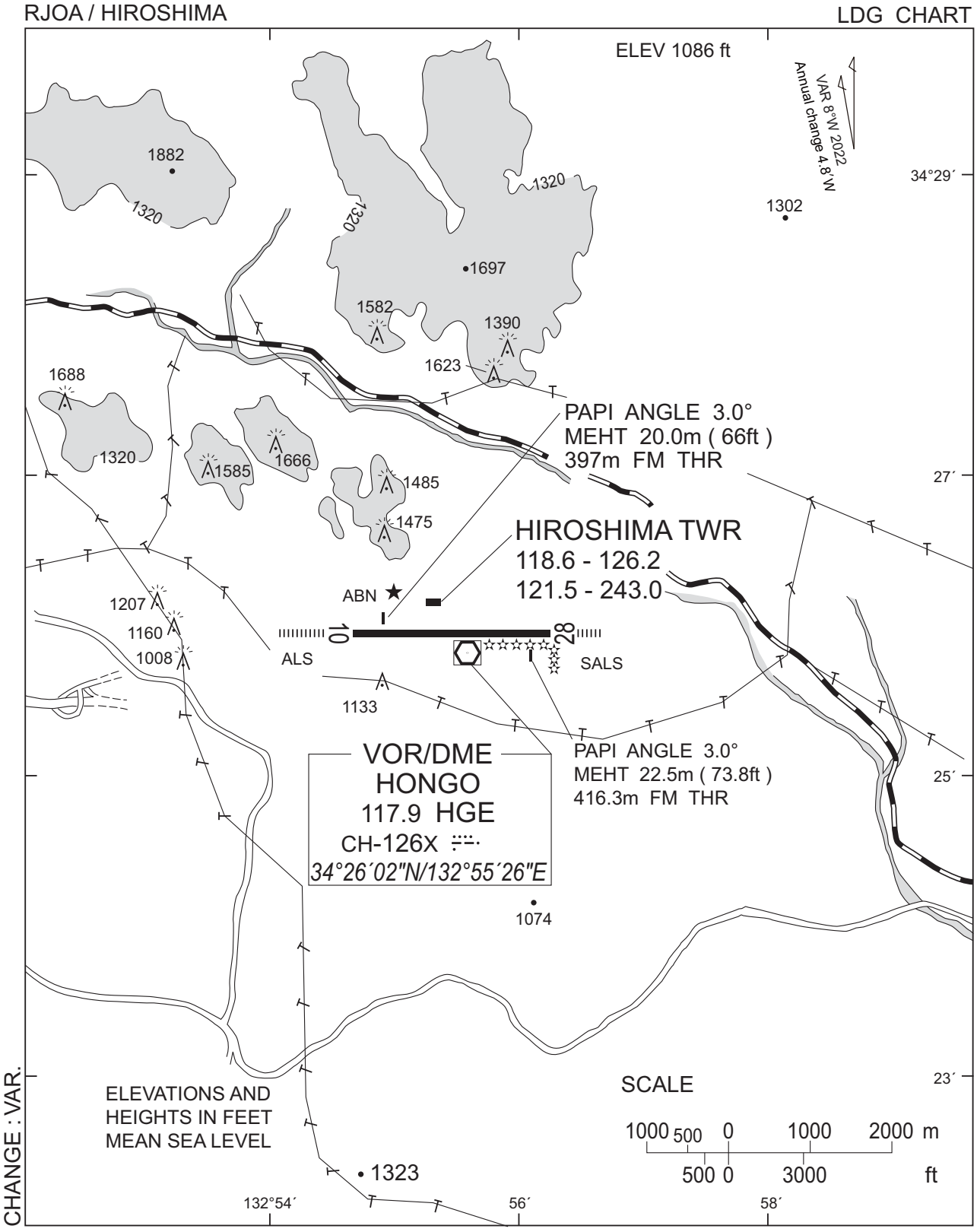
RJOA / HIROSHIMA

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).

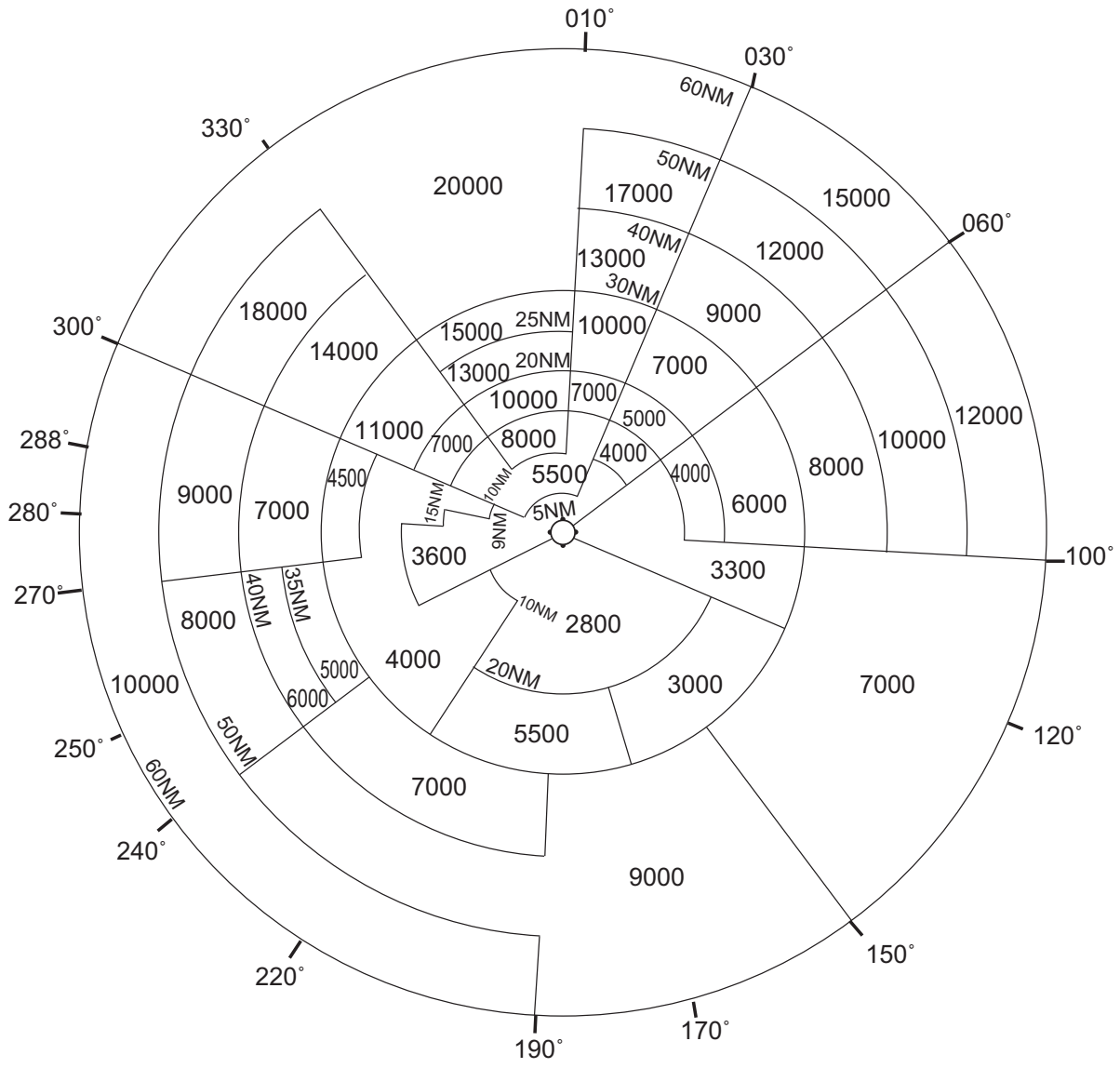
CHANGE : VAR.

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


RJOA / HIROSHIMA
LDG CHART
ELEV 1086 ft
VAR 8°W 2022
Annual change 4.8'W
34°29´
27´
25´
23´
1882
1320
1320
1320
1302
•1697
1582
1390
1623
1688
1320
1585
1666
1485
1475
PAPI ANGLE 3.0°
MEHT 20.0m ( 66ft )
397m FM THR
HIROSHIMA TWR
118.6 - 126.2
121.5 - 243.0
ABN
10
28
ALS
SALS
1207
1160
1008
1133
VOR/DME
HONGO
117.9 HGE
CH-126X
34°26´02"N/132°55´26"E
PAPI ANGLE 3.0°
MEHT 22.5m ( 73.8ft )
416.3m FM THR
1074
ELEVATIONS AND
HEIGHTS IN FEET
MEAN SEA LEVEL
SCALE
1000 500 0 1000 2000 m
500 0 3000 ft
• 1323
132°54´
56´
58´
CHANGE : VAR.

RJOA / HIROSHIMA Minimum Vectoring Altitude CHART

VAR 8˚W (2022)




CENTER：*342602N/1325458E* (RADAR SITE)

CHANGE : VAR.