

MARKING AIDS

Mandatory
instruction
marking



SIMPLE APPROACH LIGHTING SYSTEM



CHANGE:STOP BAR LGT abolished

AIRCRAFT PARKING/DOCKING CHART

RJCH / HAKODATE

AD CHART



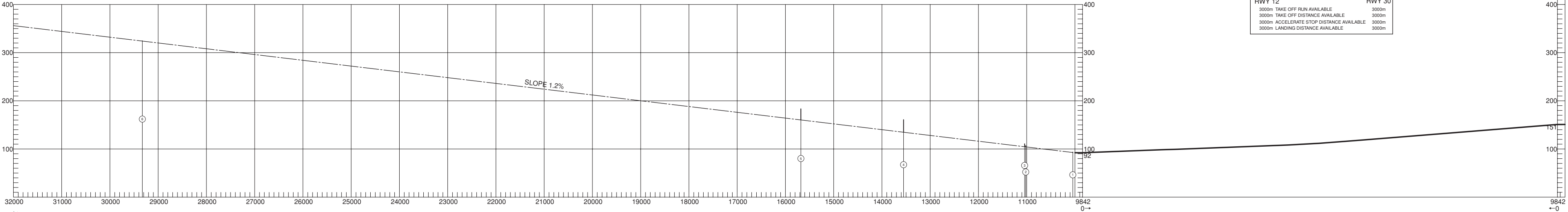
DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC



AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC

MAGNETIC VARIATION 9° W-APR 2018



| DECLARED DISTANCES | |
|--|--------|
| RWY 12 | RWY 30 |
| 3000m TAKE OFF RUN AVAILABLE | 3000m |
| 3000m TAKE OFF DISTANCE AVAILABLE | 3000m |
| 3000m ACCELERATE STOP DISTANCE AVAILABLE | 3000m |
| 3000m LANDING DISTANCE AVAILABLE | 3000m |



| LEGEND | | AMENDMENT RECORD | | |
|--------|-------------------------------------|------------------|------|------------|
| ① | IDENTIFICATION NUMBER | Nr | DATE | ENTERED BY |
| ● | POLE, TOWER, SPIRE, ANTENNA, ETC | | | |
| ✱ | TREE | | | |
| ▨ | LEVEE | | | |
| —+— | TRANSMISSION LINE OR OVERHEAD CABLE | | | |
| △ | TRIANGULATION POINT | | | |
| ★ | AERONAUTICAL GROUND LIGHT | | | |
| | RIVER | | | |

AERODROME OBSTACLE CHART - ICAO
TYPE B

DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC



STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

SID and TRANSITION

HAKODATE SOUTH SEVEN DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG239°...

RWY 30: Climb RWY HDG until 500FT, turn left HDG149°...

...to intercept and proceed via HWE R194 to MRE VOR/DME.

Cross HWE R194/30.0DME at or above 6000FT.

Note RWY12 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

HAKODATE REVERSAL FIVE DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG239°...

RWY 30: Climb RWY HDG until 500FT, turn left HDG149°...

...to intercept and proceed via HWE R194 to 3000FT, turn right direct to HWE VOR/DME.

Cross HWE VOR/DME at or above 5000FT.

Note RWY12 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

TAPPI SEVEN DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG272°...

RWY 30: Climb RWY HDG until 500FT, turn left HDG182°...

...to intercept and proceed via HWE R227 to TAPPI. Cross TAPPI at or above FL170.

Note RWY12 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

YUWA TRANSITION

From over TAPPI, proceed via UWE R008 to UWE VOR/DME.

Cross UWE R008/21.0DME at assigned altitude.

ESASI SIX DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG340°...

RWY 30: Climb RWY HDG until 700FT, turn right,...

...to intercept and proceed via HWE R295 to ESASI.

Cross ESASI at or above 5000FT.

Note RWY12 : 4.9% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

TIKYU ONE DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn left,...

RWY 30: Climb RWY HDG until 600FT, turn left HDG073°...

...to intercept and proceed via HWE R118 to TIKYU.

Cross TIKYU at or above 6000FT.

Note RWY12 : 6.3% climb gradient required up to 1700FT.

OBST ALT 1302FT located at 4.03NM 101° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

CHANGE : ESASI SIX DEPARTURE.

STANDARD DEPARTURE CHART - INSTRUMENT



STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID and TRANSITION

| TSUGARU ONE DEPARTURE KOMACHI TRANSITION | | RNAV1 |
|---|-----------------------|---|
| <p>Note 1) DME/DME/IRU or GNSS required. ※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. 2) RADAR service required.</p> | Critical DME | <p>RWY12 : MRE : 30.0NM to TAPPI – TAPPI</p> <p>RWY30 : MRE : 47.6NM to TAPPI – TAPPI HWE : 47.6NM to TAPPI – 40.0NM to TAPPI</p> <p>KOMACHI Transition : MRE: TAPPI - 24.0NM to UWE HWE: TAPPI - 55.0NM to UWE UWE: 55.0NM to UWE - 24.0NM to UWE HPE: 16.0NM to UWE - UWE</p> |
| | DME GAP | <p>RWY12 : RWY12DER – 30.0NM to TAPPI RWY30 : RWY30DER – 47.6NM to TAPPI</p> <p>KOMACHI Transition: 24.0NM to UWE – 22.0NM to UWE 19.0NM to UWE – 16.0NM to UWE</p> |
| | Inappropriate Navaids | See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1 |
| <p>VAR 9°W (2014)</p> <p><u>TSUGARU ONE DEPARTURE</u></p> <p><u>KOMACHI TRANSITION</u></p> <p>TAPPI 410805.5N 1400954.5E</p> <p>YUWA(UWE) 393701.7N 1401113.0E</p> <p>VOR/DME HAKODATE 112.3 HWE CH-70X 41°46'27"N/140°49'56"E 300FT</p> <p>VOR/DME AOMORI 114.1 MRE CH-88X 40°44'20"N/140°42'19"E 800FT</p> <p>VOR/DME YUWA 110.65 UWE CH-43Y 39°37'02"N/140°11'13"E 300FT</p> | | |
| <p><u>TSUGARU ONE DEPARTURE</u></p> <p>RWY12 : Climb on HDG117° at or above 600FT, turn right direct to TAPPI. RWY30 : Climb on HDG297° at or above 500FT, turn left direct to TAPPI.</p> <p>NOTE RWY12 : 4.0% climb gradient required up to 1300FT. OBST ALT 919FT located at 3.43NM 105° FM end of RWY12. RWY30 : 5.4% climb gradient required up to 1600FT. OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.</p> | | |
| <p><u>KOMACHI TRANSITION</u> From TAPPI, to UWE.</p> | | |

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID and TRANSITION

TSUGARU ONE DEPARTURE

RWY12

| 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 | — | — | 117 (108.0) | -8.9 | — | — | +600 | — | — | RNAV1 |
| 002 | DF | TAPPI | — | — | -8.9 | — | R | — | — | — | RNAV1 |

RWY30

| 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 | — | — | 297 (288.1) | -8.9 | — | — | +500 | — | — | RNAV1 |
| 002 | DF | TAPPI | — | — | -8.9 | — | L | — | — | — | RNAV1 |

KOMACHI 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 | TAPPI | — | — | -8.9 | — | — | — | — | — | RNAV1 |
| 002 | TF | UWE | — | 188 (179.4) | -8.9 | 91.1 | — | — | — | — | RNAV1 |

STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATERNAV STAR RWY30

YAKEI ARRIVAL

RNAV1

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

VAR 9°W (2019)

VOR/DME
HAKODATE
112.3 HWE
CH-70X
41°46'27"N/140°49'56"E
300FT

YAKEI ARRIVAL

YAKEI
413636.2N
1405958.0E
4000

TAXIR
412632.4N
1404728.0E
6000

HWE
VOR/DME

R194

TAXIR
D20.0 HWE

D26.0 HWE

014°

MHA 4000
MAX 230KIAS

194°

13.8
052°

YAKEI ARRIVAL

From TAXIR at or above 6000FT, to YAKEI at or above 4000FT.

| | |
|------------------------|---|
| Critical DME | MKE : TAXIR – 10.0NM to YAKEI HWE : 3.0NM to YAKEI – YAKEI |
| DME GAP | — |
| Inappropriate Nav aids | 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 | TAXIR | — | — | -9.4 | — | — | +6000 | — | — | RNAV1 |
| 002 | TF | YAKEI | — | 052 (042.9) | -9.4 | 13.8 | — | +4000 | — | — | RNAV1 |

CHANGE : New PROC.

Civil Aviation Bureau,Japan (EFF:3 DEC 2020)

5/11/20

STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATE

RNAV STAR RWY12

PATRA ARRIVAL

RNAV1

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

VAR 9°W (2019)

PATRA ARRIVAL

From TAXIR at or above 6000FT, to KANTA, to PATRA at or above 4000FT.

| | |
|------------------------|---|
| Critical DME | MRE : 18.0NM to KANTA – KANTA HWE : 2.2NM to KANTA – KANTA |
| DME GAP | KANTA – PATRA |
| Inappropriate Nav aids | See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1 |

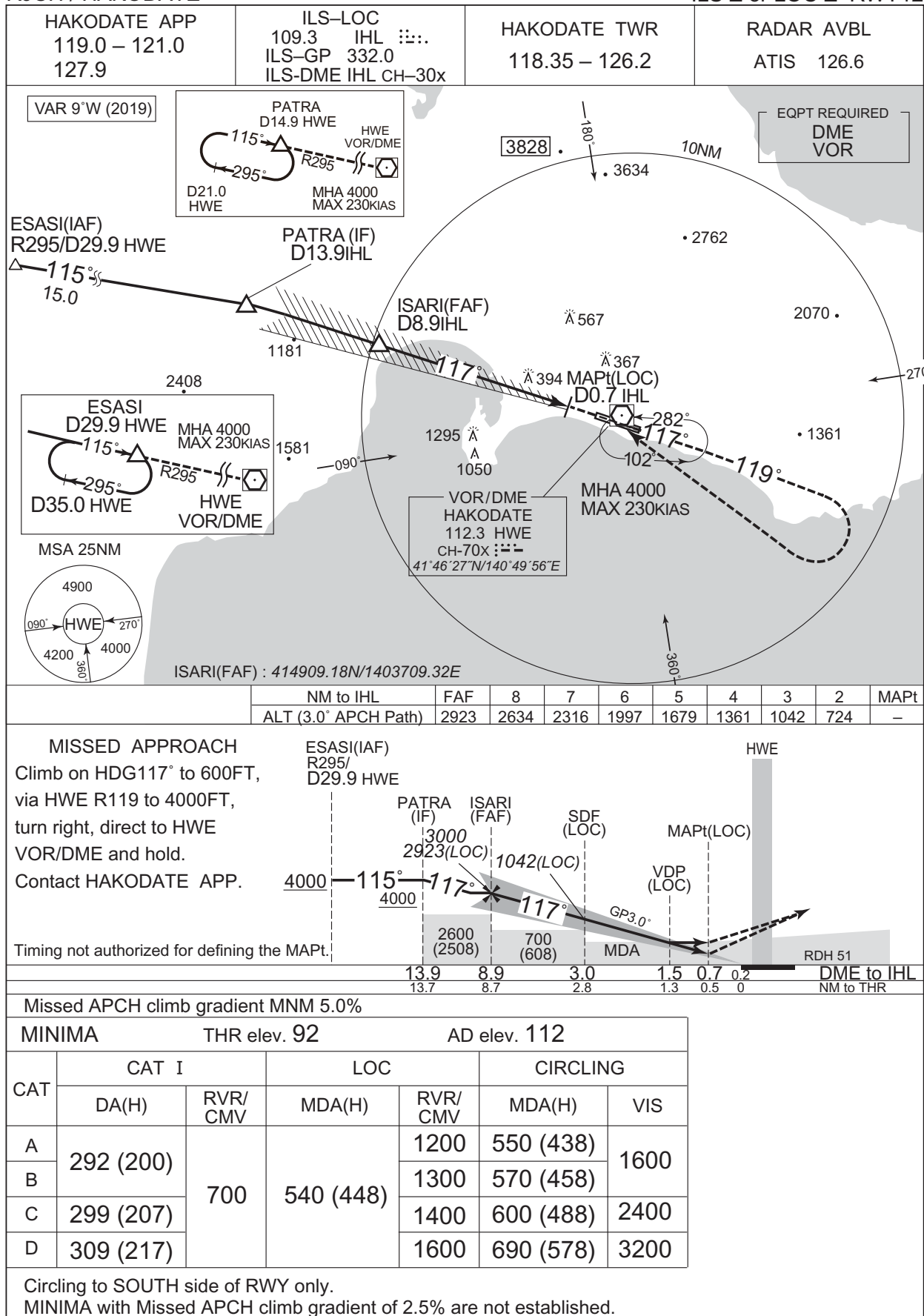
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | IF | TAXIR | — | — | -9.4 | — | — | +6000 | — | — | RNAV1 |
| 002 | TF | KANTA | — | 335 (325.6) | -9.4 | 24.3 | — | — | — | — | RNAV1 |
| 003 | TF | PATRA | — | 027 (017.7) | -9.4 | 4.3 | — | +4000 | — | — | RNAV1 |

CHANGE : Correction of misdescription(Name of PROC).

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

ILS Z or LOC Z RWY12



CHANGE : ALT restriction at PATRA.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

ILS Y or LOC Y RWY12

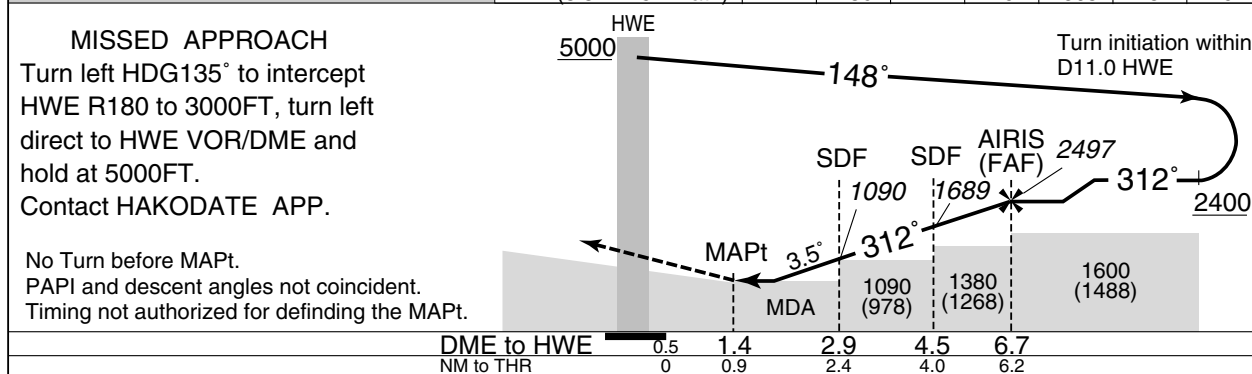
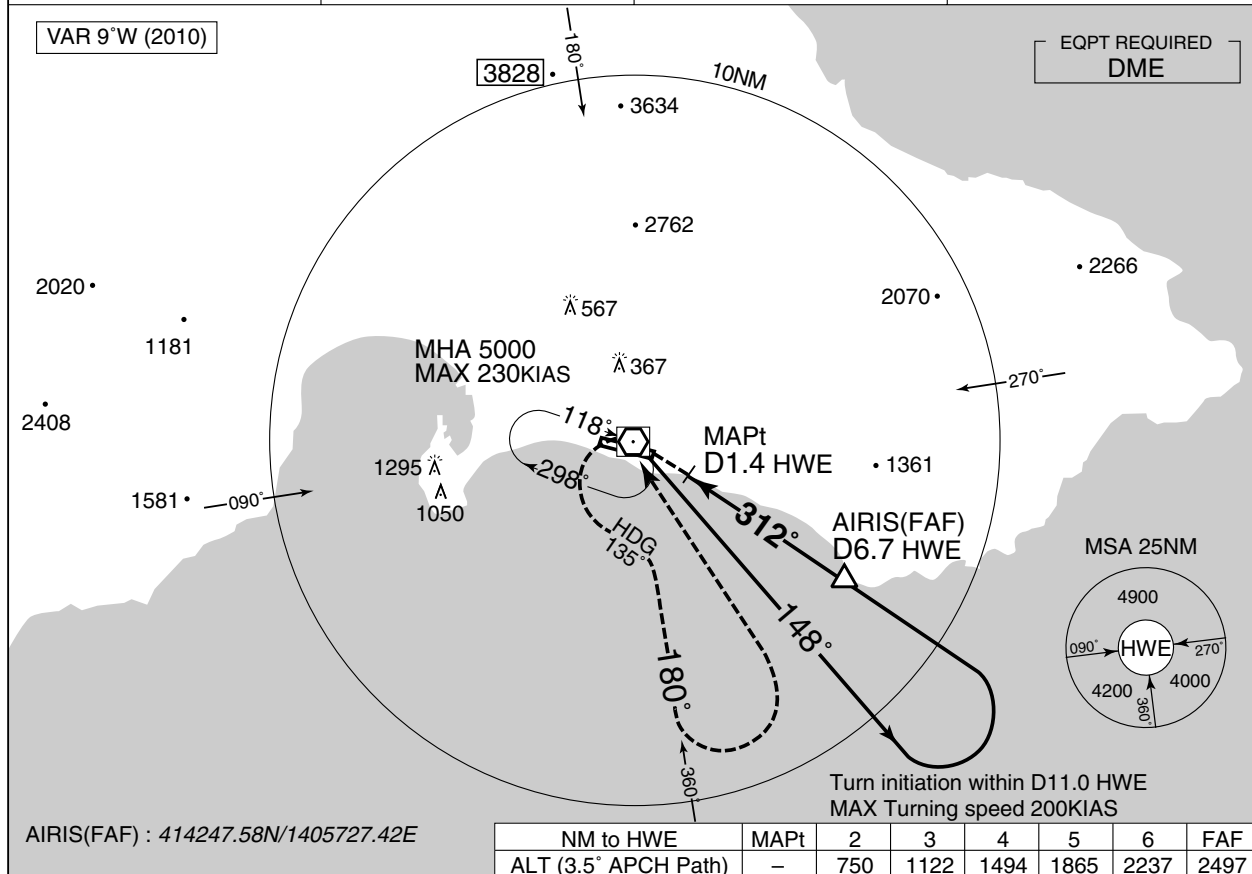


INSTRUMENT APPROACH CHART

RJCH / HAKODATE

VOR RWY30

| | | | |
|--|---|----------------------------------|--------------------------|
| HAKODATE APP 119.0 – 121.0 127.9 | HAKODATE VOR/DME 112.3 HWE CH-70X 41°46'27"N/140°49'56"E | HAKODATE TOWER 118.35 – 126.2 | RADAR AVBL ATIS 126.6 |
|--|---|----------------------------------|--------------------------|



| MINIMA | | | | | THR elev. 151 | AD elev. 112 |
|--------|-----------|------|-----------|------|---------------|--------------|
| CAT | | | CIRCLING | | | |
| | MDA(H) | CMV | MDA(H) | VIS | | |
| A | 730 (618) | 1000 | 730 (618) | 1600 | | |
| B | | 1200 | | 2400 | | |
| C | | | | 3200 | | |
| D | | 1600 | | | | |

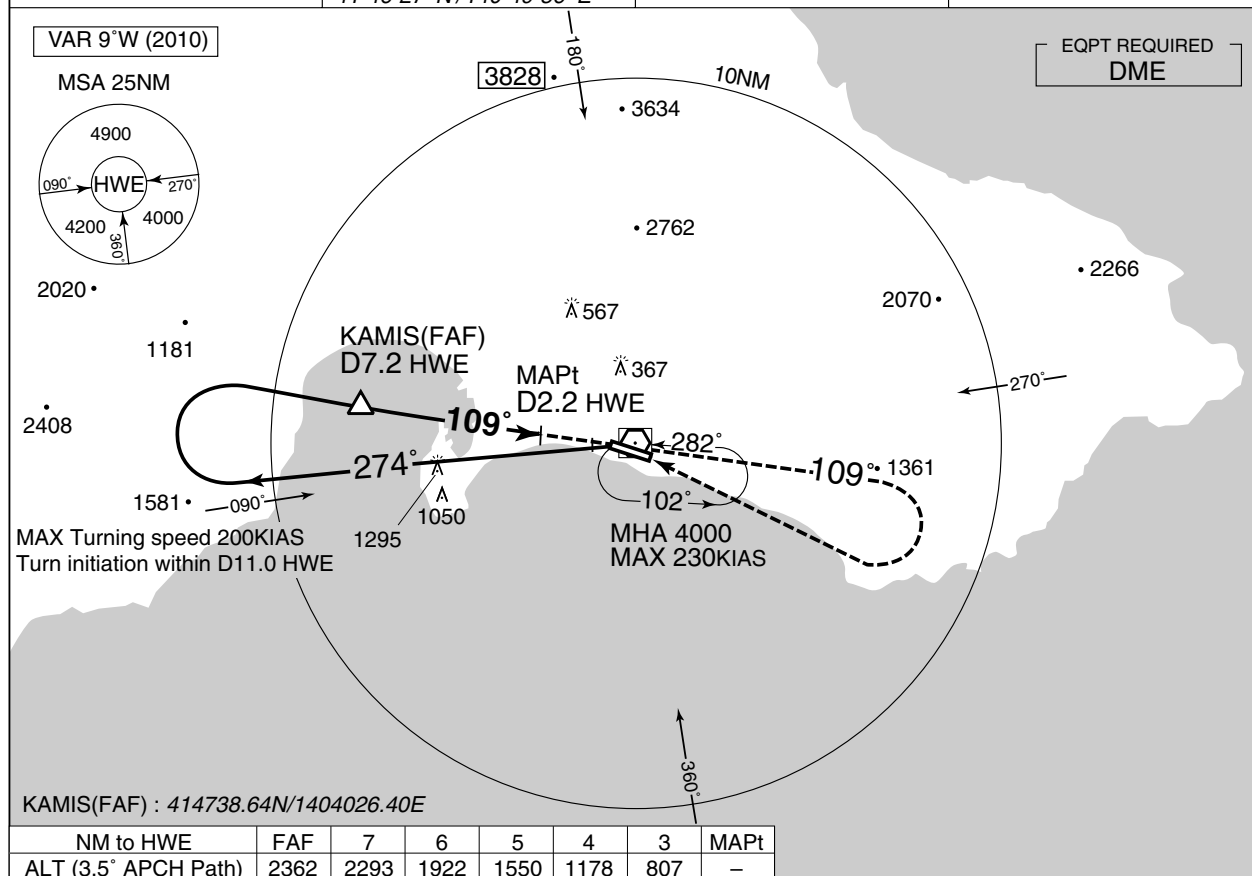
Circling to SOUTH side of RWY only.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

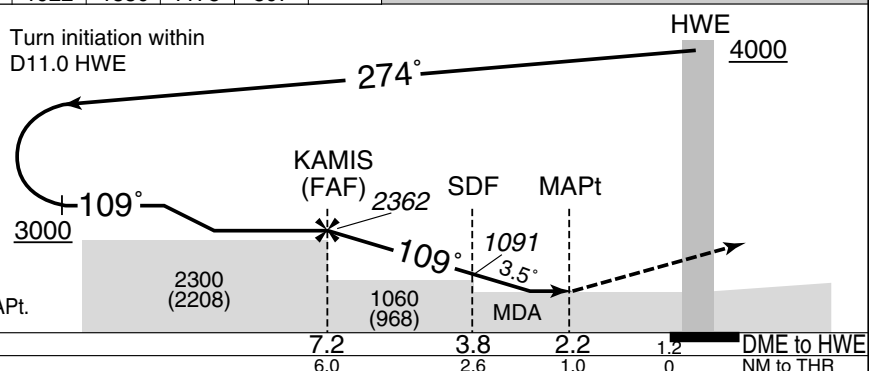
VOR RWY12

| | | | |
|--|---|----------------------------------|--------------------------|
| HAKODATE APP 119.0 – 121.0 127.9 | HAKODATE VOR/DME 112.3 HWE CH-70X 41°46'27"N/140°49'56"E | HAKODATE TOWER 118.35 – 126.2 | RADAR AVBL ATIS 126.6 |
|--|---|----------------------------------|--------------------------|



MISSED APPROACH
Climb via HWE R109 to 4000FT, turn right direct to HWE VOR/DME and hold.
Contact HAKODATE APP.

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



Missed APCH climb gradient MNM 3.6%

MINIMA THR elev. 92 AD elev. 112

| CAT | CIRCLING | | | |
|-----|-----------|---------|-----------|------|
| | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 530 (438) | 1200 | 550 (438) | 1600 |
| B | | 1300 | 570 (458) | |
| C | | 1400 | 600 (488) | |
| D | | 1600 | 690 (578) | |

Circling to SOUTH side of RWY only.

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

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNAV(GNSS) Z RWY30



CHANGE : VAR. PROC. HLDG Pattern(TAXIR,YAKEI) established.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNAV(RNP) Y RWY30



CHANGE : VAR. PROC. HLDG Pattern. Minimum temperature.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNAV(RNP) Y RWY30

RNAV(RNP) Y RWY30Coding 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 | TAXIR | - | - | -9.4 | - | - | +4000 | - | - | - |
| 002 | TF | SABIO | - | 029 (019.2) | -9.4 | 10.1 | - | +2500 | - | - | 1.0 |
| 003 | TF | TRAPI | - | 029 (019.2) | -9.4 | 5.0 | - | 2500 | - | - | 1.0 |
| 004 | TF | CH054 | - | 029 (019.2) | -9.4 | 1.4 | - | 2041 | - | -3.00 | 0.3 |
| 005 | RF Center: CHRF3 r=2.50NM | CH055 | - | - | -9.4 | 4.0 | L | 774 | - | -3.00 | 0.3 |
| 006 | TF | RW30 | Y | 298 (288.1) | -9.4 | 1.8 | - | 201 | - | -3.00/50 | 0.3 |
| 007 | TF | CH272 | - | 297 (288.1) | -9.4 | 5.6 | - | - | - | - | 1.0 |
| 008 | RF Center: CHRF4 r=2.90NM | CH056 | - | - | -9.4 | 6.6 | L | - | - | - | 1.0 |
| 009 | TF | TAXIR | - | 168 (158.5) | -9.4 | 18.6 | - | 4000 | - | - | 1.0 |

Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|--------------------------|--------------------------|--------------------------|
| TAXIR | 412632.43N / 1404728.04E | CHRF3 | 414301.30N / 1405136.09E |
| SABIO | 413606.58N / 1405154.81E | CHRF4 | 414456.26N / 1404159.49E |
| TRAPI | 414049.99N / 1405407.02E | | |
| CH054 | 414211.71N / 1405445.20E | | |
| CH055 | 414524.03N / 1405238.26E | | |
| RW30 | 414557.54N / 1405021.00E | | |
| CH272 | 414742.10N / 1404311.31E | | |
| CH056 | 414352.33N / 1403822.94E | | |

CHANGE : VAR. PROC.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNAV(RNP) RWY12

| | | | |
|--|-----------------------|--------------------------------|--------------------------|
| HAKODATE APP 119.0 - 121.0 127.9 | GNSS and RF required. | HAKODATE TWR 118.35 - 126.2 | RADAR AVBL ATIS 126.6 |
|--|-----------------------|--------------------------------|--------------------------|

For uncompensated Baro-VNAV systems, procedure not authorized below -20°C / above 45°C



Missed APCH climb gradient MNM 5.0%

| MINIMA | THR elev. 92 | AD elev. 112 |
|--------|--------------|--------------|
| CAT | RNP 0.30 | |
| A | DA(H) | RVR/CMV |
| B | - | - |
| C | 402(310) | 1400 |
| D | 423(331) | 1600 |

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

RNP AR**Special Authorization Required**

CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNAV(RNP) RWY12

RNAV(RNP) RWY12Coding 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 | TAXIR | - | - | -9.4 | - | - | +4000 | - | - | - |
| 002 | TF | BOHNI | - | 350 (340.6) | -9.4 | 10.1 | - | +2500 | - | - | 1.0 |
| 003 | TF | YUNOK | - | 350 (340.6) | -9.4 | 5.9 | - | +2500 | - | - | 1.0 |
| 004 | TF | CH271 | - | 350 (340.5) | -9.4 | 3.0 | - | +2500 | -185 | - | 1.0 |
| 005 | RF Center: CHRF5 r=2.50NM | BESAR | - | - | -9.4 | 2.2 | R | 2500 | - | - | 1.0 |
| 006 | RF Center: CHRF5 r=2.50NM | CH272 | - | - | -9.4 | 3.4 | R | 1421 | - | -3.00 | 0.3 |
| 007 | TF | RW12 | Y | 117 (108.0) | -9.4 | 4.0 | - | 143 | - | -3.00/51 | 0.3 |
| 008 | TF | CH273 | - | 117 (108.1) | -9.4 | 5.4 | - | - | - | - | 1.0 |
| 009 | TF | TAXIR | - | 207 (197.6) | -9.4 | 19.1 | - | 4000 | - | - | 1.0 |

Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|--------------------------|--------------------------|--------------------------|
| TAXIR | 412632.43N / 1404728.04E | CHRF5 | 414519.29N / 1404209.46E |
| BOHNI | 413606.23N / 1404258.19E | | |
| YUNOK | 414139.34N / 1404020.87E | | |
| CH271 | 414429.13N / 1403900.50E | | |
| BESAR | 414635.08N / 1403916.36E | | |
| CH272 | 414742.10N / 1404311.31E | | |
| RW12 | 414627.62N / 1404817.61E | | |
| CH273 | 414446.88N / 1405510.13E | | |

CHANGE : New PROC.

RJCH / HAKODATE

Visual REP

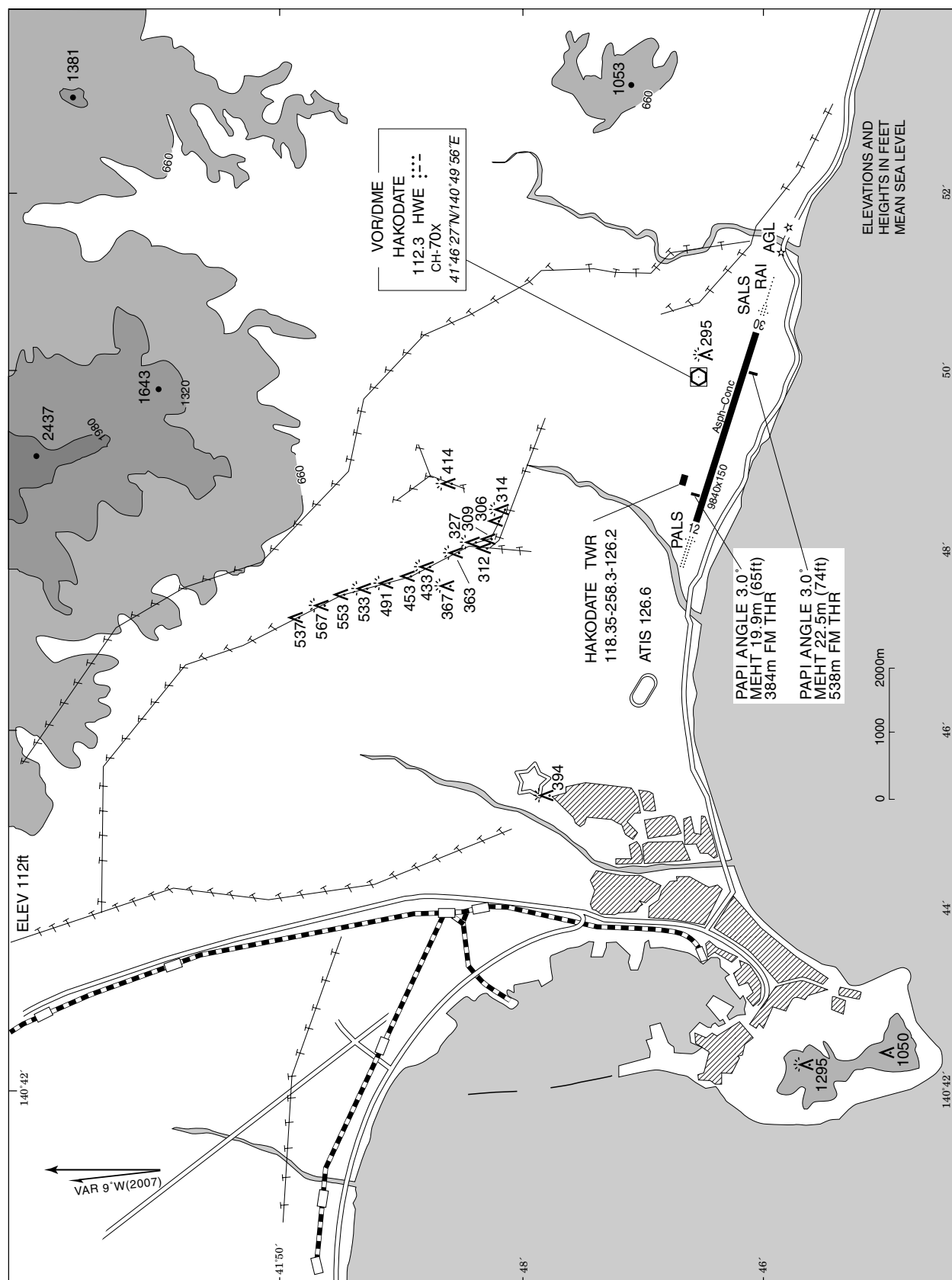


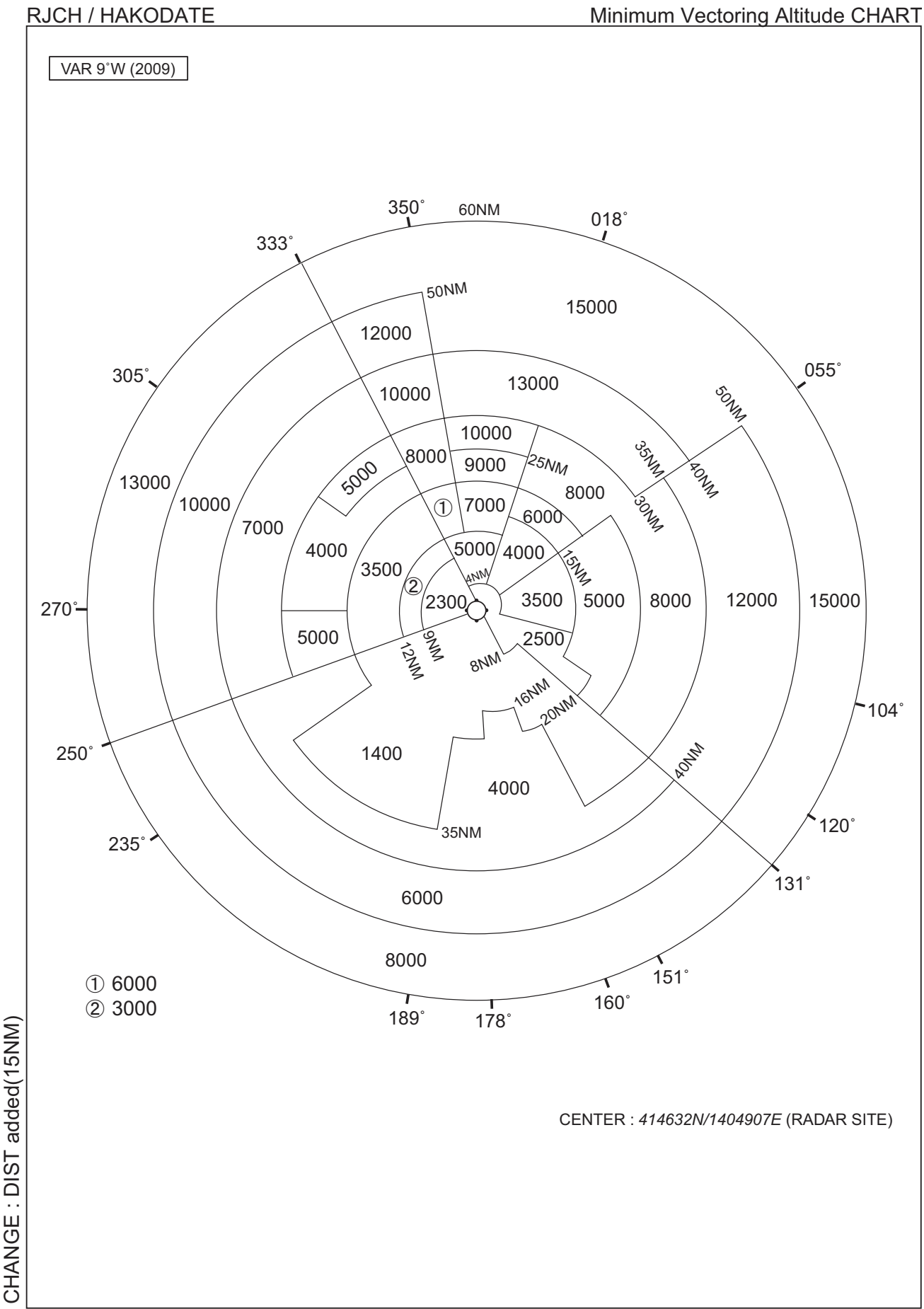
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

CHANGE :DIST from ARP(Mihara):

| Call sign | BRG / DIST from ARP | Remarks |
|-----------------------|---------------------|---------------------------------|
| 大沼 Onuma | 330°T / 13.9NM | JR駅 JR Station |
| 桔梗 Kikyo | 316°T / 6.4NM | JR駅 JR Station |
| 矢別 Yabetsu | 043°T / 5.7NM | ダム Dam |
| 恵山岬 Esanmisaki | 081°T / 16.5NM | 灯台 Lighthouse |
| 美原 Mihara | 310°T / 3.9NM | NHKラジオアンテナ NHK radio antenna |
| 立待 Tachimachi | 252°T / 4.8NM | 岬 Cape |
| 当別 Tobetsu | 261°T / 11.5NM | トラピスト修道院 Religious house |
| 汐首岬 Shiokubimisaki | 119°T / 7.3NM | 灯台 Lighthouse |
| 5NM S | 180°T / 5.0NM | 海上 Over the sea |
| 大間崎 Omazaki | 163°T / 14.0NM | 岬 Cape |

LDG CHART





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