

## AD 2 AERODROMES

## RJSI AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## RJSI - HANAMAKI

## RJSI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

|   |  |   |
|---|--|---|
| 1 | ARP coordinates and site at AD   | 392543N 1410807E<br>010°/1.25km FM RWY 02 THR   |
| 2 | Direction and distance from (city)   | 6km NNE FM Hanamaki City  |
| 3 | Elevation/ Reference temperature   | 294ft / 30°C(2016-2020)   |
| 4 | Geoid undulation at AD ELEV PSN  | 126ft   |
| 5 | MAG VAR/ Annual change   | 9° W(2021) / 3'34"W   |
| 6 | AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses | Hanamaki Airport office (Iwate prefectural government)<br>3-183-1 Kuzu Hanamaki-shi Iwate 025-0004 Japan<br>Tel: 0198-26-2016 Fax: 0198-26-4588<br>e-mail: CF0003@pref.iwate.jp<br>URL: <a href="http://www.pref.iwate.jp">http://www.pref.iwate.jp</a> |
| 7 | Types of traffic permitted(IFR/ VFR)   | IFR/VFR   |
| 8 | Remarks  | Hanamaki Airport Branch(Civil Aviation Bureau)<br>3-183-1 Kuzu Hanamaki-shi Iwate 025-0004 Japan<br>Tel: 0198-26-2015 Fax: 0198-26-4804   |

## RJSI AD 2.3 OPERATIONAL HOURS

|    |                           |   |
|----|---------------------------|---|
| 1  | AD Administration         | 2300 - 1030   |
| 2  | Customs and immigration   | Customs: On request (0193-22-3010)<br>Immigration: INTL SKED FLT hours only           |
| 3  | Health and sanitation     | Quarantine (human): 2330-0815<br>Quarantine (animal, plant): INTL SKED FLT hours only |
| 4  | AIS Briefing Office       | Nil   |
| 5  | ATS Reporting Office(ARO) | Nil   |
| 6  | MET Briefing Office       | H24 (TOKYO)   |
| 7  | ATS                       | 2300 - 1030   |
| 8  | Fuelling                  | 2300 - 1030   |
| 9  | Handling                  | 2300 - 1030   |
| 10 | Security                  | 2330 - 1030   |
| 11 | De-icing                  | Nil   |
| 12 | Remarks                   | Nil   |

**RJSI AD 2.4 HANDLING SERVICES AND FACILITIES**

|   |   |   |
|---|---|---|
| 1 | Cargo-handling facilities               | All the modern institutions that deal with the weight thing to a Boeing 747 type freighter. |
| 2 | Fuel/ oil types                         | AVGAS 100LL JET A-1   |
| 3 | Fuelling facilities/ capacity           | AVGAS 100LL : Fuel truck / Ask AD administration<br>JET A-1 : Fuel truck / 200KL x 2tank    |
| 4 | De-icing facilities                     | Nil   |
| 5 | Hangar space for visiting aircraft      | Ask AD Administration   |
| 6 | Repair facilities for visiting aircraft | Nil   |
| 7 | Remarks                                 | Nil   |

**RJSI AD 2.5 PASSENGER FACILITIES**

|   |                      |   |
|---|----------------------|---|
| 1 | Hotels               | At Hanamaki City                                      |
| 2 | Restaurants          | At Airport  |
| 3 | Transportation       | Buses and Taxi  |
| 4 | Medical facilities   | Hospital in Hanamaki city 5km                         |
| 5 | Bank and Post Office | Post Office/Postage stamp shop and mailbox at airport |
| 6 | Tourist Office       | At Airport  |
| 7 | Remarks              | Nil   |

**RJSI AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

|   |   |   |
|---|---|---|
| 1 | AD category for fire fighting               | CAT 8   |
| 2 | Rescue equipment                            | Chemical fire fighting truck x 3 ,<br>Emergency medical equipments conveyance truck |
| 3 | Capability for removal of disabled aircraft | Ask AD Administration   |
| 4 | Remarks                                     | Nil   |

**RJSI AD 2.7 SEASONAL AVAILABILITY-CLEARING**

|   |                             |   |
|---|-----------------------------|---|
| 1 | Types of clearing equipment | Snow Removal Equipments:<br>snow plough x 7 , snow sweeper x 4 ,<br>rotary snow plough x 3 , anti-freezing-agent spreader x 3 |
| 2 | Clearance priorities        | 1.RWY , TWY<br>2.Apron  |
| 3 | Remarks                     | Seasonal availability:All seasons.<br>Snow removal will be commenced,if the RWY is covered with a depth of 3cm snow or more.  |

## RJSI AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

|   |                                     |   |
|---|-------------------------------------|---|
| 1 | Apron surface and strength          | Spot NR 1-5<br>Surface:concrete, Strength:PCR 1132/R/B/W/T<br>W-Apron<br>Surface:concrete, Strength:PCR 785/R/B/W/T<br>Small Aircraft Apron<br>Surface: asphalt, Strength:AUW 5700kg/0.28MPa  |
| 2 | Taxiway width, surface and strength | TWY T1, T4<br>Width: 28.5m, Surface:asphalt, Strength: PCR 873/F/B/X/T<br>TWY T2, T3<br>Width: 34m, Surface:asphalt, Strength: PCR 703/F/B/X/T<br>TWY T5<br>Width: 30m, Surface:asphalt, Strength: PCR 929/F/D/X/T<br>TWY P1-P3<br>Width: 23m, Surface:asphalt, Strength: PCR 873/F/B/X/T |
| 3 | ACL and elevation                   | Not available   |
| 4 | VOR checkpoints                     | Not available   |
| 5 | INS checkpoints                     | Spot NR<br>1: 392521.80N 1410817.13E<br>2: 392520.04N 1410815.81E<br>3: 392518.26N 1410816.15E<br>4: 392516.16N 1410815.68E<br>5: 392514.55N 1410815.36E  |
| 6 | Remarks                             | Nil   |

## RJSI AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

|   |  |   |
|---|--|---|
| 1 | Use of aircraft stand ID signs, TWY guide lines and Visual docking/ parking guidance system of aircraft stands | ACFT stand ID signs : Nil<br>ACFT stand taxi lane : See AD2.24 AD chart<br>Visual docking guidance system : Nil   |
| 2 | RWY and TWY markings and LGT   | RWY: 02/20<br>(Marking) RWY designation, RWY CL, RWY THR, TDZ, Aiming point, RWY side stripe<br>(LGT) RCLL, REDL, RTHL, RENL, RTZL(RWY20), WBAR(RWY20), RWY DIST marker LGT<br><br>TWY T1 THRU T5:<br>(Marking) TWY CL, RWY HLDG PSN, TWY side stripe<br>(LGT) TWY edge LGT, TWY CL LGT, Taxiing guidance sign, RWY guard LGT<br><br>TWY P1 THRU P3:<br>(Marking) TWY CL, TWY side stripe<br>(LGT) TWY edge LGT, TWY CL LGT |
| 3 | Stop bars  | Nil   |
| 4 | Remarks  | (Marking) Overrun area, Apron TWY CL<br>(LGT) Apron flood LGT   |

RJSI AD 2.10 AERODROME OBSTACLES

In Area2    See Obstacle data

In Area3    To be developed

RJSI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

|    |  |   |
|----|--|---|
| 1  | Associated MET Office  | TOKYO   |
| 2  | Hours of service<br>MET Office outside hours                           | H24 (TOKYO)   |
| 3  | Office responsible for TAF preparation<br>Periods of validity          | TOKYO<br>30 Hours   |
| 4  | Trend forecast<br>Interval of issuance                                 | Nil   |
| 5  | Briefing/ consultation provided  | Briefing is available upon inquiry at TOKYO   |
| 6  | Flight documentation<br>Language(s) used                               | C<br>En   |
| 7  | Charts and other information available<br>for briefing or consultation | S <sub>6</sub> , U <sub>85</sub> , U <sub>7</sub> , U <sub>5</sub> , U <sub>3</sub> , U <sub>25</sub> , U <sub>2</sub> /T <sub>r</sub> , P <sub>S</sub> , P <sub>5</sub> , P <sub>3</sub> , P <sub>25</sub> , P <sub>SWE</sub> , P <sub>SWF</sub> , P <sub>SWG</sub> , P <sub>SWI</sub> , P <sub>SWM</sub> , P <sub>SW</sub> (domestic), E, C, W <sub>E</sub> , W <sub>F</sub> , W <sub>G</sub> , W <sub>I</sub> , W, N |
| 8  | Supplementary equipment<br>available for providing information         | Nil   |
| 9  | ATS units provided with information                                    | RADIO   |
| 10 | Additional information<br>(limitation of service, etc.)                | Nil   |

RJSI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations<br>RWY NR | TRUE<br>BRG | Dimensions of<br>RWY(M) | Strength(PCR) and<br>surface of RWY                                | THR coordinates<br>THR geoid undulation | THR elevation and<br>highest elevation of TDZ<br>of precision APP RWY |
|------------------------|-------------|-------------------------|--|---|---|
| 1                      | 2           | 3                       | 4  | 5                                       | 6   |
| 02                     | 010.73°     | 2500×45                 | PCR 873/F/B/X/T<br>Asphalt Concrete                                | 392503.58N<br>1410757.62E<br>135ft      | THR ELEV: 283ft   |
| 20                     | 190.73°     | 2500×45                 | PCR 873/F/B/X/T<br>Asphalt Concrete                                | 392623.24N<br>1410817.11E<br>135.5ft    | THR ELEV: 297.5ft<br>TDZ ELEV: 297.5ft                                |
| Slope of RWY           |             | Strip<br>Dimensions(M)  | RESA (Overrun)<br>Dimensions(M)                                    |   | Remarks   |
| 7                      |             | 10                      | 11   |   | 14  |
| SEE AD2.24 AD chart    |             | 2620×300                | 40 × 300   |   | RWY grooving:2500×45m   |
|                        |             | 2620×300                | 193 × (MNM:166 MAX:300)*<br>*For detail, ask airport administrator |   |   |

## RJSI AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA<br>(m) | TODA<br>(m) | ASDA<br>(m) | LDA<br>(m) | Remarks |
|----------------|-------------|-------------|-------------|------------|---------|
| 1              | 2           | 3           | 4           | 5          | 6       |
| 02             | 2500        | 2500        | 2500        | 2500       | Nil     |
| 20             | 2500        | 2500        | 2500        | 2500       | Nil     |

## RJSI AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY<br>Designator  | APCH<br>LGT<br>type<br>LEN<br>INTST | RTHL<br>Color<br>WBAR | PAPI<br>(VASIS)<br>Angle<br>DIST FM<br>THR<br>MEHT | RTZL<br>LEN | RCLL<br>LEN<br>Spacing<br>Color<br>INTST          | REDL<br>LEN<br>Spacing<br>Color<br>INTST             | RENL<br>Color<br>WBAR | STWL<br>LEN<br>Color |
|--|-------------------------------------|-----------------------|--|-------------|---|--|-----------------------|----------------------|
| 1  | 2                                   | 3                     | 4  | 5           | 6   | 7  | 8                     | 9                    |
| 02   | SALS<br>(*1)<br>420m<br>LIH         | Green<br>-            | PAPI<br>3.0°/Left<br>452.4m<br>74ft                | -           | 2500m<br>30m<br>Coded color<br>(White/Red)<br>LIH | 2500m<br>60m<br>Coded color<br>(White/Yellow)<br>LIH | Red                   | Nil (*2)             |
| 20   | PALS<br>(CAT I)<br>900m<br>LIH      | Green<br>Green        | PAPI<br>3.0°/Left<br>429.0m<br>65.6ft              | 900m        | 2500m<br>30m<br>Coded color<br>(White/Red)<br>LIH | 2500m<br>60m<br>Coded color<br>(White/Yellow)<br>LIH | Red                   | Nil (*2)             |
| Remarks  |                                     |                       |  |             |   |  |                       |                      |
| 10   |                                     |                       |  |             |   |  |                       |                      |
| SALS with APCH LGT beacon (596m and 930m FM RWY THR)(*1)<br>Overrun area edge LGT(LEN:60m, color:Red) (*2) |                                     |                       |  |             |   |  |                       |                      |

## RJSI AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

|   |  |   |
|---|--|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: 392547N/1410755E, White/Green EV4.3sec, HO   |
| 2 | LDI location and LGT<br>Anemometer location and LGT      | LDI: Nil<br>Anemometer:<br>RWY02: 350m from RWY02 THR, LGTD<br>RWY20: 200m from RWY20 THR, LGTD |
| 3 | TWY edge and center line lighting                        | TWY edge and center line lights installed, see AD2.9  |
| 4 | Secondary power supply/<br>switch-over time              | Within 1sec : REDL, RTHL, WBAR, RENL, RCLL, Overrun area edge LGT<br>Within 15sec : Other LGT   |
| 5 | Remarks  | WDI LGT   |

RJSI AD 2.16 HELICOPTER LANDING AREA

|     |
|-----|
| Nil |
|-----|

RJSI AD 2.17 ATS AIRSPACE

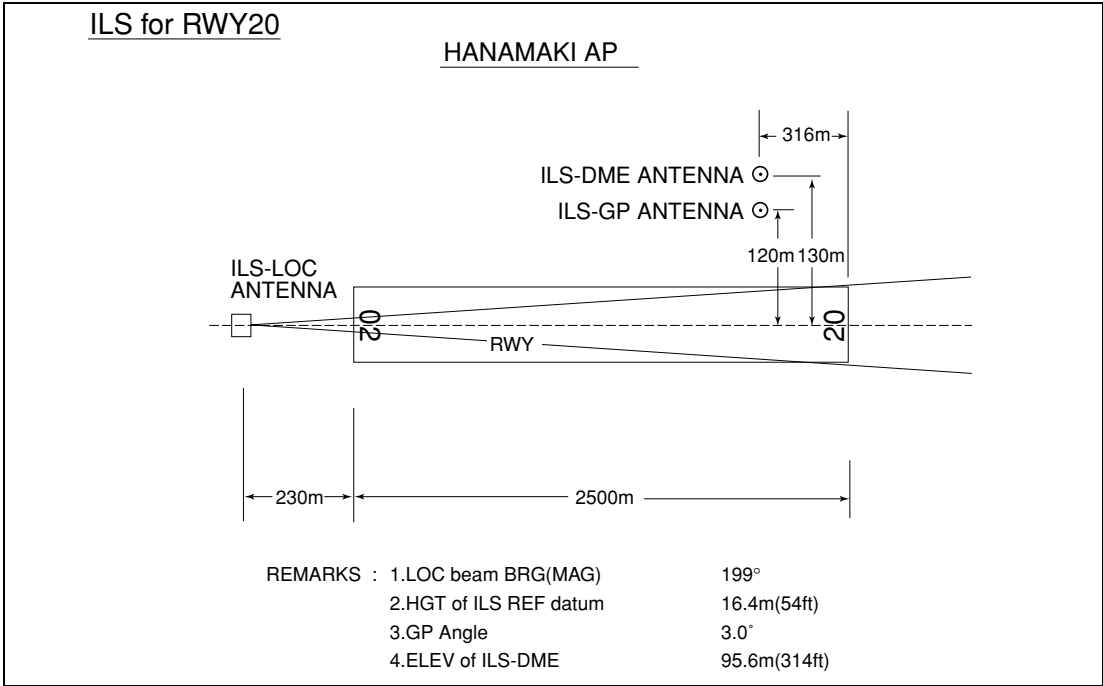
| Designation and lateral limits |  | Vertical limits<br>(ft) | Airspace classification | ATS unit call sign Language | Remarks |
|--------------------------------|--|-------------------------|-------------------------|-----------------------------|---------|
| 1                              |  | 2                       | 3                       | 4                           | 6       |
| Hanamaki Information Zone      | Area within a radius of 5nm(9km) of Hanamaki ARP | 3,000                   | E                       | Hanamaki Radio En           |         |
| Shirakami ACA                  | See RJSK attached chart                          |                         | E                       | Shirakami APP En            |         |

RJSI AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign          | Frequency                          | Hours of operation | Remarks    |
|---------------------|--------------------|------------------------------------|--------------------|------------|
| 1                   | 2                  | 3                                  | 4                  | 5          |
| APP                 | Shirakami Approach | 119.25MHz<br>315.3MHz<br>120.65MHz | 2200 - 1300        |            |
| AFIS                | Hanamaki Radio     | 118.2MHz(1)<br>126.2MHz            | 2300 - 1030        | (1)Primary |

## RJSI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid<br>(VOR declination) | ID  | Frequency           | Hours of<br>operation | Position of<br>transmitting<br>antenna<br>coordinates | Elevation of<br>DME<br>transmitting<br>antenna | Remarks  |
|----------------------------------|-----|---------------------|-----------------------|---|--|--|
| 1                                | 2   | 3                   | 4                     | 5   | 6  | 7  |
| VOR<br>(9°W/2023)                | HPE | 112.8MHZ            | H24                   | 392600.09N<br>1410800.60E                             |  | VOR Unusable :<br>070°-080° beyond 35nm BLW 9000ft.<br>250°-270° beyond 35nm BLW 7000ft.<br>270°-290° beyond 30nm BLW 7000ft.<br>310°-320° beyond 35nm BLW 9000ft.   |
| DME                              | HPE | 1162MHz<br>(CH-75X) | H24                   | 392600.09N<br>1410800.60E                             | 341ft  | DME Unusable :<br>050°-070°beyond 35nm BLW 9000ft.<br>070°-080°beyond 30nm BLW 9000ft.<br>080°-090°beyond 35nm BLW 9000ft.<br>090°-100°beyond 25nm BLW 7000ft.<br>100°-120°beyond 35nm BLW 7000ft.<br>220°-240°beyond 35nm BLW 8000ft.<br>250°-270°beyond 30nm BLW 7000ft.<br>270°-280°beyond 25nm BLW 7000ft.<br>280°-290°beyond 20nm BLW 7000ft.<br>290°-310°beyond 35nm BLW 9000ft.<br>310°-320°beyond 25nm BLW 9000ft.<br>320°-330°beyond 30nm BLW 9000ft.<br>330°-340°beyond 35nm BLW 9000ft.<br>340°-350°beyond 30nm BLW 9000ft.<br>350°-360°beyond 35nm BLW 9000ft. |
| ILS-LOC 20                       | IHP | 109.3MHz            | 2300 - 1030           | 392456.26N<br>1410755.86E                             |  | LOC : 230m (755ft) away<br>FM RWY 02 THR,<br>BRG (MAG)199°   |
| ILS-GP 20                        | -   | 332.0MHz            | 2300 - 1030           | 392613.90N<br>1410809.72E                             |  | GP : 316m (1037ft) inside FM RWY 20<br>THR, 120m (394ft) W<br>of RCL.<br>Angle 3.0°<br>HGT of ILS Ref datum16.5m (54ft).   |
| ILS-DME 20                       | IHP | 991MHz<br>(CH-30X)  | 2300 - 1030           | 392613.93N<br>1410809.29E                             | 314ft  | DME:316m (1037ft) inside FM RWY 20<br>THR, 130m W of RCL.  |
| MSAS                             |     | 1575.42MHz          | H24                   |   |  | Transmitting antennas are satellite<br>based.  |



RJSI AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

1. Aircraft operations other than scheduled flights or in an emergency  
On use of this airport, aircraft operator is required to obtain the permission of the airport authority.

2. Taxiing to and from stands

Nil

3. Parking area for small aircraft(General aviation)

Nil

4. Parking area for helicopters

Nil

5. Apron - taxiing during winter conditions

Nil

6. Taxiing - limitations

Nil

7. School and training flights - technical test flights - use of runways

Nil



## 8. Helicopter traffic - limitation

Nil

## 9. Removal of disabled aircraft from runways

Nil

## RJSI AD 2.21 NOISE ABATEMENT PROCEDURES

Nil

## RJSI AD 2.22 FLIGHT PROCEDURES

## 1.TAKE OFF MINIMA

|  | RWY | ACFT CAT   | REDL & RCLL     |      | REDL or RCLL or RCL Marking |      | NIL (DAYTIME ONLY) |      |
|--|-----|------------|-----------------|------|-----------------------------|------|--------------------|------|
|  |     |            | RVR             | VIS  | RVR                         | VIS  | RVR                | VIS  |
| Multi-Engine<br>ACFT with<br>TKOF<br>ALTN AP Filed | 02  | A, B, C, D | -               | 400m | -                           | 400m | -                  | 500m |
|  | 20  | A, B, C, D | 400m            | 400m | 400m                        | 400m | -                  | 500m |
| OTHER  | 02  | A, B, C, D | AVBL LDG MINIMA |      |                             |      |                    |      |
|  | 20  |            |                 |      |                             |      |                    |      |

## 2. Lost communication procedures for arrival aircraft under radar navigational guidance

If radio communications with Shirakami Approach are lost for 1 minute, squawk Mode A/3 Code 7600 and;

- (I)    1. Contact Hanamaki Radio.  
      2. If unable, proceed in accordance with visual flight rules.  
      3. If unable, proceed to HANAMAKI VOR/DME at last assigned altitude or 4,500 feet whichever is higher, and execute instrument approach.
- (II)    Procedures other than above will be issued when situation requires.

## 3.OTHER

For VFR aircraft intending to land at or fly around the AP, especially south and north of the AP, it is recommended to make initial contact with Hanamaki RADIO from at least further than 15nm from the AP to obtain traffic information.

当空港に着陸または空港周辺、特に空港の南及び北側を飛行しようとする VFR の航空機については、交通情報の入手のため、少なくとも 15NM 以遠からの花巻 RADIO との通信設定が推奨される。

## RJSI AD 2.23 ADDITIONAL INFORMATION

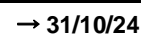
Nil

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**RJSI AD 2.24 CHARTS RELATED TO AN AERODROME**

|   |
|---|
| Aerodrome/Heliport Chart                              |
| Standard Departure Chart - Instrument (OHSHU)         |
| Standard Departure Chart - Instrument (NIIGATA)       |
| Standard Departure Chart - Instrument (HANAMAKI)      |
| Standard Departure Chart - Instrument (SAMBO-RNAV)    |
| Standard Departure Chart - Instrument (HANKA-RNAV)    |
| Standard Arrival Chart - Instrument (REMEN-RNAV)      |
| Standard Arrival Chart - Instrument (WANKO-RNAV)      |
| Standard Arrival Chart - Instrument (SIOMO-RNAV)      |
| Standard Arrival Chart - Instrument (SUIHO-RNAV)      |
| Standard Arrival Chart - Instrument (REMEN WEST-RNAV) |
| Instrument Approach Chart (ILS Z or LOC Z RWY20)      |
| Instrument Approach Chart (ILS Y or LOC Y RWY20)      |
| Instrument Approach Chart (VOR RWY20)                 |
| Instrument Approach Chart (VOR RWY02)                 |
| Instrument Approach Chart (RNP Z RWY02)               |
| Instrument Approach Chart (RNP Y RWY02(AR))           |
| Instrument Approach Chart (RNP Z RWY20(AR))           |
| Instrument Approach Chart (RNP Y RWY20(AR))           |
| Other Chart (Visual REP)                              |
| Other Chart (LDG CHART)                               |
| Other Chart (MVA CHART)                               |

## AD CHART



## RJSI / HANAMAKI

SID

...to intercept and proceed via HPE R010 to OHSHU.



## STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

SID

NIIGATA SIX DEPARTURE

RWY 02 : Climb RWY HDG to HPE 3.5 DME, turn right...

RWY 20 : Climb RWY HDG to HPE 3.5 DME, turn left...

...proceed to HPE VOR/DME, via HPE R236 to HPE 50.0DME(GTC 79.6DME),  
via GTC R055 to GTC.Cross HPE VOR/DME at or above 2200 FT, cross HPE R236/50.0DME  
(GTC R055/79.6DME) at or above 12000 FT.

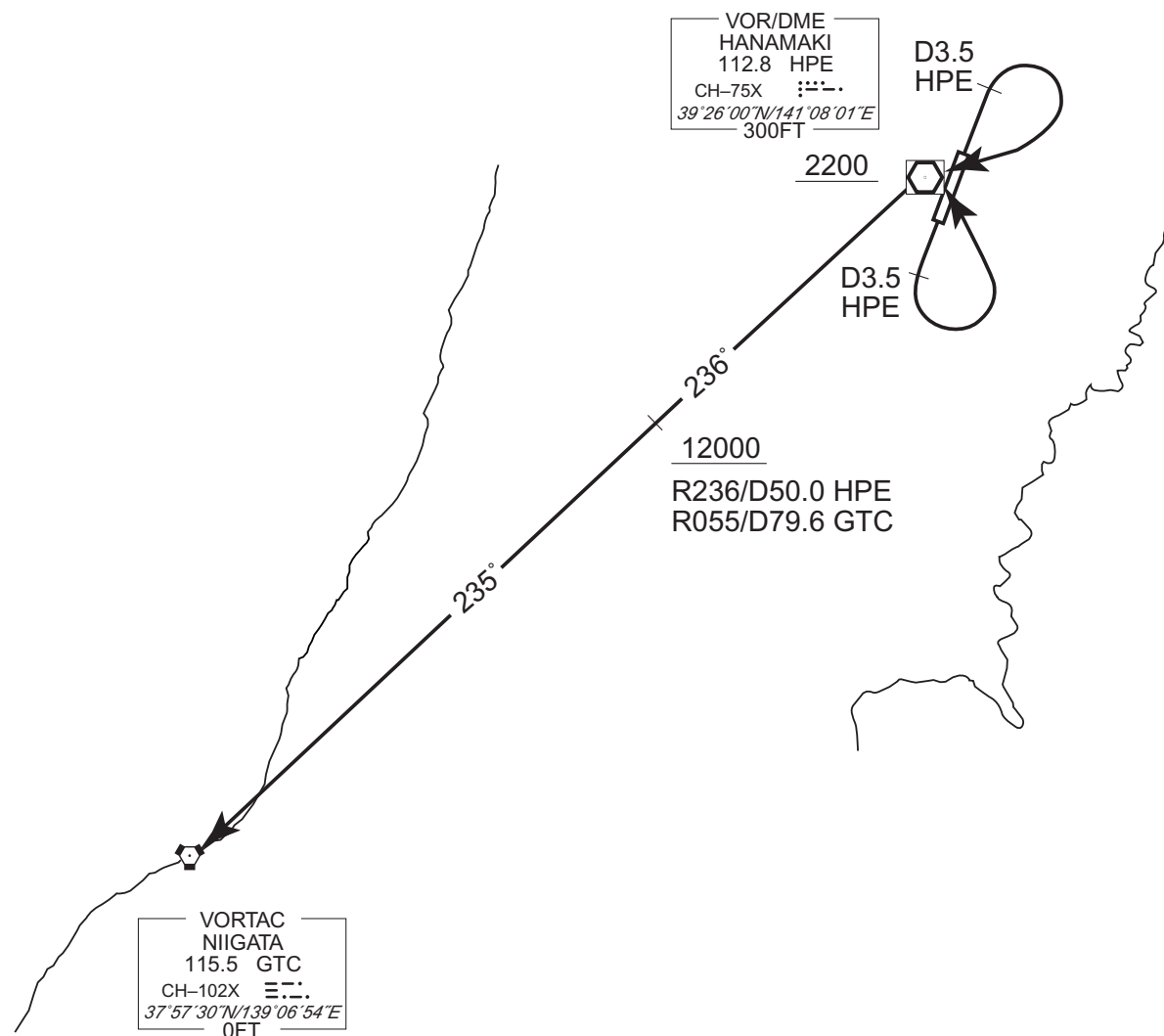
Note RWY02 : 4.5% climb gradient required up to 2400FT.

OBST ALT 1641FT located at 4.1NM 091° FM end of RWY02.

RWY20 : 3.9% climb gradient required up to 1100FT.

OBST ALT 722FT located at 2.8NM 166° FM end of RWY20.

CHANGE : SID renamed. ALT restriction at R236/D50.0 HPE, R055/D79.6 GTC.



STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

SID

HANAMAKI REVERSAL THREE DEPARTURE

RWY 02 : Climb RWY HDG to 700FT, via HPE R022 to 6.0 DME, turn right...

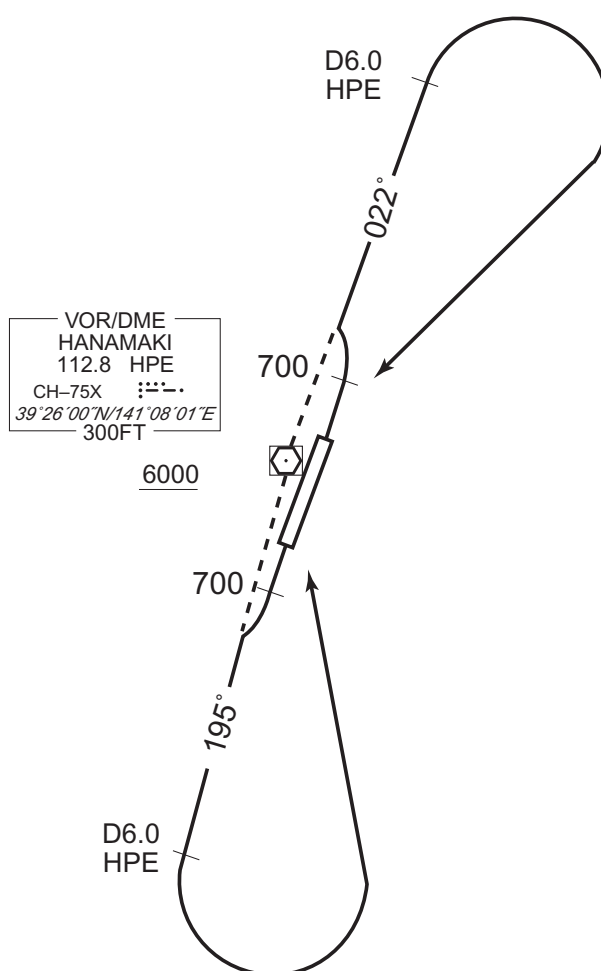
RWY 20 : Climb RWY HDG to 700FT, via HPE R195 to 6.0 DME, turn left...

...direct to HPE VOR/DME.

Cross HPE VOR/DME at or above 6000FT.

Note RWY02 : 5.0% climb gradient required up to 3200FT.

OBST ALT 2691FT located at 9.1NM 058° FM end of RWY02.

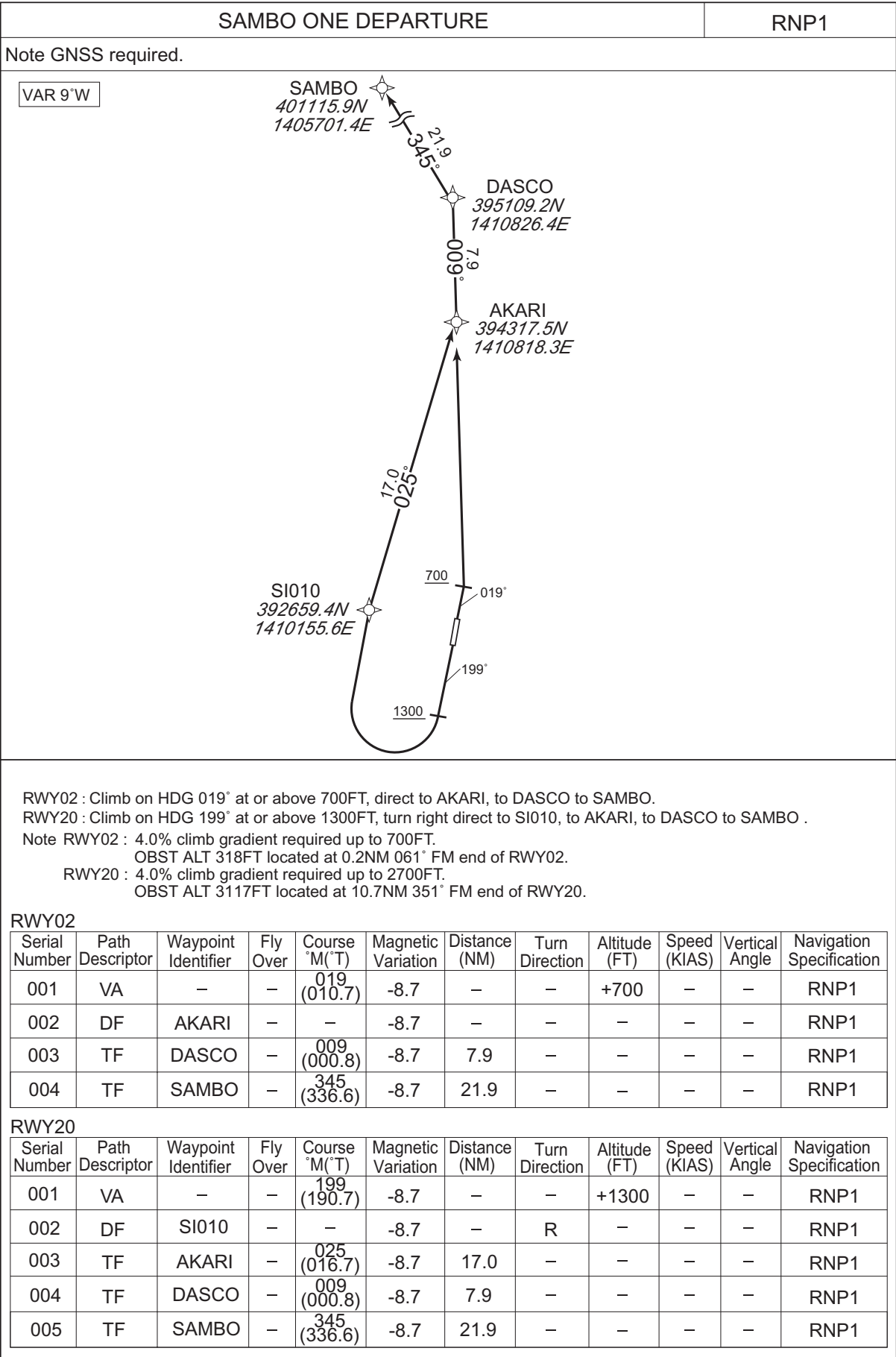


CHANGE : PROC renamed. PROC course.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

RNAV SID



CHANGE : Description of VOR/DME.

STANDARD DEPARTURE CHART -INSTRUMENT

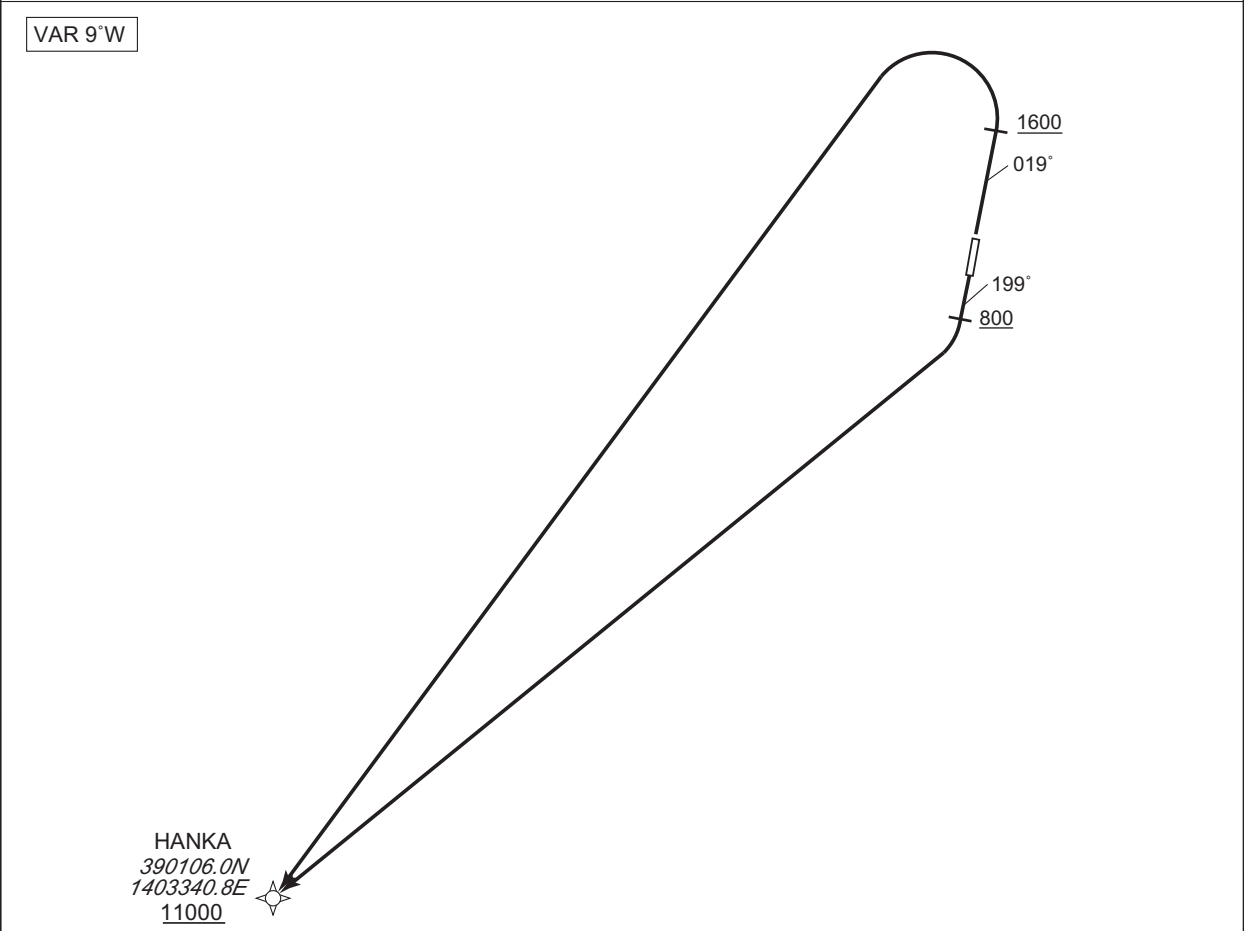
RJSI / HANAMAKI

RNAV SID

HANKA ONE DEPARTURE

RNP1

Note GNSS required



RWY02 : Climb on HDG 019° at or above 1600FT, turn left direct to HANKA, at or above 11000FT.  
RWY20 : Climb on HDG 199° at or above 800FT, turn right direct to HANKA, at or above 11000FT.  
Note RWY02: 5.0% climb gradient required up to 3600FT.  
OBST ALT 1936FT located at 5.5NM 340° FM end of RWY02.  
OBST ALT 3018FT located at 8.2NM 310° FM end of RWY02.  
RWY20: 5.0% climb gradient required up to 5400FT.  
OBST ALT 4593FT located at 18.2NM 227° FM end of RWY20.  
OBST ALT 5151FT located at 20.8NM 232° FM end of RWY20.

CHANGE : Description of VOR/DME:

| RWY02         |                 |                     |          |               |                    |               |                |               |              |                |                          |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 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              | —                   | —        | 019 (010.7)   | -8.7               | —             | —              | +1600         | —            | —              | RNP1                     |
| 002           | DF              | HANKA               | —        | —             | -8.7               | —             | L              | +11000        | —            | —              | RNP1                     |

| RWY20         |                 |                     |          |               |                    |               |                |               |              |                |                          |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 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              | —                   | —        | 199 (190.7)   | -8.7               | —             | —              | +800          | —            | —              | RNP1                     |
| 002           | DF              | HANKA               | —        | —             | -8.7               | —             | R              | +11000        | —            | —              | RNP1                     |

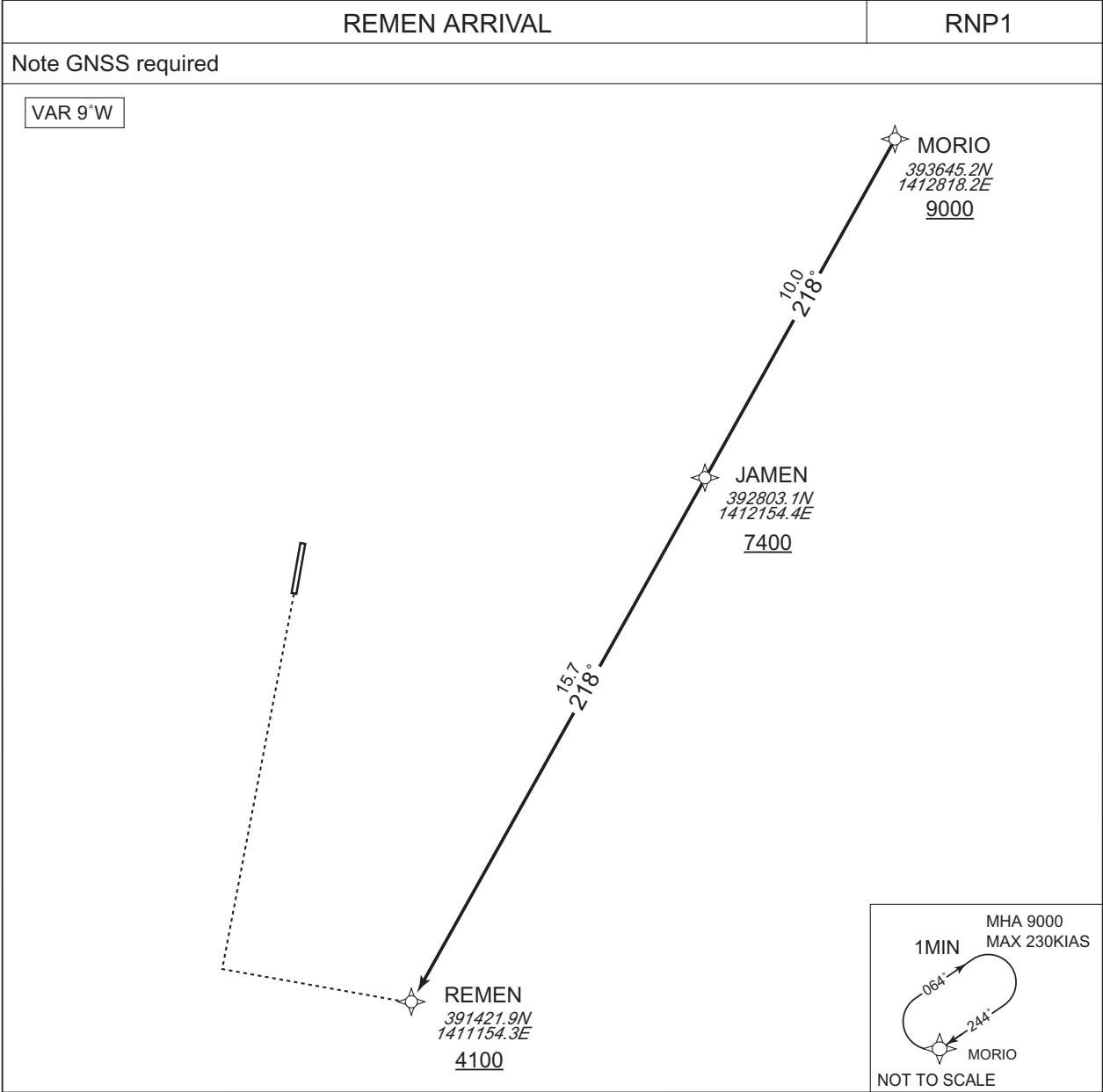


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STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY02



CHANGE : Description of VOR/DME.

From MORIO at or above 9000FT, to JAMEN at or above 7400FT, to REMEN at or above 4100FT.

| 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              | MORIO               | —        | —             | -8.8               | —             | —              | +9000         | —            | —              | RNP1                     |
| 002           | TF              | JAMEN               | —        | 218 (209.6)   | -8.8               | 10.0          | —              | +7400         | —            | —              | RNP1                     |
| 003           | TF              | REMEN               | —        | 218 (209.5)   | -8.8               | 15.7          | —              | +4100         | —            | —              | 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 | MORIO               | 244 (235.7)           | -8.8               | 1.0(-14000)         | R              | 9000                  | FL140                 | -230(-14000) | RNP1                     |

STANDARD ARRIVAL CHART - INSTRUMENT

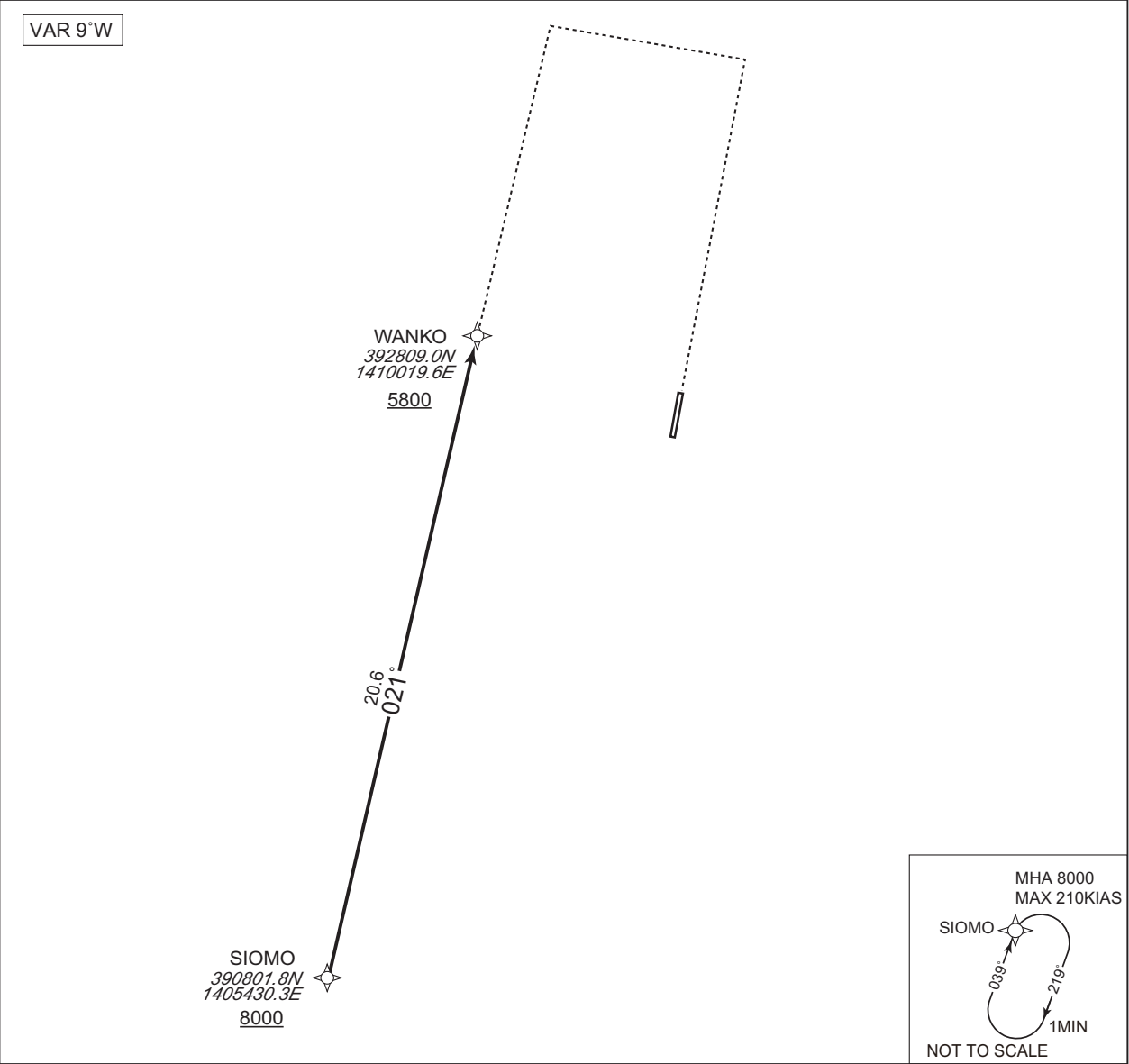
RJSI / HANAMAKI

RNAV STAR RWY20

WANKO ARRIVAL

RNP1

Note GNSS required



From SIOMO at or above 8000FT, to WANKO at or above 5800FT.

| 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              | SIOMO               | —        | —             | -8.8               | —             | —              | +8000         | —            | —              | RNP1                     |
| 002           | TF              | WANKO               | —        | 021 (012.6)   | -8.8               | 20.6          | —              | +5800         | —            | —              | 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 | SIOMO               | 039 (030.1)           | -8.8               | 1.0(-14000)         | R              | 8000                  | FL140                 | -210(-14000) | RNP1                     |

CHANGE : Description of VOR/DME.

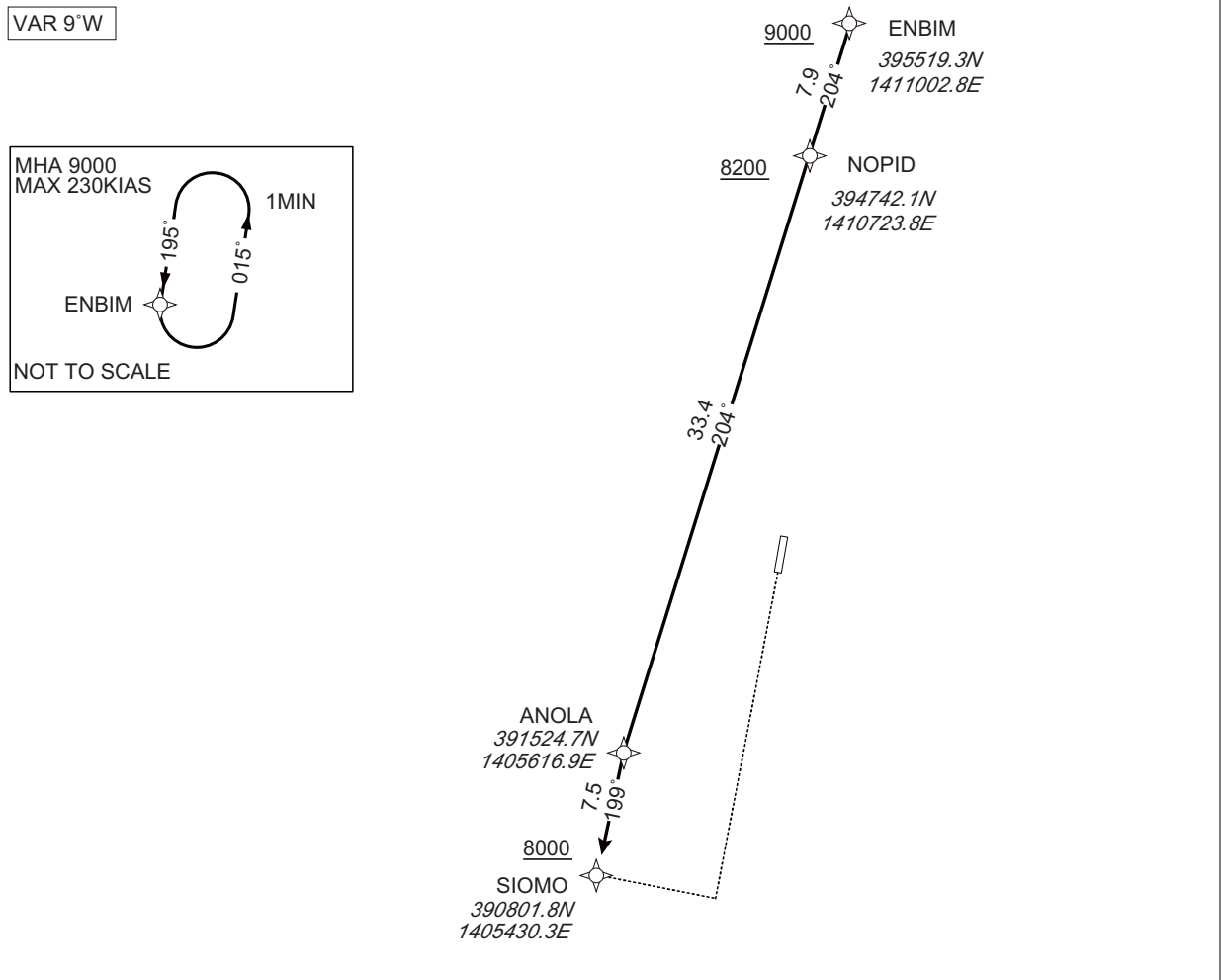
STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY02

|               |      |
|---------------|------|
| SIOMO ARRIVAL | RNP1 |
|---------------|------|

Note GNSS required.



From ENBIM at or above 9000FT, to NOPID at or above 8200FT, to ANOLA, to SIOMO at or above 8000FT.

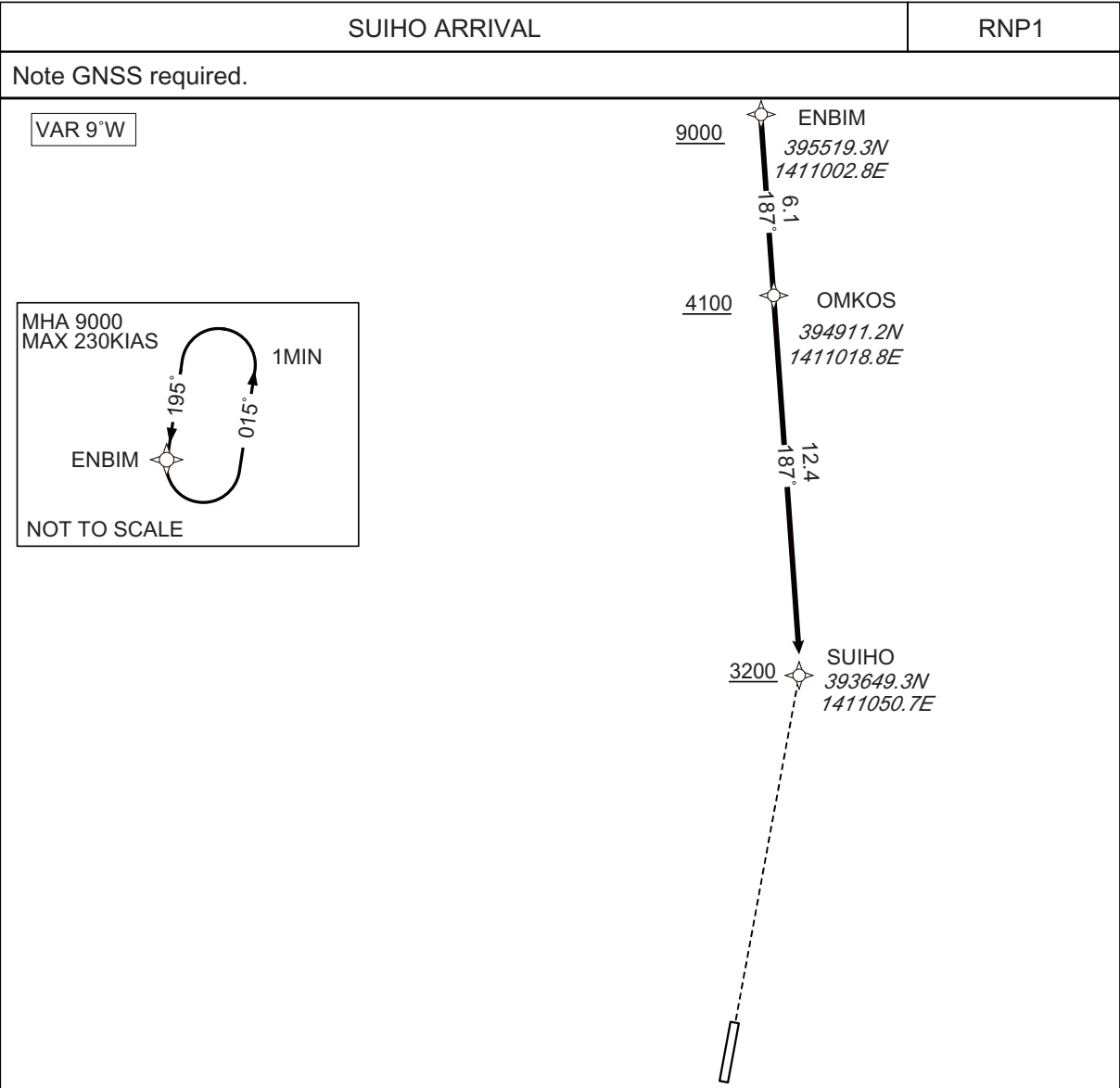
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T)  | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001           | IF              | ENBIM               | —        | —              | -8.8               | —             | —              | +9000         | —            | —              | RNP1                     |
| 002           | TF              | NOPID               | —        | 204<br>(195.0) | -8.8               | 7.9           | —              | +8200         | —            | —              | RNP1                     |
| 003           | TF              | ANOLA               | —        | 204<br>(194.9) | -8.8               | 33.4          | —              | —             | —            | —              | RNP1                     |
| 004           | TF              | SIOMO               | —        | 199<br>(190.6) | -8.8               | 7.5           | —              | +8000         | —            | —              | 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 | ENBIM               | 195<br>(186.5)        | -8.8               | 1.0(-14000)         | L              | 9000                  | FL140                 | -230<br>(-14000) | RNP1                     |

CHANGE : Description of VOR/DME.

STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKIRNAV STAR RWY20



From ENBIM at or above 9000FT, to OMKOS at or above 4100FT, to SUIHO at or above 3200FT.

| 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              | ENBIM               | —        | —             | -8.8               | —             | —              | +9000         | —            | —              | RNP1                     |
| 002           | TF              | OMKOS               | —        | 187 (178.1)   | -8.8               | 6.1           | —              | +4100         | —            | —              | RNP1                     |
| 003           | TF              | SUIHO               | —        | 187 (178.1)   | -8.8               | 12.4          | —              | +3200         | —            | —              | RNP1                     |

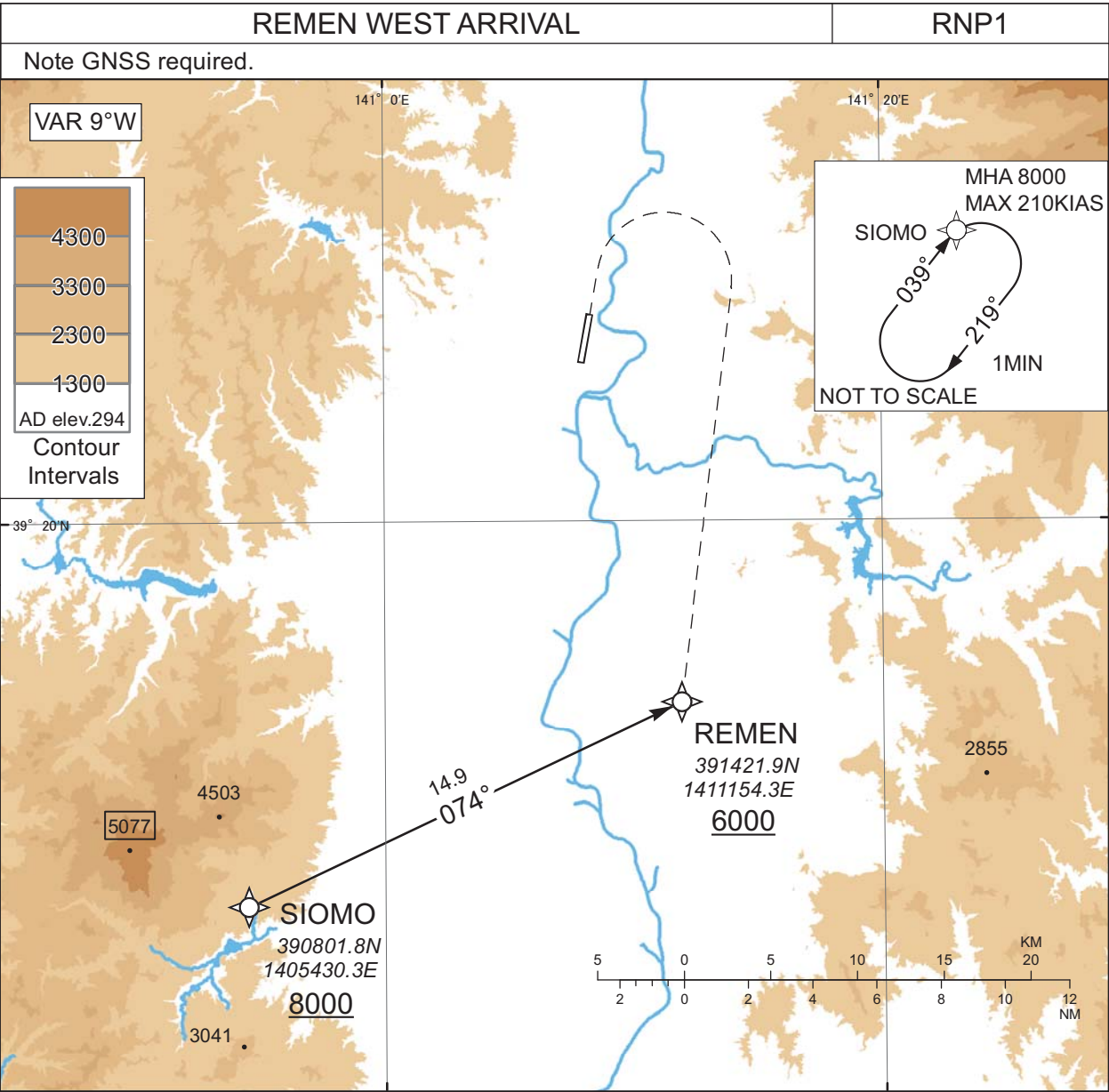
| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | Outbound Time (MIN) | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS)  | Navigation Specification |
|------|---------------------|-----------------------|--------------------|---------------------|----------------|-----------------------|-----------------------|---------------|--------------------------|
| Hold | ENBIM               | 195 (186.5)           | -8.8               | 1.0(-14000)         | L              | 9000                  | FL140                 | -230 (-14000) | RNP1                     |

CHANGE : Description of VOR/DME.

STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY20



CHANGE : Description of VOR/DME:

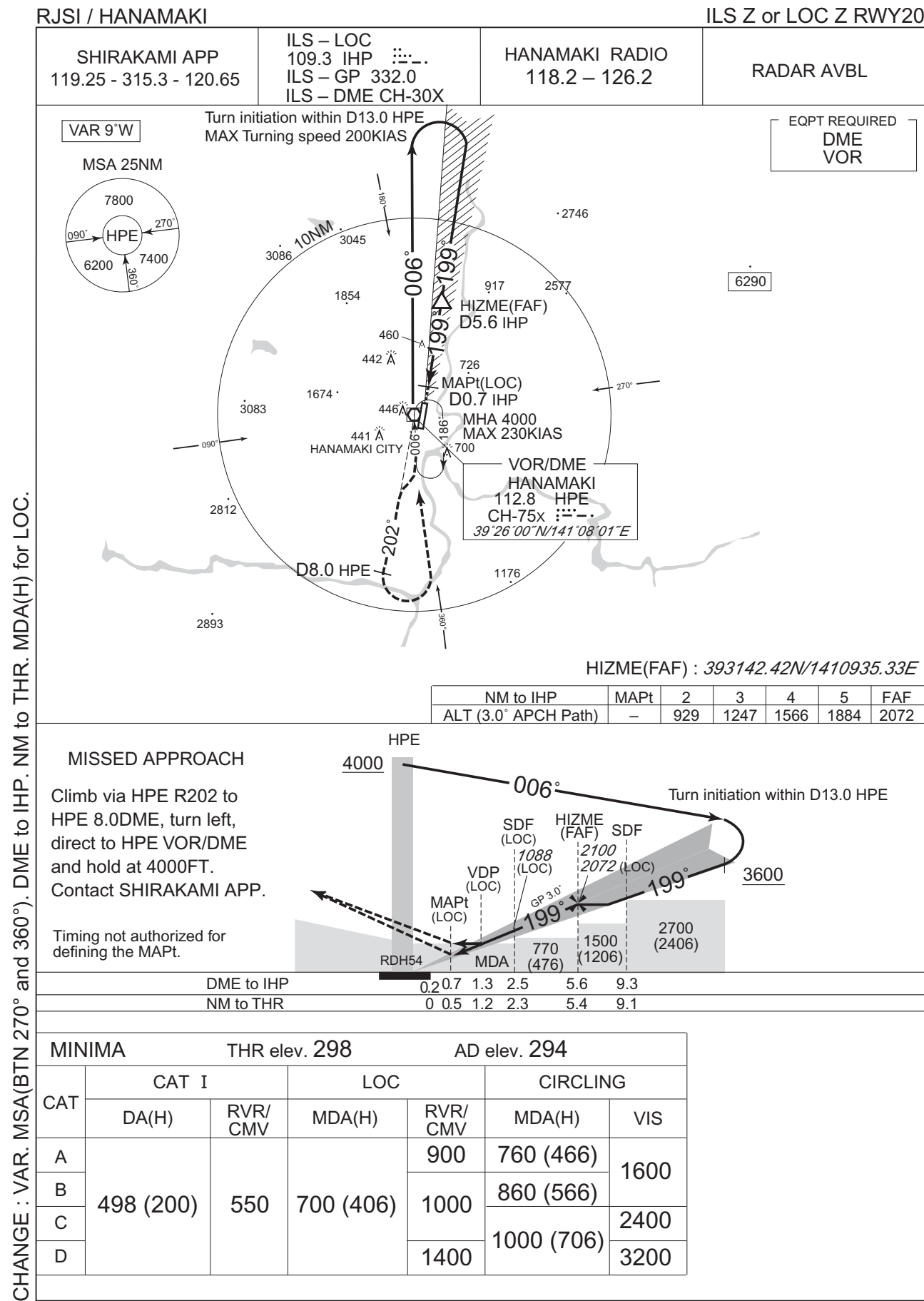
From SIOMO at or above 8000FT, to REMEN at or above 6000FT.

| 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              | SIOMO               | -        | -              | -8.8               | -             | -              | +8000         | -            | -              | RNP1                     |
| 002           | TF              | REMEN               | -        | 074<br>(064.7) | -8.8               | 14.9          | -              | +6000         | -            | -              | 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 | SIOMO               | 039<br>(030.1)        | -8.8               | 1.0(-14000)         | R              | 8000                  | FL140                 | -210(-14000) | RNP1                     |

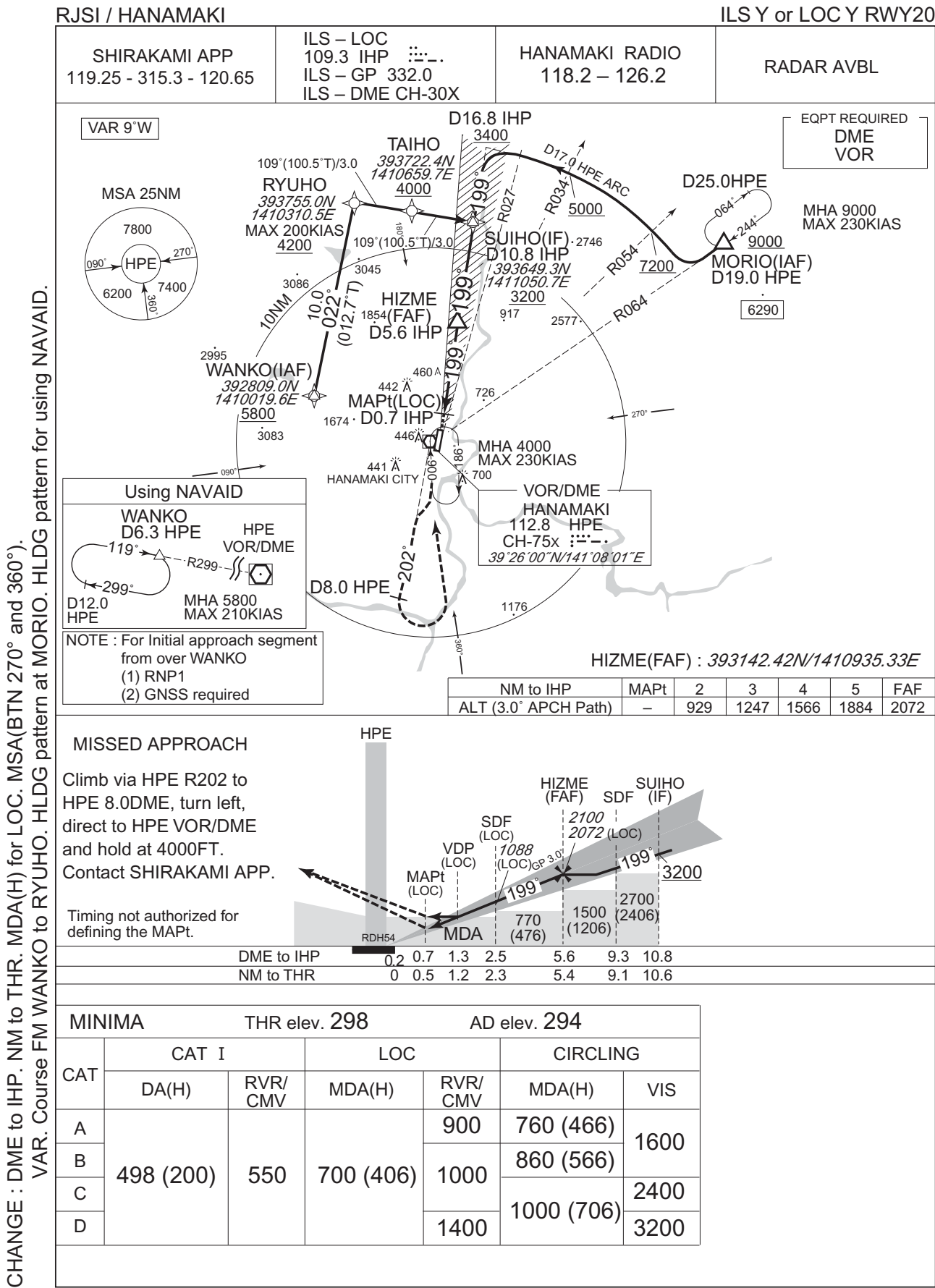
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INSTRUMENT APPROACH CHART

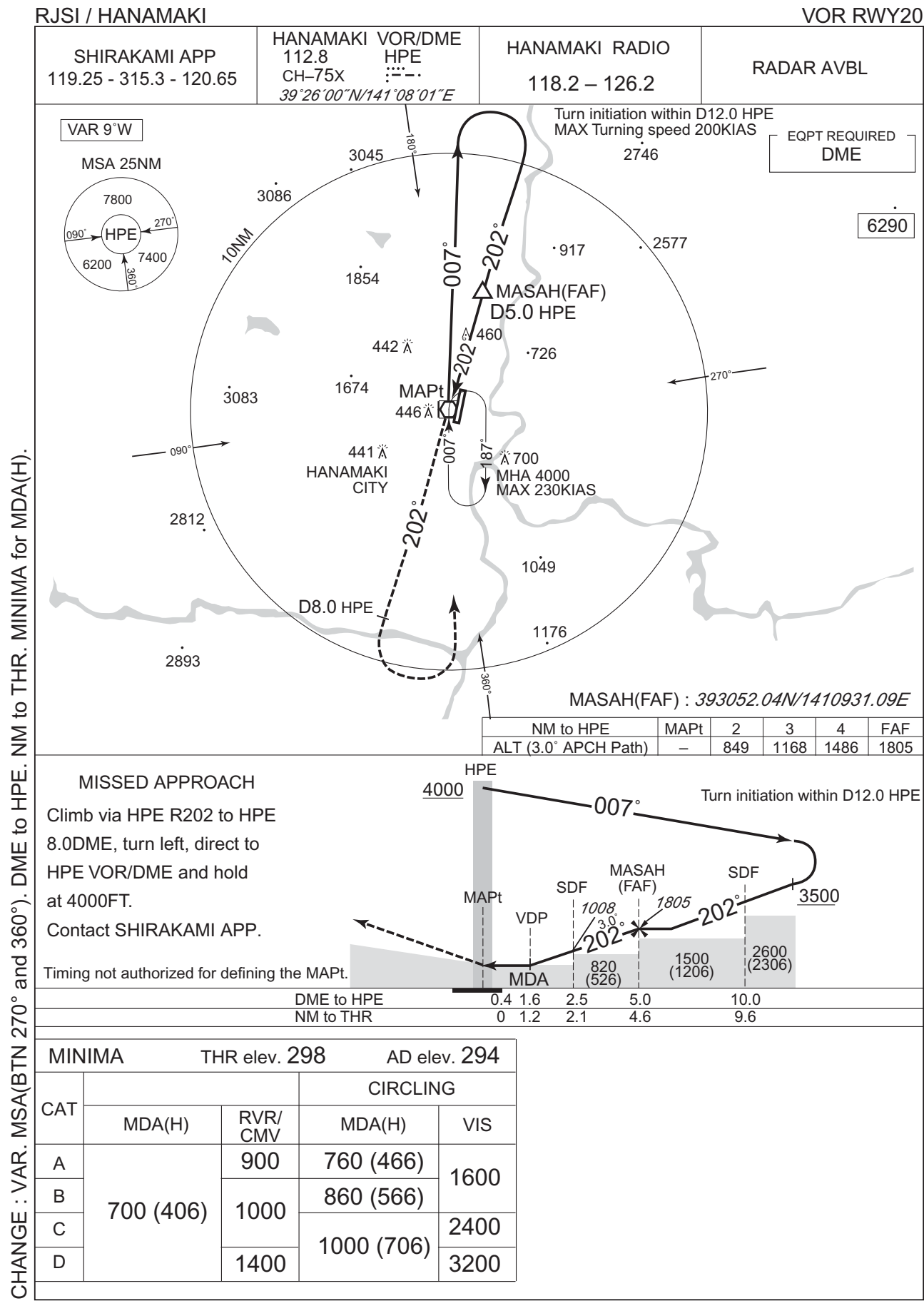




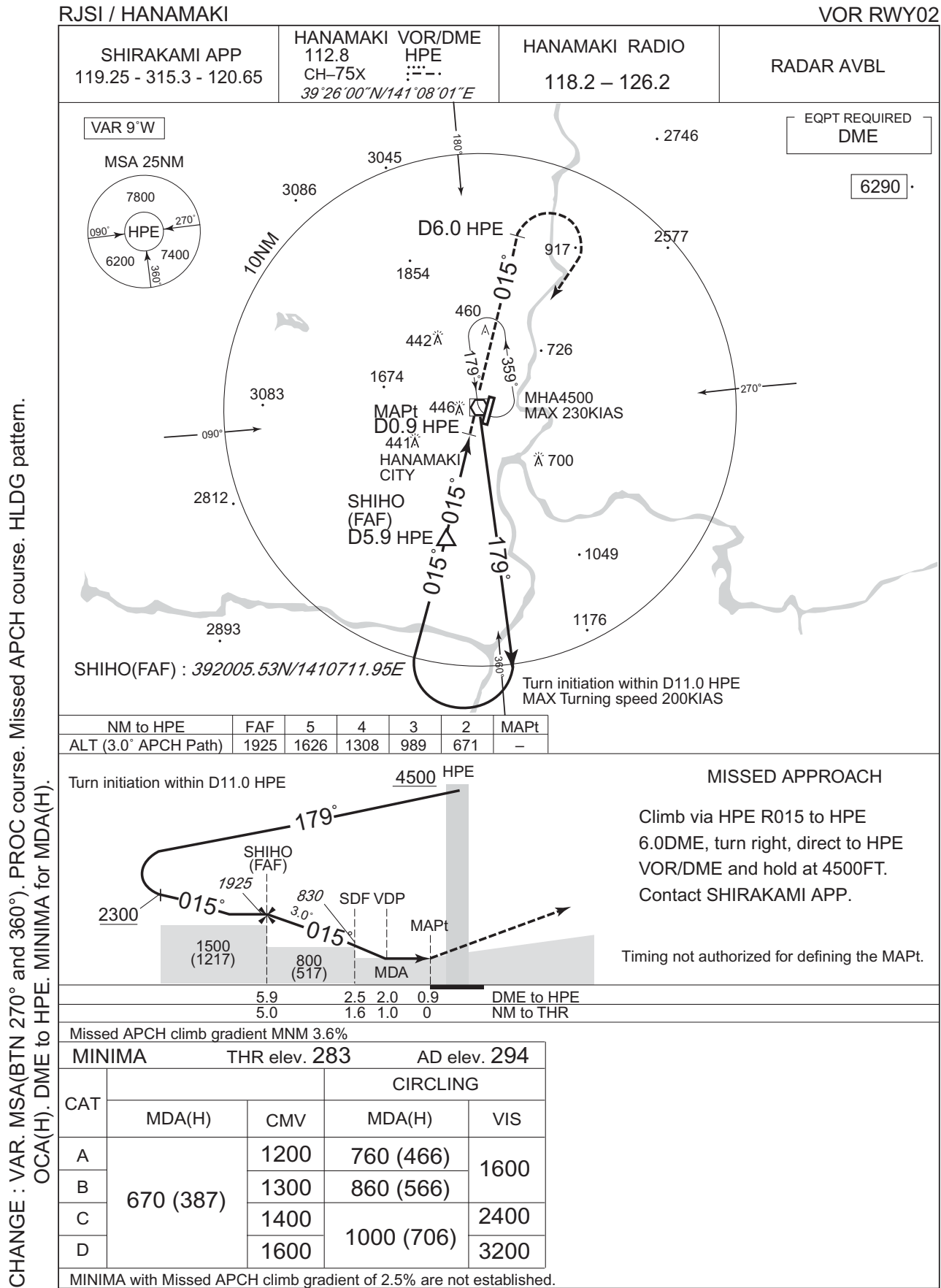
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

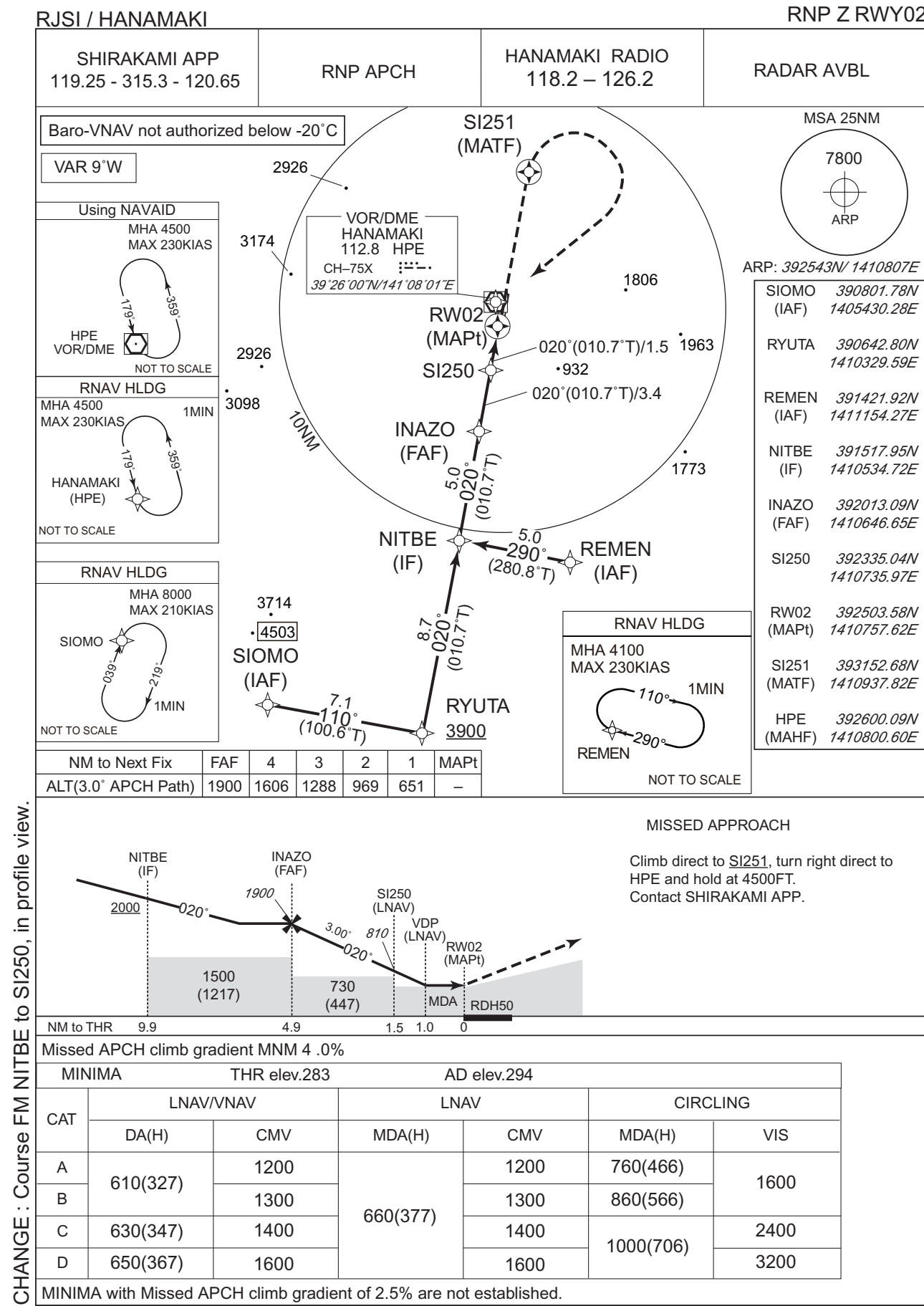


INSTRUMENT APPROACH CHART



CHANGE : VAR. MSA(BTN 270° and 360°). PROC course. Missed APCH course. HLDG pattern.  
OCA(H). DME to HPE. MINIMA for MDA(H).

INSTRUMENT APPROACH CHART



## INSTRUMENT APPROACH CHART

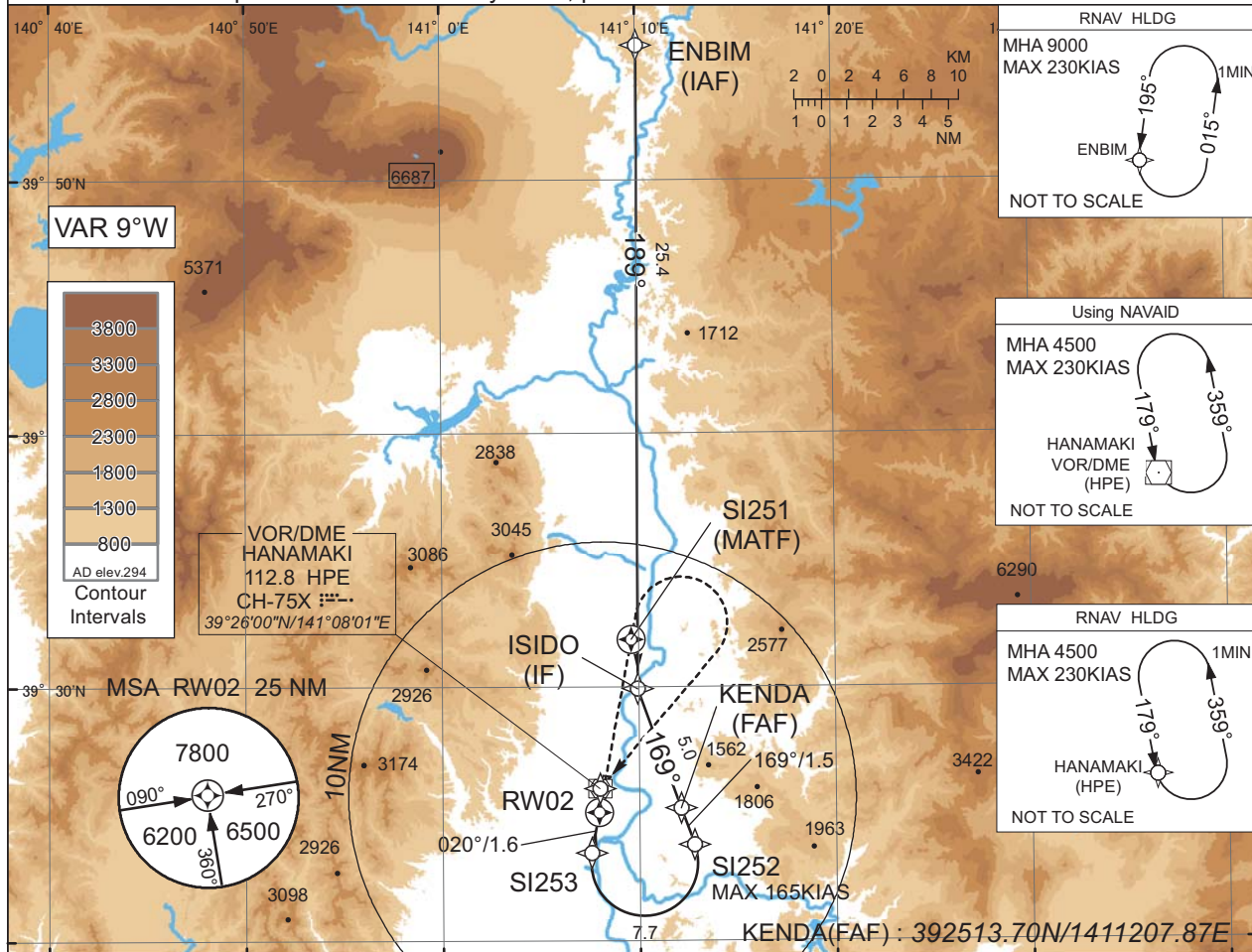
RJSI / HANAMAKI

RNP Y RWY02(AR)

SHIRAKAMI APP  
119.25 - 315.3 - 120.65RNP AR  
RF required.HANAMAKI RADIO  
118.2 - 126.2

RADAR AVBL

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

ENBIM  
(IAF)

9000

41.3

ISIDO  
(IF)

4000

15.9

KENDA  
(FAF)

3800

10.9

SI252

3312

9.4

SI253

848

1.6

RW02

020°

0

## MISSED APPROACH

Climb to 4500FT, direct to  
SI251, turn right direct to  
HPE and hold.  
Contact SHIRAKAMI APP.

RDH 50

NM to THR

Missed APCH climb gradient MNM 4.0%

| MINIMA | THR elev. 283 | AD elev. 294 |
|--------|---------------|--------------|
| CAT    | RNP 0.30      |              |
|        | DA(H)         | CMV          |
| A      | -             | -            |
| B      | -             | -            |
| C      | 595(312)      | 1400         |
| D      |               | 1600         |

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

Authorization Required

CHANGE : HLDG pattern for using NAVAID. RNAV HLDG at HANAMAKI.

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNP Y RWY02(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                        | ENBIM               | -        | -             | -8.8               | -             | -              | +9000         | -            | -               | -         |
| 002           | TF                        | ISIDO               | -        | 189 (180.2)   | -8.8               | 25.4          | -              | +4000         | -            | -               | 1.0       |
| 003           | TF                        | KENDA               | -        | 169 (160.3)   | -8.8               | 5.0           | -              | 3800          | -            | -               | 1.0       |
| 004           | TF                        | SI252               | -        | 169 (160.4)   | -8.8               | 1.5           | -              | 3312          | -165         | -3.00           | 0.3       |
| 005           | RF Center: SIRF1 r=2.10NM | SI253               | -        | -             | -8.8               | 7.7           | R              | 848           | -            | -3.00           | 0.3       |
| 006           | TF                        | RW02                | Y        | 020 (010.7)   | -8.8               | 1.6           | -              | 333           | -            | -3.00/50        | 0.3       |
| 007           | DF                        | SI251               | Y        | -             | -8.8               | -             | -              | -             | -            | -               | 1.0       |
| 008           | DF                        | HPE                 | -        | -             | -8.8               | -             | R              | 4500          | -            | -               | 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 | ENBIM               | 195 (186.5)           | -8.8               | 1.0 (-14000)        | L              | 9000                  | FL140                 | -230 (-14000) | 1.0       |
| Hold | HPE                 | 179 (169.7)           | -8.9               | 1.0 (-14000)        | L              | 4500                  | FL140                 | -230 (-14000) | 1.0       |

| Waypoint Coordinates |                          |                          |                          |
|----------------------|--------------------------|--------------------------|--------------------------|
| Waypoint Identifier  | Coordinates              | RF Arc Center Identifier | Coordinates              |
| ENBIM                | 395519.34N / 1411002.82E | SIRF1                    | 392304.37N / 1411014.42E |
| ISIDO                | 392956.45N / 1410957.05E |                          |                          |
| KENDA                | 392513.70N / 1411207.87E |                          |                          |
| SI252                | 392347.07N / 1411247.89E |                          |                          |
| SI253                | 392327.97N / 1410734.24E |                          |                          |
| RW02                 | 392503.58N / 1410757.62E |                          |                          |
| SI251                | 393152.68N / 1410937.82E |                          |                          |
| HPE                  | 392600.09N / 1410800.60E |                          |                          |

CHANGE : HLDG at HPE. VAR.

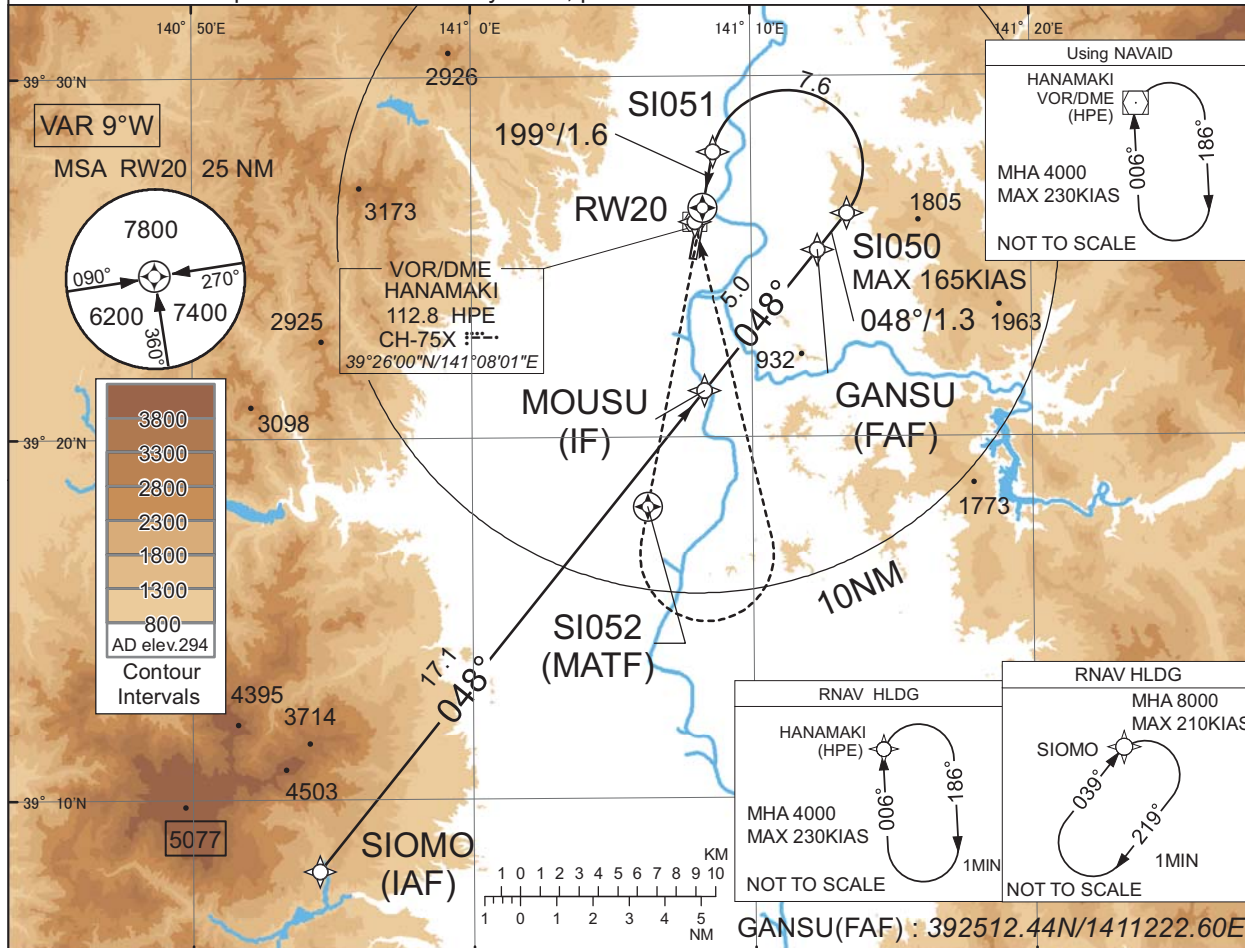


## RJSI / HANAMAKI

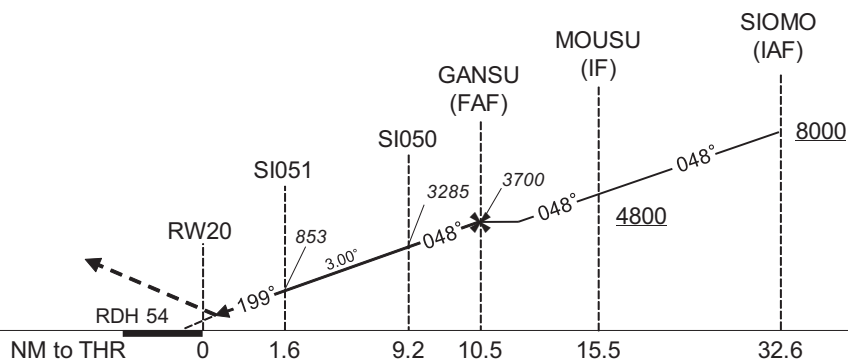
RNP Z RWY20(AR)

|  |                        |                                 |            |
|--|------------------------|---------------------------------|------------|
| SHIRAKAMI APP<br>119.25 - 315.3 - 120.65 | RNP AR<br>RF required. | HANAMAKI RADIO<br>118.2 - 126.2 | RADAR AVBL |
|--|------------------------|---------------------------------|------------|

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



Climb to 4000FT, direct to SI052, turn left direct to HPE and hold.  
Contact SHIRAKAMI APP.



|        |               |              |
|--------|---------------|--------------|
| MINIMA | THR elev. 298 | AD elev. 294 |
| CAT    | RNP 0.30      |              |
|        | DA(H)         | RVR/CMV      |
| A      | -             | -            |
| B      |               |              |
| C      | 607(309)      | 1000         |
| D      |               | 1400         |

## Authorization Required

## INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNP Z RWY20(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                        | SIOMO               | -        | -             | -8.8               | -             | -              | +8000         | -            | -               | -         |
| 002           | TF                        | MOUSU               | -        | 048 (038.8)   | -8.8               | 17.1          | -              | +4800         | -            | -               | 1.0       |
| 003           | TF                        | GANSU               | -        | 048 (038.9)   | -8.8               | 5.0           | -              | 3700          | -            | -               | 1.0       |
| 004           | TF                        | SI050               | -        | 048 (038.9)   | -8.8               | 1.3           | -              | 3285          | -165         | -3.00           | 0.3       |
| 005           | RF Center: SIRF2 r=2.10NM | SI051               | -        | -             | -8.8               | 7.6           | L              | 853           | -            | -3.00           | 0.3       |
| 006           | TF                        | RW20                | Y        | 199 (190.7)   | -8.8               | 1.6           | -              | 352           | -            | -3.00/54        | 0.3       |
| 007           | DF                        | SI052               | Y        | -             | -8.8               | -             | -              | -             | -            | -               | 1.0       |
| 008           | DF                        | HPE                 | -        | -             | -8.8               | -             | L              | 4000          | -            | -               | 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 | SIOMO               | 039 (030.1)           | -8.8               | 1.0 (-14000)        | R              | 8000                  | FL140                 | -210 (-14000) | 1.0       |
| Hold | HPE                 | 006 (357.5)           | -8.8               | 1.0 (-14000)        | R              | 4000                  | FL140                 | -230 (-14000) | 1.0       |

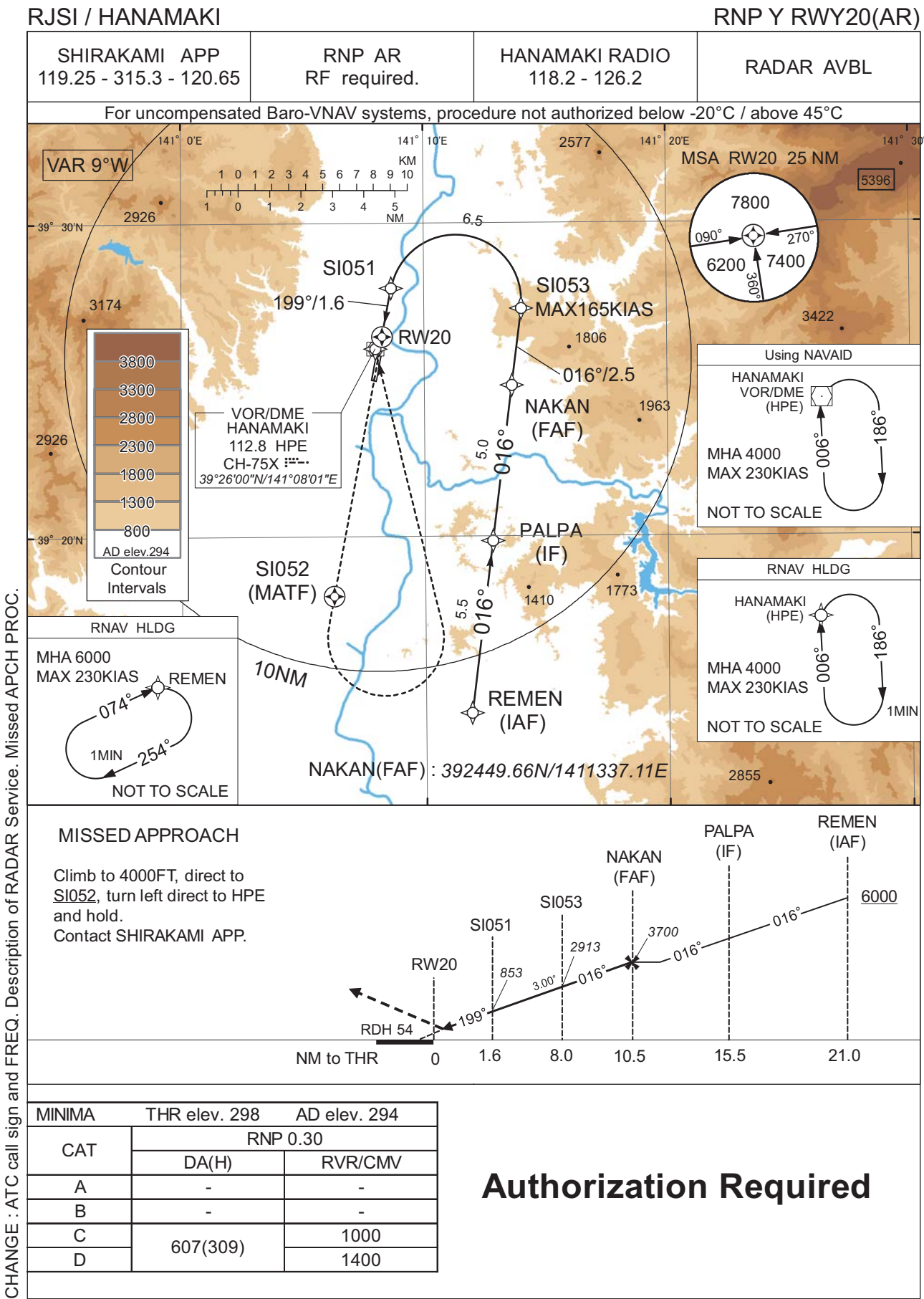
Waypoint Coordinates

| Waypoint Identifier | Coordinates              | RF Arc Center Identifier | Coordinates              |
|---------------------|--------------------------|--------------------------|--------------------------|
| SIOMO               | 390801.78N / 1405430.28E | SIRF2                    | 392732.73N / 1411119.82E |
| MOUSU               | 392119.11N / 1410818.81E |                          |                          |
| GANSU               | 392512.44N / 1411222.60E |                          |                          |
| SI050               | 392613.23N / 1411326.21E |                          |                          |
| SI051               | 392756.30N / 1410839.89E |                          |                          |
| RW20                | 392623.24N / 1410817.11E |                          |                          |
| SI052               | 391806.42N / 1410615.76E |                          |                          |
| HPE                 | 392600.09N / 1410800.60E |                          |                          |

CHANGE : PROC renamed.



INSTRUMENT APPROACH CHART



## INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNP Y RWY20(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                        | REMEN               | -        | -             | -8.8               | -             | -              | +6000         | -            | -               | -         |
| 002           | TF                        | PALPA               | -        | 016 (007.2)   | -8.8               | 5.5           | -              | -             | -            | -               | 1.0       |
| 003           | TF                        | NAKAN               | -        | 016 (007.2)   | -8.8               | 5.0           | -              | 3700          | -            | -               | 1.0       |
| 004           | TF                        | SI053               | -        | 016 (007.2)   | -8.8               | 2.5           | -              | 2913          | -165         | -3.00           | 0.3       |
| 005           | RF Center: SIRF2 r=2.10NM | SI051               | -        | -             | -8.8               | 6.5           | L              | 853           | -            | -3.00           | 0.3       |
| 006           | TF                        | RW20                | Y        | 199 (190.7)   | -8.8               | 1.6           | -              | 352           | -            | -3.00/54        | 0.3       |
| 007           | DF                        | SI052               | Y        | -             | -8.8               | -             | -              | -             | -            | -               | 1.0       |
| 008           | DF                        | HPE                 | -        | -             | -8.8               | -             | L              | 4000          | -            | -               | 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 | REMEN               | 074 (065.0)           | -8.8               | 1.0 (-14000)        | R              | 6000                  | FL140                 | -230 (-14000) | 1.0       |
| Hold | HPE                 | 006 (357.5)           | -8.8               | 1.0 (-14000)        | R              | 4000                  | FL140                 | -230 (-14000) | 1.0       |

Waypoint Coordinates

| Waypoint Identifier | Coordinates              | RF Arc Center Identifier | Coordinates              |
|---------------------|--------------------------|--------------------------|--------------------------|
| REMEN               | 391421.92N / 1411154.27E | SIRF2                    | 392732.73N / 1411119.82E |
| PALPA               | 391951.68N / 1411248.23E |                          |                          |
| NAKAN               | 392449.66N / 1411337.11E |                          |                          |
| SI053               | 392716.81N / 1411401.29E |                          |                          |
| SI051               | 392756.30N / 1410839.89E |                          |                          |
| RW20                | 392623.24N / 1410817.11E |                          |                          |
| SI052               | 391806.42N / 1410615.76E |                          |                          |
| HPE                 | 392600.09N / 1410800.60E |                          |                          |

CHANGE : PROC renamed.

RJSI / HANAMAKI

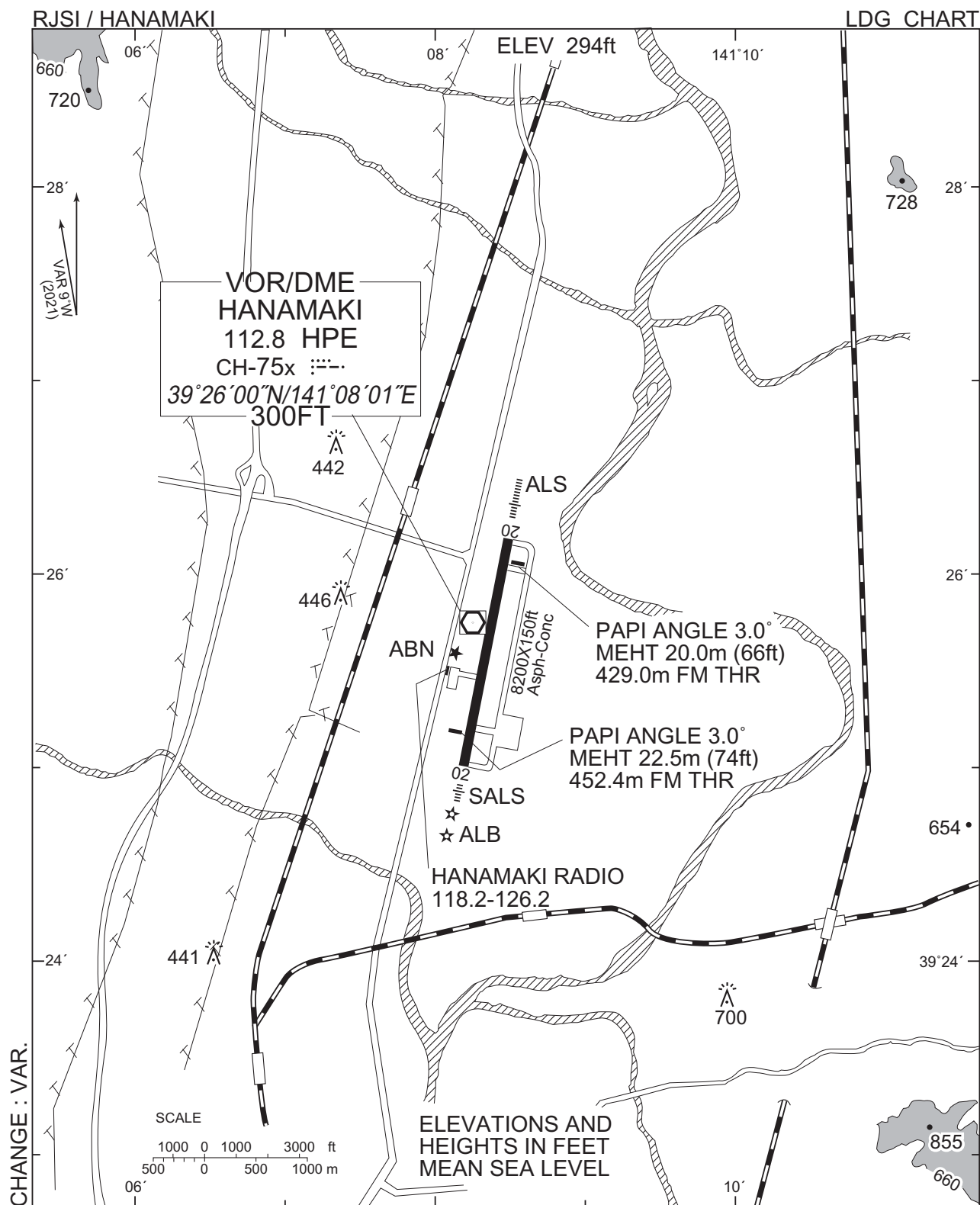
Visual REP



※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 : Map updated. BRG/DIST from ARP. Taseko established. Tsuchisawa abolished.

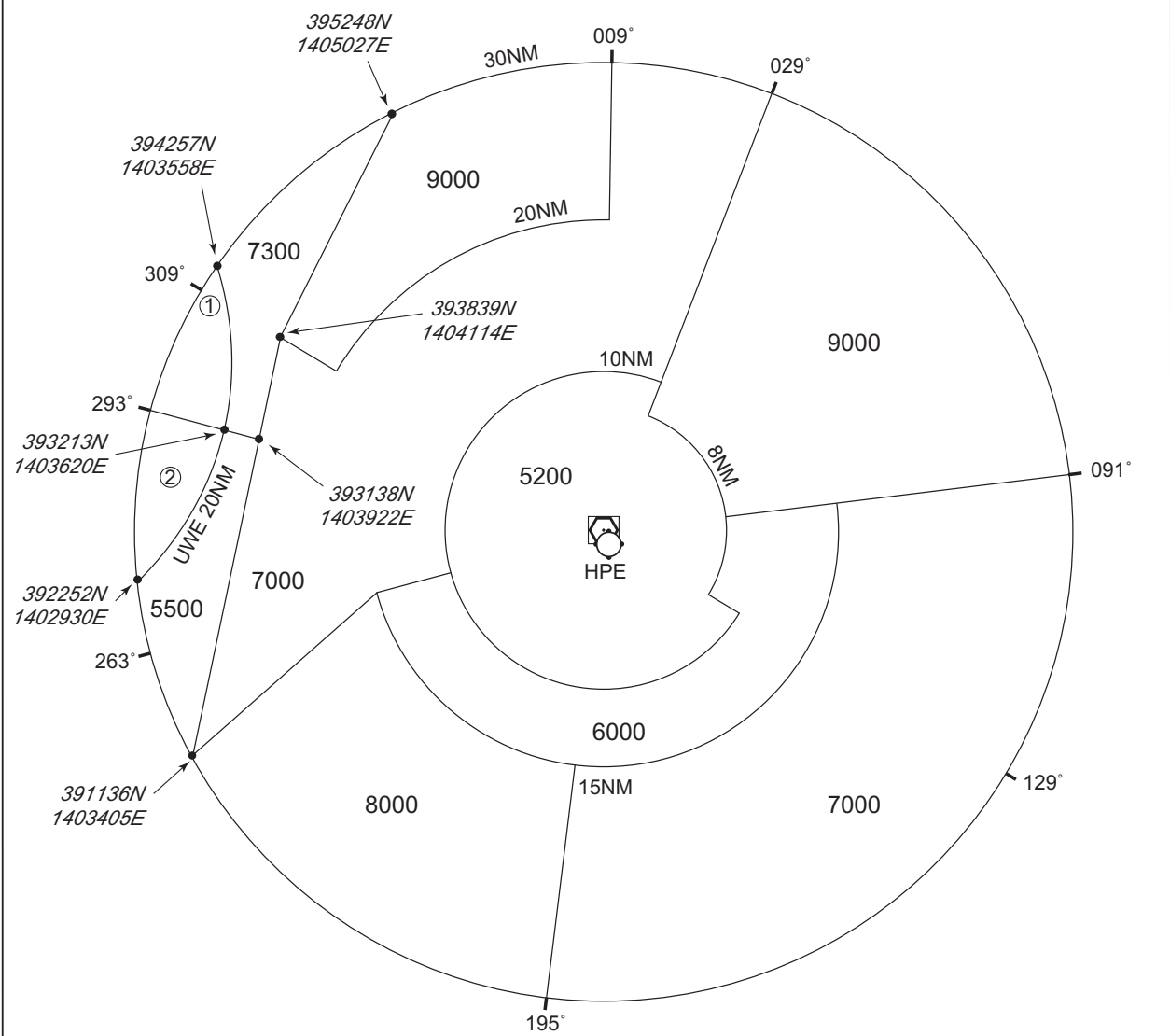
| Call sign       | BRG / DIST from ARP | Remarks                    |
|-----------------|---------------------|----------------------------|
| 盛岡<br>Morioka   | 360°T / 16.4NM      | JR駅<br>JR Station          |
| 城山<br>Shiroyama | 012°T / 8.4NM       | 城跡<br>The site of a castle |
| 豊沢<br>Toyosawa  | 293°T / 8.1NM       | 豊沢ダム<br>Dam                |
| 田瀬湖<br>Taseko   | 121°T / 10.0NM      | 田瀬ダム<br>Dam                |
| 北上<br>Kitakami  | 184°T / 8.9NM       | JR駅<br>JR Station          |
| 水沢<br>Mizusawa  | 178°T / 17.4NM      | JR駅<br>JR Station          |



RJSI / HANAMAKI

Minimum Vectoring Altitude CHART

VAR 9°W (2024)



- ① 5900
- ② 3400

CENTER : 392600N/1410801E (HPE VOR/DME)

CHANGE : Update.