

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 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) 3-183-1 Kuzu Hanamaki-shi Iwate 025-0004 Japan Tel: 0198-26-2016 Fax: 0198-26-4588 e-mail: CF0003@pref.iwate.jp URL: http://www.pref.iwate.jp |
| 7 | Types of traffic permitted(IFR/ VFR) | IFR/VFR |
| 8 | Remarks | Hanamaki Airport Branch(Civil Aviation Bureau) 3-183-1 Kuzu Hanamaki-shi Iwate 025-0004 Japan 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(0192-26-2326) Immigration: INTL SKED FLT hours only |
| 3 | Health and sanitation | INTL SKED FLT hours only |
| 4 | AIS Briefing Office | Nil |
| 5 | ATS Reporting Office(ARO) | Nil |
| 6 | MET Briefing Office | H24 (SENDAI) |
| 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 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 , 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: snow plough x 7 , snow sweeper x 4 , rotary snow plough x 3 , anti-freezing-agent spreader x 3 |
| 2 | Clearance priorities | 1.RWY , TWY 2.Apron |
| 3 | Remarks | Seasonal availability:All seasons. 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 Surface:concrete, Strength:PCN 74/R/B/X/T W-Apron Surface:concrete, Strength:PCN 52/R/B/X/T Small Aircraft Apron Surface: asphalt, Strength:AUW 5700kg/0.28Mpa |
| 2 | Taxiway width, surface and strength | TWY T1, T4 Width: 28.5m, Surface:asphalt, Strength: PCN 68/F/B/X/T TWY T2, T3 Width: 34m, Surface:asphalt, Strength: PCN 67/F/B/X/T TWY T5 Width: 30m, Surface:asphalt, Strength: PCN 75/F/C/X/T TWY P1-P3 Width: 23m, Surface:asphalt, Strength: PCN 68/F/B/X/T |
| 3 | ACL and elevation | Not available |
| 4 | VOR checkpoints | Not available |
| 5 | INS checkpoints | Spot NR 1: 392521.80N 1410817.13E 2: 392520.04N 1410815.81E 3: 392518.26N 1410816.15E 4: 392516.16N 1410815.68E 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 ACFT stand taxi lane : See AD2.24 AD chart Visual docking guidance system : Nil |
| 2 | RWY and TWY markings and LGT | RWY: 02/20 (Marking) RWY designation, RWY CL, RWY THR, TDZ, Aiming point, RWY side stripe (LGT) RCLL, REDL, RTHL, RENL, RTZL(RWY20), WBAR(RWY20), RWY DIST marker LGT TWY T1 THRU T5: (Marking) TWY CL, RWY HLDG PSN, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT, Taxiing guidance sign, RWY guard LGT TWY P1 THRU P3: (Marking) TWY CL, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT |
| 3 | Stop bars | Nil |
| 4 | Remarks | (Marking) Overrun area, Apron TWY CL (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 | SENDAI |
| 2 | Hours of service MET Office outside hours | H24 (SENDAI) |
| 3 | Office responsible for TAF preparation Periods of validity | SENDAI 30 Hours |
| 4 | Trend forecast Interval of issuance | Nil |
| 5 | Briefing/ consultation provided | Briefing is available upon inquiry at SENDAI |
| 6 | Flight documentation Language(s) used | C En |
| 7 | Charts and other information available for briefing or consultation | S ₆ , U ₈₅ , U ₇ , U ₅ , U ₃ , U ₂₅ , U ₂ /T _r , P _S , P ₅ , P ₃ , P ₂₅ , P _{SWE} , P _{SWF} , P _{SWG} , P _{SWI} , P _{SWM} , P _{SW} (domestic), E, C, W _E , W _F , W _G , W _I , W, N |
| 8 | Supplementary equipment available for providing information | Nil |
| 9 | ATS units provided with information | RADIO |
| 10 | Additional information (limitation of service, etc.) | Nil |

RJSI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength(PCN) and surface of RWY | THR coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|------------------------|------------------------|-------------------------|--|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02 | 010.73° | 2500×45 | PCN 68/F/A/X/T Asphalt Concrete | 392503.58N 1410757.62E 135ft | THR ELEV: 283ft |
| 20 | 190.73° | 2500×45 | PCN 68/F/A/X/T Asphalt Concrete | 392623.24N 1410817.11E 135.5ft | THR ELEV: 297.5ft TDZ ELEV: 297.5ft |
| Slope of RWY | Strip Dimensions(M) | | RESA (Overrun) Dimensions(M) | | Remarks |
| 7 | 10 | | 11 | | 14 |
| SEE AD2.24 AD chart | 2620×300 2620×300 | | 40 × 300 193 × (MNM:166 MAX:300)* *For detail, ask airport administrator | | RWY grooving:2500×45m |

RJSI AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (m) | TODA (m) | ASDA (m) | LDA (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 Designator | APCH LGT type LEN INTST | RTHL Color WBAR | PAPI (VASIS) Angle DIST FM THR MEHT | RTZL LEN | RCLL LEN Spacing Color INTST | REDL LEN Spacing Color INTST | RENL Color WBAR | STWL LEN Color |
|--|-------------------------------------|-----------------------|--|-------------|---|--|-----------------------|----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 02 | SALS (*1) 420m LIH | Green - | PAPI 3.0°/Left 452.4m 74ft | - | 2500m 30m Coded color (White/Red) LIH | 2500m 60m Coded color (White/Yellow) LIH | Red | Nil (*2) |
| 20 | PALS (CAT I) 900m LIH | Green Green | PAPI 3.0°/Left 429.0m 65.6ft | 900m | 2500m 30m Coded color (White/Red) LIH | 2500m 60m Coded color (White/Yellow) LIH | Red | Nil (*2) |
| Remarks | | | | | | | | |
| 10 | | | | | | | | |
| SALS with APCH LGT beacon (596m and 930m FM RWY THR)(*1) 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 Anemometer location and LGT | LDI: Nil Anemometer: RWY02: 350m from RWY02 THR, LGTD 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/ switch-over time | Within 1sec : REDL, RTHL, WBAR, RENL, RCLL, Overrun area edge LGT 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 (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 | |

RJSI AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---------------------|----------------|-------------------------|--------------------|------------|
| 1 | 2 | 3 | 4 | 5 |
| A/G | Hanamaki Radio | 118.2MHz(1) 126.2MHz | 2300 - 1030 | (1)Primary |

RJSI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid (VOR declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|----------------------------------|-----|---------------------|-----------------------|---|--|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| VOR (8°W/2010) | HPE | 112.8MHZ | H24 | 392600.09N 1410800.60E | | VOR unusable : 060°-080° beyond 30nm BLW 9000ft. 280°-290° beyond 30nm BLW 9000ft. 350°-360° beyond 30nm BLW 9000ft. |
| DME | HPE | 1162MHz (CH-75X) | H24 | 392600.09N 1410800.60E | 339ft | DME unusable : 050°-090° beyond 30nm BLW 9000ft. 280°-360° beyond 30nm BLW 9000ft. |
| ILS-LOC 20 | IHP | 109.3MHz | 2300 - 1030 | 392456.26N 1410755.86E | | LOC : 230m (755ft) away FM RWY 02 THR, BRG (MAG)199° |
| ILS-GP 20 | - | 332.0MHz | 2300 - 1030 | 392613.90N 1410809.72E | | GP : 316m (1037ft) inside FM RWY 20 THR, 120m (394ft) W of RCL. Angle 3.0° HGT of ILS Ref datum 16.5m (54ft). |
| ILS-DME 20 | IHP | 991MHz (CH-30X) | 2300 - 1030 | 392613.93N 1410809.29E | 314ft | DME:316m (1037ft) inside FM RWY 20 THR, 130m W of RCL. |
| MSAS | | 1575.42MHz | H24 | | | Transmitting antennas are satellite 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 ACFT with TKOF 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.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

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 (RNAV(GNSS) Z RWY02)
 Instrument Approach Chart (RNAV(RNP) Y RWY02)
 Instrument Approach Chart (RNAV(RNP) Z RWY20)
 Instrument Approach Chart (RNAV(RNP) Y RWY20)
 Other Chart (Visual REP)
 Other Chart (LDG CHART)
 Other Chart (MVA CHART)

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STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

➡ SID

OHSU ONE DEPARTURE

RWY 02 : Climb RWY HDG to 900FT, turn left...

RWY 20 : Climb RWY HDG to 1300FT, turn left HDG 324° ...
...to intercept and proceed via HPE R009 to OHSU.

OHSU ONE DEPARTURE



STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

SID

NIIGATA FOUR 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 GTC VORTAC.

Cross HPE VOR/DME at or above 2200 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.



STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

SID

HANAMAKI REVERSAL TWO 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 R194 to 6.0 DME, turn left...

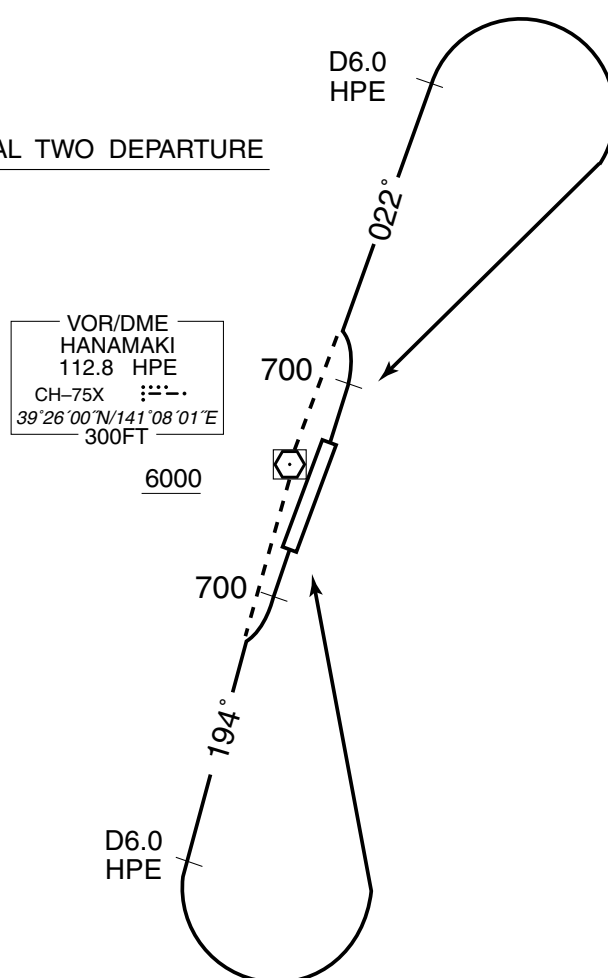
...proceed to HPE VOR/DME.

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.

HANAMAKI REVERSAL TWO DEPARTURE



STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

RNAV SID

SAMBO ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 9°W (2021)

SAMBO ONE DEPARTURE



SAMBO ONE DEPARTURE

RWY02 : Climb on HDG 019° at or above 700FT, direct to AKARI, to DASCO to SAMBO.

RWY20 : Climb on HDG 199° at or above 1300FT, turn right direct to SI010, to AKARI, to DASCO to SAMBO .

Note RWY02 : 4.0% climb gradient required up to 700FT.

OBST ALT 318FT located at 0.2NM 061° FM end of RWY02.

RWY20 : 4.0% climb gradient required up to 2700FT.

OBST ALT 3117FT located at 10.7NM 351° FM end of RWY20.

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 | - | - | +700 | - | - | Basic RNP1 |
| 002 | DF | AKARI | - | - | -8.7 | - | - | - | - | - | Basic RNP1 |
| 003 | TF | DASCO | - | 009 (000.8) | -8.7 | 7.9 | - | - | - | - | Basic RNP1 |
| 004 | TF | SAMBO | - | 345 (336.6) | -8.7 | 21.9 | - | - | - | - | Basic 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 | - | - | +1300 | - | - | Basic RNP1 |
| 002 | DF | SI010 | - | - | -8.7 | - | R | - | - | - | Basic RNP1 |
| 003 | TF | AKARI | - | 025 (016.7) | -8.7 | 17.0 | - | - | - | - | Basic RNP1 |
| 004 | TF | DASCO | - | 009 (000.8) | -8.7 | 7.9 | - | - | - | - | Basic RNP1 |
| 005 | TF | SAMBO | - | 345 (336.6) | -8.7 | 21.9 | - | - | - | - | Basic RNP1 |

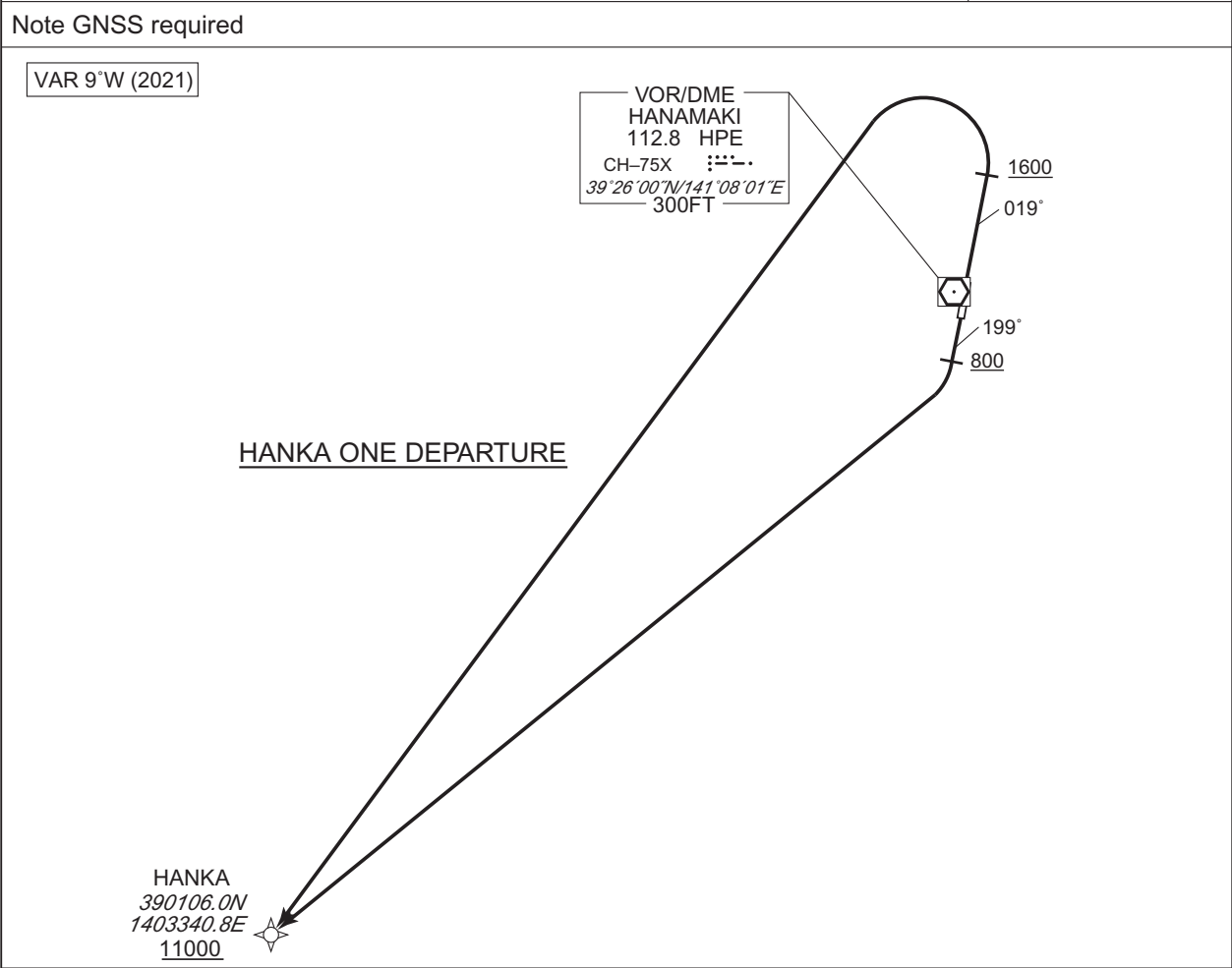
CHANGE : VAR. Note RWY20 (OBST).

STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

RNAV SID

| HANKA ONE DEPARTURE | Basic RNP1 |
|---------------------|------------|
|---------------------|------------|



HANKA ONE DEPARTURE

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.

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 | — | — | Basic RNP1 |
| 002 | DF | HANKA | — | — | -8.7 | — | L | +11000 | — | — | Basic 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 | — | — | Basic RNP1 |
| 002 | DF | HANKA | — | — | -8.7 | — | R | +11000 | — | — | Basic RNP1 |

CHANGE : VAR. Note RWY20 (OBST).

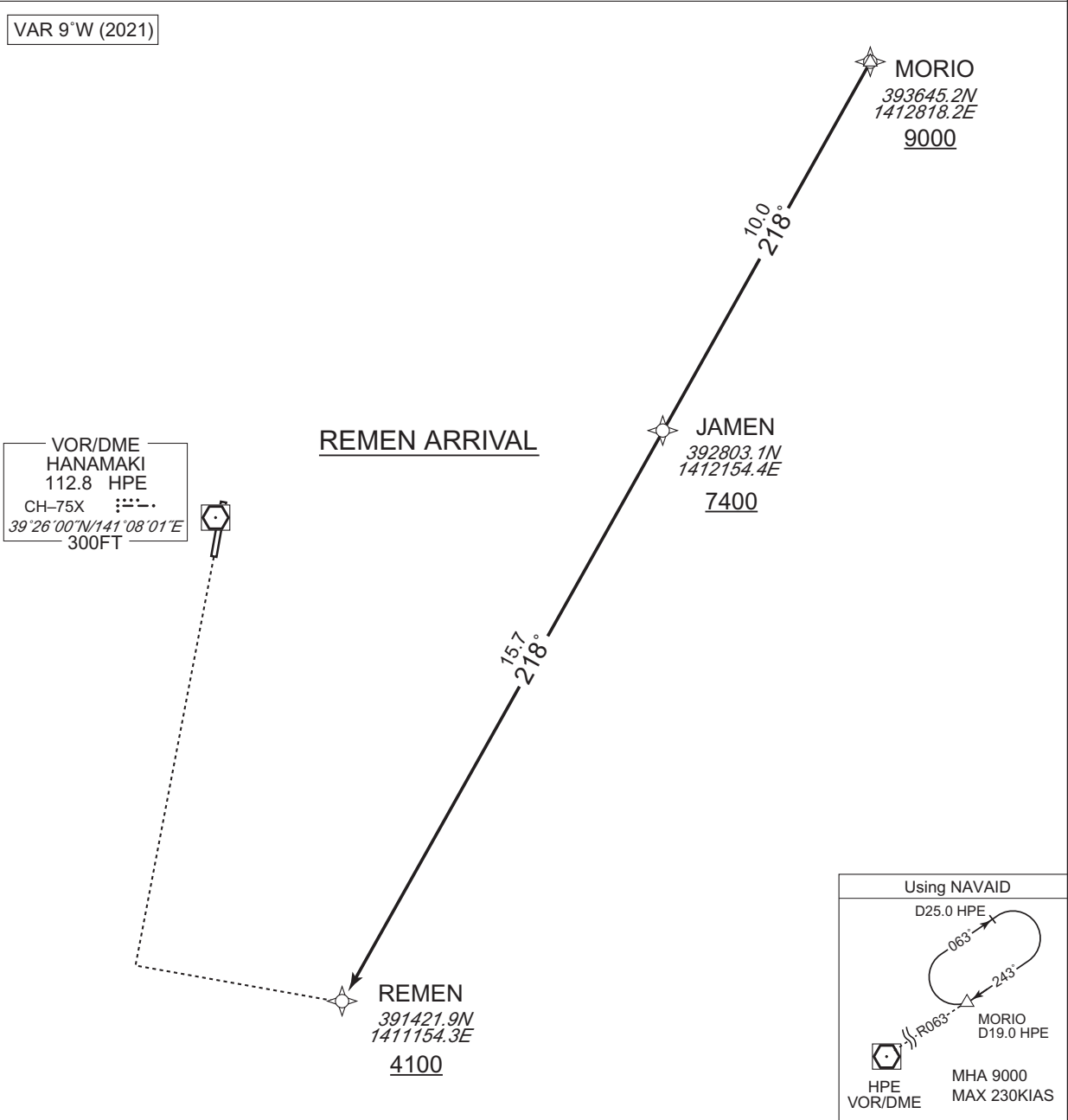
STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY02

| REMEN ARRIVAL | Basic RNP1 |
|---------------|------------|
|---------------|------------|

Note GNSS required



REMEN ARRIVAL

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

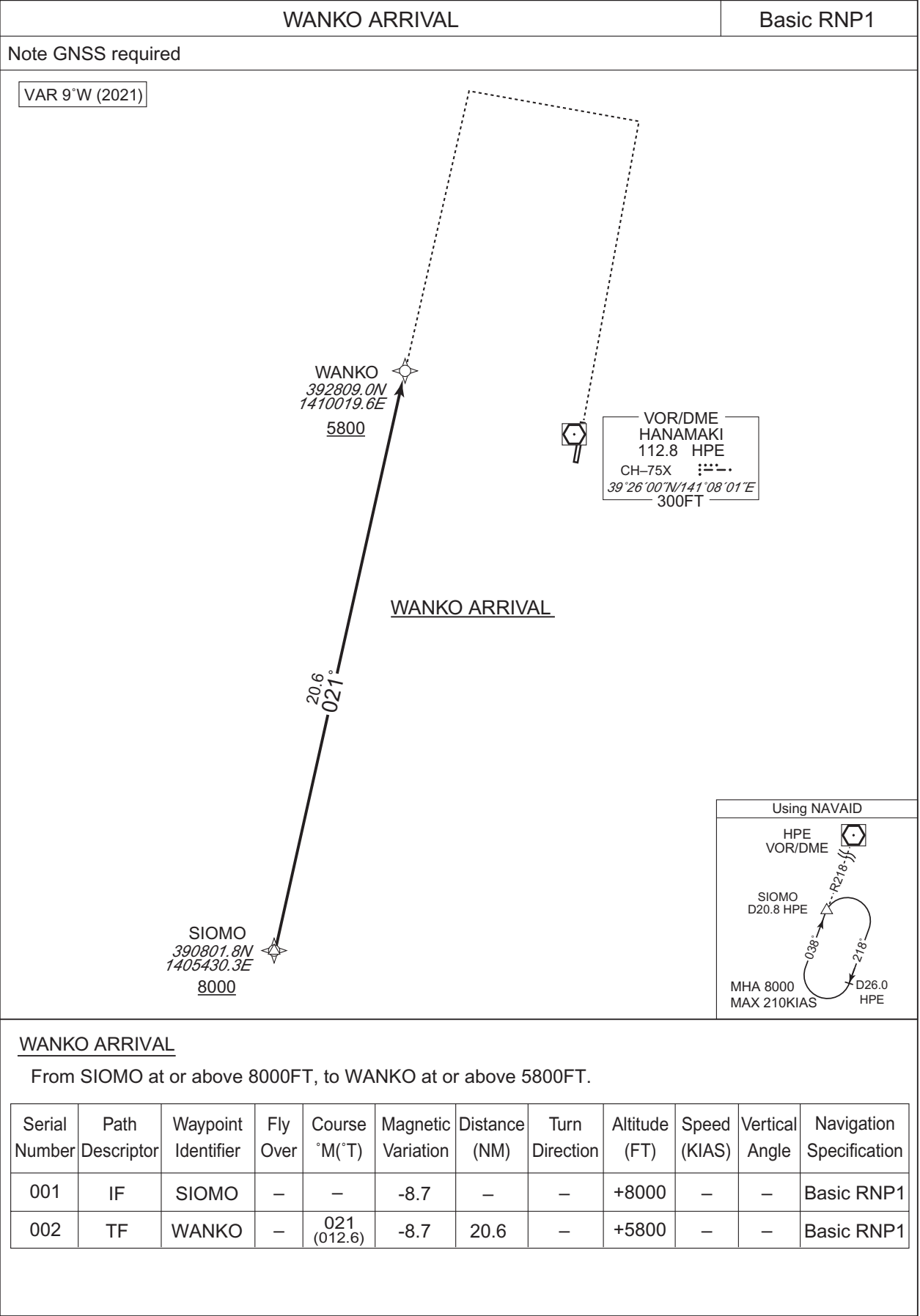
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | IF | MORIO | — | — | -8.7 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | JAMEN | — | 218 (209.6) | -8.7 | 10.0 | — | +7400 | — | — | Basic RNP1 |
| 003 | TF | REMEN | — | 218 (209.5) | -8.7 | 15.7 | — | +4100 | — | — | Basic RNP1 |

CHANGE : VAR.

STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY20



CHANGE : VAR.

STANDARD ARRIVAL CHART - INSTRUMENT

CHANGE : VAR. Course FM ESBEL to SIOMO. HLDG pattern(RNAV) abolished. HLDG pattern(Using NAVAID) abolished. HLDG pattern(RNAV) established.
Coding table(Hold) added.



STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

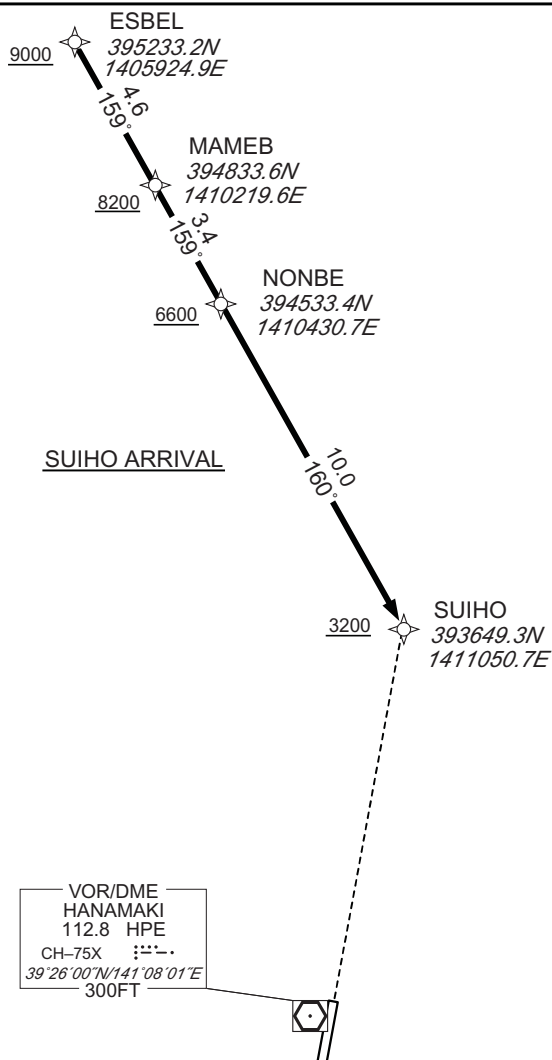
RNAV STAR RWY20

SUIHO ARRIVAL

Basic RNP1

Note GNSS required.

VAR 9°W (2021)



SUIHO ARRIVAL

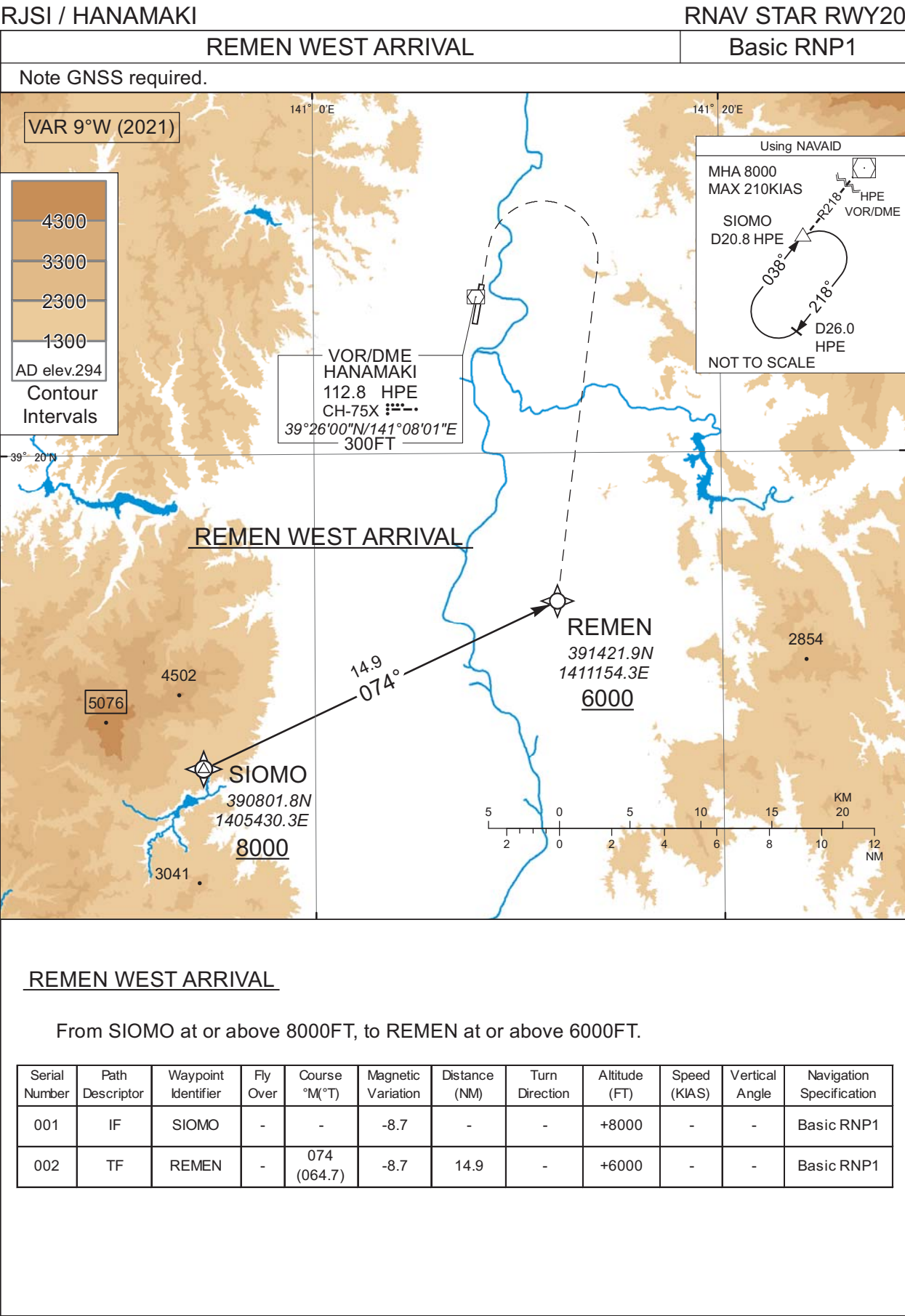
From ESBEL at or above 9000FT, to MAMEB at or above 8200FT, to NONBE at or above 6600FT, to SUIHO at or above 3200FT.

| 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 | ESBEL | — | — | -8.7 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | MAMEB | — | 159 (150.7) | -8.7 | 4.6 | — | +8200 | — | — | Basic RNP1 |
| 003 | TF | NONBE | — | 159 (150.8) | -8.7 | 3.4 | — | +6600 | — | — | Basic RNP1 |
| 004 | TF | SUIHO | — | 160 (150.8) | -8.7 | 10.0 | — | +3200 | — | — | Basic 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 | ESBEL | 174 (165.3) | -8.7 | 1.0(-14000) | R | 9000 | FL140 | -230 (-14000) | Basic RNP1 |

CHANGE : VAR. Course FM NONBE to SUIHO. HLDG pattern(Using NAVAID) abolished. HLDG pattern(RNAV) established. Coding table(Hold) added.

STANDARD ARRIVAL CHART - INSTRUMENT



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INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

ILS Z or LOC Z RWY20



INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

ILS Y or LOC Y RWY20



CHANGE : FIX symbol (HLDG)

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

VOR RWY20

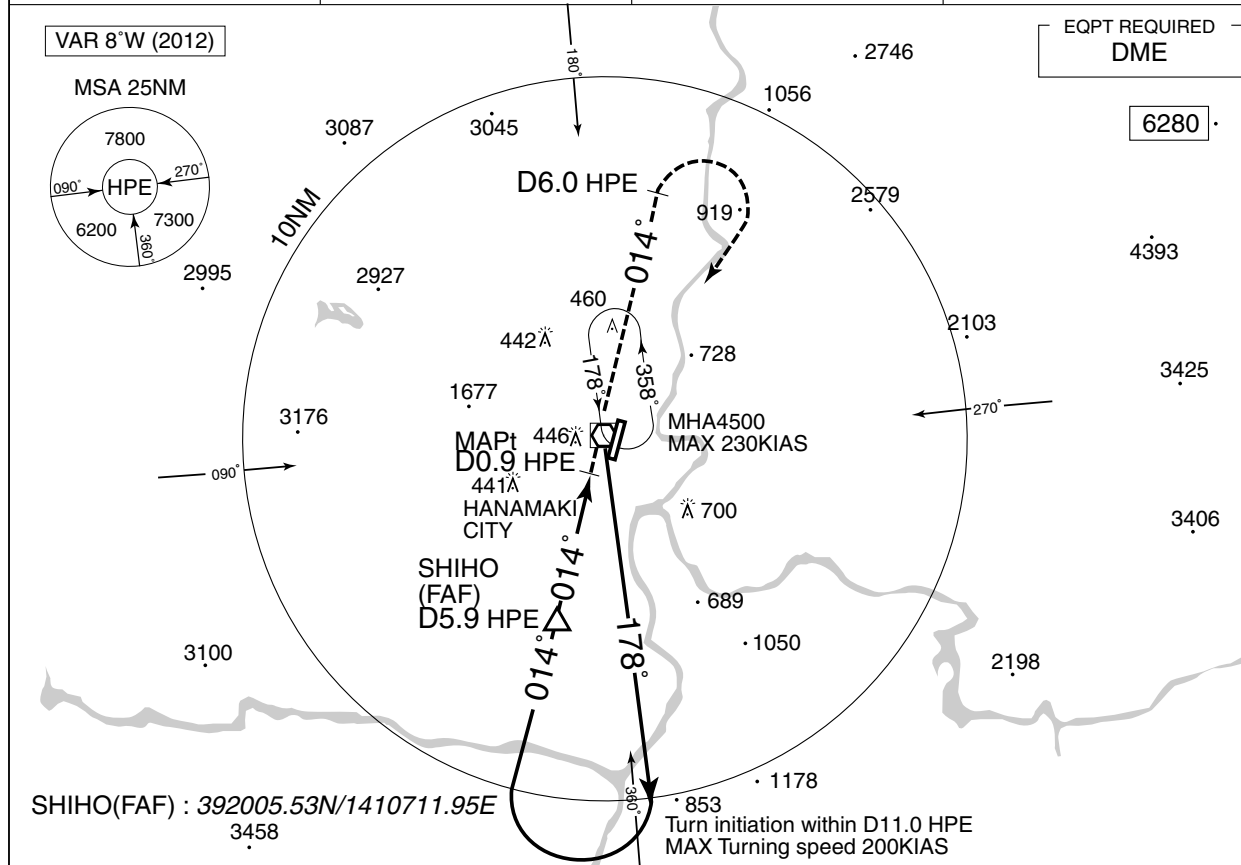


INSTRUMENT APPROACH CHART

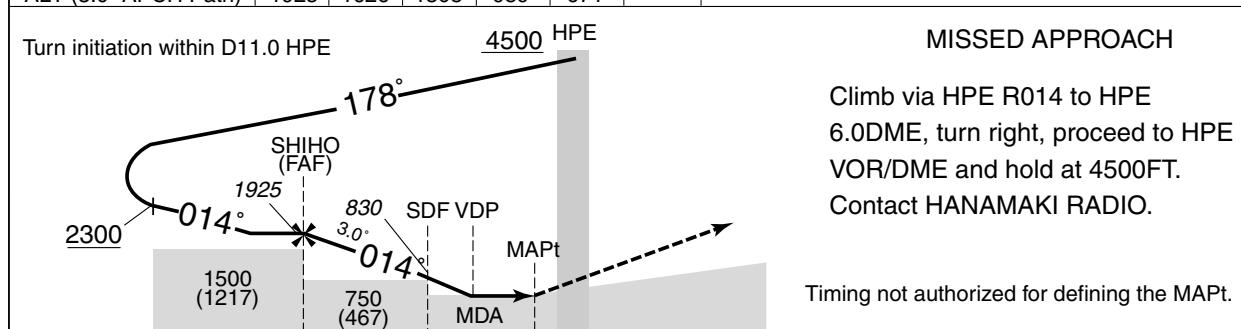
RJSI / HANAMAKI

VOR RWY02

| | | | |
|---|---|---------------------------------|----------|
| SAPPORO CONTROL 124.5 – 303.8 120.575 – 277.1 | HANAMAKI VOR/DME 112.8 HPE CH-75X 39°26'00"N/141°08'01"E | HANAMAKI RADIO 118.2 – 126.2 | NO RADAR |
|---|---|---------------------------------|----------|



| NM to HPE | FAF | 5 | 4 | 3 | 2 | MAPt |
|----------------------|------|------|------|-----|-----|------|
| ALT (3.0° APCH Path) | 1925 | 1626 | 1308 | 989 | 671 | — |



| 5.9 | 2.5 | 1.9 | 0.9 | DME to HPE |
|-----|-----|-----|-----|------------|
| 5.0 | 1.6 | 1.0 | 0 | NM to THR |

Missed APCH climb gradient MNM 3.6%

| MINIMA | | THR elev. 283 | AD elev. 294 |
|--------|-----------|---------------|--------------|
| CAT | CIRCLING | | VIS |
| | MDA(H) | CMV | |
| A | 640 (357) | 1200 | 1600 |
| B | | 1300 | |
| C | | 1400 | 2400 |
| D | 650 (367) | 1600 | 1000 (706) |
| | | | 3200 |

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

RJSI / HANAMAKI

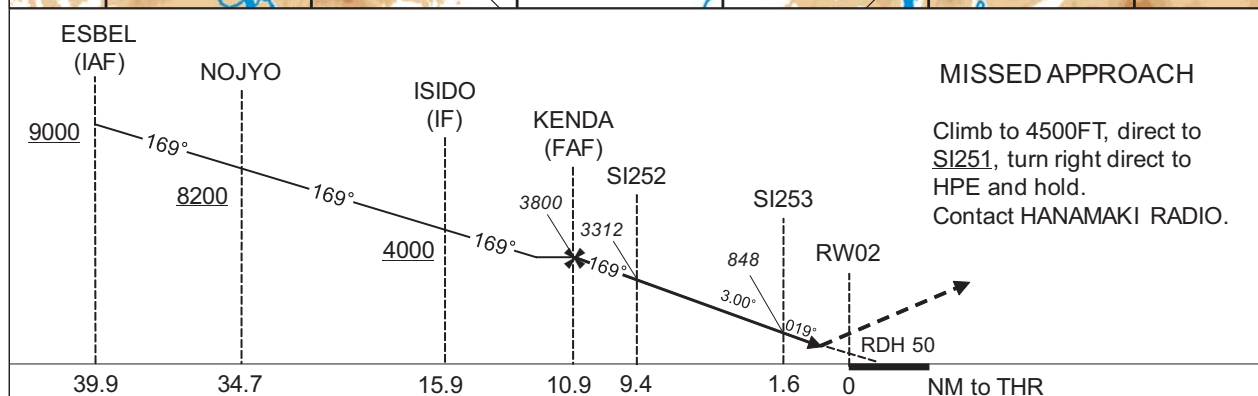
RNAV(GNSS) Z RWY02

CHANGE : PROC renamed. VAR. Course FM REMEN to NITBE.

RJSI / HANAMAKI

RNAV(RNP) Y RWY02

| | | | |
|---|-----------------------|---------------------------------|----------|
| SAPPORO CONTROL 124.5 - 303.8 120.575 - 277.1 | GNSS and RF required. | HANAMAKI RADIO 118.2 - 126.2 | NO RADAR |
|---|-----------------------|---------------------------------|----------|

[illegible]

| CAT | RNP 0.30 | |
|-----|----------|------|
| | DA(H) | CMV |
| A | 595(312) | - |
| B | | - |
| C | | 1400 |
| D | | 1600 |

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

Climb to 4500FT, direct to SI251, turn right direct to HPE and hold.
Contact HANAMAKI RADIO.

RNP AR
Special Authorization Required

CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNAV(RNP) Y RWY02

RNAV(RNP) Y RWY02Coding 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 | ESBEL | - | - | -8.7 | - | - | +9000 | - | - | - |
| 002 | TF | NOJYO | - | 169 (160.2) | -8.7 | 5.2 | - | +8200 | - | - | 1.0 |
| 003 | TF | ISIDO | - | 169 (160.2) | -8.7 | 18.8 | - | +4000 | - | - | 1.0 |
| 004 | TF | KENDA | - | 169 (160.3) | -8.7 | 5.0 | - | 3800 | - | - | 1.0 |
| 005 | TF | SI252 | - | 169 (160.4) | -8.7 | 1.5 | - | 3312 | -165 | -3.00 | 0.3 |
| 006 | RF Center: SIRF1 r=2.10NM | SI253 | - | - | -8.7 | 7.7 | R | 848 | - | -3.00 | 0.3 |
| 007 | TF | RW02 | Y | 019 (010.7) | -8.7 | 1.6 | - | 333 | - | -3.00/50 | 0.3 |
| 008 | DF | SI251 | Y | - | -8.7 | - | - | - | - | - | 1.0 |
| 009 | DF | HPE | - | - | -8.7 | - | 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 | ESBEL | 174 (165.3) | -8.7 | 1.0 (-14000) | R | 9000 | FL140 | -230 (-14000) | 1.0 |
| Hold | HPE | 178 (169.7) | -8.7 | 1.0 (-14000) | L | 4500 | FL140 | -230 (-14000) | 1.0 |

Waypoint Coordinates

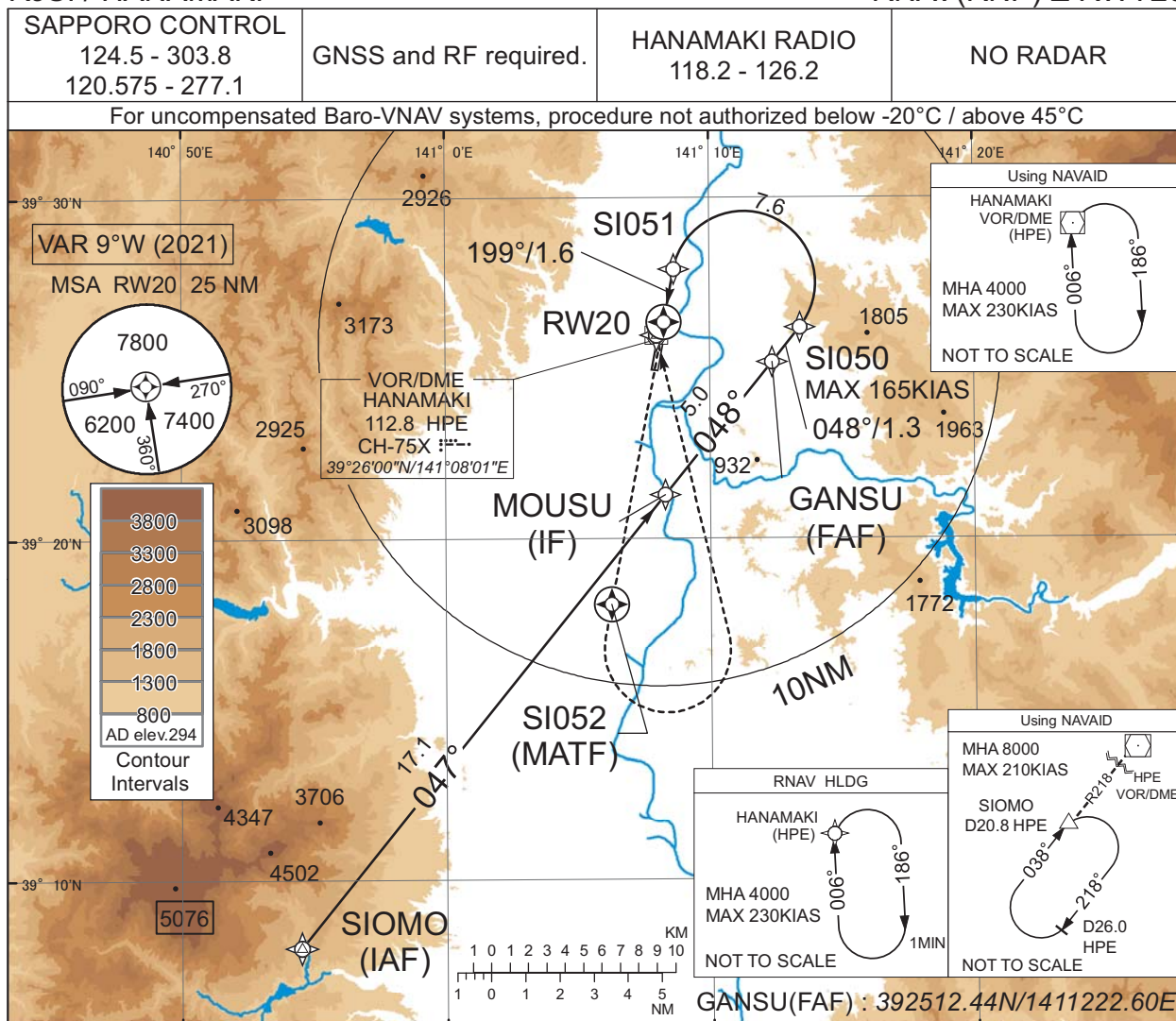
| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|--------------------------|--------------------------|--------------------------|
| ESBEL | 395233.23N / 1405924.90E | SIRF1 | 392304.37N / 1411014.42E |
| NOJYO | 394739.56N / 1410142.35E | | |
| ISIDO | 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 : New PROC.

INSTRUMENT APPROACH CHART

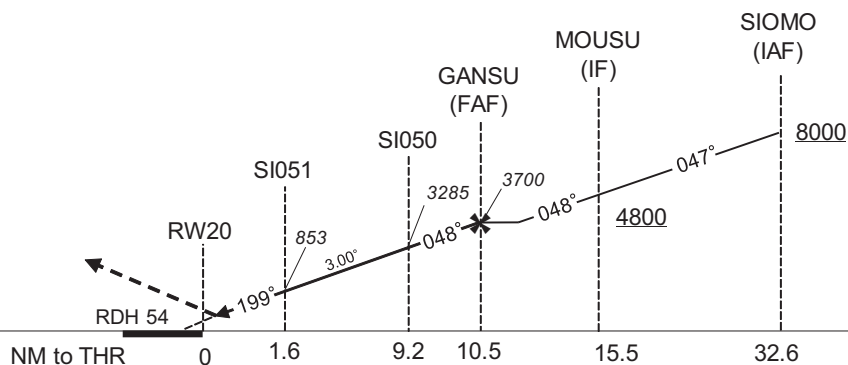
RJSI / HANAMAKI

RNAV(RNP) Z RWY20



MISSED APPROACH

Climb to 4000FT, direct to
SI052, turn left direct to HPE
and hold.
Contact HANAMAKI RADIO.



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

RNP AR

Special Authorization Required

CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNAV(RNP) Z RWY20

RNAV(RNP) Z RWY20Coding 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 | - | - | -8.7 | - | - | +8000 | - | - | - |
| 002 | TF | MOUSU | - | 047 (038.8) | -8.7 | 17.1 | - | +4800 | - | - | 1.0 |
| 003 | TF | GANSU | - | 048 (038.9) | -8.7 | 5.0 | - | 3700 | - | - | 1.0 |
| 004 | TF | SI050 | - | 048 (038.9) | -8.7 | 1.3 | - | 3285 | -165 | -3.00 | 0.3 |
| 005 | RF Center: SIRF2 r=2.10NM | SI051 | - | - | -8.7 | 7.6 | L | 853 | - | -3.00 | 0.3 |
| 006 | TF | RW20 | Y | 199 (190.7) | -8.7 | 1.6 | - | 352 | - | -3.00/54 | 0.3 |
| 007 | DF | SI052 | Y | - | -8.7 | - | - | - | - | - | 1.0 |
| 008 | DF | HPE | - | - | -8.7 | - | 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 | HPE | 006 (357.5) | -8.7 | 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 : New PROC.

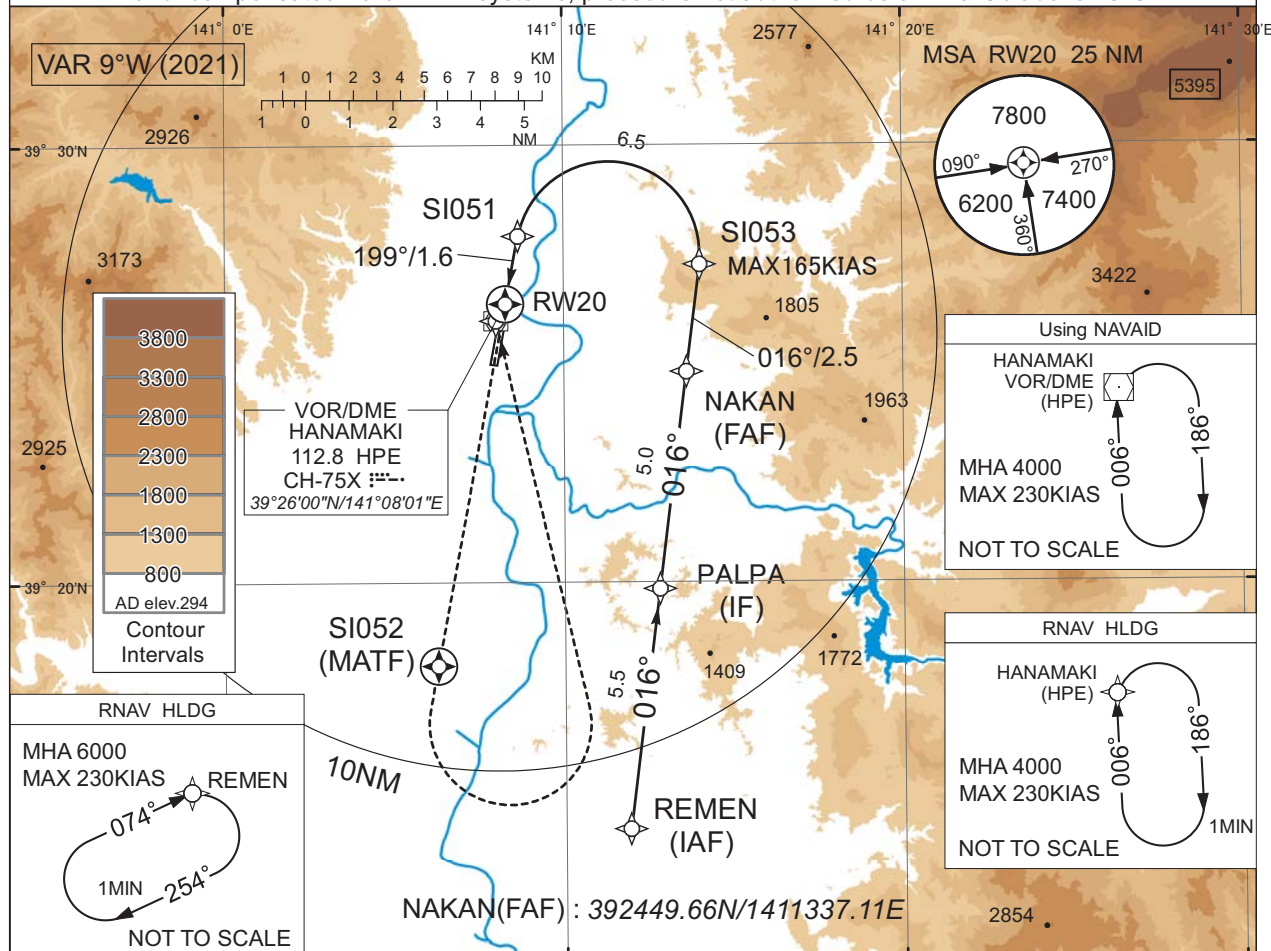
INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNAV(RNP) Y RWY20

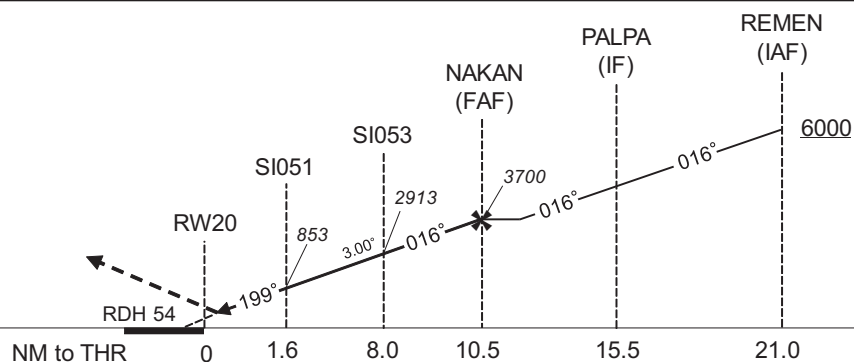
| | | | |
|---|----------------------|---------------------------------|----------|
| SAPPORO CONTROL 124.5 - 303.8 120.575 - 277.1 | GNSS and RF required | HANAMAKI RADIO 118.2 - 126.2 | NO RADAR |
|---|----------------------|---------------------------------|----------|

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



MISSED APPROACH

Climb to 4000FT, direct to SI052, turn left direct to HPE and hold.
Contact HANAMAKI RADIO.



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

RNP AR

Special Authorization Required

CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNAV(RNP) Y RWY20

RNAV(RNP) Y RWY20Coding 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 | - | - | -8.7 | - | - | +6000 | - | - | - |
| 002 | TF | PALPA | - | 016 (007.2) | -8.7 | 5.5 | - | - | - | - | 1.0 |
| 003 | TF | NAKAN | - | 016 (007.2) | -8.7 | 5.0 | - | 3700 | - | - | 1.0 |
| 004 | TF | SI053 | - | 016 (007.2) | -8.7 | 2.5 | - | 2913 | -165 | -3.00 | 0.3 |
| 005 | RF Center: SIRF2 r=2.10NM | SI051 | - | - | -8.7 | 6.5 | L | 853 | - | -3.00 | 0.3 |
| 006 | TF | RW20 | Y | 199 (190.7) | -8.7 | 1.6 | - | 352 | - | -3.00/54 | 0.3 |
| 007 | DF | SI052 | Y | - | -8.7 | - | - | - | - | - | 1.0 |
| 008 | DF | HPE | - | - | -8.7 | - | 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) | -8.7 | 1.0 (-14000) | R | 6000 | FL140 | -230 (-14000) | 1.0 |
| Hold | HPE | 006 (357.5) | -8.7 | 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 : New PROC.

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 Morioka | 360°T / 16.4NM | JR駅 JR Station |
| 城山 Shiroyama | 012°T / 8.4NM | 城跡 The site of a castle |
| 豊沢 Toyosawa | 293°T / 8.1NM | 豊沢ダム Dam |
| 田瀬湖 Taseko | 121°T / 10.0NM | 田瀬ダム Dam |
| 北上 Kitakami | 184°T / 8.9NM | JR駅 JR Station |
| 水沢 Mizusawa | 178°T / 17.4NM | JR駅 JR Station |



RJSI / HANAMAKI

Minimum Vectoring Altitude CHART

