

RJSI / HANAMAKI

AD CHART



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.

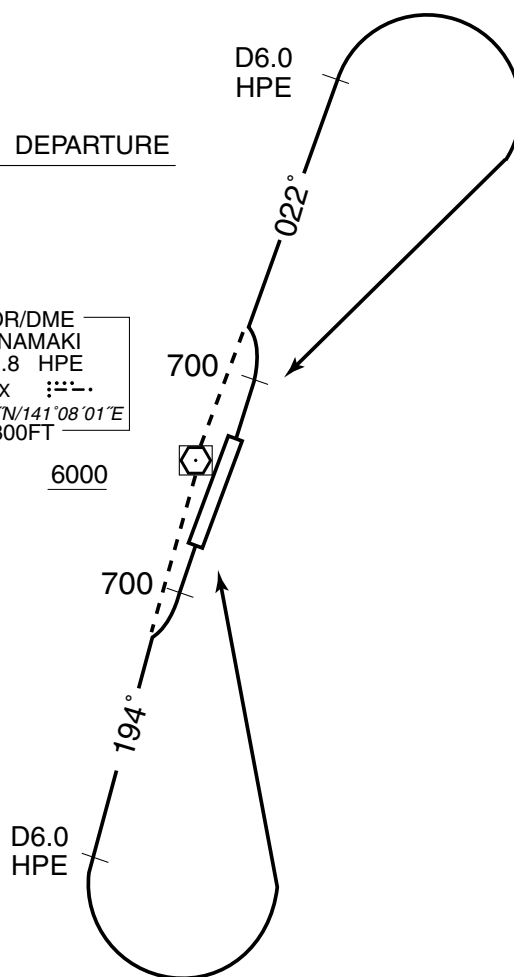
Cross HPE VOR/DME at or above 6000FT.

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

VOR/DME
HANAMAKI
112.8 HPE
CH-75X
39°26'00"N/141°08'01"E
300FT



STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

RNAV SID

SAMBO ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 9°W (2019)



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 350° 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) | -8.6 | — | — | +700 | — | — | Basic RNP1 |
| 002 | DF | AKARI | — | — | -8.6 | — | — | — | — | — | Basic RNP1 |
| 003 | TF | DASCO | — | 009 (000.8) | -8.6 | 7.9 | — | — | — | — | Basic RNP1 |
| 004 | TF | SAMBO | — | 345 (336.6) | -8.6 | 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) | -8.6 | — | — | +1300 | — | — | Basic RNP1 |
| 002 | DF | SI010 | — | — | -8.6 | — | R | — | — | — | Basic RNP1 |
| 003 | TF | AKARI | — | 025 (016.7) | -8.6 | 17.0 | — | — | — | — | Basic RNP1 |
| 004 | TF | DASCO | — | 009 (000.8) | -8.6 | 7.9 | — | — | — | — | Basic RNP1 |
| 005 | TF | SAMBO | — | 345 (336.6) | -8.6 | 21.9 | — | — | — | — | Basic RNP1 |

CHANGE : New PROC

STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

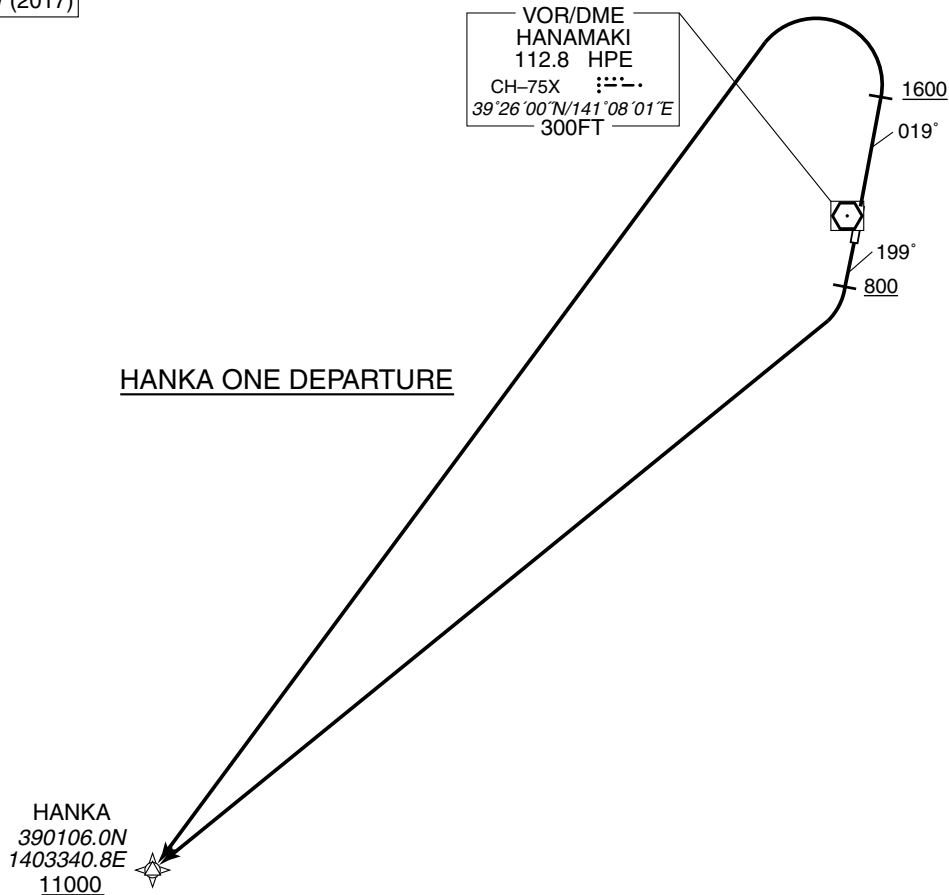
➔ RNAV SID

HANKA ONE DEPARTURE

Basic RNP1

Note GNSS required

VAR 8°W (2017)

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 231° 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) | -8.4 | — | — | +1600 | — | — | Basic RNP1 |
| 002 | DF | HANKA | — | — | -8.4 | — | 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) | -8.4 | — | — | +800 | — | — | Basic RNP1 |
| 002 | DF | HANKA | — | — | -8.4 | — | R | +11000 | — | — | Basic RNP1 |

STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY02



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 | — | — | -8.4 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | JAMEN | — | 218 (209.6) | -8.4 | 10.0 | — | +7400 | — | — | Basic RNP1 |
| 003 | TF | REMEN | — | 218 (209.5) | -8.4 | 15.7 | — | +4100 | — | — | Basic RNP1 |

STANDARD ARRIVAL CHART - INSTRUMENT

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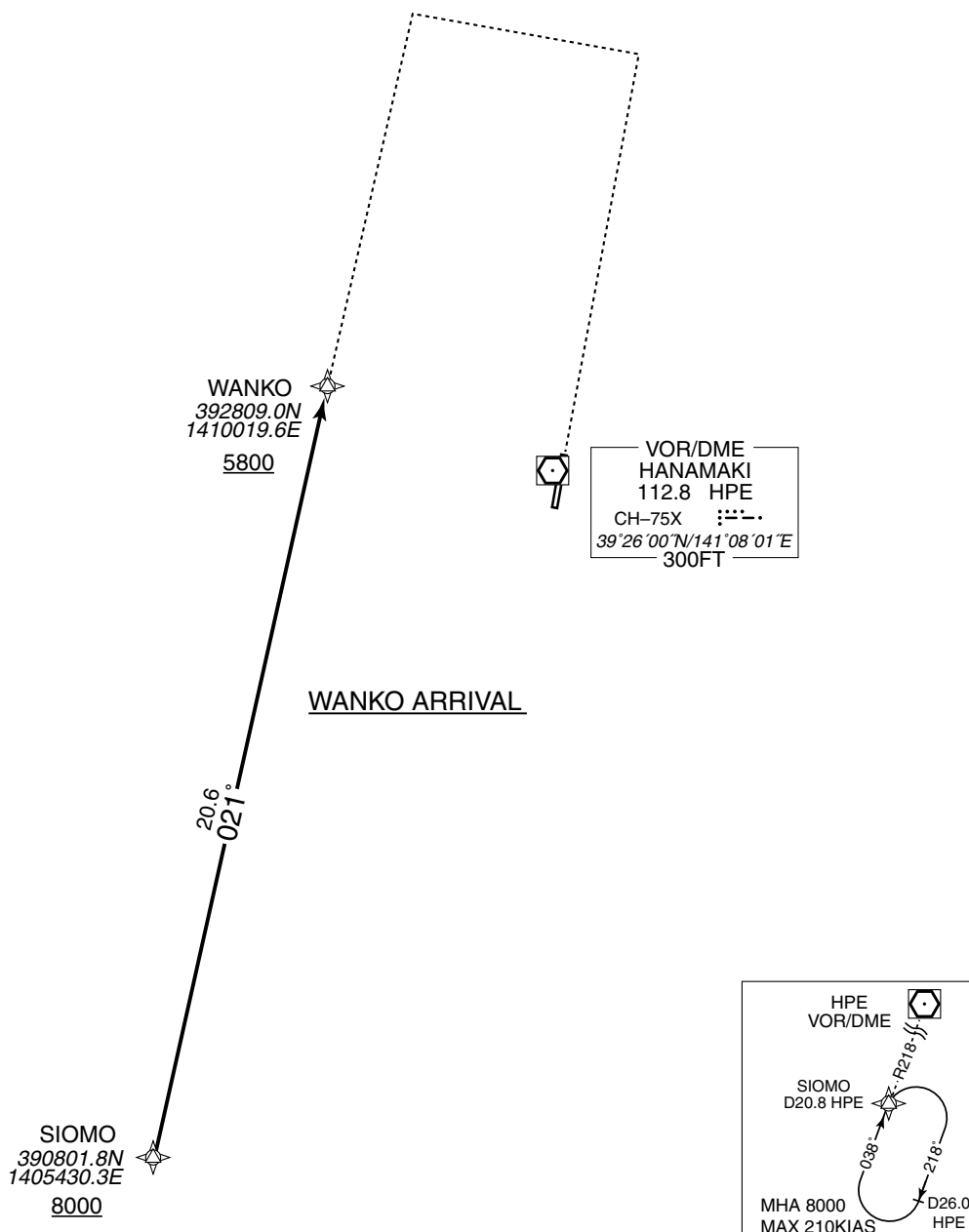
RNAV STAR RWY20

WANKO ARRIVAL

Basic RNP1

Note GNSS required

VAR 8°W (2017)



WANKO ARRIVAL

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 | — | — | -8.4 | — | — | +8000 | — | — | Basic RNP1 |
| 002 | TF | WANKO | — | 021 (012.6) | -8.4 | 20.6 | — | +5800 | — | — | Basic RNP1 |

STANDARD ARRIVAL CHART - INSTRUMENT



STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY20

SUIHO ARRIVAL

Basic RNP1

Note GNSS required.

VAR 9°W (2019)



VOR/DME
HANAMAKI
112.8 HPE
CH-75X
39°26'00"N/141°08'01"E
300FT

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 | — | — | -8.6 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | MAMEB | — | 159 (150.7) | -8.6 | 4.6 | — | +8200 | — | — | Basic RNP1 |
| 003 | TF | NONBE | — | 159 (150.8) | -8.6 | 3.4 | — | +6600 | — | — | Basic RNP1 |
| 004 | TF | SUIHO | — | 159 (150.8) | -8.6 | 10.0 | — | +3200 | — | — | Basic RNP1 |

CHANGE : New PROC

INSTRUMENT APPROACH CHART

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ILS Z or LOC Z RWY20



INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

ILS Y or LOC Y RWY20

SAPPORO CONTROL
124.5 – 303.8
120.575 – 277.1

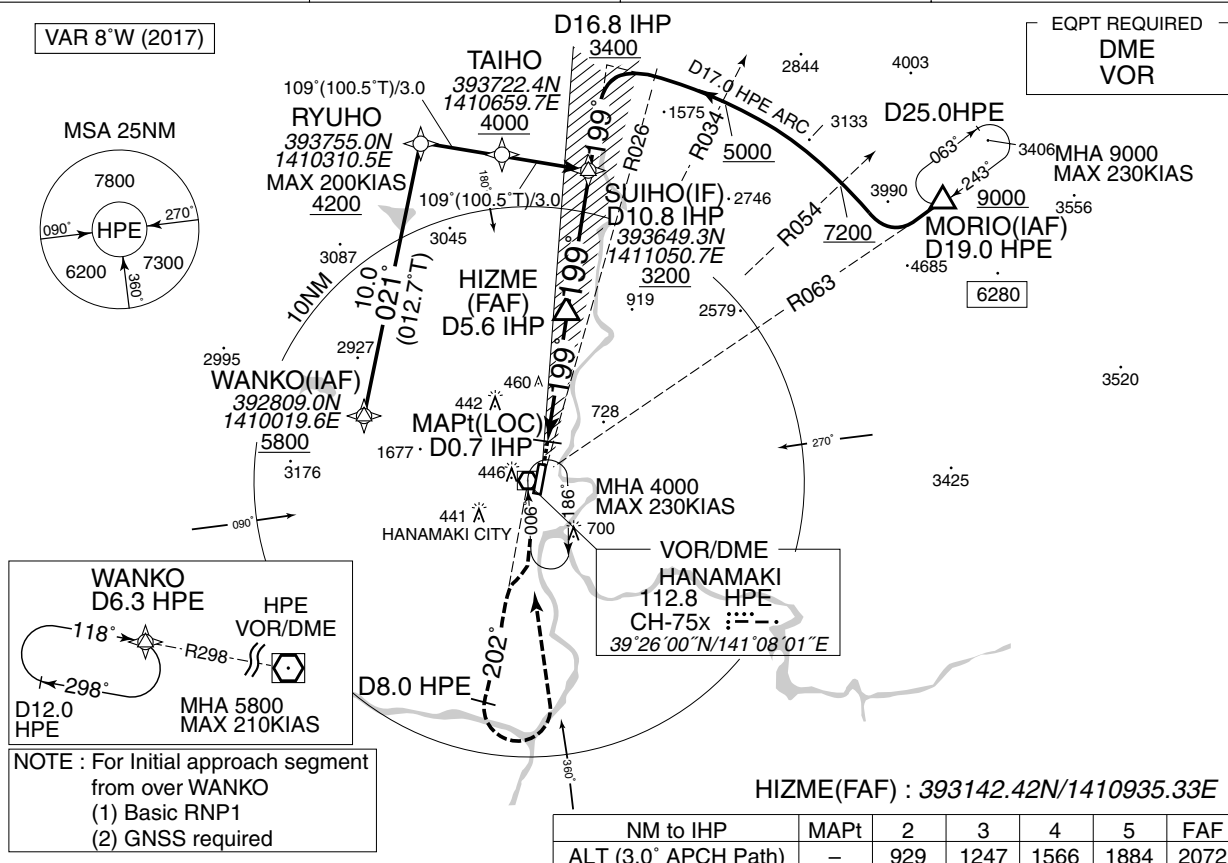
ILS – LOC
109.3 IHP
ILS – GP 332.0
ILS – DME CH-30X

HANAMAKI RADIO
118.2 – 126.2

NO RADAR

VAR 8°W (2017)

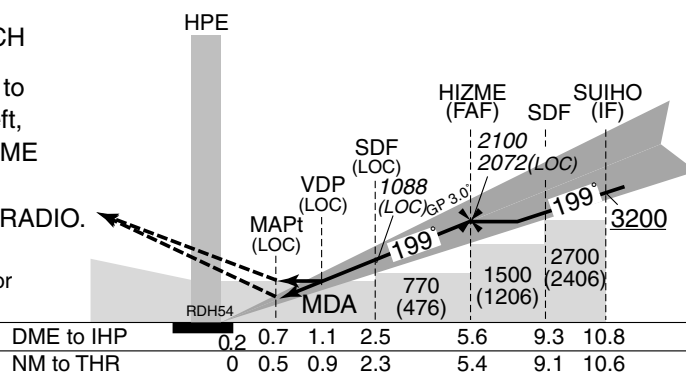
EQPT REQUIRED
DME
VOR



MISSED APPROACH

Climb via HPE R202 to HPE 8.0DME, turn left, direct to HPE VOR/DME and hold at 4000FT. Contact HANAMAKI RADIO.

Timing not authorized for defining the MAPt.



MINIMA

THR elev. 298

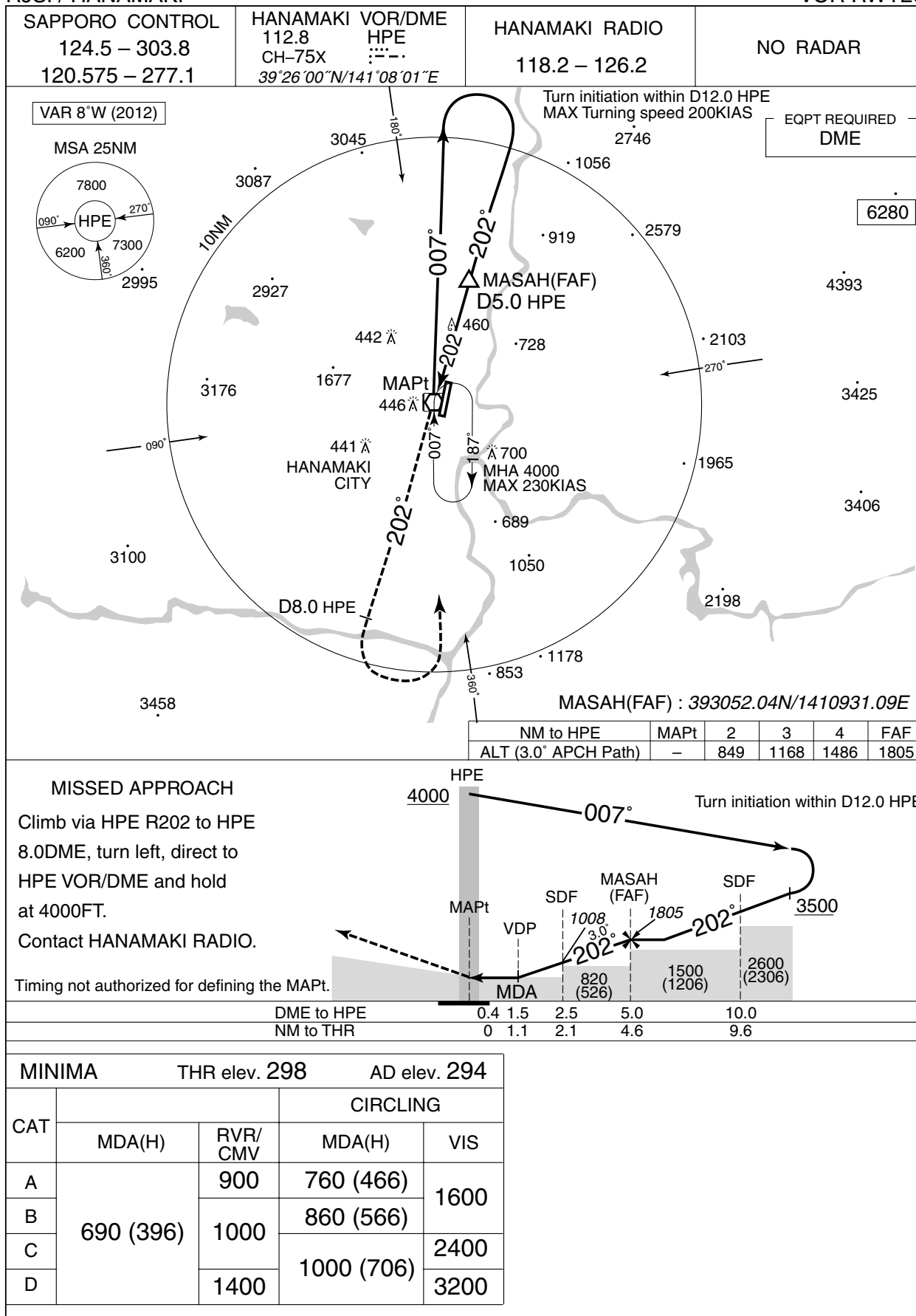
AD elev. 294

| CAT | CAT I | | LOC | | CIRCLING | |
|-----|-----------|---------|-----------|---------|------------|------|
| | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 498 (200) | 550 | 640 (346) | 900 | 760 (466) | 1600 |
| B | | | | 1000 | 860 (566) | |
| C | | | | 1400 | 1000 (706) | 2400 |
| D | | | | | | 3200 |

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

VOR RWY20



RJSI / HANAMAKI

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

VAR 8°W (2012)

MSA 25NM

EQPT REQUIRED
DME

6280

SHIHO(FAF) : 392005.53N/1410711.95E
3458

MAPt 446
D0.9 HPE
441
HANAMAKI CITY

SHIHO (FAF)
D5.9 HPE

MHA4500
MAX 230KIAS

700

689

1050

1178

853
Turn initiation within D11.0 HPE
MAX Turning speed 200KIAS

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

Turn initiation within D11.0 HPE

4500 HPE

178°

SHIHO (FAF)

1925

830

3.0°

SDF VDP

MAPt

2300

014°

014°

1500 (1217)

750 (467)

MDA

MISSED APPROACH

Climb via HPE R014 to HPE
6.0DME, turn right, proceed to HPE
VOR/DME and hold at 4500FT.
Contact HANAMAKI RADIO.

Timing not authorized for defining the MAPt.

| | 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 | | |
| | MDA(H) | CMV | MDA(H) | VIS | |
| A | 640 (357) | 1200 | 760 (466) | 1600 | |
| B | | 1300 | 860 (566) | | |
| C | | 1400 | | | |
| D | 650 (367) | 1600 | 1000 (706) | 3200 | |

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

INSTRUMENT APPROACH CHART

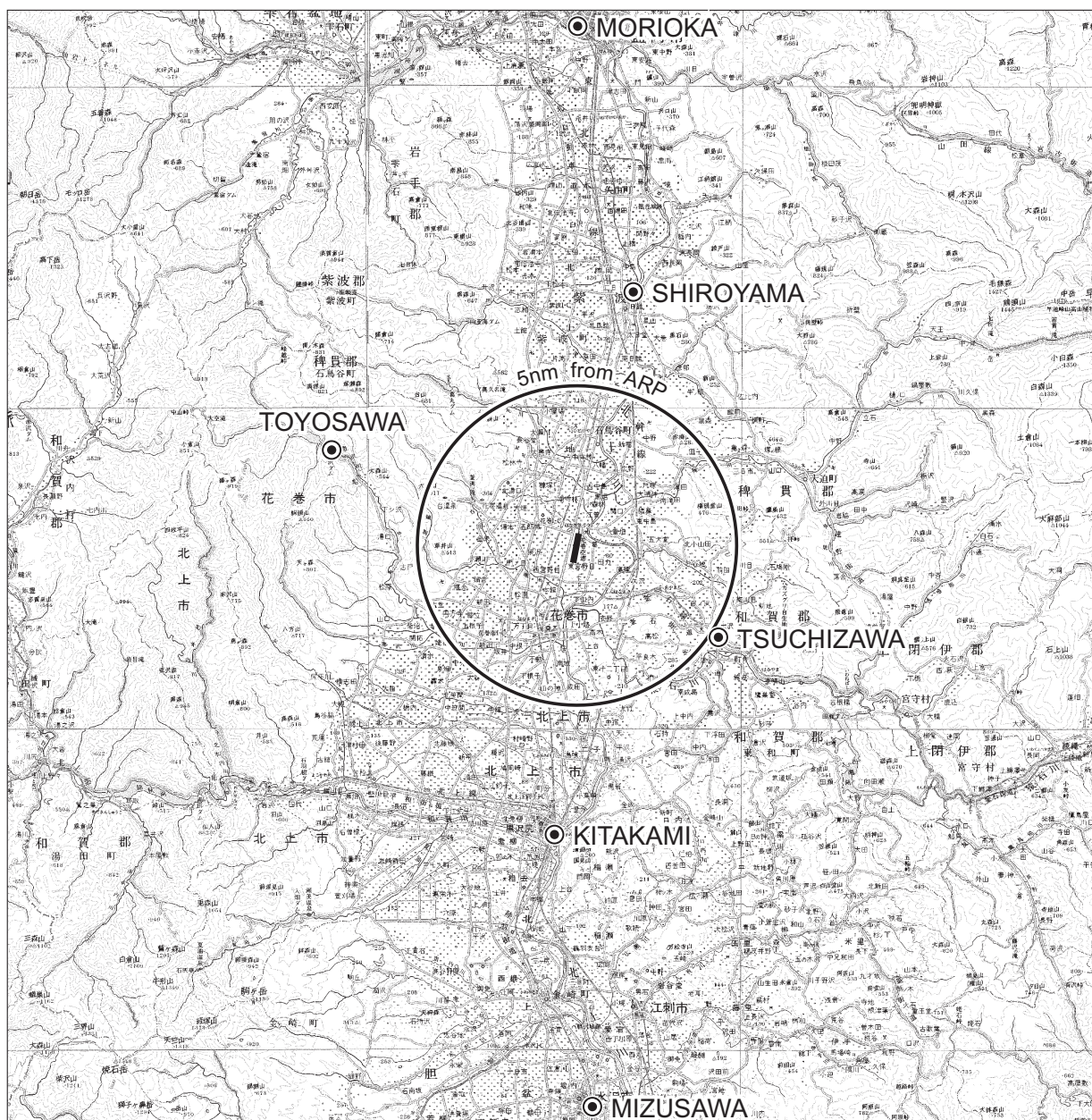
RJSI / HANAMAKI

➔ RNAV(GNSS) RWY02



RJSI / HANAMAKI

Visual REP



| Call sign | BRG / DIST from ARP | Remarks |
|------------------|---------------------|----------------------------|
| 盛岡 Morioka | 006°/16.5NM | 駅 Station |
| 城山 Shiroyama | 018°/ 8.4NM | 城跡 The site of a castle |
| 豊沢 Toyosawa | 301°/ 8.0NM | 豊沢湖ダム Dam |
| 土沢 Tsuchisawa | 127°/ 5.1NM | 駅 Station |
| 北上 Kitakami | 192°/ 8.9NM | 駅 Station |
| 水沢 Mizusawa | 186°/17.5NM | 駅 Station |



RJSI / HANAMAKI

Minimum Vectoring Altitude CHART

