

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
AFIS	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 (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)

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HANAMAKI AP
HANAMAKI RADIO
118.2 - 126.2

REMARKS:
 Dimensions of RWY 2500m x 45m (RWY GROOVING 2500m x 45m)
 Strength and surface of RWY PCN 68/F/A/X/T Asphalt
 Designations RWY NR 02/20
 Magnetic BRG 18°/198°
 TWY width and strength
 T1, T4 PCN 68/F/B/X/T 28.5m
 T2, T3 PCN 67/F/B/X/T 34m
 T5 PCN 75/F/C/X/T 30m
 P1-P3 PCN 68/F/B/X/T 23m
 Apron strength PCN 74/R/B/X/T
 W-Apron strength PCN 52/R/B/X/T
 (APRON FOR SMALL ACFT) (AUW5700kg/0.28MPa)

LONGITUDINAL PROFILE OF RWY
 294.3ft 1310m 1732m 293.3ft 297.5ft 2500m
 0.6% 0.2% 0.6% 0.3% LEVEL

APCH LGT BEACONS
 334m 420m 596m
 283.4ft 650m
 0.6% 0.2% 0.6% 0.3% LEVEL

SEQUENCED FLASHING LGT (SFL-V)
 900m

DETAIL-A
 RWY HLDG PSN markings
 RWY SIDE
 T1, T2, T3, T4, T5-TWY

DETAIL-B
 ALS

WIND SPEED METER
 452.4m
 7v1
 WDI
 392503.58N 1410757.62E

TAXIING GUIDANCE SIGN
 392503.58N 1410757.62E

APRON FLOOD LGT
 5v3
 5v2
 5v1

W-APRON
 FIRE STATION
 APRON FOR SMALL ACFT

SEE DETAIL-A

ABN
 392543N 1410807E

ARP
 294ft

RTZL
 3v5
 4v4
 4v3
 4v2
 4v1

RTHL
 392623.24N 141087.11E

WIND SPEED METER
 GP 332.0
 RVR
 RWY GUARD LGT
 1v7

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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...

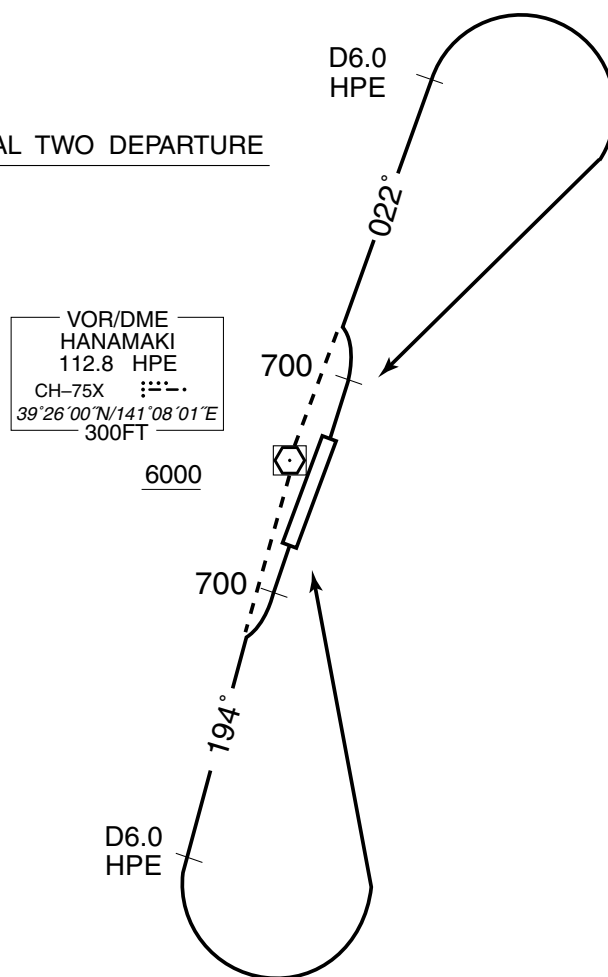
...proceed to HPE VOR/DME.

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

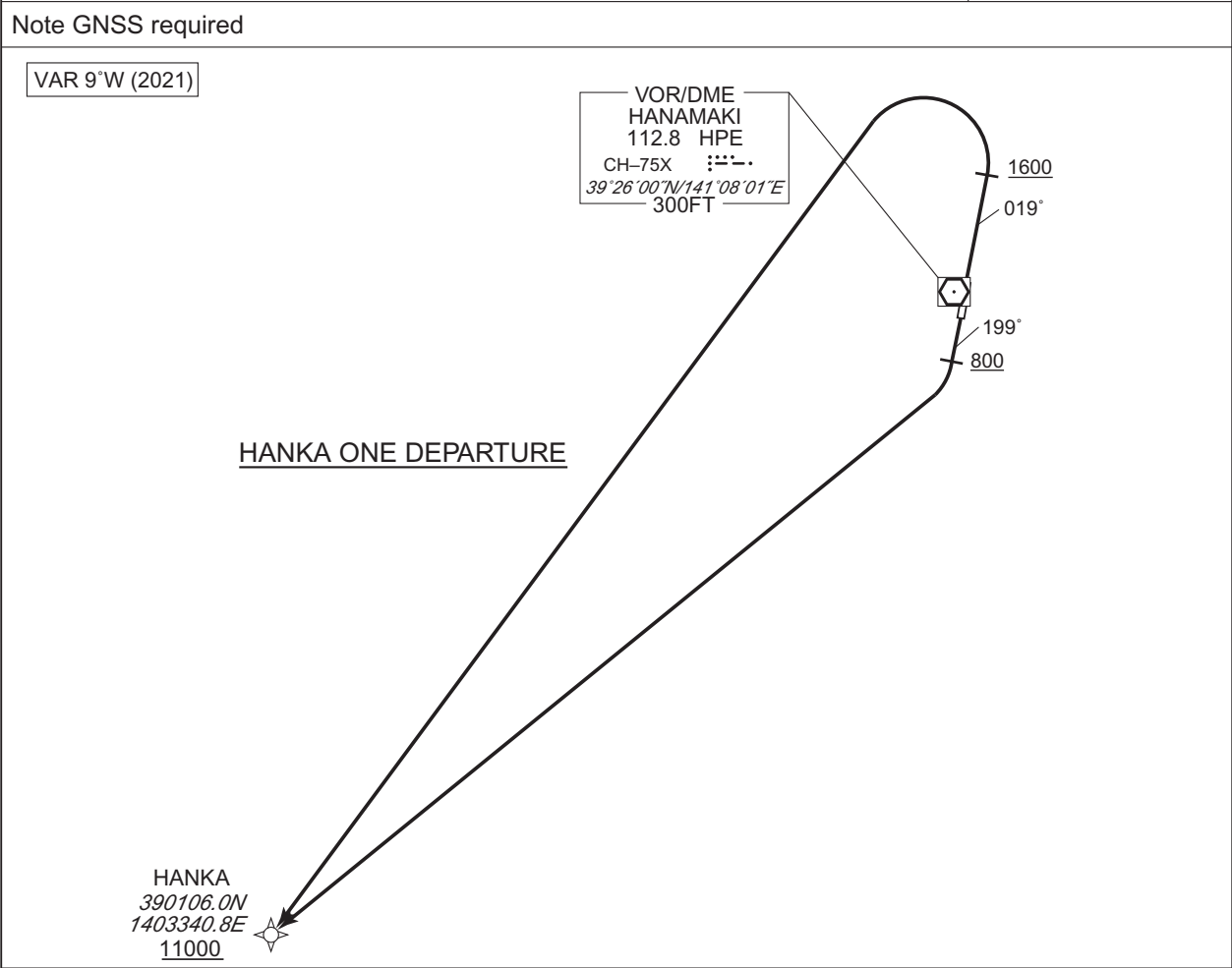
CHANGE : VAR. Note RWY20 (OBST).

STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

RNAV SID

HANKA ONE DEPARTURE	Basic RNP1
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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

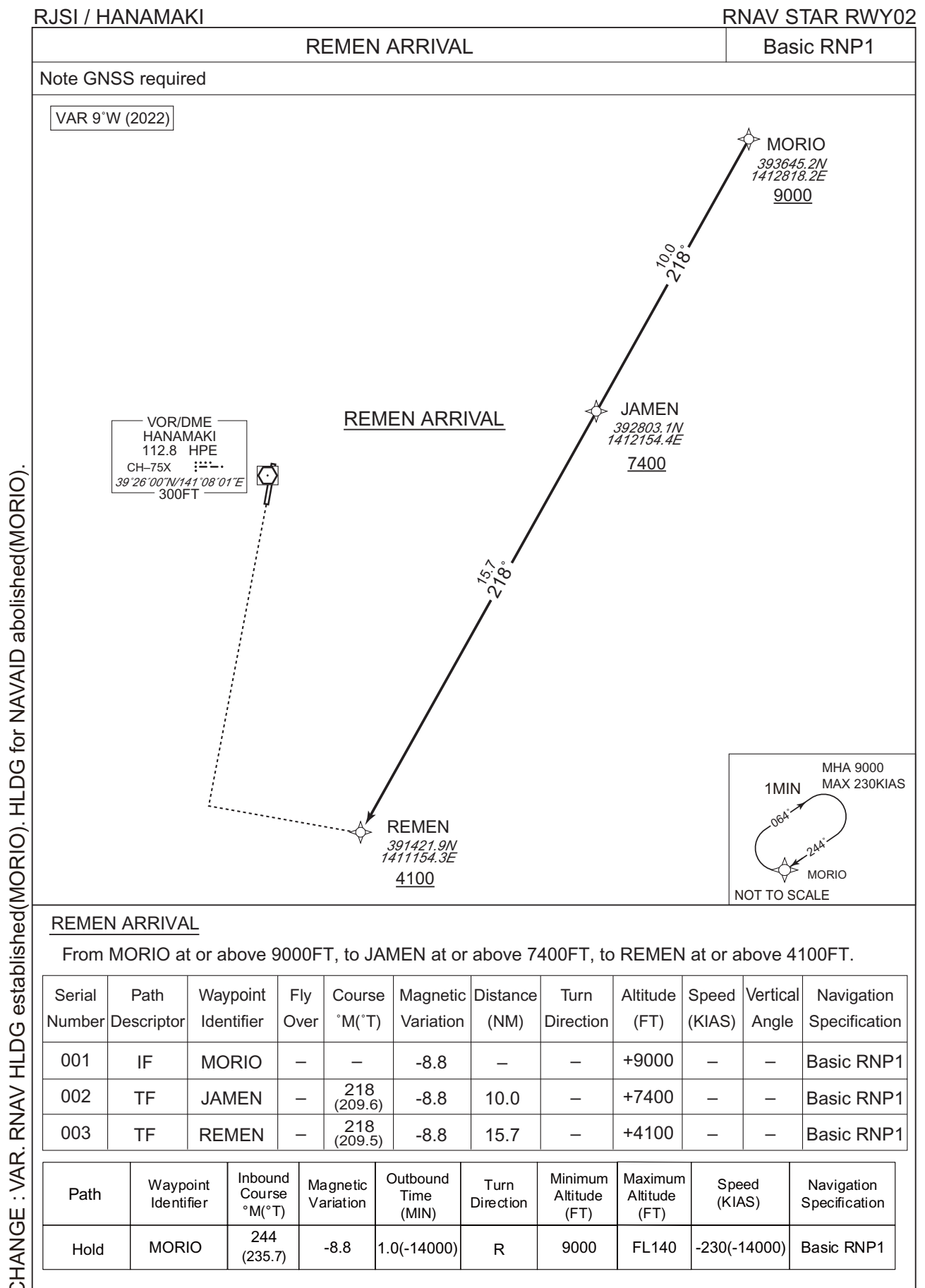
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	—	—	019 (010.7)	-8.7	—	—	+1600	—	—	Basic RNP1
002	DF	HANKA	—	—	-8.7	—	L	+11000	—	—	Basic RNP1

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



STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

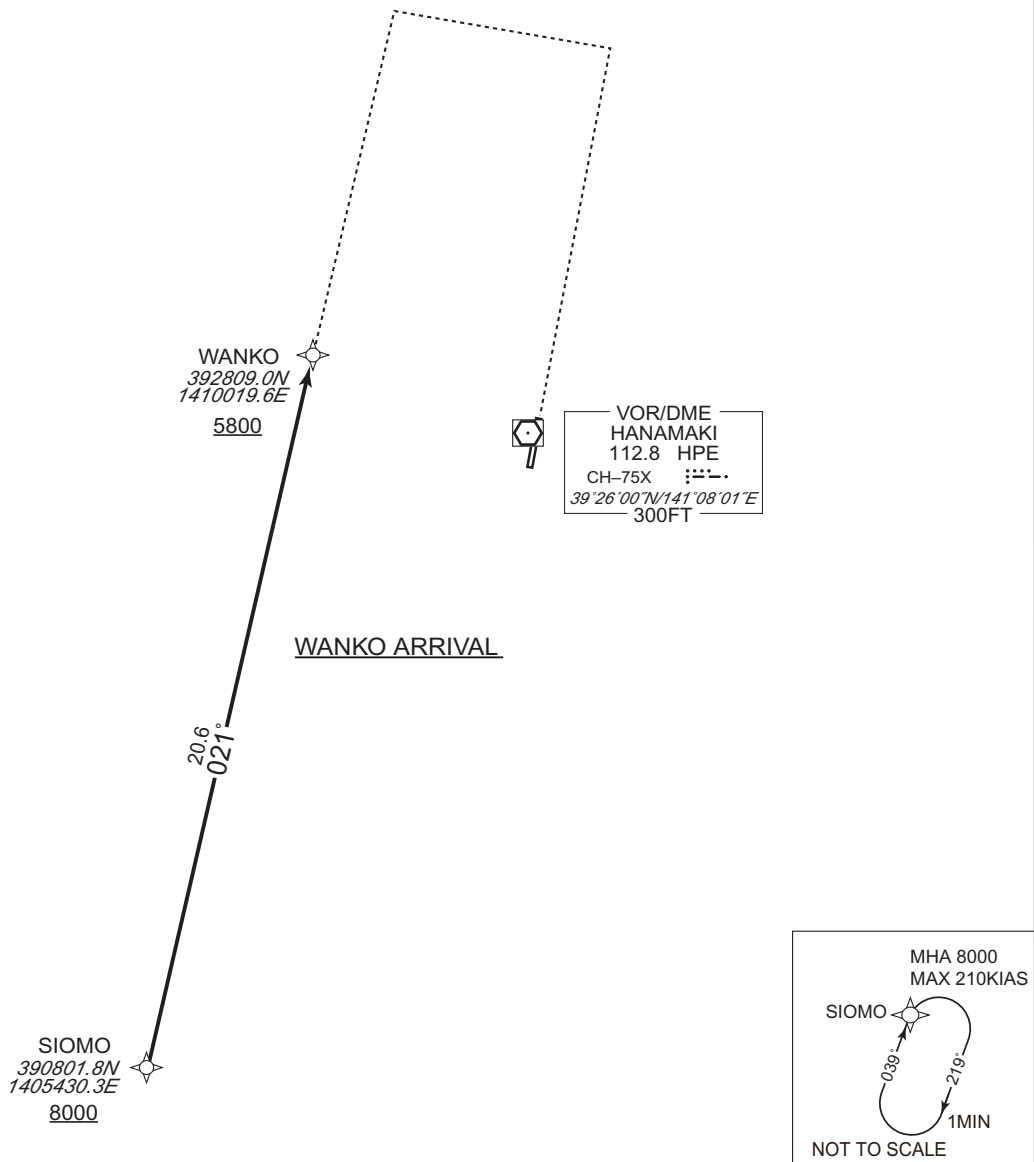
RNAV STAR RWY20

WANKO ARRIVAL

Basic RNP1

Note GNSS required

VAR 9°W (2022)



WANKO ARRIVAL

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

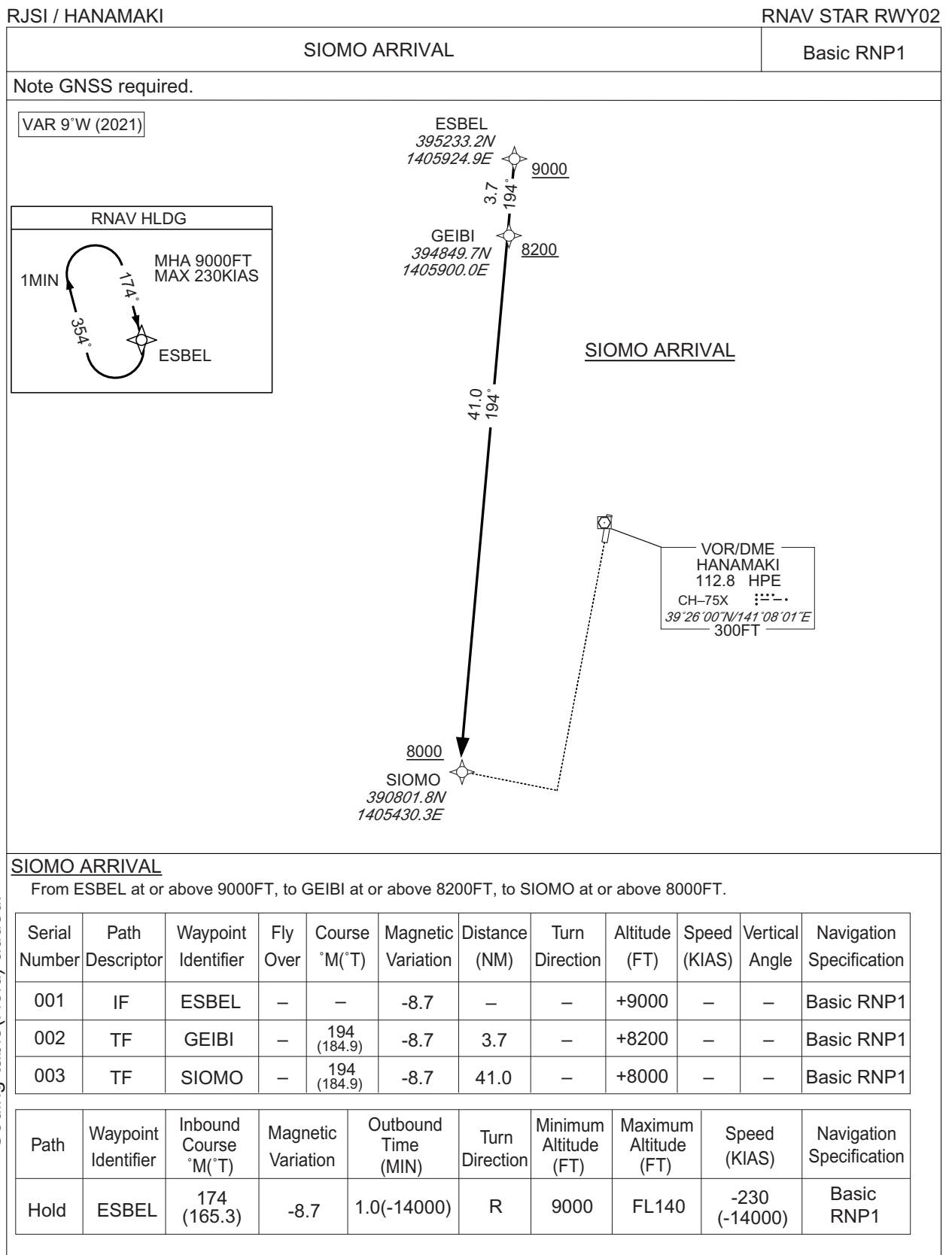
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	SIOMO	—	—	-8.8	—	—	+8000	—	—	Basic RNP1
002	TF	WANKO	—	021 (012.6)	-8.8	20.6	—	+5800	—	—	Basic RNP1

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	SIOMO	039 (030.1)	-8.8	1.0(-14000)	R	8000	FL140	-210(-14000)	Basic RNP1

CHANGE : VAR. RNAV HLDG established(SIOMO). HLDG for NAVAID abolished(SIOMO).

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

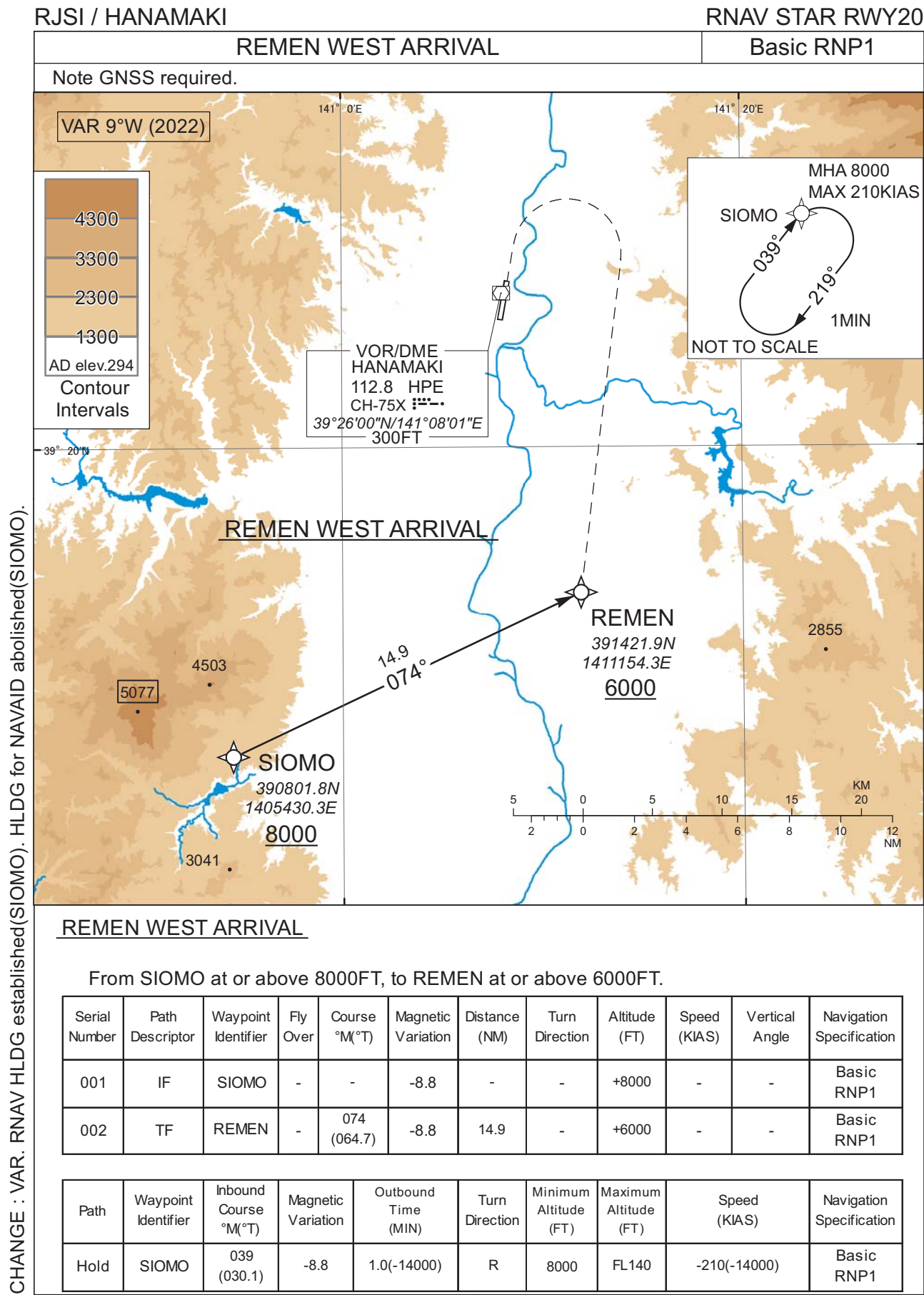
From ESBEL at or above 9000FT, to MAMEB at or above 8200FT, to NONBE at or above 6600FT, to SUIHO at or above 3200FT.

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

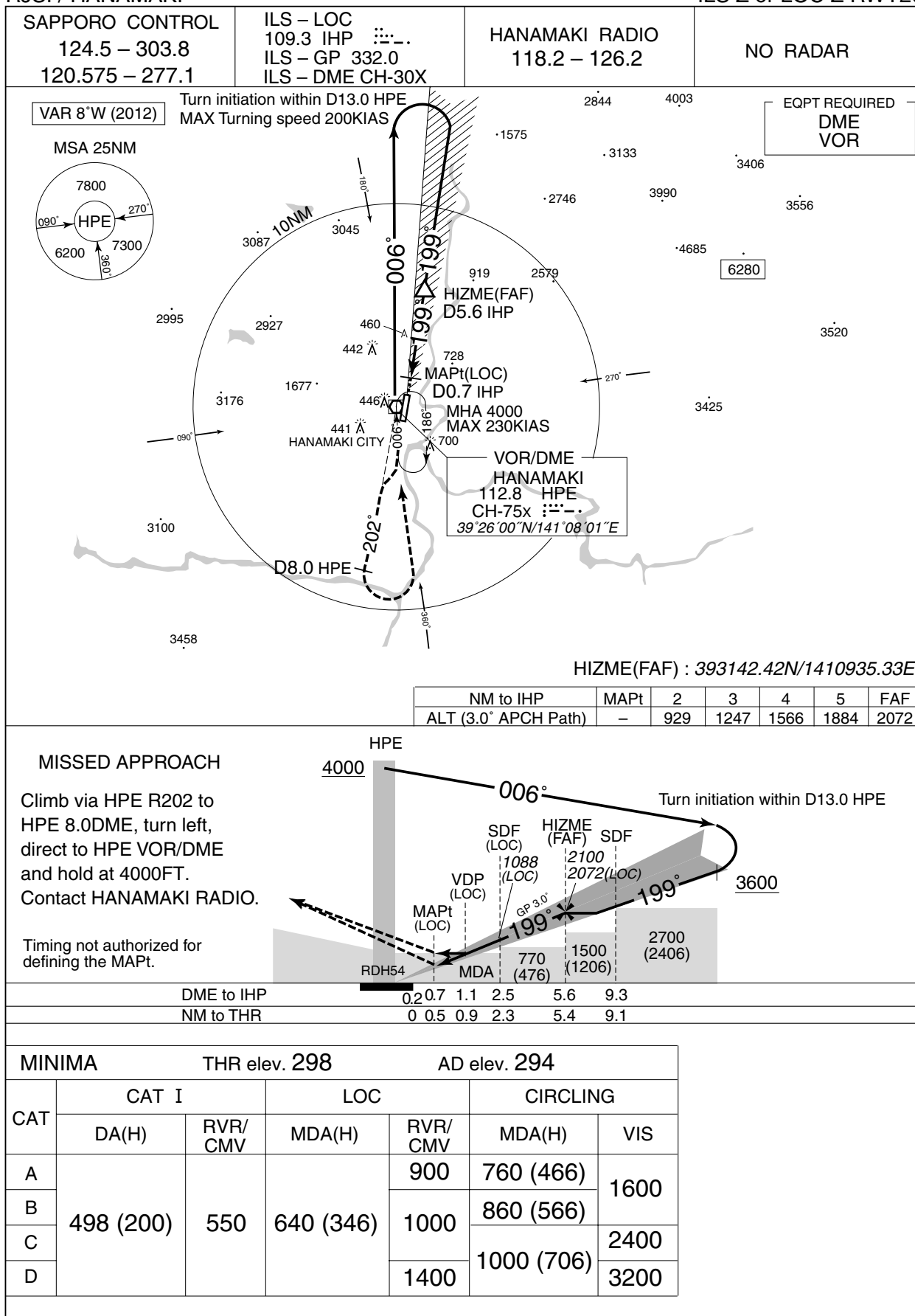


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INSTRUMENT APPROACH CHART

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

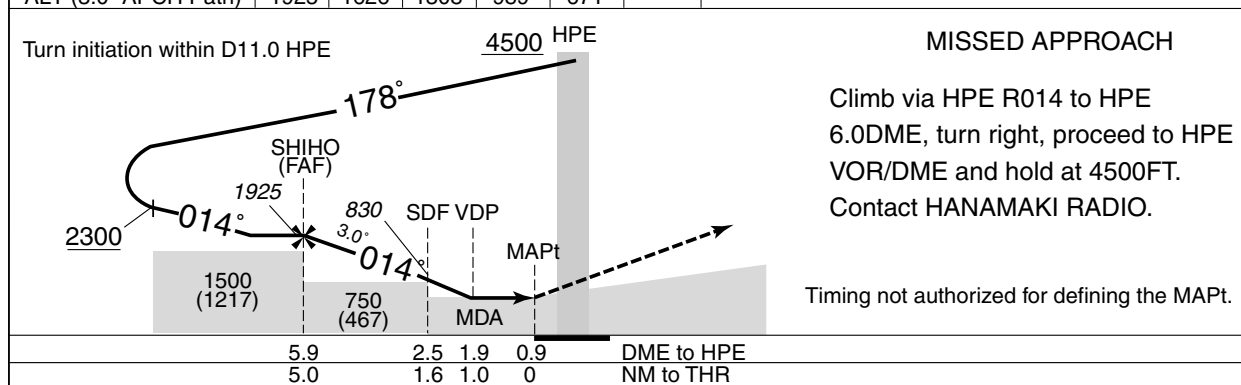
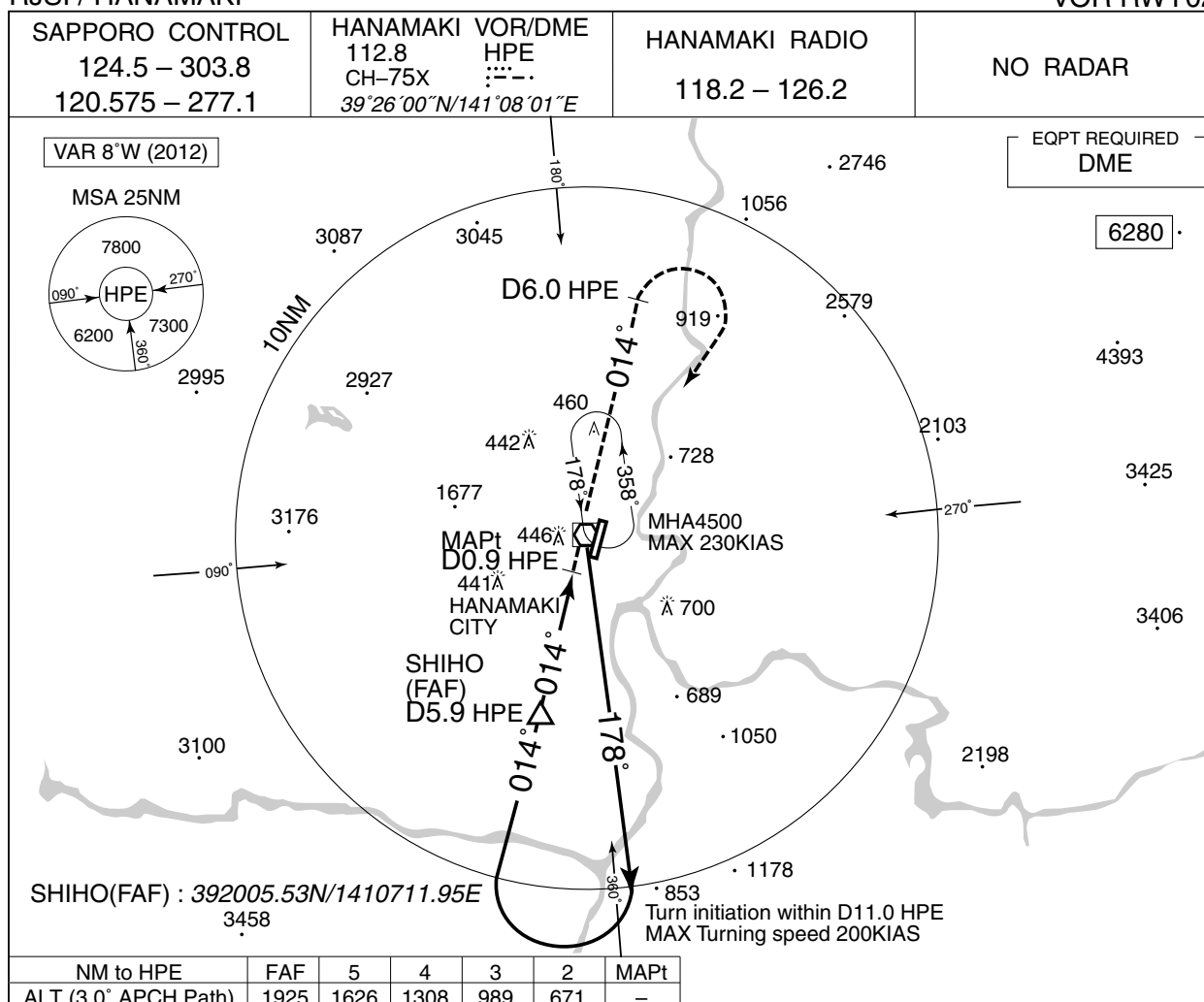
VOR RWY20



INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

VOR RWY02



Missed APCH climb gradient MNM 3.6%

MINIMA THR elev. 283 AD elev. 294

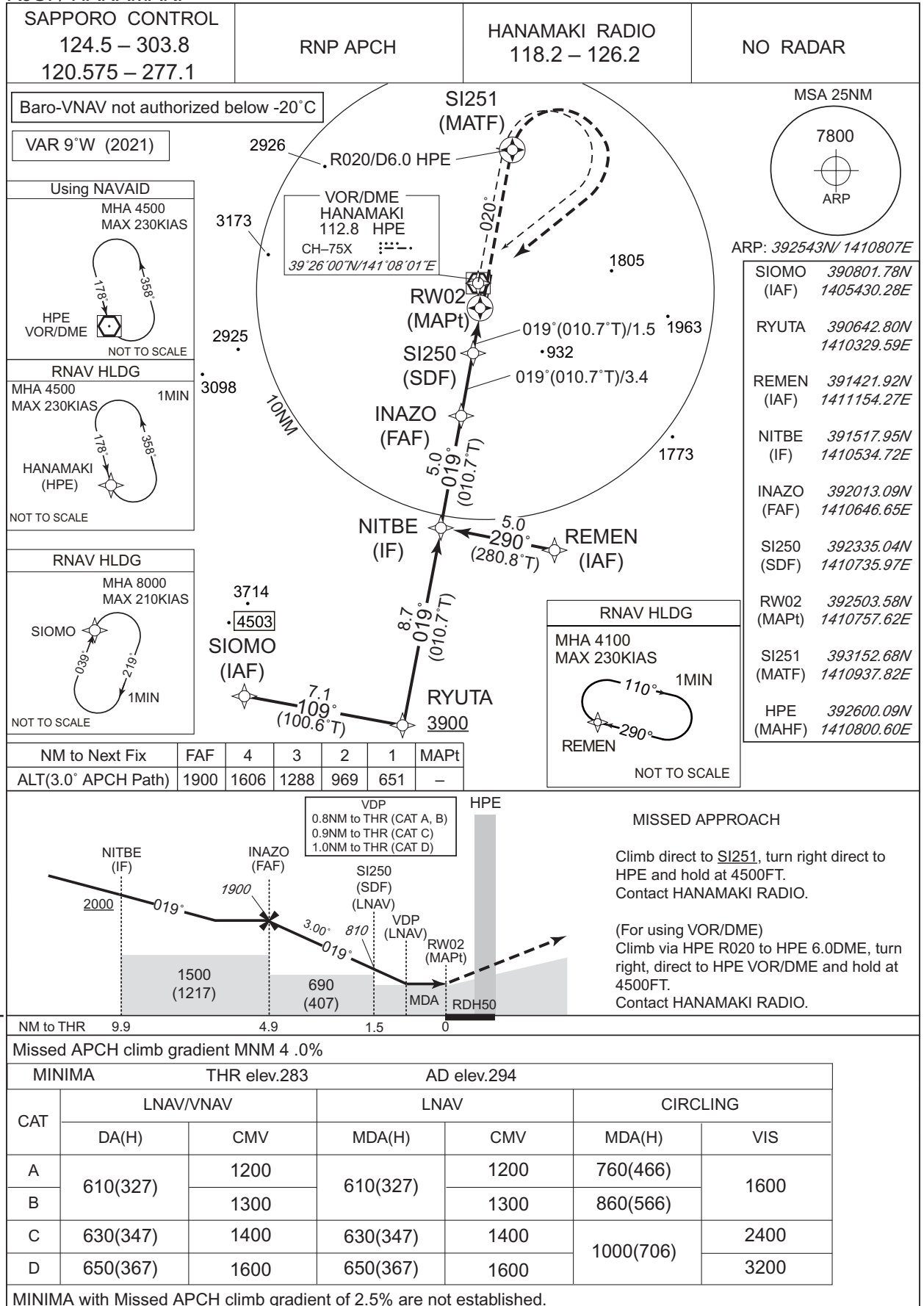
CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	640 (357)	1200	760 (466)	1600
B		1300	860 (566)	
C		1400	1000 (706)	2400
D	650 (367)	1600		3200

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

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNP Z RWY02

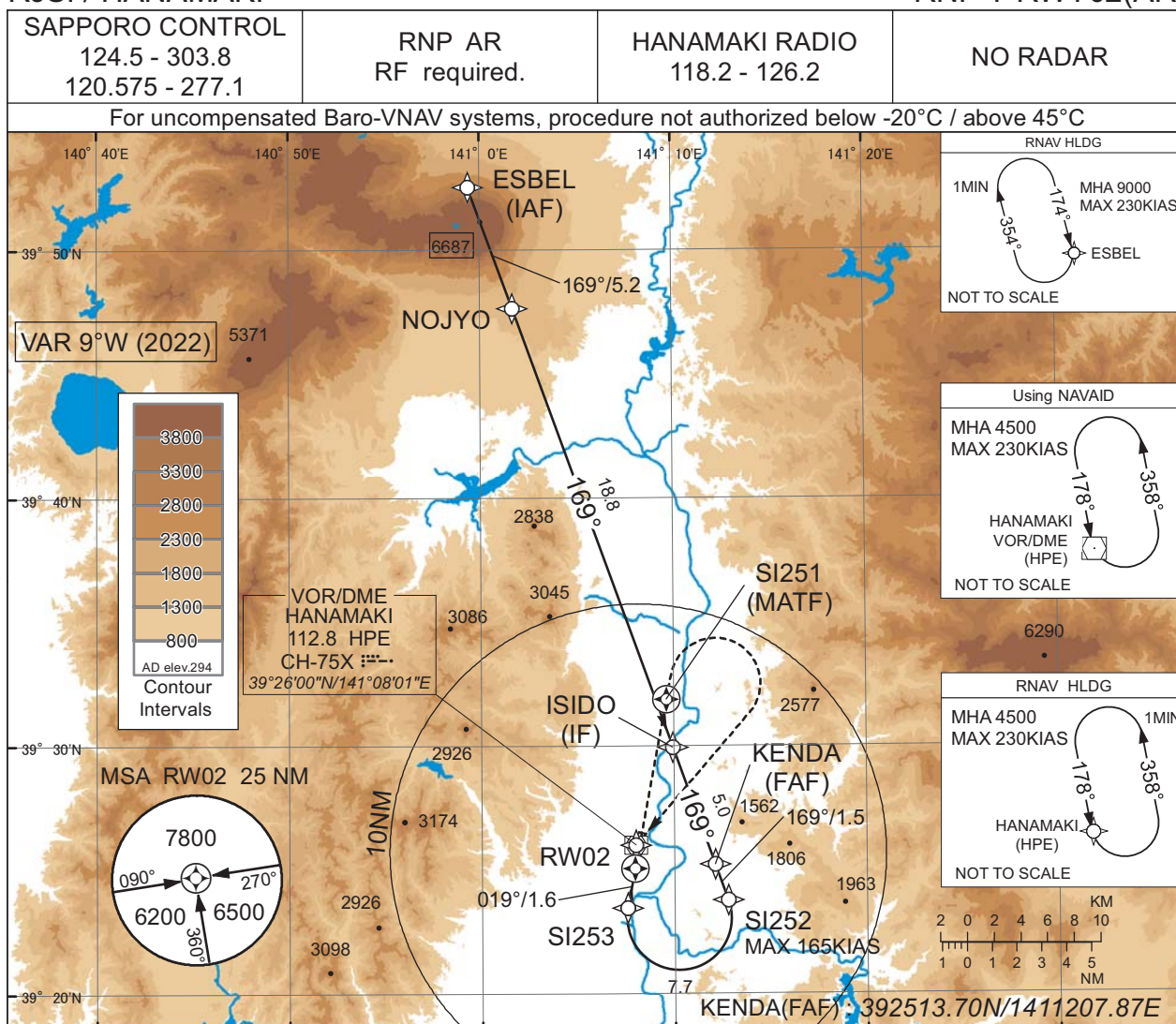


CHANGE:PROC renamed. Requirement for RNP.

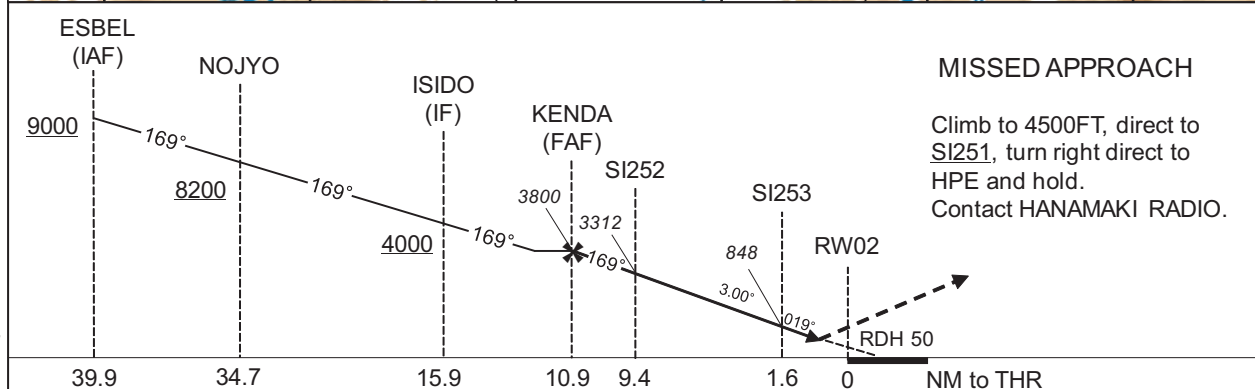
INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNP Y RWY02(AR)



CHANGE : PROC renamed. Requirement for RNP.



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

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	ESBEL	-	-	-8.8	-	-	+9000	-	-	-
002	TF	NOJYO	-	169 (160.2)	-8.8	5.2	-	+8200	-	-	1.0
003	TF	ISIDO	-	169 (160.2)	-8.8	18.8	-	+4000	-	-	1.0
004	TF	KENDA	-	169 (160.3)	-8.8	5.0	-	3800	-	-	1.0
005	TF	SI252	-	169 (160.4)	-8.8	1.5	-	3312	-165	-3.00	0.3
006	RF Center: SIRF1 r=2.10NM	SI253	-	-	-8.8	7.7	R	848	-	-3.00	0.3
007	TF	RW02	Y	019 (010.7)	-8.8	1.6	-	333	-	-3.00/50	0.3
008	DF	SI251	Y	-	-8.8	-	-	-	-	-	1.0
009	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	ESBEL	174 (165.3)	-8.8	1.0 (-14000)	R	9000	FL140	-230 (-14000)	1.0
Hold	HPE	178 (169.7)	-8.8	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		

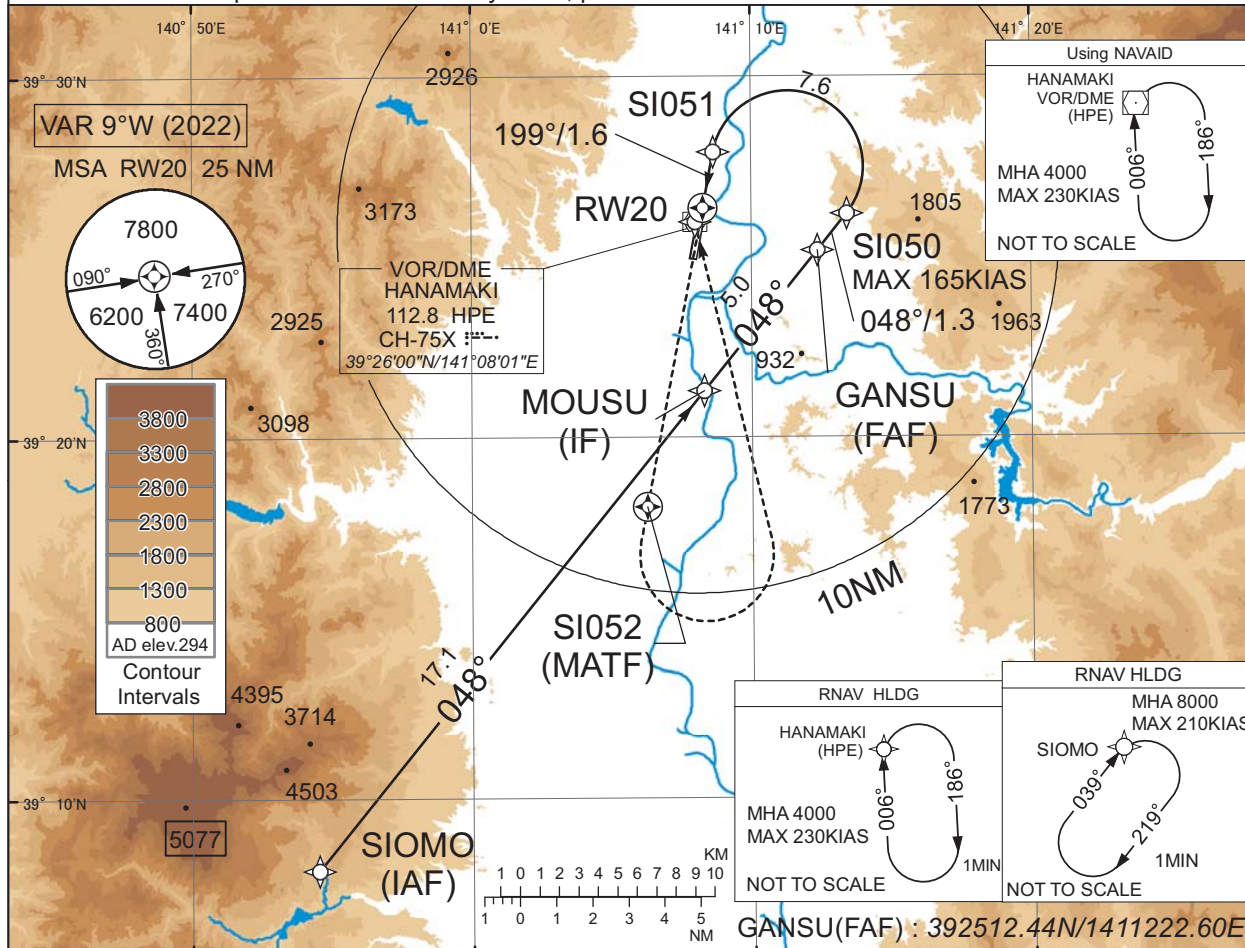
CHANGE : PROC renamed.

RJSI / HANAMAKI

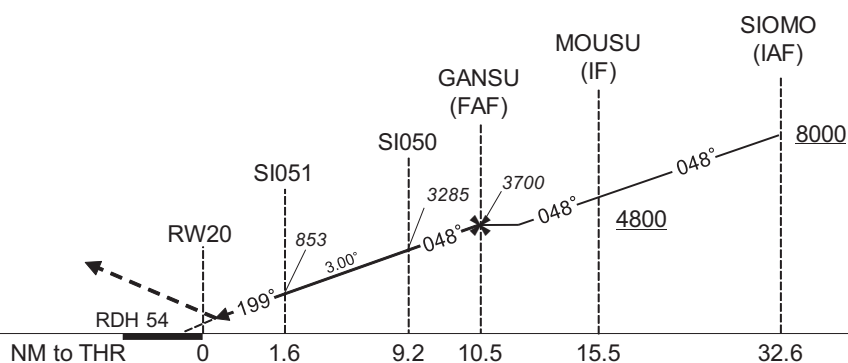
RNP Z RWY20(AR)

SAPPORO CONTROL 124.5 - 303.8 120.575 - 277.1	RNP AR RF required.	HANAMAKI RADIO 118.2 - 126.2	NO RADAR
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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 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

Authorization Required

CHANGE : PROC renamed. Requirement for RNP.

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.

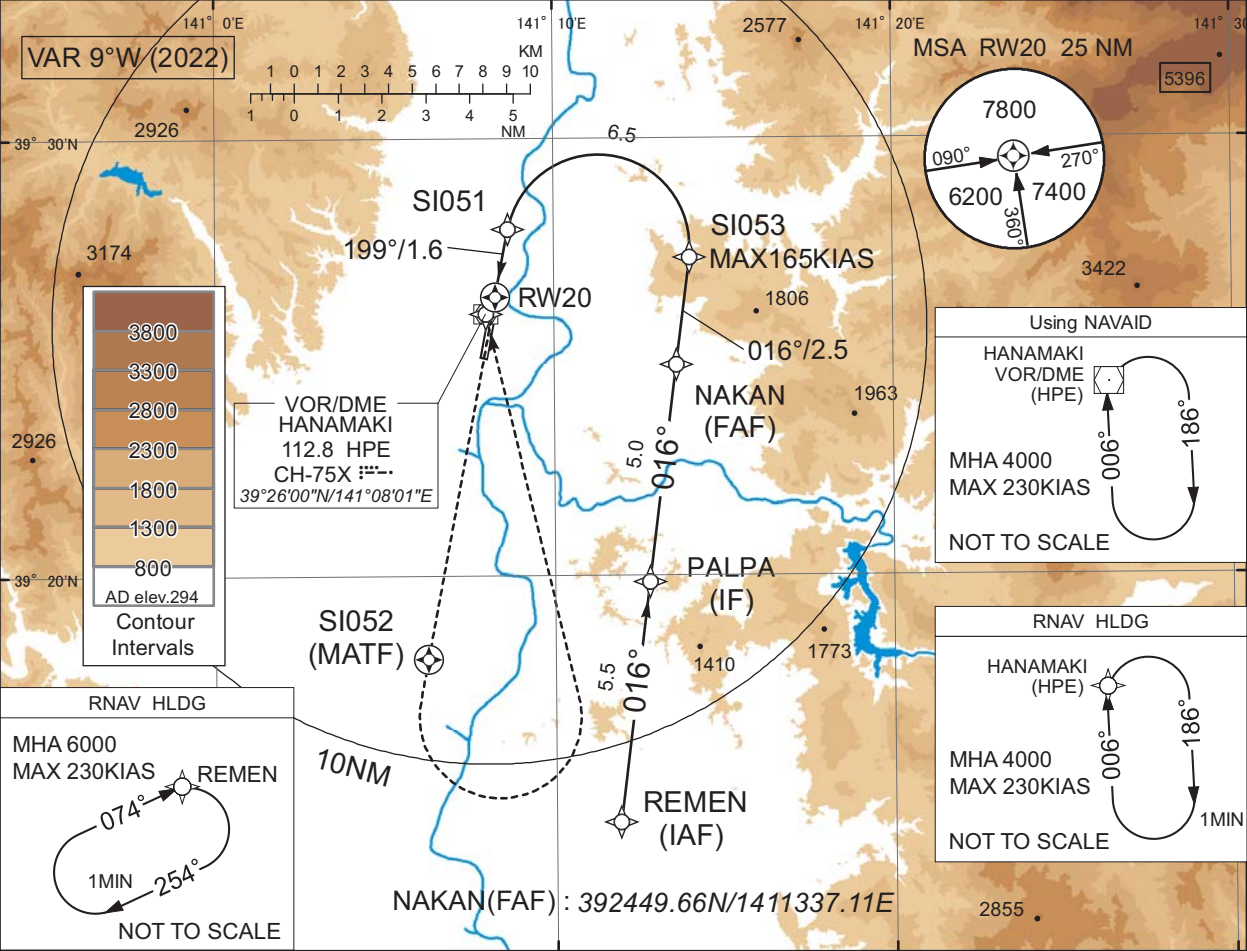
INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNP Y RWY20(AR)

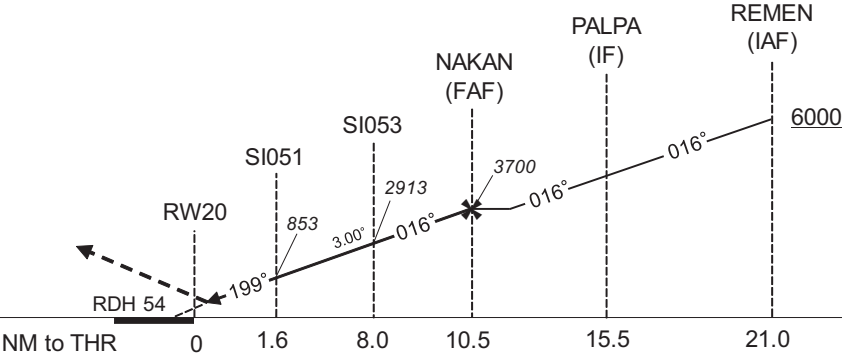
SAPPORO CONTROL 124.5 - 303.8 120.575 - 277.1	RNP AR RF required.	HANAMAKI RADIO 118.2 - 126.2	NO RADAR
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For uncompensated Baro-VNAV systems, procedure not authorized below -20°C / above 45°C



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

Authorization Required

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



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

※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).

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

