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 prefectual 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 dock- ing/ 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 AD2-4

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	$\begin{array}{c} S_6,\ U_{85},\ U_7,\ U_5,\ U_3,\ U_{25},\ U_2/T_r,\ P_S,\ P_5,\ P_3,\ P_{25},\ P_{SWE},\ P_{SWF},\ P_{SWG},\ P_{SWI}, \\ P_{SWM},\ P_{SW}(domestic),\ E,\ C,\ W_E,\ W_F,\ W_G,\ W_I,\ W,\ N \end{array}$
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 392503.58N Asphalt Concrete 1410757.62E 135ft		THR ELEV: 283ft
20	20 190.73° 2500×45		PCN 68/F/A/X/T 392623.24N Asphalt Concrete 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	40 × 300		RWY grooving:2500×45m
		2620×300	193 × (MNM:166 MAX:300)* *For detail, ask airport administrator		

RJSI AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
02 20	2500 2500	2500 2500	2500 2500	2500 2500	Nil 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 AD2-6

RJSI AD 2.16 HELICOPTER LANDING AREA

Nil	

RJSI AD 2.17 ATS AIRSPACE

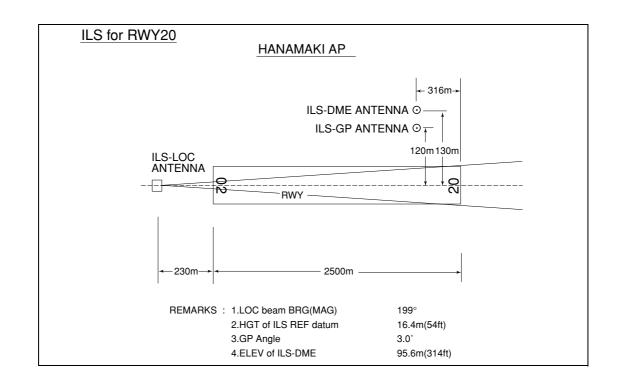
Designation and lateral limits	Vertical limits (ft)	Airspace classification	ATS unit call sign Language	Remarks
1	2	3	4	6
Area within a radius of 5nm(9km) of Hanamaki ARP	3,000	Е	Hanamaki Radio En	

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 datum16.5m (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.



RJSLAD 2 20 LOCAL TRAFFIC REGULATIONS

RJSI AD 2.20 LOCAL TRAFFIC REGULATIONS 1. Airport regulations
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
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
3. 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 8	& RCLL	REDL or RO		NIL (DAYTIME ONLY)				
			RVR	VIS	RVR	VIS	RVR	VIS			
Multi-Engine ACFT with	02	A, B, C, D	-	400m	-	400m	-	500m			
TKOF ALTN AP Filed	20	A, B, C, D	400m	400m	400m	400m	-	500m			
OTHER	02	A, B, C, D			AVRL LDG	MINIMA					
OTTER	20	Λ, Β, Ο, Β		AVBL LDG MINIMA							

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)

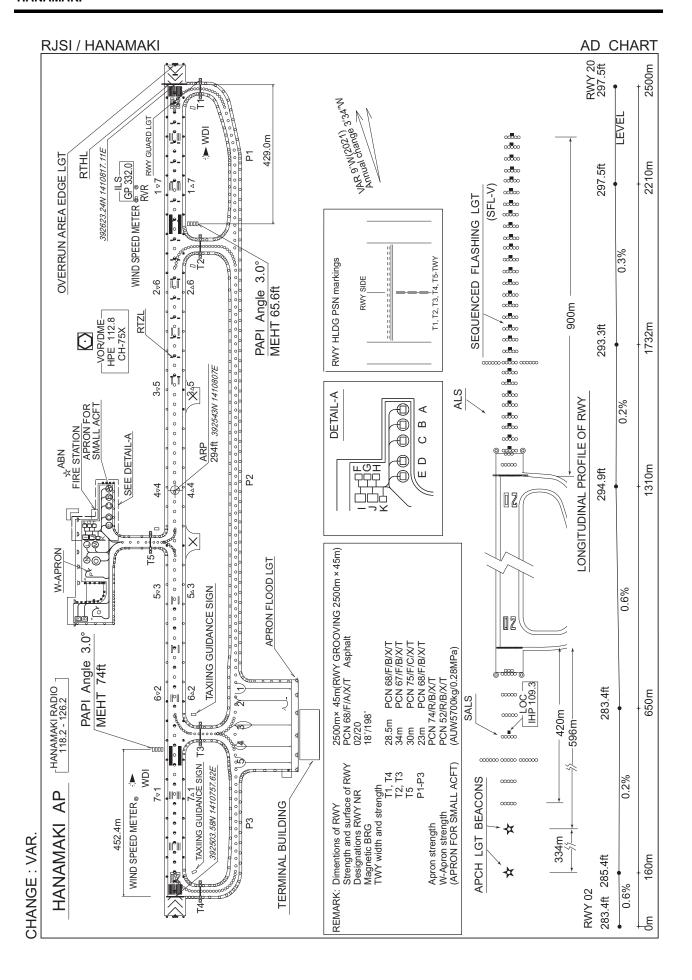
Instrument Approach Chart (RNAV(RNP) Z RWY20) Instrument Approach Chart (RNAV(RNP) Y RWY20)

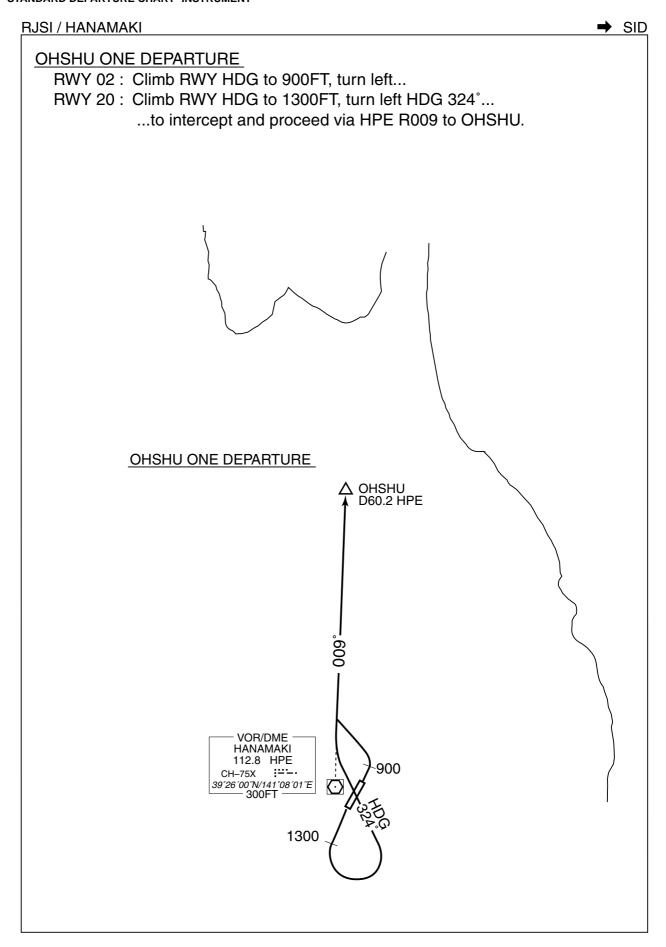
Other Chart (Visual REP)

Other Chart (LDG CHART)

Other Chart (MVA CHART)







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.

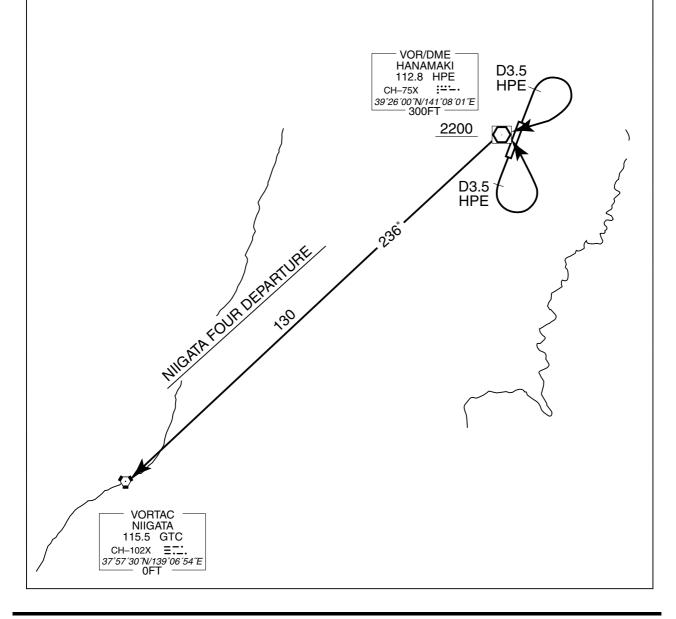
Cross HPE VOR/DME at or above 2200 FT.

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.



RJSI / HANAMAKI SID

HANAMAKI REVERSAL TWO DEPARTURE

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

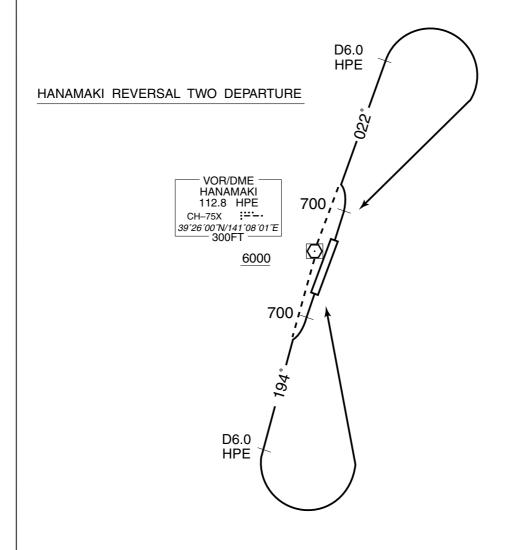
RWY 20: Climb RWY HDG to 700FT, via HPE R194 to 6.0 DME, turn left...

...proceed to HPE VOR/DME.

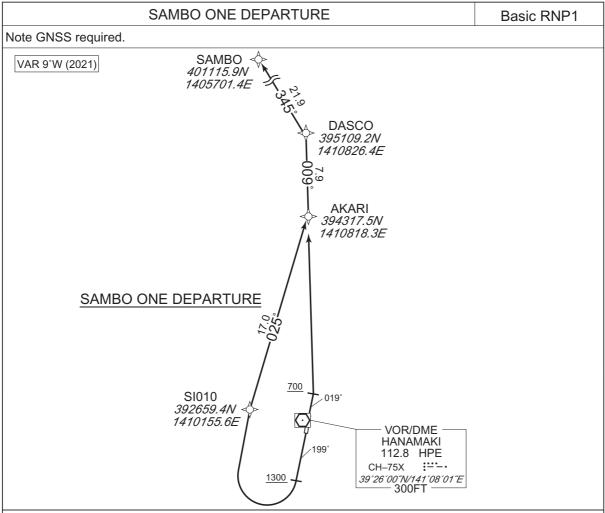
Cross HPE VOR/DME at or above 6000FT.

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

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



RJSI / HANAMAKI RNAV SID



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	Path	Waypoint	Fly	Course	Magnetic		Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	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	ı	_	_	_	Basic RNP1
004	TF	SAMBO	_	345 (336.6)	-8.7	21.9	1	_	_	_	Basic RNP1

RWY20

l Path	14/	-:								
	Waypoint	Fly	Course	Magnetic		Turn	Altitude	Speed	Vertical	Navigation
er Descriptor	Identifier	Over	\ /	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
VA	_	_	199 (190.7)	-8.7	_	-	+1300	_	_	Basic RNP1
2 DF	SI010	_	_	-8.7	_	R	_	_	_	Basic RNP1
3 TF	AKARI	_	025 (016.7)	-8.7	17.0	I	-	-	_	Basic RNP1
1 TF	DASCO	_	(8.000)	-8.7	7.9	_	_	_	_	Basic RNP1
5 TF	SAMBO	_	345 (336.6)	-8.7	21.9	ı	-	_	_	Basic RNP1
1	2 DF 3 TF 4 TF	1 VA — 2 DF SI010 3 TF AKARI 4 TF DASCO	1 VA 2 DF SI010 - 3 TF AKARI - 4 TF DASCO -	1 VA (199.7) 2 DF SI010 025 3 TF AKARI - (016.7) 4 TF DASCO - (000.8)	1 VA (190.7) -8.7 2 DF SI0108.7 3 TF AKARI - (016.7) -8.7 4 TF DASCO - (000.8) -8.7	1 VA (190.7) -8.7 - 2 DF SI0108.7 - 3 TF AKARI - (016.7) -8.7 17.0 4 TF DASCO - (000.8) -8.7 7.9	1 VA (190.7) -8.7	1 VA (190.7) -8.7 +1300 2 DF SI0108.7 - R - 3 TF AKARI - (016.7) -8.7 17.0 4 TF DASCO - (000.8) -8.7 7.9	1 VA - (190.7) -8.7 - +1300 - 2 DF SI010 8.7 - R 3 TF AKARI - (016.7) -8.7 17.0 4 TF DASCO - (000.8) -8.7 7.9	1 VA (190.7) -8.7 +1300 2 DF SI0108.7 - R 3 TF AKARI - (016.7) -8.7 17.0 4 TF DASCO - (000.8) -8.7 7.9

RJSI / HANAMAKI **RNAV SID** HANKA ONE DEPARTURE Basic RNP1 Note GNSS required VAR 9°W (2021) VOR/DME HANAMAKI 112.8 HPE CH-75X :---1600 39°26′00″N/141°08′01″E 300FT 019° 199 <u>800</u> HANKA ONE DEPARTURE **HANKA** 390106.0N 1403340.8E 11000

HANKA ONE DEPARTURE

RWY02 : Climb on HDG 019 $^\circ$ at or above 1600FT, turn left direct to HANKA, at or above 11000FT. RWY20 : Climb on HDG 199 $^\circ$ 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.

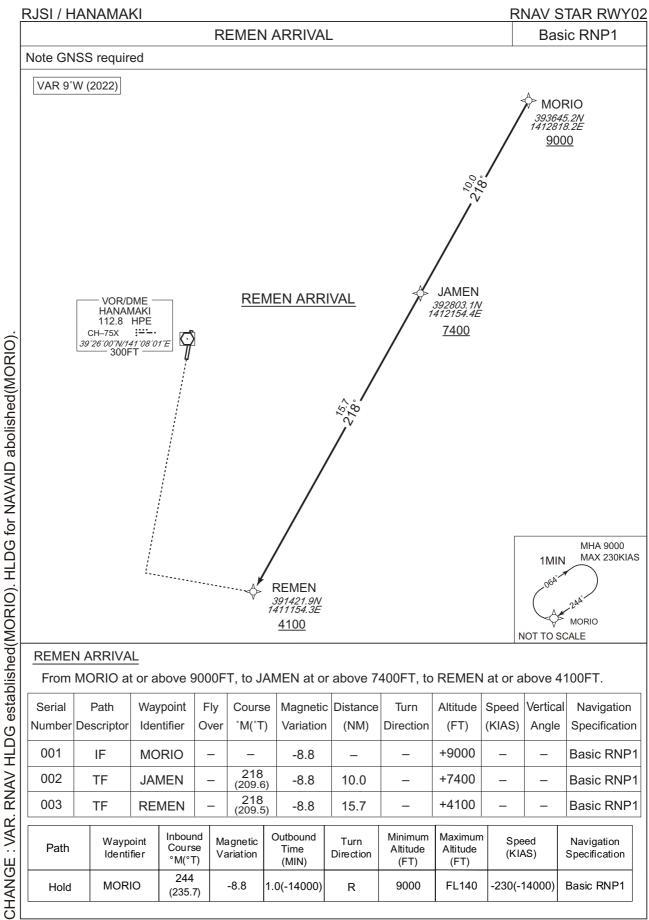
OBST ALT 4593FT located at 18.2NM 227° FM end of RWY20. OBST ALT 5151FT located at 20.8NM 232° FM end of RWY20.

RWY02

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

RWY20

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	VA	_	_	199 (190.7)	-8.7	_	_	+800	_	_	Basic RNP1
002	DF	HANKA	_		-8.7	_	R	+11000	_	_	Basic RNP1



Ser	ial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Num	ber [Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
00)1	IF	MORIO	_	_	-8.8	_	_	+9000	_	_	Basic RNP1
00	2	TF	JAMEN	_	218 (209.6)	-8.8	10.0	-	+7400	_	_	Basic RNP1
00	3	TF	REMEN	_	218 (209.5)	-8.8	15.7	_	+4100	_	_	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	MORIO	244 (235.7)	-8.8	1.0(-14000)	R	9000	FL140	-230(-14000)	Basic RNP1

RJSI / HANAMAKI **RNAV STAR RWY20** Basic RNP1 WANKO ARRIVAL Note GNSS required VAR 9°W (2022) WANKO VOR/DME 5800 HANAMAKI 112.8 HPE CH-75X :---• 39°26′00″N/141°08′01″E 300FT CHANGE: VAR. RNAV HLDG established(SIOMO). HLDG for NAVAID abolished(SIOMO). WANKO ARRIVAL MHA 8000 MAX 210KIAS SIOMO SIOMO 390801.8N 1405430.3E 8000 NOT TO SCALE WANKO ARRIVAL

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

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	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

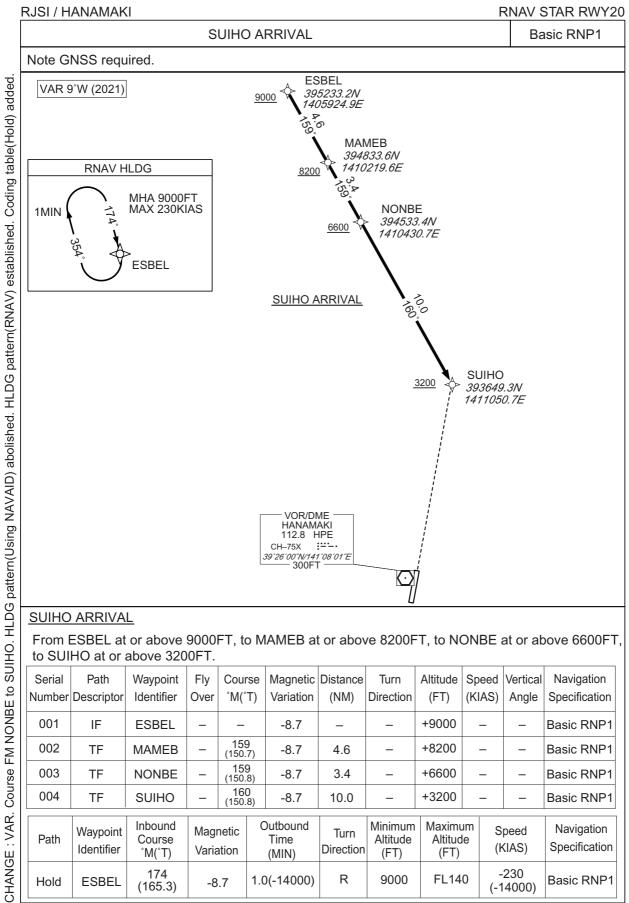
RJSI / HANAMAKI RNAV STAR RWY02 SIOMO ARRIVAL Basic RNP1 Note GNSS required. VAR 9°W (2021) **ESBEL** 395233.2N 1405924.9E 9000 3.7 194 RNAV HLDG **GEIBI** 8200 394849.7N 1405900.0E MHA 9000FT MAX 230KIAS 1MIN SIOMO ARRIVAL **ESBEL** 41.0 194° VOR/DME HANAMAKI 112.8 HPE CH-75X :---39°26′00″N/141°08′01″E 300FT 8000 SIOMO 390801.8N 1405430.3E

SIOMO ARRIVAL

From ESBEL at or above 9000FT, to GEIBI at or above 8200FT, to SIOMO at or above 8000FT.

3 4445	Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)		Navigation Specification
	001	IF	ESBEL	_	_	-8.7	_	_	+9000	_	_	Basic RNP1
2	002	TF	GEIBI	_	194 (184.9)	-8.7	3.7	-	+8200	_	_	Basic RNP1
2	003	TF	SIOMO	_	194 (184.9)	-8.7	41.0	_	+8000	_	_	Basic RNP1
5										1		

Pa	ath	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Н	old	ESBEL	174 (165.3)	-8.7	1.0(-14000)	R	9000	FL140	-230 (-14000)	Basic RNP1

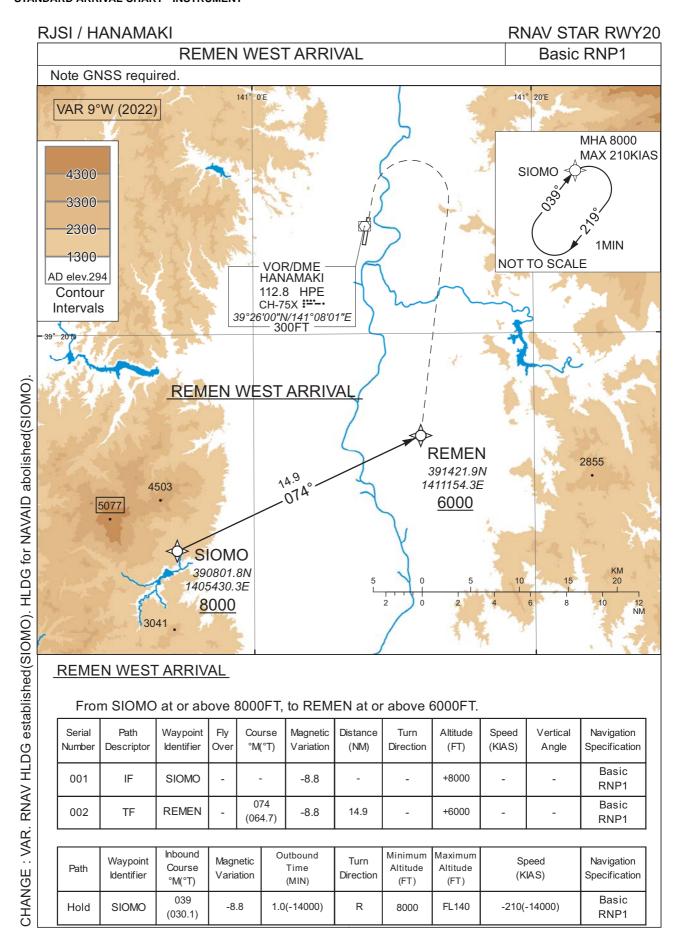


SUIHO ARRIVAL

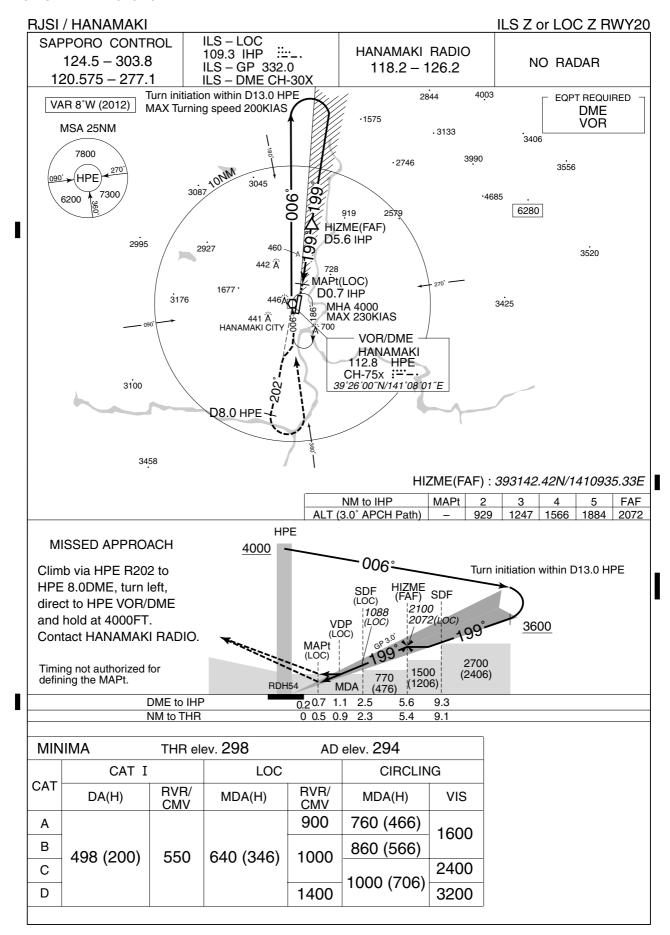
From ESBEL at or above 9000FT, to MAMEB at or above 8200FT, to NONBE at or above 6600FT, to SUIHO at or above 3200FT.

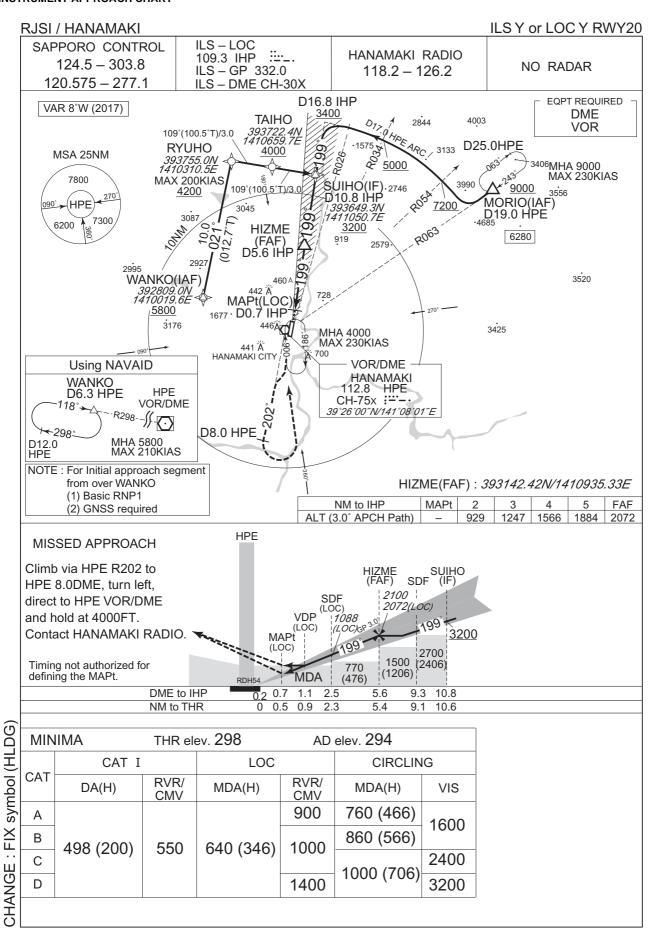
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	
001	IF	ESBEL	_	_	-8.7	_	_	+9000	_	_	Basic RNP1
002	TF	MAMEB	_	159 (150.7)	-8.7	4.6	_	+8200	_	_	Basic RNP1
003	TF	NONBE	_	159 (150.8)	-8.7	3.4	_	+6600	_	_	Basic RNP1
004	TF	SUIHO	_	160 (150.8)	-8.7	10.0	_	+3200	_	_	Basic RNP1

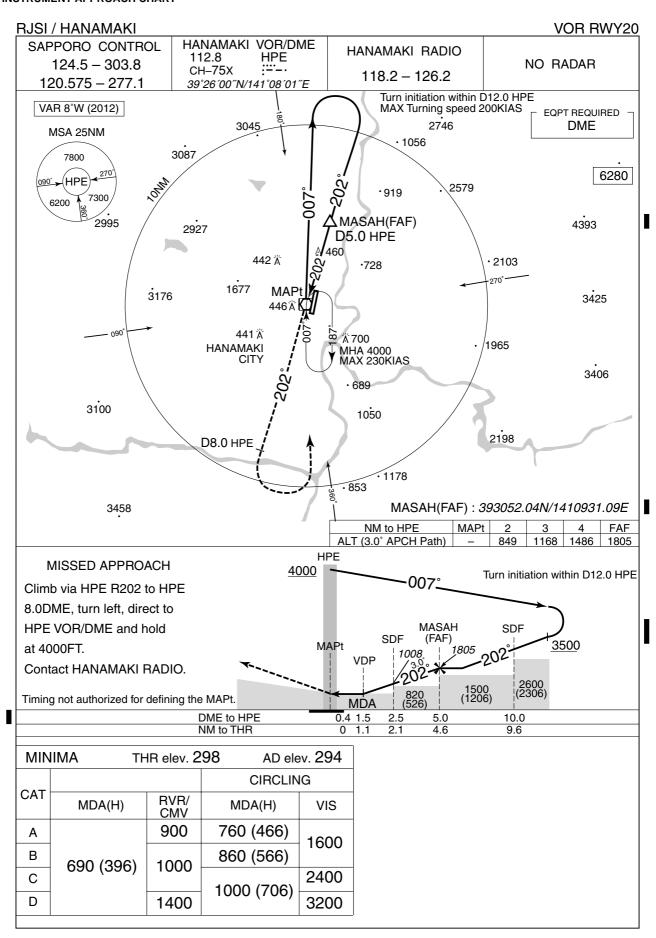
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	ESBEL	174 (165.3)	-8.7	1.0(-14000)	R	9000	FL140	-230 (-14000)	Basic RNP1

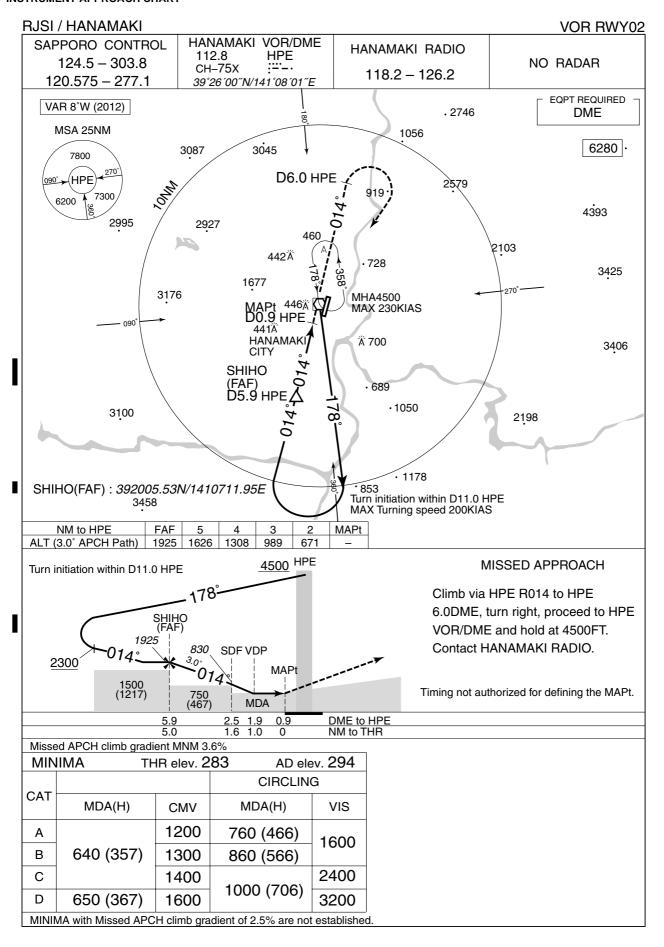


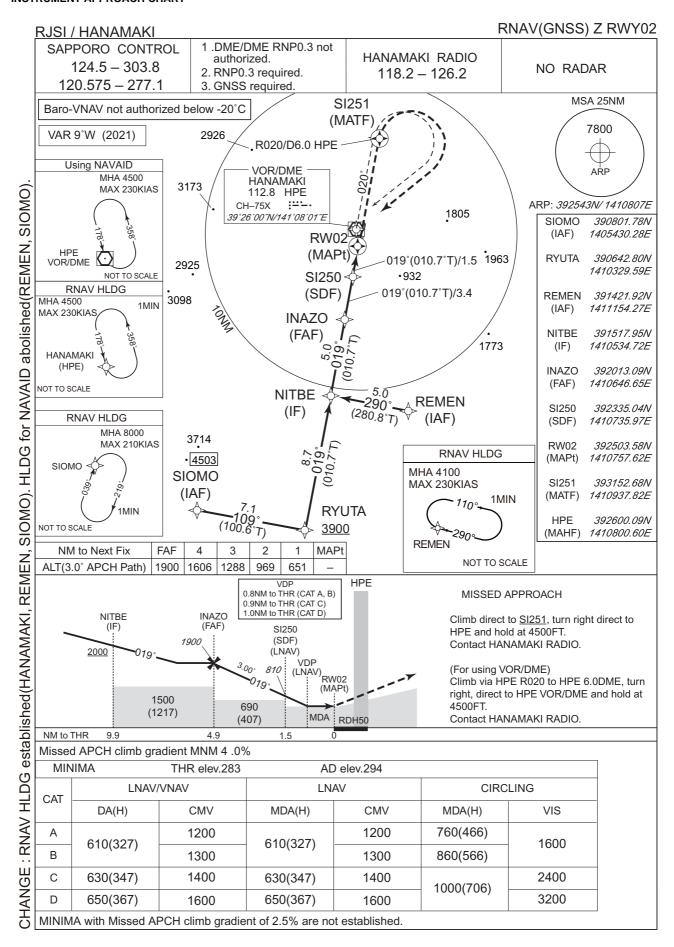


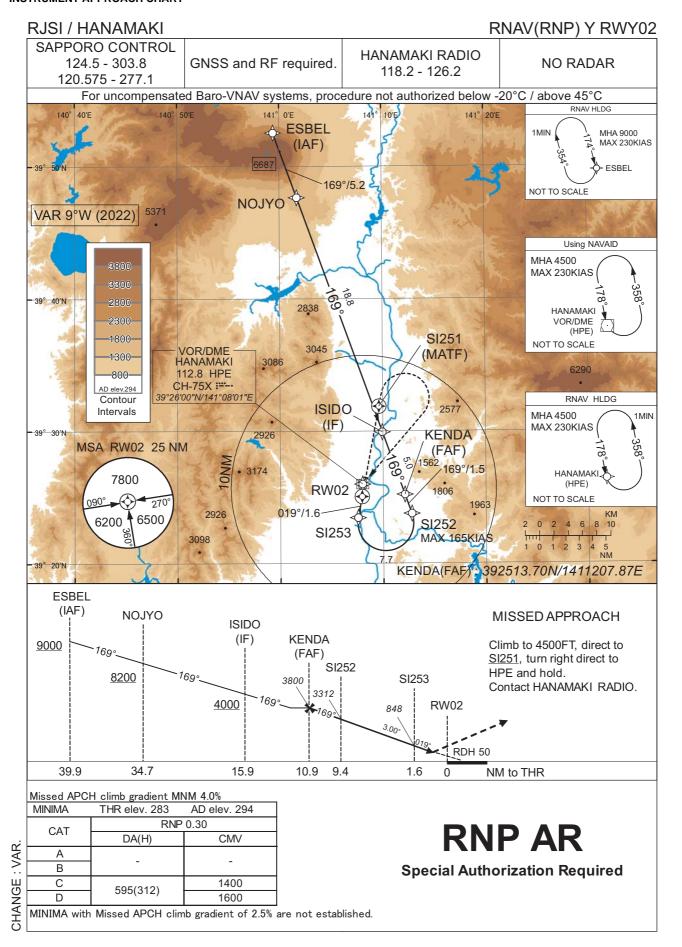












RJSI / HANAMAKI

RNAV(RNP) Y RWY02

RNAV(RNP) Y RWY02

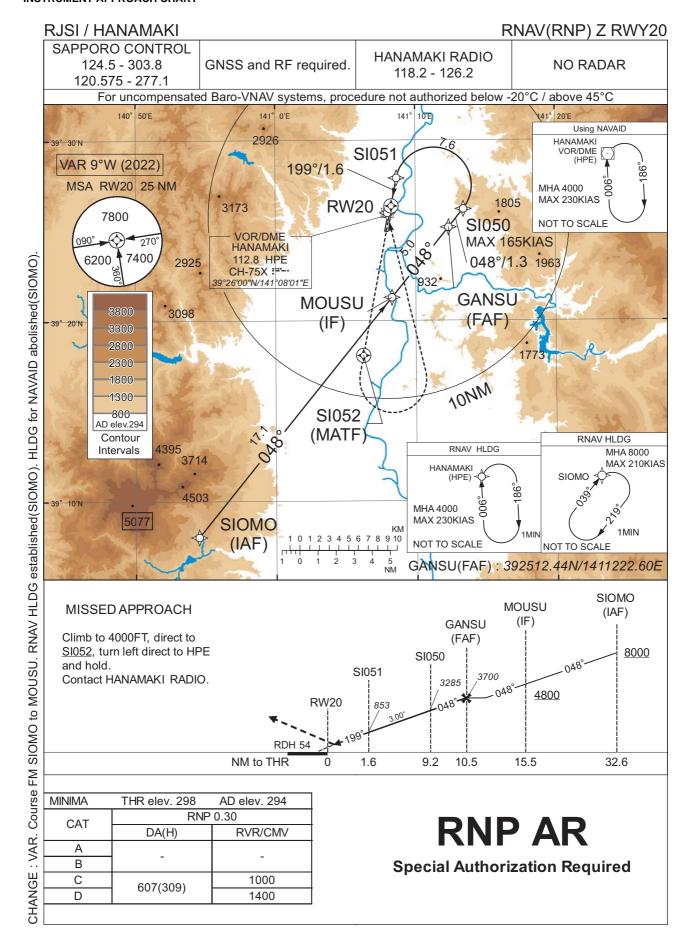
Coding Table

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	-	ı	-8.8	ı	-	+9000	-	ı	-
002	TF	NOJYO	-	169 (160.2)	-8.8	5.2	-	+8200	-	-	1.0
003	TF	ISIDO	1	169 (160.2)	-8.8	18.8	-	+4000	-	-	1.0
004	TF	KENDA	1	169 (160.3)	-8.8	5.0	-	3800	-	-	1.0
005	TF	SI252	1	169 (160.4)	-8.8	1.5	-	3312	-165	-3.00	0.3
006	RF Center: SIRF1 r=2.10NM	SI253	1	1	-8.8	7.7	R	848	-	-3.00	0.3
007	TF	RW02	Υ	019 (010.7)	-8.8	1.6	-	333	-	-3.00/50	0.3
008	DF	SI251	Υ	1	-8.8	ı	-	-	-	-	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		
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RNAV(RNP) Z RWY20

RNAV(RNP) Z RWY20

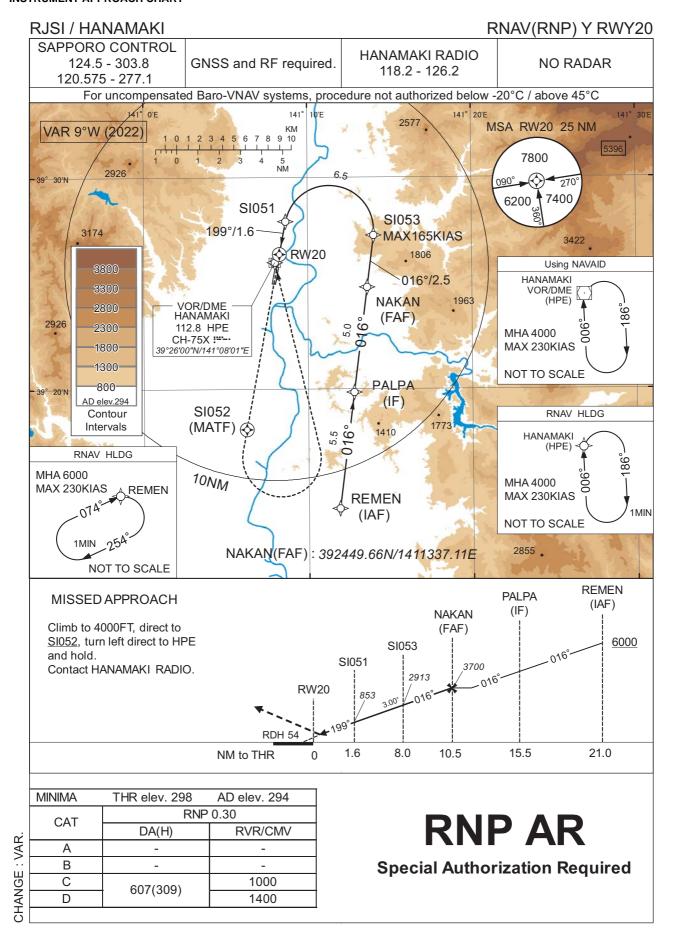
Coding Table

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	1	-	-8.8	-	1	+8000	1	1	1
002	TF	MOUSU	-	048 (038.8)	-8.8	17.1	-	+4800	-	-	1.0
003	TF	GANSU	1	048 (038.9)	-8.8	5.0	ı	3700	ı	ı	1.0
004	TF	SI050	1	048 (038.9)	-8.8	1.3	-	3285	-165	-3.00	0.3
005	RF Center: SIRF2 r=2.10NM	SI051	1	1	-8.8	7.6	L	853	1	-3.00	0.3
006	TF	RW20	Υ	199 (190.7)	-8.8	1.6	ı	352	ı	-3.00/54	0.3
007	DF	SI052	Υ	-	-8.8	-	-	-	-	-	1.0
800	DF	HPE	1	-	-8.8	-	L	4000	-	-	1.0

Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	lime	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				



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RNAV(RNP) Y RWY20

RNAV(RNP) Y RWY20

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	1	-	-8.8	-	-	+6000	-	-	-
002	TF	PALPA	-	016 (007.2)	-8.8	5.5	-	ı	1	-	1.0
003	TF	NAKAN	1	016 (007.2)	-8.8	5.0	ı	3700	1	-	1.0
004	TF	SI053	1	016 (007.2)	-8.8	2.5	ı	2913	-165	-3.00	0.3
005	RF Center: SIRF2 r=2.10NM	SI051	1	1	-8.8	6.5	L	853	1	-3.00	0.3
006	TF	RW20	Υ	199 (190.7)	-8.8	1.6	ı	352	ı	-3.00/54	0.3
007	DF	SI052	Υ	-	-8.8	-		1	-	-	1.0
800	DF	HPE	1	-	-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			
	REMEN PALPA NAKAN SI053 SI051 RW20 SI052	REMEN 391421.92N / 1411154.27E 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	REMEN 391421.92N / 1411154.27E SIRF2 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	



※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



