

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 / 29°C(2003-2007)
4	Geoid undulation at AD ELEV PSN	126ft
5	MAG VAR/ Annual change	8° W(2009) / 1'E
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	Bank/ATM at airport 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

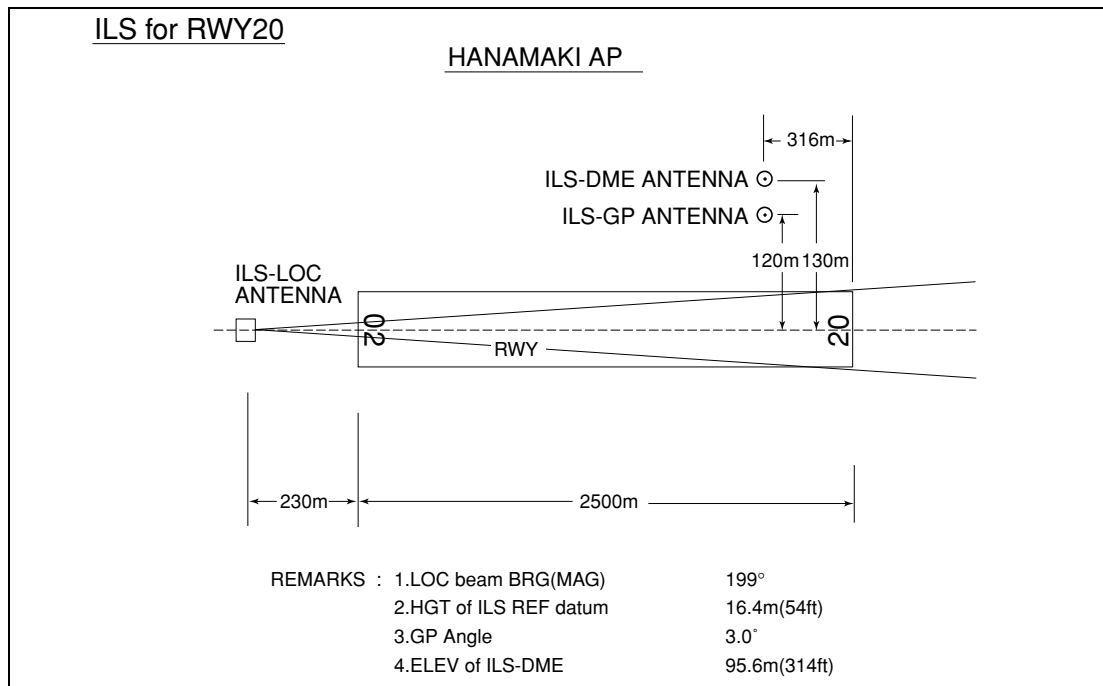
Designation and lateral limits		Vertical limits (ft)	Airspace classification	ATS unit call sign Language	Remarks
1		2	3	4	6
Hanamaki Information Zone	Area within a radius of 5nm(9km) of Hanamaki ARP	3,000	E	Hanamaki Radio En	

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

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							

RJSI AD 2.23 ADDITIONAL INFORMATION

Nil

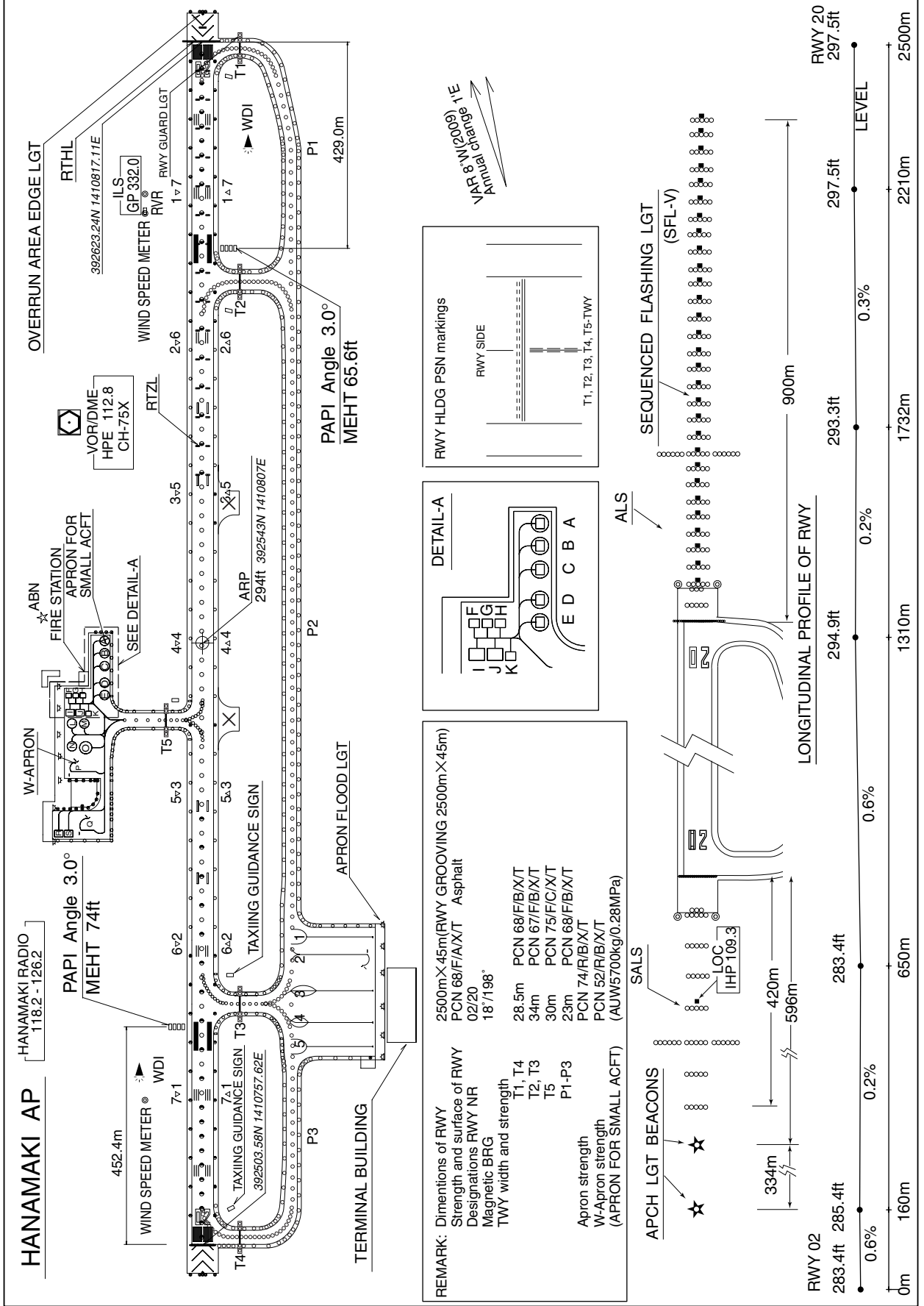
RJSI AD 2.24 CHARTS RELATED TO AN AERODROME

<p>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) 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) RWY02) Other Chart (Visual REP) Other Chart (LDG CHART) Other Chart (MVA CHART)</p>

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RJSI / HANAMAKI

AD CHART

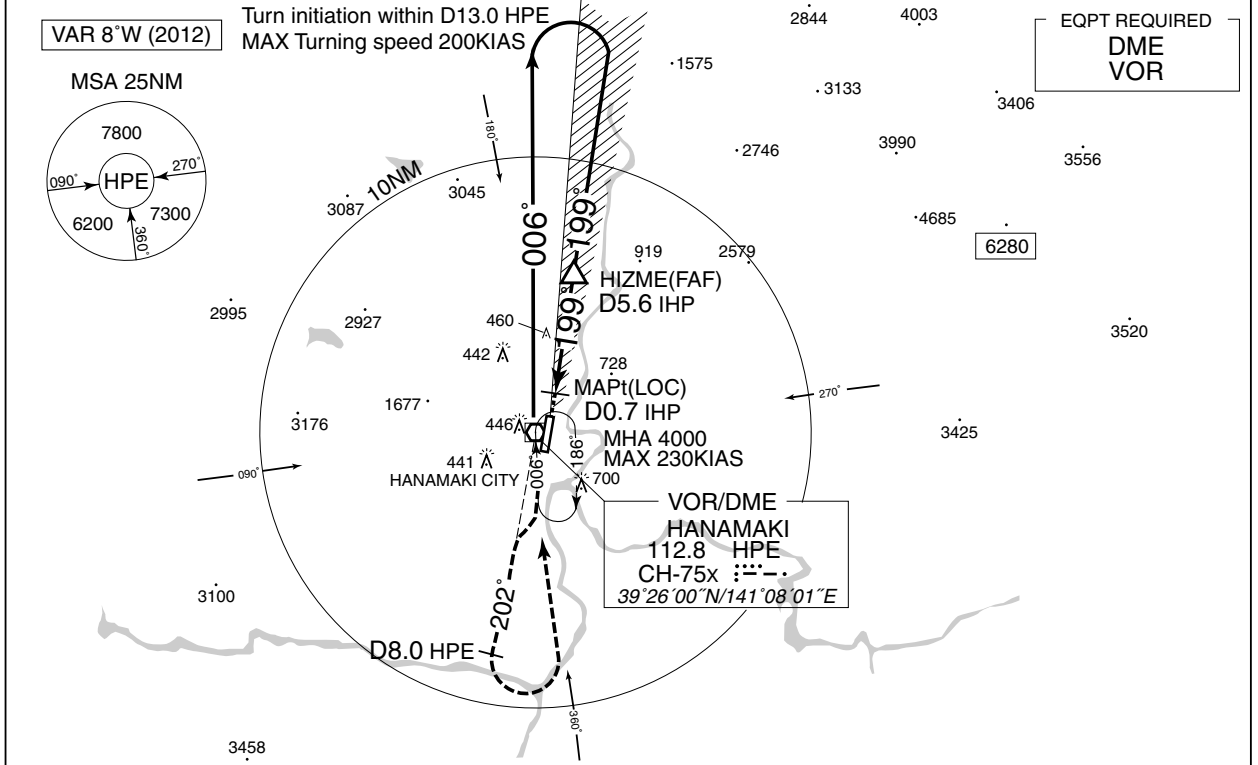


INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

ILS Z or LOC Z 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
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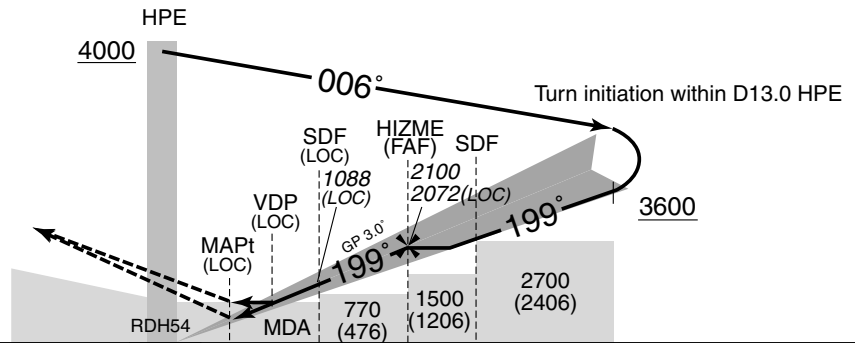
HIZME(FAF) : 393142.42N/1410935.33E

NM to IHP	MAPt	2	3	4	5	FAF
ALT (3.0° APCH Path)	-	929	1247	1566	1884	2072

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.

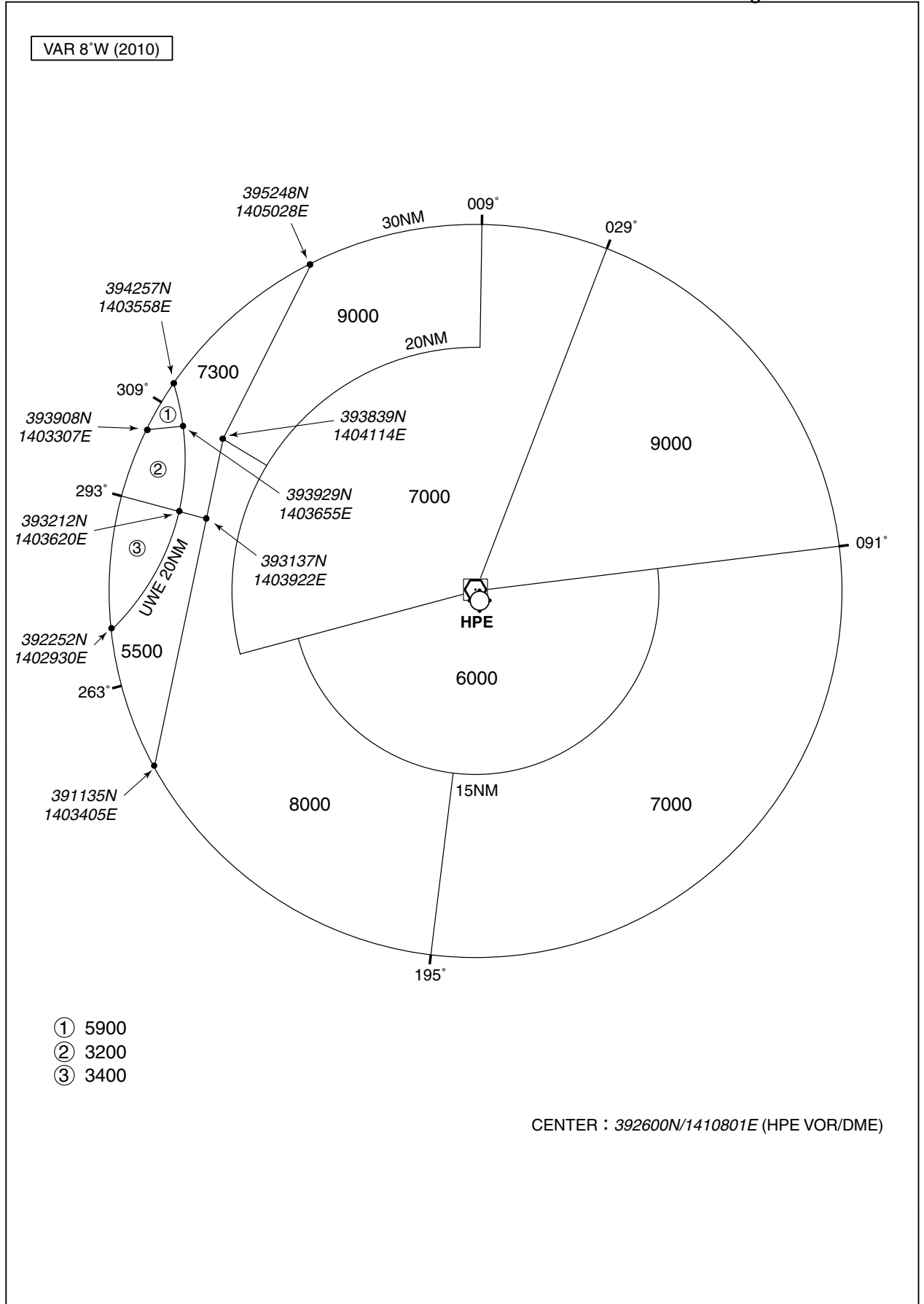


DME to IHP	0.2	0.7	1.1	2.5	5.6	9.3
NM to THR	0	0.5	0.9	2.3	5.4	9.1

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				1000 (706)	2400	
D				1400	3200	

RJSI / HANAMAKI

Minimum Vectoring Altitude CHART



STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

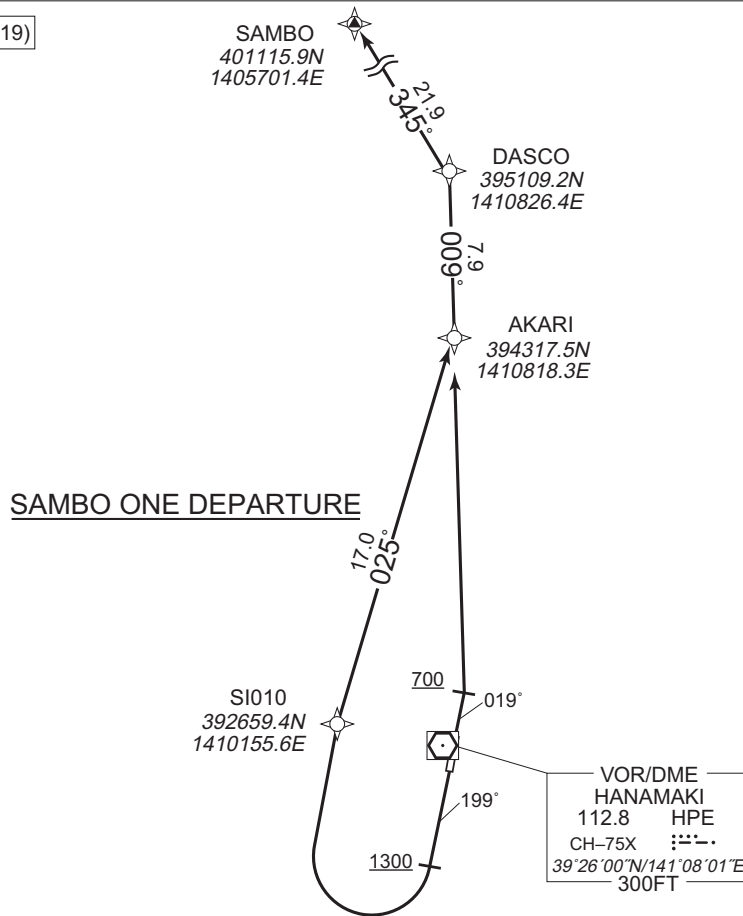
RNAV SID

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

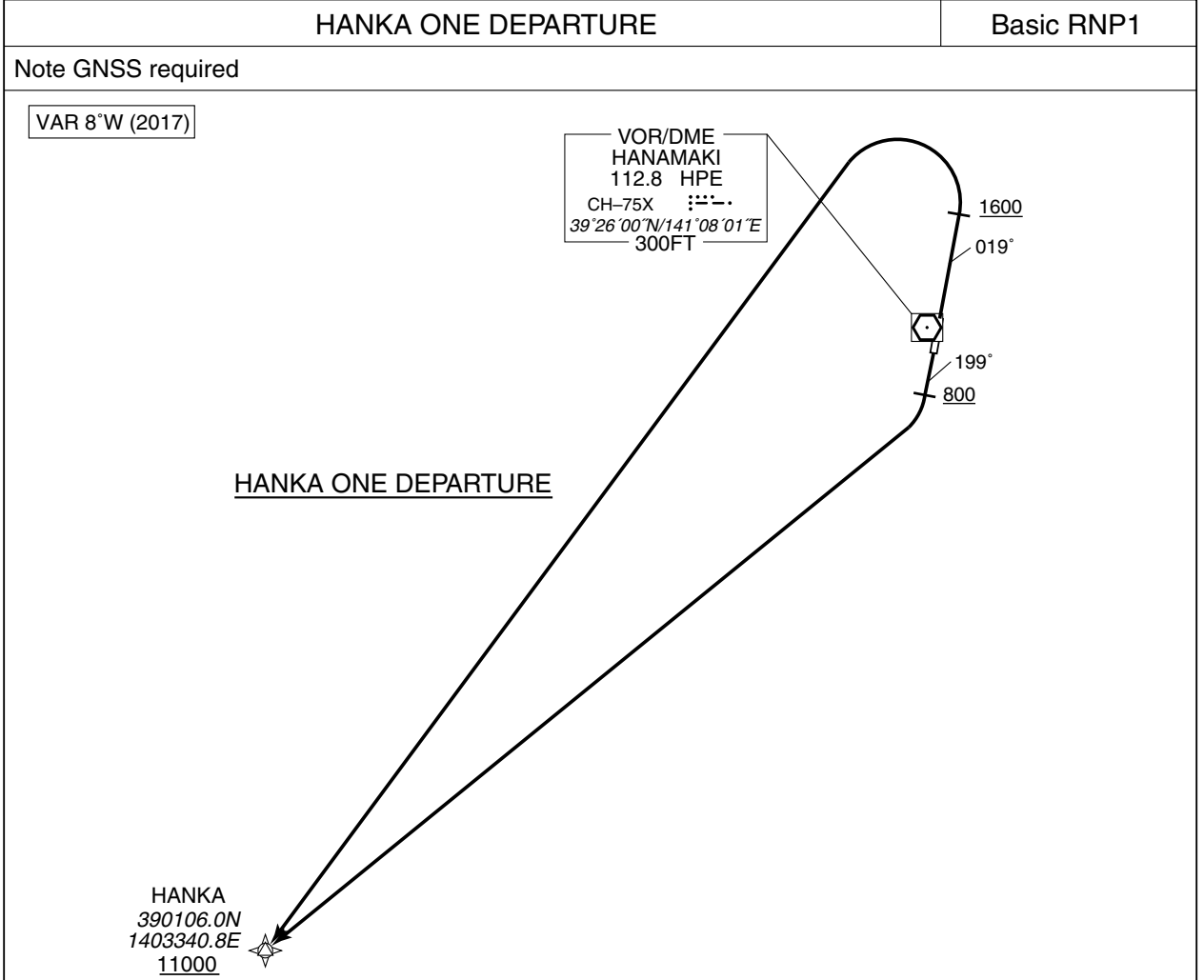
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	199 (190.7)	-8.6	-	-	+1300	-	-	Basic RNP1
002	DF	SI010	-	-	-8.6	-	R	-	-	-	Basic RNP1
003	TF	AKARI	-	025 (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

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

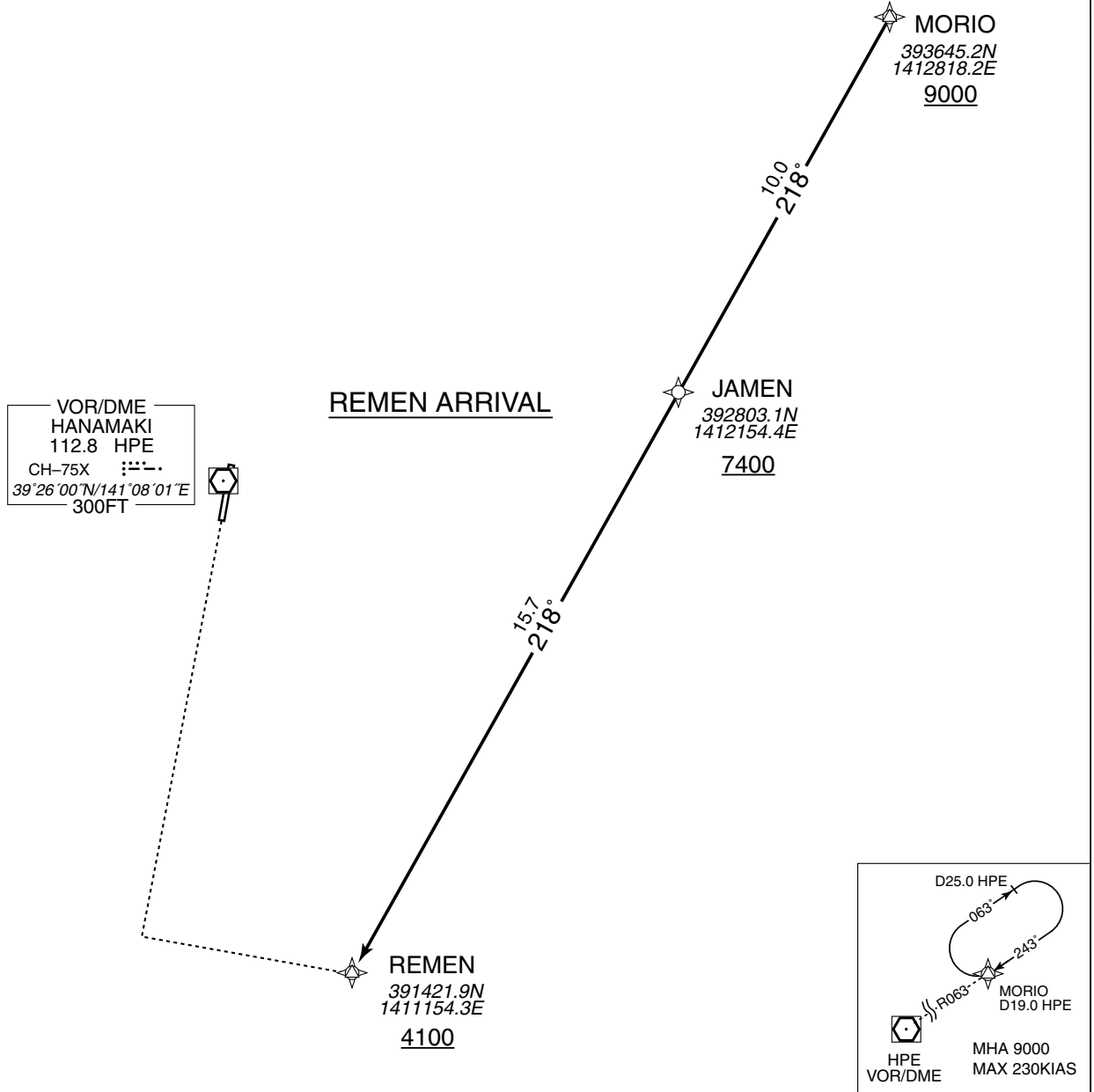
STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI RNAV STAR RWY02

REMEN ARRIVAL Basic RNP1

Note GNSS required

VAR 8°W (2017)



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

RJSI / HANAMAKI

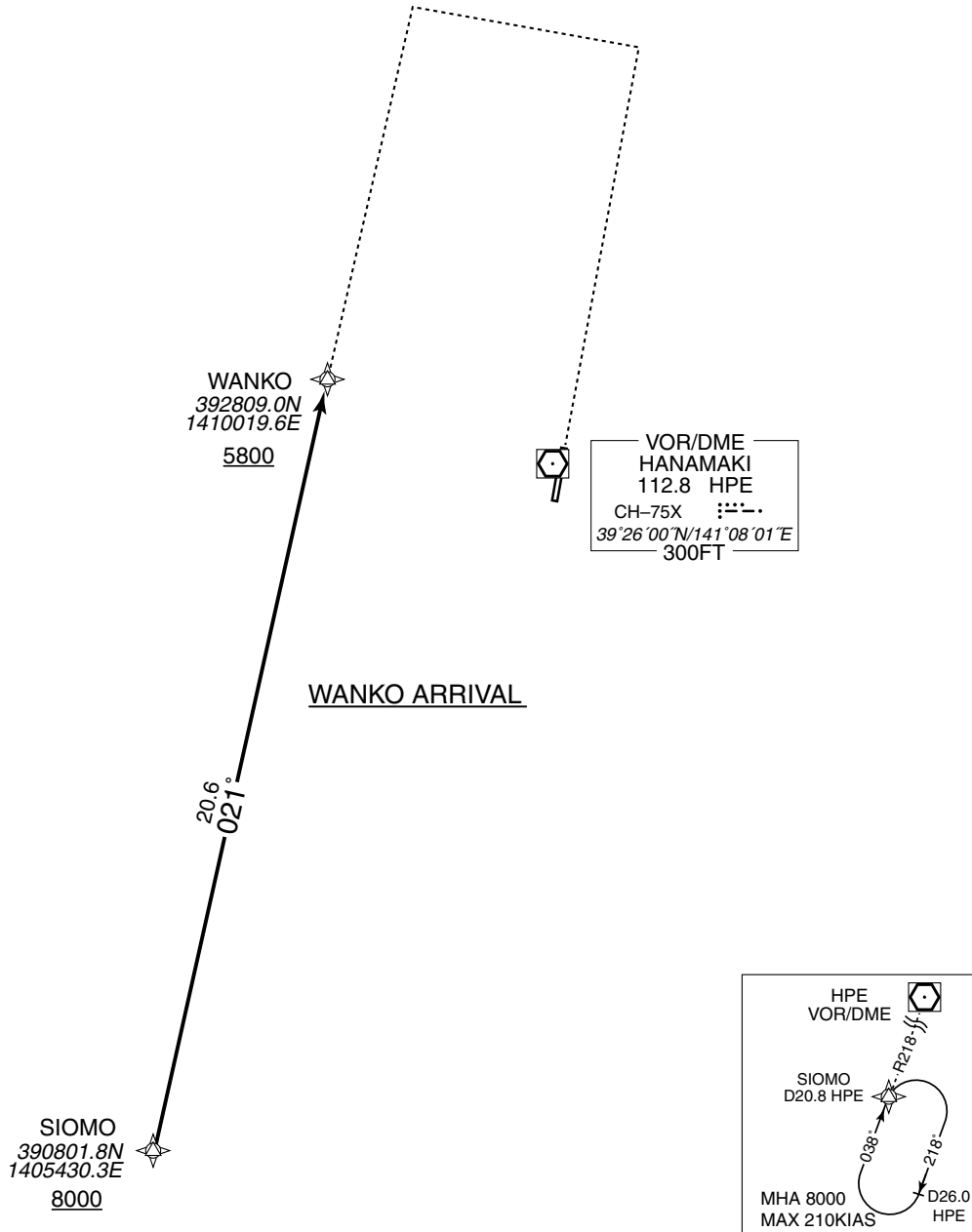
RNAV STAR RWY20

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

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

➔ RNAV(GNSS) RWY02

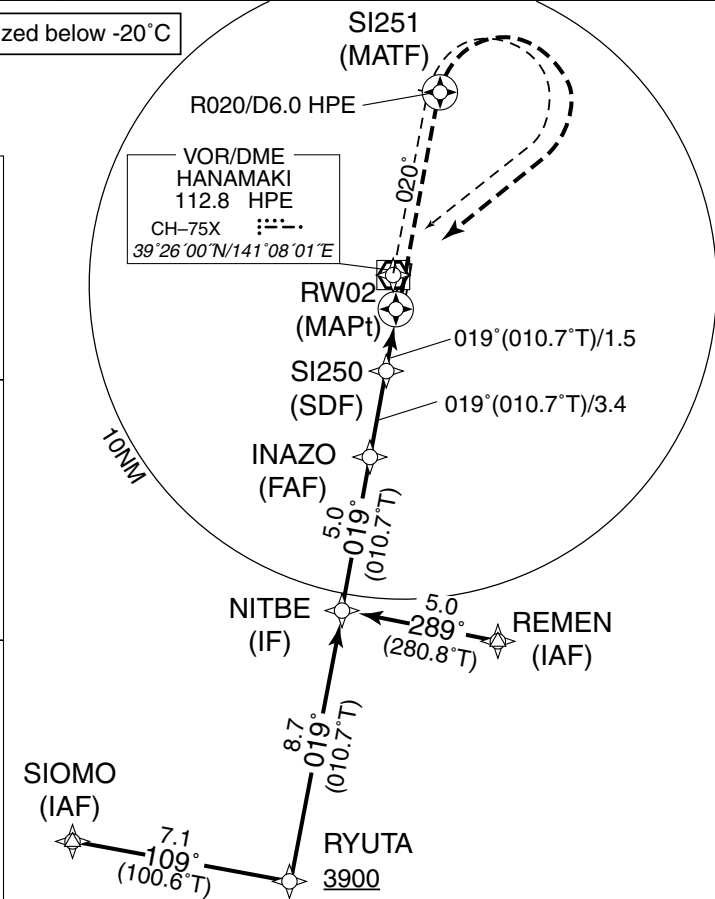
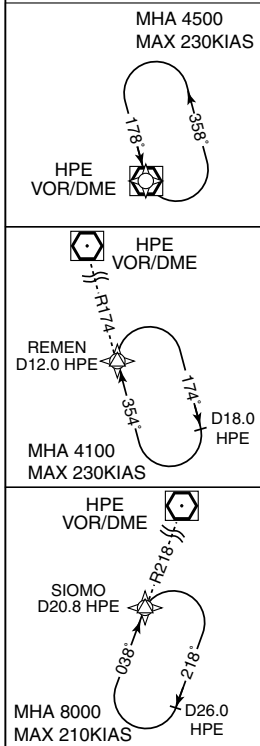
SAPPORO CONTROL 124.5 – 303.8 120.575 – 277.1	1. DME/DME RNP0.3 not authorized. 2. RNP0.3 required. 3. GNSS required.	HANAMAKI RADIO 118.2 – 126.2	NO RADAR
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Baro-VNAV not authorized below -20°C

VAR 8°W (2017)

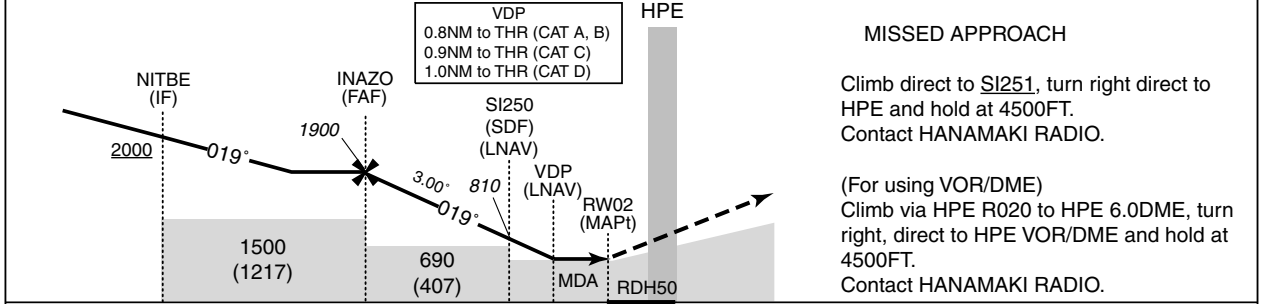
MSA 25NM
7800
ARP

ARP: 392543N/ 1410807E



SIOMO (IAF)	390801.78N 1405430.28E
RYUTA (IF)	390642.80N 1410329.59E
REMEN (IAF)	391421.92N 1411154.27E
NITBE (IF)	391517.95N 1410534.72E
INAZO (FAF)	392013.09N 1410646.65E
SI250 (SDF)	392335.04N 1410735.97E
RW02 (MAPt)	392503.58N 1410757.62E
SI251 (MATF)	393152.68N 1410937.82E
HPE (MAHF)	392600.09N 1410800.60E

NM to Next Fix	FAF	4	3	2	1	MAPt
ALT(3.0° APCH Path)	1900	1606	1288	969	651	-



Missed APCH climb gradient MNM 4.0%

CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS
A	610(327)	1200	610(327)	1200	760(466)	1600
B		1300		1300		
C	630(347)	1400	630(347)	1400	1000(706)	2400
D	650(367)	1600	650(367)	1600		3200

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

STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

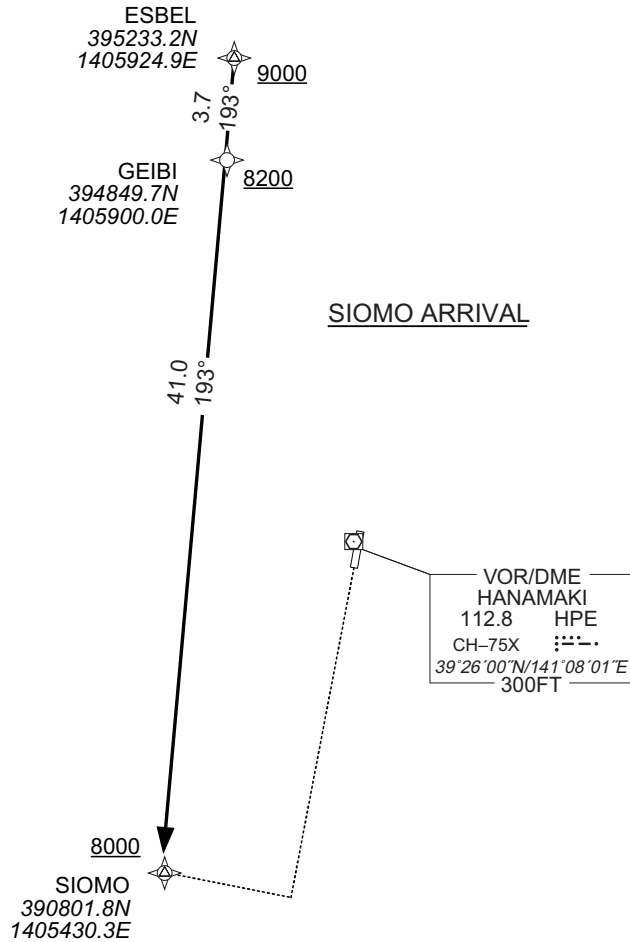
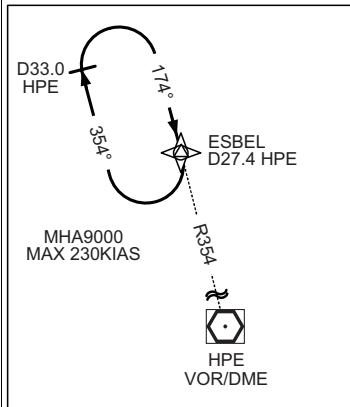
RNAV STAR RWY02

SIOMO ARRIVAL

Basic RNP1

Note GNSS required.

VAR 9°W (2019)



SIOMO ARRIVAL

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

CHANGE : New PROC

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	GEIBI	—	193 (184.9)	-8.6	3.7	—	+8200	—	—	Basic RNP1
003	TF	SIOMO	—	193 (184.9)	-8.6	41.0	—	+8000	—	—	Basic RNP1

STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

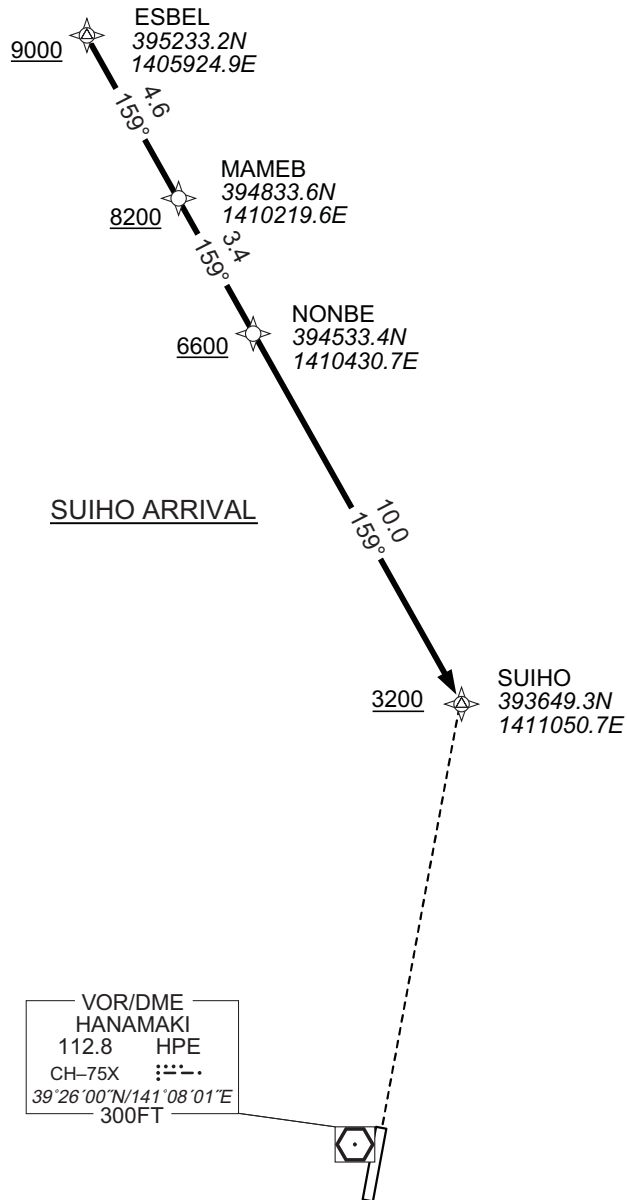
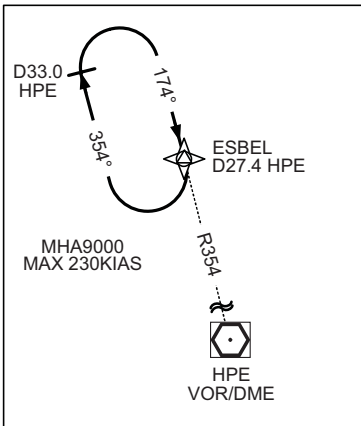
RNAV STAR RWY20

SUIHO ARRIVAL

Basic RNP1

Note GNSS required.

VAR 9°W (2019)



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.

CHANGE : New PROC

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

STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

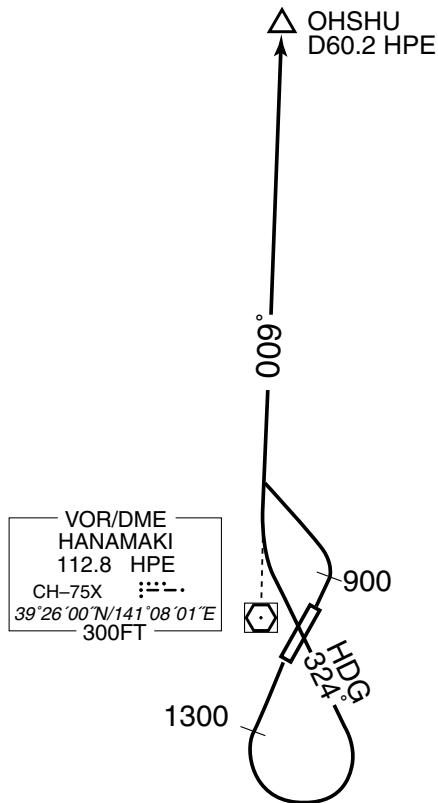
➔ SID

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

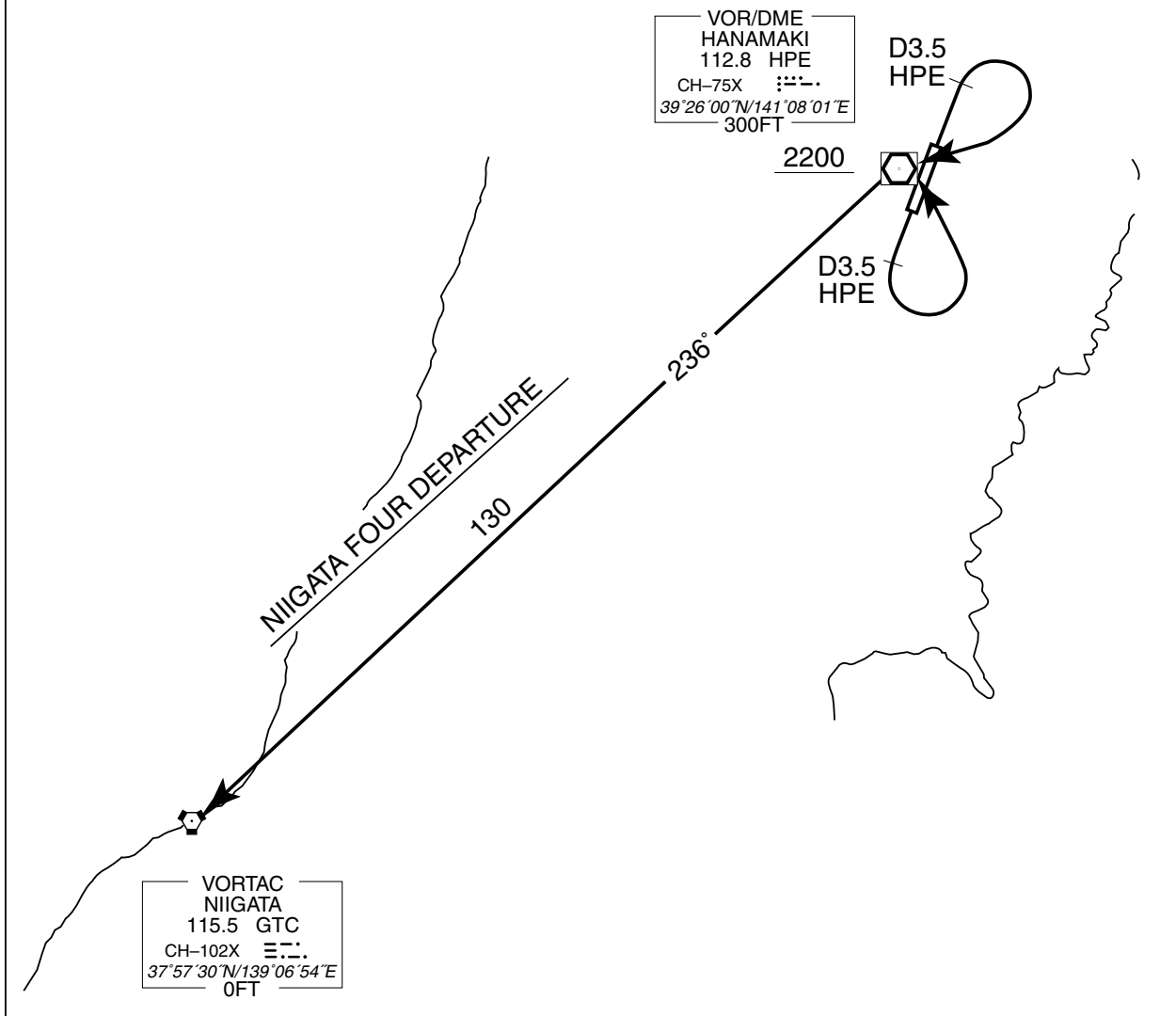
RJSI / HANAMAKI

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.

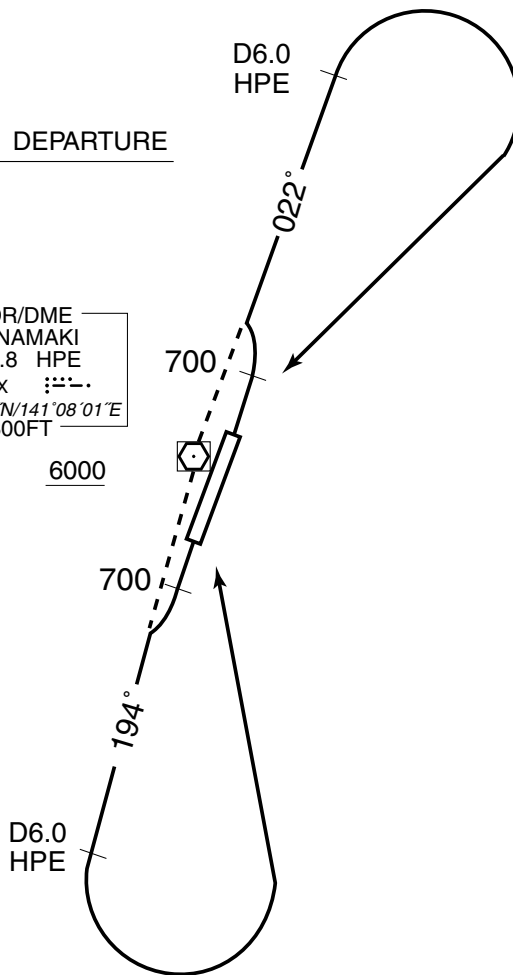
Cross HPE VOR/DME at or above 6000FT.

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

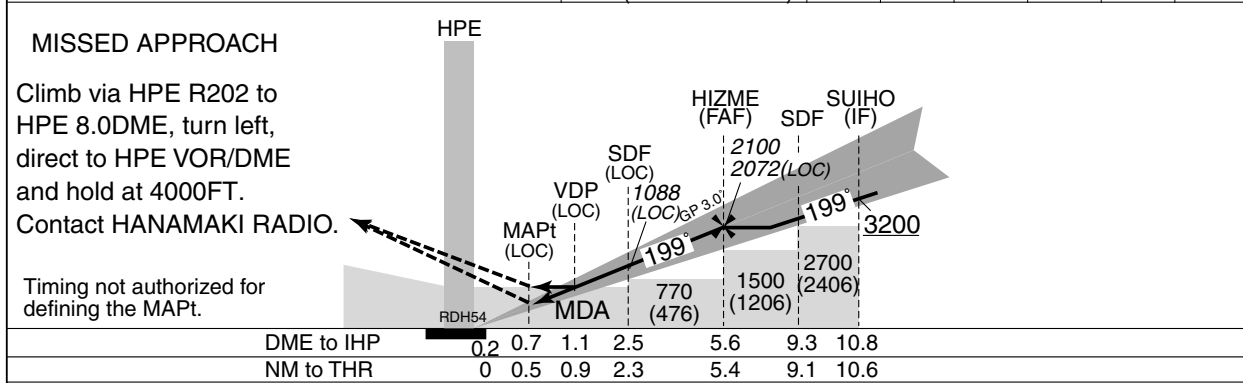
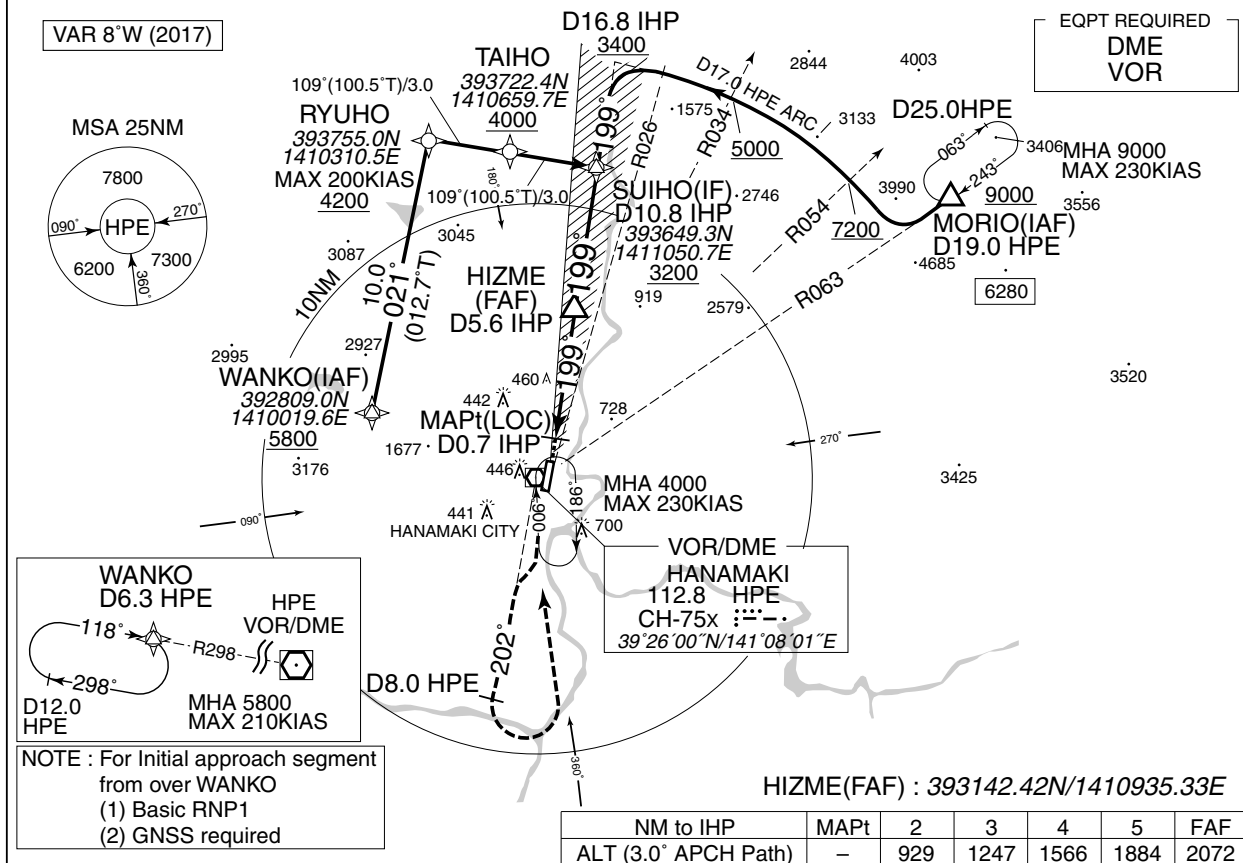


INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

ILS Y or LOC Y RWY20

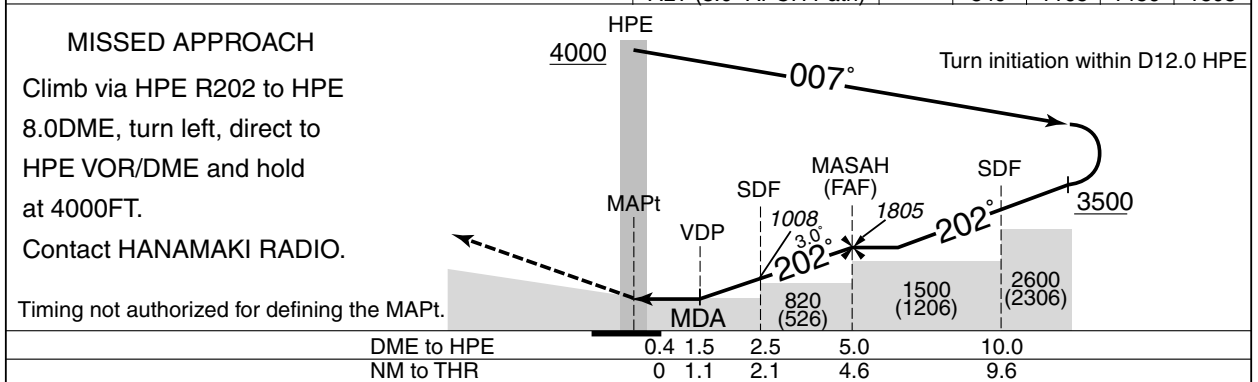
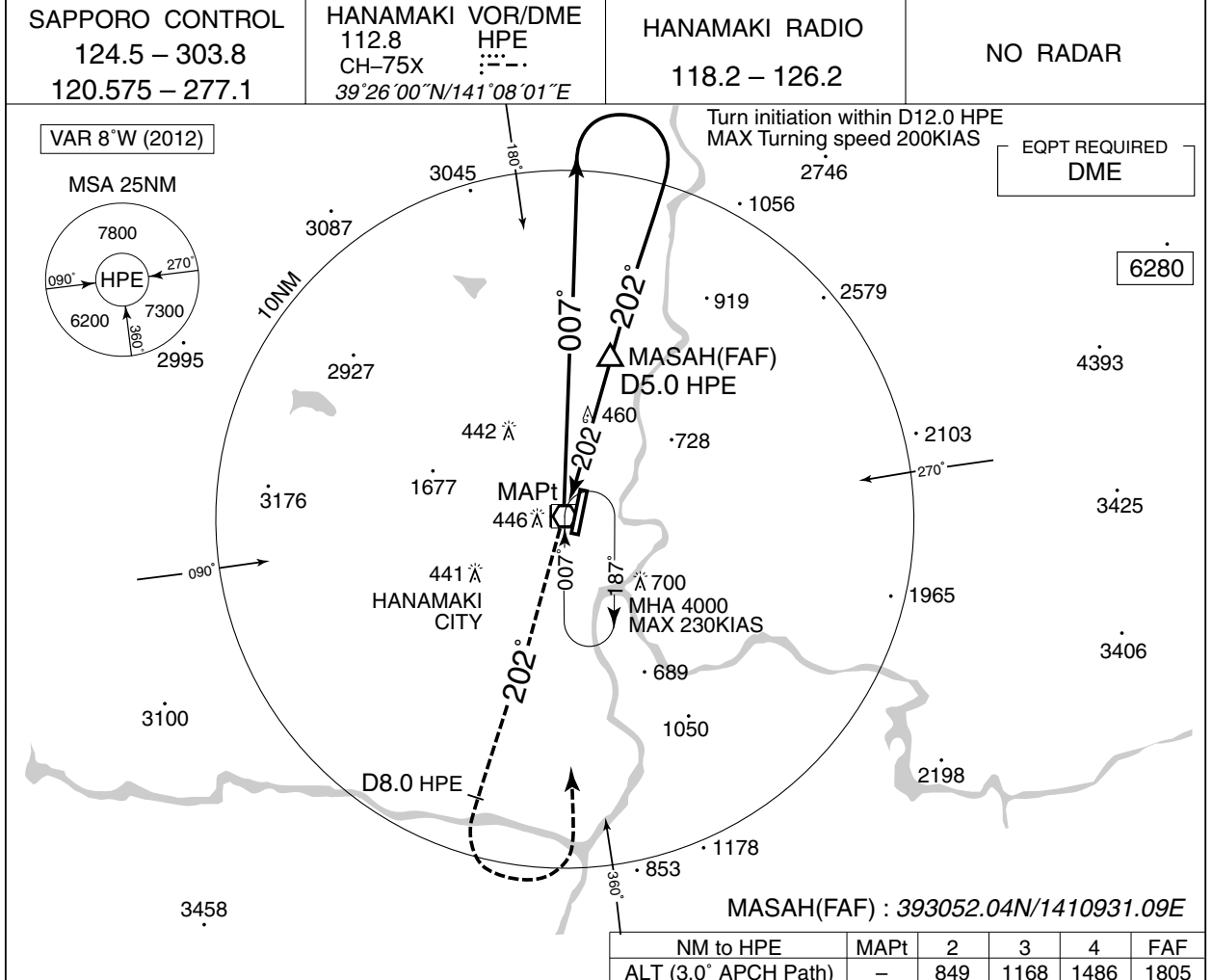
SAPPORO CONTROL 124.5 – 303.8 120.575 – 277.1	ILS – LOC 109.3 IHP ILS – GP 332.0 ILS – DME CH-30X	HANAMAKI RADIO 118.2 – 126.2	NO RADAR
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MINIMA		THR elev. 298		AD elev. 294		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	498 (200)	550	640 (346)	900	760 (466)	1600
B				1000	860 (566)	
C				1000 (706)	2400	
D				1400	3200	

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI VOR RWY20



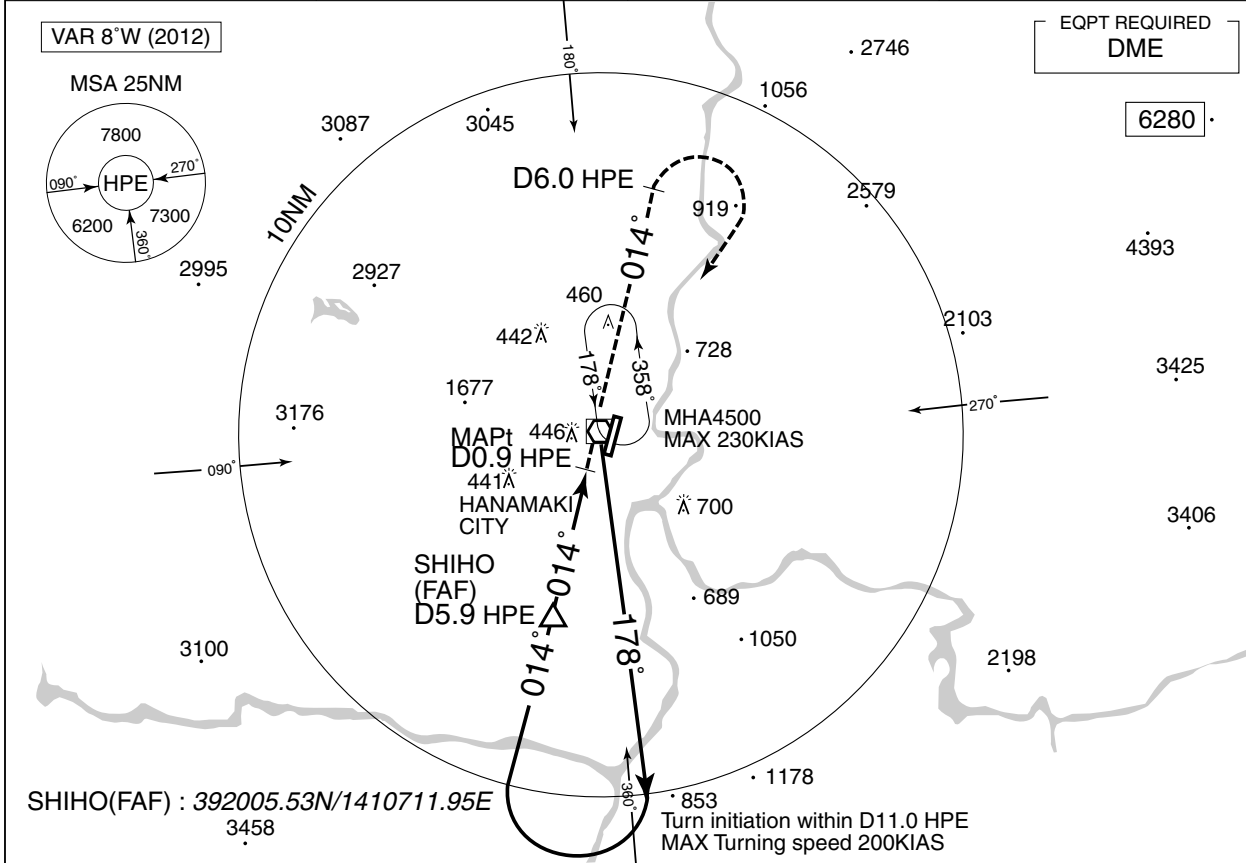
MINIMA		THR elev. 298		AD elev. 294		
CAT			CIRCLING			
	MDA(H)	RVR/CMV	MDA(H)	VIS		
A	690 (396)	900	760 (466)	1600		
B		1000	860 (566)			
C		1400	1000 (706)		2400	
D					3200	

INSTRUMENT APPROACH CHART

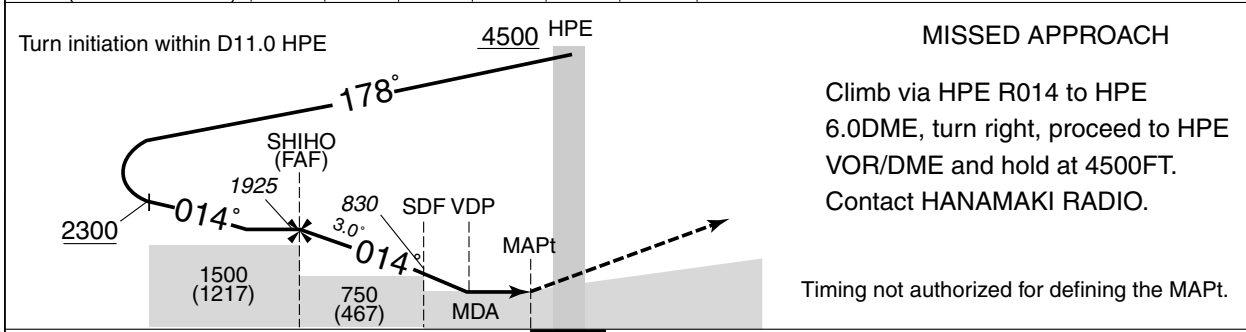
RJSI / HANAMAKI

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
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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

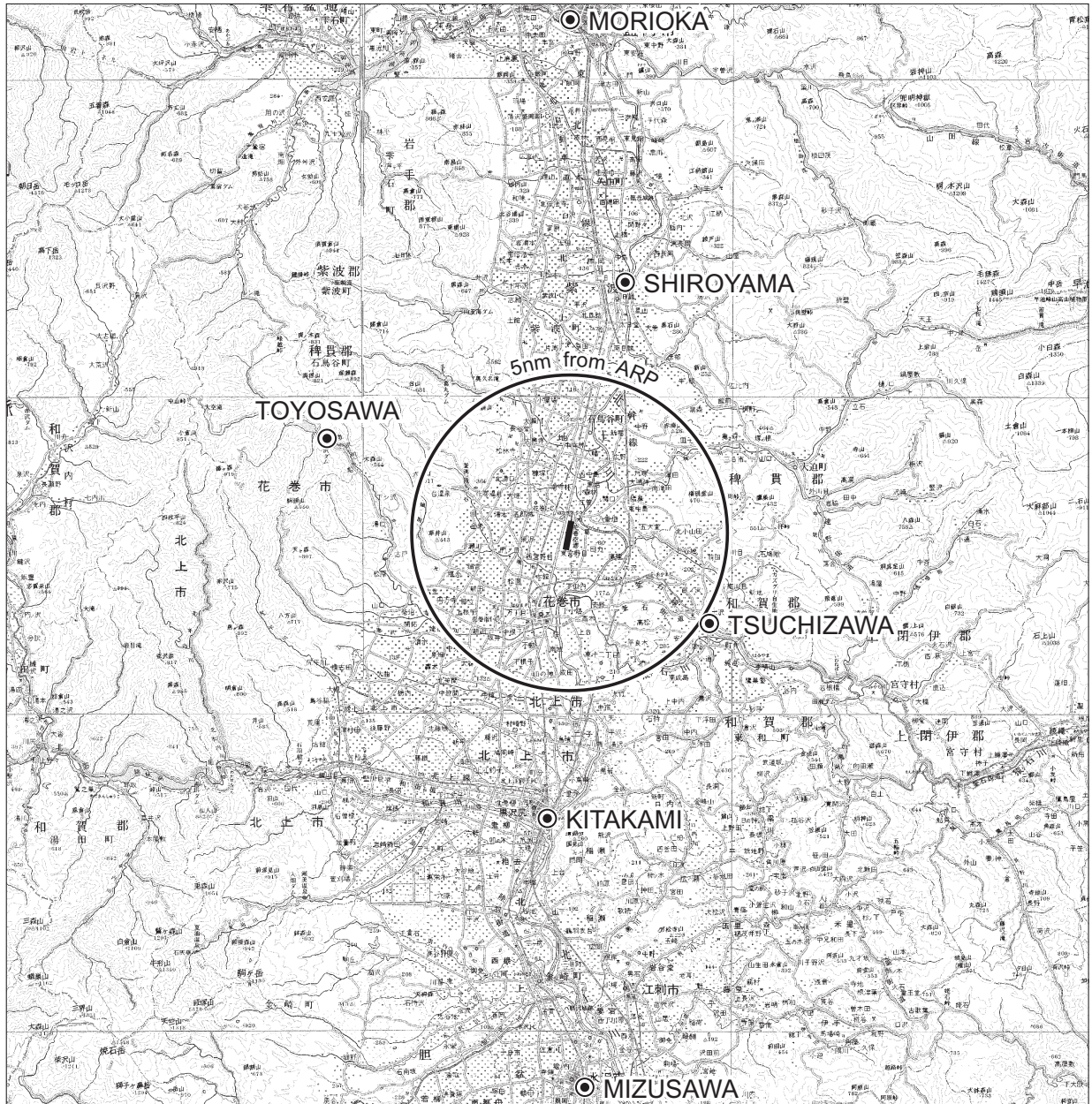
Missed APCH climb gradient MNM 3.6%

MINIMA		THR elev. 283	AD elev. 294	
CAT	MDA(H)		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

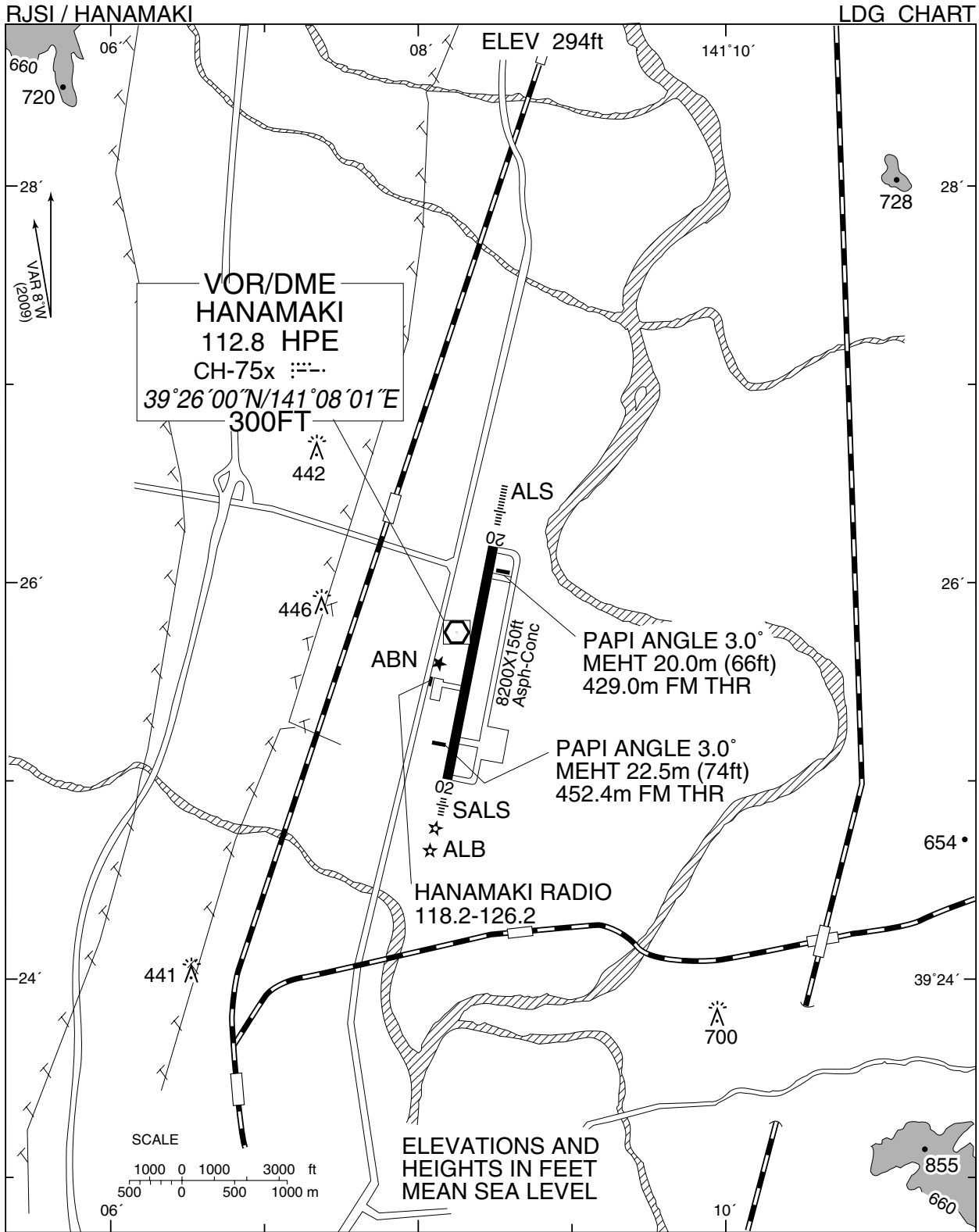
MINIMA with Missed APCH climb gradient of 2.5% are not established.

RJSI / HANAMAKI

Visual REP

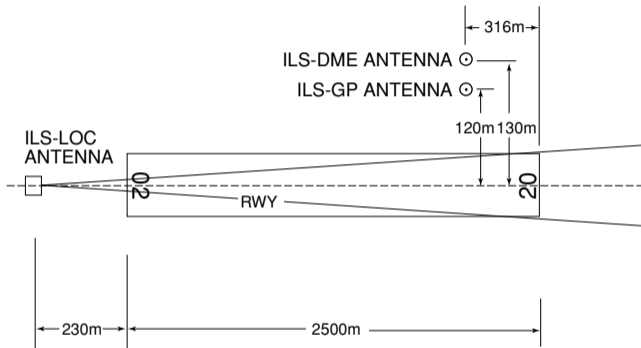


Call sign	BRG / DIST from ARP	Remarks
盛岡 Morioka	006°/16.5NM	駅 Station
城山 Shiroyama	018°/ 8.4NM	城跡 The site of a castle
豊沢 Toyosawa	301°/ 8.0NM	豊沢湖ダム Dam
土沢 Tsuchisawa	127°/ 5.1NM	駅 Station
北上 Kitakami	192°/ 8.9NM	駅 Station
水沢 Mizusawa	186°/17.5NM	駅 Station



ILS for RWY20

HANAMAKI AP



REMARKS :	1.LOC beam BRG(MAG)	199°
	2.HGT of ILS REF datum	16.4m(54ft)
	3.GP Angle	3.0°
	4.ELEV of ILS-DME	95.6m(314ft)