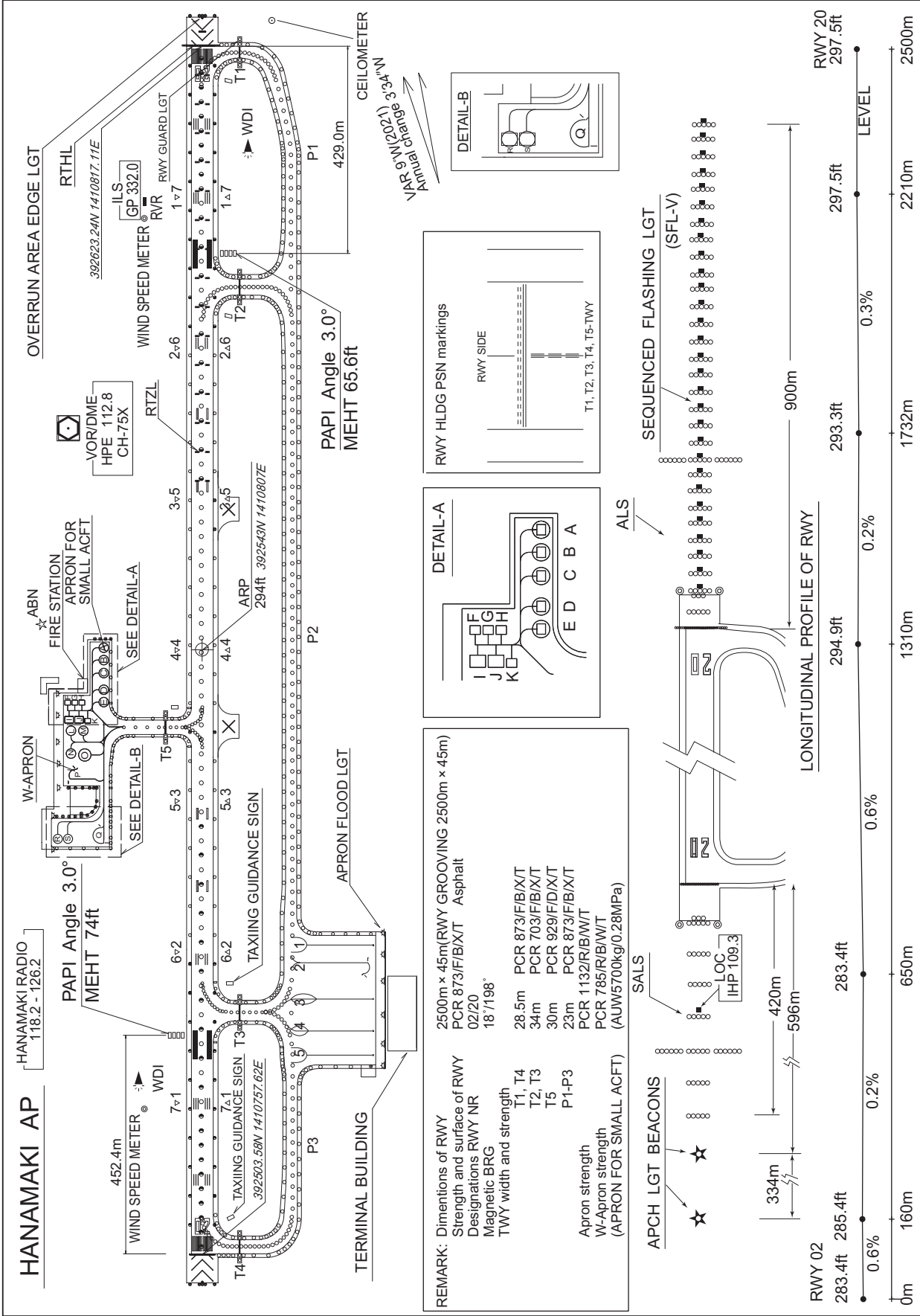


RJSI / HANAMAKI

AD CHART



## RJSI / HANAMAKI

SID

RWY 02 : Climb RWY HDG to 900FT, turn left...  
RWY 20 : Climb RWY HDG to 1300FT, turn left HDG 325°...  
...to intercept and proceed via HPE R010 to OHSHU.



## STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

SID

NIIGATA SIX 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 HPE 50.0DME(GTC 79.6DME),  
via GTC R055 to GTC.Cross HPE VOR/DME at or above 2200 FT, cross HPE R236/50.0DME  
(GTC R055/79.6DME) at or above 12000 FT.

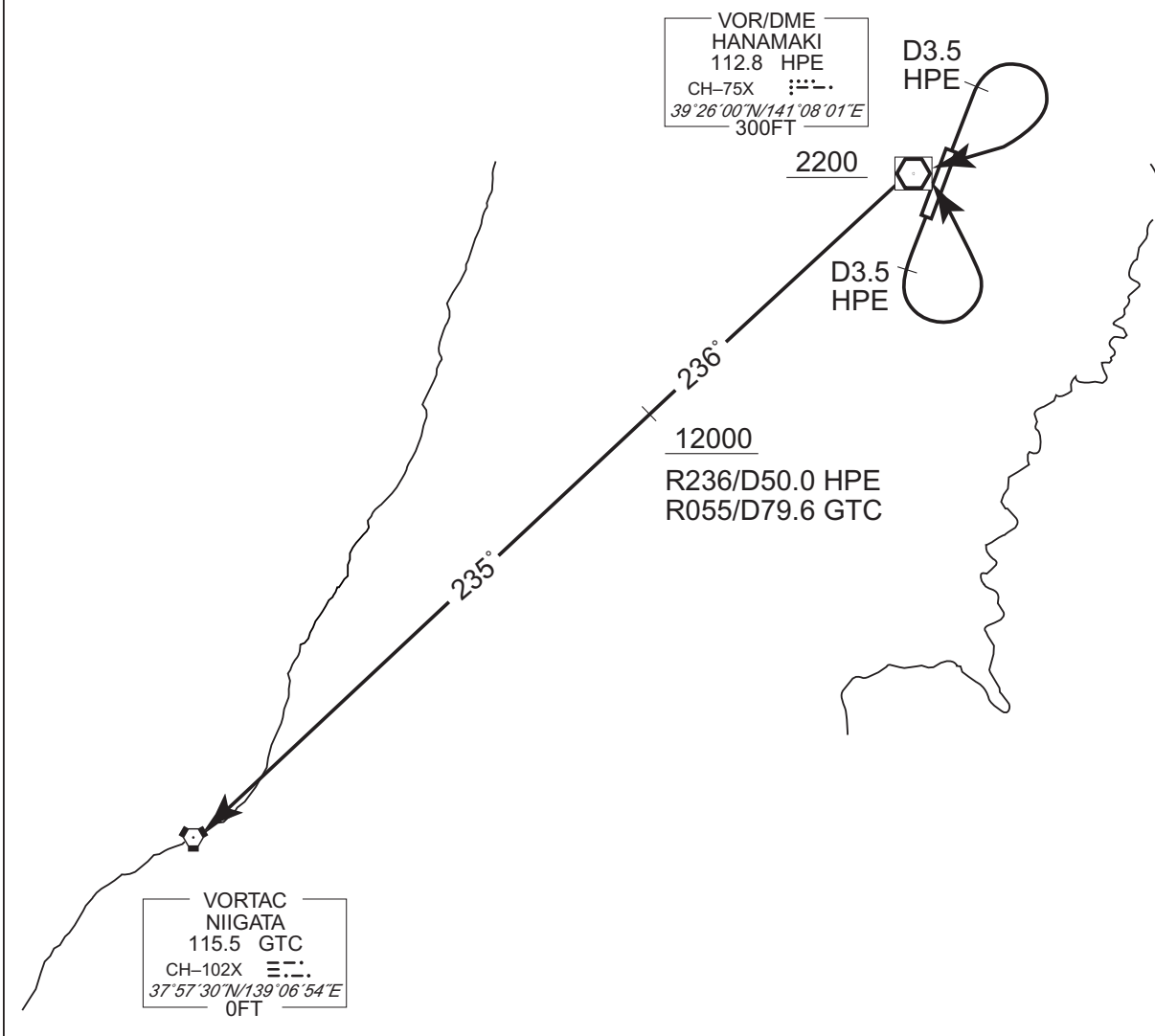
Note RWY02 : 4.5% climb gradient required up to 2400FT.

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.

CHANGE : SID renamed. ALT restriction at R236/D50.0 HPE, R055/D79.6 GTC.



STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

SID

HANAMAKI REVERSAL THREE DEPARTURE

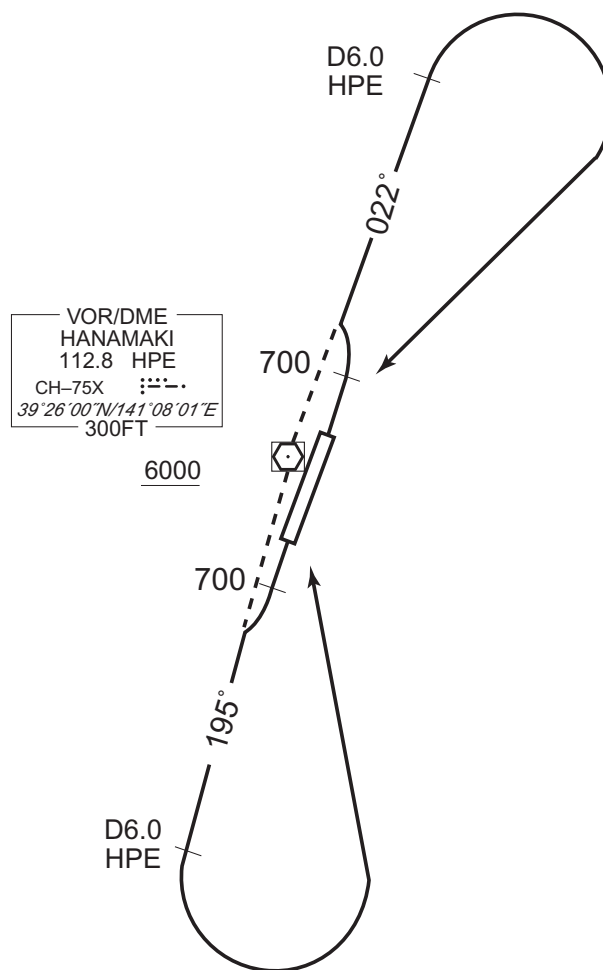
RWY 02 : Climb RWY HDG to 700FT, via HPE R022 to 6.0 DME, turn right...

RWY 20 : Climb RWY HDG to 700FT, via HPE R195 to 6.0 DME, turn left...  
...direct 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.



CHANGE : PROC renamed. PROC course.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

RNAV SID

SAMBO ONE DEPARTURE

RNP1

Note GNSS required.

VAR 9°W

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

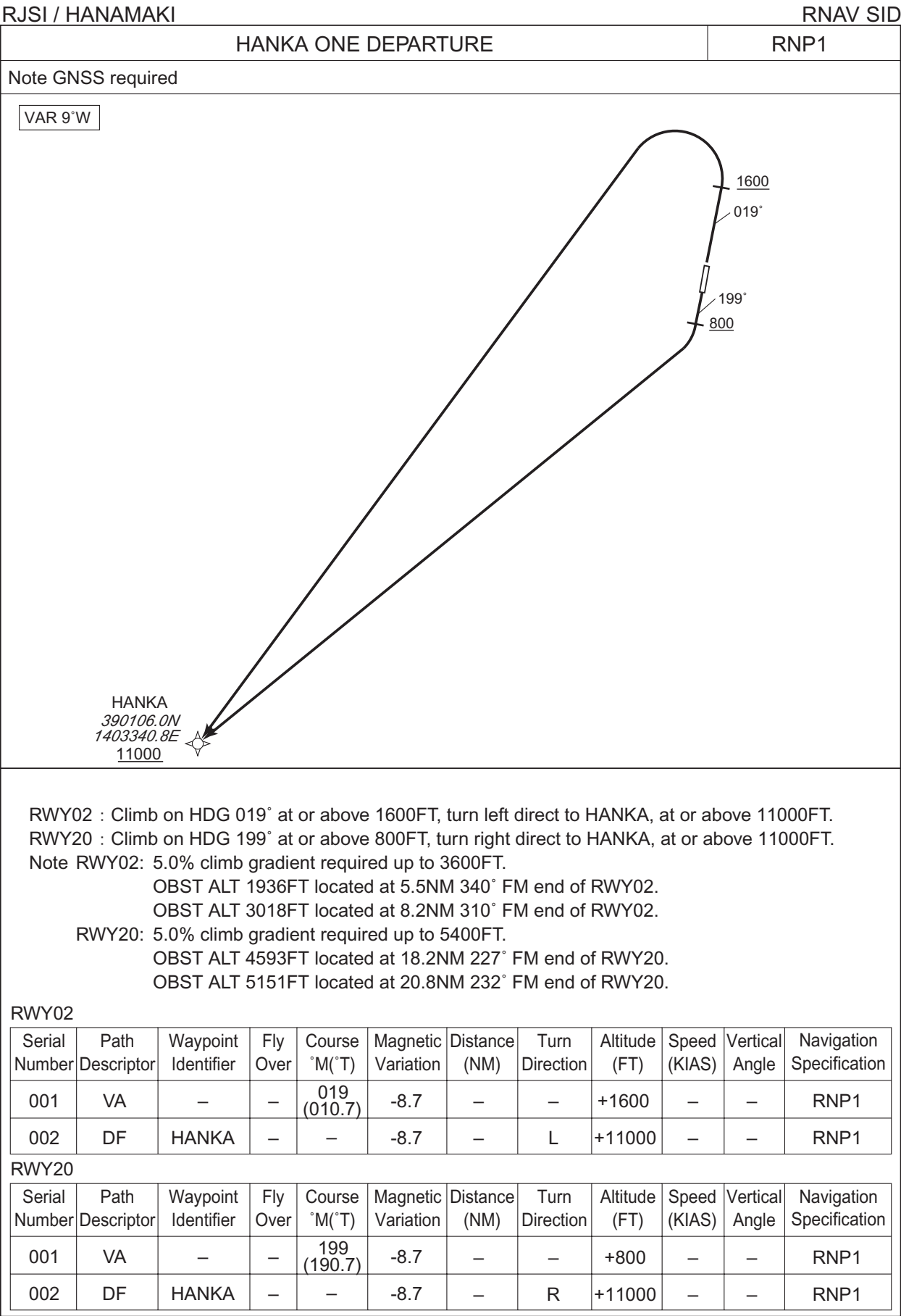
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course M(T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	019 (010.7)	-8.7	-	-	+700	-	-	RNP1
002	DF	AKARI	-	-	-8.7	-	-	-	-	-	RNP1
003	TF	DASCO	-	009 (000.8)	-8.7	7.9	-	-	-	-	RNP1
004	TF	SAMBO	-	345 (336.6)	-8.7	21.9	-	-	-	-	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	-	-	RNP1
002	DF	SI010	-	-	-8.7	-	R	-	-	-	RNP1
003	TF	AKARI	-	025 (016.7)	-8.7	17.0	-	-	-	-	RNP1
004	TF	DASCO	-	009 (000.8)	-8.7	7.9	-	-	-	-	RNP1
005	TF	SAMBO	-	345 (336.6)	-8.7	21.9	-	-	-	-	RNP1

CHANGE : Description of VOR/DME.

STANDARD DEPARTURE CHART -INSTRUMENT



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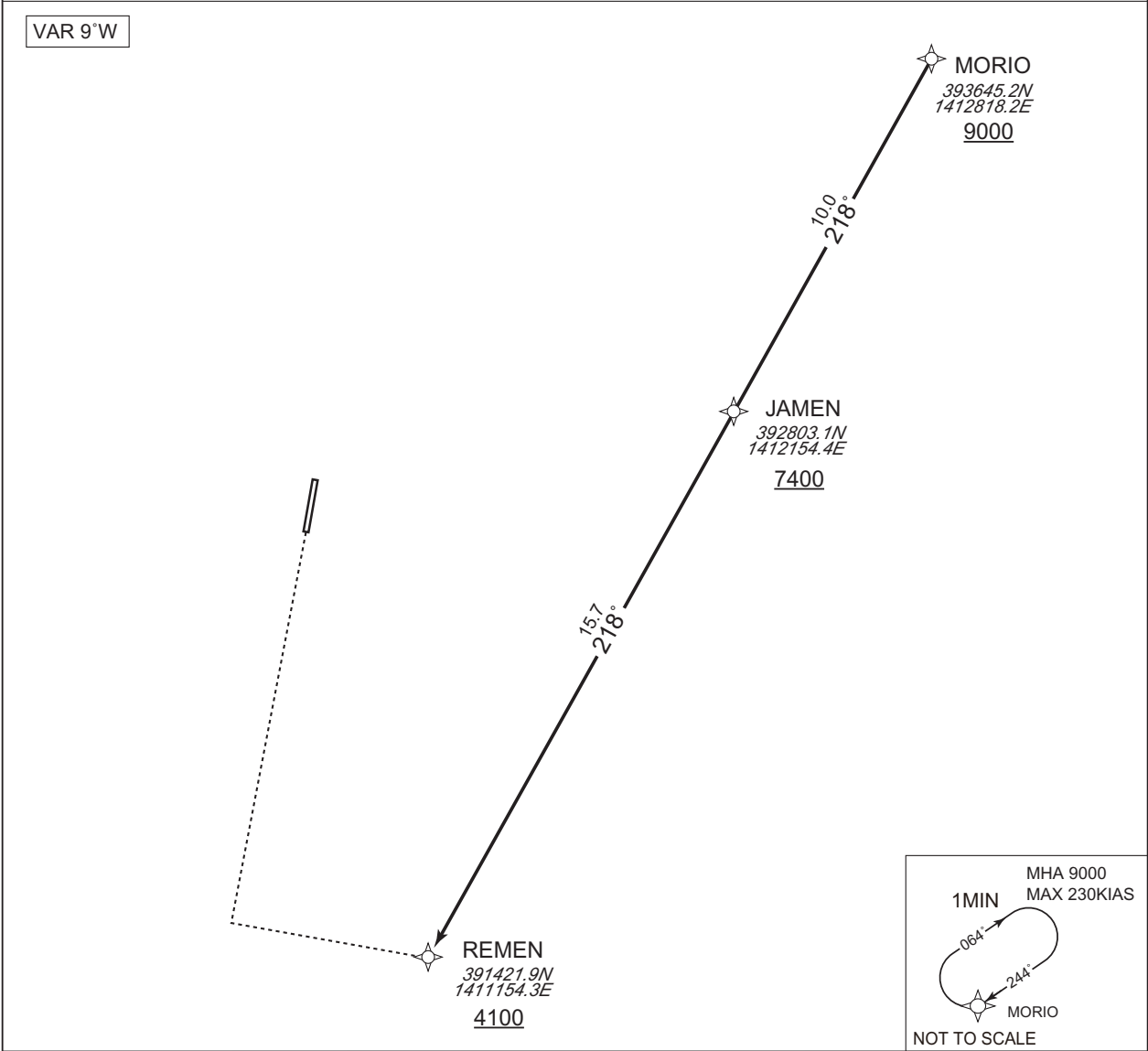
STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY02

REMEN ARRIVAL	RNP1
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Note GNSS required



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	—	—	-8.8	—	—	+9000	—	—	RNP1
002	TF	JAMEN	—	218 (209.6)	-8.8	10.0	—	+7400	—	—	RNP1
003	TF	REMEN	—	218 (209.5)	-8.8	15.7	—	+4100	—	—	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)	RNP1

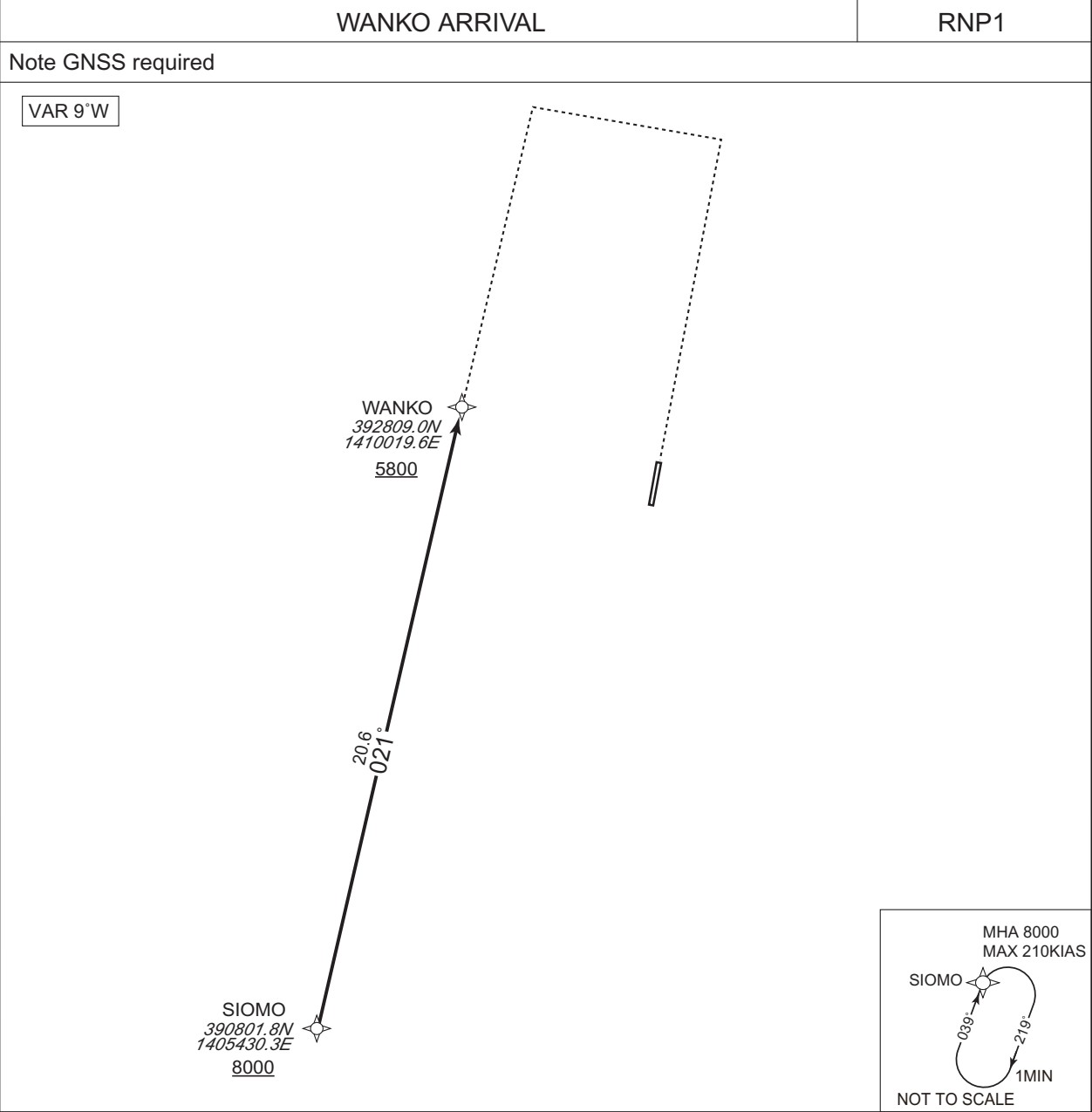
CHANGE : Description of VOR/DME.



STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY20



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	—	—	RNP1
002	TF	WANKO	—	021 (012.6)	-8.8	20.6	—	+5800	—	—	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)	RNP1

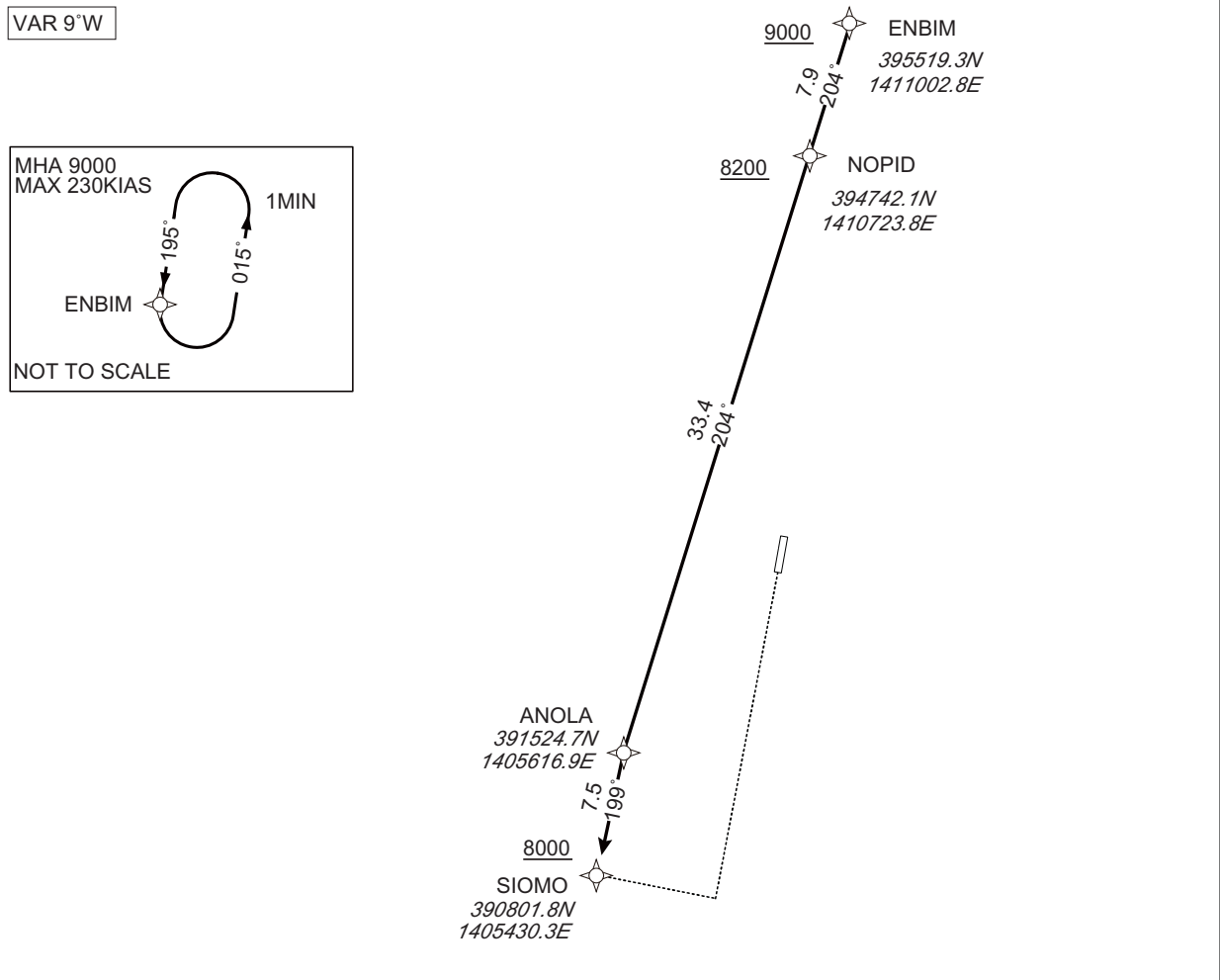
CHANGE : Description of VOR/DME.

STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKIRNAV STAR RWY02

SIOMO ARRIVAL	RNP1
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Note GNSS required.



From ENBIM at or above 9000FT, to NOPID at or above 8200FT, to ANOLA, to SIOMO at or above 8000FT.

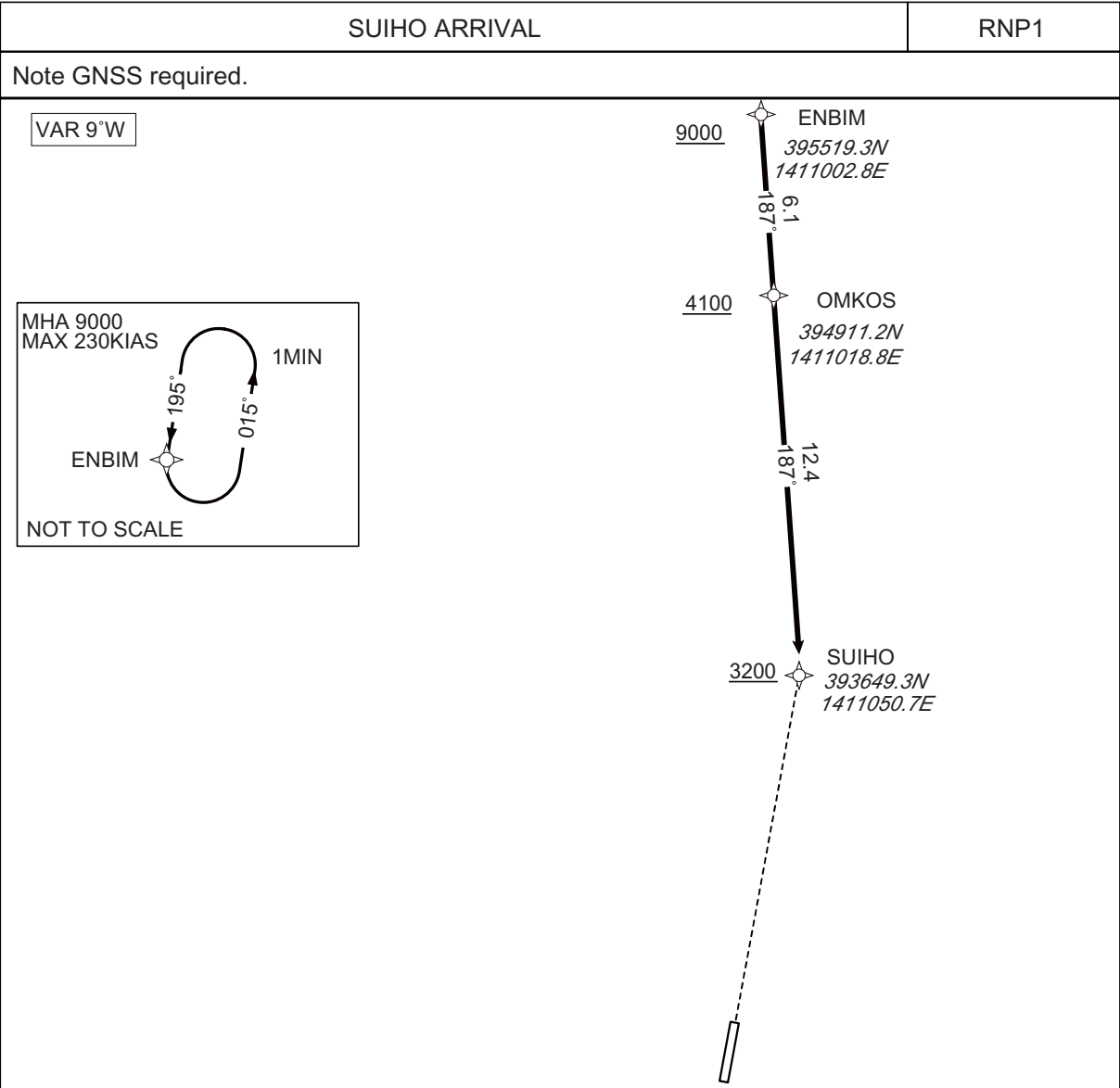
CHANGE : Description of VOR/DME.

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	ENBIM	—	—	-8.8	—	—	+9000	—	—	RNP1
002	TF	NOPID	—	204 (195.0)	-8.8	7.9	—	+8200	—	—	RNP1
003	TF	ANOLA	—	204 (194.9)	-8.8	33.4	—	—	—	—	RNP1
004	TF	SIOMO	—	199 (190.6)	-8.8	7.5	—	+8000	—	—	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	ENBIM	195 (186.5)	-8.8	1.0(-14000)	L	9000	FL140	-230 (-14000)	RNP1

STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKIRNAV STAR RWY20



From ENBIM at or above 9000FT, to OMKOS at or above 4100FT, 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	ENBIM	—	—	-8.8	—	—	+9000	—	—	RNP1
002	TF	OMKOS	—	187 (178.1)	-8.8	6.1	—	+4100	—	—	RNP1
003	TF	SUIHO	—	187 (178.1)	-8.8	12.4	—	+3200	—	—	RNP1

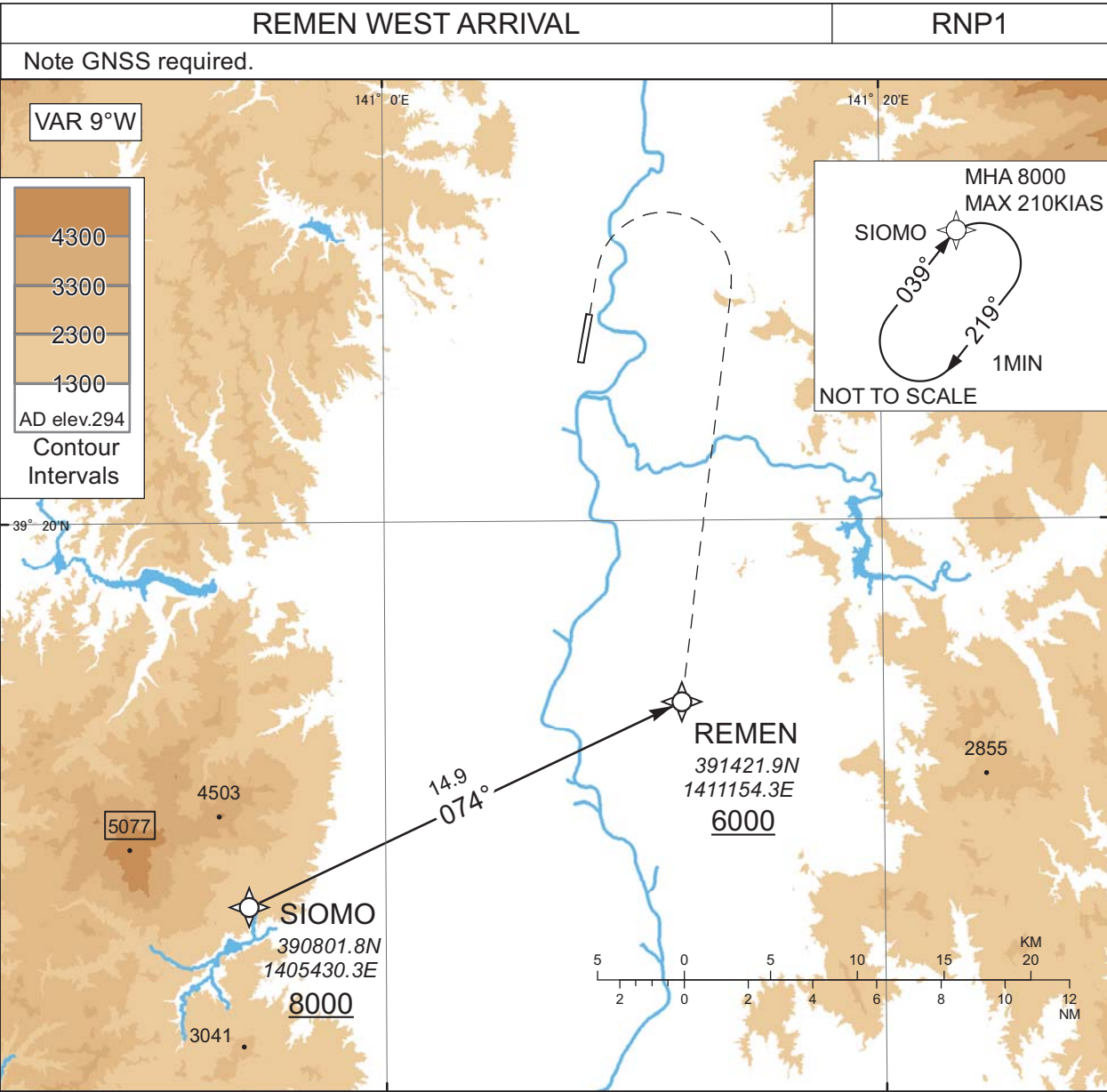
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	ENBIM	195 (186.5)	-8.8	1.0(-14000)	L	9000	FL140	-230 (-14000)	RNP1

CHANGE : Description of VOR/DME.

STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKI

RNAV STAR RWY20



CHANGE : Description of VOR/DME:

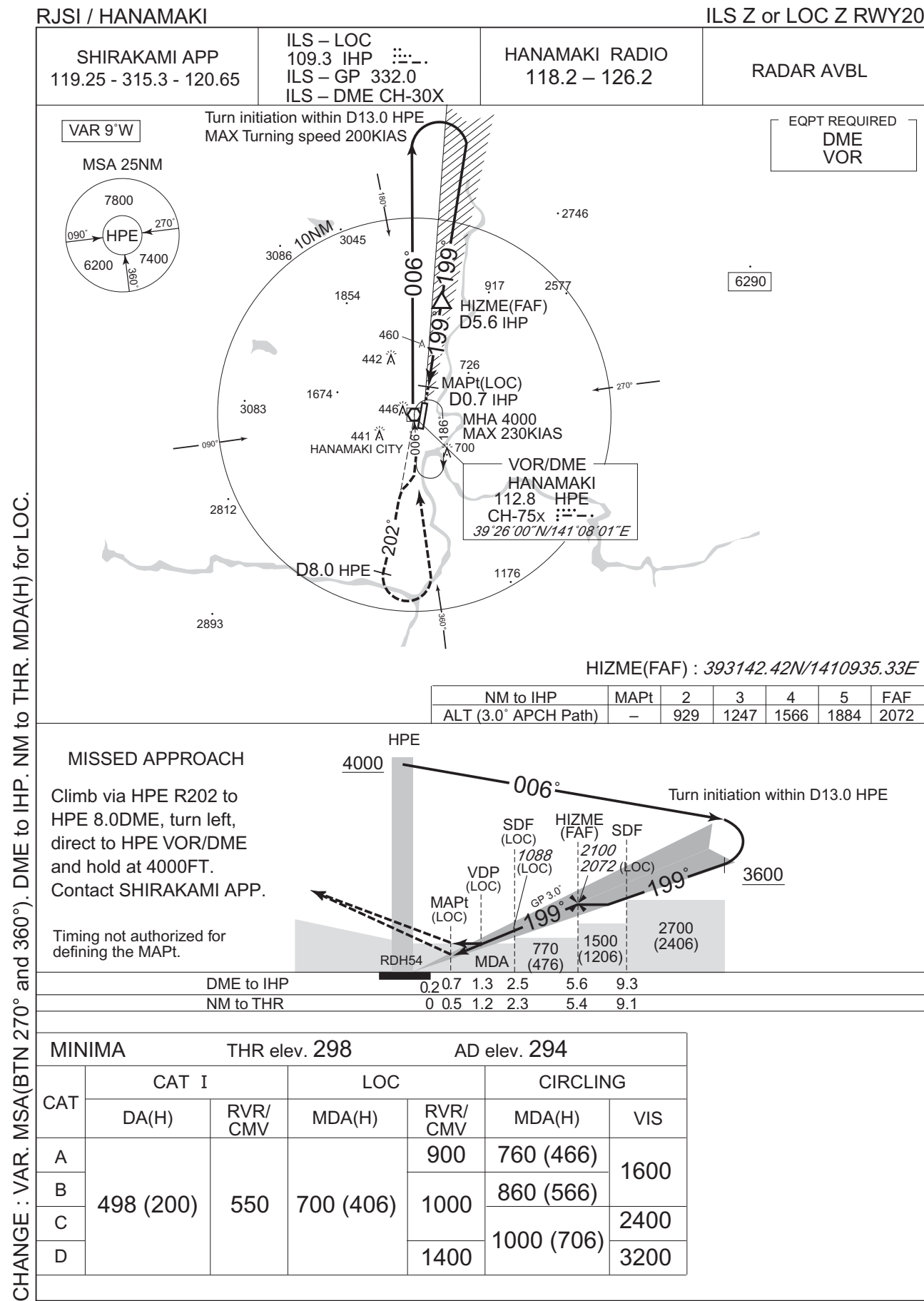
From SIOMO at or above 8000FT, to REMEN at or above 6000FT.

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	-	-	RNP1
002	TF	REMEN	-	074 (064.7)	-8.8	14.9	-	+6000	-	-	RNP1

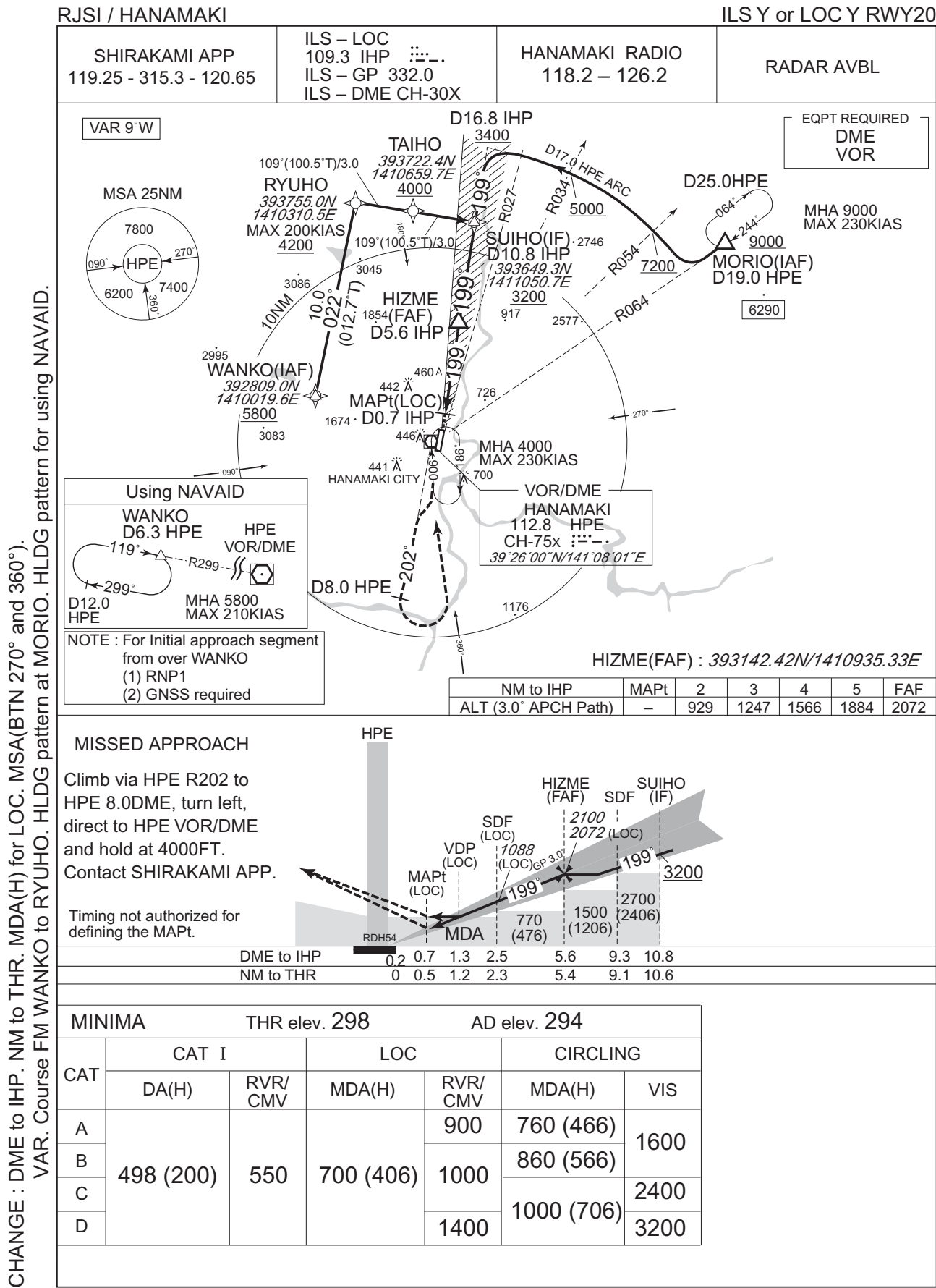
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	SIOMO	039 (030.1)	-8.8	1.0(-14000)	R	8000	FL140	-210(-14000)	RNP1

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INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



## RJSI / HANAMAKI

VOR RWY20

VAR 9°W

MSA 25NM

7800

090°

HPE

270°

6200

7400

360°

10NM

3045

3086

1854

442

1674

MAPt

446

441

HANAMAKI CITY

2812

2893

D8.0 HPE

1049

1176

2746

MASAH(FAF) D5.0 HPE

460

726

917

2577

007°

202°

007°

202°

187°

007°

202°

270°

090°

180°

090°

EQPT REQUIRED DME

6290

MASA(FAF) : 393052.04N/1410931.09E

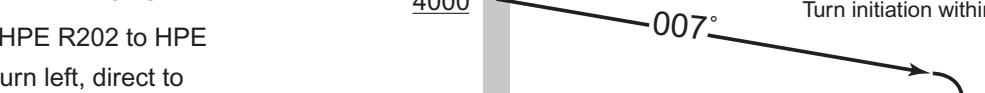
NM to HPE	MAPt	2	3	4	FAF
ALT (3.0° APCH Path)	—	849	1168	1486	1805

**MISSED APPROACH**

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

Contact SHIRAKAMI APP.

Timing not authorized for defining the MAPt.

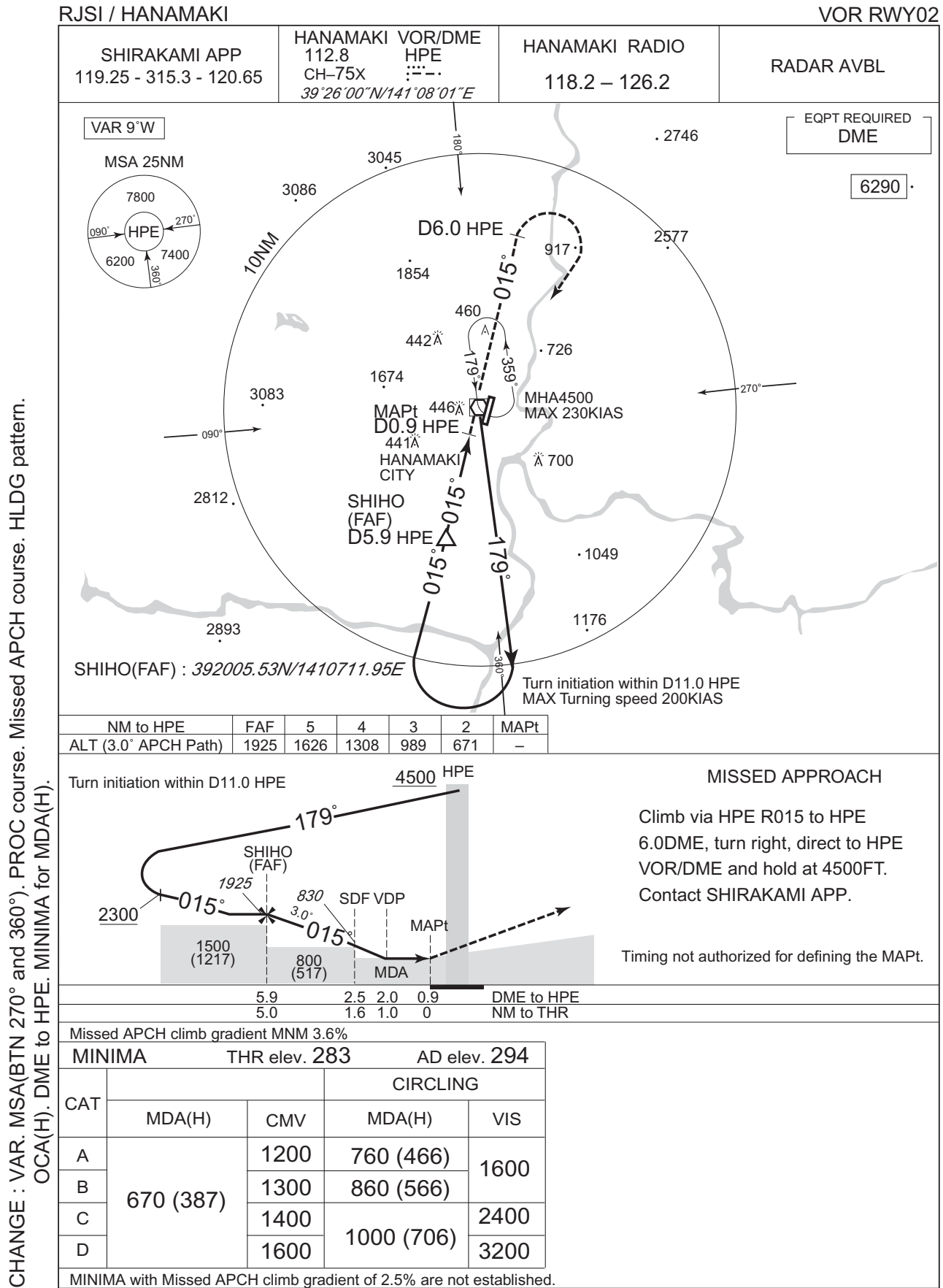


DME to HPE	NM to THR
0.4	0
1.6	1.2
2.5	2.1
5.0	4.6
10.0	9.6

MINIMA		THR elev. 298	AD elev. 294	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	700 (406)	900	760 (466)	1600
B		1000	860 (566)	
C			1000 (706)	2400
D				1400

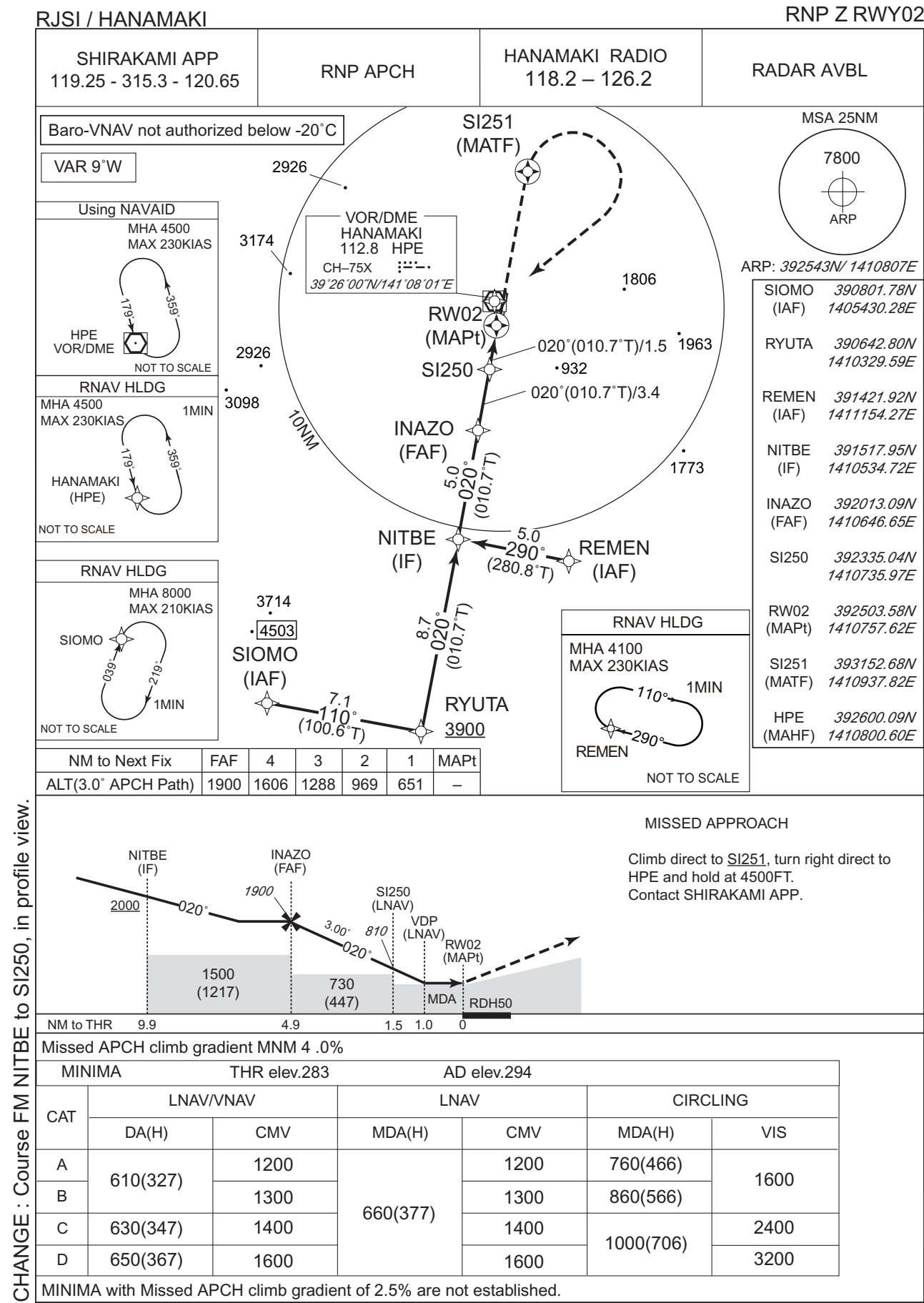


INSTRUMENT APPROACH CHART



CHANGE : VAR. MSA(BTN 270° and 360°). PROC course. Missed APCH course. HLDG pattern. OCA(H). DME to HPE. MINIMA for MDA(H).

INSTRUMENT APPROACH CHART

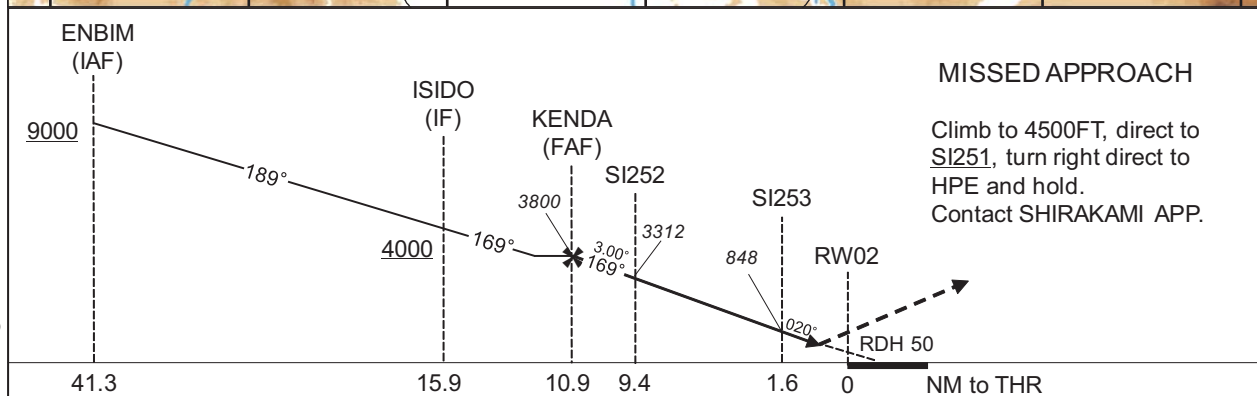
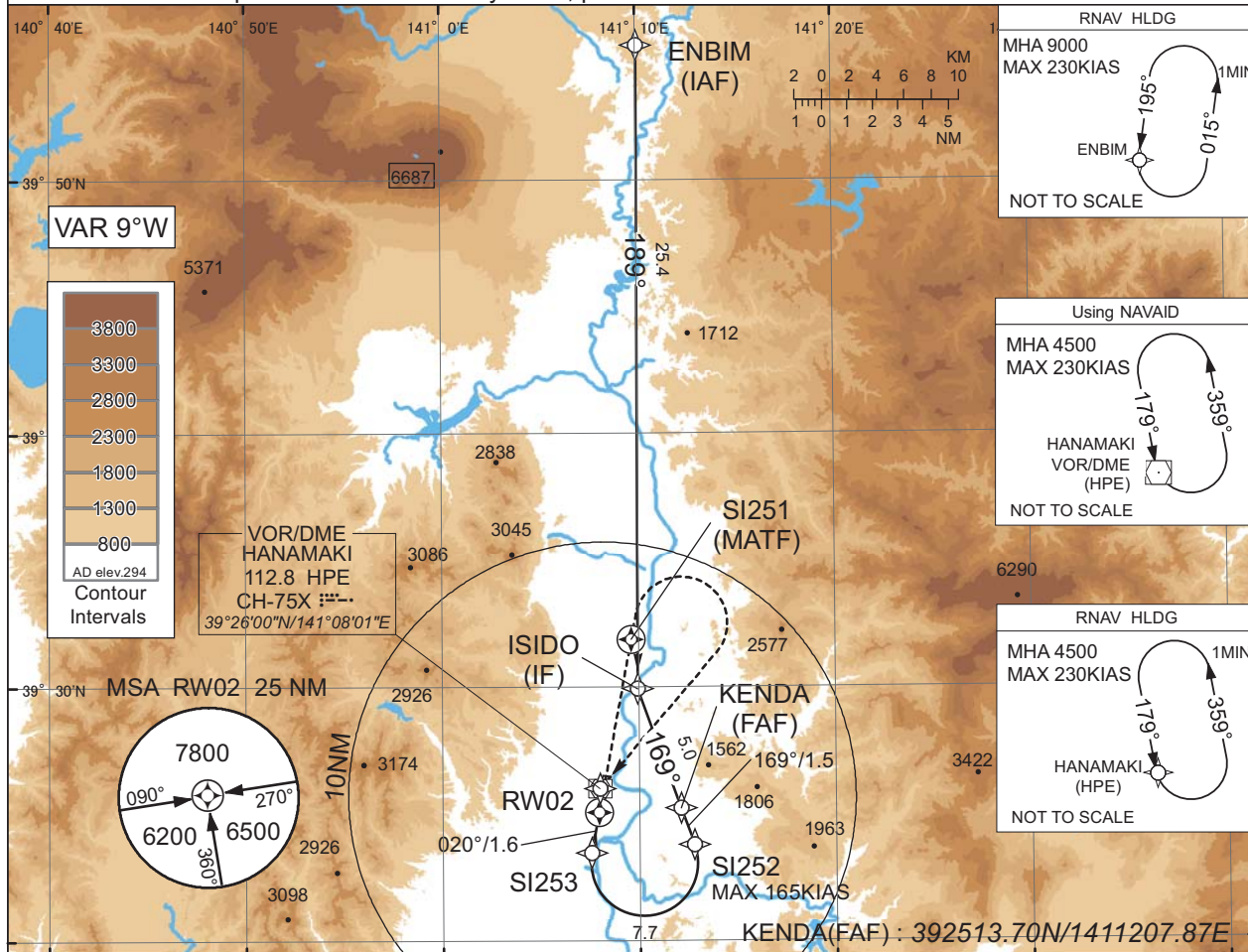


## RJSI / HANAMAKI

RNP Y RWY02(AR)

SHIRAKAMI APP 119.25 - 315.3 - 120.65	RNP AR RF required.	HANAMAKI RADIO 118.2 - 126.2	RADAR AVBL
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For uncompensated Baro-VNAV systems, procedure not authorized below -20°C / above 45°C



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

CHANGE : HLDG pattern for using NAVAID. RNAV HLDG at HANAMAKI.

INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNP Y RWY02(AR)

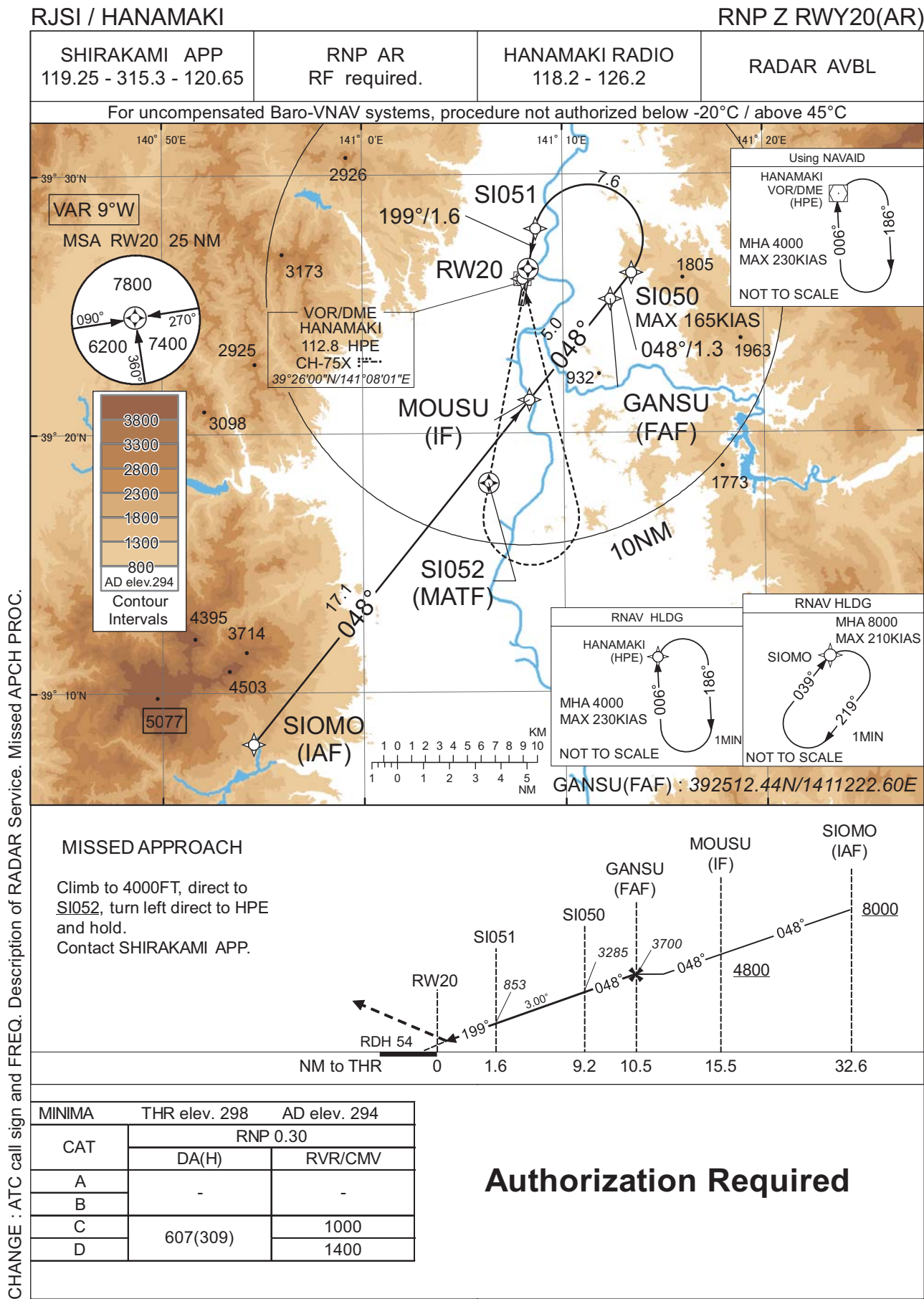
Coding Table											
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	ENBIM	-	-	-8.8	-	-	+9000	-	-	-
002	TF	ISIDO	-	189 (180.2)	-8.8	25.4	-	+4000	-	-	1.0
003	TF	KENDA	-	169 (160.3)	-8.8	5.0	-	3800	-	-	1.0
004	TF	SI252	-	169 (160.4)	-8.8	1.5	-	3312	-165	-3.00	0.3
005	RF Center: SIRF1 r=2.10NM	SI253	-	-	-8.8	7.7	R	848	-	-3.00	0.3
006	TF	RW02	Y	020 (010.7)	-8.8	1.6	-	333	-	-3.00/50	0.3
007	DF	SI251	Y	-	-8.8	-	-	-	-	-	1.0
008	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	ENBIM	195 (186.5)	-8.8	1.0 (-14000)	L	9000	FL140	-230 (-14000)	1.0
Hold	HPE	179 (169.7)	-8.9	1.0 (-14000)	L	4500	FL140	-230 (-14000)	1.0

Waypoint Coordinates				
Waypoint Identifier		Coordinates	RF Arc Center Identifier	Coordinates
ENBIM		395519.34N / 1411002.82E	SIRF1	392304.37N / 1411014.42E
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 : HLDG at HPE. VAR.

INSTRUMENT APPROACH CHART





## 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

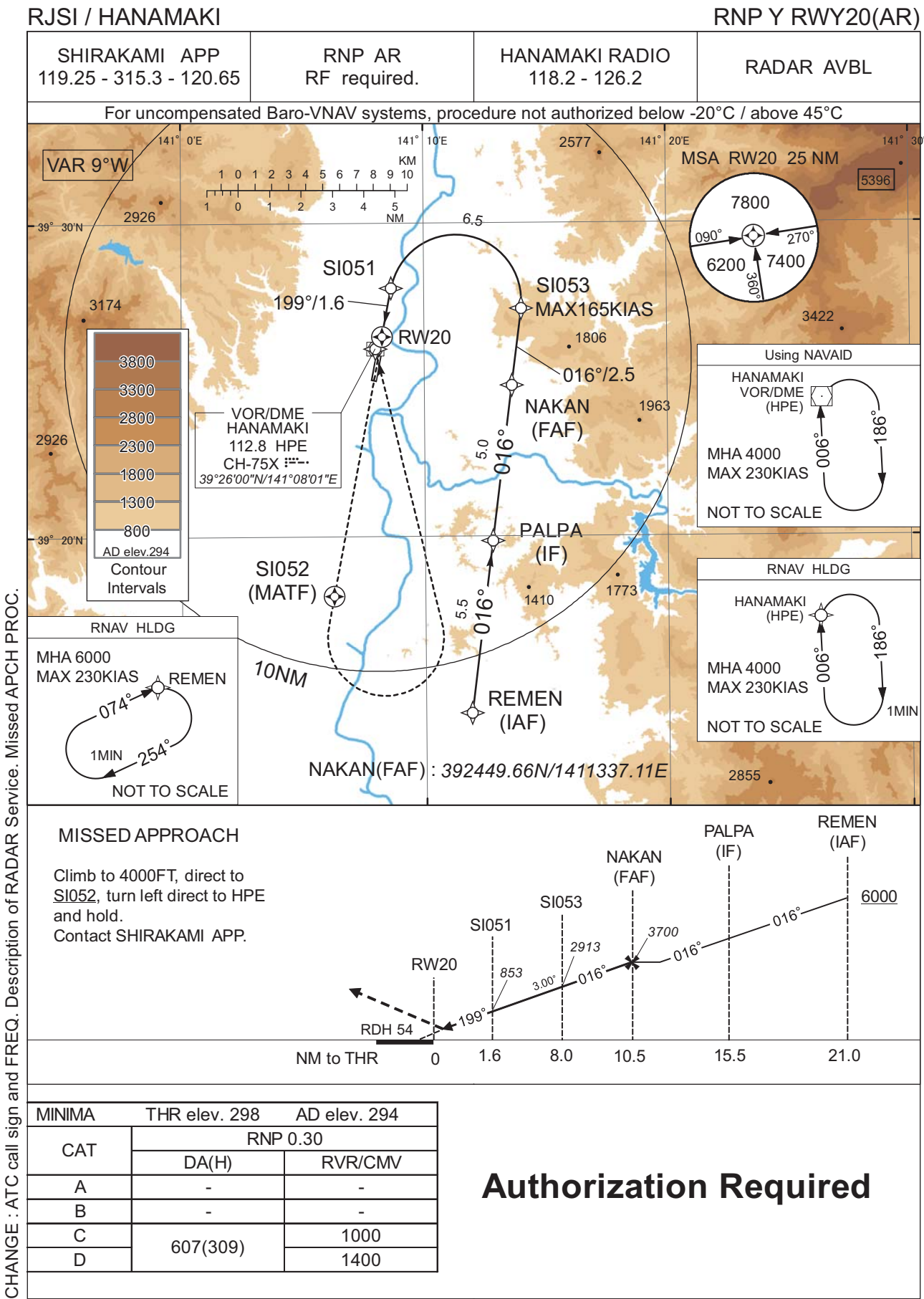
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	SIOMO	039 (030.1)	-8.8	1.0 (-14000)	R	8000	FL140	-210 (-14000)	1.0
Hold	HPE	006 (357.5)	-8.8	1.0 (-14000)	R	4000	FL140	-230 (-14000)	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



## 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

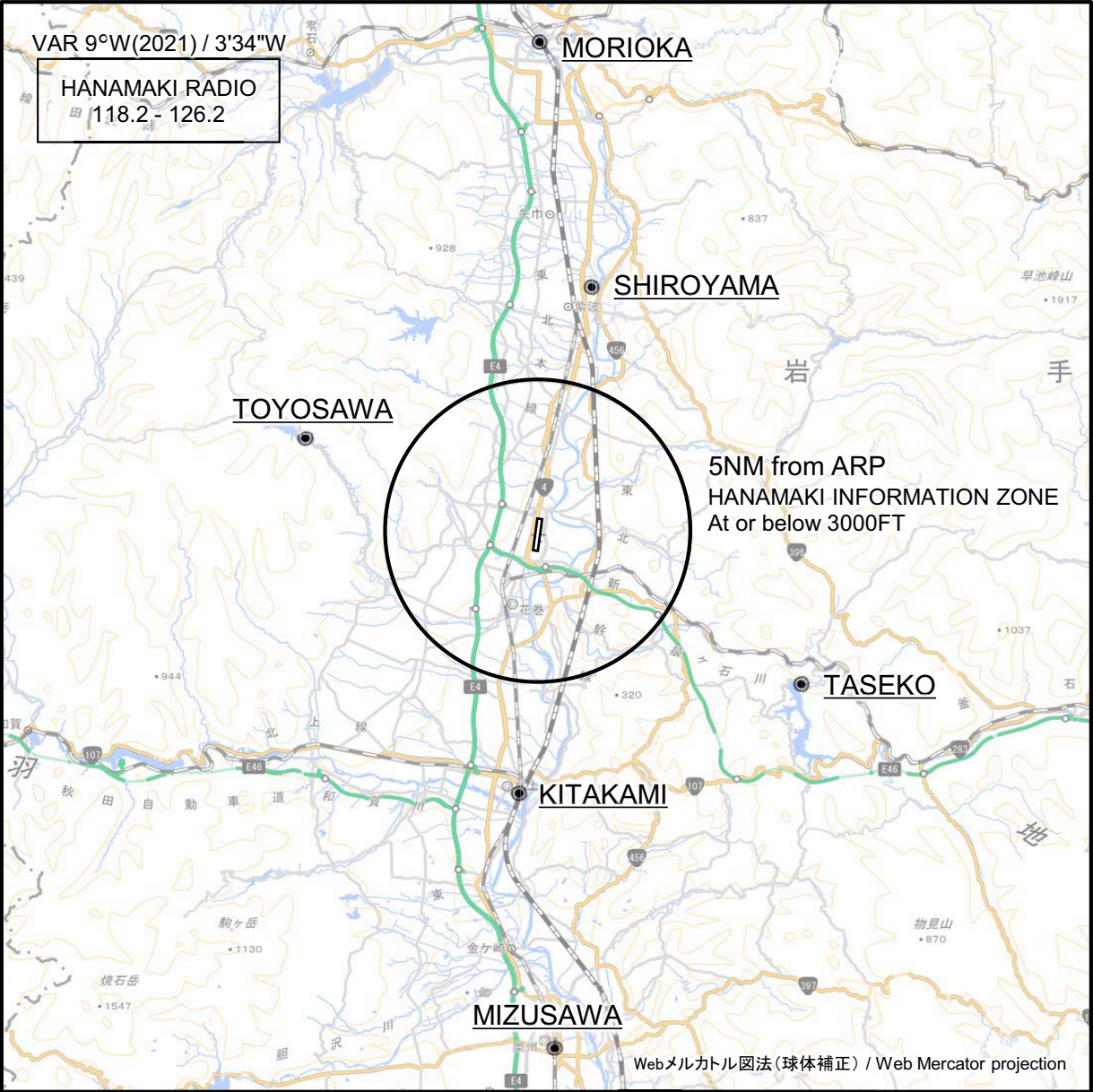
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
REMEN	391421.92N / 1411154.27E	SIRF2	392732.73N / 1411119.82E
PALPA	391951.68N / 1411248.23E		
NAKAN	392449.66N / 1411337.11E		
SI053	392716.81N / 1411401.29E		
SI051	392756.30N / 1410839.89E		
RW20	392623.24N / 1410817.11E		
SI052	391806.42N / 1410615.76E		
HPE	392600.09N / 1410800.60E		

CHANGE : PROC renamed.



RJSI / HANAMAKI

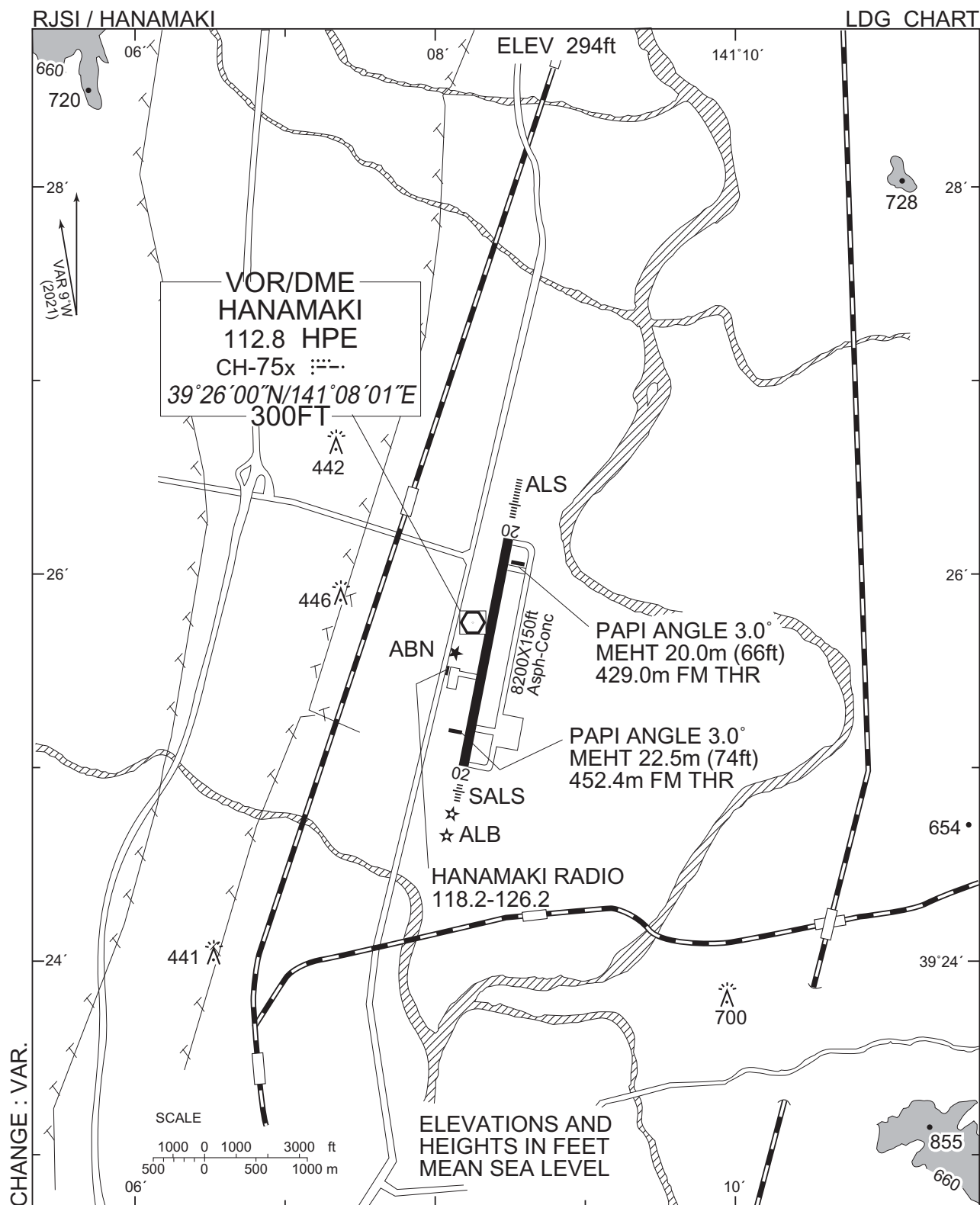
Visual REP



※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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

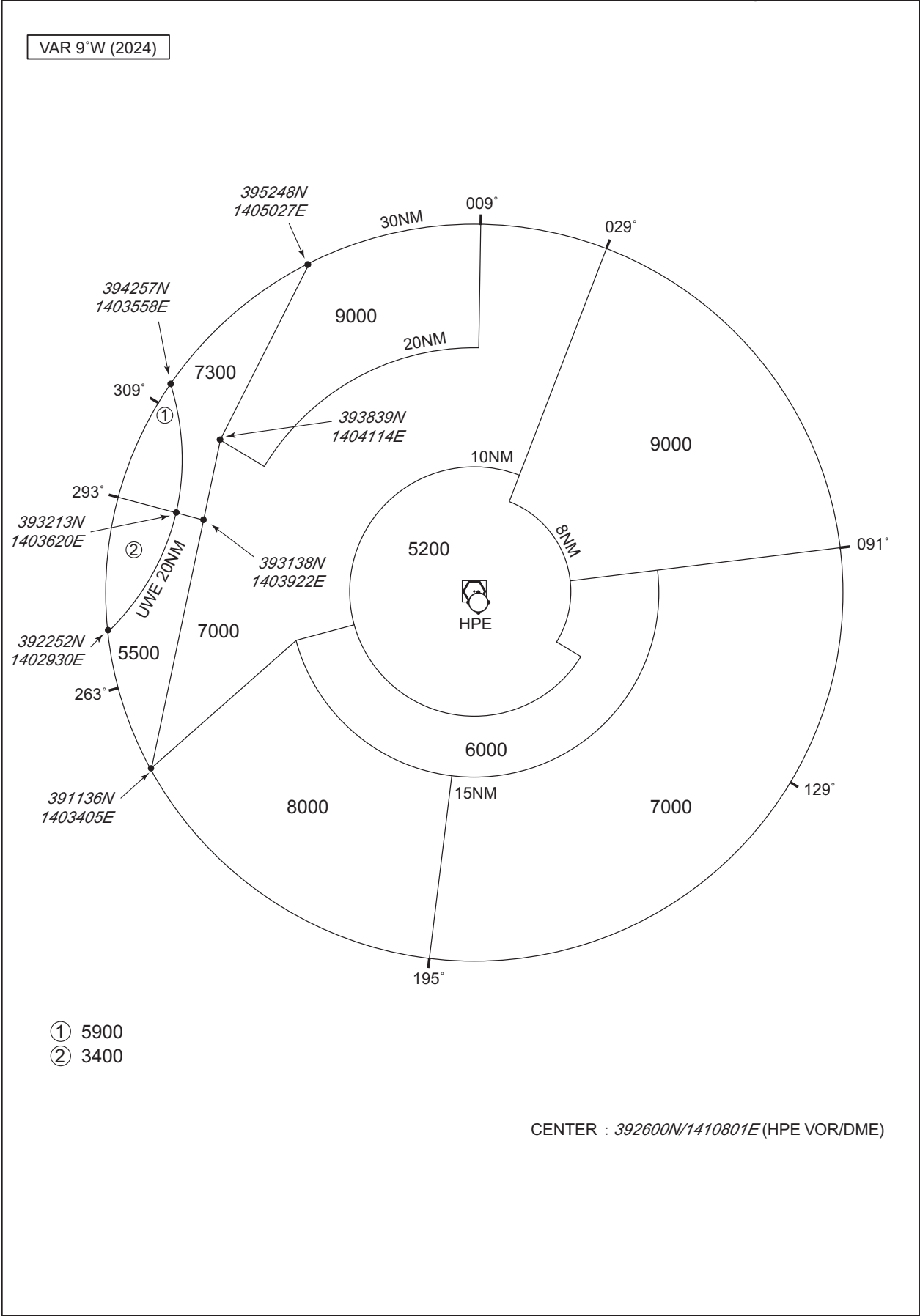
Call sign	BRG / DIST from ARP	Remarks
盛岡 Morioka	360°T / 16.4NM	JR駅 JR Station
城山 Shiroyama	012°T / 8.4NM	城跡 The site of a castle
豊沢 Toyosawa	293°T / 8.1NM	豊沢ダム Dam
田瀬湖 Taseko	121°T / 10.0NM	田瀬ダム Dam
北上 Kitakami	184°T / 8.9NM	JR駅 JR Station
水沢 Mizusawa	178°T / 17.4NM	JR駅 JR Station



RJSI / HANAMAKI

Minimum Vectoring Altitude CHART

VAR 9°W (2024)



CHANGE : Update.