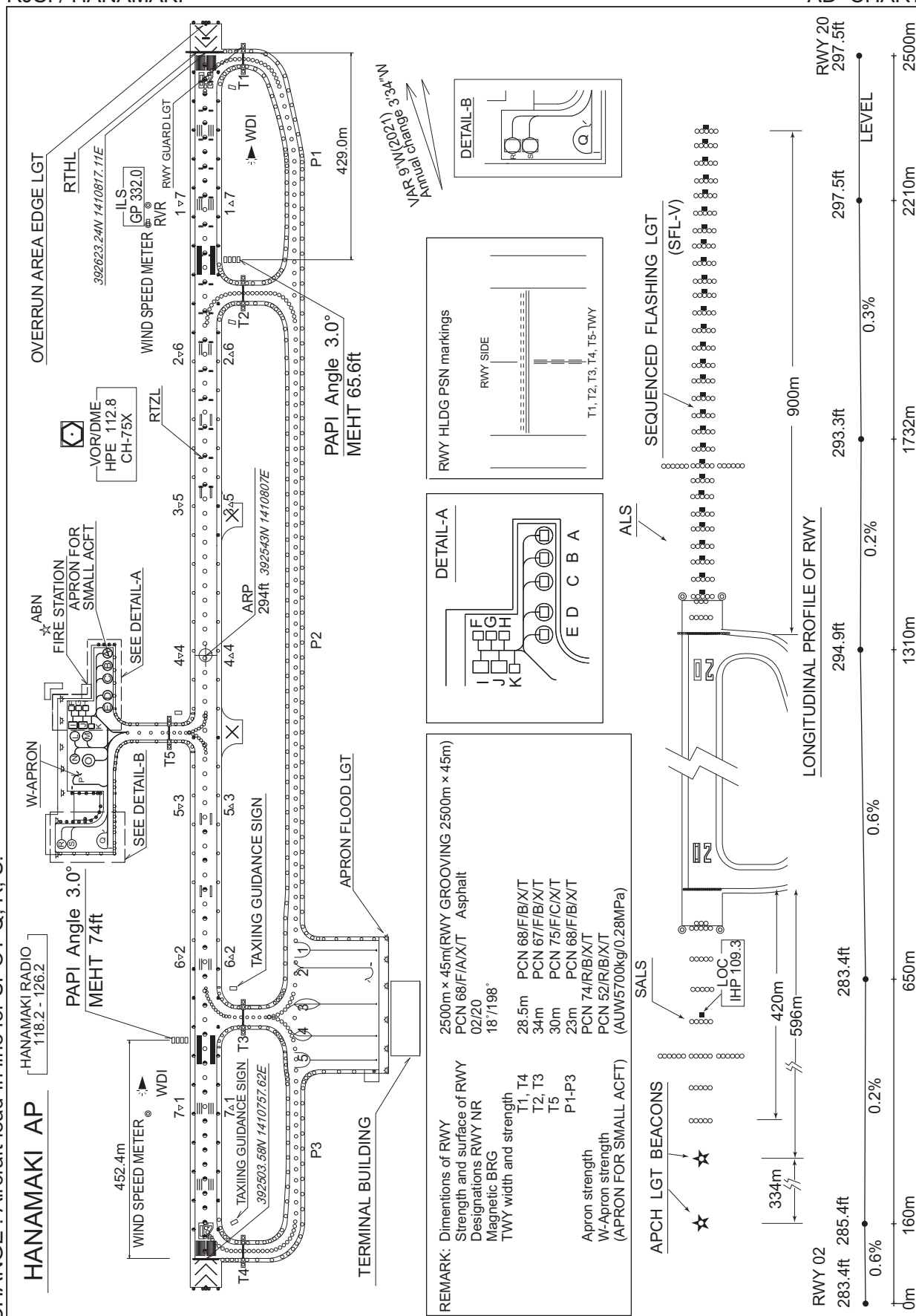


RJSI / HANAMAKI

AD CHART



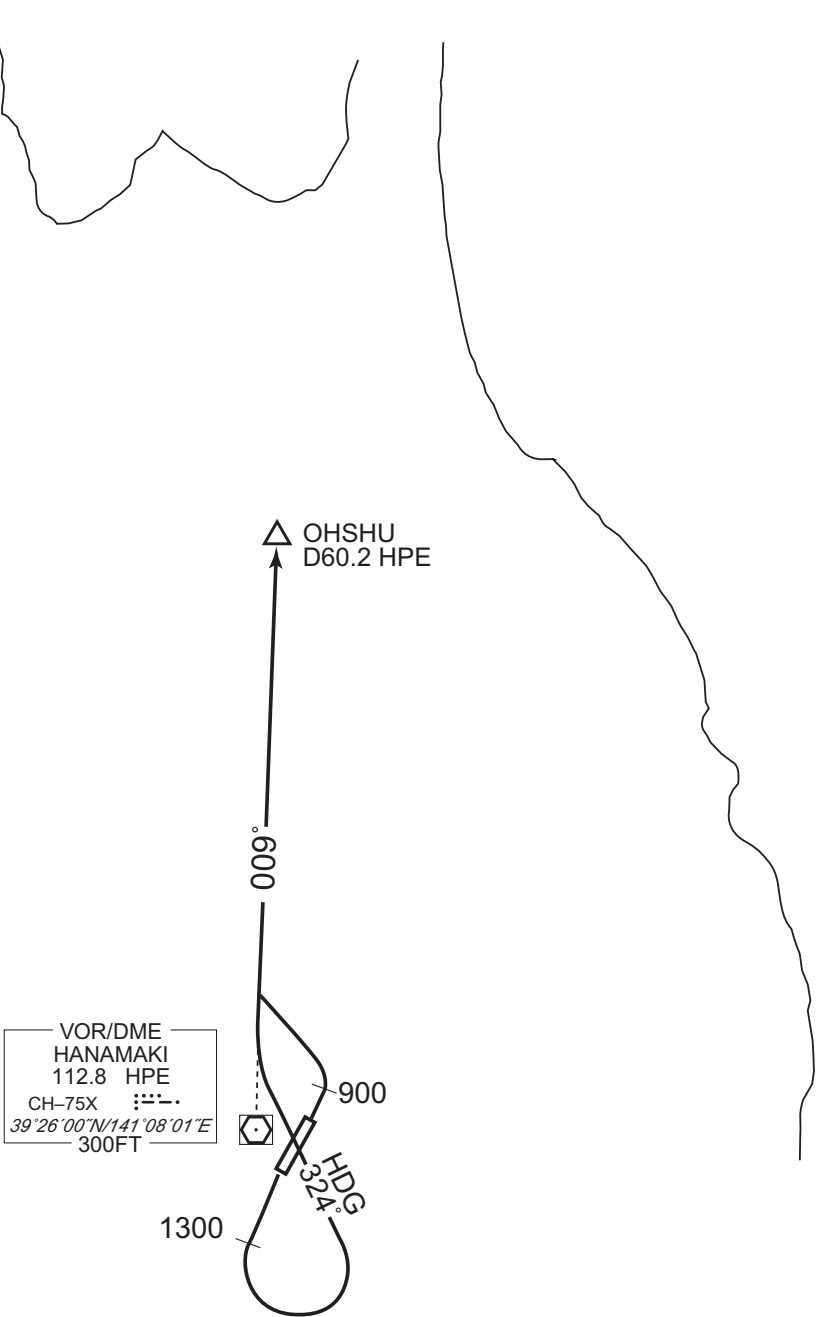
STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI SID

OHSU ONE DEPARTURE

RWY 02 : Climb RWY HDG to 900FT, turn left...
RWY 20 : Climb RWY HDG to 1300FT, turn left HDG 324°...
...to intercept and proceed via HPE R009 to OHSU.

CHANGE : Description of PROC name.



STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

SID

NIIGATA FIVE 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 11000 FT.

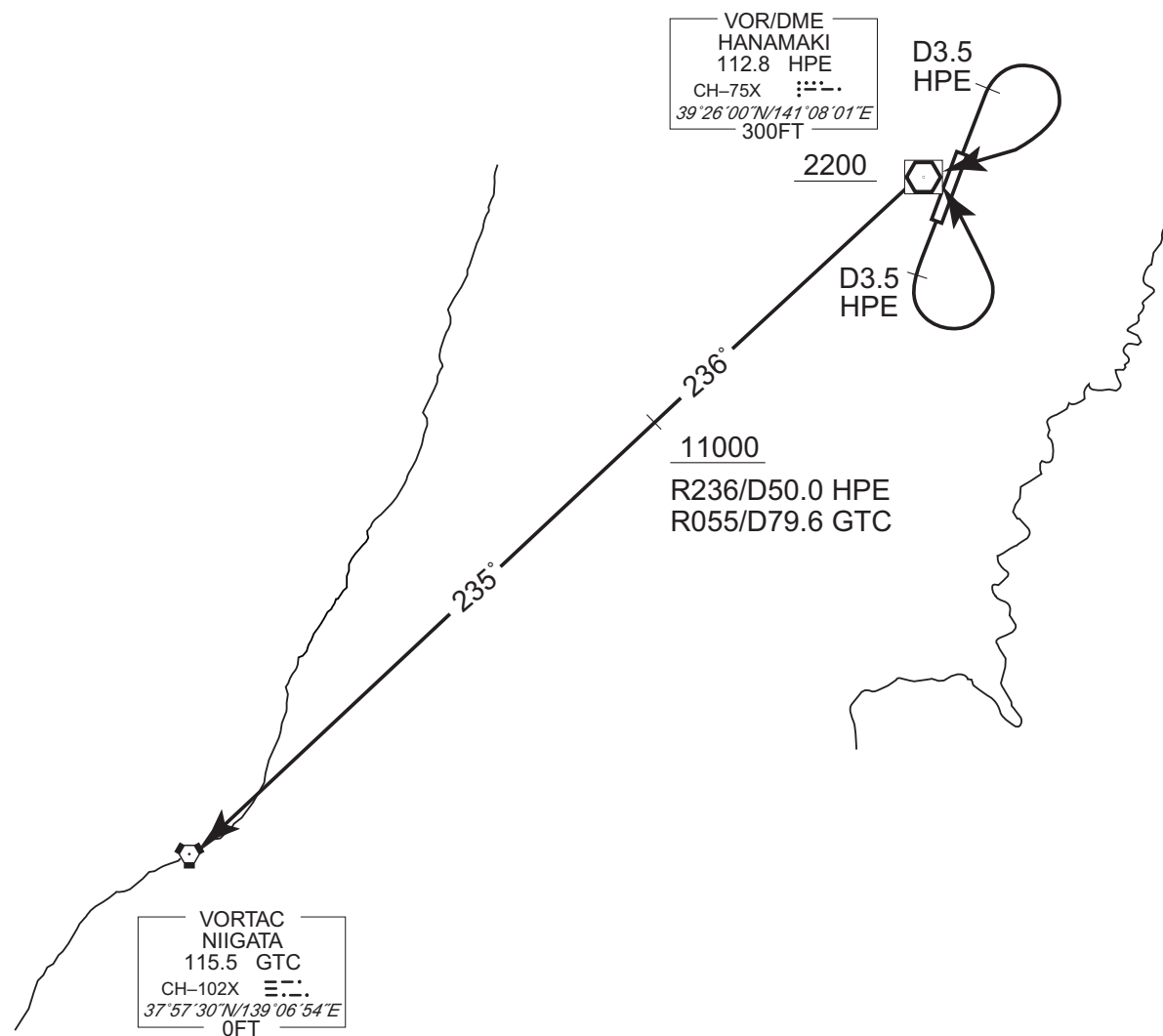
Note RWY02 : 4.5% climb gradient required up to 2400FT.

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 : PROC renamed. PROC course. ALT restriction.



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...

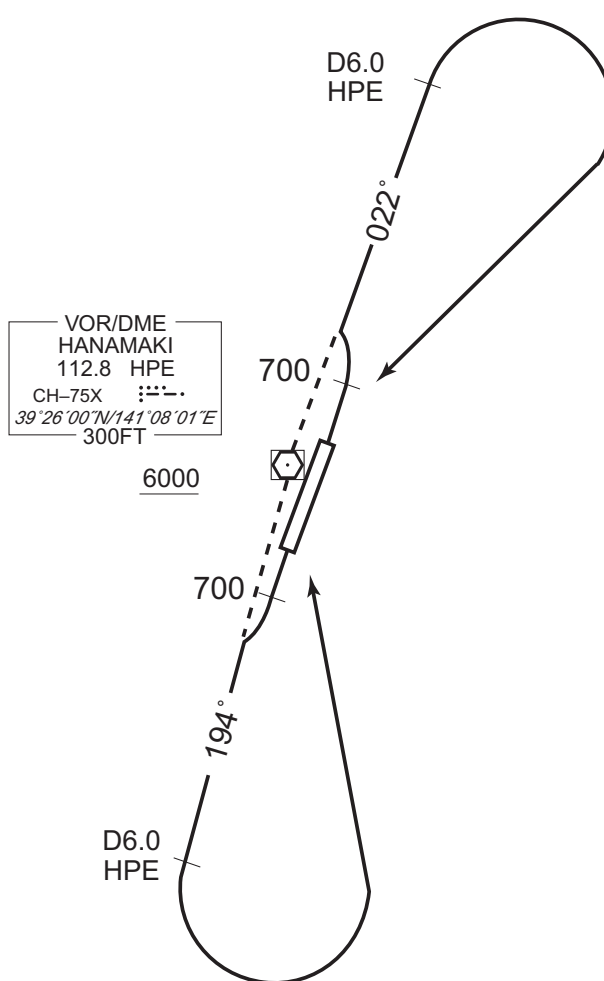
RWY 20 : Climb RWY HDG to 700FT, via HPE R194 to 6.0 DME, turn left...

...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.

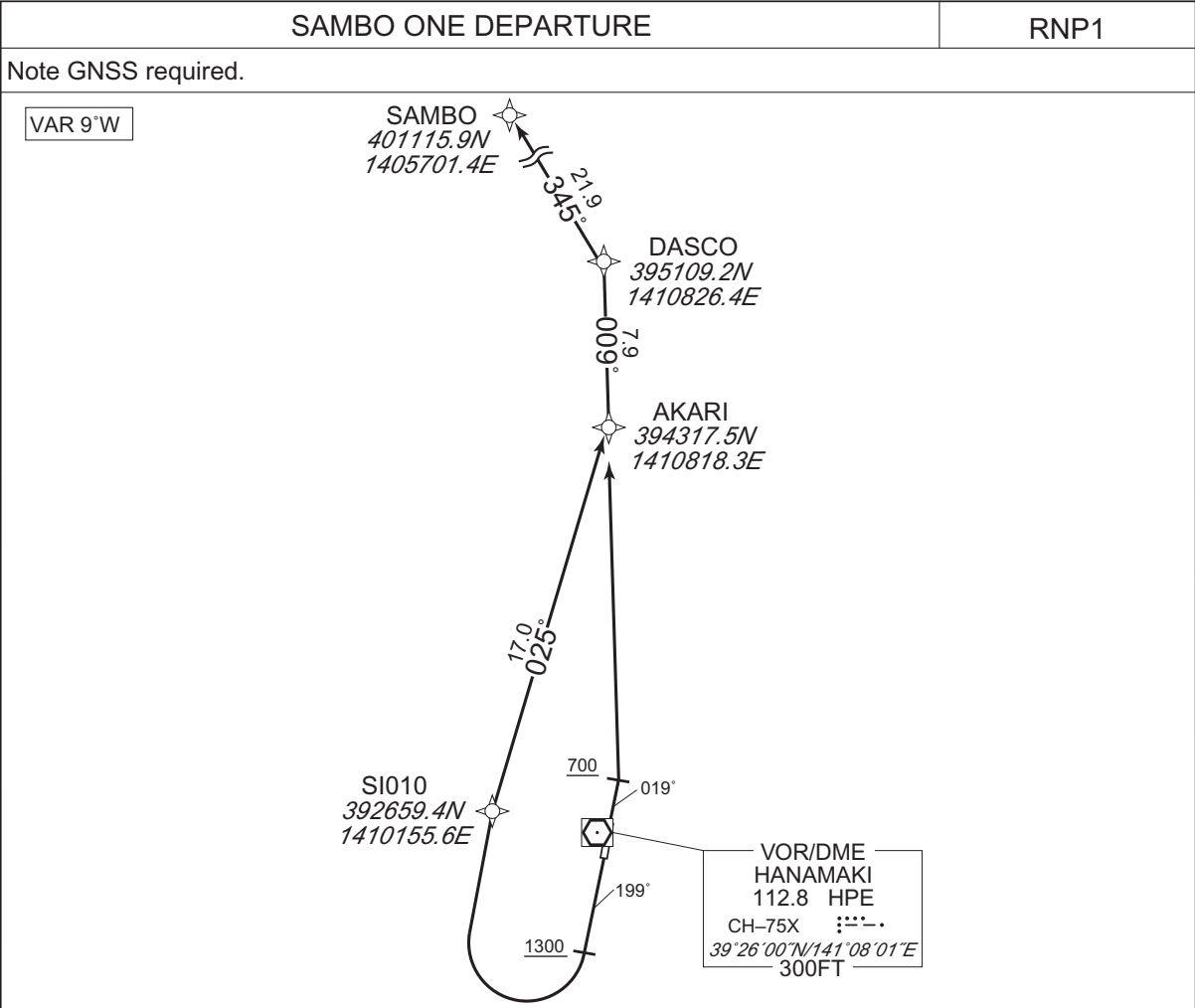


CHANGE : Description of PROC name.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

RNAV SID



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

STANDARD DEPARTURE CHART -INSTRUMENT

RJSI / HANAMAKI

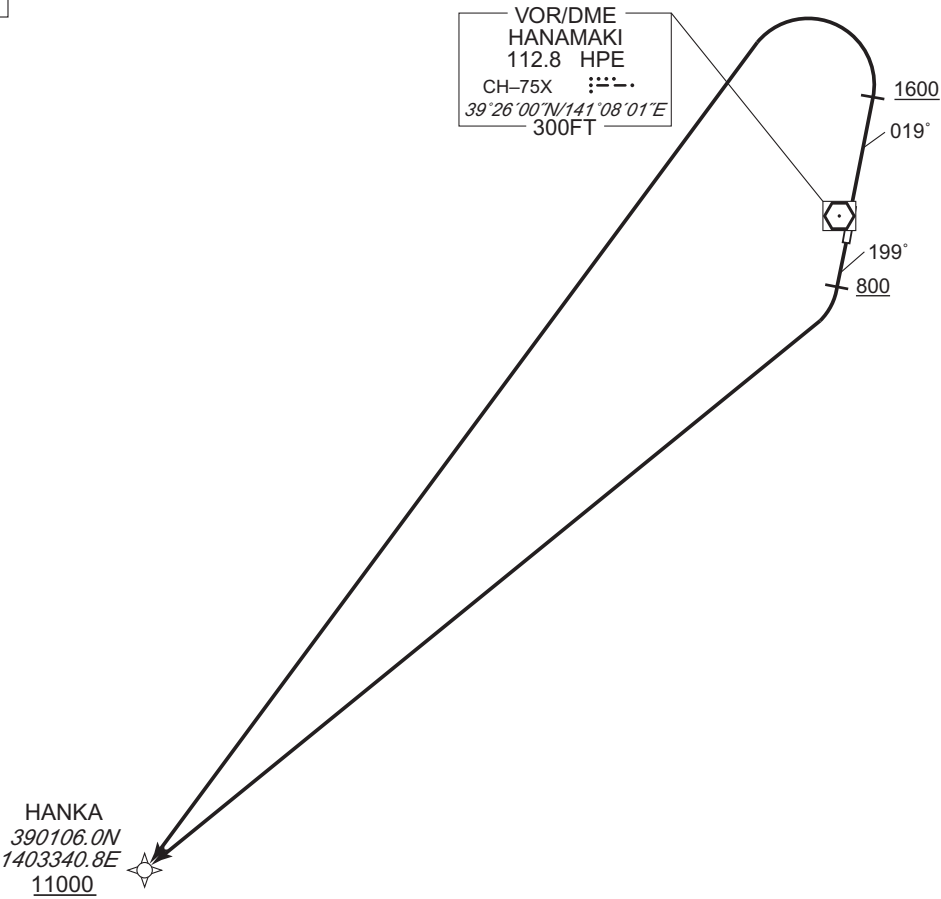
RNAV SID

HANKA ONE DEPARTURE

RNP1

Note GNSS required

VAR 9°W



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	—	—	RNP1
002	DF	HANKA	—	—	-8.7	—	L	+11000	—	—	RNP1

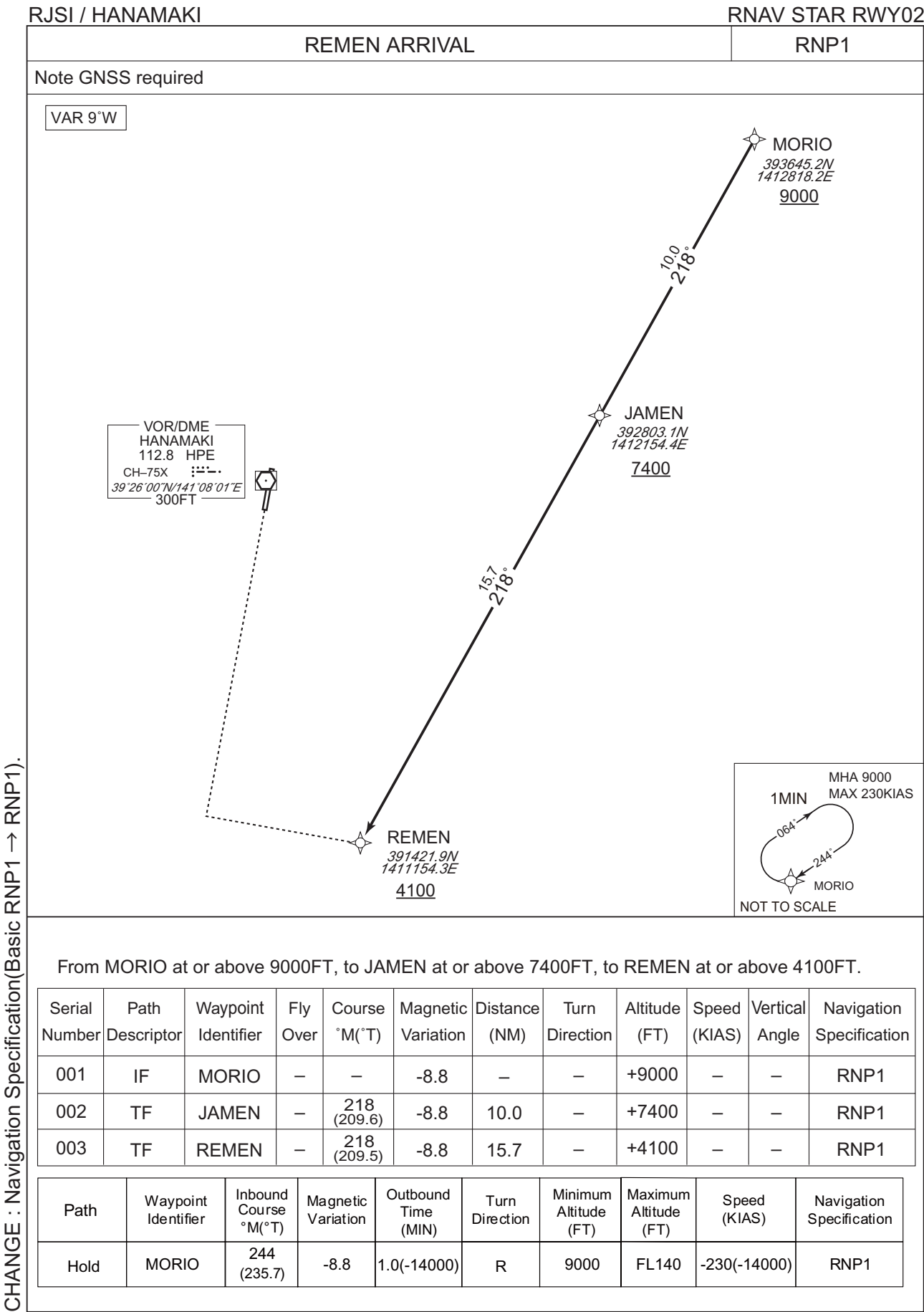
RWY20

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	—	—	RNP1
002	DF	HANKA	—	—	-8.7	—	R	+11000	—	—	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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STANDARD ARRIVAL CHART - INSTRUMENT



STANDARD ARRIVAL CHART - INSTRUMENT

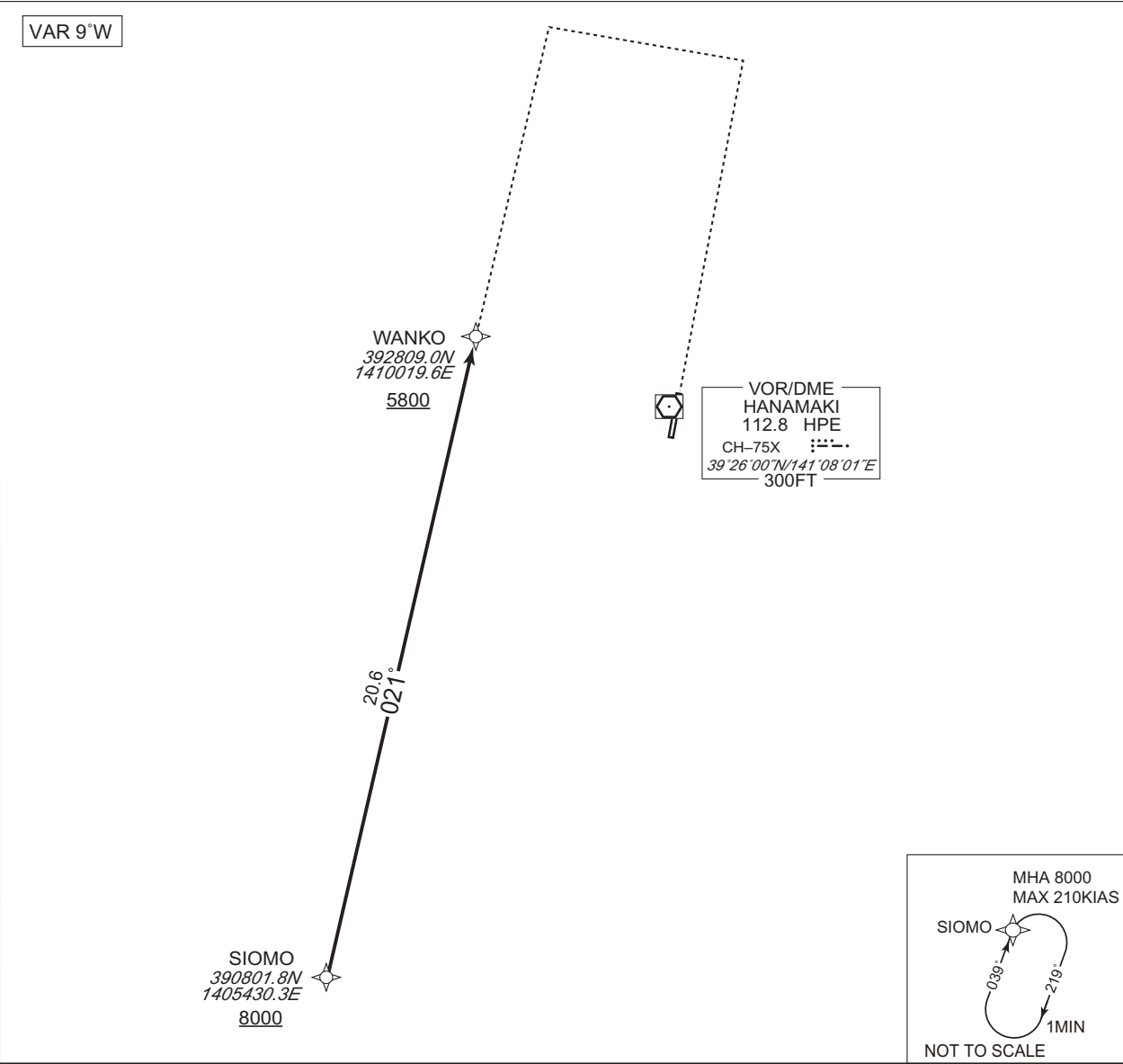
RJSI / HANAMAKI

RNAV STAR RWY20

WANKO ARRIVAL

RNP1

Note GNSS required



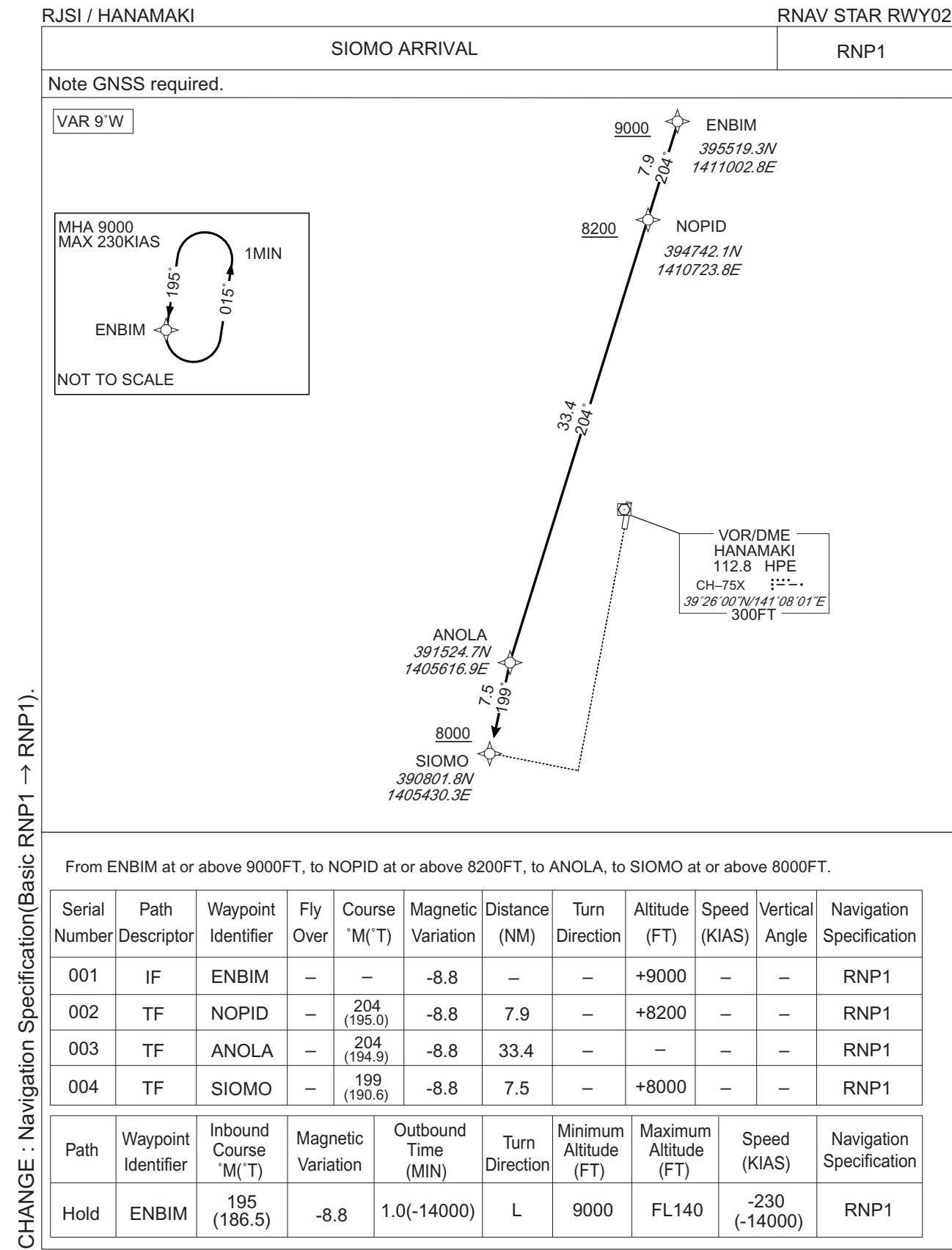
From SIOMO at or above 8000FT, to WANKO at or above 5800FT.

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 : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART - INSTRUMENT

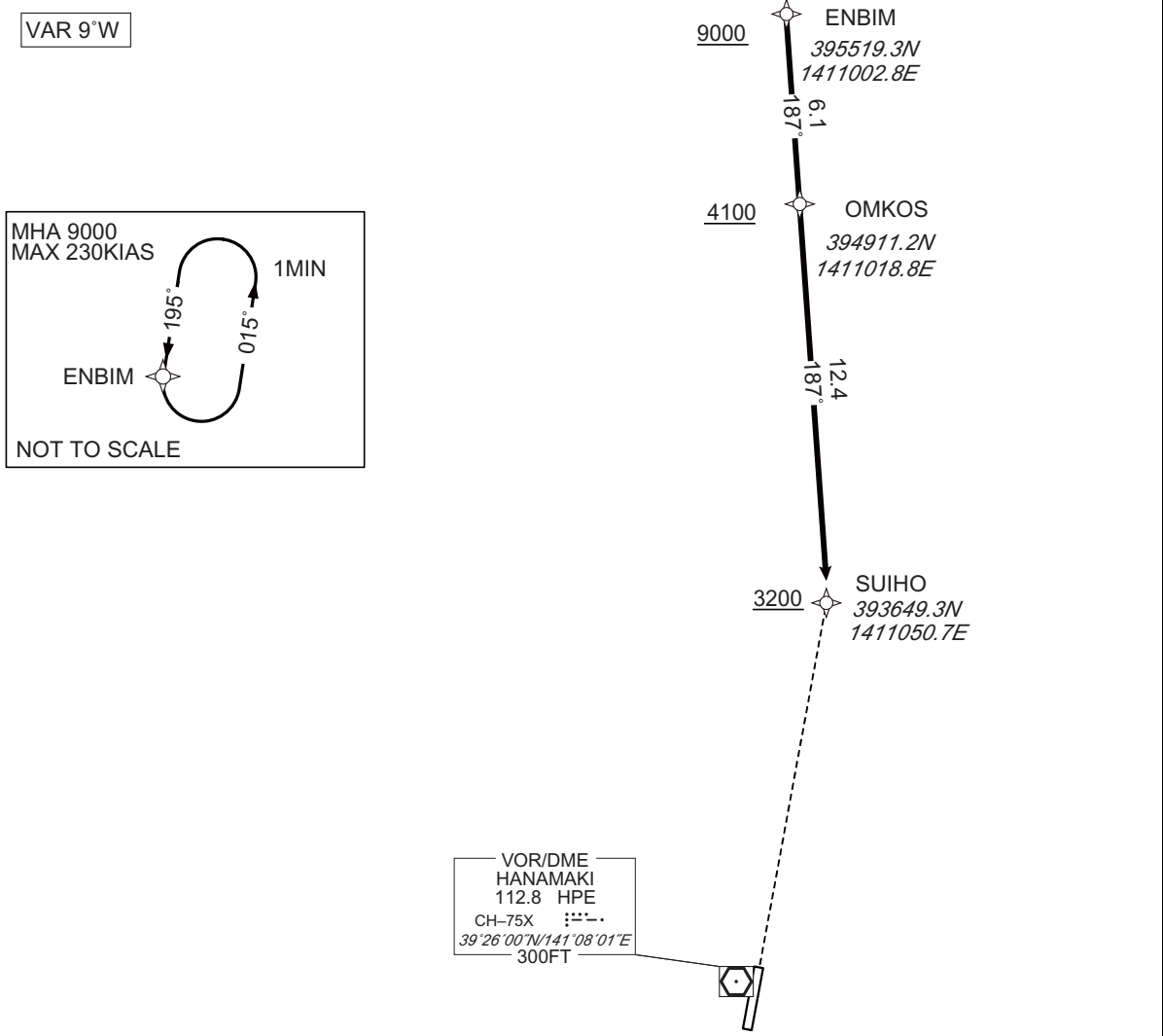


STANDARD ARRIVAL CHART - INSTRUMENT

RJSI / HANAMAKIRNAV STAR RWY20

SUIHO ARRIVAL	RNP1
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Note GNSS required.

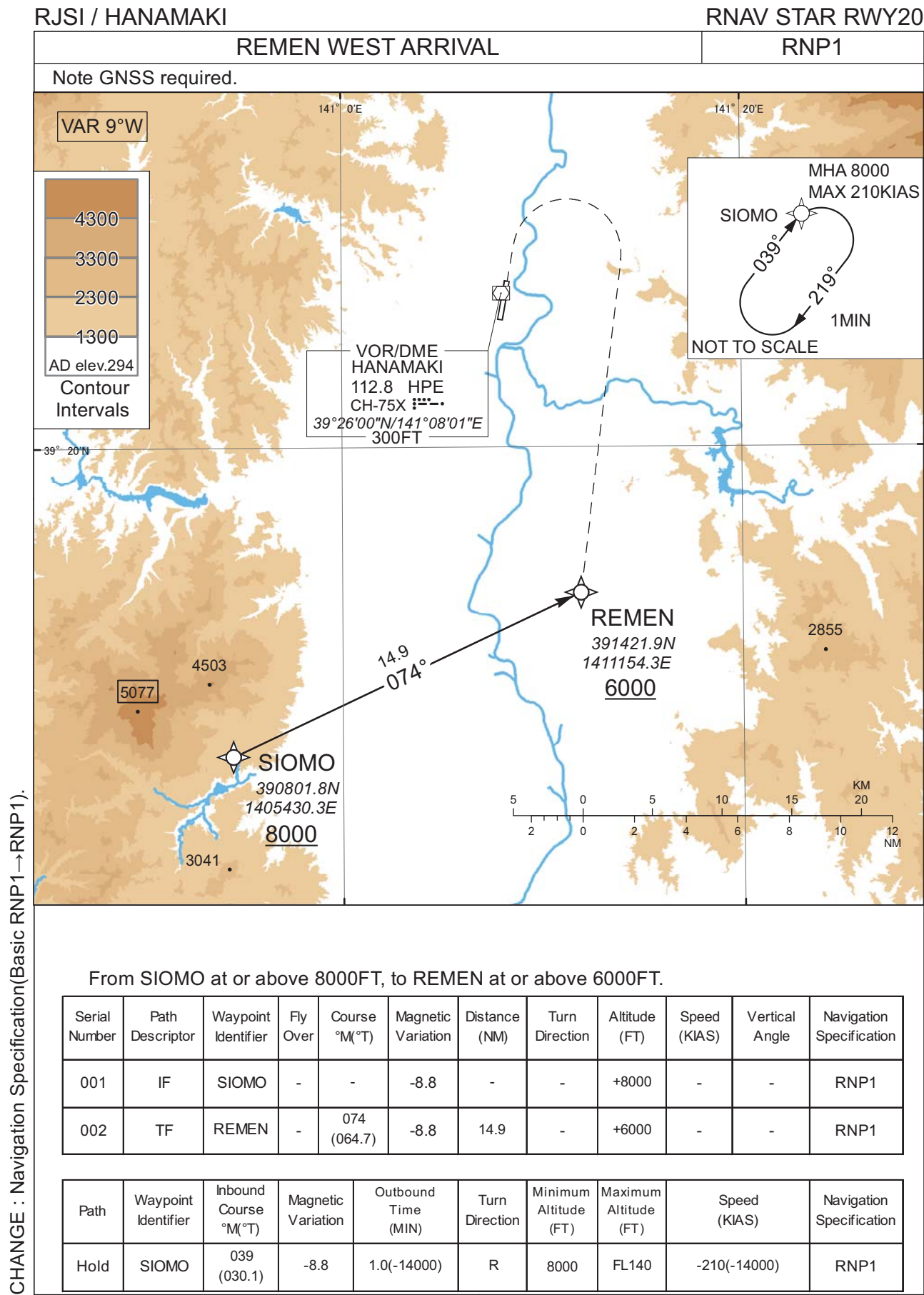


From ENBIM at or above 9000FT, to OMKOS at or above 4100FT, to SUIHO at or above 3200FT.

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

STANDARD ARRIVAL CHART - INSTRUMENT



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CHANGE : ATC call sign and FREQ. Description of RADAR Service. Missed APCH PROC.

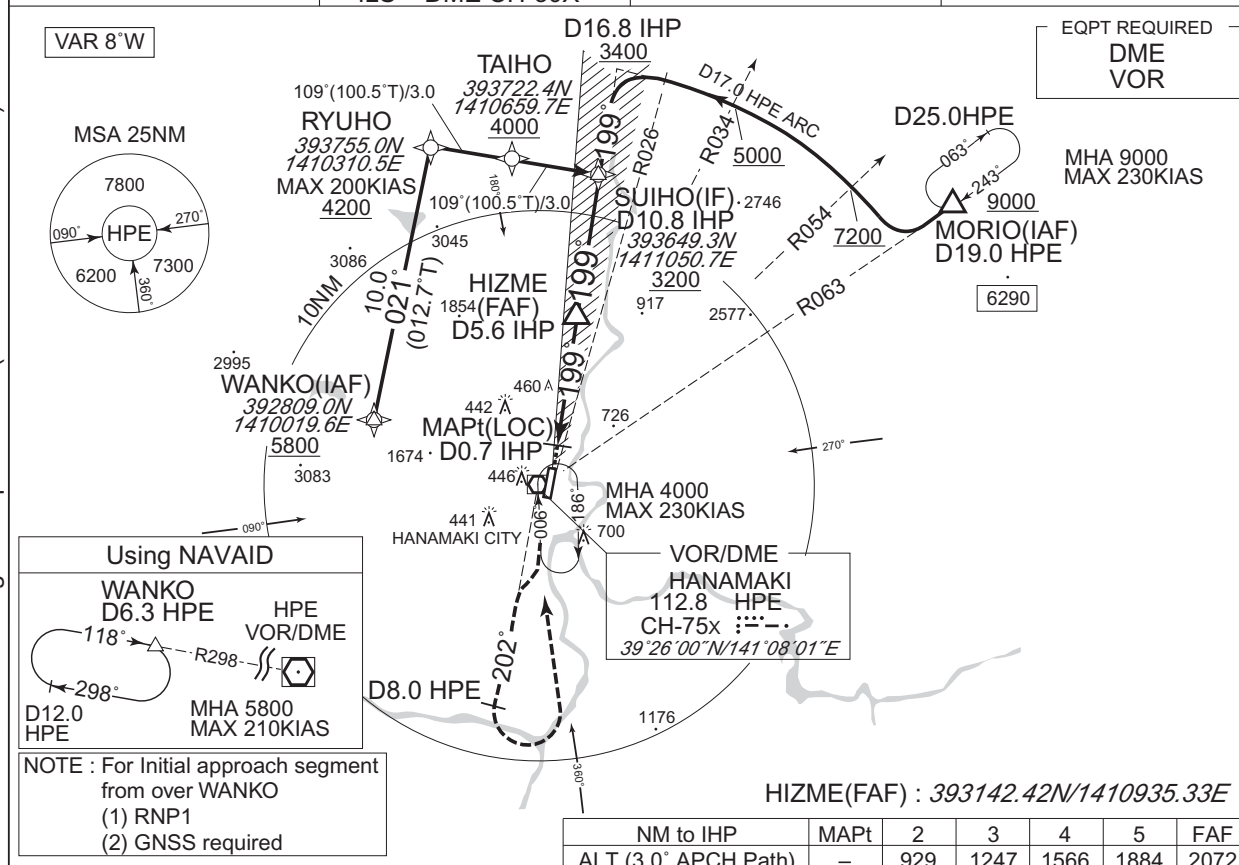
ILS Z or LOC Z RWY20

Civil Aviation Bureau,Japan (EFF:18 APR 2024) 21/3/24

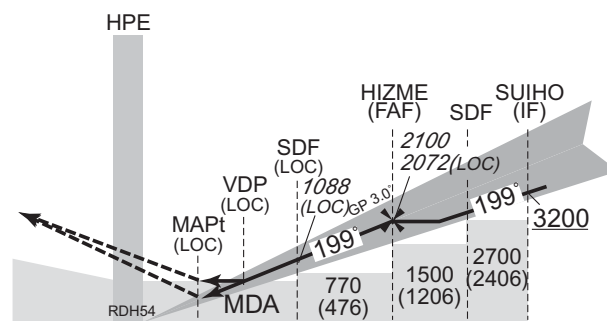
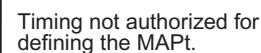
CHANGE : ATC call sign and FREQ. Description of RADAR Service. Missed APCH PROC. Navigation Specification(Basic RNP1 → RNP1).

ILS Y or LOC Y RWY20

SHIRAKAMI APP 119.25 - 315.3 - 120.65	ILS – LOC 109.3 IHP ILS – GP 332.0 ILS – DME CH-30X	HANAMAKI RADIO 118.2 – 126.2	RADAR AVBL
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Climb via HPE R202 to
HPE 8.0DME, turn left,
direct to HPE VOR/DME
and hold at 4000FT.
Contact SHIRAKAMI APP.



DME to IHP	0.2	0.7	1.1	2.5	5.6	9.3	10.8
NM to THR	0	0.5	0.9	2.3	5.4	9.1	10.6

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

RJSI / HANAMAKI

VOR RWY20

VAR 8°W

MSA 25NM

7800
7300
6200
3600

HPE

10NM

3086
3045
2746
2577
2812
2893
1049
1176

1854
442
1674
446
441
700

HANAMAKI CITY

MASAH(FAF)
D5.0 HPE

MAPt
446

MHA 4000
MAX 230KIAS

D8.0 HPE

EQPT REQUIRED
DME

6290

MASAH(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.

4000

HPE

007°

Turn initiation within D12.0 HPE

MAPt

SDF

MASAH (FAF)

SDF

1008

30°

202°

1805

202°

3500

MDA

820 (526)

1500 (1206)

2600 (2306)

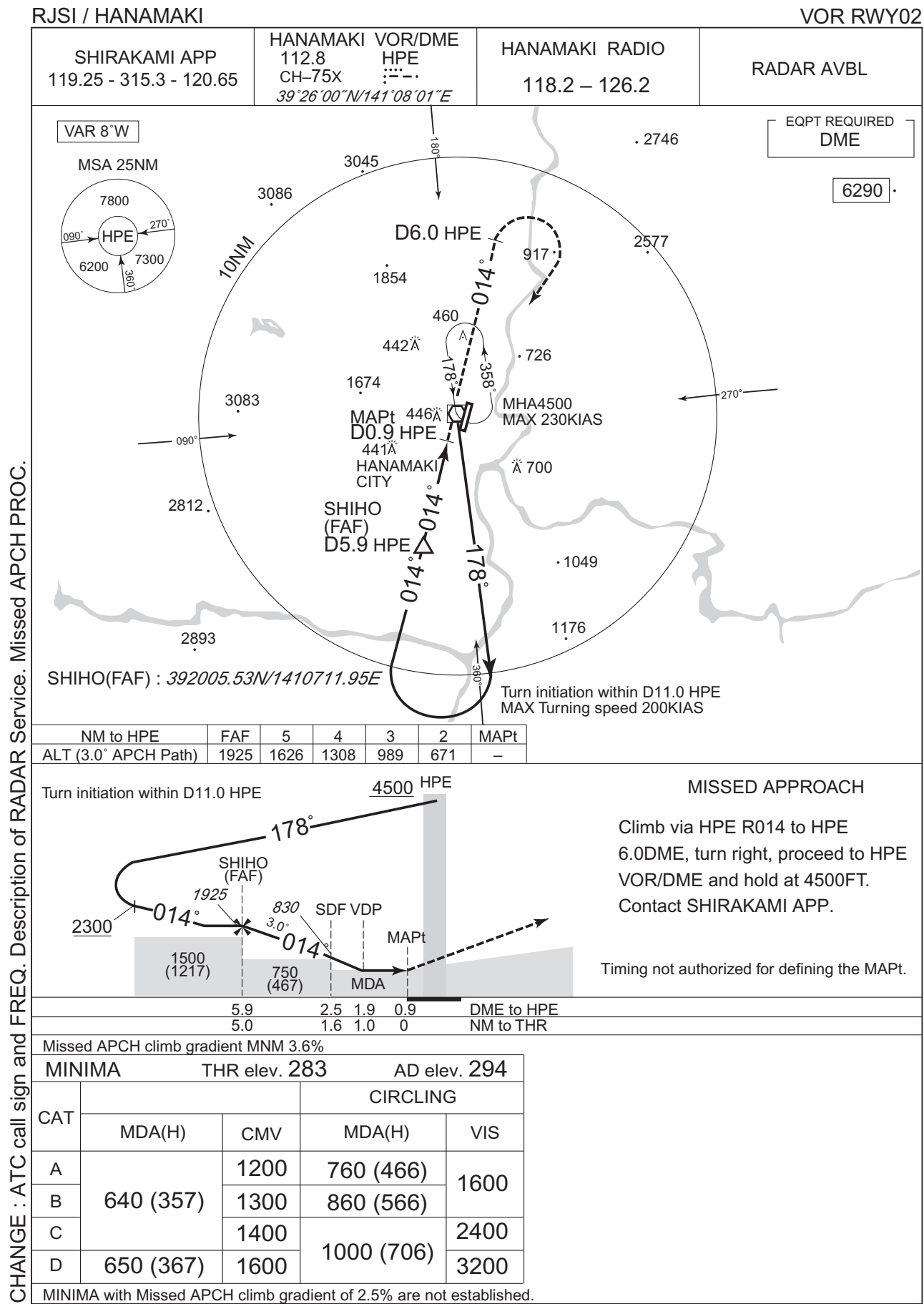
DME to HPE

NM to THR

0.4	1.5	2.5	5.0	10.0
0	1.1	2.1	4.6	9.6

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			1000 (706)	2400		
D		1400		3200		

INSTRUMENT APPROACH CHART

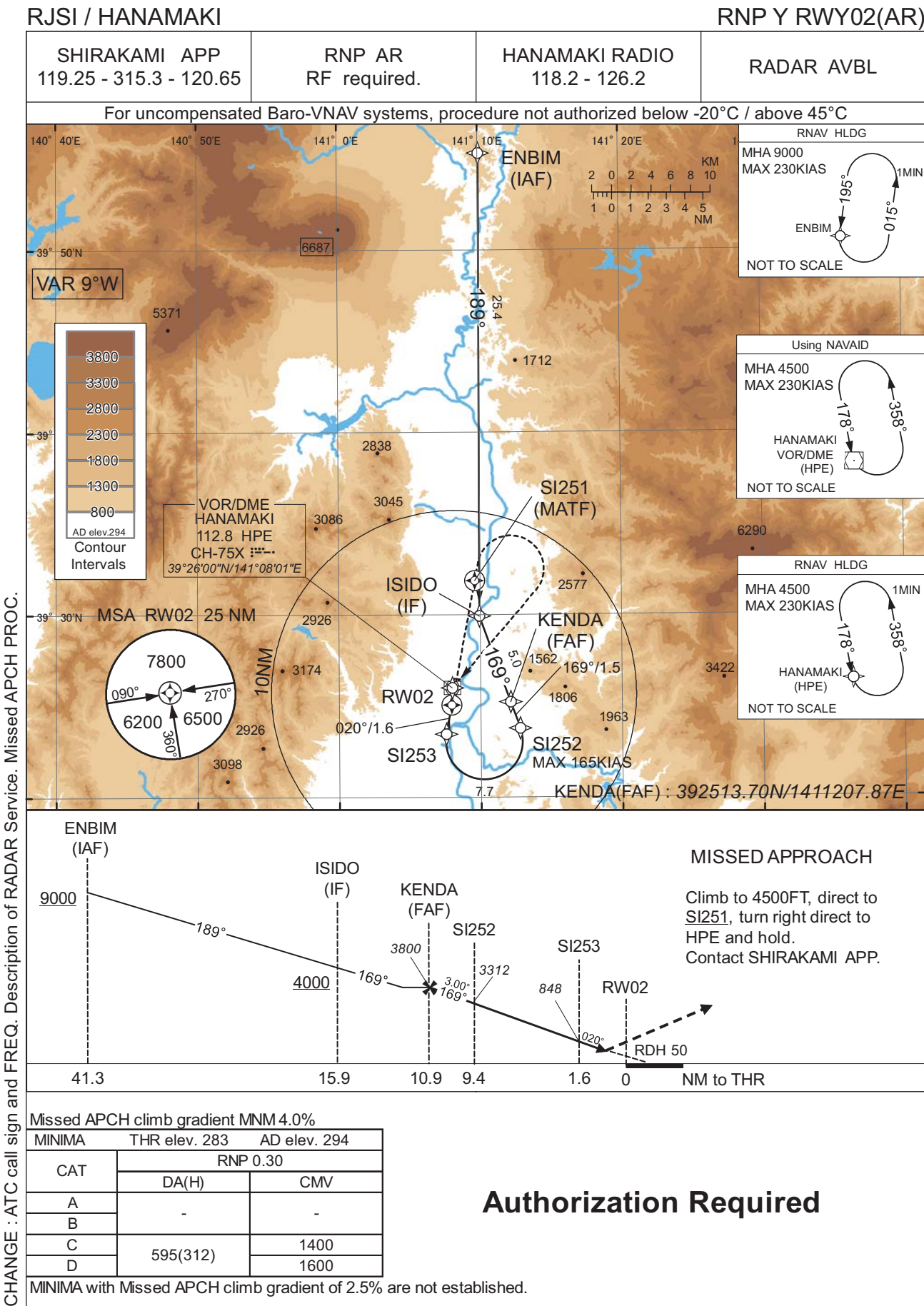


RJSI / HANAMAKI

RNP Z RWY02



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJSI / HANAMAKI

RNP Y RWY02(AR)

CHANGE : PROC course. ESBEL,NOJOY abolished. ENBIM established. RNAV HLDG established(ENBIM).

Coding Table

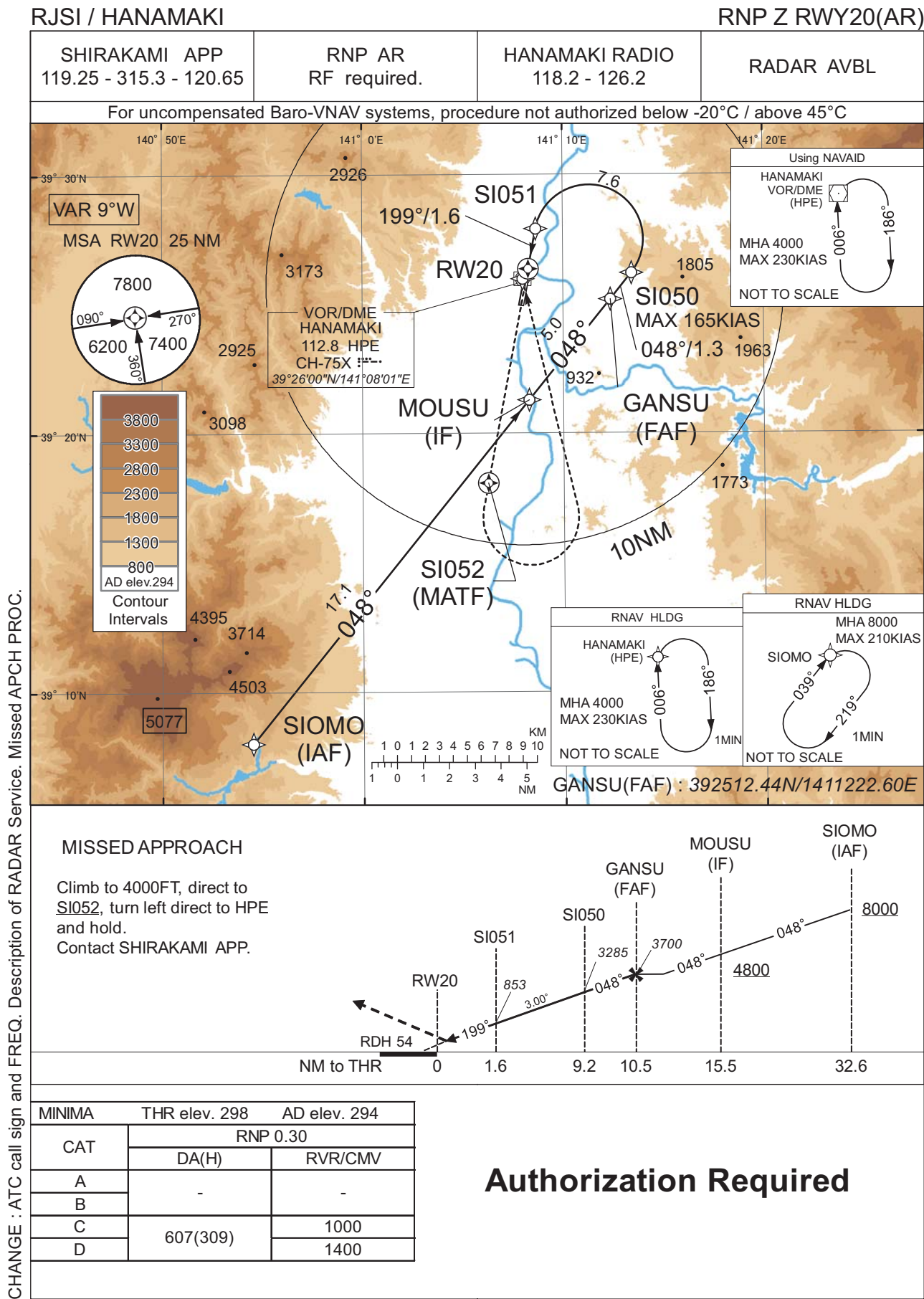
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	ENBIM	-	-	-8.8	-	-	+9000	-	-	-
002	TF	ISIDO	-	189 (180.2)	-8.8	25.4	-	+4000	-	-	1.0
003	TF	KENDA	-	169 (160.3)	-8.8	5.0	-	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	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
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		

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

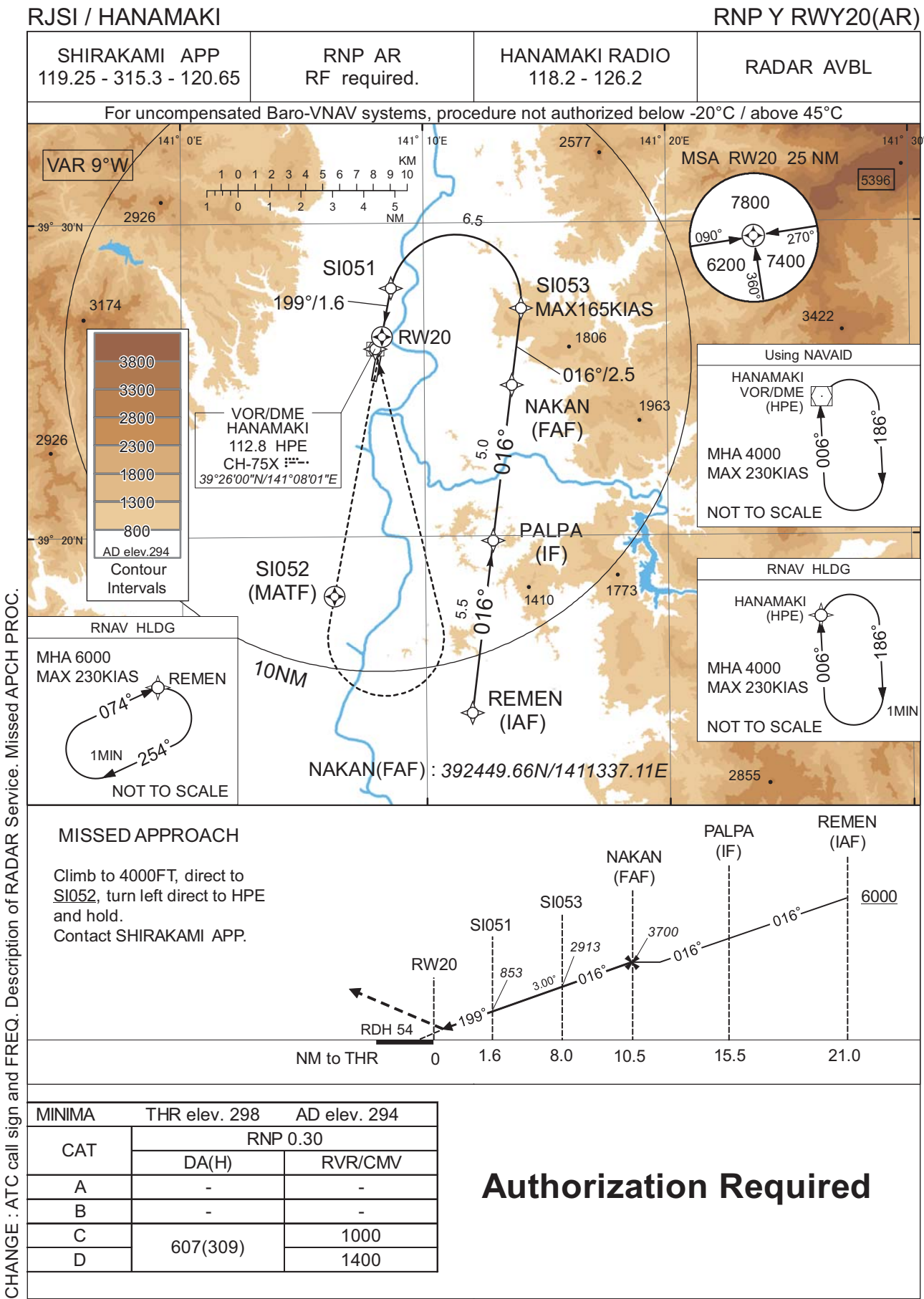
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	SIOMO	039 (030.1)	-8.8	1.0 (-14000)	R	8000	FL140	-210 (-14000)	1.0
Hold	HPE	006 (357.5)	-8.8	1.0 (-14000)	R	4000	FL140	-230 (-14000)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



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

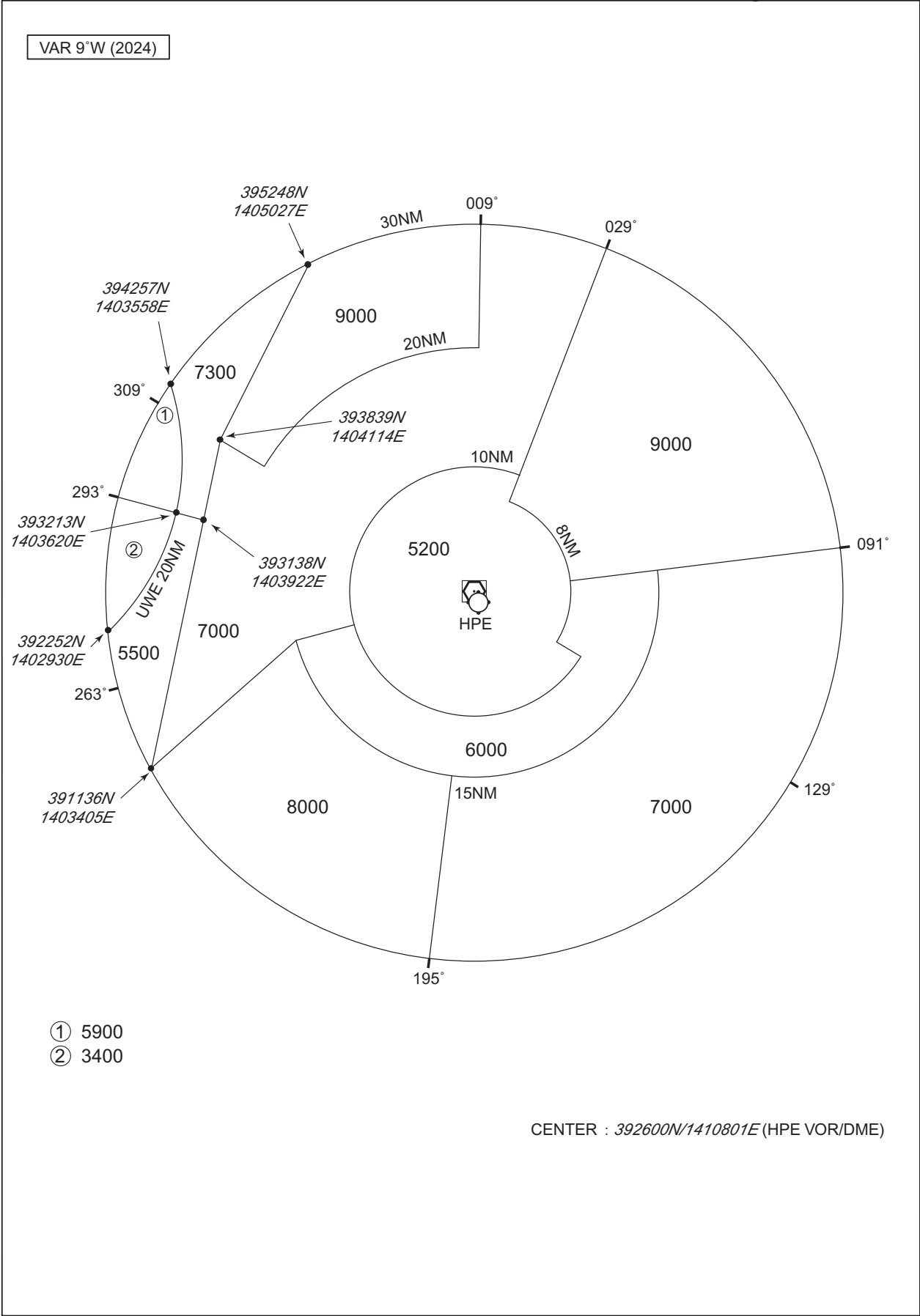
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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



CHANGE : Update.