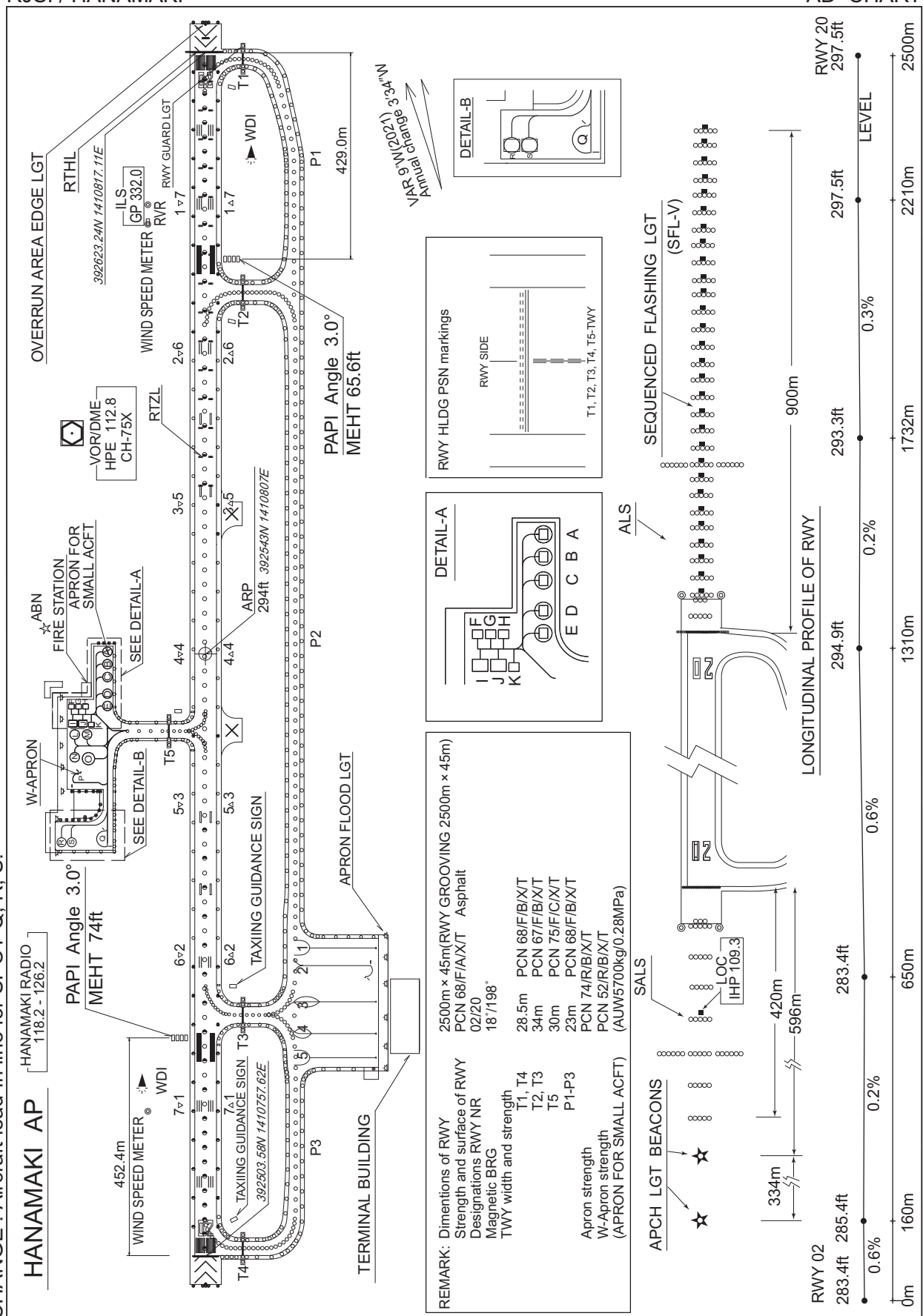


RJSI / HANAMAKI

AD CHART



STANDARD DEPARTURE CHART -INSTRUMENT

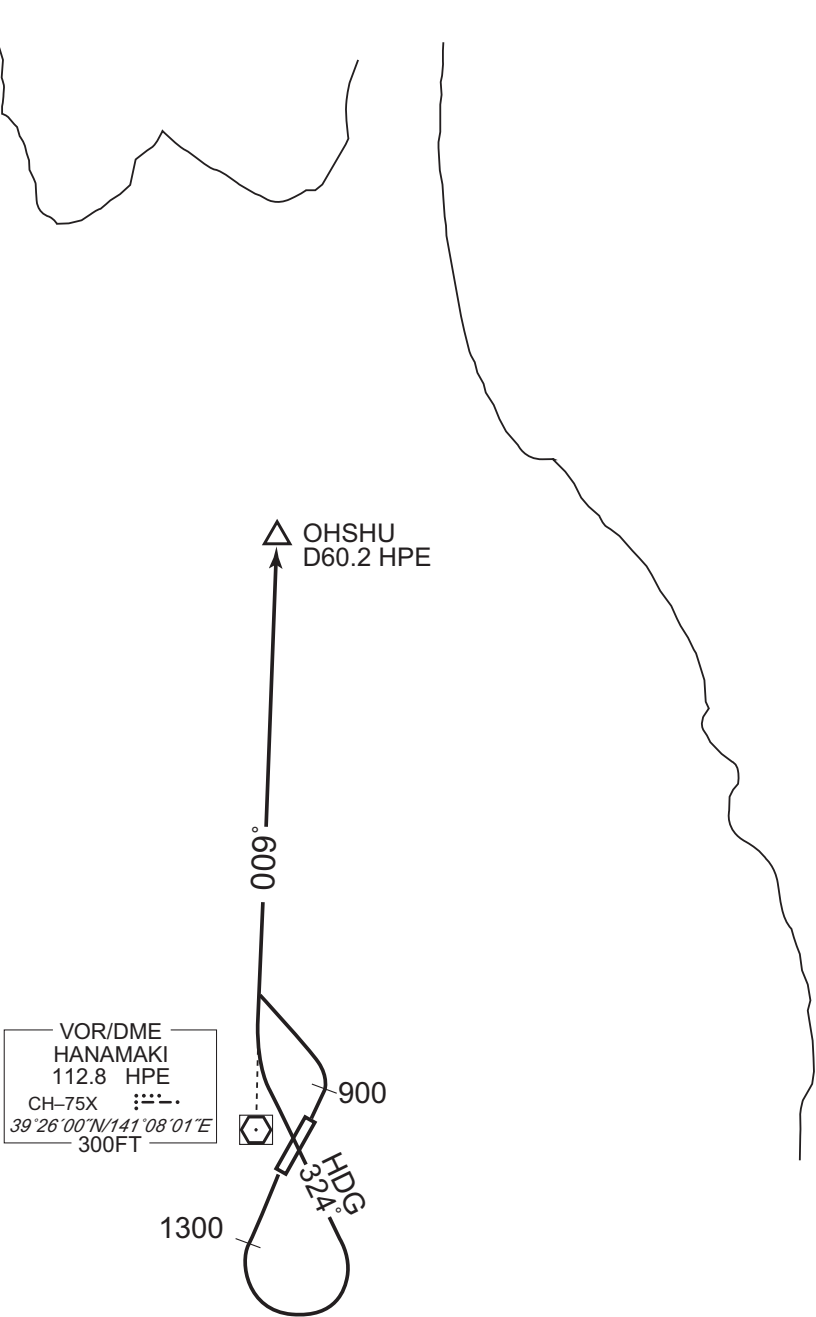
RJSI / HANAMAKI

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.

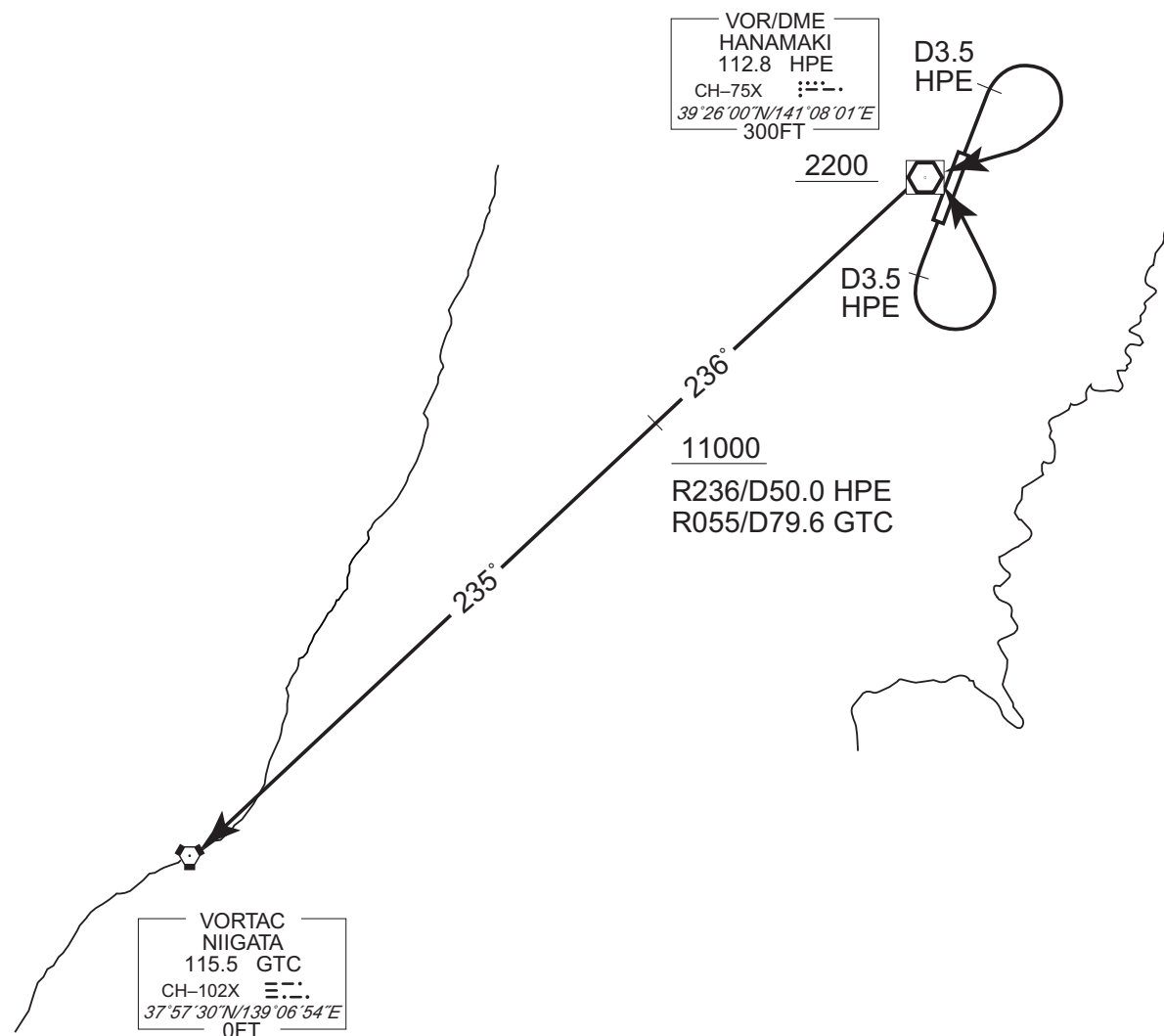
Note RWY02 : 4.5% climb gradient required up to 2400FT.

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

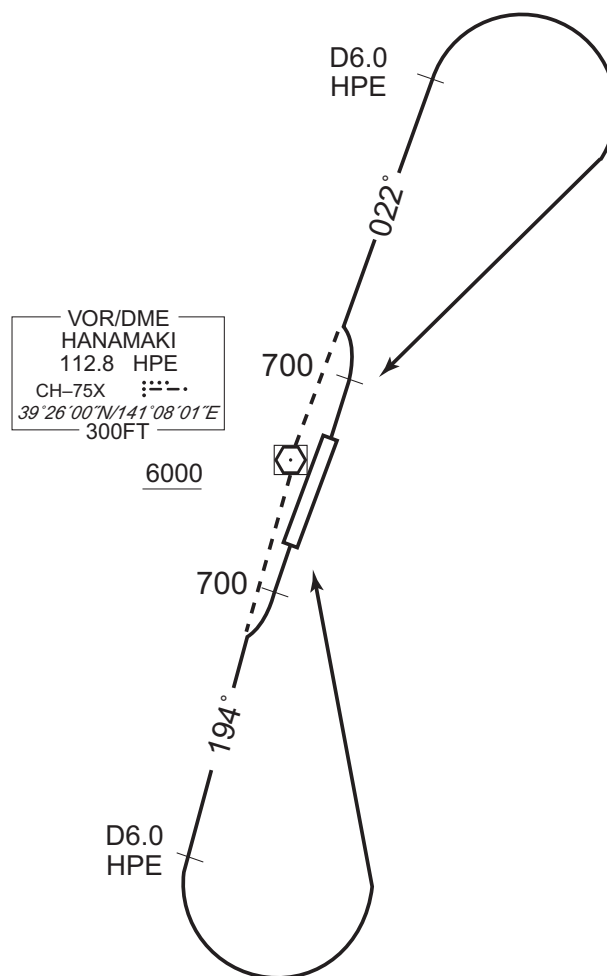
RWY 02 : Climb RWY HDG to 700FT, via HPE R022 to 6.0 DME, turn right...

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.

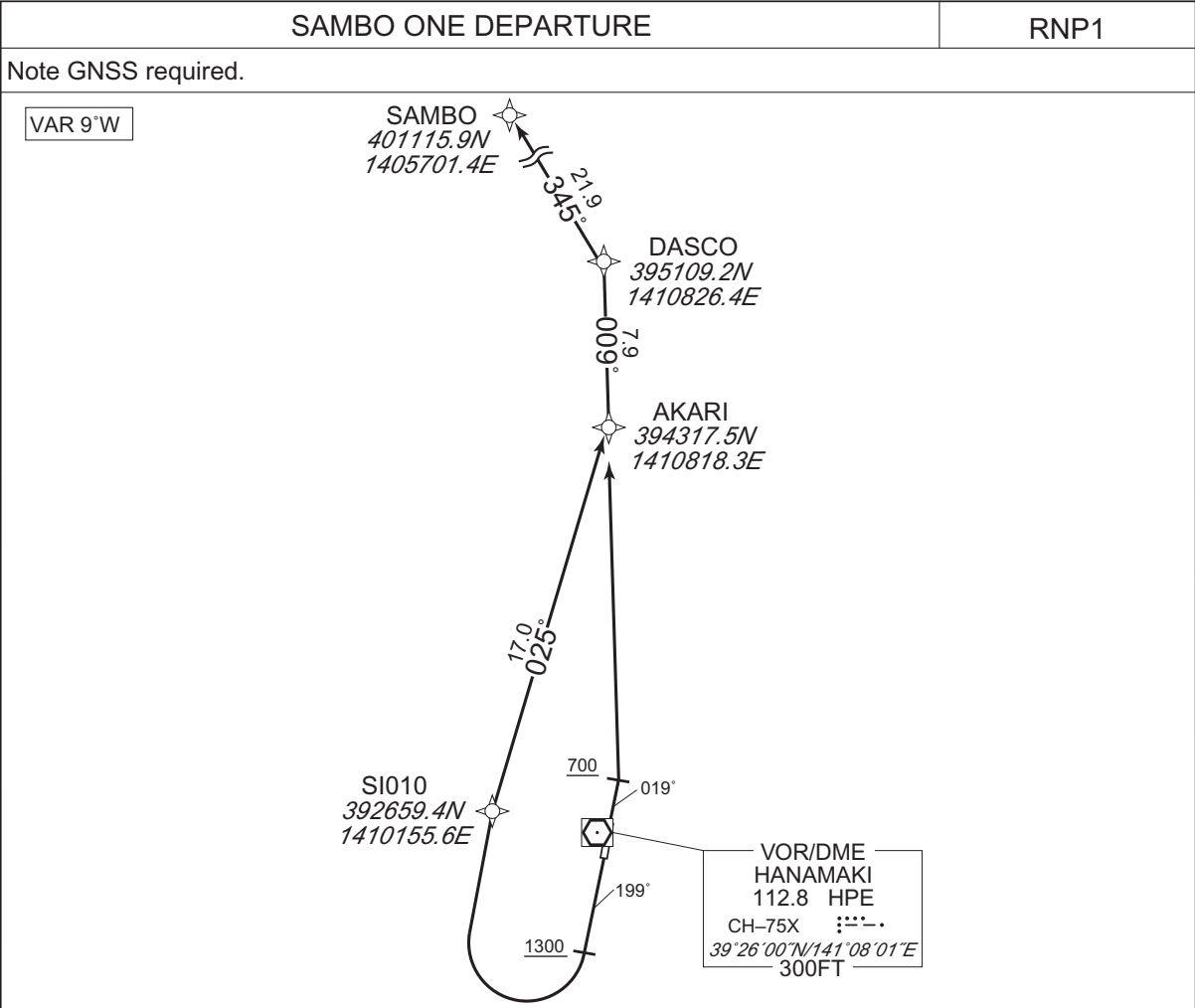


CHANGE : Description of PROC name.

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

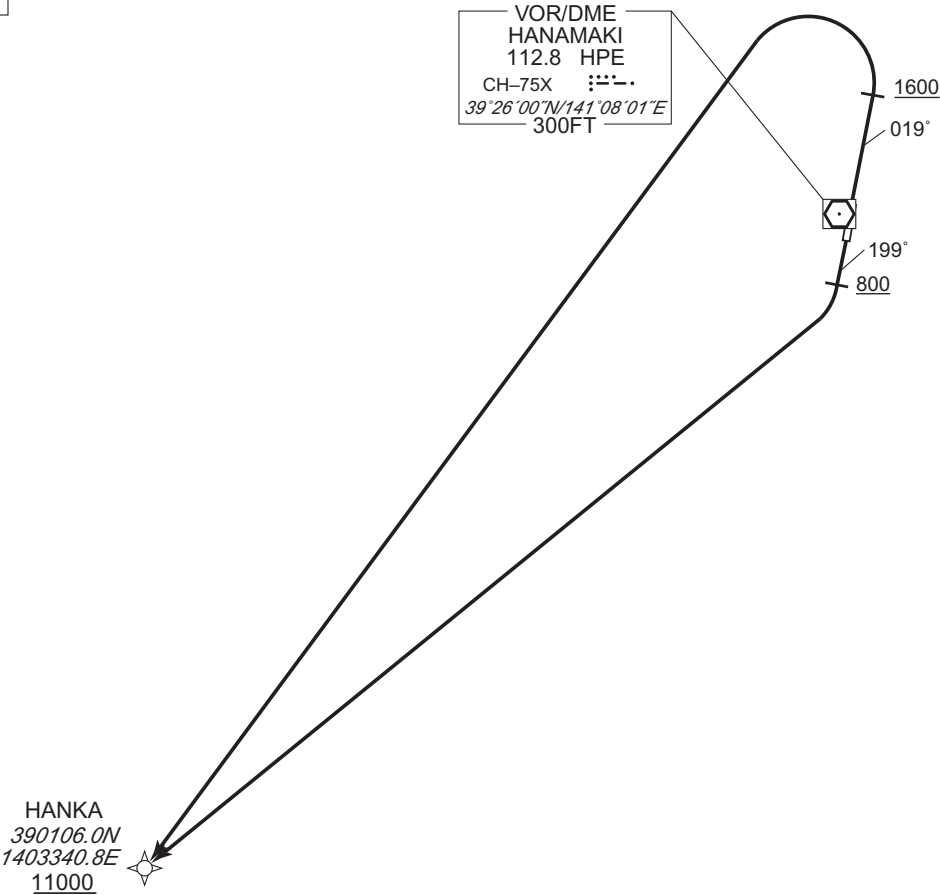
RNAV SID

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

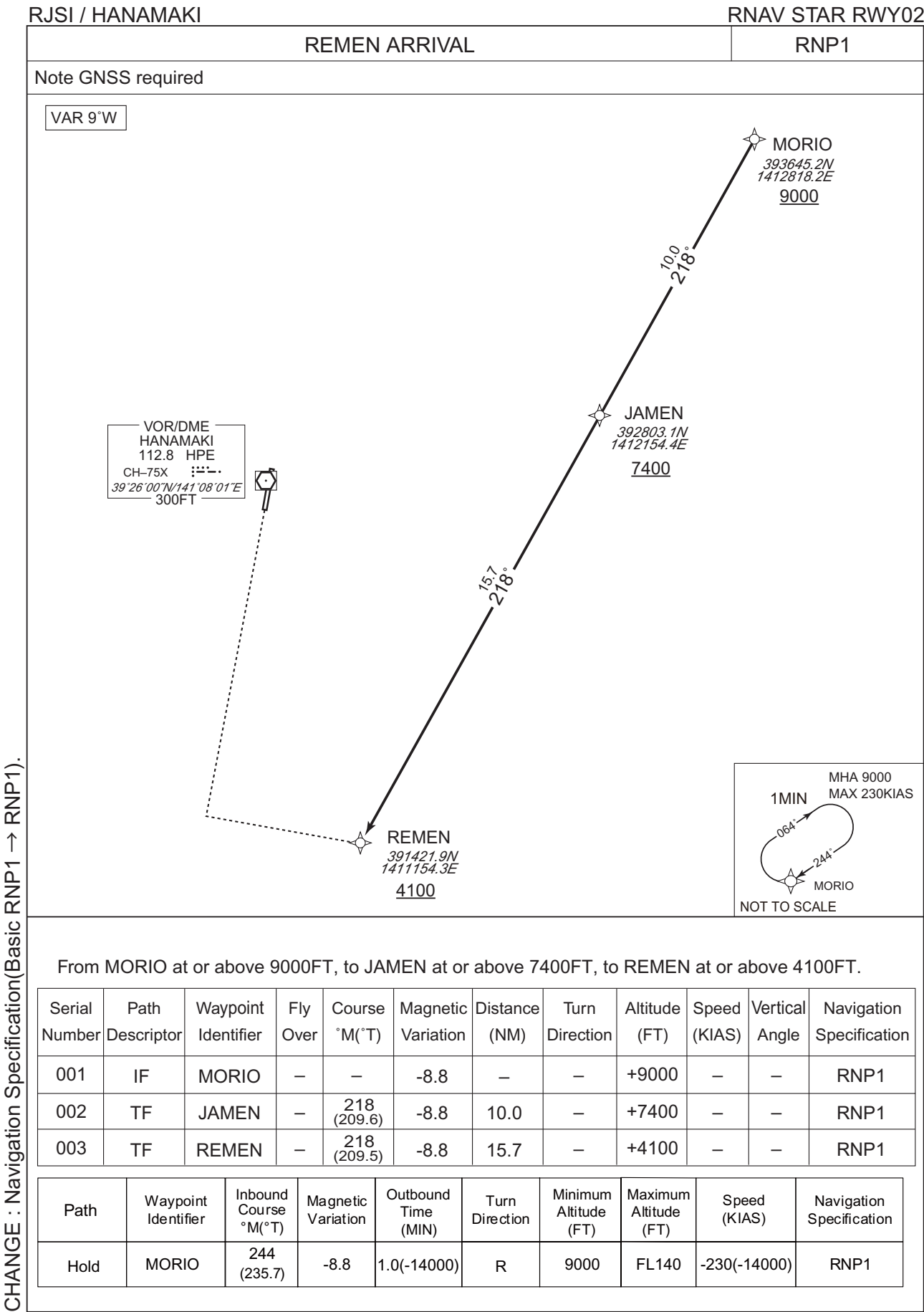
RWY20

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

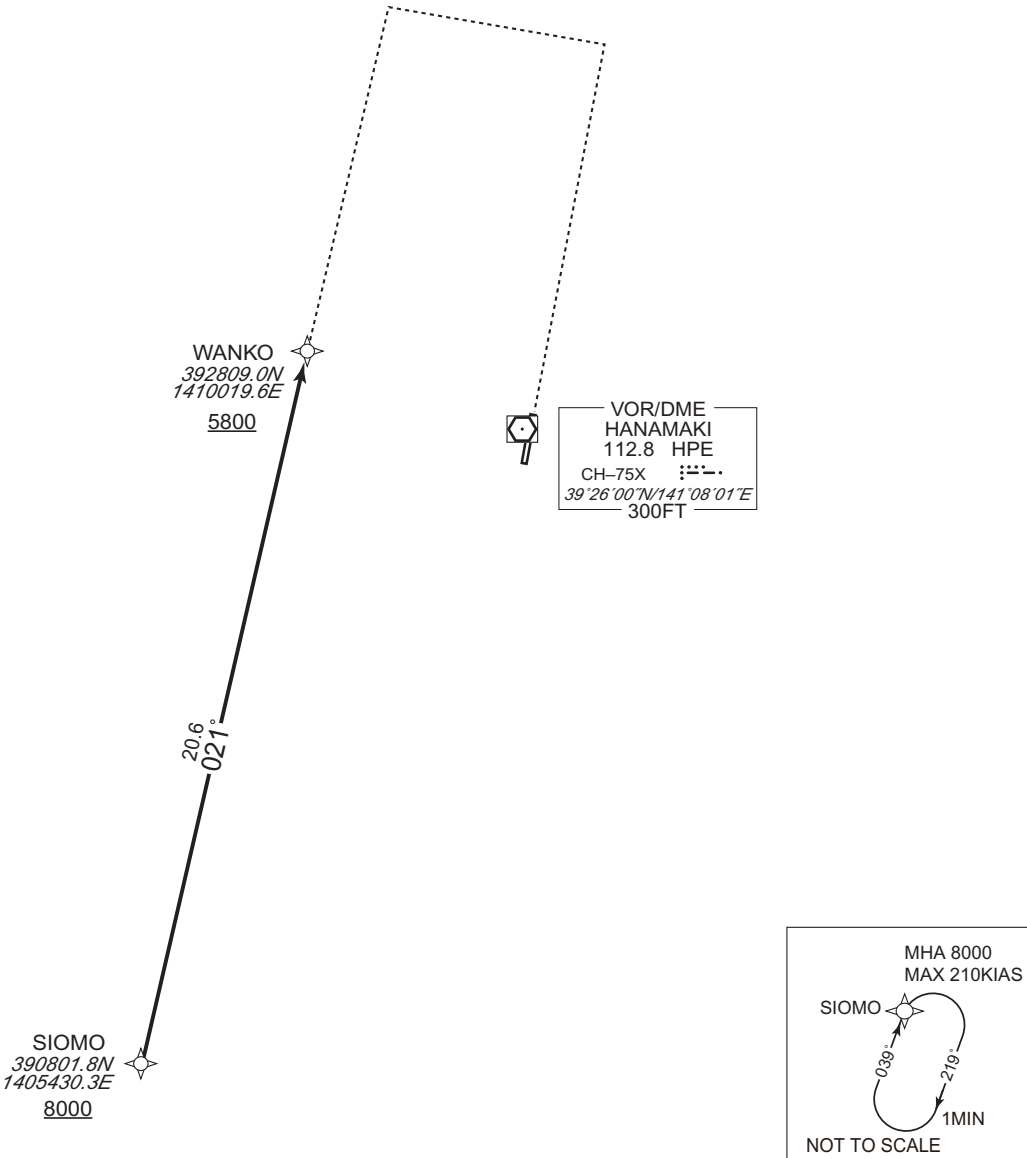
RNAV STAR RWY20

WANKO ARRIVAL

RNP1

Note GNSS required

VAR 9°W



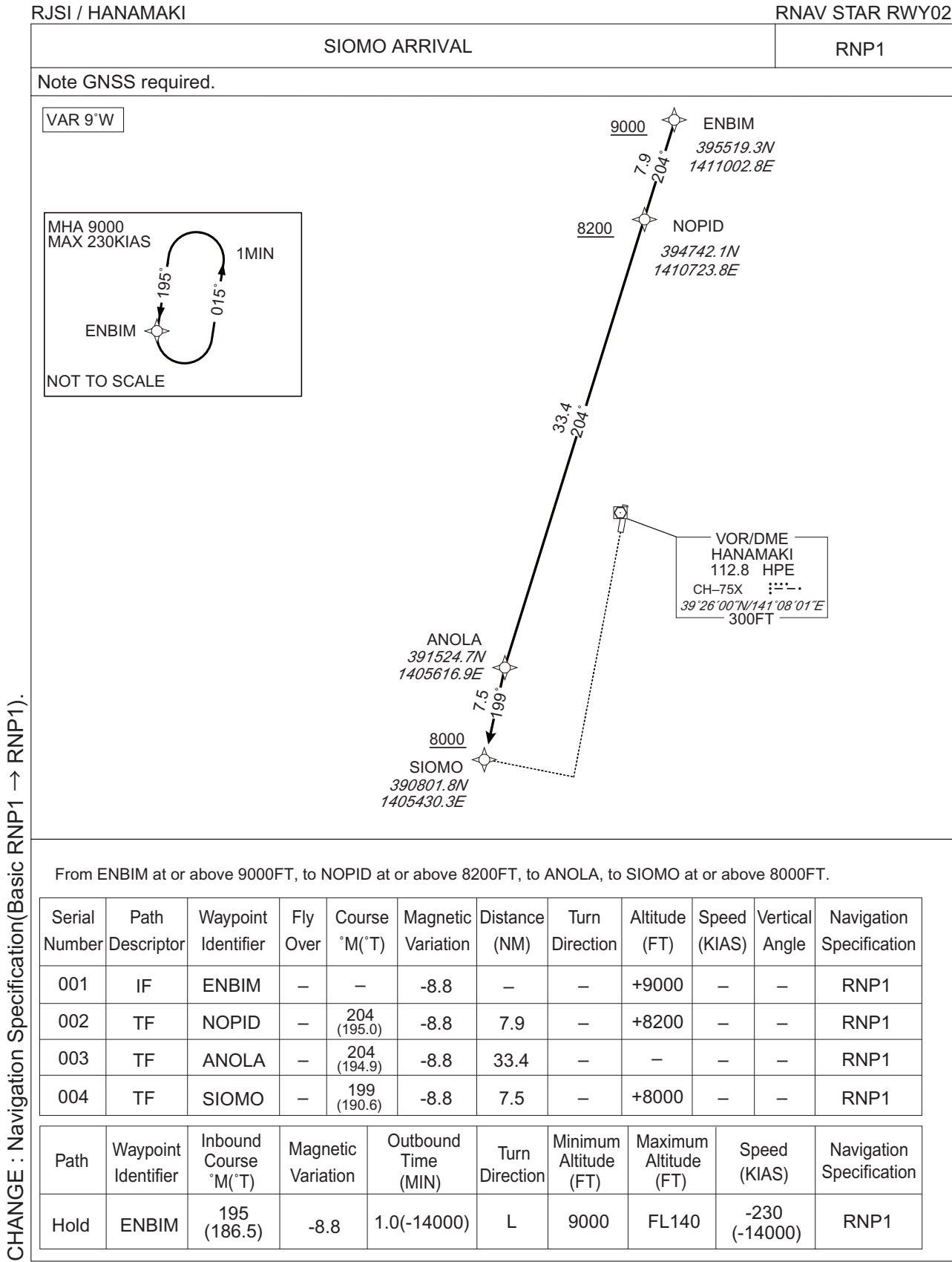
From SIOMO at or above 8000FT, to WANKO at or above 5800FT.

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

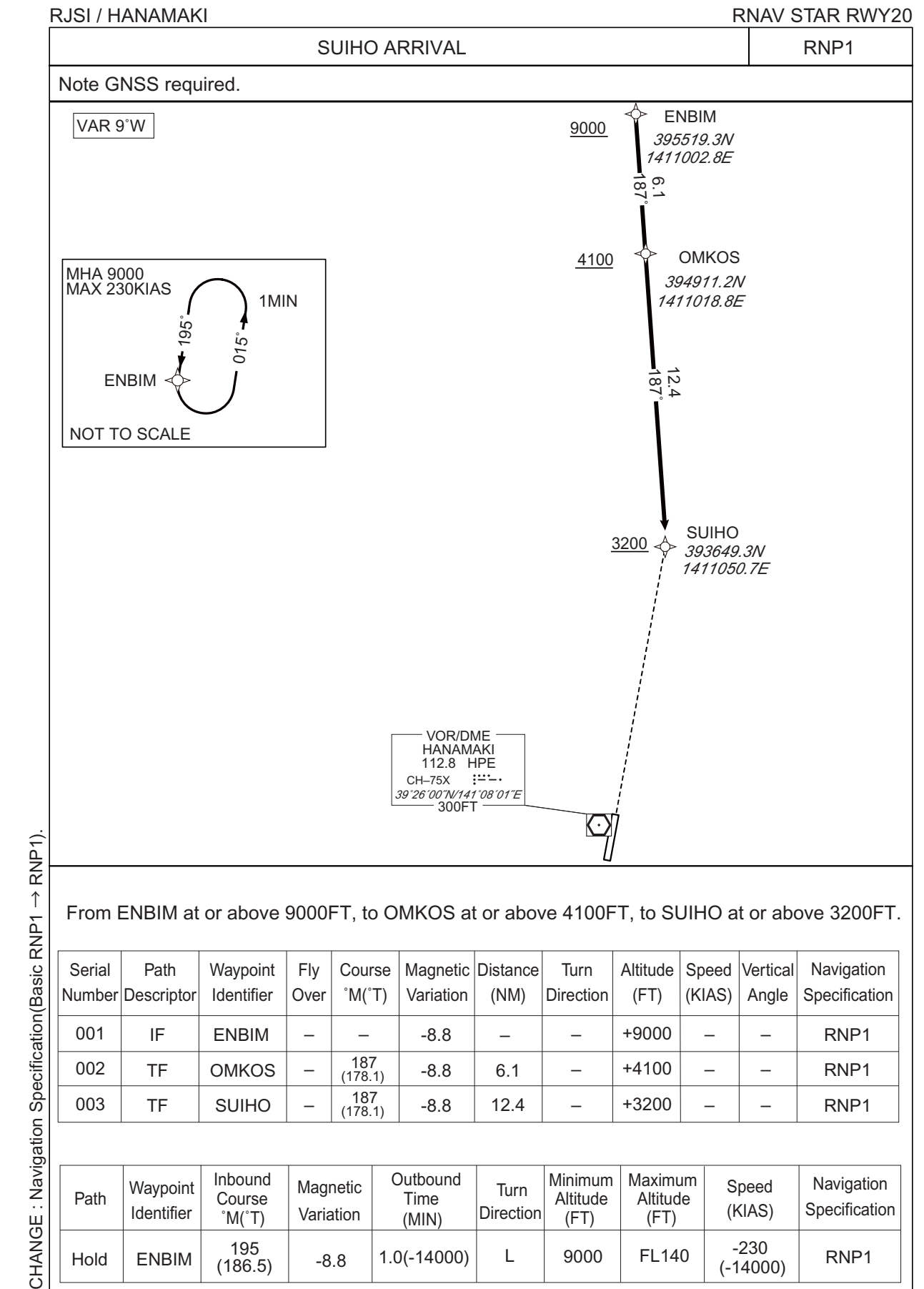
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	SIOMO	039 (030.1)	-8.8	1.0(-14000)	R	8000	FL140	-210(-14000)	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

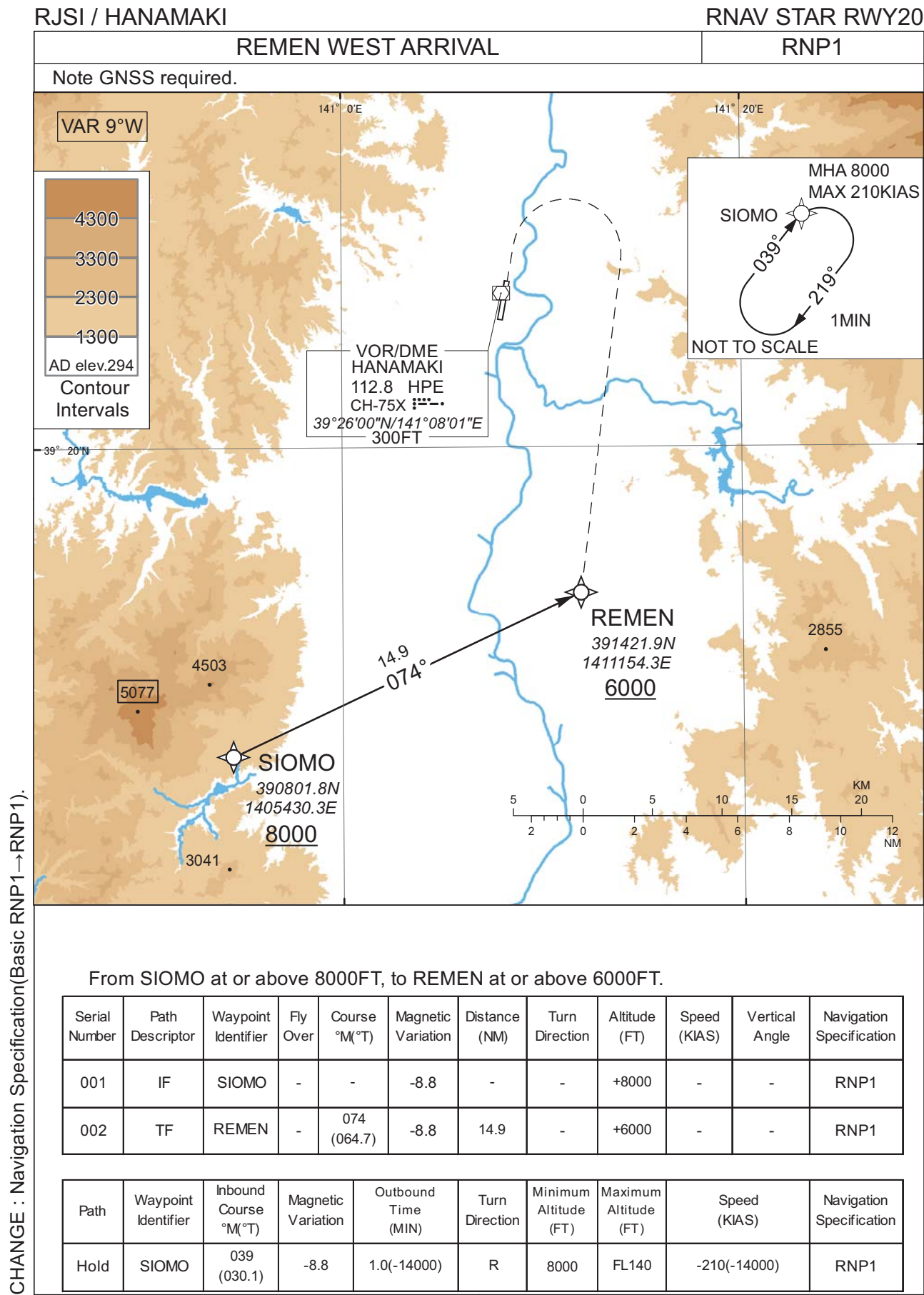
STANDARD ARRIVAL CHART - INSTRUMENT



STANDARD ARRIVAL CHART - INSTRUMENT

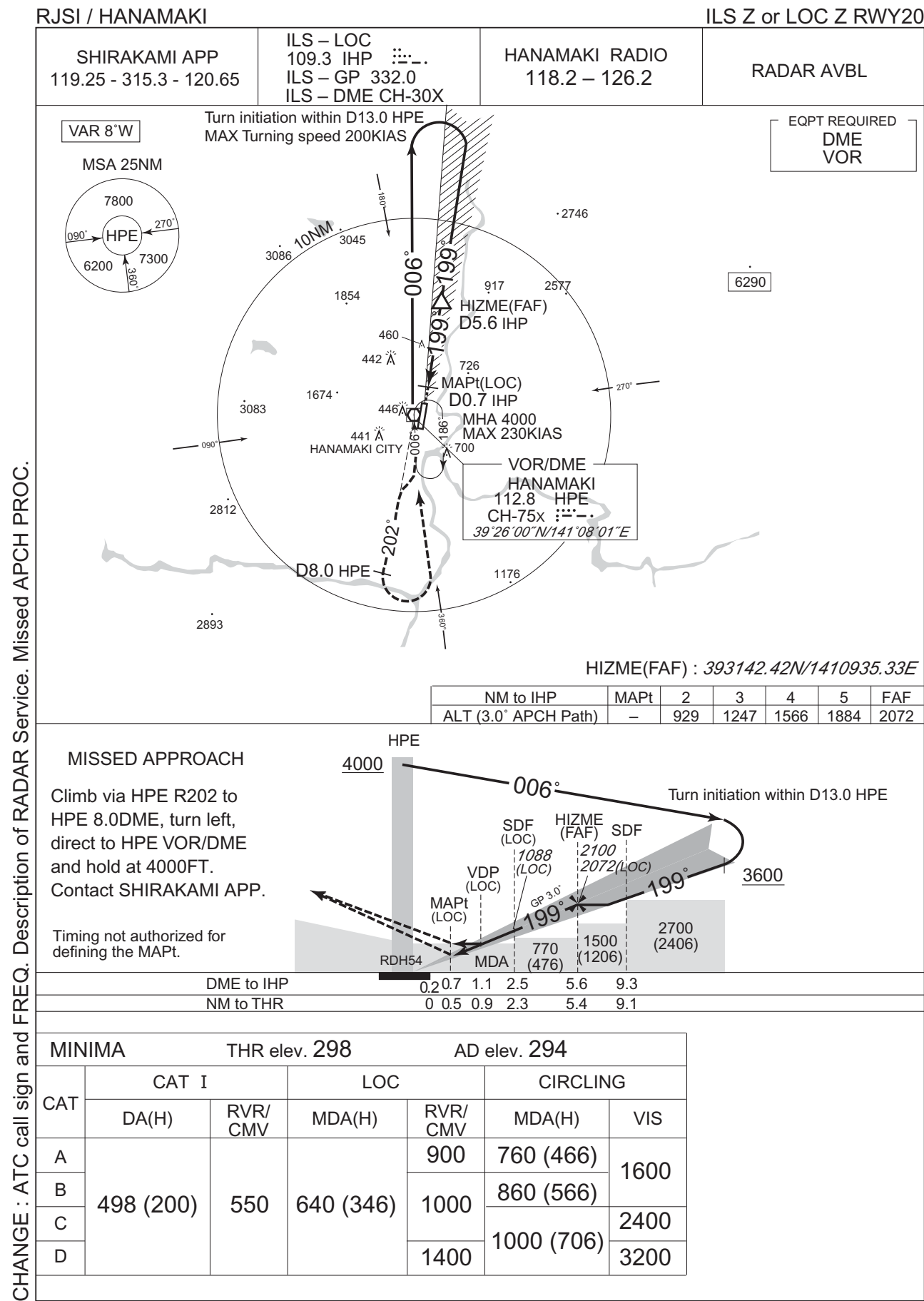


STANDARD ARRIVAL CHART - INSTRUMENT



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INSTRUMENT APPROACH CHART



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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VAR 8°W

EQPT REQUIRED
DME
VOR

MSA 25NM

MHA 9000
MAX 230KIAS

Using NAVAID
WANKO D6.3 HPE HPE VOR/DME
D12.0 HPE MHA 5800 MAX 210KIAS

VOR/DME
HANAMAKI
112.8 HPE
CH-75x
39°26'00"N/141°08'01"E

NOTE : For Initial approach segment from over WANKO
(1) RNP1
(2) GNSS required

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

MISSSED 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.

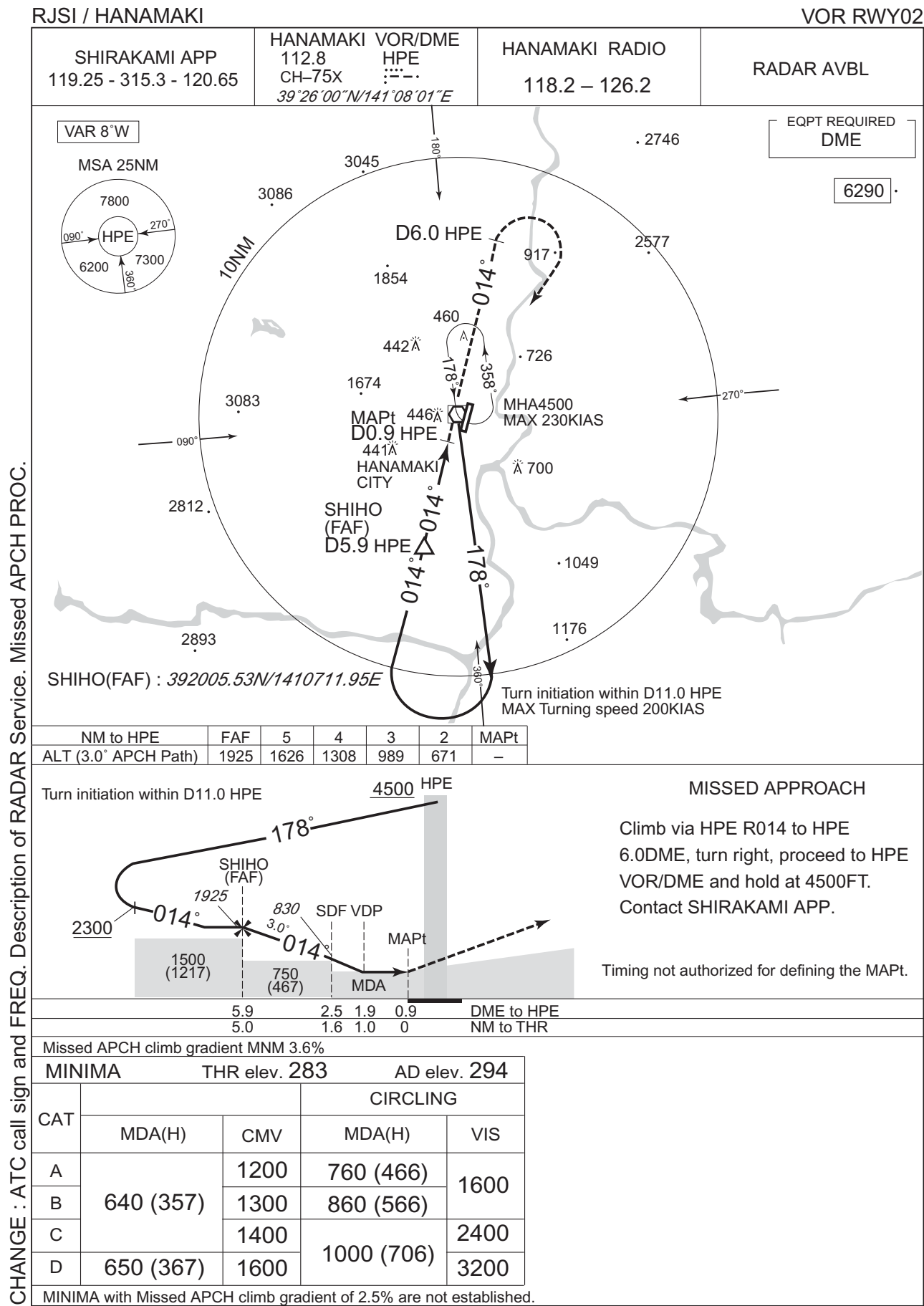
DME to IHP	0.2	0.7	1.1	2.5	5.6	9.3	10.8
NM to THR	0	0.5	0.9	2.3	5.4	9.1	10.6

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				1400	1000 (706)	2400
D						3200

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



INSTRUMENT APPROACH CHART

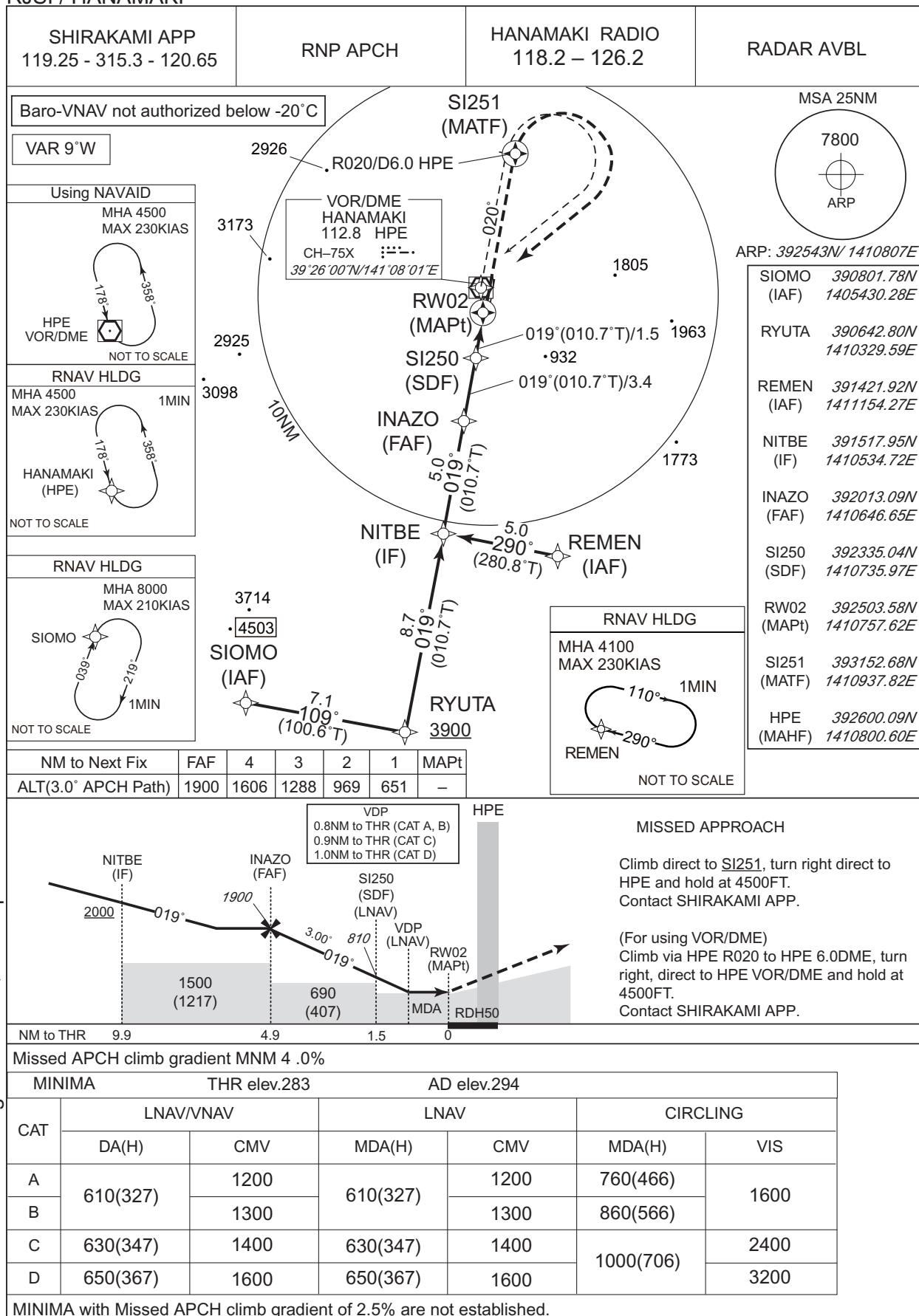


CHANGE : ATC call sign and FREQ. Description of RADAR Service. Missed APCH PROC.

INSTRUMENT APPROACH CHART

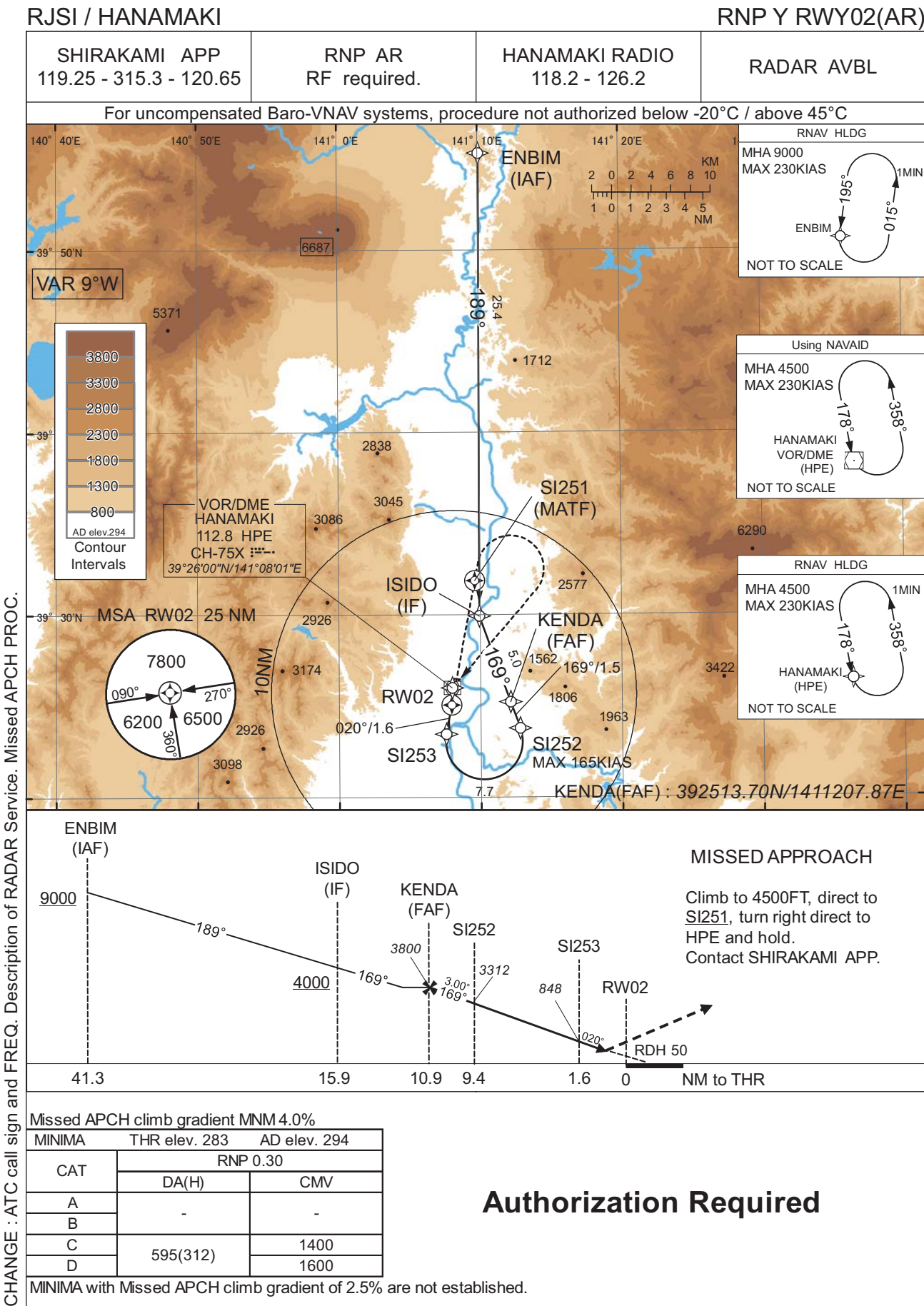
RJSI / HANAMAKI

RNP Z RWY02



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

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

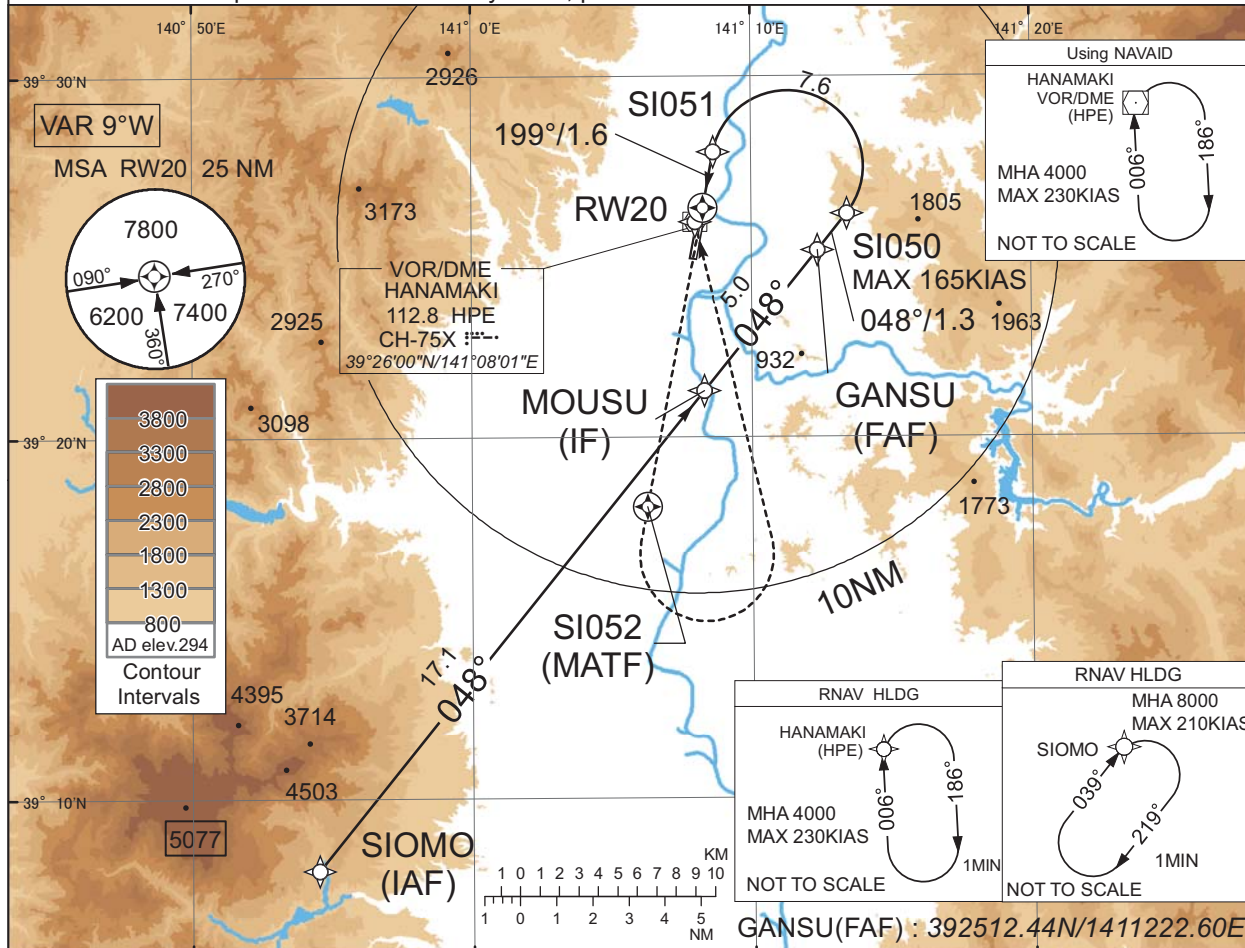
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
ENBIM	395519.34N / 1411002.82E	SIRF1	392304.37N / 1411014.42E
ISIDO	392956.45N / 1410957.05E		
KENDA	392513.70N / 1411207.87E		
SI252	392347.07N / 1411247.89E		
SI253	392327.97N / 1410734.24E		
RW02	392503.58N / 1410757.62E		
SI251	393152.68N / 1410937.82E		
HPE	392600.09N / 1410800.60E		

RJSI / HANAMAKI

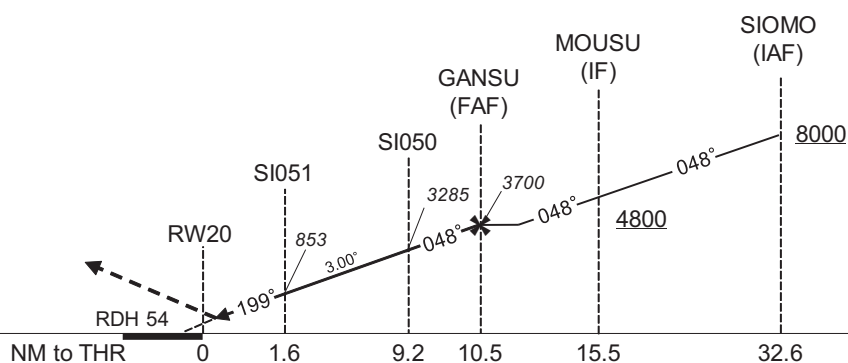
RNP Z RWY20(AR)

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



Climb to 4000FT, direct to SI052, turn left direct to HPE and hold.
Contact SHIRAKAMI APP.



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 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

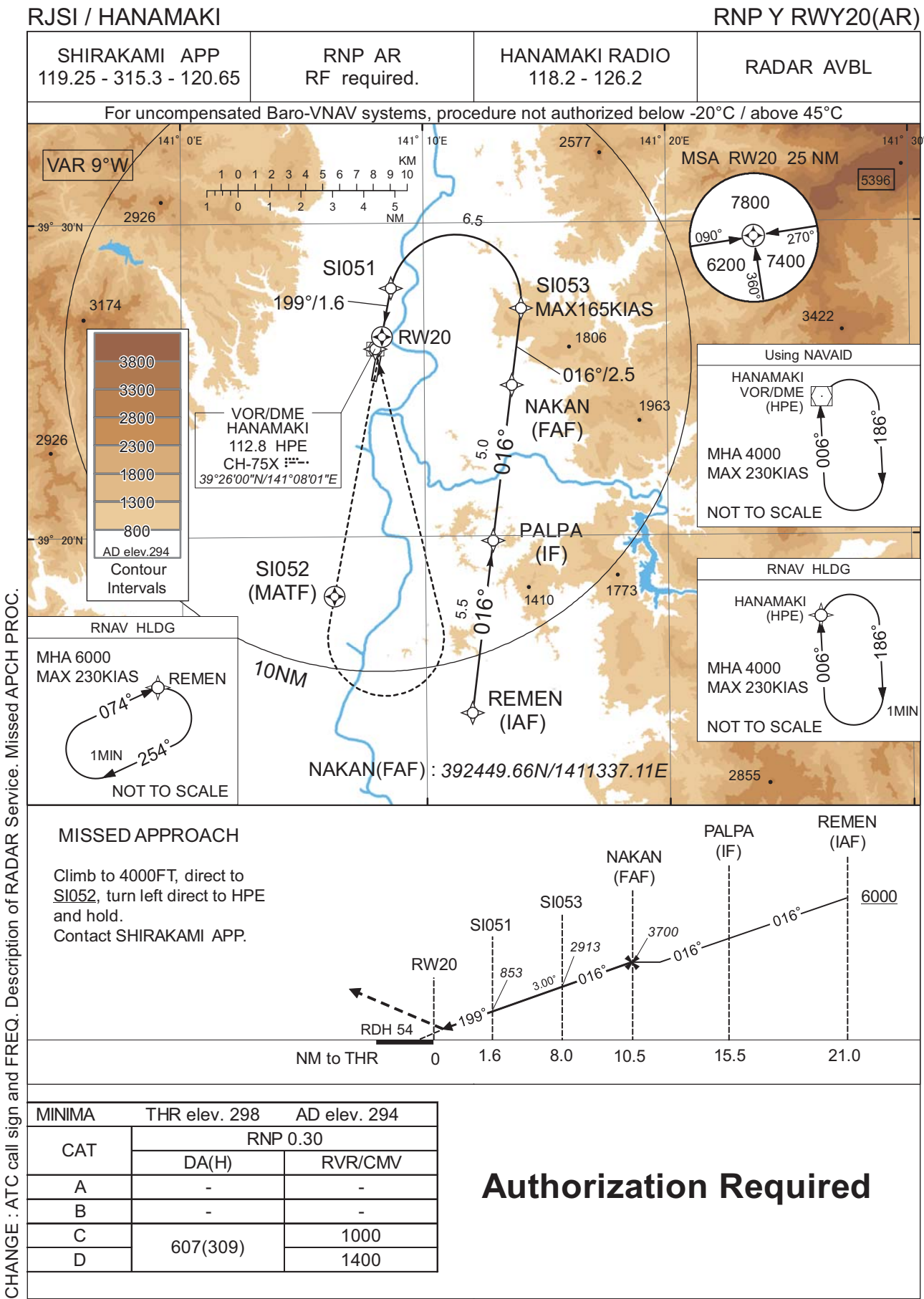
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	SIOMO	039 (030.1)	-8.8	1.0 (-14000)	R	8000	FL140	-210 (-14000)	1.0
Hold	HPE	006 (357.5)	-8.8	1.0 (-14000)	R	4000	FL140	-230 (-14000)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

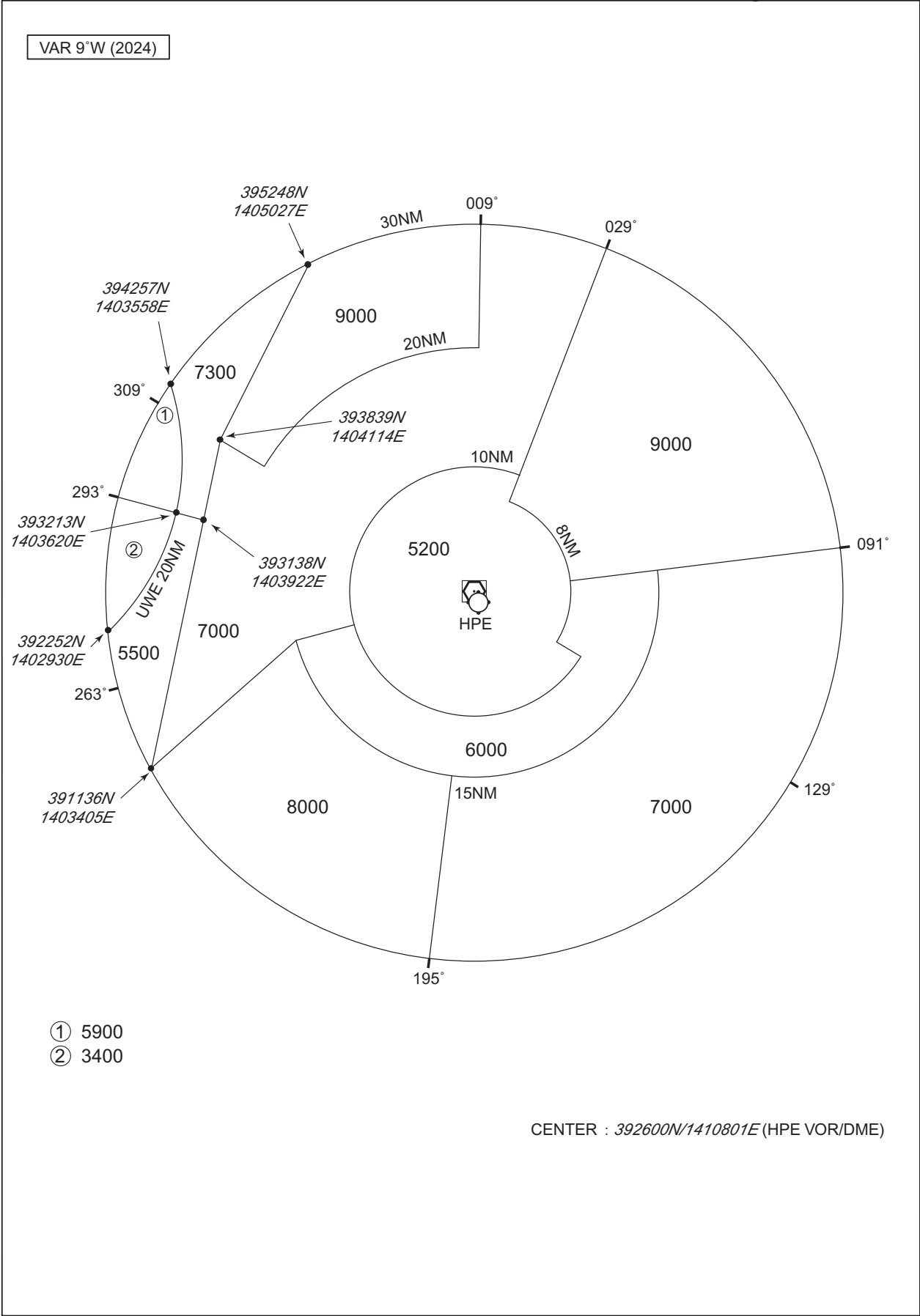
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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.