

## MARKING AIDS

Mandatory  
instruction  
marking



## SIMPLE APPROACH LIGHTING SYSTEM



CHANGE:STOP BAR LGT abolished

AIRCRAFT PARKING/DOCKING CHART  
RJCH / HAKODATE

AD CHART

CHANGE : UHF frequency(TWR) deleted.

HAKODATE AIRPORT  
ELEV34.1m (111.9ft)

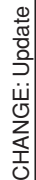
Designation	Call Sign	Frequency (MHz)
ATIS	Hakodate Airport	126.6
TWR	Hakodate Tower	118.35 126.2



DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC



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AERODROME OBSTACLE CHART - ICAO  
TYPE B

DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC



STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

SID and TRANSITION

HAKODATE SOUTH SEVEN DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG239°...

RWY 30: Climb RWY HDG until 500FT, turn left HDG149°...

...to intercept and proceed via HWE R194 to MRE VOR/DME.

Cross HWE R194/30.0DME at or above 6000FT.

Note RWY12 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

HAKODATE REVERSAL FIVE DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG239°...

RWY 30: Climb RWY HDG until 500FT, turn left HDG149°...

...to intercept and proceed via HWE R194 to 3000FT, turn right direct to HWE VOR/DME.

Cross HWE VOR/DME at or above 5000FT.

Note RWY12 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

TAPPI SEVEN DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG272°...

RWY 30: Climb RWY HDG until 500FT, turn left HDG182°...

...to intercept and proceed via HWE R227 to TAPPI. Cross TAPPI at or above FL170.

Note RWY12 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

YUWA TRANSITION

From over TAPPI, proceed via UWE R008 to UWE VOR/DME.

Cross UWE R008/21.0DME at assigned altitude.

ESASI SIX DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG340°...

RWY 30: Climb RWY HDG until 700FT, turn right,...

...to intercept and proceed via HWE R295 to ESASI.

Cross ESASI at or above 5000FT.

Note RWY12 : 4.9% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

TIKYU ONE DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn left,...

RWY 30: Climb RWY HDG until 600FT, turn left HDG073°...

...to intercept and proceed via HWE R118 to TIKYU.

Cross TIKYU at or above 6000FT.

Note RWY12 : 6.3% climb gradient required up to 1700FT.

OBST ALT 1302FT located at 4.03NM 101° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

CHANGE : ESASI SIX DEPARTURE.

## STANDARD DEPARTURE CHART - INSTRUMENT



## STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID and TRANSITION

TSUGARU ONE DEPARTURE KOMACHI TRANSITION		RNAV1
<p>Note 1) DME/DME/IRU or GNSS required. ※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll.</p> <p>2) RADAR service required.</p>	Critical DME	<p>RWY12 : MRE : 30.0NM to TAPPI – TAPPI</p> <p>RWY30 : MRE : 47.6NM to TAPPI – TAPPI HWE : 47.6NM to TAPPI – 40.0NM to TAPPI</p> <p>KOMACHI Transition : MRE: TAPPI - 24.0NM to UWE HWE: TAPPI - 55.0NM to UWE UWE: 55.0NM to UWE - 24.0NM to UWE HPE: 16.0NM to UWE - UWE</p>
	DME GAP	<p>RWY12 : RWY12DER – 30.0NM to TAPPI RWY30 : RWY30DER – 47.6NM to TAPPI</p> <p>KOMACHI Transition: 24.0NM to UWE – 22.0NM to UWE 19.0NM to UWE – 16.0NM to UWE</p>
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1
<p>VAR 9°W (2014)</p> <p><u>TSUGARU ONE DEPARTURE</u></p> <p><u>KOMACHI TRANSITION</u></p> <p>TAPPI 410805.5N 1400954.5E</p> <p>YUWA(UWE) 393701.7N 1401113.0E</p> <p>VOR/DME HAKODATE 112.3 HWE CH-70X 41°46'27"N/140°49'56"E 300FT</p> <p>VOR/DME AOMORI 114.1 MRE CH-88X 40°44'20"N/140°42'19"E 800FT</p> <p>VOR/DME YUWA 110.65 UWE CH-43Y 39°37'02"N/140°11'13"E 300FT</p>		
<p><u>TSUGARU ONE DEPARTURE</u></p> <p>RWY12 : Climb on HDG117° at or above 600FT, turn right direct to TAPPI. RWY30 : Climb on HDG297° at or above 500FT, turn left direct to TAPPI.</p> <p>NOTE RWY12 : 4.0% climb gradient required up to 1300FT. OBST ALT 919FT located at 3.43NM 105° FM end of RWY12. RWY30 : 5.4% climb gradient required up to 1600FT. OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.</p>		
<p><u>KOMACHI TRANSITION</u> From TAPPI, to UWE.</p>		



## STANDARD DEPARTURE CHART - INSTRUMENT

## RJCH / HAKODATE

## RNAV SID and TRANSITION

TSUGARU ONE DEPARTURE

## RWY12

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	—	—	117 (108.0)	-8.9	—	—	+600	—	—	RNAV1
002	DF	TAPPI	—	—	-8.9	—	R	—	—	—	RNAV1

## RWY30

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	—	—	297 (288.1)	-8.9	—	—	+500	—	—	RNAV1
002	DF	TAPPI	—	—	-8.9	—	L	—	—	—	RNAV1

KOMACHI TRANSITION

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	TAPPI	—	—	-8.9	—	—	—	—	—	RNAV1
002	TF	UWE	—	188 (179.4)	-8.9	91.1	—	—	—	—	RNAV1

STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATE

RNAV STAR RWY30



CHANGE : New PROC.

## STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATE

RNAV STAR RWY12

## PATRA ARRIVAL

RNAV1

Note 1) DME/DME/IRU or GNSS required  
2) RADAR service required

VAR 9°W (2019)

PATRA ARRIVAL

From TAXIR at or above 6000FT, to KANTA, to PATRA at or above 4000FT.

Critical DME	MRE : 18.0NM to KANTA – KANTA HWE : 2.2NM to KANTA – KANTA
DME GAP	KANTA – PATRA
Inappropriate Nav aids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

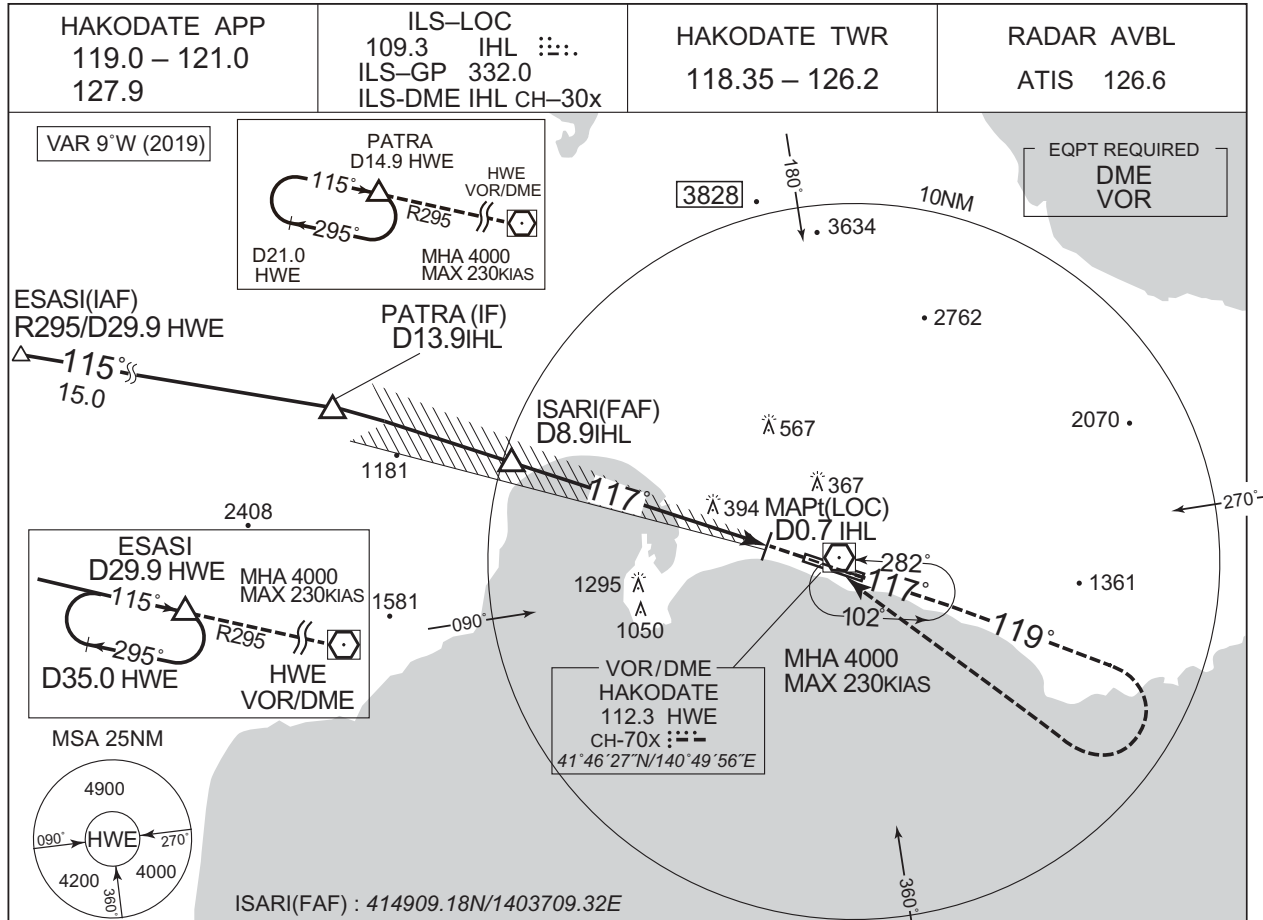
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	TAXIR	—	—	-9.4	—	—	+6000	—	—	RNAV1
002	TF	KANTA	—	335 (325.6)	-9.4	24.3	—	—	—	—	RNAV1
003	TF	PATRA	—	027 (017.7)	-9.4	4.3	—	+4000	—	—	RNAV1

CHANGE : Correction of misdescription(Name of PROC).

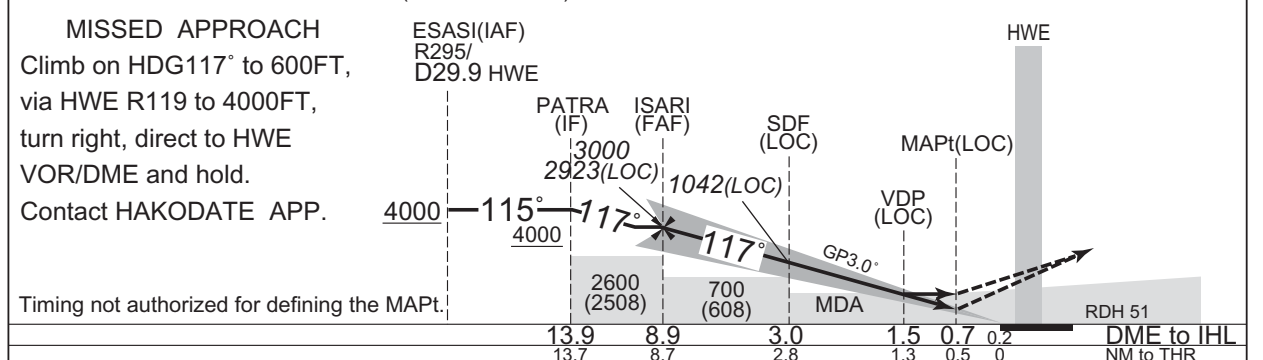
INSTRUMENT APPROACH CHART

RJCH / HAKODATE

ILS Z or LOC Z RWY12



	NM to IHL	FAF	8	7	6	5	4	3	2	MAPt
ALT (3.0° APCH Path)	2923	2634	2316	1997	1679	1361	1042	724	-	-



Missed APCH climb gradient MNM 5.0%

MINIMA		THR elev. 92		AD elev. 112		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	292 (200)	700	540 (448)	1200	550 (438)	1600
B				1300	570 (458)	
C	299 (207)			1400	600 (488)	2400
D	309 (217)			1600	690 (578)	3200

Circling to SOUTH side of RWY only.  
MINIMA with Missed APCH climb gradient of 2.5% are not established.

CHANGE : ALT restriction at PATRA.



## INSTRUMENT APPROACH CHART

RJCH / HAKODATE

ILS Y or LOC Y RWY12



## RJCH / HAKODATE

VOR RWY30

NM to HWE	MAPt	2	3	4	5	6	FAF
ALT (3.5° APCH Path)	-	750	1122	1494	1865	2237	2497

MINIMA		THR elev. 151	AD elev. 112	
CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	730 (618)	1000	730 (618)	1600
B		1200		
C				1600
D				

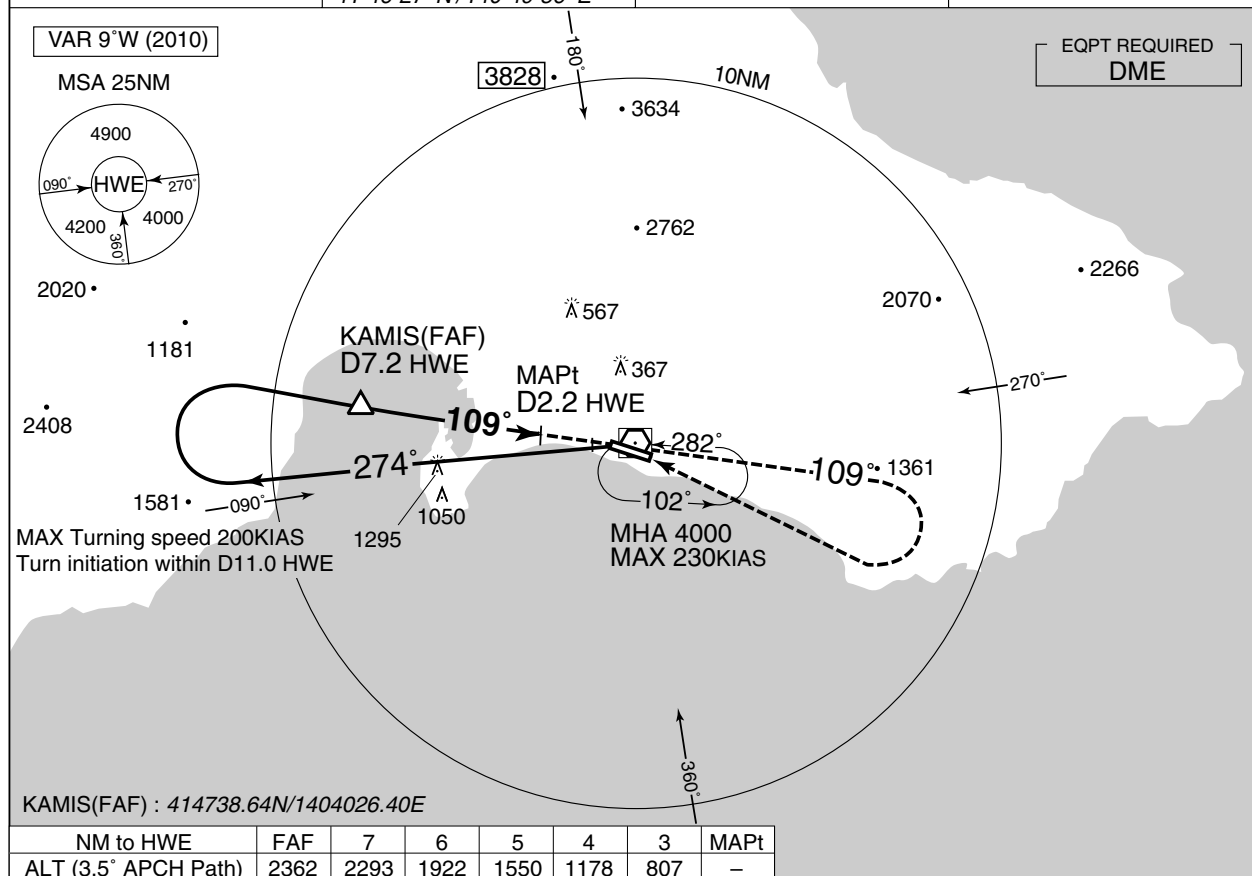
Circling to **SOUTH** side of RWY only.

## INSTRUMENT APPROACH CHART

RJCH / HAKODATE

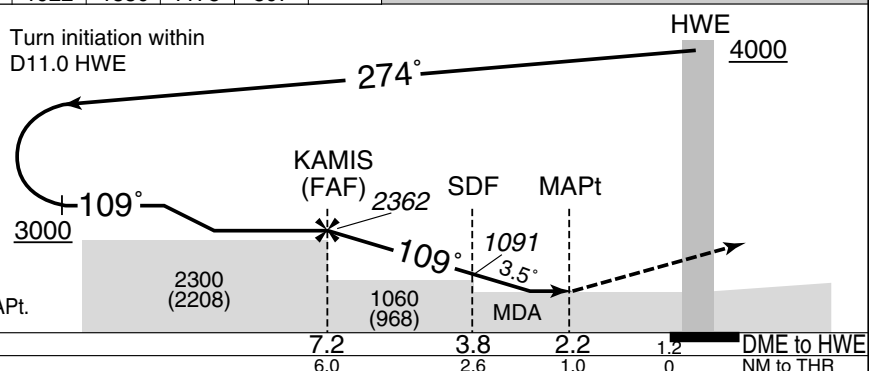
VOR RWY12

HAKODATE APP 119.0 – 121.0 127.9	HAKODATE VOR/DME 112.3 HWE CH-70X 41°46'27"N/140°49'56"E	HAKODATE TOWER 118.35 – 126.2	RADAR AVBL ATIS 126.6
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**MISSED APPROACH**  
Climb via HWE R109 to 4000FT, turn right direct to HWE VOR/DME and hold.  
Contact HAKODATE APP.

PAPI and descent angles not coincident.  
Timing not authorized for defining the MAPt.



Missed APCH climb gradient MNM 3.6%

MINIMA		THR elev. 92	AD elev. 112	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	530 (438)	1200	550 (438)	1600
B		1300	570 (458)	
C		1400	600 (488)	2400
D		1600	690 (578)	3200

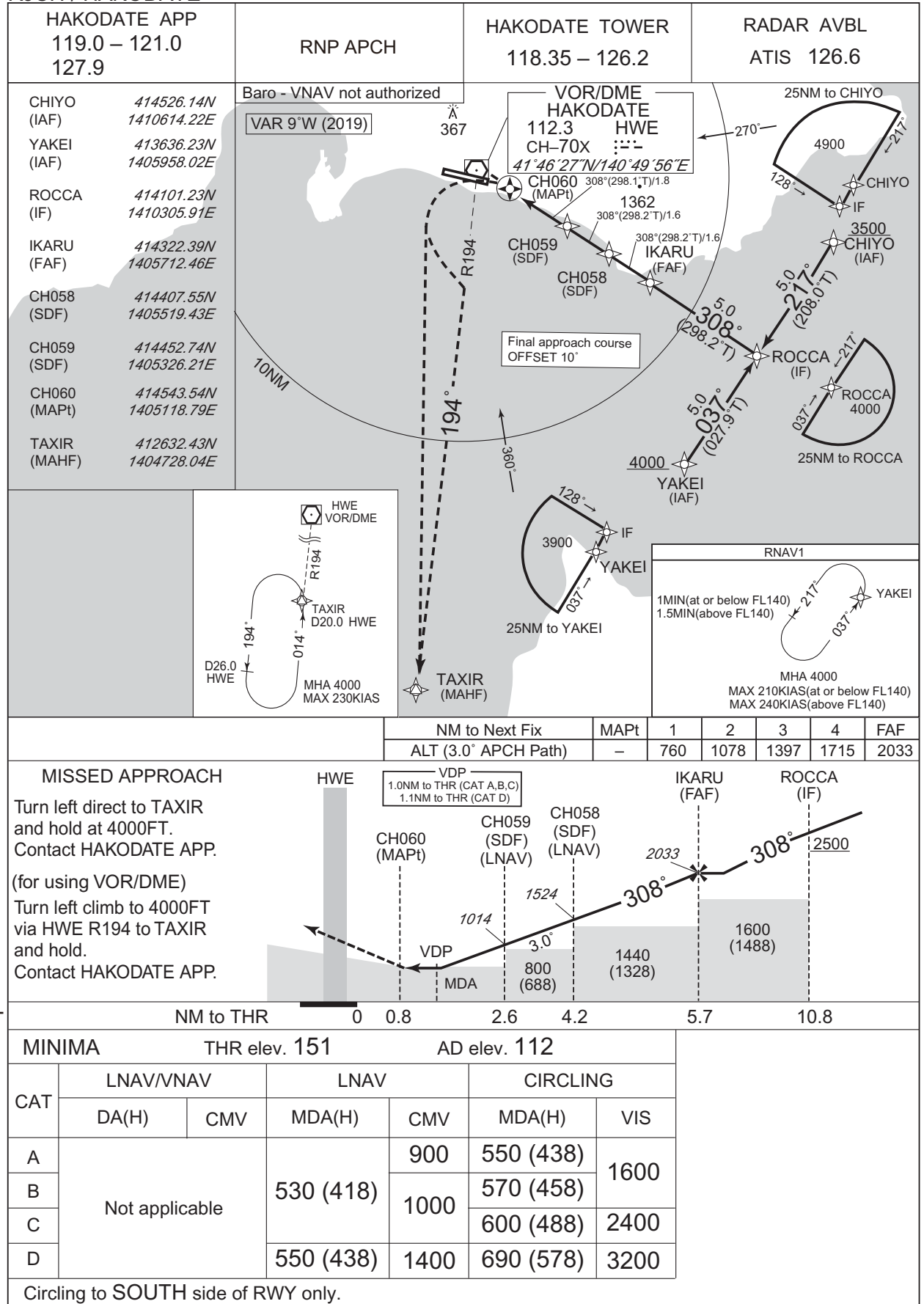
Circling to SOUTH side of RWY only.

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

## INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY30

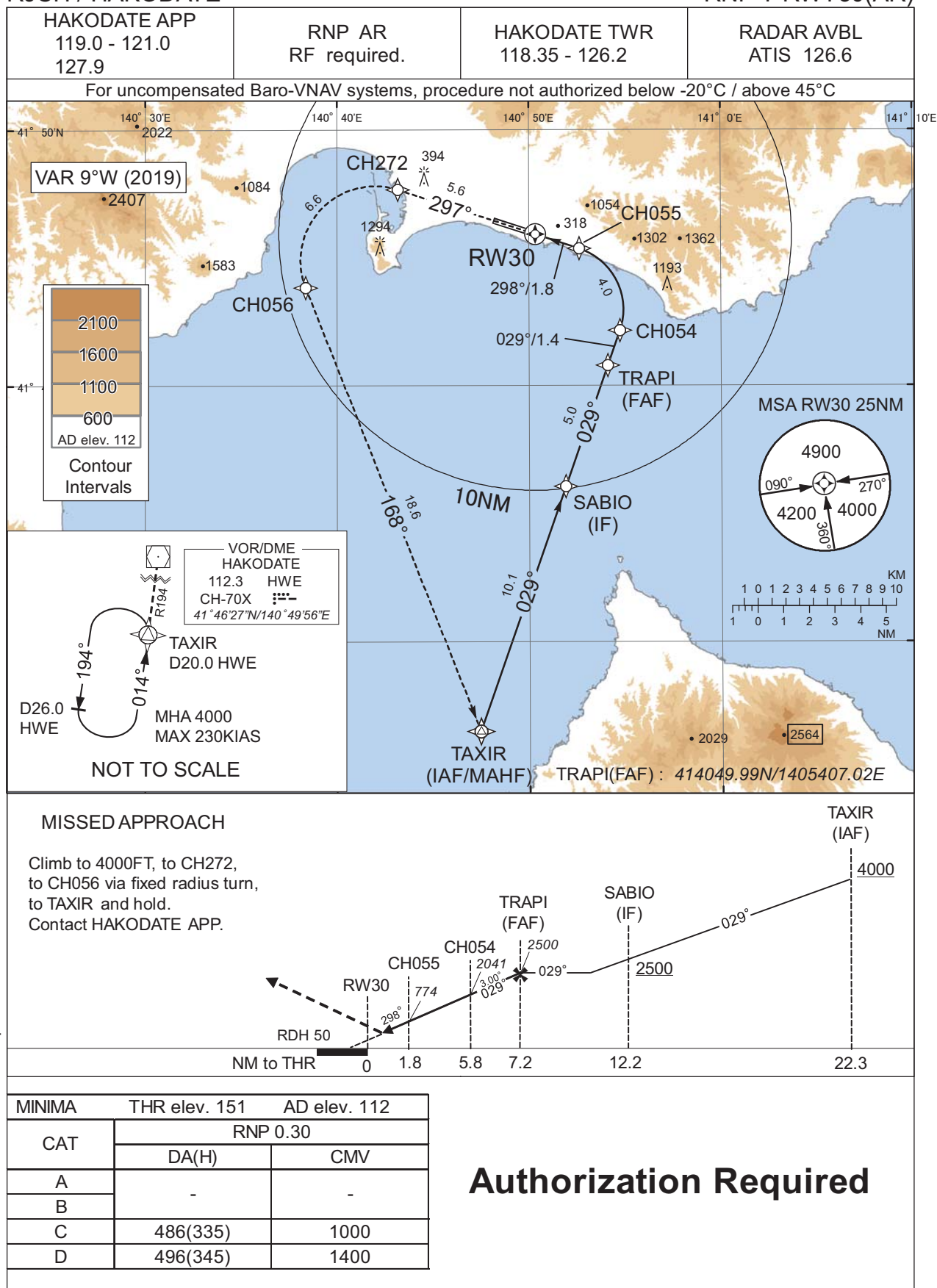




## INSTRUMENT APPROACH CHART

## RJCH / HAKODATE

## RNP Y RWY30(AR)



CHANGE : PROC renamed. Requirement for RNP.

## INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Y RWY30(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	TAXIR	-	-	-9.4	-	-	+4000	-	-	-
002	TF	SABIO	-	029 (019.2)	-9.4	10.1	-	+2500	-	-	1.0
003	TF	TRAPI	-	029 (019.2)	-9.4	5.0	-	2500	-	-	1.0
004	TF	CH054	-	029 (019.2)	-9.4	1.4	-	2041	-	-3.00	0.3
005	RF Center: CHRF3 r=2.50NM	CH055	-	-	-9.4	4.0	L	774	-	-3.00	0.3
006	TF	RW30	Y	298 (288.1)	-9.4	1.8	-	201	-	-3.00/50	0.3
007	TF	CH272	-	297 (288.1)	-9.4	5.6	-	-	-	-	1.0
008	RF Center: CHRF4 r=2.90NM	CH056	-	-	-9.4	6.6	L	-	-	-	1.0
009	TF	TAXIR	-	168 (158.5)	-9.4	18.6	-	4000	-	-	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
TAXIR	412632.43N / 1404728.04E	CHRF3	414301.30N / 1405136.09E
SABIO	413606.58N / 1405154.81E	CHRF4	414456.26N / 1404159.49E
TRAPI	414049.99N / 1405407.02E		
CH054	414211.71N / 1405445.20E		
CH055	414524.03N / 1405238.26E		
RW30	414557.54N / 1405021.00E		
CH272	414742.10N / 1404311.31E		
CH056	414352.33N / 1403822.94E		

CHANGE : PROC renamed.

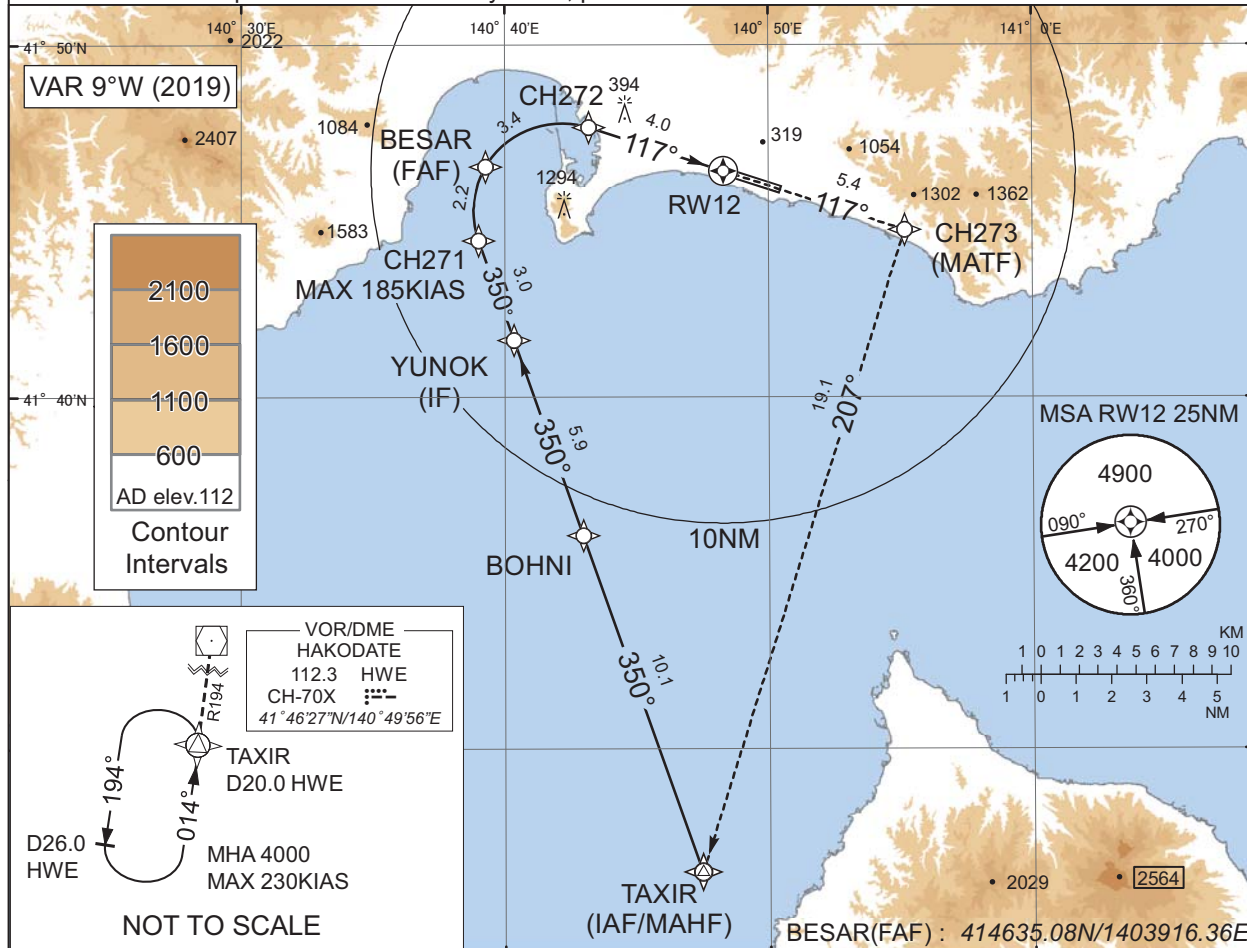
## INSTRUMENT APPROACH CHART

RJCH / HAKODATE

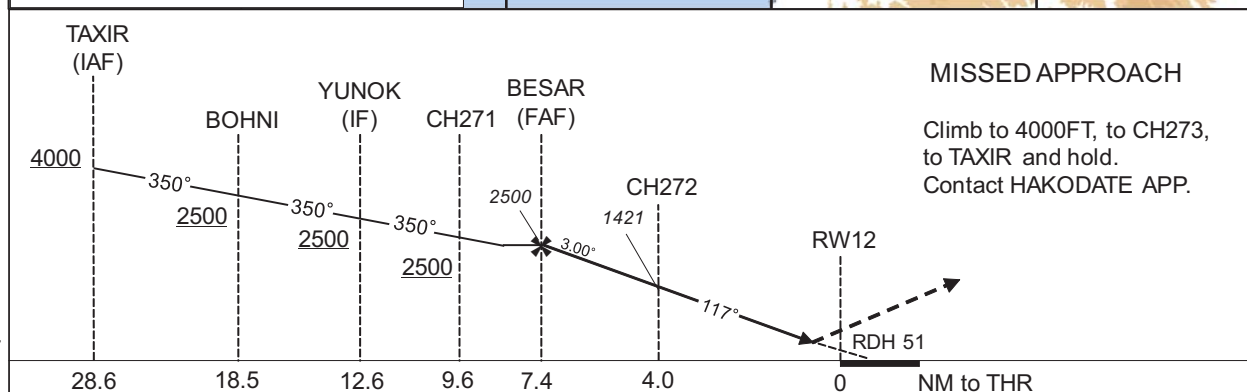
RNP RWY12(AR)

HAKODATE APP 119.0 - 121.0 127.9	RNP AR RF required.	HAKODATE TWR 118.35 - 126.2	RADAR AVBL ATIS 126.6
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For uncompensated Baro-VNAV systems, procedure not authorized below -20°C / above 45°C



CHANGE : PROC renamed. Requirement for RNP.



Missed APCH climb gradient MNM 5.0%

MINIMA	THR elev. 92	AD elev. 112
CAT	RNP 0.30	
	DA(H)	RVR/CMV
A	-	-
B	-	-
C	402(310)	1400
D	423(331)	1600

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

**Authorization Required**

## INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP RWY12(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	TAXIR	-	-	-9.4	-	-	+4000	-	-	-
002	TF	BOHNI	-	350 (340.6)	-9.4	10.1	-	+2500	-	-	1.0
003	TF	YUNOK	-	350 (340.6)	-9.4	5.9	-	+2500	-	-	1.0
004	TF	CH271	-	350 (340.5)	-9.4	3.0	-	+2500	-185	-	1.0
005	RF Center: CHRF5 r=2.50NM	BESAR	-	-	-9.4	2.2	R	2500	-	-	1.0
006	RF Center: CHRF5 r=2.50NM	CH272	-	-	-9.4	3.4	R	1421	-	-3.00	0.3
007	TF	RW12	Y	117 (108.0)	-9.4	4.0	-	143	-	-3.00/51	0.3
008	TF	CH273	-	117 (108.1)	-9.4	5.4	-	-	-	-	1.0
009	TF	TAXIR	-	207 (197.6)	-9.4	19.1	-	4000	-	-	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
TAXIR	412632.43N / 1404728.04E	CHRF5	414519.29N / 1404209.46E
BOHNI	413606.23N / 1404258.19E		
YUNOK	414139.34N / 1404020.87E		
CH271	414429.13N / 1403900.50E		
BESAR	414635.08N / 1403916.36E		
CH272	414742.10N / 1404311.31E		
RW12	414627.62N / 1404817.61E		
CH273	414446.88N / 1405510.13E		

CHANGE : PROC renamed.



RJCH / HAKODATE

Visual REP

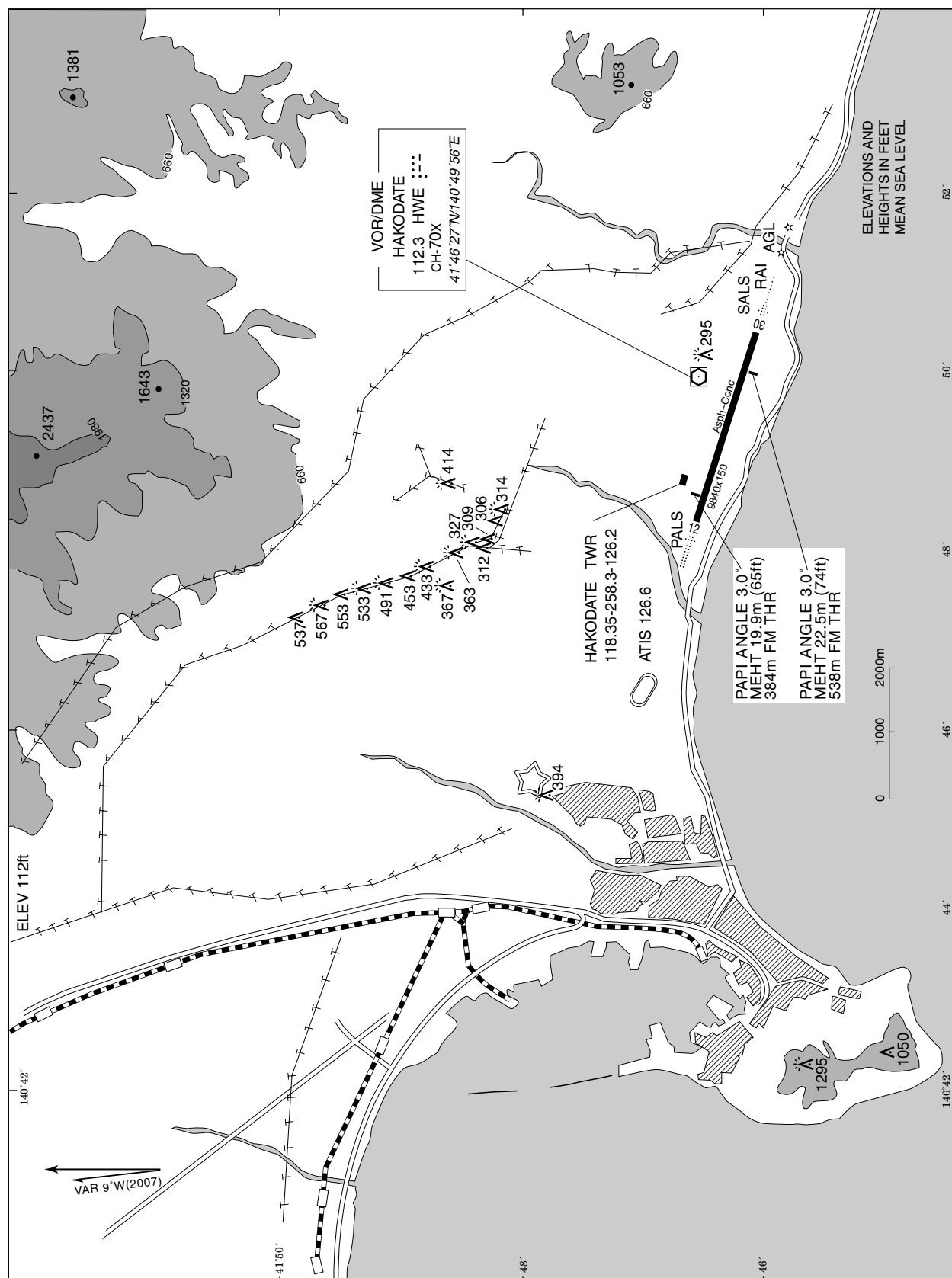


※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

CHANGE :DIST from ARP(Mihara):

Call sign	BRG / DIST from ARP	Remarks
大沼 Onuma	330°T / 13.9NM	JR駅 JR Station
桔梗 Kikyo	316°T / 6.4NM	JR駅 JR Station
矢別 Yabetsu	043°T / 5.7NM	ダム Dam
恵山岬 Esanmisaki	081°T / 16.5NM	灯台 Lighthouse
美原 Mihara	310°T / 3.9NM	NHKラジオアンテナ NHK radio antenna
立待 Tachimachi	252°T / 4.8NM	岬 Cape
当別 Tobetsu	261°T / 11.5NM	トラピスト修道院 Religious house
汐首岬 Shiokubimisaki	119°T / 7.3NM	灯台 Lighthouse
5NM S	180°T / 5.0NM	海上 Over the sea
大間崎 Omazaki	163°T / 14.0NM	岬 Cape

## LDG CHART





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