

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



AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC

MAGNETIC VARIATION 9° W-APR 2018



AERODROME OBSTACLE CHART - ICAO
TYPE B

DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC



STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

SID

HAKODATE REVERSAL SIX DEPARTURE

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

RWY 30: Climb RWY HDG to 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.

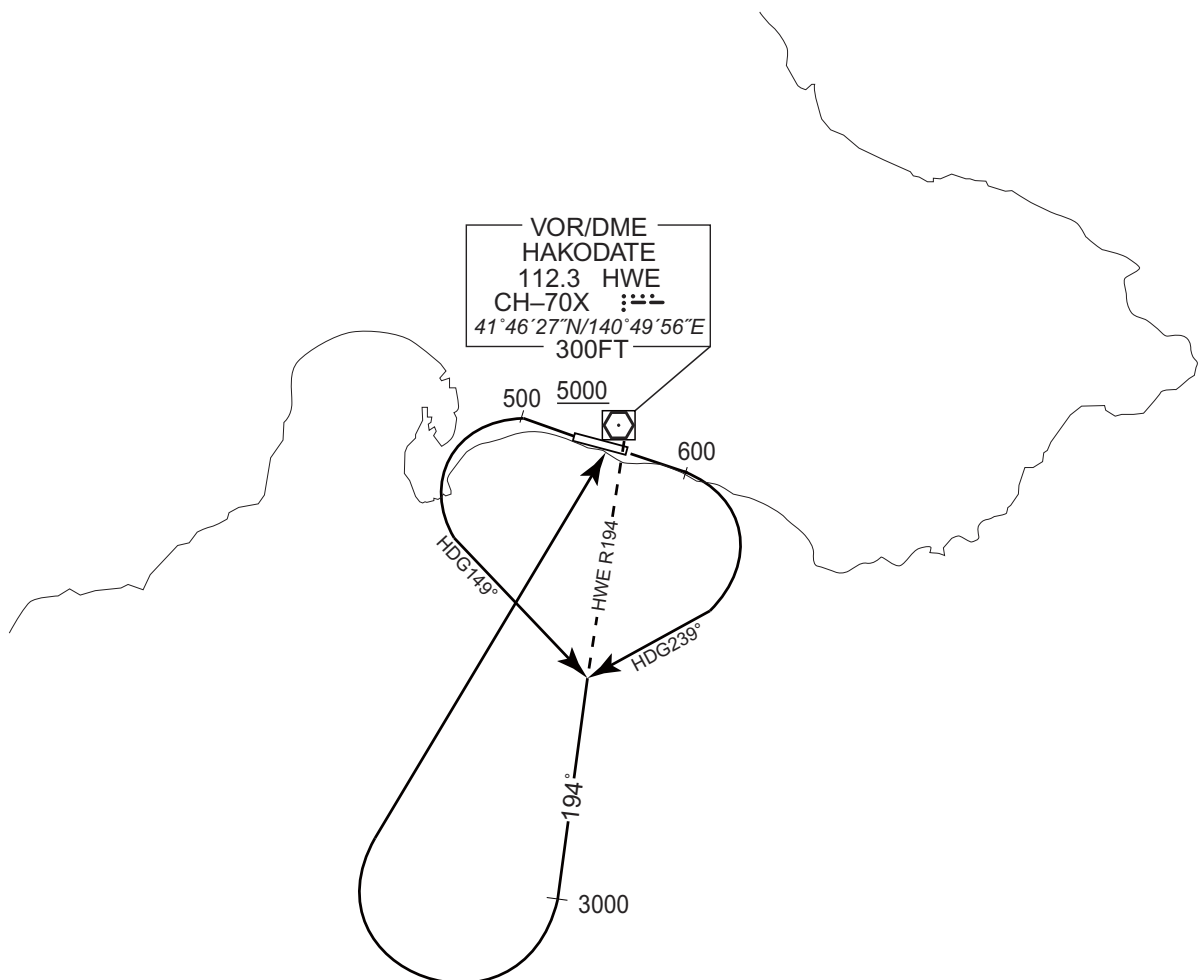
Note RWY12 : 4.0% climb gradient required up to 600FT.

OBST ALT 657FT located at 3.4NM 108° FM end of RWY12.

RWY30 : 5.2% climb gradient required up to 1600FT.

OBST ALT 1294FT located at 4.6NM 268° FM end of RWY30.

CHANGE : PROC renamed(HAKODATE REVERSAL SIX DEPARTURE), PROC abolished(HAKODATE SOUTH SEVEN DEPARTURE, TAPPI SEVEN DEPARTURE, YUWA TRANSITION, ESASI SIX DEPARTURE, TIKYU ONE DEPARTURE). Note(HAKODATE REVERSAL SIX DEPARTURE).

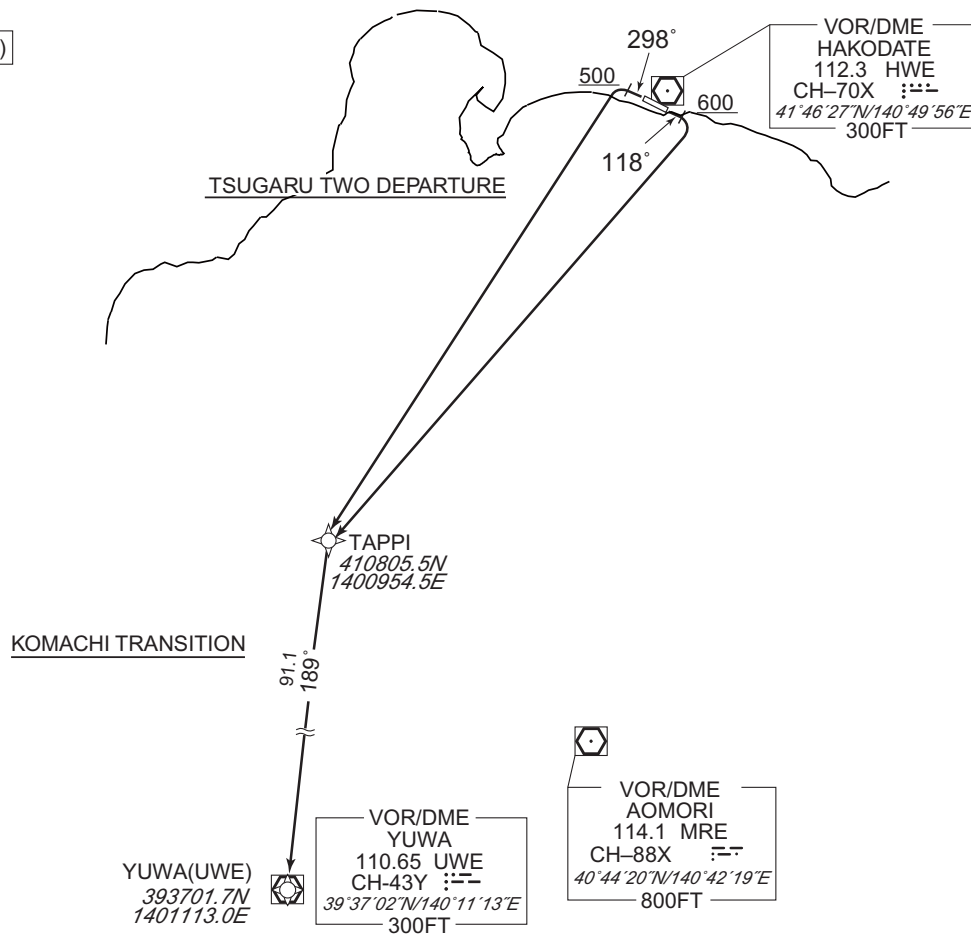


CHANGE : VAR. PROC renamed(TSUGARU TWO DEPARTURE). Navigation specification. Sensor for RNAV. PROC course(TSUGARU TWO DEPARTURE, KOMACHI TRANSITION). NOTE(TSUGARU TWO DEPARTURE).

RNAV SID and TRANSITION

Basic RNP1

VAR 10°W (2022)



RWY12 : Climb on HDG118° at or above 600FT, turn right direct to TAPPI.
RWY30 : Climb on HDG298° at or above 500FT, turn left direct to TAPPI.

NOTE RWY12 : 4.0% climb gradient required up to 600FT.
OBST ALT 657FT located at 3.4NM 108° FM end of RWY12.
RWY30 : 5.2% climb gradient required up to 1600FT.
OBST ALT 1294FT located at 4.6NM 268° FM end of RWY30.

From TAPPI, to UWE.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID and TRANSITION

TSUGARU TWO 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	—	—	118 (108.0)	-9.6	—	—	+600	—	—	Basic RNP1
002	DF	TAPPI	—	—	-9.6	—	R	—	—	—	Basic RNP1

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	—	—	298 (288.1)	-9.6	—	—	+500	—	—	Basic RNP1
002	DF	TAPPI	—	—	-9.6	—	L	—	—	—	Basic RNP1

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	—	—	-9.6	—	—	—	—	—	Basic RNP1
002	TF	UWE	—	189 (179.4)	-9.6	91.1	—	—	—	—	Basic RNP1

CHANGE : VAR. PROC course(TSUGARU TWO DEPARTURE, KOMACHI TRANSITION). NAVIGATION SPECIFICATION.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

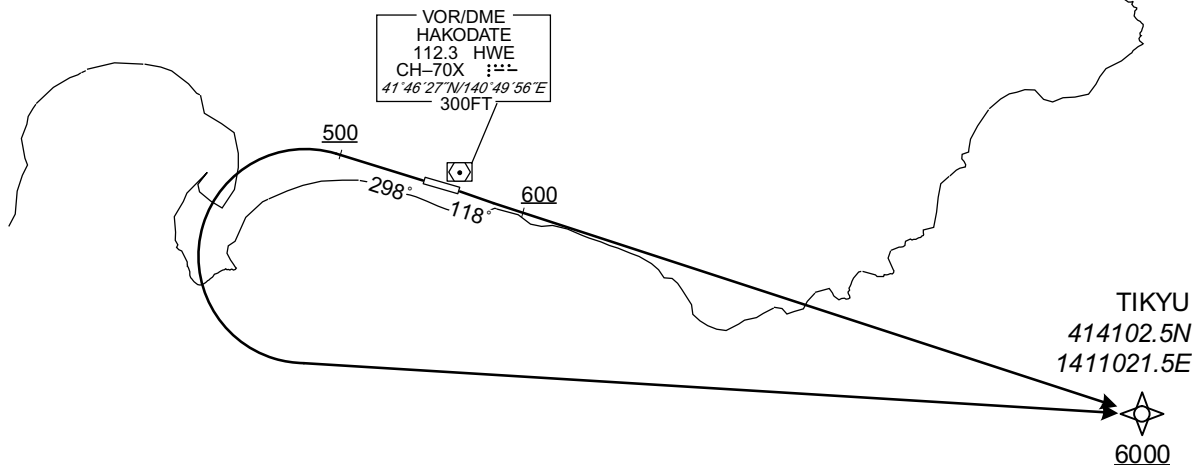
RNAV SID

TOI ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 10°W (2022)



RWY12 : Climb on HDG118° at or above 600FT, direct to TIKYU at or above 6000FT.

RWY30 : Climb on HDG298° at or above 500FT, turn left direct to TIKYU at or above 6000FT.

NOTE RWY12 : 6.0% climb gradient required up to 1500FT.

OBST ALT 1247FT located at 3.6NM 101° FM end of RWY12.

RWY30 : 5.2% climb gradient required up to 1600FT.

OBST ALT 1294FT located at 4.6NM 268° FM end of RWY30.

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	-	—	118 (108.1)	-9.6	—	—	+600	—	—	Basic RNP1
002	DF	TIKYU	—	—	-9.6	—	—	+6000	—	—	Basic RNP1

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	-	—	298 (288.1)	-9.6	—	—	+500	—	—	Basic RNP1
002	DF	TIKYU	—	—	-9.6	—	L	+6000	—	—	Basic RNP1

CHANGE : New PROC.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID

OKUSHIRI ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 10°W (2022)



RWY12 : Climb on HDG118° at or above 600FT, turn right direct to ESASI at or above 5000FT.
RWY30 : Climb on HDG298° at or above 700FT, direct to ESASI at or above 5000FT.

NOTE RWY12 : 4.0% climb gradient required up to 600FT.

OBST ALT 657FT located at 3.4NM 108° FM end of RWY12.

RWY30 : 3.4% climb gradient required up to 700FT.

OBST ALT 1969FT located at 12.2NM 304° FM end of RWY30.

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	-	—	118 (108.1)	-9.6	—	—	+600	—	—	Basic RNP1
002	DF	ESASI	—	—	-9.6	—	R	+5000	—	—	Basic RNP1

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	-	—	298 (288.1)	-9.6	—	—	+700	—	—	Basic RNP1
002	DF	ESASI	—	—	-9.6	—	—	+5000	—	—	Basic RNP1

CHANGE : New PROC.

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STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATE

RNAV STAR RWY30

CHIYO ARRIVAL
YAKEI ARRIVAL

Basic RNP1

Note GNSS required.

VAR 10°W (2022)



CHIYO ARRIVAL

From UPLOK at or above 8000FT, to OKTOL at or above 6000FT, to CHIYO at or above 3500FT.

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	UPLOK	—	—	-9.6	—	—	+8000	—	—	Basic RNP1
002	TF	OKTOL	—	133 (123.9)	-9.6	8.4	—	+6000	—	—	Basic RNP1
003	TF	CHIYO	—	182 (172.4)	-9.6	11.3	—	+3500	—	—	Basic 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	UPLOK	130 (120.0)	-9.6	1.0(-14000)	R	8000	13000	-230(-13000)	Basic RNP1

YAKEI ARRIVAL

From TAXIR at or above 6000FT, to YAKEI at or above 4000FT.

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	—	—	-9.6	—	—	+6000	—	—	Basic RNP1
002	TF	YAKEI	—	052 (042.9)	-9.6	13.8	—	+4000	—	—	Basic 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	TAXIR	015 (005.3)	-9.6	1.0(-14000)	L	4000	FL140	-220(-14000)	Basic RNP1

CHANGE : VAR. CHIYO ARRIVAL established. Navigation specification. RNAV HLDG established(TAXIR, UPLOK).
HLDG for using NAVAID abolished(TAXIR).

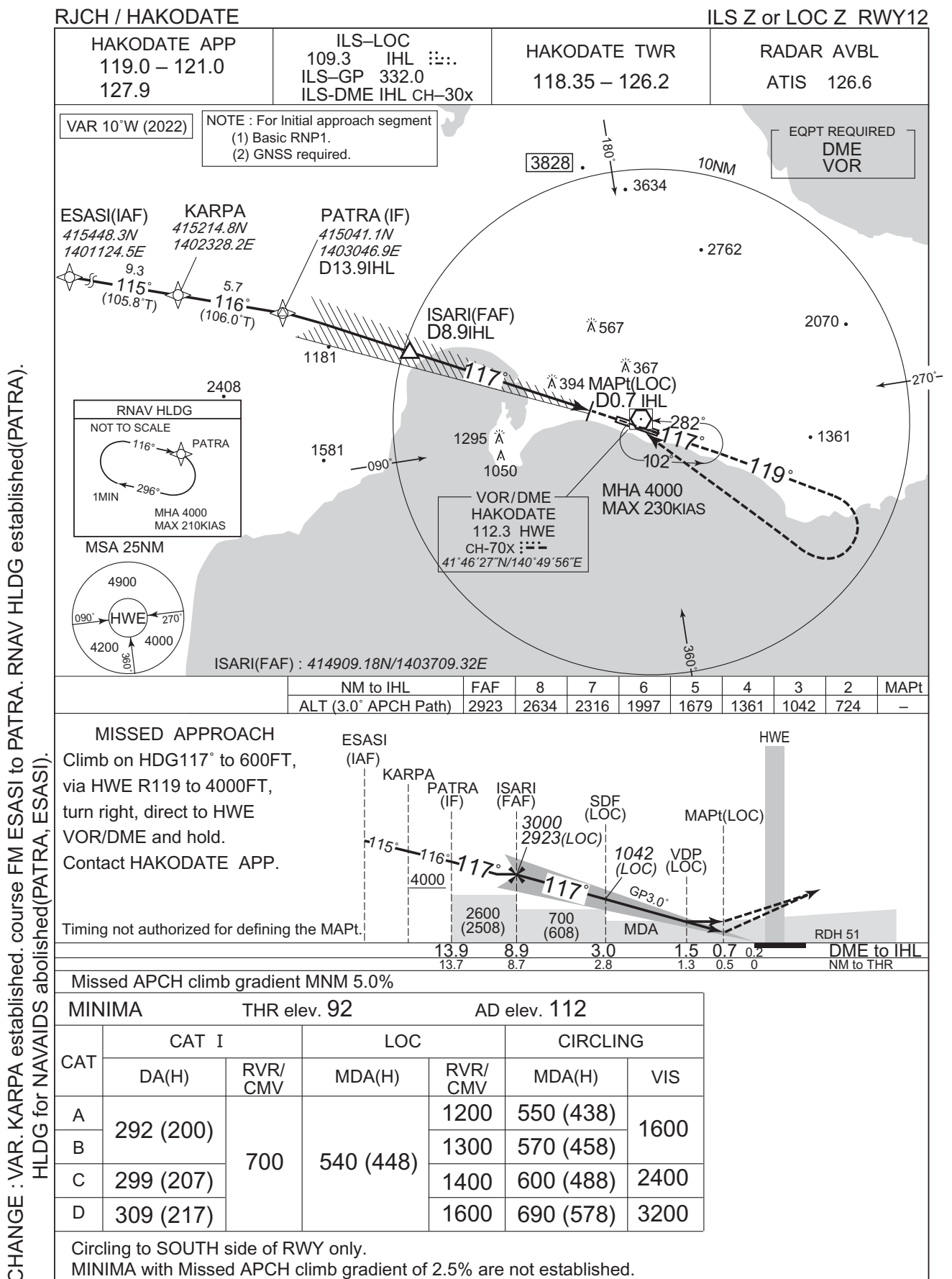
STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATE

RNAV STAR RWY12



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCH / HAKODATE

ILS Y or LOC Y RWY12

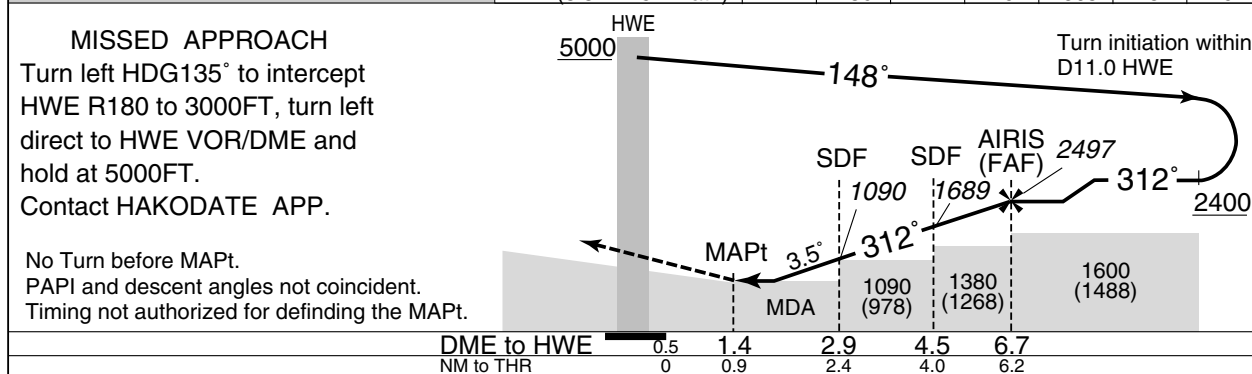


INSTRUMENT APPROACH CHART

RJCH / HAKODATE

VOR RWY30

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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MINIMA					THR elev. 151	AD elev. 112
CAT			CIRCLING			
	MDA(H)	CMV	MDA(H)	VIS		
A	730 (618)	1000	730 (618)	1600		
B		1200		2400		
C				3200		
D		1600				

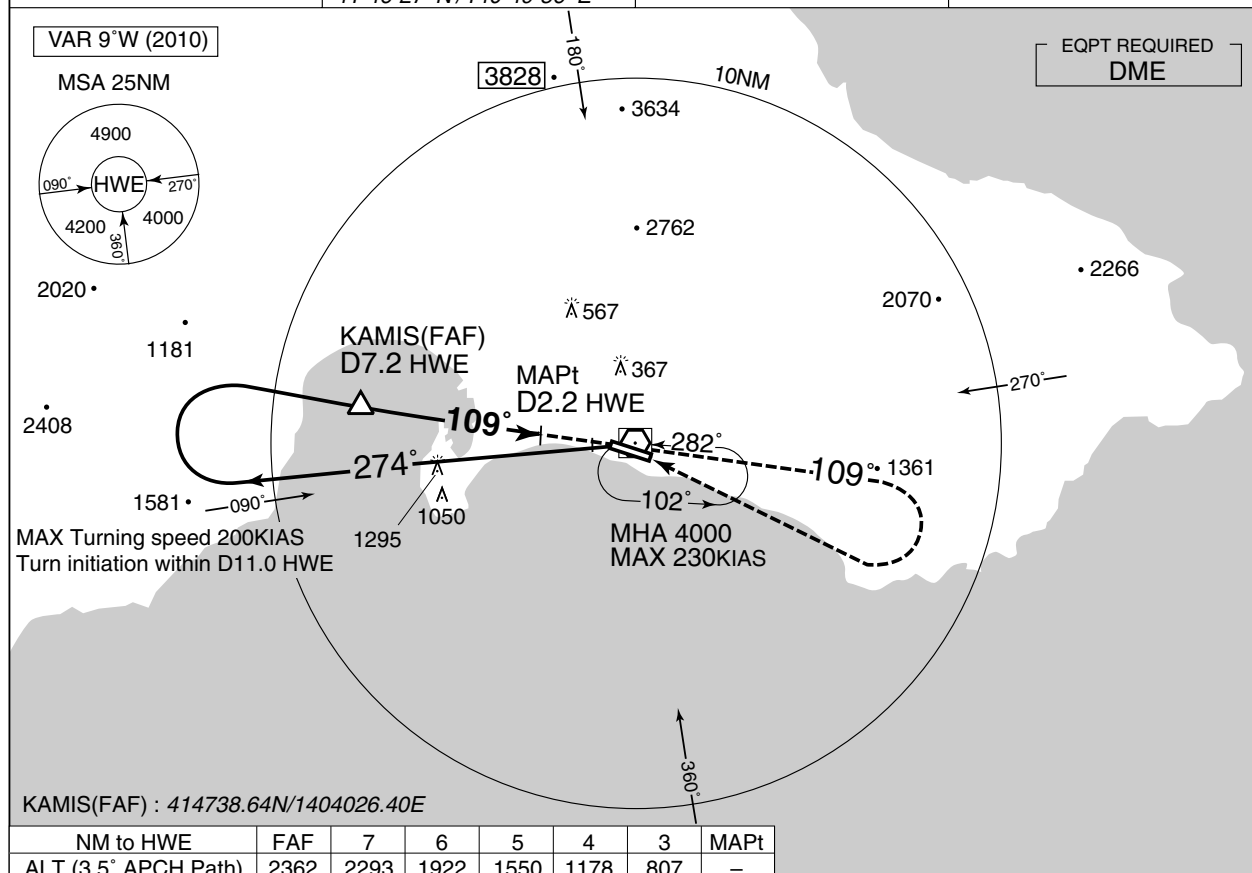
Circling to SOUTH side of RWY only.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

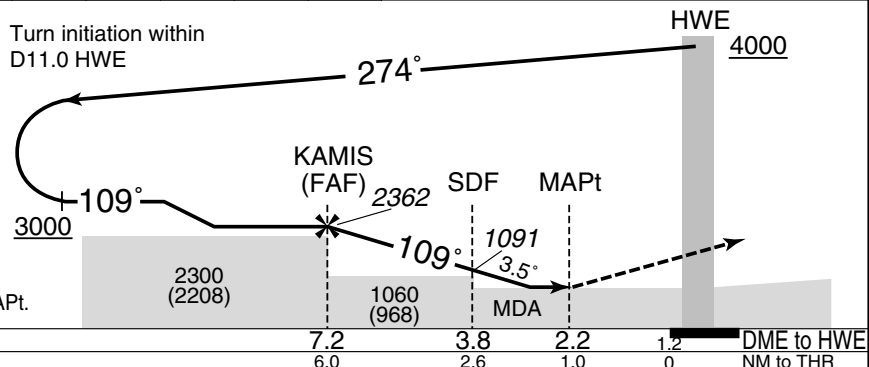
VOR RWY12

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)	
D		1600	690 (578)	

Circling to SOUTH side of RWY only.

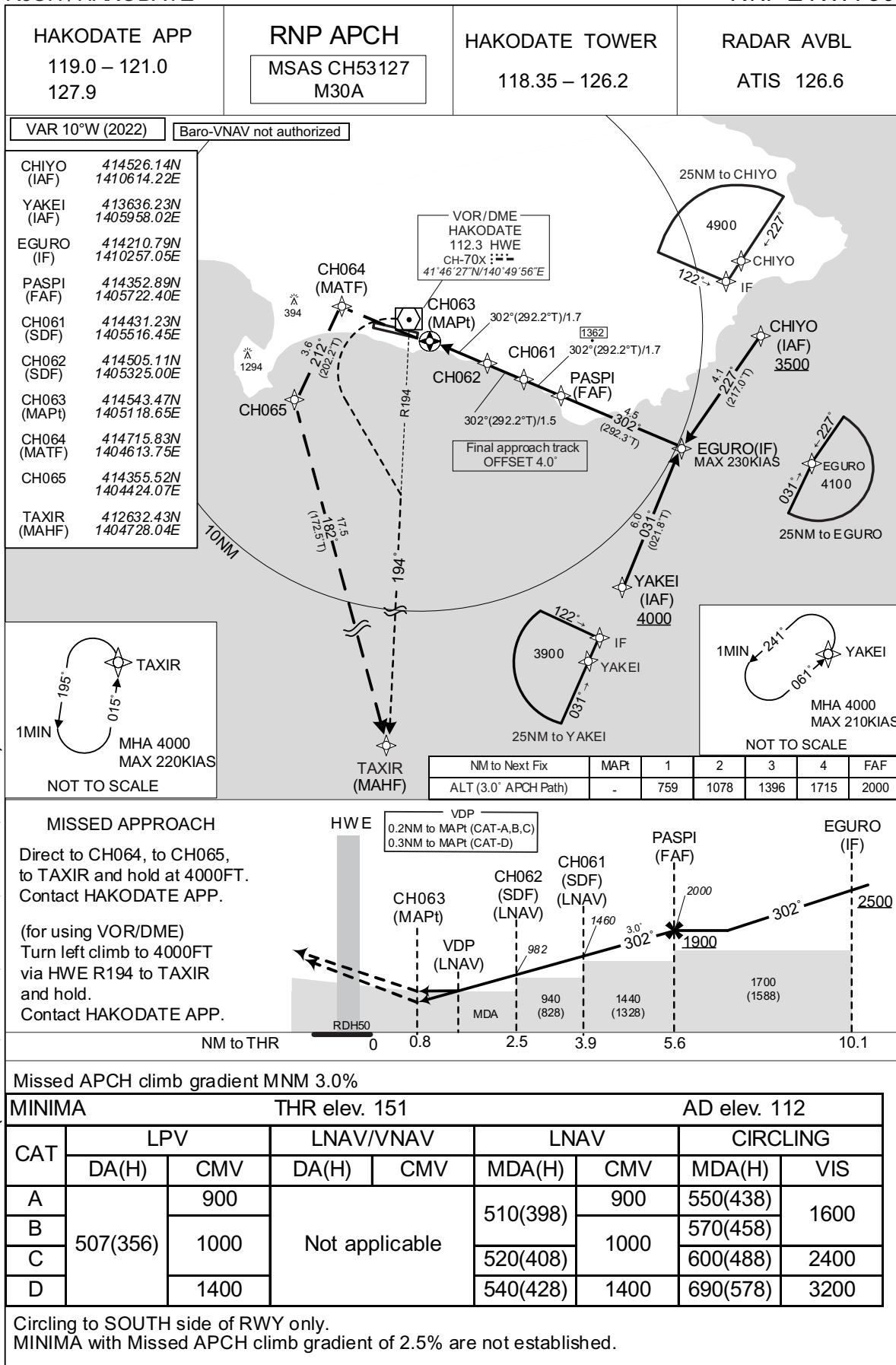
MINIMA with Missed APCH climb gradient of 2.5% are not established.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY30

CHANGE : VAR. MSAS CH added. PROC course. FIX established(EGURO,PASPI,CH061,CH062,CH063,CH064,CH065).
FIX abolished(ROCCA,IKARU,CH058,CH059,CH060). PROC ALT. MINIMA for LPV established. MINIMA for LNAV.



INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY30

FAS DATA BLOCK

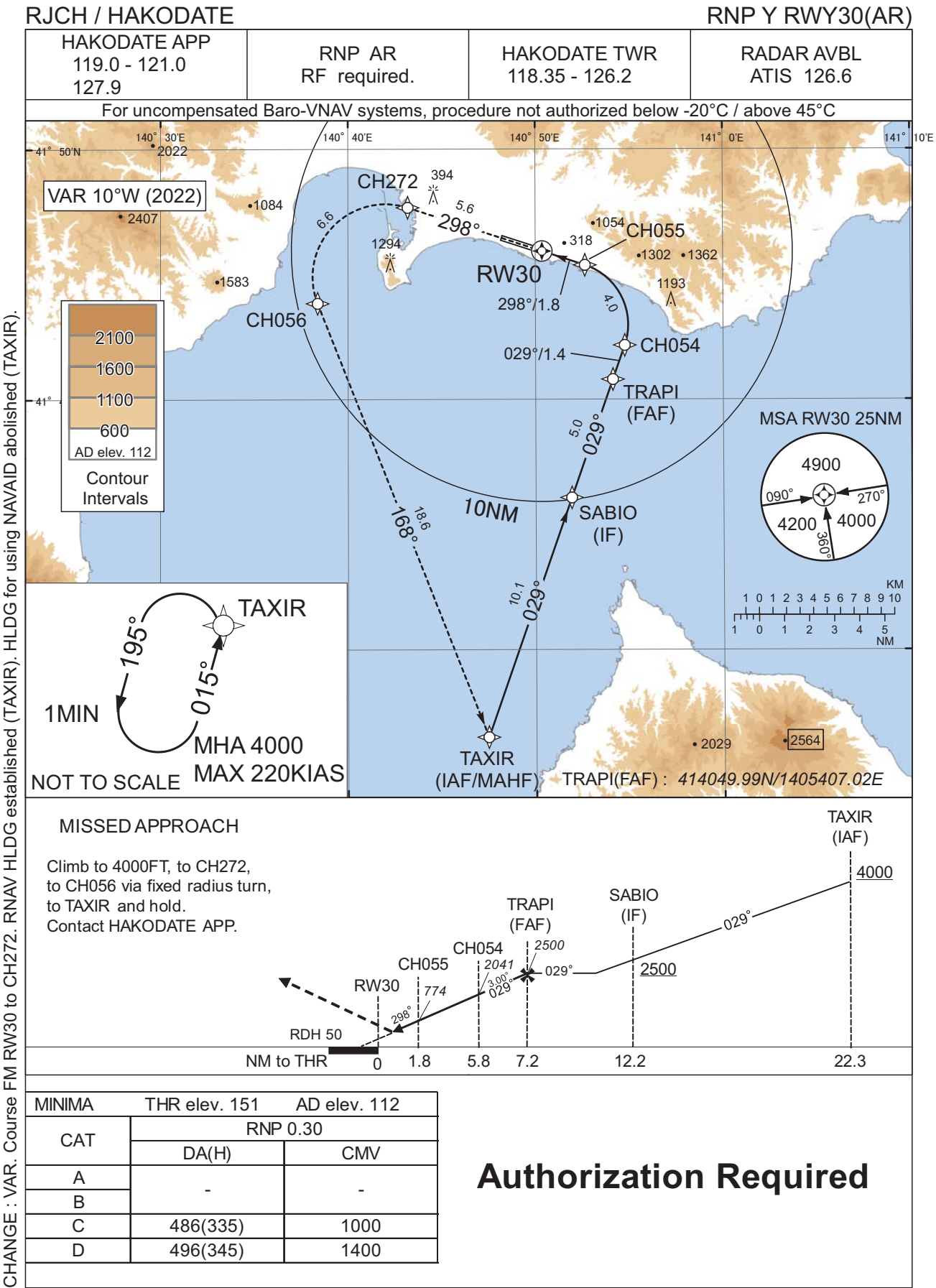
Operation type	0	LTP/FTP ellipsoidal height	+00803
SBAS service provider identifier	2	FPAP latitude	414636.9835N
Airport identifier	RJCH	FPAP longitude	1404822.0795E
Runway	30	Threshold crossing height	00015.0
Approach performance designator	0	TCH units selector	1
Route indicator	Z	Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M30A	∠ length offset	0000
LTP/FTP latitude	414600.5615N	HAL	40.0
LTP/FTP longitude	1405022.5820E	VAL	50.0
CRC remainder	5F964DC7		

Required additional data

LTP/FTP orthometric height	46.0
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CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).

INSTRUMENT APPROACH CHART



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	-	-	-9.6	-	-	+4000	-	-	-
002	TF	SABIO	-	029 (019.2)	-9.6	10.1	-	+2500	-	-	1.0
003	TF	TRAPI	-	029 (019.2)	-9.6	5.0	-	2500	-	-	1.0
004	TF	CH054	-	029 (019.2)	-9.6	1.4	-	2041	-	-3.00	0.3
005	RF Center: CHRF3 r=2.50NM	CH055	-	-	-9.6	4.0	L	774	-	-3.00	0.3
006	TF	RW30	Y	298 (288.1)	-9.6	1.8	-	201	-	-3.00/50	0.3
007	TF	CH272	-	298 (288.1)	-9.6	5.6	-	-	-	-	1.0
008	RF Center: CHRF4 r=2.90NM	CH056	-	-	-9.6	6.6	L	-	-	-	1.0
009	TF	TAXIR	-	168 (158.5)	-9.6	18.6	-	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	TAXIR	015 (005.3)	-9.6	1.0 (-14000)	L	4000	FL140	-220 (-14000)	1.0

Waypoint Coordinates

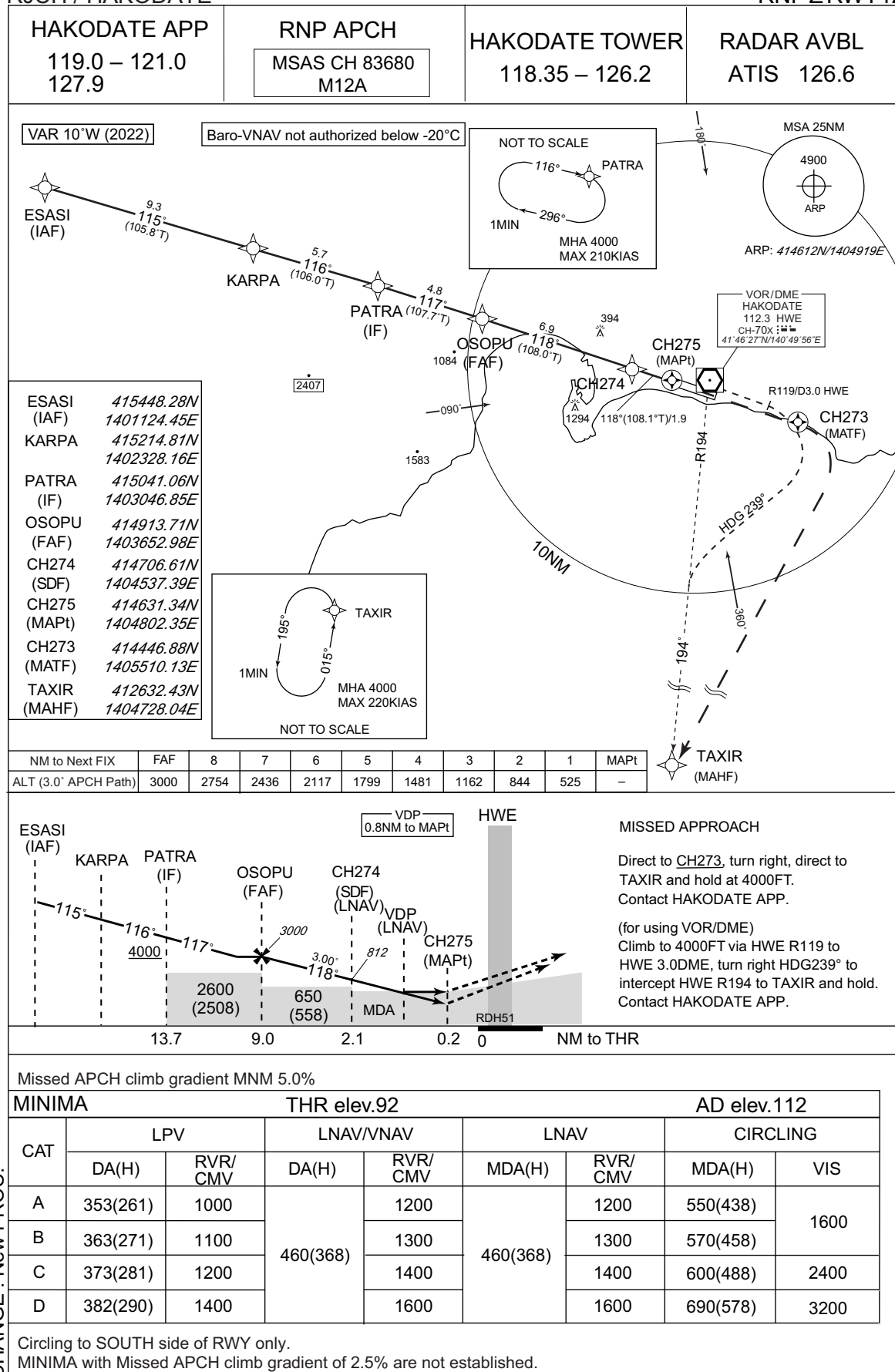
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
TAXIR	412632.43N / 1404728.04E	CHRF3	414301.30N / 1405136.09E
SABIO	413606.58N / 1405154.81E	CHRF4	414456.26N / 1404159.49E
TRAPI	414049.99N / 1405407.02E		
CH054	414211.71N / 1405445.20E		
CH055	414524.03N / 1405238.26E		
RW30	414557.54N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

CHANGE : VAR: Course FM RW30 to CH272. RNAV HLDG established (TAXIR).

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY12



CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY12

FAS DATA BLOCK

Operation type	0	LTP/FTP ellipsoidal height	+00625
SBAS service provider identifier	2	FPAP latitude	414557.5735N
Airport identifier	RJCH	FPAP longitude	1405021.1555E
Runway	12	Threshold crossing height	00015.5
Approach performance designator	0	TCH units selector	1
Route indicator	Z	Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M12A	∠ length offset	0000
LTP/FTP latitude	414627.5895N	HAL	40.0
LTP/FTP longitude	1404817.5995E	VAL	50.0
CRC remainder	69B323C3		

Required additional data

LTP/FTP orthometric height	28.1
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CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).

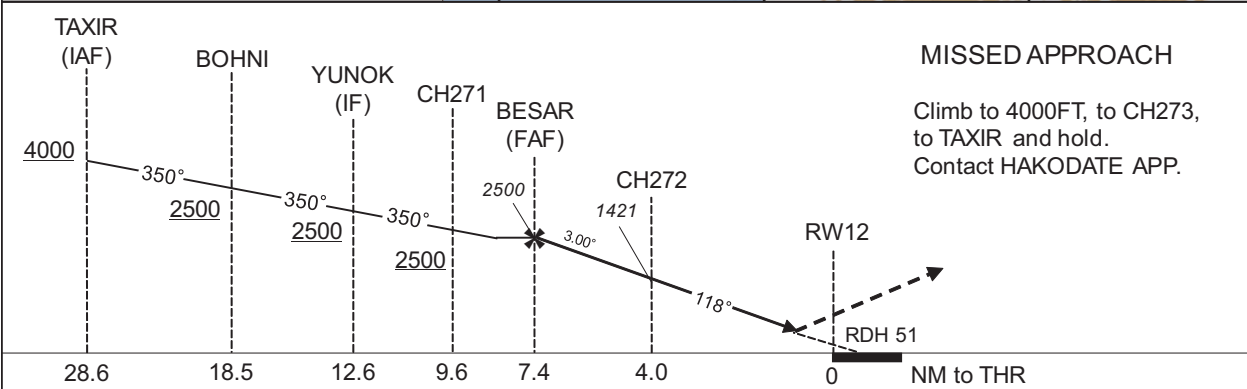
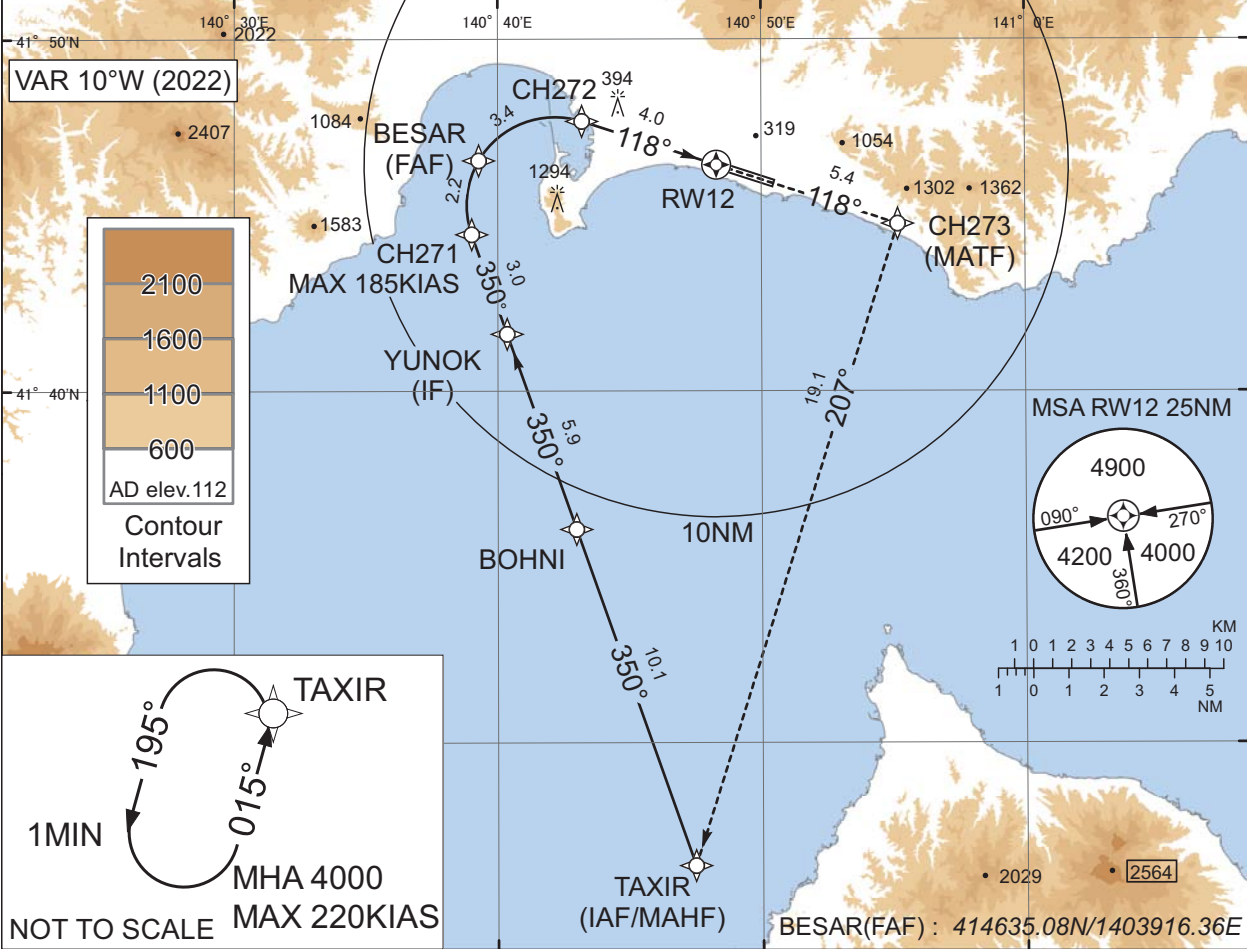
INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Y 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



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 Y 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	-	-	-9.6	-	-	+4000	-	-	-
002	TF	BOHNI	-	350 (340.6)	-9.6	10.1	-	+2500	-	-	1.0
003	TF	YUNOK	-	350 (340.6)	-9.6	5.9	-	+2500	-	-	1.0
004	TF	CH271	-	350 (340.5)	-9.6	3.0	-	+2500	-185	-	1.0
005	RF Center: CHRF5 r=2.50NM	BESAR	-	-	-9.6	2.2	R	2500	-	-	1.0
006	RF Center: CHRF5 r=2.50NM	CH272	-	-	-9.6	3.4	R	1421	-	-3.00	0.3
007	TF	RW12	Y	118 (108.0)	-9.6	4.0	-	143	-	-3.00/51	0.3
008	TF	CH273	-	118 (108.1)	-9.6	5.4	-	-	-	-	1.0
009	TF	TAXIR	-	207 (197.6)	-9.6	19.1	-	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	TAXIR	015 (005.3)	-9.6	1.0 (-14000)	L	4000	FL140	-220 (-14000)	1.0

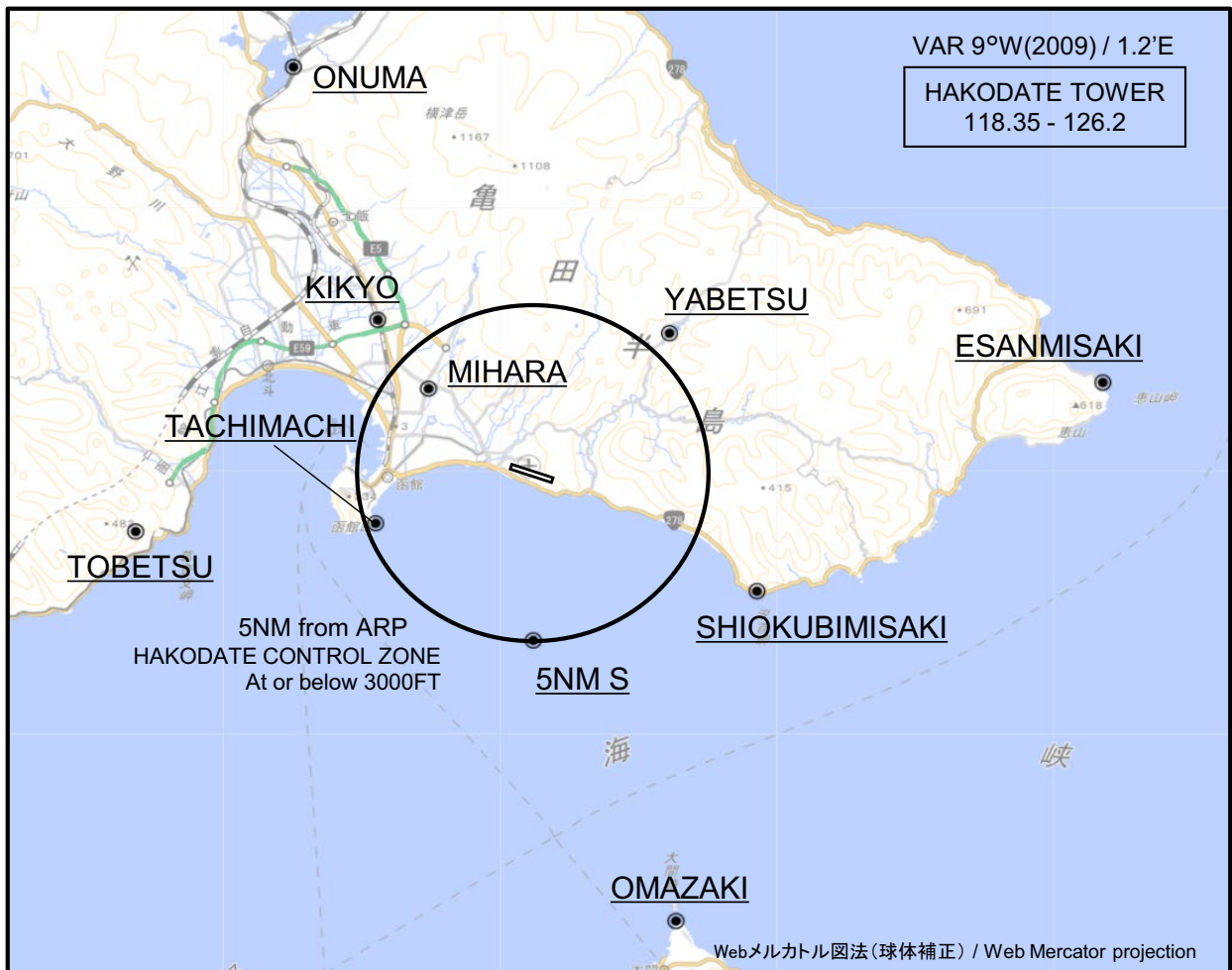
Waypoint Coordinates

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 : VAR. PROC renamed. PROC course. RNAV HLDG established (TAXIR).

RJCH / HAKODATE

Visual REP



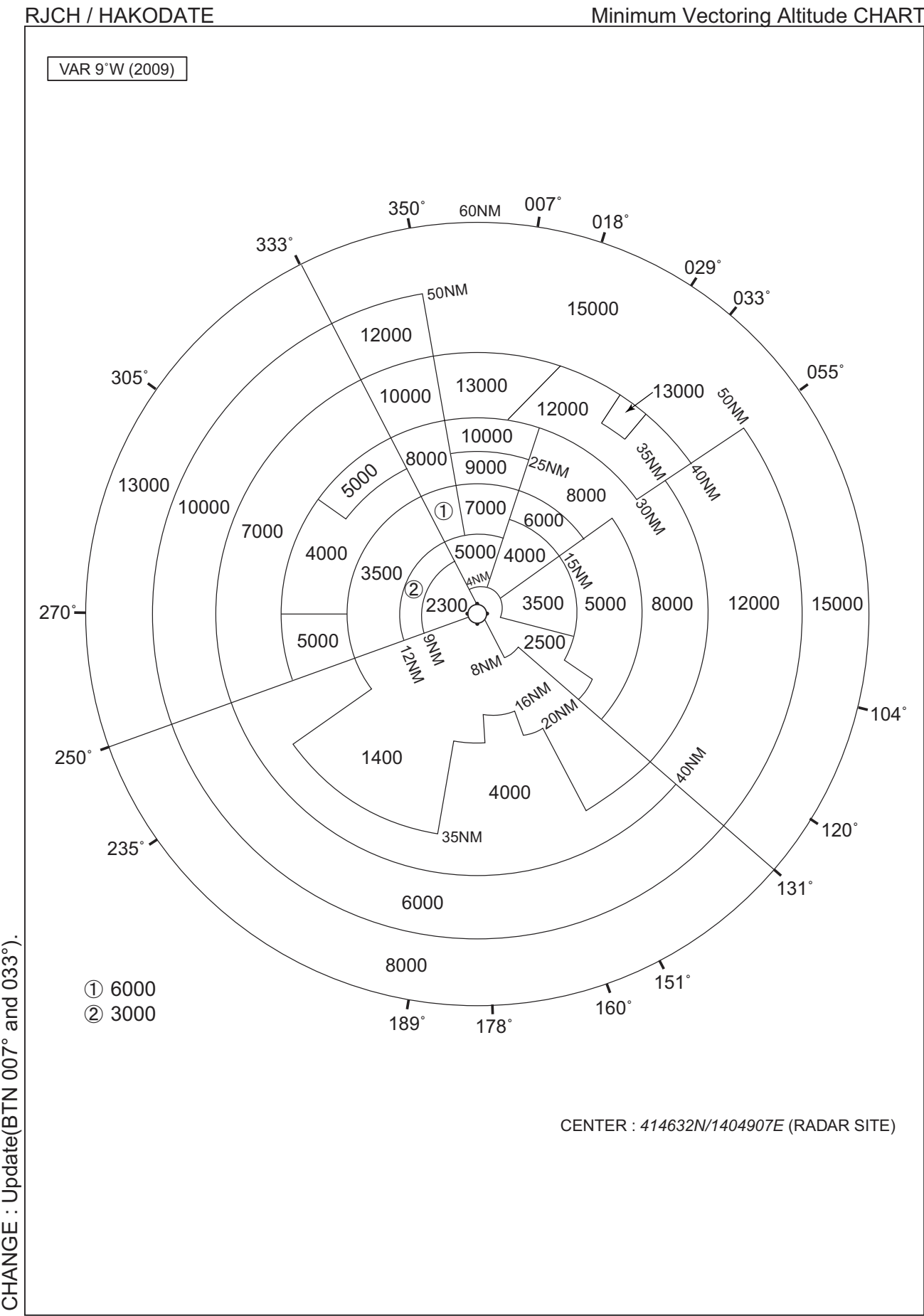
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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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