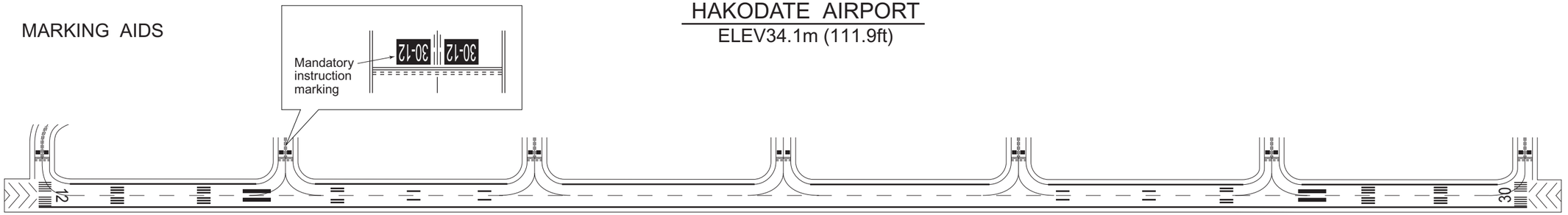
AERODROME CHART

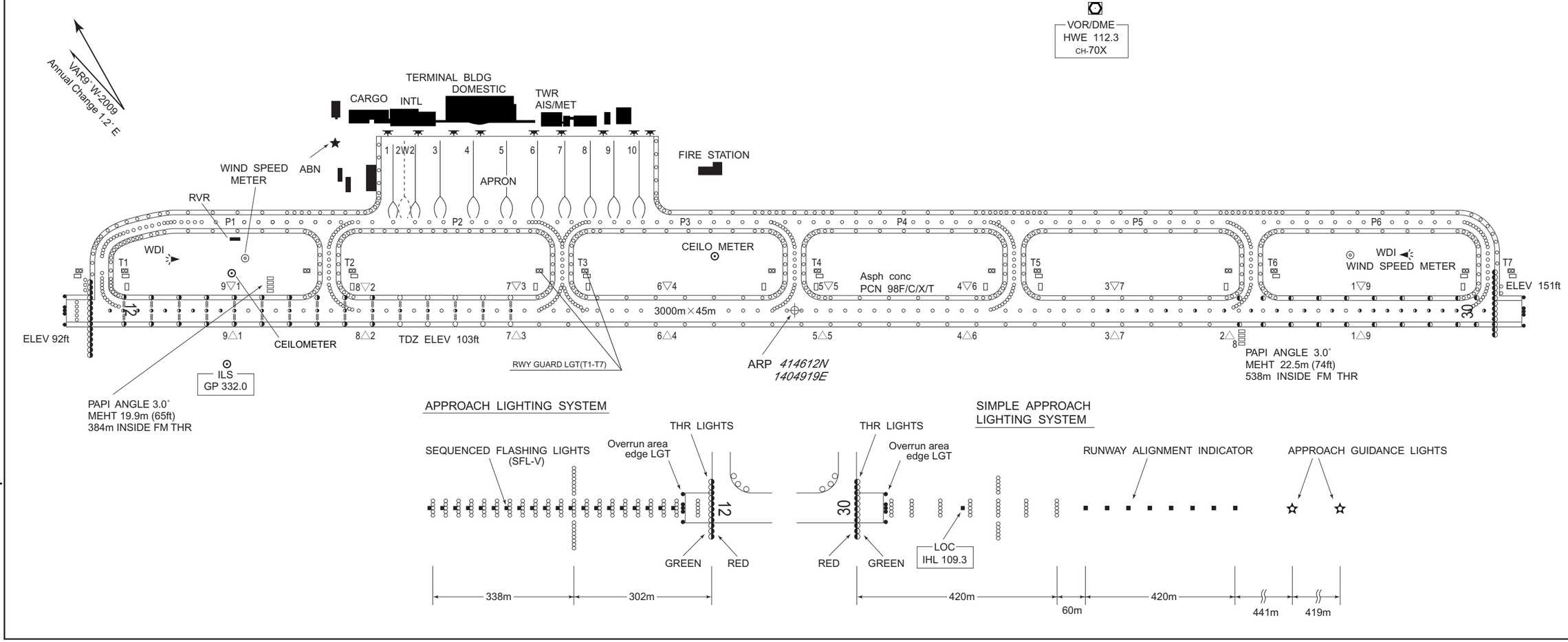
CHANGE : Description of WIND SPEED METER, RVR, CEILOMETER.

MARKING AIDS



HAKODATE AIRPORT

ELEV34.1m (111.9ft)



APPROACH LIGHTING SYSTEM

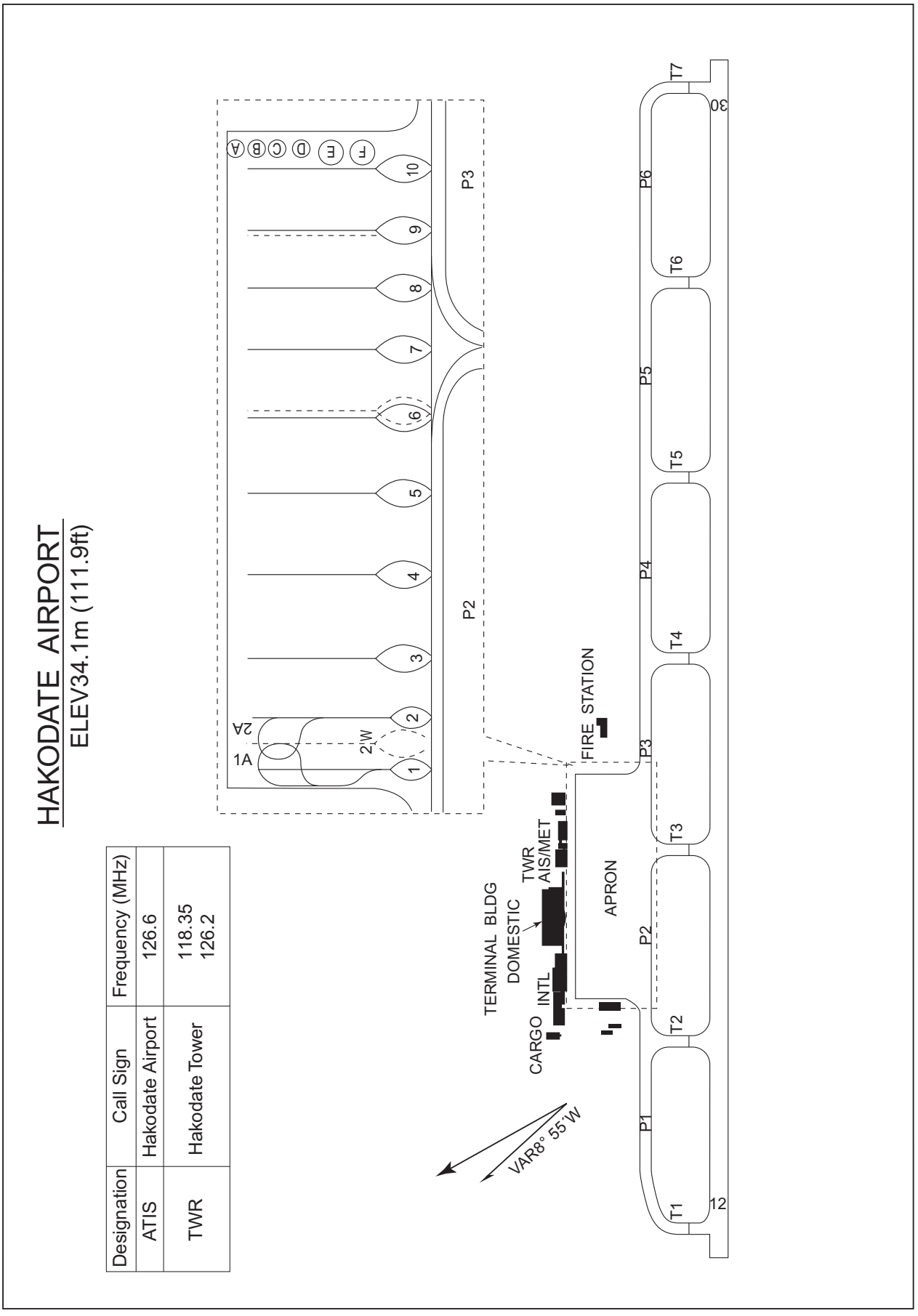
SIMPLE APPROACH LIGHTING SYSTEM

AIRCRAFT PARKING/DOCKING CHART

RJCH / HAKODATE

AD CHART

CHANGE : UHF frequency(TWR) deleted.



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

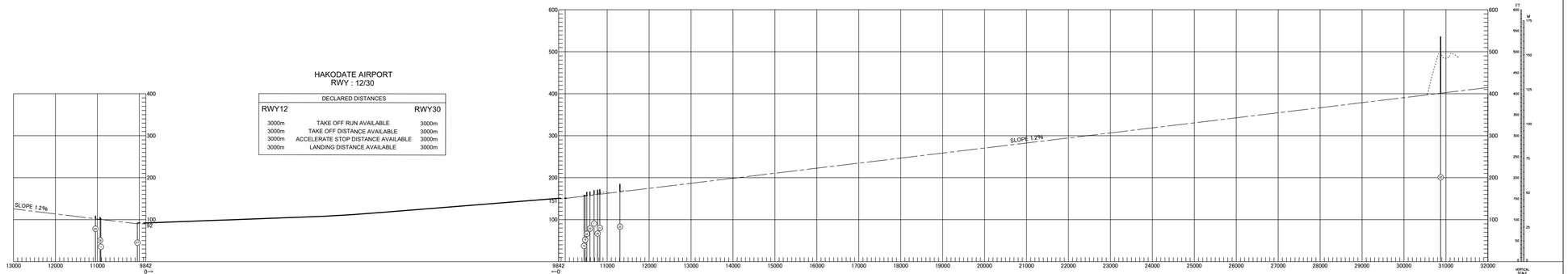
AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

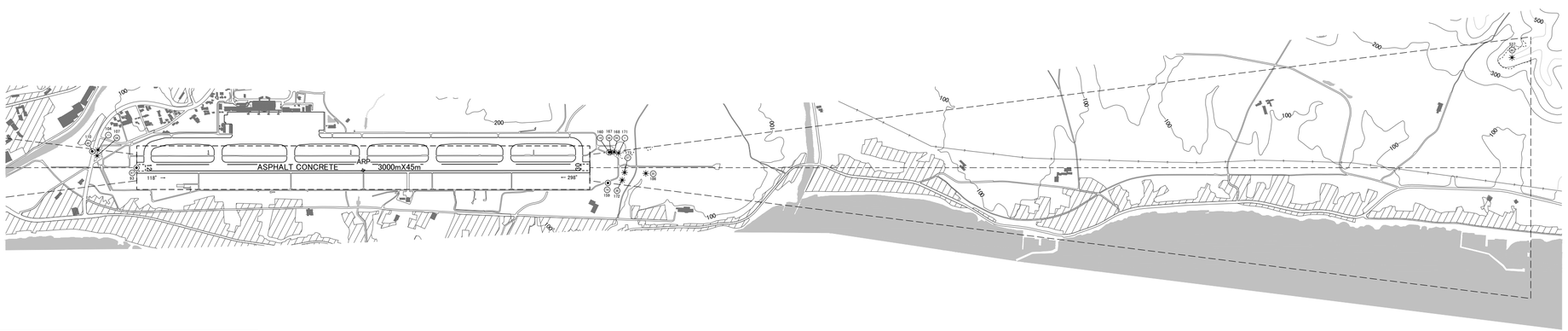
DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC
Transverse Mercator Projection

MAGNETIC VARIATION 10°W - OCT 2022

HAKODATE AIRPORT
RWY : 12/30

DECLARED DISTANCES		
RWY12		RWY30
3000m	TAKE OFF RUN AVAILABLE	3000m
3000m	TAKE OFF DISTANCE AVAILABLE	3000m
3000m	ACCELERATE STOP DISTANCE AVAILABLE	3000m
3000m	LANDING DISTANCE AVAILABLE	3000m





LEGEND
IDENTIFICATION NUMBER
POLE, TOWER, SPIRE, ANTENNA, ETC
TREE / LEVEE
RAILROAD / RIVER
TRANSMISSION LINE OR OVERHEAD CABLE
TRIANGULATION POINT
AERONAUTICAL GROUND LIGHT
BUILDING OR LARGE STRUCTURE
CONTOURS(ft)

AMENDMENT RECORD		
Nr		ENTERED BY

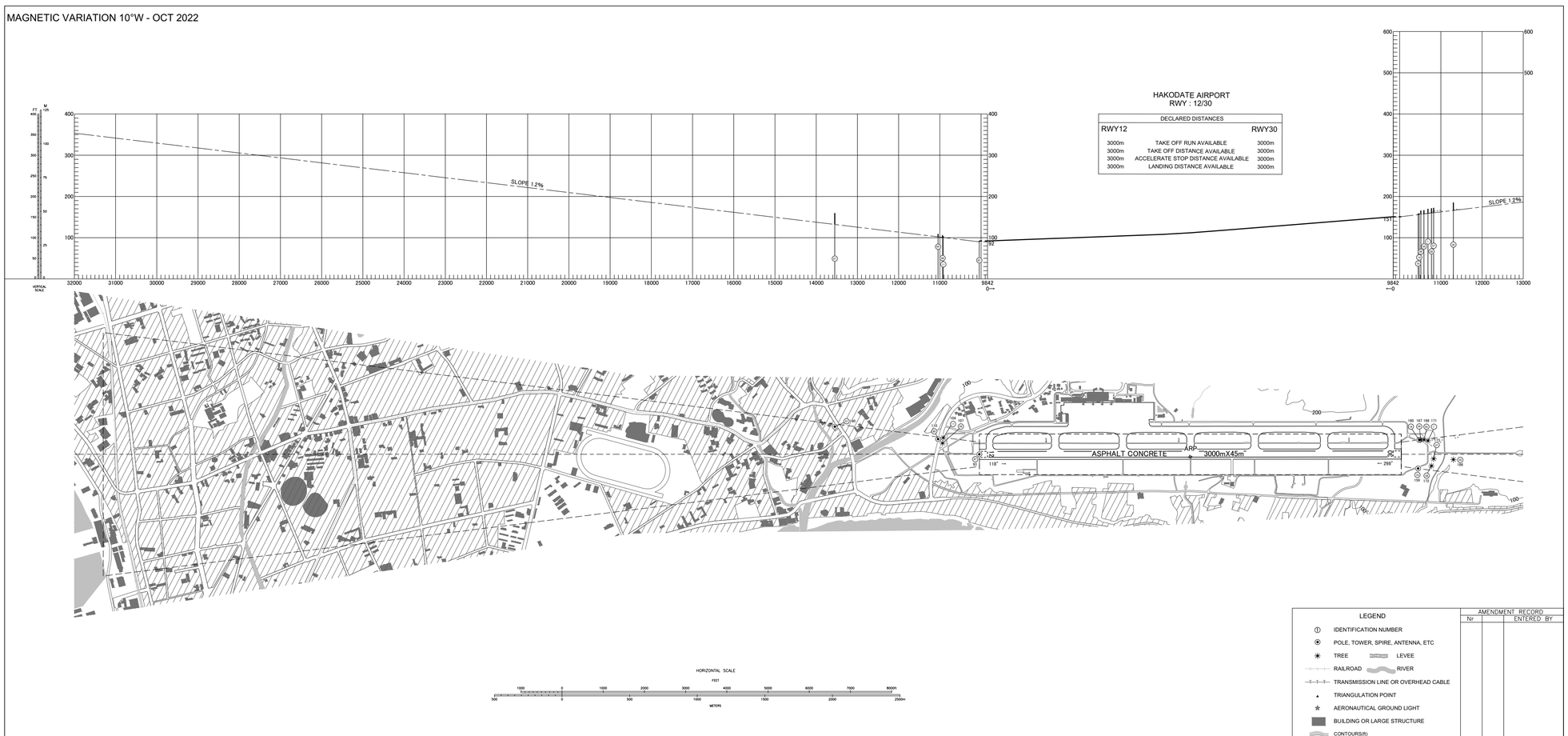
CHANGE:Update

HORIZONTAL SCALE
FEET
METERS

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC
Transverse Mercator Projection

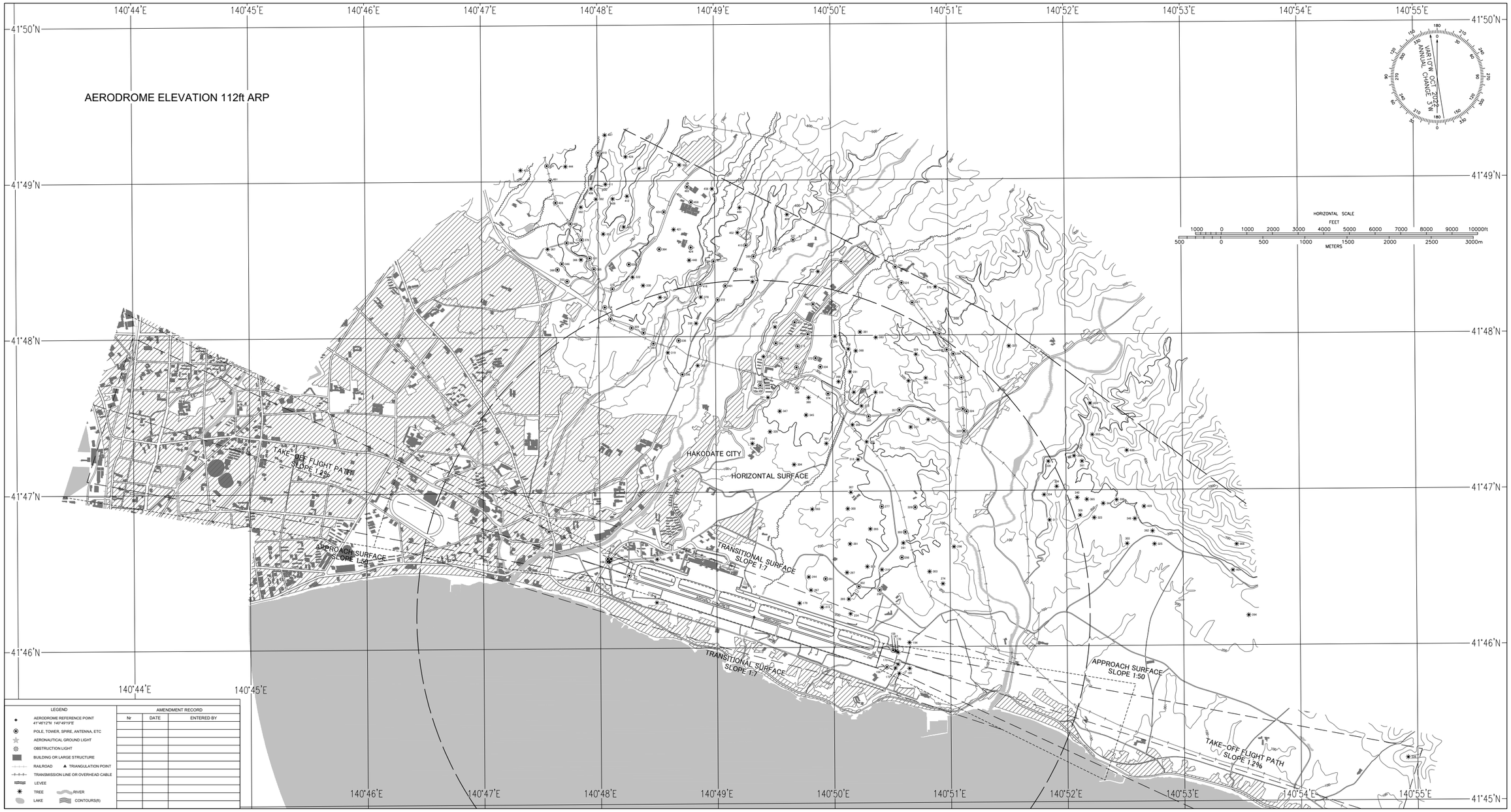
MAGNETIC VARIATION 10°W - OCT 2022



CHANGE:Update

AERODROME OBSTACLE CHART - ICAO
TYPE B

DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC
Transverse Mercator Projection



LEGEND

- AERODROME REFERENCE POINT 41°46'12"N 140°49'19"E
- POLE, TOWER, SPIRE, ANTENNA, ETC
- AERONAUTICAL GROUND LIGHT
- OBSTRUCTION LIGHT
- BUILDING OR LARGE STRUCTURE
- RAILROAD
- TRIANGULATION POINT
- TRANSMISSION LINE OR OVERHEAD CABLE
- LEVEE
- TREE
- RIVER
- LAKE
- CONTOURS(ft)

AMENDMENT RECORD		
Nr	DATE	ENTERED BY

CHANGE:Update

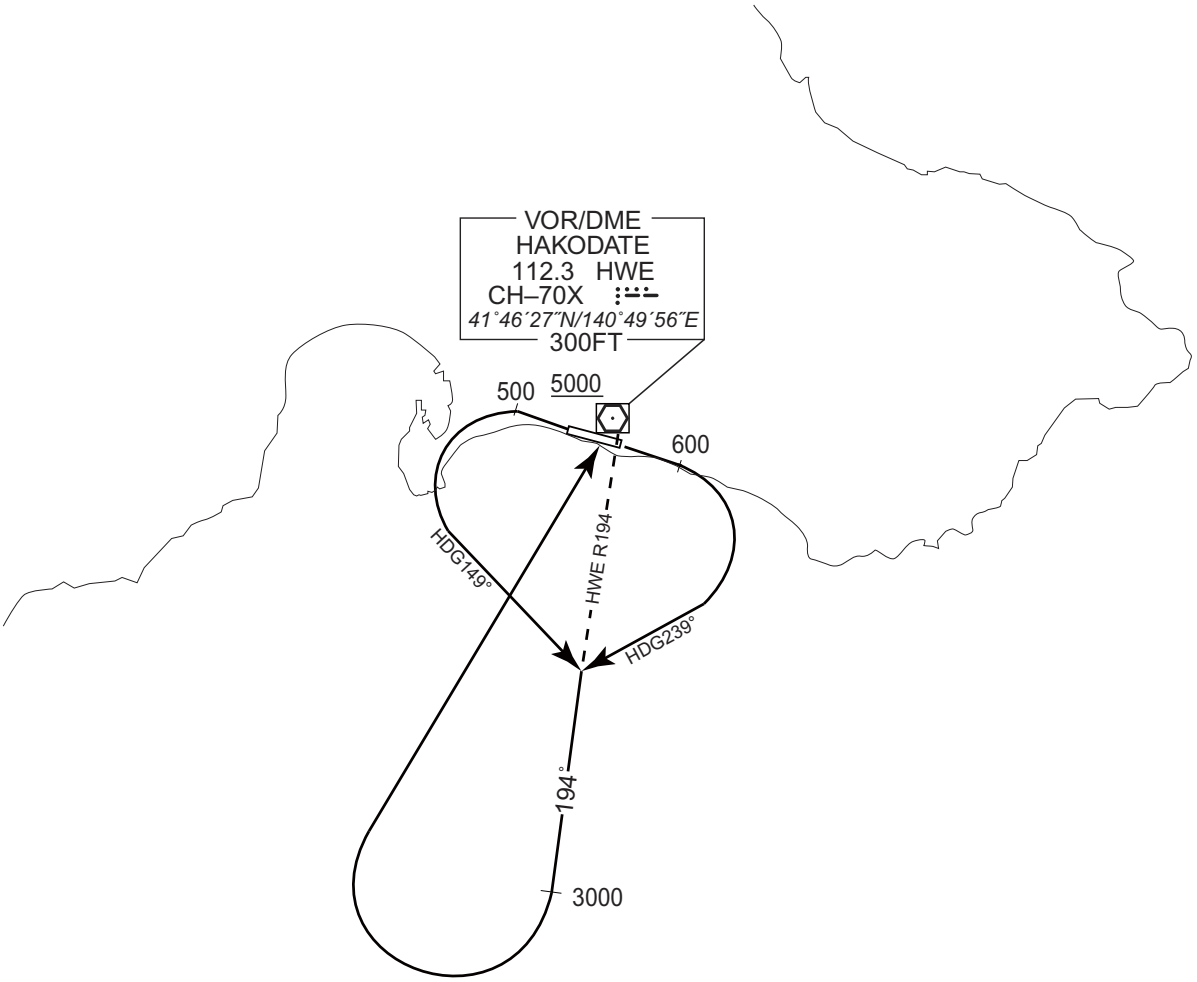
STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE SID

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).

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.

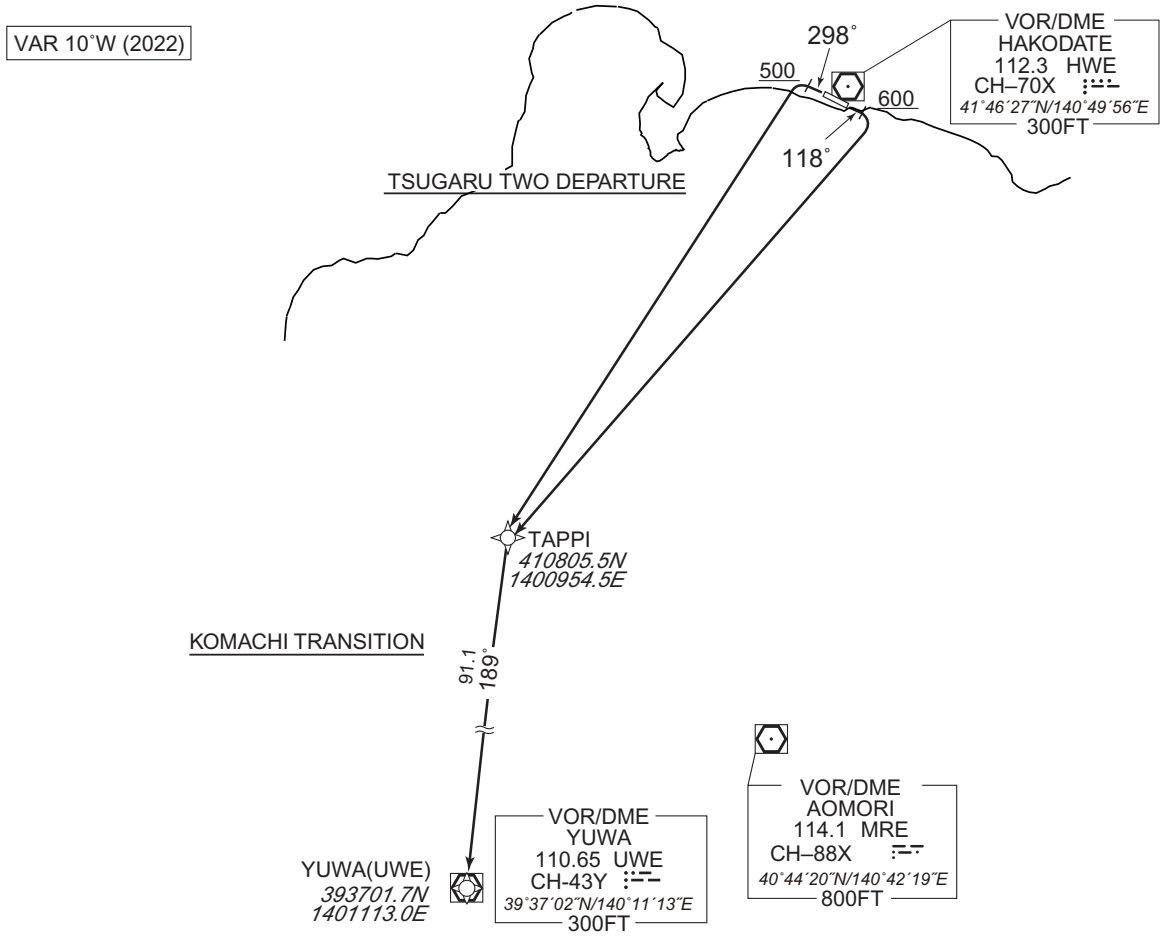


STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE — RNAV SID and TRANSITION

TSUGARU TWO DEPARTURE KOMACHI TRANSITION	RNP1

Note GNSS required.



TSUGARU TWO DEPARTURE

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.

KOMACHI TRANSITION

From TAPPI, to UWE.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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	-	-	RNP1
002	DF	TAPPI	-	-	-9.6	-	R	-	-	-	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	-	-	RNP1
002	DF	TAPPI	-	-	-9.6	-	L	-	-	-	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	-	-	-	-	-	RNP1
002	TF	UWE	-	189 (179.4)	-9.6	91.1	-	-	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

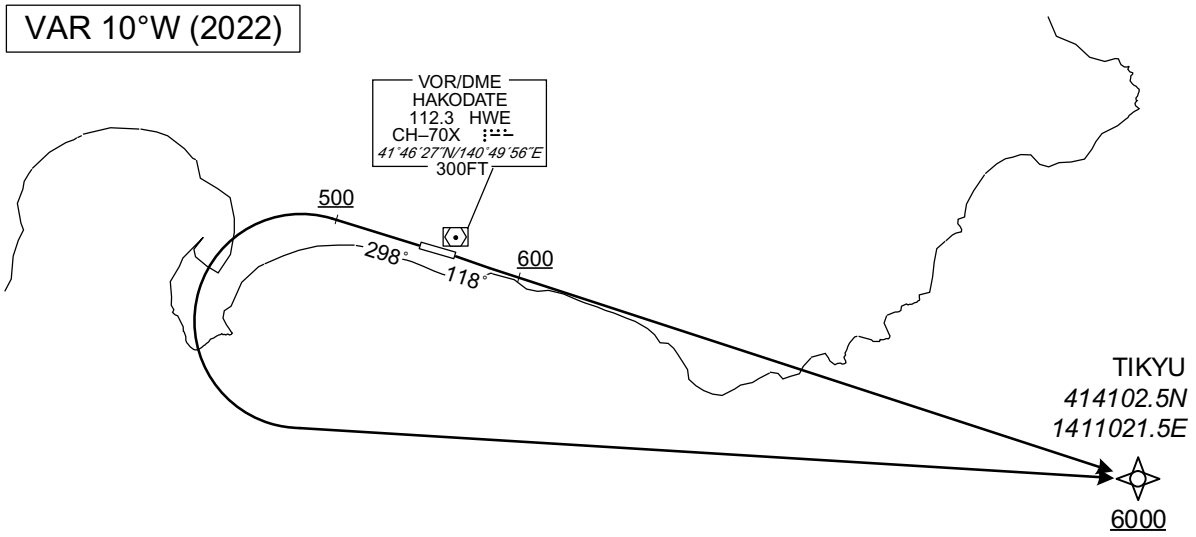
STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE RNAV SID

TOI ONE DEPARTURE	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.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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	—	—	RNP1
002	DF	TIKYU	—	—	-9.6	—	—	+6000	—	—	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	—	—	RNP1
002	DF	TIKYU	—	—	-9.6	—	L	+6000	—	—	RNP1

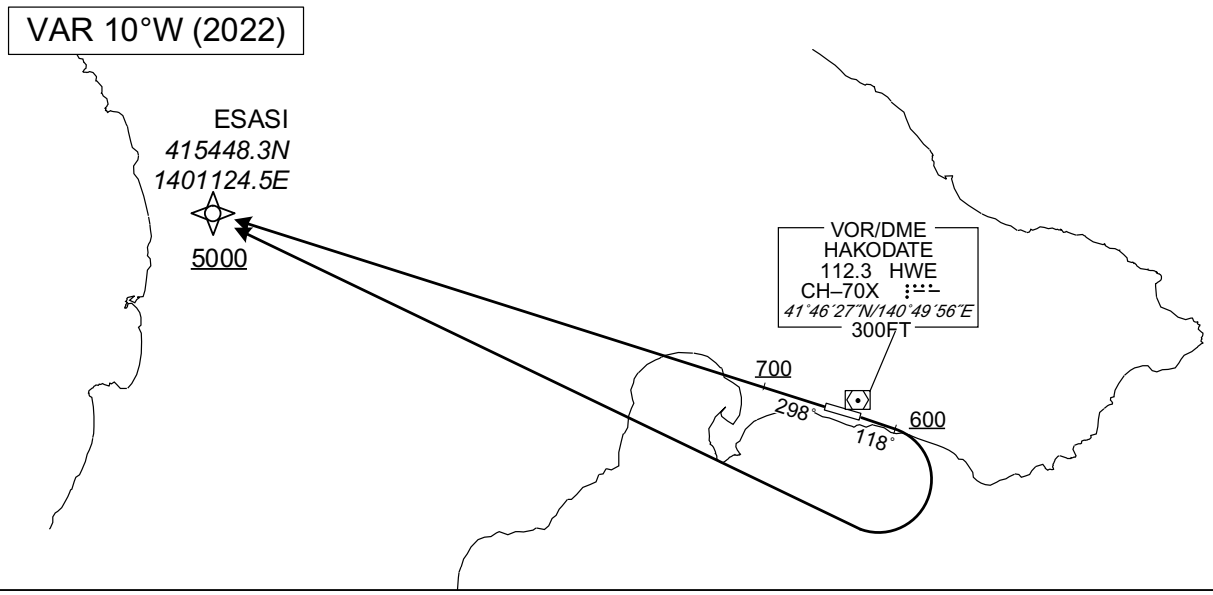
STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID

OKUSHIRI ONE DEPARTURE	RNP1

Note GNSS required.



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.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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	—	—	RNP1
002	DF	ESASI	—	—	-9.6	—	R	+5000	—	—	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	—	—	RNP1
002	DF	ESASI	—	—	-9.6	—	—	+5000	—	—	RNP1

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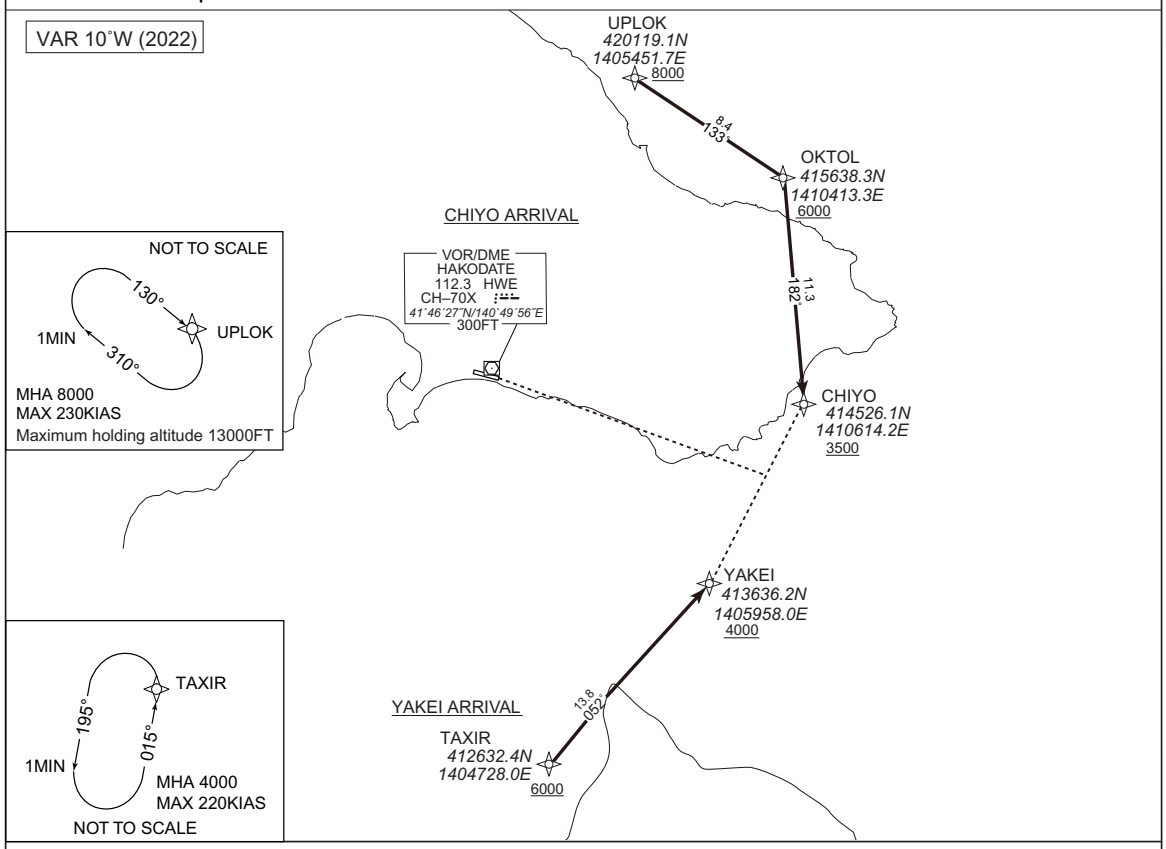
STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATE — RNAV STAR RWY30

CHIYO ARRIVAL
YAKEI ARRIVAL

RNP1

Note GNSS required.



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	—	—	RNP1
002	TF	OKTOL	—	133 (123.9)	-9.6	8.4	—	+6000	—	—	RNP1
003	TF	CHIYO	—	182 (172.4)	-9.6	11.3	—	+3500	—	—	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)	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	—	—	RNP1
002	TF	YAKEI	—	052 (042.9)	-9.6	13.8	—	+4000	—	—	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)	RNP1

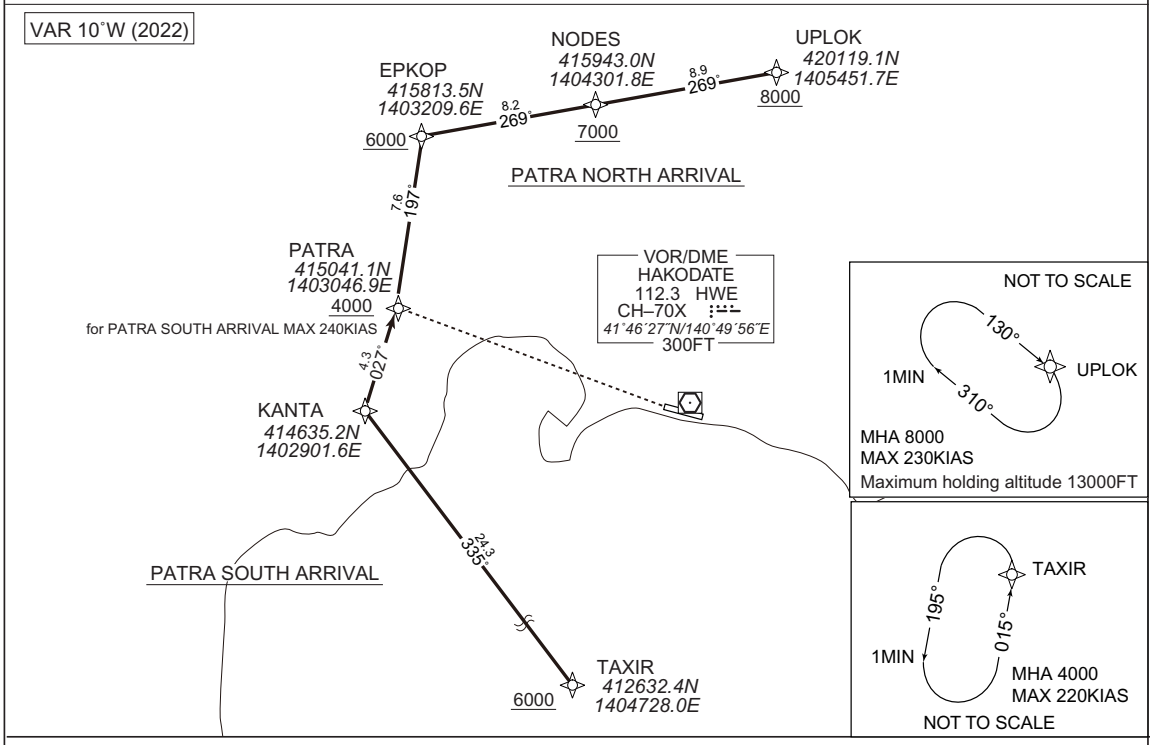
CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATE — RNAV STAR RWY12

PATRA NORTH ARRIVAL PATRA SOUTH ARRIVAL	RNP1

Note GNSS required



PATRA NORTH ARRIVAL

From UPLOK at or above 8000FT, to NODES at or above 7000FT, to EPKOP at or above 6000FT, to PATRA 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	UPLOK	—	—	-9.6	—	—	+8000	—	—	RNP1
002	TF	NODES	—	269 (259.7)	-9.6	8.9	—	+7000	—	—	RNP1
003	TF	EPKOP	—	269 (259.6)	-9.6	8.2	—	+6000	—	—	RNP1
004	TF	PATRA	—	197 (187.8)	-9.6	7.6	—	+4000	—	—	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)	RNP1

PATRA SOUTH ARRIVAL

From TAXIR at or above 6000FT, to KANTA, to PATRA 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	—	—	RNP1
002	TF	KANTA	—	335 (325.6)	-9.6	24.3	—	—	—	—	RNP1
003	TF	PATRA	—	027 (017.7)	-9.6	4.3	—	+4000	-240	—	RNP1

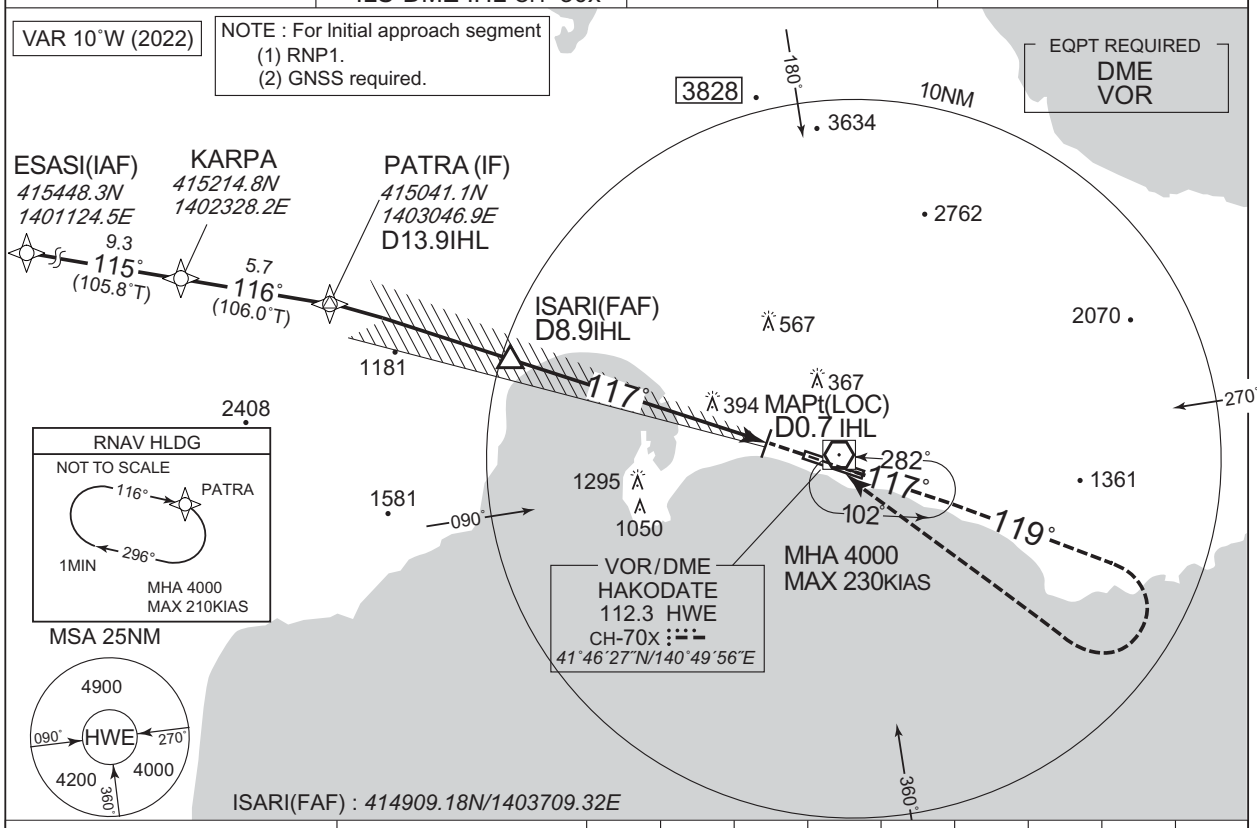
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	TAXIR	015 (005.3)	-9.6	1.0(-14000)	L	4000	FL140	-220(-14000)	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

INSTRUMENT APPROACH CHART

RJCH / HAKODATE — ILS Z or LOC Z RWY12

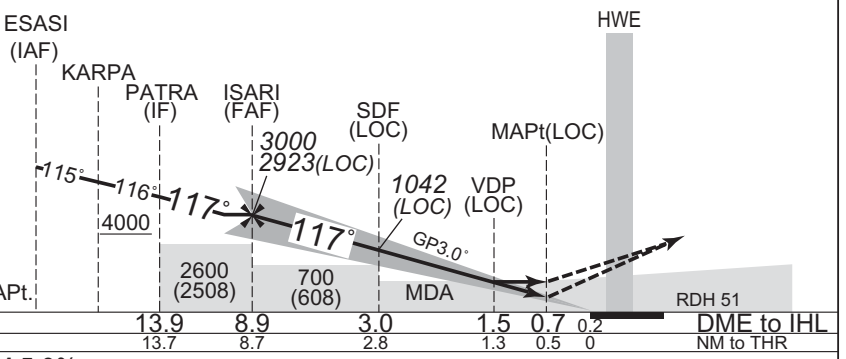
HAKODATE APP	ILS–LOC	HAKODATE TWR	RADAR AVBL
119.0 – 121.0 127.9	109.3 IHL ILS–GP 332.0 ILS-DME IHL CH–30x	118.35 – 126.2	ATIS 126.6



	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 APPROACH
Climb on HDG117° to 600FT,
via HWE R119 to 4000FT,
turn right, direct to HWE
VOR/DME and hold.
Contact HAKODATE APP.

Timing not authorized for defining the MAPt.



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

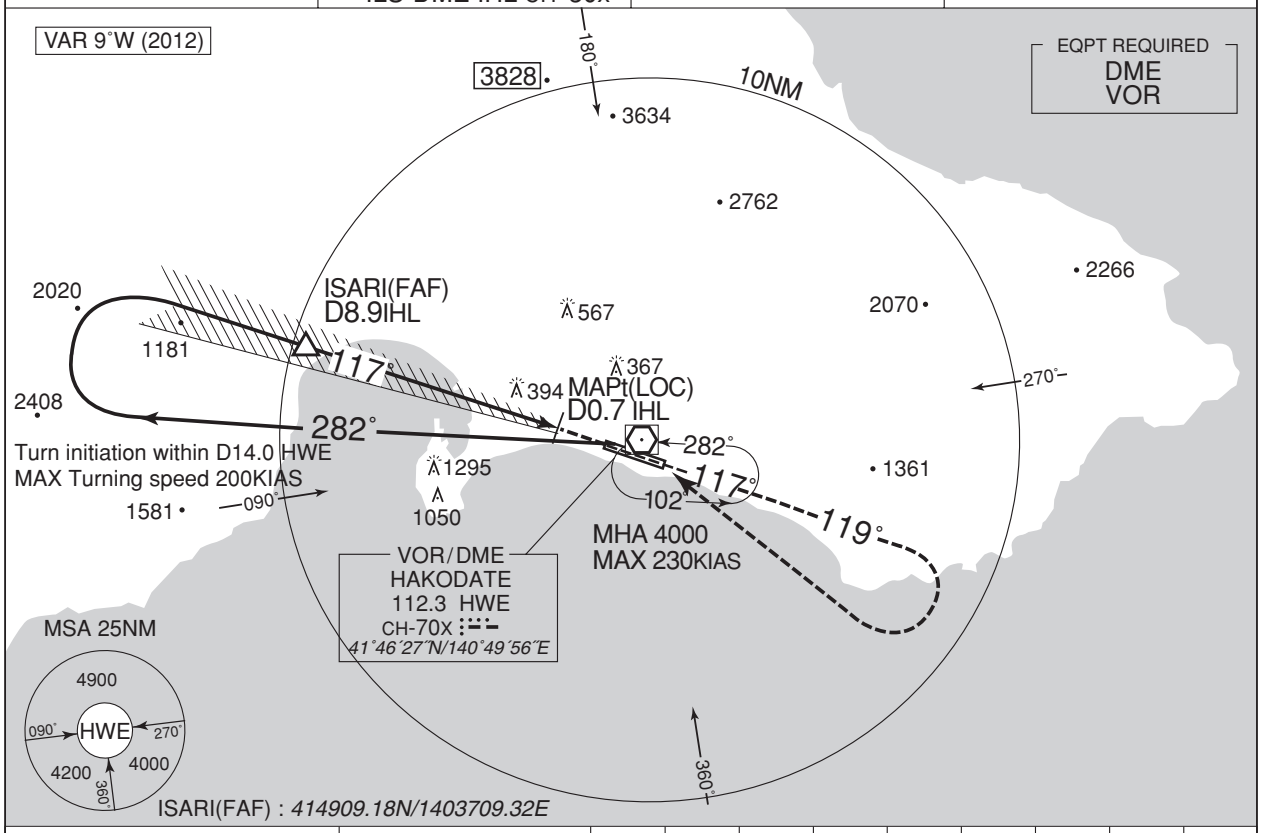
Circling to SOUTH side of RWY only.
MINIMA with Missed APCH climb gradient of 2.5% are not established.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

INSTRUMENT APPROACH CHART

RJCH / HAKODATE — ILS Y or LOC Y RWY12

HAKODATE APP	ILS-LOC	HAKODATE TWR	RADAR AVBL
119.0 – 121.0 127.9	109.3 IHL ILS–GP 332.0 ILS-DME IHL CH–30x	118.35 – 126.2	ATIS 126.6

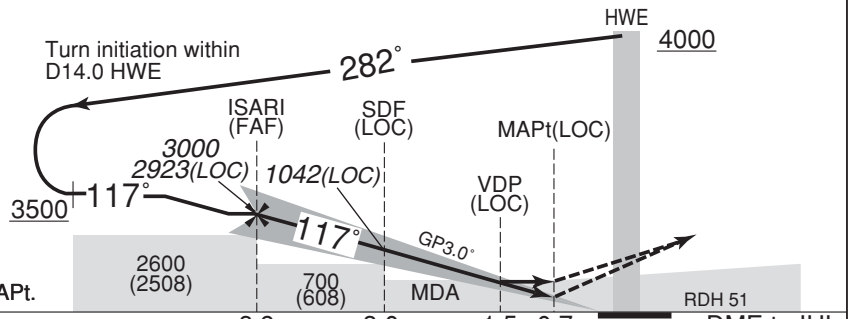


	NM to IHL	FAF	8	7	6	5	4	3	2	MAPt
	ALT (3.0° APCH Path)	2923	2634	2316	1997	1679	1361	1042	724	–

MISSED APPROACH

Climb on HDG117° to 600FT,
via HWE R119 to 4000FT,
turn right, direct to HWE
VOR/DME and hold.
Contact HAKODATE APP.

Timing not authorized for defining the MAPt.



Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 92 AD elev. 112

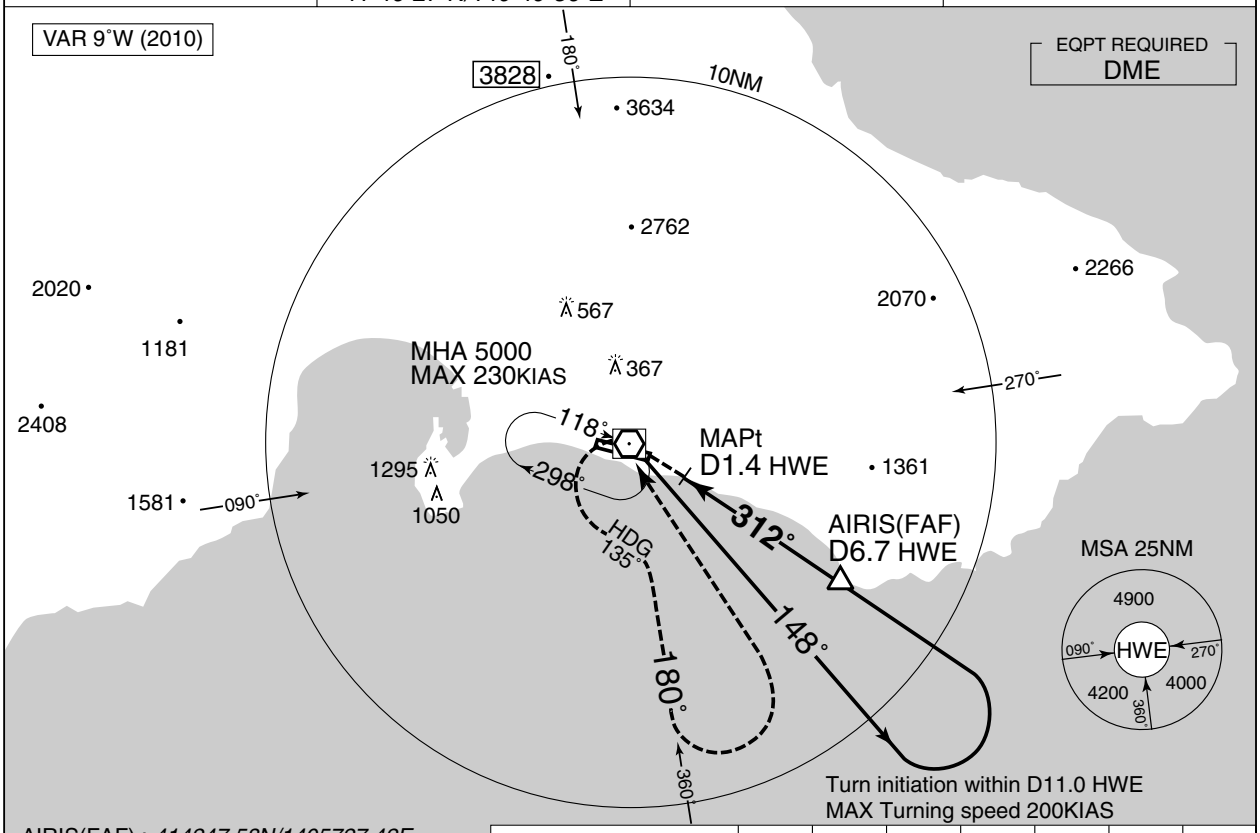
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	292 (200)	700	540 (448)	1200	550 (438)	1600
B				1300	570 (458)	
C	299 (207)			1400	600 (488)	2400
D	309 (217)			1600	690 (578)	3200

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

INSTRUMENT APPROACH CHART

RJCH / HAKODATE VOR RWY30

HAKODATE APP	HAKODATE VOR/DME	HAKODATE TOWER	RADAR AVBL
119.0 – 121.0 127.9	112.3 HWE CH–70X *41˚46´27˝N/140˚49´56˝E*	118.35 – 126.2	ATIS 126.6

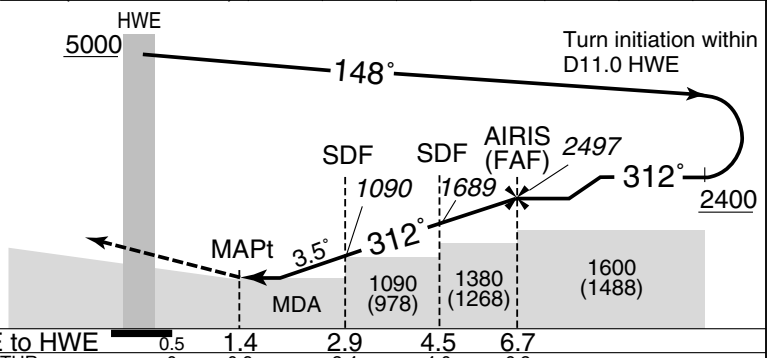


AIRIS(FAF) : *414247.58N/1405727.42E*

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

MISSED APPROACH
Turn left HDG135˚ to intercept HWE R180 to 3000FT, turn left direct to HWE VOR/DME and hold at 5000FT.
Contact HAKODATE APP.

No Turn before MAPt.
PAPI and descent angles not coincident.
Timing not authorized for definding the MAPt.



DME to HWE	0.5	1.4	2.9	4.5	6.7
NM to THR	0	0.9	2.4	4.0	6.2

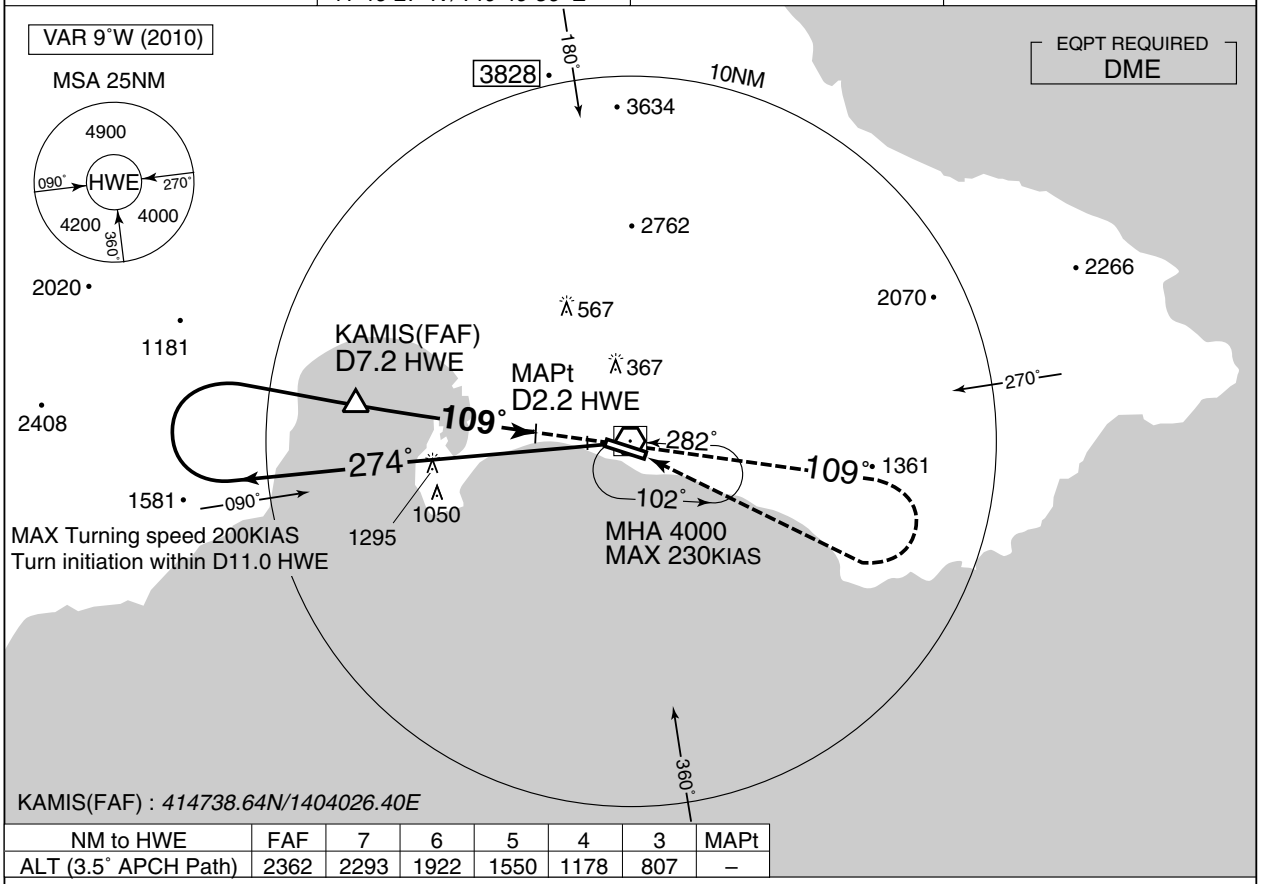
MINIMA	THR elev. 151		AD elev. 112	
CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	730 (618)	1000	730 (618)	1600
B		1200		
C				2400
D		1600		3200

Circling to SOUTH side of RWY only.

INSTRUMENT APPROACH CHART

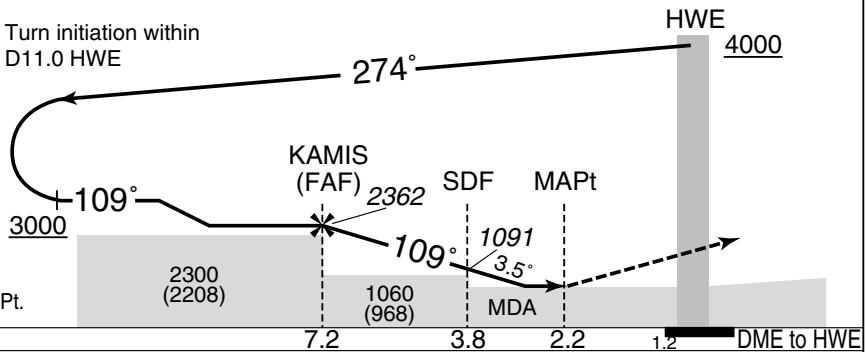
RJCH / HAKODATE VOR RWY12

HAKODATE APP	HAKODATE VOR/DME	HAKODATE TOWER	RADAR AVBL
119.0 – 121.0 127.9	112.3 HWE CH–70X *41˚46´27˝N/140˚49´56˝E*	118.35 – 126.2	ATIS 126.6



NM to HWE	FAF	7	6	5	4	3	MAPt
ALT (3.5˚ APCH Path)	2362	2293	1922	1550	1178	807	–

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 definding 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

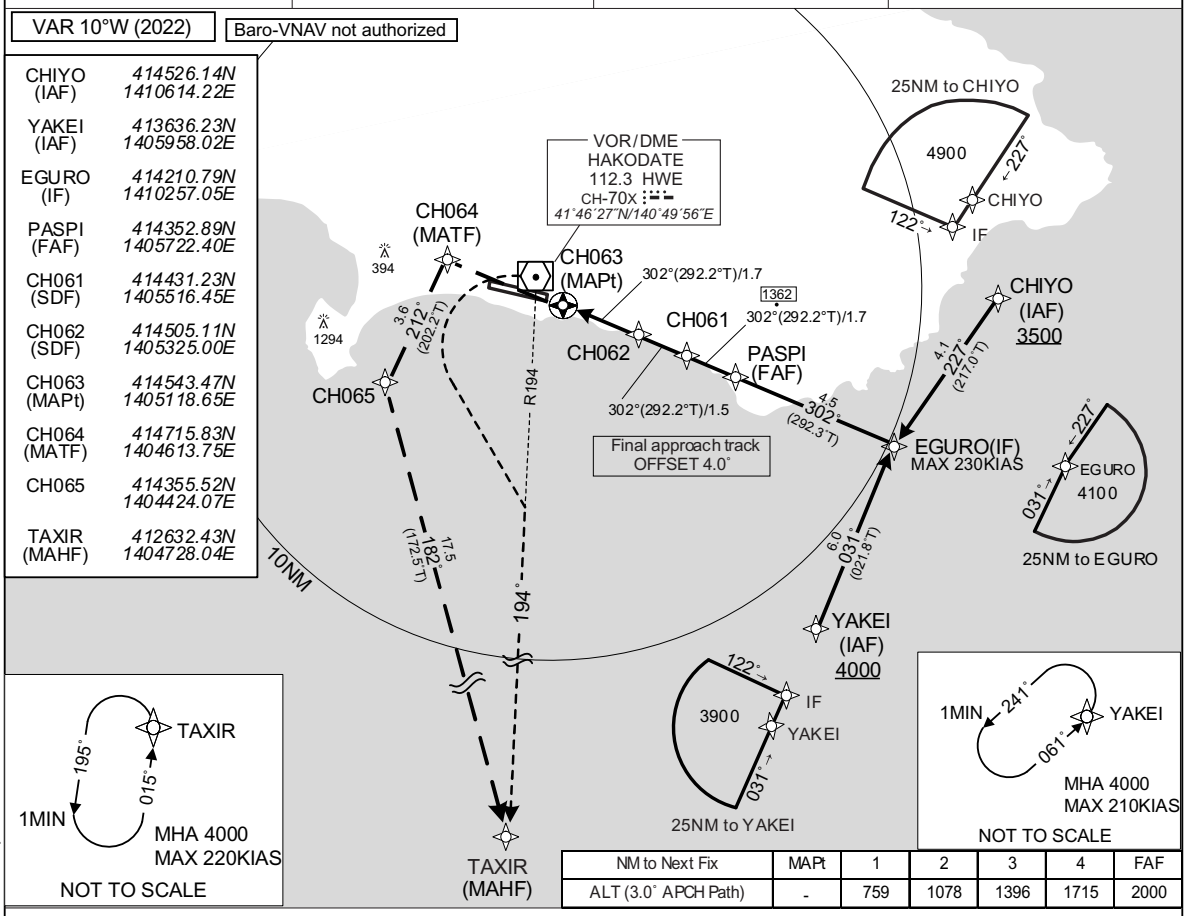
CHANGE : VAR. MSAS CH added. PROC course. FIX established(EGURO,PASPI,CH061,CH062,CH063,CH064,CH065).
FIX abolished(ROCCA,IKARU,CH058,CH059,CH060). PROC ALT. MINIMA for LPV established. MINIMA for LNAV.

HAKODATE APP	RNP APCH	HAKODATE TOWER	RADAR AVBL
119.0 – 121.0 127.9	MSAS CH53127 M30A	118.35 – 126.2	ATIS 126.6

VAR 10°W (2022)

Baro-VNAV not authorized

CHIYO (IAF)	414526.14N 1410614.22E
YAKEI (IAF)	413636.23N 1405958.02E
EGURO (IF)	414210.79N 1410257.05E
PASPI (FAF)	414352.89N 1405722.40E
CH061 (SDF)	414431.23N 1405516.45E
CH062 (SDF)	414505.11N 1405325.00E
CH063 (MAPt)	414543.47N 1405118.65E
CH064 (MATF)	414715.83N 1404613.75E
CH065	414355.52N 1404424.07E
TAXIR (MAHF)	412632.43N 1404728.04E

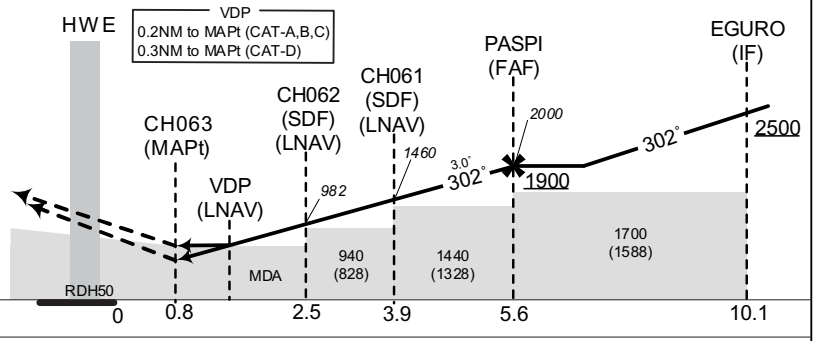


NM to Next Fix	MAPt	1	2	3	4	FAF
ALT (3.0° APCH Path)	-	759	1078	1396	1715	2000

MISSED APPROACH

Direct to CH064, to CH065,
to TAXIR and hold at 4000FT.
Contact HAKODATE APP.

(for using VOR/DME)
Turn left climb to 4000FT
via HWE R194 to TAXIR
and hold.
Contact HAKODATE APP.



Missed APCH climb gradient MNM 3.0%

MINIMA		THR elev. 151			AD elev. 112		
CAT	LPV		LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	CMV	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS
A	507(356)	900	Not applicable		510(398)	900	550(438)	1600
B		1000				1000	570(458)	
C					520(408)		600(488)	2400
D		1400			540(428)	1400	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

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

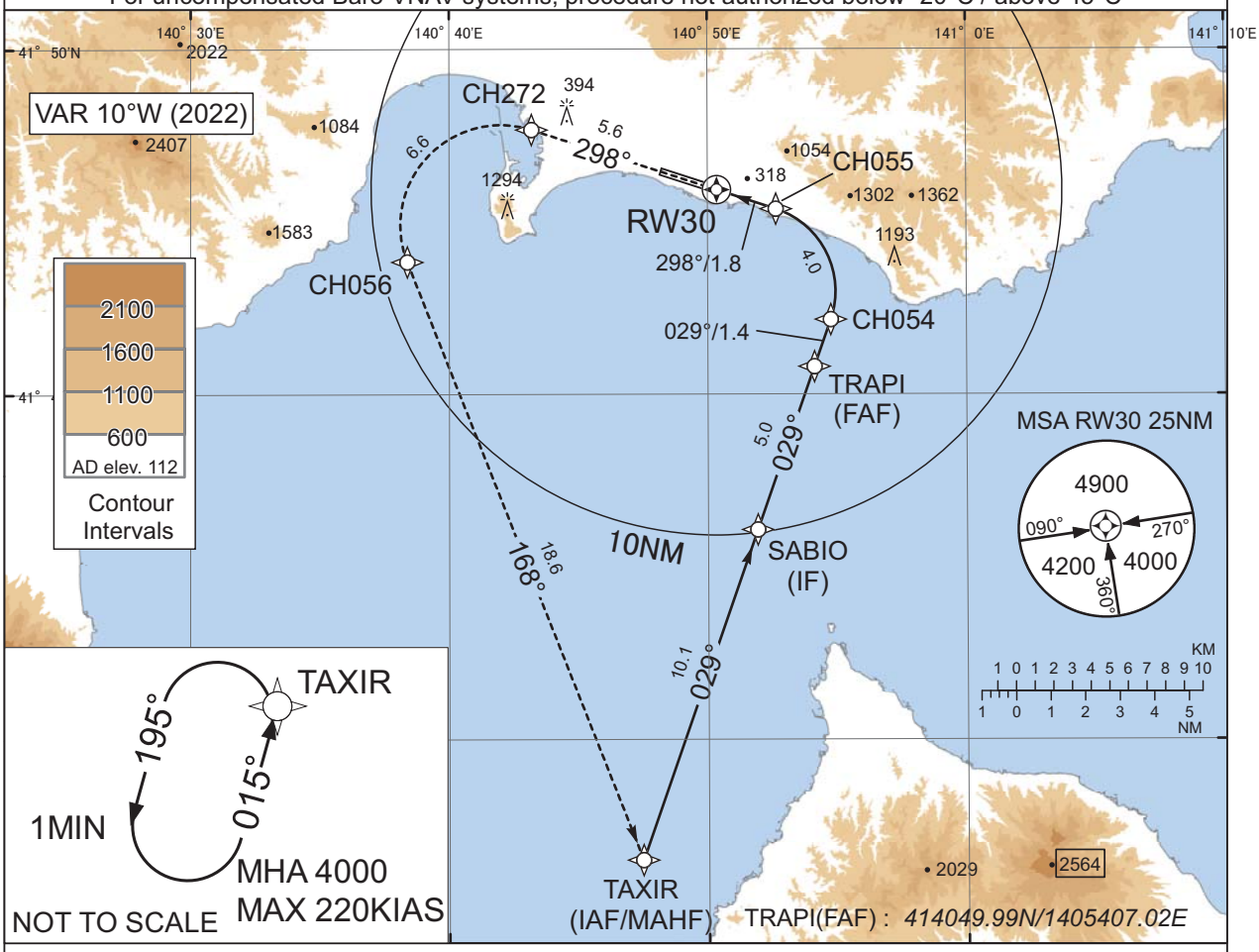
CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).

INSTRUMENT APPROACH CHART

RJCH / HAKODATE RNP Y RWY30(AR)

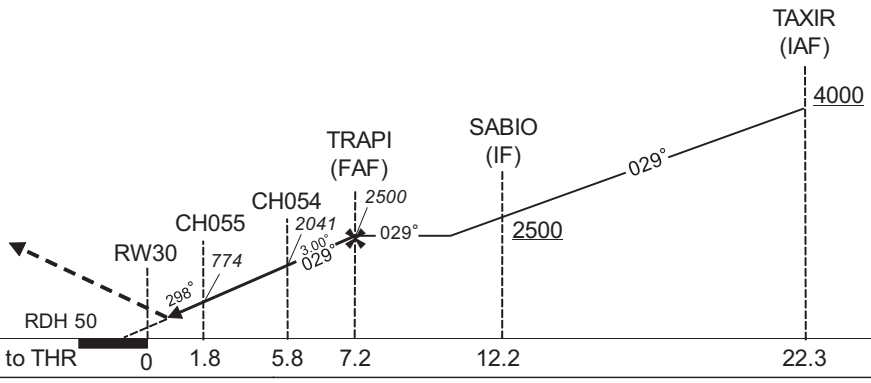
HAKODATE APP 119.0 - 121.0 127.9	RNP AR RF required.	HAKODATE TWR 118.35 - 126.2	RADAR AVBL ATIS 126.6

For uncompensated Baro-VNAV systems, procedure not authorized below -20°C / above 45°C



MISSED APPROACH

Climb to 4000FT, to CH272,
to CH056 via fixed radius turn,
to TAXIR and hold.
Contact HAKODATE APP.



MINIMA	THR elev. 151	AD elev. 112
CAT	RNP 0.30	
	DA(H)	CMV
A	-	-
B		
C	486(335)	1000
D	496(345)	1400

Authorization Required

CHANGE : VAR. Course FM RW30 to CH272. RNAV HLDG established (TAXIR). HLDG for using NAVAID abolished (TAXIR).

INSTRUMENT APPROACH CHART

RJCH / HAKODATE RNP Y RWY30(AR)

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

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

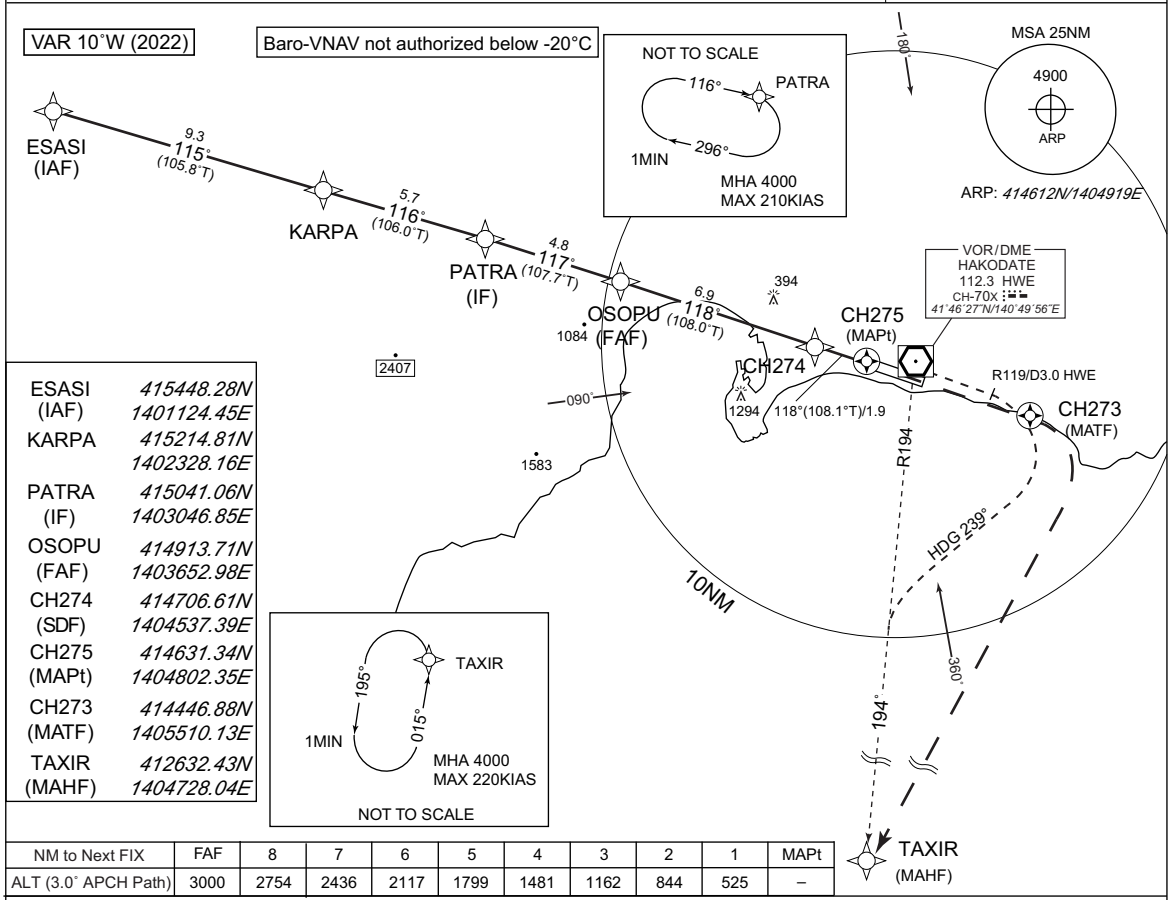
Waypoint Coordinates

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*		

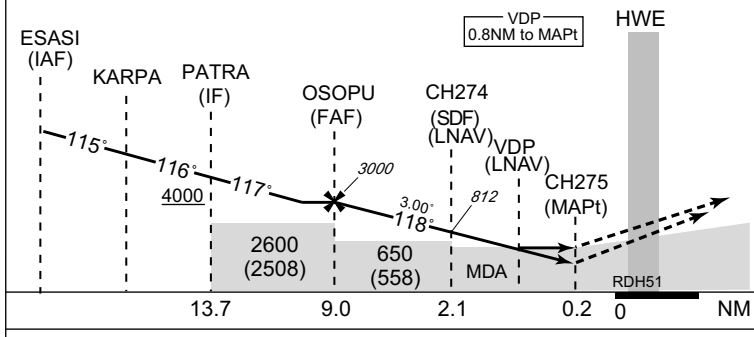
INSTRUMENT APPROACH CHART

RJCH / HAKODATE — RNP Z RWY12

HAKODATE APP	RNP APCH	HAKODATE TOWER	RADAR AVBL
119.0 – 121.0 127.9	MSAS CH 83680 M12A	118.35 – 126.2	ATIS 126.6



NM to Next FIX	FAF	8	7	6	5	4	3	2	1	MAPt
ALT (3.0˚ APCH Path)	3000	2754	2436	2117	1799	1481	1162	844	525	–



MISSED APPROACH

Direct to CH273, turn right, direct to TAXIR and hold at 4000FT.
Contact HAKODATE APP.

(for using VOR/DME)
Climb to 4000FT via HWE R119 to HWE 3.0DME, turn right HDG239° to intercept HWE R194 to TAXIR and hold.
Contact HAKODATE APP.

Missed APCH climb gradient MNM 5.0%

MINIMA — THR elev.92 — AD elev.112

CAT	LPV		LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	RVR/CMV	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	353(261)	1000	460(368)	1200	460(368)	1200	550(438)	1600
B	363(271)	1100		1300		1300	570(458)	
C	373(281)	1200		1400		1400	600(488)	2400
D	382(290)	1400		1600		1600	690(578)	3200

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

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

CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).

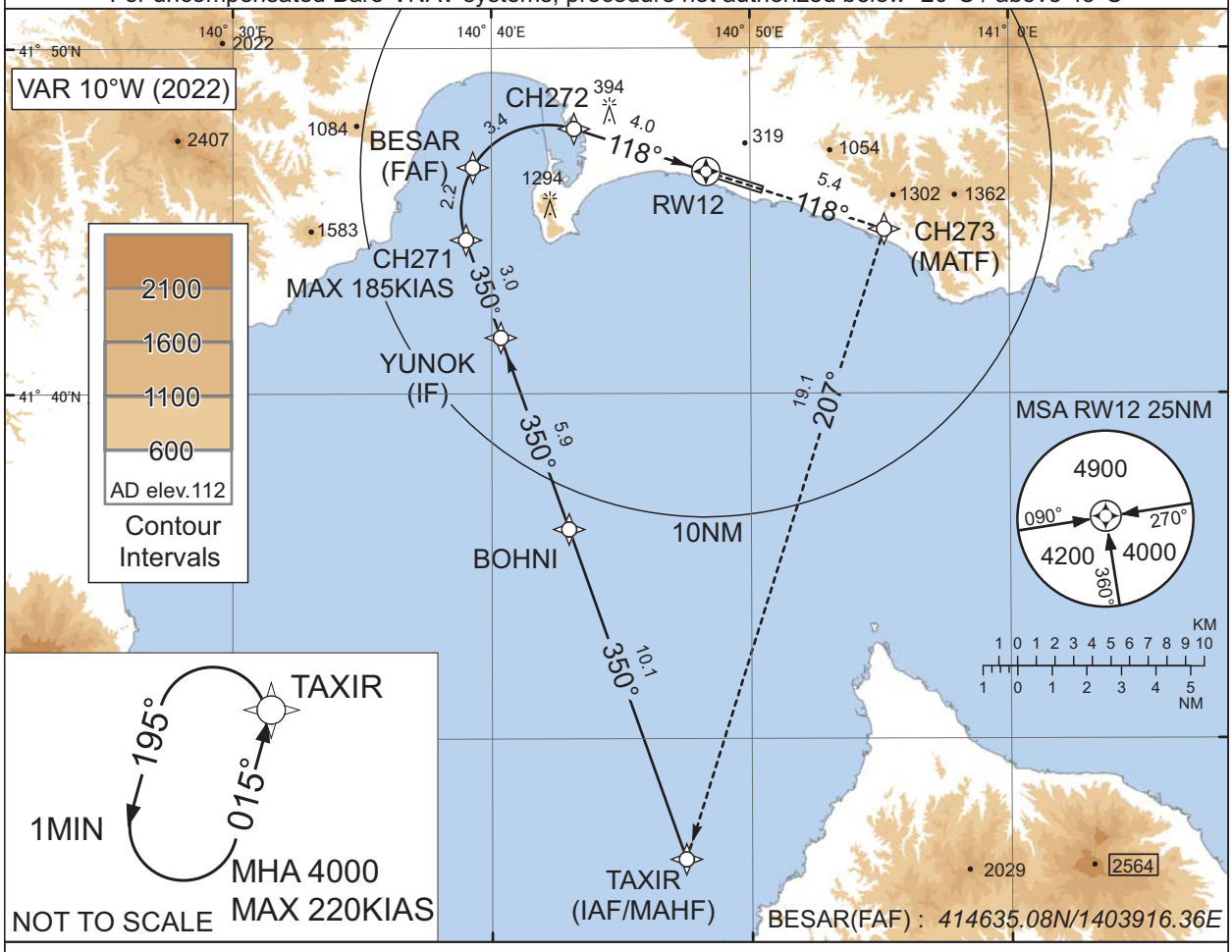
INSTRUMENT APPROACH CHART

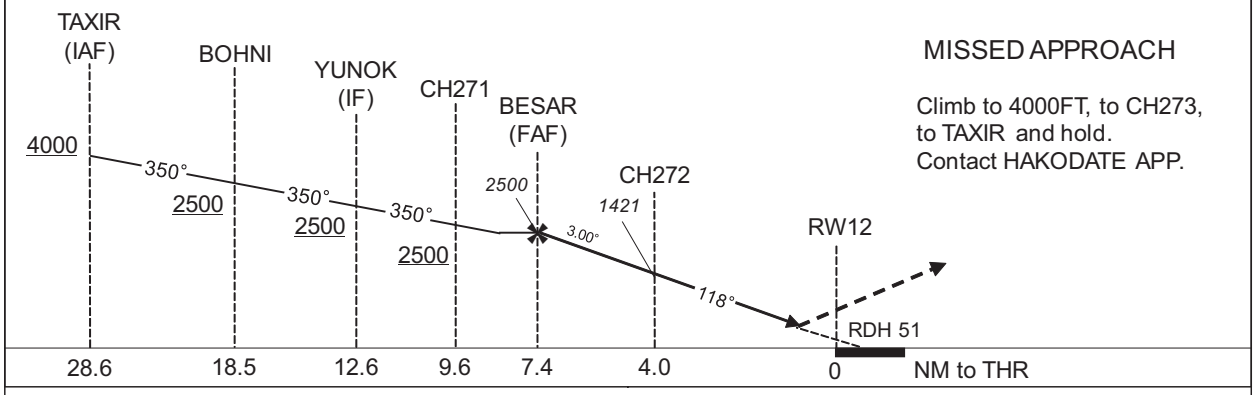
RJCH / HAKODATE

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

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

CHANGE : VAR. PROC renamed. RNAV HLDG established (TAXIR). HLDG for using NAVAID abolished (TAXIR).

INSTRUMENT APPROACH CHART

RJCH / HAKODATE RNP Y RWY12(AR)

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

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

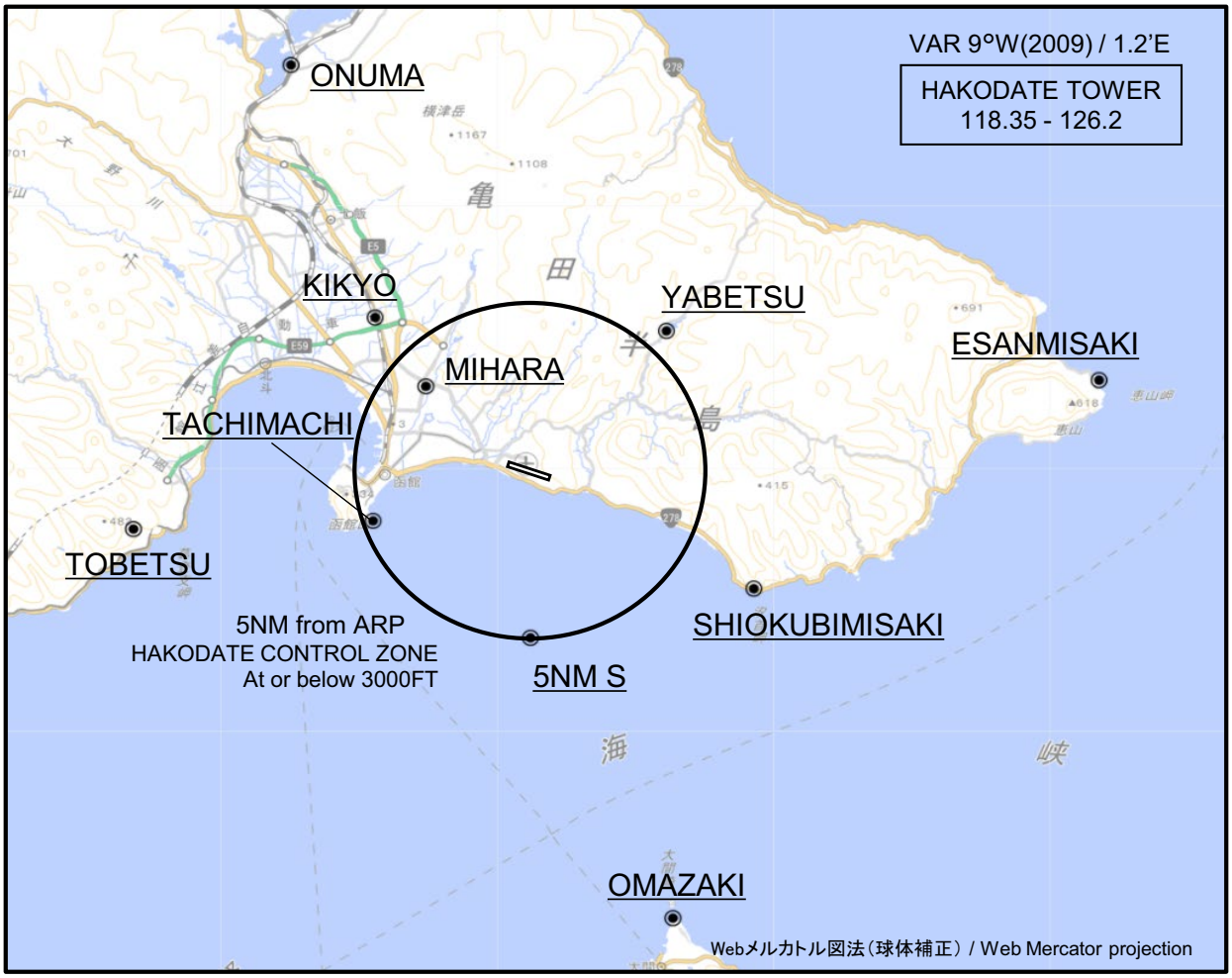
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	TAXIR	015 (005.3)	-9.6	1.0 (-14000)	L	4000	FL140	-220 (-14000)	1.0

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*		

RJCH / HAKODATE

Visual REP

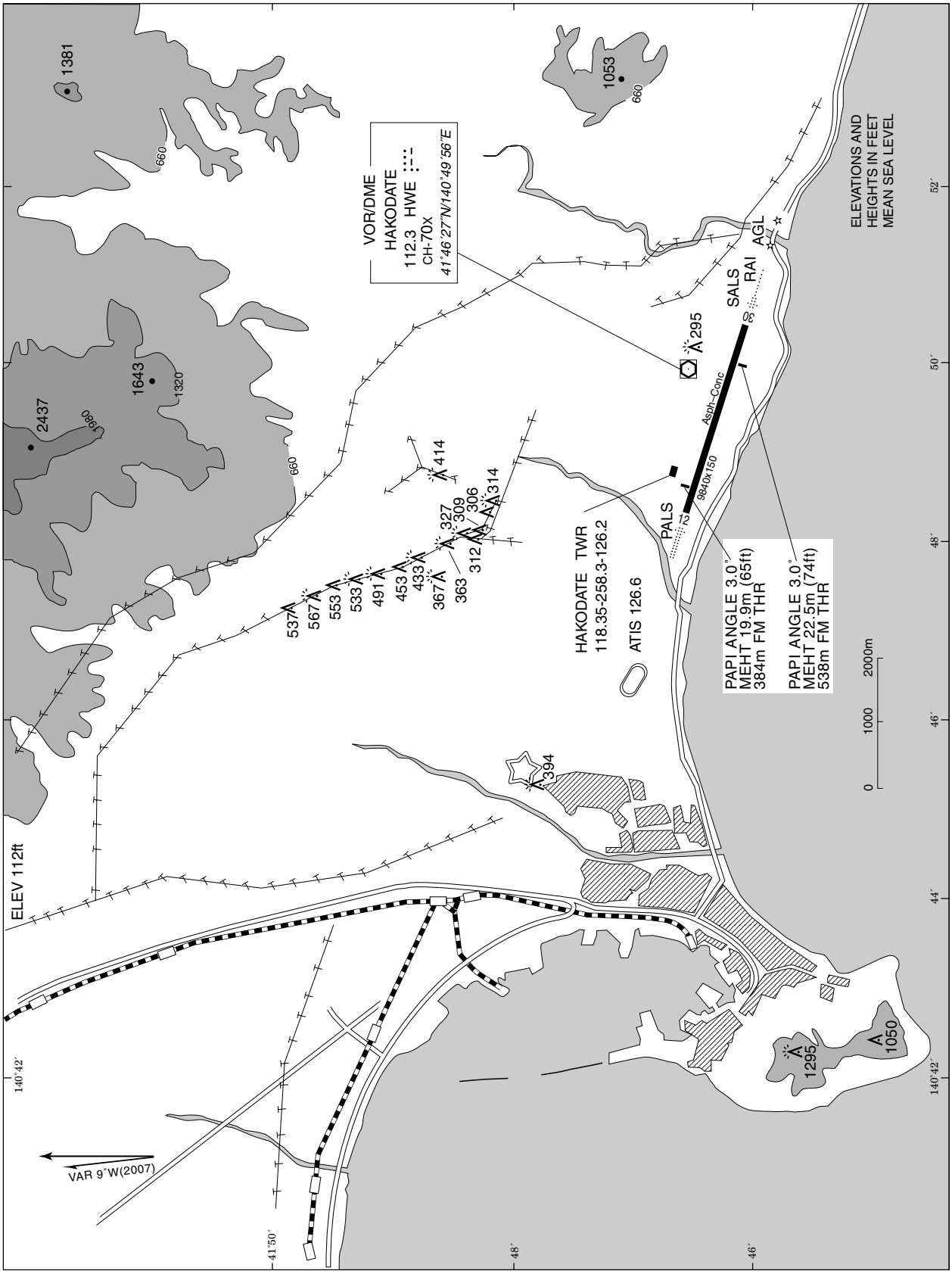


※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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

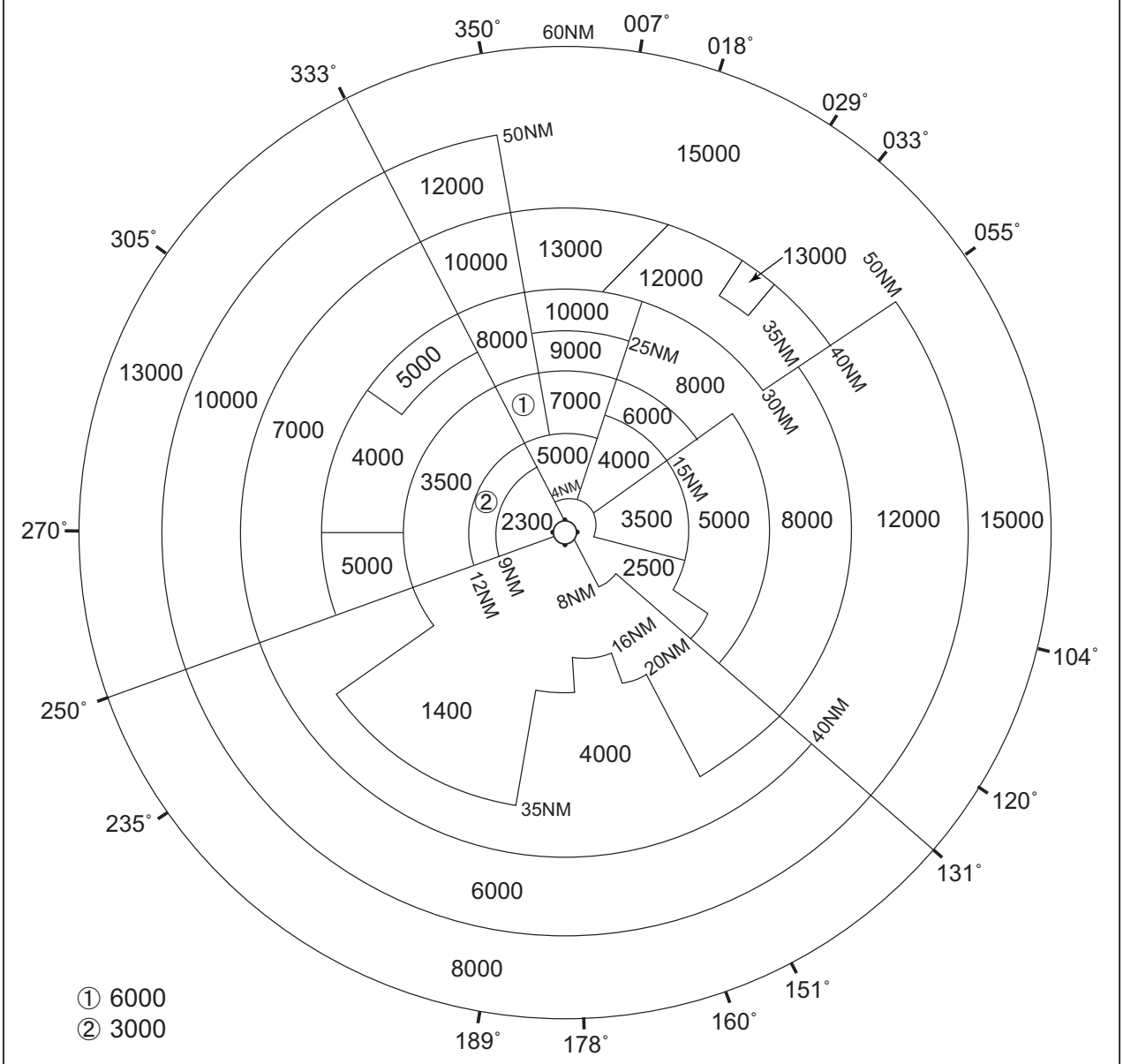
LDG CHART


ELEV 112ft
VOR/DME
HAKODATE
112.3 HWE
CH-70X
41°46'27"N/140°49'56"E
HAKODATE TWR
118.35-258.3-126.2
ATIS 126.6
PALS
SALS
RAI
AGL
Asph-Conc
9840x150
PAPI ANGLE 3.0°
MEHT 19.9m (65ft)
384m FM THR
PAPI ANGLE 3.0°
MEHT 22.5m (74ft)
538m FM THR
ELEVATIONS AND
HEIGHTS IN FEET
MEAN SEA LEVEL
VAR 9°W(2007)
0 1000 2000m
1381
1053
1643
2437
660
1320
1980
295
414
327
309
306
314
312
367
363
433
453
491
533
553
567
537
394
1295
1050
140°42'
41°50'
48'
46'
52'
50'
48'
46'
44'

RJCH / HAKODATE

Minimum Vectoring Altitude CHART

VAR 9˚W (2009)



CENTER : *414632N/1404907E* (RADAR SITE)

CHANGE : Update(BTN 007° and 033°).

INTENTIONALLY LEFT BLANK