AD 2 AERODROMES

RJCH AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RJCH - HAKODATE

RJCH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	*414612N/1404919E*
2	Direction and distance from (city)	7.6KM (4.1NM), BRG 095° from Hakodate JR Station
3	Elevation/ Reference temperature	111.9ft / 25°C (2004-2008)
4	Geoid undulation at AD ELEV PSN	112.5FT
5	MAG VAR/ Annual change	9°W (2009) / 1.2'E
6	AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses	Hokkaido Airports Co.,Ltd. Hakodate Airport Office 511, Takamatsu-cho, Hakodate, Hokkaido TEL: 0138-57-1620 FAX:0138-57-1621
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Hakodate Airport Office(Civil Aviation Bureau) 511, Takamatsu-cho, Hakodate, Hokkaido TEL:0138-57-1737, FAX:0138-59-4745 e-mail and web-site:Nil

RJCH AD 2.3 OPERATIONAL HOURS

1	AD Administration	2230 - 1130
2	Customs and immigration	INTL SKED FLT hours only
3	Health and sanitation	Quarantine(human): 2330-0815 Quarantine(animal): 2330-0800 Quarantine(plant): INTL SKED FLT hours only
4	AIS Briefing Office	Nil
5	ATS Reporting Office(ARO)	Nil
6	MET Briefing Office	H24 (NEW CHITOSE)
7	ATS	2230 - 1130
8	Fuelling	2230 - 1130
9	Handling	2230 - 1130
10	Security	2230 - 1130
11	De-icing	Nil
12	Remarks	Nil

RJCH AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	All the modern institutions that deal with the weight thing to a Boeing747 type freighter
2	Fuel/ oil types	Fuel grades: JET A-1 Oil grades: W80, MJO-2
3	Fuelling facilities/ capacity	Fuel Truck Refuelling
4	De-icing facilities	Nil
5	Hangar space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

RJCH AD 2.5 PASSENGER FACILITIES

1	Hotels	Hotels in Hakodate city
2	Restaurants	Available , Not continuous
3	Transportation	Busses and Taxis
4	Medical facilities	Hospitals in Hakodate city
5	Bank and Post Office	Bank in Hakodate city, Post office in Hakodate city
6	Tourist Office	Tourist office in Hakodate city
7	Remarks	Nil

RJCH AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 9
2	Rescue equipment	Fire engines
3	Capability for removal of disabled aircraft	Nil
4	Remarks	Nil

RJCH AD 2.7 SEASONAL AVAILABILITY-CLEARING

1	Types of clearing equipment	Snow removed equipment: a)rotatry x 3 b)snow plows x 4 c)snow sweeper x 4 d)urea sprinkler equipment x 1
2	Clearance priorities	1.RWY, 2.TWY, 3.APRON
3	Remarks	Seasonal availability: All seasons.

RJCH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	Surface: Concrete Strength: PCN 74/F/B/X/T
2	Taxiway width, surface and strength	Width: P1 - P6 : 23m T1, T7 : 28.5m T2 - T6 : 34m Surface: All TWY(except P2 and P3 behind SPOT1-10) : Asphalt Concrete TWY P2 and P3 behind SPOT1-10 : Concrete Strength: All TWY(except P2 and P3 behind SPOT1-10) : PCN 98/F/C/X/T TWY P2 and P3 behind SPOT1-10 : PCN 74/F/B/X/T
3	ACL and elevation	Not available
4	VOR checkpoints	Not available
5	INS checkpoints	Spot NR *1 414631.62N, 1404848.33E* *2W 414631.87N, 1404849.46E* *2 414631.17N, 1404850.18E* *3 414631.21N, 1404852.59E* *4 414630.51N, 1404855.48E* *5 414629.73N, 1404858.32E* *6 414628.84N, 1404900.90E* *7 414628.03N, 1404903.16E* *8 414627.48N, 1404905.43E* *9 414626.98N, 1404907.49E* *10 414626.45N, 1404909.65E*
6	Remarks	Nil

RJCH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and Visual docking/ parking guidance system of aircraft stands	ACFT stand ID signs:NR.3, NR.4 and NR.5 ACFT stand taxi lane:Nil Visual docking guidance system :Nil
2	RWY and TWY markings and LGT	RWY: RWY12/30 (Marking) RWY designation, RWY CL, RWY THR, Aiming point, TDZ, RWY side stripe (LGT): RCLL, REDL, RTHL, RENL, RTZL(RWY12), WBAR(RWY12), RWY DIST marker LGT TWY: P1-P6 (Marking) TWY CL, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT TWY: T1-T7 (Marking) TWY CL, RWY HLDG PSN, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT, RWY guard LGT, Taxiing guidance sign
3	Stop bars	Nil
4	Remarks	(Marking) Overrun area (LGT) Apron flood LGT

RJCH AD 2.10 AERODROME OBSTACLES

SEE ATTACHED CHARTS

In approach/TKOF areas

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
RWY30	Light Facility	*414557.2N/1405024.8E*	152FT		
RWY30	Light Facility	*414556.5N/1405027.3E*	152FT		
RWY30	Antenna	*414556.0N/1405028.2E*	160FT		
RWY30	LOC	*414555.3N/1405032.1E*	165FT		
RWY30	Building	*414556.7N/1405033.0E*	164FT		
RWY30	Fence	*414555.5N/1405033.5E*	161FT		
RWY30	Tree	*414551.5N/1405033.2E*	171FT		
RWY30	Tree	*414550.4N/1405035.0E*	169FT		
RWY30	Light Facility	*414554.0N/1405037.1E*	162FT		
RWY30	Light Facility	*414553.4N/1405039.6E*	165FT		
RWY30	Light Facility	*414552.8N/1405042.1E*	168FT		
RWY30	Light Facility	*414552.1N/1405044.5E*	171FT		
RWY30	Post	*414551.9N/1405045.7E*	176FT		
RWY30	Light Facility	*414551.6N/1405046.9E*	174FT		
RWY30	Light Facility	*414551.0N/1405049.3E*	177FT		
RWY30	Tree	*414549.6N/1405049.2E*	181FT		
RWY30	Light Facility	*414550.4N/1405052.0E*	180FT		
RWY30	Light Facility	*414549.8N/1405054.4E*	183FT		
RWY30	Light Facility	*414549.2N/1405056.9E*	186FT		
RWY30	Light Facility	*414548.6N/1405059.4E*	189FT		
RWY12	Light Facility	*414628.2N/1404816.4E*	93FT		
RWY12	Fence	*414628.7N/1404814.0E*	95FT		
RWY12	Post	*414633.5N/1404809.4E*	104FT		
RWY12	Post	*414633.1N/1404807.6E*	101FT		
RWY12	Post	*414632.3N/1404804.9E*	105FT		
RWY12	Post	*414634.8N/1404805.3E*	106FT		
RWY12	Post	*414633.5N/1404804.3E*	106FT		
RWY12	Tree	*414630.0N/1404801.3E*	102FT		
RWY12	Rod	*414640.3N/1404736.1E*	132FT		
RWY12	Rod	*414645.2N/1404734.8E*	162FT		
RWY12	Rod	*414646.0N/1404733.7E*	164FT		
RWY12	Rod	*414646.8N/1404732.0E*	164FT		
RWY12	Rod	*414643.6N/1404658.5E*	171FT		
RWY12	Post	*414633.8N/1404811.5E*	100FT		
RWY12	Building	*414635.5N/1404807.7E*	100FT		
RWY12	Post	*414635.9N/1404806.7E*	111FT		
RWY12	Post	*414635.7N/1404805.2E*	105FT		
RWY12	Antenna	*414637.3N/1404805.9E*	103FT		
RWY12	Post	*414636.5N/1404805.5E*	110FT		
RWY12	Chimney	*414637.3N/1404804.9E*	111FT		
RWY12	Lamppost	*414626.9N/1404759.8E*	97FT		
RWY12	Building	*414628.1N/1404750.0E*	125FT		

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
RWY12	Rod	*414633.0N/1404720.2E*	170FT		
	Spire	*414805.6N/1405049.0E*	464FT		
	Spire	*414811.5N/1404802.8E*	293FT		
	Spire	*414812.6N/1405042.4E*	540FT		
	Rod	*414713.0N/1405202.5E*	338FT		
	Spire	*414817.5N/1404804.3E*	292FT		
	Spire	*414819.4N/1405035.8E*	562FT		
	Antenna	*414834.3N/1404848.9E*	424FT		
	Spire	*414826.4N/1405033.8E*	559FT		
	Spire	*414822.2N/1404741.2E*	344FT		
	chimney	*414824.9N/1404743.9E*	327FT		
	Spire	*414830.4N/1404756.8E*	362FT		
	Building	*414830.1N/1404752.9E*	340FT		
	Spire	*414826.1N/1404740.3E*	369FT		
	Spire	*414842.2N/1405026.8E*	541FT		
	Antenna	*414849.6N/1404847.6E*	438FT		
	Spire	*414843.6N/1404747.0E*	416FT		
	Spire	*414858.3N/1405002.8E*	595FT		
	Spire	*414905.8N/1404952.3E*	618FT		
	Spire	*414851.8N/1404739.5E*	453FT		
	Spire	*414912.0N/1404943.6E*	702FT		
	Spire	*414915.6N/1404932.4E*	570FT		
	Spire	*414900.2N/1404736.9E*	488FT		
	Spire	*414917.8N/1404920.0E*	530FT		
	Spire	*414919.5N/1404906.0E*	654FT		
	Spire	*414921.4N/1404850.7E*	629FT		
	Spire	*414905.9N/1404735.2E*	491FT		
RWY 12	Rod	*414643.3N/1404704.1E*	174FT		
	Building	*414825.4N/1405040.2E*	573FT		
	Antenna	*414854.4N/1404843.5E*	437FT		
	Post	*414835.0N/1404917.1E*	413FT		
	Tree	*414839.8N/1404912.7E*	446FT		
	Building	*414847.3N/1404850.0E*	407FT		Above the conical surface
	Building	*414847.8N/1404833.6E*	403FT		Above the conical surface
	Building	*414854.4N/1404856.4E*	427FT		Above the conical surface
	Building	*414820.0N/1405000.0E*	423FT	- / LIL	Above the conical surface
	Building	*414830.7N/1405007.6E*	398FT	- / -	Above the conical surface
	Spire	*414820.2N/1404852.4E*	414FT	Marking / LIL	Above the conical surface
	Spire	*414829.1N/1404859.3E*	406FT	Marking / -	Above the conical surface
	Spire	*414830.4N/1404906.0E*	394FT	- / -	Above the conical surface
	Spire	*414833.4N/1404854.2E*	388FT	Marking / -	Above the conical surface
	Spire	*414841.1N/1404851.4E*	391FT		Above the conical surface
	Spire	*414830.9N/1404919.9E*	387FT	Marking / LIL	Above the conical surface
	Spire	*414822.3N/1405031.8E*	480FT	- / -	Above the conical surface
	Spire	*414820.4N/1405036.0E*	524FT	- / -	Above the conical surface
	Spire	*414815.0N/1405041.3E*	545FT	Marking / -	Above the conical surface

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
	Spire	*414807.6N/1405048.9E*	476FT	Marking / -	Above the conical surface
	Spire	*414800.5N/1405055.3E*	406FT	Marking / -	Above the conical surface
	Spire	*414811.5N/1404803.2E*	350FT	Marking / -	Above the conical surface
	Building	*414831.3N/1405009.2E*	398FT	- / -	Above the conical surface
	Spire	*414826.3N/1404757.7E*	363FT	Marking / -	Above the conical surface
	Spire	*414818.6N/1404807.1E*	378FT	Marking / LIL	Above the conical surface

In circling area and at AD

Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
Building	*414632.7N/1404818.4E*	102FT		
Post	*414634.3N/1404815.8E*	114FT		
Post	*414637.4N/1404807.7E*	106FT		
Building	*414602.1N/1405028.7E*	161FT		
Lamppost	*414637.9N/1404808.9E*	117FT		
Post	*414635.4N/1404816.0E*	126FT		
Post	*414635.0N/1404819.8E*	123FT		
Post	*414636.1N/1404816.0E*	126FT		
Post	*414634.4N/1404822.6E*	117FT		
Fence	*414604.3N/1405030.7E*	182FT		
Equipment	*414616.2N/1404941.6E*	168FT		
Post	*414637.4N/1404816.0E*	128FT		
ITV	*414623.9N/1404914.3E*	139FT		
ABN	*414633.3N/1404844.6E*	185FT		
Light Pole	*414628.3N/1404907.9E*	192FT		
Light Pole	*414630.8N/1404857.0E*	191FT		
Light Pole	*414629.8N/1404902.2E*	192FT		
Light Pole	*414631.7N/1404854.6E*	190FT		
Light Pole	*414627.4N/1404913.1E*	192FT		
Light Pole	*414627.9N/1404911.0E*	192FT		
Fence	*414612.8N/1405014.8E*	241FT		
Fence	*414615.3N/1405004.4E*	246FT		
Rod	*414630.3N/1404903.8E*	219FT		
Tree	*414618.6N/1404830.4E*	116FT		
Tree	*414616.0N/1404840.9E*	139FT		

Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
Tree	*414603.3N/1404932.7E*	142FT		
Building	*414629.9N/1404711.2E*	182FT		
Antenna	*414603.2N/1404929.2E*	147FT		
Rod	*414621.0N/1404757.2E*	166FT		
Signboard	*414618.8N/1404810.9E*	136FT		
Antenna	*414559.6N/1404919.4E*	166FT		
Equipment	*414631.8N/1404909.0E*	227FT		
Antenna	*414549.6N/1404937.0E*	226FT		
Equipment	*414626.5N/1404957.2E*	292FT		
Post	*414633.2N/1404959.4E*	260FT		
Signboard	*414632.8N/1405000.6E*	261FT		
Building	*414633.9N/1405001.9E*	270FT		
Building	*414619.2N/1405010.5E*	288FT		
Post	*414623.4N/1405014.3E*	298FT		
Antenna	*414539.0N/1405005.7E*	206FT		
Antenna	*414816.0N/1404947.4E*	407FT		
Rod	*414815.4N/1404958.4E*	438FT		
Spire	*414754.3N/1405100.0E*	370FT		
Antenna	*414819.1N/1404905.8E*	401FT		
chimney	*414818.4N/1405001.7E*	458FT		
Antenna	*414820.0N/1404905.0E*	401FT		Above the horizontal surface
Post	*414622.7N/1405024.0E*	273FT		
Antenna	*414622.1N/1405025.0E*	314FT		
Post	*414620.7N/1405026.7E*	262FT		
Post	*414629.5N/1405029.6E*	292FT		
Tree	*414647.6N/1405024.0E*	302FT		
Building	*414716.9N/1404921.4E*	280FT		
Spire	*414632.5N/1405043.2E*	298FT		
Spire	*414644.0N/1405039.6E*	317FT		
Spire	*414703.0N/1405031.9E*	326FT		
Post	*414653.9N/1405043.5E*	322FT		
Building	*414629.4N/1405102.3E*	255FT		
Tree	*414729.4N/1404959.6E*	334FT		
Spire	*414733.3N/1405000.6E*	321FT		
Antenna	*414737.0N/1404959.0E*	377FT		
Spire	*414740.1N/1404946.4E*	378FT		
Spire	*414614.6N/1405121.2E*	257FT		
Spire	*414742.9N/1404935.0E*	400FT		
Spire	*414606.3N/1405123.6E*	253FT		
Building	*414737.9N/1405011.4E*	313FT		
Spire	*414743.6N/1404952.0E*	377FT		
Rod	*414747.6N/1404928.6E*	350FT		
Lamppost	*414731.4N/1405037.0E*	315FT		
Building	*414751.4N/1404952.6E*	348FT		
Spire	*414754.7N/1404843.8E*	351FT		
Spire	*414722.9N/1405108.6E*	318FT		

Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
Antenna	*414802.1N/1404939.9E*	411FT		
Spire	*414743.6N/1405107.5E*	301FT		
Post	*414619.7N/1405050.8E*	269FT		
Rod	*414742.2N/1404927.7E*	328FT		
Post	*414627.4N/1405044.8E*	267FT		
Spire	*414700.7N/1405033.4E*	327FT		
Spire	*414731.5N/1405108.2E*	323FT		
Rod	*414803.5N/1404947.0E*	430FT		
Antenna	*414740.0N/1404942.0E*	383FT		Above the horizontal surface
Building	*414804.3N/1404943.2E*	381FT	- / -	Above the horizontal surface
Spire	*414811.3N/1404845.5E*	341FT	Marking / -	Above the horizontal surface
Spire	*414752.8N/1405102.4E*	304FT	- / -	Above the horizontal surface
Spire	*414743.8N/1405108.2E*	298FT	Marking / -	Above the horizontal surface
Spire	*414730.6N/1405109.1E*	309FT	- / -	Above the horizontal surface
Spire	*414807.0N/1404806.1E*	309FT	- / -	Above the horizontal surface
Spire	*414803.6N/1404816.9E*	313FT	Marking / -	Above the horizontal surface
Spire	*414801.7N/1404823.0E*	314FT	Marking / LIL	Above the horizontal surface
Antenna	*414748.6N/1404929.7E*	341FT	- / -	Above the horizontal surface
Antenna	*414806.3N/1404945.3E*	407FT	- / -	Above the horizontal surface
Building	*414804.1N/1404943.8E*	372FT	- / -	Above the horizontal surface
Spire	*414826.6N/1405028.7E*	549FT	- / -	Above the conical surface
Spire	*414833.7N/1404931.0E*	386FT	Marking / -	Above the conical surface
Spire	*414837.1N/1404940.3E*	340FT	Marking / LIL	Above the conical surface
Antenna	*414851.9N/1404847.9E*	460FT	Marking / -	Above the conical surface
Antenna	*414827.7N/1405012.4E*	406FT	- / -	Above the conical surface
Antenna	*414748.1N/1404930.3E*	311FT	- / -	Above the horizontal surface
Building	*414834.4N/1405013.5E*	418FT	- / -	Above the conical surface
Building	*414828.7N/1405010.1E*	408FT	- / -	Above the conical surface
Antenna	*414822.4N/1404742.7E*	330FT	- / -	Above the conical surface
Antenna	*414817.2N/1404950.9E*	392FT	- / -	Above the horizontal surface
Antenna	*414821.6N/1404743.9E*	349FT	- / -	Above the conical surface
Antenna	*414821.5N/1404744.0E*	349FT	- / -	Above the conical surface
Antenna	*414816.0N/1404948.0E*	400FT	- / -	Above the horizontal surface
Antenna	*414904.0N/1404847.0E*	479FT	- / -	Above the conical surface
Building	*414902.0N/1404854.0E*	465FT	- / -	Above the conical surface
Solar power plant	*414835.3N/1404833.6E*	375FT	- / -	Above the conical surface
Rod	*414818N1404807E*	303FT	- / -	Above the conical surface
Rod	*414818N1404808E*	306FT	- / -	Above the conical surface
Rod	*414819N1404809E*	308FT	- / -	Above the conical surface
Rod	*414819N1404810E*	314FT	- / -	Above the conical surface

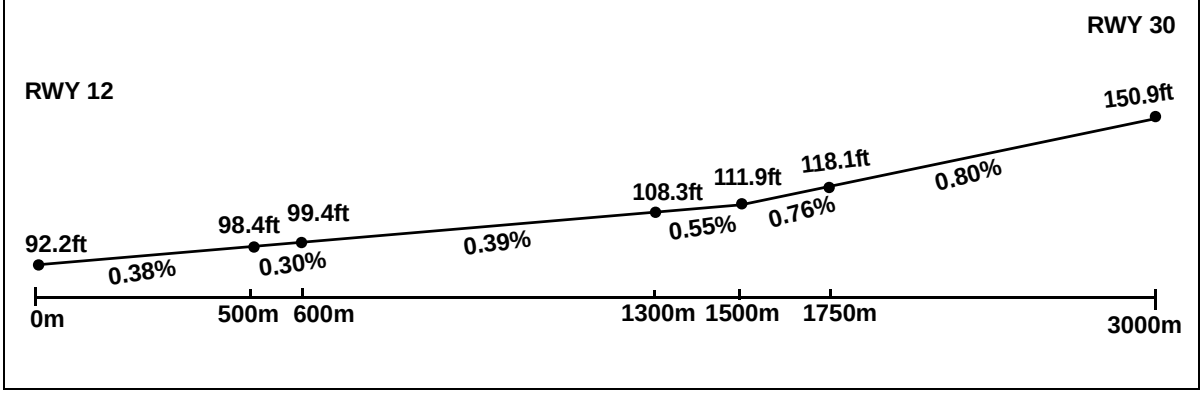
RJCH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	NEW CHITOSE
2	Hours of service MET Office outside hours	H24 (NEW CHITOSE)
3	Office responsible for TAF preparation Periods of validity	NEW CHITOSE 30 Hours
4	Trend forecast Interval of issuance	Nil
5	Briefing/consultation provided	Briefing is available upon inquiry at NEW CHITOSE
6	Flight documentation Language(s) used	C En
7	Charts and other information available for briefing or consultation	S_6, U_{85}, U_7, U_5 U_3, U_{25}, U_2/Tr, P_S, P_5, P_3, P_{25}, P_{SWE}, P_{SWF}, P_{SWG}, P_{SWI}, P_{SWM}, P_{SW}(domestic), E, C, W_E, W_F, W_G, W_I, W, N
8	Supplementary equipment available for providing information	Nil
9	ATS units provided with information	TWR, APP, ATIS
10	Additional information(limitation of service, etc.)	Nil

RJCH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength(PCN) and surface of RWY	THR coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
12	107.98°	3000×45	PCN 98/F/C/X/T Asphalt Concrete	*414627.62N* *1404817.61E* 112.6FT	THR ELEV 92.2ft TDZ ELEV 103ft
30	287.98°	3000×45	PCN 98/F/C/X/T Asphalt Concrete	*414557.54N* *1405021.00E* 112.5FT	THR ELEV 151ft

Slope of RWY	Strip Dimensions(M)	RESA (Overrun) Dimensions(M)	Remarks
7	10	11	14
see attached figure	3120×300	192 × (MNM:102 MAX:300)*	RWY grooving 3000X45m
	3120×300	240 × 300 *For detail, ask airport administrator	



RJCH AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
12	3000	3000	3000	3000	Nil
30	3000	3000	3000	3000	Nil

RJCH AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	RTHL Color WBAR	PAPI (VASIS) Angle DIST FM THR MEHT	RTZL LEN	RCLL LEN Spacing Color INTST	REDL LEN Spacing Color INTST	RENL Color WBAR	STWL LEN Color
1	2	3	4	5	6	7	8	9
12	PALS (CAT I) 640m LIH	Green Green	PAPI 3.0°/Left 384m 65ft	900m	3000m 30m Coded Color (White/Red) LIH	3000m 60m Coded Color (White/Yellow) LIH	Red	Nil (*2)
30	SALS (*1) 420m LIH	Green -	PAPI 3.0°/Left 538m 74ft	-	3000m 30m Coded Color (White/Red) LIH	3000m 60m Coded Color (White/Yellow) LIH	Red	Nil (*2)
Remarks								
10								
SALS with RAI(LEN:480m) and APCH Guidance LGT(1341m and 1760m FM RWY THR) for RWY 30(*1) Overrun area edge LGT: LEN:60m Color:Red (*2)								

RJCH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: *414633N/1404843E*, ALTN FLG(2)WG EV 4.3sec , HO
2	LDI location and LGT Anemometer location and LGT	LDI : Nil Anemometer: RWY12 400m WSW from ABN, LGTD RWY30 2350m ESE from ABN, LGTD
3	TWY edge and center line lighting	TWY edge and center line lights installed, see AD2.9
4	Secondary power supply/ switch-over time	Within 1sec : REDL, RENL, RTHL, WBAR, RCLL, Overrun area edge LGT Within 15sec: Other lights
5	Remarks	WDI LGT

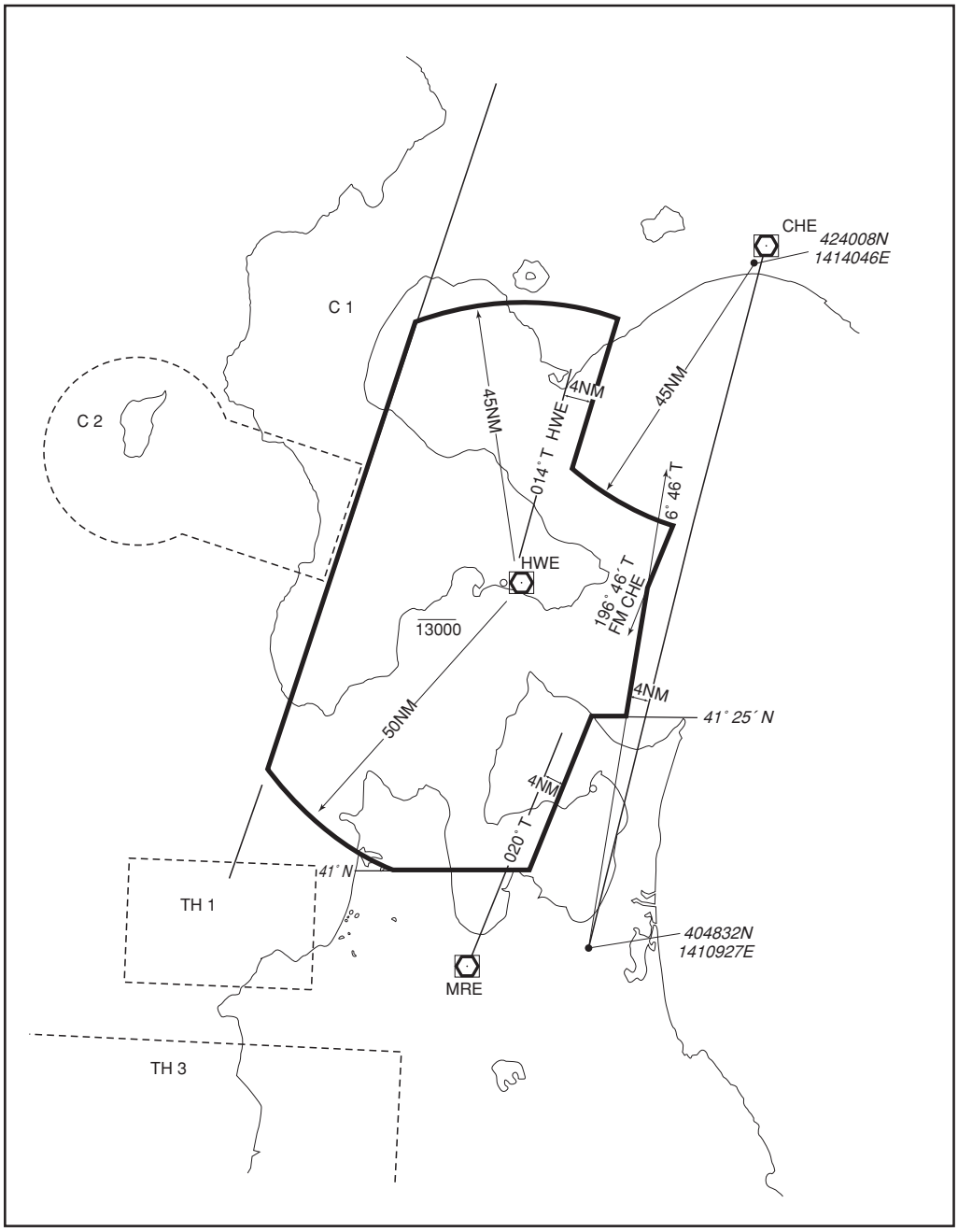
RJCH AD 2.16 HELICOPTER LANDING AREA

Nil

RJCH AD 2.17 ATS AIRSPACE

Designation and lateral limits		Vertical limits (ft)	Airspace classification	ATS unit call sign Language	Remarks
1		2	3	4	6
HAKODATE CTR	Area within a radius of 5 nm of HAKODATE ARP (*41°46'N140°49'E*)	3000	D	HAKODATE TWR En	
HAKODATE ACA	SEE RJCH ATTACHED CHART		E	HAKODATE APP HAKODATE DEP HAKODATE RADAR En	

函館進入管制区
Hakodate Approach Control Area



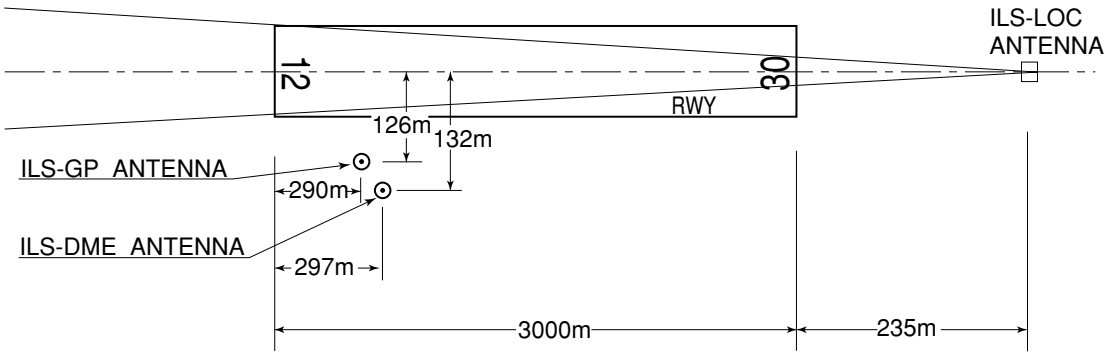
RJCH AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
TWR	Hakodate Tower	118.35MHz(1) 126.2MHz(2) 121.5 MHz(E) 243.0 MHz(E)	2230 - 1130	(1)Primary (2)Secondary
APP/ASR	Hakodate Approach/Radar	119.0 MHz 121.0 MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1130	
DEP	Hakodate Departure	127.9 MHz 121.0 MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1130	
ATIS	Hakodate Airport	126.6MHz	2230 - 1130	

RJCH AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid (VOR declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR (9°W/2014)	HWE	112.3MHz	H24	*414626.51N/ 1404955.98E*		VOR unusable: 020°-030° beyond 30nm BLW 6000ft. 030°-040° beyond 35nm BLW 5000ft. 070°-090° beyond 25nm BLW 5000ft. 090°-100° beyond 35nm BLW 5000ft. 100°-110° beyond 20nm BLW 4000ft. 200°-240° beyond 35nm BLW 5000ft. 340°-350° beyond 35nm BLW 6000ft. 350°-010° beyond 15nm BLW 6000ft.
DME	HWE	1157MHz (CH-70X)	H24	*414626.51N/ 1404955.98E*	300ft	DME unusable: 000°-020° beyond 25nm BLW 6000ft. 100°-110° beyond 35nm BLW 4000ft. 340°-360° beyond 30nm BLW 6000ft.
ILS-LOC 12	IHL	109.3MHz	2230 - 1130	*414555.24N/ 1405030.81E*		LOC:235m (771ft) away FM RWY 30 THR, BRG (MAG) 117°
ILS-GP 12	-	332.0MHz	2230 - 1130	*414620.82N/ 1404827.84E*		GP : 290m (951ft) FM inside RWY 12 THR, 126m (413ft) S of RCL. GP 3.0° HGT of ILS Ref datum 15.5m(51ft).
ILS-DME 12	IHL	991MHz (CH-30X)	2230 - 1130	*414620.53N/ 1404828.07E*	111ft	DME:297m(974ft) inside FM RWY 12 THR, 132m(433ft) S of RCL.
MSAS		1575.42MHz	H24			Transmitting antennas are satellite based.

ILS for RWY12



REMARKS : 1.ILS-LOC beam(BRG) 117˚
2.ILS-GP Angle 3.0˚
3.HGT of ILS REF datum 15.5m(51.0ft)
4.ELEV of ILS-DME 33.9m(111ft)

RJCH AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

PPR
Prior permission is required for all transient aircraft due to parking congestion
except scheduled and/or emergency flight.
Tel: Hokkaido Airports Co.,Ltd. Hakodate Airport Office 0138-57-1729

2. Taxiing to and from stands

Nil

3. Parking area for small aircraft(General aviation)

Nil

4. Parking area for helicopters

Nil

5. Apron - taxiing during winter conditions

Nil

6. Taxiing - limitations

Wing tip clearance at the TWY intersection (REF AD1.1.6.8)

Wing tip clearance at the TWY intersection between the aircraft holding at the stop marking on the TWY and the other aircraft taxiing behind it are as follows.

When B772 holding at the stop marking on TWY T2 or T6

Wing Span (WS) of aircraft taxiing on TWY P1-P2 or P5-P6	WS=<35.4m	35.4m<WS =<52.4m	WS >52.4m
Wing tip clearance	*A	*B	*C

Legend:
*A : wing tip clearance >= 15m
*B : 6.5m =< wing tip clearance < 15m
*C : wing tip clearance < 6.5m

7. School and training flights - technical test flights - use of runways

Nil

8. Helicopter traffic - limitation

Nil

9. Removal of disabled aircraft from runways

Nil

RJCH AD 2.21 NOISE ABATEMENT PROCEDURES

1.Noise abatement Operating Procedures
For all jet aircraft, in order to reduce aircraft noise in the vicinity of airport, the following procedures shall be applied unless compliance of the procedures adversely affects the safety of aircraft operations. In case that the aircraft is unable to take these procedures, pilots should execute alternative procedures which are considered to be practically equivalent.
(1) For take-off from RWY30: Steepest Climb Procedure
(2) For landing to RWY12: Delayed Flap Approach Procedure and Reduced Flap Setting Procedure
(3) Reverse Thrust: Nil

2. Preferential Runways Procedures: Nil

3. Noise Preferential Routes: Nil

1. 騒音軽減運航方式
すべてのジェット機に対して、空港周辺における航空機騒音軽減のため、運航の安全に支障のない範囲で、以下の方式が適用される。ただし、これらの方式によることができない航空機は実効的にこれらと同等と認められる代替方式を実施するものとする。

(1) 離陸について（滑走路 30）
急上昇方式
(2) 着陸について（滑走路 12）
ディレイド･フラップ進入方式及び低フラップ角着陸方式
(3) リバース･スラストについて
なし

2. 優先滑走路方式
なし

3. 優先飛行経路
なし

RJCH AD 2.22 FLIGHT PROCEDURES

1. TAKE OFF MINIMA

	RWY	ACFT CAT	REDL & RCLL		REDL or RCLL or RCL marking		NIL (DAYTIME ONLY)	
			RVR	VIS	RVR	VIS	RVR	VIS
Multi-Engine ACFT with TKOF ALTN AP Filed	12	A,B, C,D	400m	400m	400m	400m	-	500m
	30	A,B, C,D	-	400m	-	400m	-	500m
OTHER	12 30	A,B, C,D	AVBL LDG MINIMA					

2. Trajectorized Airport Traffic Data Processing System (TAPS)

Aircraft flying under control of Hakodate approach control in the approach control area will be instructed to reply with discrete code on Mode A/3 and Mode C

If an aircraft with non-discrete capability be instructed to reply with the discrete code, it shall report a controller accordingly.

函館アプローチの指示のもとに、当該進入管制区を飛行する航空機は、モード A/3 の二次レーダー個別コード及びモード C による応答を指示される。

二次レーダー個別コードを搭載していない航空機が当該コードによる応答を指示された場合は、管制官に対してその旨通報すること。

3. Lost communication procedures for arrival aircraft under radar navigational guidance

If radio communications with HAKODATE Approach/Radar are lost for 1 minute, squawk Mode A/3 Code 7600 and;

(I) 1. Contact HAKODATE Tower.
2. If unable, proceed in accordance with visual flight rules.
3. If unable, proceed to HAKODATE VOR/DME at last assigned altitude or 5,000 feet whichever is higher, and execute instrument approach

(II) Procedures other than above will be issued when situation required.

RJCH AD 2.23 ADDITIONAL INFORMATION

Nil

RJCH AD 2.24 CHARTS RELATED TO AN AERODROME

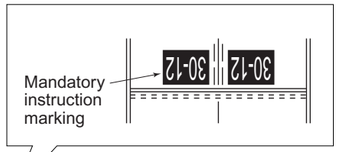
Aerodrome Chart
Aircraft Parking/Docking Chart
Aerodrome Obstacle Chart-ICAO type A (RWY12)
Aerodrome Obstacle Chart-ICAO type A (RWY30)
Aerodrome Obstacle Chart-ICAO type B
Standard Departure Chart-Instrument (HAKODATE REVERSAL)
Standard Departure Chart-Instrument (TSUGARU-RNAV)
Standard Departure Chart-Instrument (TOI-RNAV)
Standard Departure Chart-Instrument (OKUSHIRI-RNAV)
Standard Arrival Chart-Instrument (CHIYO, YAKEI-RNAV)
Standard Arrival Chart-Instrument (PATRA NORTH, PATRA SOUTH-RNAV)
Instrument Approach Chart (ILS Z or LOC Z RWY12)
Instrument Approach Chart (ILS Y or LOC Y RWY12)
Instrument Approach Chart (VOR RWY30)
Instrument Approach Chart (VOR RWY12)
Instrument Approach Chart (RNP Z RWY30)
Instrument Approach Chart (RNP Y RWY30 (AR))
Instrument Approach Chart (RNP Z RWY12)
Instrument Approach Chart (RNP Y RWY12 (AR))
Other Chart (Visual REP)
Other Chart (LDG CHART)
Other Chart (MVA CHART)

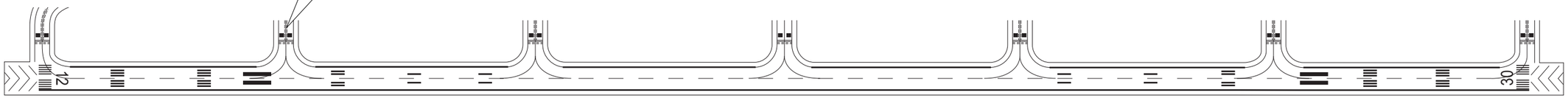
AERODROME CHART

HAKODATE AIRPORT

ELEV34.1m (111.9ft)

MARKING AIDS



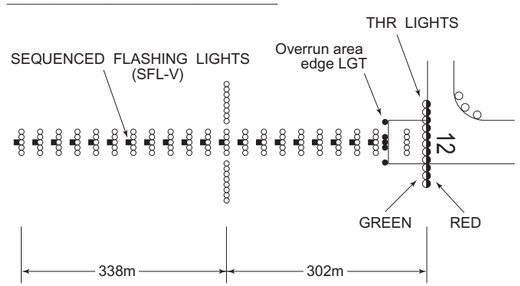


VAR9°W-2009
Annual Change 1.2° E

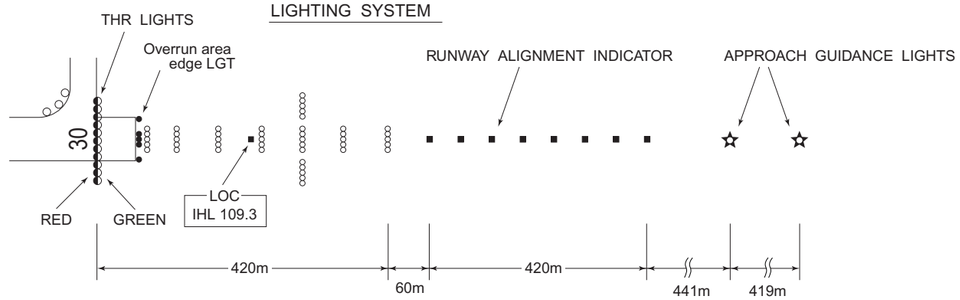
VOR/DME
HWE 112.3
CH-70X

TERMINAL BLDG
CARGO
INTL
DOMESTIC
TWR
AIS/MET
ABN
APRON
FIRE STATION
1 2W2 3 4 5 6 7 8 9 10
P1 P2 P3 P4 P5 P6
WDI WIND SPEED METER
RVR
CEILO METER
WDI
WIND SPEED METER
T1 T2 T3 T4 T5 T6 T7
ELEV 151ft
9▽1 8▽2 7▽3 6▽4 5▽5 4▽6 3▽7 1▽9
Asph conc
PCN 98F/C/X/T
3000m×45m
12
30
ELEV 92ft
9△1 8△2 7△3 6△4 5△5 4△6 3△7 2△8 1△9
TDZ ELEV 103ft
RWY GUARD LGT(T1-T7)
ARP *414612N*
1404919E
ILS
GP 332.0
PAPI ANGLE 3.0°
MEHT 19.9m (65ft)
384m INSIDE FM THR
PAPI ANGLE 3.0°
MEHT 22.5m (74ft)
538m INSIDE FM THR

APPROACH LIGHTING SYSTEM



SIMPLE APPROACH LIGHTING SYSTEM



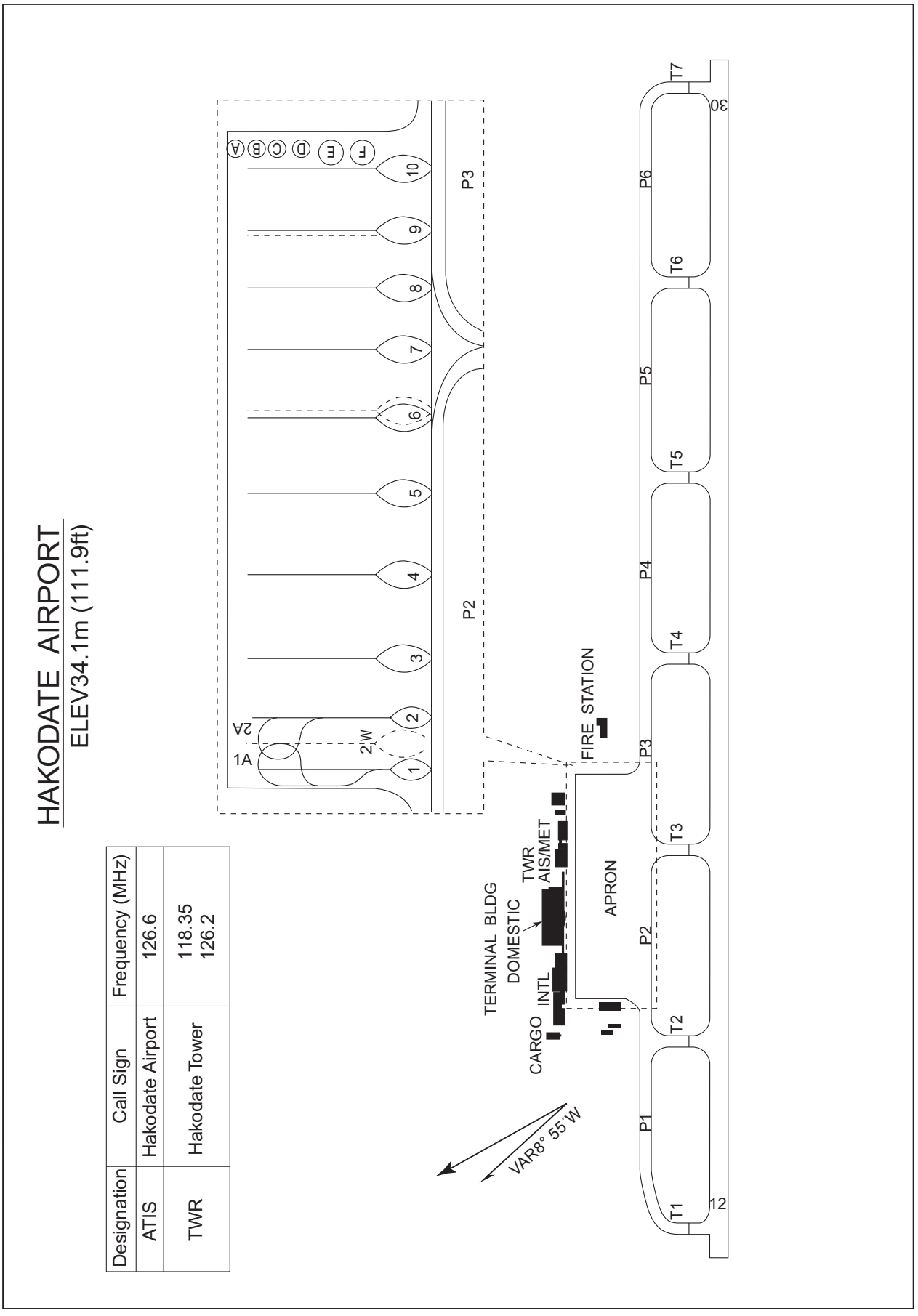
CHANGE:STOP BAR LGT abolished

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

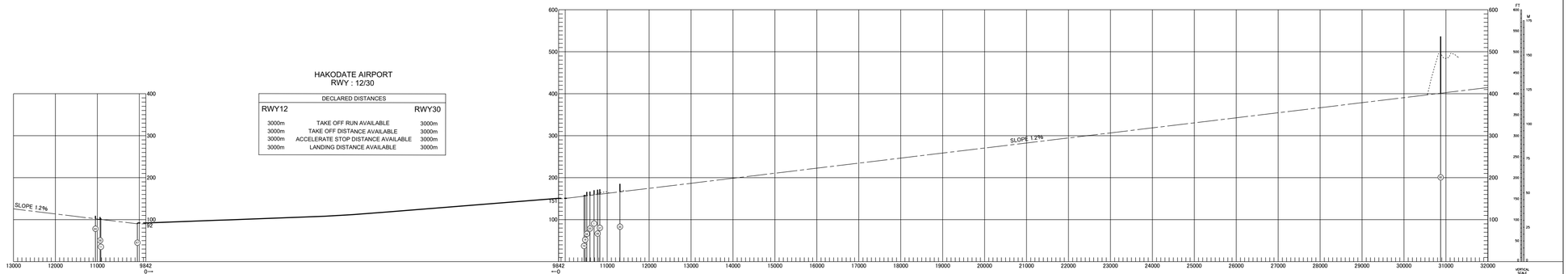
AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

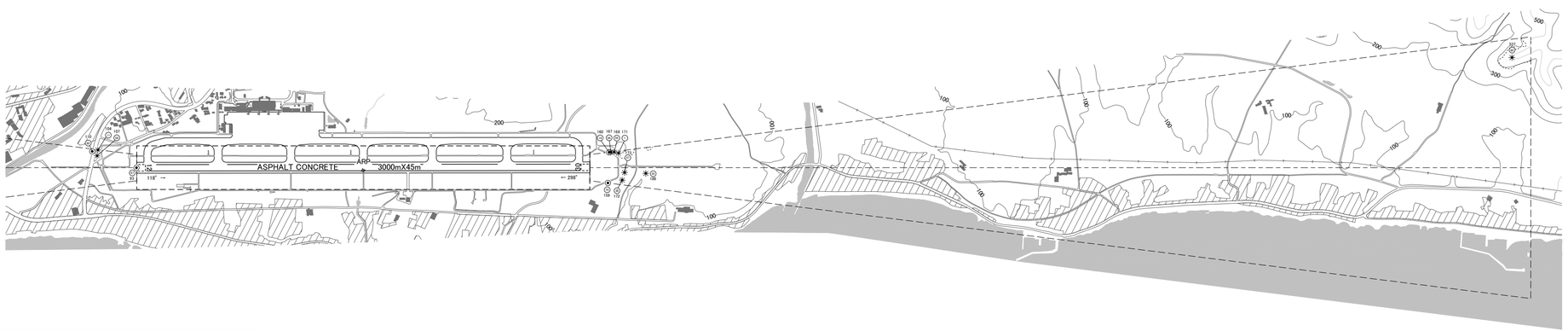
DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC
Transverse Mercator Projection

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

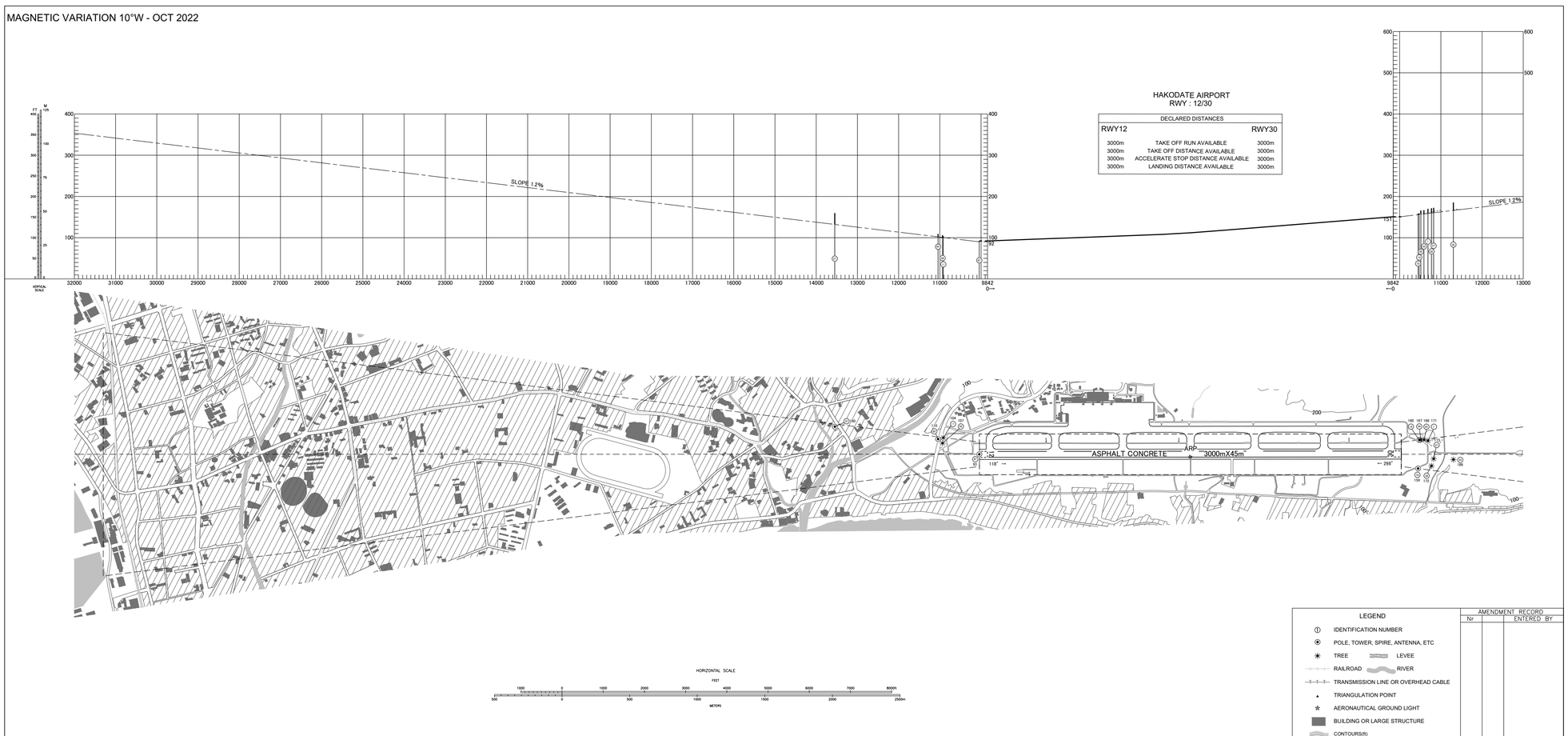
CHANGE:Update

HORIZONTAL SCALE
FEET
METERS

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

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

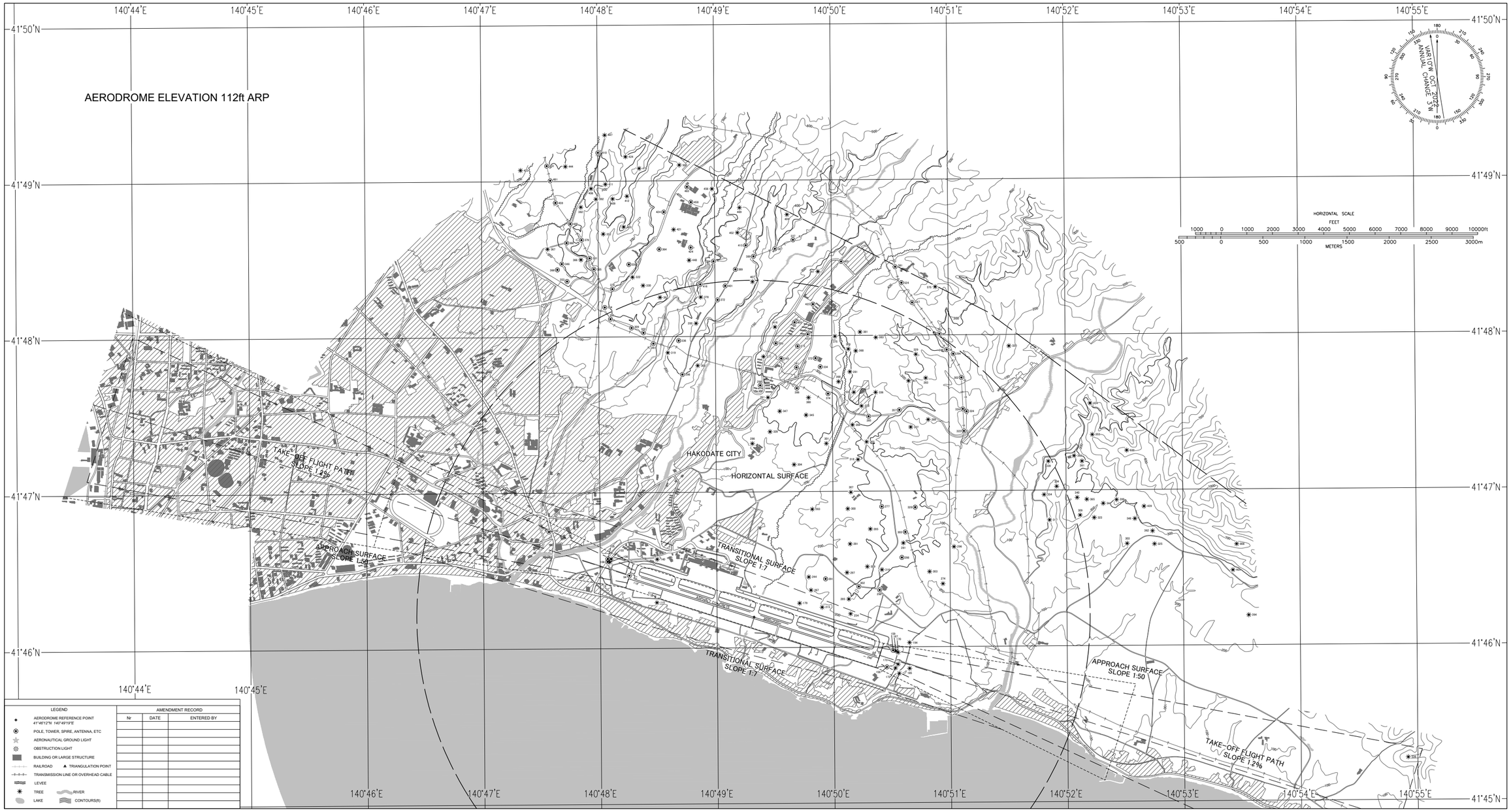
MAGNETIC VARIATION 10°W - OCT 2022



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

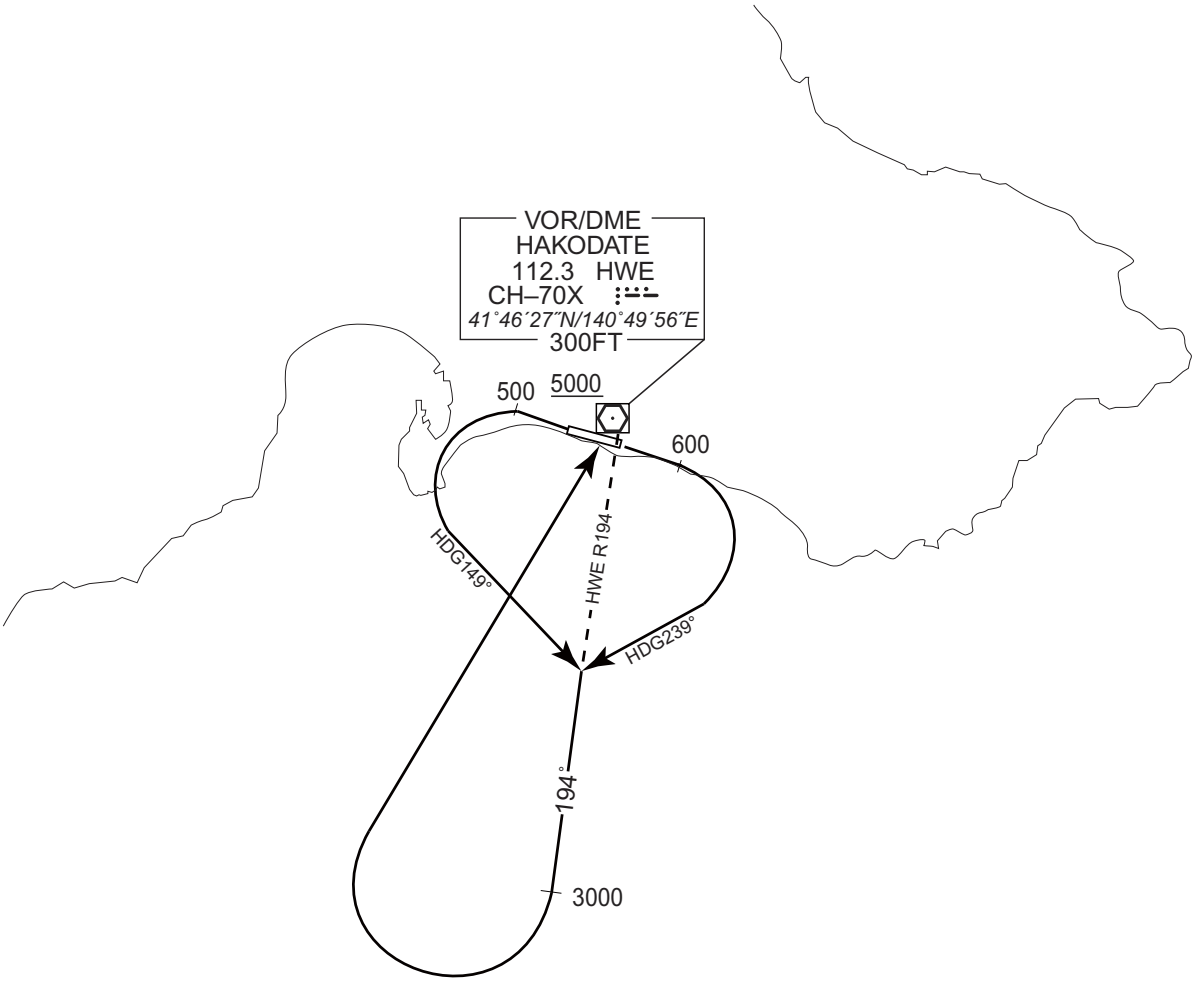
STANDARD DEPARTURE CHART - INSTRUMENT

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.



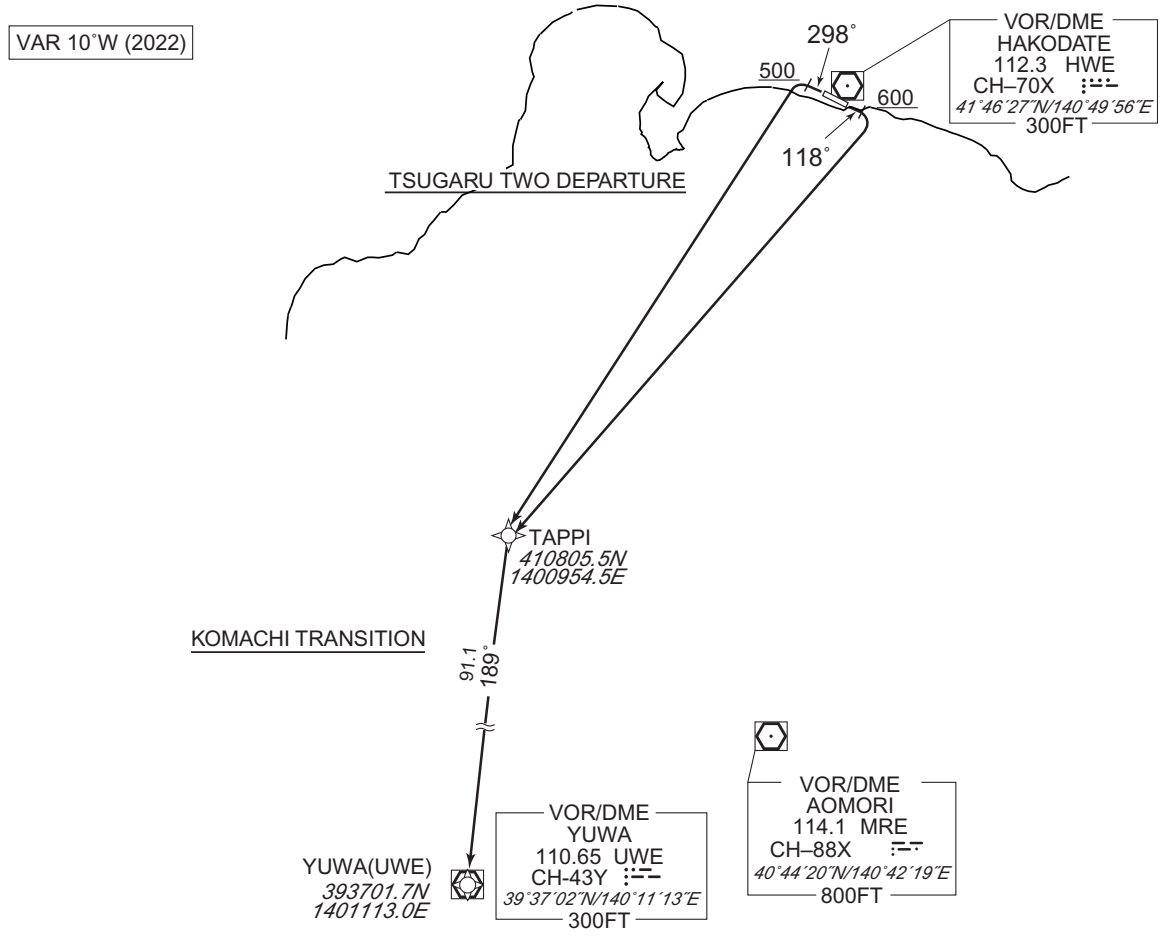
STANDARD DEPARTURE CHART - INSTRUMENT

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

RJCH / HAKODATE — RNAV SID and TRANSITION

TSUGARU TWO DEPARTURE KOMACHI TRANSITION	Basic 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.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE RNAV SID and TRANSITION

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

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

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

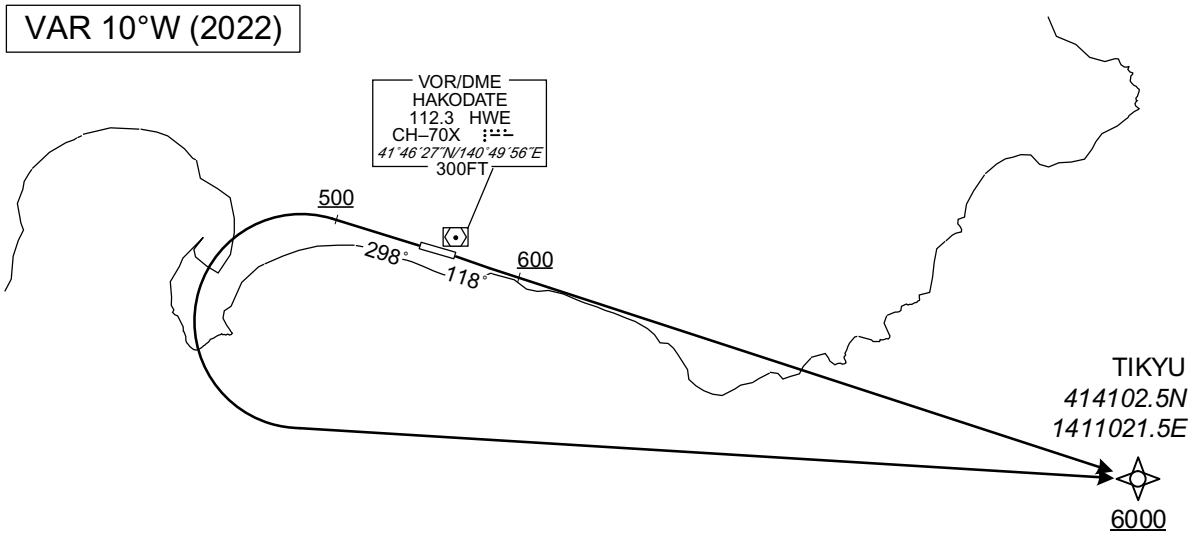
RNAV SID

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.

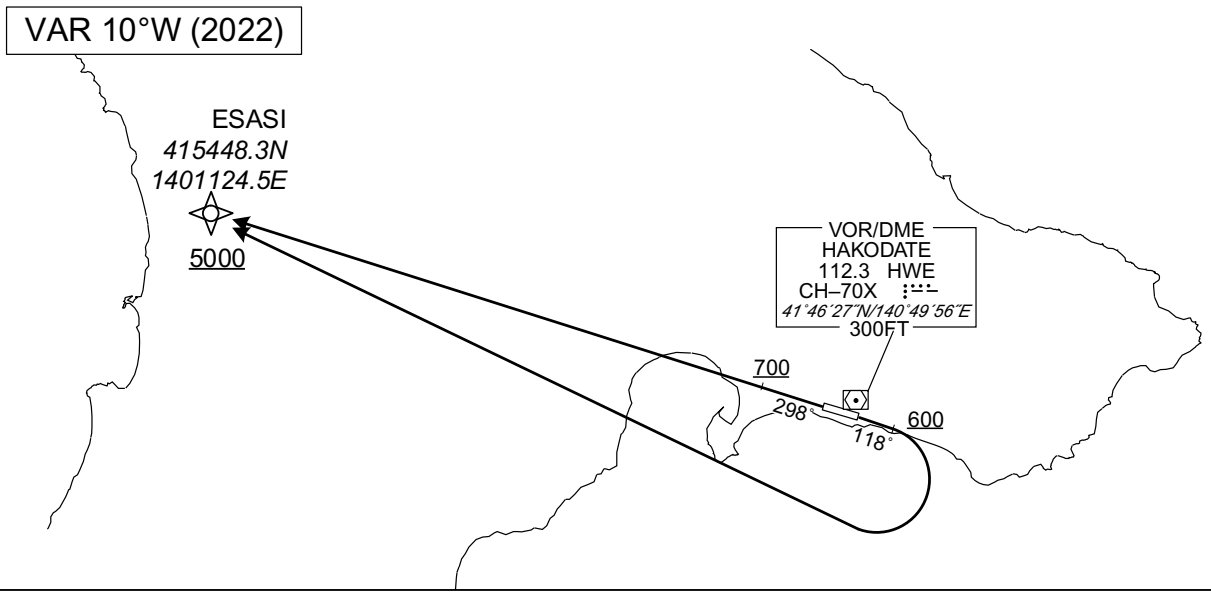
STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID

OKUSHIRI ONE DEPARTURE	Basic RNP1

Note GNSS required.



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

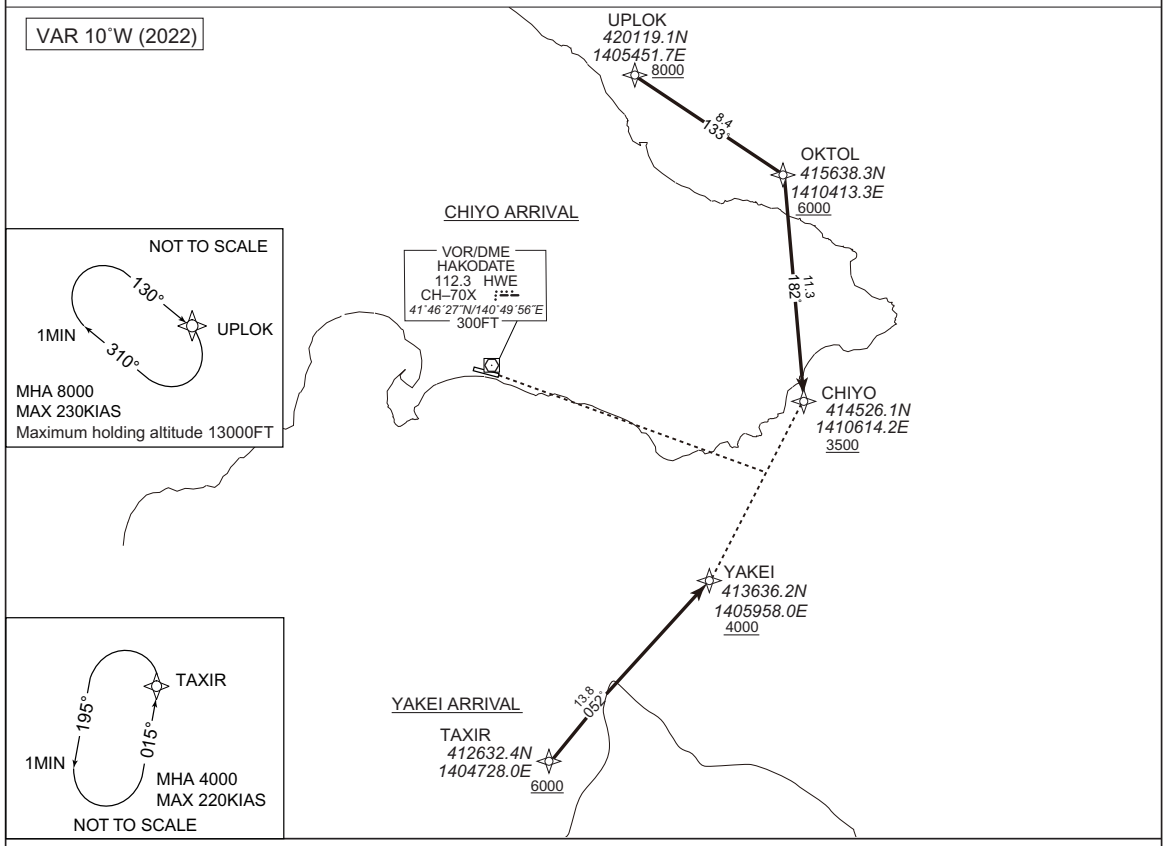
RJCH / HAKODATE

RNAV STAR RWY30

CHIYO ARRIVAL
YAKEI ARRIVAL

Basic RNP1

Note GNSS required.



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

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

STANDARD ARRIVAL CHART - INSTRUMENT

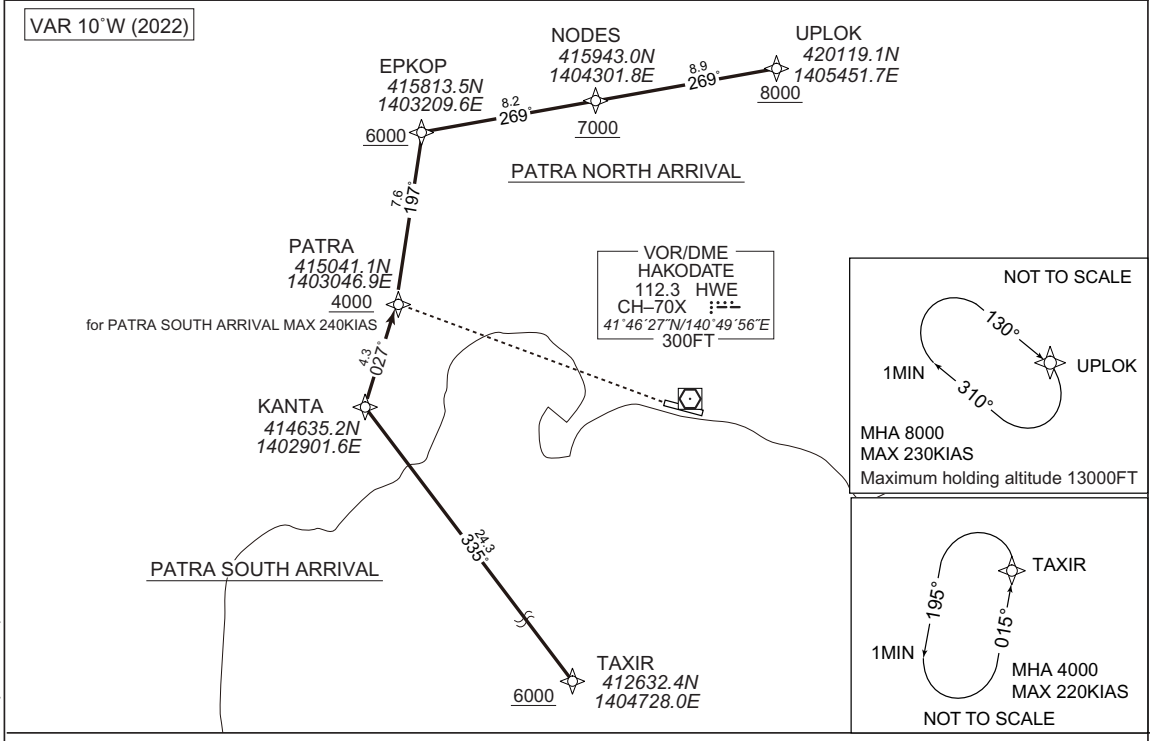
RJCH / HAKODATE

RNAV STAR RWY12

PATRA NORTH ARRIVAL
PATRA SOUTH ARRIVAL

Basic 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	—	—	Basic RNP1
002	TF	NODES	—	269 (259.7)	-9.6	8.9	—	+7000	—	—	Basic RNP1
003	TF	EPKOP	—	269 (259.6)	-9.6	8.2	—	+6000	—	—	Basic RNP1
004	TF	PATRA	—	197 (187.8)	-9.6	7.6	—	+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	UPLOK	130 (120.0)	-9.6	1.0(-14000)	R	8000	13000	-230(-13000)	Basic 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	—	—	Basic RNP1
002	TF	KANTA	—	335 (325.6)	-9.6	24.3	—	—	—	—	Basic RNP1
003	TF	PATRA	—	027 (017.7)	-9.6	4.3	—	+4000	-240	—	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

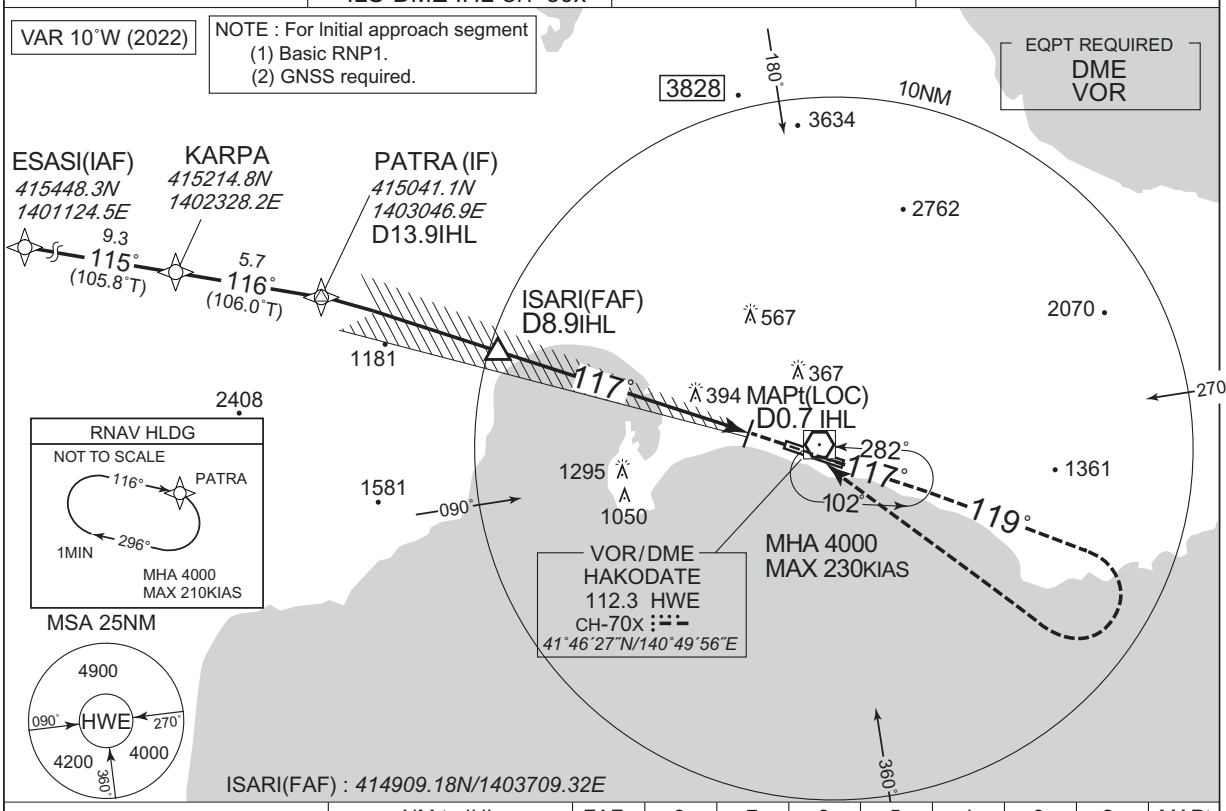
CHANGE : VAR. PATRA NORTH ARRIVAL established. PROC renamed(PATRA SOUTH ARRIVAL). Navigation specification. RNAV HLDG established(TAXIR, UPLOK). HLDG for using NAVAID abolished(TAXIR).

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

ILS Z or LOC Z RWY12

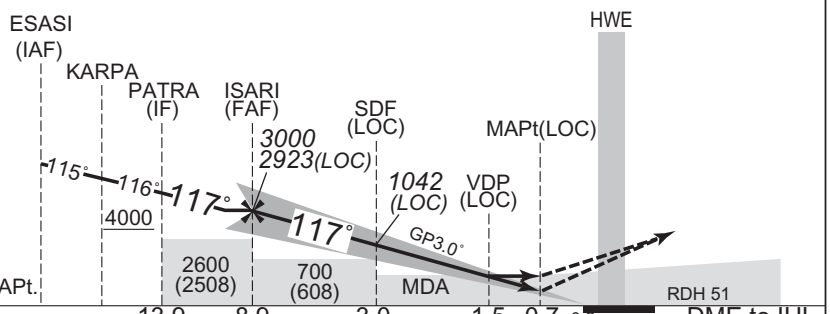
HAKODATE APP	ILS–LOC	HAKODATE TWR	RADAR AVBL
119.0 – 121.0 127.9	109.3 IHL ILS–GP 332.0 ILS-DME IHL CH–30x	118.35 – 126.2	ATIS 126.6



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

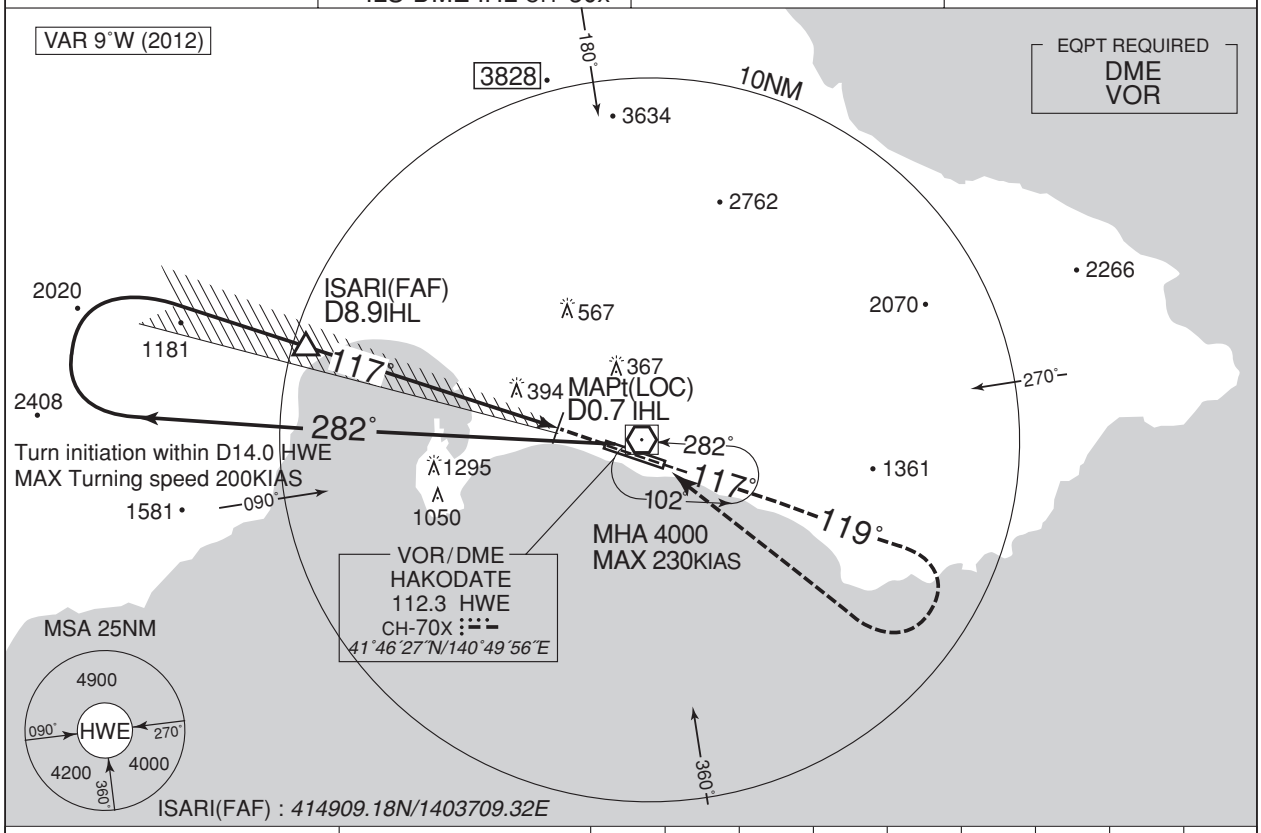
Circling to SOUTH side of RWY only.
MINIMA with Missed APCH climb gradient of 2.5% are not established.

CHANGE : VAR. KARPA established. course FM ESASI to PATRA. RNAV HLDG established(PATRA).
HLDG for NAVAIDS abolished(PATRA, ESASI).

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

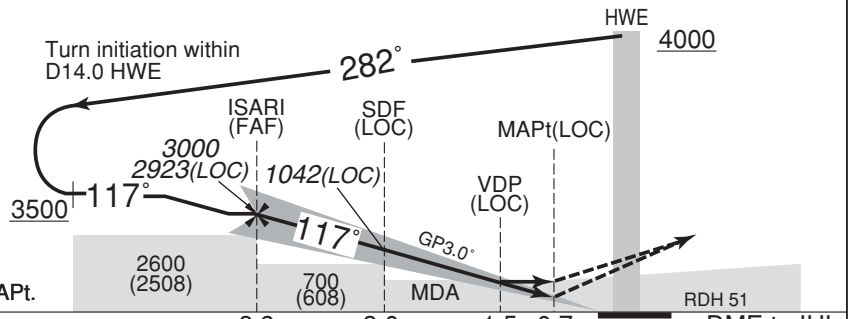


	NM to IHL	FAF	8	7	6	5	4	3	2	MAPt
	ALT (3.0° APCH Path)	2923	2634	2316	1997	1679	1361	1042	724	–

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

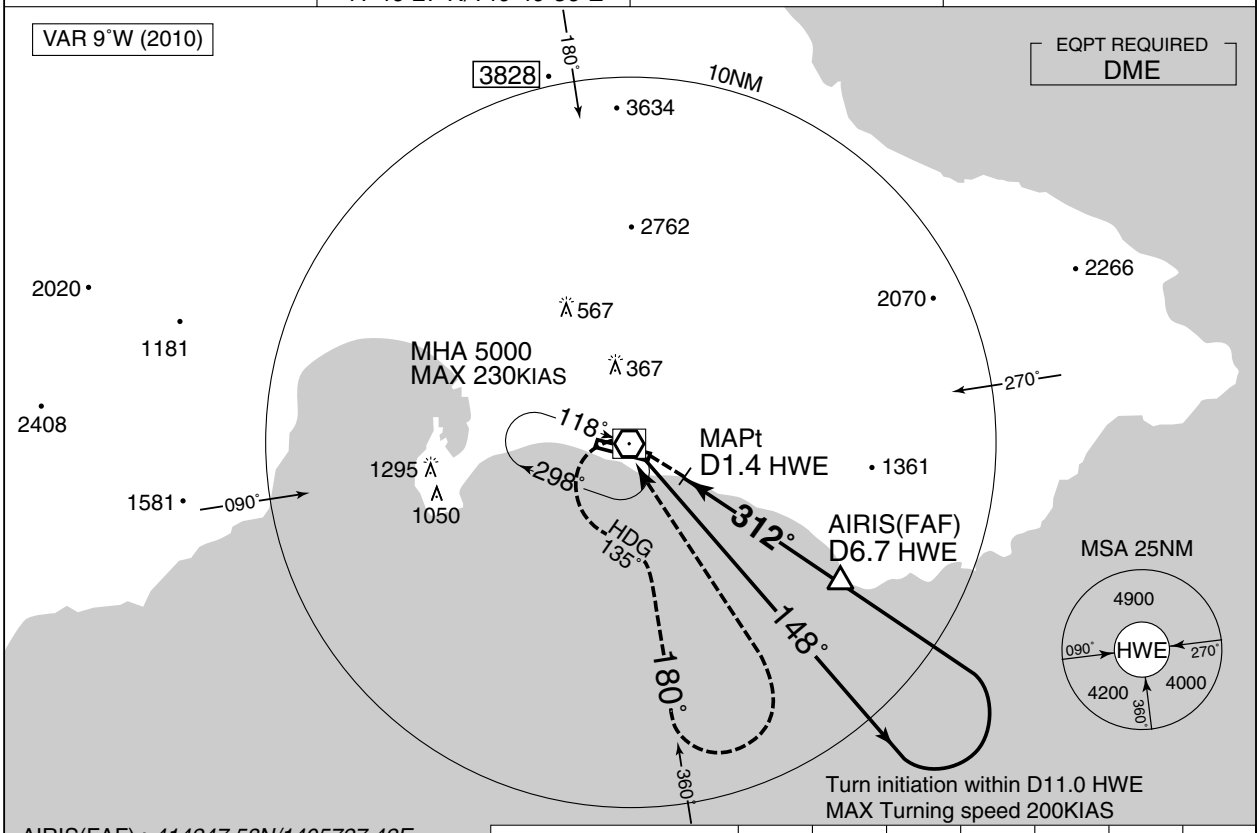
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	292 (200)	700	540 (448)	1200	550 (438)	1600
B				1300	570 (458)	
C	299 (207)			1400	600 (488)	2400
D	309 (217)			1600	690 (578)	3200

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

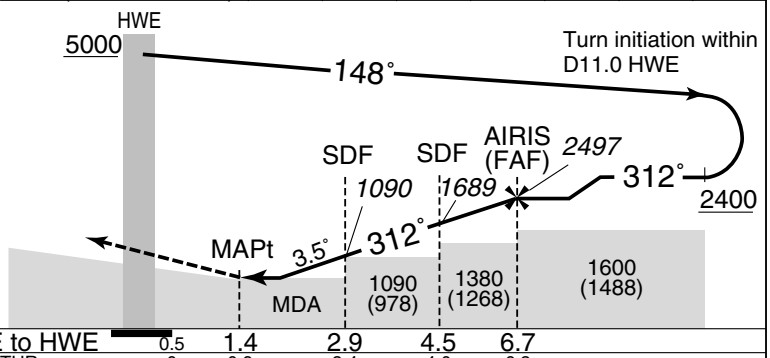


AIRIS(FAF) : *414247.58N/1405727.42E*

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

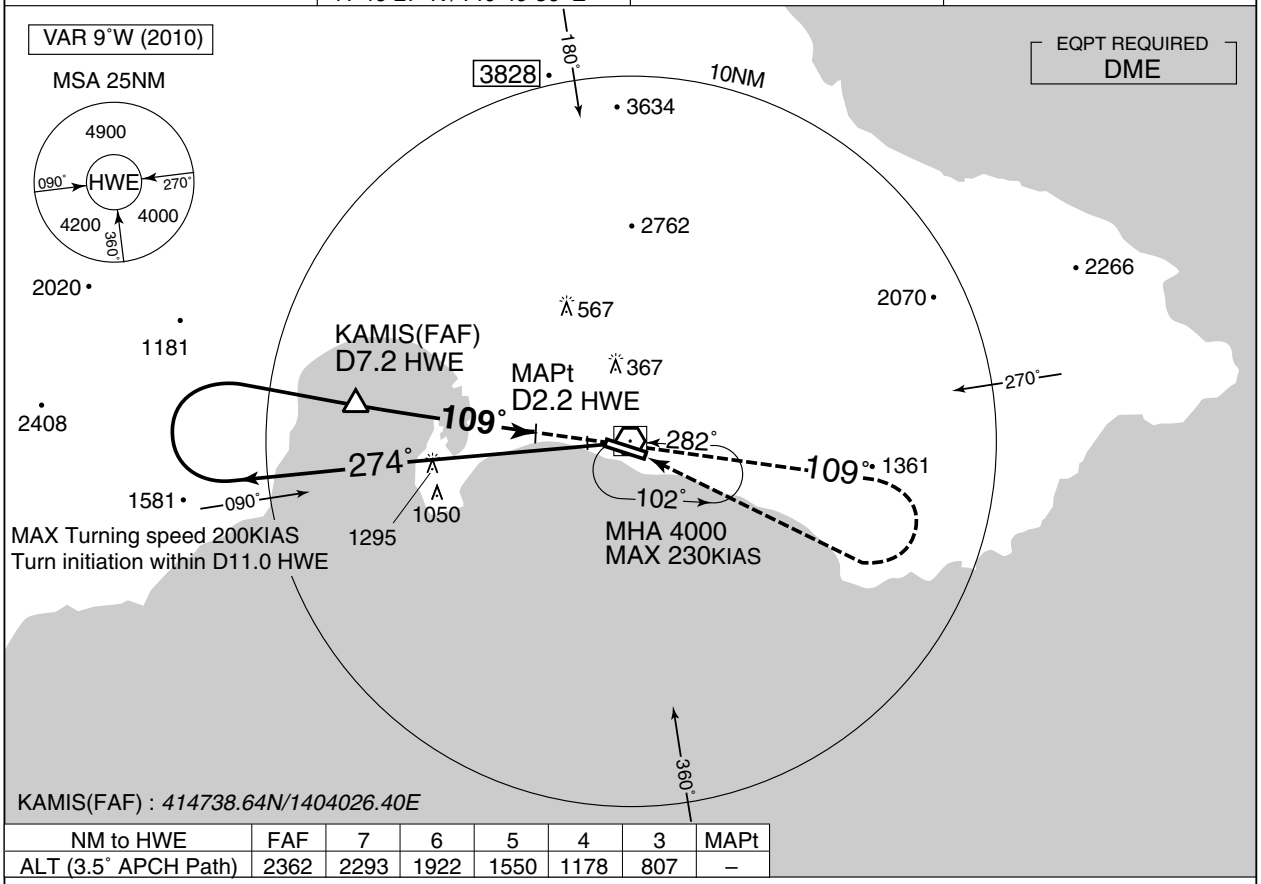
MINIMA	THR elev. 151		AD elev. 112	
CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	730 (618)	1000	730 (618)	1600
B		1200		
C				2400
D		1600		3200

Circling to SOUTH side of RWY only.

INSTRUMENT APPROACH CHART

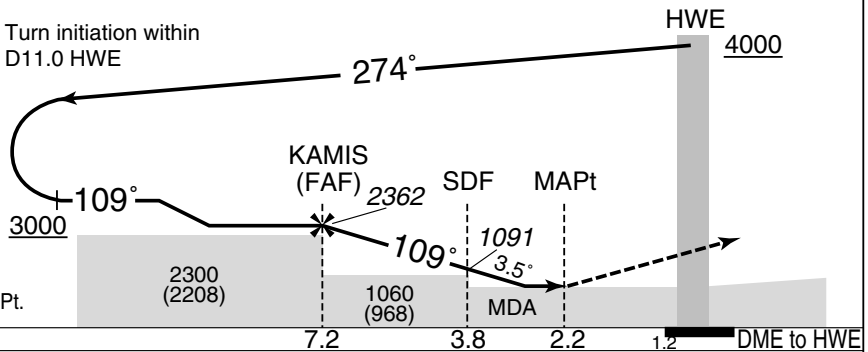
RJCH / HAKODATE VOR RWY12

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

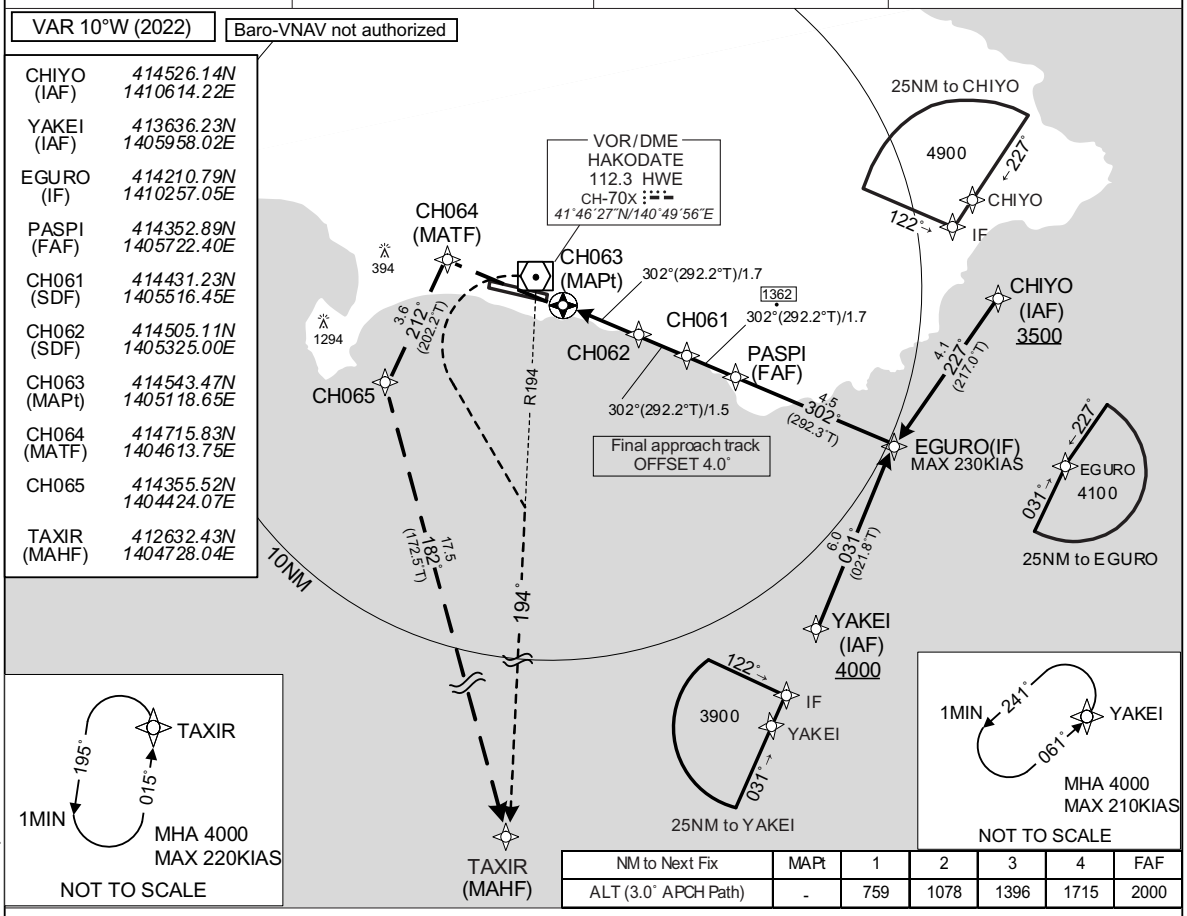
CHANGE : VAR. MSAS CH added. PROC course. FIX established(EGURO,PASPI,CH061,CH062,CH063,CH064,CH065).
FIX abolished(ROCCA,IKARU,CH058,CH059,CH060). PROC ALT. MINIMA for LPV established. MINIMA for LNAV.

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

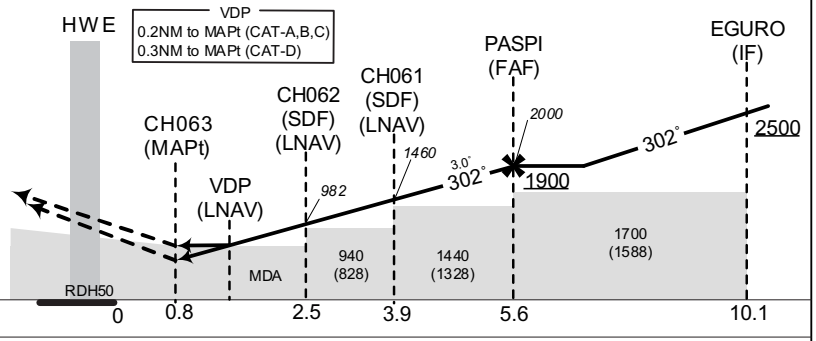


NM to Next Fix	MAPt	1	2	3	4	FAF
ALT (3.0° APCH Path)	-	759	1078	1396	1715	2000

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

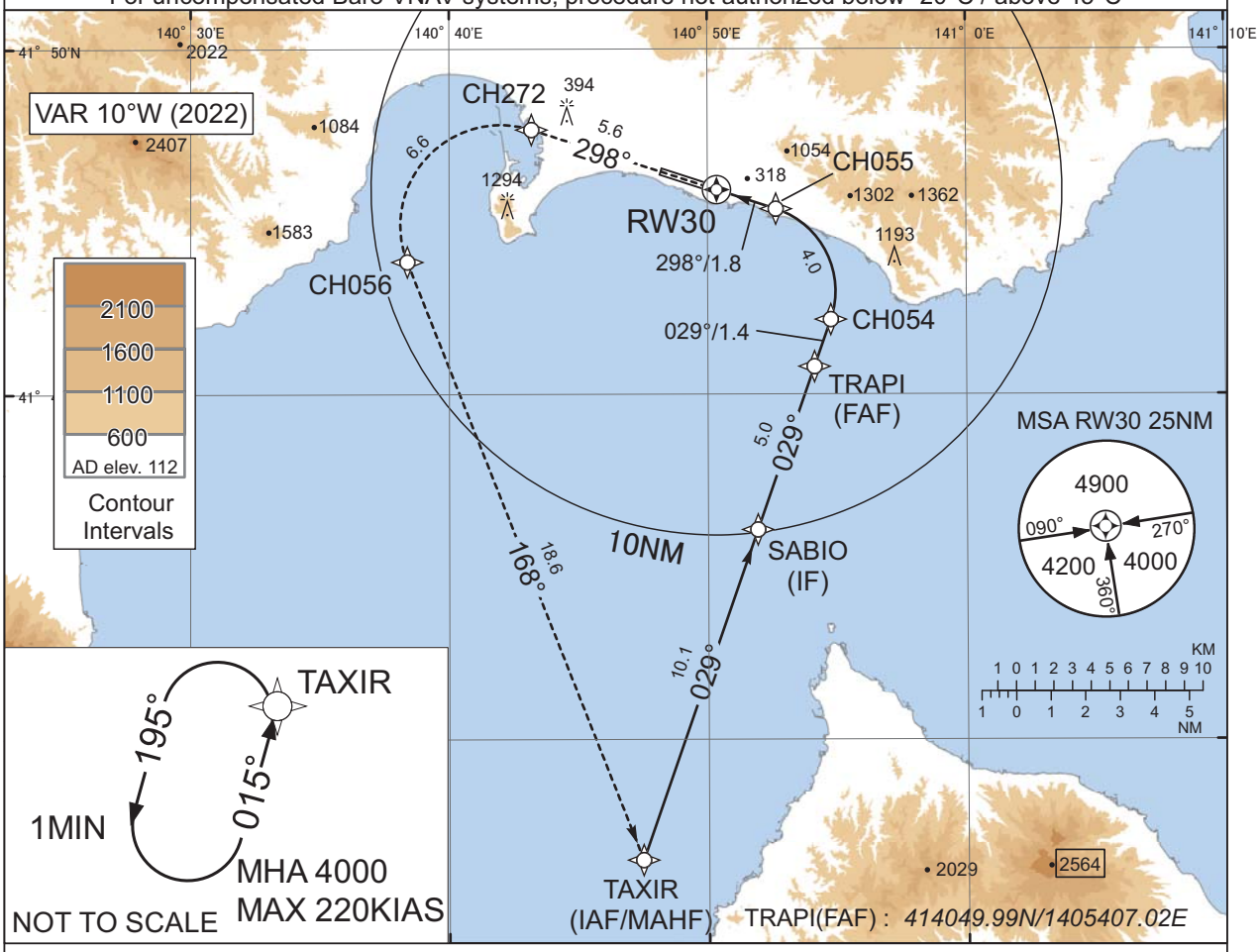
CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).

INSTRUMENT APPROACH CHART

RJCH / HAKODATE RNP Y RWY30(AR)

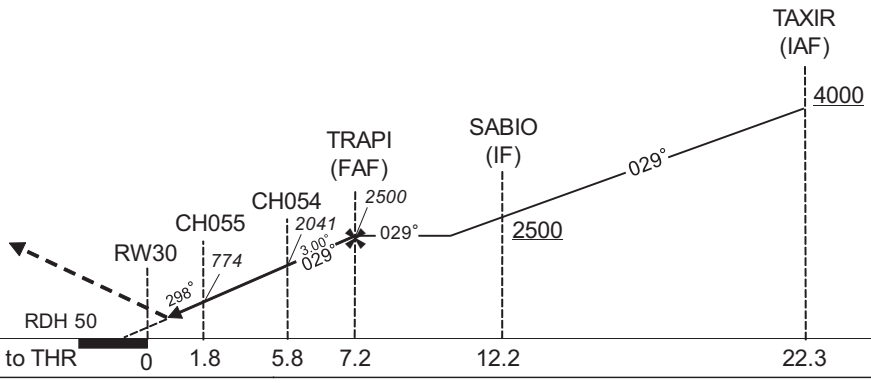
HAKODATE APP 119.0 - 121.0 127.9	RNP AR RF required.	HAKODATE TWR 118.35 - 126.2	RADAR AVBL ATIS 126.6

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

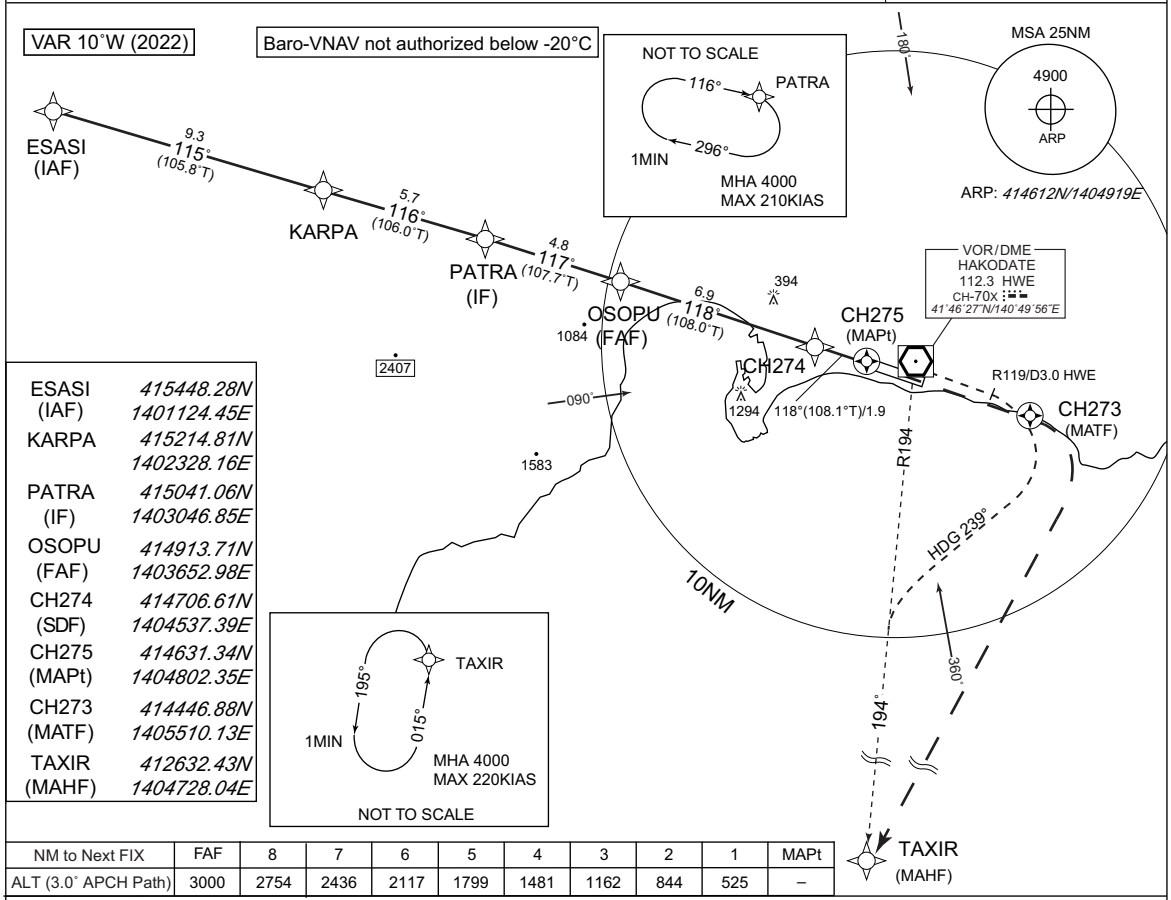
Waypoint Coordinates

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*		

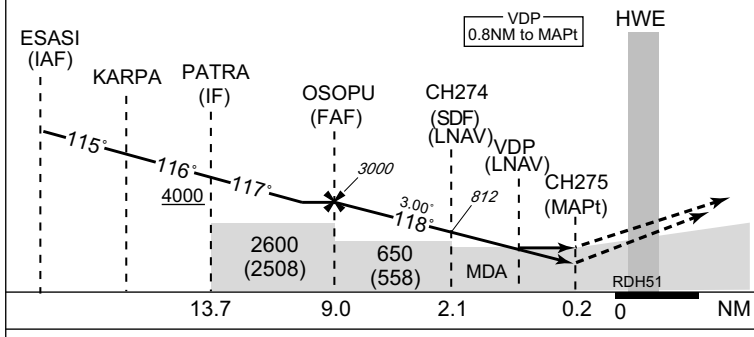
INSTRUMENT APPROACH CHART

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).

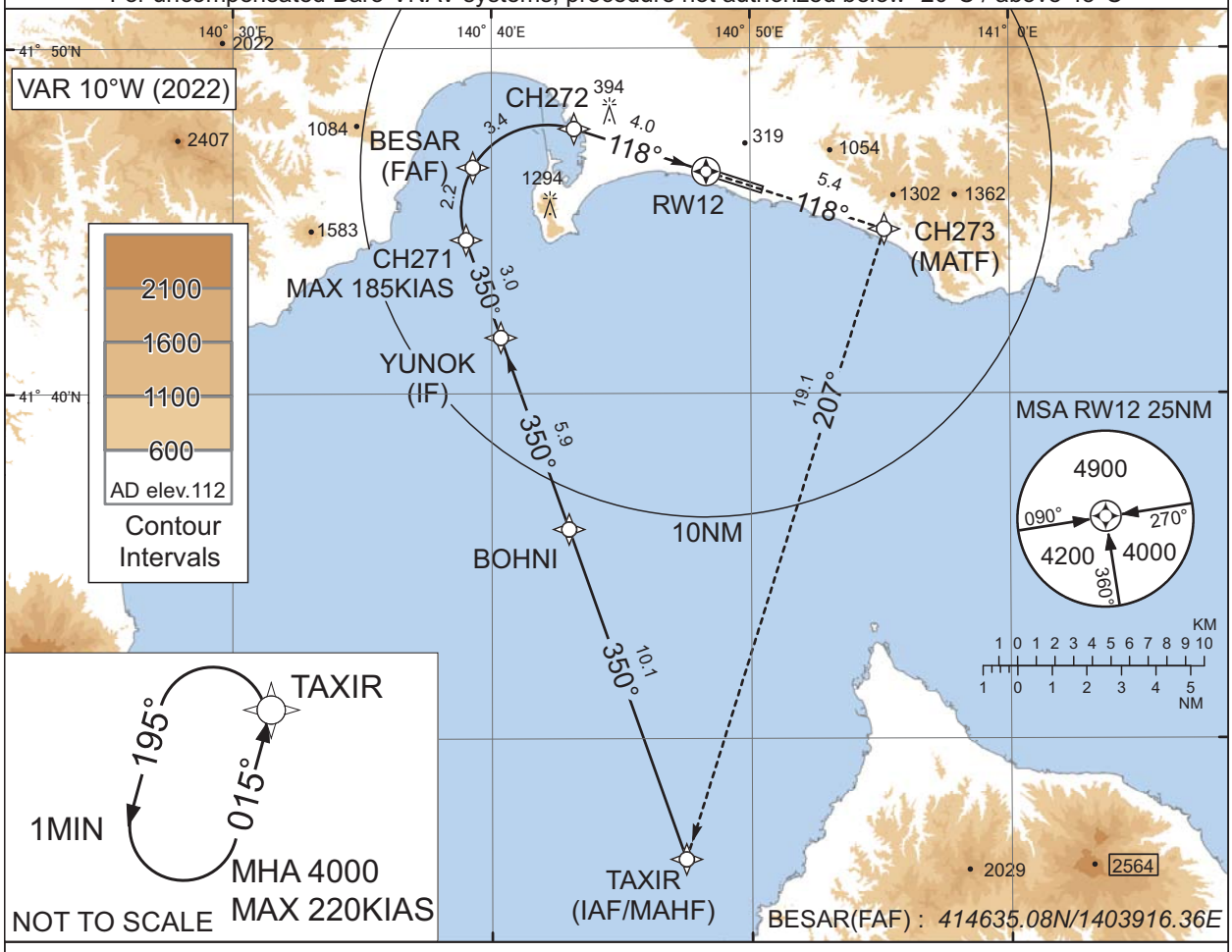
INSTRUMENT APPROACH CHART

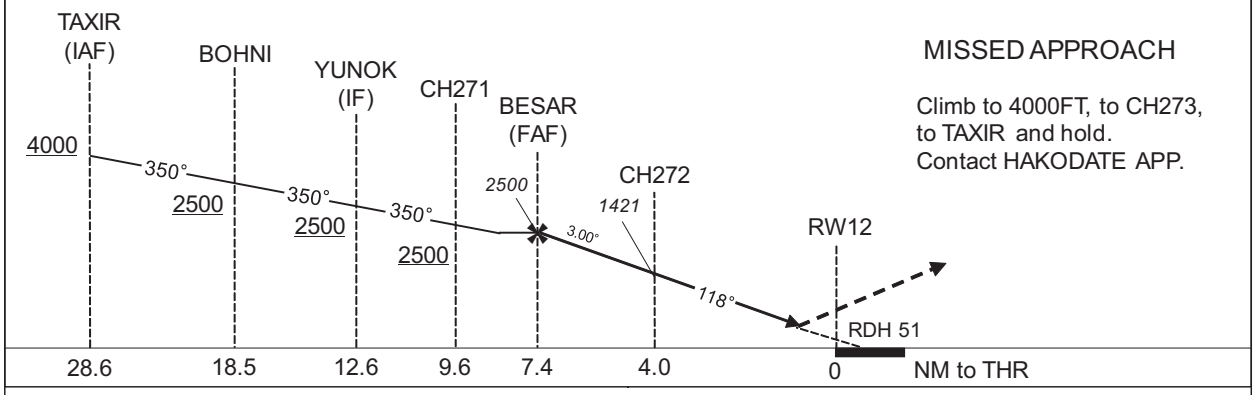
RJCH / HAKODATE

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

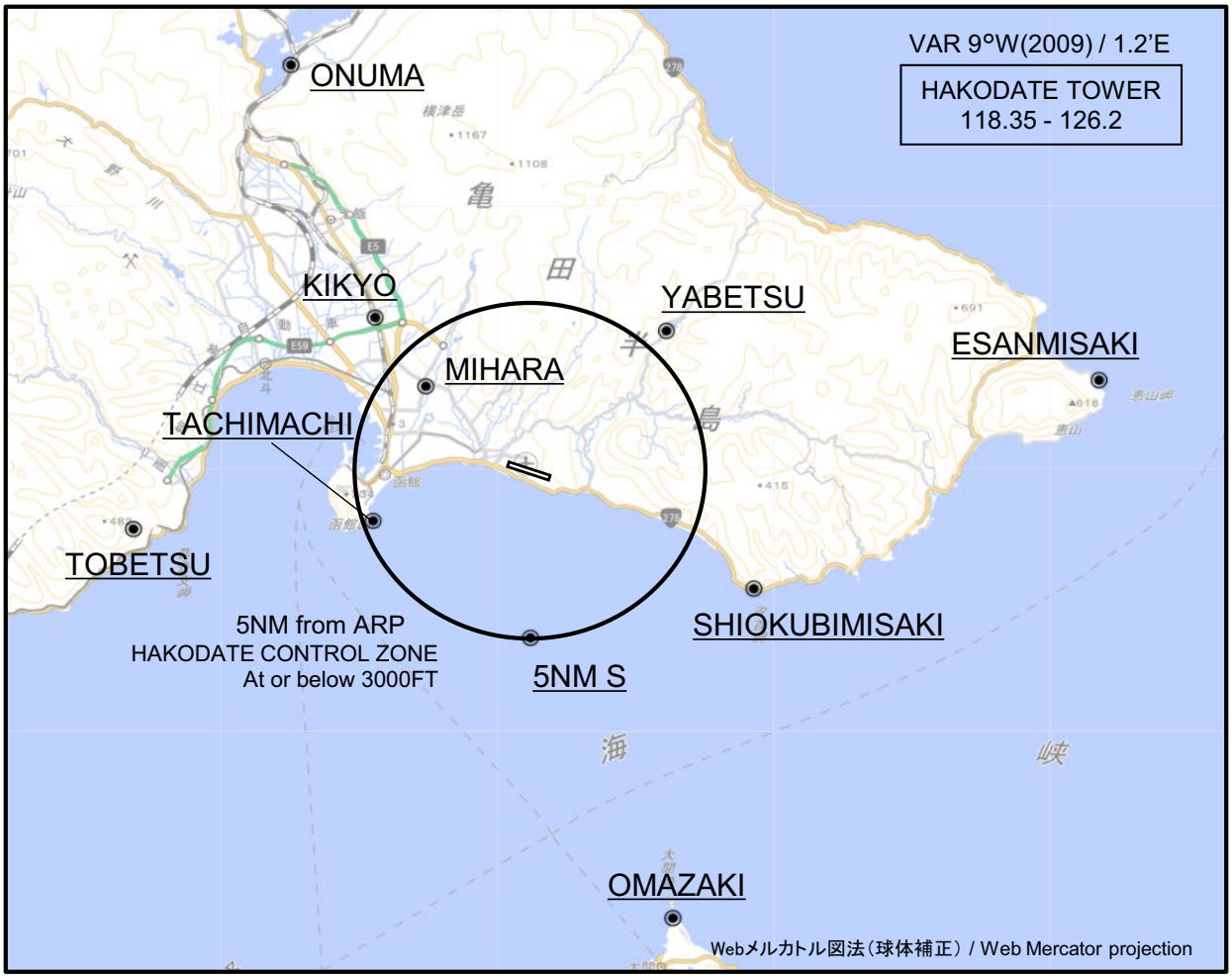
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	TAXIR	015 (005.3)	-9.6	1.0 (-14000)	L	4000	FL140	-220 (-14000)	1.0

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

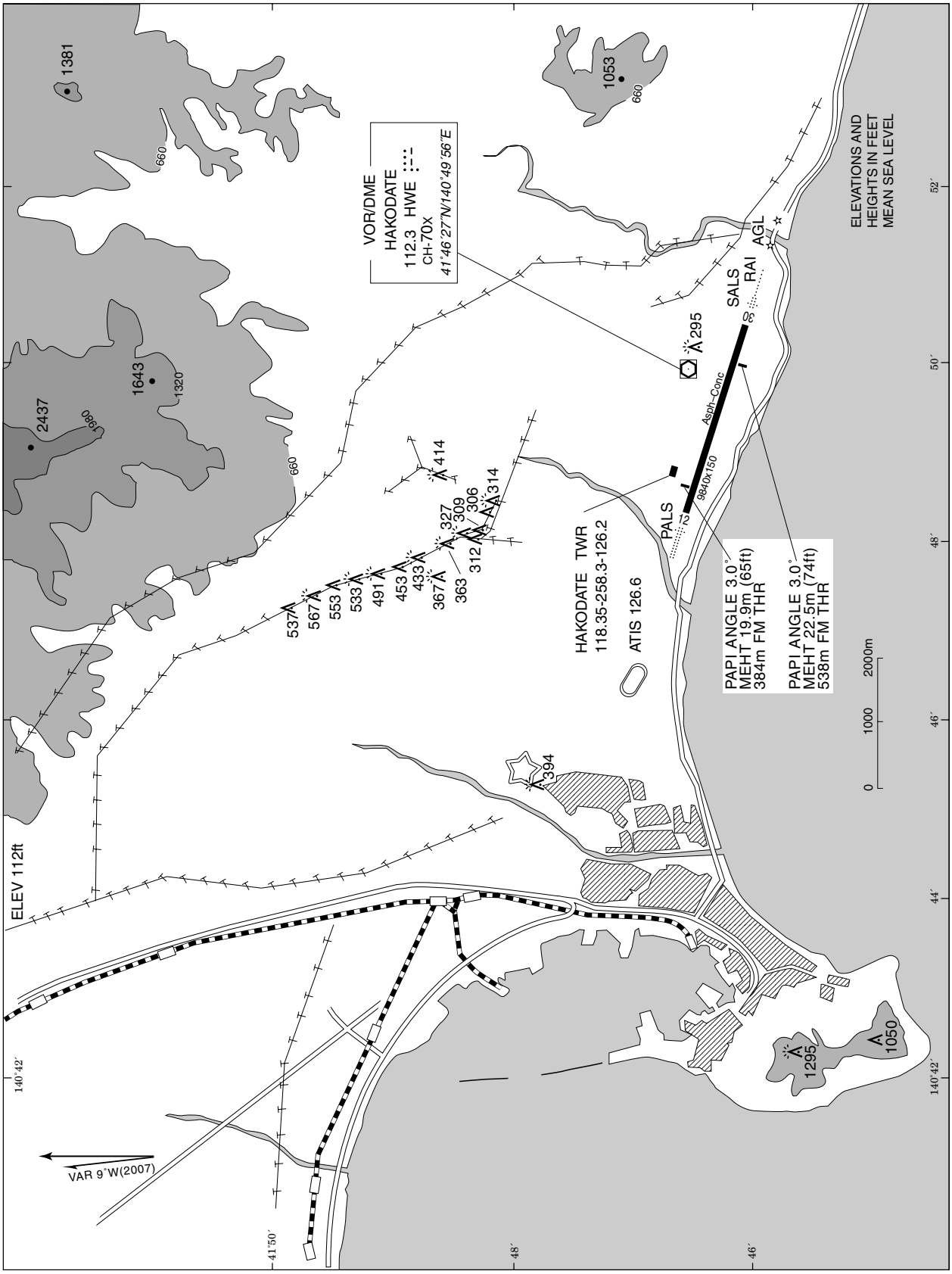


※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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

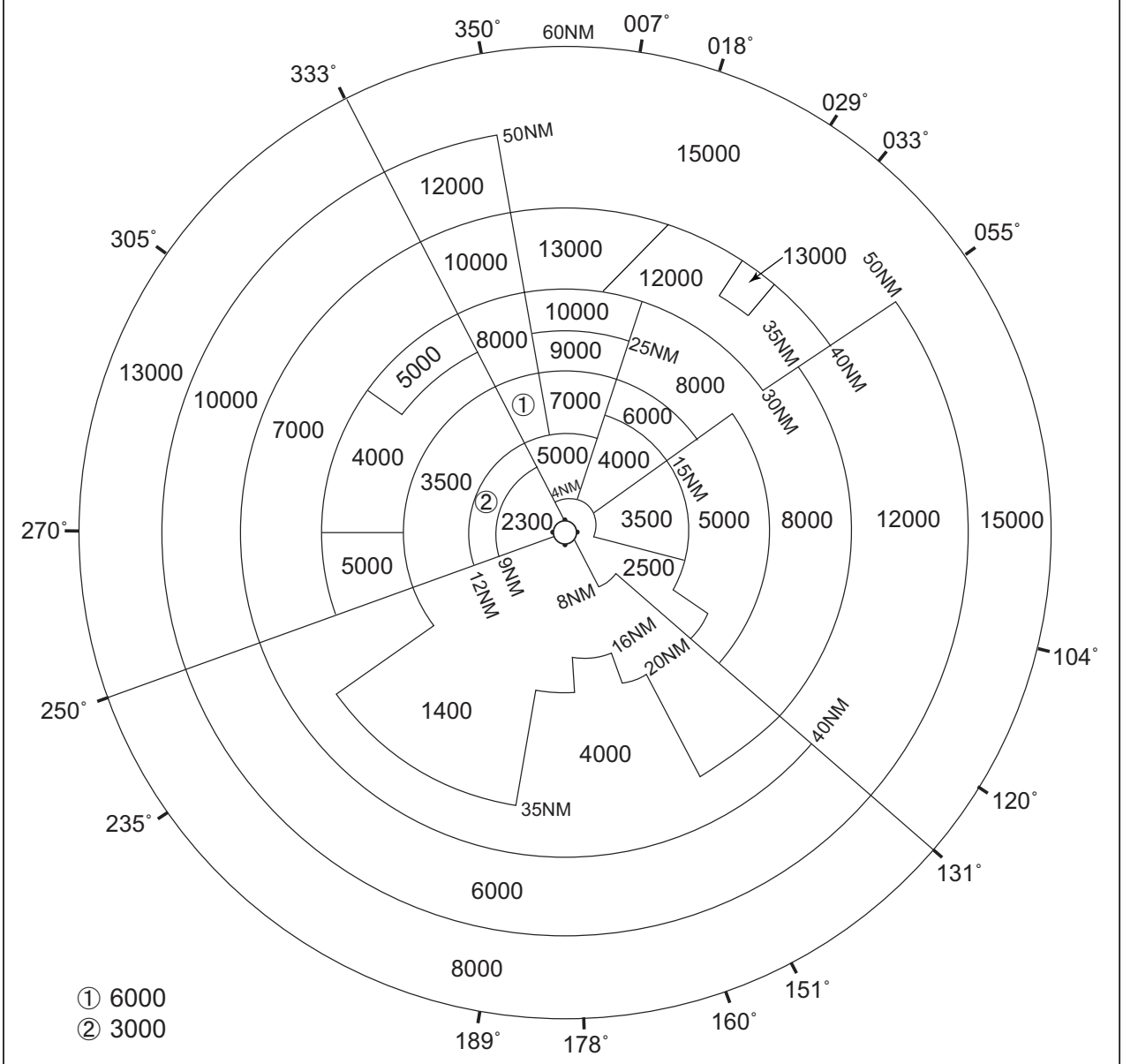
LDG CHART


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°).

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