## 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<br>511, Takamatsu-cho, Hakodate, Hokkaido<br>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)<br>511, Takamatsu-cho, Hakodate, Hokkaido<br>TEL:0138-57-1737, FAX:0138-59-4745<br>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): 0100-0815<br>Quarantine(animal): 2330-0800<br>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<br>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:<br>a)rotatry x 3<br>b)snow plows x 4<br>c)snow sweeper x 4<br>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<br>Strength: PCR 1132/R/B/W/T |
| 2 | Taxiway width, surface and strength | Width: P1 - P6 : 23m<br>T1, T7 : 28.5m<br>T2 - T6 : 34m<br>Surface: All TWY(except P2 and P3 behind SPOT1-10) : Asphalt Concrete<br>TWY P2 and P3 behind SPOT1-10 : Concrete<br>Strength: All TWY(except P2 and P3 behind SPOT1-10) : PCR 995/F/D/X/T<br>TWY P2 and P3 behind SPOT1-10 : PCR 1132/R/B/W/T |
| 3 | ACL and elevation | Not available |
| 4 | VOR checkpoints | Not available |
| 5 | INS checkpoints | Spot NR<br>*1 414631.62N, 1404848.33E*<br>*2W 414631.87N, 1404849.46E*<br>*2 414631.17N, 1404850.18E*<br>*3 414631.21N, 1404852.59E*<br>*4 414630.51N, 1404855.48E*<br>*5 414629.73N, 1404858.32E*<br>*6 414628.84N, 1404900.90E*<br>*7 414628.03N, 1404903.16E*<br>*8 414627.48N, 1404905.43E*<br>*9 414626.98N, 1404907.49E*<br>*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<br>ACFT stand taxi lane:Nil<br>Visual docking guidance system :Nil |
| 2 | RWY and TWY markings and LGT | RWY: RWY12/30<br>(Marking) RWY designation, RWY CL, RWY THR,<br>Aiming point, TDZ, RWY side stripe<br>(LGT): RCLL, REDL, RTHL, RENL, RTZL(RWY12), WBAR(RWY12),<br>RWY DIST marker LGT<br><br>TWY: P1-P6<br>(Marking) TWY CL, TWY side stripe<br>(LGT) TWY edge LGT, TWY CL LGT<br><br>TWY: T1-T7<br>(Marking) TWY CL, RWY HLDG PSN, TWY side stripe<br>(LGT) TWY edge LGT, TWY CL LGT, RWY guard LGT, Taxiing guidance sign |
| 3 | Stop bars | Nil |
| 4 | Remarks | (Marking) Overrun area<br>(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 |

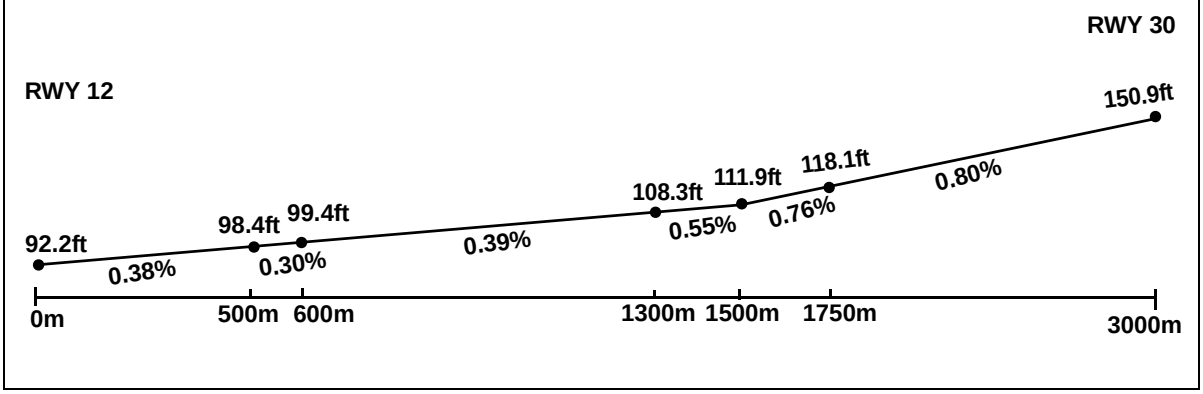
## RJCH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | NEW CHITOSE |
| 2 | Hours of service<br>MET Office outside hours | H24 (NEW CHITOSE) |
| 3 | Office responsible for TAF preparation<br>Periods of validity | NEW CHITOSE<br>30 Hours |
| 4 | Trend forecast<br>Interval of issuance | Nil |
| 5 | Briefing/consultation provided | Briefing is available upon inquiry at NEW CHITOSE |
| 6 | Flight documentation<br>Language(s) used | C<br>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<br>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(PCR) and surface of RWY | THR coordinates<br>THR geoid undulation | THR elevation and highest elevation of TDZ<br>of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 12 | 107.98° | 3000×45 | PCR<br>1088/F/D/X/T<br>Asphalt Concrete | *414627.62N*<br>*1404817.61E*<br>112.6FT | THR ELEV 92.2ft<br>TDZ ELEV 103ft |
| 30 | 287.98° | 3000×45 | PCR<br>1088/F/D/X/T<br>Asphalt Concrete | *414557.54N*<br>*1405021.00E*<br>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<br>*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)<br>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<br>Anemometer location and LGT | LDI : Nil<br>Anemometer: RWY12 400m WSW from ABN, LGTD<br>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<br>Within 15sec: Other lights |
| 5 | Remarks | WDI LGT |

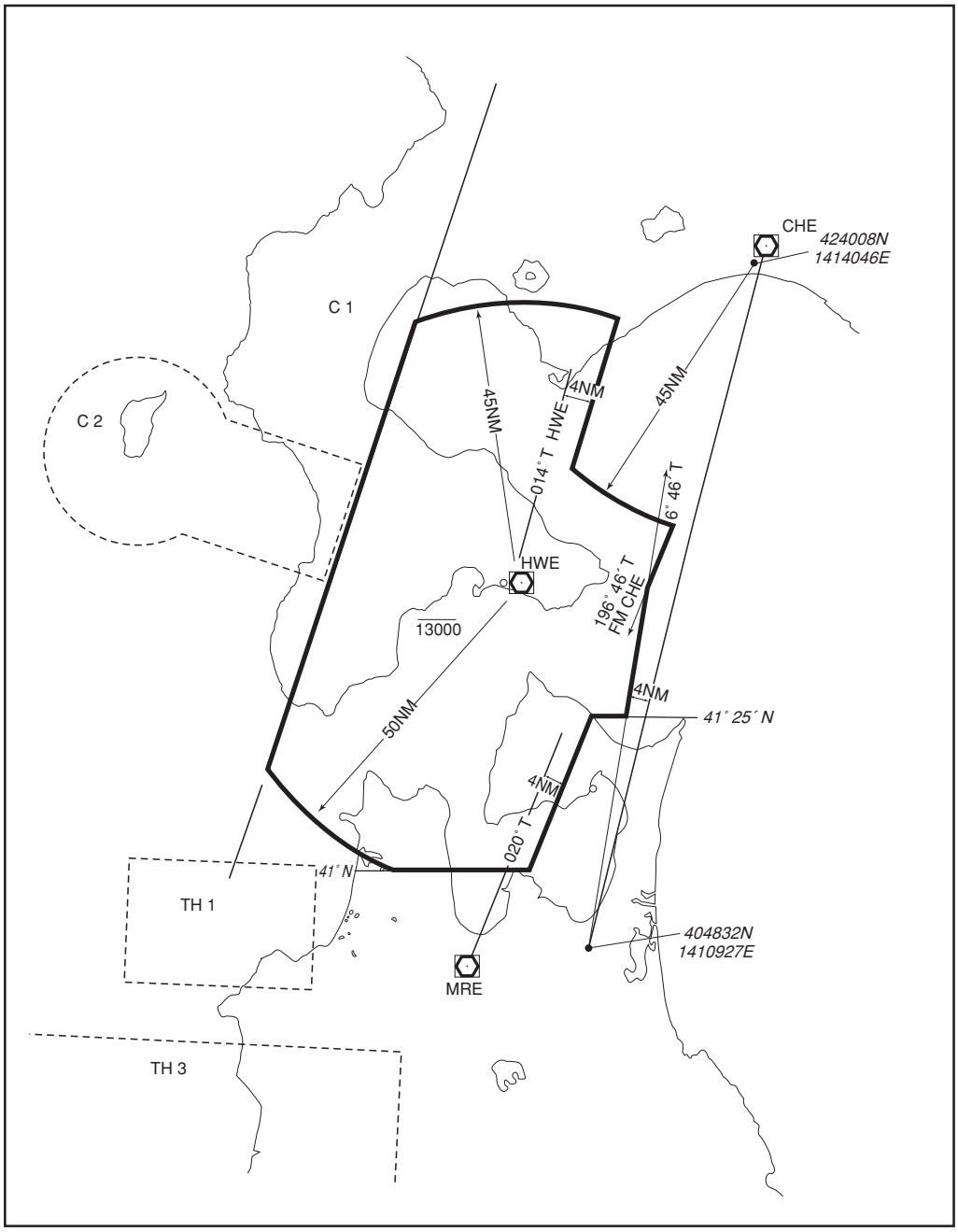
## RJCH AD 2.16 HELICOPTER LANDING AREA

| |
|---|
| 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



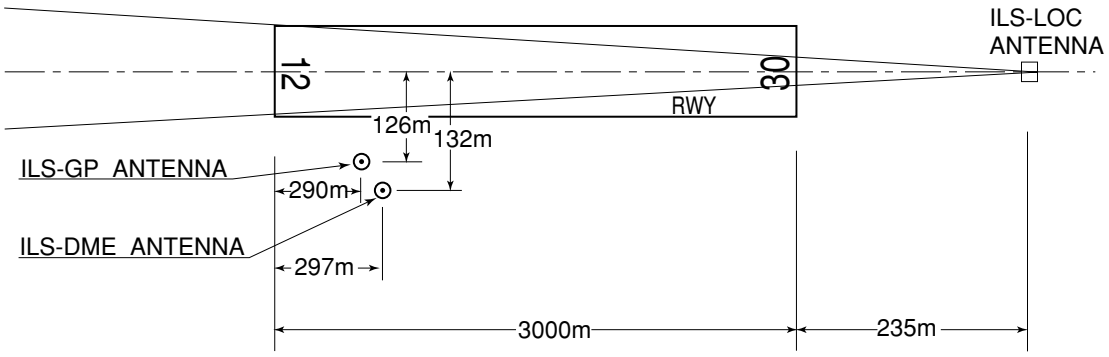
## RJCH AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Hakodate Tower | 118.35MHz(1)<br>126.2MHz(2)<br>121.5 MHz(E)<br>243.0 MHz(E) | 2230 - 1130 | (1)Primary<br>(2)Secondary |
| APP/ASR | Hakodate Approach/Radar | 119.0 MHz<br>121.0 MHz<br>121.5MHz(E)<br>243.0MHz(E) | 2230 - 1130 | |
| DEP | Hakodate Departure | 127.9 MHz<br>121.0 MHz<br>121.5MHz(E)<br>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:<br>020°-030° beyond 30nm BLW 6000ft.<br>030°-040° beyond 35nm BLW 5000ft.<br>070°-090° beyond 25nm BLW 5000ft.<br>090°-100° beyond 35nm BLW 5000ft.<br>100°-110° beyond 20nm BLW 4000ft.<br>200°-240° beyond 35nm BLW 5000ft.<br>340°-350° beyond 35nm BLW 6000ft.<br>350°-010° beyond 15nm BLW 6000ft. |
| DME | HWE | 1157MHz (CH-70X) | H24 | *414626.51N/ 1404955.98E* | 300ft | DME unusable:<br>000°-020° beyond 25nm BLW 6000ft.<br>100°-110° beyond 35nm BLW 4000ft.<br>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.<br>GP 3.0°<br>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<br>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

MARKING AIDS

Mandatory instruction marking

30-12

# HAKODATE AIRPORT

ELEV34.1m (111.9ft)

VOR/DME
HWE 112.3
CH-70X

VAR9°W-2009
Annual Change 1.2° E

TERMINAL BLDG
CARGO
INTL
DOMESTIC
TWR
AIS/MET
ABN
FIRE STATION
APRON
WIND SPEED METER
RVR
WDI
CEILO METER
CEILOMETER
ILS
GP 332.0
RWY GUARD LGT(T1-T7)
ARP *414612N*
*1404919E*
Asph conc
PCR 1088/F/D/X/T
3000m×45m
TDZ ELEV 103ft
ELEV 92ft
ELEV 151ft
PAPI ANGLE 3.0°
MEHT 19.9m (65ft)
384m INSIDE FM THR
PAPI ANGLE 3.0°
MEHT 22.5m (74ft)
538m INSIDE FM THR

1 2W2 3 4 5 6 7 8 9 10

P1 P2 P3 P4 P5 P6

T1 T2 T3 T4 T5 T6 T7

9▽1 8▽2 7▽3 6▽4 5▽5 4▽6 3▽7 1▽9

9△1 8△2 7△3 6△4 5△5 4△6 3△7 2△8 1△9

12 30

## APPROACH LIGHTING SYSTEM

SEQUENCED FLASHING LIGHTS (SFL-V)
Overrun area edge LGT
THR LIGHTS
GREEN
RED
338m
302m

## SIMPLE APPROACH LIGHTING SYSTEM

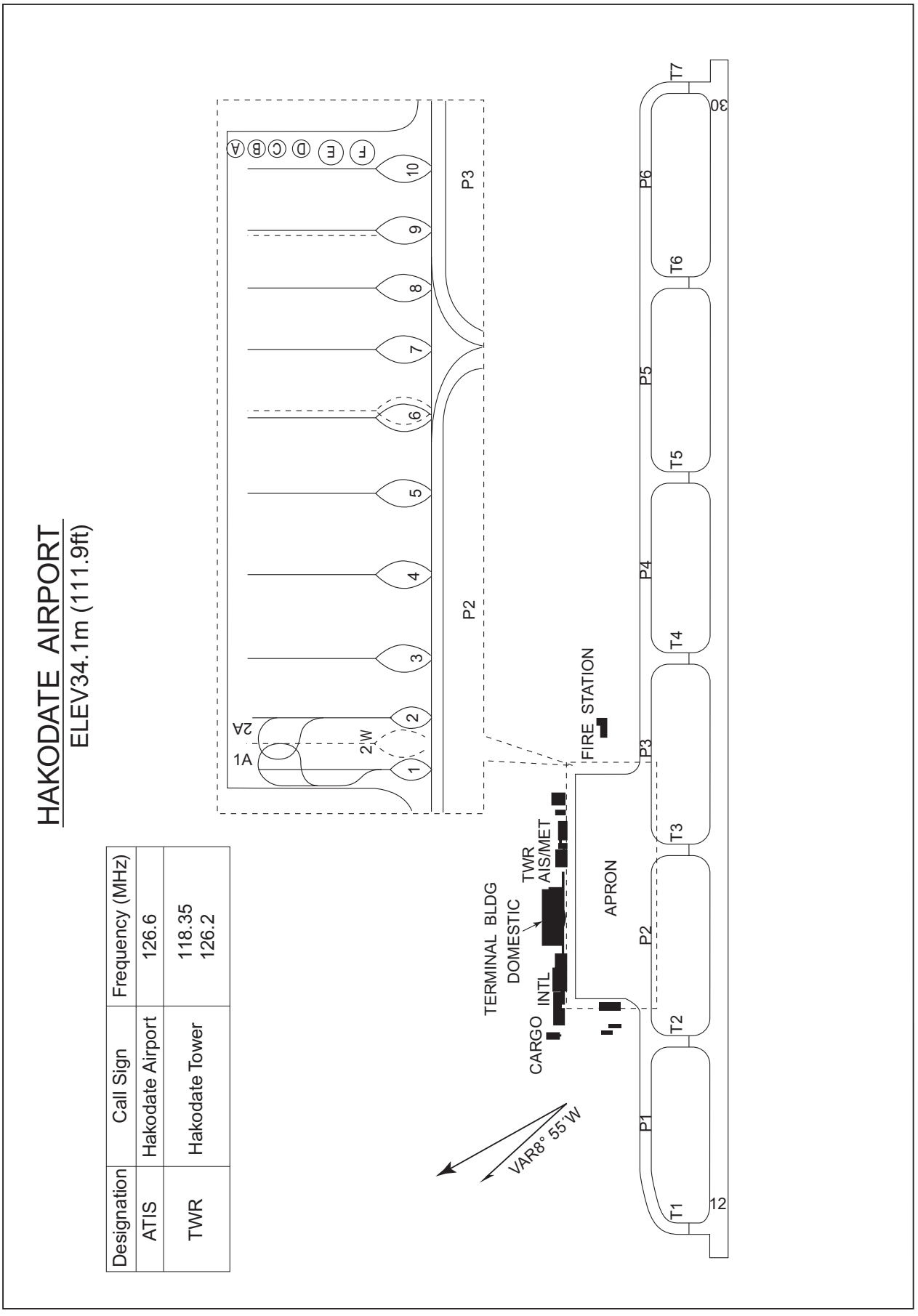
THR LIGHTS
Overrun area edge LGT
RUNWAY ALIGNMENT INDICATOR
APPROACH GUIDANCE LIGHTS
LOC
IHL 109.3
RED
GREEN
420m
60m
420m
441m
419m

**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<br>126.2 |

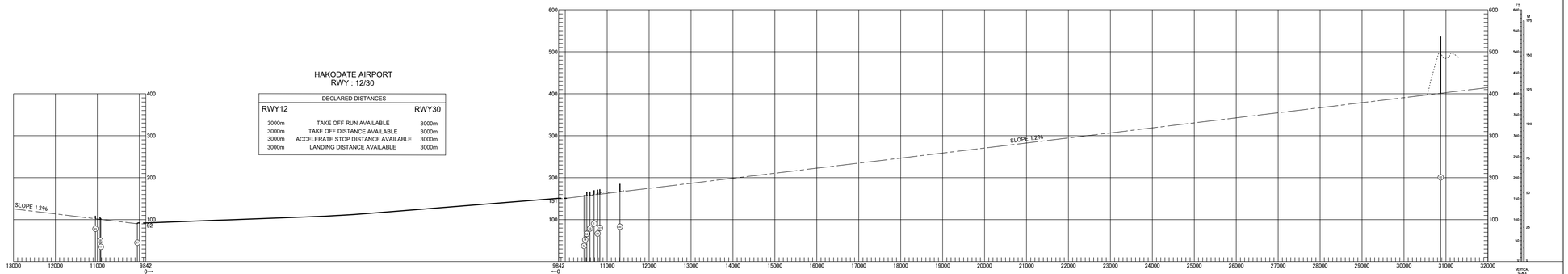
# AERODROME OBSTACLE CHART - ICAO
## TYPE A (OPERATING LIMITATIONS)

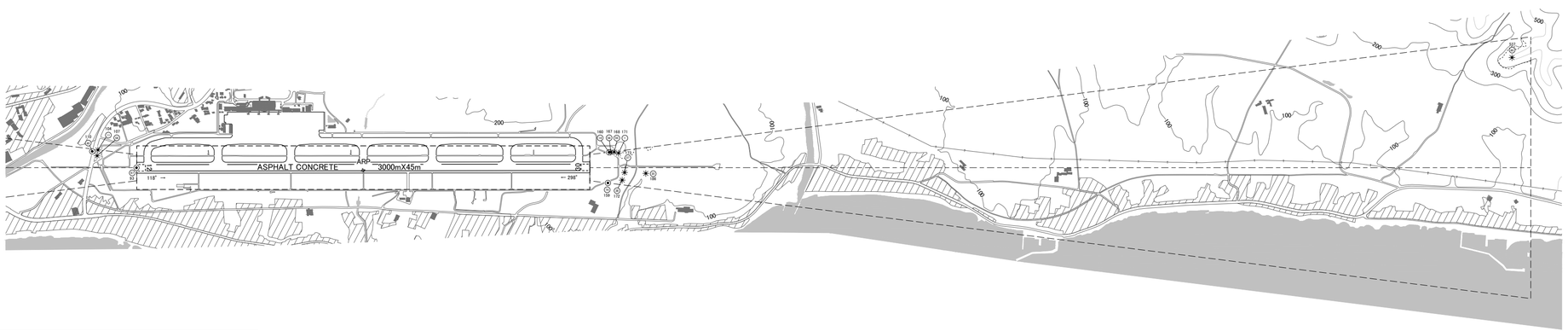
DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC
Transverse Mercator Projection

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 |

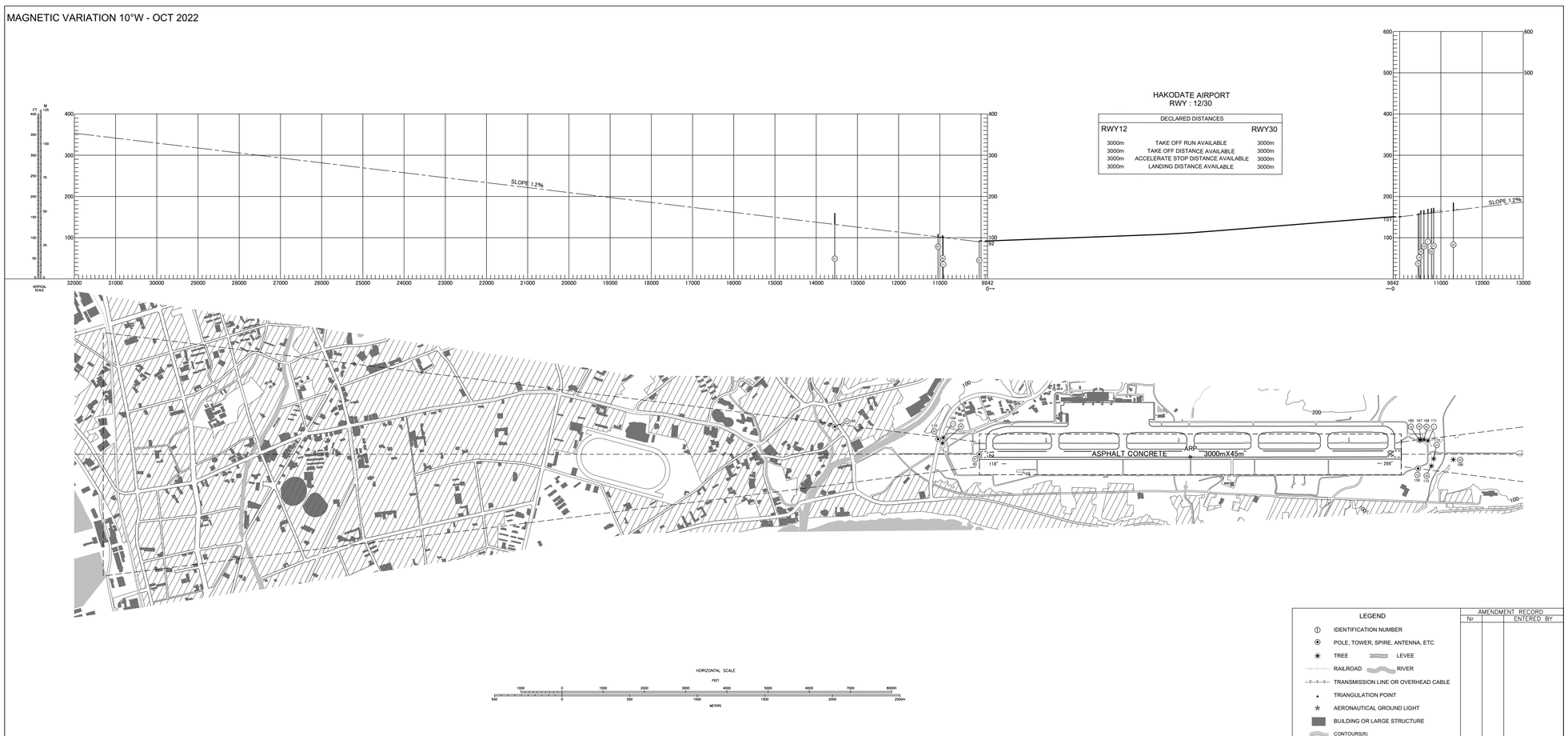
CHANGE:Update

HORIZONTAL SCALE
FEET
METERS

# AERODROME OBSTACLE CHART - ICAO
## TYPE A (OPERATING LIMITATIONS)

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

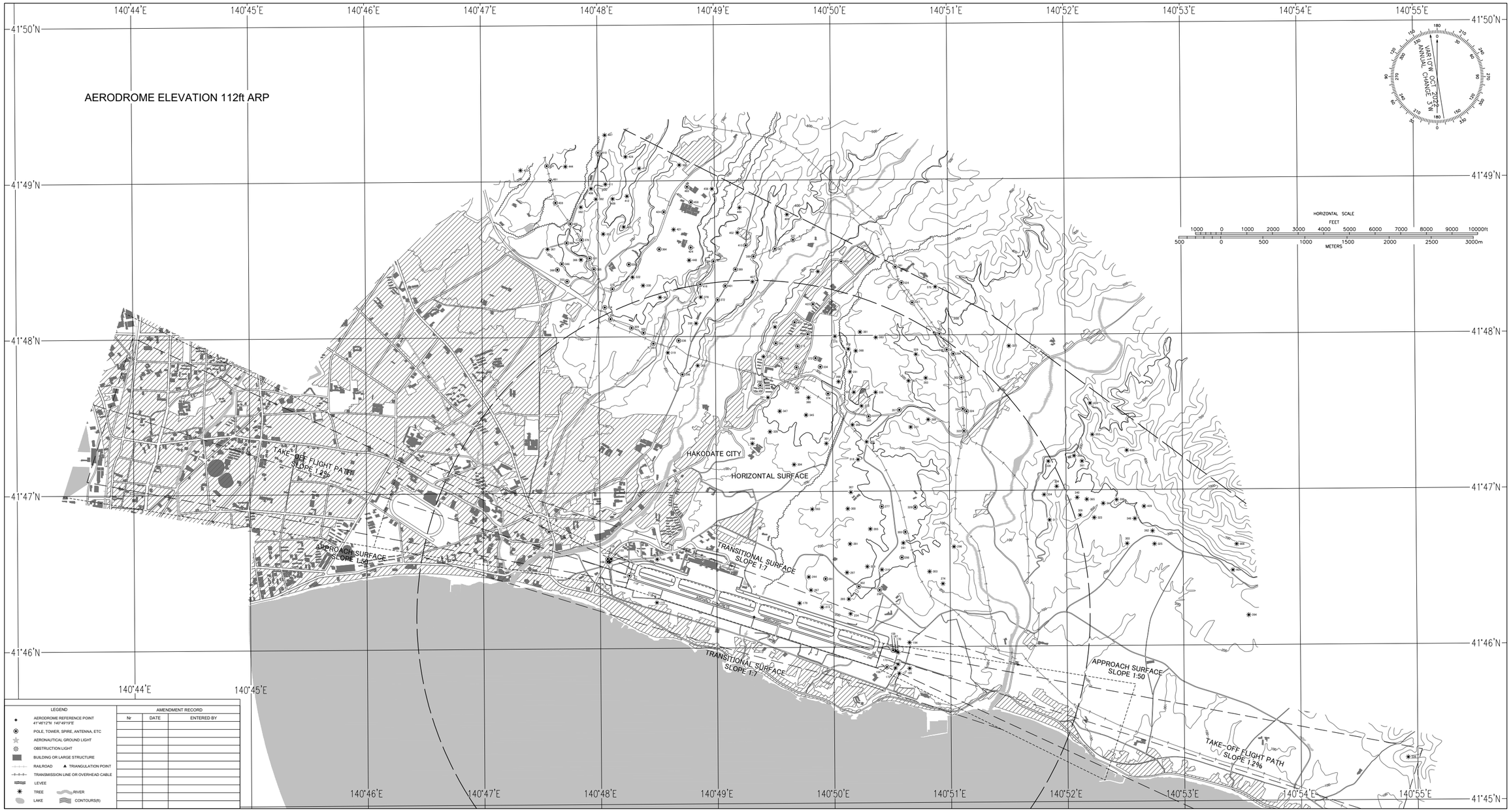
MAGNETIC VARIATION 10°W - OCT 2022




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

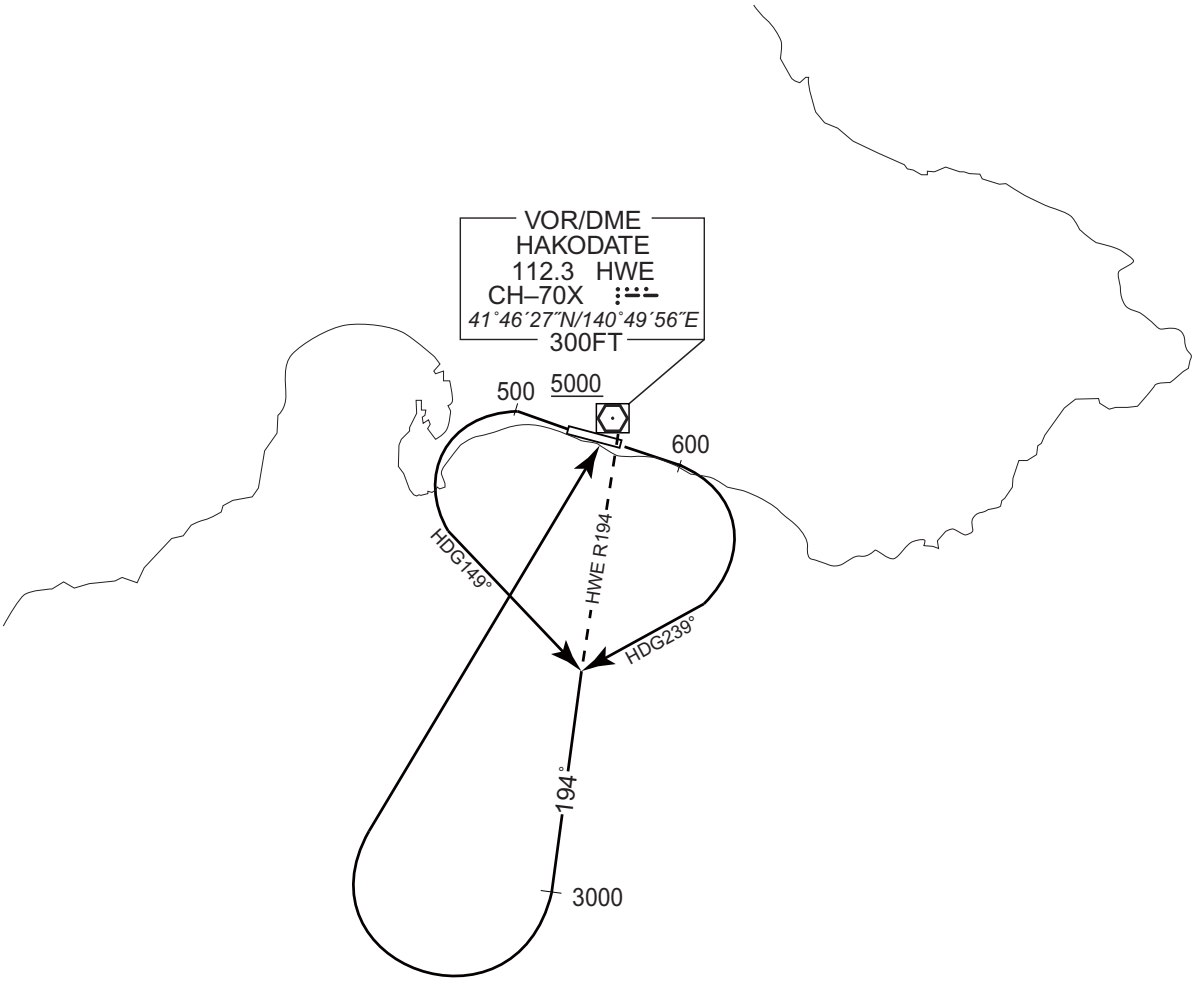
**STANDARD DEPARTURE CHART - INSTRUMENT**

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.

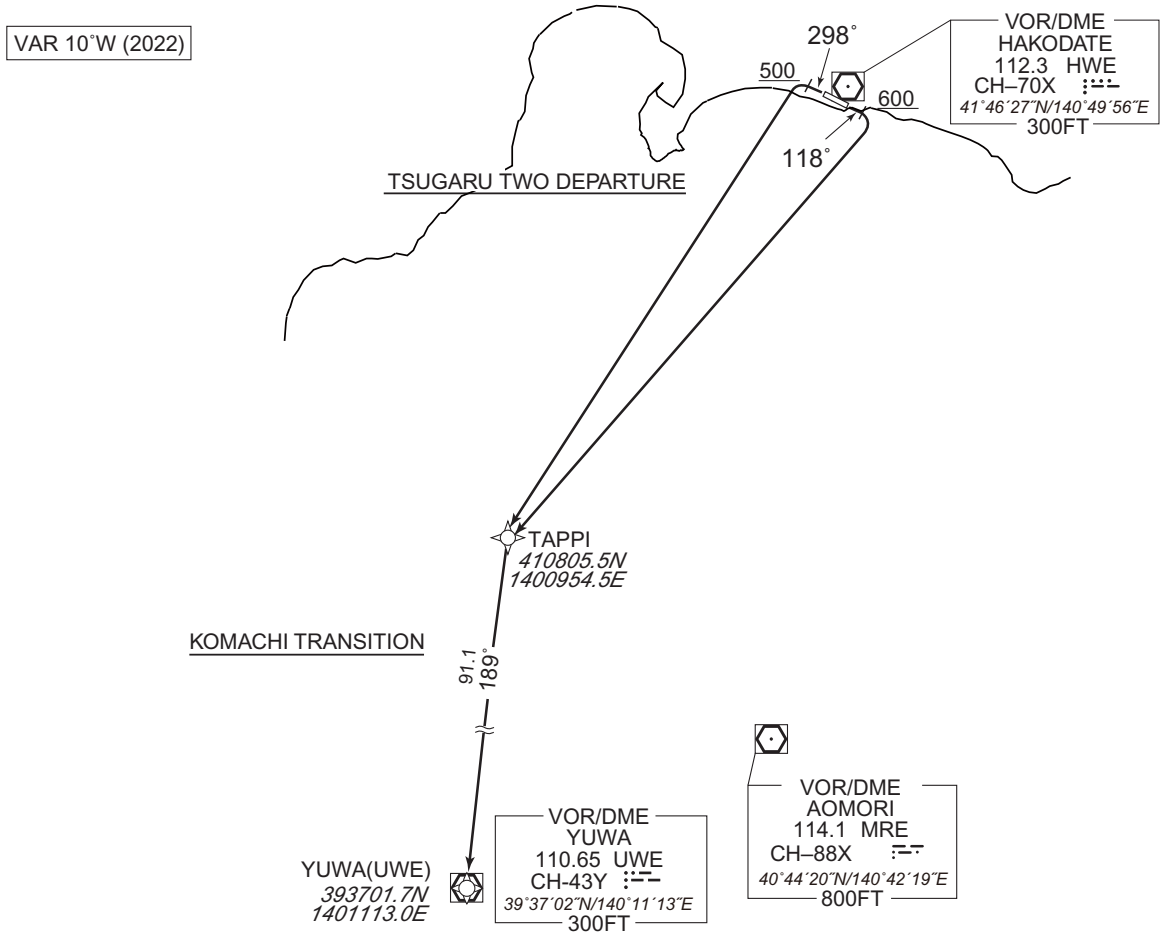


**STANDARD DEPARTURE CHART - INSTRUMENT**

RJCH / HAKODATE — RNAV SID and TRANSITION

| TSUGARU TWO DEPARTURE<br>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).

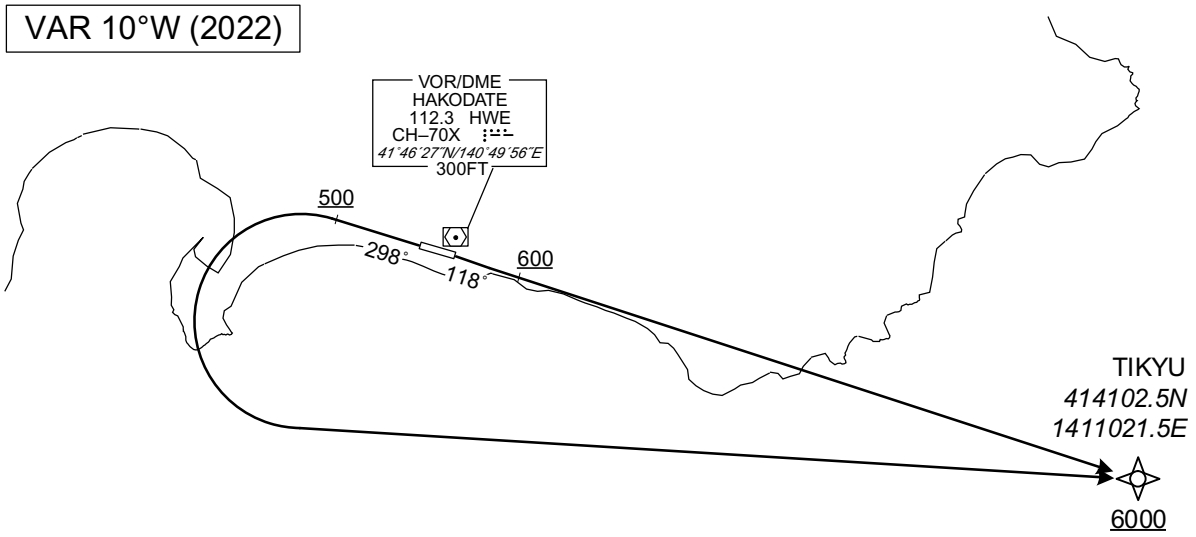
STANDARD DEPARTURE CHART - INSTRUMENT

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 |

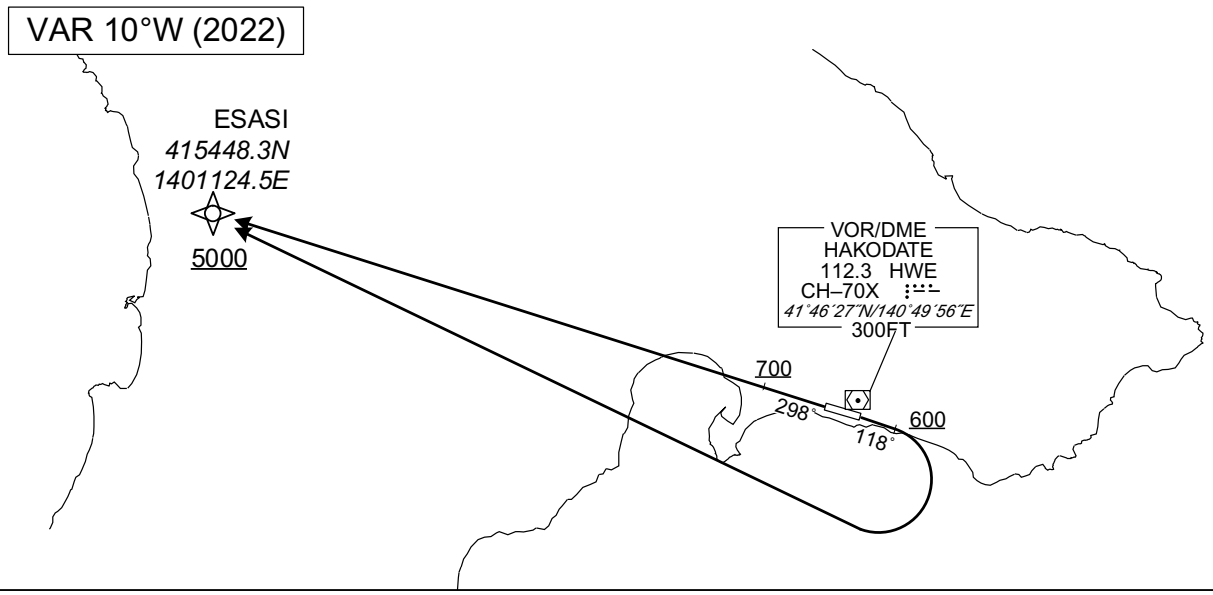
**STANDARD DEPARTURE CHART - INSTRUMENT**

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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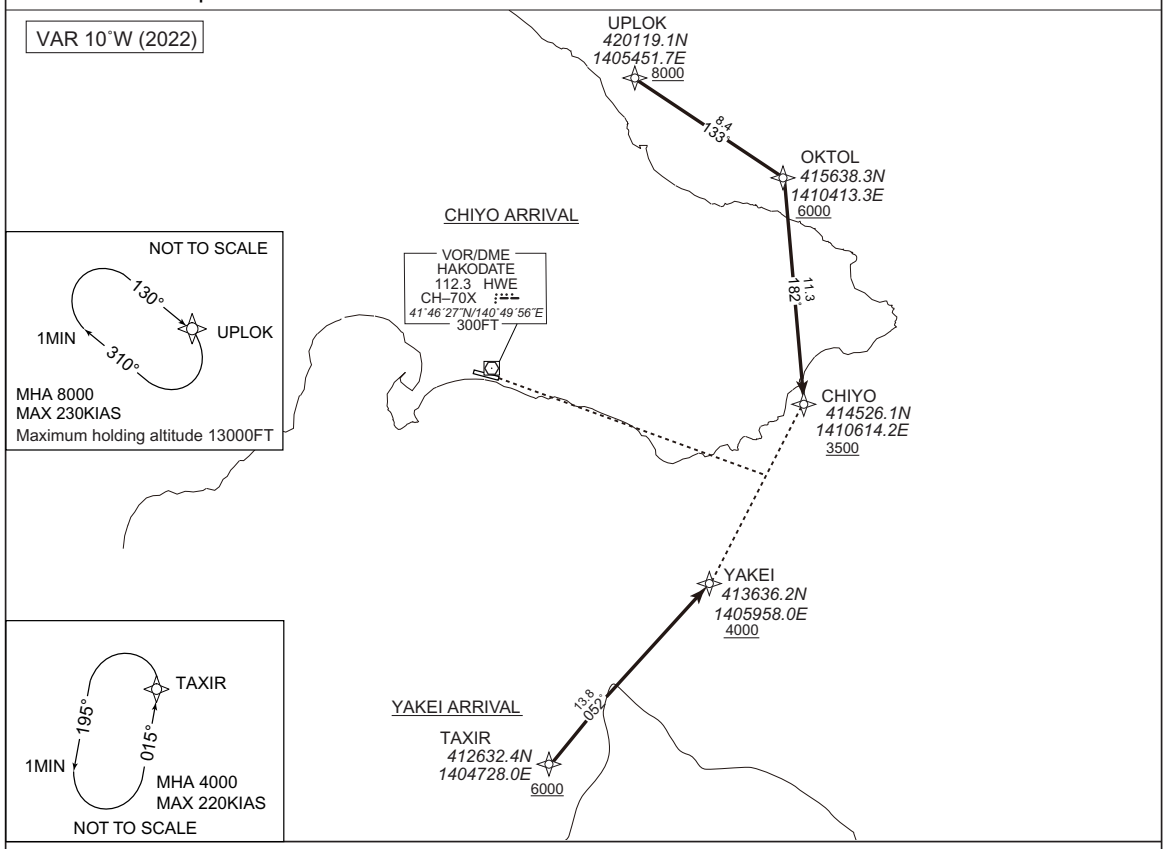
**STANDARD ARRIVAL CHART - INSTRUMENT**

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 |

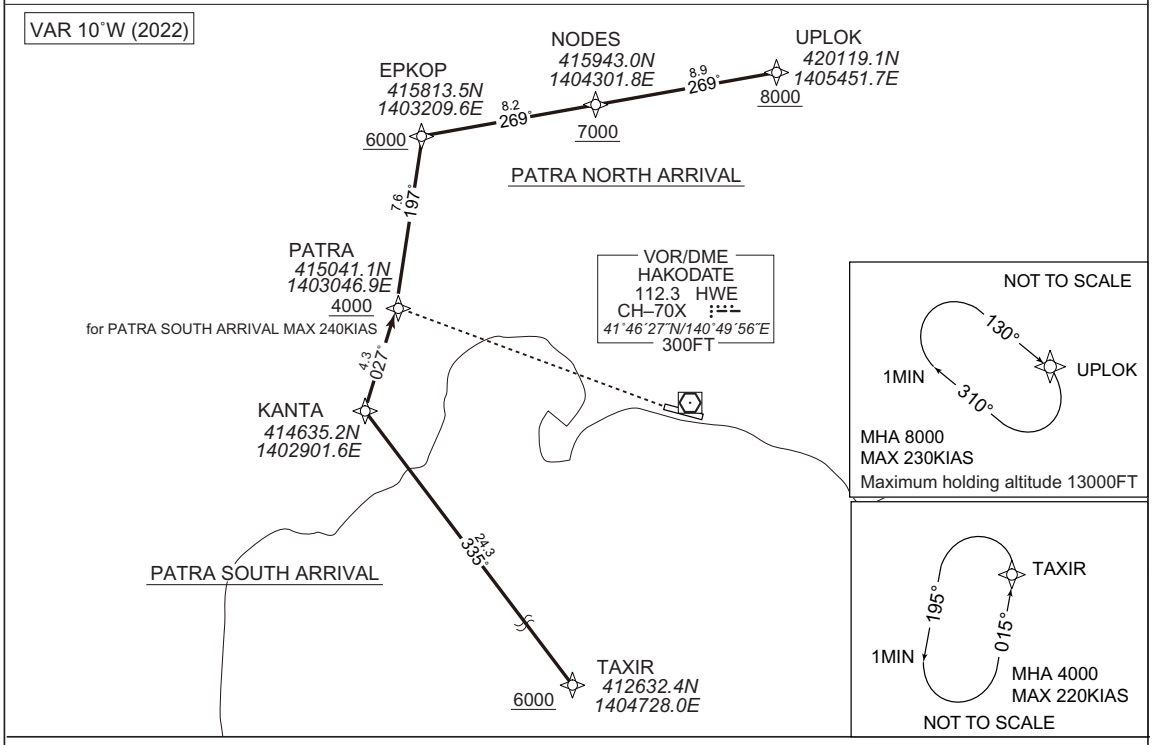
CHANGE : Navigation Specification(Basic RNP1 → RNP1).

**STANDARD ARRIVAL CHART - INSTRUMENT**

RJCH / HAKODATE — RNAV STAR RWY12

| PATRA NORTH ARRIVAL<br>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 |

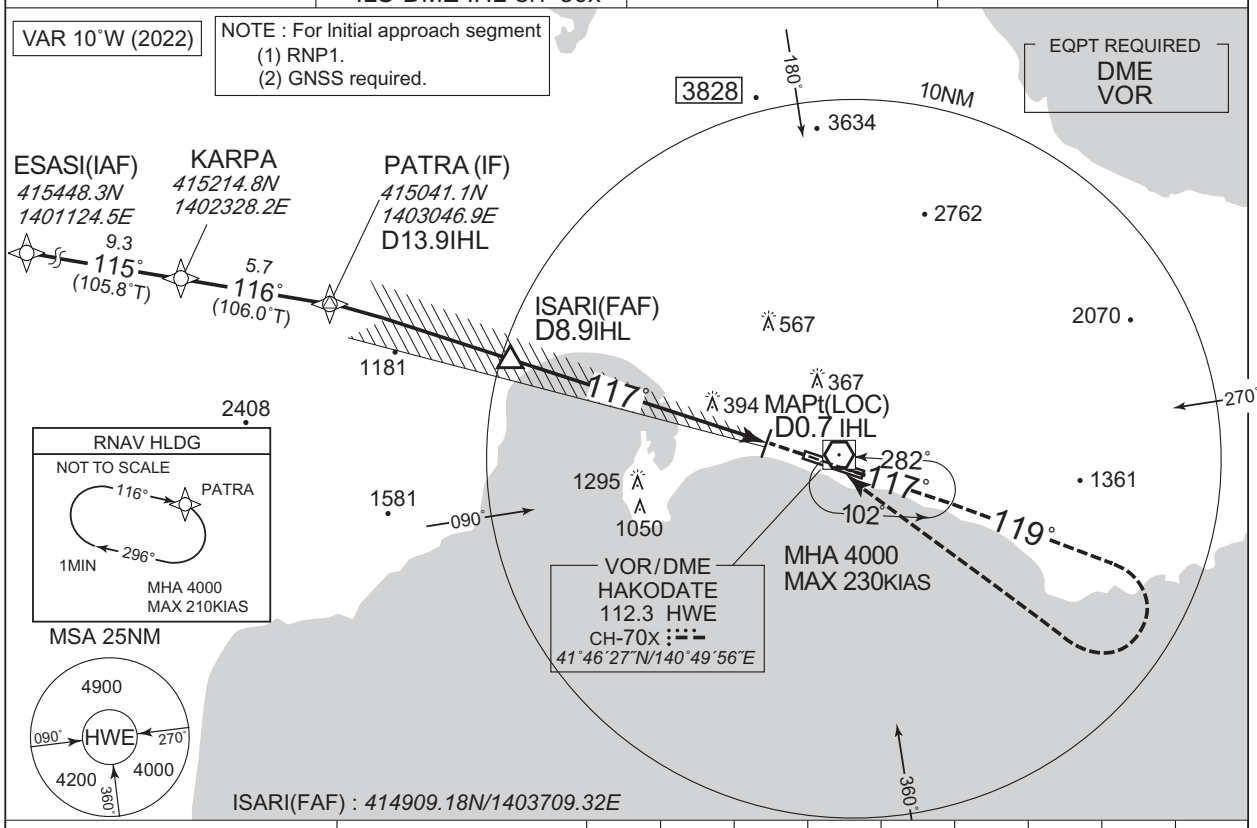
| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | Outbound Time (MIN) | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS) | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|
| Hold | TAXIR | 015 (005.3) | -9.6 | 1.0(-14000) | L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

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

**INSTRUMENT APPROACH CHART**

RJCH / HAKODATE — ILS Z or LOC Z RWY12

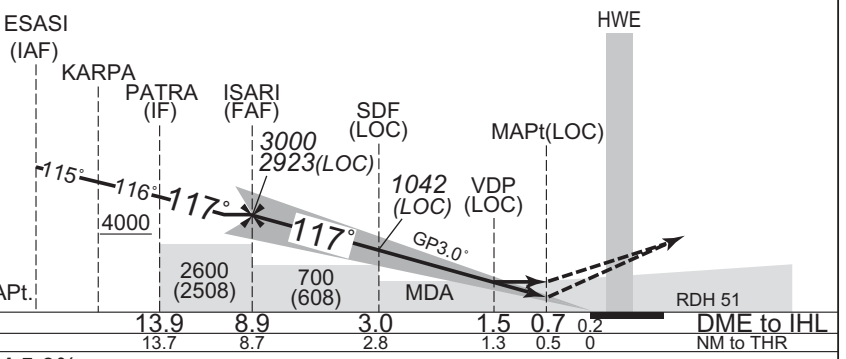
| HAKODATE APP | ILS–LOC | HAKODATE TWR | RADAR AVBL |
|---|---|---|---|
| 119.0 – 121.0<br>127.9 | 109.3 IHL<br>ILS–GP 332.0<br>ILS-DME IHL CH–30x | 118.35 – 126.2 | ATIS 126.6 |




| | 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 |

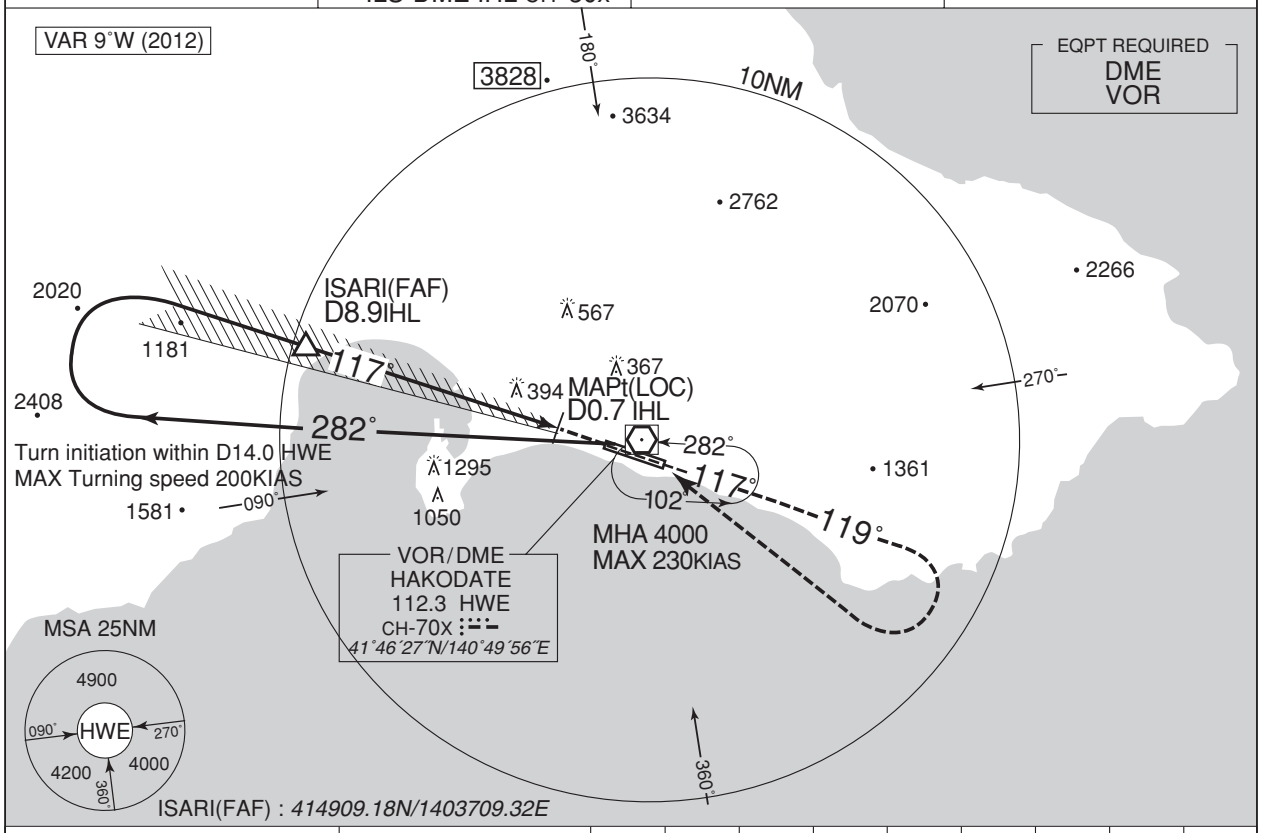
Circling to SOUTH side of RWY only.
MINIMA with Missed APCH climb gradient of 2.5% are not established.

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<br>127.9 | 109.3 IHL<br>ILS–GP 332.0<br>ILS-DME IHL CH–30x | 118.35 – 126.2 | ATIS 126.6 |

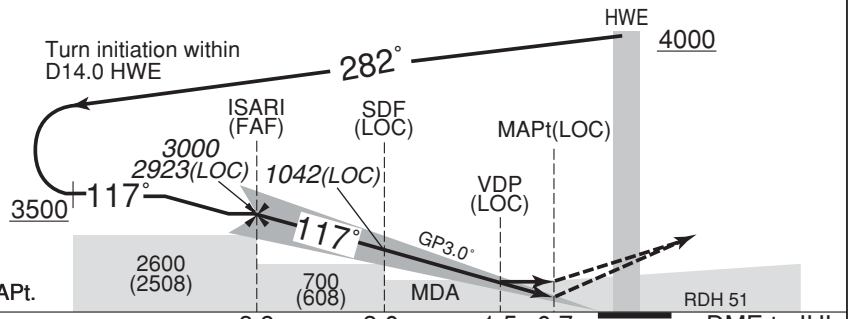



| | NM to IHL | FAF | 8 | 7 | 6 | 5 | 4 | 3 | 2 | MAPt |
|---|---|---|---|---|---|---|---|---|---|---|
| | ALT (3.0° APCH Path) | 2923 | 2634 | 2316 | 1997 | 1679 | 1361 | 1042 | 724 | – |

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

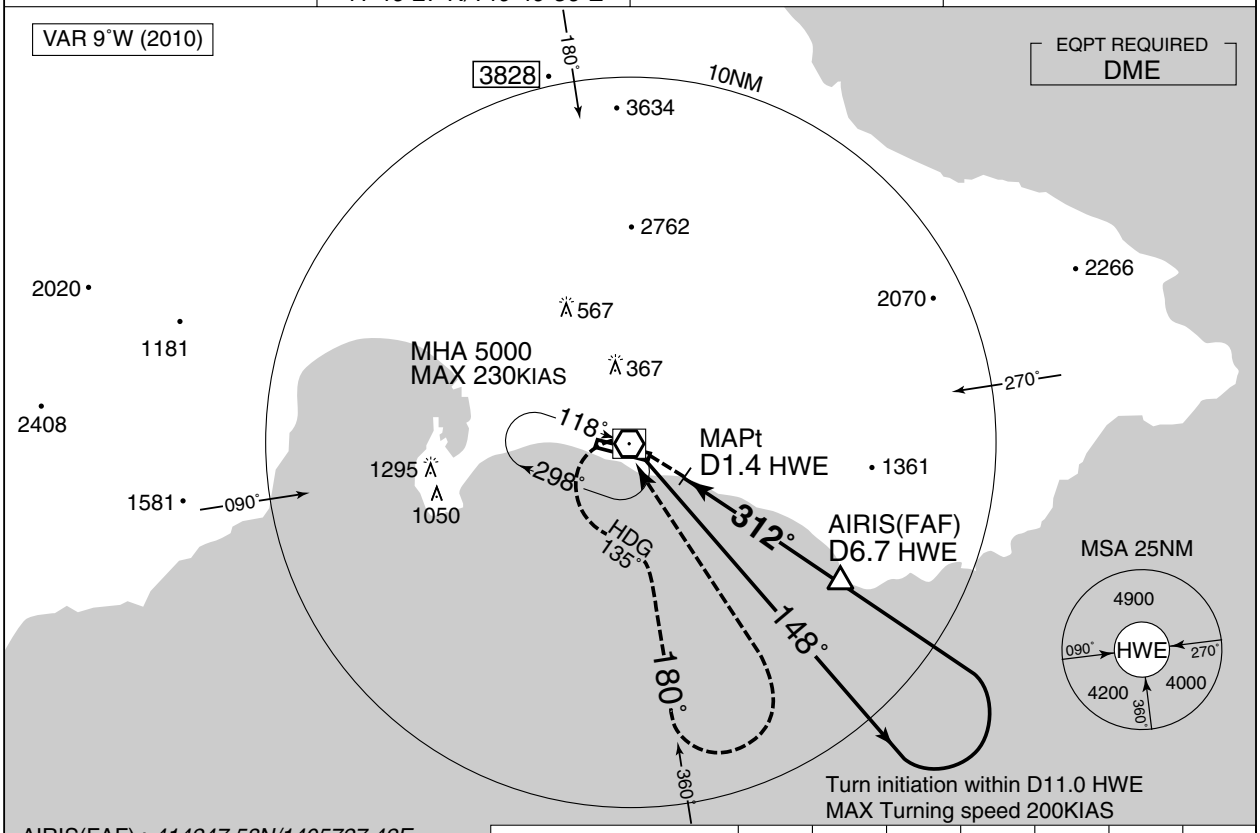
| CAT | CAT I | | LOC | | CIRCLING | |
|---|---|---|---|---|---|---|
| | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 292 (200) | 700 | 540 (448) | 1200 | 550 (438) | 1600 |
| B | | | | 1300 | 570 (458) | |
| C | 299 (207) | | | 1400 | 600 (488) | 2400 |
| D | 309 (217) | | | 1600 | 690 (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<br>127.9 | 112.3 HWE<br>CH–70X<br>*41˚46´27˝N/140˚49´56˝E* | 118.35 – 126.2 | ATIS 126.6 |

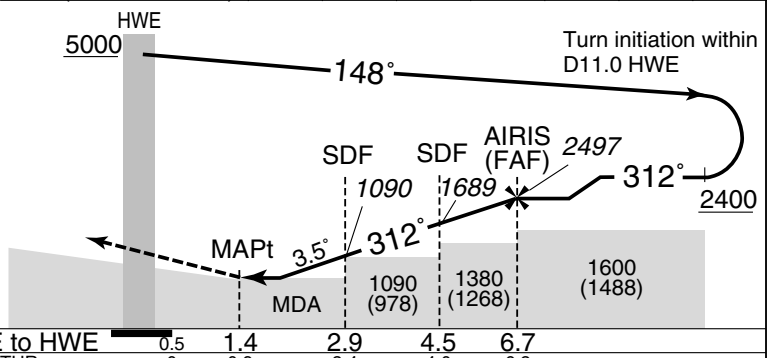



AIRIS(FAF) : *414247.58N/1405727.42E*

| 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 |

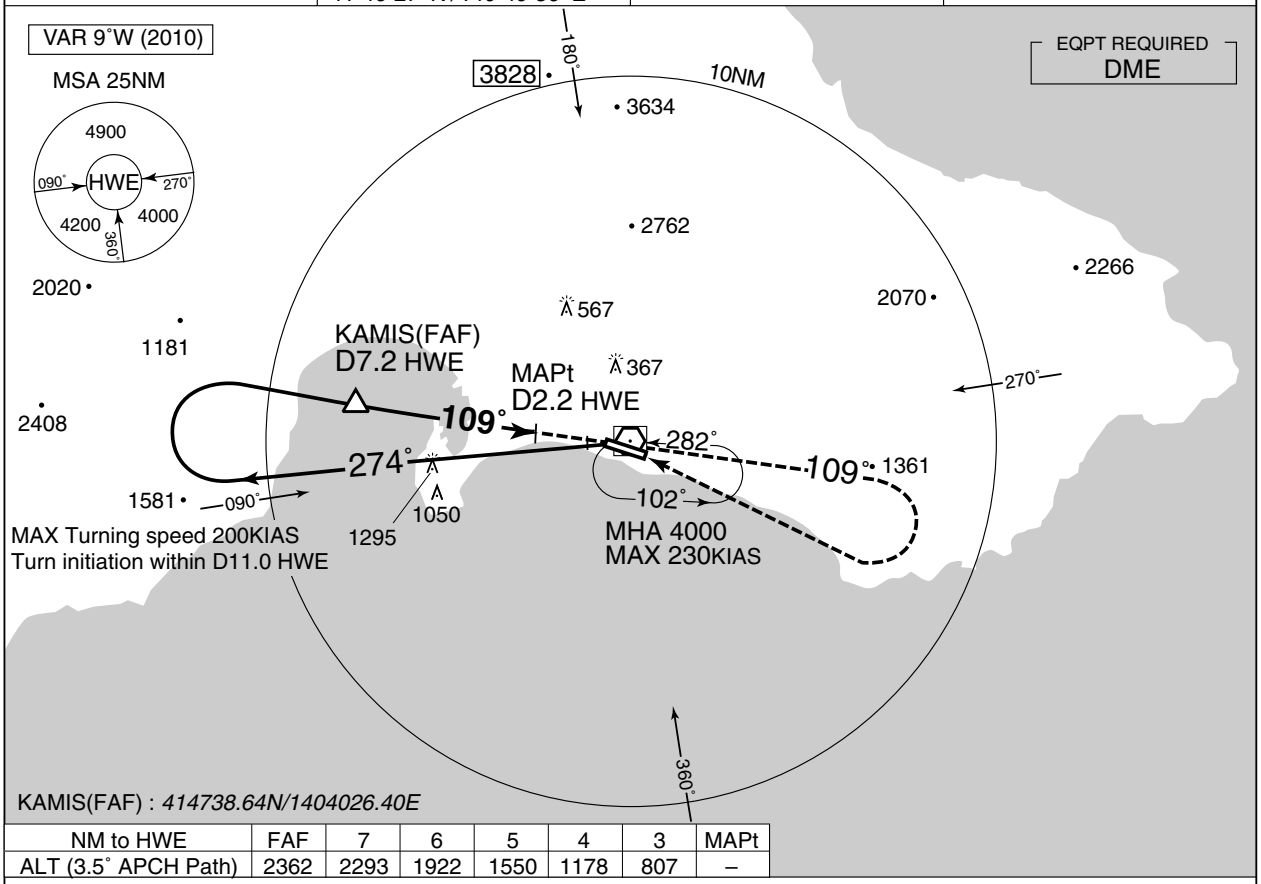
| MINIMA | THR elev. 151 | | AD elev. 112 | |
|---|---|---|---|---|
| CAT | | | CIRCLING | |
| | MDA(H) | CMV | MDA(H) | VIS |
| A | 730 (618) | 1000 | 730 (618) | 1600 |
| B | | 1200 | | |
| C | | | | 2400 |
| D | | 1600 | | 3200 |

Circling to SOUTH side of RWY only.

**INSTRUMENT APPROACH CHART**

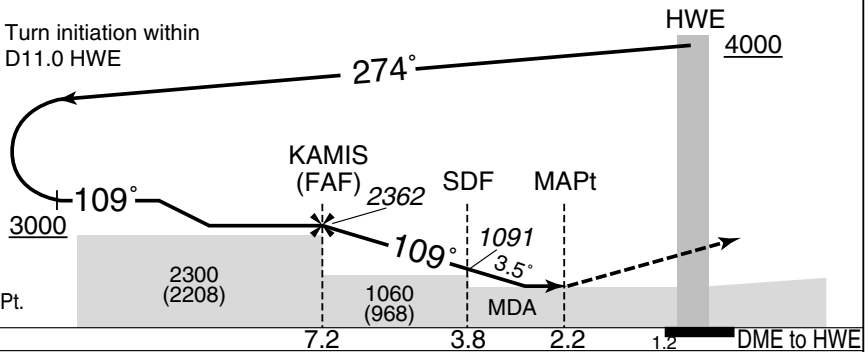
RJCH / HAKODATE VOR RWY12

| HAKODATE APP | HAKODATE VOR/DME | HAKODATE TOWER | RADAR AVBL |
|---|---|---|---|
| 119.0 – 121.0<br>127.9 | 112.3 HWE<br>CH–70X<br>*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

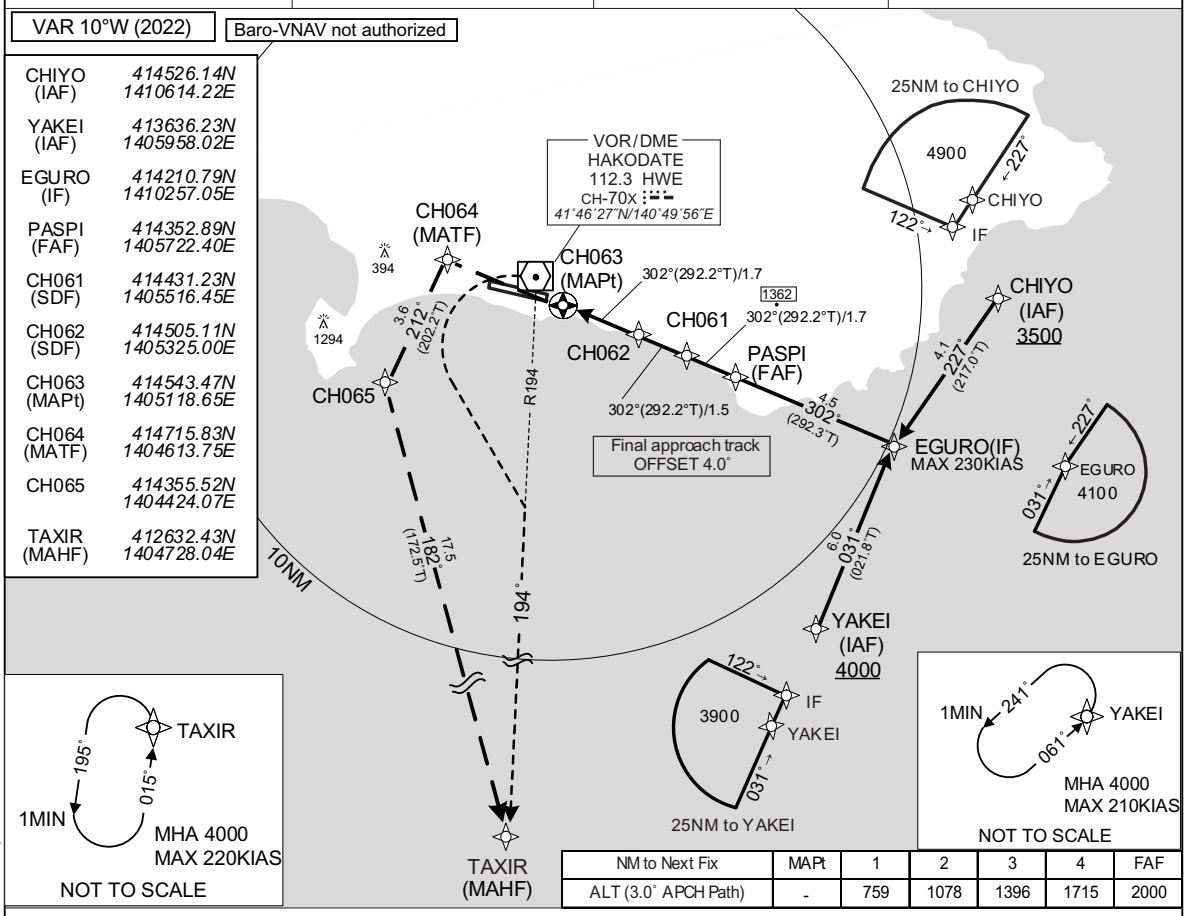
CHANGE : VAR. MSAS CH added. PROC course. FIX established(EGURO,PASPI,CH061,CH062,CH063,CH064,CH065).
FIX abolished(ROCCA,IKARU,CH058,CH059,CH060). PROC ALT. MINIMA for LPV established. MINIMA for LNAV.

| HAKODATE APP | RNP APCH | HAKODATE TOWER | RADAR AVBL |
|---|---|---|---|
| 119.0 – 121.0<br>127.9 | MSAS CH53127<br>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 |







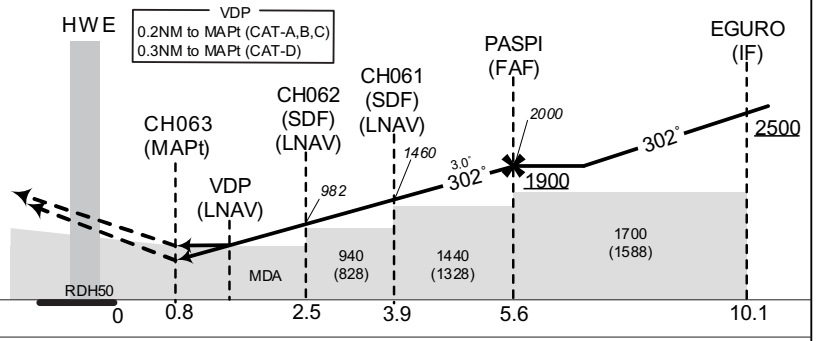



| NM to Next Fix | MAPt | 1 | 2 | 3 | 4 | FAF |
|---|---|---|---|---|---|---|
| ALT (3.0° APCH Path) | - | 759 | 1078 | 1396 | 1715 | 2000 |

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 |

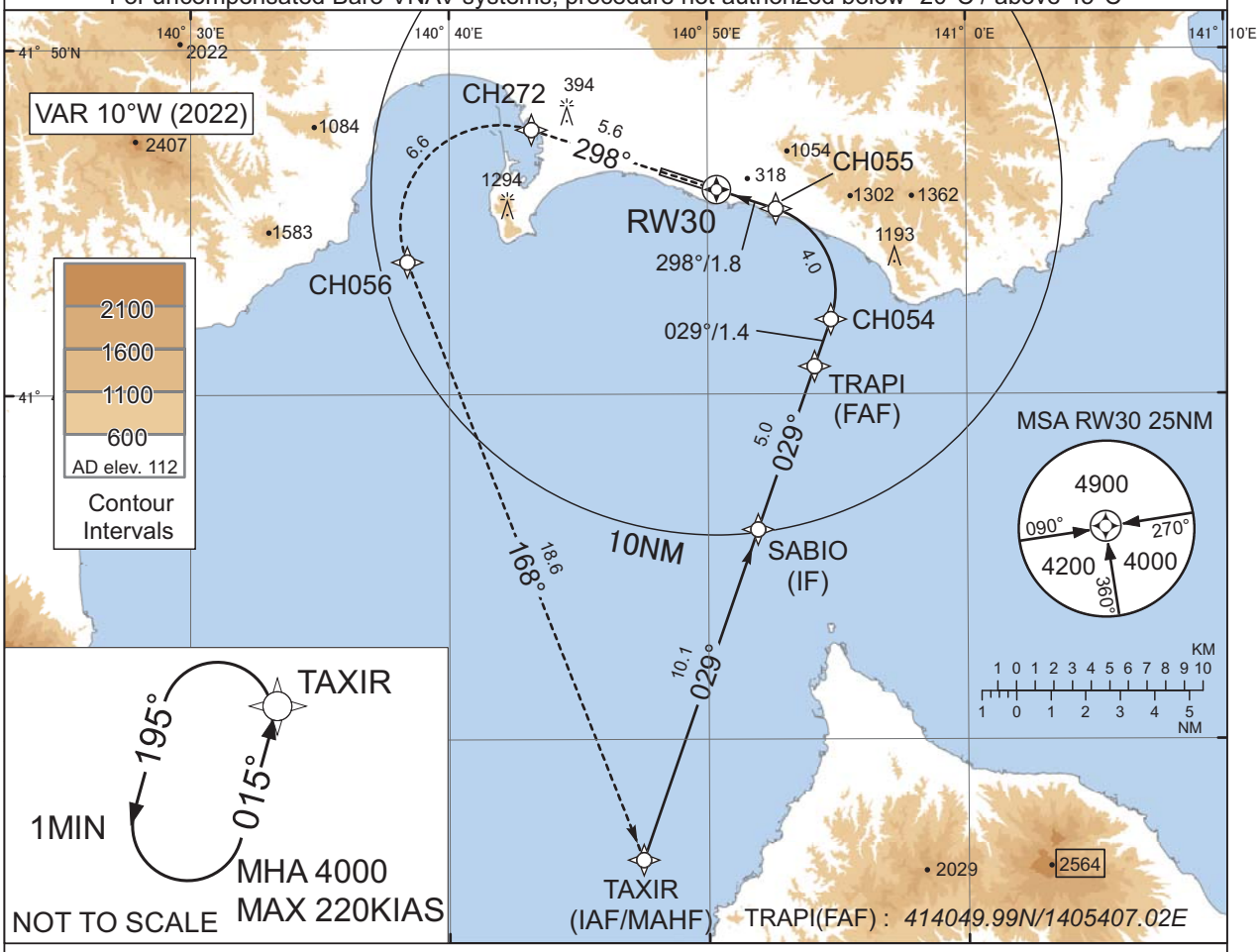
CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).

**INSTRUMENT APPROACH CHART**

RJCH / HAKODATE RNP Y RWY30(AR)

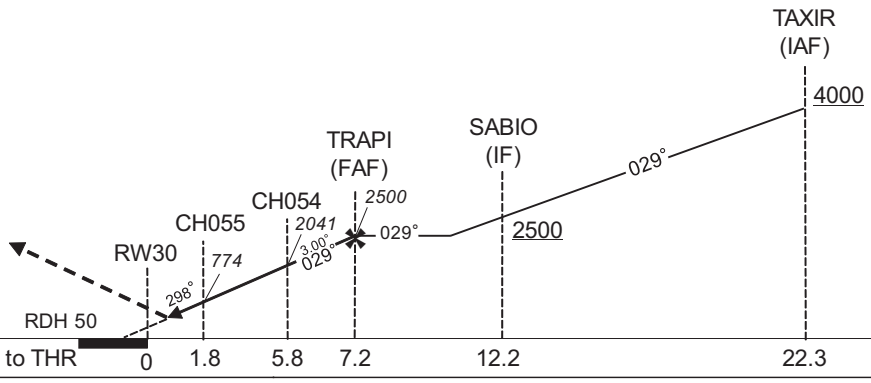
| HAKODATE APP 119.0 - 121.0 127.9 | RNP AR RF required. | HAKODATE TWR 118.35 - 126.2 | RADAR AVBL ATIS 126.6 |
|---|---|---|---|

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 |

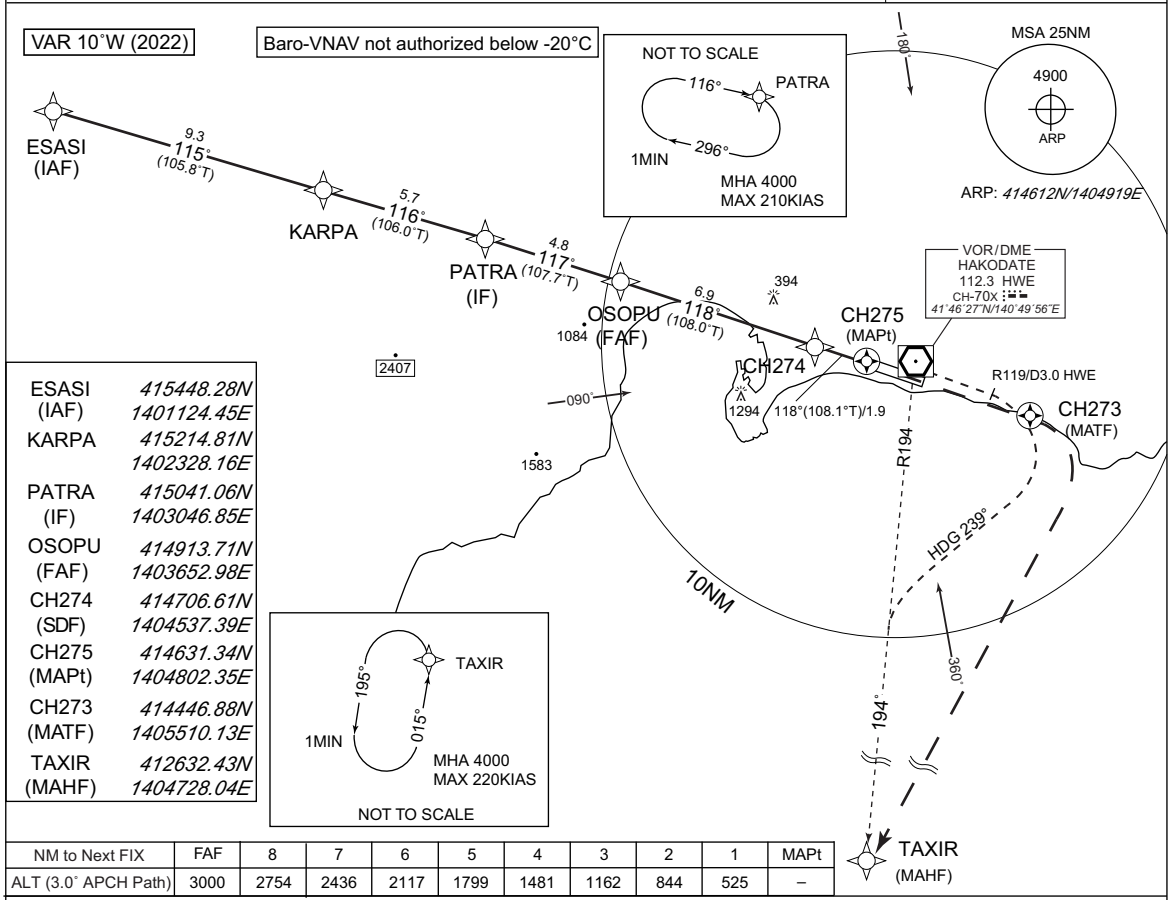
Waypoint Coordinates

| 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* | | |

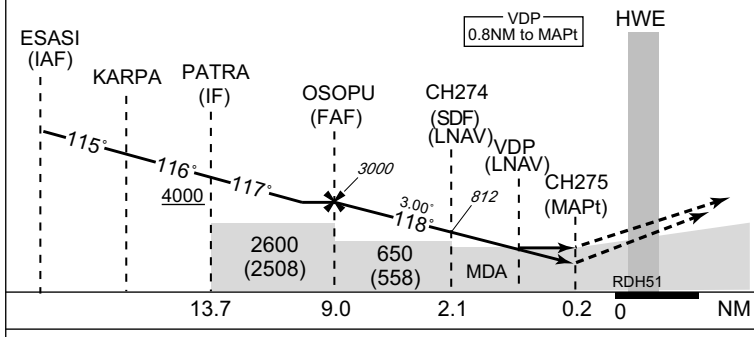
**INSTRUMENT APPROACH CHART**

RJCH / HAKODATE — RNP Z RWY12

| HAKODATE APP | RNP APCH | HAKODATE TOWER | RADAR AVBL |
|---|---|---|---|
| 119.0 – 121.0<br>127.9 | MSAS CH 83680<br>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).

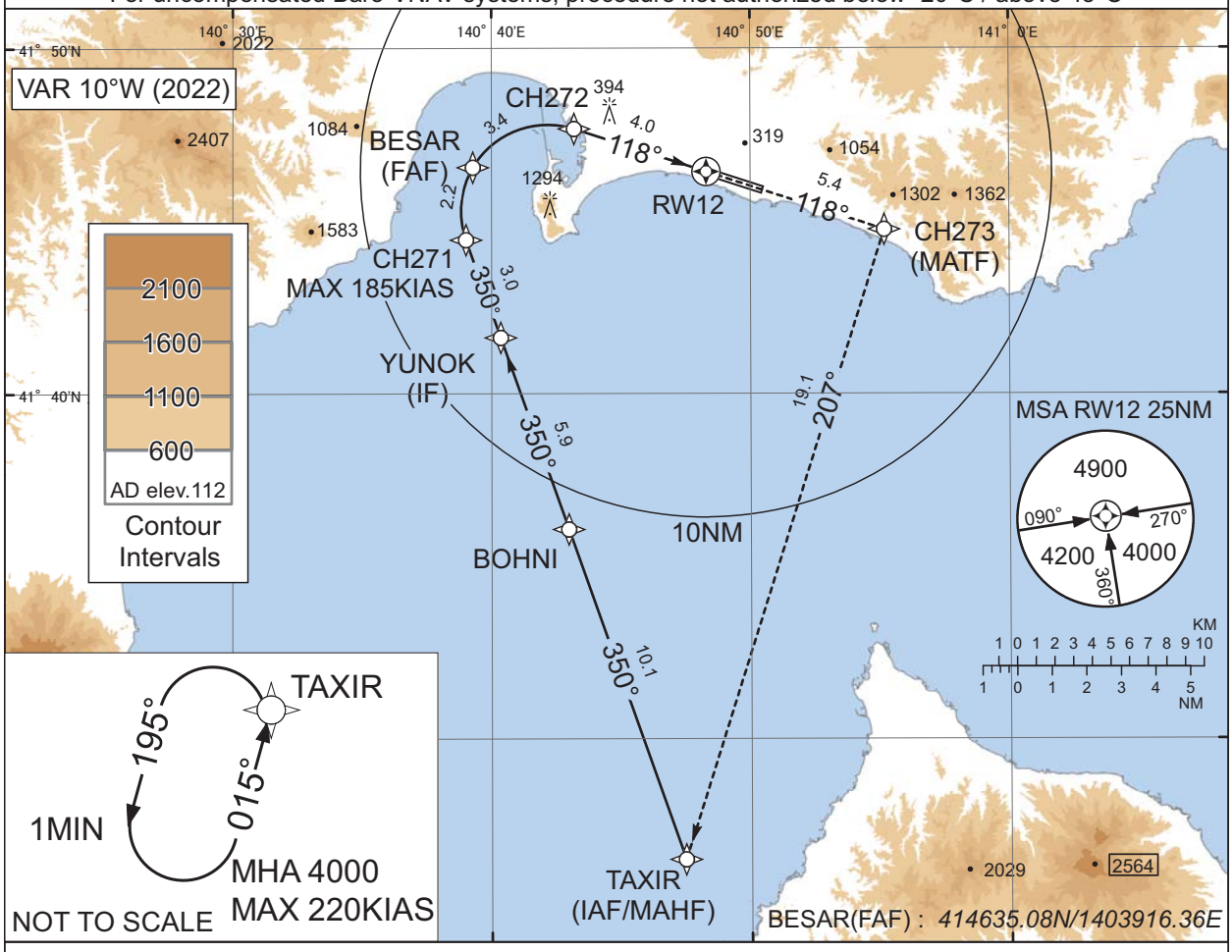
**INSTRUMENT APPROACH CHART**

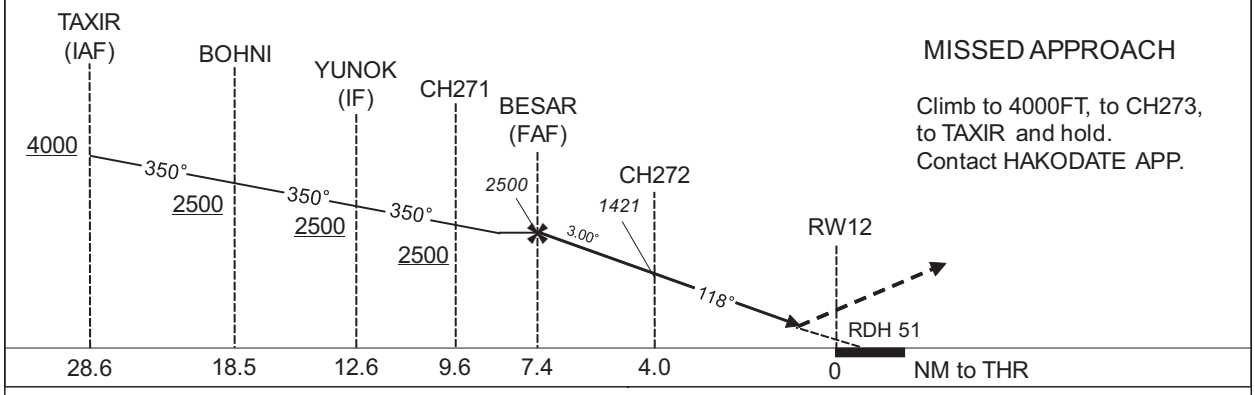
RJCH / HAKODATE

RNP Y RWY12(AR)

| HAKODATE APP<br>119.0 - 121.0<br>127.9 | RNP AR<br>RF required. | HAKODATE TWR<br>118.35 - 126.2 | RADAR AVBL<br>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 |

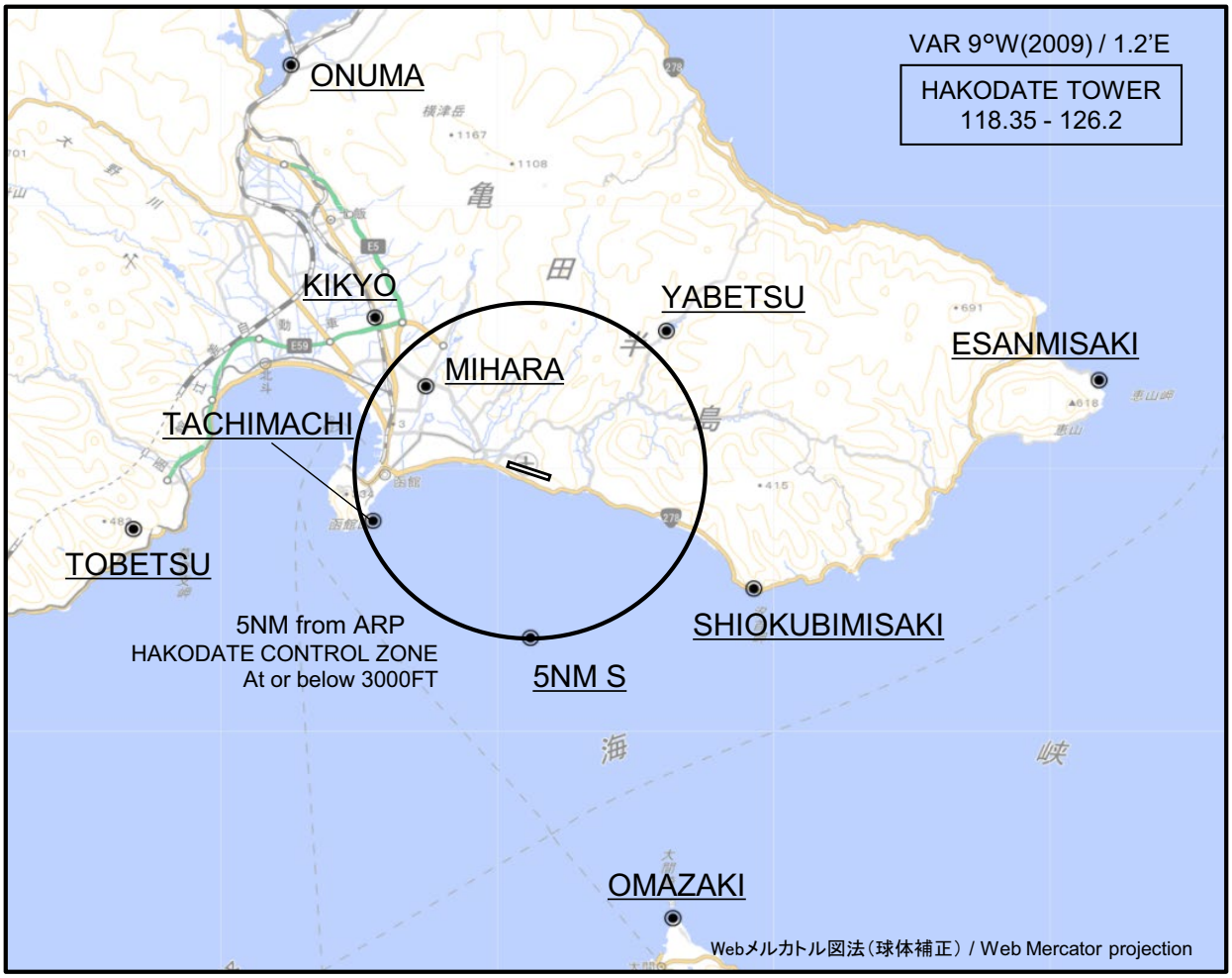
| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | Outbound Time (MIN) | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS) | RNP Value |
|---|---|---|---|---|---|---|---|---|---|
| Hold | TAXIR | 015 (005.3) | -9.6 | 1.0 (-14000) | L | 4000 | FL140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

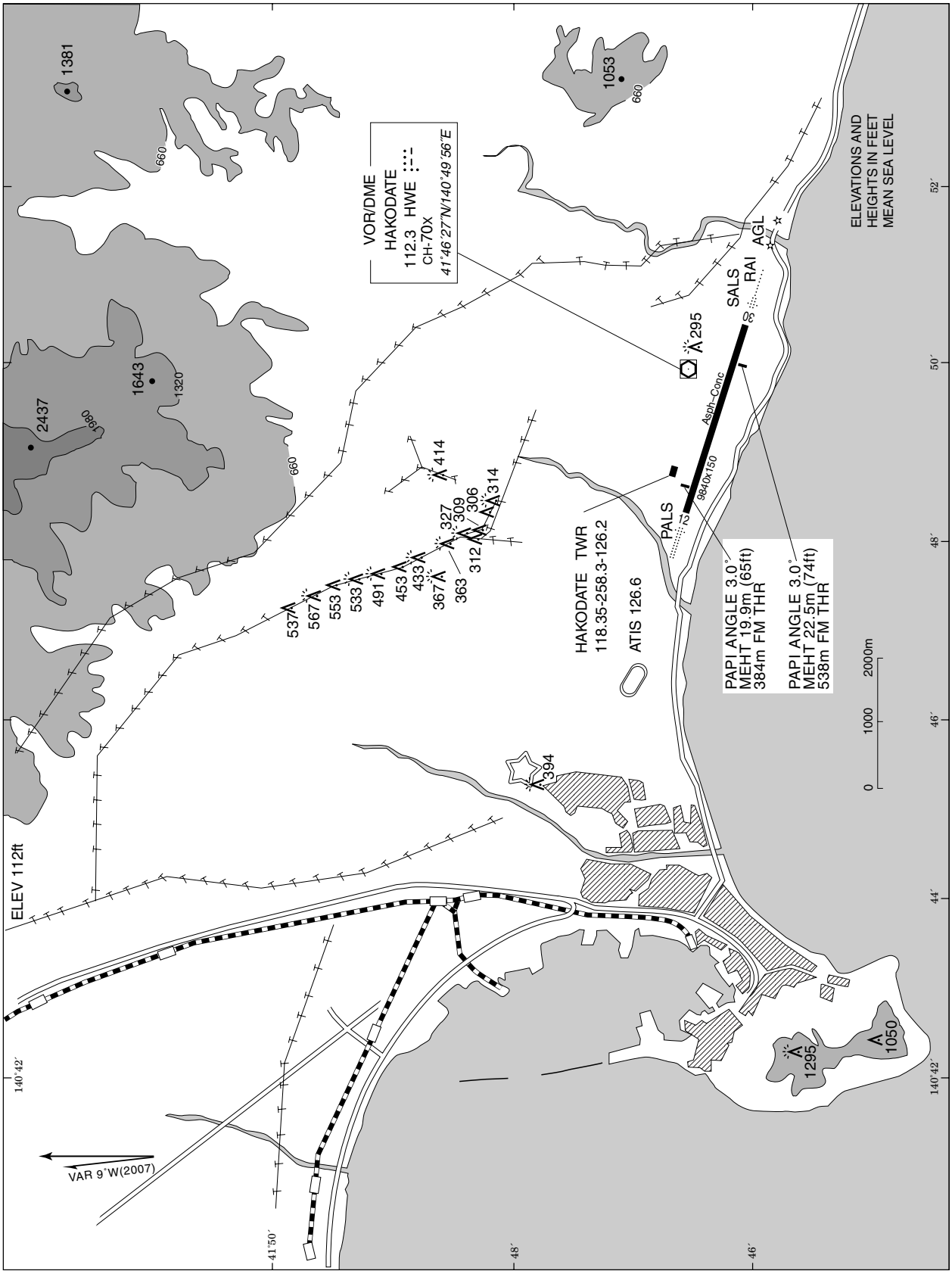



※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

CHANGE :DIST from ARP(Mihara).

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

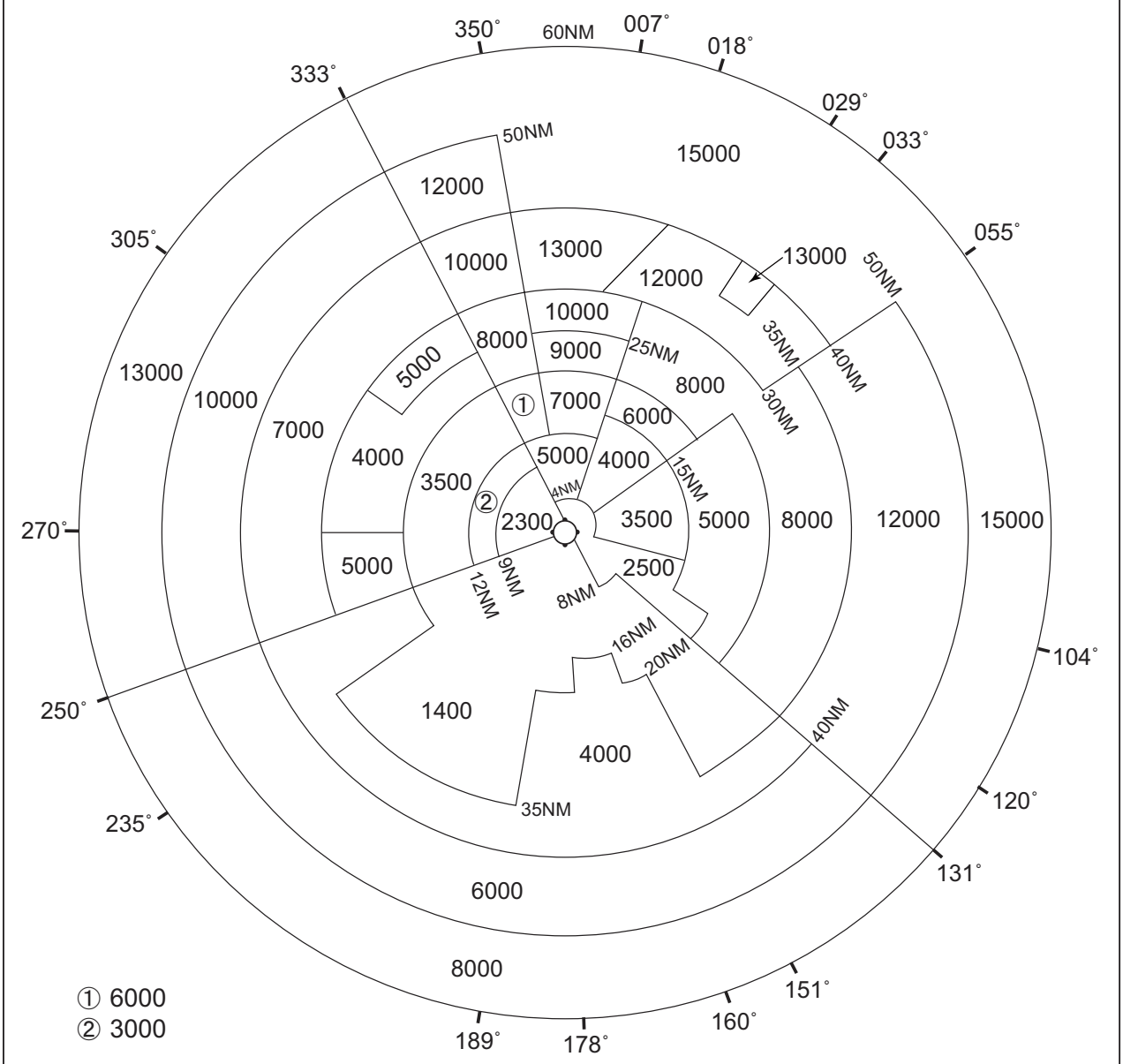
LDG CHART


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**