

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 3120×300 | 192 × (MNM:102 MAX:300)* 240 × 300 *For detail, ask airport administrator | RWY grooving 3000X45m |

RWY 12

92.2ft

0.38%

500m

98.4ft

0.30%

600m

0.39%

1300m

108.3ft

0.55%

1500m

111.9ft

0.76%

1750m

118.1ft

0.80%

3000m

150.9ft

RWY 30

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

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 | A,B, C,D | AVBL LDG MINIMA | | | | | |
| | 30 | | | | | | | |

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

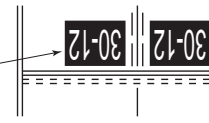
Nil

RJCH AD 2.24 CHARTS RELATED TO AN AERODROME

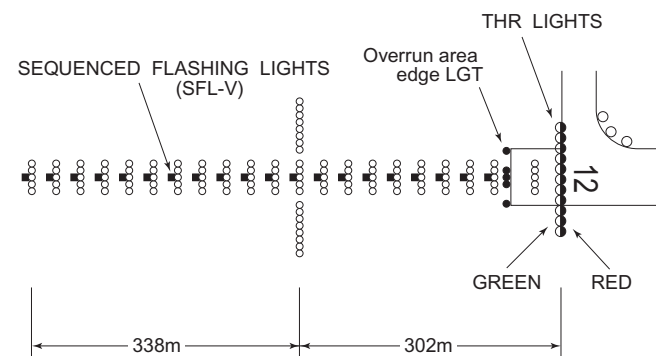
Aerodrome Chart
 Aircraft Parking/Docking Chart
 Aerodrome Obstacle Chart-ICAO type A (RWY12)
 Aerodrome Obstacle Chart-ICAO type A (RWY30)
 Aerodrome Obstacle Chart-ICAO type B
 Standard Departure Chart-Instrument (HAKODATE REVERSAL)
 Standard Departure Chart-Instrument (TSUGARU-RNAV)
 Standard Departure 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)

MARKING AIDS

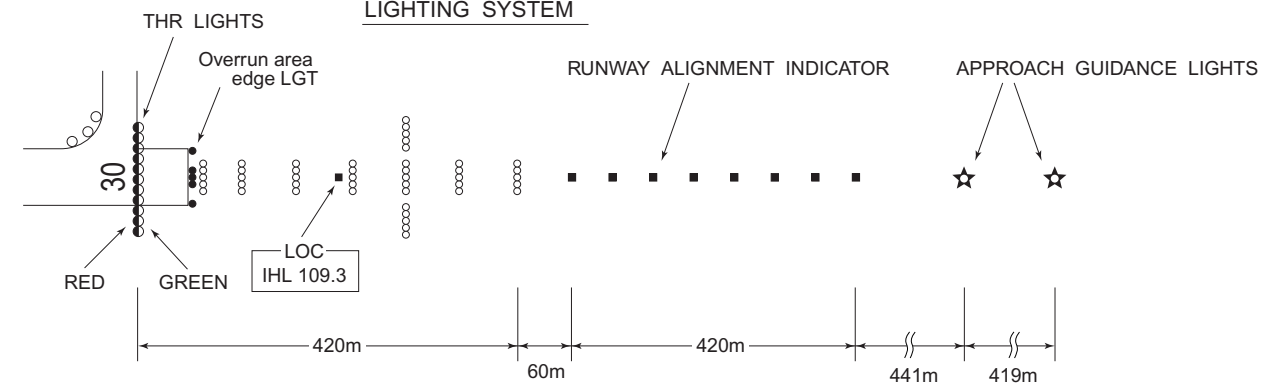
Mandatory
instruction
marking



SEQUENCED FLASHING LIGHTS
(SFL-V)



RUNWAY ALIGNMENT INDICATOR



CHANGE:STOP BAR LGT abolished

AIRCRAFT PARKING/DOCKING CHART
RJCH / HAKODATE

AD CHART

CHANGE : UHF frequency(TWR) deleted.

HAKODATE AIRPORT
ELEV34.1m (111.9ft)

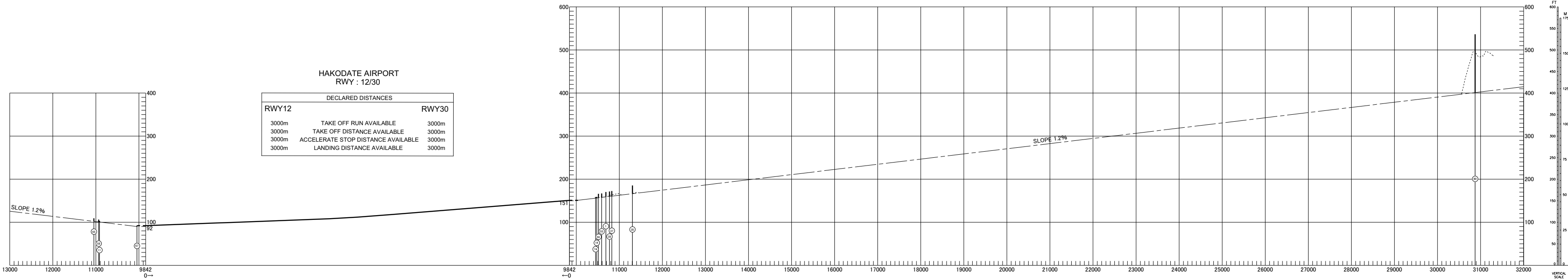
| Designation | Call Sign | Frequency (MHz) |
|-------------|------------------|-----------------|
| ATIS | Hakodate Airport | 126.6 |
| TWR | Hakodate Tower | 118.35 126.2 |



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



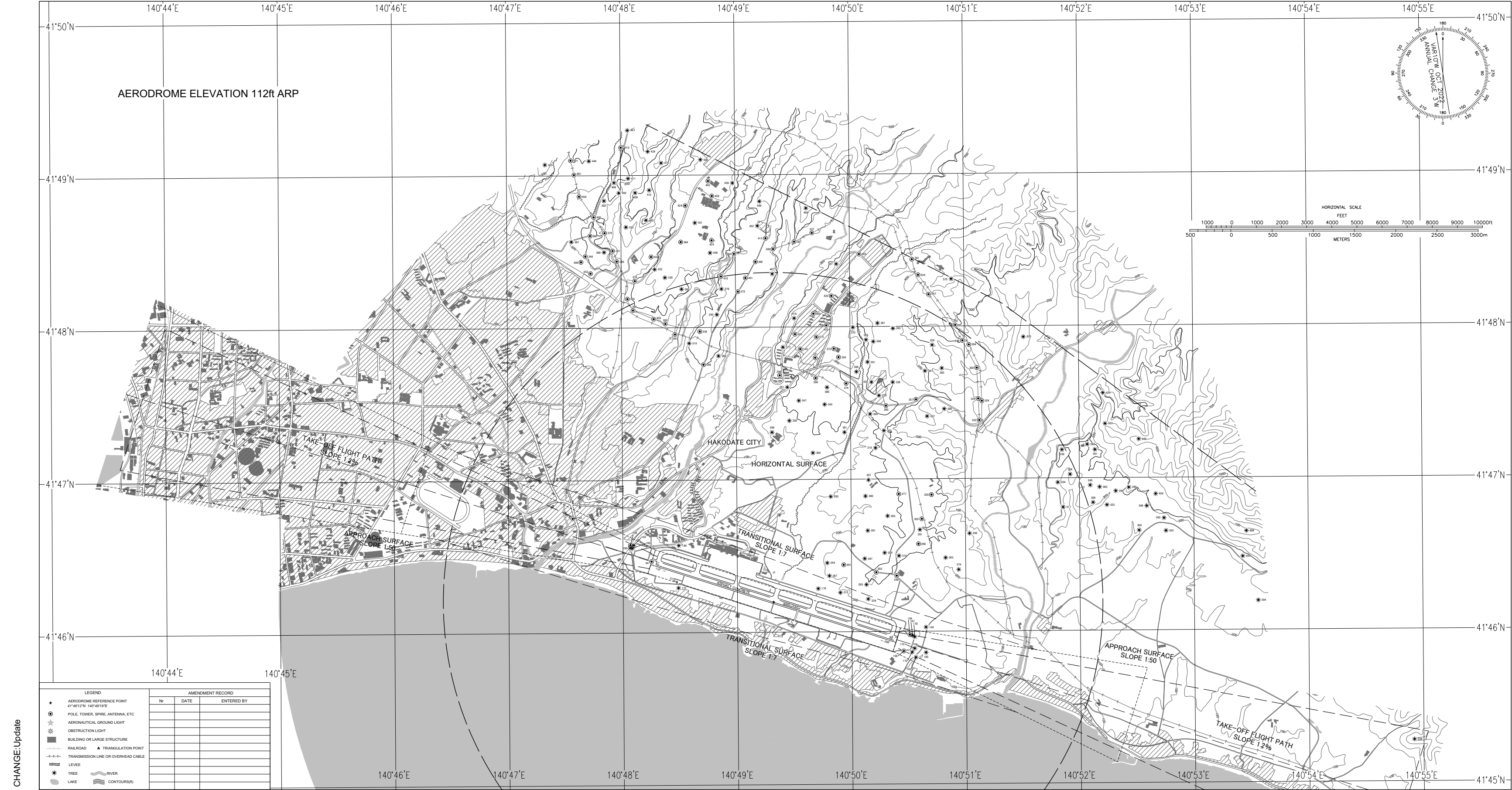
AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)

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



AERODROME OBSTACLE CHART - ICAO
TYPE B

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



STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

SID

HAKODATE REVERSAL SIX DEPARTURE

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

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

...to intercept and proceed via HWE R194 to 3000FT, turn right direct to HWE VOR/DME.
Cross HWE VOR/DME at or above 5000FT.

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

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

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

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

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

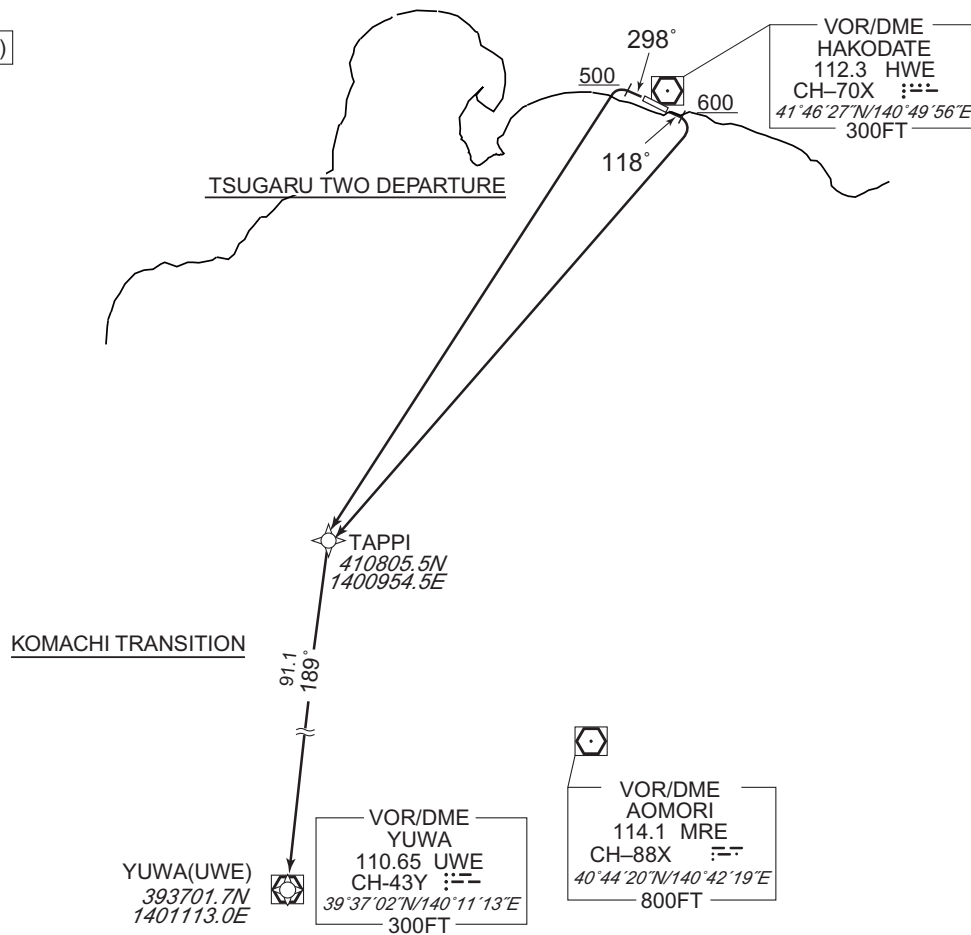


CHANGE : VAR. PROC renamed(TSUGARU TWO DEPARTURE). Navigation specification. Sensor for RNAV. PROC course(TSUGARU TWO DEPARTURE, KOMACHI TRANSITION). NOTE(TSUGARU TWO DEPARTURE).

RNAV SID and TRANSITION

Basic RNP1

VAR 10°W (2022)



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

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

From TAPPI, to UWE.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID and TRANSITION

TSUGARU TWO DEPARTURE

RWY12

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | VA | — | — | 118 (108.0) | -9.6 | — | — | +600 | — | — | Basic RNP1 |
| 002 | DF | TAPPI | — | — | -9.6 | — | R | — | — | — | Basic RNP1 |

RWY30

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | VA | — | — | 298 (288.1) | -9.6 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | TAPPI | — | — | -9.6 | — | L | — | — | — | Basic RNP1 |

KOMACHI TRANSITION

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | IF | TAPPI | — | — | -9.6 | — | — | — | — | — | Basic RNP1 |
| 002 | TF | UWE | — | 189 (179.4) | -9.6 | 91.1 | — | — | — | — | Basic RNP1 |

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

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

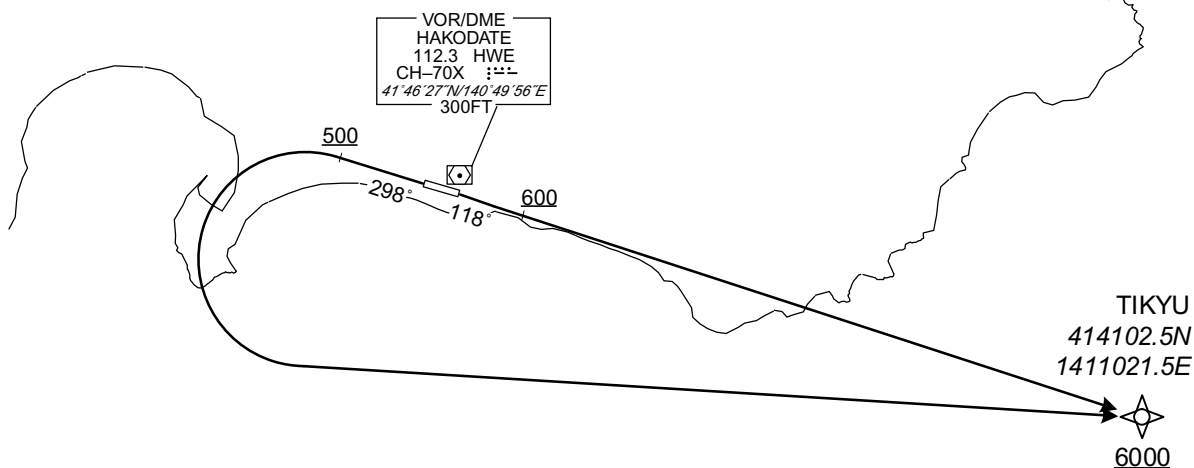
RNAV SID

TOI ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 10°W (2022)



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

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

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

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

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

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

RWY12

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | VA | - | — | 118 (108.1) | -9.6 | — | — | +600 | — | — | Basic RNP1 |
| 002 | DF | TIKYU | — | — | -9.6 | — | — | +6000 | — | — | Basic RNP1 |

RWY30

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | VA | - | — | 298 (288.1) | -9.6 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | TIKYU | — | — | -9.6 | — | L | +6000 | — | — | Basic RNP1 |

CHANGE : New PROC.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID

OKUSHIRI ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 10°W (2022)



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

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

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

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

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

RWY12

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | VA | - | — | 118 (108.1) | -9.6 | — | — | +600 | — | — | Basic RNP1 |
| 002 | DF | ESASI | — | — | -9.6 | — | R | +5000 | — | — | Basic RNP1 |

RWY30

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | VA | - | — | 298 (288.1) | -9.6 | — | — | +700 | — | — | Basic RNP1 |
| 002 | DF | ESASI | — | — | -9.6 | — | — | +5000 | — | — | Basic RNP1 |

CHANGE : New PROC.

INTENTIONALLY LEFT BLANK

STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATE

RNAV STAR RWY30

CHIYO ARRIVAL
YAKEI ARRIVAL

Basic RNP1

Note GNSS required.

VAR 10°W (2022)



CHIYO ARRIVAL

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

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | IF | UPLOK | — | — | -9.6 | — | — | +8000 | — | — | Basic RNP1 |
| 002 | TF | OKTOL | — | 133 (123.9) | -9.6 | 8.4 | — | +6000 | — | — | Basic RNP1 |
| 003 | TF | CHIYO | — | 182 (172.4) | -9.6 | 11.3 | — | +3500 | — | — | Basic RNP1 |

| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | Outbound Time (MIN) | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS) | Navigation Specification |
|------|---------------------|-----------------------|--------------------|---------------------|----------------|-----------------------|-----------------------|--------------|--------------------------|
| Hold | UPLOK | 130 (120.0) | -9.6 | 1.0(-14000) | R | 8000 | 13000 | -230(-13000) | Basic RNP1 |

YAKEI ARRIVAL

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

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | IF | TAXIR | — | — | -9.6 | — | — | +6000 | — | — | Basic RNP1 |
| 002 | TF | YAKEI | — | 052 (042.9) | -9.6 | 13.8 | — | +4000 | — | — | Basic RNP1 |

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

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

STANDARD ARRIVAL CHART - INSTRUMENT

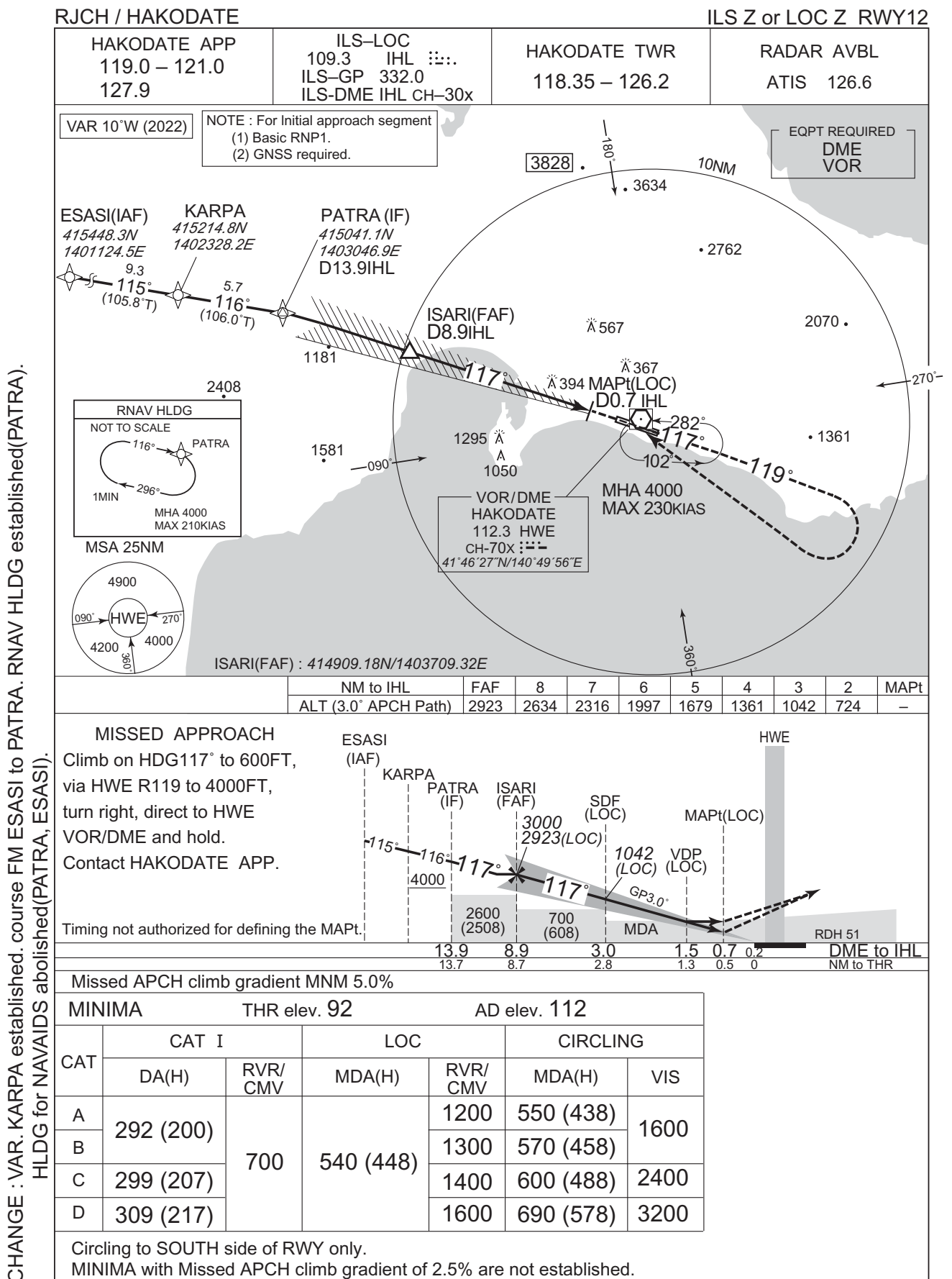
RJCH / HAKODATE

RNAV STAR RWY12



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

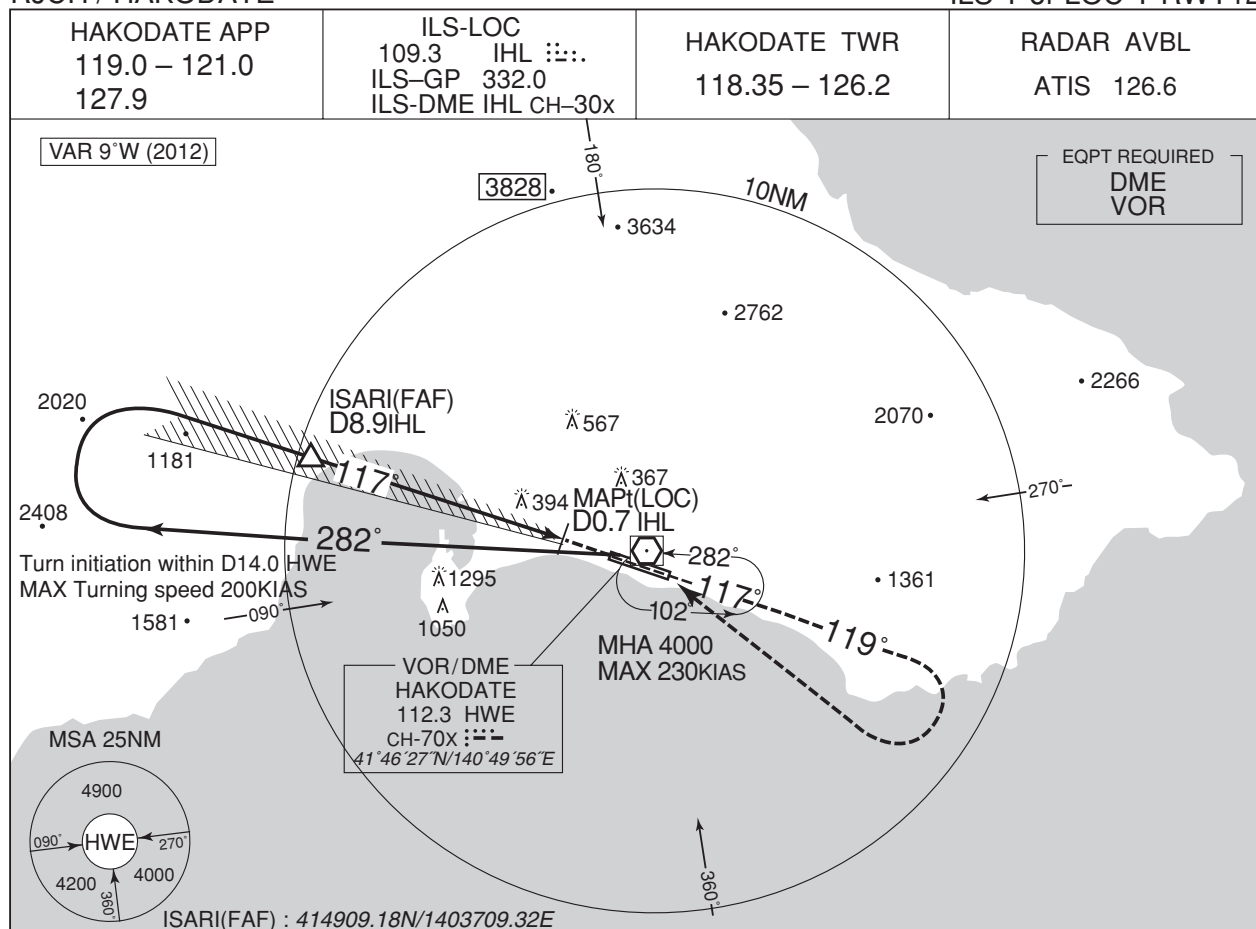
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCH / HAKODATE

ILS Y or LOC Y RWY12

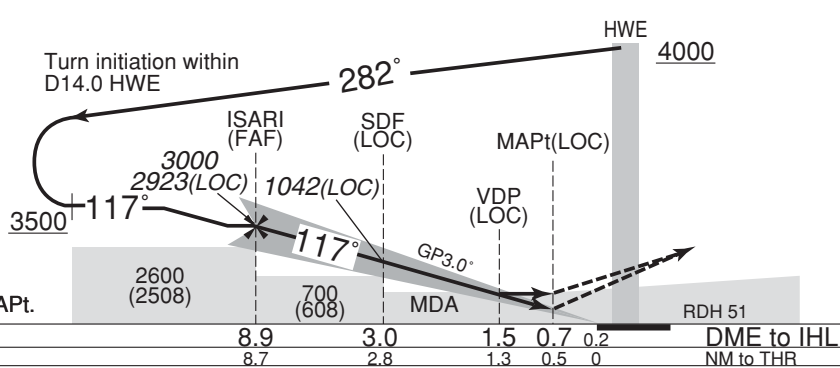


| NM to IHL | FAF | 8 | 7 | 6 | 5 | 4 | 3 | 2 | MAPt |
|----------------------|------|------|------|------|------|------|------|-----|------|
| ALT (3.0° APCH Path) | 2923 | 2634 | 2316 | 1997 | 1679 | 1361 | 1042 | 724 | — |

MISSED APPROACH

Climb on HDG 117° 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 119.0 – 121.0 127.9 | HAKODATE VOR/DME 112.3 HWE CH-70X 41°46'27"N/140°49'56"E | HAKODATE TOWER 118.35 – 126.2 | RADAR AVBL ATIS 126.6 |
|--|---|----------------------------------|--------------------------|



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

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

VOR RWY12

| | | | |
|--|---|----------------------------------|--------------------------|
| HAKODATE APP 119.0 – 121.0 127.9 | HAKODATE VOR/DME 112.3 HWE CH-70X 41°46'27"N/140°49'56"E | HAKODATE TOWER 118.35 – 126.2 | RADAR AVBL ATIS 126.6 |
|--|---|----------------------------------|--------------------------|



MISSED APPROACH
Climb via HWE R109 to 4000FT, turn right direct to HWE VOR/DME and hold.
Contact HAKODATE APP.

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



Missed APCH climb gradient MNM 3.6%

MINIMA THR elev. 92 AD elev. 112

| CAT | CIRCLING | | CIRCLING | |
|-----|-----------|---------|-----------|------|
| | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 530 (438) | 1200 | 550 (438) | 1600 |
| B | | 1300 | 570 (458) | |
| C | | 1400 | 600 (488) | |
| D | | 1600 | 690 (578) | |

Circling to SOUTH side of RWY only.

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

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY30

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



INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY30

FAS DATA BLOCK

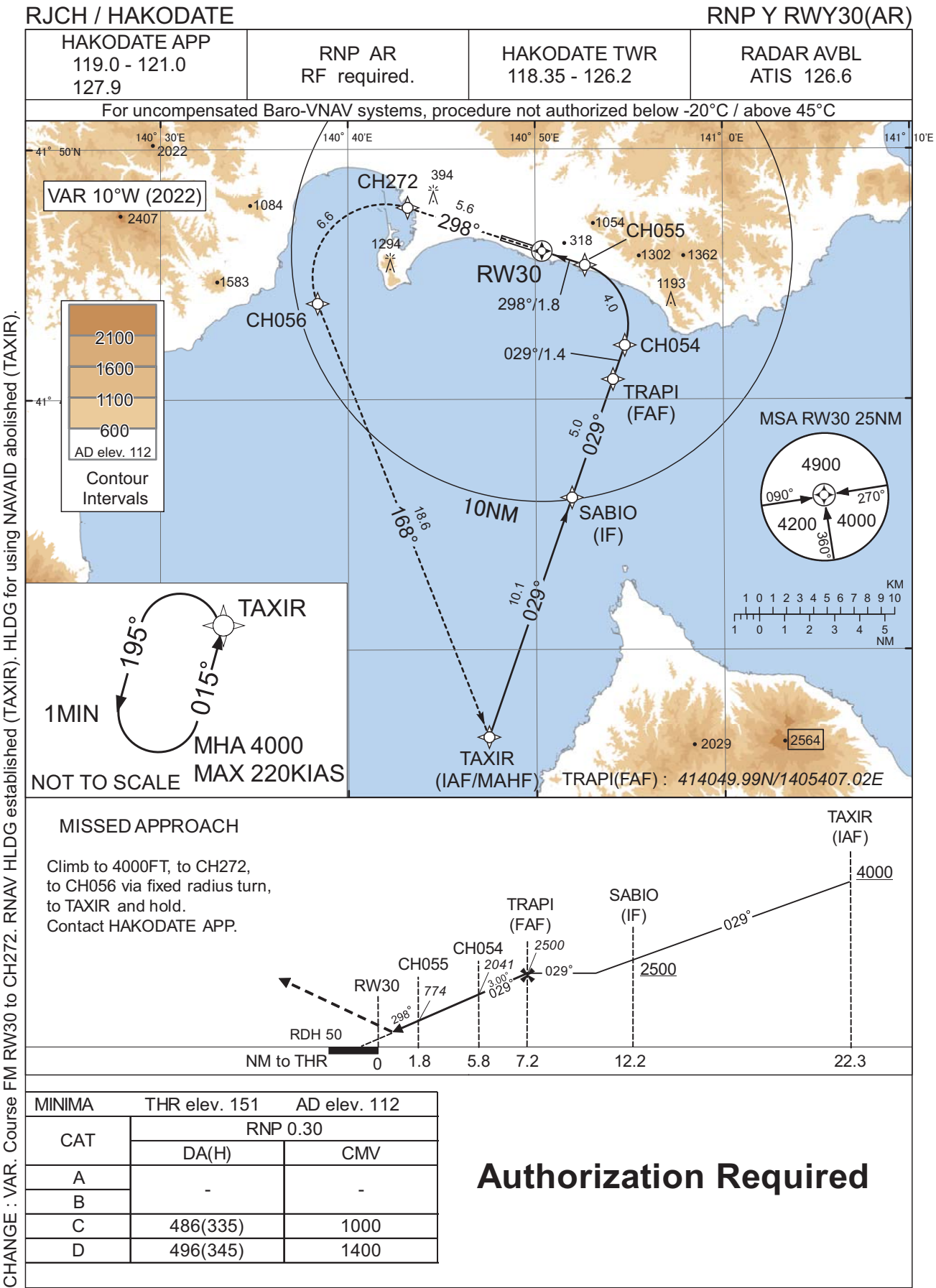
| | | | |
|----------------------------------|---------------|----------------------------|---------------|
| Operation type | 0 | LTP/FTP ellipsoidal height | +00803 |
| SBAS service provider identifier | 2 | FPAP latitude | 414636.9835N |
| Airport identifier | RJCH | FPAP longitude | 1404822.0795E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

Required additional data

| | |
|----------------------------|------|
| LTP/FTP orthometric height | 46.0 |
|----------------------------|------|

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

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Y RWY30(AR)

Coding Table

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | VPA/ RDH (°/FT) | RNP Value |
|---------------|------------------------------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|-----------------|-----------|
| 001 | IF | TAXIR | - | - | -9.6 | - | - | +4000 | - | - | - |
| 002 | TF | SABIO | - | 029 (019.2) | -9.6 | 10.1 | - | +2500 | - | - | 1.0 |
| 003 | TF | TRAPI | - | 029 (019.2) | -9.6 | 5.0 | - | 2500 | - | - | 1.0 |
| 004 | TF | CH054 | - | 029 (019.2) | -9.6 | 1.4 | - | 2041 | - | -3.00 | 0.3 |
| 005 | RF Center: CHRF3 r=2.50NM | CH055 | - | - | -9.6 | 4.0 | L | 774 | - | -3.00 | 0.3 |
| 006 | TF | RW30 | Y | 298 (288.1) | -9.6 | 1.8 | - | 201 | - | -3.00/50 | 0.3 |
| 007 | TF | CH272 | - | 298 (288.1) | -9.6 | 5.6 | - | - | - | - | 1.0 |
| 008 | RF Center: CHRF4 r=2.90NM | CH056 | - | - | -9.6 | 6.6 | L | - | - | - | 1.0 |
| 009 | TF | TAXIR | - | 168 (158.5) | -9.6 | 18.6 | - | 4000 | - | - | 1.0 |

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

Waypoint Coordinates

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

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

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY12



CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY12

FAS DATA BLOCK

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

Required additional data

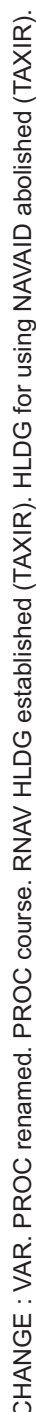
| | |
|----------------------------|------|
| LTP/FTP orthometric height | 28.1 |
|----------------------------|------|

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

RJCH / HAKODATE

RNP Y RWY12(AR)

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



Climb to 4000FT, to CH273,
to TAXIR and hold.
Contact HAKODATE APP.

| | | |
|-------------------------------------|----------|---------------------------|
| Missed APCH climb gradient MNM 5.0% | | |
| MINIMA | | THR elev. 92 AD elev. 112 |
| CAT | RNP 0.30 | |
| | DA(H) | RVR/CMV |
| A | - | - |
| B | | |
| C | 402(310) | 1400 |
| D | 423(331) | 1600 |

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

Authorization Required

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Y RWY12(AR)

Coding Table

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | VPA/ RDH (°/FT) | RNP Value |
|---------------|---------------------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|-----------------|-----------|
| 001 | IF | TAXIR | - | - | -9.6 | - | - | +4000 | - | - | - |
| 002 | TF | BOHNI | - | 350 (340.6) | -9.6 | 10.1 | - | +2500 | - | - | 1.0 |
| 003 | TF | YUNOK | - | 350 (340.6) | -9.6 | 5.9 | - | +2500 | - | - | 1.0 |
| 004 | TF | CH271 | - | 350 (340.5) | -9.6 | 3.0 | - | +2500 | -185 | - | 1.0 |
| 005 | RF Center: CHRF5 r=2.50NM | BESAR | - | - | -9.6 | 2.2 | R | 2500 | - | - | 1.0 |
| 006 | RF Center: CHRF5 r=2.50NM | CH272 | - | - | -9.6 | 3.4 | R | 1421 | - | -3.00 | 0.3 |
| 007 | TF | RW12 | Y | 118 (108.0) | -9.6 | 4.0 | - | 143 | - | -3.00/51 | 0.3 |
| 008 | TF | CH273 | - | 118 (108.1) | -9.6 | 5.4 | - | - | - | - | 1.0 |
| 009 | TF | TAXIR | - | 207 (197.6) | -9.6 | 19.1 | - | 4000 | - | - | 1.0 |

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

Waypoint Coordinates

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

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

RJCH / HAKODATE

Visual REP



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

CHANGE :DIST from ARP(Mihara):

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

LDG CHART





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