

AD 2 AERODROMES

RJCM AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RJCM - MEMANBETSU

RJCM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|--|---|
| 1 | ARP coordinates and site at AD | 435250N / 1440951E 175° / 1.25km from RWY 18 THR |
| 2 | Direction and distance from (city) | 9.7nm SSW ABASHIRI |
| 3 | Elevation/ Reference temperature | 109FT / 26°C (2004-2008) |
| 4 | Geoid undulation at AD ELEV PSN | 99FT |
| 5 | MAG VAR/ Annual change | 9° W(2009) / 2.1'E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses | Hokkaido Airports Co.,Ltd. Memanbetsu Airport Office 256-3, Chuo, Memanbetsu, Ozora-cho Abashiri-gun, Hokkaido TEL: 0152-74-2222 FAX: 0152-74-3674 e-MAIL: hap-mmb-unjyo@hokkaido-airports.co.jp |
| 7 | Types of traffic permitted(IFR/VFR) | IFR/VFR |
| 8 | Remarks | Memanbetsu Airport Branch (CAB) 256, Chuo, Memanbetsu, Ozora-cho Abashiri-gun, Hokkaido TEL:0152-74-2673 |

RJCM AD 2.3 OPERATIONAL HOURS

| | | |
|----|---------------------------|---|
| 1 | AD Administration | 2300-1200 |
| 2 | Customs and immigration | On request Customs: 0154-22-3730 Immigration: 0154-22-2430 |
| 3 | Health and sanitation | Quarantine(human): On request(0154-23-3340) Quarantine(animal, plant): Nil |
| 4 | AIS Briefing Office | Nil |
| 5 | ATS Reporting Office(ARO) | Nil |
| 6 | MET Briefing Office | H24 (NEW CHITOSE) |
| 7 | ATS | 2300-1200 |
| 8 | Fuelling | 2300-1200 |
| 9 | Handling | 2300-1200 |
| 10 | Security | 2300-1200 |
| 11 | De-icing | Nil |
| 12 | Remarks | Nil |

RJCM AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|--|
| 1 | Cargo-handling facilities | All the modern institutions that deal with the weight thing to a A306 type freighter |
| 2 | Fuel/ oil types | JET A-1 |
| 3 | Fuelling facilities/ capacity | Fuel truck refueling, 22L/sec |
| 4 | De-icing facilities | Nil |
| 5 | Hangar space for visiting aircraft | Nil |
| 6 | Repair facilities for visiting aircraft | Nil |
| 7 | Remarks | Nil |

RJCM AD 2.5 PASSENGER FACILITIES

| | | |
|---|----------------------|-------------------------------------|
| 1 | Hotels | Nil |
| 2 | Restaurants | At airport |
| 3 | Transportation | Buses and taxies |
| 4 | Medical facilities | Hospital in Ozora-town, 5km from AP |
| 5 | Bank and Post Office | Nil |
| 6 | Tourist Office | At airport |
| 7 | Remarks | Nil |

RJCM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | CAT 8 |
| 2 | Rescue equipment | Chemical fire fighting truck x 3 Emergency medical equipments conveyance truck x 1 |
| 3 | Capability for removal of disabled aircraft | Nil |
| 4 | Remarks | Nil |

RJCM AD 2.7 SEASONAL AVAILABILITY-CLEARING

| | | |
|---|-----------------------------|---|
| 1 | Types of clearing equipment | Snow removal equipment: 42 |
| 2 | Clearance priorities | 1) RWY 18/36, T1, T6, P1-P6, Apron A 2) T2-T5, TB, Apron B |
| 3 | Remarks | Nil |

RJCM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

| | | |
|---|-------------------------------------|---|
| 1 | Apron surface and strength | Apron A : Surface:Cement-concrete, Strength:PCR 1132/R/B/W/T Apron B : Surface:Cement-concrete, Strength:PCR 257/R/B/W/T |
| 2 | Taxiway width, surface and strength | T1-T6, P1-P6 : Surface:Asphalt-concrete, Width:30m, Strength:PCR 1170/F/C/X/T TB : Surface:Asphalt-concrete, Width:9m, Strength:PCR 273/F/C/X/T |
| 3 | ACL and elevation | Not available |
| 4 | VOR checkpoints | Not available |
| 5 | INS checkpoints | (Spot NR) 1 : 435257.24N/1440933.47E 2 : 435255.56N/1440933.89E 3 : 435253.47N/1440934.16E 4 : 435251.21N/1440934.53E 5 : 435248.95N/1440934.82E 6 : 435246.85N/1440935.01E |
| 6 | Remarks | Nil |

RJCM 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 | Aircraft stand ID sign : Nil ACFT stand taxi lane marking : See AD2.24. AD chart Visual docking guidance system : Nil |
| 2 | RWY and TWY markings and LGT | RWY: RWY18/36 (Marking) RWY designation, RWY CL, RWY THR, Aiming point, TDZ, RWY side stripe (LGT) RCLL, REDL, RTHL, RENL, RTZL, RWY DIST marker LGT, WBAR TWY: ALL (Marking) TWY CL, TWY side stripe (LGT) TWY edge LGT TWY: T1-T6 (Marking) RWY HLDG PSN, Mandatory instruction (LGT) TWY CL LGT, RWY guard LGT, Taxiing guidance sign TWY: P1-P6 (LGT) TWY CL LGT TWY: TB (Marking) RWY HLDG PSN, Mandatory instruction (LGT) RWY guard LGT, Taxiing guidance sign |
| 3 | Stop bars | Nil |
| 4 | Remarks | (Marking) Overrun area (LGT) Apron flood LGT |

RJCM AD 2.10 AERODROME OBSTACLES

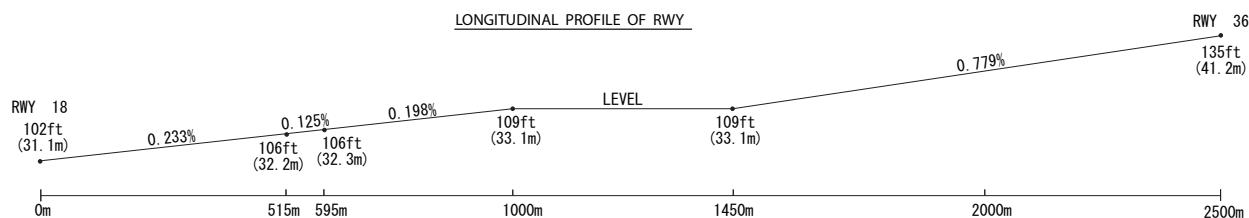
- In Area2 See Obstacle data
- In Area3 To be developed

RJCM 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 /T _r , 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 |
| 10 | Additional information(limitation of service, etc.) | Nil |

RJCM AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength(PCR) 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 |
| 18 | 174.66° | 2500x45 | PCR 1027/F/D/X/T Asphalt-concrete | 435330.51N/1440945.38E 98.8FT | THR ELEV: 102.0FT TDZ ELEV: 108FT |
| 36 | 354.66° | 2500x45 | | 435209.85N/1440955.80E 98.8FT | THR ELEV: 135.2FT TDZ ELEV: 131FT |
| Slope of RWY | | Strip Dimensions(M) | RESA (Overrun) Dimensions (M) | | Remarks |
| 7 | 10 | | 11 | | 14 |
| See below figure | | 2620x300 | 190x(MNM:140 MAX:300)* | RWY Grooving 2500m x 45m | |
| | | 2620x300 | 90x(MNM:90 MAX:300)* | | |
| *For detail, ask airport administrator | | | | | |



RJCM AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (m) | TODA (m) | ASDA (m) | LDA (m) | Remarks |
|-------------------|-------------|-------------|-------------|------------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18 | 2500 | 2500 | 2500 | 2500 | Nil |
| 36 | 2500 | 2500 | 2500 | 2500 | Nil |

RJCM AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LEN INTST | LGT type LEN | 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 | |
| 18 | PALS (CAT I) 900m LIH | Green Green | PAPI 3.0°/Left 404.5m 65.6ft | 900m | 2500m 30m Coded color (White/Red) LIH | 2500m 60m Coded color (White/Yellow) LIH | Red | Nil(*1) | |
| 36 | PALS (CAT I) 900m LIH | Green Green | PAPI 3.0°/Left 499.2m 65.6ft | 900m | 2500m 30m Coded color (White/Red) LIH | 2500m 60m Coded color (White/Yellow) LIH | Red | Nil(*1) | |
| Remarks | | | | | | | | | |
| 10 | | | | | | | | | |
| Overrun area edge LGT(LEN:60m, Color:Red)(*1) | | | | | | | | | |

RJCM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|--|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: 435259N /1440926E , ALTN FLG(2)WG EV 4.3SEC, HO |
| 2 | LDI location and LGT Anemometer location and LGT | LDI : Nil Anemometer : RWY 18: 285m from RWY 18 THR RWY 36: 289m from RWY 36 THR |
| 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 LGT |
| 5 | Remarks | WDI LGT |

RJCM AD 2.16 HELICOPTER LANDING AREA

| |
|-----|
| Nil |
|-----|

RJCM AD 2.17 ATS AIRSPACE

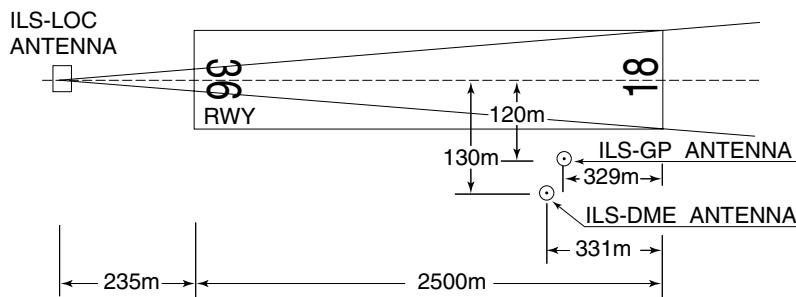
| Designation and lateral limits | | Vertical limits (ft) | Airspace classification | ATS unit call sign Language | Remarks |
|--------------------------------|---|----------------------|-------------------------|-----------------------------|---------------|
| 1 | | 2 | 3 | 4 | 6 |
| Memanbetsu CTR | Area within a radius of 5nm(9km) of Memanbetsu ARP (4353N/14410E) | 3000 or below | D | Memanbetsu TWR En | |
| Hidaka ACA | See RJEC attached chart | | | E | Hidaka APP En |

RJCM AD 2.18 ATS COMMUNICATION FACILITIES

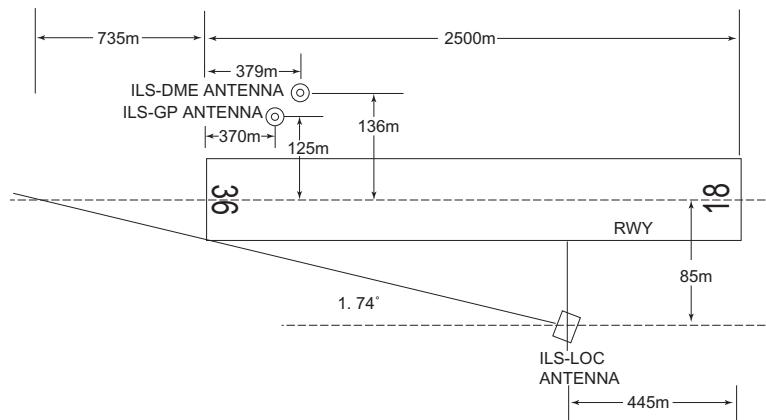
| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---------------------|------------------|---|------------------------|---------|
| 1 | 2 | 3 | 4 | 5 |
| APP | Hidaka Approach | 128.325MHz 246.1MHz 134.55MHz 121.5MHz (E) 243.0MHz (E) | 2230 - 1200 | |
| TWR | Memanbetsu tower | 118.85MHz(1) 126.2MHz | 2300 - 1200 (1)Primary | |

RJCM AD 2.19 RADIO NAVIGATION AND LANDING AIDS

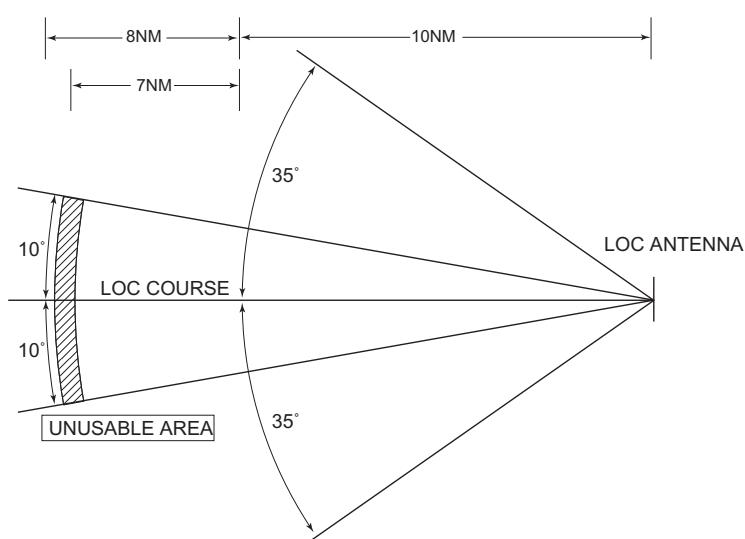
| Type of aid (VOR declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|-------------------------------|-----|------------------|--------------------|--|---------------------------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| VOR (9°W/2010) | TBE | 110.85MHz | H24 | 435305.67N/ 1440958.26E | | |
| DME | TBE | 1132MHz (CH-45Y) | H24 | 435305.67N/ 1440958.26E | 132ft | |
| ILS-LOC 18 | ITB | 110.1MHz | 2300 - 1200 | 435202.26N/ 1440956.74E | | LOC: 235m (771ft) away FM RWY 36 THR, BRG (MAG) 184° |
| ILS-GP 18 | - | 334.4MHz | 2300 - 1200 | 435320.20N/ 1440952.07E | | GP: 329m (1079ft) inside FM RWY 18 THR, 120m (394ft) E of RCL. Angle 3.0°, HGT of ILS reference datum 16.5m (54ft) |
| ILS-DME 18 | ITB | 999MHz (CH-38X) | 2300 - 1200 | 435320.16N/ 1440952.39E | 119ft | DME: 331m (1086ft) inside FM RWY 18 THR, 130m(427ft) E of RCL. |
| ILS-LOC 36 | IHM | 110.3MHz | 2300 - 1200 | 435316.40N/ 1440950.98E | | LOC: 445m(1460ft) inside FM RWY 18 THR, 85m(279ft) E of RCL. LOC offset angle 1.74° BRG(MAG) 5.90° LOC unusable: beyond 17nm from LOC antenna |
| ILS-GP 36 | - | 335MHz | 2300 - 1200 | 435221.40N/ 1440948.65E | | GP: 370m(1214ft) inside FM RWY 36 THR, 125m(410ft) W of RCL. HGT of ILS REF datum: 16.5m(54ft). GP angle 3.0°. |
| ILS-DME 36 | IHM | 1001MHz (CH-40X) | 2300 - 1200 | 435221.65N/ 1440948.07E | 137ft | DME: 379m(1243ft) inside FM RWY 36, 136m(446ft) W of RCL. |
| MSAS | | 1575.42MHz | H24 | | | Transmitting antennas are satellite based. |

ILS for RWY18

REMARKS : 1. LOC beam BRG(MAG) 184°
 2. HGT of ILS REF datum 16.5m(54ft)
 3. GP Angle 3.0°
 4. ELEV of ILS-DME 36.2m(119ft)

ILS for RWY36

REMARKS : 1. LOC OFFSET ANGLE 1.74°
 2. LOC beam BRG(MAG) 5.90°
 3. HGT of ILS REF datum 16.5m(54ft)
 4. GP Angle 3.0°
 5. ELEV of ILS-DME 41.7m (137ft)



LOC unusable in the following area : BEY 17NM FM LOC ANT.

RJCM AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

PPR

Prior permission is required for transient aircraft due to parking congestion except scheduled and/or emergency flight.
Tel: Hokkaido Airports Co.,Ltd. Memanbetsu Airport Office 0152-74-2222

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

Nil

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

RJCM AD 2.21 NOISE ABATEMENT PROCEDURES

Nil

RJCM AD 2.22 FLIGHT PROCEDURES

1.TAKE OFF MINIMA

| | RWY | REDL & RCLL | | REDL or RCLL or RCL Marking | | NIL (DAY ONLY) | |
|--|-------|-----------------|-----|--------------------------------|------|-------------------|------|
| | | RVR | VIS | RVR | VIS | RVR | VIS |
| Multi-Engine ACFT with TKOF ALTN AP Filed | 18/36 | 400m | | 400m | 400m | - | 500m |
| OTHER | 18/36 | AVBL LDG MINIMA | | | | | |

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

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

- (I) 1. Contact Memanbetsu Tower.
2. If unable, proceed in accordance with visual flight rules.
3. If unable, proceed to MEMANBETSU VOR/DME at last assigned altitude or 4,000 feet whichever is higher, and execute instrument approach.
- (II) Procedures other than above will be issued when situation requires.

RJCM AD 2.23 ADDITIONAL INFORMATION

双方向に設置されている ILS の輻射について

ILS 18/36

RWY18 および 36 ILS は同時に輻射する。

Two separate ILS radiate at opposite ends of a single runway

ILS 18/36

RWY18 and 36 ILS radiate simultaneously.

RJCM AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome/Heliport Chart

Standard Departure Chart (MEMANBETSU REVERSAL)

Standard Departure Chart (MENIB-RNAV)

Standard Departure Chart (NICOL-RNAV)

Standard Departure Chart (NULKI-RNAV)

Instrument Approach Chart (ILS Z or LOC Z RWY18)

Instrument Approach Chart (ILS Y or LOC Y RWY18)

Instrument Approach Chart (ILS X RWY18)

Instrument Approach Chart (ILS or LOC RWY36)

Instrument Approach Chart (VOR RWY18)

Instrument Approach Chart (VOR RWY36)

Instrument Approach Chart (RNP Z RWY18)

Instrument Approach Chart (RNP Y RWY18 (AR))

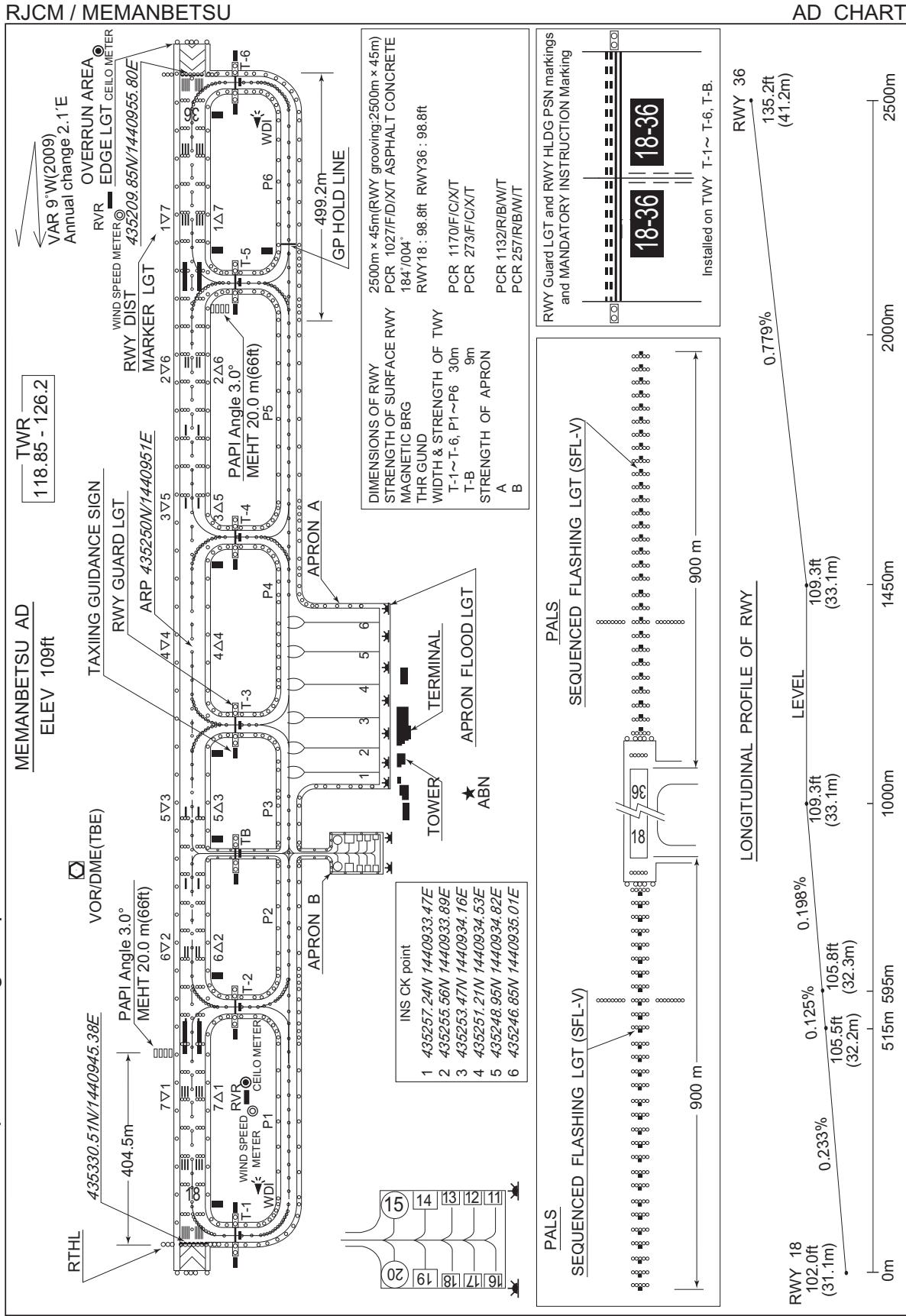
Instrument Approach Chart (RNP RWY36)

Other Chart (Visual REP)

Other Chart (LDG CHART)

Other Chart (MVA CHART)

CHANGE : Description of strength of pavement.



STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

SID

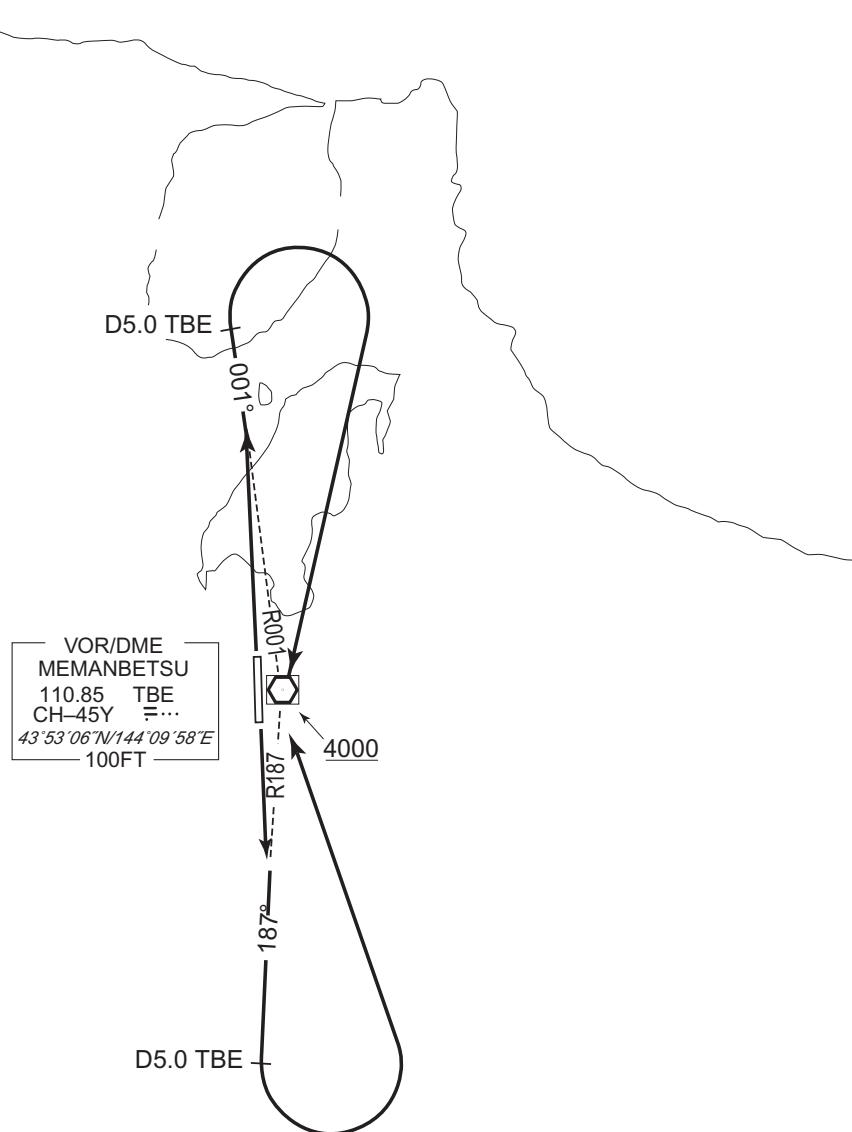
MEMANBETSU REVERSAL THREE DEPARTURE

RWY 18 : Climb via TBE R187 to TBE 5.0DME, turn left....

RWY 36 : Climb via TBE R001 to TBE 5.0DME, turn right,....

....Proceed to TBE VOR/DME. Cross TBE VOR/DME at or above 4000FT.

CHANGE : Description of PROC name.



STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

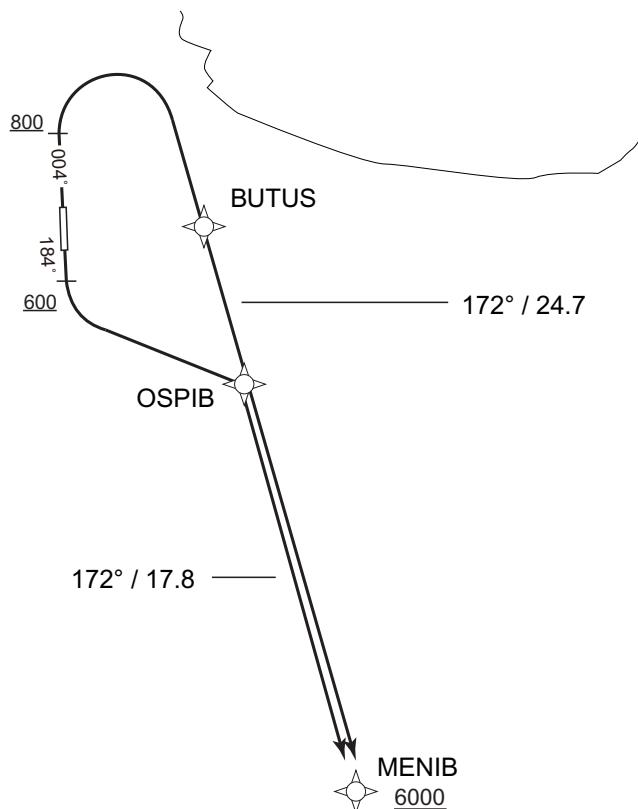
RNAV SID

MENIB ONE DEPARTURE

RNP1

Note GNSS required.

VAR 10° W



RWY18 : Climb on HDG184° at or above 600FT, turn left direct to OSPIB, to MENIB at or above 6000FT.

RWY36 : Climb on HDG004° at or above 800FT, turn right direct to BUTUS, to MENIB at or above 6000FT.

Note RWY18 : 5.0% climb gradient required up to 2300FT.

OBST ALT 3314FT located at 12.2NM 153° FM end of RWY18.

CHANGE : Description of latitude and longitude.

RWY18

| 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 | — | — | 184 (174.7) | -9.6 | — | — | +600 | — | — | RNP1 |
| 002 | DF | OSPIB | — | — | -9.6 | — | L | — | — | — | RNP1 |
| 003 | TF | MENIB | — | 172 (162.3) | -9.6 | 17.8 | — | +6000 | — | — | RNP1 |

RWY36

| 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 | — | — | 004 (354.7) | -9.6 | — | — | +800 | — | — | RNP1 |
| 002 | DF | BUTUS | — | — | -9.6 | — | R | — | — | — | RNP1 |
| 003 | TF | MENIB | — | 172 (162.3) | -9.6 | 24.7 | — | +6000 | — | — | RNP1 |

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

RNAV SID

Waypoint Coordinates

| Waypoint Identifier | Coordinates |
|---------------------|------------------------|
| OSPIB | 434628.5N / 1442055.9E |
| BUTUS | 435301.9N / 1441802.1E |
| MENIB | 432929.4N / 1442822.9E |

CHANGE : Waypoint Coordinates added.

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

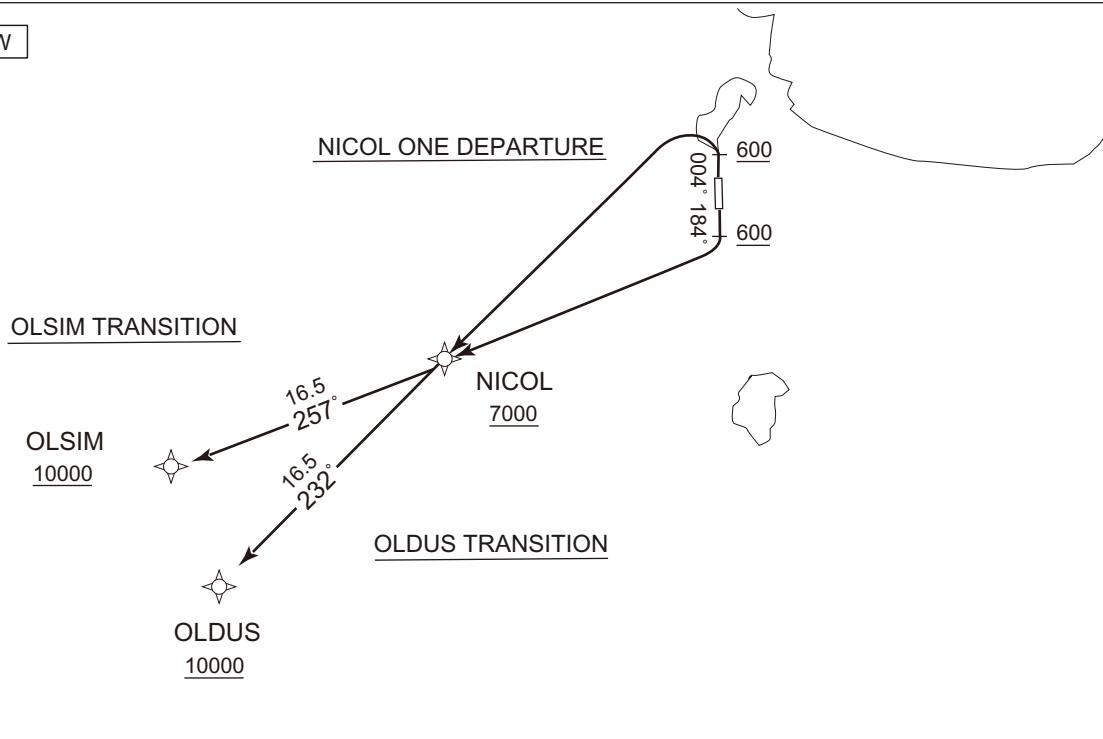
RNAV SID and TRANSITION

NICOL ONE DEPARTURE
OLSIM TRANSITION / OLDUS TRANSITION

RNP1

Note GNSS required.

VAR 10° W

NICOL ONE DEPARTURE

RWY18 : Climb on HDG184° at or above 600FT, turn right direct to NICOL at or above 7000FT.

RWY36 : Climb on HDG004° at or above 600FT, turn left direct to NICOL at or above 7000FT.

Note RWY36 : 5.0% climb gradient required up to 600FT.

OBST ALT 1181FT located at 6.3NM 312° FM end of RWY36.

OLSIM TRANSITION

From NICOL at or above 7000FT, to OLSIM at or above 10000FT.

OLDUS TRANSITION

From NICOL at or above 7000FT, to OLDUS at or above 10000FT.

CHANGE : Description of latitude and longitude.

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

RNAV SID and TRANSITION

NICOL ONE DEPARTURE

RWY18

| 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 | - | - | 184 (174.7) | -9.6 | - | - | +600 | - | - | RNP1 |
| 002 | DF | NICOL | - | - | -9.6 | - | R | +7000 | - | - | RNP1 |

RWY36

| 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 | - | - | 004 (354.7) | -9.6 | - | - | +600 | - | - | RNP1 |
| 002 | DF | NICOL | - | - | -9.6 | - | L | +7000 | - | - | RNP1 |

OLSIM 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 | NICOL | - | - | -9.6 | - | - | +7000 | - | - | RNP1 |
| 002 | TF | OLSIM | - | 257 (247.6) | -9.6 | 16.5 | - | +10000 | - | - | RNP1 |

OLDUS 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 | NICOL | - | - | -9.6 | - | - | +7000 | - | - | RNP1 |
| 002 | TF | OLDUS | - | 232 (222.9) | -9.6 | 16.5 | - | +10000 | - | - | RNP1 |

CHANGE : Waypoint Coordinates added.

Waypoint Coordinates

| Waypoint Identifier | Coordinates |
|---------------------|------------------------|
| NICOL | 433912.0N / 1434158.7E |
| OLSIM | 433251.7N / 1432055.3E |
| OLDUS | 432703.7N / 1432629.1E |

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

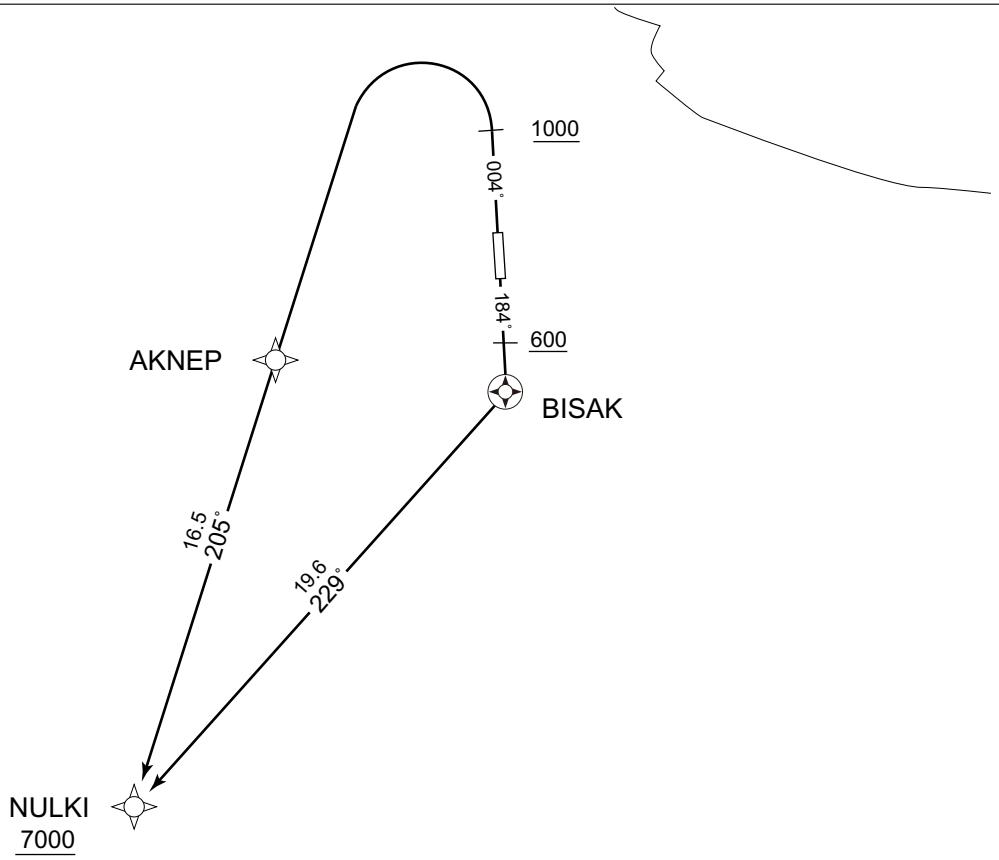
RNAV SID

NULKI ONE DEPARTURE

RNP1

Note GNSS required.

VAR 10°W

RWY18 : Climb on HDG184° at or above 600FT, direct to BISAK, to NULKI at or above 7000FT.

RWY36 : Climb on HDG004° at or above 1000FT, turn left direct to AKNEP, to NULKI at or above 7000FT.

Note RWY36 : 3.9% climb gradient required up to 1500FT.

OBST ALT 1673FT located at 8.2NM 320° FM end of RWY36.

RWY18

| 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 | — | — | 184 (174.7) | -9.6 | — | — | +600 | — | — | RNP1 |
| 002 | DF | BISAK | Y | — | -9.6 | — | — | — | — | — | RNP1 |
| 003 | TF | NULKI | — | 229 (219.6) | -9.6 | 19.6 | — | +7000 | — | — | RNP1 |

RWY36

| 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 | — | — | 004 (354.7) | -9.6 | — | — | +1000 | — | — | RNP1 |
| 002 | DF | AKNEP | — | — | -9.6 | — | L | — | — | — | RNP1 |
| 003 | TF | NULKI | — | 205 (194.9) | -9.6 | 16.5 | — | +7000 | — | — | RNP1 |

CHANGE : Description of latitude and longitude.

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

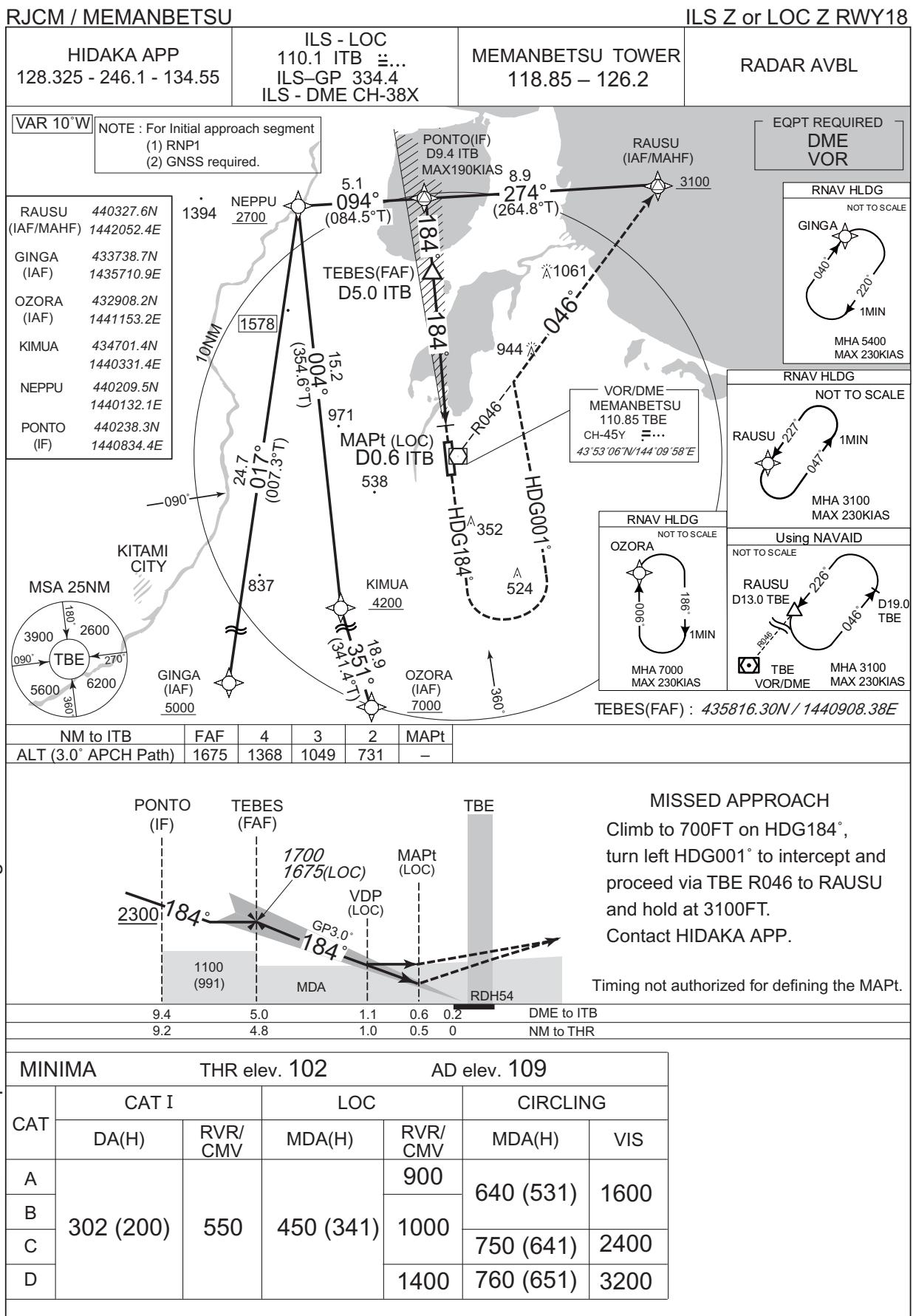
RNAV SID

Waypoint Coordinates

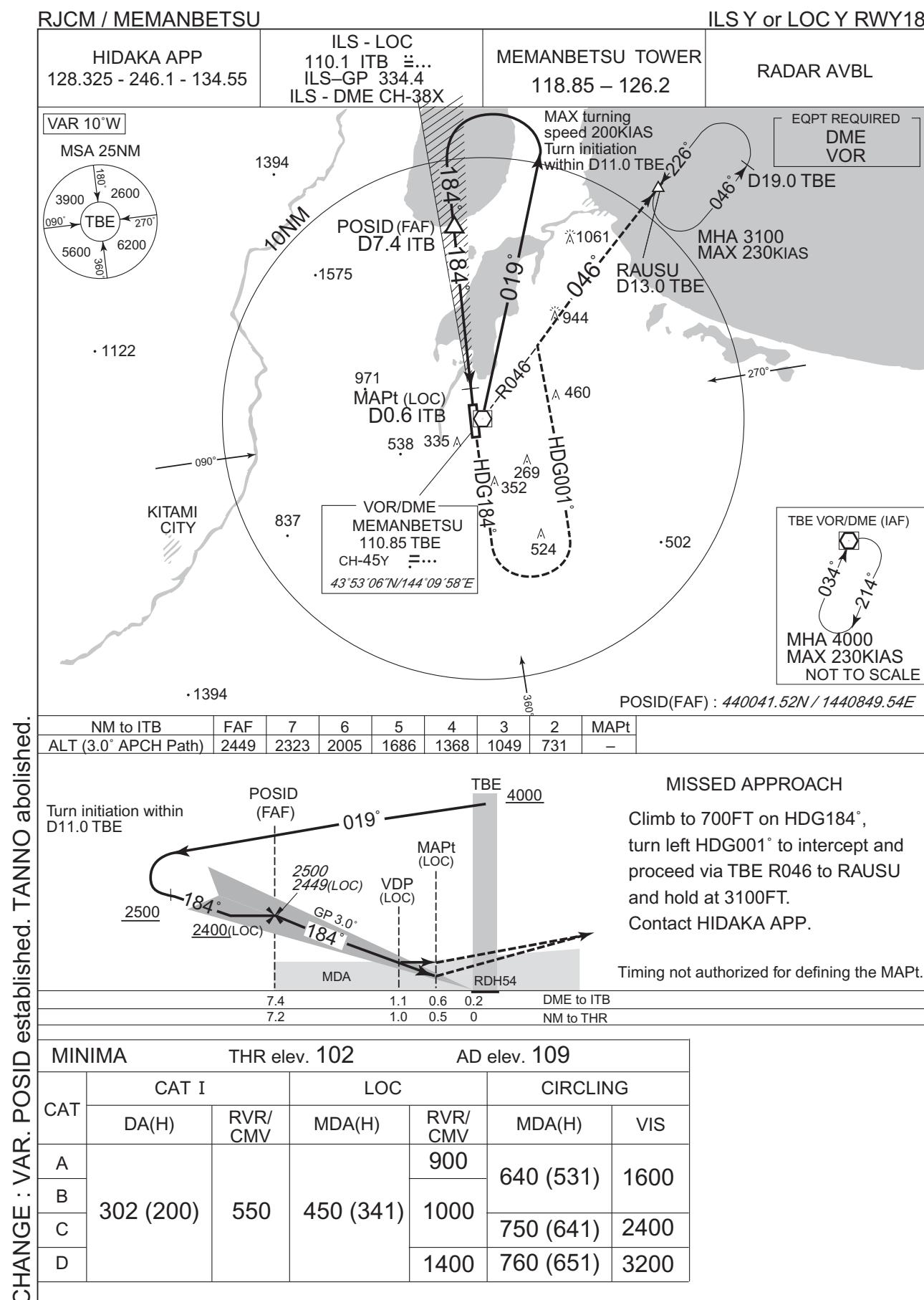
| Waypoint Identifier | Coordinates |
|---------------------|------------------------|
| BISAK | 434808.9N / 1441026.9E |
| AKNEP | 434859.1N / 1435906.4E |
| NULKI | 433301.6N / 1435313.7E |

CHANGE : Waypoint Coordinates added.

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

ILS X RWY18

VAR 10°W

MSA 25NM

ARP: 435250N/1440951E

RNAV HLDG NOT TO SCALE

GINGA
040° → 220° 1MIN

MHA 5400 MAX 230KIAS

RNAV HLDG NOT TO SCALE

RAUSU (MAHF)
047° → 227° 1MIN

MHA 3100 MAX 230KIAS

RNAV HLDG NOT TO SCALE

OZORA
006° → 186° 1MIN

MHA 7000 MAX 230KIAS

ILS - LOC 110.1 ITB ... ILS-GP 334.4 ILS - DME CH-38X

MEMANBETSU TOWER 118.85 – 126.2

RADAR AVBL

RAUSU (MAHF)

CM854
1396 → 081° 10NM

CM853(IF)
MAX 200KIAS

CM855
D6.5 ITB
TEBES(FAF)
D5.0 ITB

1061
944

KILOX
1578 → 009° 5.0

KIMUA
4200 → 002° 7.6

OZORA(IAF)
7000 → 351° 18.9

GINGA(IAF)
5000 → 021° 17.2

TEBES(FAF) : 435816.30N / 1440908.38E

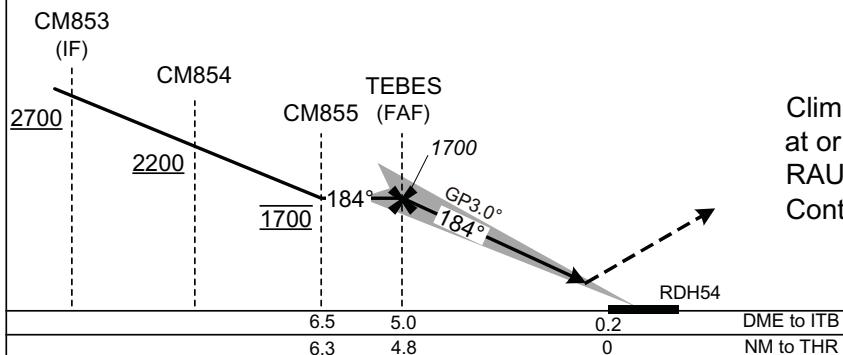
3281

EQPT REQUIRED DME

RNP1 RF required.

MISSED APPROACH

Climb on course 184°,
at or above 700FT turn left, direct to
RASU and hold at 3100FT.
Contact HIDAKA APP.



| MINIMA | | THR elev. 102 | | AD elev. 109 | |
|--------|-----------|---------------|-----------|--------------|--|
| CAT | CAT I | | CIRCLING | | |
| | DA(H) | RVR/ CMV | MDA(H) | VIS | |
| A | 302 (200) | 550 | 640 (531) | 1600 | |
| B | | | 750 (641) | 2400 | |
| C | | | 760 (651) | 3200 | |
| D | | | | | |

CHANGE : VAR.

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

ILS X RWY18

Coding Table

| 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 | GINGA | - | - | -9.6 | - | - | +5000 | - | - | RNP1 |
| 002 | TF | KILOX | - | 021 (011.9) | -9.6 | 17.2 | - | - | - | - | RNP1 |
| 003 | TF | CM853 | - | 009 (359.2) | -9.6 | 5.0 | - | +2700 | -200 | - | RNP1 |

| | | | | | | | | | | | |
|-----|----|-------|---|-------------|------|------|---|-------|------|---|------|
| 001 | IF | OZORA | - | - | -9.6 | - | - | +7000 | - | - | RNP1 |
| 002 | TF | KIMUA | - | 351 (341.4) | -9.6 | 18.9 | - | +4200 | - | - | RNP1 |
| 003 | TF | KILOX | - | 002 (352.2) | -9.6 | 7.6 | - | - | - | - | RNP1 |
| 004 | TF | CM853 | - | 009 (359.2) | -9.6 | 5.0 | - | +2700 | -200 | - | RNP1 |

| | | | | | | | | | | | |
|-----|---------------------------|-------|---|---|------|-----|---|-------|------|---|------|
| 001 | IF | CM853 | - | - | -9.6 | - | - | +2700 | -200 | - | RNP1 |
| 002 | RF Center: CMRF2 r=2.51NM | CM854 | - | - | -9.6 | 3.8 | R | +2200 | - | - | RNP1 |
| 003 | RF Center: CMRF2 r=2.51NM | CM855 | - | - | -9.6 | 3.8 | R | 1700 | - | - | RNP1 |

| | | | | | | | | | | | |
|-----|----|-------|---|-------------|------|---|---|------|---|---|------|
| 001 | CA | - | - | 184 (174.7) | -9.6 | - | - | +700 | - | - | RNP1 |
| 002 | DF | RAUSU | - | - | -9.6 | - | L | 3100 | - | - | RNP1 |

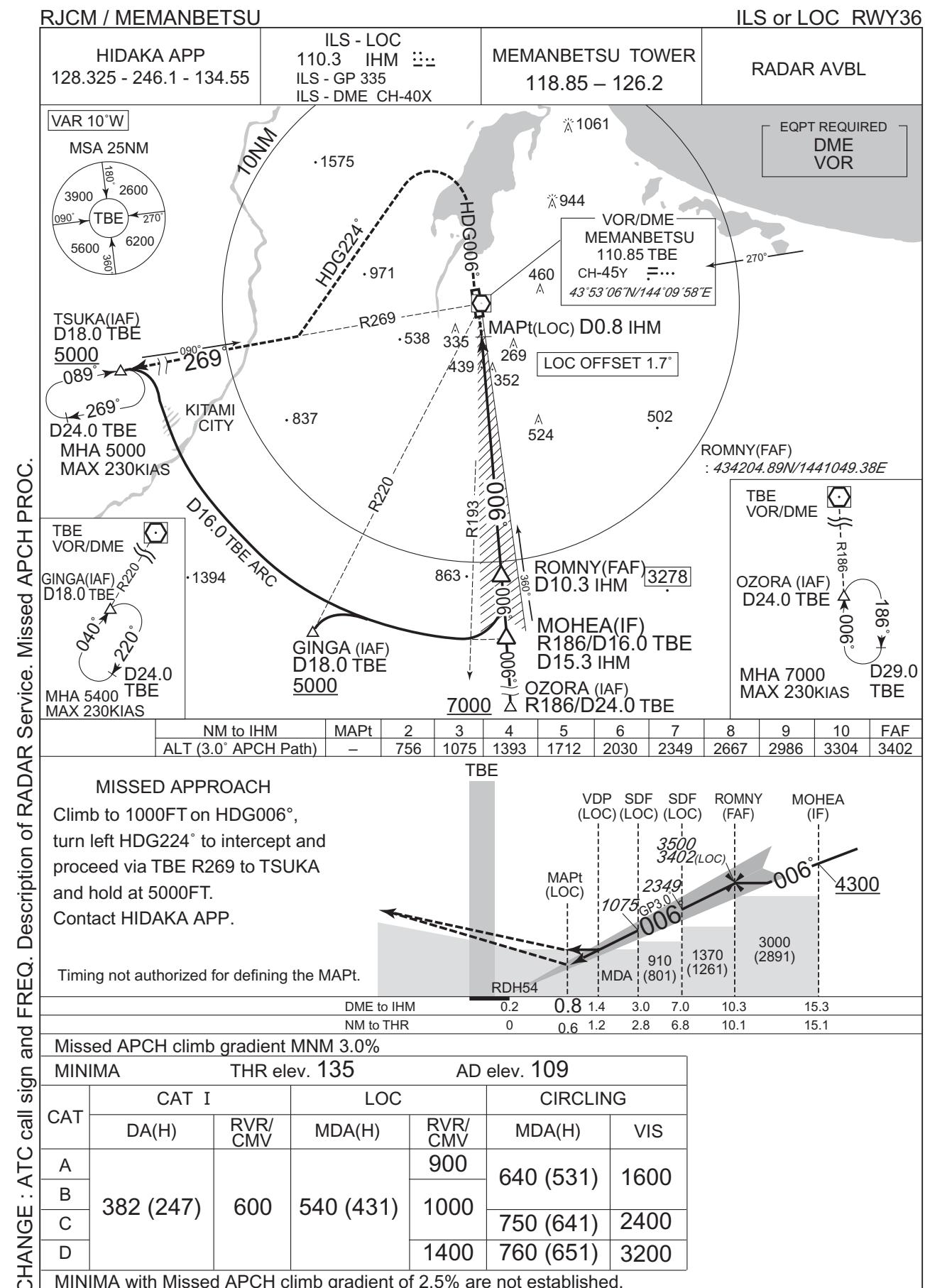
| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | Outbound Time (MIN) | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS) | Navigation Specification |
|------|---------------------|-----------------------|--------------------|---------------------|----------------|-----------------------|-----------------------|---------------|--------------------------|
| Hold | GINGA | 040 (030.8) | -9.5 | 1.0 (-14000) | R | 5400 | FL140 | -230 (-14000) | RNP1 |
| Hold | OZORA | 006 (356.7) | -9.5 | 1.0 (-14000) | R | 7000 | FL140 | -230 (-14000) | RNP1 |
| Hold | RAUSU | 227 (217.0) | -9.5 | 1.0 (-14000) | L | 3100 | FL140 | -230 (-14000) | RNP1 |

Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|--------------------------|--------------------------|--------------------------|
| GINGA | 433738.73N / 1435710.93E | CMRF2 | 435931.80N / 1440529.11E |
| OZORA | 432908.24N / 1441153.19E | | |
| KIMUA | 434701.35N / 1440331.41E | | |
| KILOX | 435429.92N / 1440206.12E | | |
| CM853 | 435929.83N / 1440200.57E | | |
| CM854 | 440202.15N / 1440517.96E | | |
| CM855 | 435945.90N / 1440856.76E | | |
| RAUSU | 440327.56N / 1442052.43E | | |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

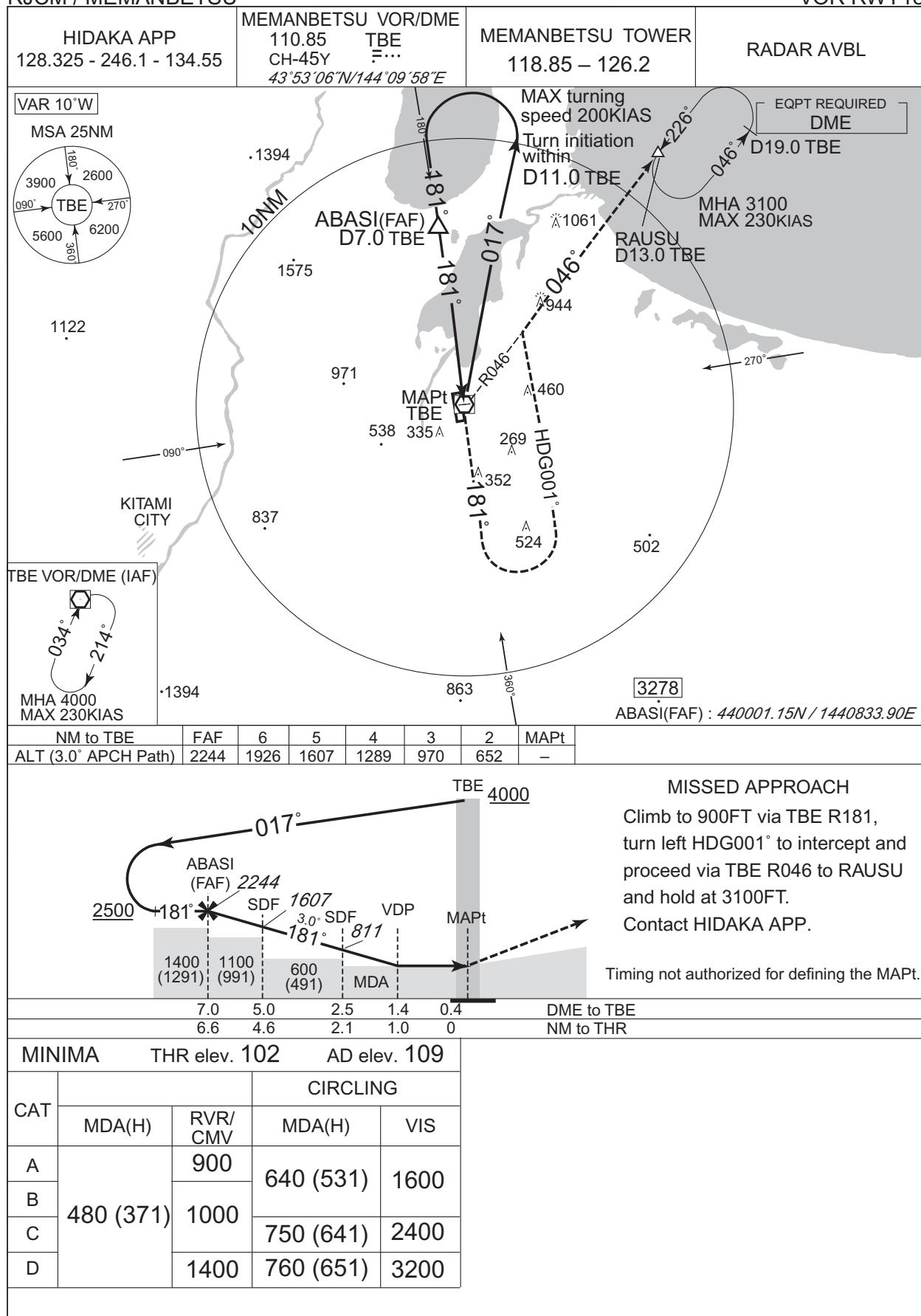
INSTRUMENT APPROACH CHART



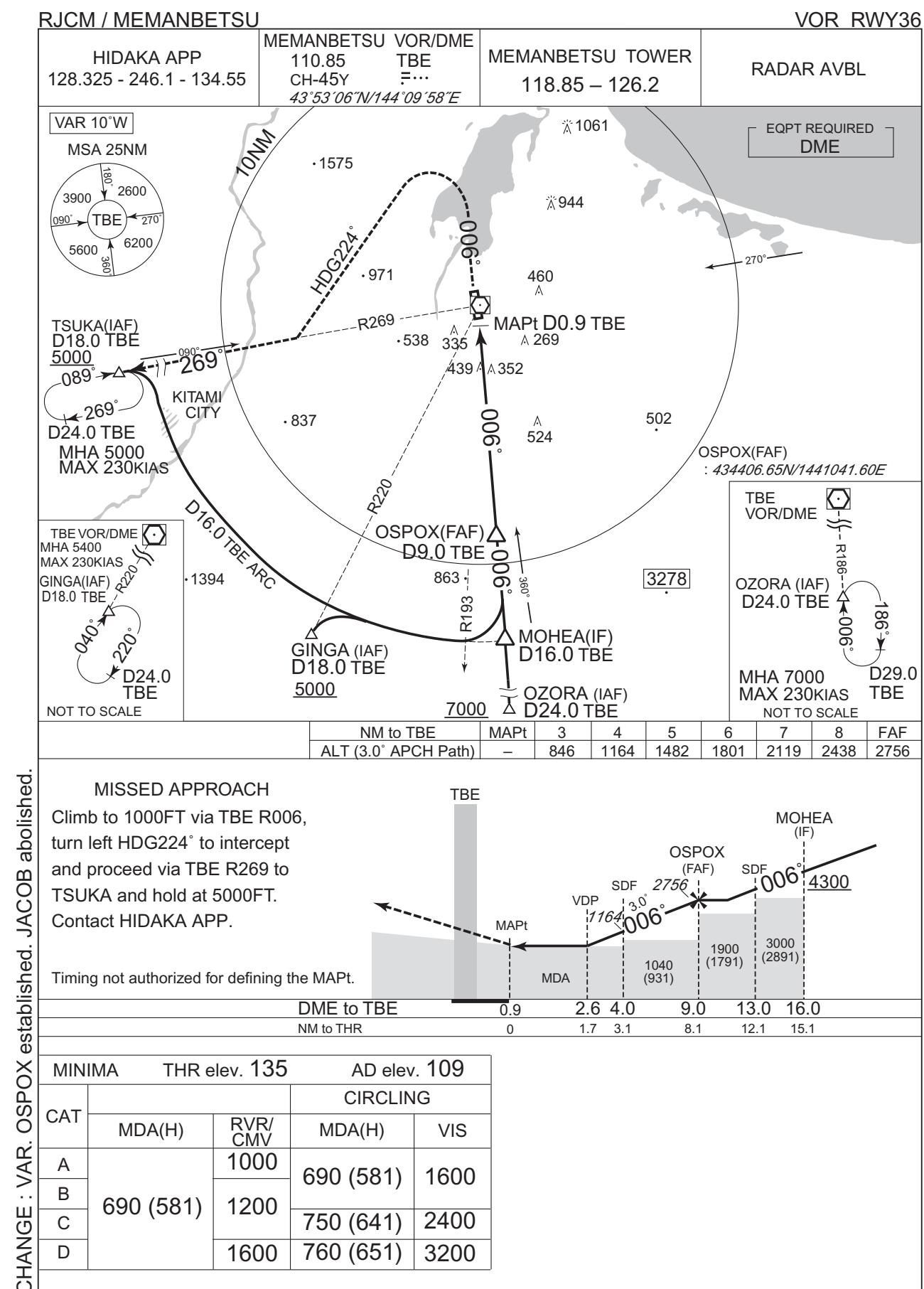
INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

VOR RWY18



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Z RWY18

HIDAKA APP
128.325 - 246.1 - 134.55

RNP APCH
MSAS CH83687
M18A

MEMANBETSU TOWER
118.85 – 126.2

RADAR AVBL

Baro-VNAV not authorized below -25°C

VAR 10°W

MSA 25NM

6200
ARP

ARP: 435250N/1440951E

NOT TO SCALE
GINGA
040° 220°
1MIN
MHA 5400 MAX 230KIAS

NOT TO SCALE
OZORA
060° 186°
1MIN
MHA 7000 MAX 230KIAS

1394
NEPPU
2700

1578

10NM

5.1 094° (084.5 T)
8.9 274° (264.8 T)

MAX230KIAS

PONTO(IF)
MAX230KIAS

YOBIT (FAF)
184° (174.7 T)
184° (114.7 T)
4.9

RW18 (MAPt)

CM852 (MATF)

KIMUA 4200

GINGA (IAF) 5000

OZORA (IAF) 7000

RAUSU (IAF/MAHF) 3100

RAUSU 440327.56N (IAF/MAHF) 1442052.43E

OZORA 432908.24N (IAF) 1441153.19E

KIMUA 434701.35N 1440331.41E

NEPPU 440209.51N 1440132.13E

GINGA 433738.73N (IAF) 1435710.93E

PONTO (IF) 440238.29N 1440834.36E

YOBIT (FAF) 435820.17N 1440907.90E

RW18 (MAPt) 435330.51N 1440945.38E

CM852 (MATF) 435031.32N 1441008.52E

NOT TO SCALE
RAUSU
227° 047°
1MIN
MHA 3100 MAX 230KIAS

NM to Next Fix FAF 4 3 2 1 MAPt

ALT (3.0° APCH Path) 1700 1430 1111 793 475 -

MISSED APPROACH

PONTO (IF)
2300
1700
800 (691)
9.2

YOBIT (FAF)
184°
4.9

RW18 (MAPt)
3.00° 184°
0.9 0

VDP (LNAV)
MDA
0.9 0

RDH54
NM to THR

Direct to CM852, turn left direct to RAUSU and hold at 3100FT. Contact HIDAKA APP.

Missed APCH climb gradient MNM 5.0%

| MINIMA | | THR elev.102 | | AD elev.109 | | | | |
|--------|----------|--------------|-----------|-------------|--------|----------|----------|------|
| CAT | LPV | | LNAV/VNAV | | LNAV | | CIRCLING | |
| | DA(H) | RVR/CMV | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 352(250) | 800 | 900 | 440(331) | 900 | 640(531) | 1600 | |
| B | 360(258) | | 1000 | | 1000 | | 750(641) | 2400 |
| C | 369(267) | | 1400 | | 1400 | | 760(651) | 3200 |
| D | 379(277) | | 1200 | | | | | |

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

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Z RWY18

FAS DATA BLOCK

| | | | |
|----------------------------------|---------------|----------------------------|---------------|
| Operation type | 0 | LTP/FTP ellipsoidal height | +00618 |
| SBAS service provider identifier | 2 | FPAP latitude | 435209.8350N |
| Airport identifier | RJCM | FPAP longitude | 1440955.7670E |
| Runway | 18 | Threshold crossing height | 00016.5 |
| 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 | M18A | Δ length offset | 0000 |
| LTP/FTP latitude | 435330.4920N | HAL | 40.0 |
| LTP/FTP longitude | 1440945.3395E | VAL | 50.0 |
| CRC remainder | 257C1F8B | | |

Required additional data

| | |
|----------------------------|------|
| LTP/FTP orthometric height | 31.0 |
|----------------------------|------|

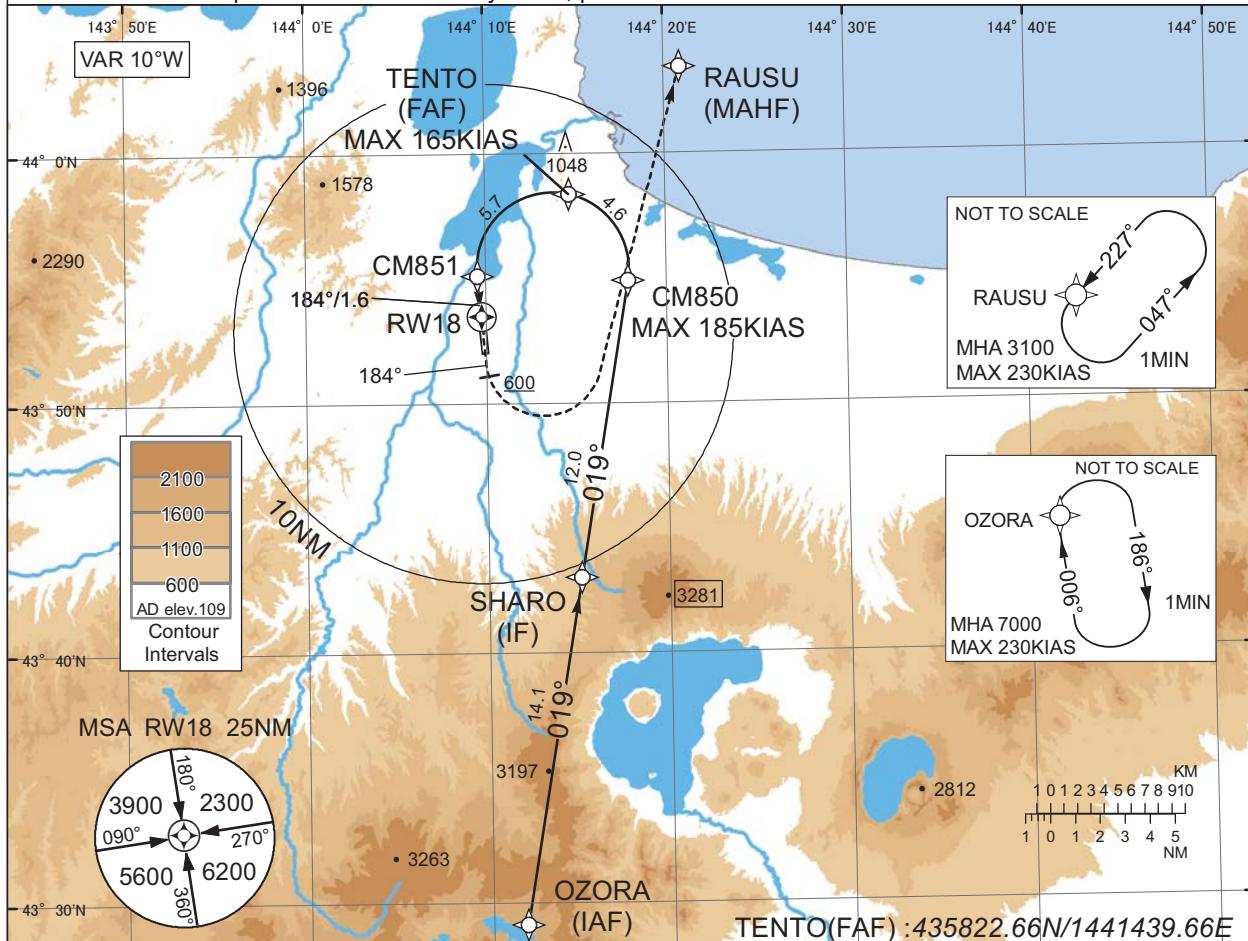
INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Y RWY18(AR)

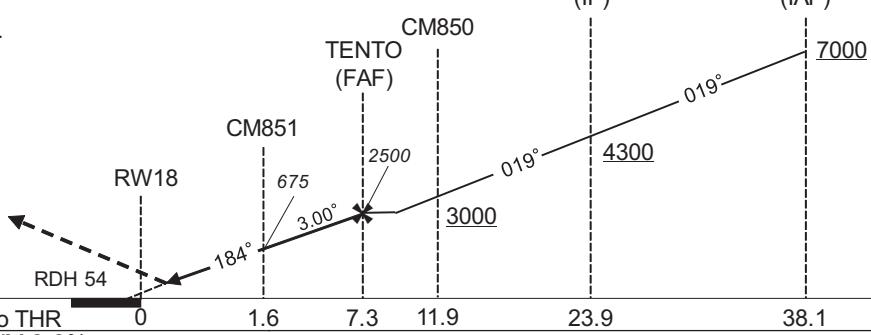
| | | | |
|--|-----------------------|------------------------------------|------------|
| HIDAKA APP 128.325 - 246.1 - 134.55 | RNP AR RF required | MEMANBETSU TOWER 118.85 - 126.2 | RADAR AVBL |
|--|-----------------------|------------------------------------|------------|

For uncompensated Baro-VNAV systems, procedure not authorized below -25°C / above 45°C



MISSED APPROACH

From RW18 on track 184°, at or above 600FT turn left, direct to RAUSU and hold at 3100FT. Contact HIDAKA APP.



Missed APCH climb gradient MNM 3.0%

| MINIMA | THR elev. 102 | AD elev. 109 |
|--------|---------------|--------------|
| CAT | RNP 0.30 | |
| A | DA(H) | RVR/CMV |
| B | - | - |
| C | 402(300) | 1000 |
| D | | 1400 |

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

Authorization Required

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Y RWY18(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 | OZORA | - | - | -9.5 | - | - | +7000 | - | - | - |
| 002 | TF | SHARO | - | 019 (009.5) | -9.5 | 14.1 | - | +4300 | - | - | 1.0 |
| 003 | TF | CM850 | - | 019 (009.6) | -9.5 | 12.0 | - | +3000 | -185 | - | 1.0 |
| 004 | RF Center: CMRF1 r=3.04NM | TENTO | - | - | -9.5 | 4.6 | L | 2500 | -165 | - | 1.0 |
| 005 | RF Center: CMRF1 r=3.04NM | CM851 | - | - | -9.5 | 5.7 | L | 675 | - | -3.00 | 0.3 |
| 006 | TF | RW18 | Y | 184 (174.7) | -9.5 | 1.6 | - | 156 | - | -3.00/54 | 0.3 |
| 007 | FA | - | - | 184 (174.7) | -9.5 | - | - | +600 | - | - | 1.0 |
| 008 | DF | RAUSU | - | - | -9.5 | - | L | 3100 | - | - | 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 | OZORA | 006 (356.7) | -9.5 | 1.0 (-14000) | R | 7000 | FL140 | -230 (-14000) | 1.0 |
| Hold | RAUSU | 227 (217.0) | -9.5 | 1.0 (-14000) | L | 3100 | FL140 | -230 (-14000) | 1.0 |

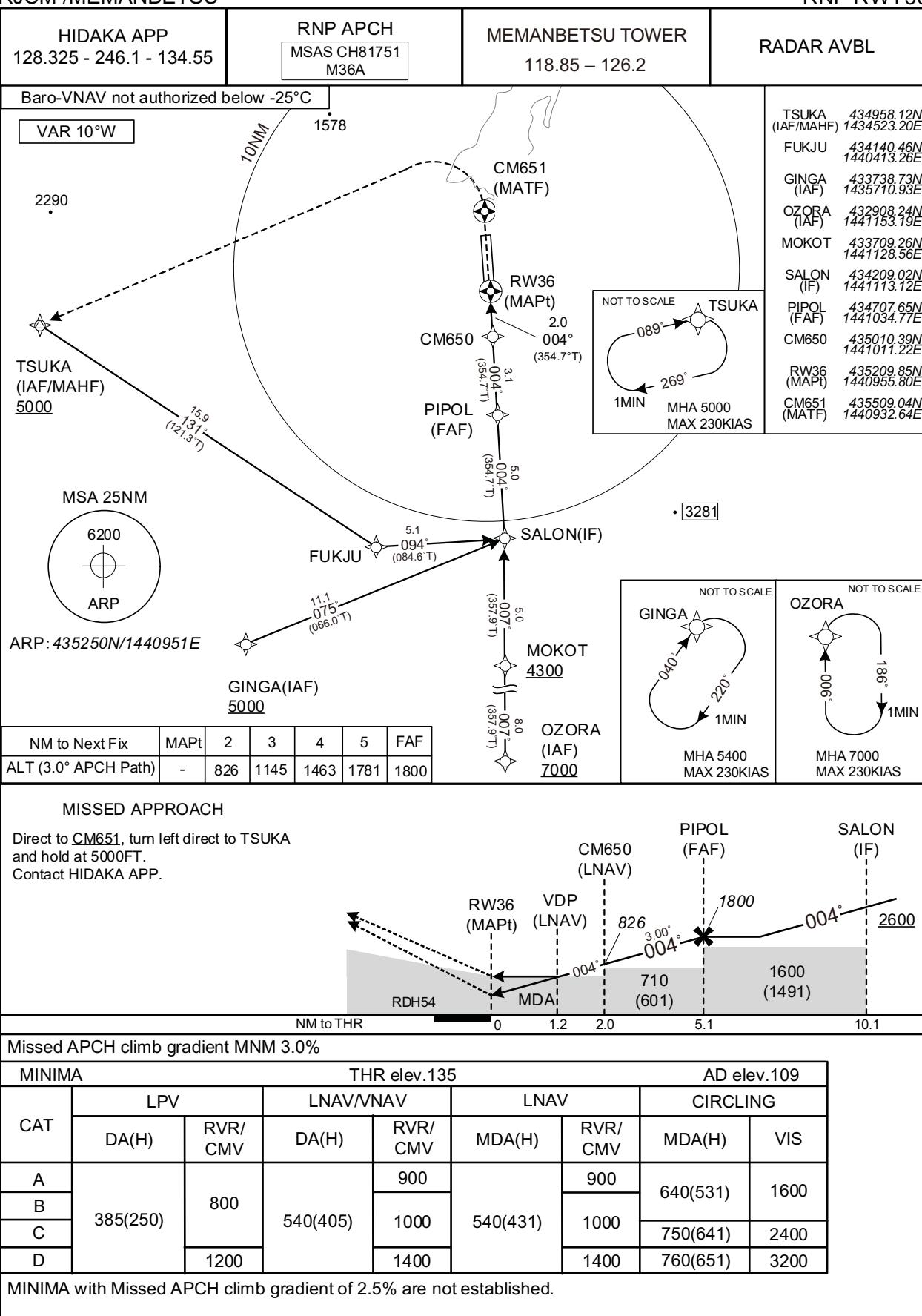
Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|--------------------------|--------------------------|--------------------------|
| OZORA | 432908.24N / 1441153.19E | CMRF1 | 435524.66N / 1441344.15E |
| SHARO | 434301.91N / 1441506.66E | | |
| CM850 | 435454.27N / 1441753.05E | | |
| TENTO | 435822.66N / 1441439.66E | | |
| CM851 | 435507.75N / 1440932.81E | | |
| RW18 | 435330.51N / 1440945.38E | | |
| RAUSU | 440327.56N / 1442052.43E | | |

INSTRUMENT APPROACH CHART

RJCM /MEMANBETSU

RNP RWY36



CHANGE : Description of SDF, HLDG pattern.

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP RWY36

FAS DATA BLOCK

| | | | |
|----------------------------------|---------------|----------------------------|---------------|
| Operation type | 0 | LTP/FTP ellipsoidal height | +00719 |
| SBAS service provider identifier | 2 | FPAP latitude | 435330.4920N |
| Airport identifier | RJCM | FPAP longitude | 1440945.3395E |
| Runway | 36 | Threshold crossing height | 00016.5 |
| Approach performance designator | 0 | TCH units selector | 1 |
| Route indicator | | Glide path angle | 03.00 |
| Reference path data selector | 0 | Course width at threshold | 105.00 |
| Reference path ID | M36A | △ length offset | 0000 |
| LTP/FTP latitude | 435209.8350N | HAL | 40.0 |
| LTP/FTP longitude | 1440955.7670E | VAL | 50.0 |
| CRC remainder | 28C6AB24 | | |

Required additional data

| | |
|----------------------------|------|
| LTP/FTP orthometric height | 41.1 |
|----------------------------|------|

RJCM / MEMANBETSU

Visual REP



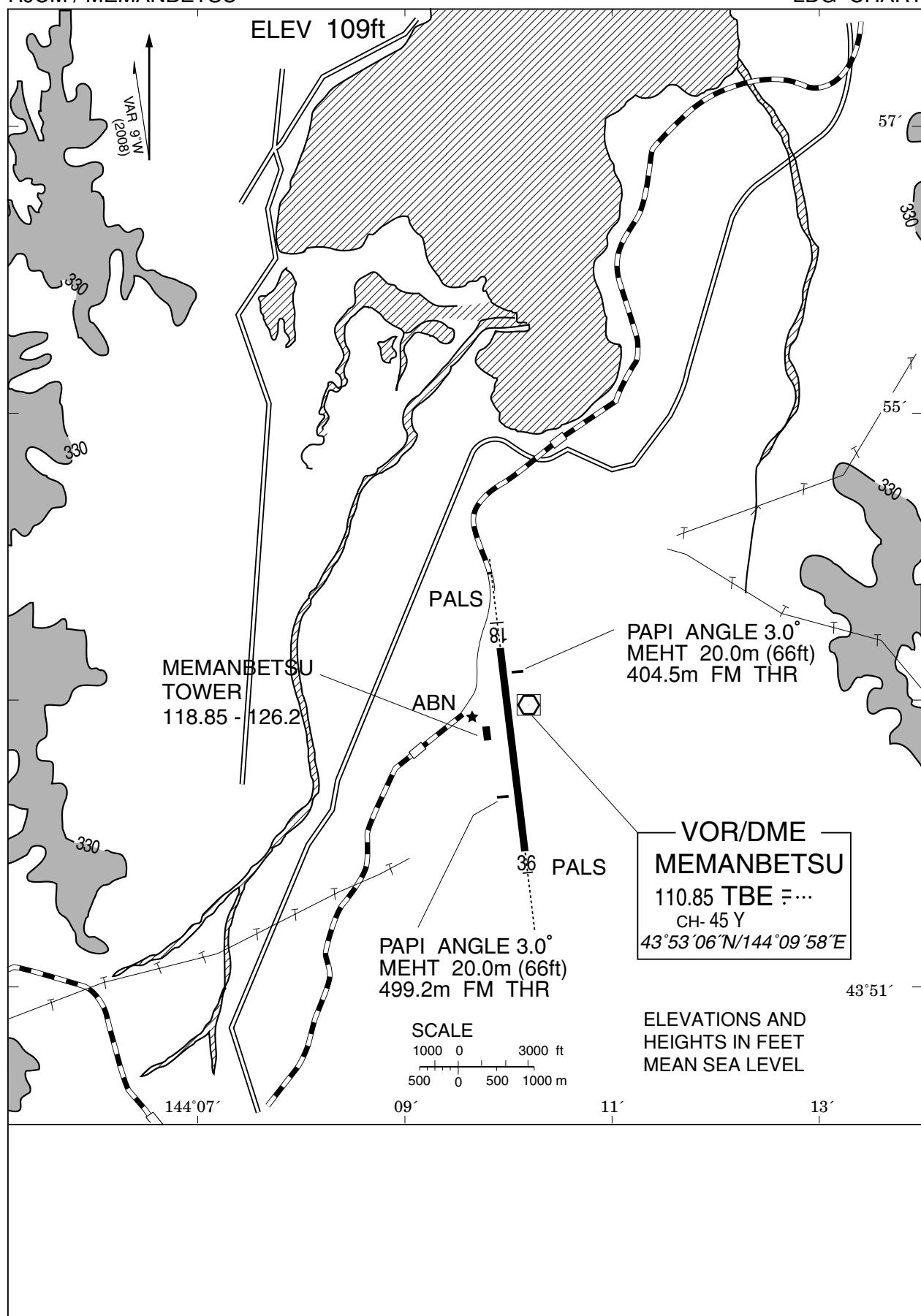
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

CHANGE : Map updated. BRG/DIST from ARP.

| Call sign | BRG / DIST from ARP | Remarks |
|----------------------------|---------------------|-----------------|
| 網走 Abashiri | 025°T / 9.2NM | JR駅 Station |
| 濤沸湖 Tofutsuko | 074°T / 10.5NM | 湖 Lake |
| 小清水 Koshimizu | 097°T / 13.3NM | 学校 School |
| 東藻琴 Higashimokoto | 110°T / 6.1NM | 市街地 Town |
| 美幌峠 Bihoro Toge | 165°T / 14.4NM | 峠 Pass |
| 津別 Tsubetsu | 210°T / 12.2NM | 市街地 Town |
| 美幌ステーション Bihoro Station | 223°T / 3.7NM | JR駅 Station |
| 北見 Kitami | 248°T / 12.4NM | JR駅 Station |
| 浜佐呂間 Hamasaroma | 321°T / 15.5NM | 佐呂間大橋 Bridge |

RJCM / MEMANBETSU

LDG CHART



RJCM / MEMANBETSU

Minimum Vectoring Altitude CHART

