

AD 2 AERODROMES

RJOM AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RJOM - MATSUYAMA

RJOM AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|--|--|
| 1 | ARP coordinates and site at AD | 334938N/1324159E 131°/1.25km FM RWY 14 THR |
| 2 | Direction and distance from (city) | 3nm WSW from Matsuyama city |
| 3 | Elevation/ Reference temperature | 13ft / 31°C(2001-2008) |
| 4 | Geoid undulation at AD ELEV PSN | 109ft |
| 5 | MAG VAR/ Annual change | 7°W (2009) / 1.7'W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses | Civil Aviation Bureau, Public AP Minamiyoshida - machi, Matsuyama, Ehime Pref. Tel: 089-972-0319 , 089-972-0393(AIS) Fax: 089-973-1056 , 089-974-8185(AIS) AFS: RJOMYFYX |
| 7 | Types of traffic permitted(IFR/VFR) | IFR/VFR |
| 8 | Remarks | Nil |

RJOM AD 2.3 OPERATIONAL HOURS

| | | |
|----|---------------------------|------------------------------|
| 1 | AD Administration | 2200 - 1300 |
| 2 | Customs and immigration | INTL SKED FLT hours only |
| 3 | Health and sanitation | INTL SKED FLT hours only |
| 4 | AIS Briefing Office | 2200 - 1300 |
| 5 | ATS Reporting Office(ARO) | Nil |
| 6 | MET Briefing Office | H24 (KANSAI) |
| 7 | ATS | 2200 - 1300 |
| 8 | Fuelling | On Request(tel:089-972-1319) |
| 9 | Handling | Nil |
| 10 | Security | 2200 - 1300 |
| 11 | De-icing | Nil |
| 12 | Remarks | Nil |

RJOM AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | Institutions that deal with passenger airplanes at most B747 type |
| 2 | Fuel/ oil types | JET A-1, AVGAS100 |
| 3 | Fuelling facilities/ capacity | Fuel truck |
| 4 | De-icing facilities | Nil |
| 5 | Hangar space for visiting aircraft | Nil |
| 6 | Repair facilities for visiting aircraft | Nil |
| 7 | Remarks | Nil |

RJOM AD 2.5 PASSENGER FACILITIES

| | | |
|---|----------------------|--------------------------------|
| 1 | Hotels | In Matsuyama city. |
| 2 | Restaurants | At airport |
| 3 | Transportation | Buses and Taxis |
| 4 | Medical facilities | Hospital in Matsuyama city 2km |
| 5 | Bank and Post Office | Nil |
| 6 | Tourist Office | At airport |
| 7 | Remarks | Nil |

RJOM AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|--|
| 1 | AD category for fire fighting | CAT 9 |
| 2 | Rescue equipment | Chemical fire fighting truck x 3, Water-supply truck Lighting power supply truck, Emergency medical equipments conveyance truck |
| 3 | Capability for removal of disabled aircraft | Nil |
| 4 | Remarks | Nil |

RJOM AD 2.7 SEASONAL AVAILABILITY-CLEARING

| | | |
|---|-----------------------------|---|
| 1 | Types of clearing equipment | Ask AD administration |
| 2 | Clearance priorities | RWY14/32, TWY T1 T8 and P1-P7, APRON |
| 3 | Remarks | Seasonal availability : DEC MID - FEB MID |

RJOM AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

| | | |
|---|-------------------------------------|--|
| 1 | Apron surface and strength | SPOT 1-7 Surface : Cement-concrete Strength : PCN 62/R/B/X/T SPOT 8-14, B-H, J, K Surface : Asphalt-concrete Strength : PCN 61/F/B/X/T |
| 2 | Taxiway width, surface and strength | All TWY Surface : Asphalt-concrete, T1 Width : 28.5m, Strength : PCN 63/F/A/X/T T2 Width : 34m, Strength : PCN 76/F/B/X/T T3 Width : 34m, Strength : PCN 88/F/C/X/T T7 Width : 34m, Strength : PCN 121/F/D/X/T T8 Width : 28.5m, Strength : PCN 83/F/B/X/T T4 - T6 Width : 34m, Strength : PCN 83/F/B/X/T P1 Width : 23m, Strength : PCN 63/F/A/X/T P2 - P3 Width : 23m, Strength : PCN 76/F/B/X/T P4 - P7 Width : 23m, Strength : PCN 83/F/B/X/T |
| 3 | ACL and elevation | Not Available |
| 4 | VOR checkpoints | Not Available |
| 5 | INS checkpoints | Spot NR 1R: 334937.13N,1324217.01E 1: 334939.65N,1324217.65E 1L: 334939.76N,1324217.39E 2: 334941.05N,1324215.75E 3: 334942.58N,1324213.61E 5: 334943.92N,1324211.60E 6: 334945.26N,1324209.93E 7: 334946.35N,1324208.49E |
| 6 | Remarks | Nil |

RJOM 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 identification signs: Spot NR1-3,5,6 Visual docking/ parking guidance system: Nil |
| 2 | RWY and TWY markings and LGT | RWY 14/32: (Marking): RWY designation, RWY CL, RWY THR, RWY middle point, Aiming point, TDZ, RWY side stripe (LGT): RCLL, REDL, RTHL, RENL, WBAR(RWY 14) TWY: All TWY (Marking): TWY CL, RWY HLDG PSN, TWY side stripe (LGT): TWY edge LGT, TWY CL LGT(T1-T8,P1-P7), Taxiing guidance sign(T1-T8), RWY guard LGT(T1-T8) |
| 3 | Stop bars | Nil |
| 4 | Remarks | (Marking): Overrun area (LGT): APN flood LGT |

RJOM AD 2.10 AERODROME OBSTACLES

In Area2 See Obstacle data

In Area3 To be developed

RJOM AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|----|--|--|
| 1 | Associated MET Office | KANSAI |
| 2 | Hours of service MET Office outside hours | H24 (KANSAI) |
| 3 | Office responsible for TAF preparation Periods of validity | KANSAI 30 Hours |
| 4 | Trend forecast Interval of issuance | Nil |
| 5 | Briefing/ consultation provided | Briefing is available upon inquiry at KANSAI |
| 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} , P _s , P ₅ , P ₃ , P ₂₅ , P _{SWE} , P _{SWF} , P _{SWG} , P _{SWI} , P _{PSWM} , 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, ATIS |
| 10 | Additional information(limitation of service, etc.) | Nil |

RJOM 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 | |
| 14 | 130.55° | 2500x45 | PCN 63/F/A/X/T Asphalt Concrete | 335004.50N 1324121.73E | THR ELEV:25ft TDZ ELEV:25ft | |
| 32 | 310.55° | 2500x45 | PCN 63/F/A/X/T Asphalt Concrete | 334911.75N 1324235.61E | THR ELEV:17FT | |
| Slope of RWY | | Strip Dimensions(M) | RESA (Overrun) Dimensions (M) | | Remarks | |
| 7 | 10 | | 11 | | 14 | |
| See below figure | | 2620x300 | 90x(MNM:205 MAX:254)* | | RWY Grooving: 2500mx 30m | |
| | | 2620x300 | 42x300 | | *For detail, ask airport administrator | |
| | | | | | | |

RJOM AD 2.13 DECLARED DISTANCES

| RWY Designa- tor | TORA (m) | TODA (m) | ASDA (m) | LDA (m) | Remarks |
|---------------------|-------------|-------------|-------------|------------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 14 | 2500 | 2500 | 2500 | 2500 | Nil |
| 32 | 2500 | 2500 | 2500 | 2500 | Nil |

RJOM 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 |
| 14 | Nil | Green Green | PAPI 3.0° / Left 415m 66ft | Nil | 2500m 30m Coded color (White/Red) LIH | 2500m 60m Coded color (White/Yellow) LIH | Red | Nil (*3) |
| 32 | SALS 420m (*1) LIH | Green | PAPI(*2) 3.0° / Left 461.3m 74ft | Nil | 2500m 30m Coded color (White/Red) LIH | 2500m 60m Coded color (White/Yellow) LIH | Red | Nil (*3) |
| Remarks | | | | | | | | |
| 10 | | | | | | | | |
| SALS with APCH LGT beacon(585m and 936m FM RWY 32 THR)(*1) Usable area of PAPI : WI 3.5NM FM RWY 32 THR(See below figure)(*2) Overrun area edge LGT(LEN:60m Color:Red)(*3) CGL for RWY 32 RWY THR ID LGT for RWY 14 THR(Color:White) | | | | | | | | |

PAPI

注： 滑走路32末端側の進入角表示灯の使用範囲は、障害物（山及び樹木）のため滑走路32末端から3.5NM以内とする。

Note : Usable area of PAPI for runway 32 is within 3.5NM from runway 32 threshold due to obstructions (mountain and trees).



RJOM AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|--|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: 334952N/1324156E, White/Green EV4.3sec, HO |
| 2 | LDI location and LGT Anemometer location and LGT | LDI:Nil Anemometer : 80m FM RWY 14/32 THR, LGTD |
| 3 | TWY edge and centerline lighting | TWY edge LGT: Blue TWY CL LGT: ALTN Green/Yellow FM RWY leaving Report point,other Green |
| 4 | Secondary power supply/ switch-over time | Within 1 sec : REDL, RENL, RTHL, WBAR, RCLL, Overrun area edge LGT Within 15 sec : Other LGT |
| 5 | Remarks | WDI LGT |

RJOM AD 2.16 HELICOPTER LANDING AREA

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

RJOM 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 |
| MATSUYAMA CTR | Area within a radius of 5nm of MATSUYAMA ARP(33°50'N 132°42'E). | 3000 or below | D | MATSUYAMA TOWER En | |

RJOM AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---------------------|-------------------|---|--------------------|---|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Matsuyama Tower | 118.35MHz(1) 126.2MHz 121.5MHz(E) | 2200 - 1300 | (1) Primary APP SER is provided by Iwakuni APP THRU TWR |
| ATIS | Matsuyama Airport | 126.65MHz | 2200 - 1300 | |

RJOM 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 (7°W/2016) | MYE | 110.65MHz | H24 | 334948.37N/1324132.00E | | VOR Unusable in the following area 070°-090° beyond 30NM BLW 9,000FT. 100°-150° beyond 30NM BLW 9,000FT. |
| DME | MYE | 1130MHz (CH-43Y) | H24 | 334948.37N/1324132.00E | 46ft | DME Unusable in the following area 050°-070° beyond 30NM BLW 9,000FT. 070°-080° beyond 25NM BLW 9,000FT. 080°-200° beyond 30NM BLW 9,000FT. 200°-220° beyond 30NM BLW 6,000FT. 340°-350° beyond 30NM BLW 6,000FT. |
| ILS-LOC 14 | IMP | 109.3MHz | 2200-1300 | 334906.89N/1324242.41E | | LOC: 230m(755ft) away FM RWY32 THR, BRG(MAG)138°. |
| ILS-GP 14 | - | 332.0MHz | 2200-1300 | 334954.70N/1324127.87E | | GP:317m(1040ft) inside FM RWY14 THR, 126m(413ft) SW of RCL. GP angle 3.0° HGT of ILS REF datum 16.6m(55ft). |
| ILS-DME 14 | IMP | 991MHz (CH-30X) | 2200-1300 | 334954.25N/1324127.91E | 37ft | DME:326m(1070ft) inside FM RWY14 THR, 137m(449ft) SW of RCL. |
| MSAS | | 1575.42MHz | H24 | | | Transmitting antennas are satellite based. |



- REMARKS :
- | | |
|-------------------------|--------------|
| 1. LOC beam BRG (MAG) | 138° |
| 2. HGT of ILS REF datum | 16.6m (55ft) |
| 3. GP Angle | 3.0° |
| 4. ELEV of ILS-DME | 11m (37ft) |

RJOM AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

Aircraft operations other than scheduled flights or in an emergency.

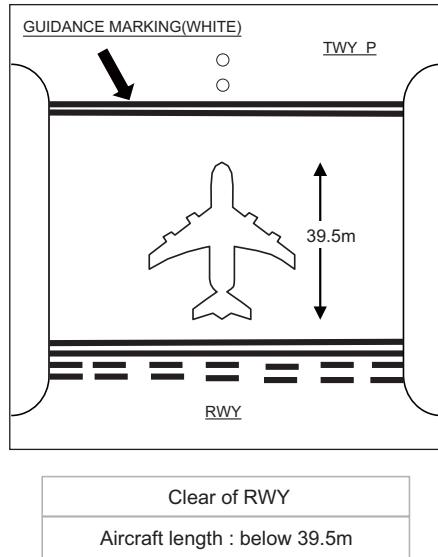
On use of this airport, aircraft operator is required to obtain the prior permission of the airport administrator.

2. Taxiing to and from stands

2.1 Taxiing procedure

滑走路離脱後、平行誘導路(P誘導路)を走行している航空機との間隔を確保するため、到着機は平行誘導路手前での待機を指示される場合がある。誘導路T5, T6 及び T7には、平行誘導路の手前で待機する場合の目安となる2本の白い平行線が引かれている。また誘導路P6上にも出発機を停止させるための同様の平行線がある。なお、上記全ての平行線に灯火は設置されていない。

After vacating RWY, aircraft may be instructed to hold short of parallel taxiway(TWY P), in order to separate from aircraft on parallel taxiway. White double-solid lines that can be used as a guidance for holding short of parallel taxiway are painted on T5 through T7. Also same lines to stop departure aircraft are installed on P6. No LGT system are installed for all of the above white double-solid lines.



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 B773 holding at the stop marking on TWY T6 or T7

| Wing Span (WS) of aircraft taxiing on TWY P5-P7 | WS =<15.2m | 15.2m < WS =<24.2m | WS >24.2m |
|---|------------|--------------------|-----------|
| Wing tip clearance | *A | *B | *C |

Legend:

- *A : wing tip clearance \geq 15m
- *B : 10.5m \leq wing tip clearance $<$ 15m
- *C : wing tip clearance $<$ 10.5m

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

Nil

8. Helicopter traffic - limitation

Nil

9. Removal of disabled aircraft from runways

Nil

RJOM AD 2.21 NOISE ABATEMENT PROCEDURES

(See AIP AD1.1.6.5)

1. 駆音軽減運航方式

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、これらの方によることの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。

- a) 離陸について（滑走路 14）
急上昇方式
- b) 着陸について（滑走路 32）
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
- c) リバース・スラストについて
なし

2. 優先滑走路方式

原則として、着陸は滑走路 14、離陸は滑走路 32 により行うこととする。ただし、航行の安全確保などに万全を期すため、以下に示す条件等にあっては、本方式は適用されない。

- a) 機長が航行の安全を考慮して、反対側滑走路に離着陸することが必要であると判断した場合
- b) 滑走路面の状況が適当でない場合
- c) 突風を含め追風成分が 5knot を超える場合
- d) 突風を含め横風成分が 15knot を超える場合
- e) 秩序ある航空交通流が乱される恐れがある場合

3. 優先飛行経路

なし

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

- a) For take-off from RWY14
Steepest Climb Procedure
- b) For landing to RWY32
Delayed Flap Approach Procedure and Reduced Flap Setting Procedure
- c) Reverse Thrust
Nil

2. Preferential Runways Procedures

In principle, RWY32 for take-off and RWY14 for landing are preferentially to be used strictly. However, in order to achieve maximum flight safety, this procedure is not applied under the following circumstances.

- a) When a pilot-in-command determines that the use of other runway is necessary in consideration of safety of the aircraft operation.
- b) When the condition of the specified runway is not suitable for landing or take-off.
- c) When the tail wind component, including gusts, exceeds 5 knots.
- d) When the cross wind component, including gusts, exceeds 15 knots.
- e) When the possibility exists that orderly flow of traffic may be impeded.

3. Noise Preferential Routes

Nil

RJOM 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 | 14 | A,B,C,D | 400m | 400m | 400m | 400m | - | 500m |
| | 32 | A,B,C,D | - | 400m | - | 400m | - | 500m |
| OTHER | 14 | A,B,C,D | AVBL LDG MINIMA | | | | | |
| | 32 | | AVBL LDG MINIMA | | | | | |

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

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

- (I) 1. Contact Matsuyama Tower.
- 2. If unable, proceed in accordance with Visual Flight Rules.
- 3. If unable, proceed to MATSUYAMA VOR/DME at last assigned altitude or 6,000 feet whichever is higher, and execute instrument approach.
- (II) Procedures other than above will be issued when situation required.

RJOM AD 2.23 ADDITIONAL INFORMATION

Helicopter landing area(SR-SS only)

Location : On PABL TWY

HELIPAD : On TWY P2

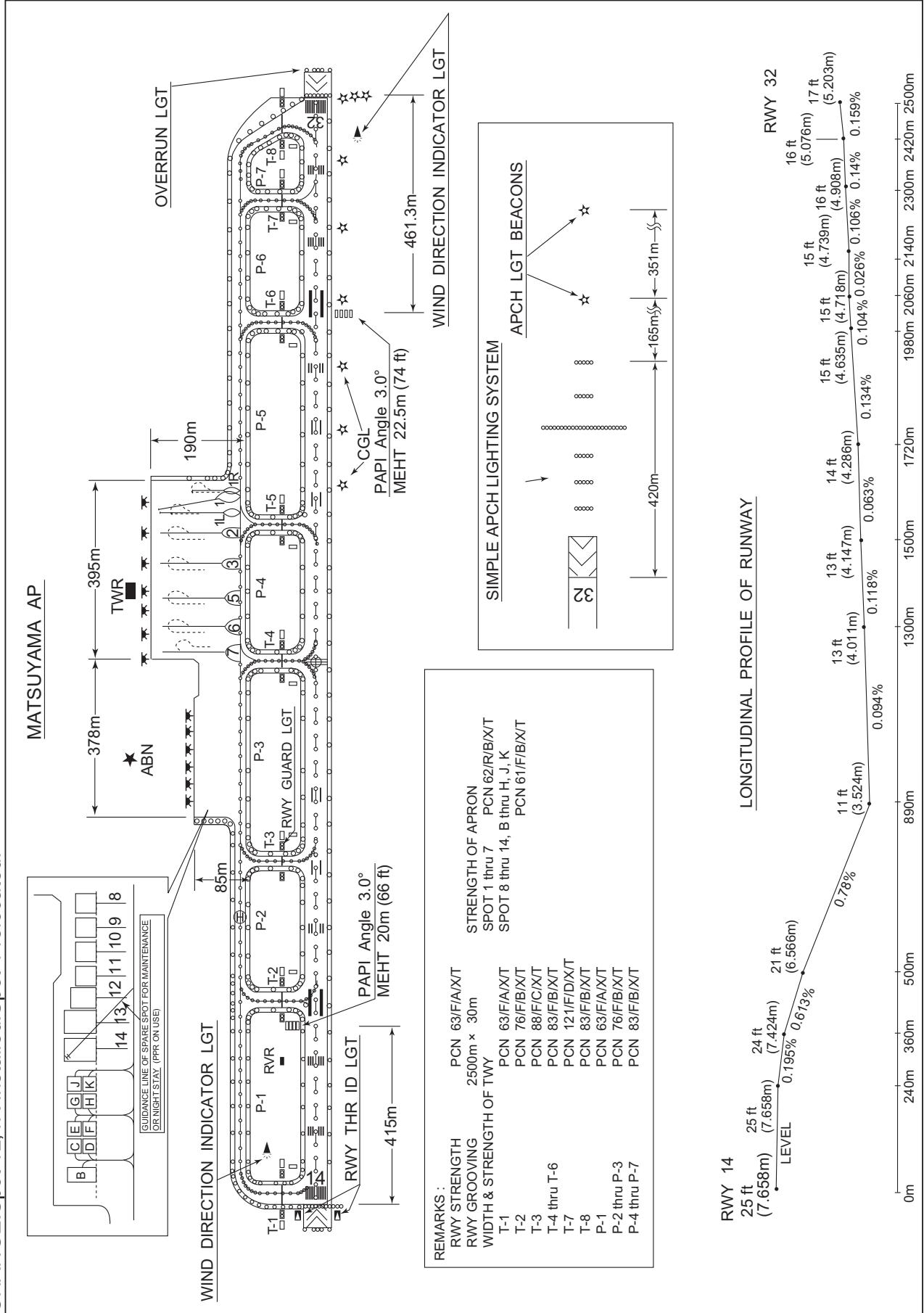
RJOM AD 2.24 CHARTS RELATED TO AN AERODROME

- Figure-01 Aerodrome/Heliport Chart
- Figure-07 Standard Departure Chart - Instrument (MATSUYAMA)
- Figure-07 Standard Departure Chart - Instrument (IYO-RNAV)
- Figure-07 Standard Departure Chart - Instrument (SAKAR-RNAV)
- Figure-07 Standard Departure Chart - Instrument (MARCO-RNAV)
- Figure-09 Standard Arrival Chart - Instrument (MASKU)
- Figure-09 Standard Arrival Chart - Instrument (ROBIN WEST-RNAV)
- Figure-09 Standard Arrival Chart - Instrument (ROBIN EAST, MADON, KIKMA-RNAV)
- Figure-10 Instrument Approach Chart (ILS Z or LOC Z RWY14)
- Figure-10 Instrument Approach Chart (ILS Y or LOC Y RWY14)
- Figure-10 Instrument Approach Chart (VOR RWY14)
- Figure-10 Instrument Approach Chart (RNAV(RNP) RWY14)
- Figure-10 Instrument Approach Chart (RNAV(RNP) RWY32)
- Figure-13 Other Chart (Visual REP)

CHANGE:Spot 1L,1R installed.Spot 1 relocated.

RJOM / MATSUYAMA

AD CHART



STANDARD DEPARTURE CHART -INSTRUMENT

RJOM / MATSUYAMA

SID

MATSUYAMA REVERSAL FIVE DEPARTURE

RWY32 : Climb RWY HDG to 500FT, turn left HDG 270° to 3500FT, turn left...

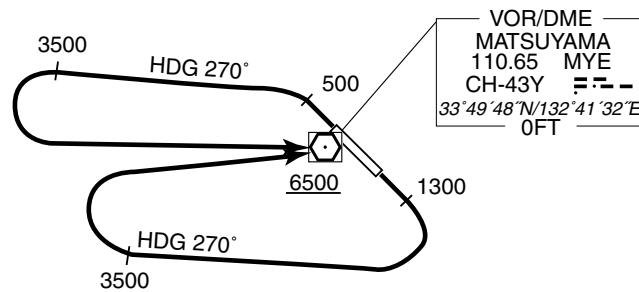
RWY14 : Climb RWY HDG to 1300FT, turn right HDG 270° to 3500FT, turn right...
...direct to MYE VOR/DME.

Cross MYE VOR/DME at or above 6500FT.

Note RWY14 : 7.0% climb gradient required up to 3200FT.

OBST ALT 2822FT located at 7.6NM 172° FM end of RWY14.

No turn before DER.

MATSUYAMA REVERSAL
FIVE DEPARTURE

STANDARD DEPARTURE CHART -INSTRUMENT

RJOM / MATSUYAMA

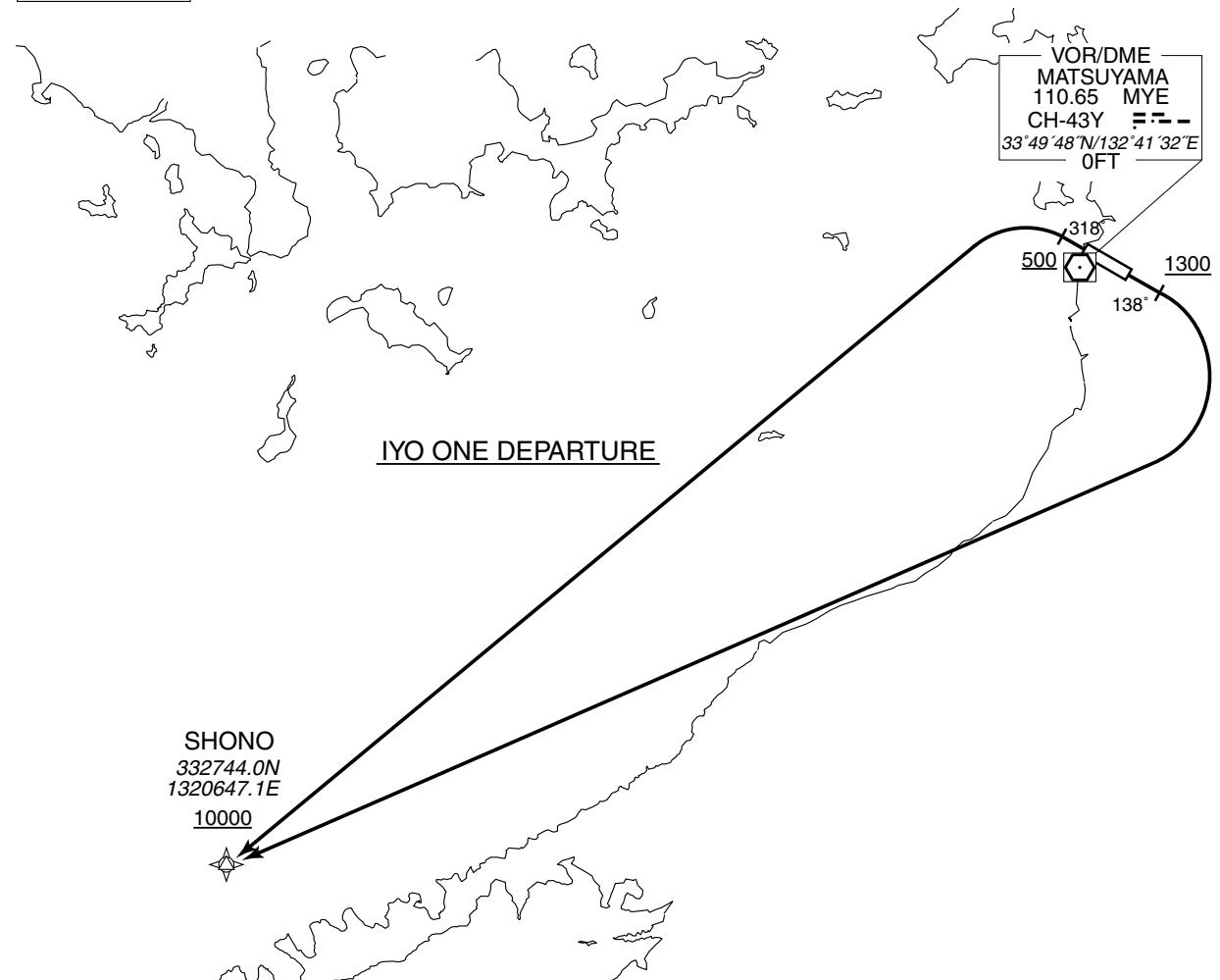
RNAV SID

IYO ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 7° W(2016)



IYO ONE DEPARTURE

RWY14 : Climb on HDG138° at or above 1300FT, turn right direct to SHONO at or above 10000FT.
RWY32 : Climb on HDG318° at or above 500FT, turn left direct to SHONO at or above 10000FT.

NOTE RWY14 : 7.0% climb gradient required up to 1800FT.

OBST ALT 1464FT located at 4.3NM 154° FM end of RWY14.
No turn before DER.

STANDARD DEPARTURE CHART -INSTRUMENT

RJOM / MATSUYAMA

→ RNAV SID

IYO ONE DEPARTURE

RWY14

| 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 | — | — | 138 (130.7) | -7.4 | — | — | +1300 | — | — | Basic RNP1 |
| 002 | DF | SHONO | — | — | -7.4 | — | R | +10000 | — | — | Basic RNP1 |

RWY32

| 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 | — | — | 318 (310.7) | -7.4 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | SHONO | — | — | -7.4 | — | L | +10000 | — | — | Basic RNP1 |

STANDARD DEPARTURE CHART -INSTRUMENT

RJOM / MATSUYAMA

RNAV SID and TRANSITION

| SAKAR ONE DEPARTURE RANDY TRANSITION / JINBE TRANSITION ROSIE TRANSITION / KOCHI TRANSITION | Basic RNP1 |
|--|------------|
| Note GNSS required. | |
| VAR 7° W(2016) | |
| <p>SAKAR ONE DEPARTURE</p> <p>From SAKAR at or above 5000FT, to JINBE at or above 13000FT, to RANDY.</p> <p>RANDY TRANSITION</p> <p>From RANDY, to JINBE at or above 13000FT.</p> <p>JINBE TRANSITION</p> <p>From SAKAR at or above 5000FT, to JINBE at or above 13000FT.</p> <p>ROSIE TRANSITION</p> <p>From SAKAR at or above 5000FT, to MOTOQ at or above 13000FT, to ROSIE at or above FL160.</p> <p>KOCHI TRANSITION</p> <p>From SAKAR at or above 5000FT, to NOUEH at or above 13000FT, to NOKMO at or above FL160, to KRE.</p> | |
| <p>SAKAR ONE DEPARTURE</p> <p>RWY14 : Climb on HDG138° at or above 1300FT, turn right direct to OM400, to SAKAR at or above 5000FT.</p> <p>RWY32 : Climb on HDG318° at or above 500FT, turn left direct to OM400, to SAKAR at or above 5000FT.</p> <p>NOTE RWY14 : 7.0% climb gradient required up to 3200FT. OBST ALT 2822FT located at 7.6NM 172° FM end of RWY14. No turn before DER.</p> <p>RWY32 : 5.3% climb gradient required up to 3600FT. OBST ALT 3084FT located at 10.5NM 177° FM end of RWY32.</p> | |
| <p>RANDY TRANSITION</p> <p>From SAKAR at or above 5000FT, to JINBE at or above 13000FT, to RANDY.</p> <p>JINBE TRANSITION</p> <p>From SAKAR at or above 5000FT, to JINBE at or above 13000FT.</p> <p>ROSIE TRANSITION</p> <p>From SAKAR at or above 5000FT, to MOTOQ at or above 13000FT, to ROSIE at or above FL160.</p> <p>KOCHI TRANSITION</p> <p>From SAKAR at or above 5000FT, to NOUEH at or above 13000FT, to NOKMO at or above FL160, to KRE.</p> | |

STANDARD DEPARTURE CHART -INSTRUMENT

RJOM / MATSUYAMA

→ RNAV SID and TRANSITION

SAKAR ONE DEPARTURE

RWY14

| 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 | — | — | 138 (130.7) | -7.4 | — | — | +1300 | — | — | Basic RNP1 |
| 002 | DF | OM400 | — | — | -7.4 | — | R | — | — | — | Basic RNP1 |
| 003 | TF | SAKAR | — | 150 (142.7) | -7.4 | 7.5 | — | +5000 | — | — | Basic RNP1 |

RWY32

| 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 | — | — | 318 (310.7) | -7.4 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | OM400 | — | — | -7.4 | — | L | — | — | — | Basic RNP1 |
| 003 | TF | SAKAR | — | 150 (142.7) | -7.4 | 7.5 | — | +5000 | — | — | Basic RNP1 |

RANDY 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 | SAKAR | — | — | -7.4 | — | — | +5000 | — | — | Basic RNP1 |
| 002 | TF | JINBE | — | 056 (048.8) | -7.4 | 25.8 | — | +13000 | — | — | Basic RNP1 |
| 003 | TF | RANDY | — | 074 (066.9) | -7.4 | 39.1 | — | — | — | — | Basic RNP1 |

JINBE 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 | SAKAR | — | — | -7.4 | — | — | +5000 | — | — | Basic RNP1 |
| 002 | TF | JINBE | — | 056 (048.8) | -7.4 | 25.8 | — | +13000 | — | — | Basic RNP1 |

STANDARD DEPARTURE CHART -INSTRUMENT

RJOM / MATSUYAMA

→ RNAV SID and TRANSITION

ROSIE 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 | SAKAR | — | — | -7.4 | — | — | +5000 | — | — | Basic RNP1 |
| 002 | TF | MOTOQ | — | 084 (076.4) | -7.4 | 19.8 | — | +13000 | — | — | Basic RNP1 |
| 003 | TF | ROSIE | — | 084 (076.6) | -7.4 | 16.4 | — | +FL160 | — | — | Basic RNP1 |

KOCHI 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 | SAKAR | — | — | -7.4 | — | — | +5000 | — | — | Basic RNP1 |
| 002 | TF | NOUEH | — | 100 (092.2) | -7.4 | 19.0 | — | +13000 | — | — | Basic RNP1 |
| 003 | TF | NOKMO | — | 100 (092.4) | -7.4 | 8.6 | — | +FL160 | — | — | Basic RNP1 |
| 004 | TF | KRE | — | 100 (092.5) | -7.4 | 17.2 | — | — | — | — | Basic RNP1 |

STANDARD DEPARTURE CHART -INSTRUMENT

RJOM / MATSUYAMA

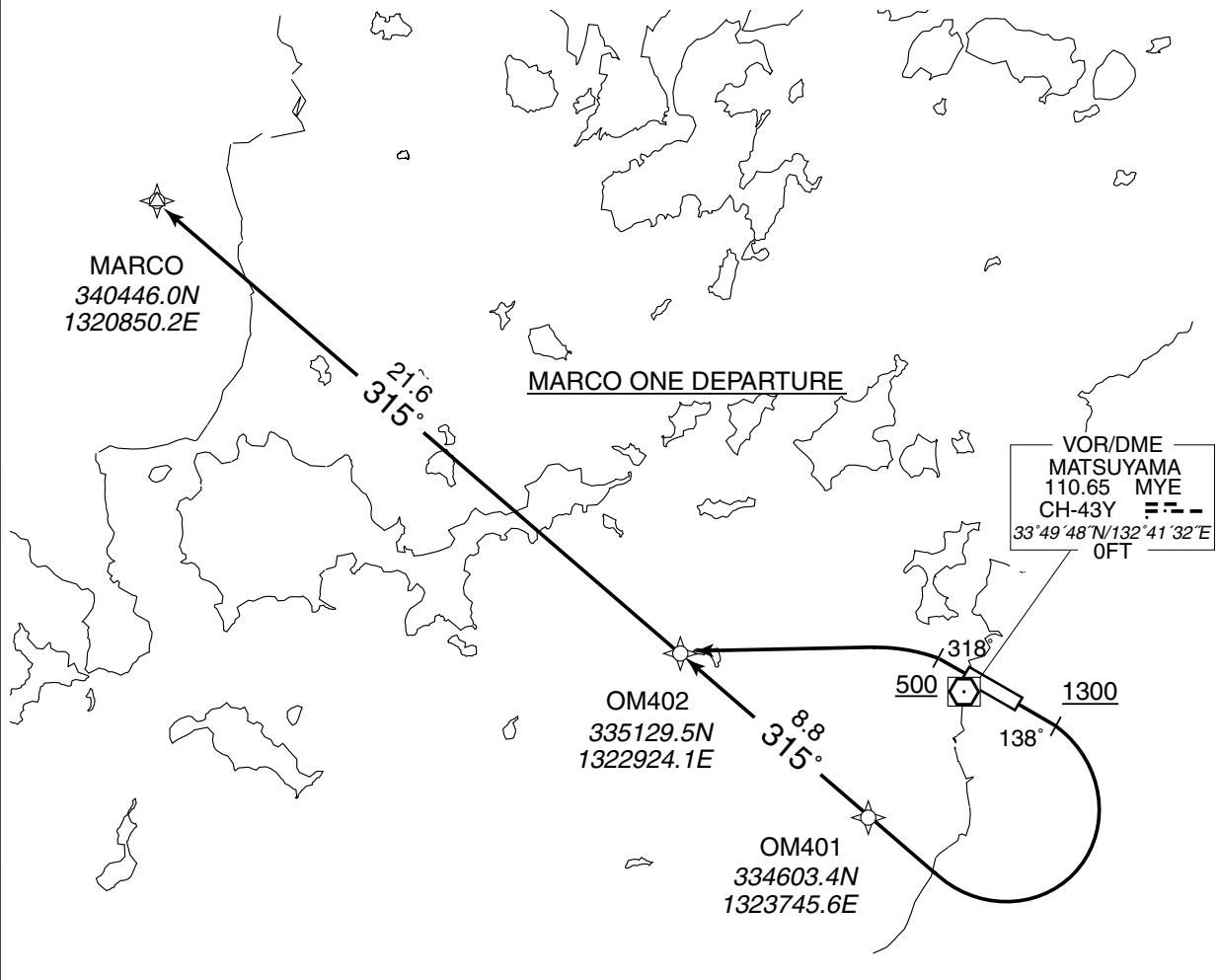
RNAV SID

MARCO ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 7° W(2016)

MARCO ONE DEPARTURE

RWY14 : Climb on HDG138° at or above 1300FT, turn right direct to OM401, to OM402, to MARCO.

RWY32 : Climb on HDG318° at or above 500FT, turn left direct to OM402, to MARCO.

NOTE RWY14 : 7.0% climb gradient required up to 1800FT.

OBST ALT 1464FT located at 4.3NM 154° FM end of RWY14.

No turn before DER.

STANDARD DEPARTURE CHART -INSTRUMENT

RJOM / MATSUYAMA

→ RNAV SID

MARCO ONE DEPARTURE

RWY14

| 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 | — | — | 138 (130.7) | -7.4 | — | — | +1300 | — | — | Basic RNP1 |
| 002 | DF | OM401 | — | — | -7.4 | — | R | — | — | — | Basic RNP1 |
| 003 | TF | OM402 | — | 315 (308.1) | -7.4 | 8.8 | — | — | — | — | Basic RNP1 |
| 004 | TF | MARCO | — | 315 (308.1) | -7.4 | 21.6 | — | — | — | — | Basic RNP1 |

RWY32

| 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 | — | — | 318 (310.7) | -7.4 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | OM402 | — | — | -7.4 | — | L | — | — | — | Basic RNP1 |
| 003 | TF | MARCO | — | 315 (308.1) | -7.4 | 21.6 | — | — | — | — | Basic RNP1 |

STANDARD ARRIVAL CHART - INSTRUMENT

RJOM / MATSUYAMA

STAR

MASKU ARRIVAL

From over MASKU, via MYE R319 to ROBIN.

Cross MASKU at or above 5000FT, cross MYE R319/20.0DME at or above 4000FT,
cross ROBIN at or above 2600FT.



STANDARD ARRIVAL CHART -INSTRUMENT

RJOM / MATSUYAMA

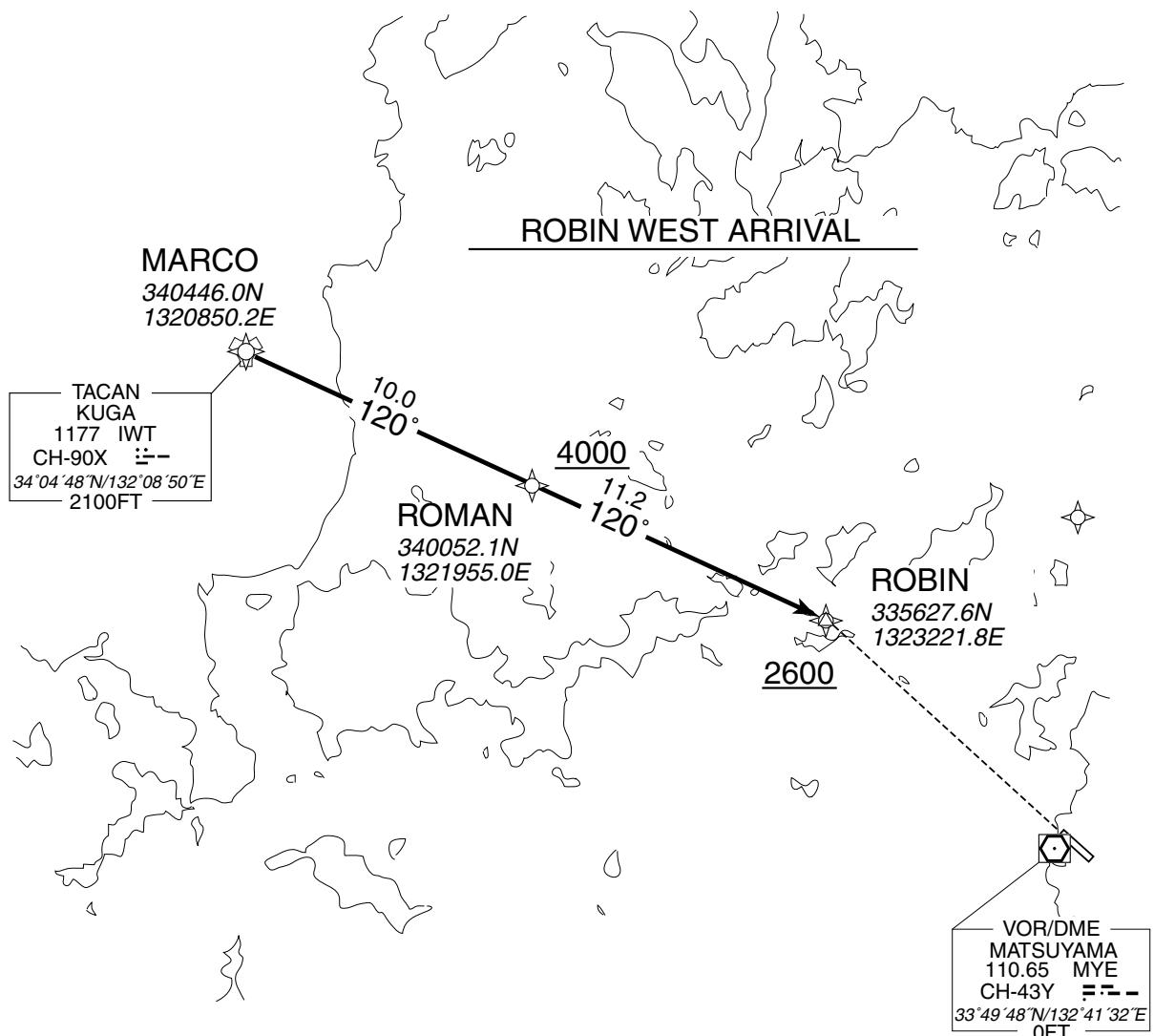
RNAV STAR RWY14

ROBIN WEST ARRIVAL

Basic RNP1

Note GNSS required.

VAR 7°W (2016)



STANDARD ARRIVAL CHART -INSTRUMENT

RJOM / MATSUYAMA

RNAV STAR RWY14

ROBIN WEST ARRIVAL

From MARCO, to ROMAN at or above 4000FT, to ROBIN at or above 2600FT.

| 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 | MARCO | — | — | ■ -7.4 | — | — | — | — | — | ■ Basic RNP1 |
| 002 | TF | ROMAN | — | 120 (113.0) | ■ -7.4 | 10.0 | — | +4000 | — | — | ■ Basic RNP1 |
| 003 | TF | ROBIN | — | 120 (113.1) | ■ -7.4 | 11.2 | — | +2600 | — | — | ■ Basic RNP1 |

STANDARD ARRIVAL CHART -INSTRUMENT

RJOM / MATSUYAMA

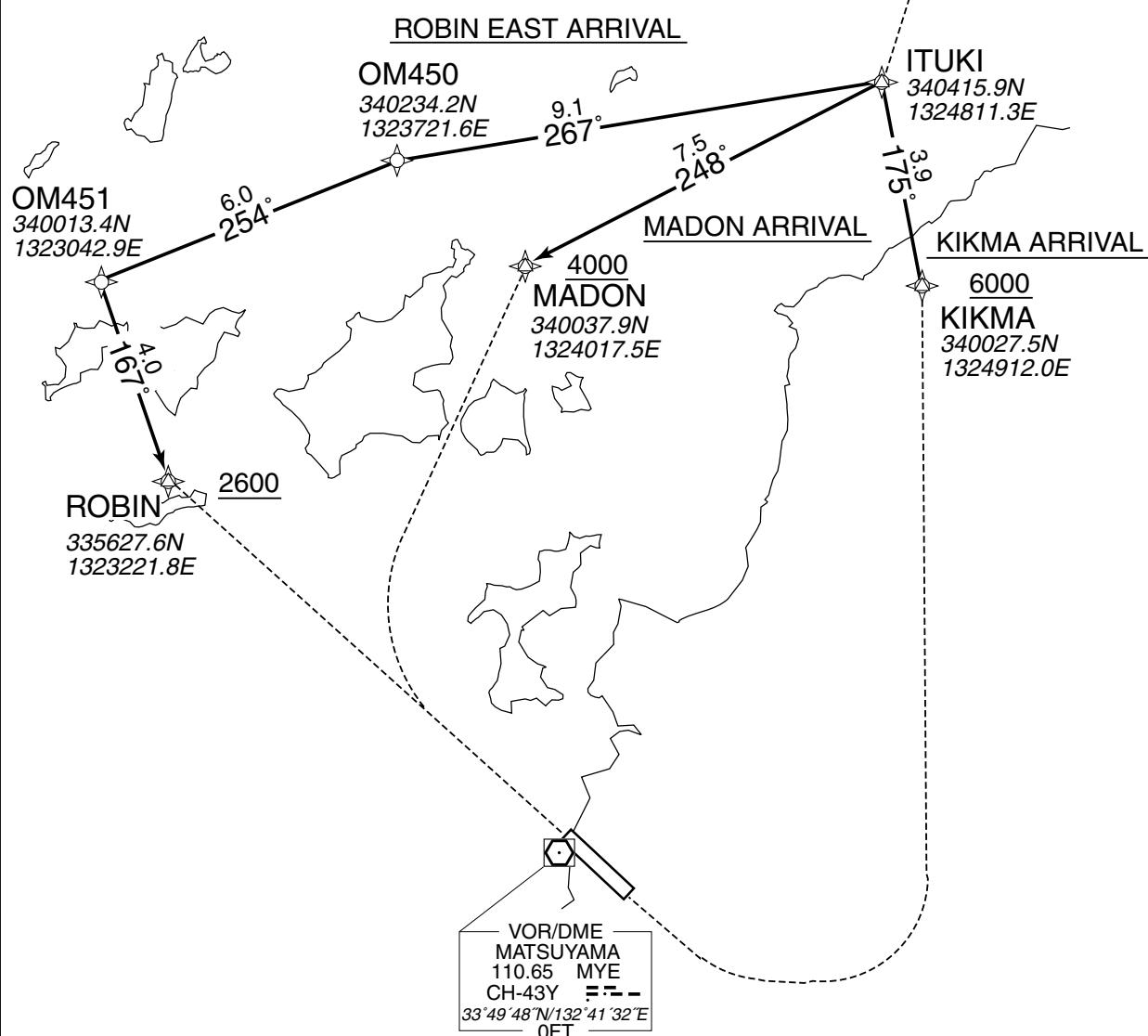
RNAV STAR RWY14/32

ROBIN EAST ARRIVAL
MADON ARRIVAL
KIKMA ARRIVAL

Basic RNP1

Note GNSS required.

VAR 7°W (2016)



STANDARD ARRIVAL CHART -INSTRUMENT

RJOM / MATSUYAMA

RNAV STAR RWY14/32

ROBIN EAST ARRIVAL

From ITUKI, to OM450, to OM451, to ROBIN at or above 2600FT.

| 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 | ITUKI | — | — | ■ -7.4 | — | — | — | — | — | ■ Basic RNP1 |
| 002 | TF | OM450 | — | ■ 267 (259.4) | ■ -7.4 | 9.1 | — | — | — | — | ■ Basic RNP1 |
| 003 | TF | OM451 | — | ■ 254 (247.0) | ■ -7.4 | 6.0 | — | — | — | — | ■ Basic RNP1 |
| 004 | TF | ROBIN | — | ■ 167 (160.0) | ■ -7.4 | 4.0 | — | +2600 | — | — | ■ Basic RNP1 |

MADON ARRIVAL

From ITUKI, to MADON 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 | ITUKI | — | — | ■ -7.4 | — | — | — | — | — | ■ Basic RNP1 |
| 002 | TF | MADON | — | ■ 248 (241.0) | ■ -7.4 | 7.5 | — | +4000 | — | — | ■ Basic RNP1 |

KIKMA ARRIVAL

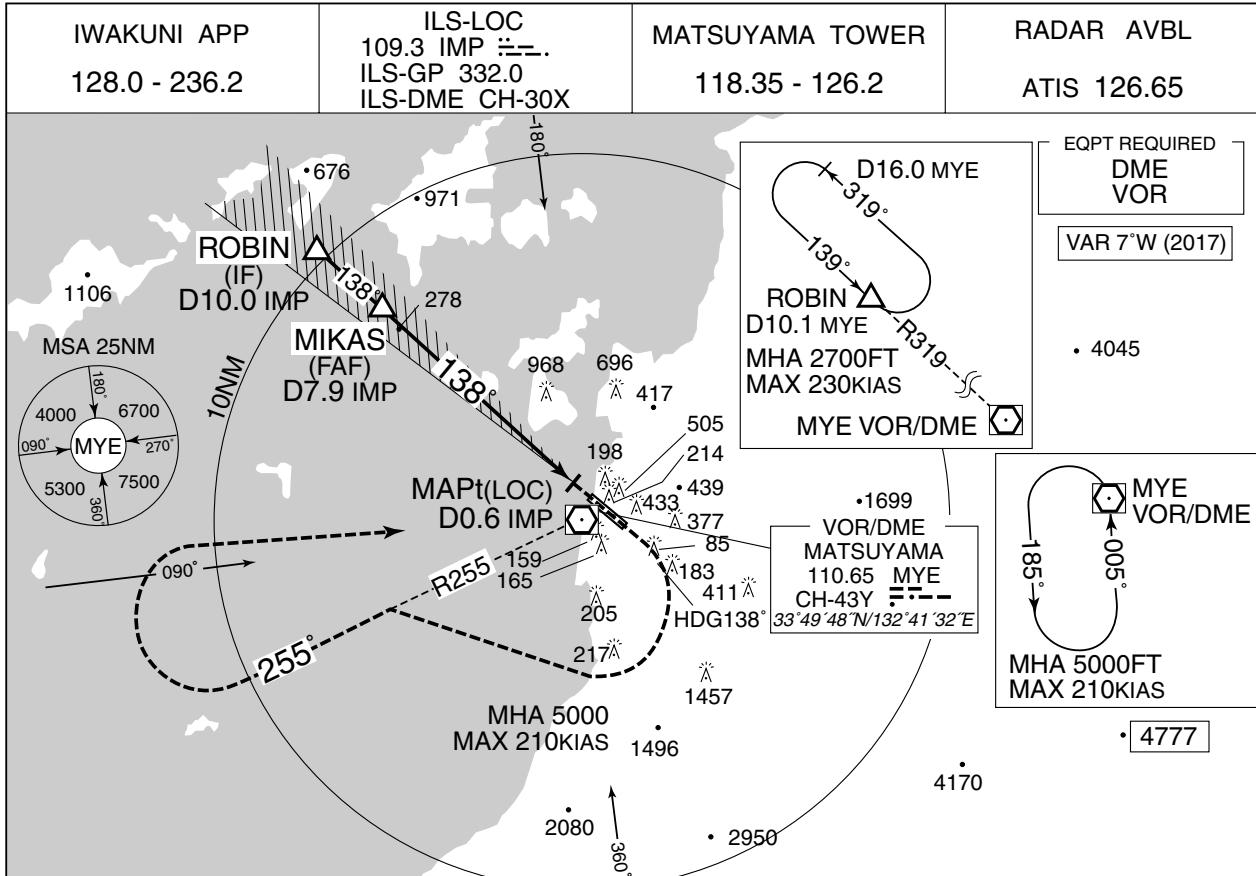
From ITUKI, to KIKMA at or above 6000FT.

| 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 | ITUKI | — | — | ■ -7.4 | — | — | — | — | — | ■ Basic RNP1 |
| 002 | TF | KIKMA | — | ■ 175 (167.6) | ■ -7.4 | 3.9 | — | +6000 | — | — | ■ Basic RNP1 |

INSTRUMENT APPROACH CHART

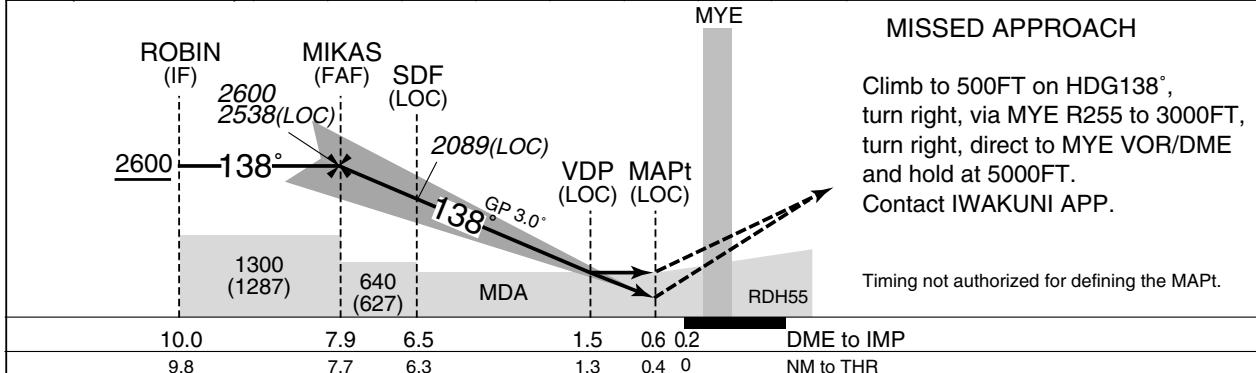
RJOM / MATSUYAMA

ILS Z or LOC Z RWY14



MIKAS(FAF): 335506.61N/1323417.74E

| NM to IMP | FAF | 7 | 6 | 5 | 4 | 3 | 2 | MAPt |
|----------------------|------|------|------|------|------|-----|-----|------|
| ALT (3.0° APCH Path) | 2538 | 2247 | 1928 | 1610 | 1292 | 973 | 654 | - |

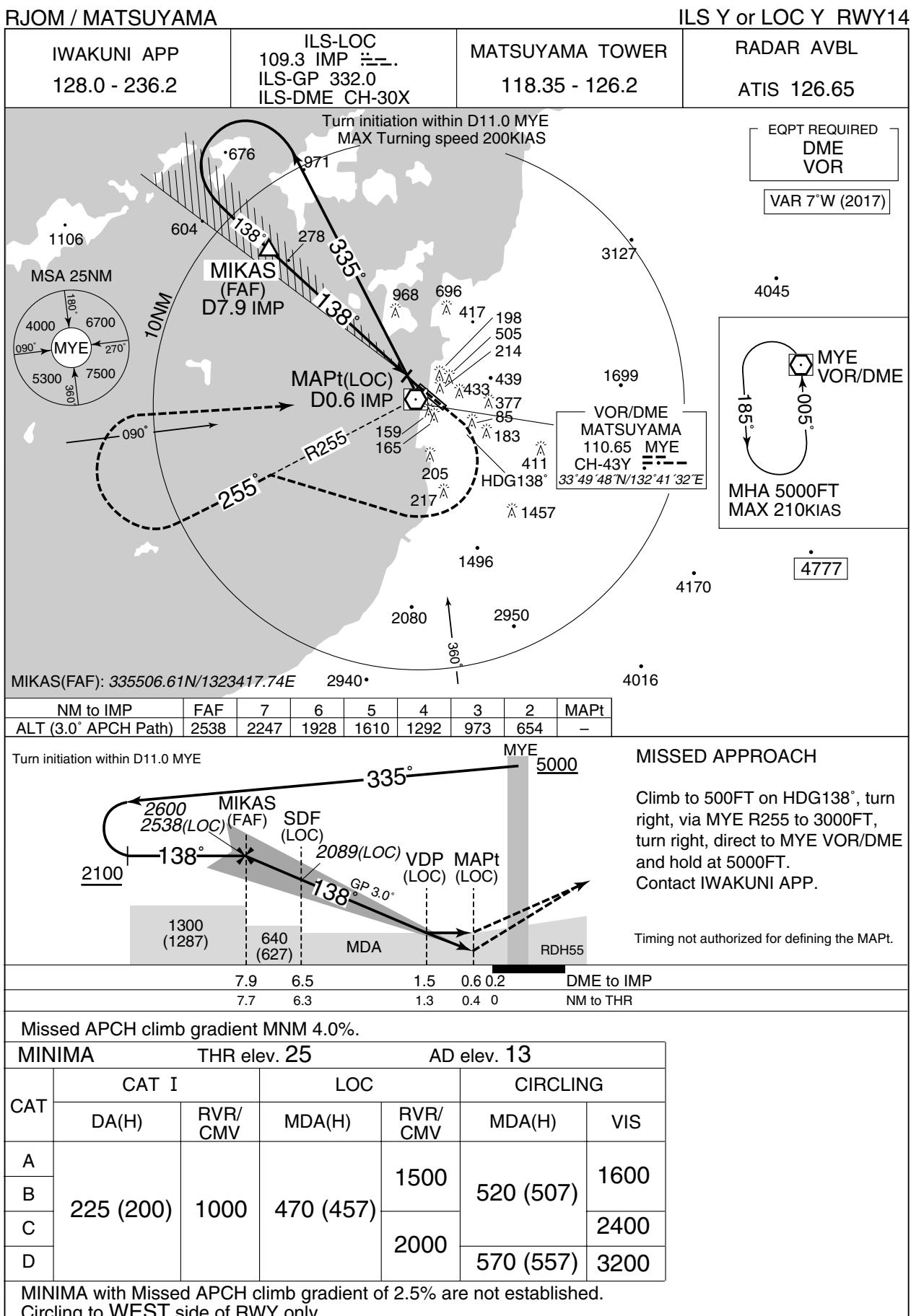


Missed APCH climb gradient MNM 4.0%.

| MINIMA | | THR elev. 25 | | AD elev. 13 | | |
|--------|-----------|--------------|-----------|-------------|-----------|------|
| CAT | CAT I | | LOC | | CIRCLING | |
| | DA(H) | RVR/ CMV | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | | | | 1500 | | |
| B | 225 (200) | 1000 | 470 (457) | | 520 (507) | 1600 |
| C | | | | 2000 | | 2400 |
| D | | | | | 570 (557) | 3200 |

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

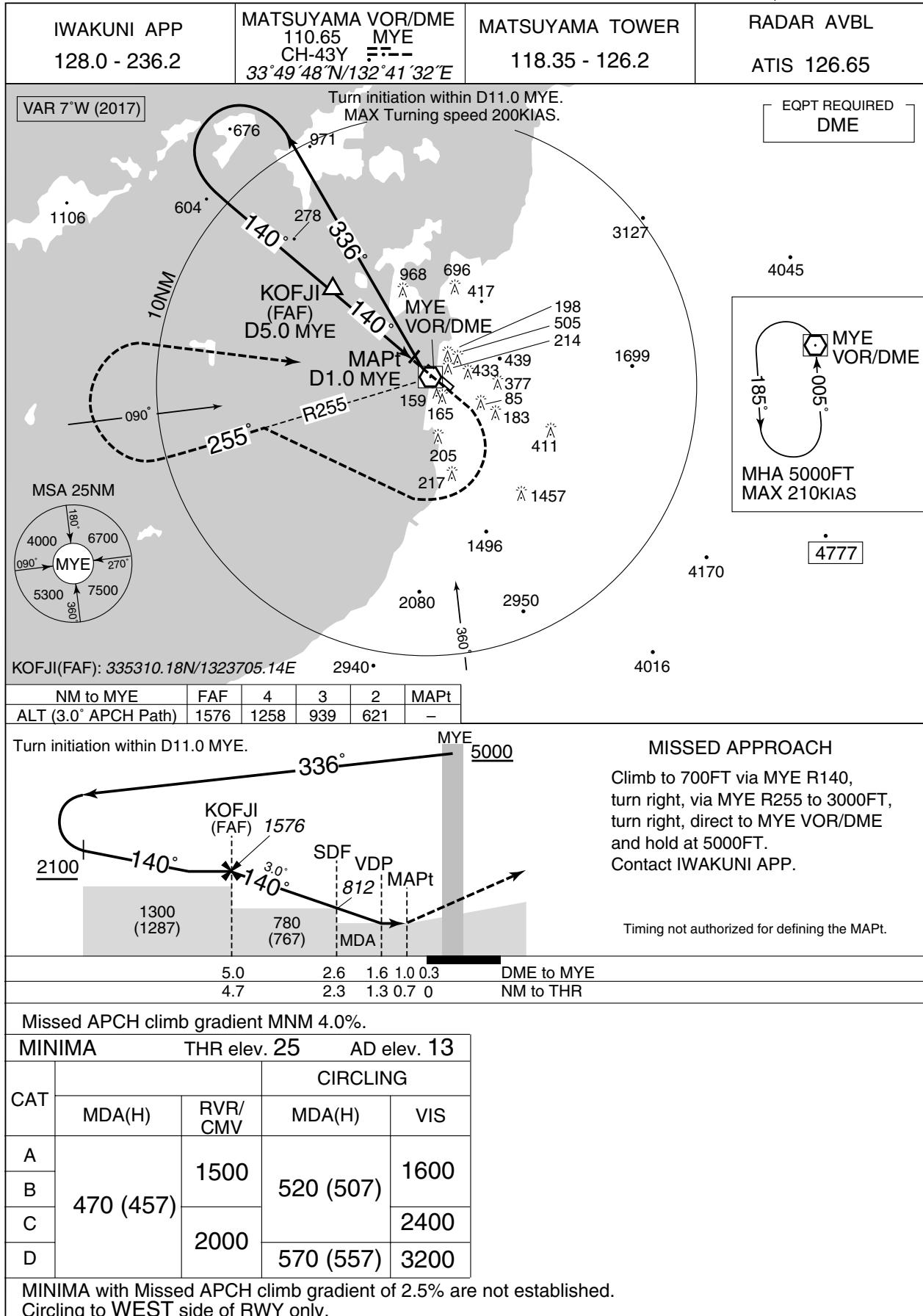
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJOM / MATSUYAMA

→ VOR RWY14



INSTRUMENT APPROACH CHART

RJOM / MATSUYAMA

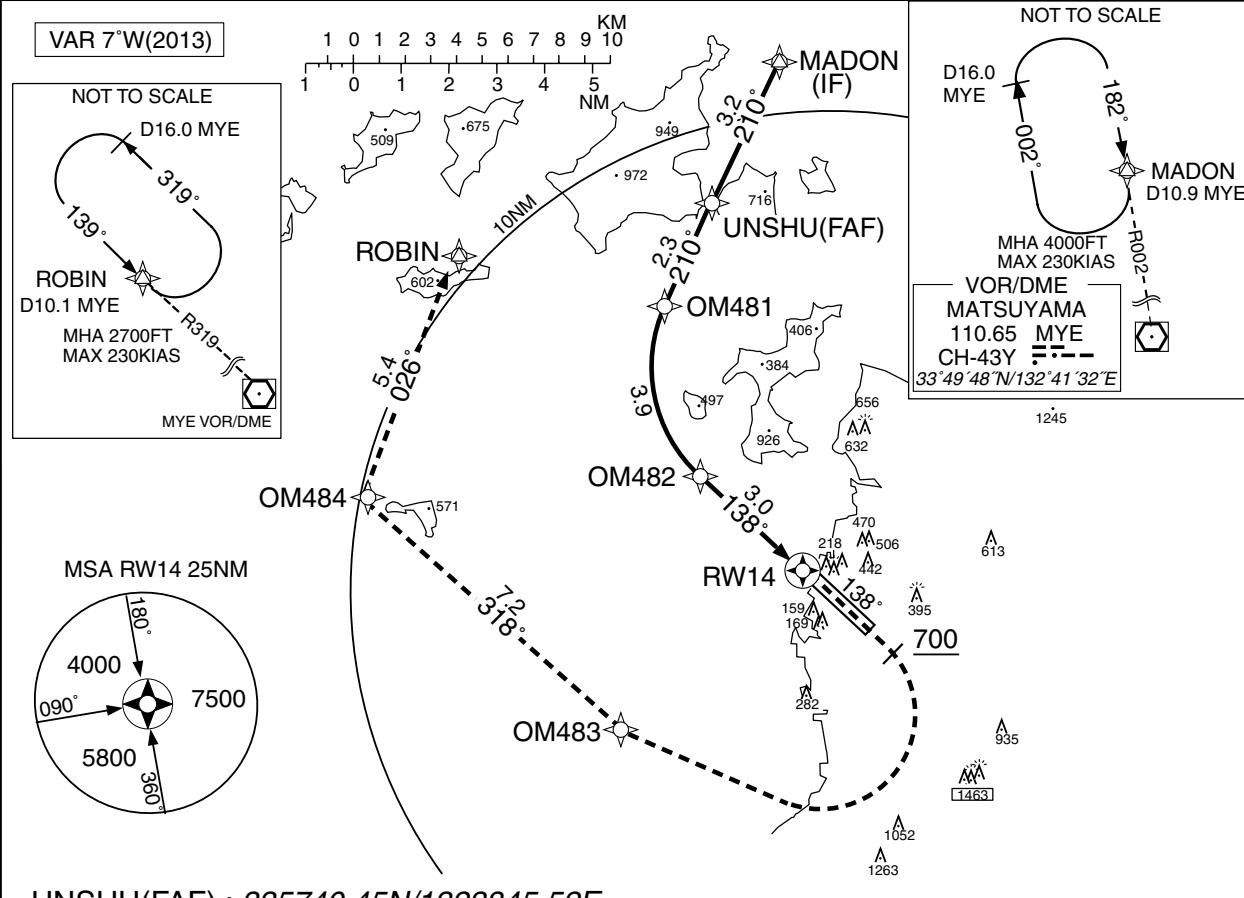
RNAV(RNP) RWY14

IWAKUNI APP
128.0 - 236.2

GNSS and RF required

MATSUYAMA TOWER
118.35 - 126.2RADAR AVBL
ATIS 126.65

For uncompensated Baro-VNAV systems, procedure not authorized below -5°C / above 50°C



MADON

(IF) UNSHU (FAF)

4000 3000 2265 1023 RDH 55

210° 210° 3.00° 138°

12.4

9.2

6.9

3.0

0

NM to THR

MISSSED APPROACH

From RW14 on track 138°, at or above 700FT turn right, direct to OM483, to OM484, to ROBIN and hold at 2700FT. Contact IWAKUNI APP.

Missed APCH climb gradient MNM 5.0%.

MINIMA THR elev.25 AD elev.13

| CAT | RNP 0.30 | |
|-----|----------|------|
| | DA(H) | CMV |
| A | — | — |
| B | | |
| C | 505(480) | 2000 |
| D | | |

RNP AR
Special Authorization Required

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

INSTRUMENT APPROACH CHART

RJOM / MATSUYAMA

RNAV(RNP) RWY14

RNAV(RNP) RWY14Coding 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 | MADON | — | — | -7.1 | — | — | +4000 | — | — | — |
| 002 | TF | UNSHU | — | 210 (203.3) | -7.1 | 3.2 | — | 3000 | — | — | 1.0 |
| 003 | TF | OM481 | — | 210 (203.2) | -7.1 | 2.3 | — | 2265 | — | -3.00 | 0.3 |
| 004 | RF Center: OMRF4 r=3.06NM | OM482 | — | — | -7.1 | 3.9 | L | 1023 | — | -3.00 | 0.3 |
| 005 | TF | RW14 | Y | 138 (130.5) | -7.1 | 3.0 | — | 80 | — | -3.00/55 | 0.3 |
| 006 | FA | — | — | 138 (130.5) | -7.1 | — | — | +700 | — | — | 1.0 |
| 007 | DF | OM483 | — | — | -7.1 | — | R | — | — | — | 1.0 |
| 008 | TF | OM484 | — | 318 (310.5) | -7.1 | 7.2 | — | — | — | — | 1.0 |
| 009 | TF | ROBIN | — | 026 (018.6) | -7.1 | 5.4 | — | 2700 | — | — | 1.0 |

Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|------------------------|--------------------------|------------------------|
| MADON | 340037.92N/1324017.47E | OMRF4 | 335420.16N/1324102.43E |
| UNSHU | 335740.45N/1323845.52E | | |
| OM481 | 335533.13N/1323739.63E | | |
| OM482 | 335159.96N/1323839.26E | | |
| RW14 | 335004.50N/1324121.73E | | |
| OM483 | 334643.12N/1323652.81E | | |
| OM484 | 335123.09N/1323018.19E | | |
| ROBIN | 335627.62N/1323221.80E | | |

INSTRUMENT APPROACH CHART

RJOM / MATSUYAMA

RNAV(RNP) RWY32

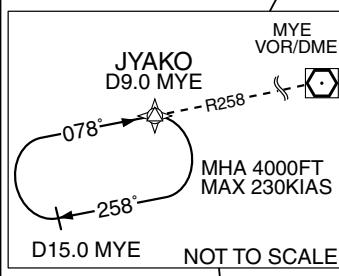
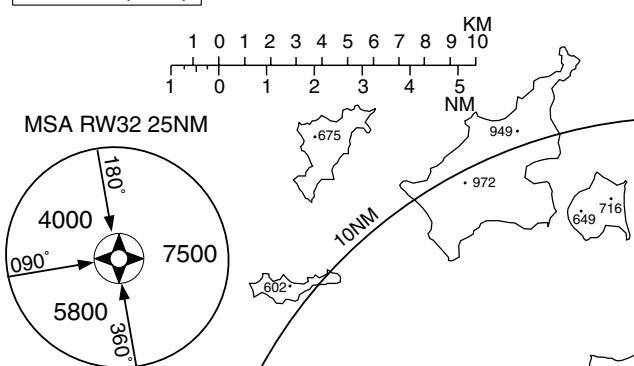
IWAKUNI APP
128.0 - 236.2

GNSS and RF required

MATSUYAMA TOWER
118.35 - 126.2RADAR AVBL
ATIS 126.65

For uncompensated Baro-VNAV systems, procedure not authorized below -5°C / above 50°C

VAR 7°W(2013)



INSTRUMENT APPROACH CHART

RJOM / MATSUYAMA

RNAV(RNP) RWY32

RNAV(RNP) RWY32Coding Table

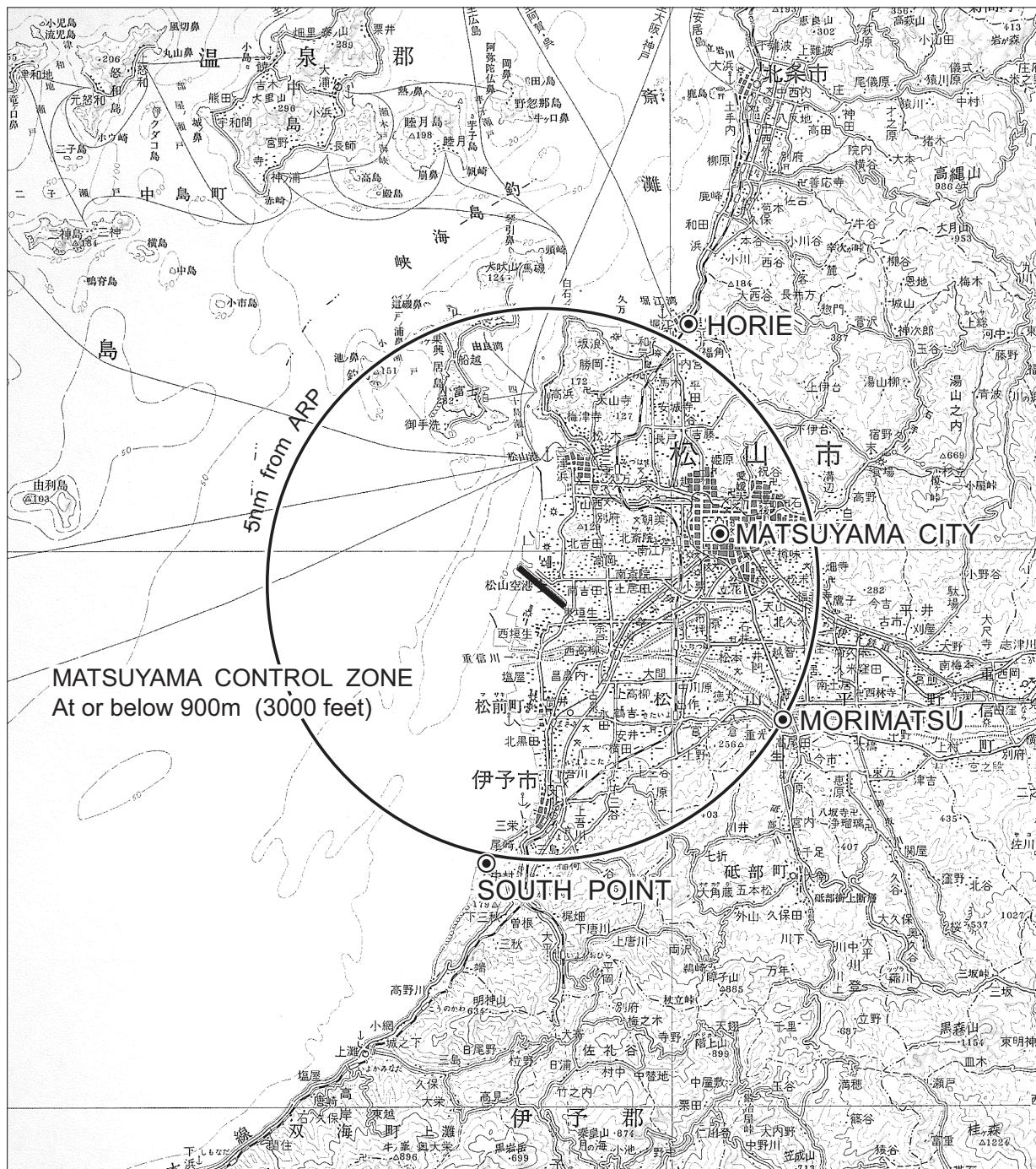
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | VPA/RDH (°/FT) | RNP Value |
|---------------|---------------------------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|-----------|
| 001 | IF | KIKMA | — | — | -7.1 | — | — | +6000 | — | — | — |
| 002 | TF | HENRO | — | 185 (178.4) | -7.1 | 6.3 | — | 4000 | — | — | 1.0 |
| 003 | TF | OM271 | — | 185 (178.4) | -7.1 | 4.7 | — | 2505 | -165 | -3.00 | 0.3 |
| 004 | RF Center: OMRF1 r=2.04NM | OM272 | — | — | -7.1 | 3.4 | R | 1423 | — | -3.00 | 0.3 |
| 005 | TF | OM273 | — | 281 (273.5) | -7.1 | 1.0 | — | 1108 | — | -3.00 | 0.3 |
| 006 | RF Center: OMRF2 r=1.85NM | OM274 | — | — | -7.1 | 1.2 | R | 729 | — | -3.00 | 0.3 |
| 007 | TF | RW32 | Y | 318 (310.7) | -7.1 | 2.1 | — | 67 | — | -3.00/50 | 0.3 |
| 008 | FA | — | — | 318 (310.7) | -7.1 | — | — | +700 | — | — | 1.0 |
| 009 | DF | JYAKO | — | — | -7.1 | — | L | 4000 | — | — | 1.0 |

Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|------------------------|--------------------------|------------------------|
| KIKMA | 340027.49N/1324911.96E | OMRF1 | 334923.23N/1324707.68E |
| HENRO | 335408.87N/1324925.09E | OMRF2 | 334915.02N/1324555.54E |
| OM271 | 334926.79N/1324934.83E | | |
| OM272 | 334720.59N/1324658.72E | | |
| OM273 | 334724.21N/1324547.47E | | |
| OM274 | 334750.46N/1324429.38E | | |
| RW32 | 334911.75N/1324235.61E | | |
| JYAKO | 334643.83N/1323118.89E | | |

RJOM / MATSUYAMA

Visual REP



| Call sign | BRG / DIST from ARP | Remarks |
|--------------------------|---------------------|--|
| 堀江 Horie | 033°/5.4NM | 堀江港 Horie harbor |
| 松山シティー Matsuyama City | 076°/3.4NM | 松山城 Matsuyama castle |
| 森松 Morimatsu | 124°/5.0NM | 森松町重信橋 Shigenobu bridges in Morimatsu cho |
| サウスポイント South Point | 199°/5.1NM | 伊予市南部森川河口 Mori river-mouth in the southern part of Iyo city |