

AD 2 AERODROMES

RJOS AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RJOS - TOKUSHIMA

RJOS AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|--|--|
| 1 | ARP coordinates and site at AD | 340756N/1343633E |
| 2 | Direction and distance from (city) | 4NM ENE FM Tokushima |
| 3 | Elevation/ Reference temperature | 37ft / - |
| 4 | Geoid undulation at AD ELEV PSN | Nil |
| 5 | MAG VAR/ Annual change | 7° W(2010)/ - |
| 6 | AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses | Japan Maritime Self Defense Force. Public AD |
| 7 | Types of traffic permitted(IFR/ VFR) | IFR/VFR |
| 8 | Remarks | Tokushima Airport Office(CAB) 16-2 Aza Asahino Toyohisa Matsushige-cho Itano-gun Tokushima Pref Tel : 088-699-6527 Fax : 088-699-4470 |

RJOS AD 2.3 OPERATIONAL HOURS

| | | |
|----|---------------------------|--|
| 1 | AD Administration | H24 |
| 2 | Customs and immigration | On request Customs: 0885-32-0326 Immigration: 0885-32-1530 |
| 3 | Health and sanitation | On request Quarantine(human): 0877-46-4279 Quarantine(animal): 087-879-4654 Quarantine(plant): 0885-32-1227 |
| 4 | AIS Briefing Office | H24(CAB:Nil) |
| 5 | ATS Reporting Office(ARO) | Nil |
| 6 | MET Briefing Office | H24(KANSAI) |
| 7 | ATS | H24 |
| 8 | Fuelling | 2100-1030 |
| 9 | Handling | 2100-1100 |
| 10 | Security | Nil |
| 11 | De-icing | Nil |
| 12 | Remarks | HR of service at CAB OPS Section: 2200 - 1230(Daily) |

RJOS AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|-----------------------------------|
| 1 | Cargo-handling facilities | Nil |
| 2 | Fuel/ oil types | JET A-1(CIV only) JP-5(JSDF only) |
| 3 | Fuelling facilities/ capacity | Fuel truck(CIV) |
| 4 | De-icing facilities | Nil |
| 5 | Hangar space for visiting aircraft | Nil |
| 6 | Repair facilities for visiting aircraft | Nil |
| 7 | Remarks | Nil |

RJOS AD 2.5 PASSENGER FACILITIES

| | | |
|---|----------------------|-----------------|
| 1 | Hotels | Nil |
| 2 | Restaurants | At Airport |
| 3 | Transportation | Buses and Taxis |
| 4 | Medical facilities | Nil |
| 5 | Bank and Post Office | Nil |
| 6 | Tourist Office | Nil |
| 7 | Remarks | Nil |

RJOS AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|--------------------|
| 1 | AD category for fire fighting | To be issued later |
| 2 | Rescue equipment | To be issued later |
| 3 | Capability for removal of disabled aircraft | To be issued later |
| 4 | Remarks | Nil |

RJOS AD 2.7 SEASONAL AVAILABILITY-CLEARING

| | | |
|---|-----------------------------|--------------------|
| 1 | Types of clearing equipment | To be issued later |
| 2 | Clearance priorities | To be issued later |
| 3 | Remarks | Nil |

RJOS AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

| | | |
|---|-------------------------------------|---|
| 1 | Apron surface and strength | NORTH APRON Surface : Concrete Strength : PCN 72/R/B/X/U |
| 2 | Taxiway width, surface and strength | Surface : Asphalt-concrete N-1(NORTH-1) Width : 28.5m, Strength : PCN 75/F/B/X/U SOUTH-1 Width : 23m, Strength : PCN 43/F/C/X/T N-2(NORTH-2), N-3(NORTH-3), N-4(NORTH-4), N-5(NORTH-5) Width : 34m, Strength : PCN 75/F/B/X/U SOUTH-2, SOUTH PARL TWY(BTN SOUTH-2 and SOUTH-5) Width : 23m, Strength : PCN 40/F/C/X/T SOUTH-3 Width : 23m, Strength : PCN 25/F/C/Y/T SOUTH-4, SOUTH-5 Width : 23m, Strength : PCN 41/F/A/X/T N-6(NORTH-6) Width : 28.5m PCN 70/F/A/X/U SOUTH-6, SOUTH PARL TWY(BTN SOUTH-5 and SOUTH-6) Width : 18m, Strength : PCN 28/F/A/Y/T NORTH PARL TWY(BTN N-1(NORTH-1) and N-5(NORTH-5)) Width : 23m, Strength : PCN 75/F/B/X/U NORTH PARL TWY(BTN N-5(NORTH-5) and N-6(NORTH-6)) Width : 23m, Strength : PCN 70/F/A/X/U Surface : Concrete SOUTH PARL TWY(BTN WEST SIDE END and SOUTH-2) Width : 18m, Strength : To be issued later |
| 3 | ACL and elevation | Not available |
| 4 | VOR checkpoints | Nil |
| 5 | INS checkpoints | To be issued later |
| 6 | Remarks | Nil |

RJOS 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 | Nil |
| 2 | RWY and TWY markings and LGT | RWY:11/29 (Marking) RWY designation, RWY CL, RWY THR, TDZ, RWY side stripe (LGT) RCLL, REDL, RTHL, RENL, WBAR, RWY DIST marker, TKOF aiming LGT TWY: (Marking) TWY CL, RWY HLDG PSN, TWY side stripe, Mandatory instruction (LGT) TWY edge LGT, TWY CL LGT(N-1(NORTH-1) THRU N-6(NORTH-6) AND NORTH PARL TWY), Taxiing guidance sign(N-1(NORTH-1) THRU N-6(NORTH-6)) |
| 3 | Stop bars | Nil |
| 4 | Remarks | (Marking) Overrun area (LGT) APN flood LGT |

RJOS AD 2.10 AERODROME OBSTACLES

In approach / TKOF Areas

| RWY/Area affected | Obstacle type | Coordinates | Elevation | Markings / LGT | Remarks |
|-------------------|---------------|---------------------|-----------|--------------------|---------|
| RWY29 | Antenna | 340608.2N1343549.5E | 296FT | Marking / LIM, LIL | Nil |

In circling area and at AD

| Obstacle type | Coordinates | Elevation | Markings/ LGT | Remarks |
|---------------|-------------|-----------|---------------|---------|
| Nil | | | | |

RJOS 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 | Nil |
| 4 | Trend forecast Interval of issuance | Nil |
| 5 | Briefing/ consultation provided | Briefing is available upon inquiry at KANSAI |
| 6 | Flight documentation Language(s) used | Nil |
| 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, APP, ATIS |
| 10 | Additional information(limitation of service, etc.) | Observation is made by the Ministry of Defence. |

RJOS 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 |
| 11 | 102.53° | 2500×45 | PCN 70/F/A/X/T SW90000kg (198400lbs) DW124000kg (273400lbs) DTW182000kg (401300lbs) TTTW216000kg (476200lbs) Asphalt-Concrete | Nil | THR EVEV : 6ft |
| 29 | 282.53° | 2500×45 | PCN 70/F/A/X/T SW90000kg (198400lbs) DW124000kg (273400lbs) DTW182000kg (401300lbs) TTTW216000kg (476200lbs) Asphalt-Concrete | Nil | THR EVEV : 37ft TDZ ELEV : 37ft |
| Slope of RWY | | Strip Dimensions(M) | Remarks | | |
| 7 | | 10 | 12 | | |
| SEE AD2.24 AD chart | | 2760×300 2760×300 | RWY Grooving 30×2500m | | |

RJOS AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (m) | TODA (m) | ASDA (m) | LDA (m) | Remarks |
|----------------|-------------|-------------|-------------|------------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 11 | 2500 | 2500 | 2500 | 2500 | Nil |
| 29 | 2500 | 2500 | 2500 | 2500 | Nil |

RJOS 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 |
| 11 | SALS (*1) 420m | Green - | PAPI 3.0°/Left 454m 73ft | Nil | 2500M 30M Coded color (White/Red) LIH | 2500M 60M Coded color (White/Yellow) LIH | Red | Nil(*2) |
| 29 | Nil | Green Green | PAPI 3.0°/Left 488m 65.6ft | Nil | 2500M 30M Coded color (White/Red) LIH | 2500M 60M Coded color (White/Yellow) LIH | Red | Nil(*2) |
| Remarks | | | | | | | | |
| 10 | | | | | | | | |
| SALS with APCH LGT beacon (600m and 841m FM RWY 11 THR) (*1) Overrun area edge LGT(Color: Red)(*2) CGL for RWY 11(Color: Yellow) RWY THR ID LGT for RWY 11/29 THR(Color: White) | | | | | | | | |

RJOS AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

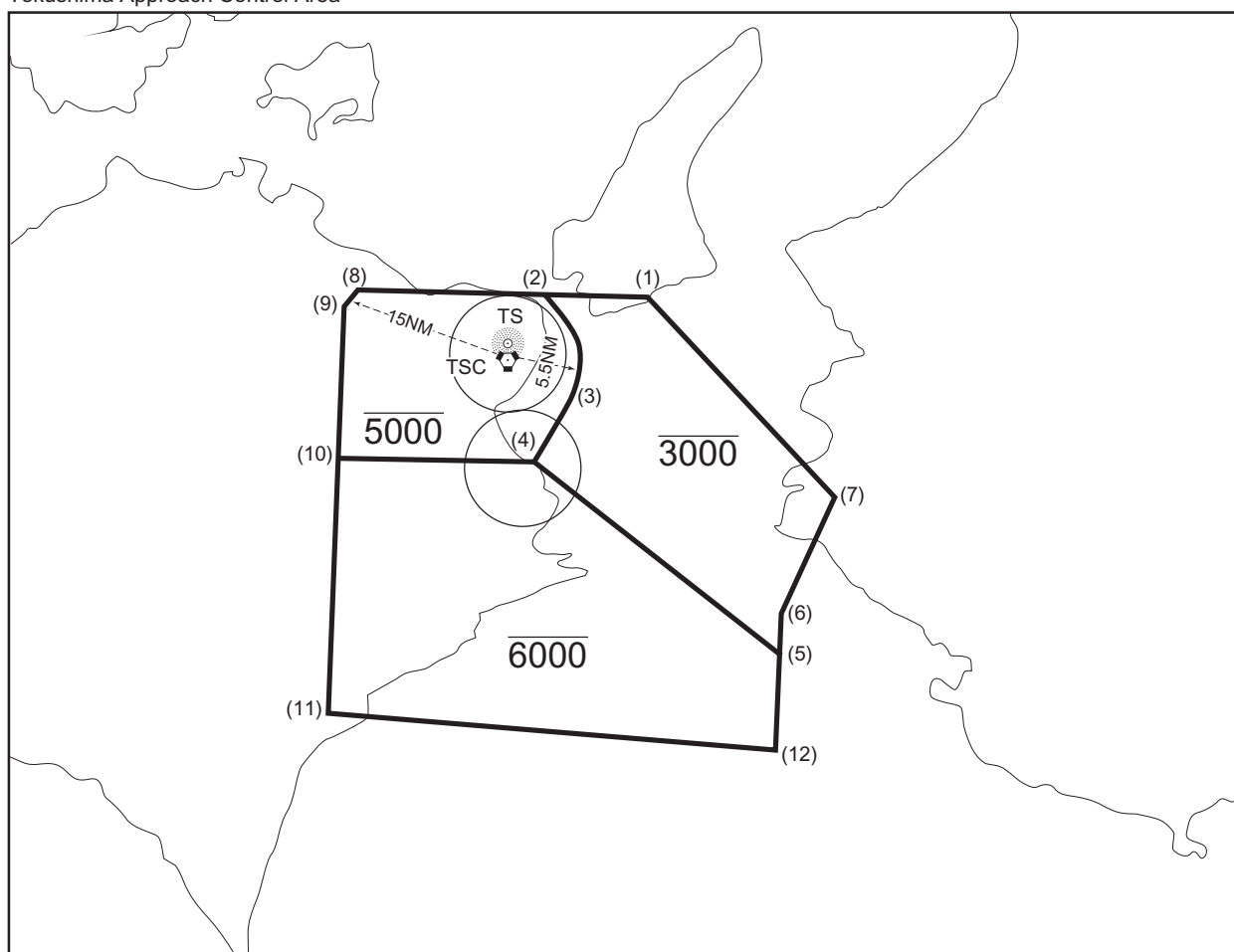
| | | |
|---|--|--|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: 340752N/1343546E, White/Green EV 4.3sec, HO |
| 2 | LDI location and LGT Anemometer location and LGT | LDI : AVBL |
| 3 | TWY edge and center line lighting | TWY edge and center line lights installed, see AD2.9 |
| 4 | Secondary power supply/ switch-over time | Within 15 sec: TWY edge LGT(TWY N-1(NORTH-1) THRU N-6(NORTH-6), NORTH PARL) TWY CL LGT(TWY N-1(NORTH-1) THRU N-6(NORTH-6), NORTH PARL), Apron flood LGT(CIV) |
| 5 | Remarks | WDI LGT, OBST LGT |

RJOS AD 2.16 HELICOPTER LANDING AREA

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

RJOS 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 |
| TOKUSHIMA CTR | Area within a radius of 5nm of TOKUSHIMA ARP (34°08'N/134°37'E) | 5000 or below | D | Tokushima Tower En | |
| TOKUSHIMA ACA | See below figure | | E | Tokushima Approach Tokushima Departure Tokushima Radar En | |

徳島進入管制区
Tokushima Approach Control Area

Point list

- | | |
|----------------------|-----------------------|
| (1) 341300N/1345028E | (7) 335551N/1350941E |
| (2) 341300N/1343838E | (8) 341300N/1341932E |
| (3) 340527N/1344232E | (9) 341136N/1341900E |
| (4) 335837N/1343856E | (10) 335801N/1341900E |
| (5) 334323N/1350500E | (11) 333545N/1341900E |
| (6) 334636N/1350500E | (12) 333338N/1350500E |

RJOS AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---------------------|---|---|---|--|
| 1 | 2 | 3 | 4 | 5 |
| TWR | Tokushima Tower | 236.8MHz 126.2MHz(1) 233.8MHz 118.0MHz 123.1MHz(2) 243.0MHz(E) 121.5MHz(E) | H24 | (1) Primary (2) For rescue only (3) AVBL on request |
| GND | Tokushima Ground | 233.8MHz 118.0MHz | H24 | |
| DEP/ASR | Tokushima Departure /Tokushima Radar | 284.6MHz 124.0MHz(1) 120.1MHz 261.2MHz 362.3MHz 122.45MHz(3) 126.2MHz(3) 228.2MHz(3) 121.5MHz(E) 243.0MHz(E) | 2200 - 1230 Other time 1HR PN | |
| APP | Tokushima Approach | 284.6MHz 124.0MHz(1) 120.1MHz 261.2MHz 362.3MHz 122.45MHz(3) 126.2MHz(3) 228.2MHz(3) 121.5MHz(E) 243.0MHz(E) | H24(4) | (4) Terminal Rader SER 2200-1230. Other time 1 HR PN. |
| GCA-ASR -PAR | Tokushima Radar /Tokushima GCA | 335.6MHz 270.8MHz 134.1MHz 125.3MHz 303.8MHz 258.6MHz 141.2MHz 139.55MHz 243.0MHz(E) 121.5MHz(E) | 2200- 1230 Other time 1HR PN | ASR,PAR RWY 29 Glide path 3.0° Maintenance period: 2300-0300 FRI in VMC. Blind zone lies BTN 010°-050°,060°-070° 10nm ARC and weak zone lies 140° BTN 23-25nm BLW 1100ft FM ASR site (34°07'51"N 134°35'52"E). |
| ATIS | Tokushima Airport | 246.8MHz | 2300- 1100 EXC FRI1101- SUN2259 and HOL. Other time 1HR PN | |

RJOS AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|-------------|-----|---------------------|--------------------|--|---------------------------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | TS | 332.5KHz | H24 | 340741N 1343622E | | NDB Unusable : 296° beyond 10NM BLW 5000ft. 315° beyond 30NM BLW 5000ft. 040° -050° within 50NM BLW 10000ft. 240° -250° within 50NM BLW 10000ft. |
| VOR | TSC | 114.9MHz | H24 | 340747N 1343631E | | VOR Unusable: R360 - 010 beyond 33NM BLW 3000ft. R010 - 030 beyond 25NM BLW 2000ft. R030 - 050 beyond 35NM BLW 4000ft. R050 - 060 beyond 30NM BLW 2000ft. R060 - 070 beyond 30NM BLW 4000ft. R080 - 100 beyond 30NM BLW 5000ft. R120 - 130 beyond 30NM BLW 4000ft. R130 - 140 beyond 32NM BLW 2000ft. R140 - 180 beyond 25NM BLW 2000ft. R180 - 200 beyond 33NM BLW 4000ft. R200 - 220 beyond 30NM BLW 6000ft. R220 - 240 beyond 35NM BLW 9000ft. R280 - 290 beyond 20NM BLW 5000ft. R290 - 300 beyond 20NM BLW 4000ft. R300 - 310 beyond 20NM BLW 3000ft. R310 - 330 beyond 20NM BLW 4000ft. R330 - 340 beyond 25NM BLW 4000ft. R340 - 350 beyond 30NM BLW 4000ft. R350 - 360 beyond 33NM BLW 4000ft. |
| TACAN | TSC | 1183MHz (CH-96X) | H24 | 340748N 1343636E | 17ft | TACAN Unusable : R360-010 beyond 34nm BLW 4000ft. R010-020 beyond 29nm BLW 4000ft. R020-030 beyond 38nm BLW 5000ft. R060-070 beyond 36nm BLW 5000ft. R100-110 beyond 38nm BLW 6000ft. R180-190 beyond 37nm BLW 3000ft. R200-210 beyond 28nm BLW 6000ft. R210-220 beyond 35nm BLW 7000ft. R220-240 beyond 24nm BLW 9000ft. R240-250 beyond 33nm BLW 9000ft. R250-270 beyond 35nm BLW 9000ft. R270-280 beyond 35nm BLW 8000ft. R280-290 beyond 28nm BLW 6000ft. R290-300 beyond 30nm BLW 6000ft. R300-310 beyond 15nm BLW 4000ft. R310-340 beyond 15nm BLW 5000ft. R340-350 beyond 31nm BLW 5000ft. R350-360 beyond 22nm BLW 4000ft. |
| ILS-LOC 29 | ITS | 108.9MHz | H24 | 340809N 1343526E | | LOC:510m(1673ft) away FM RWY 11 THR, BRG(MAG) 290° |
| ILS-GP 29 | - | 329.3MHz | H24 | 340746.35N 1343704.47E | | GP:405.9m(1332ft) inside FM RWY 29 THR, 122m(401ft) S of RCL. HGT of ILS Ref datum 16.5m(54ft). GP Angle 3.0° |
| ILS-DME 29 | ITS | 987MHz (CH-26X) | H24 | 340746.04N 1343704.39E | 22ft | DME:405.9m(1332ft) inside FM RWY 29 THR, 132m(433ft) S of RCL. |

ILS

REMARKS : 1. LOC beam BRG(MAG) 290°
 2. HGT of ILS REF datum 16.5m(54ft)
 3. GP angle 3.0°
 4. ELEV of ILS-DME 6.7m(22ft)

RJOS AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

PPR Civil transient aircraft must make prior coordination 10days in advance.(088-699-5111)

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

RJOS AD 2.21 NOISE ABATEMENT PROCEDURES

Nil

RJOS AD 2.22 FLIGHT PROCEDURES

1. TAKE OFF MINIMA

| | RWY | REDL & RCLL AVBL | | REDL or RCLL AVBL | | REDL & RCLL OUT | |
|-----------------------|-----|---------------------|----------|----------------------|----------|--------------------|----------|
| | | CEIL-RVR | CEIL-VIS | CEIL-RVR | CEIL-VIS | CEIL-RVR | CEIL-VIS |
| TKOF ALTN AP FILED | 11 | - | 0'400m | - | 0'600m | - | 0'800m |
| | 29 | 300'800m | 300'800m | 300'800m | 300'800m | - | 300'800m |
| OTHER | 11 | AVBL LDG MINIMA | | | | | |
| | 29 | | | | | | |

NOTE: SIDs are designed in accordance with provisional standards for FLIGHT PROCEDURE DESIGN.

2. TAKE OFF MINIMA for RNAV DEPARTURE

| | 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 | 11 | A,B,C,D | - | 400m | - | 400m | - | 500m |
| | 29 | | 400m | 400m | 400m | 400m | - | 500m |
| OTHER | 11 | A,B,C,D | AVBL LDG MINIMA | | | | | |
| | 29 | | | | | | | |

3. WX MINIMA CONCERNING PAR/ASR APCH PROCEDURE

PAR RWY 29

| MINIMA | THR elev. 37 | | AD elev. 37 | |
|--------|--------------|---------|-------------|------|
| | CIRCLING | | | |
| CAT | DA(H) | RVR/CMV | MDA(H) | VIS |
| A | 237(200) | 1000 | 580(543) | 1600 |
| B | | | 600(563) | 2400 |
| C | | | 840(803) | 3200 |
| D | | | | |

ASR RWY 29

| MINIMA | THR elev. 37 | | AD elev. 37 | |
|--------|--------------|---------|-------------|------|
| | CIRCLING | | | |
| CAT | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 500(463) | 1500 | 580(543) | 1600 |
| B | | | 600(563) | 2400 |
| C | | 2000 | 840(803) | 3200 |
| D | | | | |

4. Automated Radar Terminal System(ARTS)

徳島進入管制所の指示のもとに、徳島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。

モード A/3 またはモード C 応答用の ATC トランスポンダー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、徳島進入管制所に対し、その旨通報すること。

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

If an aircraft non equipped with ATC transponder of Mode A/3 or Mode C instructed to reply such Modes, it shall report a Tokushima approach control accordingly.

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

If radio communications with Tokushima Radar/Approach/GCA are lost for 1 minute in the pattern or 5 seconds (PAR)/15 seconds (ASR) on final approach, squawk Mode A/3 Code 7600 and ;

- (I)
- Contact TOKUSHIMA Tower.
 - If unable, proceed in accordance with visual flight rules.
 - If unable, proceed to TOKUSHIMA VORTAC/NDB at last assigned altitude or 3,000 feet whichever is higher, and execute instrument approach.
- (II) Procedures other than above will be issued when situation required.

RJOS AD 2.23 ADDITIONAL INFORMATION

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

RJOS AD 2.24 CHARTS RELATED TO AN AERODROME

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|---|
| <p>Figure-01 Aerodrome/Heliport Chart Figure-07 Standard Departure Chart-Instrument (HONMA-RNAV) Figure-07 Standard Departure Chart-Instrument (TOSAR, TOKUSHIMA REVERSAL)* Figure-07 Standard Departure Chart-Instrument (MIYAZU)* Figure-07 Standard Departure Chart-Instrument (MISAKI)* Figure-09 Standard Arrival Chart-Instrument* Figure-10 Instrument Approach Chart (ILS Z OR LOC Z RWY29)* Figure-10 Instrument Approach Chart (ILS Y OR LOC Y RWY29)* Figure-10 Instrument Approach Chart (ILS X OR LOC X RWY29)* Figure-10 Instrument Approach Chart (ILS W OR LOC W RWY29)* Figure-10 Instrument Approach Chart (VOR RWY29)* Figure-10 Instrument Approach Chart (NDB RWY29)* Figure-10 Instrument Approach Chart (TACAN A)* Figure-10 Instrument Approach Chart (RNAV(GNSS) RWY29) Figure-13 Other Chart (Visual REP) Figure-13 Other Chart (LDG CHART) Figure-13 Other Chart (MVA CHART)</p> |
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*: Designed in accordance with provisional standards for FLIGHT PROCEDURE DESIGN.

AD CHART



STANDARD DEPARTURE CHART-INSTRUMENT

RJOS / TOKUSHIMA

RNAV SID and TRANSITION

HONMA ONE DEPARTURE / KILAP TRANSITION

RNAV1

Note 1) DME/DME/IRU or GNSS required.

※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off rolling.

2) RADAR service required.

Critical DME

RWY29

AJD : 3.0NM to HATIS – HATIS

KILAP TRANSITION

AJD : 4.0NM to KMANO – KMANO

DME GAP

–

Inappropriate Nav aids

See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 8°W (2018)

HONMA ONE DEPARTURE

RWY11 : Climb on HDG110° at or above 500FT, turn right direct to HATIS, to SIJIL at 3000FT, to HONMA at or above 5000FT.

RWY29 : Climb on HDG290° at or above 500FT, turn left direct to HATIS, to SIJIL at 3000FT, to HONMA at or above 5000FT.

Note RWY29 : 5.0% climb gradient required up to 1200FT.

OBST ALT 1115FT located at 4.9NM FM end of RWY29.

KILAP TRANSITION

From HONMA at or above 5000FT, to KMANO, to KILAP.

CHANGE : New PROC (KILAP TRANSITION), Abolition PROC (MEIWA TRANSITION), VAR

STANDARD DEPARTURE CHART-INSTRUMENT

RJOS / TOKUSHIMA

RNAV SID and TRANSITION

HONMA ONE DEPARTURE

RWY11

| 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 | — | — | 110 (102.6) | -7.6 | — | — | +500 | — | — | RNAV1 |
| 002 | DF | HATIS | — | — | -7.6 | — | R | — | — | — | RNAV1 |
| 003 | TF | SIJIL | — | 144 (136.9) | -7.6 | 3.6 | — | 3000 | — | — | RNAV1 |
| 004 | TF | HONMA | — | 144 (136.9) | -7.6 | 13.0 | — | +5000 | — | — | RNAV1 |

RWY29

| 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 | — | — | 290 (282.6) | -7.6 | — | — | +500 | — | — | RNAV1 |
| 002 | DF | HATIS | — | — | -7.6 | — | L | — | — | — | RNAV1 |
| 003 | TF | SIJIL | — | 144 (136.9) | -7.6 | 3.6 | — | 3000 | — | — | RNAV1 |
| 004 | TF | HONMA | — | 144 (136.9) | -7.6 | 13.0 | — | +5000 | — | — | RNAV1 |

KILAP 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 | HONMA | — | — | -7.6 | — | — | +5000 | — | — | RNAV1 |
| 002 | TF | KMANO | — | 113 (105.2) | -7.6 | 8.9 | — | — | — | — | RNAV1 |
| 003 | TF | KILAP | — | 104 (095.9) | -7.6 | 82.2 | — | — | — | — | RNAV1 |

CHANGE : New PROC (KILAP TRANSITION), Abolition PROC (MEIWA TRANSITION), VAR

STANDARD DEPARTURE CHART-INSTRUMENT

RJOS / TOKUSHIMA

SID

TOSAR FOUR DEPARTURE

RWY 29 : Turn left within 3NM....

RWY 11 : Turn right....

....climb via TSC R160 (160° from TS NDB) to TSC 13.0DME (13NM of TS NDB), turn right to intercept and proceed via TSC R187 (187° from TS NDB) to TOSAR.

Cross TSC 13.0DME (13NM of TS NDB) at 3000FT, cross TSC 20.0DME (20NM of TS NDB) at 6000FT, cross TOSAR at assigned altitude.

* See Note.

TOKUSHIMA REVERSAL FIVE DEPARTURE

RWY 29 : Turn left within 3NM....

RWY 11 : Turn right....

.... climb via TSC R160 (160° from TS NDB) to TSC 13.0DME (13NM of TS NDB), then turn right proceed to TSC VORTAC (TS NDB).

Cross TSC 13.0DME (13NM of TS NDB) at 3000FT, cross TSC VORTAC (TS NDB) at or above 6000FT.

* See Note.



STANDARD DEPARTURE CHART-INSTRUMENT

RJOS / TOKUSHIMA

SID

MIYAZU EIGHT DEPARTURE

RWY 29 : Turn left within 3NM....

RWY 11 : Turn right....

....cross TS NDB at or above 1000FT, climb via 026° from TS NDB until intercepting ITE R297, climb via ITE 22.2DME clockwise ARC to intercept and proceed via YME R170 to YME VOR/DME.

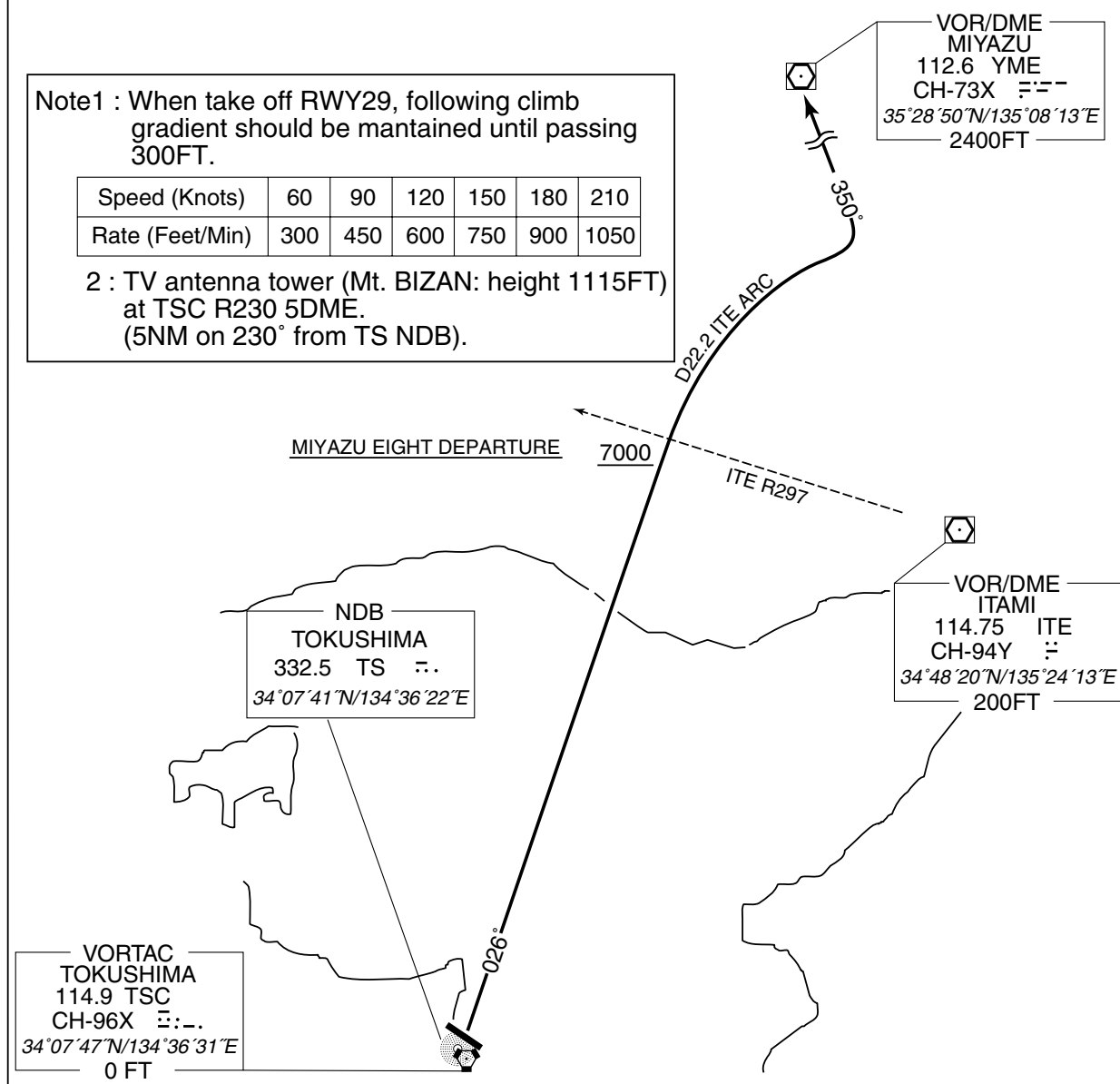
Cross ITE R297 at or above 7000FT.

* See Note.

Note1 : When take off RWY29, following climb gradient should be maintained until passing 300FT.

| | | | | | | |
|-----------------|-----|-----|-----|-----|-----|------|
| Speed (Knots) | 60 | 90 | 120 | 150 | 180 | 210 |
| Rate (Feet/Min) | 300 | 450 | 600 | 750 | 900 | 1050 |

2 : TV antenna tower (Mt. BIZAN: height 1115FT) at TSC R230 5DME. (5NM on 230° from TS NDB).



STANDARD DEPARTURE CHART -INSTRUMENT

RJOS / TOKUSHIMA

➡ SID and TRANSITION

MISAKI ONE DEPARTURE

RWY29 : Turn left within 3NM,...

RWY11 : Turn right,...

...climb via TSC R143 (143° from TS NDB) to HONMA.

Cross TSC 12.0DME (12NM of TS NDB) at 3000FT, cross HONMA at or above 8000FT.

Note1 : When take off RWY29, following climb gradient should be maintained
until passing 300FT

| | | | | | | |
|-----------------|-----|-----|-----|-----|-----|------|
| Speed (Knots) | 60 | 90 | 120 | 150 | 180 | 210 |
| Rate (Feet/Min) | 300 | 450 | 600 | 750 | 900 | 1050 |

Note2 : TV antenna tower (Mt. BIZAN : height 1115FT) at TSC R230 5DME.
(5NM on 230° from TS NDB).

KUSHIMOTO TRANSITION

From over HONMA, via KEC R305 to KEC VORTAC.



STANDARD ARRIVAL CHART-INSTRUMENT

RJOS / TOKUSHIMA

STAR

STAR

TOSAR ARRIVAL

From over TOSAR, proceed via TSC R-187 to TSC VORTAC (007DEG to TS NDB).

Cross TSC VORTAC (TS NDB) at 5,000 feet.

STAR



INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

ILS Z or LOC Z RWY 29



MISSED APPROACH

Climb on 290° to 800FT or above within ITS 3.8DME(TSC3.4DME), turn left and climb via TSC R160(on160° from TS NDB) to 3000FT, then turn right within TSC 10DME(10nm of TS NDB), proceed to TSC VORTAC(TS NDB) and hold.
Contact TOKUSHIMA APP.



| MINIMA | | THR elev. 37 | | AD elev. 37 | |
|--------|-----------|--------------|-----------|-------------|----------------|
| CAT | CAT I | | LOC | | CIRCLING |
| | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) VIS |
| A | 237 (200) | 1000 | 340 (303) | 1500 | 580 (543) 1600 |
| B | | | | 1800 | 600 (563) 2400 |
| C | | | | 2000 | 840 (803) 3200 |
| D | | | | | |

INSTRUMENT APPROACH CAHRT

RJOS / TOKUSHIMA

ILS Y or LOC Y RWY 29



INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

ILS X or LOC X RWY 29

| | | | |
|---|---|---|-----------------------------------|
| TOKUSHIMA APP 120.1 - 124.0 261.2 - 284.6 | ILS-LOC 108.9 ITS ±. ILS-GP 329.3 ILS-DME CH-26X | TOKUSHIMA TOWER 118.0 - 126.2 233.8 - 236.8 | GCA AVBL CALL TOKUSHIMA APP |
|---|---|---|-----------------------------------|



MISSED APPROACH

Climb on 290° to 800FT or above within ITS 3.8DME, turn left and climb via 160° from TS NDB to 3000FT, then turn right within 10nm of TS NDB, proceed to TS NDB and hold.
Contact TOKUSHIMA APP.

Remain within 14nm



MINIMA

THR elev. 37

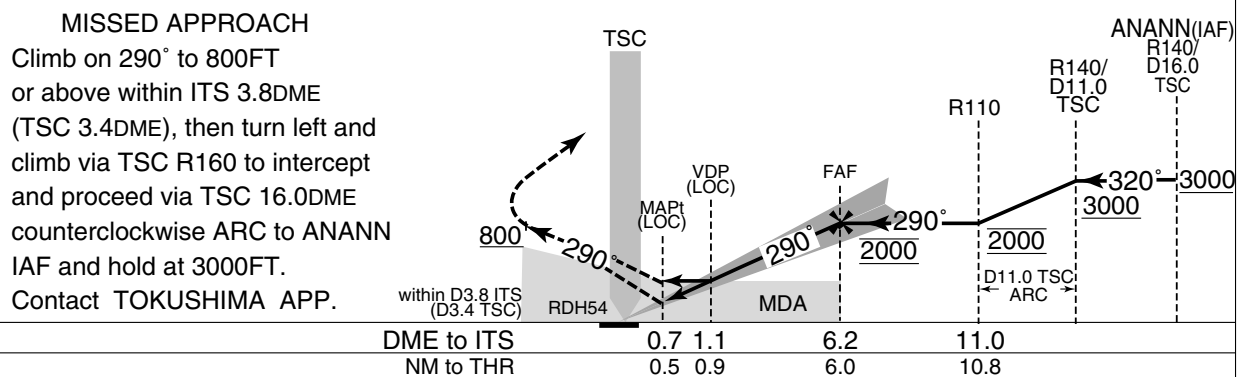
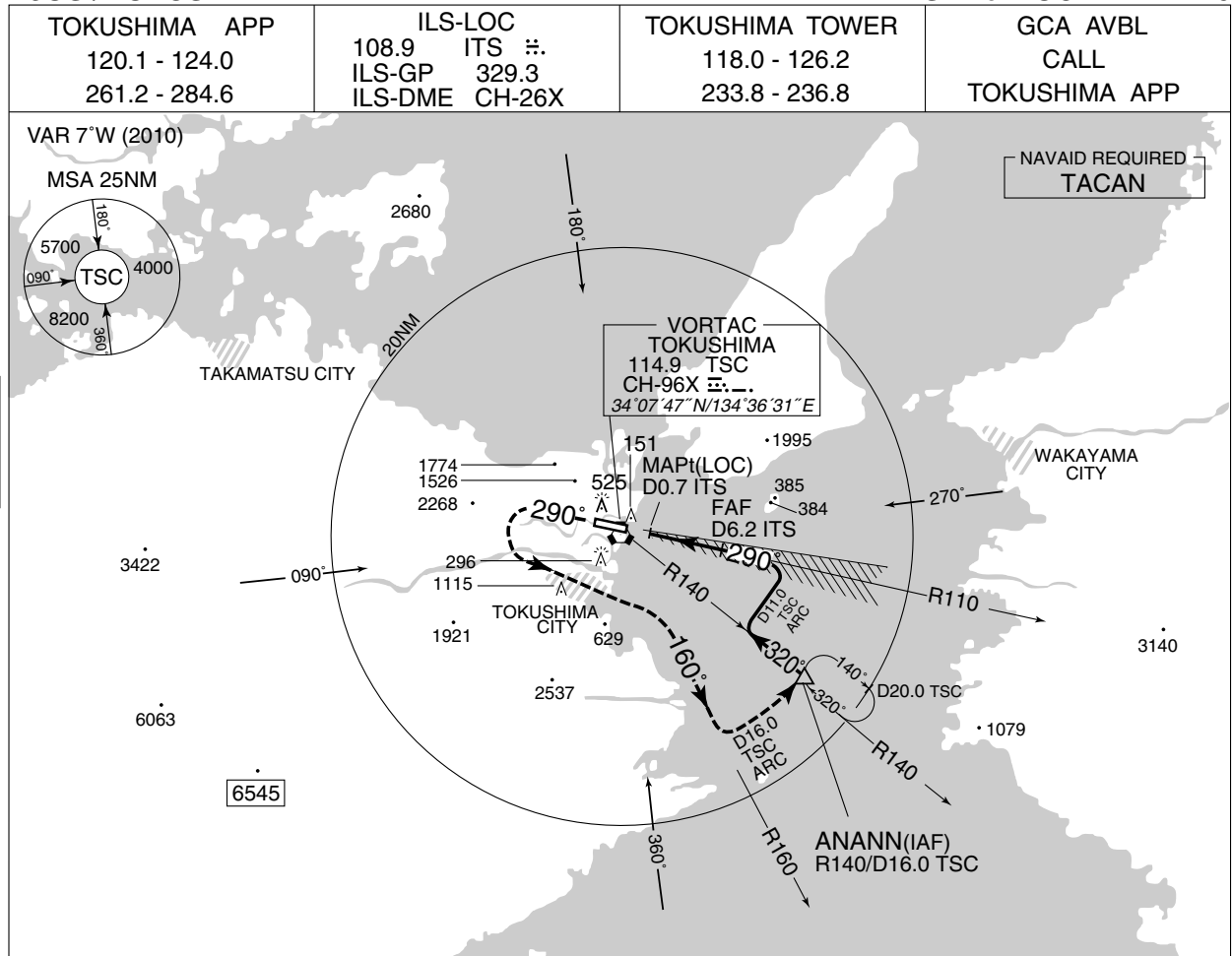
AD elev. 37

| CAT | CAT I | | LOC | | CIRCLING | |
|-----|-----------|---------|-----------|---------|-----------|------|
| | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 237 (200) | 1000 | 340 (303) | 1500 | 580 (543) | 1600 |
| B | | | | 1800 | 600 (563) | 2400 |
| C | | | | 2000 | 840 (803) | 3200 |
| D | | | | | | |

INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

ILS W or LOC W RWY 29



| MINIMA | | THR elev. 37 | | AD elev. 37 | | |
|--------|-----------|--------------|-----------|-------------|-----------|------|
| CAT | CAT I | | LOC | | CIRCLING | |
| | DA(H) | RVR/ CMV | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 237 (200) | 1000 | 340 (303) | 1500 | 580 (543) | 1600 |
| B | | | | 1800 | 600 (563) | 2400 |
| C | | | | | | |
| D | | | | | | |

INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

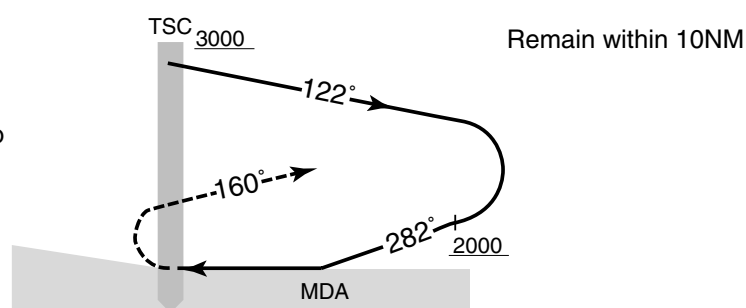
VOR RWY 29

| | | | |
|---|--|---|-----------------------------------|
| TOKUSHIMA APP 120.1 - 124.0 261.2 - 284.6 | TOKUSHIMA VORTAC 114.9 TSC $\overline{\text{E}}\text{:}\text{--}$ CH-96X 34°07'47"N / 134°36'31"E | TOKUSHIMA TOWER 118.0 - 126.2 233.8 - 236.8 | GCA AVBL CALL TOKUSHIMA APP |
|---|--|---|-----------------------------------|



MISSED APPROACH

At TSC VORTAC, turn left and climb via TSC R160 to 3000FT, then turn right within 10NM of TSC, proceed to TSC VORTAC and hold.
Contact TOKUSHIMA APP.



| MINIMA | | THR elev. 37 | AD elev. 37 | |
|--------|-----------|--------------|-------------|------|
| CAT | | | CIRCLING | |
| | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 580 (543) | 1500 | 580 (543) | 1600 |
| B | | | | |
| C | | 2000 | 600 (563) | 2400 |
| D | | | 840 (803) | 3200 |

INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

NDB RWY 29



INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

TACAN A

| | | | |
|---|--|---|-----------------------------------|
| TOKUSHIMA APP 120.1 - 124.0 261.2 - 284.6 | TOKUSHIMA TACAN CH-96X TSC ㄟ:.. 34°07'48"N / 134°36'36"E | TOKUSHIMA TOWER 118.0 - 126.2 233.8 - 236.8 | GCA AVBL CALL TOKUSHIMA APP |
|---|--|---|-----------------------------------|



MISSED APPROACH

1.0DME prior to TSC VORTAC, turn left and climb via TSC R160 to intercept and proceed via TSC 16.0DME counterclockwise ARC to ANANN and hold at 3000FT. Contact TOKUSHIMA APP.



| MINIMA | | THR elev. 37 | AD elev. 37 |
|--------|-----------|--------------|-------------|
| CAT | CIRCLING | | |
| | MDA(H) | VIS | |
| A | 580 (543) | 1600 | |
| B | | | |
| C | 600 (563) | 2400 | |
| D | 840 (803) | 3200 | |

RJOS / TOKUSHIMA

TOKUSHIMA APP
120.1 - 124.0
261.2 - 284.6

1. DME/DME not authorized
2. Radar service required

TOKUSHIMA TOWER
118.0 - 126.2
233.8 - 236.8

GCA AVBL
CALL
TOKUSHIMA APP

Baro-VNAV NA below 0°C

VAR 7°W (2010)

MSA 25NM
8200

ARP : 340756N/1343633E

VORTAC TOKUSHIMA
114.9 TSC
CH-96X
34°07'47"N/134°36'31"E

TOKUSHIMA VORTAC (TSC)
MHA 3000
MAX 230KIAS
D24.0 TSC
DATIS D18.6 TSC

TOKUSHIMA CITY

OS293 (MATF)
1774
1526
525
4.5

OS294 (MATF)
1115
629

RW29 (MAPt)
296
4.4

FAF
290

UZUPY (IF)
290
3.5

DATIS (IAF/MAHF)
R125/D18.6 TSC

10NM

180°

090°

2268

1921

2537

360°

110°

125°

21.7

319°

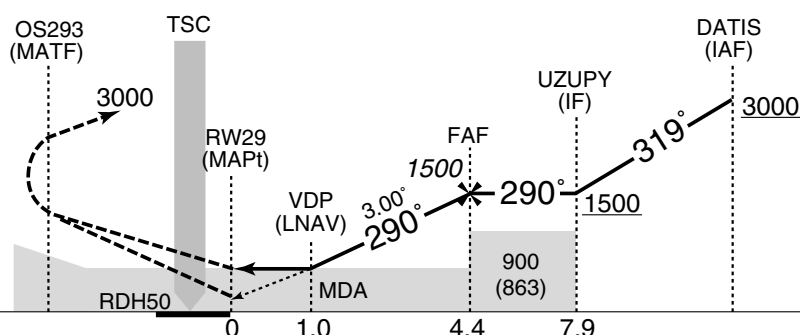
10.7

385
384
270°

| MAPt | 1 | 2 | 3 | 4 | FAF | NM to Next Fix |
|------|-----|-----|------|------|------|----------------------|
| - | 405 | 724 | 1042 | 1361 | 1500 | ALT (3.0° APCH Path) |

Climb to 3000FT direct to OS293,
to OS294, to DATIS and hold.
Contact TOKUSHIMA APP.

(For using VORTAC)
Climb on HDG290° to 800FT,
turn left climb to 3000FT via TSC
R125 to DATIS and hold.
Contact TOKUSHIMA APP.



Missed APCH climb gradient MNM 5.0%

| MINIMA | | THR elev. 37 | | AD elev. 37 | | |
|--------|-----------|--------------|-----------|-------------|-----------|------|
| CAT | LNAV/VNAV | | LNAV | | CIRCLING | |
| | DA(H) | RVR/ CMV | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 380 (343) | 1500 | 380 (343) | 1500 | 580 (543) | 1600 |
| B | | | | | | |
| C | | 1800 | | 1800 | 600 (563) | 2400 |
| D | | | | | | |

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

RJOS / TOKUSHIMA

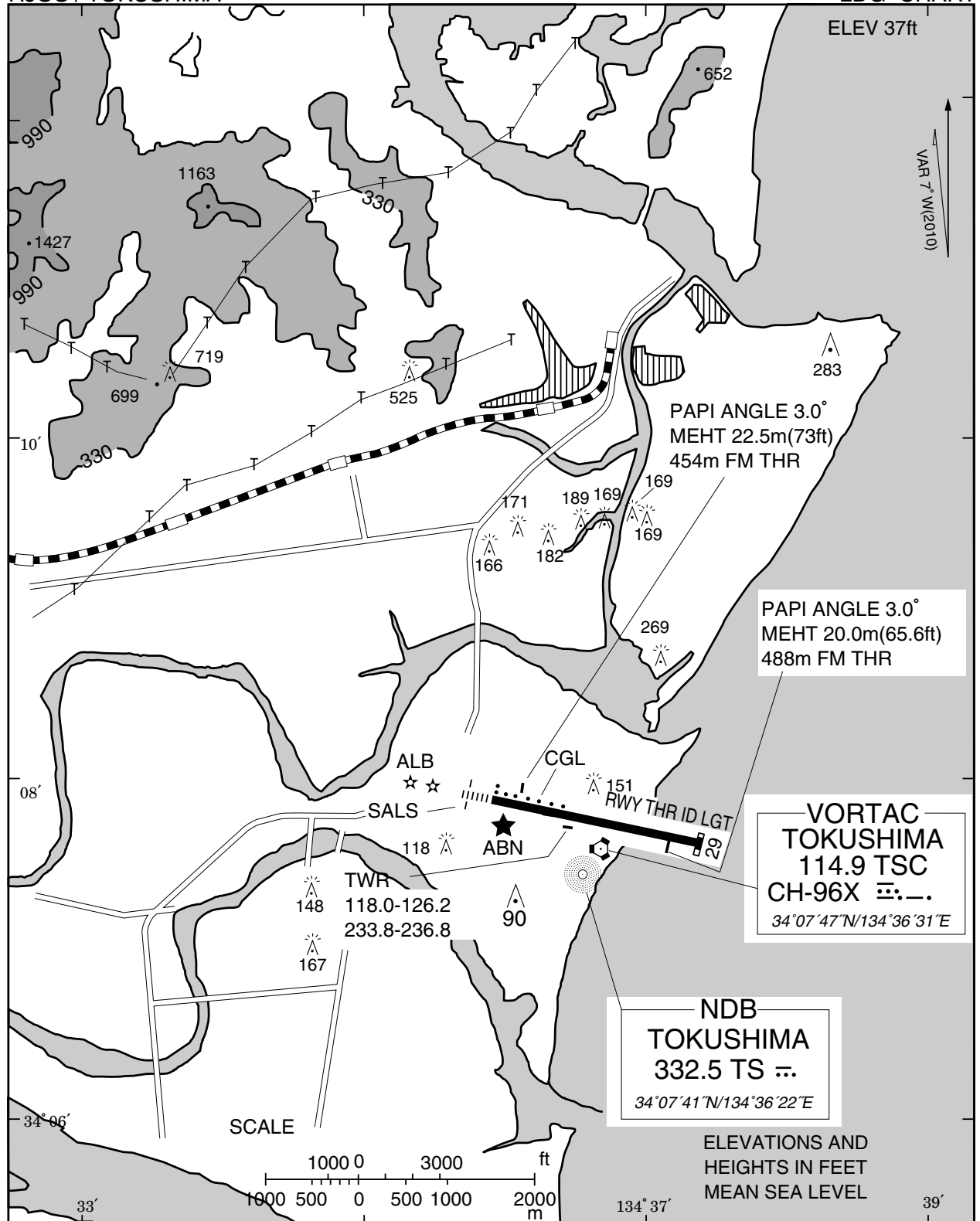
Visual REP



| Call sign | BRG / DIST from ARP | Remarks |
|----------------------------|---------------------|------------------------------------|
| 沼 島 Nushima | 086°/11.0NM | 灯台 Lighthouse |
| 福 良 Fukura | 042°/8.5NM | 港 Harbor |
| 吉野イニシャル Yoshino Initial | 254°/4.5NM | 鉄道橋中央 the center of iron bridge |
| 岡 崎 Okazaki | 036°/3.3NM | 灯台 Lighthouse |
| 吉野リバー Yoshino River | 195°/3.3NM | 吉野川河口 River-mouth |

RJOS / TOKUSHIMA

LDG CHART



RJOS / TOKUSHIMA

Minimum Vectoring Altitude CHART

VAR 7°W (2013)



- ① 2000
- ② 3000
- ③ 1700
- ④ 2100
- ⑤ 4500

CENTER : 340751N/1343552E (RADAR SITE)