

AD 2 AERODROMES**RJFU AD 2.1 AERODROME LOCATION INDICATOR AND NAME****RJFU - NAGASAKI****RJFU AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

| | | |
|---|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | ARP coordinates and site at AD | 325501N/1295449E |
| 2 | Direction and distance from (city) | 18Km (9.7nm) NNE of Nagasaki railway station, 4km (2.2nm) W of Omura railway station. |
| 3 | Elevation/ Reference temperature | 8ft / 33°C (2004-2008) |
| 4 | Geoid undulation at AD ELEV PSN | 105.89ft |
| 5 | MAG VAR/ Annual change | 7° W (2008) / Annual change 2' W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses | Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism Nagasaki Airport, 593-2 Mishima-cho, Omura City, Nagasaki Pref. Tel: 0957(53)6901 Fax: 0957(54)4539 AFS: RJFUYFYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Nil |

RJFU AD 2.3 OPERATIONAL HOURS

| | | |
|----|---------------------------|-------------------------------------------------------------------------------------|
| 1 | AD Administration | 2200 - 1300 |
| 2 | Customs and immigration | Customs: 2330-0815 Immigration: INTL SKED FLT hours only |
| 3 | Health and sanitation | Quarantine(human, plant): INTL SKED FLT hours only Quarantine(animal): 2330-1100 |
| 4 | AIS Briefing Office | 2200 - 1300 |
| 5 | ATS Reporting Office(ARO) | Nil |
| 6 | MET Briefing Office | H24 (FUKUOKA) |
| 7 | ATS | 2200 - 1300 |
| 8 | Fuelling | 2200 - 1300 |
| 9 | Handling | DOM/JAL:2240-1240, ANA:2200-1230, ORC:2200-0910 INTL/2330-0800 |
| 10 | Security | 2130 - 1200 |
| 11 | De-icing | Nil |
| 12 | Remarks | Nil |

RJFU AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|-----------------------------------------|-----------------------------------------------------------------|
| 1 | Cargo-handling facilities | No limitation |
| 2 | Fuel/ oil types | Fuel Grades : JET A-1 Oil Grade : W80, W100, AERO80, AERO100 |
| 3 | Fuelling facilities/ capacity | Fuel Truck Refueling, No limitation |
| 4 | De-icing facilities | Nil |
| 5 | Hangar space for visiting aircraft | Nil |
| 6 | Repair facilities for visiting aircraft | Nil |
| 7 | Remarks | Nil |

RJFU AD 2.5 PASSENGER FACILITIES

| | | |
|---|----------------------|--------------------------------------------|
| 1 | Hotels | Hotels in the city |
| 2 | Restaurants | Available, Not Continuous |
| 3 | Transportation | Buses, Taxis and Ships |
| 4 | Medical facilities | Hospitals in the city |
| 5 | Bank and Post Office | Bank in the city. Post office in the city. |
| 6 | Tourist Office | Tourist Office in the city |
| 7 | Remarks | Nil |

RJFU 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 x 1, Lighting power supply truck x 1, Emergency medical equipments conveyance truck x 1 |
| 3 | Capability for removal of disabled aircraft | B744 |
| 4 | Remarks | Nil |

RJFU AD 2.7 SEASONAL AVAILABILITY-CLEARING

| | | |
|---|-----------------------------|-----------------------------------|
| 1 | Types of clearing equipment | |
| 2 | Clearance priorities | 1.RWY 2.TWY 3.APRON |
| 3 | Remarks | Seasonal availability:ALL seasons |

RJFU AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

| | | |
|---|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Apron surface and strength | Surface : Surface Concrete, Asphalt Concrete in part. Strength : PCN 56/R/A/X/T spot NR 2 PCN 52/R/B/X/T spot NR 3 PCN 56/R/B/X/T spot NR 5 PCN 50/R/A/X/T spot NR 6 PCN 62/R/B/X/T spot NR 7, 8, 9, 10 PCN 74/R/B/X/T spot NR 11, 12, 14 |
| 2 | Taxiway width, surface and strength | Width : B2.....9m P1 - P5.....23m T1, T6.....28.5m T2, T3, T4, T5....34m Surface : Asphalt Concrete Strength : B2.....PCN 5/F/C/X/T P1, P3, P4, T1...PCN 65/F/A/X/T P5, T6.....PCN 97/F/C/X/T T2, T3, T4, T5....PCN 54/F/A/X/T P2.....PCN 62/R/B/X/T |
| 3 | ACL and elevation | Not available |
| 4 | VOR checkpoints | Not available |
| 5 | INS checkpoints | Spot NR 5 : 325447.08N/1295522.18E* 6 : 325448.42N/1295520.75E 7 : 325449.91N/1295519.11E 8 : 325451.60N/1295517.31E 9 : 325453.29N/1295515.51E 10 : 325454.98N/1295513.71E 11 : 325456.73N/1295511.84E 12 : 325458.53N/1295509.91E |
| 6 | Remarks | Nil |

RJFU AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Use of aircraft stand ID signs, TWY guide lines and Visual docking/ parking guidance system of aircraft stands | ACFT stand ID signs: SPOT 2, 5-9 |
| 2 | RWY and TWY markings and LGT | <p>RWY14/32: (Marking) RWY designation, RWY CL, RWY THR, Aiming point, TDZ, RWY side stripe (LGT) RCLL, REDL, RTHL, RENL, RTZL(RWY32), WBAR(RWY32), RWY DIST marker LGT</p> <p>TWY: T1 - T6 (Marking) TWY CL, RWY HLDG PSN, Mandatory Instructions, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT, RWY guard LGT, Taxiing guidance sign</p> <p>TWY: P1, P3, P4, P5 (Marking) TWY CL, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT</p> <p>TWY: P2 (Marking) TWY CL, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT, Taxiing guidance sign</p> <p>TWY: B2 (Marking) TWY CL, TWY side stripe (LGT) TWY edge LGT, Taxiing guidance sign</p> |
| 3 | Stop bars | Nil |
| 4 | Remarks | (Marking) Overrun area (LGT) Apron flood LGT |

RJFU AD 2.10 AERODROME OBSTACLES

■ In Area2 See Obstacle data

■ In Area3 To be developed

RJFU AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|----|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Associated MET Office | FUKUOKA |
| 2 | Hours of service MET Office outside hours | H24 (FUKUOKA) |
| 3 | Office responsible for TAF preparation Periods of validity | FUKUOKA 30 Hours |
| 4 | Trend forecast Interval of issuance | Nil |
| 5 | Briefing/ consultation provided | Briefing is available upon inquiry at FUKUOKA |
| 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 , P _S , P ₅ , P ₃ , P ₂₅ , P _{SWE} , P _{SWF} , P _{SWG} , P _{SWI} , P _{SWM} , P _{SW} (domestic), U ₂ /Tr, E, C, W _E , W _F , W _G , W _I , W, N |
| 8 | Supplementary equipment available for providing information | Nil |
| 9 | ATS units provided with information | TWR, APP, ATIS |
| 10 | Additional information(limitation of service, etc.) | Nil |

RJFU 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 | 138.00° | 3000x60 | PCN 65/F/A/X/T Asphalt Concrete | 325537.28N 1295409.77E 105.8ft | THR ELEV: 14ft |
| 32 | 318.00° | 3000x60 | PCN 65/F/A/X/T Asphalt Concrete | 325424.91N 1295527.04E 106.0ft | THR ELEV: 15ft |
| Slope of RWY | | Strip Dimen- sions(M) | RESA (Overrun) Dimensions (M) | | Remarks |
| 7 | 10 | | 11 | | 14 |
| See below chart | 3120x300 | | 40x300 | RWY 14 grooving: 3000 x 40m | |
| See below chart | 3120x300 | | 190x(MNM:120 MAX:300)* *For detail, ask airport administrator | RWY 32 grooving: 3000 x 40m | |
| RWY 14 | | | RWY 32 | | |
| <p>Detailed description: The diagram shows two runways. RWY 14 starts at 14ft elevation and slopes down to 11ft at 451.5m. It then has a series of slope segments: 8ft at 1120m, 8ft at 1500m, 9ft at 2060m, and 8ft at 2360m. RWY 32 starts at 15ft elevation and slopes down to 8ft at 2360m. A scale bar at the bottom indicates distances from 0m to 3000m.</p> | | | | | |

RJFU AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (m) | TODA (m) | ASDA (m) | LDA (m) | Remarks |
|----------------|-------------|-------------|-------------|------------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 14 | 3000 | 3000 | 3000 | 3000 | Nil |
| 32 | 3000 | 3000 | 3000 | 3000 | Nil |

RJFU 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 | SALS (*1) 420m LIH | Green - | PAPI 3.0%/LEFT 471m 74ft | - 900m | 3000m 30m Coded color (White/Red) LIH | 3000m 60m Coded color (White/Yellow) LIH | Red | Nil (*2) |
| 32 | PALS (CAT I) 900m LIH | Green Green | PAPI 3.0%/LEFT 444m 65ft | 900m | 3000m 30m Coded color (White/Red) LIH | 3000m 60m Coded color (White/Yellow) LIH | Red | Nil (*2) |
| Remarks | | | | | | | | |
| 10 | | | | | | | | |
| SALS with APCH LGT beacon(600m and 900m FM RWY THR)(*1) Overrun area edge LGT(LEN:60m Color:Red)(*2) | | | | | | | | |

RJFU AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|----------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN:325428N/1295457E, White/Green EV4.3sec, HO |
| 2 | LDI location and LGT Anemometer location and LGT | LDI : Nil Anemometer : RWY 32 : 438m from RWY 32 THR, LGTD RWY 14 : 430m from RWY 14 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 |

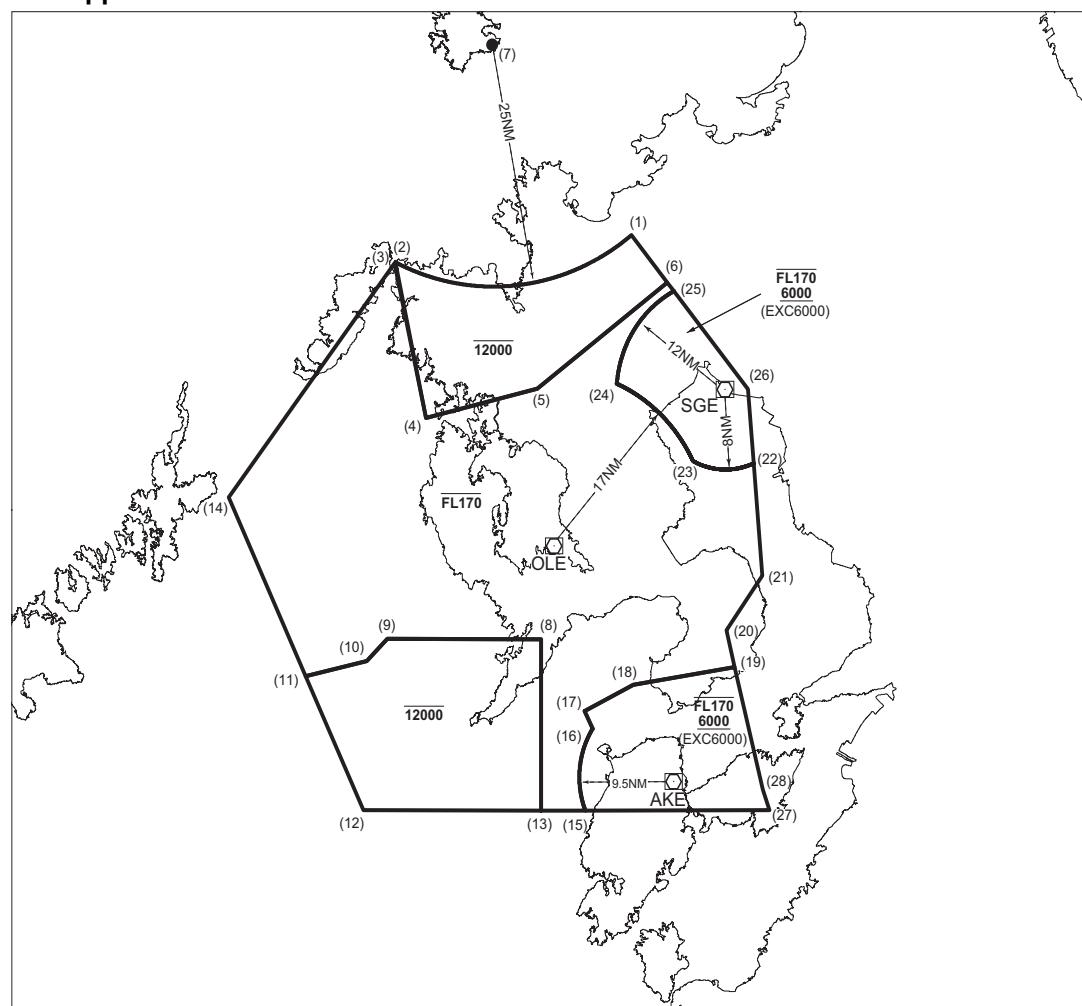
RJFU AD 2.16 HELICOPTER LANDING AREA

Nil

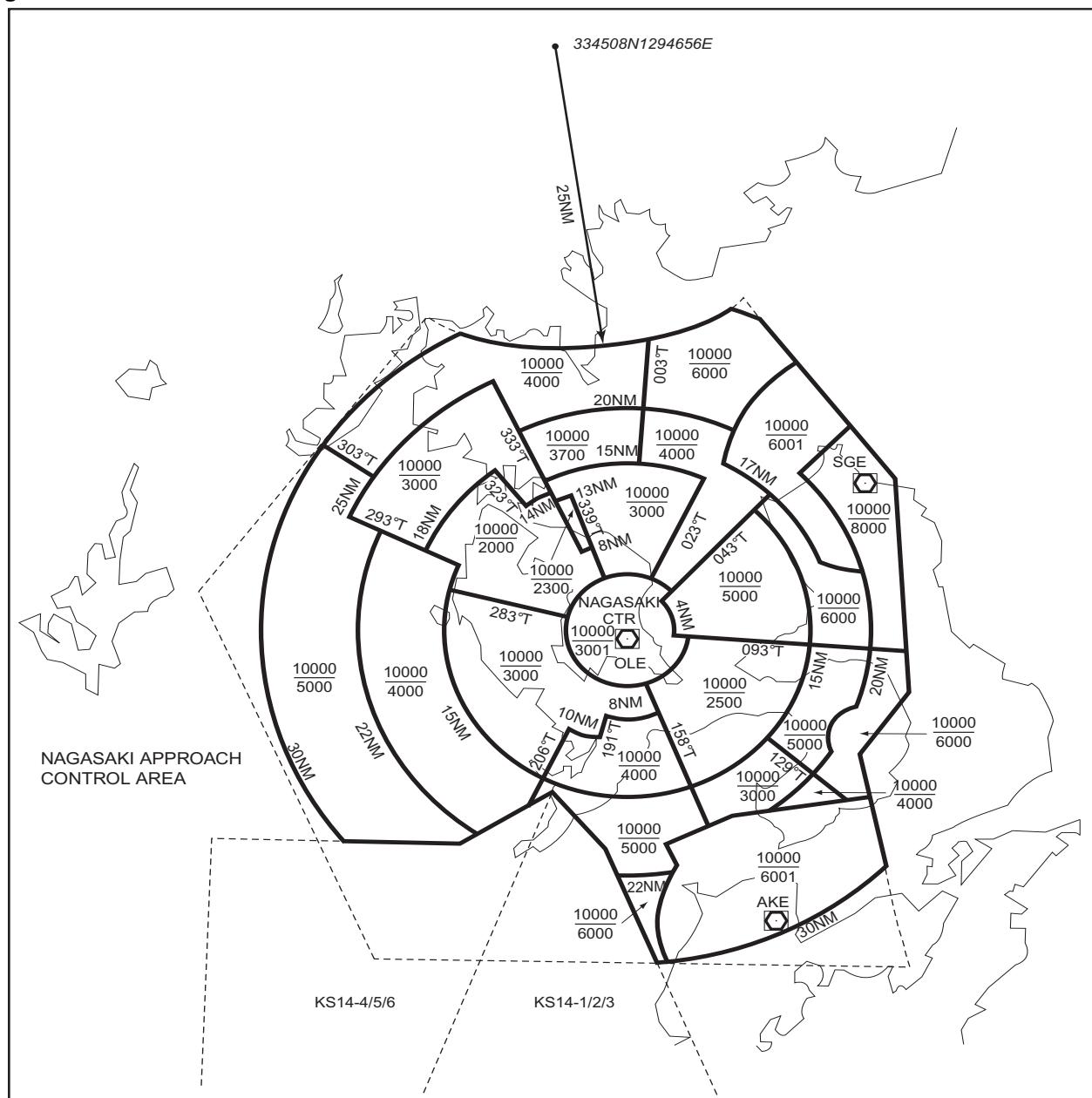
RJFU AD 2.17 ATS AIRSPACE

| Designation and lateral limits | | Vertical limits (ft) | Airspace classification | ATS unit call sign Language | Remarks |
|--------------------------------|----------------------------------------------------------------|----------------------|-------------------------|------------------------------------------------------|---------|
| | 1 | 2 | 3 | 4 | 6 |
| NAGASAKI CTR | Area within a radius of 5 nm of NAGASAKI ARP (325501N1295449E) | 3,000 or below | D | NAGASAKI TWR En | |
| NAGASAKI ACA | See attached chart | | E | NAGASAKI APP NAGASAKI RADAR NAGASAKI DEP En | |
| NAGASAKI TCA | See attached chart | | E | NAGASAKI TCA En | |

長崎進入管制区
Nagasaki Approach Control Area



長崎ターミナルコントロールエリア Nagasaki Terminal Control Area



RJFU AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---------------------|--------------------|----------------------------------------------------------------------------|--------------------|------------|
| 1 | 2 | 3 | 4 | 5 |
| APP | Nagasaki Approach | 119.175MHz(1) 261.2MHz 121.5MHz(E) 243.0MHz(E) | 2200 - 1300 | (1)Primary |
| ASR | Nagasaki Radar | 119.175MHz 121.025MHz 261.2MHz 121.5MHz(E) 243.0MHz(E) | 2200 - 1300 | |
| DEP | Nagasaki Departure | 121.0MHz 261.2MHz 121.5MHz(E) 243.0MHz(E) | 2200 - 1300 | |
| TCA | Nagasaki TCA | 121.175MHz 245.3MHz | 2300 - 1030 | |
| TWR | Nagasaki Tower | 118.5MHz 126.2MHz 122.7MHz 236.8MHz 121.5MHz(E) 243.0MHz(E) | 2200 - 1300 | |
| GND | Nagasaki Ground | 121.6MHz | 2200 - 1300 | |
| ATIS | NAGASAKI Airport | 126.85MHz | 2200 - 1300 | |

RJFU 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/2006) | OLE | 116.6MHz | H24 | 325418.89N/ 1295504.73E | | Unusable : 030°-045° beyond 25nm BLW 6,000ft 046°-085° beyond 20nm BLW 6,000ft 115°-125° beyond 30nm BLW 7,000ft 160°-170° beyond 30nm BLW 5,000ft 171°-230° beyond 20nm BLW 4,000ft 260°-300° beyond 25nm BLW 4,000ft |
| DME | OLE | 1200 MHz (CH-113X) | H24 | 325418.89N/ 1295504.73E | 154ft | |
| ILS-LOC 32 | IOL | 110.9MHz | 2200 - 1300 | 325542.95N/ 1295403.71E | | LOC : 235m(771ft) away FM RWY 14THR, BRG(MAG)325°. |
| ILS-GP 32 | - | 330.8MHz | 2200 - 1300 | 325430.22N/ 1295515.11E | | GP : 330m(1084ft) inside FM RWY 32 THR. 120m SW of RCL. HGT of ILS Ref datum 16.2m(53ft). GP Angle 3.0°. |
| ILS-DME 32 | IOL | 1007MHz (CH-46X) | 2200 - 1300 | 325429.87N/ 1295514.76E | 25ft | DME : 330m(1084ft) inside FM RWY 32 THR, 134m(439ft) SW of RCL. |
| MSAS | | 1575.42M Hz | H24 | | | Transmitting antennas are satellite based. |

ILS

REMARKS : 1. LOC beam BRG(MAG) 325°
2. HGT of ILS REF datum 16.2m (53ft)
3. GP Angle 3.0°
4. ELEV of ILS-DME 7.6m (25ft)

RJFU AD 2.20 LOCAL TRAFFIC REGULATIONS**1. Airport regulations**

Without prior permission of the airport administrator, the transient aircraft shall not use on this airport.

2. Taxiing to and from stands

Nil

3. Parking area for small aircraft(General aviation)

Unable to stay at spot NR 2B, C, D from sunset to sunrise. Ask AD administration for detail.

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 B74D holding at the stop marking on TWY T2 or T5

| Wing span (WS) of aircraft taxiing on TWY P1-P2 or P4-P5 | WS <= 19.4m | 19.4m < WS <= 36.4m | WS > 36.4m |
|----------------------------------------------------------|-------------|---------------------|------------|
| wing tip clearance | *A | *B | *C |

Legend

*A : wing tip clearance >= 15m

*B : 6.5m <= wing tip clearance < 15m

*C : wing tip clearance < 6.5m

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

On use of this airport by training operation, the operator is required to arrange and obtain the prior permission of the airport administrator.

8. Helicopter traffic - limitation

Nil

9. Removal of disabled aircraft from runways

Nil

RJFU AD 2.21 NOISE ABATEMENT PROCEDURES

Nil

RJFU 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 | - | 500m |
| | 32 | | 400m | 400m | 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 NAGASAKI Approach/Radar are lost for 30 seconds, squawk Mode A/3 Code 7600 and :

- (I) 1. Contact NAGASAKI Tower.
 2. If unable, proceed in accordance with Visual Flight Rules.
 3. If unable, proceed to NAGASAKI 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 required.

3. Trajectorized Airport Traffic Data Processing System (TAPS)

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

If an aircraft with non-discrete capability be instructed to reply with the discrete code, it shall report a controller accordingly.

長崎アプローチの指示のもとに、当該進入管制区を飛行する航空機は、モード A/3 の二次レーダー個別コード及びモード C による応答を指示される。

二次レーダー個別コードを搭載していない航空機が当該コードによる応答を指示された場合は、管制官に対しその旨通報すること。

RJFU AD 2.23 ADDITIONAL INFORMATION

Nil

RJFU AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome/Heliport Chart
Aerodrome Obstacle Chart -ICAO type A (RWY 14/32)
Aerodrome Obstacle Chart -ICAO type B
Standard Departure Chart - Instrument (NORTH)
Standard Departure Chart - Instrument (WEST)
Standard Departure Chart - Instrument (SOUTH)
Standard Departure Chart - Instrument (NAGASAKI REVERSAL)

Standard Departure Chart - Instrument (CHIKUGO-RNAV)
Standard Arrival Chart - Instrument (RNAV)
Instrument Approach Chart (ILS Z or LOC Z RWY 32)
Instrument Approach Chart (ILS Y or LOC Y RWY 32)
Instrument Approach Chart (RNAV(GNSS) RWY 14)
Instrument Approach Chart (VOR RWY 32)
Instrument Approach Chart (VOR RWY 14)
Other Chart (Visual REP)
Other Chart (LDG CHART)
Other Chart (HOLDING PATTERN)
Other Chart (MVA CHART)

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DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC



AERODROME OBSTACLE CHART-ICAO TYPE B

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC



STANDARD DEPARTURE CHART -INSTRUMENT

RJFU / NAGASAKI

SID

NORTH NINE DEPARTURE

RWY 14: Climb RWY HDG to 500FT, climb via OLE R143 to 1800FT,
turn right HDG001° to intercept and proceed via OLE R331 to PEARL,...

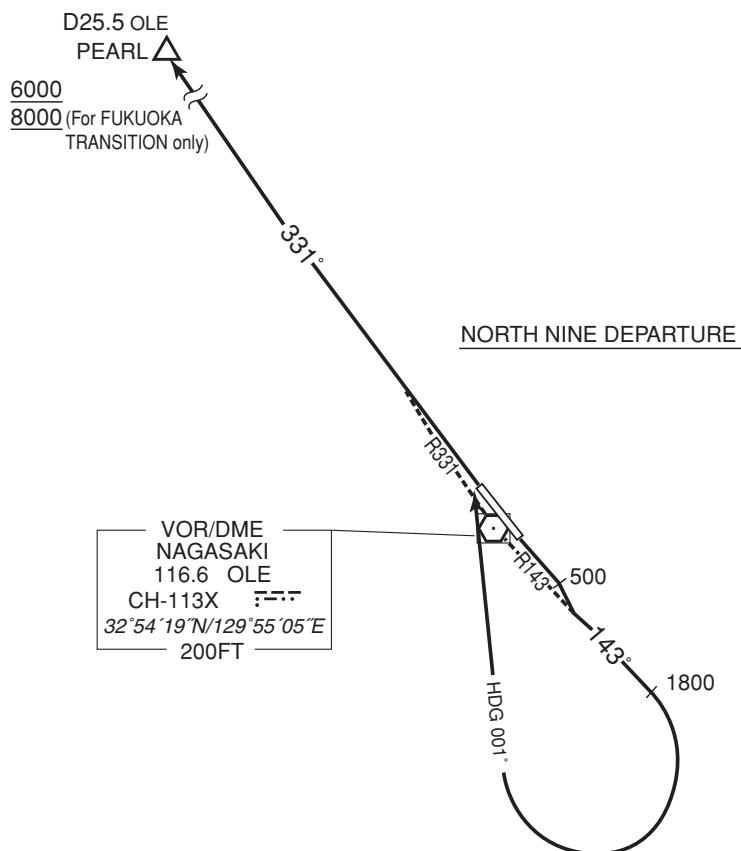
RWY 32: Climb via OLE R331 to PEARL,...

... Cross PEARL at or above 6000FT(*).

* For FUKUOKA TRANSITION : Cross PEARL at or above 8000FT.

Note RWY 14: 5.0% climb gradient required up to 1800FT.
OBST ALT 854FT located at 3.40NM 170° FM end of RWY14.

CHANGE : SID renamed



STANDARD DEPARTURE CHART -INSTRUMENT

RJFU / NAGASAKI

TRANSITION

FUKUOKA TRANSITION

From over PEARL, via DGC R244 to DGC VORTAC.

Note : Not applicable for aircraft equipped with TACAN only.

IKI TRANSITION

From over PEARL, via IKE R202 to IKE VOR/DME.



STANDARD DEPARTURE CHART -INSTRUMENT

RJFU / NAGASAKI

SID

WEST SIX DEPARTURE

RWY 14: Climb RWY HDG to 500FT, climb via OLE R143 to 1800FT, turn right HDG291° to intercept and proceed via OLE R246...

RWY 32: Climb RWY HDG 1500FT, turn left HDG201° to intercept and proceed via OLE R246...

... to SUMOU.

Cross SUMOU at or above 4000FT.

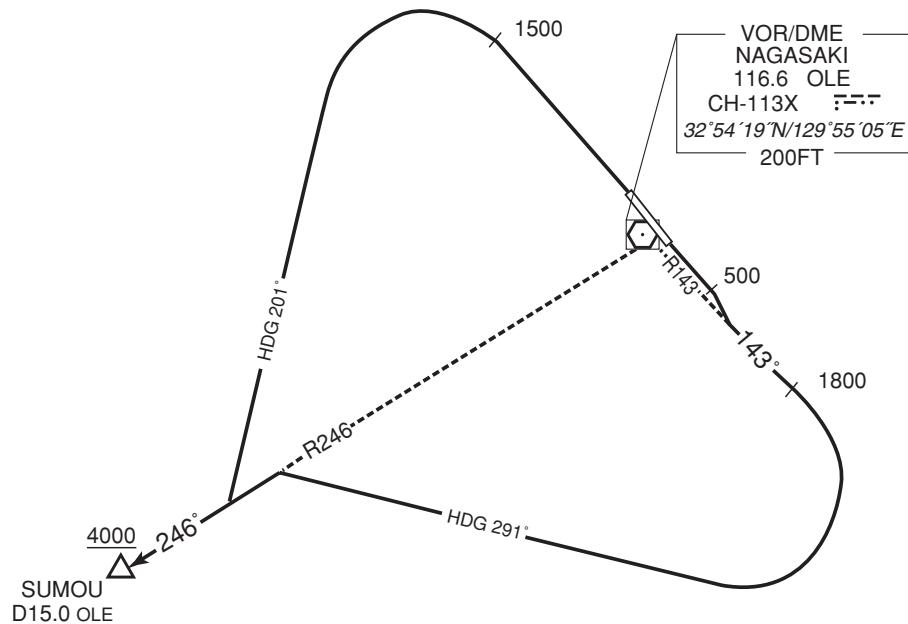
Note RWY 14: 5.0% climb gradient required up to 1800FT.

OBST ALT 854FT located at 3.40NM 170° FM end of RWY14.

RWY 32: 5.0% climb gradient required up to 1500FT.

OBST ALT 1969FT located at 8.01NM 271° FM end of RWY32.

WEST SIX DEPARTURE



STANDARD DEPARTURE CHART -INSTRUMENT

RJFU / NAGASAKI

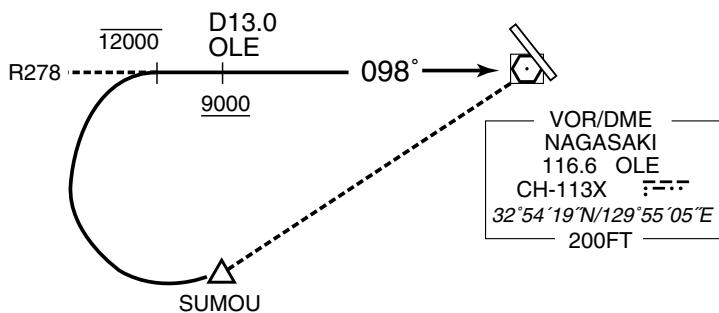
TRANSITION

OMURA TRANSITION

From over SUMOU, turn right to intercept and proceed via OLE R278 to OLE VOR/DME.

Maintain 12000FT or below until intercepting OLE R278.

Cross OLE R278/13.0DME at or above 9000FT.

OMURA TRANSITIONCARCO TRANSITION

From over SUMOU, turn right HDG 307° to intercept and proceed via OLE R262 /FUE R082 to CARCO.

Maintain 12000FT or below until intercepting OLE R262.

CARCO TRANSITION

STANDARD DEPARTURE CHART -INSTRUMENT

RJFU / NAGASAKI

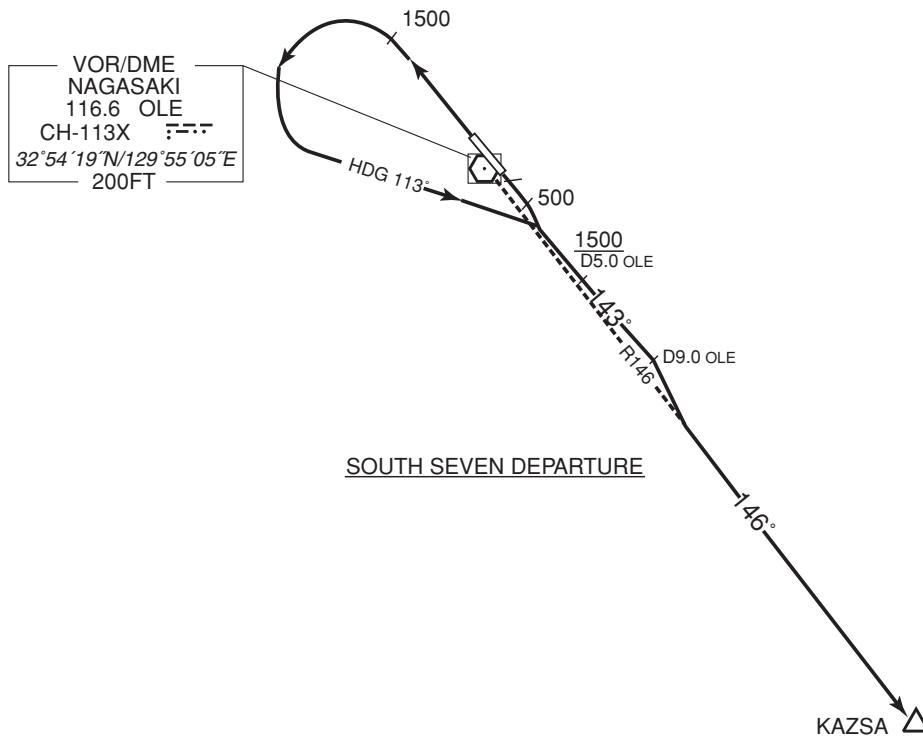
SID

SOUTH SEVEN DEPARTURE

RWY 14: Climb RWY HDG to 500FT, climb via OLE R143 to 9.0DME, turn right to intercept and proceed via OLE R146 to KAZSA. Cross OLE R143/5.0DME at or above 1500FT.

RWY 32: Climb RWY HDG to 1500FT, turn left HDG113° to intercept and proceed via OLE R143 to 9.0DME, turn right to intercept and proceed via OLE R146 to KAZSA.

Note RWY 14: 5.0% climb gradient required up to 1500FT.
 OBST ALT 854FT located at 3.40NM 170° FM end of RWY14.
RWY 32: 5.0% climb gradient required up to 1500FT.
 OBST ALT 1969FT located at 8.01NM 271° FM end of RWY32.



STANDARD DEPARTURE CHART -INSTRUMENT

RJFU / NAGASAKI

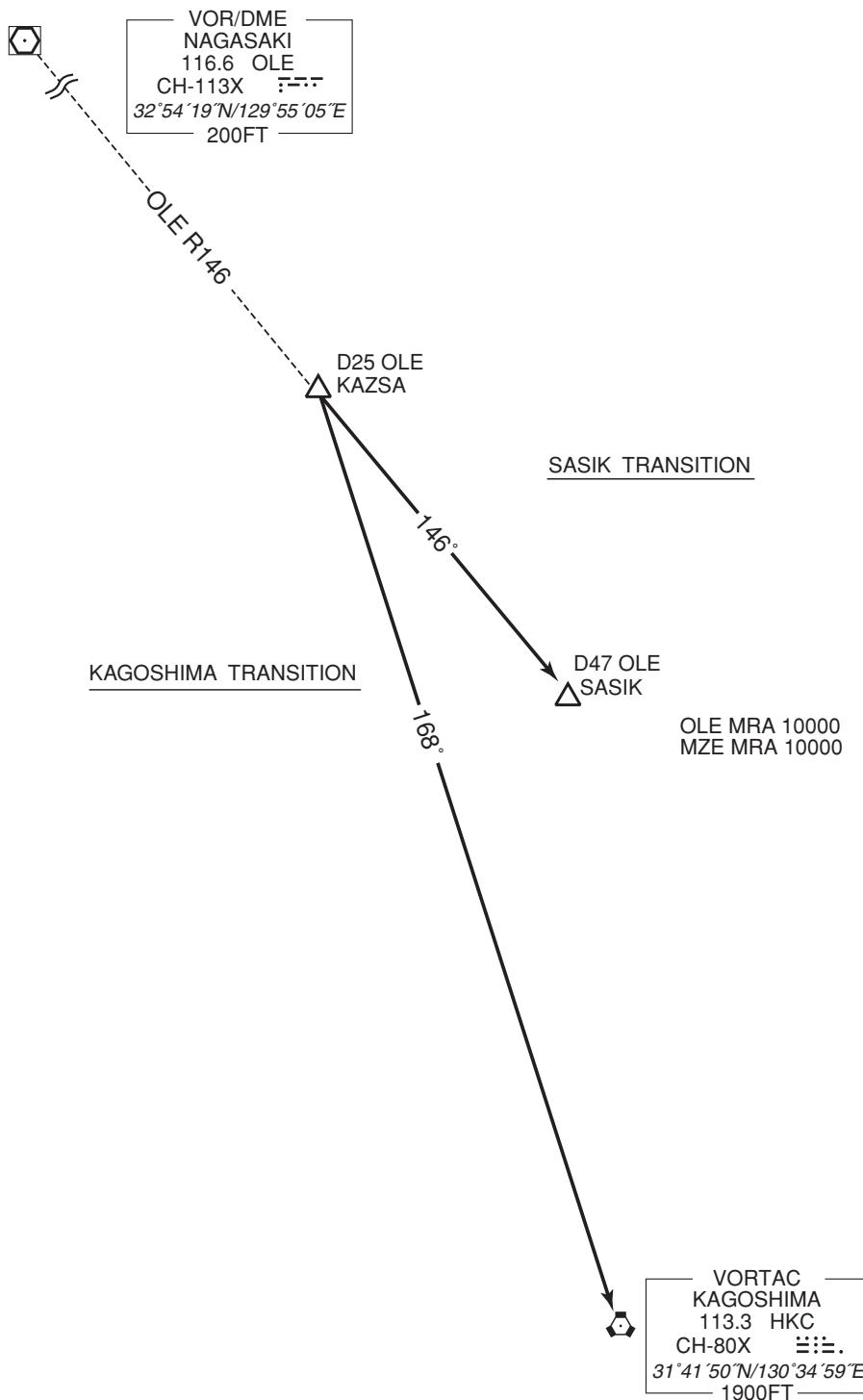
TRANSITION

SASIK TRANSITION

From over KAZSA, via OLE R146 to SASIK.

KAGOSHIMA TRANSITION

From over KAZSA, via HKC R348 to HKC VORTAC.



STANDARD DEPARTURE CHART -INSTRUMENT

RJFU / NAGASAKI

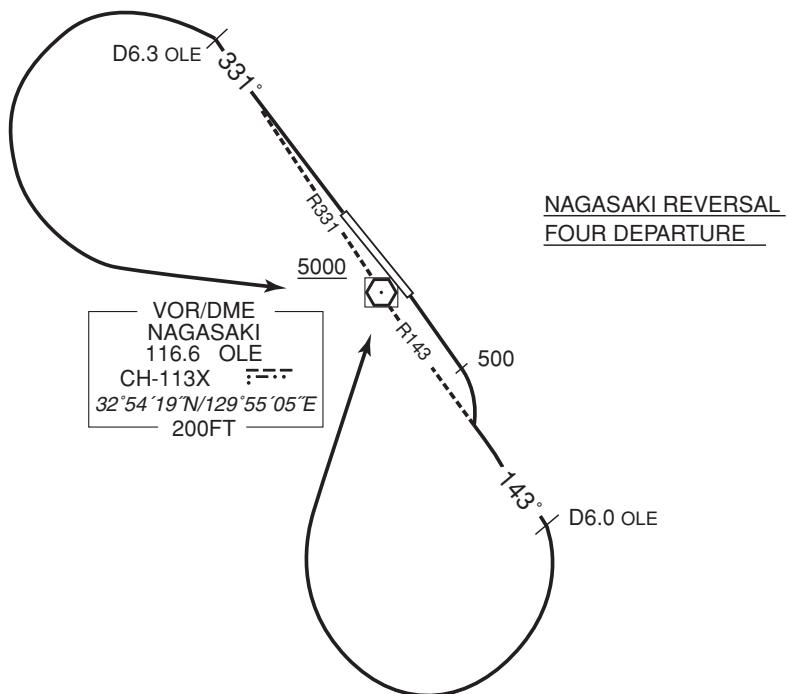
SID

NAGASAKI REVERSAL FOUR DEPARTURE

RWY 14: Climb RWY HDG to 500FT, climb via OLE R143 to 6.0DME, turn right, direct to OLE VOR/DME.
Cross OLE VOR/DME at or above 5000FT.

RWY 32: Climb via OLE R331 to 6.3DME, turn left, direct to OLE VOR/DME.
Cross OLE VOR/DME at or above 5000FT.

Note RWY 14: 5.0% climb gradient required up to 1800FT.
OBST ALT 1575FT located at 7.69NM 164° FM end of RWY14.
RWY 32: 5.0% climb gradient required up to 1600FT.
OBST ALT 1969FT located at 8.01NM 271° FM end of RWY32.



STANDARD DEPARTURE CHART -INSTRUMENT

RJFU / NAGASAKI

RNAV SID

CHIKUGO FOUR DEPARTURE

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 roll.

2) RADAR service required.

Critical DME

RWY14
SGE: 13.0NM to FU401 - FU401

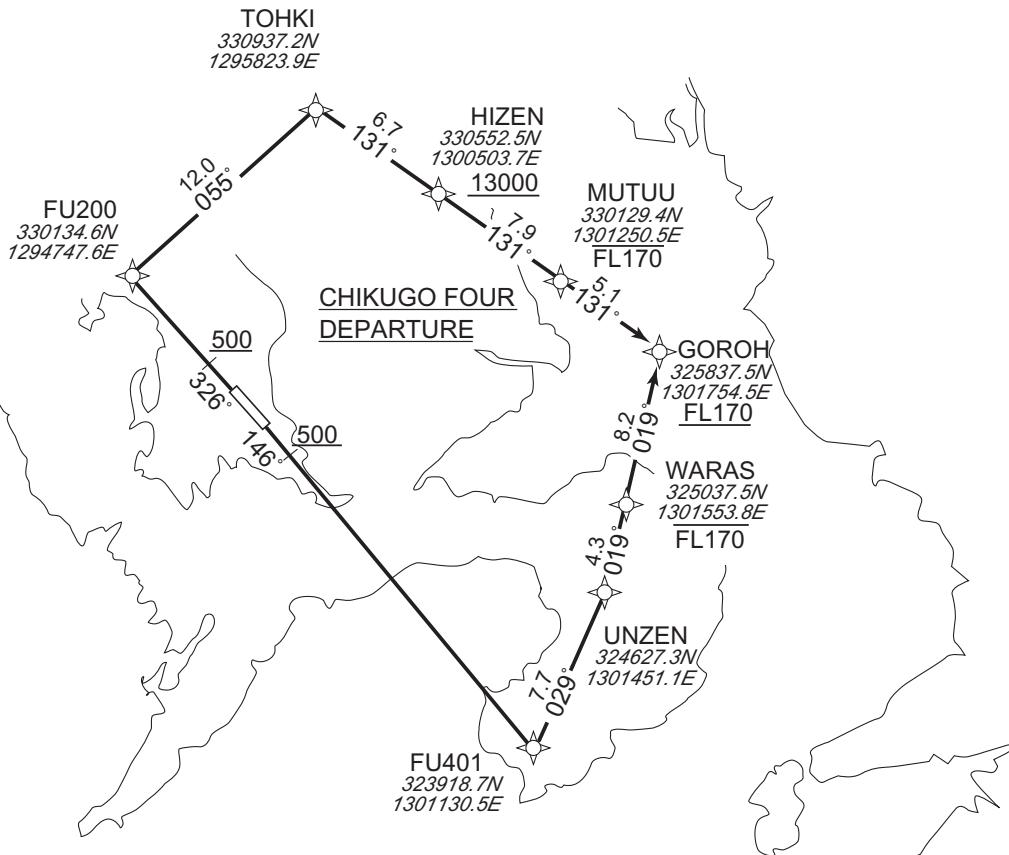
DME GAP

RWY14
RWY14 DER - 13.0NM to FU401
RWY32
RWY32 DER - 4.0NM to FU200

Inappropriate Navaids

See AD1.1.6.10.3. Inappropriate NAV/AIDs for RNAV1

VAR 7° W(2020)

CHIKUGO FOUR DEPARTURE

RWY14 : Climb on HDG146° at or above 500FT, direct to FU401, to UNZEN, to WARAS at or below FL170, to GOROH at or above FL170.

RWY32 : Climb on HDG326° at or above 500FT, direct to FU200, to TOHKI, to HIZEN at or above 13000FT, to MUTUU at or below FL170, to GOROH at or above FL170.

NOTE RWY14 : 5.0% climb gradient required up to 4700FT.

OBST ALT 4954FT located at 20.8NM 122° FM end of RWY14.

RWY32 : 5.0% climb gradient required up to 500FT.

OBST ALT 2067FT located at 9.8NM 013° FM end of RWY32.

CHANGE : PROC.

STANDARD DEPARTURE CHART -INSTRUMENT

RJFU / NAGASAKI

RNAV SID

CHIKUGO FOUR 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 | — | — | 146 (138.1) | -7.5 | — | — | +500 | — | — | RNAV1 |
| 002 | DF | FU401 | — | — | -7.5 | — | — | — | — | — | RNAV1 |
| 003 | TF | UNZEN | — | 029 (021.5) | -7.5 | 7.7 | — | — | — | — | RNAV1 |
| 004 | TF | WARAS | — | 019 (011.9) | -7.5 | 4.3 | — | -FL170 | — | — | RNAV1 |
| 005 | TF | GOROH | — | 019 (011.9) | -7.5 | 8.2 | — | +FL170 | — | — | RNAV1 |

RWY32

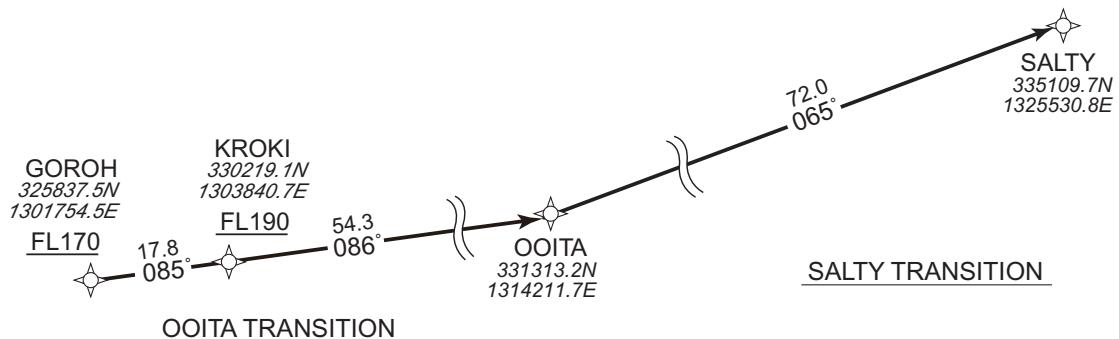
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | VA | — | — | 326 (318.1) | -7.5 | — | — | +500 | — | — | RNAV1 |
| 002 | DF | FU200 | — | — | -7.5 | — | — | — | — | — | RNAV1 |
| 003 | TF | TOHKI | — | 055 (047.8) | -7.5 | 12.0 | — | — | — | — | RNAV1 |
| 004 | TF | HIZEN | — | 131 (123.8) | -7.5 | 6.7 | — | +13000 | — | — | RNAV1 |
| 005 | TF | MUTUU | — | 131 (123.9) | -7.5 | 7.9 | — | -FL170 | — | — | RNAV1 |
| 006 | TF | GOROH | — | 131 (124.0) | -7.5 | 5.1 | — | +FL170 | — | — | RNAV1 |

CHANGE : PROC.

STANDARD DEPARTURE CHART -INSTRUMENT

| RJFU / NAGASAKI | RNAV TRANSITION |
|-----------------------------------------------------------------------|-------------------------------------------------------------------------|
| SALTY TRANSITION / OOITA TRANSITION | |
| Note 1) DME/DME/IRU or GNSS required. 2) RADAR service required. | Critical DME |
| | DME GAP |
| | Inappropriate Navaids See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1 |

VAR 7° W(2020)

SALTY TRANSITION

From GOROH at or above FL170, to KROKI at or above FL190, to OOITA, to SALTY.

| 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 | GOROH | — | — | -7.5 | — | — | +FL170 | — | — | RNAV1 |
| 002 | TF | KROKI | — | 085 (077.9) | -7.5 | 17.8 | — | +FL190 | — | — | RNAV1 |
| 003 | TF | OOITA | — | 086 (078.1) | -7.5 | 54.3 | — | — | — | — | RNAV1 |
| 004 | TF | SALTY | — | 065 (057.8) | -7.5 | 72.0 | — | — | — | — | RNAV1 |

OOITA TRANSITION

From GOROH at or above FL170, to KROKI at or above FL190, to OOITA.

| 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 | GOROH | — | — | -7.5 | — | — | +FL170 | — | — | RNAV1 |
| 002 | TF | KROKI | — | 085 (077.9) | -7.5 | 17.8 | — | +FL190 | — | — | RNAV1 |
| 003 | TF | OOITA | — | 086 (078.1) | -7.5 | 54.3 | — | — | — | — | RNAV1 |

CHANGE : PROC.

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

RJFU / NAGASAKI

RNAV STAR

SARUKU ARRIVAL

From OHGIE at or above 11000FT, to GLOVR at or above 7000FT, to OTAXA at or above 4000FT, to SARUK at or above 3700FT.

| | | | |
|-----------------------|---------------------------------------------------|--|--|
| Critical DME | - | | |
| DME GAP | - | | |
| Inappropriate Navaids | See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1 | | |

| 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 | OHGIE | - | - | -7.4 | - | - | +11000 | - | - | RNAV1 |
| 002 | TF | GLOVR | - | 237 (229.3) | -7.4 | 9.2 | - | +7000 | - | - | RNAV1 |
| 003 | TF | OTAXA | - | 237 (229.2) | -7.4 | 6.1 | - | +4000 | - | - | RNAV1 |
| 004 | TF | SARUK | - | 237 (229.2) | -7.4 | 6.2 | - | +3700 | - | - | RNAV1 |

FUBUKI ARRIVAL

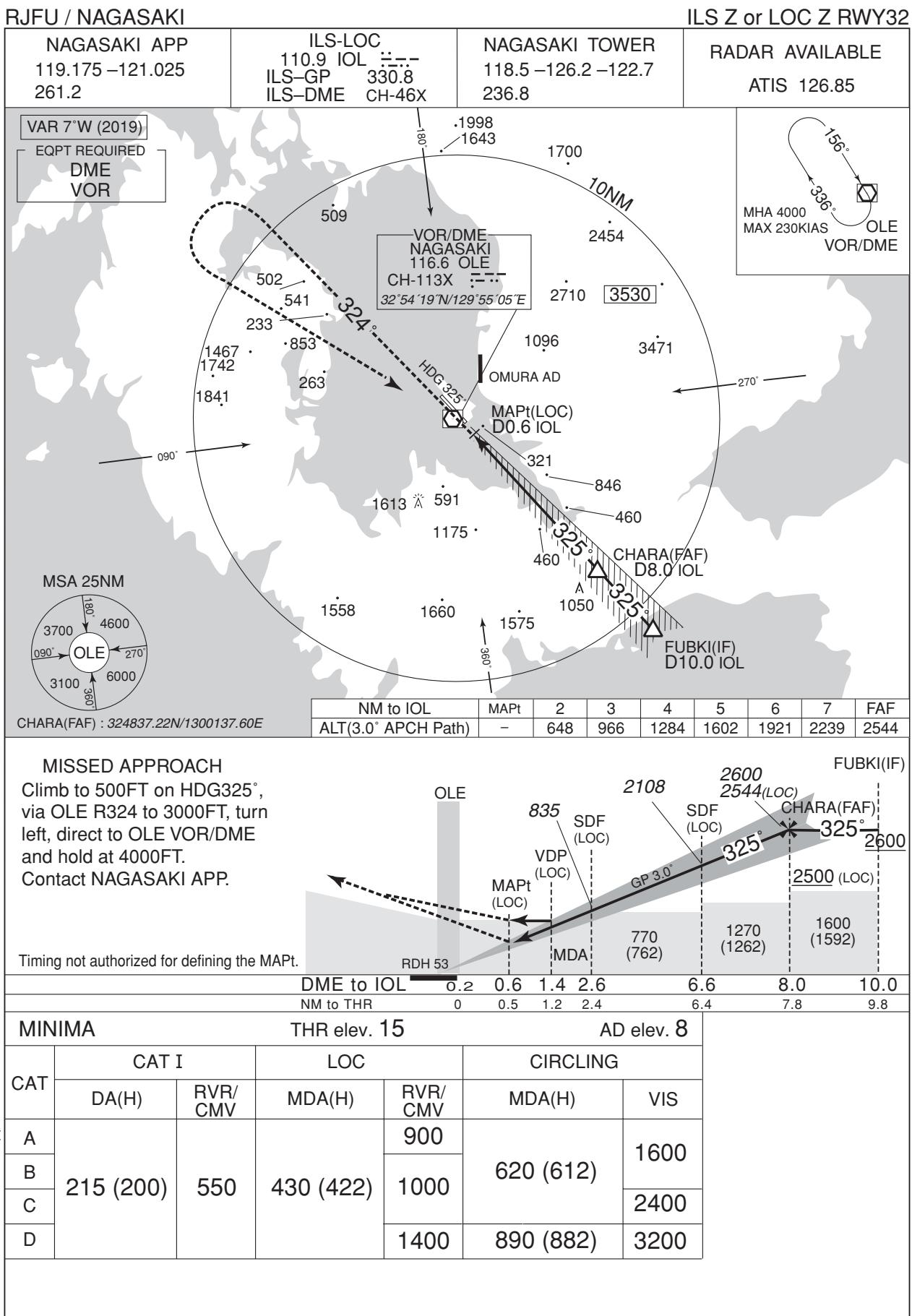
From OHGIE at or above 11000FT, to PADDY, to TARAH at or above 7000FT, to TAKAK at or above 5000FT, to OBAMA, to AINOH, to FUBKI at or above 2600FT.

| | | |
|-----------------------|---------------------------------------------------|---------------|
| Critical DME | OLE | OBAMA - FUBKI |
| | SGE | OBAMA - FUBKI |
| DME GAP | - | |
| Inappropriate Navaids | See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1 | |

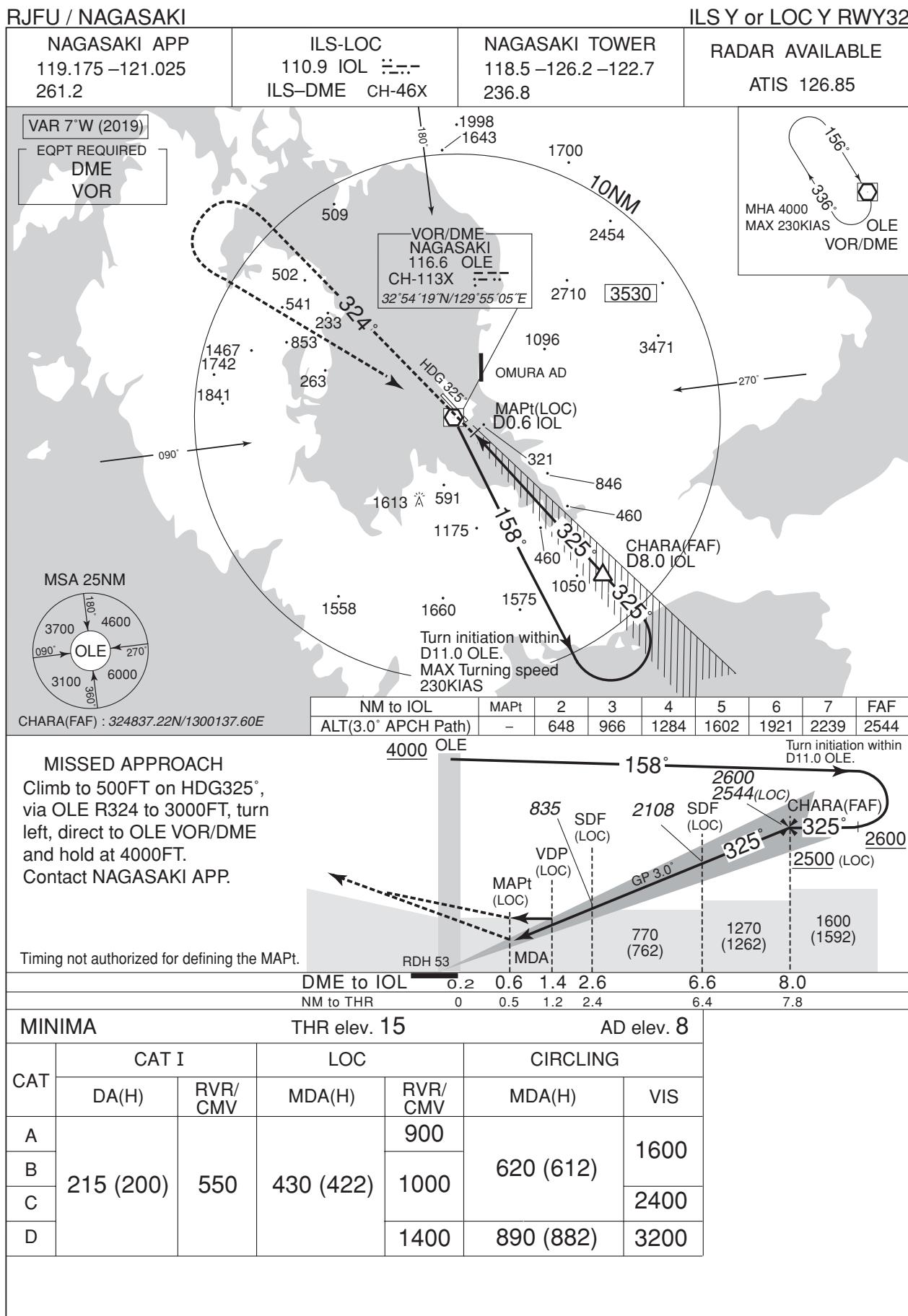
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | IF | OHGIE | - | - | -7.4 | - | - | +11000 | - | - | RNAV1 |
| 002 | TF | PADDY | - | 190 (183.1) | -7.4 | 6.8 | - | - | - | - | RNAV1 |
| 003 | TF | TARAH | - | 190 (183.1) | -7.4 | 10.9 | - | +7000 | - | - | RNAV1 |
| 004 | TF | TAKAK | - | 190 (183.0) | -7.4 | 8.0 | - | +5000 | - | - | RNAV1 |
| 005 | TF | OBAMA | - | 190 (183.0) | -7.4 | 6.1 | - | - | -230 | - | RNAV1 |
| 006 | TF | AINOH | - | 235 (228.0) | -7.4 | 2.7 | - | - | -210 | - | RNAV1 |
| 007 | TF | FUBKI | - | 296 (288.2) | -7.4 | 2.7 | - | +2600 | - | - | RNAV1 |

| 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 | TAKAK | 190 (183.0) | -7.4 | 1.0(-14000) 1.5(+14001) | R | 5000 | - | -210(-14000) -240(+14001) | RNAV1 |

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJFU / NAGASAKI

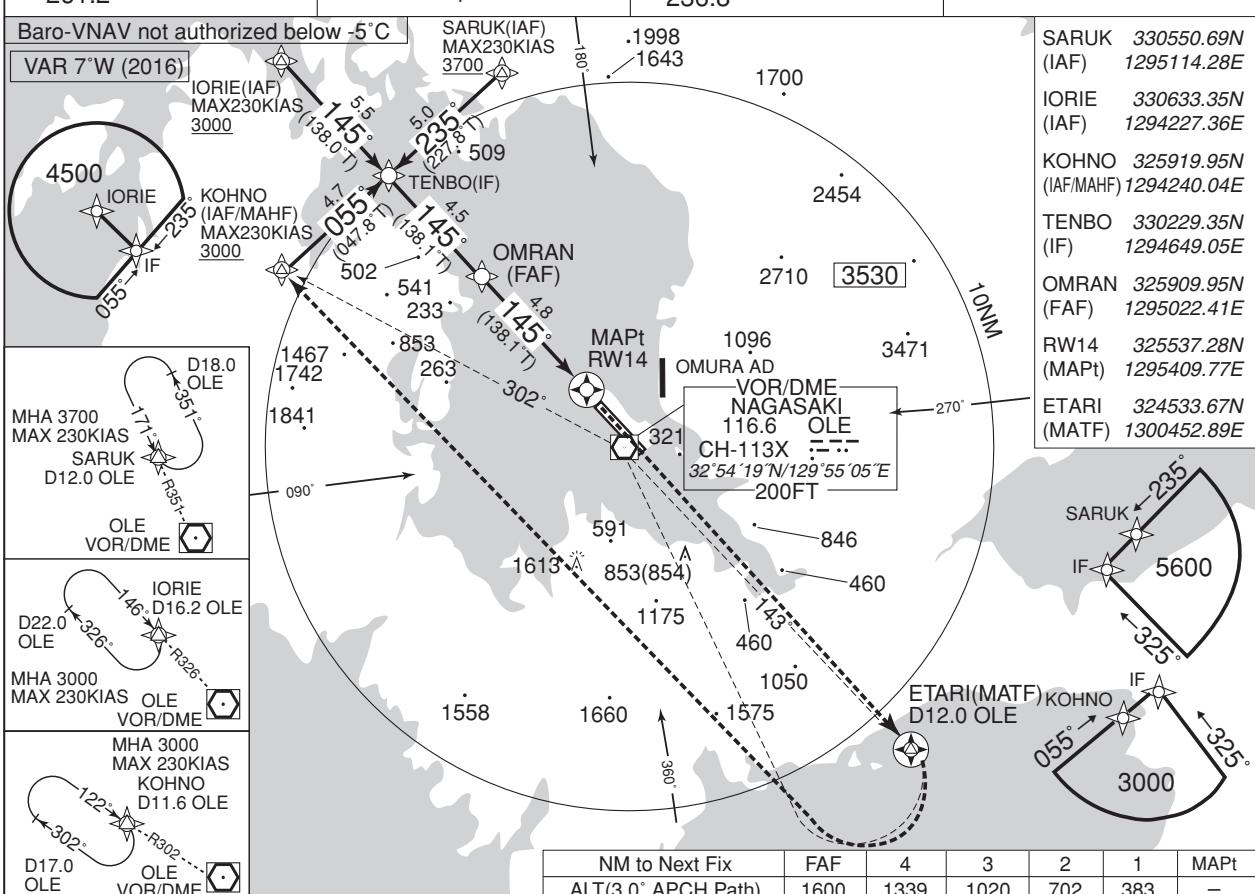
NAGASAKI APP
119.175 -121.025
261 2

1. DME/DME not authorized
 2. RADAR service required.
 3. GNSS required.

NAGASAKI TOWER
118.5 -126.2 -122.7
236.8

RNAV(GNSS) RWY14

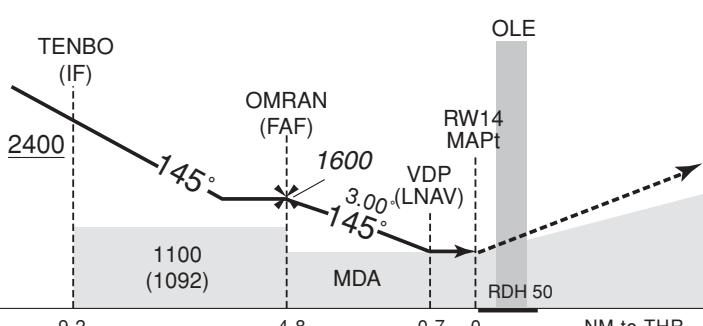
AT&T 100-65



MISSED APPROACH

Direct to ETARI, turn right direct to KOHNO and hold at 3000FT.
Contact NAGASAKI APP.

(For using VOR/DME)
Climb via OLE R143 to ETARI, turn right, direct to OLE VOR/DNE, via OLE R302 to KOHNO and hold at 3000FT.
Contact NAGASAKI APP.



Missed APCH climb gradient MNM 3.0%

| MINIMA | | THR elev. 14 | | AD elev. 8 | | |
|--------|-----------|--------------|-----------|------------|-----------|------|
| CAT | LNAV/VNAV | | LNAV | | CIRCLING | |
| | DA(H) | CMV | MDA(H) | CMV | MDA(H) | VIS |
| A | 290 (276) | 1000 | 290 (282) | 1000 | 620 (612) | 1600 |
| B | | 1100 | | 1100 | | 2400 |
| C | | 1200 | | 1200 | | 3200 |
| D | | 1400 | | 1400 | 890(882) | |

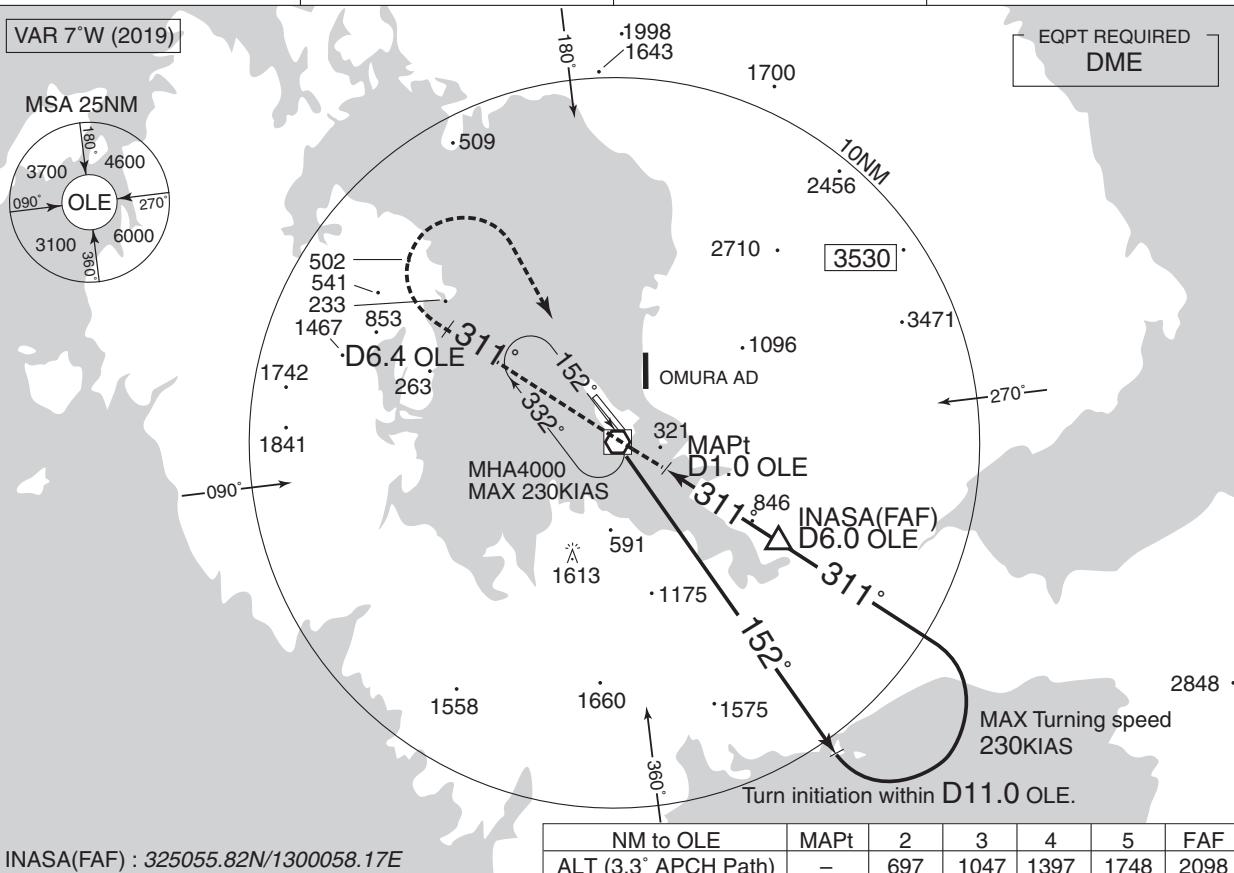
MINIMA with Missed APCH climb gradient 2.5% are not established.

INSTRUMENT APPROACH CHART

RJFU / NAGASAKI

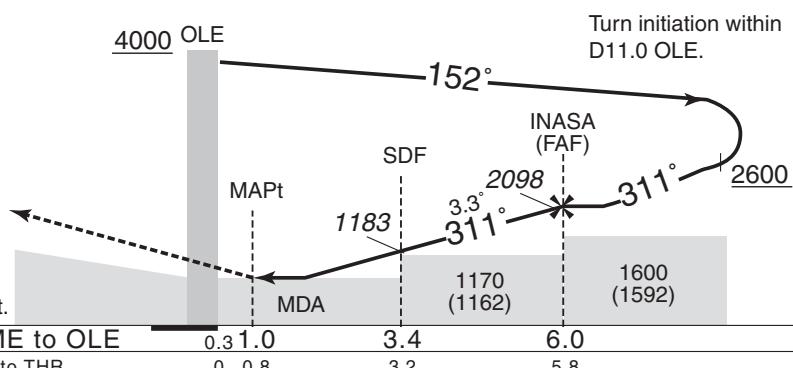
VOR RWY32

| | | | |
|--------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------|--------------------------------|
| NAGASAKI APP 119.175 - 121.025 261.2 | NAGASAKI VOR/DME 116.6 OLE :--- CH-113X 32°54'19"N/129°55'05"E | NAGASAKI TOWER 118.5 - 126.2 - 122.7 236.8 | RADAR AVAILABLE ATIS 126.85 |
|--------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------|--------------------------------|



MISSSED APPROACH

Climb to 4000FT via OLE
R311 to OLE 6.4DME,
turn right direct to OLE
VOR/DME and hold.
Contact NAGASAKI APP



| MINIMA | | THR elev. 15 | | AD elev. 8 |
|--------|-----------|--------------|-----------|------------|
| CAT | | | CIRCLING | |
| | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 570 (562) | 1000 | 620 (612) | 1600 |
| B | | 1200 | | 2400 |
| C | | 1600 | 890 (882) | 3200 |
| D | | | | |

CHANGE : VAR, INASA(FAF) established, Editorial

INSTRUMENT APPROACH CHART



INTENTIONALLY LEFT BLANK



| Call sign | BRG / DIST from ARP | Remarks |
|-----------------|---------------------|----------------------------------|
| 彼杵 Sonogi | 005°/ 7.5NM | JR駅 JR Station |
| 長田 Nagata | 118°/ 9.4NM | 不知火橋 Bridge |
| 鈴田 Suzuta | 120°/ 4.3NM | 九州自動車道と国道34号線の交点 Intersection |
| 時津 Tokitsu | 219°/ 6.0NM | 時津港 Harbor |
| 堂崎 Dozaki | 227°/ 2.7NM | 堂崎鼻 A point of land |
| 三重 Mie | 240°/11.0NM | 三重崎 A point of land |
| 鷹島 Takashima | 251°/ 5.4NM | 鷹島 Island |
| 二島 Futashima | 252°/ 3.2NM | 二島 Island |
| 西彼 Seihi | 307°/ 9.2NM | オランダ村 Windmill |
| 川棚 Kawatana | 350°/ 9.3NM | JR駅 JR Station |

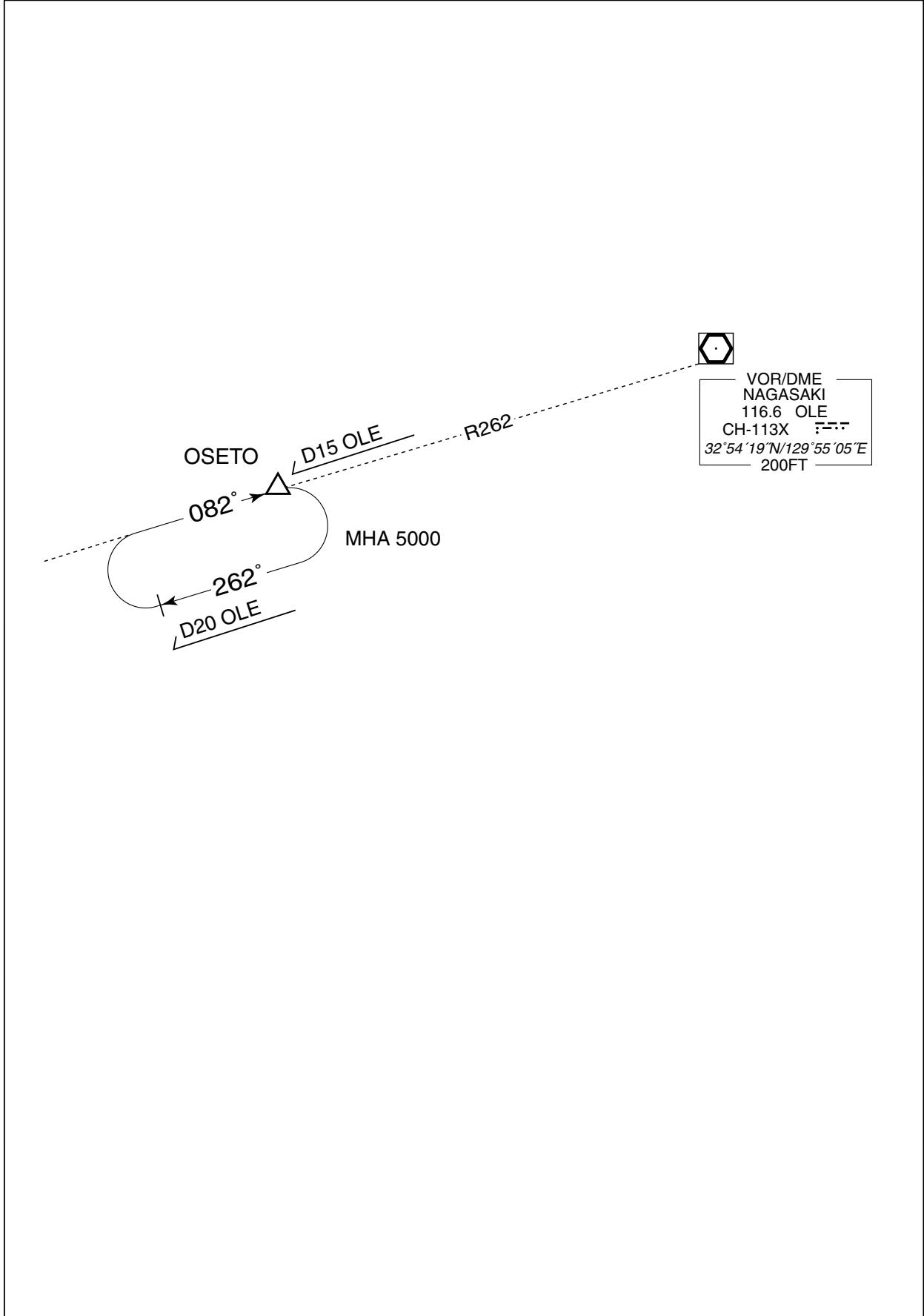
RJFU / NAGASAKI

LDG CHART



RJFU / NAGASAKI

HOLDING PATTERN



RJFU / NAGASAKI

Minimum Vectoring Altitude CHART

VAR 7°W (2011)



CENTER : 325458N/1295428E (RADAR SITE)

* : 324540N/1301756E RADIUS : 3NM