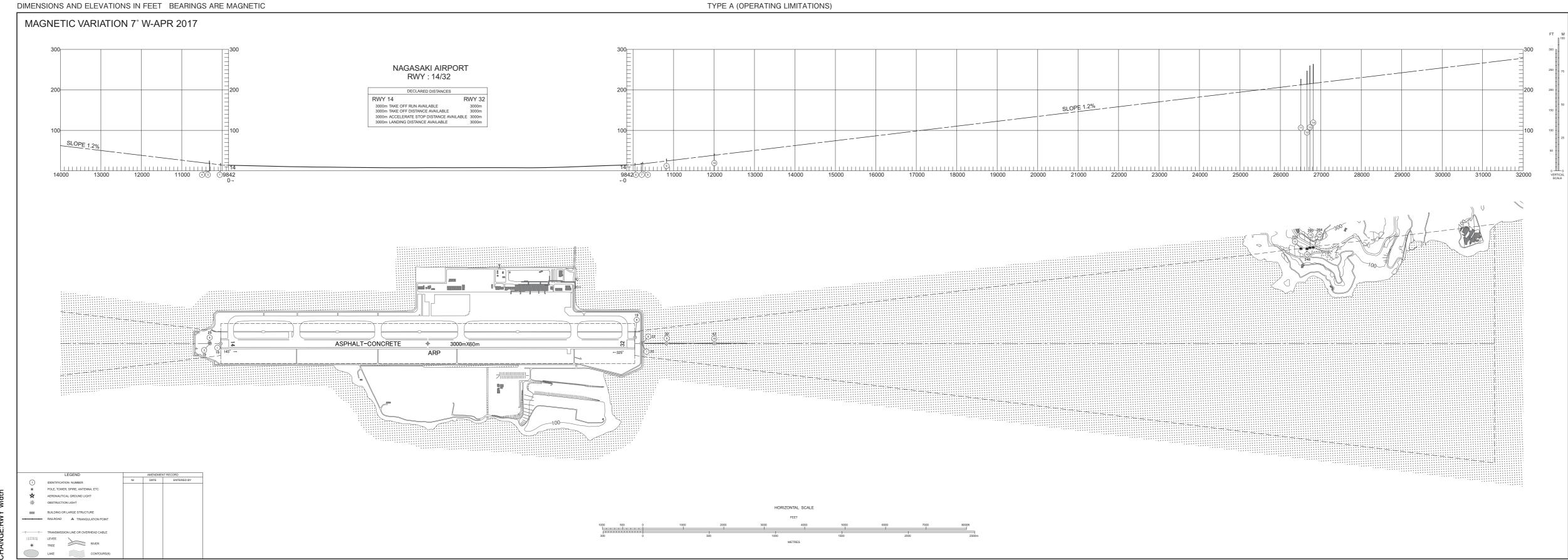
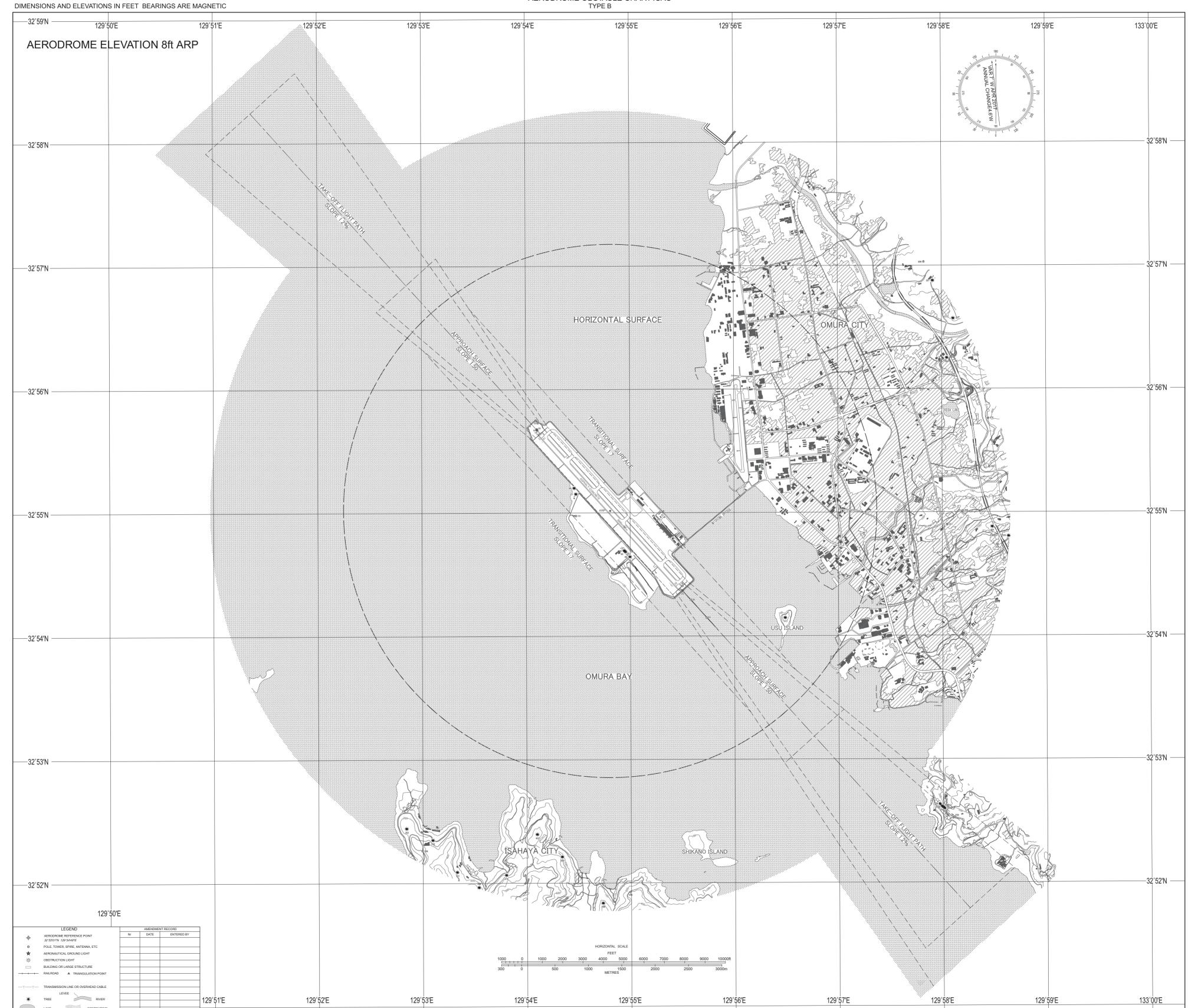




# AERODROME OBSTACLE CHART-ICAO TYPE A (OPERATING LIMITATIONS)





RJFU / NAGASAKI SID

# NORTH ONE DEPARTURE

RWY 14: Climb RWY HDG to 500FT, via OLE R144 to 6.0 DME, turn right HDG324° until crossing OLE R258, turn right HDG016° to intercept and proceed via OLE R331 to PEARL....

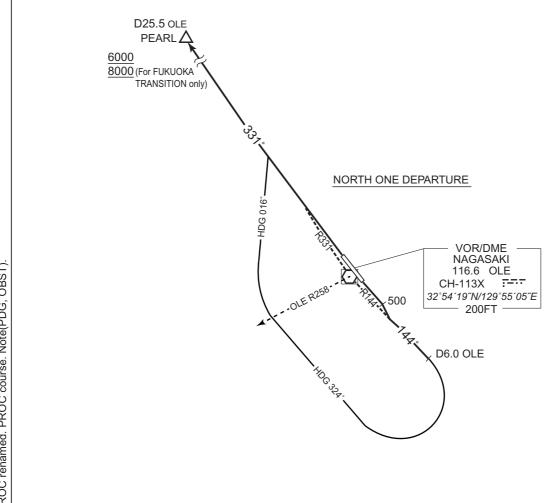
RWY 32: Climb via OLE R331 to PEARL....

... 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 1200FT.

OBST ALT 1411FT located at 6.9NM 158° FM end of RWY14. OBST ALT 1575FT located at 7.7NM 165° FM end of RWY14.



RJFU / NAGASAKI TRANSITION

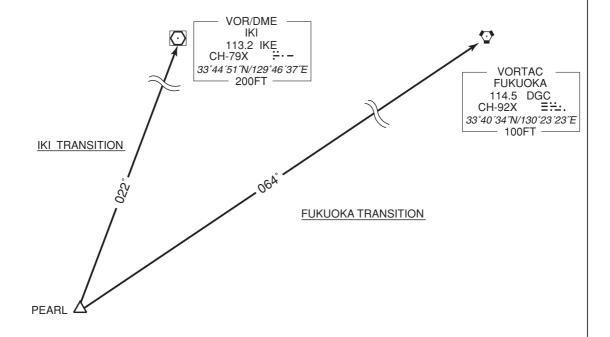
# **FUKUOKA TRANSITION**

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.



RJFU / NAGASAKI SID

# WEST SEVEN DEPARTURE

RWY 14: Climb RWY HDG to 500FT, climb via OLE R144 to 1800FT, turn right HDG292° to intercept and proceed via OLE R247...

RWY 32: Climb RWY HDG 1500FT, turn left HDG202° to intercept and proceed via OLE R247...

... to SUMOU.

Cross SUMOU at or above 4000FT.

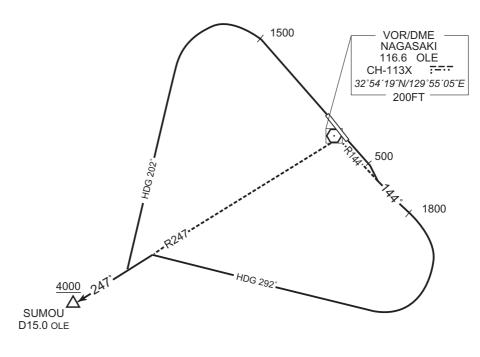
Note RWY 14: 5.0% climb gradient required up to 1800FT.

OBST ALT 854FT located at 3.4NM 170° FM end of RWY14.

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

OBST ALT 1969FT located at 8.0NM 272° FM end of RWY32.

### WEST SEVEN DEPARTURE



RJFU / NAGASAKI TRANSITION

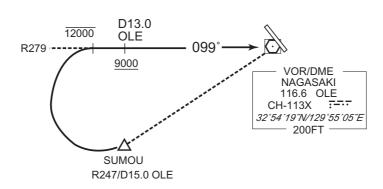
# OMURA TRANSITION

From over SUMOU, turn right to intercept and proceed via OLE R279 to OLE VOR/DME.

Maintain 12000FT or below until intercepting OLE R279.

Cross OLE R279/13.0DME at or above 9000FT.

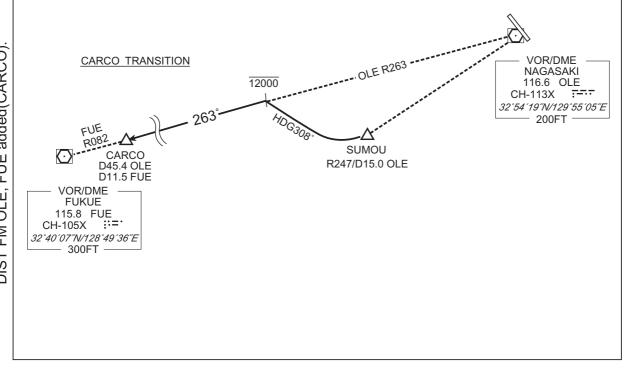
### OMURA TRANSITION



# CARCO TRANSITION

From over SUMOU, turn right HDG308° to intercept and proceed via OLE R263 /FUE R082 to CARCO.

Maintain 12000FT or below until intercepting OLE R263.



RJFU / NAGASAKI SID

# NAGASAKI REVERSAL FIVE DEPARTURE

RWY 14: Climb RWY HDG to 500FT, climb via OLE R144 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.

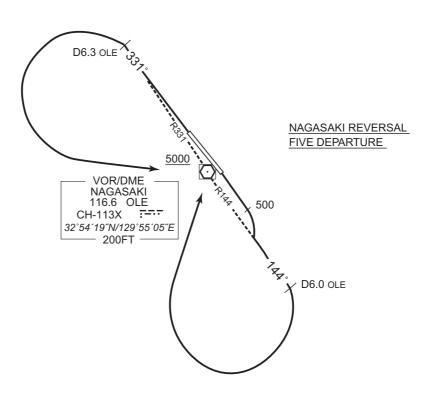
Cross OLE VOR/DME at or above 5000FT.

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

OBST ALT 1575FT located at 7.7NM 165° FM end of RWY14.

RWY 32: 5.0% climb gradient required up to 1600FT.

OBST ALT 1969FT located at 8.0NM 272° FM end of RWY32.



**RNAV SID** RJFU / NAGASAKI CHIKUGO FIVE DEPARTURE Basic RNP1 Note GNSS required. VAR 8° W(2021) **TOHKI** 330937.2N 1295823.9E HIZEN 330552.5N 1300503.7E 12.000 13000 **MUTUU** FU200 330129.4N 330134.6N 1294747.6E CHIKUGO FIVE **DEPARTURE** <u>500</u> -GOROH 325837.5N 1301754.5E FL170 CHANGE: VAR. PROC renamed. Navigation specification. Course FM MUTUU to GOROH ω. WARAS 325037.5N 13<u>01553.8</u>E FL170 **UNZEN** 1301451.1E FU401 323918.7N 1301130.5E

### CHIKUGO FIVE 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.

RJFU / NAGASAKI RNAV SID

# CHIKUGO FIVE DEPARTURE

# RWY14

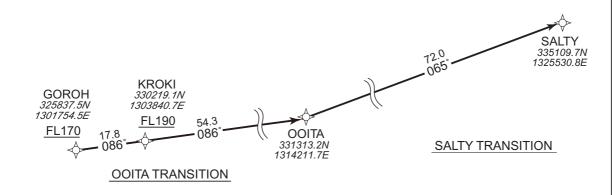
| Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly<br>Over | Course<br>°M(°T) | Magnetic<br>Variation | Distance<br>(NM) | Turn<br>Direction | Altitude<br>(FT) | Speed<br>(KIAS) | Vertical<br>Angle | Navigation<br>Specification |
|------------------|--------------------|------------------------|-------------|------------------|-----------------------|------------------|-------------------|------------------|-----------------|-------------------|-----------------------------|
| 001              | VA                 | _                      | _           | 146<br>(138.1)   | -7.6                  | _                | _                 | +500             | _               | _                 | Basic RNP1                  |
| 002              | DF                 | FU401                  | _           | _                | -7.6                  | _                | _                 | _                | _               | _                 | Basic RNP1                  |
| 003              | TF                 | UNZEN                  | _           | 029<br>(021.5)   | -7.6                  | 7.7              | _                 | _                | _               | _                 | Basic RNP1                  |
| 004              | TF                 | WARAS                  | _           | 019<br>(011.9)   | -7.6                  | 4.3              | _                 | -FL170           | _               | _                 | Basic RNP1                  |
| 005              | TF                 | GOROH                  | _           | 019<br>(011.9)   | -7.6                  | 8.2              | _                 | +FL170           | _               | _                 | Basic RNP1                  |

# RWY32

| Serial | Path       | Waypoint   | Fly  | Course         | Magnetic  | Distance | Turn      | Altitude | Speed  | Vertical | Navigation    |
|--------|------------|------------|------|----------------|-----------|----------|-----------|----------|--------|----------|---------------|
| Number | Descriptor | Identifier | Over | °M(°T)         | Variation | (NM)     | Direction | (FT)     | (KIAS) | Angle    | Specification |
| 001    | VA         | _          | _    | 326<br>(318.1) | -7.6      | _        | _         | +500     | _      | _        | Basic RNP1    |
| 002    | DF         | FU200      | _    | _              | -7.6      | _        | _         | _        | _      | _        | Basic RNP1    |
| 003    | TF         | тонкі      | _    | 055<br>(047.8) | -7.6      | 12.0     | _         | _        | _      | _        | Basic RNP1    |
| 004    | TF         | HIZEN      | _    | 131<br>(123.8) | -7.6      | 6.7      | _         | +13000   | _      | _        | Basic RNP1    |
| 005    | TF         | митии      | _    | 131<br>(123.9) | -7.6      | 7.9      | _         | -FL170   | _      | _        | Basic RNP1    |
| 006    | TF         | GOROH      | _    | 132<br>(124.0) | -7.6      | 5.1      | _         | +FL170   | _      | _        | Basic RNP1    |

# RJFU / NAGASAKI SALTY TRANSITION / OOITA TRANSITION Note GNSS required. RNAV TRANSITION Basic RNP1

VAR 8° W(2021)



### SALTY TRANSITION

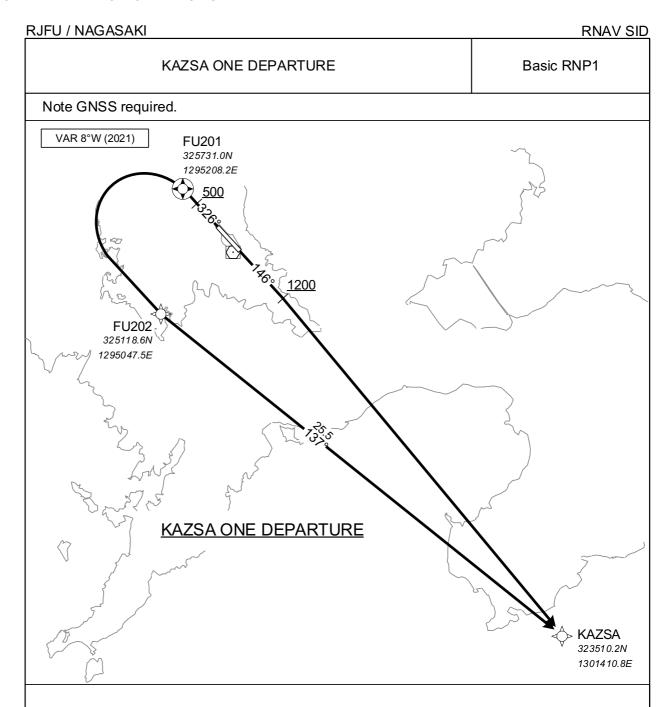
From GOROH at or above FL170, to KROKI at or above FL190, to OOITA, to SALTY.

| Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly<br>Over | Course<br>°M(°T) | Magnetic<br>Variation |      | Turn<br>Direction | Altitude<br>(FT) | Speed<br>(KIAS) |   | Navigation<br>Specification |
|------------------|--------------------|------------------------|-------------|------------------|-----------------------|------|-------------------|------------------|-----------------|---|-----------------------------|
| 001              | IF                 | GOROH                  | _           | _                | -7.6                  | _    | _                 | +FL170           | _               | _ | Basic RNP1                  |
| 002              | TF                 | KROKI                  | _           | 086<br>(077.9)   | -7.6                  | 17.8 | _                 | +FL190           | _               | _ | Basic RNP1                  |
| 003              | TF                 | OOITA                  | _           | 086<br>(078.1)   | -7.6                  | 54.3 | _                 | _                | _               | _ | Basic RNP1                  |
| 004              | TF                 | SALTY                  | _           | 065<br>(057.8)   | -7.6                  | 72.0 | _                 | _                | _               | _ | Basic RNP1                  |

### **OOITA TRANSITION**

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

| Seria | I Path        | Waypoint   | Fly  | Course         | Magnetic  | Distance | Turn      | Altitude | Speed  | Vertical | Navigation    |
|-------|---------------|------------|------|----------------|-----------|----------|-----------|----------|--------|----------|---------------|
| Numb  | er Descriptor | Identifier | Over | °M(°T)         | Variation | (NM)     | Direction | (FT)     | (KIAS) | Angle    | Specification |
| 001   | IF            | GOROH      | _    | _              | -7.6      | _        | _         | +FL170   | _      | _        | Basic RNP1    |
| 002   | TF            | KROKI      | _    | 086<br>(077.9) | -7.6      | 17.8     | _         | +FL190   | _      | _        | Basic RNP1    |
| 003   | TF            | OOITA      | _    | 086<br>(078.1) | -7.6      | 54.3     | _         | _        | _      | _        | Basic RNP1    |



# KAZSA ONE DEPARTURE

RWY14: Climb on HDG146° at or above 1200FT, direct to KAZSA

RWY32 : Climb on HDG326° at or above 500FT, direct to <u>FU201</u>, turn left direct to FU202,

to KAZSA.

Note RWY14: 5.0% climb gradient required up to 1200FT.

OBST ALT 892FT located at 4.1NM 130° FM end of RWY14.
OBST ALT 1050FT located at 4.6NM 165° FM end of RWY14.

RWY32 : 5.0% climb gradient required up to 1900FT.

OBST ALT 1936FT located at 8.0NM 272° FM end of RWY32.

RJFU / NAGASAKI RNAV SID

# KAZSA ONE DEPARTURE

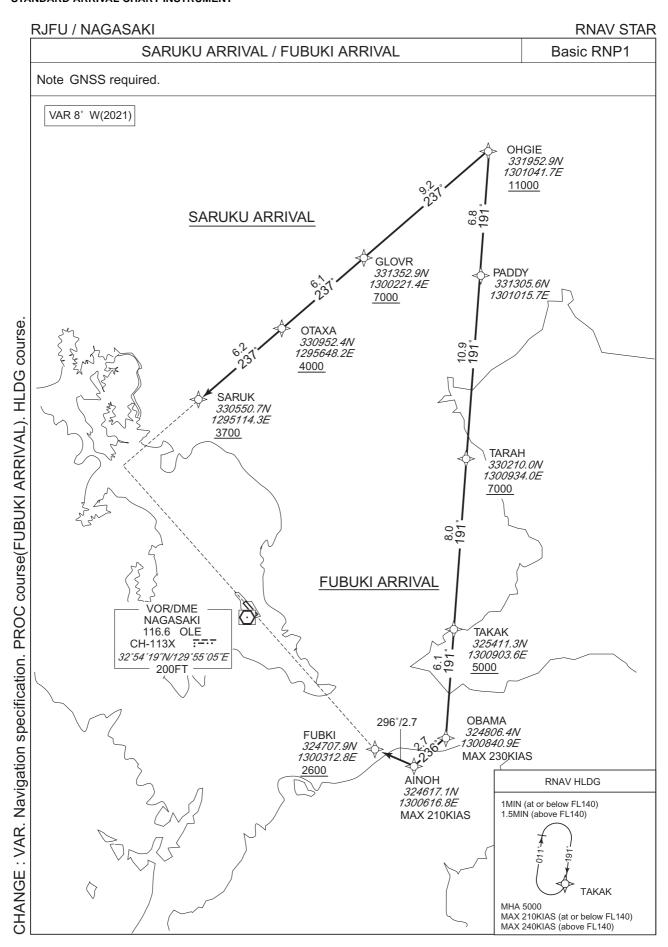
# RWY14

| Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly<br>Over | Course<br>°M(°T) | Magnetic<br>Variation |   | Turn<br>Direction | Altitude<br>(FT) | Speed<br>(KIAS) | Vertical<br>Angle | Navigation<br>Specification |
|------------------|--------------------|------------------------|-------------|------------------|-----------------------|---|-------------------|------------------|-----------------|-------------------|-----------------------------|
| 001              | VA                 | _                      | -           | 146<br>(138.1)   | -7.6                  | _ | _                 | +1200            | _               | _                 | Basic RNP1                  |
| 002              | DF                 | KAZSA                  | _           | _                | -7.6                  | _ | _                 | _                | _               | _                 | Basic RNP1                  |

### RWY32

| 1111132          |                    |                        |             |                  |                       |                  |                   |                  |                 |                   |                             |
|------------------|--------------------|------------------------|-------------|------------------|-----------------------|------------------|-------------------|------------------|-----------------|-------------------|-----------------------------|
| Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly<br>Over | Course<br>°M(°T) | Magnetic<br>Variation | Distance<br>(NM) | Turn<br>Direction | Altitude<br>(FT) | Speed<br>(KIAS) | Vertical<br>Angle | Navigation<br>Specification |
| 001              | VA                 | _                      | _           | 326<br>(318.1)   | -7.6                  | _                | _                 | +500             | _               | _                 | Basic RNP1                  |
| 002              | DF                 | FU201                  | Υ           | -                | -7.6                  | _                | _                 | -                | _               | _                 | Basic RNP1                  |
| 003              | DF                 | FU202                  | _           | _                | -7.6                  | _                | L                 | _                | _               | _                 | Basic RNP1                  |
| 004              | TF                 | KAZSA                  | _           | 137<br>(129.3)   | -7.6                  | 25.5             | _                 | _                | _               | _                 | Basic RNP1                  |

### 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.

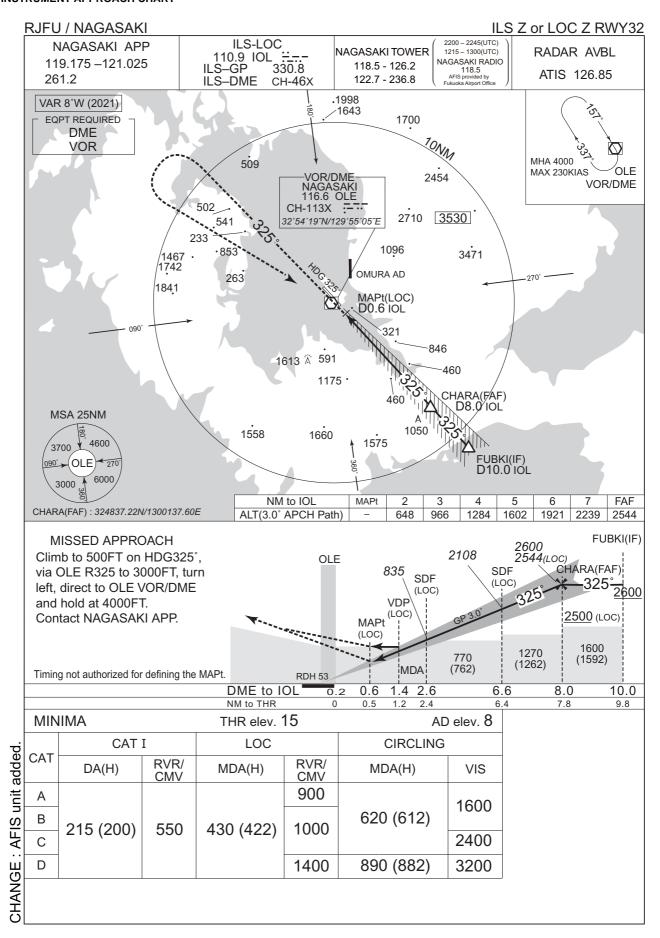
| Serial<br>Number | Path<br>Descriptor | Waypoint<br>Identifier | Fly<br>Over | Course<br>°M(°T) | Magnetic<br>Variation |     | Turn<br>Direction | Altitude<br>(FT) | Speed (KIAS) | Vertical<br>Angle | Navigation<br>Specification |
|------------------|--------------------|------------------------|-------------|------------------|-----------------------|-----|-------------------|------------------|--------------|-------------------|-----------------------------|
| 001              | IF                 | OHGIE                  | _           | _                | -7.6                  | _   | _                 | +11000           | _            |                   | Basic RNP1                  |
| 002              | TF                 | GLOVR                  | _           | 237<br>(229.3)   | -7.6                  | 9.2 | _                 | +7000            | _            | _                 | Basic RNP1                  |
| 003              | TF                 | OTAXA                  | _           | 237<br>(229.2)   | -7.6                  | 6.1 | _                 | +4000            | _            | _                 | Basic RNP1                  |
| 004              | TF                 | SARUK                  | _           | 237<br>(229.2)   | -7.6                  | 6.2 | _                 | +3700            | _            | _                 | Basic RNP1                  |

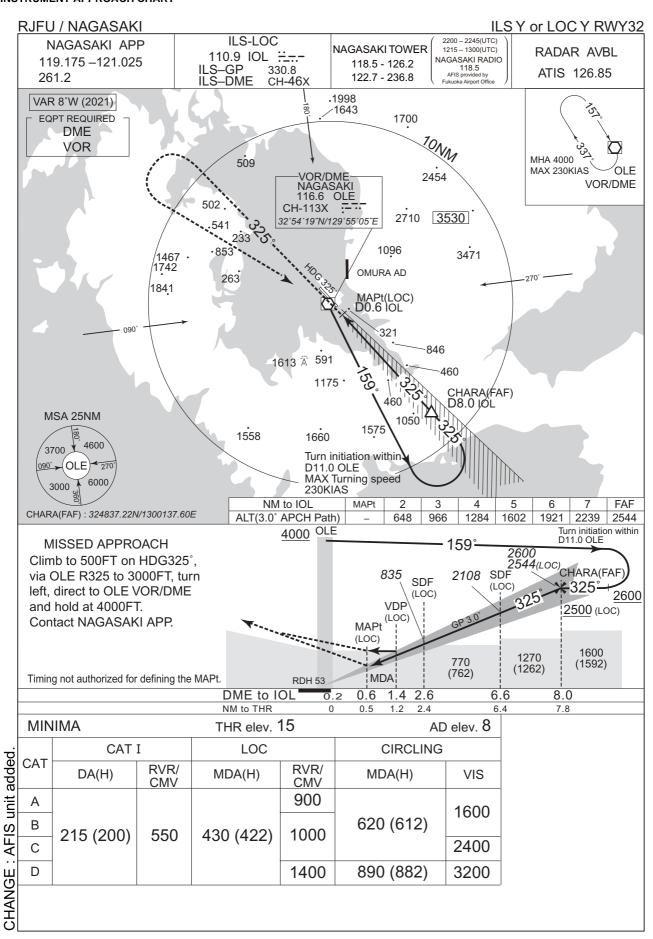
# FUBUKI ARRIVAL

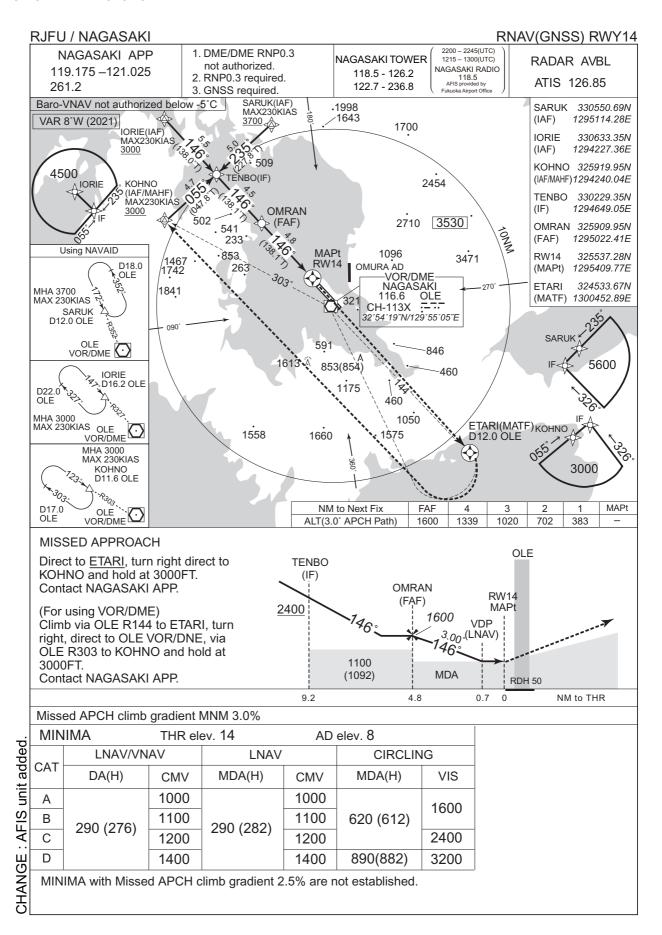
From OHGIE at or above 11000FT, to PADDY, to TARAH at or above 7000FT, to TAKAK at or above 5000FT, to OBAMA, to AINOH, to FUBKI at or above 2600FT.

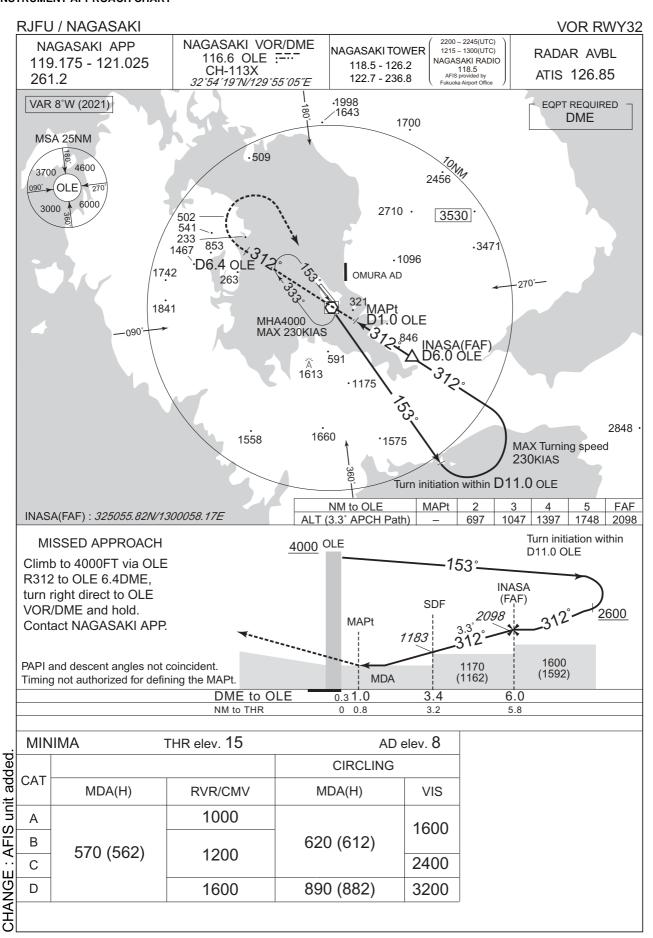
| Serial | Path       | Waypoint   | Fly  | Course         | Magnetic  | Distance | Turn      | Altitude | Speed  | Vertical | Navigation    |
|--------|------------|------------|------|----------------|-----------|----------|-----------|----------|--------|----------|---------------|
| Number | Descriptor | Identifier | Over | °M(°T)         | Variation | (NM)     | Direction | (FT)     | (KIAS) | Angle    | Specification |
| 001    | IF         | OHGIE      | _    | _              | -7.6      | _        | _         | +11000   | _      | _        | Basic RNP1    |
| 002    | TF         | PADDY      | _    | 191<br>(183.1) | -7.6      | 6.8      | _         | -        | -      | _        | Basic RNP1    |
| 003    | TF         | TARAH      | _    | 191<br>(183.1) | -7.6      | 10.9     | _         | +7000    | _      | _        | Basic RNP1    |
| 004    | TF         | TAKAK      | _    | 191<br>(183.0) | -7.6      | 8.0      | _         | +5000    | _      | _        | Basic RNP1    |
| 005    | TF         | OBAMA      | _    | 191<br>(183.0) | -7.6      | 6.1      | _         | _        | -230   | _        | Basic RNP1    |
| 006    | TF         | AINOH      | _    | 236<br>(228.0) | -7.6      | 2.7      | _         | -        | -210   | _        | Basic RNP1    |
| 007    | TF         | FUBKI      | _    | 296<br>(288.2) | -7.6      | 2.7      | _         | +2600    | _      | _        | Basic RNP1    |

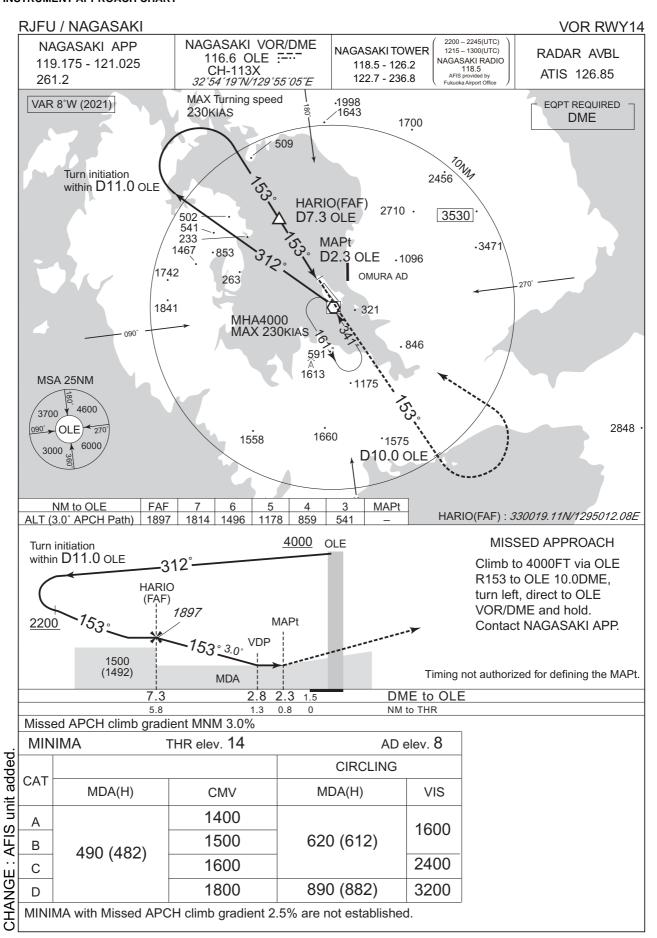
| Path | Waypoint<br>Identifier | Inbound<br>Course<br>°M(°T) | Magnetic<br>Variation | Outbound<br>Time<br>(MIN)  | Turn<br>Direction | Minimum<br>Altitude<br>(FT) | Maximum<br>Altitude<br>(FT) | Speed<br>(KIAS)              | Navigation<br>Specification |
|------|------------------------|-----------------------------|-----------------------|----------------------------|-------------------|-----------------------------|-----------------------------|------------------------------|-----------------------------|
| Hold | TAKAK                  | 191<br>(183.0)              | -7.6                  | 1.0(-14000)<br>1.5(+14001) | R                 | 5000                        | -                           | -210(-14000)<br>-240(+14001) | Basic RNP1                  |















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

|                                  | Call sign       | BRG / DIST from ARP | Remarks                          |
|----------------------------------|-----------------|---------------------|----------------------------------|
|                                  | 川棚<br>Kawatana  | 345°T / 9.4NM       | JR駅<br>JR Station                |
|                                  | 彼杵<br>Sonogi    | 360°T / 7.4NM       | JR駅<br>JR Station                |
| ARP.                             | 鈴田<br>Suzuta    | 113°T / 4.3NM       | 長崎自動車道と国道34号線の交点<br>Intersection |
| from                             | 長田<br>Nagata    | 112°T / 9.4NM       | 不知火橋<br>Bridge                   |
| : Map updated. BRG/DIST from ARP | 西彼<br>Seihi     | 301°T / 9.2NM       | オランダ村<br>Windmill                |
| J. BRG                           | 二島<br>Futashima | 244°T / 3.1NM       | 二島<br>Island                     |
| pdated                           | 堂崎<br>Dozaki    | 217°T / 2.7NM       | 堂崎鼻<br>A point of land           |
| Иар и                            | 鷹島<br>Takashima | 237°T / 5.4NM       | 鷹島<br>Island                     |
| IGE:                             | 時津<br>Tokitsu   | 213°T / 6.0NM       | 時津港<br>Harbor                    |
| CHANGE                           | 三重<br>Mie       | 233°T / 11.1NM      | 三重崎<br>A point of land           |





