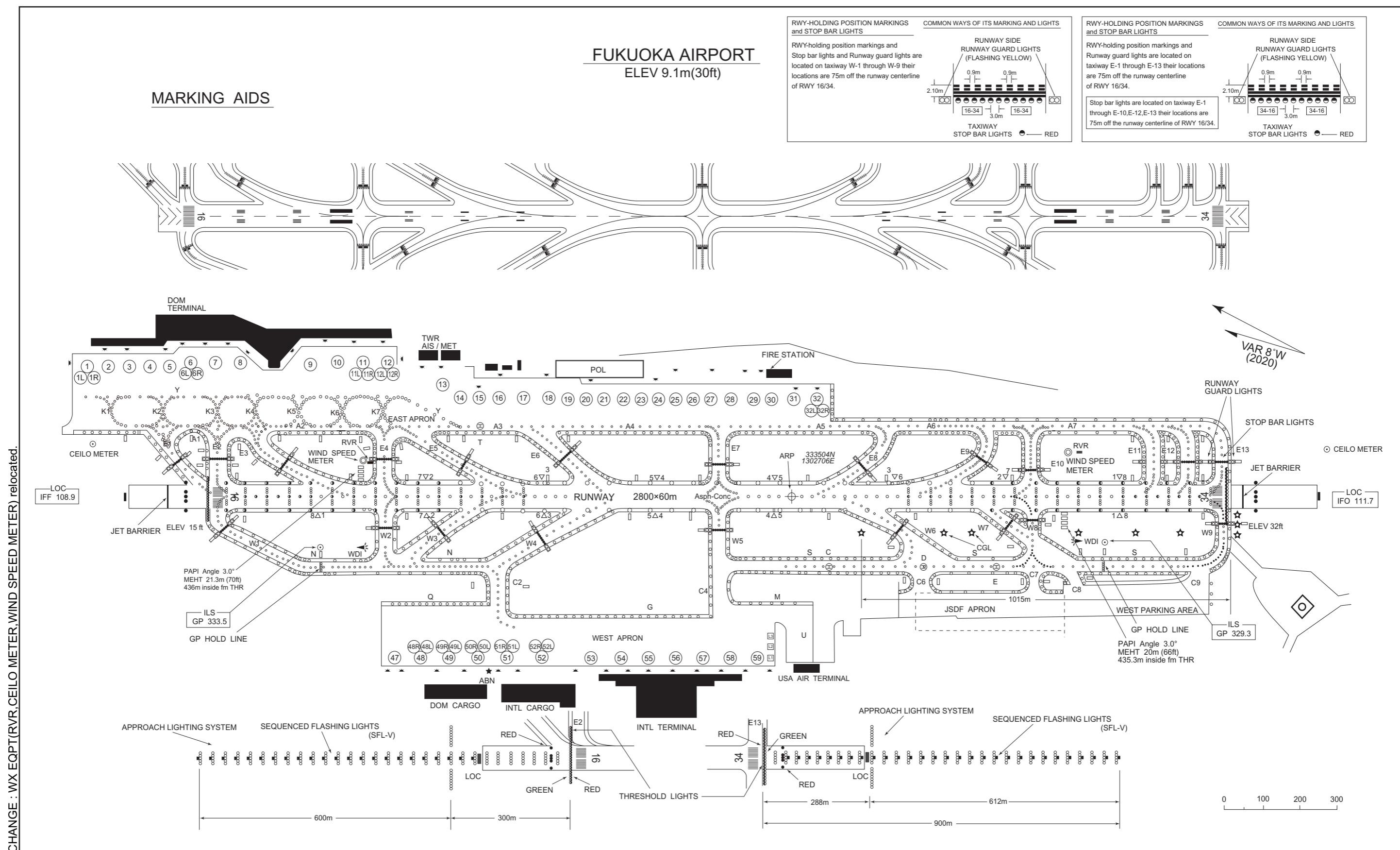
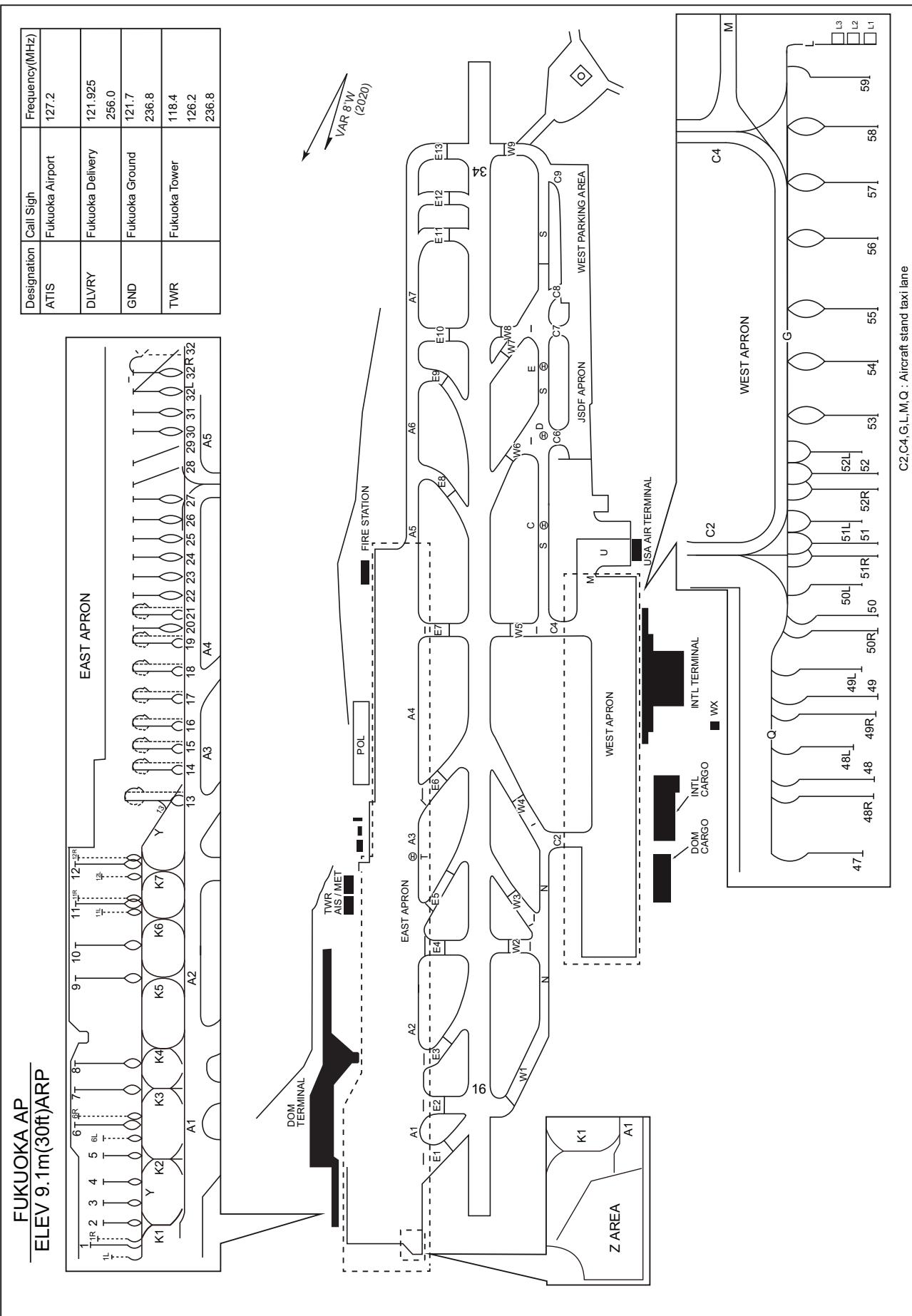


AERODROME CHART



CHANGE : VAR. TWY C5 abolished.



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AERODROME OBSTACLE CHART-ICAO  
TYPE A (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

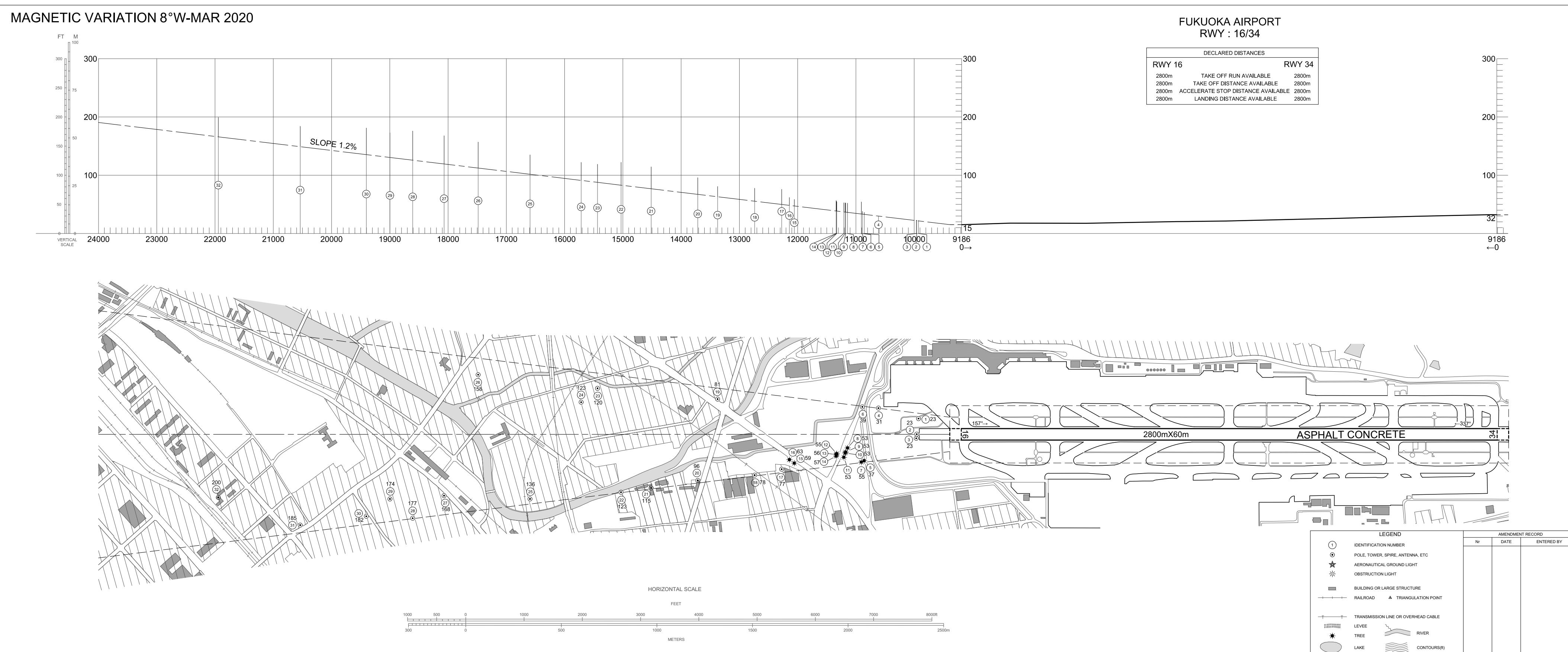


CHANGE:Update

# AERODROME OBSTACLE CHART-ICAO

## TYPE A (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC



## AERODROME OBSTACLE CHART - ICAO TYPE B

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC



CHANGE:Update

## **STANDARD DEPARTURE CHART -INSTRUMENT**

RJFF / FUKUOKA

SID

## OGUNI EIGHT DEPARTURE

RWY 16 : Climb RWY HDG to 700FT, turn right, via DGC R160 to 30.0DME, turn left, via TFE R256 to OGUNI.

Cross DGC R160/28.0DME between FL150 and FL200.

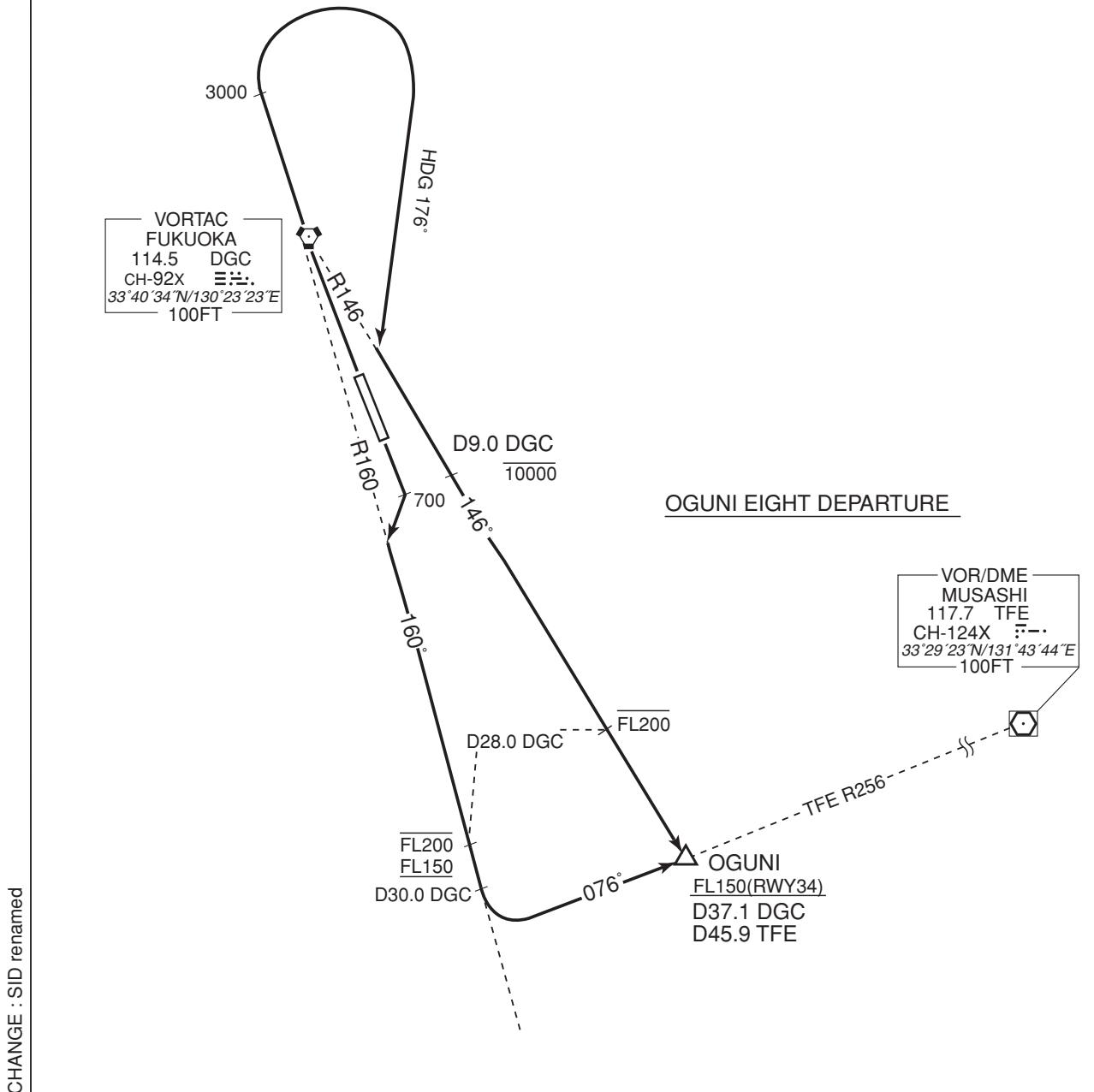
RWY 34 : Climb RWY HDG to 3000FT, turn right HDG176° to intercept and proceed via DGC R146 to OGUNI.

Cross DGC R146/9.0DME at or below 10000FT, cross DGC R146/28.0DME at or below FL200, cross OGUNI at or above FL150.

Note RWY16 : 5.8% climb gradient required up to 1100FT.

OBST ALT 399FT located at 1.2NM 138° FM end of RWY16.

OBST ALT 1470FT located at 6.2NM 182° FM end of RWY16.



## STANDARD DEPARTURE CHART -INSTRUMENT

RJFF / FUKUOKA

TRANSITION

MUSASHI TRANSITION

From over OGUNI, via TFE R256 to TFE VOR/DME.

Cross TFE R256/30.0DME at or above FL170.



STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA

SID

YAMEK NINE DEPARTURE

RWY 16 : Climb RWY HDG to 700FT, turn right, via DGC R160 to YAMEK.

Cross YAMEK at or above 5000FT.

RWY 34 : Climb RWY HDG to 3000FT, turn right HDG 176° to intercept and proceed via DGC R146 to DGC 17.6DME, turn right, via SGE R058 to YAMEK.

Cross DGC R146/9.0DME at or below 10000FT, cross YAMEK at or above 5000FT.

Note RWY16 : 5.8% climb gradient required up to 1100FT.

OBST ALT 399FT located at 1.2NM 138° FM end of RWY16.

OBST ALT 1470FT located at 6.2NM 182° FM end of RWY16.



## STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA

SID

YAMGA SIX DEPARTURE

RWY 16 : Climb RWY HDG to 700FT, turn right, via DGC R160 to YAMGA.

Cross DGC R160/28.0DME at or below FL200, cross YAMGA at or above 10000FT.

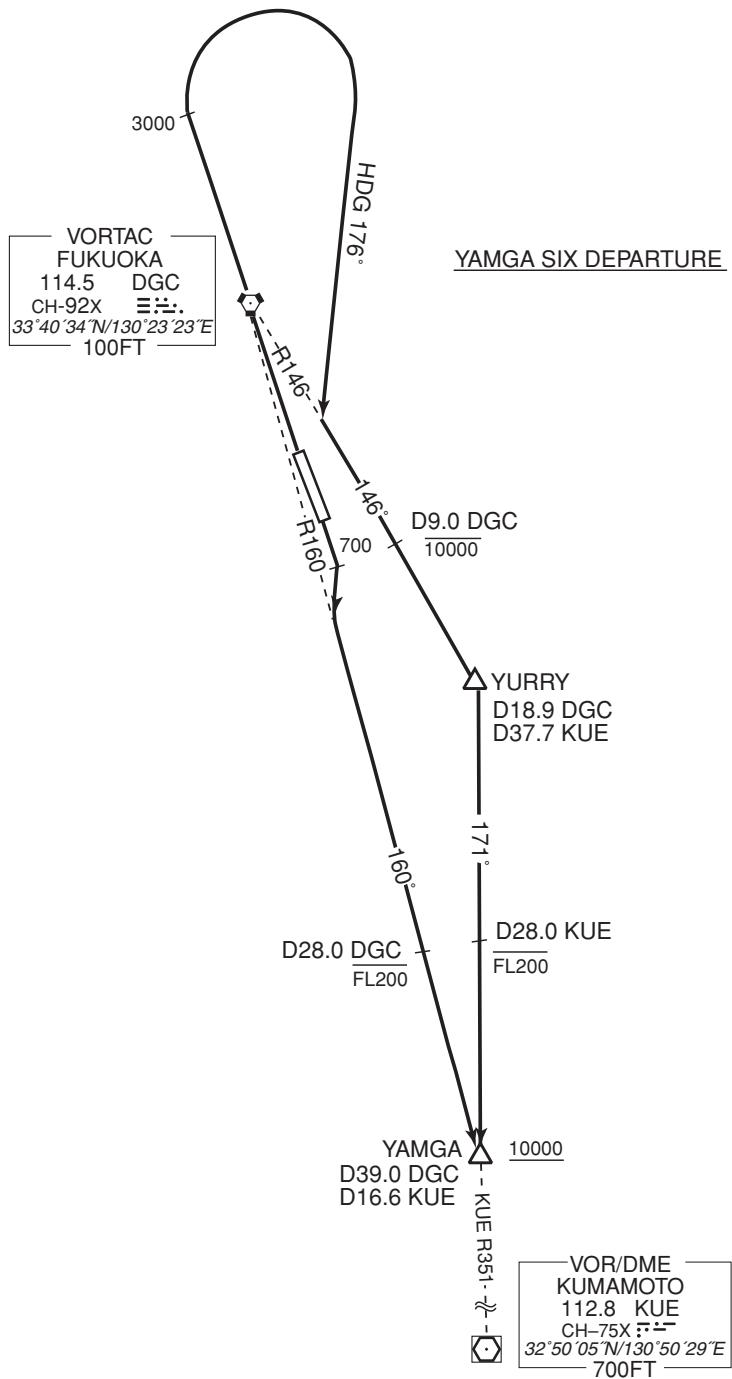
RWY 34 : Climb RWY HDG to 3000FT, turn right HDG 176° to intercept and proceed via DGC R146 to YURRY, turn right, via KUE R351 to YAMGA.

Cross DGC R146/9.0DME at or below 10000FT, cross KUE R351/28.0DME at or below FL200, cross YAMGA at or above 10000FT.

Note RWY16 : 5.8% climb gradient required up to 1100FT.

OBST ALT 399FT located at 1.2NM 138° FM end of RWY16.

OBST ALT 1470FT located at 6.2NM 182° FM end of RWY16.



STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA

SID

FUKUOKA FOUR DEPARTURE

RWY 16 : Climb RWY HDG to 700FT, turn right, via DGC R160 to YAMEK, turn right,  
via DGC R179 (MRA 7000FT) to DGC VORTAC.

Cross YAMEK at or above 5000FT.

RWY 34 : Climb direct to DGC VORTAC.

Note RWY16 : 5.8% climb gradient required up to 1100FT.

OBST ALT 399FT located at 1.2NM 138° FM end of RWY16.

OBST ALT 1470FT located at 6.2NM 182° FM end of RWY16.

VORTAC  
FUKUOKA  
114.5 DGC  
CH-92X  
33°40'34"N/130°23'23"E  
100FT

FUKUOKA FOUR DEPARTURE



CHANGE : MRA added

**STANDARD DEPARTURE CHART-INSTRUMENT**

RJFF / FUKUOKA

TRANSITION

**KAGOSHIMA TRANSITION**

From over YAMGA, proceed via HKC R012 to HKC VORTAC.

**KUMAMOTO TRANSITION**

From over YAMGA, proceed via KUE R351 to KUE VOR/DME.

**SAGA TRANSITION**

From over YAMEK, proceed via SGE R058 to SGE VOR/DME.

**MIZMA TRANSITION**

From over YAMEK, proceed via SGE R058 to MIZMA.

Cross MIZMA at or above 8000FT.

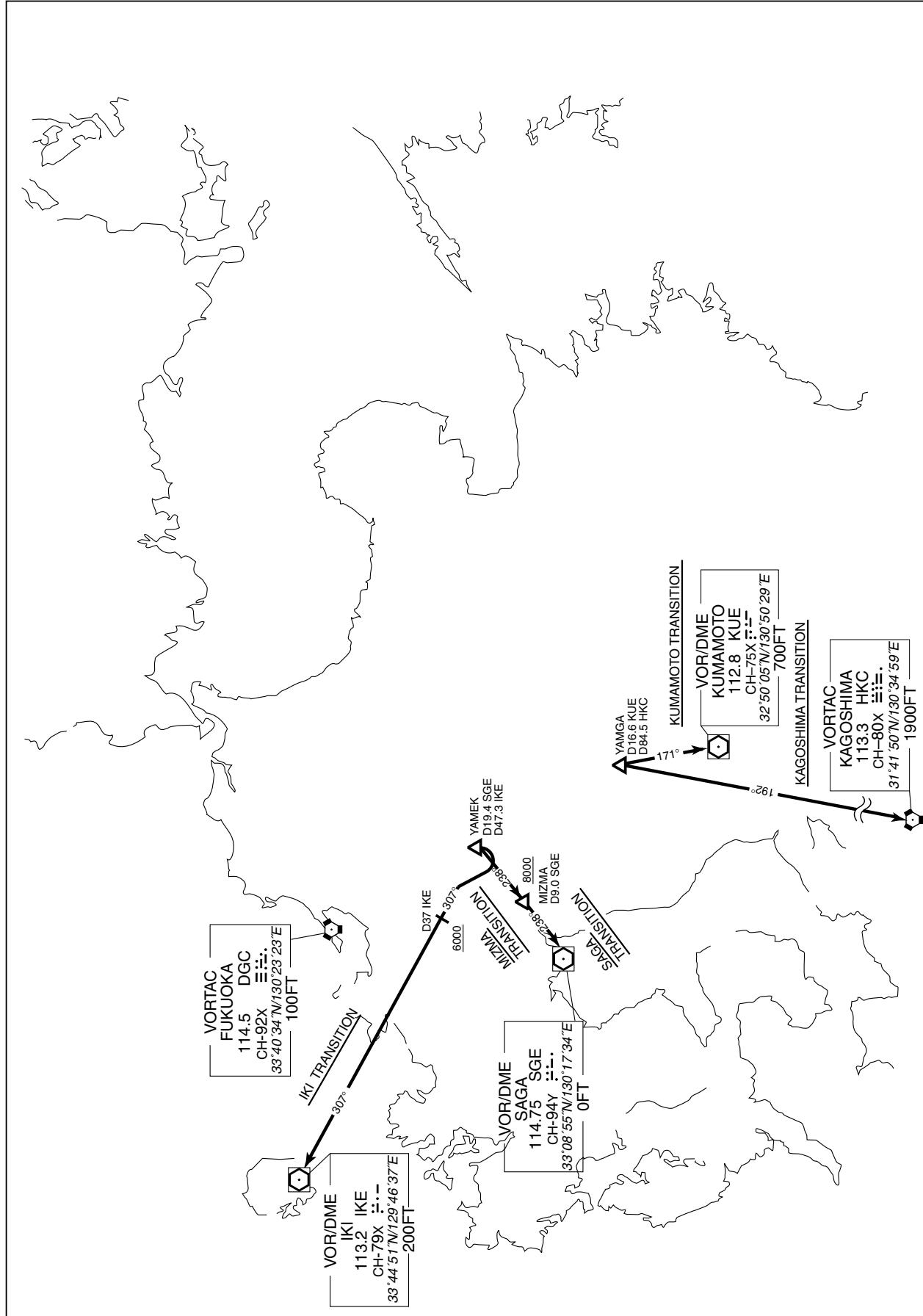
**IKI TRANSITION**

From over YAMEK, turn right, proceed via IKE R127 to IKE VOR/DME .

Cross IKE R127/37DME at or above 6000FT.

STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA TRANSITION



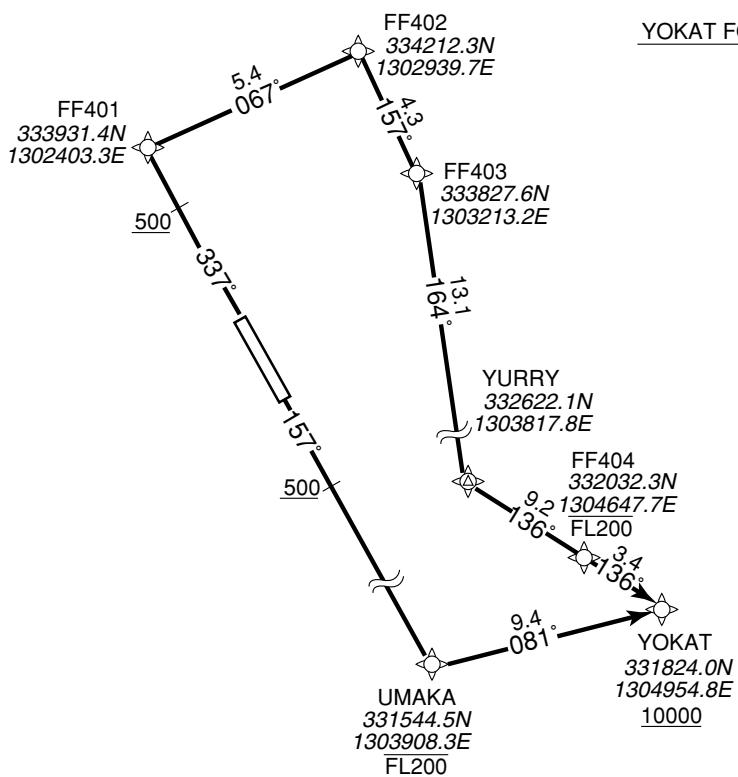
## STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV SID

| YOKAT FOUR DEPARTURE   |                       | RNAV 1   |
|--|-----------------------|--|
| Note 1 ) DME/DME/IRU or GNSS required.<br>※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. | Critical DME          | RWY16 : DGC "1.0NM FM DER~5.4NM FM DER"<br>IKE "1.0NM FM DER~5.4NM FM DER"<br>RWY34 : DGC "3.5NM to FF401~2.2NM to FF401"<br>IKE "3.5NM to FF401~2.2NM to FF401" |
| 2 ) RADAR service required.  | DME GAP               | RWY16 : DER~1.0NM FM DER<br>RWY34 : DER~0.9NM FM DER<br>2.2NM to FF401~FF403   |
|  | Inappropriate Navaids | See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1  |

VAR 7°W (2014)

YOKAT FOUR DEPARTURE

RWY34 : Climb on HDG 337° at or above 500FT, direct to FF401, to FF402, to FF403, to YURRY, to FF404 at or below FL200, to YOKAT at or above 10000FT.

RWY16 : Climb on HDG 157° at or above 500FT, direct to UMAKA at or below FL200, to YOKAT at or above 10000FT.

Note RWY34 : 7.0% climb gradient required up to 2800FT.

RWY16 : 5.8% climb gradient required up to 1100FT.

OBST ALT 399FT located at 1.2NM 138° FM end of RWY16.

OBST ALT 1470FT located at 6.2NM 182° FM end of RWY16.

## STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA RNAV SID

YOKAT FOUR DEPARTURE

## RWY34

| 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              | —                   | —        | 337 (330.3)   | -7.0               | —             | —              | +500          | —            | —              | RNAV1                    |
| 002           | DF              | FF401               | —        | —             | -7.0               | —             | —              | —             | —            | —              | RNAV1                    |
| 003           | TF              | FF402               | —        | 067 (060.1)   | -7.0               | 5.4           | —              | —             | —            | —              | RNAV1                    |
| 004           | TF              | FF403               | —        | 157 (150.4)   | -7.0               | 4.3           | —              | —             | —            | —              | RNAV1                    |
| 005           | TF              | YURRY               | —        | 164 (157.2)   | -7.0               | 13.1          | —              | —             | —            | —              | RNAV1                    |
| 006           | TF              | FF404               | —        | 136 (129.4)   | -7.0               | 9.2           | —              | -FL200        | —            | —              | RNAV1                    |
| 007           | TF              | YOKAT               | —        | 136 (129.4)   | -7.0               | 3.4           | —              | +10000        | —            | —              | RNAV1                    |

## RWY16

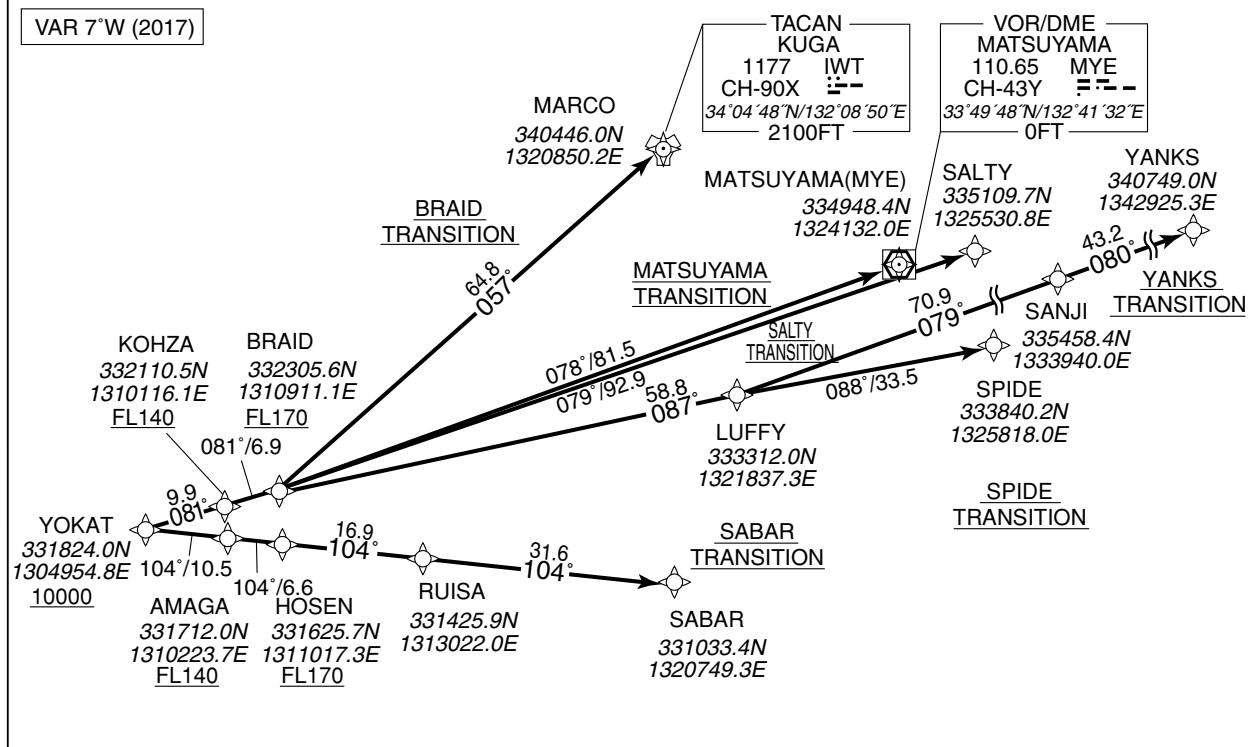
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001           | VA              | —                   | —        | 157 (150.3)   | -7.0               | —             | —              | +500          | —            | —              | RNAV1                    |
| 002           | DF              | UMAKA               | —        | —             | -7.0               | —             | —              | -FL200        | —            | —              | RNAV1                    |
| 003           | TF              | YOKAT               | —        | 081 (073.5)   | -7.0               | 9.4           | —              | +10000        | —            | —              | RNAV1                    |

## STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV TRANSITION

| BRAID TRANSITION / MATSUYAMA TRANSITION / SALTY TRANSITON<br>YANKS TRANSITION / SPIDE TRANSITION / SABAR TRANSITION |                       | RNAV 1   |
|---|-----------------------|--|
| Note 1 ) DME/DME/IRU or GNSS required.<br>2 ) RADAR service required.   | Critical DME          | SABAR TRANSITION :<br>SWE "YOKAT ~ RUISA"<br>SGE "HOSEN ~ RUISA" |
|   | DME GAP               | -  |
|   | Inappropriate Navaids | See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1                |

BRAID TRANSITION

From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to MARCO.

MATSUYAMA TRANSITION

From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to MYE.

SALTY TRANSITION

From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to SALTY.

YANKS TRANSITION

From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to LUFFY, to SANJI, to YANKS.

SPIDE TRANSITION

From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to LUFFY, to SPIDE.

SABAR TRANSITION

From YOKAT at or above 10000FT, to AMAGA at or above FL140, to HOSEN at or above FL170, to RUISA, to SABAR.

**STANDARD DEPARTURE CHART-INSTRUMENT**

RJFF / FUKUOKA

RNAV TRANSITION

**BRAID 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              | YOKAT               | —        | —             | -7.4               | —             | —              | +10000        | —            | —              | RNAV1                    |
| 002           | TF              | KOHZA               | —        | 081 (073.6)   | -7.4               | 9.9           | —              | +FL140        | —            | —              | RNAV1                    |
| 003           | TF              | BRAID               | —        | 081 (073.8)   | -7.4               | 6.9           | —              | +FL170        | —            | —              | RNAV1                    |
| 004           | TF              | MARCO               | —        | 057 (049.7)   | -7.4               | 64.8          | —              | —             | —            | —              | RNAV1                    |

**MATSUYAMA 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              | YOKAT               | —        | —             | -7.4               | —             | —              | +10000        | —            | —              | RNAV1                    |
| 002           | TF              | KOHZA               | —        | 081 (073.6)   | -7.4               | 9.9           | —              | +FL140        | —            | —              | RNAV1                    |
| 003           | TF              | BRAID               | —        | 081 (073.8)   | -7.4               | 6.9           | —              | +FL170        | —            | —              | RNAV1                    |
| 004           | TF              | MYE                 | —        | 078 (070.4)   | -7.4               | 81.5          | —              | —             | —            | —              | RNAV1                    |

**SALTY 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              | YOKAT               | —        | —             | -7.4               | —             | —              | +10000        | —            | —              | RNAV1                    |
| 002           | TF              | KOHZA               | —        | 081 (073.6)   | -7.4               | 9.9           | —              | +FL140        | —            | —              | RNAV1                    |
| 003           | TF              | BRAID               | —        | 081 (073.8)   | -7.4               | 6.9           | —              | +FL170        | —            | —              | RNAV1                    |
| 004           | TF              | SALTY               | —        | 079 (071.9)   | -7.4               | 92.9          | —              | —             | —            | —              | RNAV1                    |

## STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV TRANSITION

## YANKS 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              | YOKAT               | —        | —             | -7.4               | —             | —              | +10000        | —            | —              | RNAV1                    |
| 002           | TF              | KOHZA               | —        | 081 (073.6)   | -7.4               | 9.9           | —              | +FL140        | —            | —              | RNAV1                    |
| 003           | TF              | BRAID               | —        | 081 (073.8)   | -7.4               | 6.9           | —              | +FL170        | —            | —              | RNAV1                    |
| 004           | TF              | LUFFY               | —        | 087 (079.8)   | -7.4               | 58.8          | —              | —             | —            | —              | RNAV1                    |
| 005           | TF              | SANJI               | —        | 079 (071.7)   | -7.4               | 70.9          | —              | —             | —            | —              | RNAV1                    |
| 006           | TF              | YANKS               | —        | 080 (072.5)   | -7.4               | 43.2          | —              | —             | —            | —              | RNAV1                    |

## SPIDE 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              | YOKAT               | —        | —             | -7.4               | —             | —              | +10000        | —            | —              | RNAV1                    |
| 002           | TF              | KOHZA               | —        | 081 (073.6)   | -7.4               | 9.9           | —              | +FL140        | —            | —              | RNAV1                    |
| 003           | TF              | BRAID               | —        | 081 (073.8)   | -7.4               | 6.9           | —              | +FL170        | —            | —              | RNAV1                    |
| 004           | TF              | LUFFY               | —        | 087 (079.8)   | -7.4               | 58.8          | —              | —             | —            | —              | RNAV1                    |
| 005           | TF              | SPIDE               | —        | 088 (080.4)   | -7.4               | 33.5          | —              | —             | —            | —              | RNAV1                    |

## SABAR 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              | YOKAT               | —        | —             | -7.4               | —             | —              | +10000        | —            | —              | RNAV1                    |
| 002           | TF              | AMAGA               | —        | 104 (096.5)   | -7.4               | 10.5          | —              | +FL140        | —            | —              | RNAV1                    |
| 003           | TF              | HOSEN               | —        | 104 (096.6)   | -7.4               | 6.6           | —              | +FL170        | —            | —              | RNAV1                    |
| 004           | TF              | RUISA               | —        | 104 (096.7)   | -7.4               | 16.9          | —              | —             | —            | —              | RNAV1                    |
| 005           | TF              | SABAR               | —        | 104 (096.9)   | -7.4               | 31.6          | —              | —             | —            | —              | RNAV1                    |

STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID and TRANSITION

KURUME THREE DEPARTURE  
GABAI TRANSITION / BRUIN TRANSITION / GENKAI TRANSITION

RNAV 1

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

RWY16 :DGC "1.0NM FM DER~5.4NM FM DER"  
IKE "1.0NM FM DER~5.4NM FM DER"  
RWY34 :DGC "3.5NM to FF401~2.2NM to FF401"  
IKE "3.5NM to FF401~2.2NM to FF401"  
BRUIN TRANSITION :  
DGC "2NM to OMUTA~OMUTA"

DME GAP

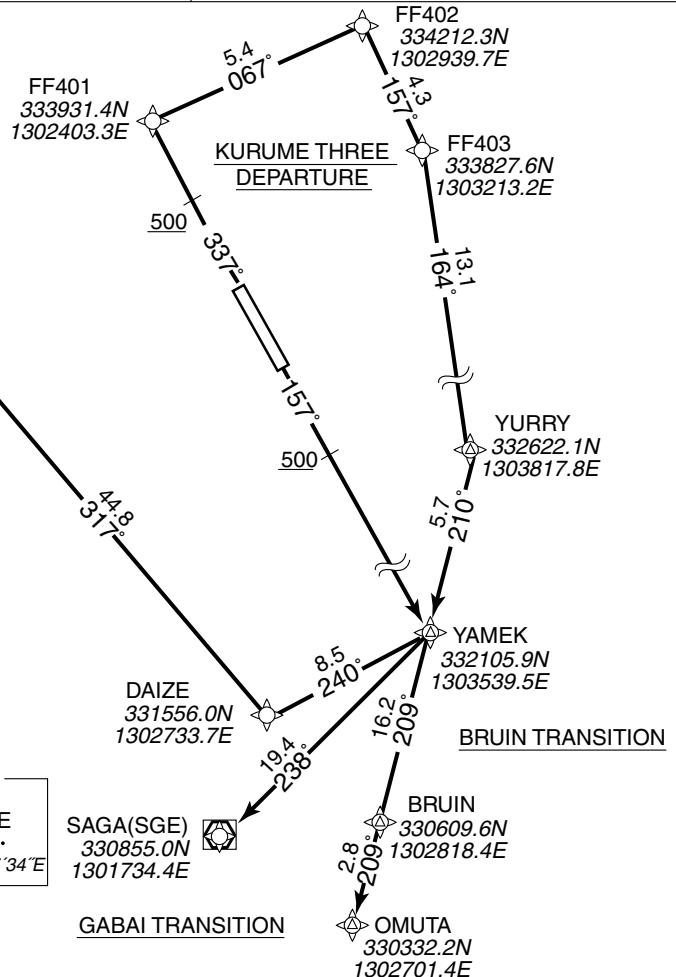
RWY16 :DER~1.0NM FM DER  
RWY34 :DER~0.9NM FM DER  
2.2NM to FF401~FF403  
GABAI TRANSITION :  
6.4NM to SGE~SGE

Inappropriate Navaids See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 7°W (2014)

IKI(IKE)  
334451.0N  
1294636.7E  
VOR/DME  
IKI  
113.2 IKE  
CH-79X  
33°44'51"N/129°46'37"E  
200FT

GENKAI TRANSITION



KURUME THREE DEPARTURE

RWY34 : Climb on HDG 337° at or above 500FT, direct to FF401, to FF402, to FF403, to YURRY, to YAMEK.

RWY16 : Climb on HDG 157° at or above 500FT, direct to YAMEK.

Note RWY34 : 7.0% climb gradient required up to 2800FT.

RWY16 : 5.8% climb gradient required up to 1100FT.

OBST ALT 399FT located at 1.2NM 138° FM end of RWY16.

OBST ALT 1470FT located at 6.2NM 182° FM end of RWY16.

BRUIN TRANSITION

From YAMEK, to BRUIN, to OMUTA.

GABAI TRANSITION

From YAMEK, to SGE.

GENKAI TRANSITION

From YAMEK, to DAIZE to IKE.

## STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID

**KURUME THREE DEPARTURE**

RWY34

| 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              | —                   | —        | 337 (330.3)   | -7.0               | —             | —              | +500          | —            | —              | RNAV1                    |
| 002           | DF              | FF401               | —        | —             | -7.0               | —             | —              | —             | —            | —              | RNAV1                    |
| 003           | TF              | FF402               | —        | 067 (060.1)   | -7.0               | 5.4           | —              | —             | —            | —              | RNAV1                    |
| 004           | TF              | FF403               | —        | 157 (150.4)   | -7.0               | 4.3           | —              | —             | —            | —              | RNAV1                    |
| 005           | TF              | YURRY               | —        | 164 (157.2)   | -7.0               | 13.1          | —              | —             | —            | —              | RNAV1                    |
| 006           | TF              | YAMEK               | —        | 210 (202.7)   | -7.0               | 5.7           | —              | —             | —            | —              | RNAV1                    |

RWY16

| 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              | —                   | —        | 157 (150.3)   | -7.0               | —             | —              | +500          | —            | —              | RNAV1                    |
| 002           | DF              | YAMEK               | —        | —             | -7.0               | —             | —              | —             | —            | —              | RNAV1                    |

STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV TRANSITION

BRUIN 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              | YAMEK               | —        | —             | -7.0               | —             | —              | —             | —            | —              | RNAV1                    |
| 002           | TF              | BRUIN               | —        | 209 (202.4)   | -7.0               | 16.2          | —              | —             | —            | —              | RNAV1                    |
| 003           | TF              | OMUTA               | —        | 209 (202.3)   | -7.0               | 2.8           | —              | —             | —            | —              | RNAV1                    |

GABAI 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              | YAMEK               | —        | —             | -7.0               | —             | —              | —             | —            | —              | RNAV1                    |
| 002           | TF              | SGE                 | —        | 238 (231.2)   | -7.0               | 19.4          | —              | —             | —            | —              | RNAV1                    |

GENKAI 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              | YAMEK               | —        | —             | -7.0               | —             | —              | —             | —            | —              | RNAV1                    |
| 002           | TF              | DAIZE               | —        | 240 (232.7)   | -7.0               | 8.5           | —              | —             | —            | —              | RNAV1                    |
| 003           | TF              | IKE                 | —        | 317 (310.4)   | -7.0               | 44.8          | —              | —             | —            | —              | RNAV1                    |

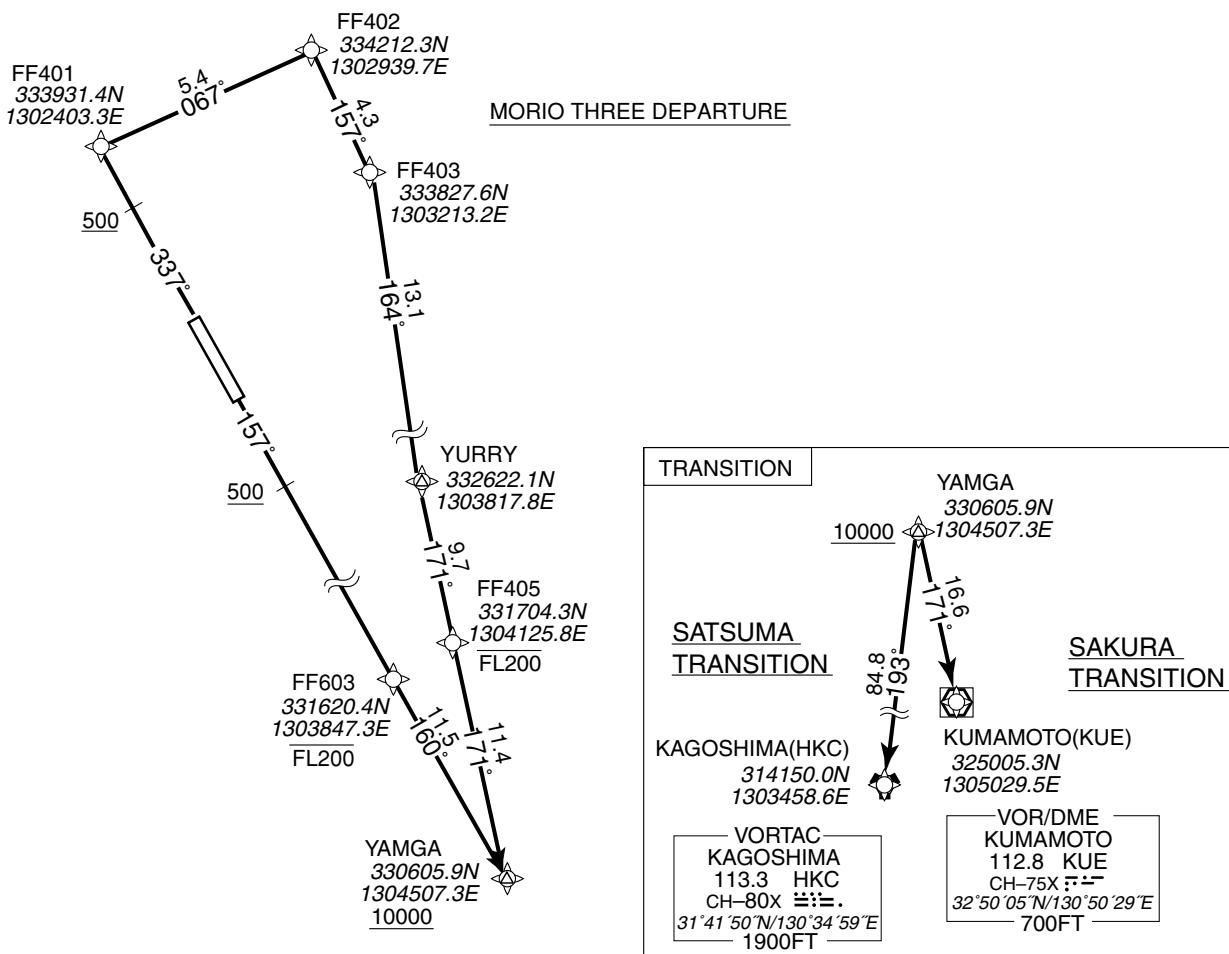
## STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID and TRANSITION

| MORIO THREE DEPARTURE<br>SATSUMA TRANSITION / SAKURA TRANSITION   |                       | RNAV 1   |
|---|-----------------------|--|
| Note 1) DME/DME/IRU or GNSS required.<br>※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. | Critical DME          | RWY16 :DGC "1.0NM FM DER~5.4NM FM DER"<br>IKE "1.0NM FM DER~5.4NM FM DER"<br>RWY34 :DGC "3.5NM to FF401~2.2NM to FF401"<br>IKE "3.5NM to FF401~2.2NM to FF401" |
| 2) RADAR service required.  | DME GAP               | RWY16 :DER~1.0NM FM DER<br>RWY34 :DER~0.9NM FM DER<br>2.2NM to FF401~FF403   |
|   | Inappropriate Navaids | See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1  |

VAR 7°W (2014)

MORIO THREE DEPARTURE

RWY34 : Climb on HDG 337° at or above 500FT, direct to FF401, to FF402, to FF403, to YURRY, to FF405 at or below FL200, to YAMGA at or above 10000FT.

RWY16 : Climb on HDG 157° at or above 500FT, direct to FF603 at or below FL200, to YAMGA at or above 10000FT.

Note RWY34 : 7.0% climb gradient required up to 2800FT.

RWY16 : 5.8% climb gradient required up to 1100FT.

OBST ALT 399FT located at 1.2NM 138° FM end of RWY16.

OBST ALT 1470FT located at 6.2NM 182° FM end of RWY16.

SAKURA TRANSITION

From YAMGA at or above 10000FT, to KUE.

SATSUMA TRANSITION

From YAMGA at or above 10000FT, to HKC.

STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID

MORIO THREE DEPARTURE

RWY34

| 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              | —                   | —        | 337 (330.3)   | -7.0               | —             | —              | +500          | —            | —              | RNAV1                    |
| 002           | DF              | FF401               | —        | —             | -7.0               | —             | —              | —             | —            | —              | RNAV1                    |
| 003           | TF              | FF402               | —        | 067 (060.1)   | -7.0               | 5.4           | —              | —             | —            | —              | RNAV1                    |
| 004           | TF              | FF403               | —        | 157 (150.4)   | -7.0               | 4.3           | —              | —             | —            | —              | RNAV1                    |
| 005           | TF              | YURRY               | —        | 164 (157.2)   | -7.0               | 13.1          | —              | —             | —            | —              | RNAV1                    |
| 006           | TF              | FF405               | —        | 171 (164.3)   | -7.0               | 9.7           | —              | -FL200        | —            | —              | RNAV1                    |
| 007           | TF              | YAMGA               | —        | 171 (164.3)   | -7.0               | 11.4          | —              | +10000        | —            | —              | RNAV1                    |

RWY16

| 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              | —                   | —        | 157 (150.3)   | -7.0               | —             | —              | +500          | —            | —              | RNAV1                    |
| 002           | DF              | FF603               | —        | —             | -7.0               | —             | —              | -FL200        | —            | —              | RNAV1                    |
| 003           | TF              | YAMGA               | —        | 160 (152.6)   | -7.0               | 11.5          | —              | +10000        | —            | —              | RNAV1                    |

## STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV TRANSITION

SAKURA 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              | YAMGA               | —        | —              | -7.0               | —             | —              | +10000        | —            | —              | RNAV1                    |
| 002           | TF              | KUE                 | —        | 171<br>(164.3) | -7.0               | 16.6          | —              | —             | —            | —              | RNAV1                    |

SATSUMA 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              | YAMGA               | —        | —              | -7.0               | —             | —              | +10000        | —            | —              | RNAV1                    |
| 002           | TF              | HKC                 | —        | 193<br>(185.8) | -7.0               | 84.8          | —              | —             | —            | —              | RNAV1                    |

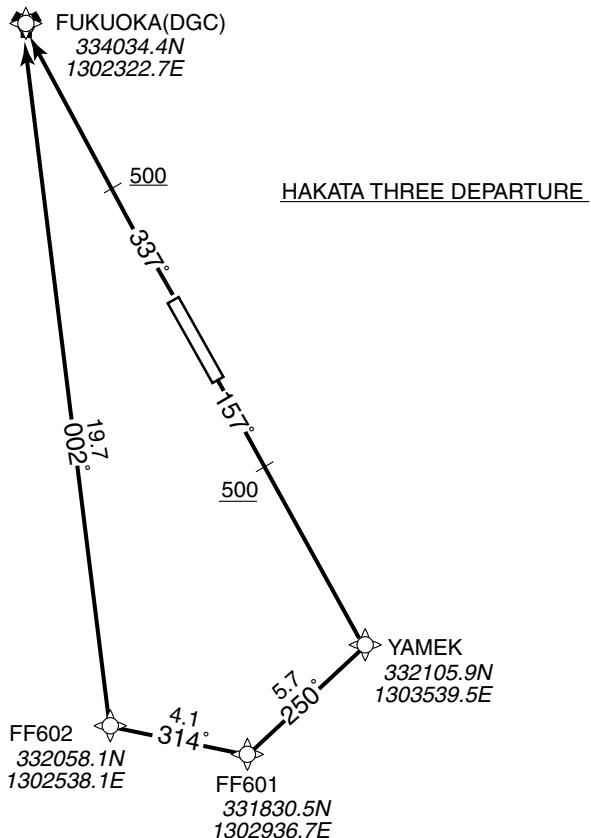
STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID

| HAKATA THREE DEPARTURE   |                       | RNAV 1   |
|--|-----------------------|--|
| Note 1 ) DME/DME/IRU or GNSS required.<br>※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. | Critical DME          | RWY16 : DGC "1.0NM FM DER~5.4NM FM DER"<br>IKE "1.0NM FM DER~5.4NM FM DER"<br>RWY34 : DGC "4.6NM to DGC~3.0NM to DGC"<br>IKE "4.6NM to DGC~3.0NM to DGC" |
| 2 ) RADAR service required.  | DME GAP               | RWY16 : DER~1.0NM FM DER<br>RWY34 : DER~4.6NM to DGC<br>3.0NM to DGC~DGC   |
|  | Inappropriate Navaids | See AD1.1.6.10.3. Inappropriate NAVAIDS for RNAV1  |

VAR 7°W (2014)



HAKATA THREE DEPARTURE

RWY34 : Climb on HDG 337° at or above 500FT, direct to DGC.

RWY16 : Climb on HDG 157° at or above 500FT, direct to YAMEK, to FF601, to FF602 to DGC.

Note RWY16 : 5.8% climb gradient required up to 1100FT.

OBST ALT 399FT located at 1.2NM 138° FM end of RWY16.

OBST ALT 1470FT located at 6.2NM 182° FM end of RWY16.

## STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID

HAKATA THREE DEPARTURE

RWY34

| 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              | —                   | —        | 337 (330.3)   | -7.0               | —             | —              | +500          | —            | —              | RNAV1                    |
| 002           | DF              | DGC                 | —        | —             | -7.0               | —             | —              | —             | —            | —              | RNAV1                    |

RWY16

| 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              | —                   | —        | 157 (150.3)   | -7.0               | —             | —              | +500          | —            | —              | RNAV1                    |
| 002           | DF              | YAMEK               | —        | —             | -7.0               | —             | —              | —             | —            | —              | RNAV1                    |
| 003           | TF              | FF601               | —        | 250 (242.9)   | -7.0               | 5.7           | —              | —             | —            | —              | RNAV1                    |
| 004           | TF              | FF602               | —        | 314 (306.5)   | -7.0               | 4.1           | —              | —             | —            | —              | RNAV1                    |
| 005           | TF              | DGC                 | —        | 002 (354.5)   | -7.0               | 19.7          | —              | —             | —            | —              | RNAV1                    |

STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

STAR

LAGER ARRIVAL

From over LAGER, via DGC R338 to MALTS.

Cross LAGER at or above 3000FT, cross MALTS at or above 2000FT.

EBISU ARRIVAL

From over EBISU, via IKE R073 to intercept and proceed via DGC R338 to MALTS via LAGER.

Cross LAGER at or above 3000FT, cross MALTS at or above 2000FT.

IKI ARRIVAL

From over IKI VOR/DME, via IKE R073 to intercept and proceed via DGC R338 to MALTS via LAGER.

Cross LAGER at or above 3000FT, cross MALTS at or above 2000FT.



## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

STAR

KAFRI EAST ARRIVAL

From over EBISU, proceed via IKE R073 to intercept and proceed via SGE R353 to KAFRI, via KUE R329 to intercept and proceed via SGE R064 to HAWKS.

Cross SGE R353/36.0DME between 7000FT and 10000FT, cross KUE R329/35.0DME at or above 6000FT, cross HAWKS at or above 4000FT.

KAFRI WEST ARRIVAL

From over IKE VOR/DME, proceed via IKE R073 to intercept and proceed via SGE R353 to KAFRI, via KUE R329, to intercept and proceed via SGE R064 to HAWKS.

Cross SGE R353/36.0DME between 7000FT and 10000FT, cross KUE R329/35.0DME at or above 6000FT, cross HAWKS at or above 4000FT.



STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

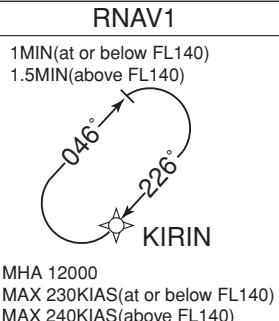
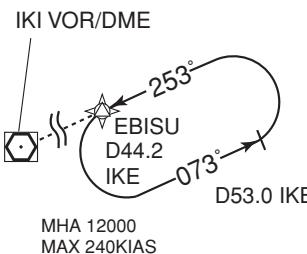
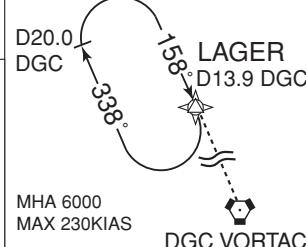
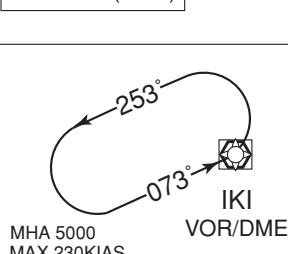
RNAV STAR RWY34

HAWKS EAST ARRIVAL / HAWKS WEST ARRIVAL  
HAWKS NORTH ARRIVAL / HAWKS SOUTH ARRIVAL

RNAV 1

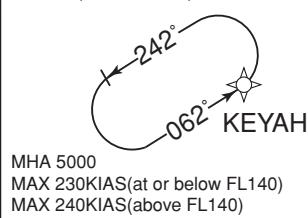
Note 1 ) DME/DME/IRU or GNSS required.  
2 ) RADAR service required.

VAR 7° W(2016)



RNAV1

1MIN(at or below FL140)  
1.5MIN(above FL140)



VOR/DME  
IKI  
113.2 IKE  
CH-79X  
33°44'51"N/129°46'37"E  
200FT

IKI(IKE)  
334451.0N  
1294636.7E

ORONN  
334831.1N  
1300659.0E

HAWKS WEST ARRIVAL

LAGER  
335238.3N  
1301504.7E

6000

HAWKS NORTH ARRIVAL

EBISU  
340220.1N  
1303527.7E  
12000

12000

12000

for HAWKS  
EAST ARRIVAL

KIRIN  
340717.9N  
1304919.3E  
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## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV STAR RWY34

HAWKS EAST ARRIVAL

From KIRIN at or above 12000FT, to ITODA between 10000FT and 8000FT, to KAHOC at or above 7000FT, to DAZAI at or above 5000FT, to HAWKS at or above 4000FT.

|                       |   |   |
|-----------------------|---|---|
| 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              | KIRIN               | -        | -             | ■ -7.4             | -             | -              | +12000        | -            | -              | RNAV1                    |
| 002           | TF              | ITODA               | -        | 198 (191.0)   | ■ -7.4             | 25.1          | -              | -10000 +8000  | -            | -              | RNAV1                    |
| 003           | TF              | KAHOC               | -        | 198 (191.0)   | ■ -7.4             | 14.2          | -              | +7000         | -            | -              | RNAV1                    |
| 004           | TF              | DAZAI               | -        | 175 (167.3)   | ■ -7.4             | 6.9           | -              | +5000         | -            | -              | RNAV1                    |
| 005           | TF              | HAWKS               | -        | 248 (240.3)   | ■ -7.4             | 4.5           | -              | +4000         | -            | -              | 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 | KIRIN               | 226 (218.7)           | ■ -7.4             | 1.0(-14000)<br>1.5(+14001) | R              | 12000                 | -                     | -230(-14000)<br>-240(+14001) | RNAV1                    |
| Hold | KAHOC               | ■ 175 (167.3)         | ■ -7.4             | 1.0(-14000)<br>1.5(+14001) | R              | 7000                  | -                     | -230(-14000)<br>-240(+14001) | RNAV1                    |

HAWKS WEST ARRIVAL

From IKE, to ORONN, to NOKOH, to BEAMA, to SOFTO, to BANKU at or above 5000FT, to HAWKS at or above 4000FT.

|                       |   |  |
|-----------------------|---|--|
| Critical DME          | DGC   | IKE - 15.0NM to ORONN<br>6.0NM to ORONN - 5.0NM to NOKOH |
|                       | KUE   | IKE - 15.0NM to ORONN                                    |
|                       | IKE   | 6.0NM to ORONN - 5.0NM to NOKOH                          |
|                       | SGE   | 9.0NM to BEAMA - 6.0NM to BEAMA                          |
| DME GAP               | 15.0NM to ORONN - 6.0NM to ORONN<br>5.0NM to NOKOH - 9.0NM to BEAMA |  |
| 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              | IKE                 | -        | -             | -7.4               | -             | -              | -             | -            | -              | RNAV1                    |
| 002           | TF              | ORONN               | -        | 085 (077.7)   | -7.4               | 17.3          | -              | -             | -            | -              | RNAV1                    |
| 003           | TF              | NOKOH               | -        | 152 (144.7)   | -7.4               | 8.2           | -              | -             | -            | -              | RNAV1                    |
| 004           | TF              | BEAMA               | -        | 152 (144.8)   | -7.4               | 9.9           | -              | -             | -            | -              | RNAV1                    |
| 005           | TF              | SOFTO               | -        | 152 (144.9)   | -7.4               | 9.9           | -              | -             | -            | -              | RNAV1                    |
| 006           | TF              | BANKU               | -        | 152 (144.9)   | -7.4               | 9.9           | -              | +5000         | -210         | -              | RNAV1                    |
| 007           | TF              | HAWKS               | -        | 068 (060.2)   | -7.4               | 4.3           | -              | +4000         | -            | -              | 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 | BANKU               | 132 (125.0)           | ■ -7.4             | 1.0(-14000)<br>1.5(+14001) | R              | 5000                  | -                     | -230(-14000)<br>-240(+14001) | RNAV1                    |

## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

→ RNAV STAR RWY34

HAWKS NORTH ARRIVAL

From KIRIN, to EBISU at or above 12000FT, to LAGER at or above 6000FT, to NOKOH, to BEAMA, to SOFTO, to BANKU at or above 5000FT, to HAWKS at or above 4000FT.

|                       |     |  |
|-----------------------|-----|--|
| Critical DME          | IKE | 4.0NM to LAGER - 3.0NM to NOKOH                    |
|                       | DGC | LAGER - 3.0NM to NOKOH                             |
|                       | SGE | 9.0NM to BEAMA - 6.0NM to BEAMA                    |
| DME GAP               |     | 3.0NM to NOKOH - 9.0NM to BEAMA                    |
| Inappropriate Navaids |     | See AD1.1.6.10.3. Inappropriate NAVAIIDs 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              | KIRIN               | —        | —              | -7.4               | —             | —              | —             | —            | —              | RNAV1                    |
| 002           | TF              | EBISU               | —        | 254<br>(246.7) | -7.4               | 12.5          | —              | +12000        | —            | —              | RNAV1                    |
| 003           | TF              | LAGER               | —        | 248<br>(240.3) | -7.4               | 19.5          | —              | +6000         | —            | —              | RNAV1                    |
| 004           | TF              | NOKOH               | —        | 198<br>(190.5) | -7.4               | 11.0          | —              | —             | —            | —              | RNAV1                    |
| 005           | TF              | BEAMA               | —        | 152<br>(144.8) | -7.4               | 9.9           | —              | —             | —            | —              | RNAV1                    |
| 006           | TF              | SOFTO               | —        | 152<br>(144.9) | -7.4               | 9.9           | —              | —             | —            | —              | RNAV1                    |
| 007           | TF              | BANKU               | —        | 152<br>(144.9) | -7.4               | 9.9           | —              | +5000         | -210         | —              | RNAV1                    |
| 008           | TF              | HAWKS               | —        | 068<br>(060.2) | -7.4               | 4.3           | —              | +4000         | —            | —              | 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 | KIRIN               | 226<br>(218.7)        | -7.4               | 1.0(-14000)<br>1.5(+14001) | R              | 12000                 | —                     | -230(-14000)<br>-240(+14001) | RNAV1                    |
| Hold | BANKU               | 132<br>(125.0)        | -7.4               | 1.0(-14000)<br>1.5(+14001) | R              | 5000                  | —                     | -230(-14000)<br>-240(+14001) | RNAV1                    |

## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

→ RNAV STAR RWY34

HAWKS SOUTH ARRIVAL

From OSTEP, to HONOK at or above 7000FT, to AMAOH, to KEYAH, to NOKOH, to BEAMA, to SOFTO, to BANKU at or above 5000FT, to HAWKS at or above 4000FT.

|                       |     |   |
|-----------------------|-----|---|
| Critical DME          | SGE | 4.0NM to NOKOH - NOKOH<br>9.0NM to BEAMA - 6.0NM to BEAMA |
| DME GAP               |     | NOKOH - 9.0NM to BEAMA                                    |
| 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              | OSTEP               | —        | —             | -7.4               | —             | —              | —             | —            | —              | RNAV1                    |
| 002           | TF              | HONOK               | —        | 332 (324.9)   | -7.4               | 14.2          | —              | +7000         | —            | —              | RNAV1                    |
| 003           | TF              | AMAOH               | —        | 332 (324.8)   | -7.4               | 9.9           | —              | —             | —            | —              | RNAV1                    |
| 004           | TF              | KEYAH               | —        | 332 (324.8)   | -7.4               | 9.9           | —              | —             | —            | —              | RNAV1                    |
| 005           | TF              | NOKOH               | —        | 062 (054.5)   | -7.4               | 9.7           | —              | —             | —            | —              | RNAV1                    |
| 006           | TF              | BEAMA               | —        | 152 (144.8)   | -7.4               | 9.9           | —              | —             | —            | —              | RNAV1                    |
| 007           | TF              | SOFTO               | —        | 152 (144.9)   | -7.4               | 9.9           | —              | —             | —            | —              | RNAV1                    |
| 008           | TF              | BANKU               | —        | 152 (144.9)   | -7.4               | 9.9           | —              | +5000         | -210         | —              | RNAV1                    |
| 009           | TF              | HAWKS               | —        | 068 (060.2)   | -7.4               | 4.3           | —              | +4000         | —            | —              | 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 | KEYAH               | 062 (054.5)           | -7.4               | 1.0(-14000)<br>1.5(+14001) | L              | 5000                  | —                     | -230(-14000)<br>-240(+14001) | RNAV1                    |
| Hold | BANKU               | 132 (125.0)           | -7.4               | 1.0(-14000)<br>1.5(+14001) | R              | 5000                  | —                     | -230(-14000)<br>-240(+14001) | RNAV1                    |

## **STANDARD ARRIVAL CHART-INSTRUMENT**

RJFF / FUKUOKA

## RNAV STAR RWY16

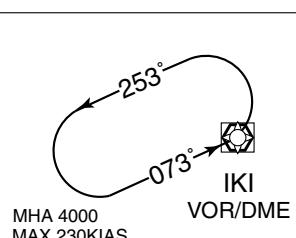
# MALTS EAST ARRIVAL / MALTS WEST ARRIVAL MALTS SOUTH ARRIVAL

RNAV 1

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

2 ) RADAR service required.

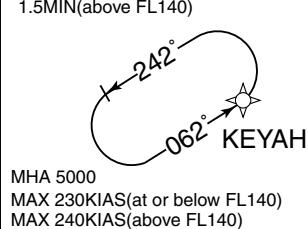
VAR 7° W(2016)



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BNAV1

1MIN(1st sublayer) El.1



MHA 5000  
MAX 230KIAS(at or below FL140)  
MAX 240KIAS(above FL 140)

RNAV1

1MIN(at or below FL140)  
1.5MIN(above FL140)

**RNAV1**

1.5MIN(above FL140)

20

MHA 12000  
MAX 230KIAS(at or below FL140)  
MAX 240KIAS(above FL140)

MAINTS FAST ARRIVAL

HOP  
340229  
1204110

KIRIN  
340717.9N  
1304919.3E  
12000

## MALTS WEST ARRIVAL

VOR/DME  
IKI  
113.2 IKE  
CH-79X :.-  
33°44'51"N/129°46'37"E

ORONN  
334831.1N  
1300659.0E

TANRE  
335446.4N  
1302347.2E

HOP  
340229  
1204110

VOR/DME  
SUOH  
113.85 SWE  
CH-85Y :--  
51°24'N/131°01'46"E  
100FT

VORTAC  
FUKUOKA  
114.5 DGC  
CH-92X E.  
33°40'34"N 130°23'23"E  
100FT

MAILS SOUTH ARRIVAL

## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV STAR RWY16

MALTS EAST ARRIVAL

From KIRIN at or above 12000FT, to HOPPS at or above 8000FT, to TANRE at or above 6000FT, to DORAI, to MALTS at or above 2000FT.

|                       |   |               |
|-----------------------|---|---------------|
| Critical DME          | -   | -             |
|                       | DGC   | TANRE - MALTS |
| 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              | KIRIN               | -        | -             | -7.4               | -             | -              | +12000        | -            | -              | RNAV1                    |
| 002           | TF              | HOPPS               | -        | 242 (235.0)   | -7.4               | 8.4           | -              | +8000         | -            | -              | RNAV1                    |
| 003           | TF              | TANRE               | -        | 242 (235.0)   | -7.4               | 13.4          | -              | +6000         | -            | -              | RNAV1                    |
| 004           | TF              | DORAI               | -        | 222 (214.2)   | -7.4               | 6.4           | -              | -             | -            | -              | RNAV1                    |
| 005           | TF              | MALTS               | -        | 221 (214.1)   | -7.4               | 5.0           | -              | +2000         | -            | -              | 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 | KIRIN               | 226 (218.7)           | -7.4               | 1.0(-14000)<br>1.5(+14001) | R              | 12000                 | -                     | -230(-14000)<br>-240(+14001) | RNAV1                    |
| Hold | TANRE               | 222 (214.2)           | -7.4               | 1.0(-14000)<br>1.5(+14001) | L              | 7000                  | -                     | -230(-14000)<br>-240(+14001) | RNAV1                    |

MALTS WEST ARRIVAL

From IKE, to ORONN at or above 3000FT, to MALTS at or above 2000FT.

|                       |     |   |
|-----------------------|-----|---|
| Critical DME          | DGC | IKE - 15.0NM to ORONN<br>6.0NM to ORONN - MALTS   |
|                       | KUE | IKE - 15.0NM to ORONN                             |
|                       | IKE | 6.0NM to ORONN - MALTS                            |
| DME GAP               |     | 15NM to ORONN - 6.0NM to ORONN                    |
| 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              | IKE                 | -        | -             | -7.4               | -             | -              | -             | -            | -              | RNAV1                    |
| 002           | TF              | ORONN               | -        | 085 (077.7)   | -7.4               | 17.3          | -              | +3000         | -            | -              | RNAV1                    |
| 003           | TF              | MALTS               | -        | 114 (106.2)   | -7.4               | 11.4          | -              | +2000         | -            | -              | RNAV1                    |

STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

→ RNAV STAR RWY16

MALTS SOUTH ARRIVAL

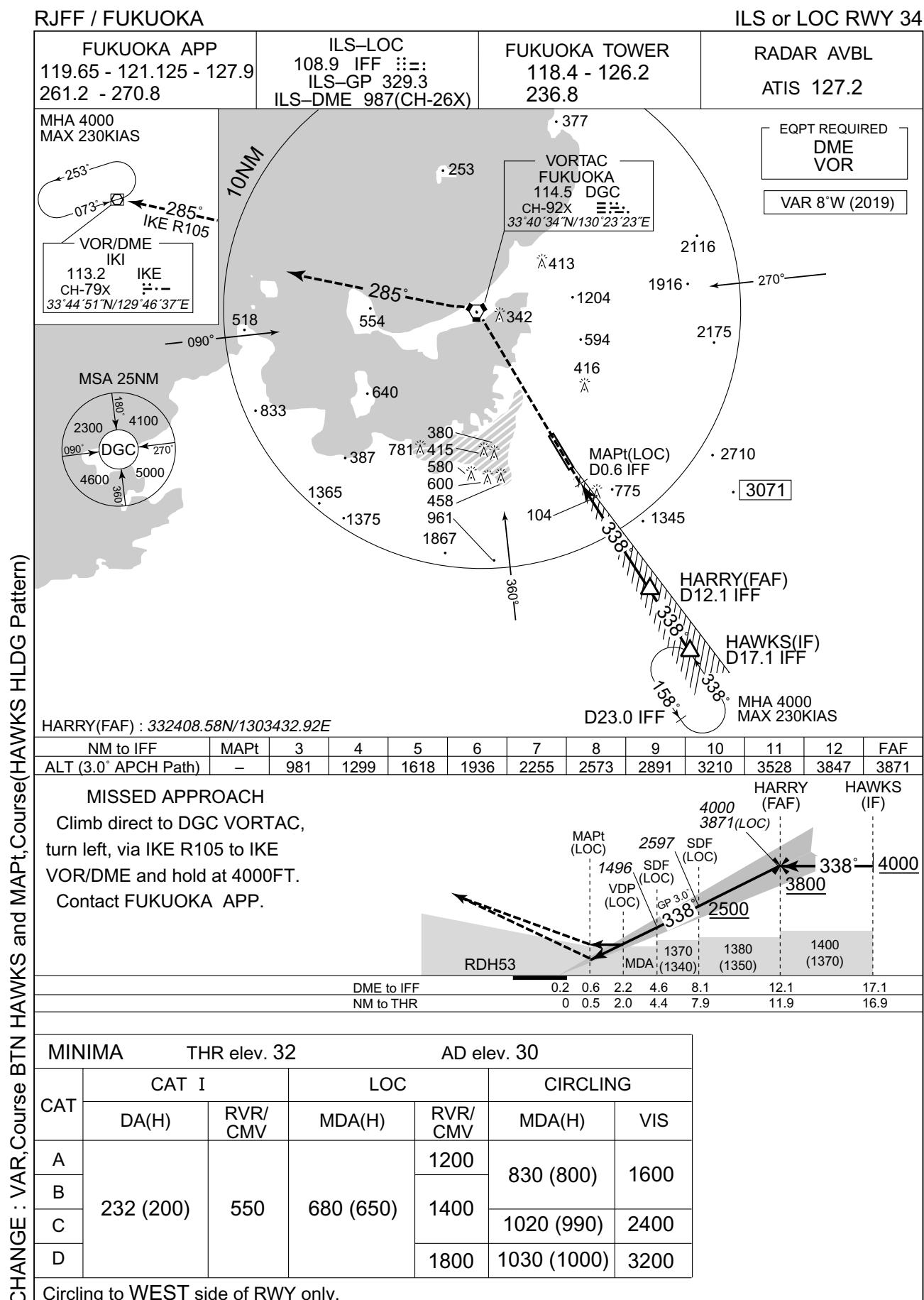
From OSTEP, to HONOK at or above 7000FT, to AMAOH, to KEYAH at or above 5000FT, to NOKOH at or above 3000FT, to MALTS at or above 2000FT.

|                       |     |   |
|-----------------------|-----|---|
| Critical DME          | SGE | 4.0NM to NOKOH - NOKOH                            |
|                       | IKE | 2.0NM to MALTS - MALTS                            |
|                       | DGC | 2.0NM to MALTS - MALTS                            |
| DME GAP               |     | NOKOH - 2.0NM to MALTS                            |
| Inappropriate Navaids |     | See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1 |

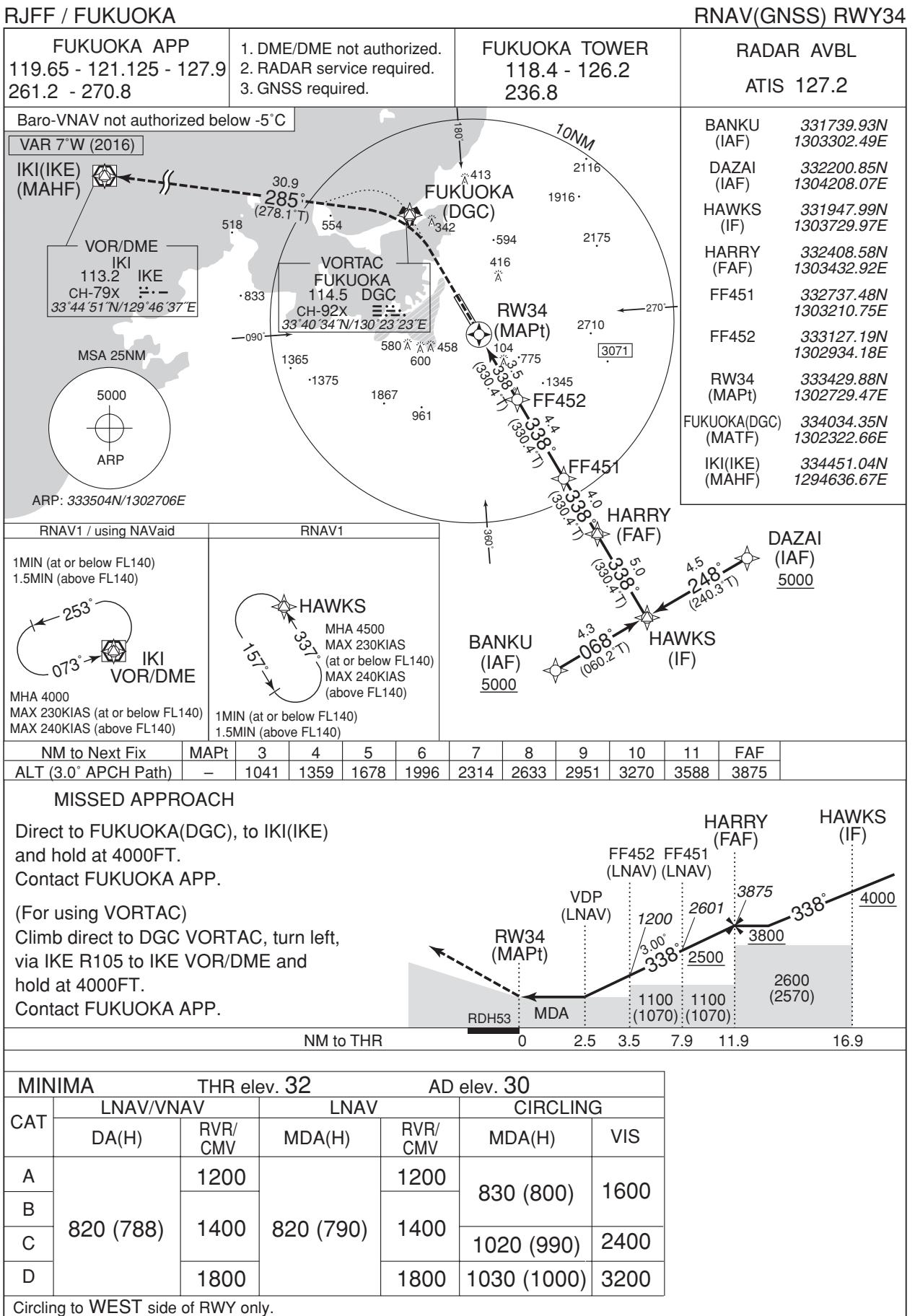
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001           | IF              | OSTEP               | —        | —             | -7.4               | —             | —              | —             | —            | —              | RNAV1                    |
| 002           | TF              | HONOK               | —        | 332 (324.9)   | -7.4               | 14.2          | —              | +7000         | —            | —              | RNAV1                    |
| 003           | TF              | AMAOH               | —        | 332 (324.8)   | -7.4               | 9.9           | —              | —             | —            | —              | RNAV1                    |
| 004           | TF              | KEYAH               | —        | 332 (324.8)   | -7.4               | 9.9           | —              | +5000         | —            | —              | RNAV1                    |
| 005           | TF              | NOKOH               | —        | 062 (054.5)   | -7.4               | 9.7           | —              | +3000         | —            | —              | RNAV1                    |
| 006           | TF              | MALTS               | —        | 068 (060.3)   | -7.4               | 7.1           | —              | +2000         | —            | —              | 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 | KEYAH               | 062 (054.5)           | -7.4               | 1.0(-14000)<br>1.5(+14001) | L              | 5000                  | —<br>-230(-14000)<br>-240(+14001) | RNAV1        |                          |

## INSTRUMENT APPROACH CHART

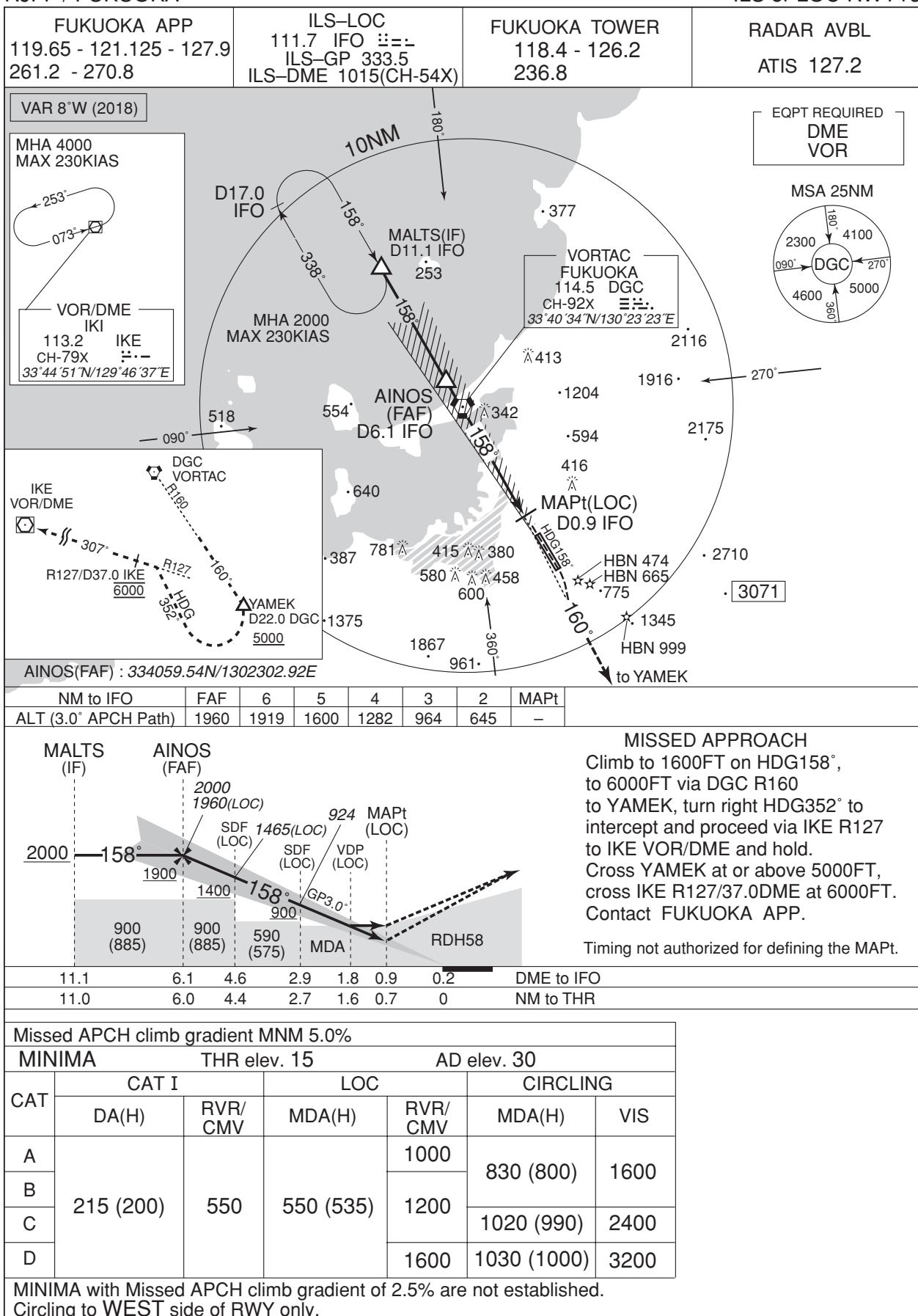


## INSTRUMENT APPROACH CHART



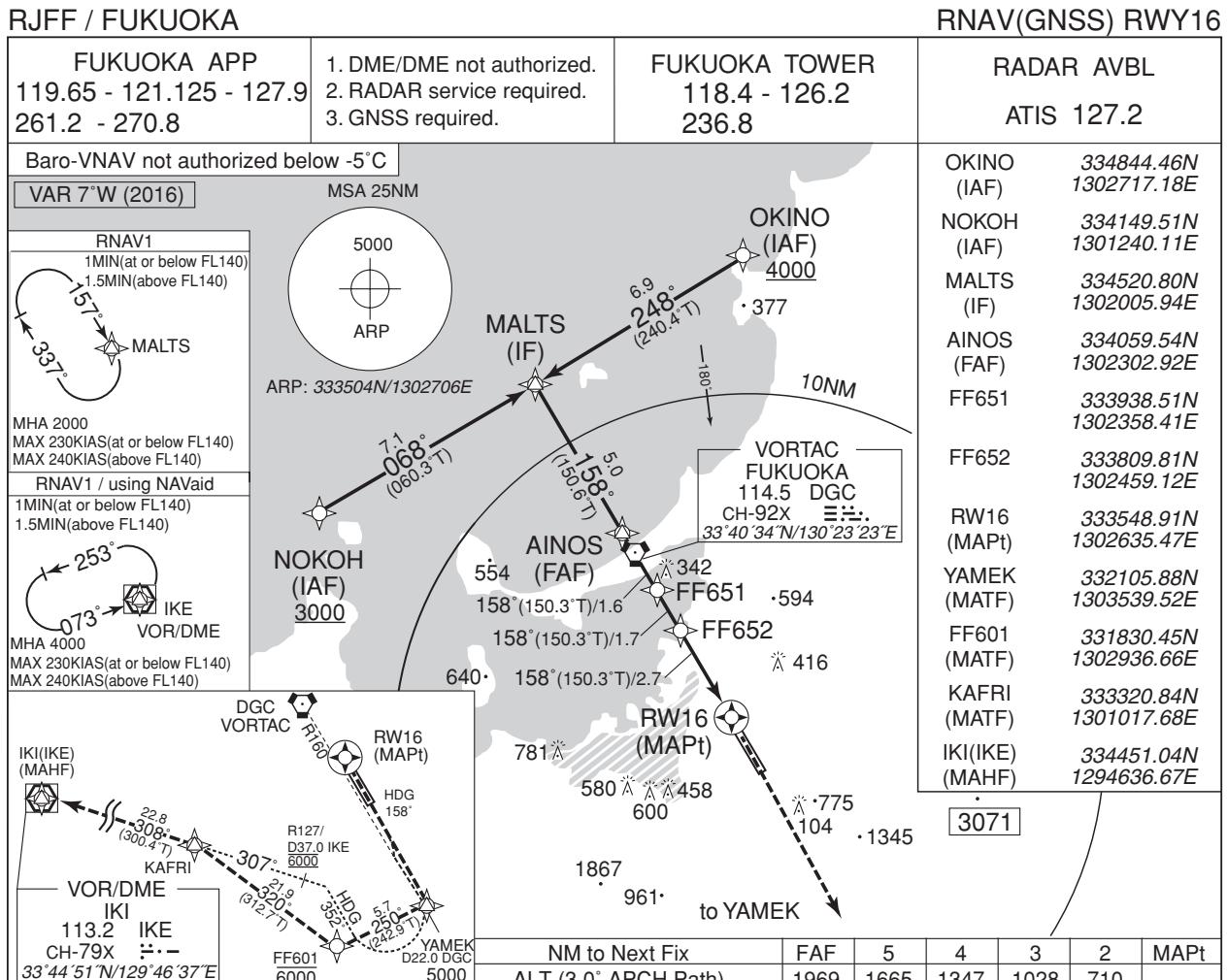
## INSTRUMENT APPROACH CHART

RJFF / FUKUOKA



CHANGE : VAR

## INSTRUMENT APPROACH CHART



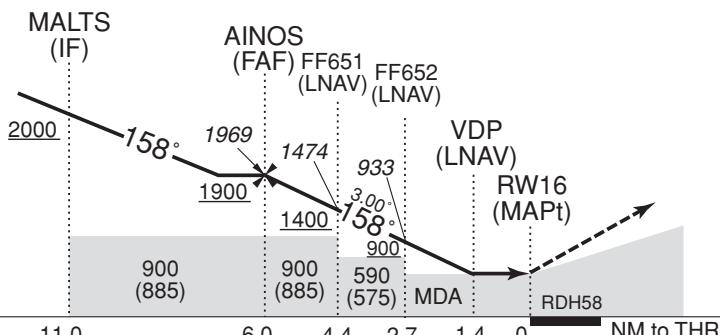
## MISSSED APPROACH

Direct to YAMEK at or above 5000FT, to FF601 at 6000FT, to KAFRI, to IKI(IKE) and hold at 6000FT. Contact FUKUOKA APP.

(For using VORTAC)

Climb to 1600FT on HDG158°, to 6000FT via DGC R160 to YAMEK, turn right HDG352° to intercept and proceed via IKE R127 to IKE VOR/DME and hold.

Cross YAMEK at or above 5000FT,  
Cross IKE R127 / 37.0DME at 6000FT.  
Contact FUKUOKA APP.



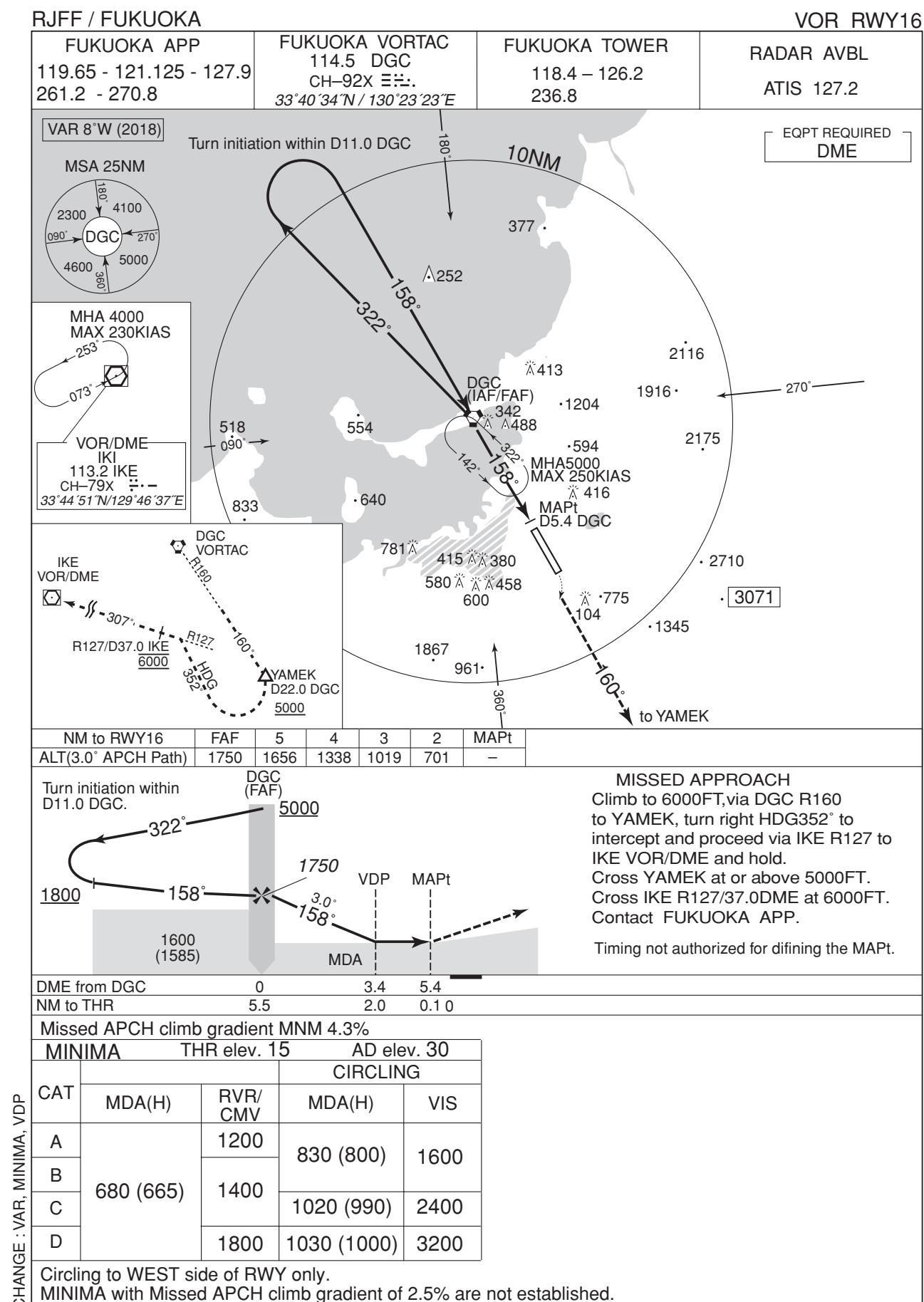
Missed APCH climb gradient MNM 5.0%

CHANGE : HOLD Pattern on MALTS

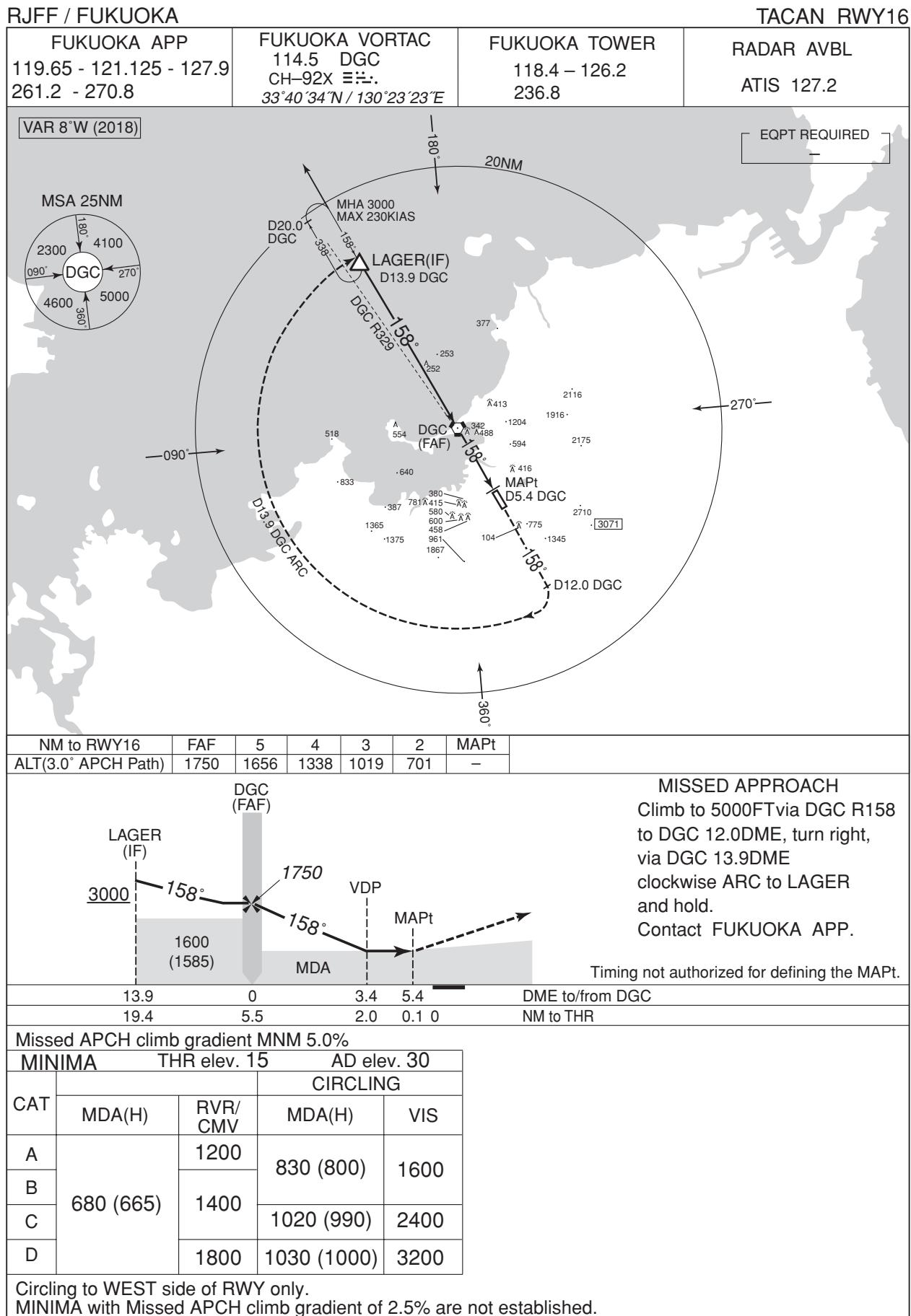
| CAT | MINIMA    |         | THR elev. 15 |         | AD elev. 30 |      |
|-----|-----------|---------|--------------|---------|-------------|------|
|     | DA(H)     | RVR/CMV | LNAV         | RVR/CMV | CIRCLING    | VIS  |
| A   |           | 1000    |              | 1000    | 830 (800)   | 1600 |
| B   | 490 (475) | 1200    | 490 (475)    | 1200    | 1020 (990)  | 2400 |
| C   |           |         |              |         | 1030 (1000) | 3200 |
| D   |           | 1600    |              |         |             |      |

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

## INSTRUMENT APPROACH CHART

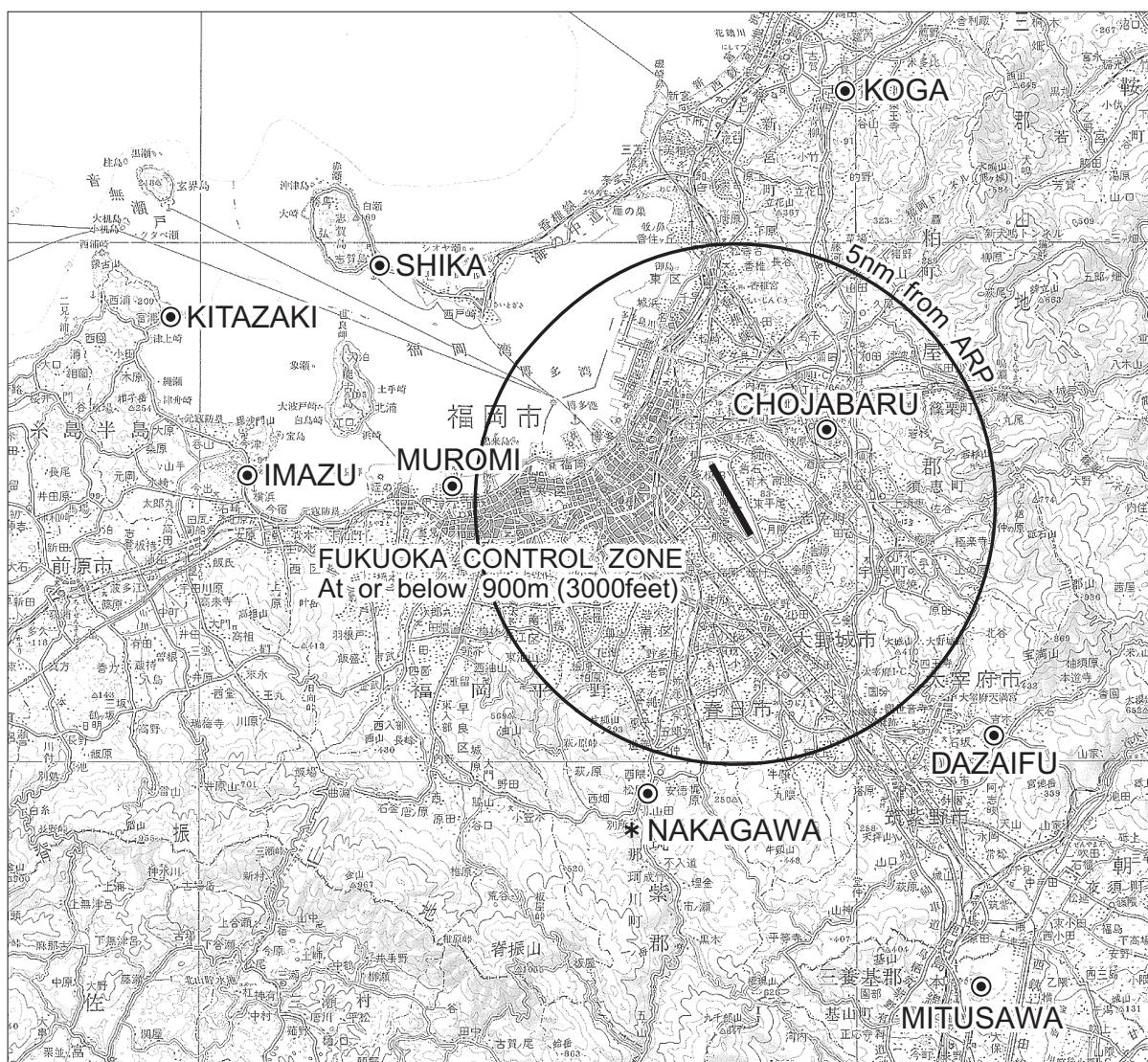


INSTRUMENT APPROACH CHART



RJFF

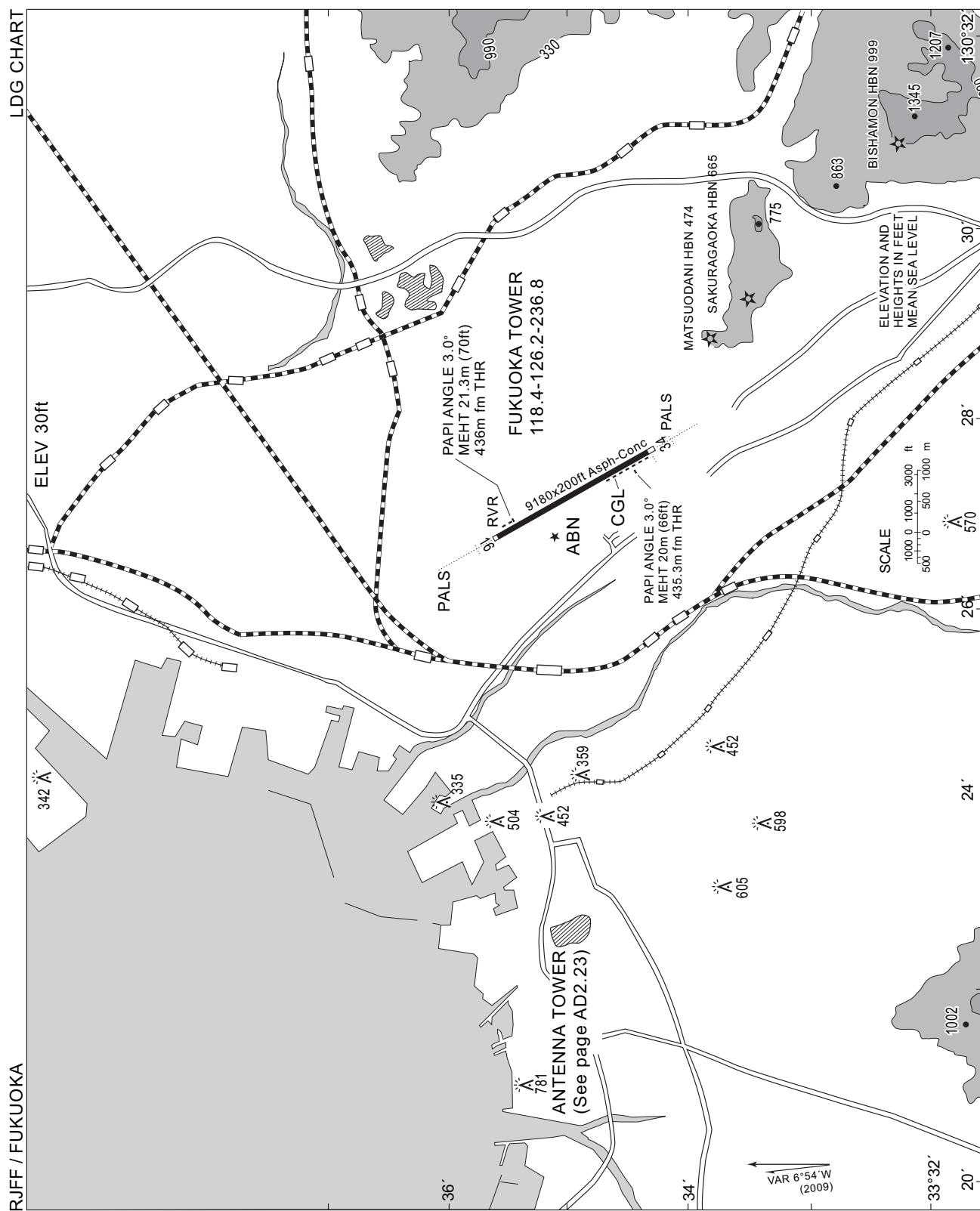
FUKUOKA Visual REP



CHANGE : Shape of FUKUOKA CONTROL ZONE.

| Call sign         | BRG / DIST from ARP | Remarks                     |
|-------------------|---------------------|-----------------------------|
| 古賀<br>koga        | 014° / 8.4NM        | 高速道路インターチェンジ<br>Interchange |
| 長者原<br>Chojabaru  | 046° / 2.3NM        | ドーム型建造物<br>Dome             |
| 太宰府<br>Dazaifu    | 133° / 6.4NM        | ゴルフ場<br>Golf Course         |
| 三沢<br>Mitusawa    | 153°/10.4NM         | ゴルフ場<br>Golf Course         |
| * 那珂川<br>Nakagawa | 196° / 5.9NM        | 松尾橋<br>Bridge               |
| 室見<br>Muromi      | 273° / 5.5NM        | 室見川河口<br>River - Mouth      |
| 今津<br>Imazu       | 273° / 9 NM         | 今津橋<br>Bridge               |
| 志賀<br>Shika       | 303° / 8 NM         | 志賀島橋<br>Bridge              |
| 北崎<br>Kitazaki    | 288°/12 NM          | 漁港<br>Harbor                |

\* ヘリコプター用 Use For Helicopter



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Minimum Vectoring Altitude CHART

