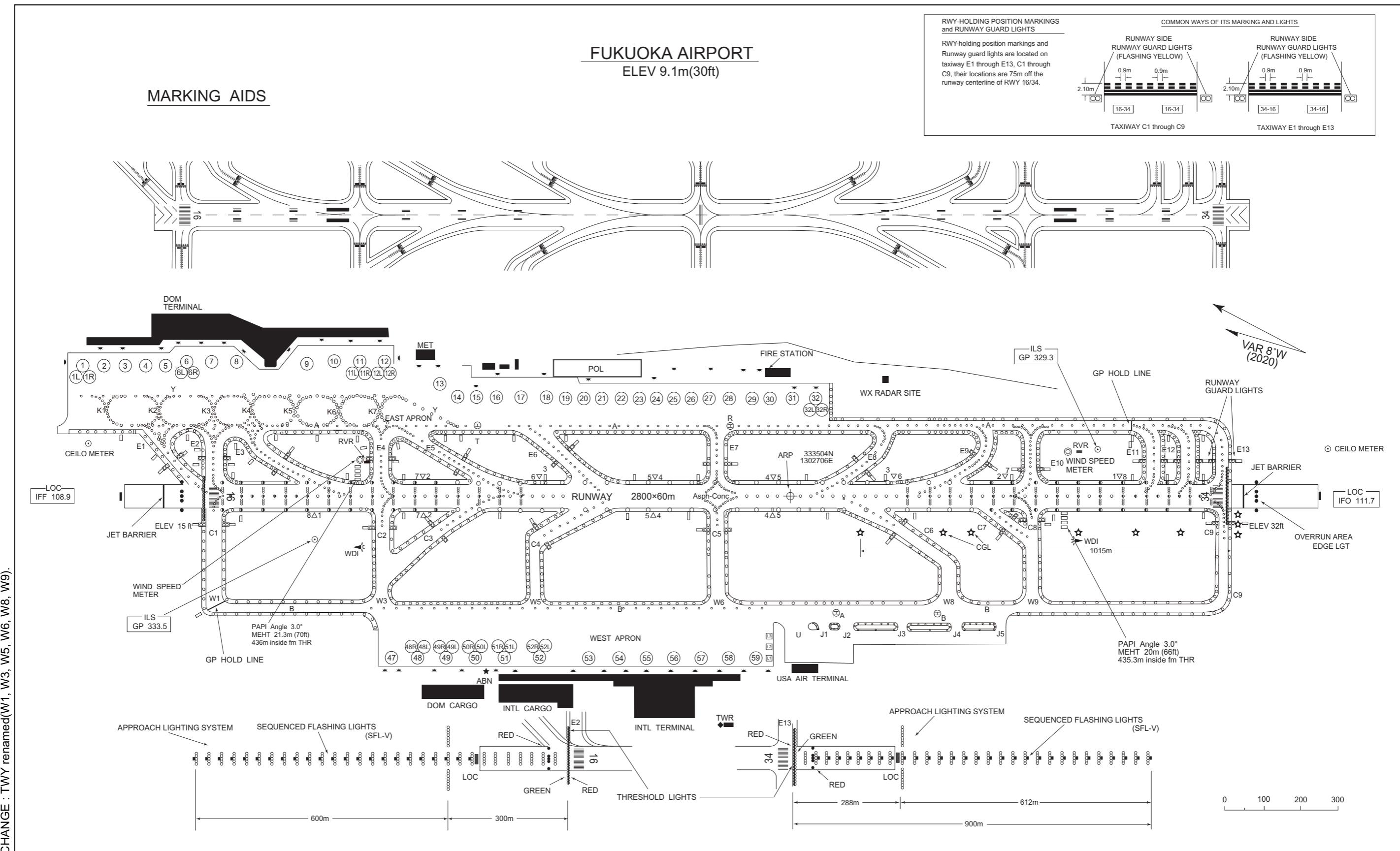
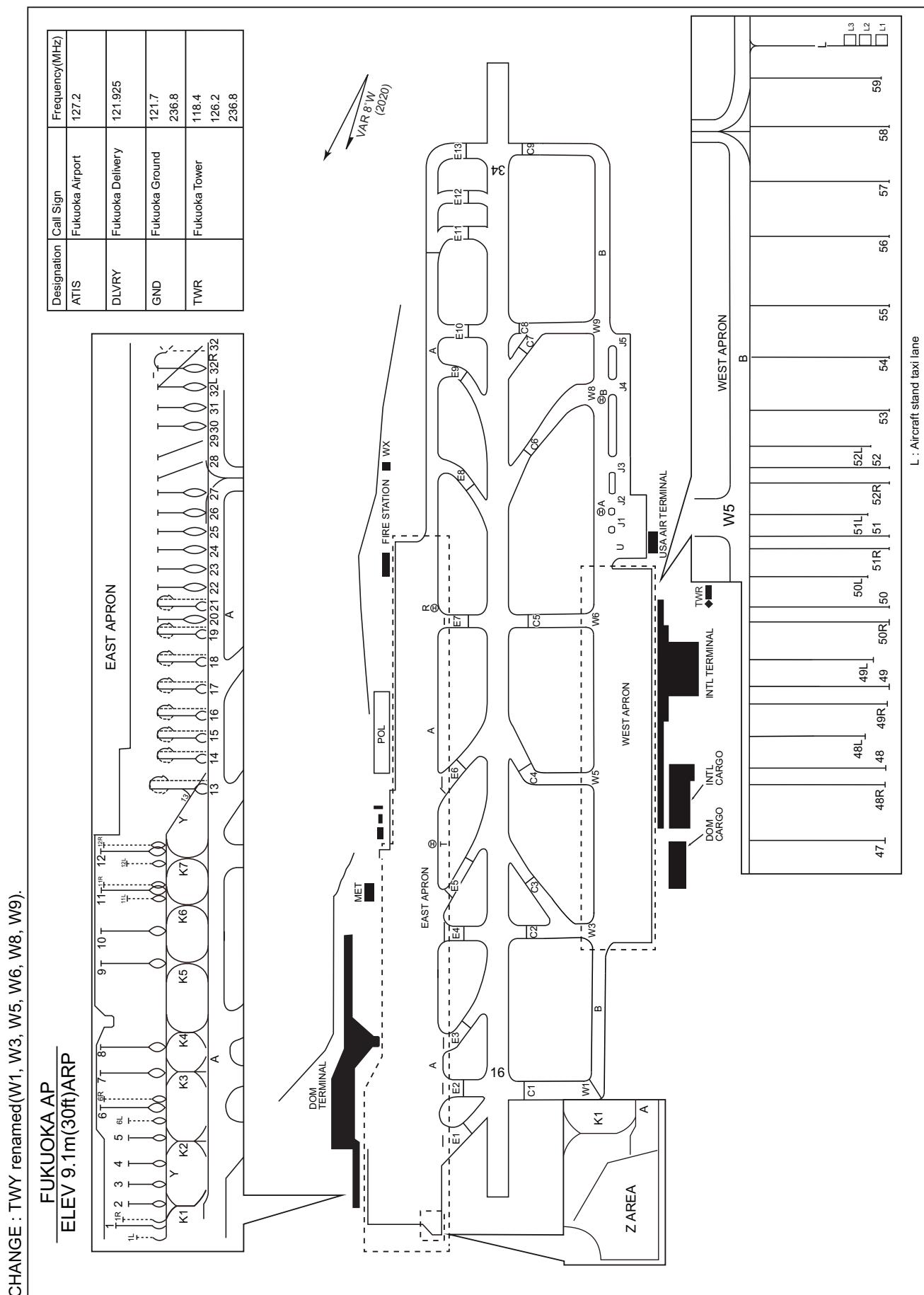


AERODROME CHART





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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.

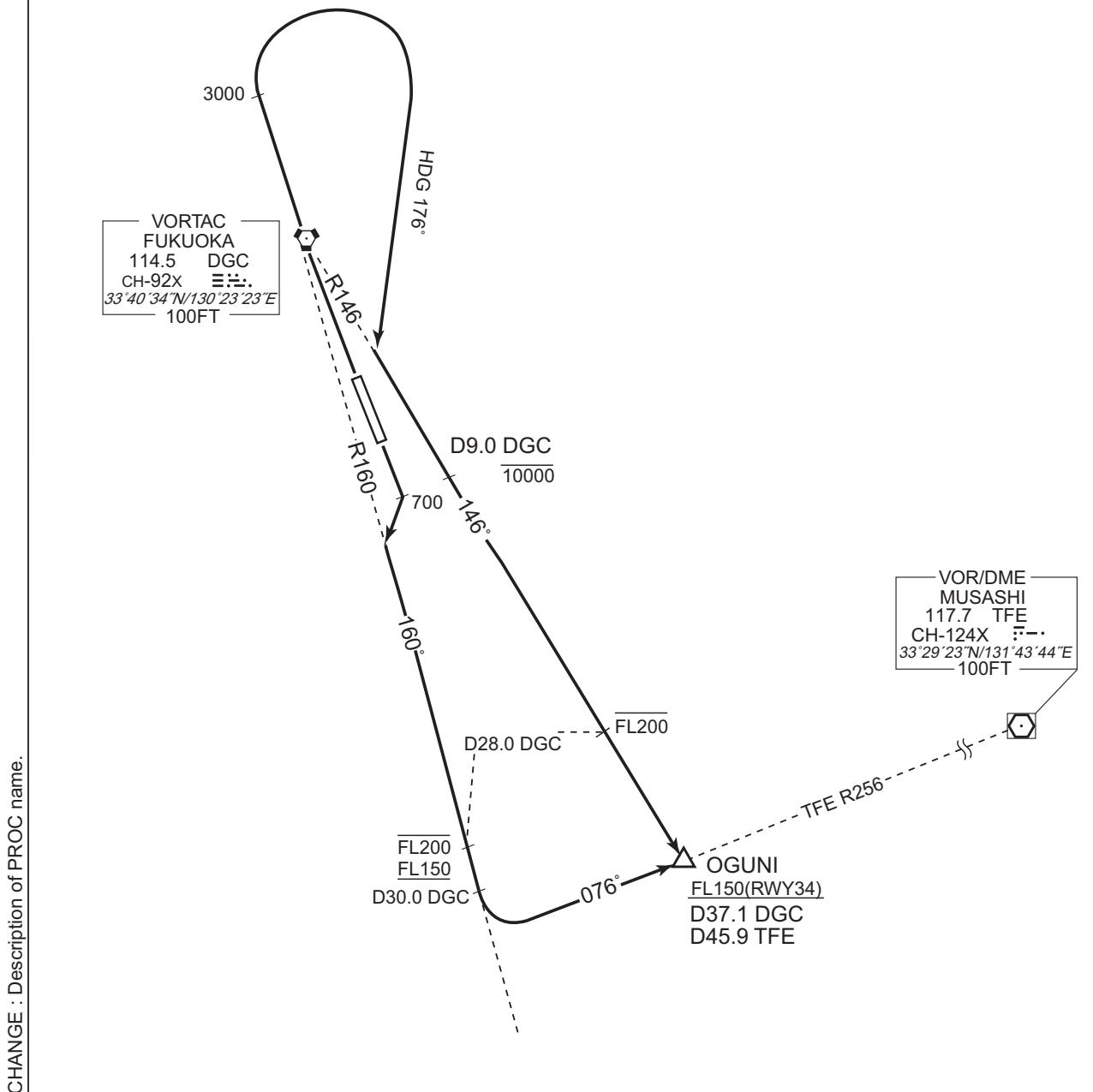
RWY 34 : Climb RWY HDG to 3000FT, turn right HDG176° to intercept and proceed via DGC R146 to OGUNI.

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.

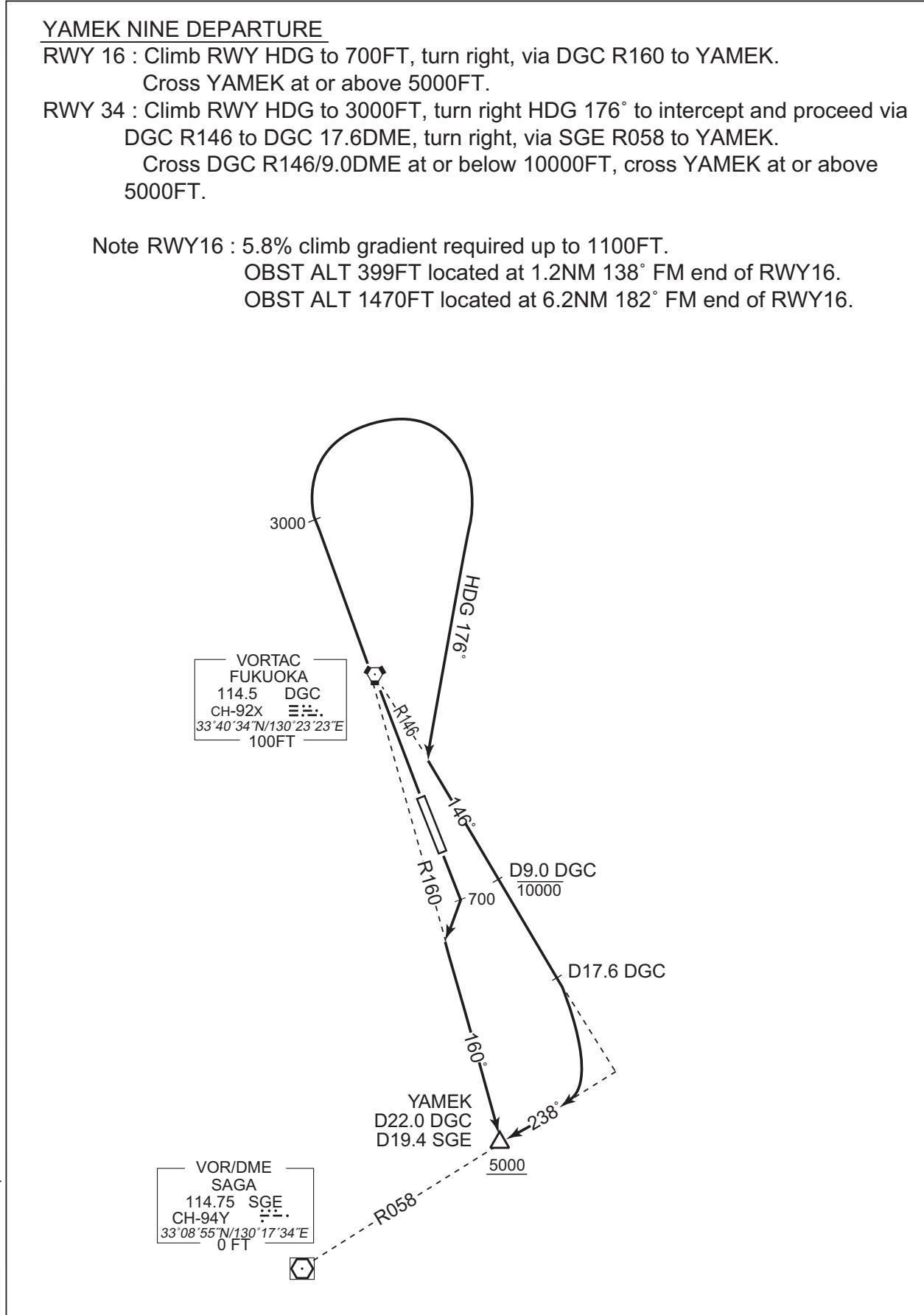
Cross DGC R146/9.0DME at or below 10000FT, cross YAMEK at or above 5000FT.

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.

CHANGE : Description of PROC name.



## STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA

SID

YAMGA SEVEN 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 13000FT.

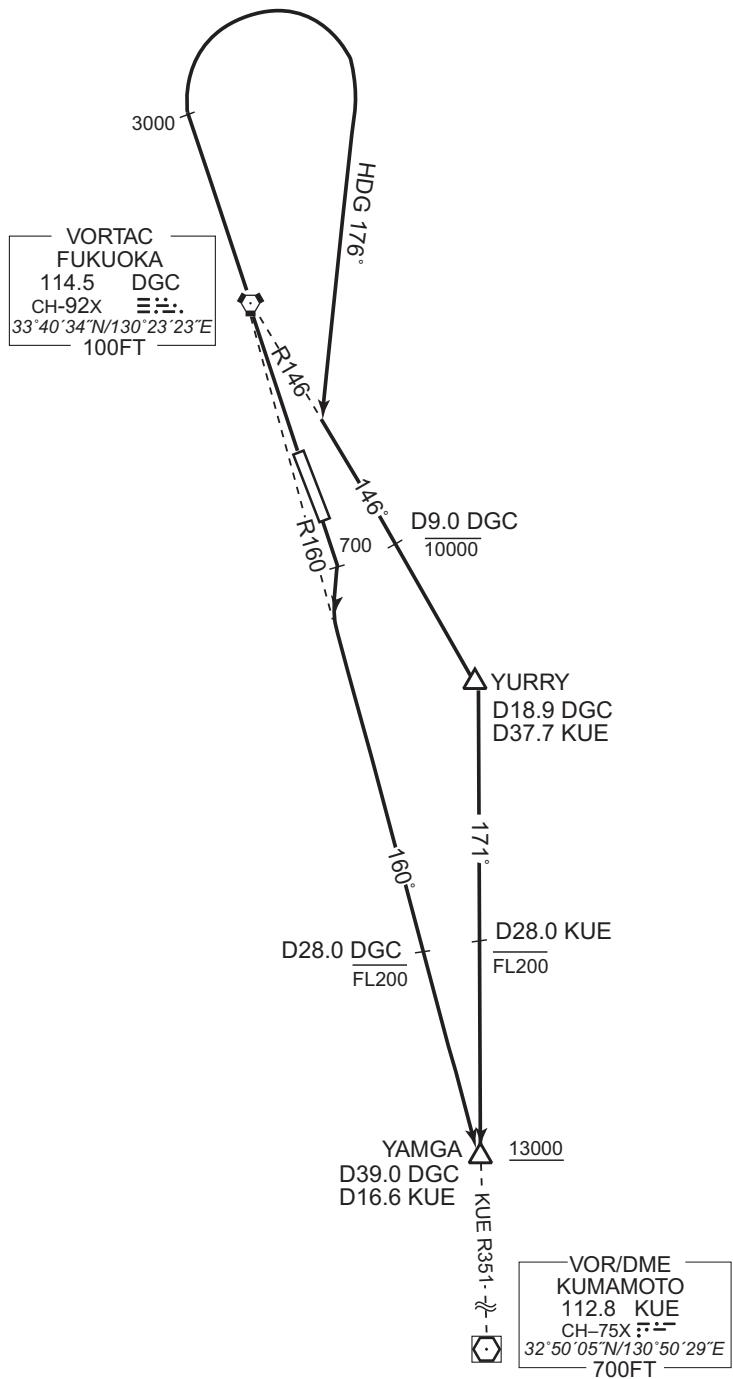
RWY 34 : Climb RWY HDG to 3000FT, turn right HDG 176° to intercept and proceed via DGC R146 to YURRY, turn right, via KUE R351 to YAMGA.

Cross DGC R146/9.0DME at or below 10000FT, cross KUE R351/28.0DME at or below FL200, cross YAMGA at or above 13000FT.

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.



CHANGE : Description of PROC name.

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.

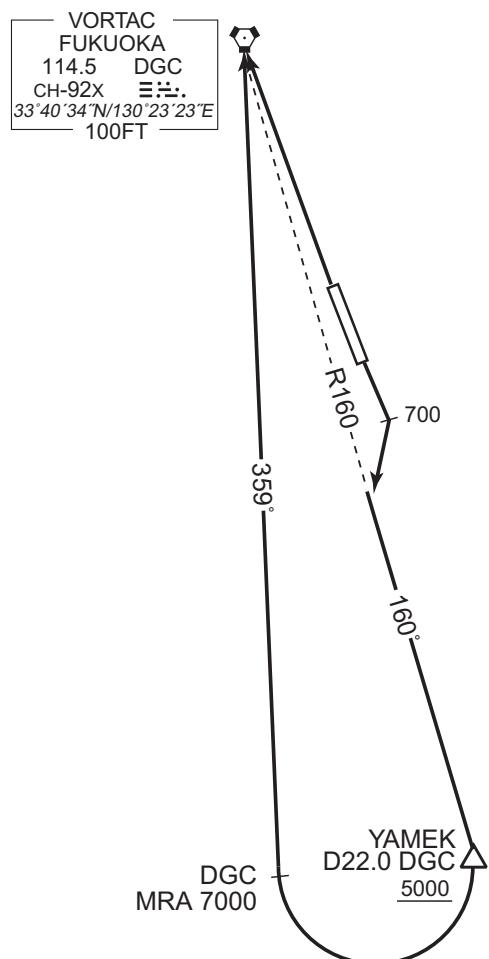
RWY 34 : Climb direct to DGC VORTAC.

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.

CHANGE : Description of PROC name.



**STANDARD DEPARTURE CHART-INSTRUMENT**

RJFF / FUKUOKA

TRANSITION

**KAGOSHIMA TRANSITION**

From over YAMGA, proceed via HKC R013 to HKC VORTAC via KEIKA, IPUDO and AJISE.  
Cross KEIKA at or below FL180.

**KUMAMOTO TRANSITION**

From over YAMGA, proceed via KUE R351 to KUE VOR/DME via ABECK.  
Cross ABECK at assigned altitude.

**SAGA TRANSITION**

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

**MIZMA TRANSITION**

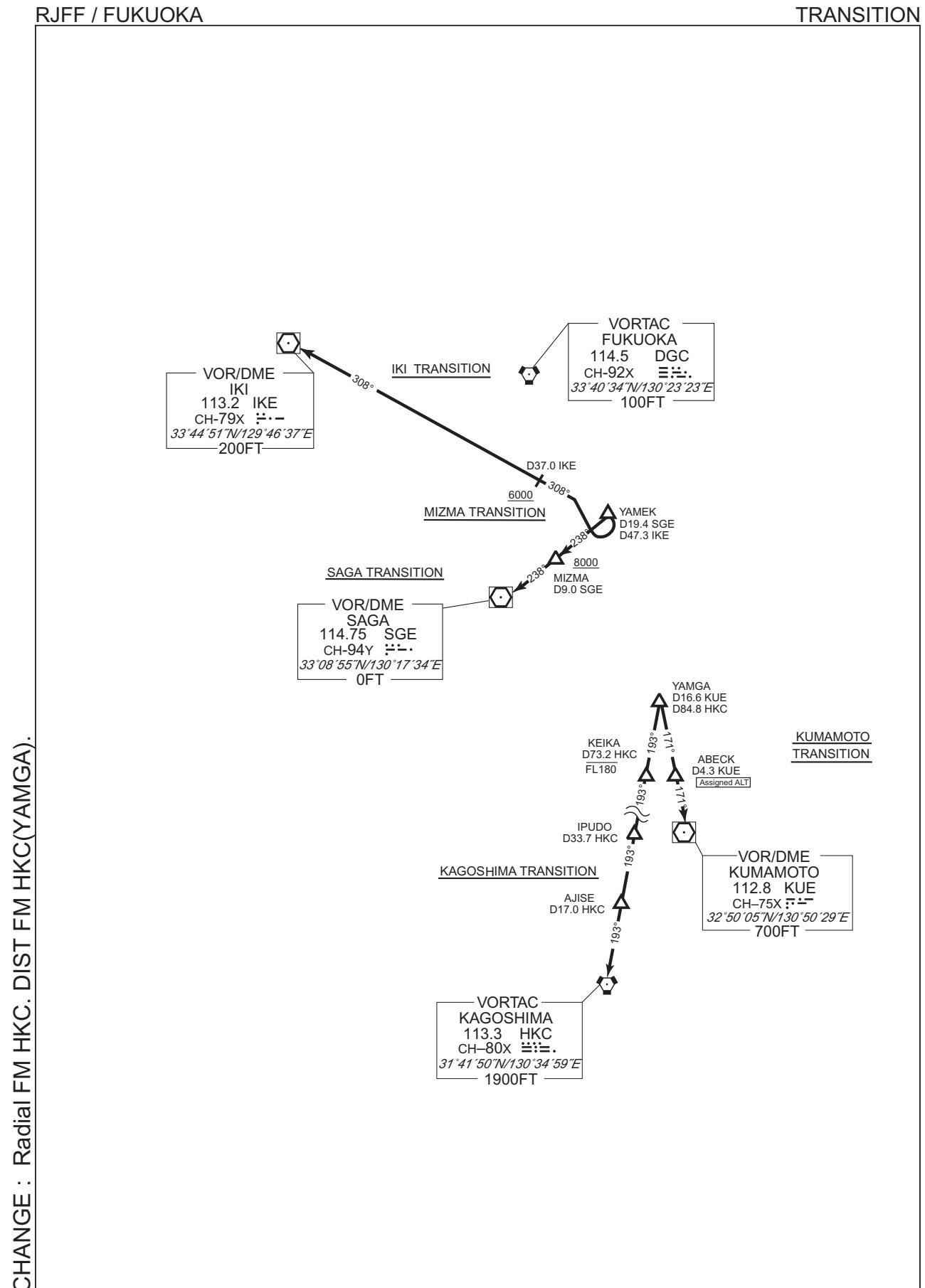
From over YAMEK, proceed via SGE R058 to MIZMA.  
Cross MIZMA at or above 8000FT.

**IKI TRANSITION**

From over YAMEK, turn right, proceed via IKE R128 to IKE VOR/DME .  
Cross IKE R128/37.0DME at or above 6000FT.

CHANGE : Radial FM HKC.

STANDARD DEPARTURE CHART-INSTRUMENT



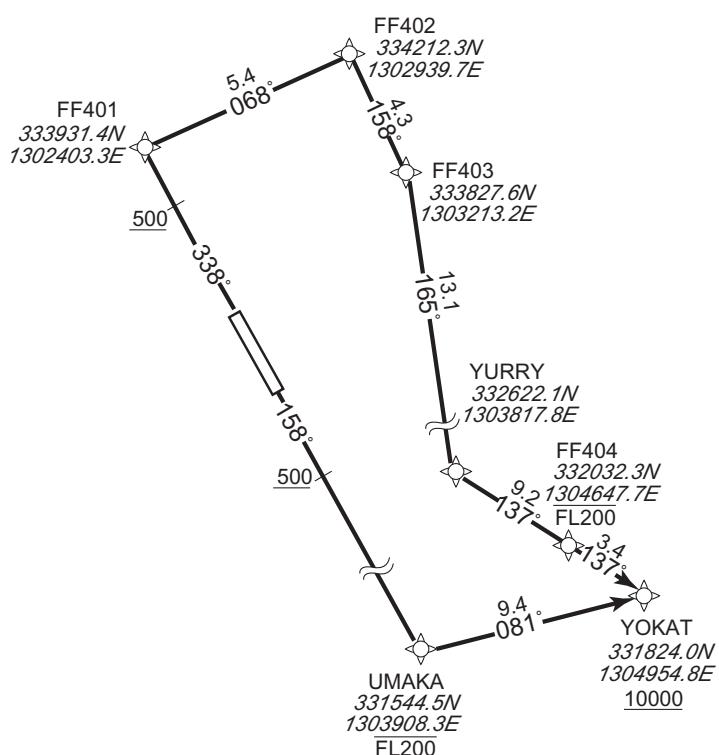
## STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV SID

YOKAT FIVE DEPARTURE		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.	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"
2 ) RADAR service required.	DME GAP	RWY16 : DER~1.0NM FM DER RWY34 : DER~0.9NM FM DER 2.2NM to FF401~FF403
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 8°W



CHANGE : Description of VAR and PROC name.

RWY34 : Climb on HDG 338° 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 158° 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 FIVE 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	—	—	338 (330.3)	-7.7	—	—	+500	—	—	RNAV1
002	DF	FF401	—	—	-7.7	—	—	—	—	—	RNAV1
003	TF	FF402	—	068 (060.1)	-7.7	5.4	—	—	—	—	RNAV1
004	TF	FF403	—	158 (150.4)	-7.7	4.3	—	—	—	—	RNAV1
005	TF	YURRY	—	165 (157.2)	-7.7	13.1	—	—	—	—	RNAV1
006	TF	FF404	—	137 (129.4)	-7.7	9.2	—	-FL200	—	—	RNAV1
007	TF	YOKAT	—	137 (129.4)	-7.7	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	—	—	158 (150.3)	-7.7	—	—	+500	—	—	RNAV1
002	DF	UMAKA	—	—	-7.7	—	—	-FL200	—	—	RNAV1
003	TF	YOKAT	—	081 (073.5)	-7.7	9.4	—	+10000	—	—	RNAV1

CHANGE : VAR. PROC renamed. PROC course.

## STANDARD DEPARTURE CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV TRANSITION

BRAID TRANSITION / MATSUYAMA TRANSITION / SALTY TRANSITON YANKS TRANSITION / SPIDE TRANSITION / SABAR TRANSITION		RNAV 1
Note 1 ) DME/DME/IRU or GNSS required. 2 ) RADAR service required.	Critical DME	SABAR TRANSITION : SWE "YOKAT ~ RUISA" SGE "HOSEN ~ RUISA"
	DME GAP	-
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVIDs for RNAV1
VAR 8°W		
		<p>The chart illustrates the RNAV transition routes from various departure points. It shows the following routes and associated data:</p> <ul style="list-style-type: none"> <li><b>YOKAT</b>: 331824.0N 1304954.8E, 10000ft. Routes to <b>KOHZA</b> (332110.5N 1310116.1E, FL140) via 081°/6.9, and to <b>BRAID</b> (332305.6N 1310911.1E, FL170) via 081°/6.9.</li> <li><b>KOHZA</b>: 332110.5N 1310116.1E, FL140. Route to <b>BRAID</b> via 081°/6.9.</li> <li><b>BRAID</b>: 332305.6N 1310911.1E, FL170. Routes to <b>MARCO</b> (340446.0N 1320850.2E) via 64.8°/057°, and to <b>MATSUYAMA(MYE)</b> (334948.4N 1324132.0E) via 078°/181.5°.</li> <li><b>MARCO</b>: 340446.0N 1320850.2E. Route to <b>MATSUYAMA(MYE)</b> via 64.8°/057°.</li> <li><b>MATSUYAMA(MYE)</b>: 334948.4N 1324132.0E. Routes to <b>SALTY</b> (335109.7N 1325530.8E) via 080°/192.9°, and to <b>YANKS</b> (340749.0N 1342925.3E) via 12.6°/080°.</li> <li><b>SALTY</b>: 335109.7N 1325530.8E. Route to <b>YANKS</b> via 12.6°/080°.</li> <li><b>YANKS</b>: 340749.0N 1342925.3E. Route to <b>CHOPP</b> (335111.0N 1332515.5E) via 43.2°/080°.</li> <li><b>CHOPP</b>: 335111.0N 1332515.5E. Route to <b>SANJI</b> (335458.4N 1333940.0E) via 43.2°/080°.</li> <li><b>SANJI</b>: 335458.4N 1333940.0E. Route to <b>YANKS</b> via 43.2°/080°.</li> <li><b>LUFFY</b>: 333312.0N 1321837.3E. Route to <b>SPIDE</b> (333840.2N 1325818.0E) via 58.8°/087°.</li> <li><b>SPIDE</b>: 333840.2N 1325818.0E. Route to <b>SABAR</b> (331033.4N 1320749.3E) via 31.6°/105°.</li> <li><b>RUISA</b>: 331425.9N 1313022.0E. Route to <b>SABAR</b> via 31.6°/105°.</li> <li><b>SABAR</b>: 331033.4N 1320749.3E. Route to <b>YANKS</b> via 16.9°/104°.</li> <li><b>AMAGA</b>: 331712.0N 1310223.7E, FL140. Route to <b>HOSEN</b> (331625.7N 1311017.3E, FL170) via 104°/6.6.</li> <li><b>HOSEN</b>: 331625.7N 1311017.3E, FL170. Route to <b>YOKAT</b> via 104°/6.6.</li> </ul>
		<b>BRAID TRANSITION</b>
		From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to MARCO.
		<b>MATSUYAMA TRANSITION</b>
		From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to MYE.
		<b>SALTY TRANSITION</b>
		From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to SALTY.
		<b>YANKS TRANSITION</b>
		From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to LUFFY, to CHOPP, to SANJI, to YANKS.
		<b>SPIDE TRANSITION</b>
		From YOKAT at or above 10000FT, to KOHZA at or above FL140, to BRAID at or above FL170, to LUFFY, to SPIDE.
		<b>SABAR TRANSITION</b>
		From YOKAT at or above 10000FT, to AMAGA at or above FL140, to HOSEN at or above FL170, to RUISA, to SABAR.

CHANGE : Description of VAR.

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	—	—	-7.7	—	—	+10000	—	—	RNAV1
002	TF	KOHZA	—	081 (073.6)	-7.7	9.9	—	+FL140	—	—	RNAV1
003	TF	BRAID	—	081 (073.8)	-7.7	6.9	—	+FL170	—	—	RNAV1
004	TF	MARCO	—	057 (049.7)	-7.7	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	—	—	-7.7	—	—	+10000	—	—	RNAV1
002	TF	KOHZA	—	081 (073.6)	-7.7	9.9	—	+FL140	—	—	RNAV1
003	TF	BRAID	—	081 (073.8)	-7.7	6.9	—	+FL170	—	—	RNAV1
004	TF	MYE	—	078 (070.4)	-7.7	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	—	—	-7.7	—	—	+10000	—	—	RNAV1
002	TF	KOHZA	—	081 (073.6)	-7.7	9.9	—	+FL140	—	—	RNAV1
003	TF	BRAID	—	081 (073.8)	-7.7	6.9	—	+FL170	—	—	RNAV1
004	TF	SALTY	—	080 (071.9)	-7.7	92.9	—	—	—	—	RNAV1

CHANGE : VAR. Course FM BRAID to SALTY.

## 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	—	—	-7.7	—	—	+10000	—	—	RNAV1
002	TF	KOHZA	—	081 (073.6)	-7.7	9.9	—	+FL140	—	—	RNAV1
003	TF	BRAID	—	081 (073.8)	-7.7	6.9	—	+FL170	—	—	RNAV1
004	TF	LUFFY	—	087 (079.8)	-7.7	58.8	—	—	—	—	RNAV1
005	TF	CHOPP	—	079 (071.7)	-7.7	58.3	—	—	—	—	RNAV1
006	TF	SANJI	—	080 (072.4)	-7.7	12.6	—	—	—	—	RNAV1
007	TF	YANKS	—	080 (072.5)	-7.7	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	—	—	-7.7	—	—	+10000	—	—	RNAV1
002	TF	KOHZA	—	081 (073.6)	-7.7	9.9	—	+FL140	—	—	RNAV1
003	TF	BRAID	—	081 (073.8)	-7.7	6.9	—	+FL170	—	—	RNAV1
004	TF	LUFFY	—	087 (079.8)	-7.7	58.8	—	—	—	—	RNAV1
005	TF	SPIDE	—	088 (080.4)	-7.7	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	—	—	-7.7	—	—	+10000	—	—	RNAV1
002	TF	AMAGA	—	104 (096.5)	-7.7	10.5	—	+FL140	—	—	RNAV1
003	TF	HOSEN	—	104 (096.6)	-7.7	6.6	—	+FL170	—	—	RNAV1
004	TF	RUISA	—	104 (096.7)	-7.7	16.9	—	—	—	—	RNAV1
005	TF	SABAR	—	105 (096.9)	-7.7	31.6	—	—	—	—	RNAV1

CHANGE : VAR. CHOPP established. Course FM RUISA to SABAR.

## STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID and TRANSITION

KURUME FOUR 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 NAVIDs for RNAV1
<b>VAR 8°W</b> 		
<b>KURUME FOUR DEPARTURE</b> RWY34 : Climb on HDG 338° at or above 500FT, direct to FF401, to FF402, to FF403, to YURRY, to YAMEK. RWY16 : Climb on HDG 158° 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.		
<b>BRUIN TRANSITION</b> From YAMEK, to BRUIN, to OMUTA.		
<b>GABAI TRANSITION</b> From YAMEK, to SGE.		
<b>GENKAI TRANSITION</b> From YAMEK, to DAIZE to IKE.		

CHANGE : Description of VAR.

## STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID

KURUME 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	—	—	338 (330.3)	-7.7	—	—	+500	—	—	RNAV1
002	DF	FF401	—	—	-7.7	—	—	—	—	—	RNAV1
003	TF	FF402	—	068 (060.1)	-7.7	5.4	—	—	—	—	RNAV1
004	TF	FF403	—	158 (150.4)	-7.7	4.3	—	—	—	—	RNAV1
005	TF	YURRY	—	165 (157.2)	-7.7	13.1	—	—	—	—	RNAV1
006	TF	YAMEK	—	210 (202.7)	-7.7	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	—	—	158 (150.3)	-7.7	—	—	+500	—	—	RNAV1
002	DF	YAMEK	—	—	-7.7	—	—	—	—	—	RNAV1

CHANGE : VAR. SID renamed. PROC course.

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	—	—	-7.7	—	—	—	—	—	RNAV1
002	TF	BRUIN	—	210 (202.4)	-7.7	16.2	—	—	—	—	RNAV1
003	TF	OMUTA	—	210 (202.3)	-7.7	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	—	—	-7.7	—	—	—	—	—	RNAV1
002	TF	SGE	—	239 (231.2)	-7.7	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	—	—	-7.7	—	—	—	—	—	RNAV1
002	TF	DAIZE	—	240 (232.7)	-7.7	8.5	—	—	—	—	RNAV1
003	TF	IKE	—	318 (310.4)	-7.7	44.8	—	—	—	—	RNAV1

CHANGE : VAR. PROC course.

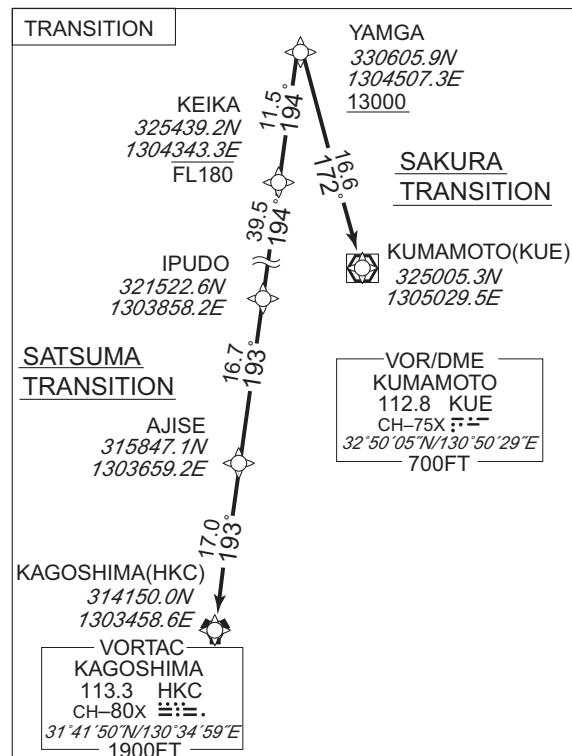
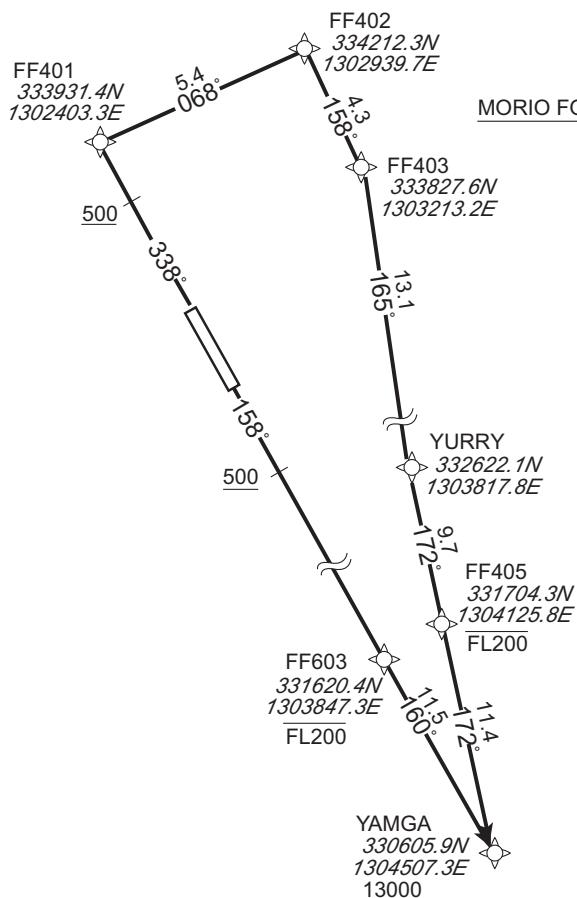
## STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID and TRANSITION

MORIO FOUR DEPARTURE SATSUMA TRANSITION / SAKURA 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.	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"
2 ) RADAR service required.	DME GAP	RWY16 :DER~1.0NM FM DER RWY34 :DER~0.9NM FM DER 2.2NM to FF401~FF403
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 8°W

MORIO FOUR DEPARTURE

RWY34 : Climb on HDG 338° at or above 500FT, direct to FF401, to FF402, to FF403, to YURRY, to FF405 at or below FL200, to YAMGA at or above 13000FT.

RWY16 : Climb on HDG 158° at or above 500FT, direct to FF603 at or below FL200, to YAMGA at or above 13000FT.

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 13000FT, to KUE.

SATSUMA TRANSITION

From YAMGA at or above 13000FT, to KEIKA at or below FL180, to IPUDO, to AJISE, to HKC.

CHANGE : Description of VAR.

## STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID

MORIO 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	—	—	338 (330.3)	-7.7	—	—	+500	—	—	RNAV1
002	DF	FF401	—	—	-7.7	—	—	—	—	—	RNAV1
003	TF	FF402	—	068 (060.1)	-7.7	5.4	—	—	—	—	RNAV1
004	TF	FF403	—	158 (150.4)	-7.7	4.3	—	—	—	—	RNAV1
005	TF	YURRY	—	165 (157.2)	-7.7	13.1	—	—	—	—	RNAV1
006	TF	FF405	—	172 (164.3)	-7.7	9.7	—	-FL200	—	—	RNAV1
007	TF	YAMGA	—	172 (164.3)	-7.7	11.4	—	+13000	—	—	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	—	—	158 (150.3)	-7.7	—	—	+500	—	—	RNAV1
002	DF	FF603	—	—	-7.7	—	—	-FL200	—	—	RNAV1
003	TF	YAMGA	—	160 (152.6)	-7.7	11.5	—	+13000	—	—	RNAV1

CHANGE : VAR. PROC renamed. PROC course. ALT restriction at YAMGA.

## 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	—	—	-7.7	—	—	+13000	—	—	RNAV1
002	TF	KUE	—	172 (164.3)	-7.7	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	—	—	-7.7	—	—	+13000	—	—	RNAV1
002	TF	KEIKA	—	194 (185.9)	-7.7	11.5	—	-FL180	—	—	RNAV1
003	TF	IPUDO	—	194 (185.8)	-7.7	39.5	—	—	—	—	RNAV1
004	TF	AJISE	—	193 (185.8)	-7.7	16.7	—	—	—	—	RNAV1
005	TF	HKC	—	193 (185.8)	-7.7	17.0	—	—	—	—	RNAV1

CHANGE : IPUDO established. ALT restriction at KEIKA.

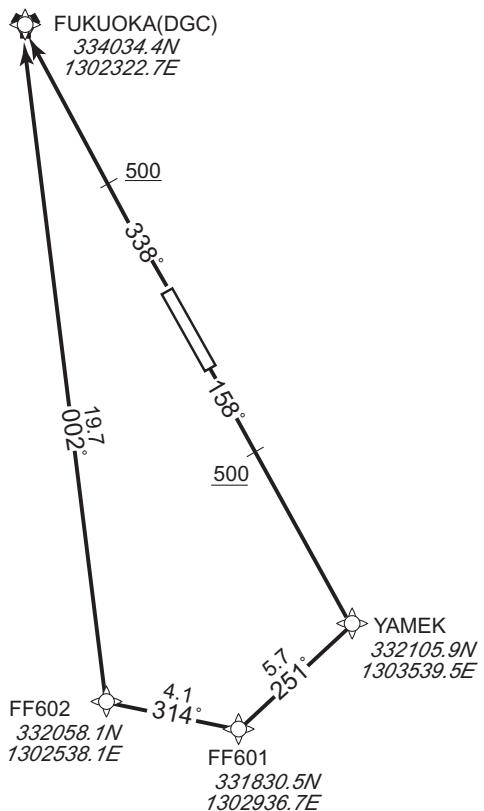
STANDARD DEPARTURE CHART - INSTRUMENT

RJFF / FUKUOKA

RNAV SID

HAKATA FOUR DEPARTURE		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.	Critical DME	RWY16 : DGC "1.0NM FM DER~5.4NM FM DER" IKE "1.0NM FM DER~5.4NM FM DER" RWY34 : DGC "4.6NM to DGC~3.0NM to DGC" IKE "4.6NM to DGC~3.0NM to DGC"
2 ) RADAR service required.	DME GAP	RWY16 : DER~1.0NM FM DER RWY34 : DER~4.6NM to DGC 3.0NM to DGC~DGC
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 8°W



CHANGE : Description of VAR and PROC name.

RWY34 : Climb on HDG 338° at or above 500FT, direct to DGC.

RWY16 : Climb on HDG 158° 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 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	—	—	338 (330.3)	-7.7	—	—	+500	—	—	RNAV1
002	DF	DGC	—	—	-7.7	—	—	—	—	—	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	—	—	158 (150.3)	-7.7	—	—	+500	—	—	RNAV1
002	DF	YAMEK	—	—	-7.7	—	—	—	—	—	RNAV1
003	TF	FF601	—	251 (242.9)	-7.7	5.7	—	—	—	—	RNAV1
004	TF	FF602	—	314 (306.5)	-7.7	4.1	—	—	—	—	RNAV1
005	TF	DGC	—	002 (354.5)	-7.7	19.7	—	—	—	—	RNAV1

CHANGE : VAR. PROC renamed. PROC course.

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 R074 to intercept and proceed via DGC R338 to MALTS via LAGER.

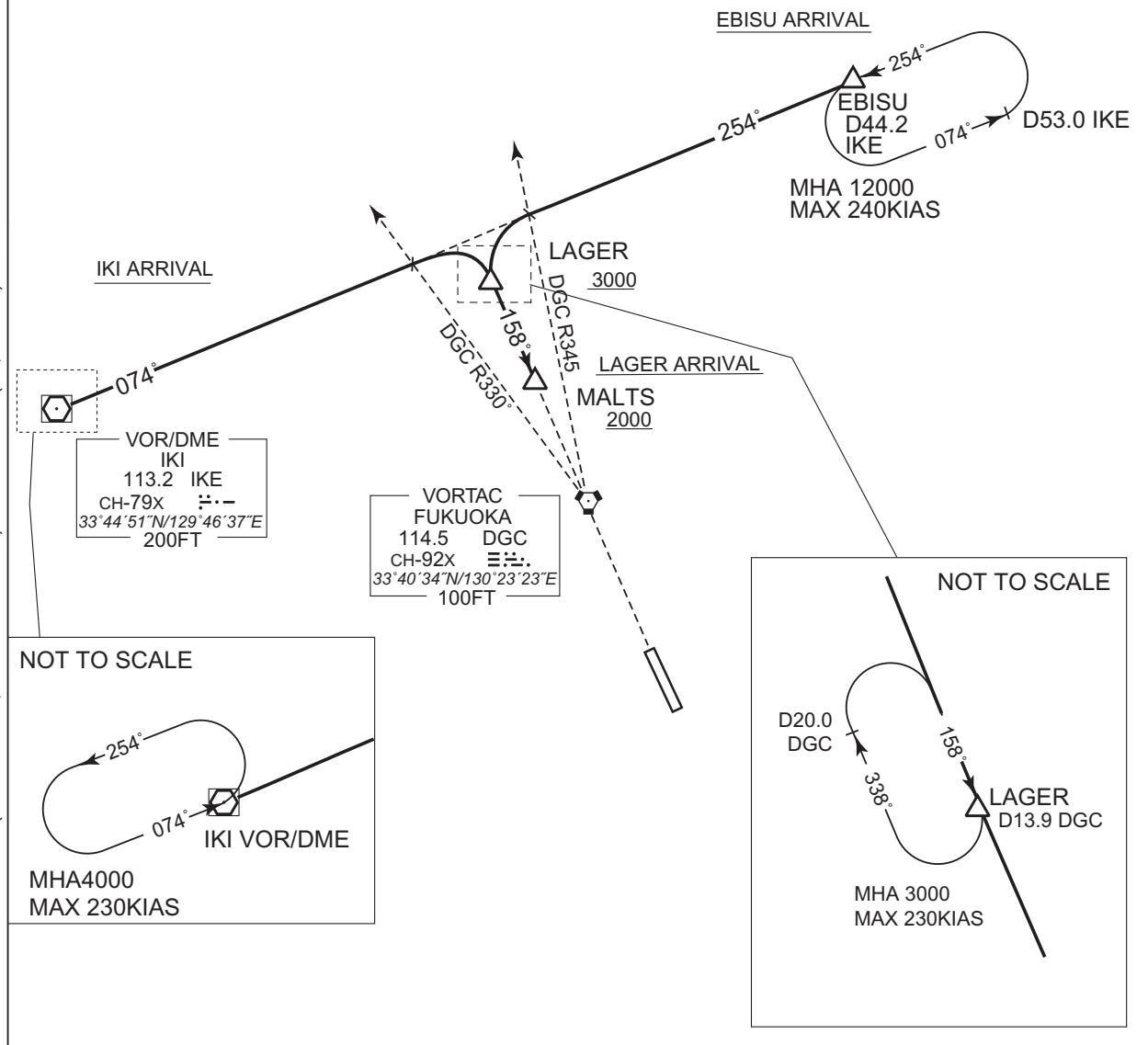
Cross LAGER at or above 3000FT, cross MALTS at or above 2000FT.

IKI ARRIVAL

From over IKE VOR/DME, via IKE R074 to intercept and proceed via DGC R338 to MALTS via LAGER.

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

CHANGE : PROC course(IKI ARRIVAL, EBISU ARRIVAL). HLDG course(IKI, EBISU).



## **STANDARD ARRIVAL CHART-INSTRUMENT**

RJFF / FUKUOKA

STAR

## KAFRI EAST ARRIVAL

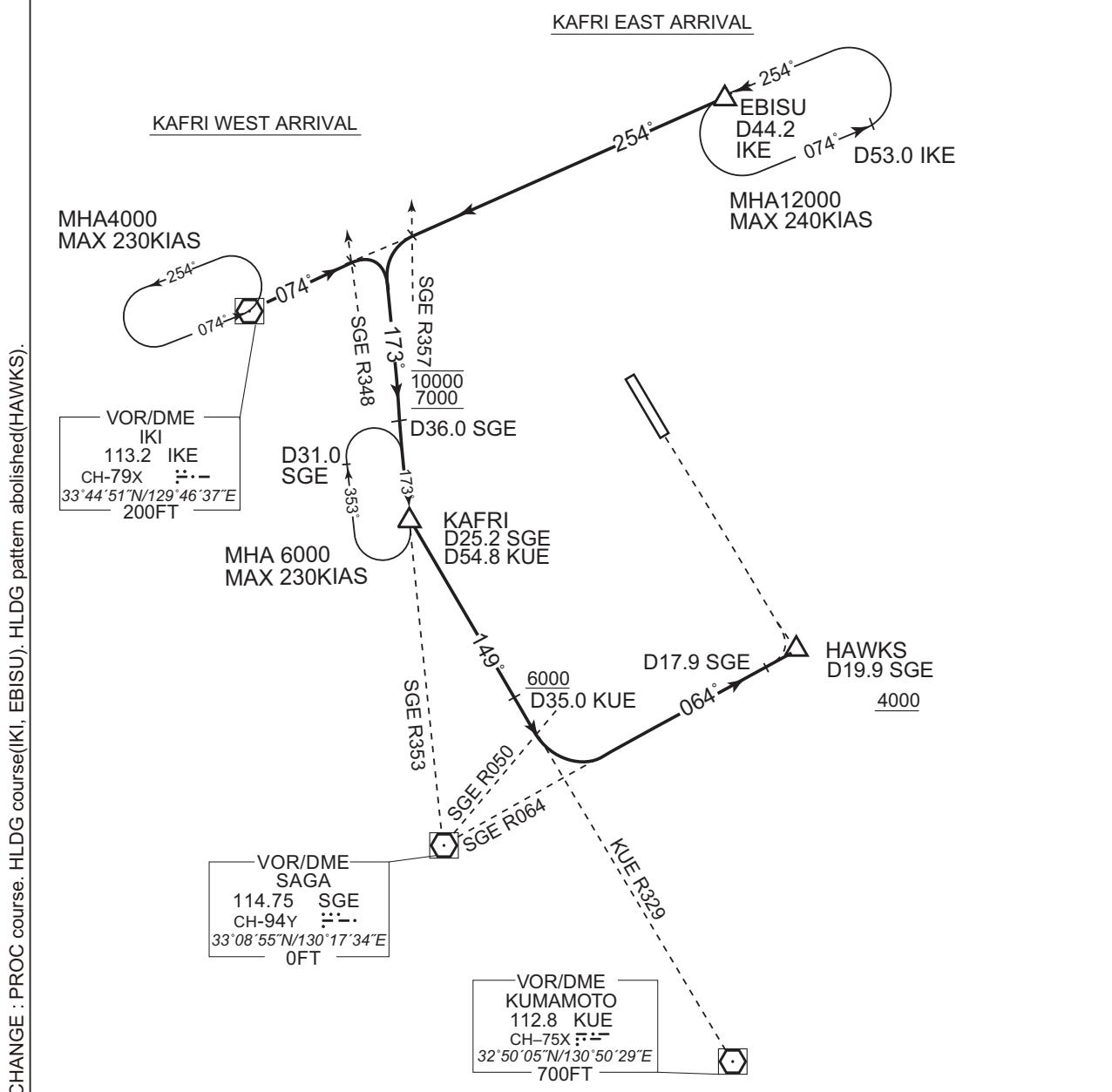
From over EBISU, proceed via IKE R074 to intercept and proceed via SGE R353 to KAFRI, via KUE R329 to intercept and proceed via SGE R064 to HAWKS.

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 R074 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

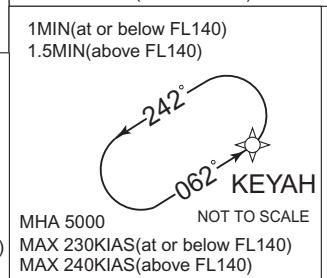
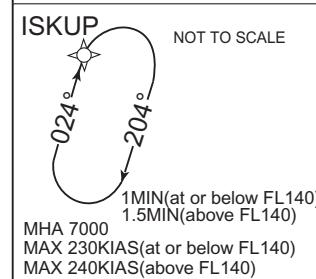
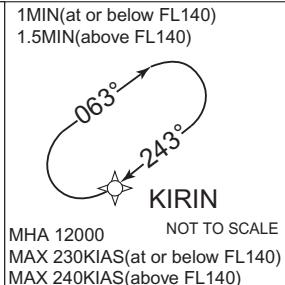
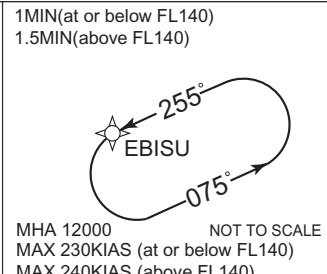
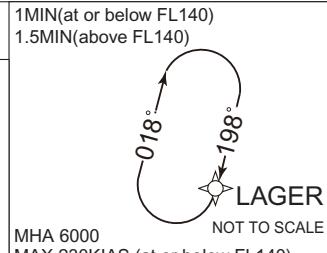
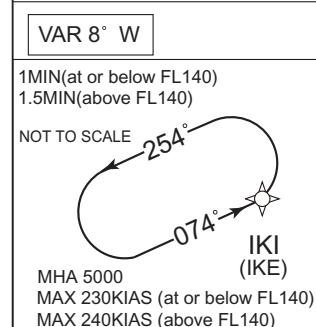
RJFF / FUKUOKA

RNAV STAR RWY34

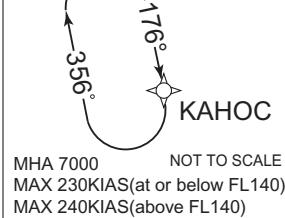
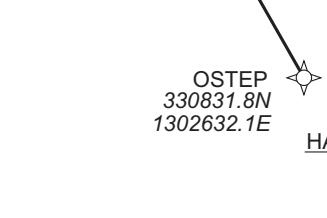
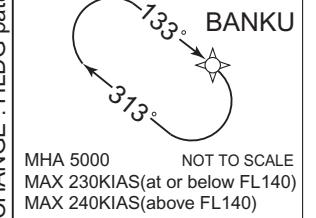
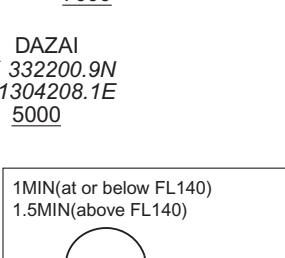
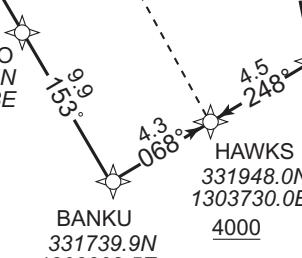
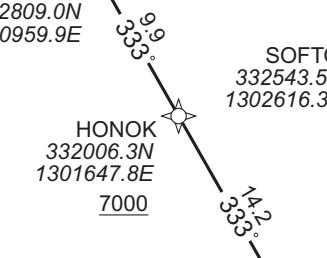
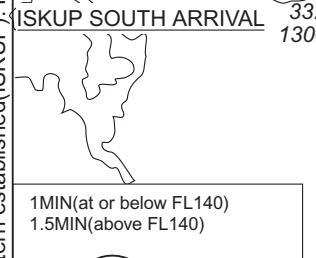
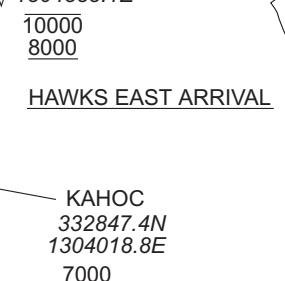
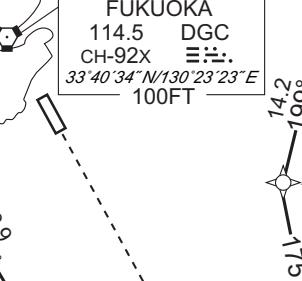
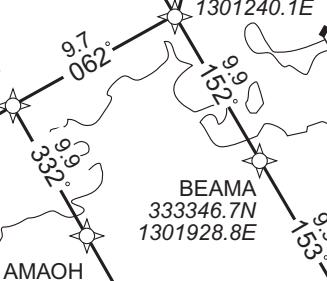
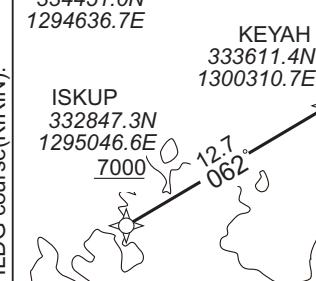
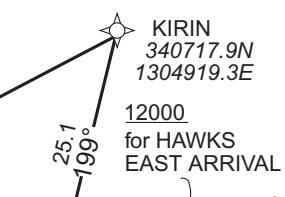
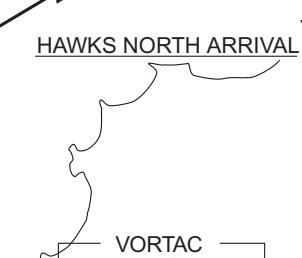
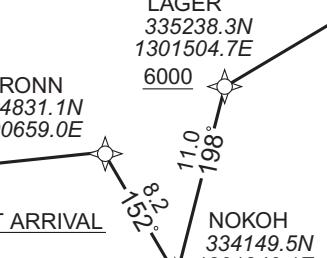
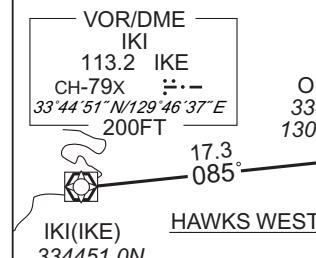
HAWKS EAST ARRIVAL / HAWKS WEST ARRIVAL / HAWKS NORTH ARRIVAL  
HAWKS SOUTH ARRIVAL / ISKUP SOUTH ARRIVAL

RNAV 1

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



CHANGE : HLDG pattern established(ISKUP), HLDG course(KIRIN).



## 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	-	-	-7.7	-	-	+12000	-	-	RNAV1
002	TF	ITODA	-	199 (191.0)	-7.7	25.1	-	-10000 +8000	-	-	RNAV1
003	TF	KAHOC	-	199 (191.0)	-7.7	14.2	-	+7000	-	-	RNAV1
004	TF	DAZAI	-	175 (167.3)	-7.7	6.9	-	+5000	-	-	RNAV1
005	TF	HAWKS	-	248 (240.3)	-7.7	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	243 (235.1)	-8.0	1.0(-14000) 1.5(+14001)	R	12000	-	-230(-14000) -240(+14001)	RNAV1
Hold	KAHOC	176 (167.3)	-7.7	1.0(-14000) 1.5(+14001)	R	7000	-	-230(-14000) -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 6.0NM to ORONN - 5.0NM to NOKOH
	KUE	IKE - 15.0NM to ORONN
	IKUE	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 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	-	-	-7.7	-	-	-	-	-	RNAV1
002	TF	ORONN	-	085 (077.7)	-7.7	17.3	-	-	-	-	RNAV1
003	TF	NOKOH	-	152 (144.7)	-7.7	8.2	-	-	-	-	RNAV1
004	TF	BEAMA	-	152 (144.8)	-7.7	9.9	-	-	-	-	RNAV1
005	TF	SOFTO	-	153 (144.9)	-7.7	9.9	-	-	-	-	RNAV1
006	TF	BANKU	-	153 (144.9)	-7.7	9.9	-	+5000	-210	-	RNAV1
007	TF	HAWKS	-	068 (060.2)	-7.7	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	IKE	074 (066.4)	-8.0	1.0(-14000) 1.5(+14001)	L	5000	-	-230(-14000) -240(+14001)	RNAV1
Hold	BANKU	133 (125.0)	-7.7	1.0(-14000) 1.5(+14001)	R	5000	-	-230(-14000) -240(+14001)	RNAV1

CHANGE : HLDG pattern (KIRIN).

## 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 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	—	—	-7.7	—	—	—	—	—	RNAV1
002	TF	EBISU	—	254 (246.7)	-7.7	12.5	—	+12000	—	—	RNAV1
003	TF	LAGER	—	248 (240.3)	-7.7	19.5	—	+6000	—	—	RNAV1
004	TF	NOKOH	—	198 (190.5)	-7.7	11.0	—	—	—	—	RNAV1
005	TF	BEAMA	—	152 (144.8)	-7.7	9.9	—	—	—	—	RNAV1
006	TF	SOFTO	—	153 (144.9)	-7.7	9.9	—	—	—	—	RNAV1
007	TF	BANKU	—	153 (144.9)	-7.7	9.9	—	+5000	-210	—	RNAV1
008	TF	HAWKS	—	068 (060.2)	-7.7	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	243 (235.1)	-8.0	1.0(-14000) 1.5(+14001)	R	12000	—	-230(-14000) -240(+14001)	RNAV1
Hold	EBISU	255 (246.6)	-8.0	1.0(-14000) 1.5(+14001)	L	12000	—	-230(-14000) -240(+14001)	RNAV1
Hold	LAGER	198 (190.5)	-8.0	1.0(-14000) 1.5(+14001)	R	6000	—	-230(-14000) -240(+14001)	RNAV1
Hold	BANKU	133 (125.0)	-7.7	1.0(-14000) 1.5(+14001)	R	5000	—	-230(-14000) -240(+14001)	RNAV1

CHANGE : HLDG pattern (KIRIN).

## 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 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	—	—	-7.7	—	—	—	—	—	RNAV1
002	TF	HONOK	—	333 (324.9)	-7.7	14.2	—	+7000	—	—	RNAV1
003	TF	AMAOH	—	333 (324.8)	-7.7	9.9	—	—	—	—	RNAV1
004	TF	KEYAH	—	332 (324.8)	-7.7	9.9	—	—	—	—	RNAV1
005	TF	NOKOH	—	062 (054.5)	-7.7	9.7	—	—	—	—	RNAV1
006	TF	BEAMA	—	152 (144.8)	-7.7	9.9	—	—	—	—	RNAV1
007	TF	SOFTO	—	153 (144.9)	-7.7	9.9	—	—	—	—	RNAV1
008	TF	BANKU	—	153 (144.9)	-7.7	9.9	—	+5000	-210	—	RNAV1
009	TF	HAWKS	—	068 (060.2)	-7.7	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)	-7.7	1.0(-14000) 1.5(+14001)	L	5000	—	-230(-14000) -240(+14001)	RNAV1
Hold	BANKU	133 (125.0)	-7.7	1.0(-14000) 1.5(+14001)	R	5000	—	-230(-14000) -240(+14001)	RNAV1

CHANGE : VAR. PROC course. HLDG course(BANKU).

## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV STAR RWY34

ISKUP SOUTH ARRIVAL

From ISKUP at or above 7000FT, 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 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	ISKUP	—	—	-7.7	—	—	+7000	—	—	RNAV1
002	TF	KEYAH	—	062 (054.3)	-7.7	12.7	—	—	—	—	RNAV1
003	TF	NOKOH	—	062 (054.5)	-7.7	9.7	—	—	—	—	RNAV1
004	TF	BEAMA	—	152 (144.8)	-7.7	9.9	—	—	—	—	RNAV1
005	TF	SOFTO	—	153 (144.9)	-7.7	9.9	—	—	—	—	RNAV1
006	TF	BANKU	—	153 (144.9)	-7.7	9.9	—	+5000	-210	—	RNAV1
007	TF	HAWKS	—	068 (060.2)	-7.7	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	ISKUP	024 (016.5)	-8.0	1.0(-14000) 1.5(+14001)	R	7000	—	-230(-14000) -240(+14001)	RNAV1
Hold	KEYAH	062 (054.5)	-7.7	1.0(-14000) 1.5(+14001)	L	5000	—	-230(-14000) -240(+14001)	RNAV1
Hold	BANKU	133 (125.0)	-7.7	1.0(-14000) 1.5(+14001)	R	5000	—	-230(-14000) -240(+14001)	RNAV1

CHANGE : HLDG pattern established(ISKUP).

## **STANDARD ARRIVAL CHART-INSTRUMENT**

RJFF / FUKUOKA

## RNAV STAR RWY16

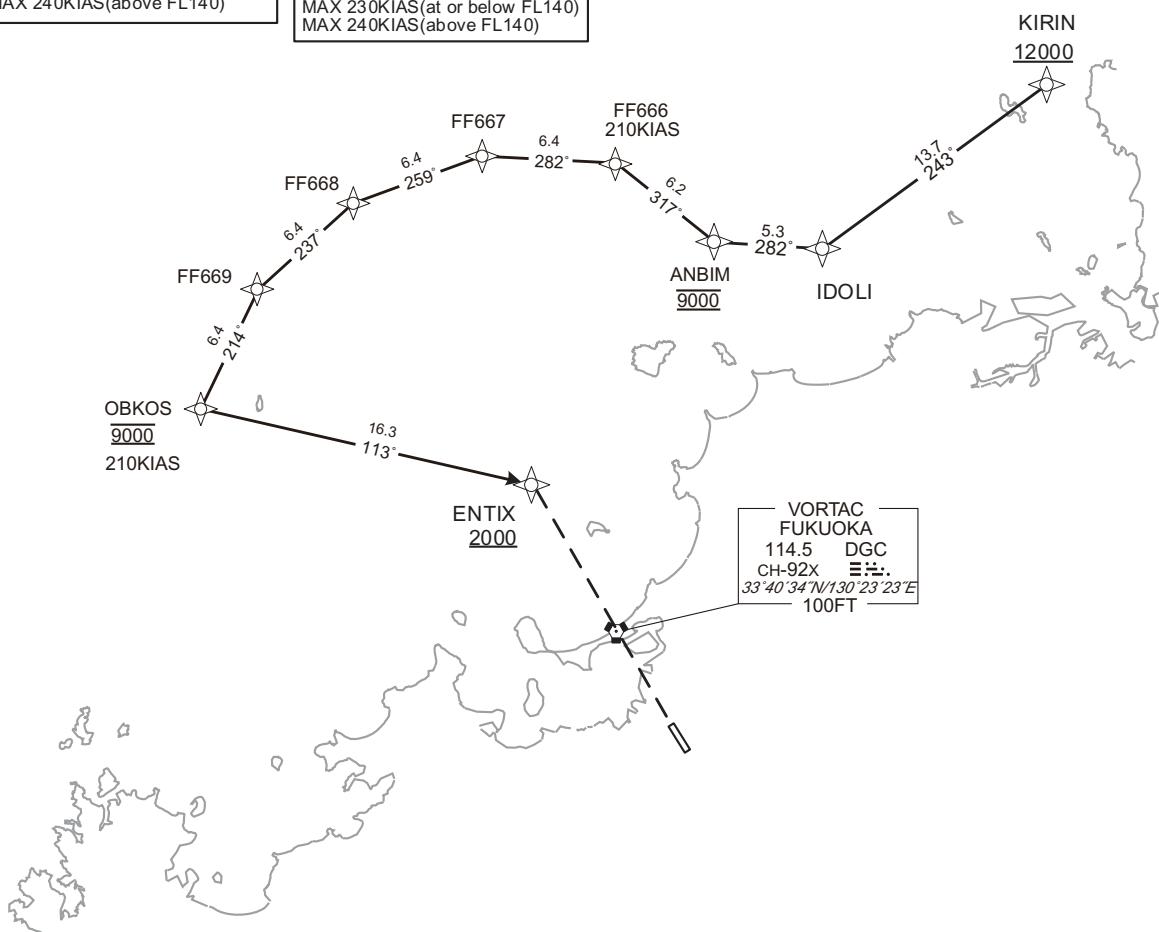
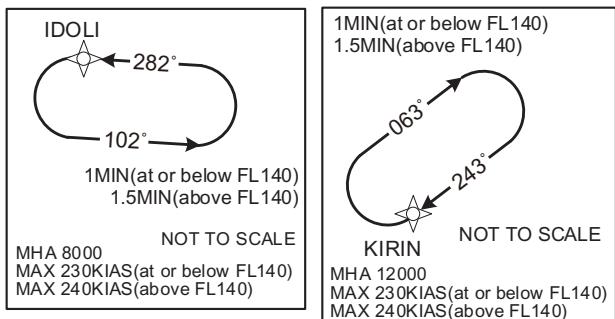
## KIRIN ARRIVAL

RNAV 1

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

2 ) RADAR service required.

VAR 8° W



CHANGE : Course FM ANBIM to ENTIX.

## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV STAR RWY16

KIRIN ARRIVAL

From KIRIN at or above 12000FT, to IDOLI, to ANBIM at 9000FT, to FF666, to FF667, to FF668, to FF669, to OBKOS at 9000FT, to ENTIX at or above 2000FT.

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	-	-	-8.0	-	-	+12000	-	-	RNAV1
002	TF	IDOLI	-	243 (235.0)	-8.0	13.7	-	-	-	-	RNAV1
003	TF	ANBIM	-	282 (274.2)	-8.0	5.3	-	9000	-	-	RNAV1
004	TF	FF666	-	317 (308.8)	-8.0	6.2	-	-	210	-	RNAV1
005	TF	FF667	-	282 (274.1)	-8.0	6.4	-	-	-	-	RNAV1
006	TF	FF668	-	259 (251.4)	-8.0	6.4	-	-	-	-	RNAV1
007	TF	FF669	-	237 (228.8)	-8.0	6.4	-	-	-	-	RNAV1
008	TF	OBKOS	-	214 (206.3)	-8.0	6.4	-	9000	210	-	RNAV1
009	TF	ENTIX	-	113 (105.2)	-8.0	16.3	-	+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	243 (235.1)	-8.0	1.0(-14000) 1.5(+14001)	R	12000	-	-230(-14000) -240(+14001)	RNAV1
Hold	IDOLI	282 (274.3)	-8.0	1.0(-14000) 1.5(+14001)	L	8000	-	-230(-14000) -240(+14001)	RNAV1

Waypoint Coordinates

Waypoint Identifier	Coordinates
KIRIN	340717.9N / 1304919.3E
IDOLI	335926.2N / 1303546.7E
ANBIM	335949.6N / 1302922.5E
FF666	340344.2N / 1302330.1E
FF667	340411.4N / 1301551.1E
FF668	340209.8N / 1300834.7E
FF669	335758.2N / 1300248.0E
OBKOS	335215.0N / 1295923.7E
ENTIX	334757.5N / 1301818.9E

CHANGE : Course FM ANBIM to ENTIX.

## **STANDARD ARRIVAL CHART-INSTRUMENT**

CHANGE : Course FM KEYAH to ENTIK, FM ISKUP to ENTIK, FM ATSAG to ENTIK, FM SARUP to ENTIK.  
HLDG pattern (SARUP.ATSAG.KEYAH). HLDG course(SKUP).

**RNAV STAR RWY16**

<b>OSTEP ARRIVAL / ISKUP ARRIVAL / ATSAG ARRIVAL / SARUP ARRIVAL</b>	<b>RNAV 1</b>
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Note 1 ) DME/DME/IRU or GNSS required.  
 2 ) RADAR service required.

**VAR 8° W**

**SARUP ARRIVAL**

- Path: SARUP → IKOLO (7000) → FF674 (210KIAS) → FF675 → FF676 → FF677 (7000)
- Path: SARUP → IKOLO (7000) → FF674 (210KIAS) → FF675 → FF670 (210KIAS) → FF671 → FF672 → FF673 (8000)
- Path: SARUP → IKOLO (7000) → FF674 (210KIAS) → FF675 → FF670 (210KIAS) → FF671 → FF672 → FF673 (8000) → ELMIS (7000)

**ATSAG ARRIVAL**

- Path: ATSAG → FF674 (210KIAS) → FF675 → FF676 → FF677 (7000)
- Path: ATSAG → FF674 (210KIAS) → FF675 → FF670 (210KIAS) → FF671 → FF672 → FF673 (8000) → ELMIS (7000)

**ISKUP ARRIVAL**

- Path: ISKUP → KEYAH → AMAOH → HONOK → OSTEP

**OSTEP ARRIVAL**

- Path: OSTEP → VORTAC FUKUOKA (114.5 DGC CH-92x 33°40'34"N 130°23'23"E 100FT) → ENTIX (2000) → 203°/17.9 → 203°/19.4 → ELMIS (7000)

**NOTES:**

- SARUP ARRIVAL:** 1MIN(at or below FL140) 1.5MIN(above FL140). MHA 5000 MAX 230KIAS(at or below FL140) MAX 240KIAS(above FL140).
- ATSAG ARRIVAL:** 1MIN(at or below FL140) 1.5MIN(above FL140). MHA 5000 MAX 230KIAS(at or below FL140) MAX 240KIAS(above FL140).
- ISKUP ARRIVAL:** 1MIN(at or below FL140) 1.5MIN(above FL140). MHA 7000 MAX 230KIAS(at or below FL140) MAX 240KIAS(above FL140).
- KEYAH:** NOT TO SCALE. 1MIN(at or below FL140) 1.5MIN(above FL140). MHA 5000 MAX 230KIAS(at or below FL140) MAX 240KIAS(above FL140).
- HONOK:** NOT TO SCALE. 1MIN(at or below FL140) 1.5MIN(above FL140). MHA 7000 MAX 230KIAS(at or below FL140) MAX 240KIAS(above FL140).

## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV STAR RWY16

## OSTEP ARRIVAL

From OSTEP, to HONOK, to AMAOH, to KEYAH, to UGROT at 8000FT, to FF670, to FF671, to FF672, to FF673, to SAKOX at 8000FT, to ENTIX at or above 2000FT.

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	OSTEP	-	-	-8.0	-	-	-	-	-	RNAV1
002	TF	HONOK	-	333 (324.9)	-8.0	14.2	-	-	-	-	RNAV1
003	TF	AMAOH	-	333 (324.8)	-8.0	9.9	-	-	-	-	RNAV1
004	TF	KEYAH	-	333 (324.8)	-8.0	9.9	-	-	-	-	RNAV1
005	TF	UGROT	-	343 (334.6)	-8.0	11.6	-	8000	-	-	RNAV1
006	TF	FF670	-	012 (003.8)	-8.0	6.0	-	-	210	-	RNAV1
007	TF	FF671	-	034 (026.3)	-8.0	7.0	-	-	-	-	RNAV1
008	TF	FF672	-	057 (048.8)	-8.0	7.0	-	-	-	-	RNAV1
009	TF	FF673	-	079 (071.4)	-8.0	6.9	-	-	-	-	RNAV1
010	TF	SAKOX	-	102 (094.0)	-8.0	6.9	-	8000	210	-	RNAV1
011	TF	ENTIX	-	203 (195.3)	-8.0	17.9	-	+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	HONOK	333 (324.9)	-8.0	1.0(-14000) 1.5(+14001)	R	7000	-	-230(-14000) -240(+14001)	RNAV1
Hold	KEYAH	333 (324.8)	-8.0	1.0(-14000) 1.5(+14001)	R	5000	-	-230(-14000) -240(+14001)	RNAV1

CHANGE : Course FM KEYAH to ENTIX. Minimum ALT(KEYAH). Critical DME deleted.

## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV STAR RWY16

## ISKUP ARRIVAL

From ISKUP, to UGROT, at 8000FT, to FF670, to FF671, to FF672, to FF673,  
to SAKOX, at 8000FT, to ENTIX at or above 2000FT.

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	ISKUP	-	-	-8.0	-	-	-	-	-	RNAV1
002	TF	UGROT	-	024 (016.5)	-8.0	18.7	-	8000	-	-	RNAV1
003	TF	FF670	-	012 (003.8)	-8.0	6.0	-	-	210	-	RNAV1
004	TF	FF671	-	034 (026.3)	-8.0	7.0	-	-	-	-	RNAV1
005	TF	FF672	-	057 (048.8)	-8.0	7.0	-	-	-	-	RNAV1
006	TF	FF673	-	079 (071.4)	-8.0	6.9	-	-	-	-	RNAV1
007	TF	SAKOX	-	102 (094.0)	-8.0	6.9	-	8000	210	-	RNAV1
008	TF	ENTIX	-	203 (195.3)	-8.0	17.9	-	+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	ISKUP	024 (016.5)	-8.0	1.0(-14000) 1.5(+14001)	R	7000	-	-230(-14000) -240(+14001)	RNAV1

CHANGE : Course FM ISKUP to ENTIX. HLDG course(ISKUP). Critical DME deleted.

## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV STAR RWY16

ATSAG ARRIVAL

From ATSAG, to IKOLO, at 7000FT, to FF674, to FF675, to FF676, to FF677, to ELMIS at 7000FT, to ENTIX at or above 2000FT.

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	ATSAG	-	-	-8.0	-	-	-	-	-	RNAV1
002	TF	IKOLO	-	049 (040.9)	-8.0	12.7	-	7000	-	-	RNAV1
003	TF	FF674	-	049 (041.0)	-8.0	4.8	-	-	210	-	RNAV1
004	TF	FF675	-	034 (026.2)	-8.0	7.6	-	-	-	-	RNAV1
005	TF	FF676	-	057 (048.7)	-8.0	7.5	-	-	-	-	RNAV1
006	TF	FF677	-	079 (071.4)	-8.0	7.5	-	-	-	-	RNAV1
007	TF	ELMIS	-	102 (094.0)	-8.0	7.5	-	7000	210	-	RNAV1
008	TF	ENTIX	-	203 (195.3)	-8.0	19.4	-	+2000	-	-	RNAV1

CHANGE : Course FM ATSAG to ENTIX. HLDG pattern (ATSAG). Critical DME deleted.

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	ATSAG	049 (040.9)	-8.0	1.0(-14000) 1.5(+14001)	R	5000	-	-230(-14000) -240(+14001)	RNAV1

## STANDARD ARRIVAL CHART-INSTRUMENT

RJFF / FUKUOKA

RNAV STAR RWY16

SARUP ARRIVAL

From SARUP, to IKOLO at 7000FT, to FF674, to FF675, to FF676, to FF677,  
to ELMIS at 7000FT, to ENTIX at or above 2000FT.

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	SARUP	-	-	-8.0	-	-	-	-	-	RNAV1
002	TF	IKOLO	-	103 (095.0)	-8.0	7.9	-	7000	-	-	RNAV1
003	TF	FF674	-	049 (041.0)	-8.0	4.8	-	-	210	-	RNAV1
004	TF	FF675	-	034 (026.2)	-8.0	7.6	-	-	-	-	RNAV1
005	TF	FF676	-	057 (048.7)	-8.0	7.5	-	-	-	-	RNAV1
006	TF	FF677	-	079 (071.4)	-8.0	7.5	-	-	-	-	RNAV1
007	TF	ELMIS	-	102 (094.0)	-8.0	7.5	-	7000	210	-	RNAV1
008	TF	ENTIX	-	203 (195.3)	-8.0	19.4	-	+2000	-	-	RNAV1

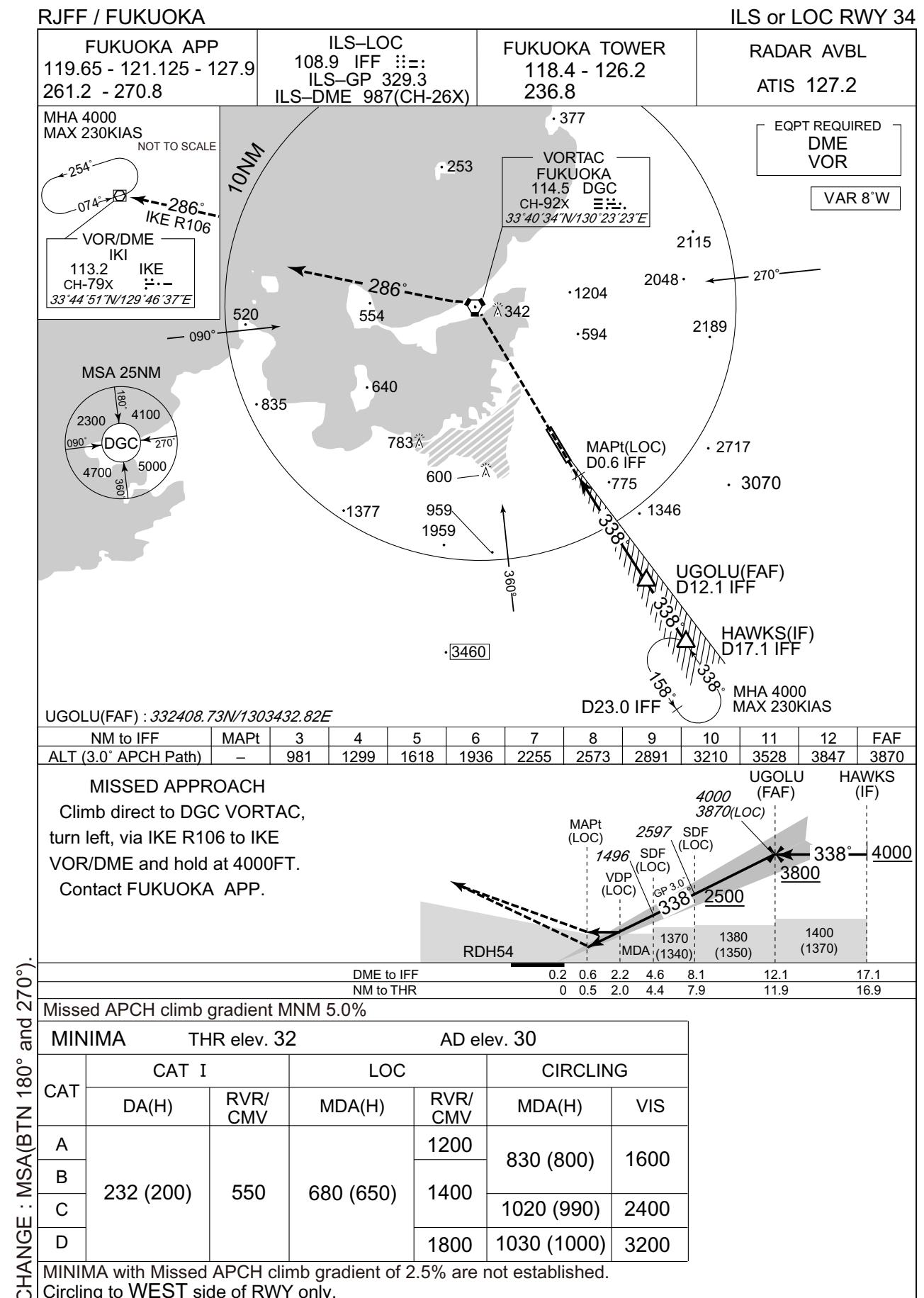
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	SARUP	103 (094.9)	-8.0	1.0(-14000) 1.5(+14001)	L	5000	-	-230(-14000) -240(+14001)	RNAV1

Waypoint Coordinates

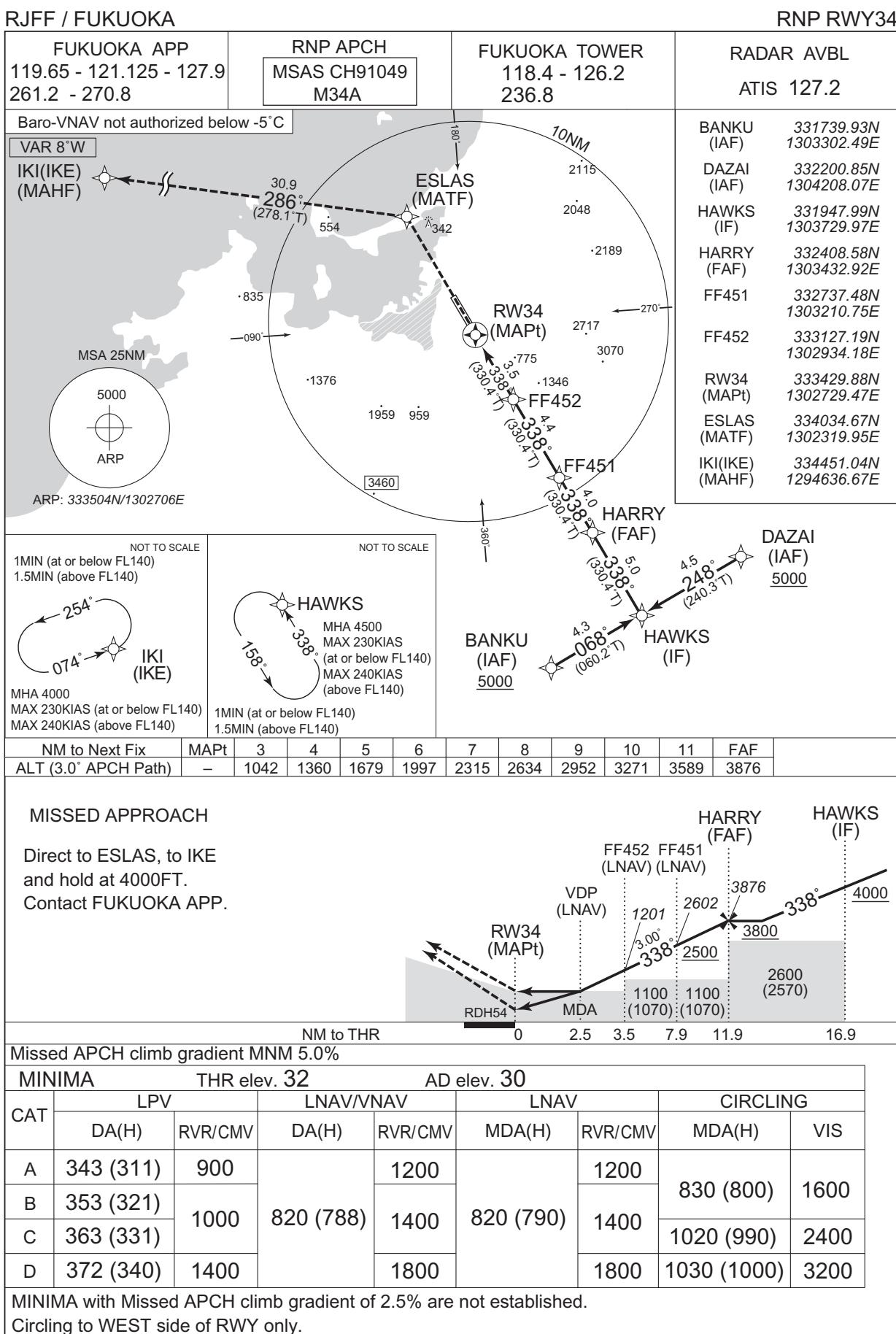
Waypoint Identifier	Coordinates	Waypoint Identifier	Coordinates
OSTEP	330831.8N / 1302632.1E	SAKOX	340511.2N / 1302358.8E
HONOK	332006.3N / 1301647.8E	ATSAG	333953.2N / 1294210.5E
AMAOH	332809.0N / 1300959.9E	SARUP	335008.4N / 1294244.7E
KEYAH	333611.4N / 1300310.7E	IKOLO	334926.8N / 1295209.4E
ISKUP	332847.3N / 1295046.6E	FF674	335302.0N / 1295555.0E
UGROT	334642.0N / 1295710.6E	FF675	335948.3N / 1295956.5E
FF670	335238.5N / 1295739.4E	FF676	340446.3N / 1300647.0E
FF671	335853.2N / 1300122.2E	FF677	340710.3N / 1301523.8E
FF672	340328.1N / 1300740.9E	ELMIS	340638.1N / 1302427.5E
FF673	340540.8N / 1301537.4E	ENTIX	334757.5N / 1301818.9E

CHANGE : Course FM SARUP to ENTIX. Minimum ALT(SARUP). Critical DME deleted.

INSTRUMENT APPROACH CHART



## INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJFF / FUKUOKA

RNP RWY34

**FAS DATA BLOCK**

Operation type	0	LTP/FTP ellipsoidal height	+00424
SBAS service provider identifier	2	FPAP latitude	333548.8630N
Airport identifier	RJFF	FPAP longitude	1302635.4830E
Runway	34	Threshold crossing height	00016.5
Approach performance designator	0	TCH units selector	1
Route indicator		Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M34A	Δ length offset	0000
LTP/FTP latitude	333429.8705N	HAL	40.0
LTP/FTP longitude	1302729.4540E	VAL	50.0
CRC remainder	9DA9C0E7		

**Required additional data**

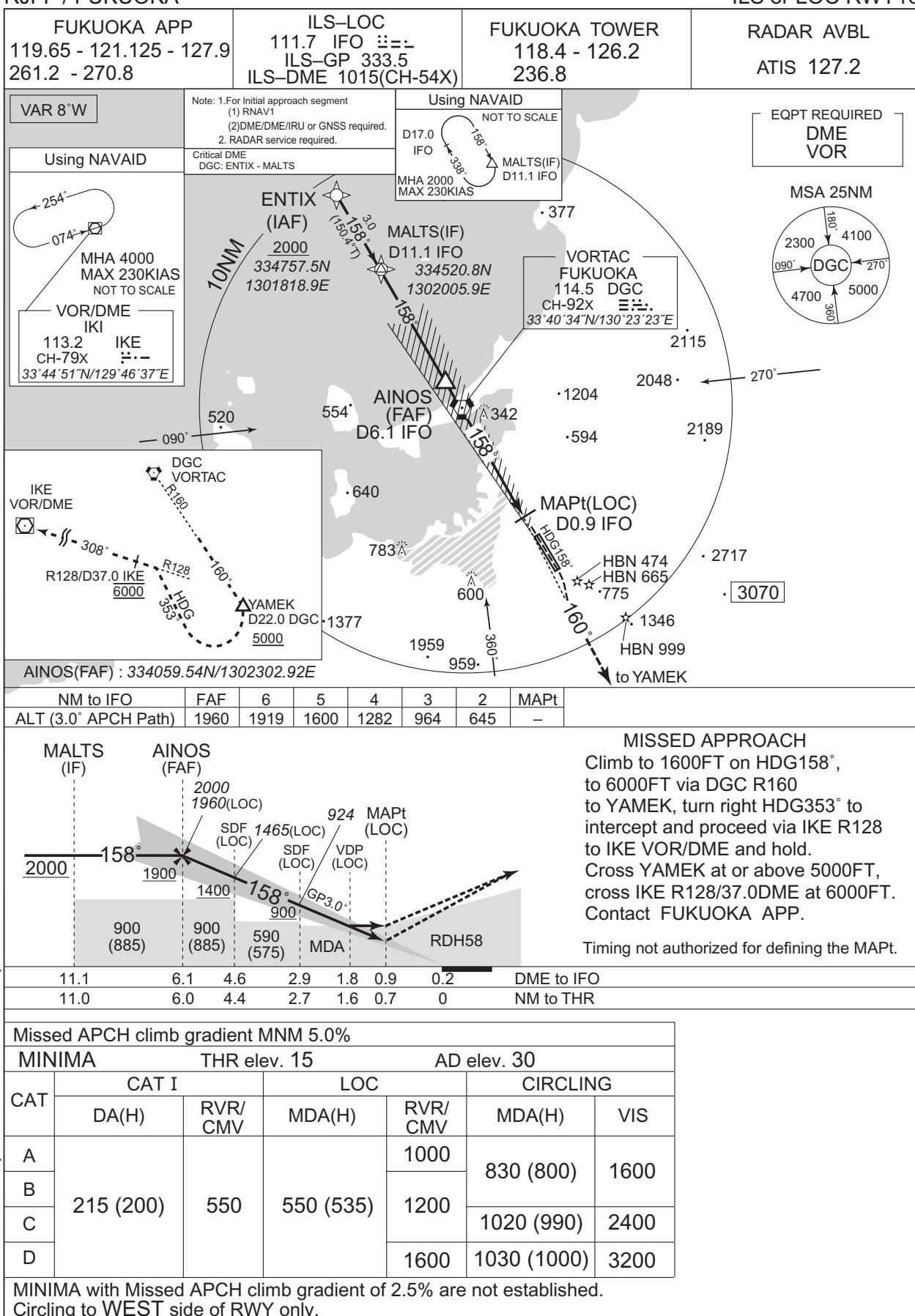
LTP/FTP orthometric height	9.8
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CHANGE : FAS DATA BLOCK and Required additional data established.

## INSTRUMENT APPROACH CHART

RJFF / FUKUOKA

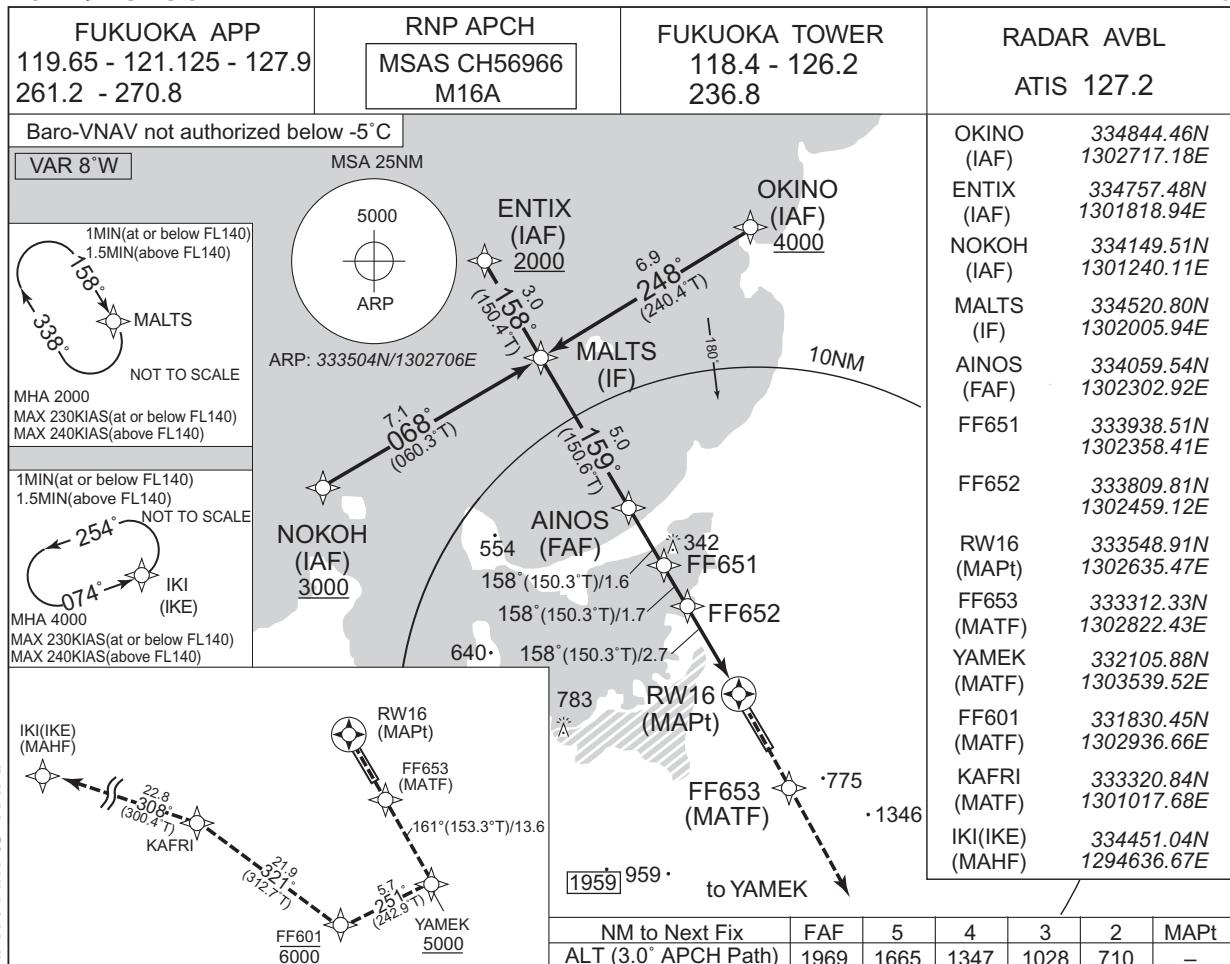
ILS or LOC RWY16



## INSTRUMENT APPROACH CHART

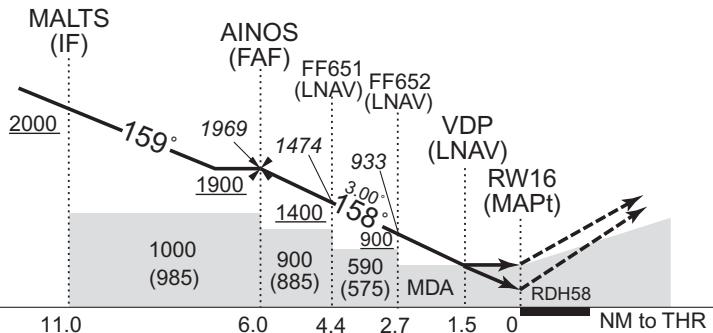
## RJFF / FUKUOKA

## RNP RWY16



## MISSSED APPROACH

Direct to FF653, to YAMEK at or above 5000FT, to FF601 at 6000FT, to KAFRI, to IKE and hold at 6000FT. Contact FUKUOKA APP.



Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 15 AD elev. 30

CAT	LPV		LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	RVR/CMV	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	330 (315)	900		1000		1000		
B	340 (325)		510 (495)	1200	510 (495)	1200	830 (800)	1600
C	349 (334)						1020 (990)	2400
D	359 (344)	1400		1600		1600	1030 (1000)	3200

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

Circling to WEST side of RWY only.

## INSTRUMENT APPROACH CHART

RJFF / FUKUOKA

RNP RWY16

**FAS DATA BLOCK**

Operation type	0	LTP/FTP ellipsoidal height	+00371
SBAS service provider identifier	2	FPAP latitude	333429.8705N
Airport identifier	RJFF	FPAP longitude	1302729.4540E
Runway	16	Threshold crossing height	00017.7
Approach performance designator	0	TCH units selector	1
Route indicator		Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M16A	Δ length offset	0000
LTP/FTP latitude	333548.8630N	HAL	40.0
LTP/FTP longitude	1302635.4830E	VAL	50.0
CRC remainder	AA995500		

**Required additional data**

LTP/FTP orthometric height	4.5
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CHANGE : FAS DATA BLOCK and Required additional data established.

## INSTRUMENT APPROACH CHART



## INSTRUMENT APPROACH CHART



## RJFF / FUKUOKA

Visual REP

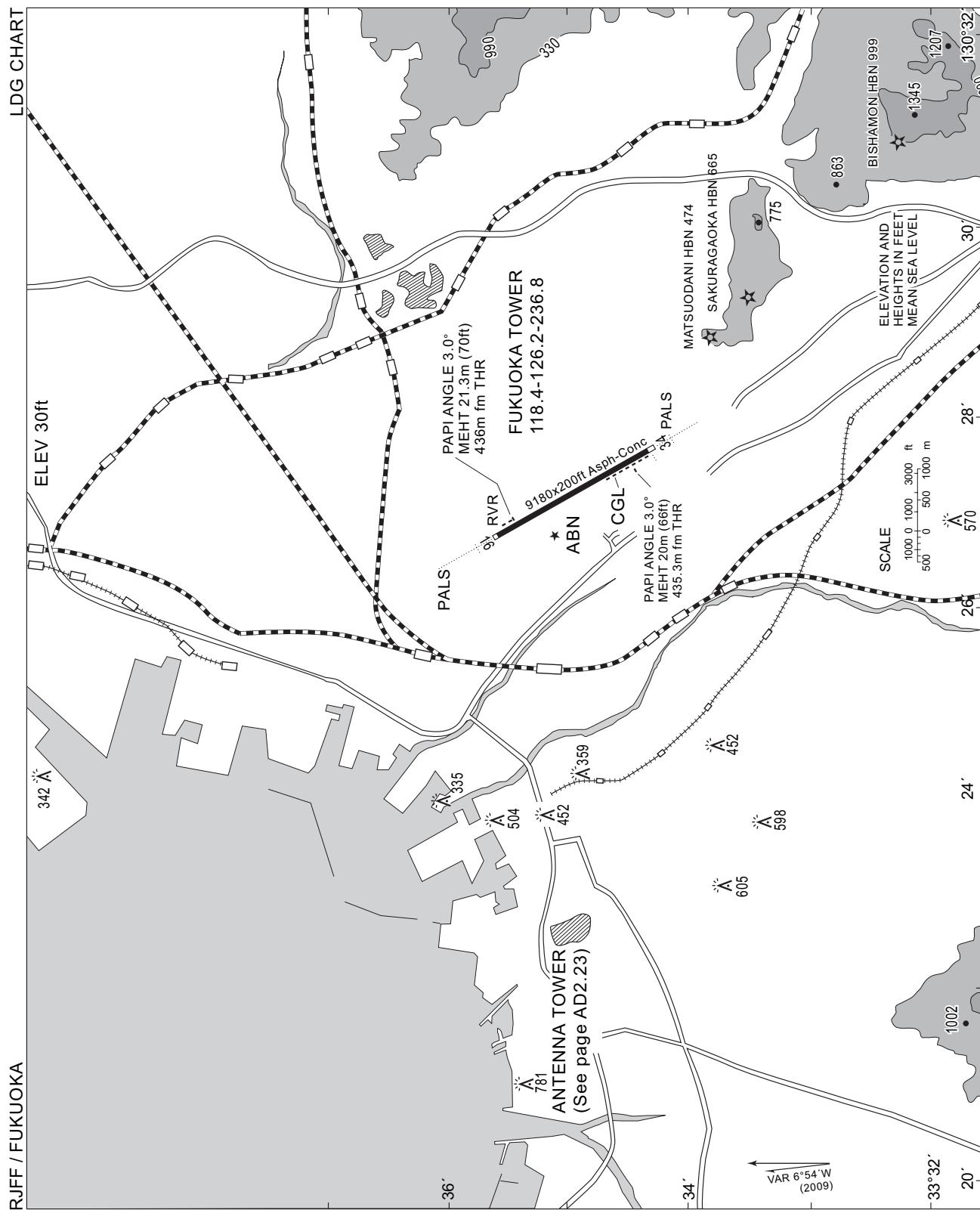


※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

Call sign	BRG / DIST from ARP	Remarks
古賀 Koga	014°T / 8.4NM	高速道路インターチェンジ Interchange
長者原 Chojabaru	046°T / 2.3NM	ドーム型建造物 Dome
太宰府 Dazaifu	133°T / 6.4NM	ゴルフ場 Golf Course
三沢 Mitsusawa	153°T / 10.4NM	ゴルフ場 Golf Course
* 那珂川 Nakagawa	197°T / 5.8NM	松尾橋 Bridge
室見 Muromi	277°T / 5.4NM	室見川河口 River mouth
今津 Imazu	275°T / 9.4NM	今津橋 Bridge
志賀 Shika	305°T / 8.2NM	志賀島橋 Bridge
北崎 Kitazaki	289°T / 11.5NM	漁港 Harbor

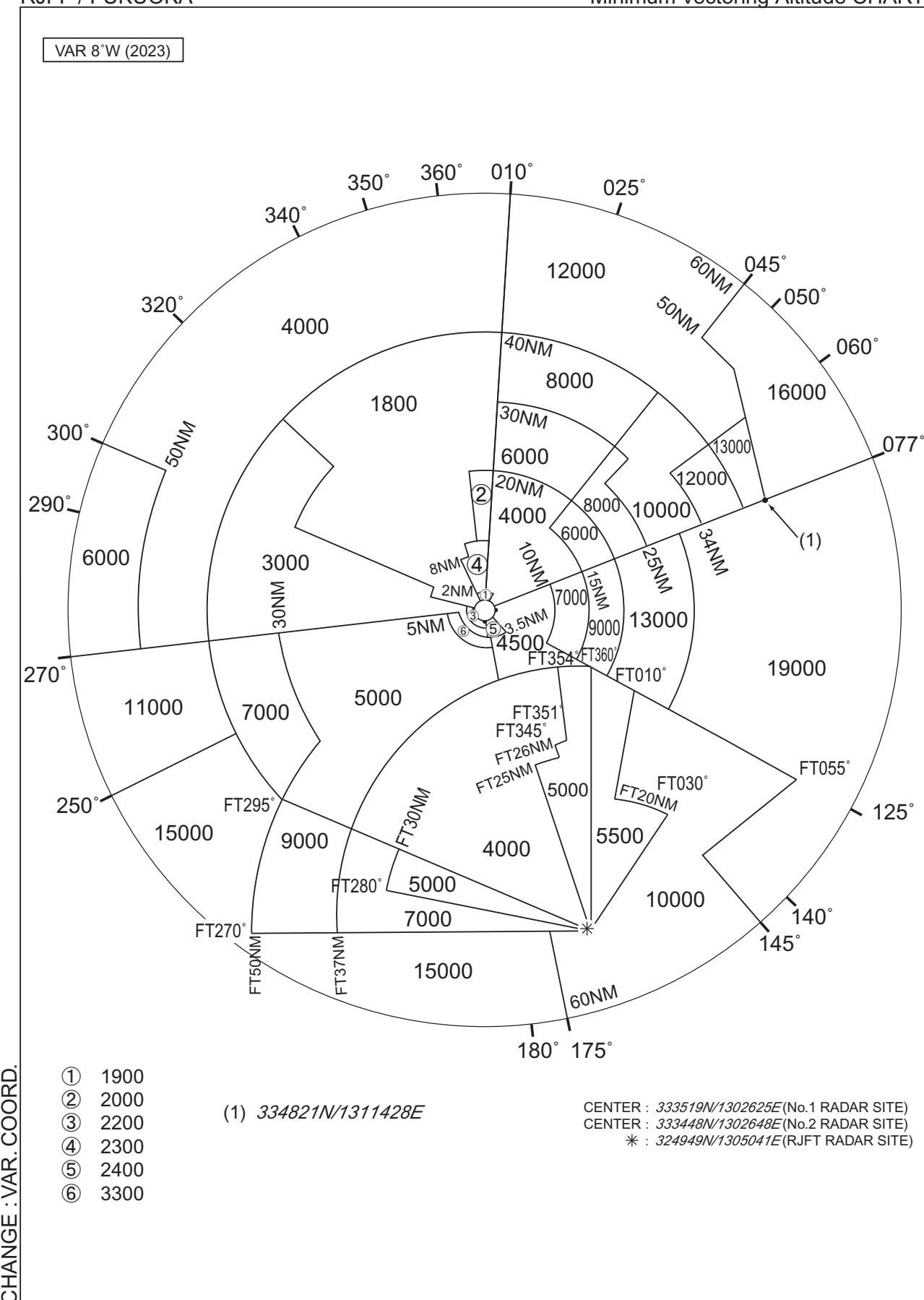
CHANGE : Map updated. BRG/DIST from ARP.

\*ヘリコプター用 Use For Helicopter



RJFF / FUKUOKA

Minimum Vectoring Altitude CHART



**INTENTIONALLY LEFT BLANK**