

# AERODROME OBSTACLE CHART-ICAO





RJFO / OITA SID

### MUSASHI REVERSAL TWO DEPARTURE

RWY01: Climb RWY HDG to 500FT, turn right HDG177° to intercept and proceed via

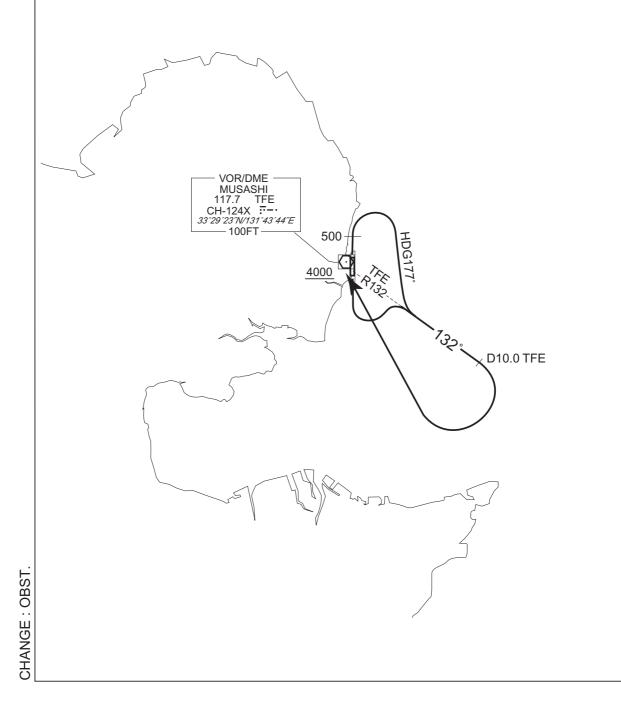
TFE R132 to TFE 10.0DME,...

RWY19: Turn left, climb via TFE R132 to TFE 10.0DME,...

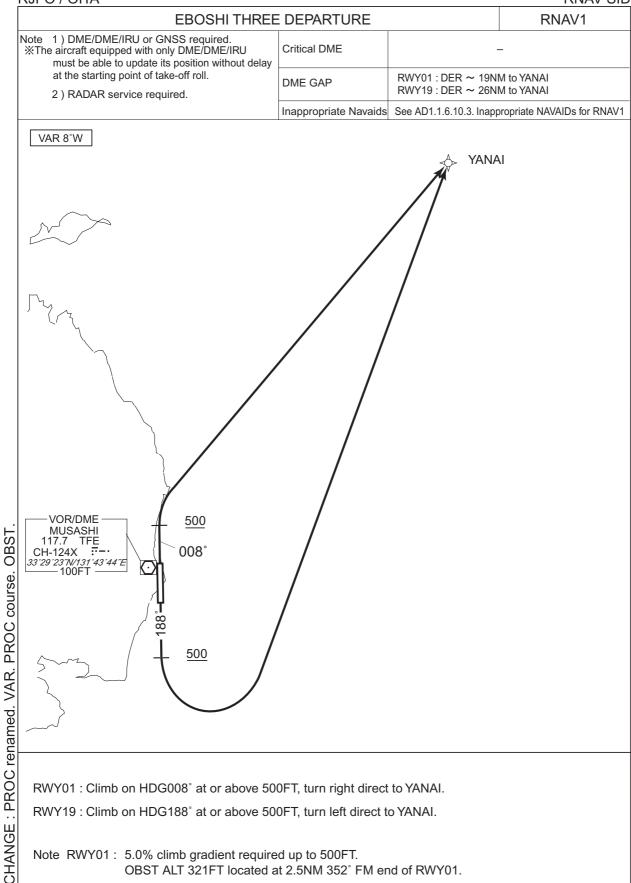
...turn right, direct to TFE VOR/DME. Cross TFE VOR/DME at or above 4000FT.

Note RWY01: 5.0% climb gradient required up to 500FT.

OBST ALT 321FT located at 2.5NM 352° FM end of RWY01.



RJFO / OITA RNAV SID



RJFO / OITA RNAV SID

### EBOSHI THREE DEPARTURE

### RWY01

Serial Number	Path Descriptor	Waypoint Identifier	•				Turn Direction		'		Navigation Specification
001	VA	_	_	008 (000.4)	-8.0	_	_	+500	_	_	RNAV1
002	DF	YANAI	_	_	-8.0	_	R	_	_	_	RNAV1

#### RWY19

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over		Magnetic Variation		Turn Direction		· '		Navigation Specification
001	VA	_	_	188 (180.4)	-8.0	_	_	+500	_	_	RNAV1
002	DF	YANAI	_	_	-8.0	_	L	_	_	_	RNAV1

Waypoint Identifier	Coordinates
YANAI	334622.9N / 1315917.1E

**RNAV SID** RJFO / OITA

TOYO FOUR	RNAV1				
Note 1) DME/DME/IRU or GNSS required.  **The aircraft equipped with only DME/DME/IRU  **The able to undete its position without delay.	Critical DME	Critical DME –			
must be able to update its position without delay at the starting point of take-off roll.  2 ) RADAR service required.	DME GAP	RWY01 : DER ~ 9NM to AKNIS RWY19 : DER ~ 3NM to FO901			
2) To 12) it sol vice required.	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNA			

VAR 8°W VOR/DME MUSASHI 117.7 TFE CH-124X :---33°29'23"N/131°43'44"E 100FT 500 008 **AKNIS** CHANGE: PROC renamed. AKNIS established. TACHI abolished. VAR. PROC course. OBST. <u>500</u> FO901 9.8 **OOITA** 4000

RWY01: Climb on HDG008° at or above 500FT, turn right direct to AKNIS,...

RWY19: Climb on HDG188° at or above 500FT, direct to FO901,...

...to OOITA at or above 4000FT.

Note RWY01: 5.0% climb gradient required up to 500FT.

OBST ALT 321FT located at 2.5NM 352° FM end of RWY01.

RJFO / OITA RNAV SID

### TOYO FOUR DEPARTURE

### RWY01

Serial	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation		Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
INUITIDE	Descriptor	lueritiller	Ovei	IVI( I )	variation	(INIVI)	Direction	(FI)	(KIAS)	Angle	Specification
001	VA	_	_	008 (000.4)	-8.0	_	_	+500	1	_	RNAV1
002	DF	AKNIS	_	_	-8.0	_	R	_	_	_	RNAV1
003	TF	OOITA	_	216 (208.1)	-8.0	13.8	-	+4000	_	_	RNAV1

### RWY19

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	VA	_	_	188 (180.4)	-8.0	_	_	+500	1	_	RNAV1
002	DF	FO901	_	_	-8.0	_	_	_	_	_	RNAV1
003	TF	OOITA	_	198 (189.8)	-8.0	9.8	_	+4000	_	_	RNAV1

Waypoint Identifier	Coordinates
AKNIS	332524.3N / 1314958.2E
FO901	332251.1N / 1314410.5E
OOITA	331313.2N / 1314211.7E

VAR 8°W

#### STANDARD DEPARTURE CHART - INSTRUMENT

RJFO / OITA **RNAV SID** FUSHA TWO DEPARTURE RNAV1 Note 1) DME/DME/IRU or GNSS required. Critical DME RWY01: MYE 25NM to FUSHA ~ 24NM to FUSHA %The aircraft equipped with only DME/DME/IRU must be able to update its position without delay RWY01: DER ~ 25NM to FUSHA at the starting point of take-off roll. DME GAP RWY19: DER ~ 23NM to FUSHA 2) RADAR service required. Inappropriate Navaids See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

500 800 500 VOR/DME MUSASHI 117.7 TFE CH-124X :---33°29'23"N/131°43'44"E 100FT **FUSHA** 

 $RWY01: Climb \ on \ HDG008^{\circ}$  at or above 500FT, turn right direct to FUSHA.

RWY19 : Climb on HDG188° at or above 500FT, turn left direct to FUSHA.

Note RWY01: 5.0% climb gradient required up to 500FT.

OBST ALT 321FT located at 2.5NM 352° FM end of RWY01.

CHANGE: PROC renamed. VAR. PROC course. OBST

RJFO / OITA RNAV SID

### FUSHA TWO DEPARTURE

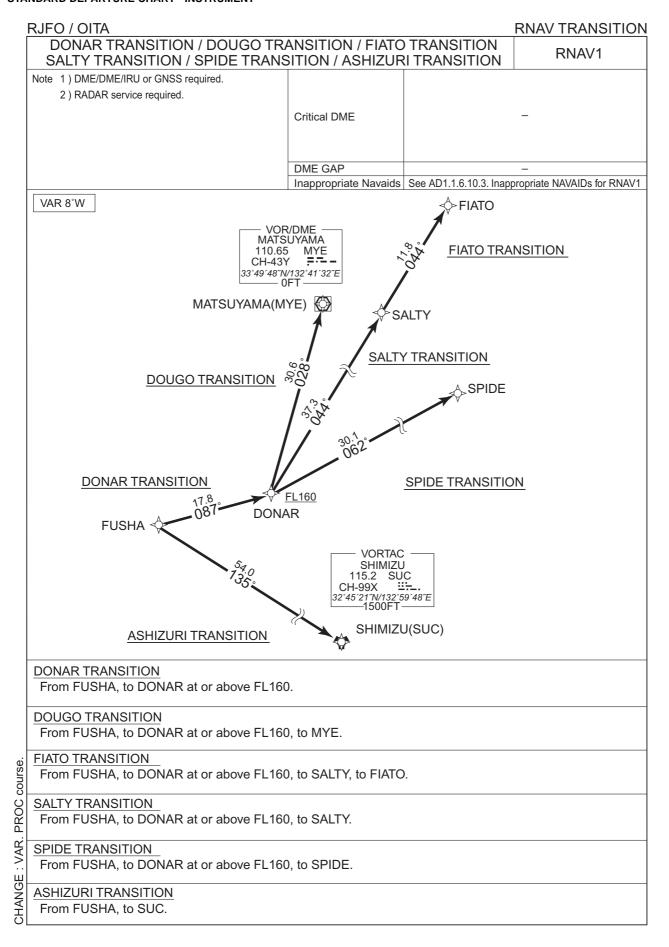
### RWY01

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over		Magnetic Variation		Turn Direction		· •		Navigation Specification
001	VA	_	_	008 (000.4)	-8.0	_	_	+500	_	_	RNAV1
002	DF	FUSHA	_	_	-8.0	_	R	_	_	_	RNAV1

#### RWY19

Serial	Path	Waypoint	Fly		Magnetic	Distance	Turn	Altitude	'		Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	VA	_	_	188 (180.4)	-8.0	_	_	+500	_	_	RNAV1
002	DF	FUSHA	_	_	-8.0	_	L	_	_	_	RNAV1

Waypoint Identifier	Coordinates
FUSHA	331737.7N / 1320814.6E



### RJFO / OITA

### **RNAV TRANSITION**

Seria Numb	Path er Descriptor	Waypoint Identifier	Fly Over		Magnetic Variation		Turn Direction		Speed (KIAS)		Navigation Specification
001	IF	FUSHA	_	_	-8.0	_	_	_	_	_	RNAV1
002	! TF	DONAR	_	087 (078.7)	-8.0	17.8	_	+FL160	_	_	RNAV1

### **DOUGO 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	FUSHA	_	_	-8.0	_	_	_	_	_	RNAV1
002	TF	DONAR	_	087 (078.7)	-8.0	17.8	_	+FL160	-	_	RNAV1
003	TF	MYE	_	028 (019.8)	-8.0	30.6	_	_	_	_	RNAV1

### FIATO TRANSITION

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation		Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	FUSHA	_	_	-8.0	_	_	_	_	_	RNAV1
002	TF	DONAR	_	087 (078.7)	-8.0	17.8	_	+FL160	_	_	RNAV1
003	TF	SALTY	_	044 (036.1)	-8.0	37.3	_	_	_	_	RNAV1
004	TF	FIATO	_	044 (036.3)	-8.0	11.8	_	1	_		RNAV1

### **SALTY TRANSITION**

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	FUSHA	_	_	-8.0	_	_	_	-	_	RNAV1
002	TF	DONAR	_	087 (078.7)	-8.0	17.8	_	+FL160	_	_	RNAV1
003	TF	SALTY	_	044 (036.1)	-8.0	37.3	_	_	_	_	RNAV1

### RJFO / OITA

### **RNAV TRANSITION**

### SPIDE TRANSITION

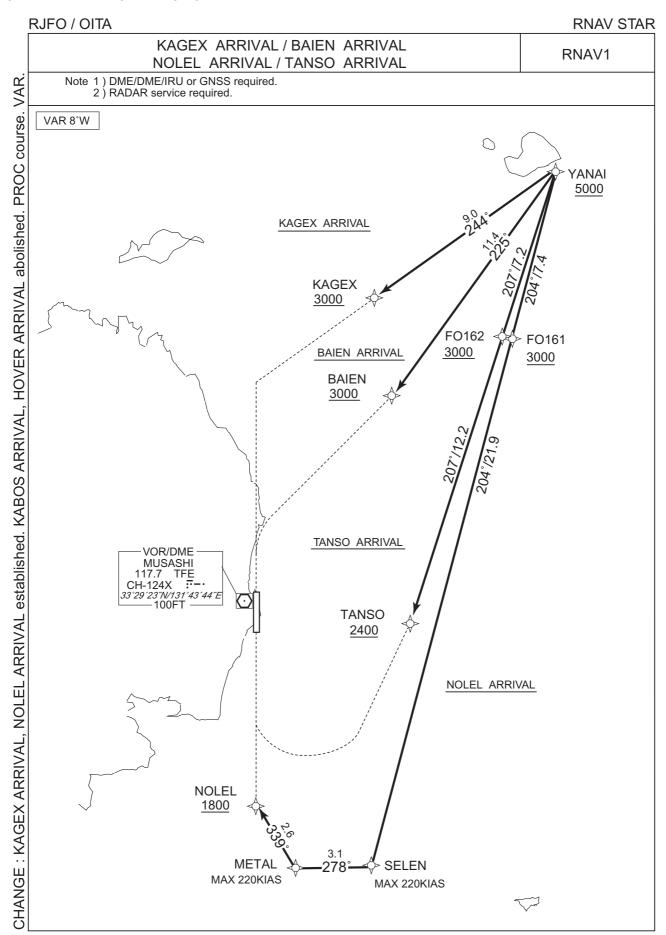
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation		Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	FUSHA	_	_	-8.0	_	_	_	_	_	RNAV1
002	TF	DONAR	_	087 (078.7)	-8.0	17.8	_	+FL160	-	_	RNAV1
003	TF	SPIDE	_	062 (054.1)	-8.0	30.1	_	_	_	_	RNAV1

### **ASHIZURI TRANSITION**

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation		Turn Direction	Altitude (FT)	•		Navigation Specification
001	IF	FUSHA	_	_	-8.0	_	_	_	_	_	RNAV1
002	TF	SUC	_	135 (126.5)	-8.0	54.0	-	_	_	_	RNAV1

Waypoint Identifier	Coordinates
FUSHA	331737.7N / 1320814.6E
DONAR	332105.1N / 1322904.7E
MYE	334948.4N / 1324132.0E
SALTY	335109.7N / 1325530.8E
FIATO	340037.4N / 1330354.6E
SPIDE	333840.2N / 1325818.0E
SUC	324521.5N / 1325947.9E

RJFO / OITA **STAR** JEWEL ARRIVAL From over DONKO, via TFE R038 to JEWEL. Cross DONKO at or above 5000FT, cross JEWEL at or above 3000FT. DONKO R038/D21.2 TFE 5000 JEWEL ARRIVAL **JEWEL** R038/D11.0 TFE 3000 VOR/DME MUSASHI 117.7 TFE CH-124X :--33°29′23″N/131°43′44″E 100FT



RJFO / OITA RNAV STAR

### KAGEX ARRIVAL

From YANAI at or above 5000FT, to KAGEX at or above 3000FT.

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

Serial	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation		Turn Direction	Altitude (FT)	Speed (KIAS)		Navigation Specification
Number	Descriptor	lucitillei	Ovei	IVI( I )	variation	(INIVI)	Direction	(1 1)	(NIAS)	Allyle	Specification
001	IF	YANAI	_	_	-8.0	_	_	+5000	_	_	RNAV1
002	TF	KAGEX	_	244 (236.2)	-8.0	9.0	_	+3000	_	_	RNAV1

### **BAIEN ARRIVAL**

From YANAI at or above 5000FT, to BAIEN at or above 3000FT.

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

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	$^{\circ}M(^{\circ}T)$	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	YANAI	_	-	-8.0	_	-	+5000	_	_	RNAV1
002	TF	BAIEN	_	225 (217.4)	-8.0	11.4	_	+3000	_	_	RNAV1

### TANSO ARRIVAL

From YANAI at or above 5000FT, to FO162 at or above 3000FT, to TANSO at or above 2400FT.

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		Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	
001	IF	YANAI	_	_	-8.0	_	_	+5000	_	_	RNAV1
002	TF	FO162	_	207 (199.4)	-8.0	7.2	_	+3000	_	_	RNAV1
003	TF	TANSO	_	207 (199.4)	-8.0	12.2	_	+2400	_	_	RNAV1

RJFO / OITA RNAV STAR

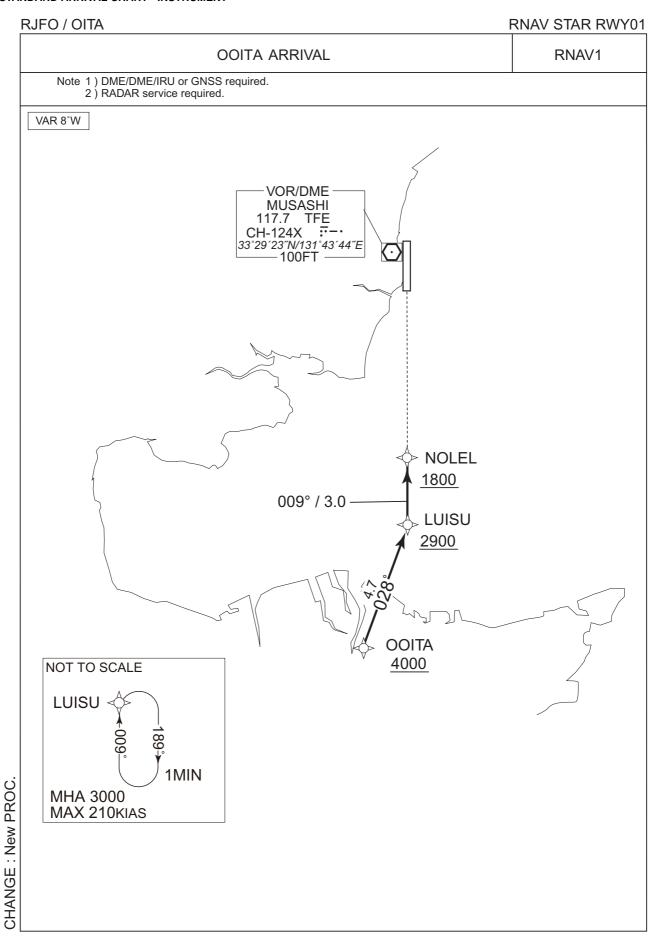
### **NOLEL ARRIVAL**

From YANAI at or above 5000FT, to FO161 at or above 3000FT, to SELEN, to METAL, to NOLEL at or above 1800FT.

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	YANAI	_	_	-8.0	_	_	+5000	_	_	RNAV1
002	TF	FO161	_	204 (196.4)	-8.0	7.4	_	+3000	_	_	RNAV1
003	TF	SELEN	_	204 (196.4)	-8.0	21.9	_	_	-220	_	RNAV1
004	TF	METAL	_	278 (270.5)	-8.0	3.1	_	_	-220	_	RNAV1
005	TF	NOLEL	_	339 (330.5)	-8.0	2.6	_	+1800	_	_	RNAV1

Waypoint Identifier	Coordinates
YANAI	334622.9N / 1315917.1E
KAGEX	334121.2N / 1315016.7E
BAIEN	333720.4N / 1315059.8E
FO162	333936.2N / 1315624.8E
TANSO	332806.6N / 1315133.7E
FO161	333918.2N / 1315646.6E
SELEN	331818.8N / 1314923.1E
METAL	331820.3N / 1314541.2E
NOLEL	332036.2N / 1314409.4E



RJFO / OITA RNAV STAR

### **OOITA ARRIVAL**

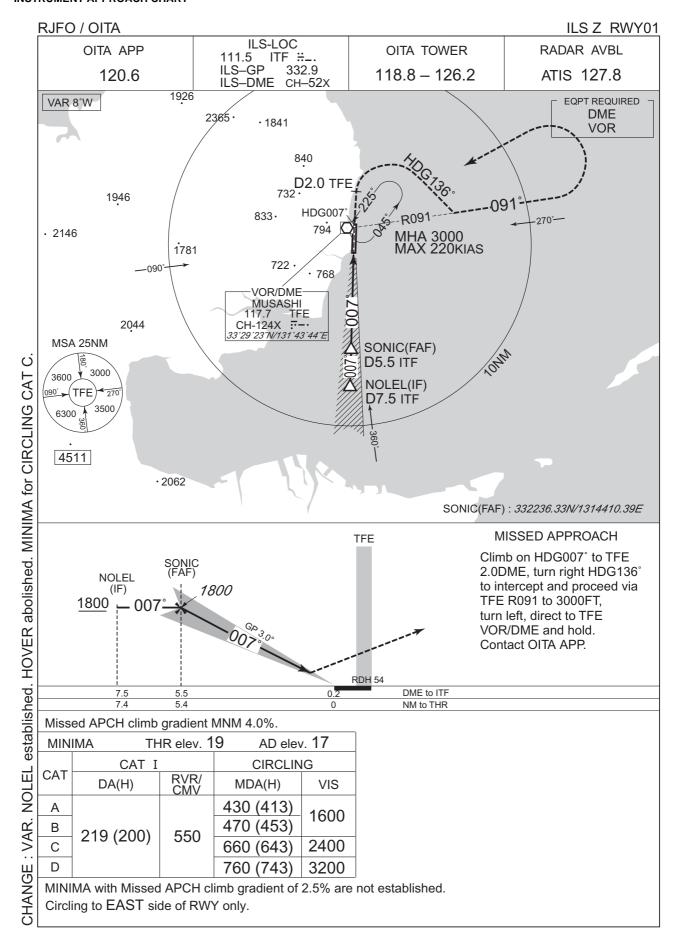
From OOITA at or above 4000FT, to LUISU at or above 2900FT, to NOLEL at or above 1800FT.

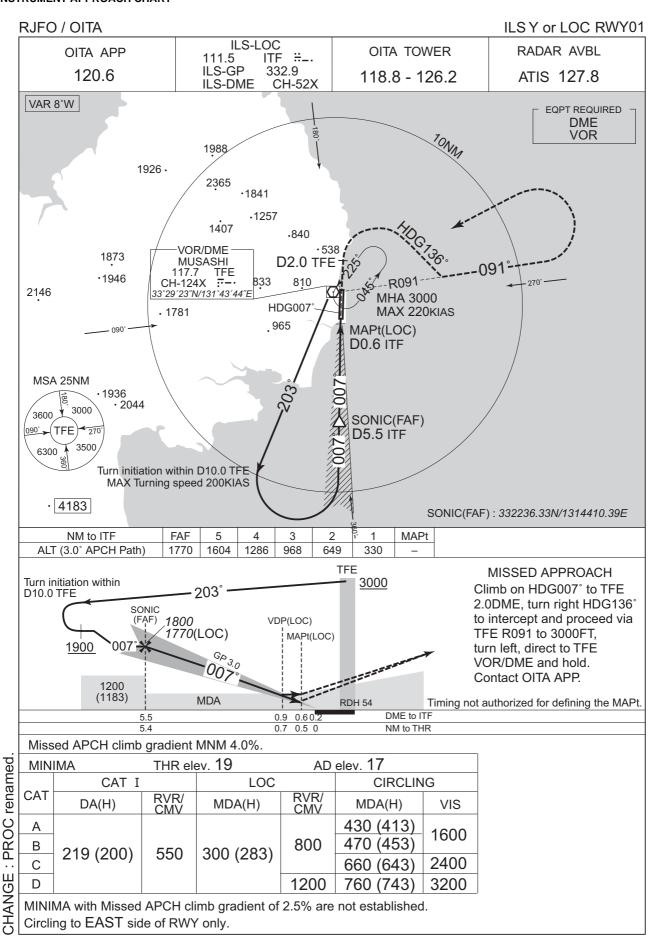
Critical DME	_
DME GAP	-
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

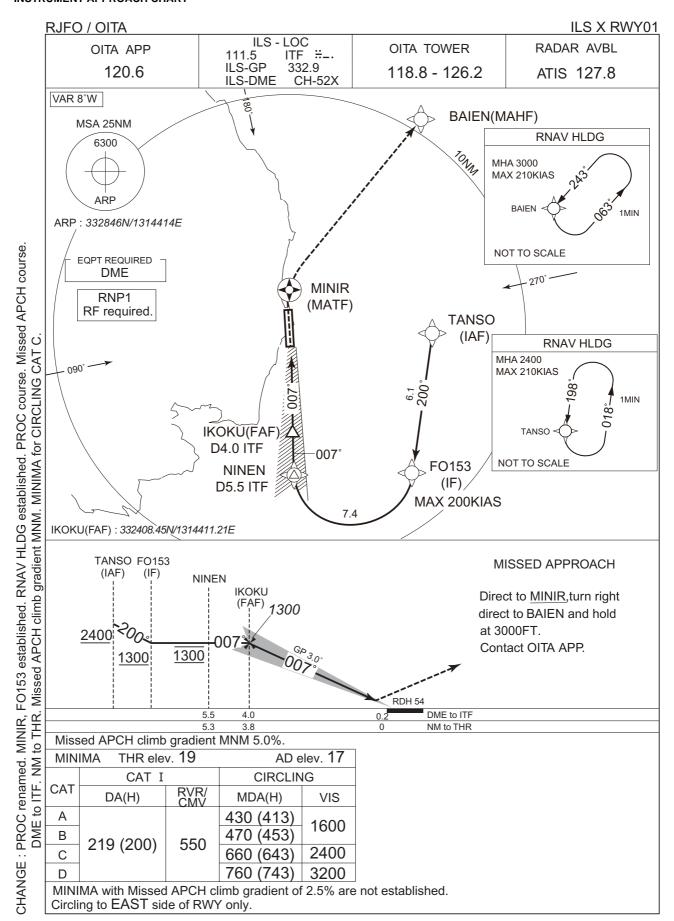
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation		Turn Direction	Altitude (FT)	Speed (KIAS)		"
001	IF	OOITA	_	_	-8.0	_	_	+4000	-	_	RNAV1
002	TF	LUISU	_	028 (020.2)	-8.0	4.7	_	+2900	_	_	RNAV1
003	TF	NOLEL	_	009 (000.5)	-8.0	3.0	_	+1800	_	_	RNAV1

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	LUISU	009 (000.5)	-8.0	1.0(-14000)	R	3000	FL140	-210(-14000)	RNAV1

Waypoint Identifier	Coordinates
OOITA	331313.2N / 1314211.7E
LUISU	331735.8N / 1314407.5E
NOLEL	332036.2N / 1314409.4E







RJFO / OITA ILS X RWY01

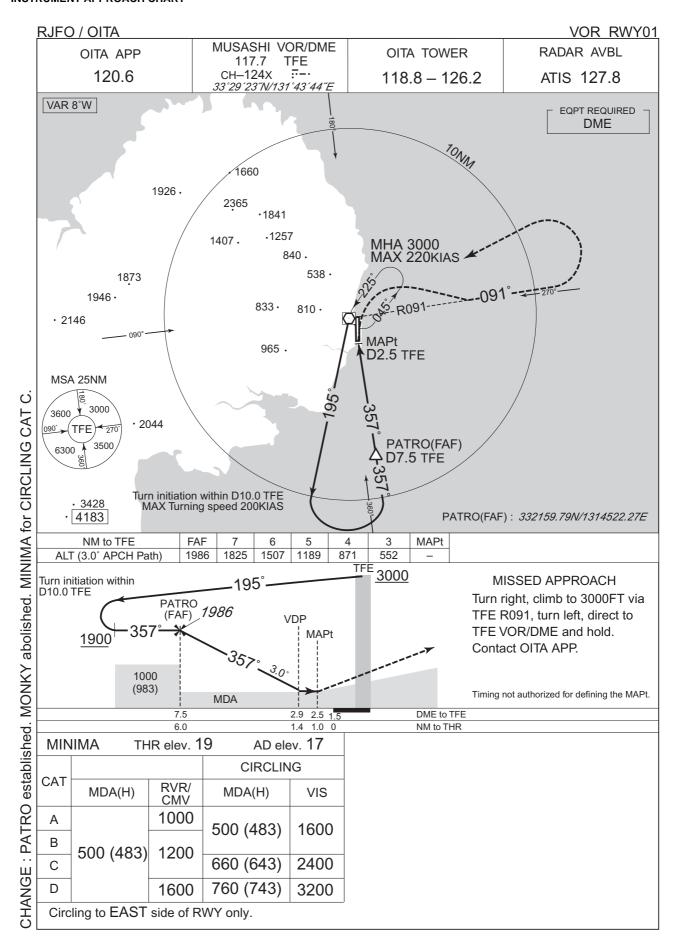
### Coding Table

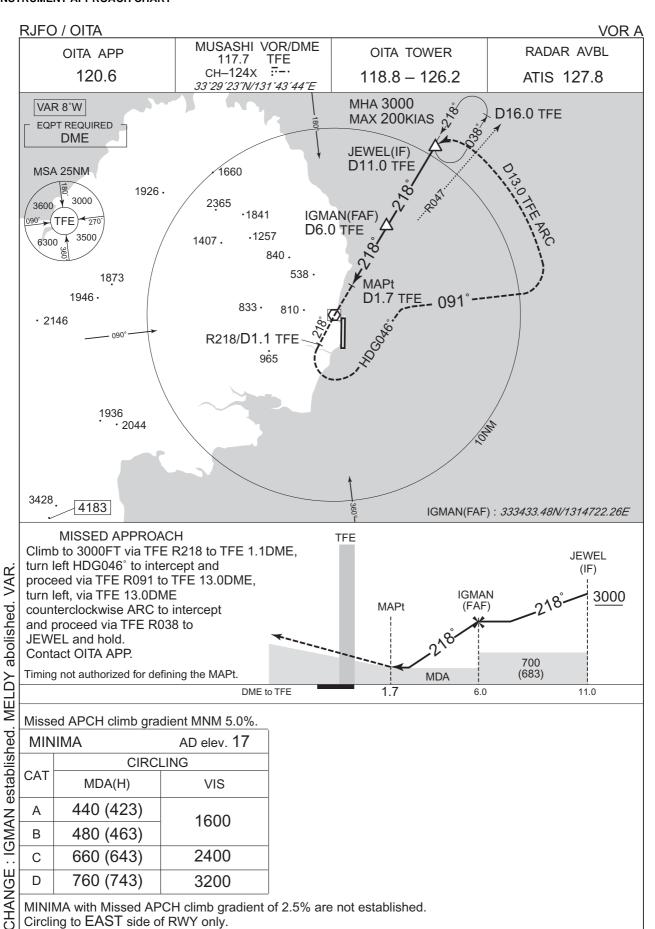
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	TANSO	1	-	-8.0	-	-	+2400	-	-	RNP1
002	TF	FO153	-	200 (191.7)	-8.0	6.1	-	+1300	-200	-	RNP1
003	RF Center: FORF3 r=2.50NM	NINEN	-	-	-8.0	7.4	R	1300		-	RNP1

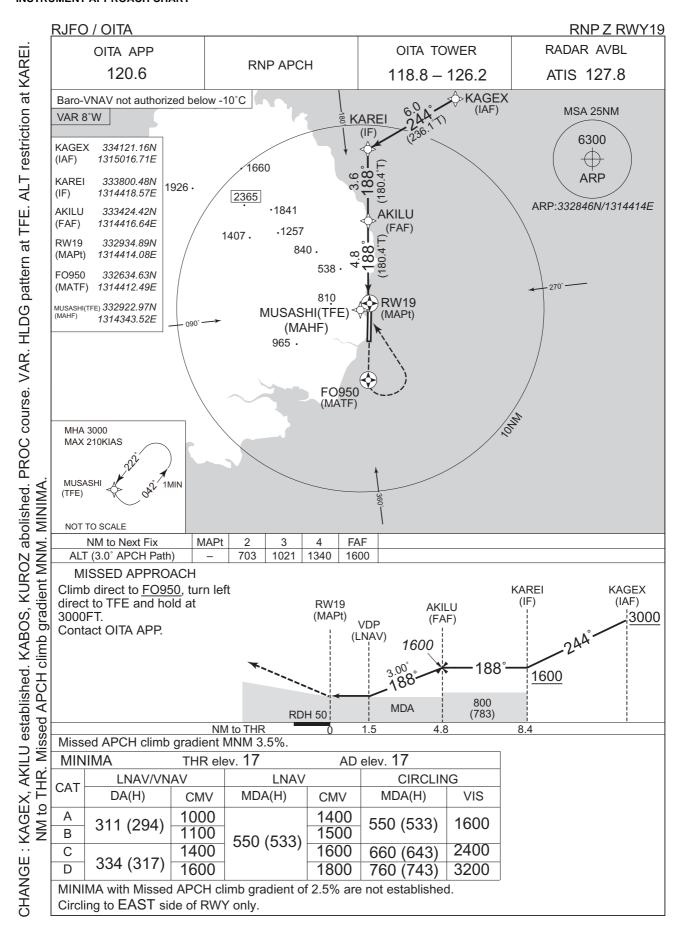
001	DF	MINIR	Υ	-	-8.0	-	-	-	-	-	RNP1
002	DF	BAIEN	1	-	-8.0	-	R	3000	-	-	RNP1

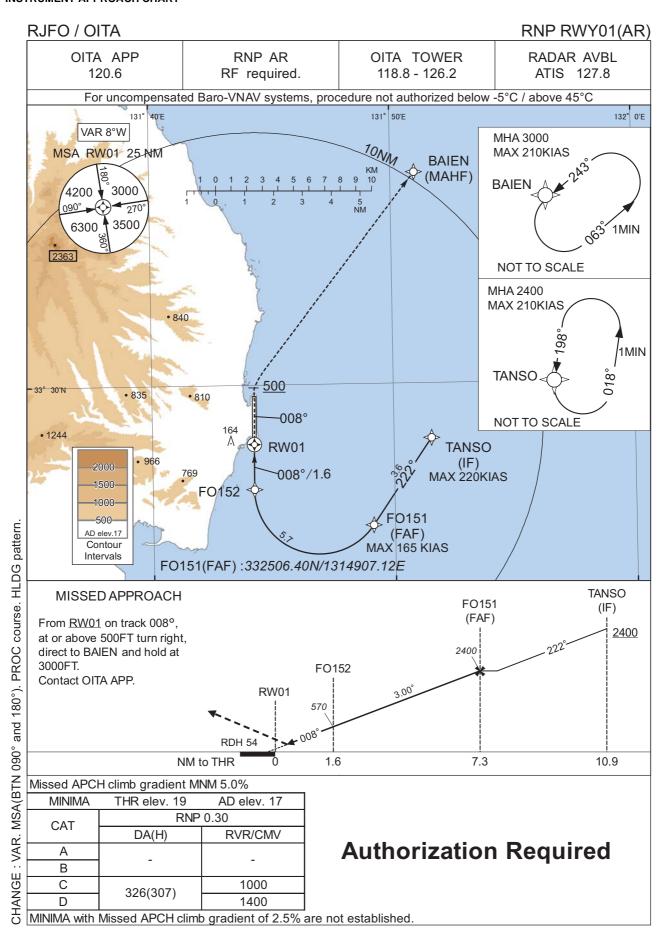
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Altitude	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	TANSO	198 (190.0)	-8.0	1.0(-14000)	L	2400	FL140	-210(-14000)	RNP1
Hold	BAIEN	243 (234.9)	-8.0	1.0(-14000)	L	3000	FL140	-210(-14000)	RNP1

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
TANSO	332806.56N / 1315133.74E	FORF3	332237.18N / 1314709.46E
FO153	332206.75N / 1315004.78E		
NINEN	332238.32N / 1314410.42E		
MINIR	333001.00N / 1314414.31E		
BAIEN	333720.39N / 1315059.77E		









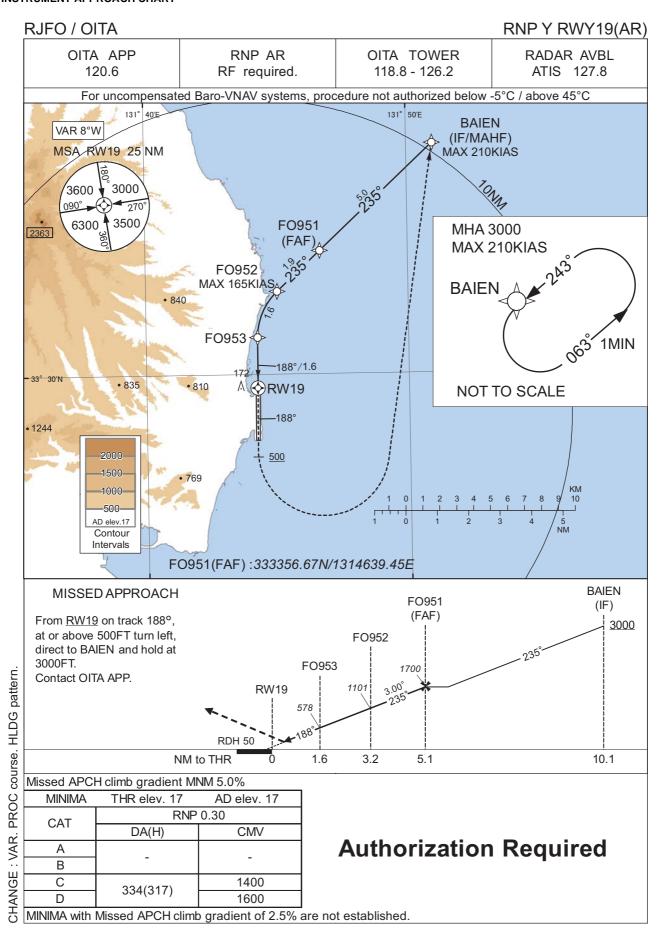
### RJFO / OITA RNP RWY01(AR)

### Coding Table

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	TANSO	,	-	-8.0	-	-	+2400	-220	-	-
002	TF	FO151	,	222 (214.2)	-8.0	3.6	-	2400	-165	-	1.0
003	RF Center: FORF1 r=2.25NM	FO152	,	-	-8.0	5.7	R	570	-	-3.00	0.3
004	TF	RW01	Υ	008 (000.4)	-8.0	1.6	-	73	ı	-3.00/54	0.3
005	FA	-	-	008 (000.4)	-8.0		-	+500	ı	-	1.0
006	DF	BAIEN	,	-	-8.0	-	R	3000	-	-	1.0

Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Time	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	TANSO	198 (190.0)	-8.0	1.0 (-14000)	L	2400	FL140	-210(-14000)	1.0
Hold	BAIEN	243 (234.9)	-8.0	1.0 (-14000)	L	3000	FL140	-210(-14000)	1.0

	Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
-	TANSO	332806.56N / 1315133.74E	FORF1	332622.64N / 1314653.79E
	FO151	332506.40N / 1314907.12E		
	FO152	332623.67N / 1314412.39E		
	RW01	332757.53N / 1314413.22E		
	BAIEN	333720.39N / 1315059.77E		
1		·		



## RJFO / OITA RNP Y RWY19(AR)

### Coding Table

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	BAIEN	1	-	-8.0	-	-	+3000	-210	-	-
002	TF	FO951	-	235 (226.8)	-8.0	5.0	-	1700	-	-	1.0
003	TF	FO952	,	235 (226.8)	-8.0	1.9	-	1101	-165	-3.00	0.3
004	RF Center: FORF2 r=2.02NM	FO953	,	-	-8.0	1.6	L	578	1	-3.00	0.3
005	TF	RW19	Υ	188 (180.4)	-8.0	1.6	-	67	-	-3.00/50	0.3
006	FA	-	-	188 (180.4)	-8.0	-	-	+500	-	-	1.0
007	DF	BAIEN	,	-	-8.0	-	L	3000	-	-	1.0

Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Time	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Snaad	RNP Value
Hold	BAIEN	243 (234.9)	-8.0	1.0 (-14000)	L	3000	FL140	-210(-14000)	1.0

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates	
BAIEN	333720.39N / 1315059.77E	FORF2	333110.65N / 1314640.11E	
FO951	333356.67N / 1314639.45E			
FO952	333239.42N / 1314500.88E			
FO953	333111.58N / 1314414.94E			
RW19	332934.89N / 1314414.08E			



※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).

from	Call sign	BRG / DIST from ARP	Remarks		
BRG/DIST	姫島 Himeshima	346°T / 15.3NM	島 Island		
	ゴルフコース Golf course	345°T / 9.7NM	ゴルフ場 Golf course		
Map updated.	行入ダム Gyonyu dam	321°T / 7.0NM	ダム Dam		
Мар и	イーストポイント East point	090°T / 10.0NM	海上 Over the sea		
	杵築 Kitsuki	232°T / 6.7NM	八坂川河口 River mouth (The Yasaka)		
CHANGE	佐賀関 Saganoseki	152°T / 15.0NM	精錬所煙突 Chimney		

