

OITA AP



AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

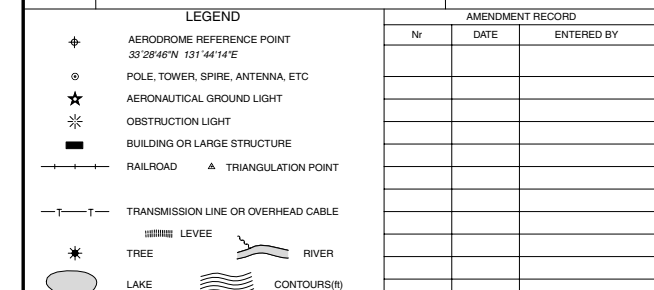
DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

MAGNETIC VARIATION 7°17' W-APR 2016



TYPE B

AERODROME ELEVATION 17ft ARP



STANDARD DEPARTURE CHART - INSTRUMENT

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 266FT located at 2.5NM 351° FM end of RWY01.



STANDARD DEPARTURE CHART - INSTRUMENT

RJFO / OITA

RNAV SID

EBOSHI TWO DEPARTURE		RNAV1
Note 1) DME/DME/IRU or GNSS required. ※ The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll. 2) RADAR service required.	Critical DME	—
	DME GAP	RWY01 : DER ~ 19NM to YANAI RWY19 : DER ~ 26NM to YANAI
	Inappropriate NavAids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 7°W (2014)

EBOSHI TWO DEPARTURE

RWY01 : Climb on HDG007° at or above 500FT, turn right direct to YANAI.

RWY19 : Climb on HDG187° at or above 500FT, turn left direct to YANAI.

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

OBST ALT 266FT located at 2.5NM 351° FM end of RWY01.

STANDARD DEPARTURE CHART - INSTRUMENT

RJFO / OITA

RNAV SID

EBOSHI TWO DEPARTURE

RWY01

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	—	—	007 (000.4)	-7.0	—	—	+500	—	—	RNAV1
002	DF	YANAI	—	—	-7.0	—	R	—	—	—	RNAV1

RWY19

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	—	—	187 (180.4)	-7.0	—	—	+500	—	—	RNAV1
002	DF	YANAI	—	—	-7.0	—	L	—	—	—	RNAV1

STANDARD DEPARTURE CHART- INSTRUMENT

RJFO / OITA

RNAV SID

TOYO THREE DEPARTURE		RNAV1
Note 1) DME/DME/IRU or GNSS required. ※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll. 2) RADAR service required.	Critical DME	—
	DME GAP	RWY01 : DER ~ 9NM to TACHI RWY19 : DER ~ 3NM to FO901
	Inappropriate NavAids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 7°W (2014)

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

007°

500

TOYO THREE DEPARTURE

500

TACHI
332524.3N
1314958.2E

FO901
332251.1N
1314410.5E

9.8

197°

13.8

215°

OOITA
331313.2N
1314211.7E

4000

TOYO THREE DEPARTURE

RWY01 : Climb on HDG007° at or above 500FT, turn right direct to TACHI,...

RWY19 : Climb on HDG187° 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 266FT located at 2.5NM 351° FM end of RWY01.

STANDARD DEPARTURE CHART- INSTRUMENT

RJFO / OITA

RNAV SID

TOYO THREE DEPARTURE

RWY01

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	—	—	007 (000.4)	-7.0	—	—	+500	—	—	RNAV1
002	DF	TACHI	—	—	-7.0	—	R	—	—	—	RNAV1
003	TF	OOITA	—	215 (208.1)	-7.0	13.8	—	+4000	—	—	RNAV1

RWY19

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	—	—	187 (180.4)	-7.0	—	—	+500	—	—	RNAV1
002	DF	FO901	—	—	-7.0	—	—	—	—	—	RNAV1
003	TF	OOITA	—	197 (189.8)	-7.0	9.8	—	+4000	—	—	RNAV1

STANDARD DEPARTURE CHART - INSTRUMENT

RJFO / OITA

RNAV SID



STANDARD DEPARTURE CHART - INSTRUMENT

RJFO / OITA

RNAV SID

FUSHA ONE DEPARTURE

RWY01

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	—	—	007 (000.4)	-7.0	—	—	+500	—	—	RNAV1
002	DF	FUSHA	—	—	-7.0	—	R	—	—	—	RNAV1

RWY19

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	—	—	187 (180.4)	-7.0	—	—	+500	—	—	RNAV1
002	DF	FUSHA	—	—	-7.0	—	L	—	—	—	RNAV1

STANDARD DEPARTURE CHART - INSTRUMENT

RJFO / OITA

RNAV TRANSITION

DONAR TRANSITION / DOUGO TRANSITION / FIATO TRANSITION SALTY TRANSITION / SPIDE TRANSITION / ASHIZURI TRANSITION			RNAV1
Note 1) DME/DME/IRU or GNSS required. 2) RADAR service required.	Critical DME	SALTY TRANSITION SUC : 8.3NM to SALTY – 4.3NM to SALTY FIATO TRANSITION SUC : 8.3NM to SALTY – 4.3NM to SALTY SWE : SALTY – FIATO	
	DME GAP	—	
	Inappropriate Nav aids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1	
VAR 7°W (2017)			
<p>VOR/DME MATSUYAMA 110.65 MYE CH-43Y 33°49'48"N/132°41'32"E 0FT</p> <p>MATSUYAMA(MYE) 334948.4N 1324132.0E</p> <p>VORTAC SHIMIZU 115.2 SUC CH-99X 32°45'21"N/132°59'48"E 1500FT</p> <p>SHIMIZU(SUC) 324521.5N 1325947.9E</p> <p>FUSHA 331737.7N 1320814.6E</p> <p>DONAR 332105.1N 1322904.7E</p> <p>FL160</p> <p>FIATO 340037.4N 1330354.6E</p> <p>SALTY 335109.7N 1325530.8E</p> <p>SPIDE 333840.2N 1325818.0E</p>			
<u>DONAR TRANSITION</u> From FUSHA, to DONAR at or above FL160.			
<u>DOUGO TRANSITION</u> From FUSHA, to DONAR at or above FL160, to MYE.			
<u>FIATO TRANSITION</u> From FUSHA, to DONAR at or above FL160, to SALTY, to FIATO.			
<u>SALTY TRANSITION</u> From FUSHA, to DONAR at or above FL160, to SALTY.			
<u>SPIDE TRANSITION</u> From FUSHA, to DONAR at or above FL160, to SPIDE.			
<u>ASHIZURI TRANSITION</u> From FUSHA, to SUC.			

STANDARD DEPARTURE CHART - INSTRUMENT

RJFO / OITA

RNAV TRANSITION

DONAR 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	—	—	-7.4	—	—	—	—	—	RNAV1
002	TF	DONAR	—	086 (078.7)	-7.4	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	—	—	-7.4	—	—	—	—	—	RNAV1
002	TF	DONAR	—	086 (078.7)	-7.4	17.8	—	+FL160	—	—	RNAV1
003	TF	MYE	—	027 (019.8)	-7.4	30.6	—	—	—	—	RNAV1

FIATO 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	—	—	-7.4	—	—	—	—	—	RNAV1
002	TF	DONAR	—	086 (078.7)	-7.4	17.8	—	+FL160	—	—	RNAV1
003	TF	SALTY	—	043 (036.1)	-7.4	37.3	—	—	—	—	RNAV1
004	TF	FIATO	—	044 (036.3)	-7.4	11.8	—	—	—	—	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	FUSHA	—	—	-7.4	—	—	—	—	—	RNAV1
002	TF	DONAR	—	086 (078.7)	-7.4	17.8	—	+FL160	—	—	RNAV1
003	TF	SALTY	—	043 (036.1)	-7.4	37.3	—	—	—	—	RNAV1

STANDARD DEPARTURE CHART - INSTRUMENT

RJFO / OITA

RNAV TRANSITION

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	FUSHA	—	—	-7.4	—	—	—	—	—	RNAV1
002	TF	DONAR	—	086 (078.7)	-7.4	17.8	—	+FL160	—	—	RNAV1
003	TF	SPIDE	—	061 (054.1)	-7.4	30.1	—	—	—	—	RNAV1

ASHIZURI 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	—	—	-7.4	—	—	—	—	—	RNAV1
002	TF	SUC	—	134 (126.5)	-7.4	54.0	—	—	—	—	RNAV1

STANDARD ARRIVAL CHART- INSTRUMENT

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.



STANDARD ARRIVAL CHART- INSTRUMENT

RJFO / OITA

RNAV STAR

KABOS ARRIVAL / BAIEN ARRIVAL
HOVER ARRIVAL / TANSO ARRIVAL

RNAV1

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

VAR 7°W(2017)



STANDARD ARRIVAL CHART - INSTRUMENT

RJFO / OITA

RNAV STAR

KABOS ARRIVAL

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

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	—	—	-7.4	—	—	+5000	—	—	RNAV1
002	TF	KABOS	—	243 (236.2)	-7.4	9.0	—	+3000	—	—	RNAV1

HOVER ARRIVAL

From YANAI at or above 5000FT, to FO161 at or above 3000FT, to SELEN, to METAL, to HOVER 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	—	—	-7.4	—	—	+5000	—	—	RNAV1
002	TF	FO161	—	203 (196.4)	-7.4	7.4	—	+3000	—	—	RNAV1
003	TF	SELEN	—	203 (196.4)	-7.4	21.9	—	—	-220	—	RNAV1
004	TF	METAL	—	277 (270.5)	-7.4	3.1	—	—	-220	—	RNAV1
005	TF	HOVER	—	338 (330.5)	-7.4	2.6	—	+1800	—	—	RNAV1

STANDARD ARRIVAL CHART - INSTRUMENT

RJFO / OITA

RNAV STAR

BAIEN ARRIVAL

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

Critical DME	—
DME GAP	—
Inappropriate Nav aids	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	—	—	-7.4	—	—	+5000	—	—	RNAV1
002	TF	BAIEN	—	224 (217.4)	-7.4	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 Nav aids	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	—	—	-7.4	—	—	+5000	—	—	RNAV1
002	TF	FO162	—	206 (199.4)	-7.4	7.2	—	+3000	—	—	RNAV1
003	TF	TANSO	—	206 (199.4)	-7.4	12.2	—	+2400	—	—	RNAV1

STANDARD ARRIVAL CHART - INSTRUMENT

RJFO / OITA

RNAV STAR

LUISU ARRIVAL

RNAV1

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

VAR 7°W(2016)



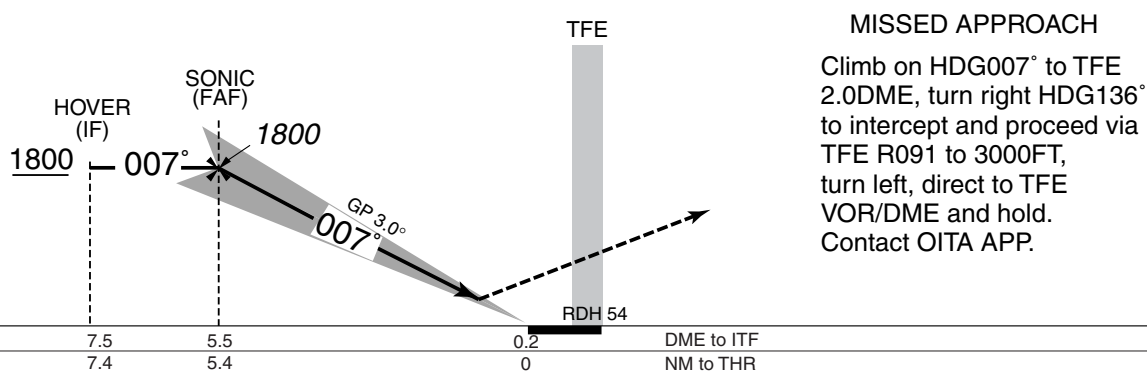
LUISU ARRIVAL

From OOKITA at or above 4000FT, to LUISU 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	OOKITA	—	—	-7.3	—	—	+4000	—	—	RNAV1
002	TF	LUISU	—	028 (020.2)	-7.3	4.7	—	+1800	—	—	RNAV1

RJFO / OITA



Missed APCH climb gradient MNM 4.0%.

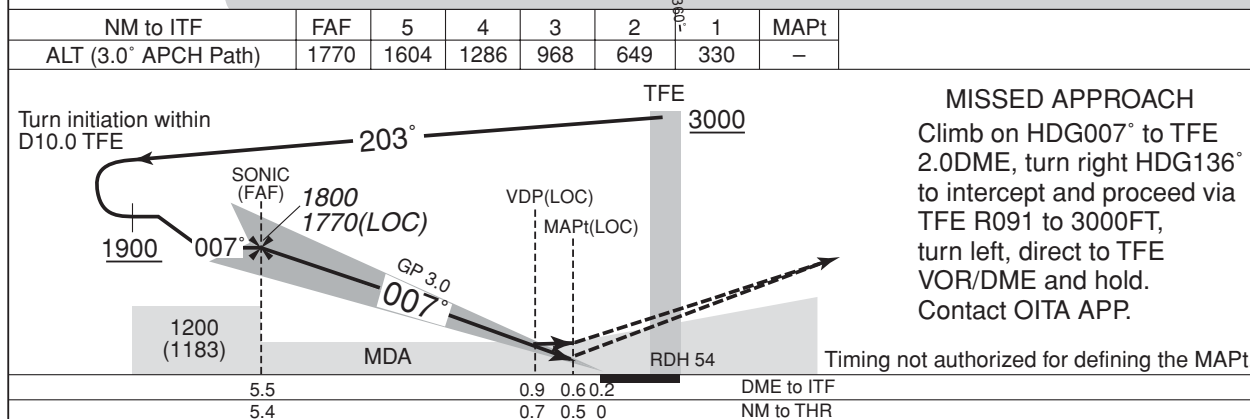
MINIMA		THR elev. 19	AD elev. 17		
CAT	CAT I		CIRCLING		
	DA(H)	RVR/ CMV	MDA(H)	VIS	
A	219 (200)	550	430 (413)	1600	
B			470 (453)		
C			690 (673)		2400
D			760 (743)		3200

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

INSTRUMENT APPROACH CHART

RJFO / OITA

ILS Y or LOC Y RWY01



Missed APCH climb gradient MNM 4.0%.

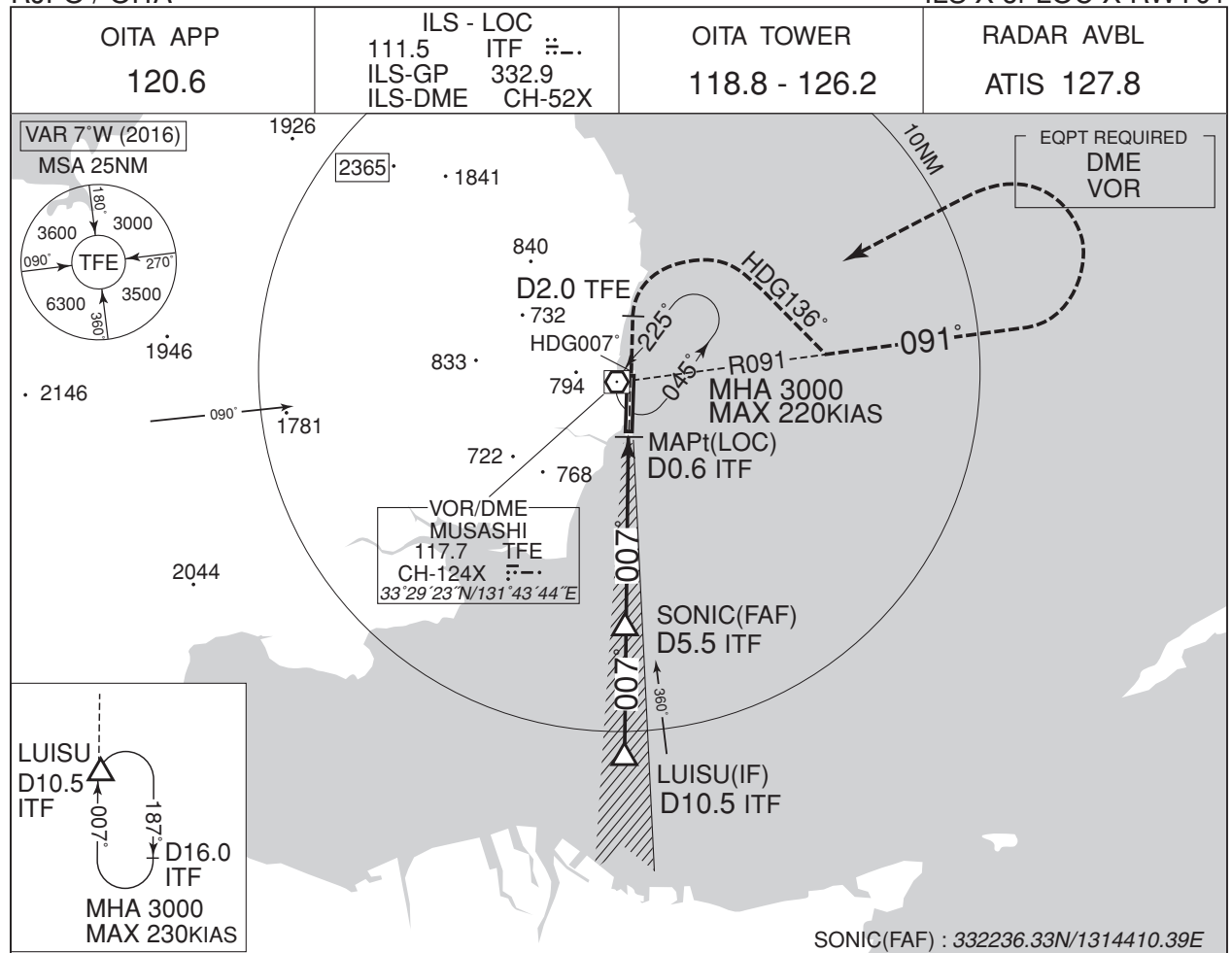
MINIMA		THR elev. 19		AD elev. 17	
CAT	CAT I	LOC	CIRCLING		
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H) VIS
A	219 (200)	550	300 (283)	800	430 (413)
B					470 (453)
C					690 (673)
D					760 (743)

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

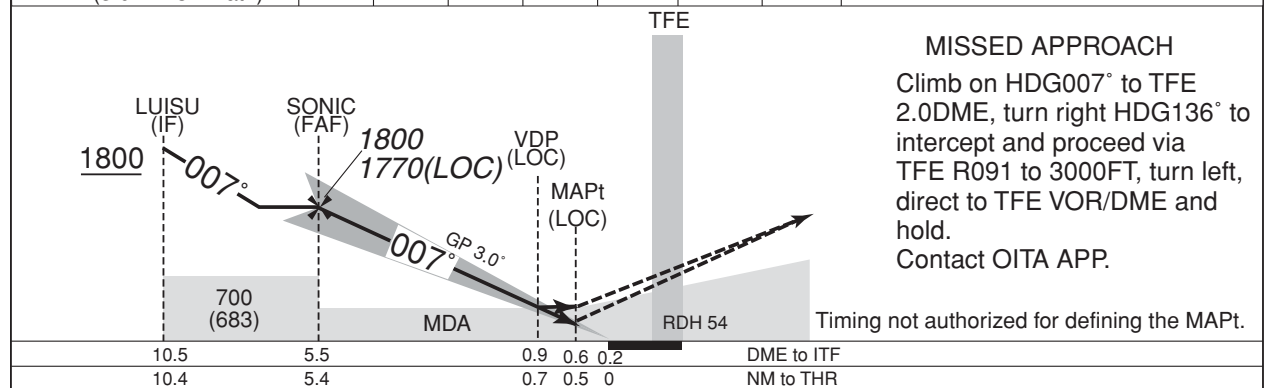
INSTRUMENT APPROACH CHART

RJFO / OITA

ILS X or LOC X RWY01



NM to ITF	FAF	5	4	3	2	1	MAPt
ALT (3.0° APCH Path)	1770	1604	1286	968	649	330	—



Missed APCH climb gradient MNM 4.0%.

MINIMA THR elev. 19 AD elev. 17

CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	219 (200)	550	300 (283)	800	430 (413)	1600
B					470 (453)	
C					690 (673)	
D				1200	760 (743)	3200

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

INSTRUMENT APPROACH CHART

RJFO / OITA

VOR RWY01



MINIMA		THR elev. 19	AD elev. 17
CAT	MDA(H)	RVR/CMV	CIRCLING
A	500 (483)	1000	500 (483) 1600
B		1200	690 (673) 2400
C		1600	760 (743) 3200
D			

Circling to EAST side of RWY only.

INSTRUMENT APPROACH CHART

RJFO / OITA

RNAV(GNSS) Z RWY19



CHANGE : Editorial

INSTRUMENT APPROACH CHART

RJFO / OITA

RNAV(RNP) RWY01

OITA APP 120.6	GNSS and RF required.	OITA TOWER 118.8 – 126.2	RADAR AVBL ATIS 127.8
-------------------	-----------------------	-----------------------------	--------------------------

For uncompensated Baro-VNAV systems, procedure not authorized below -5°C / above 45°C



MISSED APPROACH

From RW01 on track 007°,
at or above 500FT turn right,
direct to BAIEN and hold at
3000FT.

Contact OITA APP.



Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 19 AD elev. 17

CAT	RNP 0.30	
	DA(H)	RVR/CMV
A	-	-
B	-	-
C	326 (307)	1000
D		1400

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

RNP AR
Special Authorization Required

INSTRUMENT APPROACH CHART

RJFO / OITA

RNAV(RNP) RWY01

RNAV(RNP) RWY01Coding 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	—	—	-7.0	—	—	+2400	-220	—	—
002	TF	FO151	—	221 (214.2)	-7.0	3.6	—	2400	-165	—	1.0
003	RF Center: FORF1 r=2.25NM	FO152	—	—	-7.0	5.7	R	570	—	-3.00	0.3
004	TF	RW01	Y	007 (000.4)	-7.0	1.6	—	73	—	-3.00/54	0.3
005	FA	—	—	007 (000.4)	-7.0	—	—	+500	—	—	1.0
006	DF	BAIEN	—	—	-7.0	—	R	3000	—	—	1.0

Waypoint Coordinates

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		

INSTRUMENT APPROACH CHART

RJFO / OITA

RNAV(RNP) Y RWY19

OITA APP 120.6	GNSS and RF required.	OITA TOWER 118.8 – 126.2	RADAR AVBL ATIS 127.8
-------------------	-----------------------	-----------------------------	--------------------------

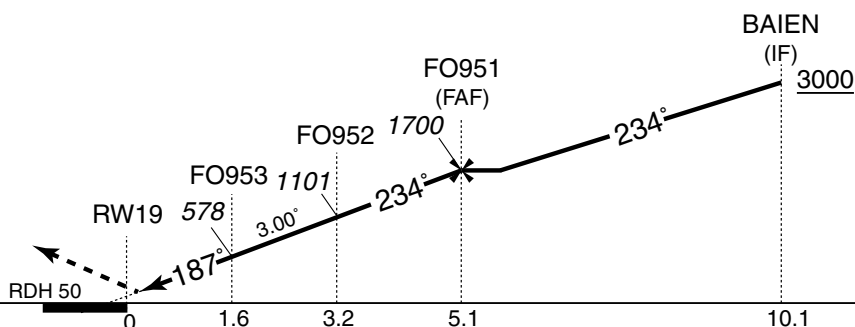
For uncompensated Baro-VNAV systems, procedure not authorized below -5°C / above 45°C



MISSED APPROACH

From RWY19 on track 187°, at or above 500FT turn left, direct to BAIEN and hold at 3000FT.

Contact OITA APP.



Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 17 AD elev. 17

CAT	RNP 0.30	
	DA(H)	CMV
A	-	-
B	-	-
C	334 (317)	1400
D	334 (317)	1600

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

RNP AR
Special Authorization Required

INSTRUMENT APPROACH CHART

RJFO / OITA

RNAV(RNP) Y RWY19

RNAV(RNP) Y RWY19Coding 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	—	—	-7.0	—	—	+3000	-210	—	—
002	TF	FO951	—	234 (226.8)	-7.0	5.0	—	1700	—	—	1.0
003	TF	FO952	—	234 (226.8)	-7.0	1.9	—	1101	-165	-3.00	0.3
004	RF Center: FORF2 r=2.02NM	FO953	—	—	-7.0	1.6	L	578	—	-3.00	0.3
005	TF	RW19	Y	187 (180.4)	-7.0	1.6	—	67	—	-3.00/50	0.3
006	FA	—	—	187 (180.4)	-7.0	—	—	+500	—	—	1.0
007	DF	BAIEN	—	—	-7.0	—	L	3000	—	—	1.0

Waypoint Coordinates

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		

RJFO / OITA

Visual REP



Call sign	BRG / DIST from ARP	Remarks
佐賀の関 Saganoseki	159°/15NM	精錬所煙突 Chimney
杵築 Kitsuki	240°/6.8NM	八坂川河口 River-mouth (The Yasaka)
姫島 Himeshima	351°/15NM	島 Island
イーストポイント East point	090°/10NM	海上 Over the sea
ゴルフコース Golf course	351°/9.5NM	ゴルフ場 Golf course
行入ダム Gyonyu dam	326°/7NM	ダム Dam

RJFO / OITA

Minimum Vectoring Altitude CHART

