#### **AD 2 AERODROMES**

### **ROIG AD 2.1 AERODROME LOCATION INDICATOR AND NAME**

### **ROIG - NEW ISHIGAKI**

#### **ROIG AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	ARP coordinates and site at AD	242347N/1241442E				
		0.7km 2° of TWR				
2	Direction and distance from (city)	11km NE from Ishigaki City office				
3	Elevation/ Reference temperature	102ft / 31°C (2006-2010)				
4	Geoid undulation at AD ELEV PSN	89ft				
5	MAG VAR/ Annual change	4°W (2010) / 2' W				
6	AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses	OKINAWA PREF. Public AP NEW ISHIGAKI AD Administration 222-75 Moriyama, Ishigaki, Okinawa Tel: 0980-87-0793 Fax: 0980-86-7601				
7	Types of traffic permitted(IFR/VFR)	IFR/VFR				
8	Remarks	ISHIGAKI Airport Branch(CAB) 222-72 Moriyama, Ishigaki, Okinawa Tel: 0980-84-4300 Fax: 0980-84-4306				

#### **ROIG AD 2.3 OPERATIONAL HOURS**

1	AD Administration	2300 - 1200			
2	Customs and immigration	INTL SKED FLT hours only			
3	Health and sanitation	INTL SKED FLT hours only			
4	AIS Briefing Office	Nil			
5	ATS Reporting Office(ARO)	Nil			
6	MET Briefing Office	H24 (NAHA)			
7	ATS	2300 - 1200			
8	Fuelling	2300 - 1200			
9	Handling	2230 - 1130			
10	Security	2200 - 1100			
11	De-icing	Nil			
12	Remarks	Nil			

#### **ROIG AD 2.4 HANDLING SERVICES AND FACILITIES**

1	Cargo-handling facilities	Conveyer belt, Lift for loading etc.			
2	Fuel/ oil types	Fuel Grades: JET A-1			
3	Fuelling facilities/ capacity	Fuel truck refueling			
4	De-icing facilities	Nil			
5	Hangar space for visiting aircraft	Nil			
6	Repair facilities for visiting aircraft	Nil			
7	Remarks	Nil			

#### **ROIG AD 2.5 PASSENGER FACILITIES**

1	Hotels	Hotels in Ishigaki City			
2	Restaurants	Available, Not continuous, during scheduled flight hours only			
3	Transportation	Busses and Taxis to Ishigaki City			
4	Medical facilities	Hospital in Ishigaki City 14km			
5	Bank and Post Office	Bank ATM at airport			
6	Tourist Office	At airport			
7	Remarks	Nil			

#### **ROIG AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

1	AD category for fire fighting	CAT 9
2	Rescue equipment	Chemical fire fighting truck (6,100-Liter Class) × 1 Chemical fire fighting truck (10,500-Liter Class) × 2 Emergency medical equipment conveyance truck (125 type) ×1
3	Capability for removal of disabled aircraft	Nil
4	Remarks	Nil

#### **ROIG AD 2.7 SEASONAL AVAILABILITY-CLEARING**

1	Types of clearing equipment	Nil
2	Clearance priorities	Nil
3	Remarks	Nil

## ROIG AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	Surface: Concrete Strength: Spot 1-2B, 5-10 PCN 55/R/B/X/T	
2	Taxiway width, surface and strength	Surface: Asphalt T1 Width: 26.5m Strength: PCN 55/F/B/X/T T2 Width: 30m Strength: PCN 43/F/B/X/T T3 Width: 30m Strength: PCN 43/F/B/X/T T4 Width: 30m Strength: PCN 46/F/B/X/T T5 Width: 26.5m Strength: PCN 55/F/B/X/T P1, P2, P3, P4 Width: 23m Strength: PCN 53/F/B/X/T	
3	ACL and elevation	Not available	
4	VOR checkpoints	Not available	
5	INS checkpoints	Spot NR  1: 242323.10N 1241437.71E  2A: 242323.39N 1241439.23E  2: 242323.93N 1241439.64E  2B: 242324.45N 1241440.08E  5: 242325.71N 1241440.62E  6: 242327.12N 1241442.00E  7: 242329.74N 1241443.09E  8: 242330.10N 1241444.14E  9: 242331.67N 1241445.38E  10: 242332.86N 1241446.71E	
6	Remarks	Nil	

### ROIG AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and Visual dock- ing/ parking guidance system of aircraft stands	Aircraft stand identification signs: Spot 5-9
2	RWY and TWY markings and LGT	RWY: 04/22 (Marking) RWY designation, RWY CL, RWY THR, RWY middle point,
3	Stop bars	Nil
4	Remarks	(Marking) Overrun area (LGT) Apron flood LGT

### **ROIG AD 2.10 AERODROME OBSTACLES**

### In approach/TKOF areas

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
RWY04	Utility Pole	242239.57N 1241343.63E	231ft	-/LIL	under approach surface
RWY04	Utility Pole	242221.82N 1241320.95E	284ft	-/LIL	under approach surface
RWY22	Utility Pole	242424.58N 1241506.91E	125ft	-/LIL	under approach surface

### In circling area and at AD

Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
Utility Pole	242402.58N 1241420.19E	251ft	-/-	above horizontal surface
Utility Pole	242403.47N 1241418.91E	250ft	-/-	above horizontal surface
Utility Pole	242409.14N 1241429.40E	251ft	-/-	above horizontal surface
Utility Pole	242407.38N 1241427.50E	251ft	-/-	above horizontal surface
Utility Pole	242406.37N 1241426.78E	253ft	-/-	above horizontal surface
Utility Pole	242405.28N 1241426.27E	253ft	-/-	above horizontal surface
Utility Pole	242403.83N 1241425.92E	252ft	-/-	above horizontal surface
Utility Pole	242402.94N 1241425.90E	250ft	-/-	above horizontal surface
Steel Tower	242420.00N 1241315.00E	499ft	-/LIL	above horizontal surface
Hill	242426.33N 1241356.34E	540ft	-/LIL	above horizontal surface
Hill	242405.52N 1241422.01E	414ft	-/LIL	above horizontal surface
Hill	242432.66N 1241454.98E	456ft	-/LIL	above horizontal surface
Steel Tower	242400.08N 1241427.99E	298ft	-/LIL	above horizontal surface
Steel Tower	242408.00N 1241429.00E	299ft	-/LIL	above horizontal surface

### **ROIG AD 2.11 METEOROLOGICAL INFORMATION PROVIDED**

1	Associated MET Office	NAHA
2	Hours of service	H24 (NAHA)
	MET Office outside hours	
3	Office responsible for TAF preparation	NAHA
	Periods of validity	30 Hours
4	Trend forecast	Nil
	Interval of issuance	
5	Briefing/ consultation provided	Briefing is available upon inquiry at NAHA
6	Flight documentation	С
	Language(s) used	En
7	Charts and other information available	$S_6$ , $U_{85}$ , $U_7$ , $U_5$ , $U_3$ , $U_{25}$ , $U_2/T_r$ , $P_S$ , $P_5$ , $P_3$ , $P_{25}$ , $P_{SWE}$ , $P_{SWF}$ , $P_{SWG}$ ,
	for briefing or consultation	P <sub>SWI</sub> , P <sub>SWM</sub> , P <sub>SW</sub> (domestic), E, C, W <sub>E</sub> , W <sub>F</sub> , W <sub>G</sub> , W <sub>I</sub> , W, N
8	Supplementary equipment	Nil
	available for providing information	
9	ATS units provided with information	TWR
10	Additional information(limitation of ser-	Nil
	vice, etc.)	

### **ROIG AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS**

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength(PCN) and surface of RWY	THR coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
04 035.87°		2000×45	PCN 53/F/B/X/T Asphalt-Concrete	242320.91N 1241421.64E 88.9ft	THR ELEV: 126ft
22	215.87°	2000×45	PCN 55/F/B/X/T Asphalt-Concrete	242413.59N 1241503.24E 89.4ft	THR ELEV: 110ft
Slope of RWY		Strip Dimensions(M)		(Overrun) sions (M)	Remarks
7 10		10	11		14
See AD2.24 AD chart 2		2120×300	192×(MNM:165 MAX:305)*		RWY grooving: 2000×45
2120		2120×300		×305 airport administrator	

#### **ROIG AD 2.13 DECLARED DISTANCES**

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
04	2000	2000	2000	2000	Nil
22	2000	2000	2000	2000	Nil

#### **ROIG AD 2.14 APPROACH AND RUNWAY LIGHTING**

RWY Designator	APCH LGT type LEN INTST	RTHL Color WBAR	PAPI (VASIS) Angle DIST FM THR MEHT	RTZL LEN	RCLL LEN Spacing Color INTST	REDL LEN Spacing Color INTST	RENL Color WBAR	STWL LEN Color
1	2	3	4	5	6	7	8	9
04	PALS (CAT I) 900m LIH	Green Green	PAPI 3°/Left 453m 61ft	900m	2000m 30m Coded color (White/Red) LIH	2000m 60m Coded color (White/Yellow) LIH	Red	Nil (*2)
22	SALS (*1) 420m LIH	Green -	PAPI 3°/Left 439.8m 61ft	-	2000m 30m Coded color (White/Red) LIH	2000m 60m Coded color (White/Yellow) LIH	Red	Nil (*2)
				Remarks				
				10				
			and 900m FM I olor:Red)(*2)	RWY THR)(*	1)			

### ROIG AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

	1	ABN/IBN location, characteristics and hours of operation	ABN: 242331N/1241453E, White/Green EV4.3sec, HO
	2	LDI location and LGT Anemometer location and LGT	LDI: Nil Anemometer: RWY04: 370m from RWY04 THR, lighted RWY22: 363m from RWY22 THR, lighted
Ī	3	TWY edge and center line lighting	TWY edge and center line lights installed, see AD2.9
	4	Secondary power supply/ switch-over time	Within 1 sec: REDL, RTHL, WBAR, RCLL, Overrun area edge LGT Within 15 sec: Other LGT
	5	Remarks	WDI LGT

#### **ROIG AD 2.16 HELICOPTER LANDING AREA**

Nil	
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### **ROIG AD 2.17 ATS AIRSPACE**

	Designation and lateral limits	Vertical limits (ft)	Airspace classification	ATS unit call sign Language	Remarks
	1	2	3	4	6
New Ishigaki CTR	Area within a radius of 5nm NEW ISHIGAKI ARP	3,000 or below	D	Ishigaki TWR En	
Sakishima ACA	See ROMY attaced chart		E	Sakishima APP Sakishima DEP Sakishima RADAR En	

### **ROIG AD 2.18 ATS COMMUNICATION FACILITIES**

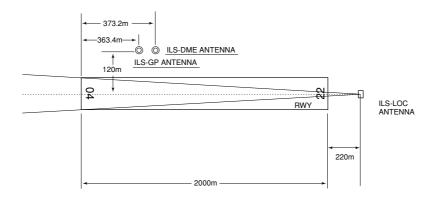
Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP/ASR	Sakishima Approach/	120.3MHz	2230 - 1200	APP service provided by
	Sakishima Radar	121.2MHz		Sakishima APP.
		125.0MHz		
		121.5MHz(E)		
		243.0MHz(E)		
TWR	Ishigaki Tower	118.0MHz(1)	2300 - 1200	(1)Primary
		126.2MHz		
		121.5MHz(E)		
ATIS	New Ishigaki Airport	128.675MHz	2300 - 1200	

### **ROIG AD 2.19 RADIO NAVIGATION AND LANDING AIDS**

Type of aid (VOR declina- tion)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR (4°W/2012)	IGE	115.4MHz	H24	242345.64N/ 1241416.63E		VOR Unusable: 000°-020° beyond 20NM BLW 4,000ft 290°-325° beyond 15NM BLW 4,000ft 325°-360° beyond 20NM BLW 4,000ft
DME	IGE	1188MHz (CH-101X)	H24	242345.64N/ 1241416.63E	208.3ft	DME Unusable: 000°-020° beyond 20NM BLW 4,000ft 290°-335° beyond 20NM BLW 4,000ft 335°-345° beyond 15NM BLW 4,000ft 345°-360° beyond 20NM BLW 4,000ft
ILS-LOC 04	IIG	110.75MHz	2300-1200	242419.38N/ 1241507.81E		LOC: 220m(722ft) away FM RWY22 THR, BRG(MAG) 40°.
ILS-GP 04	-	330.05MHz	2300-1200	242332.77N/ 1241425.74E		GP: 363.4m(1192ft) inside FM RWY04 THR. 120m(394ft)W of RCL. HGT of ILS Ref datum 16.5m(54ft). GP angle 3.0°.
ILS-DME 04	IIG	1131MHz (CH-44Y)	2300-1200	242333.04N/ 1241425.94E	126.4ft	DME: 373.2m(1224ft) inside FM RWY04 THR. 120m(394ft)W of RCL.
MSAS		1575.42MHz	H24			Transmitting antennas are satellite based

ILS

#### NEW ISHIGAKI AP



REMARKS: 1. LOC beam BRG(MAG)

2. GP Angle
3. HGT of ILS REF datum
4. ELEV of ILS-DME

3.0° 16.5m(54ft) 38.52m(126ft)

040°

### **ROIG AD 2.20 LOCAL TRAFFIC REGULATIONS**

1. Airp	port regulations
	PPR for all transient aircraft due to Apron congestion. TEL:0980-87-0793
2. Tax	iing to and from stands
	Nil
3. Par	king area for small aircraft(General aviation)
	Nil
4. Par	king area for helicopters
	Nil
5. Apr	on - taxiing during winter conditions
	Nil
6. Tax	iing - limitations
	Safety measures In order to keep clearance from other aircraft and obstacles, aircraft with wing span of 47-56m shall reduce taxiing speed and follow the taxiway center line strictly on TWY P1 and P2. 全幅が 47m 以上 56m 以下の航空機は、他の航空機又は障害物とのクリアランスを確保するため、誘導路 P1 及び P2 を走行する場合は十分に減速し、誘導路中心線を確保した走行を行うこと。
7. Sch	nool and training flights - technical test flights - use of runways
	Nil
8. Hel	icopter traffic - limitation
	Nil
9. Rer	moval of disabled aircraft from runways
	Ask AD administration
	ROIG AD 2.21 NOISE ABATEMENT PROCEDURES
	Nil

#### **ROIG AD 2.22 FLIGHT PROCEDURES**

#### 1. TAKE OFF MINIMA

	RWY	ACFT CAT	REDL 8	& RCLL	_	RCLL or larking	NIL (DAYTIME ONLY)		
		CAI	RVR	VIS	RVR	VIS	RVR	VIS	
Multi-Engine ACFT with	04	A,B,C,D	400m	400m	400m	400m	-	500m	
TKOF ALTN AP FILED	22	A,B,C,D	1	400m	1	400m	1	500m	
OTHER	04	A,B,C,D	AVBL LDG MINIMA						
OTTIER	22	Α,Β,Ο,Β			AVBL LD	J WIIIWINA			

#### 2. Lost Communication Procedures for Arrival Aircraft under radar navigational guidance

If radio communications with Sakishima Approach/Radar are lost for one minute, squawk Mode A/3 Code 7600 and;

- 1. Contact Ishigaki Tower.
- 2. If unable, proceed in accordance with visual flight rules.
- 3. If unable, proceed to Ishigakijima VOR at the last assigned altitude, or 3,000 feet which is higher, and execute instrument approach.

Note: Procedures other than above will be issued when situation requires.

#### 3. Terminal Radar Alphanumeric Display System (TRAD)

先島アプローチの指示のもとに、当該進入管制区を飛行する航空機は、モード A/3 の二次レーダー個別コード及びモード C による応答を指示される。

Aircraft flying under control of Sakishima approach control in the approach control area will be instructed to reply with discrete code on Mode A/3 and Mode C.

二次レーダー個別コードを搭載していない航空機が当該 コードによる応答を指示された場合は、管制官に対しその旨 通報すること。 If an aircraft with non-discrete code capability be instructed to reply with the discrete code, it shall report a controller accordingly.

#### **ROIG AD 2.23 ADDITIONAL INFORMATION**

#### 1. Helicopter Landing Area

Location:

North HELIPAD: On PARL TWY P2 South HELIPAD: On PARL TWY P1

Lighting: Nill

(See AD2.24 AD CHART)

#### **ROIG AD 2.24 CHARTS RELATED TO AN AERODROME**

Aerodrome/Heliport Chart

Standard Departure Chart - Instrument (GUSUK, MIYAKO)

Standard Departure Chart - Instrument (ISHIGAKI REVERSAL)

Standard Departure Chart - Instrument (KOHAM) Standard Departure Chart - Instrument (GAHRA-RNAV) Standard Departure Chart - Instrument (AYAKA-RNAV)

Standard Arrival Chart - Instrument (JOTTO NORTH, JOTTO SOUTH-RNAV) Standard Arrival Chart - Instrument (YUNTA NORTH, YUNTA SOUTH-RNAV)

Standard Arrival Chart - Instrument (DENSA, JOTTO WEST-RNAV)

Instrument Approach Chart (ILS Z or LOC Z RWY04)

Instrument Approach Chart (ILS Y or LOC Y RWY04)

Instrument Approach Chart (VOR RWY04)

Instrument Approach Chart (VOR Z RWY22)

Instrument Approach Chart (VOR Y RWY22)

Instrument Approach Chart (RNAV(RNP) Z RWY04)

Instrument Approach Chart (RNAV(RNP) Y RWY04)

Instrument Approach Chart (RNAV(GNSS) Z RWY22)

Instrument Approach Chart (RNAV(RNP) Y RWY22)

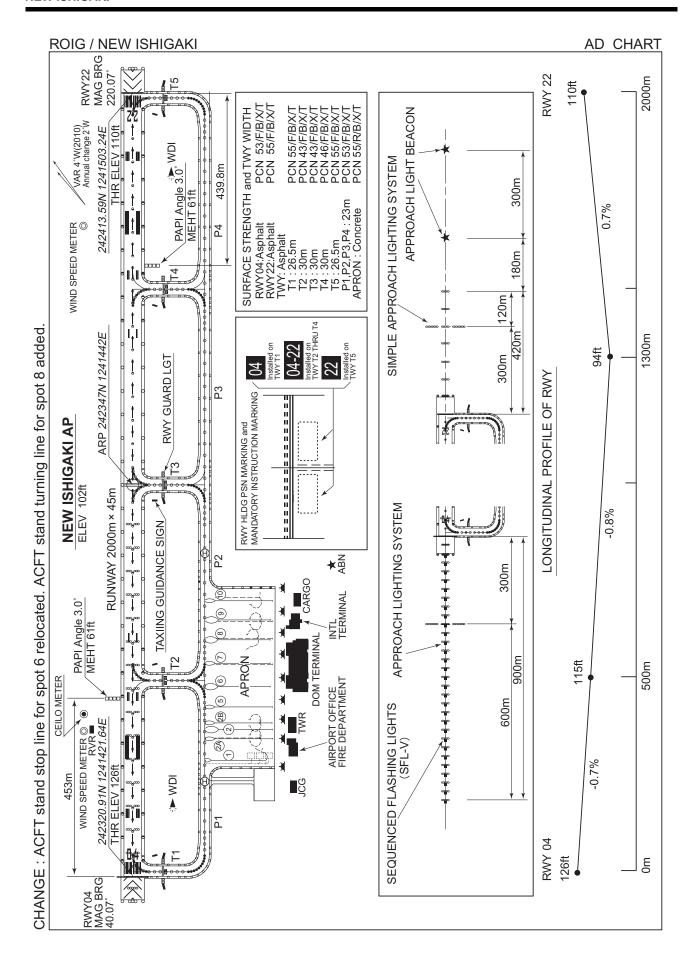
Instrument Approach Chart (RNAV(RNP) X RWY22)

Other Chart (VISUAL REP)

Other Chart (LDG CHART)

Other Chart (MVA CHART)







#### **ROIG / NEW ISHIGAKI**

SID

#### **GUSUK ONE DEPARTURE**

RWY04: Climb RWY HDG to 600FT, turn right,...

RWY22 : Climb RWY HDG to 600FT, via IGE R214 to IGE R214/2.8DME,turn left HDG027°...

... to intercept and proceed via IGE R072 to GUSUK.

Cross GUSUK at or above 3000FT.

#### MIYAKO TWO DEPARTURE

RWY04: Climb RWY HDG to 600FT, turn right HDG175°...

RWY22: Climb RWY HDG to 600FT, via IGE R214 to IGE R214/2.8DME, turn left HDG085°...

... to intercept and proceed via IGE R130 to IGE 14.0DME, turn left, via MJC R241 to MJC VORTAC.



ROIG / NEW ISHIGAKI SID

### ISHIGAKI REVERSAL ONE DEPARTURE

RWY04: Climb RWY HDG to 800FT, turn left to intercept and proceed via IGE R040 to 2000FT,

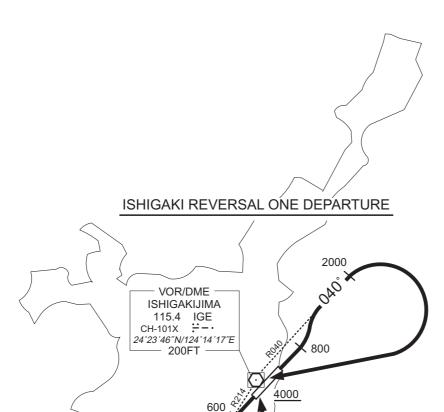
turn right, direct to IGE VOR/DME.

Cross IGE VOR/DME at or above 4000FT.

RWY22 : Climb RWY HDG to 600FT,via IGE R214 to IGE R214/5.5DME,turn left, direct to IGE VOR/DME.

Cross IGE VOR/DME at or above 4000FT.

D5.5 IGE



#### ROIG / NEW ISHIGAKI

SID

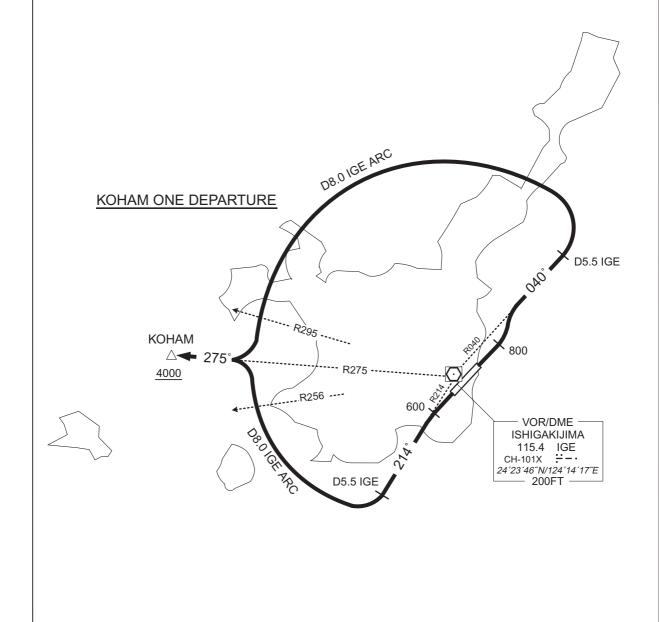
#### KOHAM ONE DEPARTURE

RWY04 : Climb RWY HDG to 800FT, turn left to intercept and proceed via IGE R040 to IGE R040/5.5DME, turn left, via IGE 8.0DME counterclockwise ARC,turn right to intercept and proceed via IGE R275 to KOHAM.

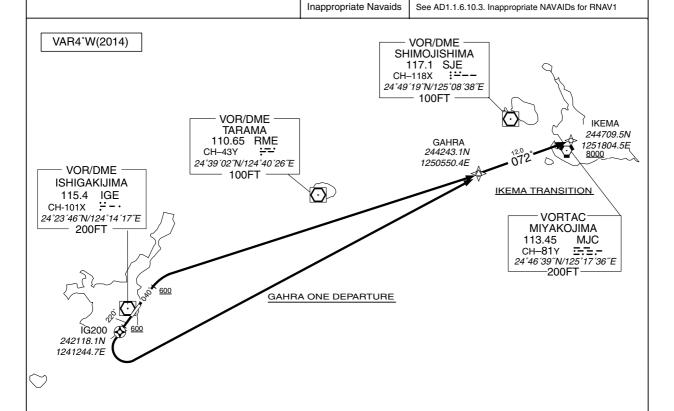
Cross KOHAM at or above 4000FT.

RWY22 : Climb RWY HDG to 600FT,via IGE R214 to IGE R214/5.5DME,turn right, via IGE 8.0DME clockwise ARC,turn left to intercept and proceed via IGE R275 to KOHAM.

Cross KOHAM at or above 4000FT.



#### RNAV SID and TRANSITION **ROIG / NEW ISHIGAKI GAHRA ONE DEPARTURE** RNAV1 **IKEMA TRANSITION** RWY22: IGE: 52NM to GAHRA - 47NM to GAHRA Critical DME MJC: 52NM to GAHRA - 50NM to GAHRA NOTE 1) DME/DME/IRU or GNSS required. RWY04: DER - GAHRA The aircraft equipped with only DME/DME/IRU RWY22: DER - IG200 must be able to update its position without delay DME GAP IG200 - 52NM to GAHRA at the starting point of take-off roll. 47NM to GAHRA - GAHRA 2) RADAR service required. IKEMA TRANSITION: GAHRA - IKEMA



#### **GAHRA ONE DEPARTURE**

RWY04: Climb on HDG 040° at or above 600FT, turn right direct to GAHRA.

RWY22: Climb on HDG 220° at or above 600FT, direct to IG200, turn left direct to GAHRA.

#### **IKEMA TRANSITION**

From GAHRA, to IKEMA at or above 8000FT.

### ROIG / NEW ISHIGAKI

### **RNAV SID and TRANSITION**

## GAHRA ONE DEPARTURE

### RWY04

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over		Magnetic Variation		Turn Direction		l '		Navigation Specification
001	VA	_	_	040 (035.9)	-4.1	_	_	+600	_	_	RNAV1
002	DF	GAHRA	_	_	-4.1	_	R	_	_	_	RNAV1

### RWY22

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation		Turn Direction	Altitude (FT)	Speed (KIAS)		Navigation Specification
001	VA	_	_	220 (215.9)	-4.1	_	_	+600	_	_	RNAV1
002	DF	IG200	Υ	1	-4.1	_	1	1	1	_	RNAV1
003	DF	GAHRA	_	_	-4.1	_	L	_	_	_	RNAV1

### **IKEMA TRANSITION**

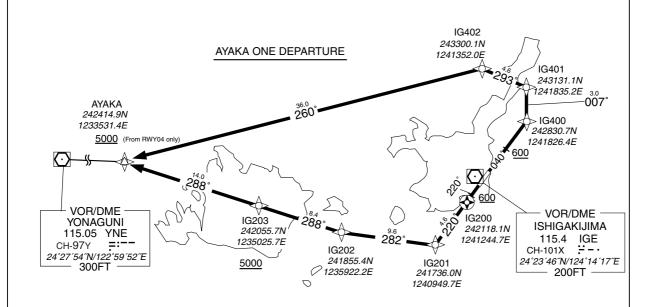
Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	$^{\circ}M(^{\circ}T)$	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	GAHRA	_	_	-4.1	_	_	_	_	_	RNAV1
002	TF	IKEMA	_	072 (068.2)	-4.1	12.0	_	+8000	_	_	RNAV1

#### 

\*\*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.

#### VAR4°W(2014)



#### AYAKA ONE DEPARTURE

RWY04: Climb on HDG 040° at or above 600FT, direct to IG400, to IG401, to IG402, to AYAKA at or

above 5000FT.

RWY22: Climb on HDG 220° at or above 600FT, direct to  $\underline{\text{IG200}}$ , to IG201, to IG202, to IG203

at or above 5000FT, to AYAKA.

NOTE RWY04 : 4.0% climb gradient required up to 2000FT.

OBST ALT 836FT at 9.53NM 021° FM end of RWY04.

### ROIG / NEW ISHIGAKI

**RNAV SID** 

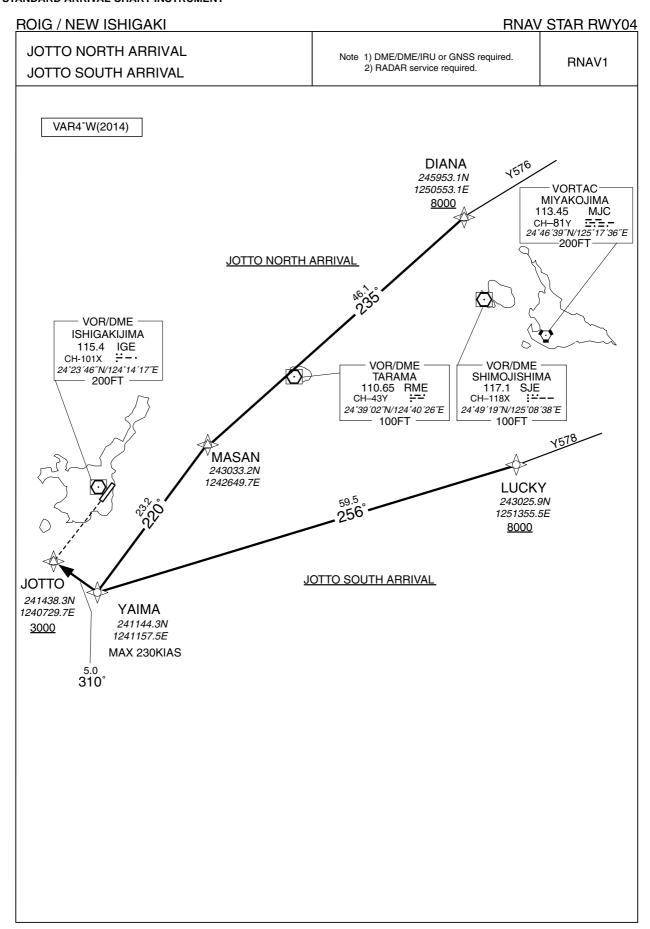
# AYAKA ONE DEPARTURE

#### RWY04

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	_	_	040 (035.9)	-4.1	_	_	+600	-	_	RNAV1
002	DF	IG400	_	_	-4.1	_	_	_	_	_	RNAV1
003	TF	IG401	_	007 (002.6)	-4.1	3.0	_	_	_	_	RNAV1
004	TF	IG402	_	293 (289.1)	-4.1	4.6	_	_	_	_	RNAV1
005	TF	AYAKA	_	260 (256.1)	-4.1	36.0	_	+5000	_	_	RNAV1

## RWY22

ı												
	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	_	_	220 (215.9)	-4.1	_	_	+600	_	_	RNAV1
	002	DF	IG200	Υ	_	-4.1	_	_	_	_	_	RNAV1
	003	TF	IG201	_	220 (215.7)	-4.1	4.6	_	_	_	_	RNAV1
	004	TF	IG202	_	282 (277.9)	-4.1	9.6	_	_	_	_	RNAV1
	005	TF	IG203	_	288 (283.9)	-4.1	8.4	_	+5000	_	_	RNAV1
	006	TF	AYAKA	_	288 (283.8)	-4.1	14.0	_	_	_	_	RNAV1



#### ROIG / NEW ISHIGAKI

**RNAV STAR RWY04** 

### JOTTO NORTH ARRIVAL

From DIANA at or above 8000FT, to MASAN, to YAIMA, to JOTTO at or above 3000FT.

Critical DME	MJC: DIANA - 21NM to MASAN 14NM to YAIMA - 10NM to YAIMA IGE: 36NM to MASAN - 21NM to MASAN 14NM to YAIMA - 13NM to YAIMA
DME GAP	21NM to MASAN - 14NM to YAIMA
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

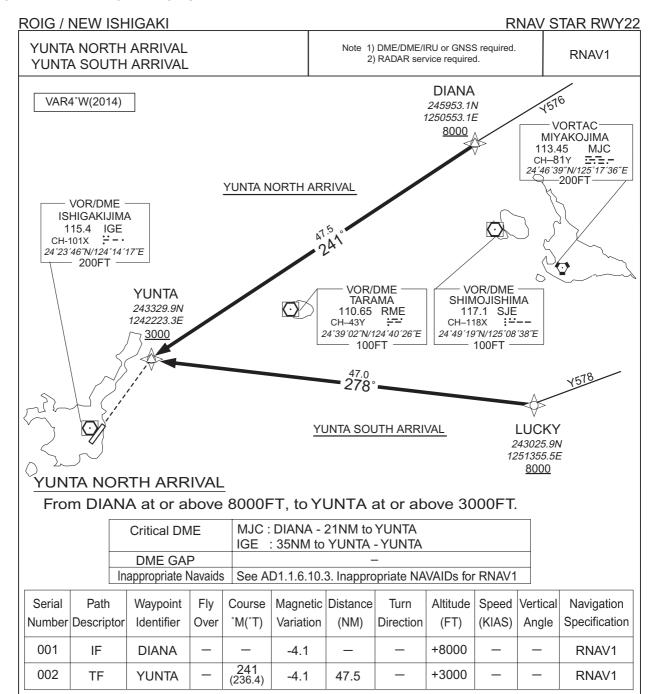
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	
001	IF	DIANA	_	_	-4.1	_	_	+8000	_	_	RNAV1
002	TF	MASAN	_	235 (230.5)	-4.1	46.1	_	_	_	_	RNAV1
003	TF	YAIMA	_	220 (215.8)	-4.1	23.2	-	_	-230	1	RNAV1
004	TF	JOTTO	_	310 (305.5)	-4.1	5.0	_	+3000	_	_	RNAV1

### JOTTO SOUTH ARRIVAL

From LUCKY at or above 8000FT, to YAIMA, to JOTTO at or above 3000FT.

Critical DME	MJC : LUCKY - 6NM to YAIMA IGE : 53NM to YAIMA - 6NM to YAIMA
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
Numbe	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	LUCKY	_	_	-4.1	_	_	+8000	_	_	RNAV1
002	TF	YAIMA	_	256 (251.9)	-4.1	59.5	_	_	-230	_	RNAV1
003	TF	JOTTO	_	310 (305.5)	-4.1	5.0	_	+3000	_	_	RNAV1

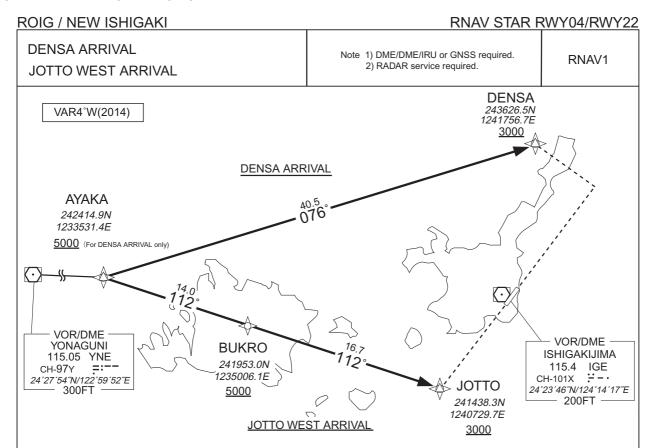


#### YUNTA SOUTH ARRIVAL

From LUCKY at or above 8000FT, to YUNTA at or above 3000FT.

Critical DME	MJC: LUCKY - 32NM to YUNTA IGE: 33NM to YUNTA - 32NM to YUNTA YNE,IGE: 6NM to YUNTA -YUNTA
DME GAP	32NM to YUNTA - 6NM to YUNTA
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	LUCKY	_	_	-4.1	-	_	+8000	_	_	RNAV1
002	TF	YUNTA	_	278 (273.9)	-4.1	47.0	_	+3000	_	_	RNAV1



#### DENSA ARRIVAL

From AYAKA at or above 5000FT, to DENSA at or above 3000FT.

Critical DME	IGE : 23NM to DENSA - DENSA
	MJC: 23NM to DENSA - 18NM to DENSA
DME GAP	AYAKA - 23NM to DENSA
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

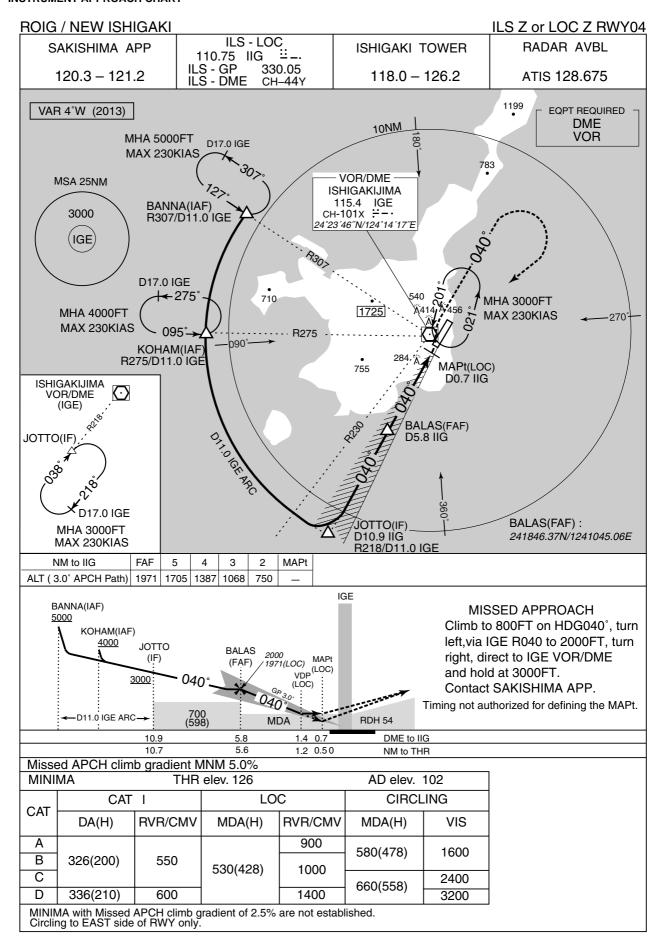
Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	AYAKA	_	_	-4.1	_	_	+5000	_	_	RNAV1
002	TF	DENSA	_	076 (072.3)	-4.1	40.5	_	+3000	_	_	RNAV1

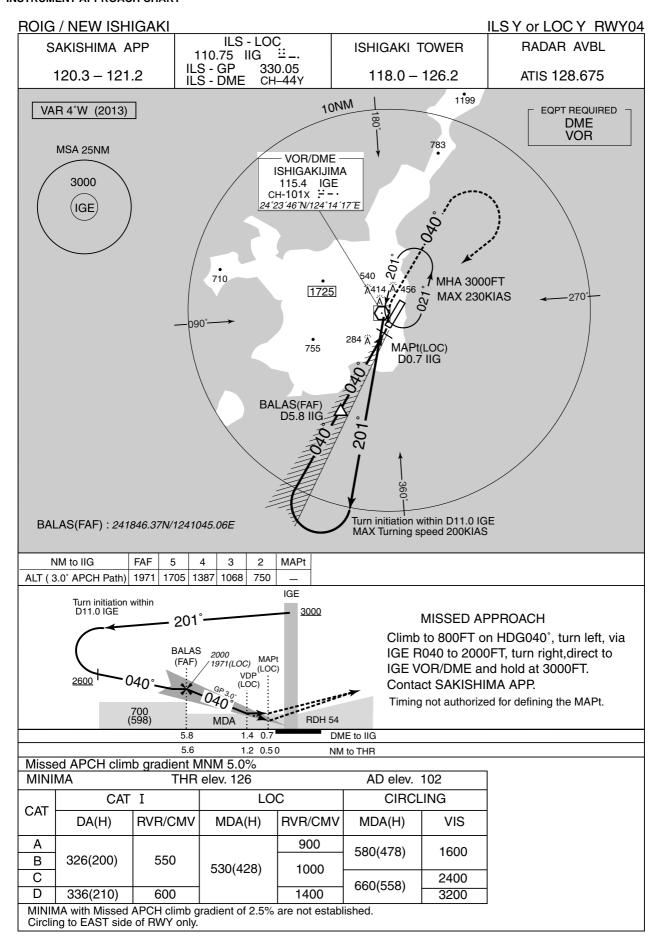
#### JOTTO WEST ARRIVAL

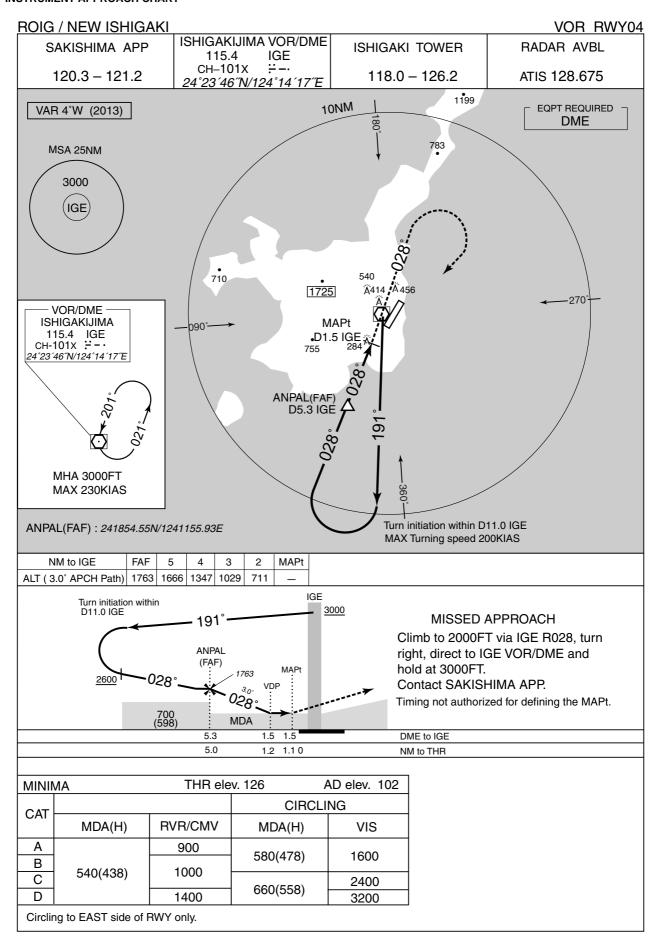
From AYAKA, to BUKRO at or above 5000FT, to JOTTO at or above 3000FT.

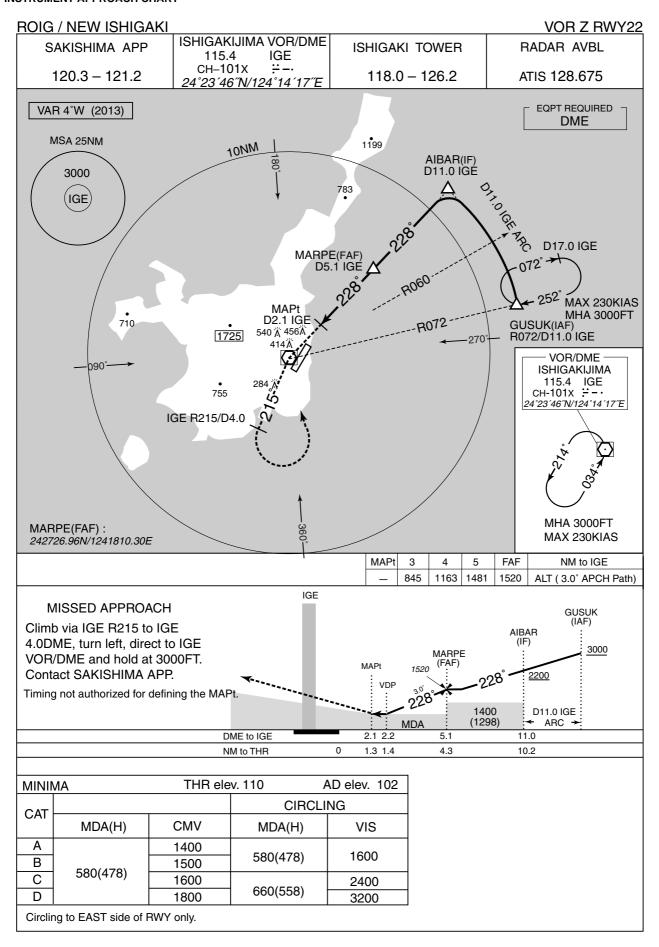
Critical DME	MJC: 14NM to JOTTO - 10NM to JOTTO YNE: 14NM to JOTTO - JOTTO
DME GAP	AYAKA - 14NM to JOTTO
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

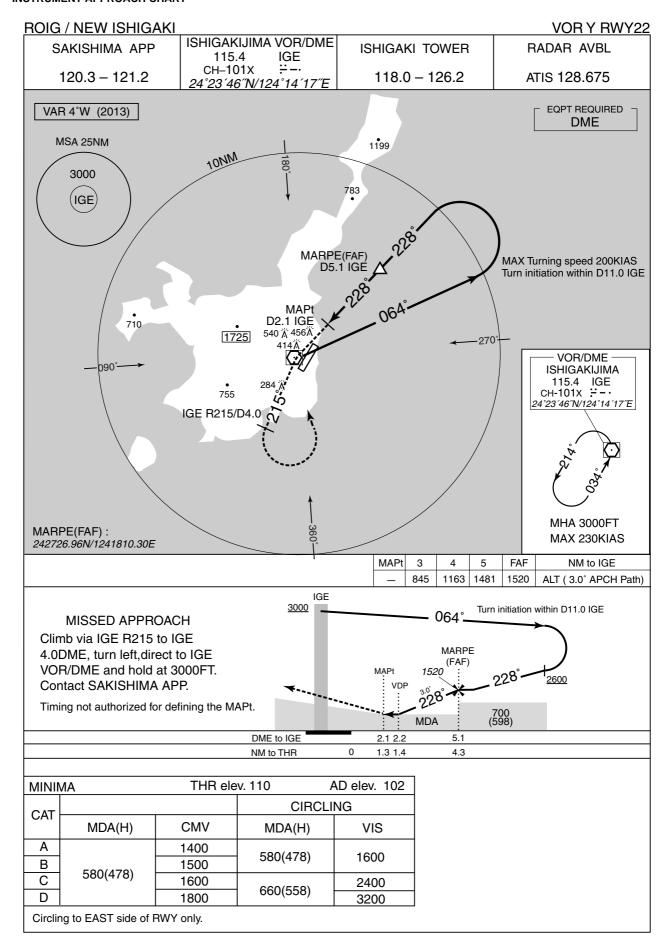
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation		Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	
001	IF	AYAKA	_	_	-4.1	_	_	_	_	_	RNAV1
002	TF	BUKRO	_	112 (108.1)	-4.1	14.0	_	+5000	_	_	RNAV1
003	TF	JOTTO	_	112 (108.2)	-4.1	16.7	_	+3000	_	_	RNAV1

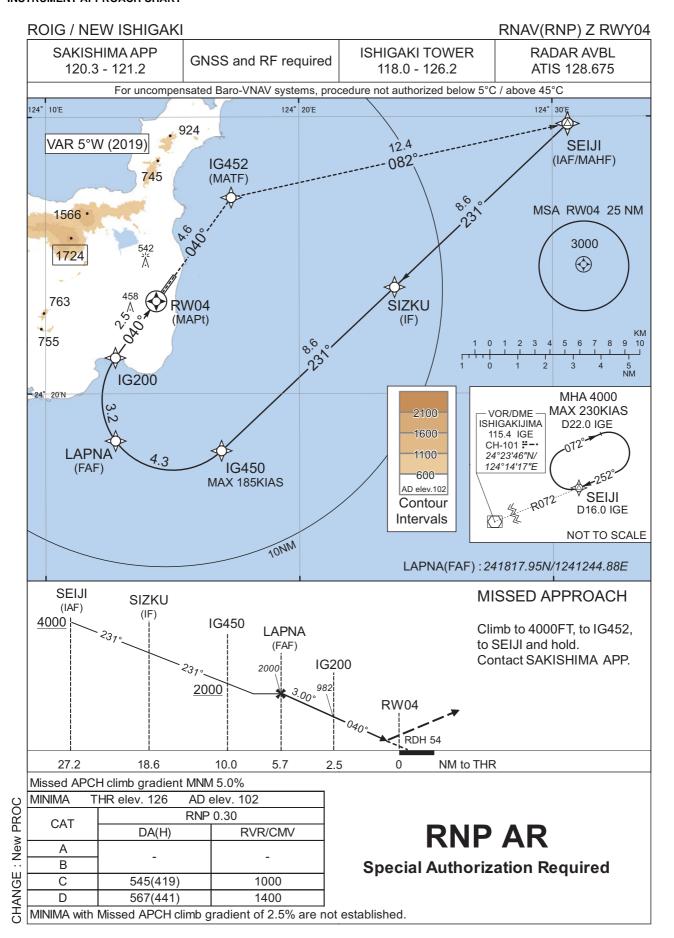












## ROIG / NEW ISHIGAKI

# RNAV(RNP) Z RWY04

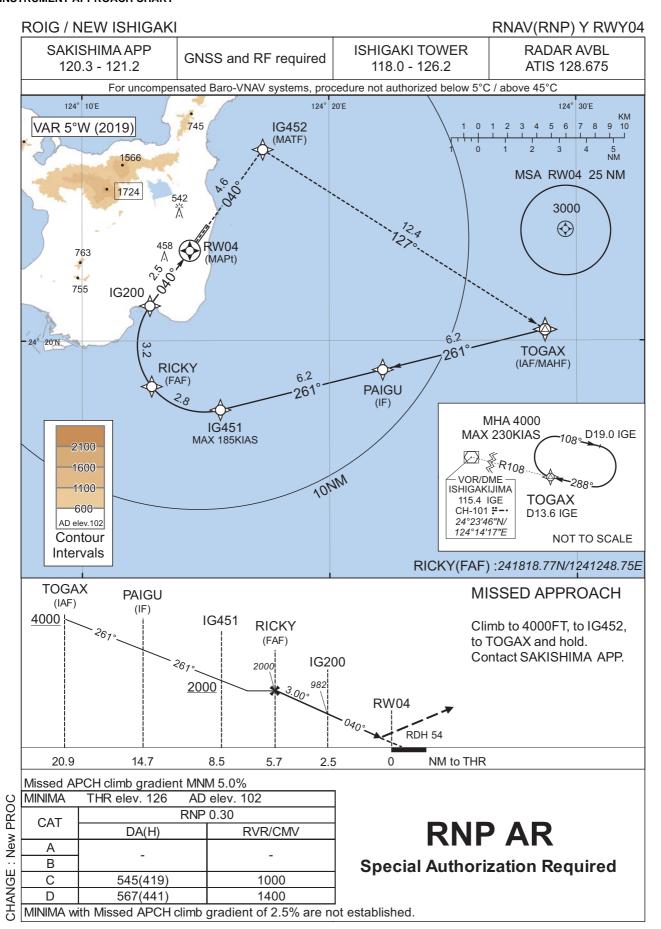
# RNAV(RNP) Z RWY04

## 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	SEIJI	1	1	-4.7	1	1	+4000	1	-	-
002	TF	SIZKU	-	231 (226.6)	-4.7	8.6	ı	ı	1	1	1.0
003	TF	IG450	-	231 (226.6)	-4.7	8.6	ı	+2000	-185	1	1.0
004	RF Center: IGRF1 r=2.55NM	LAPNA	ı	1	-4.7	4.3	R	2000	1	ı	1.0
005	RF Center: IGRF1 r=2.55NM	IG200	ı	ı	-4.7	3.2	R	982	ı	-3.00	0.3
006	TF	RW04	Υ	040 (035.7)	-4.7	2.5	ı	180	ı	-3.00/54	0.3
007	TF	IG452	-	040 (035.7)	-4.7	4.6	-	1	1	-	1.0
800	TF	SEIJI	-	082 (077.6)	-4.7	12.4	-	4000	-	-	1.0

## Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
SEIJI	242944.43N/1243036.57E	IGRF1	241948.12N/1241500.55E
SIZKU	242350.59N/1242345.74E		
IG450	241756.41N/1241655.55E		
LAPNA	241817.95N/1241244.88E		
IG200	242118.09N/1241244.70E		
RW04	242320.91N/1241421.64E		
IG452	242705.63N/1241719.18E		



## ROIG / NEW ISHIGAKI

# RNAV(RNP) Y RWY04

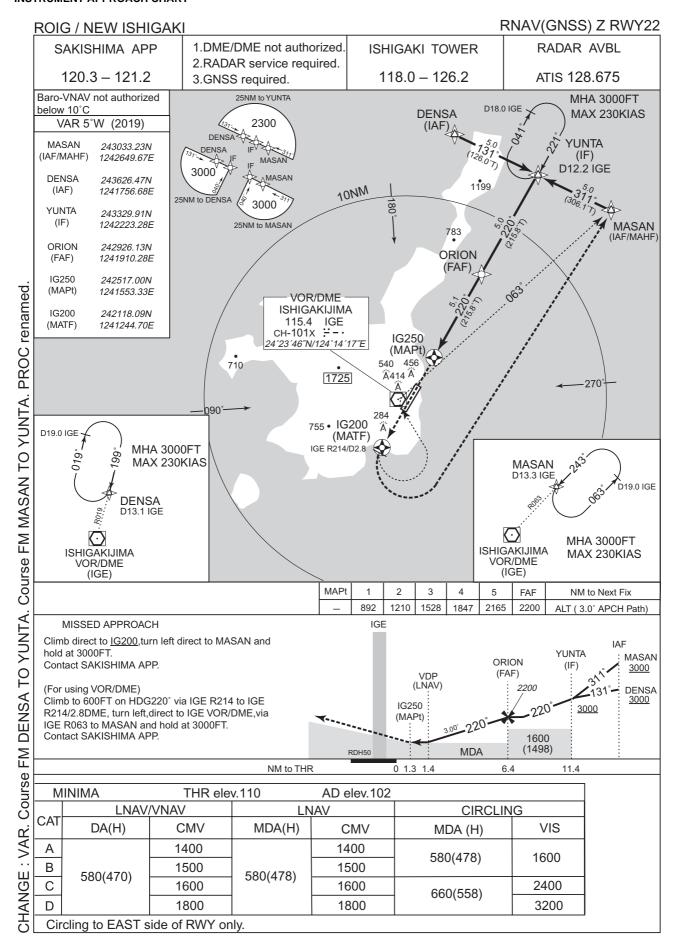
## RNAV(RNP) Y RWY04

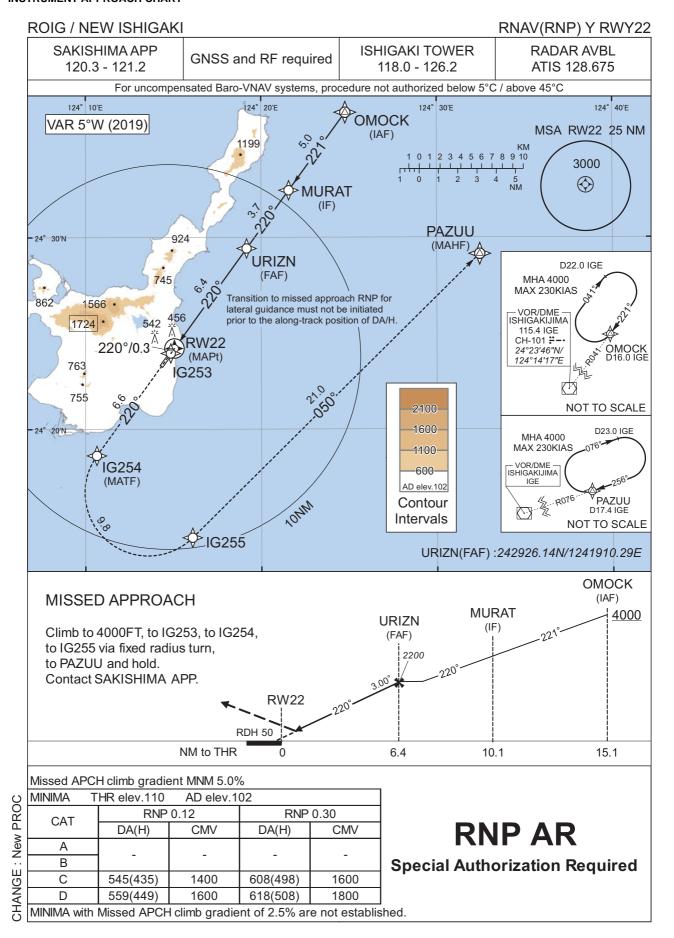
### **Coding Table**

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	TOGAX	1	ı	-4.7	-	-	+4000	ı	-	-
002	TF	PAIGU	1	261 (256.1)	-4.7	6.2	1	ı	1	1	1.0
003	TF	IG451	1	261 (256.1)	-4.7	6.2	1	+2000	-185	1	1.0
004	RF Center: IGRF2 r=2.47NM	RICKY	ı	ı	-4.7	2.8	R	2000	1	1	1.0
005	RF Center: IGRF2 r=2.47NM	IG200	ı	ı	-4.7	3.2	R	982	1	-3.00	0.3
006	TF	RW04	Υ	040 (035.7)	-4.7	2.5	ı	180	1	-3.00/54	0.3
007	TF	IG452	-	040 (035.7)	-4.7	4.6	-	-	-	-	1.0
800	TF	TOGAX	-	127 (122.7)	-4.7	12.4	-	4000	-	-	1.0

### **Waypoint Coordinates**

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
TOGAX	242024.18N/1242843.66E	IGRF2	241950.87N/1241456.35E
PAIGU	241855.41N/1242209.38E		
IG451	241726.37N/1241535.30E		
RICKY	241818.77N/1241248.75E		
IG200	242118.09N/1241244.70E		
RW04	242320.91N/1241421.64E		
IG452	242705.63N/1241719.18E		





## ROIG / NEW ISHIGAKI

## RNAV(RNP) Y RWY22

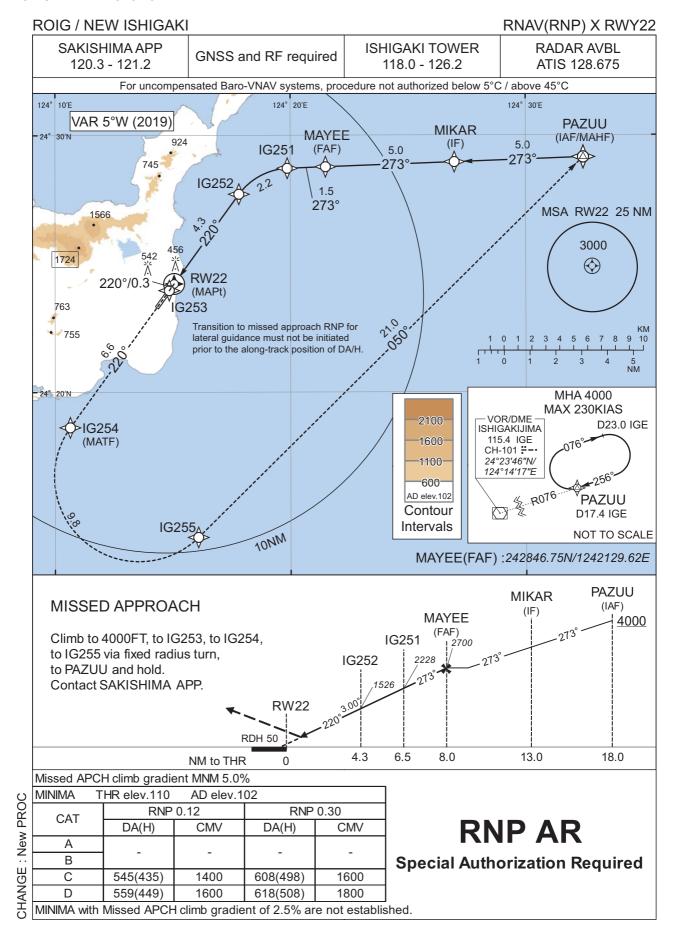
## RNAV(RNP) Y RWY22

### 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	ОМОСК	1	-	-4.7	1	1	+4000	-	-	-
002	TF	MURAT	1	221 (215.8)	-4.7	5.0	-	-	-	-	1.0
003	TF	URIZN	1	220 (215.8)	-4.7	3.7	-	2200	-	-	1.0
004	TF	RW22	Υ	220 (215.8)	-4.7	6.4	-	160	1	-3.00/50	0.12 0.30
005	TF	IG253	1	220 (215.7)	-4.7	0.3	1	ı	1	-	0.12 0.30
006	TF	IG254	1	220 (215.7)	-4.7	6.6	1	ı	1	-	1.0
007	RF Center: IGRF3 r=3.28NM	IG255	ı	-	-4.7	9.8	L	-	1	-	1.0
800	TF	PAZUU	-	050 (045.2)	-4.7	21.0	ı	4000	ı	-	1.0

### Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
OMOCK	243631.66N/1242447.35E	IGRF3	241641.99N/1241333.15E
MURAT	243227.94N/1242134.19E		
URIZN	242926.14N/1241910.29E		
RW22	242413.59N/1241503.24E		
IG253	242357.98N/1241450.93E		
IG254	241837.84N/1241038.29E		
IG255	241421.38N/1241604.82E		
PAZUU	242908.99N/1243226.97E		



# ROIG / NEW ISHIGAKI

## RNAV(RNP) X RWY22

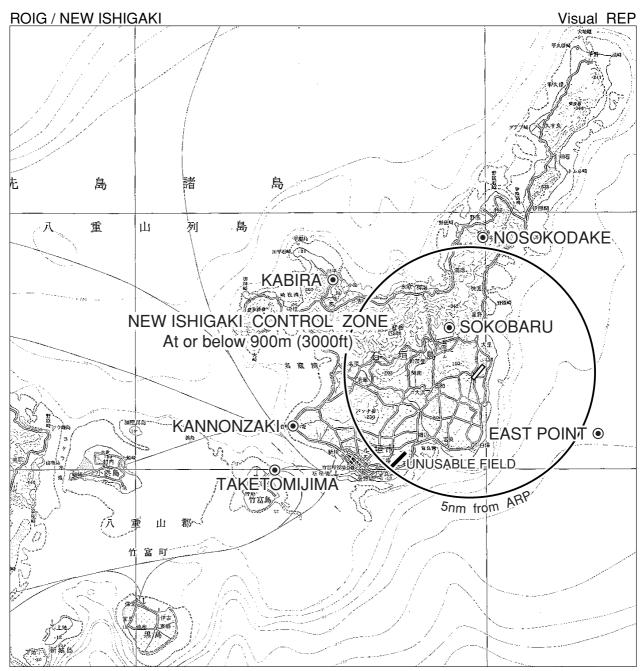
## RNAV(RNP) X RWY22

## 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	PAZUU	1	1	-4.7	1	1	+4000	-	-	-
002	TF	MIKAR	ı	273 (267.9)	-4.7	5.0	-		1	-	1.0
003	TF	MAYEE	1	273 (267.9)	-4.7	5.0	1	2700	-	-	1.0
004	TF	IG251	1	273 (267.8)	-4.7	1.5	-	2228	-	-3.00	0.12 0.30
005	RF Center: IGRF4 r=2.43NM	IG252	1	ı	-4.7	2.2	L	1526	1	-3.00	0.12 0.30
006	TF	RW22	Υ	220 (215.7)	-4.7	4.3	1	160	-	-3.00/50	0.12 0.30
007	TF	IG253	1	220 (215.7)	-4.7	0.3	ı	ı	1	ı	0.12 0.30
800	TF	IG254	ı	220 (215.7)	-4.7	6.6	ı	ı	1	ı	1.0
009	RF Center: IGRF3 r=3.28NM	IG255	ı	-	-4.7	9.8	L	-	-	-	1.0
010	TF	PAZUU	-	050 (045.2)	-4.7	21.0	-	4000	-	-	1.0

## **Waypoint Coordinates**

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
PAZUU	242908.99N/1243226.97E	IGRF4	242617.16N/1241958.19E
MIKAR	242857.97N/1242658.29E	IGRF3	241641.99N/1241333.15E
MAYEE	242846.75N/1242129.62E		
IG251	242843.38N/1241952.14E		
IG252	242742.97N/1241748.71E		
RW22	242413.59N/1241503.24E		
IG253	242357.98N/1241450.93E		
IG254	241837.84N/1241038.29E		
IG255	241421.38N/1241604.82E		



Call sign	BRG / DIST from ARP	Remarks
野 底 岳 Nosokodake	006° / 5.5NM	Щ Mountain
EAST POINT	120° / 6.0NM	海上 Over the sea
竹 富 島 Taketomijima	250° / 9.0NM	高速艇船着場 Port
観音崎 Kannonzaki	259° / 7.5NM	灯台 Light house
川 平 Kabira	309° / 6.8NM	川平湾グラスボート乗り場 Kabira Bay Boat pier
底 原 Sokobaru	325° / 2.1NM	ダム Dam

