## **AD 2 AERODROMES**

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

## **RJOS - TOKUSHIMA**

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

1	ARP coordinates and site at AD	340756N/1343633E			
2	Direction and distance from (city)	4NM ENE FM Tokushima			
3	Elevation/ Reference temperature	37ft / -			
4	Geoid undulation at AD ELEV PSN	Nil			
5	MAG VAR/ Annual change	8° W(2023)/ -			
6	AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses	Japan Maritime Self Defense Force. Public AD			
7	Types of traffic permitted(IFR/VFR)	IFR/VFR			
8	Remarks	Tokushima Airport Office(CAB) 16-2 Aza Asahino Toyohisa Matsushige-cho Itano-gun Tokushima Pref Tel: 088-699-6527 Fax: 088-699-4470			

## **RJOS AD 2.3 OPERATIONAL HOURS**

1	AD Administration	H24	
2	Customs and immigration	On request Customs: 0885-32-0326 Immigration: 0885-32-1530	
3	Health and sanitation	On request Quarantine(human): 0877-46-4279 Quarantine(animal): 087-879-4654 Quarantine(plant): 0885-32-1227	
4	AIS Briefing Office	H24(CAB:Nil)	
5	ATS Reporting Office(ARO)	Nil	
6	MET Briefing Office	H24(KANSAI)	
7	ATS	H24	
8	Fuelling	2100-1030	
9	Handling	2100-1100	
10	Security	Nil	
11	De-icing	Nil	
12	Remarks	HR of service at CAB OPS Section: 2200 - 1230(Daily)	

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

1	Cargo-handling facilities	Nil			
2	Fuel/ oil types	JET A-1(CIV only) JP-5(JSDF only)			
3	Fuelling facilities/ capacity	Fuel truck(CIV)			
4	De-icing facilities	Nil			
5	Hangar space for visiting aircraft	Nil			
6	Repair facilities for visiting aircraft	Nil			
7	Remarks	Nil			

## **RJOS AD 2.5 PASSENGER FACILITIES**

1	Hotels	Nil	
2	Restaurants	At Airport	
3	Transportation	Buses and Taxis	
4	Medical facilities	Nil	
5	Bank and Post Office	Nil	
6	Tourist Office	Nil	
7	Remarks	Nil	

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

1	AD category for fire fighting	To be issued later
2	Rescue equipment	To be issued later
3	Capability for removal of disabled aircraft	To be issued later
4	Remarks	Nil

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

1 Types of clearing equipment To be issued later		To be issued later
2 Clearance priorities		To be issued later
3	Remarks	Nil

## **RJOS AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA**

1	Apron surface and strength	NORTH APRON Surface : Cement Concrete Strength : PCR 1071/R/B/W/T	
2	Taxiway width, surface and strength	Surface: Asphalt-concrete N-1(NORTH-1) Width: 28.5m, Strength: PCR 889/F/C/X/T SOUTH-1 Width: 23m, Strength: PCR 602/F/D/X/T N-2(NORTH-2), N-3(NORTH-3), N-4(NORTH-4), N-5(NORTH-5) Width: 34m, Strength: PCR 889/F/C/X/T SOUTH-2, SOUTH PARL TWY(BTN SOUTH-2 and SOUTH-5) Width: 23m, Strength: PCR 557/F/C/X/T SOUTH-3 Width: 23m, Strength: PCR 431/F/C/X/T SOUTH-4, SOUTH-5 Width: 23m, Strength: PCR 518/F/A/X/T N-6(NORTH-6) Width: 28.5m, Strength: PCR 889/F/C/X/T SOUTH-6, SOUTH PARL TWY(BTN SOUTH-5 and SOUTH-6) Width: 18m, Strength: PCR 189/F/A/X/T NORTH PARL TWY(BTN N-1(NORTH-1) and N-6(NORTH-6)) Width: 23m, Strength: PCR 889/F/C/X/T	
3	ACL and elevation	Not available	
4	VOR checkpoints	Nil	
5	INS checkpoints	To be issued later	
6	Remarks	Nil	

## RJOS 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	Nil
2	RWY and TWY markings and LGT	RWY:11/29 (Marking) RWY designation, RWY CL, RWY THR, TDZ, RWY side stripe (LGT) RCLL, REDL, RTHL, RENL, WBAR, RWY DIST marker, TKOF aiming LGT  TWY: (Marking) TWY CL, RWY HLDG PSN, TWY side stripe, Mandatory instruction (LGT) TWY edge LGT, TWY CL LGT(N-1(NORTH-1) THRU N-6(NORTH-6) AND NORTH PARL TWY), Taxiing guidance sign(N-1(NORTH-1) THRU N-6(NORTH-6))
3	Stop bars	Nil
4	Remarks	(Marking) Overrun area (LGT) APN flood LGT

## **RJOS AD 2.10 AERODROME OBSTACLES**

## In approach / TKOF Areas

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings / LGT	Remarks
RWY29	Antenna	340608.2N1343549.5E	296FT	Marking / LIM, LIL	Nil

## In circling area and at AD

Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
Nil				

## **RJOS AD 2.11 METEOROLOGICAL INFORMATION PROVIDED**

1	Associated MET Office	KANSAI
2	Hours of service MET Office outside hours	H24(KANSAI)
3	Office responsible for TAF preparation Periods of validity	Nil
4	Trend forecast Interval of issuance	Nil
5	Briefing/ consultation provided	Briefing is available upon inquiry at KANSAI
6	Flight documentation Language(s) used	Nil
7	Charts and other information available for briefing or consultation	$\begin{split} &S_6,~U_{85},~U_7,~U_5,~U_3,~U_{25},~U_2/T_r,~P_S,~P_5,~P_3,~P_{25},~P_{SWE},~P_{SWF},~P_{SWG},~P_{SWI},\\ &P_{SWM},~P_{SW}(\text{domestic}),~E,~C,~W_E,~W_F,~W_G,~W_I,~W,~N \end{split}$
8	Supplementary equipment available for providing information	Nil
9	ATS units provided with information	TWR, APP, ATIS
10	Additional information(limitation of service, etc.)	Observation is made by the Ministry of Defence.

## **RJOS AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS**

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength(PCR) 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
11	102.53°	2500×45	PCR 833/F/A/X/T SW90000kg (198400lbs) DW124000kg (273400lbs) DTW182000kg (401300lbs) TTTW216000kg (476200lbs) Asphalt-Concrete	340804.98N 1343545.74E	THR EVEV : 6ft
29	282.53°	2500×45	PCR 833/F/A/X/T SW90000kg (198400lbs) DW124000kg (273400lbs) DTW182000kg (401300lbs) TTTW216000kg (476200lbs) Asphalt-Concrete	340747.36N 1343720.97E	THR EVEV : 37ft TDZ ELEV : 37ft
Slope of	f RWY	Strip Dimensions(M)		Remarks	
7 SEE AD2.24 AD chart		10		12	
		2760×300 2760×300		RWY Grooving 30×250	00m

## **RJOS AD 2.13 DECLARED DISTANCES**

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks	
1	1 2		4	5	6	
11 29			2500 2500	2500 2500	Nil Nil	

## **RJOS 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
11	SALS (*1) 420m	Green -	PAPI 3.0°/Left 454m 73ft	Nil	2500M 30M Coded color (White/Red) LIH	2500M 60M Coded color (White/Yellow) LIH	Red	Nil(*2)
29	Nil	Green Green	PAPI 3.0°/Left 488m 65.6ft	Nil	2500M 30M Coded color (White/Red) LIH	2500M 60M Coded color (White/Yellow) LIH	Red	Nil(*2)
				Remarks	3			
				10				

Overrun area edge LGT(Color: Red)(\*2)

CGL for RWY 11(Color: Yellow)

RWY THR ID LGT for RWY 11/29 THR(Color: White)

## **RJOS AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY**

1	ABN/IBN location, characteristics and hours of operation	ABN: 340752N/1343547E, White/Green EV 4.3sec, HO					
2	LDI location and LGT Anemometer location and LGT	LDI : AVBL					
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 15 sec: TWY edge LGT(TWY N-1(NORTH-1) THRU N-6(NORTH-6), NORTH PARL) TWY CL LGT(TWY N-1(NORTH-1) THRU N-6(NORTH-6), NORTH PARL), Apron flood LGT(CIV)					
5	Remarks	WDI LGT, OBST LGT					

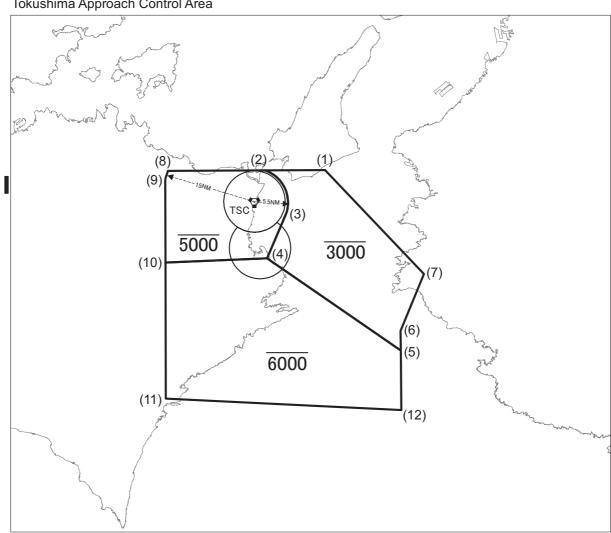
### **RJOS AD 2.16 HELICOPTER LANDING AREA**

Nil
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## **RJOS AD 2.17 ATS AIRSPACE**

	Designation and lateral limits	Vertical limits (ft)	Airspace classifica- tion	ATS unit call sign Language	Remarks
	1	2	3	4	6
TOKUSHIMA CTR	Area within a radius of 5nm of TOKUSHIMA ARP (34°08'N/134°37'E)	5000 or below	D	Tokushima Tower En	
TOKUSHIMA ACA	See below figure		E	Tokushima Approach Tokushima Departure Tokushima Radar En	

徳島進入管制区 Tokushima Approach Control Area



#### Point list

- (1) 341300N/1345028E
- (2) 341300N/1343838E
- (3) 340527N/1344232E
- (4) 335837N/1343856E
- (5) 334323N/1350500E
- (6) 334636N/1350500E
- (7) 335551N/1350941E
- (8) 341300N/1341932E
- (9) 341136N/1341900E
- (10) 335801N/1341900E
- (11) 333545N/1341900E
- (12) 333338N/1350500E

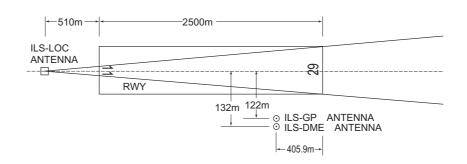
## **RJOS AD 2.18 ATS COMMUNICATION FACILITIES**

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	1 2		4	5
TWR Tokushima Tower		236.8MHz 126.2MHz(1) 233.8MHz 118.0MHz 123.1MHz(2) 243.0MHz(E) 121.5MHz(E)	H24	(1) Primary (2) For rescue only (3) AVBL on request
GND	Tokushima Ground	233.8MHz 118.0MHz	H24	
DEP/ASR	Tokushima Departure /Tokushima Radar	284.6MHz 124.0MHz(1) 120.1MHz 261.2MHz 362.3MHz 122.45MHz(3) 126.2MHz(3) 228.2MHz(3) 121.5MHz(E) 243.0MHz(E)	2200 - 1230 Other time 1HR PN	
APP Tokushima Approach		na Approach 284.6MHz H24(4) 124.0MHz(1) 120.1MHz 261.2MHz 362.3MHz 122.45MHz(3) 126.2MHz(3) 228.2MHz(3) 121.5MHz(E) 243.0MHz(E)		(4) Terminal Rader SER 2200-1230. Other time 1 HR PN.
GCA-ASR Tokushima Radar -PAR /Tokushima GCA		335.6MHz 270.8MHz 134.1MHz 125.3MHz 303.8MHz 258.6MHz 141.2MHz 139.55MHz 243.0MHz(E) 121.5MHz(E)	2200- 1230 Other time 1HR PN	ASR,PAR RWY 29 Glide path 3.0° Maintenance period: 2300-0300 FRI in VMC. Blind zone lies BTN 010°-050°,060°-070° 10nm ARC and weak zone lies 140° BTN 23-25nm BLW 1100ft FM ASR site (34°07′51″N 134°35′52″E).
ATIS	Tokushima Airport	246.8MHz	2300- 1100 EXC FRI1101- SUN2259 and HOL. Other time 1HR PN	

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

Type of aid	ID	Frequency	Hours of opera- tion	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR	TSC	114.9MHz	H24	340747N 1343631E		VOR Unusable: R360 - 010 beyond 33NM BLW 3000ft. R010 - 030 beyond 25NM BLW 2000ft. R030 - 050 beyond 35NM BLW 4000ft. R050 - 060 beyond 30NM BLW 2000ft. R060 - 070 beyond 30NM BLW 4000ft. R080 - 100 beyond 30NM BLW 5000ft. R120 - 130 beyond 30NM BLW 4000ft. R130 - 140 beyond 32NM BLW 2000ft. R140 - 180 beyond 32NM BLW 2000ft. R140 - 180 beyond 25NM BLW 2000ft. R180 - 200 beyond 33NM BLW 4000ft. R200 - 220 beyond 33NM BLW 4000ft. R220 - 240 beyond 35NM BLW 9000ft. R280 - 290 beyond 20NM BLW 5000ft. R290 - 300 beyond 20NM BLW 4000ft. R300 - 310 beyond 20NM BLW 3000ft. R310 - 330 beyond 20NM BLW 4000ft. R330 - 340 beyond 25NM BLW 4000ft. R340 - 350 beyond 30NM BLW 4000ft. R350 - 360 beyond 30NM BLW 4000ft.
TACAN	TSC	1183MHz (CH-96X)	H24	340748N 1343636E	40ft	TACAN Unusable: R360-010 beyond 34nm BLW 4000ft. R010-020 beyond 29nm BLW 4000ft. R020-030 beyond 38nm BLW 5000ft. R060-070 beyond 36nm BLW 5000ft. R100-110 beyond 38nm BLW 6000ft. R180-190 beyond 37nm BLW 3000ft. R200-210 beyond 28nm BLW 6000ft. R2200-210 beyond 28nm BLW 6000ft. R220-240 beyond 35nm BLW 7000ft. R220-240 beyond 35nm BLW 9000ft. R240-250 beyond 35nm BLW 9000ft. R250-270 beyond 35nm BLW 9000ft. R270-280 beyond 35nm BLW 9000ft. R280-290 beyond 35nm BLW 6000ft. R290-300 beyond 30nm BLW 6000ft. R300-310 beyond 15nm BLW 4000ft. R310-340 beyond 15nm BLW 5000ft. R340-350 beyond 31nm BLW 5000ft. R350-360 beyond 31nm BLW 5000ft.
ILS-LOC 29	ITS	108.9MHz	H24	340808.59N 1343526.17E		LOC:510m(1673ft) away FM RWY 11 THR BRG(MAG) 291°
ILS-GP 29	-	329.3MHz	H24	340746.36N 1343704.49E		GP:405.9m(1332ft) inside FM RWY 29 THI 122m(401ft) S of RCL. HGT of ILS Ref datum 16.5m(54ft). GP Angle 3.0°
ILS-DME 29	ITS	987MHz (CH-26X)	H24	340746.04N 1343704.39E	41ft	DME:405.9m(1332ft) inside FM RWY 29 THR, 132m(433ft) S of RCL.
MSAS		1575.42MHz	H24			Transmitting antennas are satellite based.

<u>ILS</u>



REMARKS: 1. LOC beam BRG(MAG) 291°
2. HGT of ILS REF datum 16.5m(54ft)
3. GP angle 3.0°
4. ELEV of ILS-DME 12.4m(41ft)

Airport regulati	RJOS AD 2.20 LOCAL TRAFFIC REGULATIONS ons
PPR Civil	transient aircraft must make prior coordination 10days in advance.(088-699-5111)
2. Taxiing to and	from stands
	Nil
3. Parking area for	or small aircraft(General aviation)
	Nil
4. Parking area fo	or helicopters
	Nil
5. Apron - taxiing	during winter conditions
	Nil
6. Taxiing - limita	ions
	Nil
7. School and tra	ining flights - technical test flights - use of runways
	Nil
8. Helicopter traff	ic - limitation
	Nil
9. Removal of dis	abled aircraft from runways
	Nil
	RJOS AD 2.21 NOISE ABATEMENT PROCEDURES
	Nil

#### **RJOS AD 2.22 FLIGHT PROCEDURES**

#### 1. TAKE OFF MINIMA

	RWY	ACFT CAT	REDL & RCLL			or RCLL Marking	NIL (DAYTIME ONLY)		
		CAI	RVR	VIS	RVR	VIS	RVR	VIS	
Multi-Engine	11	A,B,C,D	-	400m	-	400m	-	500m	
ACFT with TKOF ALTN AP FILED	29		400m	400m	400m	400m	-	500m	
OTHER	11	A,B,C,D							
OTHER	29	Α,υ,υ,υ	AVBL LDG MINIMA						

#### 2. WX MINIMA CONCERNING PAR/ASR APCH PROCEDURE

PAR RWY 29

ASR RWY 29

Missed APCH climb gradient MNM 4.0%

Missed APCH climb gradient MNM 4.0%

MINIMA		THR elev. 37	AD elev. 37		
CAT			CIRC	LING	
CAI	DA(H)	RVR/CMV	MDA(H)	VIS	
Α			570(533)	1600	
В	237(200)	1000	370(333)	1000	
С		1000	600(563)	2400	
D	243(206)		830(793)	3200	

MINIM	1A	THR elev. 37	AD elev. 37			
CAT			CIRC	LING		
CAI	MDA(H)	RVR/CMV	MDA(H)	VIS		
Α	340(303)	1500	570(533)	1600		
В	340(303)	1300	370(333)	1000		
С	370(333)	1800	600(563)	2400		
D	390(353)	2000	830(793)	3200		

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

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

#### 3. Missed Approach Procedure for PAR/ASR Approach

Unless otherwise instructed by ATC, execute missed approach procedure as follows.

AT guidance limit, Climb on HDG 291° to 800FT, turn left to intercept and proceed via TSC R160 to TSC 8.0DME, turn right, via TSC R190 to TSC VORTAC and hold at 3500FT.

Cross TSC R190/8.0DME at 3000FT.

Contact TOKUSHIMA APP.

#### 4. Automated Radar Terminal System(ARTS)

徳島進入管制所の指示のもとに、徳島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。

モードA/3またはモードC応答用のATCトランスポンダー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、徳島進入管制所に対し、その旨通報すること。

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

If an aircraft non equipped with ATC transponder of Mode A/3 or Mode C instructed to reply such Modes,it shall report a Tokushima approach control accordingly.

#### 5. Lost communication procedures for arrival aircraft under radar navigational guidance

If radio communications with Tokushima Radar/Approach/GCA are lost for 1 minute in the pattern or 5 seconds (PAR)/15 seconds (ASR) on final approach, squawk Mode A/3 Code 7600 and;

- Contact TOKUSHIMA Tower.
  - 2. If unable, proceed in accordance with visual flight rules.
  - If unable, proceed to TOKUSHIMA VORTAC, TACAN IAF or DATIS at last assigned altitude or 3500 feet whichever is higher, and execute instrument approach.
- (II) Procedures other than above will be issued when situation required.

#### **RJOS AD 2.23 ADDITIONAL INFORMATION**

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

Aerodrome/Heliport Chart

Standard Departure Chart-Instrument (HONMA-RNAV)

Standard Departure Chart-Instrument (KAGAWA-RNAV)

Standard Departure Chart-Instrument (TOSAR)

Standard Departure Chart-Instrument (TOKUSHIMA REVERSAL)

Standard Departure Chart-Instrument (MISAKI)

Standard Arrival Chart-Instrument

Instrument Approach Chart (ILS Z OR LOC Z RWY29)

Instrument Approach Chart (ILS Y OR LOC Y RWY29)

Instrument Approach Chart (ILS W OR LOC W RWY29)

Instrument Approach Chart (VOR RWY29)

Instrument Approach Chart (TACAN A)

Instrument Approach Chart (RNP Z RWY11(AR))

Instrument Approach Chart (RNP Y RWY11(AR))

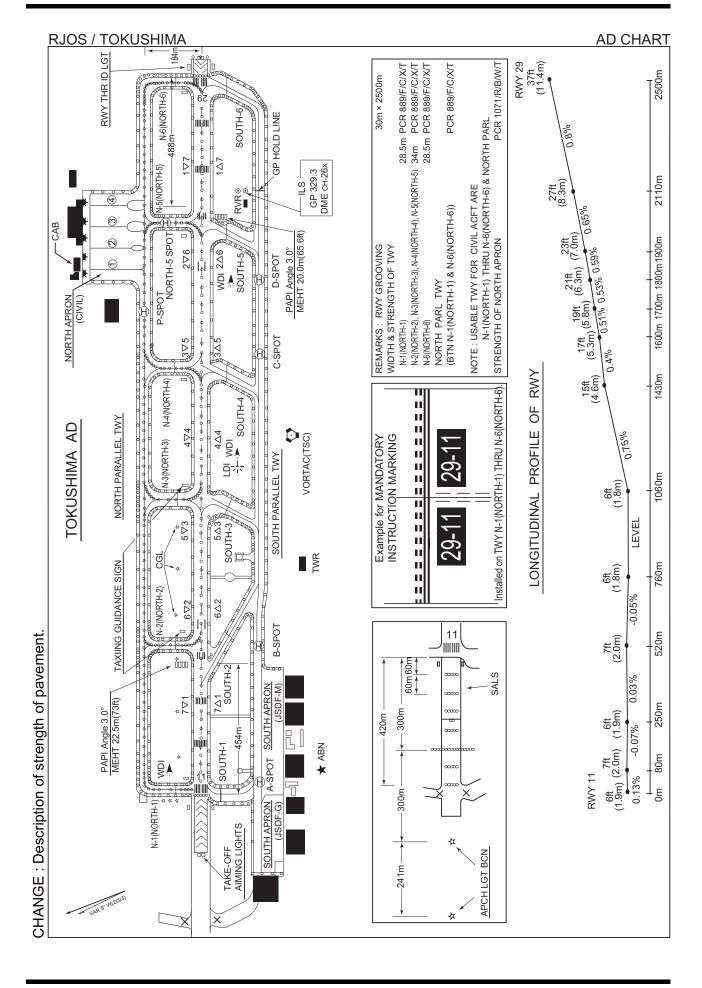
Instrument Approach Chart (RNP Z RWY29)

Instrument Approach Chart (RNP Y RWY29(AR))

Other Chart (Visual REP)

Other Chart (LDG CHART)

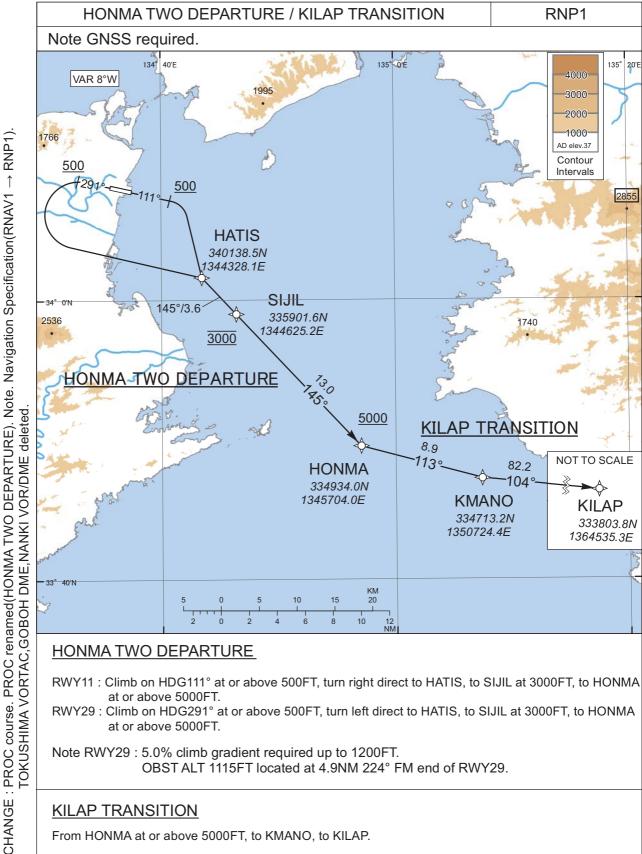
Other Chart (MVA CHART)







## RNAV SID and TRANSITION



## HONMA TWO DEPARTURE

RWY11: Climb on HDG111° at or above 500FT, turn right direct to HATIS, to SIJIL at 3000FT, to HONMA at or above 5000FT.

RWY29: Climb on HDG291° at or above 500FT, turn left direct to HATIS, to SIJIL at 3000FT, to HONMA at or above 5000FT.

Note RWY29: 5.0% climb gradient required up to 1200FT.

OBST ALT 1115FT located at 4.9NM 224° FM end of RWY29.

### KILAP TRANSITION

From HONMA at or above 5000FT, to KMANO, to KILAP.

## RJOS / TOKUSHIMA

## RNAV SID and TRANSITION

## **HONMA TWO DEPARTURE**

## RWY11

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	ı	1	111 (102.6)	-8.0	-	-	+500	ı	-	RNP1
002	DF	HATIS	ı	ı	-8.0	ı	R	ı	ı	ı	RNP1
003	TF	SIJIL	1	145 (136.9)	-8.0	3.6	-	3000		1	RNP1
004	TF	HONMA	1	145 (136.9)	-8.0	13.0	-	+5000	-	1	RNP1

## RWY29

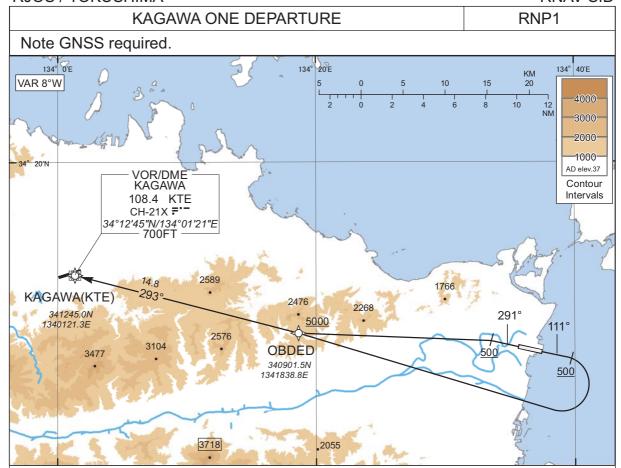
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	1	ı	291 (282.6)	-8.0	1	ı	+500	1	-	RNP1
002	DF	HATIS	1	ı	-8.0	ı	L	ı	ı	1	RNP1
003	TF	SIJIL	1	145 (136.9)	-8.0	3.6	ı	3000	ı	1	RNP1
004	TF	HONMA	-	145 (136.9)	-8.0	13.0	-	+5000	-	-	RNP1

## **KILAP 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	HONMA	-	1	-8.0	-	ı	+5000		1	RNP1
002	TF	KMANO	ı	113 (105.2)	-8.0	8.9	ı	ı	ı	1	RNP1
003	TF	KILAP	-	104 (095.9)	-8.0	82.2	-	-	-	-	RNP1

## **RJOS / TOKUSHIMA**

**RNAV SID** 



RWY11 : Climb on HDG111° at or above 500FT, turn right direct to OBDED at or above 5000FT, to KTE. RWY29 : Climb on HDG291° at or above 500FT, direct to OBDED at or above 5000FT, to KTE.

Note RWY11: 5.0% climb gradient required up to 1700FT.

OBST ALT 2494FT located at 11.5NM 288° FM end of RWY11.

RWY29: 5.0% climb gradient required up to 2800FT.

OBST ALT 2494FT located at 10.2NM 288° FM end of RWY29.

#### RWY11

LIVV	I										
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	-	-	111 (102.6)	-8.0	-	1	+500	-	1	RNP1
002	DF	OBDED	-	-	-8.0	-	R	+5000	ı	ı	RNP1
003	TF	KTE	-	293 (284.7)	-8.0	14.8	-	-	-	-	RNP1

#### RWY29

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	-	-	291 (282.6)	-8.0	-	-	+500	-	-	RNP1
002	DF	OBDED	-	ı	-8.0	ı	ı	+5000	ı	ı	RNP1
003	TF	KTE	-	293 (284.7)	-8.0	14.8	-	-	-	-	RNP1

RJOS / TOKUSHIMA SID

## TOSAR SIX DEPARTURE

RWY11 : Climb RWY HDG to 500FT, turn right HDG232°...

RWY29: Climb RWY HDG to 600FT, turn left HDG142°...

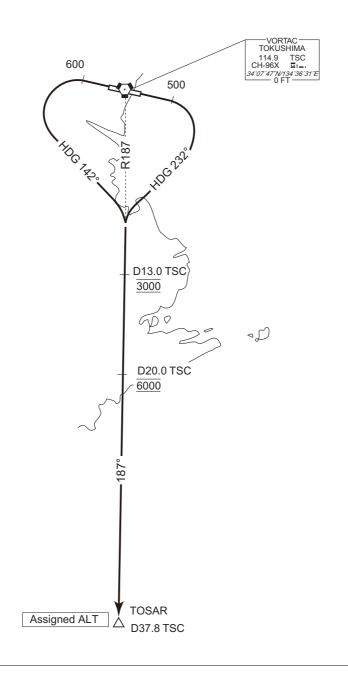
...to intercept and proceed via TSC R187 to TOSAR.

Cross TSC R187/13.0DME at 3000FT, cross TSC R187/20.0DME at

6000FT, cross TOSAR at assigned altitude.

NOTE RWY29: 4.0% climb gradient required up to 800FT.

OBST ALT 1105FT located at 5.0NM 224° FM end of RWY29.



CHANGE: PROC course. PROC renamed(TOSAR SIX DEPARTURE). Note.

**RJOS / TOKUSHIMA** SID

## TOKUSHIMA REVERSAL SEVEN DEPARTURE

RWY11: Climb RWY HDG to 500FT, turn right HDG205°... RWY29: Climb RWY HDG to 600FT, turn left HDG115°...

...to intercept and proceed via TSC R160 to 13.0DME, turn right, direct to

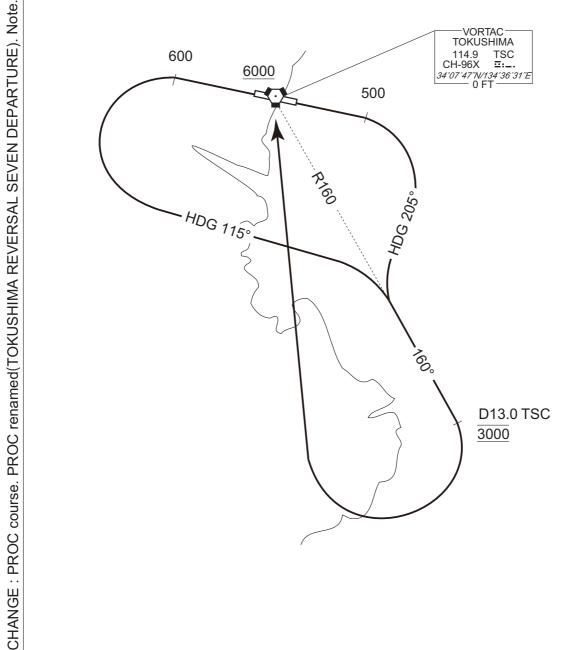
TSC VORTAC.

Cross TSC R160/13.0DME at 3000FT, cross TSC VORTAC at or above

6000FT.

NOTE RWY29: 4.0% climb gradient required up to 800FT.

OBST ALT 1105FT located at 5.0NM 224° FM end of RWY29.



## RJOS / TOKUSHIMA

## SID and TRANSITION

## MISAKI THREE DEPARTURE

RWY11: Climb RWY HDG to 500FT, turn right,...

RWY29: Climb RWY HDG to 600FT, turn left HDG098° to intercept and proceed...

...via TSC R143 to HONMA.

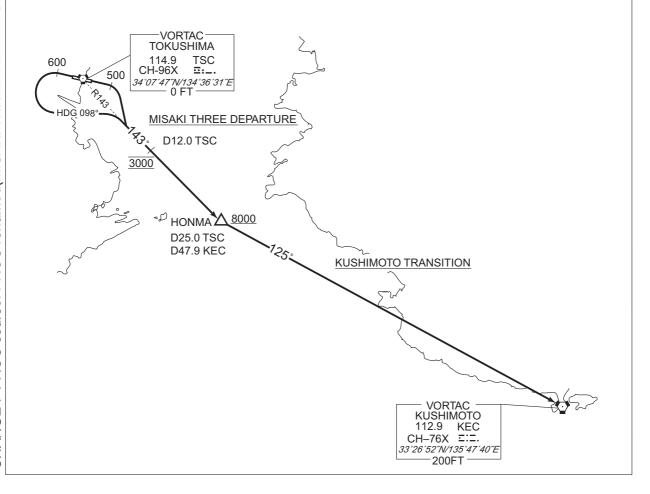
Cross TSC R143/12.0DME at 3000FT, cross HONMA at or above 8000FT.

NOTE RWY29: 4.0% climb gradient required up to 800FT.

OBST ALT 1105FT located at 5.0NM 224° FM end of RWY29.

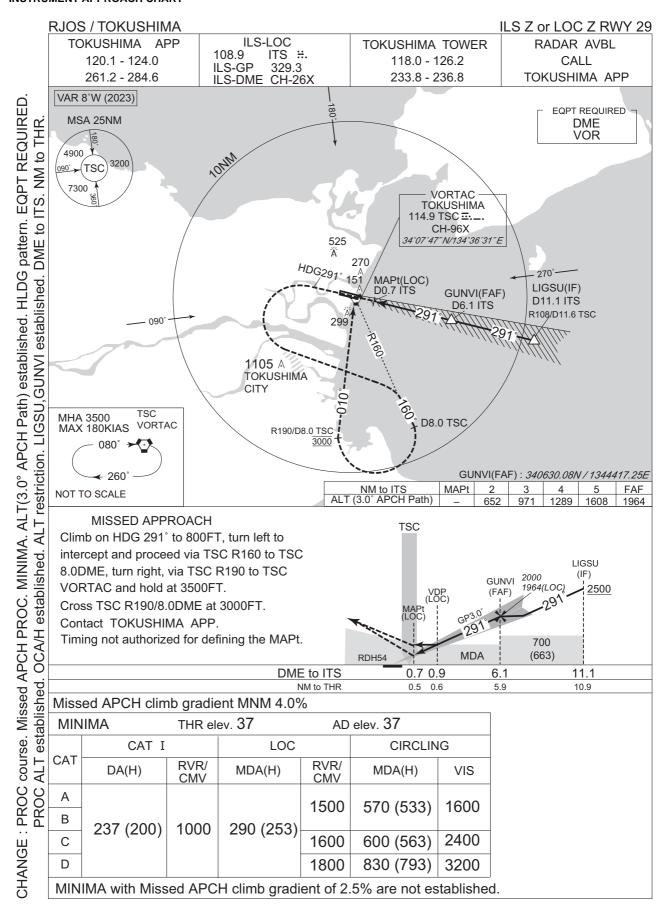
## **KUSHIMOTO TRANSITION**

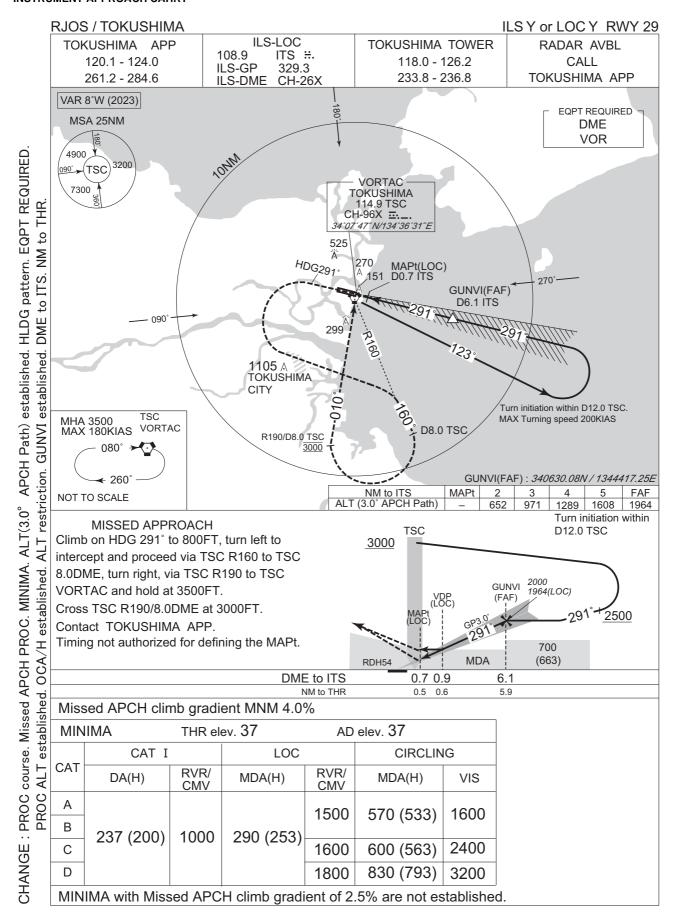
From over HONMA, via KEC R305 to KEC VORTAC.

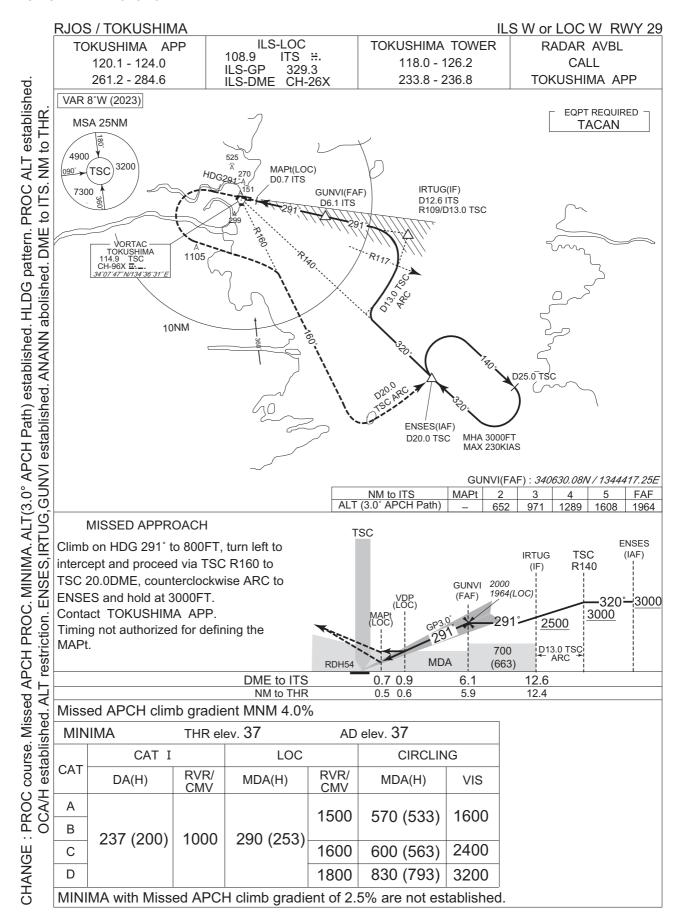


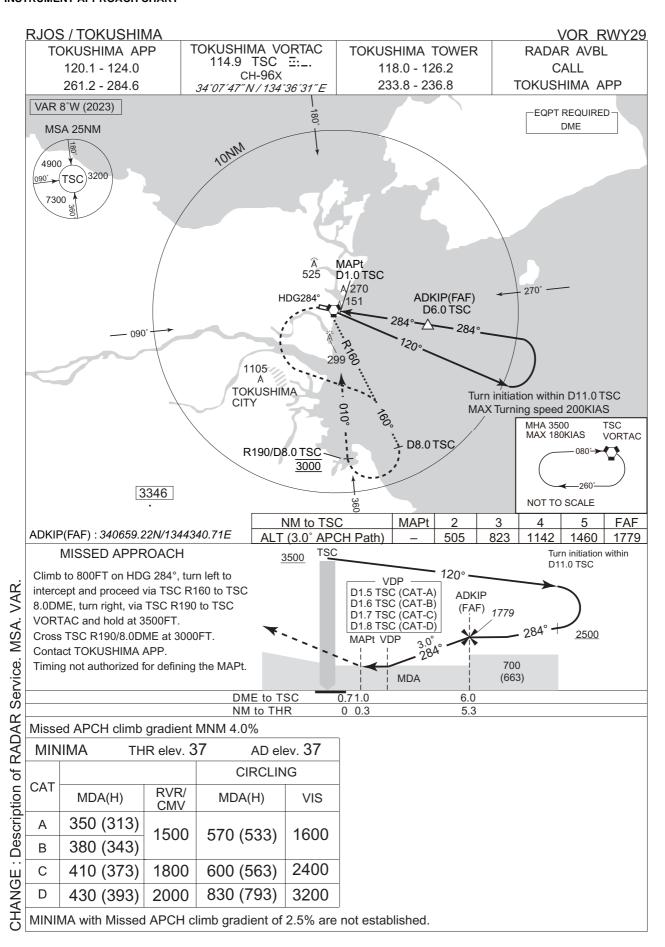
STANDARD ARRIVAL CHART-INSTRUMENT **STAR** RJOS / TOKUSHIMA **TOSAR ARRIVAL** From over TOSAR, via TSC R187 to TSC VORTAC. Cross TSC VORTAC at 5000 FT. TOKUSHIMA
114.9 TSC
CH-96X Ξ:\_.
34'07'47'W/134'36'31'E 5000 CHANGE : Distance FM TSC to TOSAR added. TOSAR D37.8 TSC

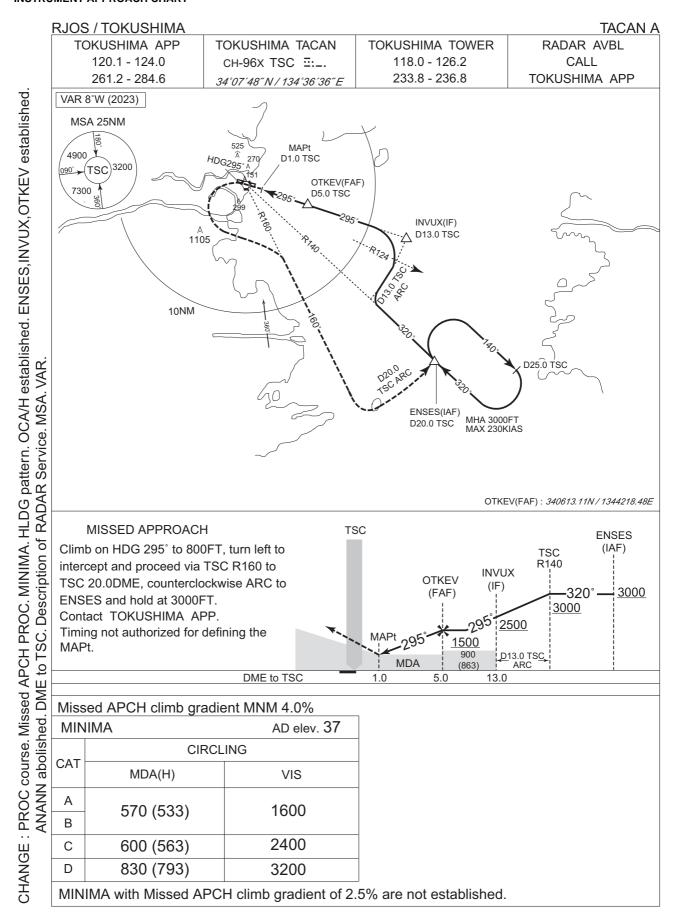


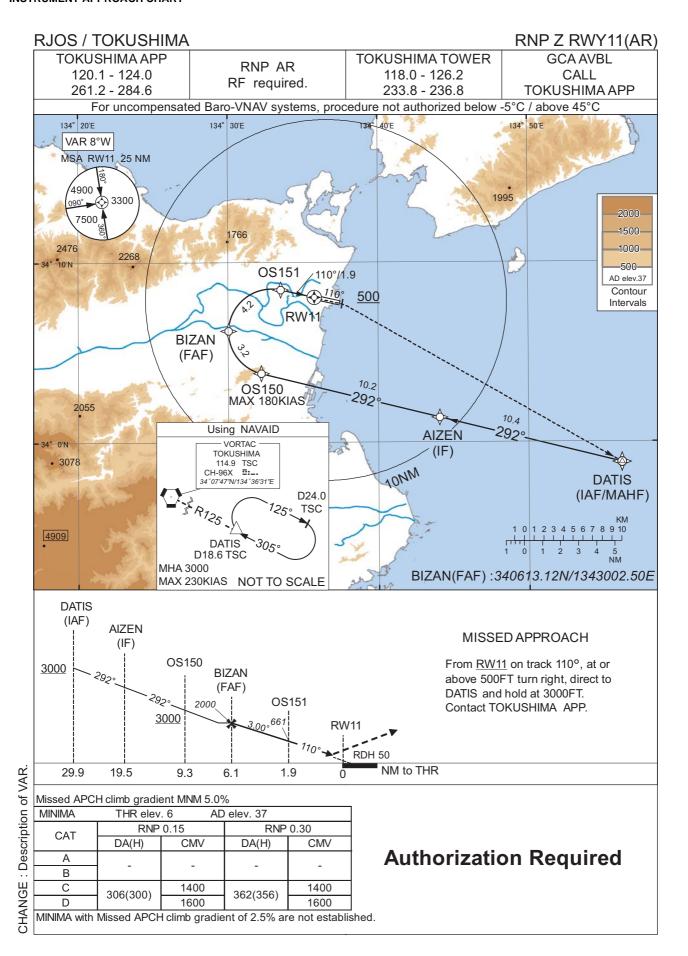












# RJOS / TOKUSHIMA

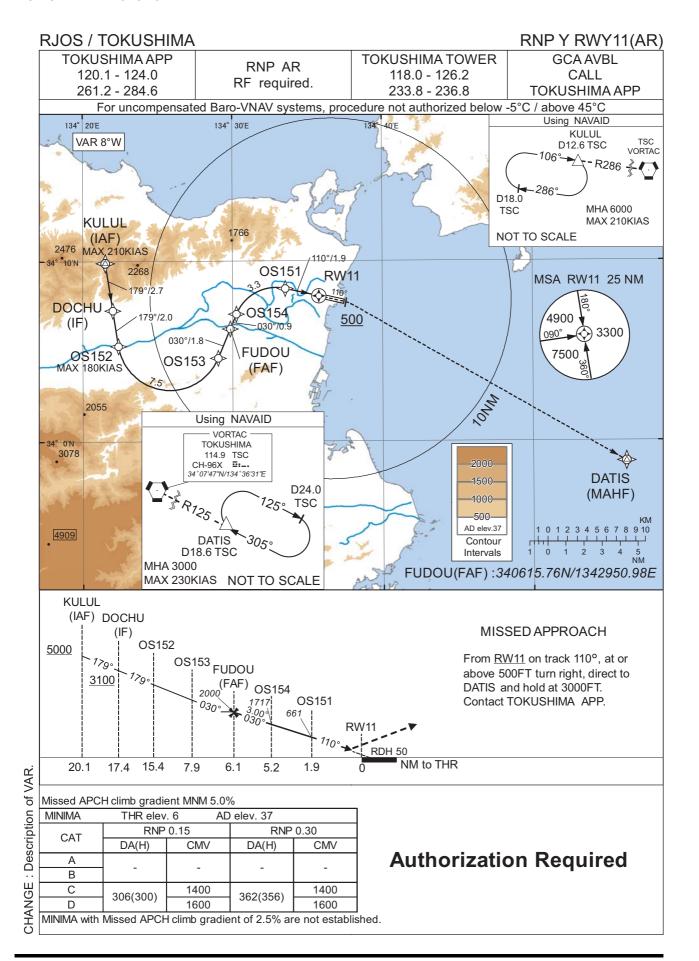
# RNP Z RWY11(AR)

## **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	DATIS	-	-	-7.8	-	-	+3000	-	-	-
002	TF	AIZEN	ı	292 (284.2)	-7.8	10.4	-	1	ı	-	1.0
003	TF	OS150	ı	292 (284.1)	-7.8	10.2	-	+3000	-180	ı	0.3
004	RF Center: OSRF2 r=2.38NM	BIZAN	ı	ı	-7.8	3.2	R	2000	1	ı	0.3
005	RF Center: OSRF2 r=2.38NM	OS151	ı	1	-7.8	4.2	R	661	1	-3.00	0.15 0.30
006	TF	RW11	Υ	110 (102.6)	-7.8	1.9	-	56	1	-3.00/50	0.15 0.30
007	FA	-	-	110 (102.6)	-7.8	-	-	+500	ı	-	1.0
008	DF	DATIS	1	-	-7.8	1	R	3000	1	-	1.0

## **Waypoint Coordinates**

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
DATIS	335851.96N / 1345613.14E	OSRF2	340610.26N / 1343254.26E
AIZEN	340123.97N / 1344405.59E		
OS150	340351.55N / 1343212.95E		
BIZAN	340613.12N / 1343002.50E		
OS151	340829.79N / 1343331.39E		
RW11	340804.98N / 1343545.74E		



# RJOS / TOKUSHIMA

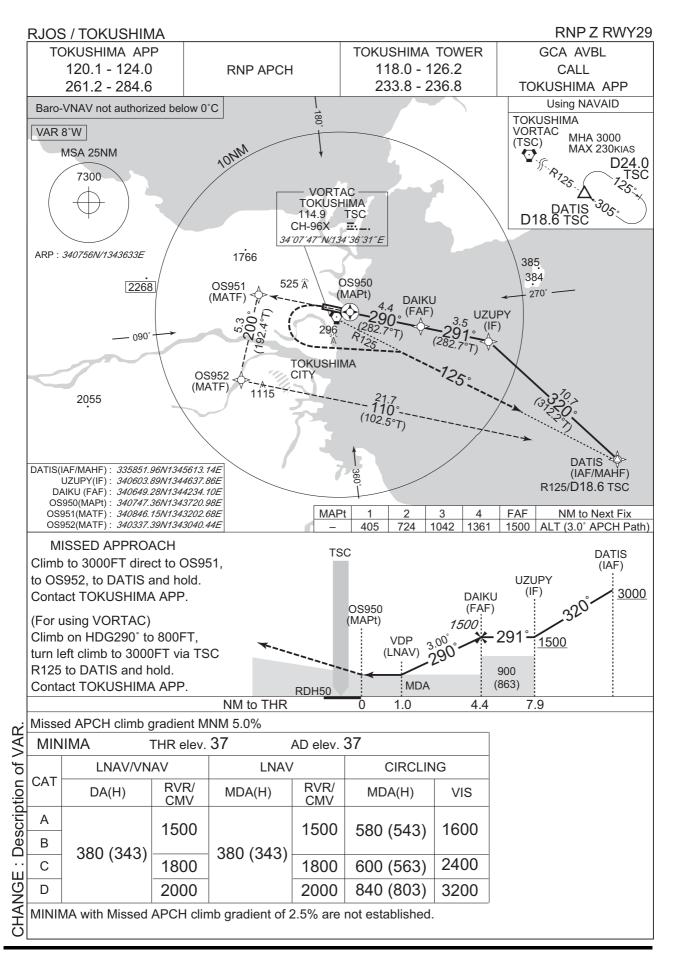
RNP Y RWY11(AR)

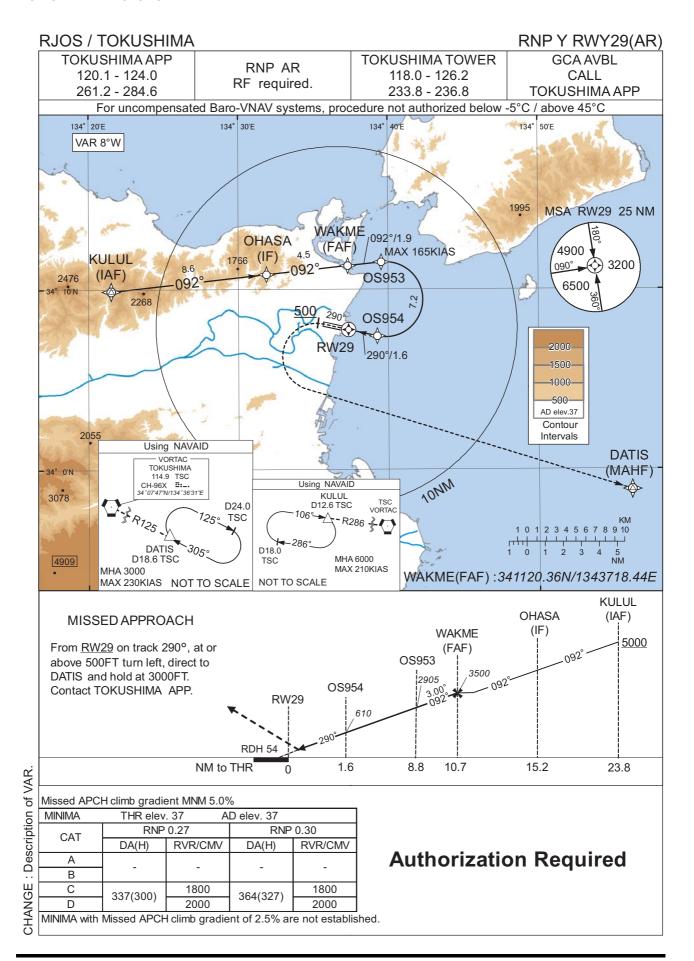
## Coding Table

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	KULUL	1	-	-7.8	ı	ı	+5000	-210	ı	-
002	TF	DOCHU	1	179 (171.2)	-7.8	2.7	ı	+3100	ı	ı	0.3
003	TF	OS152	-	179 (171.2)	-7.8	2.0	-	-	-180	-	0.3
004	RF Center: OSRF1 r=2.88NM	OS153	1	ı	-7.8	7.5	L	ı	1	1	0.3
005	TF	FUDOU	1	030 (022.4)	-7.8	1.8	ı	2000	ı	ı	0.3
006	TF	OS154	,	030 (022.4)	-7.8	0.9	-	1717	,	-3.00	0.15 0.30
007	RF Center: OSRF2 r=2.38NM	OS151	-	-	-7.8	3.3	R	661	-	-3.00	0.15 0.30
800	TF	RW11	Υ	110 (102.6)	-7.8	1.9	-	56	-	-3.00/50	0.15 0.30
009	FA	-	-	110 (102.6)	-7.8	-	-	+500	-	-	1.0
010	DF	DATIS	-	-	-7.8	-	R	3000	-	-	1.0

## Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
KULUL	340954.74N / 1342131.22E	OSRF1	340544.73N / 1342549.48E
DOCHU	340716.80N / 1342200.89E	OSRF2	340610.26N / 1343254.26E
OS152	340517.99N / 1342223.19E		
OS153	340438.24N / 1342902.35E		
FUDOU	340615.76N / 1342950.98E		
OS154	340705.08N / 1343015.59E		
OS151	340829.79N / 1343331.39E		
RW11	340804.98N / 1343545.74E		
DATIS	335851.96N / 1345613.14E		
		1	





## RJOS / TOKUSHIMA

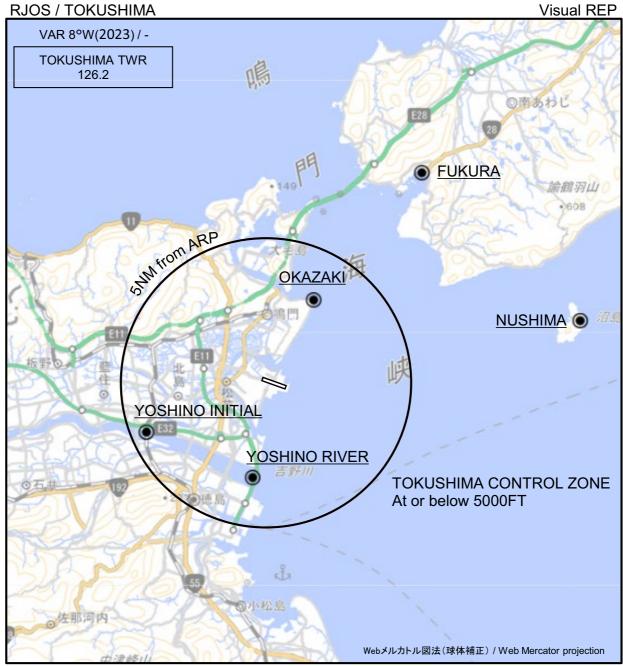
## RNP Y RWY29(AR)

# 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	KULUL	ı	-	-7.8	1	1	+5000	1	1	-
002	TF	OHASA	-	092 (083.7)	-7.8	8.6	-	-	-	-	1.0
003	TF	WAKME	ı	092 (083.8)	-7.8	4.5	ı	3500	ı	ı	0.7
004	TF	OS953	-	092 (083.8)	-7.8	1.9	-	2905	-165	-3.00	0.27 0.30
005	RF Center: OSRF3 r=2.08NM	OS954	ı	-	-7.8	7.2	R	610	1	-3.00	0.27 0.30
006	TF	RW29	Υ	290 (282.6)	-7.8	1.6	ı	91	ı	-3.00/54	0.27 0.30
007	FA	-	-	290 (282.6)	-7.8	-	-	+500	-	-	1.0
008	DF	DATIS	1	ı	-7.8	ı	L	3000	1	-	1.0

## **Waypoint Coordinates**

	Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
	KULUL	340954.74N / 1342131.22E	OSRF3	340928.04N / 1343948.74E
	OHASA	341051.19N / 1343153.12E		
	WAKME	341120.36N / 1343718.44E		
	OS953	341132.33N / 1343932.73E		
	OS954	340726.04N / 1343916.02E		
	RW29	340747.36N / 1343720.97E		
	DATIS	335851.96N / 1345613.14E		
1				



※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
	福良 Fukura	037°T / 9.0NM	港 Harbor
	岡崎 Okazaki	029°T / 3.3NM	灯台 Lighthouse
: VAR.	沼島 Nushima	079°T / 11.1NM	灯台 Lighthouse
IGE:	吉野イニシャル Yoshino Initial	248°T / 4.5NM	鉄道橋中央 The center of iron bridge
CHANGE	吉野リバー Yoshino River	188°T / 3.3NM	吉野川河口 River mouth

