



RJOM / MATSUYAMA SID

## MATSUYAMA REVERSAL FIVE DEPARTURE

RWY32 : Climb RWY HDG to 500FT, turn left HDG 270° to 3500FT, turn left...

RWY14 : Climb RWY HDG to 1300FT, turn right HDG 270  $^{\circ}$  to 3500FT, turn right...

...direct to MYE VOR/DME.

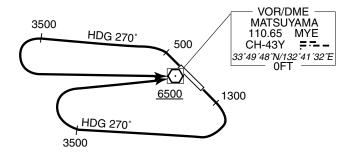
Cross MYE VOR/DME at or above 6500FT.

Note RWY14: 7.0% climb gradient required up to 3200FT.

OBST ALT 2822FT located at 7.6NM 172° FM end of RWY14.

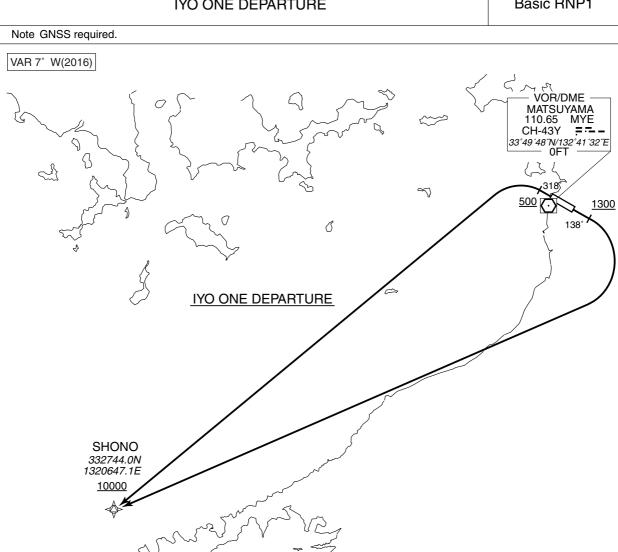
No turn before DER.

# MATSUYAMA REVERSAL FIVE DEPARTURE



RJOM / MATSUYAMA RNAV SID

IYO ONE DEPARTURE Basic RNP1



### IYO ONE DEPARTURE

RWY14 : Climb on HDG138° at or above 1300FT, turn right direct to SHONO at or above 10000FT. RWY32 : Climb on HDG318° at or above 500FT, turn left direct to SHONO at or above 10000FT.

NOTE RWY14: 7.0% climb gradient required up to 1800FT.

OBST ALT 1464FT located at 4.3NM 154° FM end of RWY14.

No turn before DER.

## RJOM / MATSUYAMA

**RNAV SID** 

## IYO ONE DEPARTURE

## RWY14

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	_	_	138 (130.7)	-7.4	_	_	+1300	_	_	Basic RNP1
002	DF	SHONO	_	_	-7.4	_	R	+10000	_	_	Basic RNP1

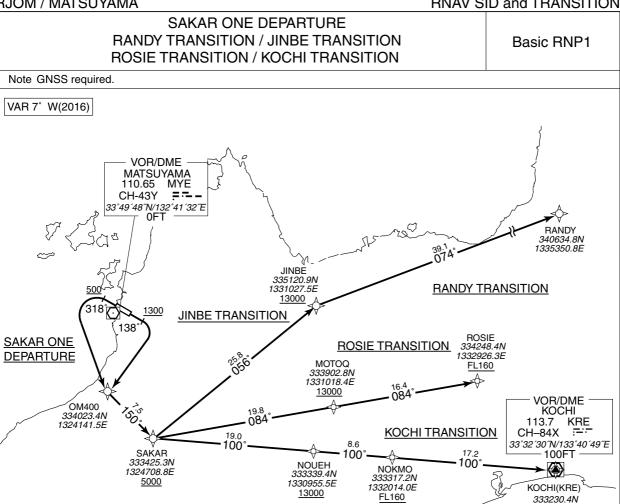
## RWY32

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	_	_	318 (310.7)	-7.4	_	_	+500	_	_	Basic RNP1
002	DF	SHONO	_	_	-7.4	_	L	+10000	_	_	Basic RNP1

#### **RJOM / MATSUYAMA**

#### RNAV SID and TRANSITION

1334048 6F



#### SAKAR ONE DEPARTURE

RWY14 : Climb on HDG138° at or above 1300FT, turn right direct to OM400, to SAKAR at or above 5000FT.

RWY32 : Climb on HDG318° at or above 500FT, turn left direct to OM400, to SAKAR at or above 5000FT.

NOTE RWY14: 7.0% climb gradient required up to 3200FT.

OBST ALT 2822FT located at 7.6NM 172° FM end of RWY14.

No turn before DER.

RWY32: 5.3% climb gradient required up to 3600FT.

OBST ALT 3084FT located at 10.5NM 177° FM end of RWY32.

#### **RANDY TRANSITION**

From SAKAR at or above 5000FT, to JINBE at or above 13000FT, to RANDY.

#### JINBE TRANSITION

From SAKAR at or above 5000FT, to JINBE at or above 13000FT.

#### **ROSIE TRANSITION**

From SAKAR at or above 5000FT, to MOTOQ at or above 13000FT, to ROSIE at or above FL160.

#### **KOCHI TRANSITION**

From SAKAR at or above 5000FT, to NOUEH at or above 13000FT, to NOKMO at or above FL160, to KRE.

## RJOM / MATSUYAMA

## RNAV SID and TRANSITION

## SAKAR ONE DEPARTURE

## RWY14

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	_	_	138 (130.7)	-7.4	_	_	+1300	_	_	Basic RNP1
002	DF	OM400	_	_	-7.4	_	R	_	_	_	Basic RNP1
003	TF	SAKAR	_	150 (142.7)	-7.4	7.5	_	+5000	_	_	Basic RNP1

### RWY32

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	_	_	318 (310.7)	-7.4	_	ı	+500	_	_	Basic RNP1
002	DF	OM400	_	_	-7.4	_	L	_	_	_	Basic RNP1
003	TF	SAKAR	_	150 (142.7)	-7.4	7.5	_	+5000	_	_	Basic RNP1

## RANDY 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	SAKAR	_	_	-7.4	_	_	+5000	_	_	Basic RNP1
002	TF	JINBE	_	056 (048.8)	-7.4	25.8	_	+13000	_	_	Basic RNP1
003	TF	RANDY	_	074 (066.9)	-7.4	39.1	_	_	_	_	Basic RNP1

## JINBE 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	SAKAR	_	_	-7.4	_	_	+5000	_	_	Basic RNP1
002	TF	JINBE	_	056 (048.8)	-7.4	25.8	_	+13000	_	_	Basic RNP1

## RJOM / MATSUYAMA

## RNAV SID and TRANSITION

## **ROSIE 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	SAKAR	_	_	-7.4	_	_	+5000	_	_	Basic RNP1
002	TF	MOTOQ	-	084 (076.4)	-7.4	19.8	-	+13000	_	_	Basic RNP1
003	TF	ROSIE	_	084 (076.6)	-7.4	16.4	_	+FL160	_	_	Basic RNP1

## **KOCHI 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	SAKAR	_	_	-7.4	_	_	+5000	_	_	Basic RNP1
002	TF	NOUEH	_	100 (092.2)	-7.4	19.0	_	+13000	_	_	Basic RNP1
003	TF	NOKMO	_	100 (092.4)	-7.4	8.6	_	+FL160	_	_	Basic RNP1
004	TF	KRE	_	100 (092.5)	-7.4	17.2	_	_	_	_	Basic RNP1

## RJOM / MATSUYAMA **RNAV SID** Basic RNP1 MARCO ONE DEPARTURE Note GNSS required. VAR 7° W(2016) $\approx$ **MARCO** 340446.0N 1320850.2E MARCO ONE DEPARTURE 110.65 CH-43Y **500** 🛭 1300 OM402 335129.5N 138° 1322924.1E OM401 334603.4N 1323745.6E

### MARCO ONE DEPARTURE

RWY14: Climb on HDG138° at or above 1300FT, turn right direct to OM401, to OM402, to MARCO.

RWY32 : Climb on HDG318° at or above 500FT, turn left direct to OM402, to MARCO.

NOTE RWY14: 7.0% climb gradient required up to 1800FT.

OBST ALT 1464FT located at 4.3NM 154° FM end of RWY14.

No turn before DER.

## RJOM / MATSUYAMA RNAV SID

## MARCO ONE DEPARTURE

### RWY14

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	_	_	138 (130.7)	-7.4	_	_	+1300	_	_	Basic RNP1
002	DF	OM401	_	_	-7.4	_	R	_	_	_	Basic RNP1
003	TF	OM402	_	315 (308.1)	-7.4	8.8	_	_	_	_	Basic RNP1
004	TF	MARCO	_	315 (308.1)	-7.4	21.6	_	_	_	_	Basic RNP1

### RWY32

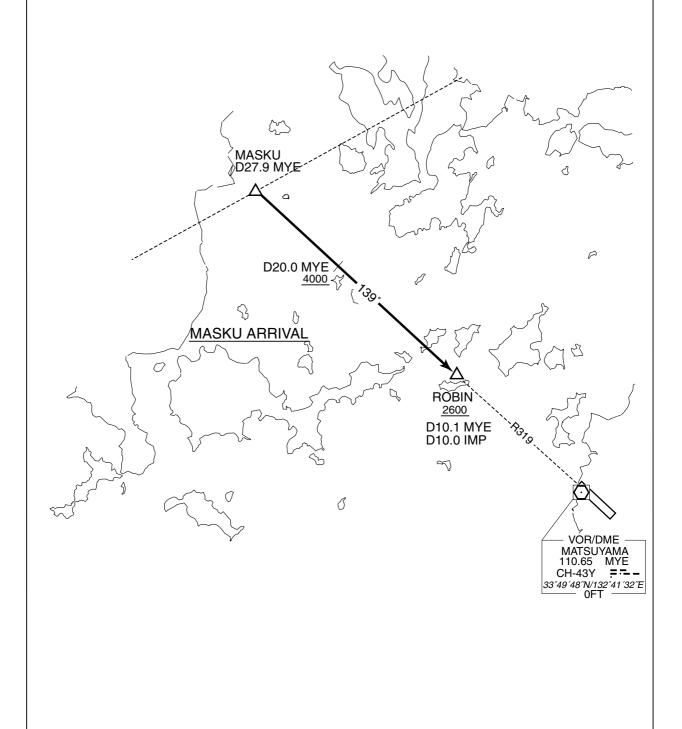
Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	VA	_	_	318 (310.7)	-7.4	_	-	+500	_	_	Basic RNP1
002	DF	OM402	_	_	-7.4	_	L	_	_	_	Basic RNP1
003	TF	MARCO	_	315 (308.1)	-7.4	21.6	-	_	_	_	Basic RNP1

RJOM / MATSUYAMA STAR

## MASKU ARRIVAL

From over MASKU, via MYE R319 to ROBIN.

Cross MASKU at or above 5000FT, cross MYE R319/20.0DME at or above 4000FT, cross ROBIN at or above 2600FT.



## **RNAV STAR RWY14** RJOM / MATSUYAMA **ROBIN WEST ARRIVAL** Basic RNP1 Note GNSS required. VAR 7°W (2016) ROBIN WEST ARRIVAL 00 **MARCO** 340446.0N 1320850.2E 10.0 TACAN P 120 KUGA 1177 IWT CH-90X ≟-0 34°04′48″N/132°08′50″E 2100FT ROMAN 340052.1N 1321955.0E RÓBIN 335627.6N 1323221.8E 2600 $\otimes$ – VOR/DME – MATSUYAMA 110.65 MYE CH-43Y 33°49′48″N/132°41′32″E 0FT

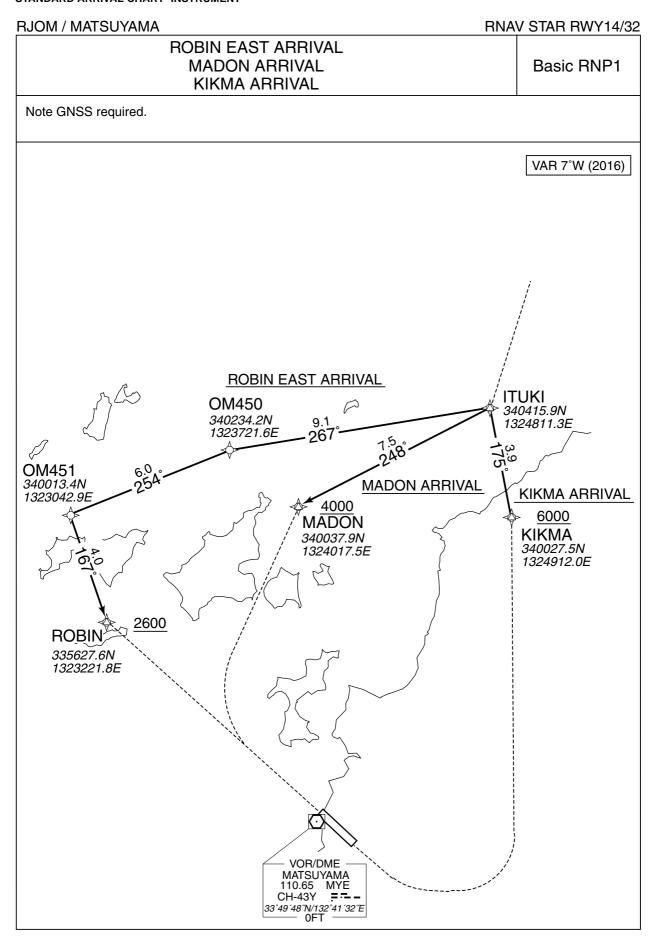
## RJOM / MATSUYAMA

**RNAV STAR RWY14** 

## **ROBIN WEST ARRIVAL**

From MARCO, to ROMAN at or above 4000FT, to ROBIN at or above 2600FT.

Serial Number	Path Descriptor	Waypoint Identifier			Magnetic Variation		Turn Direction				Navigation Specification
001	IF	MARCO	_	_	-7.4	_	_	_	_	_	Basic RNP1
002	TF	ROMAN	_	120 (113.0)	-7.4	10.0	_	+4000	_	_	Basic RNP1
003	TF	ROBIN	_	120 (113.1)	-7.4	11.2	_	+2600	_	_	Basic RNP1



### RJOM / MATSUYAMA

RNAV STAR RWY14/32

## **ROBIN EAST ARRIVAL**

From ITUKI, to OM450, to OM451, to ROBIN at or above 2600FT.

П												
	Serial		Waypoint	, ,		Magnetic						Navigation
	Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
	001	IF	ITUKI	_	_	-7.4	_	_	_	_	_	Basic RNP1
	002	TF	OM450	_	267 (259.4)	-7.4	9.1	_	_	_	1	Basic RNP1
	003	TF	OM451	-	254 (247.0)	-7.4	6.0	-	_	_	ı	Basic RNP1
	004	TF	ROBIN	_	167 (160.0)	-7.4	4.0	_	+2600	_	_	Basic RNP1

## MADON ARRIVAL

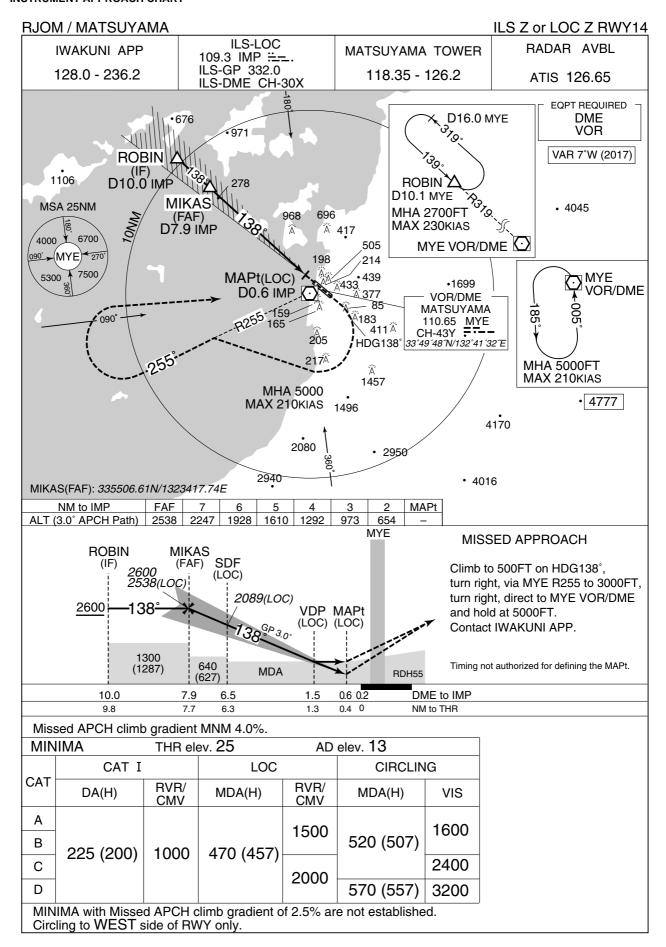
From ITUKI, to MADON at or above 4000FT.

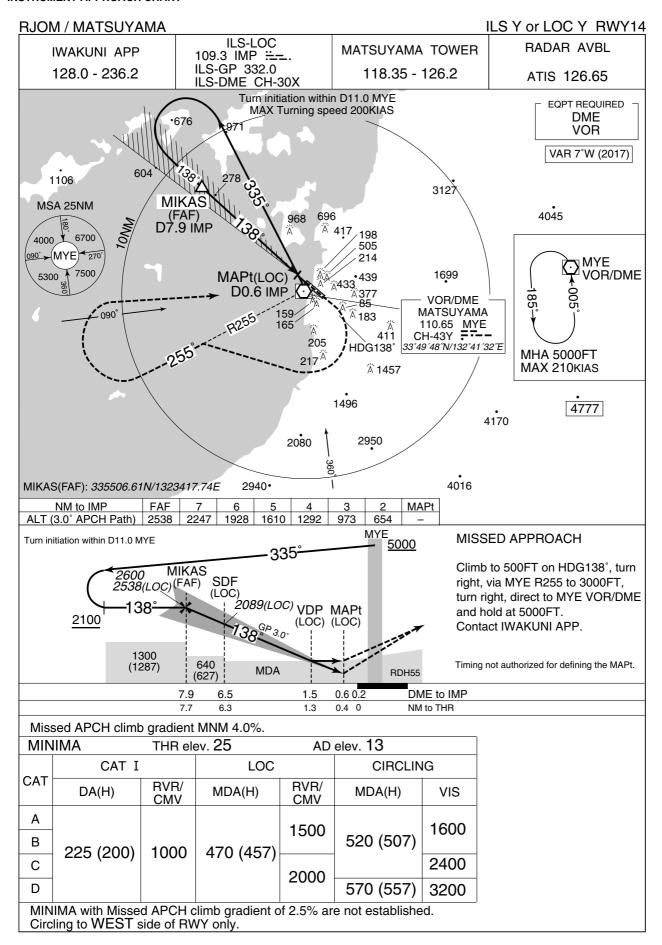
Serial Number	Path Descriptor	Waypoint Identifier	1		Magnetic Variation		Turn Direction		•		Navigation Specification
001	IF	ITUKI	_	_	-7.4	_	_	_	_	_	Basic RNP1
002	TF	MADON	_	248 (241.0)	-7.4	7.5	_	+4000	_	_	Basic RNP1

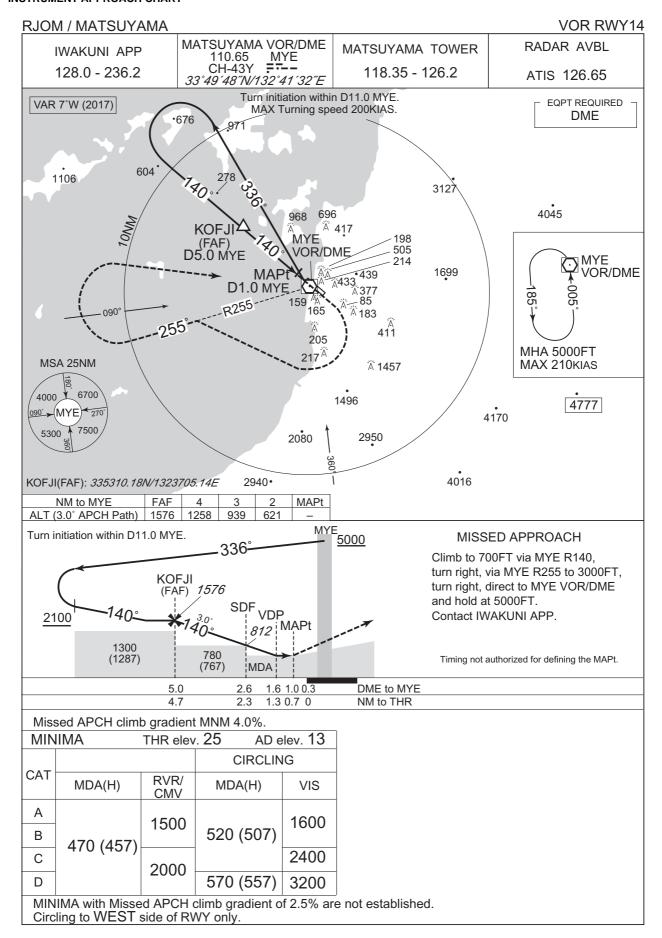
## KIKMA ARRIVAL

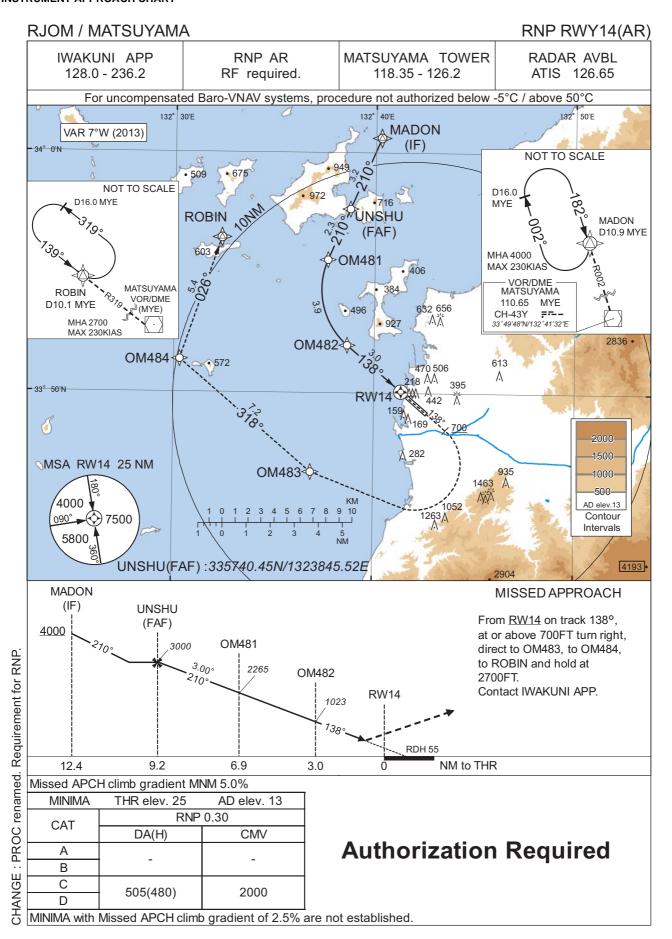
From ITUKI, to KIKMA at or above 6000FT.

Serial Number	Path Descriptor	Waypoint Identifier									Navigation Specification
001	IF	ITUKI	_	_	-7.4	_	_	_	_	_	Basic RNP1
002	TF	KIKMA	_	175 (167.6)	-7.4	3.9	_	+6000	_	_	Basic RNP1









## RJOM / MATSUYAMA

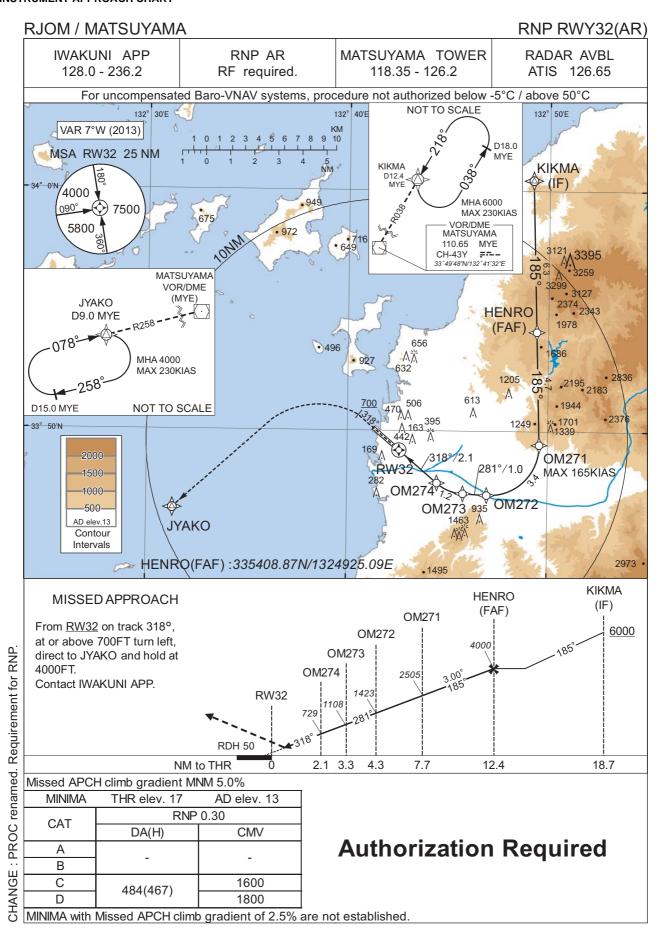
## RNP RWY14(AR)

## 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	MADON	1	ı	-7.1	ı	-	+4000	ı	ı	-
002	TF	UNSHU	1	210 (203.3)	-7.1	3.2	-	3000	ı	ı	1.0
003	TF	OM481	1	210 (203.2)	-7.1	2.3	ı	2265	ı	-3.00	0.3
004	RF Center: OMRF4 r=3.06NM	OM482	ı	1	-7.1	3.9	L	1023	ı	-3.00	0.3
005	TF	RW14	Υ	138 (130.5)	-7.1	3.0	-	80	ı	-3.00/55	0.3
006	FA	1	1	138 (130.5)	-7.1	1	-	+700	ı	-	1.0
007	DF	OM483	1	ı	-7.1	ı	R	ı	ı	ı	1.0
008	TF	OM484	1	318 (310.5)	-7.1	7.2	-	-	ı	-	1.0
009	TF	ROBIN	-	026 (018.6)	-7.1	5.4	-	2700	ı	-	1.0

## Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
MADON	340037.92N / 1324017.47E	OMRF4	335420.16N / 1324102.43E
UNSHU	335740.45N / 1323845.52E		
OM481	335533.13N / 1323739.63E		
OM482	335159.96N / 1323839.26E		
RW14	335004.50N / 1324121.73E		
OM483	334643.12N / 1323652.81E		
OM484	335123.09N / 1323018.19E		
ROBIN	335627.62N / 1323221.80E		
	-	-	



## RJOM / MATSUYAMA

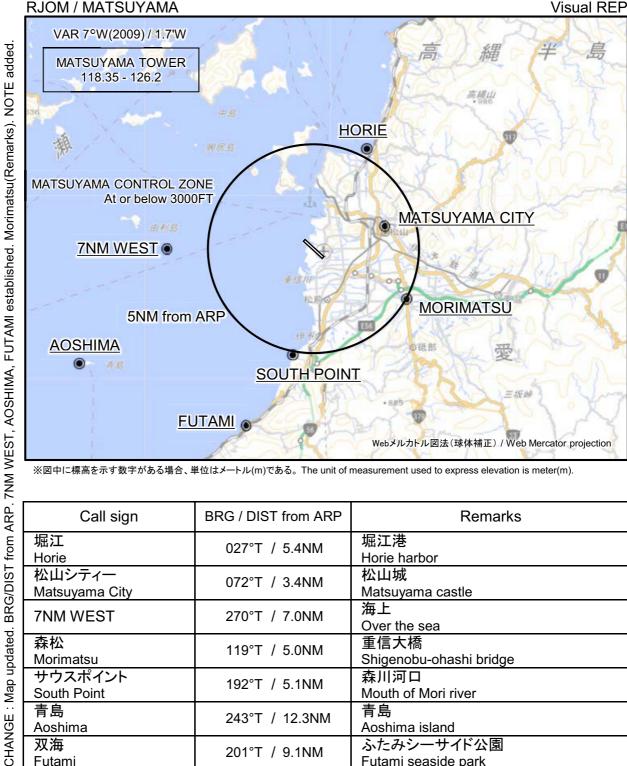
## RNP RWY32(AR)

## 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	KIKMA	1	-	-7.1	-	-	+6000	1	-	-
002	TF	HENRO	-	185 (178.4)	-7.1	6.3	-	4000	-	-	1.0
003	TF	OM271	-	185 (178.4)	-7.1	4.7	-	2505	-165	-3.00	0.3
004	RF Center: OMRF1 r=2.04NM	OM272	1	ı	-7.1	3.4	R	1423	1	-3.00	0.3
005	TF	OM273	-	281 (273.5)	-7.1	1.0	-	1108	-	-3.00	0.3
006	RF Center: OMRF2 r=1.85NM	OM274	ı	-	-7.1	1.2	R	729	,	-3.00	0.3
007	TF	RW32	Υ	318 (310.7)	-7.1	2.1	-	67	ı	-3.00/50	0.3
800	FA	-	-	318 (310.7)	-7.1	-	-	+700	-	-	1.0
009	DF	JYAKO	-	-	-7.1	-	L	4000	-	-	1.0

## Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
KIKMA	340027.49N / 1324911.96E	OMRF1	334923.23N / 1324707.68E
HENRO	335408.87N / 1324925.09E	OMRF2	334915.02N / 1324555.54E
OM271	334926.79N / 1324934.83E		
OM272	334720.59N / 1324658.72E		
OM273	334724.21N / 1324547.47E		
OM274	334750.46N / 1324429.38E		
RW32	334911.75N / 1324235.61E		
JYAKO	334643.83N / 1323118.89E		



※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
堀江 Horie	027°T / 5.4NM	堀江港 Horie harbor
松山シティー Matsuyama City	072°T / 3.4NM	松山城 Matsuyama castle
7NM WEST	270°T / 7.0NM	海上 Over the sea
森松 Morimatsu	119°T / 5.0NM	重信大橋 Shigenobu-ohashi bridge
サウスポイント South Point	192°T / 5.1NM	森川河口 Mouth of Mori river
青島 Aoshima	243°T / 12.3NM	青島 Aoshima island
双海 Futami	201°T / 9.1NM	ふたみシーサイド公園 Futami seaside park

注:有視界飛行方式により松山空港に着陸しようとする航空機又は松山航空交通管制圏を通過しようとする 航空機は、南方向から進入する場合は双海ポイント付近で、南西~西方向から進入する場合は青島ポイ ント又は7NM WEST付近で、松山タワーと通信設定すること。

NOTE: When VFR flight is going to enter the control zone for landing or passing through, the pilot should contact with the control tower before passing following points;

FUTAMI in case of coming from south/

AOSHIMA or 7NM WEST in case of coming from southwest to west.

