

**AIP Japan
TOKUSHIMA**

RJOS AD2.24-ADC-1

AD CHART



RJOS AD2.24-ADC-1

AD CHART

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STANDARD DEPARTURE CHART-INSTRUMENT

RJOS / TOKUSHIMA

RNAV SID and TRANSITION

HONMA ONE DEPARTURE / KILAP TRANSITION		RNAV1
<p>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 rolling.</p> <p>2) RADAR service required.</p>	Critical DME	RWY29 AJD : 3.0NM to HATIS – HATIS KILAP TRANSITION AJD : 4.0NM to KMANO – KMANO
	DME GAP	—
	Inappropriate Nav aids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1
<p>VAR 8°W (2018)</p> <p><u>HONMA ONE DEPARTURE</u></p> <p><u>KILAP TRANSITION</u></p>		
<p><u>HONMA ONE DEPARTURE</u></p> <p>RWY11 : Climb on HDG110° at or above 500FT, turn right direct to HATIS, to SIJIL at 3000FT, to HONMA at or above 5000FT.</p> <p>RWY29 : Climb on HDG290° at or above 500FT, turn left direct to HATIS, to SIJIL at 3000FT, to HONMA at or above 5000FT.</p> <p>Note RWY29 : 5.0% climb gradient required up to 1200FT. OBST ALT 1115FT located at 4.9NM FM end of RWY29.</p>		
<p><u>KILAP TRANSITION</u></p> <p>From HONMA at or above 5000FT, to KMANO, to KILAP.</p>		

STANDARD DEPARTURE CHART-INSTRUMENT

RJOS / TOKUSHIMA

RNAV SID and TRANSITION

HONMA ONE 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	—	—	110 (102.6)	-7.6	—	—	+500	—	—	RNAV1
002	DF	HATIS	—	—	-7.6	—	R	—	—	—	RNAV1
003	TF	SIJIL	—	144 (136.9)	-7.6	3.6	—	3000	—	—	RNAV1
004	TF	HONMA	—	144 (136.9)	-7.6	13.0	—	+5000	—	—	RNAV1

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	—	—	290 (282.6)	-7.6	—	—	+500	—	—	RNAV1
002	DF	HATIS	—	—	-7.6	—	L	—	—	—	RNAV1
003	TF	SIJIL	—	144 (136.9)	-7.6	3.6	—	3000	—	—	RNAV1
004	TF	HONMA	—	144 (136.9)	-7.6	13.0	—	+5000	—	—	RNAV1

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	—	—	-7.6	—	—	+5000	—	—	RNAV1
002	TF	KMANO	—	113 (105.2)	-7.6	8.9	—	—	—	—	RNAV1
003	TF	KILAP	—	104 (095.9)	-7.6	82.2	—	—	—	—	RNAV1

STANDARD DEPARTURE CHART-INSTRUMENT

CHANGE : PROC renamed(TOSAR FIVE DEPARTURE, TOKUSHIMA REVERSAL SIX DEPARTURE). TOKUSHIMA NDB(TS) abolished.
Note added.

RJOS / TOKUSHIMA

SID

TOSAR FIVE DEPARTURE

RWY 29 : Turn left within 3NM....

RWY 11 : Turn right....

....climb via TSC R160 to TSC 13.0DME, turn right
to intercept and proceed via TSC R187 to TOSAR.

Cross TSC 13.0DME at 3000FT, cross TSC 20.0DME
at 6000FT, cross TOSAR at assigned altitude.

Note1 : When take off RWY29, following climb gradient should be maintained
until passing 300FT

Speed (Knots)	60	90	120	150	180	210
Rate (Feet/Min)	300	450	600	750	900	1050

2 : TV antenna tower (Mt. BIZAN : height 1115FT) at TSC R230 5DME.

TOKUSHIMA REVERSAL SIX DEPARTURE

RWY 29 : Turn left within 3NM....

RWY 11 : Turn right....

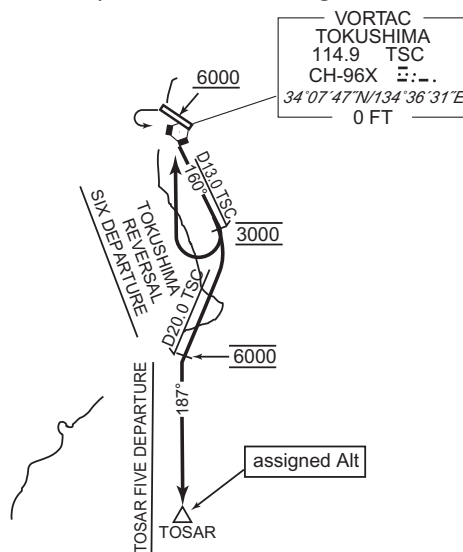
.... climb via TSC R160 to TSC 13.0DME,
then turn right proceed to TSC VORTAC.

Cross TSC 13.0DME at 3000FT,
cross TSC VORTAC at or above 6000FT.

Note1 : When take off RWY29, following climb gradient should be maintained
until passing 300FT

Speed (Knots)	60	90	120	150	180	210
Rate (Feet/Min)	300	450	600	750	900	1050

2 : TV antenna tower (Mt. BIZAN : height 1115FT) at TSC R230 5DME.



STANDARD DEPARTURE CHART -INSTRUMENT

RJOS / TOKUSHIMA

SID and TRANSITION

MISAKI TWO DEPARTURE

RWY29 : Turn left within 3NM,...
RWY11 : Turn right,...
...climb via TSC R143 to HONMA.
Cross TSC 12.0DME at 3000FT, cross HONMA at or above 8000FT.

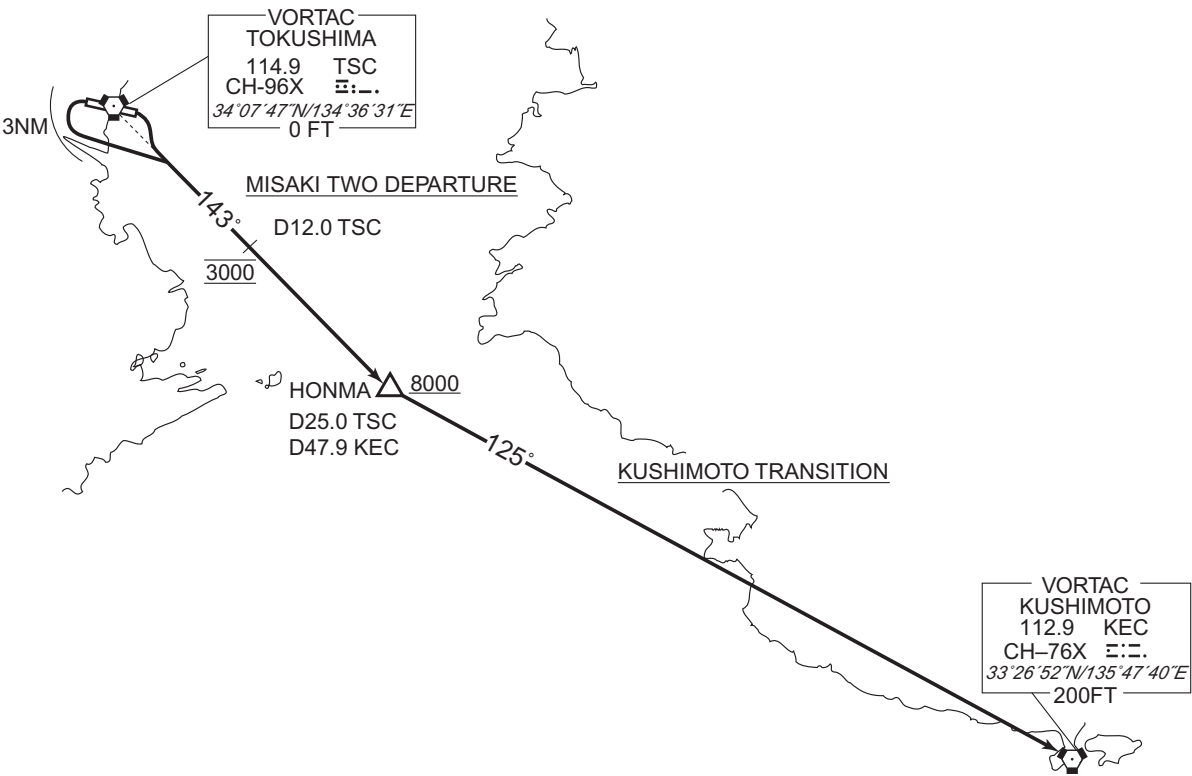
Note1 : When take off RWY29, following climb gradient should be maintained until passing 300FT

Speed (Knots)	60	90	120	150	180	210
Rate (Feet/Min)	300	450	600	750	900	1050

2 : TV antenna tower (Mt. BIZAN : height 1115FT) at TSC R230 5DME.

KUSHIMOTO TRANSITION

From over HONMA, via KEC R305 to KEC VORTAC.



STANDARD ARRIVAL CHART-INSTRUMENT

RJOS / TOKUSHIMA

STAR

STAR

TOSAR ARRIVAL

From over TOSAR, proceed via TSC R187 to TSC VORTAC.
Cross TSC VORTAC at 5000 feet.

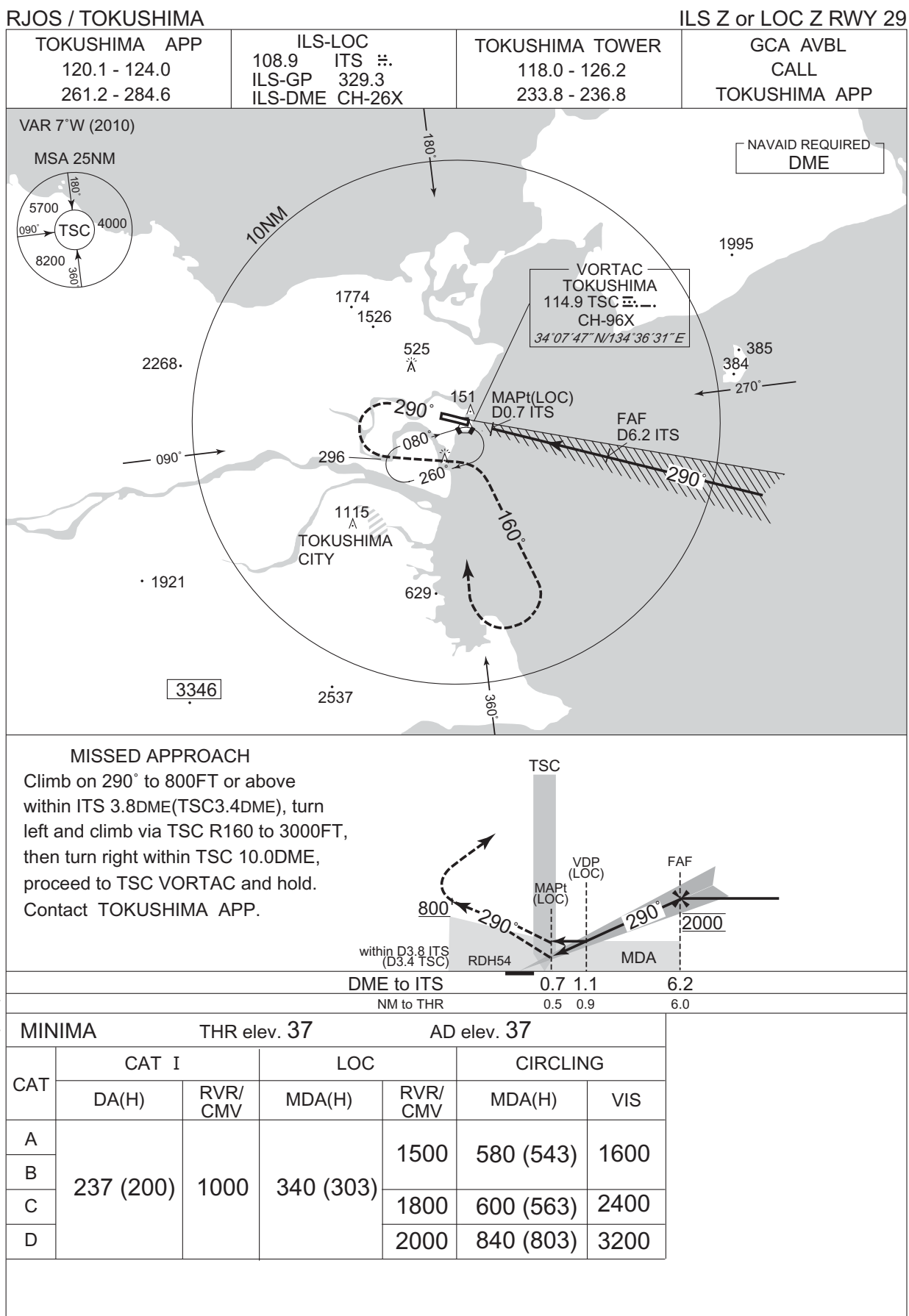
STAR



CHANGE : TOKUSHIMA NDB(TS) abolished.

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INSTRUMENT APPROACH CHART

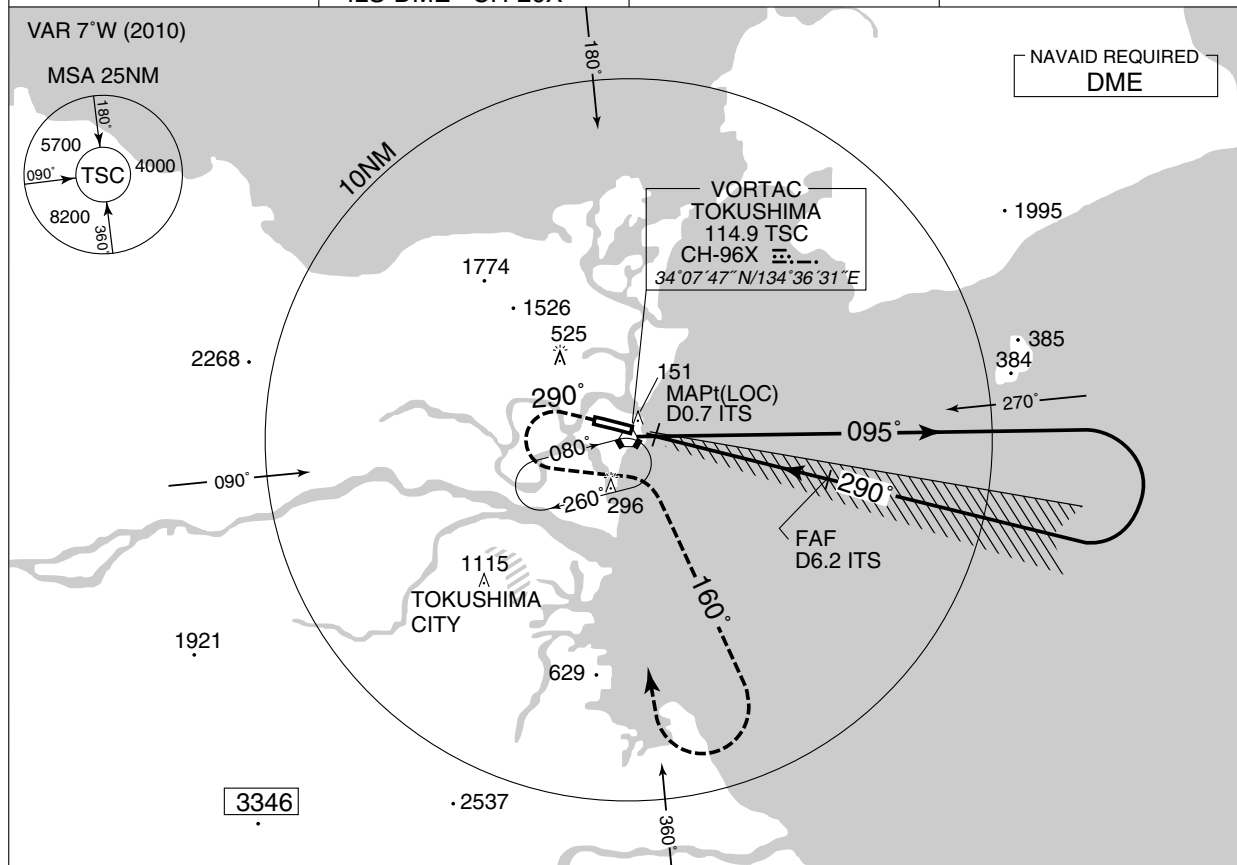


INSTRUMENT APPROACH CAHRT

RJOS / TOKUSHIMA

ILS Y or LOC Y RWY 29

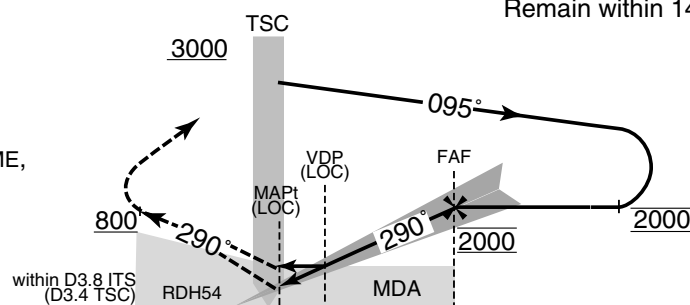
TOKUSHIMA APP 120.1 - 124.0 261.2 - 284.6	ILS-LOC 108.9 ITS #. ILS-GP 329.3 ILS-DME CH-26X	TOKUSHIMA TOWER 118.0 - 126.2 233.8 - 236.8	GCA AVBL CALL TOKUSHIMA APP
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MISSED APPROACH

Climb on 290° to 800FT or above
within ITS 3.8DME (TSC 3.4DME),
turn left and climb via TSC R160 to
3000FT, then turn right within TSC 10DME,
proceed to TSC VORTAC and hold.
Contact TOKUSHIMA APP.

Remain within 14nm



DME to ITS	0.7	1.1	6.2
NM to THR	0.5	0.9	6.0

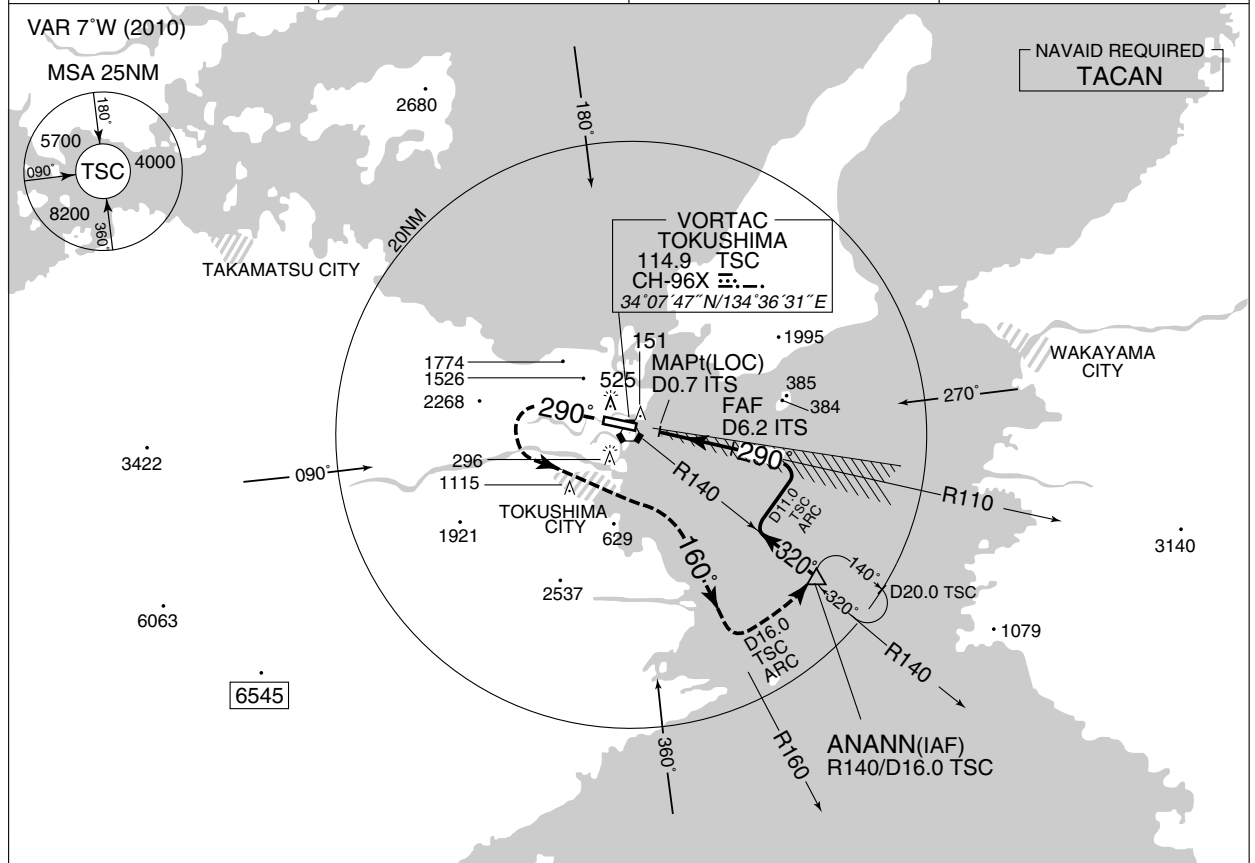
MINIMA		THR elev. 37	AD elev. 37			
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	237 (200)	1000	340 (303)	1500	580 (543)	1600
B				1800	600 (563)	2400
C				2000	840 (803)	3200
D						

INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

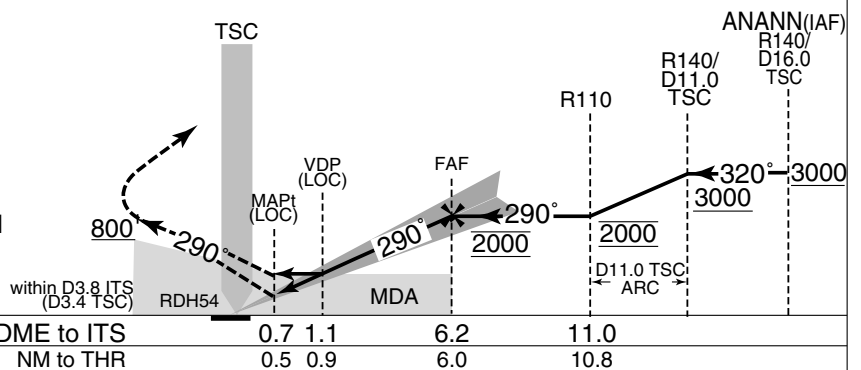
ILS W or LOC W RWY 29

TOKUSHIMA APP 120.1 - 124.0 261.2 - 284.6	ILS-LOC 108.9 ITS #. ILS-GP 329.3 ILS-DME CH-26X	TOKUSHIMA TOWER 118.0 - 126.2 233.8 - 236.8	GCA AVBL CALL TOKUSHIMA APP
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MISSED APPROACH

Climb on 290° to 800FT
or above within ITS 3.8DME
(TSC 3.4DME), then turn left and
climb via TSC R160 to intercept
and proceed via TSC 16.0DME
counterclockwise ARC to ANANN
IAF and hold at 3000FT.
Contact TOKUSHIMA APP.



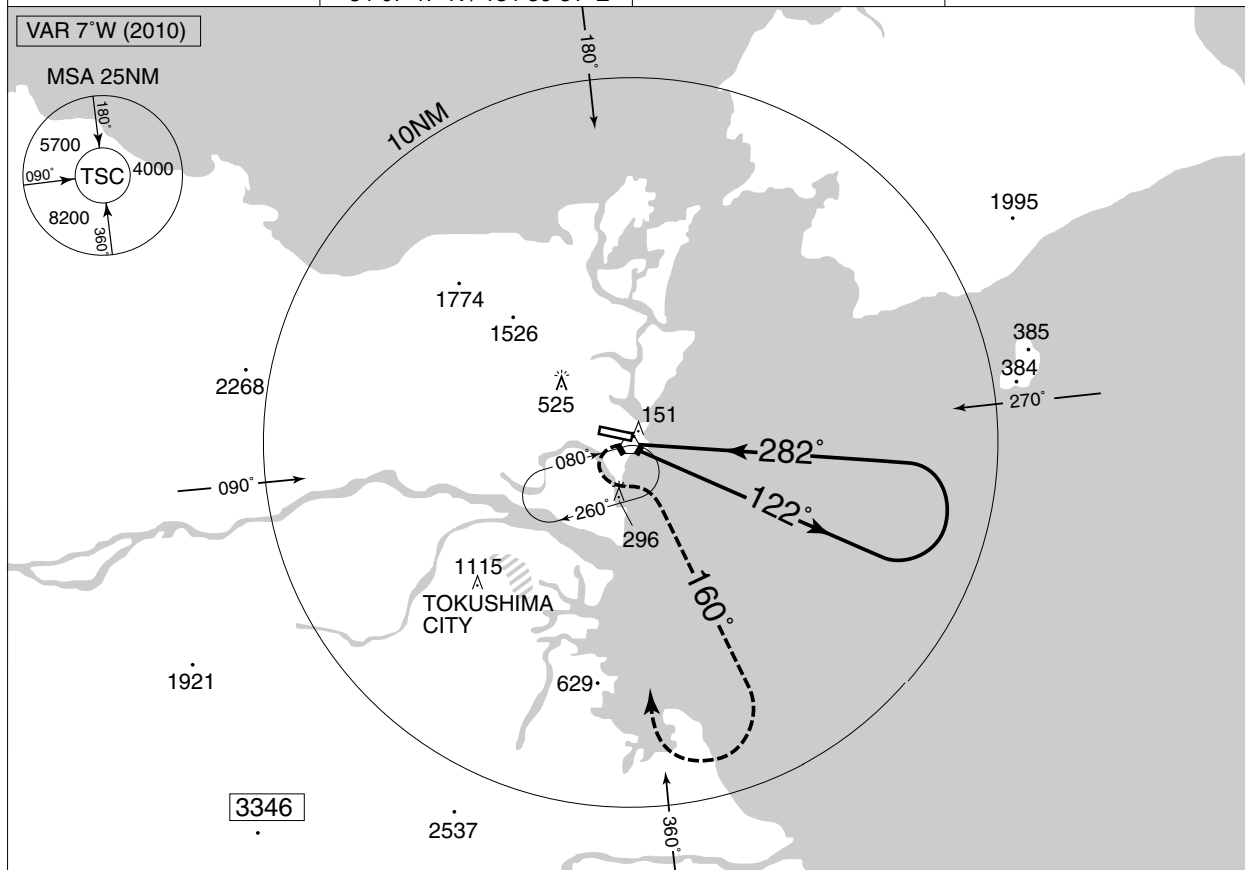
MINIMA		THR elev. 37		AD elev. 37		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	237 (200)	1000	340 (303)	1500	580 (543)	1600
B						
C				1800	600 (563)	2400
D				2000	840 (803)	3200

INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

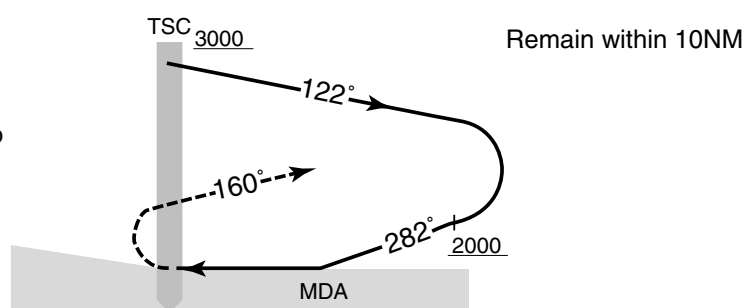
VOR RWY 29

TOKUSHIMA APP 120.1 - 124.0 261.2 - 284.6	TOKUSHIMA VORTAC 114.9 TSC $\overline{\text{E}}\text{---}\text{L}$ CH-96X 34°07'47"N / 134°36'31"E	TOKUSHIMA TOWER 118.0 - 126.2 233.8 - 236.8	GCA AVBL CALL TOKUSHIMA APP
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MISSED APPROACH

At TSC VORTAC, turn left and climb via TSC R160 to 3000FT, then turn right within 10NM of TSC, proceed to TSC VORTAC and hold.
Contact TOKUSHIMA APP.

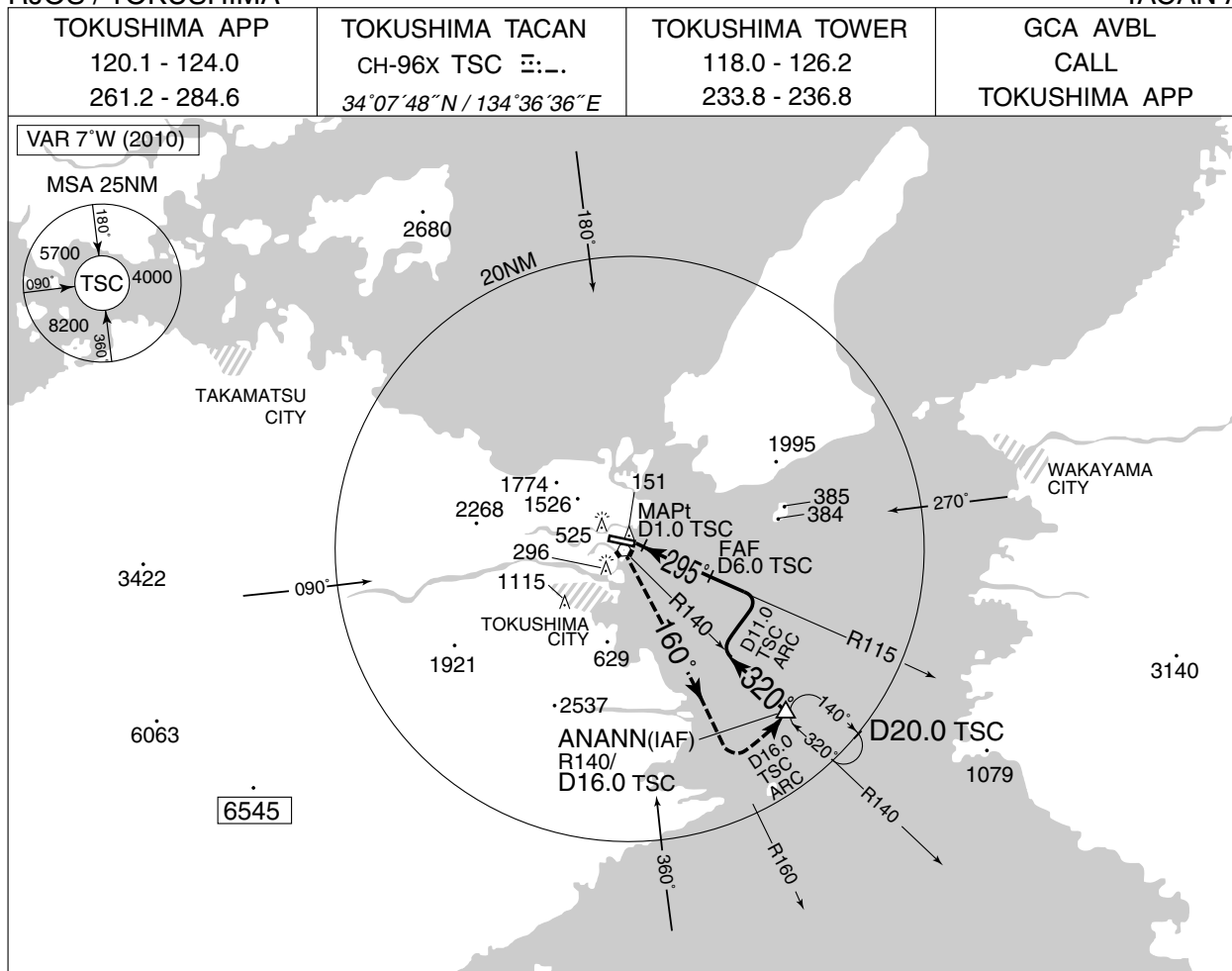


MINIMA		THR elev. 37	AD elev. 37	
CAT			CIRCLING	
	MDA(H)	RVR/CMV	MDA(H)	VIS
A	580 (543)	1500	580 (543)	1600
B				
C		2000	600 (563)	2400
D			840 (803)	3200

INSTRUMENT APPROACH CHART

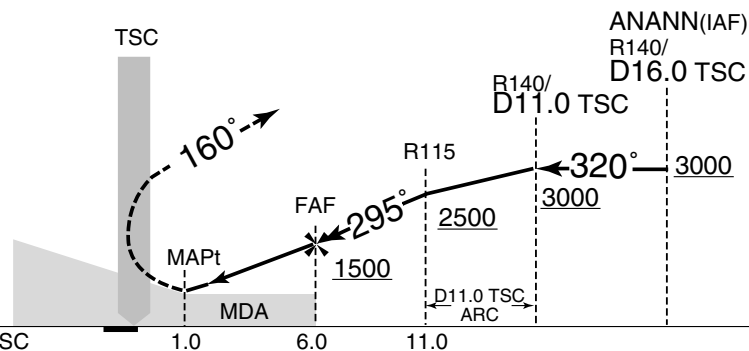
RJOS / TOKUSHIMA

TACAN A



MISSED APPROACH

1.0DME prior to TSC VORTAC, turn left and climb via TSC R160 to intercept and proceed via TSC 16.0DME counterclockwise ARC to ANANN and hold at 3000FT. Contact TOKUSHIMA APP.



MINIMA		THR elev. 37	AD elev. 37
CAT	CIRCLING		
	MDA(H)	VIS	
A	580 (543)	1600	
B			
C	600 (563)	2400	
D	840 (803)	3200	

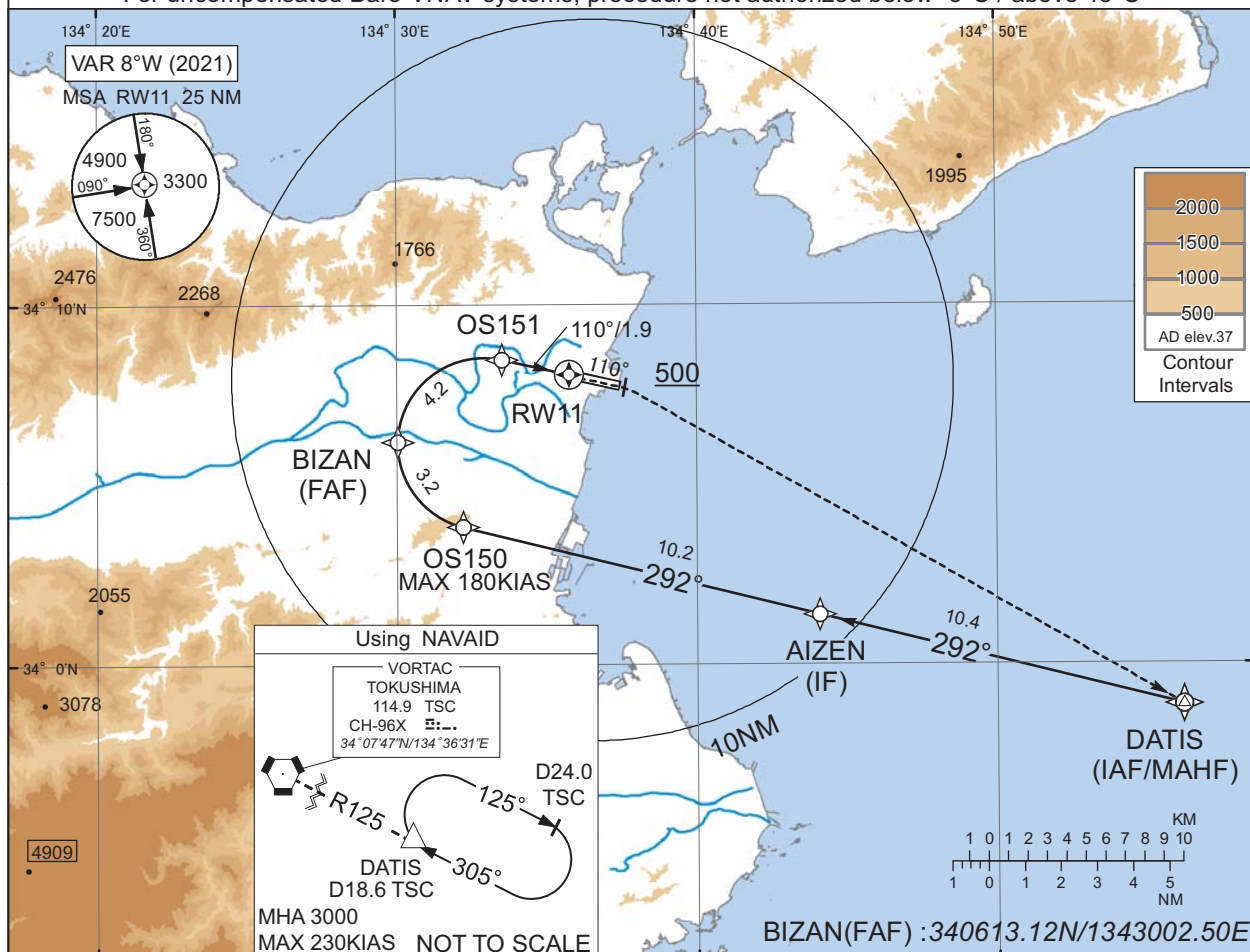
INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

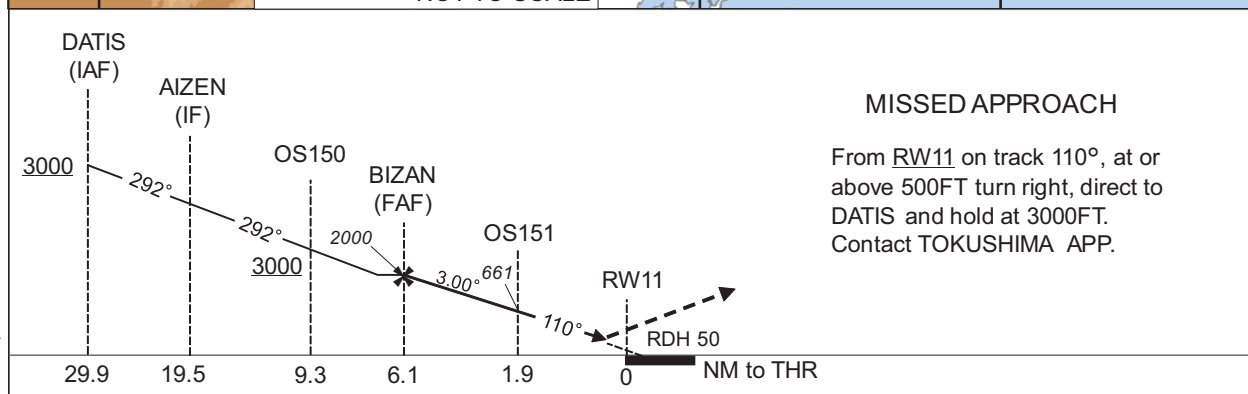
RNP Z RWY11(AR)

TOKUSHIMA APP 120.1 - 124.0 261.2 - 284.6	RNP AR RF required.	TOKUSHIMA TOWER 118.0 - 126.2 233.8 - 236.8	GCAA VBL CALL TOKUSHIMA APP
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For uncompensated Baro-VNAV systems, procedure not authorized below -5°C / above 45°C



CHANGE : PROC renamed. Requirement for RNP:



MISSED APPROACH

From RWY11 on track 110°, at or above 500FT turn right, direct to DATIS and hold at 3000FT.
Contact TOKUSHIMA APP.

Missed APCH climb gradient MNM 5.0%

CAT	THR elev. 6		AD elev. 37	
	RNP 0.15		RNP 0.30	
	DA(H)	CMV	DA(H)	CMV
A	-	-	-	-
B	-	-	-	-
C	306(300)	1400	362(356)	1400
D		1600		1600

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

Authorization Required

INSTRUMENT APPROACH CHART

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

Waypoint Coordinates

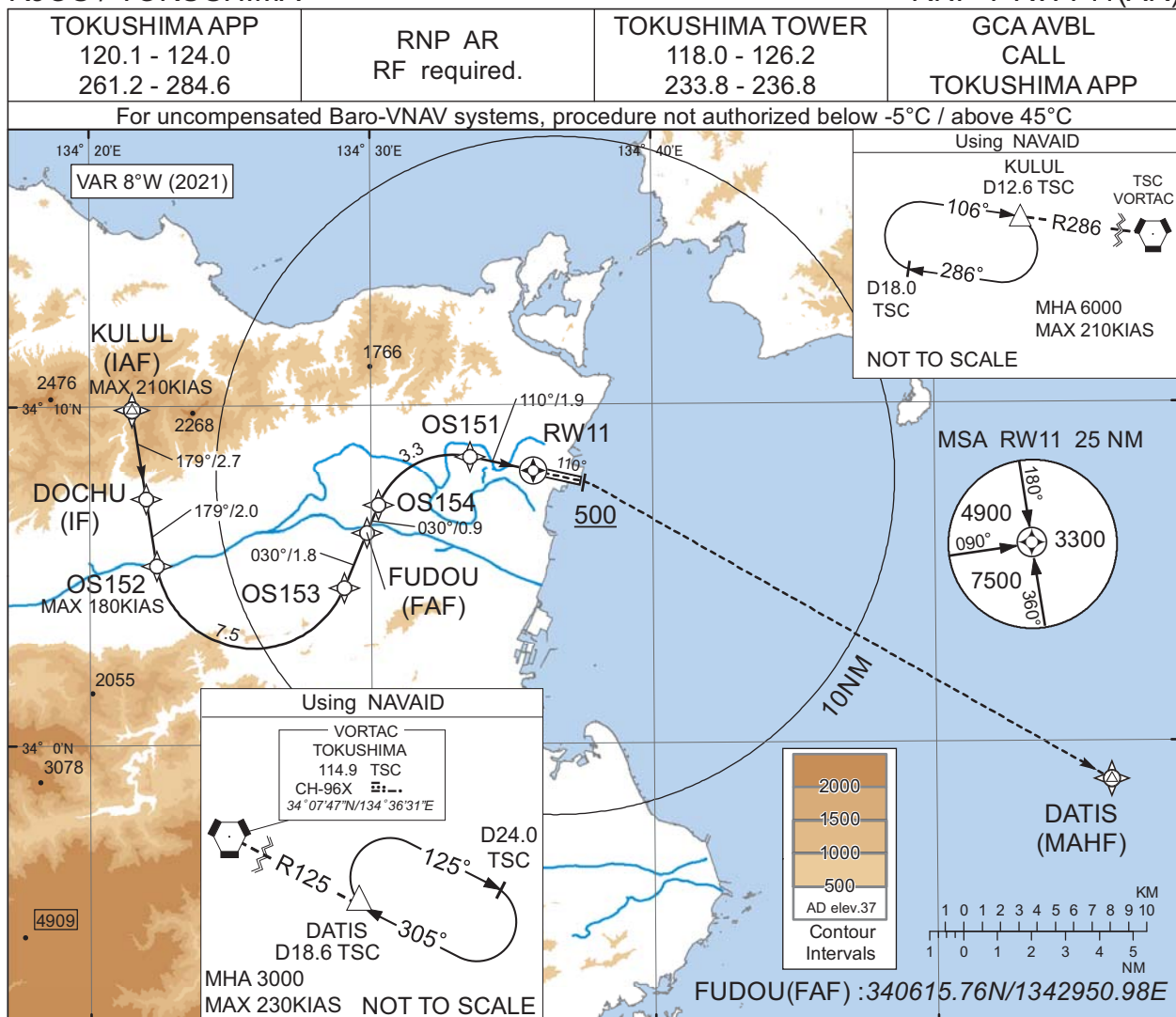
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
DATIS	335851.96N / 1345613.14E	OSRF2	340610.26N / 1343254.26E
AIZEN	340123.97N / 1344405.59E		
OS150	340351.55N / 1343212.95E		
BIZAN	340613.12N / 1343002.50E		
OS151	340829.79N / 1343331.39E		
RW11	340804.98N / 1343545.74E		

CHANGE : PROC renamed.

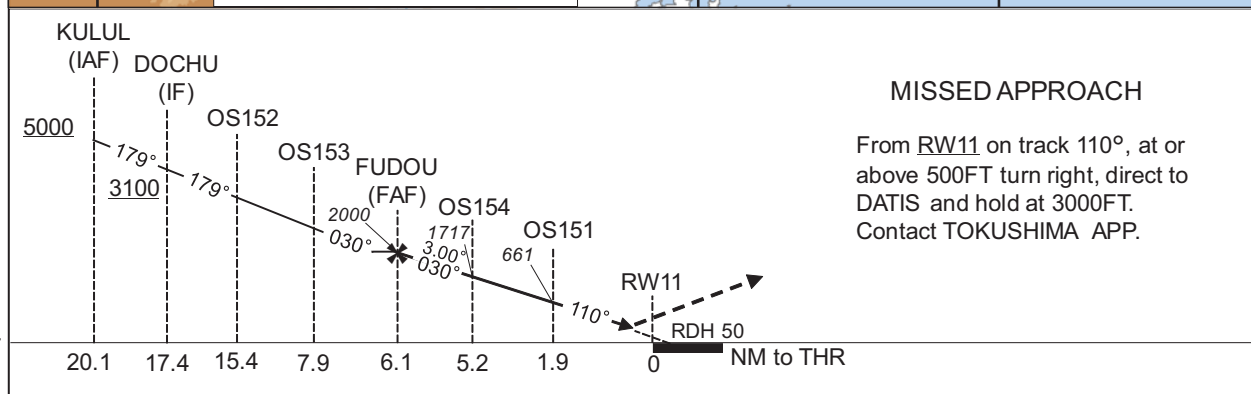
INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

RNP Y RWY11(AR)



CHANGE : PROC renamed. Requirement for RNP.



Missed APCH climb gradient MNM 5.0%

CAT	THR elev. 6		AD elev. 37	
	RNP 0.15		RNP 0.30	
	DA(H)	CMV	DA(H)	CMV
A	-	-	-	-
B	-	-	-	-
C	306(300)	1400	362(356)	1400
D		1600		1600

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

Authorization Required

INSTRUMENT APPROACH CHART

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	-	-	-7.8	-	-	+5000	-210	-	-
002	TF	DOCHU	-	179 (171.2)	-7.8	2.7	-	+3100	-	-	0.3
003	TF	OS152	-	179 (171.2)	-7.8	2.0	-	-	-180	-	0.3
004	RF Center: OSRF1 r=2.88NM	OS153	-	-	-7.8	7.5	L	-	-	-	0.3
005	TF	FUDOU	-	030 (022.4)	-7.8	1.8	-	2000	-	-	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
008	TF	RW11	Y	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

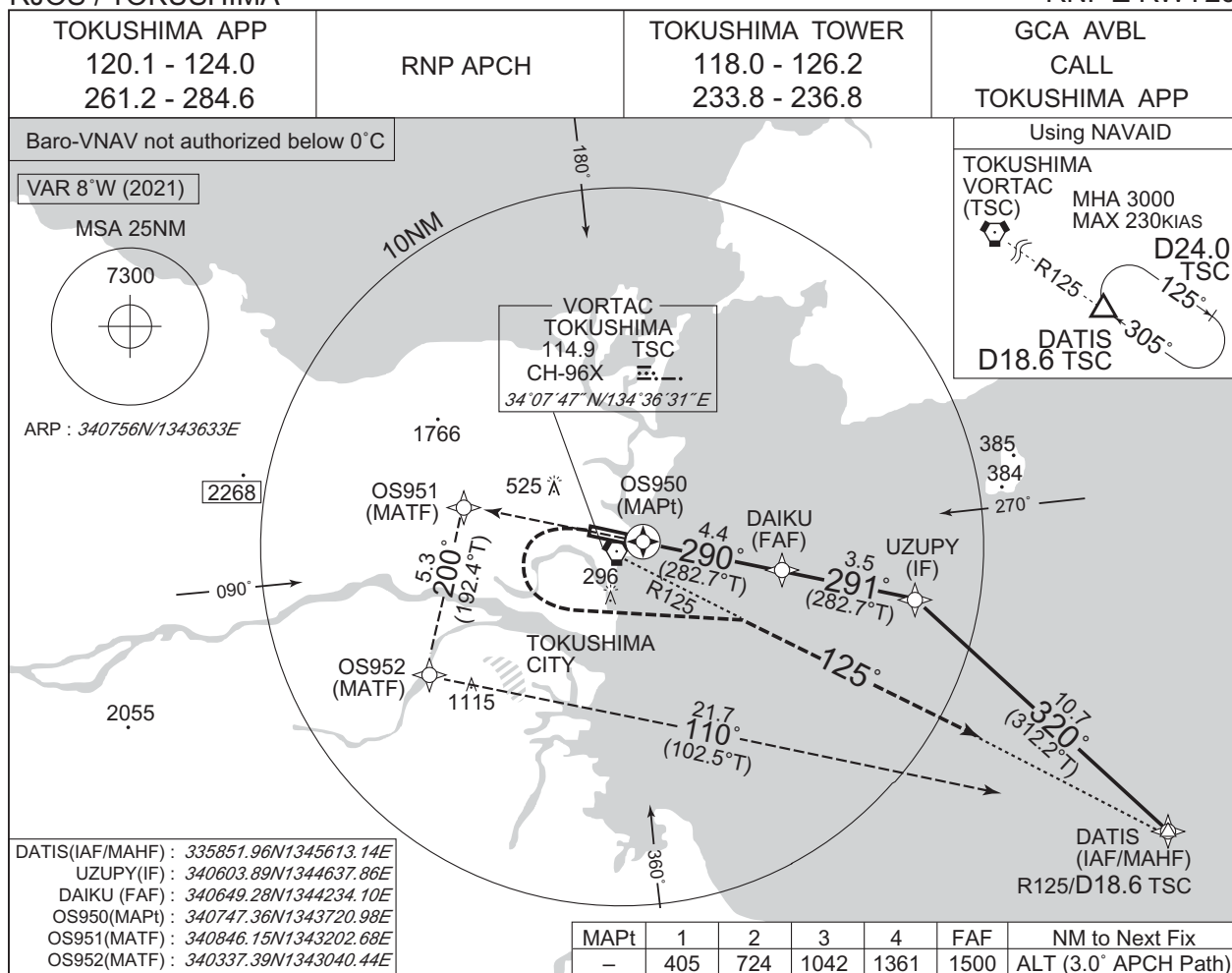
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
KULUL	340954.74N / 1342131.22E	OSRF1	340544.73N / 1342549.48E
DOCHU	340716.80N / 1342200.89E	OSRF2	340610.26N / 1343254.26E
OS152	340517.99N / 1342223.19E		
OS153	340438.24N / 1342902.35E		
FUDOU	340615.76N / 1342950.98E		
OS154	340705.08N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

CHANGE : PROC renamed.

INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA

RNP Z RWY29

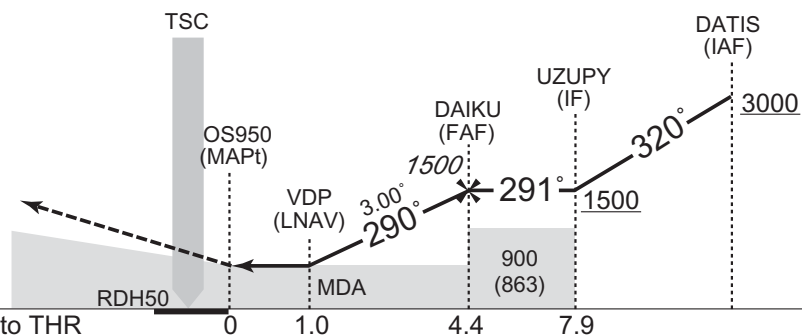


MISSED APPROACH

Climb to 3000FT direct to OS951,
to OS952, to DATIS and hold.
Contact TOKUSHIMA APP.

(For using VORTAC)

Climb on HDG290° to 800FT,
turn left climb to 3000FT via TSC
R125 to DATIS and hold.
Contact TOKUSHIMA APP.



Missed APCH climb gradient MNM 5.0%

MINIMA		THR elev. 37		AD elev. 37		
CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	380 (343)	1500	380 (343)	1500	580 (543)	1600
B		1800		1800	600 (563)	2400
C						
D						

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

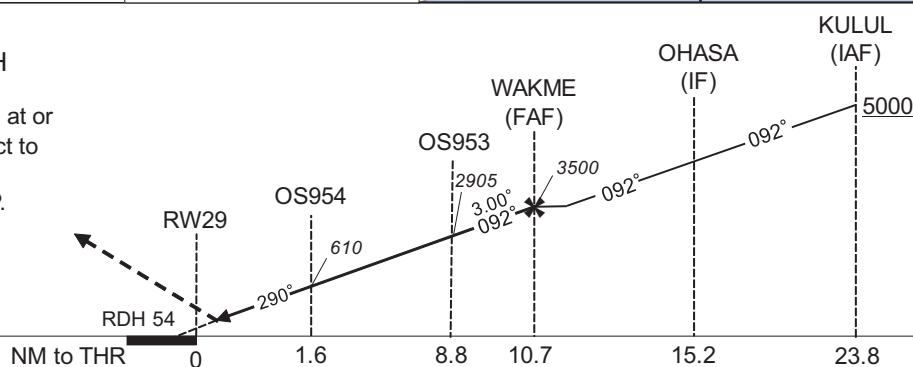
CHANGE:PROC renamed. Requirement for RNP.

R JOS / TOKUSHIMA

RNP Y RWY29(AR)



From RW29 on track 290°, at or above 500FT turn left, direct to DATIS and hold at 3000FT.
Contact TOKUSHIMA APP.



Missed APCH climb gradient MNM 5.0%

MINIMA		THR elev. 37		AD elev. 37	
CAT	RNP 0.27		RNP 0.30		
	DA(H)	RVR/CMV	DA(H)	RVR/CMV	
A	-	-	-	-	
B					
C	337(300)	1800	364(327)	1800	
D		2000		2000	

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

Authorization Required

INSTRUMENT APPROACH CHART

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	-	-	-7.8	-	-	+5000	-	-	-
002	TF	OHASA	-	092 (083.7)	-7.8	8.6	-	-	-	-	1.0
003	TF	WAKME	-	092 (083.8)	-7.8	4.5	-	3500	-	-	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	-	-	-7.8	7.2	R	610	-	-3.00	0.27 0.30
006	TF	RW29	Y	290 (282.6)	-7.8	1.6	-	91	-	-3.00/54	0.27 0.30
007	FA	-	-	290 (282.6)	-7.8	-	-	+500	-	-	1.0
008	DF	DATIS	-	-	-7.8	-	L	3000	-	-	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		

CHANGE : PROC renamed.

RJOS / TOKUSHIMA

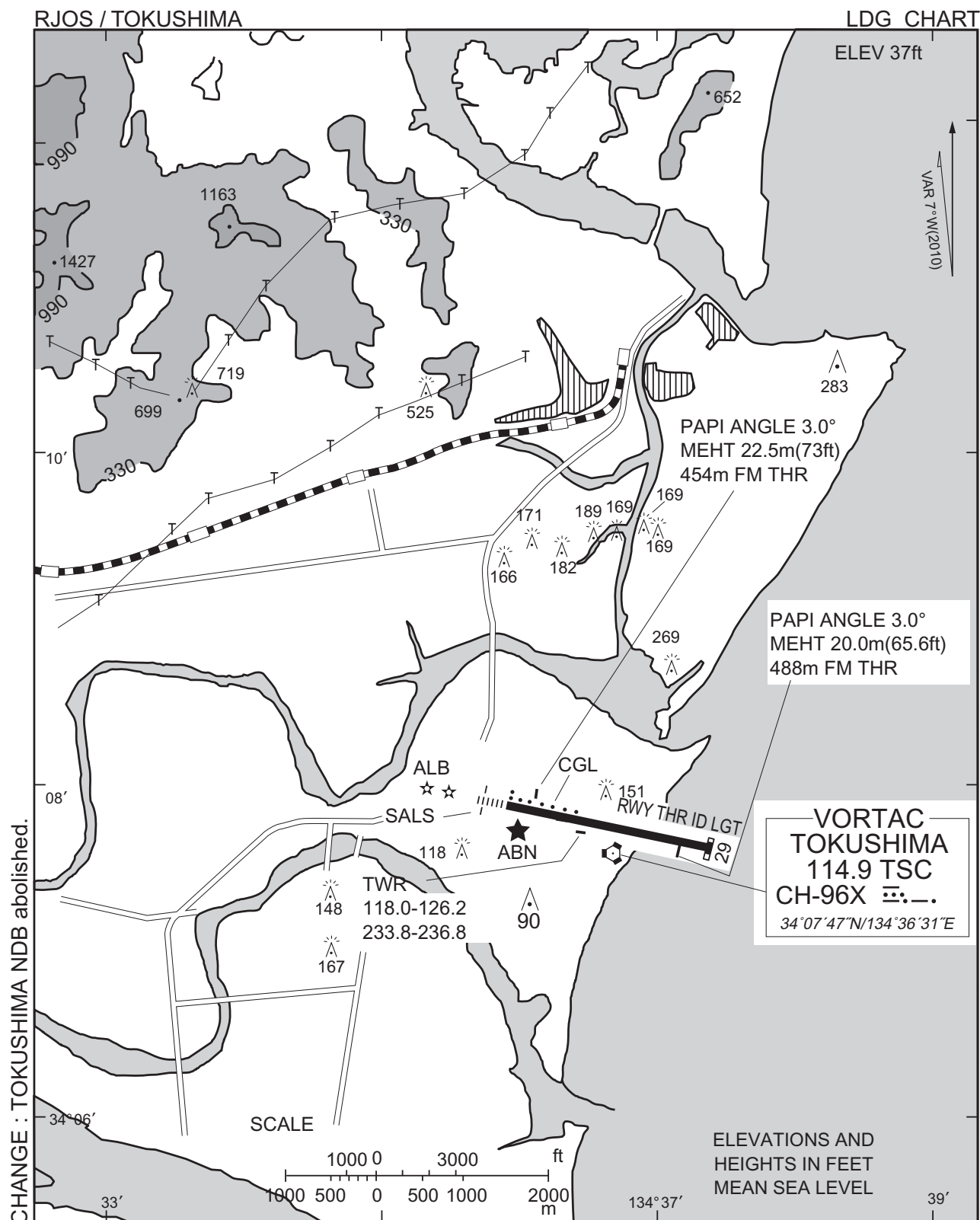
Visual REP



※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).

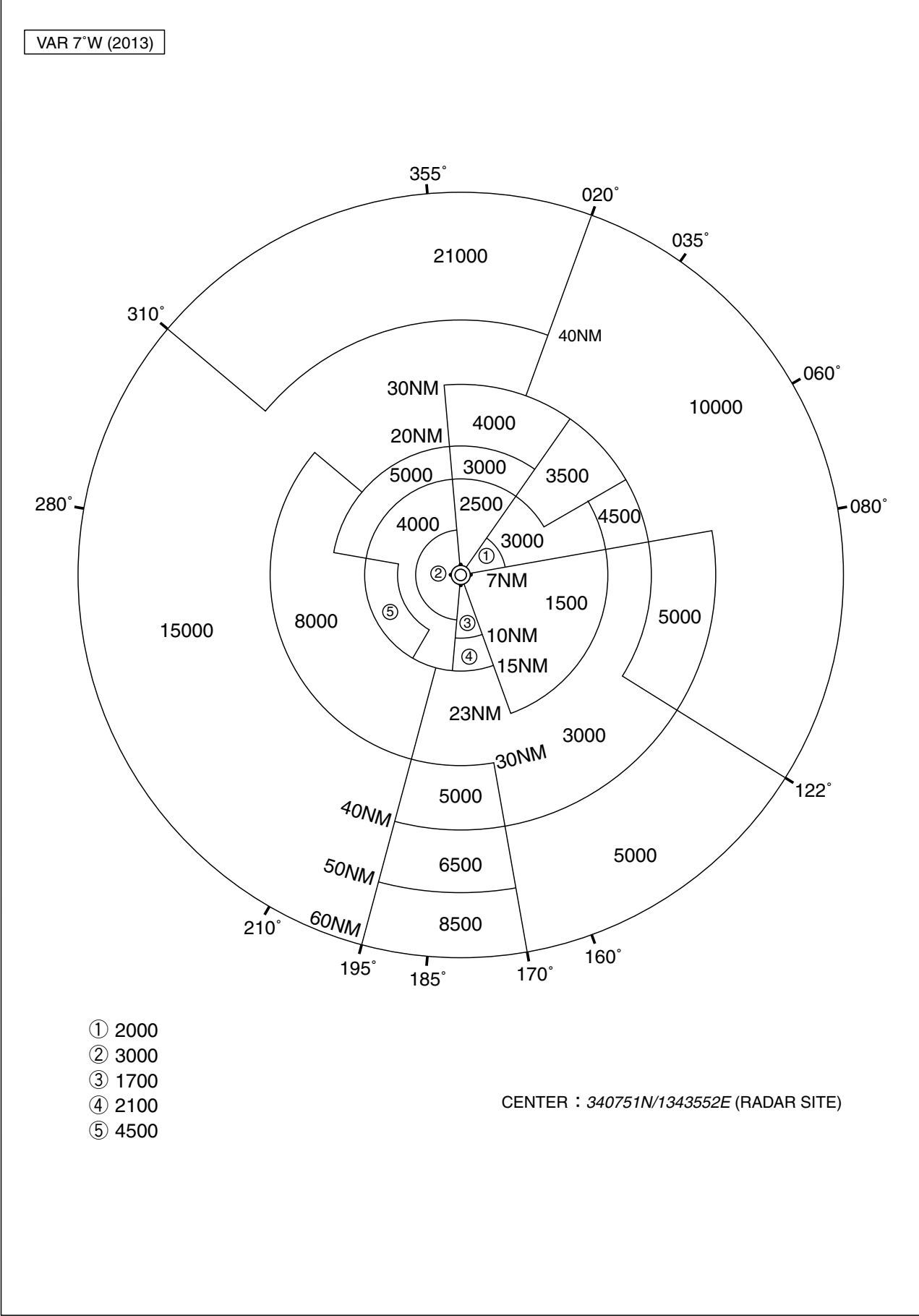
CHANGE : Map updated. BRG/DIST from ARP.

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
沼島 Nushima	079°T / 11.1NM	灯台 Lighthouse
吉野イニシャル Yoshino Initial	248°T / 4.5NM	鉄道橋中央 The center of iron bridge
吉野リバー Yoshino River	188°T / 3.3NM	吉野川河口 River mouth



RJOS / TOKUSHIMA

Minimum Vectoring Altitude CHART



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