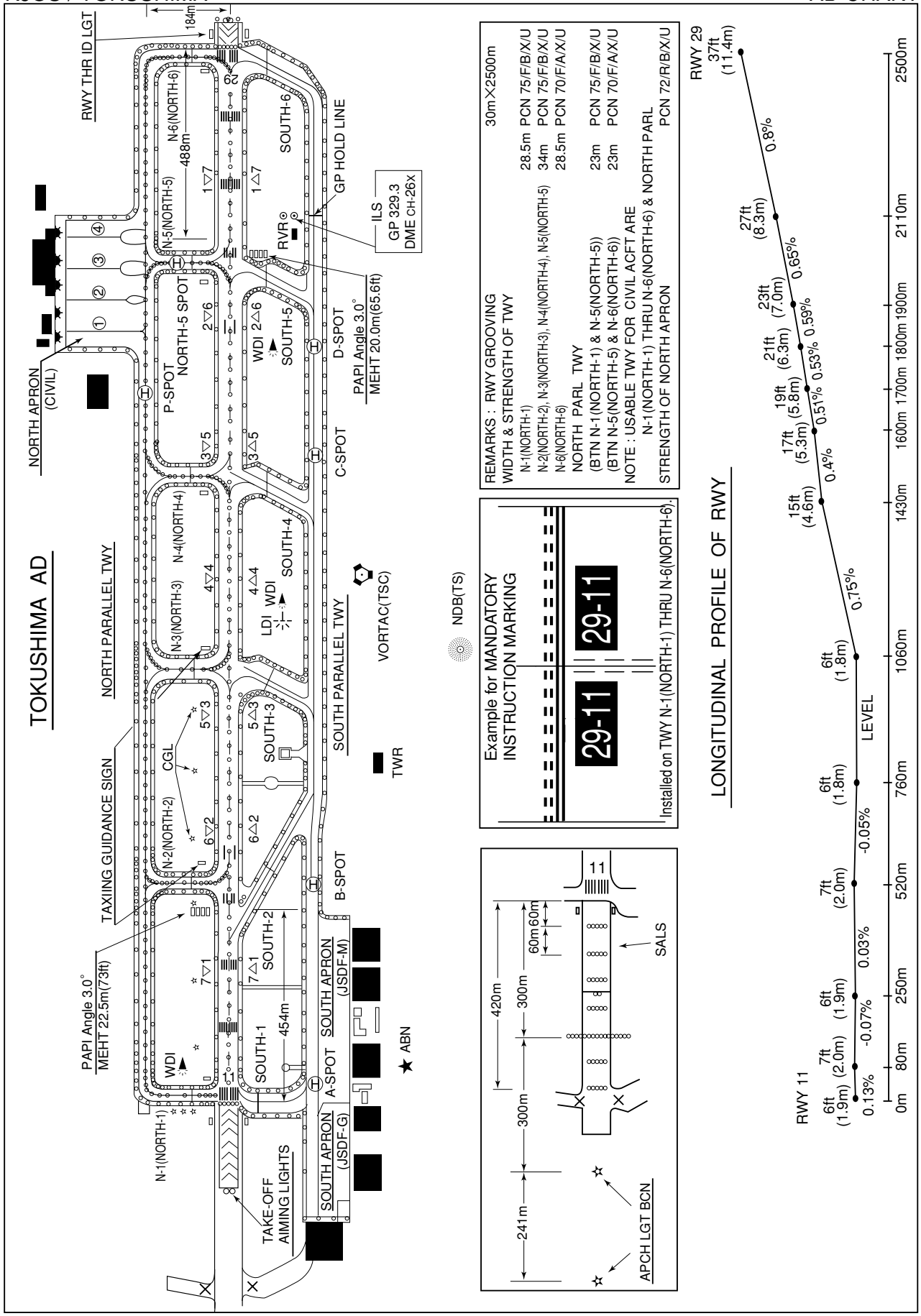
RJOS / TOKUSHIMA AD CHART

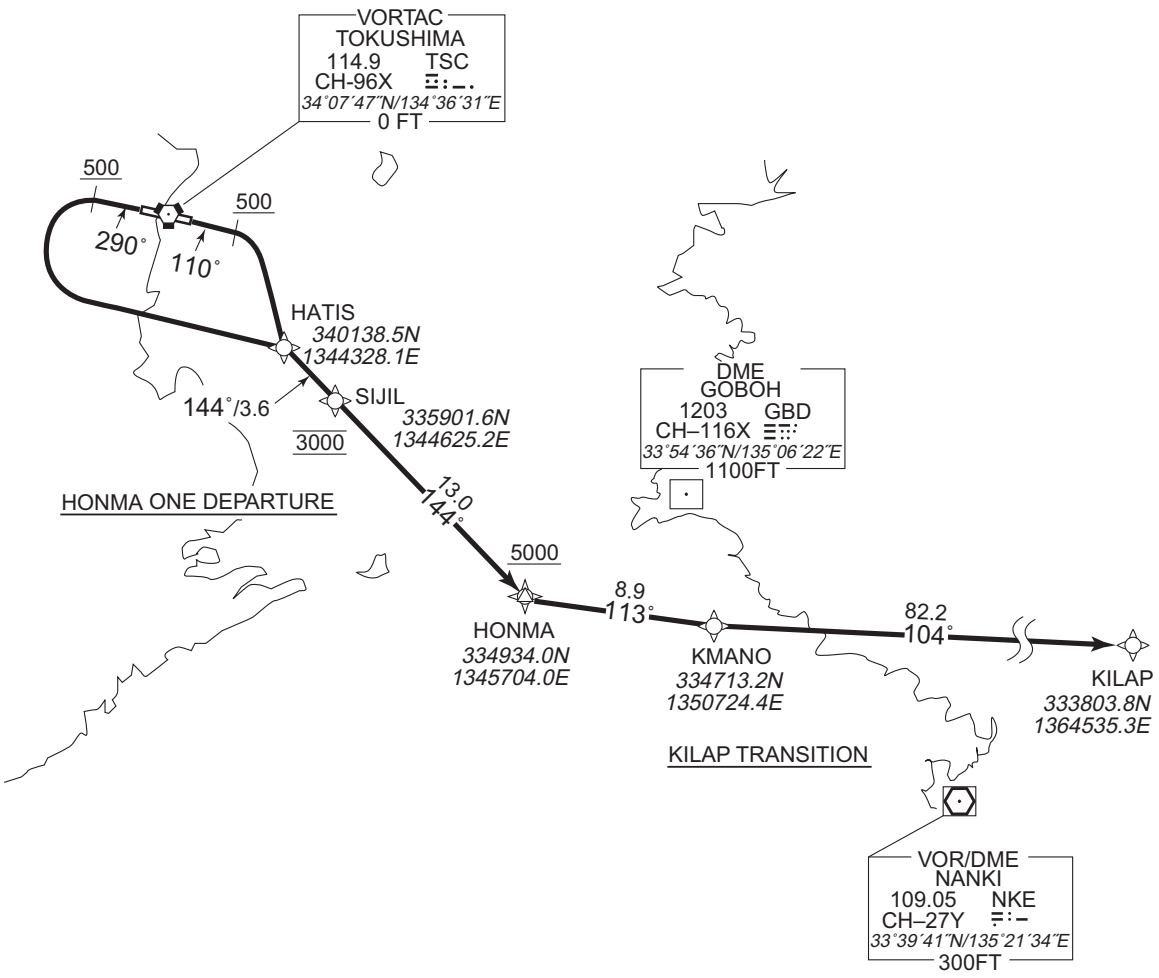


STANDARD DEPARTURE CHART-INSTRUMENT

RJOS / TOKUSHIMA — RNAV SID and TRANSITION

HONMA ONE DEPARTURE / KILAP TRANSITION		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 rolling. 2) RADAR service required.	Critical DME	RWY29 AJD : 3.0NM to HATIS – HATIS KILAP TRANSITION AJD : 4.0NM to KMANO – KMANO
	DME GAP	–
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 8˚W (2018)



HONMA ONE DEPARTURE

RWY11 : Climb on HDG110˚ at or above 500FT, turn right direct to HATIS, to SIJIL at 3000FT, to HONMA at or above 5000FT.

RWY29 : Climb on HDG290˚ 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 FM end of RWY29.

KILAP TRANSITION

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

CHANGE : New PROC (KILAP TRANSITION), Abolition PROC (MEIWA TRANSITION), VAR

STANDARD DEPARTURE CHART-INSTRUMENT

RJOS / TOKUSHIMA RNAV SID and TRANSITION

CHANGE : New PROC (KILAP TRANSITION), Abolition PROC (MEIWA TRANSITION), VAR

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

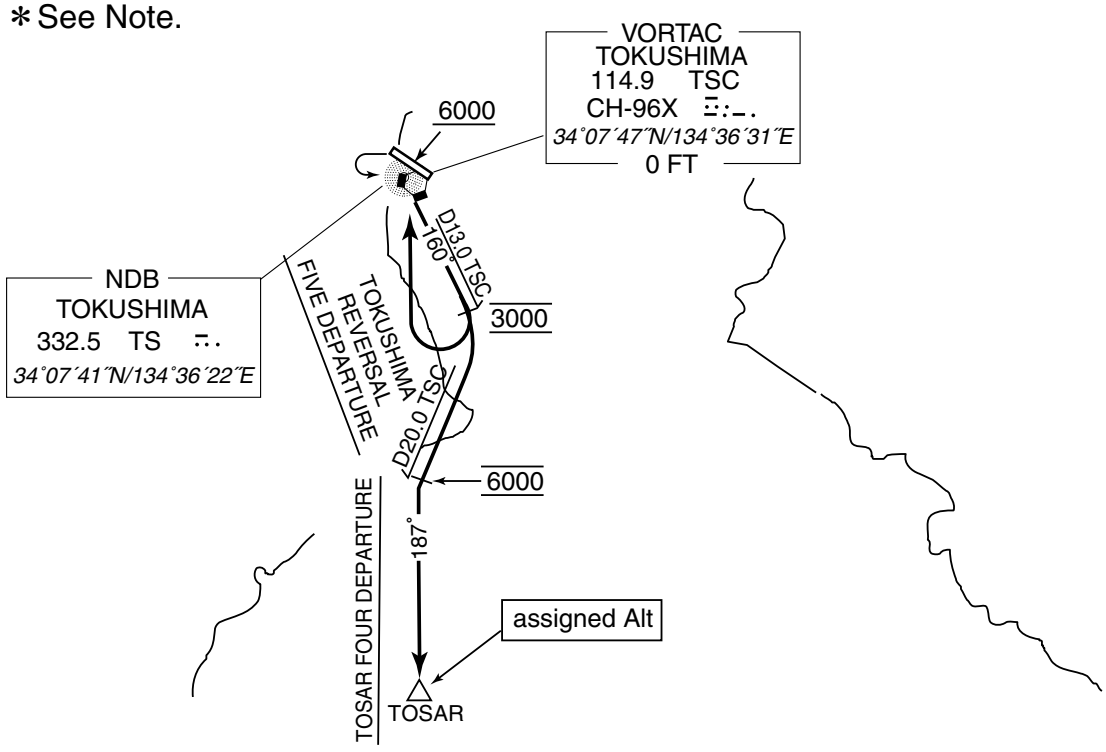
RJOS / TOKUSHIMA SID

TOSAR FOUR DEPARTURE

RWY 29 : Turn left within 3NM....
RWY 11 : Turn right....
....climb via TSC R160 (160˚ from TS NDB) to TSC 13.0DME (13NM of TS NDB), turn right to intercept and proceed via TSC R187 (187˚ from TS NDB) to TOSAR.
Cross TSC 13.0DME (13NM of TS NDB) at 3000FT, cross TSC 20.0DME (20NM of TS NDB) at 6000FT, cross TOSAR at assigned altitude.
＊See Note.

TOKUSHIMA REVERSAL FIVE DEPARTURE

RWY 29 : Turn left within 3NM....
RWY 11 : Turn right....
.... climb via TSC R160 (160˚ from TS NDB) to TSC 13.0DME (13NM of TS NDB), then turn right proceed to TSC VORTAC (TS NDB).
Cross TSC 13.0DME (13NM of TS NDB) at 3000FT,
cross TSC VORTAC (TS NDB) at or above 6000FT.
＊See Note.



STANDARD DEPARTURE CHART-INSTRUMENT

RJOS / TOKUSHIMA SID

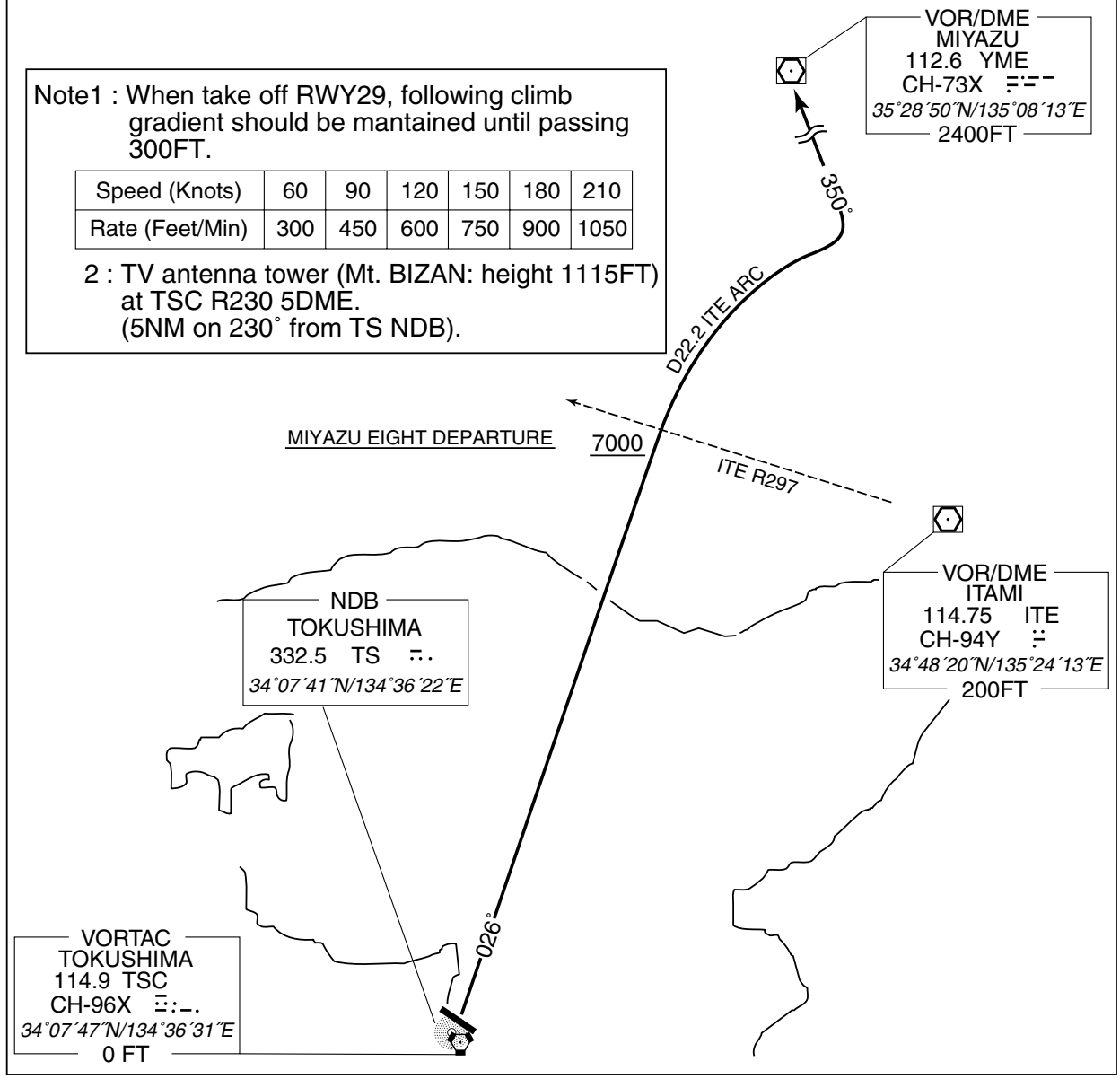
MIYAZU EIGHT DEPARTURE

RWY 29 : Turn left within 3NM....
RWY 11 : Turn right....
....cross TS NDB at or above 1000FT, climb via 026˚ from TS NDB until intercepting ITE R297, climb via ITE 22.2DME clockwise ARC to intercept and proceed via YME R170 to YME VOR/DME.
Cross ITE R297 at or above 7000FT.
＊See Note.

Note1 : When take off RWY29, following climb gradient should be mantained 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.
(5NM on 230˚ from TS NDB).



STANDARD DEPARTURE CHART -INSTRUMENT

RJOS / TOKUSHIMA ➡ SID and TRANSITION

MISAKI ONE DEPARTURE

RWY29 : Turn left within 3NM,...

RWY11 : Turn right,...

...climb via TSC R143 (143˚ from TS NDB) to HONMA.

Cross TSC 12.0DME (12NM of TS NDB) at 3000FT, cross HONMA at or above 8000FT.

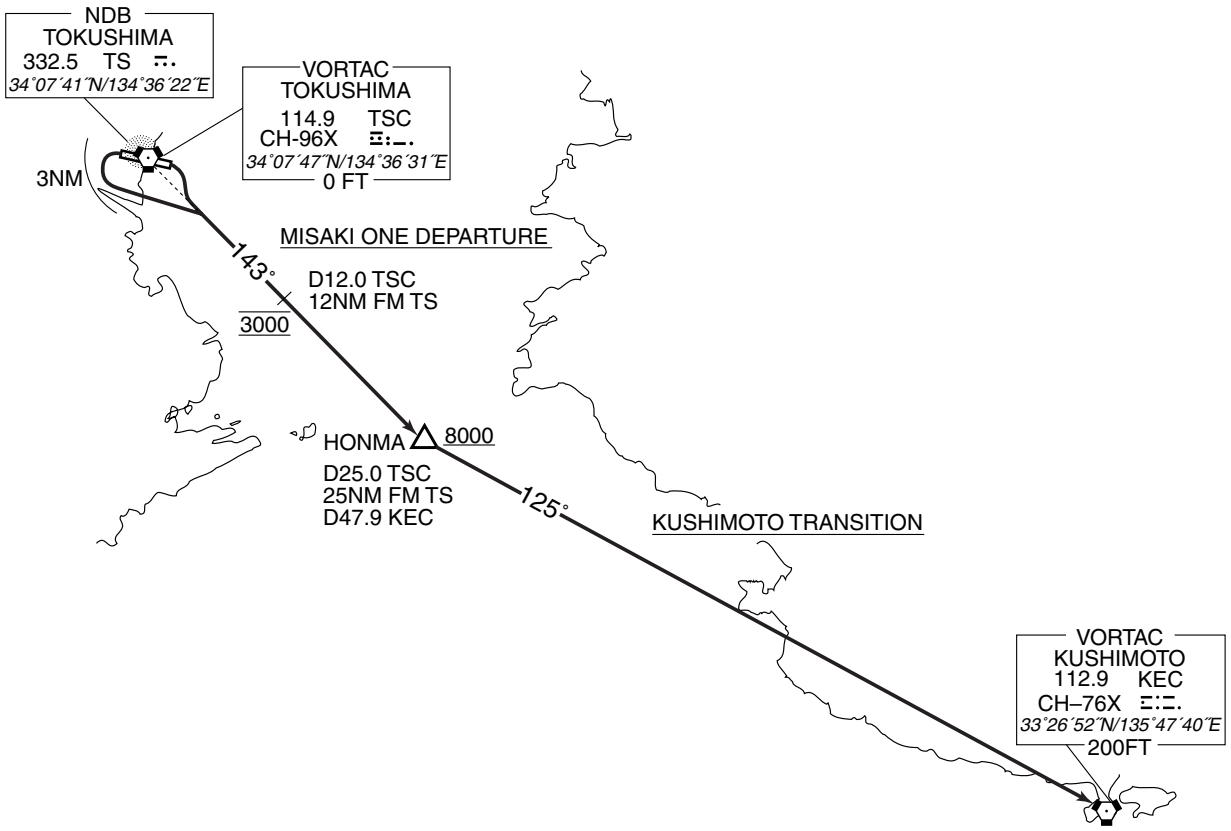
Note1 : When take off RWY29, following climb gradient should be maintained until passing 300FT

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

Note2 : TV antenna tower (Mt. BIZAN : height 1115FT) at TSC R230 5DME. (5NM on 230˚ from TS NDB).

KUSHIMOTO TRANSITION

From over HONMA, via KEC R305 to KEC VORTAC.



STANDARD ARRIVAL CHART-INSTRUMENT

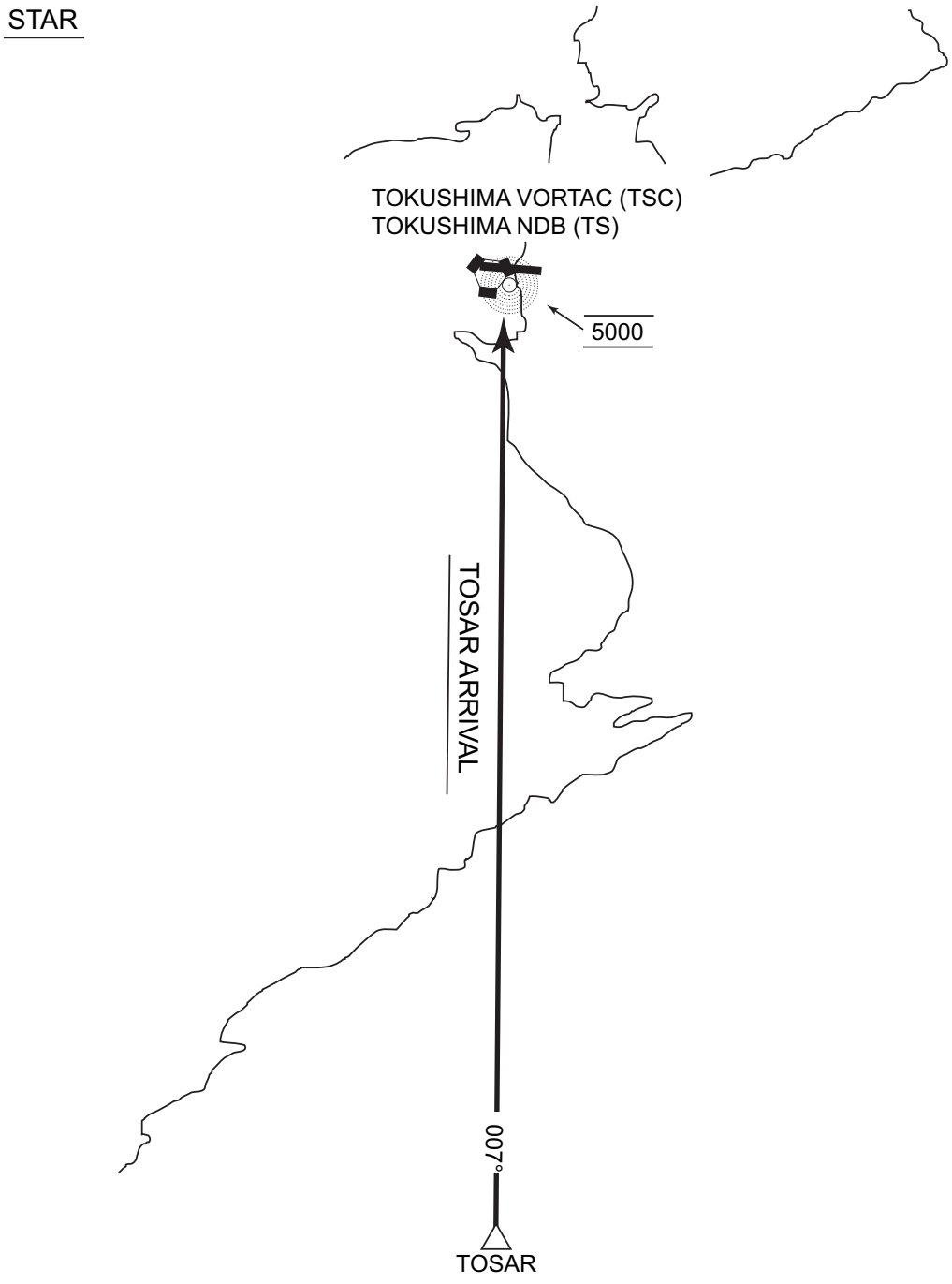
RJOS / TOKUSHIMA STAR

STAR

TOSAR ARRIVAL

From over TOSAR, proceed via TSC R-187 to TSC VORTAC (007DEG to TS NDB).

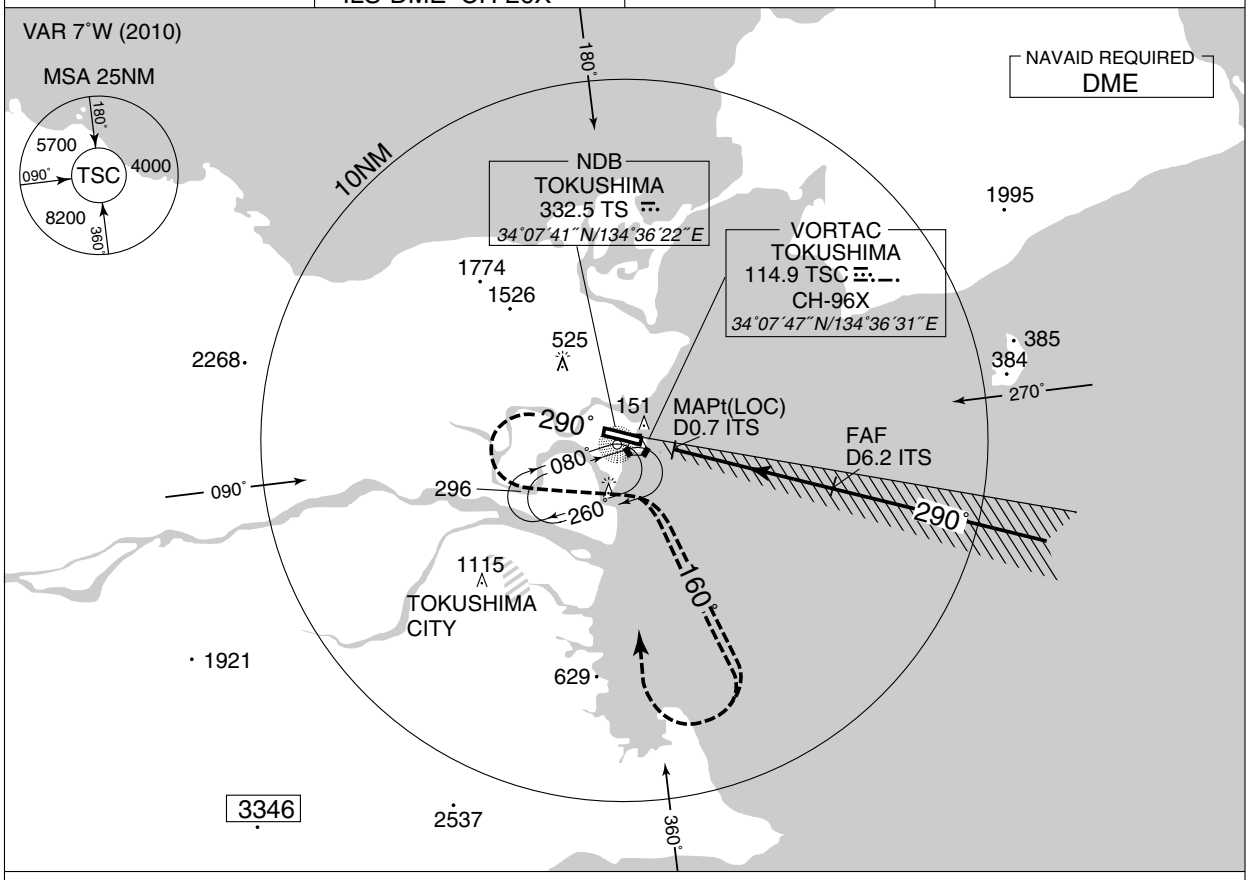
Cross TSC VORTAC (TS NDB) at 5,000 feet.



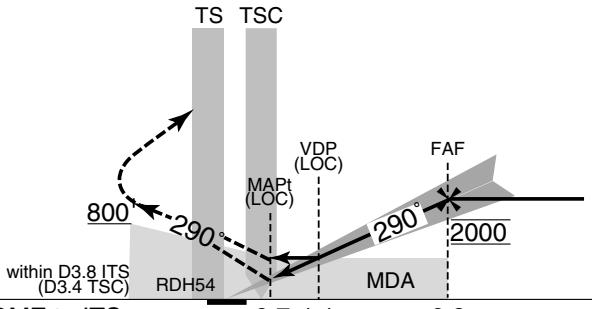
INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA — ILS Z or LOC Z RWY 29

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



MISSED APPROACH
Climb on 290˚ to 800FT or above within ITS 3.8DME(TSC3.4DME), turn left and climb via TSC R160(on160˚ from TS NDB) to 3000FT, then turn right within TSC 10DME(10nm of TS NDB), proceed to TSC VORTAC(TS NDB) and hold.
Contact TOKUSHIMA APP.



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

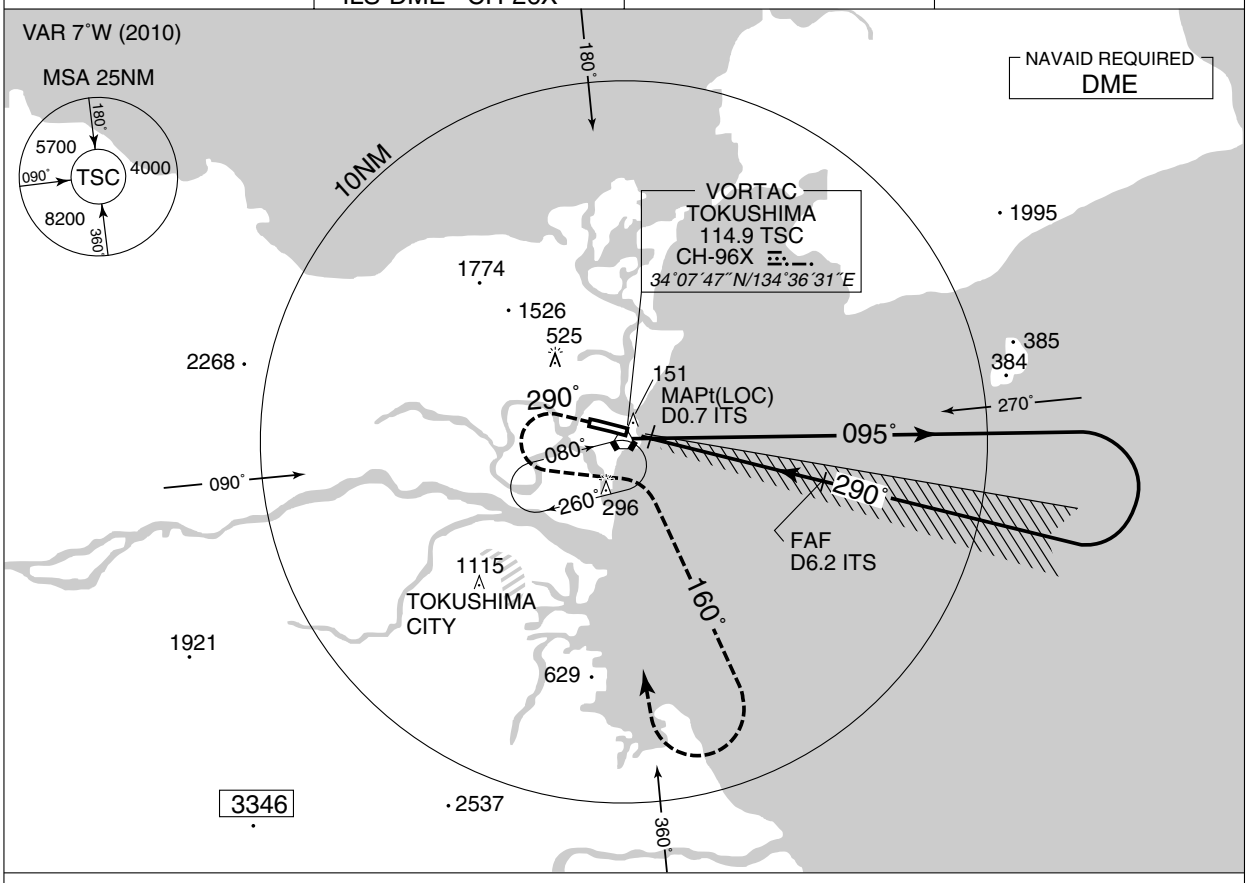
MINIMA THR elev. 37 AD elev. 37

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						
C				1800	600 (563)	2400
D				2000	840 (803)	3200

INSTRUMENT APPROACH CAHRT

RJOS / TOKUSHIMA — ILS Y or LOC Y RWY 29

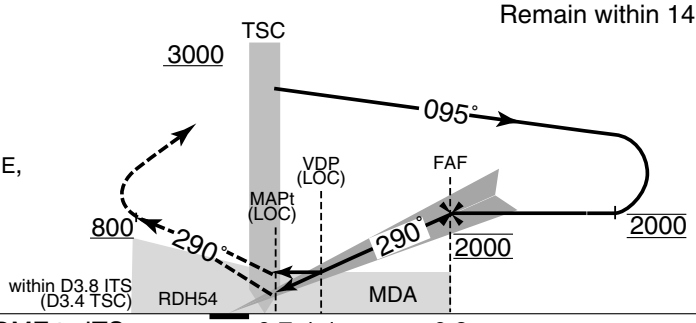
TOKUSHIMA APP	ILS-LOC	TOKUSHIMA TOWER	GCA AVBL
120.1 - 124.0	108.9 ITS	118.0 - 126.2	CALL
261.2 - 284.6	ILS-GP 329.3	233.8 - 236.8	TOKUSHIMA APP
	ILS-DME CH-26X		



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

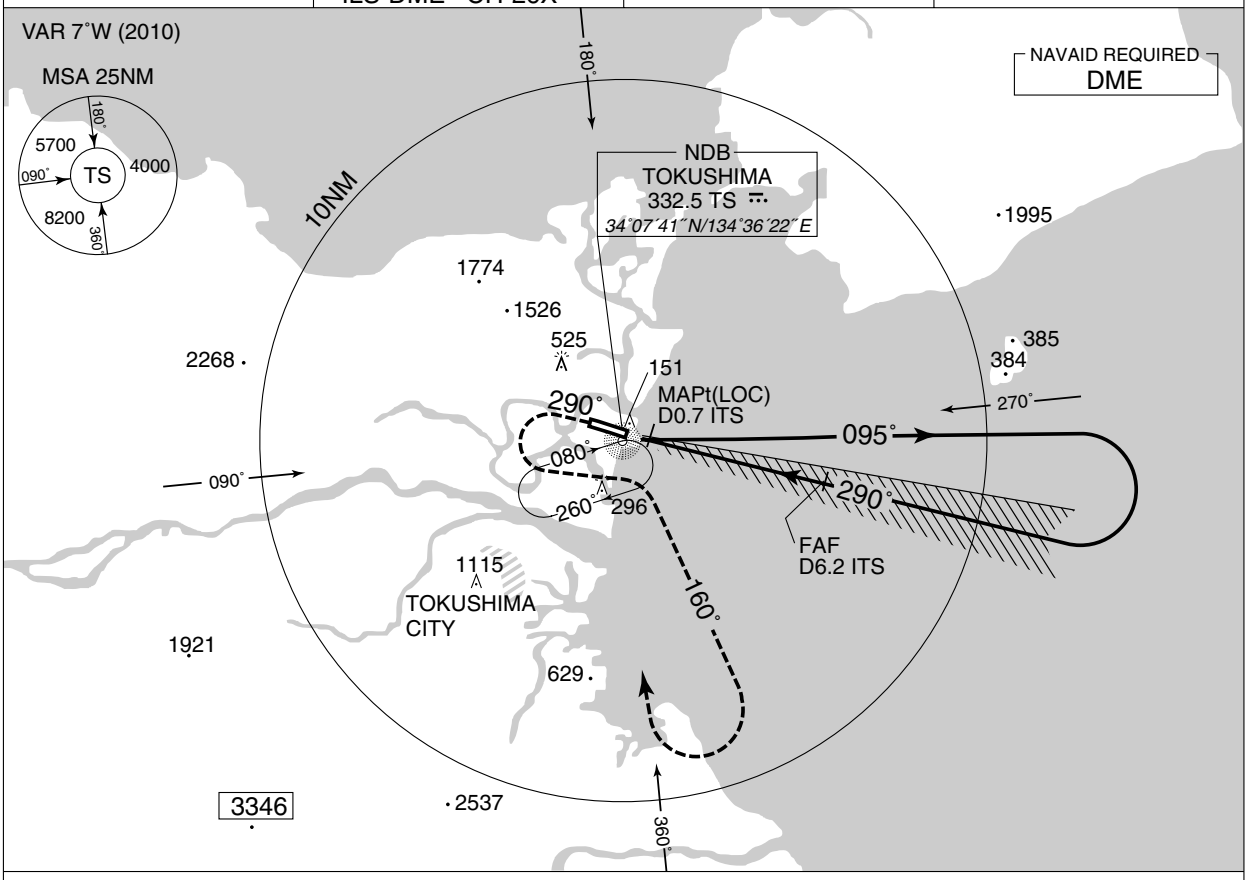
MINIMA THR elev. 37 AD elev. 37

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						
C				1800	600 (563)	2400
D				2000	840 (803)	3200

INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA — ILS X or LOC X RWY 29

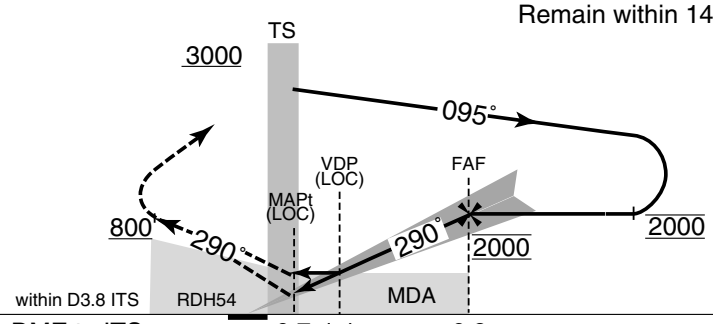
TOKUSHIMA APP	ILS-LOC	TOKUSHIMA TOWER	GCA AVBL
120.1 - 124.0 261.2 - 284.6	108.9 ITS ⠶ ILS-GP 329.3 ILS-DME CH-26X	118.0 - 126.2 233.8 - 236.8	CALL TOKUSHIMA APP



MISSED APPROACH

Climb on 290˚ to 800FT or above
within ITS 3.8DME, turn left and climb
via 160˚ from TS NDB
to 3000FT, then turn right within 10nm
of TS NDB, proceed to TS NDB
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

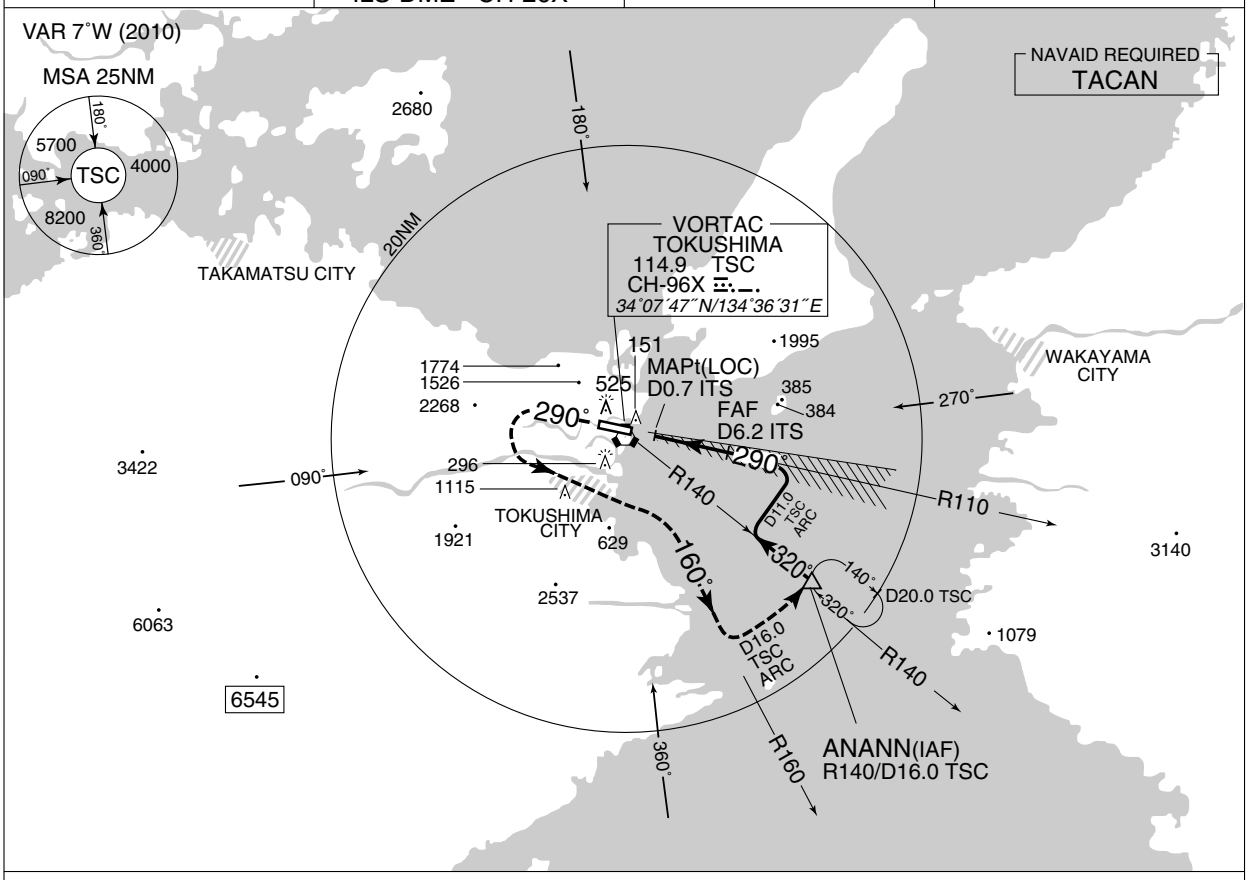
MINIMA THR elev. 37 AD elev. 37

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						
C				1800	600 (563)	2400
D				2000	840 (803)	3200

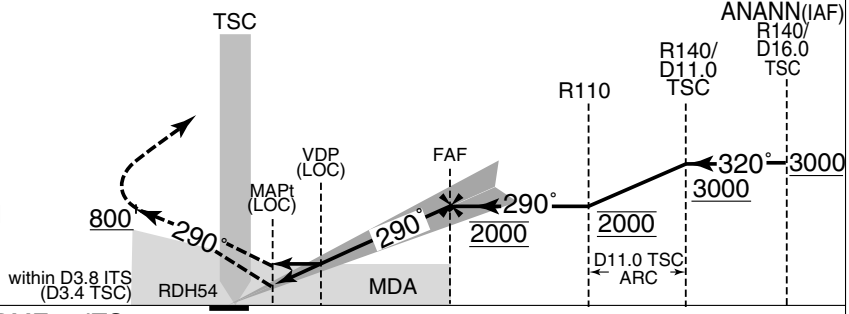
INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA — ILS W or LOC W RWY 29

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



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.



DME to ITS	0.7	1.1	6.2	11.0
NM to THR	0.5	0.9	6.0	10.8

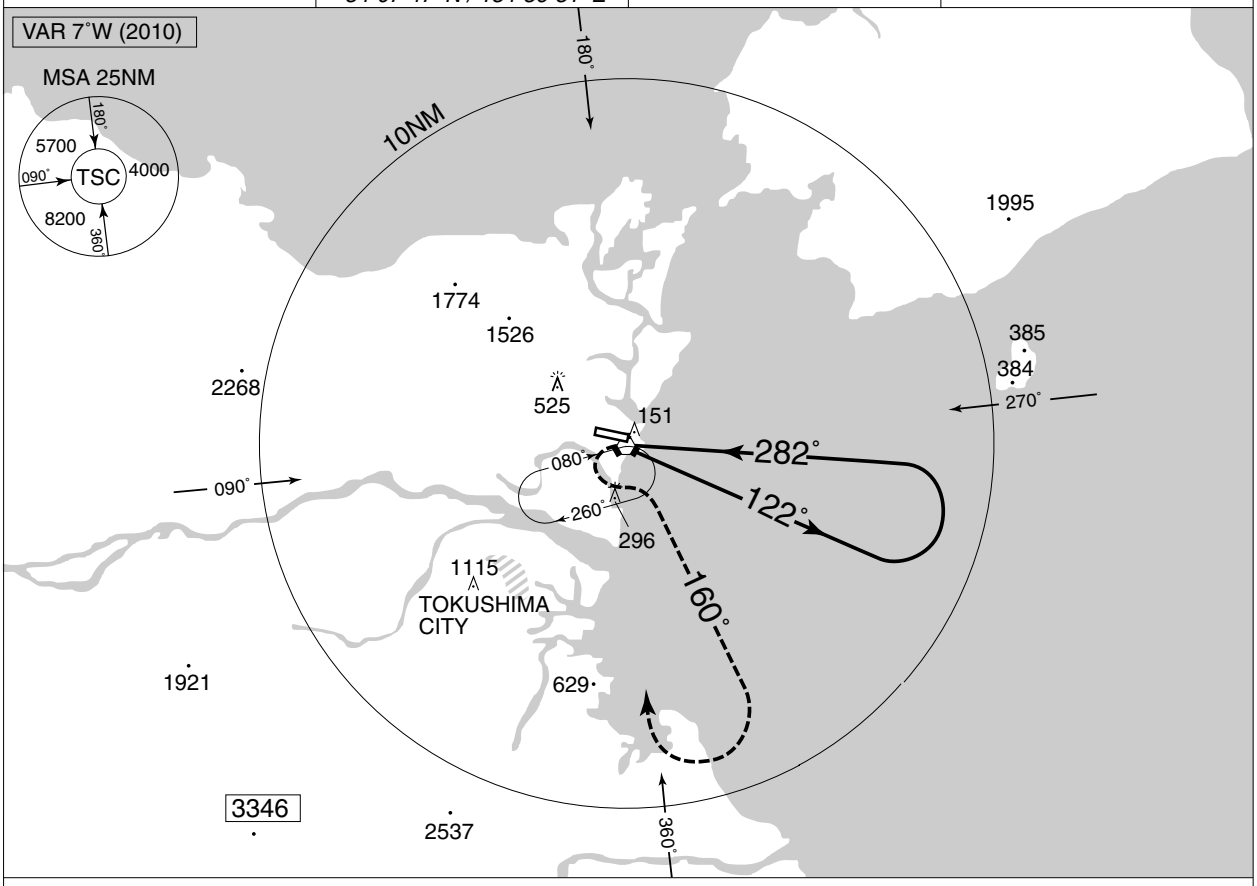
MINIMA THR elev. 37 AD elev. 37

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

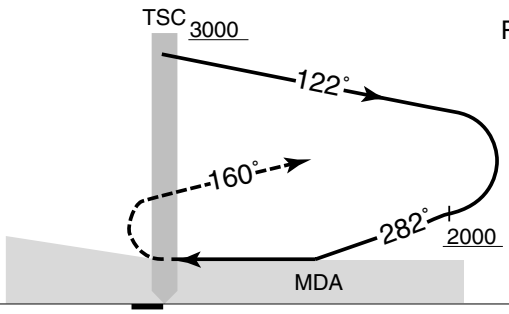
INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA VOR RWY 29

TOKUSHIMA APP	TOKUSHIMA VORTAC	TOKUSHIMA TOWER	GCA AVBL
120.1 - 124.0 261.2 - 284.6	114.9 TSC Ξ:_. CH-96X *34˚07´47˝N / 134˚36´31˝E*	118.0 - 126.2 233.8 - 236.8	CALL TOKUSHIMA APP



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.



Remain within 10NM

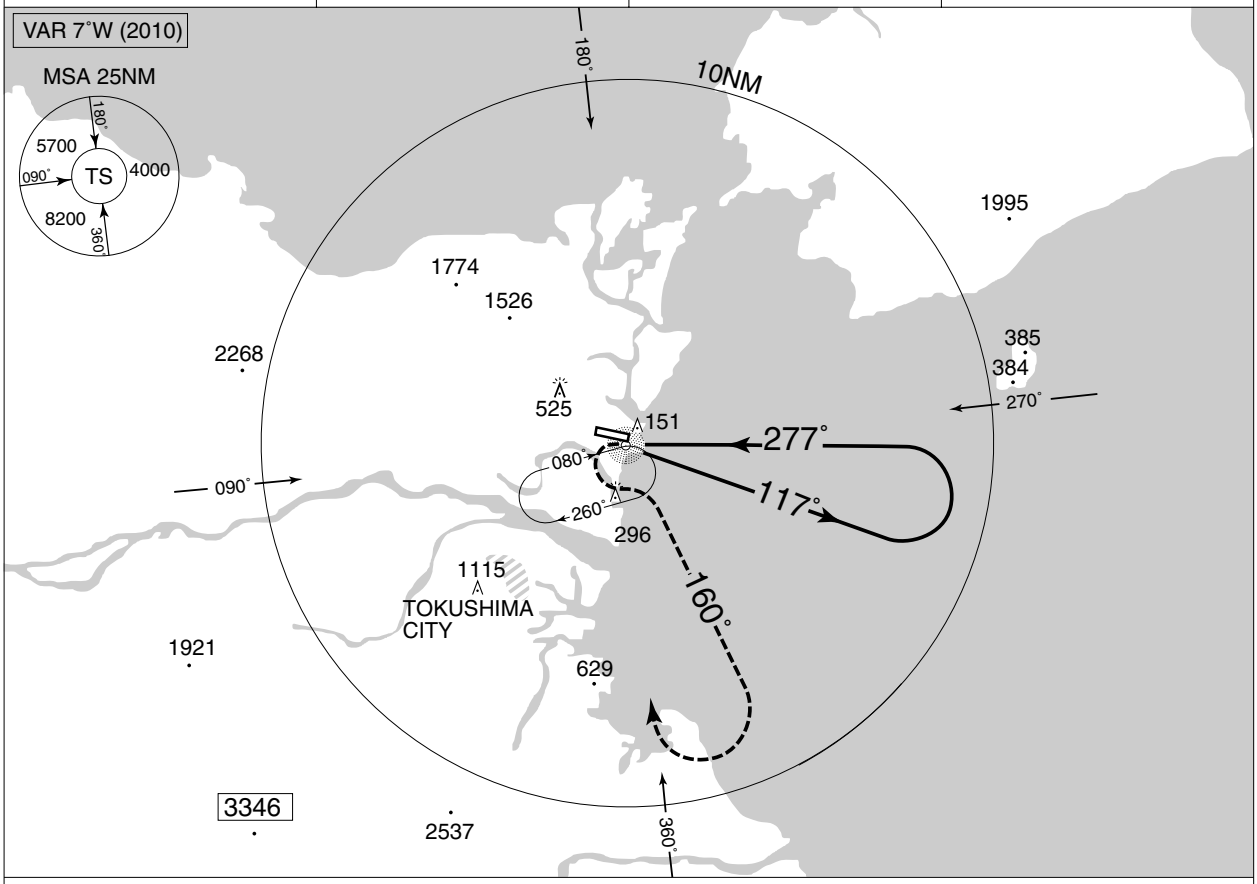
MINIMA THR elev. 37 AD elev. 37

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

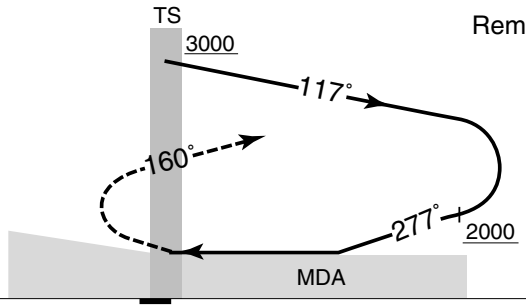
INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA NDB RWY 29

TOKUSHIMA APP	TOKUSHIMA NDB	TOKUSHIMA TOWER	GCA AVBL
120.1 - 124.0 261.2 - 284.6	332.5 TS *34°07′41″N / 134°36′22″E*	118.0 - 126.2 233.8 - 236.8	CALL TOKUSHIMA APP



MISSED APPROACH
At TS NDB, turn left and climb via 160° from TS NDB to 3000FT, then turn right within 10NM of TS NDB, proceed to TS NDB and hold.
Contact TOKUSHIMA APP.



Remain within 10NM

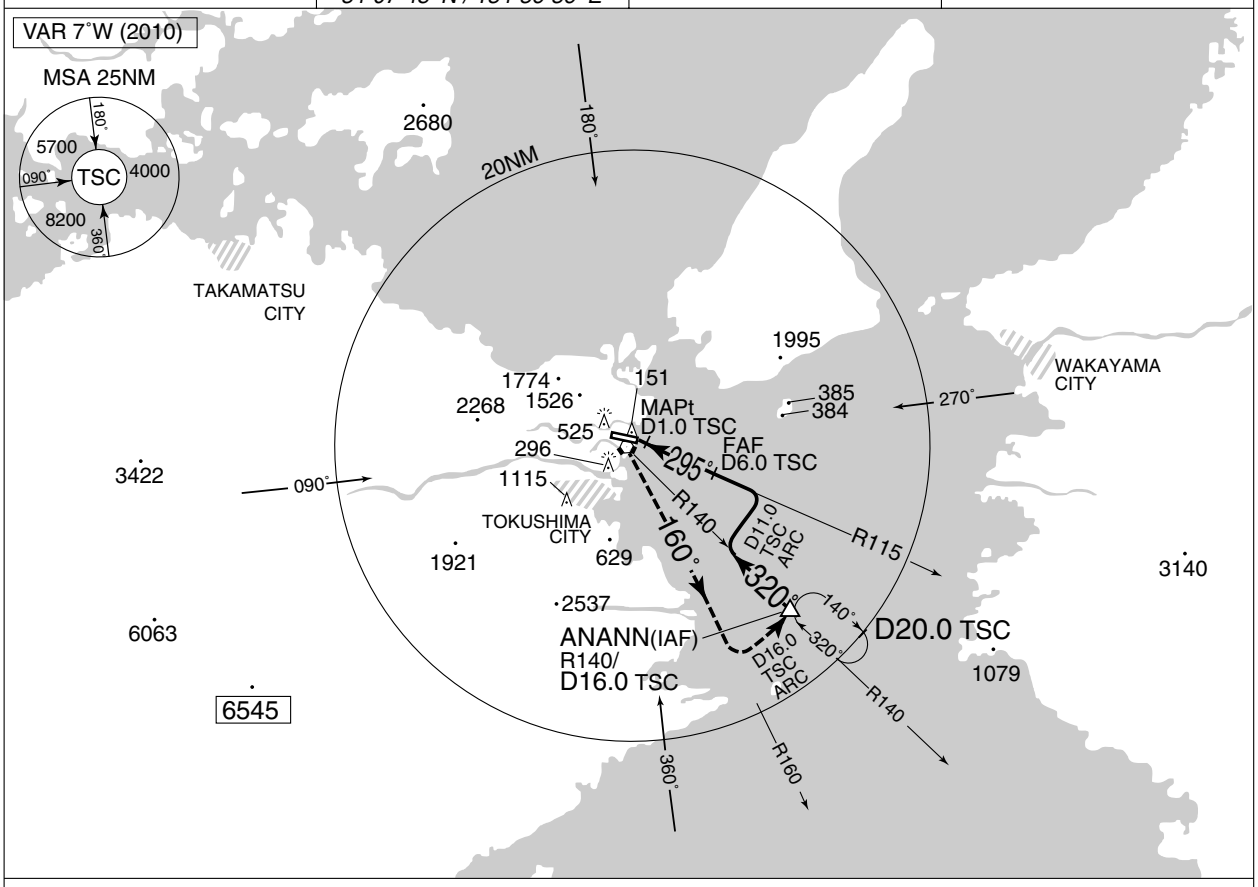
MINIMA THR elev. 37 AD elev. 37

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

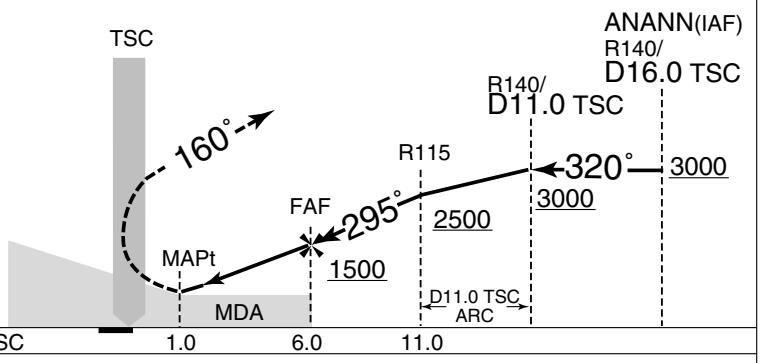
INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA TACAN A

TOKUSHIMA APP	TOKUSHIMA TACAN	TOKUSHIMA TOWER	GCA AVBL
120.1 - 124.0 261.2 - 284.6	CH-96X TSC Ξ:⚊. *34˚07´48˝N / 134˚36´36˝E*	118.0 - 126.2 233.8 - 236.8	CALL TOKUSHIMA APP



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.



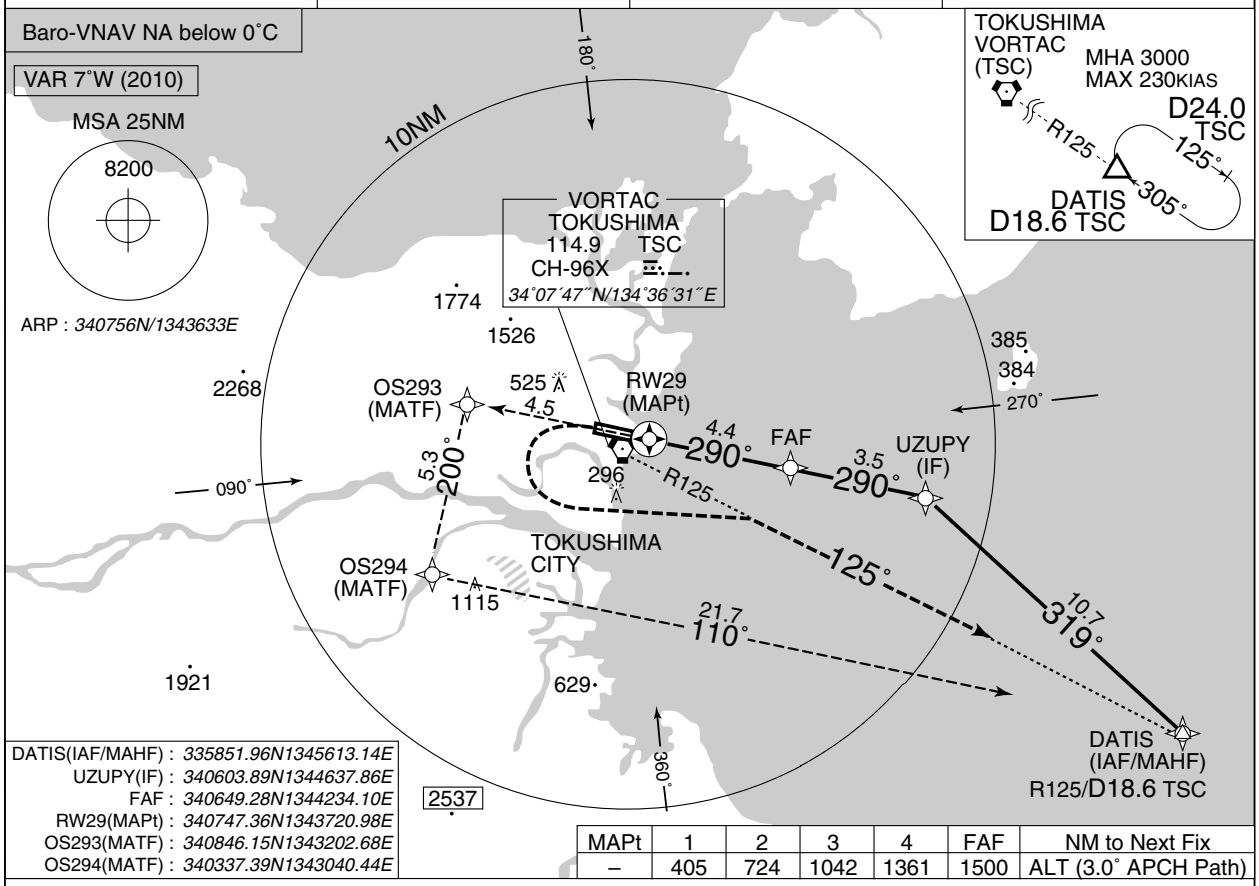
MINIMA THR elev. 37 AD elev. 37

CAT	CIRCLING	
	MDA(H)	VIS
A B	580 (543)	1600
C	600 (563)	2400
D	840 (803)	3200

INSTRUMENT APPROACH CHART

RJOS / TOKUSHIMA — RNAV(GNSS) RWY29

TOKUSHIMA APP	1. DME/DME not authorized	TOKUSHIMA TOWER	GCA AVBL
120.1 - 124.0	2. Radar servise required	118.0 - 126.2	CALL
261.2 - 284.6		233.8 - 236.8	TOKUSHIMA APP



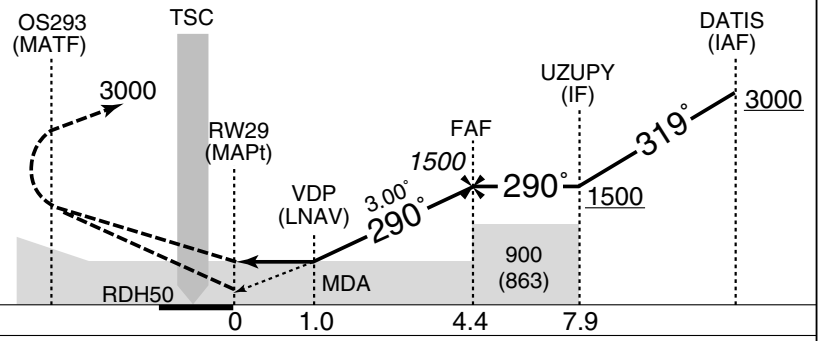
DATIS(IAF/MAHF) : 335851.96N1345613.14E
UZUPY(IF) : 340603.89N1344637.86E
FAF : 340649.28N1344234.10E
RW29(MAPt) : 340747.36N1343720.98E
OS293(MATF) : 340846.15N1343202.68E
OS294(MATF) : 340337.39N1343040.44E

MAPt	1	2	3	4	FAF	NM to Next Fix
–	405	724	1042	1361	1500	ALT (3.0˚ APCH Path)

MISSED APPROACH

Climb to 3000FT direct to OS293, to OS294, 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%

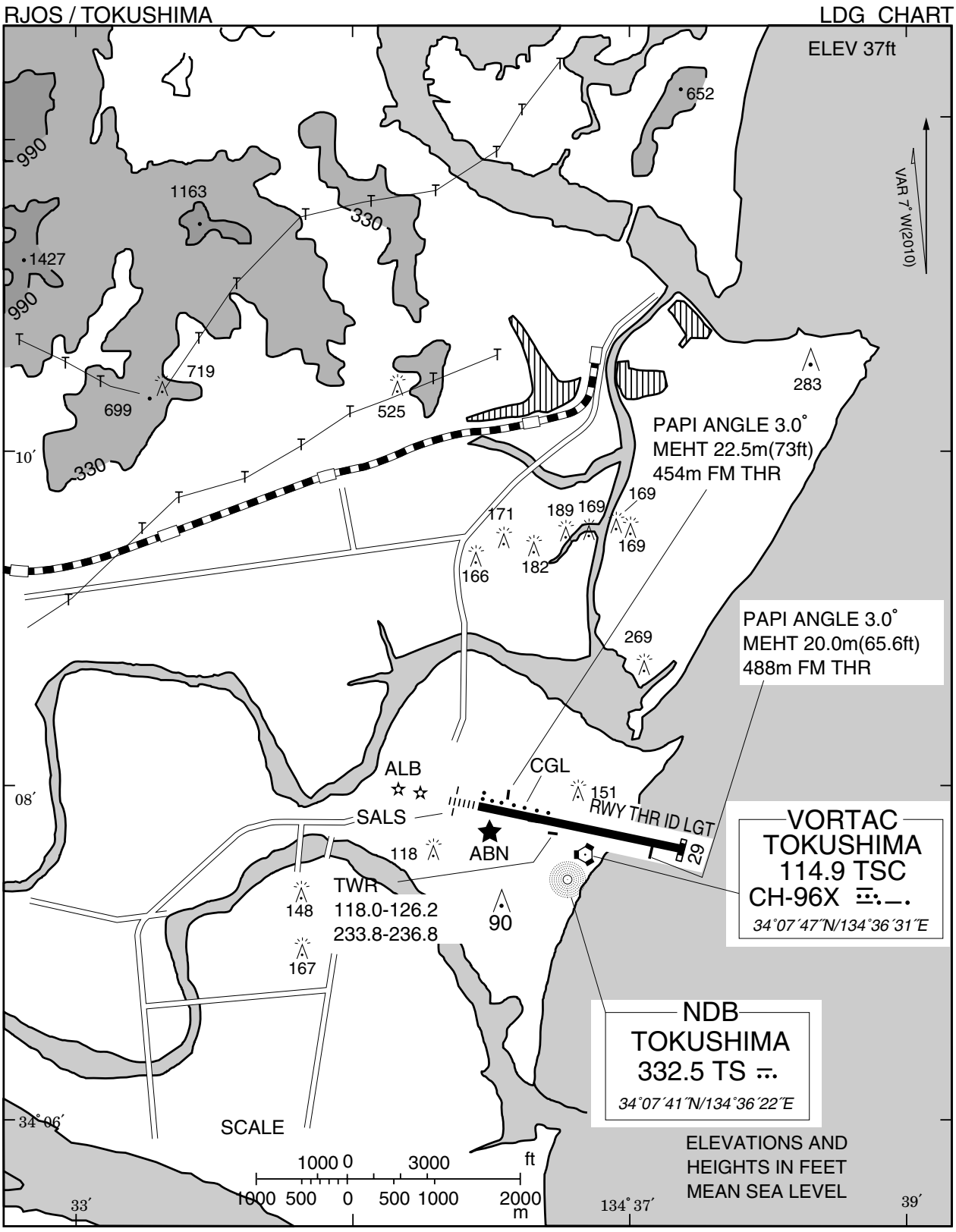
MINIMA THR elev. 37 AD elev. 37

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						
C		1800		1800	600 (563)	2400
D		2000		2000	840 (803)	3200

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

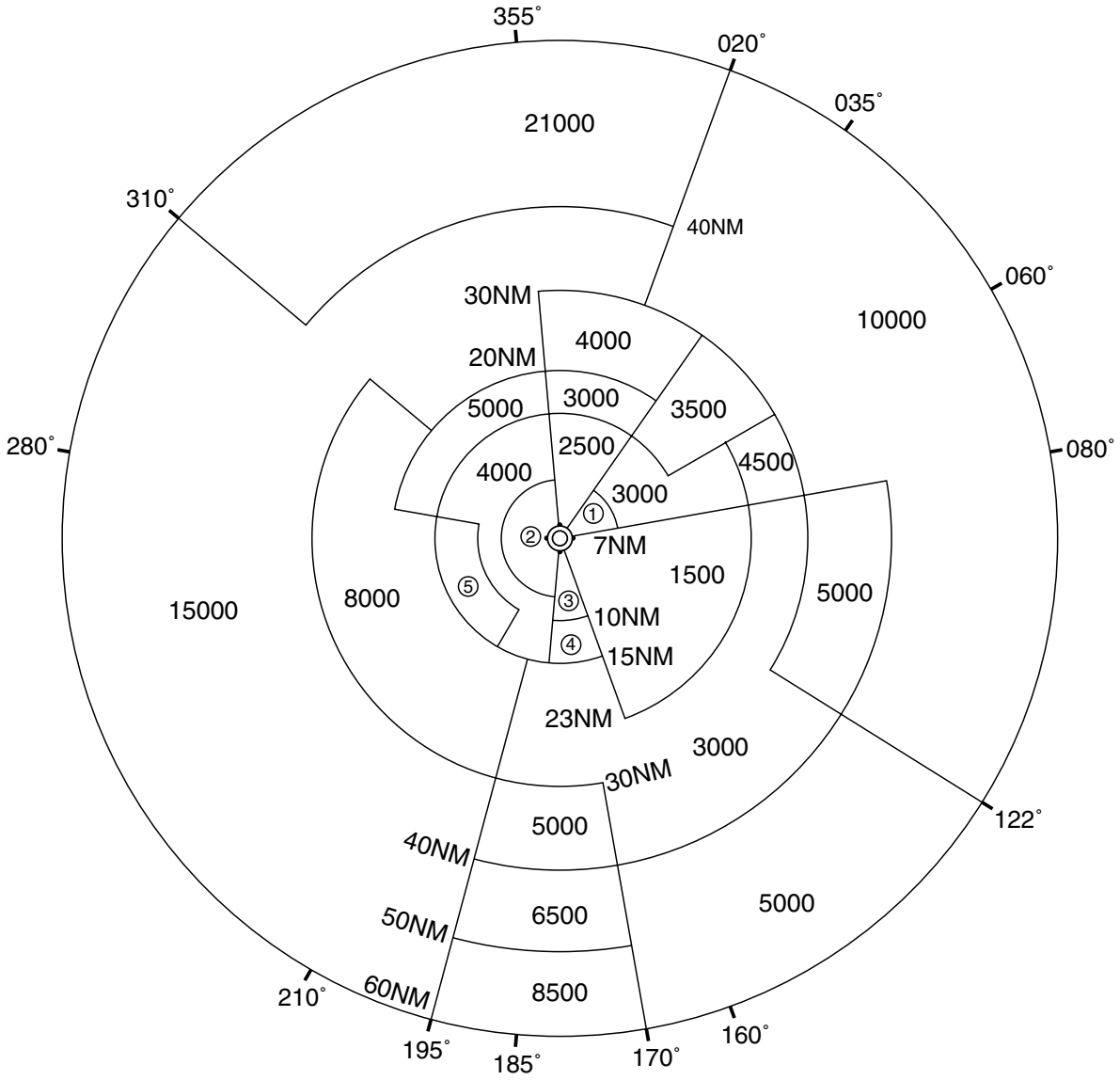
RJOS / TOKUSHIMA Visual REP

Call sign	BRG / DIST from ARP	Remarks
沼　島 Nushima	086˚/11.0NM	灯台 Lighthouse
福　良 Fukura	042˚/8.5NM	港 Harbor
吉野イニシャル Yoshino Initial	254˚/4.5NM	鉄道橋中央 the center of iron bridge
岡　崎 Okazaki	036˚/3.3NM	灯台 Lighthouse
吉野リバー Yoshino River	195˚/3.3NM	吉野川河口 River-mouth


RJOS / TOKUSHIMA
LDG CHART
ELEV 37ft
VAR 7°W(2010)
652
990
1163
330
1427
990
719
699
525
283
PAPI ANGLE 3.0°
MEHT 22.5m(73ft)
454m FM THR
10′
330
169
171
189
169
169
166
182
269
PAPI ANGLE 3.0°
MEHT 20.0m(65.6ft)
488m FM THR
ALB
CGL
151
08′
SALS
RWY THR ID LGT
29
118
ABN
VORTAC
TOKUSHIMA
114.9 TSC
CH-96X
34°07′47″N/134°36′31″E
TWR
118.0-126.2
233.8-236.8
148
90
167
NDB
TOKUSHIMA
332.5 TS
34°07′41″N/134°36′22″E
34°06′
SCALE
1000 0 3000 ft
1000 500 0 500 1000 2000 m
ELEVATIONS AND
HEIGHTS IN FEET
MEAN SEA LEVEL
33′
134°37′
39′

RJOS / TOKUSHIMA Minimum Vectoring Altitude CHART

VAR 7˚W (2013)



① 2000
② 3000
③ 1700
④ 2100
⑤ 4500

CENTER：*340751N/1343552E* (RADAR SITE)