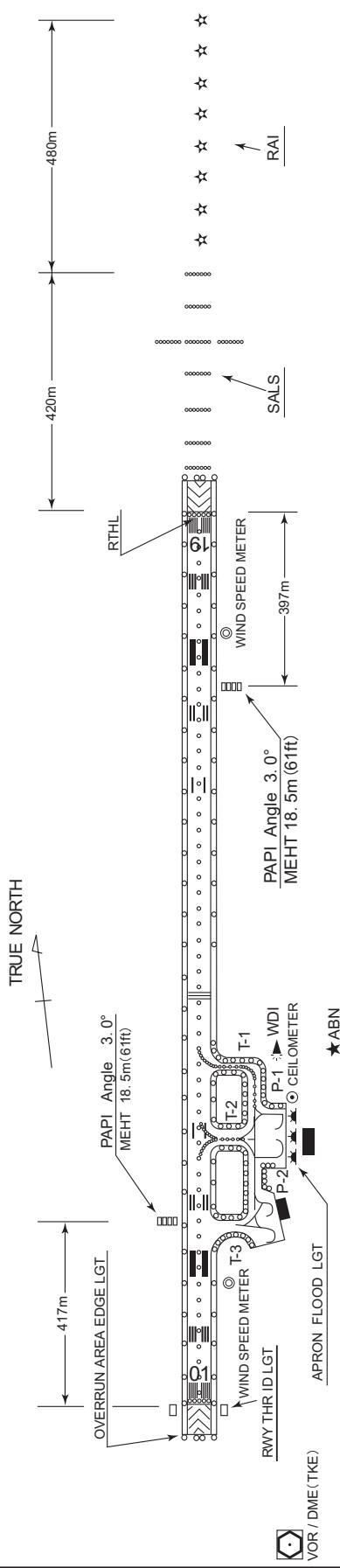


CHANGE: WIND SPEED METER, CEILOMETER added.

RJKN / TOKUNOSHIMA

AD CHART

TOKUNOSHIMA AP



**REMARKS : RWY GROOVING**  
WIDTH AND STRENGTH OF TWY  
T-1 30m x 2000m  
PCR 616 / F / C / X / T  
23m  
T-2 23m  
PCR 616 / F / C / X / T  
T-3 18m  
PCR 196 / F / C / X / T  
STRENGTH OF APRON PCR 687 / R / B / W / T  
(PCR 196 / F / C / X / T  
For Light ACFT APRON)

STANDARD DEPARTURE CHART -INSTRUMENT

RJKN / TOKUNOSHIMA

SID and TRANSITION

TOKUNOSHIMA FIVE DEPARTURE

RWY01 : Climb via TKE R359 to 5.0DME, turn left,...

RWY19 : Climb RWY HDG to 700FT, turn right,...

...direct to TKE VOR/DME.

Cross TKE VOR/DME at or above 3000FT.

Note RWY01 : 4.9% climb gradient required up to 1600FT.

OBST ALT 427FT located at 1.4NM 029° FM end of RWY01.

Note RWY19 : No turn before DER.

KUNIG TRANSITION

From over TKE VOR/DME, via TKE R209 to KUNIG or ONC VORTAC.

Cross KUNIG or ONC VORTAC at assigned altitude.

MEKAX TRANSITION

From over TKE VOR/DME, via TKE R025 to 15.0DME, via ONC R026 to MEKAX.

Cross MEKAX at or above 11000FT.

KASARI TRANSITION

From over TKE VOR/DME, via TKE R097 to PINNE, via AME R228 to AME VOR/DME.

Cross PINNE at or above 6000FT, cross AME VOR/DME at assigned altitude.

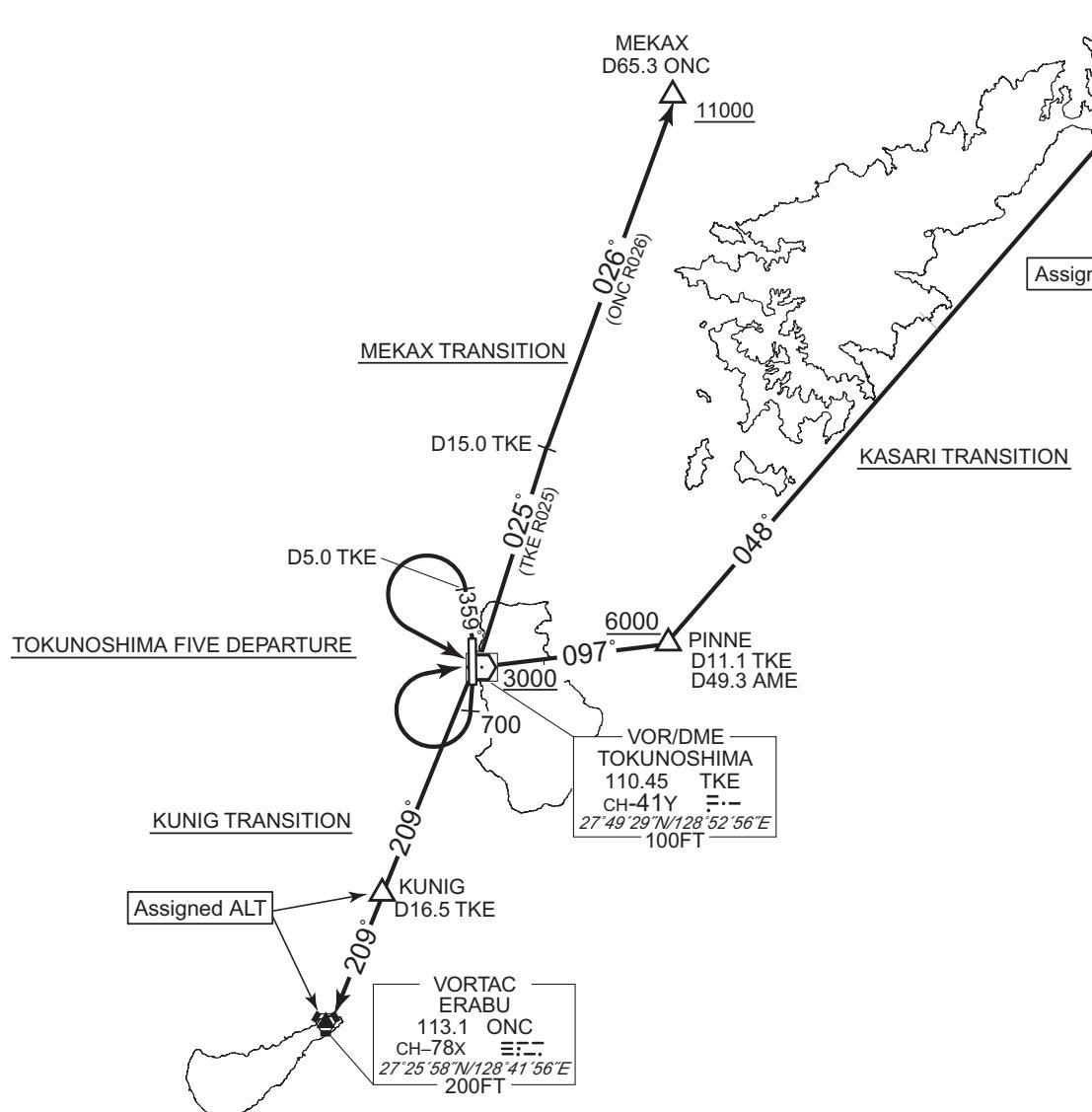
CHANGE : PROC course(KASARI TRANSITION).

## STANDARD DEPARTURE CHART -INSTRUMENT

RJKN / TOKUNOSHIMA

SID and TRANSITION

VOR/DME  
KASARI  
113.95 AME  
CH-86Y  $\frac{1}{2} \text{--}$   
28°26'05"N/129°42'41"E  
0FT



CHANGE : PROC course(KASARI TRANSITION).

STANDARD DEPARTURE CHART -INSTRUMENT

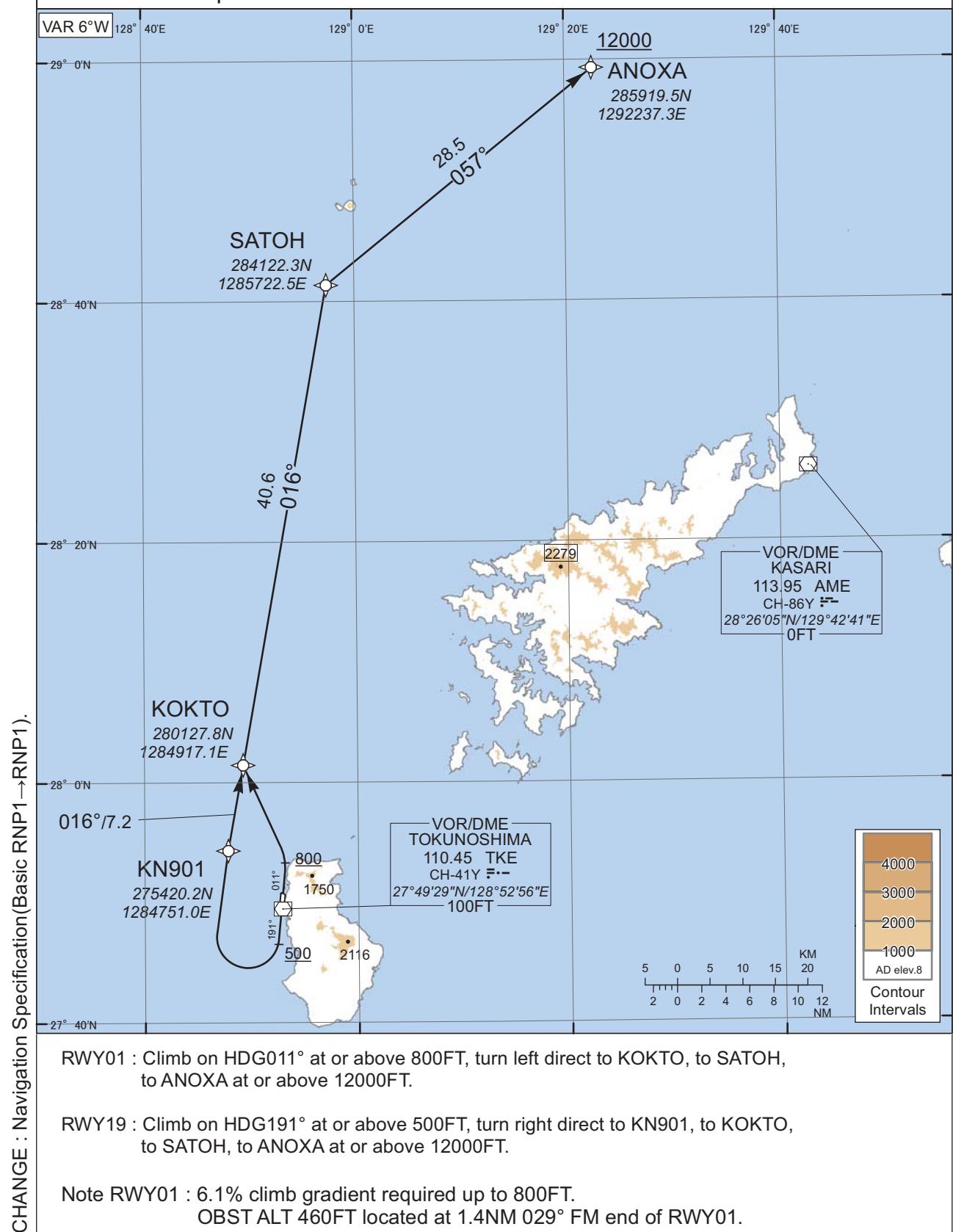
RJKN / TOKUNOSHIMA

RNAV SID

ANOXA TWO DEPARTURE

RNP1

Note GNSS required.



## STANDARD DEPARTURE CHART -INSTRUMENT

RJKN / TOKUNOSHIMA

RNAV SID

ANOXA TWO DEPARTURE

## RWY01

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	-	-	011 (005.1)	-6.1	-	-	+800	-	-	RNP1
002	DF	KOKTO	-	-	-6.1	-	L	-	-	-	RNP1
003	TF	SATOH	-	016 (010.1)	-6.1	40.6	-	-	-	-	RNP1
004	TF	ANOXA	-	057 (050.8)	-6.1	28.5	-	+12000	-	-	RNP1

## RWY19

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	-	-	191 (185.1)	-6.1	-	-	+500	-	-	RNP1
002	DF	KN901	-	-	-6.1	-	R	-	-	-	RNP1
003	TF	KOKTO	-	016 (010.1)	-6.1	7.2	-	-	-	-	RNP1
004	TF	SATOH	-	016 (010.1)	-6.1	40.6	-	-	-	-	RNP1
005	TF	ANOXA	-	057 (050.8)	-6.1	28.5	-	+12000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART -INSTRUMENT

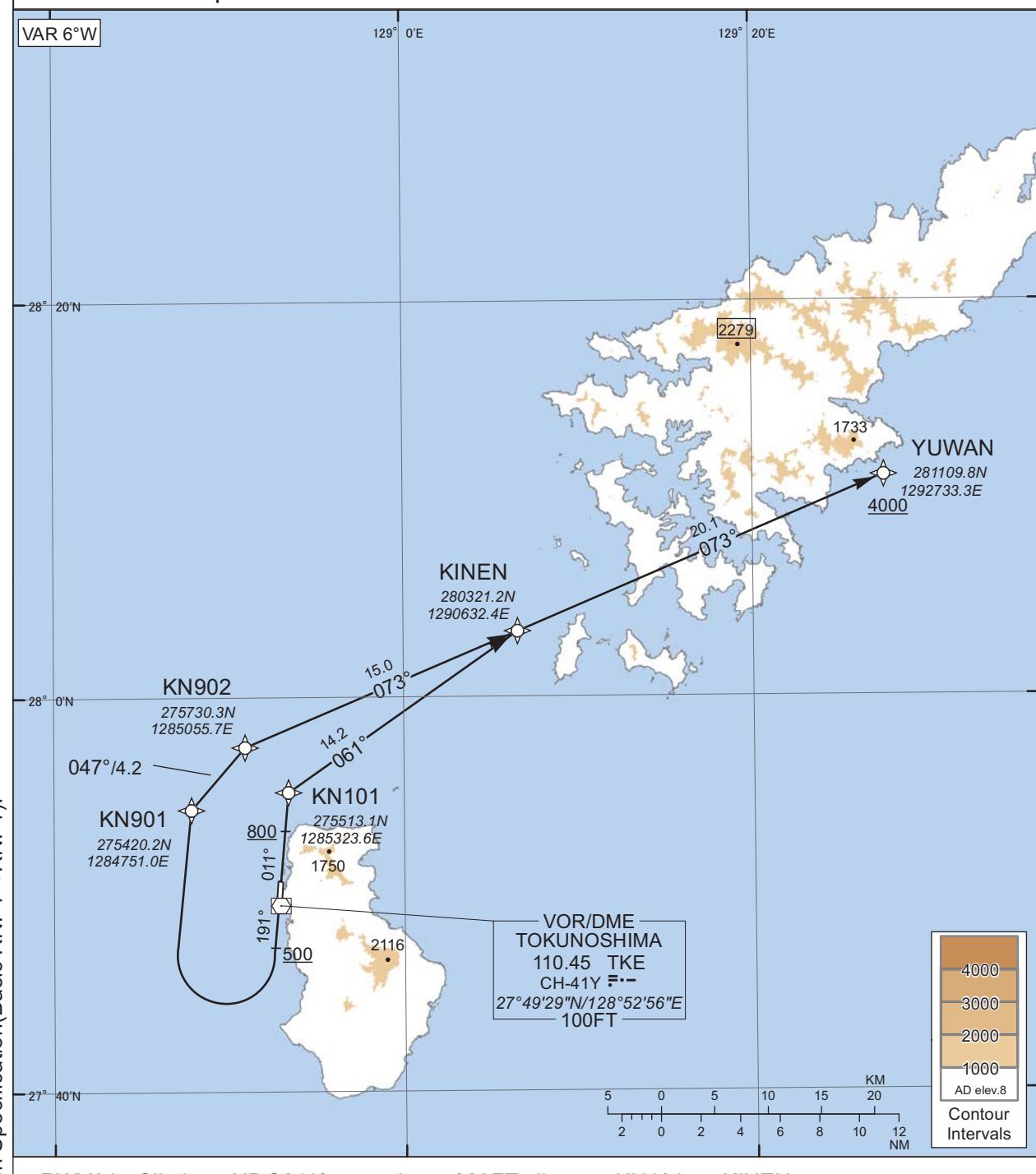
RJKN / TOKUNOSHIMA

RNAV SID

YUWAN TWO DEPARTURE

RNP1

Note GNSS required.



CHANGE : Navigation Specification(Basic RNP1→RNP1)

RWY01 : Climb on HDG011° at or above 800FT, direct to KN101, to KINEN, to YUWAN at or above 4000FT.

RWY19 : Climb on HDG191° at or above 500FT, turn right direct to KN901, to KN902, to KINEN, to YUWAN at or above 4000FT.

Note RWY01 : 6.1% climb gradient required up to 800FT.

OBST ALT 460FT located at 1.4NM 029° FM end of RWY01.

## STANDARD DEPARTURE CHART -INSTRUMENT

RJKN / TOKUNOSHIMA

RNAV SID

YUWAN TWO DEPARTURE

## RWY01

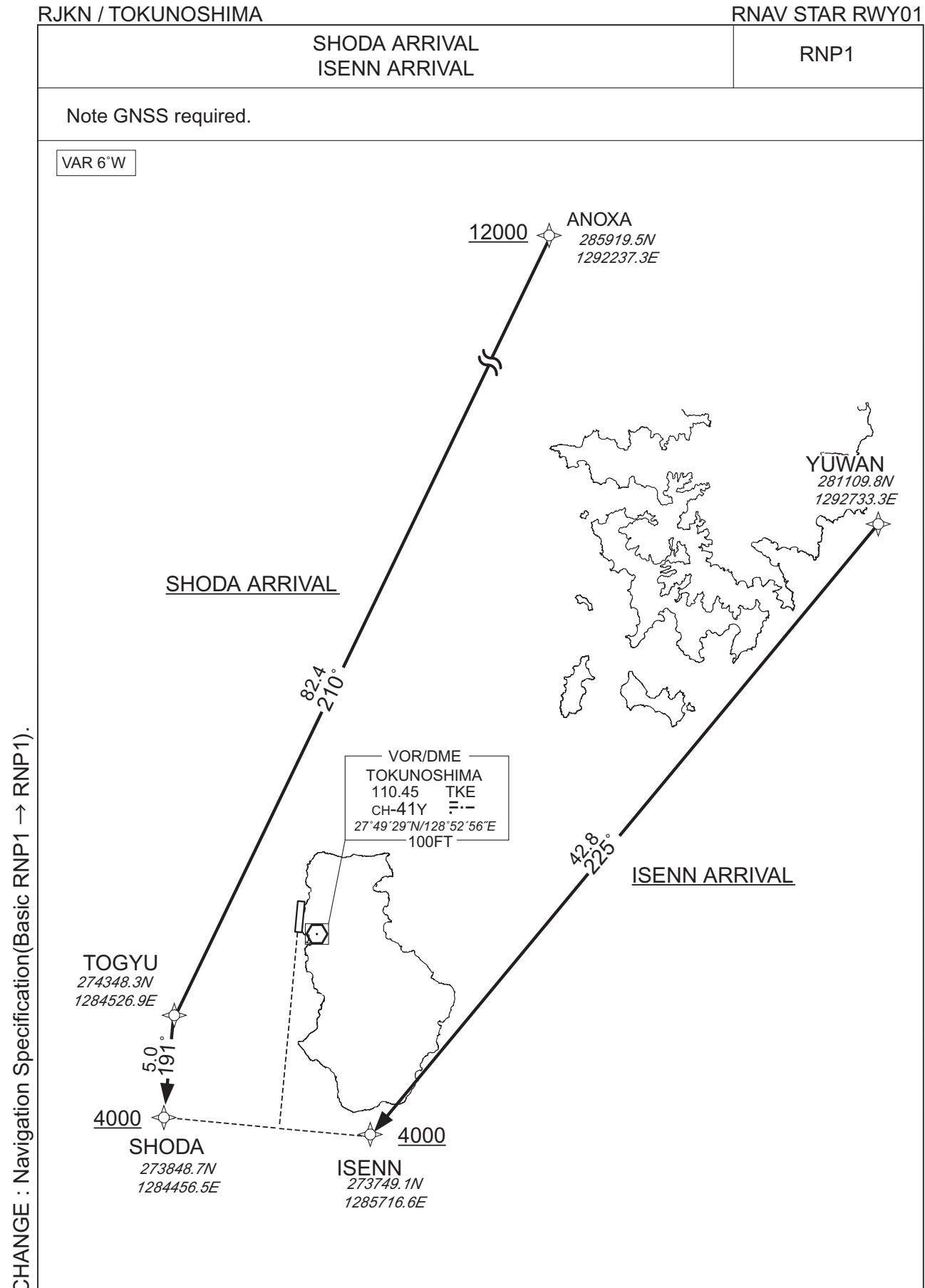
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	011 (005.1)	-6.1	-	-	+800	-	-	RNP1
002	DF	KN101	-	-	-6.1	-	-	-	-	-	RNP1
003	TF	KINEN	-	061 (054.9)	-6.1	14.2	-	-	-	-	RNP1
004	TF	YUWAN	-	073 (067.1)	-6.1	20.1	-	+4000	-	-	RNP1

## RWY19

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	-	-	191 (185.1)	-6.1	-	-	+500	-	-	RNP1
002	DF	KN901	-	-	-6.1	-	R	-	-	-	RNP1
003	TF	KN902	-	047 (040.6)	-6.1	4.2	-	-	-	-	RNP1
004	TF	KINEN	-	073 (066.9)	-6.1	15.0	-	-	-	-	RNP1
005	TF	YUWAN	-	073 (067.1)	-6.1	20.1	-	+4000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART - INSTRUMENT



## STANDARD ARRIVAL CHART - INSTRUMENT

RJKN / TOKUNOSHIMA

RNAV STAR RWY01

SHODA ARRIVAL

From ANOXA at or above 12000FT, to TOGYU, to SHODA at or above 4000FT.

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	ANOXA	-	-	-6.1	-	-	+12000	-	-	RNP1
002	TF	TOGYU	-	210 (203.6)	-6.1	82.4	-	-	-	-	RNP1
003	TF	SHODA	-	191 (185.1)	-6.1	5.0	-	+4000	-	-	RNP1

ISENN ARRIVAL

From YUWAN, to ISENN at or above 4000FT.

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	YUWAN	-	-	-6.1	-	-	-	-	-	RNP1
002	TF	ISENN	-	225 (218.9)	-6.1	42.8	-	+4000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART - INSTRUMENT

RJKN / TOKUNOSHIMA

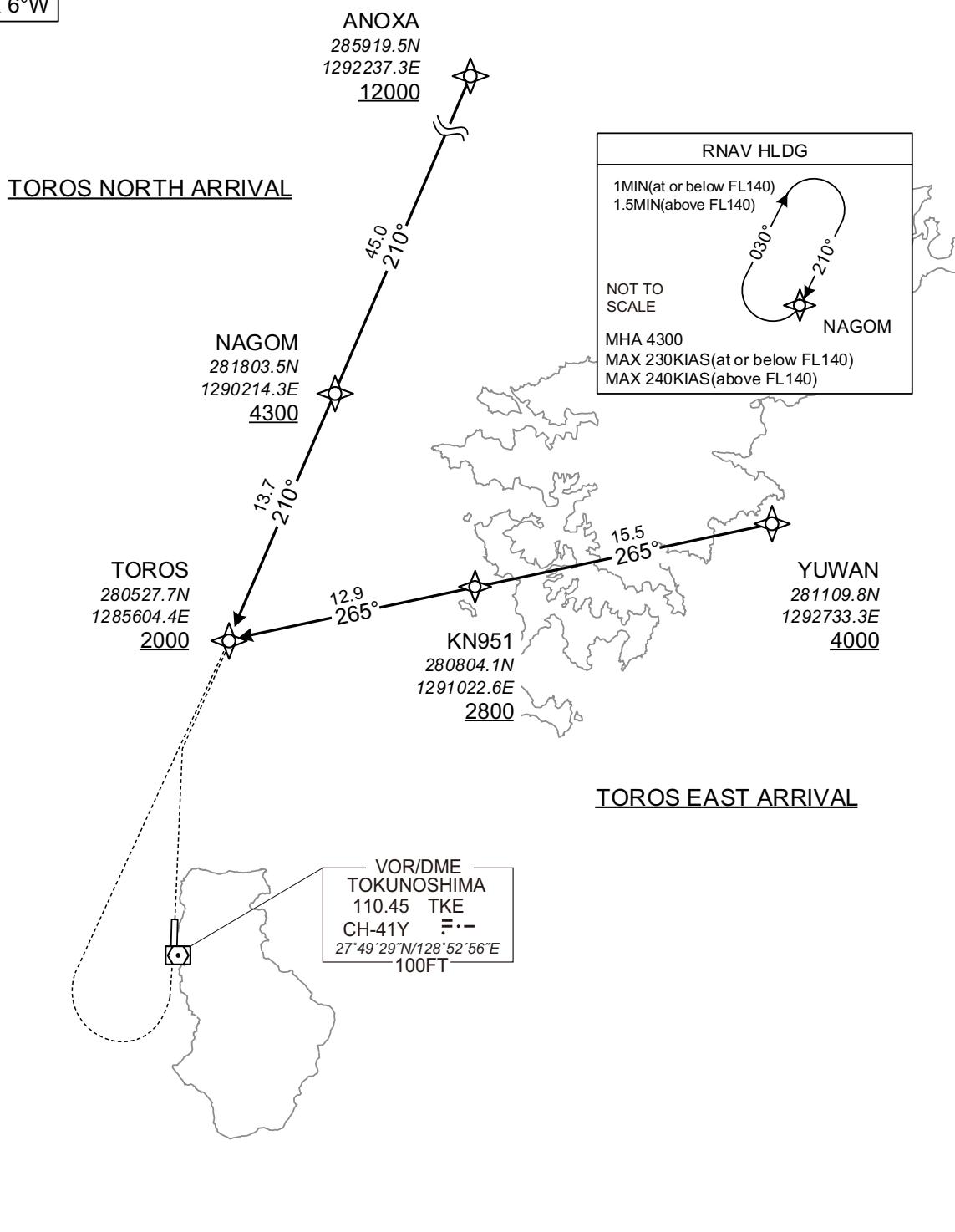
RNAV STAR

TOROS NORTH ARRIVAL  
TOROS EAST ARRIVAL

RNP1

Note GNSS required.

VAR 6°W



## STANDARD ARRIVAL CHART - INSTRUMENT

RJKN / TOKUNOSHIMA

RNAV STAR

TOROS NORTH ARRIVAL

From ANOXA at or above 12000FT, to NAGOM at or above 4300FT, to TOROS at or above 2000FT.

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	ANOXA	-	-	-6.2	-	-	+12000	-	-	RNP1
002	TF	NAGOM	-	210 (203.5)	-6.2	45.0	-	+4300	-	-	RNP1
003	TF	TOROS	-	210 (203.4)	-6.2	13.7	-	+2000	-	-	RNP1

TOROS EAST ARRIVAL

From YUWAN at or above 4000FT, to KN951 at or above 2800FT, to TOROS at or above 2000FT.

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	YUWAN	-	-	-6.2	-	-	+4000	-	-	RNP1
002	TF	KN951	-	265 (258.5)	-6.2	15.5	-	+2800	-	-	RNP1
003	TF	TOROS	-	265 (258.4)	-6.2	12.9	-	+2000	-	-	RNP1

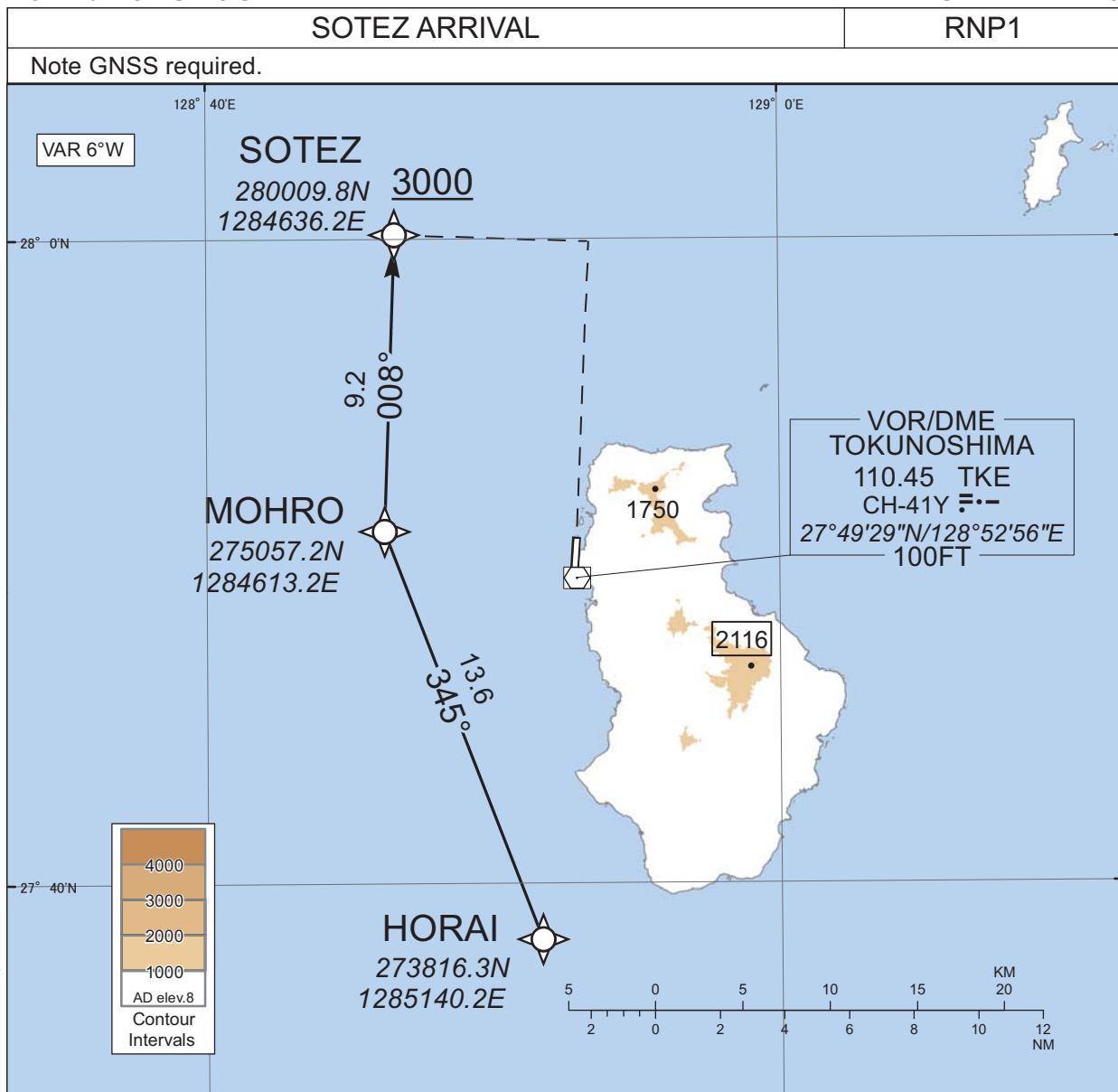
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	NAGOM	210 (203.4)	-6.2	1.0 (-14000) 1.5 (+14001)	R	4300	-	-230 (-14000) -240 (+14001)	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART - INSTRUMENT

RJKN / TOKUNOSHIMA

RNAV STAR RWY19



CHANGE : Navigation Specification(Basic RNP1→RNP1).

From HORAI, to MOHRO, to SOTEZ at or above 3000FT.

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	HORAI	-	-	-6.1	-	-	-	-	-	RNP1
002	TF	MOHRO	-	345 (339.2)	-6.1	13.6	-	-	-	-	RNP1
003	TF	SOTEZ	-	008 (002.1)	-6.1	9.2	-	+3000	-	-	RNP1

## **INSTRUMENT APPROACH CHART**

RJKN / TOKUNOSHIMA

LOC Z RWY19

**VAR 6°W**

**MSA 25NM**

**NOTE: For Initial approach segment**  
**(1) RNP 1.**  
**(2) GNSS required.**

**RNAV HLDG**  
**1MIN**  
**MHA 3000 MAX 210KIAS**

**RNAV HLDG**  
**NOT TO SCALE**  
**1MIN**  
**098° → 278°**  
**MHA 3000 MAX 210KIAS**

**RNAV HLDG**  
**NOT TO SCALE**  
**1MIN**  
**098° → 278°**  
**MHA 4300 MAX 210KIAS**

**LOC OFFSET 3°**

**TOKUNOSHIMA RADIO**  
**122.7 AFIS provided by Kagoshima Airport Office**

**RADAR AVBL**

**EQPT REQUIRED**  
**DME VOR**

**RNAV HLDG**  
**1MIN**  
**029° → 209°**  
**TOROS**  
**MHA 2000 MAX 230KIAS**  
**NOT TO SCALE**

NM to ITK	MAPt	2	3	4	FAF
ALT (3.0° APCH Path)	-	498	816	1134	1399

**MISSED APPROACH**

Climb via TKE R188 to 5.0DME, turn right, direct to TKE VOR/DME and hold at 3500FT. Contact NAHA APP.

Timing not authorized for defining the MAPt.

DME to ITK		NM to THR	
0.6	1.8	4.8	9.9
0	1.2	4.2	9.2

**Missed APCH climb gradient MNM 5.0%**

MINIMA		THR elev. 14	AD elev. 8	
<b>CAT</b>	<b>CIRCLING</b>			
	MDA(H)	CMV	MDA(H)	VIS
A	430 (422)	900	730 (722)	1600
B		1000	990 (982)	
C		1190 (1182)	2400	
D		1400	1480 (1472)	3200

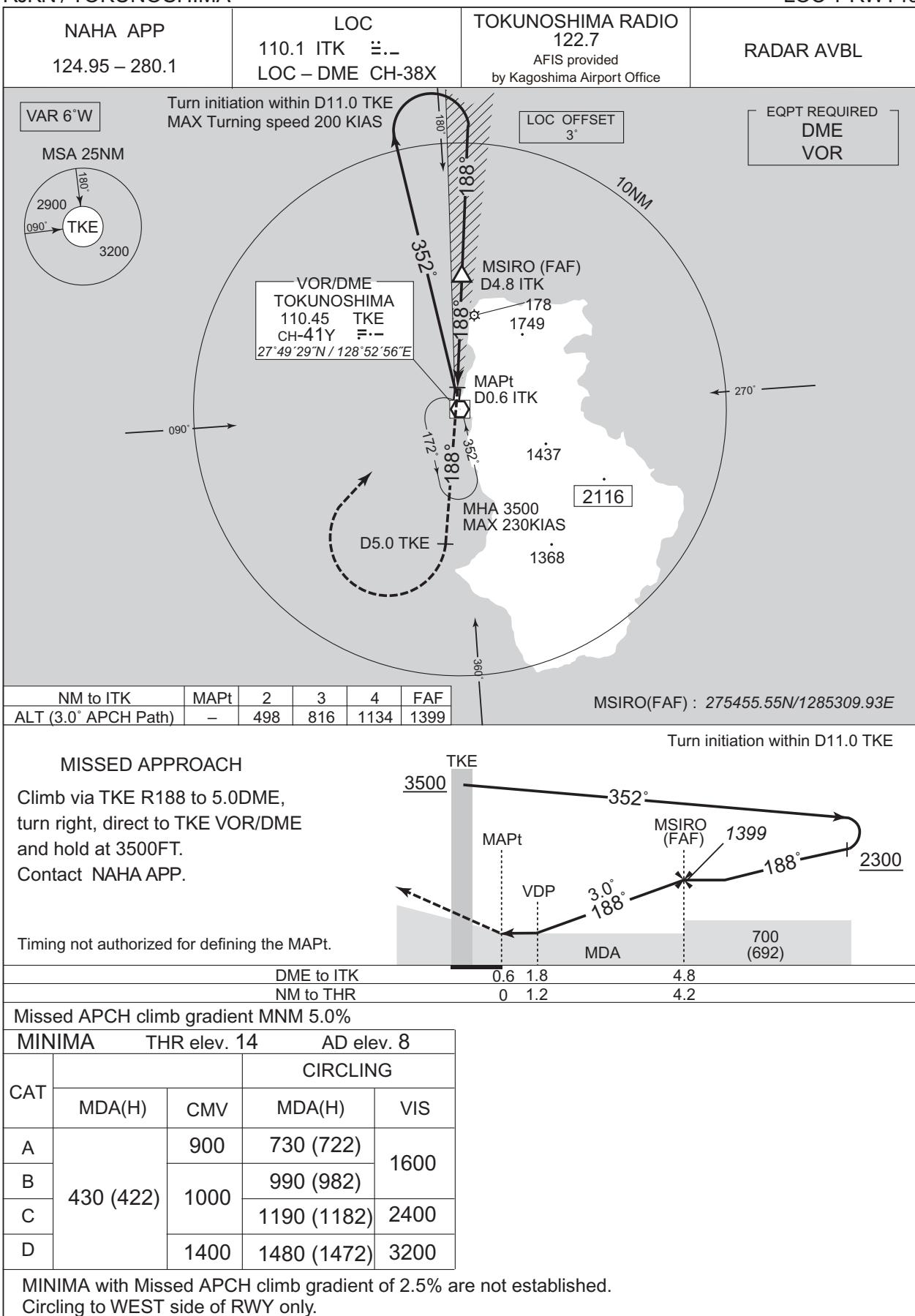
MINIMA with Missed APCH climb gradient of 2.5% are not established. Circling to WEST side of RWY only.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

## INSTRUMENT APPROACH CHART

RJKN / TOKUNOSHIMA

LOC Y RWY19

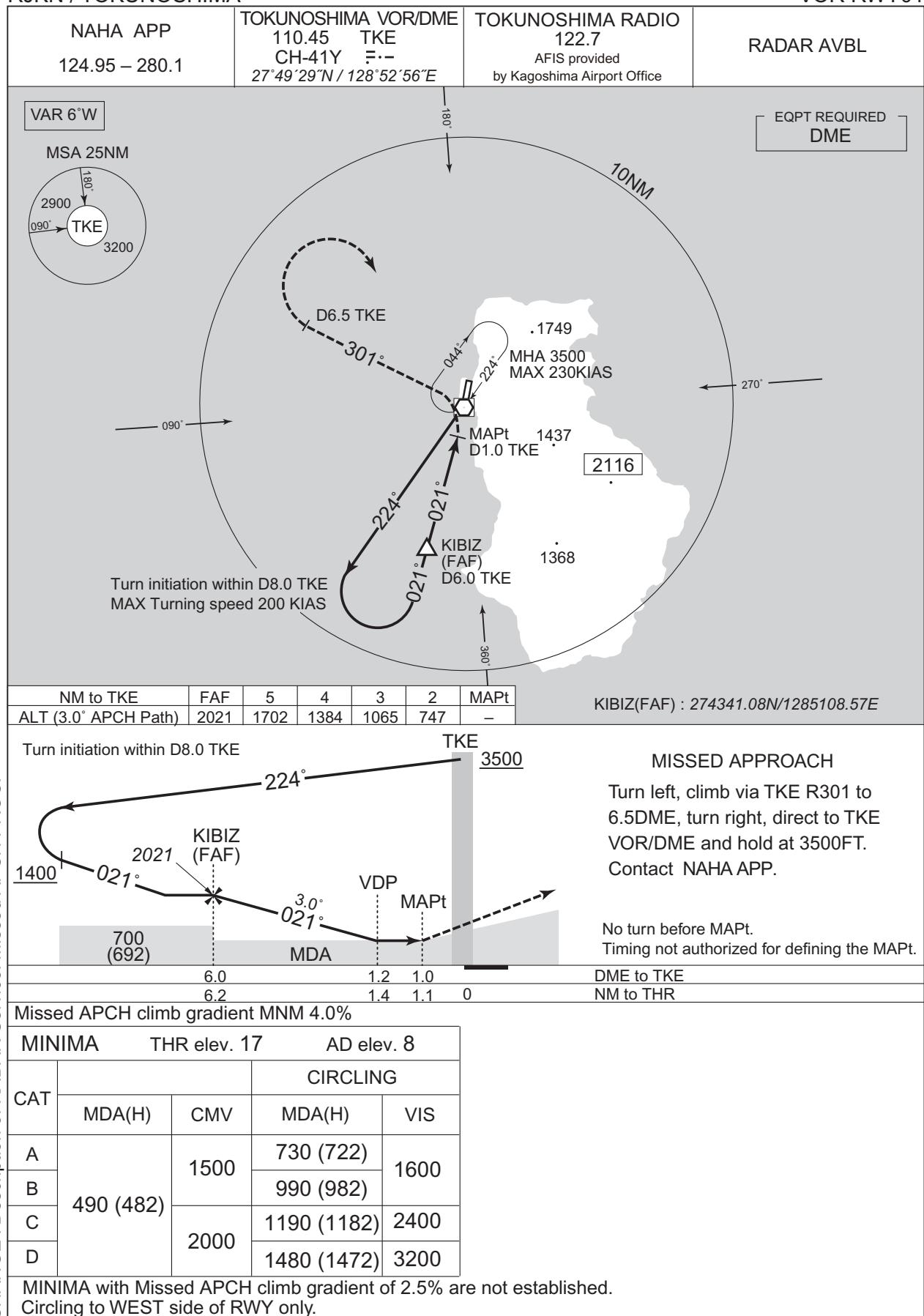


CHANGE : Description of RADAR Service, Missed APCH PROC.

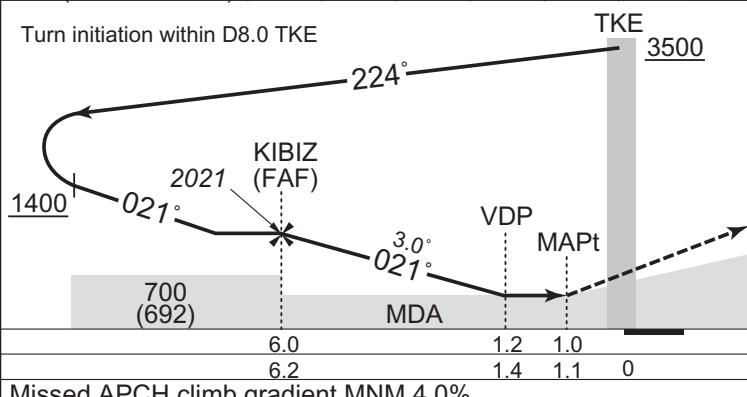
INSTRUMENT APPROACH CHART

RJKN / TOKUNOSHIMA

VOR RWY01



CHANGE : Description of RADAR Service. Missed APCH PROC.



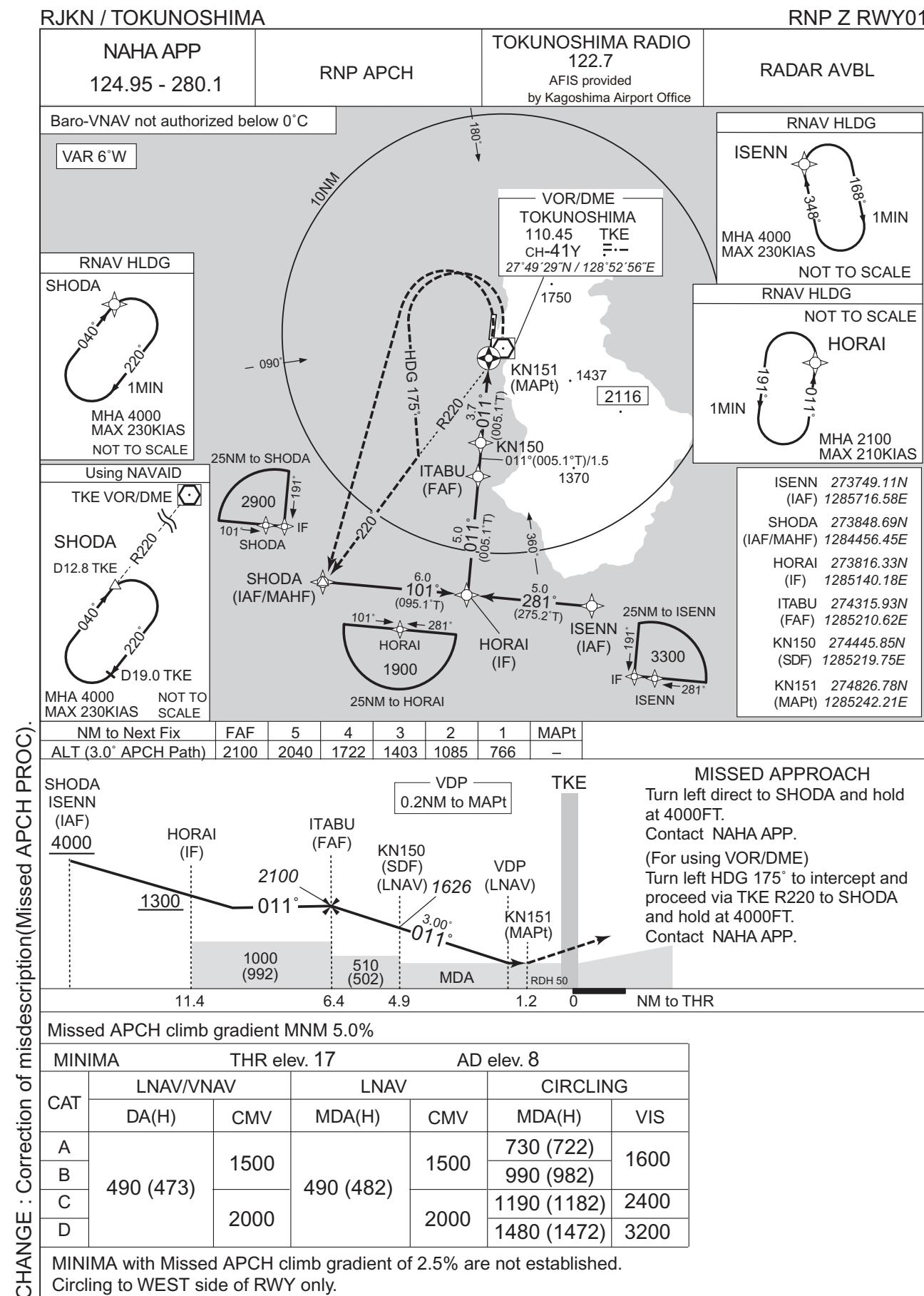
Missed APCH climb gradient MNM 4.0%

MINIMA    THR elev. 17    AD elev. 8

CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A		1500	730 (722)	1600
B	490 (482)		990 (982)	
C		2000	1190 (1182)	2400
D			1480 (1472)	3200

MINIMA with Missed APCH climb gradient of 2.5% are not established.  
Circling to WEST side of RWY only.

## INSTRUMENT APPROACH CHART

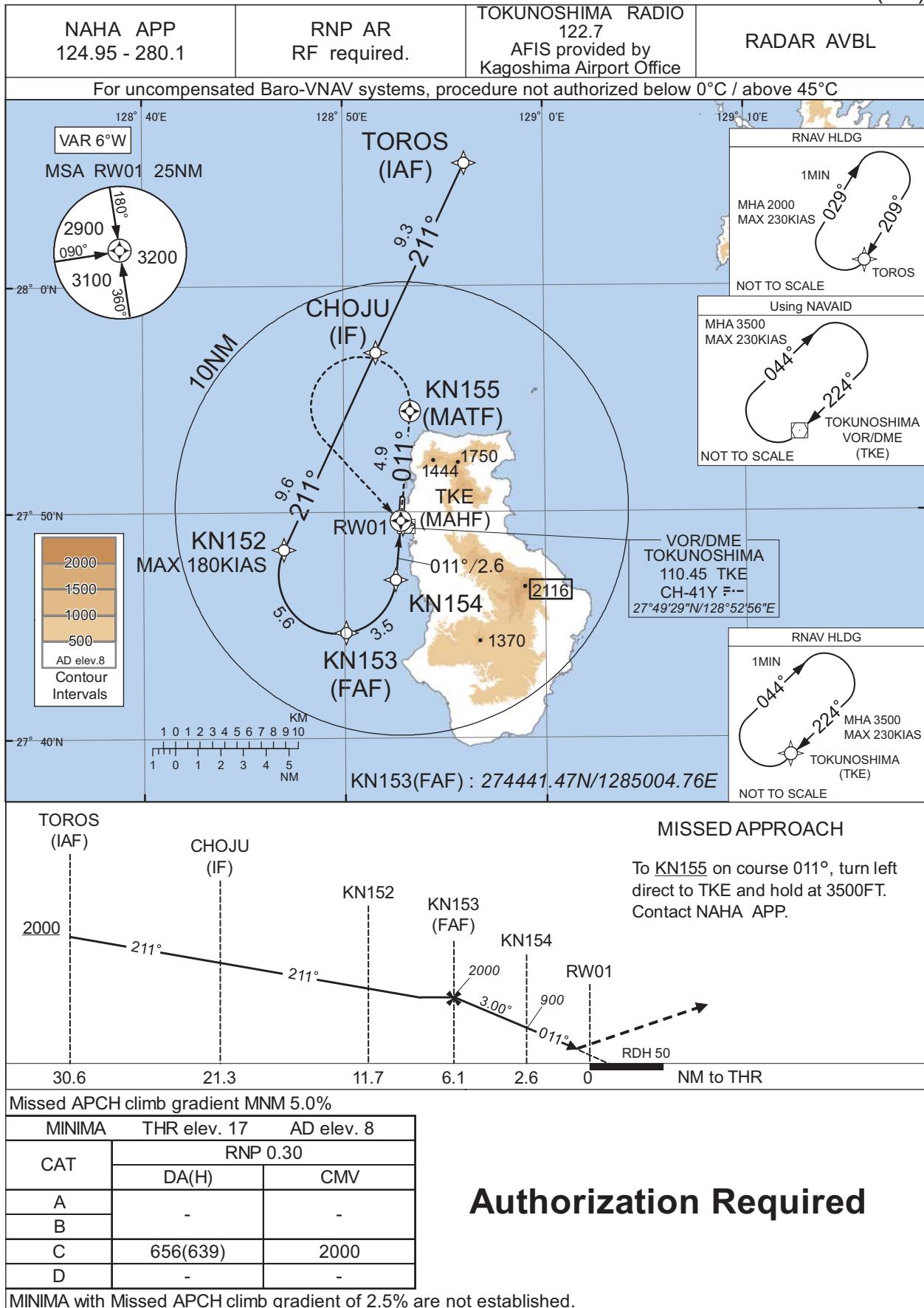


CHANGE : Correction of misdescription(Missed APCH PROC).

INSTRUMENT APPROACH CHART

RJKN / TOKUNOSHIMA

RNP Y RWY01(AR)



**Authorization Required**

## INSTRUMENT APPROACH CHART

RJKN / TOKUNOSHIMA

RNP Y RWY01(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	TOROS	-	-	-6.2	-	-	+2000	-	-	-
002	TF	CHOJU	-	211 (205.2)	-6.2	9.3	-	-	-	-	1.0
003	TF	KN152	-	211 (205.1)	-6.2	9.6	-	-	-180	-	1.0
004	RF Center: KNRF1 r=2.59NM	KN153	-	-	-6.2	5.6	L	2000	-	-	1.0
005	RF Center: KNRF1 r=2.59NM	KN154	-	-	-6.2	3.5	L	900	-	-3.00	0.3
006	TF	RW01	Y	011 (005.1)	-6.2	2.6	-	67	-	-3.00/50	0.3
007	CF	KN155	Y	011 (005.1)	-6.2	4.9	-	-	-	-	1.0
008	DF	TKE	-	-	-6.2	-	L	3500	-	-	1.0

Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	TOROS	209 (203.3)	-6.2	1.0 (-14000)	R	2000	FL140	-230(-14000)	1.0
Hold	TKE	224 (217.8)	-6.2	1.0 (-14000)	R	3500	FL140	-230(-14000)	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
TOROS	280527.68N / 1285604.41E	KNRF1	274715.75N / 1284938.87E
CHOJU	275704.94N / 1285137.19E		
KN152	274822.20N / 1284700.16E		
KN153	274441.47N / 1285004.76E		
KN154	274701.73N / 1285233.57E		
RW01	274938.71N / 1285249.54E		
KN155	275429.43N / 1285319.15E		
TKE	274929.20N / 1285255.98E		

CHANGE : New PROC.

RJKN / TOKUNOSHIMA

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 : VAR.

Call sign	BRG / DIST from ARP	Remarks
金見崎 Kanamizaki	055°T / 5.8NM	灯台 Lighthouse
与名間崎 Yonamazaki	011°T / 2.8NM	灯台 Lighthouse
亀徳港 Kametokuko	127°T / 9.5NM	漁港 Harbor
犬田布崎 Inutabuzaki	179°T / 6.8NM	白い大きな慰靈碑 Big white monument

RJKN / TOKUNOSHIMA

Minimum Vectoring Altitude CHART

CHANGE : Shape of segment Minimum vectoring altitude.

