

## 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**

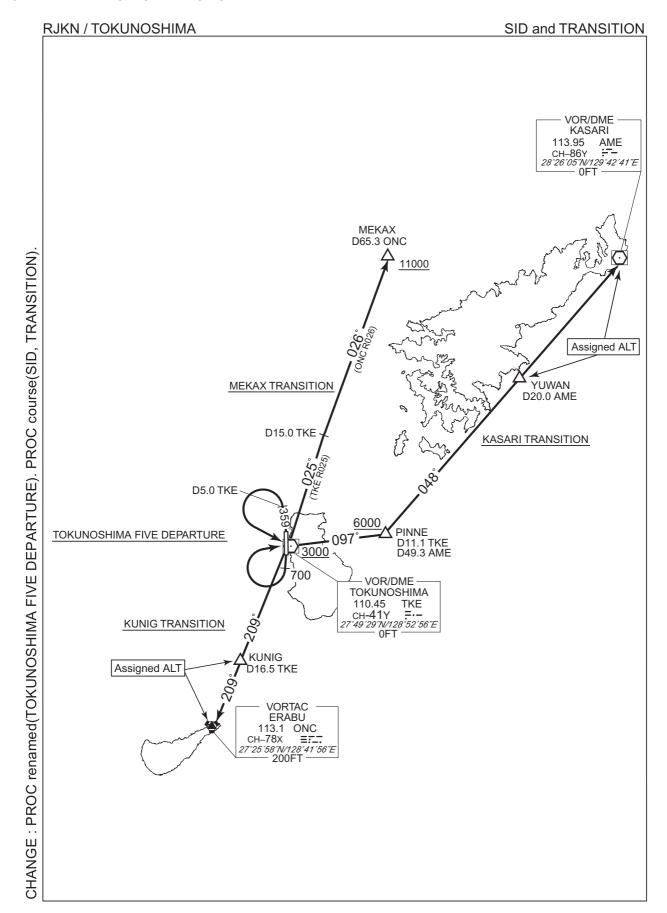
From over TKE VOR/DME, via TKE R025 to 15.0DME, via ONC R026 to MEKAX.

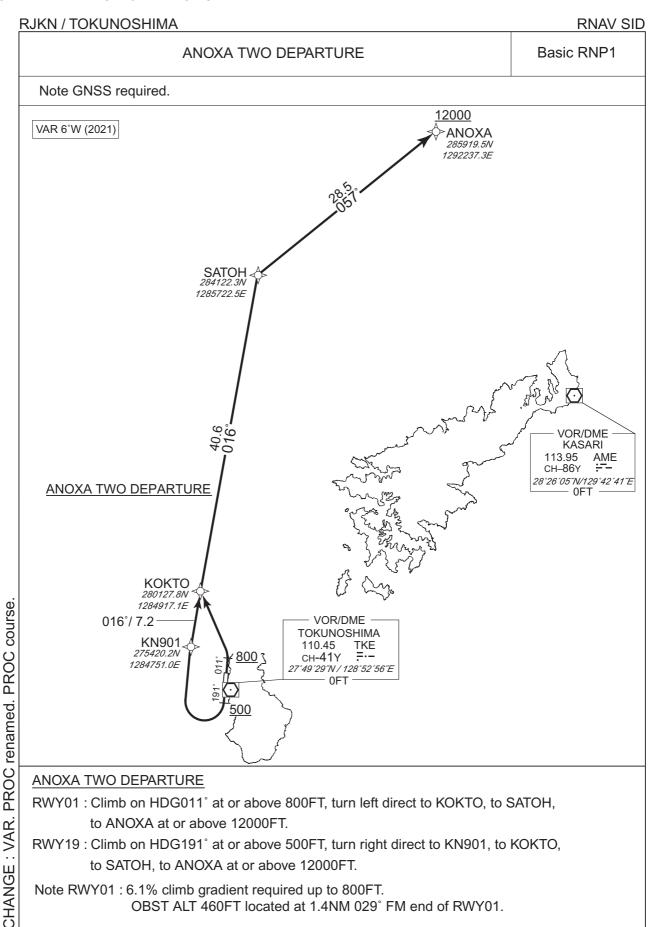
Cross MEKAX at or above 11000FT.

## **KASARI TRANSITION**

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

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





# ANOXA TWO DEPARTURE

RWY01: Climb on HDG011° at or above 800FT, turn left direct to KOKTO, to SATOH, to ANOXA at or above 12000FT.

RWY19: Climb on HDG191° at or above 500FT, turn right direct to KN901, to KOKTO, to SATOH, to ANOXA at or above 12000FT.

Note RWY01: 6.1% climb gradient required up to 800FT. OBST ALT 460FT located at 1.4NM 029° FM end of RWY01.

# 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	_	ı	+800	ı	_	Basic RNP1
002	DF	KOKTO	_	-	-6.1	_	L	-	1	_	Basic RNP1
003	TF	SATOH	_	016 (010.1)	-6.1	40.6	1	1	-	_	Basic RNP1
004	TF	ANOXA	_	057 (050.8)	-6.1	28.5	_	+12000	_	_	Basic RNP1

## RWY19

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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	-	_	Basic RNP1
002	DF	KN901	_	_	-6.1	_	R	_	1	_	Basic RNP1
003	TF	KOKTO	_	016 (010.1)	-6.1	7.2	_	_	-	_	Basic RNP1
004	TF	SATOH	_	016 (010.1)	-6.1	40.6	_	_	_	_	Basic RNP1
005	TF	ANOXA	_	057 (050.8)	-6.1	28.5	_	+12000	_	_	Basic RNP1

# RJKN / TOKUNOSHIMA **RNAV SID** Basic RNP1 YUWAN TWO DEPARTURE Note GNSS required. VAR 6°W (2021) YUWAN 281109.8N 4000 1292733.3E YUWAN TWO DEPARTURES KINEN 280321.2N KN902 1290632.4E 275730.3N 1285055.7F 047°/4.2 VOR/DME KN901 **TOKUNOSHIMA** 275420.2N 1285323.6F 110.45 1284751.0E TKE 800 сн-41Ү 27°49′29″N / 128°52′56″E 0FT

# YUWAN TWO DEPARTURE

RWY01: Climb on HDG 011° at or above 800FT, direct to KN101, to KINEN,

to YUWAN at or above 4000FT.

RWY19: Climb on HDG 191° 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.

# RJKN / TOKUNOSHIMA

**RNAV SID** 

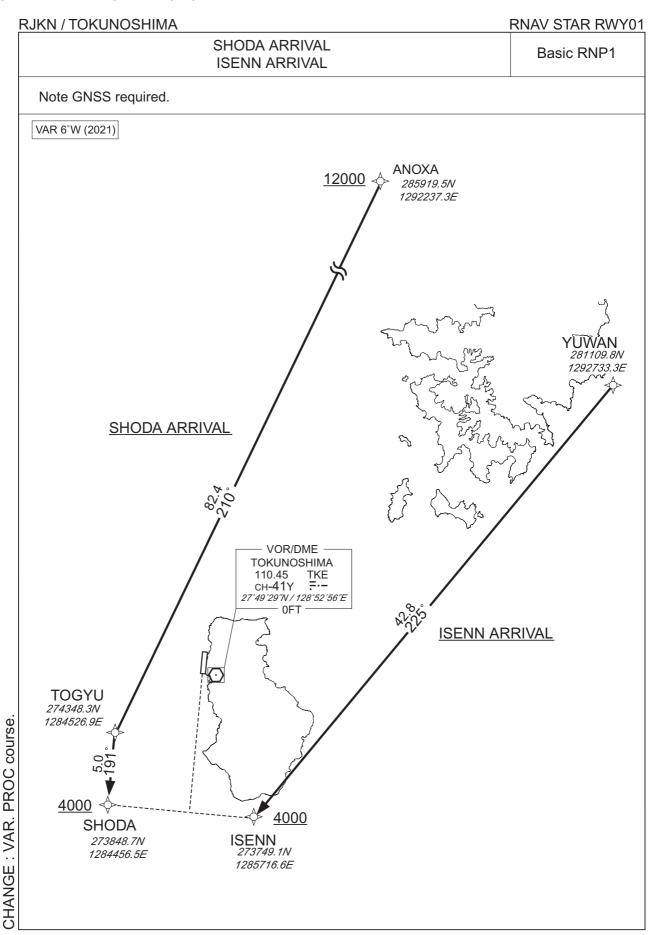
# YUWAN TWO DEPARTURE

# 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	_	_	Basic RNP1
002	DF	KN101	_	_	-6.1	_	_	_	_	_	Basic RNP1
003	TF	KINEN	_	061 (054.9)	-6.1	14.2	_	_	_	_	Basic RNP1
004	TF	YUWAN	_	073 (067.1)	-6.1	20.1	_	+4000	_	_	Basic RNP1

## RWY19

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



## RJKN / TOKUNOSHIMA

**RNAV STAR RWY01** 

# SHODA ARRIVAL

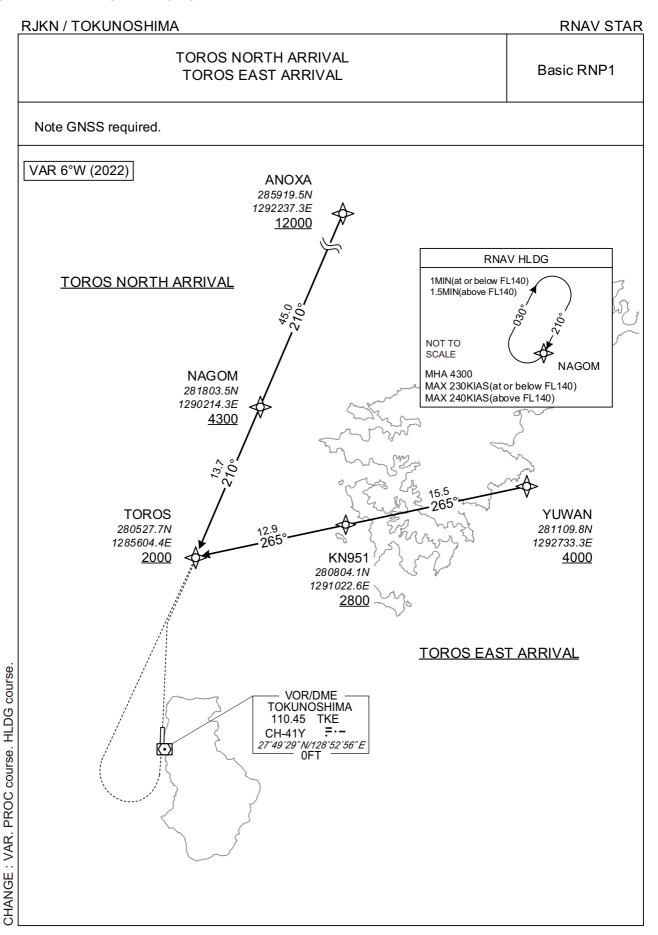
From ANOXA at or above 12000FT, to TOGYU, to SHODA at or above 4000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over		Magnetic Variation		Turn Direction		Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	ANOXA	_	_	-6.1	_	_	+12000	_	_	Basic RNP1
002	TF	TOGYU	_	210 (203.6)	-6.1	82.4	_	_	_	_	Basic RNP1
003	TF	SHODA	_	191 (185.1)	-6.1	5.0	_	+4000	_	_	Basic RNP1

## ISENN ARRIVAL

From YUWAN, to ISENN at or above 4000FT.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over		Magnetic Variation	1	Turn Direction				Navigation Specification
001	IF	YUWAN	_	_	-6.1	_	_	_	_	_	Basic RNP1
002	TF	ISENN	_	225 (218.9)	-6.1	42.8	_	+4000	_	_	Basic RNP1



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

# **TOROS EAST ARRIVAL**

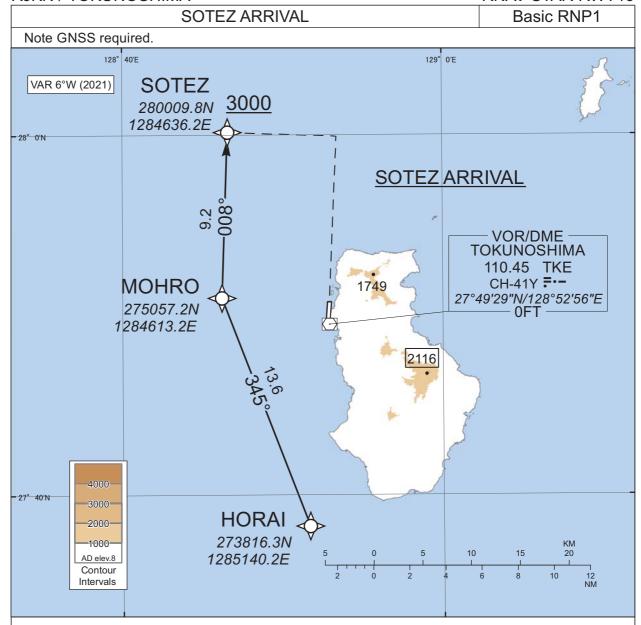
From YUWAN at or above 4000FT, to KN951 at or above 2800FT, to TOROS at or above 2000FT.

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	-	-	Basic RNP1
002	TF	KN951	-	265 (258.5)	-6.2	15.5	-	+2800	-	-	Basic RNP1
003	TF	TOROS	-	265 (258.4)	-6.2	12.9	-	+2000	-	-	Basic 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	1	-230(-14000) -240(+14001)	Basic RNP1

## **RJKN / TOKUNOSHIMA**

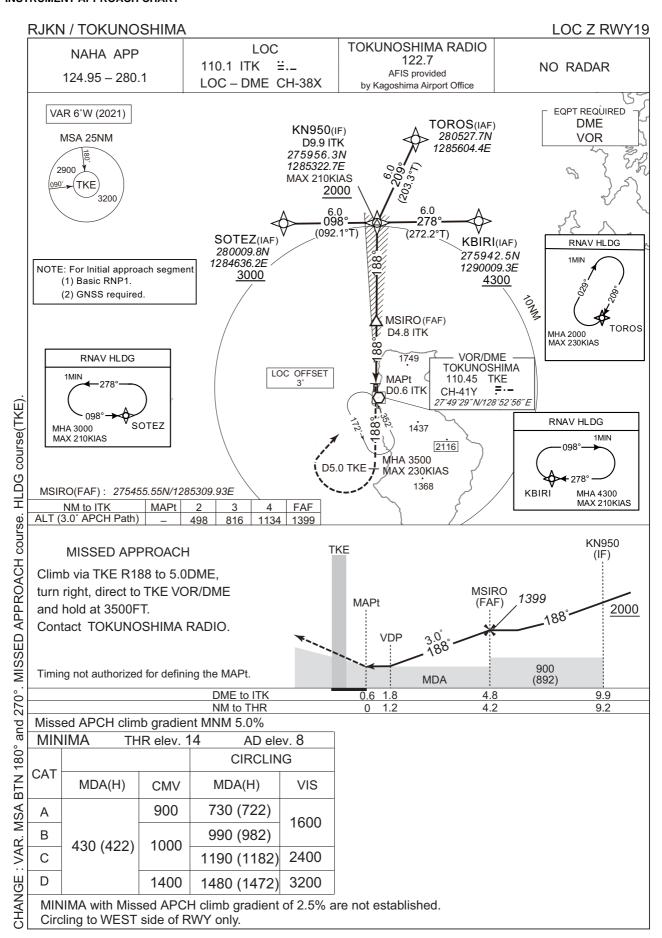
# **RNAV STAR RWY19**

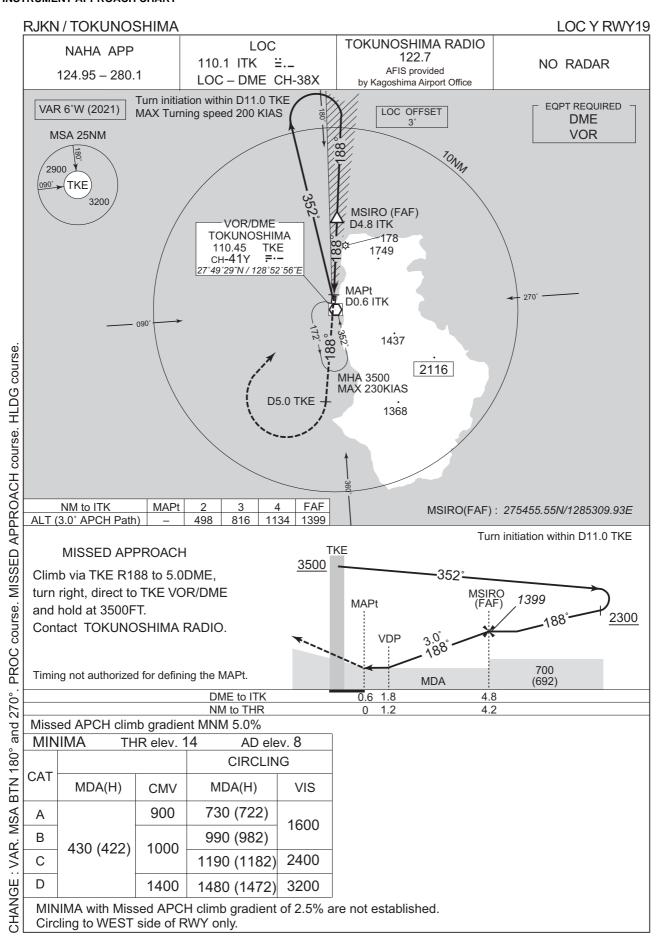


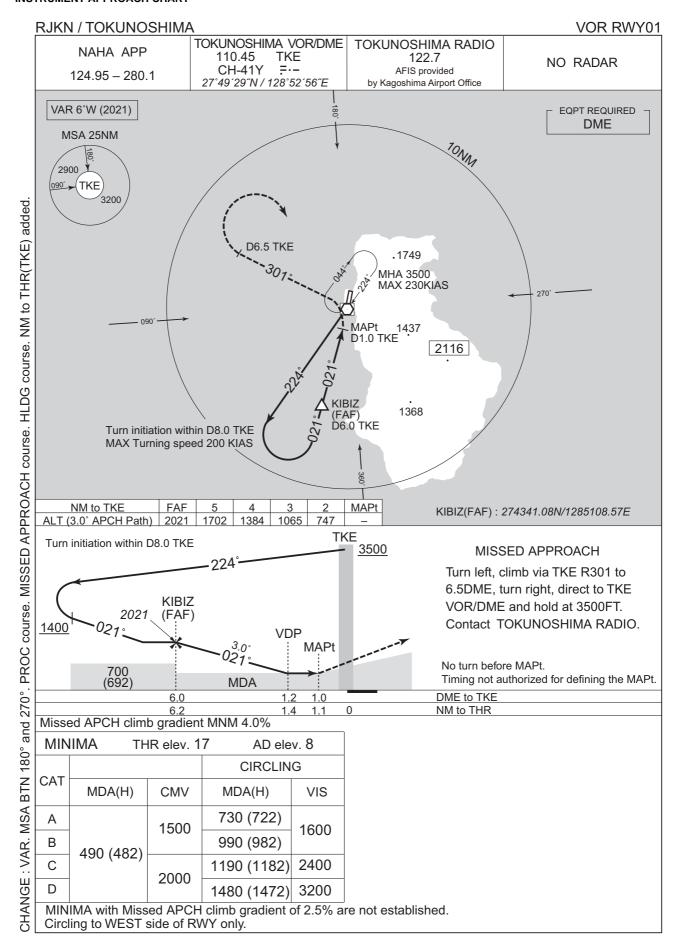
## SOTEZ ARRIVAL

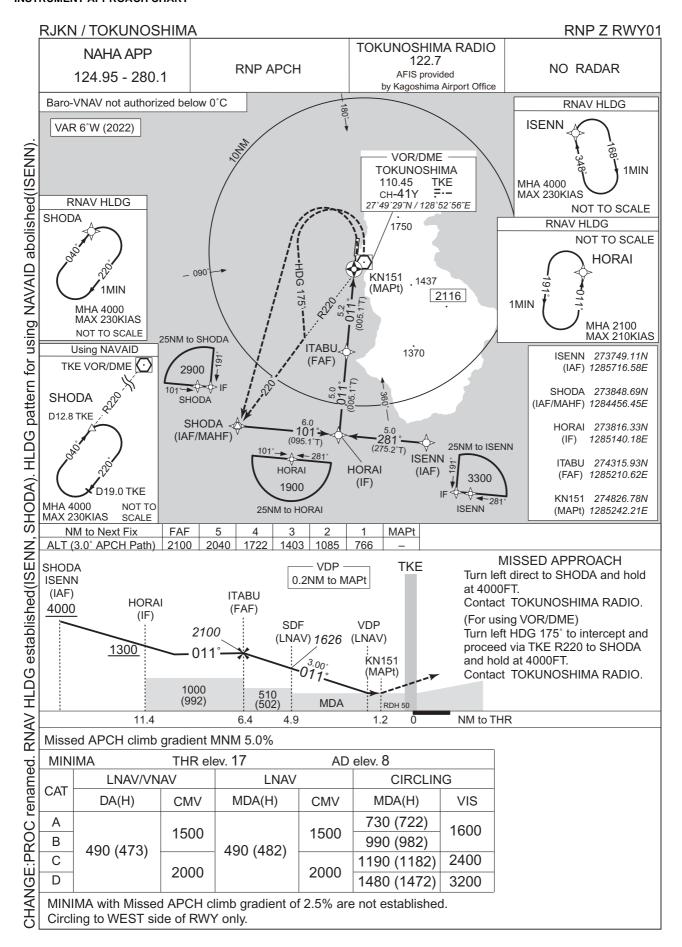
From HORAI, to MOHRO, to SOTEZ at or above 3000FT.

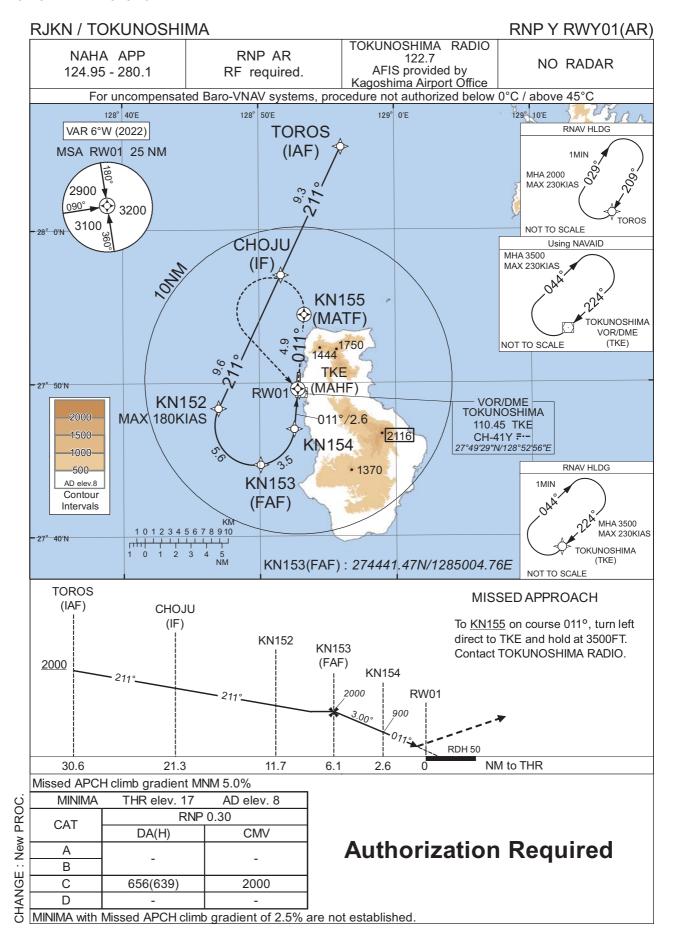
Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	HORAI	ı	ı	-6.1	-	i	-	-	-	Basic RNP1
002	TF	MOHRO	-	345 (339.2)	-6.1	13.6	i	-	-	-	Basic RNP1
003	TF	SOTEZ	-	008 (002.1)	-6.1	9.2	-	+3000	-	-	Basic RNP1











# RJKN / TOKUNOSHIMA

# RNP Y RWY01(AR)

Coding	Table
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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	1	-	-6.2	-	1	+2000	ı	,	-
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	1	-	-6.2	5.6	L	2000	1	1	1.0
005	RF Center: KNRF1 r=2.59NM	KN154	1	1	-6.2	3.5	L	900	ı	-3.00	0.3
006	TF	RW01	Υ	011 (005.1)	-6.2	2.6	-	67	1	-3.00/50	0.3
007	CF	KN155	Υ	011 (005.1)	-6.2	4.9	-	ı	1	-	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			



※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	
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	白い大きな慰霊碑 Big white monument	

