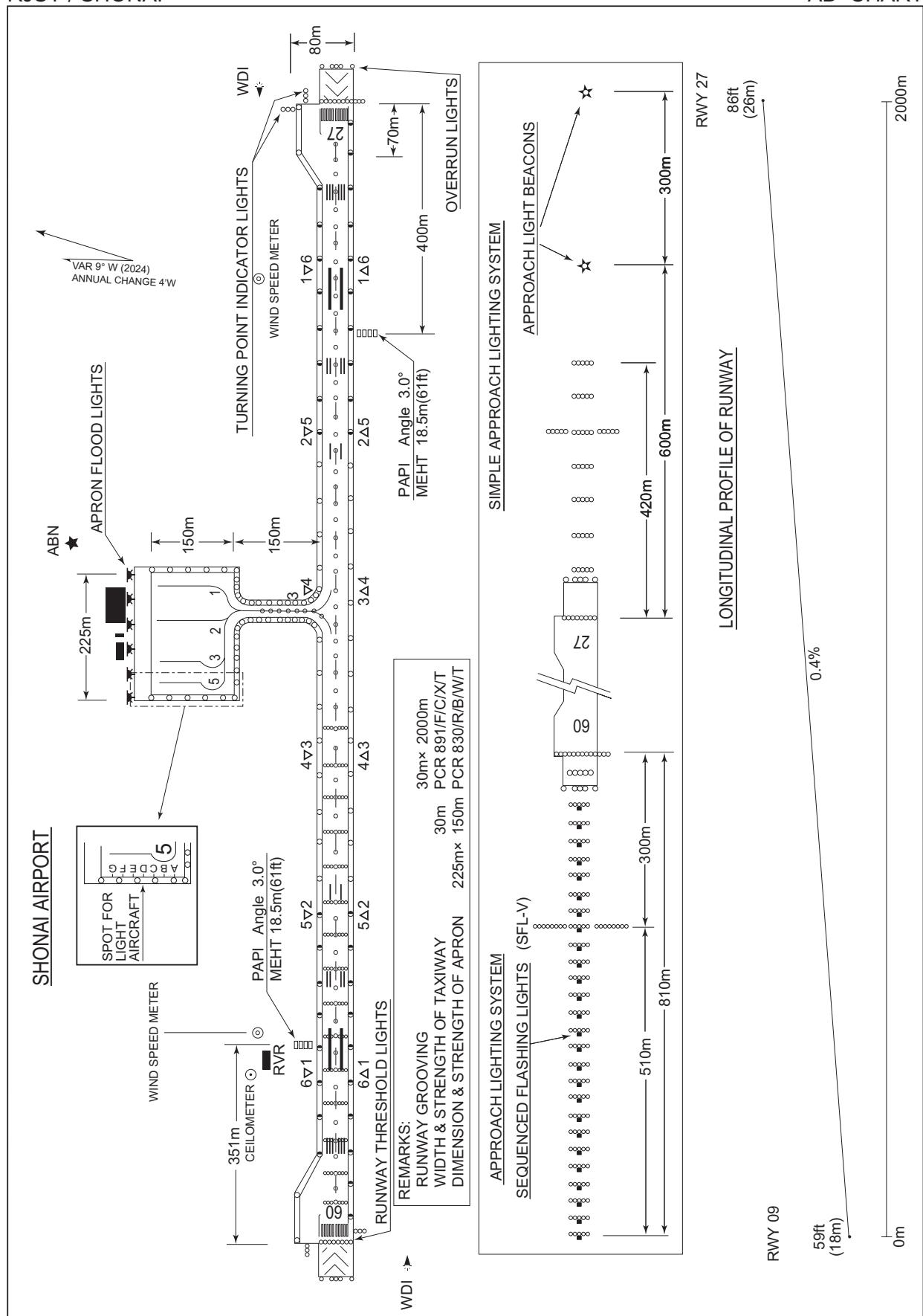


RJSY / SHONAI

AD CHART



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STANDARD DEPARTURE CHART - INSTRUMENT

RJSY / SHONAI

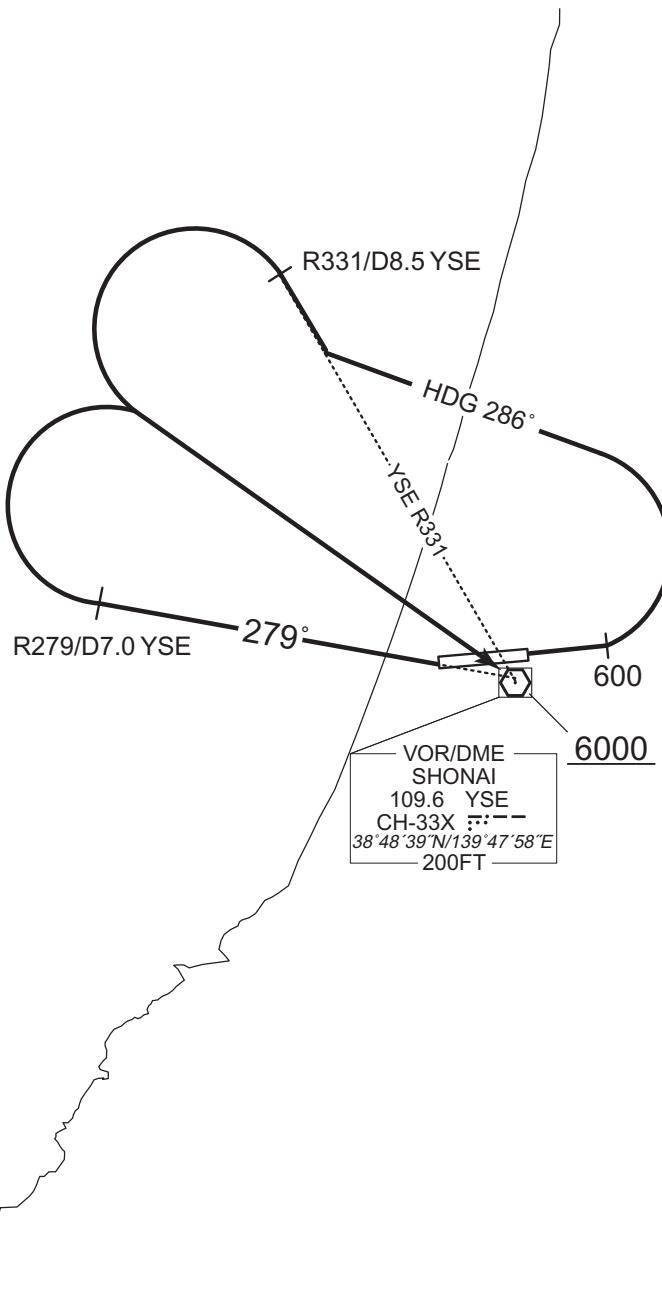
SID

SHONAI REVERSAL FOUR DEPARTURE

RWY 09 : Climb RWY HDG to 600FT, turn left HDG 286° to intercept and proceed via YSE R331 to YSE R331/8.5DME, turn left,...

RWY 27 : Climb via YSE R279 to YSE R279/7.0DME, turn right,...
...direct to YSE VOR/DME.
Cross YSE VOR/DME at or above 6000FT.

CHANGE : PROC renamed. PROC course.



STANDARD DEPARTURE CHART - INSTRUMENT

RJSY / SHONAI

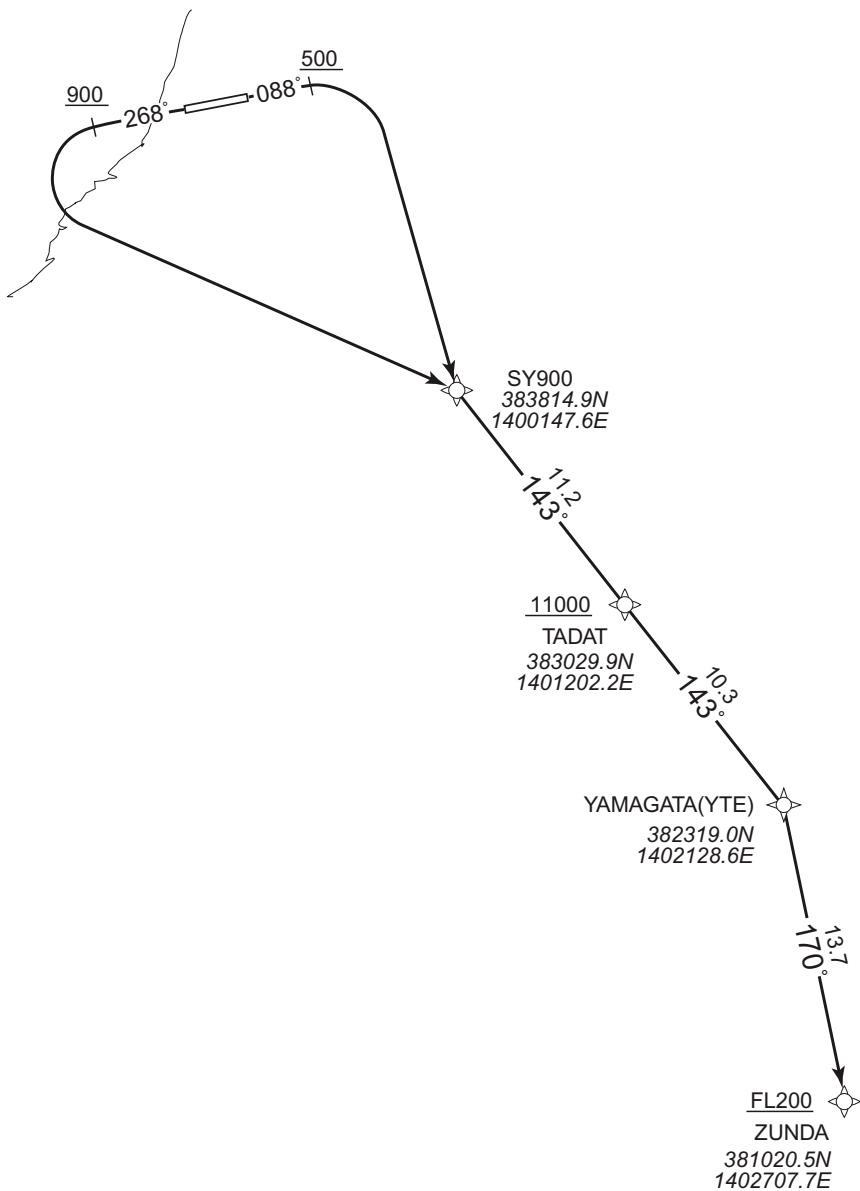
ZUNDA TWO DEPARTURE

RNAV SID

RNP1

Note GNSS required.

VAR 9°W



CHANGE : Description of VAR, VOR/DME, PROC name.

RWY09 : Climb on HDG 088° at or above 500FT, turn right direct to SY900, to TADAT at or above 11000FT, to YTE, to ZUNDA at or above FL200.

RWY27 : Climb on HDG 268° at or above 900FT, turn left direct to SY900, to TADAT at or above 11000FT, to YTE, to ZUNDA at or above FL200.

NOTE RWY09 : 4.8% climb gradient required up to 5000FT.

OBST ALT 4758FT located at 17.2NM 150°FM end of RWY09.

RWY27 : 4.4% climb gradient required up to 3500FT.

OBST ALT 1117FT located at 3.1NM 212°FM end of RWY27.

STANDARD DEPARTURE CHART - INSTRUMENT

RJSY / SHONAI

RNAV SID

ZUNDA TWO DEPARTURE

RWY09

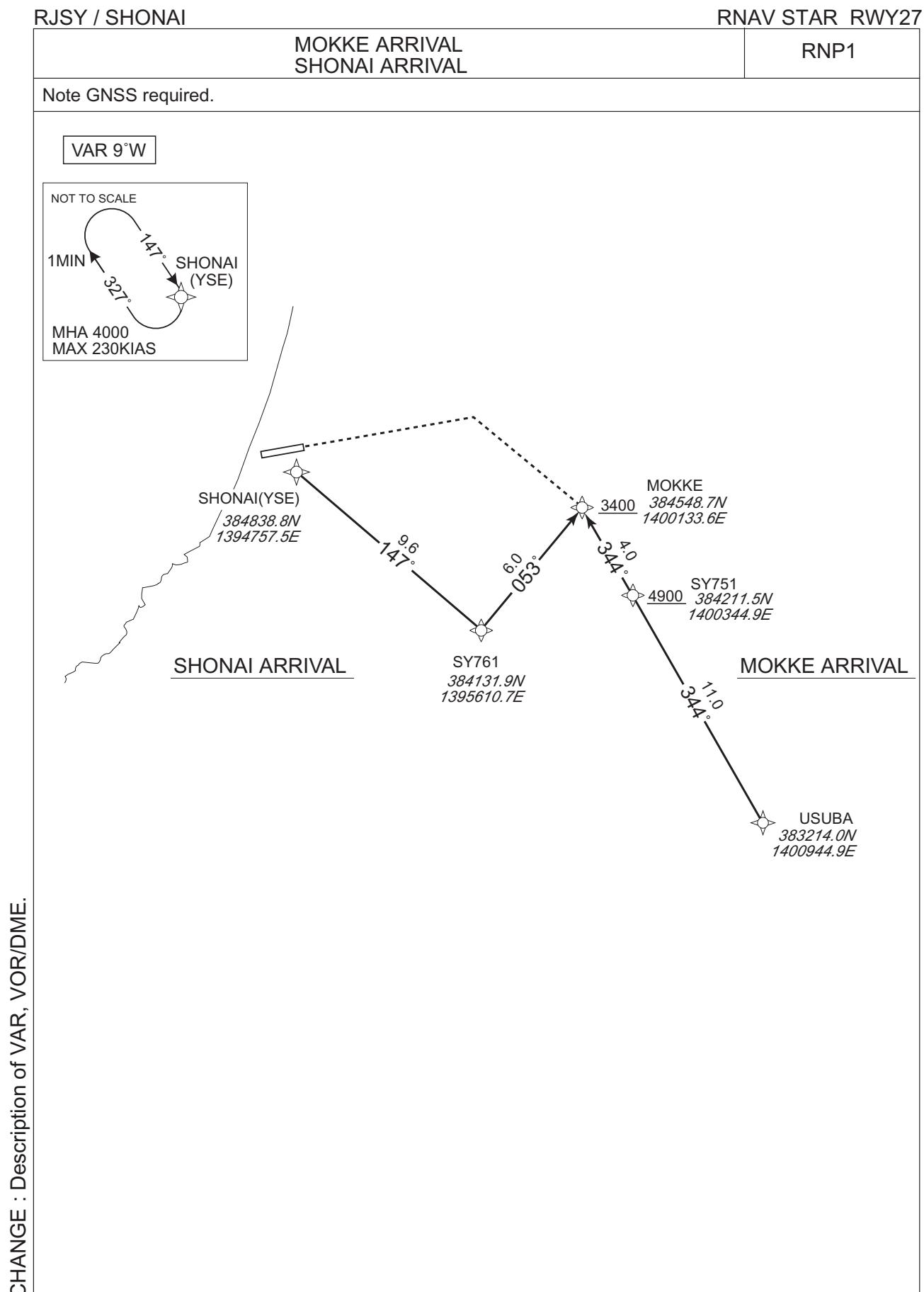
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	088 (079.5)	-8.8	-	-	+500	-	-	RNP1
002	DF	SY900	-	-	-8.8	-	R	-	-	-	RNP1
003	TF	TADAT	-	143 (134.0)	-8.8	11.2	-	+11000	-	-	RNP1
004	TF	YTE	-	143 (134.1)	-8.8	10.3	-	-	-	-	RNP1
005	TF	ZUNDA	-	170 (161.1)	-8.8	13.7	-	+FL200	-	-	RNP1

RWY27

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	-	-	268 (259.5)	-8.8	-	-	+900	-	-	RNP1
002	DF	SY900	-	-	-8.8	-	L	-	-	-	RNP1
003	TF	TADAT	-	143 (134.0)	-8.8	11.2	-	+11000	-	-	RNP1
004	TF	YTE	-	143 (134.1)	-8.8	10.3	-	-	-	-	RNP1
005	TF	ZUNDA	-	170 (161.1)	-8.8	13.7	-	+FL200	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART -INSTRUMENT



STANDARD ARRIVAL CHART -INSTRUMENT

RJSY / SHONAI

RNAV STAR RWY27

MOKKE ARRIVAL

From USUBA, to SY751 at or above 4900FT, to MOKKE at or above 3400FT.

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	USUBA	-	-	-8.8	-	-	-	-	-	RNP1
002	TF	SY751	-	344 (334.8)	-8.8	11.0	-	+4900	-	-	RNP1
003	TF	MOKKE	-	344 (334.8)	-8.8	4.0	-	+3400	-	-	RNP1

SHONAI ARRIVAL

From YSE, to SY761, to MOKKE at or above 3400FT.

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	YSE	-	-	-8.8	-	-	-	-	-	RNP1
002	TF	SY761	-	147 (137.9)	-8.8	9.6	-	-	-	-	RNP1
003	TF	MOKKE	-	053 (044.4)	-8.8	6.0	-	+3400	-	-	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	YSE	147 (137.9)	-8.8	1.0(-14000)	R	4000	FL140	-230(-14000)	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART -INSTRUMENT

RJSY / SHONAI

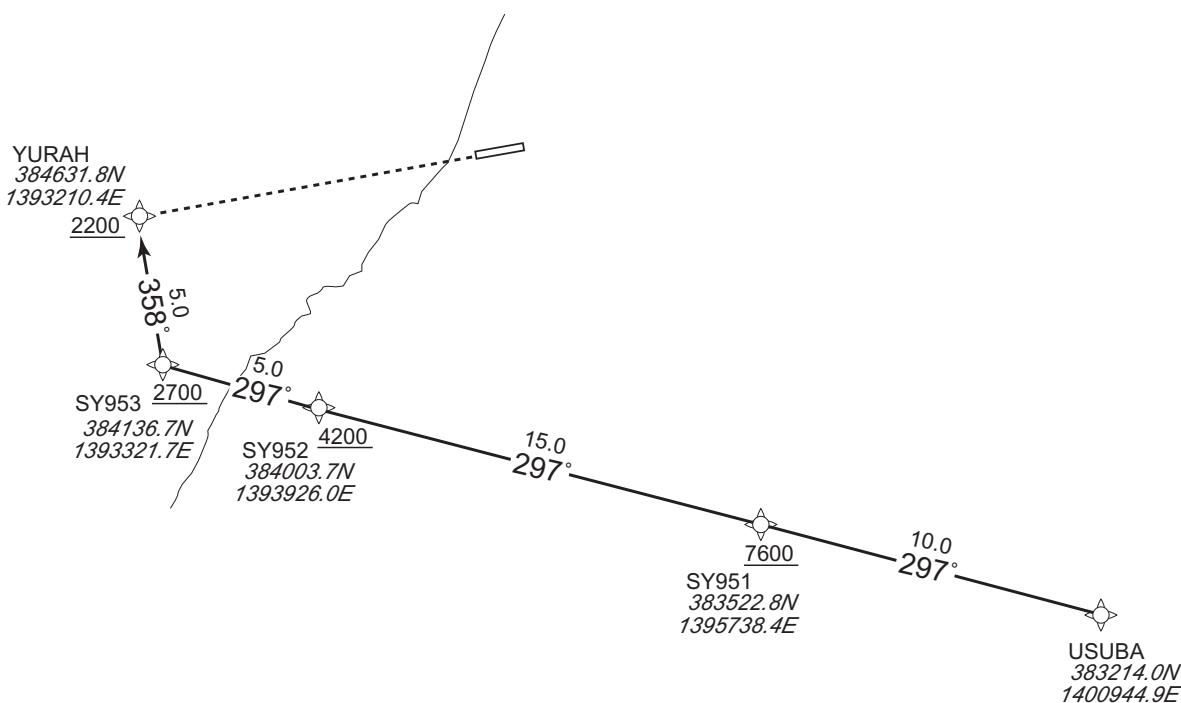
RNAV STAR RWY09

YURAH ARRIVAL

RNP1

Note GNSS required.

VAR 9°W



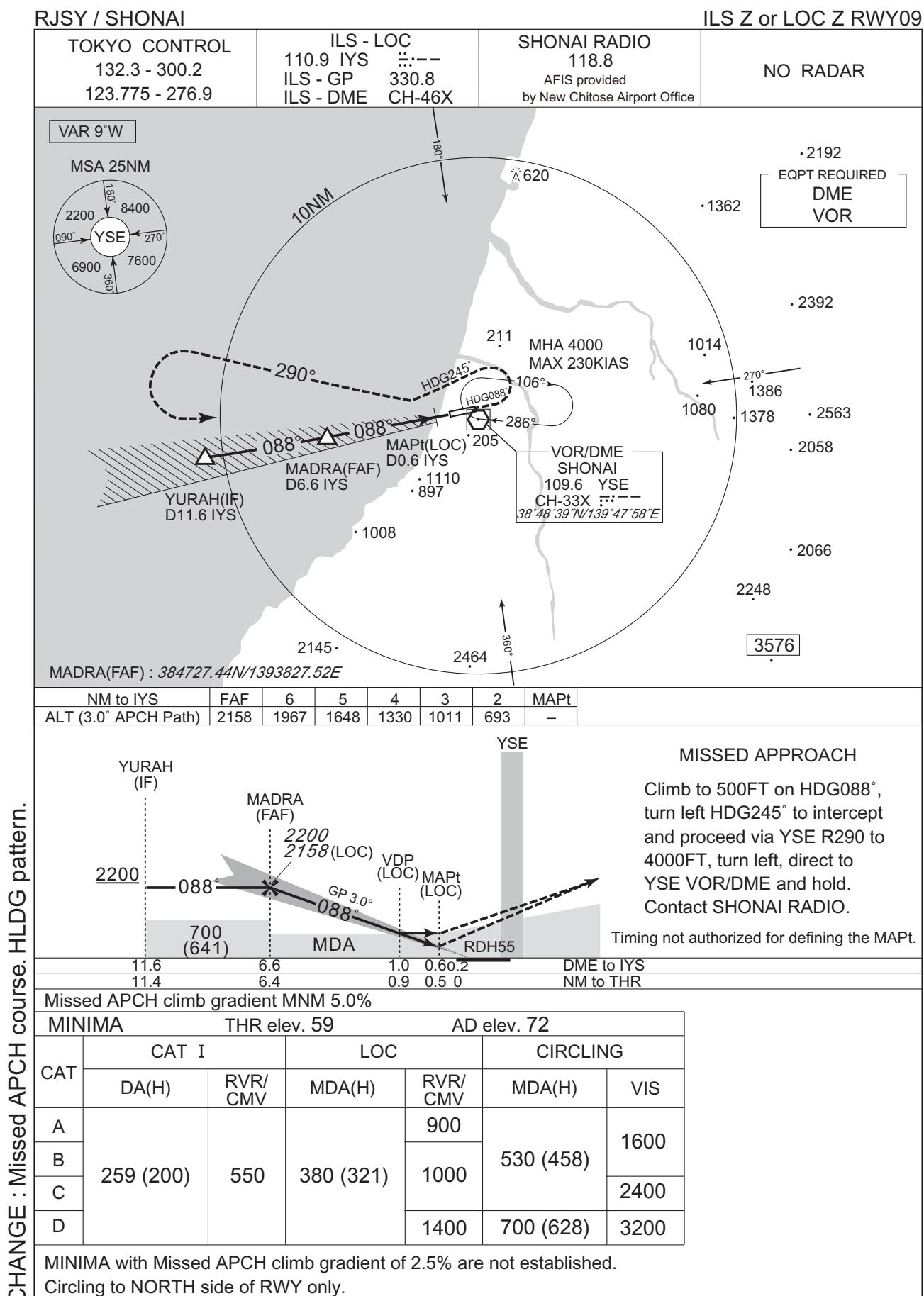
CHANGE : Description of VAR, VOR/DME, STAR name.

From USUBA, to SY951 at or above 7600FT, to SY952 at or above 4200FT, to SY953 at or above 2700FT, to YURAH at or above 2200FT.

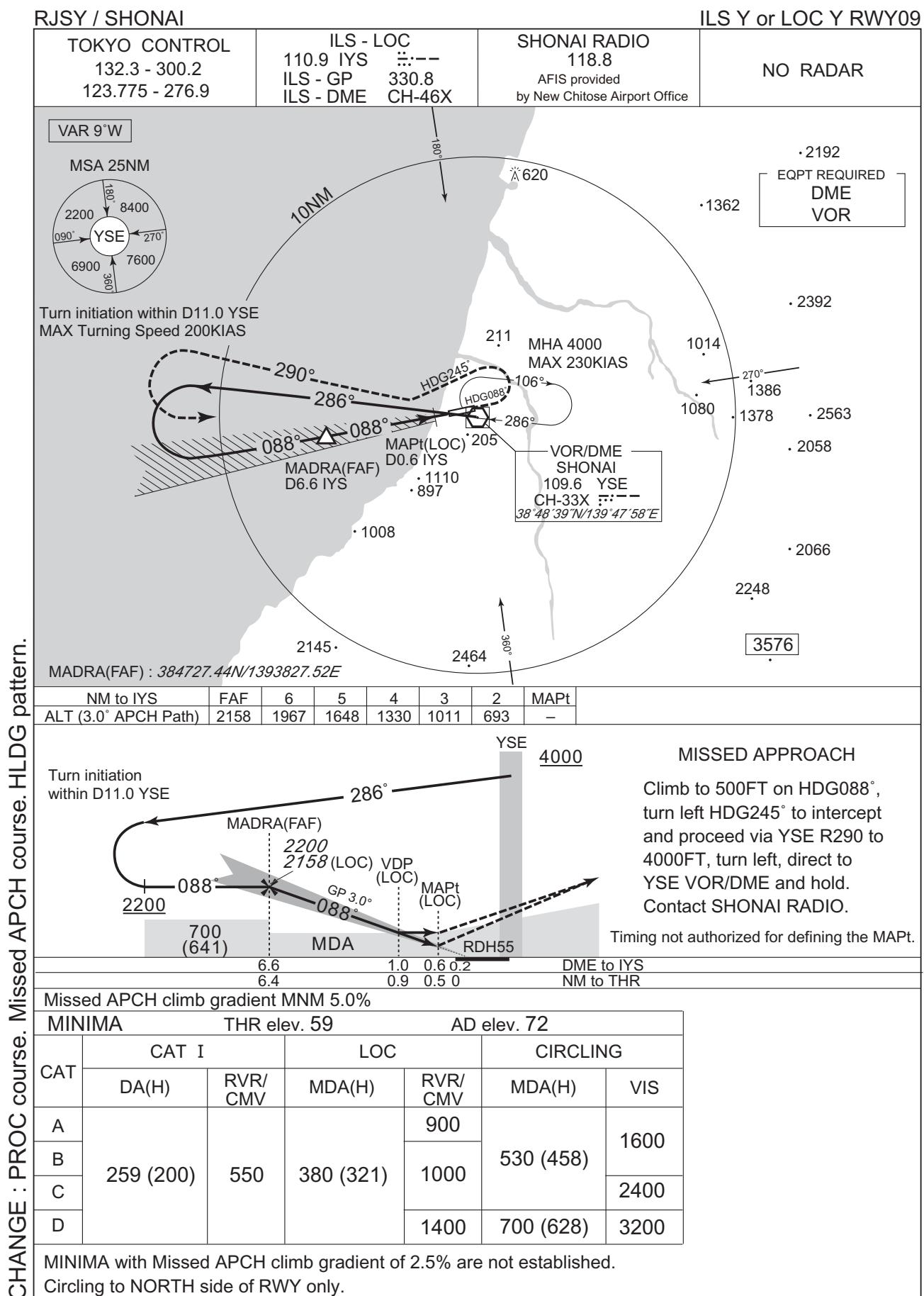
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	USUBA	—	—	-8.8	—	—	—	—	—	RNP1
002	TF	SY951	—	297 (288.4)	-8.8	10.0	—	+7600	—	—	RNP1
003	TF	SY952	—	297 (288.3)	-8.8	15.0	—	+4200	—	—	RNP1
004	TF	SY953	—	297 (288.1)	-8.8	5.0	—	+2700	—	—	RNP1
005	TF	YURAH	—	358 (349.3)	-8.8	5.0	—	+2200	—	—	RNP1

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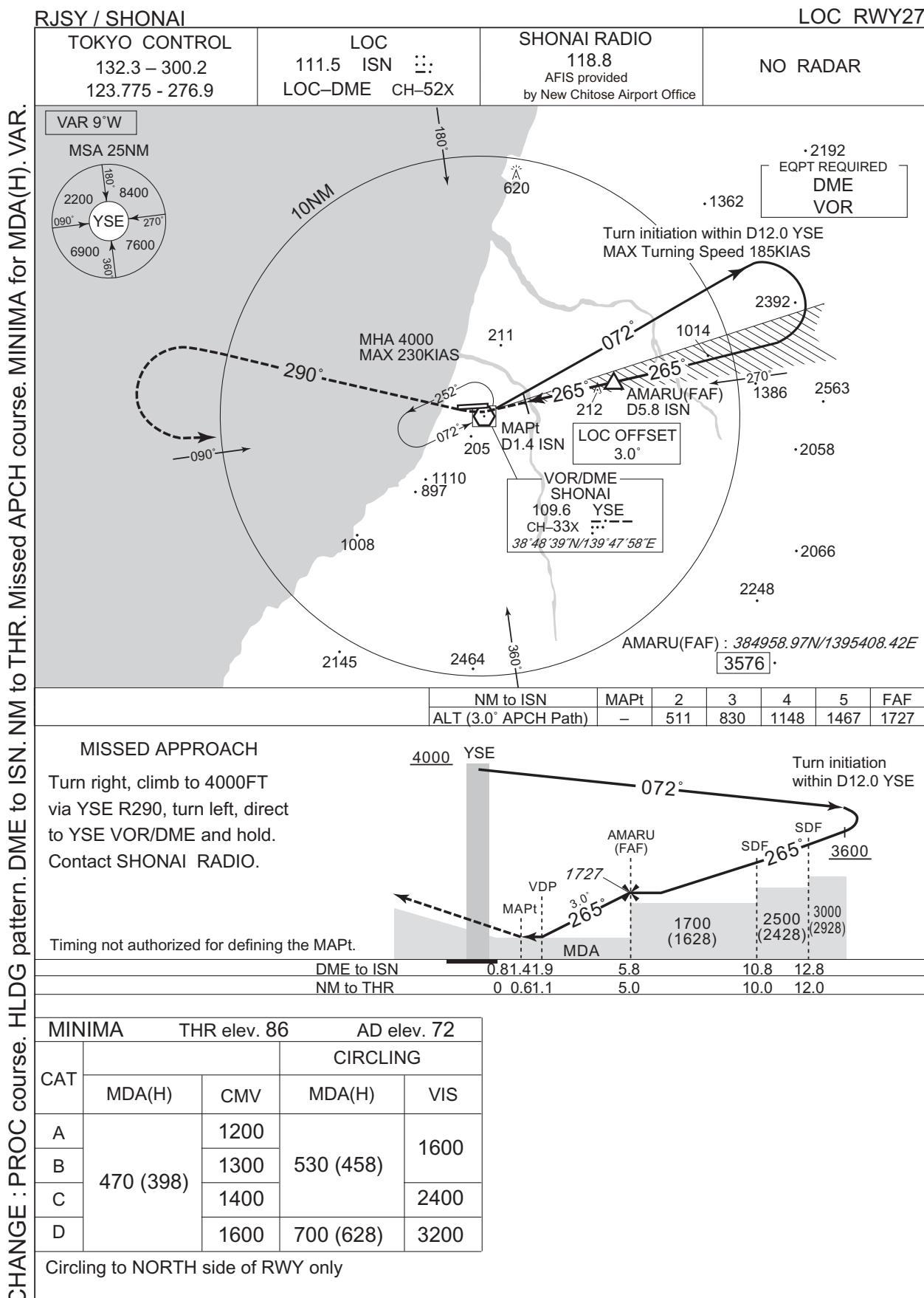
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



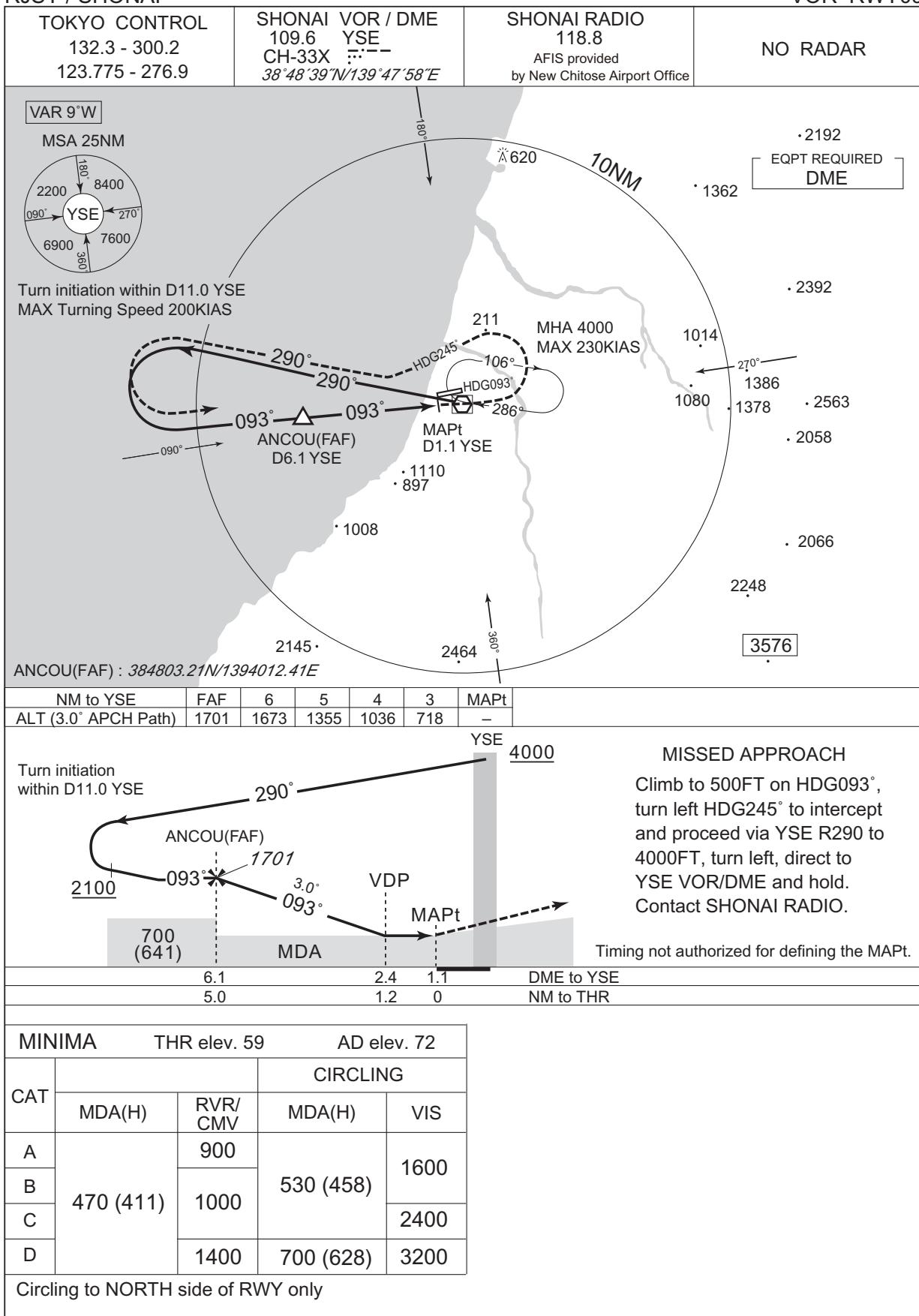
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJSY / SHONAI

VOR RWY09



INSTRUMENT APPROACH CHART

RJSY / SHONAI

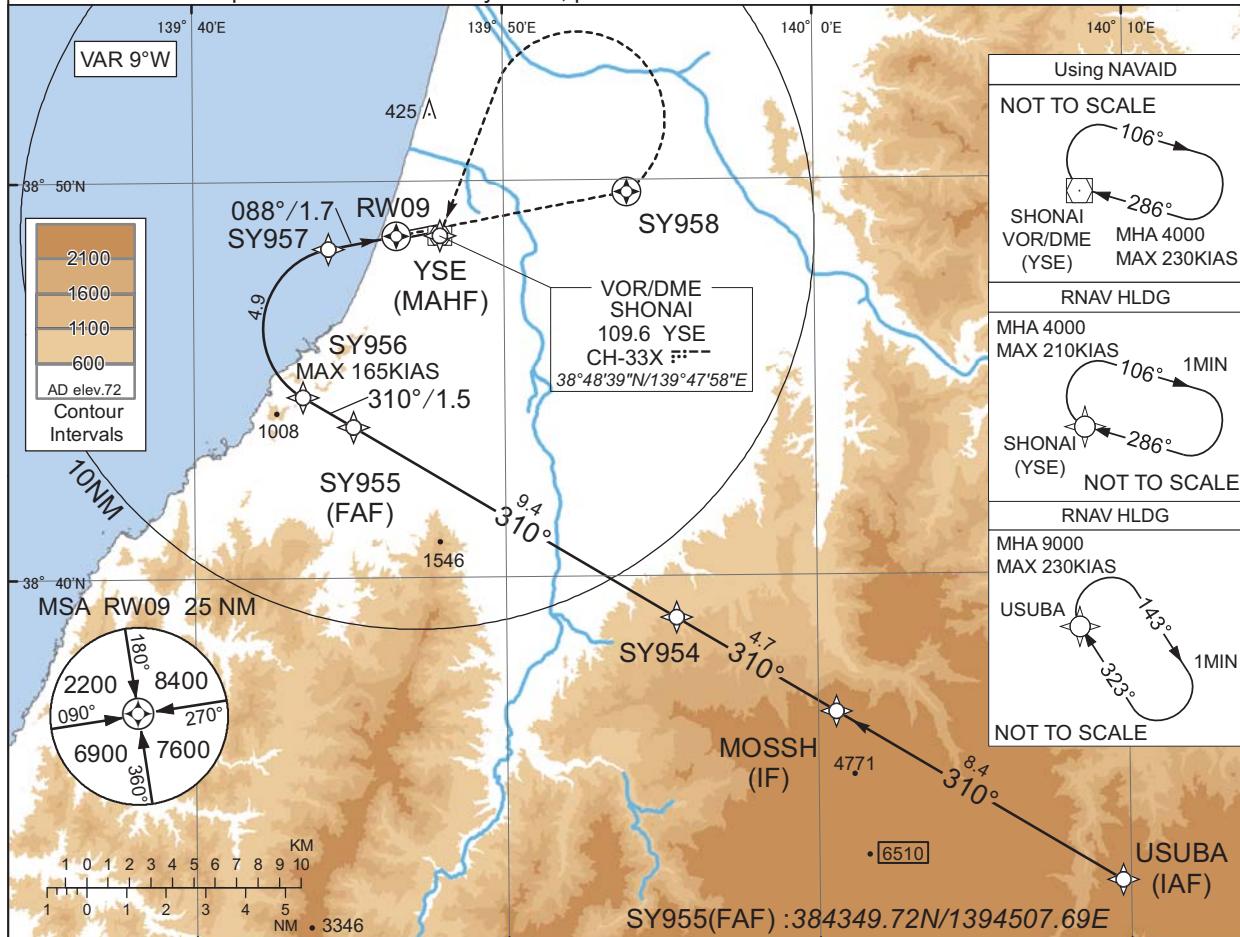
TOKYO CONTROL
132.3 - 300.2
123.775 - 276.9

RNP AR
RF required.

SHONAI RADIO
118.8
AFIS provided by
New Chitose Airport Office

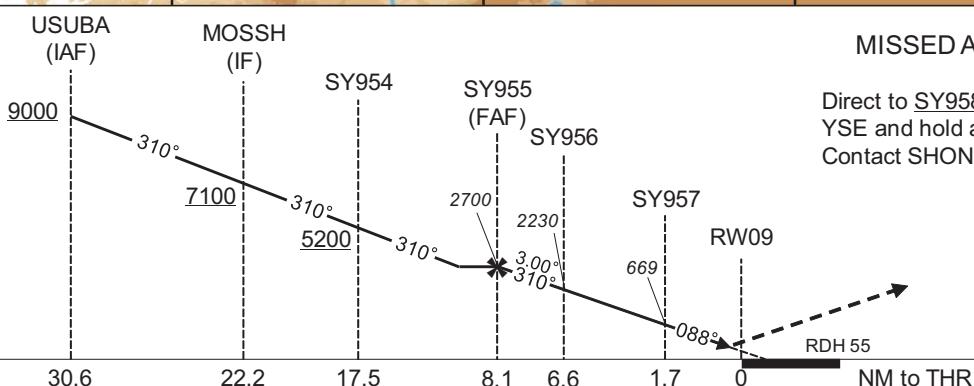
RNP RWY09(AR)

For uncompensated Baro-VNAV systems, procedure not authorized below -10°C / above 45°C



MISSED APPROACH

Direct to SY958, turn left, direct to
YSE and hold at 4000FT.
Contact SHONAI RADIO



Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 59 AD elev. 72				
CAT	RNP 0.10		RNP 0.30	
	DA(H)	RVR/CMV	DA(H)	RVR/CMV
A	-	-	-	-
B				
C	372(313)	1000	424(365)	1000
D		1400		1400

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

Authorization Required

INSTRUMENT APPROACH CHART

RJSY / SHONAI

RNP RWY09(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	USUBA	-	-	-8.8	-	-	+9000	-	-	-
002	TF	MOSSH	-	310 (301.2)	-8.8	8.4	-	+7100	-	-	1.0
003	TF	SY954	-	310 (301.1)	-8.8	4.7	-	+5200	-	-	1.0
004	TF	SY955	-	310 (301.1)	-8.8	9.4	-	2700	-	-	1.0
005	TF	SY956	-	310 (301.0)	-8.8	1.5	-	2230	-165	-3.00	0.1 0.3
006	RF Center: SYRF1 r=2.03NM	SY957	-	-	-8.8	4.9	R	669	-	-3.00	0.1 0.3
007	TF	RW09	Y	088 (079.4)	-8.8	1.7	-	114	-	-3.00/55	0.1 0.3
008	DF	SY958	Y	-	-8.8	-	-	-	-	-	1.0
009	DF	YSE	-	-	-8.8	-	L	4000	-	-	1.0

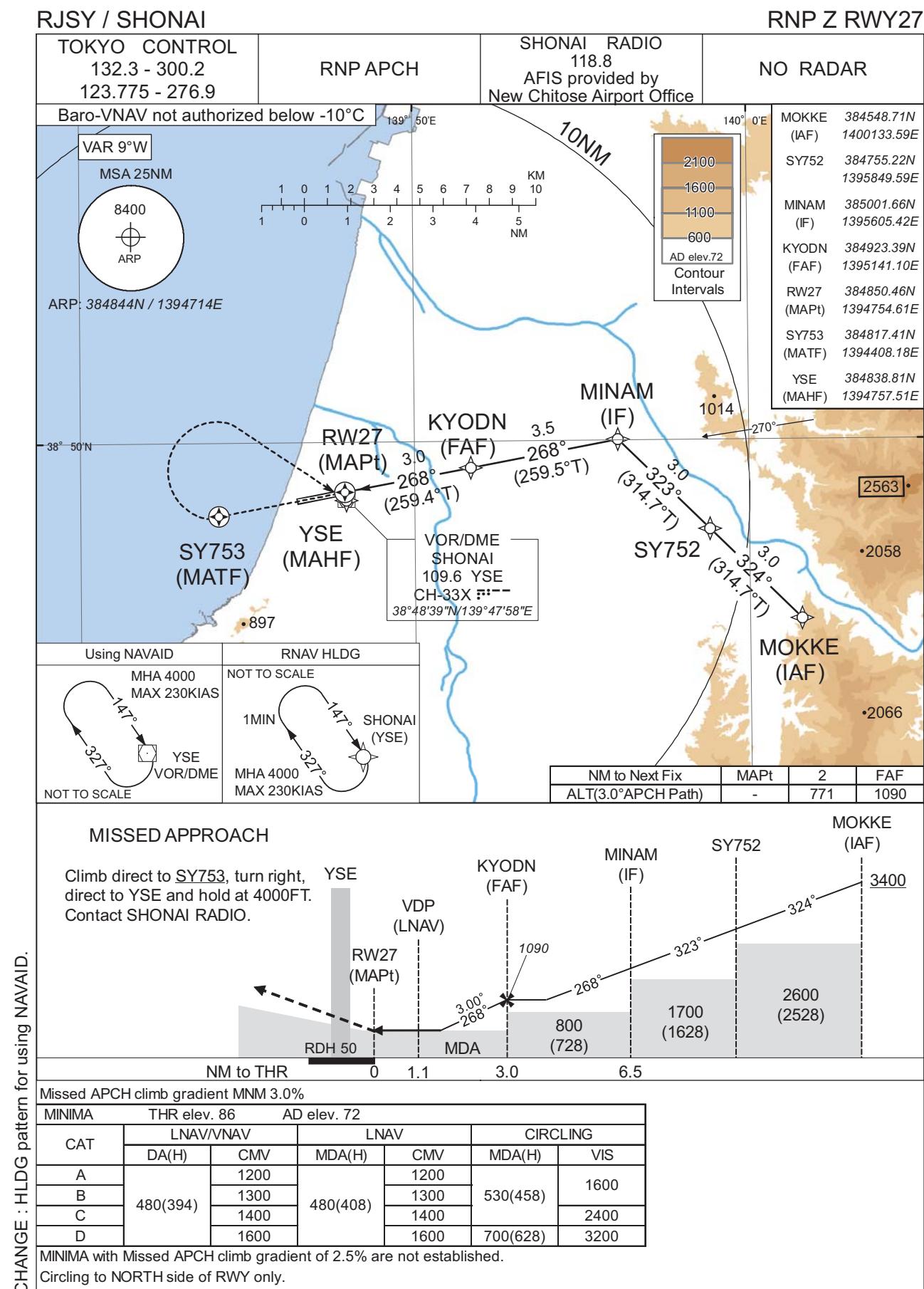
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	USUBA	323 (314.1)	-8.8	1.0 (-14000)	R	9000	FL140	-230 (-14000)	1.0
Hold	YSE	286 (277.0)	-8.8	1.0 (-14000)	R	4000	FL140	-210 (-14000)	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
USUBA	383214.02N / 1400944.88E	SYRF1	384619.71N / 1394450.17E
MOSSH	383634.00N / 1400035.10E		
SY954	383858.43N / 1395528.53E		
SY955	384349.72N / 1394507.69E		
SY956	384435.19N / 1394330.47E		
SY957	384819.37N / 1394421.61E		
RW09	384838.58N / 1394633.12E		
SY958	384943.40N / 1395359.19E		
YSE	384838.81N / 1394757.51E		

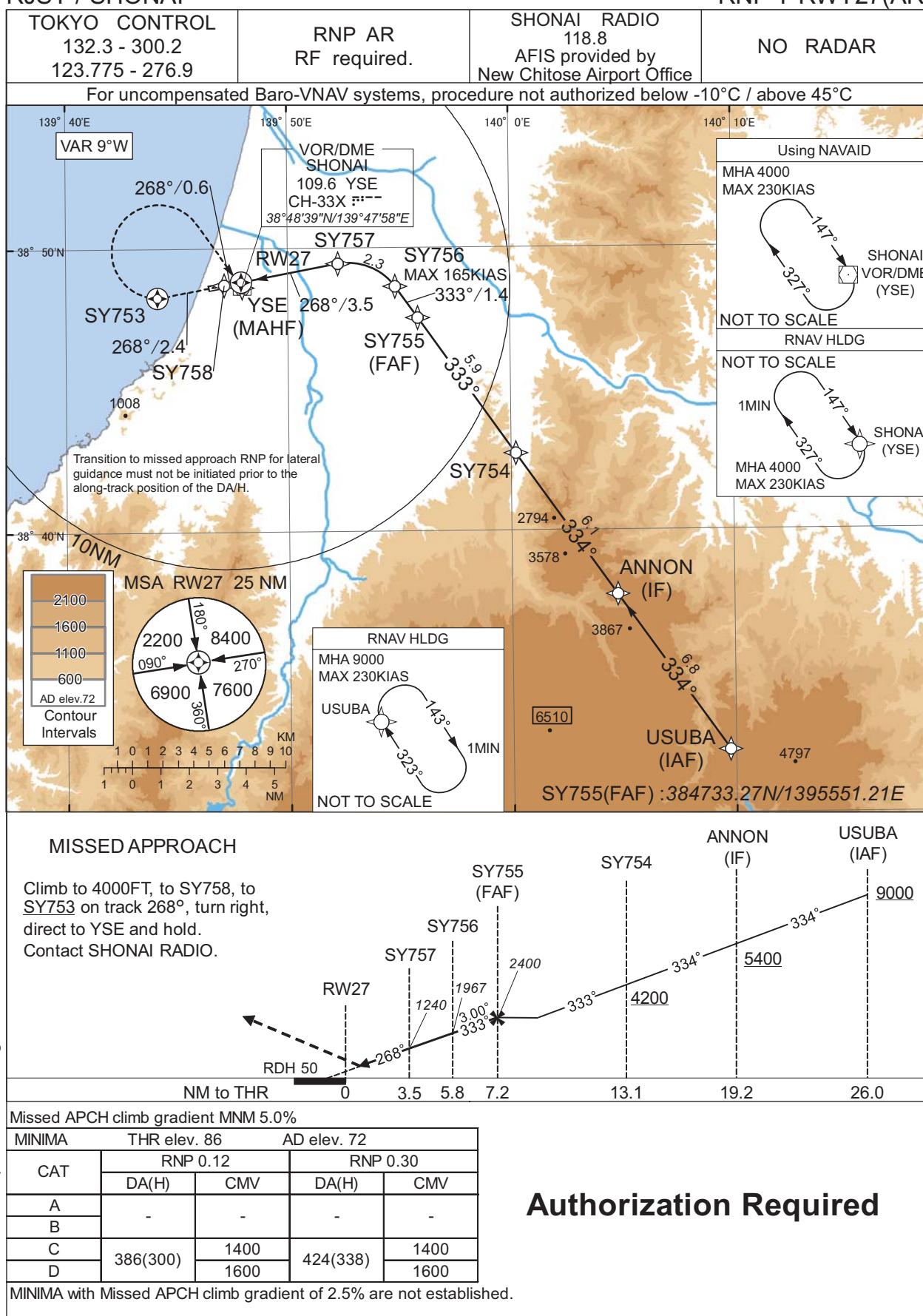
CHANGE : PROC renamed.

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJSY / SHONAI



Authorization Required

INSTRUMENT APPROACH CHART

RJSY / SHONAI

RNP Y RWY27(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	USUBA	-	-	-8.8	-	-	+9000	-	-	-
002	TF	ANNON	-	334 (324.8)	-8.8	6.8	-	+5400	-	-	1.0
003	TF	SY754	-	334 (324.7)	-8.8	6.1	-	+4200	-	-	1.0
004	TF	SY755	-	333 (324.7)	-8.8	5.9	-	2400	-	-	1.0
005	TF	SY756	-	333 (324.6)	-8.8	1.4	-	1967	-165	-3.00	0.12 0.30
006	RF Center: SYRF2 r=2.01NM	SY757	-	-	-8.8	2.3	L	1240	-	-3.00	0.12 0.30
007	TF	RW27	Y	268 (259.5)	-8.8	3.5	-	136	-	-3.00/50	0.12 0.30
008	TF	SY758	-	268 (259.4)	-8.8	0.6	-	-	-	-	0.12 0.30
009	CF	SY753	Y	268 (259.4)	-8.8	2.4	-	-	-	-	1.0
010	DF	YSE	-	-	-8.8	-	R	4000	-	-	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	USUBA	323 (314.1)	-8.8	1.0 (-14000)	R	9000	FL140	-230 (-14000)	1.0
Hold	YSE	147 (137.9)	-8.8	1.0 (-14000)	R	4000	FL140	-230 (-14000)	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
USUBA	383214.02N / 1400944.88E	SYRF2	384729.55N / 1395244.67E
ANNON	383745.37N / 1400445.25E		
SY754	384245.22N / 1400013.26E		
SY755	384733.27N / 1395551.21E		
SY756	384839.83N / 1395450.54E		
SY757	384928.52N / 1395216.49E		
RW27	384850.46N / 1394754.61E		
SY758	384843.80N / 1394708.93E		
SY753	384817.41N / 1394408.18E		
YSE	384838.81N / 1394757.51E		

CHANGE : PROC renamed.

RJSY / SHONAI

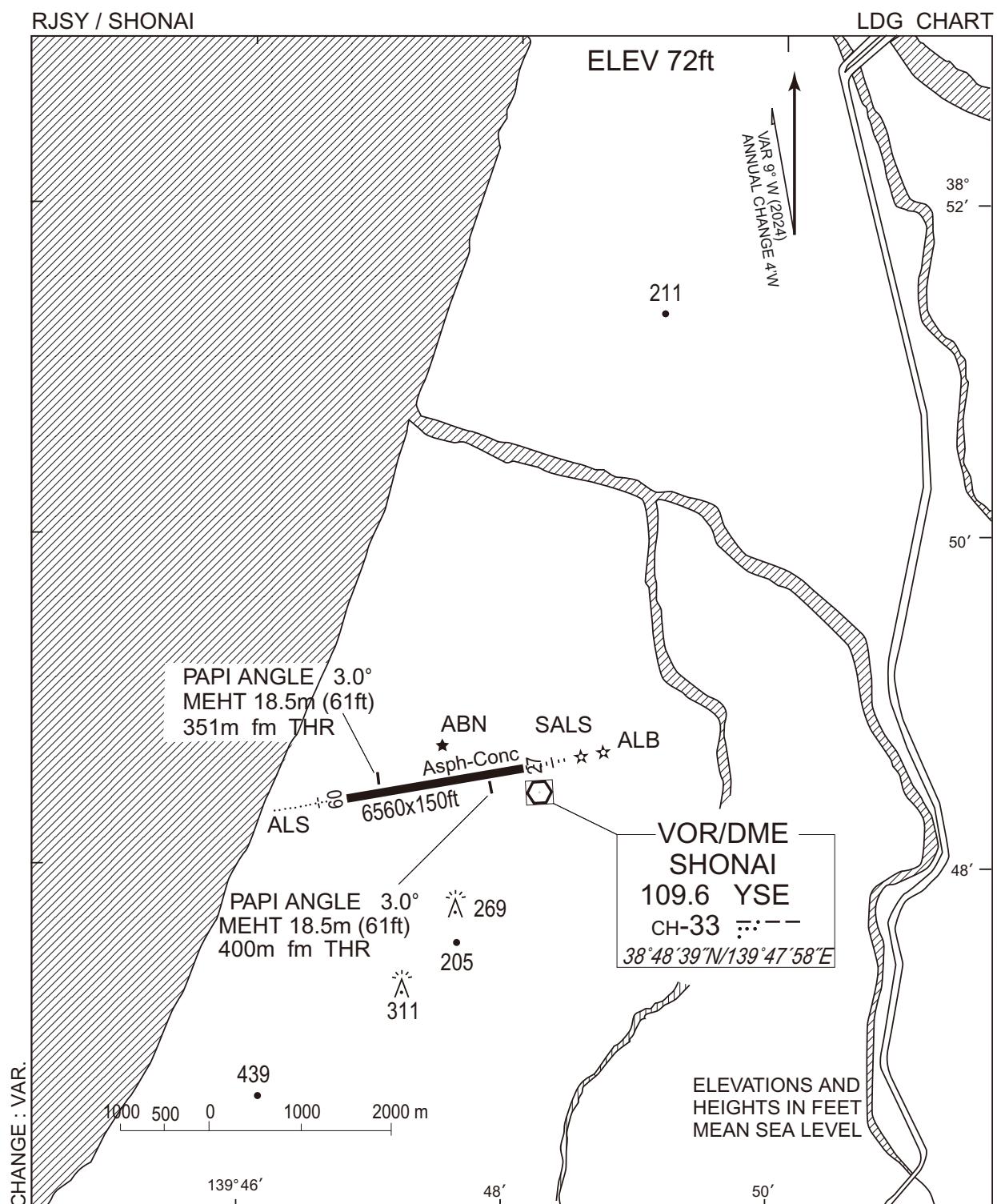
Visual REP



※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).

Call sign	BRG / DIST from ARP	Remarks
吹浦 Fukura	014°T / 16.0NM	吹浦港 Harbor
酒田 Sakata	009°T / 8.1NM	酒田港 Harbor
最上 Mogami	089°T / 9.1NM	最上川橋 Bridge
鶴岡 Tsuruoka	153°T / 4.9NM	JR駅 Station
波渡崎 Hatozaki	225°T / 10.6NM	岬 Cape
あさひインター Asahi Inter	167°T / 11.9NM	山形自動車道 庄内あさひインターチェンジ Interchange

CHANGE : VAR.



RJSY / SHONAI

Minimum Vectoring Altitude CHART

