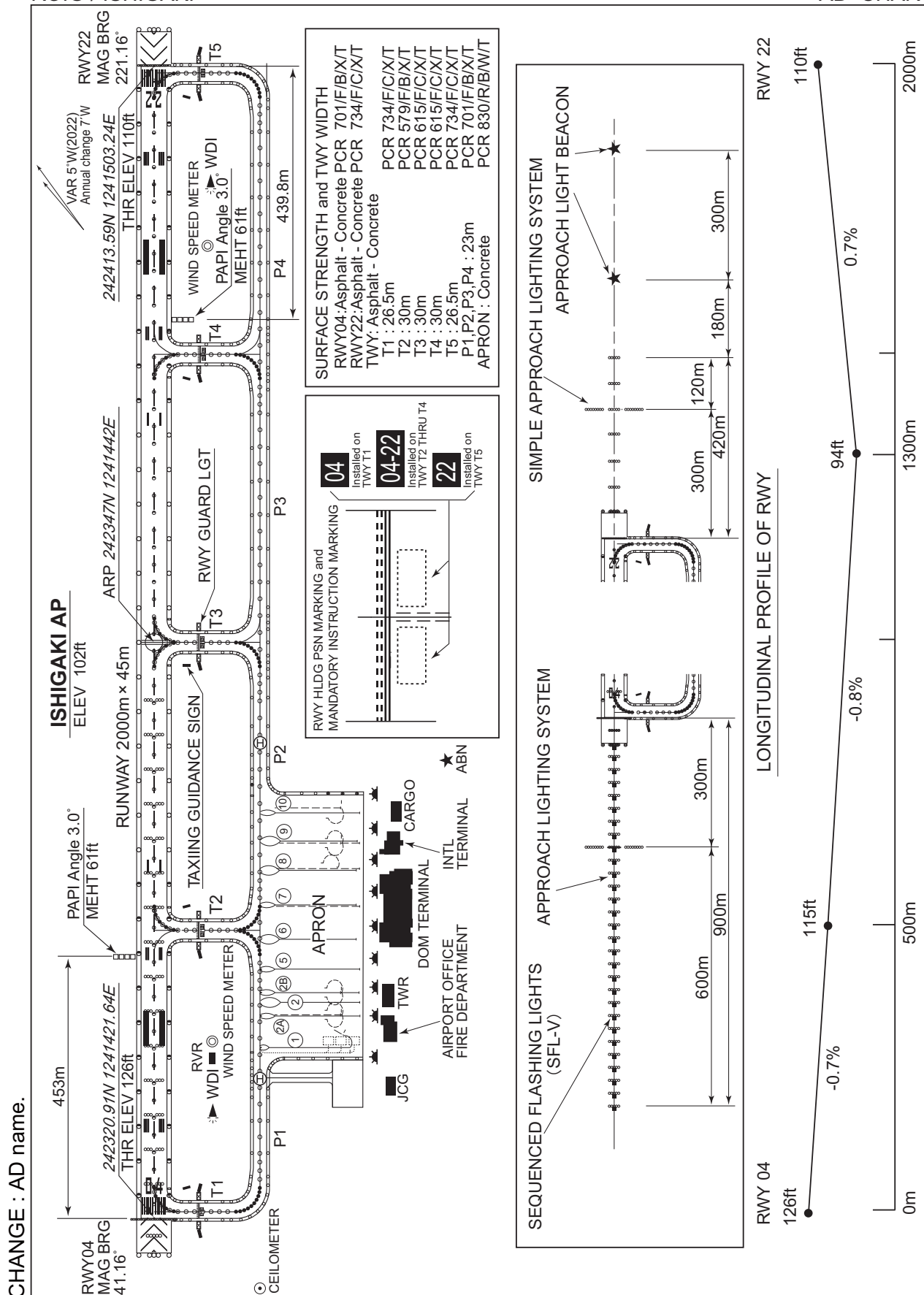


AD CHART



INTENTIONALLY LEFT BLANK

STANDARD DEPARTURE CHART -INSTRUMENT

ROIG / ISHIGAKI

SID

GUSUK ONE DEPARTURE

RWY04 : Climb RWY HDG to 600FT, turn right,...

RWY22 : Climb RWY HDG to 600FT, via IGE R214 to IGE R214/2.8DME,turn left HDG027°...

... to intercept and proceed via IGE R072 to GUSUK.

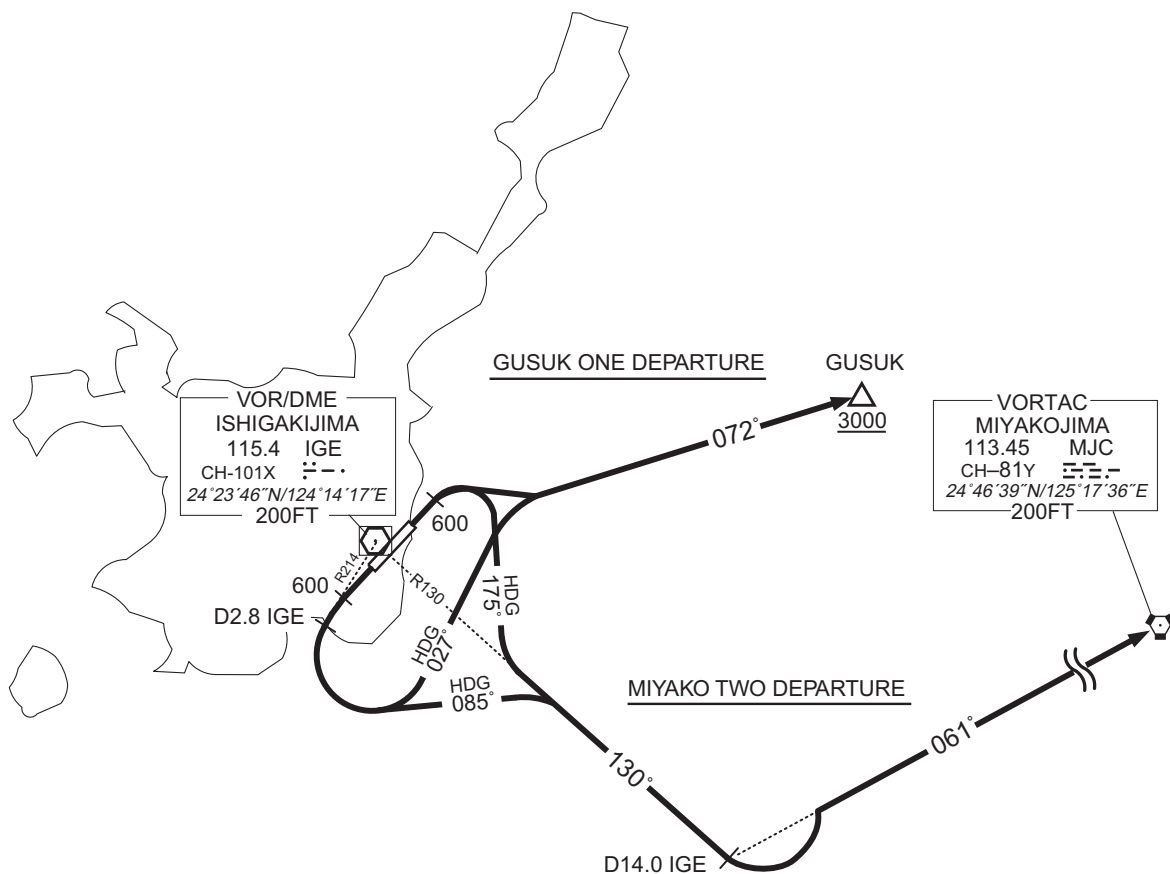
Cross GUSUK at or above 3000FT.

MIYAKO TWO DEPARTURE

RWY04 : Climb RWY HDG to 600FT, turn right HDG175°...

RWY22 : Climb RWY HDG to 600FT, via IGE R214 to IGE R214/2.8DME,turn left HDG085°...

... to intercept and proceed via IGE R130 to IGE 14.0DME, turn left, via MJC R241 to MJC VORTAC.



CHANGE : AD name.

STANDARD DEPARTURE CHART -INSTRUMENT

ROIG / ISHIGAKI

SID

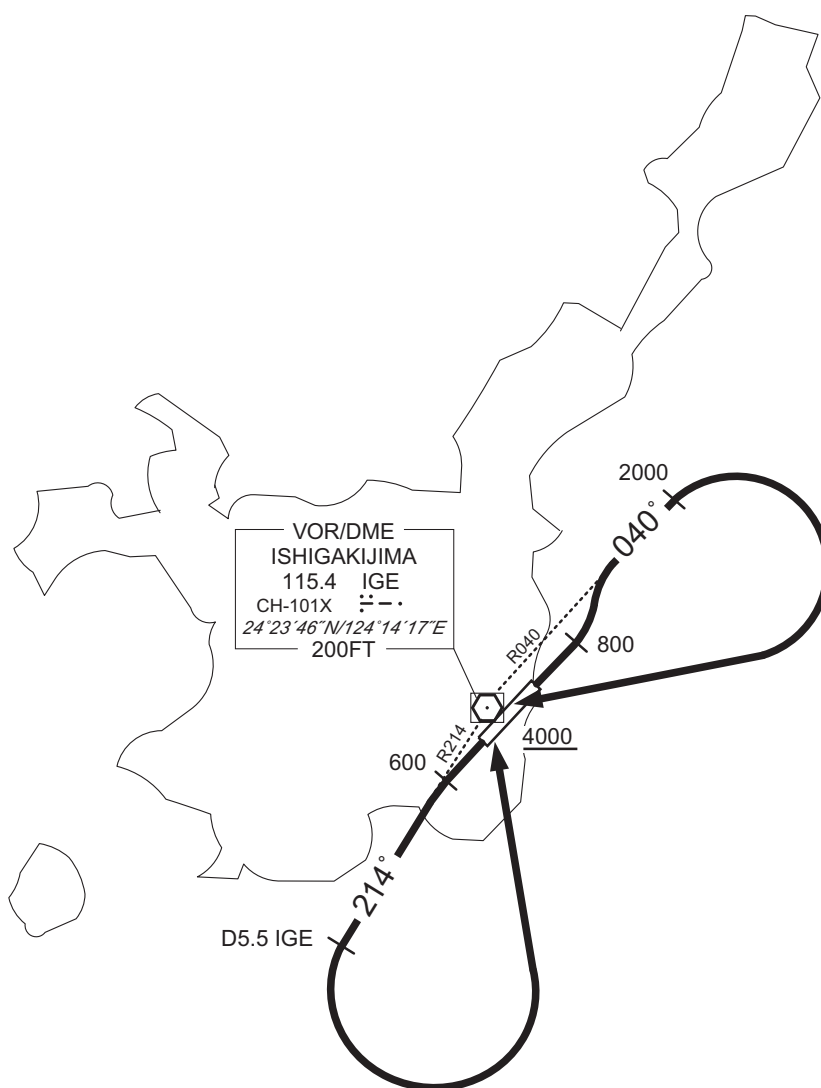
ISHIGAKI REVERSAL ONE DEPARTURE

RWY04 : Climb RWY HDG to 800FT, turn left to intercept and proceed via IGE R040 to 2000FT,
turn right,direct to IGE VOR/DME.

Cross IGE VOR/DME at or above 4000FT.

RWY22 : Climb RWY HDG to 600FT,via IGE R214 to IGE R214/5.5DME,turn left, direct to IGE VOR/DME.

Cross IGE VOR/DME at or above 4000FT.



CHANGE : AD name.

STANDARD DEPARTURE CHART -INSTRUMENT

ROIG / ISHIGAKI

SID

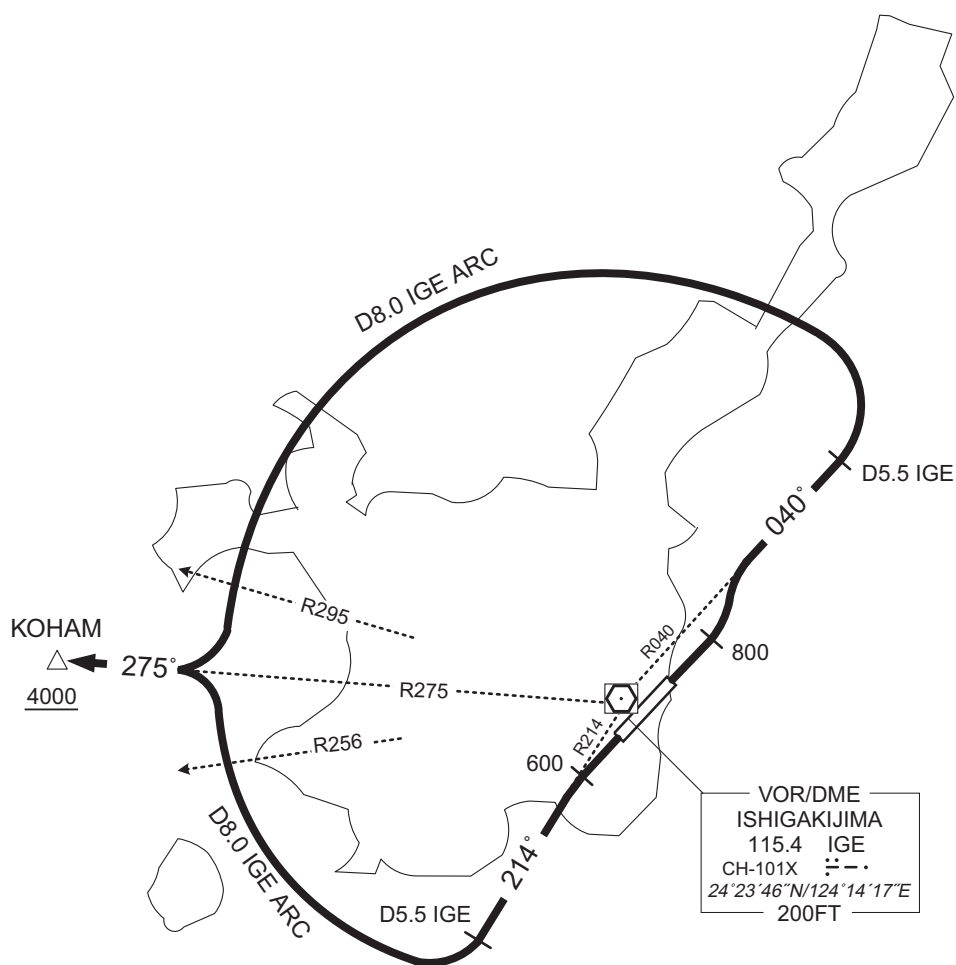
KOHAM ONE DEPARTURE

RWY04 : Climb RWY HDG to 800FT, turn left to intercept and proceed via IGE R040 to IGE R040/5.5DME, turn left, via IGE 8.0DME counterclockwise ARC,turn right to intercept and proceed via IGE R275 to KOHAM.

Cross KOHAM at or above 4000FT.

RWY22 : Climb RWY HDG to 600FT,via IGE R214 to IGE R214/5.5DME,turn right, via IGE 8.0DME clockwise ARC,turn left to intercept and proceed via IGE R275 to KOHAM.

Cross KOHAM at or above 4000FT.



CHANGE : AD name.

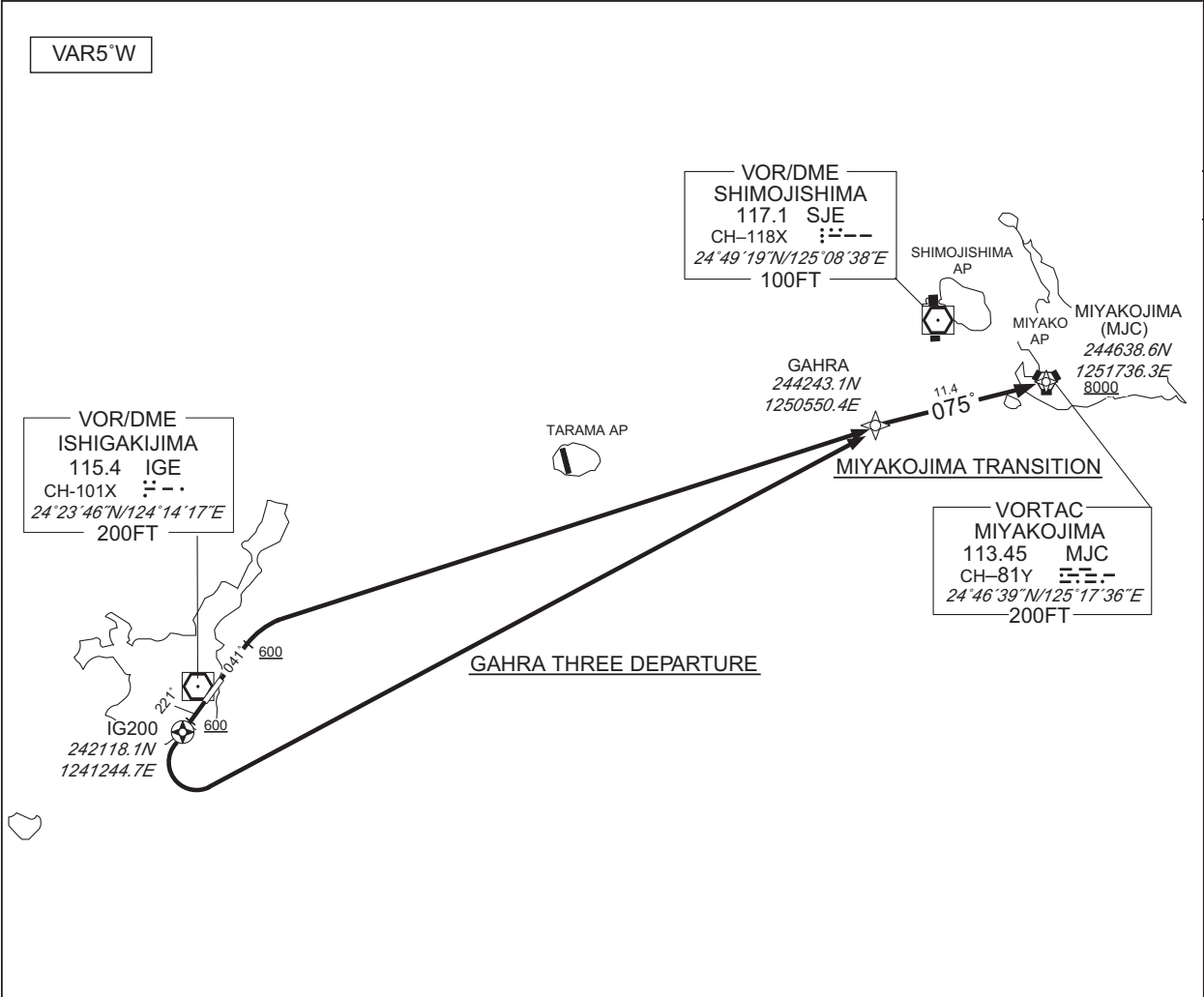
STANDARD DEPARTURE CHART -INSTRUMENT

ROIG / ISHIGAKI

RNAV SID and TRANSITION

GAHRA THREE DEPARTURE MIYAKOJIMA TRANSITION	RNP1
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Note GNSS required.



GAHRA THREE DEPARTURE

- RWY04 : Climb on HDG 041° at or above 600FT, turn right direct to GAHRA.
- RWY22 : Climb on HDG 221° at or above 600FT, direct to IG200, turn left direct to GAHRA.

MIYAKOJIMA TRANSITION

From GAHRA, to MJC at or above 8000FT.

CHANGE : AD name.

STANDARD DEPARTURE CHART -INSTRUMENT

ROIG / ISHIGAKI

RNAV SID and TRANSITION

GAHRA THREE DEPARTURE											
RWY04											
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	-	-	041 (035.9)	-4.9	-	-	+600	-	-	RNP1
002	DF	GAHRA	-	-	-4.9	-	R	-	-	-	RNP1
RWY22											
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	-	-	221 (215.9)	-4.9	-	-	+600	-	-	RNP1
002	DF	IG200	Y	-	-4.9	-	-	-	-	-	RNP1
003	DF	GAHRA	-	-	-4.9	-	L	-	-	-	RNP1
MIYAKOJIMA 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	GAHRA	-	-	-4.9	-	-	-	-	-	RNP1
002	TF	MJC	-	075 (069.8)	-4.9	11.4	-	+8000	-	-	RNP1

CHANGE : AD name.

STANDARD DEPARTURE CHART -INSTRUMENT

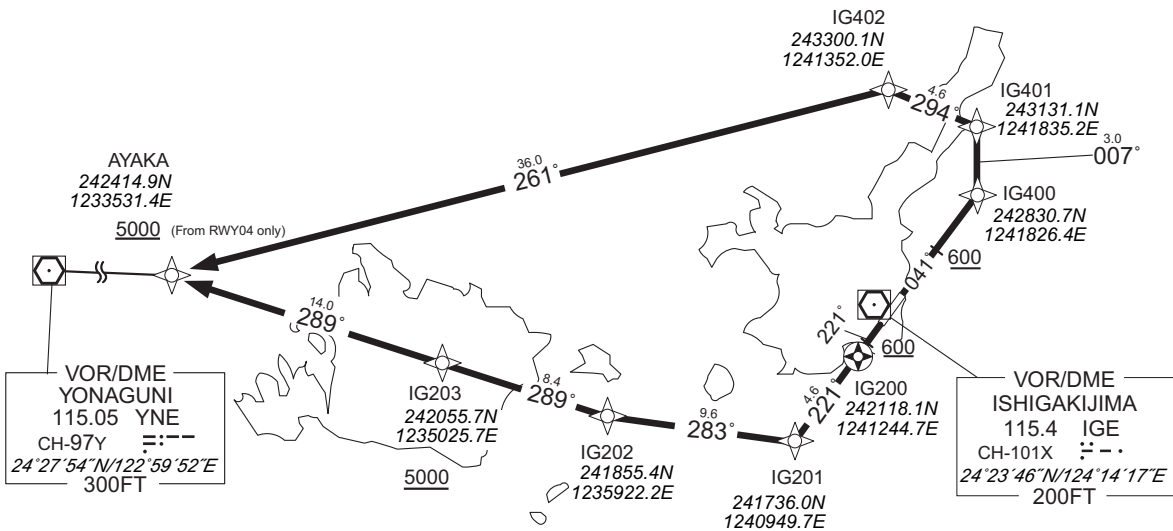
ROIG / ISHIGAKI

RNAV SID

AYAKA THREE DEPARTURE	RNP1
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Note GNSS required.

VAR5°W



RWY04 : Climb on HDG 041° at or above 600FT, direct to IG400, to IG401, to IG402, to AYAKA at or above 5000FT.

RWY22 : Climb on HDG 221° at or above 600FT, direct to IG200, to IG201, to IG202, to IG203 at or above 5000FT, to AYAKA.

NOTE RWY04 : 4.0% climb gradient required up to 2000FT.
OBST ALT 836FT at 9.53NM 021° FM end of RWY04.

CHANGE : AD name.

STANDARD DEPARTURE CHART -INSTRUMENT

ROIG / ISHIGAKI

RNAV SID

AYAKA THREE DEPARTURE

RWY04

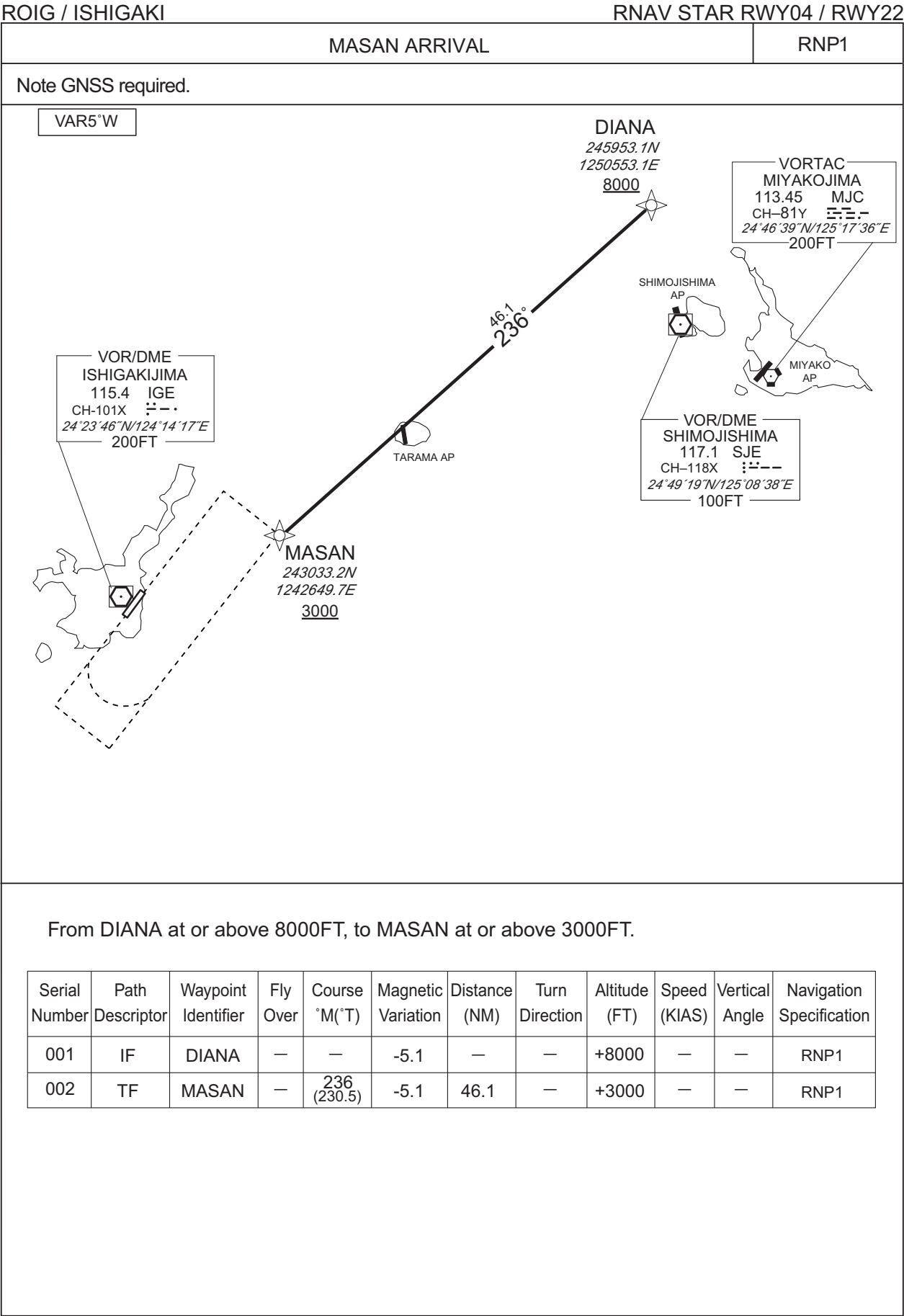
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	041 (035.9)	-4.9	-	-	+600	-	-	RNP1
002	DF	IG400	-	-	-4.9	-	-	-	-	-	RNP1
003	TF	IG401	-	007 (002.6)	-4.9	3.0	-	-	-	-	RNP1
004	TF	IG402	-	294 (289.1)	-4.9	4.6	-	-	-	-	RNP1
005	TF	AYAKA	-	261 (256.1)	-4.9	36.0	-	+5000	-	-	RNP1

RWY22

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	-	-	221 (215.9)	-4.9	-	-	+600	-	-	RNP1
002	DF	IG200	Y	-	-4.9	-	-	-	-	-	RNP1
003	TF	IG201	-	221 (215.7)	-4.9	4.6	-	-	-	-	RNP1
004	TF	IG202	-	283 (277.9)	-4.9	9.6	-	-	-	-	RNP1
005	TF	IG203	-	289 (283.9)	-4.9	8.4	-	+5000	-	-	RNP1
006	TF	AYAKA	-	289 (283.8)	-4.9	14.0	-	-	-	-	RNP1

CHANGE : AD name.

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

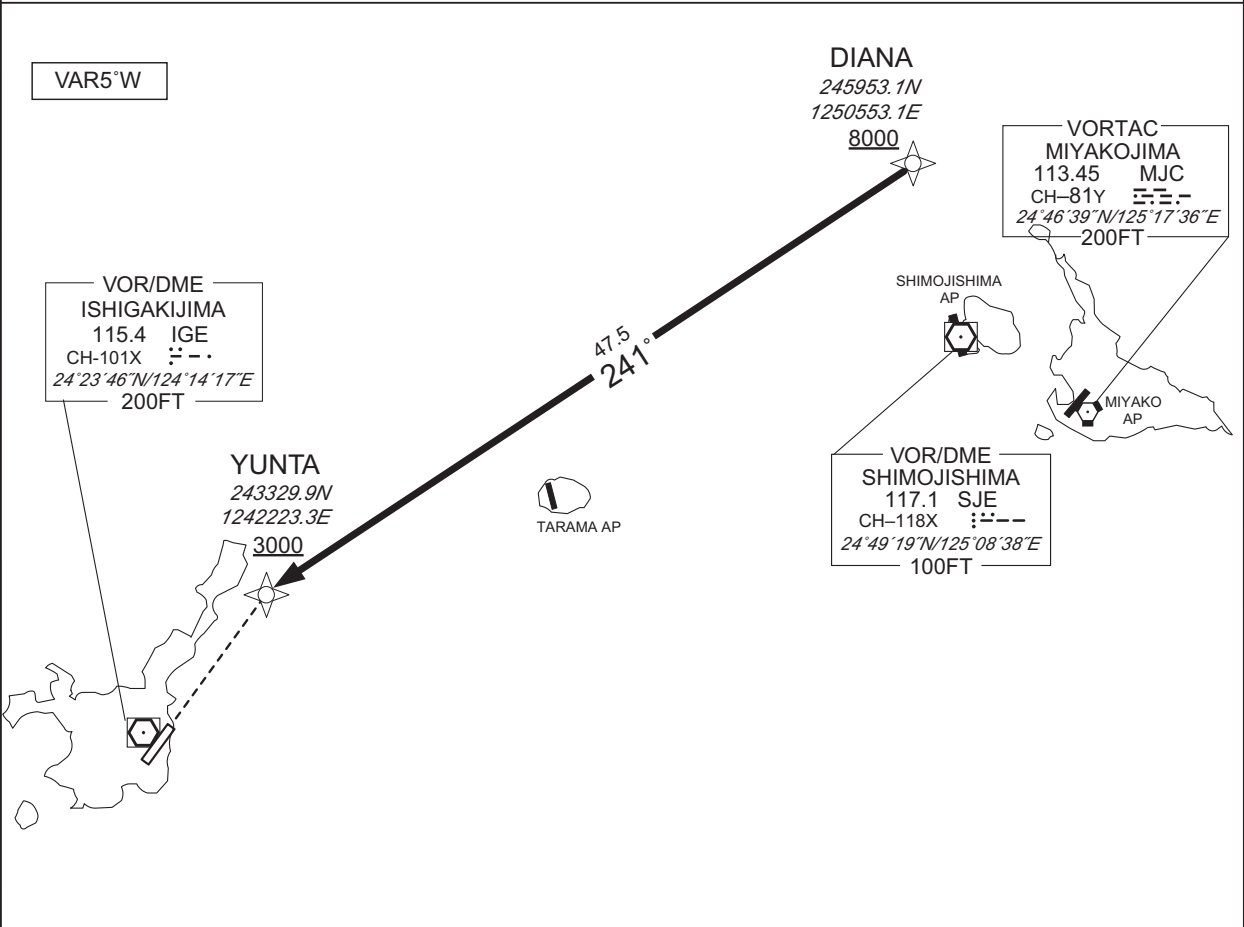
ROIG / ISHIGAKI

RNAV STAR RWY22

YUNTA NORTH ARRIVAL

RNP1

Note GNSS required.



From DIANA at or above 8000FT, to YUNTA 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	DIANA	—	—	-4.9	—	—	+8000	—	—	RNP1
002	TF	YUNTA	—	241 (236.4)	-4.9	47.5	—	+3000	—	—	RNP1

CHANGE : AD name.

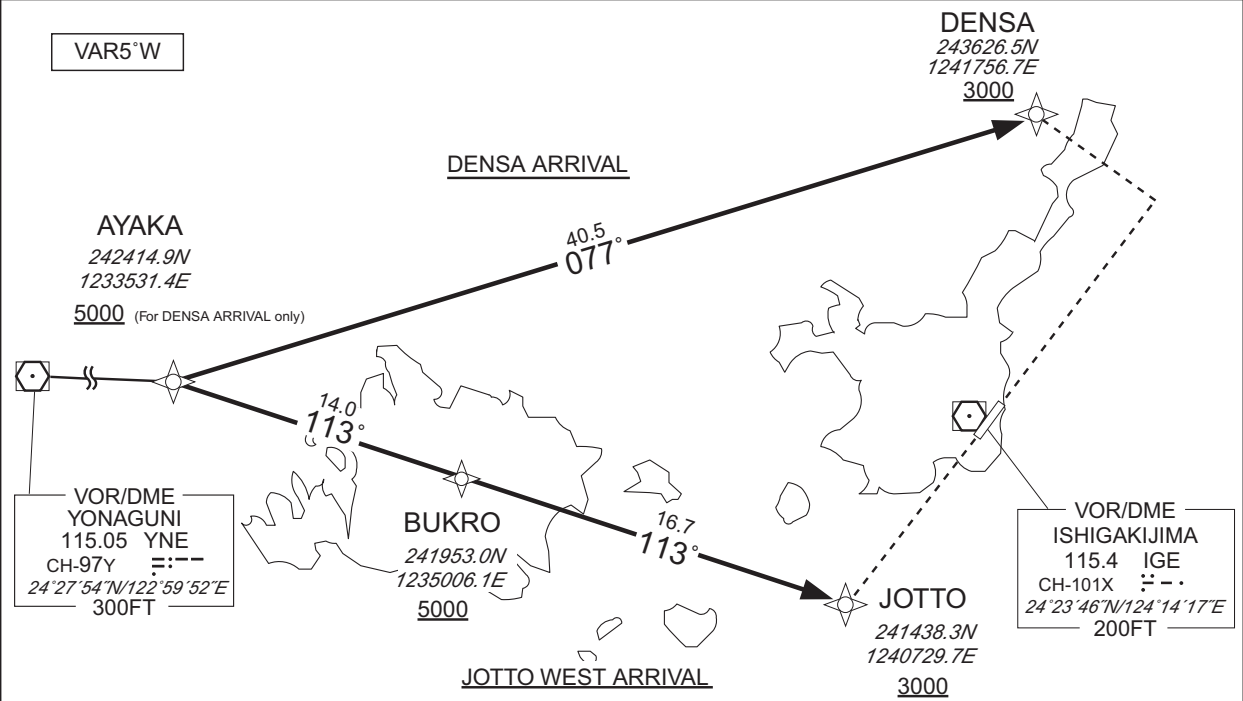
STANDARD ARRIVAL CHART-INSTRUMENT

ROIG / ISHIGAKI

RNAV STAR RWY04/RWY22

DENSA ARRIVAL / JOTTO WEST ARRIVAL	RNP1
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Note GNSS required.



DENSA ARRIVAL

From AYAKA at or above 5000FT, to DENSA 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	AYAKA	—	—	-4.9	—	—	+5000	—	—	RNP1
002	TF	DENSA	—	077 (072.3)	-4.9	40.5	—	+3000	—	—	RNP1

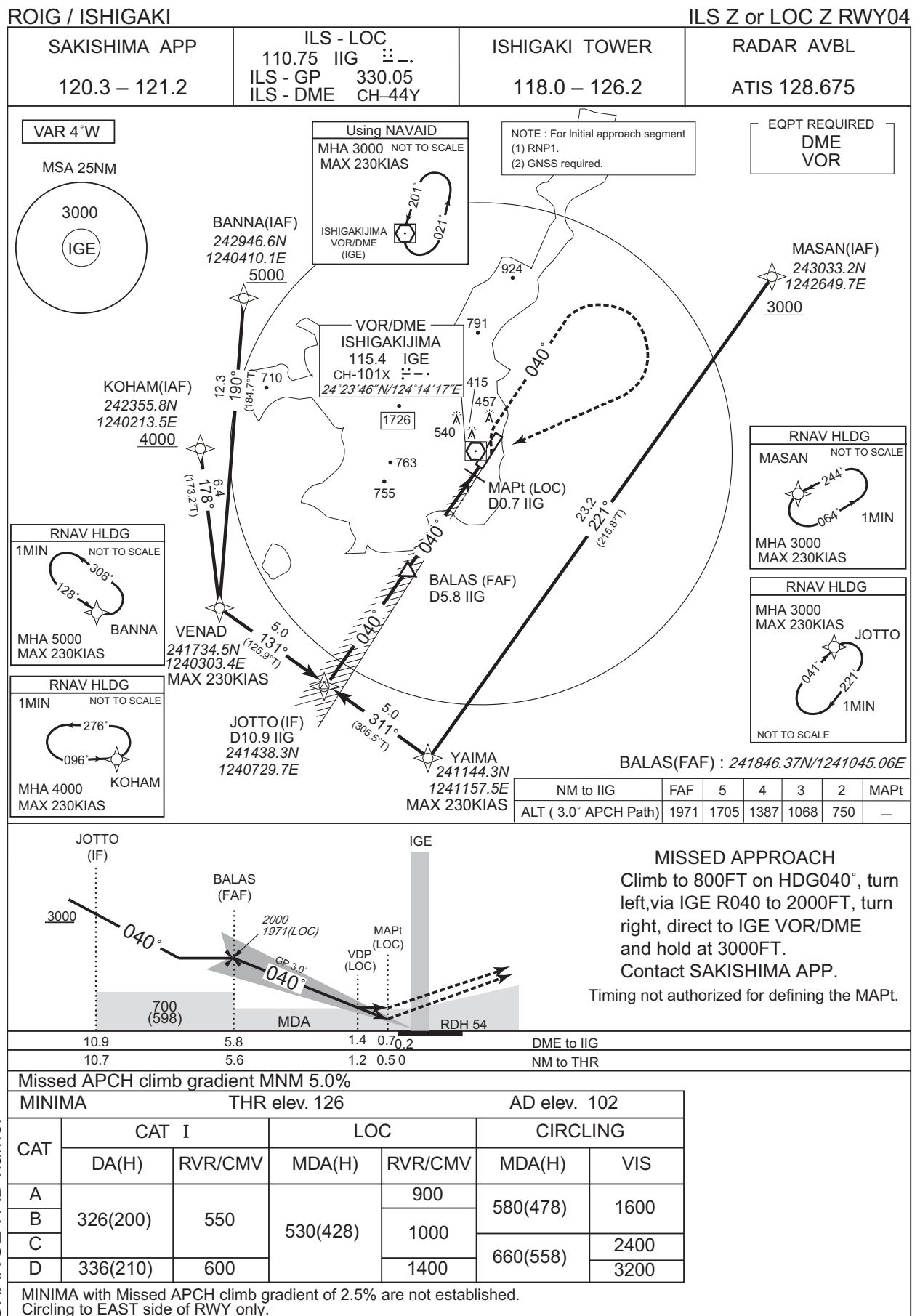
JOTTO WEST ARRIVAL

From AYAKA, to BUKRO at or above 5000FT, to JOTTO at or above 3000FT.

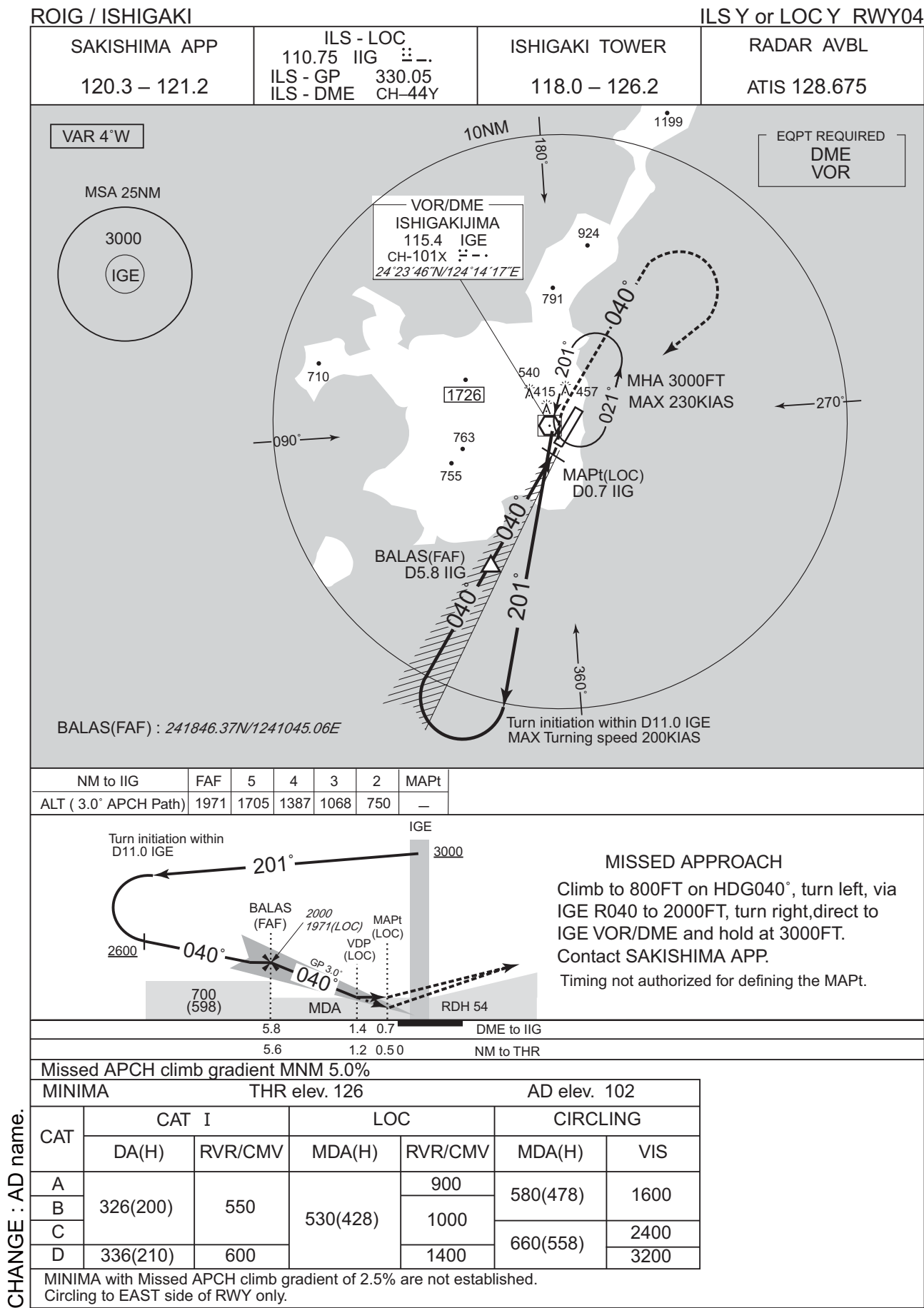
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	AYAKA	—	—	-4.9	—	—	—	—	—	RNP1
002	TF	BUKRO	—	113 (108.1)	-4.9	14.0	—	+5000	—	—	RNP1
003	TF	JOTTO	—	113 (108.2)	-4.9	16.7	—	+3000	—	—	RNP1

CHANGE : AD name.

INSTRUMENT APPROACH CHART



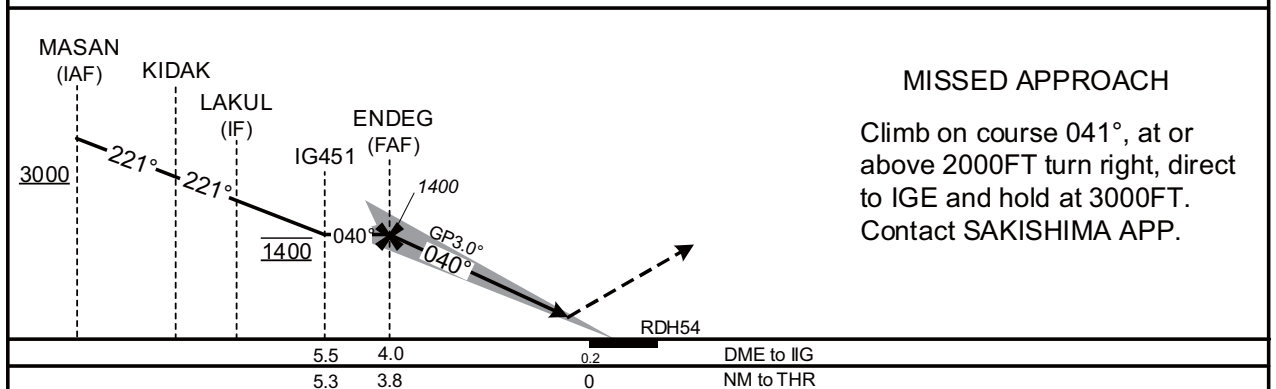
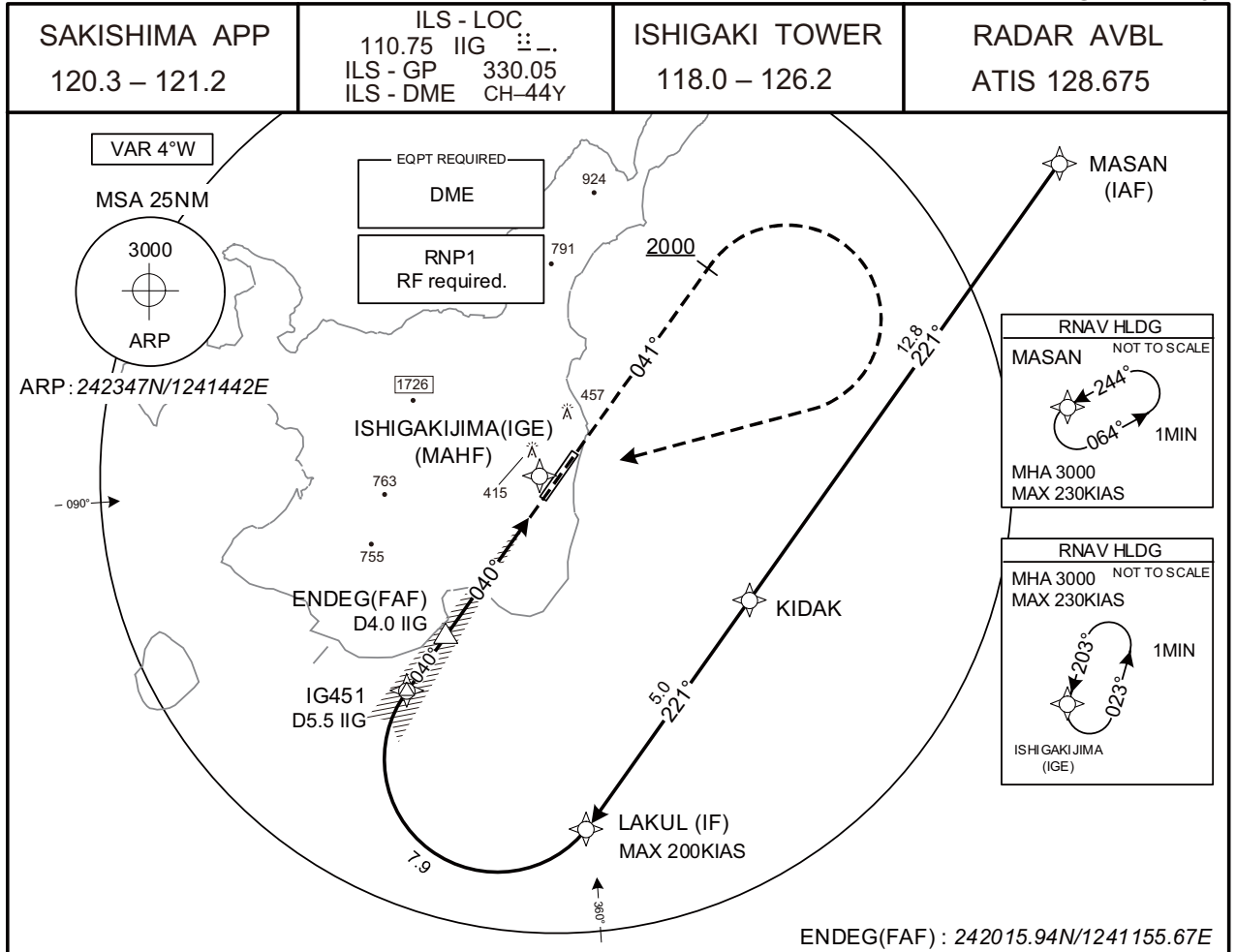
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

ROIG / ISHIGAKI

ILS X RWY04



MISSED APPROACH

Climb on course 041°, at or above 2000FT turn right, direct to IGE and hold at 3000FT. Contact SAKISHIMA APP.

Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 126 AD elev. 102

CAT	CAT I		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	VIS
A	326(200)	550	580(478)	1600
B				2400
C	336(210)	600	660(558)	3200
D				

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

INSTRUMENT APPROACH CHART

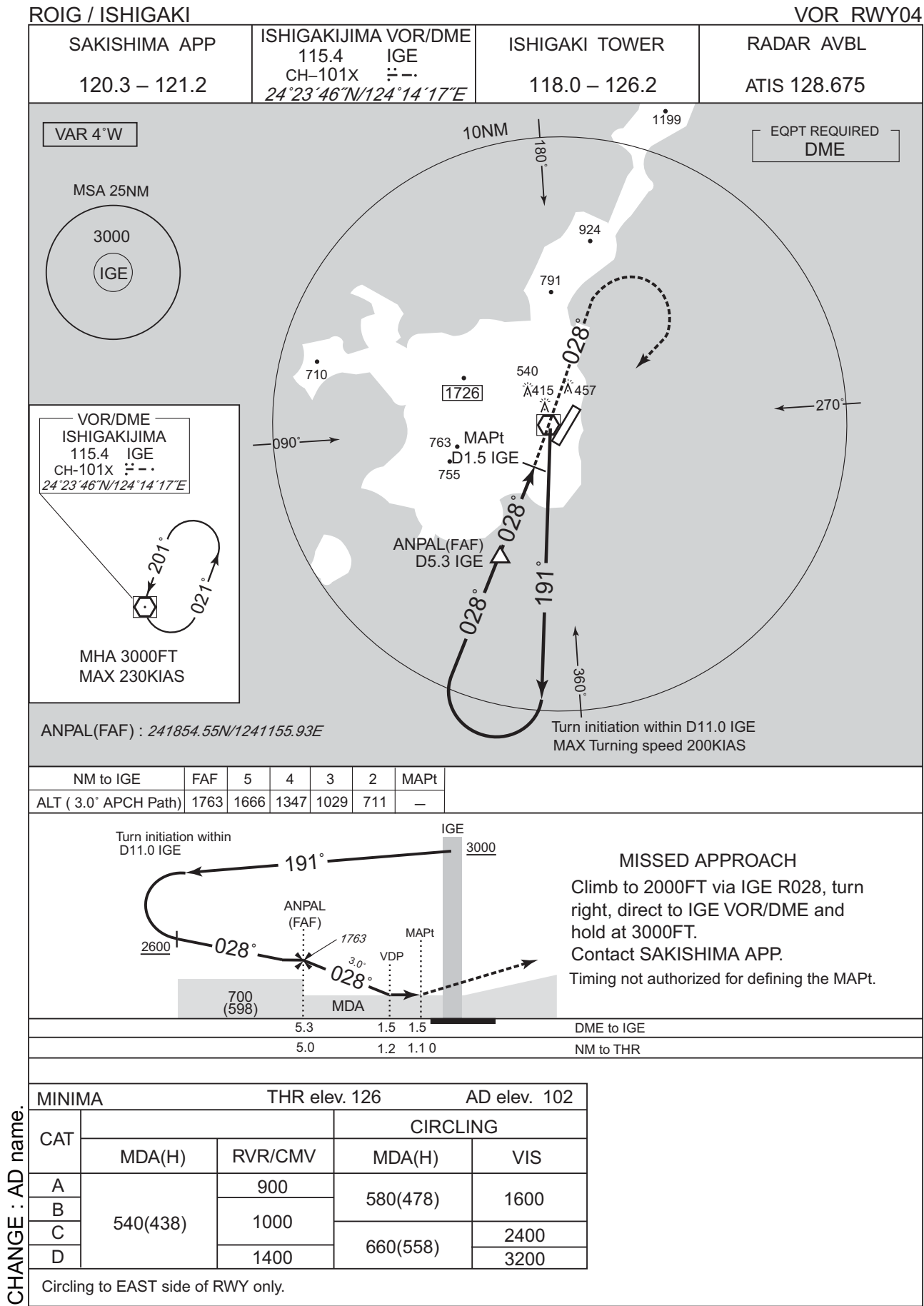
ROIG / ISHIGAKI

ILS X RWY04

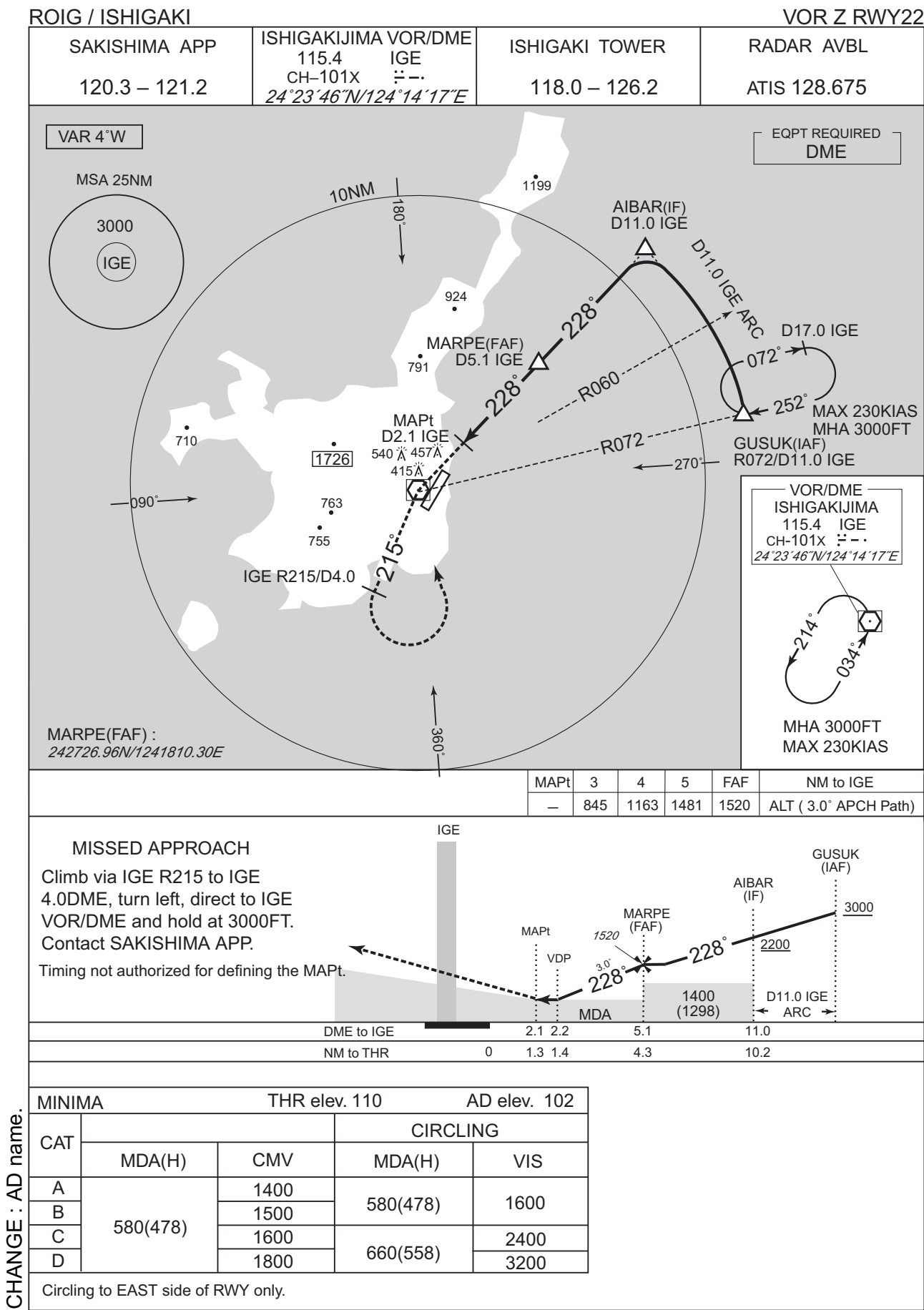
Coding Table											
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	MASAN	-	-	-5.1	-	-	+3000	-	-	RNP1
002	TF	KIDAK	-	221 (215.8)	-5.1	12.8	-	-	-	-	RNP1
003	TF	LAKUL	-	221 (215.7)	-5.1	5.0	-	-	-200	-	RNP1
004	RF Center: IGRF2 r=2.50NM	IG451	-	-	-5.1	7.9	R	1400	-	-	RNP1
001	CA	-	-	041 (035.7)	-5.1	-	-	+2000	-	-	RNP1
002	DF	IGE	-	-	-5.1	-	R	3000	-	-	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	MASAN	244 (239.3)	-5.1		1.0 (-14000)		L	3000	FL140	-230 (-14000)	RNP1
Hold	IGE	203 (197.8)	-5.1		1.0 (-14000)		L	3000	FL140	-230 (-14000)	RNP1
Waypoint Coordinates											
Waypoint Identifier		Coordinates				RF Arc Center Identifier		Coordinates			
MASAN		243033.23N / 1242649.67E				IGRF2		241734.58N / 1241311.07E			
KIDAK		242010.28N / 1241836.67E									
LAKUL		241606.39N / 1241524.14E									
IG451		241902.74N / 1241057.95E									
IGE		242345.64N / 1241416.63E									

CHANGE : AD name.

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



VAR 4°W

EQPT REQUIRED
DME

MSA 25NM

3000

IGE

10NM

180°

1199

924

MARPE(FAF)
D5.1 IGE

791

MAPt
D2.1 IGE

540

457

415

763

755

IGE R215/D4.0

215°

360°

090°

AIBAR(IF)
D11.0 IGE

228°

D11.0 IGE ARC

D17.0 IGE

072°

252°

MAX 230KIAS
MHA 3000FT

GUSUK(IAF)
R072/D11.0 IGE

270°

R060

R072

VOR/DME
ISHIGAKIJIMA
115.4 IGE
CH-101X
24°23'46"N/124°14'17"E

214°

034°

MHA 3000FT
MAX 230KIAS

MARPE(FAF) :

242726.96N/1241810.30E

MAPt

3

4

5

FAF

NM to IGE

—

845

1163

1481

1520

ALT (3.0° APCH Path)

MISSED APPROACH

Climb via IGE R215 to IGE

4.0DME, turn left, direct to IGE

VOR/DME and hold at 3000FT.

Contact SAKISHIMA APP.

Timing not authorized for defining the MAPt.

IGE

MAPt

VDP

1520

MARPE (FAF)

228°

3.0°

MDA

1400 (1298)

228°

AIBAR (IF)

2200

GUSUK (IAF)

3000

D11.0 IGE ARC

DME to IGE

2.1

2.2

5.1

11.0

NM to THR

0

1.3

1.4

4.3

10.2

CHANGE : AD name.

MINIMA

THR elev. 110

AD elev. 102

CAT

MDA(H)

CMV

MDA(H)

VIS

A

580(478)

1400

580(478)

1600

B

1500

C

1600

2400

D

1800

660(558)

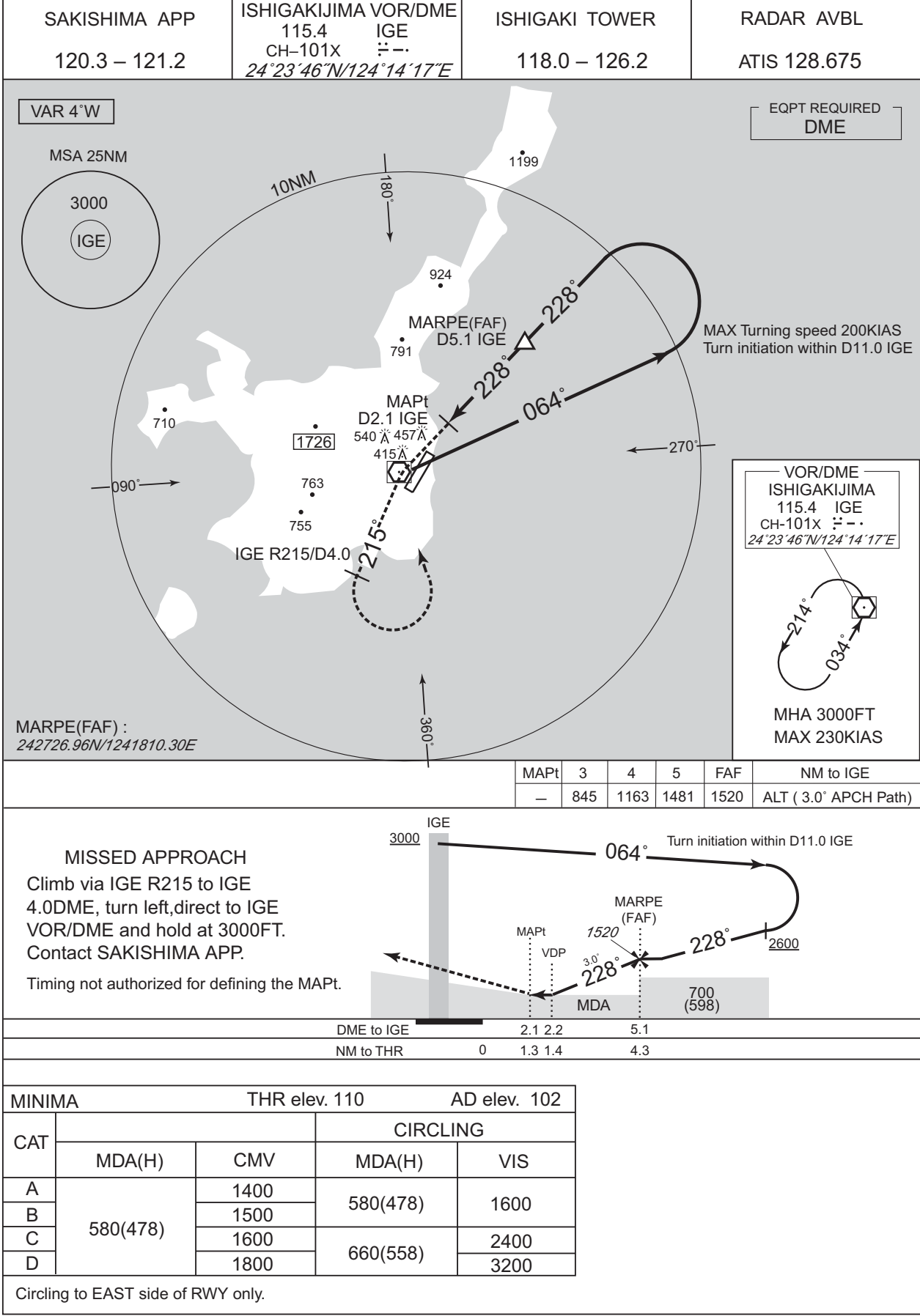
3200

Circling to EAST side of RWY only.

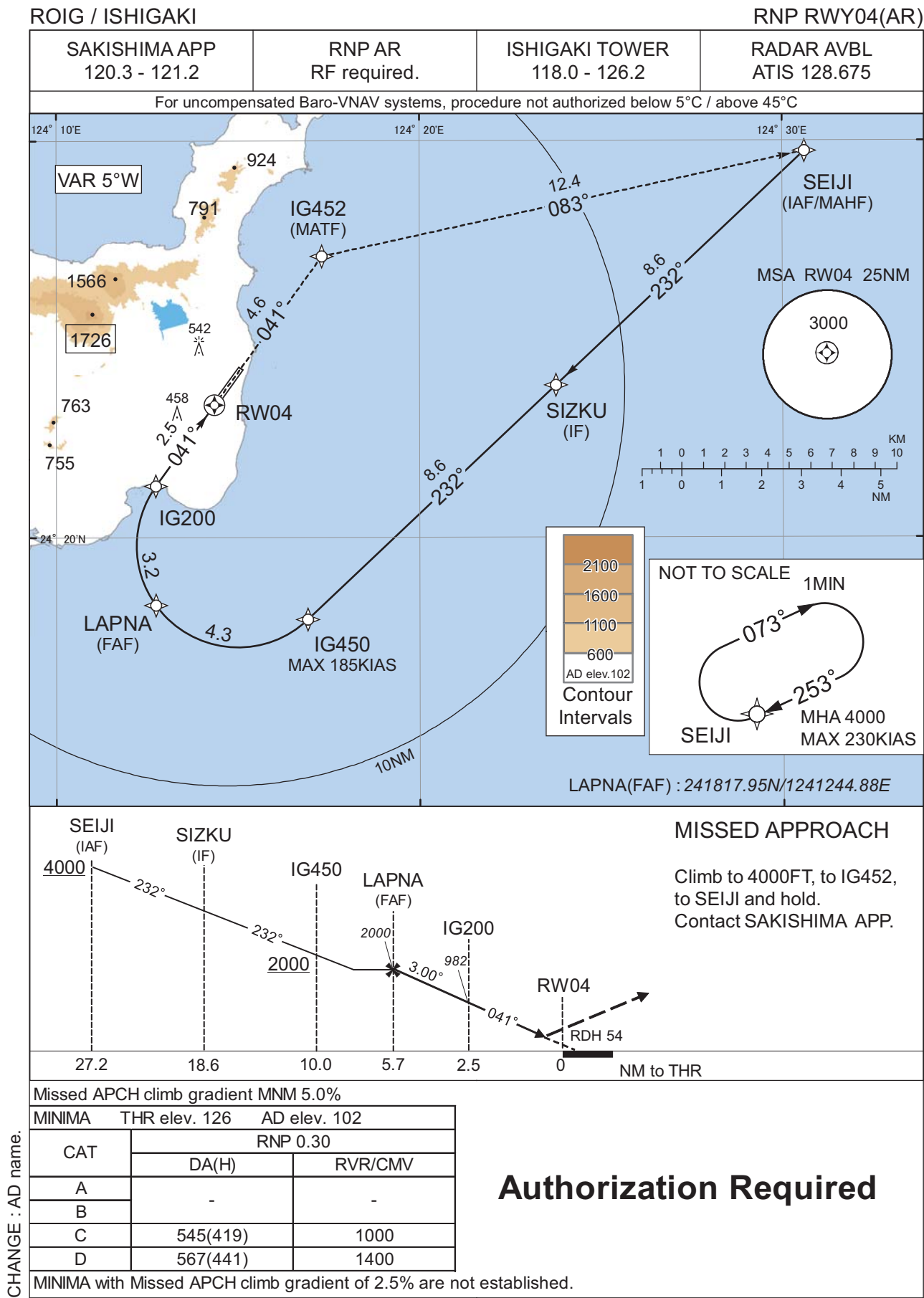
INSTRUMENT APPROACH CHART

ROIG / ISHIGAKI

VOR Y RWY22



INSTRUMENT APPROACH CHART



CHANGE : AD name.

INSTRUMENT APPROACH CHART

ROIG / ISHIGAKI

RNP RWY04(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	SEIJI	-	-	-5.0	-	-	+4000	-	-	-
002	TF	SIZKU	-	232 (226.6)	-5.0	8.6	-	-	-	-	1.0
003	TF	IG450	-	232 (226.6)	-5.0	8.6	-	+2000	-185	-	1.0
004	RF Center: IGRF1 r=2.55NM	LAPNA	-	-	-5.0	4.3	R	2000	-	-	1.0
005	RF Center: IGRF1 r=2.55NM	IG200	-	-	-5.0	3.2	R	982	-	-3.00	0.3
006	TF	RW04	Y	041 (035.7)	-5.0	2.5	-	180	-	-3.00/54	0.3
007	TF	IG452	-	041 (035.7)	-5.0	4.6	-	-	-	-	1.0
008	TF	SEIJI	-	083 (077.6)	-5.0	12.4	-	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	SEIJI	253 (248.2)	-5.0	1.0 (-14000)	R	4000	FL140	-230 (-14000)	1.0

Waypoint Coordinates

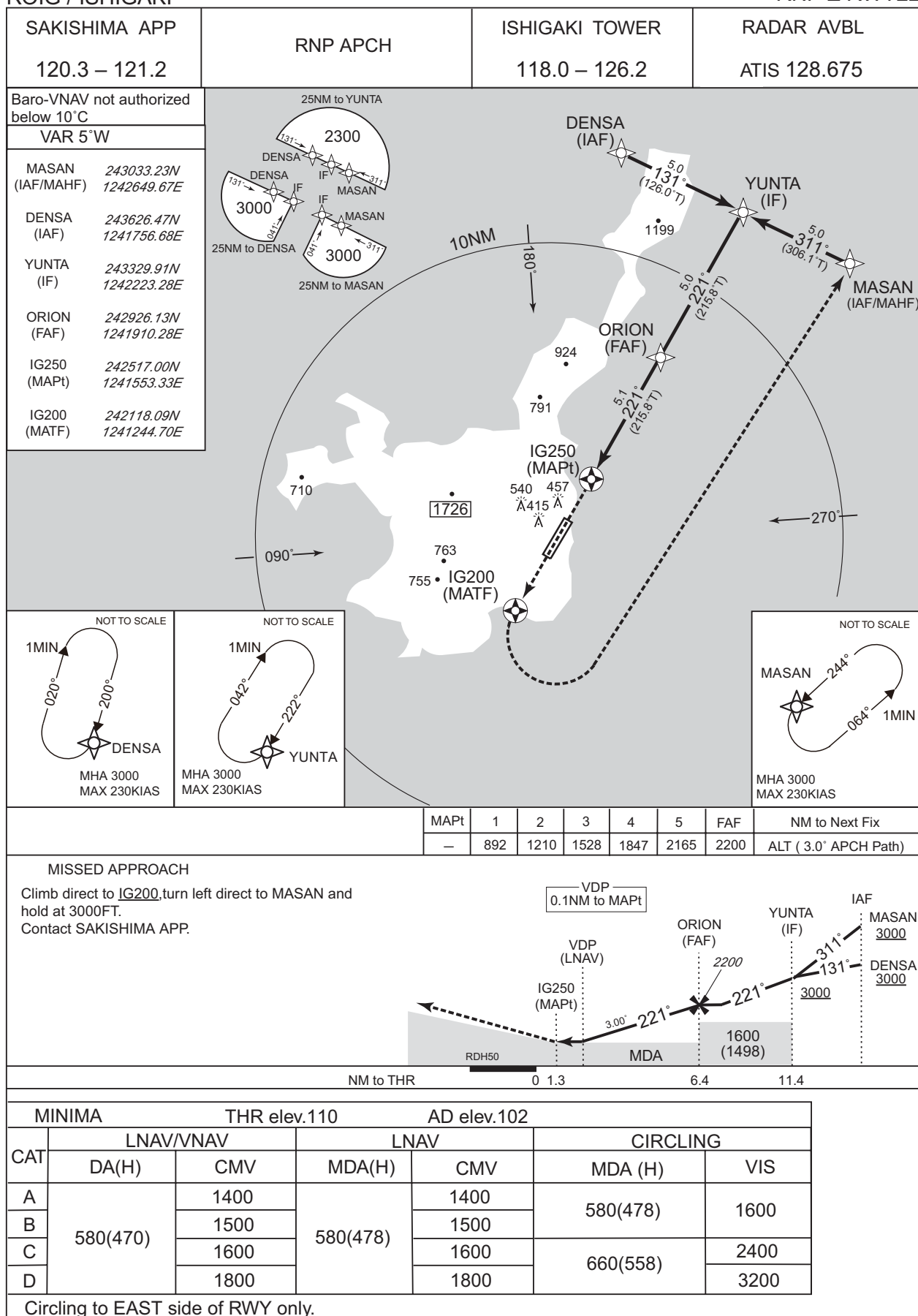
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
SEIJI	242944.43N/1243036.57E	IGRF1	241948.12N/1241500.55E
SIZKU	242350.59N/1242345.74E		
IG450	241756.41N/1241655.55E		
LAPNA	241817.95N/1241244.88E		
IG200	242118.09N/1241244.70E		
RW04	242320.91N/1241421.64E		
IG452	242705.63N/1241719.18E		

CHANGE : AD name.

INSTRUMENT APPROACH CHART

ROIG / ISHIGAKI

RNP Z RWY22

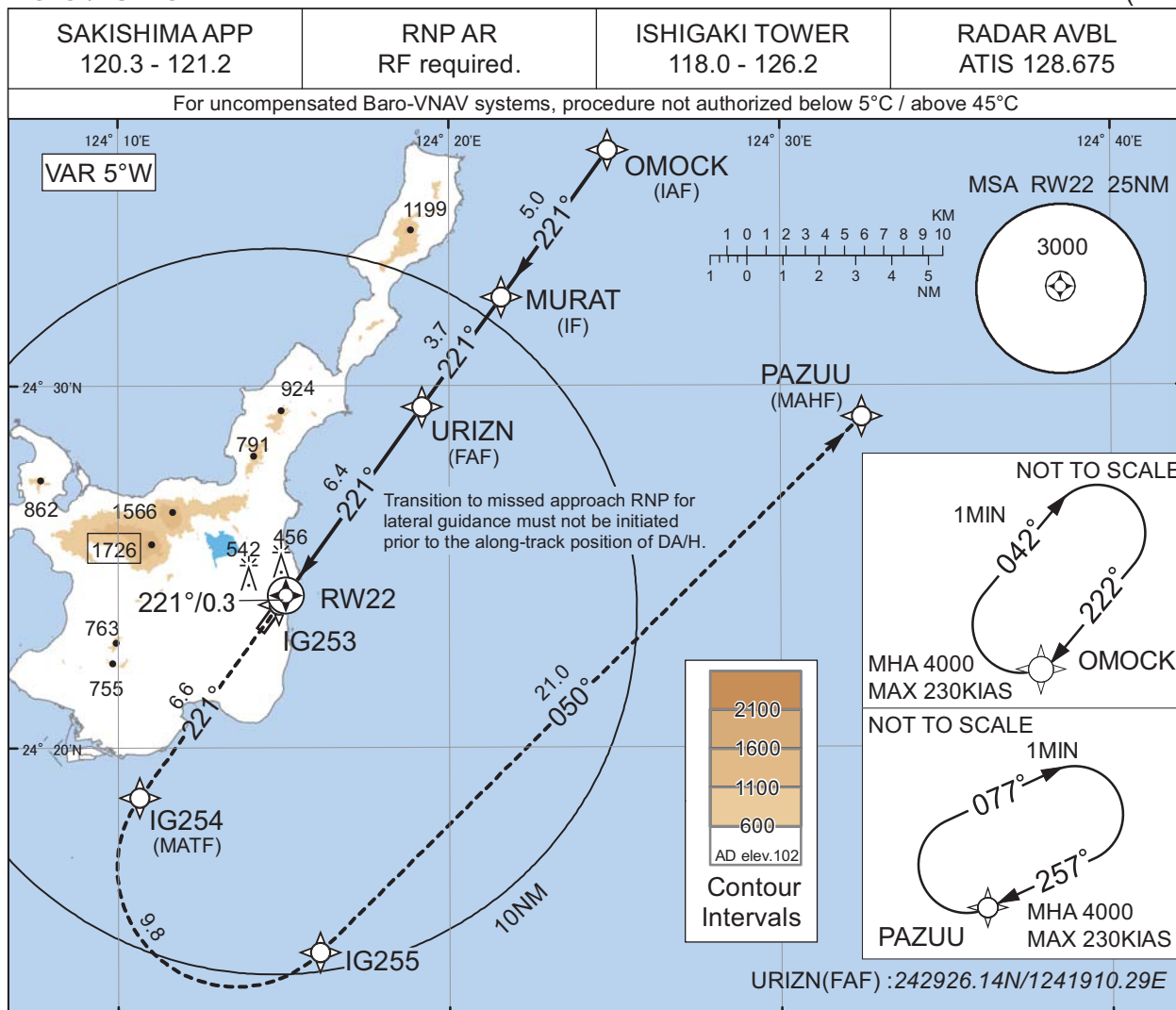


CHANGE : AD name.

INSTRUMENT APPROACH CHART

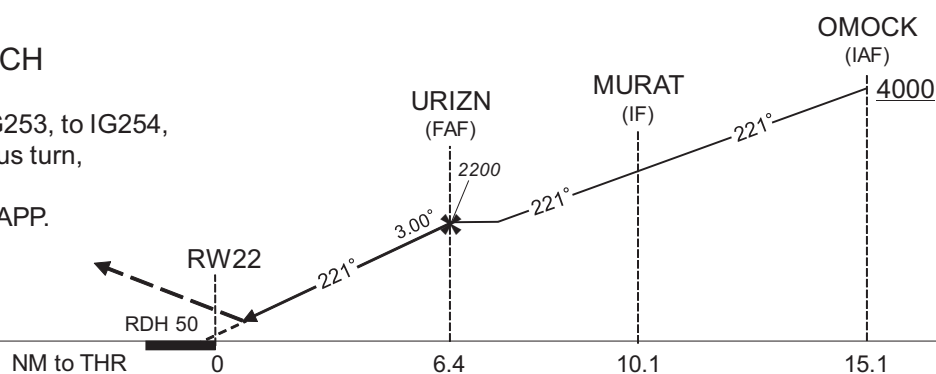
ROIG / ISHIGAKI

RNP Y RWY22(AR)



MISSED APPROACH

Climb to 4000FT, to IG253, to IG254, to IG255 via fixed radius turn, to PAZUU and hold.
Contact SAKISHIMA APP.



Missed APCH climb gradient MNM 5.0%

MINIMA THR elev.110 AD elev.102

CAT	RNP 0.12		RNP 0.30	
	DA(H)	CMV	DA(H)	CMV
A	-	-	-	-
B	-	-	-	-
C	545(435)	1400	608(498)	1600
D	559(449)	1600	618(508)	1800

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

Authorization Required

INSTRUMENT APPROACH CHART

ROIG / ISHIGAKI

RNP Y RWY22(AR)

Coding Table

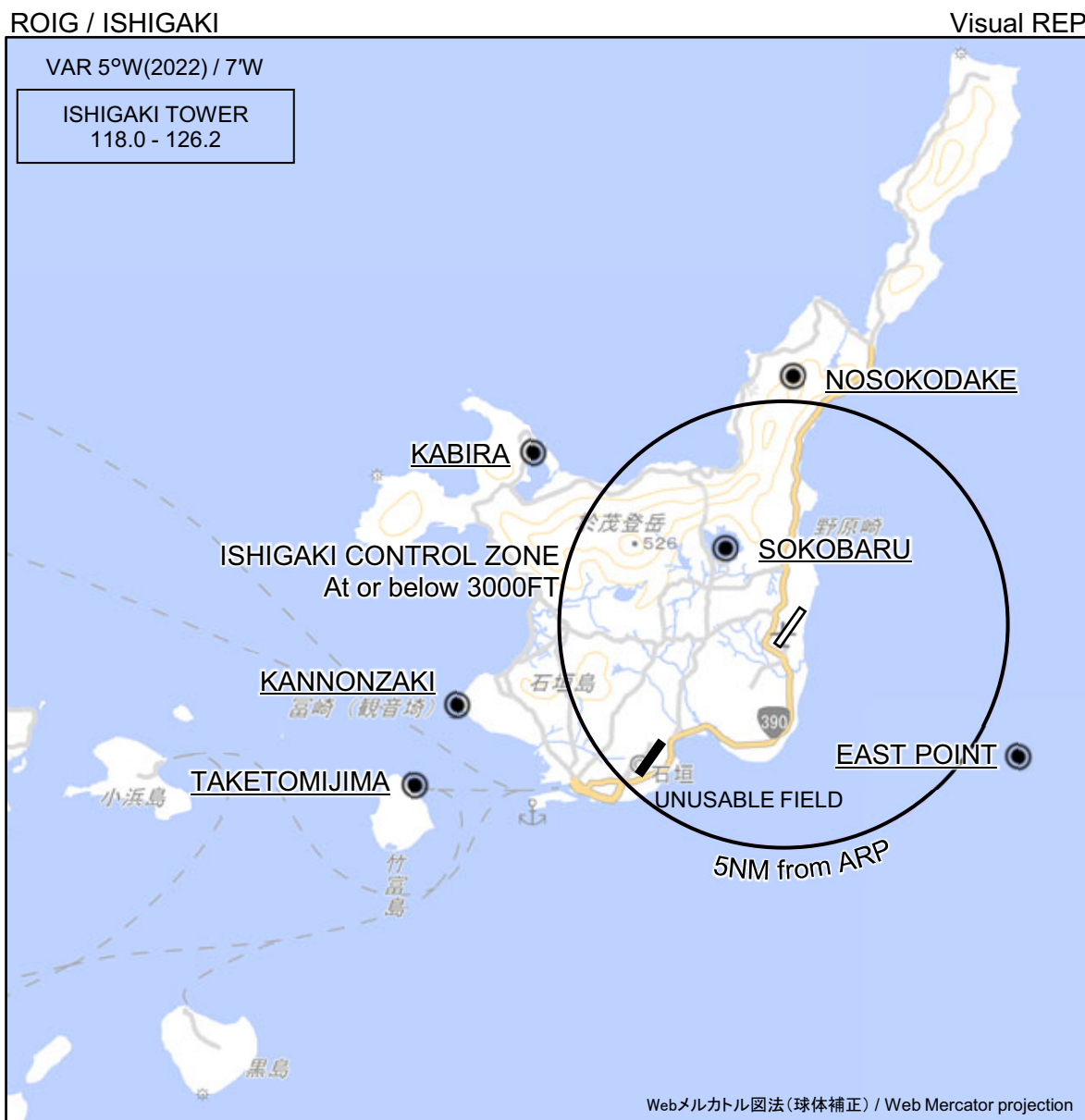
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	OMOCK	-	-	-5.0	-	-	+4000	-	-	-
002	TF	MURAT	-	221 (215.8)	-5.0	5.0	-	-	-	-	1.0
003	TF	URIZN	-	221 (215.8)	-5.0	3.7	-	2200	-	-	1.0
004	TF	RW22	Y	221 (215.8)	-5.0	6.4	-	160	-	-3.00/50	0.12 0.30
005	TF	IG253	-	221 (215.7)	-5.0	0.3	-	-	-	-	0.12 0.30
006	TF	IG254	-	221 (215.7)	-5.0	6.6	-	-	-	-	1.0
007	RF Center: IGRF3 r=3.28NM	IG255	-	-	-5.0	9.8	L	-	-	-	1.0
008	TF	PAZUU	-	050 (045.2)	-5.0	21.0	-	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	OMOCK	222 (216.9)	-5.0	1.0 (-14000)	R	4000	FL140	-230 (-14000)	1.0
Hold	PAZUU	257 (252.1)	-5.0	1.0 (-14000)	R	4000	FL140	-230 (-14000)	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
OMOCK	243631.66N/1242447.35E	IGRF3	241641.99N/1241333.15E
MURAT	243227.94N/1242134.19E		
URIZN	242926.14N/1241910.29E		
RW22	242413.59N/1241503.24E		
IG253	242357.98N/1241450.93E		
IG254	241837.84N/1241038.29E		
IG255	241421.38N/1241604.82E		
PAZUU	242908.99N/1243226.97E		

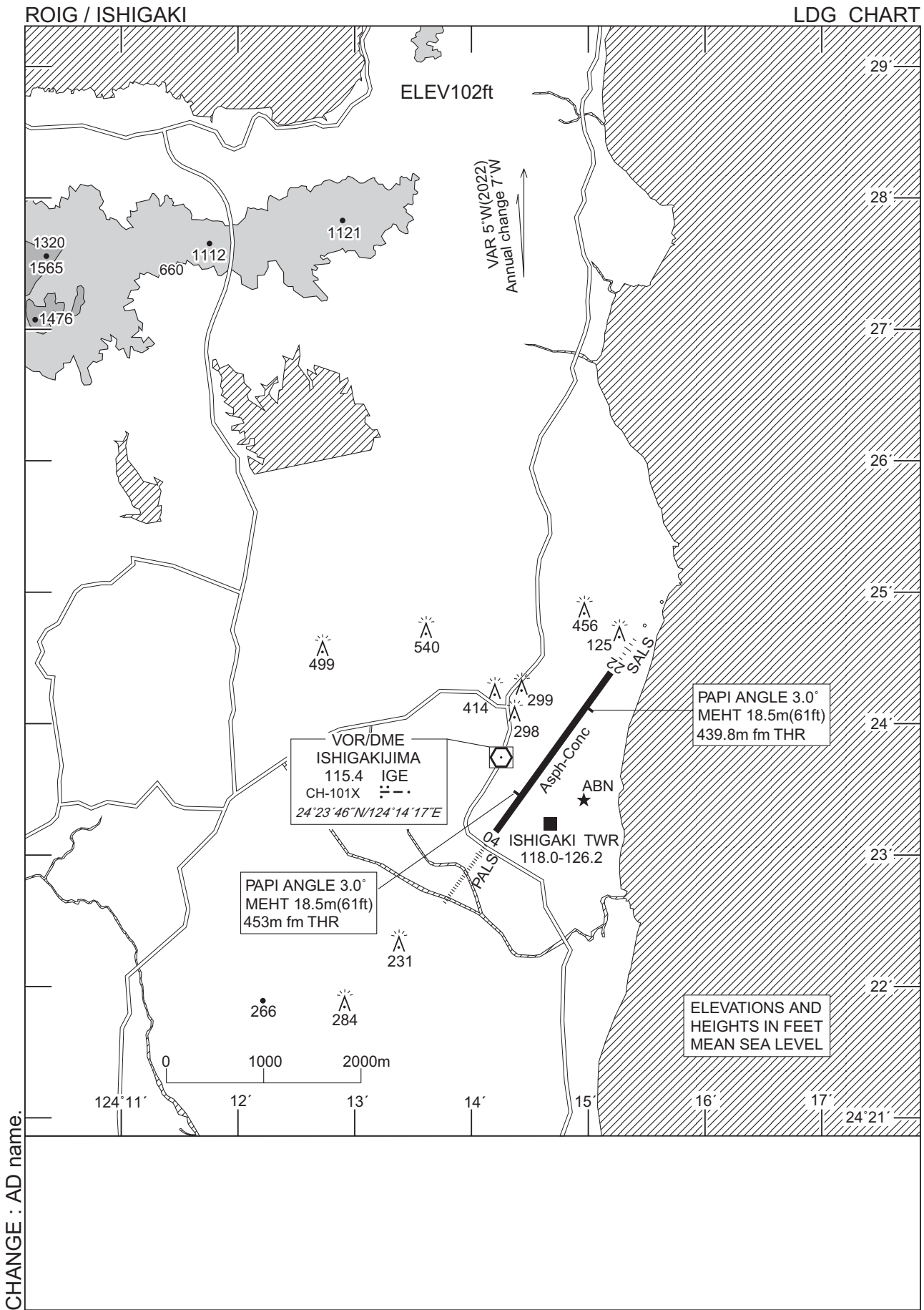
CHANGE : AD name.



※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).

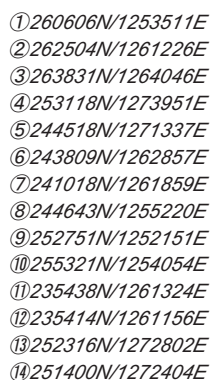
CHANGE : AD and CONTROL ZONE name.

Call sign	BRG / DIST from ARP	Remarks
野底岳 Nosokodake	002°T / 5.5NM	山 Mountain
イーストポイント East Point	120°T / 6.0NM	海上 Over the sea
竹富島 Taketomijima	246°T / 9.0NM	高速艇船着場 Port
観音崎 Kannonzaki	256°T / 7.5NM	灯台 Light house
川平 Kabira	304°T / 6.8NM	川平湾グラスポート乗り場 Kabira Bay Boat pier
底原 Sokobaru	322°T / 2.1NM	ダム Dam



Minimum Vectoring Altitude CHART

CHANGE : AD name.



*1 : 244015N/1244143E RADIUS : 3NM
 *2 : 242248N/1240952E RADIUS : 3NM
 *3 : 242538N/1241100E RADIUS : 5NM
 *4 : 242850N/1260600E RADIUS : 8NM