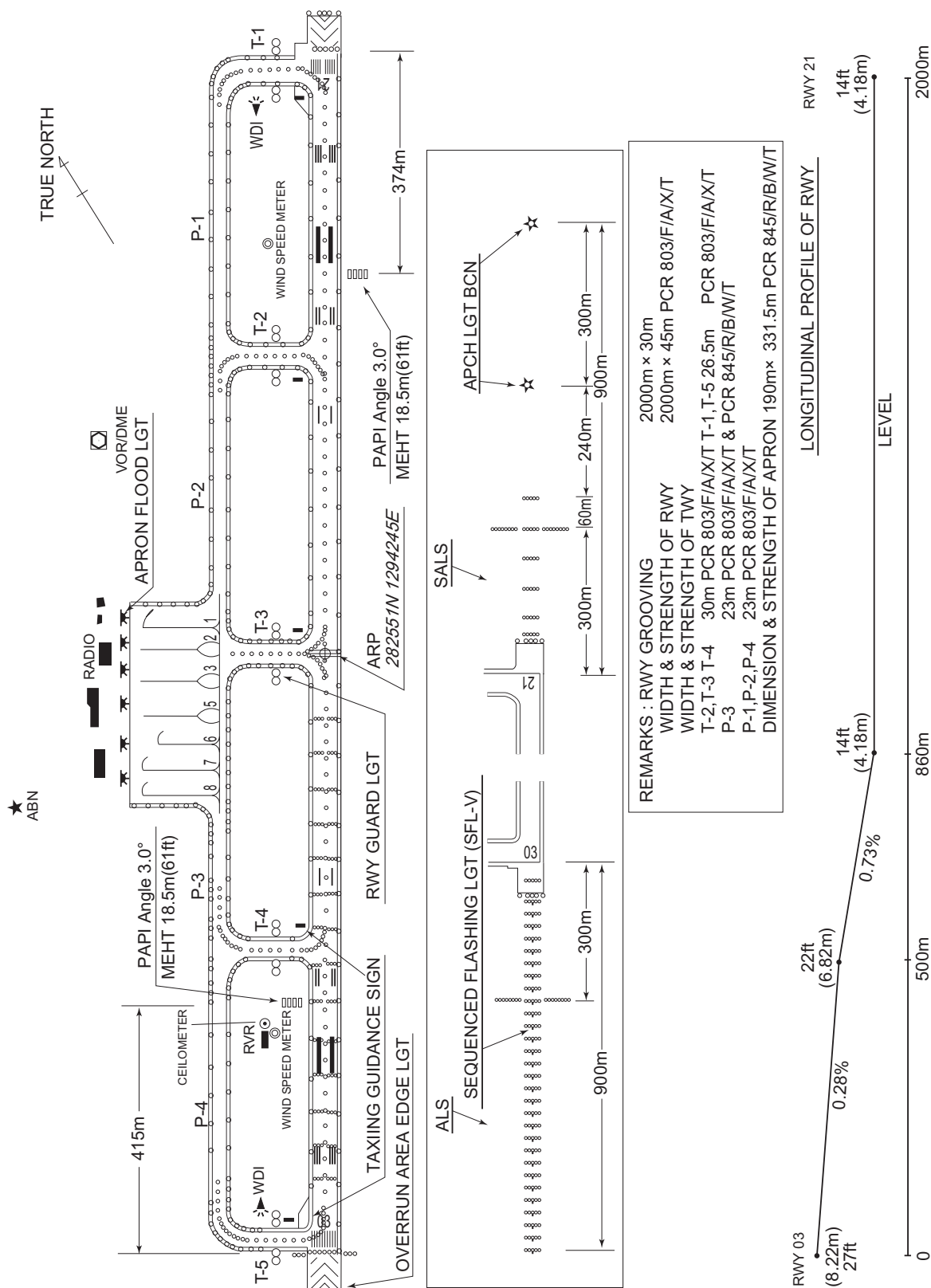


AMAMI AP



RJKA / AMAMI

RNAV SID

RURIK THREE DEPARTURE

RNP1

VAR 6°W

129° 20'E 129° 40'E 130° 0'E 130° 20'E

29° 20'N

29° 0'N

28° 40'N

28° 20'N

RURIK
291758.8N
1301252.4E
7000

53.2 029°

KA102
282845.7N
1294948.9E
4000

VOR/DME
KASARI
113.95 AME
CH-86Y
28°26'05"N/129°42'41"E
0FT

500 271.2° 500

KIKAI AP

2279 1733

4000
3000
2000
1000
AD elev. 14
Contour Intervals

5 0 5 10 15 20 KM
2 0 2 4 6 8 10 12 NM

Note RWY03 : 3.5% climb gradient required up to 500FT.
OBST ALT 197FT located at 1.1NM 015° FM end of RWY03.
RWY21 : 5.0% climb gradient required up to 500FT.

CHANGE : Navigation Specification(Basic RNP1→RNP1).

STANDARD DEPARTURE CHART -INSTRUMENT

RJKA / AMAMI

RNAV SID

RURIK THREE DEPARTURE

RWY03

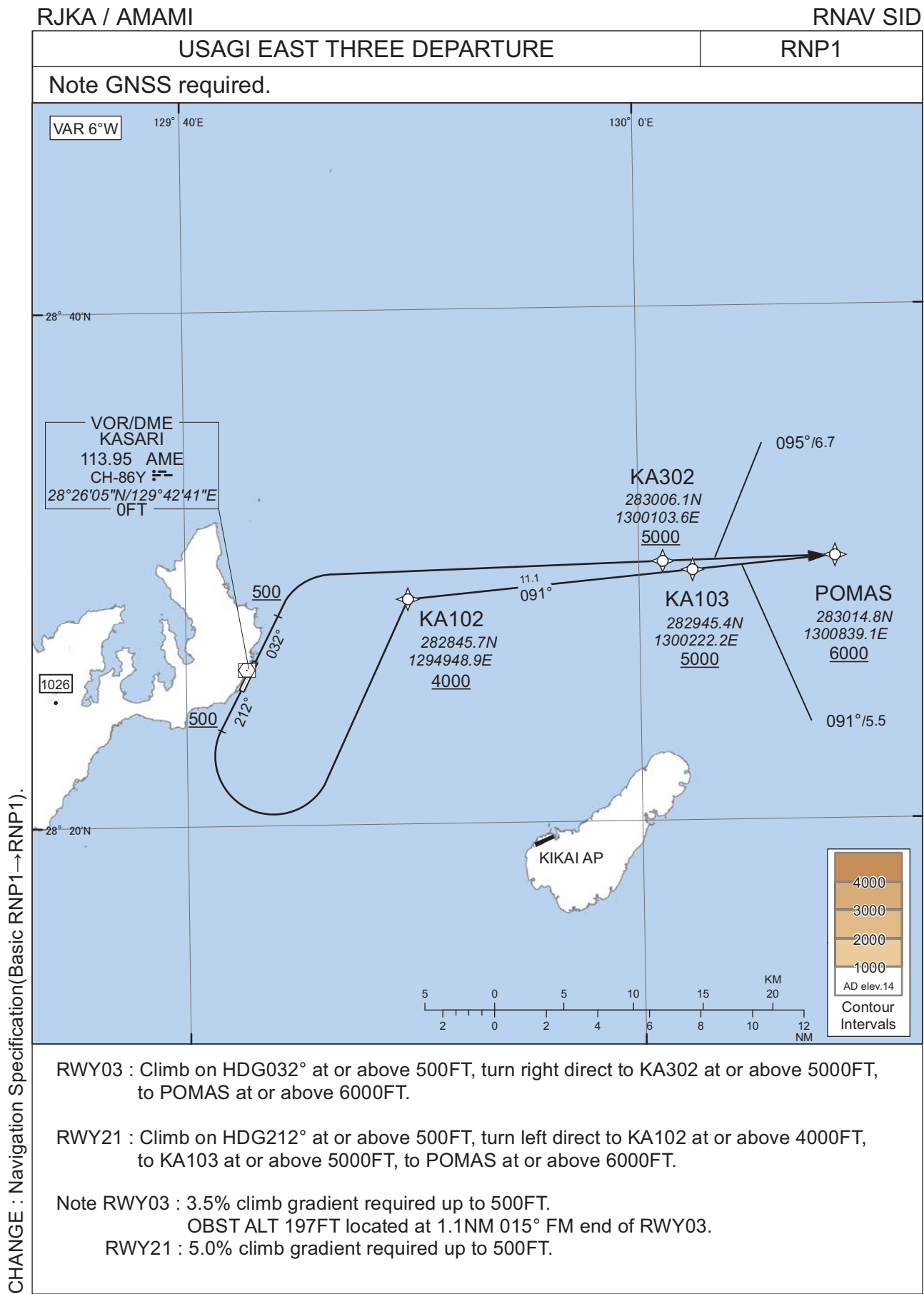
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	032 (025.8)	-6.4	-	-	+500	-	-	RNP1
002	DF	RURIK	-	-	-6.4	-	-	+7000	-	-	RNP1

RWY21

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	-	-	212 (205.8)	-6.4	-	-	+500	-	-	RNP1
002	DF	KA102	-	-	-6.4	-	L	+4000	-	-	RNP1
003	TF	RURIK	-	029 (022.2)	-6.4	53.2	-	+7000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART -INSTRUMENT



STANDARD DEPARTURE CHART -INSTRUMENT

RJKA / AMAMI

RNAV SID

USAGI EAST THREE DEPARTURE

RWY03

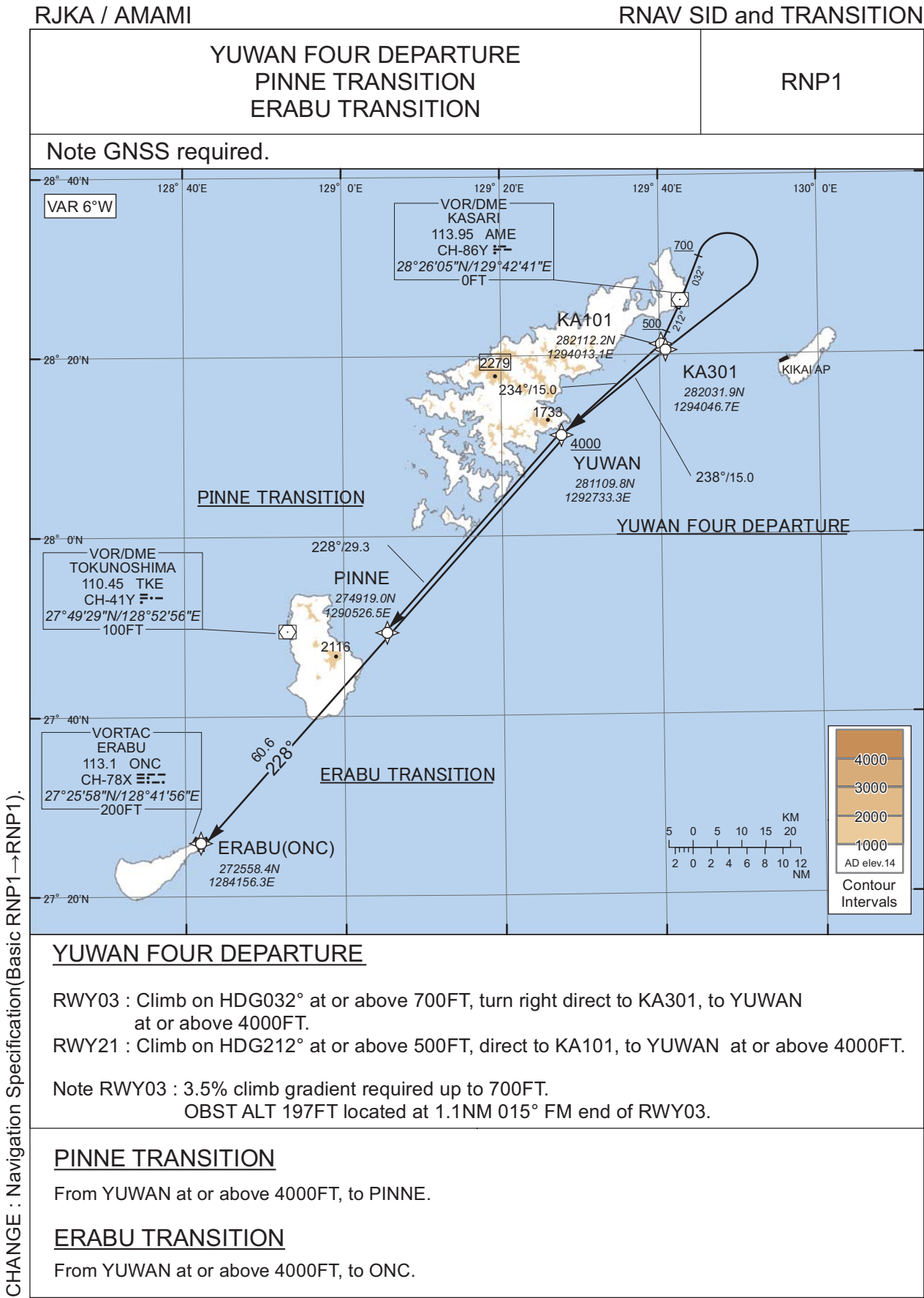
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	032 (025.8)	-6.4	-	-	+500	-	-	RNP1
002	DF	KA302	-	-	-6.4	-	R	+5000	-	-	RNP1
003	TF	POMAS	-	095 (088.7)	-6.4	6.7	-	+6000	-	-	RNP1

RWY21

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	-	-	212 (205.8)	-6.4	-	-	+500	-	-	RNP1
002	DF	KA102	-	-	-6.4	-	L	+4000	-	-	RNP1
003	TF	KA103	-	091 (084.8)	-6.4	11.1	-	+5000	-	-	RNP1
004	TF	POMAS	-	091 (084.9)	-6.4	5.5	-	+6000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART -INSTRUMENT



STANDARD DEPARTURE CHART -INSTRUMENT

RJKA / AMAMI

RNAV SID and TRANSITION

YUWAN FOUR DEPARTURE

RWY03

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	-	-	032 (025.8)	-6.4	-	-	+700	-	-	RNP1
002	DF	KA301	-	-	-6.4	-	R	-	-	-	RNP1
003	TF	YUWAN	-	238 (231.2)	-6.4	15.0	-	+4000	-	-	RNP1

RWY21

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	-	-	212 (205.8)	-6.4	-	-	+500	-	-	RNP1
002	DF	KA101	-	-	-6.4	-	-	-	-	-	RNP1
003	TF	YUWAN	-	234 (228.1)	-6.4	15.0	-	+4000	-	-	RNP1

PINNE TRANSITION

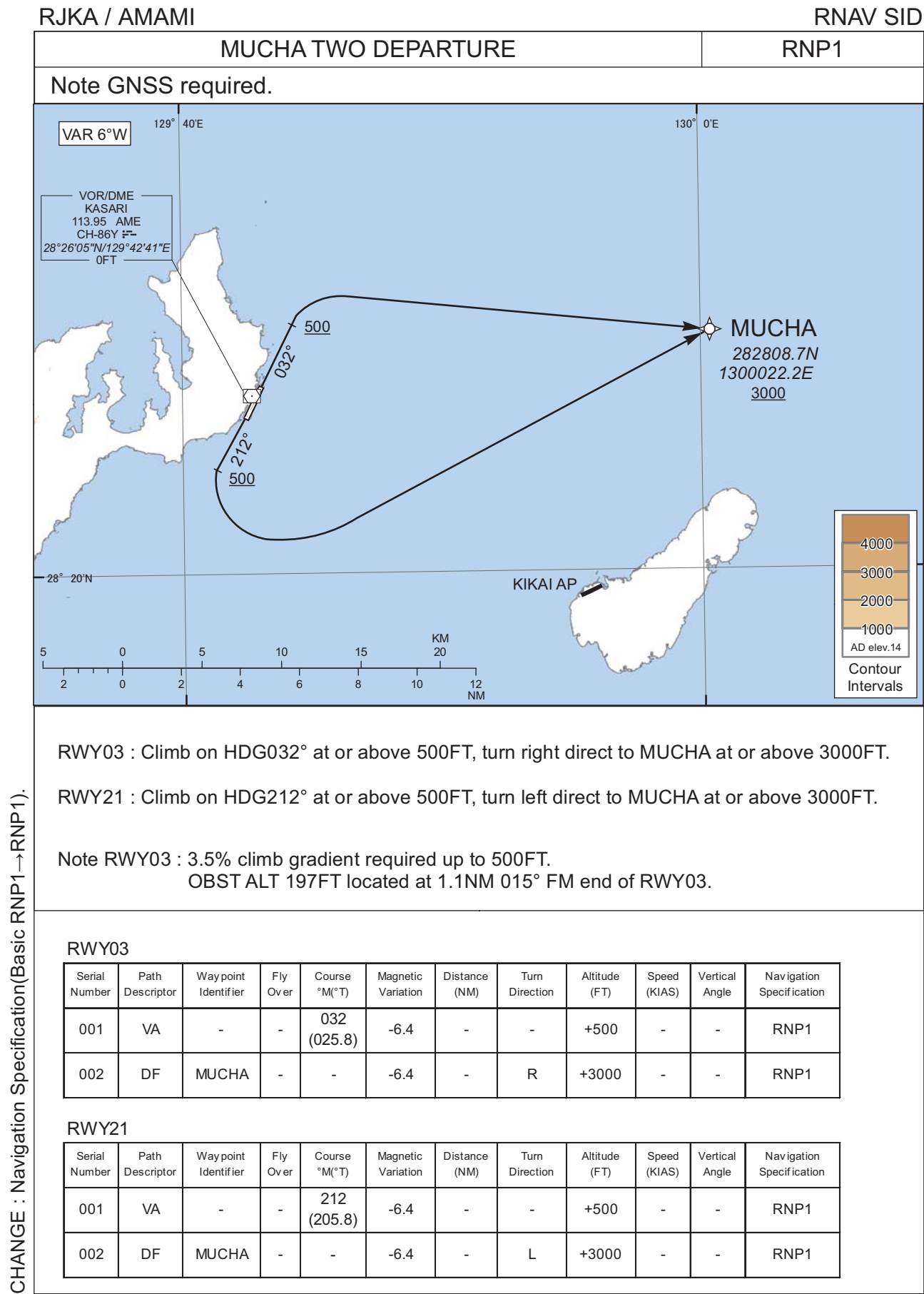
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	YUWAN	-	-	-6.4	-	-	+4000	-	-	RNP1
002	TF	PINNE	-	228 (221.9)	-6.4	29.3	-	-	-	-	RNP1

ERABU TRANSITION

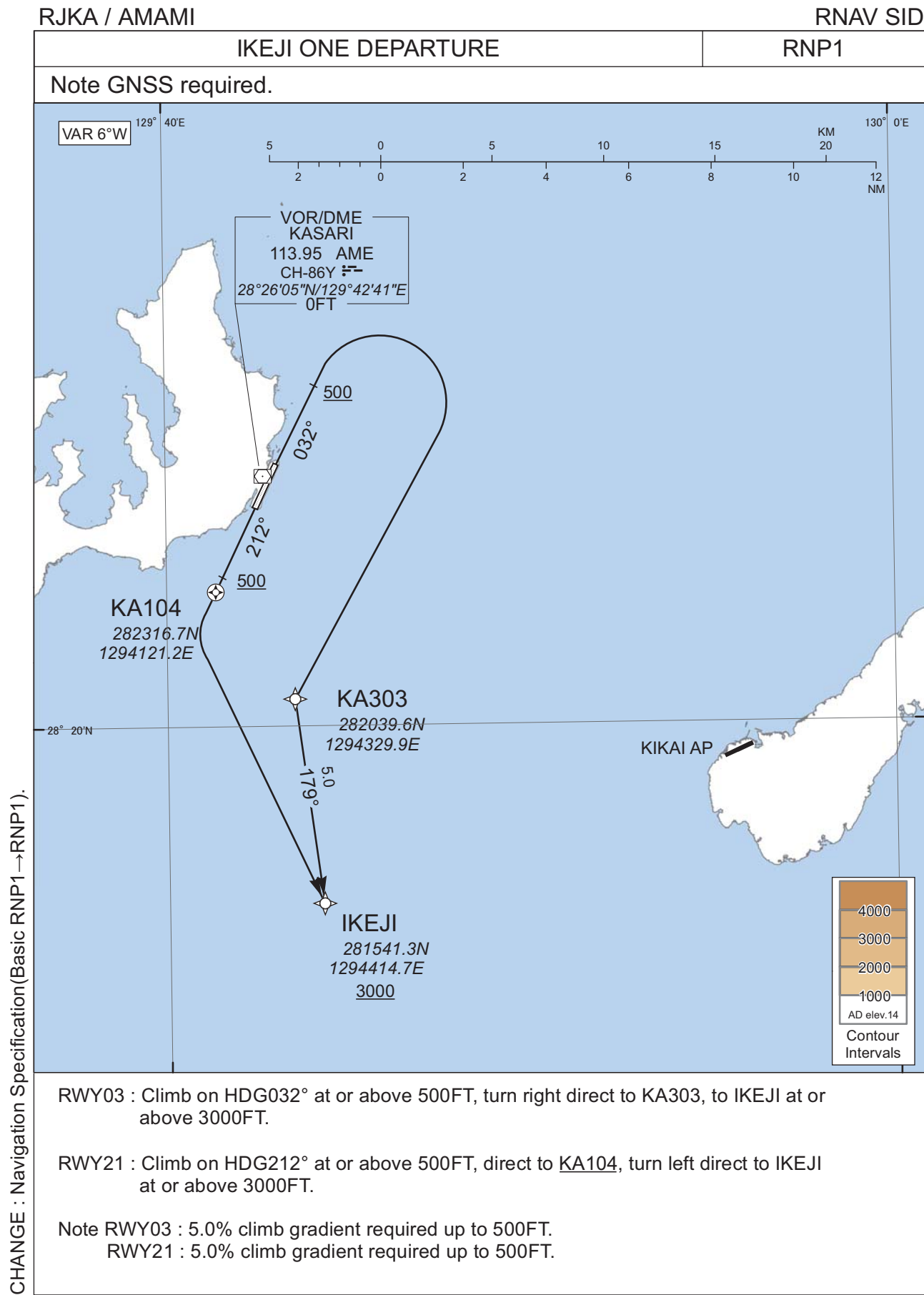
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	YUWAN	-	-	-6.4	-	-	+4000	-	-	RNP1
002	TF	ONC	-	228 (221.9)	-6.4	60.6	-	-	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART -INSTRUMENT



STANDARD DEPARTURE CHART -INSTRUMENT



STANDARD DEPARTURE CHART -INSTRUMENT

RJKA / AMAMI

RNAV SID

IKEJI ONE DEPARTURE

RWY03

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	-	-	032 (025.8)	-6.4	-	-	+500	-	-	RNP1
002	DF	KA303	-	-	-6.4	-	R	-	-	-	RNP1
003	TF	IKEJI	-	179 (172.5)	-6.4	5.0	-	+3000	-	-	RNP1

RWY21

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	-	-	212 (205.8)	-6.4	-	-	+500	-	-	RNP1
002	DF	KA104	Y	-	-6.4	-	-	-	-	-	RNP1
003	DF	IKEJI	-	-	-6.4	-	L	+3000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART -INSTRUMENT

RJKA / AMAMI

SID

PINNE SIX DEPARTURE

RWY 03 : Climb RWY HDG to 700FT, turn right HDG273° to intercept and proceed...

RWY 21 : Climb RWY HDG to AME 3.0DME, turn right,...

... via AME R228 to PINNE.

Cross PINNE at or above 6000FT.

NOTE RWY03 : 3.5% climb gradient required up to 700FT.

OBST ALT 197FT located at 1.1NM 015° FM end of RWY03.



CHANGE : PROC renamed(PINNE SIX DEPARTURE). Note added. ERABU FOUR DEPARTURE abolished.

STANDARD DEPARTURE CHART -INSTRUMENT

RJKA / AMAMI

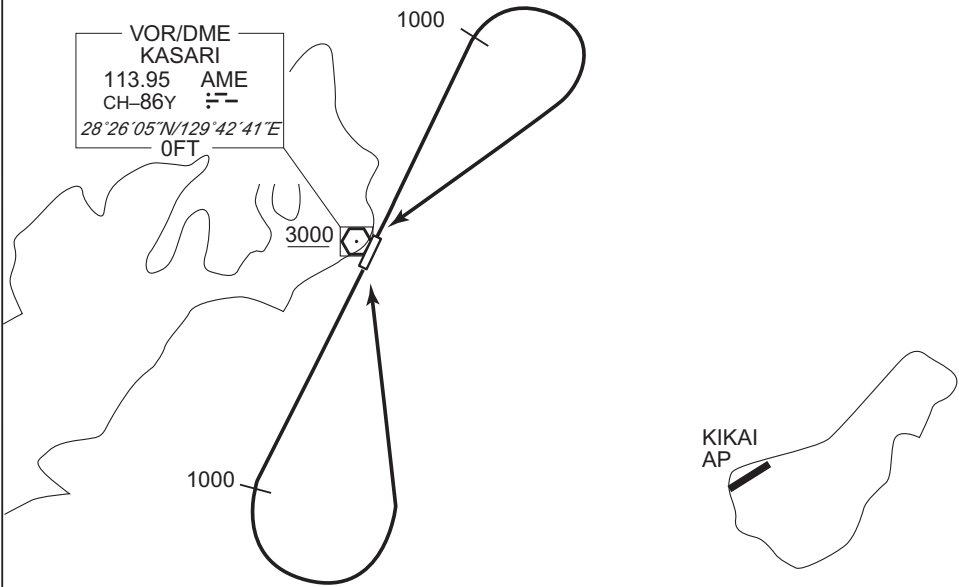
SID

CHANGE : PROC renamed(KASARI REVERSAL THREE DEPARTURE). Note added. POMAS FOUR DEPARTURE abolished.

KASARI REVERSAL THREE DEPARTURE

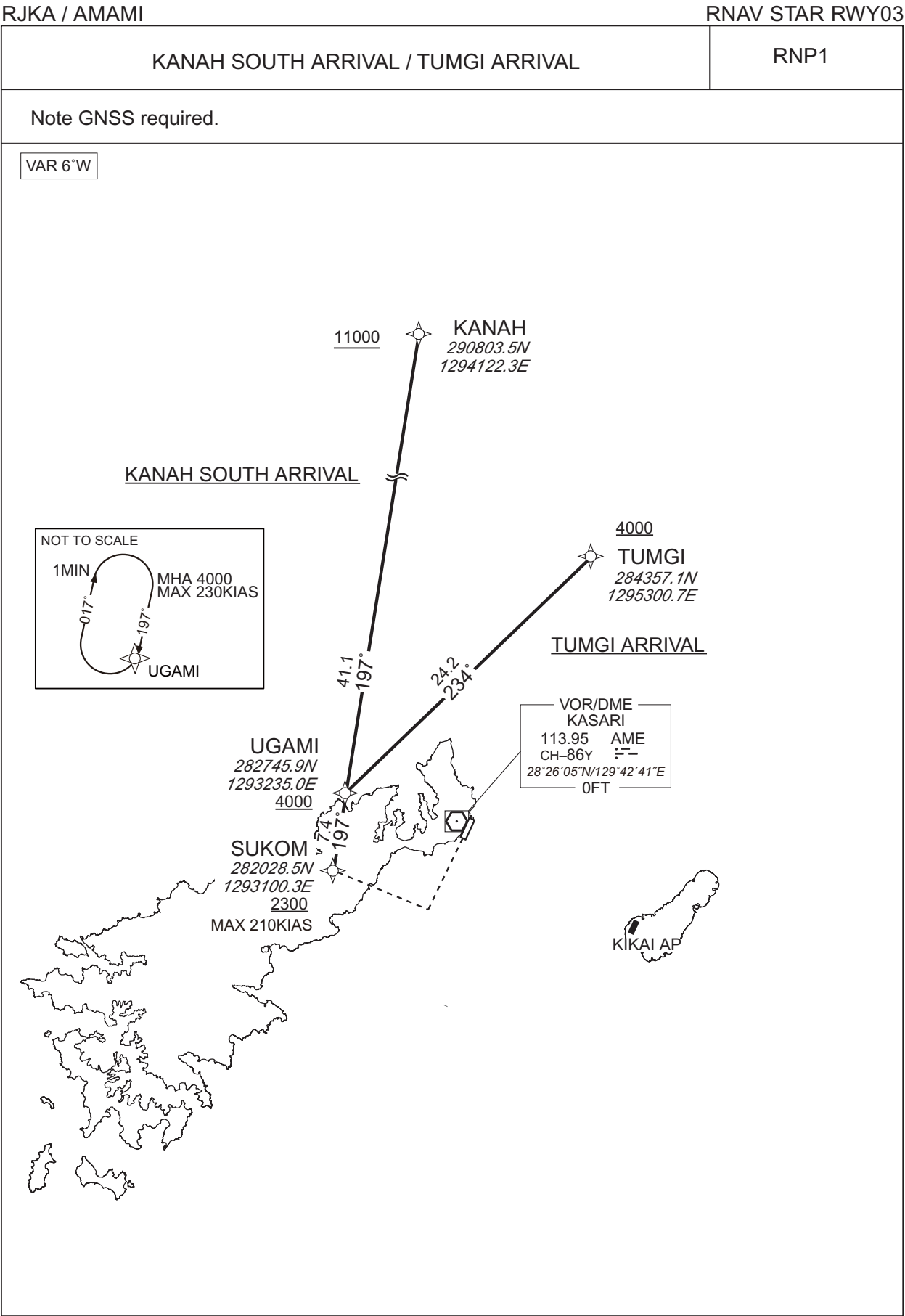
- RWY03 : Climb RWY HDG to 1000FT,turn right,...
- RWY21 : Climb RWY HDG to 1000FT,turn left,...
- ...direct to AME VOR/DME. Cross AME VOR/DME at or above 3000FT.

NOTE RWY03 : 3.5% climb gradient required up to 1000FT.
OBST ALT 197FT located at 1.1NM 015° FM end of RWY03.



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STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

RJKA / AMAMI

RNAV STAR RWY03

KANAH SOUTH ARRIVAL

From KANAH at or above 11000FT, to UGAMI at or above 4000FT, to SUKOM at or above 2300FT.

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	KANAH	-	-	-6.3	-	-	+11000	-	-	RNP1
002	TF	UGAMI	-	197 (190.9)	-6.3	41.1	-	+4000	-	-	RNP1
003	TF	SUKOM	-	197 (190.8)	-6.3	7.4	-	+2300	-210	-	RNP1

TUMGI ARRIVAL

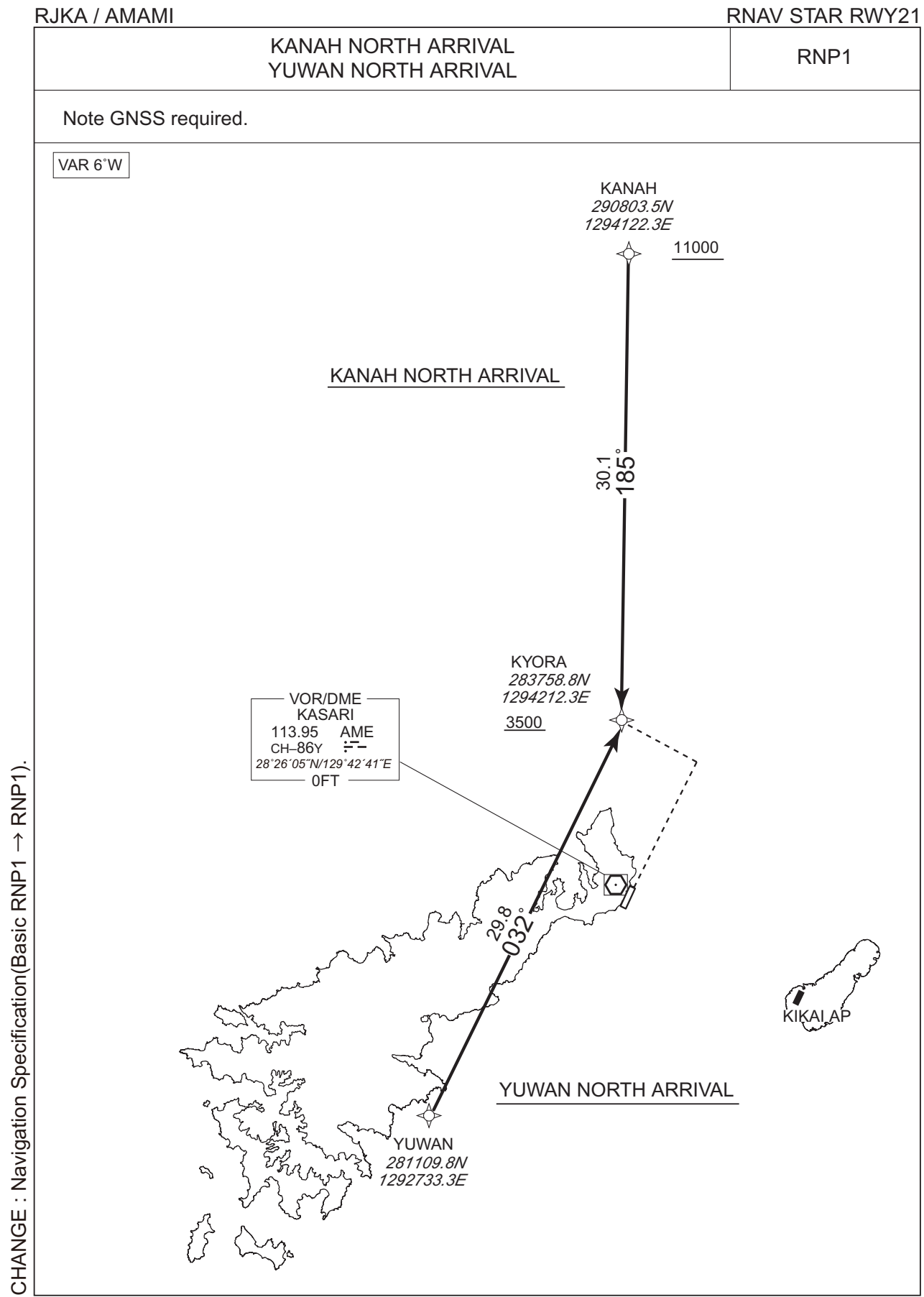
From TUMGI at or above 4000FT, to UGAMI at or above 4000FT, to SUKOM at or above 2300FT.

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	TUMGI	-	-	-6.3	-	-	+4000	-	-	RNP1
002	TF	UGAMI	-	234 (228.0)	-6.3	24.2	-	+4000	-	-	RNP1
003	TF	SUKOM	-	197 (190.8)	-6.3	7.4	-	+2300	-210	-	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	UGAMI	197 (190.8)	-6.3	1.0 (-14000)	R	4000	FL140	-230 (-14000)	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

RJKA / AMAMI

RNAV STAR RWY21

KANAH NORTH ARRIVAL

From KANAH at or above 11000FT, to KYORA at or above 3500FT.

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	KANAH	-	-	-6.2	-	-	+11000	-	-	RNP1
002	TF	KYORA	-	185 (178.6)	-6.2	30.1	-	+3500	-	-	RNP1

YUWAN NORTH ARRIVAL

From YUWAN, to KYORA at or above 3500FT.

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	-	-	-	-	-	RNP1
002	TF	KYORA	-	032 (025.6)	-6.2	29.8	-	+3500	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

RJKA / AMAMI

NAHA APP 124.95 – 280.1	ILS – LOC 109.3 IAM ILS-GP 332.0 ILS-DME CH-30X	AMAMI RADIO 118.15 - 126.2 AFIS provided by Naha Airport Office	RADAR AVBL
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VAR 6°W

EQPT REQUIRED
DME
VOR

NM to IAM	FAF	3	2	1	MAPt
ALT (3.0° APCH Path)	1287	977	658	339	-

MISSED APPROACH

Climb on HDG032° to 3000FT,
turn right, direct to AME
VOR/DME and hold.
Contact NAHA APP.

Timing not authorized for defining the MAPt.

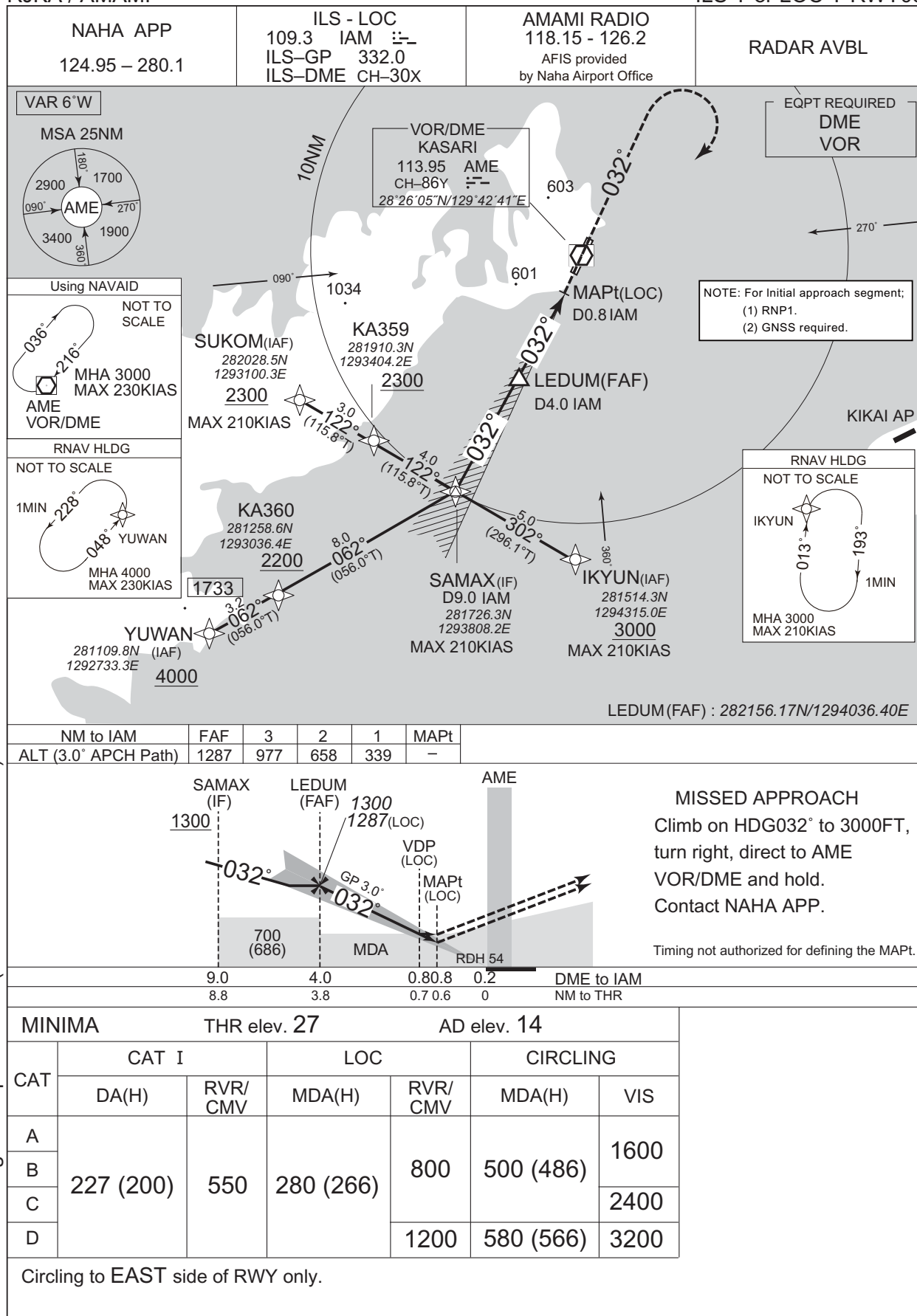
MINIMA		THR elev. 27		AD elev. 14	
CAT	CAT I		LOC		CIRCLING
	DA(H)	RVR/ CMV	MDA(H)	RVR/ CMV	MDA(H) VIS
A	227 (200)	550	280 (266)	800	500 (486) 2400
B					
C					
D					

Circling to EAST side of RWY only.

INSTRUMENT APPROACH CHART

RJKA / AMAMI

ILS Y or LOC Y RWY03



CHANGE : Navigation Specification(Basic RNP1 → RNP1).

RJKA / AMAMI

VOR RWY03

Turn initiation within D11.0 AME

225°

1700

028°

MALKI (FAF) 1668

VDP

MAPt

028°

MDA

AME 3000

VDP

D2.2 AME (CAT A)	1668
D2.3 AME (CAT B)	1668
D2.5 AME (CAT C)	1668
D2.6 AME (CAT D)	1668

700 (686)

5.8

5.0

2.0

0.7

DME to AME

NM to THR

MISSED APPROACH

Climb via AME R028 to 3000FT, turn right, direct to AME

VOR/DME and hold.

Contact NAHA APP.

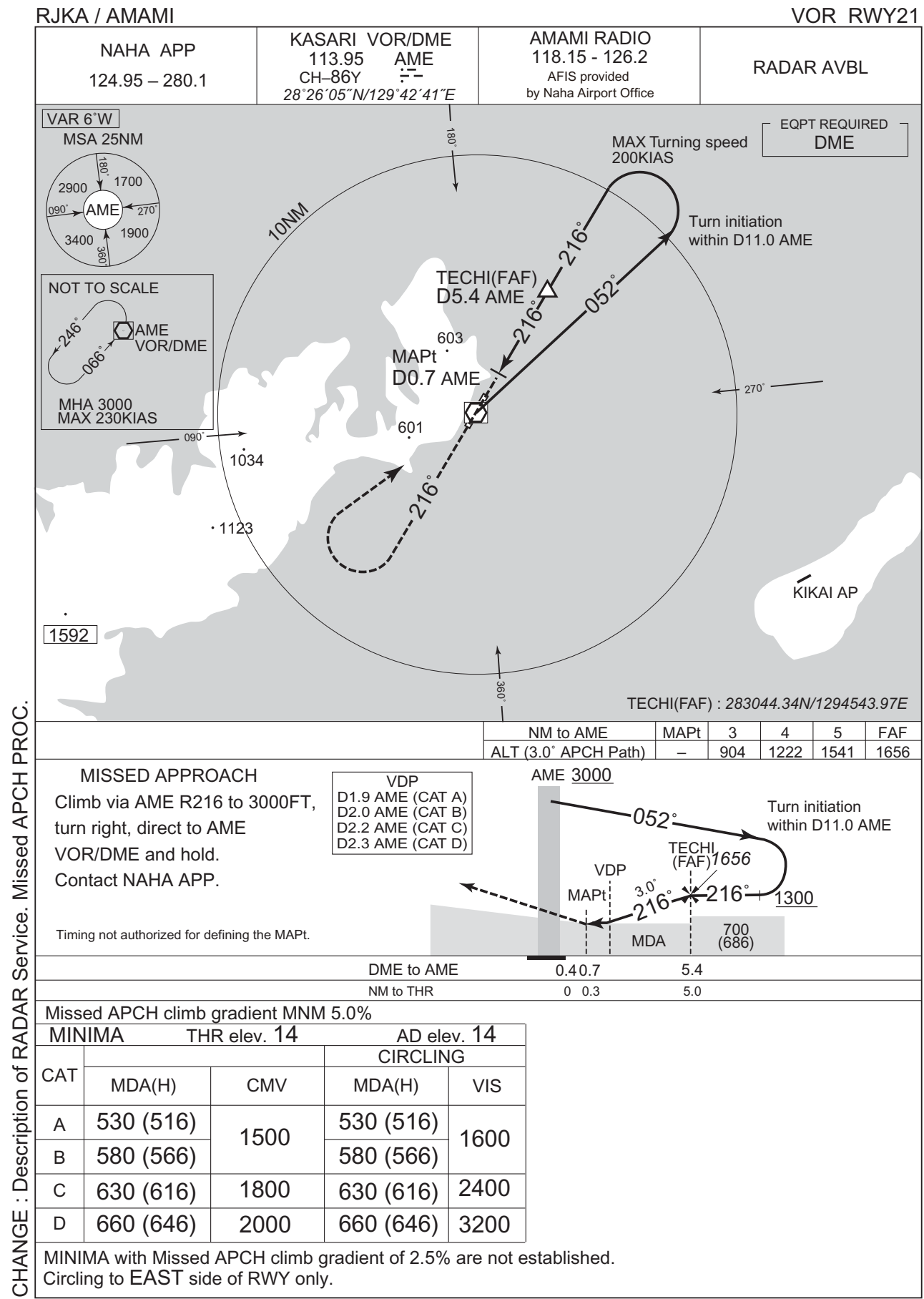
Timing not authorized for defining the MAPt.

Missed APCH climb gradient MNM 5.0%				
MINIMA		THR elev. 27	AD elev. 14	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	500 (486)	1000	500 (486)	1600
B	550 (536)	1200	550 (536)	
C	600 (586)		600 (586)	2400
D	640 (626)	1600	640 (626)	3200

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

CHANGE : Description of RADAR Service. Missed APCH PROC.

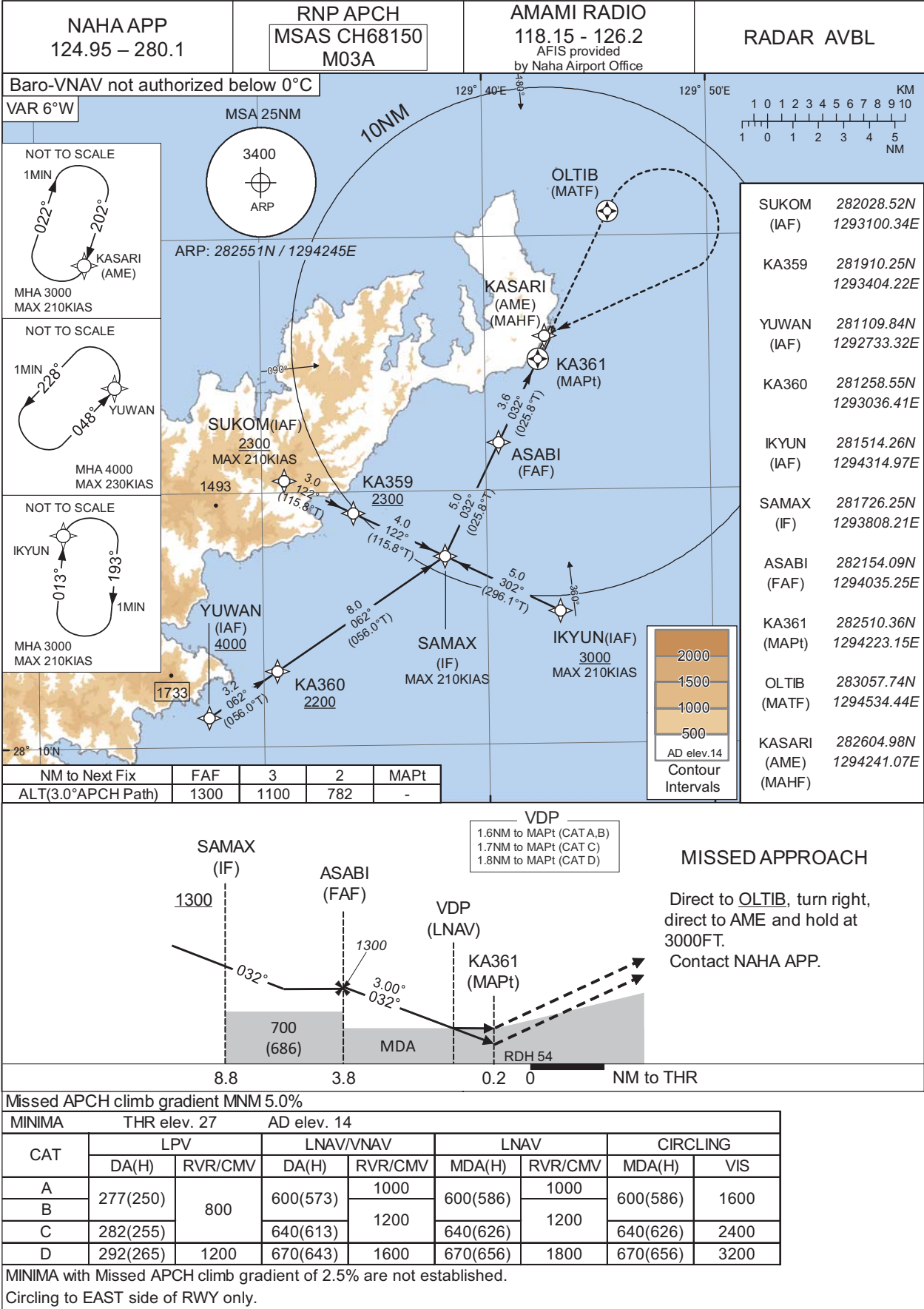
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJKA / AMAMI

RNP Z RWY03



INSTRUMENT APPROACH CHART

RJKA / AMAMI

RNP Z RWY03

FAS DATA BLOCK

Operation type	0	LTP/FTP ellipsoidal height	+00373
SBAS service provider identifier	2	FPAP latitude	282619.5815N
Airport identifier	RJKA	FPAP longitude	1294301.2745E
Runway	03	Threshold crossing height	00016.5
Approach performance designator	0	TCH units selector	1
Route indicator	Z	Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M03A	∟ length offset	0000
LTP/FTP latitude	282521.1620N	HAL	40.0
LTP/FTP longitude	1294229.1275E	VAL	50.0
CRC remainder	2C1731A7		

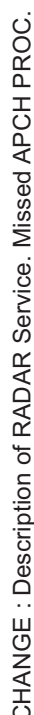
Required additional data

LTP/FTP orthometric height	8.5
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CHANGE : New PROC.

RJKA / AMAMI

RNP Y RWY03(AR)



INSTRUMENT APPROACH CHART

RJKA / AMAMI

RNP Y RWY03(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	TUMGI	-	-	-6.4	-	-	+3500	-	-	-
002	TF	UPTM	-	203 (196.4)	-6.4	13.1	-	-	-	-	0.3
003	TF	KA357	-	203 (196.4)	-6.4	9.2	-	+2000	-185	-	0.3
004	RF Center: KARF2 r=1.95NM	VESOR	-	-	-6.4	1.9	R	2000	-	-	0.3
005	RF Center: KARF2 r=1.95NM	KA358	-	-	-6.4	4.5	R	554	-	-3.00	0.13 0.30
006	TF	RW03	Y	032 (025.8)	-6.4	1.5	-	81	-	-3.00/54	0.13 0.30
007	TF	OLTIB	-	032 (025.8)	-6.4	6.2	-	-	-	-	1.0
008	TF	TUMGI	-	033 (026.7)	-6.4	14.5	-	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	TUMGI	213 (207.0)	-6.3	1.0 (-14000)	R	3500	FL140	-230 (-14000)	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
TUMGI	284357.05N / 1295300.74E	KARF2	282309.49N / 1294344.25E
UPTM	283124.97N / 1294848.31E		
KA357	282236.27N / 1294551.51E		
VESOR	282117.56N / 1294424.10E		
KA358	282400.82N / 1294144.91E		
RW03	282521.18N / 1294229.11E		
OLTIB	283057.74N / 1294534.44E		

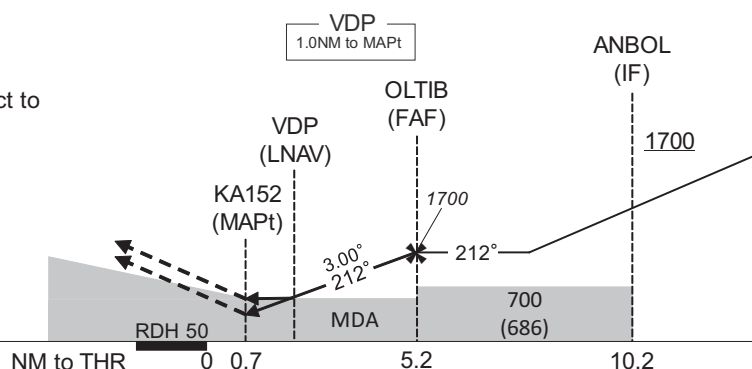
CHANGE : PROC renamed. PROC course. UPTM, KA358, OLTIB established. YANGO, KA353, JOUGO, KA351, HABUH abolished.
RNP Value FM UPTM to VESOR. RF Arc Center Identifier (KARF2 added, KARF1 deleted). Waypoint Coordinates (RW03). VAR.

RJKA / AMAMI

RNP Z RWY21



Direct to KA153, turn right, direct to
KYORA and hold at 3500FT.
Contact NAHA APP.



Missed APCH climb gradient MNM 5.0%

MINIMA		THR elev. 14		AD elev. 14					
CAT	LPV		LNAV/VNAV		LNAV		CIRCLING		
	DA(H)	CMV	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS	
A	267(253)	1200	600(586)	1500	600(586)	1500	600(586)	1600	
B	277(263)	1300		1800		1800		2400	
C	287(273)	1400		2000		2000		3200	
D	297(283)	1600							

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

Circling to EAST side of RWY only.

INSTRUMENT APPROACH CHART

RJKA / AMAMI

RNP Z RWY21

FAS DATA BLOCK

Operation type	0	LTP/FTP ellipsoidal height	+00333
SBAS service provider identifier	2	FPAP latitude	282521.1620N
Airport identifier	RJKA	FPAP longitude	1294229.1275E
Runway	21	Threshold crossing height	00015.0
Approach performance designator	0	TCH units selector	1
Route indicator	Z	Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M21A	∟ length offset	0000
LTP/FTP latitude	282619.5815N	HAL	40.0
LTP/FTP longitude	1294301.2745E	VAL	50.0
CRC remainder	A4D8FDB0		

Required additional data

LTP/FTP orthometric height	4.5
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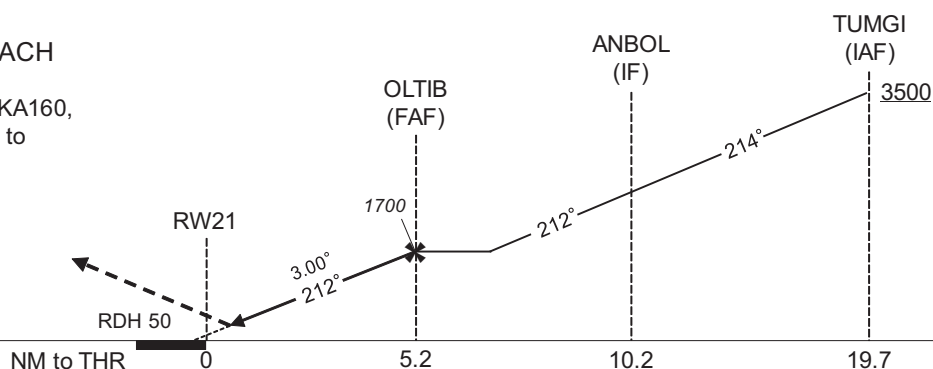
CHANGE : FAS DATA BLOCK and Required additional data established.

RJKA / AMAMI

RNP Y RWY21(AR)



Climb to 3500FT, to KA160,
to KA161, to KA162, to
TUMGI and hold.
Contact NAHA APP.



Missed APCH climb gradient MNM 5.0%

MINIMA		THR elev. 14		AD elev. 14	
CAT	RNP 0.14		RNP 0.30		
	DA(H)	CMV	DA(H)	CMV	
A	-	-	-	-	
B					
C	287(273)	1400	365(351)	1600	
D	297(283)	1600	387(373)	1800	

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

Authorization Required

INSTRUMENT APPROACH CHART

RJKA / AMAMI

RNP Y RWY21(AR)

CHANGE : PROC course. ANBOL, OLTIB, KA160 established. IMORE, HABUH, KA101 abolished. Waypoint Coordinates (RW21). VAR.

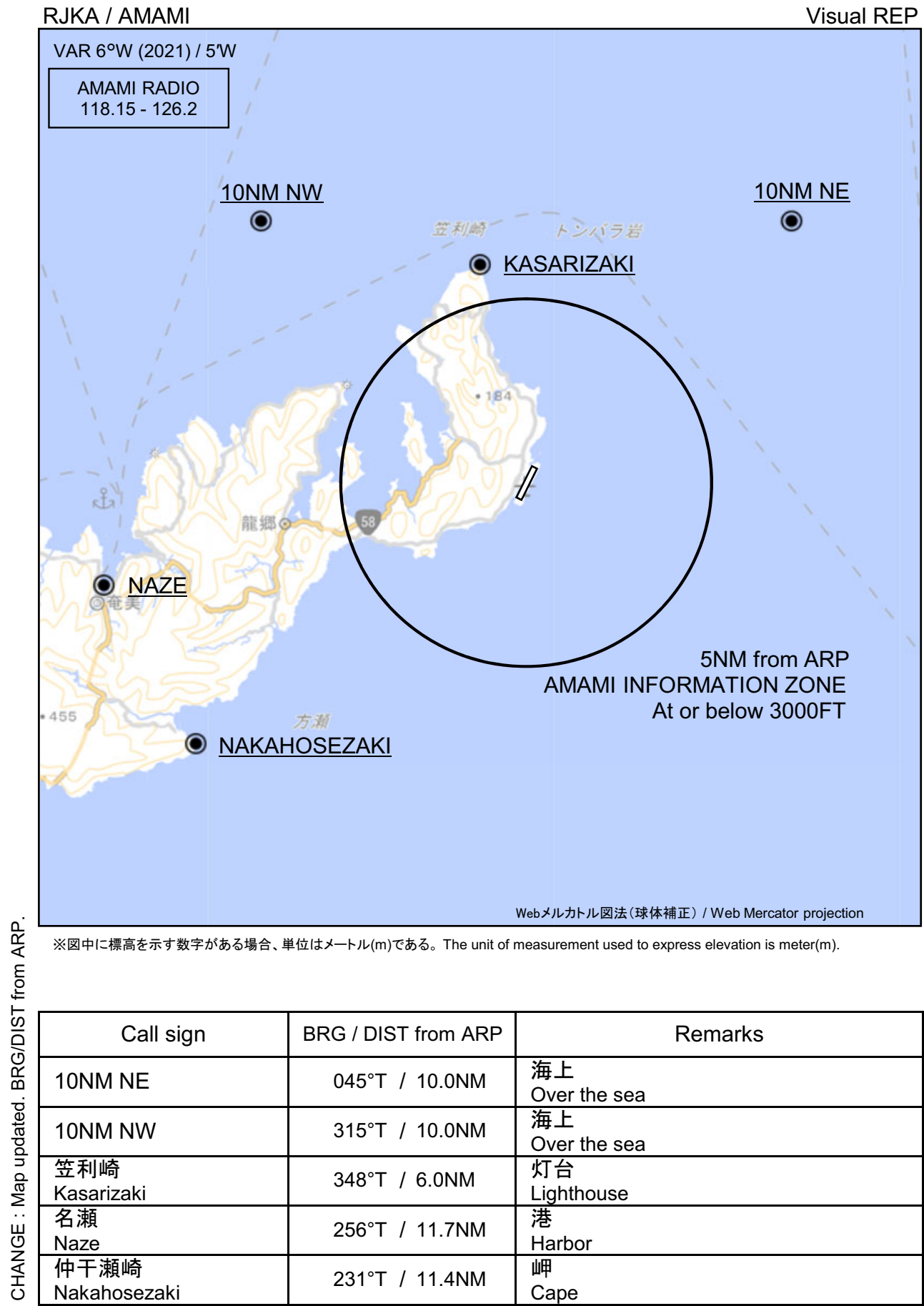
Coding Table

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	TUMGI	-	-	-6.4	-	-	+3500	-	-	-
002	TF	ANBOL	-	214 (207.1)	-6.4	9.5	-	-	-	-	1.0
003	TF	OLTIB	-	212 (205.9)	-6.4	5.0	-	1700	-	-	1.0
004	TF	RW21	Y	212 (205.8)	-6.4	5.2	-	64	-	-3.00/50	0.14 0.30
005	TF	KA160	-	212 (205.8)	-6.4	5.7	-	-	-	-	1.0
006	TF	KA161	-	302 (296.0)	-6.4	11.0	-	-	-	-	1.0
007	TF	KA162	-	017 (010.7)	-6.4	10.0	-	-	-	-	1.0
008	TF	TUMGI	-	074 (067.1)	-6.4	20.9	-	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	TUMGI	213 (207.0)	-6.3	1.0 (-14000)	R	3500	FL140	-230 (-14000)	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates
TUMGI	284357.05N / 1295300.74E
ANBOL	283528.93N / 1294804.04E
OLTIB	283057.74N / 1294534.44E
RW21	282619.61N / 1294301.26E
KA160	282111.47N / 1294011.84E
KA161	282600.04N / 1292858.96E
KA162	283551.31N / 1293105.90E



RJKA / AMAMI

Minimum Vectoring Altitude CHART

