

AD CHART

[illegible]

REMARKS :	2000m x 45m
RUNWAY GROOVING	PCR 532 / F / B / X / T
RUNWAY STRENGTH	PCR 643 / F / A / X / T
WIDTH & STRENGTH OF TAXIWAY	AUW 5700kg / 0.68MPa
DIMENSION & STRENGTH OF APRON	PCR 845 / R / B / W / T
SOUTH 90m x 135m	PCR 407 / F / A / Y / T
NORTH 124m x 68m	N1-N4
	N5-N11 AUW 5700kg / 0.68MPa

The diagram illustrates the layout of a runway lighting system, showing three main components: the Runway Alignment Indicator (RAI), the Simple Approach Lighting System (SALS), and the Approach Light Beacons (ALB).

- Runway Alignment Indicator (RAI):** Located on the left, it consists of a series of stars. A segment of 480m is marked.
- Simple Approach Lighting System (SALS):** Located in the middle, it consists of a series of lights. A segment of 420m is marked.
- Approach Light Beacons (ALB):** Located on the right, it consists of three stars. A segment of 300m is marked.

The total distance shown is 1200m.

LONGITUDINAL PROFILE OF RUNWAY

The longitudinal profile of the runway is shown with the following data points:

Station (ft)	Elevation (ft)	Elevation (m)	Slope (%)
0	2132	649.95	0.65%
500	2143	653.2	0.85%
1500	2170	661.7	0.70%
2000	2182	665.2	

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STANDARD DEPARTURE CHART-INSTRUMENT

RJAF / MATSUMOTO

SID

MATSUMOTO REVERSAL ONE DEPARTURE

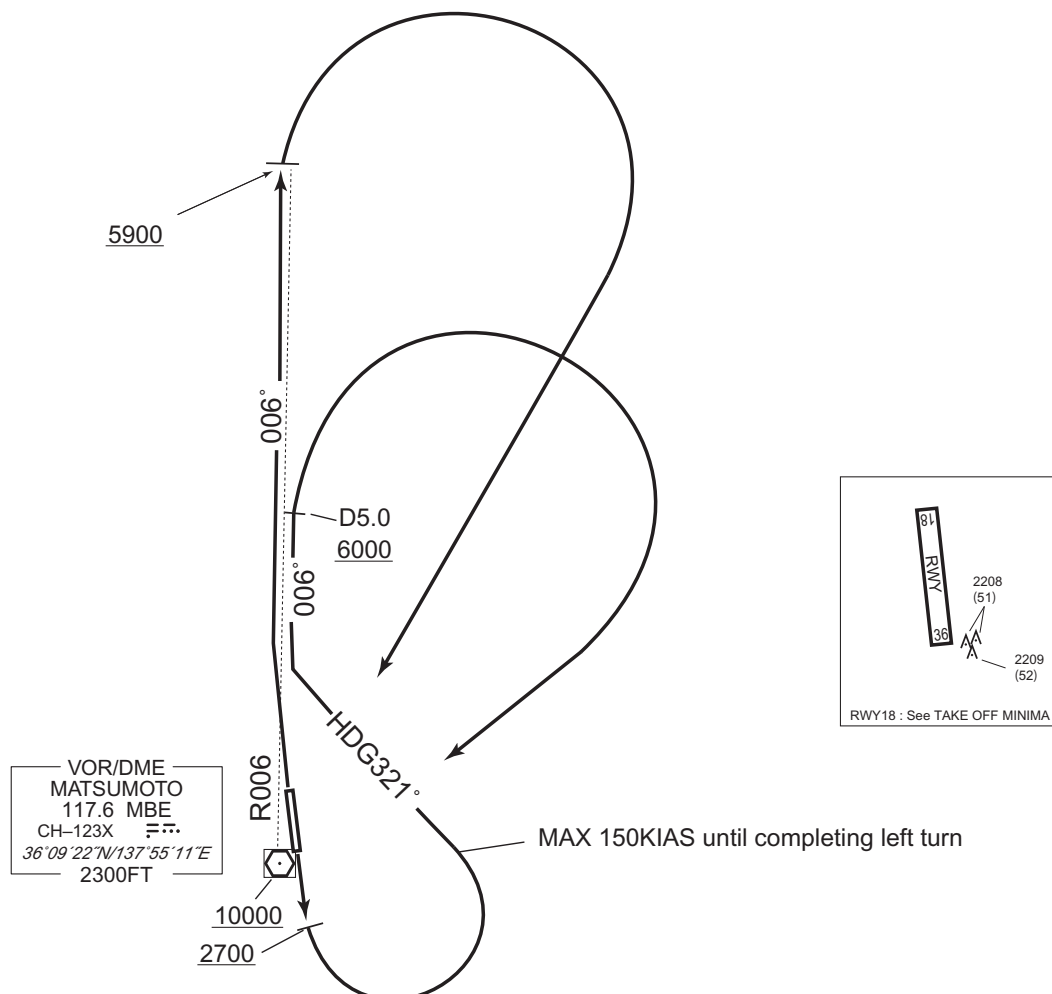
- RWY 18 : Climb RWY HDG to 2700FT, turn left HDG321° to intercept and proceed via MBE R006 to 5.0DME, turn right direct to MBE VOR/DME.
Cross MBE R006/5.0DME at or above 6000FT, cross MBE VOR/DME at or above 10000FT.
- RWY 36 : Climb via MBE R006 to 5900FT, turn right direct to MBE VOR/DME.
Cross MBE VOR/DME at or above 10000FT.

NOTE RWY18 : 1) 6.6% climb gradient required up to 4200FT.

OBST ALT 3740FT located at 111°/4.40NM FM end of RWY18.

2) Departure turn limited to 150KIAS maximum until completing left turn.

CHANGE : OBST chart.



STANDARD DEPARTURE CHART-INSTRUMENT

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HAPPO ONE DEPARTURE

RWY 18 : Climb RWY HDG to 2700FT, turn left HDG321° to intercept and proceed via MBE R006 to HAPPO.

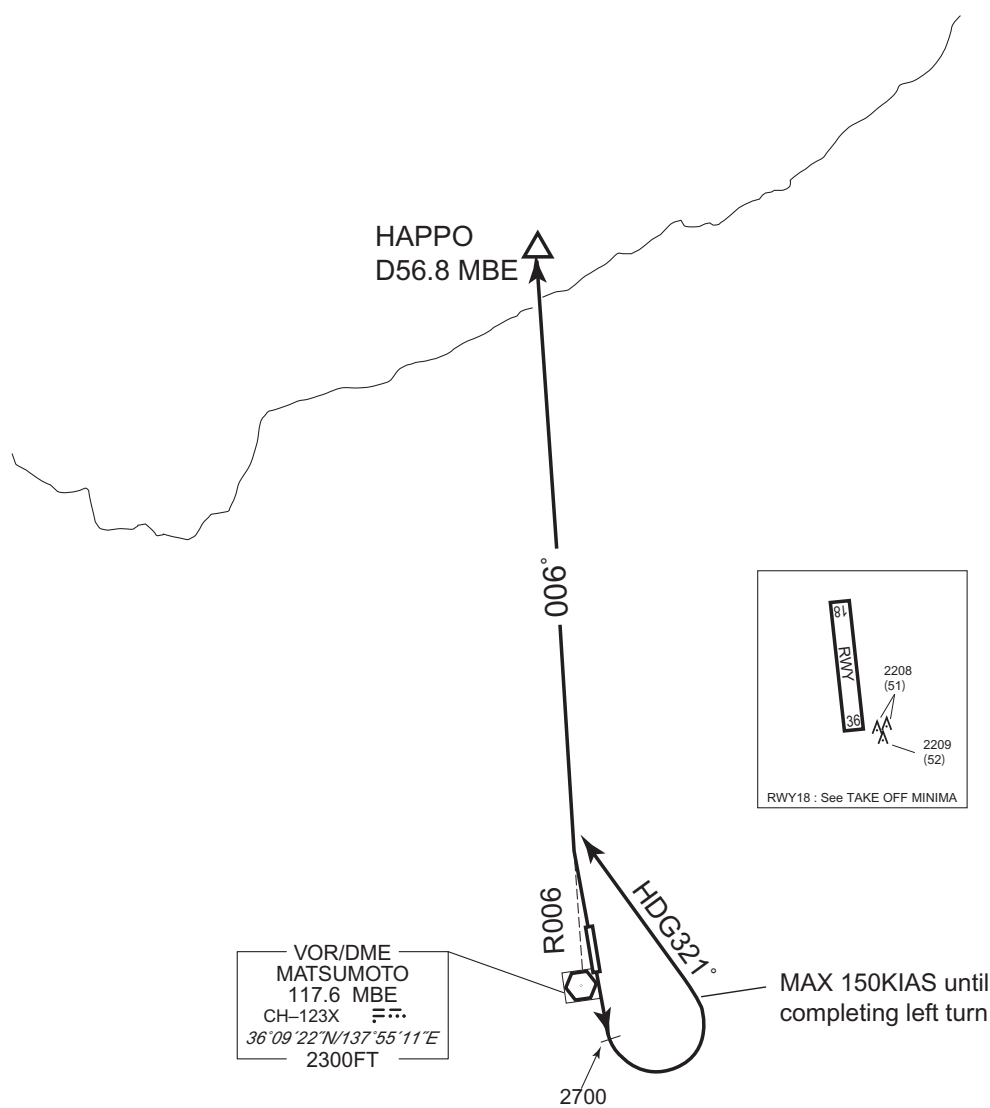
RWY 36 : Climb via MBE R006 to HAPPO.

NOTE RWY18 : 1) 6.6% climb gradient required up to 4200FT.

OBST ALT 3740FT located at 111°/4.40NM FM end of RWY18.

2) Departure turn limited to 150KIAS maximum until completing left turn.

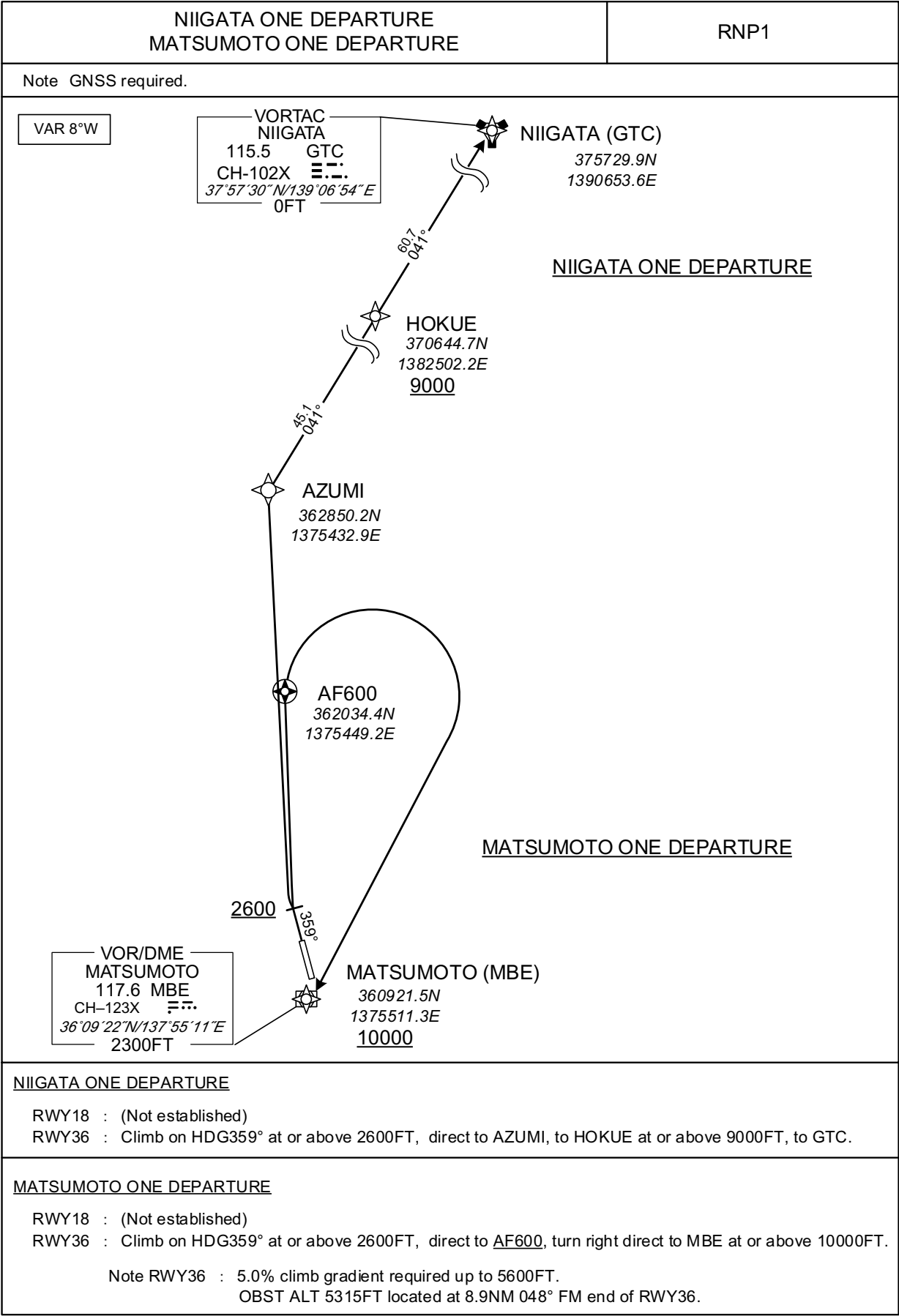
CHANGE : OBST chart.



STANDARD DEPARTURE CHART-INSTRUMENT

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RNAV SID



STANDARD DEPARTURE CHART-INSTRUMENT

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RNAV SID

NIIGATA ONE DEPARTURE											
RWY36											
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	-	-	359 (351.1)	-8.2	-	-	+2600	-	-	RNP1
002	DF	AZUMI	-	-	-8.2	-	-	-	-	-	RNP1
003	TF	HOKUE	-	041 (032.6)	-8.2	45.1	-	+9000	-	-	RNP1
004	TF	GTC	-	041 (033.0)	-8.2	60.7	-	-	-	-	RNP1
MATSUMOTO ONE DEPARTURE											
RWY36											
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	-	-	359 (351.1)	-8.2	-	-	+2600	-	-	RNP1
002	DF	AF600	Y	-	-8.2	-	-	-	-	-	RNP1
003	DF	MBE	-	-	-8.2	-	R	+10000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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VOR RWY18

CHANGE : ATC call sign(TOKYO CONTROL → KOBE CONTROL).

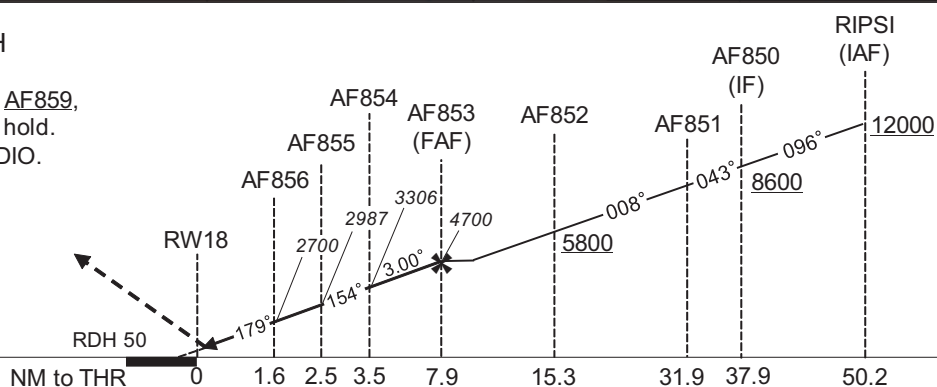
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RNP Z RWY18(AR)



Climb to 10000FT, direct to AF859,
turn left, direct to MBE and hold.
Contact MATSUMOTO RADIO.



Missed APCH climb gradient MNM 7.0%

MINIMA		THR elev. 2132		AD elev. 2157	
CAT	RNP 0.20		RNP 0.30		
	DA(H)	CMV	DA(H)	CMV	
A	-	-	-	-	
B					
C	2432(300)	1000	2448(316)	1000	
D	-	-	-	-	

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

Authorization Required

INSTRUMENT APPROACH CHART

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RNP Z RWY18(AR)

Coding Table

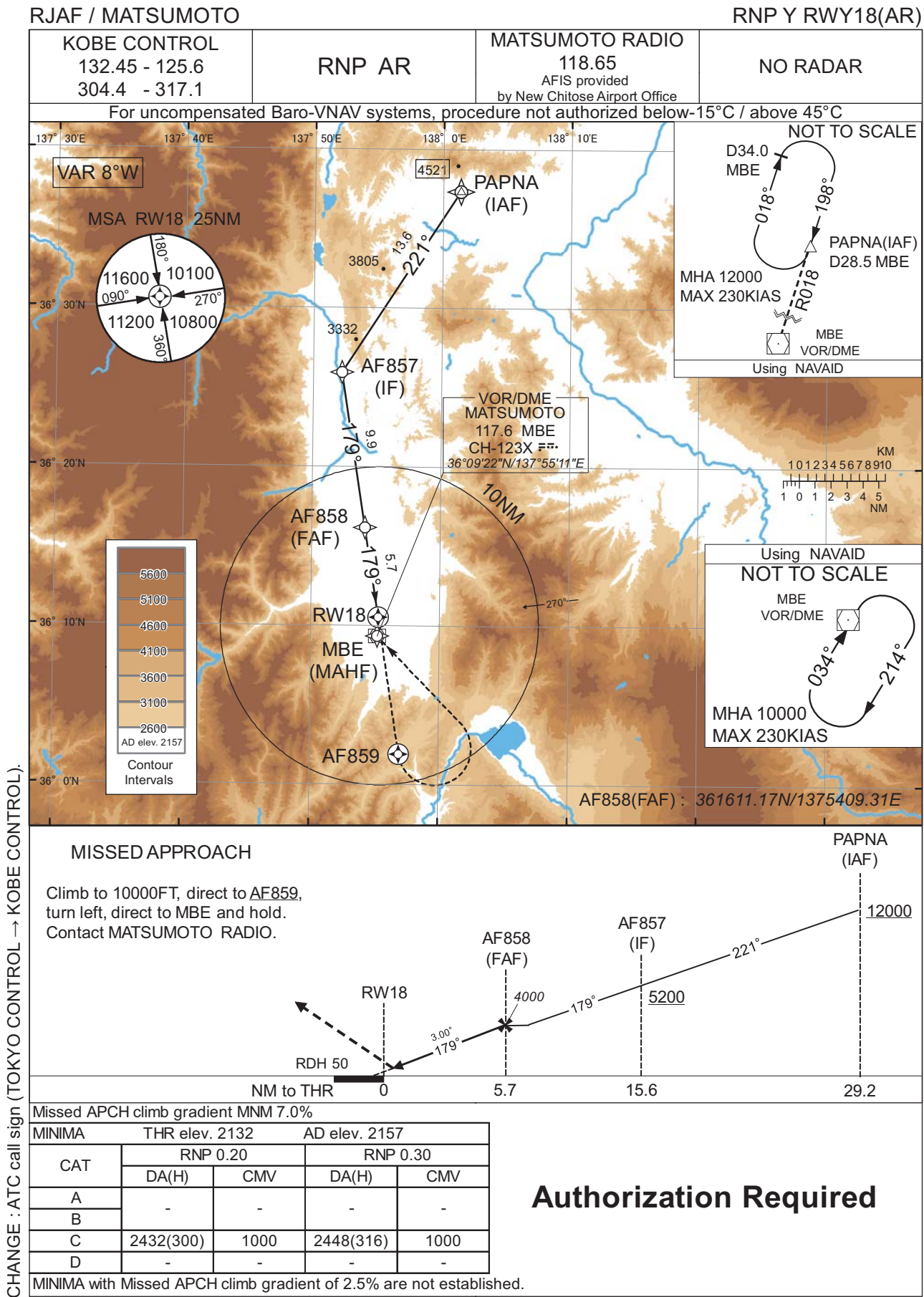
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	RIPSI	-	-	-8.2	-	-	+12000	-250	-	-
002	TF	AF850	-	096 (087.7)	-8.2	12.3	-	+8600	-	-	1.0
003	TF	AF851	-	043 (035.2)	-8.2	6.0	-	-	-	-	0.3
004	TF	AF852	-	008 (359.9)	-8.2	16.6	-	+5800	-	-	0.3
005	RF Center: AFRF5 r=3.15NM	AF853	-	-	-8.2	7.4	L	4700	-	-	0.3
006	RF Center: AFRF5 r=3.15NM	AF854	-	-	-8.2	4.4	L	3306	-	-3.00	0.2 0.3
007	TF	AF855	-	154 (146.1)	-8.2	1.0	-	2987	-	-3.00	0.2 0.3
008	RF Center: AFRF6 r=2.06NM	AF856	-	-	-8.2	0.9	R	2700	-	-3.00	0.2 0.3
009	TF	RW18	Y	179 (171.1)	-8.2	1.6	-	2182	-	-3.00/50	0.2 0.3
010	DF	AF859	Y	-	-8.2	-	-	-	-	-	1.0
011	DF	MBE	-	-	-8.2	-	L	10000	-	-	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
RIPSI	355340.33N / 1374133.41E	AFRF5	361534.43N / 1375704.35E
AF850	355408.74N / 1375645.79E	AFRF6	361149.74N / 1375225.49E
AF851	355901.18N / 1380100.60E		
AF852	361534.92N / 1380057.71E		
AF853	361749.79N / 1375421.45E		
AF854	361348.83N / 1375350.85E		
AF855	361259.03N / 1375432.28E		
AF856	361209.11N / 1375456.52E		
RW18	361032.37N / 1375515.37E		
AF859	360155.80N / 1375655.84E		
MBE	360921.51N / 1375511.34E		

CHANGE : PROC renamed.

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

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RNP Y RWY18(AR)

Coding Table

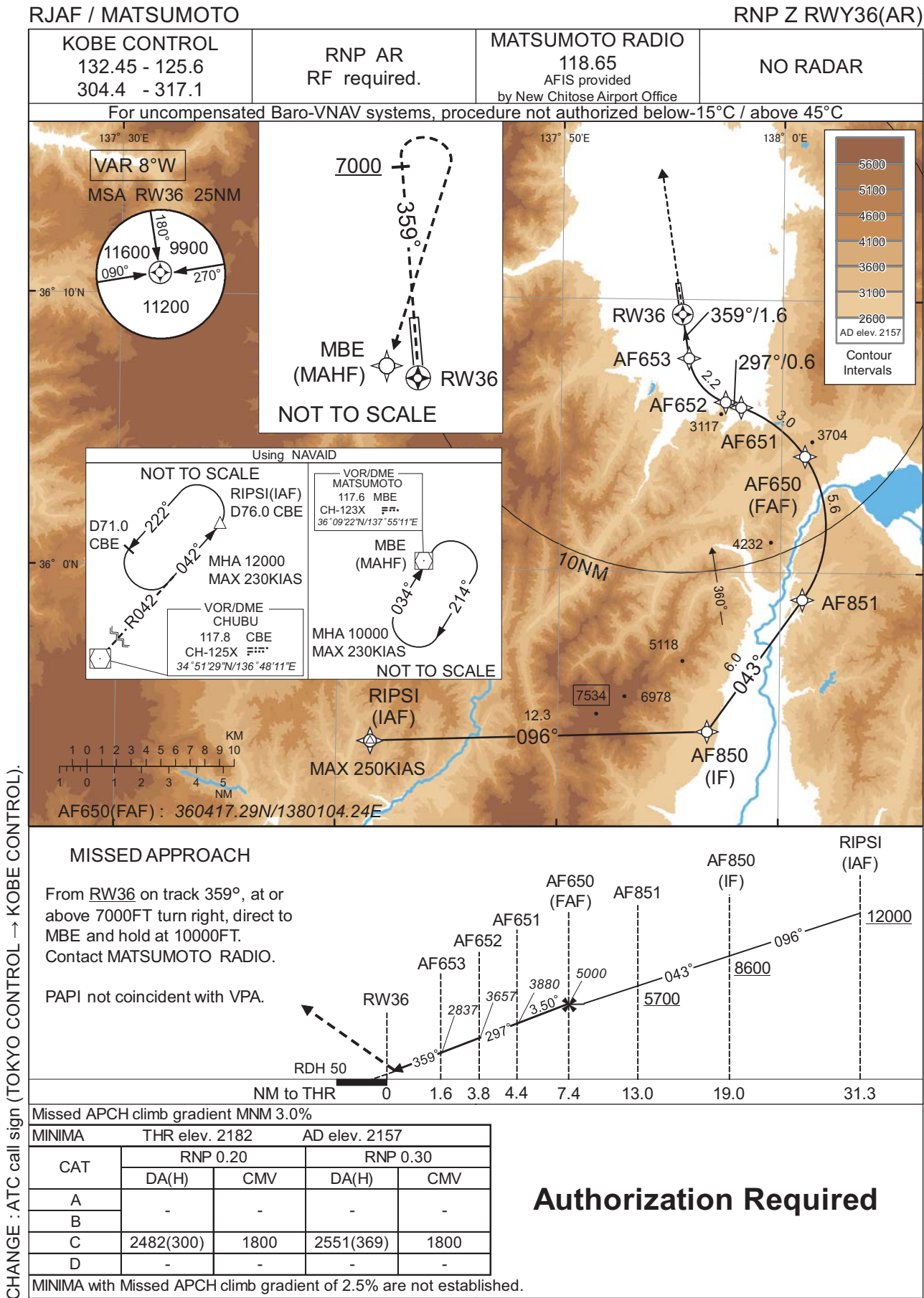
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	PAPNA	-	-	-8.2	-	-	+12000	-	-	-
002	TF	AF857	-	221 (212.8)	-8.2	13.6	-	+5200	-	-	1.0
003	TF	AF858	-	179 (171.0)	-8.2	9.9	-	4000	-	-	1.0
004	TF	RW18	Y	179 (171.1)	-8.2	5.7	-	2182	-	-3.00/50	0.2 0.3
005	DF	AF859	Y	-	-8.2	-	-	-	-	-	1.0
006	DF	MBE	-	-	-8.2	-	L	10000	-	-	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates
PAPNA	363721.74N / 1380122.92E
AF857	362557.23N / 1375214.72E
AF858	361611.17N / 1375409.31E
RW18	361032.37N / 1375515.37E
AF859	360155.80N / 1375655.84E
MBE	360921.51N / 1375511.34E

CHANGE : PROC renamed.

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJAF / MATSUMOTO

RNP Z RWY36(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	RIPSI	-	-	-8.2	-	-	+12000	-250	-	-
002	TF	AF850	-	096 (087.7)	-8.2	12.3	-	+8600	-	-	1.0
003	TF	AF851	-	043 (035.2)	-8.2	6.0	-	+5700	-	-	1.0
004	RF Center: AFRF1 r=4.60NM	AF650	-	-	-8.2	5.6	L	5000	-	-	1.0
005	RF Center: AFRF1 r=4.60NM	AF651	-	-	-8.2	3.0	L	3880	-	-3.50	0.2 0.3
006	TF	AF652	-	297 (288.3)	-8.2	0.6	-	3657	-	-3.50	0.2 0.3
007	RF Center: AFRF2 r=2.02NM	AF653	-	-	-8.2	2.2	R	2837	-	-3.50	0.2 0.3
008	TF	RW36	Y	359 (351.1)	-8.2	1.6	-	2232	-	-3.50/50	0.2 0.3
009	FA	-	-	359 (351.1)	-8.2	-	-	+7000	-	-	1.0
010	DF	MBE	-	-	-8.2	-	R	10000	-	-	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
RIPSI	355340.33N / 1374133.41E	AFRF1	360141.27N / 1375622.53E
AF850	355408.74N / 1375645.79E	AFRF2	360810.39N / 1375813.97E
AF851	355901.18N / 1380100.60E		
AF650	360417.29N / 1380104.24E		
AF651	360604.23N / 1375809.40E		
AF652	360615.53N / 1375727.24E		
AF653	360751.55N / 1375546.68E		
RW36	360928.29N / 1375527.85E		
MBE	360921.51N / 1375511.34E		

CHANGE : PROC renamed.

RJAF / MATSUMOTO

KOBE CONTROL

132.45 - 125.6
304.4 - 317.1

RNP AR

RF required.

MATSUMOTO RADIO

118.65
AFIS provided
by New Chitose Airport Office

NO RADAR

For uncompensated Baro-VNAV systems, procedure not authorized below-15°C / above 45°C

VAR 8°W

Using NAVAID
VOR/DME MATSUMOTO
117.6 MBE
CH-123X
36°09'22"N/137°55'11"E

MBE (MAHF)
MHA 10000
MAX 230KIAS
NOT TO SCALE

NOT TO SCALE
7000
+ 359°
MBE (MAHF) → RW36

MSA RW36 25NM

 Contour Intervals

Using NAVAID
NOT TO SCALE
D34.0 MBE → D28.5 MBE
PAPNA(IAF)
MHA 12000
MAX 230KIAS
MBE VOR/DME

MISSED APPROACH

From **RW36** on track 359°, at or above 7000FT turn right, direct to MBE and hold at 10000FT.
Contact MATSUMOTO RADIO.

PAPI not coincident with VPA.

NM to THR	0	1.6	3.8	5.2	12.3	15.3	17.8	20.3	41.8
Fix Points	RW36	AF653	AF652	AF662	AF661(FAF)	AF660	AF659	AF658(IF)	PAPNA(IAF)
Elevations	-	2837	3657	4179	6800	7700	8500	-	-
Headings	-	359°	297°	178°	178°	178°	178°	-	-

RDH 50 NM to THR 0 1.6 3.8 5.2 12.3 15.3 17.8 20.3 41.8

Missed APCH climb gradient MNM 3.0%

CAT	THR elev. 2182 AD elev. 2157 RNP 0.20		RNP 0.30	
	DA(H)	CMV	DA(H)	CMV
A	-	-	-	-
B	-	-	-	-
C	2482(300)	1800	2551(369)	1800
D	-	-	-	-

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

Authorization Required

INSTRUMENT APPROACH CHART

RJAF / MATSUMOTO

RNP Y RWY36(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	PAPNA	-	-	-8.2	-	-	+12000	-	-	-
002	TF	AF658	-	178 (170.2)	-8.2	21.5	-	-	-	-	1.0
003	TF	AF659	-	178 (170.3)	-8.2	2.5	-	+8500	-	-	0.3
004	TF	AF660	-	178 (170.3)	-8.2	2.5	-	+7700	-230	-	0.3
005	RF Center: AFRF4 r=4.89NM	AF661	-	-	-8.2	3.0	R	6800	-	-	0.3
006	RF Center: AFRF4 r=4.89NM	AF662	-	-	-8.2	7.1	R	4179	-	-3.50	0.2 0.3
007	TF	AF652	-	297 (288.4)	-8.2	1.4	-	3657	-	-3.50	0.2 0.3
008	RF Center: AFRF2 r=2.02NM	AF653	-	-	-8.2	2.2	R	2837	-	-3.50	0.2 0.3
009	TF	RW36	Y	359 (351.1)	-8.2	1.6	-	2232	-	-3.50/50	0.2 0.3
010	FA	-	-	359 (351.1)	-8.2	-	-	+7000	-	-	1.0
011	DF	MBE	-	-	-8.2	-	R	10000	-	-	1.0

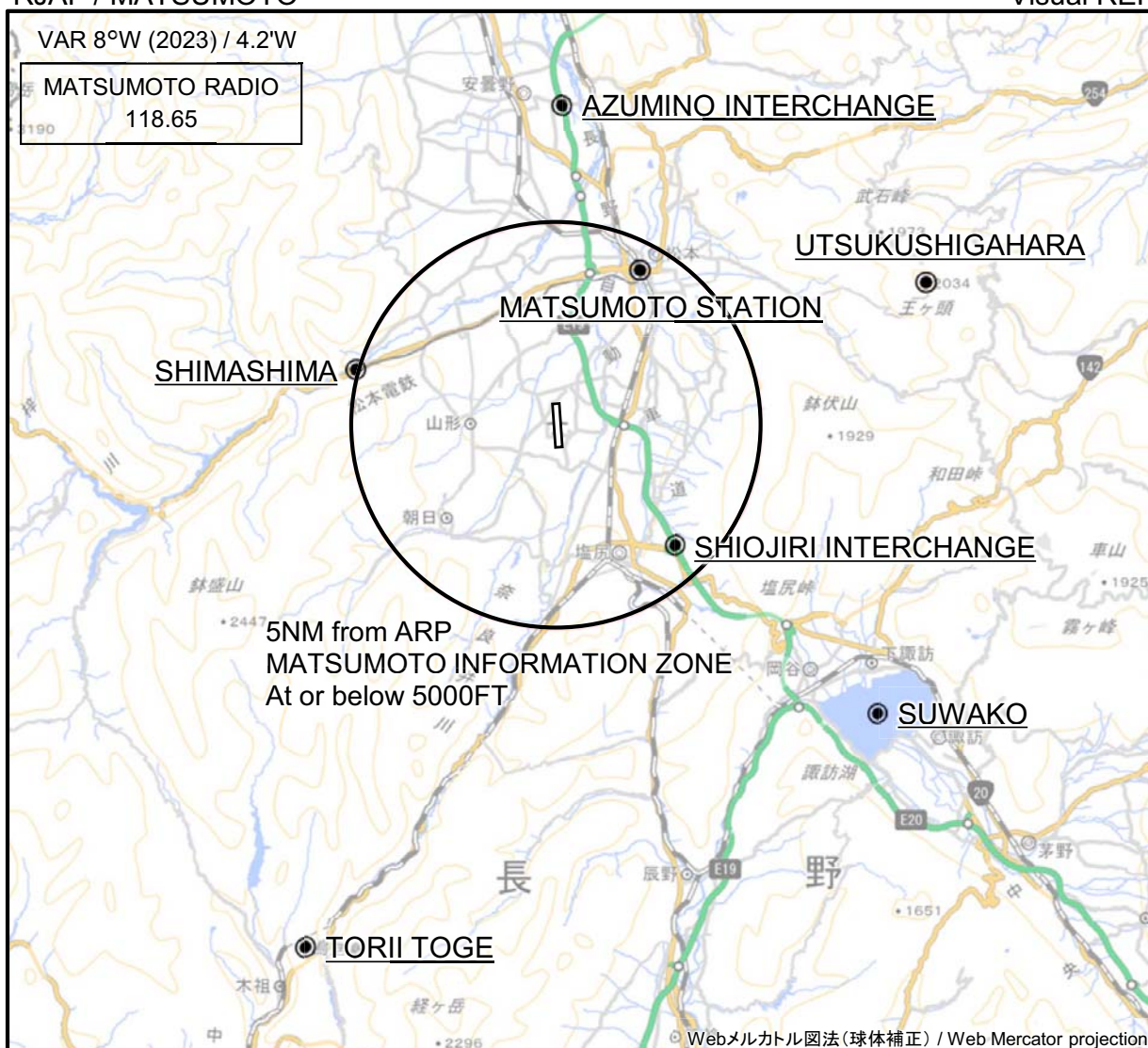
Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
PAPNA	363721.74N / 1380122.92E	AFRF4	361027.73N / 1380059.34E
AF658	361613.48N / 1380553.24E	AFRF2	360810.39N / 1375813.97E
AF659	361345.52N / 1380624.64E		
AF660	361117.56N / 1380656.02E		
AF661	360820.76N / 1380625.54E		
AF662	360549.12N / 1375905.80E		
AF652	360615.53N / 1375727.24E		
AF653	360751.55N / 1375546.68E		
RW36	360928.29N / 1375527.85E		
MBE	360921.51N / 1375511.34E		

CHANGE : PROC renamed.

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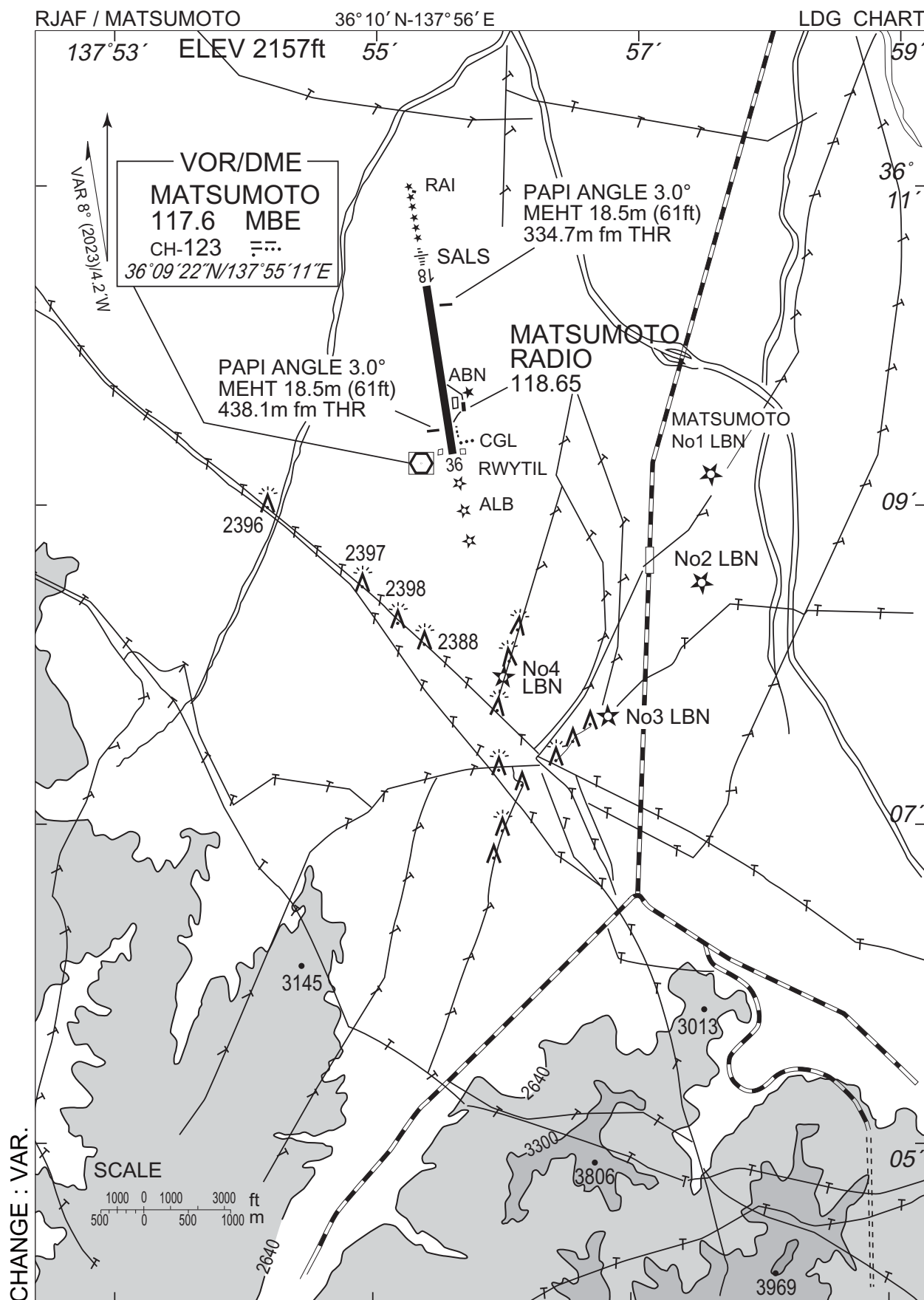
Visual REP



※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
安曇野インターチェンジ Azumino Interchange	001°T / 7.9NM	長野自動車道 安曇野インターチェンジ Interchange
松本ステーション Matsumoto Station	028°T / 4.3NM	JR駅 Station
美ヶ原 Utsukushigahara	068°T / 9.7NM	美ヶ原王ヶ頭 Peak
島島 Shimashima	286°T / 5.1NM	松本電鉄新島島駅 Station
塩尻インターチェンジ Shiojiri Interchange	136°T / 4.1NM	長野自動車道 塩尻インターチェンジ Interchange
諏訪湖 Suwako	132°T / 10.6NM	諏訪湖上空 Lake
鳥居峠 Torii Toge	205°T / 14.3NM	峠 Mountain Pass



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Minimum Vectoring Altitude CHART

