

## AD CHART

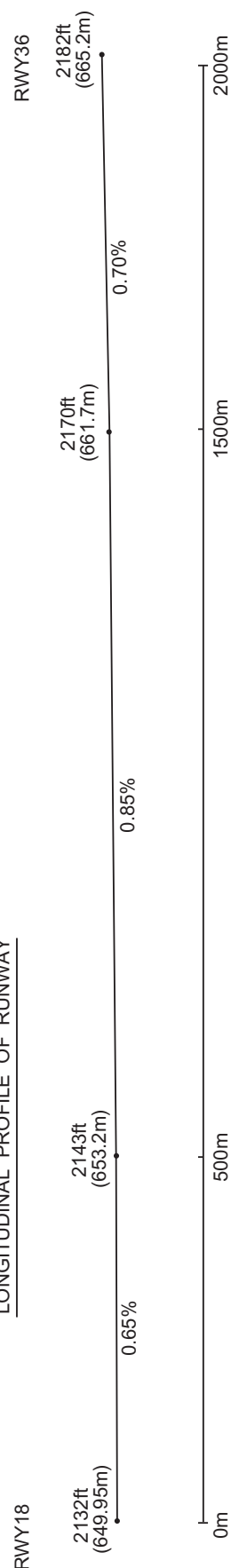
[illegible]

	2000m x 45m	
REMARKS :	PCR 532 / F / B / X / T	
RUNWAY GROOVING		
RUNWAY STRENGTH		
WIDTH & STRENGTH OF TAXIWAY		
S - T    23m	PCR 643 / F / A / X / T	
N - T     9m	AUW    5700kg/0.68MPa	
DIMENSION & STRENGTH OF APRON		
SOUTH      90m x 135m	PCR 845 / R / B / W / T	
NORTH    124m x    68m	PCR 407 / F / A / Y / T	
	N1-N4	
	N5-N11 AUW    5700kg/0.68MPa	

The diagram illustrates three types of lighting systems for runway and approach lighting, categorized into three main sections from left to right:

- Runway Alignment Indicator:** This section shows a series of stars (Runway Edge Lights) and a central line of stars (Runway Center Line Lights). The total length of this system is indicated as 480m.
- Simple Approach Lighting System:** This section shows a series of stars (Approach Lights) and a central line of stars (Approach Center Line Lights). The total length of this system is indicated as 420m.
- Approach Light Beacons:** This section shows a series of stars (Approach Beacons) and a central line of stars (Approach Center Line Beacons). The total length of this system is indicated as 300m.

LONGITUDINAL PROFILE OF RUNWAY



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STANDARD DEPARTURE CHART-INSTRUMENT

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SID

MATSUMOTO REVERSAL ONE DEPARTURE

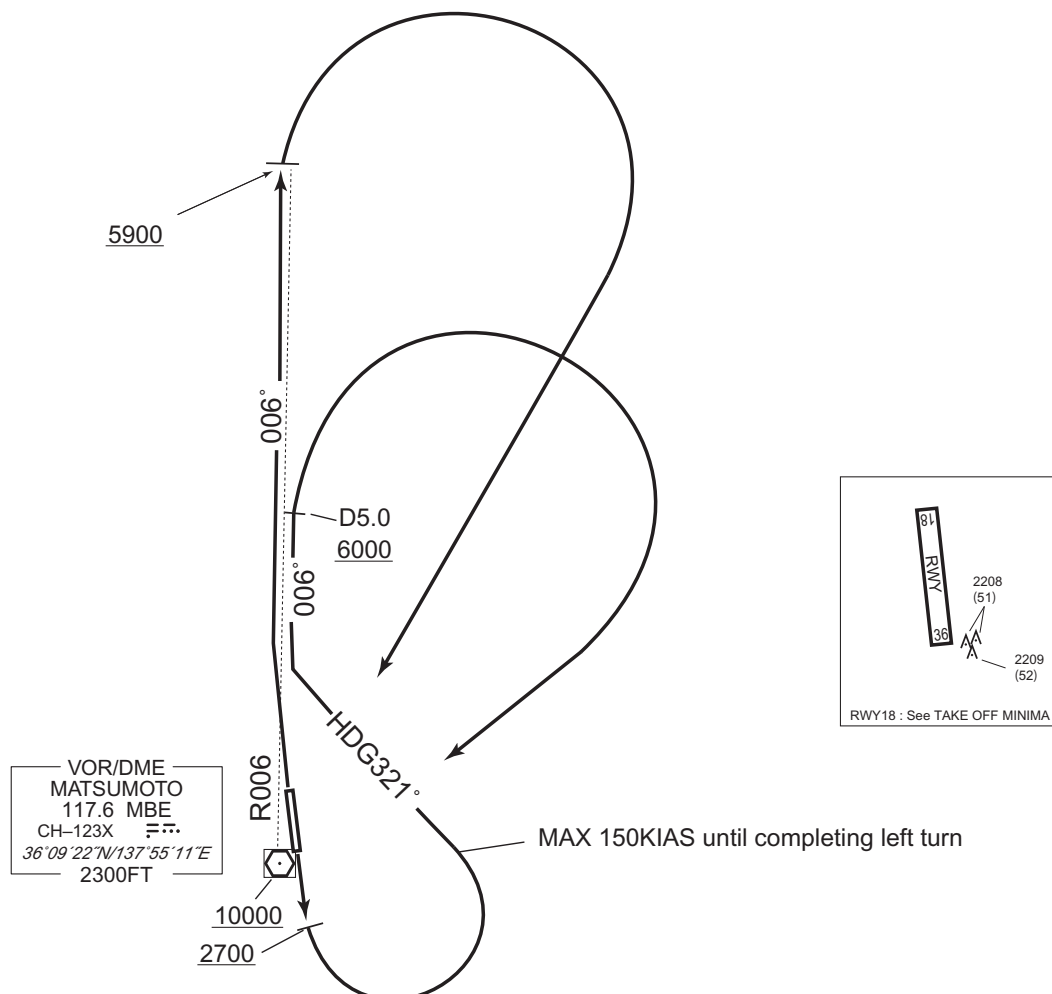
- RWY 18 : Climb RWY HDG to 2700FT, turn left HDG321° to intercept and proceed via MBE R006 to 5.0DME, turn right direct to MBE VOR/DME.  
Cross MBE R006/5.0DME at or above 6000FT, cross MBE VOR/DME at or above 10000FT.
- RWY 36 : Climb via MBE R006 to 5900FT, turn right direct to MBE VOR/DME.  
Cross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

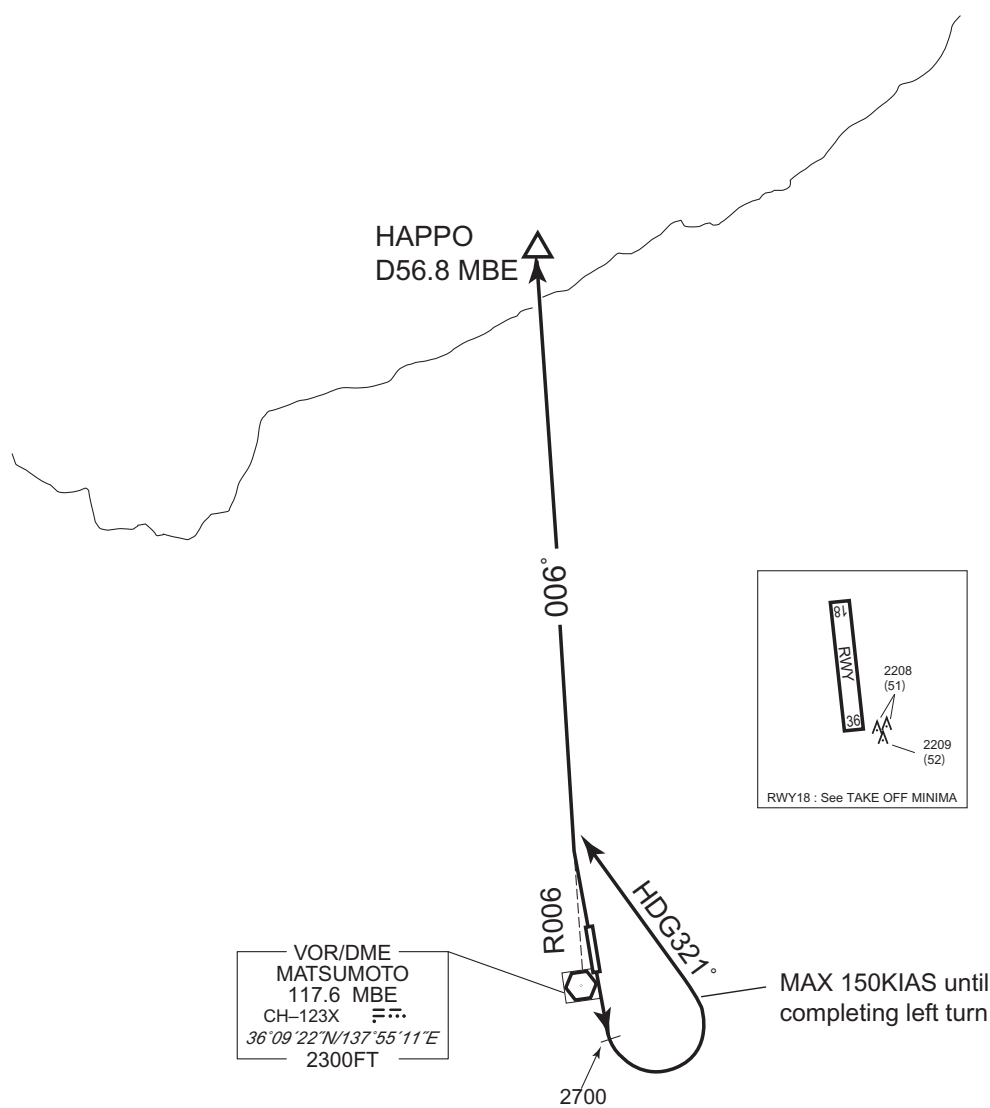
RWY 36 : Climb via MBE R006 to HAPPO.

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.

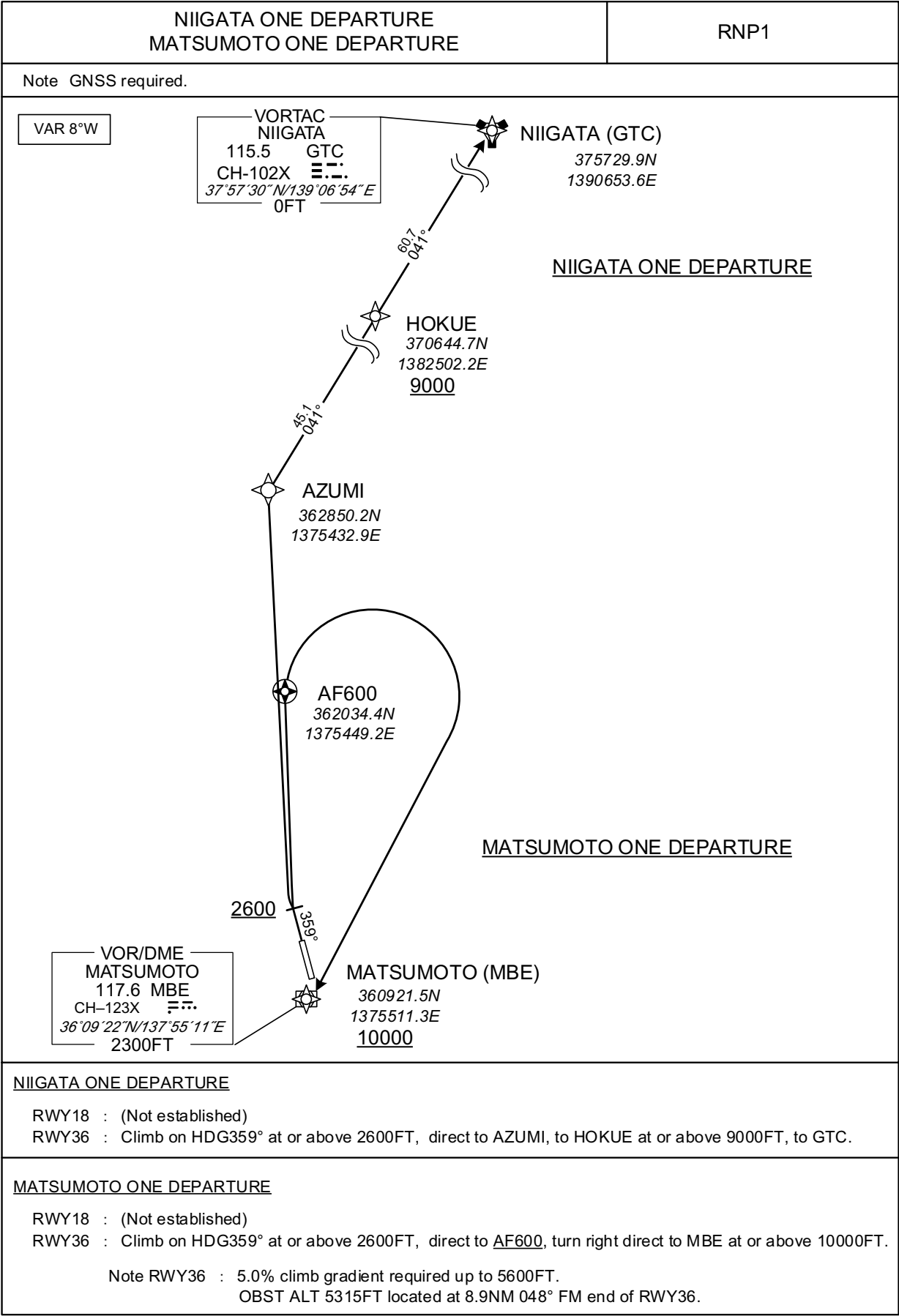
CHANGE : OBST chart.



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

MSA 25NM

11600 9700 11200

090° 180° 270°

MBE

10466

8741

7442

4900

GAKTO (IF) D12.0 MBE

D12.0 ARC MBE

6700

3063

2991

2851

2925

3819

6729

8682

8025

5819

6673

5471

4337

5345

270°

090°

10NM

MAPt D1.9 MBE

FKASI (FAF) D6.9 MBE

MHA10000 MAX 230KIAS 6326

2920

214°

D8.0 MBE

034°

186°

034°

186°

186°

MAPt	3	4	5	6	FAF	NM to MBE
—	2764	3083	3401	3720	4015	ALT (3.0° APCH Path

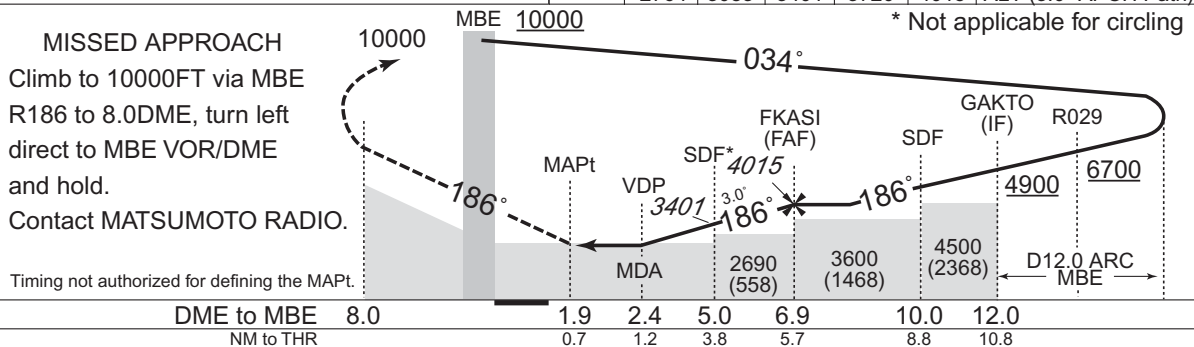
FKASI (FAF) : 361617.34N/1375454.42E

FKASI(FAF) : 361617.34N/1375454.42E

MAPt	3	4	5	6	FAF	NM to MBE
–	2764	3083	3401	3720	4015	ALT (3.0° APCH Path)

**MISSED APPROACH**  
Climb to 10000FT via MBE  
R186 to 8.0DME, turn left  
direct to MBE VOR/DME  
and hold.  
Contact MATSUMOTO RADIO.

Timing not authorized for defining the MAPt.



Missed APCH climb gradient MNM 6.0%

MINIMA		THR elev. 2132	AD elev. 2157	
CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	2550 (418)	900	2700 (543)	1600
B		1000		
C			2830 (673)	2400
D	—	—	—	—

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

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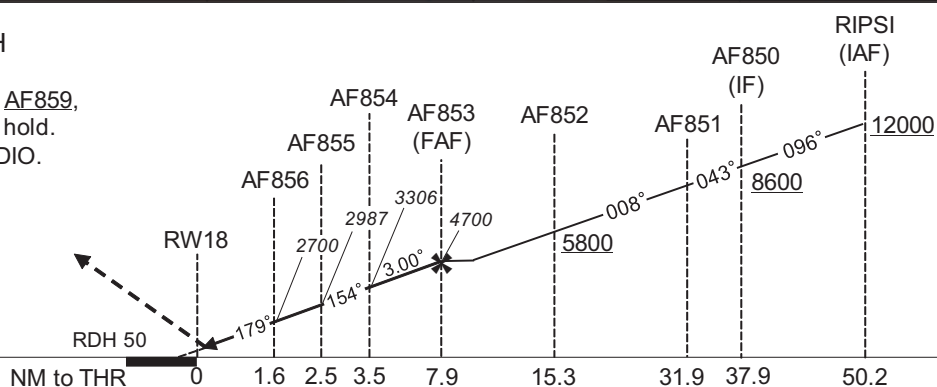


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RNP Z RWY18(AR)



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

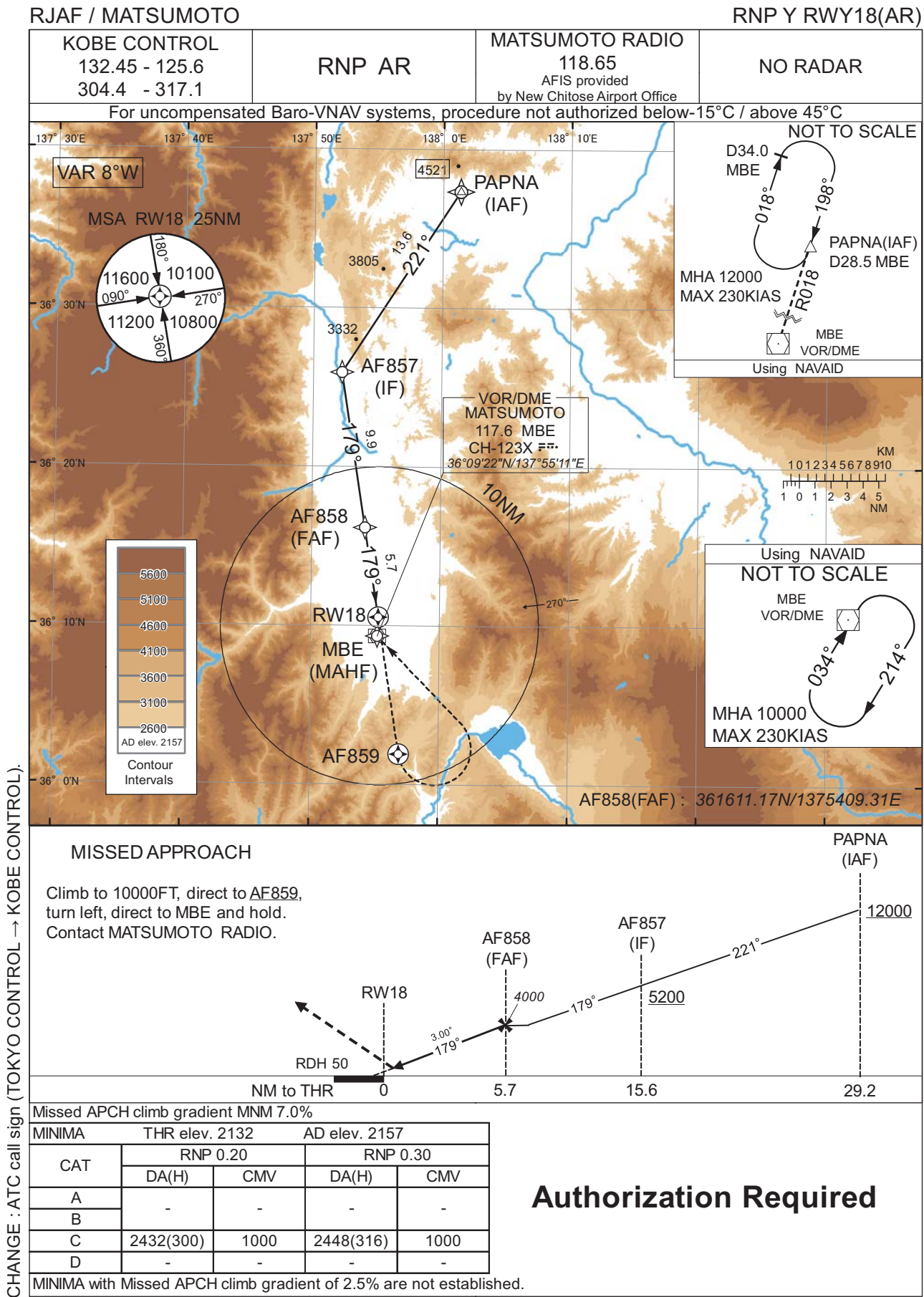
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	RIPSI	-	-	-8.2	-	-	+12000	-250	-	-
002	TF	AF850	-	096 (087.7)	-8.2	12.3	-	+8600	-	-	1.0
003	TF	AF851	-	043 (035.2)	-8.2	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

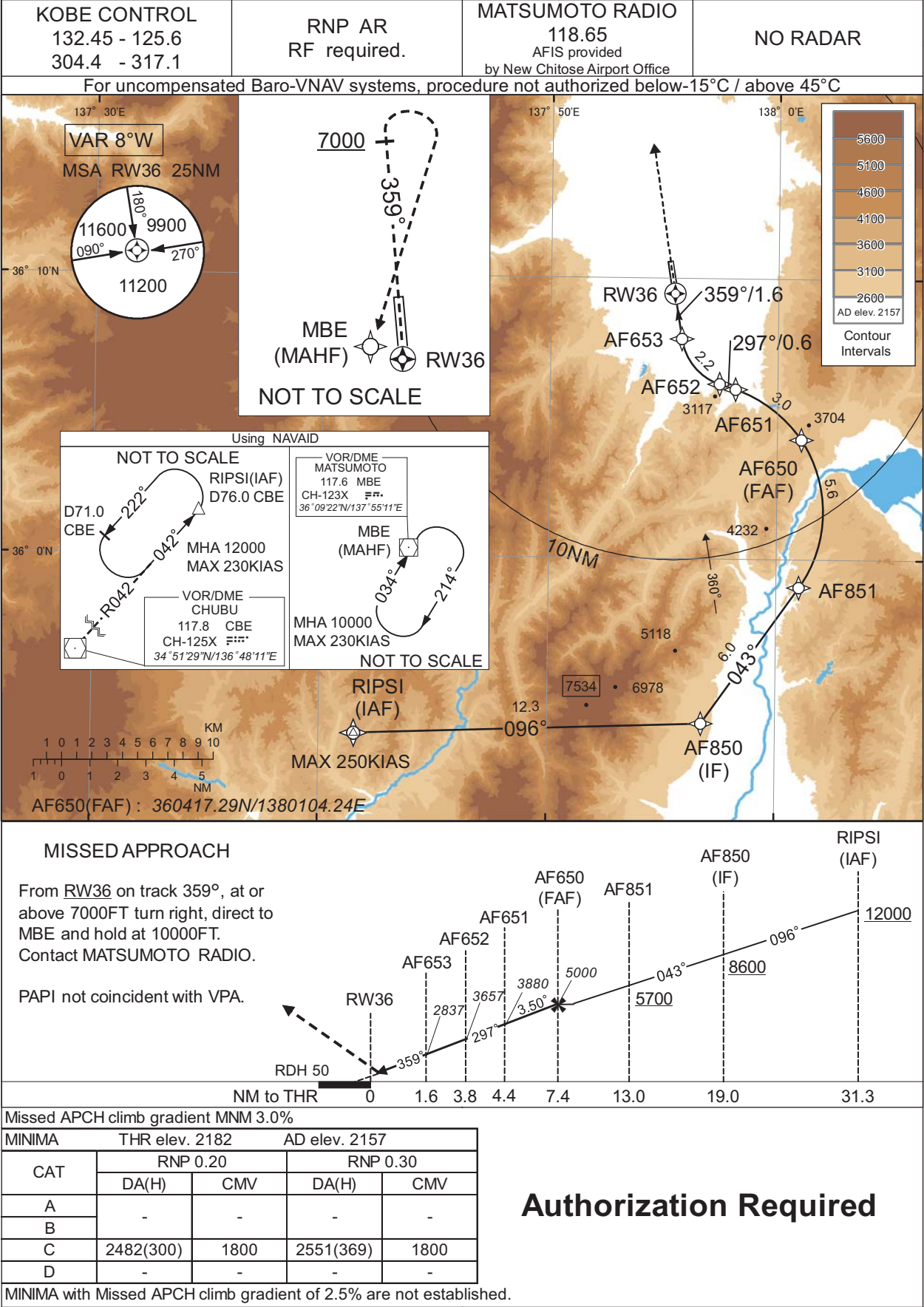
CHANGE : PROC renamed.



INSTRUMENT APPROACH CHART

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RNP Z RWY36(AR)



## 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

RNP Y RWY36(AR)



## 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

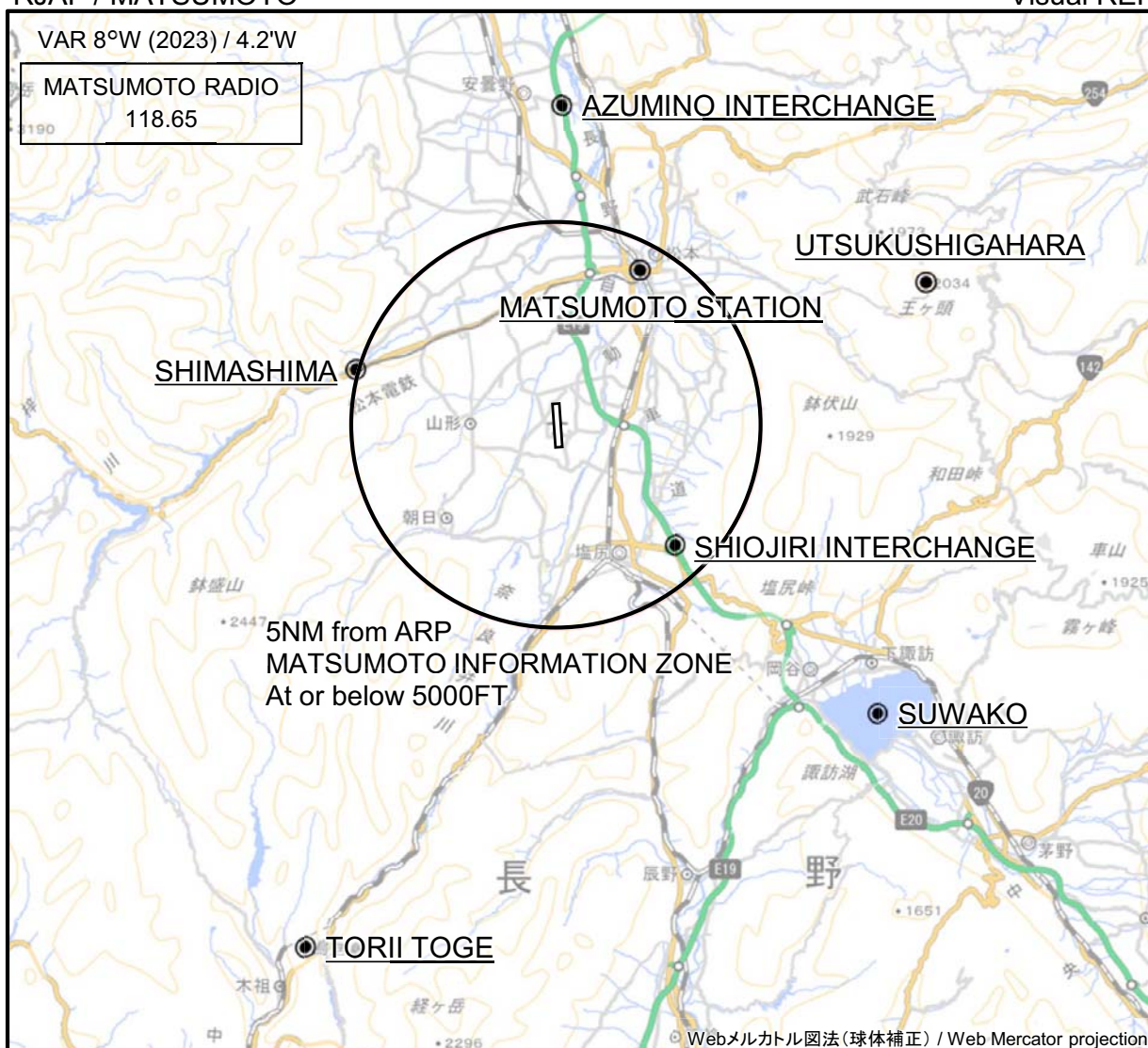
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
PAPNA	363721.74N / 1380122.92E	AFRF4	361027.73N / 1380059.34E
AF658	361613.48N / 1380553.24E	AFRF2	360810.39N / 1375813.97E
AF659	361345.52N / 1380624.64E		
AF660	361117.56N / 1380656.02E		
AF661	360820.76N / 1380625.54E		
AF662	360549.12N / 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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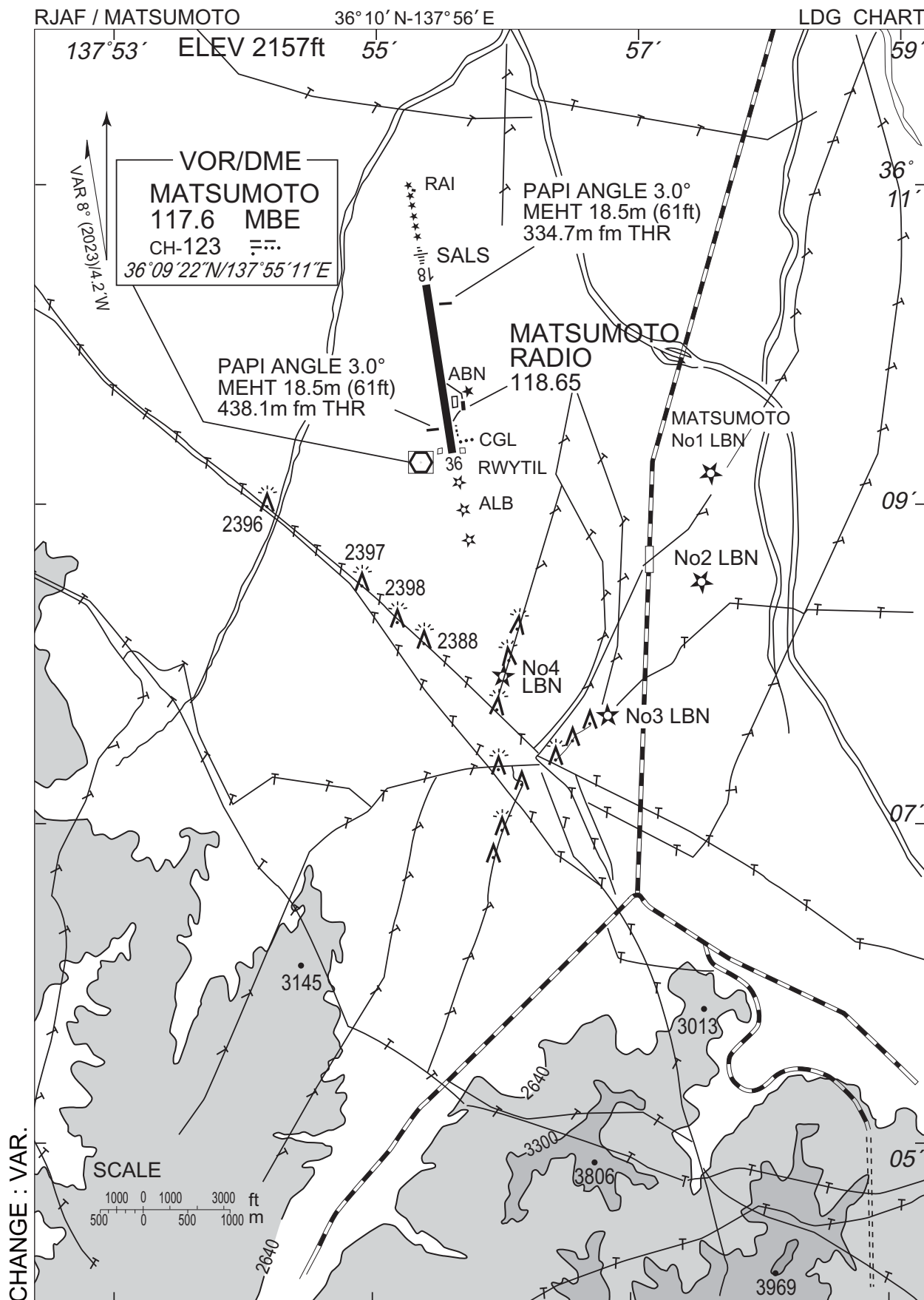
Visual REP



※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

