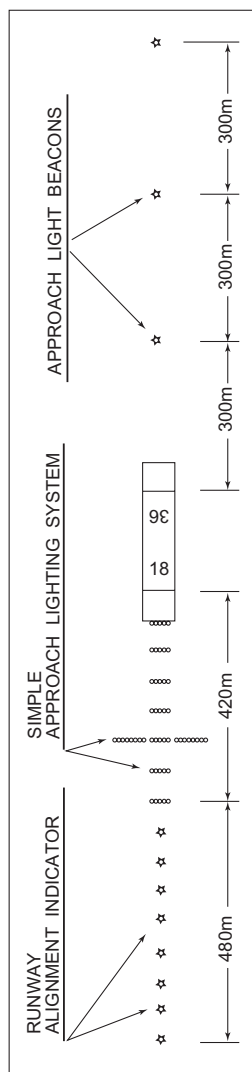
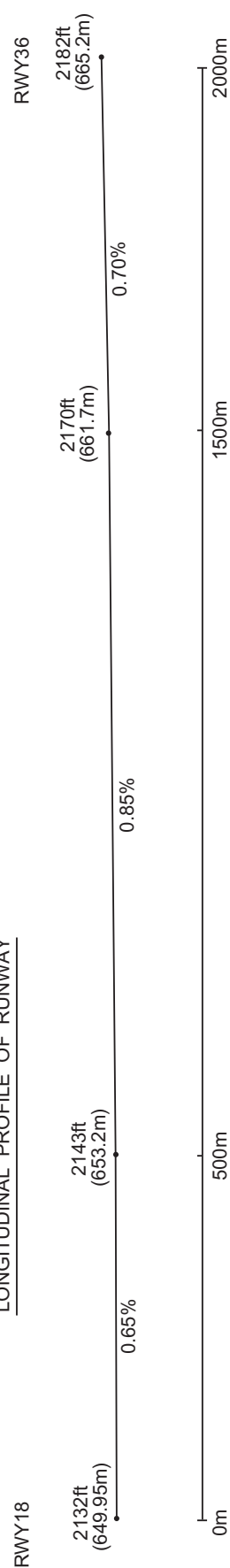


AD CHART

REMARKS :	
RUNWAY GROOVING	2000m x 45m
RUNWAY STRENGTH	45 / F / B / X / T
WIDTH & STRENGTH OF TAXIWAY	
S - T 23m	45 / F / B / X / T
N - T 9m	AUW 5700kg
DIMENSION & STRENGTH OF APRON	
SOUTH 90m x 135m	58 / R / B / X / T
NORTH 124m x 68m	51 / F / A / Y / T
	N1-N4
	N5-N11 AUW 5700kg



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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SID

HAPPO ONE DEPARTURE

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

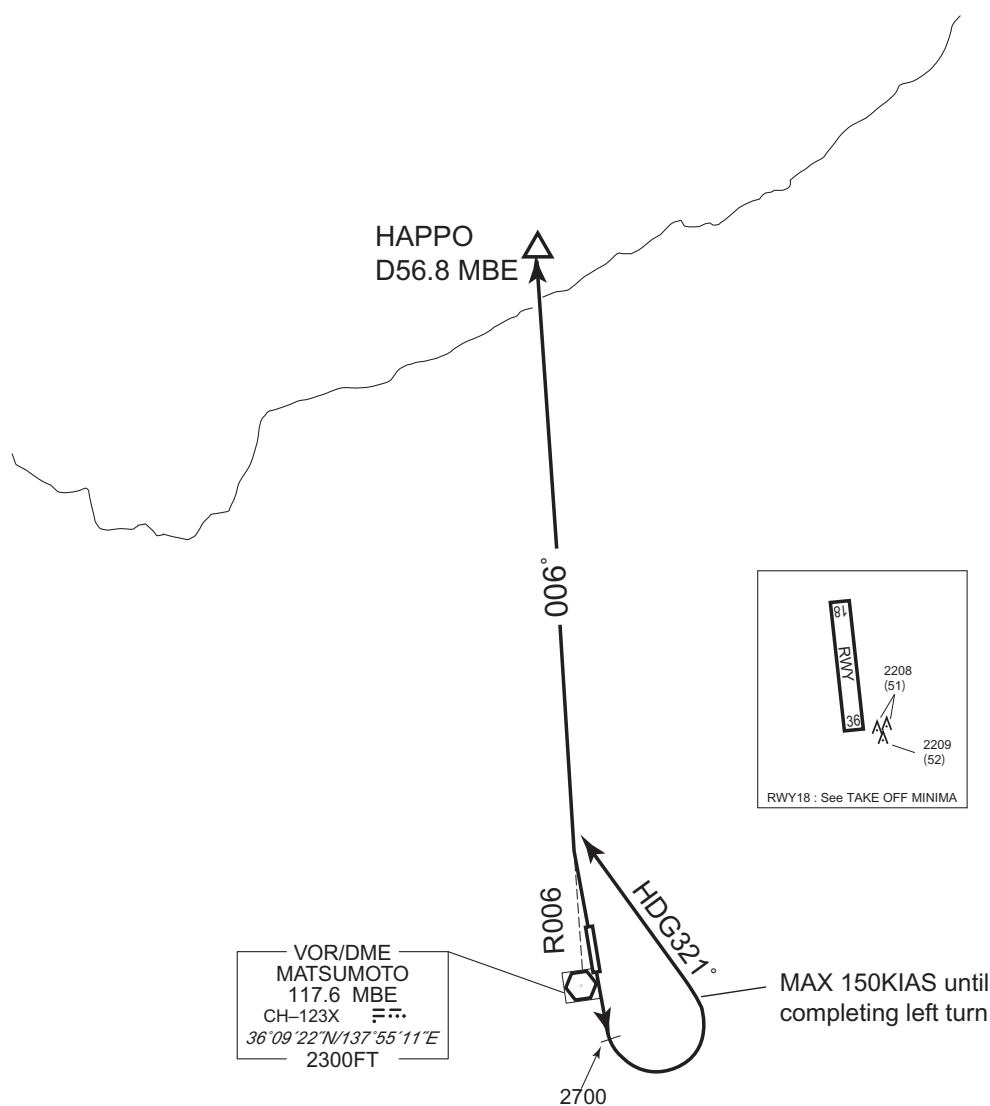
RWY 36 : Climb via MBE R006 to HAPPO.

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.

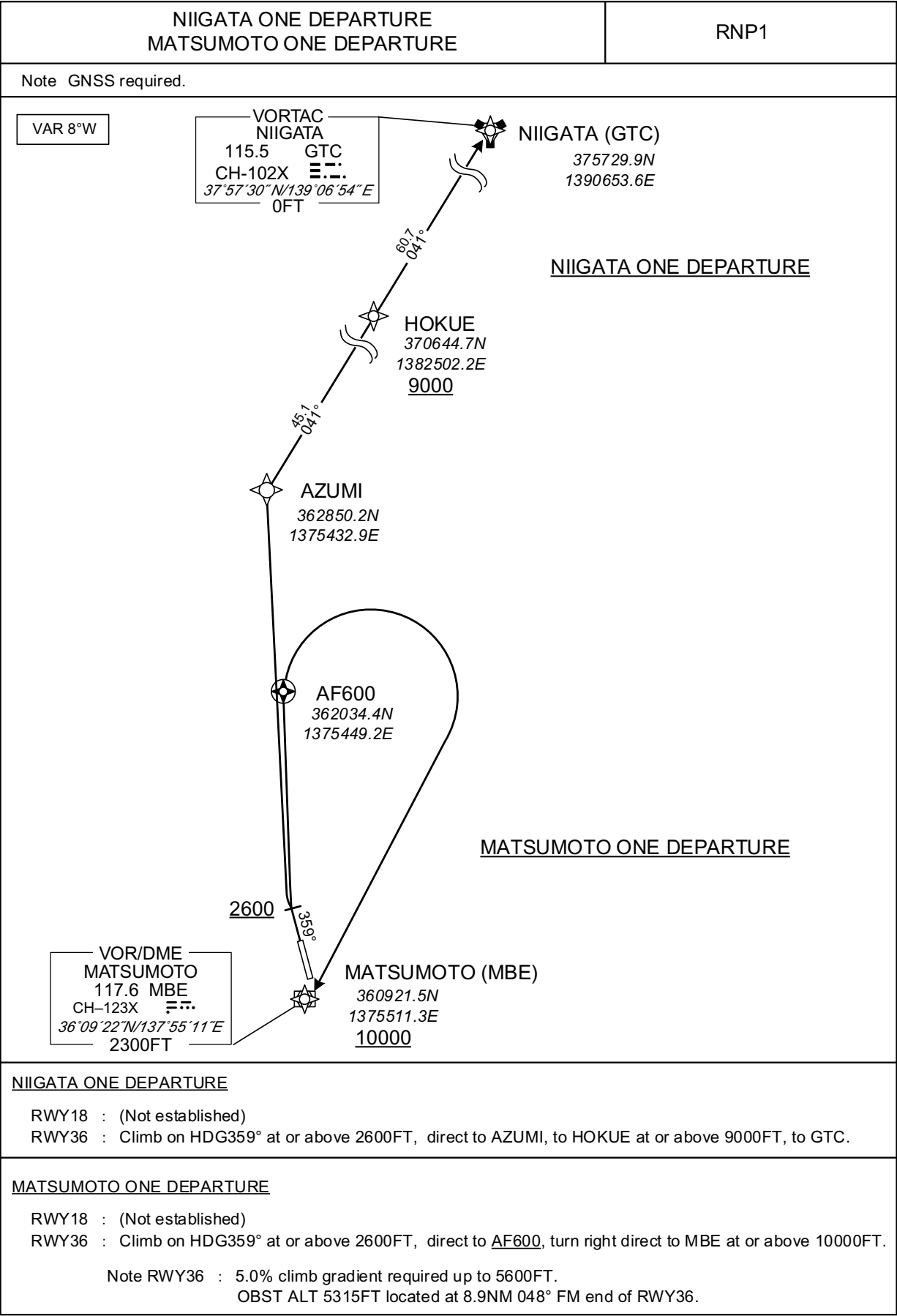
CHANGE : OBST chart.



STANDARD DEPARTURE CHART-INSTRUMENT

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RNAV SID



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NIIGATA ONE DEPARTURE

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

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 \rightarrow 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 8741 7442 8682 5819 8025 6673 5471 4337 5345 2920 6326

10NM

090° 186° 034° 270° 214°

MAPt D1.9 MBE

FKASI (FAF) D6.9 MBE

D8.0 MBE

MHA10000 MAX 230KIAS

EQPT REQUIRED DME

VAR 7°W

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

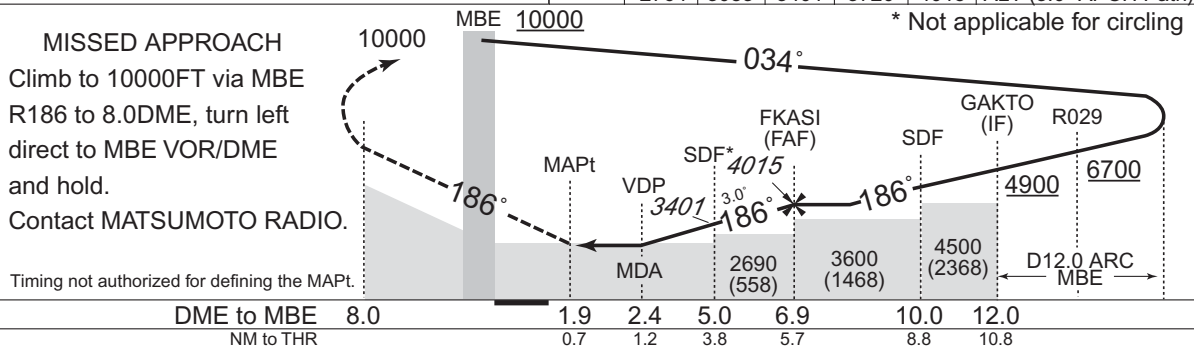
FKASI (FAF) : 361617.34N/1375454.42E

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.

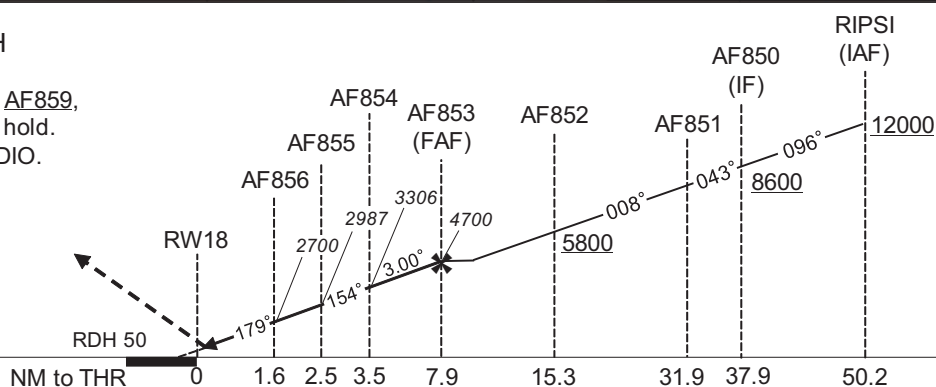
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RNP Z RWY18(AR)



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

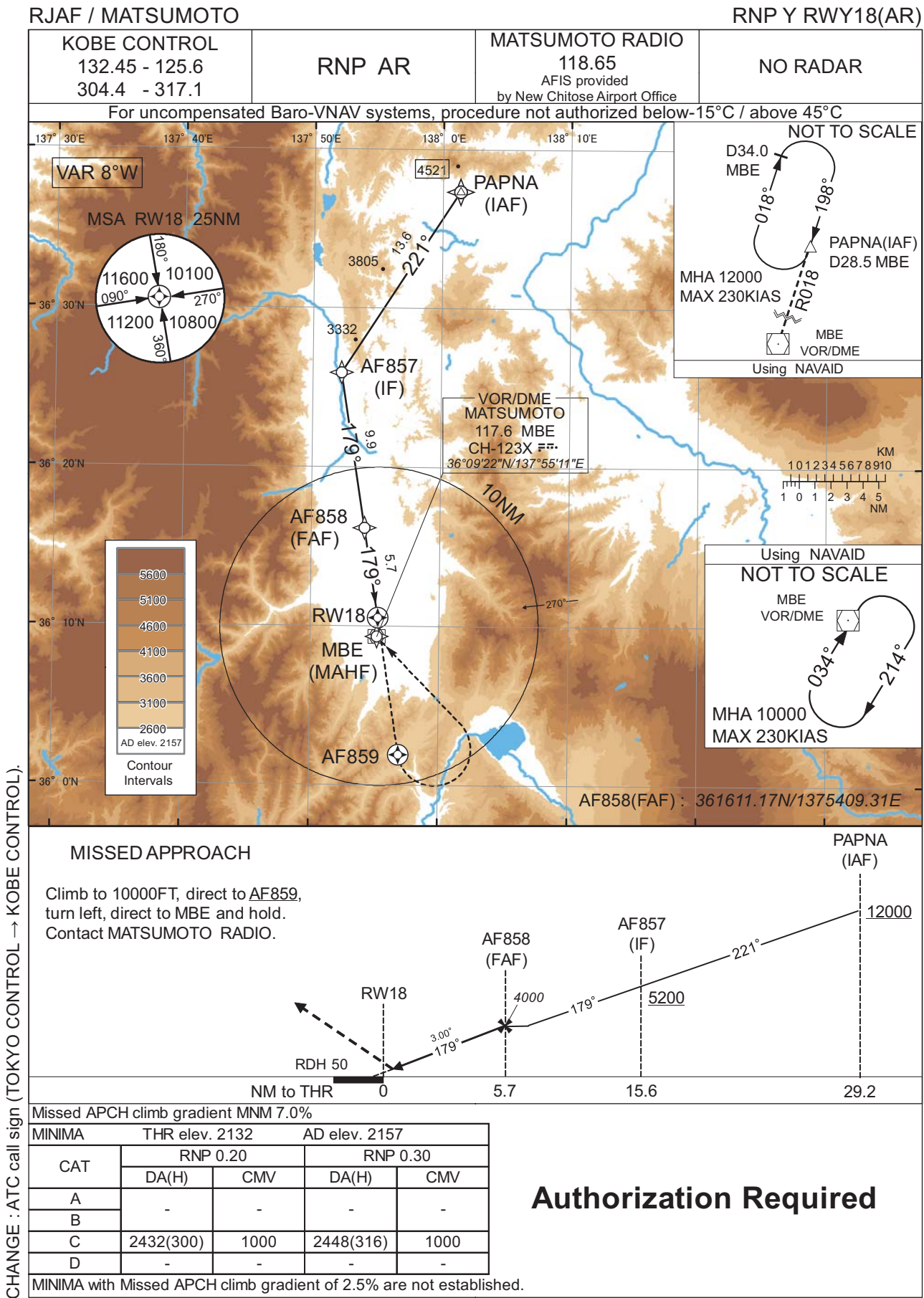
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	RIPSI	-	-	-8.2	-	-	+12000	-250	-	-
002	TF	AF850	-	096 (087.7)	-8.2	12.3	-	+8600	-	-	1.0
003	TF	AF851	-	043 (035.2)	-8.2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

RJAF / MATSUMOTO

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

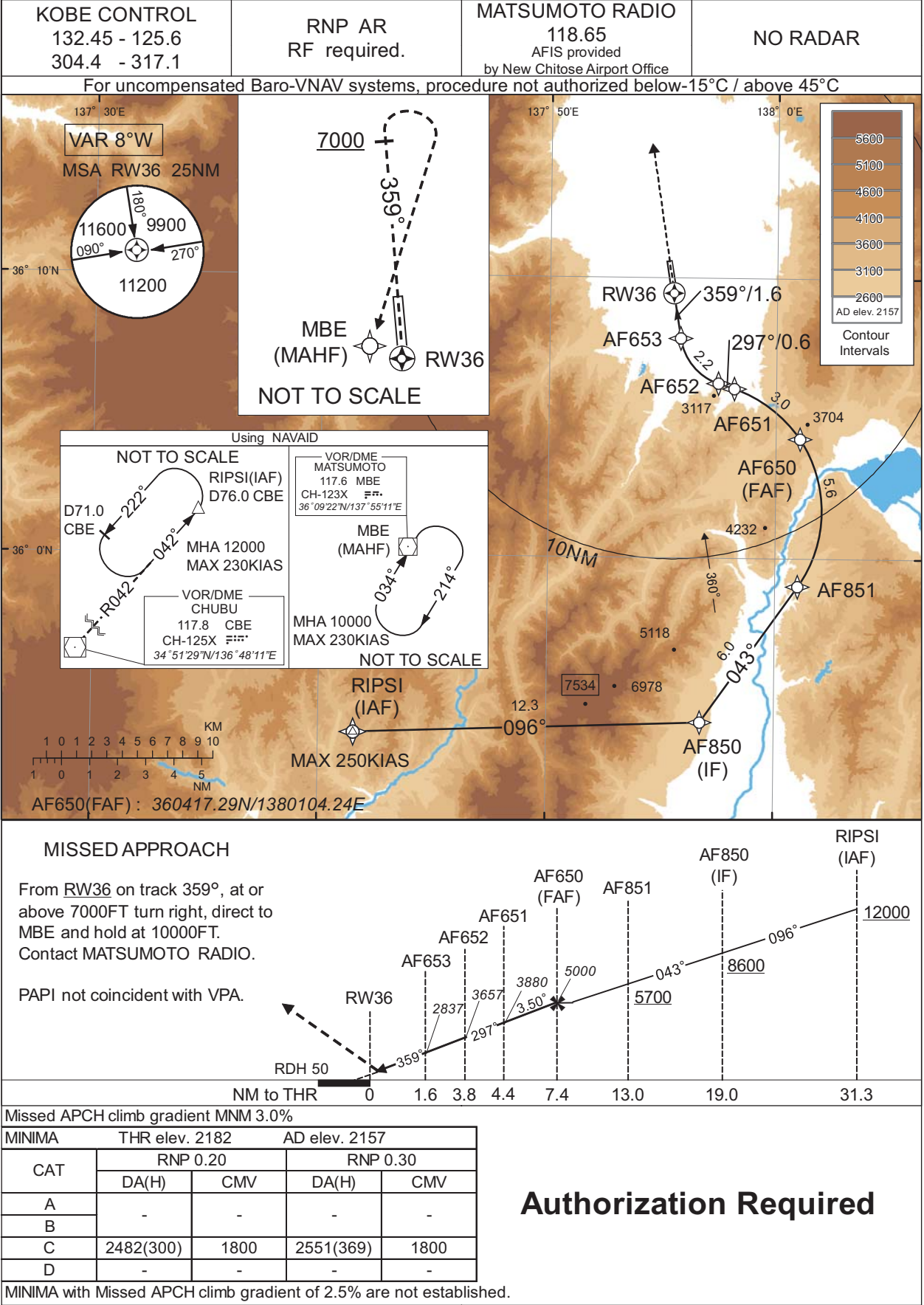
Waypoint Identifier	Coordinates
PAPNA	363721.74N / 1380122.92E
AF857	362557.23N / 1375214.72E
AF858	361611.17N / 1375409.31E
RW18	361032.37N / 1375515.37E
AF859	360155.80N / 1375655.84E
MBE	360921.51N / 1375511.34E

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.

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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

