

STANDARD DEPARTURE CHART -INSTRUMENT

RJCM / MEMANBETSU

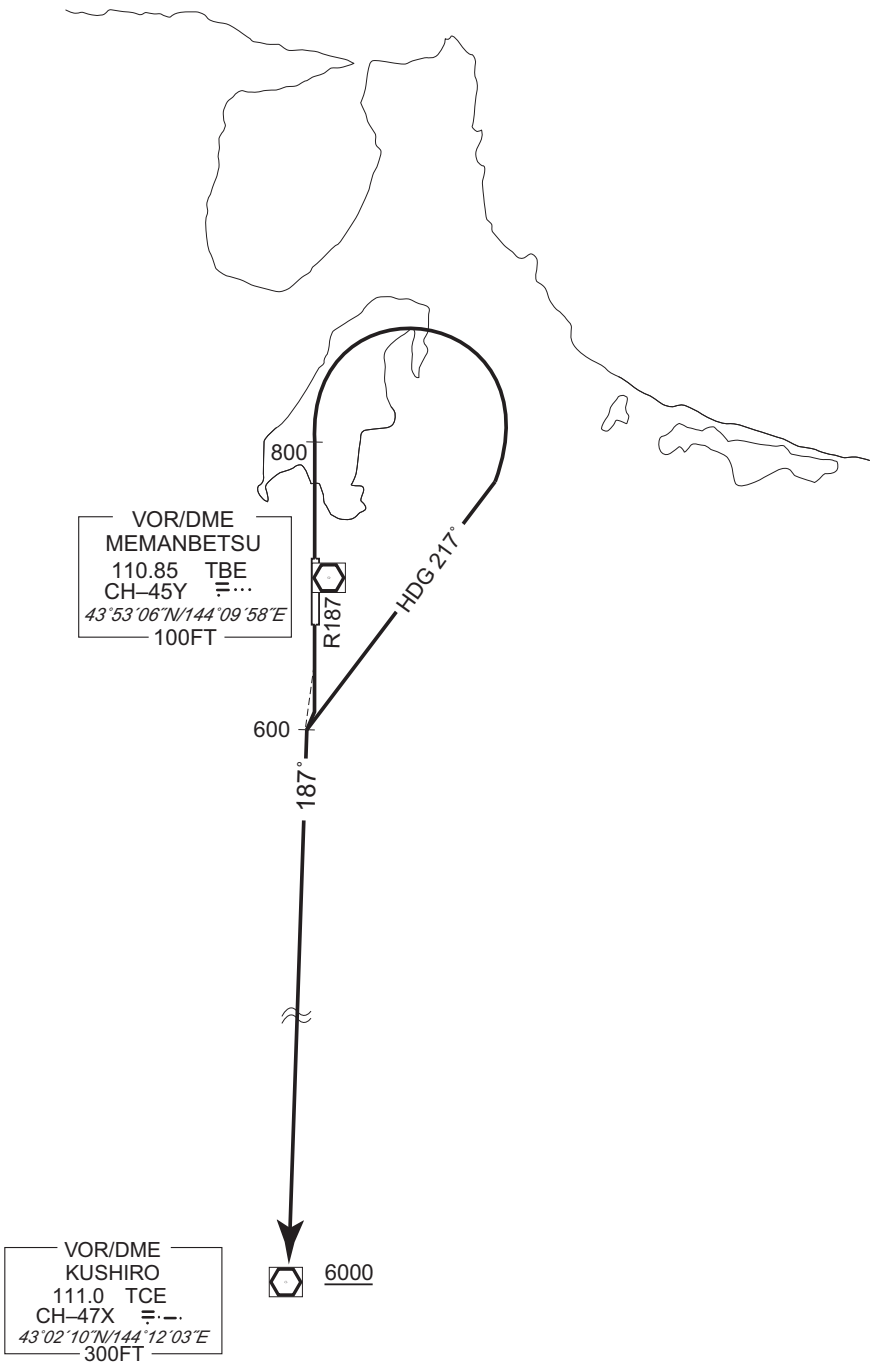
SID

KUSHIRO FOUR DEPARTURE

RWY 18 : Climb RWY HDG to 600FT, via TBE R187/TCE R008 to TCE VOR/DME....
RWY 36 : Climb RWY HDG to 800FT, turn right HDG 217° to intercept and proceed via
TBE R187/TCE R008 to TCE VOR/DME....
...Cross TCE VOR/DME at or above 6000FT.

Note RWY18 : 3.9% climb gradient required up to 4500FT.
OBST ALT 3281FT located at 17.0NM 182° FM end of RWY18.
OBST ALT 4593FT located at 24.9NM 190° FM end of RWY18.

CHANGE : PROC renamed. PROC course. ALT restriction at TCE established. KUSHIRO VOR/DME(KSE → TCE). Note(OBST).



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RUGMO TWO DEPARTURE

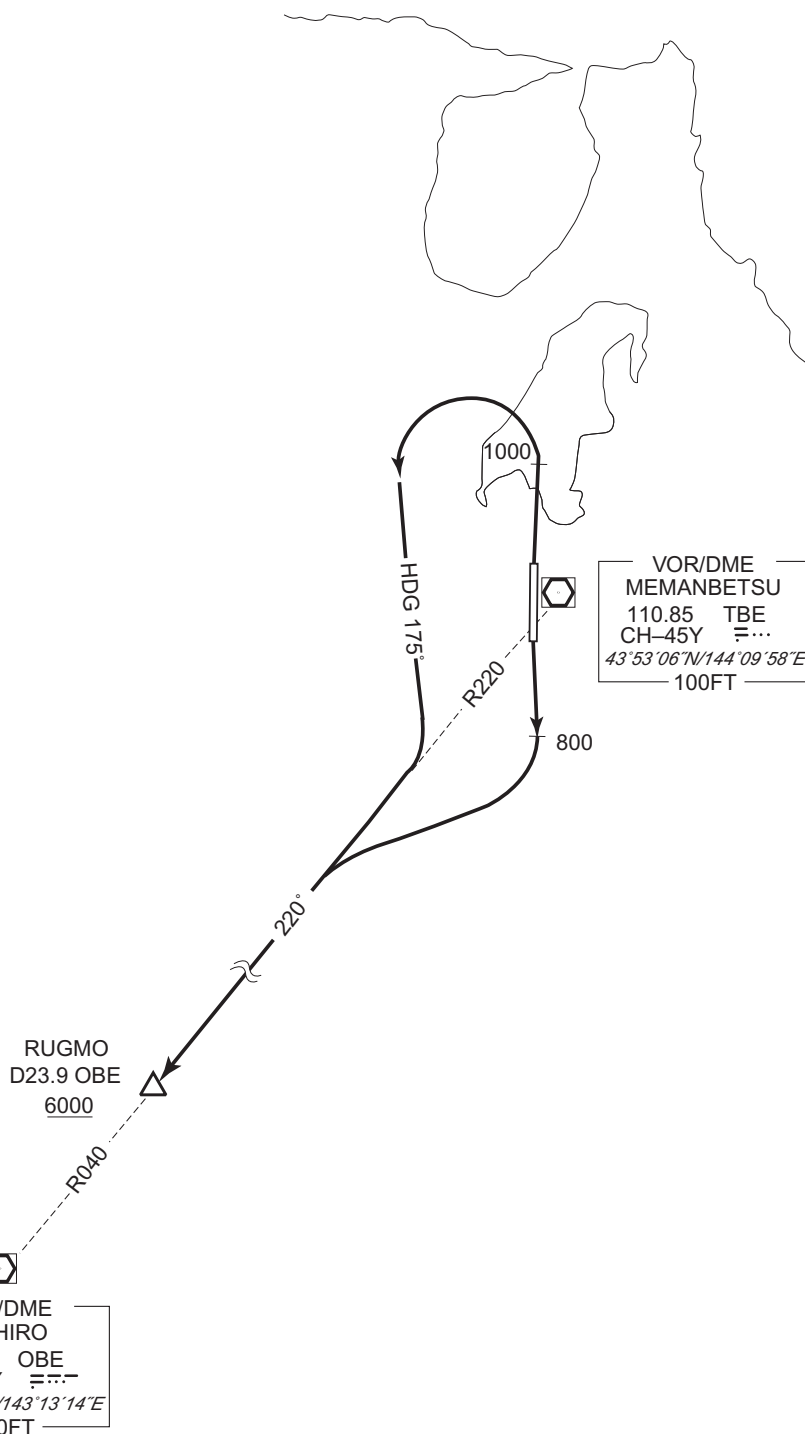
RWY 18 : Climb RWY HDG to 800FT, turn right climb via TBE R220/OBE R040 to RUGMO....

RWY 36 : Climb RWY HDG to 1000FT, turn left HDG 175° to intercept and proceed via
TBE R220/OBE R040 to RUGMO....

....Cross RUGMO at or above 6000FT.

Note RWY36 : 3.9% climb gradient required up to 2000FT.

OBST ALT 1673FT located at 8.2NM 320° FM end of RWY36.



CHANGE : PROC renamed. Radial FM OBE.

STANDARD DEPARTURE CHART-INSTRUMENT

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MEMANBETSU REVERSAL THREE DEPARTURE

RWY 18 : Climb via TBE R187 to TBE 5.0DME, turn left....

RWY 36 : Climb via TBE R001 to TBE 5.0DME, turn right,....

....Proceed to TBE VOR/DME. Cross TBE VOR/DME at or above 4000FT.



STANDARD DEPARTURE CHART-INSTRUMENT

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RNAV SID

NODUK ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 10° W

NODUK
430605.5N
1430004.4E
9000

NICOL
433912.0N
1434158.7E
7000

45.0
232°

004° 184°

600
600

RWY18: Climb on HDG184° at or above 600FT, turn right direct to NICOL at or above 7000FT, to NODUK at or above 9000FT.

RWY36: Climb on HDG004° at or above 600FT, turn left direct to NICOL at or above 7000FT, to NODUK at or above 9000FT.

Note RWY36 : 5.0% climb gradient required up to 600FT.
OBST ALT 1181FT located at 6.3NM 312° FM end of RWY36.

RWY18

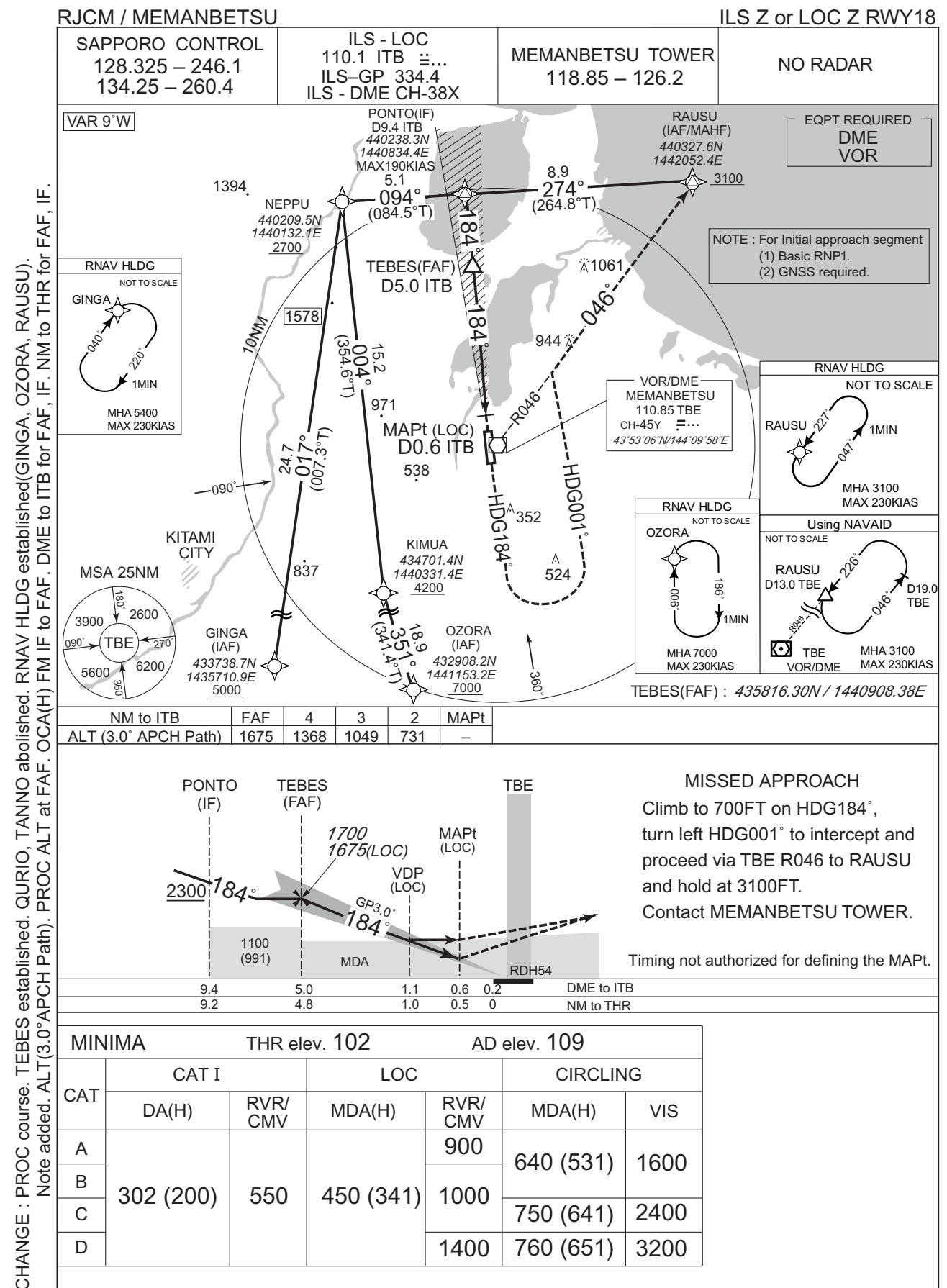
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	—	—	184 (174.7)	-9.5	—	—	+600	—	—	Basic RNP1
002	DF	NICOL	—	—	-9.5	—	R	+7000	—	—	Basic RNP1
003	TF	NODUK	—	232 (222.9)	-9.5	45.0	—	+9000	—	—	Basic RNP1

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	—	—	004 (354.7)	-9.5	—	—	+600	—	—	Basic RNP1
002	DF	NICOL	—	—	-9.5	—	L	+7000	—	—	Basic RNP1
003	TF	NODUK	—	232 (222.9)	-9.5	45.0	—	+9000	—	—	Basic RNP1

CHANGE : New PROC.

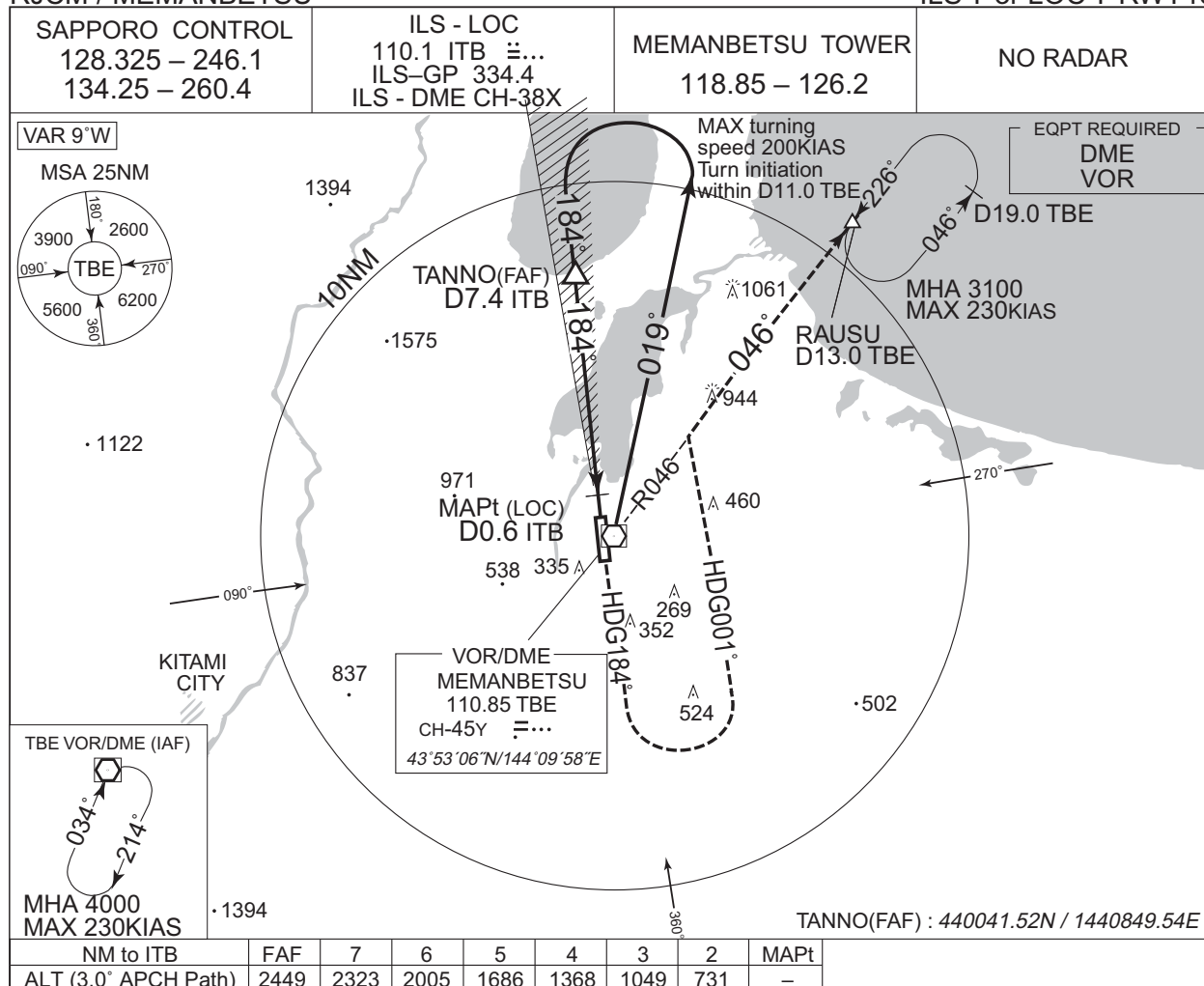
INSTRUMENT APPROACH CHART



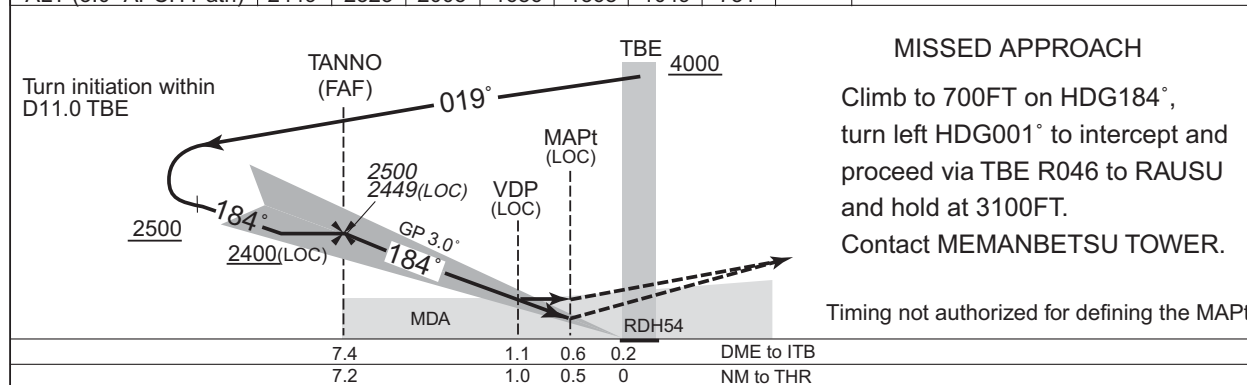
INSTRUMENT APPROACH CHART

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ILS Y or LOC Y RWY18



CHANGE : Description of VAR.

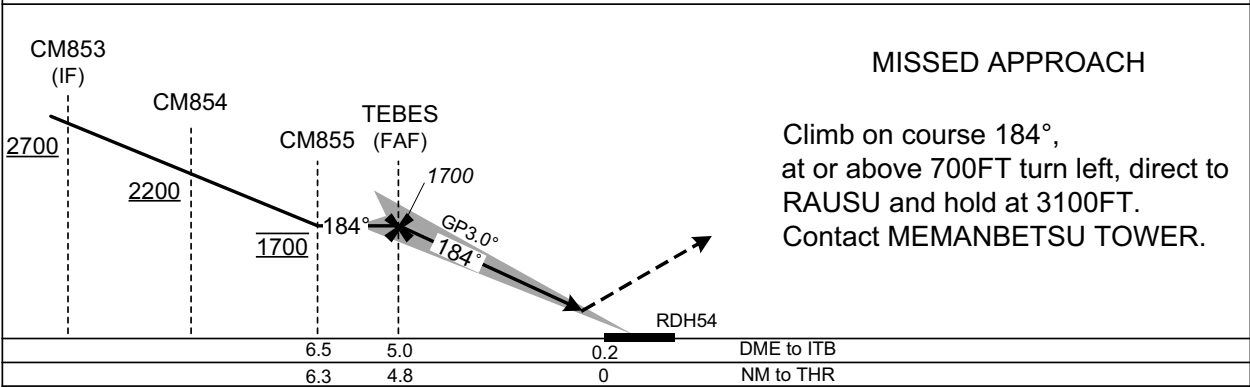
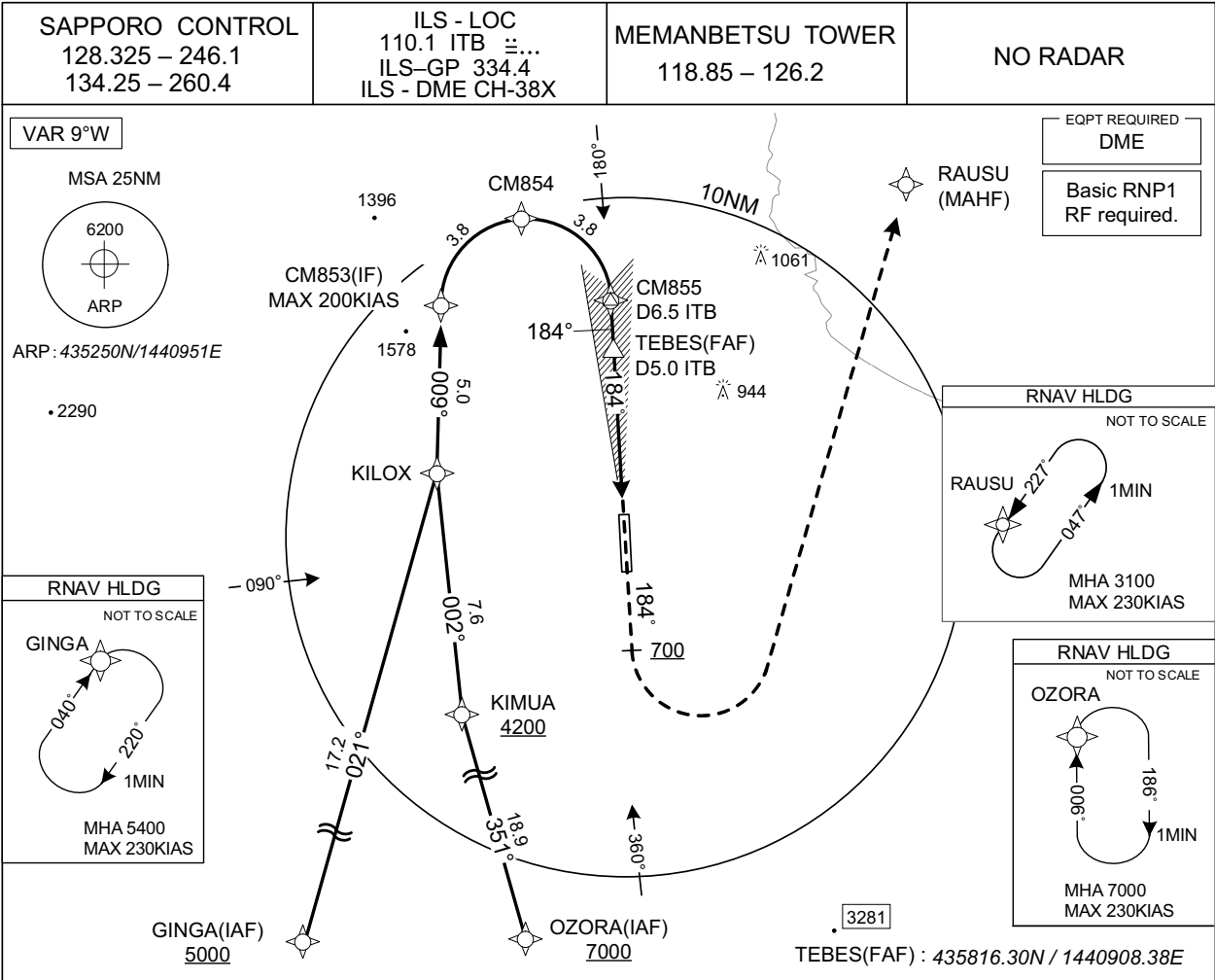


MINIMA							THR elev. 102		AD elev. 109	
CAT	CAT I		LOC		CIRCLING					
	DA(H)	RVR/ CMV	MDA(H)	RVR/ CMV	MDA(H)	VIS				
A	302 (200)	550	450 (341)	900	640 (531)	1600				
B				1000						
C					750 (641)	2400				
D				1400	760 (651)	3200				

INSTRUMENT APPROACH CHART

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ILS X RWY18



MINIMA		THR elev. 102	AD elev. 109	
CAT	CAT I		CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	VIS
A	302 (200)	550	640 (531)	1600
B			750 (641)	2400
C			760 (651)	3200
D				

CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

ILS X RWY18

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	GINGA	—	—	-9.6	—	—	+5000	—	—	Basic RNP1
002	TF	KILOX	—	021 (011.9)	-9.6	17.2	—	—	—	—	Basic RNP1
003	TF	CM853	—	009 (359.2)	-9.6	5.0	—	+2700	-200	—	Basic RNP1
001	IF	OZORA	—	—	-9.6	—	—	+7000	—	—	Basic RNP1
002	TF	KIMUA	—	351 (341.4)	-9.6	18.9	—	+4200	—	—	Basic RNP1
003	TF	KILOX	—	002 (352.2)	-9.6	7.6	—	—	—	—	Basic RNP1
004	TF	CM853	—	009 (359.2)	-9.6	5.0	—	+2700	-200	—	Basic RNP1
001	IF	CM853	—	—	-9.6	—	—	+2700	-200	—	Basic RNP1
002	RF Center: CMRF2 r=2.51NM	CM854	—	—	-9.6	3.8	R	+2200	—	—	Basic RNP1
003	RF Center: CMRF2 r=2.51NM	CM855	—	—	-9.6	3.8	R	1700	—	—	Basic RNP1
001	CA	—	—	184 (174.7)	-9.6	—	—	+700	—	—	Basic RNP1
002	DF	RAUSU	—	—	-9.6	—	L	3100	—	—	Basic 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	GINGA	040 (030.8)	-9.5	1.0(-14000)	R	5400	FL140	-230(-14000)	Basic RNP1
Hold	OZORA	006 (356.7)	-9.5	1.0(-14000)	R	7000	FL140	-230(-14000)	Basic RNP1
Hold	RAUSU	227 (217.0)	-9.5	1.0(-14000)	L	3100	FL140	-230(-14000)	Basic RNP1

Waypoint Coordinates

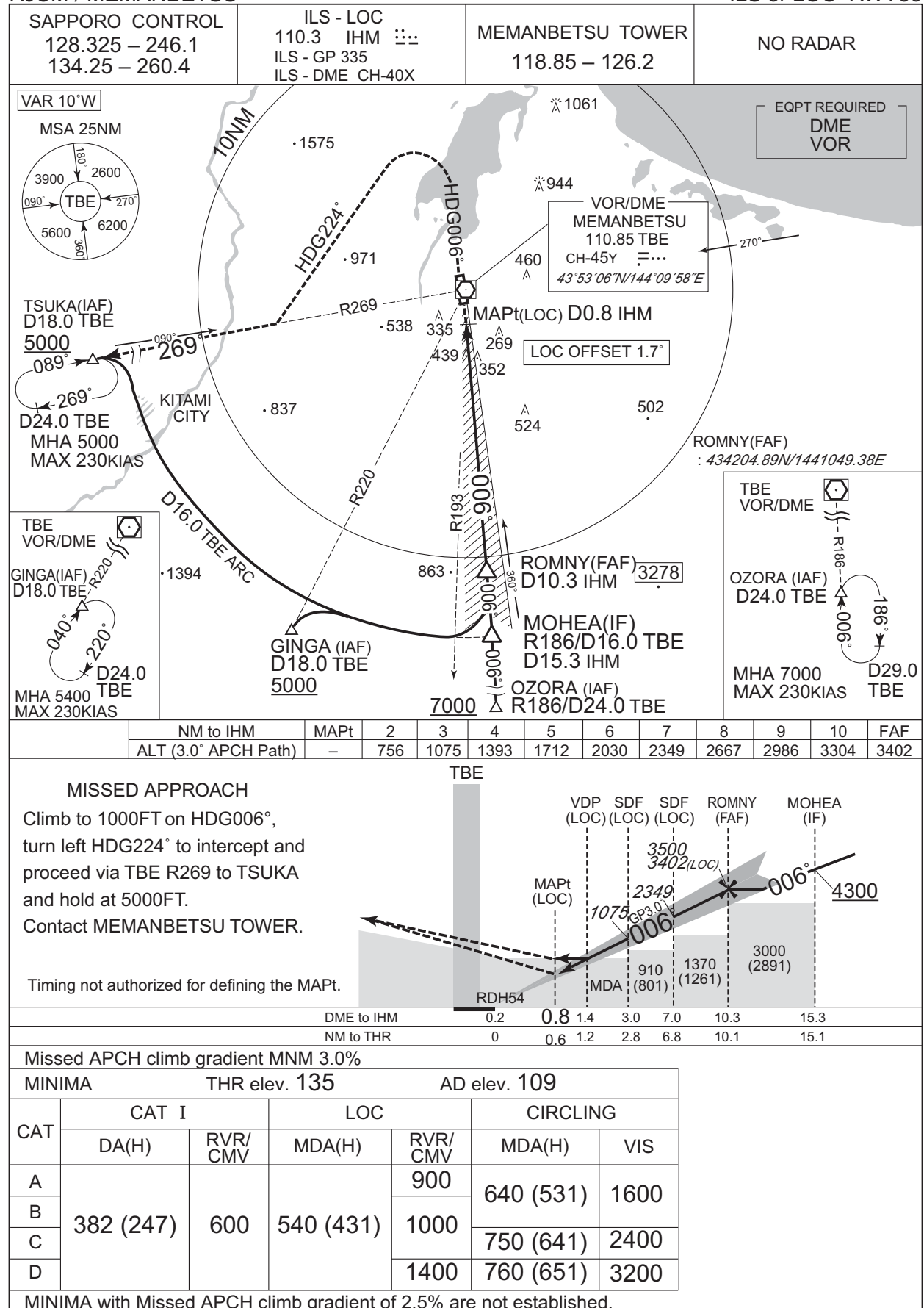
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
GINGA	433738.73N/1435710.93E	CMRF2	435931.80N/1440529.11E
OZORA	432908.24N/1441153.19E		
KIMUA	434701.35N/1440331.41E		
KILOX	435429.92N/1440206.12E		
CM853	435929.83N/1440200.57E		
CM854	440202.15N/1440517.96E		
CM855	435945.90N/1440856.76E		
RAUSU	440327.56N/1442052.43E		

CHANGE : New PROC.

INSTRUMENT APPROACH CHART

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ILS or LOC RWY36



INSTRUMENT APPROACH CHART

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VOR RWY18

SAPPORO CONTROL
128.325 – 246.1
134.25 – 260.4

MEMANBETSU VOR/DME
110.85 TBE
CH-45Y
43°53'06"N/144°09'58"E

MEMANBETSU TOWER
118.85 – 126.2

NO RADAR

VAR 9°W

MSA 25NM

TBE VOR/DME (IAF)

MHA 4000
MAX 230KIAS

ABASI (FAF) : 440001.15N / 1440833.90E

NM to TBE	FAF	6	5	4	3	2	MAPt
ALT (3.0° APCH Path)	2244	1926	1607	1289	970	652	—

MISSED APPROACH

Climb to 900FT via TBE R181,
turn left HDG001° to intercept and
proceed via TBE R046 to RAUSU
and hold at 3100FT.
Contact MEMANBETSU TOWER.

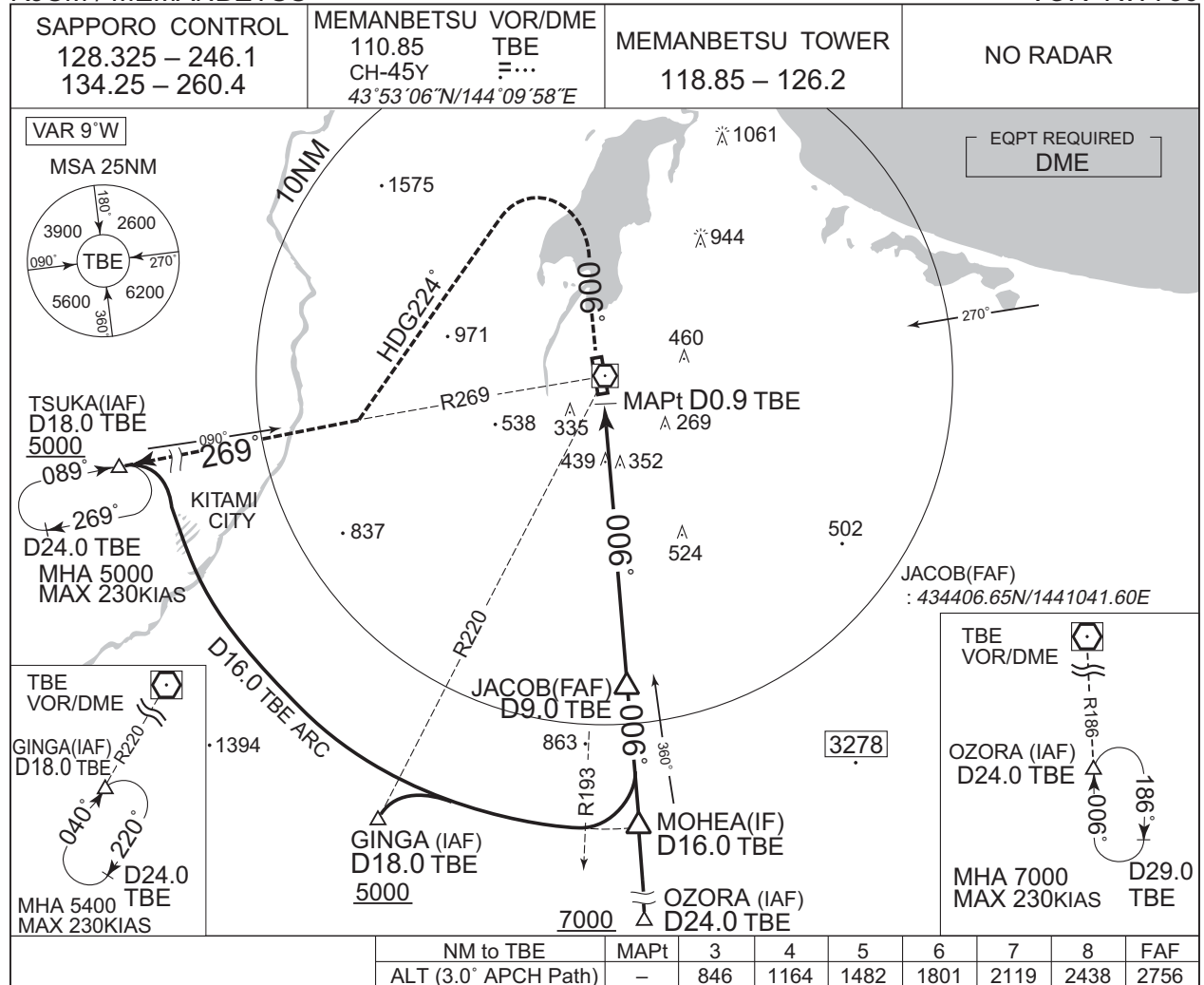
Timing not authorized for defining the MAPt

MINIMA		THR elev. 102	AD elev. 109
CAT	CIRCLING		
	MDA(H)	RVR/CMV	MDA(H) VIS
A	480 (371)	900	640 (531) 1600
B		1000	750 (641) 2400
C			760 (651) 3200
D			

INSTRUMENT APPROACH CHART

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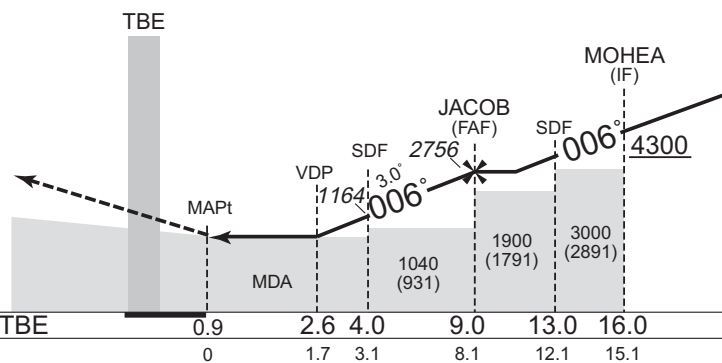
VOR RWY36



MISSED APPROACH

Climb to 1000FT via TBE R006,
turn left HDG224° to intercept
and proceed via TBE R269 to
TSUKA and hold at 5000FT.
Contact MEMANBETSU TOWER.

Timing not authorized for defining the MAPt.



MINIMA		THR elev. 135		AD elev. 109	
CAT			CIRCLING		
	MDA(H)	RVR/ CMV	MDA(H)	VIS	
A	690 (581)	1000	690 (581)	1600	
B		1200			
C			750 (641)	2400	
D			1600	760 (651)	3200

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Z RWY18

SAPPORO CONTROL
128.325 – 246.1
134.25 – 260.4RNP APCH
MSAS CH83687
M18AMEMANBETSU TOWER
118.85 – 126.2

NO RADAR

Baro-VNAV not authorized below -25°C

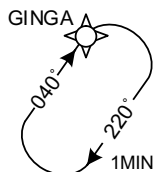
VAR 10°W

MSA 25NM

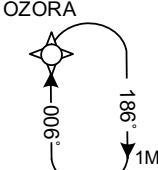
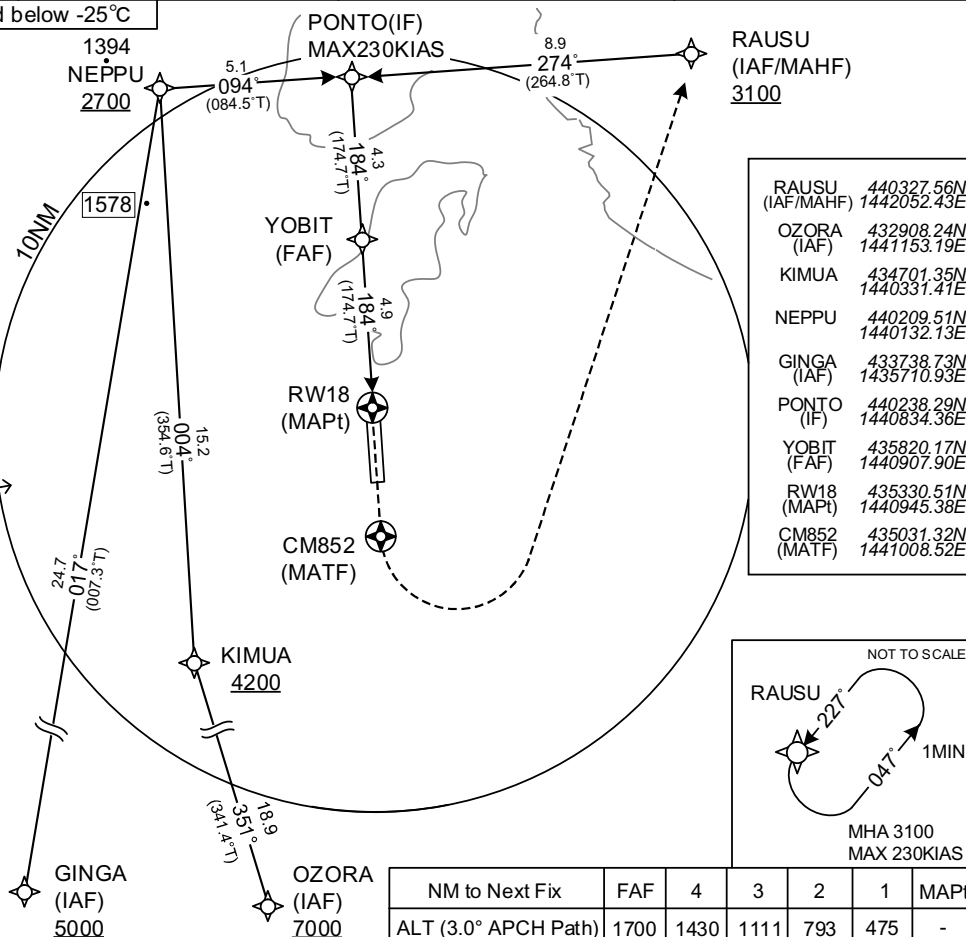


ARP: 435250N/1440951E

NOT TO SCALE

MHA 5400
MAX 230KIAS

NOT TO SCALE

MHA 7000
MAX 230KIAS

RAUSU (IAF/MAHF) 440327.56N
1442052.43E

OZORA (IAF) 432908.24N
1441153.19E

KIMUA 434701.35N
1440331.41E

NEPPU 440209.51N
1440132.13E

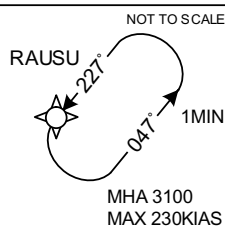
GINGA (IAF) 433738.73N
1435710.93E

PONTO (IF) 440238.29N
1440834.36E

YOBIT (FAF) 435820.17N
1440907.90E

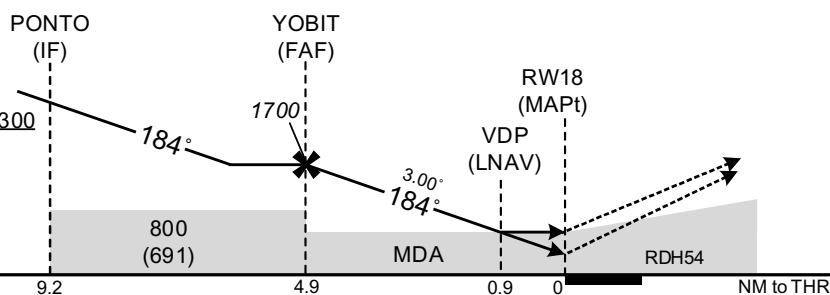
RW18 (MAPt) 435330.51N
1440945.38E

CM852 (MATF) 435031.32N
1441008.52E

MHA 3100
MAX 230KIAS

MISSED APPROACH

Direct to CM852, turn left direct to RAUSU
and hold at 3100FT.
Contact MEMANBETSU TOWER.



Missed APCH climb gradient MNM 5.0%

MINIMA		THR elev. 102				AD elev. 109	
CAT	LPV		LNAV/VNAV		LNAV		CIRCLING
	DA(H)	RVR/CMV	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	
A	352(250)	800	440(338)	900	440(331)	900	640(531)
B	360(258)			1000		1000	
C	369(267)			1400		1400	750(641)
D	379(277)	1200					760(651)
							3200

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

CHANGE : Missed APCH PROC for using VOR/DME abolished. HLDG PROC for using NAVAID abolished.

INSTRUMENT APPROACH CHART

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RNP Z RWY18

FAS DATA BLOCK

Operation type	0	LTP/FTP ellipsoidal height	+00618
SBAS service provider identifier	2	FPAP latitude	435209.8350N
Airport identifier	RJCM	FPAP longitude	1440955.7670E
Runway	18	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	M18A	∠ length offset	0000
LTP/FTP latitude	435330.4920N	HAL	40.0
LTP/FTP longitude	1440945.3395E	VAL	50.0
CRC remainder	257C1F8B		

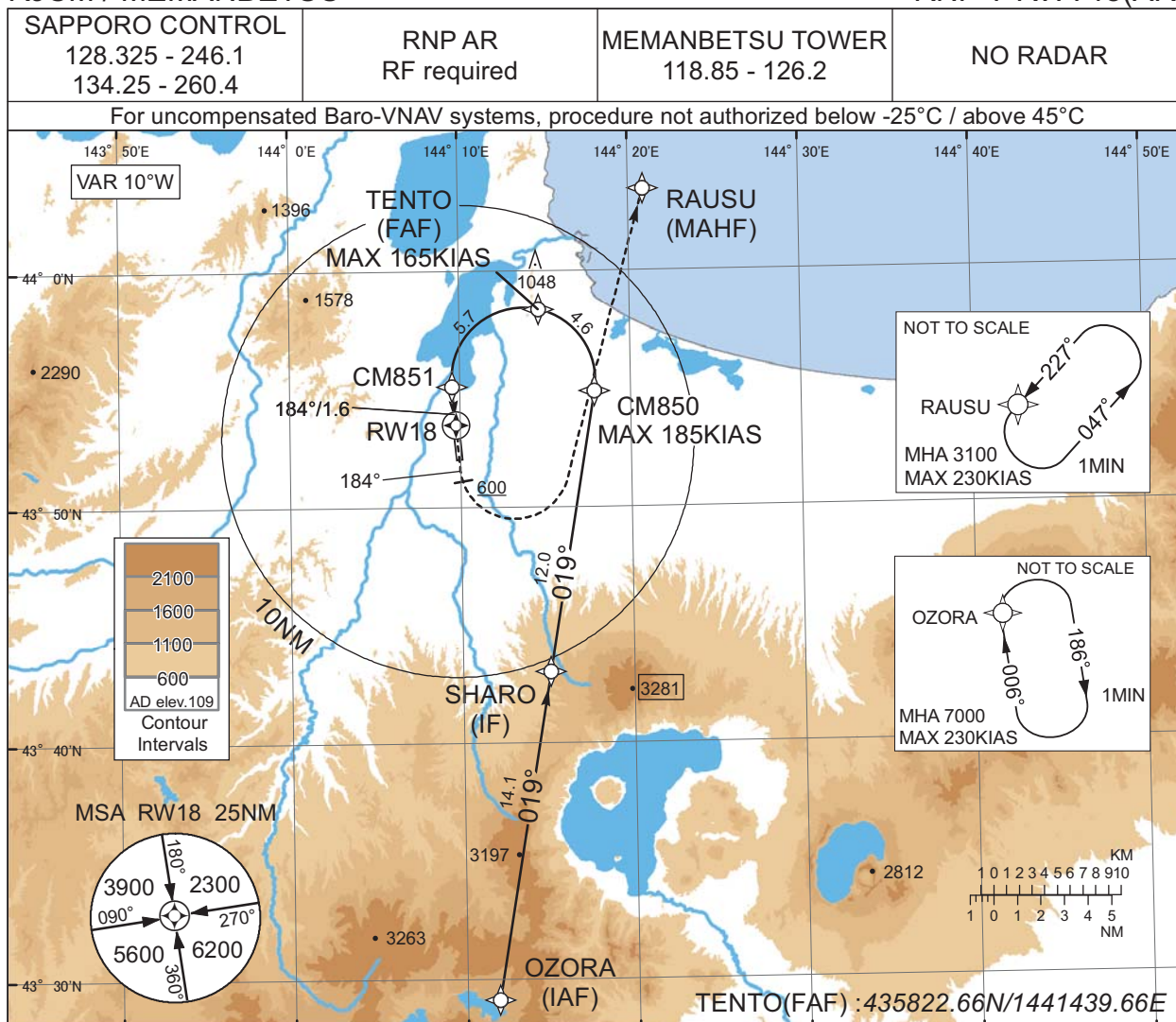
Required additional data

LTP/FTP orthometric height	31.0
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INSTRUMENT APPROACH CHART

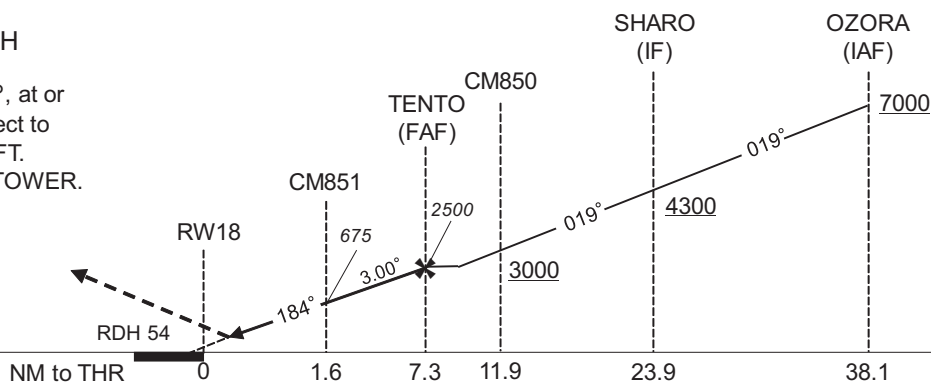
RJCM / MEMANBETSU

RNP Y RWY18(AR)



MISSED APPROACH

From RW18 on track 184°, at or above 600FT turn left, direct to RAUSU and hold at 3100FT. Contact MEMANBETSU TOWER.



Missed APCH climb gradient MNM 3.0%

CAT	RNP 0.30	
	DA(H)	RVR/CMV
A	-	-
B	-	-
C	402(300)	1000
D		1400

Authorization Required

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

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

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	OZORA	-	-	-9.5	-	-	+7000	-	-	-
002	TF	SHARO	-	019 (009.5)	-9.5	14.1	-	+4300	-	-	1.0
003	TF	CM850	-	019 (009.6)	-9.5	12.0	-	+3000	-185	-	1.0
004	RF Center: CMRF1 r=3.04NM	TENTO	-	-	-9.5	4.6	L	2500	-165	-	1.0
005	RF Center: CMRF1 r=3.04NM	CM851	-	-	-9.5	5.7	L	675	-	-3.00	0.3
006	TF	RW18	Y	184 (174.7)	-9.5	1.6	-	156	-	-3.00/54	0.3
007	FA	-	-	184 (174.7)	-9.5	-	-	+600	-	-	1.0
008	DF	RAUSU	-	-	-9.5	-	L	3100	-	-	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	OZORA	006 (356.7)	-9.5	1.0 (-14000)	R	7000	FL140	-230 (-14000)	1.0
Hold	RAUSU	227 (217.0)	-9.5	1.0 (-14000)	L	3100	FL140	-230 (-14000)	1.0

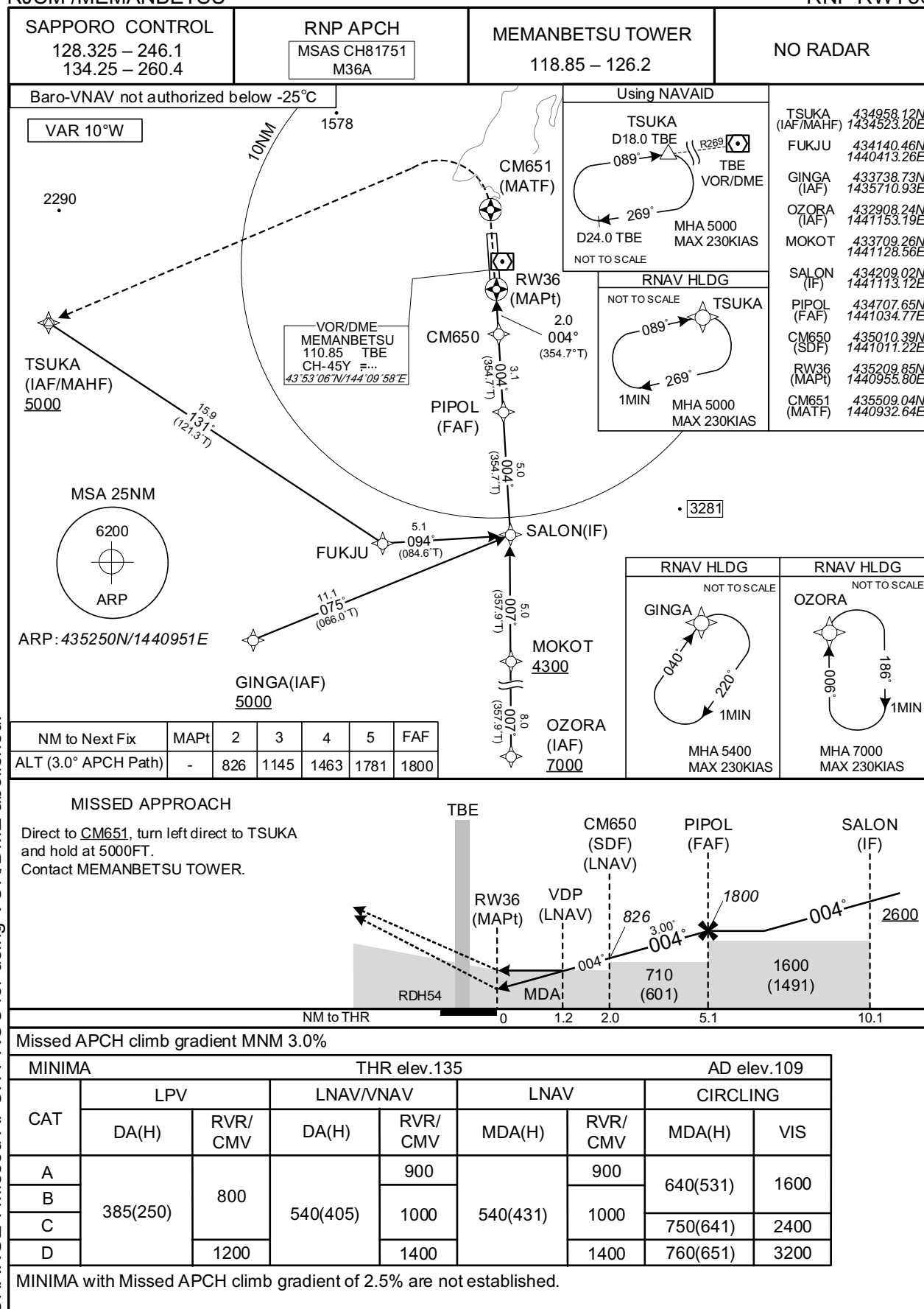
Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
OZORA	432908.24N / 1441153.19E	CMRF1	435524.66N / 1441344.15E
SHARO	434301.91N / 1441506.66E		
CM850	435454.27N / 1441753.05E		
TENTO	435822.66N / 1441439.66E		
CM851	435507.75N / 1440932.81E		
RW18	435330.51N / 1440945.38E		
RAUSU	440327.56N / 1442052.43E		

INSTRUMENT APPROACH CHART

RJCM /MEMANBETSU

RNP RWY36



CHANGE : Missed APCH PROC for using VOR/DME abolished.

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP RWY36

FAS DATA BLOCK

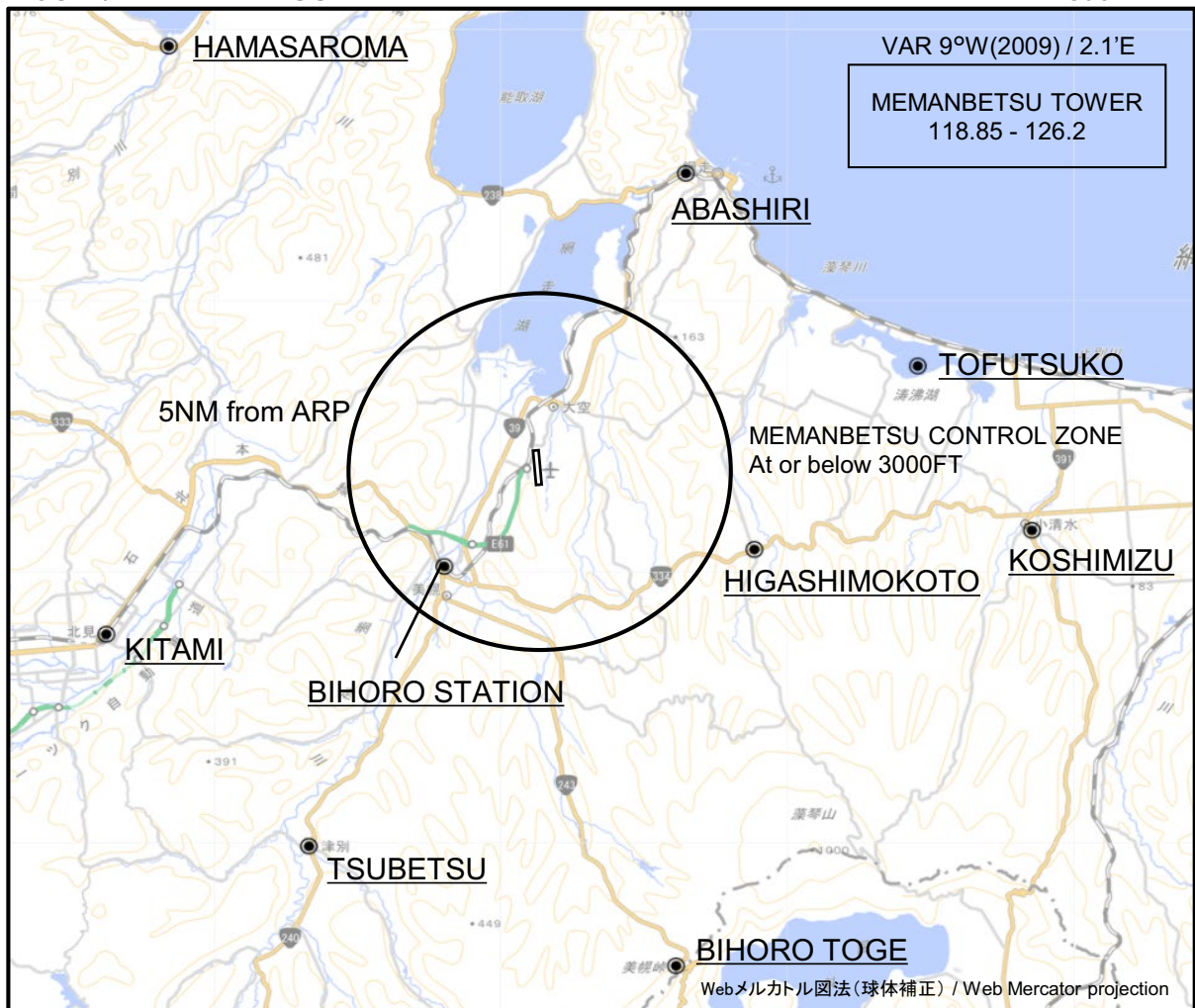
Operation type	0	LTP/FTP ellipsoidal height	+00719
SBAS service provider identifier	2	FPAP latitude	435330.4920N
Airport identifier	RJCM	FPAP longitude	1440945.3395E
Runway	36	Threshold crossing height	00016.5
Approach performance designator	0	TCH units selector	1
Route indicator		Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M36A	∠ length offset	0000
LTP/FTP latitude	435209.8350N	HAL	40.0
LTP/FTP longitude	1440955.7670E	VAL	50.0
CRC remainder	28C6AB24		

Required additional data

LTP/FTP orthometric height	41.1
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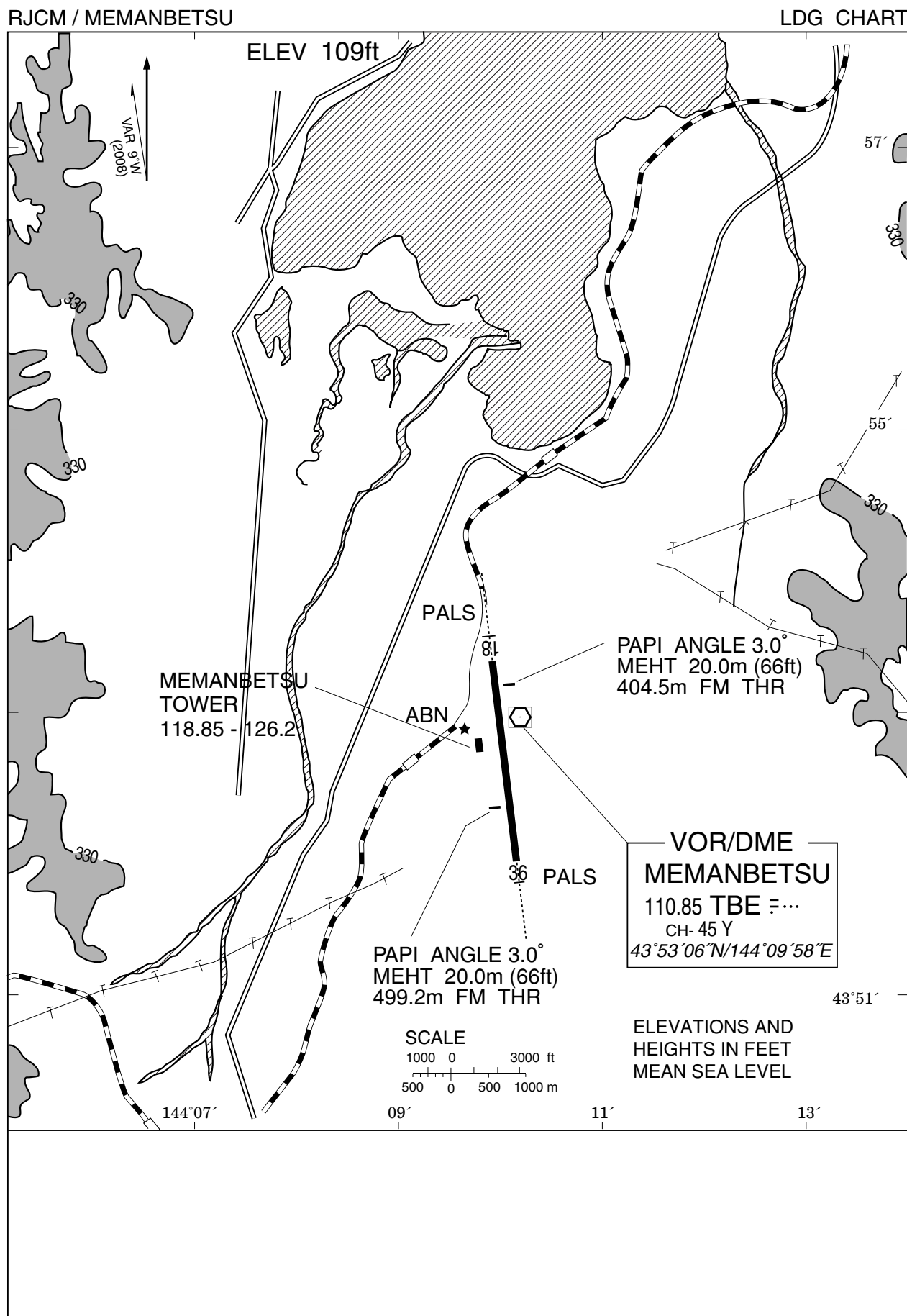
Visual REP



※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 : Map updated. BRG/DIST from ARP.

Call sign	BRG / DIST from ARP	Remarks
網走 Abashiri	025°T / 9.2NM	JR駅 Station
湧湖 Tofutsuko	074°T / 10.5NM	湖 Lake
小清水 Koshimizu	097°T / 13.3NM	学校 School
東藻琴 Higashimokoto	110°T / 6.1NM	市街地 Town
美幌峠 Bihoro Toge	165°T / 14.4NM	峠 Pass
津別 Tsubetsu	210°T / 12.2NM	市街地 Town
美幌ステーション Bihoro Station	223°T / 3.7NM	JR駅 Station
北見 Kitami	248°T / 12.4NM	JR駅 Station
浜佐呂間 Hamasaroma	321°T / 15.5NM	佐呂間大橋 Bridge



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Minimum Vectoring Altitude CHART

