

RJC/M / MEMANBETSU AD

AD CHART

VAR 9°W(2009)
Annual change 2.1°E

OVERRUN AREA
RVR EDGE LGT CEILO METER

WIND SPEED METER
RVR DIST 435209.85N/1440955.80E

MARKER LGT
1V7

RWY 18/36
2V6

PAPI Angle 3.0°
MEHT 20.0 m(66ft)

APRON A
499.2m

GP HOLD LINE

APRON B
6V2

PAPI Angle 3.0°
MEHT 20.0 m(66ft)

APRON FLOOD LGT

INS OK point

1	435257.24N	1440933.47E
2	435255.56N	1440933.89E
3	435253.47N	1440934.16E
4	435251.27N	1440934.53E
5	435248.95N	1440934.82E
6	435246.85N	1440935.01E

SEQUENCED FLASHING LGT (SFL-V)

LONGITUDINAL PROFILE OF RWY

LEVEL	0m	515m	595m	1000m	1450m	2500m
102.0ft (31.1m)	105.5ft (32.2m)	105.8ft (32.3m)	109.3ft (33.1m)	109.3ft (33.1m)	135.2ft (41.2m)	

0.233% **0.125%** **0.198%** **0.779%**

118.85 - 126.2
ELEV 109ft

MEMANBETSU AD

VAR/DME(TBE)
435330.51N/1440945.39E

PAPI Angle 3.0°
MEHT 20.0 m(66ft)

WIND SPEED METER
RVR DIST 435209.85N/1440955.80E

MARKER LGT
1V7

RWY 18/36
2V6

PAPI Angle 3.0°
MEHT 20.0 m(66ft)

APRON A
499.2m

GP HOLD LINE

APRON B
6V2

PAPI Angle 3.0°
MEHT 20.0 m(66ft)

APRON FLOOD LGT

INS OK point

1	435257.24N	1440933.47E
2	435255.56N	1440933.89E
3	435253.47N	1440934.16E
4	435251.27N	1440934.53E
5	435248.95N	1440934.82E
6	435246.85N	1440935.01E

SEQUENCED FLASHING LGT (SFL-V)

LONGITUDINAL PROFILE OF RWY

LEVEL	0m	515m	595m	1000m	1450m	2500m
102.0ft (31.1m)	105.5ft (32.2m)	105.8ft (32.3m)	109.3ft (33.1m)	109.3ft (33.1m)	135.2ft (41.2m)	

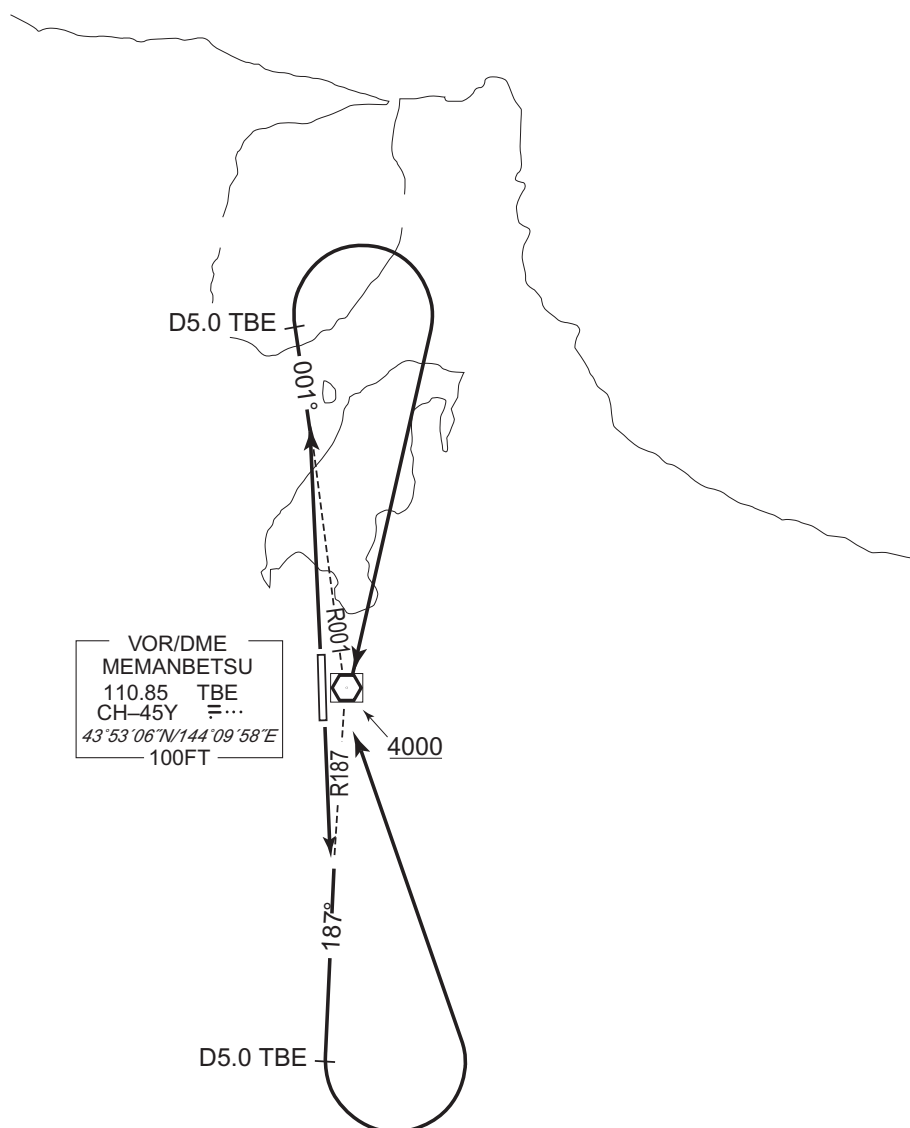
0.233% **0.125%** **0.198%** **0.779%**

RJCM / MEMANBETSU

MEMANBETSU REVERSAL THREE DEPARTURE

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.

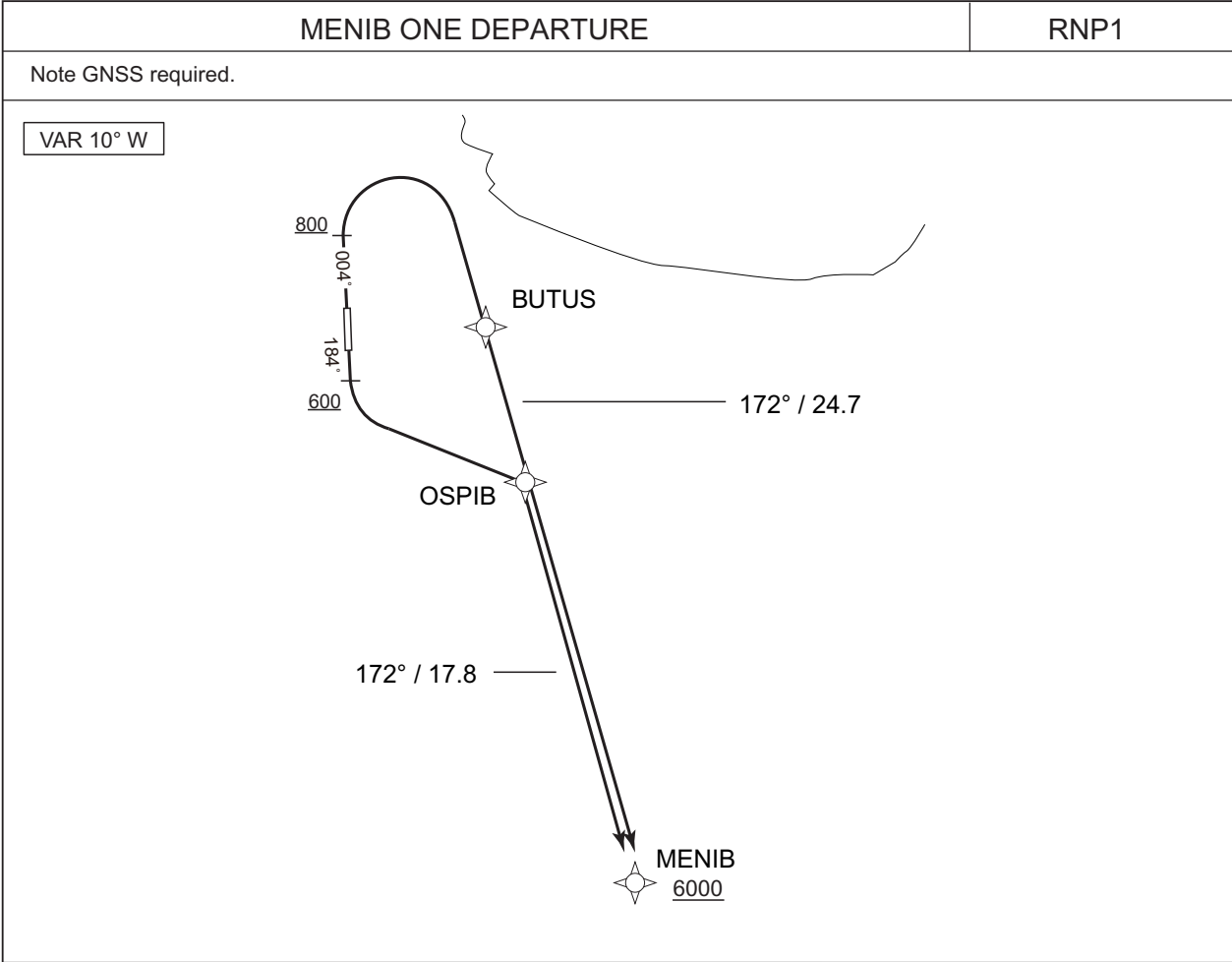


CHANGE : Description of PROC name.

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

RNAV SID



RWY18 : Climb on HDG184° at or above 600FT, turn left direct to OSPIB, to MENIB at or above 6000FT.
RWY36 : Climb on HDG004° at or above 800FT, turn right direct to BUTUS, to MENIB at or above 6000FT.
Note RWY18 : 5.0% climb gradient required up to 2300FT.
OBST ALT 3314FT located at 12.2NM 153° FM end of RWY18.

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)	-9.6	—	—	+600	—	—	RNP1
002	DF	OSPIB	—	—	-9.6	—	L	—	—	—	RNP1
003	TF	MENIB	—	172 (162.3)	-9.6	17.8	—	+6000	—	—	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)	-9.6	—	—	+800	—	—	RNP1
002	DF	BUTUS	—	—	-9.6	—	R	—	—	—	RNP1
003	TF	MENIB	—	172 (162.3)	-9.6	24.7	—	+6000	—	—	RNP1

CHANGE : Description of latitude and longitude.

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

RNAV SID

Waypoint Coordinates

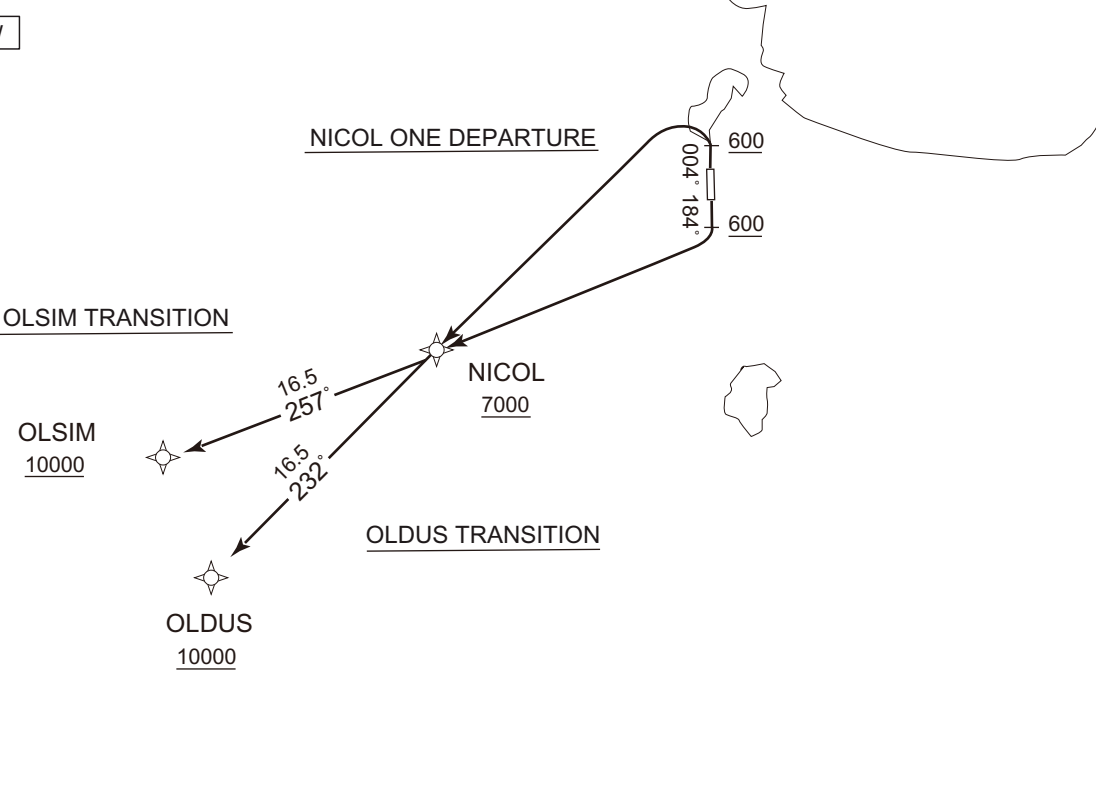
Waypoint Identifier	Coordinates
OSPIB	434628.5N / 1442055.9E
BUTUS	435301.9N / 1441802.1E
MENIB	432929.4N / 1442822.9E

CHANGE : Waypoint Coordinates added.

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

RNAV SID and TRANSITION

NICOL ONE DEPARTURE OLSIM TRANSITION / OLDUS TRANSITION		RNP1
Note GNSS required.		
<div><div>VAR 10° W</div></div>		
<div><div>NICOL ONE DEPARTURE</div><div>RWY18 : Climb on HDG184° at or above 600FT, turn right direct to NICOL at or above 7000FT. RWY36 : Climb on HDG004° at or above 600FT, turn left direct to NICOL at or above 7000FT. Note RWY36 : 5.0% climb gradient required up to 600FT. OBST ALT 1181FT located at 6.3NM 312° FM end of RWY36.</div></div>		
<div><div>OLSIM TRANSITION</div><div>From NICOL at or above 7000FT, to OLSIM at or above 10000FT.</div></div>		
<div><div>OLDUS TRANSITION</div><div>From NICOL at or above 7000FT, to OLDUS at or above 10000FT.</div></div>		

CHANGE : Description of latitude and longitude.

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

RNAV SID and TRANSITION

NICOL ONE DEPARTURE

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)	-9.6	-	-	+600	-	-	RNP1
002	DF	NICOL	-	-	-9.6	-	R	+7000	-	-	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)	-9.6	-	-	+600	-	-	RNP1
002	DF	NICOL	-	-	-9.6	-	L	+7000	-	-	RNP1

OLSIM 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	NICOL	-	-	-9.6	-	-	+7000	-	-	RNP1
002	TF	OLSIM	-	257 (247.6)	-9.6	16.5	-	+10000	-	-	RNP1

OLDUS 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	NICOL	-	-	-9.6	-	-	+7000	-	-	RNP1
002	TF	OLDUS	-	232 (222.9)	-9.6	16.5	-	+10000	-	-	RNP1

CHANGE : Waypoint Coordinates added.

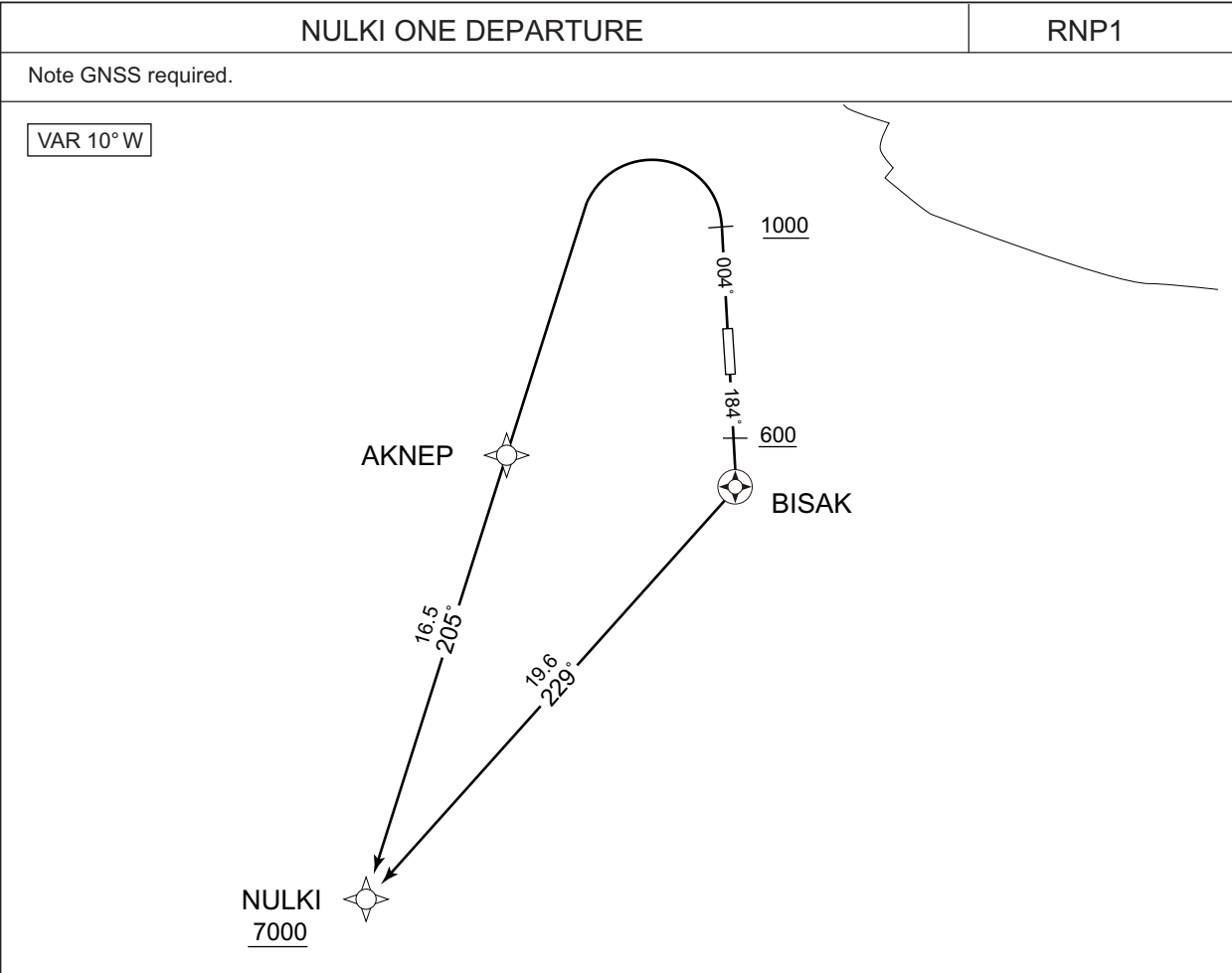
Waypoint Coordinates

Waypoint Identifier	Coordinates
NICOL	433912.0N / 1434158.7E
OLSIM	433251.7N / 1432055.3E
OLDUS	432703.7N / 1432629.1E

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

RNAV SID



RWY18 : Climb on HDG184° at or above 600FT, direct to BISAK, to NULKI at or above 7000FT.
RWY36 : Climb on HDG004° at or above 1000FT, turn left direct to AKNEP, to NULKI at or above 7000FT.
Note RWY36 : 3.9% climb gradient required up to 1500FT.
OBST ALT 1673FT located at 8.2NM 320° 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)	-9.6	—	—	+600	—	—	RNP1
002	DF	BISAK	Y	—	-9.6	—	—	—	—	—	RNP1
003	TF	NULKI	—	229 (219.6)	-9.6	19.6	—	+7000	—	—	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)	-9.6	—	—	+1000	—	—	RNP1
002	DF	AKNEP	—	—	-9.6	—	L	—	—	—	RNP1
003	TF	NULKI	—	205 (194.9)	-9.6	16.5	—	+7000	—	—	RNP1

CHANGE : Description of latitude and longitude.

STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

RNAV SID

Waypoint Coordinates

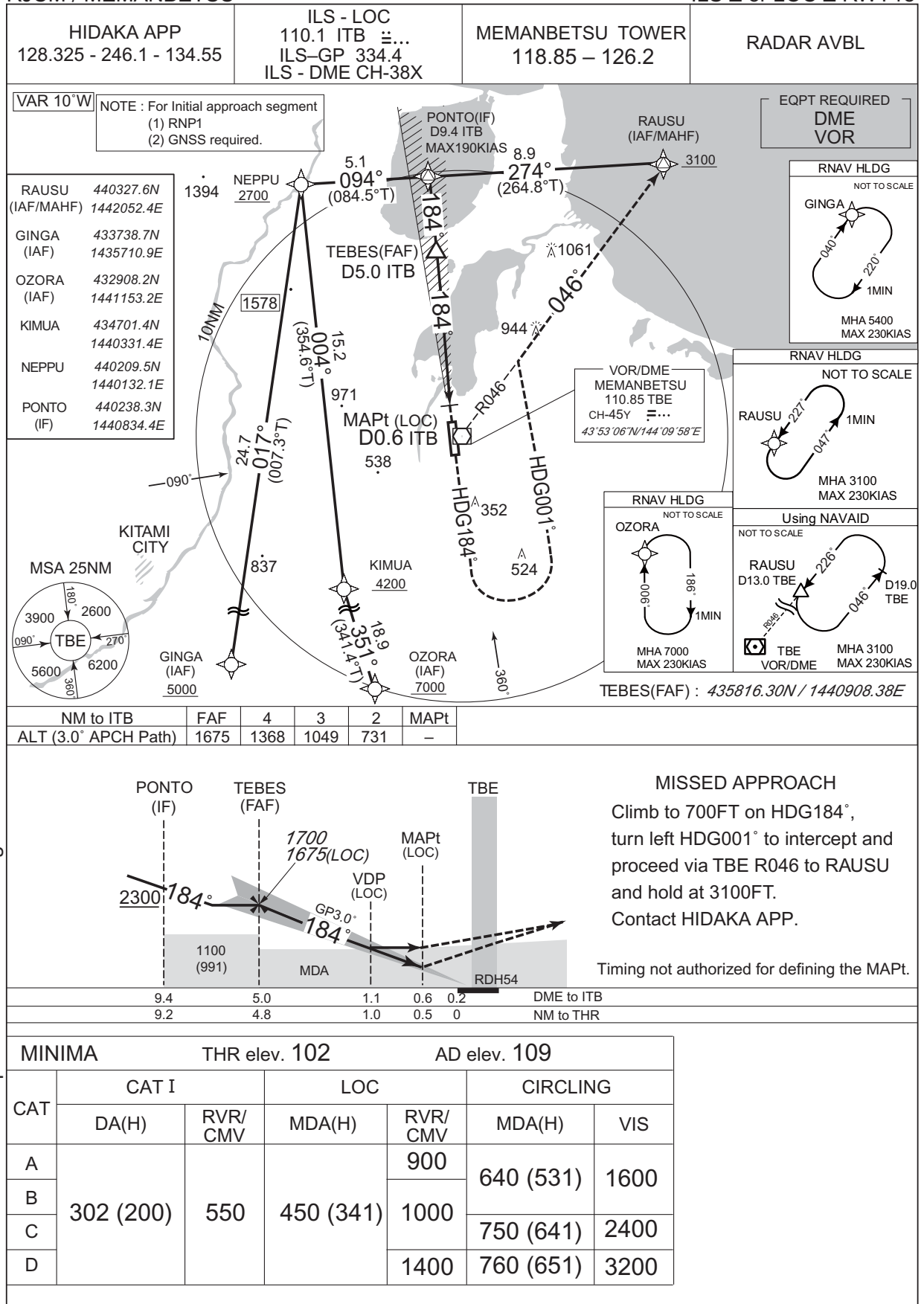
Waypoint Identifier	Coordinates
BISAK	434808.9N / 1441026.9E
AKNEP	434859.1N / 1435906.4E
NULKI	433301.6N / 1435313.7E

CHANGE : Waypoint Coordinates added.

INSTRUMENT APPROACH CHART

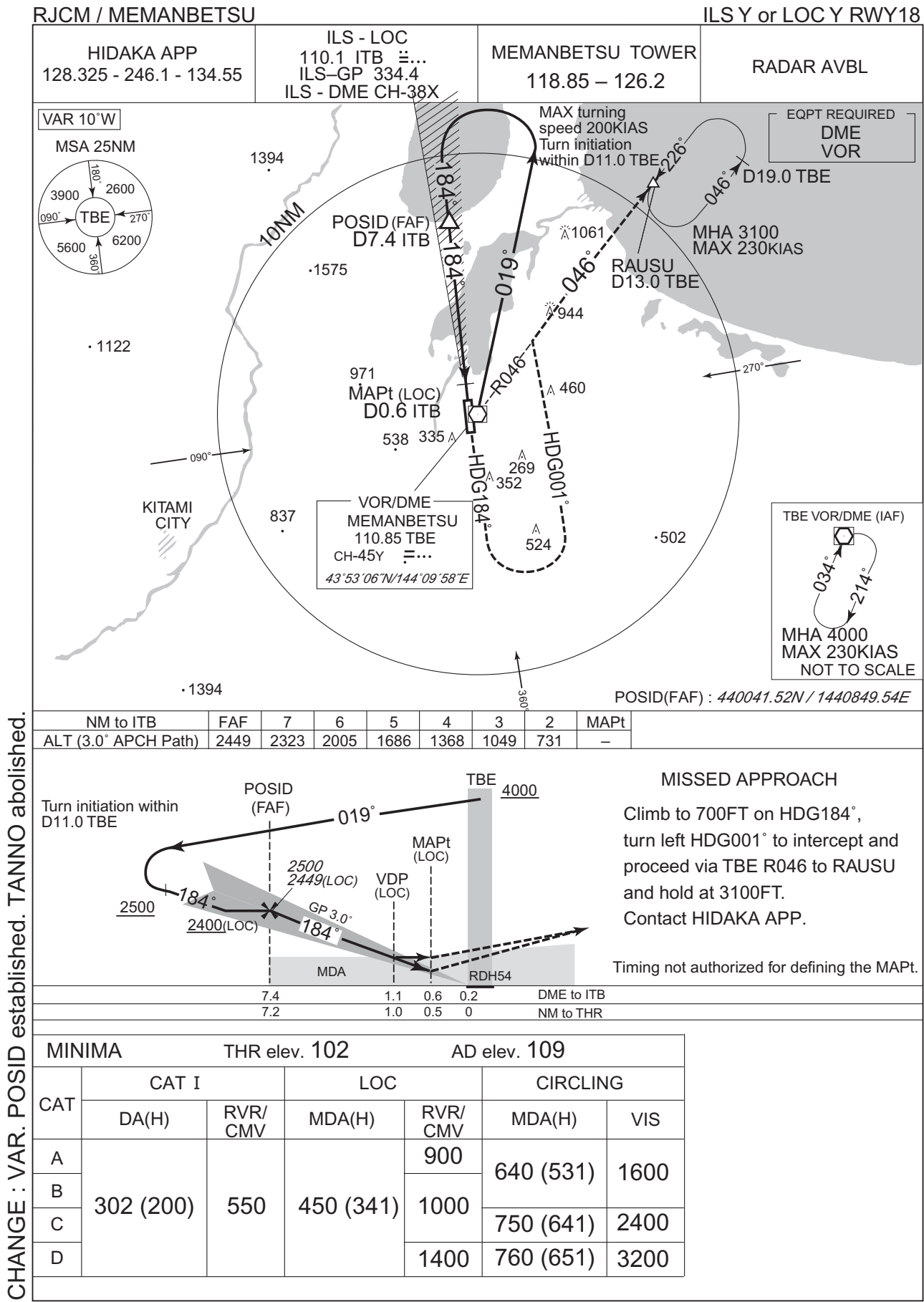
RJCM / MEMANBETSU

ILS Z or LOC Z RWY18



CHANGE : VAR. Description of latitude and longitude.

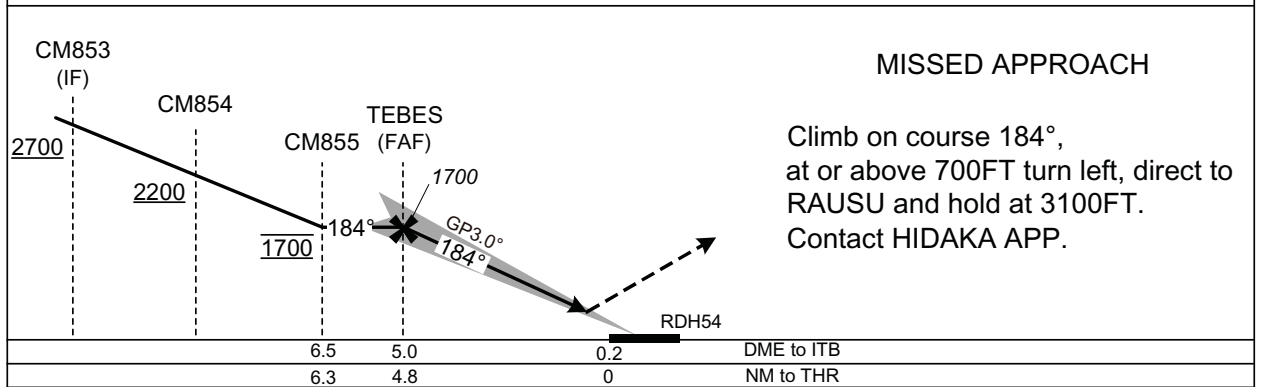
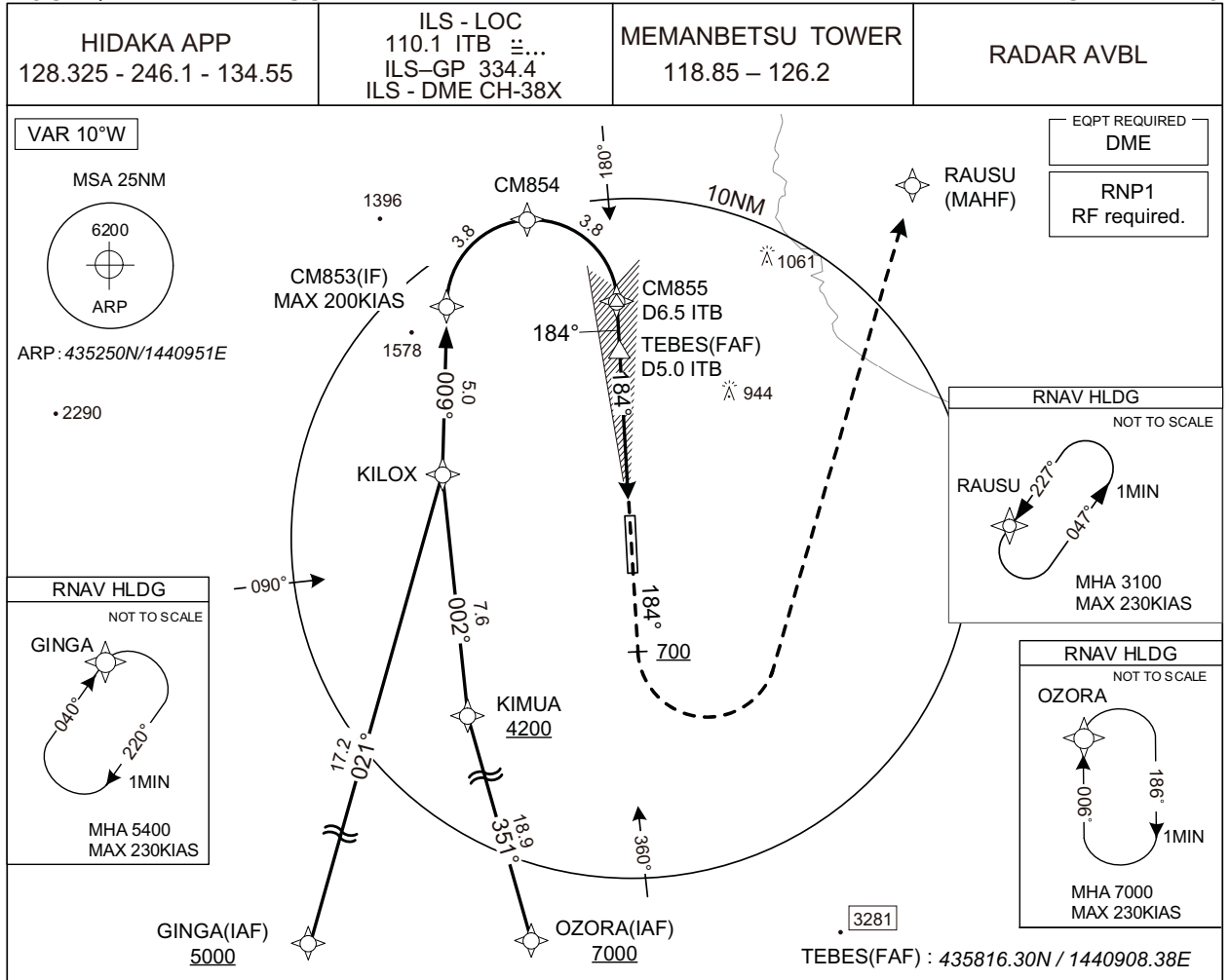
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

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 : VAR.

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	-	-	RNP1
002	TF	KILOX	-	021 (011.9)	-9.6	17.2	-	-	-	-	RNP1
003	TF	CM853	-	009 (359.2)	-9.6	5.0	-	+2700	-200	-	RNP1
001	IF	OZORA	-	-	-9.6	-	-	+7000	-	-	RNP1
002	TF	KIMUA	-	351 (341.4)	-9.6	18.9	-	+4200	-	-	RNP1
003	TF	KILOX	-	002 (352.2)	-9.6	7.6	-	-	-	-	RNP1
004	TF	CM853	-	009 (359.2)	-9.6	5.0	-	+2700	-200	-	RNP1
001	IF	CM853	-	-	-9.6	-	-	+2700	-200	-	RNP1
002	RF Center: CMRF2 r=2.51NM	CM854	-	-	-9.6	3.8	R	+2200	-	-	RNP1
003	RF Center: CMRF2 r=2.51NM	CM855	-	-	-9.6	3.8	R	1700	-	-	RNP1
001	CA	-	-	184 (174.7)	-9.6	-	-	+700	-	-	RNP1
002	DF	RAUSU	-	-	-9.6	-	L	3100	-	-	RNP1

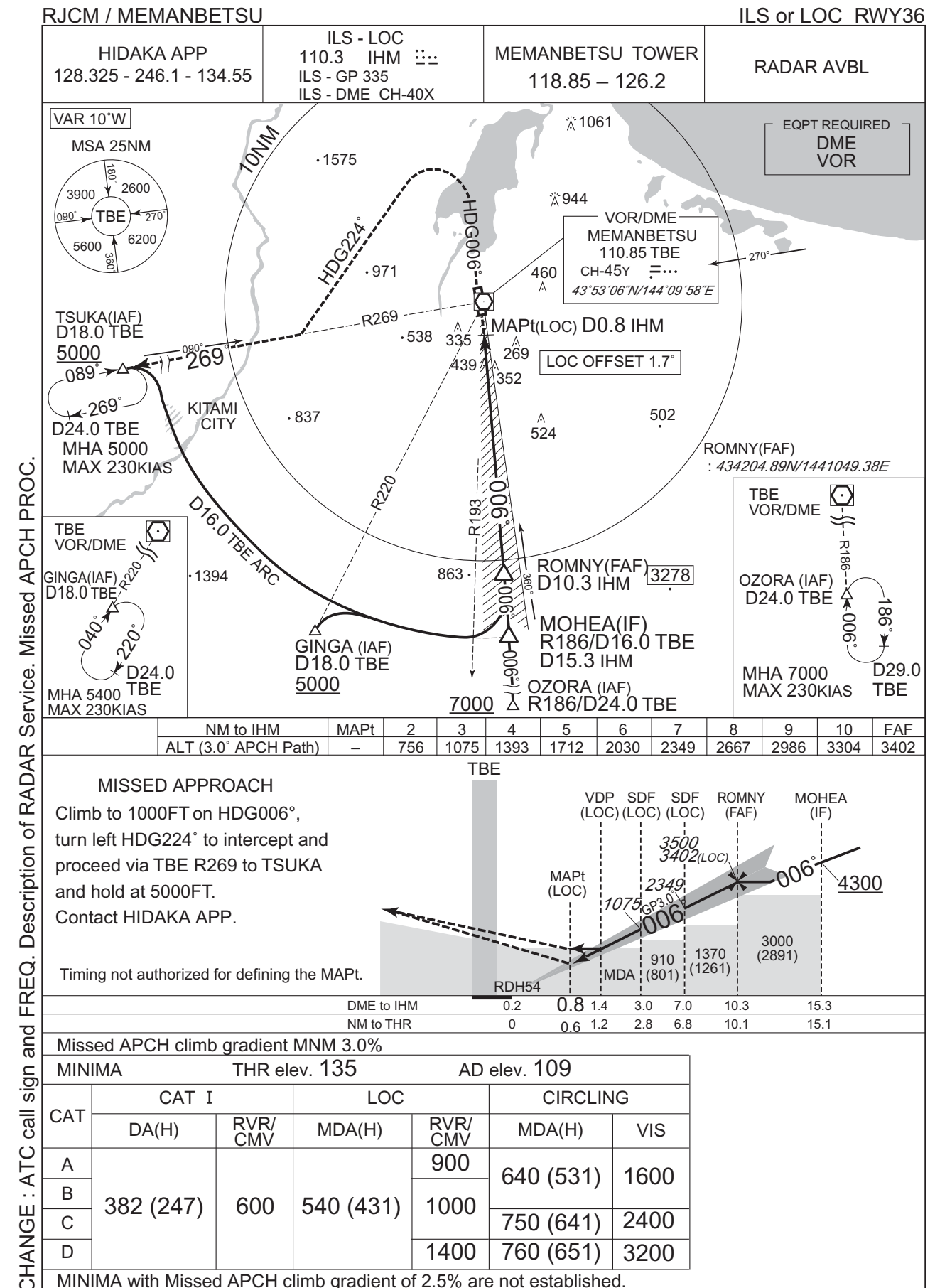
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	GINGA	040 (030.8)	-9.5	1.0 (-14000)	R	5400	FL140	-230 (-14000)	RNP1
Hold	OZORA	006 (356.7)	-9.5	1.0 (-14000)	R	7000	FL140	-230 (-14000)	RNP1
Hold	RAUSU	227 (217.0)	-9.5	1.0 (-14000)	L	3100	FL140	-230 (-14000)	RNP1

Waypoint Coordinates

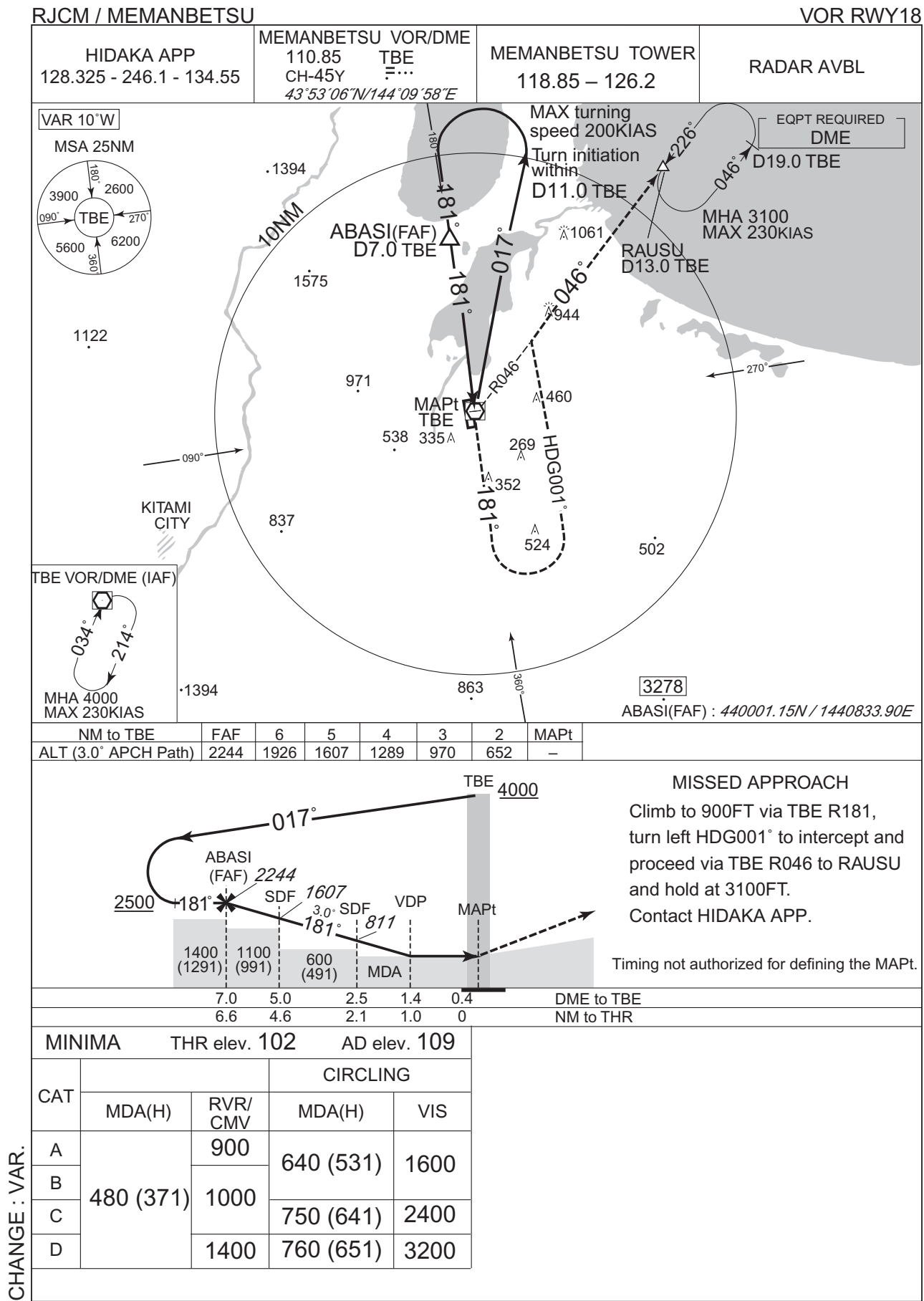
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
GINGA	433738.73N / 1435710.93E	CMRF2	435931.80N / 1440529.11E
OZORA	432908.24N / 1441153.19E		
KIMUA	434701.35N / 1440331.41E		
KILOX	435429.92N / 1440206.12E		
CM853	435929.83N / 1440200.57E		
CM854	440202.15N / 1440517.96E		
CM855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

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

INSTRUMENT APPROACH CHART

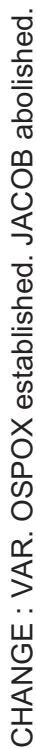


INSTRUMENT APPROACH CHART



RJCM / MEMANBETSU

VOR RWY36



RJCM / MEMANBETSU

HIDAKA APP

128.325 - 246.1 - 134.55

RNP APCH

MSAS CH83687
M18A

MEMANBETSU TOWER

118.85 – 126.2

RADAR AVBL

Baro-VNAV not authorized below -25°C

VAR 10°W

MSA 25NM

6200

ARP

ARP: 435250N/1440951E

1394
NEPPU
2700

1578

10NM

090°

24.7
017
(007.3 T)

15.2
004°
(354.6 T)

2700

184°
(174.7 T)

5.1
094°
(084.5 T)

184°
(174.7 T)

4.3
184°
(174.7 T)

4.9
184°
(174.7 T)

184°
(174.7 T)

8.9
274°
(264.8 T)

3100

RAUSU
(IAF/MAHF)
3100

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

NOT TO SCALE

GINGA

040°

220°

1MIN

MHA 5400
MAX 230KIAS

NOT TO SCALE

OZORA

006°

186°

1MIN

MHA 7000
MAX 230KIAS

NOT TO SCALE

RAUSU

227°

047°

1MIN

MHA 3100
MAX 230KIAS

NM to Next Fix

FAF

4

3

2

1

MAPt

ALT (3.0° APCH Path)

1700

1430

1111

793

475

-

PONTO (IF)

YOBIT (FAF)

RW18 (MAPt)

VDP (LNAV)

MDA

RDH54

2300

1700

184°

3.00°

184°

800 (691)

9.2

4.9

0.9

0

NM to THR

MISSED APPROACH

Direct to CM852, turn left direct to RAUSU and hold at 3100FT.
Contact HIDAKA APP.

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	MDA(H)	VIS
A	352(250)	800	440(338)	900	440(331)	900	640(531)	1600
B	360(258)			1000		1000		
C	369(267)			1400		1400		
D	379(277)	1200		1400				

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

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

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
----------------------------	------

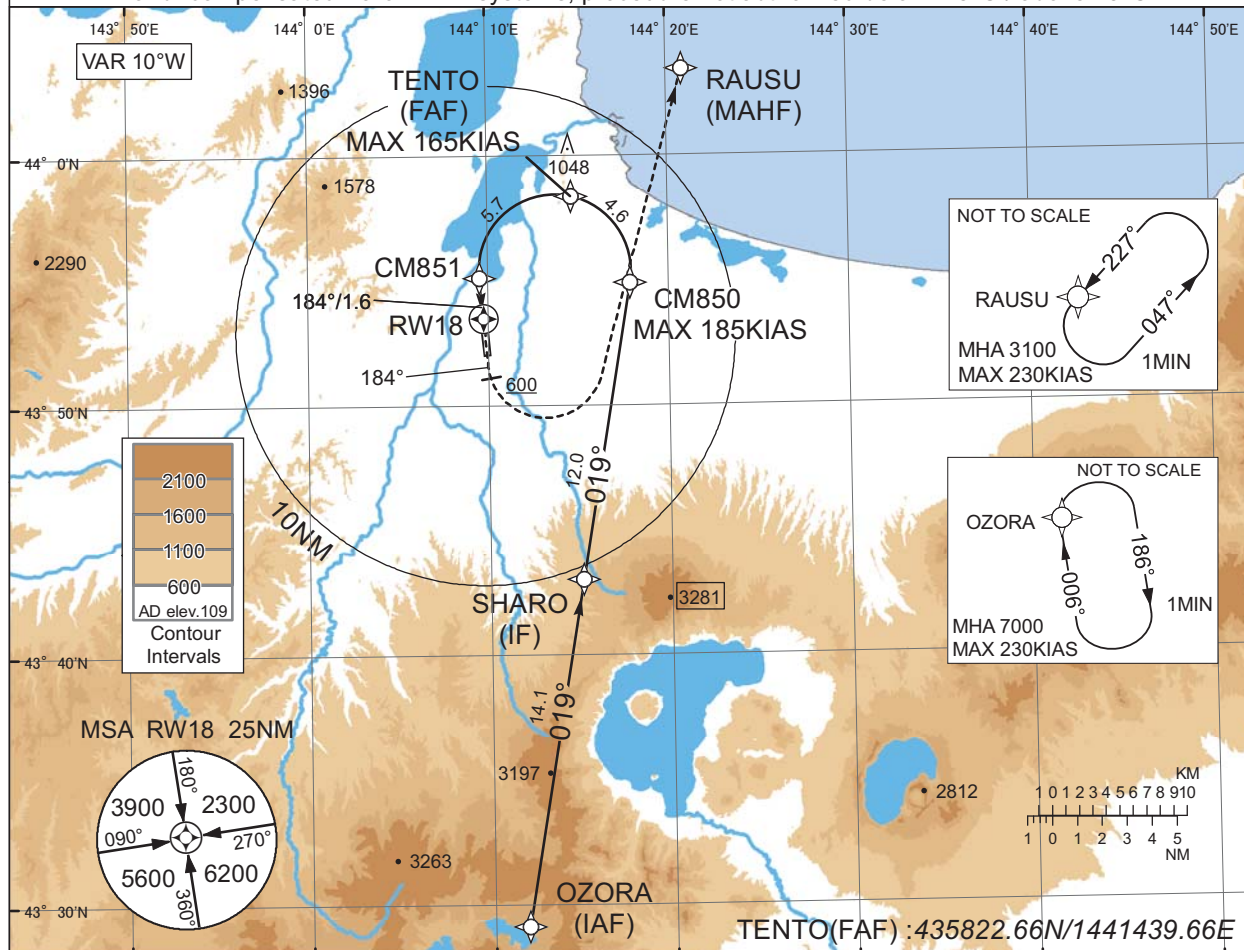
INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Y RWY18(AR)

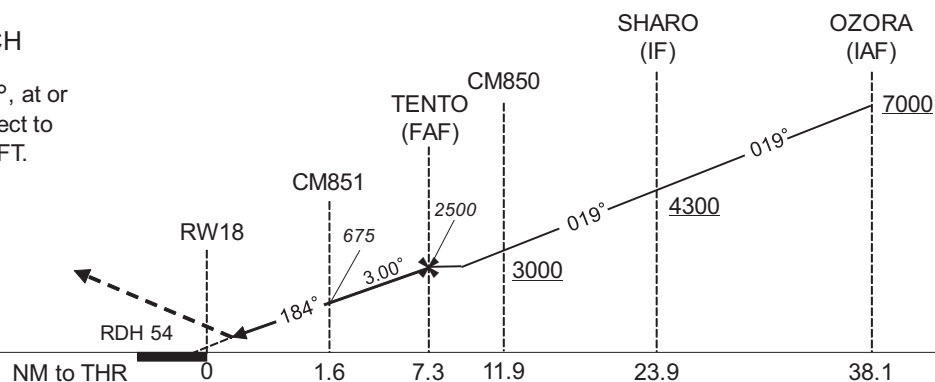
HIDAKA APP 128.325 - 246.1 - 134.55	RNP AR RF required	MEMANBETSU TOWER 118.85 - 126.2	RADAR AVBL
--	-----------------------	------------------------------------	------------

For uncompensated Baro-VNAV systems, procedure not authorized below -25°C / above 45°C



MISSED APPROACH

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



Missed APCH climb gradient MNM 3.0%	NM to NMK
-------------------------------------	-----------

MINIMA	THR elev. 102	AD elev. 109
CAT	RNP 0.30	
	DA(H)	RVR/CMV
A	-	-
B		
C	402(300)	1000
D		1400

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

Authorization Required

CHANGE : ATC call sign and FREQ. Description of RADAR Service. Missed APCH PROC.

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Y RWY18(AR)

Coding Table

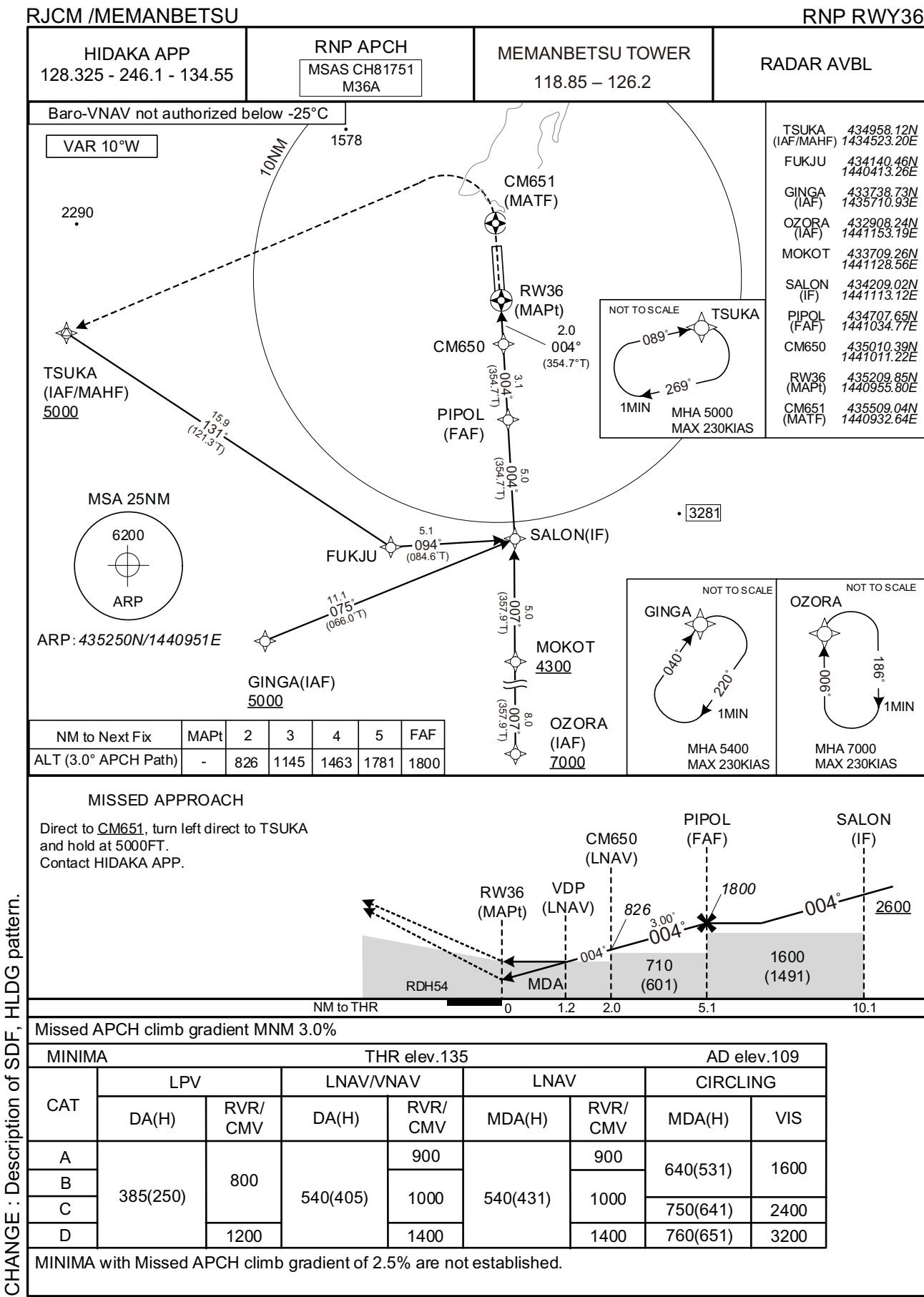
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	OZORA	-	-	-9.5	-	-	+7000	-	-	-
002	TF	SHARO	-	019 (009.5)	-9.5	14.1	-	+4300	-	-	1.0
003	TF	CM850	-	019 (009.6)	-9.5	12.0	-	+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



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
----------------------------	------

RJCM / MEMANBETSU

Visual REP



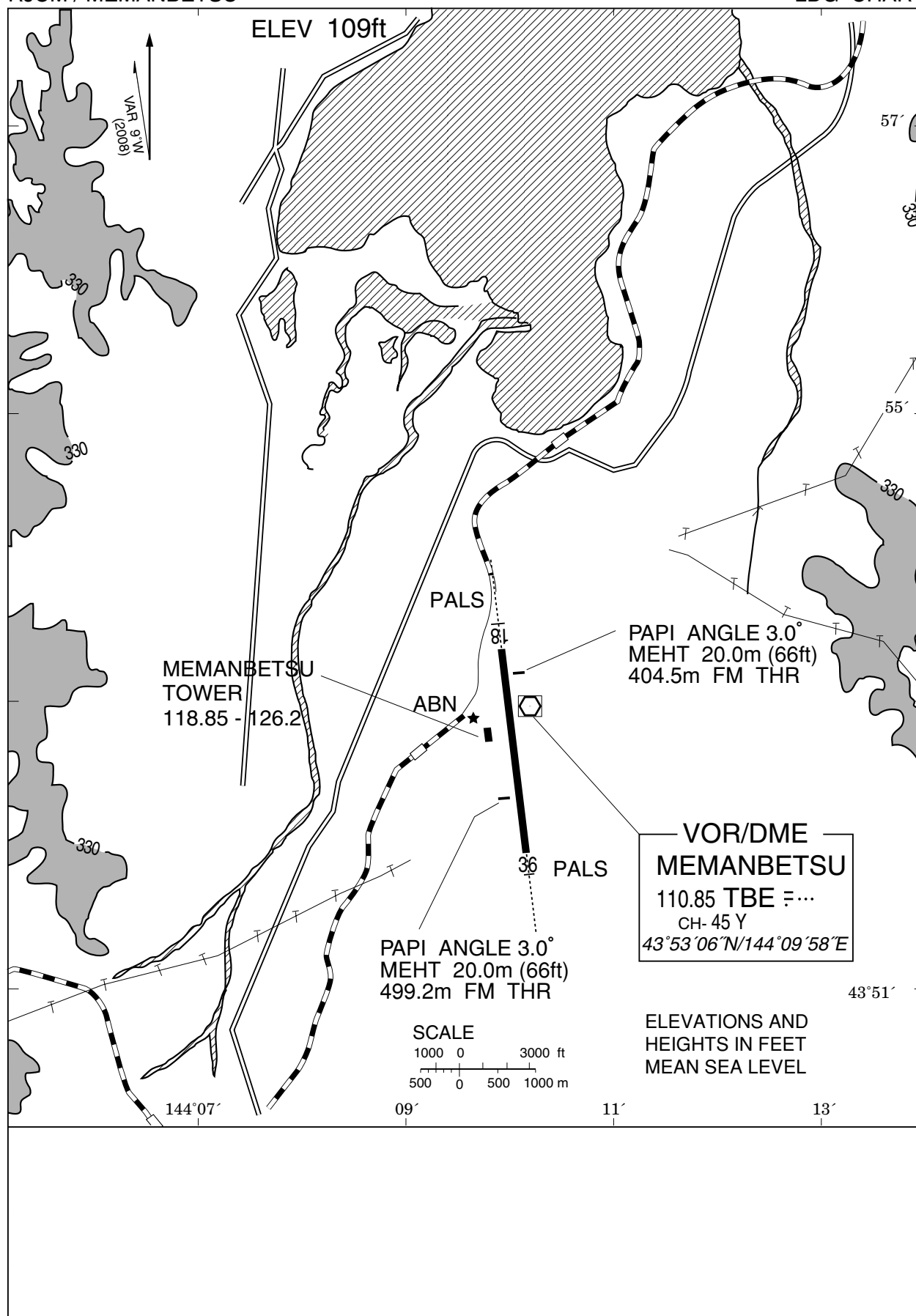
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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

RJCM / MEMANBETSU

LDG CHART



RJCM / MEMANBETSU

Minimum Vectoring Altitude CHART

