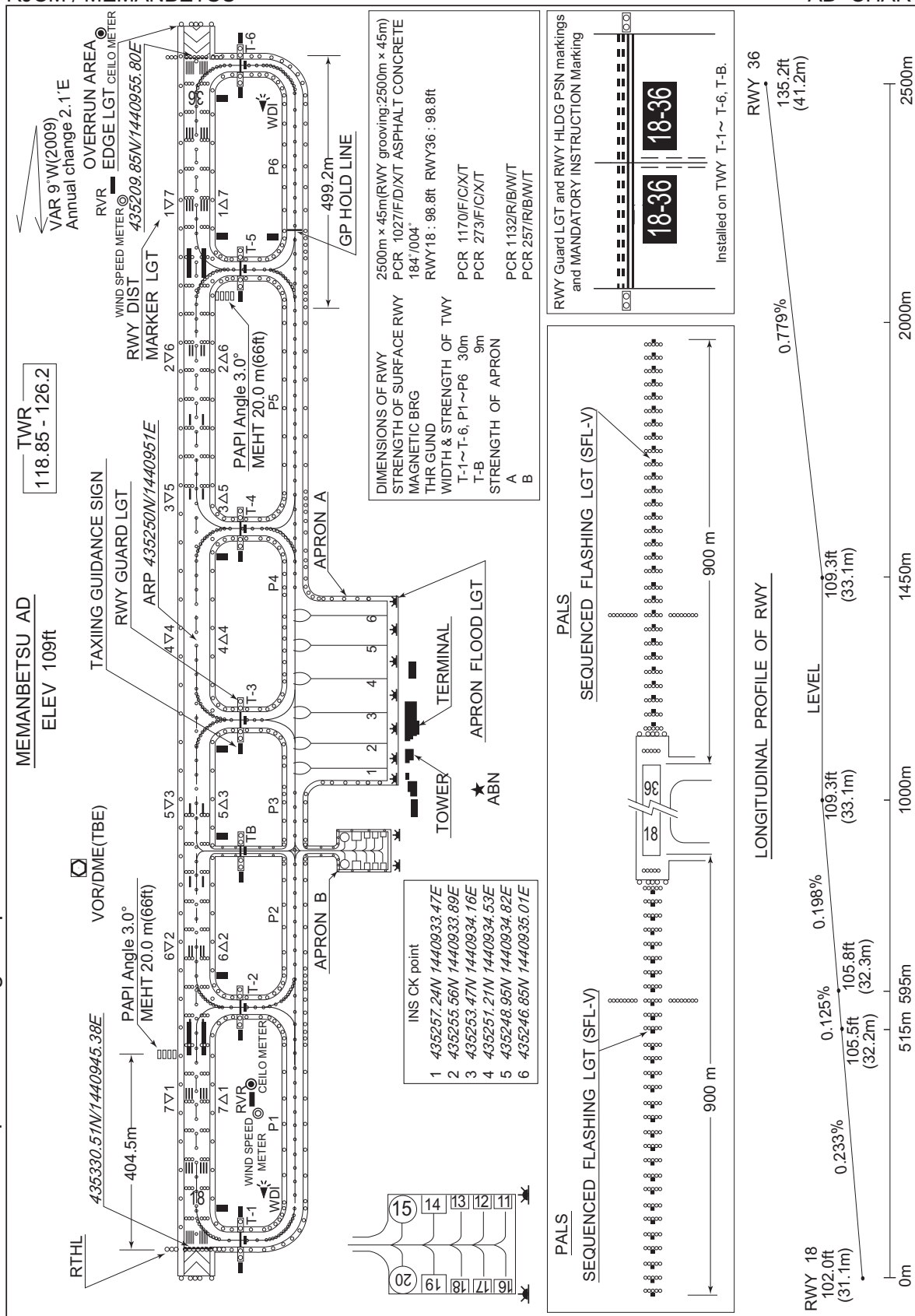


RJCM / MEMANBETSU

AD CHART

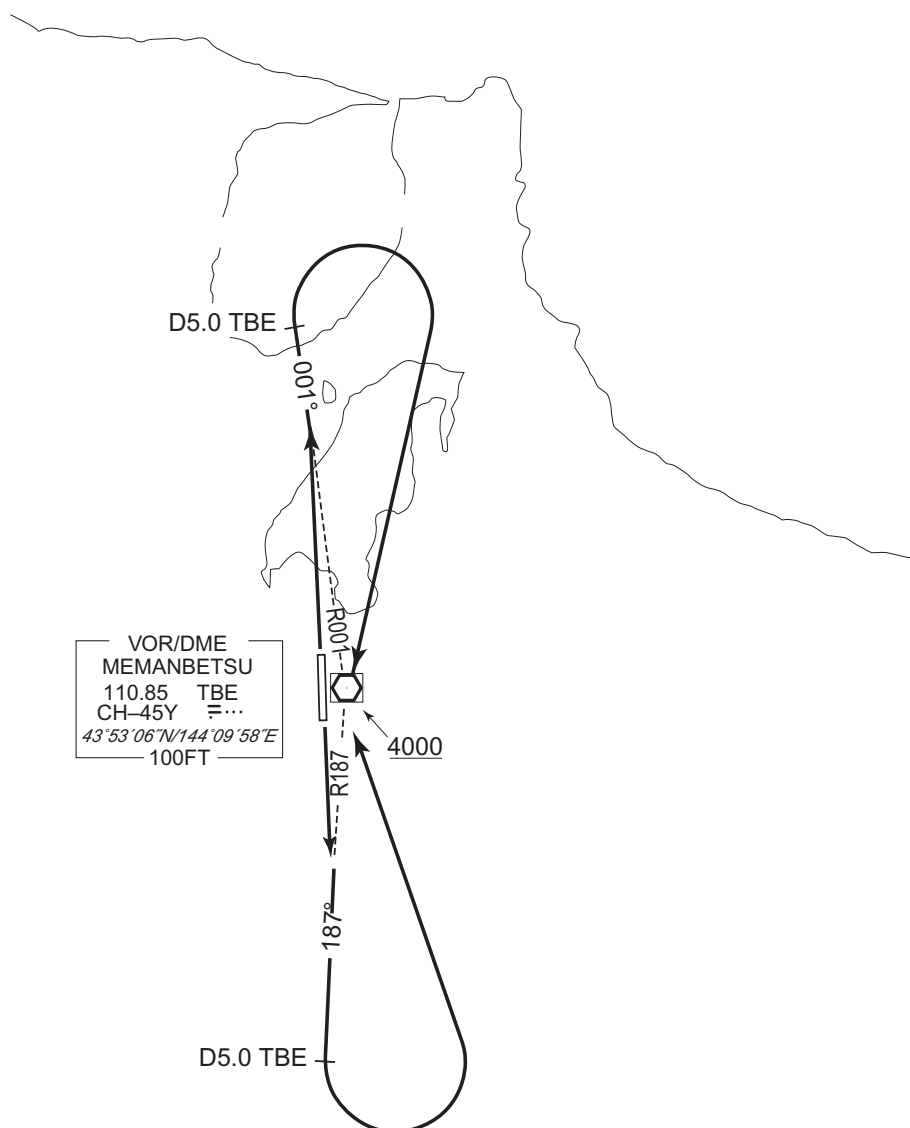


RJCM / MEMANBETSU

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.

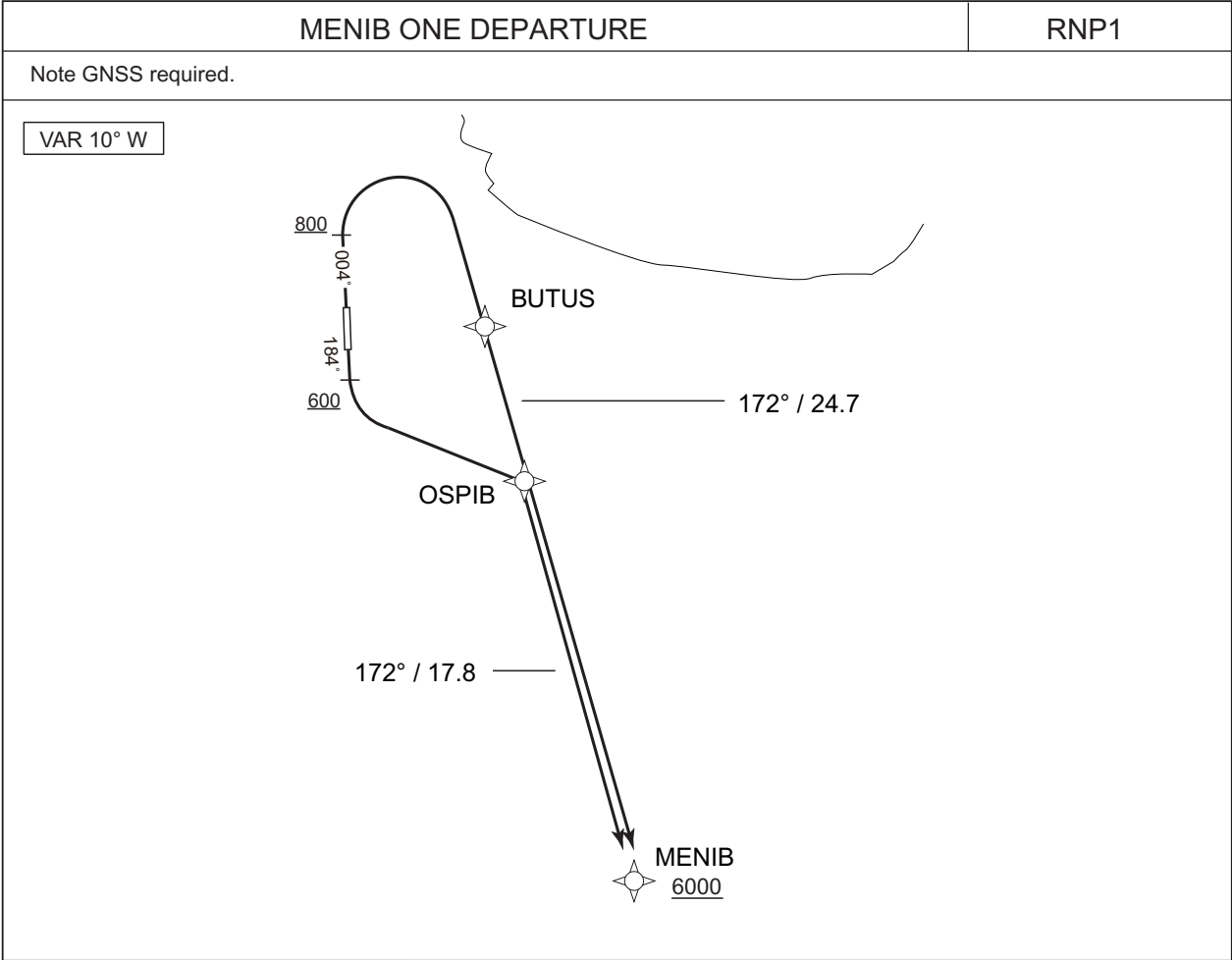


CHANGE : Description of PROC name.

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

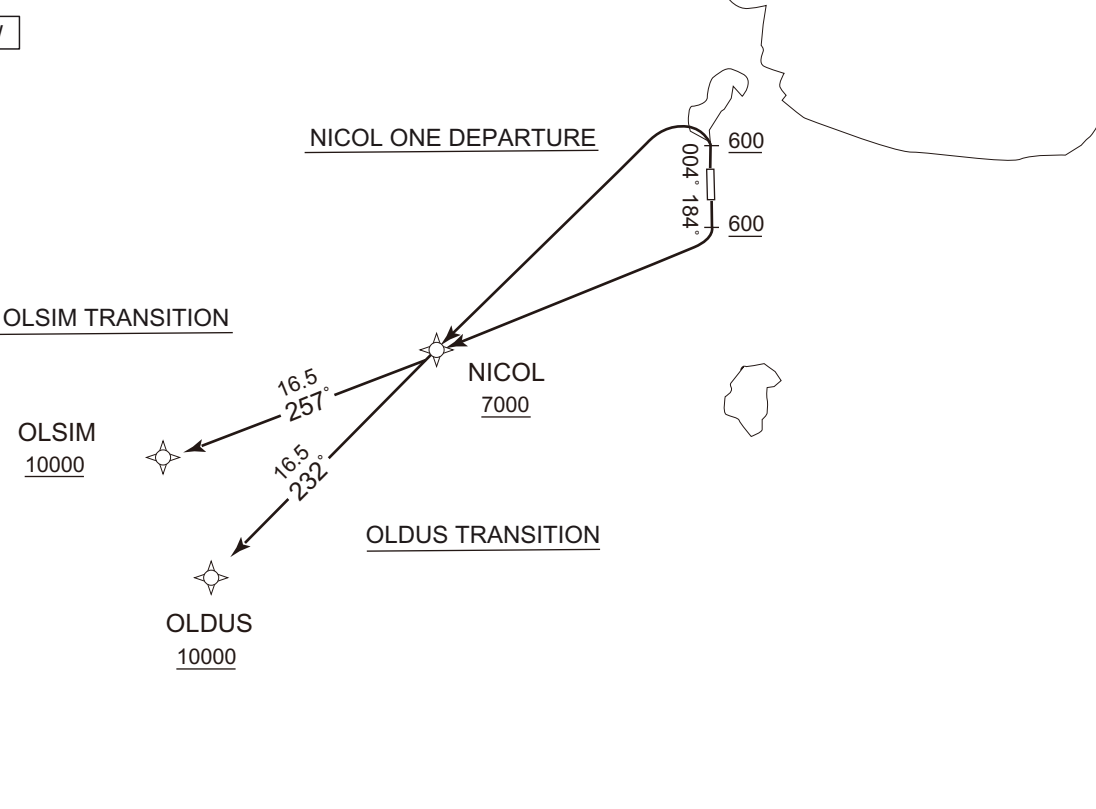
Waypoint Identifier	Coordinates
OSPIB	434628.5N / 1442055.9E
BUTUS	435301.9N / 1441802.1E
MENIB	432929.4N / 1442822.9E

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>		
<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.

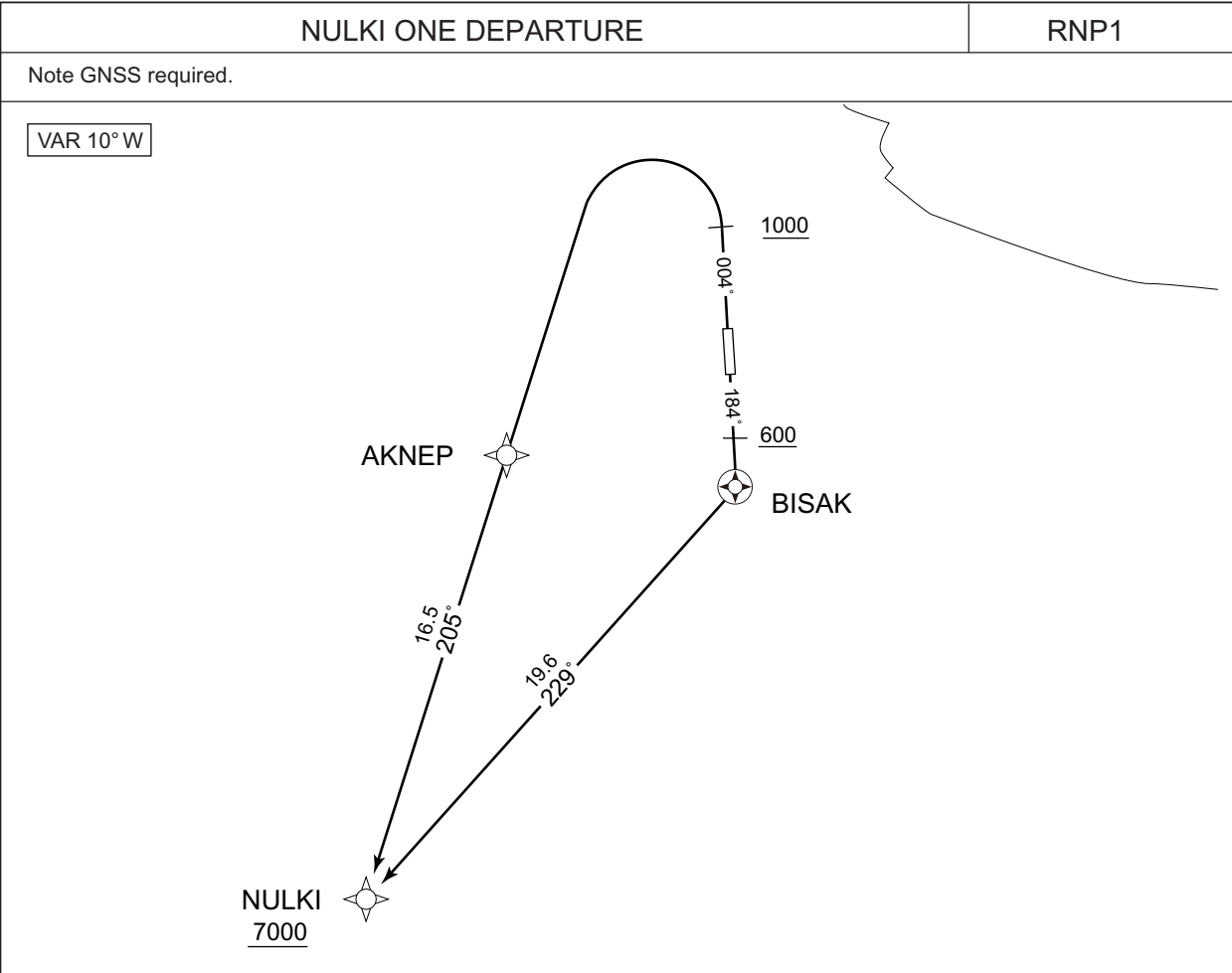
Waypoint Coordinates

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

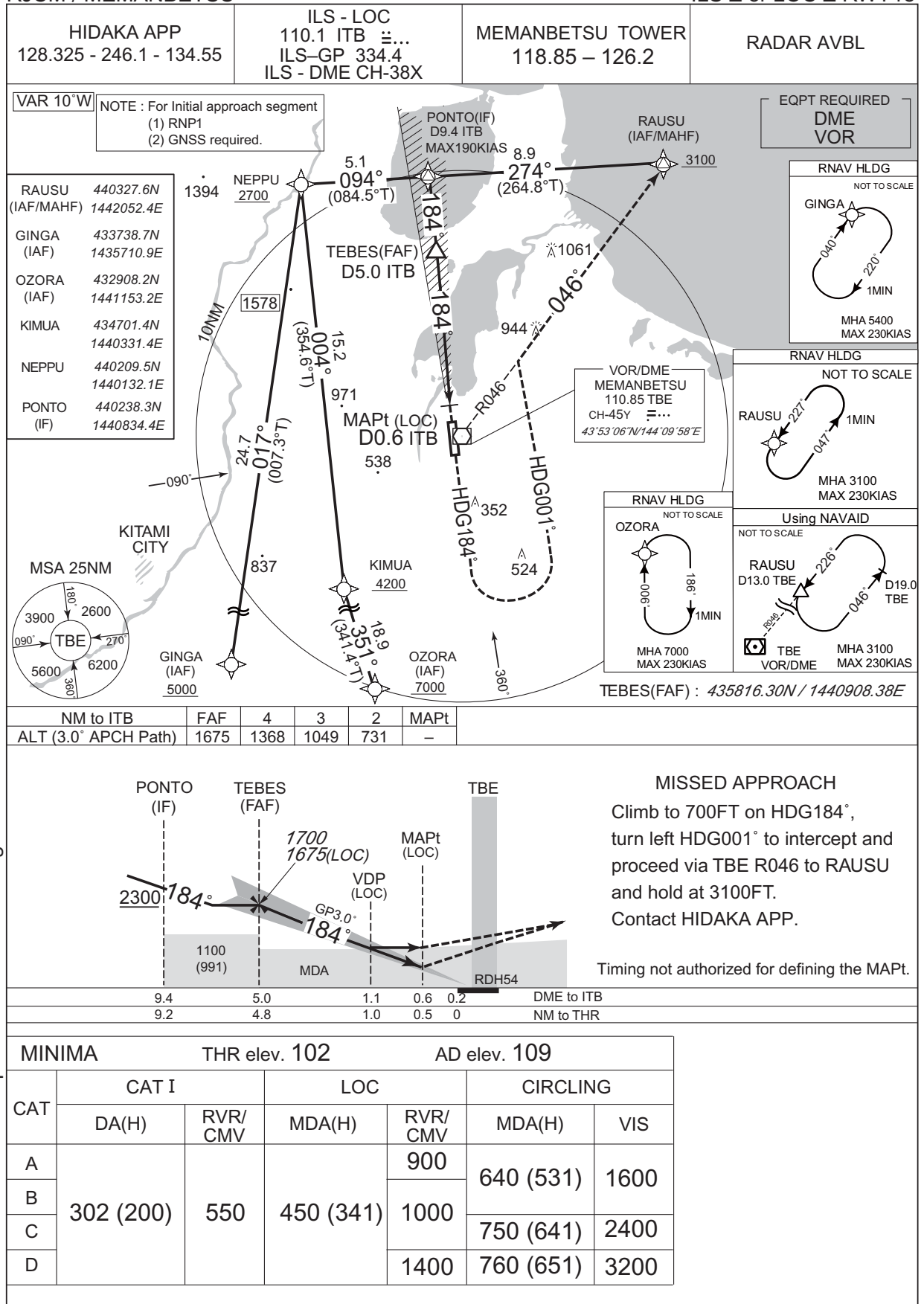
Waypoint Identifier	Coordinates
BISAK	434808.9N / 1441026.9E
AKNEP	434859.1N / 1435906.4E
NULKI	433301.6N / 1435313.7E

CHANGE : Waypoint Coordinates added.

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

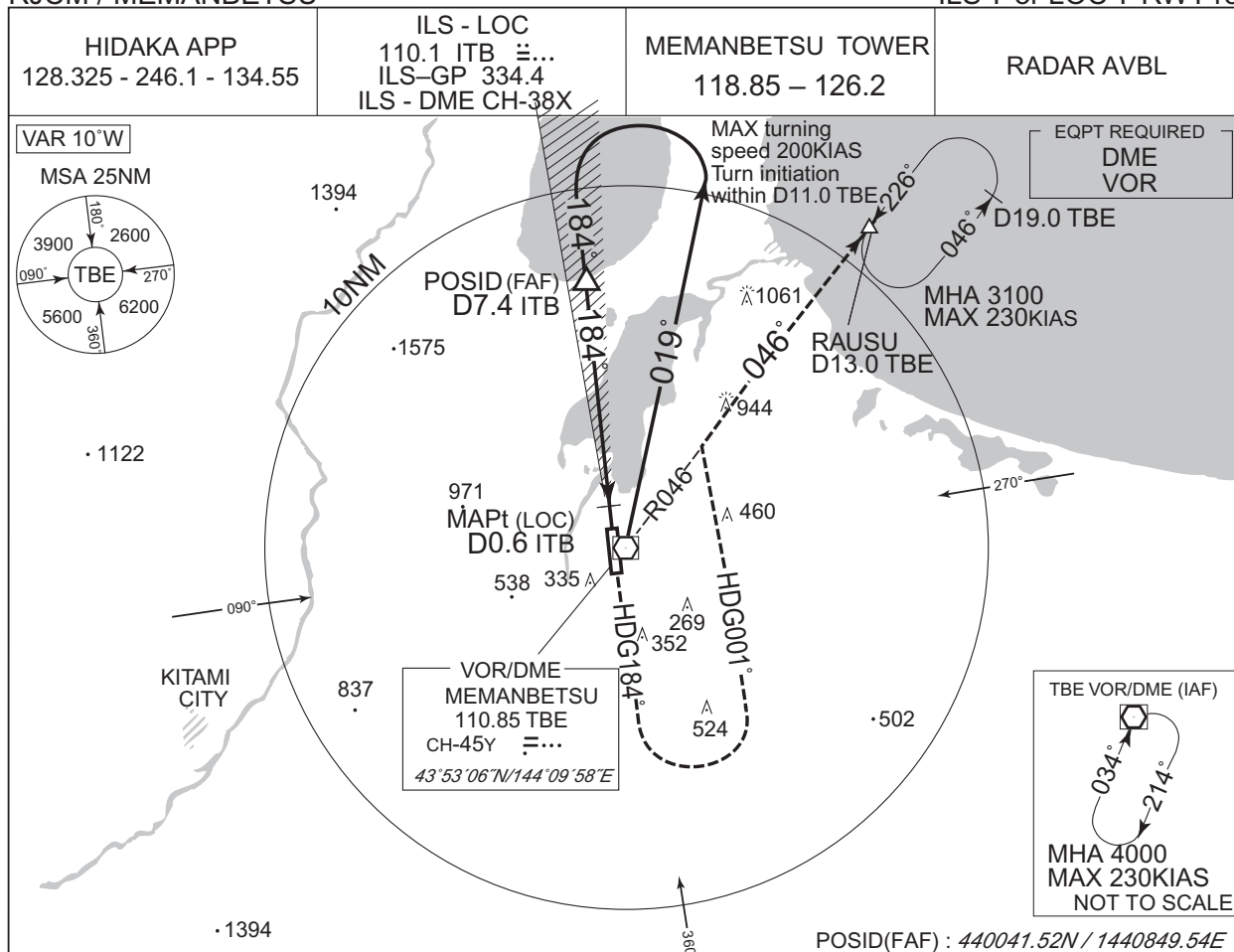
ILS Z or LOC Z RWY18



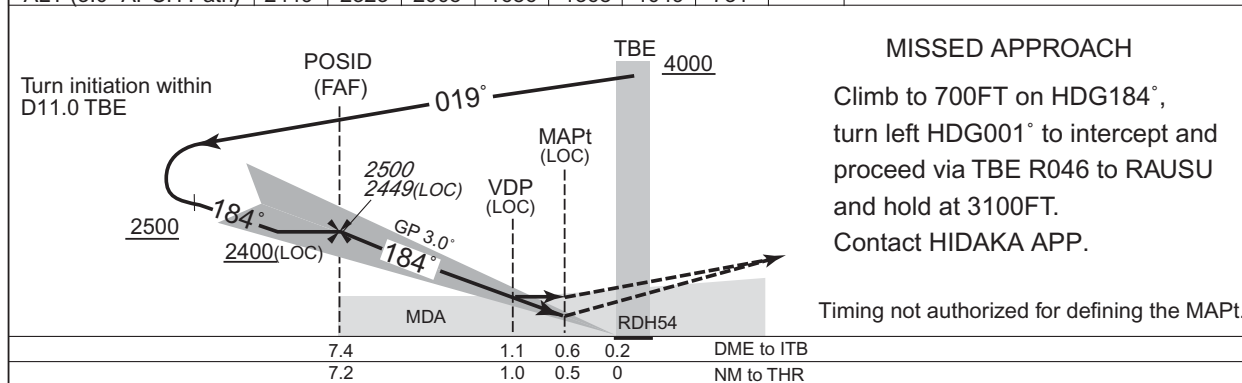
INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

ILS Y or LOC Y RWY18



NM to ITB	FAF	7	6	5	4	3	2	MAPt
ALT (3.0° APCH Path)	2449	2323	2005	1686	1368	1049	731	-



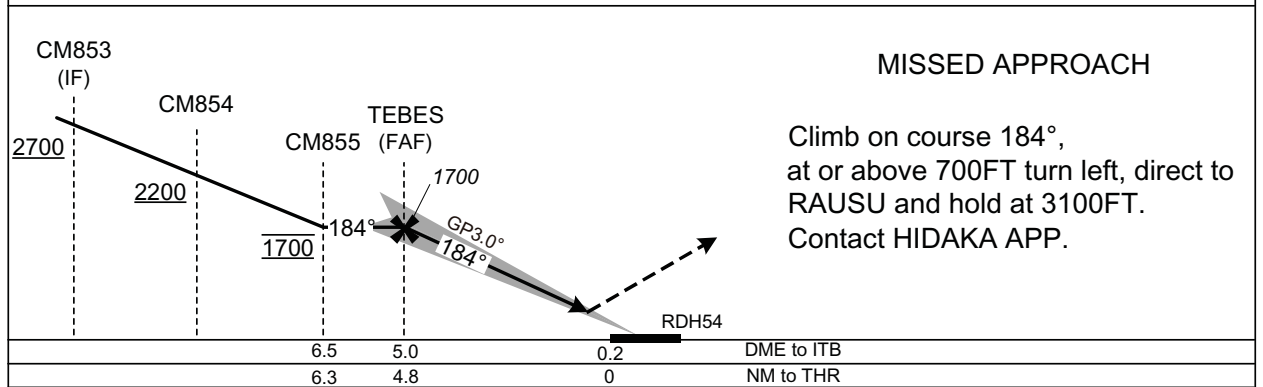
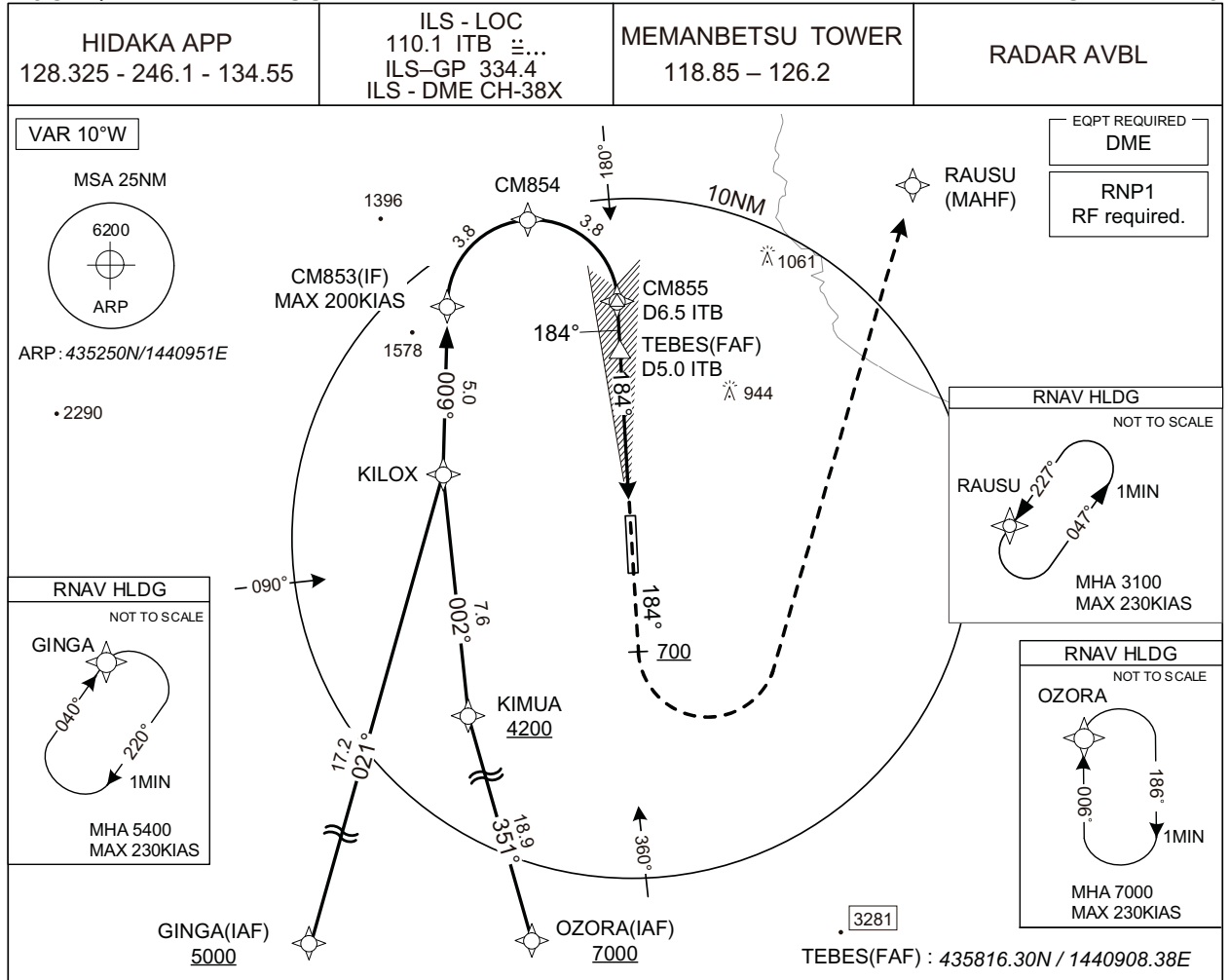
MINIMA		THR elev. 102		AD elev. 109	
CAT	CAT I	LOC	CIRCLING		
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H) VIS
A	302 (200)	550	450 (341)	900	640 (531) 1600
B				1000	750 (641) 2400
C				1400	760 (651) 3200
D					

CHANGE : VAR. POSID established. TANNO abolished.

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

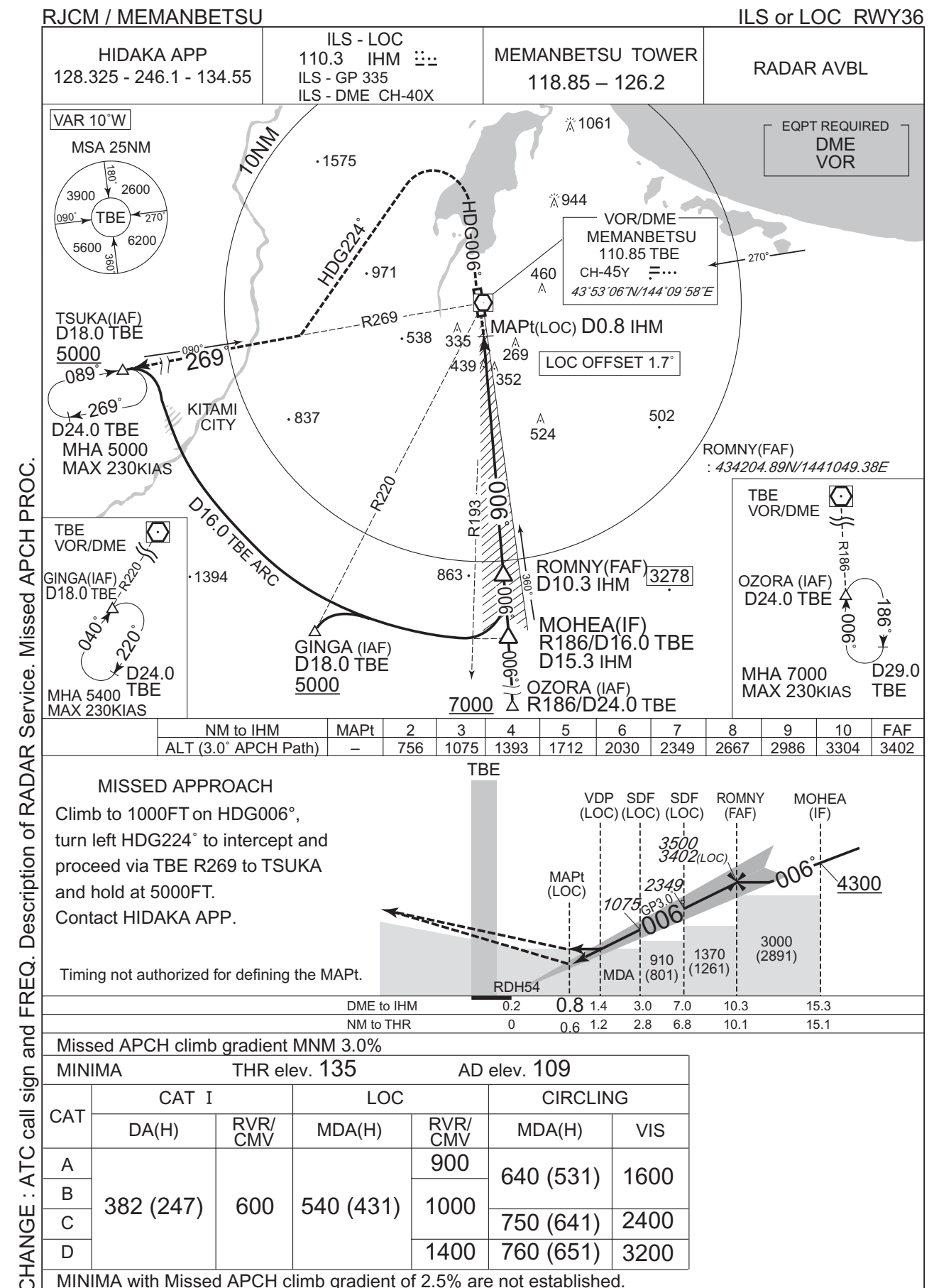
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	GINGA	-	-	-9.6	-	-	+5000	-	-	RNP1
002	TF	KILOX	-	021 (011.9)	-9.6	17.2	-	-	-	-	RNP1
003	TF	CM853	-	009 (359.2)	-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



RJCM / MEMANBETSU

HIDAKA APP

128.325 - 246.1 - 134.55

MEMANBETSU VOR/DME

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

MEMANBETSU TOWER

118.85 - 126.2

RADAR AVBL

VAR 10°W

MSA 25NM

1122

TBE VOR/DME (IAF)

MHA 4000
MAX 230KIAS

ABASI (FAF)
D7.0 TBE

MAPt
TBE

RAUSU
D13.0 TBE

D19.0 TBE

MHA 3100
MAX 230KIAS

EQPT REQUIRED
DME

MAX turning
speed 200KIAS

Turn initiation
within
D11.0 TBE

HDG001°

017°

181°

046°

226°

270°

090°

1061

944

460

269

352

524

502

863

3278

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

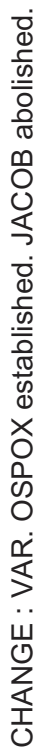
Climb to 900FT via TBE R181,
turn left HDG001° to intercept and
proceed via TBE R046 to RAUSU
and hold at 3100FT.
Contact HIDAKA APP.

Timing not authorized for defining the MAPt

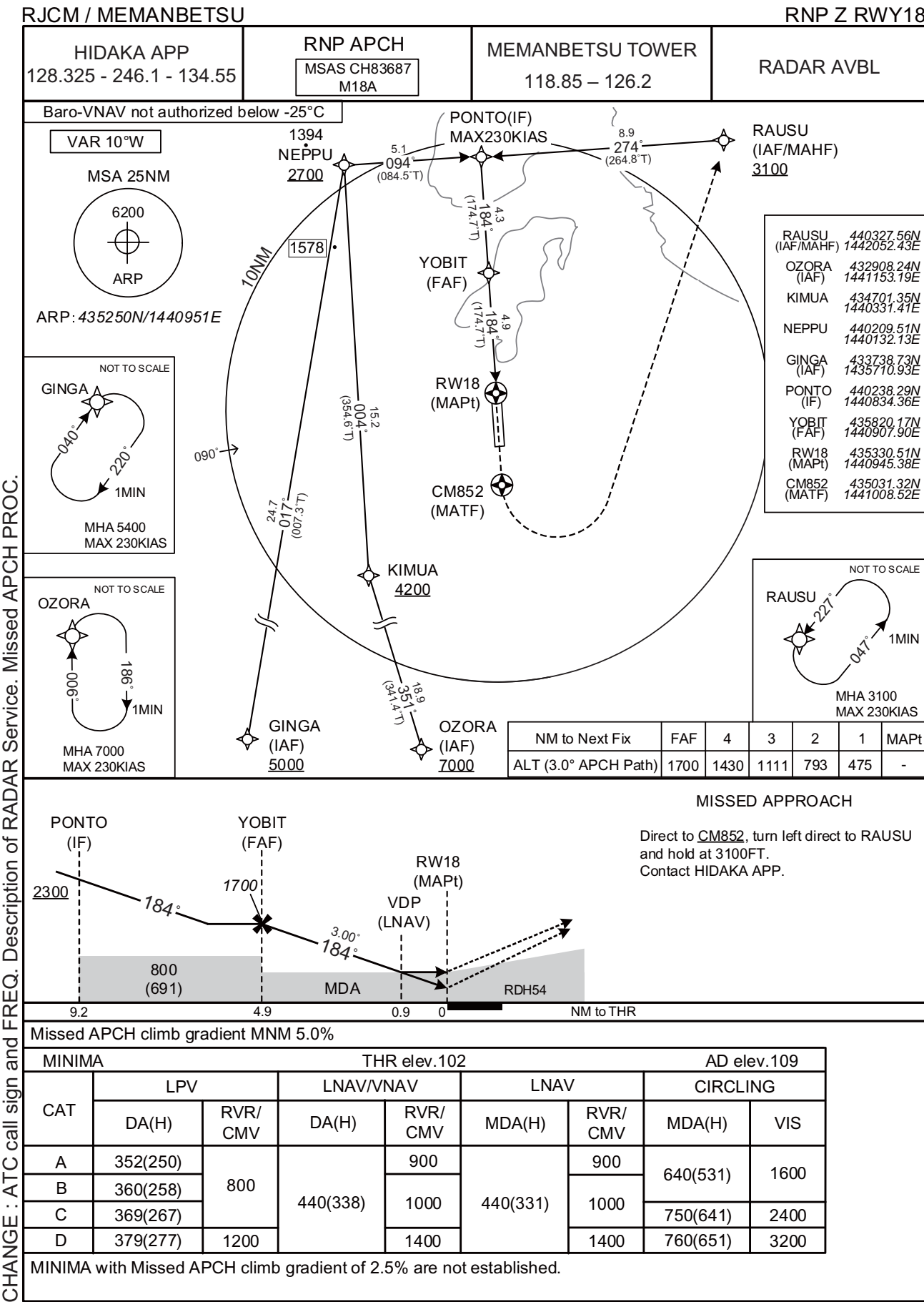
MINIMA	THR elev. 102	AD elev. 109			
CAT	MDA(H)	RVR/ CMV	CIRCLING	MDA(H)	VIS
A	480 (371)	900	640 (531)	1600	
B		1000			
C		1400			
D		1400			

RJCM / MEMANBETSU

VOR RWY36



INSTRUMENT APPROACH CHART



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

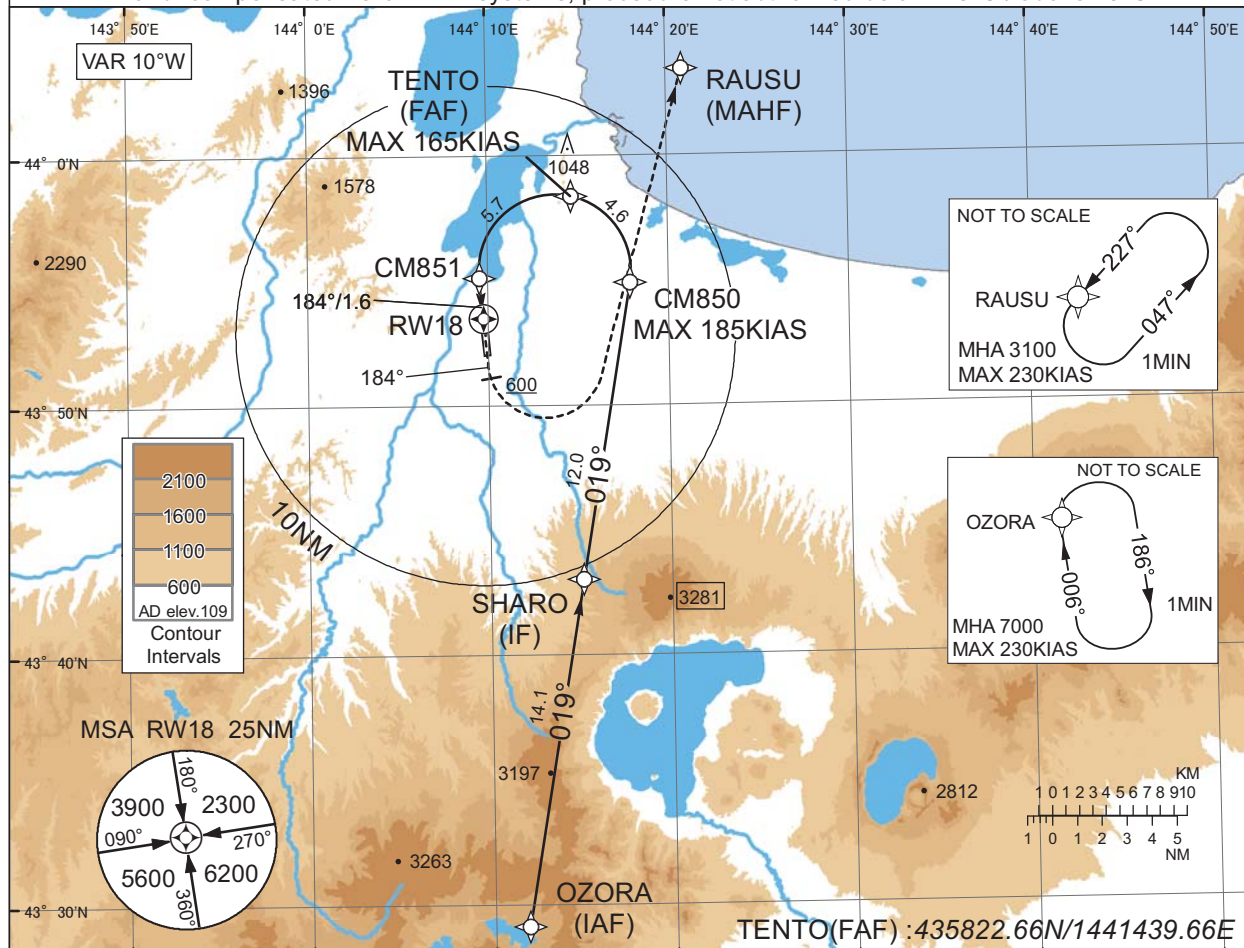
LTP/FTP orthometric height	31.0
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RJCM / MEMANBETSU

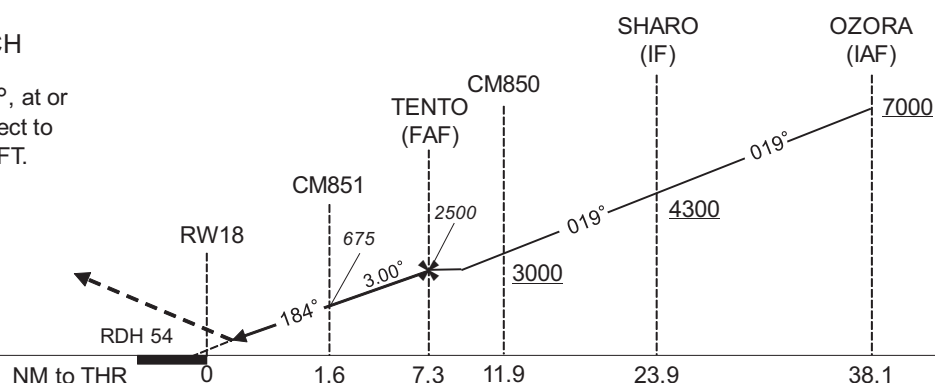
RNP Y RWY18(AR)

HIDAKA APP 128.325 - 246.1 - 134.55	RNP AR RF required	MEMANBETSU TOWER 118.85 - 126.2	RADAR AVBL
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For uncompensated Baro-VNAV systems, procedure not authorized below -25°C / above 45°C



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%	
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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

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Y RWY18(AR)

Coding Table

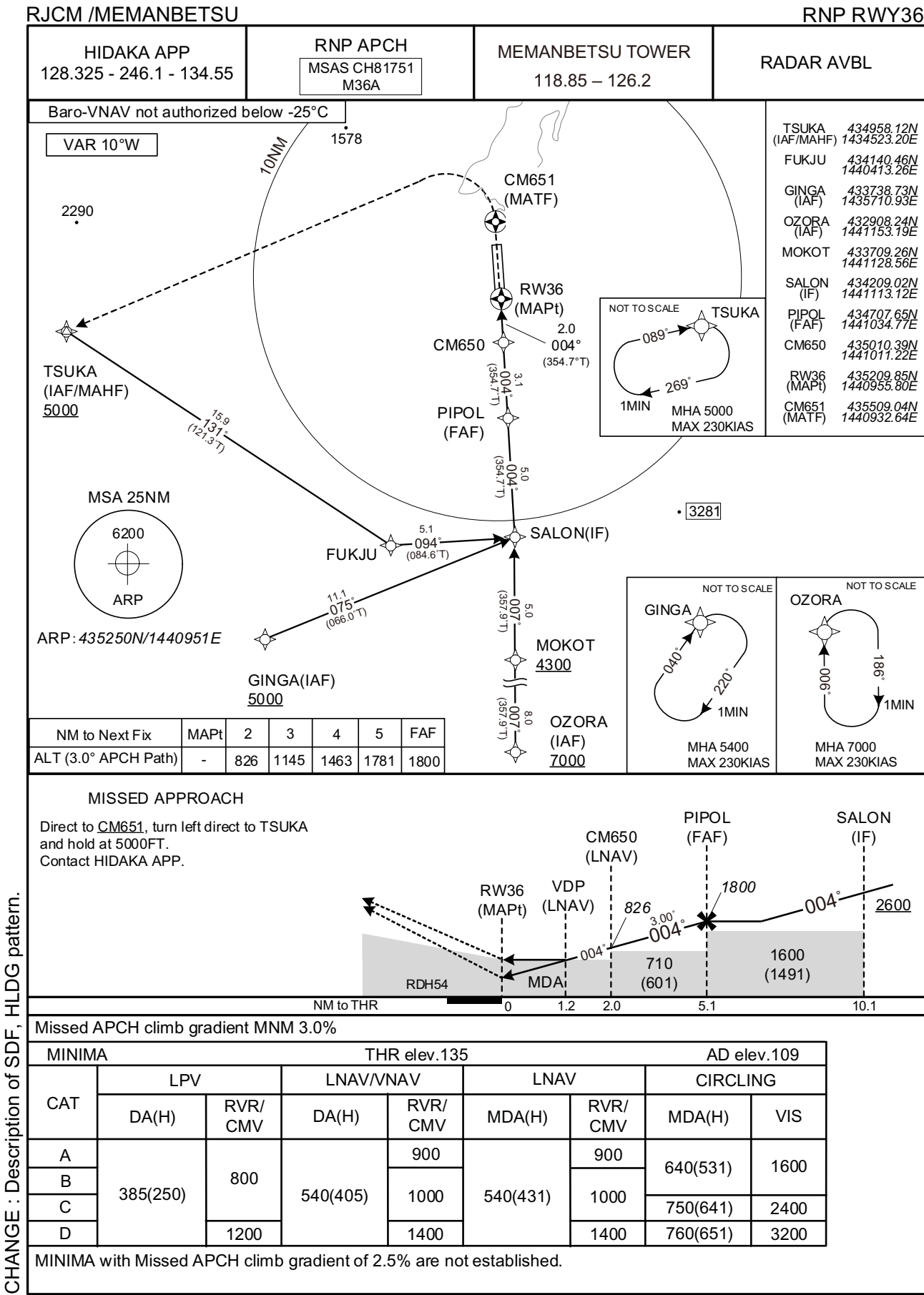
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/ RDH (°/FT)	RNP Value
001	IF	OZORA	-	-	-9.5	-	-	+7000	-	-	-
002	TF	SHARO	-	019 (009.5)	-9.5	14.1	-	+4300	-	-	1.0
003	TF	CM850	-	019 (009.6)	-9.5	12.0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



CHANGE : Description of SDF, HLDG pattern.

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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RJCM / MEMANBETSU

Visual REP



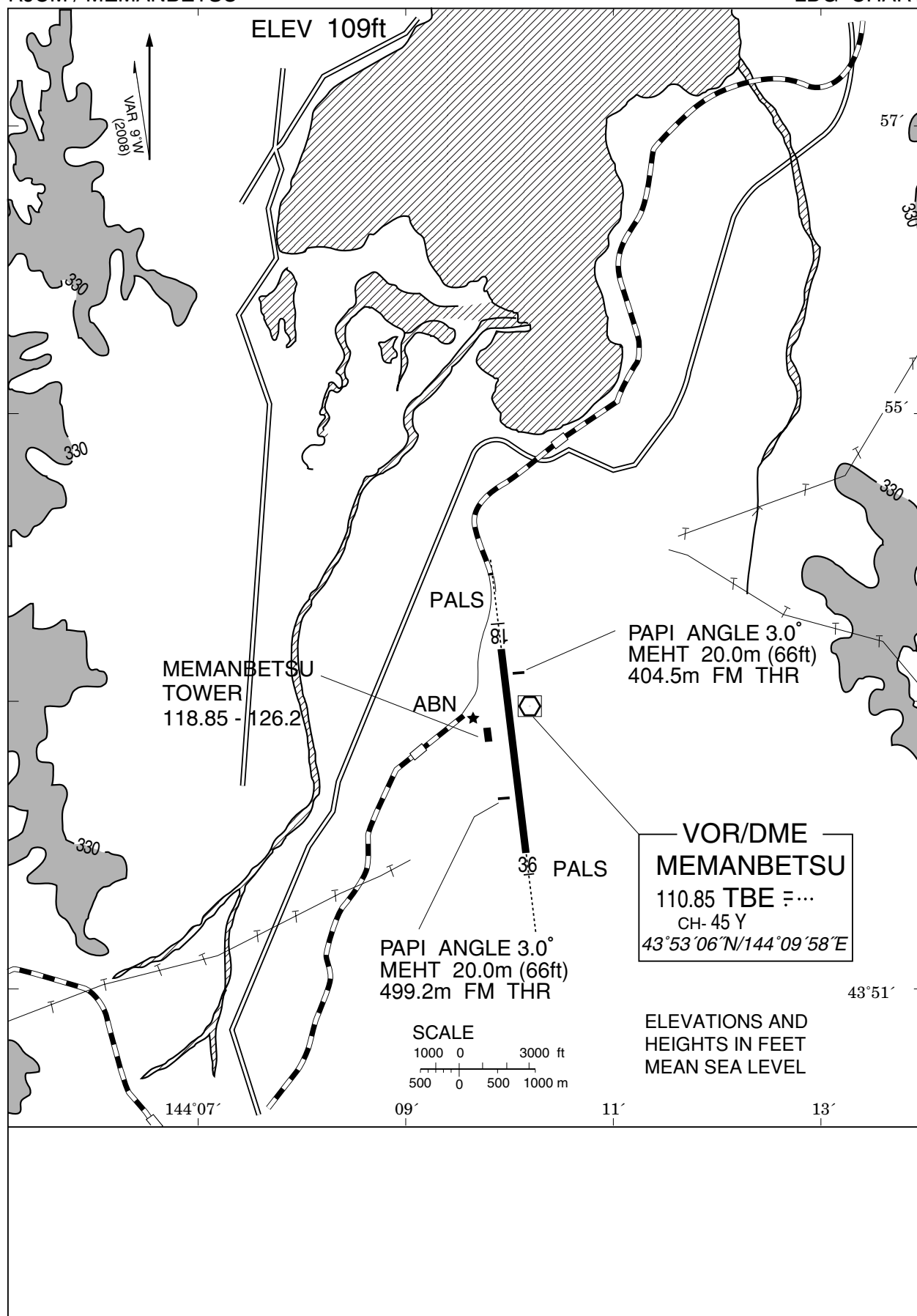
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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

