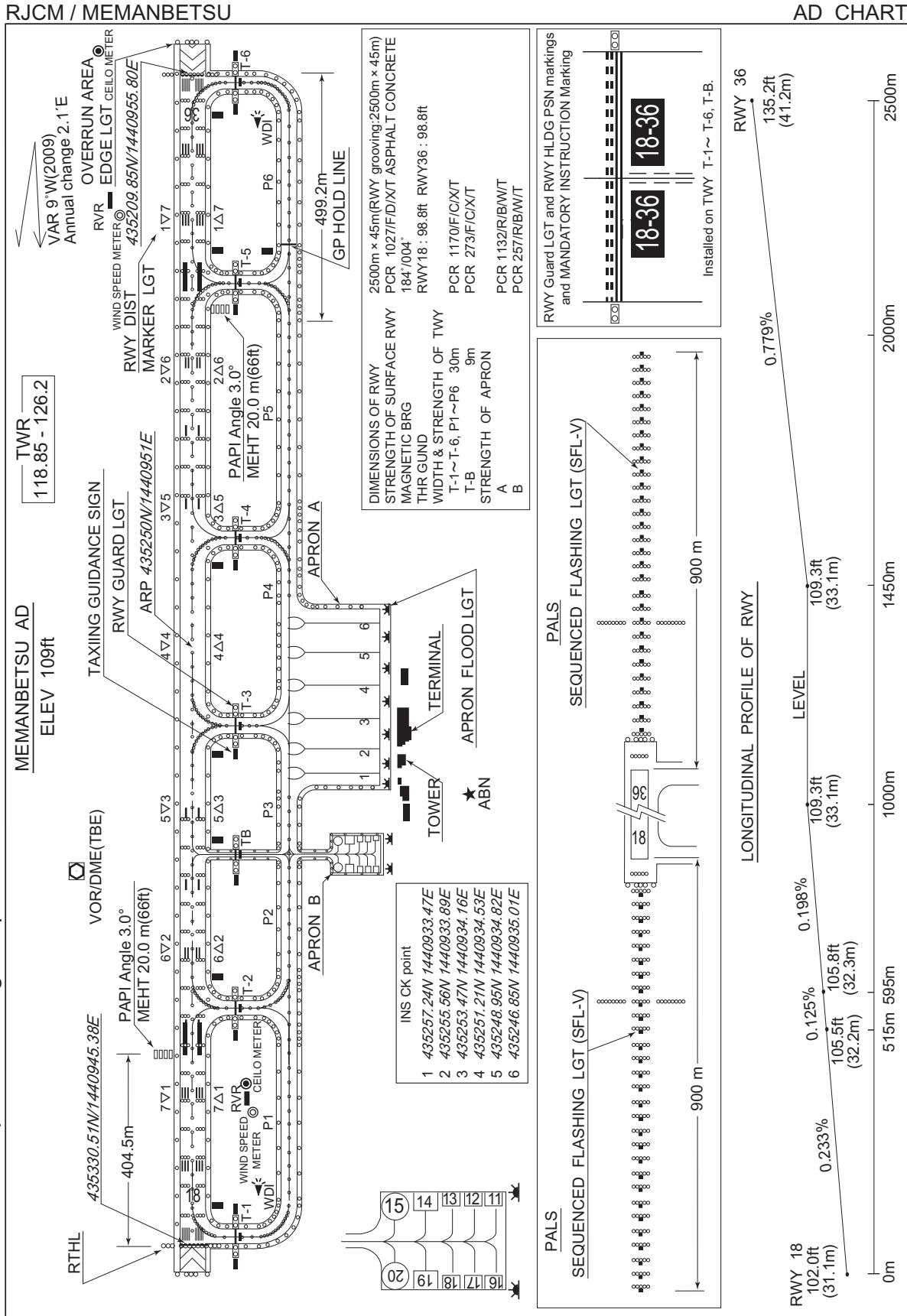


CHANGE : Description of strength of pavement.



STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

SID

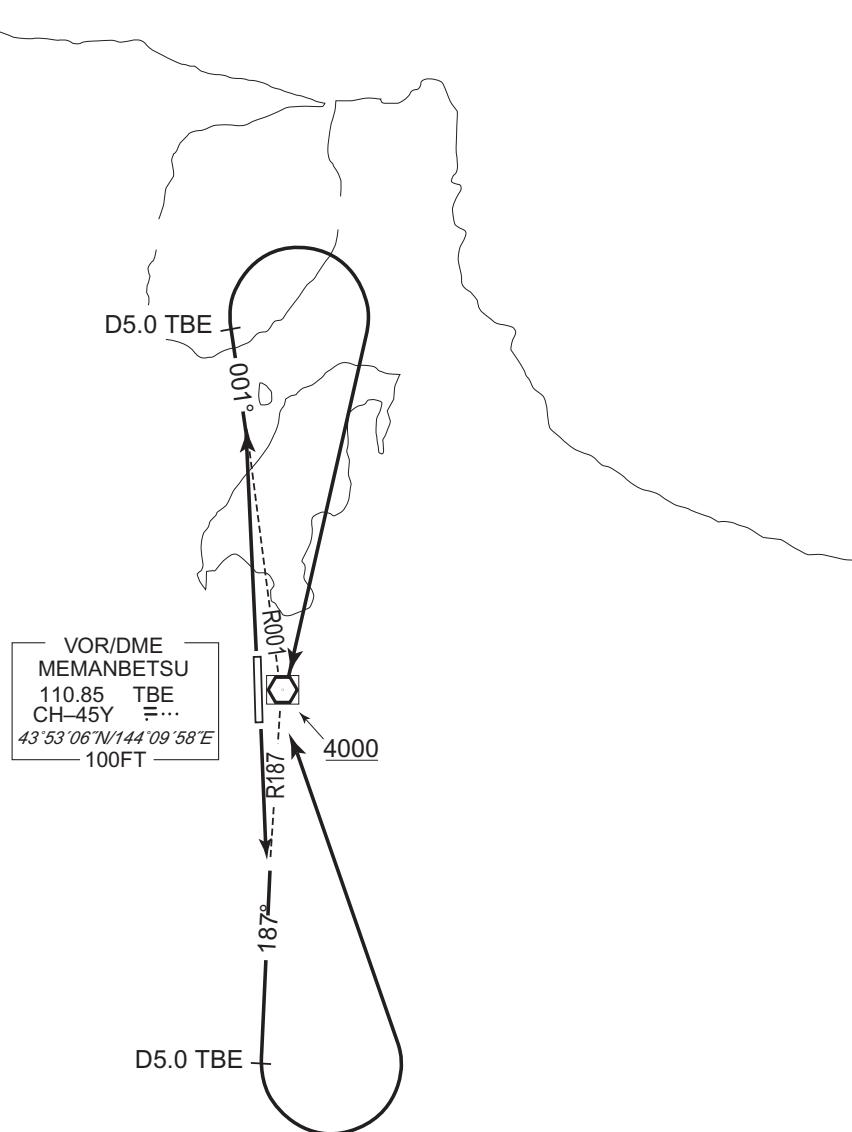
MEMANBETSU REVERSAL THREE DEPARTURE

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.

CHANGE : Description of PROC name.



STANDARD DEPARTURE CHART-INSTRUMENT

RJCM / MEMANBETSU

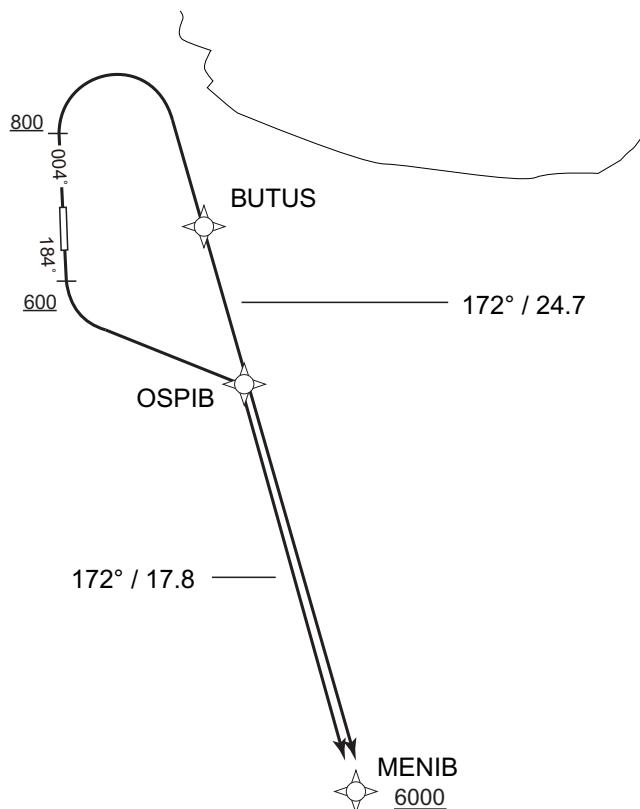
RNAV SID

MENIB ONE DEPARTURE

RNP1

Note GNSS required.

VAR 10° W



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.

CHANGE : Description of latitude and longitude.

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

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

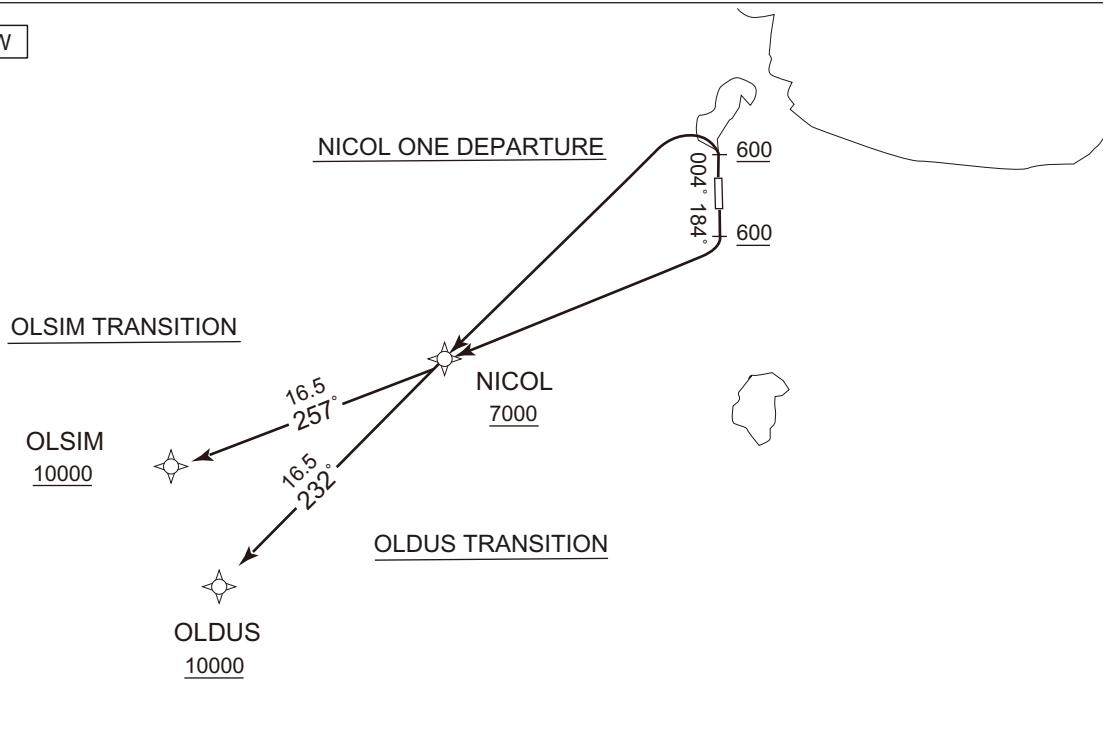
RNAV SID and TRANSITION

NICOL ONE DEPARTURE
OLSIM TRANSITION / OLDUS TRANSITION

RNP1

Note GNSS required.

VAR 10° W

NICOL ONE DEPARTURE

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.

OLSIM TRANSITION

From NICOL at or above 7000FT, to OLSIM at or above 10000FT.

OLDUS TRANSITION

From NICOL at or above 7000FT, to OLDUS at or above 10000FT.

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

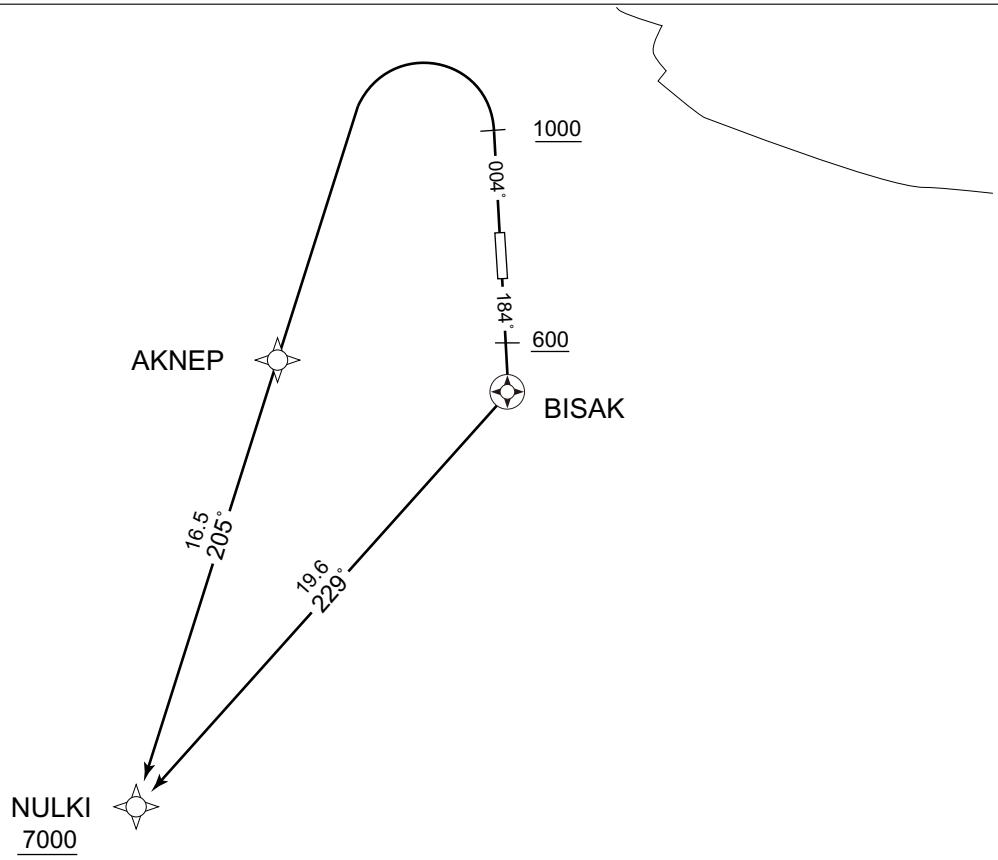
RNAV SID

NULKI ONE DEPARTURE

RNP1

Note GNSS required.

VAR 10°W

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

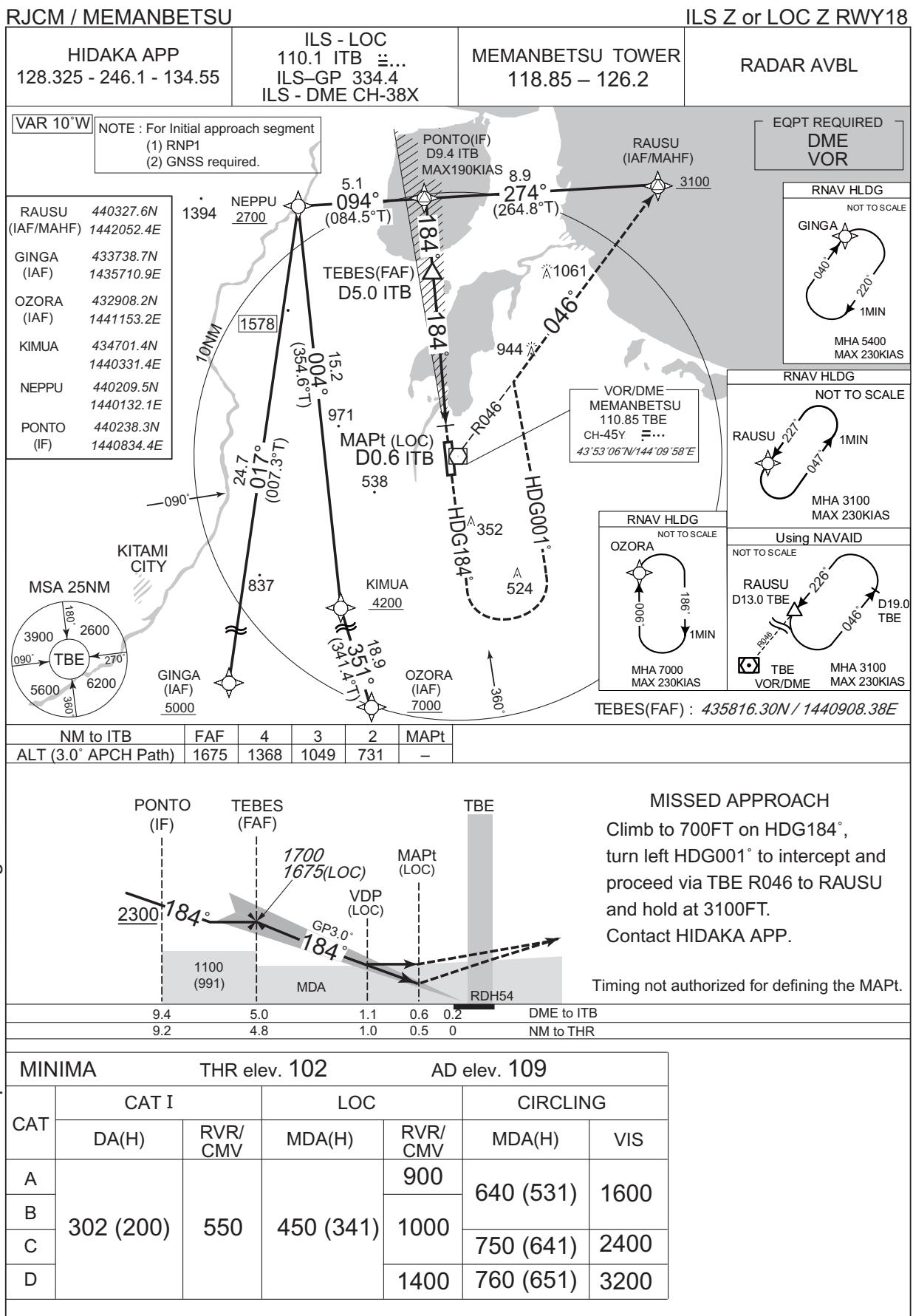
RNAV SID

Waypoint Coordinates

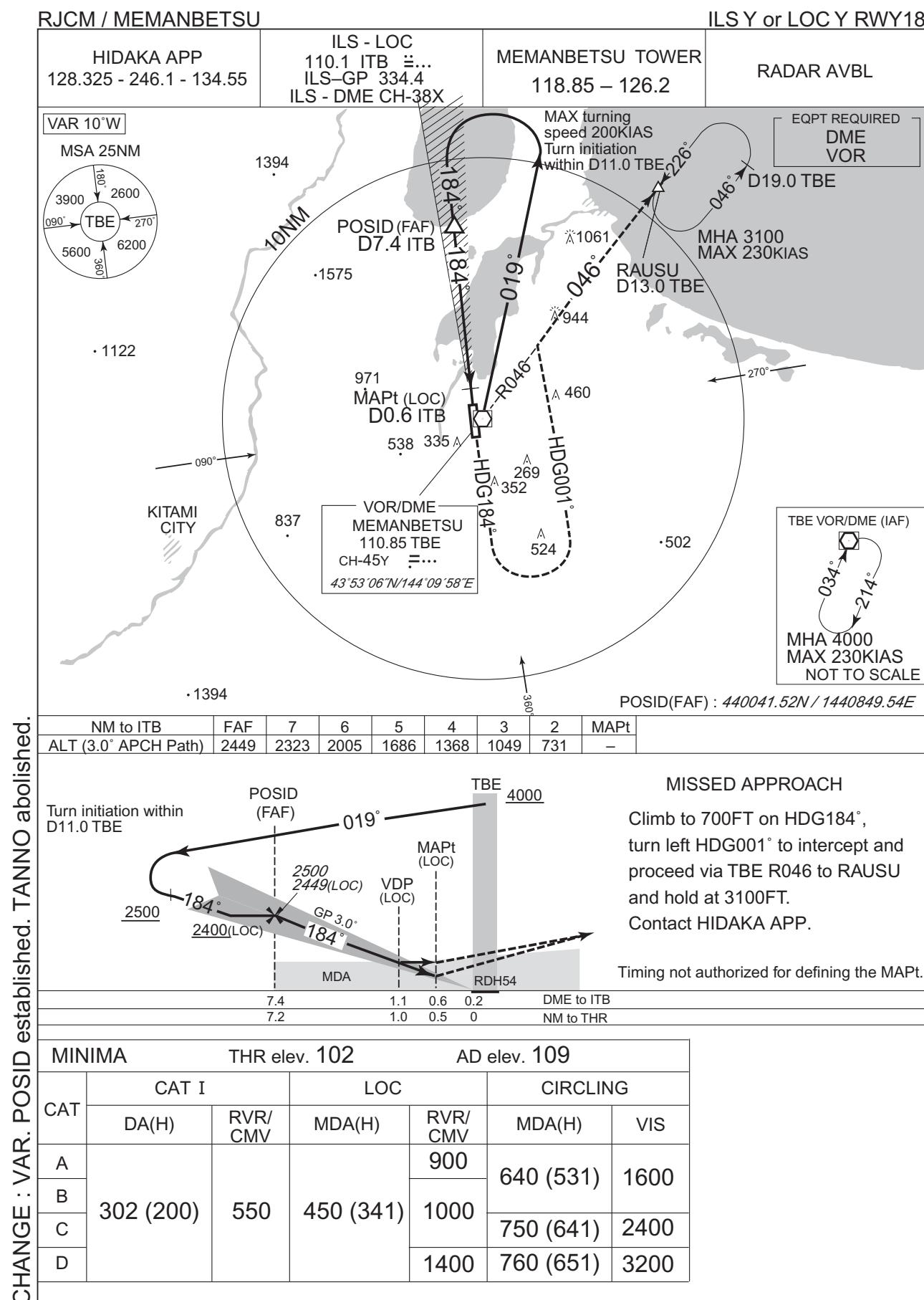
Waypoint Identifier	Coordinates
BISAK	434808.9N / 1441026.9E
AKNEP	434859.1N / 1435906.4E
NULKI	433301.6N / 1435313.7E

CHANGE : Waypoint Coordinates added.

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

ILS X RWY18

VAR 10°W

MSA 25NM
6200 ARP

ARP: 435250N/1440951E

• 2290

RNAV HLDG NOT TO SCALE
GINGA 040° 220° 1MIN
MHA 5400 MAX 230KIAS

RNAV HLDG NOT TO SCALE
OZORA 006° 180° 1MIN
MHA 7000 MAX 230KIAS

ILS - LOC
110.1 ITB ...
ILS - GP 334.4
ILS - DME CH-38X

MEMANBETSU TOWER
118.85 – 126.2

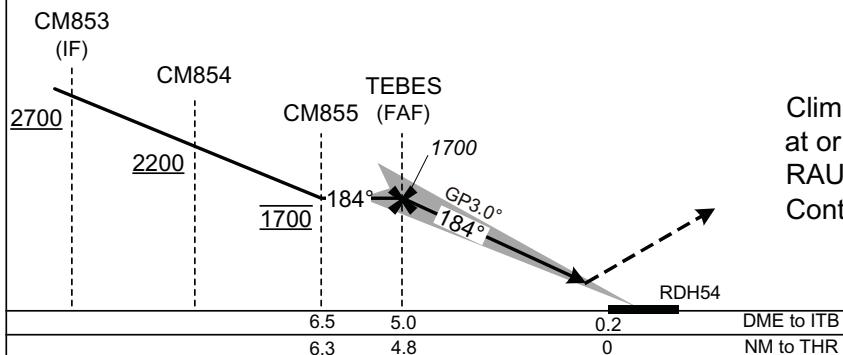
RADAR AVBL

RAUSU (MAHF)
EQPT REQUIRED DME
RNP1 RF required.

CM854
1396 180° 3.8 3.8 10NM
CM853(IF) MAX 200KIAS
1578 009° 5.0 184° 184° 944
KILOX 002° 7.6 184° + 700
KIMUA 4200 351° 18.9 360°
OZORA(IAF) 7000 3281
GINGA(IAF) 5000
TEBES(FAF) D6.5 ITB
D5.0 ITB
RAUSU 047° 1MIN
MHA 3100 MAX 230KIAS
TEBES(FAF) : 435816.30N / 1440908.38E

MISSED APPROACH

Climb on course 184°,
at or above 700FT turn left, direct to
RASU and hold at 3100FT.
Contact HIDAKA APP.



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

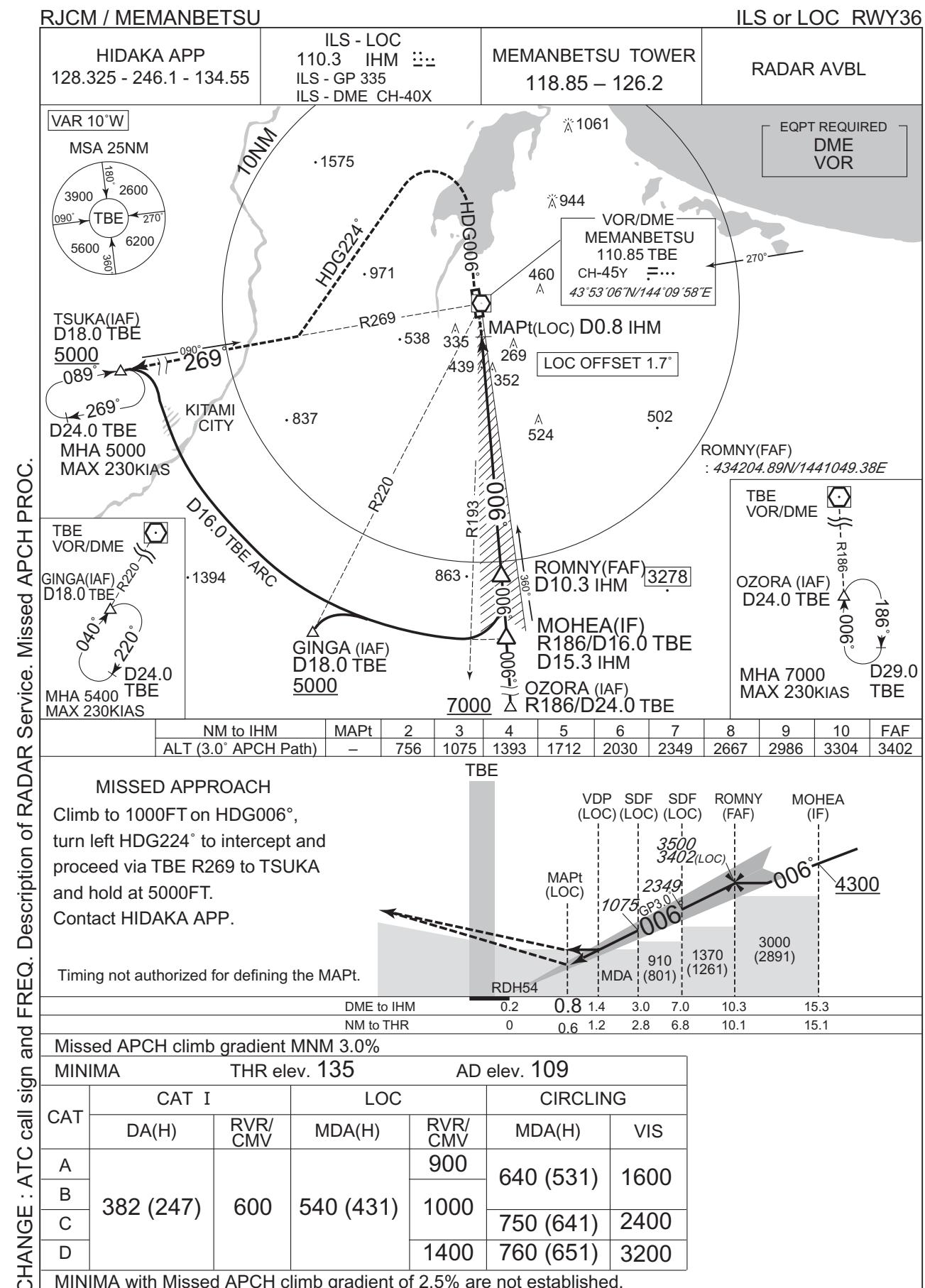
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	Navigation Specification
Hold	GINGA	040 (030.8)	-9.5	1.0 (-14000)	R	5400	FL140	-230 (-14000)	RNP1
Hold	OZORA	006 (356.7)	-9.5	1.0 (-14000)	R	7000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

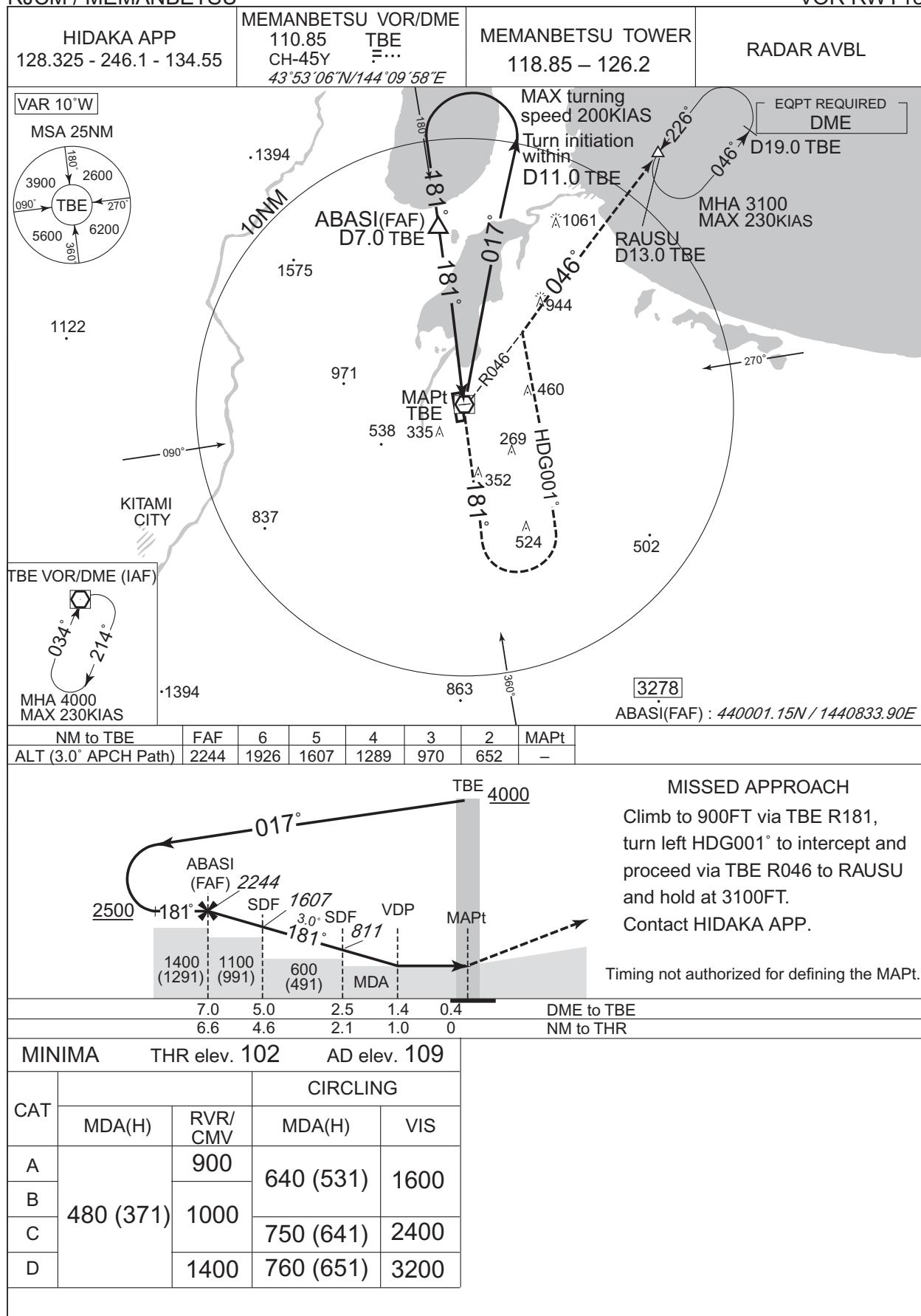
INSTRUMENT APPROACH CHART



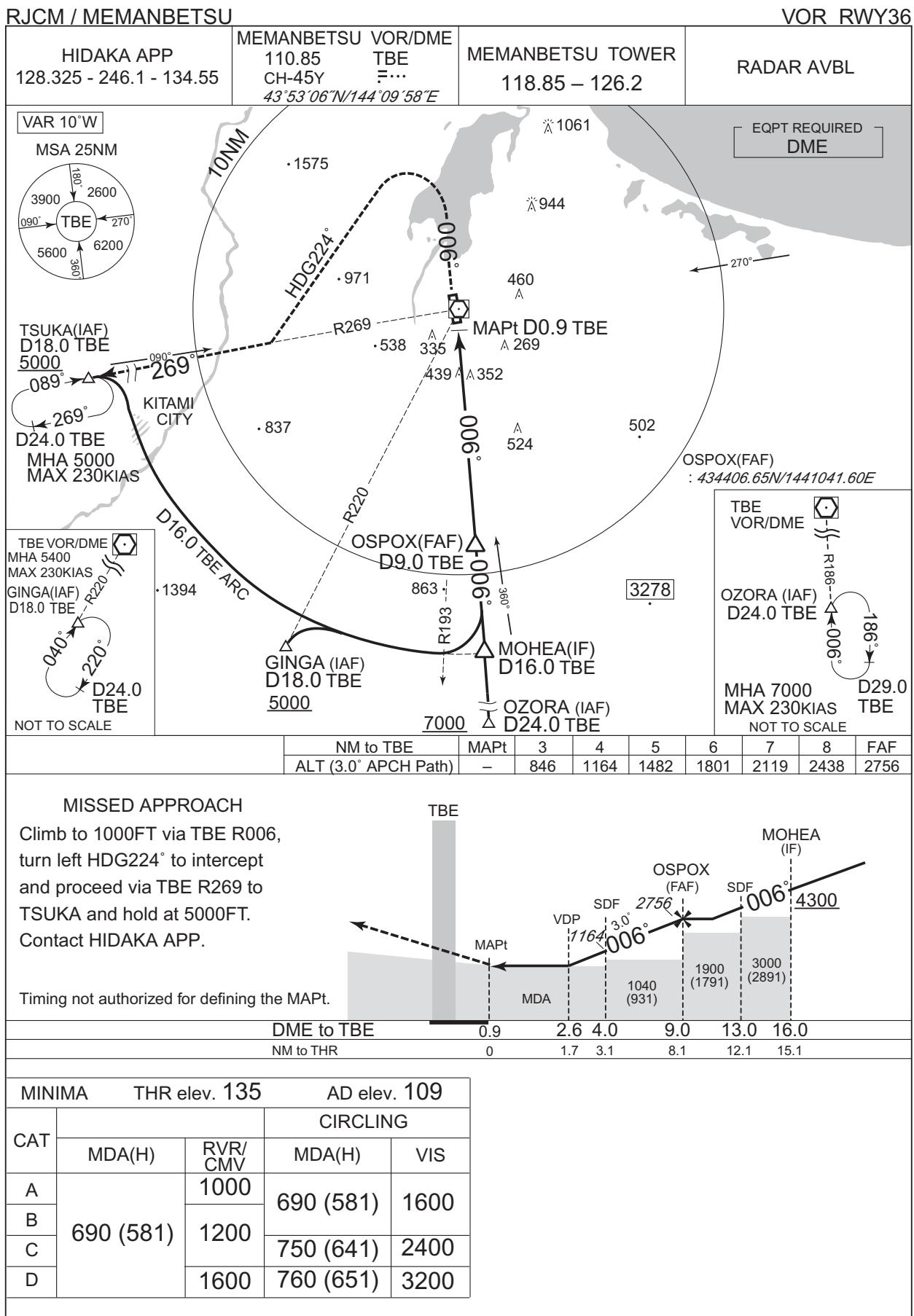
INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

VOR RWY18



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Z RWY18

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

NOT TO SCALE
GINGA
040° 220° 1MIN
MHA 5400 MAX 230KIAS

NOT TO SCALE
OZORA
060° 186° 1MIN
MHA 7000 MAX 230KIAS

1394 NEPPU 2700 1578 10NM 1394 NEPPU 2700 1578 10NM

PONTO(IF) MAX230KIAS 8.9 274° (264.8°T)

NEPPU 094° (084.5°T) 5.1 4.3 184° (174.7°T) 4.9 184° (174.7°T) 4.9

YOBIT (FAF) 184° (174.7°T) 184° (174.7°T)

RW18 (MAPt) CM852 (MATF)

KIMUA 4200

GINGA (IAF) 5000 OZORA (IAF) 7000

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
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** **-**

MISSED APPROACH

PONTO (IF) 2300 1700 800 (691) MDA RDH54

YOBIT (FAF) 184° 184° 3.00° 184°

RW18 (MAPt) VDP (LNAV)

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

9.2 4.9 0.9 0 NM to THR

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	900	440(331)	900	640(531)	1600	
B	360(258)		1000		1000		750(641)	2400
C	369(267)		1400		1400		760(651)	3200
D	379(277)		1200					

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

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP Z RWY18

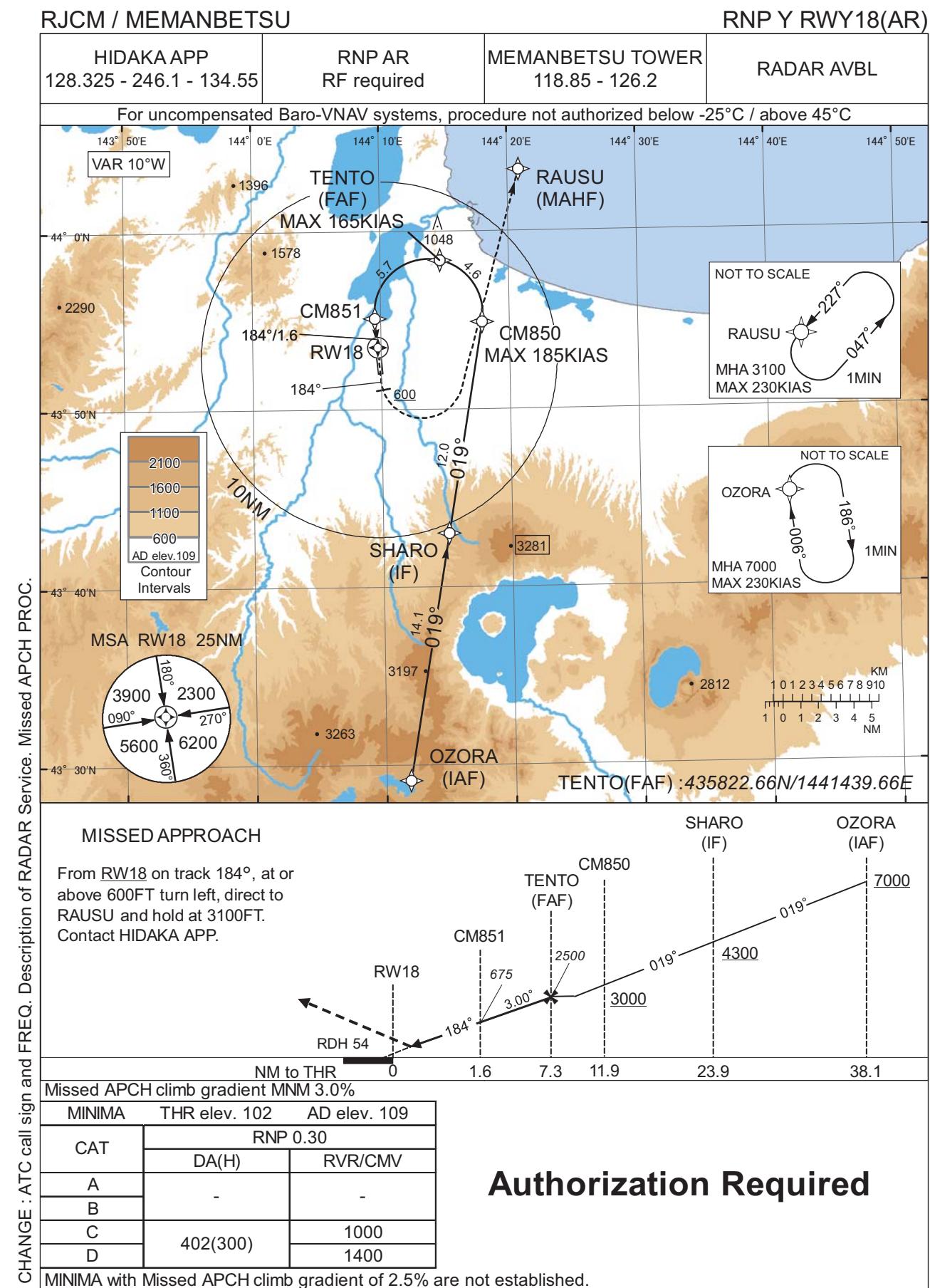
FAS DATA BLOCK

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	Δ 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



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

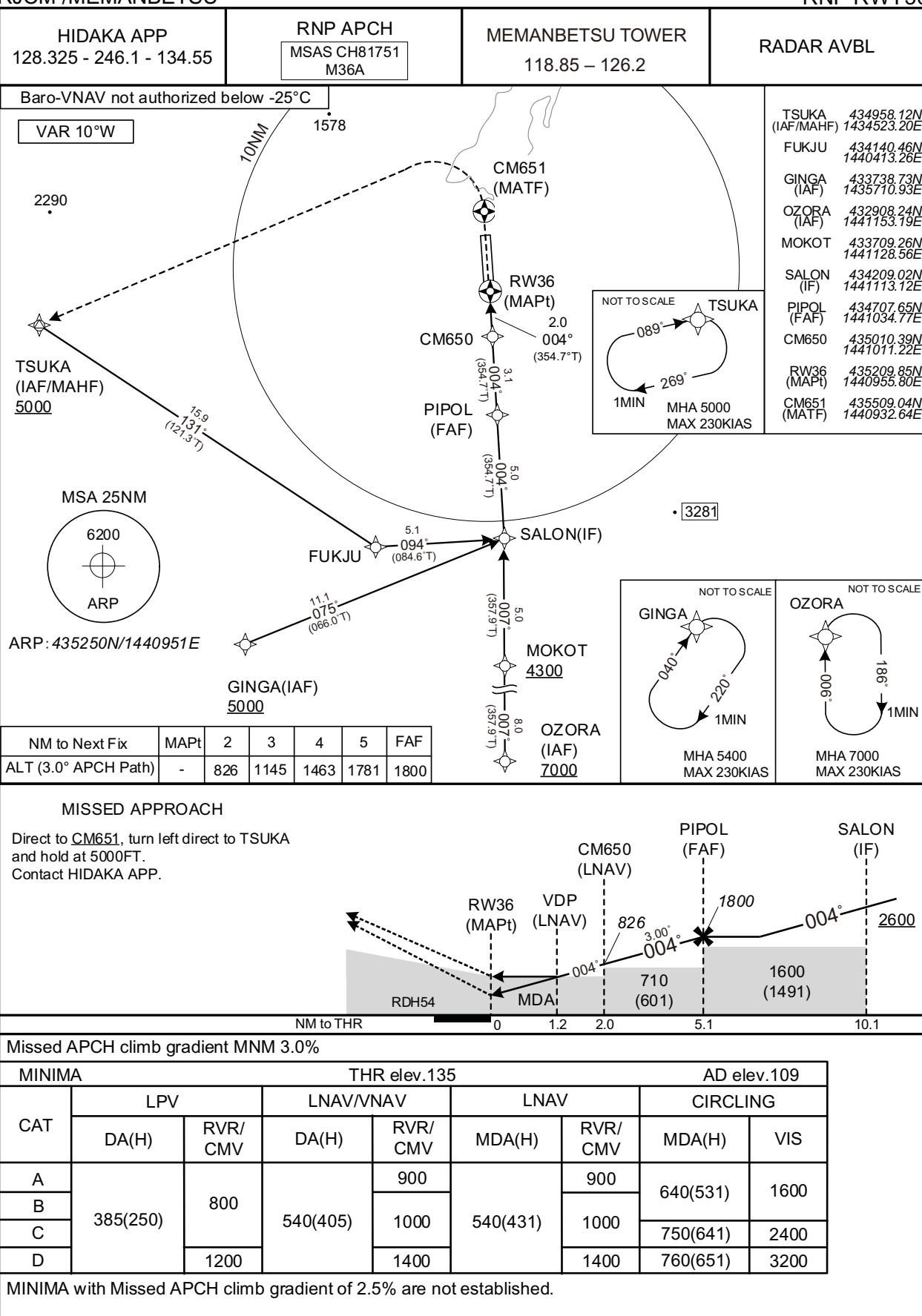
Waypoint Coordinates

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 : Description of SDF, HLDG pattern.

INSTRUMENT APPROACH CHART

RJCM / MEMANBETSU

RNP RWY36

FAS DATA BLOCK

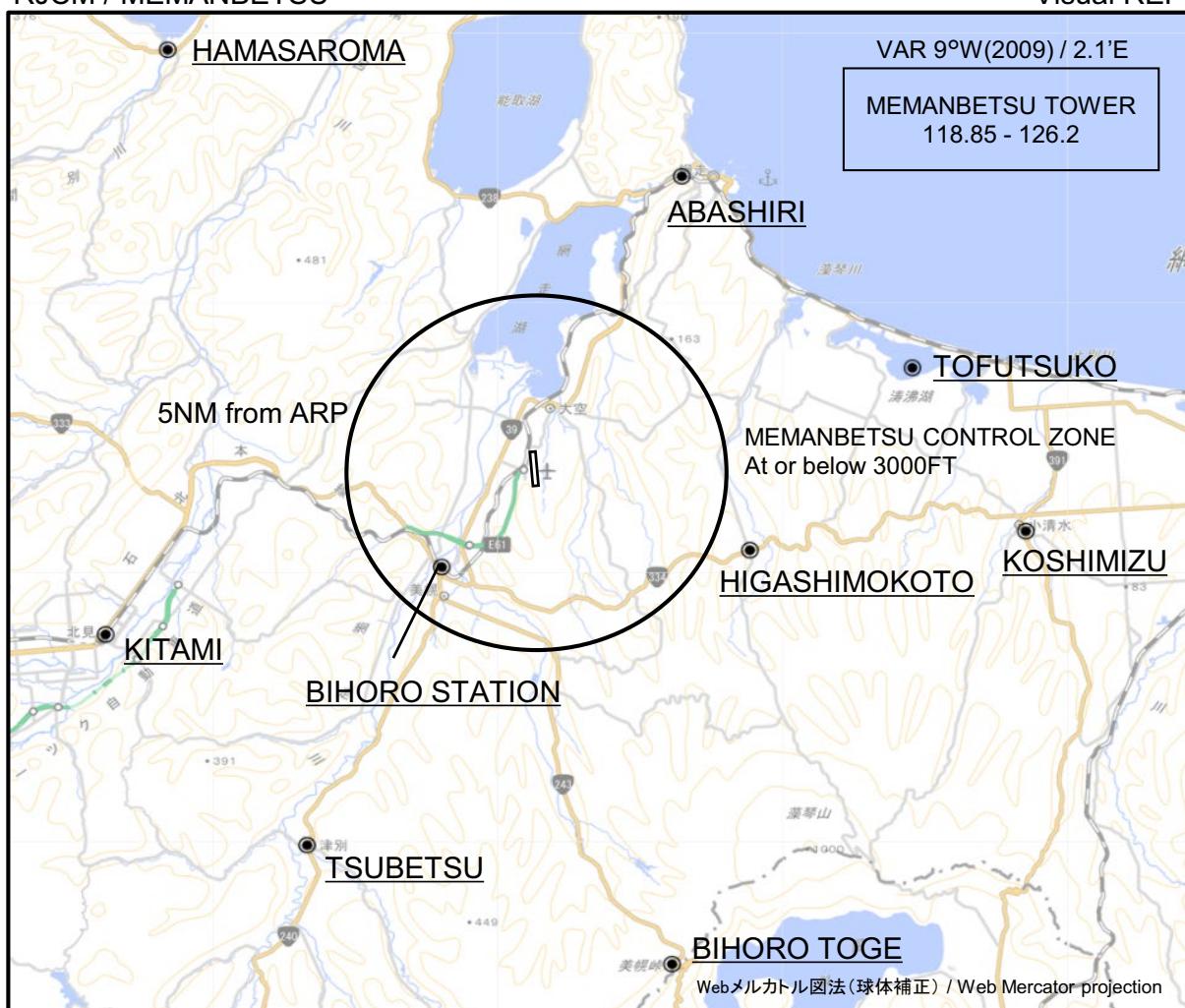
Operation type	0	LTP/FTP ellipsoidal height	+00719
SBAS service provider identifier	2	FPAP latitude	435330.4920N
Airport identifier	RJCM	FPAP longitude	1440945.3395E
Runway	36	Threshold crossing height	00016.5
Approach performance designator	0	TCH units selector	1
Route indicator		Glide path angle	03.00
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



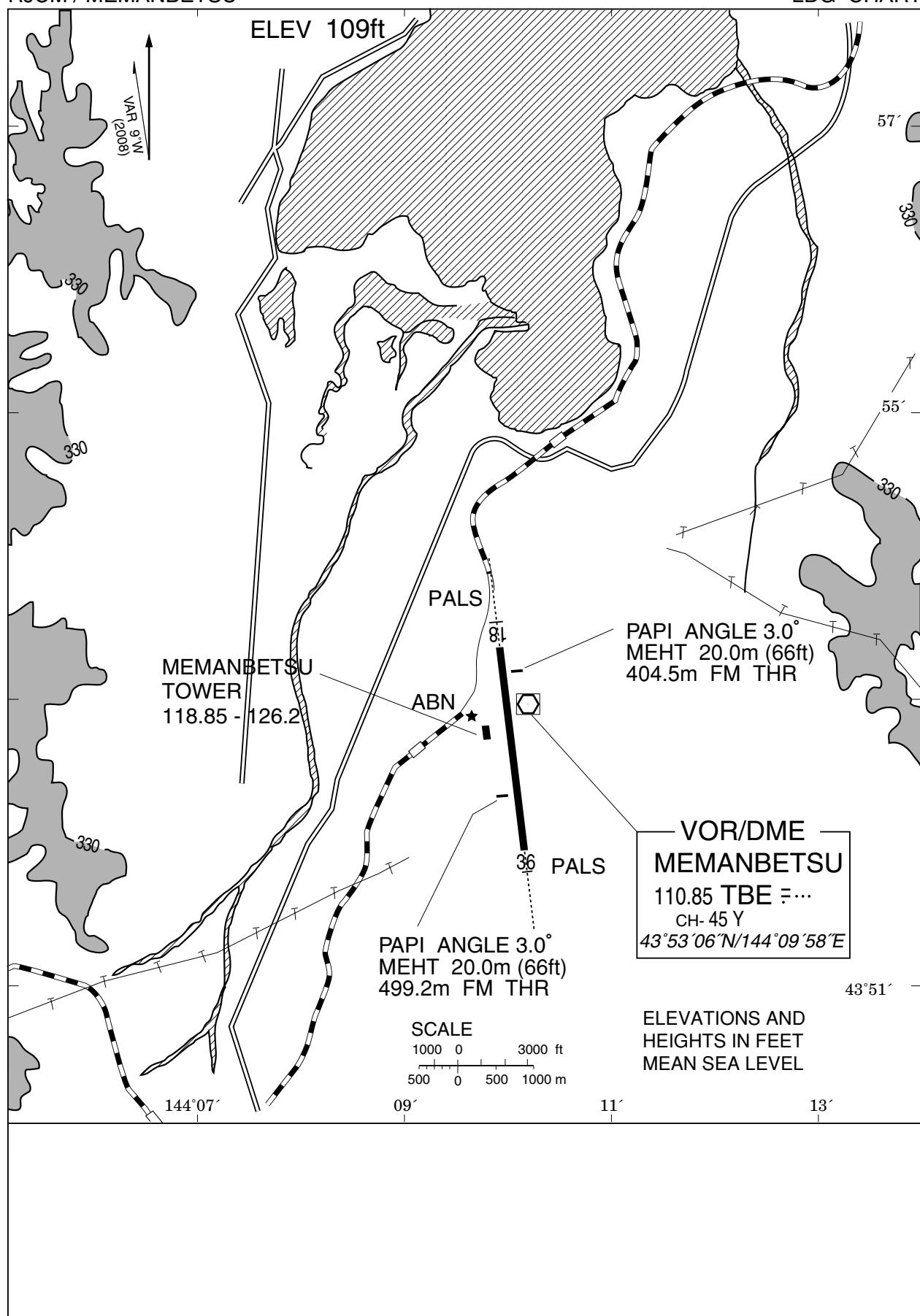
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

CHANGE : Map updated. BRG/DIST from ARP.

Call sign	BRG / DIST from ARP	Remarks
網走 Abashiri	025°T / 9.2NM	JR駅 Station
濤沸湖 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

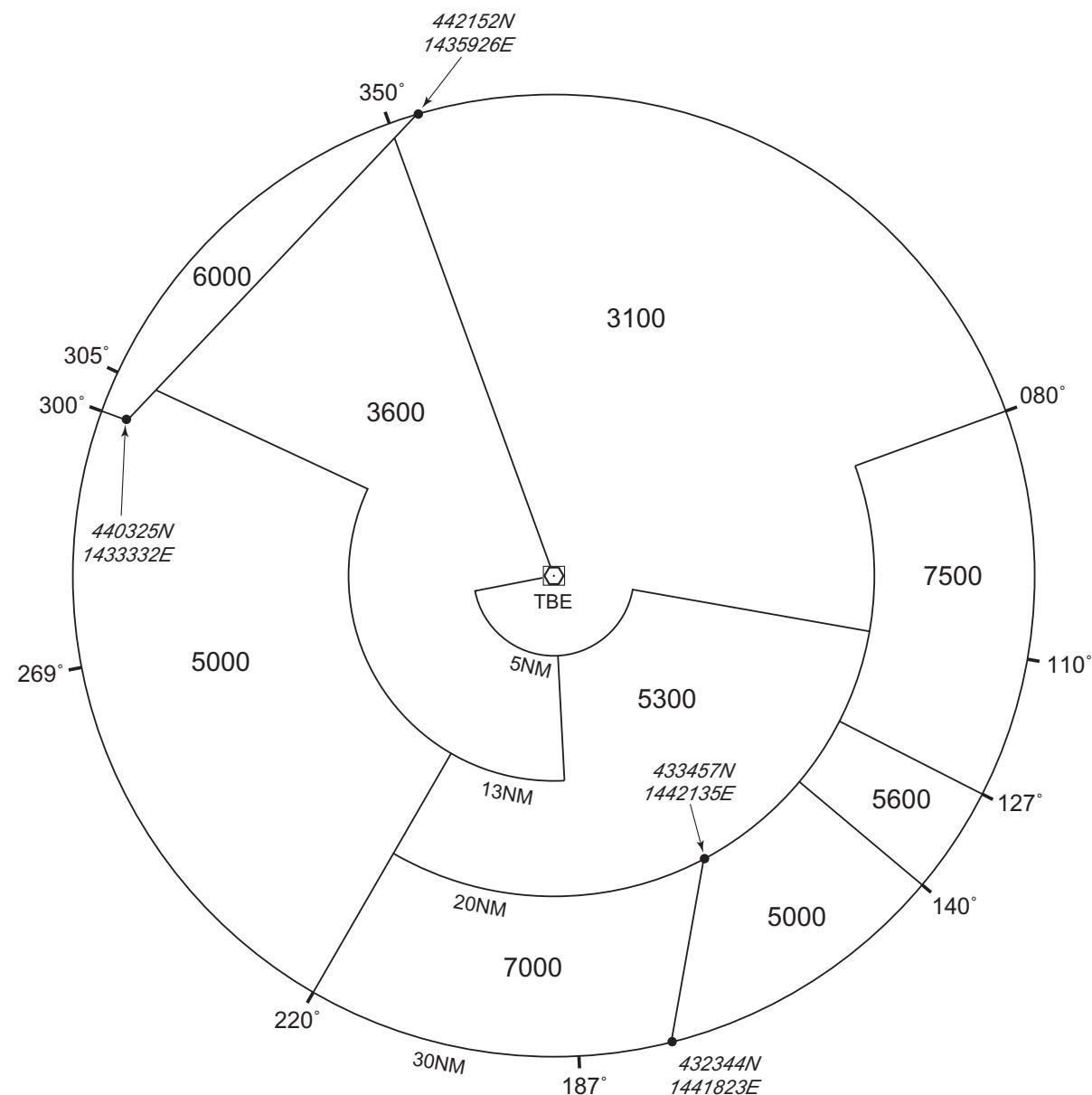


RJCM / MEMANBETSU

Minimum Vectoring Altitude CHART

VAR 9°W (2010)

CHANGE : Bearing of KSE deleted.



CENTER : 435306N/1440958E (TBE VOR/DME)