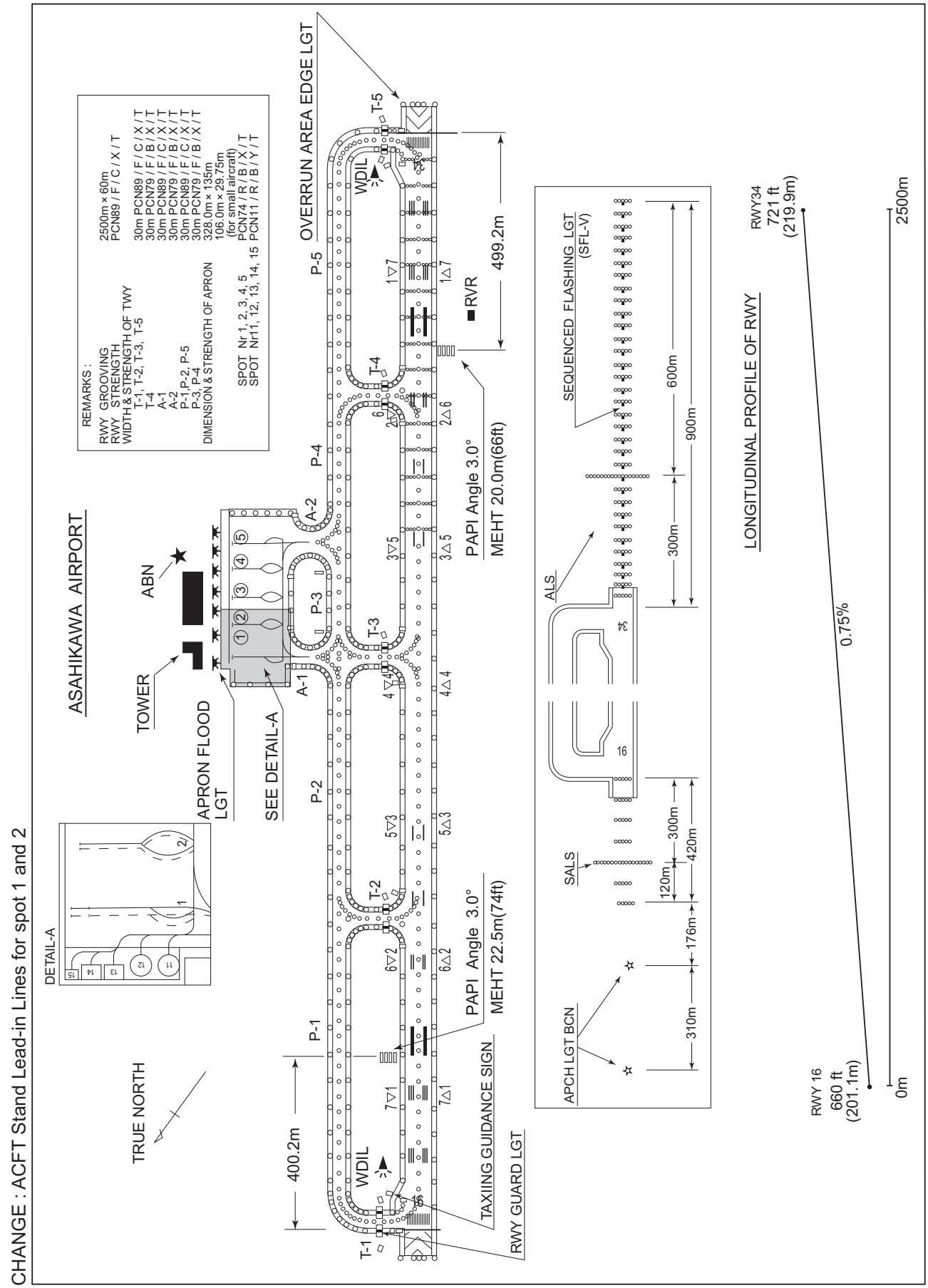
RJEC / ASAHIKAWA AD CHART



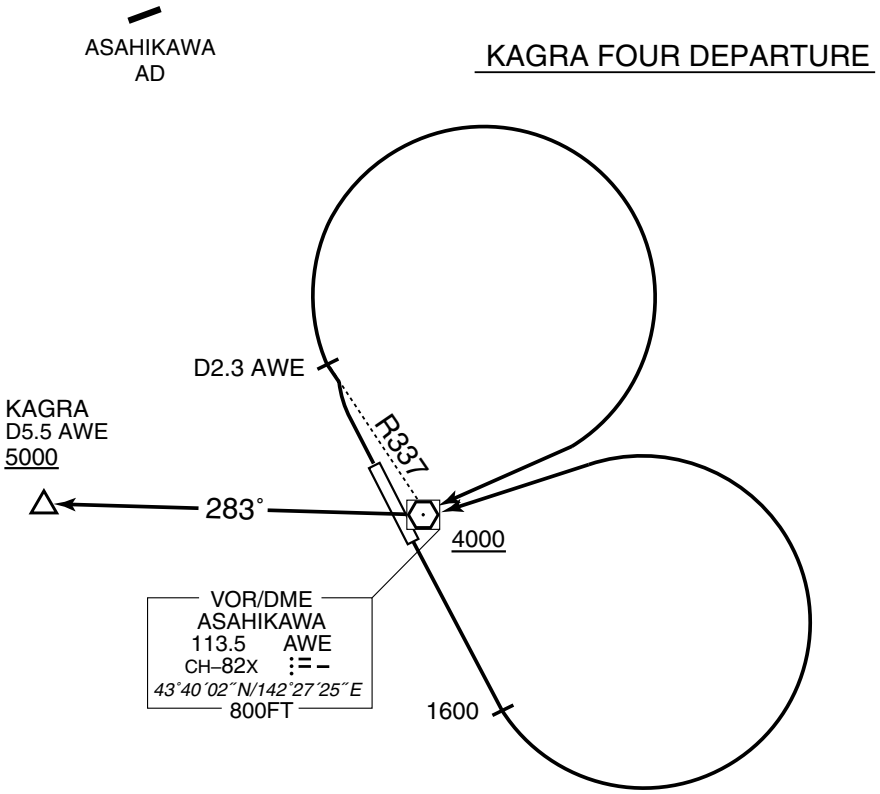
STANDARD DEPARTURE CHART-INSTRUMENT

RJEC / ASAHIKAWA SID

KAGRA FOUR DEPARTURE

RWY16 : Climb RWY HDG to 1600FT, turn left,...
RWY34 : Climb via AWE R337 to 2.3DME, turn right,...
...direct to AWE VOR/DME, via AWE R283 to KAGRA.
Cross AWE VOR/DME at or above 4000FT, cross KAGRA at or above 5000FT.

Note RWY16 : 5.3% climb gradient required up to 1600FT.
OBST ALT 1247FT located at 2.0NM 146˚ FM end of RWY16.
RWY34 : 5.0% climb gradient required up to 1000FT.
OBST ALT 696FT located at 1.4NM 021˚ FM end of RWY34.



STANDARD DEPARTURE CHART-INSTRUMENT

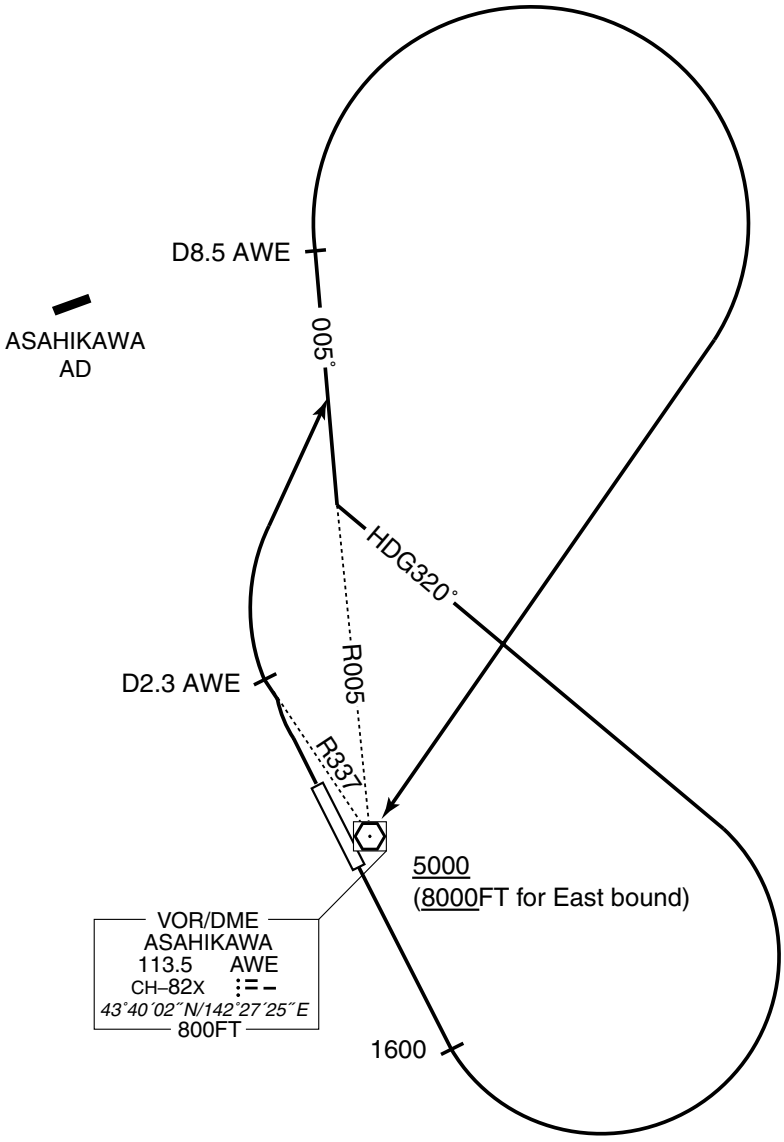
RJEC / ASAHIKAWA SID

ASAHIKAWA REVERSAL FIVE DEPARTURE

RWY16 : Climb RWY HDG to 1600FT, turn left HDG320˚ to intercept and proceed ...
RWY34 : Climb via AWE R337 to 2.3DME, turn right,...
... via AWE R005 to 8.5DME, turn right, direct to AWE VOR/DME.
Cross AWE VOR/DME at or above 5000FT (8000FT for East bound).

Note RWY16 : 5.3% climb gradient required up to 1600FT.
OBST ALT 1247FT located at 2.0NM 146˚ FM end of RWY16.

ASAHIKAWA REVERSAL FIVE DEPARTURE



STANDARD ARRIVAL CHART-INSTRUMENT

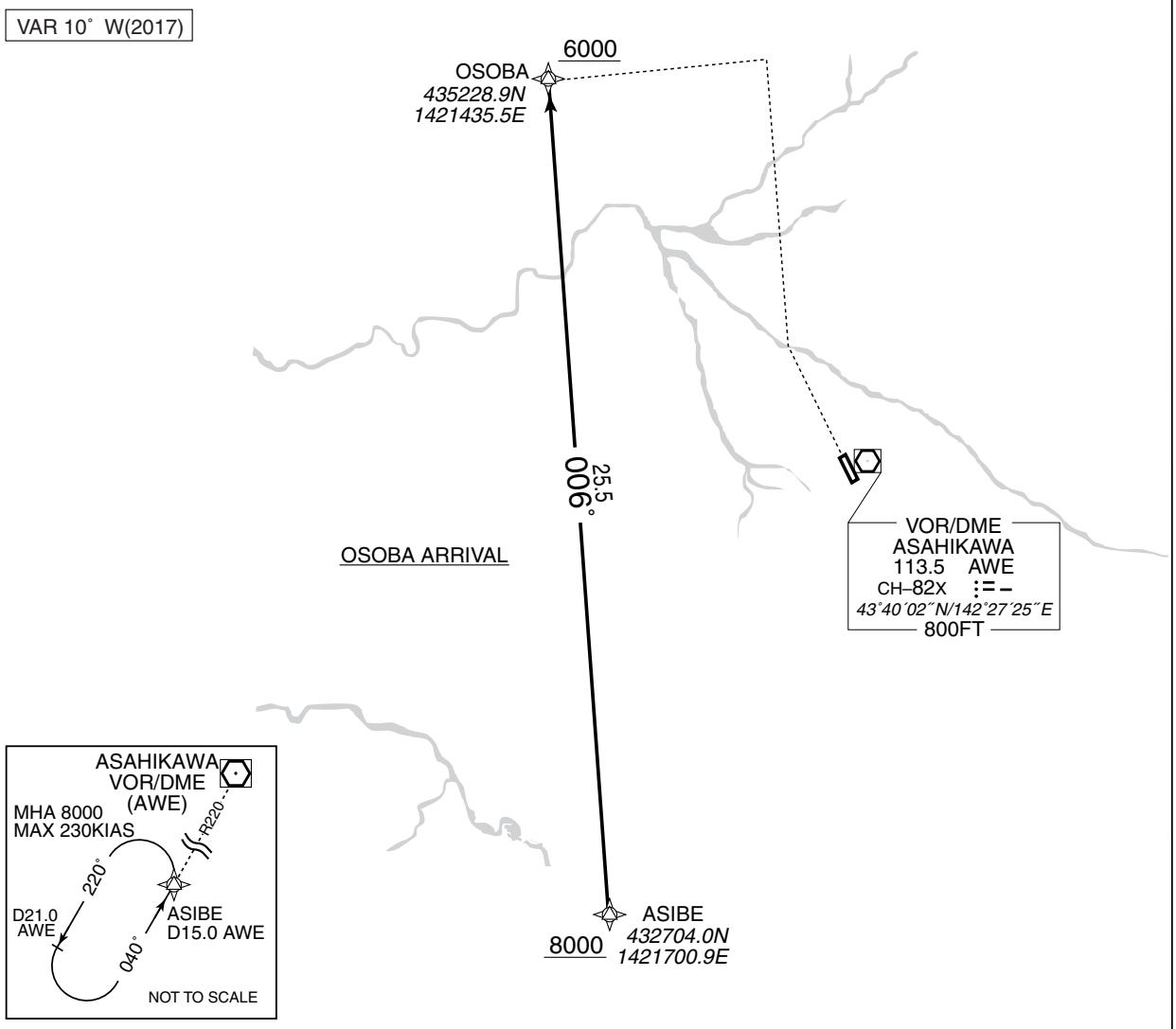
RJEC / ASAHIKAWA

RNAV STAR RWY16

OSOBA ARRIVAL

Basic RNP1

Note GNSS required.



OSOBA ARRIVAL

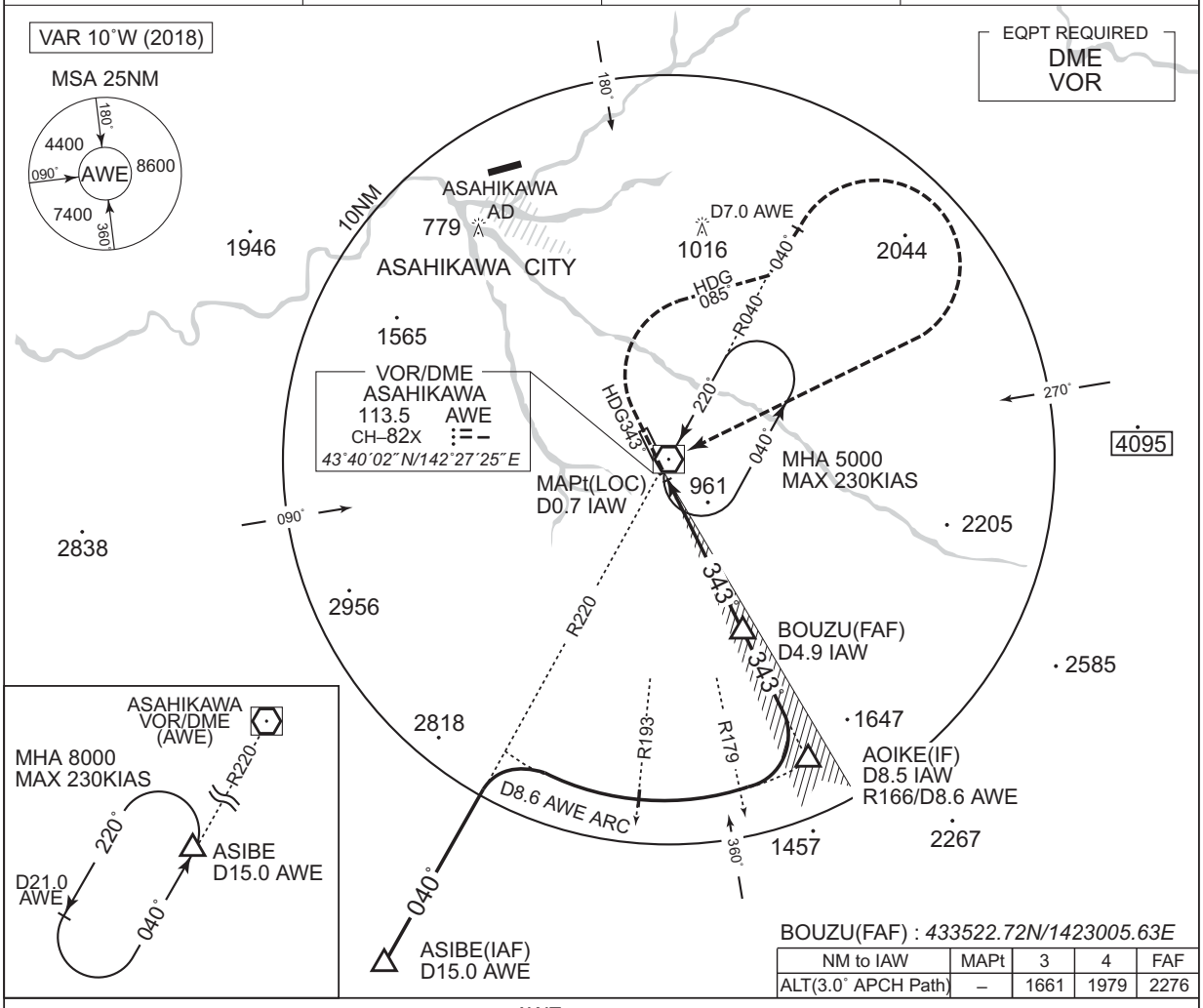
From ASIBE at or above 8000FT, to OSOBA at or above 6000FT.

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	ASIBE	–	–	-9.5	–	–	+8000	–	–	Basic RNP1
002	TF	OSOBA	–	006 (356.1)	-9.5	25.5	–	+6000	–	–	Basic RNP1

INSTRUMENT APPROACH CHART

RJEC / ASAHIKAWA — ILS Z or LOC Z RWY34

SAPPORO CONTROL	ILS-LOC	DAISETSU TOWER	NO RADAR
132.6 – 255.2 134.25 – 260.4	110.5 IAW ILS–GP 329.6 ILS–DME CH–42X	118.55 – 126.2	



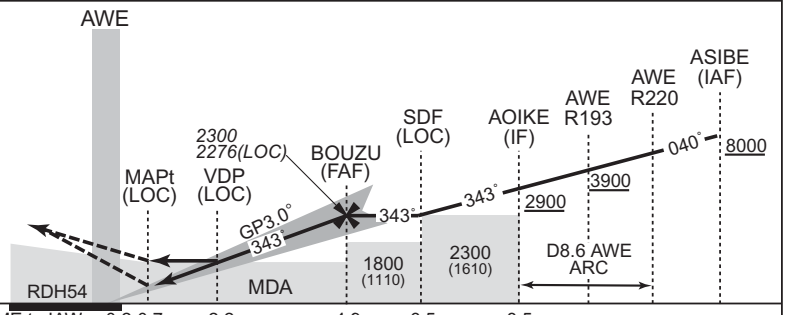
BOUZU(FAF) : *433522.72N/1423005.63E*

NM to IAW	MAPt	3	4	FAF
ALT(3.0° APCH Path)	–	1661	1979	2276

MISSED APPROACH

Climb on HDG343° to 1200FT, turn right HDG085° to intercept and proceed via AWE R040 to 7.0DME, turn right, direct to AWE VOR/DME and hold at 5000FT. Contact DAISETSU TOWER.

No turn before IAW 0.7DME.



DME to IAW	0.2	0.7	2.2	4.9	6.5	8.5
NM to THR	0	0.5	2.0	4.7	6.3	8.3

Missed APCH climb gradient MNM 5.0%

MINIMA — THR elev. 721 — AD elev. 690

CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	921(200)	550	1370(680)	1200	1370(680)	1600
B				1400		
C					1560(870)	2400
D				1800		3200

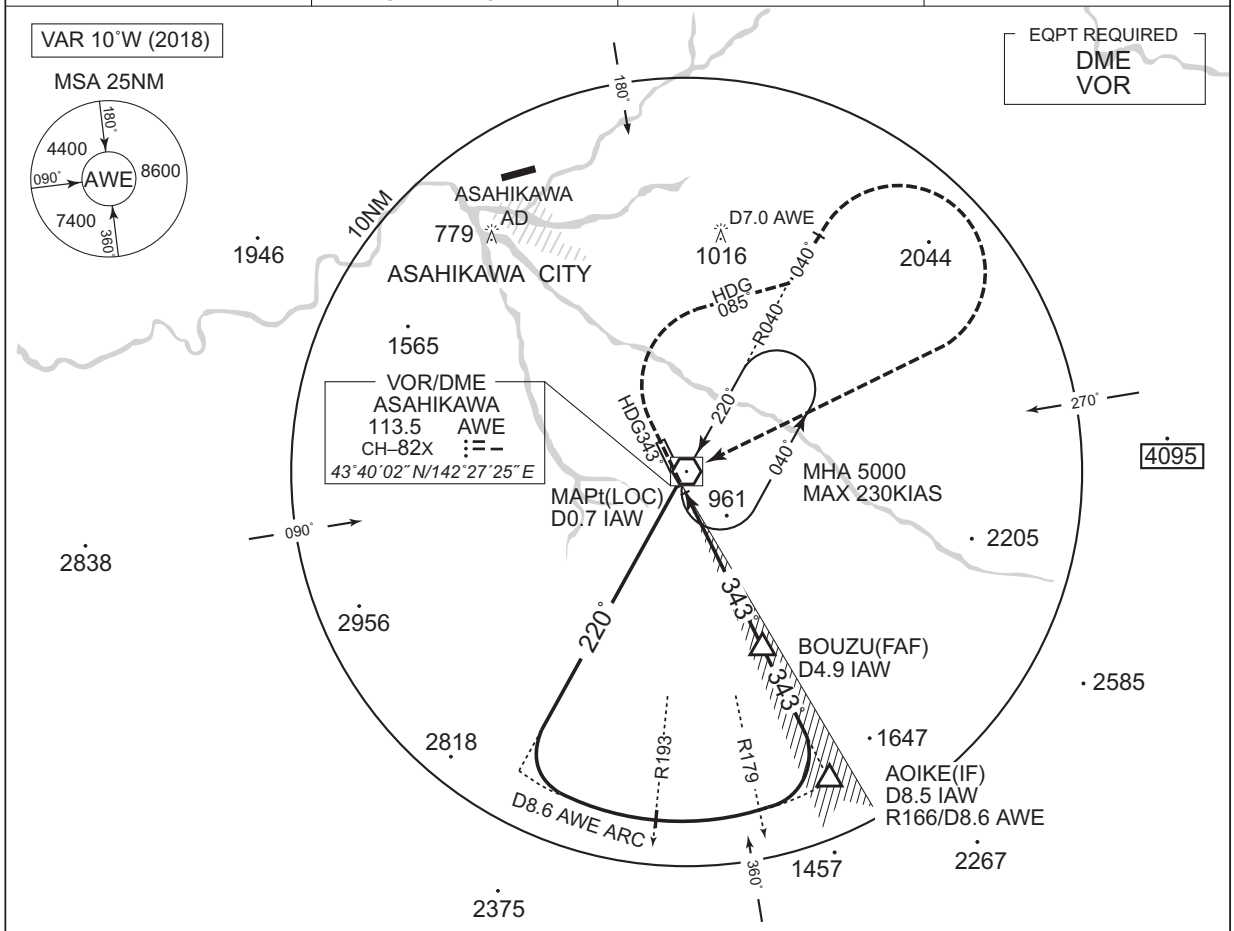
MINIMA with Missed APCH climb gradient of 2.5% are not established.

CHANGE: GP angle added.

INSTRUMENT APPROACH CHART

RJEC / ASAHIKAWA — ILS Y or LOC Y RWY34

SAPPORO CONTROL	ILS-LOC	DAISETSU TOWER	NO RADAR
132.6 – 255.2 134.25 – 260.4	110.5 IAW ILS–GP 329.6 ILS–DME CH–42X	118.55 – 126.2	



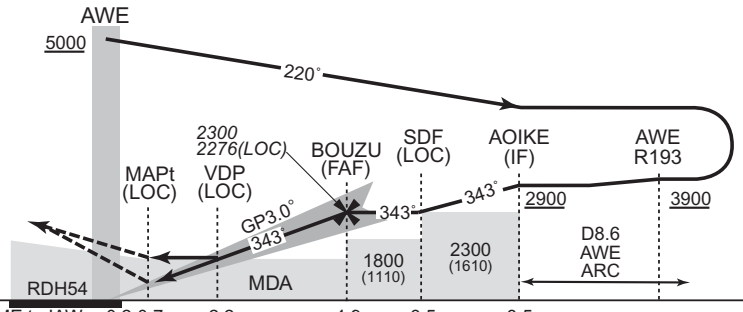
BOUZU(FAF) : *433522.72N/1423005.63E*

NM to IAW	MAPt	3	4	FAF
ALT(3.0° APCH Path)	–	1661	1979	2276

MISSED APPROACH

Climb on HDG343° to 1200FT, turn right HDG085° to intercept and proceed via AWE R040 to 7.0DME, turn right, direct to AWE VOR/DME and hold at 5000FT. Contact DAISETSU TOWER.

No turn before IAW 0.7DME.



DME to IAW	0.2	0.7	2.2	4.9	6.5	8.5
NM to THR	0	0.5	2.0	4.7	6.3	8.3

Missed APCH climb gradient MNM 5.0%

MINIMA — THR elev. 721 — AD elev. 690

CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	921(200)	550	1370(680)	1200	1370(680)	1600
B				1400		
C					1560(870)	2400
D				1800		3200

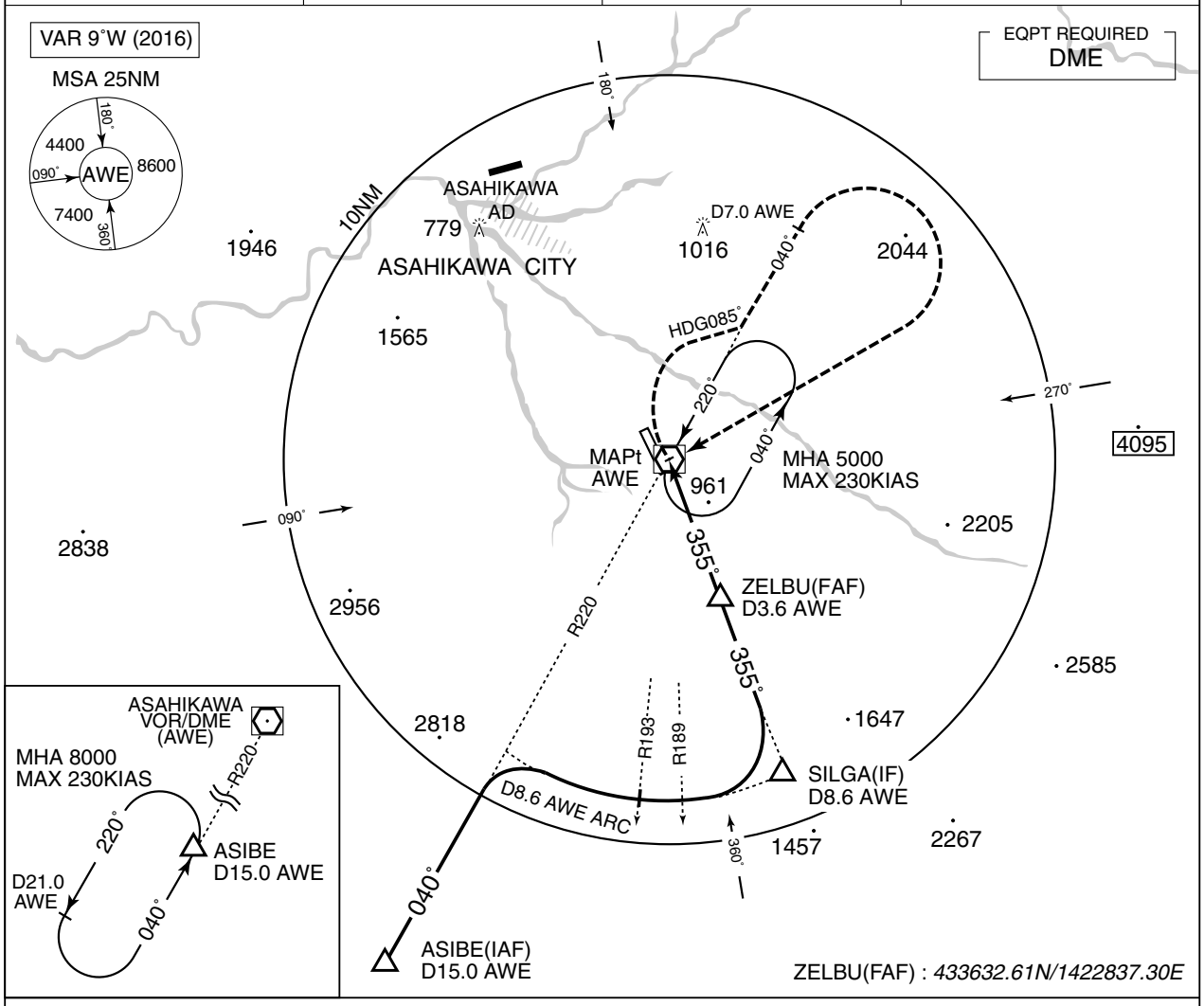
MINIMA with Missed APCH climb gradient of 2.5% are not established.

CHANGE: GP angle added.

INSTRUMENT APPROACH CHART

RJEC / ASAHIKAWA VOR A

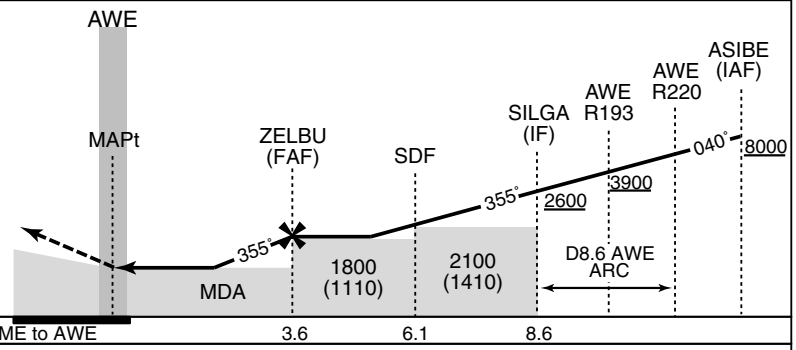
SAPPORO CONTROL	ASAHIKAWA VOR/DME	DAISETSU TOWER	NO RADAR
132.6 – 255.2 134.25 – 260.4	113.5 AWE CH–82X *43˚40´02˝N / 142˚27´25˝E*	118.55 – 126.2	



MISSED APPROACH

Turn right HDG085˚ to intercept and proceed via AWE R040 to 7.0DME, turn right, direct to AWE VOR/DME and hold at 5000FT.
Contact DAISETSU TOWER.

No turn before MAPt.
Timing not authorized for defining the MAPt.



Missed APCH climb gradient MNM 5.0%

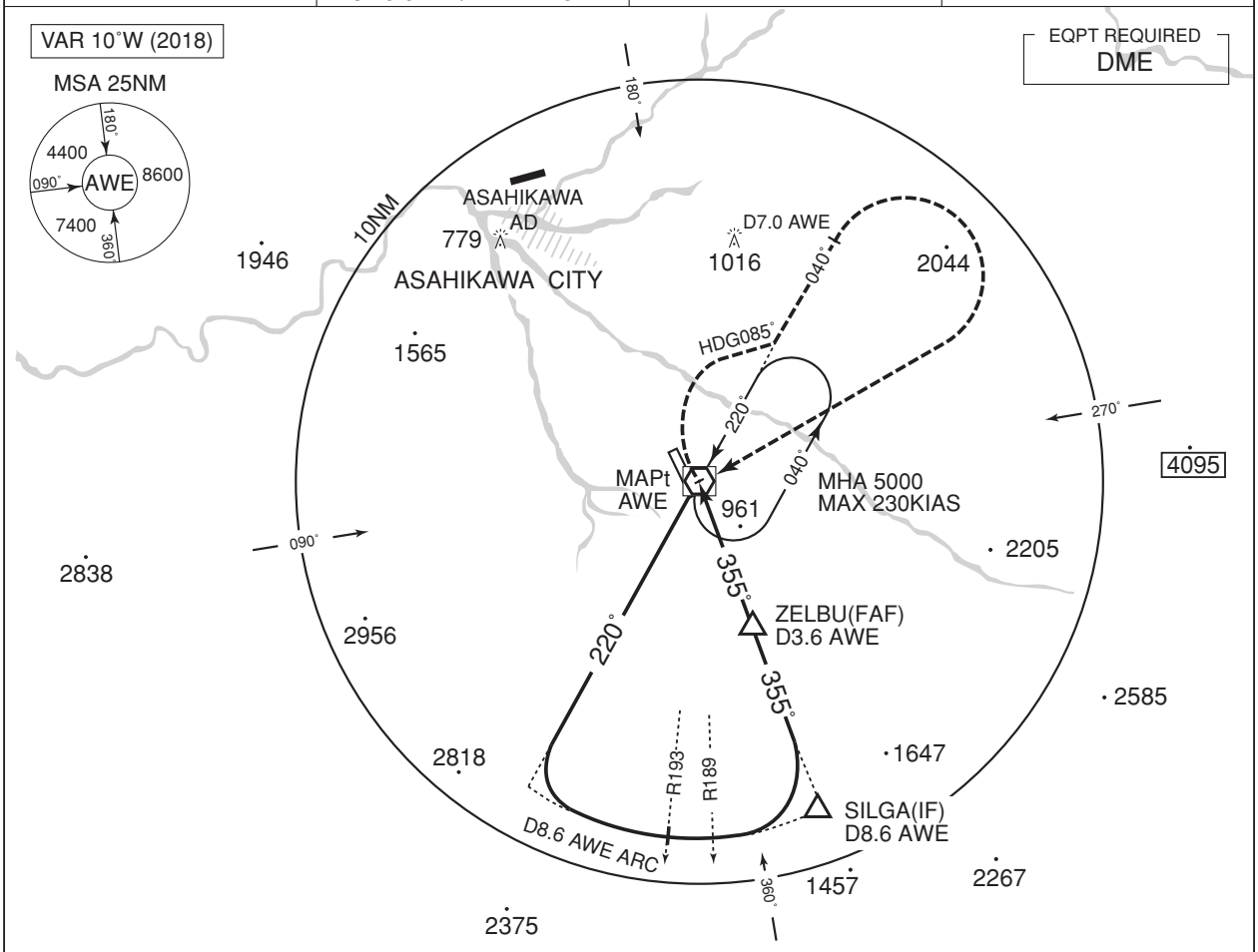
MINIMA		AD elev. 690
CAT	CIRCLING	
	MDA(H)	VIS
A B	1460(770)	1600
C D	1560(870)	2400 3200

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

INSTRUMENT APPROACH CHART

RJEC / ASAHIKAWA VOR B

SAPPORO CONTROL	ASAHIKAWA VOR/DME	DAISETSU TOWER	NO RADAR
132.6 – 255.2 134.25 – 260.4	113.5 AWE CH–82X *43˚40´02˝N / 142˚27´25˝E*	118.55 – 126.2	

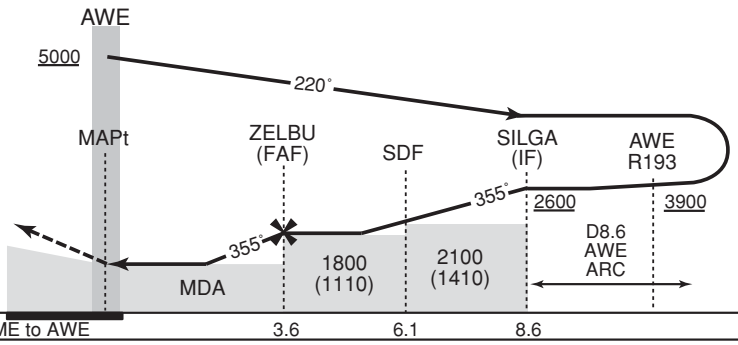


ZELBU(FAF) : *433632.61N/1422837.30E*

MISSED APPROACH

Turn right HDG085˚ to intercept and proceed via AWE R040 to 7.0DME, turn right, direct to AWE VOR/DME and hold at 5000FT.
Contact DAISETSU TOWER.

No turn before MAPt.
Timing not authorized for defining the MAPt.



Missed APCH climb gradient MNM 5.0%

MINIMA		AD elev. 690
CAT	CIRCLING	
	MDA(H)	VIS
A	1460(770)	1600
B		
C	1560(870)	2400
D		3200

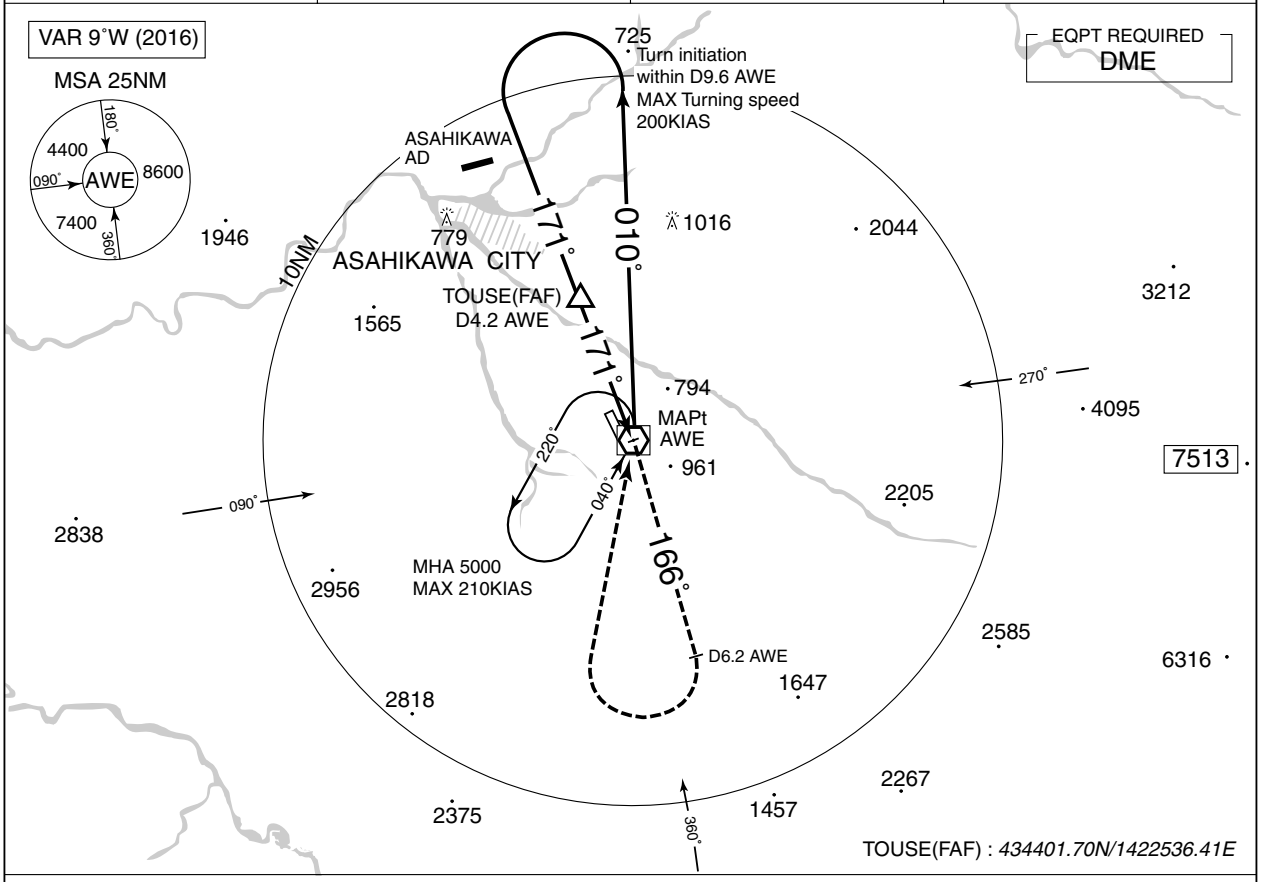
MINIMA with Missed APCH climb gradient of 2.5% are not established.

CHANGE : VAR

INSTRUMENT APPROACH CHART

RJEC / ASAHIKAWA VOR C

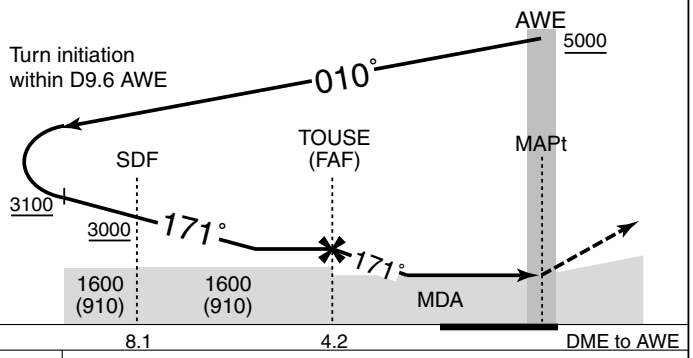
SAPPORO CONTROL	ASAHIKAWA VOR/DME	DAISETSU TOWER	NO RADAR
132.6 – 255.2 134.25 – 260.4	113.5 AWE CH–82X *43°40′02″N / 142°27′25″E*	118.55 – 126.2	



MISSED APPROACH

Climb via AWE R166 to 6.2DME, turn right, direct to AWE VOR/DME and hold at 5000FT.
Contact DAISETSU TOWER.

No turn before MAPt.
Timing not authorized for defining MAPt.



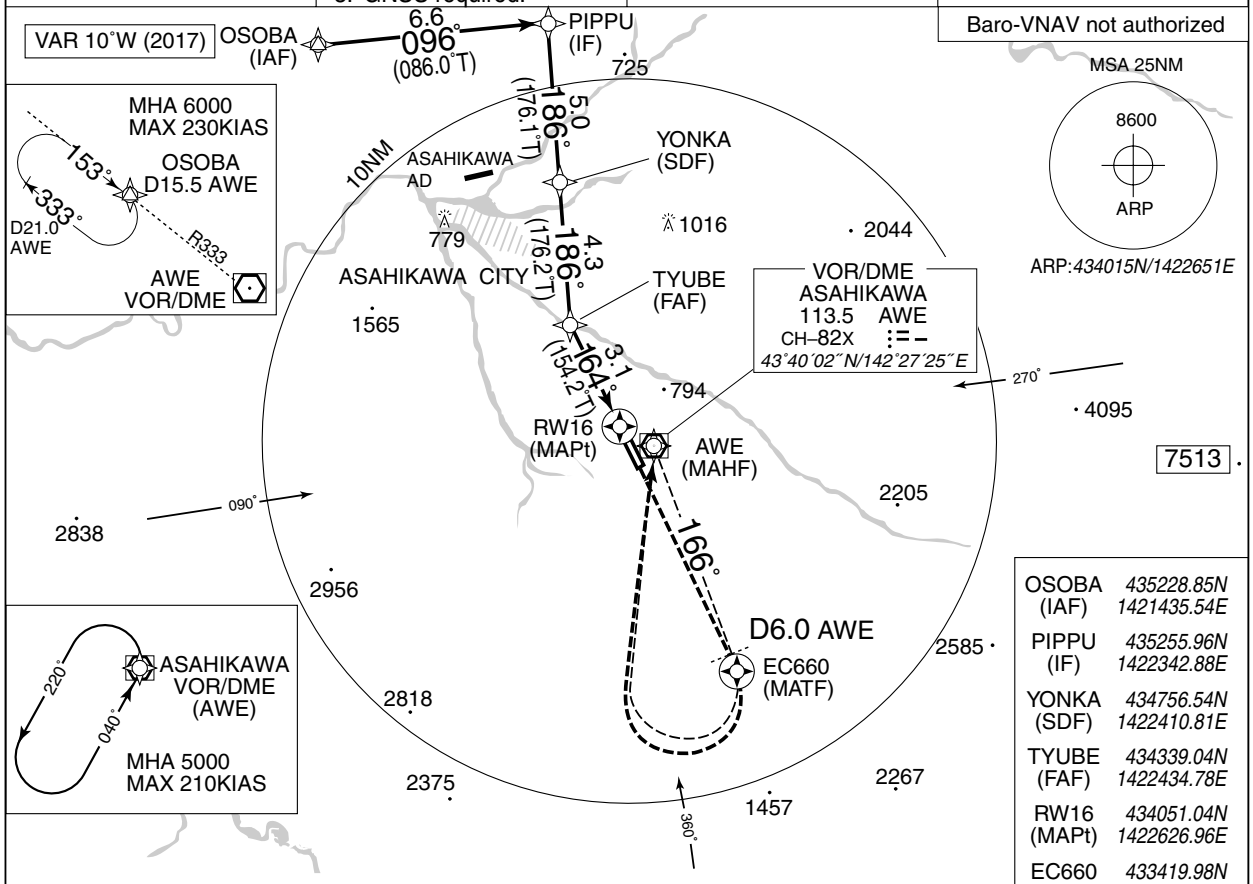
MINIMA AD elev. 690

CAT	CIRCLING	
	MDA(H)	VIS
A	1330 (640)	1600
B		
C	1560 (870)	2400
D		3200

INSTRUMENT APPROACH CHART

RJEC / ASAHIKAWA — RNAV(GNSS) Z RWY16

SAPPORO CONTROL	1. DME/DME RNP0.3 not authorized. 2. RNP0.3 required. 3. GNSS required.	DAISETSU TOWER	NO RADAR
132.6 – 255.2 134.25 – 260.4		118.55 – 126.2	



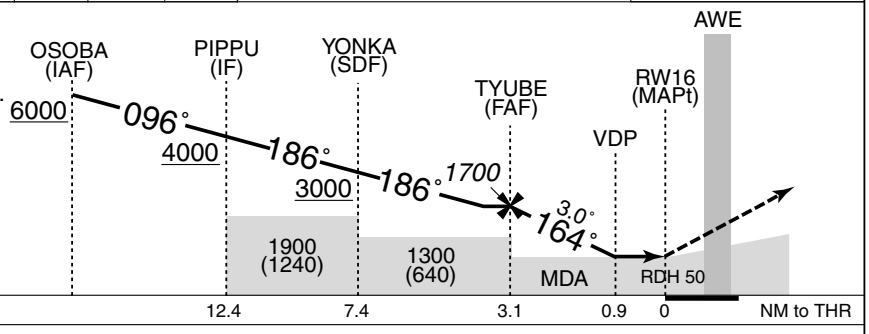
Baro-VNAV not authorized

OSOBA (IAF)	435228.85N 1421435.54E
PIPPU (IF)	435255.96N 1422342.88E
YONKA (SDF)	434756.54N 1422410.81E
TYUBE (FAF)	434339.04N 1422434.78E
RW16 (MAPt)	434051.04N 1422626.96E
EC660 (MATF)	433419.98N 1423047.35E
AWE (MAHF)	434002.15N 1422724.65E

NM to Next Fix	FAF	3	2	1	MAPt
ALT (3.0° APCH Path)	1700	1664	1346	1027	–

MISSED APPROACH
Direct to EC660, turn right direct to AWE and hold at 5000FT.
Contact DAISETSU TOWER.

(For using VOR/DME)
Climb via AWE R166 to 6.0DME, turn right, direct to AWE VOR/DME and hold at 5000FT.
Contact DAISETSU TOWER.



Missed APCH climb gradient MNM 3.1%

MINIMA — THR elev. 660 — AD elev. 690

CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS
A	Not applicable		1000 (340)	1200	1280 (590)	1600
B				1300	1330 (640)	
C				1400	1560 (870)	2400
D				1600		3200

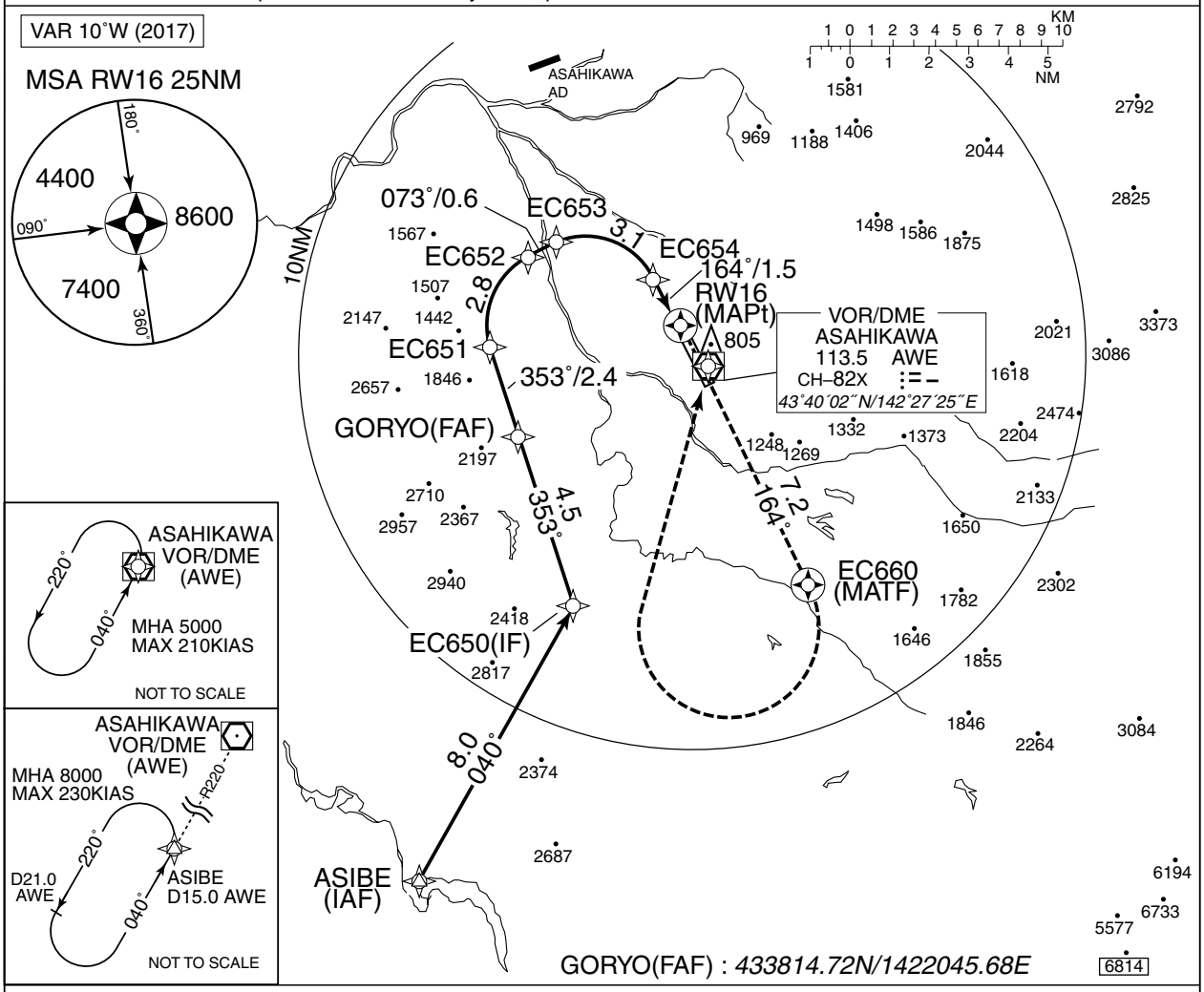
MINIMA with Missed APCH climb gradient of 2.5% are not established.

INSTRUMENT APPROACH CHART

RJEC / ASAHIKAWA ➡ RNAV(RNP) Y RWY16

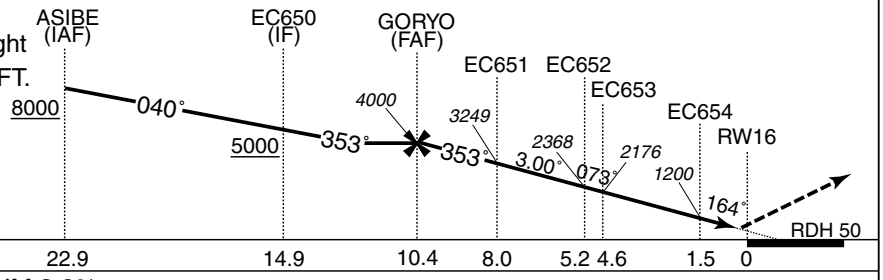
SAPPORO CONTROL 132.6 – 255.2 134.25 – 260.4	GNSS and RF required.	DAISETSU TOWER 118.55 – 126.2	NO RADAR

For uncompensated Baro-VNAV systems, procedure not authorized below -30℃ / above 45℃



MISSED APPROACH

To EC660 on track 164˚, turn right direct to AWE and hold at 5000FT.
Contact DAISETSU TOWER.



Missed APCH climb gradient MNM 3.0%

MINIMA THR elev.660 AD elev.690

CAT	RNP 0.30	
	DA(H)	CMV
A	–	–
B		
C	960 (300)	1400
D	–	–

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

RNP AR

Special Authorization Required

INSTRUMENT APPROACH CHART

RJEC / ASAHIKAWA ➡ RNAV(RNP) Y RWY16

RNAV (RNP) Y RWY16

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	ASIBE	–	–	-9.5	–	–	+8000	–	–	–
002	TF	EC650	–	040 (030.1)	-9.5	8.0	–	+5000	–	–	1.0
003	TF	GORYO	–	353 (343.1)	-9.5	4.5	–	4000	–	–	1.0
004	TF	EC651	–	353 (343.0)	-9.5	2.4	–	3249	–	-3.00	0.30
005	RF Center: ECRF1 r=1.98NM	EC652	–	–	-9.5	2.8	R	2368	–	-3.00	0.30
006	TF	EC653	–	073 (063.0)	-9.5	0.6	–	2176	–	-3.00	0.30
007	RF Center: ECRF2 r=1.93NM	EC654	–	–	-9.5	3.1	R	1200	–	-3.00	0.30
008	TF	RW16	Y	164 (154.2)	-9.5	1.5	–	710	–	-3.00/50	0.30
009	CF	EC660	Y	164 (154.2)	-9.5	7.2	–	–	–	–	1.0
010	DF	AWE	–	–	-9.5	–	R	5000	–	–	1.0

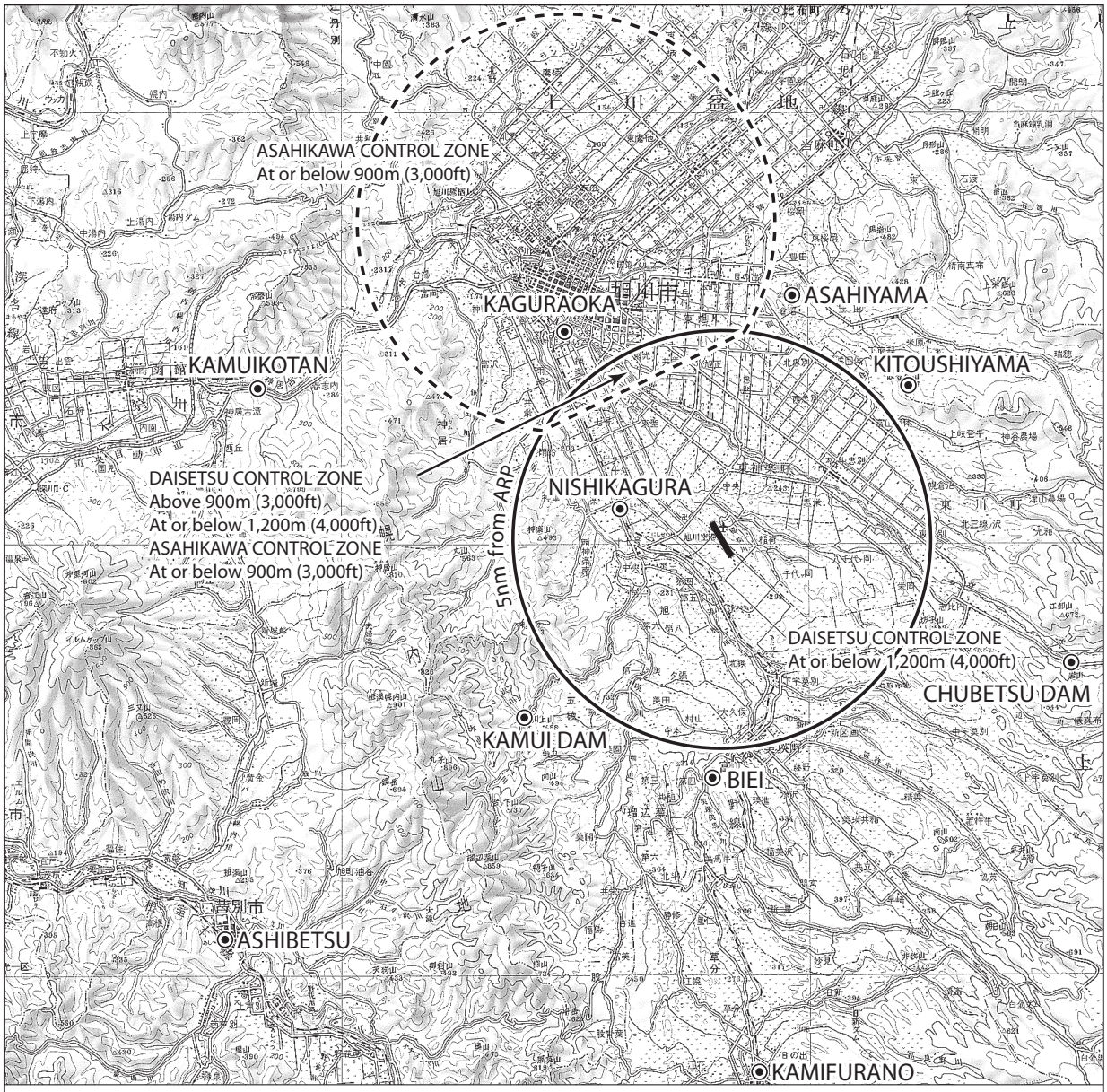
Waypoint Coordinates

Waypoint Identifier	Coordinates
ASIBE	*432703.98N/1421700.93E*
EC650	*433359.28N/1422233.14E*
GORYO	*433814.72N/1422045.68E*
EC651	*434030.03N/1421948.65E*
EC652	*434250.78N/1422111.17E*
EC653	*434307.07N/1422155.45E*
EC654	*434214.29N/1422531.40E*
RW16	*434051.04N/1422626.96E*
EC660	*433419.98N/1423047.35E*
AWE	*434002.15N/1422724.65E*

RF Arc Center Identifier	Coordinates
ECRF1	*434104.78N/1422225.25E*
ECRF2	*434123.69N/1422307.68E*

RJEC / ASAHIKAWA

Visual REP



Call sign	BRG / DIST from ARP	Remarks
旭　　山 Asahiyama	022°/ 6.0NM	旭山動物園 Zoo
神 楽 岡 Kaguraoka	332°/ 5.9NM	神楽岡公園 Park
神 居 古 潭 Kamuikotan	298°/11.3NM	橋 Bridge
美　　瑛 Biei	194°/ 5.3NM	道路（大曲） Road
西 神 楽 Nishikagura	296°/ 2.4NM	JR駅 Station
上富良野 Kamifurano	185°/12.4NM	JR駅 Station
芦　　別 Ashibetsu	240°/14.7NM	JR駅 Station
忠 別 ダ ム Chubetsu dam	119°/ 8.3NM	ダム Dam
神 居 ダ ム Kamui dam	237°/ 6.1NM	ダム Dam
岐 登 牛 山 Kitoushiyama	060°/ 5.6NM	スキー場 Ski ground

RJEC / ASAHIKAWA Minimum Vectoring Altitude CHART