AD 2 AERODROMES

RJSK AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RJSK - AKITA

RJSK AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	*393656N 1401307E* 278° / 1.25km from RWY28 THR.
2	Direction and distance from (city)	334° / 13.3km(7.2NM) Akita station 310° / 16.1km(8.7NM) Omono Rivermouth in Akita City
3	Elevation/ Reference temperature	305ft / 30°C(2004 -2008)
4	Geoid undulation at AD ELEV PSN	127FT
5	MAG VAR/ Annual change	8° W (2009) / 1'E
6	AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses	Akita Airport Administration Office (Akita prefectural government) 49 Yuwa Tsubakigawa-aza Yamagomori, Akita City Tel:018-886-3362 Fax:018-886-3365
7	Types of traffic permitted(IFR/ VFR)	IFR/VFR
8	Remarks	Akita Airport Radio Facility Office(Civil Aviation Bureau) 49 Yuwa Tsubakigawa-aza Yamagomori, Akita City Tel:018-886-3161 Fax:018-886-3163

RJSK AD 2.3 OPERATIONAL HOURS

1	AD Administration	2200 - 1300
2	Customs and immigration	INTL SKED FLT hours only
3	Health and sanitation	INTL SKED FLT hours only
4	AIS Briefing Office	Nil
5	ATS Reporting Office(ARO)	Nil
6	MET Briefing Office	H24(SENDAI)
7	ATS	2200 - 1300
8	Fuelling	JET A-1 : 2200 - 1300 Avgas100 : 0100 - 0600 and On request (Tel : 018-886-3133)
9	Handling	2100 - 1300
10	Security	2100 - 1140
11	De-icing	Nil
12	Remarks	Nil

RJSK AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	All the modern institutions that deal with the weight thing to a Boeing 747 type passenger plane.
2	Fuel/ oil types	JET A-1 , Avgas100
3	Fuelling facilities/ capacity	Fuel truck refueling
4	De-icing facilities	Nil
5	Hangar space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

RJSK AD 2.5 PASSENGER FACILITIES

1	Hotels	Nil
2	Restaurants	At Airport
3	Transportation	Buses and Taxi
4	Medical facilities	Nil
5	Bank and Post Office	Bank: ATM at airport
6	Tourist Office	Nil
7	Remarks	Nil

RJSK AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 9
2	Rescue equipment	Chemical fire fighting truck x 3, Emergency medical equipments conveyance truck
3	Capability for removal of disabled aircraft	Nil
4	Remarks	Nil

RJSK AD 2.7 SEASONAL AVAILABILITY-CLEARING

1	Types of clearing equipment	Snow Removal Equipments : motor graders x 1 , rotary x 5 , dozer x 3 ,snow ploughs x 11 , snow sweeper x 7 , anti-freezing-agent spreaders x 2
2	Clearance priorities	1.RWY , TWY (T1, T4, T5 ,P1 ,P2 ,P3 and P4) 2.TWY (T2, T3), Apron
3	Remarks	Nil

RJSK AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	APRON Surface : Concrete, Strength : PCN 62/R/B/X/T EAST-APRON Surface: Asphalt and Concrete Strength: Asphalt: PCN 24/F/C/Y/T Concrete: PCN 20/R/B/Y/T
2	Taxiway width, surface and strength	TWY P1-P4 Width:30m, Surface:asphalt, Strength:PCN 87/F/C/X/T TWY T1,T5 Width:32m, Surface:asphalt, Strength:PCN 87/F/C/X/T TWY T2,T3,T4 Width:34m, Surface:asphalt, Strength:PCN 87/F/C/X/T TWY E Width:18m, Surface:asphalt, Strength:PCN 24/F/C/Y/T
3	ACL and elevation	Not available
4	VOR checkpoints	Not available
5	INS checkpoints	Spot Nr 1: *393644.22N 1401316.77E* 2: *393644.10N 1401314.33E* 3: *393644.35N 1401311.94E* 5: *393644.58N 1401309.02E* 6: *393644.84N 1401306.10E* 11: *393644.44N 1401318.54E* 12: *393645.82N 1401318.74E* 13: *393647.03N 1401318.78E* 14: *393643.87N 1401320.88E* 15: *393644.71N 1401321.01E* 16: *393645.54N 1401321.13E* 17: *393646.33N 1401321.42E*
6	Remarks	Nil

RJSK AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and Visual docking/ parking guidance system of aircraft stands	Nil
2	RWY and TWY markings and LGT	RWY:10/28 (Marking) RWY designation, RWY CL, RWY THR, Aiming point, TDZ, RWY side stripe (LGT) RCLL, REDL, RTHL, RENL, RTZL(RWY28), WBAR, RWY DIST marker LGT TWY:ALL TWY (Marking) TWY CL, RWY HLDG PSN, TWY side stripe (LGT) TWY edge LGT TWY:T1-T5 (LGT) TWY CL LGT, RWY guard LGT, Taxiing guidance sign TWY:P1-P4 (LGT) TWY CL LGT TWY:P2 (LGT) Taxiing guidance sign
3	Stop bars	Nil
4	Remarks	(Marking) Overrun area (LGT) Apron flood LGT

RJSK AD 2.10 AERODROME OBSTACLES

In Area2 See Obstacle data

Other obstacles

OBST ID/ designation	Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
RJSK1	Tower	*393717N/1401350E*	440ft	Nil	Under horizontal SFC
RJSK2	Antenna	*393727N/1401337E*	443ft	Nil	Under horizontal SFC
RJSK3	Antenna	*393727N/1401334E*	442ft	Nil	Under horizontal SFC

In Area3 To be developed

RJSK AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	SENDAI
2	Hours of service MET Office outside hours	H24(SENDAI)
3	Office responsible for TAF preparation Periods of validity	SENDAI 30 Hours
4	Trend forecast Interval of issuance	Nil.
5	Briefing/ consultation provided	Briefing is available upon inquiry at SENDAI
6	Flight documentation Language(s) used	C En
7	Charts and other information available for briefing or consultation	S_6, U_{85}, U_7, U_5, U_3, U_{25}, U_2/T_r, P_S, P_5, P_3, P_{25}, P_{SWE}, P_{SWF}, P_{SWG}, P_{SWI}, P_{SWM}, P_{SW}(domestic), E, C, W_E, W_F, W_G, W_I, W, N
8	Supplementary equipment available for providing information	Nil
9	ATS units provided with information	TWR
10	Additional information(limitation of service, etc.)	Nil

RJSK AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength(PCN) and Surface of RWY	THR coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
10	096.61°	2500×60	PCN 87/F/C/X/T Asphalt Concrete	*393700.98N1401215.14E* 127FT	THR ELEV: 288.5ft
28	276.61°	2500×60	PCN 87/F/C/X/T Asphalt Concrete	*393651.66N1401359.25E* 127.3FT	THR ELEV: 313.6ft TDZ ELEV: 312.2ft

Slope of RWY	Strip Dimensions (M)	RESA (Overrun) Dimensions(M)	Remarks
7	10	11	14
See AD2.24 AD CHART	2620×300	40 × (MNM:280 MAX:300)*	RWY Grooving:2500×60m
	2620×300	185 × (MNM:125 MAX:300)* *For detail, ask airport administrator	

RJSK AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
10	2500	2500	2500	2500	Nil
TWY:T4	1985	1985	1985		Nil
28	2500	2500	2500	2500	Nil
TWY:T2	1800	1800	1800		Nil

誘導路の TORA, TODA 及び ASDA は、誘導路中心線と滑走路中心線の交点から滑走路末端までの距離を示す。
(TORA, TODA and ASDA for TWY indicate distances BTN the point where TWY CL meets RWY CL and RWY THR.)

RJSK AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	RTHL Color WBAR	PAPI (VASIS) Angle DIST FM THR MEHT	RTZL LEN	RCLL LEN Spacing Color INTST	REDL LEN Spacing Color INTST	RENL Color WBAR	STWL LEN Color
1	2	3	4	5	6	7	8	9
10	SALS (*1) 420m LIH	Green Green	PAPI 3.0°/Left 420m 74ft	Nil	2500m 30m Coded color (White/red) LIH	2500m 60m Coded color (White/Yellow) LIH	Red	Nil (*2)
28	PALS (CAT I) 840m LIH	Green Green	PAPI 3.0°/Left 429m 66ft	900m	2500m 30m Coded color (White/red) LIH	2500m 60m Coded color (White/Yellow) LIH	Red	Nil (*2)
Remarks								
10								
SALS with APCH LGT beacon (550m and 890m FM RWY THR) (*1) Overrun area edge LGT(LEN60m color:Red) (*2)								

RJSK AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: *393641N/1401302E*, White/Green EV4.3sec, HO
2	LDI location and LGT Anemometer location and LGT	LDI:Nil Anemometer: RWY10:117°/350m from RWY10 THR, LGTD RWY28:263°/457m from RWY28 THR, LGTD
3	TWY edge and center line lighting	TWY edge and center line lights installed, see AD2.9
4	Secondary power supply/ switch-over time	Within 1sec: REDL, RCLL, RTHL, RENL, WBAR, Overrun area edge LGT Within 15sec: Other LGT
5	Remarks	WDI LGT

RJSK AD 2.16 HELICOPTER LANDING AREA

Nil

RJSK AD 2.17 ATS AIRSPACE

Designation and lateral limits		Vertical limits (ft)	Airspace classification	ATS unit call sign Language	Remarks
1		2	3	4	6
Akita CTR	Area within a radius of 5nm(9km) of Akita ARP (*39°37'N 140°13'E*)	3,000 or below	D	Akita Tower En	

RJSK AD 2.18 ATS COMMUNICATION FACILITIES

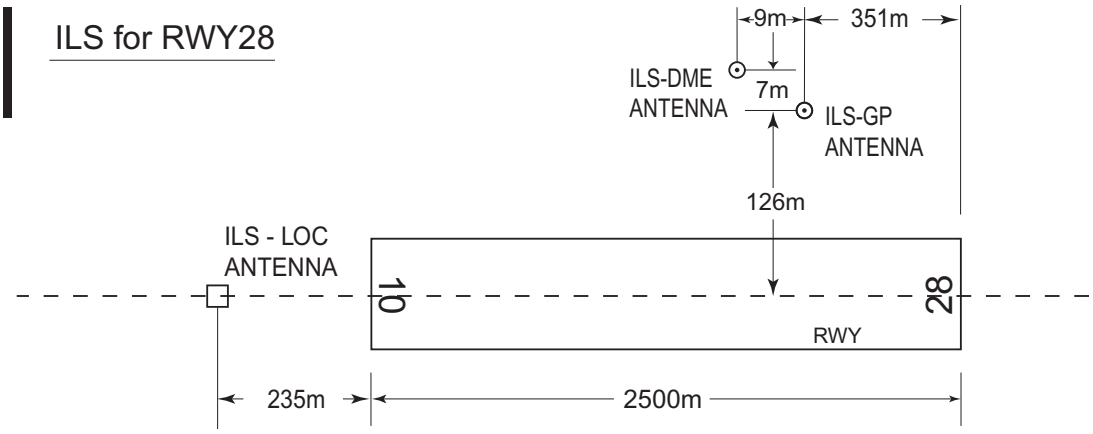
Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
TWR	Akita Tower	118.6MHz(1) 126.2MHz 243.0MHz(E)	2200 - 1300	(1) Primary

RJSK AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid (VOR declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR (8°W/2013)	UWE	110.65MHz	H24	*393701.66N* *1401112.97E*		
DME	UWE	1130MHz (CH-43Y)	H24	*393701.66N* *1401112.97E*	286ft	
ILS-LOC 28	IUW	108.9MHZ	2200-1300	*393701.85N* *1401205.32E*		LOC: 235m(771ft) away FM RWY 10 THR. BRG (MAG) 285.60°
ILS-GP 28		329.3MHZ	2200-1300	*393656.99N* *1401345.24E*		GP: 351m(1152ft) inside FM RWY 28 THR, 126m(413ft) N of RCL. GP angle 3.0° HGT of ILS Ref datum16.5m(54ft).
ILS-DME 28	IUW	987MHZ (CH-26X)	2200-1300	*393657.33N* *1401344.53E*	324ft	DME: 360m(1181ft) inside FM RWY 28 THR, 133m(436ft) N of RCL.
MSAS		1575.42MHz	H24			Transmitting antennas are satellite based.

AKITA AP

ILS for RWY28



REMARKS : 1 LOC beam BRG(MAG) 285.60°
2 HGT of ILS REF datum 16.5m(54ft)
3 GP Angle 3.0°
4 ELEV of ILS-DME 98.8m(324ft)

RJSK AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

Nil

2. Taxiing to and from stands

Nil

3. Parking area for small aircraft(General aviation)

Nil

4. Parking area for helicopters

Nil

5. Apron - taxiing during winter conditions

Nil

6. Taxiing - limitations

Nil

7. School and training flights - technical test flights - use of runways

Nil

8. Helicopter traffic - limitation

Nil

9. Removal of disabled aircraft from runways

Nil

RJSK AD 2.21 NOISE ABATEMENT PROCEDURES

Nil

RJSK AD 2.22 FLIGHT PROCEDURES

TAKE OFF MINIMA

	RWY	ACFT CAT	REDL & RCLL		REDL or RCLL or RCL Marking		NIL (DAYTIME ONLY)	
			RVR	VIS	RVR	VIS	RVR	VIS
Multi-Engine ACFT with TKOF ALTN AP FILED	10	A,B,C,D	-	400m	-	400m	-	500m
	28	A,B,C,D	400m	400m	400m	400m	-	500m
OTHER	10	A,B,C,D	AVBL LDG MINIMA					
	28	A,B,C,D						

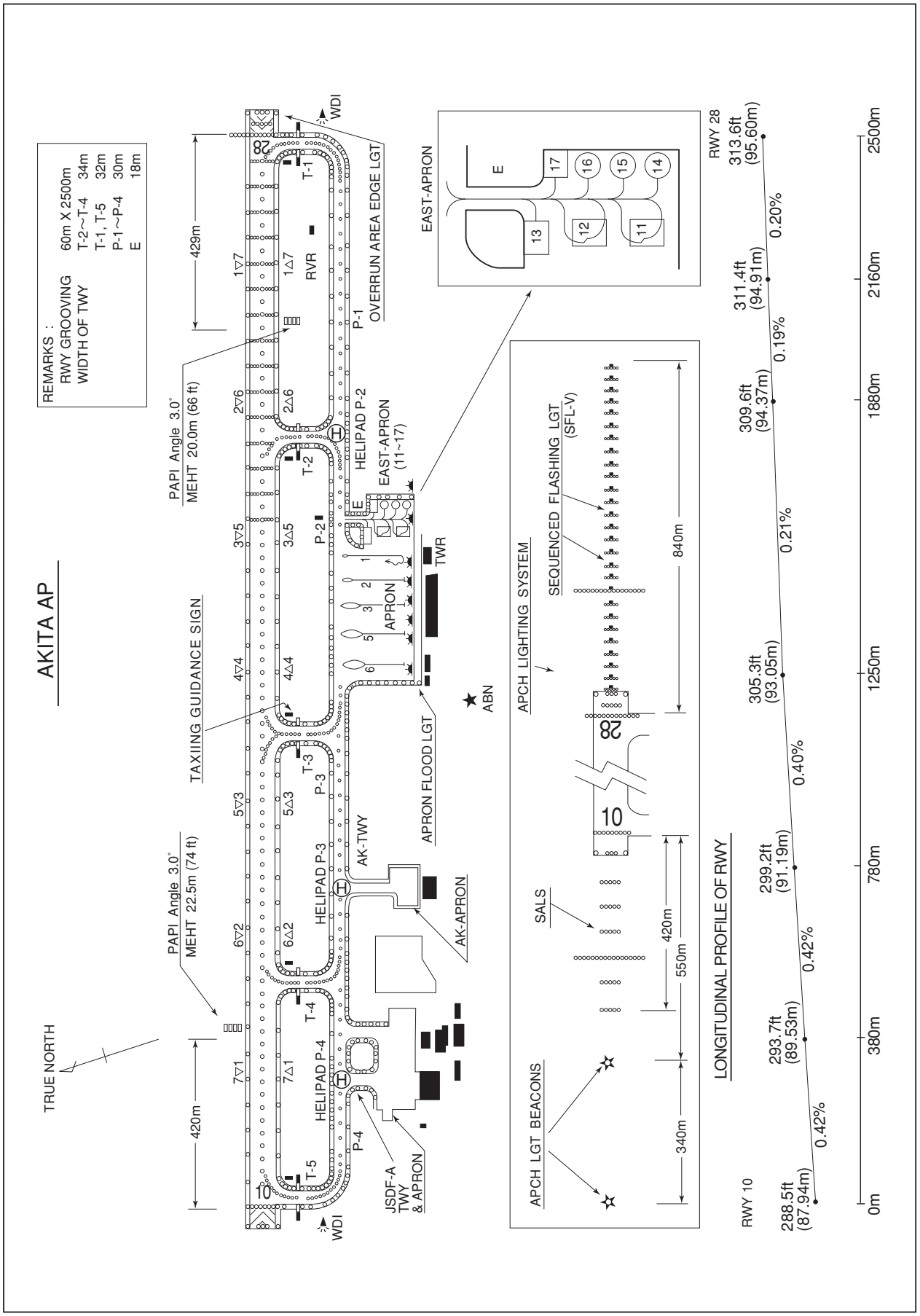
RJSK AD 2.23 ADDITIONAL INFORMATION

HELIPAD Location: On PARL TWY
HELIPAD P2 at the intersection with TWY T2
HELIPAD P3 on TWY P3 at the intersection with AK TWY
HELIPAD P4 on TWY P4 at the point of intersection with JSDF-A TWY

RJSK AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome/Heliport Chart
Standard Departure Chart - Instrument (YUWA REVERSAL)
Standard Departure Chart - Instrument (MAGGY,CHOKA,YAYOI)
Standard Departure Chart - Instrument (MUTSU-RNAV)
Standard Departure Chart - Instrument (USYU-RNAV)
Standard Departure Chart - Instrument (NIIGATA-RNAV)
Standard Arrival Chart - Instrument (MAGGY,YAYOI,CHOKA WEST-RNAV)
Standard Arrival Chart - Instrument (MAGGY,YAYOI,CHOKA EAST-RNAV)
Standard Arrival Chart - Instrument (KOANI,OMAGA,HONJO)
Instrument Approach Chart (ILS Z or LOC Z RWY28)
Instrument Approach Chart (ILS Y or LOC Y RWY28)
Instrument Approach Chart (ILS X or LOC X RWY28)
Instrument Approach Chart (VOR RWY28)
Instrument Approach Chart (VOR Z RWY10)
Instrument Approach Chart (VOR Y RWY10)
Instrument Approach Chart (RNP Z RWY10)
Instrument Approach Chart (RNP Y RWY10 (AR))
Instrument Approach Chart (RNP RWY28 (AR))
Other Chart (Visual REP)
Other Chart (MVA CHART)

RJSK / AKITA AD CHART



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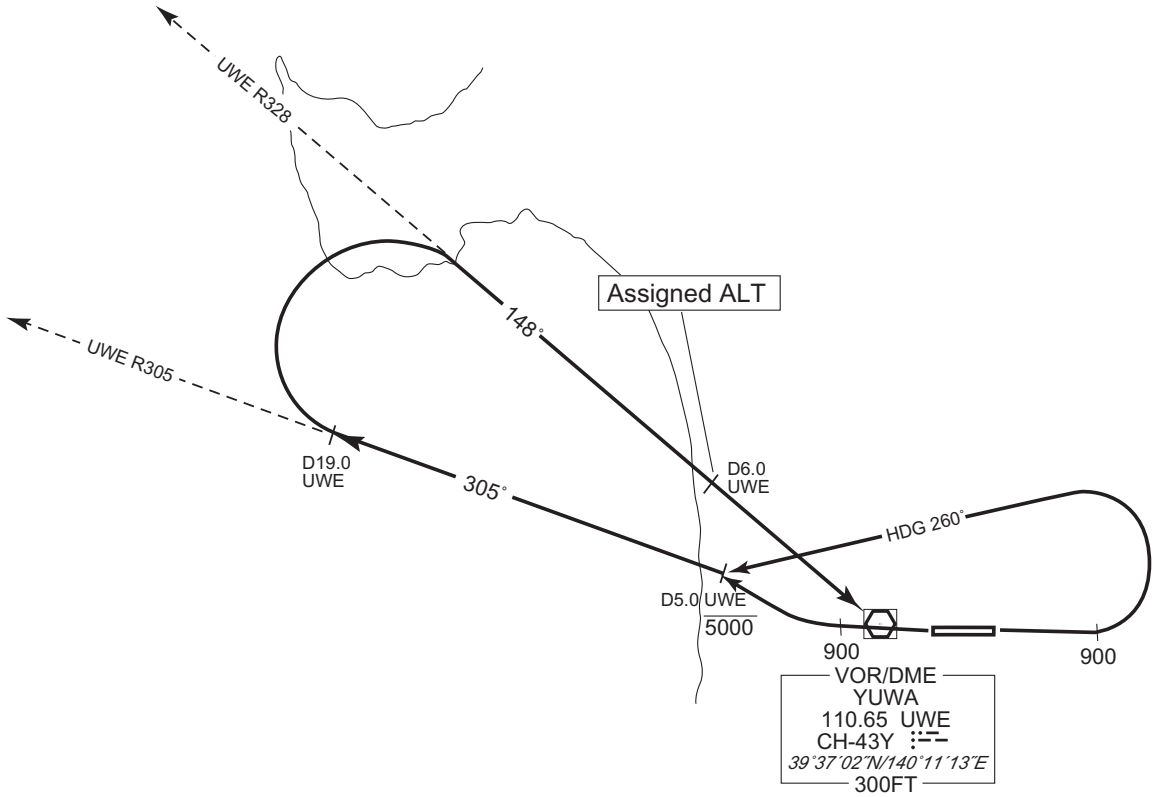
STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA SID

YUWA REVERSAL SIX DEPARTURE

RWY 10 : Climb RWY HDG to 900FT, turn left HDG260˚...
RWY 28 : Climb RWY HDG to 900FT, turn right ...
...to intercept and proceed via UWE R305 to 19.0DME, turn right to intercept and proceed via UWE R328 to UWE VOR/DME.
Cross UWE R305/5.0DME at or below 5000FT, cross UWE R328/6.0DME at assigned altitude.



CHANGE : Description of PROC name.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA SID

MAGGY ONE DEPARTURE

RWY10 : Climb RWY HDG to 900FT, via UWE R105, turn left, via UWE 10.8DME counterclockwise ARC to intercept and proceed via UWE R028 to MAGGY.
RWY28 : Climb RWY HDG to 900FT, via UWE R285, turn right, via UWE 10.8DME clockwise ARC to intercept and proceed via UWE R028 to MAGGY.

Note RWY10 : 5.0% climb gradient required up to 3300FT.
OBST ALT 3543FT located at 13.8NM 070˚ FM end of RWY10.

CHOKA ONE DEPARTURE

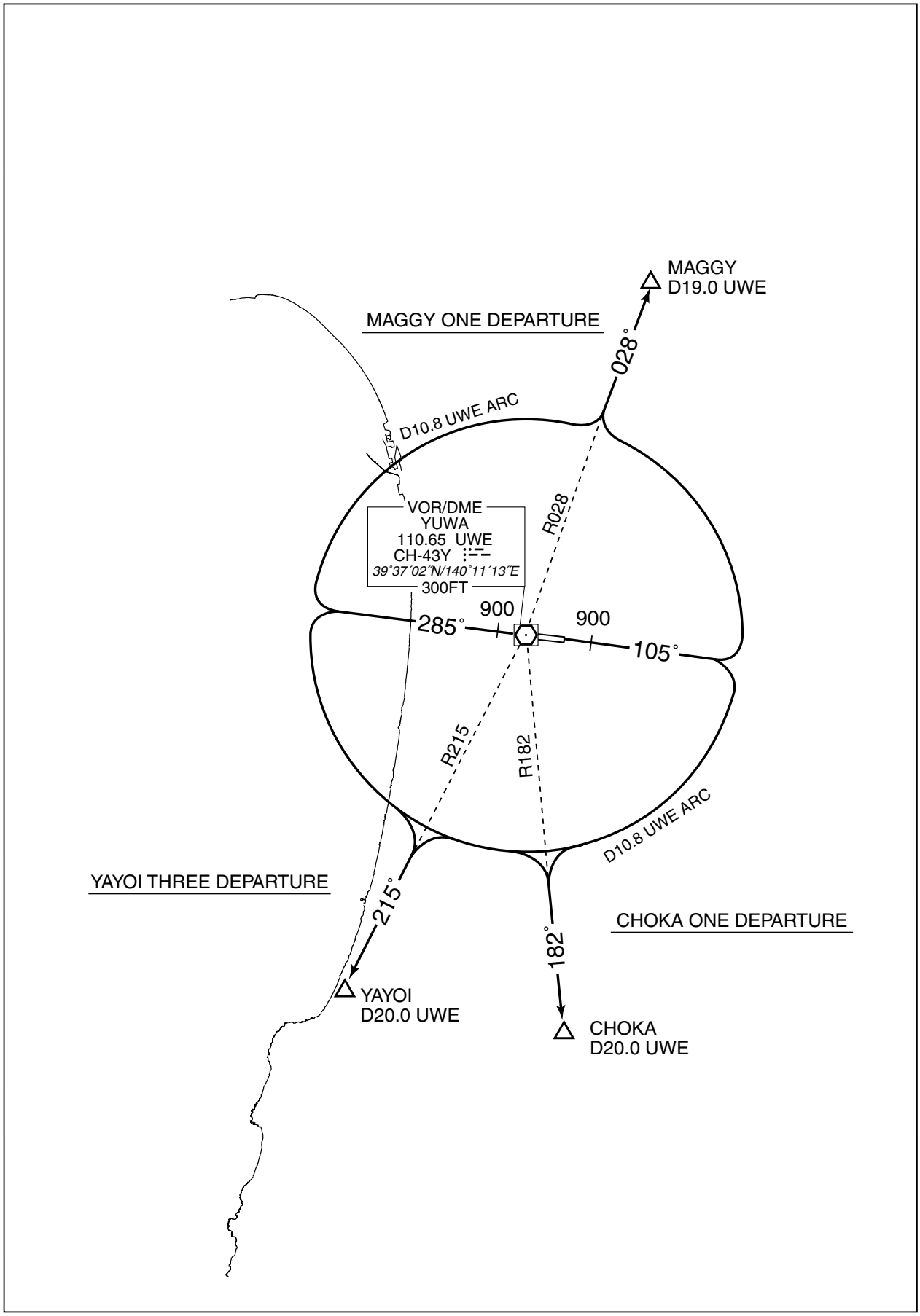
RWY10 : Climb RWY HDG to 900FT, via UWE R105, turn right, via UWE 10.8DME clockwise ARC to intercept and proceed via UWE R182 to CHOKA.
RWY28 : Climb RWY HDG to 900FT, via UWE R285, turn left, via UWE 10.8DME counterclockwise ARC to intercept and proceed via UWE R182 to CHOKA.

YAYOI THREE DEPARTURE

RWY10 : Climb RWY HDG to 900FT, via UWE R105, turn right, via UWE 10.8DME clockwise ARC to intercept and proceed via UWE R215 to YAYOI.
RWY28 : Climb RWY HDG to 900FT, via UWE R285, turn left, via UWE 10.8DME counterclockwise ARC to intercept and proceed via UWE R215 to YAYOI.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA SID



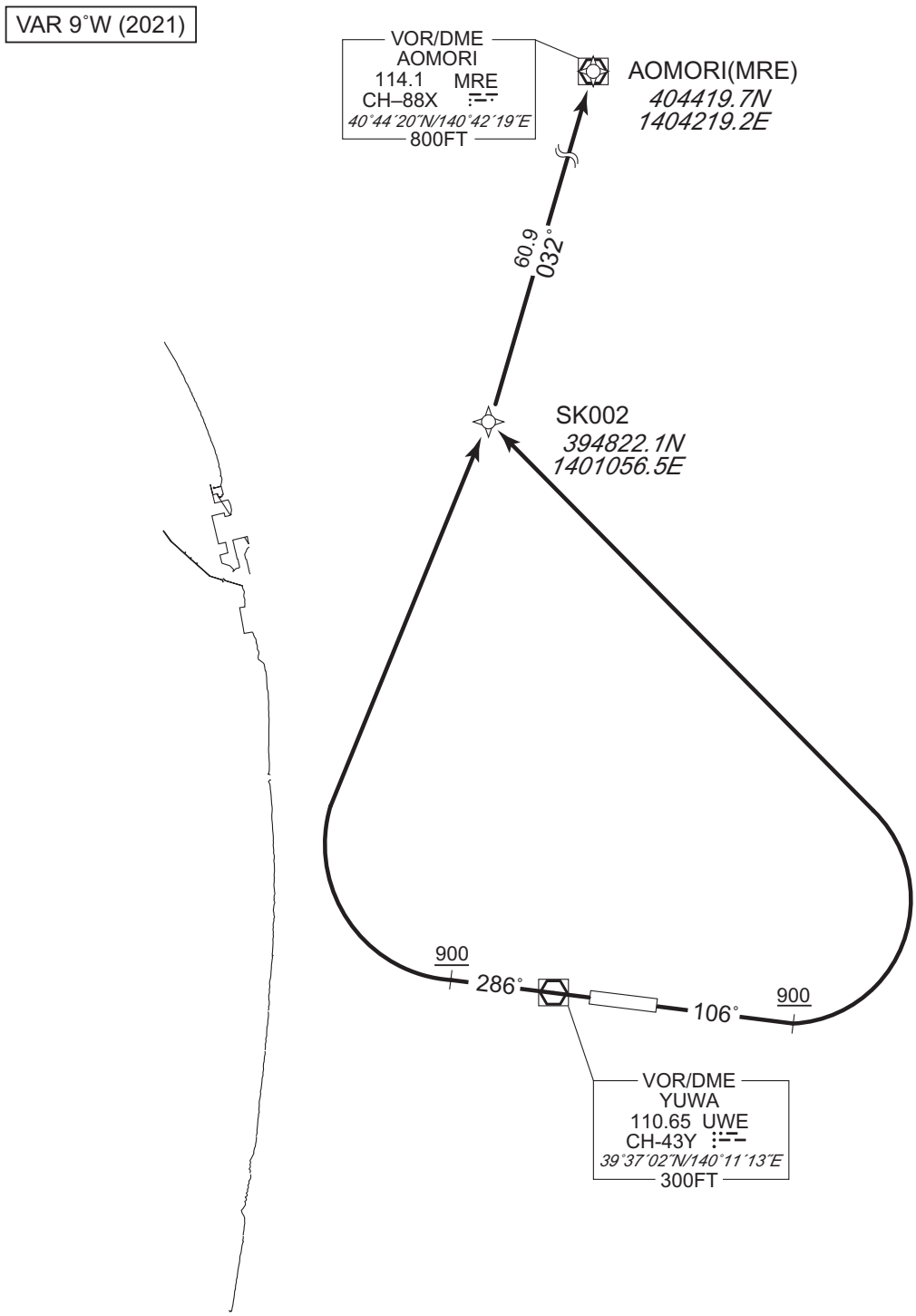
STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA

RNAV SID

MUTSU TWO DEPARTURE	Basic RNP1

Note GNSS required.



RWY10 : Climb on HDG 106˚ at or above 900FT, turn left direct to SK002, to MRE.
RWY28 : Climb on HDG 286˚ at or above 900FT, turn right direct to SK002, to MRE.

NOTE RWY10 : 5.0% climb gradient required up to 1700FT.
OBST ALT 3019FT located at 10.0NM 018˚ FM end of RWY10.

CHANGE : Description of PROC name.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA RNAV SID

MUTSU TWO DEPARTURE

RWY10

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	—	—	106 (096.6)	-8.9	—	—	+900	—	—	Basic RNP1
002	DF	SK002	—	—	-8.9	—	L	—	—	—	Basic RNP1
003	TF	MRE	—	032 (023.0)	-8.9	60.9	—	—	—	—	Basic RNP1

RWY28

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	—	—	286 (276.6)	-8.9	—	—	+900	—	—	Basic RNP1
002	DF	SK002	—	—	-8.9	—	R	—	—	—	Basic RNP1
003	TF	MRE	—	032 (023.0)	-8.9	60.9	—	—	—	—	Basic RNP1

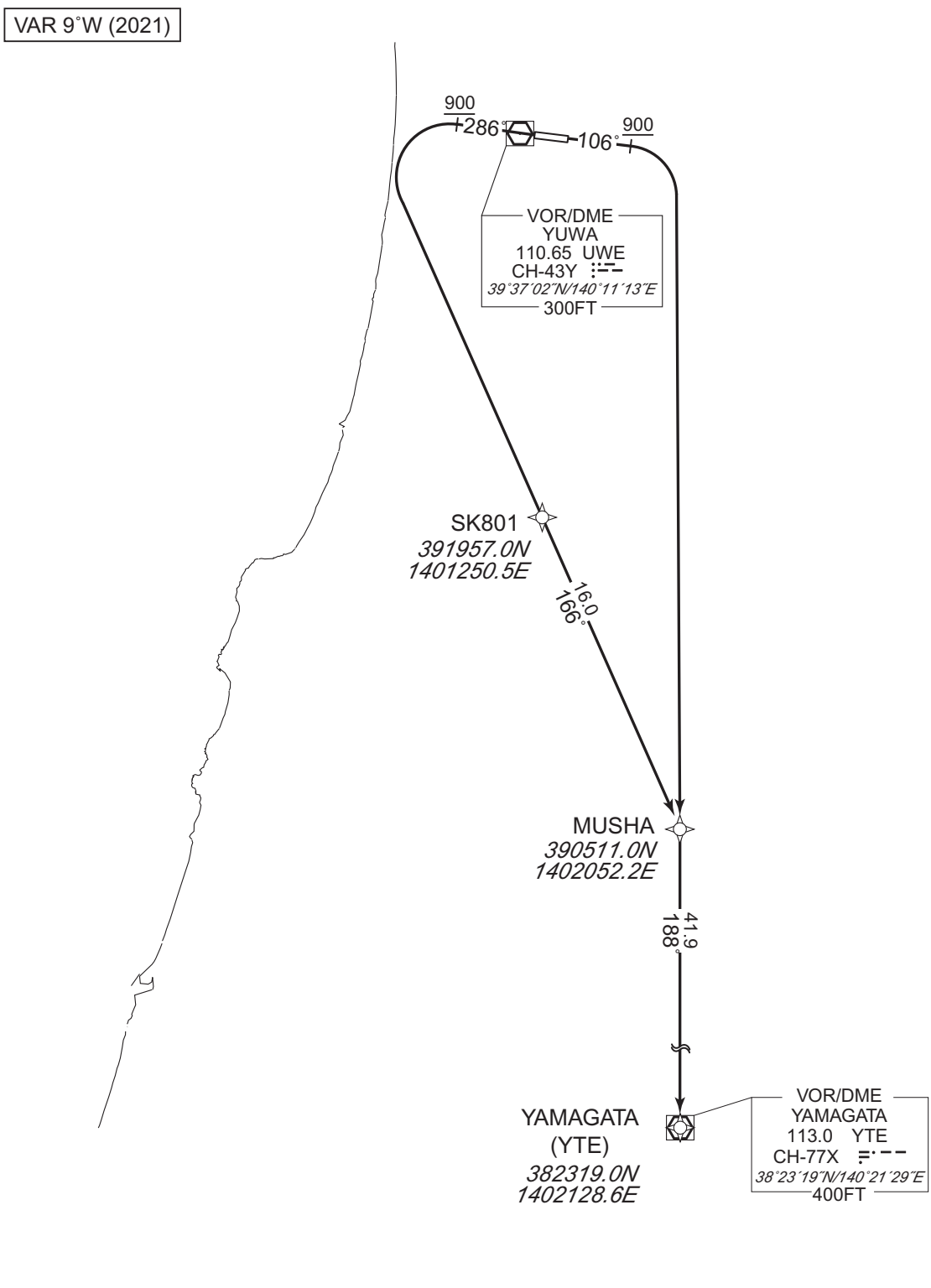
CHANGE : VAR. PROC renamed. PROC course.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA

RNAV SID

USYU TWO DEPARTURE	Basic RNP1
Note GNSS required.	



RWY10 : Climb on HDG 106˚ at or above 900FT, turn right direct to MUSHA, to YTE.
RWY28 : Climb on HDG 286˚ at or above 900FT, turn left direct to SK801, to MUSHA, to YTE.

CHANGE : Description of PROC name.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA RNAV SID

USYU TWO DEPARTURE

RWY10

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	—	—	106 (096.6)	-8.9	—	—	+900	—	—	Basic RNP1
002	DF	MUSHA	—	—	-8.9	—	R	—	—	—	Basic RNP1
003	TF	YTE	—	188 (179.3)	-8.9	41.9	—	—	—	—	Basic RNP1

RWY28

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	—	—	286 (276.6)	-8.9	—	—	+900	—	—	Basic RNP1
002	DF	SK801	—	—	-8.9	—	L	—	—	—	Basic RNP1
003	TF	MUSHA	—	166 (157.1)	-8.9	16.0	—	—	—	—	Basic RNP1
004	TF	YTE	—	188 (179.3)	-8.9	41.9	—	—	—	—	Basic RNP1

CHANGE : VAR. PROC renamed. PROC course.

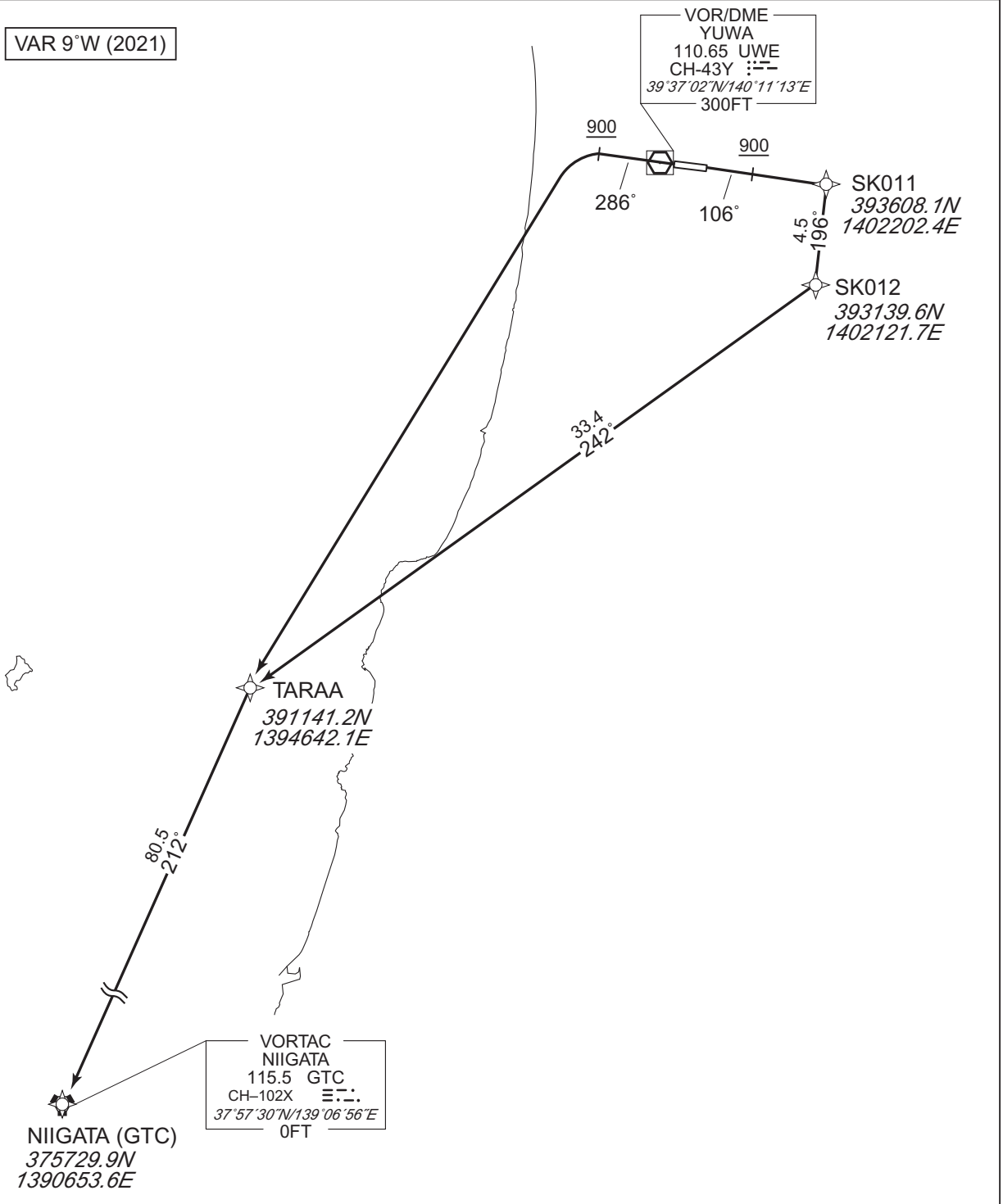
STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA

RNAV SID

NIIGATA TWO DEPARTURE	Basic RNP1

Note GNSS required.



RWY10 : Climb on HDG 106˚ at or above 900FT, direct to SK011, to SK012, to TARAA, to GTC.

RWY28 : Climb on HDG 286˚ at or above 900FT, turn left direct to TARAA, to GTC.

CHANGE : Description of PROC name.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA RNAV SID

NIIGATA TWO DEPARTURE

RWY10

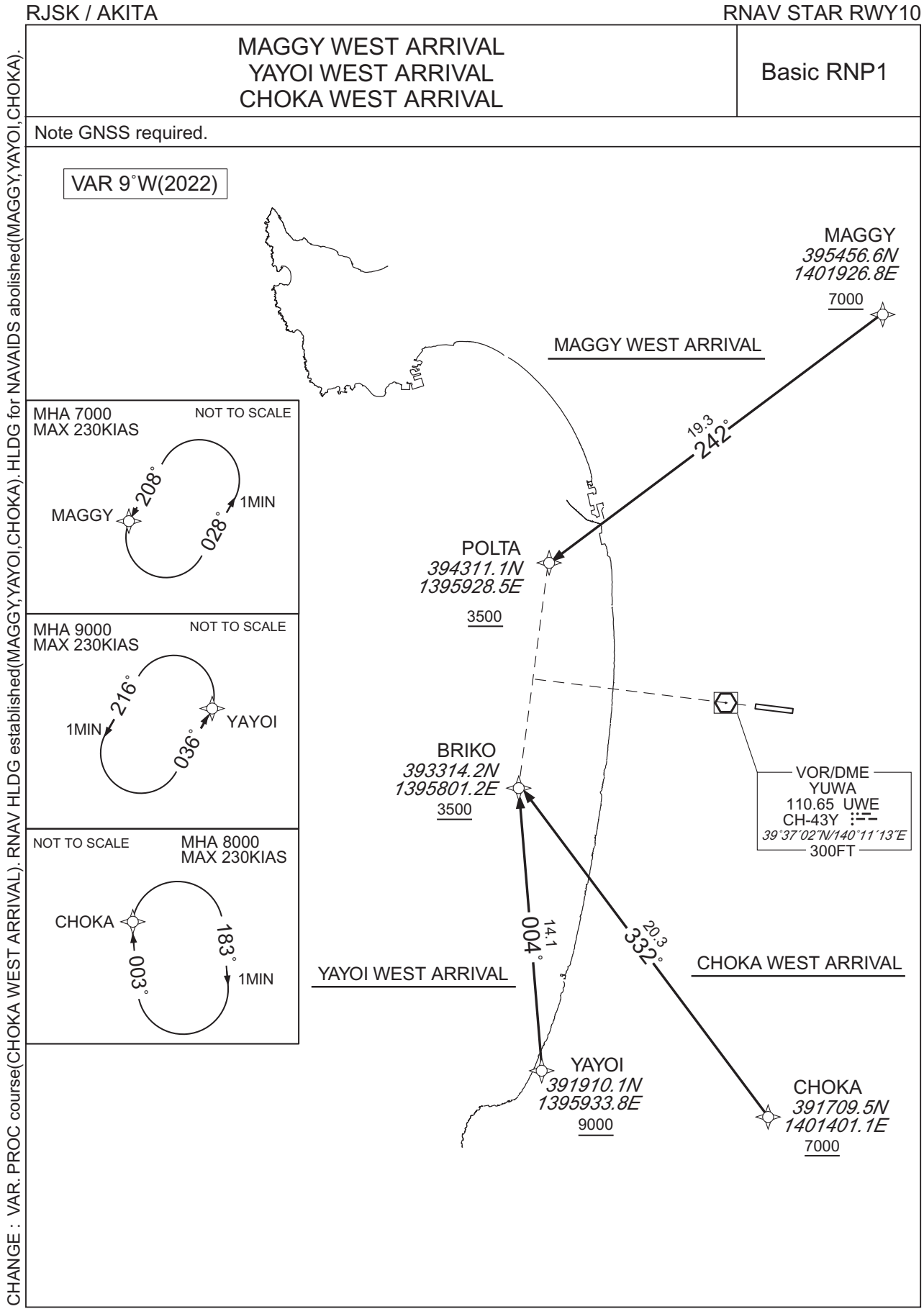
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	–	–	106 (096.6)	-8.9	–	–	+900	–	–	Basic RNP1
002	DF	SK011	–	–	-8.9	–	–	–	–	–	Basic RNP1
003	TF	SK012	–	196 (186.7)	-8.9	4.5	–	–	–	–	Basic RNP1
004	TF	TARAA	–	242 (233.5)	-8.9	33.4	–	–	–	–	Basic RNP1
005	TF	GTC	–	212 (203.0)	-8.9	80.5	–	–	–	–	Basic RNP1

RWY28

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	–	–	286 (276.6)	-8.9	–	–	+900	–	–	Basic RNP1
002	DF	TARAA	–	–	-8.9	–	–	–	–	–	Basic RNP1
003	TF	GTC	–	212 (203.0)	-8.9	80.5	–	–	–	–	Basic RNP1

CHANGE : VAR. PROC renamed. PROC course.

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

RJSK / AKITA RNAV STAR RWY10

CHANGE : VAR. PROC course(CHOKA WEST ARRIVAL). RNAV HLDG established(MAGGY,YAYOI,CHOKA).

MAGGY WEST ARRIVAL

From MAGGY at or above 7000FT, to POLTA at or above 3500FT.

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	MAGGY	—	—	-9.0	—	—	+7000	—	—	Basic RNP1
002	TF	POLTA	—	242 (232.6)	-9.0	19.3	—	+3500	—	—	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	MAGGY	208 (199.5)	-9.0	1.0(-14000)	L	7000	FL140	-230(-14000)	Basic RNP1

YAYOI WEST ARRIVAL

From YAYOI at or above 9000FT, to BRIKO at or above 3500FT.

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	YAYOI	—	—	-9.0	—	—	+9000	—	—	Basic RNP1
002	TF	BRIKO	—	004 (355.2)	-9.0	14.1	—	+3500	—	—	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	YAYOI	036 (026.6)	-9.0	1.0(-14000)	L	9000	FL140	-230(-14000)	Basic RNP1

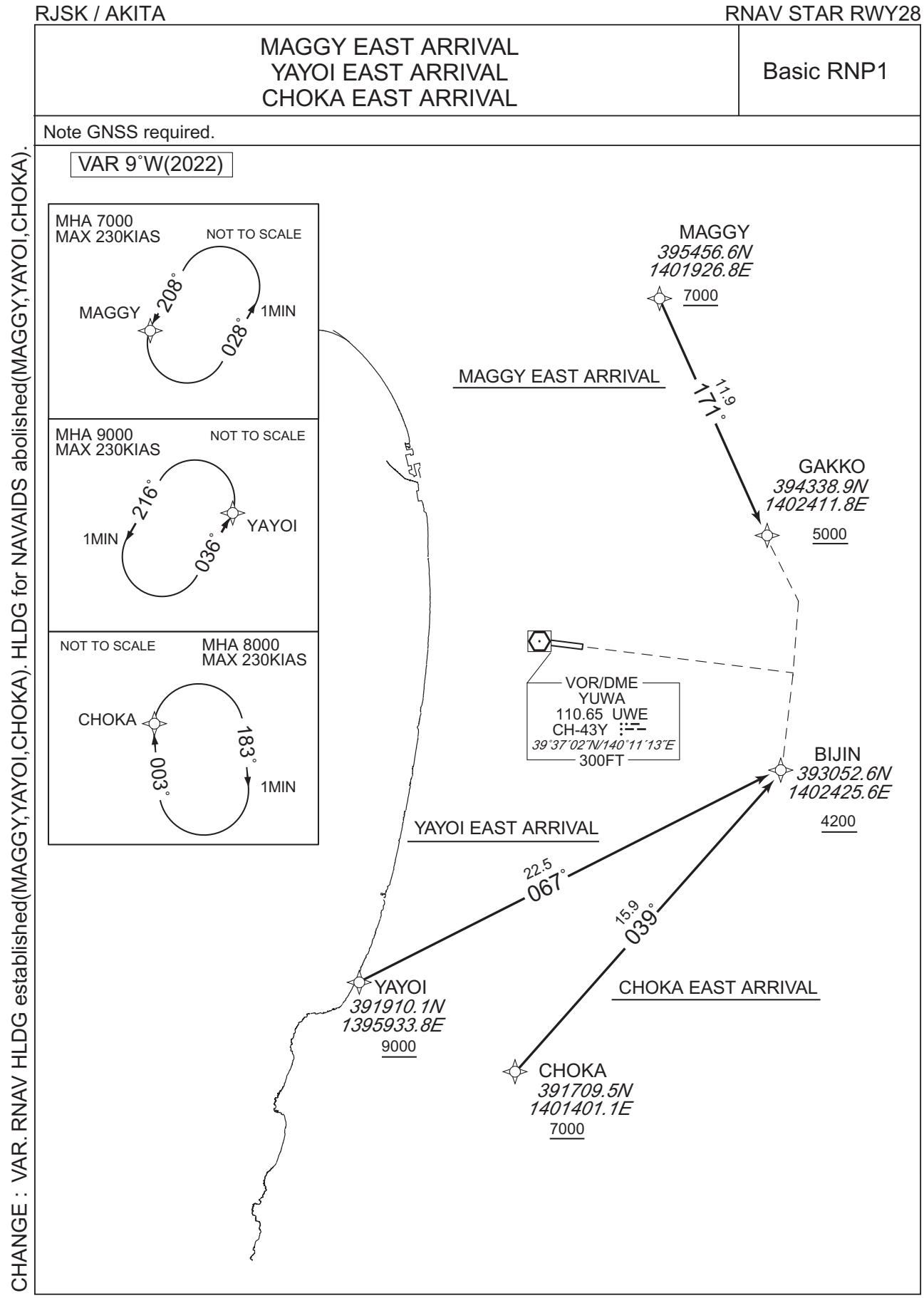
CHOKA WEST ARRIVAL

From CHOKA at or above 7000FT, to BRIKO at or above 3500FT.

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	CHOKA	—	—	-9.0	—	—	+7000	—	—	Basic RNP1
002	TF	BRIKO	—	332 (322.5)	-9.0	20.3	—	+3500	—	—	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	CHOKA	003 (353.8)	-9.0	1.0(-14000)	R	8000	FL140	-230(-14000)	Basic RNP1

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

RJSK / AKITA RNAV STAR RWY28

MAGGY EAST ARRIVAL

From MAGGY at or above 7000FT, to GAKKO at or above 5000FT.

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	MAGGY	—	—	-9.0	—	—	+7000	—	—	Basic RNP1
002	TF	GAKKO	—	171 (162.1)	-9.0	11.9	—	+5000	—	—	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	MAGGY	208 (199.5)	-9.0	1.0(-14000)	L	7000	FL140	-230(-14000)	Basic RNP1

YAYOI EAST ARRIVAL

From YAYOI at or above 9000FT, to BIJIN at or above 4200FT.

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	YAYOI	—	—	-9.0	—	—	+9000	—	—	Basic RNP1
002	TF	BIJIN	—	067 (058.5)	-9.0	22.5	—	+4200	—	—	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	YAYOI	036 (026.6)	-9.0	1.0(-14000)	L	9000	FL140	-230(-14000)	Basic RNP1

CHOKA EAST ARRIVAL

From CHOKA at or above 7000FT, to BIJIN at or above 4200FT.

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	CHOKA	—	—	-9.0	—	—	+7000	—	—	Basic RNP1
002	TF	BIJIN	—	039 (030.3)	-9.0	15.9	—	+4200	—	—	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	CHOKA	003 (353.8)	-9.0	1.0(-14000)	R	8000	FL140	-230(-14000)	Basic RNP1

CHANGE : VAR. RNAV HLDG established(MAGGY,YAYOI,CHOKA).

STANDARD ARRIVAL CHART-INSTRUMENT

RJSK / AKITA STAR

KOANI ARRIVAL

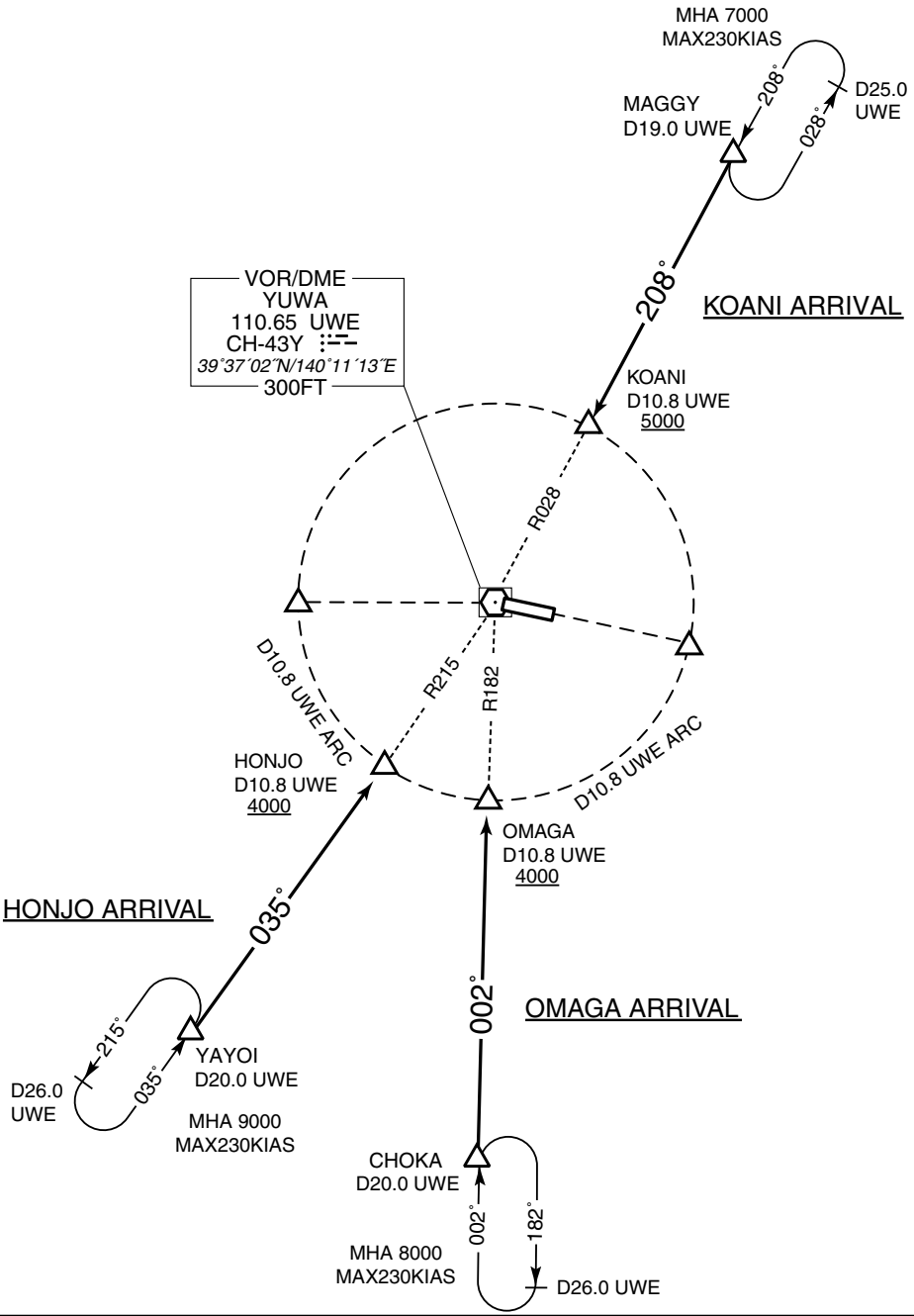
From over MAGGY, via UWE R028 to KOANI.
Cross KOANI at or above 5000FT.

OMAGA ARRIVAL

From over CHOKA, via UWE R182 to OMAGA.
Cross OMAGA at or above 4000FT.

HONJO ARRIVAL

From over YAYOI, via UWE R215 to HONJO.
Cross HONJO at or above 4000FT.



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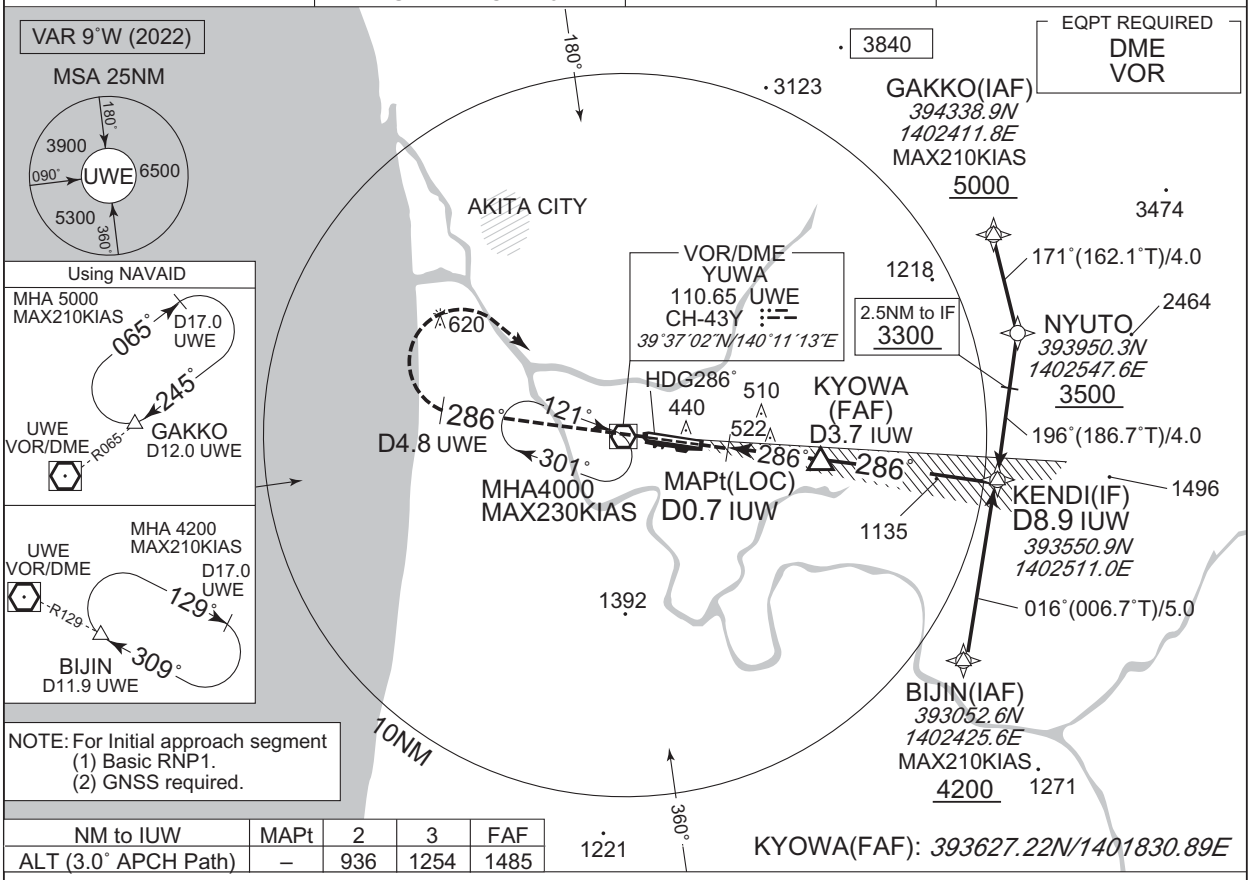
INSTRUMENT APPROACH CHART

RJSK / AKITA

ILS Z or LOC Z RWY28

SAPPORO CONTROL	ILS-LOC	AKITA TOWER	NO RADAR
127.575 - 315.3 120.575 - 277.1	108.9 IUW ILS-GP 329.3 ILS-DME CH-26X	118.6 - 126.2	

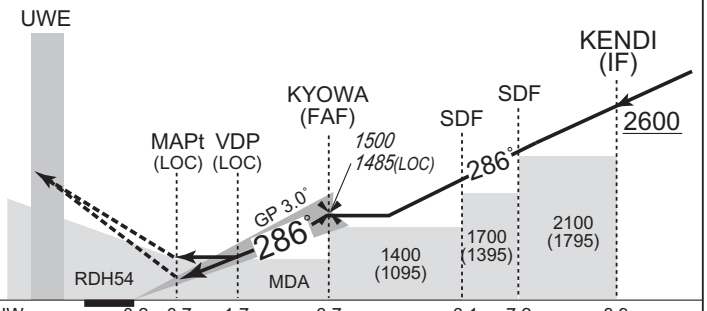


NM to IUW	MAPt	2	3	FAF
ALT (3.0˚ APCH Path)	–	936	1254	1485

MISSED APPROACH

Climb to 800FT on HDG286˚,
via UWE R286 to UWE 4.8DME,
turn right, direct to UWE
VOR/DME and hold at 4000FT.
Contact AKITA TOWER.

Timing not authorized for defining the MAPt.



DME to IUW	0.2	0.7	1.7	3.7	6.1	7.2	8.9
NM to THR	0	0.5	1.5	3.5	5.9	7.0	8.7

MINIMA THR elev. 314 AD elev. 305

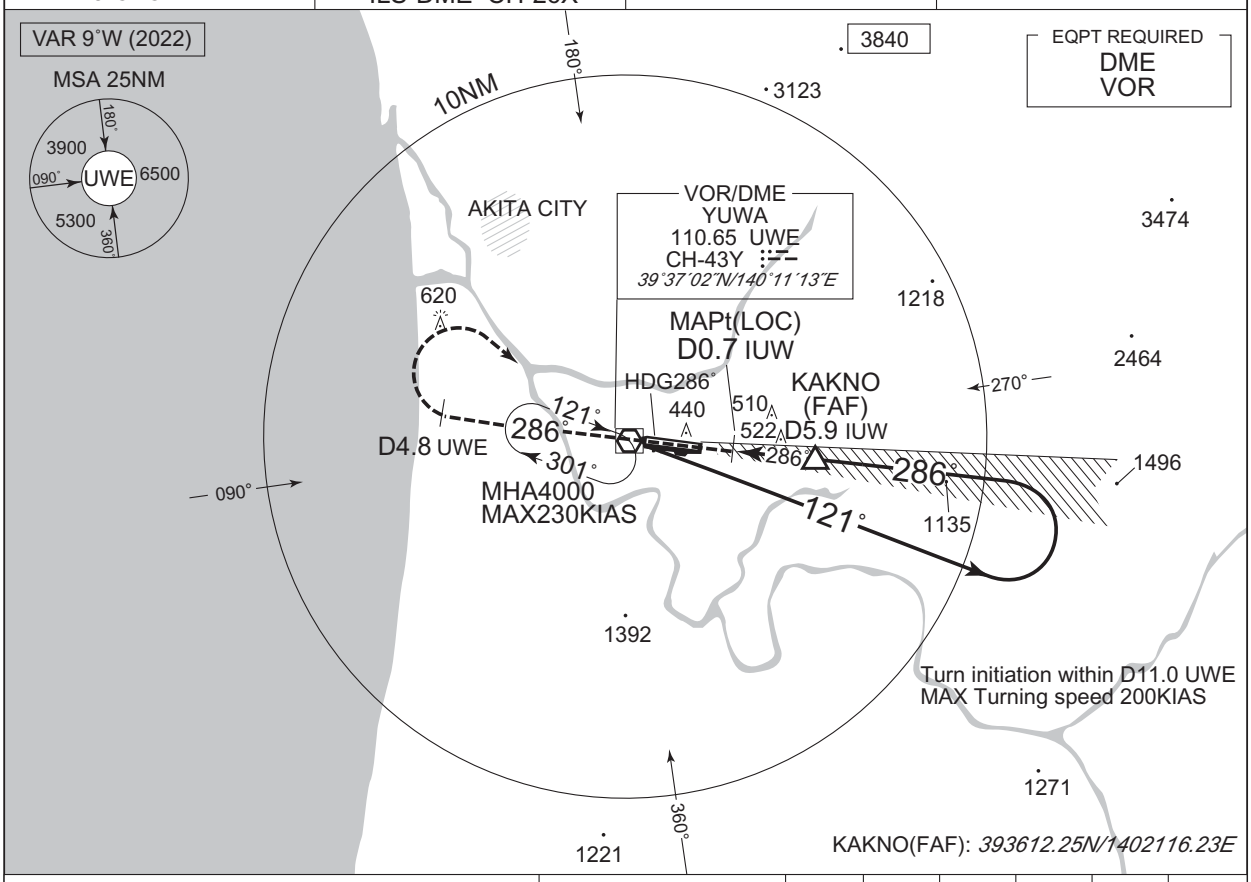
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	514 (200)	550	810 (505)	1000	830 (525)	1600
B				1200		
C					900 (595)	2400
D				1600		3200

CHANGE : VAR. PROC course.

INSTRUMENT APPROACH CHART

RJSK / AKITA — ILS Y or LOC Y RWY28

SAPPORO CONTROL	ILS-LOC	AKITA TOWER	NO RADAR
127.575 - 315.3 120.575 - 277.1	108.9 IUW ILS-GP 329.3 ILS-DME CH-26X	118.6 - 126.2	

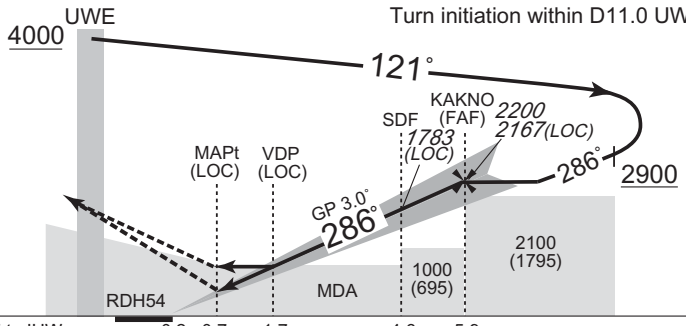


NM to IUW	MAPt	2	3	4	5	FAF
ALT (3.0° APCH Path)	–	936	1254	1573	1891	2167

MISSED APPROACH

Climb to 800FT on HDG286°,
via UWE R286 to UWE 4.8DME,
turn right, direct to UWE
VOR/DME and hold at 4000FT.
Contact AKITA TOWER.

Timing not authorized for defining the MAPt.



DME to IUW	0.2	0.7	1.7	4.6	5.9
NM to THR	0	0.5	1.5	4.4	5.7

MINIMA THR elev. 314 AD elev. 305

CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	514 (200)	550	810 (505)	1000	830 (525)	1600
B				1200		
C					900 (595)	2400
D				1600		3200

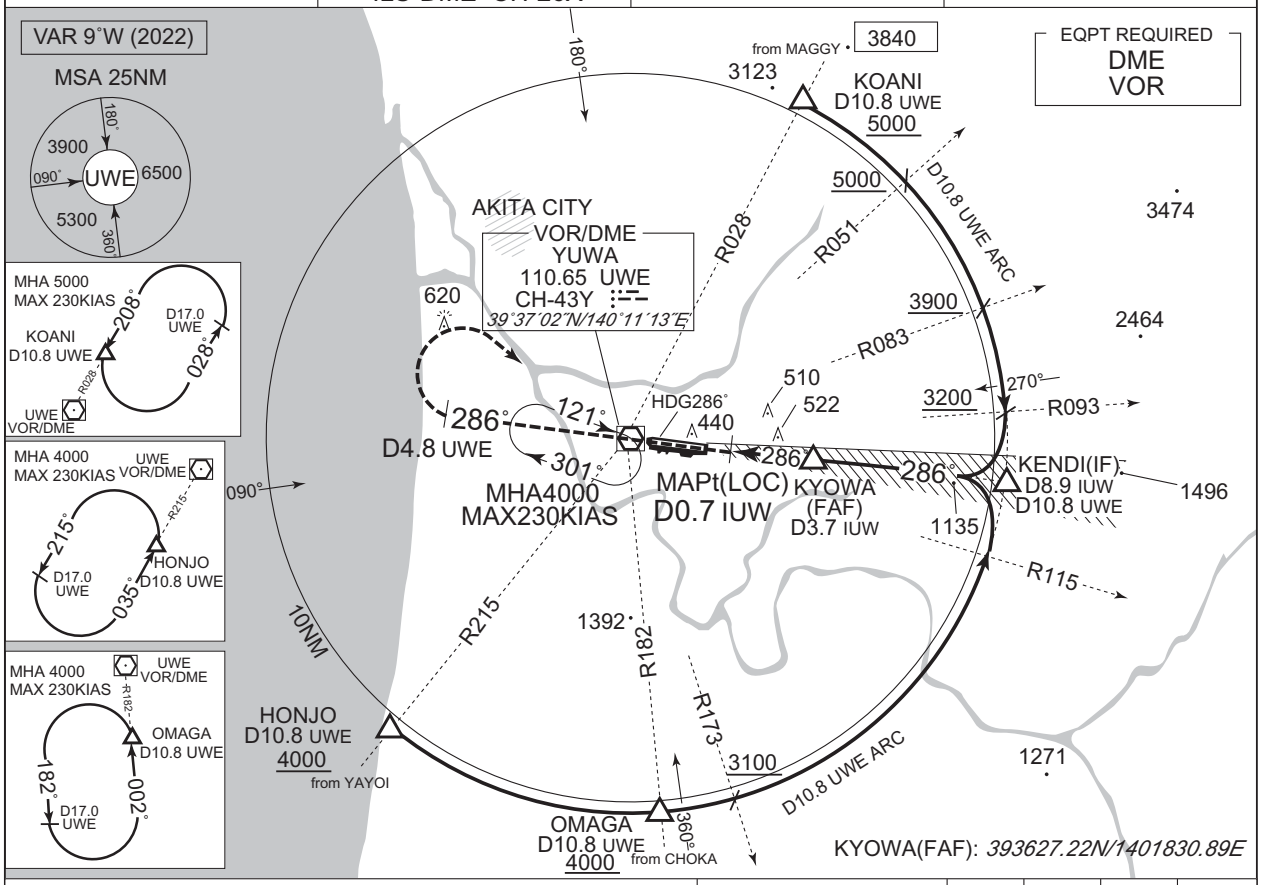
CHANGE : VAR. PROC course.

INSTRUMENT APPROACH CHART

RJSK / AKITA

ILS X or LOC X RWY28

SAPPORO CONTROL	ILS-LOC	AKITA TOWER	NO RADAR
127.575 - 315.3 120.575 - 277.1	108.9 IUW ILS-GP 329.3 ILS-DME CH-26X	118.6 - 126.2	

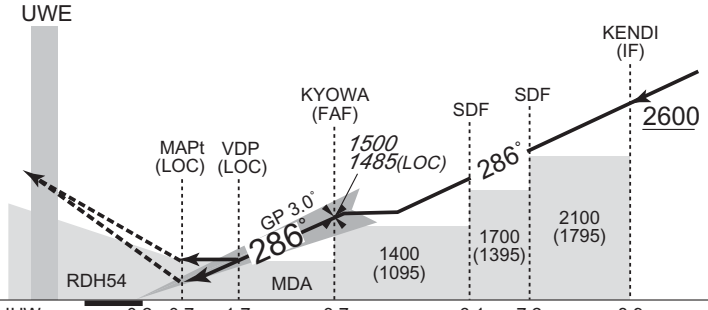


NM to IUW	MAPt	2	3	FAF
ALT (3.0° APCH Path)	–	936	1254	1485

MISSED APPROACH

Climb to 800FT on HDG286°,
via UWE R286 to UWE 4.8DME,
turn right, direct to UWE
VOR/DME and hold at 4000FT.
Contact AKITA TOWER.

Timing not authorized for defining the MAPt.



DME to IUW	0.2	0.7	1.7	3.7	6.1	7.2	8.9
NM to THR	0	0.5	1.5	3.5	5.9	7.0	8.7

MINIMA THR elev. 314 AD elev. 305

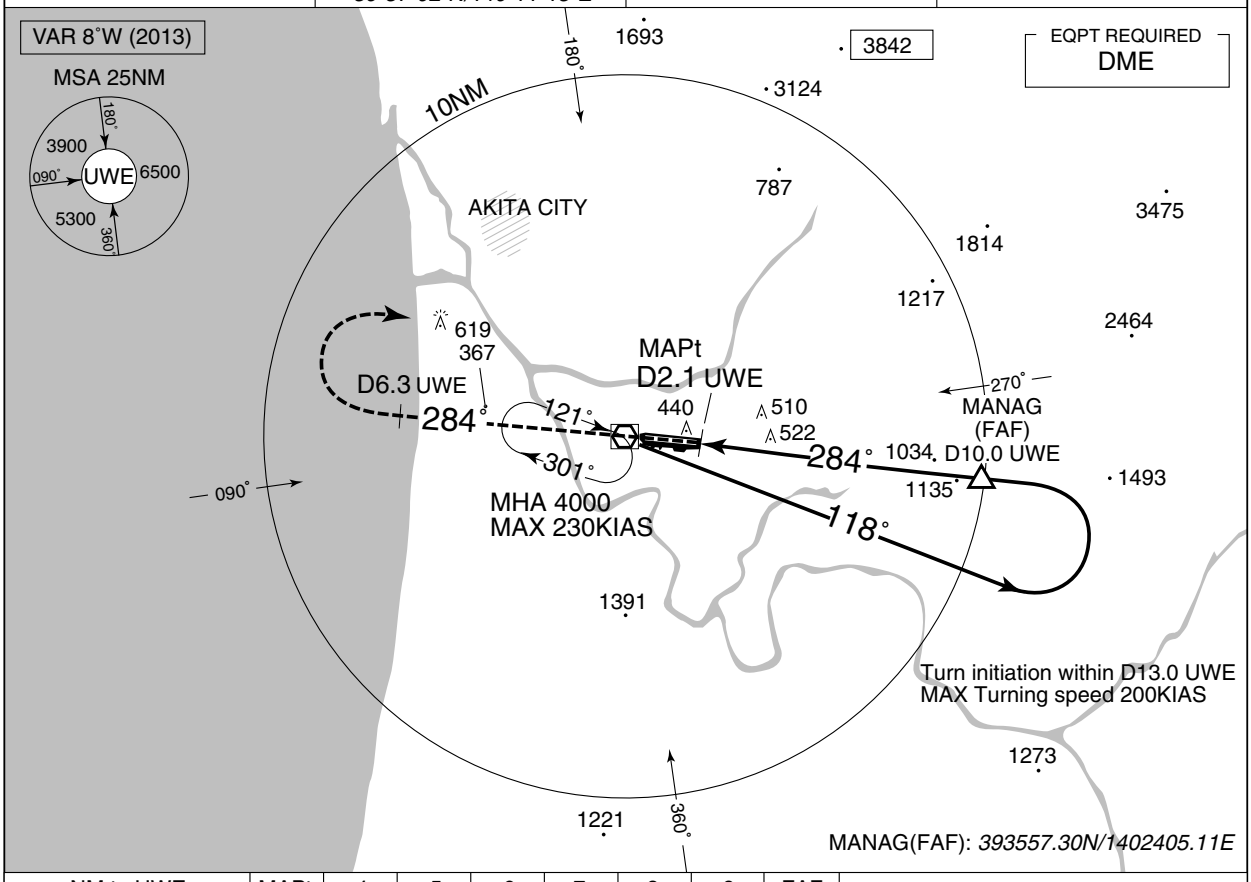
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	514 (200)	550	810 (505)	1000	830 (525)	1600
B				1200		
C					900 (595)	2400
D				1600		3200

CHANGE : VAR. PROC course.

INSTRUMENT APPROACH CHART

RJSK / AKITA VOR RWY28

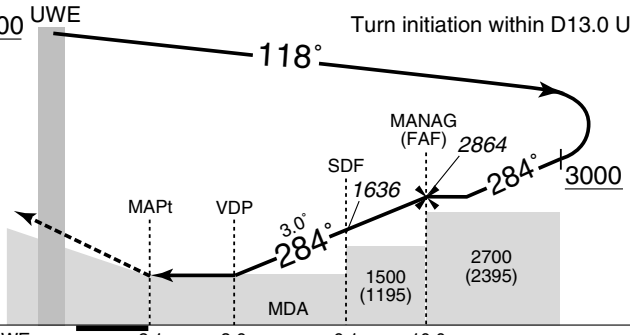
SAPPORO CONTROL	YUWA VOR/DME	AKITA TOWER	NO RADAR
127.575 - 315.3 120.575 - 277.1	110.65 UWE CH-43Y *39°37′02″N/140°11′13″E*	118.6 - 126.2	



NM to UWE	MAPt	4	5	6	7	8	9	FAF
ALT (3.0° APCH Path)	–	953	1272	1590	1908	2226	2545	2864

MISSED APPROACH
Proceed to UWE VOR/DME,
climb via UWE R284 to
UWE 6.3DME, turn right,
direct to UWE VOR/DME
and hold at 4000FT.
Contact AKITA TOWER.

Timing not authorized for defining the MAPt.



DME to UWE	2.1	3.6	6.1	10.0
NM to THR	0	1.5	4.0	7.8

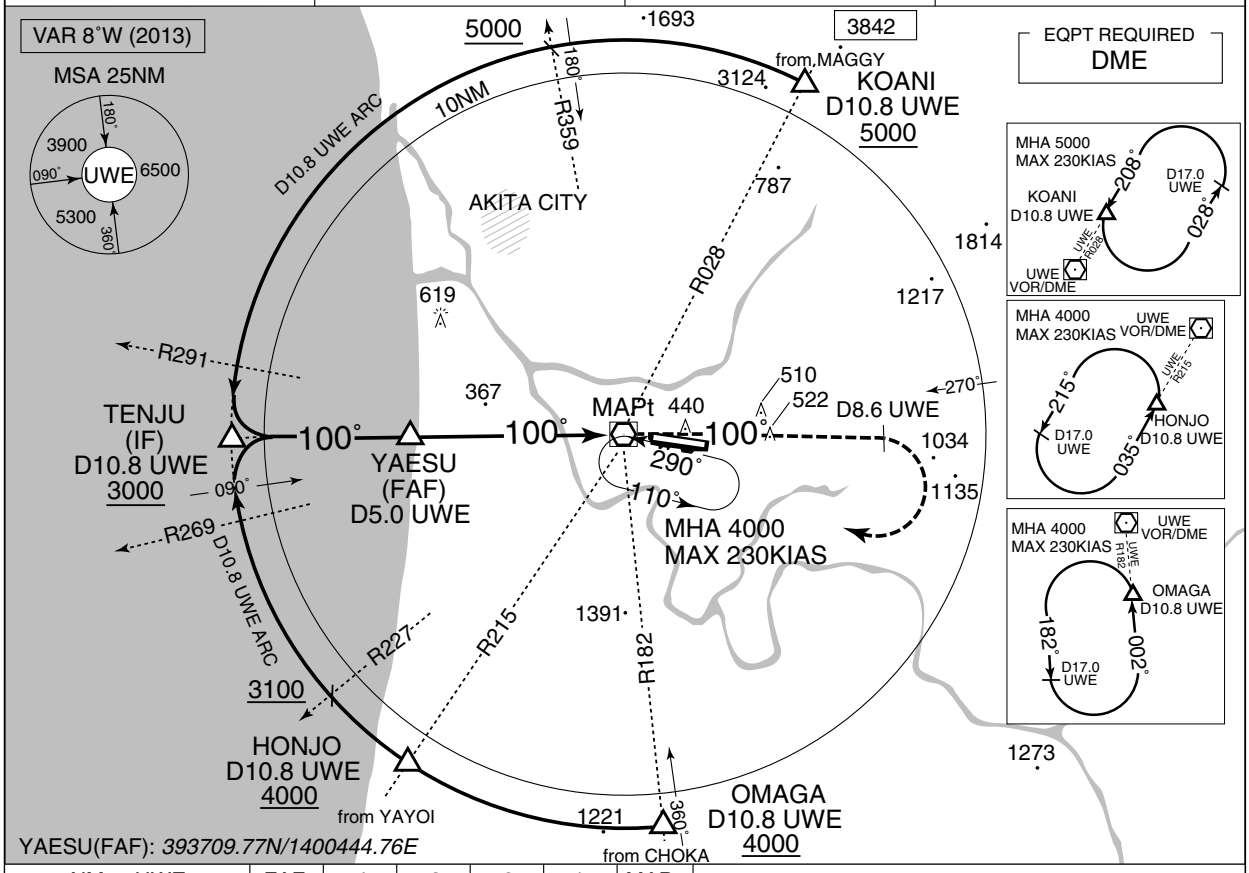
MINIMA THR elev. 314 AD elev. 305

CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	810 (505)	1000	830 (525)	1600
B		1200		
C			900 (595)	2400
D		1600		3200

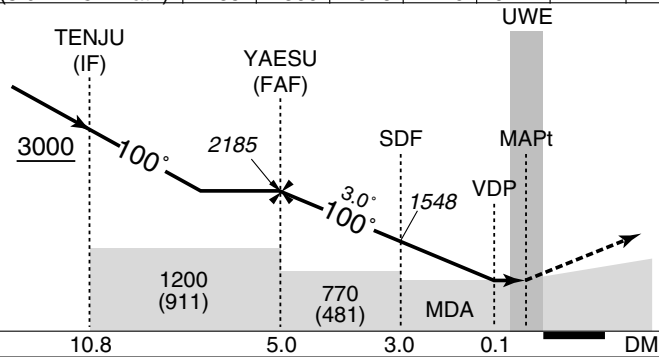
INSTRUMENT APPROACH CHART

RJSK / AKITA VOR Z RWY10

SAPPORO CONTROL	YUWA VOR/DME	AKITA TOWER	NO RADAR
127.575 - 315.3 120.575 - 277.1	110.65 UWE CH-43Y *39°37′02″N/140°11′13″E*	118.6 - 126.2	



NM to UWE	FAF	4	3	2	1	MAPt
ALT (3.0° APCH Path)	2185	1866	1548	1229	911	–



MISSED APPROACH
Climb via UWE R100 to UWE 8.6DME, turn right, direct to UWE VOR/DME and hold at 4000FT.
Contact AKITA TOWER.

Timing not authorized for defining the MAPt.

10.8	5.0	3.0	0.1	DME to UWE
11.6	5.8	3.8	0.9	0 NM to THR

MINIMA THR elev. 289 AD elev. 305

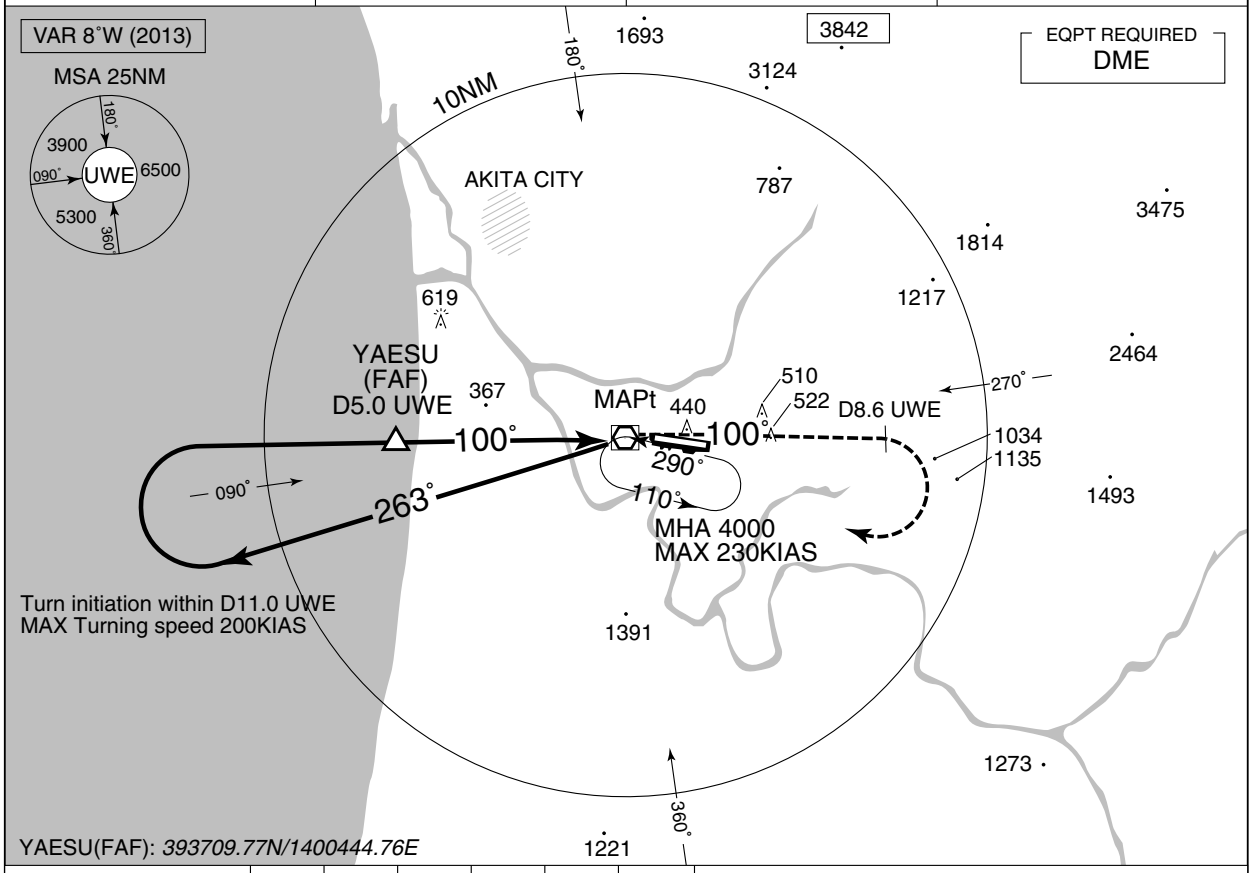
CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	680 (391)	1200	830 (525)	1600
B		1300		
C		1400	900 (595)	2400
D		1600		3200

INSTRUMENT APPROACH CHART

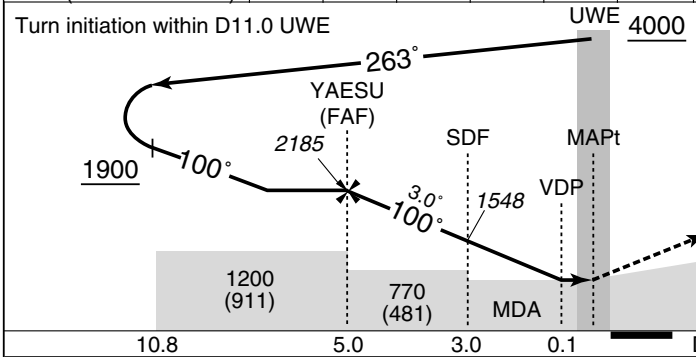
RJSK / AKITA

VOR Y RWY10

SAPPORO CONTROL	YUWA VOR/DME	AKITA TOWER	NO RADAR
127.575 - 315.3 120.575 - 277.1	110.65 UWE CH-43Y *39°37′02″N/140°11′13″E*	118.6 - 126.2	



NM to UWE	FAF	4	3	2	1	MAPt
ALT (3.0° APCH Path)	2185	1866	1548	1229	911	–



MISSED APPROACH
Climb via UWE R100 to UWE 8.6DME, turn right, direct to UWE VOR/DME and hold at 4000FT.
Contact AKITA TOWER.

Timing not authorized for defining the MAPt.

10.8	5.0	3.0	0.1		DME to UWE
11.6	5.8	3.8	0.9	0	NM to THR

MINIMA THR elev. 289 AD elev. 305

CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	680 (391)	1200	830 (525)	1600
B		1300		
C		1400	900 (595)	2400
D		1600		3200

INSTRUMENT APPROACH CHART

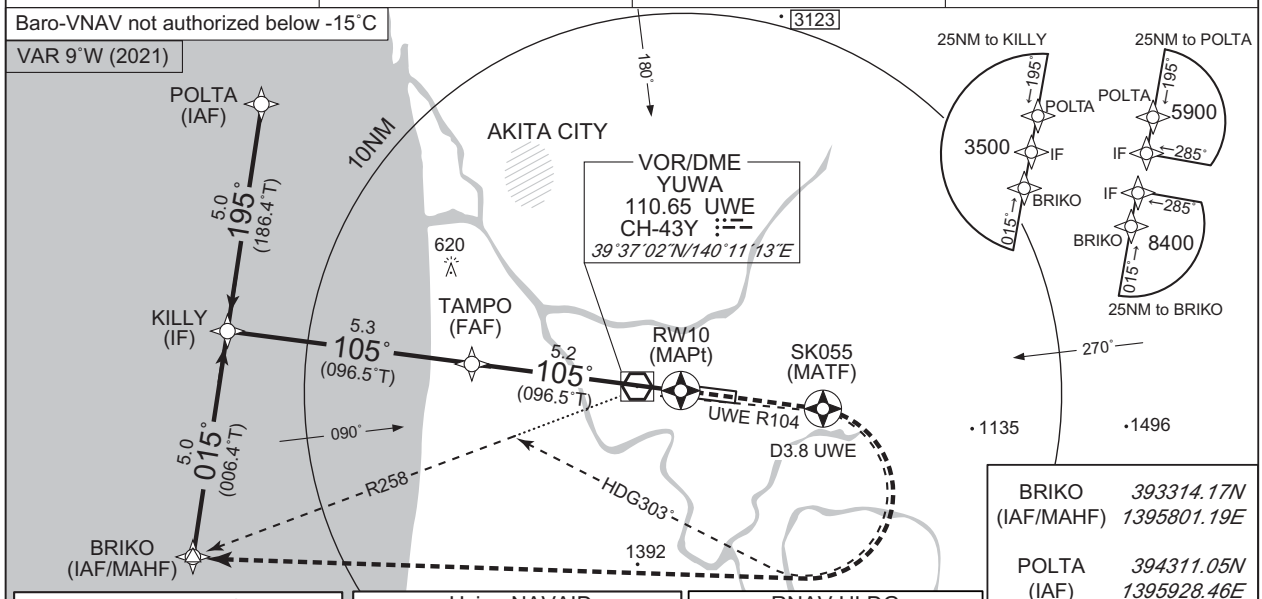
RJSK / AKITA

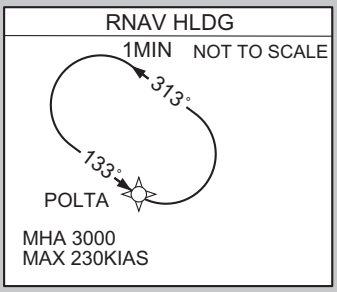
RNP Z RWY10

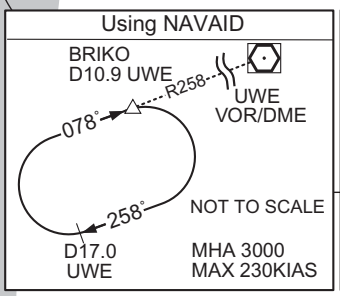
SAPPORO CONTROL	RNP APCH	AKITA TOWER	NO RADAR
127.575 - 315.3 120.575 - 277.1		118.6 - 126.2	

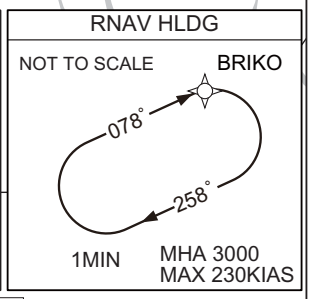
Baro-VNAV not authorized below -15˚C

VAR 9˚W (2021)



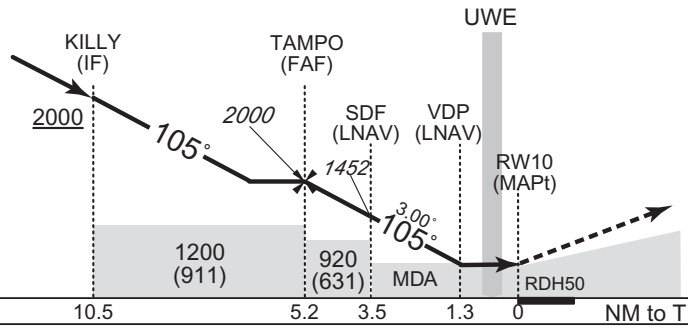






	BRIKO (IAF/MAHF)	POLTA (IAF)	KILLY (IF)	TAMPO (FAF)	RW10 (MAPt)	SK055 (MATF)
	393314.17N	*394311.05N*	*393812.61N*	*393736.78N*	*393700.98N*	*393640.22N*
	1395801.19E	*1395928.46E*	*1395844.78E*	*1400532.45E*	*1401215.14E*	*1401606.59E*

NM to Next Fix	FAF	5	4	3	2	MAPt
ALT (3.0˚ APCH Path)	2000	1930	1611	1293	975	–



MISSED APPROACH

Climb direct to SK055, turn right direct to BRIKO and hold at 3000FT. Contact AKITA TOWER.

(For using VOR/DME)
Climb via UWE R104 to 3.8DME, turn right HDG303˚ to intercept and proceed via UWE R258 to BRIKO and hold at 3000FT. Contact AKITA TOWER.

Missed APCH climb gradient MNM 3.1%

MINIMA THR elev. 289 AD elev. 305

CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS
A	740(451)	1400	740(451)	1400	830(525)	1600
B		1500		1500		
C		1600		1600	900(595)	2400
D		1800		1800		3200

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

CHANGE : RNAV HLDG established(POLTA,BRIKO). HLDG for NAVAIDS abolished(POLTA).

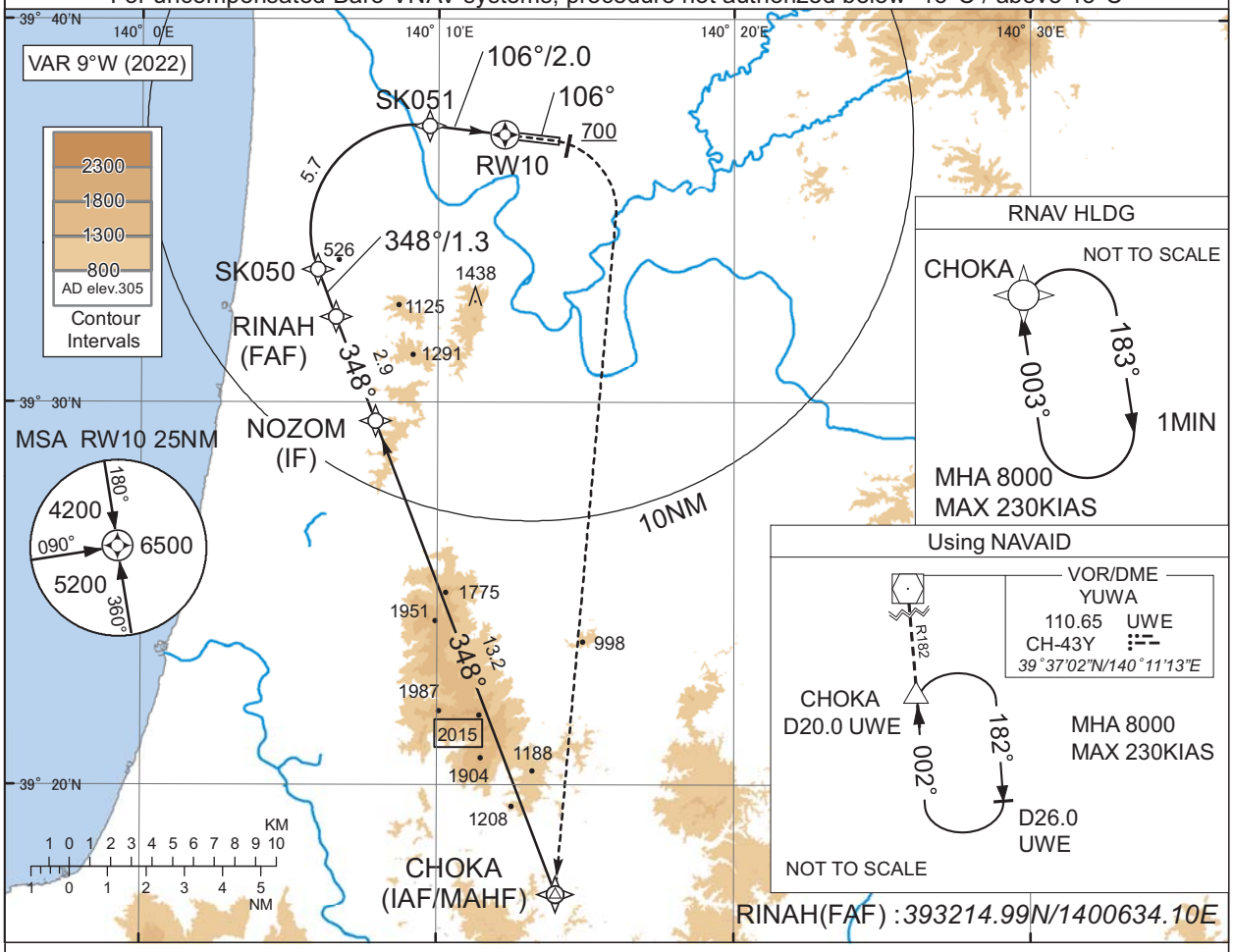
INSTRUMENT APPROACH CHART

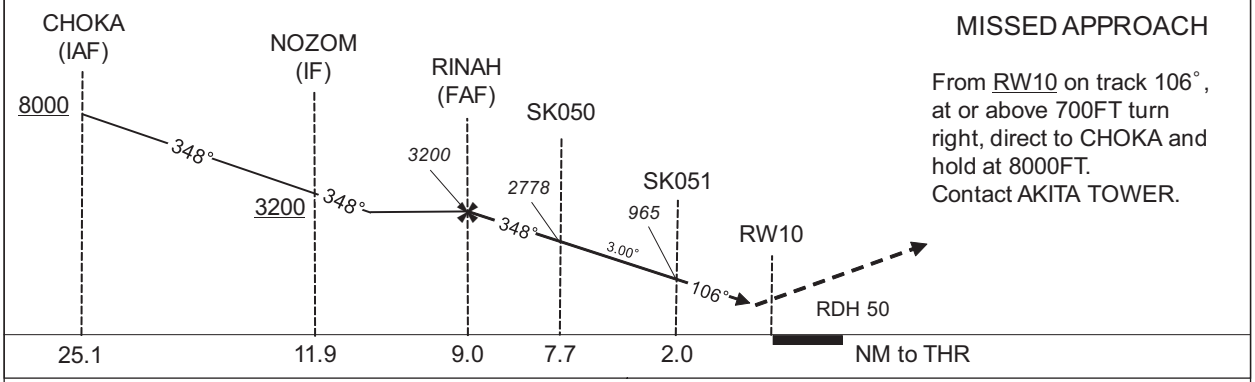
RJSK / AKITA

RNP Y RWY10(AR)

SAPPORO CONTROL 127.575 - 315.3 120.575 - 277.1	RNP AR RF required.	AKITA TOWER 118.6 - 126.2	NO RADAR

For uncompensated Baro-VNAV systems, procedure not authorized below -15°C / above 45°C





MISSED APPROACH

From RW10 on track 106°, at or above 700FT turn right, direct to CHOKA and hold at 8000FT.
Contact AKITA TOWER.

Missed APCH climb gradient MNM 5.0%

MINIMA	THR elev. 289	AD elev. 305
CAT	RNP 0.30	
	DA(H)	CMV
A	-	-
B		
C	686(397)	1400
D		1600

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

Authorization Required

CHANGE : VAR. RNAV HLDG established(CHOKA).

INSTRUMENT APPROACH CHART

RJSK / AKITA RNP Y RWY10(AR)

CHANGE : VAR. RNAV HLDG established(CHOKA).

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	CHOKA	-	-	-9.0	-	-	+8000	-	-	-
002	TF	NOZOM	-	348 (339.2)	-9.0	13.2	-	+3200	-	-	1.0
003	TF	RINAH	-	348 (339.1)	-9.0	2.9	-	3200	-	-	1.0
004	TF	SK050	-	348 (339.1)	-9.0	1.3	-	2778	-	-3.00	0.3
005	RF Center: SKRF1 r=2.78NM	SK051	-	-	-9.0	5.7	R	965	-	-3.00	0.3
006	TF	RW10	Y	106 (096.6)	-9.0	2.0	-	339	-	-3.00/50	0.3
007	FA	-	-	106 (096.6)	-9.0	-	-	+700	-	-	1.0
008	DF	CHOKA	-	-	-9.0	-	R	8000	-	-	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	CHOKA	003 (353.8)	-9.0	1.0 (-14000)	R	8000	FL140	-230 (-14000)	1.0

Waypoint Coordinates

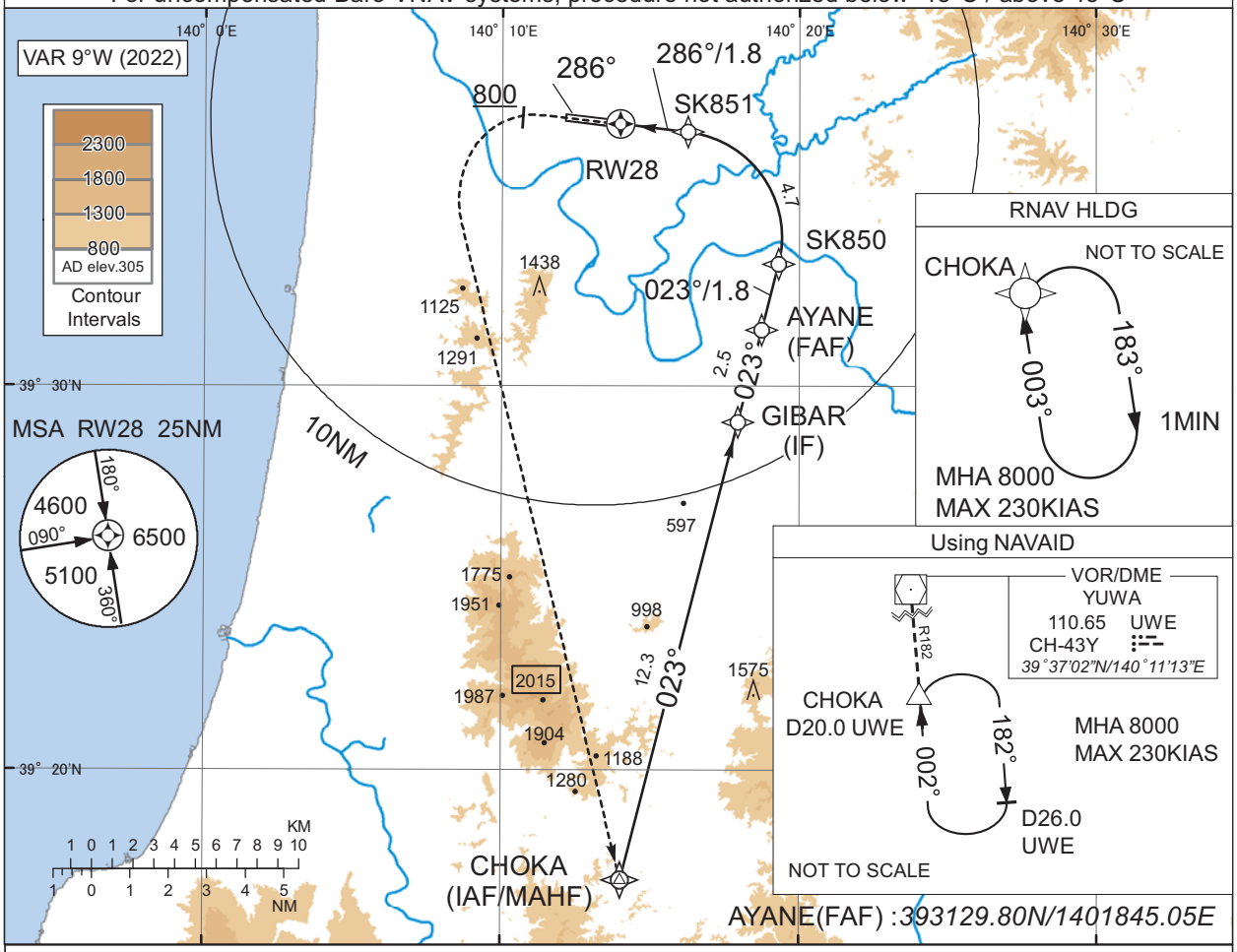
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
CHOKA	*391709.51N / 1401401.06E*	SKRF1	*393428.91N / 1400918.43E*
NOZOM	*392931.83N / 1400754.90E*		
RINAH	*393214.99N / 1400634.10E*		
SK050	*393329.21N / 1400557.30E*		
SK051	*393714.55N / 1400943.07E*		
RW10	*393700.98N / 1401215.14E*		

INSTRUMENT APPROACH CHART

RJSK / AKITA — RNP RWY28(AR)

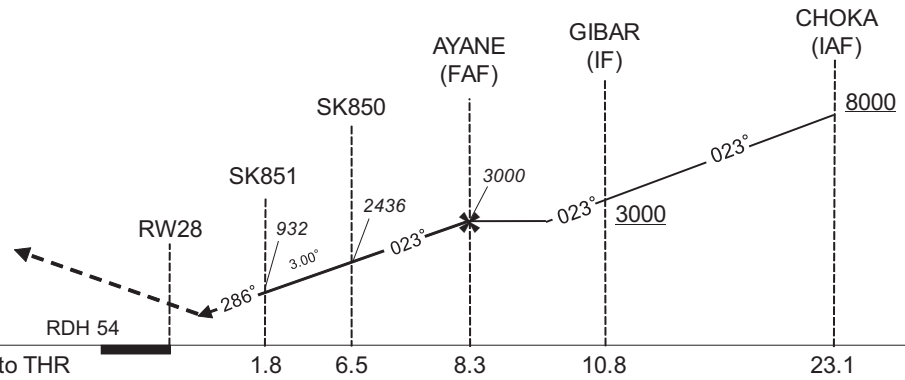
SAPPORO CONTROL 127.575 - 315.3 120.575 - 277.1	RNP AR RF required.	AKITA TOWER 118.6 - 126.2	NO RADAR

For uncompensated Baro-VNAV systems, procedure not authorized below -15°C / above 45°C



MISSED APPROACH

From RW28 on track 286°, at or above 800FT turn left, direct to CHOKA and hold at 8000FT.
Contact AKITA TOWER.



Missed APCH climb gradient MNM 5.0%

MINIMA	THR elev. 314	AD elev. 305
CAT	RNP 0.30	
	DA(H)	RVR/CMV
A	-	-
B		
C	653(339)	1000
D		1400

Authorization Required

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

CHANGE : VAR. RNAV HLDG established(CHOKA).

INSTRUMENT APPROACH CHART

RJSK / AKITA RNP RWY28(AR)

CHANGE : VAR. RNAV HLDG established(CHOKA).

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	CHOKA	-	-	-9.0	-	-	+8000	-	-	-
002	TF	GIBAR	-	023 (014.3)	-9.0	12.3	-	+3000	-	-	1.0
003	TF	AYANE	-	023 (014.3)	-9.0	2.5	-	3000	-	-	1.0
004	TF	SK850	-	023 (014.3)	-9.0	1.8	-	2436	-	-3.00	0.3
005	RF Center: SKRF2 r=2.77NM	SK851	-	-	-9.0	4.7	L	932	-	-3.00	0.3
006	TF	RW28	Y	286 (276.7)	-9.0	1.8	-	368	-	-3.00/54	0.3
007	FA	-	-	286 (276.7)	-9.0	-	-	+800	-	-	1.0
008	DF	CHOKA	-	-	-9.0	-	L	8000	-	-	1.0

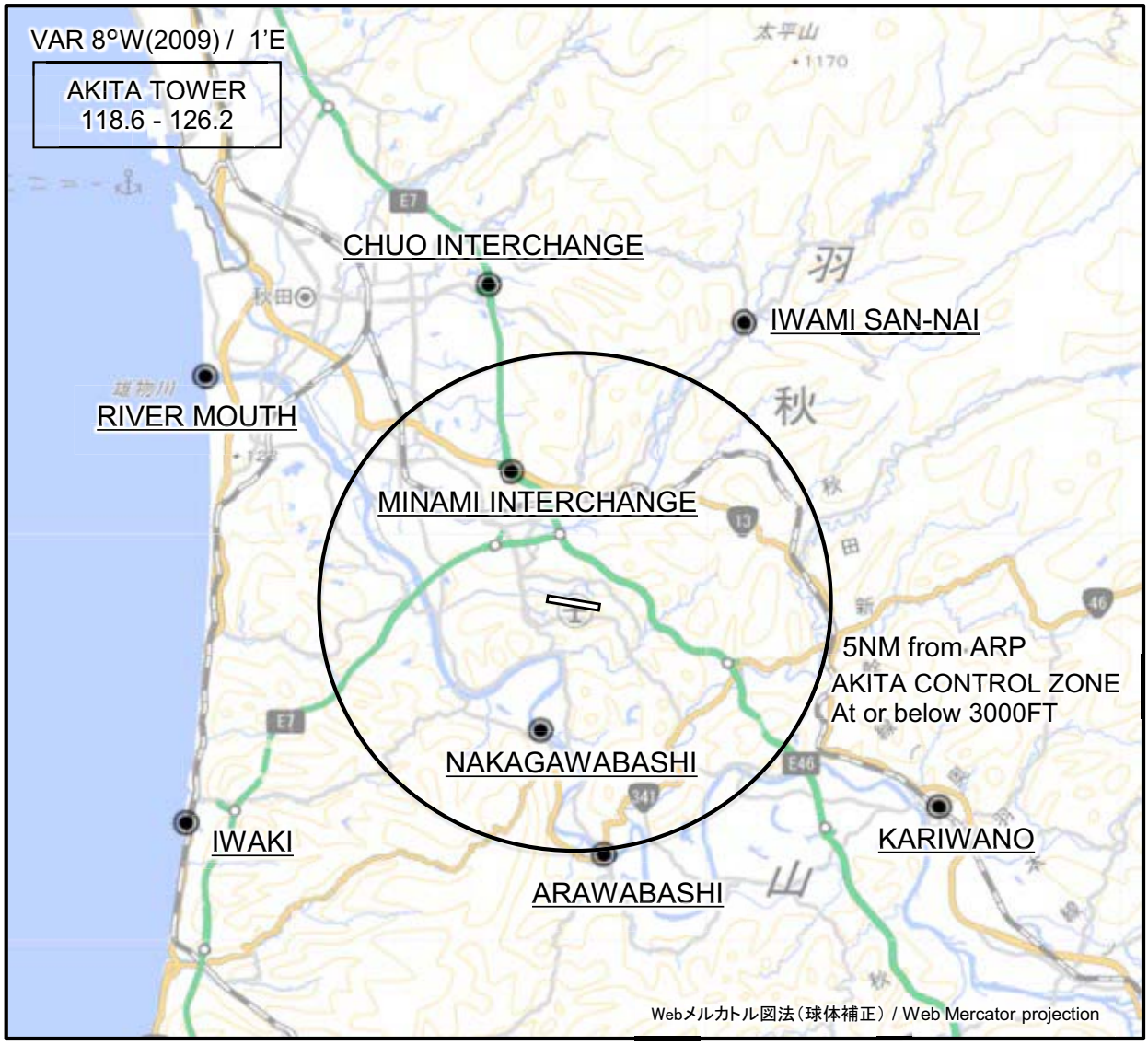
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	CHOKA	003 (353.8)	-9.0	1.0 (-14000)	R	8000	FL140	-230 (-14000)	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
CHOKA	*391709.51N / 1401401.06E*	SKRF2	*393354.17N / 1401551.05E*
GIBAR	*392905.47N / 1401757.27E*		
AYANE	*393129.80N / 1401845.05E*		
SK850	*393312.87N / 1401919.21E*		
SK851	*393639.39N / 1401615.88E*		
RW28	*393651.66N / 1401359.25E*		

RJSK / AKITA

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
中央インターチェンジ Chuo Interchange	345°T / 6.6NM	秋田中央インターチェンジ（秋田自動車道） Akita Chuo Interchange
岩見三内 Iwami San-nai	030°T / 6.5NM	岩見川と三内川の合流点 Merging point of Iwamigawa River and San-naigawa River
リバーマウス River Mouth	302°T / 8.6NM	雄物川河口 Omonogawa River Mouth
南インターチェンジ Minami Interchange	334°T / 3.0NM	秋田南インターチェンジ（秋田自動車道） Akita Minami Interchange
中川橋 Nakagawabashi	196°T / 2.6NM	中川橋（雄物川） Nakagawabashi
刈和野 Kariwano	120°T / 8.2NM	JR刈和野駅 JR Kariwano Station
岩城 Iwaki	240°T / 8.8NM	道の駅岩城 Michinoeki (Road Station) Iwaki
新波橋 Arawabashi	174°T / 5.0NM	新波橋（雄物川） Arawabashi

RJSK / AKITA Minimum Vectoring Altitude CHART