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(TOKYO)
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	TOKYO
2	Hours of service MET Office outside hours	H24(TOKYO)
3	Office responsible for TAF preparation Periods of validity	TOKYO 30 Hours
4	Trend forecast Interval of issuance	Nil.
5	Briefing/ consultation provided	Briefing is available upon inquiry at TOKYO
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

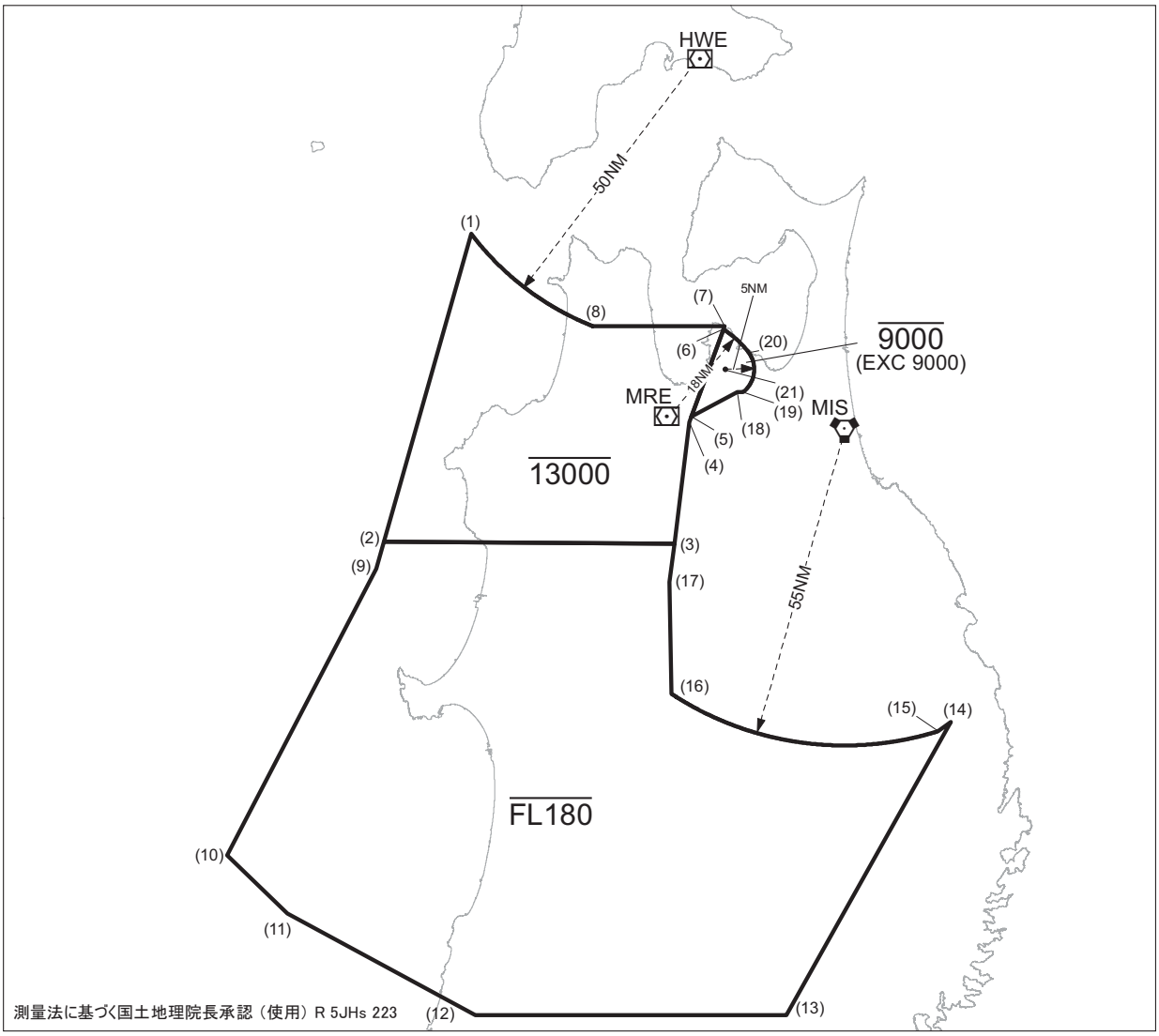
RJSK AD 2.16 HELICOPTER LANDING AREA

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	
Shirakami ACA	See attached chart		E	Shirakami APP En	

白神進入管制区
Shirakami Approach Control Area



Point list

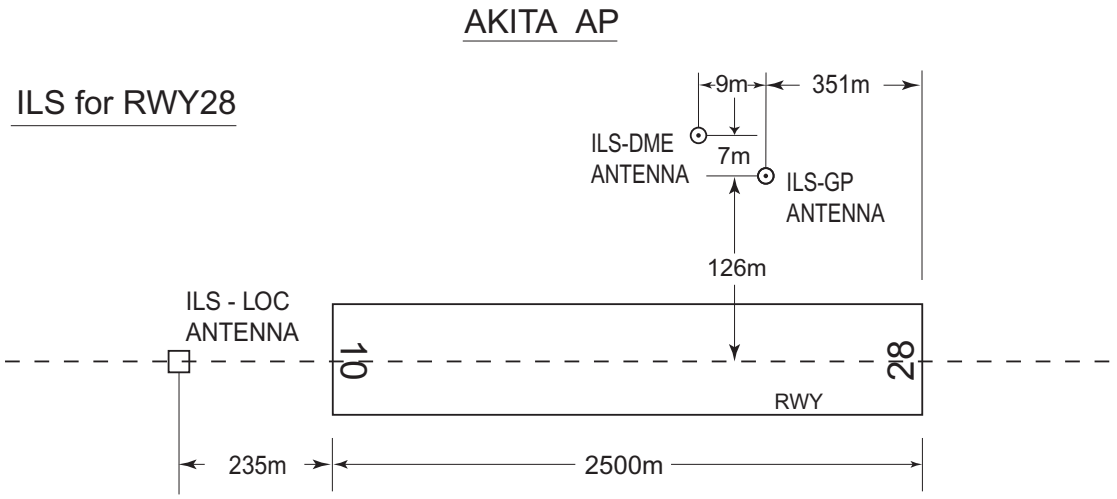
（1）	*411552N*	*1395713E*	（11）	*391725N*	*1391738E*	（21）	*405230N*	*1405541E*
（2）	*402212N*	*1393805E*	（12）	*390010N*	*1395948E*			
（3）	*402212N*	*1404403E*	（13）	*390021N*	*1410906E*			
（4）	*404323N*	*1404728E*	（14）	*395103N*	*1414622E*			
（5）	*404419N*	*1404755E*	（15）	*394929N*	*1414329E*			
（6）	*405927N*	*1405513E*	（16）	*395611N*	*1404325E*			
（7）	*410000N*	*1405529E*	（17）	*401534N*	*1404259E*			
（8）	*410000N*	*1402510E*	（18）	*404832N*	*1405824E*			
（9）	*401728N*	*1393625E*	（19）	*404834N*	*1405945E*			
（10）	*392719N*	*1390356E*	（20）	*405524N*	*1410102E*			

RJSK AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Shirakami Approach	119.25MHz 315.3MHz 120.65MHz 121.5MHz(E) 243.0MHz(E)	2200 - 1300	
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.



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

1.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						

2. Lost communication procedures for arrival aircraft under radar navigational guidance
If radio communications with Shirakami Approach are lost for 1 minute, squawk Mode A/3 Code 7600 and;
(I) 1. Contact Akita Tower.
2. If unable, proceed in accordance with visual flight rules.
3. If unable, proceed to YUWA VOR/DME at last assigned altitude or 4,000 feet whichever is higher, and execute instrument approach.
(II) Procedures other than above will be issued when situation requires.

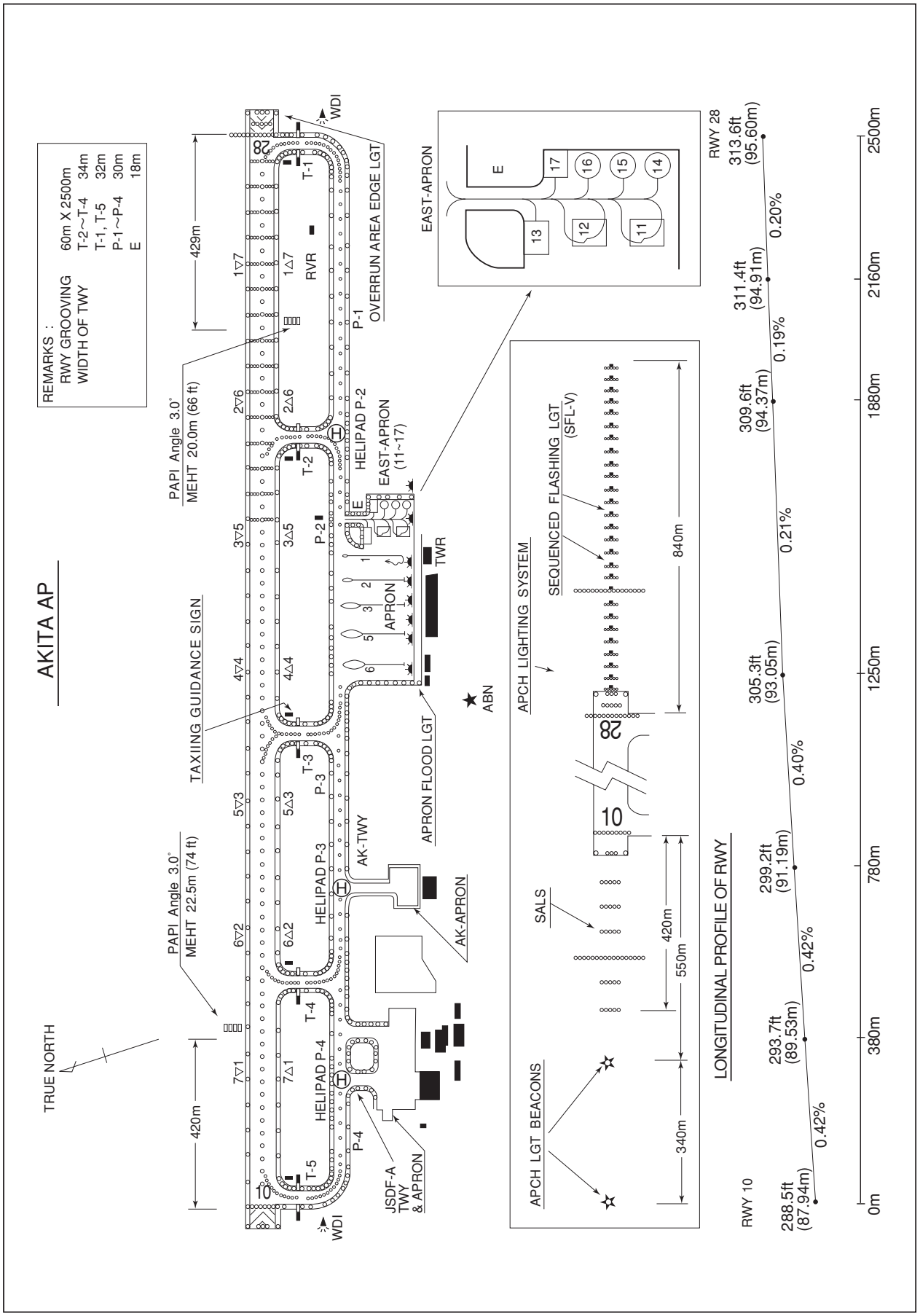
RJSK AD 2.23 ADDITIONAL INFORMATION

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 (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)
Instrument Approach Chart (ILS Z or LOC Z RWY28)
Instrument Approach Chart (ILS Y or LOC Y RWY28)
Instrument Approach Chart (VOR RWY28)
Instrument Approach Chart (VOR Z RWY10)
Instrument Approach Chart (RNP Z RWY10)
Instrument Approach Chart (RNP Y RWY10 (AR))
Instrument Approach Chart (RNP Z RWY28)
Instrument Approach Chart (RNP Y RWY28 (AR))
Other Chart (Visual REP)
Other Chart (MVA CHART)

RJSK / AKITA AD CHART



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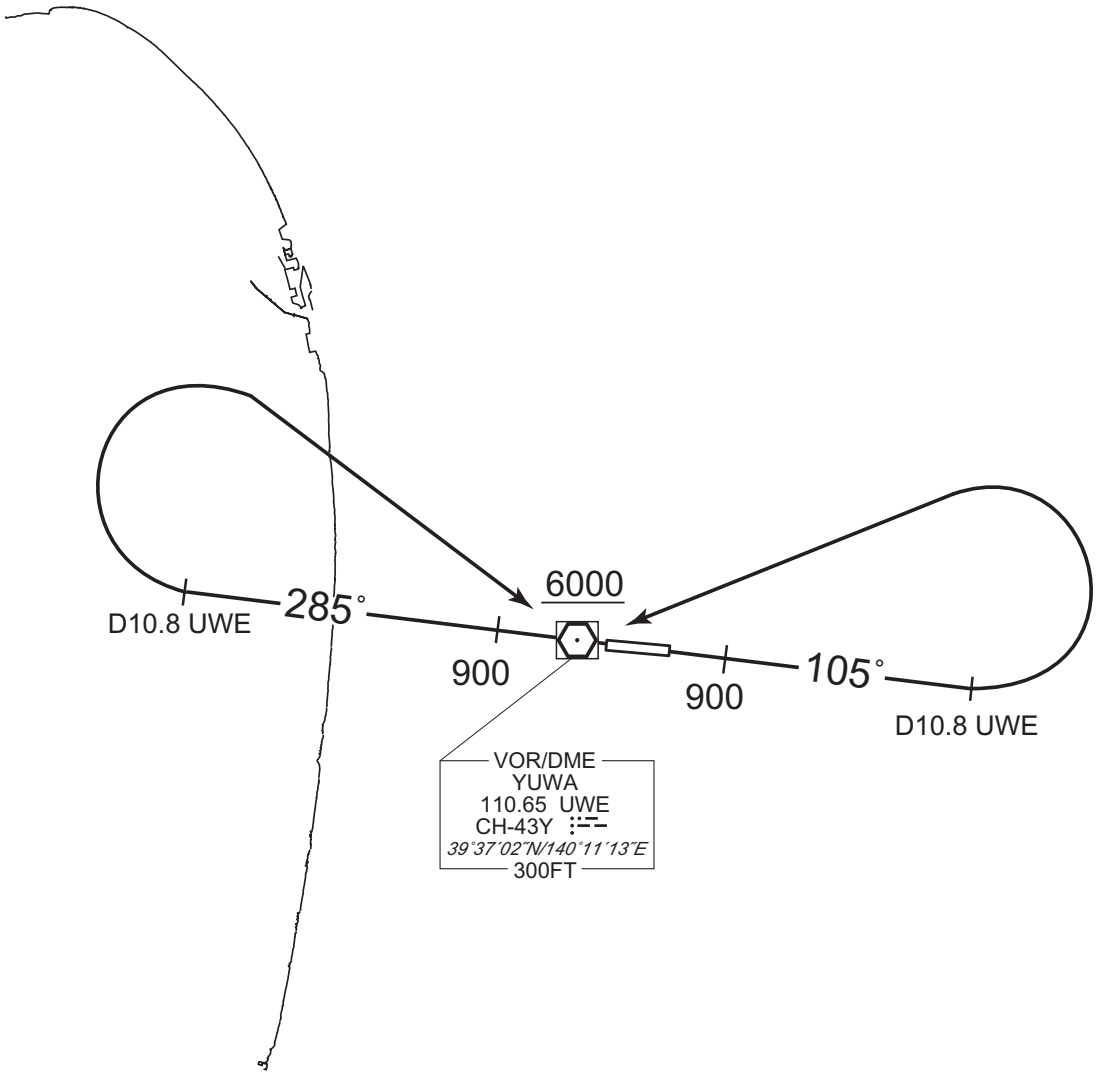
STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA SID

YUWA REVERSAL SEVEN DEPARTURE

RWY 10 : Climb RWY HDG to 900FT, via UWE R105 to 10.8DME, turn left,...
RWY 28 : Climb RWY HDG to 900FT, via UWE R285 to 10.8DME turn right,...
...direct to UWE VOR/DME.
Cross UWE VOR/DME at or above 6000FT.

Note RWY10 : 5.0% climb gradient required up to 3300FT.
OBST ALT 3543FT located at 13.8NM 071˚ FM end of RWY10.



CHANGE : PROC course. PROC renamed. Note added.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA

RNAV SID

MUTSU THREE DEPARTURE

RNP1

Note GNSS required.

RWY10 : Climb on HDG106° at or above 900FT, turn left direct to SUGUT, to IRNOG, to MRE.
RWY28 : Climb on HDG286° at or above 900FT, turn right direct to NUPLI, to MRE.

Note RWY10 : 5.0% climb gradient required up to 3800FT.
OBST ALT 3937FT located at 15.3NM 039° FM end of RWY10.

CHANGE : PROC course. PROC renamed. Navigation Specification(Basic RNP1→RNP1). SUGUT, NUPLI, IRNOG established. SK002 abolished.

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA RNAV SID

CHANGE : PROC course. PROC renamed. Navigation Specification(Basic RNP1 → RNP1). SUGUT, NUPLI, IRNOG established. SK002 abolished.

MUTSU THREE 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)	-9.1	-	-	+900	-	-	RNP1
002	DF	SUGUT	-	-	-9.1	-	L	-	-	-	RNP1
003	TF	IRNOG	-	016 (006.4)	-9.1	40.3	-	-	-	-	RNP1
004	TF	MRE	-	032 (023.2)	-9.1	22.5	-	-	-	-	RNP1

RWY28

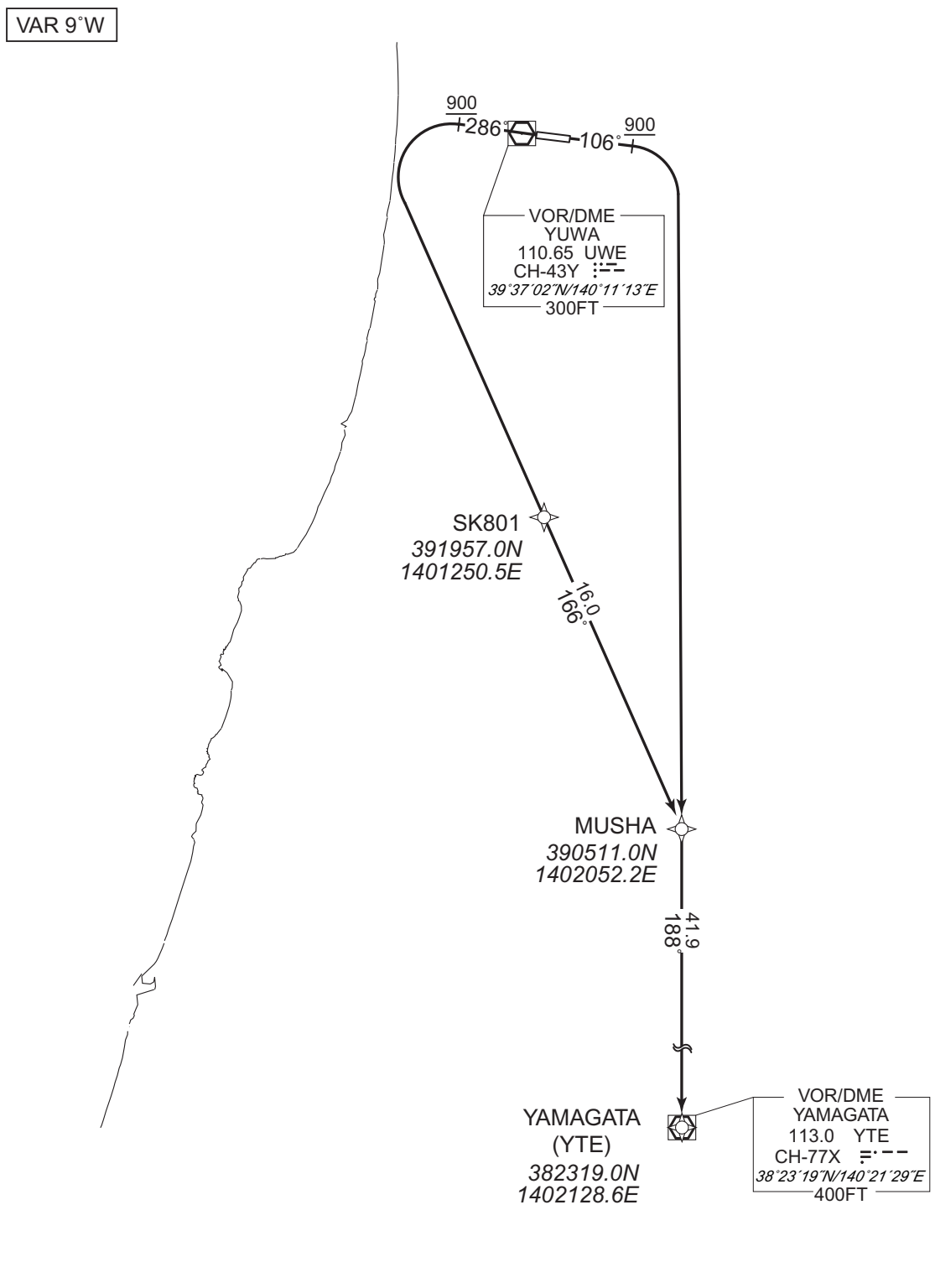
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	286 (276.6)	-9.1	-	-	+900	-	-	RNP1
002	DF	NUPLI	-	-	-9.1	-	R	-	-	-	RNP1
003	TF	MRE	-	032 (023.0)	-9.1	60.9	-	-	-	-	RNP1

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA

RNAV SID

USYU TWO DEPARTURE	RNP1
Note GNSS required.	



CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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.

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	-	-	RNP1
002	DF	MUSHA	-	-	-8.9	-	R	-	-	-	RNP1
003	TF	YTE	-	188 (179.3)	-8.9	41.9	-	-	-	-	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	-	-	RNP1
002	DF	SK801	-	-	-8.9	-	L	-	-	-	RNP1
003	TF	MUSHA	-	166 (157.1)	-8.9	16.0	-	-	-	-	RNP1
004	TF	YTE	-	188 (179.3)	-8.9	41.9	-	-	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

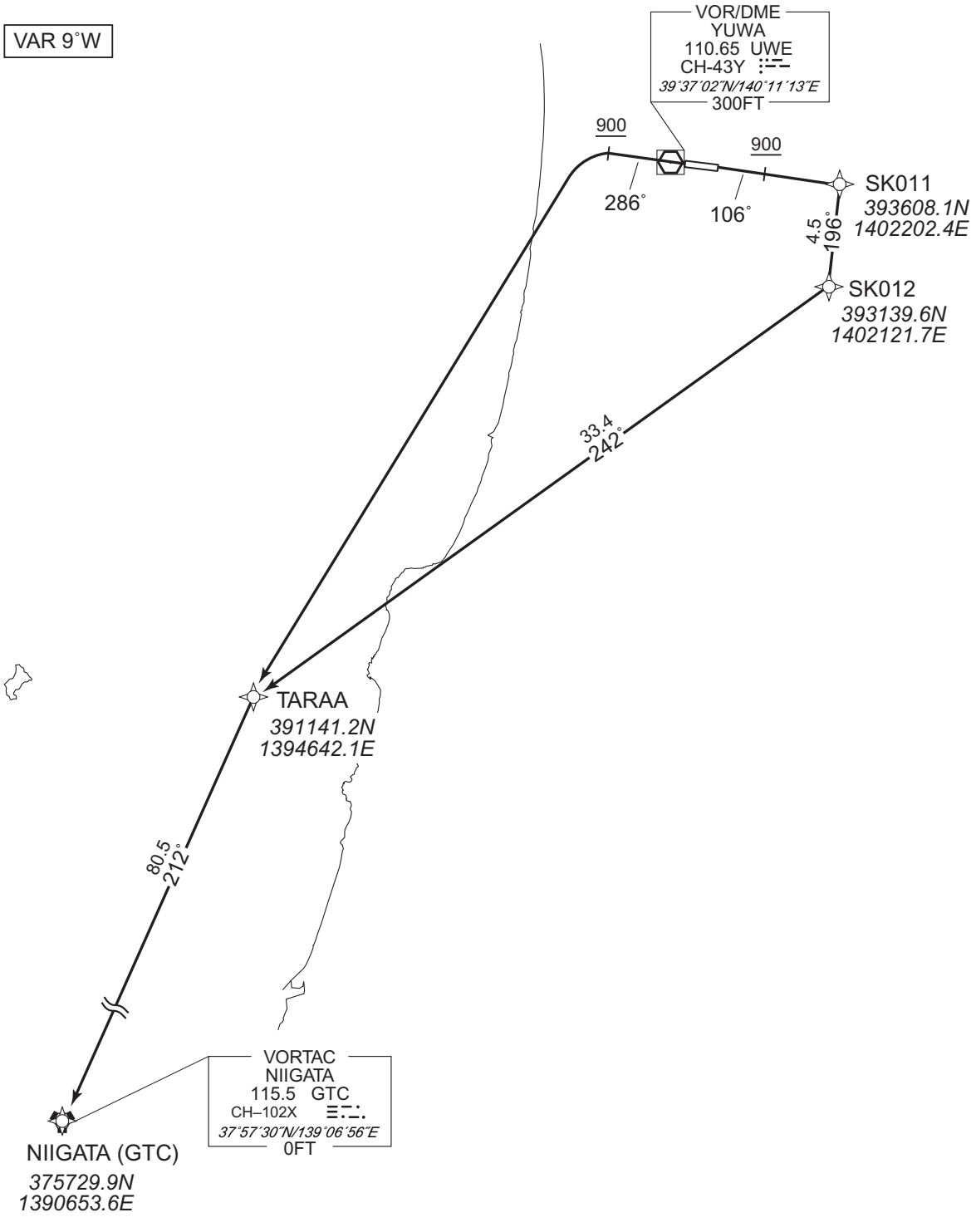
STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA

RNAV SID

NIIGATA TWO DEPARTURE	RNP1

Note GNSS required.



CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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.

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	-	-	RNP1
002	DF	SK011	-	-	-8.9	-	-	-	-	-	RNP1
003	TF	SK012	-	196 (186.7)	-8.9	4.5	-	-	-	-	RNP1
004	TF	TARAA	-	242 (233.5)	-8.9	33.4	-	-	-	-	RNP1
005	TF	GTC	-	212 (203.0)	-8.9	80.5	-	-	-	-	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	-	-	RNP1
002	DF	TARAA	-	-	-8.9	-	-	-	-	-	RNP1
003	TF	GTC	-	212 (203.0)	-8.9	80.5	-	-	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART-INSTRUMENT

RJSK / AKITA

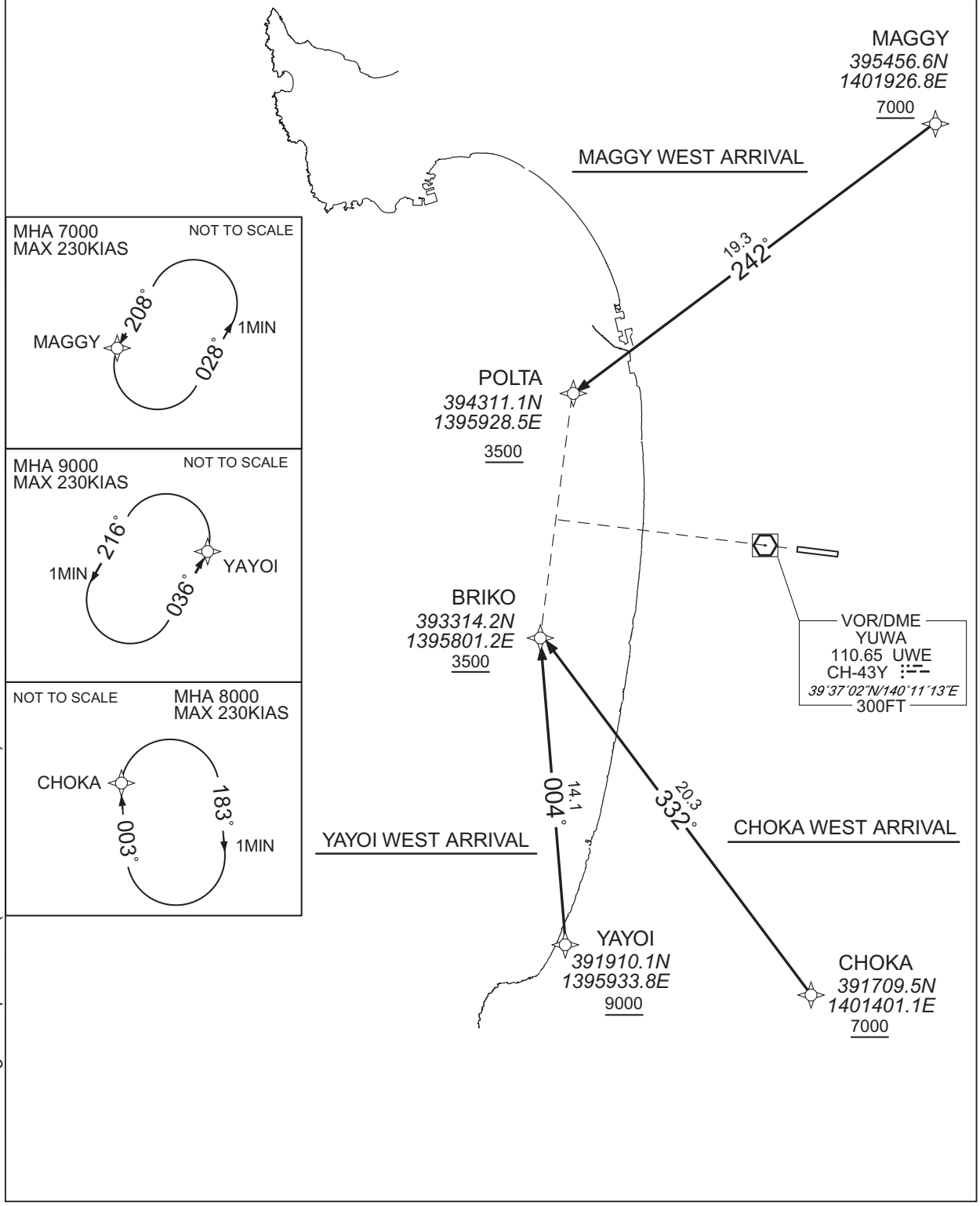
RNAV STAR RWY10

MAGGY WEST ARRIVAL
YAYOI WEST ARRIVAL
CHOKA WEST ARRIVAL

RNP1

Note GNSS required.

VAR 9˚W



CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART-INSTRUMENT

RJSK / AKITA

RNAV STAR RWY10

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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	-	-	RNP1
002	TF	POLTA	-	242 (232.6)	-9.0	19.3	-	+3500	-	-	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)	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	-	-	RNP1
002	TF	BRIKO	-	004 (355.2)	-9.0	14.1	-	+3500	-	-	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)	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	-	-	RNP1
002	TF	BRIKO	-	332 (322.5)	-9.0	20.3	-	+3500	-	-	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)	RNP1

STANDARD ARRIVAL CHART-INSTRUMENT

RJSK / AKITA

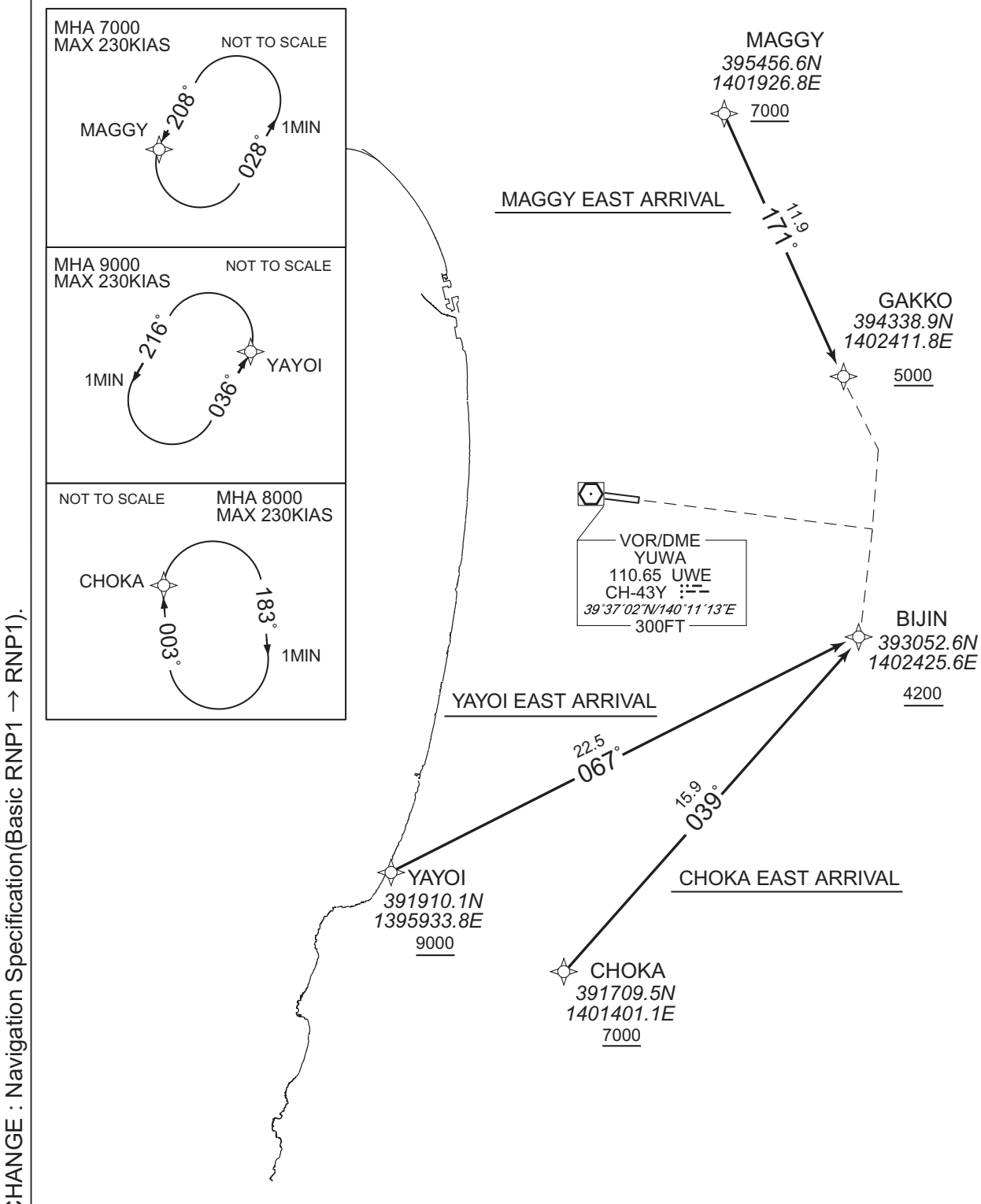
RNAV STAR RWY28

MAGGY EAST ARRIVAL
YAYOI EAST ARRIVAL
CHOKA EAST ARRIVAL

RNP1

Note GNSS required.

VAR 9˚W



CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART-INSTRUMENT

RJSK / AKITA RNAV STAR RWY28

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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	-	-	RNP1
002	TF	GAKKO	-	171 (162.1)	-9.0	11.9	-	+5000	-	-	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)	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	-	-	RNP1
002	TF	BIJIN	-	067 (058.5)	-9.0	22.5	-	+4200	-	-	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)	RNP1

CHOKA EAST ARRIVAL

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

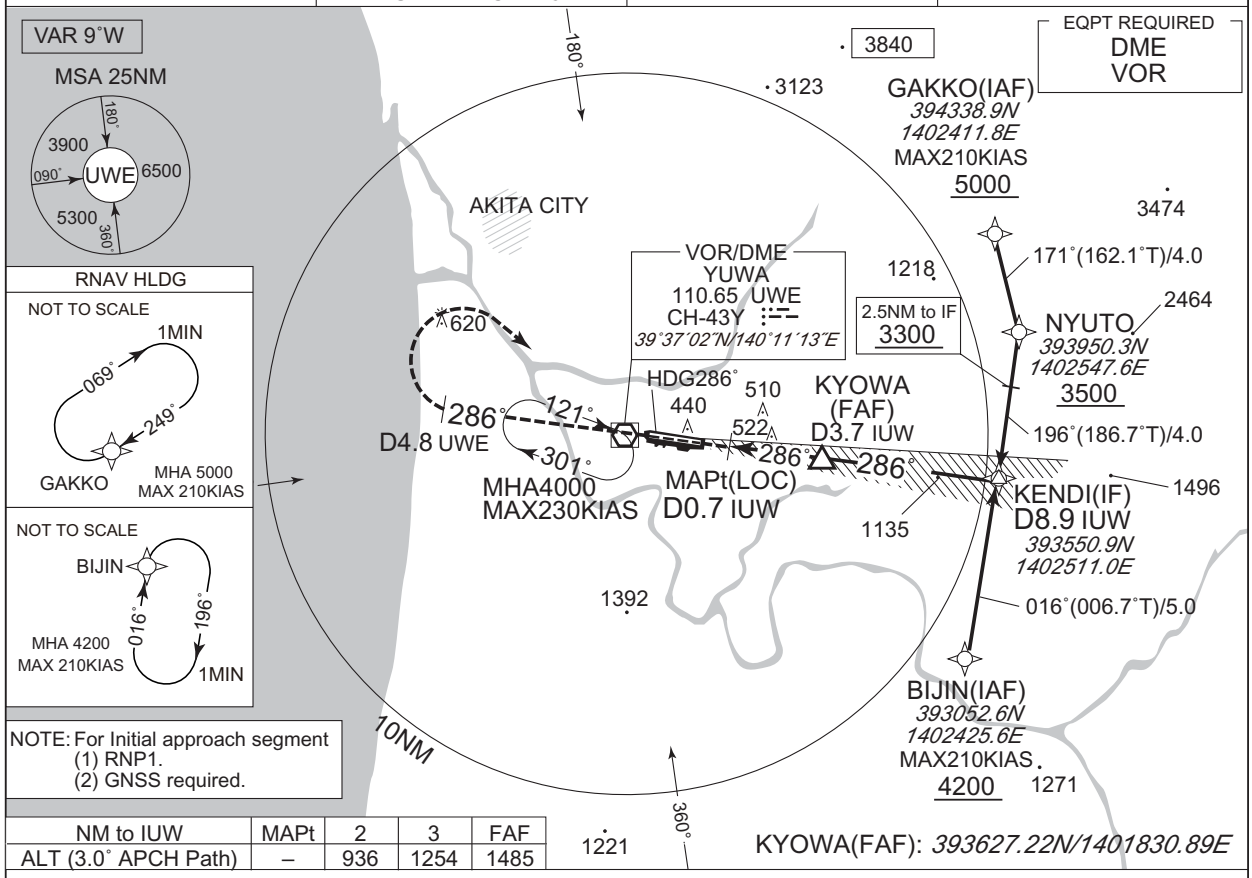
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	CHOKA	-	-	-9.0	-	-	+7000	-	-	RNP1
002	TF	BIJIN	-	039 (030.3)	-9.0	15.9	-	+4200	-	-	RNP1

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)	RNP1

INSTRUMENT APPROACH CHART

RJSK / AKITA — ILS Z or LOC Z RWY28

SHIRAKAMI APP	ILS-LOC 108.9 IUW ILS-GP 329.3 ILS-DME CH-26X	AKITA TOWER	RADAR AVBL
119.25 - 315.3 - 120.65		118.6 - 126.2	

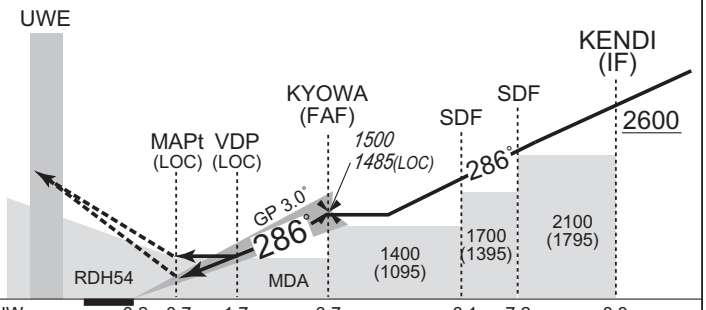


NM to IUW	MAPt	2	3	FAF
ALT (3.0˚ APCH Path)	–	936	1254	1485

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 SHIRAKAMI APP.

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

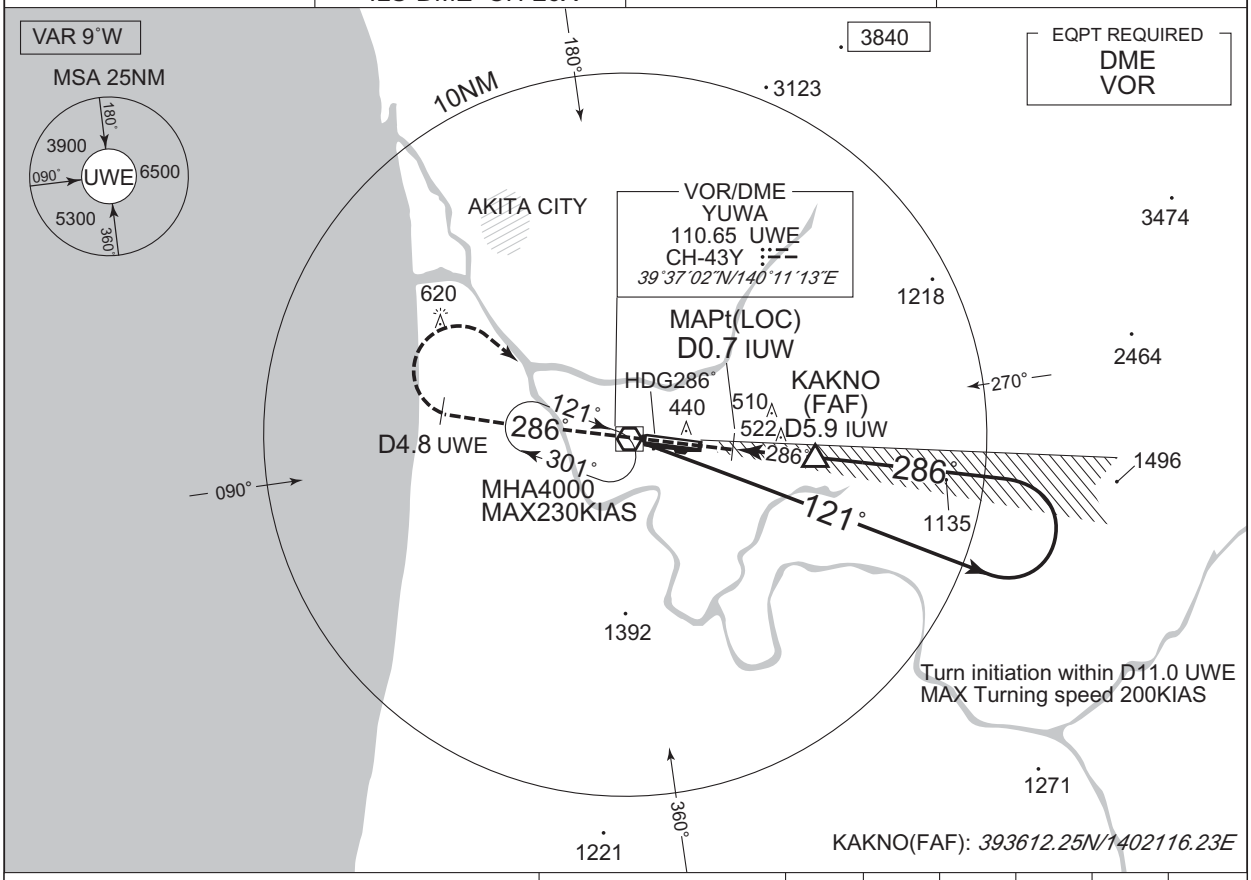
CHANGE : HLDG pattern for using NAVAID abolished. RNAV HLDG pattern established.

INSTRUMENT APPROACH CHART

RJSK / AKITA

ILS Y or LOC Y RWY28

SHIRAKAMI APP	ILS-LOC	AKITA TOWER	RADAR AVBL
119.25 - 315.3 - 120.65	108.9 IUW ILS-GP 329.3 ILS-DME CH-26X	118.6 - 126.2	

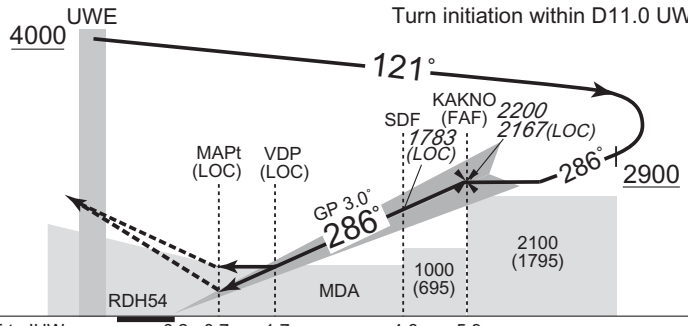


NM to IUW	MAPt	2	3	4	5	FAF
ALT (3.0˚ APCH Path)	–	936	1254	1573	1891	2167

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 SHIRAKAMI APP.

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

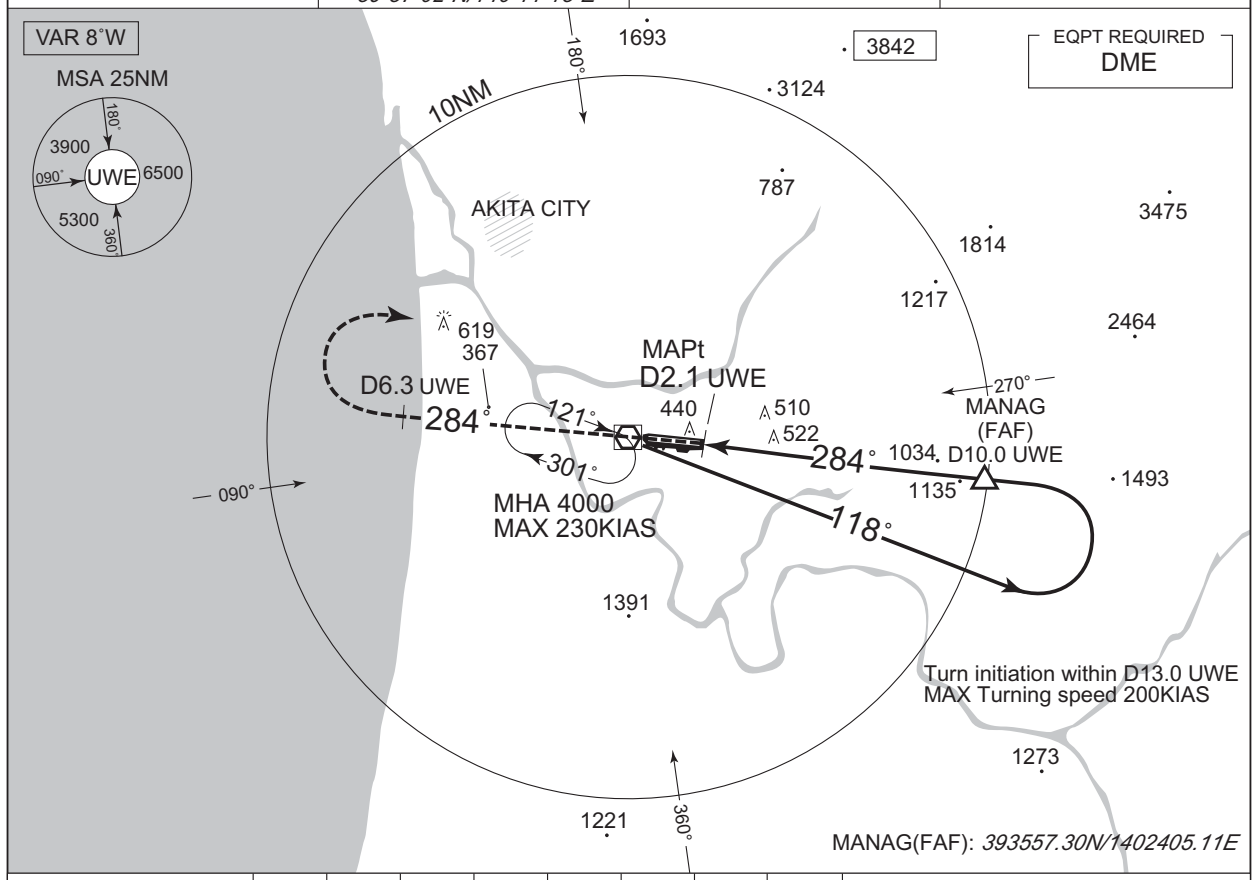
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	514 (200)	550	810 (505)	1000	830 (525)	1600
B				1200		
C					900 (595)	2400
D				1600		3200

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

INSTRUMENT APPROACH CHART

RJSK / AKITA — VOR RWY28

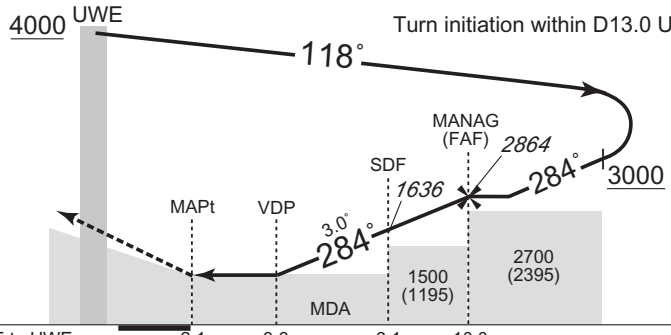
SHIRAKAMI APP	YUWA VOR/DME	AKITA TOWER	RADAR AVBL
119.25 - 315.3 - 120.65	110.65 UWE CH-43Y *39°37′02″N/140°11′13″E*	118.6 - 126.2	



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 SHIRAKAMI APP.

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

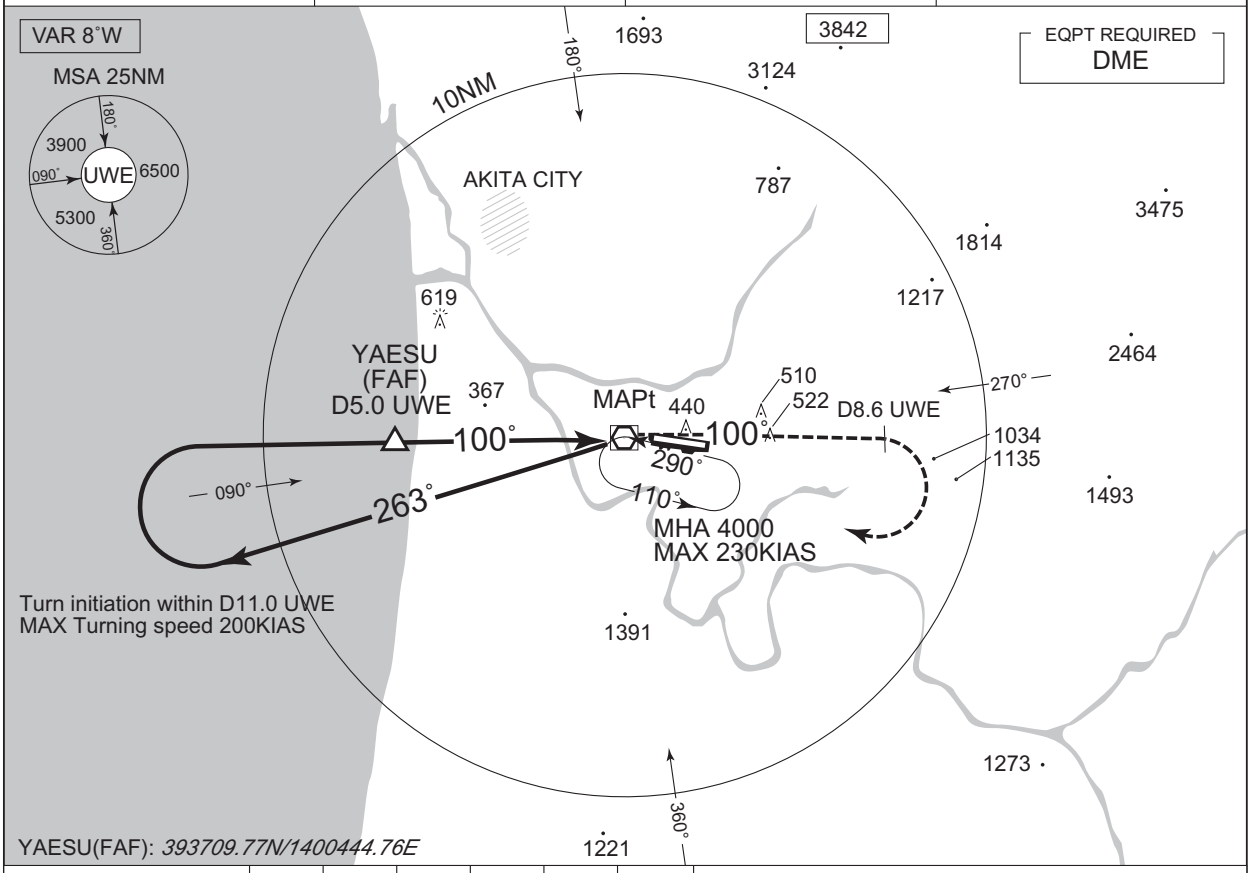
CHANGE : ATC call sign and FREQ. Description of RADAR Service. Missed APCH PROC.

INSTRUMENT APPROACH CHART

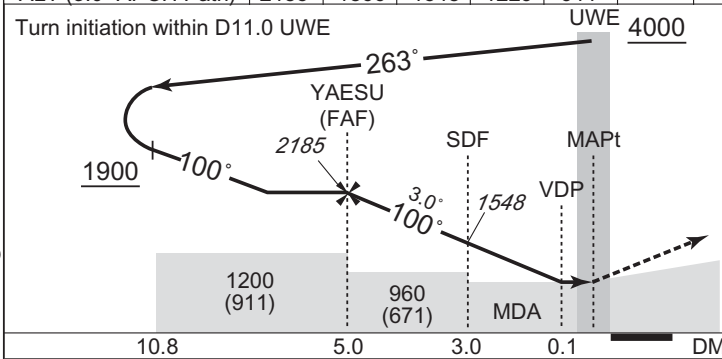
RJSK / AKITA

VOR Z RWY10

SHIRAKAMI APP 119.25 - 315.3 - 120.65	YUWA VOR/DME 110.65 UWE CH-43Y *39°37′02″N/140°11′13″E*	AKITA TOWER 118.6 - 126.2	RADAR AVBL



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 SHIRAKAMI APP.

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

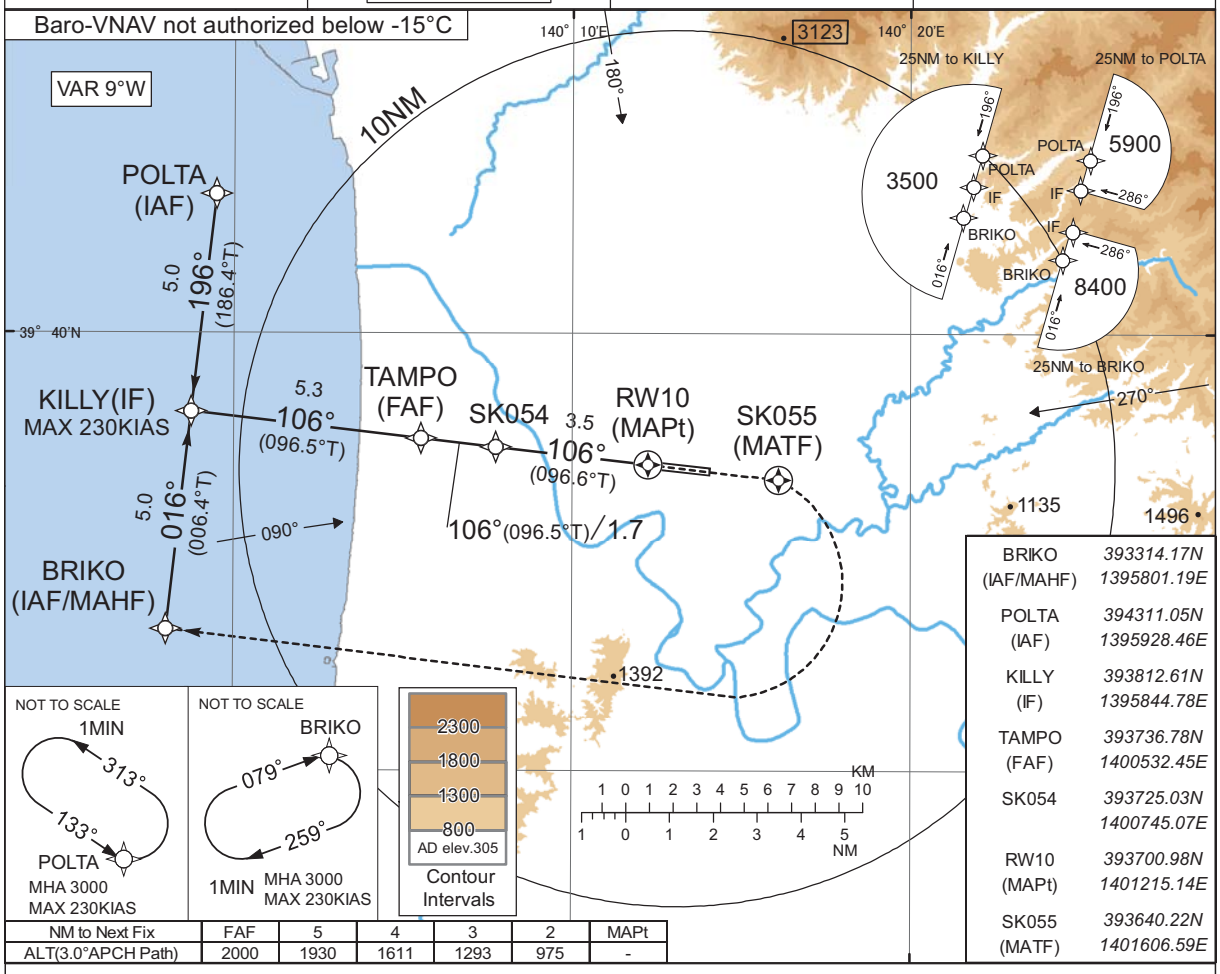
CHANGE : PROC renamed. ATC call sign and FREQ. Description of RADAR Service. Missed APCH PROC.

INSTRUMENT APPROACH CHART

CHANGE : PROC course. MAX speed at KILLY added. Missed APCH for using VOR/DME abolished. MSAS CH added. HLDG pattern for using NAVAID abolished. RNAV HLDG at BRIKO. Missed APCH climb gradient MNM. MINIMA.

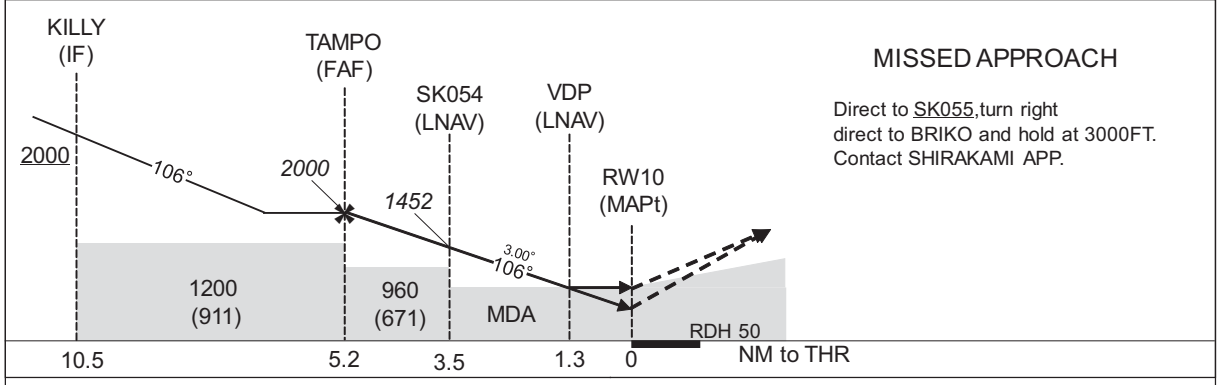
RJSK / AKITA — RNP Z RWY10

SHIRAKAMI APP	RNP APCH	AKITA TOWER	RADAR AVBL
119.25 - 315.3 - 120.65	MSAS CH91409 M10A	118.6 - 126.2	



	BRIKO (IAF/MAHF)	POLTA (IAF)	KILLY (IF)	TAMPO (FAF)	SK054	RW10 (MAPt)	SK055 (MATF)
	393314.17N *1395801.19E*	*394311.05N* *1395928.46E*	*393812.61N* *1395844.78E*	*393736.78N* *1400532.45E*	*393725.03N* *1400745.07E*	*393700.98N* *1401215.14E*	*393640.22N* *1401606.59E*

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



MISSED APPROACH

Direct to SK055,turn right
direct to BRIKO and hold at 3000FT.
Contact SHIRAKAMI APP.

Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 289 AD elev. 305

CAT	LPV		LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	CMV	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS
A	569(280)	1000	653(364)	1200	740(451)	1400	830(525)	1600
B	579(290)	1100		1300		1500		
C	589(300)	1400		1400		1600	900(595)	2400
D	599(310)	1600		1600		1800		3200

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

INSTRUMENT APPROACH CHART

RJSK / AKITA RNP Z RWY10

FAS DATA BLOCK

Operation type	0	LTP/FTP ellipsoidal height	+01268
SBAS service provider identifier	2	FPAP latitude	*393651.6070N*
Airport identifier	RJSK	FPAP longitude	*1401359.3150E*
Runway	10	Threshold crossing height	00015.0
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	M10A	⊿ length offset	0000
LTP/FTP latitude	*393700.9295N*	HAL	40.0
LTP/FTP longitude	*1401215.1950E*	VAL	50.0
CRC remainder	884983FD		

Required additional data

LTP/FTP orthometric height	87.9

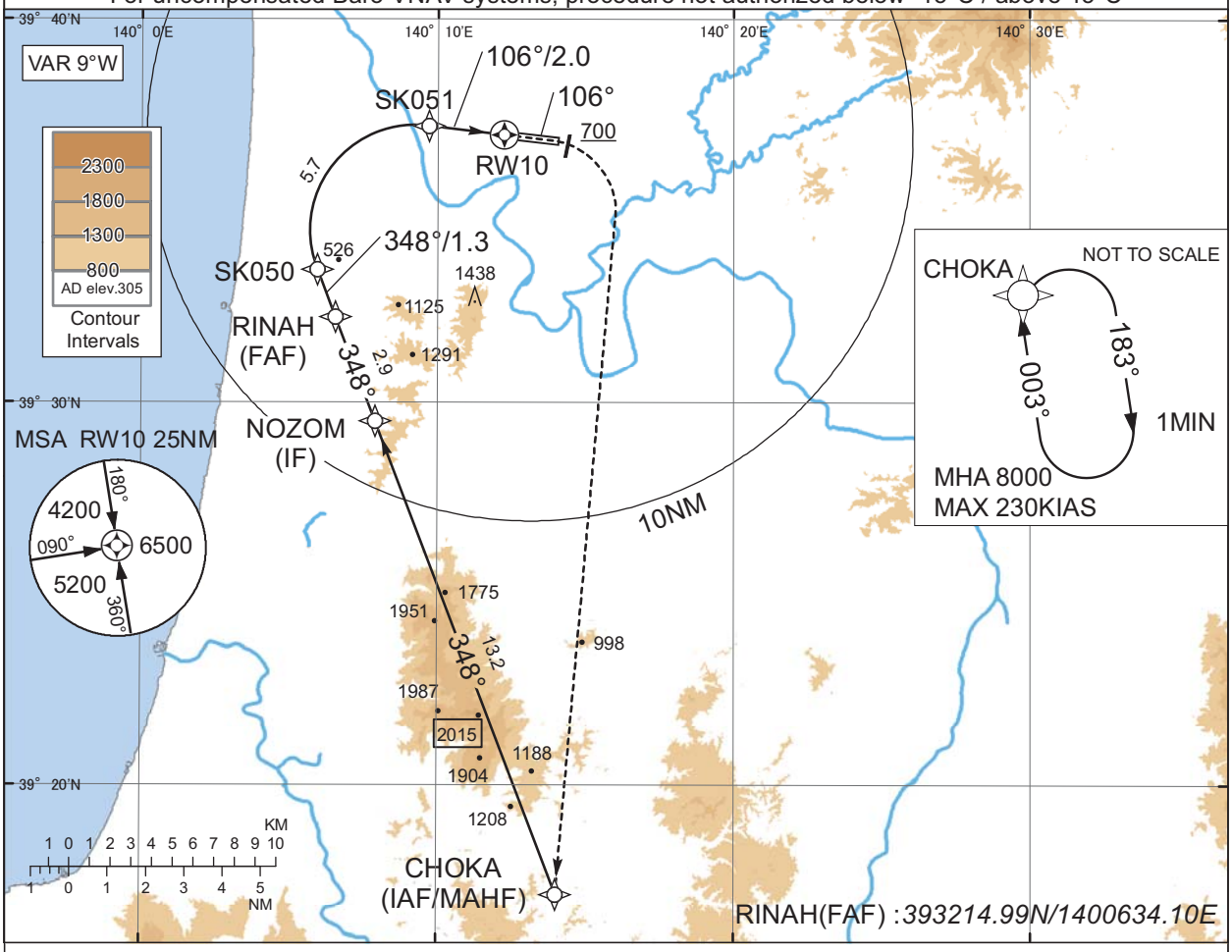
CHANGE : FAS DATA BLOCK, Required additional data established.

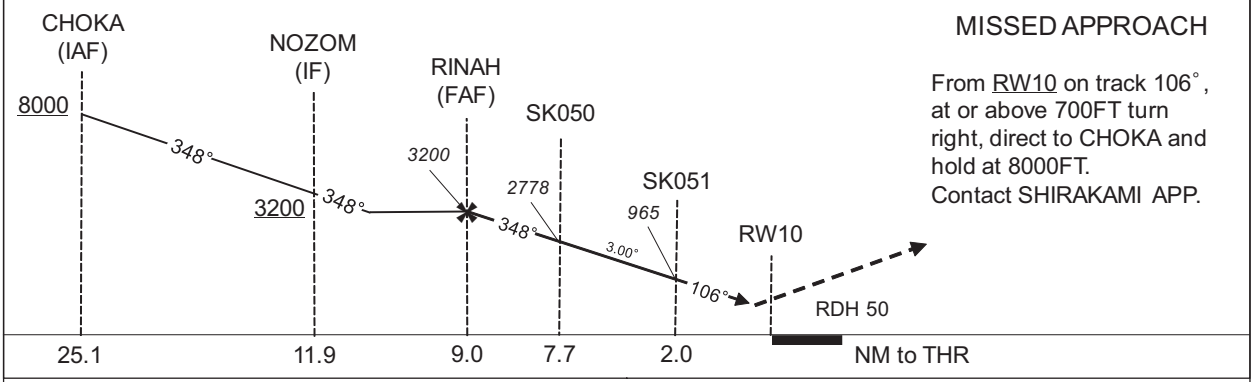
INSTRUMENT APPROACH CHART

RJSK / AKITA — RNP Y RWY10(AR)

SHIRAKAMI APP	RNP AR	AKITA TOWER	RADAR AVBL
119.25 - 315.3 - 120.65	RF required.	118.6 - 126.2	

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 SHIRAKAMI APP.

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 : HLDG pattern for using NAVAID abolished.

INSTRUMENT APPROACH CHART

RJSK / AKITA RNP Y RWY10(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	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

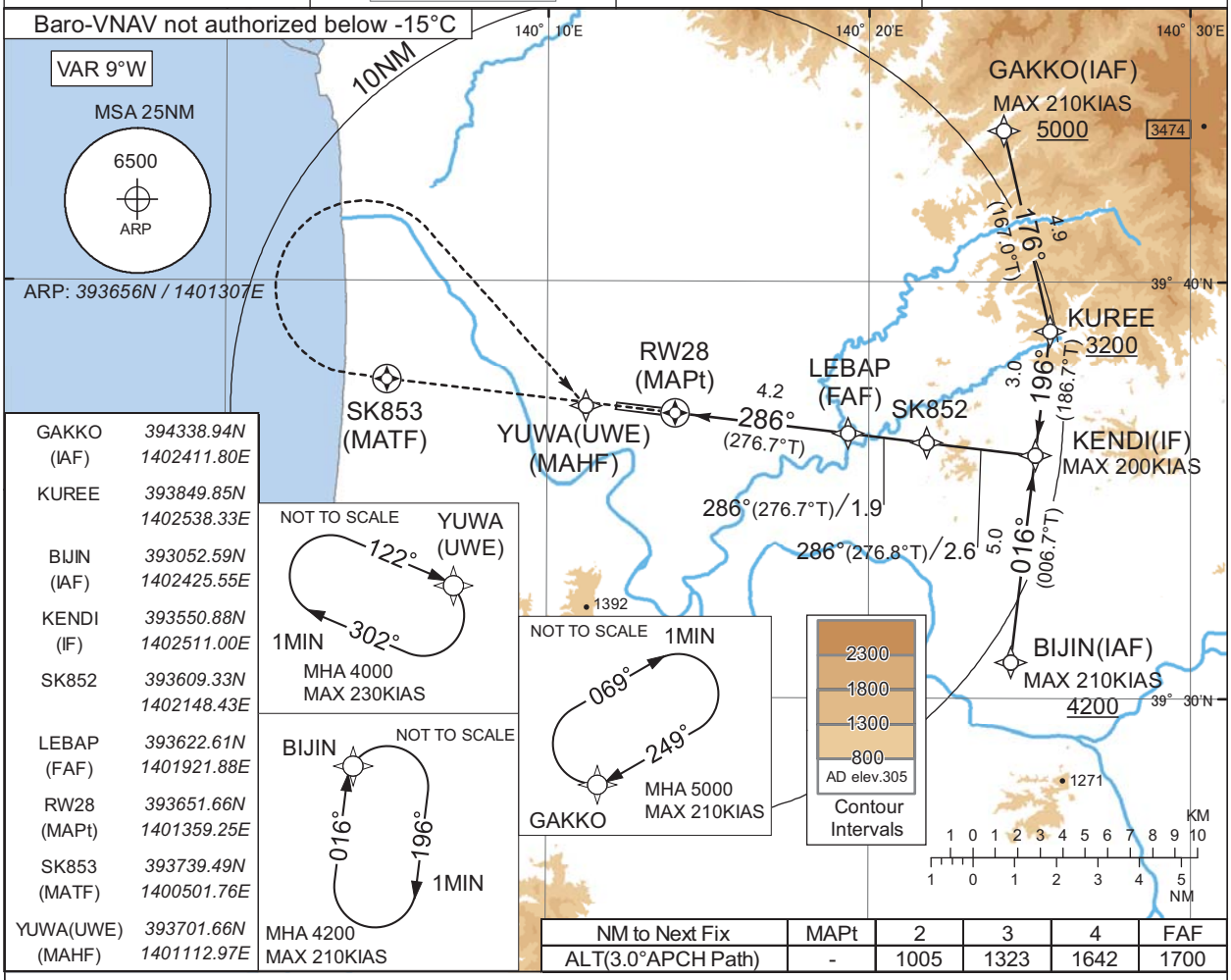
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
CHOKA	*391709.51N / 1401401.06E*	SKRF1	*393428.91N / 1400918.43E*
NOZOM	*392931.83N / 1400754.90E*		
RINAH	*393214.99N / 1400634.10E*		
SK050	*393329.21N / 1400557.30E*		
SK051	*393714.55N / 1400943.07E*		
RW10	*393700.98N / 1401215.14E*		

INSTRUMENT APPROACH CHART

RJSK / AKITA

RNP Z RWY28

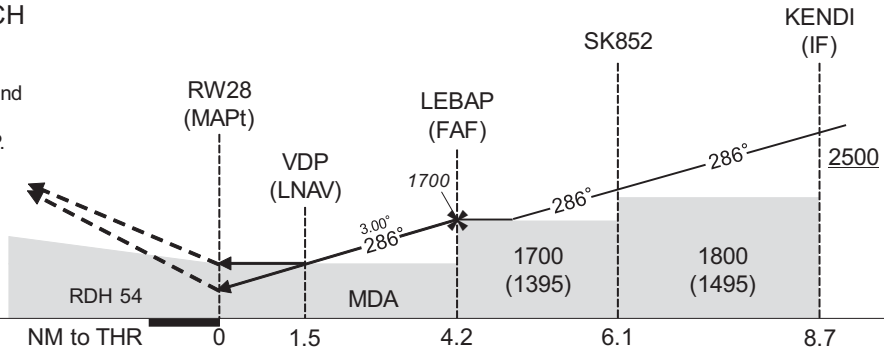
SHIRAKAMI APP	RNP APCH	AKITA TOWER	RADAR AVBL
119.25 - 315.3 - 120.65	MSAS CH43906 M28A	118.6 - 126.2	



NM to Next Fix	MAPt	2	3	4	FAF
ALT(3.0°APCH Path)	-	1005	1323	1642	1700

MISSED APPROACH

Direct to SK853,
turn right direct to UWE and
hold at 4000FT.
Contact SHIRAKAMI APP.



Missed APCH climb gradient MNM 5.0%

MINIMA	THR elev. 314		AD elev. 305					
CAT	LPV		LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	RVR/CMV	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	591(277)	800	810(496)	1000	810(505)	1000	830(525)	1600
B	601(287)			1200		1200		
C	644(330)	1000					900(595)	2400
D	653(339)	1400		1600		1600		3200

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

CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJSK / AKITA RNP Z RWY28

FAS DATA BLOCK

Operation type	0	LTP/FTP ellipsoidal height	+01346
SBAS service provider identifier	2	FPAP latitude	*393700.9295N*
Airport identifier	RJSK	FPAP longitude	*1401215.1950E*
Runway	28	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	M28A	⊿ length offset	0000
LTP/FTP latitude	*393651.6070N*	HAL	40.0
LTP/FTP longitude	*1401359.3150E*	VAL	50.0
CRC remainder	CA86C5B4		

Required additional data

LTP/FTP orthometric height	95.6

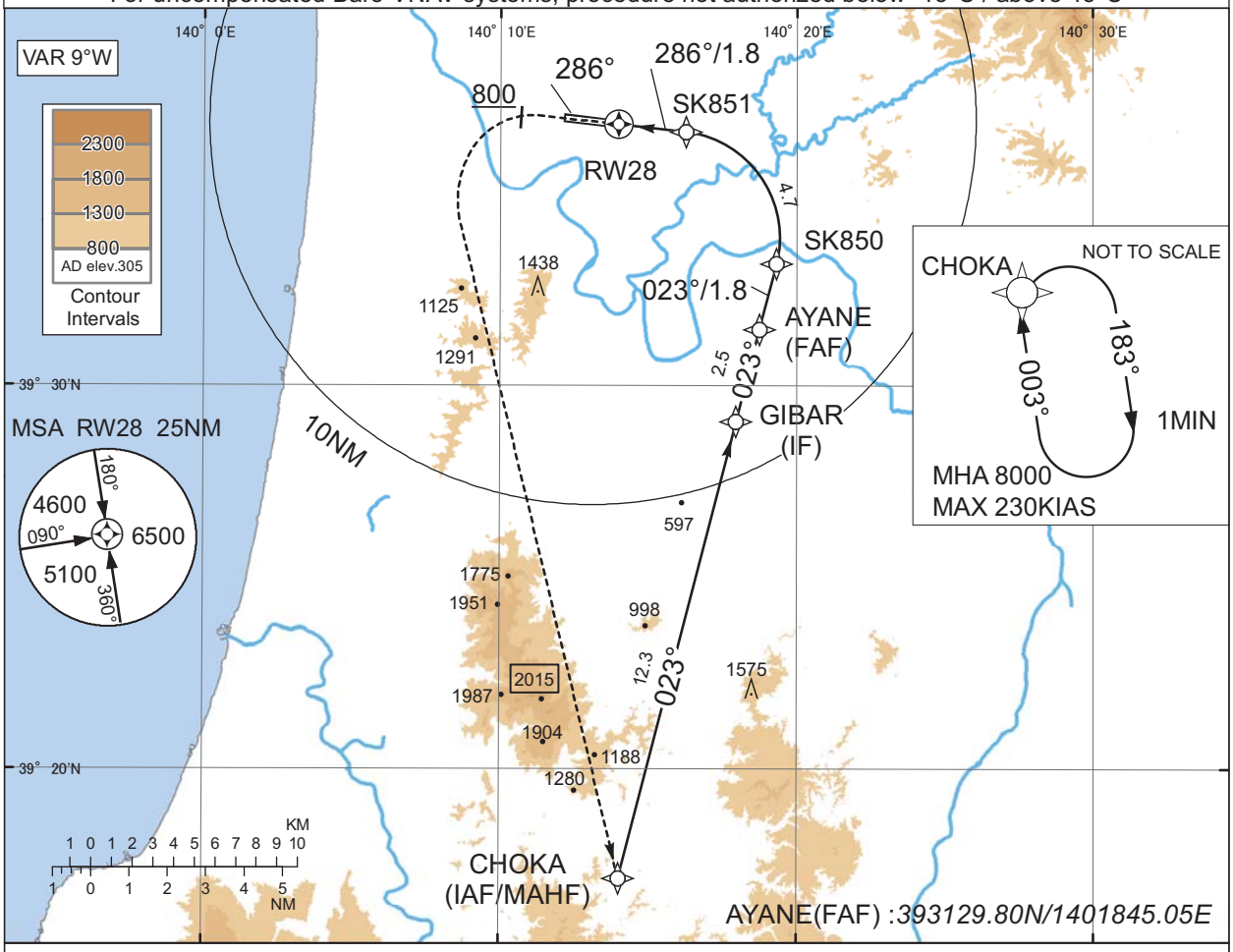
CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJSK / AKITA — RNP Y RWY28(AR)

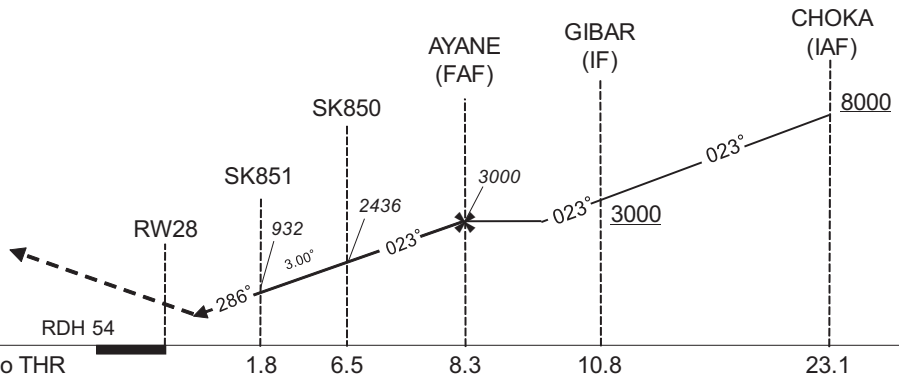
SHIRAKAMI APP 119.25 - 315.3 - 120.65	RNP AR RF required.	AKITA TOWER 118.6 - 126.2	RADAR AVBL

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 SHIRAKAMI APP.



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

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

Authorization Required

CHANGE : PROC renamed. HLDG pattern for using NAVAID abolished.

INSTRUMENT APPROACH CHART

RJSK / AKITA

RNP Y RWY28(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	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

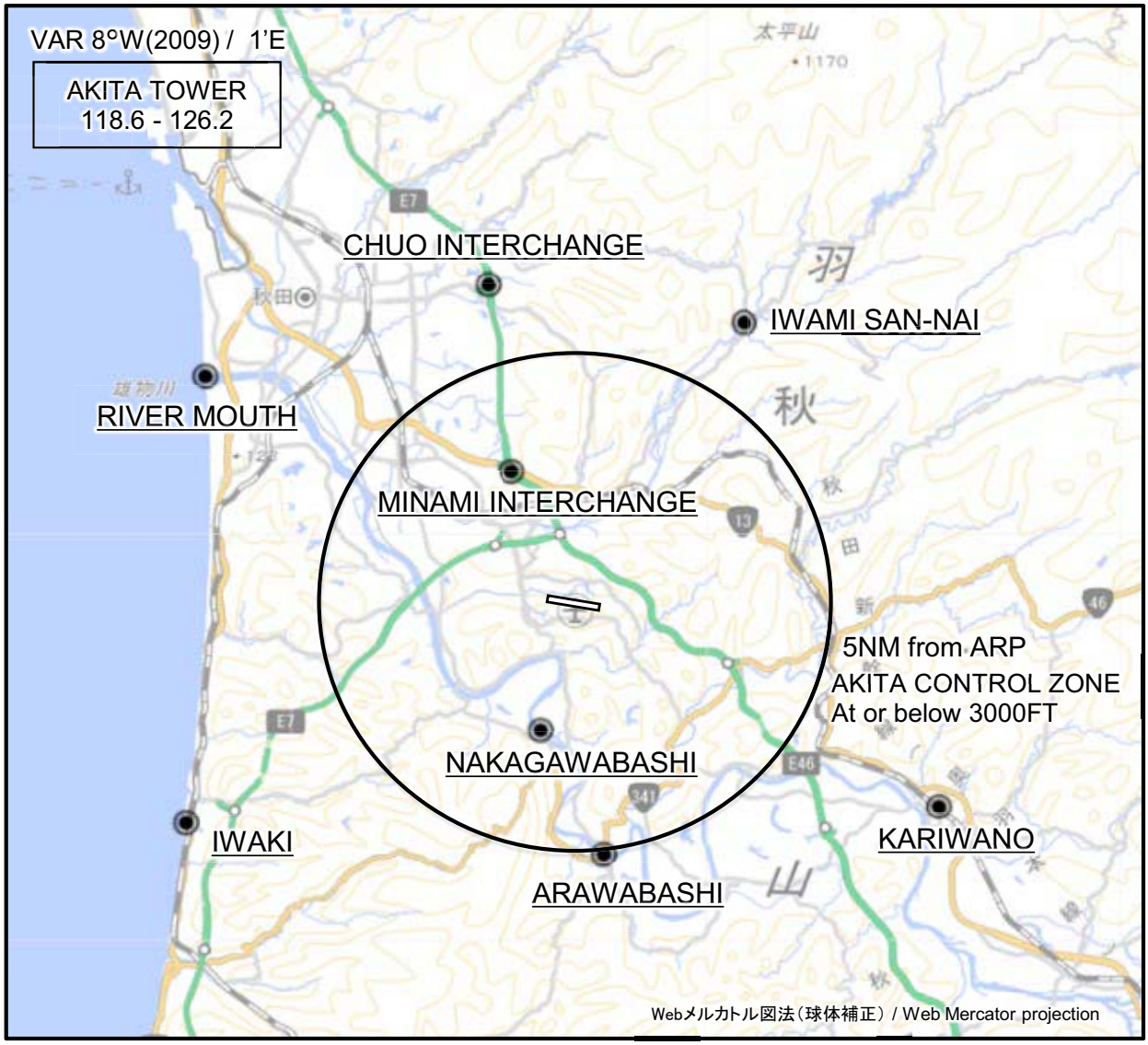
Waypoint Coordinates

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*		

CHANGE : PROC renamed.

RJSK / AKITA

Visual REP



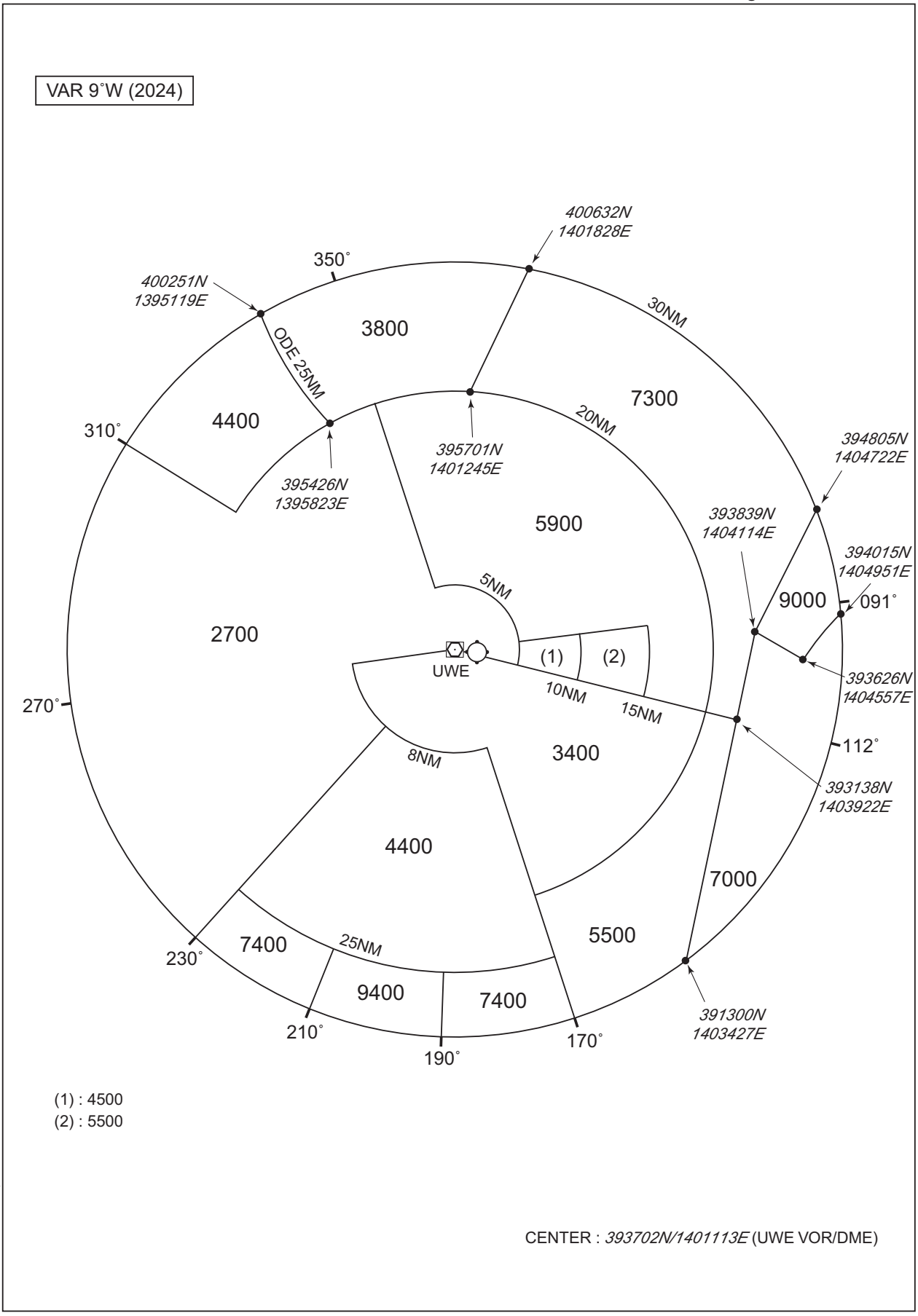
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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



(1) : 4500
(2) : 5500

CHANGE : Update.

CENTER : *393702N/1401113E* (UWE VOR/DME)