

AD 2 AERODROMES

RJCO AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RJCO - SAPPORO

RJCO AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	430703N/1412253E
2	Direction and distance from (city)	4.1nm N of SAPPORO
3	Elevation/ Reference temperature	26FT / -
4	Geoid undulation at AD ELEV PSN	Nil
5	MAG VAR/ Annual change	9° W(2006)
6	AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses	JSDF-G. PUBLIC AD. Okadama-cho, Higashi-ku, Sapporo, Hokkaido
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Okadama Airport Office(CAB) Okadama-cho, Higashi-ku, Sapporo, Hokkaido Tel:011-781-4161 Fax:011-781-4186

RJCO AD 2.3 OPERATIONAL HOURS

1	AD Administration	2230 - 1130 Other time 1HR PN
2	Customs and immigration	On request Customs: 011-231-1443 Immigration: 011-261-7502
3	Health and sanitation	Quarantine(human): On request(0134-23-4162) Quarantine(animal, plant): Nil
4	AIS Briefing Office	2230 - 1130 Other time 1HR PN (CAB: Nil)
5	ATS Reporting Office(ARO)	Nil
6	MET Briefing Office	H24(NEW CHITOSE)
7	ATS	2230 - 1130 Other time 1HR PN
8	Fuelling	2100 - 0900
9	Handling	2130 - 1000
10	Security	2230 - 1130
11	De-icing	Nil
12	Remarks	HR of Service at CAB OPS Section 2230 - 1130(Daily)

RJCO AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	All the modern institutions that deal with the weight thing to DH8C
2	Fuel/ oil types	Fuel grades: (CIV) JET A1, AVGAS100, (JSDF) JET A1
3	Fuelling facilities/ capacity	(CIV) Fuel truck refueling / No limitation
4	De-icing facilities	Nil
5	Hangar space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

RJCO AD 2.5 PASSENGER FACILITIES

1	Hotels	At Sapporo City
2	Restaurants	At Sapporo City
3	Transportation	Bus and Taxi
4	Medical facilities	Nil
5	Bank and Post Office	At Sapporo City
6	Tourist Office	Nil
7	Remarks	Nil

RJCO AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	To be issued later
2	Rescue equipment	To be issued later
3	Capability for removal of disabled aircraft	To be issued later
4	Remarks	Nil

RJCO AD 2.7 SEASONAL AVAILABILITY-CLEARING

1	Types of clearing equipment	Snow remove equipments (JSDF):To be issued later *(CAB) : Snow sweeper x 1, Snow plow x 3, Rotary plow x 2
2	Clearance priorities	To be issued later
3	Remarks	*For NR.2 TWY and CIVIL APRON TWY/APN to measure the coefficient of friction : TWY NR.1, MIDDLE, NR.2, CIVIL APRON

RJCO AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	Spot NR 1-4 Surface : Asphalt and concrete Strength : PCN 24/R/A/X/T Spot NR 5, 11-29 Surface : Asphalt concrete Strength : PCN 16/F/D/Y/T Spot NR 30-32 Surface : Asphalt concrete Strength : PCN 27/F/C/X/T
2	Taxiway width, surface and strength	Width:18m To be issued later
3	ACL and elevation	Not available
4	VOR checkpoints	Nil
5	INS checkpoints	Nil
6	Remarks	Nil

RJCO 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 : 14/32 (Marking) RWY designation, RWY CL, RWY THR, RWY middle point, TDZ, RWY side stripe (LGT) RCLL, REDL, RTHL, RENL, Take off aiming LGT TWY : NR1, NR2 (Marking) TWY CL, RWY HLDG PSN, TWY side stripe, Mandatory instruction (LGT) TWY edge LGT, Taxiing guidance sign TWY : Middle (Marking) TWY CL
3	Stop bars	Nil
4	Remarks	(Marking) Overrun area, Apron TWY CL (LGT) Apron flood LGT

RJCO AD 2.10 AERODROME OBSTACLES

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
Nil					

RJCO AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	NEW CHITOSE
2	Hours of service MET Office outside hours	H24(NEW CHITOSE)
3	Office responsible for TAF preparation Periods of validity	Nil
4	Trend forecast Interval of issuance	Nil
5	Briefing/ consultation provided	Briefing is available upon inquiry at NEW CHITOSE.
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	Doppler Radar for airport weather (See below figure)
9	ATS units provided with information	TWR, APP
10	Additional information(limitation of service, etc.)	Observations / 2200-1130 Observation is made by the Ministry of Defence

Airspace for the advisory service concerning low level wind shear



RJCO 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
14	134.85°	1500×45	PCN 23/F/D/Y/T SW20000kg (44000lbs) DW25000kg (55000lbs) Asphalt	430719.87N	THR ELEV : 20FT
				1412229.11E	
				104.1ft	
32	314.85°	1500×45		430645.58N	THR ELEV : 27FT
				1412316.16E	
				104.0ft	
Slope of RWY		Strip Dimensions(M)		Remarks	
7		10		12	
SEE AD2.24 AD CHART		1620×300 1620×300		RWY Grooving 1500mX45m	

RJCO AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
14	1500	1500	1500	1500	Nil
32	1500	1500	1500	1500	Nil

RJCO 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
14	Nil	Green	PAPI 3.0°/Left 273m 45FT	Nil	1500m - Coded color -	1500m - Coded color -	Red	Nil
32	Nil	Green	PAPI 3.0°/Left 251m 39FT	Nil	1500m - Coded color -	1500m - Coded color -	Red	Nil
Remarks								
10								
RWY THR ID LGT for RWY 14/32 THR								

RJCO AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN:430641N/1412253E, White/Green EV6sec, HO
2	LDI location and LGT Anemometer location and LGT	LDI : Nil Anemometer : RWY32, AVBL
3	TWY edge and center line lighting	TWY edge LGT: Blue TWY CL LGT: Nil
4	Secondary power supply/ switch-over time	Nil
5	Remarks	WDI LGT

RJCO AD 2.16 HELICOPTER LANDING AREA

Nil

RJCO 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
SAPPORO CTR	Area within a radius of 5nm of SAPPORO ARP (4307N/14123E) .	4000 or below	D	SAPPORO TOWER En	
SAPPORO APPROACH CONTROL AREA	SEE RJCO ATTACHED CHART		E	SAPPORO APP, SAPPORO RADAR, SAPPORO DEP En	

札幌進入管制区
Sapporo Approach Control Area



RJCO AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP/ASR	Sapporo Approach/ Sapporo Radar	119.225MHz 315.9MHz 121.5MHz 243.0MHz	2230-1130 Other Time 1HR PN	
DEP	Sapporo Departure	121.075MHz 315.9MHz	2230-1130 Other Time 1HR PN	
TWR	Sapporo Tower	126.2MHz 118.1MHz 140.5MHz 138.05MHz 304.8MHz 123.1MHz(1) 121.5MHz(E)	2230 - 1130 Other time 1HR PN	(1) For rescue only
GCA-ASR -PAR	Sapporo GCA	120.3MHz 133.0MHz 138.3MHz 122.35MHz 304.6MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1130 Other time 1HR PN	Glide path 3.0°. ASR RWY 14/32. PAR RWY14/32
GND	Sapporo Ground	121.8MHz	2230 - 1130 Other time 1HR PN	

RJCO 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 (9°W/2009)	SPE	113.9MHz	H24	431028.71N/ 1411808.58E		VOR Unusable : 190°-200° beyond 35nm BLW 7000ft. 210°-220° beyond 30nm BLW 9000ft. 220°-230° beyond 25nm BLW 9000ft. 230°-260° beyond 30nm BLW 9000ft.
DME	SPE	1173MHz (CH-86X)	H24	431029.08N/ 1411807.22E	87ft	DME Unusable : 190°-200° beyond 30nm BLW 7000ft. 200°-210° beyond 35nm BLW 9000ft. 210°-250° beyond 30nm BLW 9000ft. 250°-260° beyond 35nm BLW 9000ft.
MSAS		1575.42MHz	H24			Transmitting antennas are satellite based.

RJCO AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

- 1. All MIL ACFT 48HR PPR to Sapporo BOPS(TEL:011-781-8321 EXT 270)
- 2. Civil transient ACFT
 - a) PPR to JSDF-G Sapporo AD(TEL:011-781-8321 EXT 366) for AD use application
 - b) PPR to CAB Okadama Airport Office(TEL:011-781-4162) for parking

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

TKOF from RWY: Do not start turns until passing DER.
TKOF from HELISPOTS: Do not start turns until passing abeam DER.

9. Removal of disabled aircraft from runways

Nil

RJCO AD 2.21 NOISE ABATEMENT PROCEDURES

Nil

RJCO AD 2.22 FLIGHT PROCEDURES

1.1 TAKE OFF MINIMA

	RWY	REDL & RCLL AVBL		REDL or RCLL AVBL		REDL & RCLL OUT	
		CEIL-RVR	CEIL-VIS	CEIL-RVR	CEIL-VIS	CEIL-RVR	CEIL-VIS
TKOF ALTN AP FILED	14	0'-500m *0'-300m	0'-400m	0'-600m	0'-600m	0'-800m	0'-800m
	32	0'-500m *0'-300m		0'-600m		0'-800m	
OTHER	14	AVBL LDG MINIMA					
	32						

NOTE: SIDs are designed in accordance with provisional standards for FLIGHT PROCEDURE DESIGN.

*Applicable when two RVRs available.

1.2 TAKE OFF MINIMA for RNAV DEPARTURE

	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	14/32	A,B,C	400m	400m	400m	400m	-	500m
OTHER	14/32	A,B,C	AVBL LDG MINIMA					

2. WX MINIMA CONCERNING PAR/ASR APCH PROCEDURE

PAR RWY 14

MINIMA THR elev. 20 AD elev. 26				
CAT			CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	VIS
A	224(204)	1000	520(494)	1600
B			580(554)	2400
C				
D	-	-	-	-

Circling east side of RWY only.

ASR RWY 14

MINIMA THR elev. 20 AD elev. 26				
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	500(474)	1500	520(494)	1600
B		2000	580(554)	2400
C				
D	-	-	-	-

Circling east side of RWY only.

PAR RWY 32

MINIMA THR elev. 27 AD elev. 26				
CAT			CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	VIS
A	227(200)	1000	520(494)	1600
B				
C			580(554)	2400
D	-	-	-	-

Circling east side of RWY only.

ASR RWY 32

MINIMA THR elev. 27 AD elev. 26				
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	540(514)	1500	540(514)	1600
B				
C		2000	580(554)	2400
D	-	-	-	-

Circling east side of RWY only.

3. MISSED APCH PROCEDURE FOR PAR/ASR RWY 32 APCH

Climb via SPE VOR/DME, SPE R350 to 4,000ft, turn left, proceed to SPE VOR/DME and hold.
Contact SAPPORO TOWER.

4. Lost Communication Procedures for arrival aircraft under radar navigational guidance

If radio communications with Sapporo Radar/GCA are lost 1 minute in the pattern, 15 seconds on surveillance final approach, or 5 seconds on PAR final approach, Mode A/3 Code 7600 and ;

1. Contact Sapporo Radar/Tower.
 2. If unable, proceed in accordance with visual flight rules.
 3. If unable, proceed to SAPPORO VOR/DME at last assigned altitude or 4,000ft whichever is higher and execute instrument approach.
- *Make right turn within 12NM from SPE.(RWY32 ONLY)

5. Automated Radar Terminal System(ARTS)

札幌進入管制所の指示のもと、当該進入管制区を飛行する航空機は、モード A/3 の二次レーダー個別コード及びモード C による応答を指示される。
二次レーダー個別コードを搭載していない航空機が当該コードによる応答を指示された場合は、管制官に対し、その旨通報すること。

Aircraft flying under control of Sapporo control in the approach control in the approach control area will be instructed to reply with discrete code on Mode A/3 and Mode C.

If an aircraft with non-discrete code capability be instructed to reply with the discrete code, it shall report a controller accordingly.

RJCO AD 2.23 ADDITIONAL INFORMATION

Nil

RJCO AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome/Heliport Chart
Standard Departure Chart - Instrument (KURIS, SAPPORO REVERSAL, SAPPORO)*
Standard Departure Chart - Instrument (KURIS REVERSAL)*
Standard Departure Chart - Instrument (BANKE-RNAV)
Standard Departure Chart - Instrument (TOBET EAST-RNAV)
Standard Departure Chart - Instrument (TOBET NORTH-RNAV)
Standard Arrival Chart - Instrument (MOIWA, RUMOI, KURIS NORTH-RNAV)
Standard Arrival Chart - Instrument (MOIWA, RUMOI, KURIS SOUTH-RNAV)
Instrument Approach Chart (VOR RWY14)*
Instrument Approach Chart (VOR RWY32)*
Instrument Approach Chart (RNP Z RWY14)
Instrument Approach Chart (RNP Y RWY14 (LPV ONLY))
Instrument Approach Chart (RNP RWY32)
Other Chart (LDG CHART)
Other Chart (MVA CHART)

*Designed in accordance with provisional standards for FLIGHT PROCEDURE DESIGN.

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AD CHART



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STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

SID

KURIS THREE DEPARTURE

RWY 14: Turn left,....

RWY 32: Turn right,....

....Climb via HDG 057° to intercept and proceed via SPE R103 to KURIS.

Cross KURIS at or above 5000FT.

SAPPORO REVERSAL FOUR DEPARTURE

RWY 14: Turn left,....

RWY 32:

....Climb to SPE VOR/DME, via SPE R335, turn left to intercept and proceed via SPE R310 to SPE VOR/DME within SPE 15.0DME.

Cross SPE R335/6.0DME at or below 6000FT,
cross SPE R310/6.0DME at or above 10000FT.

SAPPORO THREE DEPARTURE

RWY 14: Turn left,....

RWY 32:

....Climb to SPE VOR/DME.

RUMOI TRANSITION

From over SPE VOR/DME, climb via SPE R040 to RUMOI.

Cross SPE R040/8.0DME at or above 4000FT, cross RUMOI at assigned altitude.

BEEBA TRANSITION

From over SPE VOR/DME, climb via SPE R069 to BEEBA.

Cross BEEBA at assigned altitude.

MOIWA TRANSITION

From over SPE VOR/DME, climb via SPE R325 to 3000FT or above, turn left to intercept and proceed via SPE R203 to MOIWA.

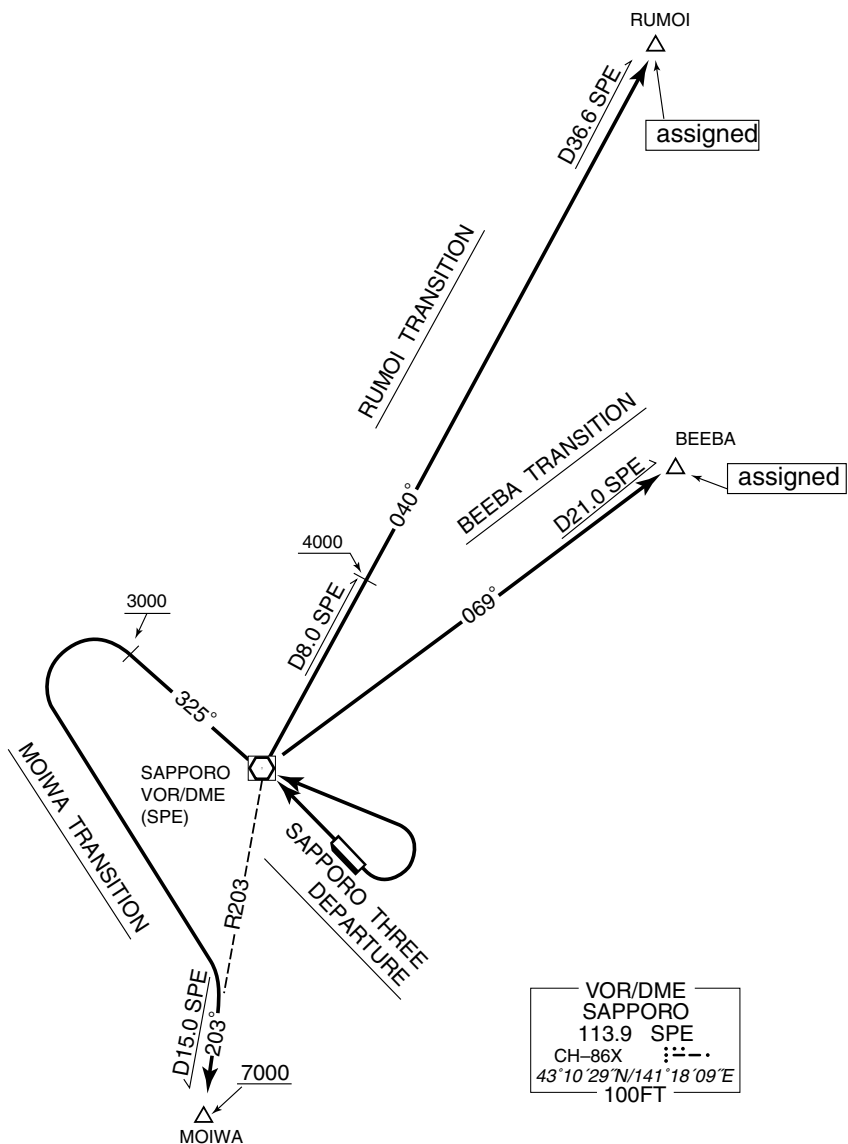
Cross MOIWA at or above 7000FT.

Note: Do not start left turn to MOIWA before SPE VOR/DME.

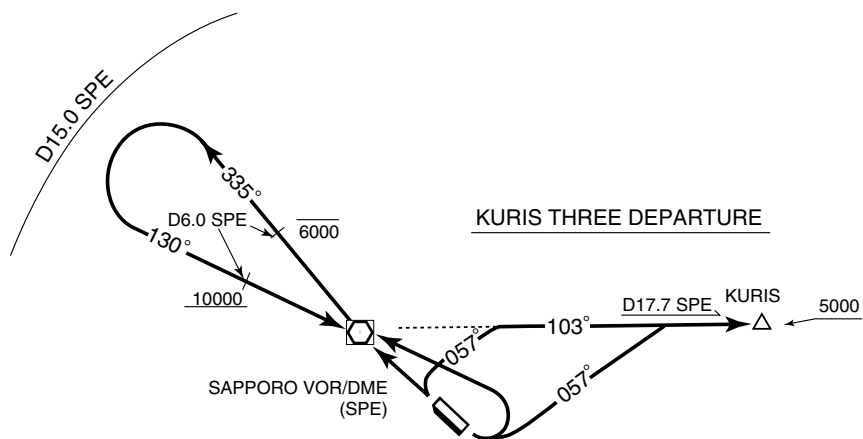
STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

SID



SAPPORO REVERSAL FOUR DEPARTURE



STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

SID

KURIS REVERSAL FOUR DEPARTURE

RWY 14 : Turn left,....

RWY 32 :

....climb direct to SPE VOR/DME, via SPE R325 until passing 3000 FT, turn left to intercept and proceed via SPE R305 to SPE VOR/DME within SPE 10.0DME, via SPE R103 to KURIS.

Cross SPE R103/10.0DME at or above 6000FT,
cross KURIS at or above 7000FT.



STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

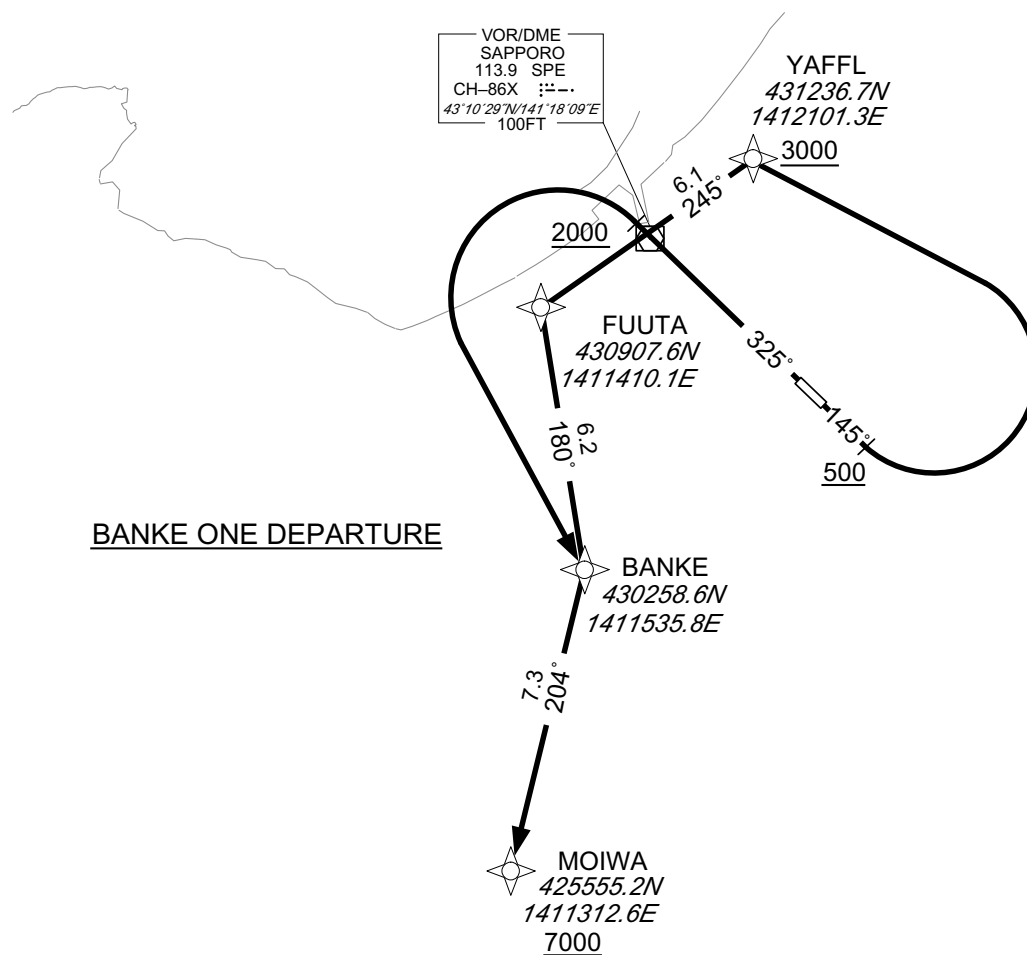
RNAV SID

BANKE ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 10° W(2020)

BANKE ONE DEPARTURE

RWY14 : Climb on HDG145° at or above 500FT, turn left direct to YAFFL at or above 3000FT, to FUUTA, to BANKE, to MOIWA at or above 7000FT.

RWY32 : Climb on HDG325° at or above 2000FT, turn left direct to BANKE, to MOIWA at or above 7000FT.

Note RWY14 : 6.0% climb gradient required up to 2200FT.

OBST ALT 2822FT located at 7.8NM 266° FM end of RWY14.

RWY32 : 6.0% climb gradient required up to 4000FT.

OBST ALT 3585FT located at 8.4NM 261° FM end of RWY32.

CHANGE : FIX symbol(MOIWA) .

STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

RNAV SID

BANKE ONE DEPARTURE

RWY14

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	—	—	145 (134.8)	-9.7	—	—	+500	—	—	Basic RNP1
002	DF	YAFFL	—	—	-9.7	—	L	+3000	—	—	Basic RNP1
003	TF	FUUTA	—	245 (235.2)	-9.7	6.1	—	—	—	—	Basic RNP1
004	TF	BANKE	—	180 (170.4)	-9.7	6.2	—	—	—	—	Basic RNP1
005	TF	MOIWA	—	204 (193.9)	-9.7	7.3	—	+7000	—	—	Basic RNP1

RWY32

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	—	—	325 (314.8)	-9.7	—	—	+2000	—	—	Basic RNP1
002	DF	BANKE	—	—	-9.7	—	L	—	—	—	Basic RNP1
003	TF	MOIWA	—	204 (193.9)	-9.7	7.3	—	+7000	—	—	Basic RNP1

CHANGE : New PROC .

STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

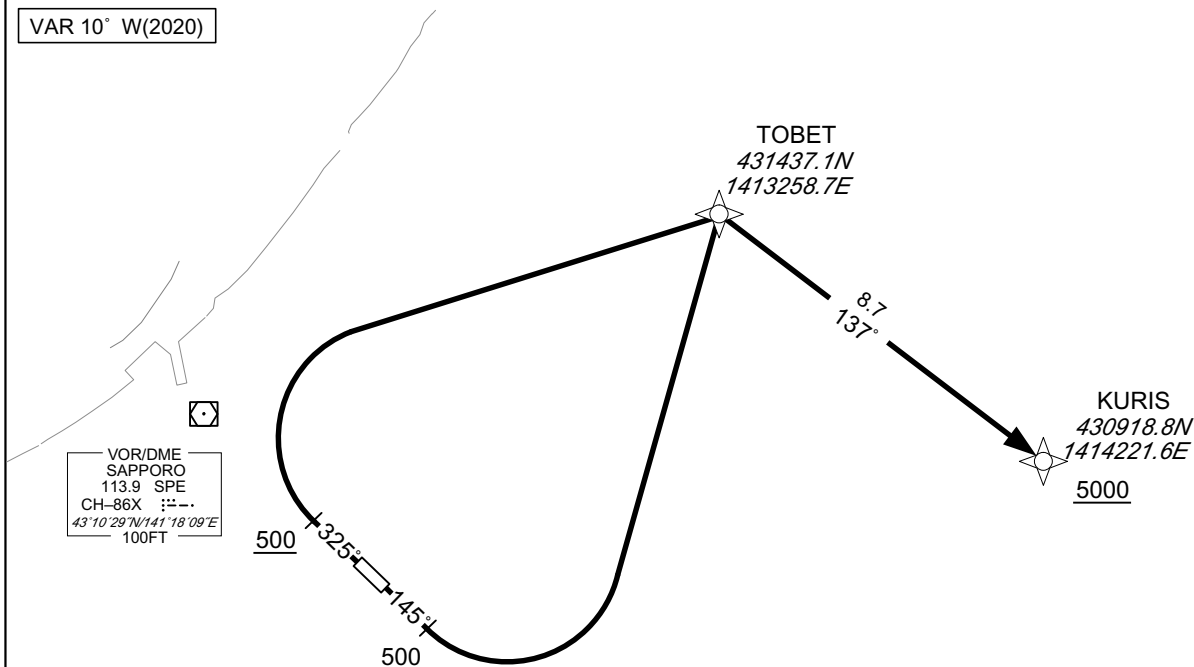
RNAV SID

TOBET EAST ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 10° W(2020)



TOBET EAST ONE DEPARTURE

TOBET EAST ONE DEPARTURE

RWY14 : Climb on HDG145° at or above 500FT, turn left direct to TOBET, to KURIS at or above 5000FT.

RWY32 : Climb on HDG325° at or above 500FT, turn right direct to TOBET, to KURIS at or above 5000FT.

Note RWY14 : 6.0% climb gradient required up to 500FT.

RWY32 : 6.0% climb gradient required up to 500FT.

RWY14

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	—	—	145 (134.8)	-9.7	—	—	+500	—	—	Basic RNP1
002	DF	TOBET	—	—	-9.7	—	L	—	—	—	Basic RNP1
003	TF	KURIS	—	137 (127.7)	-9.7	8.7	—	+5000	—	—	Basic RNP1

RWY32

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	—	—	325 (314.8)	-9.7	—	—	+500	—	—	Basic RNP1
002	DF	TOBET	—	—	-9.7	—	R	—	—	—	Basic RNP1
003	TF	KURIS	—	137 (127.7)	-9.7	8.7	—	+5000	—	—	Basic RNP1

CHANGE : FIX symbol(KURIS) .

STANDARD DEPARTURE CHART - INSTRUMENT

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STANDARD ARRIVAL CHART-INSTRUMENT

RJCO / SAPPORO

RNAV STAR RWY14

MOIWA NORTH ARRIVAL RUMOI NORTH ARRIVAL KURIS NORTH ARRIVAL	Basic RNP1
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Note GNSS required.



STANDARD ARRIVAL CHART-INSTRUMENT

RJCO / SAPPORO

RNAV STAR RWY14

MOIWA NORTH ARRIVAL

From MOIWA, to KIROL at or above 6000FT, to NIKAN at or above 4000FT.

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	MOIWA	-	-	-9.9	-	-	-	-	-	Basic RNP1
002	TF	KIROL	-	348 (338.3)	-9.9	14.6	-	+6000	-	-	Basic RNP1
003	TF	NIKAN	-	348 (338.2)	-9.9	4.4	-	+4000	-	-	Basic RNP1

RUMOI NORTH ARRIVAL

From RUMOI, to MAMAT at or above 6000FT, to MORAI at or above 3500FT, to SOBEE at or above 2800FT.

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	RUMOI	-	-	-9.9	-	-	-	-	-	Basic RNP1
002	TF	MAMAT	-	236 (226.3)	-9.9	20.9	-	+6000	-	-	Basic RNP1
003	TF	MORAI	-	236 (226.0)	-9.9	5.1	-	+3500	-	-	Basic RNP1
004	TF	SOBEE	-	236 (226.0)	-9.9	4.1	-	+2800	-	-	Basic RNP1

KURIS NORTH ARRIVAL

From KURIS, to SOBEE at or above 2800FT.

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	KURIS	-	-	-9.9	-	-	-	-	-	Basic RNP1
002	TF	SOBEE	-	309 (299.6)	-9.9	23.9	-	+2800	-	-	Basic RNP1

CHANGE : VAR.

STANDARD ARRIVAL CHART-INSTRUMENT

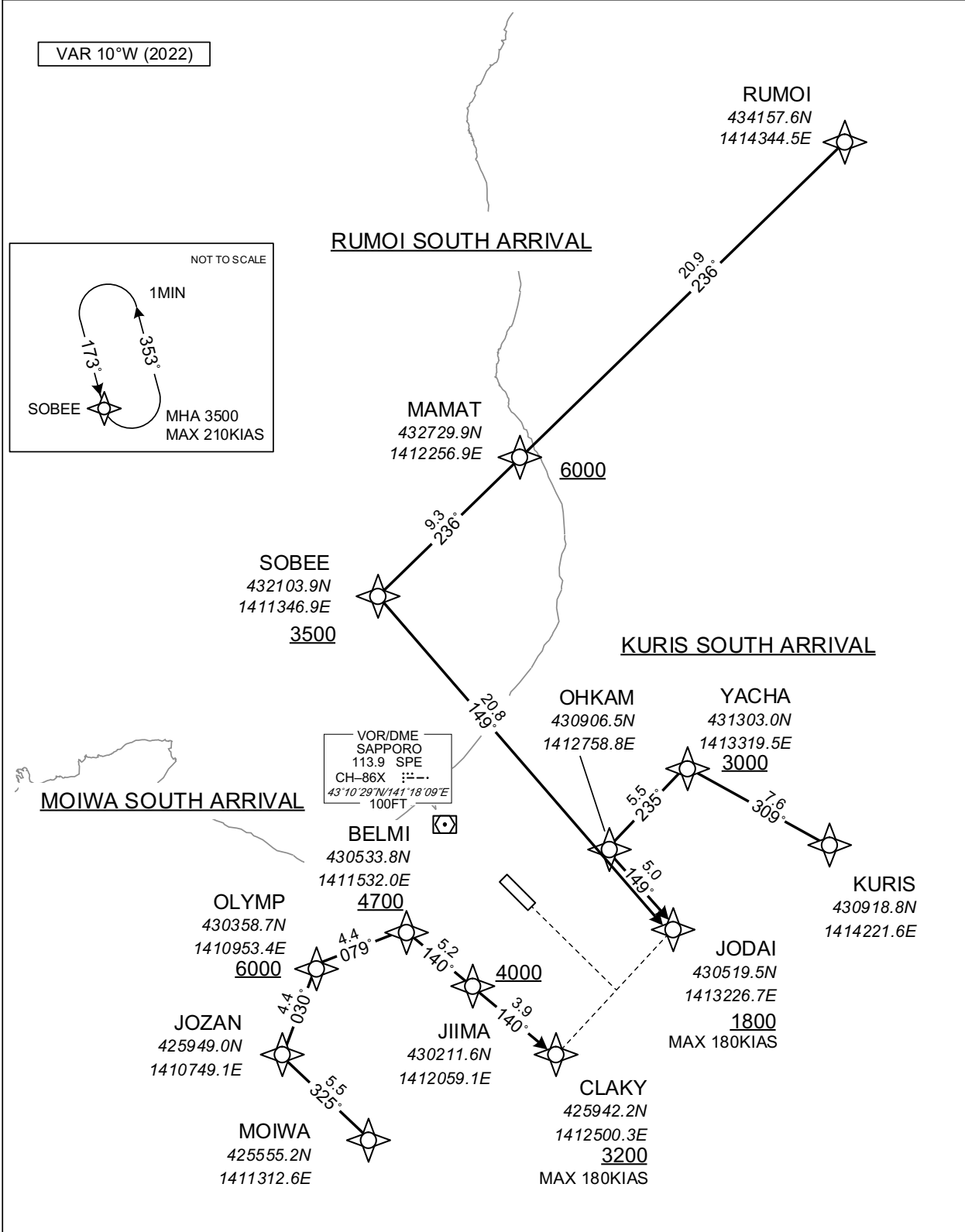
RJCO / SAPPORO

RNAV STAR RWY32

MOIWA SOUTH ARRIVAL RUMOI SOUTH ARRIVAL KURIS SOUTH ARRIVAL	Basic RNP1
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Note GNSS required.

CHANGE : VAR. Course FM MOIWA to JOZAN. Course FM YACHA to OHKAM. RNAV HLDG established(SOBEE).



STANDARD ARRIVAL CHART-INSTRUMENT

RJCO / SAPPORO

RNAV STAR RWY32

MOIWA SOUTH ARRIVAL

From MOIWA, to JOZAN, to OLYMP at or above 6000FT, to BELMI at or above 4700FT, to JIIMA at or above 4000FT, to CLAKY at or above 3200FT.

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	MOIWA	-	-	-9.9	-	-	-	-	-	Basic RNP1
002	TF	JOZAN	-	325 (314.7)	-9.9	5.5	-	-	-	-	Basic RNP1
003	TF	OLYMP	-	030 (020.0)	-9.9	4.4	-	+6000	-	-	Basic RNP1
004	TF	BELMI	-	079 (068.9)	-9.9	4.4	-	+4700	-	-	Basic RNP1
005	TF	JIIMA	-	140 (130.2)	-9.9	5.2	-	+4000	-	-	Basic RNP1
006	TF	CLAKY	-	140 (130.3)	-9.9	3.9	-	+3200	-180	-	Basic RNP1

RUMOI SOUTH ARRIVAL

From RUMOI, to MAMAT at or above 6000FT, to SOBEE at or above 3500FT, to JODAI at or above 1800FT.

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	RUMOI	-	-	-9.9	-	-	-	-	-	Basic RNP1
002	TF	MAMAT	-	236 (226.3)	-9.9	20.9	-	+6000	-	-	Basic RNP1
003	TF	SOBEE	-	236 (226.0)	-9.9	9.3	-	+3500	-	-	Basic RNP1
004	TF	JODAI	-	149 (139.1)	-9.9	20.8	-	+1800	-180	-	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	SOBEE	173 (163.3)	-9.9	1.0(-14000)	L	3500	FL140	-210(-14000)	Basic RNP1

KURIS SOUTH ARRIVAL

From KURIS, to YACHA at or above 3000FT, to OHKAM, to JODAI at or above 1800FT.

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	KURIS	-	-	-9.9	-	-	-	-	-	Basic RNP1
002	TF	YACHA	-	309 (299.6)	-9.9	7.6	-	+3000	-	-	Basic RNP1
003	TF	OHKAM	-	235 (224.7)	-9.9	5.5	-	-	-	-	Basic RNP1
004	TF	JODAI	-	149 (139.2)	-9.9	5.0	-	+1800	-180	-	Basic RNP1

CHANGE : VAR. Course FM MOIWA to JOZAN. Course FM YACHA to OHKAM. RNAV HLDG established(SOBEE).

INSTRUMENT APPROACH CHART

RJCO / SAPPORO

VOR RWY14



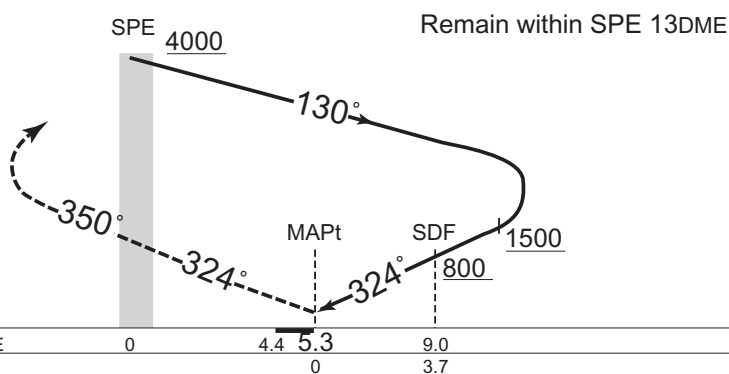
INSTRUMENT APPROACH CHART

RJCO / SAPPORO

VOR RWY32

**MISSED APPROACH**

At 5.3DME prior to SPE VOR/DME
climb to 4000FT via SPE R144
then SPE R350, turn left
within SPE 10.0DME, proceed to
SPE VOR/DME and hold.
Contact SAPPORO APP.



MINIMA	THR elev. 27	AD elev. 26	
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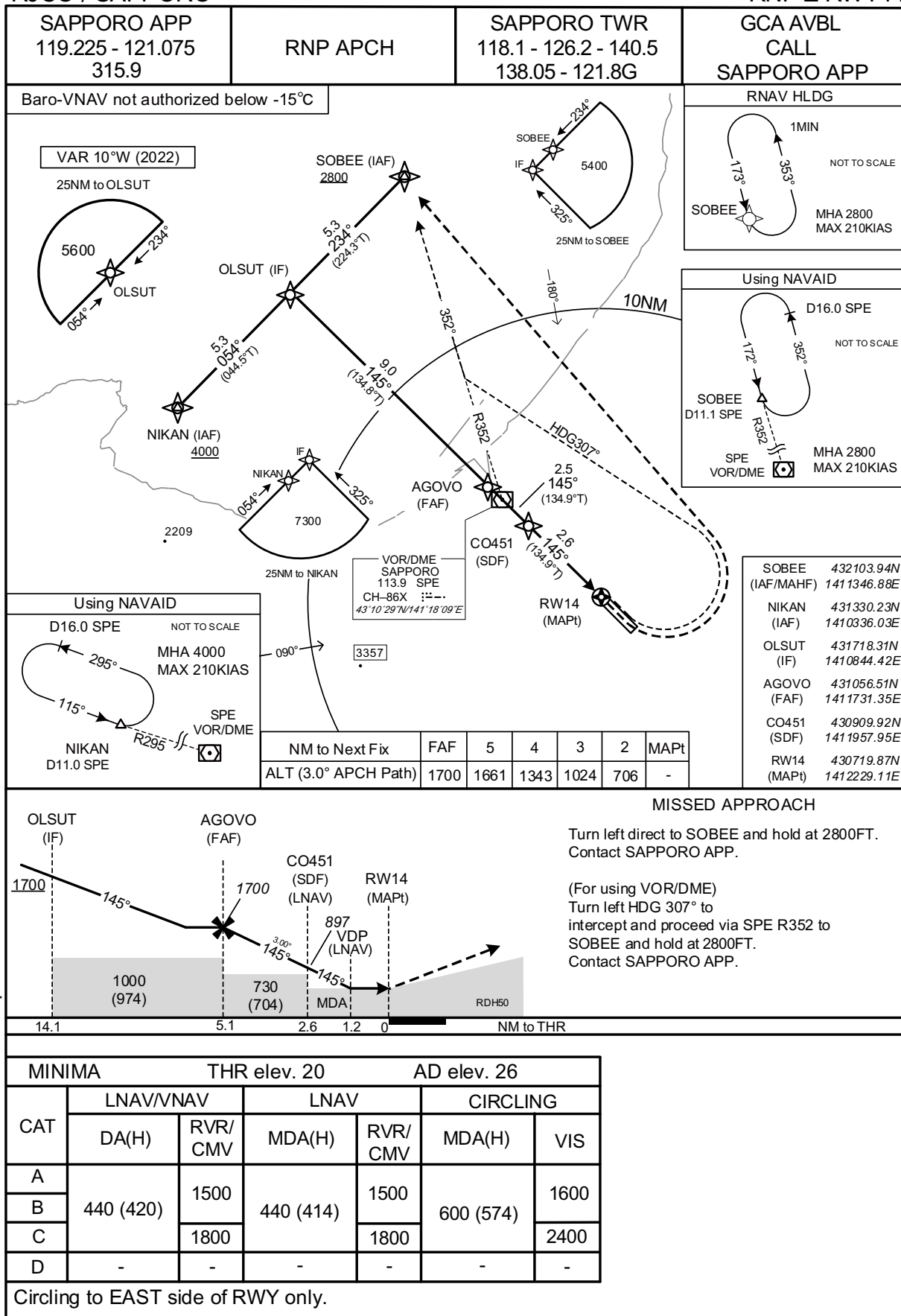
CAT	CIRCLING		CIRCLING	
	MDA(H)	RVR/CMV	MDA(H)	VIS
A	620 (594)	1500	620 (594)	1600
B				2400
C		2000		
D	—	—	—	—

Circling to EAST side of RWY only.

INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP Z RWY14



INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP Y RWY14(LPV ONLY)



CHANGE:PROC renamed. Requirement for RNP.

INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP Y RWY14(LPV ONLY)

FAS DATA BLOCK

Operation type	0	LTP/FTP ellipsoidal height	+00374
SBAS service provider identifier	2	FPAP Latitude	430641.1115N
Airport identifier	RJCO	FPAP Longitude	1412322.2875E
Runway	14	Threshold crossing height	00015.0
Approach performance designator	0	TCH units selector	1
Route indicator	Y	Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M14A	∠ length offset	0192
LTP/FTP latitude	430719.8510N	HAL	40.00
LTP/FTP longitude	1412229.1365E	VAL	50.00
CRC remainder	DE9BC9B1		

Required additional data

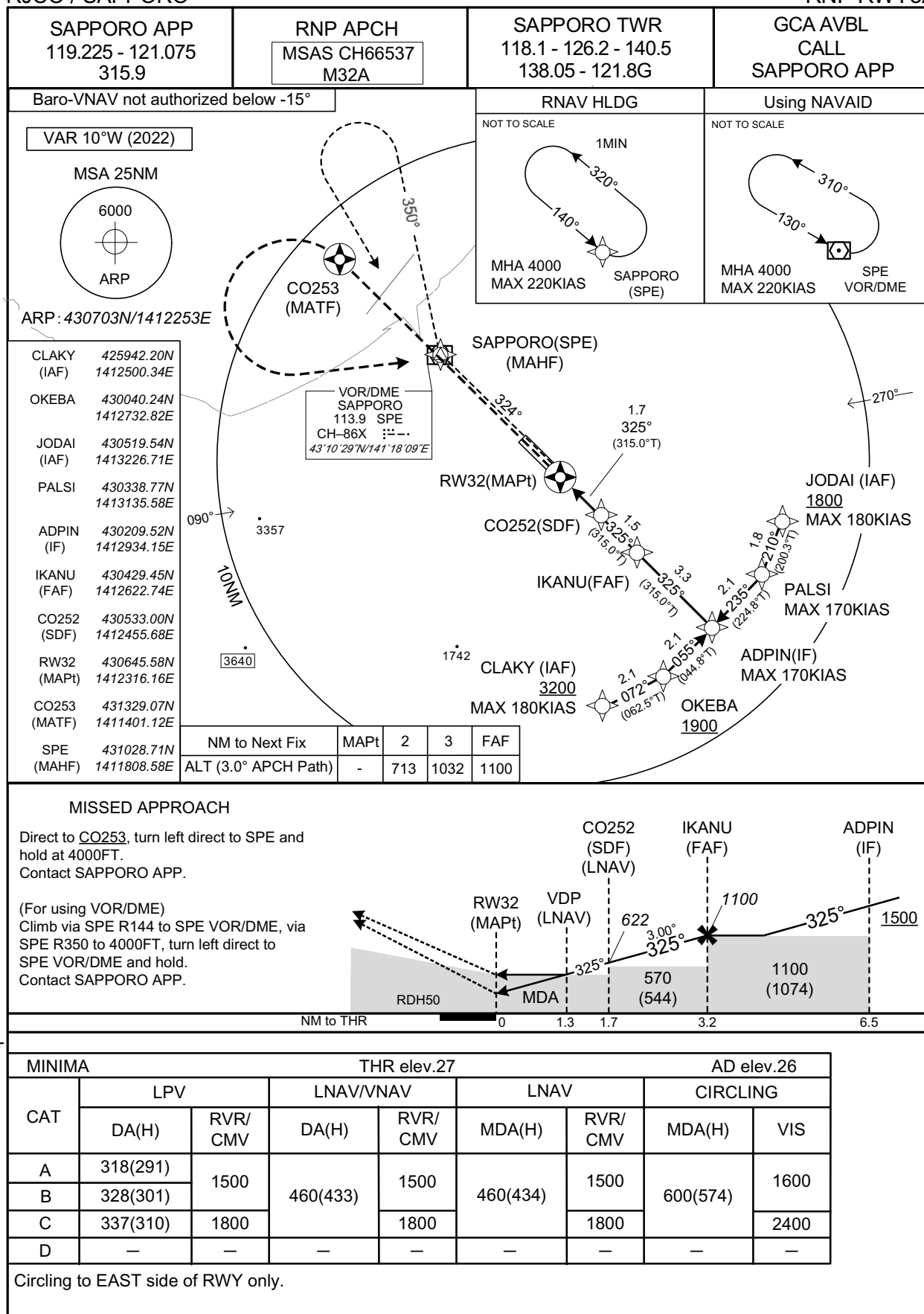
LTP/FTP orthometric height	5.7
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CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).

INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP RWY32



CHANGE:PROC renamed. Requirement for RNP.

INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP RWY32

FAS DATA BLOCK

Operation type	0	LTP/FTP ellipsoidal height	+00394
SBAS service provider identifier	2	FPAP Latitude	430724.3050N
Airport identifier	RJCO	FPAP Longitude	1412223.0240E
Runway	32	Threshold crossing height	00015.0
Approach performance designator	0	TCH units selector	1
Route indicator		Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M32A	∠ length offset	0192
LTP/FTP latitude	430645.5665N	HAL	40.00
LTP/FTP longitude	1412316.1770E	VAL	50.00
CRC remainder	56210C49		

Required additional data

LTP/FTP orthometric height	7.7
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CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).



RJCO / SAPPORO

Minimum Vectoring Altitude CHART

VAR 9°W (2013)



- ① 1600
- ② 2500
- ③ 1700
- ④ 3000
- ⑤ 2100
- ⑥ 2700
- ⑦ 3200
- ⑧ 4000
- ⑨ 4700
- ⑩ 4000

CENTER : 430703N/1412253E (ARP)

*1 : 430405N/1412108E RADIUS : 3.2NM

*2 : 430520N/1413527E RADIUS : 3NM