

## 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: 0570-003259 (140#)
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 <sub>6</sub> , U <sub>85</sub> , U <sub>7</sub> , U <sub>5</sub> , U <sub>3</sub> , U <sub>25</sub> , U <sub>2</sub> /T <sub>r</sub> , P <sub>S</sub> , P <sub>5</sub> , P <sub>3</sub> , P <sub>25</sub> , P <sub>SWE</sub> , P <sub>SWF</sub> , P <sub>SWG</sub> , P <sub>SWI</sub> , P <sub>SWM</sub> , P <sub>SW(domestic)</sub> , E, C, W <sub>E</sub> , W <sub>F</sub> , W <sub>G</sub> , W <sub>I</sub> , 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°	1500x45	PCN 23/F/D/Y/T SW20000kg (44000lbs) DW25000kg (55000lbs) Asphalt	430719.87N 1412229.11E 104.1ft	THR ELEV : 20FT
32	314.85°	1500x45		430645.58N 1412316.16E 104.0ft	THR ELEV : 27FT
Slope of RWY		Strip Dimensions(M)	Remarks		
7		10	12		
SEE AD2.24 AD CHART		1620x300 1620x300	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
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**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

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**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.

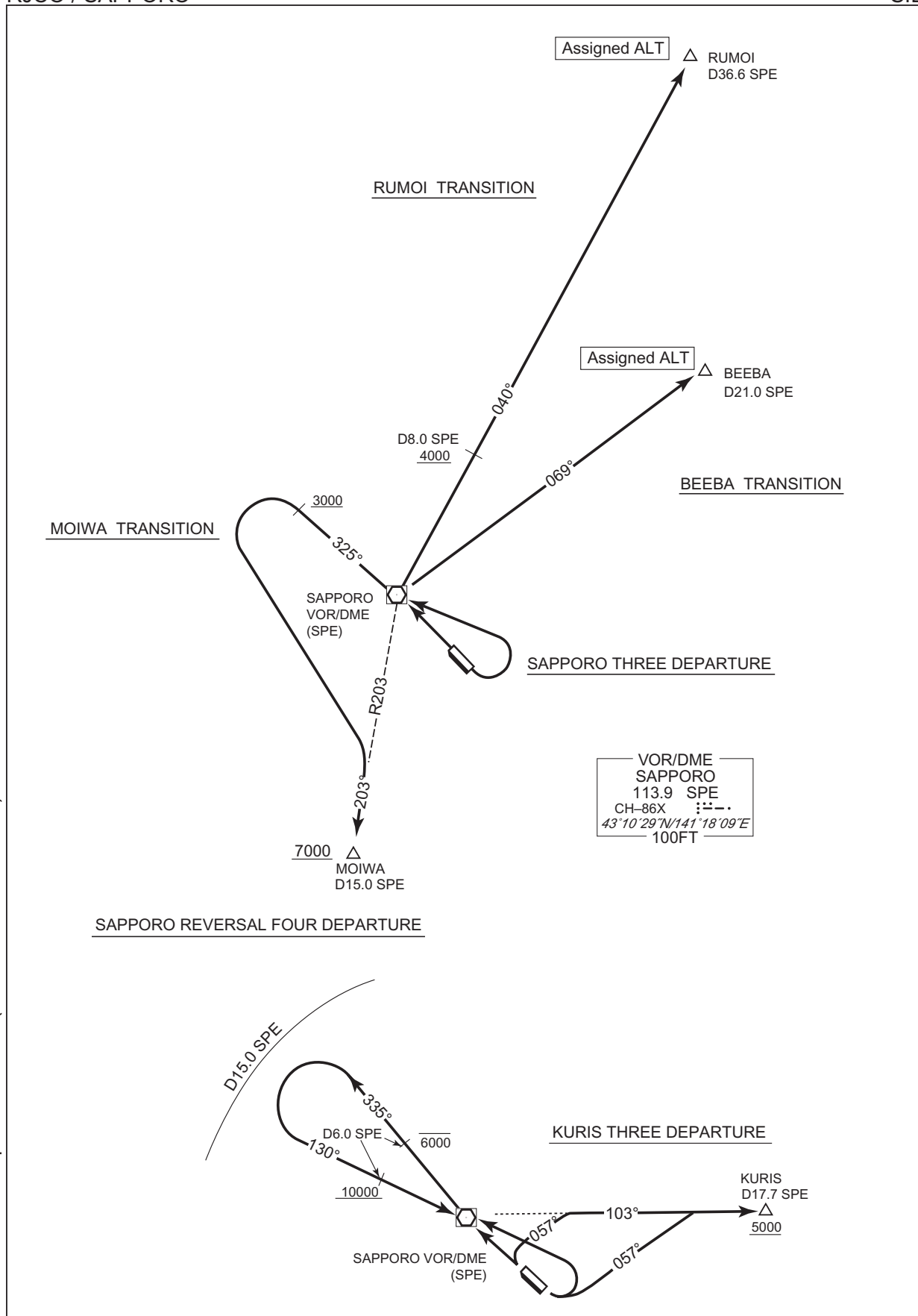
Note: Do not start left turn to MOIWA before SPE VOR/DME.

## STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

SID

CHANGE : Description of PROC(SID and TRANSITION).





STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

SID

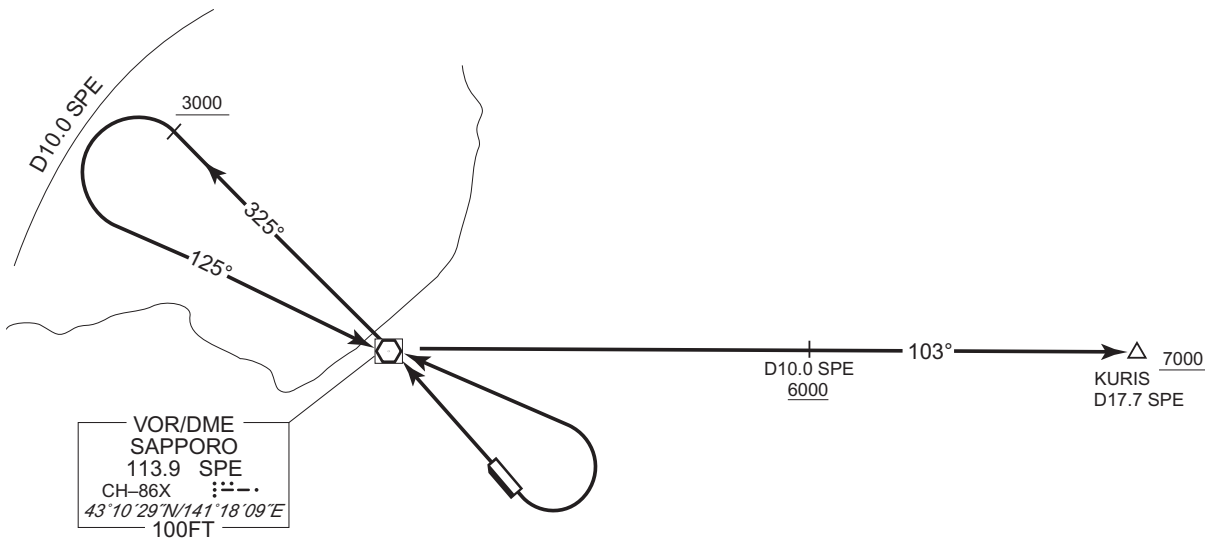
KURIS REVERSAL FOUR DEPARTURE

RWY 14 : Turn left,....

RWY 32 : ....

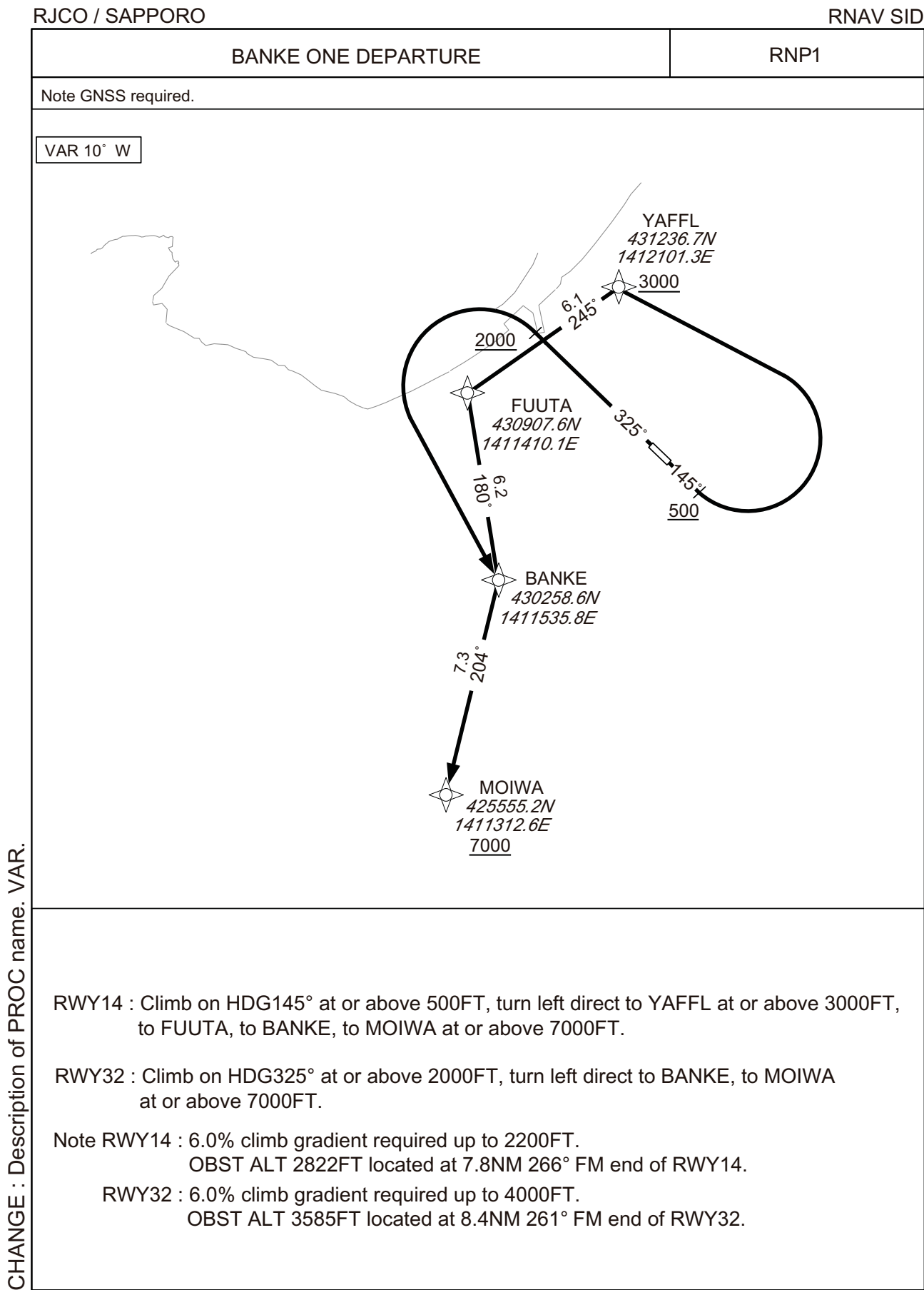
....climb direct to SPE VOR/DME, via SPE R325 until passing  
3000 FT, turn left to intercept and proceed via SPE R305 to  
SPE VOR/DME within SPE 10.0DME, via SPE R103 to KURIS.

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



CHANGE : Description of PROC.

STANDARD DEPARTURE CHART - INSTRUMENT



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

RWY32

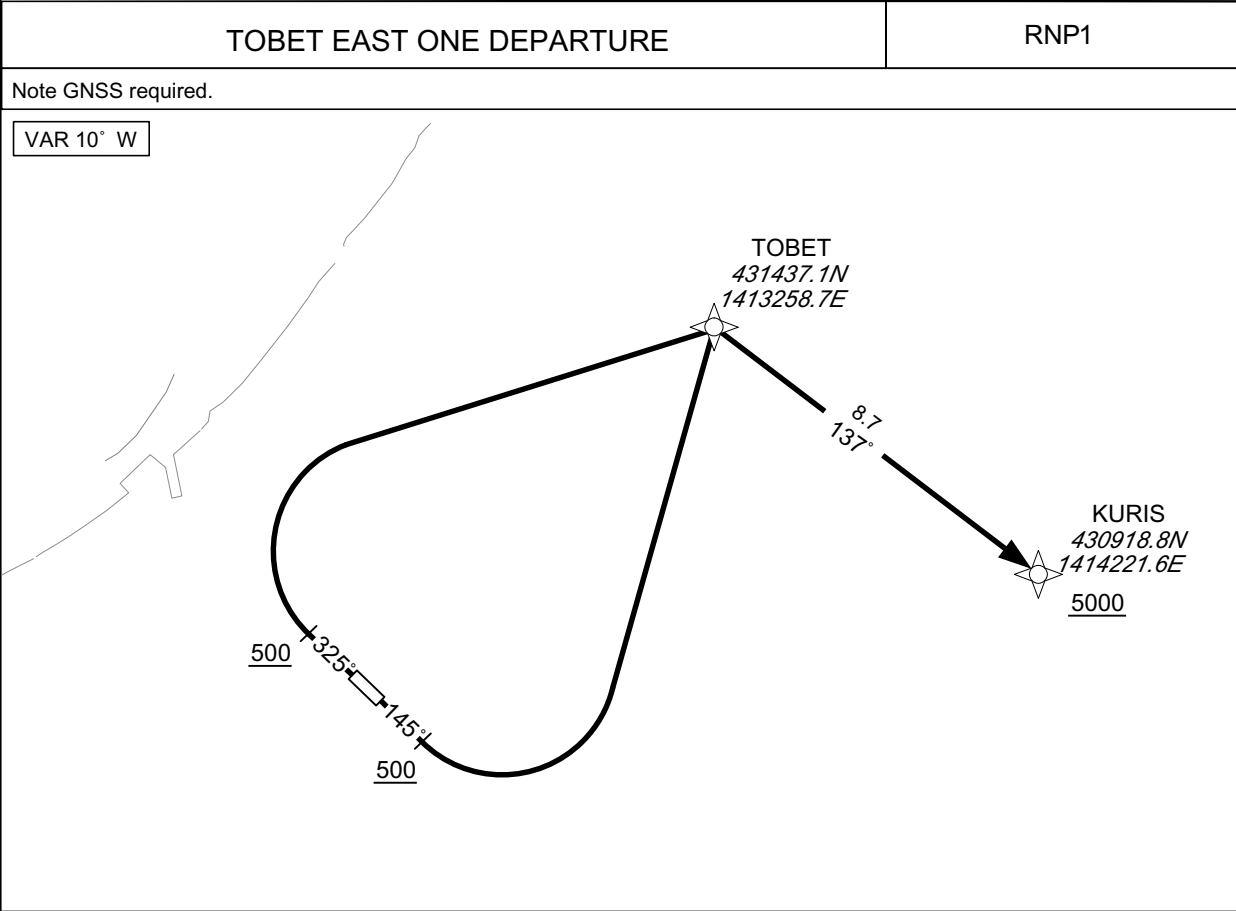
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001	VA	-	-	325 (314.8)	-9.7	-	-	+2000	-	-	RNP1
002	DF	BANKE	-	-	-9.7	-	L	-	-	-	RNP1
003	TF	MOIWA	-	204 (193.9)	-9.7	7.3	-	+7000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

RNAV SID



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

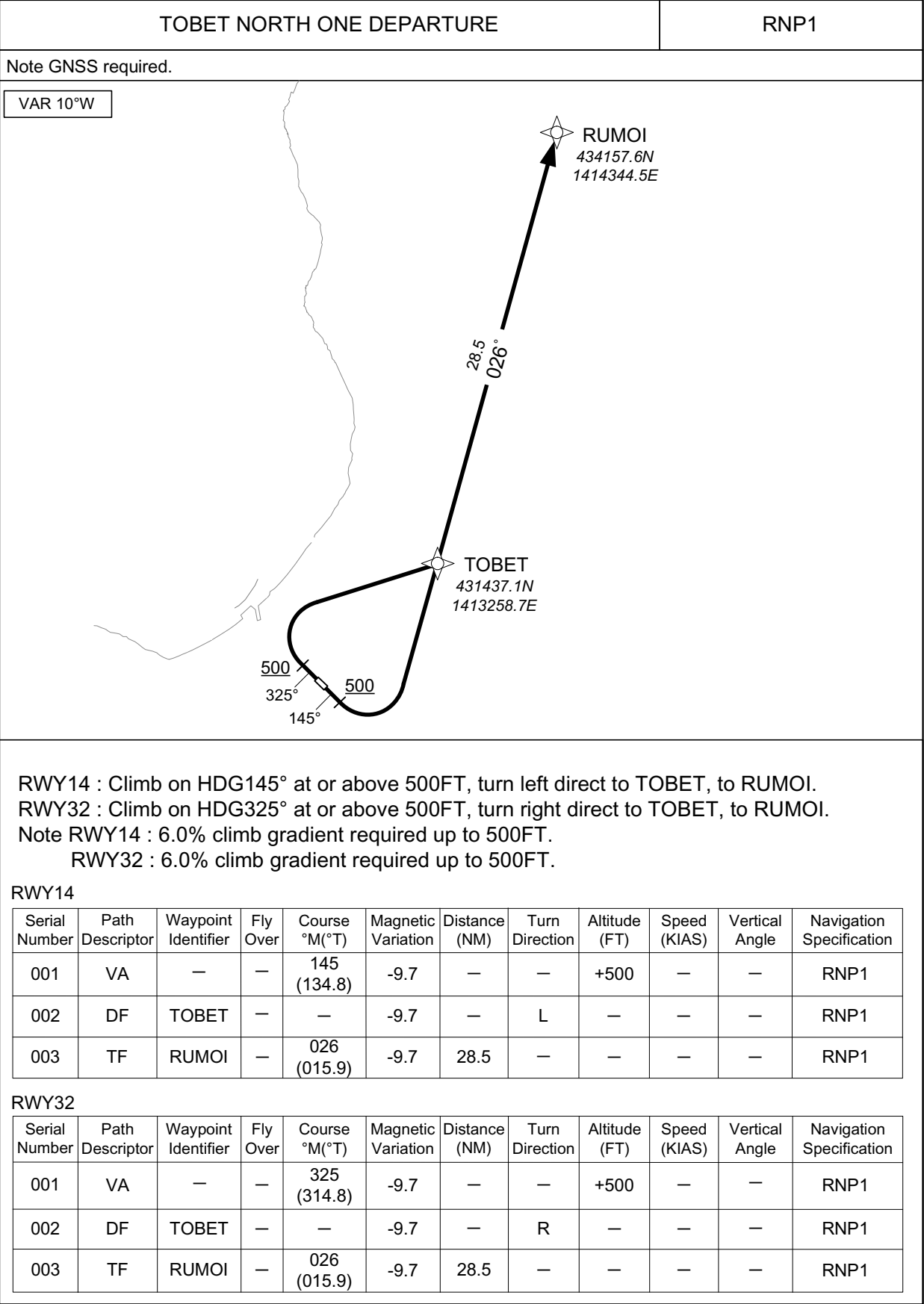
RWY32

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

STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

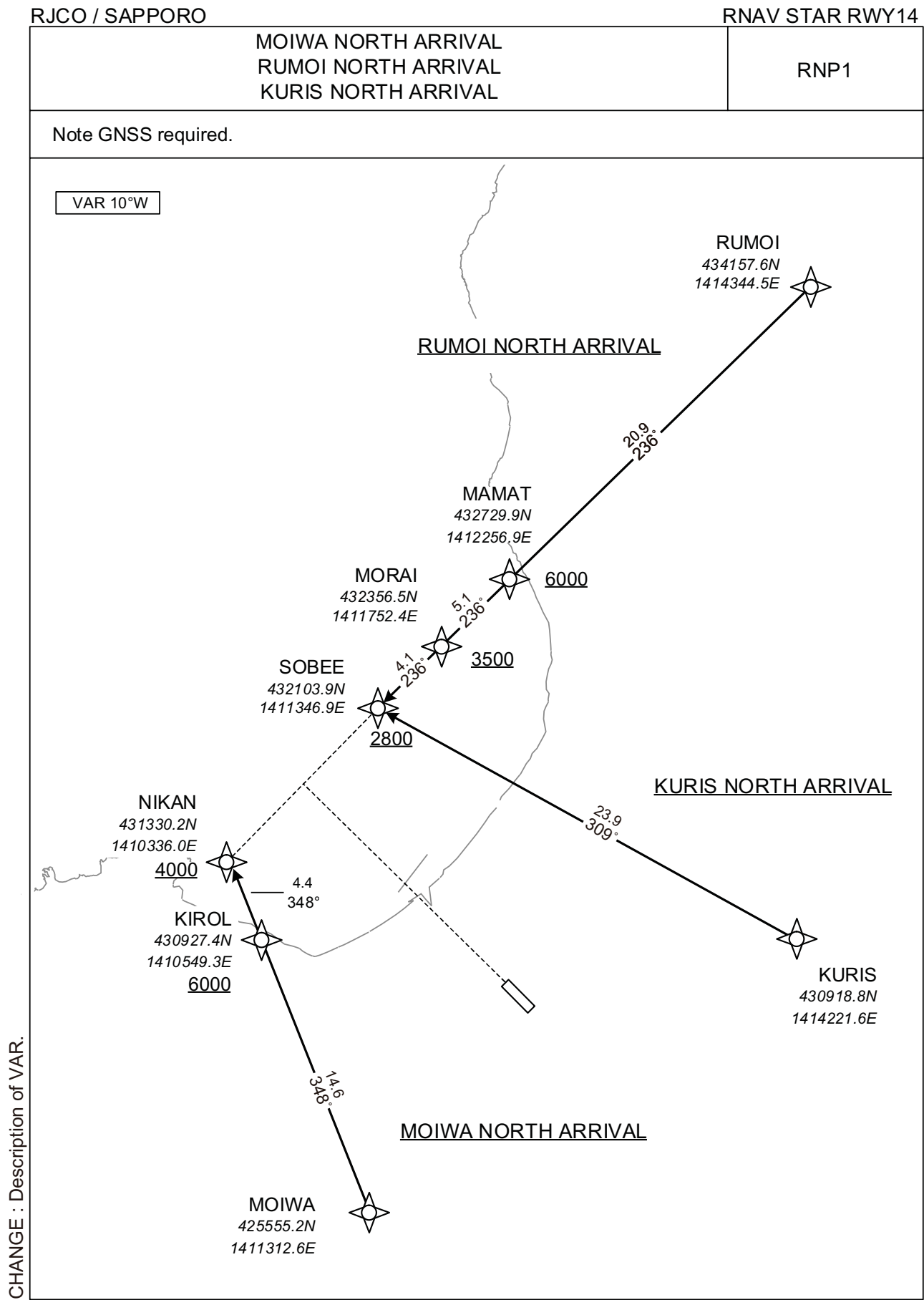
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CHANGE : Description of PROC name and VAR.

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STANDARD ARRIVAL CHART-INSTRUMENT



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

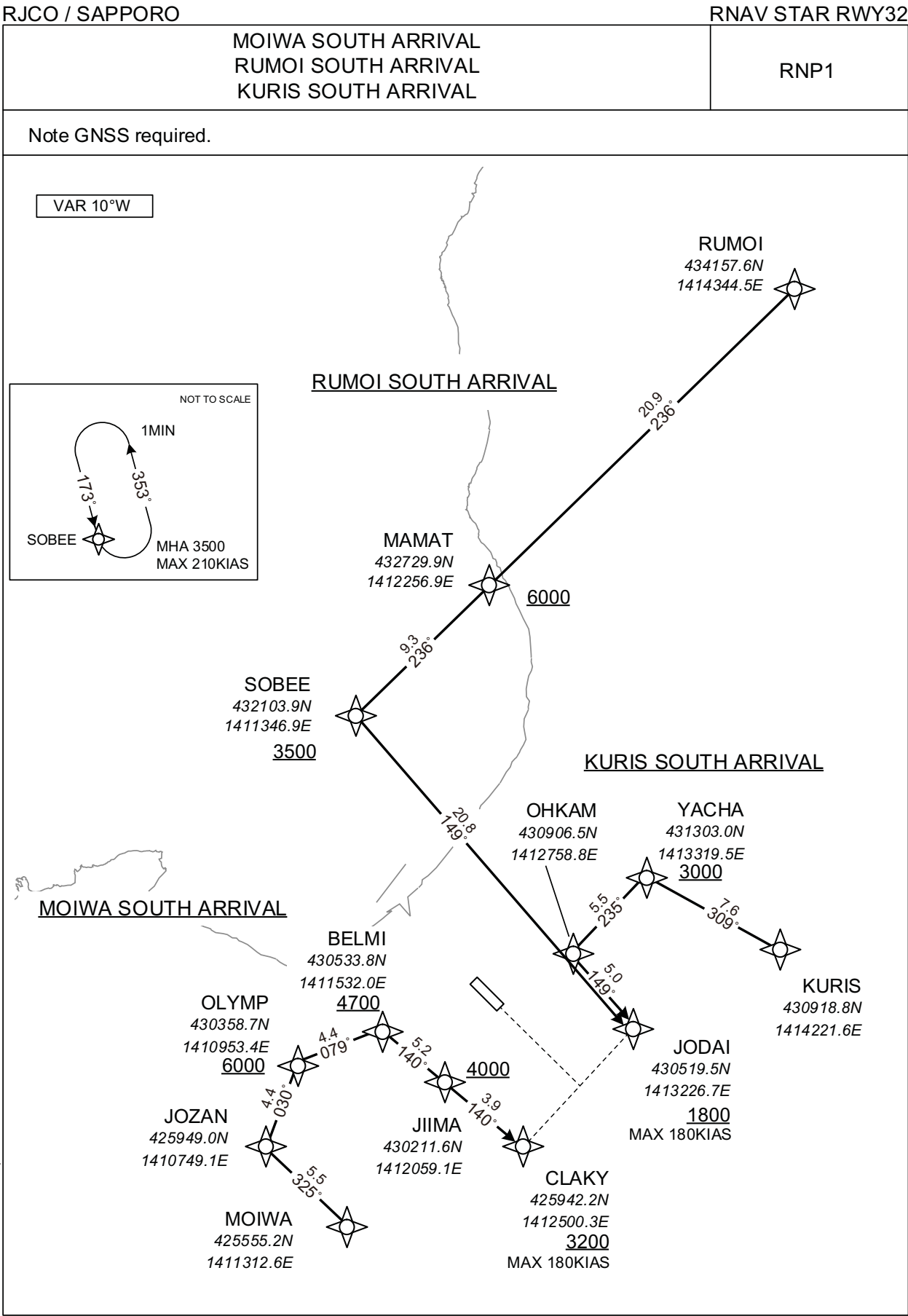
RUMOI NORTH ARRIVAL											
From RUMOI, to MAMAT at or above 6000FT, to MORAI at or above 3500FT, to SOBEE at or above 2800FT.											
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	RUMOI	-	-	-9.9	-	-	-	-	-	RNP1
002	TF	MAMAT	-	236 (226.3)	-9.9	20.9	-	+6000	-	-	RNP1
003	TF	MORAI	-	236 (226.0)	-9.9	5.1	-	+3500	-	-	RNP1
004	TF	SOBEE	-	236 (226.0)	-9.9	4.1	-	+2800	-	-	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	-	-	-	-	-	RNP1
002	TF	SOBEE	-	309 (299.6)	-9.9	23.9	-	+2800	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).



STANDARD ARRIVAL CHART-INSTRUMENT



## 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	-	-	-	-	-	RNP1
002	TF	JOZAN	-	325 (314.7)	-9.9	5.5	-	-	-	-	RNP1
003	TF	OLYMP	-	030 (020.0)	-9.9	4.4	-	+6000	-	-	RNP1
004	TF	BELMI	-	079 (068.9)	-9.9	4.4	-	+4700	-	-	RNP1
005	TF	JIIMA	-	140 (130.2)	-9.9	5.2	-	+4000	-	-	RNP1
006	TF	CLAKY	-	140 (130.3)	-9.9	3.9	-	+3200	-180	-	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	-	-	-	-	-	RNP1
002	TF	MAMAT	-	236 (226.3)	-9.9	20.9	-	+6000	-	-	RNP1
003	TF	SOBEE	-	236 (226.0)	-9.9	9.3	-	+3500	-	-	RNP1
004	TF	JODAI	-	149 (139.1)	-9.9	20.8	-	+1800	-180	-	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)	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	-	-	-	-	-	RNP1
002	TF	YACHA	-	309 (299.6)	-9.9	7.6	-	+3000	-	-	RNP1
003	TF	OHKAM	-	235 (224.7)	-9.9	5.5	-	-	-	-	RNP1
004	TF	JODAI	-	149 (139.2)	-9.9	5.0	-	+1800	-180	-	RNP1

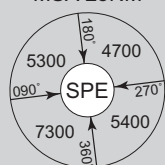
CHANGE : Navigation Specification(Basic RNP1 → RNP1).

## RJCO / SAPPORO

VOR RWY14

VAR 10°W

MSA 25NM



### EQPT REQUIRED

.1371

OTARU  
CITY

• 2499

3045

—

4882

• 4271

VOR to MISSED APCH 144°/4.4NM

KNOTS	70	90	100	120	140	160
MIN:SEC	3:46	2:56	2:38	2:12	1:53	1:39

Remain within D10.0 SPE (10NM)

SPE

4000

Diagram illustrating the ship's movement from point A to point B:

- Point A is the starting point.
- The ship moves 1700 m on a bearing of  $150^\circ$  to point C.
- At point C, the ship turns and moves 350 m on a bearing of  $350^\circ$  to point B.
- The distance from point A to point B is 1200 m.

### MISSED APPROACH

At 4.4DME(4.4NM)after passing SPE  
VOR/DME,turn left climb to 4000FT  
via SPE R350, turn left within SPE  
10.0DME(10NM), proceed to SPE  
VOR/DME and hold.  
Contact SAPPORO APP.

0

4.4

4.

0

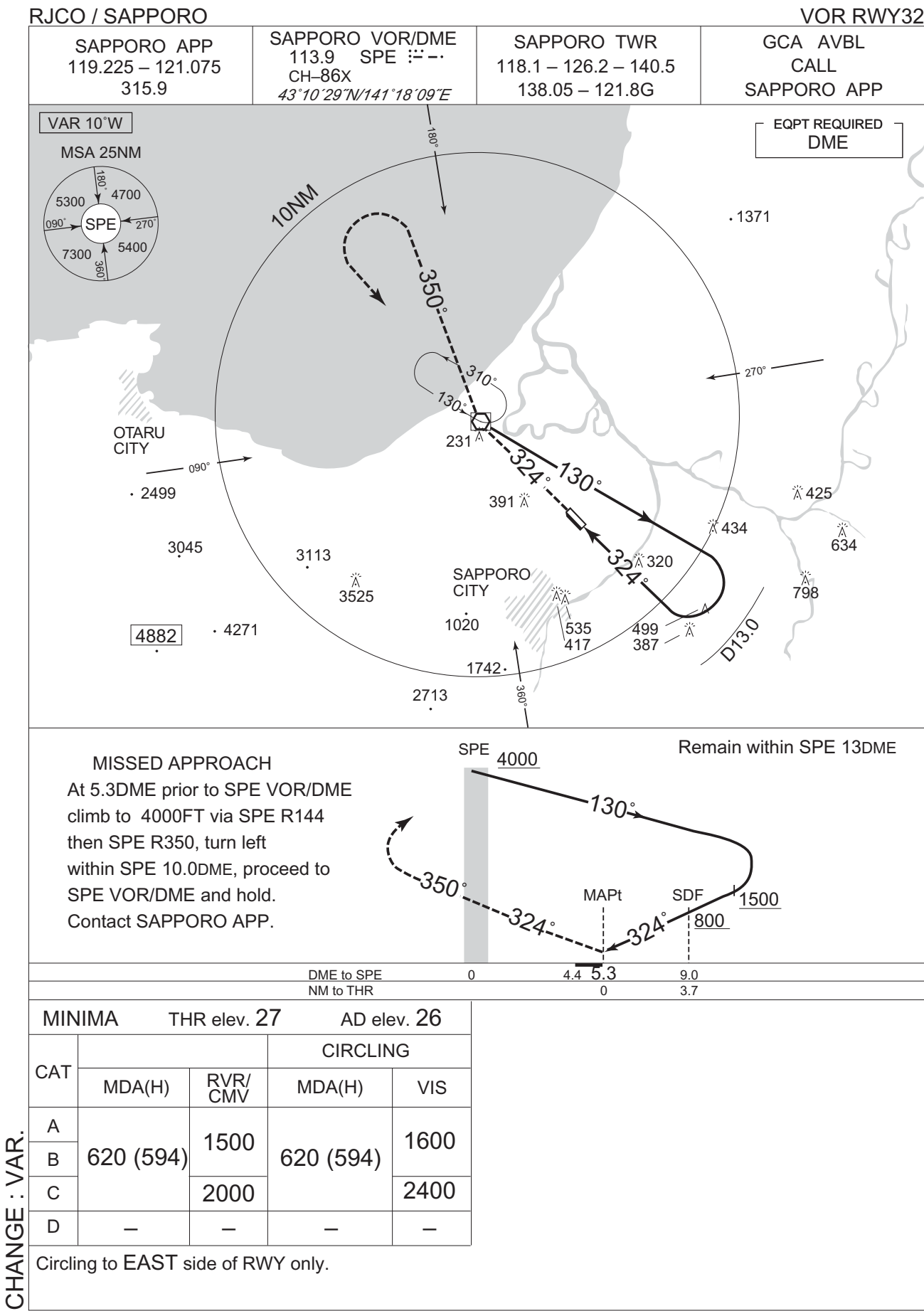
DME to SPE
NM to THR

MINIMA		THR elev. 20	AD elev. 26	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	600 (574)	1500	600 (574)	1600
B		2000		2400
C				
D	—	—	—	—

Circling to **EAST** side of RWY only.

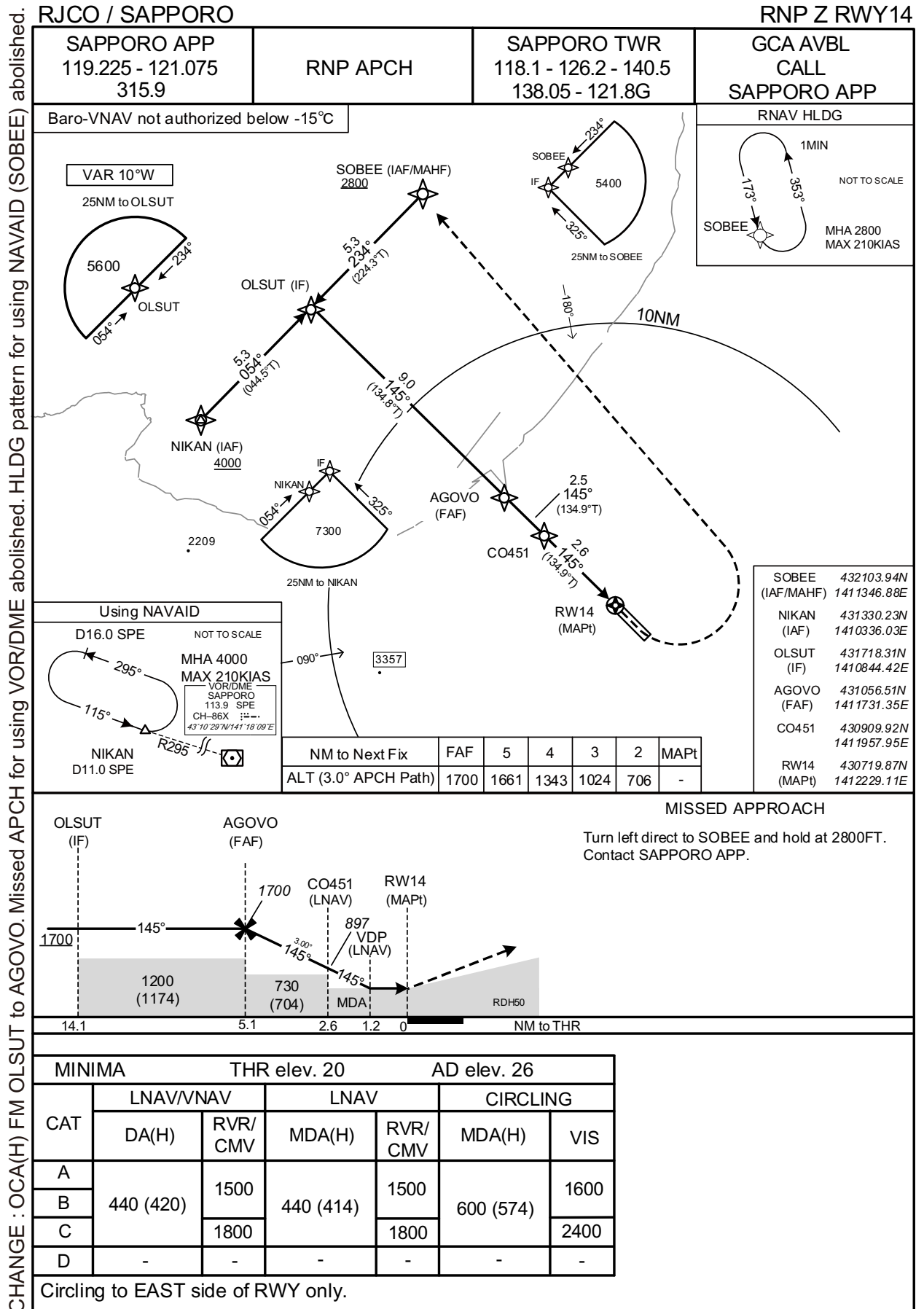
CHANGE : ALT restriction at Base Turn Inbound. VAR.

INSTRUMENT APPROACH CHART



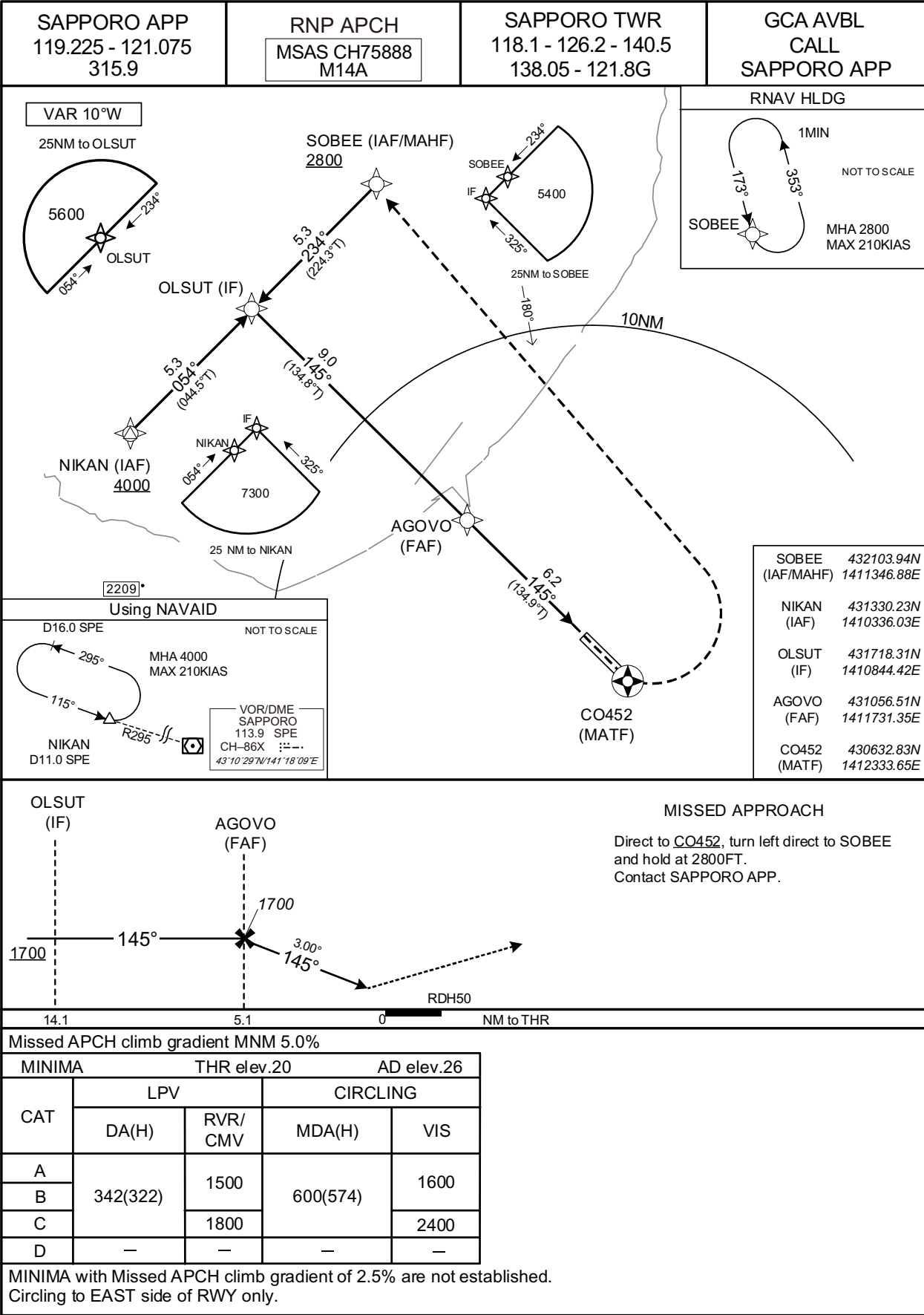
CHANGE : VAR.

## INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCO / SAPPORORNP Y RWY14(LPV only)



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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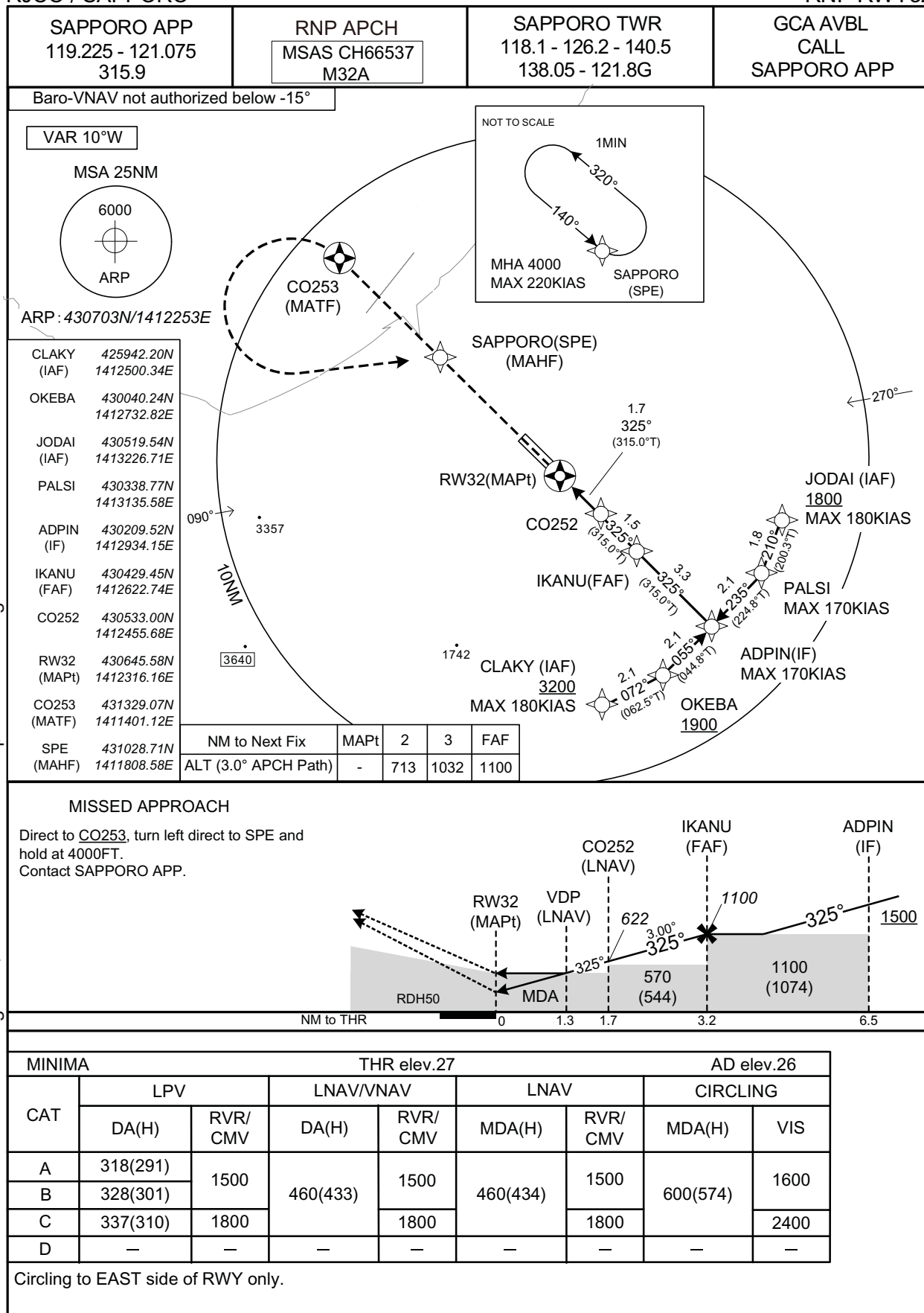
CHANGE : Description of PROC name.

## INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP RWY32

CHANGE : Missed APCH for using VOR/DME abolished. HLDG pattern for using NAVAID abolished.





## INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP RWY32

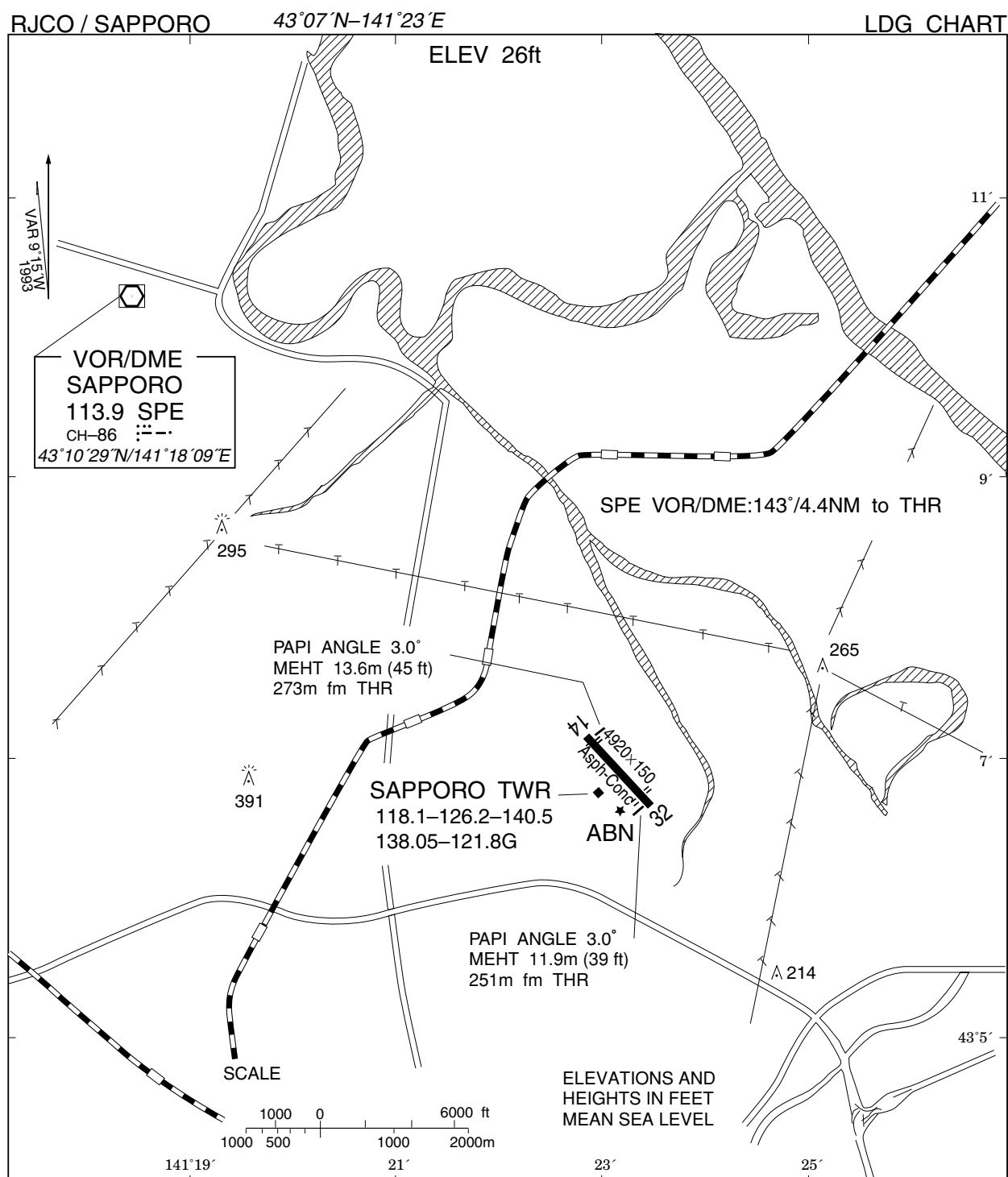
## FAS DATA BLOCK

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)

