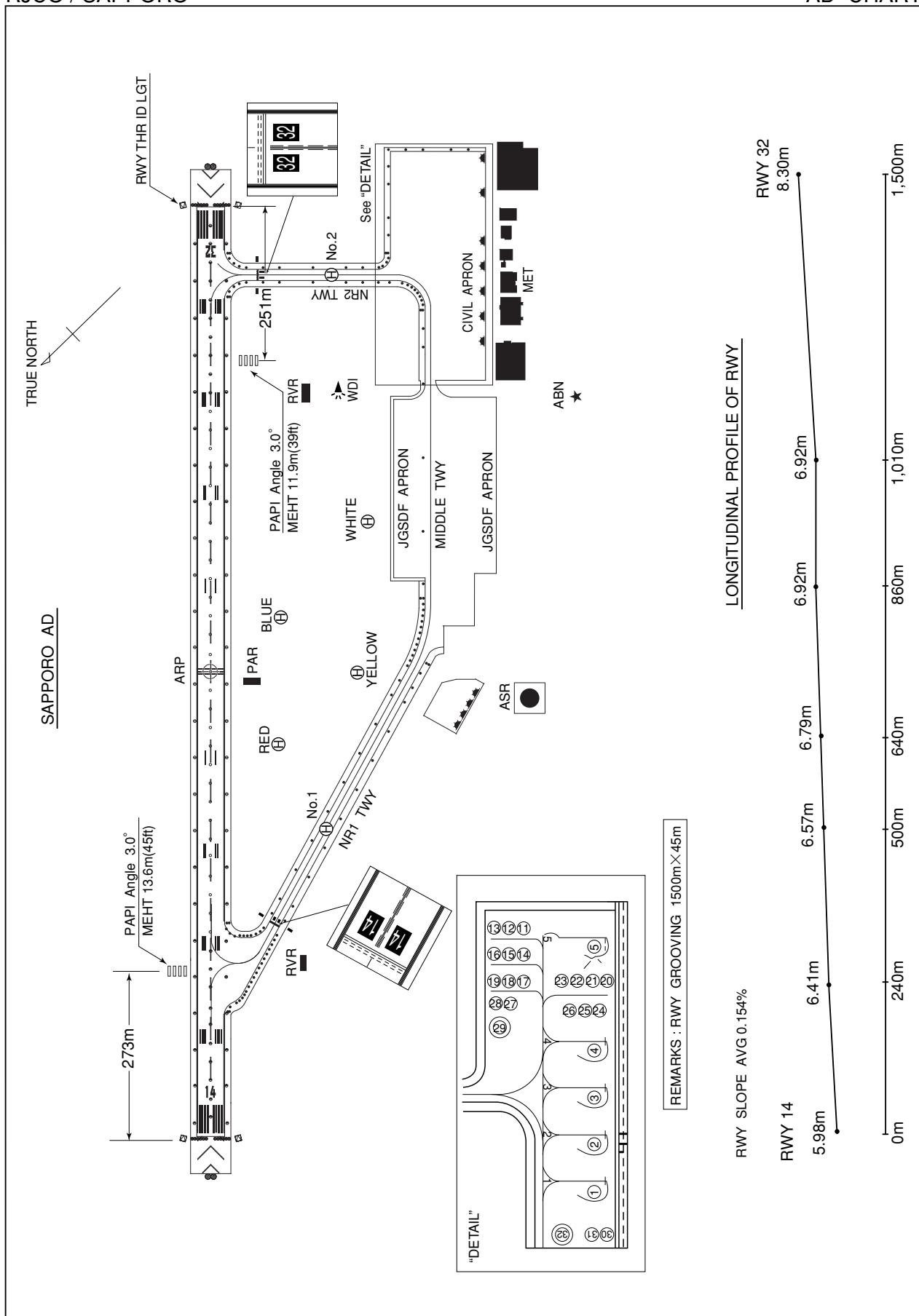


RJCO / SAPPORO

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.

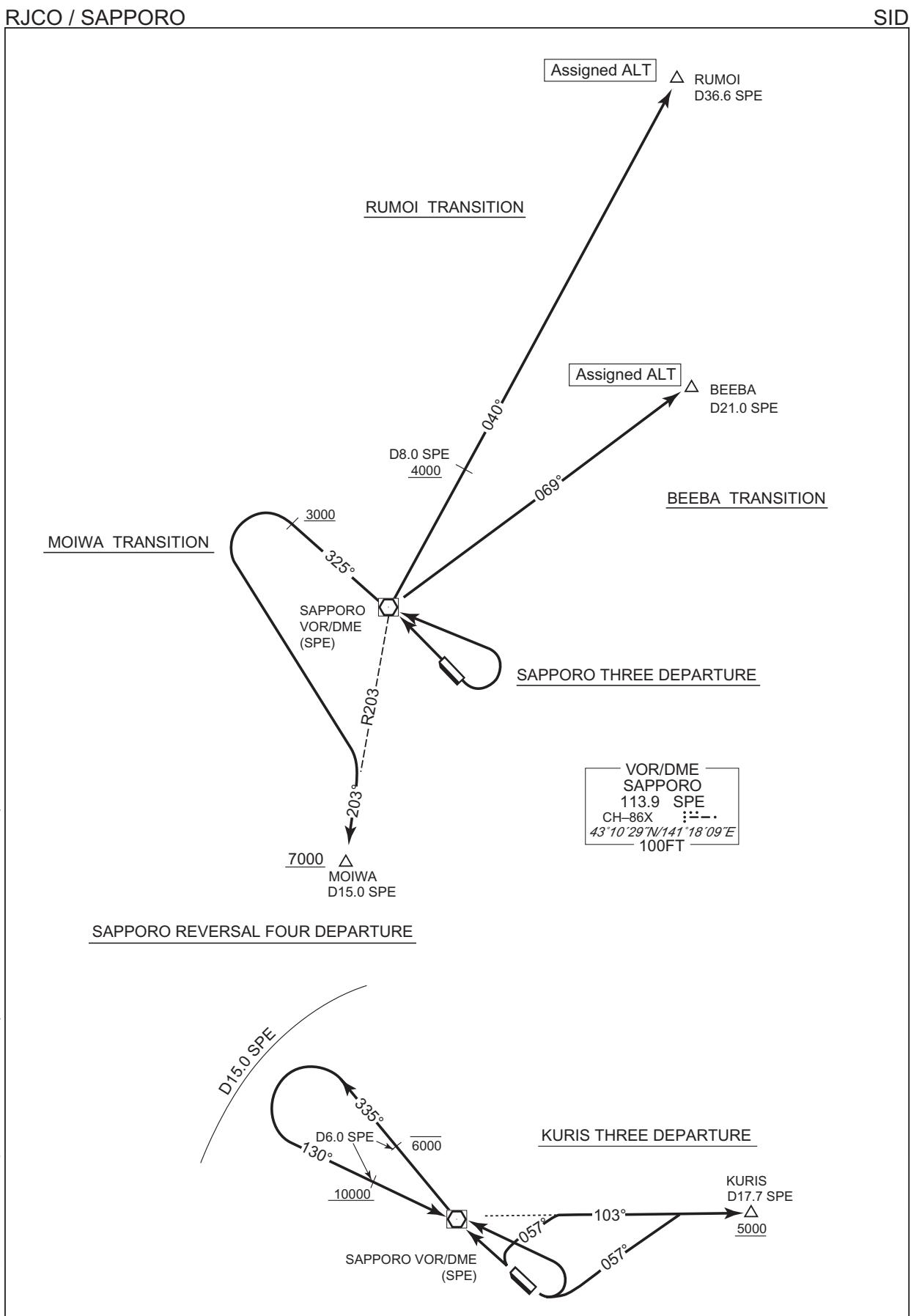
MOIWA TRANSITION

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



CHANGE : Description of PROC(SID and TRANSITION).

STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

SID

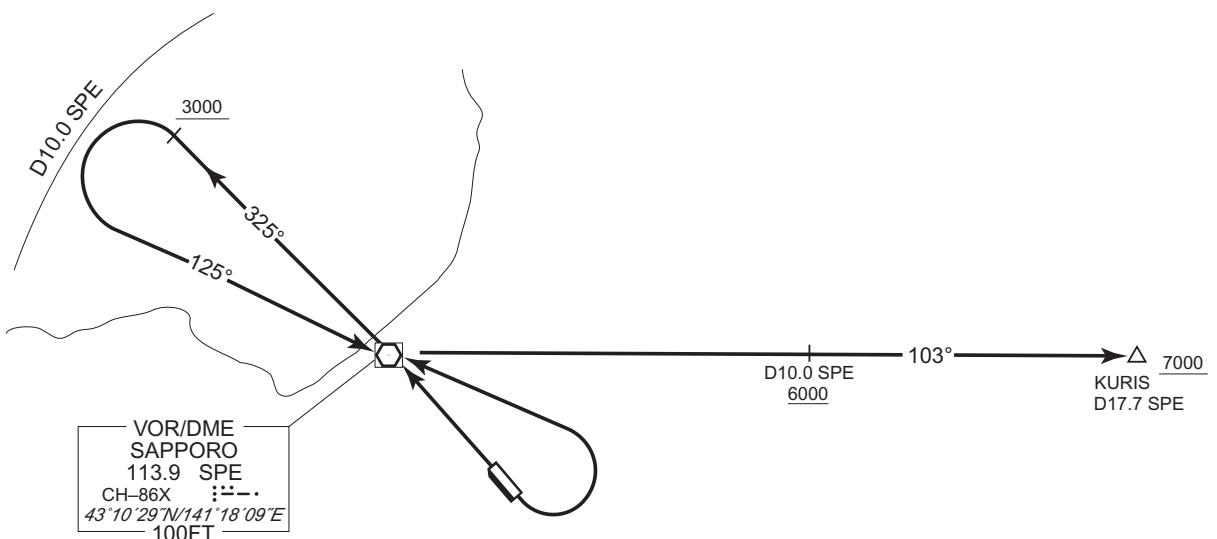
KURIS REVERSAL FOUR DEPARTURE

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

RJCO / SAPPORO	RNAV SID
BANKE ONE DEPARTURE	RNP1
Note GNSS required.	
VAR 10° W	
<p>CHANGE : Description of PROC name. VAR.</p> <p>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.</p> <p>RWY32 : Climb on HDG325° at or above 2000FT, turn left direct to BANKE, to MOIWA at or above 7000FT.</p> <p>Note RWY14 : 6.0% climb gradient required up to 2200FT. OBST ALT 2822FT located at 7.8NM 266° FM end of RWY14.</p> <p>RWY32 : 6.0% climb gradient required up to 4000FT. OBST ALT 3585FT located at 8.4NM 261° FM end of RWY32.</p>	

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

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	-	-	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

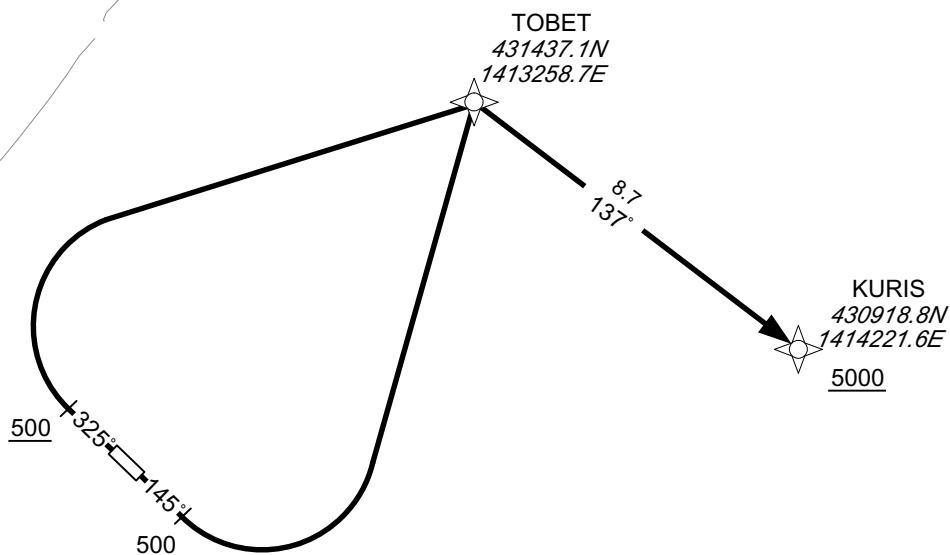
RNAV SID

TOBET EAST ONE DEPARTURE

RNP1

Note GNSS required.

VAR 10° W



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

CHANGE : Description of PROC name and VAR.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

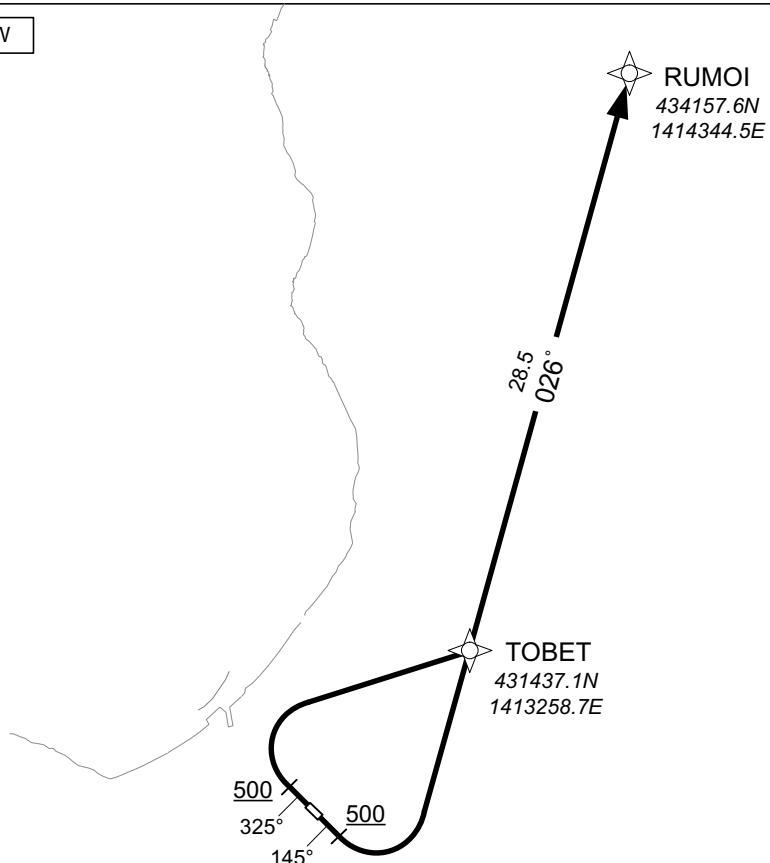
RNAV SID

TOBET NORTH ONE DEPARTURE

RNP1

Note GNSS required.

VAR 10°W



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

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

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	RUMOI	—	026 (015.9)	-9.7	28.5	—	—	—	—	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	RUMOI	—	026 (015.9)	-9.7	28.5	—	—	—	—	RNP1

CHANGE : Description of PROC name and VAR.

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STANDARD ARRIVAL CHART-INSTRUMENT

RJCO / SAPPORO

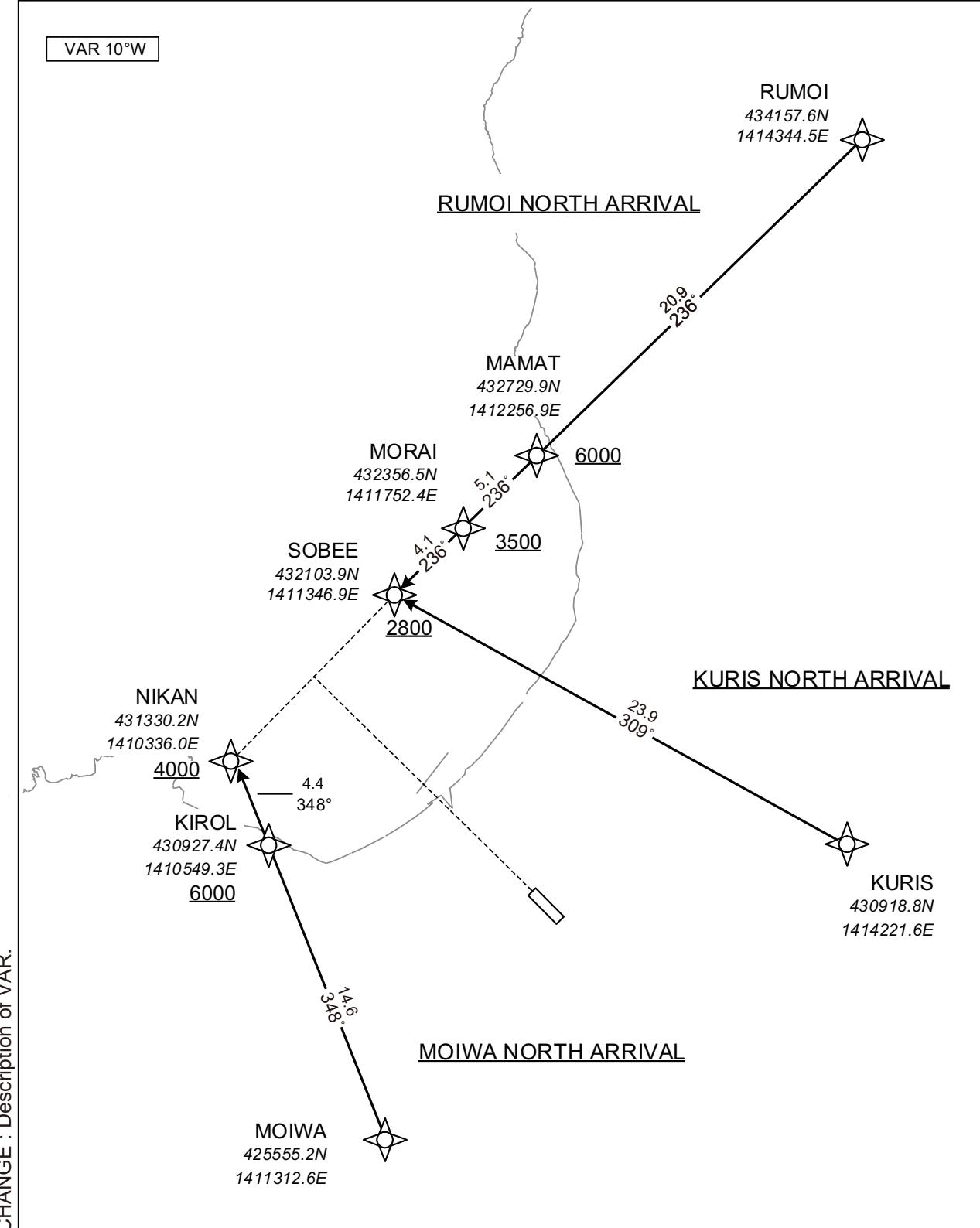
RNAV STAR RWY14

MOIWA NORTH ARRIVAL
RUMOI NORTH ARRIVAL
KURIS NORTH ARRIVAL

RNP1

Note GNSS required.

VAR 10°W



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

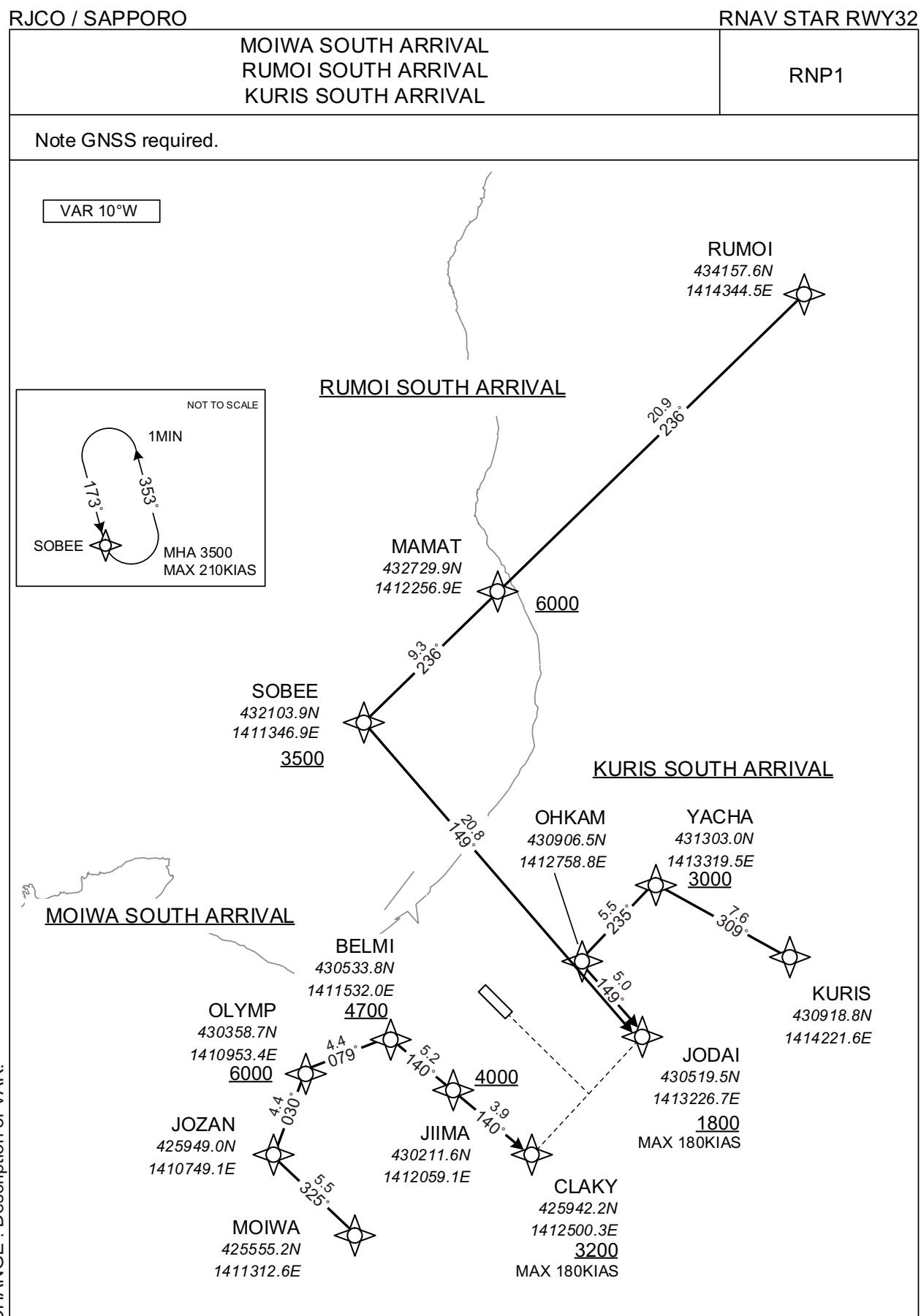
KURIS NORTH ARRIVAL

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

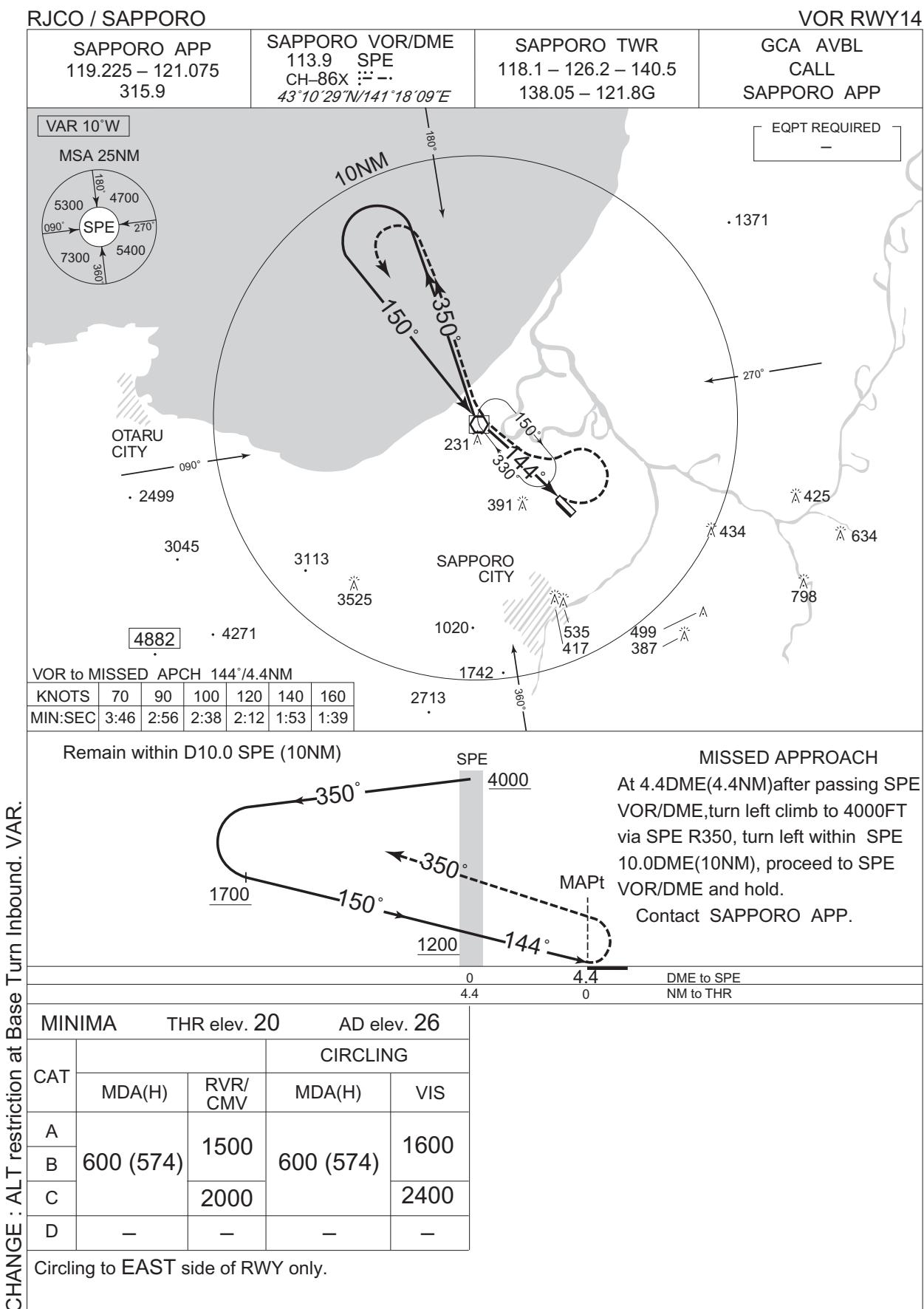
KURIS SOUTH ARRIVAL

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).

INSTRUMENT APPROACH CHART

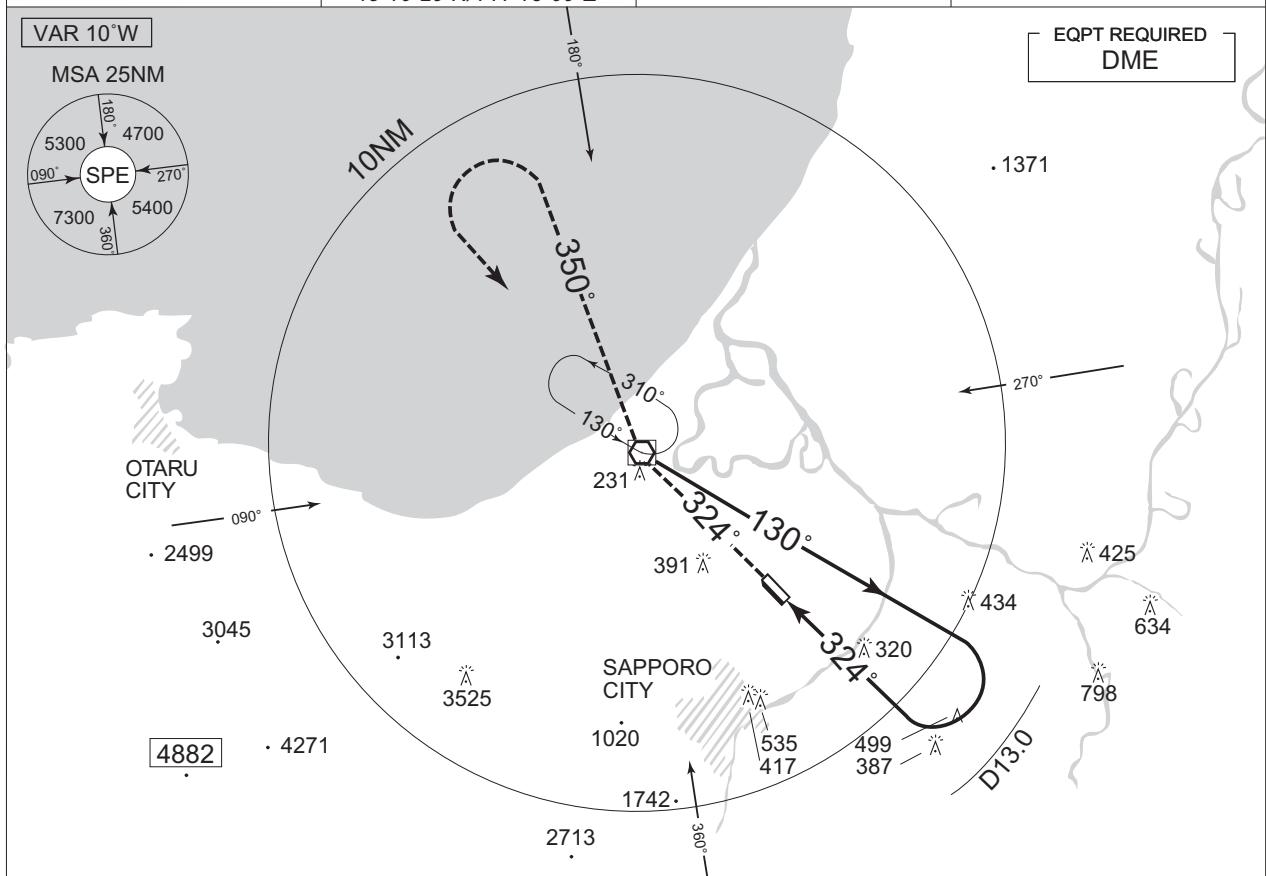


INSTRUMENT APPROACH CHART

RJCO / SAPPORO

VOR RWY32

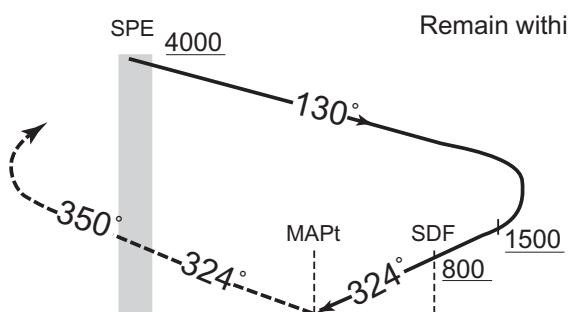
SAPPORO APP 119.225 – 121.075 315.9	SAPPORO VOR/DME 113.9 SPE 111- CH-86X 43°10'29"N/141°18'09"E	SAPPORO TWR 118.1 – 126.2 – 140.5 138.05 – 121.8G	GCA AVBL CALL SAPPORO APP
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MISSED APPROACH

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.

Remain within SPE 13DME



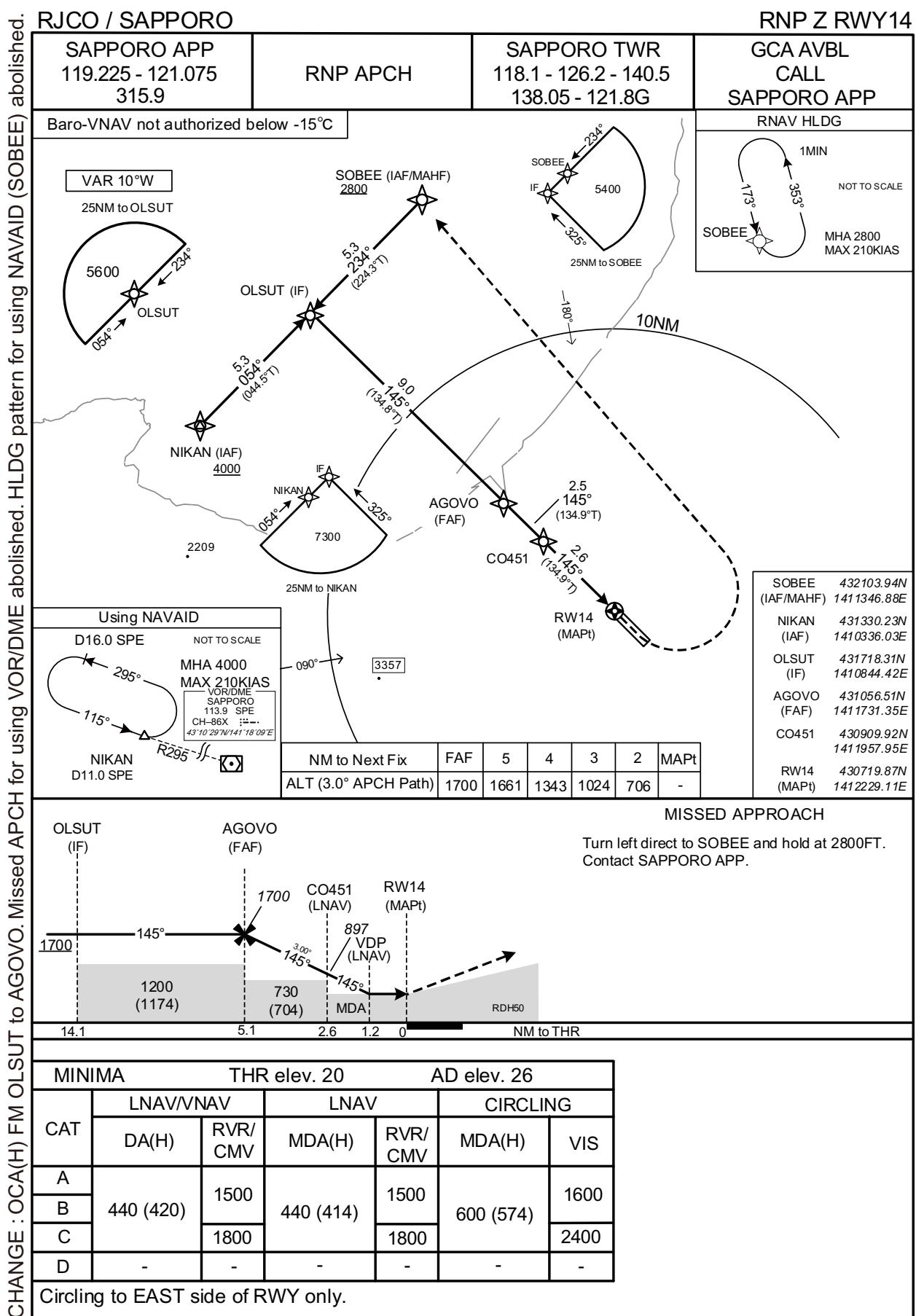
DME to SPE	0	4.4	5.3	9.0
NM to THR	0			3.7

MINIMA THR elev. 27 AD elev. 26

GE : VAR.	CAT	CIRCLING			
		MDA(H)	RVR/ CMV	MDA(H)	VIS
GE : VAR.	A	620 (594)	1500	620 (594)	1600
	B		2000		2400
	C	—	—	—	—
	D				

Circling to EAST side of RWY only.

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP Y RWY14(LPV only)

SAPPORO APP 119.225 - 121.075 315.9

RNP APCH
MSAS CH75888 M14A

SAPPORO TWR
118.1 - 126.2 - 140.5
138.05 - 121.8G

GCA AVBL CALL SAPPORO APP

RNAV HLDG

Using NAVAID

Missed Approach

MINIMA

CAT	THR elev.20		AD elev.26	
	LPV	CIRCLING	MDA(H)	VIS
A	DA(H)	RVR/CMV	MDA(H)	VIS
B	342(322)	1500	600(574)	1600
C		1800		2400
D	-	-	-	-

MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to EAST side of RWY only.

CHANGE : HLDG pattern for using NAVAID(SOBE) abolished.

INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP Y RWY14(LPV only)

FAS DATA BLOCK

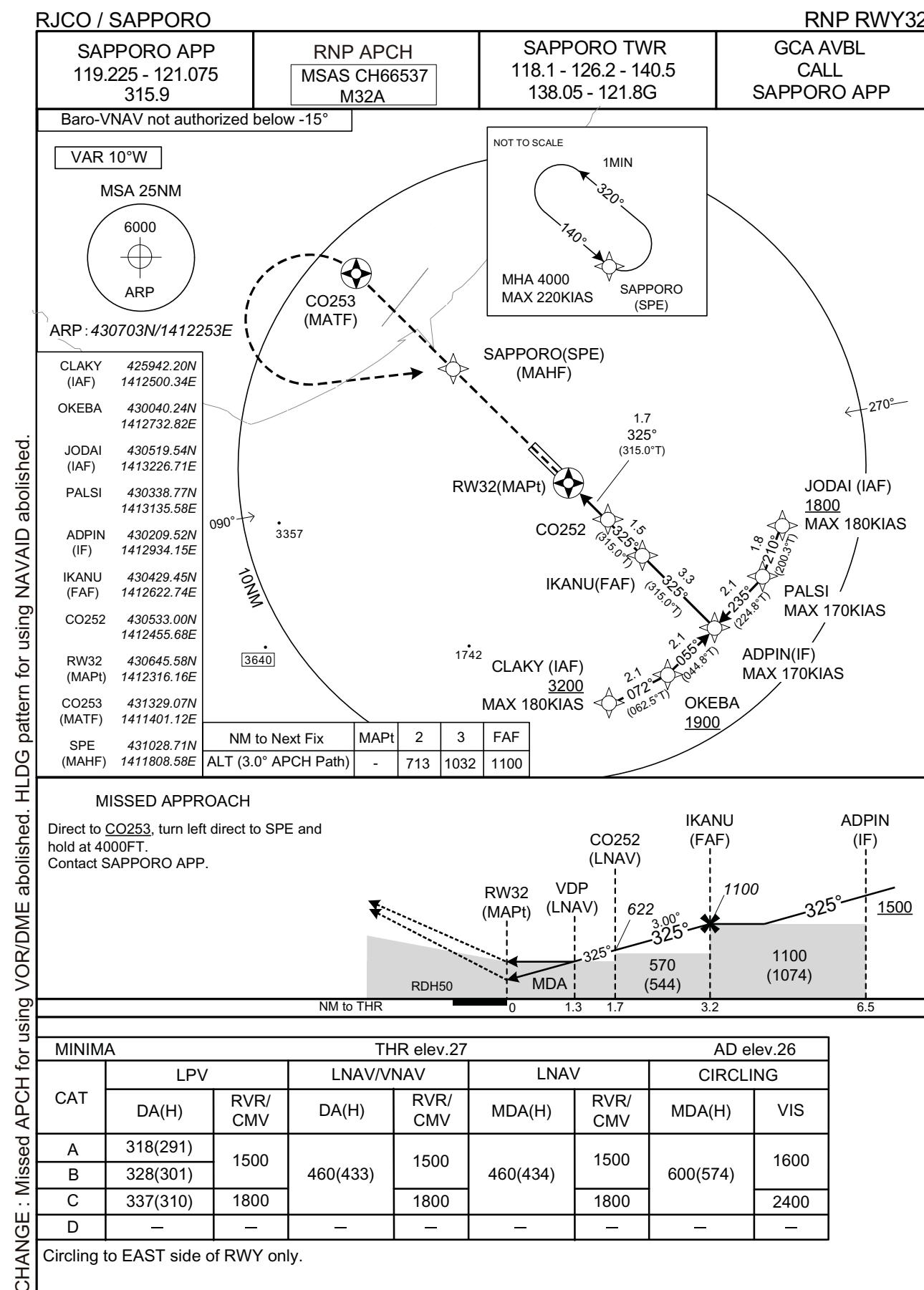
Operation type	0	LTP/FTP ellipsoidal height	+00374
SBAS service provider identifier	2	FPAP Latitude	430641.1115N
Airport identifier	RJCO	FPAP Longitude	1412322.2875E
Runway	14	Threshold crossing height	00015.0
Approach performance designator	0	TCH units selector	1
Route indicator	Y	Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M14A	Δ 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



INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP RWY32

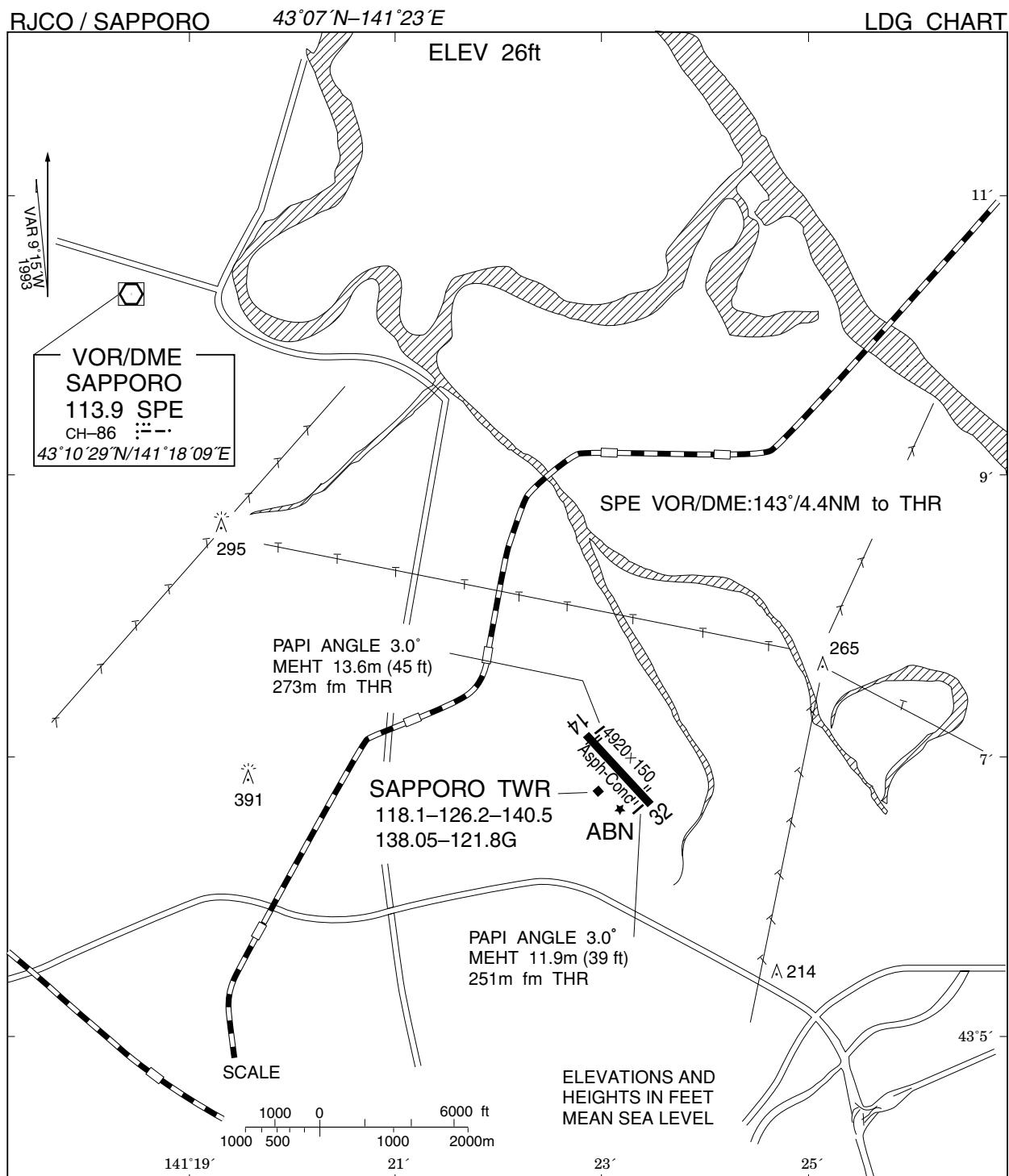
FAS DATA BLOCK

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	Δ 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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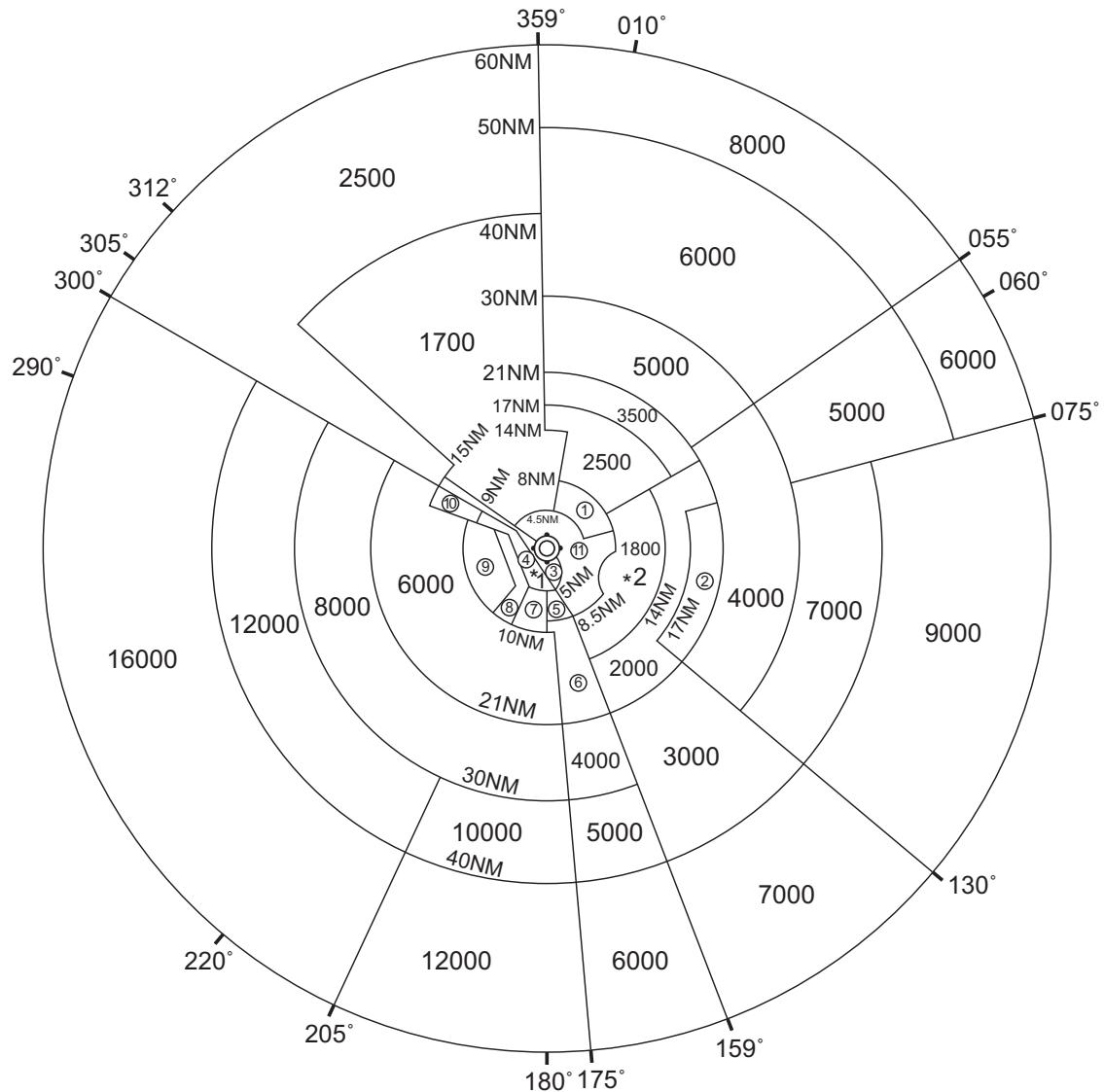
CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).



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Minimum Vectoring Altitude CHART

VAR 9°W (2017)



- ① 1600
 - ② 2500
 - ③ 1700
 - ④ 3000
 - ⑤ 2100
 - ⑥ 2700
 - ⑦ 3200
 - ⑧ 4000
 - ⑨ 4700
 - ⑩ 4000
 - ⑪ 1500

CENTER : $430703N/1412253E$ (ARP)
*1 : $430405N/1412108E$ RADIUS : 3.2NM
*2 : $430520N/1413527E$ RADIUS : 3NM

CHANGE : VAR. Update.