

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.

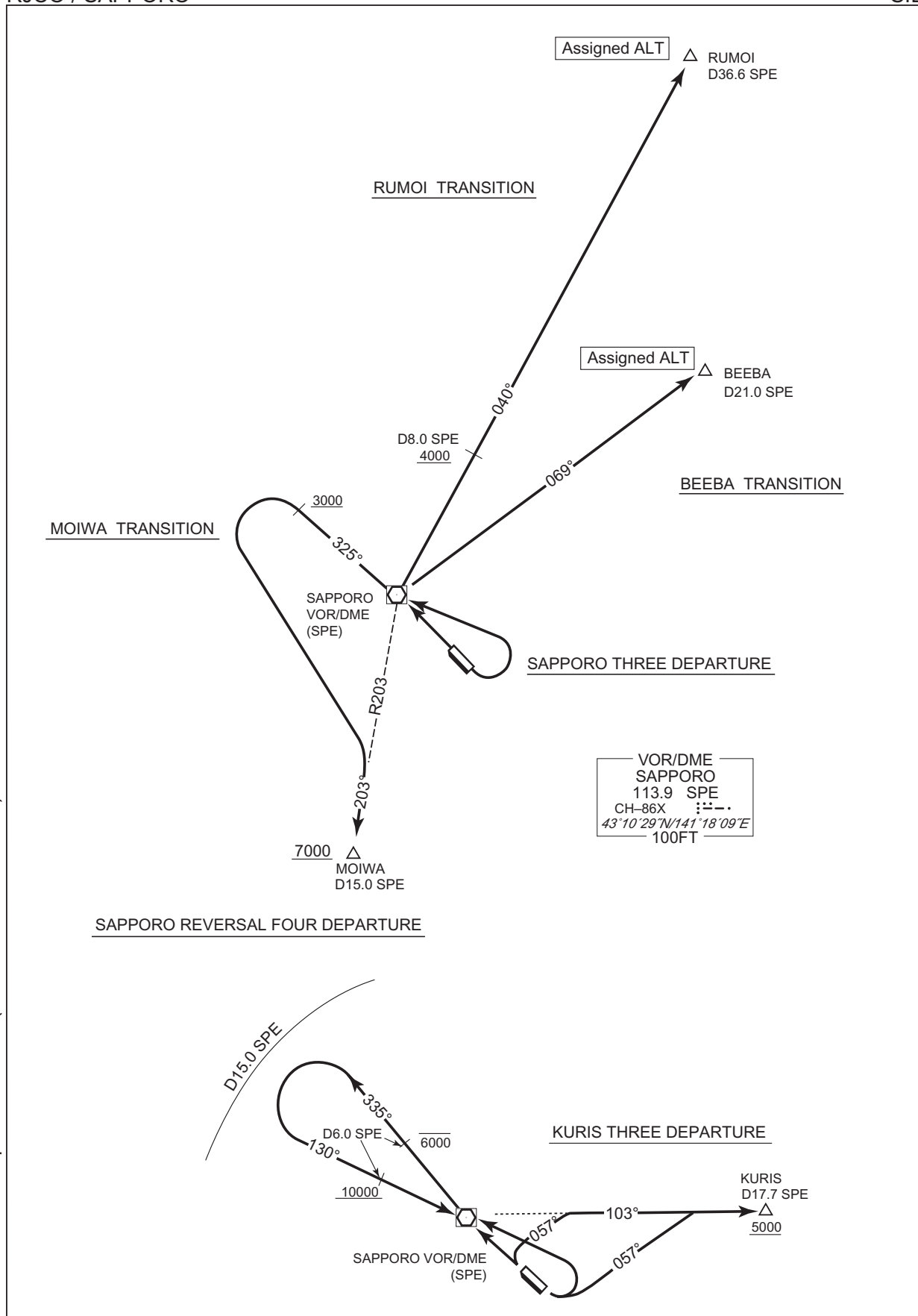
Note: Do not start left turn to MOIWA before SPE VOR/DME.

## STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

SID

CHANGE : Description of PROC(SID and TRANSITION).



STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

SID

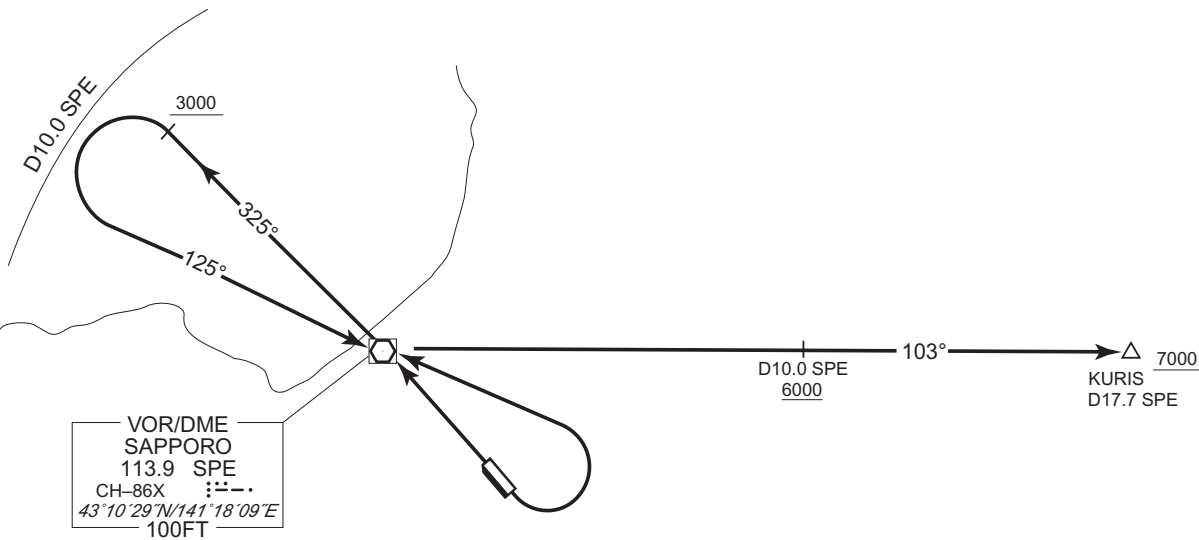
KURIS REVERSAL FOUR DEPARTURE

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.

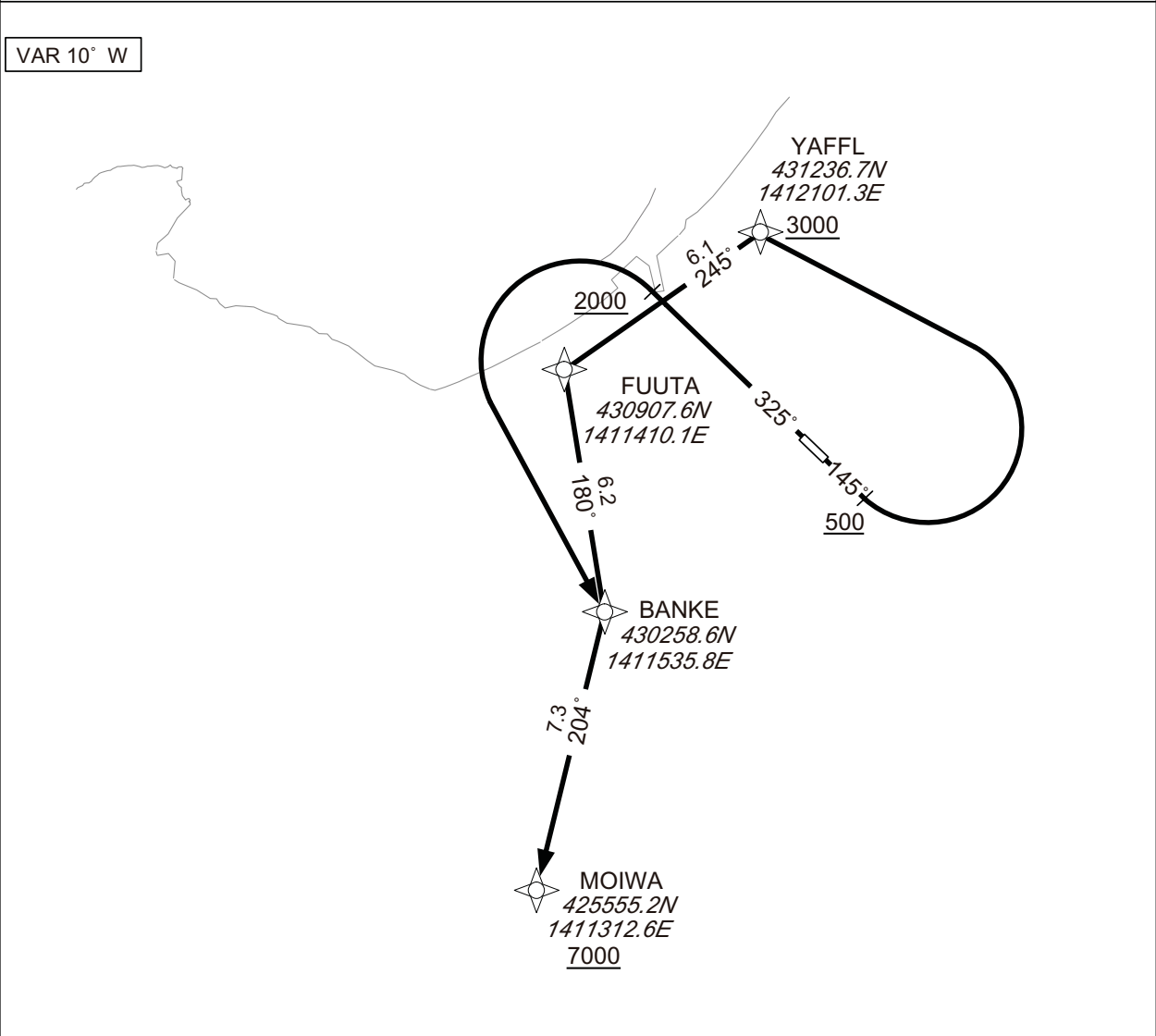
STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

RNAV SID

| BANKE ONE DEPARTURE | RNP1 |
|---------------------|------|
|---------------------|------|

Note GNSS required.



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.

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<br>(134.8) | -9.7               | -             | -              | +500          | -            | -              | RNP1                     |
| 002           | DF              | YAFFL               | -        | -              | -9.7               | -             | L              | +3000         | -            | -              | RNP1                     |
| 003           | TF              | FUUTA               | -        | 245<br>(235.2) | -9.7               | 6.1           | -              | -             | -            | -              | RNP1                     |
| 004           | TF              | BANKE               | -        | 180<br>(170.4) | -9.7               | 6.2           | -              | -             | -            | -              | RNP1                     |
| 005           | TF              | MOIWA               | -        | 204<br>(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<br>(314.8) | -9.7               | -             | -              | +2000         | -            | -              | RNP1                     |
| 002           | DF              | BANKE               | -        | -              | -9.7               | -             | L              | -             | -            | -              | RNP1                     |
| 003           | TF              | MOIWA               | -        | 204<br>(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

TOBET  
431437.1N  
1413258.7E

KURIS  
430918.8N  
1414221.6E  
5000

8.7  
137°

500  
325°  
145°  
500

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                     |

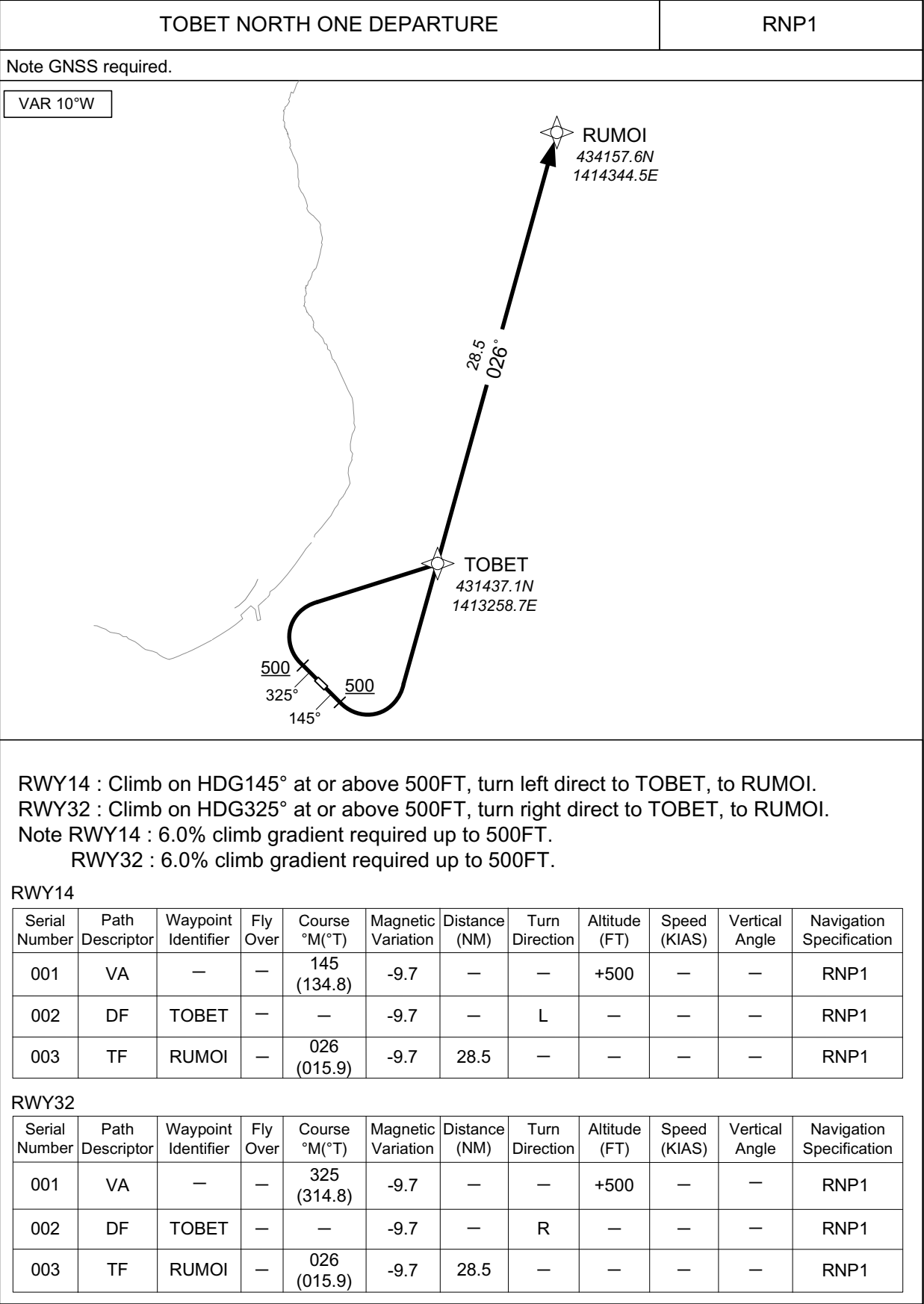
CHANGE : Description of PROC name and VAR.



STANDARD DEPARTURE CHART - INSTRUMENT

RJCO / SAPPORO

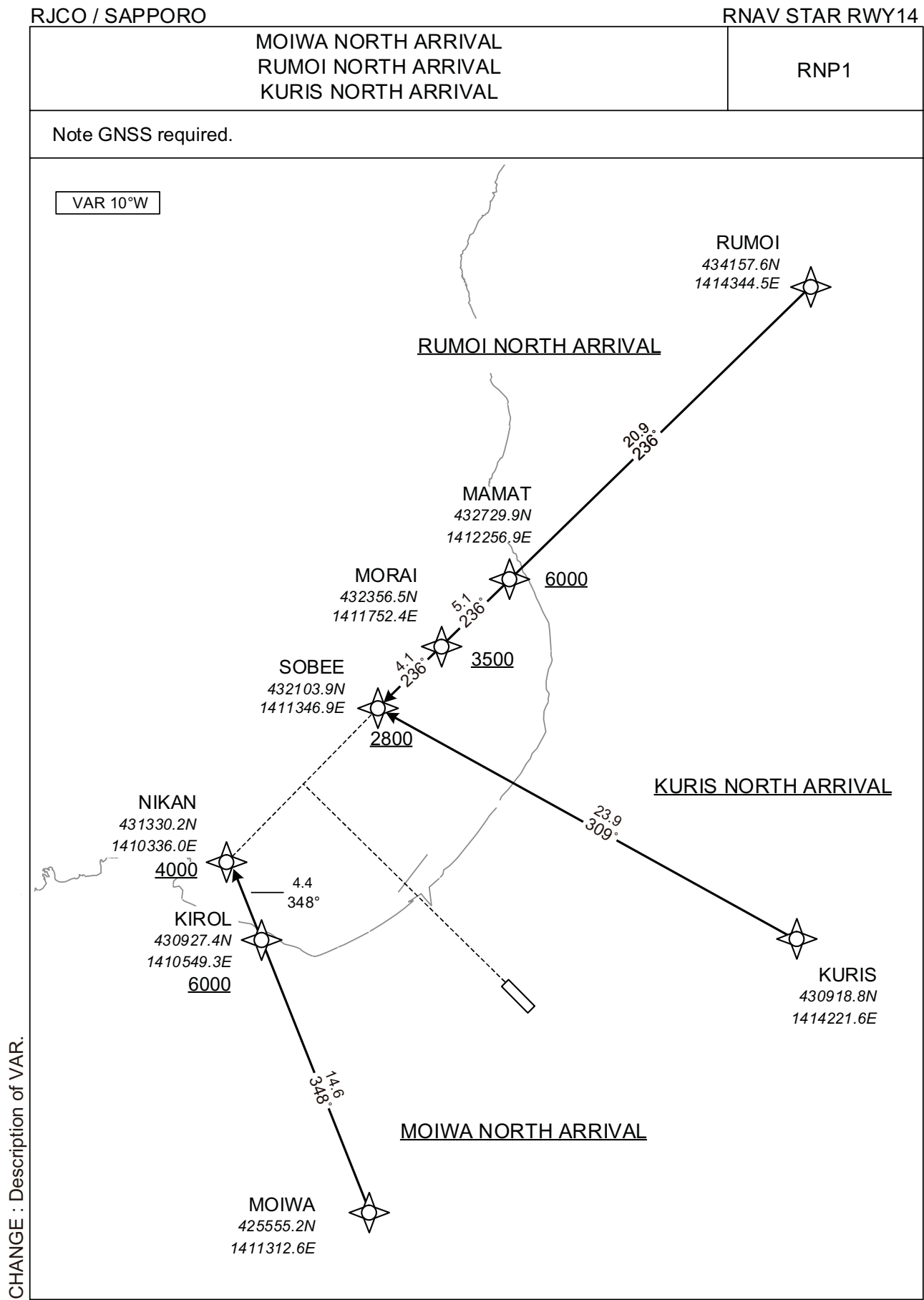
RNAV SID



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<br>(338.3) | -9.9               | 14.6          | -              | +6000         | -            | -              | RNP1                     |
| 003           | TF              | NIKAN               | -        | 348<br>(338.2) | -9.9               | 4.4           | -              | +4000         | -            | -              | RNP1                     |

RUMOI NORTH ARRIVALFrom 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<br>(226.3) | -9.9               | 20.9          | -              | +6000         | -            | -              | RNP1                     |
| 003           | TF              | MORAI               | -        | 236<br>(226.0) | -9.9               | 5.1           | -              | +3500         | -            | -              | RNP1                     |
| 004           | TF              | SOBEE               | -        | 236<br>(226.0) | -9.9               | 4.1           | -              | +2800         | -            | -              | RNP1                     |

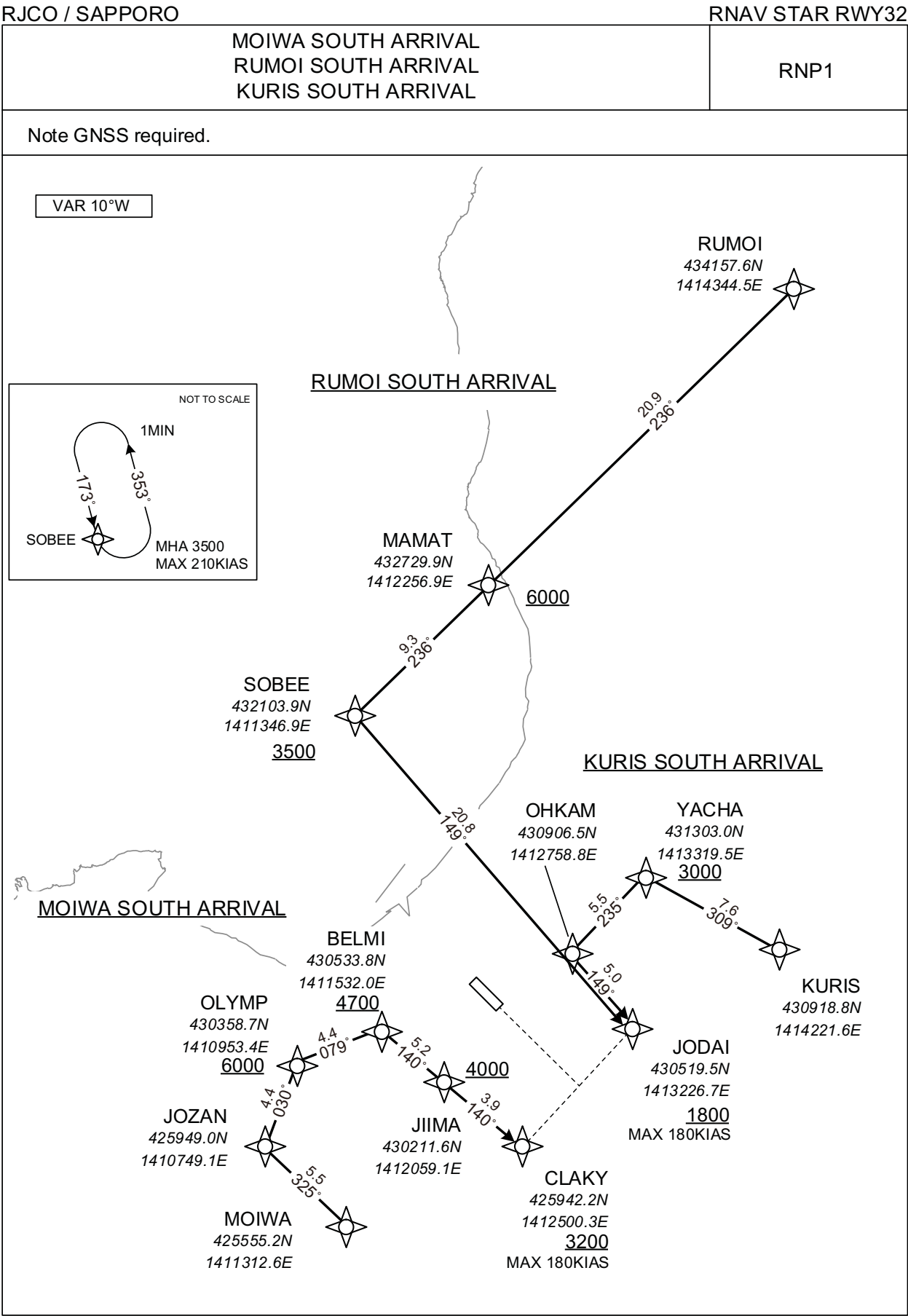
KURIS NORTH ARRIVAL

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<br>(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<br>(314.7) | -9.9               | 5.5           | -              | -             | -            | -              | RNP1                     |
| 003           | TF              | OLYMP               | -        | 030<br>(020.0) | -9.9               | 4.4           | -              | +6000         | -            | -              | RNP1                     |
| 004           | TF              | BELMI               | -        | 079<br>(068.9) | -9.9               | 4.4           | -              | +4700         | -            | -              | RNP1                     |
| 005           | TF              | JIIMA               | -        | 140<br>(130.2) | -9.9               | 5.2           | -              | +4000         | -            | -              | RNP1                     |
| 006           | TF              | CLAKY               | -        | 140<br>(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<br>(226.3) | -9.9               | 20.9          | -              | +6000         | -            | -              | RNP1                     |
| 003           | TF              | SOBEE               | -        | 236<br>(226.0) | -9.9               | 9.3           | -              | +3500         | -            | -              | RNP1                     |
| 004           | TF              | JODAI               | -        | 149<br>(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<br>(163.3)        | -9.9               | 1.0(-14000)         | L              | 3500                  | FL140                 | -210(-14000) | RNP1                     |

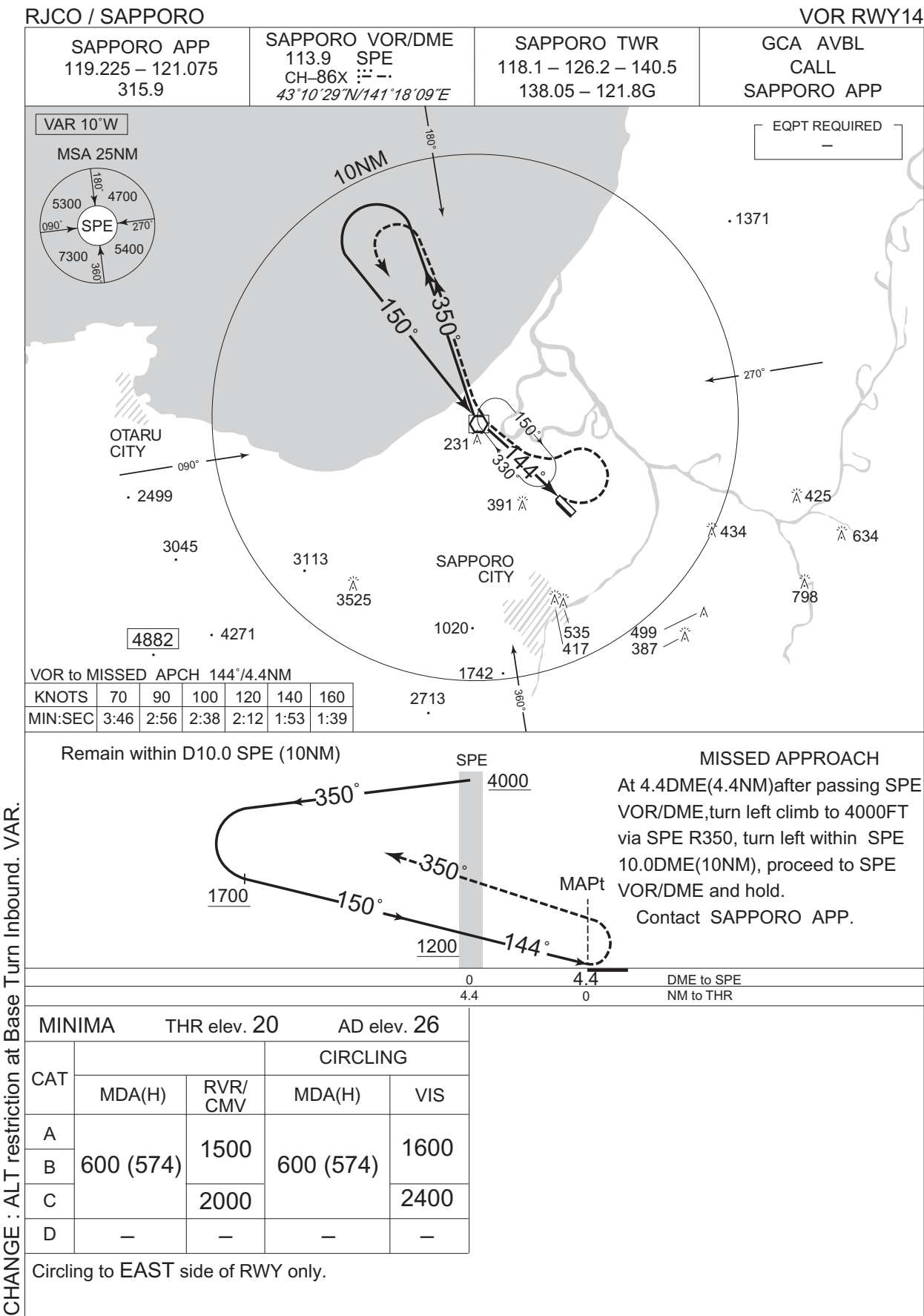
KURIS SOUTH ARRIVAL

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<br>(299.6) | -9.9               | 7.6           | -              | +3000         | -            | -              | RNP1                     |
| 003           | TF              | OHKAM               | -        | 235<br>(224.7) | -9.9               | 5.5           | -              | -             | -            | -              | RNP1                     |
| 004           | TF              | JODAI               | -        | 149<br>(139.2) | -9.9               | 5.0           | -              | +1800         | -180         | -              | RNP1                     |

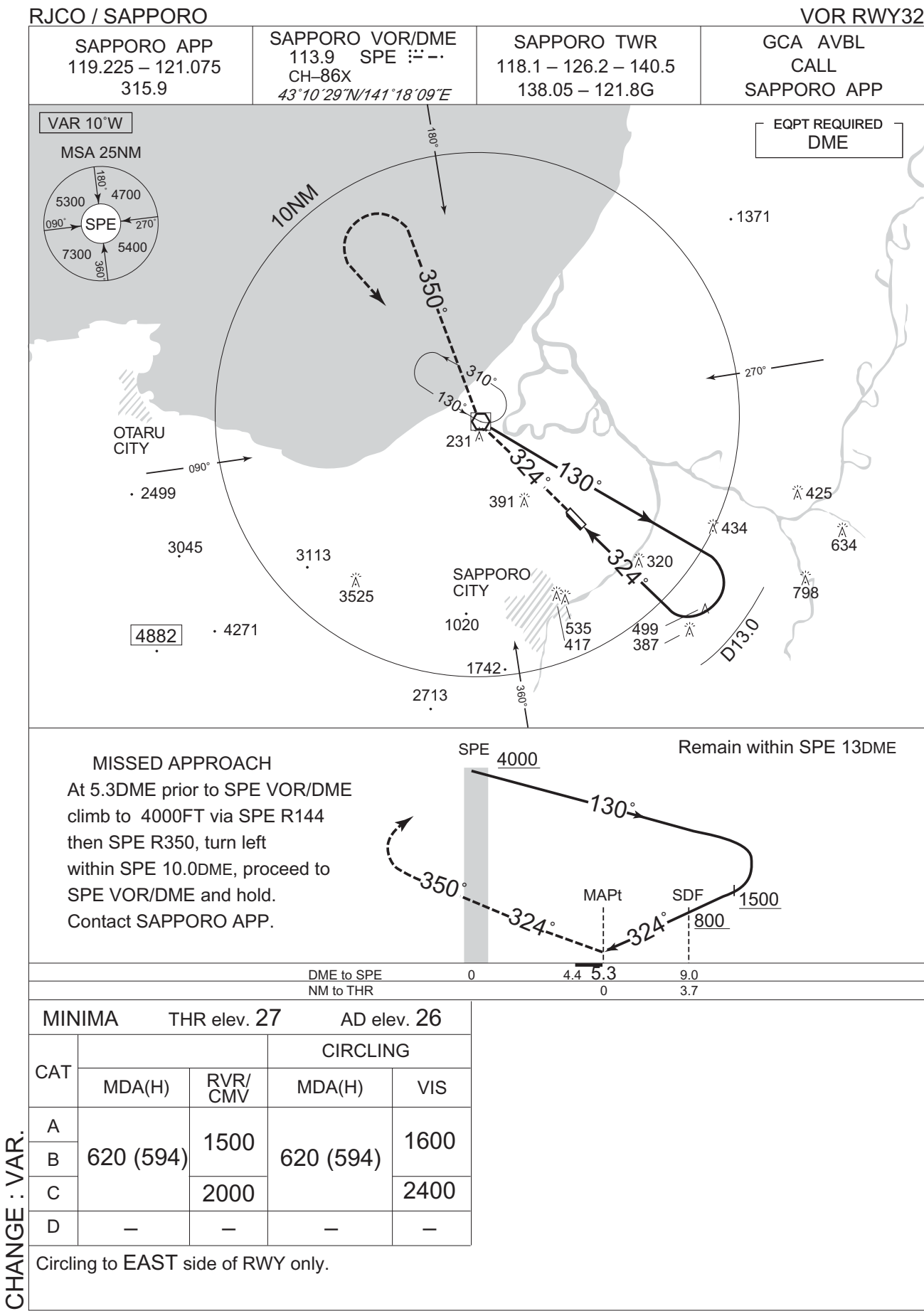
CHANGE : Navigation Specification(Basic RNP1 → RNP1).

INSTRUMENT APPROACH CHART



CHANGE : ALT restriction at Base Turn Inbound. VAR.

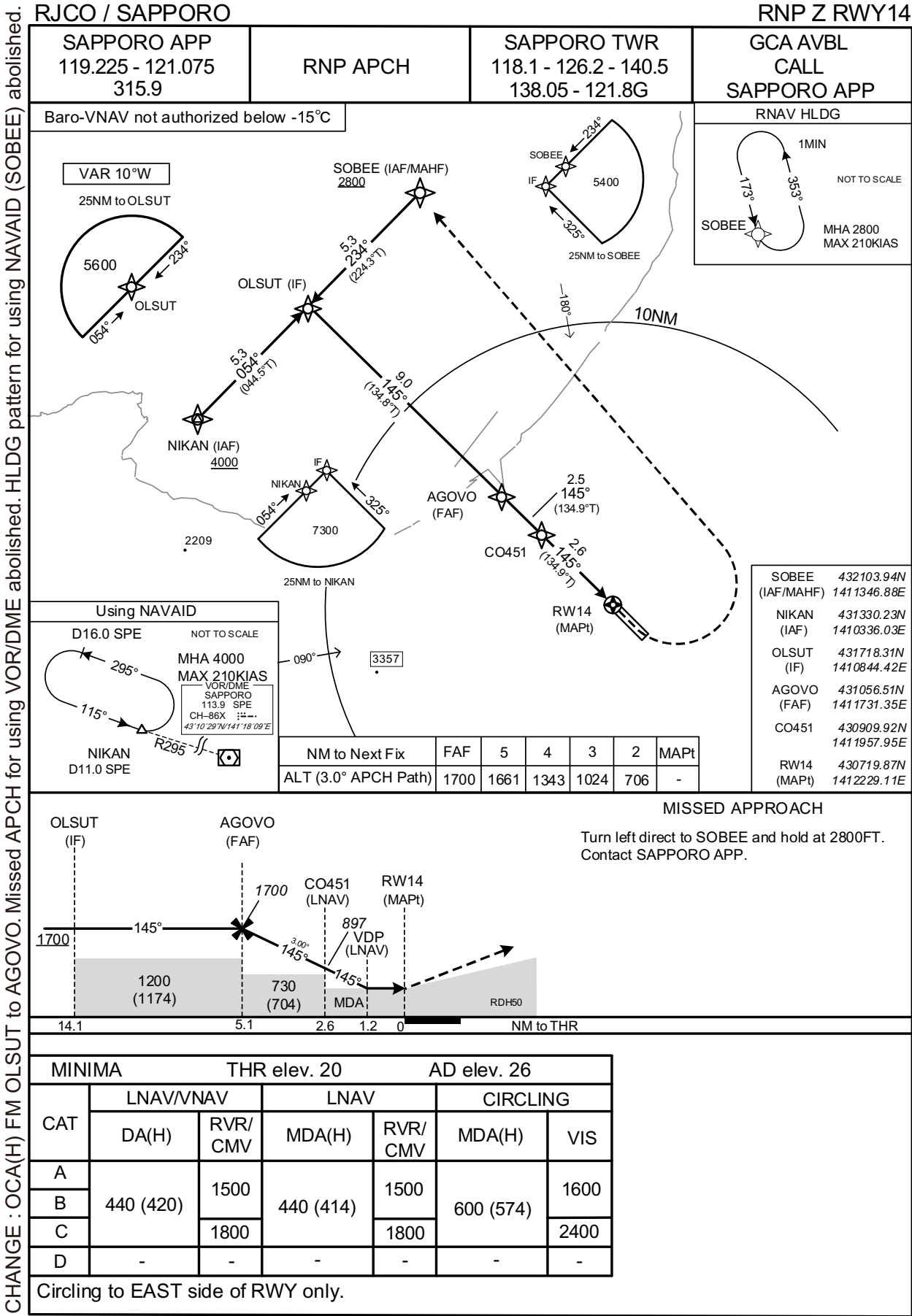
INSTRUMENT APPROACH CHART



CHANGE : VAR.



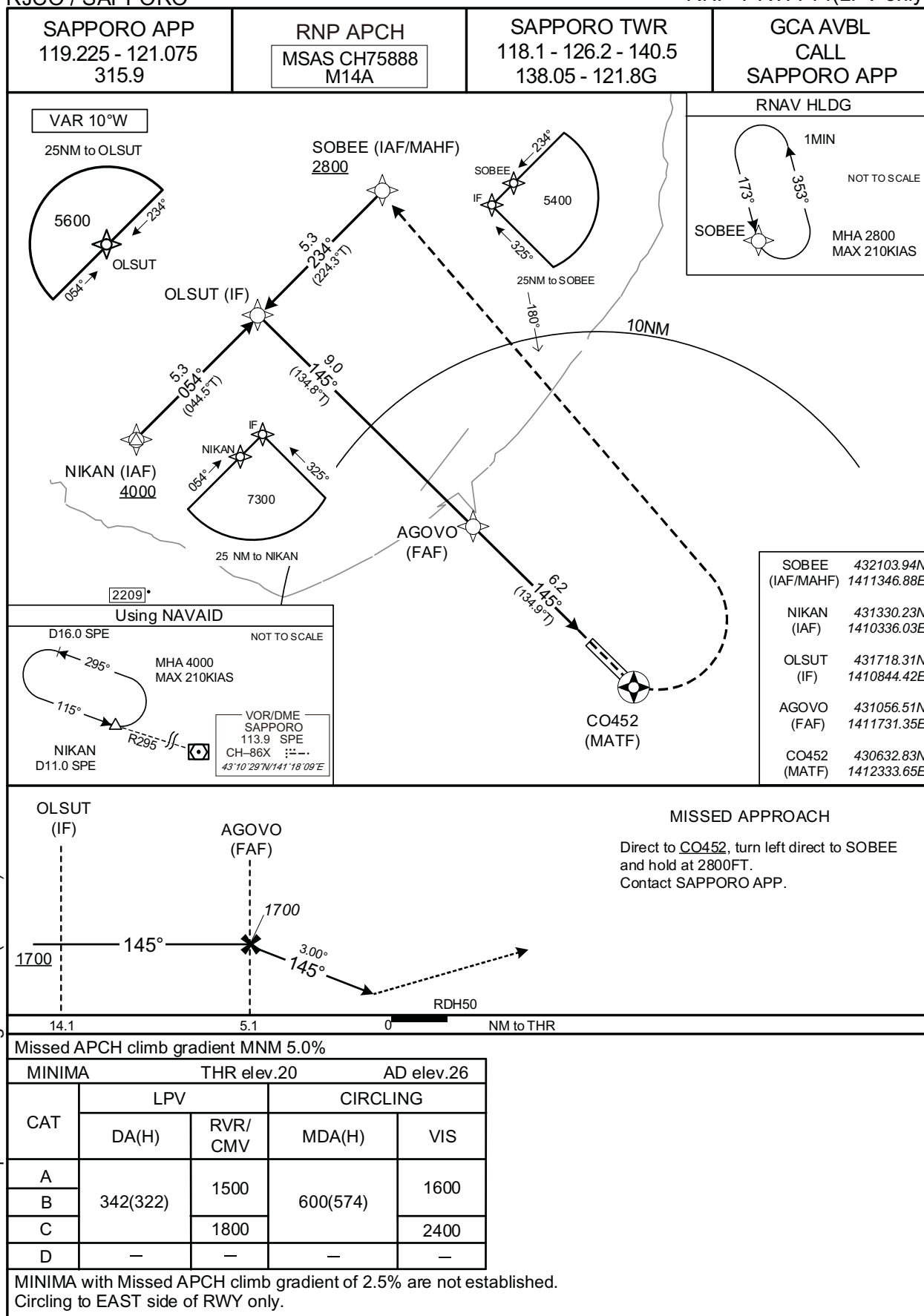
INSTRUMENT APPROACH CHART



## INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP Y RWY14(LPV only)



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

INSTRUMENT APPROACH CHART

RJCO / SAPPORO

RNP Y RWY14(LPV only)

FAS DATA BLOCK

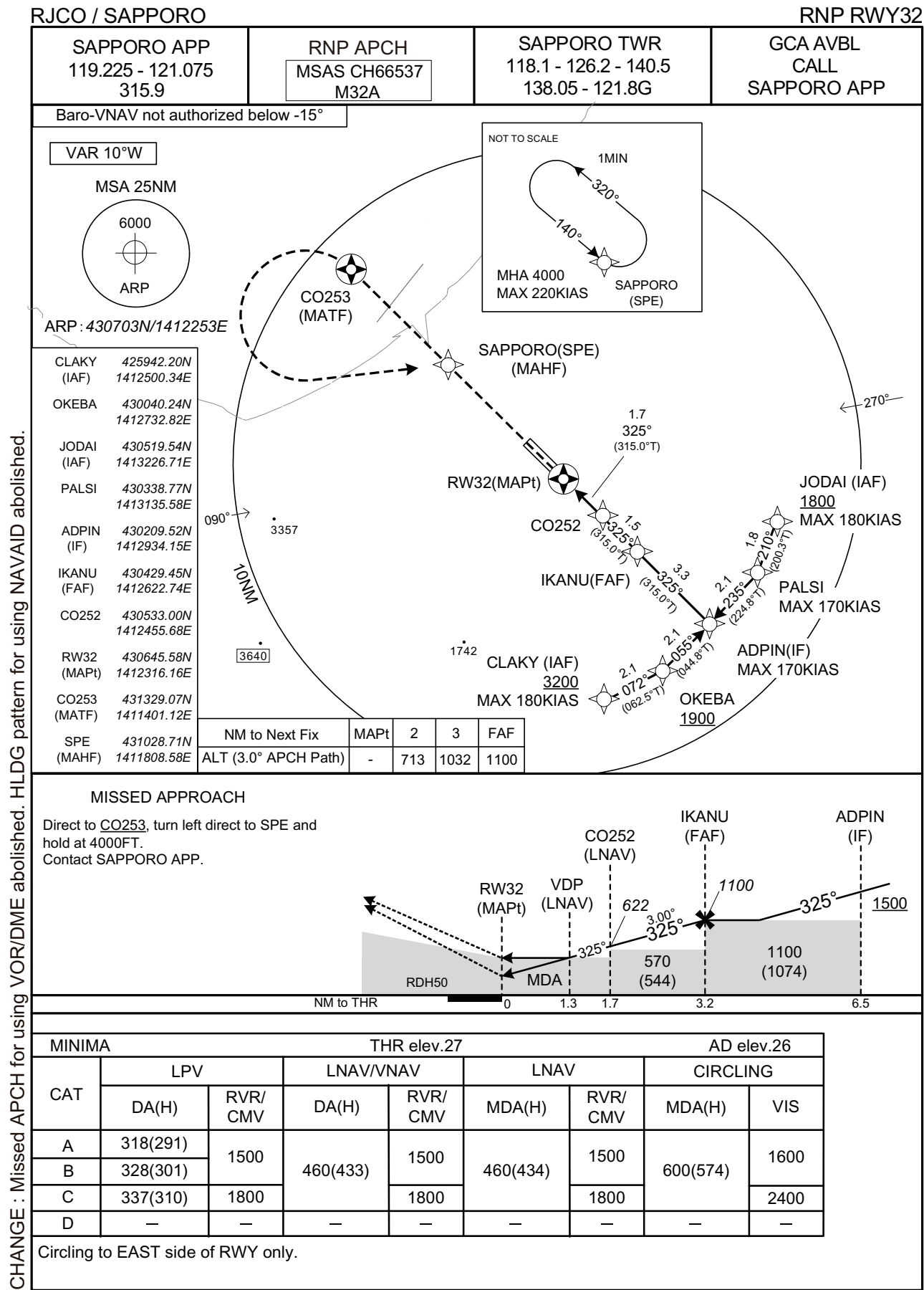
|                                  |               |                            |               |
|----------------------------------|---------------|----------------------------|---------------|
| Operation type                   | 0             | LTP/FTP ellipsoidal height | +00374        |
| SBAS 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          | ∠ 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 |
|----------------------------|-----|

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          | ∠ 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 |
|----------------------------|-----|

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



RJCO / SAPPORO

Minimum Vectoring Altitude CHART

VAR 9°W (2013)

