

## AD 2 AERODROMES

## RJSY AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## RJSY - SHONAI

## RJSY AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

|   |  |  |
|---|--|--|
| 1 | ARP coordinates and site at AD   | 384844N/1394714E<br>80°/1.0km from RWY09 THR   |
| 2 | Direction and distance from (city)   | 5nm NNW from Tsuruoka city   |
| 3 | Elevation/ Reference temperature   | 72ft / 29°C (2003-2007)  |
| 4 | Geoid undulation at AD ELEV PSN  | 125ft  |
| 5 | MAG VAR/ Annual change   | 9° W(2024)/4' W  |
| 6 | AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses | Shonai Airport Office(Yamagata Pref)<br>30-3, Aza-Murahigashi, Hamanaka, Sakata-shi, Yamagata Pref.<br>Tel: 0234-92-4123<br>Fax: 0234-92-4122<br>e-mail: yshonaikuko@pref.yamagata.jp<br>Web: http://www.pref.yamagata.jp/ |
| 7 | Types of traffic permitted(IFR/VFR)  | IFR/VFR  |
| 8 | Remarks  | Nil  |

## RJSY AD 2.3 OPERATIONAL HOURS

|    |                           |  |
|----|---------------------------|--|
| 1  | AD Administration         | 2200 - 1300  |
| 2  | Customs and immigration   | On request<br>Customs: 0234-22-1024<br>Immigration: 0234-22-2746   |
| 3  | Health and sanitation     | On request<br>Quarantine(human): 018-846-8280, 022-367-8101<br>Quarantine(animal): 025-275-4565<br>Quarantine(plant): 025-244-4401 |
| 4  | AIS Briefing Office       | Nil  |
| 5  | ATS Reporting Office(ARO) | Nil  |
| 6  | MET Briefing Office       | H24 (TOKYO)  |
| 7  | ATS                       | 2200 - 1300<br>Remarks: AFIS provided by New Chitose Airport Office.   |
| 8  | Fuelling                  | 2200 - 0915  |
| 9  | Handling                  | 2100 - 1230  |
| 10 | Security                  | 2115 - 0915  |
| 11 | De-icing                  | Nil  |
| 12 | Remarks                   | Nil  |

**RJSY AD 2.4 HANDLING SERVICES AND FACILITIES**

|   |   |                              |
|---|---|------------------------------|
| 1 | Cargo-handling facilities               | AVBL up to B767-300 aircraft |
| 2 | Fuel/ oil types                         | JET A-1                      |
| 3 | Fuelling facilities/ capacity           | Fuel truck / Total Max 220kl |
| 4 | De-icing facilities                     | Nil                          |
| 5 | Hangar space for visiting aircraft      | Nil                          |
| 6 | Repair facilities for visiting aircraft | Nil                          |
| 7 | Remarks                                 | Nil                          |

**RJSY 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 | Nil            |
| 6 | Tourist Office       | Nil            |
| 7 | Remarks              | Nil            |

**RJSY AD 2.6 RESCUE AND FIRE FIGHTING SERVICES**

|   |   |   |
|---|---|---|
| 1 | AD category for fire fighting               | CAT 8   |
| 2 | Rescue equipment                            | Chemical fire fighting truck x 3<br>Emergency medical equipments conveyance truck x 1 |
| 3 | Capability for removal of disabled aircraft | Ask Airline (0234-92-4195)  |
| 4 | Remarks                                     | Nil   |

**RJSY AD 2.7 SEASONAL AVAILABILITY-CLEARING**

|   |                             |   |
|---|-----------------------------|---|
| 1 | Types of clearing equipment | Snow remove equipment: Truck x 8, Rotary x 2, Dozer x 1, Sweeper x 2                    |
| 2 | Clearance priorities        | 1.RWY 2.TWY 3.APRON   |
| 3 | Remarks                     | Snow removal will be commenced, if the RWY is covered with a depth of 3cm snow or more. |

**RJSY AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA**

|   |                                     |   |
|---|-------------------------------------|---|
| 1 | Apron surface and strength          | Surface : Cement concrete and Asphalt concrete<br>Strength : PCR 830/R/B/W/T  |
| 2 | Taxiway width, surface and strength | Width : 30 m<br>Surface : Asphalt concrete<br>Strength : PCR 891/F/C/X/T  |
| 3 | ACL and elevation                   | Not Available   |
| 4 | VOR checkpoints                     | Not Available   |
| 5 | INS checkpoints                     | Spot NR<br>1: 384855.57N/1394717.77E<br>2: 384855.22N/1394715.32E<br>3: 384854.86N/1394712.88E<br>5: 384854.53N/1394710.74E |
| 6 | Remarks                             | Nil   |

**RJSY 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 09/27<br>(Marking) RWY designation, RWY CL, RWY THR, Aiming point, TDZ, RWY side stripe, RWY turn pad edge, RWY turn pad CL<br>(LGT) RCLL, REDL, RTHL, RENL, RTZL(FOR RWY09), WBAR(FOR RWY 09), Turning point indicator LGT, RWY DIST marker LGT<br><br>TWY<br>(Marking) TWY CL, RWY HLDG PSN, TWY side stripe<br>(LGT) TWY edge LGT, TWY CL LGT |
| 3 | Stop bars  | Nil  |
| 4 | Remarks  | (Marking) Overrun area<br>(LGT) Apron flood LGT  |

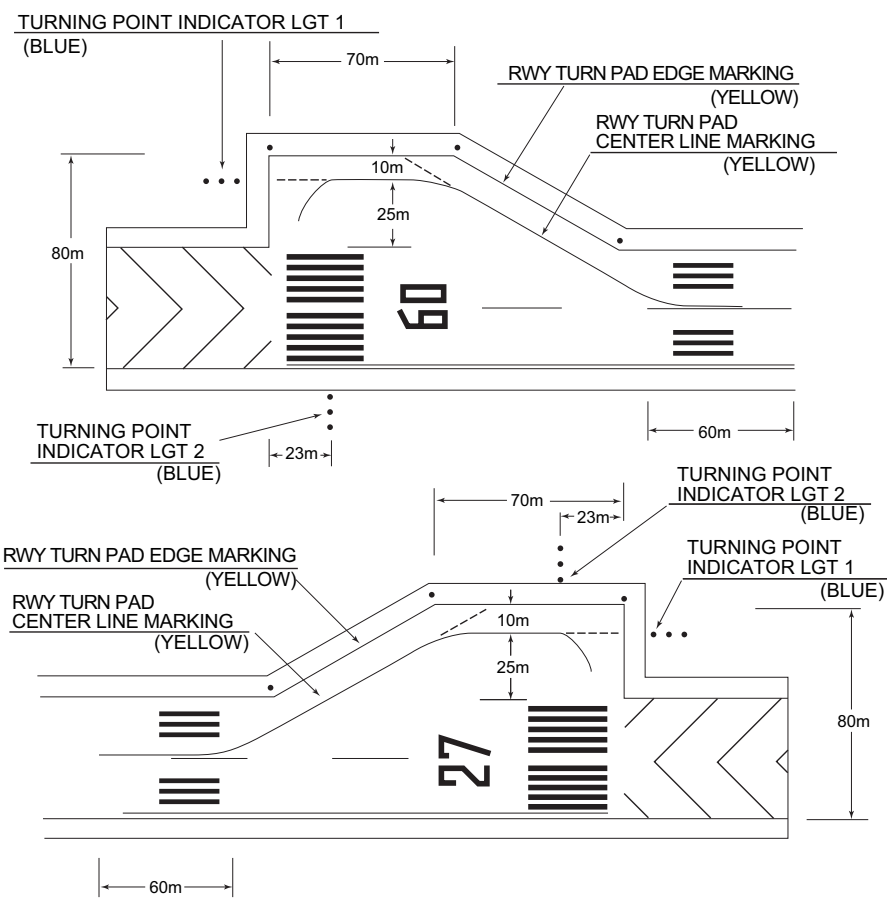
180° turn on RWY

滑走路のターニングパッドは下図のように設置されている。滑走路上で180°転回の要領は、09及び27方向において以下の通りである。

- 滑走路中心線からターニングパッド中心線標識に従って進行する。
- 転回灯1が一直線に見えるように進行し、転回灯2が一直線に見えた時転回を開始する。転回時はMAX STEERING ANGLEを使用する。

RWY turn pads are installed as shown in below figure, and procedure for 180° turn on RWY is established for RWY09 and 27 as follows ;

- Proceed along the RWY Center Line to the starting point of the RWY Turn Pad Center Line Marking ; then
- Proceed along the RWY Turn Pad Center Line Marking to see the Turning Point Indicator Lights 1 on a straight line, then commence turn at the spot where you(pilot) can see the Turning Point Indicator Lights 2 on a straight line at an angle of 9 o'clock. When turning, take MAX STEERING ANGLE.



## RJSY AD 2.10 AERODROME OBSTACLES

- In Area2 See Obstacle data
- In Area3 To be developed

## RJSY AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

|    |  |  |
|----|--|--|
| 1  | Associated MET Office  | TOKYO  |
| 2  | Hours of service<br>MET Office outside hours                           | H24 (TOKYO)  |
| 3  | Office responsible for TAF preparation<br>Periods of validity          | Nil  |
| 4  | Trend forecast<br>Interval of issuance                                 | Nil  |
| 5  | Briefing/ consultation provided  | Briefing is available upon inquiry at TOKYO  |
| 6  | Flight documentation<br>Language(s) used                               | C<br>En  |
| 7  | Charts and other information available for<br>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> ,<br>P <sub>SWM</sub> , P <sub>SW</sub> (domestic), E, C, W <sub>E</sub> , W <sub>F</sub> , W <sub>G</sub> , W <sub>I</sub> , W, N |
| 8  | Supplementary equipment<br>available for providing information         | Nil  |
| 9  | ATS units provided with information                                    | RADIO  |
| 10 | Additional information(limitation of service, etc.)                    | Nil  |

## RJSY AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations<br>RWY NR | TRUE BRG               | Dimensions of<br>RWY(M)  | Strength(PCR) and<br>surface of RWY | THR coordinates<br>THR geoid undulation | THR elevation and<br>highest elevation of TDZ<br>of precision APP RWY |
|------------------------|------------------------|--|-------------------------------------|---|---|
| 1                      | 2                      | 3  | 4                                   | 5                                       | 6   |
| 09                     | 079.45°                | 2000×45  | PCR 891/F/C/X/T<br>Asphalt-Concrete | 384838.58N<br>1394633.12E               | THR ELEV: 59ft<br>TDZ ELEV:71ft                                       |
| 27                     | 259.45°                | 2000×45  | PCR 891/F/C/X/T<br>Asphalt-Concrete | 384850.46N<br>1394754.61E               | THR ELEV: 86ft  |
| Slope of RWY           | Strip<br>Dimensions(M) | RESA (Overrun)<br>Dimensions(M)                                    |                                     | Remarks                                 |   |
| 7                      | 10                     | 11   |                                     | 14                                      |   |
| See AD2.24 AD chart    | 2120×300               | 186 × (MNM:153 MAX:300)*<br>*For detail, ask airport administrator |                                     | RWY grooving : 2000m×30m                |   |
|                        | 2120×300               | 40 × 300   |                                     |   |   |

## RJSY AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA<br>(m) | TODA<br>(m) | ASDA<br>(m) | LDA<br>(m) | Remarks |
|----------------|-------------|-------------|-------------|------------|---------|
| 1              | 2           | 3           | 4           | 5          | 6       |
| 09             | 2000        | 2000        | 2000        | 2000       | Nil     |
| 27             | 2000        | 2000        | 2000        | 2000       | Nil     |

## RJSY AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY<br>Designator   | APCH<br>LGT<br>type<br>LEN<br>INTST | RTHL<br>Color<br>WBAR | PAPI<br>(VASIS)<br>Angle<br>DIST FM<br>THR<br>MEHT | RTZL<br>LEN | RCLL<br>LEN<br>Spacing<br>Color<br>INTST          | REDL<br>LEN<br>Spacing<br>Color<br>INTST             | RENL<br>Color<br>WBAR | STWL<br>LEN<br>Color |
|---|-------------------------------------|-----------------------|--|-------------|---|--|-----------------------|----------------------|
| 1   | 2                                   | 3                     | 4  | 5           | 6   | 7  | 8                     | 9                    |
| 09  | PALS<br>(CAT I)<br>810m<br>LIH      | Green<br>Green        | PAPI<br>3.0°/LEFT<br>351m<br>61ft                  | 900m        | 2000m<br>30m<br>Coded color<br>(White/Red)<br>LIH | 2000m<br>60m<br>Coded color<br>(White/Yellow)<br>LIH | Red                   | Nil<br>(*2)          |
| 27  | SALS<br>(*1)<br>420m<br>LIH         | Green                 | PAPI<br>3.0°/LEFT<br>400m<br>61ft                  | Nil         | 2000m<br>30m<br>Coded color<br>(White/Red)<br>LIH | 2000m<br>60m<br>Coded color<br>(White/Yellow)<br>LIH | Red                   | Nil<br>(*2)          |
| Remarks   |                                     |                       |  |             |   |  |                       |                      |
| 10  |                                     |                       |  |             |   |  |                       |                      |
| SALS with APCH LGT beacon(600m and 900m FM RWY 27 THR)(*1)<br>Overrun area edge LGT(LEN:60m Color:Red) (*2) |                                     |                       |  |             |   |  |                       |                      |

## RJSY AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

|   |  |   |
|---|--|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: 384902N/1394720E, White/Green EV4.3sec, HO   |
| 2 | LDI location and LGT<br>Anemometer location and LGT      | LDI: Nil<br>Anemometer:<br>RWY09 : 377.5m from THR, LGTD<br>RWY27 : 339.5m from 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,<br>Turning point indicator LGT, Overrun area edge LGT<br>Within 15sec : Other LGT |
| 5 | Remarks  | WDI LGT   |

## RJSY AD 2.16 HELICOPTER LANDING AREA

|     |
|-----|
| Nil |
|-----|

## RJSY AD 2.17 ATS AIRSPACE

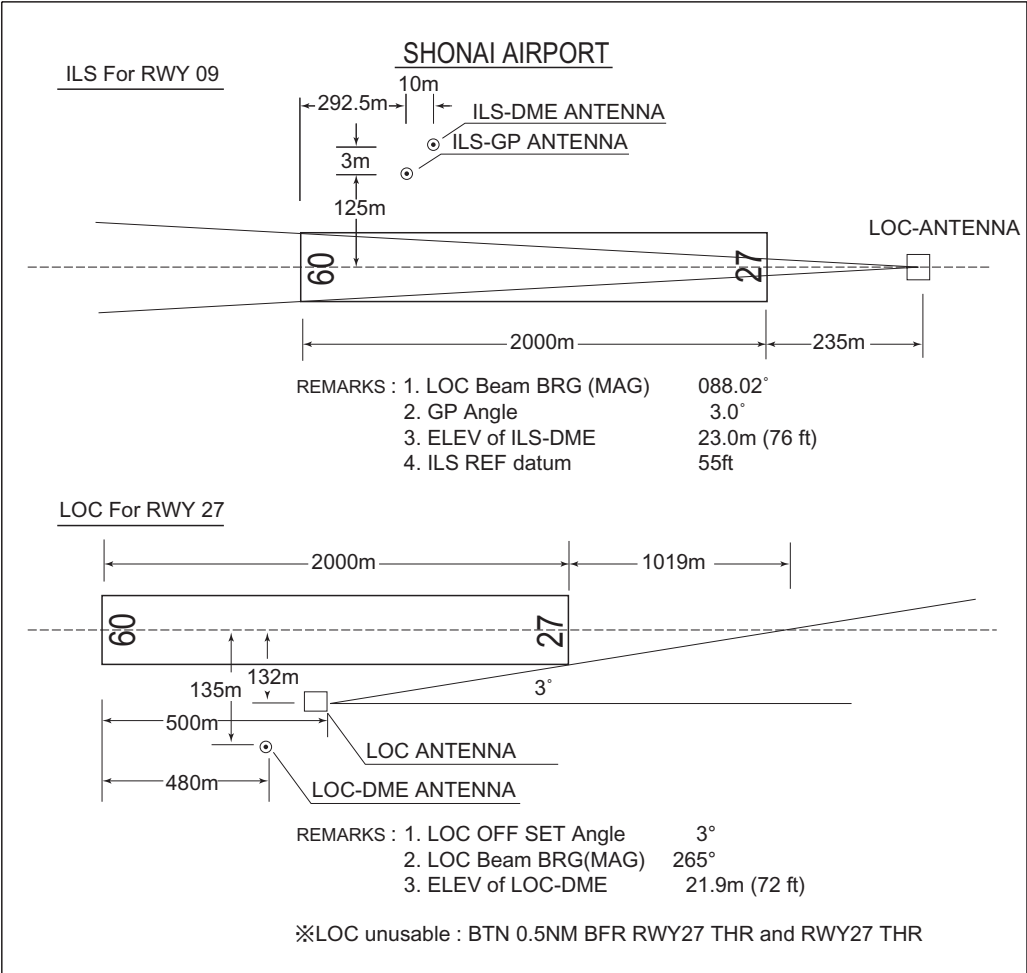
| Designation and lateral limits |  | Vertical limits (ft) | Airspace classification | ATS unit call sign Language | Remarks |
|--------------------------------|--|----------------------|-------------------------|-----------------------------|---------|
| 1                              |  | 2                    | 3                       | 4                           | 6       |
| Shonai Information Zone        | Area within a radius of 5nm(9km) of Shonai ARP | 3,000 or below       | E                       | Shonai Radio En             |         |

## RJSY AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign    | Frequency | Hours of operation | Remarks                                 |
|---------------------|--------------|-----------|--------------------|---|
| 1                   | 2            | 3         | 4                  | 5                                       |
| AFIS                | Shonai Radio | 118.8MHz  | 2200 - 1300        | Operated by New Chitose Airport Office. |

## RJSY 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/2023)                | YSE | 109.6MHz         | 2200 - 1300        | 384838.81N/<br>1394757.51E                   |                                       | VOR unusable:<br>067°BTN 13-15nm<br>143°BTN 14-17nm  |
| DME                           | YSE | 994MHz (CH-33X)  | 2200 - 1300        | 384838.81N/<br>1394757.51E                   | 164ft                                 |  |
| ILS-LOC 09                    | IYS | 110.9MHz         | 2200 - 1300        | 384851.86N/<br>1394804.20E                   |                                       | For RWY 09<br>LOC:(IYS) 235m away<br>FM RWY 27 THR.<br>BRG(MAG) 088.02°  |
| ILS-GP 09                     | -   | 330.8MHz         | 2200 - 1300        | 384844.27N/<br>1394644.09E                   |                                       | GP: 292.5m inside FM<br>RWY 09 THR.<br>125m N of RCL.<br>HGT of ILS Ref datum 55ft<br>GP angle 3.0°  |
| ILS-DME 09                    | IYS | 1007MHz (CH-46X) | 2200 - 1300        | 384844.43N/<br>1394644.47E                   | 76ft                                  | DME: 302.5m inside FM<br>RWY 09 THR.<br>128m N of RCL.   |
| LOC 27                        | ISN | 111.5MHz         | 2200 - 1300        | 384837.31N/<br>1394654.51E                   |                                       | For RWY 27<br>LOC: 500m(1641ft) inside<br>FM RWY 09 THR,<br>132m(433ft) S of RCL.<br>Off set angle 3°<br>BRG (MAG) 265°<br>LOC unusable: BTN 0.5NM<br>BFR RWY27 THR and<br>RWY27 THR |
| LOC-DME 27                    | ISN | 1013MHz (CH-52X) | 2200 - 1300        | 384837.11N/<br>1394653.70E                   | 72ft                                  | DME: 480m(1575ft) inside FM<br>RWY 09 THR,<br>135m(443ft) S of RCL.  |



**RJSY 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)

AD Administrator's prior permission is required.

4. Parking area for helicopters

AD Administrator's prior permission is required.

5. Apron - taxiing during winter conditions

Nil

6. Taxiing - limitations

Nil



## 7. School and training flights - technical test flights - use of runways

AD Administrator's prior permission is required.

## 8. Helicopter traffic - limitation

Nil

## 9. Removal of disabled aircraft from runways

Nil

**RJSY AD 2.21 NOISE ABATEMENT PROCEDURES**

Nil

**RJSY AD 2.22 FLIGHT PROCEDURES****TAKE OFF MINIMA**

|  | RWY | ACFT<br>CAT | REDL & RCLL     |      | REDL or RCLL<br>or RCL Marking |      | NIL<br>(DAYTIME ONLY) |      |
|--|-----|-------------|-----------------|------|--------------------------------|------|-----------------------|------|
|  |     |             | RVR             | VIS  | RVR                            | VIS  | RVR                   | VIS  |
| Multi-Engine ACFT with<br>TKOF ALTN AP FILED | 09  | A,B,C,D     | 400m            | 400m | 400m                           | 400m | -                     | 500m |
|  | 27  | A,B,C,D     | -               | 400m | -                              | 400m | -                     | 500m |
| OTHER  | 09  | A,B,C,D     | AVBL LDG MINIMA |      |                                |      |                       |      |
|  | 27  | A,B,C,D     |                 |      |                                |      |                       |      |

**RJSY AD 2.23 ADDITIONAL INFORMATION**

Nil

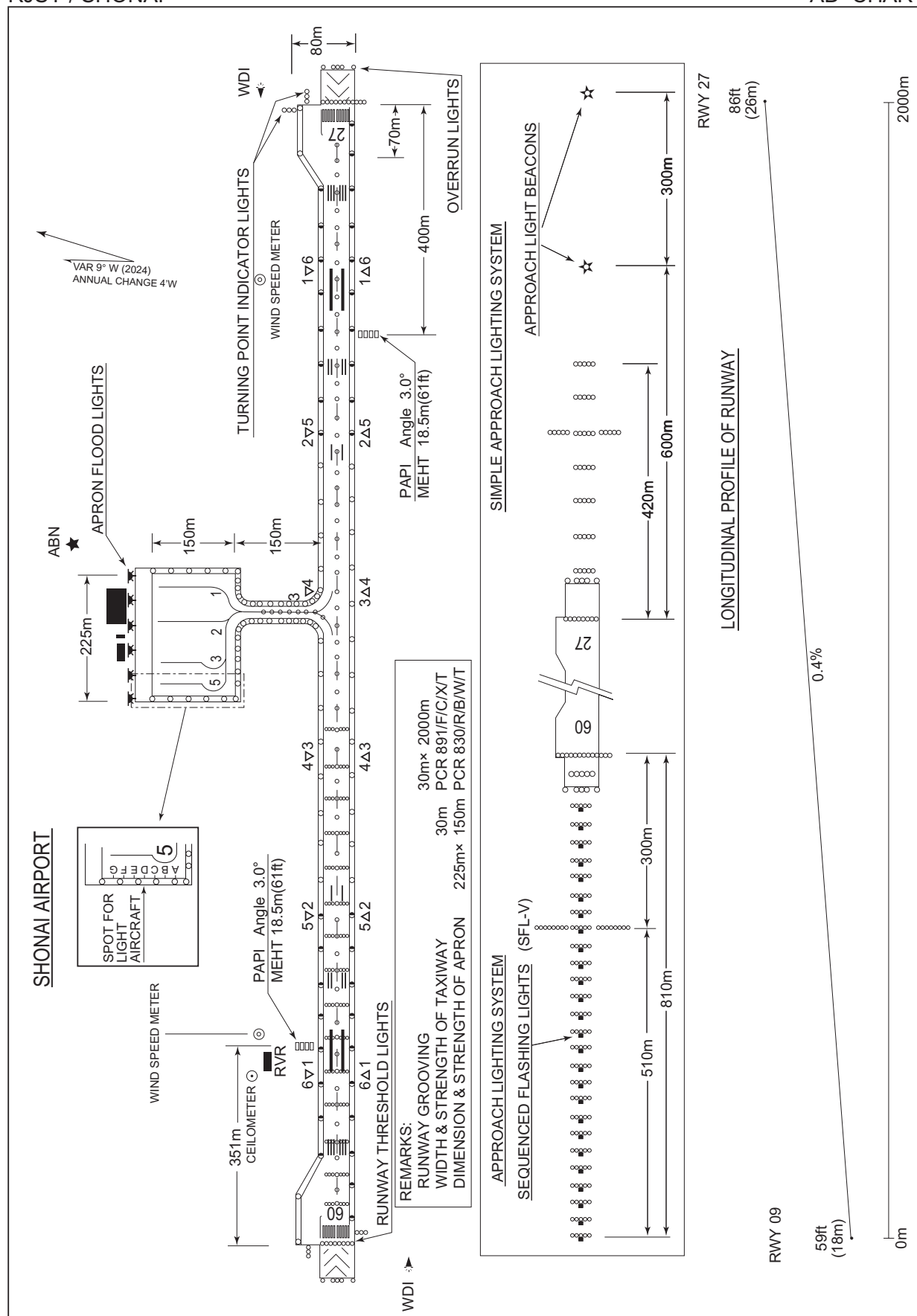
**RJSY AD 2.24 CHARTS RELATED TO AN AERODROME**

Aerodrome/Heliport Chart  
 Standard Departure Chart - Instrument (SHONAI REVERSAL)  
 Standard Departure Chart - Instrument (ZUNDA-RNAV)  
 Standard Arrival Chart - Instrument (MOKKE, SHONAI-RNAV)  
 Standard Arrival Chart - Instrument (YURAH-RNAV)  
 Instrument Approach Chart (ILS Z or LOC Z RWY09)  
 Instrument Approach Chart (ILS Y or LOC Y RWY09)  
 Instrument Approach Chart (LOC RWY27)  
 Instrument Approach Chart (VOR RWY09)  
 Instrument Approach Chart (RNP RWY09(AR))  
 Instrument Approach Chart (RNP Z RWY27)  
 Instrument Approach Chart (RNP Y RWY27(AR))  
 Other Chart (Visual REP)  
 Other Chart (LDG CHART)  
 Other Chart (MVA CHART)

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## RJSY / SHONAI

## AD CHART



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STANDARD DEPARTURE CHART - INSTRUMENT

RJSY / SHONAI

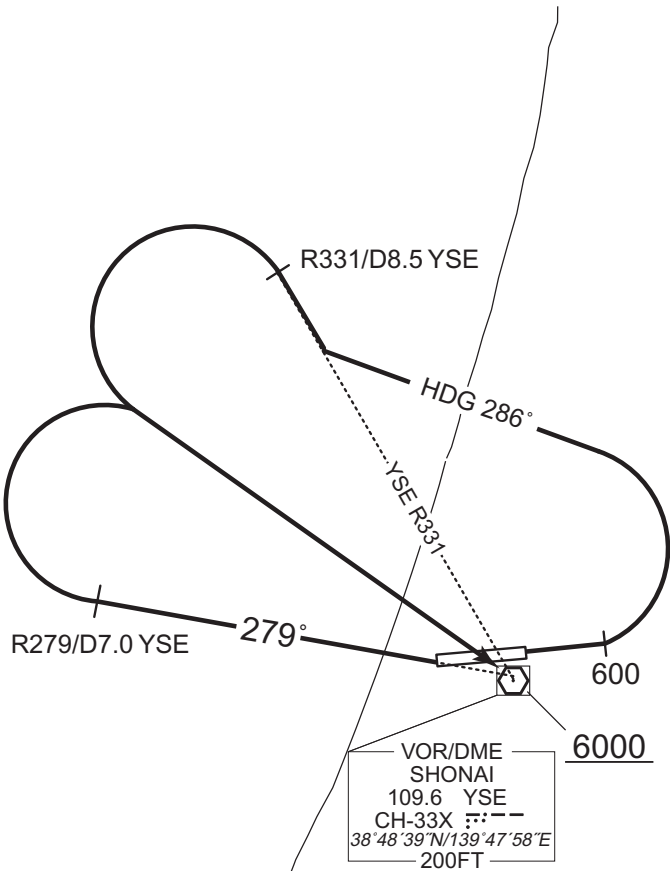
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SHONAI REVERSAL FOUR DEPARTURE

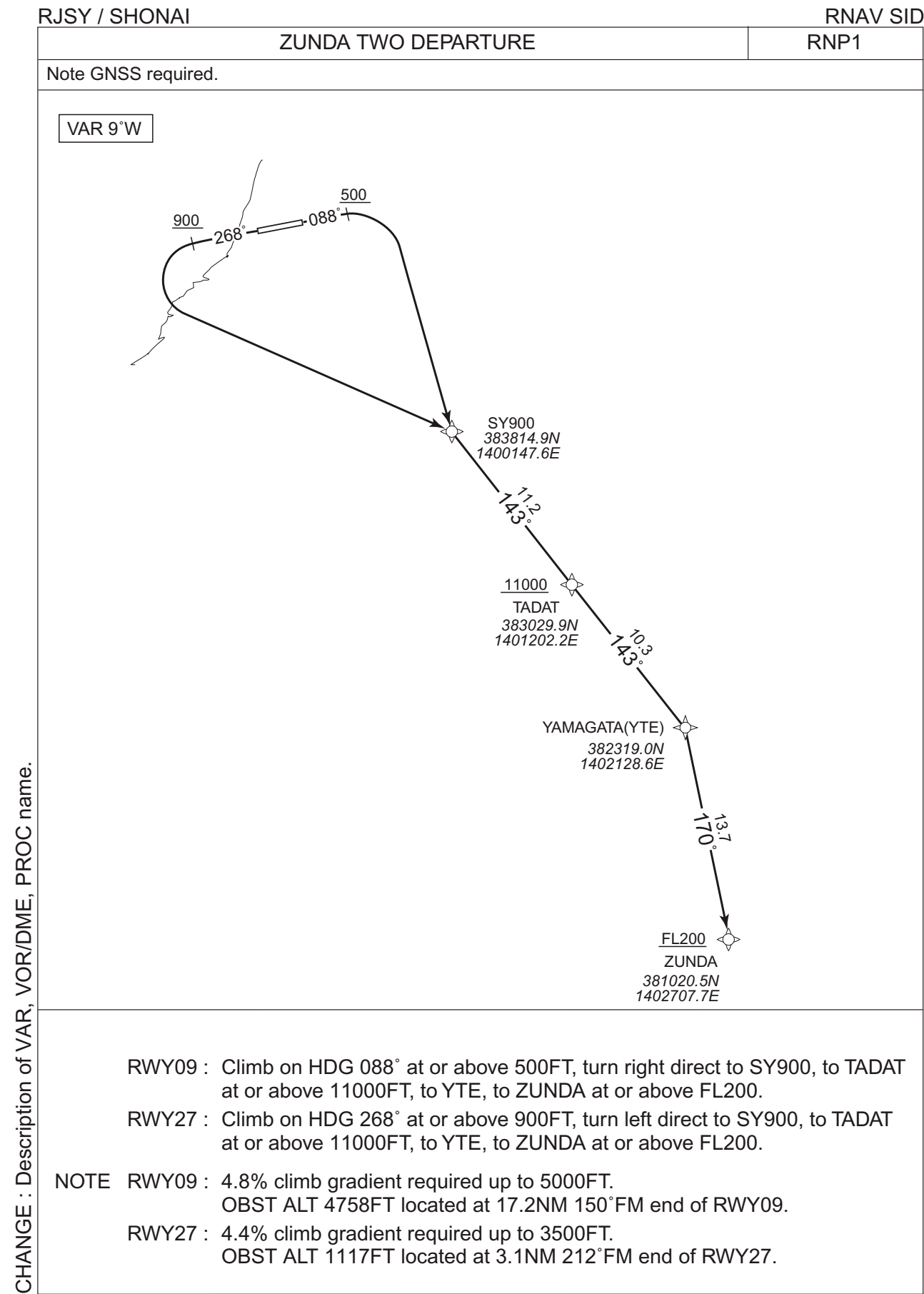
RWY 09 : Climb RWY HDG to 600FT, turn left HDG 286° to intercept and proceed  
via YSE R331 to YSE R331/8.5DME, turn left,...

RWY 27 : Climb via YSE R279 to YSE R279/7.0DME, turn right,...  
...direct to YSE VOR/DME.

Cross YSE VOR/DME at or above 6000FT.



STANDARD DEPARTURE CHART - INSTRUMENT



STANDARD DEPARTURE CHART - INSTRUMENT

RJSY / SHONAI

RNAV SID

ZUNDA TWO DEPARTURE

RWY09

| 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              | -                   | -        | 088<br>(079.5) | -8.8               | -             | -              | +500          | -            | -              | RNP1                     |
| 002           | DF              | SY900               | -        | -              | -8.8               | -             | R              | -             | -            | -              | RNP1                     |
| 003           | TF              | TADAT               | -        | 143<br>(134.0) | -8.8               | 11.2          | -              | +11000        | -            | -              | RNP1                     |
| 004           | TF              | YTE                 | -        | 143<br>(134.1) | -8.8               | 10.3          | -              | -             | -            | -              | RNP1                     |
| 005           | TF              | ZUNDA               | -        | 170<br>(161.1) | -8.8               | 13.7          | -              | +FL200        | -            | -              | RNP1                     |

RWY27

| 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              | -                   | -        | 268<br>(259.5) | -8.8               | -             | -              | +900          | -            | -              | RNP1                     |
| 002           | DF              | SY900               | -        | -              | -8.8               | -             | L              | -             | -            | -              | RNP1                     |
| 003           | TF              | TADAT               | -        | 143<br>(134.0) | -8.8               | 11.2          | -              | +11000        | -            | -              | RNP1                     |
| 004           | TF              | YTE                 | -        | 143<br>(134.1) | -8.8               | 10.3          | -              | -             | -            | -              | RNP1                     |
| 005           | TF              | ZUNDA               | -        | 170<br>(161.1) | -8.8               | 13.7          | -              | +FL200        | -            | -              | RNP1                     |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

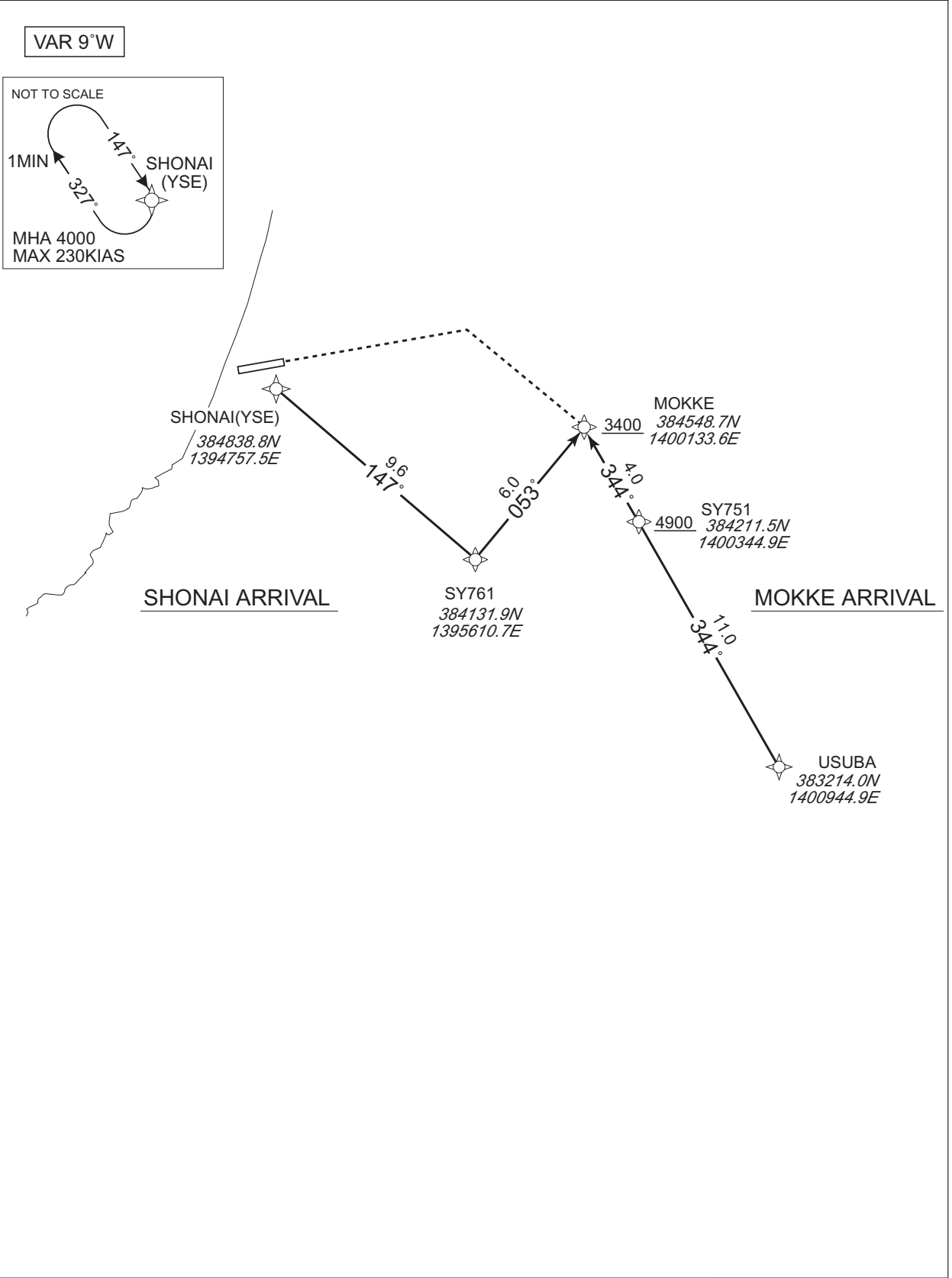
STANDARD ARRIVAL CHART -INSTRUMENT

RJSY / SHONAI

RNAV STAR RWY27

|                                 |      |
|---------------------------------|------|
| MOKKE ARRIVAL<br>SHONAI ARRIVAL | RNP1 |
|---------------------------------|------|

Note GNSS required.



CHANGE : Description of VAR, VOR/DME.



STANDARD ARRIVAL CHART -INSTRUMENT

RJSY / SHONAI

RNAV STAR RWY27

| MOKKE ARRIVAL   |                 |                     |          |                |                    |               |                |               |              |                |                          |
|---|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| From USUBA, to SY751 at or above 4900FT, to MOKKE at or above 3400FT. |                 |                     |          |                |                    |               |                |               |              |                |                          |
| 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              | USUBA               | -        | -              | -8.8               | -             | -              | -             | -            | -              | RNP1                     |
| 002   | TF              | SY751               | -        | 344<br>(334.8) | -8.8               | 11.0          | -              | +4900         | -            | -              | RNP1                     |
| 003   | TF              | MOKKE               | -        | 344<br>(334.8) | -8.8               | 4.0           | -              | +3400         | -            | -              | RNP1                     |

| SHONAI ARRIVAL                                   |                 |                     |          |                |                    |               |                |               |              |                |                          |
|--|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| From YSE, to SY761, to MOKKE at or above 3400FT. |                 |                     |          |                |                    |               |                |               |              |                |                          |
| 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              | YSE                 | -        | -              | -8.8               | -             | -              | -             | -            | -              | RNP1                     |
| 002  | TF              | SY761               | -        | 147<br>(137.9) | -8.8               | 9.6           | -              | -             | -            | -              | RNP1                     |
| 003  | TF              | MOKKE               | -        | 053<br>(044.4) | -8.8               | 6.0           | -              | +3400         | -            | -              | 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 | YSE                 | 147<br>(137.9)        | -8.8               | 1.0(-14000)         | R              | 4000                  | FL140                 | -230(-14000) | RNP1                     |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART -INSTRUMENT

RJSY / SHONAI

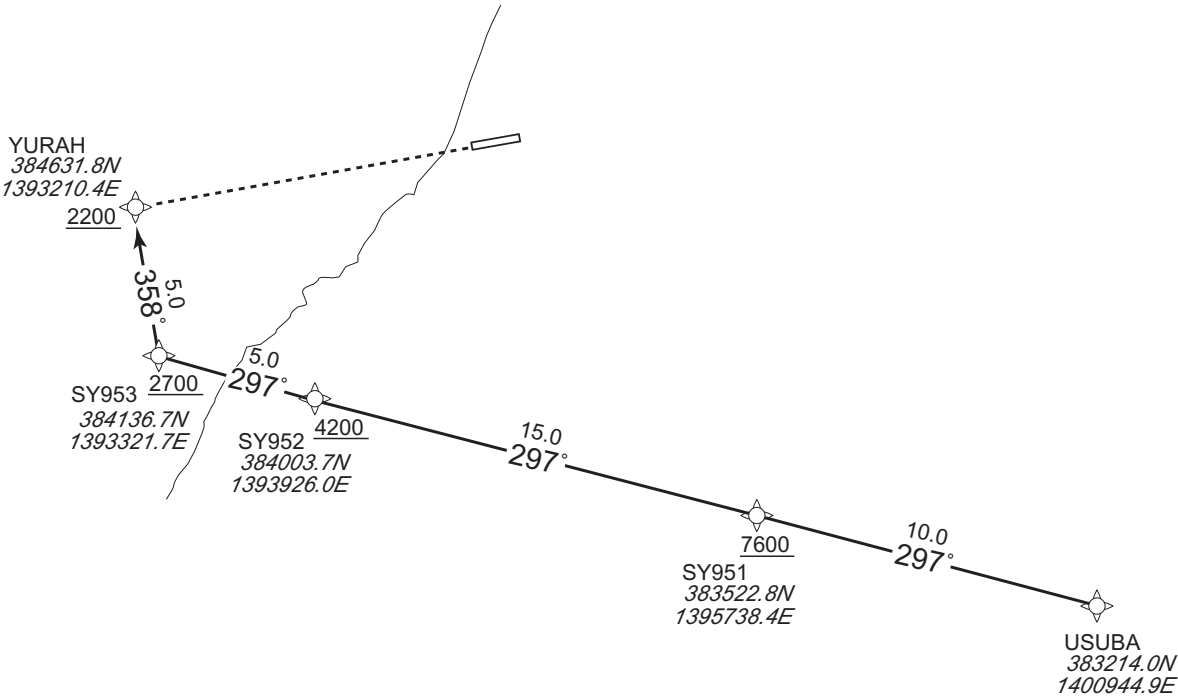
RNAV STAR RWY09

YURAH ARRIVAL

RNP1

Note GNSS required.

VAR 9°W



From USUBA, to SY951 at or above 7600FT, to SY952 at or above 4200FT, to SY953 at or above 2700FT, to YURAH at or above 2200FT.

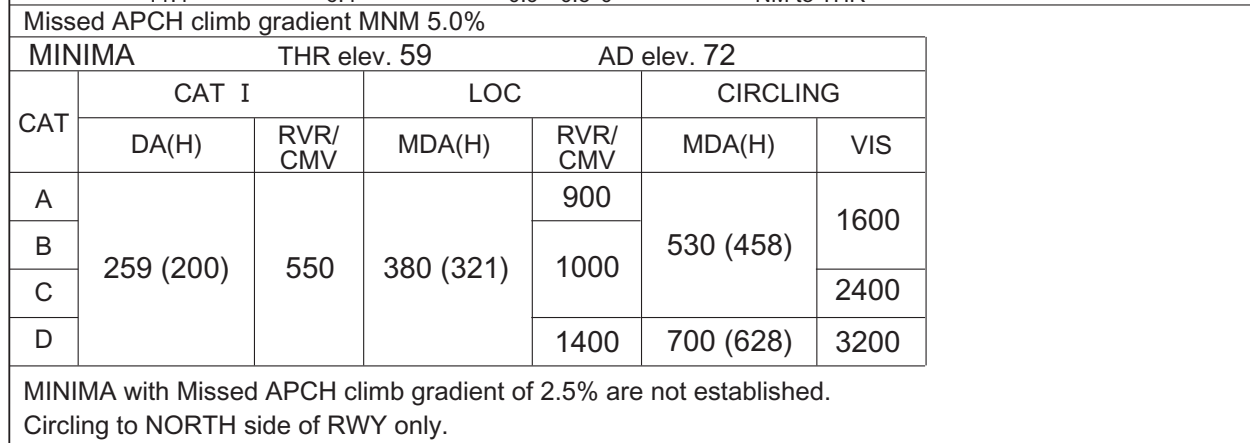
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001           | IF              | USUBA               | —        | —             | -8.8               | —             | —              | —             | —            | —              | RNP1                     |
| 002           | TF              | SY951               | —        | 297 (288.4)   | -8.8               | 10.0          | —              | +7600         | —            | —              | RNP1                     |
| 003           | TF              | SY952               | —        | 297 (288.3)   | -8.8               | 15.0          | —              | +4200         | —            | —              | RNP1                     |
| 004           | TF              | SY953               | —        | 297 (288.1)   | -8.8               | 5.0           | —              | +2700         | —            | —              | RNP1                     |
| 005           | TF              | YURAH               | —        | 358 (349.3)   | -8.8               | 5.0           | —              | +2200         | —            | —              | RNP1                     |

CHANGE : Description of VAR, VOR/DME, STAR name.

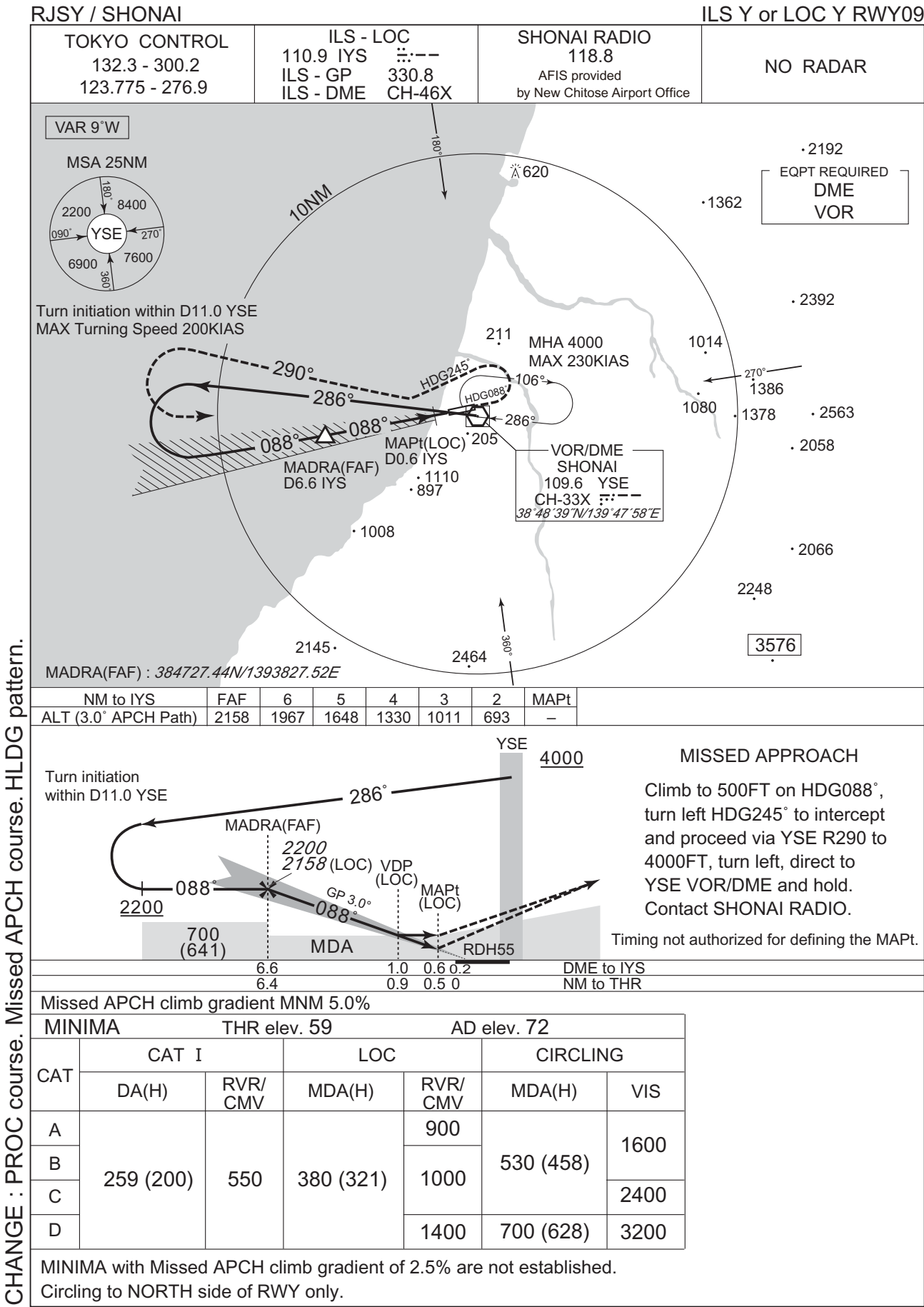
**INTENTIONALLY LEFT BLANK**

## RJSY / SHONAI

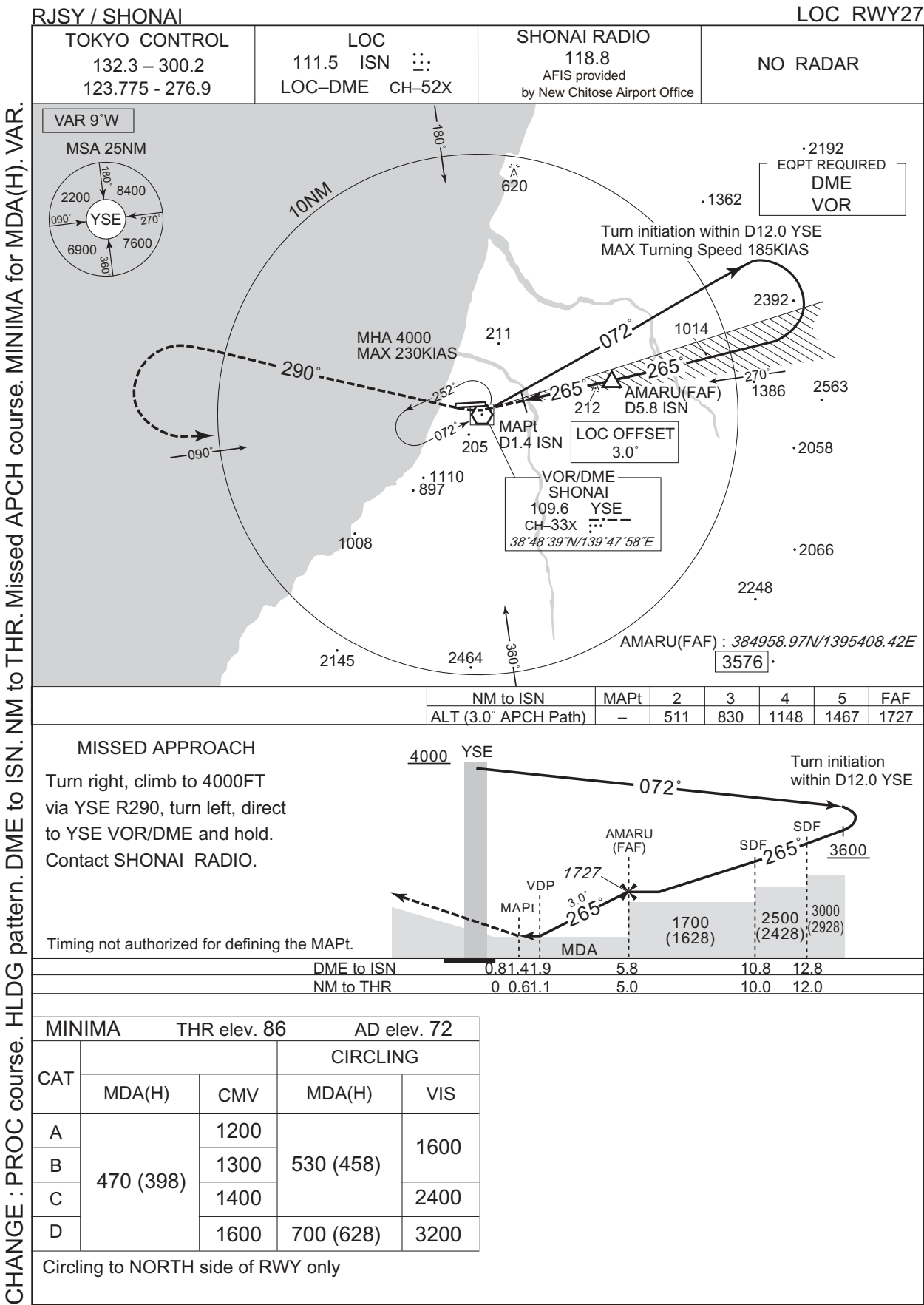
ILS Z or LOC Z RWY09



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



CHANGE : PROC course. HLDG pattern. DME to ISN. NM to THR. Missed APCH course. MINIMA for MDA(H). VAR.

## RJSY / SHONAI

|  |  |  |                 |
|--|--|--|-----------------|
| <b>TOKYO CONTROL</b><br>132.3 - 300.2<br>123.775 - 276.9 | <b>SHONAI VOR / DME</b><br>109.6 YSE<br>CH-33X<br>38°48'39"N/139°47'58"E | <b>SHONAI RADIO</b><br>118.8<br>AFIS provided<br>by New Chitose Airport Office | <b>NO RADAR</b> |
|--|--|--|-----------------|

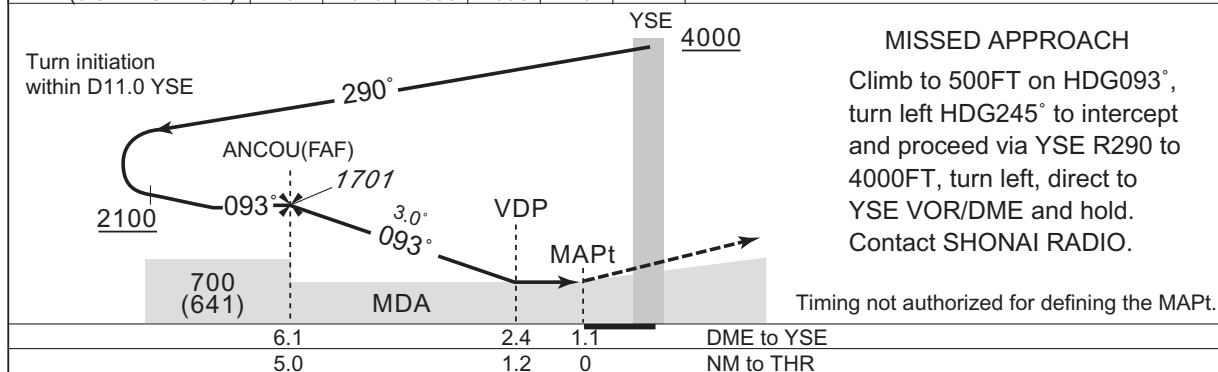
**VAR 9°W**

MSA 25NM

Turn initiation within D11.0 YSE  
MAX Turning Speed 200KIAS

ANCOU(FAF) : 384803.21N/1394012.41E

|                      |      |      |      |      |     |      |
|----------------------|------|------|------|------|-----|------|
| NM to YSE            | FAF  | 6    | 5    | 4    | 3   | MAPt |
| ALT (3.0' APCH Path) | 1701 | 1673 | 1355 | 1036 | 718 | —    |

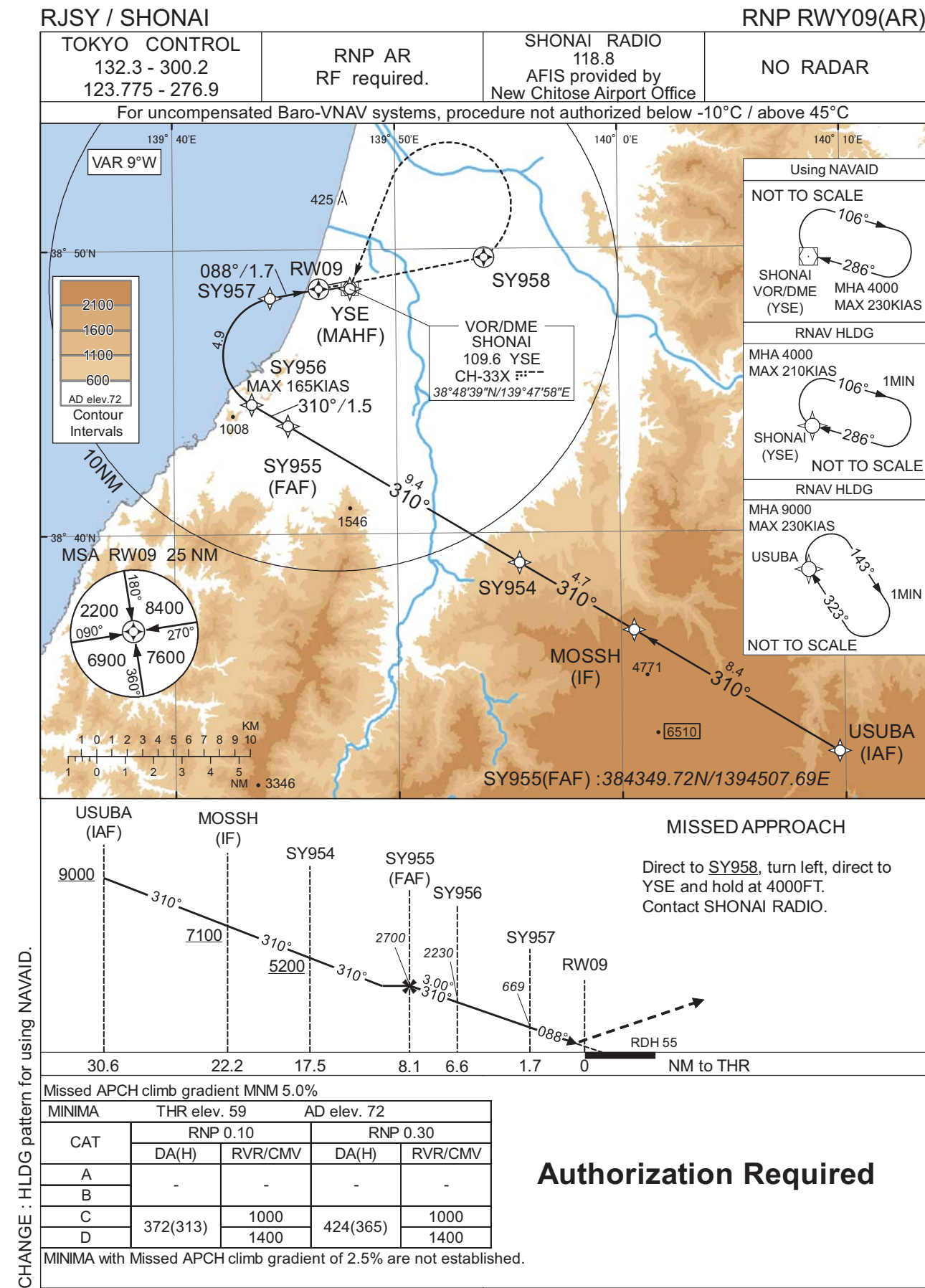


| MINIMA |           | THR elev. 59 | AD elev. 72 |      |
|--------|-----------|--------------|-------------|------|
| CAT    |           |              | CIRCLING    |      |
|        | MDA(H)    | RVR/<br>CMV  | MDA(H)      | VIS  |
| A      | 470 (411) | 900          | 530 (458)   | 1600 |
| B      |           | 1000         |             |      |
| C      |           |              |             | 2400 |
| D      |           | 1400         | 700 (628)   | 3200 |

Circling to NORTH side of RWY only

CHANGE : DME to YSE.

INSTRUMENT APPROACH CHART





## INSTRUMENT APPROACH CHART

RJSY / SHONAI

RNP RWY09(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                                 | USUBA               | -        | -              | -8.8               | -             | -              | +9000         | -            | -               | -          |
| 002           | TF                                 | MOSSH               | -        | 310<br>(301.2) | -8.8               | 8.4           | -              | +7100         | -            | -               | 1.0        |
| 003           | TF                                 | SY954               | -        | 310<br>(301.1) | -8.8               | 4.7           | -              | +5200         | -            | -               | 1.0        |
| 004           | TF                                 | SY955               | -        | 310<br>(301.1) | -8.8               | 9.4           | -              | 2700          | -            | -               | 1.0        |
| 005           | TF                                 | SY956               | -        | 310<br>(301.0) | -8.8               | 1.5           | -              | 2230          | -165         | -3.00           | 0.1<br>0.3 |
| 006           | RF<br>Center:<br>SYRF1<br>r=2.03NM | SY957               | -        | -              | -8.8               | 4.9           | R              | 669           | -            | -3.00           | 0.1<br>0.3 |
| 007           | TF                                 | RW09                | Y        | 088<br>(079.4) | -8.8               | 1.7           | -              | 114           | -            | -3.00/55        | 0.1<br>0.3 |
| 008           | DF                                 | SY958               | Y        | -              | -8.8               | -             | -              | -             | -            | -               | 1.0        |
| 009           | DF                                 | YSE                 | -        | -              | -8.8               | -             | L              | 4000          | -            | -               | 1.0        |

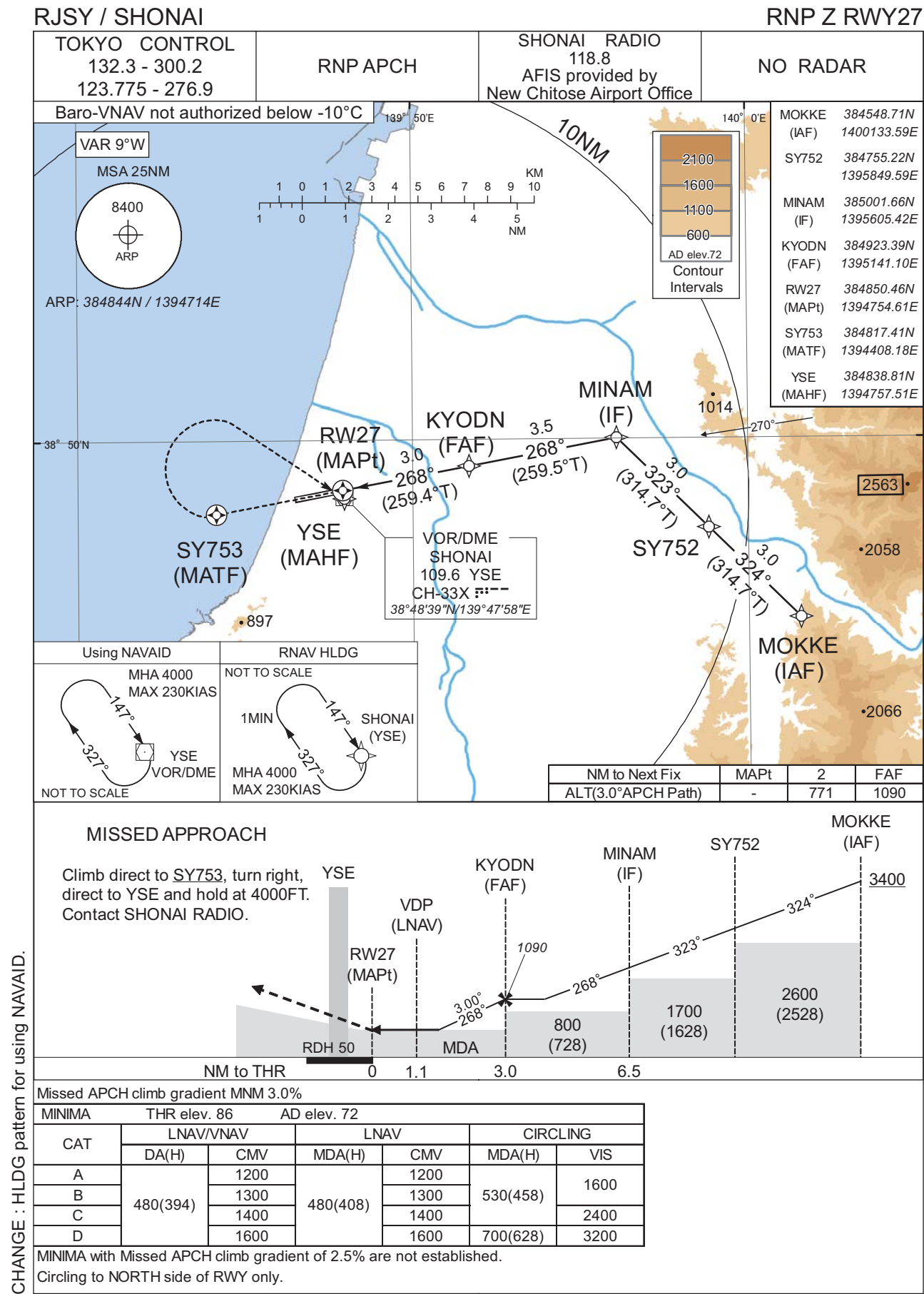
| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | Outbound Time (MIN) | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS)     | RNP Value |
|------|---------------------|-----------------------|--------------------|---------------------|----------------|-----------------------|-----------------------|------------------|-----------|
| Hold | USUBA               | 323<br>(314.1)        | -8.8               | 1.0 (-14000)        | R              | 9000                  | FL140                 | -230<br>(-14000) | 1.0       |
| Hold | YSE                 | 286<br>(277.0)        | -8.8               | 1.0 (-14000)        | R              | 4000                  | FL140                 | -210<br>(-14000) | 1.0       |

Waypoint Coordinates

| Waypoint Identifier | Coordinates              | RF Arc Center Identifier | Coordinates              |
|---------------------|--------------------------|--------------------------|--------------------------|
| USUBA               | 383214.02N / 1400944.88E | SYRF1                    | 384619.71N / 1394450.17E |
| MOSSH               | 383634.00N / 1400035.10E |                          |                          |
| SY954               | 383858.43N / 1395528.53E |                          |                          |
| SY955               | 384349.72N / 1394507.69E |                          |                          |
| SY956               | 384435.19N / 1394330.47E |                          |                          |
| SY957               | 384819.37N / 1394421.61E |                          |                          |
| RW09                | 384838.58N / 1394633.12E |                          |                          |
| SY958               | 384943.40N / 1395359.19E |                          |                          |
| YSE                 | 384838.81N / 1394757.51E |                          |                          |

CHANGE : PROC renamed.

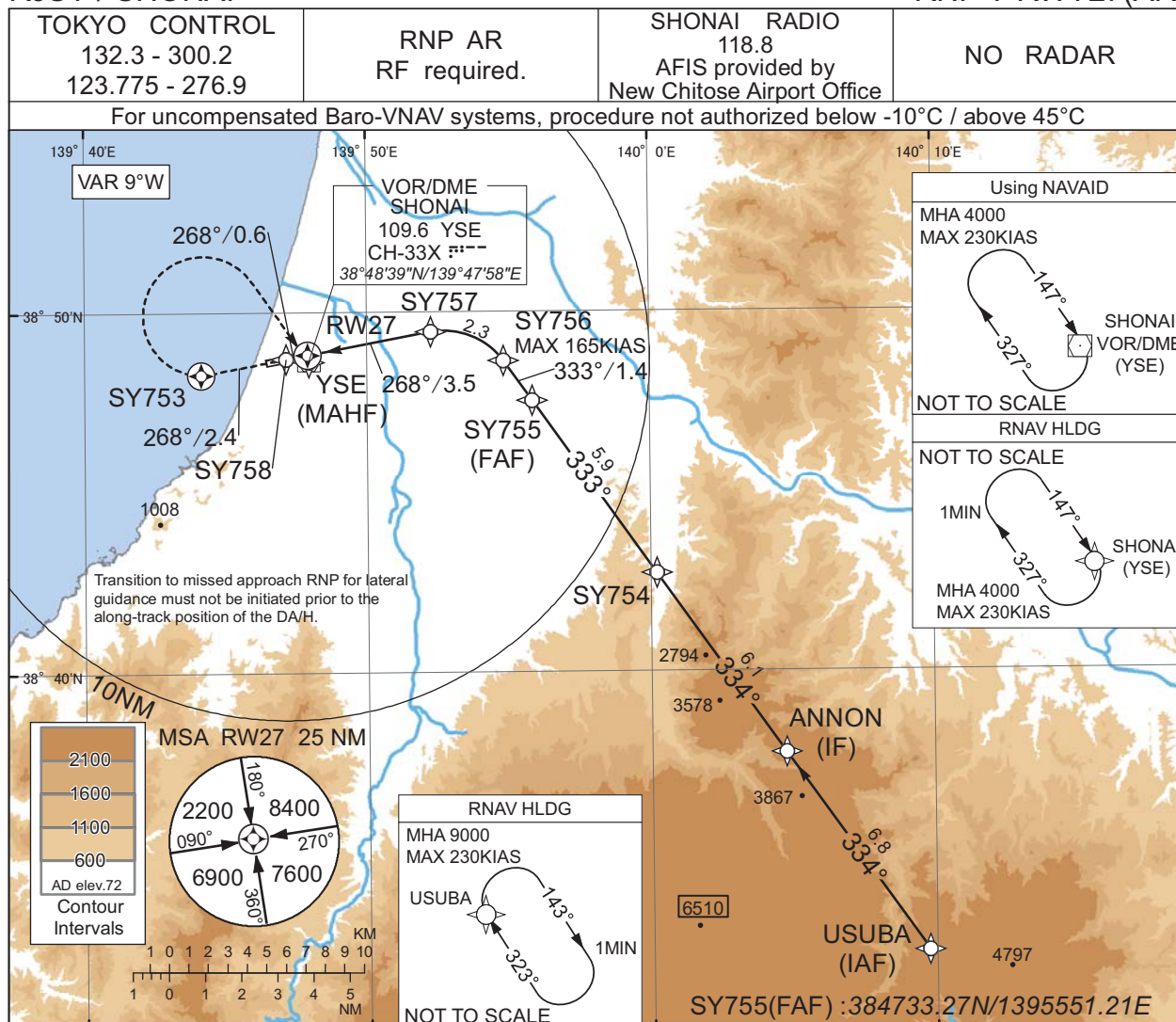
INSTRUMENT APPROACH CHART



## INSTRUMENT APPROACH CHART

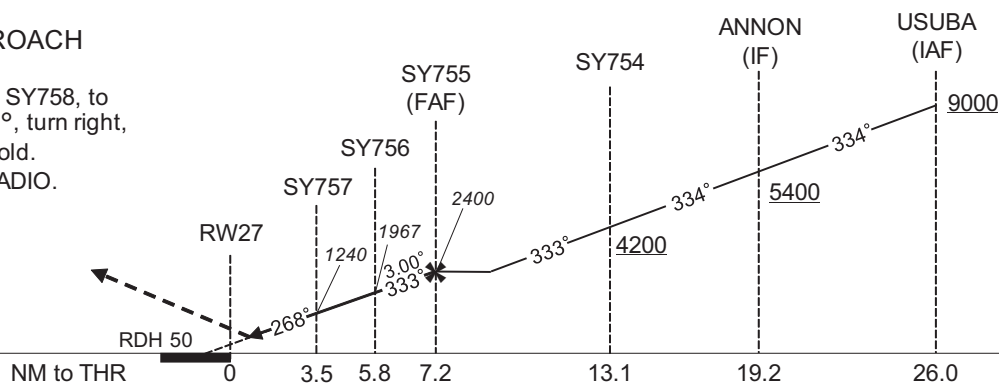
RJSY / SHONAI

RNP Y RWY27(AR)



## MISSED APPROACH

Climb to 4000FT, to SY758, to SY753 on track 268°, turn right, direct to YSE and hold.  
Contact SHONAI RADIO.



Missed APCH climb gradient MNM 5.0%

| CAT | THR elev. 86 |      | AD elev. 72 |      |
|-----|--------------|------|-------------|------|
|     | RNP 0.12     |      | RNP 0.30    |      |
|     | DA(H)        | CMV  | DA(H)       | CMV  |
| A   | -            | -    | -           | -    |
| B   | -            | -    | -           | -    |
| C   | 386(300)     | 1400 | 424(338)    | 1400 |
| D   |              | 1600 |             | 1600 |

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

**Authorization Required**

CHANGE : HLDG pattern for using NAVAID.

## INSTRUMENT APPROACH CHART

RJSY / SHONAI

RNP Y RWY27(AR)

Coding Table

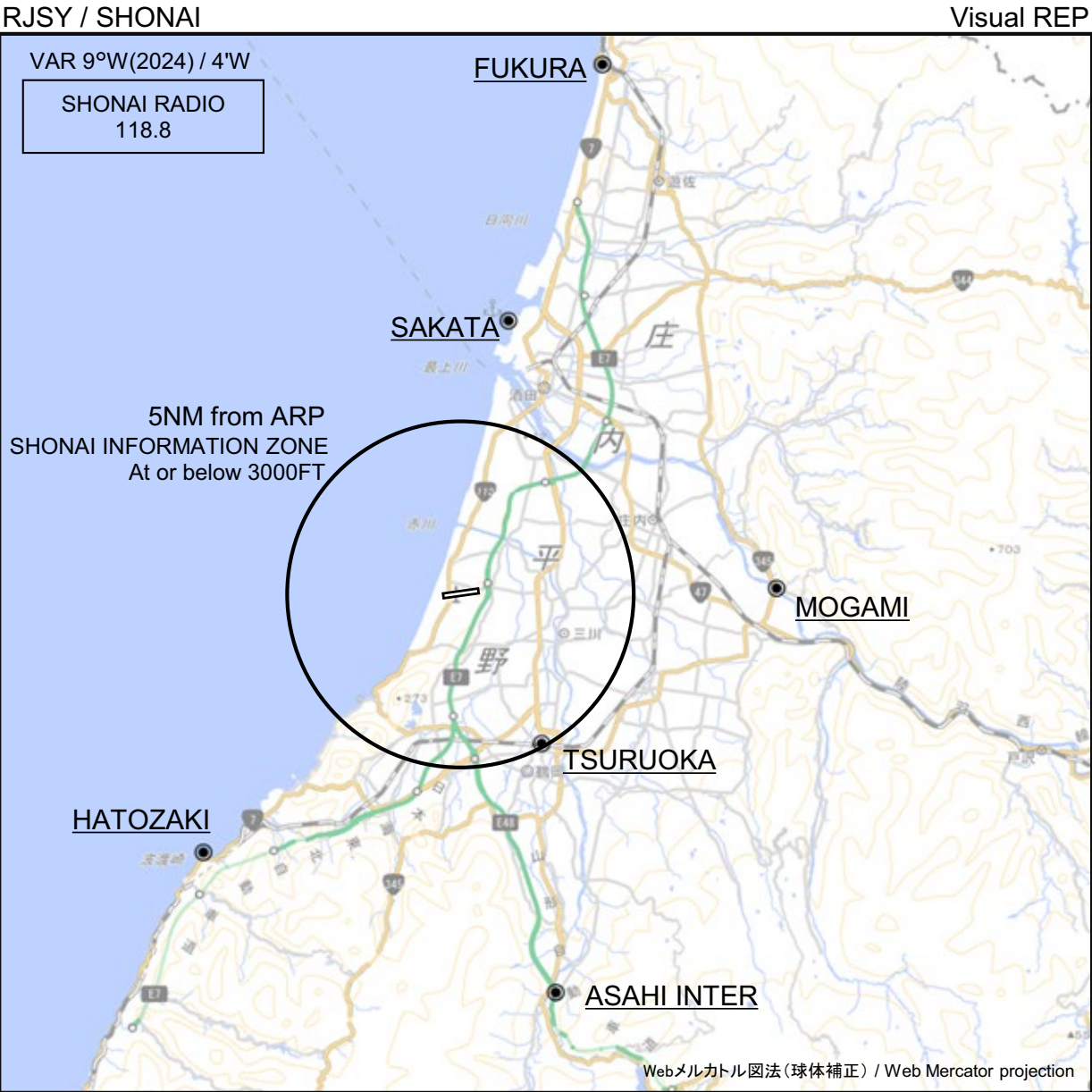
| Serial Number | Path Descriptor                    | Waypoint Identifier | Fly Over | Course °M(°T)  | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | VPA/ RDH (°/FT) | RNP Value    |
|---------------|------------------------------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|-----------------|--------------|
| 001           | IF                                 | USUBA               | -        | -              | -8.8               | -             | -              | +9000         | -            | -               | -            |
| 002           | TF                                 | ANNON               | -        | 334<br>(324.8) | -8.8               | 6.8           | -              | +5400         | -            | -               | 1.0          |
| 003           | TF                                 | SY754               | -        | 334<br>(324.7) | -8.8               | 6.1           | -              | +4200         | -            | -               | 1.0          |
| 004           | TF                                 | SY755               | -        | 333<br>(324.7) | -8.8               | 5.9           | -              | 2400          | -            | -               | 1.0          |
| 005           | TF                                 | SY756               | -        | 333<br>(324.6) | -8.8               | 1.4           | -              | 1967          | -165         | -3.00           | 0.12<br>0.30 |
| 006           | RF<br>Center:<br>SYRF2<br>r=2.01NM | SY757               | -        | -              | -8.8               | 2.3           | L              | 1240          | -            | -3.00           | 0.12<br>0.30 |
| 007           | TF                                 | RW27                | Y        | 268<br>(259.5) | -8.8               | 3.5           | -              | 136           | -            | -3.00/50        | 0.12<br>0.30 |
| 008           | TF                                 | SY758               | -        | 268<br>(259.4) | -8.8               | 0.6           | -              | -             | -            | -               | 0.12<br>0.30 |
| 009           | CF                                 | SY753               | Y        | 268<br>(259.4) | -8.8               | 2.4           | -              | -             | -            | -               | 1.0          |
| 010           | DF                                 | YSE                 | -        | -              | -8.8               | -             | R              | 4000          | -            | -               | 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 | USUBA               | 323<br>(314.1)        | -8.8               | 1.0 (-14000)        | R              | 9000                  | FL140                 | -230<br>(-14000) | 1.0       |
| Hold | YSE                 | 147<br>(137.9)        | -8.8               | 1.0 (-14000)        | R              | 4000                  | FL140                 | -230<br>(-14000) | 1.0       |

Waypoint Coordinates

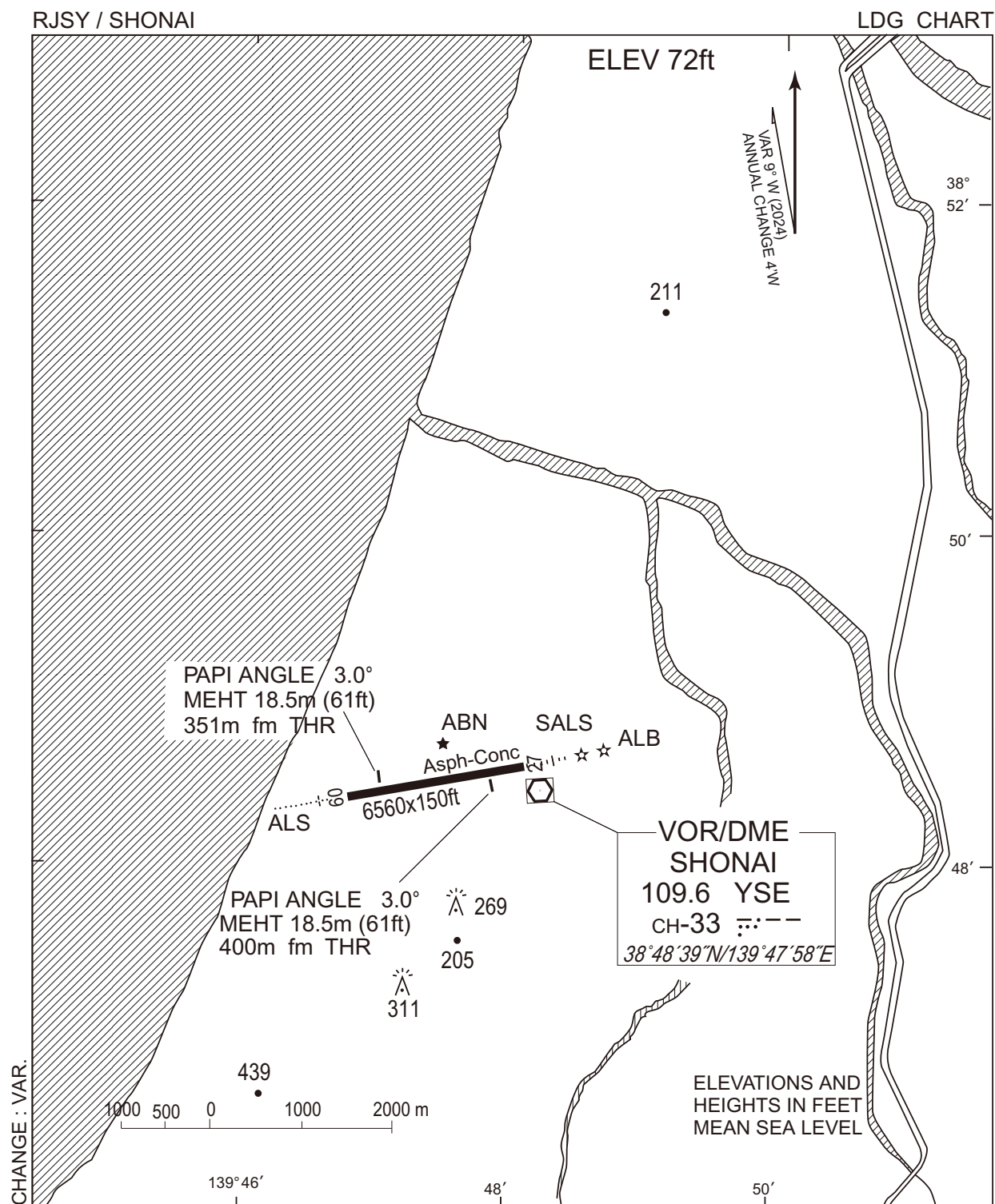
| Waypoint Identifier | Coordinates              | RF Arc Center Identifier | Coordinates              |
|---------------------|--------------------------|--------------------------|--------------------------|
| USUBA               | 383214.02N / 1400944.88E | SYRF2                    | 384729.55N / 1395244.67E |
| ANNON               | 383745.37N / 1400445.25E |                          |                          |
| SY754               | 384245.22N / 1400013.26E |                          |                          |
| SY755               | 384733.27N / 1395551.21E |                          |                          |
| SY756               | 384839.83N / 1395450.54E |                          |                          |
| SY757               | 384928.52N / 1395216.49E |                          |                          |
| RW27                | 384850.46N / 1394754.61E |                          |                          |
| SY758               | 384843.80N / 1394708.93E |                          |                          |
| SY753               | 384817.41N / 1394408.18E |                          |                          |
| YSE                 | 384838.81N / 1394757.51E |                          |                          |

CHANGE : PROC renamed.



※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 : VAR. | Call sign              | BRG / DIST from ARP | Remarks                             |
|---------------|------------------------|---------------------|-------------------------------------|
|               | 吹浦<br>Fukura           | 014°T / 16.0NM      | 吹浦港<br>Harbor                       |
|               | 酒田<br>Sakata           | 009°T / 8.1NM       | 酒田港<br>Harbor                       |
|               | 最上<br>Mogami           | 089°T / 9.1NM       | 最上川橋<br>Bridge                      |
|               | 鶴岡<br>Tsuruoka         | 153°T / 4.9NM       | JR駅<br>Station                      |
|               | 波渡崎<br>Hatozaki        | 225°T / 10.6NM      | 岬<br>Cape                           |
|               | あさひインター<br>Asahi Inter | 167°T / 11.9NM      | 山形自動車道 庄内あさひインターチェンジ<br>Interchange |





RJSY / SHONAI

Minimum Vectoring Altitude CHART

