

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 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 | 8° W(2009)/1° W (2009) |
| 6 | AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses | Shonai Airport Office(Yamagata Pref) 30-3, Aza-Murahigashi, Hamanaka, Sakata-shi, Yamagata Pref. Tel: 0234-92-4123 Fax: 0234-92-4122 e-mail: yshonaikuko@pref.yamagata.jp 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 Customs: 0234-22-1024 Immigration: 0234-22-2746 |
| 3 | Health and sanitation | On request Quarantine(human): 018-846-8280, 022-367-8101 Quarantine(animal): 025-275-4565 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 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 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 Strength : PCN 52/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width : 30 m Surface : Asphalt concrete Strength : PCN 58/F/C/X/T |
| 3 | ACL and elevation | Not Available |
| 4 | VOR checkpoints | Not Available |
| 5 | INS checkpoints | Spot NR 1: 384855.57N/1394717.77E 2: 384855.22N/1394715.32E 3: 384854.86N/1394712.88E 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 (Marking) RWY designation, RWY CL, RWY THR, Aiming point, TDZ, RWY side stripe, RWY turn pad edge, RWY turn pad CL (LGT) RCLL, REDL, RTHL, RENL, RTZL(FOR RWY09), WBAR(FOR RWY 09), Turning point indicator LGT, RWY DIST marker LGT TWY (Marking) TWY CL, RWY HLDG PSN, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT |
| 3 | Stop bars | Nil |
| 4 | Remarks | (Marking) Overrun area (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 MET Office outside hours | H24 (TOKYO) |
| 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 TOKYO |
| 6 | Flight documentation Language(s) used | C En |
| 7 | Charts and other information available for briefing or consultation | S ₆ , U ₈₅ , U ₇ , U ₅ , U ₃ , U ₂₅ , U ₂ /T _r , P _S , P ₅ , P ₃ , P ₂₅ , P _{SWE} , P _{SWF} , P _{SWG} , P _{SWI} , P _{SWM} , P _{SW} (domestic), E, C, W _E , W _F , W _G , W _I , W, N |
| 8 | Supplementary equipment available for providing information | Nil |
| 9 | ATS units provided with information | RADIO |
| 10 | Additional information(limitation of service, etc.) | Nil |

RJSY 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 |
| 09 | 079.45° | 2000×45 | PCN 58/F/C/X/T Asphalt-Concrete | 384838.58N 1394633.12E | THR ELEV: 59ft TDZ ELEV: 71ft |
| 27 | 259.45° | 2000×45 | PCN 58/F/C/X/T Asphalt-Concrete | 384850.46N 1394754.61E | THR ELEV: 86ft |
| Slope of RWY | Strip Dimensions(M) | RESA (Overrun) Dimensions(M) | | Remarks | |
| 7 | 10 | 11 | | 14 | |
| See AD2.24 AD chart | 2120×300 | 186 × (MNM:153 MAX:300)* | | RWY grooving : 2000m×30m | |
| | 2120×300 | 40 × 300 | | | |

RJSY AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (m) | TODA (m) | ASDA (m) | LDA (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 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 |
| 09 | PALS (CAT I) 810m LIH | Green Green | PAPI 3.0°/LEFT 351m 61ft | 900m | 2000m 30m Coded color (White/Red) LIH | 2000m 60m Coded color (White/Yellow) LIH | Red | Nil (*2) |
| 27 | SALS (*1) 420m LIH | Green | PAPI 3.0°/LEFT 400m 61ft | Nil | 2000m 30m Coded color (White/Red) LIH | 2000m 60m Coded color (White/Yellow) LIH | Red | Nil (*2) |
| Remarks | | | | | | | | |
| 10 | | | | | | | | |
| SALS with APCH LGT beacon(600m and 900m FM RWY 27 THR)(*1) 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 Anemometer location and LGT | LDI: Nil Anemometer: RWY09 : 377.5m from THR, LGTD 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, Turning point indicator LGT, Overrun area edge LGT Within 15sec : Other LGT |
| 5 | Remarks | WDI LGT |

RJSY AD 2.16 HELICOPTER LANDING AREA

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

RJSY AD 2.17 ATS AIRSPACE

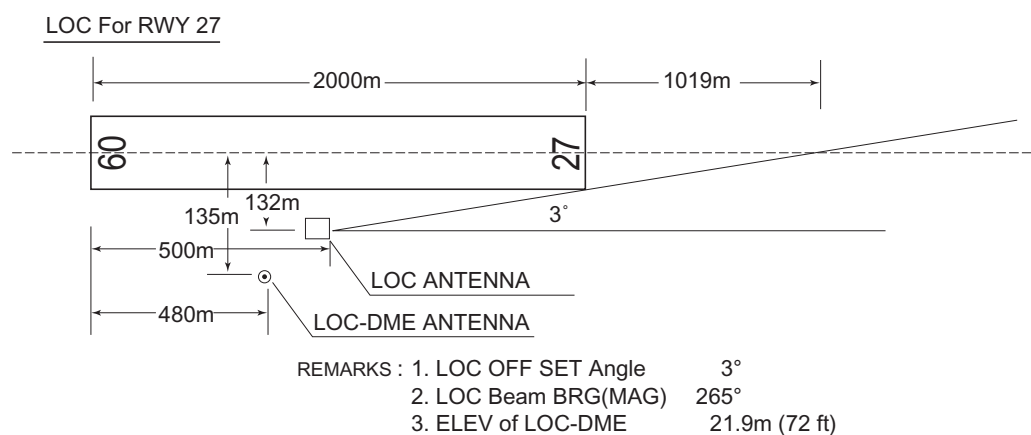
| Designation and lateral limits | | Vertical limits (ft) | Airspace classification | ATS unit call sign Language | Remarks |
|--------------------------------|--|----------------------|-------------------------|-----------------------------|---------|
| 1 | | 2 | 3 | 4 | 6 |
| Shonai Information Zone | 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 (8°W/2008) | YSE | 109.6MHz | 2200 - 1300 | 384838.81N/ 1394757.51E | | VOR unusable: 067°BTN 13-15nm |
| DME | YSE | 994MHz (CH-33X) | 2200 - 1300 | 384838.81N/ 1394757.51E | 162ft | |
| ILS-LOC 09 | IYS | 110.9MHz | 2200 - 1300 | 384851.86N/ 1394804.20E | | For RWY 09 LOC:(IYS) 235m away FM RWY 27 THR. BRG(MAG) 088.02° |
| ILS-GP 09 | - | 330.8MHz | 2200 - 1300 | 384844.27N/ 1394644.09E | | GP: 292.5m inside FM RWY 09 THR. 125m N of RCL. HGT of ILS Ref datum 55ft GP angle 3.0° |
| ILS-DME 09 | IYS | 1007MHz (CH-46X) | 2200 - 1300 | 384844.43N/ 1394644.47E | 76ft | DME: 302.5m inside FM RWY 09 THR. 128m N of RCL. |
| LOC 27 | ISN | 111.5MHz | 2200 - 1300 | 384837.31N/ 1394654.51E | | For RWY 27 LOC: 500m(1641ft) inside FM RWY 09 THR, 132m(433ft) S of RCL. Off set angle 3° BRG (MAG) 265° |
| LOC-DME 27 | ISN | 1013MHz (CH-52X) | 2200 - 1300 | 384837.11N/ 1394653.70E | 72ft | DME: 480m(1575ft) inside FM RWY 09 THR, 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 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 | 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

SID

SHONAI REVERSAL THREE DEPARTURE

RWY 09 : Climb RWY HDG to 600FT, turn left HDG 285° to intercept and proceed via YSE R330 to YSE R330/8.5DME, turn left,...

RWY 27 : Climb via YSE R278 to YSE R278/7.0DME, turn right,...
...direct to YSE VOR/DME.
Cross YSE VOR/DME at or above 6000FT.

SHONAI REVERSAL THREE DEPARTURE

STANDARD DEPARTURE CHART - INSTRUMENT

RJSY / SHONAI

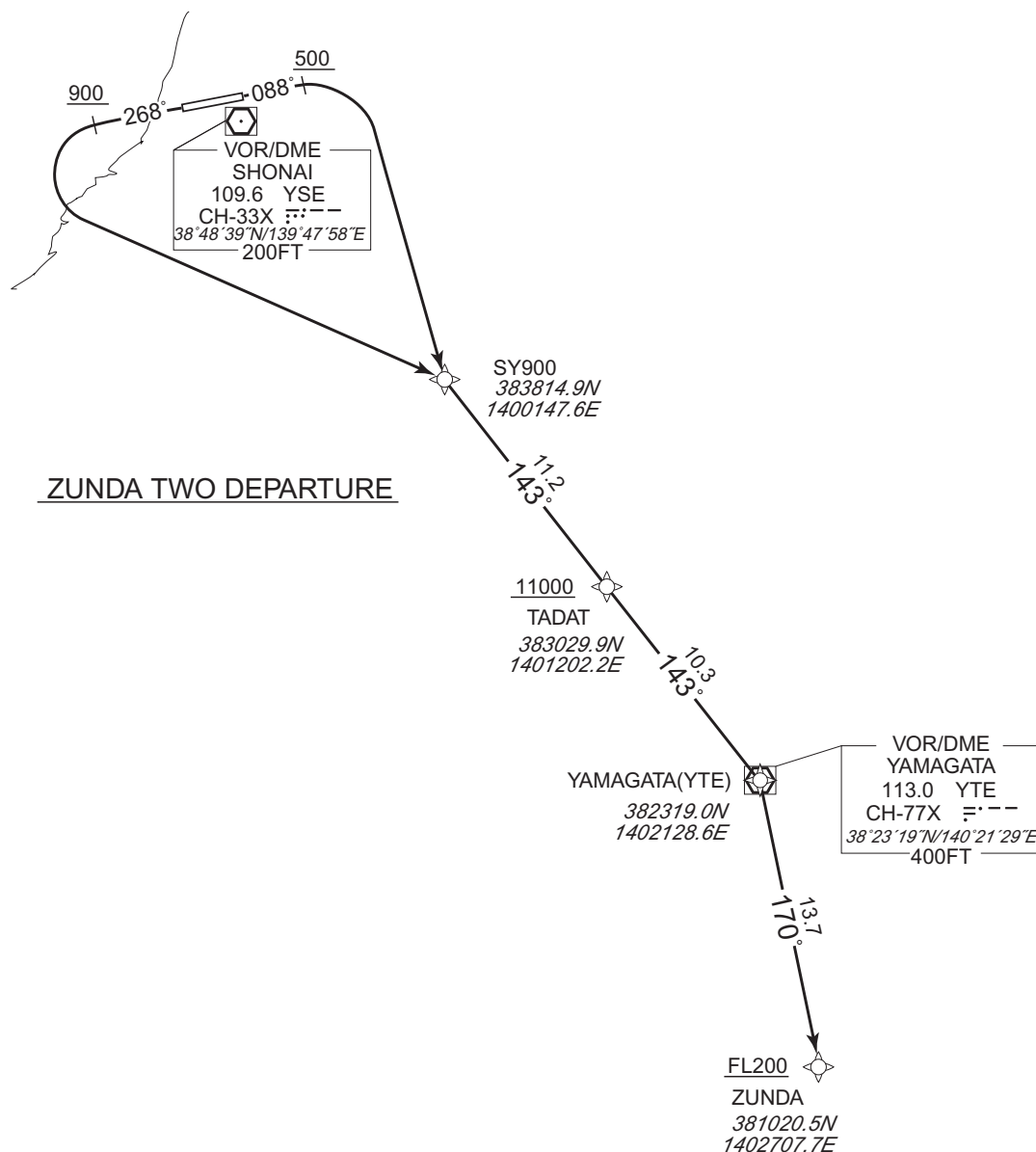
RNAV SID

ZUNDA TWO DEPARTURE

Basic RNP1

Note GNSS required.

VAR 9°W (2022)



ZUNDA TWO DEPARTURE

RWY09 : Climb on HDG 088° at or above 500FT, turn right direct to SY900, to TADAT at or above 11000FT, to YTE, to ZUNDA at or above FL200.

RWY27 : Climb on HDG 268° at or above 900FT, turn left direct to SY900, to TADAT at or above 11000FT, to YTE, to ZUNDA at or above FL200.

NOTE RWY09 : 4.8% climb gradient required up to 5000FT.
OBST ALT 4758FT located at 17.2NM 150°FM end of RWY09.

RWY27 : 4.4% climb gradient required up to 3500FT.
OBST ALT 1117FT located at 3.1NM 212°FM end of RWY27.

CHANGE : VAR. PROC renamed. PROC course.

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 (079.5) | -8.8 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | SY900 | — | — | -8.8 | — | R | — | — | — | Basic RNP1 |
| 003 | TF | TADAT | — | 143 (134.0) | -8.8 | 11.2 | — | +11000 | — | — | Basic RNP1 |
| 004 | TF | YTE | — | 143 (134.1) | -8.8 | 10.3 | — | — | — | — | Basic RNP1 |
| 005 | TF | ZUNDA | — | 170 (161.1) | -8.8 | 13.7 | — | +FL200 | — | — | Basic 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 (259.5) | -8.8 | — | — | +900 | — | — | Basic RNP1 |
| 002 | DF | SY900 | — | — | -8.8 | — | L | — | — | — | Basic RNP1 |
| 003 | TF | TADAT | — | 143 (134.0) | -8.8 | 11.2 | — | +11000 | — | — | Basic RNP1 |
| 004 | TF | YTE | — | 143 (134.1) | -8.8 | 10.3 | — | — | — | — | Basic RNP1 |
| 005 | TF | ZUNDA | — | 170 (161.1) | -8.8 | 13.7 | — | +FL200 | — | — | Basic RNP1 |

CHANGE : VAR. PROC renamed. PROC course.

STANDARD ARRIVAL CHART -INSTRUMENT



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 | — | — | — | — | — | Basic RNP1 |
| 002 | TF | SY751 | — | 344 (334.8) | -8.8 | 11.0 | — | +4900 | — | — | Basic RNP1 |
| 003 | TF | MOKKE | — | 344 (334.8) | -8.8 | 4.0 | — | +3400 | — | — | Basic 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 | — | — | — | — | — | Basic RNP1 |
| 002 | TF | SY761 | — | 147 (137.9) | -8.8 | 9.6 | — | — | — | — | Basic RNP1 |
| 003 | TF | MOKKE | — | 053 (044.4) | -8.8 | 6.0 | — | +3400 | — | — | Basic RNP1 |

| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | Outbound Time (MIN) | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS) | Navigation Specification |
|------|---------------------|-----------------------|--------------------|---------------------|----------------|-----------------------|-----------------------|--------------|--------------------------|
| Hold | YSE | 147 (137.9) | -8.8 | 1.0(-14000) | R | 4000 | FL140 | -230(-14000) | Basic RNP1 |

CHANGE : VAR. PROC course(MOKKE ARRIVAL, SHONAI ARRIVAL). RNAV HLDG established(YSE).

STANDARD ARRIVAL CHART -INSTRUMENT

RJSY / SHONAI

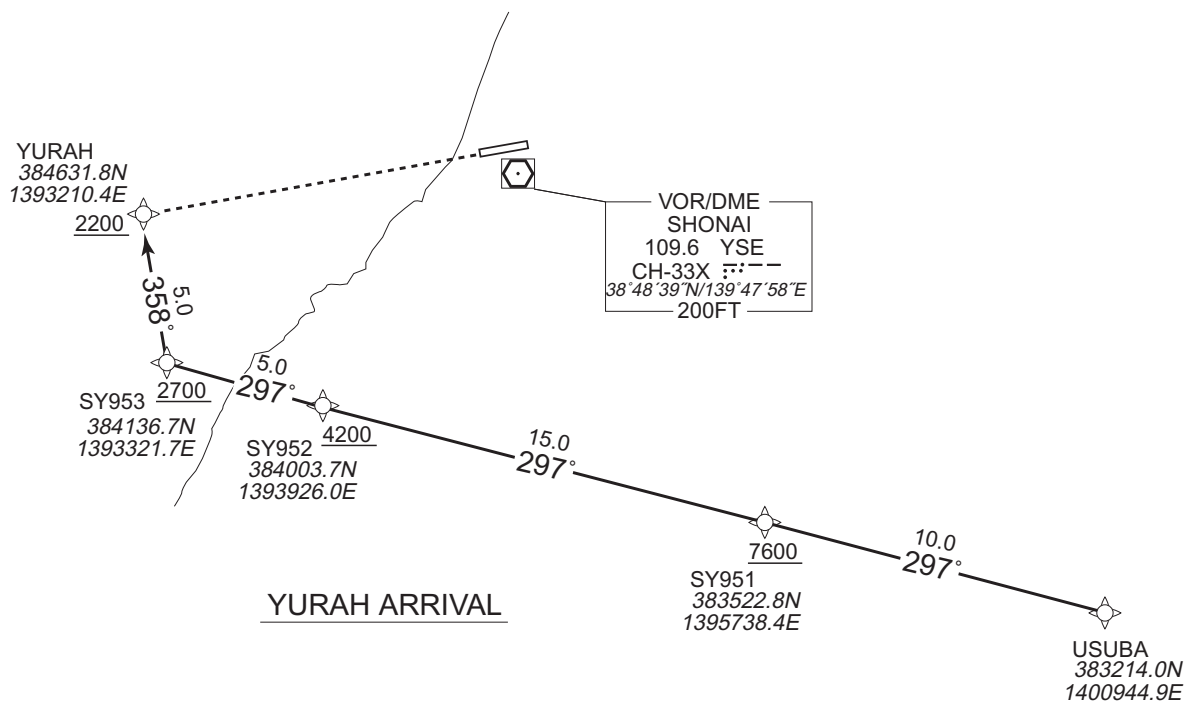
RNAV STAR RWY09

YURAH ARRIVAL

Basic RNP1

Note GNSS required.

VAR 9°W (2022)



YURAH ARRIVAL

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.

CHANGE : VAR. PROC course.

| 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 | — | — | — | — | — | Basic RNP1 |
| 002 | TF | SY951 | — | 297 (288.4) | -8.8 | 10.0 | — | +7600 | — | — | Basic RNP1 |
| 003 | TF | SY952 | — | 297 (288.3) | -8.8 | 15.0 | — | +4200 | — | — | Basic RNP1 |
| 004 | TF | SY953 | — | 297 (288.1) | -8.8 | 5.0 | — | +2700 | — | — | Basic RNP1 |
| 005 | TF | YURAH | — | 358 (349.3) | -8.8 | 5.0 | — | +2200 | — | — | Basic RNP1 |

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INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJSY / SHONAI

ILS Y or LOC Y RWY09



CHANGE : Secondary FREQ abolished(SHONAI RADIO).



Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 59 AD elev. 72

| CAT | CAT I | | LOC | | CIRCLING | |
|-----|-----------|-------------|-----------|-------------|-----------|------|
| | DA(H) | RVR/ CMV | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 259 (200) | 550 | 380 (321) | 900 | 530 (458) | 1600 |
| B | | | | 1000 | | |
| C | | | | | | |
| D | | | | 1400 | 700 (628) | 3200 |

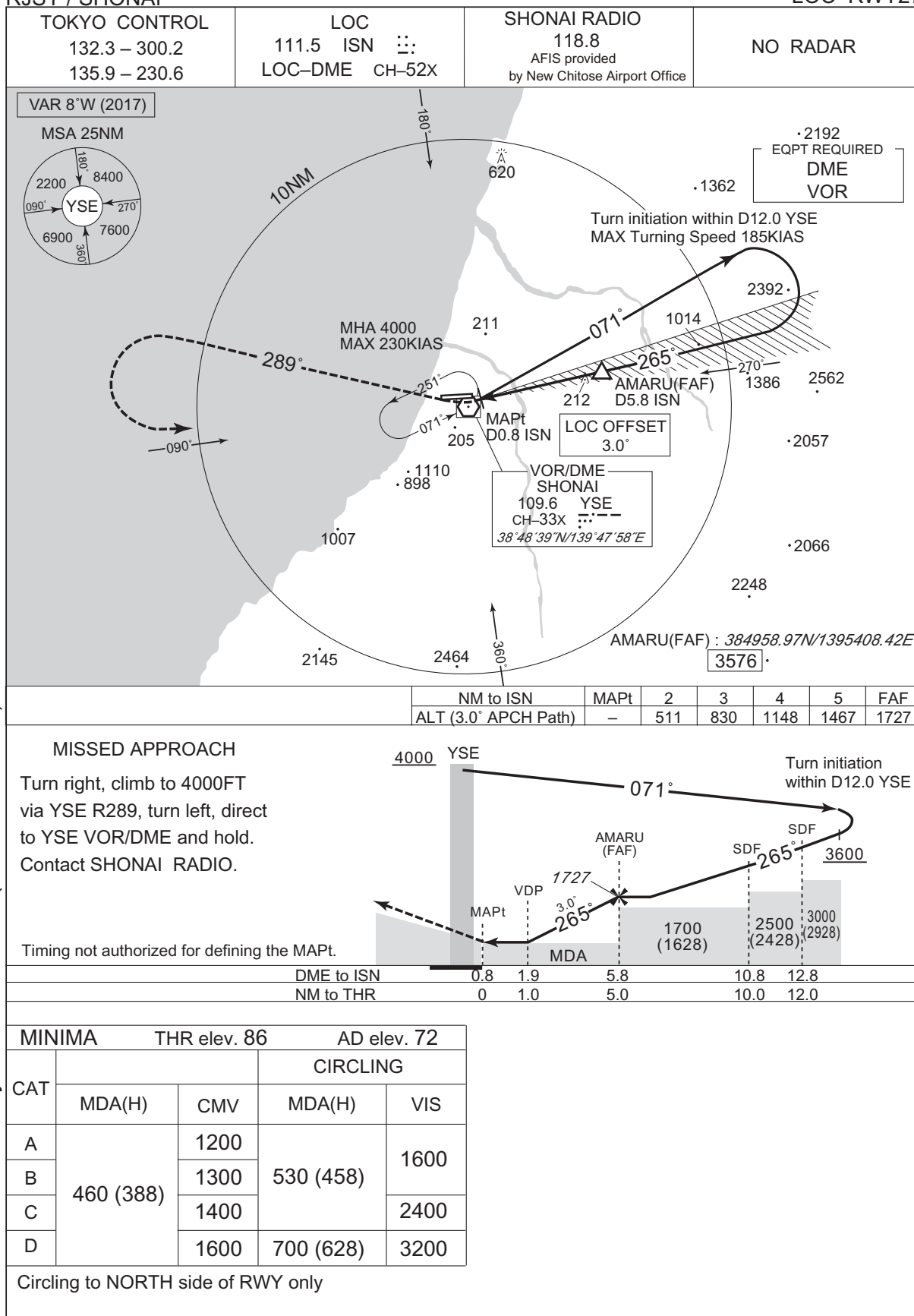
MINIMA with Missed APCH climb gradient of 2.5% are not established.

Circling to NORTH side of RWY only.

INSTRUMENT APPROACH CHART

RJSY / SHONAI

LOC RWY27

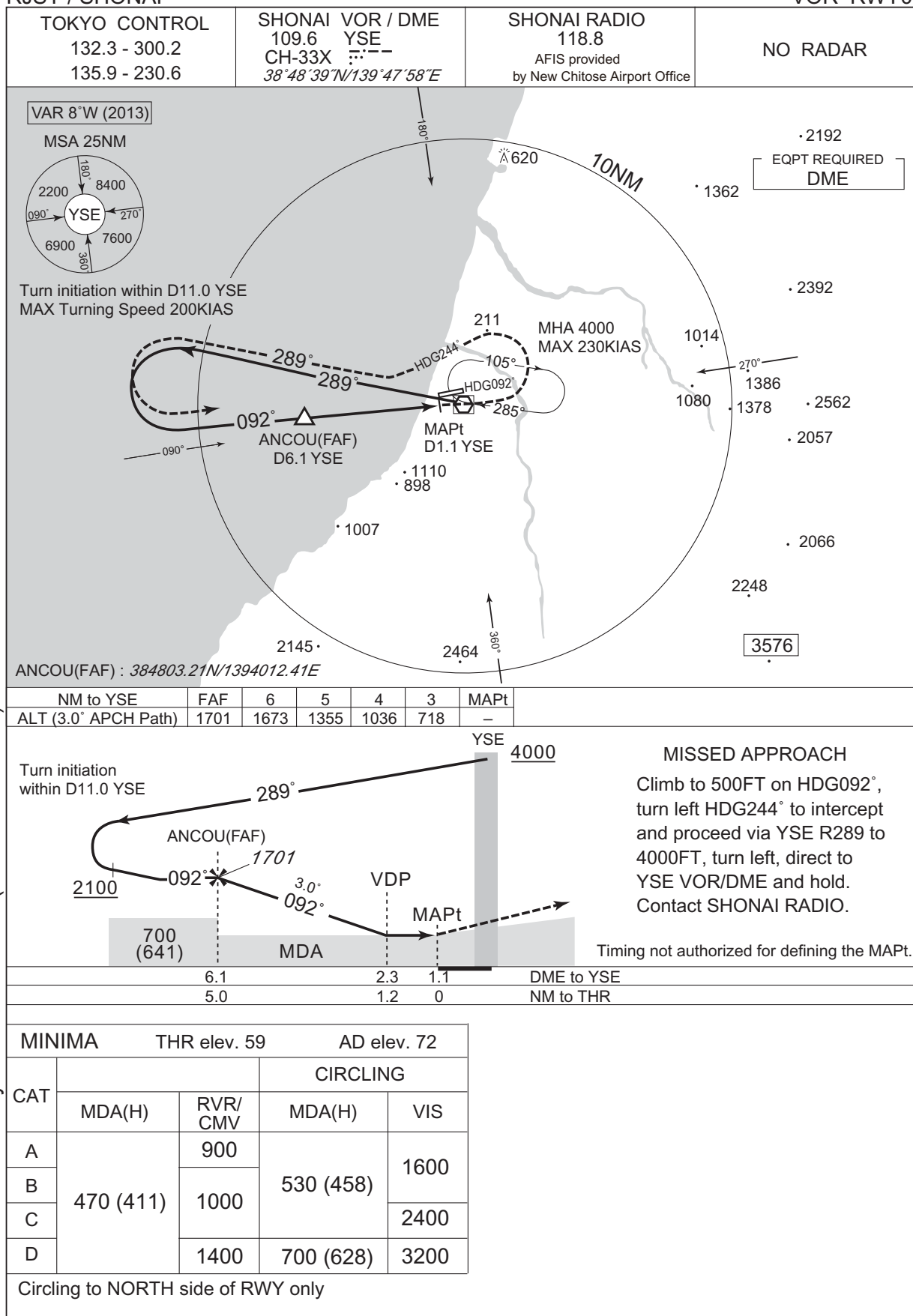


CHANGE : Secondary FREQ abolished(SHONAI RADIO).

INSTRUMENT APPROACH CHART

RJSY / SHONAI

VOR RWY09

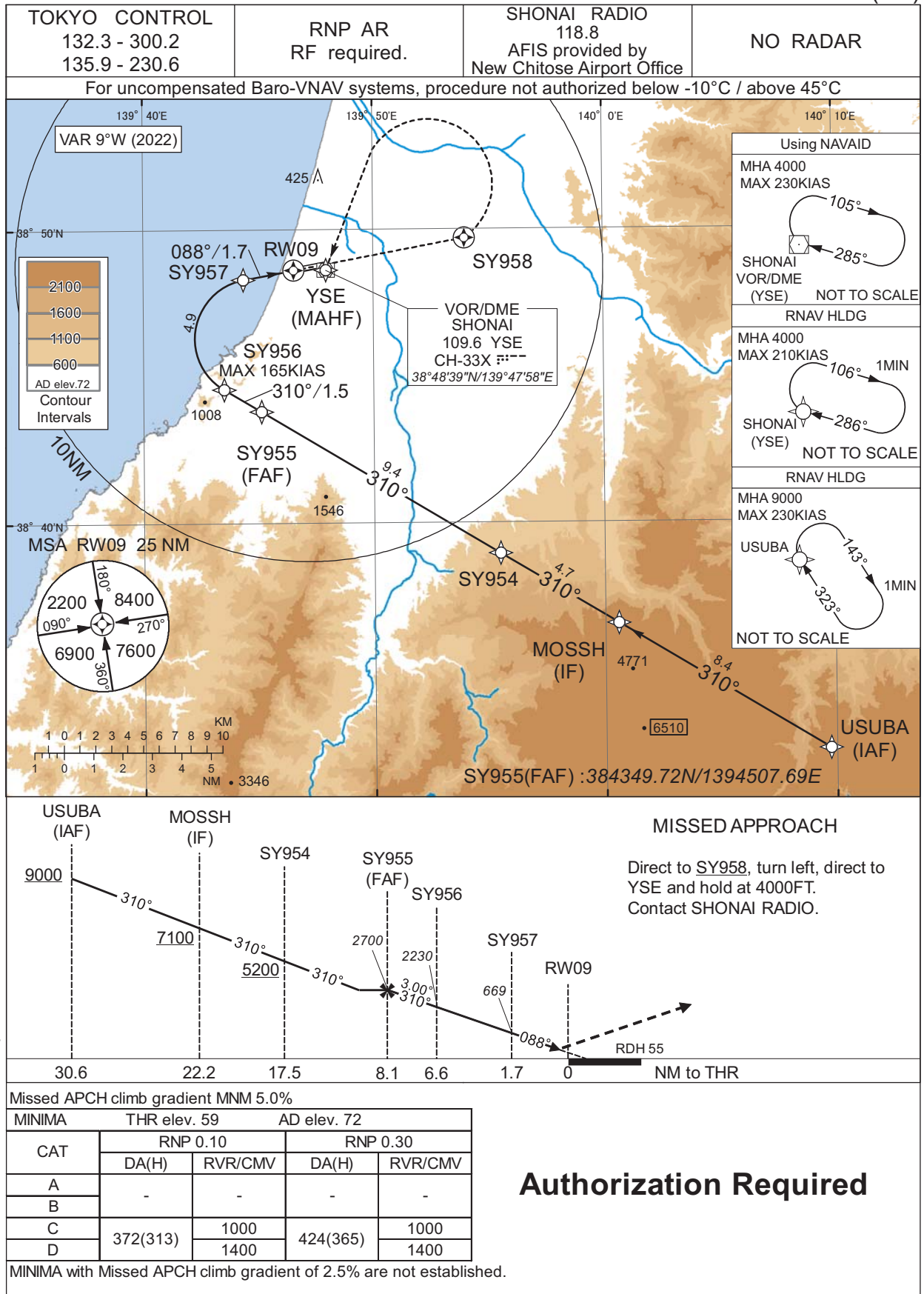


CHANGE : Secondary FREQ abolished(SHONAI RADIO).

INSTRUMENT APPROACH CHART

RJSY / SHONAI

RNP RWY09(AR)



Authorization Required

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 (301.2) | -8.8 | 8.4 | - | +7100 | - | - | 1.0 |
| 003 | TF | SY954 | - | 310 (301.1) | -8.8 | 4.7 | - | +5200 | - | - | 1.0 |
| 004 | TF | SY955 | - | 310 (301.1) | -8.8 | 9.4 | - | 2700 | - | - | 1.0 |
| 005 | TF | SY956 | - | 310 (301.0) | -8.8 | 1.5 | - | 2230 | -165 | -3.00 | 0.1 0.3 |
| 006 | RF Center: SYRF1 r=2.03NM | SY957 | - | - | -8.8 | 4.9 | R | 669 | - | -3.00 | 0.1 0.3 |
| 007 | TF | RW09 | Y | 088 (079.4) | -8.8 | 1.7 | - | 114 | - | -3.00/55 | 0.1 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 (314.1) | -8.8 | 1.0 (-14000) | R | 9000 | FL140 | -230 (-14000) | 1.0 |
| Hold | YSE | 286 (277.0) | -8.8 | 1.0 (-14000) | R | 4000 | FL140 | -210 (-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

RJSY / SHONAI

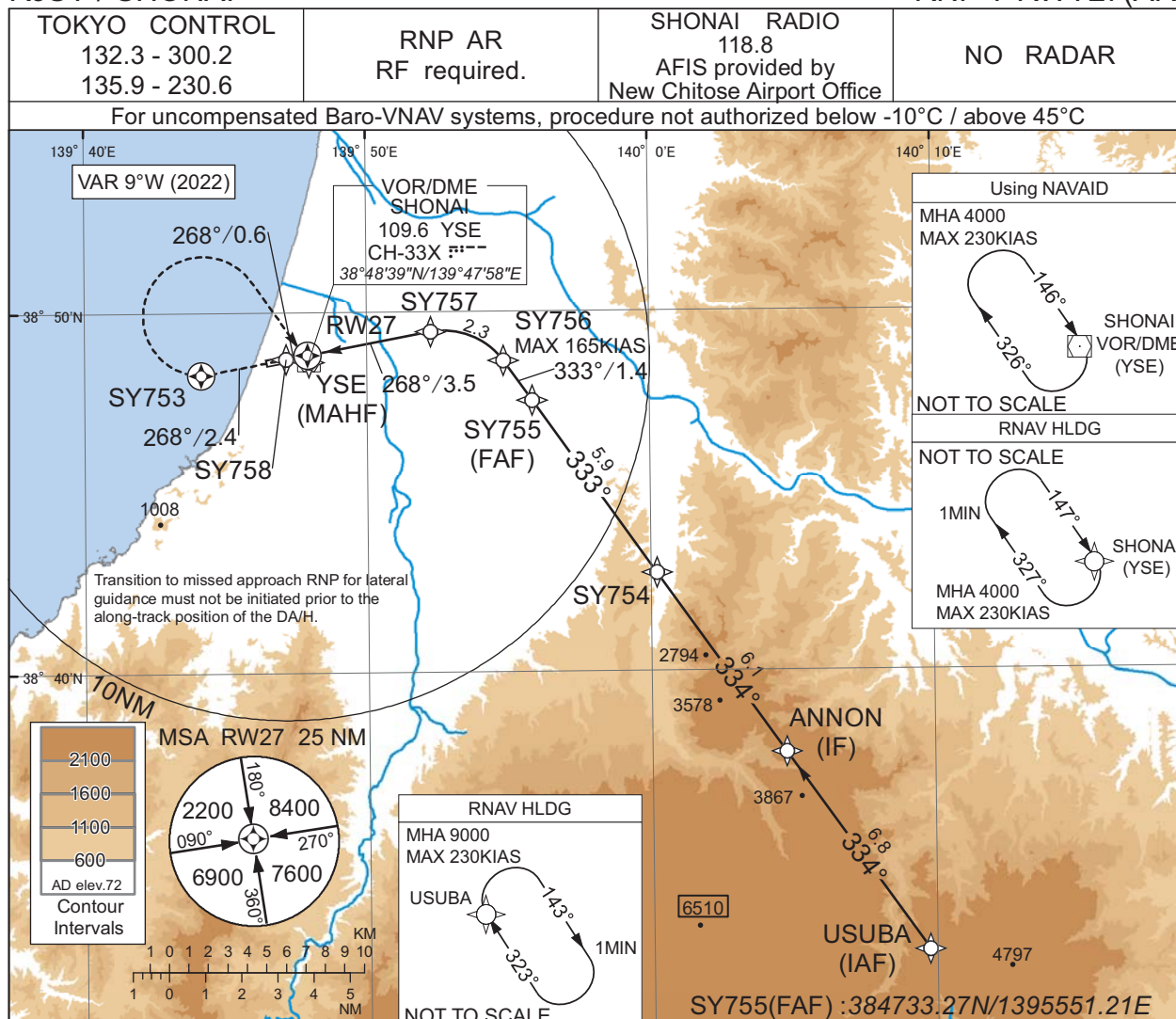
RNP Z RWY27



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 : PROC renamed. Requirement for RNP.

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 (324.8) | -8.8 | 6.8 | - | +5400 | - | - | 1.0 |
| 003 | TF | SY754 | - | 334 (324.7) | -8.8 | 6.1 | - | +4200 | - | - | 1.0 |
| 004 | TF | SY755 | - | 333 (324.7) | -8.8 | 5.9 | - | 2400 | - | - | 1.0 |
| 005 | TF | SY756 | - | 333 (324.6) | -8.8 | 1.4 | - | 1967 | -165 | -3.00 | 0.12 0.30 |
| 006 | RF Center: SYRF2 r=2.01NM | SY757 | - | - | -8.8 | 2.3 | L | 1240 | - | -3.00 | 0.12 0.30 |
| 007 | TF | RW27 | Y | 268 (259.5) | -8.8 | 3.5 | - | 136 | - | -3.00/50 | 0.12 0.30 |
| 008 | TF | SY758 | - | 268 (259.4) | -8.8 | 0.6 | - | - | - | - | 0.12 0.30 |
| 009 | CF | SY753 | Y | 268 (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 (314.1) | -8.8 | 1.0 (-14000) | R | 9000 | FL140 | -230 (-14000) | 1.0 |
| Hold | YSE | 147 (137.9) | -8.8 | 1.0 (-14000) | R | 4000 | FL140 | -230 (-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.

RJSY / SHONAI

Visual REP



※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 : Secondary FREQ abolished.

| Call sign | BRG / DIST from ARP | Remarks |
|------------------------|---------------------|-------------------------------------|
| 吹浦 Fukura | 014°T / 16.0NM | 吹浦港 Harbor |
| 酒田 Sakata | 009°T / 8.1NM | 酒田港 Harbor |
| 最上 Mogami | 089°T / 9.1NM | 最上川橋 Bridge |
| 鶴岡 Tsuruoka | 153°T / 4.9NM | JR駅 Station |
| 波渡崎 Hatozaki | 225°T / 10.6NM | 岬 Cape |
| あさひインター 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 Interchange |

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LDG CHART



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Minimum Vectoring Altitude CHART

