## AD 2 AERODROMES

### RJSC AD 2.1 AERODROME LOCATION INDICATOR AND NAME

# RJSC - YAMAGATA

### RJSC AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | *382443N 1402216E*<br>006°/ 1.0km from RWY 01 THR |
| 2 | Direction and distance from (city) | 10.2nm NNE from Yamagata city |
| 3 | Elevation/ Reference temperature | 345ft / 30 ℃ (2004-2008) |
| 4 | Geoid undulation at AD ELEV PSN | 135ft |
| 5 | MAG VAR/ Annual change | 8°W（2016）/0°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses | Yamagata Airport Office(Yamagata Pref)<br>3008 Kashiwabarashinrin Hanyuu Higashine-shi Yamagata 999-3776 Japan<br>Tel: 0237-48-1313 Fax: 0237-48-1659<br>e-mail:yyamakuko@pref.yamagata.jp<br>Web-site: http://www.pref.yamagata.jp/ |
| 7 | Types of traffic permitted (IFR/ VFR) | IFR/VFR |
| 8 | Remarks | Yamagata Airport Branch(CAB)<br>3008, Shinrin, Aza-Kashiwabara, Oaza-Hanyu, Higashine-shi, Yamagata Pref.<br>Tel: 0237-48-1118 |

### RJSC AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | AD Administration | 2300 - 1100 |
| 2 | Customs and immigration | On request<br>Customs: 023-641-0504<br>Immigration: 0234-22-2746 |
| 3 | Health and sanitation | On request<br>Quarantine(human): 022-367-8101<br>Quarantine(animal): 022-383-2302<br>Quarantine(plant): 022-362-6916 |
| 4 | AIS Briefing Office | Nil |
| 5 | ATS Reporting Office(ARO) | Nil |
| 6 | MET Briefing Office | H24 (SENDAI) |
| 7 | ATS | 2300 - 1100 |
| 8 | Fuelling | 2300 - 1100 |
| 9 | Handling | 2300 - 1100 |
| 10 | Security | 2300 - 1100 |
| 11 | De-icing | Nil |
| 12 | Remarks | Nil |

## RJSC AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | 2t-forklift car x 1, 7m-belt loading car x 2, Available up to only bulk loading aircraft. |
| 2 | Fuel/ oil types | JET A-1 |
| 3 | Fuelling facilities/ capacity | Fuel truck / 200kl(JET A-1) |
| 4 | De-icing facilities | De-icing car |
| 5 | Hangar space for visiting aircraft | Nil |
| 6 | Repair facilities for visiting aircraft | Nil |
| 7 | Remarks | Nil |

## RJSC AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | around Airport |
| 2 | Restaurants | At Airport |
| 3 | Transportation | Airport Shuttle(Reservation required) and Taxi |
| 4 | Medical facilities | Hospital in Higashine city 6km |
| 5 | Bank and Post Office | Bank in Higashine city, Post Office in Higashine city |
| 6 | Tourist Office | Tourist Office in Higashine city |
| 7 | Remarks | Nil |

## RJSC AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | CAT 7 |
| 2 | Rescue equipment | Chemical fire fighting truck x 2 |
| 3 | Capability for removal of disabled aircraft | A300,B767 |
| 4 | Remarks | Nil |

## RJSC AD 2.7 SEASONAL AVAILABILITY-CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | Snow remove equipments:<br>truck x 10 , rotary x 3 , dozer x 1 |
| 2 | Clearance priorities | RWY , TWY , Apron (The same) |
| 3 | Remarks | Nil |

## RJSC AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Apron :<br>Surface:cement-concrete, Strength: PCN 53/R/C/X/T<br>Small ACFT Apron:<br>Surface:asphalt-concrete, Strength: AUW5,700kg/0.28Mpa |
| 2 | Taxiway width, surface and strength | Width:30m<br>Surface:asphalt-concrete<br>Strength: PCN 58/F/C/X/T |
| 3 | ACL and elevation | Not available |
| 4 | VOR checkpoints | Not available |
| 5 | INS checkpoints | Spot NR<br>1:*382435.52N 1402201.11E*<br>1-1:*382436.27N 1402201.52E*<br>2:*382437.31N 1402201.73E*<br>3:*382439.26N 1402201.81E*<br>5:*382441.02N 1402201.68E* |
| 6 | Remarks | Nil |

## RJSC 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:01/19<br>(Marking) RWY designation, RWY CL, RWY THR, TDZ, RWY side stripe, Aiming point, RWY turn pad edge, RWY turn pad CL, RWY turn pad aiming<br>(LGT) RCLL, REDL, RTHL, RENL, RTZL(FOR RWY01), WBAR(FOR RWY01), RWY DIST marker LGT, Turning point indicator LGT<br>TWY:<br>(Marking) TWY CL, RWY HLDG PSN, TWY side stripe marking<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

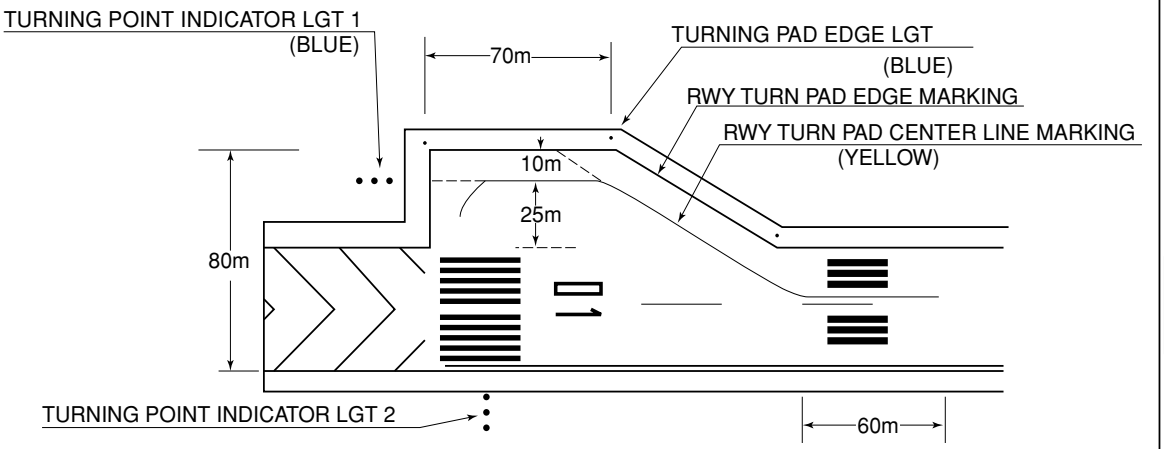
B-767型機の滑走路180˚転回実施要領

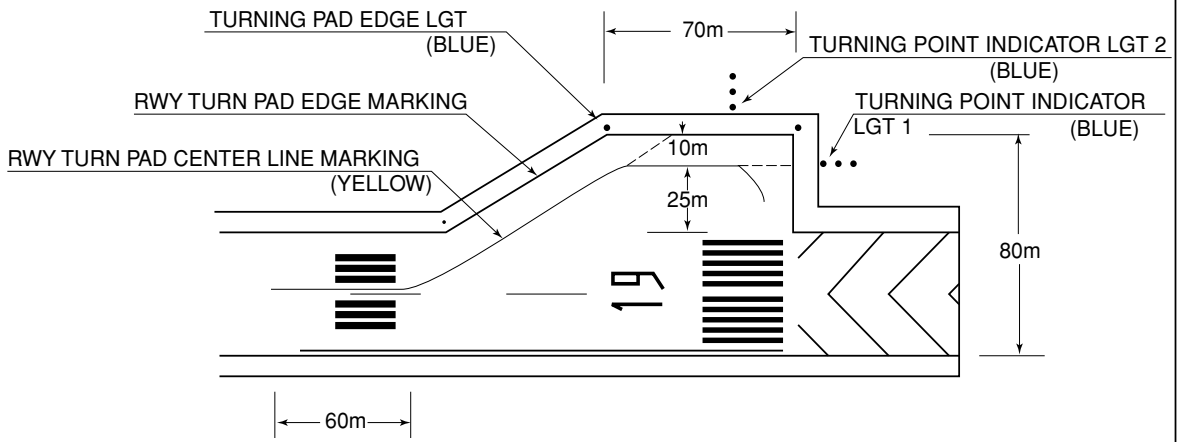
1. 滑走路中心線からターニングパッド中心線標識に従って進行する。
2. 転回灯1が一直線に見えるように進行し、転回灯 2 が一直線に見えた時転回を開始する。転回時はMAX STEERING ANGLEを使用する。

Procedure of 180˚ turn on RWY for B-767 aircraft

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

YAMAGATA AP



## RJSC AD 2.10 AERODROME OBSTACLES

In Area2 See Obstacle data

In Area3 To be developed

## RJSC AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | SENDAI |
| 2 | Hours of service<br>MET Office outside hours | H24 (SENDAI) |
| 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 SENDAI |
| 6 | Flight documentation<br>Language(s) used | C<br>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<br>available for providing information | Nil |
| 9 | ATS units provided with information | RADIO |
| 10 | Additional information(limitation of service, etc.) | Nil |

## RJSC 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 |
| 01 | 006.57° | 2000×45 | PCN<br>58/F/C/X/T<br>Asphalt Concrete | *382410.61N*<br>*1402212.06E*<br>135.4FT | THR ELEV: 346.9ft<br>TDZ ELEV: 346.9ft |
| 19 | 186.57° | 2000×45 | PCN<br>58/F/C/X/T<br>Asphalt Concrete | *382515.04N*<br>*1402221.52E*<br>135.4FT | THR ELEV: 353ft |

| Slope of RWY | Strip Dimensions(M) | RESA (Overrun) Dimensions(M) | Remarks |
|---|---|---|---|
| 7 | 10 | 11 | 14 |
| See AD2.24 AD chart | 2120×300<br>2120×300 | 152 × (MNM:157 MAX:300)*<br>83 × (MNM:287 MAX:300)*<br>*For detail, ask airport administrator | RWY grooving : 2000m×30m |

## RJSC AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (m) | TODA (m) | ASDA (m) | LDA (m) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 01 | 2000 | 2000 | 2000 | 2000 | Nil |
| 19 | 2000 | 2000 | 2000 | 2000 | Nil |

## RJSC 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 |
| 01 | PALS (CAT I) 900m LIH | Green Green | PAPI 3.0° /Left 410m 61ft | 900m | 2000m 30m Coded color (White/Red) LIH | 2000m 60m Coded color (White/Yellow) LIH | Red | Nil (*2) |
| 19 | SALS (*1) 420m LIH | Green Nil | PAPI 3.0°/Left 386.7m 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 THR ) (*1)<br>Overrun area edge LGT(LEN:60m, color:Red) (*2)<br>CGL for RWY 19 | | | | | | | | |

## RJSC AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN : *382445N/1402156E*, White/Green EV4.3sec, HO |
| 2 | LDI location and LGT<br>Anemometer location and LGT | LDI : Nil<br>Anemometor :<br>RWY01 : On the north side of 170m FM RWY01 THR, LGTD<br>RWY19 : On the north side of 30m FM RWY19 THR, LGTD |
| 3 | TWY edge and center line lighting | TWY edge LGT : Blue<br>TWY CL LGT : ALTN Green/Yellow FM RWY leaving Report point, other Green |
| 4 | Secondary power supply/switch-over time | Within 1sec : REDL, RCLL, RTHL, RENL, WBAR, Turning point indicator LGT, Overrun area edge LGT<br>Within 15sec : Other LGT |
| 5 | Remarks | WDI LGT |

## RJSC AD 2.16 HELICOPTER LANDING AREA

| |
|---|
| Nil |

## RJSC AD 2.17 ATS AIRSPACE

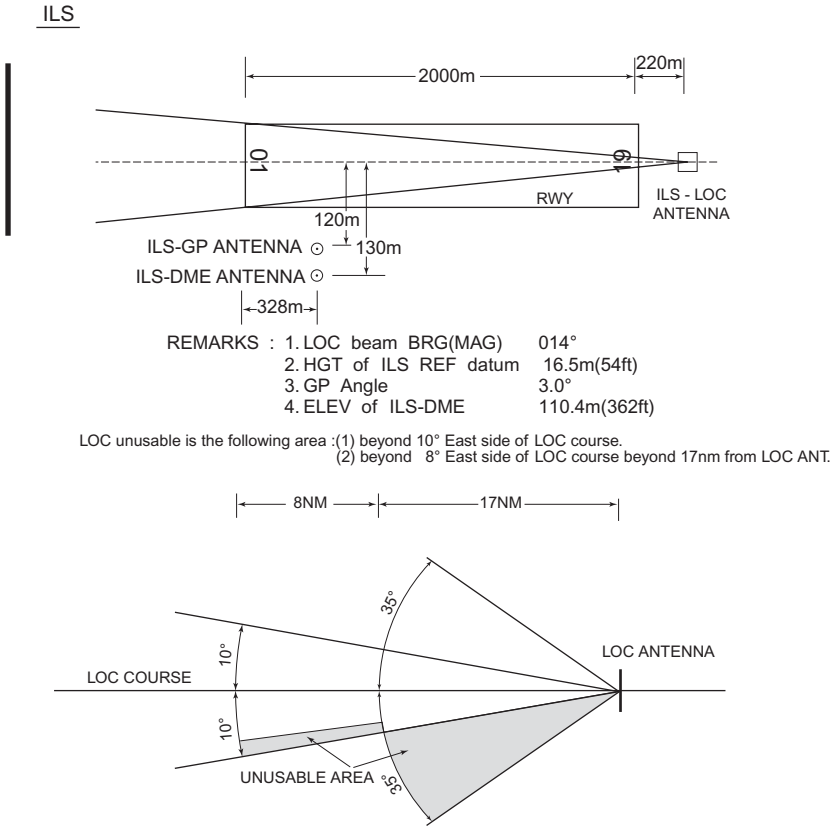
| Designation and lateral limits | | Vertical limits (ft) | Airspace classification | ATS unit call sign Language | Remarks |
|---|---|---|---|---|---|
| 1 | | 2 | 3 | 4 | 6 |
| Yamagata Information zone | Area within a radius of 9km(5NM) of ARP | 3000 or below | E | Yamagata radio En | |

## RJSC AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| A/G | Yamagata Radio | 122.7MHz(1)<br>126.2MHz<br>243.0MHz(E) | 2300 - 1100 | (1)Primary |

## RJSC 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 transmit-ting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| VOR (8°W/2016) | YTE | 113MHz | H24 | *382319.04N 1402128.63E* | | VOR/DME Unusable:<br>030°-040° beyond 35nm BLW 8000ft.<br>040°-060° beyond 25nm BLW 8000ft.<br>060°-070° beyond 15nm BLW 8000ft.<br>070°-080° beyond 15nm BLW 7000ft.<br>080°-110° beyond 20nm BLW 7000ft.<br>110°-150° beyond 15nm BLW 7000ft.<br>150°-160° beyond 25nm BLW 9000ft.<br>160°-170° beyond 30nm BLW 9000ft.<br>170°-180° beyond 25nm BLW 9000ft.<br>250°-260° beyond 35nm BLW 9000ft.<br>260°-270° beyond 35nm BLW 8000ft.<br>300°-320° beyond 30nm BLW 9000ft.<br>320°-330° beyond 20nm BLW 9000ft.<br>330°-340° beyond 30nm BLW 10000ft. |
| DME | YTE | 1164MHz (CH-77X) | H24 | *382319.04N 1402128.63E* | 361ft | |
| ILS-LOC 01 | IYT | 110.1MHz | 2300 - 1100 | *382522.13N 1402222.56E* | | LOC: 220m(722ft) away FM RWY 19 THR, BRG(MAG) 014°<br>LOC Unusable in the following area<br>(1)beyond 10 degrees<br>East side of LOC course.<br>(2)beyond 8 degrees<br>East side of LOC course<br>beyond 17NM fm LOC antenna. |
| ILS-GP 01 | - | 334.4MHz | 2300 - 1100 | *382420.71N 1402218.52E* | | GP : 328m(1076ft) inside FM RWY 01 THR, 120m (394ft) E of RCL, angle 3.0°HGT of ILS Ref datum 16.5m(54ft). |
| ILS-DME 01 | IYT | 999MHz | 2300 - 1100 | *382420.70N 1402218.94E* | 362ft | DME :328m(1076ft)inside FM RWY 01,130m(427ft) E of RCL. |
| MSAS | | 1575.42MHz | H24 | | | Transmitting antennas are satellite based. |




## RJSC AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

| |
|---|
| On use of YAMAGATA airport, aircraft operator is required to notify the airport administrator in advance. |

2. Taxiing to and from stands

| |
|---|
| Nil |

3. Parking area for small aircraft(General aviation)

| |
|---|
| Nil |

4. Parking area for helicopters

| |
|---|
| Nil |

5. Apron - taxiing during winter conditions

| |
|---|
| Nil |

6. Taxiing - limitations

| |
|---|
| Nil |

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

| |
|---|
| Nil |

8. Helicopter traffic - limitation

| |
|---|
| Nil |

9. Removal of disabled aircraft from runways

| |
|---|
| Nil |

## RJSC AD 2.21 NOISE ABATEMENT PROCEDURES

| |
|---|
| Nil |

## RJSC AD 2.22 FLIGHT PROCEDURES

**1. 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 | 01 | A,B,C,D | 400 | 400 | 400 | 400 | - | 500 |
| | 19 | A,B,C,D | - | 400 | - | 400 | - | 500 |
| OTHER | 01 | A,B,C,D | AVBL LDG MINIMA | | | | | |
| | 19 | A,B,C,D | | | | | | |

**2. OTHER**

VFR aircraft intending to land on or fly around the AP, especially south and north of the AP, is recommended to make initial contact with Yamagata RADIO to obtain traffic information at least 15nm far from the AP.

当空港に着陸または空港周辺、特に空港の南及び北側を飛行しようとする VFR の航空機については、交通情報の入手のため、少なくとも 15NM 以遠からの山形 RADIO との通信設定が推奨される。

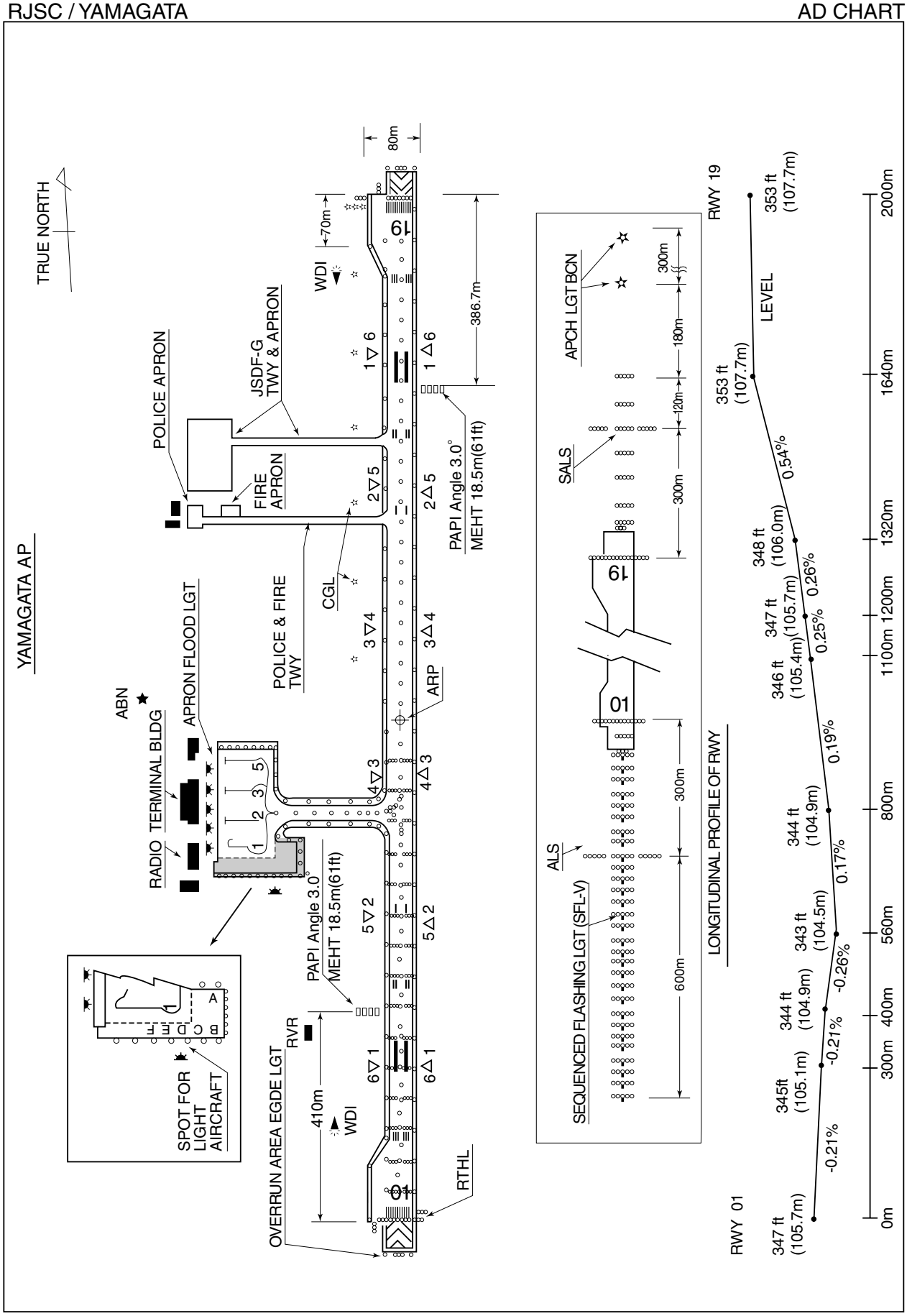
## RJSC AD 2.23 ADDITIONAL INFORMATION

| |
|---|
| Nil |

## RJSC AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome/Heliport Chart
Standard Departure Chart - Instrument (YAMAGATA)
Standard Departure Chart - Instrument (RUBIS-RNAV)
Standard Departure Chart - Instrument (NIIGATA-RNAV)
Standard Departure Chart - Instrument (HANKA-RNAV)
Standard Arrival Chart - Instrument (YOZAN WEST, YOZAN NORTH-RNAV)
Standard Arrival Chart - Instrument (MEDET WEST, MEDET SOUTH-RNAV)
Standard Arrival Chart - Instrument (TUYAH-RNAV)
Instrument Approach Chart (ILS Z RWY01)
Instrument Approach Chart (LOC Z RWY01)
Instrument Approach Chart (ILS Y RWY01)
Instrument Approach Chart (LOC Y RWY01)
Instrument Approach Chart (VOR A)
Instrument Approach Chart (RNAV(GNSS) RWY19)
Other Chart (Visual REP)
Other Chart (LDG CHART)
Other Chart (MVA CHART)

RJSC / YAMAGATA AD CHART



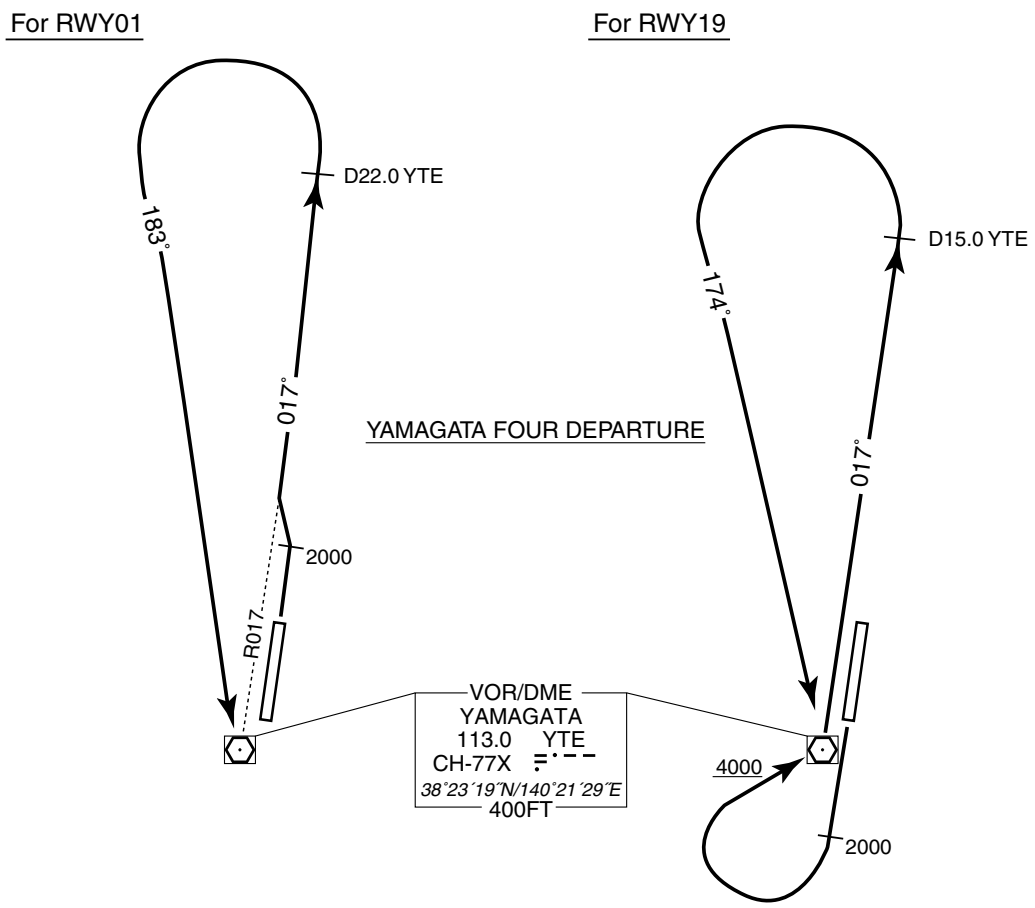
**STANDARD DEPARTURE CHART-INSTRUMENT**

RJSC / YAMAGATA SID

## YAMAGATA FOUR DEPARTURE

RWY01 : Climb RWY HDG to 2000FT, via YTE R017 to 22.0DME, turn left, via YTE R003 to YTE VOR/DME.
RWY19 : Climb RWY HDG to 2000FT, turn right, direct to YTE VOR/DME, cross YTE VOR/DME at or above 4000FT, via YTE R017 to 15.0DME, turn left, via YTE R354 to YTE VOR/DME.

Note RWY01: 5.0% climb gradient required up to 2000FT.
OBST ALT 1182FT located at 4.2NM 033˚ FM end of RWY01.
RWY19: 5.0% climb gradient required up to 2000FT.
OBST ALT 788FT located at 3.1NM 181˚ FM end of RWY19.
Note No turn before DER.

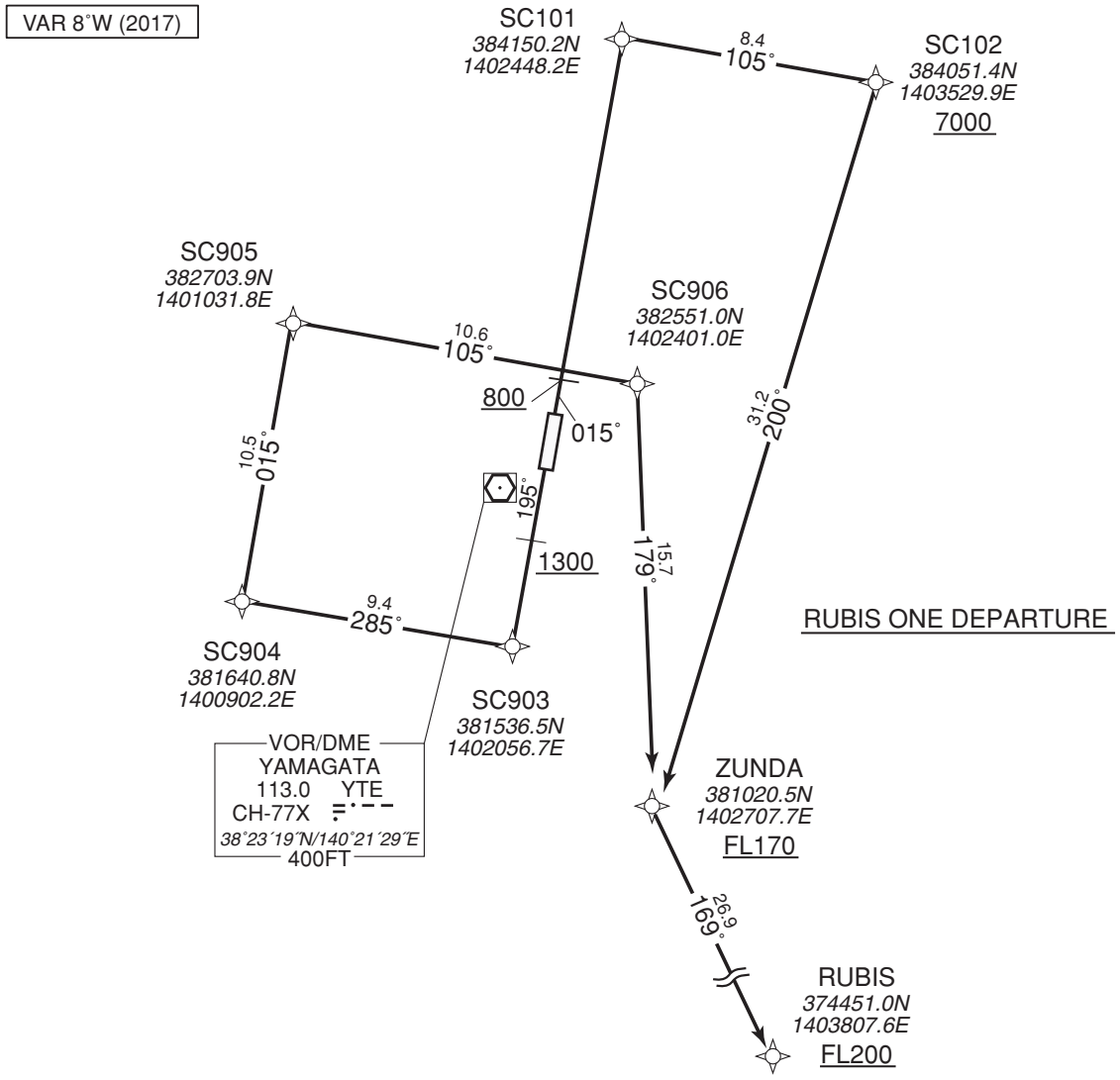


**STANDARD DEPARTURE CHART-INSTRUMENT**

RJSC / YAMAGATA RNAV SID

| RUBIS ONE DEPARTURE | Basic RNP1 |
|---|---|

Note GNSS required.




RUBIS ONE DEPARTURE

RWY01 : Climb on HDG015° at or above 800FT, direct to SC101, to SC102 at or above 7000FT,...
RWY19 : Climb on HDG195° at or above 1300FT, direct to SC903, to SC904, to SC905,
to SC906,...
... to ZUNDA at or above FL170, to RUBIS at or above FL200.

Note RWY01 : 5.0% climb gradient required up to 2000FT.
OBST ALT 3609FT located at 16.0NM 039° FM end of RWY01.
RWY19 : 4.0% climb gradient required up to 1300FT.
OBST ALT 919FT located at 3.2NM 181° FM end of RWY19.

CHANGE : New PROC

**STANDARD DEPARTURE CHART-INSTRUMENT**

RJSC / YAMAGATA RNAV SID

RUBIS ONE DEPARTURE

RWY01

| 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 | – | – | 015 (006.6) | -8.2 | – | – | +800 | – | – | Basic RNP1 |
| 002 | DF | SC101 | – | – | -8.2 | – | – | – | – | – | Basic RNP1 |
| 003 | TF | SC102 | – | 105 (096.6) | -8.2 | 8.4 | – | +7000 | – | – | Basic RNP1 |
| 004 | TF | ZUNDA | – | 200 (192.2) | -8.2 | 31.2 | – | +FL170 | – | – | Basic RNP1 |
| 005 | TF | RUBIS | – | 169 (161.2) | -8.2 | 26.9 | – | +FL200 | – | – | Basic RNP1 |

RWY19

| 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 | – | – | 195 (186.6) | -8.2 | – | – | +1300 | – | – | Basic RNP1 |
| 002 | DF | SC903 | – | – | -8.2 | – | – | – | – | – | Basic RNP1 |
| 003 | TF | SC904 | – | 285 (276.6) | -8.2 | 9.4 | – | – | – | – | Basic RNP1 |
| 004 | TF | SC905 | – | 015 (006.4) | -8.2 | 10.5 | – | – | – | – | Basic RNP1 |
| 005 | TF | SC906 | – | 105 (096.5) | -8.2 | 10.6 | – | – | – | – | Basic RNP1 |
| 006 | TF | ZUNDA | – | 179 (171.0) | -8.2 | 15.7 | – | +FL170 | – | – | Basic RNP1 |
| 007 | TF | RUBIS | – | 169 (161.2) | -8.2 | 26.9 | – | +FL200 | – | – | Basic RNP1 |

CHANGE : New PROC

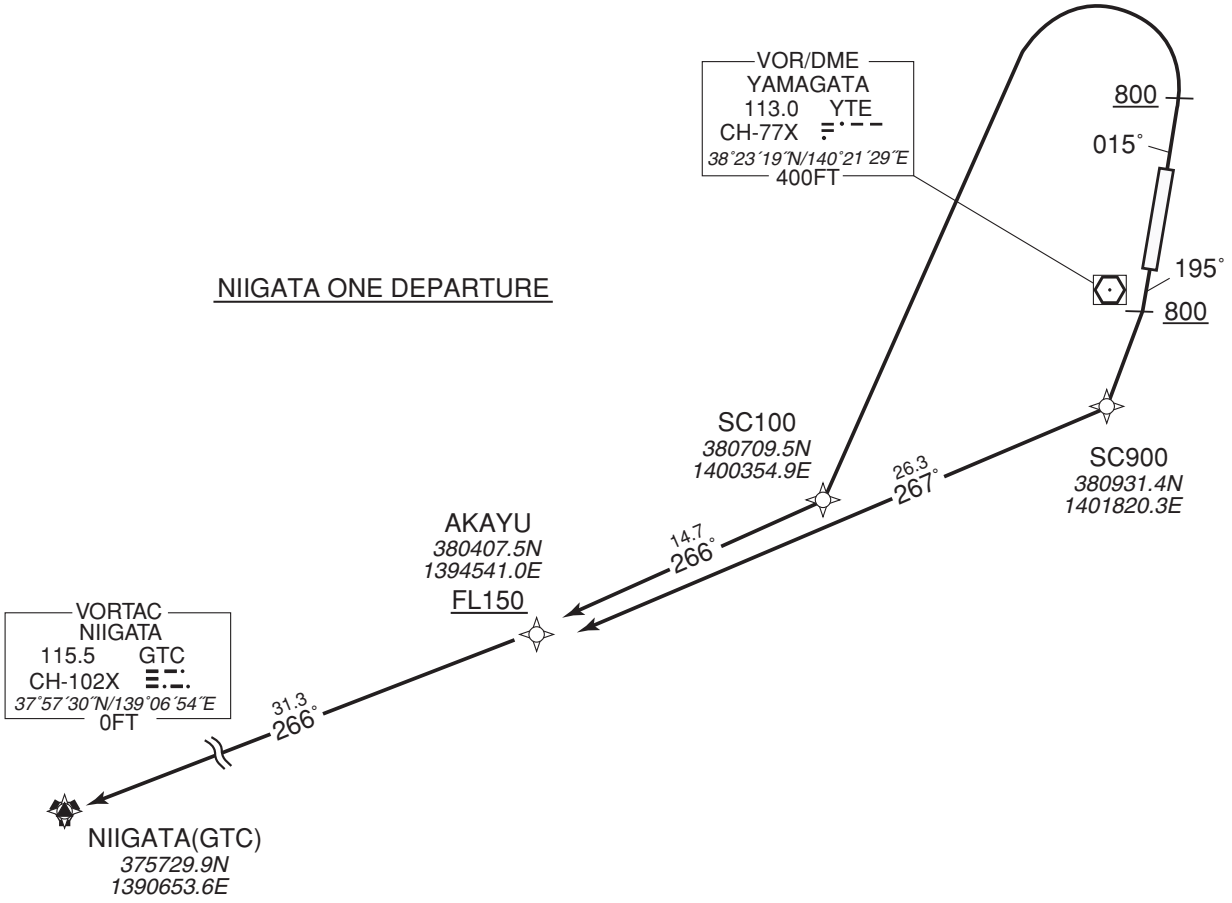
**STANDARD DEPARTURE CHART-INSTRUMENT**

RJSC / YAMAGATA RNAV SID

| NIIGATA ONE DEPARTURE | Basic RNP1 |
|---|---|

Note GNSS required.

VAR 8°W (2017)




NIIGATA ONE DEPARTURE

RWY01 : Climb on HDG015° at or above 800FT, turn left direct to SC100,...
RWY19 : Climb on HDG195° at or above 800FT, direct to SC900,...
... to AKAYU at or above FL150, to GTC.

Note RWY01 : 5.5% climb gradient required up to 2500FT.
OBST ALT 2198FT located at 6.3NM 321° FM end of RWY01.
RWY19 : 4.3% climb gradient required up to 800FT.
OBST ALT 722FT located at 2.8NM 182° FM end of RWY19.

CHANGE : New PROC

**STANDARD DEPARTURE CHART-INSTRUMENT**

RJSC / YAMAGATA RNAV SID

NIIGATA ONE DEPARTURE

RWY01

| 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 | – | – | 015 (006.6) | -8.2 | – | – | +800 | – | – | Basic RNP1 |
| 002 | DF | SC100 | – | – | -8.2 | – | L | – | – | – | Basic RNP1 |
| 003 | TF | AKAYU | – | 266 (258.2) | -8.2 | 14.7 | – | +FL150 | – | – | Basic RNP1 |
| 004 | TF | GTC | – | 266 (258.0) | -8.2 | 31.3 | – | – | – | – | Basic RNP1 |

RWY19

| 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 | – | – | 195 (186.6) | -8.2 | – | – | +800 | – | – | Basic RNP1 |
| 002 | DF | SC900 | – | – | -8.2 | – | – | – | – | – | Basic RNP1 |
| 003 | TF | AKAYU | – | 267 (258.3) | -8.2 | 26.3 | – | +FL150 | – | – | Basic RNP1 |
| 004 | TF | GTC | – | 266 (258.0) | -8.2 | 31.3 | – | – | – | – | Basic RNP1 |

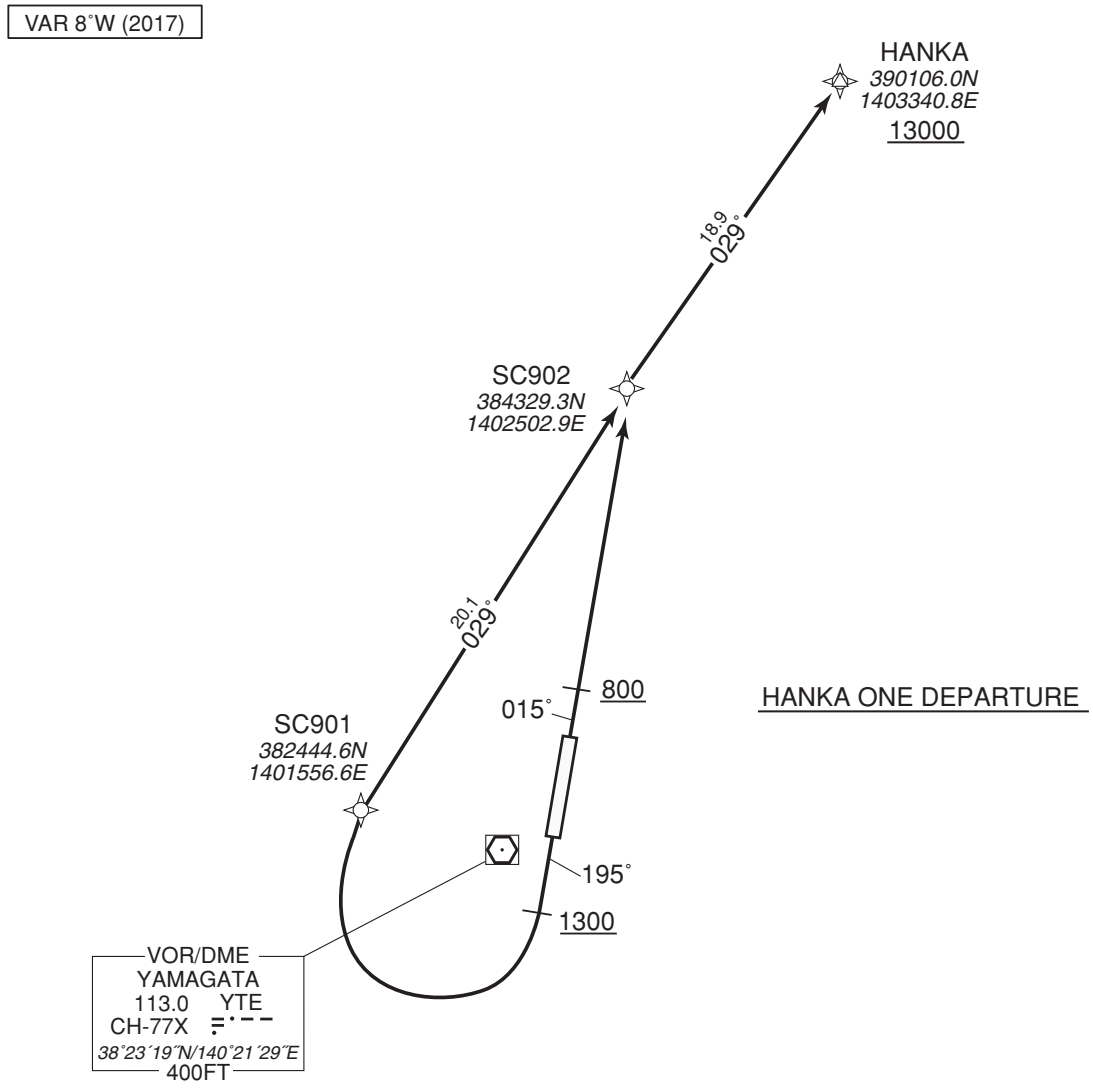
CHANGE : New PROC

**STANDARD DEPARTURE CHART-INSTRUMENT**

RJSC / YAMAGATA RNAV SID

| HANKA ONE DEPARTURE | Basic RNP1 |
|---|---|

Note GNSS required.




HANKA ONE DEPARTURE

RWY01 : Climb on HDG015° at or above 800FT, direct to SC902,...
RWY19 : Climb on HDG195° at or above 1300FT, turn right direct to SC901, to SC902,...
... to HANKA at or above 13000FT.

Note RWY01 : 5.0% climb gradient required up to 800FT.
OBST ALT 1542FT located at 6.5NM 026° FM end of RWY01.
RWY19 : 4.0% climb gradient required up to 1300FT.
OBST ALT 919FT located at 3.2NM 181° FM end of RWY19.
No turn before DER.

CHANGE : New PROC

**STANDARD DEPARTURE CHART-INSTRUMENT**

RJSC / YAMAGATA RNAV SID

HANKA ONE DEPARTURE

RWY01

| 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 | – | – | 015 (006.6) | -8.2 | – | – | +800 | – | – | Basic RNP1 |
| 002 | DF | SC902 | – | – | -8.2 | – | – | – | – | – | Basic RNP1 |
| 003 | TF | HANKA | – | 029 (020.8) | -8.2 | 18.9 | – | +13000 | – | – | Basic RNP1 |

RWY19

| 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 | – | – | 195 (186.6) | -8.2 | – | – | +1300 | – | – | Basic RNP1 |
| 002 | DF | SC901 | – | – | -8.2 | – | R | – | – | – | Basic RNP1 |
| 003 | TF | SC902 | – | 029 (020.7) | -8.2 | 20.1 | – | – | – | – | Basic RNP1 |
| 004 | TF | HANKA | – | 029 (020.8) | -8.2 | 18.9 | – | +13000 | – | – | Basic RNP1 |

CHANGE : Editorial

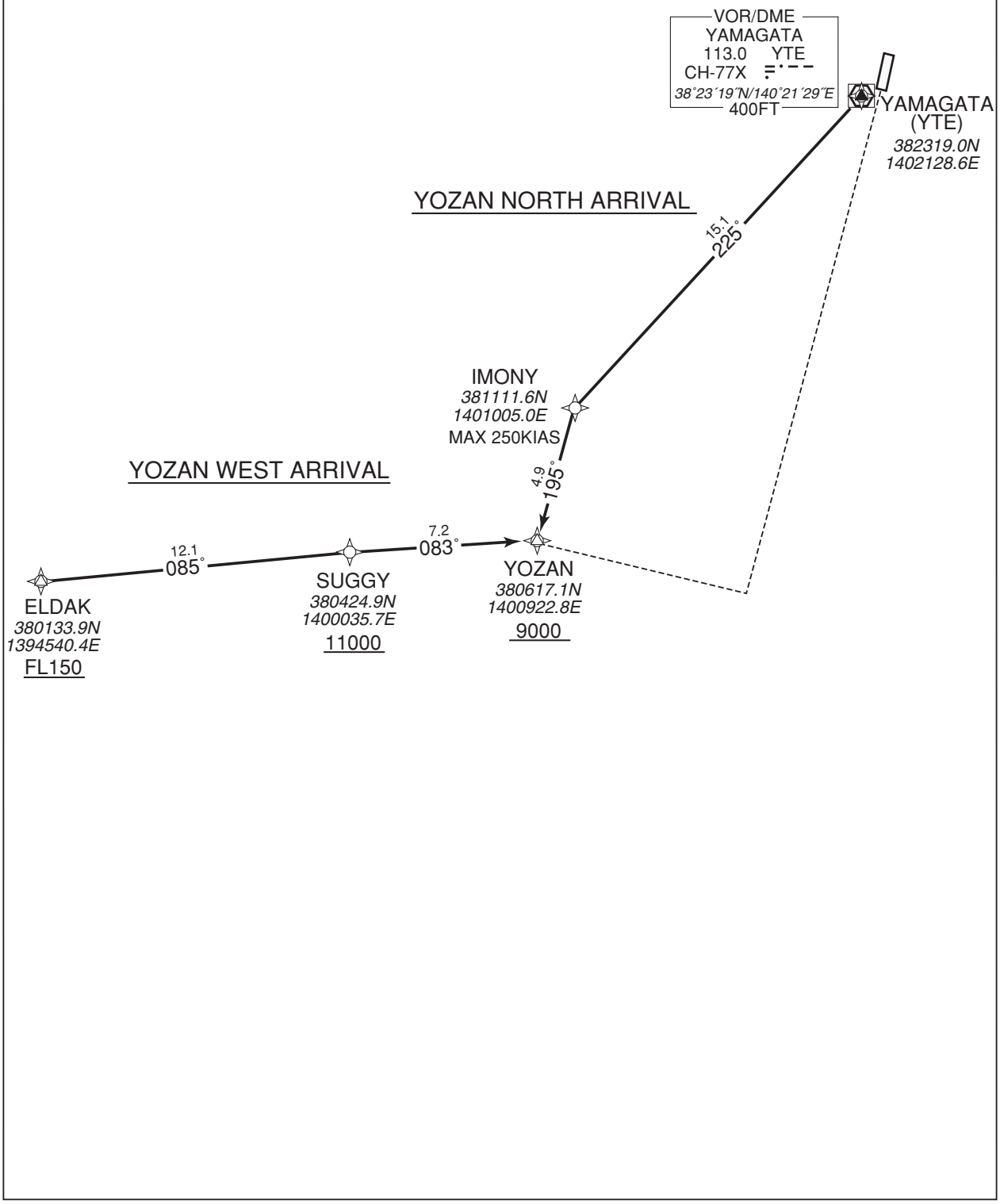
**STANDARD ARRIVAL CHART - INSTRUMENT**

RJSC / YAMAGATA — RNAV STAR RWY01

| YOZAN WEST ARRIVAL / YOZAN NORTH ARRIVAL | Basic RNP1 |
|---|---|

Note GNSS required.

VAR 8°W (2017)




CHANGE : New PROC

**STANDARD ARRIVAL CHART - INSTRUMENT**

RJSC / YAMAGATA RNAV STAR RWY01

YOZAN WEST ARRIVAL

From ELDAK at or above FL150, to SUGGY at or above 11000FT, to YOZAN at or above 9000FT.

| 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 | ELDAK | – | – | -8.2 | – | – | +FL150 | – | – | Basic RNP1 |
| 002 | TF | SUGGY | – | 085 (076.3) | -8.2 | 12.1 | – | +11000 | – | – | Basic RNP1 |
| 003 | TF | YOZAN | – | 083 (074.8) | -8.2 | 7.2 | – | +9000 | – | – | Basic RNP1 |

YOZAN NORTH ARRIVAL

From YTE, to IMONY, to YOZAN at or above 9000FT.

| 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 | YTE | – | – | -8.2 | – | – | – | – | – | Basic RNP1 |
| 002 | TF | IMONY | – | 255 (216.5) | -8.2 | 15.1 | – | – | -250 | – | Basic RNP1 |
| 003 | TF | YOZAN | – | 195 (186.4) | -8.2 | 4.9 | – | +9000 | – | – | Basic RNP1 |

CHANGE : New PROC

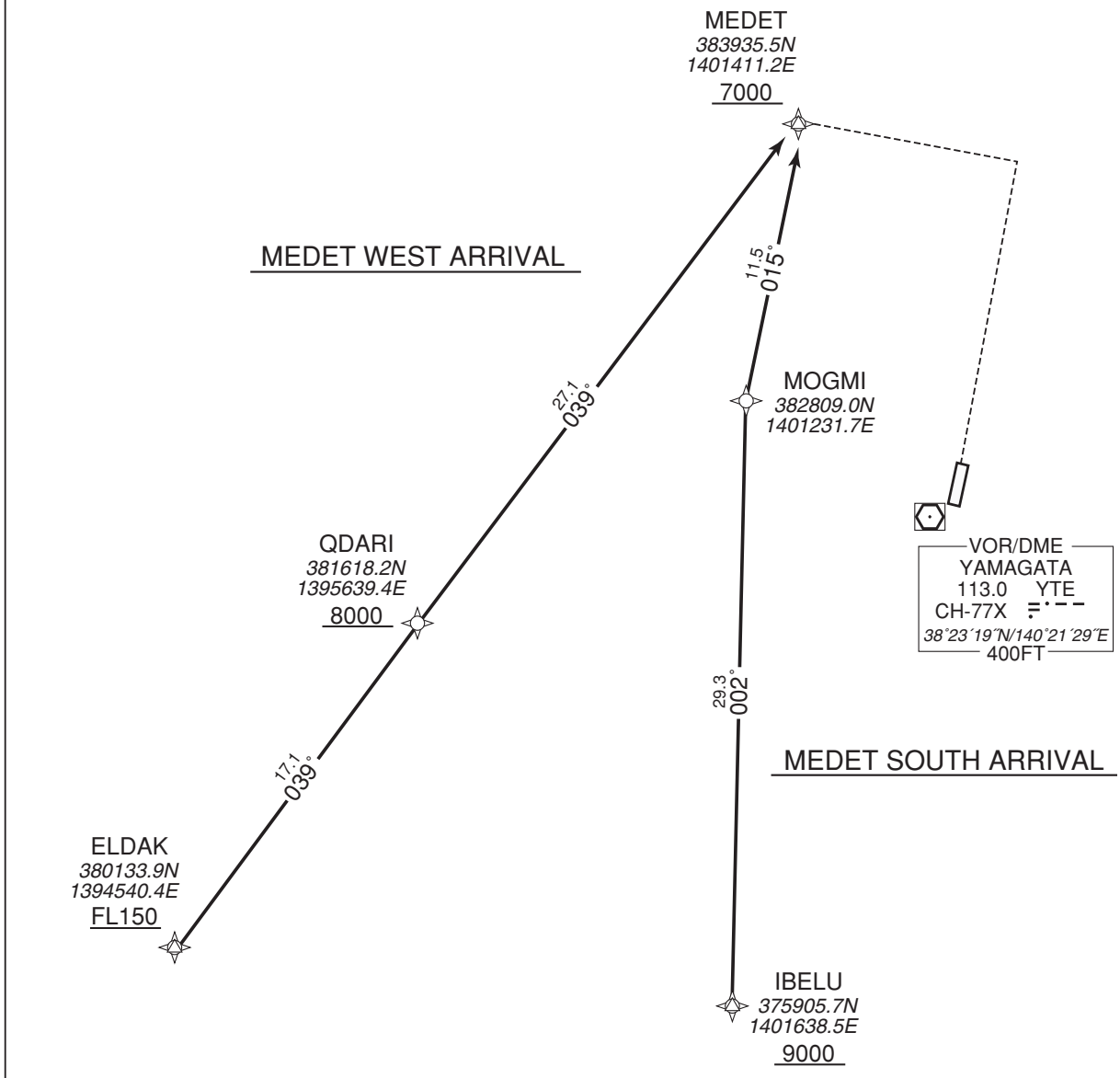
**STANDARD ARRIVAL CHART - INSTRUMENT**

RJSC / YAMAGATA — RNAV STAR RWY19

| MEDET WEST ARRIVAL / MEDET SOUTH ARRIVAL | Basic RNP1 |
|---|---|

Note GNSS required.

VAR 8°W (2017)




CHANGE : New PROC

**STANDARD ARRIVAL CHART - INSTRUMENT**

RJSC / YAMAGATA RNAV STAR RWY19

MEDET WEST ARRIVAL

From ELDAK at or above FL150, to QDARI at or above 8000FT, to MEDET at or above 7000FT.

| 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 | ELDAK | – | – | -8.2 | – | – | +FL150 | – | – | Basic RNP1 |
| 002 | TF | QDARI | – | 039 (030.3) | -8.2 | 17.1 | – | +8000 | – | – | Basic RNP1 |
| 003 | TF | MEDET | – | 039 (030.4) | -8.2 | 27.1 | – | +7000 | – | – | Basic RNP1 |

MEDET SOUTH ARRIVAL

From IBELU at or above 9000FT, to MOGMI, to MEDET at or above 7000FT.

| 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 | IBELU | – | – | -8.2 | – | – | +9000 | – | – | Basic RNP1 |
| 002 | TF | MOGMI | – | 002 (353.7) | -8.2 | 29.3 | – | – | – | – | Basic RNP1 |
| 003 | TF | MEDET | – | 015 (006.5) | -8.2 | 11.5 | – | +7000 | – | – | Basic RNP1 |

CHANGE : New PROC

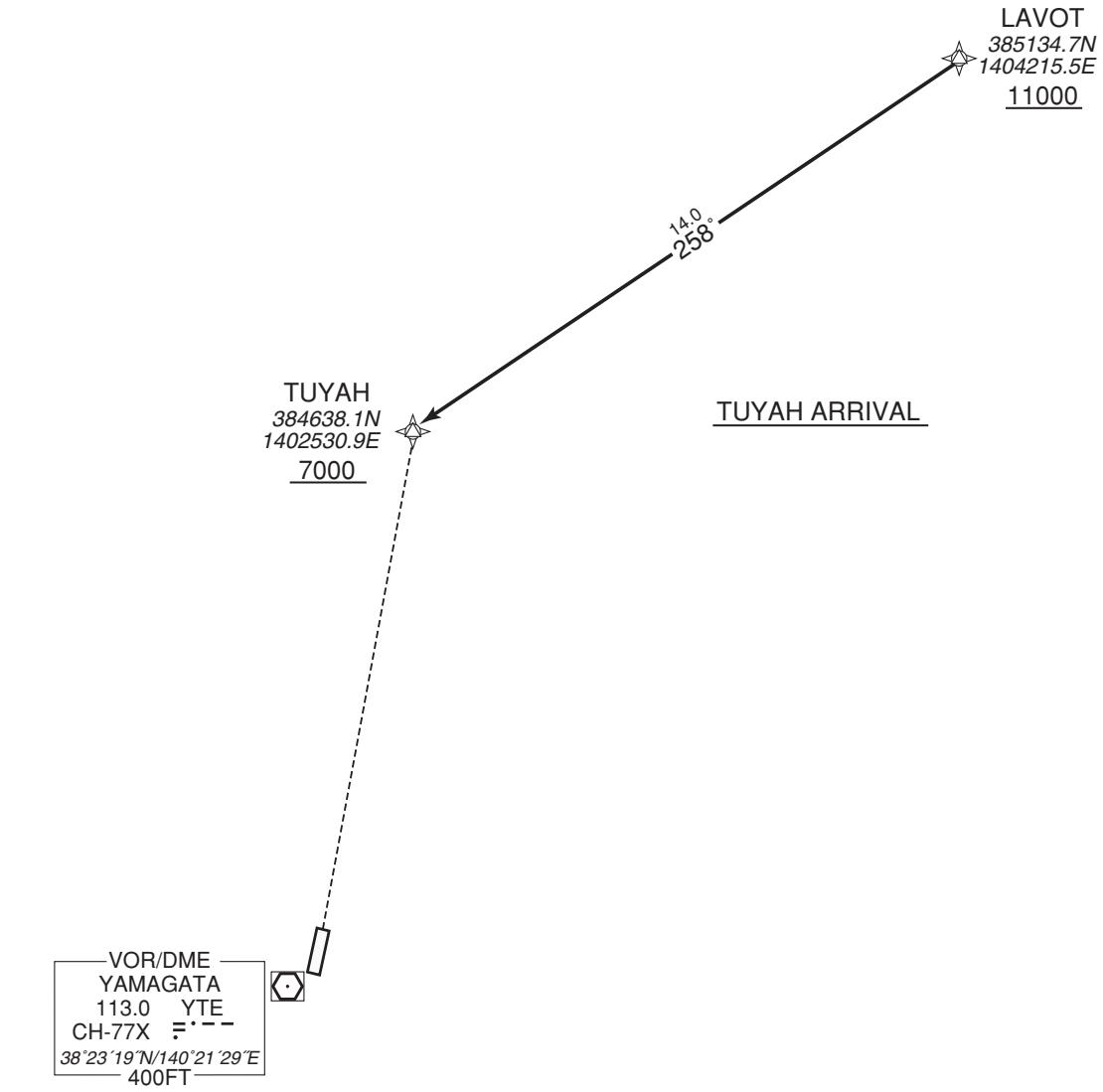
**STANDARD ARRIVAL CHART - INSTRUMENT**

RJSC / YAMAGATA — RNAV STAR RWY19

| TUYAH ARRIVAL | Basic RNP1 |
|---|---|

Note GNSS required.

VAR 8˚W (2017)




TUYAH ARRIVAL

From LAVOT at or above 11000FT, to TUYAH at or above 7000FT.

| 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 | LAVOT | – | – | -8.2 | – | – | +11000 | – | – | Basic RNP1 |
| 002 | TF | TUYAH | – | 258 (249.3) | -8.2 | 14.0 | – | +7000 | – | – | Basic RNP1 |

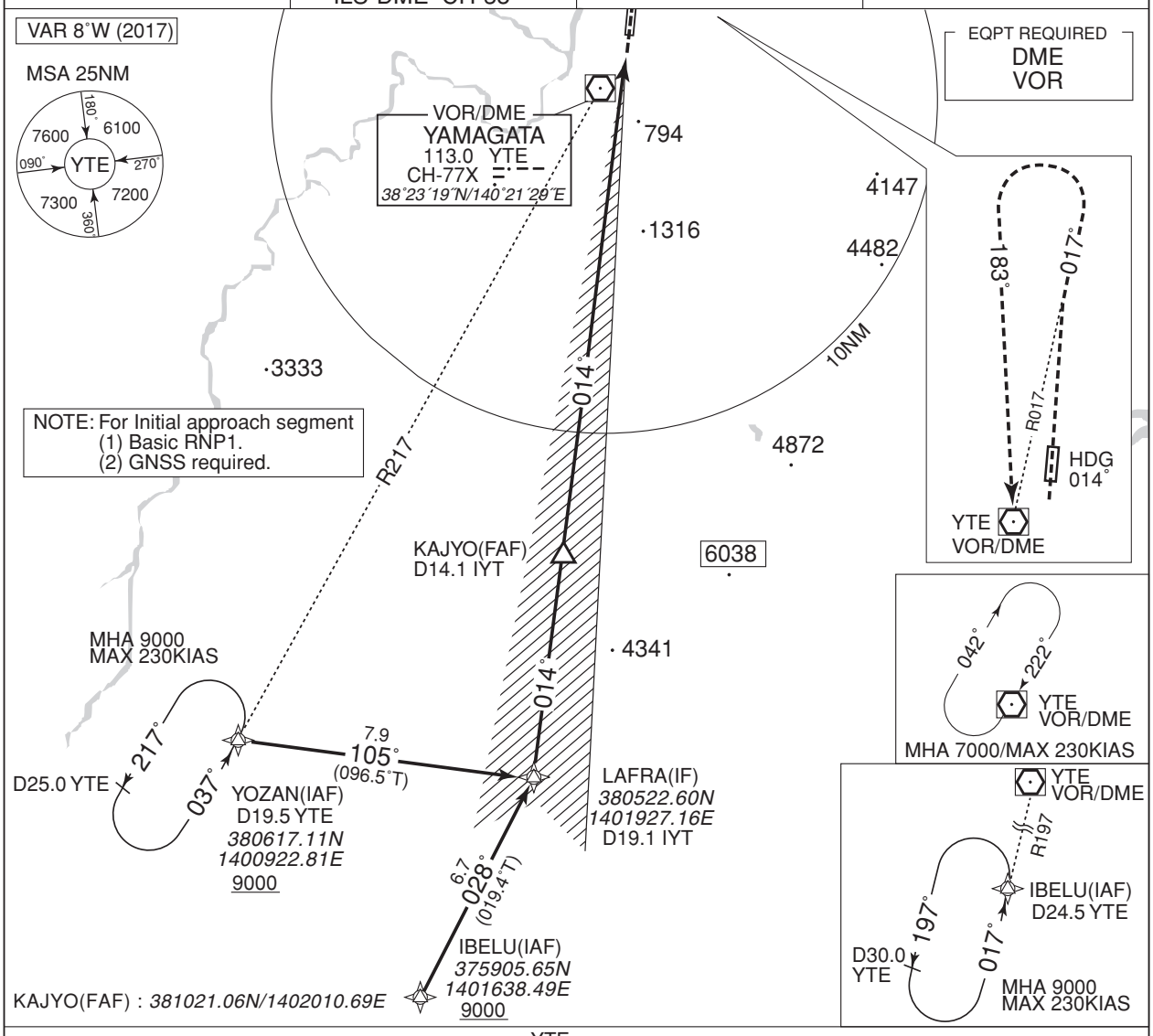
CHANGE : New PROC

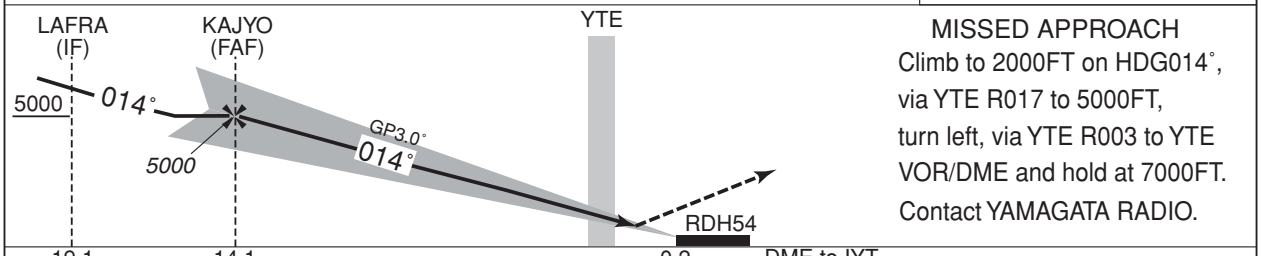
**INSTRUMENT APPROACH CHART**

RJSC / YAMAGATA

ILS Z RWY01

| TOKYO CONTROL | ILS LOC | YAMAGATA RADIO | NO RADAR |
|---|---|---|---|
| 118.9 - 276.8<br>135.9 - 230.6 | 110.1 IYT<br>ILS-GP 334.4<br>ILS-DME CH-38 | 122.7 - 126.2 | |




**MISSED APPROACH**
Climb to 2000FT on HDG014°,
via YTE R017 to 5000FT,
turn left, via YTE R003 to YTE
VOR/DME and hold at 7000FT.
Contact YAMAGATA RADIO.

Missed APCH climb gradient MNM 5.0%

| MINIMA | THR elev. 347 | | AD elev. 345 | |
|---|---|---|---|---|
| CAT | CAT I | | CIRCLING | |
| | DA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 547 (200) | 550 | 790 (445) | 1600 |
| B | | | 800 (455) | |
| C | | | | 2400 |
| D | | | 900 (555) | 3200 |

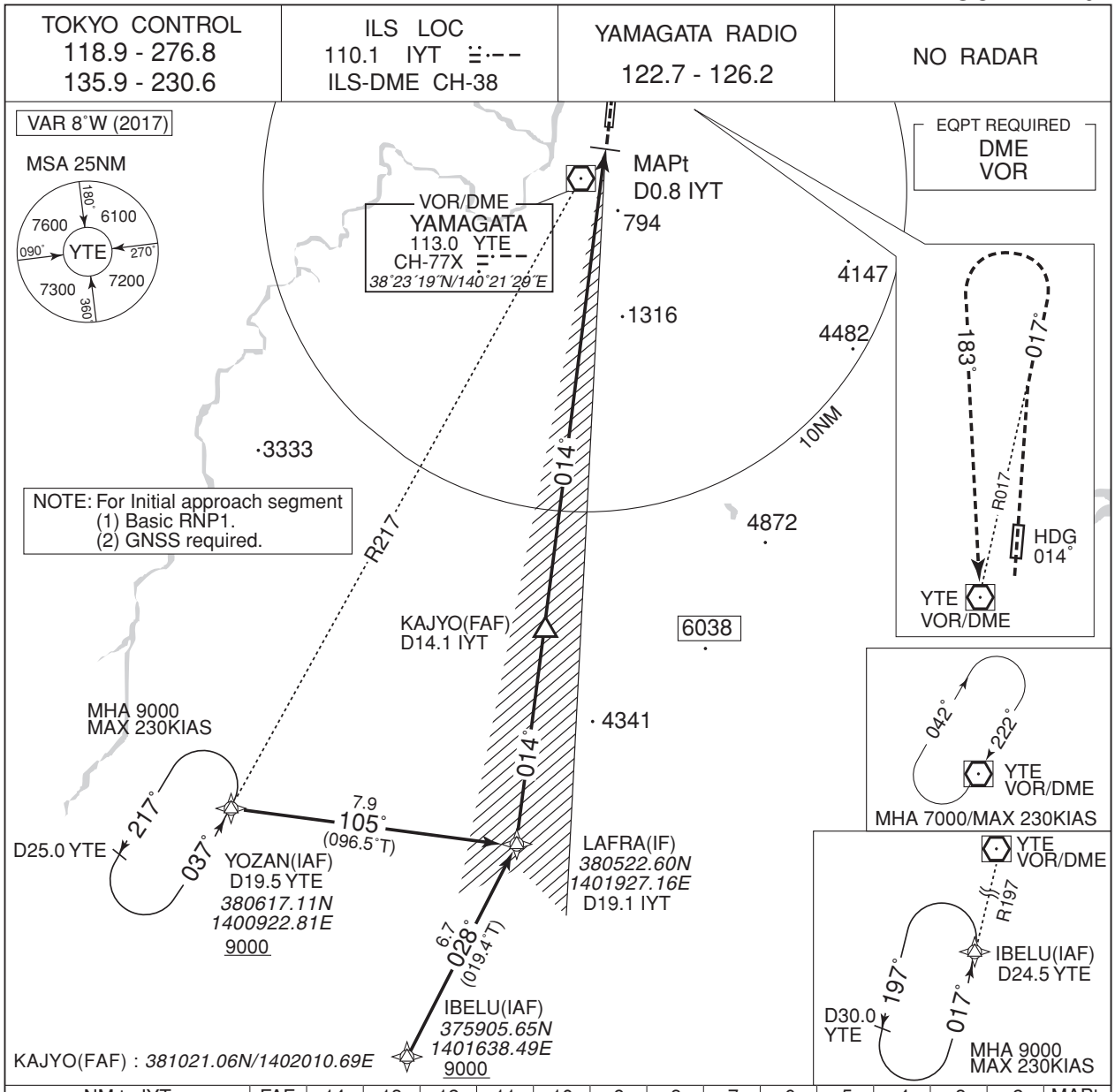
MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to WEST side of RWY only.

CHANGE : New PROC

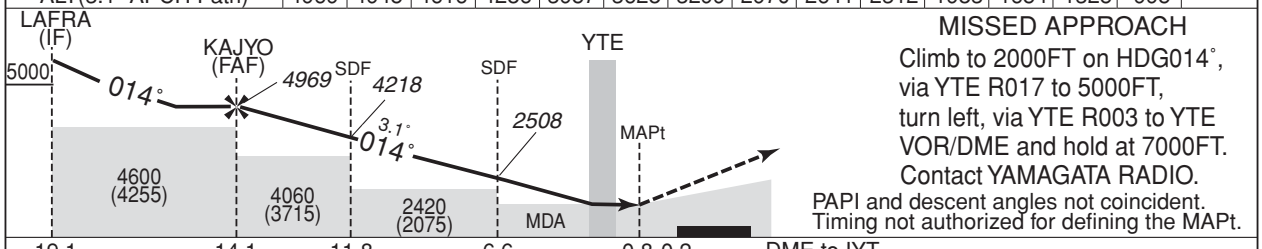
**INSTRUMENT APPROACH CHART**

RJSC / YAMAGATA

LOC Z RWY01




| NM to IYT | FAF | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | MAPt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALT(3.1° APCH Path) | 4969 | 4945 | 4616 | 4286 | 3957 | 3628 | 3299 | 2970 | 2641 | 2312 | 1983 | 1654 | 1325 | 995 | – |




MISSED APPROACH
Climb to 2000FT on HDG014°,
via YTE R017 to 5000FT,
turn left, via YTE R003 to YTE
VOR/DME and hold at 7000FT.
Contact YAMAGATA RADIO.

PAPI and descent angles not coincident.
Timing not authorized for defining the MAPt.

Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 347 AD elev. 345

| CAT | | | CIRCLING | |
|---|---|---|---|---|
| | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 870 (525) | 1000 | 870 (525) | 1600 |
| B | | 1200 | | 2400 |
| C | | 1600 | 900 (555) | 3200 |
| D | | | | |

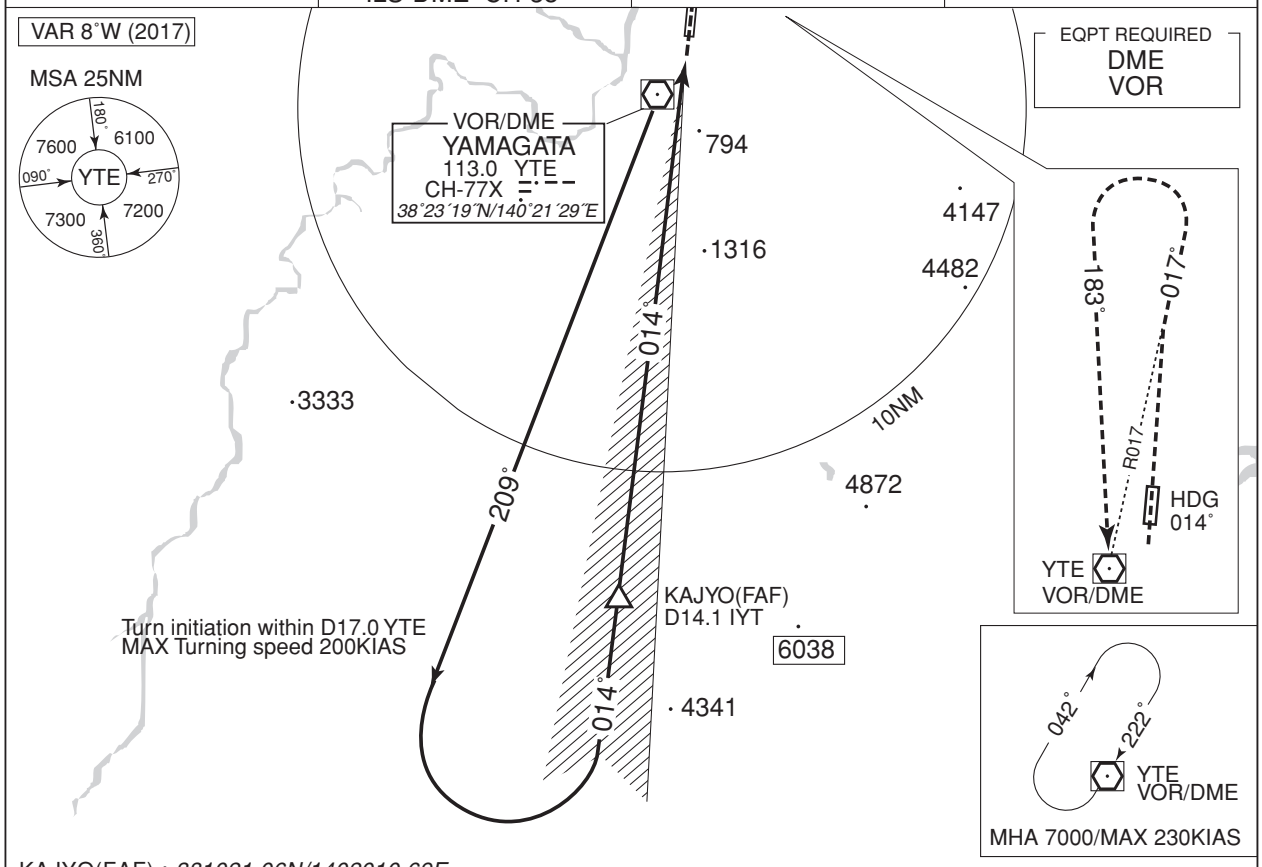
MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to WEST side of RWY only.

CHANGE : New PROC

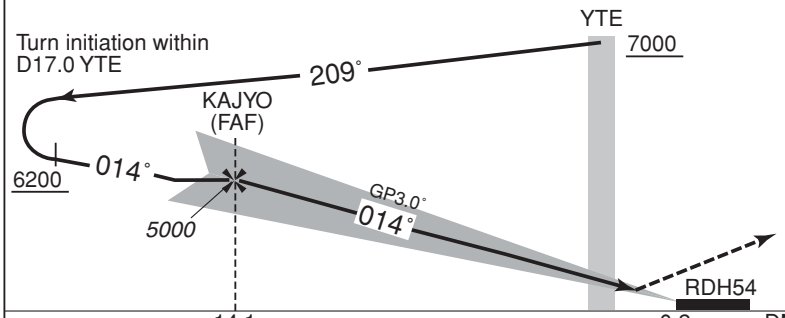
**INSTRUMENT APPROACH CHART**

RJSC / YAMAGATA — ILS Y RWY01

| TOKYO CONTROL | ILS LOC | YAMAGATA RADIO | NO RADAR |
|---|---|---|---|
| 118.9 - 276.8<br>135.9 - 230.6 | 110.1 IYT<br>ILS-GP 334.4<br>ILS-DME CH-38 | 122.7 - 126.2 | |




KAJYO(FAF) : *381021.06N/1402010.69E*




MISSED APPROACH
Climb to 2000FT on HDG014°,
via YTE R017 to 5000FT,
turn left, via YTE R003 to YTE
VOR/DME and hold at 7000FT.

Contact YAMAGATA RADIO.

| | | |
|---|---|---|
| 14.1 | 0.2 | DME to IYT |
| 13.9 | 0 | NM to THR |

Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 347 AD elev. 345

| CAT | CAT I | | CIRCLING | |
|---|---|---|---|---|
| | DA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 547 (200) | 550 | 790 (445) | 1600 |
| B | | | 800 (455) | |
| C | | | | 2400 |
| D | | | 900 (555) | 3200 |

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

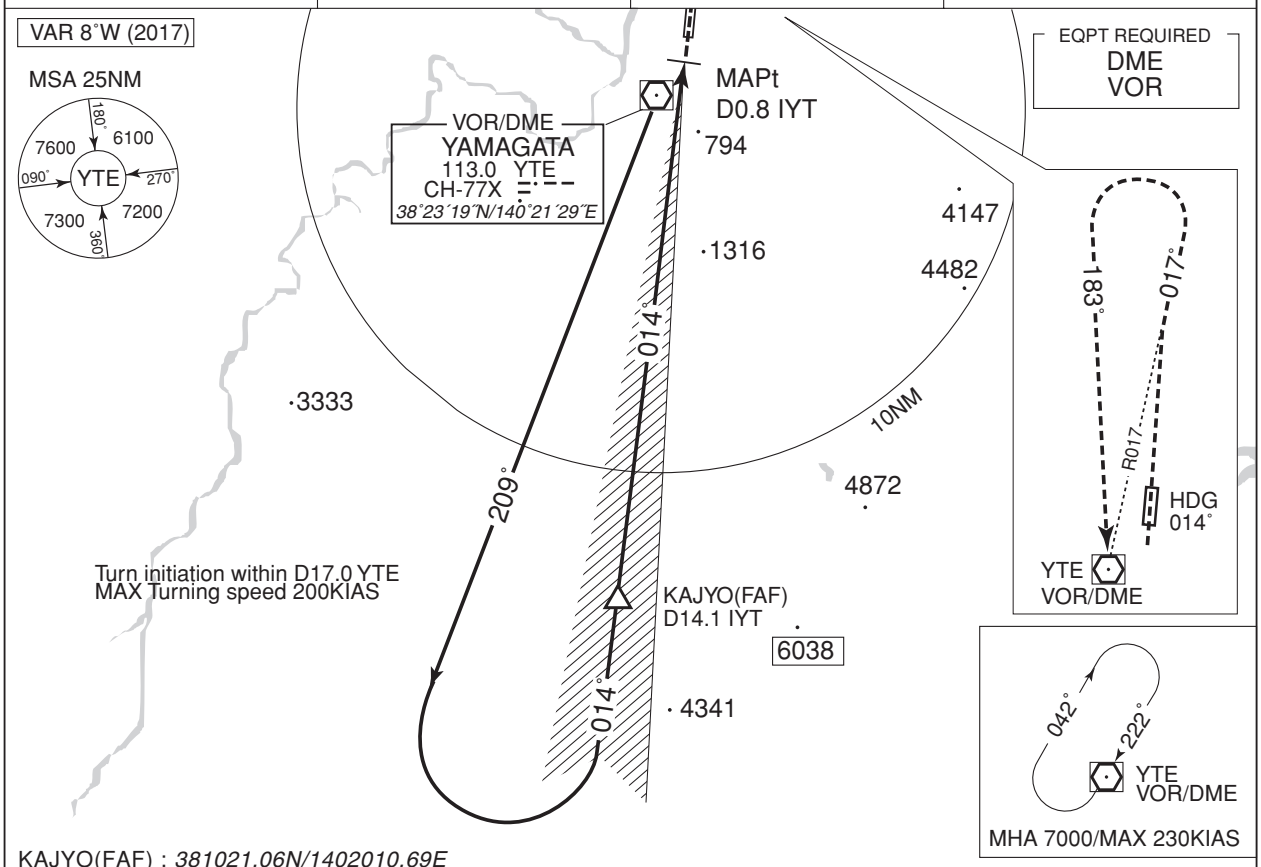
CHANGE : New PROC

**INSTRUMENT APPROACH CHART**

RJSC / YAMAGATA

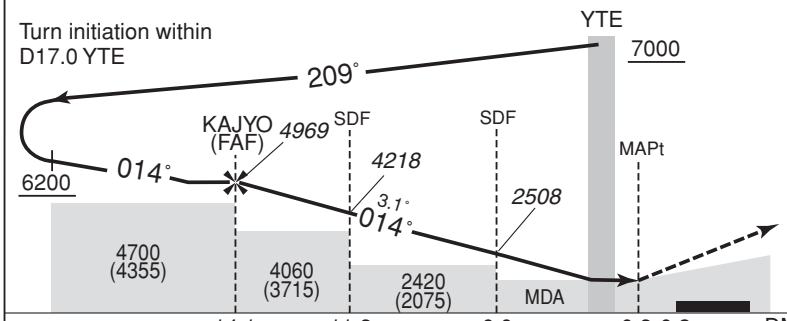
LOC Y RWY01

| TOKYO CONTROL | ILS LOC | YAMAGATA RADIO | NO RADAR |
|---|---|---|---|
| 118.9 - 276.8<br>135.9 - 230.6 | 110.1 IYT<br>ILS-DME CH-38 | 122.7 - 126.2 | |




KAJYO(FAF) : *381021.06N/1402010.69E*

| NM to IYT | FAF | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | MAPt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALT(3.1° APCH Path) | 4969 | 4945 | 4616 | 4286 | 3957 | 3628 | 3299 | 2970 | 2641 | 2312 | 1983 | 1654 | 1325 | 995 | – |




MISSED APPROACH
Climb to 2000FT on HDG014°,
via YTE R017 to 5000FT,
turn left, via YTE R003 to YTE
VOR/DME and hold at 7000FT.
Contact YAMAGATA RADIO.

PAPI and descent angles not coincident.
Timing not authorized for defining the MAPt.

| | | | | | | |
|---|---|---|---|---|---|---|
| 14.1 | 11.8 | 6.6 | 0.8 | 0.2 | | DME to IYT |
| 13.9 | 11.6 | 6.4 | 0.6 | 0 | | NM to THR |

Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 347 AD elev. 345

| CAT | | | CIRCLING | |
|---|---|---|---|---|
| | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 870 (525) | 1000 | 870 (525) | 1600 |
| B | | 1200 | | |
| C | | | | 2400 |
| D | | 1600 | 900 (555) | 3200 |

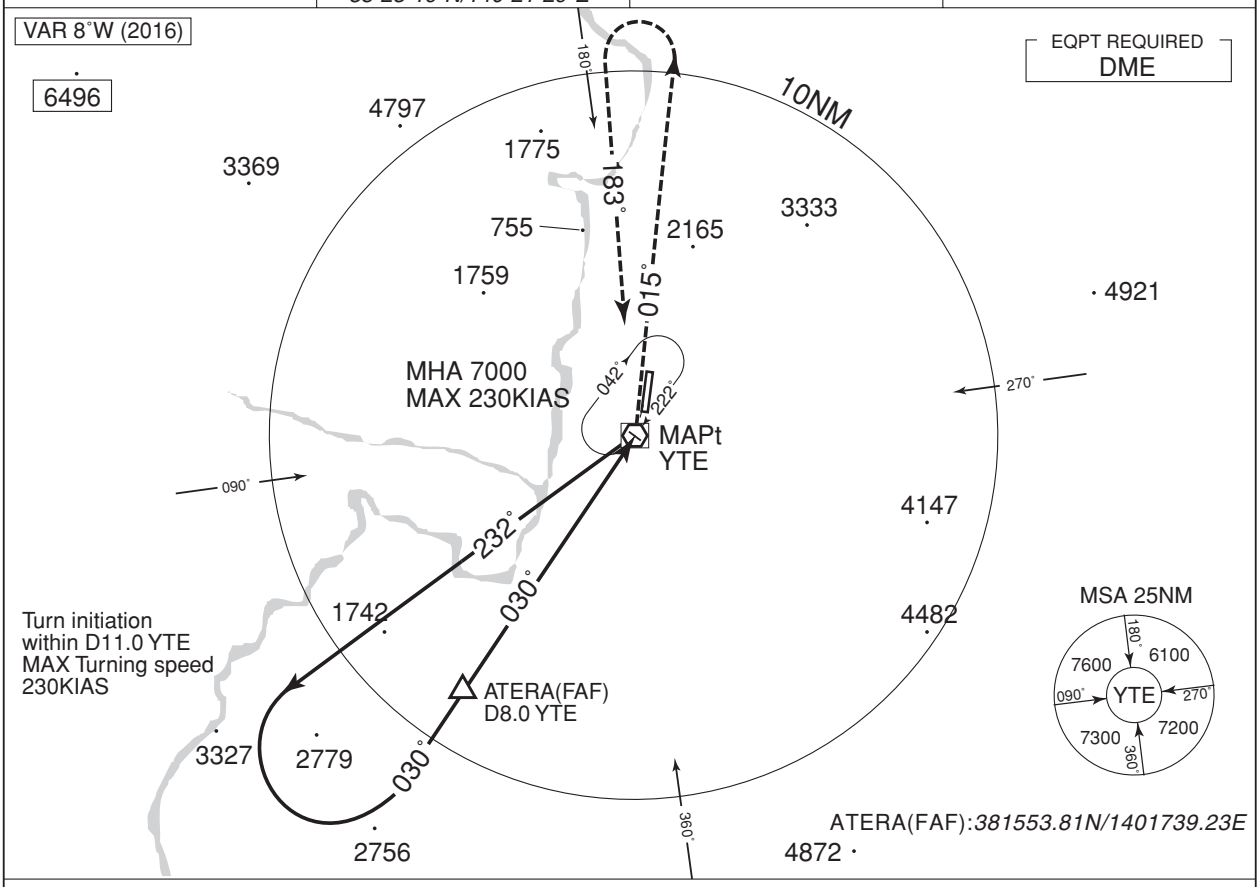
MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to WEST side of RWY only.

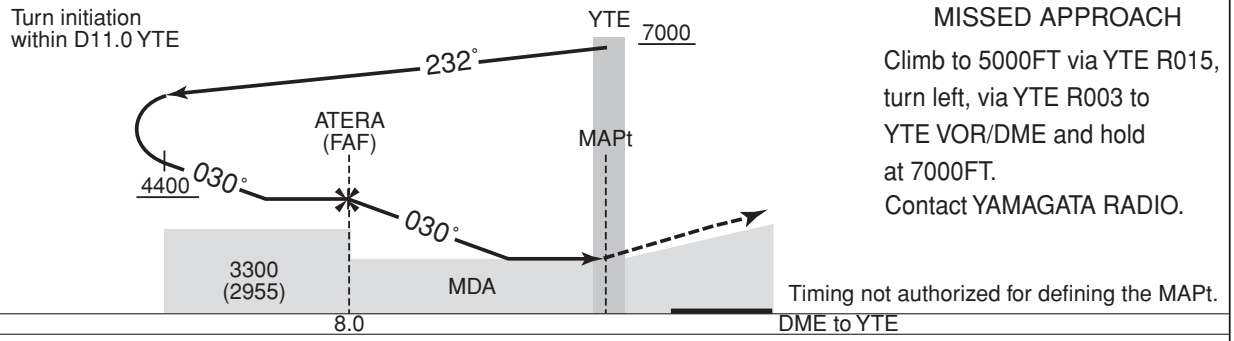
CHANGE : New PROC

**INSTRUMENT APPROACH CHART**

RJSC / YAMAGATA VOR A

| TOKYO CONTROL | YAMAGATA VOR/DME | YAMAGATA RADIO | NO RADAR |
|---|---|---|---|
| 118.9 - 276.8<br>135.9 - 230.6 | 113.0 YTE<br>CH-77X<br>*38°23′19″N/140°21′29″E* | 122.7 - 126.2 | |




MISSED APPROACH

Climb to 5000FT via YTE R015,
turn left, via YTE R003 to
YTE VOR/DME and hold
at 7000FT.
Contact YAMAGATA RADIO.

Timing not authorized for defining the MAPt.

Missed APCH climb gradient MNM 5.0%

| MINIMA | | AD elev. 345 |
|---|---|---|
| CAT | CIRCLING | |
| | MDA(H) | VIS |
| A | 850 (505) | 1600 |
| B | | |
| C | | 2400 |
| D | 900 (555) | 3200 |

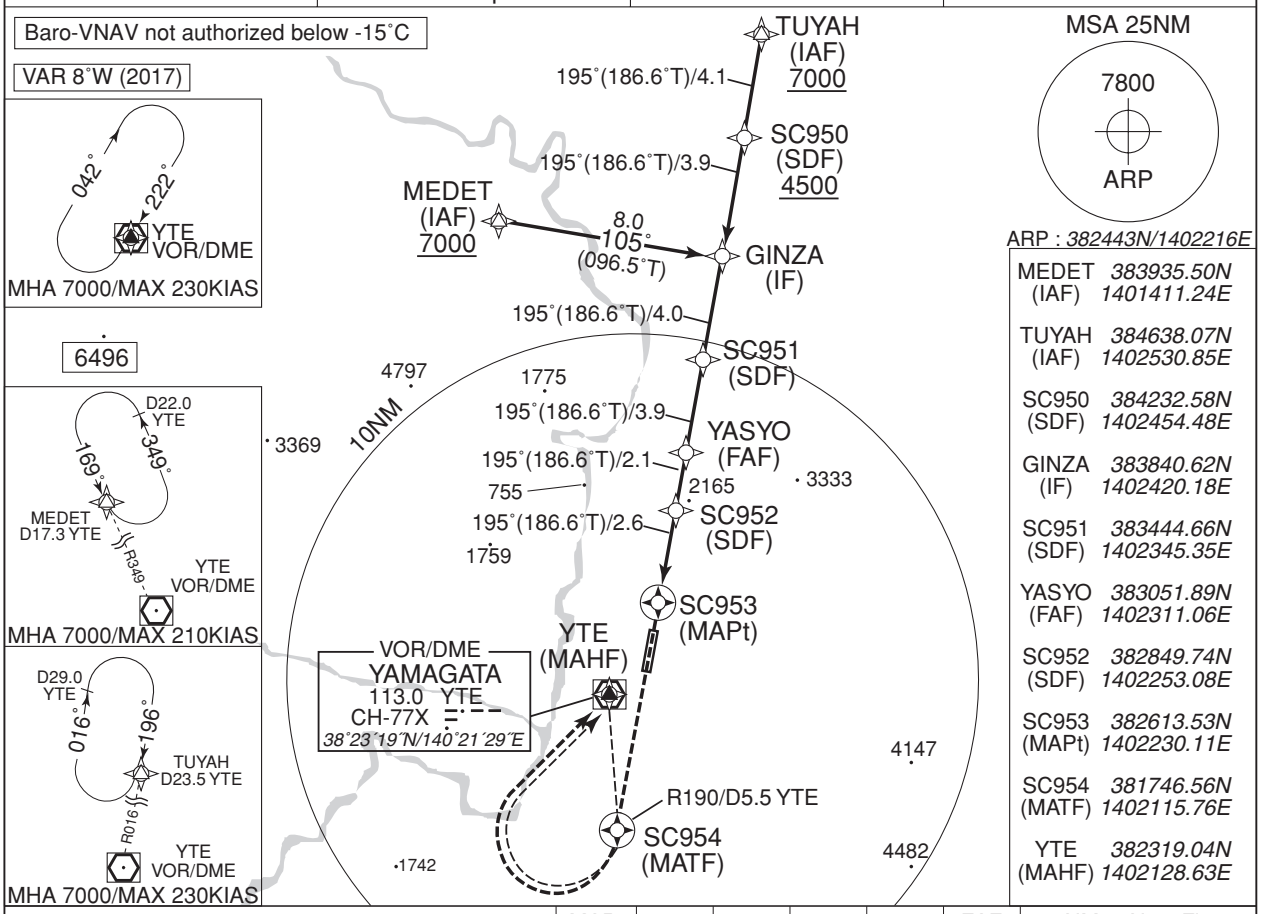
MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to WEST side of RWY only.

CHANGE : MHA

**INSTRUMENT APPROACH CHART**

RJSC / YAMAGATA — RNAV(GNSS) RWY19

| TOKYO CONTROL | 1. DME/DME RNP0.3 not authorized. 2. RNP0.3 required. 3. GNSS required. | YAMAGATA RADIO | NO RADAR |
|---|---|---|---|
| 118.9 - 276.8<br>135.9 - 230.6 | | 122.7 - 126.2 | |

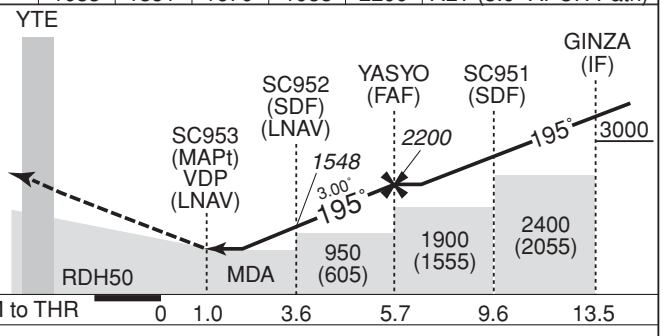



| MAPt | 1 | 2 | 3 | 4 | FAF | NM to Next Fix |
|---|---|---|---|---|---|---|
| – | 1033 | 1351 | 1670 | 1988 | 2200 | ALT (3.0˚ APCH Path) |

MISSED APPROACH

Direct to SC954, turn right direct to YTE and hold at 7000FT.
Contact YAMAGATA RADIO.

(For using VOR/DME)
Climb via YTE R190 to YTE 5.5DME, turn right, direct to YTE VOR/DME and hold at 7000FT.
Contact YAMAGATA RADIO.




Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 353 AD elev. 345

| CAT | LNAV/VNAV | | LNAV | | CIRCLING | |
|---|---|---|---|---|---|---|
| | DA(H) | CMV | MDA(H) | CMV | MDA(H) | VIS |
| A | 720 (367) | 1200 | 720 (375) | 1200 | 790 (445) | 1600 |
| B | | 1300 | | 1300 | 800 (455) | |
| C | | 1400 | | 1400 | | 2400 |
| D | | 1600 | | 1600 | 900 (555) | 3200 |

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

CHANGE : New PROC

RJSC / YAMAGATA

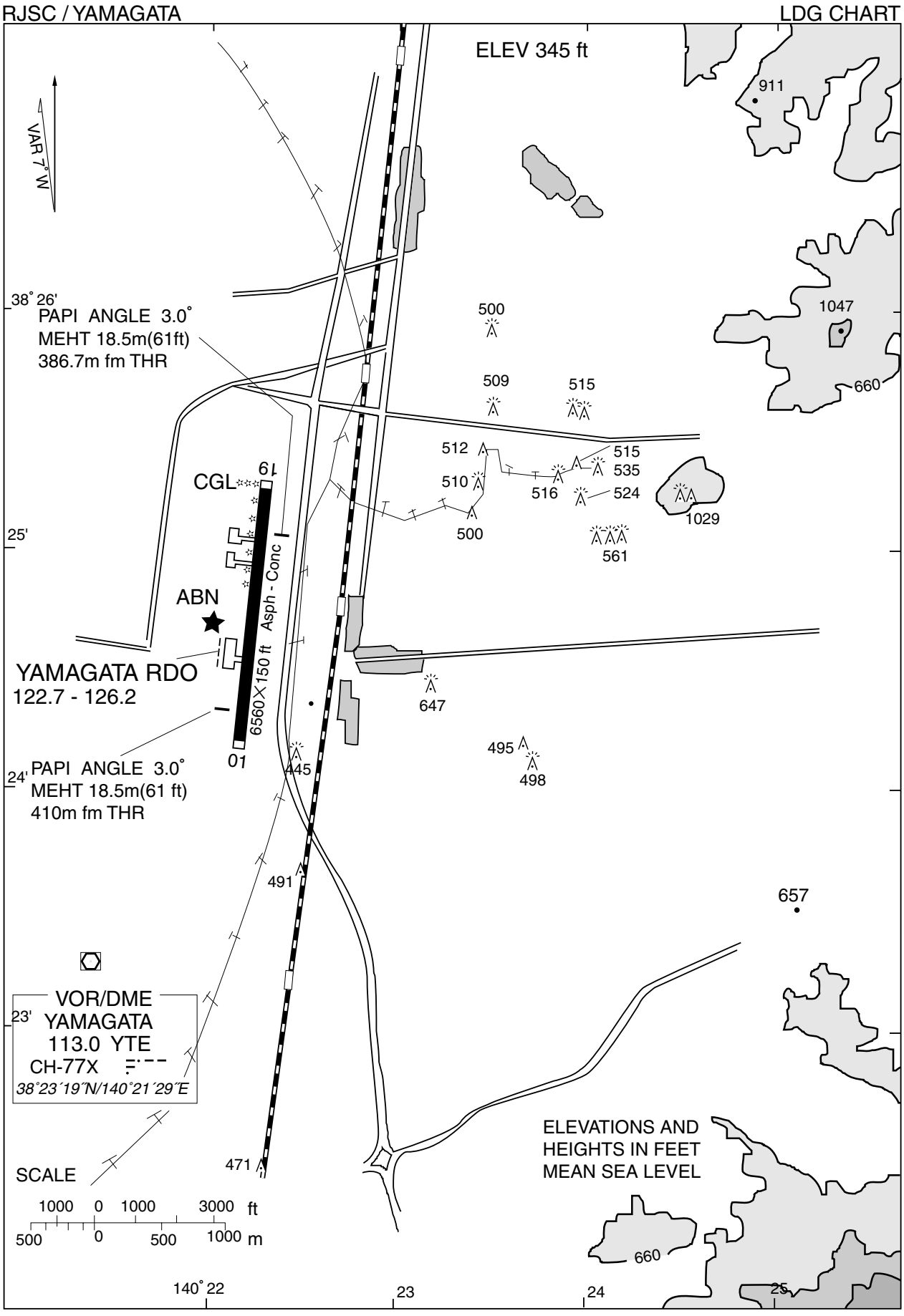
Visual REP


CHANGE : Obanazawa deleted, Funagata, Tokurako added

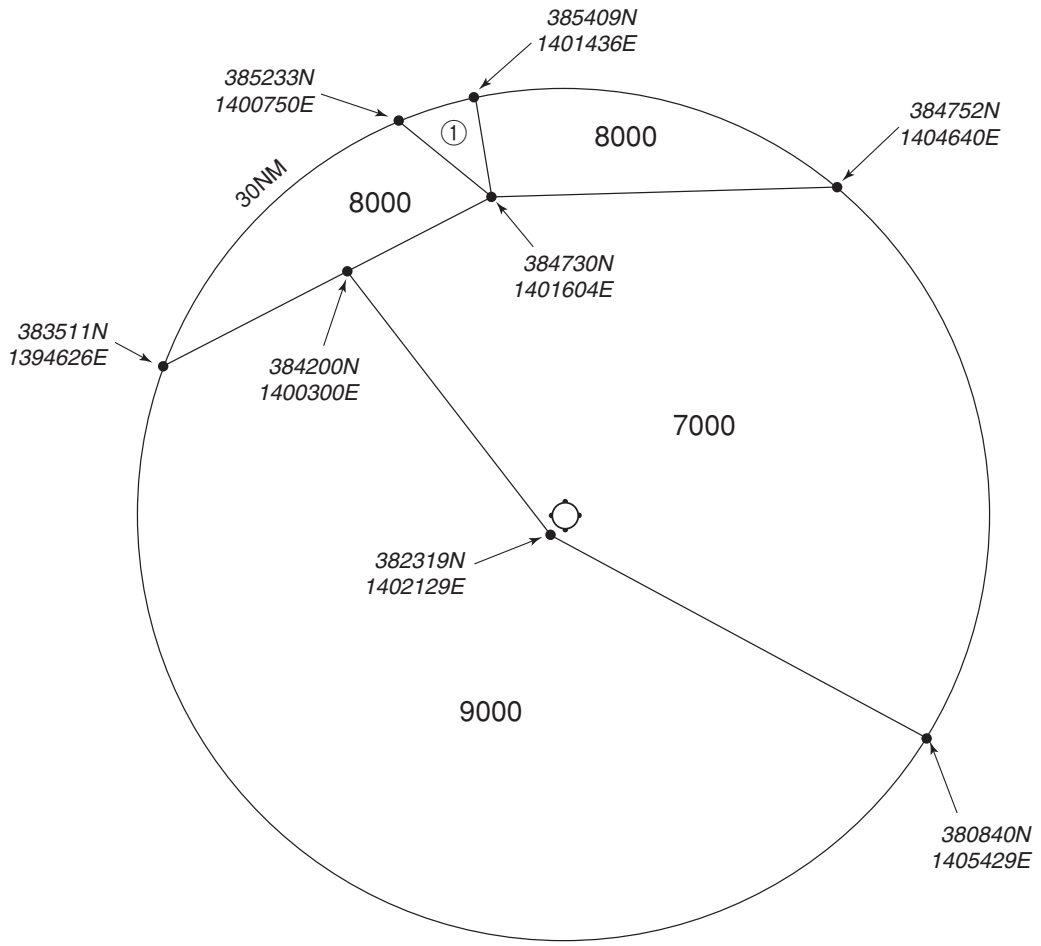
RJSC / YAMAGATA Visual REP

| Call sign | BRG / DIST from ARP | Remarks |
|---|---|---|
| 舟　形<br>Funagata | 351˚T/17.7NM | 舟形インターチェンジ<br>Interchange |
| 徳良湖<br>Tokurako | 017˚T/11.5NM | 徳良湖<br>Lake |
| 楯　岡<br>Tateoka | 010˚T/ 4.0NM | 村山駅(旧楯岡駅)<br>JR station |
| 碁　点<br>Goten | 344˚T/ 4.5NM | 村山市民体育館<br>Gymnasium |
| 谷　地<br>Yachi | 282˚T/ 3.0NM | 谷地高校<br>School |
| 関山峠<br>Sekiyama Toge | 100˚T/ 9.5NM | 関山トンネル<br>Tunnel |
| 西　川<br>Nishikawa | 274˚T/ 9.8NM | 西川インターチェンジ<br>Interchange |
| 寒河江<br>Sagae | 242˚T/ 5.1NM | 寒河江駅<br>JR station |
| アテラ<br>Atera | 203˚T/ 9.3NM | 山形中央インターチェンジ<br>Interchange |
| 山形ステーション<br>Yamagata Station | 192˚T/10.0NM | 山形駅<br>JR station |
| 上　山<br>Kaminoyama | 196˚T/16.2NM | 上山温泉駅<br>JR station |

CHANGE : Obanazawa deleted, Funagata, Tokurako added


RJSC / YAMAGATA
LDG CHART
ELEV 345 ft
VAR 7°W
38° 26'
PAPI ANGLE 3.0°
MEHT 18.5m(61ft)
386.7m fm THR
CGL
19
01
ABN
Asph - Conc
6560X150 ft
YAMAGATA RDO
122.7 - 126.2
PAPI ANGLE 3.0°
MEHT 18.5m(61 ft)
410m fm THR
VOR/DME
YAMAGATA
113.0 YTE
CH-77X
38°23´19˝N/140°21´29˝E
SCALE
1000 0 1000 3000 ft
500 0 500 1000 m
ELEVATIONS AND
HEIGHTS IN FEET
MEAN SEA LEVEL
25'
24'
23'
140° 22
23
24
25
911
1047
660
500
509
515
512
510
516
535
524
1029
561
647
495
498
445
491
657
471

RJSC / YAMAGATA Minimum Vectoring Altitude CHART




① 10000

CENTER : *382443N/1402216E* (ARP)