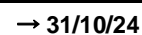


AD CHART



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.

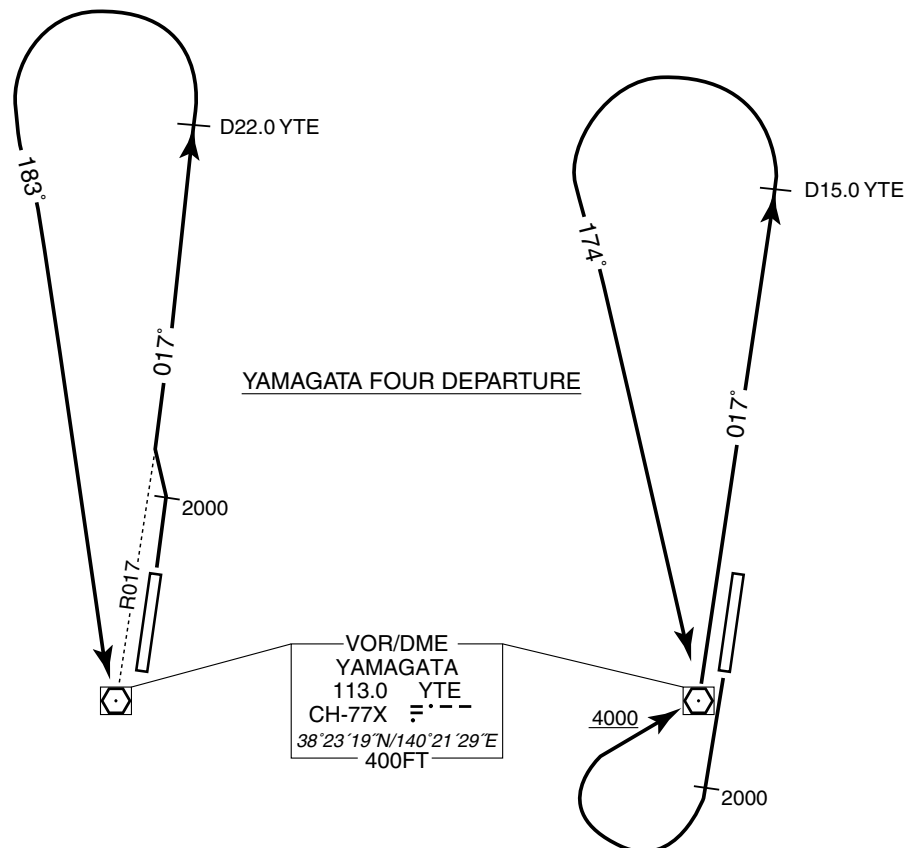
RWY19: 5.0% climb gradient required up to 2000FT.

OBST ALT 788FT located at 3.1NM 181° FM end of RWY19.

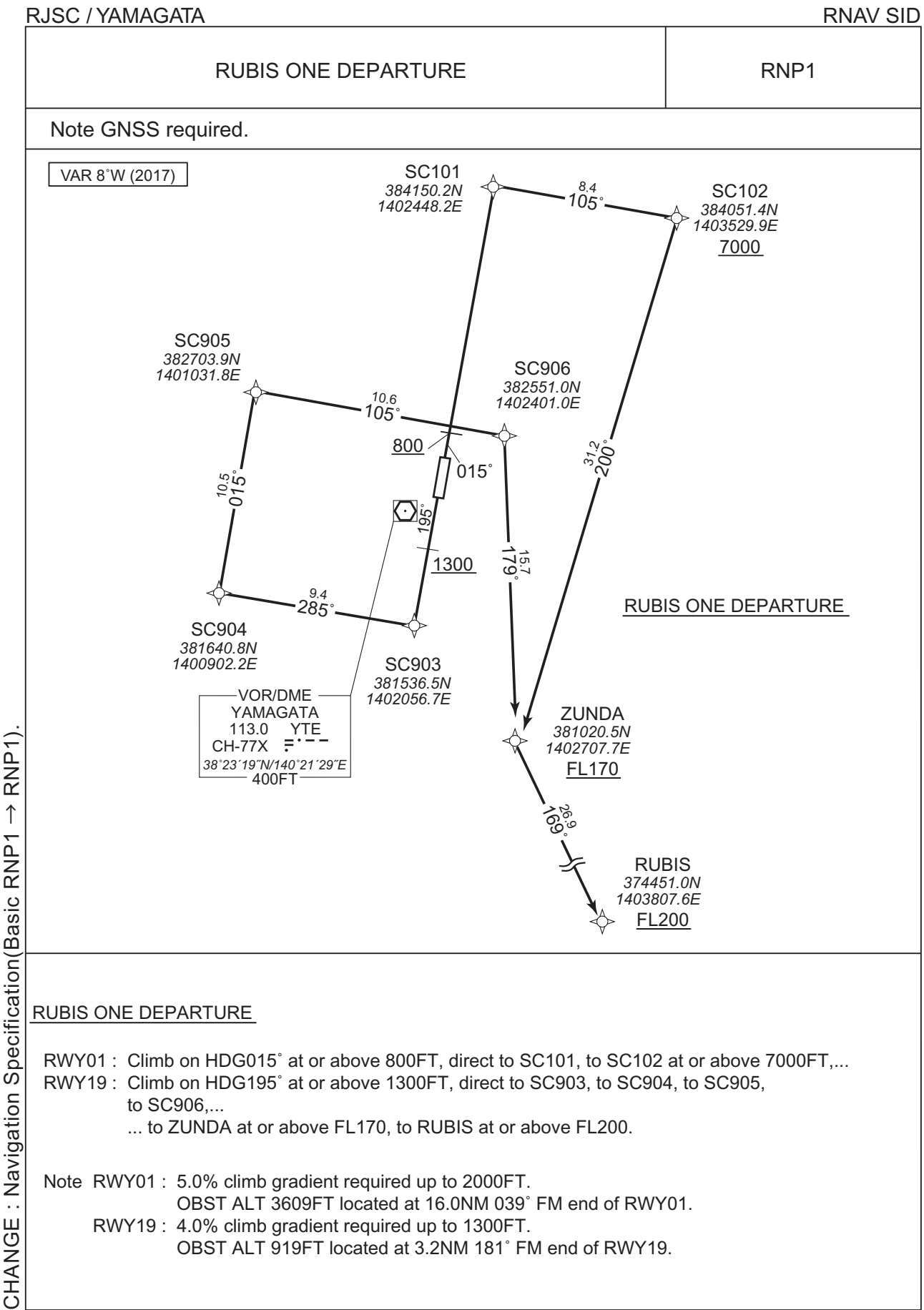
Note No turn before DER.

For RWY01

For RWY19



STANDARD DEPARTURE CHART-INSTRUMENT



STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA

RNAV SID

RUBIS ONE DEPARTURE

RWY01

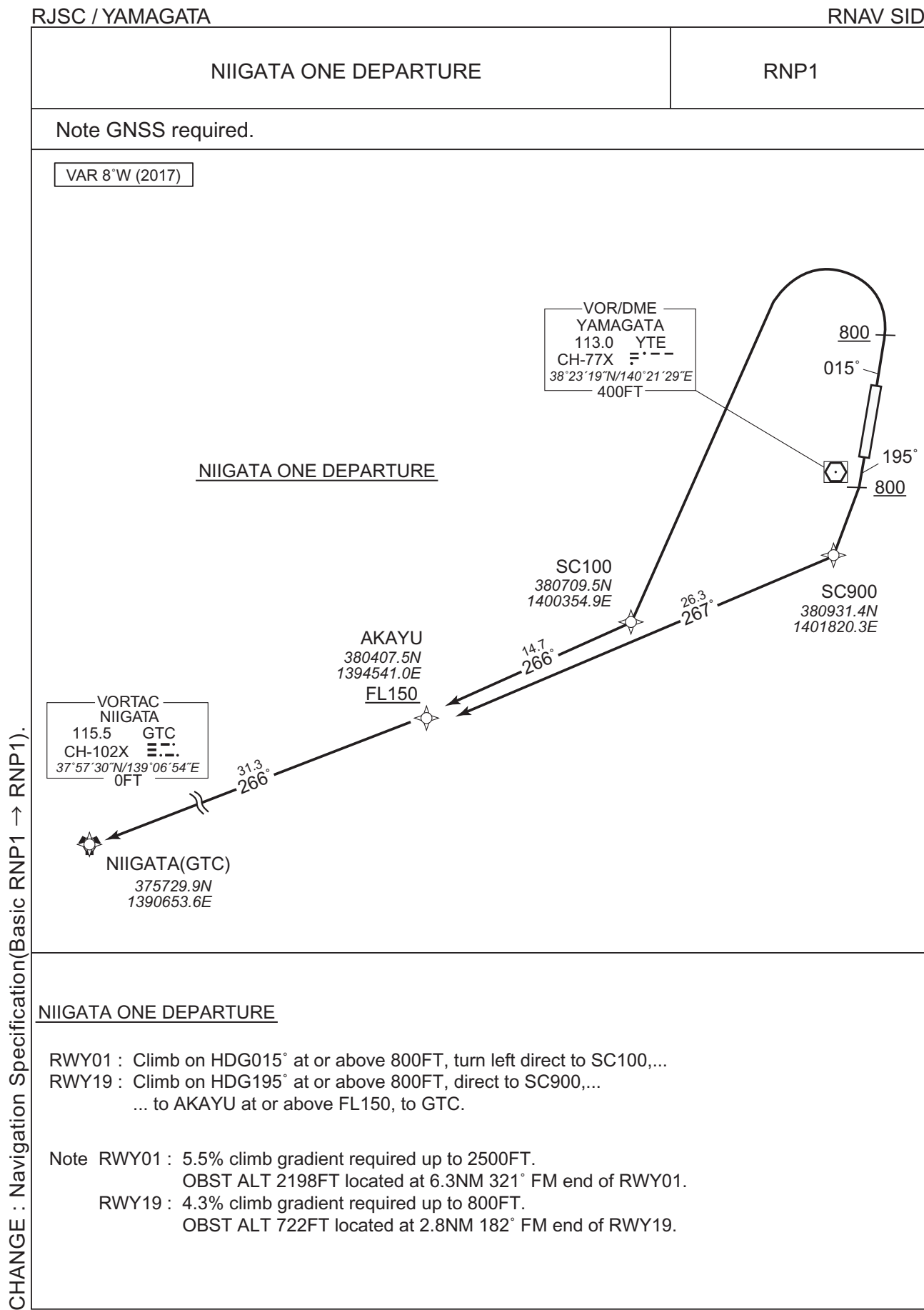
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | VA | - | - | 015 (006.6) | -8.2 | - | - | +800 | - | - | RNP1 |
| 002 | DF | SC101 | - | - | -8.2 | - | - | - | - | - | RNP1 |
| 003 | TF | SC102 | - | 105 (096.6) | -8.2 | 8.4 | - | +7000 | - | - | RNP1 |
| 004 | TF | ZUNDA | - | 200 (192.2) | -8.2 | 31.2 | - | +FL170 | - | - | RNP1 |
| 005 | TF | RUBIS | - | 169 (161.2) | -8.2 | 26.9 | - | +FL200 | - | - | 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 | - | - | RNP1 |
| 002 | DF | SC903 | - | - | -8.2 | - | - | - | - | - | RNP1 |
| 003 | TF | SC904 | - | 285 (276.6) | -8.2 | 9.4 | - | - | - | - | RNP1 |
| 004 | TF | SC905 | - | 015 (006.4) | -8.2 | 10.5 | - | - | - | - | RNP1 |
| 005 | TF | SC906 | - | 105 (096.5) | -8.2 | 10.6 | - | - | - | - | RNP1 |
| 006 | TF | ZUNDA | - | 179 (171.0) | -8.2 | 15.7 | - | +FL170 | - | - | RNP1 |
| 007 | TF | RUBIS | - | 169 (161.2) | -8.2 | 26.9 | - | +FL200 | - | - | RNP1 |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART-INSTRUMENT



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 | - | - | RNP1 |
| 002 | DF | SC100 | - | - | -8.2 | - | L | - | - | - | RNP1 |
| 003 | TF | AKAYU | - | 266 (258.2) | -8.2 | 14.7 | - | +FL150 | - | - | RNP1 |
| 004 | TF | GTC | - | 266 (258.0) | -8.2 | 31.3 | - | - | - | - | 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 | - | - | RNP1 |
| 002 | DF | SC900 | - | - | -8.2 | - | - | - | - | - | RNP1 |
| 003 | TF | AKAYU | - | 267 (258.3) | -8.2 | 26.3 | - | +FL150 | - | - | RNP1 |
| 004 | TF | GTC | - | 266 (258.0) | -8.2 | 31.3 | - | - | - | - | RNP1 |
| CHANGE : Navigation Specification(Basic RNP1 → RNP1). | | | | | | | | | | | |

STANDARD DEPARTURE CHART-INSTRUMENT



CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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 | - | - | RNP1 |
| 002 | DF | SC902 | - | - | -8.2 | - | - | - | - | - | RNP1 |
| 003 | TF | HANKA | - | 029 (020.8) | -8.2 | 18.9 | - | +13000 | - | - | 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 | - | - | RNP1 |
| 002 | DF | SC901 | - | - | -8.2 | - | R | - | - | - | RNP1 |
| 003 | TF | SC902 | - | 029 (020.7) | -8.2 | 20.1 | - | - | - | - | RNP1 |
| 004 | TF | HANKA | - | 029 (020.8) | -8.2 | 18.9 | - | +13000 | - | - | RNP1 |
| CHANGE : Navigation Specification(Basic RNP1 → RNP1). | | | | | | | | | | | |

YOZAN WEST ARRIVAL / YOZAN NORTH ARRIVAL

RNP1

Note GNSS required.

VAR 8°W (2017)

YOZAN WEST ARRIVAL

YOZAN NORTH ARRIVAL

ELDAK
380133.9N
1394540.4E
FL150

SUGGY
380424.9N
1400035.7E
11000

YOZAN
380617.1N
1400922.8E
9000

IMONY
381111.6N
1401005.0E
MAX 250KIAS

YAMAGATA (YTE)
382319.0N
1402128.6E

VOR/DME
YAMAGATA
113.0 YTE
CH-77X
38°23'19"N/140°21'29"E
400FT

12.1
085°

7.2
083°

4.9
195°

15.1
225°

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

RJSC / YAMAGATA

RNAV STAR RWY01

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 | - | - | RNP1 |
| 002 | TF | SUGGY | - | 085 (076.3) | -8.2 | 12.1 | - | +11000 | - | - | RNP1 |
| 003 | TF | YOZAN | - | 083 (074.8) | -8.2 | 7.2 | - | +9000 | - | - | 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 | - | - | - | - | - | RNP1 |
| 002 | TF | IMONY | - | 225 (216.5) | -8.2 | 15.1 | - | - | -250 | - | RNP1 |
| 003 | TF | YOZAN | - | 195 (186.4) | -8.2 | 4.9 | - | +9000 | - | - | RNP1 |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART - INSTRUMENT



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 | - | - | RNP1 |
| 002 | TF | QDARI | - | 039 (030.3) | -8.2 | 17.1 | - | +8000 | - | - | RNP1 |
| 003 | TF | MEDET | - | 039 (030.4) | -8.2 | 27.1 | - | +7000 | - | - | 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 | - | - | RNP1 |
| 002 | TF | MOGMI | - | 002 (353.7) | -8.2 | 29.3 | - | - | - | - | RNP1 |
| 003 | TF | MEDET | - | 015 (006.5) | -8.2 | 11.5 | - | +7000 | - | - | RNP1 |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

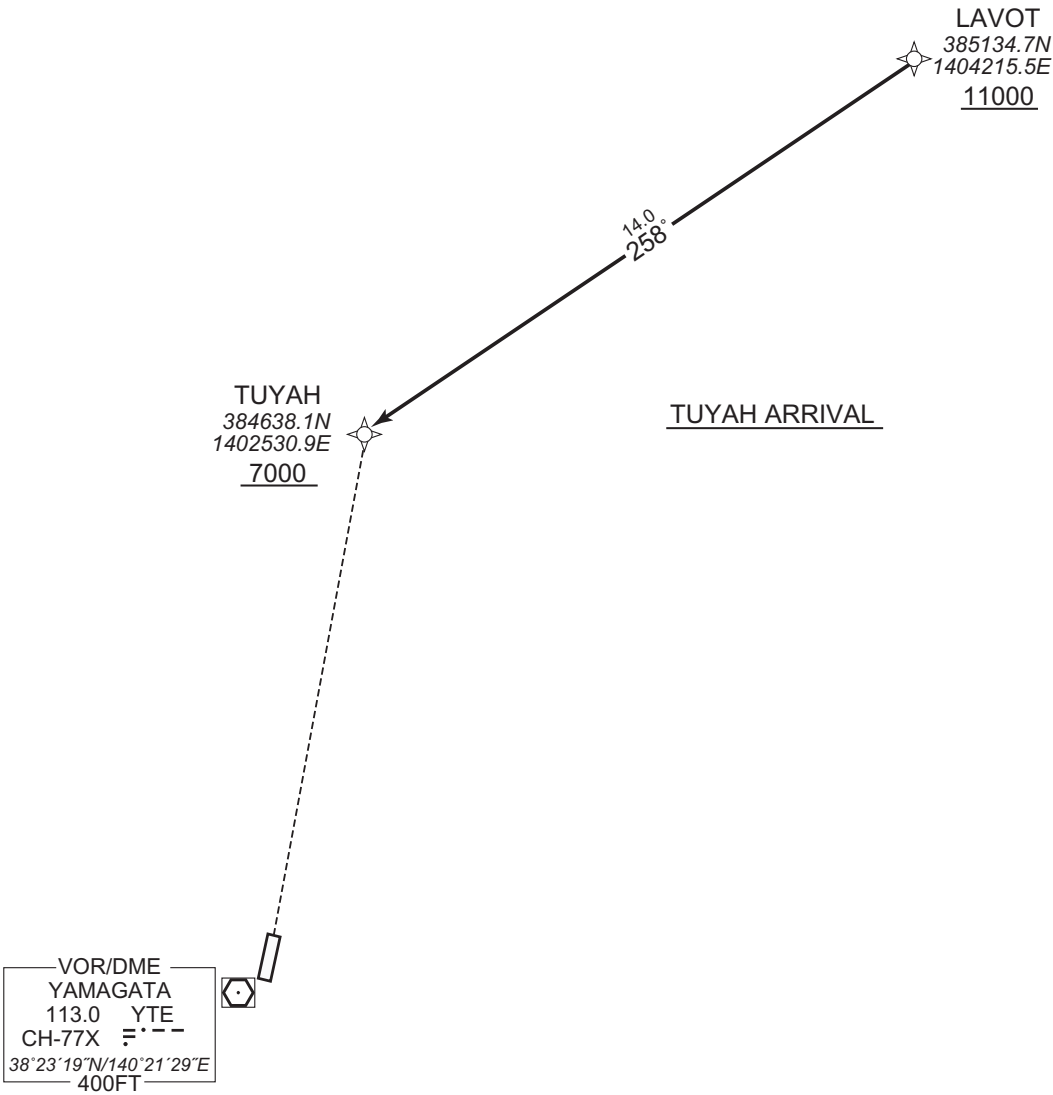
STANDARD ARRIVAL CHART - INSTRUMENT

RJSC / YAMAGATARNAV STAR RWY19

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

Note GNSS required.

VAR 8°W (2017)



TUYAH ARRIVAL

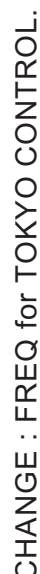
From LAVOT at or above 11000FT, to TUYAH at or above 7000FT.

| 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 | — | — | RNP1 |
| 002 | TF | TUYAH | — | 258 (249.3) | -8.2 | 14.0 | — | +7000 | — | — | RNP1 |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

RJSC / YAMAGATA

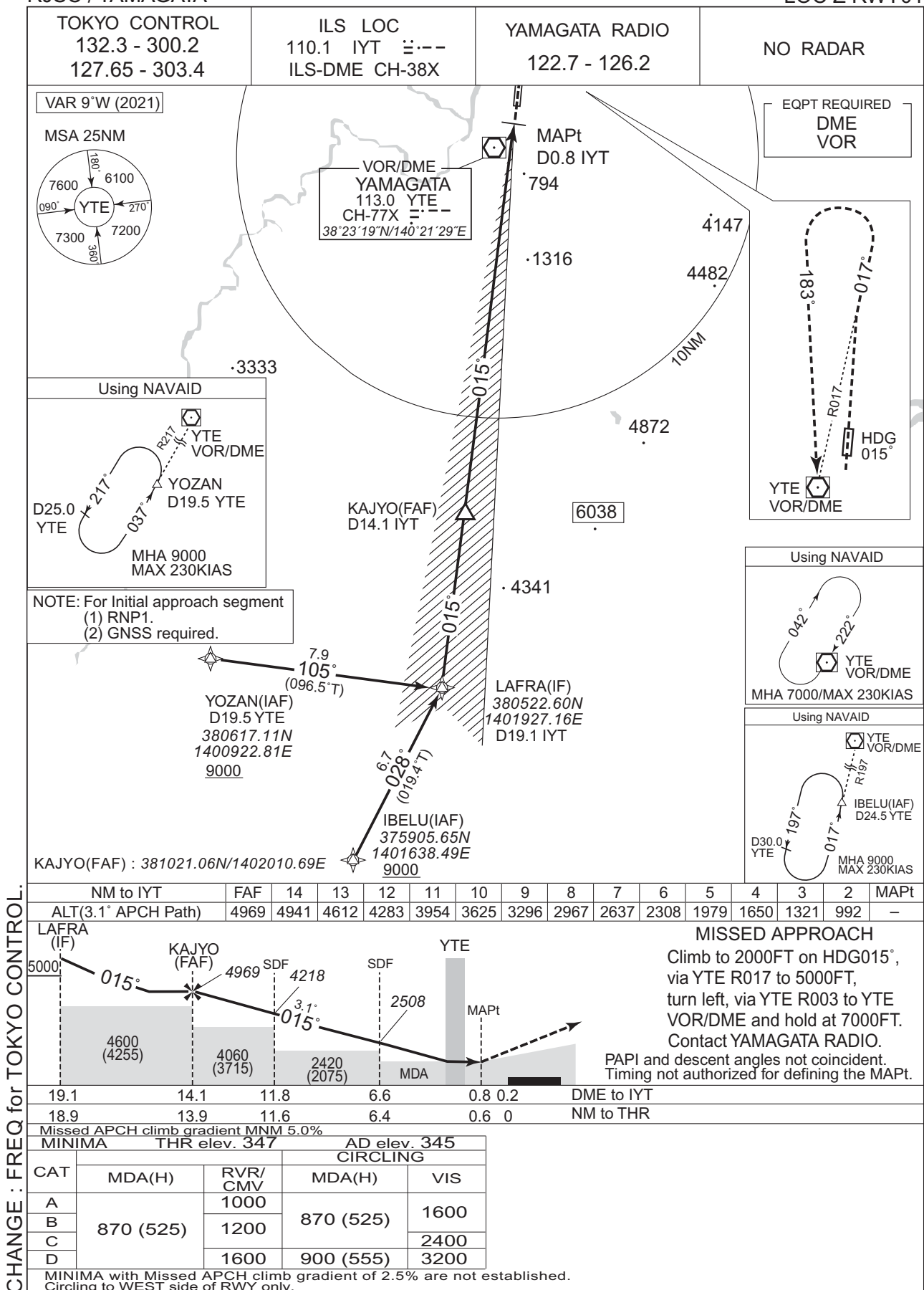
ILS Z RWY01



INSTRUMENT APPROACH CHART

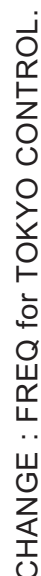
RJSC / YAMAGATA

LOC Z RWY01



RJSC / YAMAGATA

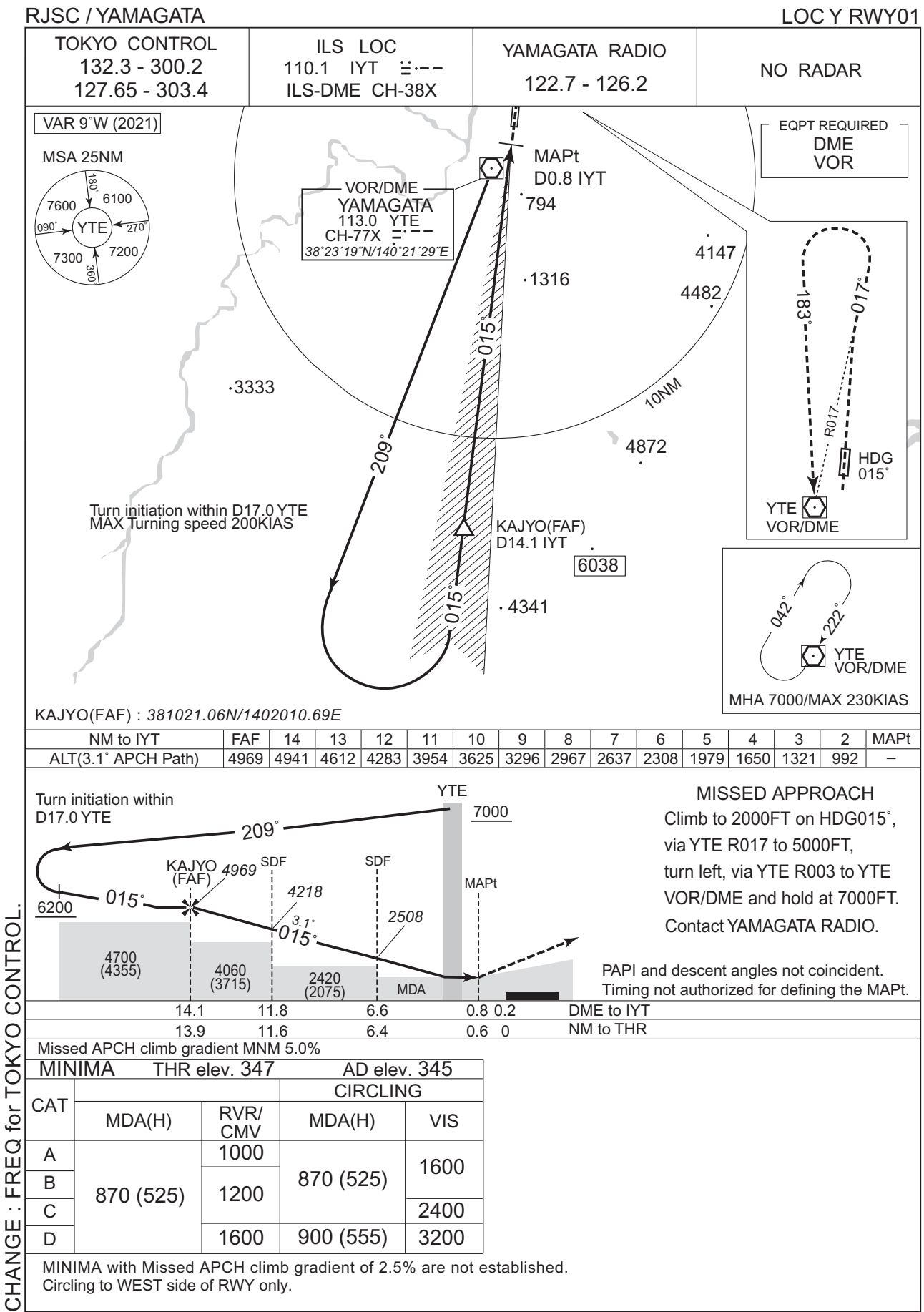
ILS Y RWY01



| | | | | |
|-------------------------------------|-----------|---------------|-----------|--------------|
| 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 |

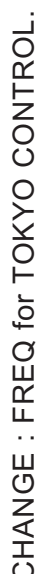
MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to WEST side of RWY only.

INSTRUMENT APPROACH CHART



RJSC / YAMAGATA

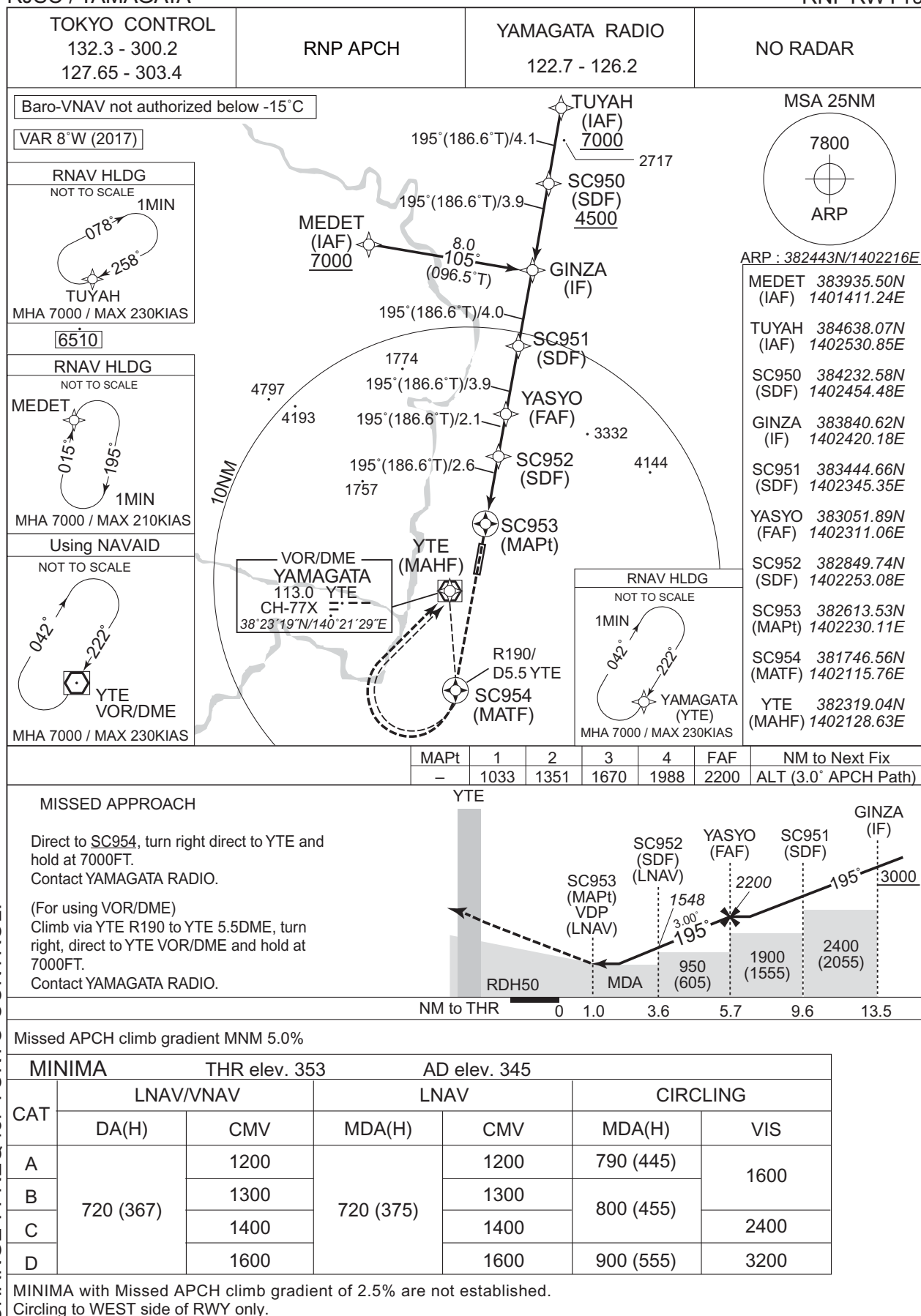
VOR A



INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

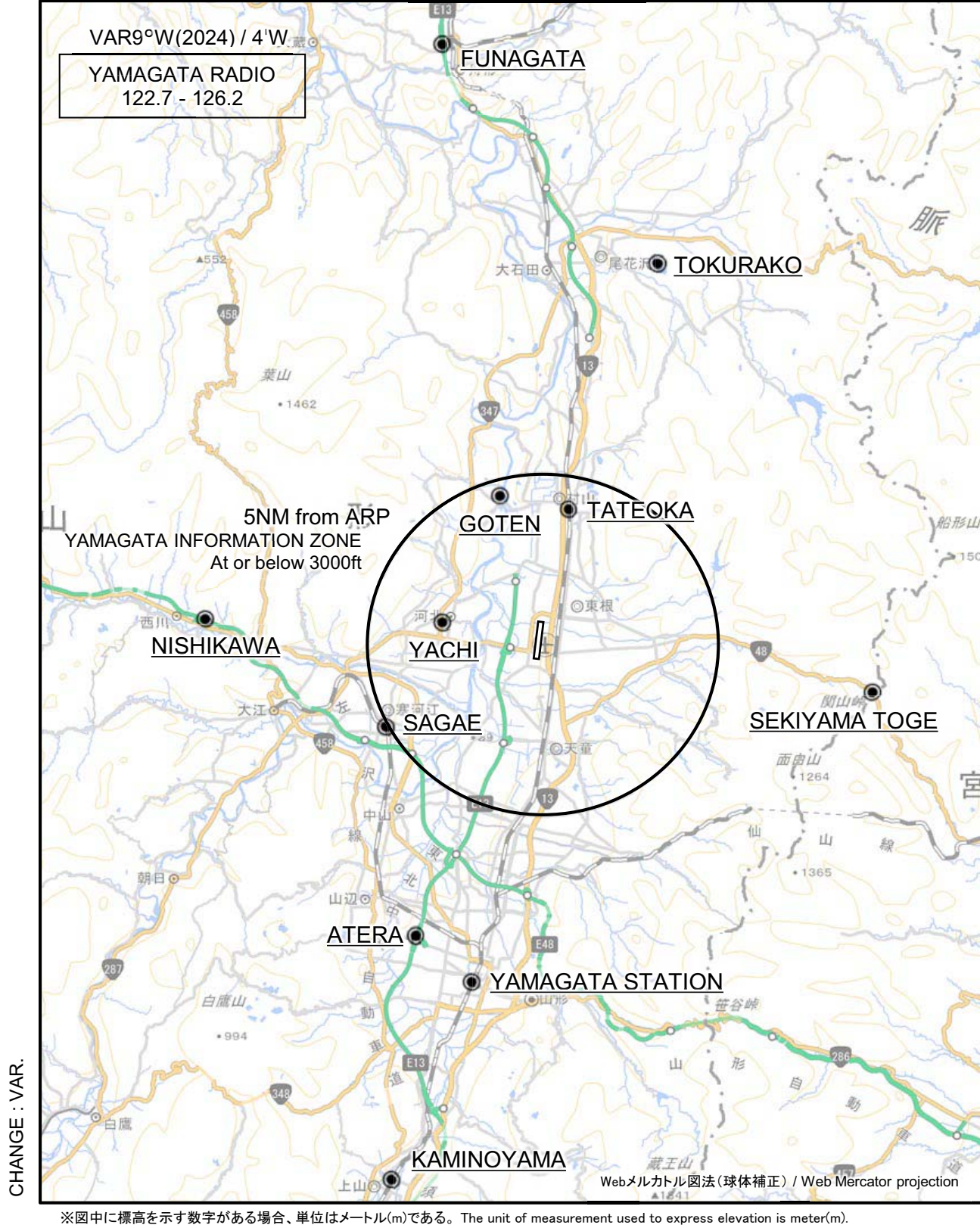
RNP RWY19



CHANGE : FREQ for TOKYO CONTROL.

RJSC / YAMAGATA

Visual REP

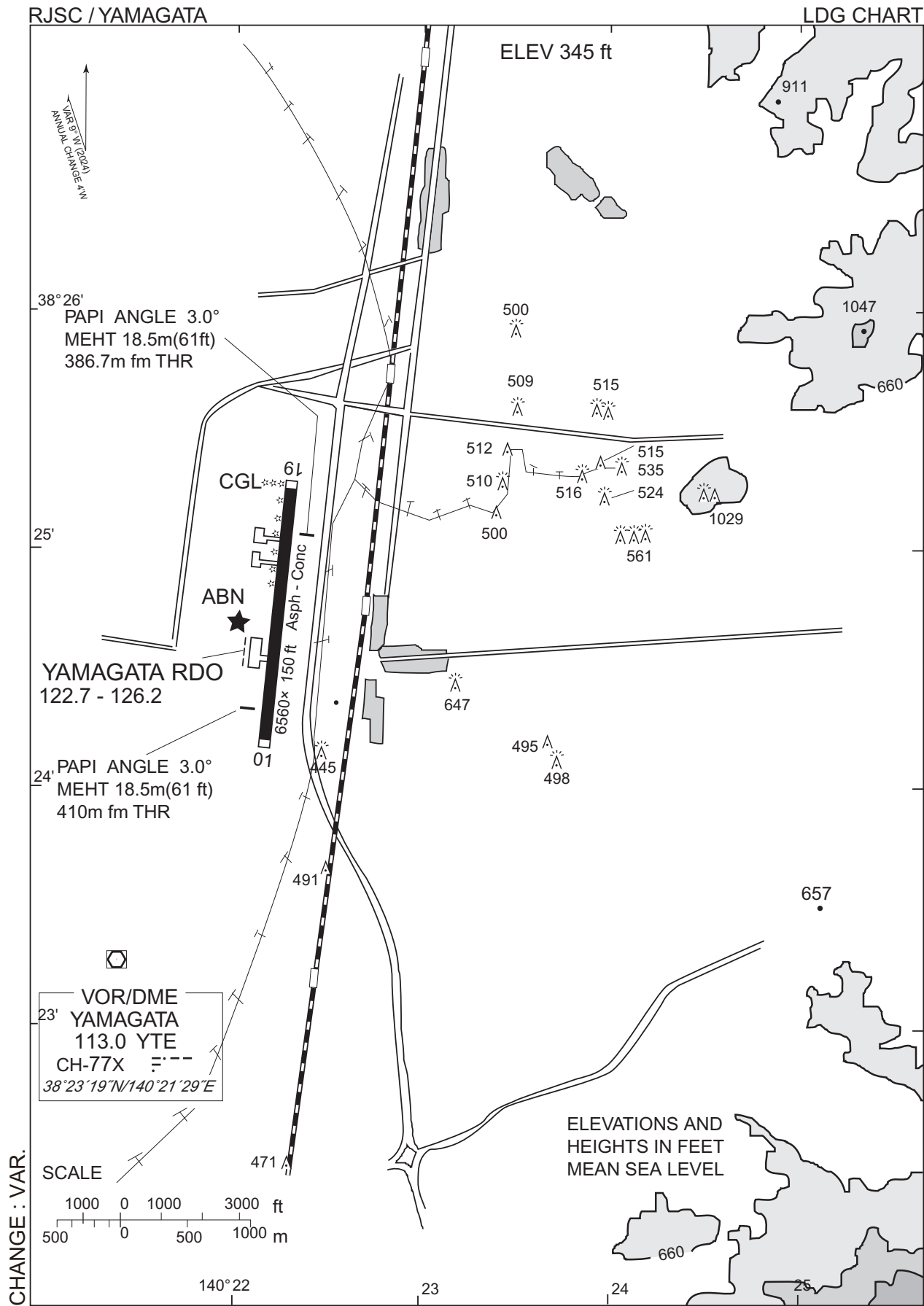


RJSC / YAMAGATA

Visual REP

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

CHANGE : Kaminoyama(Remarks).



RJSC / YAMAGATA

Minimum Vectoring Altitude CHART



① 10000

CENTER : 382443N/1402216E (ARP)