

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.

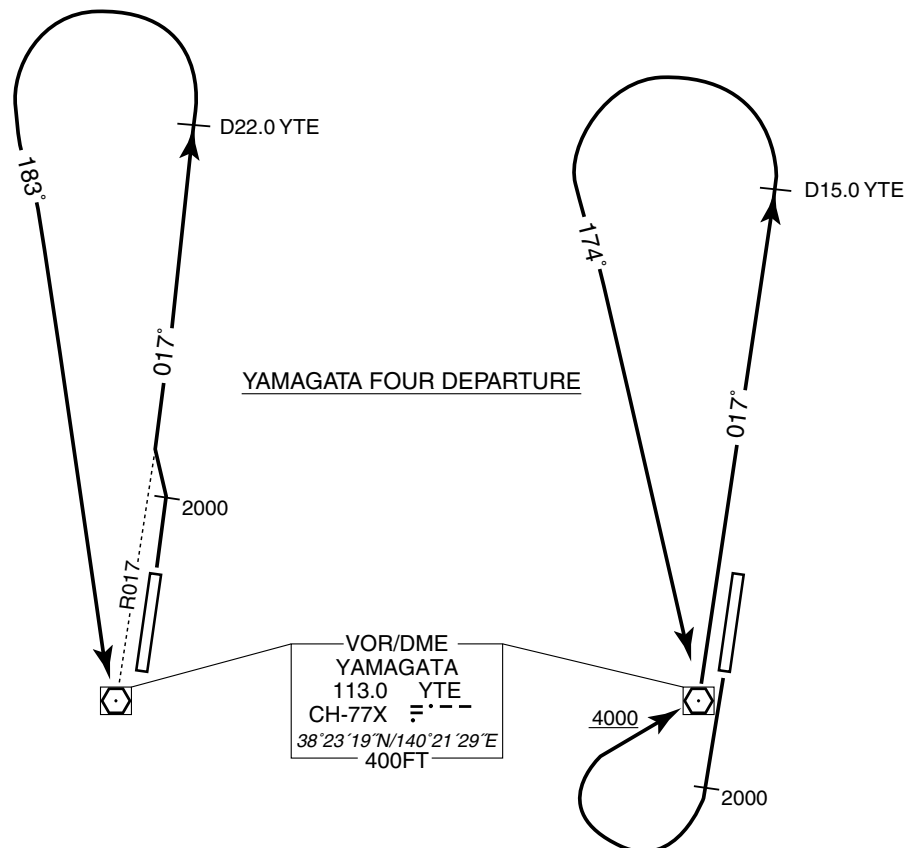
RWY19: 5.0% climb gradient required up to 2000FT.

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

Note No turn before DER.

For RWY01

For RWY19



STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA

RNAV SID

RUBIS ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 8°W (2017)

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 DEPARTURENIIGATA 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 : FIX symbol(NIIGATA).

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.

VAR 8°W (2017)

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 : FIX symbol(HANKA).

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

YAMAGATA

YOZAN WEST ARRIVAL / YOZAN NORTH ARRIVAL

Basic RNP1

Note GNSS required.

VAR 8°W (2017)

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

YAMAGATA (YTE)
382319.0N
1402128.6E

YOZAN NORTH ARRIVAL

IMONY
381111.6N
1401005.0E
MAX 250KIAS

YOZAN WEST ARRIVAL

ELDAK
380133.9N
1394540.4E
FL150

SUGGY
380424.9N
1400035.7E
11000

YOZAN
380617.1N
1400922.8E
9000

12.1
085°

7.2
083°

4.9
195°

15.1
225°

CHANGE : FIX symbol(YAMAGATA, YOZAN, ELDAK).

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 | — | 225 (216.5) | -8.2 | 15.1 | — | — | -250 | — | Basic RNP1 |
| 003 | TF | YOZAN | — | 195 (186.4) | -8.2 | 4.9 | — | +9000 | — | — | Basic RNP1 |

CHANGE : Course FM YTE to IMONY.

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 | — | — | 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 |

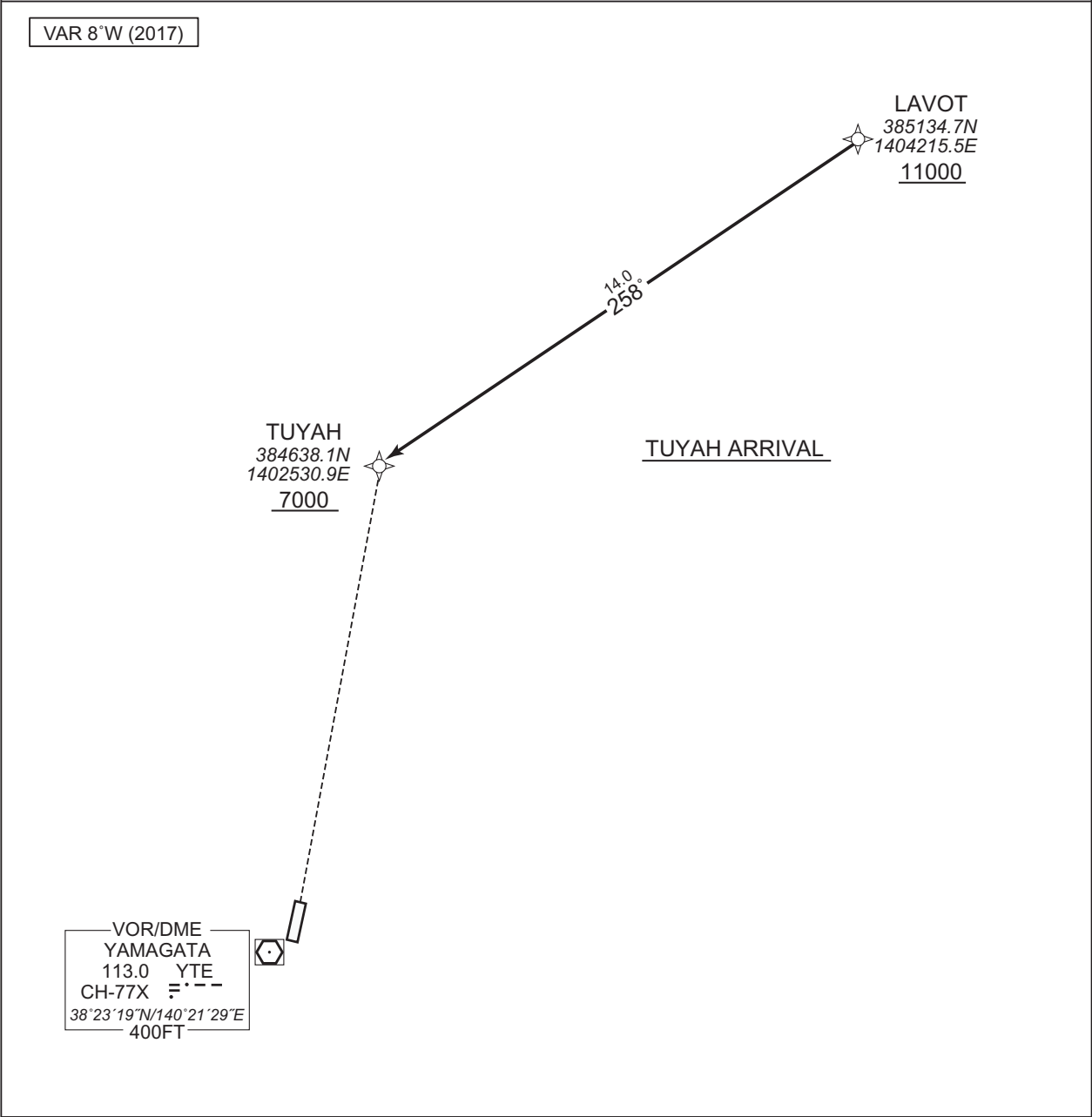
CHANGE : New PROC

STANDARD ARRIVAL CHART - INSTRUMENT

RJSC / YAMAGATARNAV STAR RWY19

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

Note GNSS required.



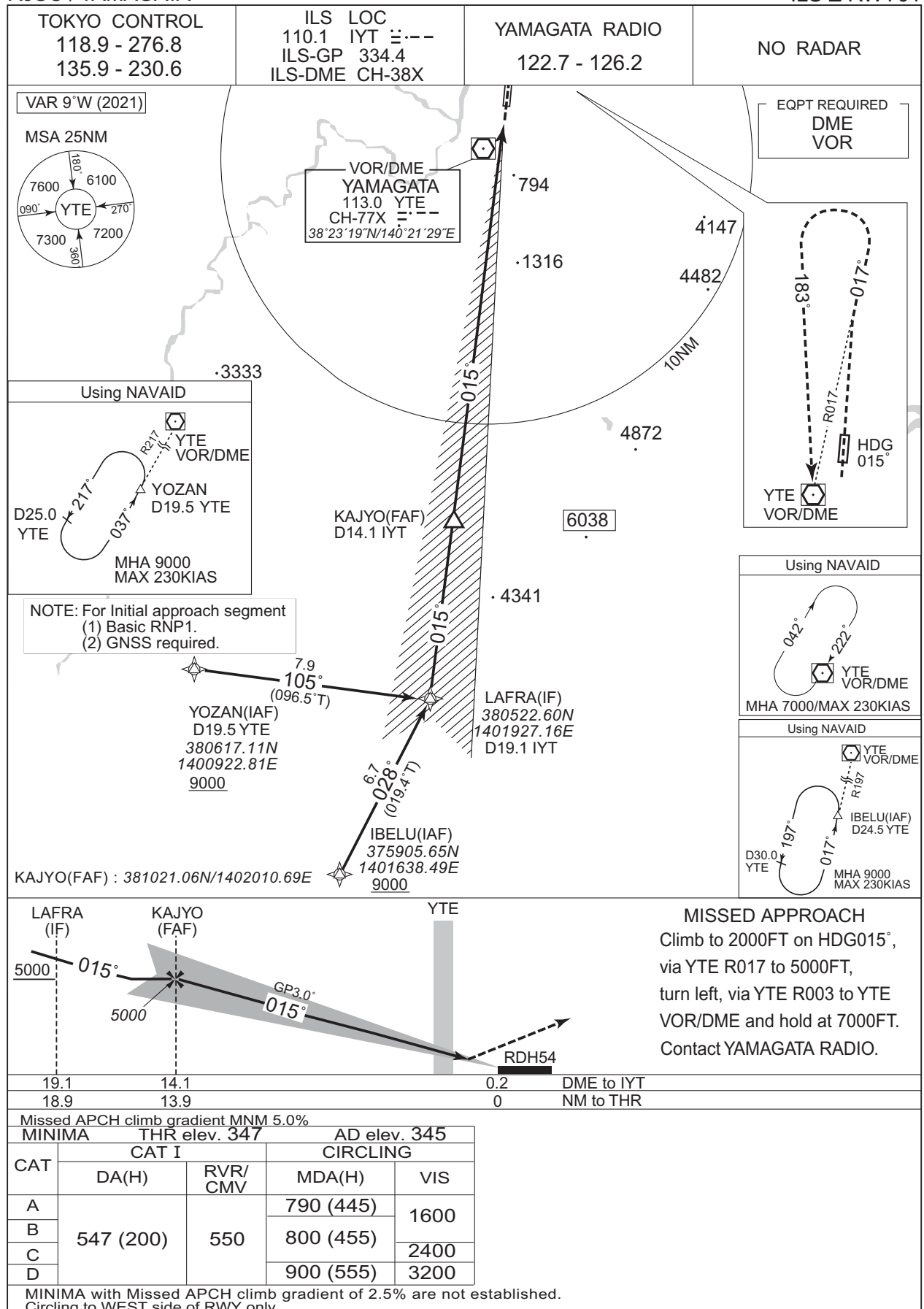
| <u>TUYAH ARRIVAL</u> From LAVOT at or above 11000FT, to TUYAH at or above 7000FT. | | | | | | | | | | | |
|--|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 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 : FIX symbol(LAVOT, TUYAH).

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

ILS Z RWY01

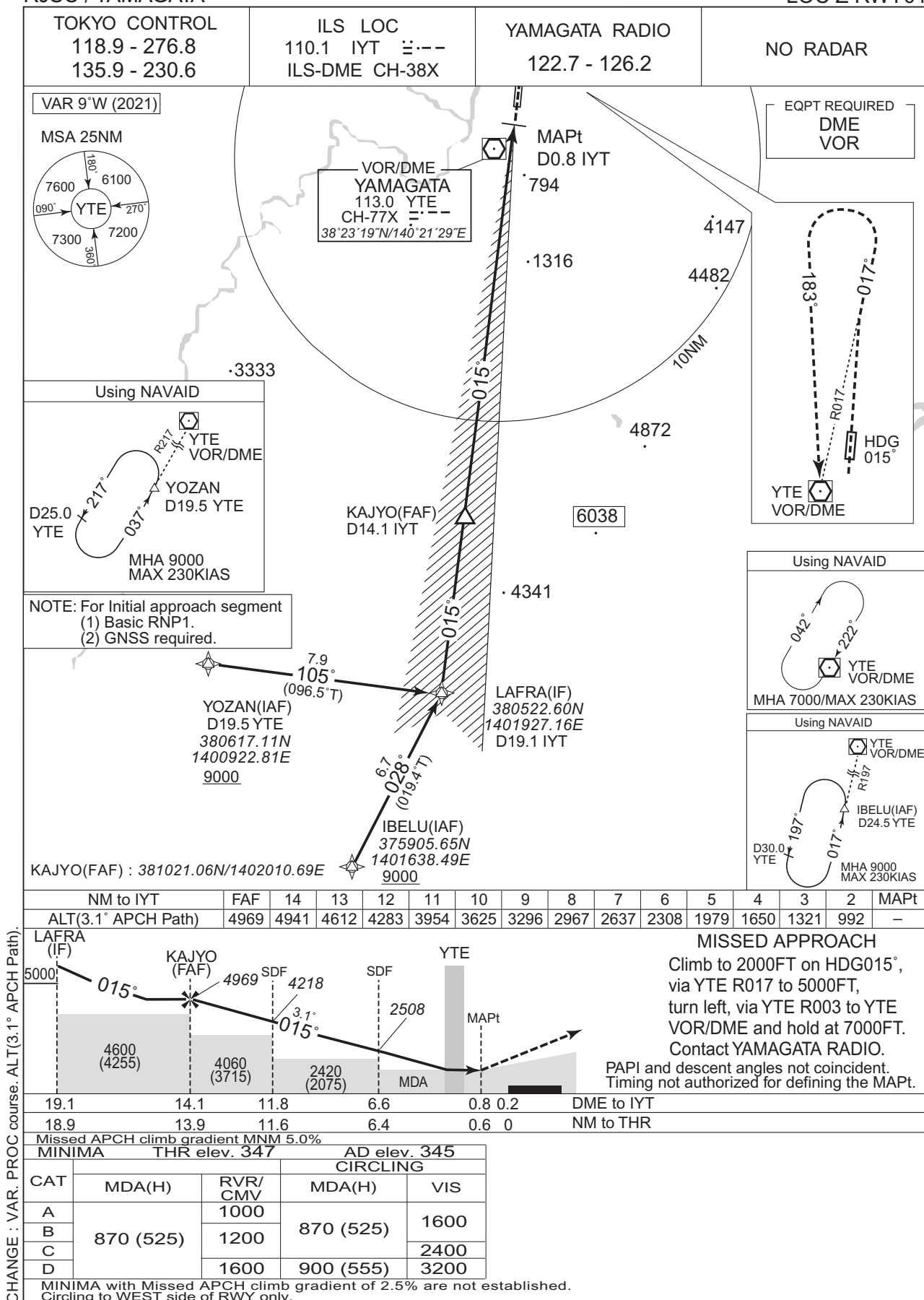


CHANGE : VAR. PROC course.

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

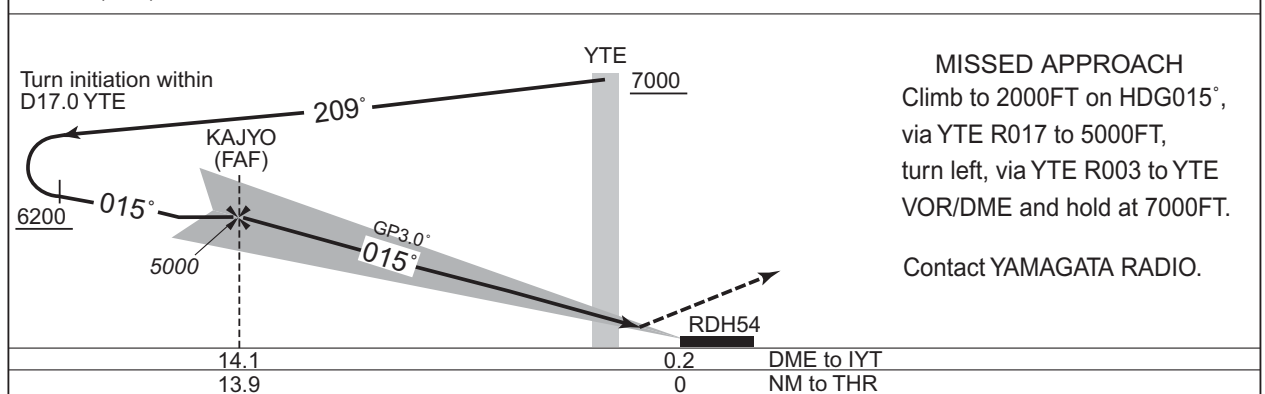
LOC Z RWY01



INSTRUMENT APPROACH CHART

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 |
| | 547 (200) | 550 | 790 (445) | 1600 |
| | | | 800 (455) | 2400 |
| | | | 900 (555) | 3200 |

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

CHANGE : VAR. PROC course.

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

LOC Y RWY01



CHANGE : VAR, PROC course, ALT(3.1° APCH Path).

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

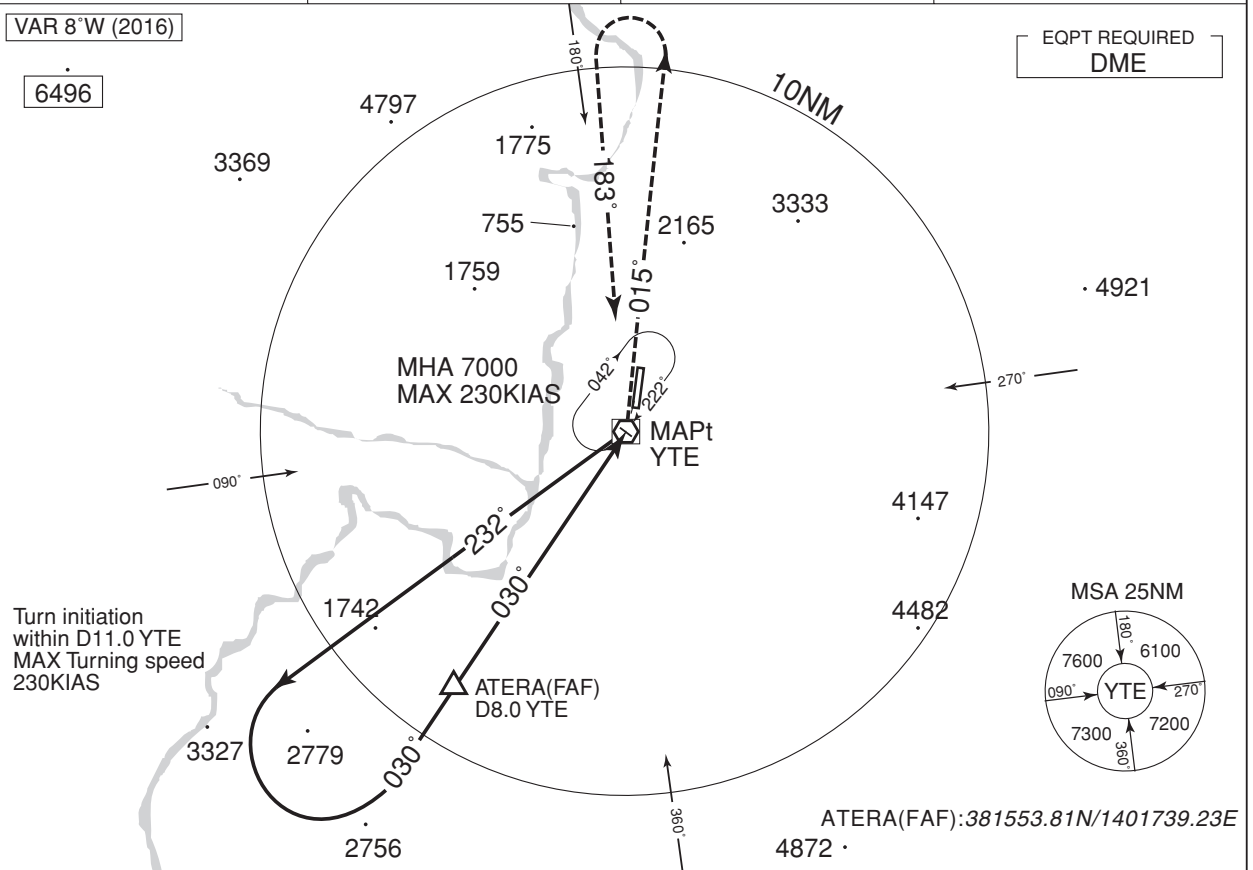
VOR A

| | | | |
|---|---|---------------------------------|----------|
| TOKYO CONTROL 118.9 - 276.8 135.9 - 230.6 | YAMAGATA VOR/DME 113.0 YTE CH-77X 38°23'19"N/140°21'29"E | YAMAGATA RADIO 122.7 - 126.2 | NO RADAR |
|---|---|---------------------------------|----------|

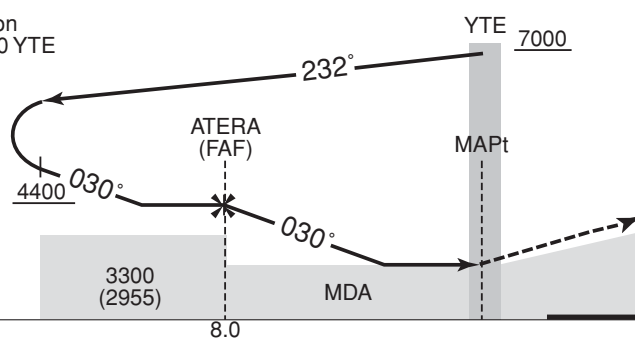
VAR 8°W (2016)

6496

EQPT REQUIRED
DME



Turn initiation
within D11.0 YTE



MISSED APPROACH

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

Missed APCH climb gradient MNM 5.0%

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

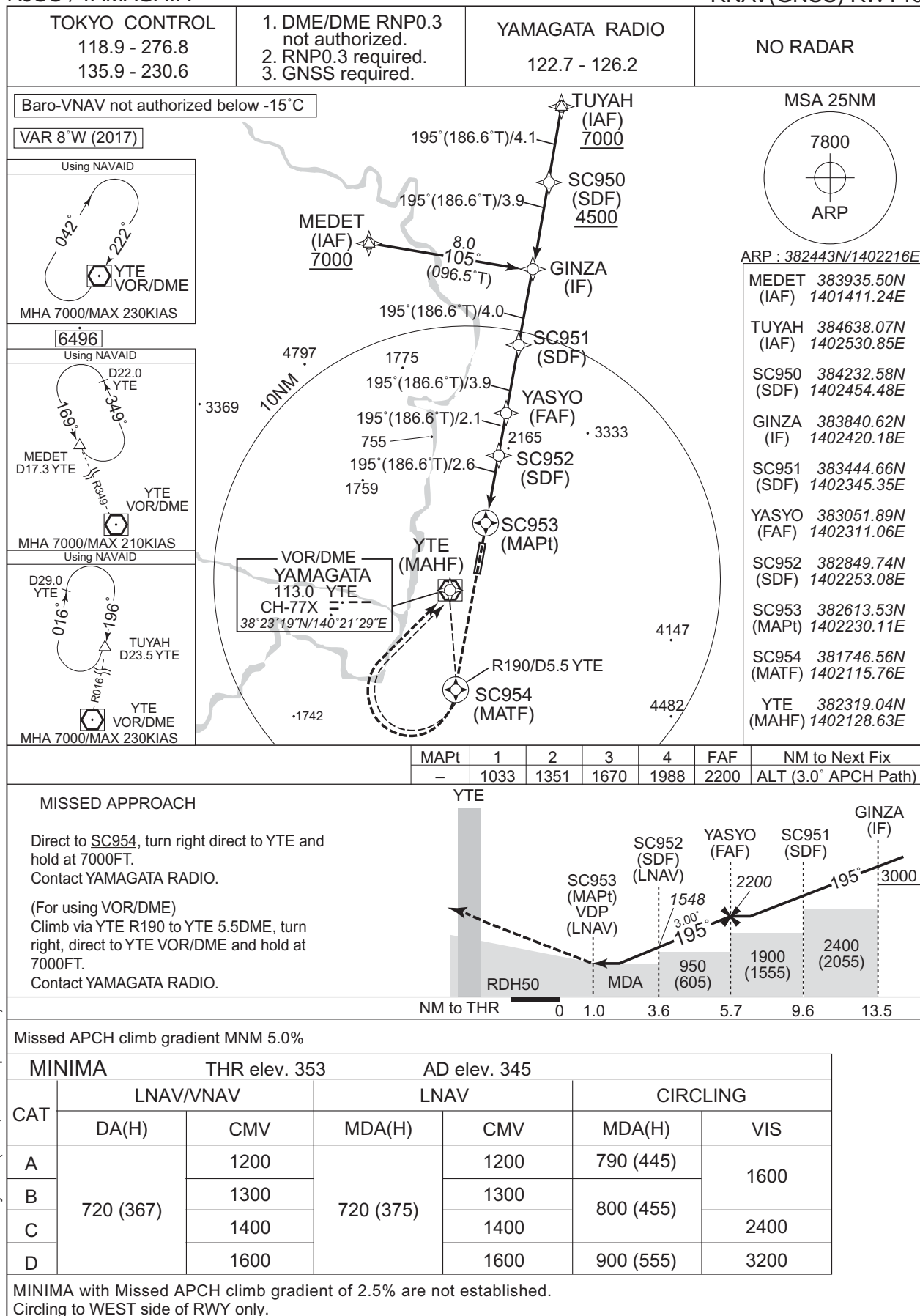
MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to WEST side of RWY only.

CHANGE : MHA

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

RNAV(GNSS) RWY19



CHANGE : FIX symbol(YTE, HDLG pattern)

RJSC / YAMAGATA

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).

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

