

STANDARD DEPARTURE CHART -INSTRUMENT

RJSK / AKITA

SID

YUWA REVERSAL SIX DEPARTURE

RWY 10 : Climb RWY HDG to 900FT, turn left HDG260°...

RWY 28 : Climb RWY HDG to 900FT, turn right ...

...to intercept and proceed via UWE R305 to 19.0DME, turn right to intercept and proceed via UWE R328 to UWE VOR/DME.

Cross UWE R305/5.0DME at or below 5000FT, cross UWE R328/6.0DME at assigned altitude.



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MAGGY ONE DEPARTURE

RWY10 : Climb RWY HDG to 900FT, via UWE R105, turn left, via UWE 10.8DME counterclockwise ARC to intercept and proceed via UWE R028 to MAGGY.

RWY28 : Climb RWY HDG to 900FT, via UWE R285, turn right, via UWE 10.8DME clockwise ARC to intercept and proceed via UWE R028 to MAGGY.

Note RWY10 : 5.0% climb gradient required up to 3300FT.
OBST ALT 3543FT located at 13.8NM 070° FM end of RWY10.

CHOKA ONE DEPARTURE

RWY10 : Climb RWY HDG to 900FT, via UWE R105, turn right, via UWE 10.8DME clockwise ARC to intercept and proceed via UWE R182 to CHOKA.

RWY28 : Climb RWY HDG to 900FT, via UWE R285, turn left, via UWE 10.8DME counterclockwise ARC to intercept and proceed via UWE R182 to CHOKA.

YAYOI THREE DEPARTURE

RWY10 : Climb RWY HDG to 900FT, via UWE R105, turn right, via UWE 10.8DME clockwise ARC to intercept and proceed via UWE R215 to YAYOI.

RWY28 : Climb RWY HDG to 900FT, via UWE R285, turn left, via UWE 10.8DME counterclockwise ARC to intercept and proceed via UWE R215 to YAYOI.

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RNAV SID

MUTSU ONE DEPARTURE

RWY10

| 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 | — | — | 105 (096.6) | -8.3 | — | — | +900 | — | — | Basic RNP1 |
| 002 | DF | SK002 | — | — | -8.3 | — | L | — | — | — | Basic RNP1 |
| 003 | TF | MRE | — | 031 (023.0) | -8.3 | 60.9 | — | — | — | — | Basic RNP1 |

RWY28

| 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 | — | — | 285 (276.6) | -8.3 | — | — | +900 | — | — | Basic RNP1 |
| 002 | DF | SK002 | — | — | -8.3 | — | R | — | — | — | Basic RNP1 |
| 003 | TF | MRE | — | 031 (023.0) | -8.3 | 60.9 | — | — | — | — | Basic RNP1 |

STANDARD DEPARTURE CHART -INSTRUMENT

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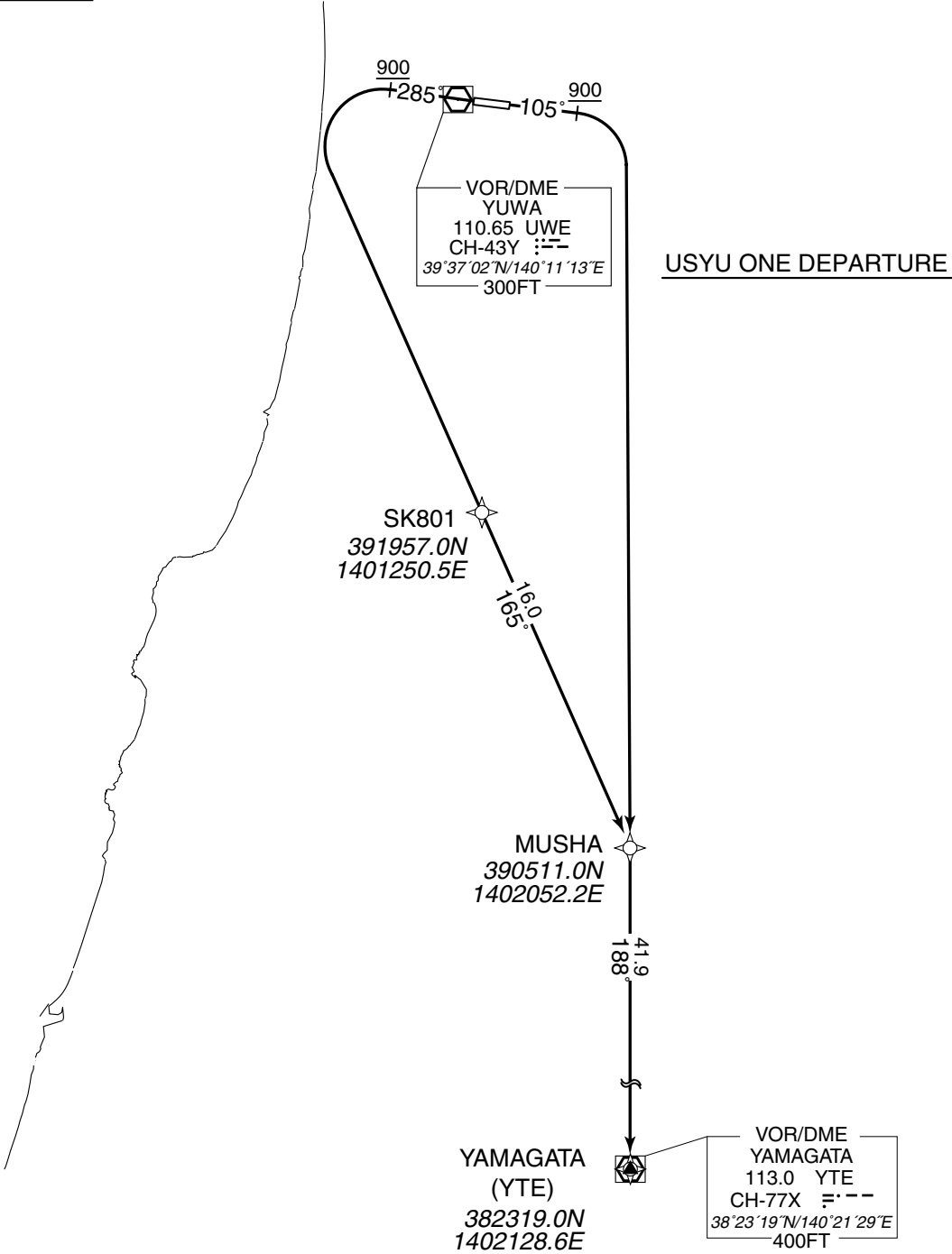
RNAV SID

USYU ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 8°W (2013)



USYU ONE DEPARTURE

RWY10 : Climb on HDG 105° at or above 900FT, turn right direct to MUSHHA, to YTE.
RWY28 : Climb on HDG 285° at or above 900FT, turn left direct to SK801, to MUSHHA, to YTE.

STANDARD DEPARTURE CHART -INSTRUMENT

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RNAV SID

USYU ONE DEPARTURE

RWY10

| 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 | — | — | 105 (096.6) | -8.3 | — | — | +900 | — | — | Basic RNP1 |
| 002 | DF | MUSHA | — | — | -8.3 | — | R | — | — | — | Basic RNP1 |
| 003 | TF | YTE | — | 188 (179.3) | -8.3 | 41.9 | — | — | — | — | Basic RNP1 |

RWY28

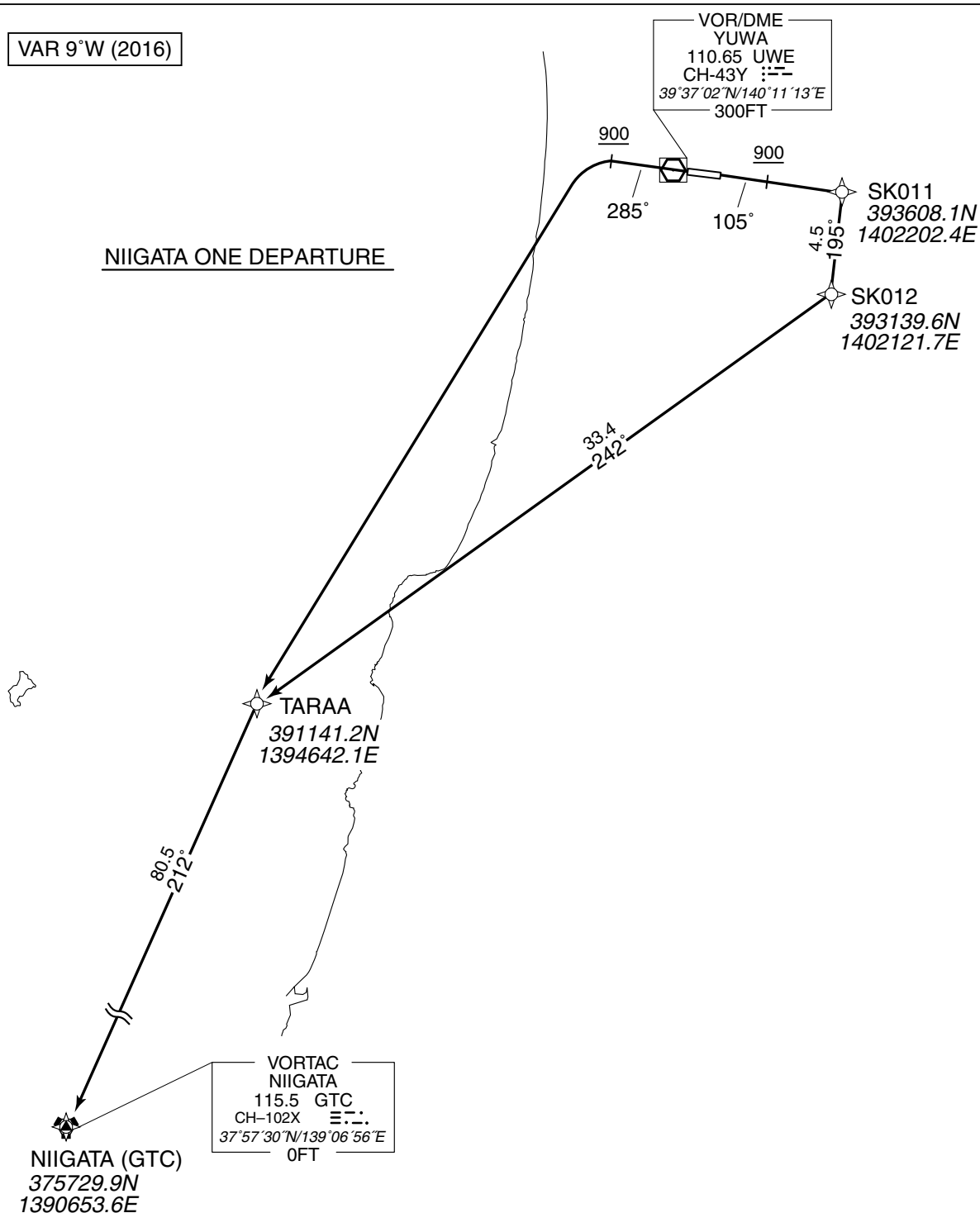
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | VA | — | — | 285 (276.6) | -8.3 | — | — | +900 | — | — | Basic RNP1 |
| 002 | DF | SK801 | — | — | -8.3 | — | L | — | — | — | Basic RNP1 |
| 003 | TF | MUSHA | — | 165 (157.1) | -8.3 | 16.0 | — | — | — | — | Basic RNP1 |
| 004 | TF | YTE | — | 188 (179.3) | -8.3 | 41.9 | — | — | — | — | Basic RNP1 |

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➔ RNAV SID

Basic RNP1

VAR 9°W (2016)



RWY10 : Climb on HDG 105° at or above 900FT, direct to SK011, to SK012, to TARAA, to GTC.
RWY28 : Climb on HDG 285° at or above 900FT, turn left direct to TARAA, to GTC.

STANDARD DEPARTURE CHART -INSTRUMENT

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➔ RNAV SID

NIIGATA ONE DEPARTURE

RWY10

| 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 | — | — | 105 (096.6) | -8.6 | — | — | +900 | — | — | Basic RNP1 |
| 002 | DF | SK011 | — | — | -8.6 | — | — | — | — | — | Basic RNP1 |
| 003 | TF | SK012 | — | 195 (186.7) | -8.6 | 4.5 | — | — | — | — | Basic RNP1 |
| 004 | TF | TARAA | — | 242 (233.5) | -8.6 | 33.4 | — | — | — | — | Basic RNP1 |
| 005 | TF | GTC | — | 212 (203.0) | -8.6 | 80.5 | — | — | — | — | Basic RNP1 |

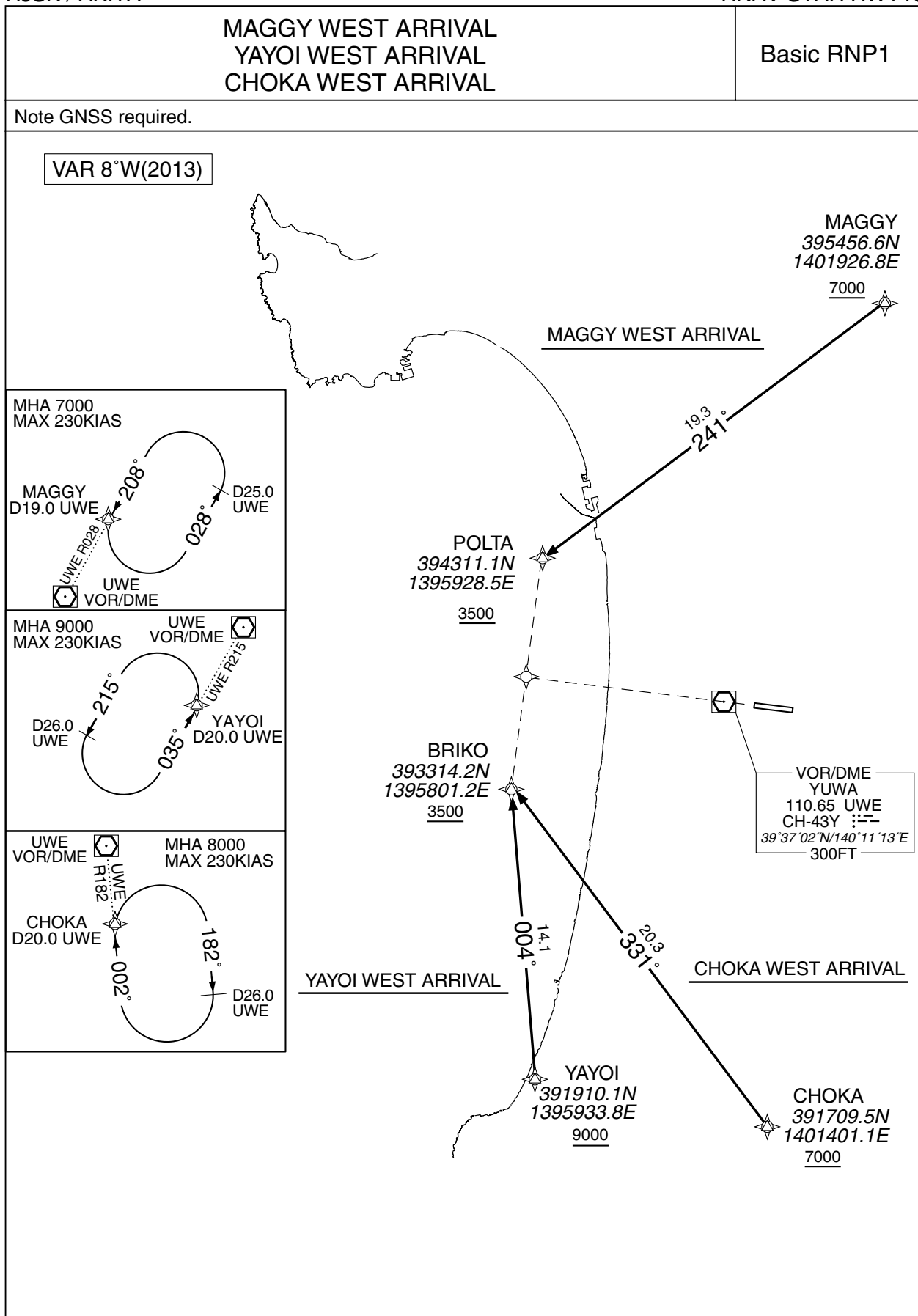
RWY28

| 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 | — | — | 285 (276.6) | -8.6 | — | — | +900 | — | — | Basic RNP1 |
| 002 | DF | TARAA | — | — | -8.6 | — | — | — | — | — | Basic RNP1 |
| 003 | TF | GTC | — | 212 (203.0) | -8.6 | 80.5 | — | — | — | — | Basic RNP1 |

STANDARD ARRIVAL CHART-INSTRUMENT

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RNAV STAR RWY10



STANDARD ARRIVAL CHART-INSTRUMENT

RJSK / AKITA

RNAV STAR RWY10

MAGGY WEST ARRIVAL

From MAGGY at or above 7000FT, to POLTA at or above 3500FT.

| 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 | MAGGY | — | — | -8.3 | — | — | +7000 | — | — | Basic RNP1 |
| 002 | TF | POLTA | — | 241 (232.6) | -8.3 | 19.3 | — | +3500 | — | — | Basic RNP1 |

YAYOI WEST ARRIVAL

From YAYOI at or above 9000FT, to BRIKO at or above 3500FT.

| 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 | YAYOI | — | — | -8.3 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | BRIKO | — | 004 (355.2) | -8.3 | 14.1 | — | +3500 | — | — | Basic RNP1 |

CHOKA WEST ARRIVAL

From CHOKA at or above 7000FT, to BRIKO at or above 3500FT.

| 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 | CHOKA | — | — | -8.3 | — | — | +7000 | — | — | Basic RNP1 |
| 002 | TF | BRIKO | — | 331 (322.5) | -8.3 | 20.3 | — | +3500 | — | — | Basic RNP1 |

STANDARD ARRIVAL CHART-INSTRUMENT

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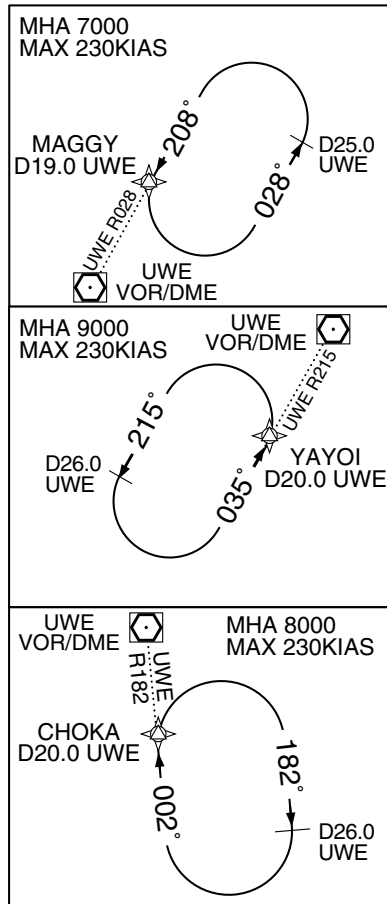
RNAV STAR RWY28

MAGGY EAST ARRIVAL
YAYOI EAST ARRIVAL
CHOKA EAST ARRIVAL

Basic RNP1

Note GNSS required.

VAR 8°W(2013)



MAGGY EAST ARRIVAL

MAGGY
395456.6N
1401926.8E
7000

GAKKO
394338.9N
1402411.8E
5000

VOR/DME
YUWA
110.65 UWE
CH-43Y
39°37'02"N/140°11'13"E
300FT

BIJIN
393052.6N
1402425.6E
4200

YAYOI EAST ARRIVAL

YAYOI
391910.1N
1395933.8E
9000

CHOKA EAST ARRIVAL

CHOKA
391709.5N
1401401.1E
7000

STANDARD ARRIVAL CHART-INSTRUMENT

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RNAV STAR RWY28

MAGGY EAST ARRIVAL

From MAGGY at or above 7000FT, to GAKKO at or above 5000FT.

| 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 | MAGGY | — | — | -8.3 | — | — | +7000 | — | — | Basic RNP1 |
| 002 | TF | GAKKO | — | 170 (162.1) | -8.3 | 11.9 | — | +5000 | — | — | Basic RNP1 |

YAYOI EAST ARRIVAL

From YAYOI at or above 9000FT, to BIJIN at or above 4200FT.

| 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 | YAYOI | — | — | -8.3 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | BIJIN | — | 067 (058.5) | -8.3 | 22.5 | — | +4200 | — | — | Basic RNP1 |

CHOKA EAST ARRIVAL

From CHOKA at or above 7000FT, to BIJIN at or above 4200FT.

| 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 | CHOKA | — | — | -8.3 | — | — | +7000 | — | — | Basic RNP1 |
| 002 | TF | BIJIN | — | 039 (030.3) | -8.3 | 15.9 | — | +4200 | — | — | Basic RNP1 |

STANDARD ARRIVAL CHART-INSTRUMENT

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STAR

KOANI ARRIVAL

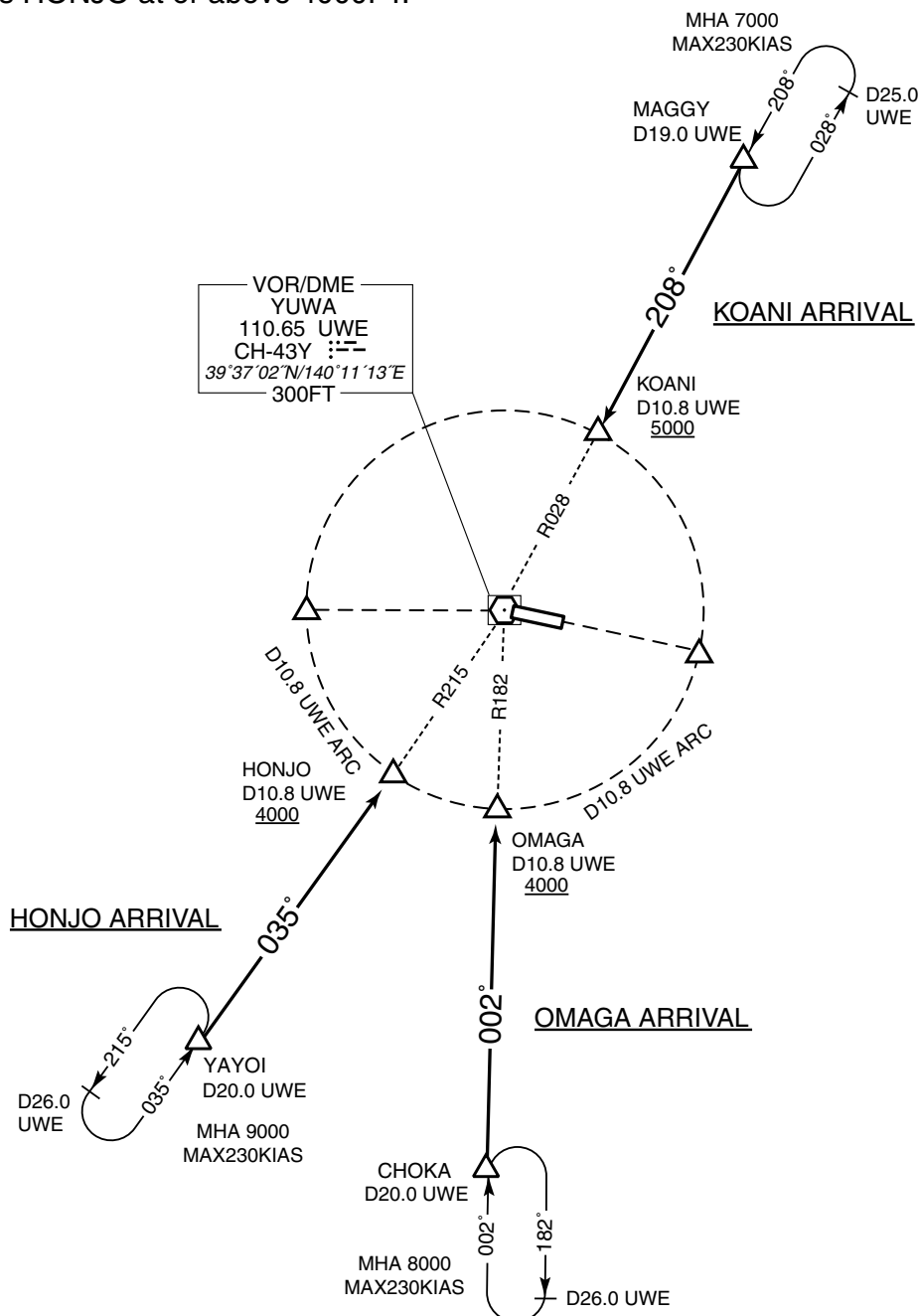
From over MAGGY, via UWE R028 to KOANI.
Cross KOANI at or above 5000FT.

OMAGA ARRIVAL

From over CHOKA, via UWE R182 to OMAGA.
Cross OMAGA at or above 4000FT.

HONJO ARRIVAL

From over YAYOI, via UWE R215 to HONJO.
Cross HONJO at or above 4000FT.



INSTRUMENT APPROACH CHART

RJSK / AKITA

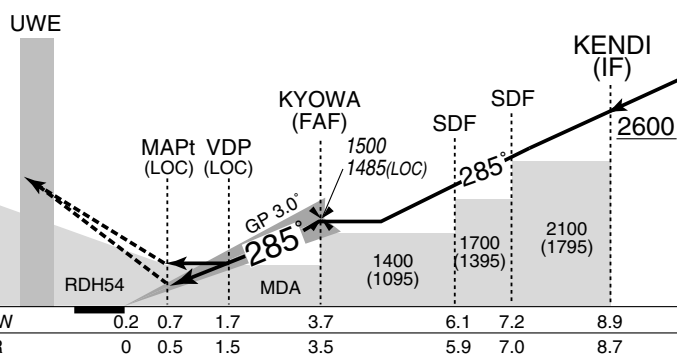
ILS Z or LOC Z RWY28



MISSED APPROACH

Climb to 800FT on HDG285°, via UWE R286 to UWE 4.8DME, turn right, direct to UWE VOR/DME and hold at 4000FT. Contact AKITA TOWER.

Timing not authorized for defining the MAPt.



MINIMA

THR elev. 314

AD elev. 305

| CAT | CAT I | | LOC | | CIRCLING | |
|-----|-----------|---------|-----------|---------|-----------|------|
| | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 514 (200) | 550 | 810 (505) | 1000 | 830 (525) | 1600 |
| B | | | | 1200 | | |
| C | | | | 1600 | 900 (595) | 2400 |
| D | | | | | | |

INSTRUMENT APPROACH CHART

RJSK / AKITA

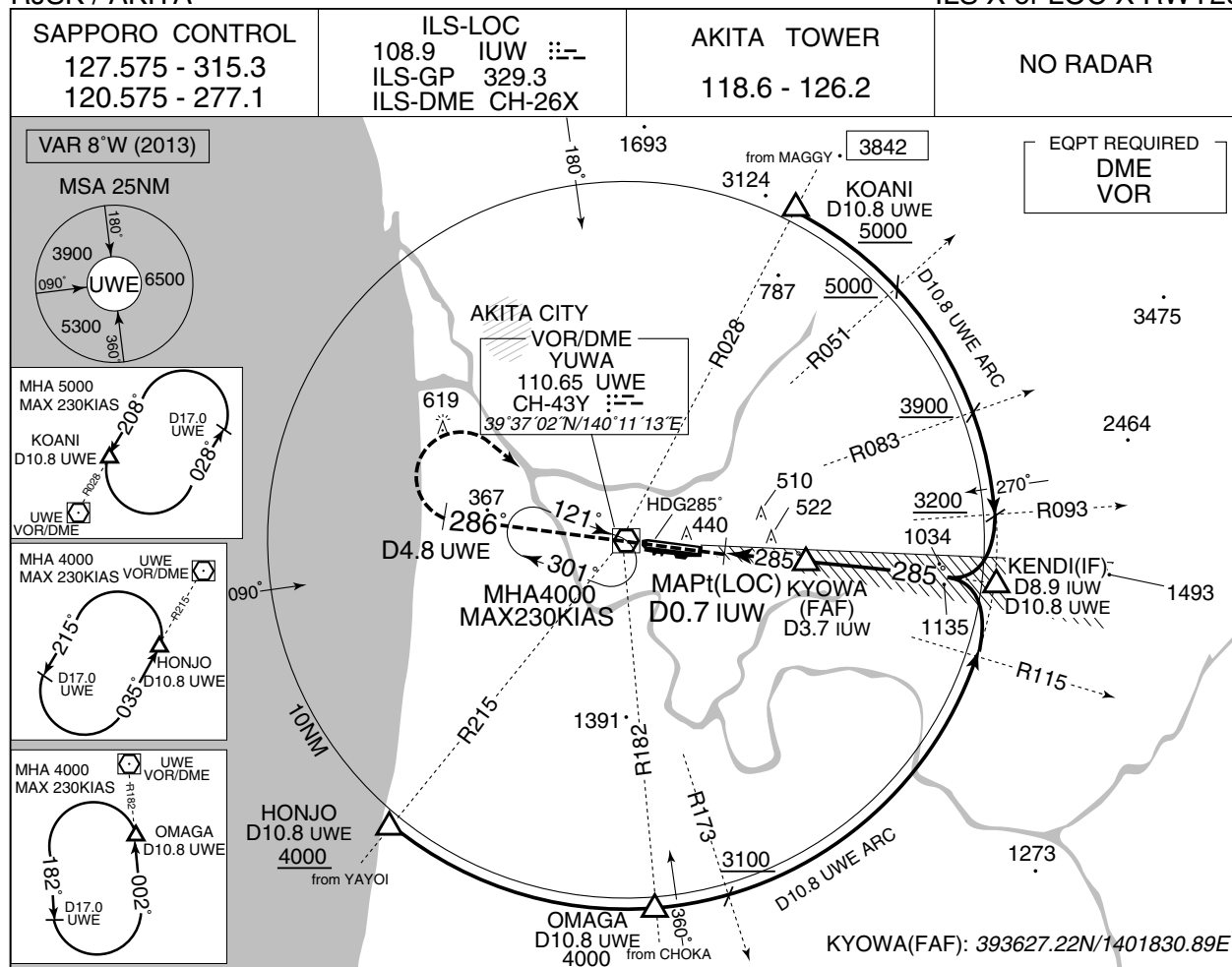
ILS Y or LOC Y RWY28



INSTRUMENT APPROACH CHART

RJSK / AKITA

ILS X or LOC X RWY28

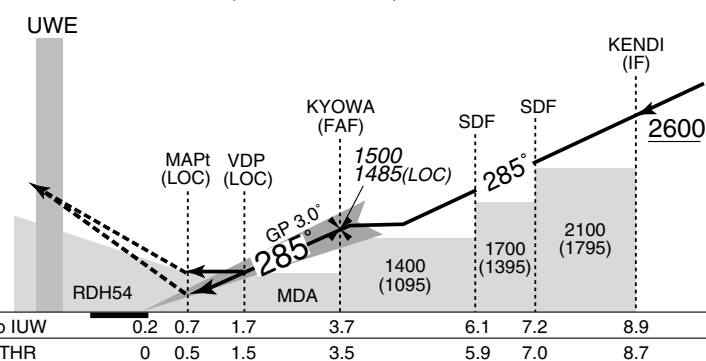


| | NM to IUW | MAPt | 2 | 3 | FAF |
|----------------------|-----------|------|------|------|-----|
| ALT (3.0° APCH Path) | — | 940 | 1258 | 1485 | |

MISSED APPROACH

Climb to 800FT on HDG285°,
via UWE R286 to UWE 4.8DME,
turn right, direct to UWE
VOR/DME and hold at 4000FT.
Contact AKITA TOWER.

Timing not authorized for defining the MAPt.



| MINIMA | THR elev. 314 | AD elev. 305 |
|--------|---------------|--------------|
|--------|---------------|--------------|

| CAT | CAT I | | LOC | | CIRCLING | |
|-----|-----------|-------------|-----------|-------------|-----------|------|
| | DA(H) | RVR/ CMV | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 514 (200) | 550 | 810 (505) | 1000 | 830 (525) | 1600 |
| B | | | | 1200 | | |
| C | | | | | 900 (595) | 2400 |
| D | | | | 1600 | | |

INSTRUMENT APPROACH CHART

RJSK / AKITA

VOR RWY28



INSTRUMENT APPROACH CHART

RJSK / AKITA

VOR Z RWY10



INSTRUMENT APPROACH CHART

RJSK / AKITA

VOR Y RWY10



INSTRUMENT APPROACH CHART

RJSK / AKITA

RNAV(GNSS) Z RWY10



INSTRUMENT APPROACH CHART

RJSK / AKITA

➔ RNAV(RNP) Y RWY10

| | | | |
|---|----------------------|------------------------------|----------|
| SAPPORO CONTROL 127.575 - 315.3 120.575 - 277.1 | GNSS and RF required | AKITA TOWER 118.6 - 126.2 | NO RADAR |
|---|----------------------|------------------------------|----------|

For uncompensated Baro-VNAV systems, procedure not authorized below -15°C / above 45°C



MISSED APPROACH

From RW10 on track 105°,
at or above 700FT turn
right, direct to CHOKA and
hold at 8000FT.
Contact AKITA TOWER.



Missed APCH climb gradient MNM 5.0%

| MINIMA | THR elev.289 | AD elev.305 |
|--------|--------------|-------------|
| CAT | RNP 0.30 | |
| | DA(H) | CMV |
| A | — | — |
| B | — | — |
| C | 686 (397) | 1400 |
| D | — | 1600 |

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

RNP AR
Special Authorization Required

INSTRUMENT APPROACH CHART

RJSK / AKITA

➡ RNAV(RNP) Y RWY10

RNAV(RNP) Y RWY10Coding 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 | CHOKA | — | — | -8.6 | — | — | +8000 | — | — | — |
| 002 | TF | NOZOM | — | 348 (339.2) | -8.6 | 13.2 | — | +3200 | — | — | 1.0 |
| 003 | TF | RINAH | — | 348 (339.1) | -8.6 | 2.9 | — | 3200 | — | — | 1.0 |
| 004 | TF | SK050 | — | 348 (339.1) | -8.6 | 1.3 | — | 2778 | — | -3.00 | 0.3 |
| 005 | RF Center: SKRF1 r=2.78 | SK051 | — | — | -8.6 | 5.7 | R | 965 | — | -3.00 | 0.3 |
| 006 | TF | RW10 | Y | 105 (096.6) | -8.6 | 2.0 | — | 339 | — | -3.00/50 | 0.3 |
| 007 | FA | — | — | 105 (096.6) | -8.6 | — | — | +700 | — | — | 1.0 |
| 008 | DF | CHOKA | — | — | -8.6 | — | R | 8000 | — | — | 1.0 |

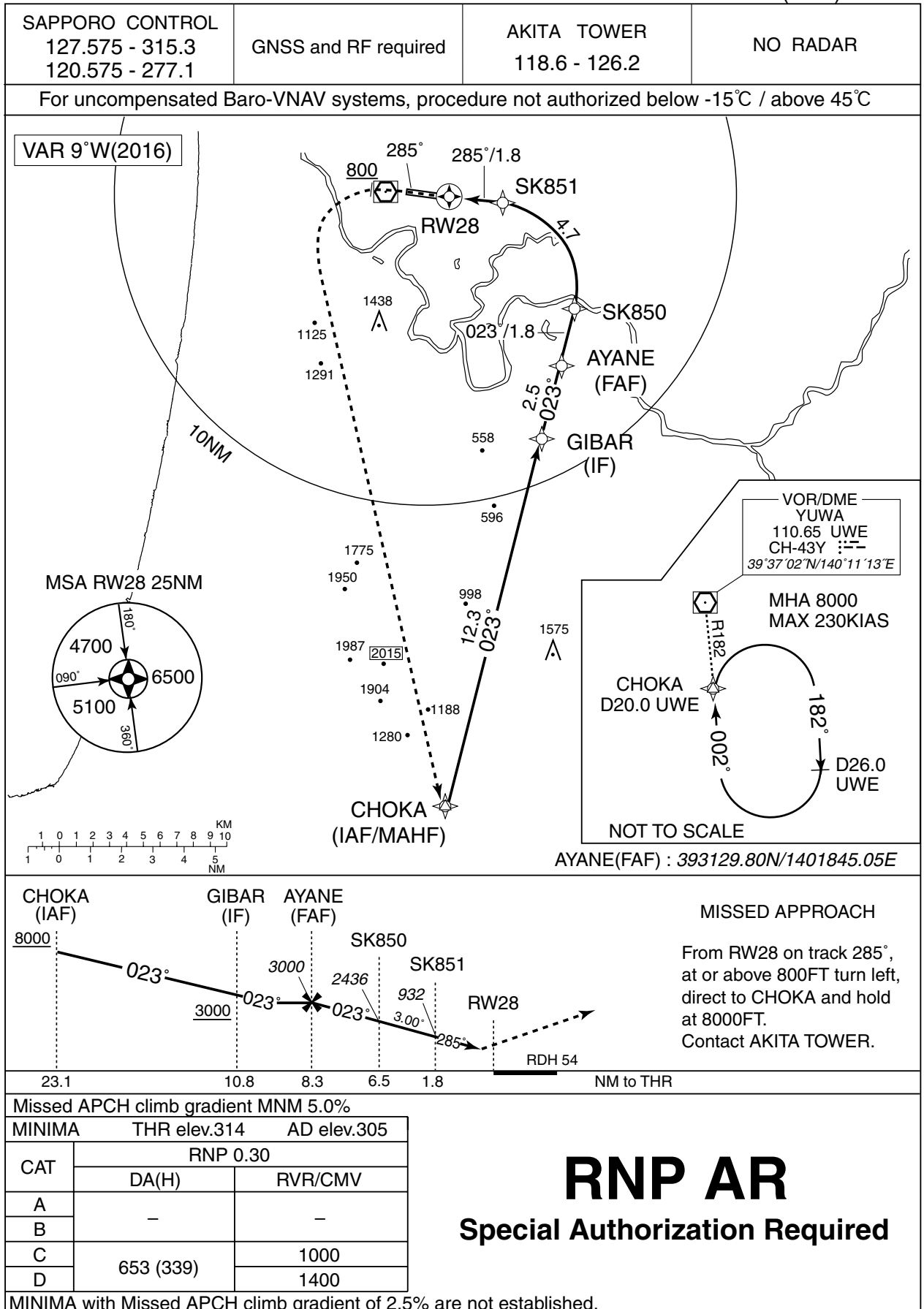
Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|------------------------|--------------------------|------------------------|
| CHOKA | 391709.51N/1401401.06E | SKRF1 | 393428.91N/1400918.43E |
| NOZOM | 392931.83N/1400754.90E | | |
| RINAH | 393214.99N/1400634.10E | | |
| SK050 | 393329.21N/1400557.30E | | |
| SK051 | 393714.55N/1400943.07E | | |
| RW10 | 393700.98N/1401215.14E | | |

INSTRUMENT APPROACH CHART

RJSK / AKITA

➔ RNAV(RNP) RWY28



INSTRUMENT APPROACH CHART

RJSK / AKITA

➔ RNAV(RNP) RWY28

RNAV(RNP) RWY28Coding Table

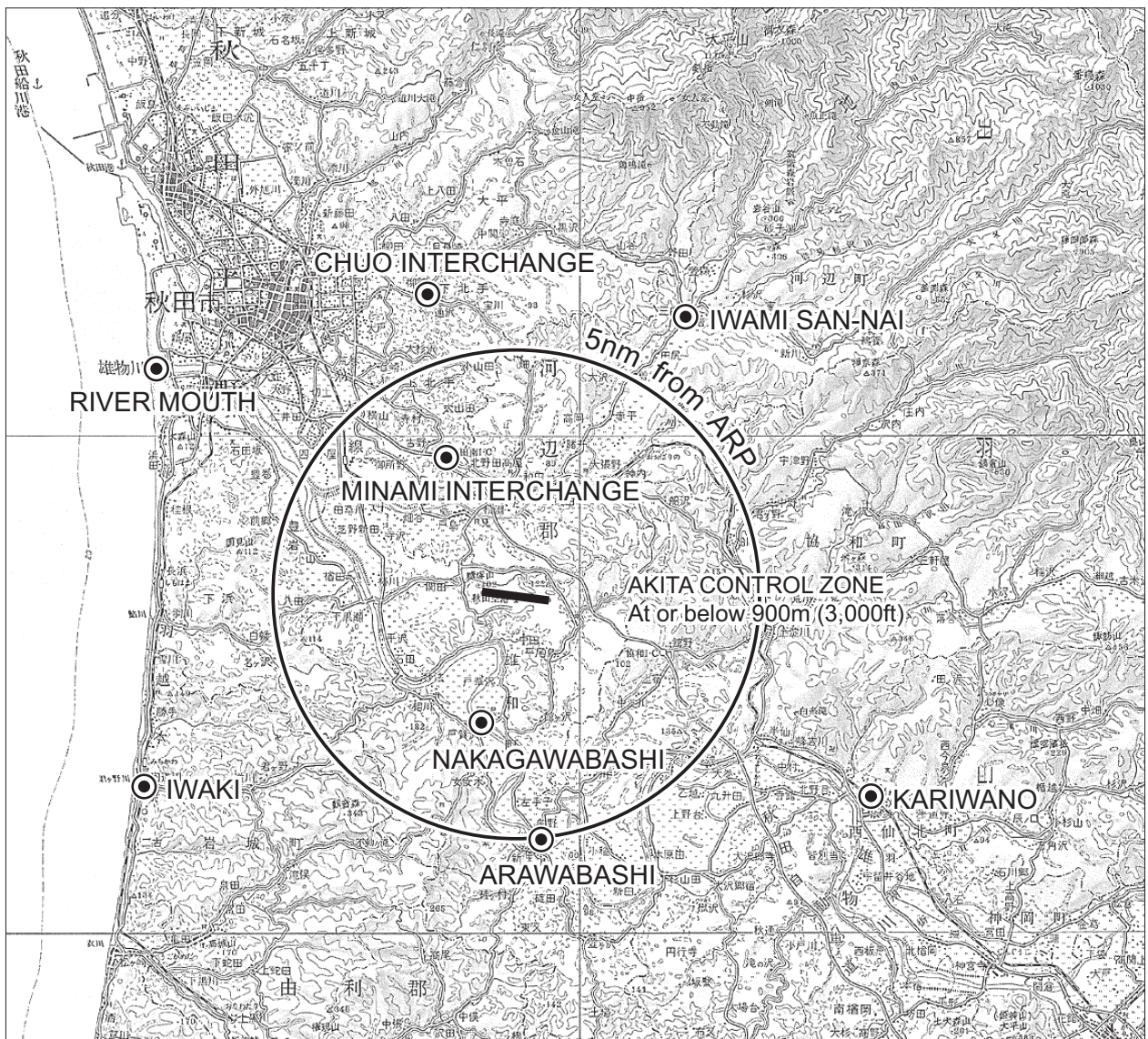
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course "M" (°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | VPA/RDH (°/FT) | RNP Value |
|---------------|----------------------------------|---------------------|----------|-----------------|--------------------|---------------|----------------|---------------|--------------|----------------|-----------|
| 001 | IF | CHOKA | — | — | -8.6 | — | — | +8000 | — | — | — |
| 002 | TF | GIBAR | — | 023 (014.3) | -8.6 | 12.3 | — | +3000 | — | — | 1.0 |
| 003 | TF | AYANE | — | 023 (014.3) | -8.6 | 2.5 | — | 3000 | — | — | 1.0 |
| 004 | TF | SK850 | — | 023 (014.3) | -8.6 | 1.8 | — | 2436 | — | -3.00 | 0.3 |
| 005 | RF Center: SKRF2 r=2.77 | SK851 | — | — | -8.6 | 4.7 | L | 932 | — | -3.00 | 0.3 |
| 006 | TF | RW28 | Y | 285 (276.7) | -8.6 | 1.8 | — | 368 | — | -3.00/54 | 0.3 |
| 007 | FA | — | — | 285 (276.7) | -8.6 | — | — | +800 | — | — | 1.0 |
| 008 | DF | CHOKA | — | — | -8.6 | — | L | 8000 | — | — | 1.0 |

Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|------------------------|--------------------------|------------------------|
| CHOKA | 391709.51N/1401401.06E | SKRF2 | 393354.17N/1401551.05E |
| GIBAR | 392905.47N/1401757.27E | | |
| AYANE | 393129.80N/1401845.05E | | |
| SK850 | 393312.87N/1401919.21E | | |
| SK851 | 393639.39N/1401615.88E | | |
| RW28 | 393651.66N/1401359.25E | | |

RJSK / AKITA

Visual REP

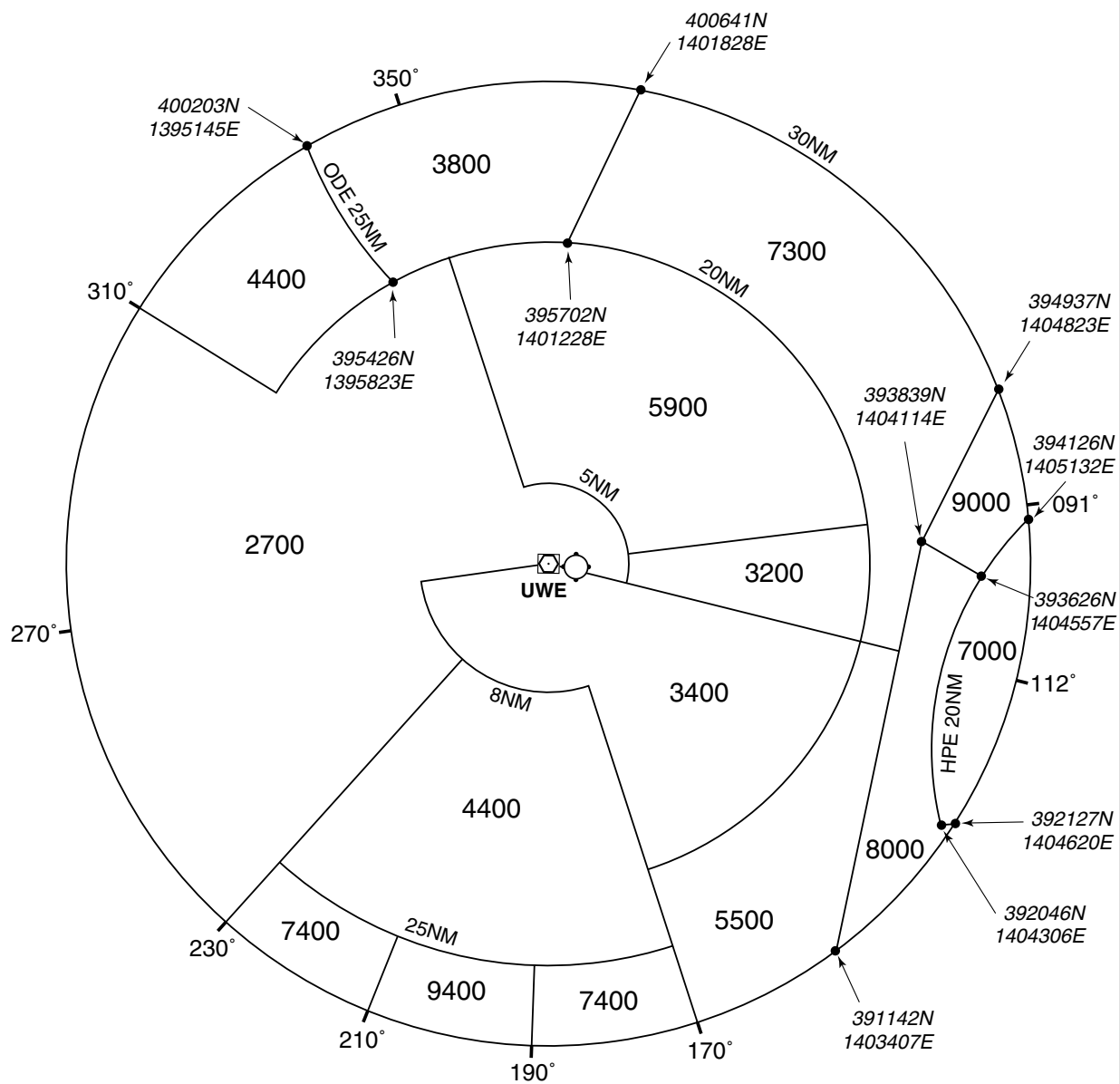


| Call sign | BRG / DIST from ARP | Remarks |
|---------------------------------|---------------------|---|
| 岩見三内 Iwami San-nai | 038°/ 6.5NM | 岩見川と三内川の合流点 Merging point of Iwamigawa River and San-naigawa River |
| 刈和野 Kariwano | 127°/ 8.2NM | JR刈和野駅 JR Kariwano Station |
| 新波橋 Arawabashi | 182°/ 5.0NM | 新波橋（雄物川） Arawabashi |
| 中川橋 Nakagawabashi | 205°/ 2.6NM | 中川橋（雄物川） Nakagawabashi |
| 岩城 Iwaki | 252°/ 8.5NM | 道の駅岩城 Michinoeki (Road Station) Iwaki |
| リバーマウス River Mouth | 310°/ 8.7NM | 雄物川河口 Omonogawa River Mouth |
| 南インターチェンジ Minami Interchange | 340°/ 3.1NM | 秋田南インターチェンジ（秋田自動車道） Akita Minami Interchange |
| 中央インターチェンジ Chuo Interchange | 352°/ 6.6NM | 秋田中央インターチェンジ（秋田自動車道） Akita Chuo Interchange |

RJSK / AKITA

Minimum Vectoring Altitude CHART

VAR 8°W (2013)



CENTER : 393702N/1401113E (UWE VOR/DME)