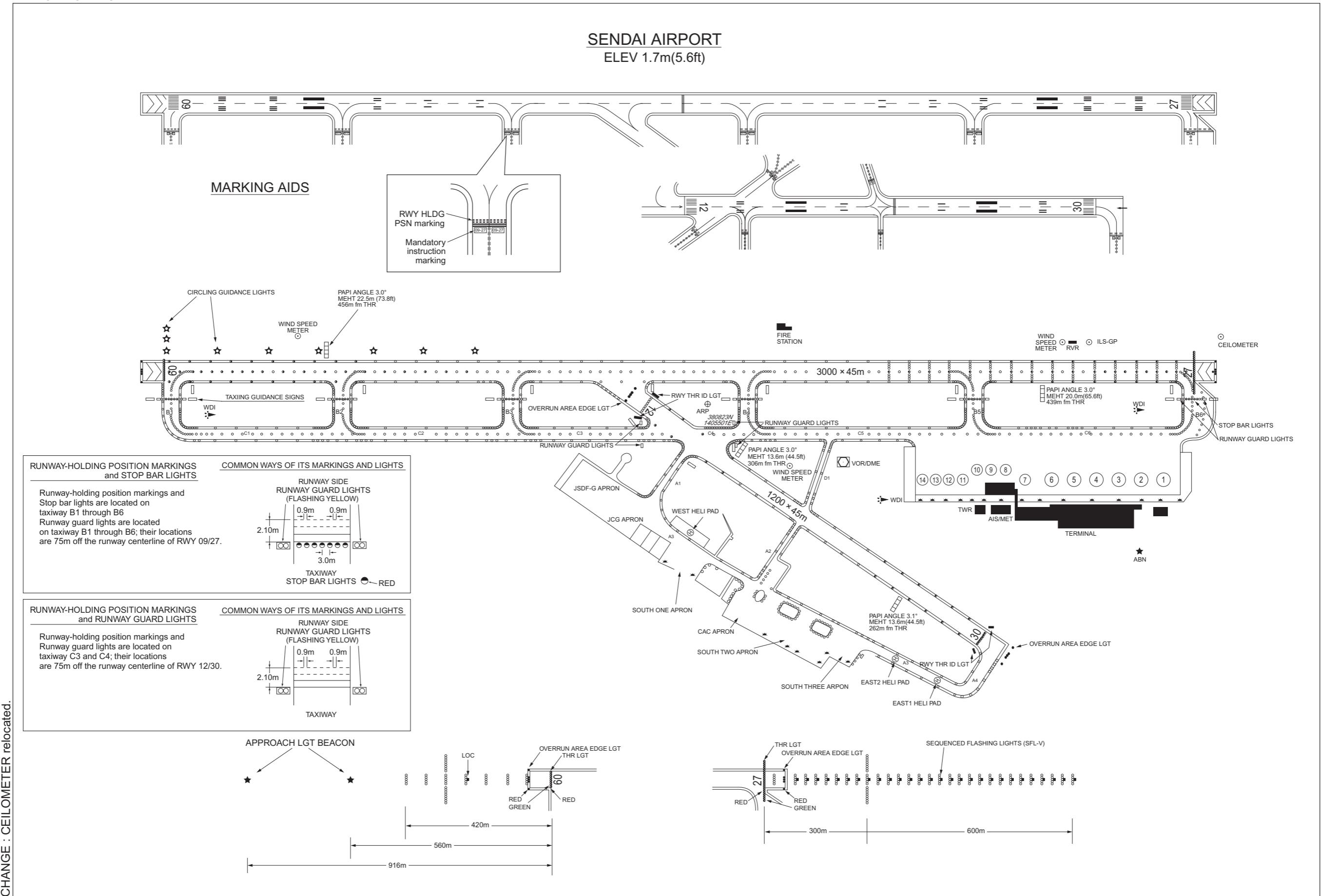


AERODROME CHART

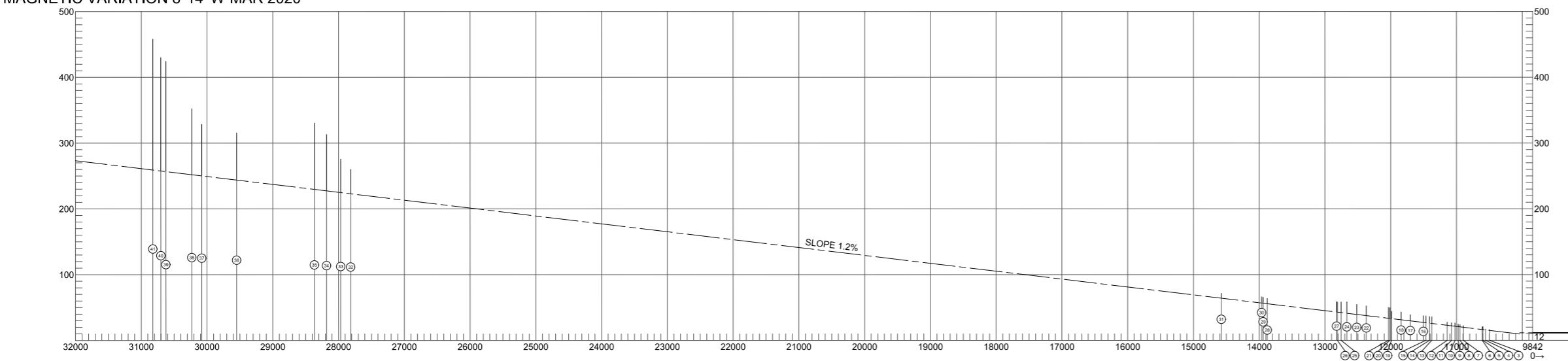




ERODROME OBSTACLE CHART-ICAO TYPE A (OPERATING LIMITATIONS)

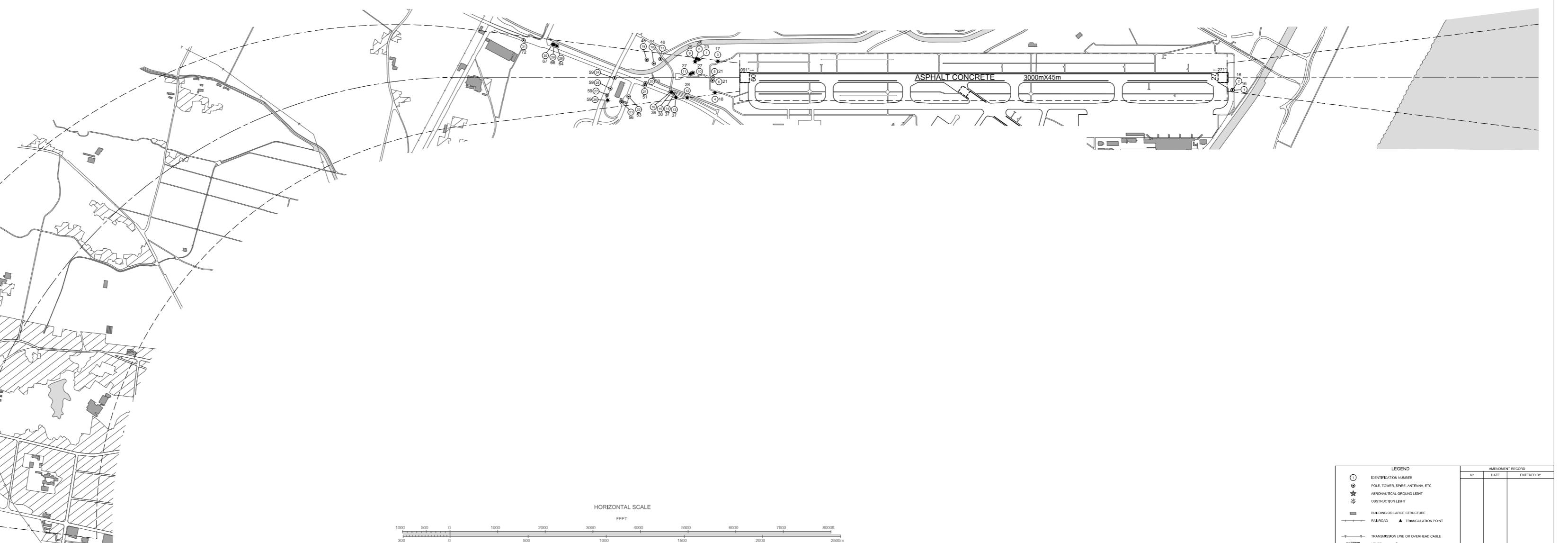
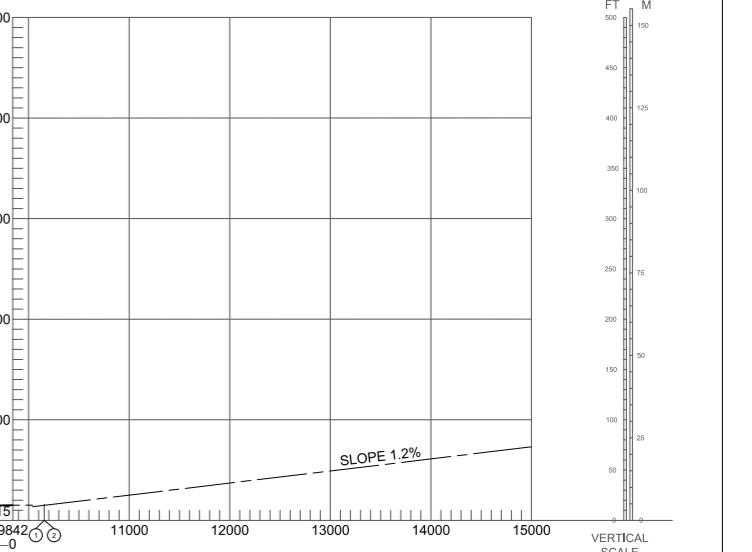
DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

MAGNETIC VARIATION 8°14' W-MAR 2020



SENDAI AIRPORT
RWY : 09/27

| DECLARED DISTANCES | | |
|--------------------|------------------------------------|-------|
| Y 09 | RWY 27 | |
| 0m | TAKE OFF RUN AVAILABLE | 3000m |
| 0m | TAKE OFF DISTANCE AVAILABLE | 3000m |
| 0m | ACCELERATE STOP DISTANCE AVAILABLE | 3000m |
| 0m | LANDING DISTANCE AVAILABLE | 3000m |



CHANGE:Update

AERODROME OBSTACLE CHART-ICAO

TYPE B

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC



CHANGE:Update

STANDARD DEPARTURE CHART-INSTRUMENT

RJSS / SENDAI

SID

IWAKI EIGHT DEPARTURE

RWY 09 : Climb RWY HDG to SDE 3.4DME (2.8NM FM DER), turn right to intercept and proceed...

RWY 12 : Climb ...

RWY 27 : Climb RWY HDG to 500FT, turn left HDG 090° to intercept and proceed...

RWY 30 : Climb RWY HDG to 500FT, turn left HDG 090° to intercept and proceed...
...via SDE R120, via IXE R024 to IXE VOR/DME.

Cross IXE R024/46.7DME at or above 11000FT, cross IXE R024/28.0DME at or above FL150, cross IXE VOR/DME at assigned altitude.

Note RWY 09 : 5.0% climb gradient required up to 500FT.

OBST ALT 62FT located at 0.2NM 102° FM end of RWY09.

RWY 27 : 5.0% climb gradient required up to 1000FT.

OBST ALT 919FT located at 4.1NM 269° FM end of RWY27.

RWY 30 : 5.0% climb gradient required up to 1200FT.

OBST ALT 1181FT located at 5.3NM 283° FM end of RWY30.

CHANGE : Description of PROC name.



STANDARD DEPARTURE CHART-INSTRUMENT

RJSS / SENDAI

SID

SENDAI REVERSAL SIX DEPARTURE

RWY 09 : Climb RWY HDG to SDE 3.4DME (2.8NM fm DER), turn right to intercept and proceed...

RWY 12 : Climb ...

RWY 27 : Climb RWY HDG to 500FT, turn left HDG 090° to intercept and proceed...

RWY 30 : Climb RWY HDG to 500FT, turn left HDG 090° to intercept and proceed...
...via SDE R120 to 10.0DME, turn right, direct to SDE VOR/DME.

Cross SDE VOR/DME at or above 7000FT(*)).

* In case of proceeding to IXE VOR/DME : Cross SDE VOR/DME at or above 5000FT.

In case of proceeding to FKE VOR/DME : Cross SDE VOR/DME at or above 6000FT.

Note RWY 09 : 5.0% climb gradient required up to 500FT.

OBST ALT 62FT located at 0.2NM 102° FM end of RWY09.

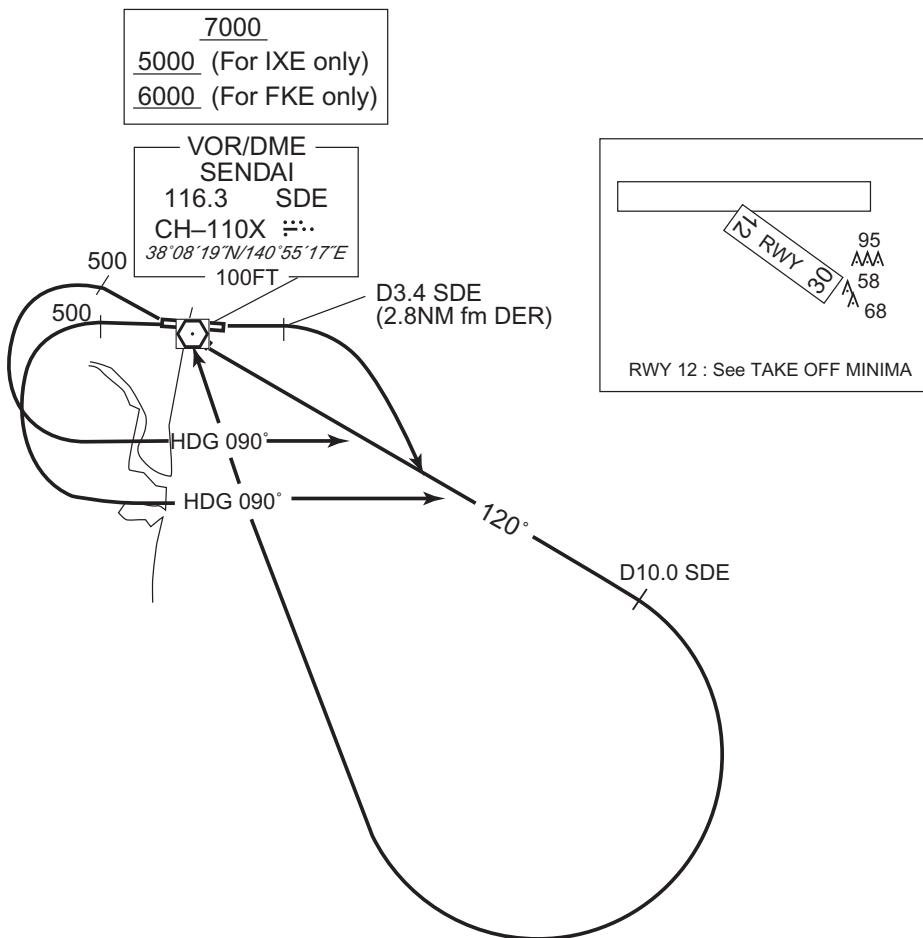
RWY 27 : 5.0% climb gradient required up to 1000FT.

OBST ALT 919FT located at 4.1NM 269° FM end of RWY27.

RWY 30 : 5.0% climb gradient required up to 1200FT.

OBST ALT 1181FT located at 5.3NM 283° FM end of RWY30.

CHANGE : Description of PROC name.



STANDARD DEPARTURE CHART - INSTRUMENT

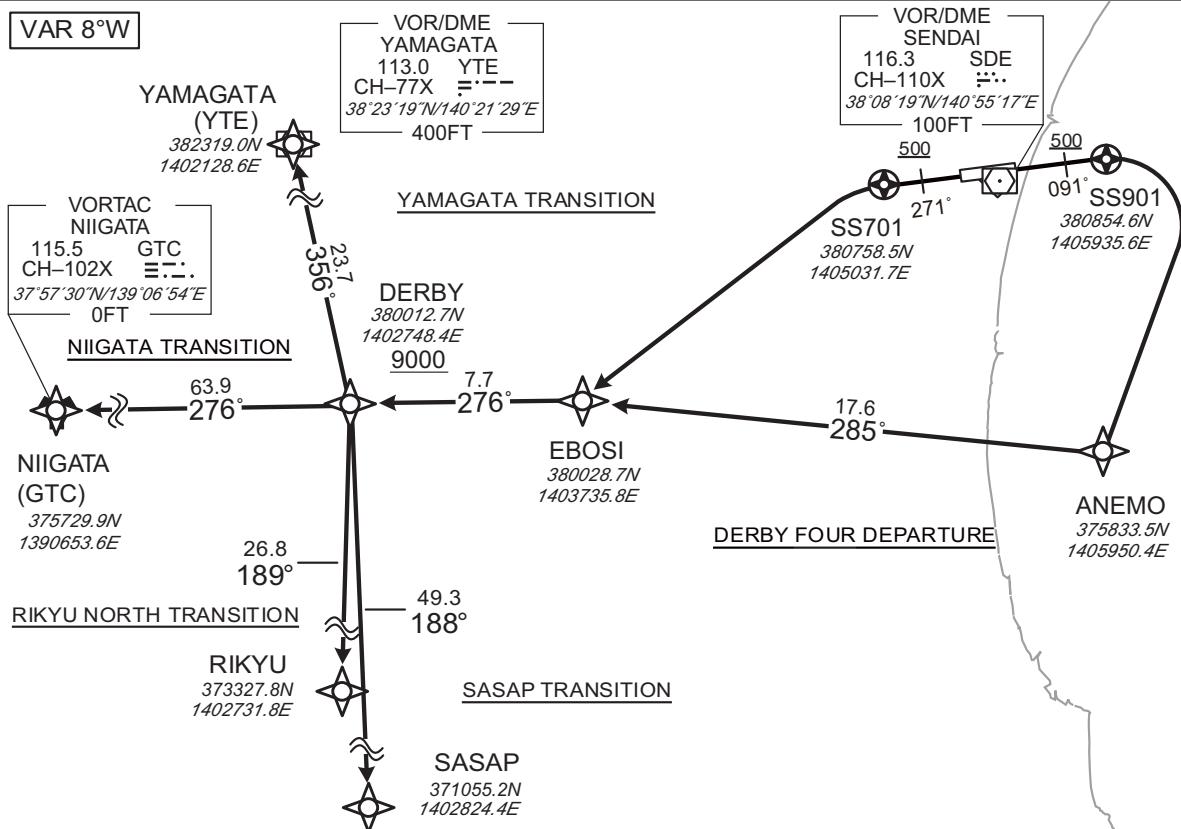
RJSS / SENDAI

RNAV SID and TRANSITION

DERBY FOUR DEPARTURE
YAMAGATA TRANSITION / NIIGATA TRANSITION /
RIKYU NORTH TRANSITION / SASAP TRANSITION

Basic RNP1

Note GNSS required.



DERBY FOUR DEPARTURE

RWY09 : Climb on HDG091° at or above 500FT, direct to SS901, turn right direct to ANEMO, to EBOSI, to DERBY at or above 9000FT.

RWY27 : Climb on HDG271° at or above 500FT, direct to SS701, turn left direct to EBOSI, to DERBY at or above 9000FT.

NOTE RWY09: 5.0% climb gradient required up to 500FT.

OBST ALT 62FT located at 0.2NM 103° FM end of RWY09.

RWY27: 5.9% climb gradient required up to 1300FT.

OBST ALT 1181FT located at 4.6NM 285° FM end of RWY27.

CHANGE : Description of VAR.

YAMAGATA TRANSITION

From DERBY at or above 9000FT, to YTE.

NIIGATA TRANSITION

From DERBY at or above 9000FT, to GTC.

RIKYU NORTH TRANSITION

From DERBY at or above 9000FT, to RIKYU.

SASAP TRANSITION

From DERBY at or above 9000FT, to SASAP.

STANDARD DEPARTURE CHART - INSTRUMENT

RJSS / SENDAI

RNAV SID and TRANSITION

DERBY FOUR 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 | — | — | 091 (082.5) | -8.3 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | SS901 | Y | — | -8.3 | — | — | — | — | — | Basic RNP1 |
| 003 | DF | ANEMO | — | — | -8.3 | — | R | — | — | — | Basic RNP1 |
| 004 | TF | EBOSI | — | 285 (276.4) | -8.3 | 17.6 | — | — | — | — | Basic RNP1 |
| 005 | TF | DERBY | — | 276 (268.1) | -8.3 | 7.7 | — | +9000 | — | — | 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 | — | — | 271 (262.5) | -8.3 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | SS701 | Y | — | -8.3 | — | — | — | — | — | Basic RNP1 |
| 003 | DF | EBOSI | — | — | -8.3 | — | L | — | — | — | Basic RNP1 |
| 004 | TF | DERBY | — | 276 (268.1) | -8.3 | 7.7 | — | +9000 | — | — | Basic RNP1 |

CHANGE : VAR, SID renamed. SID course. ALT restriction at DERBY. Navigation specification. NIIGATA TRANSITION deleted.

STANDARD DEPARTURE CHART - INSTRUMENT

RJSS / SENDAI

RNAV SID and TRANSITION

YAMAGATA TRANSITION

| 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 | DERBY | — | — | -8.3 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | YTE | — | 356 (347.9) | -8.3 | 23.7 | — | — | — | — | Basic RNP1 |

NIIGATA TRANSITION

| 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 | DERBY | — | — | -8.3 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | GTC | — | 276 (268.0) | -8.3 | 63.9 | — | — | — | — | Basic RNP1 |

RIKYU NORTH TRANSITION

| 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 | DERBY | — | — | -8.3 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | RIKYU | — | 189 (180.5) | -8.3 | 26.8 | — | — | — | — | Basic RNP1 |

SASAP TRANSITION

| 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 | DERBY | — | — | -8.3 | — | — | +9000 | — | — | Basic RNP1 |
| 002 | TF | SASAP | — | 188 (179.4) | -8.3 | 49.3 | — | — | — | — | Basic RNP1 |

CHANGE : YAMAGATA TRANSITION, NIIGATA TRANSITION, SASAP TRANSITION, RIKYU NORTH TRANSITION, RIKYU TRANSITION, SASAP TRANSITION added.

STANDARD DEPARTURE CHART - INSTRUMENT

RJSS / SENDAI

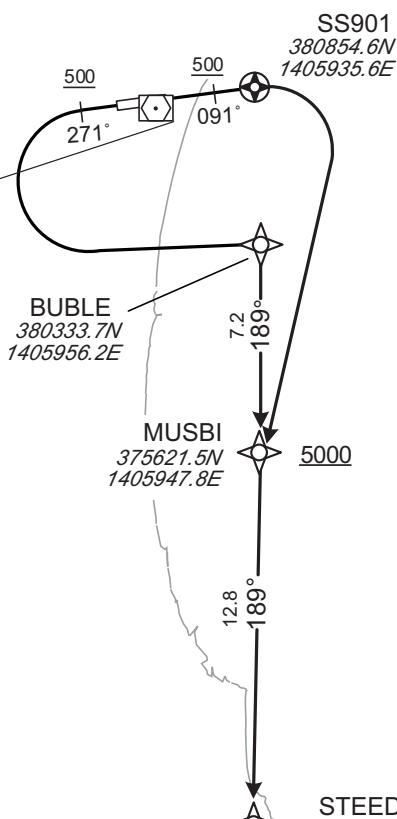
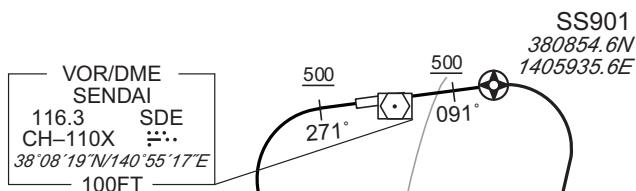
RNAV SID and TRANSITION

STEED FOUR DEPARTURE / RIKYU TRANSITION

Basic RNP1

Note GNSS required.

VAR 8°W

STEED FOUR DEPARTURERIKYU TRANSITION

RIKYU
37°33'27.8"N
140°27'31.8E

27.3°

251°

STEED FOUR DEPARTURE

RWY09 : Climb on HDG091° at or above 500FT, direct to SS901, turn right direct to MUSBI at or above 5000FT, to STEED.

RWY27 : Climb on HDG271° at or above 500FT, turn left direct to BUBLE, to MUSBI at or above 5000FT, to STEED.

NOTE RWY09: 5.0% climb gradient required up to 500FT.

OBST ALT 62FT located at 0.2NM 103° FM end of RWY09.

RWY27: 5.0% climb gradient required up to 1000FT.

OBST ALT 919FT located at 4.1NM 269° FM end of RWY27.

RIKYU TRANSITION

From STEED, to RIKYU.

CHANGE : Description of VAR.

STANDARD DEPARTURE CHART - INSTRUMENT

RJSS / SENDAI

RNAV SID and TRANSITION

STEED FOUR 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 | — | — | 091 (082.5) | -8.3 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | SS901 | Y | — | -8.3 | — | — | — | — | — | Basic RNP1 |
| 003 | DF | MUSBI | — | — | -8.3 | — | R | +5000 | — | — | Basic RNP1 |
| 004 | TF | STEED | — | 189 (180.9) | -8.3 | 12.8 | — | — | — | — | 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 | — | — | 271 (262.5) | -8.3 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | BUBLE | — | — | -8.3 | — | L | — | — | — | Basic RNP1 |
| 003 | TF | MUSBI | — | 189 (180.9) | -8.3 | 7.2 | — | +5000 | — | — | Basic RNP1 |
| 004 | TF | STEED | — | 189 (180.9) | -8.3 | 12.8 | — | — | — | — | Basic RNP1 |

RIKYU TRANSITION

| 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 | STEED | — | — | -8.3 | — | — | — | — | — | Basic RNP1 |
| 002 | TF | RIKYU | — | 257 (248.4) | -8.3 | 27.3 | — | — | — | — | Basic RNP1 |

CHANGE : VAR. SID renamed. Navigation specification. PROC course. MUSBI established.

STANDARD DEPARTURE CHART - INSTRUMENT

RJSS / SENDAI

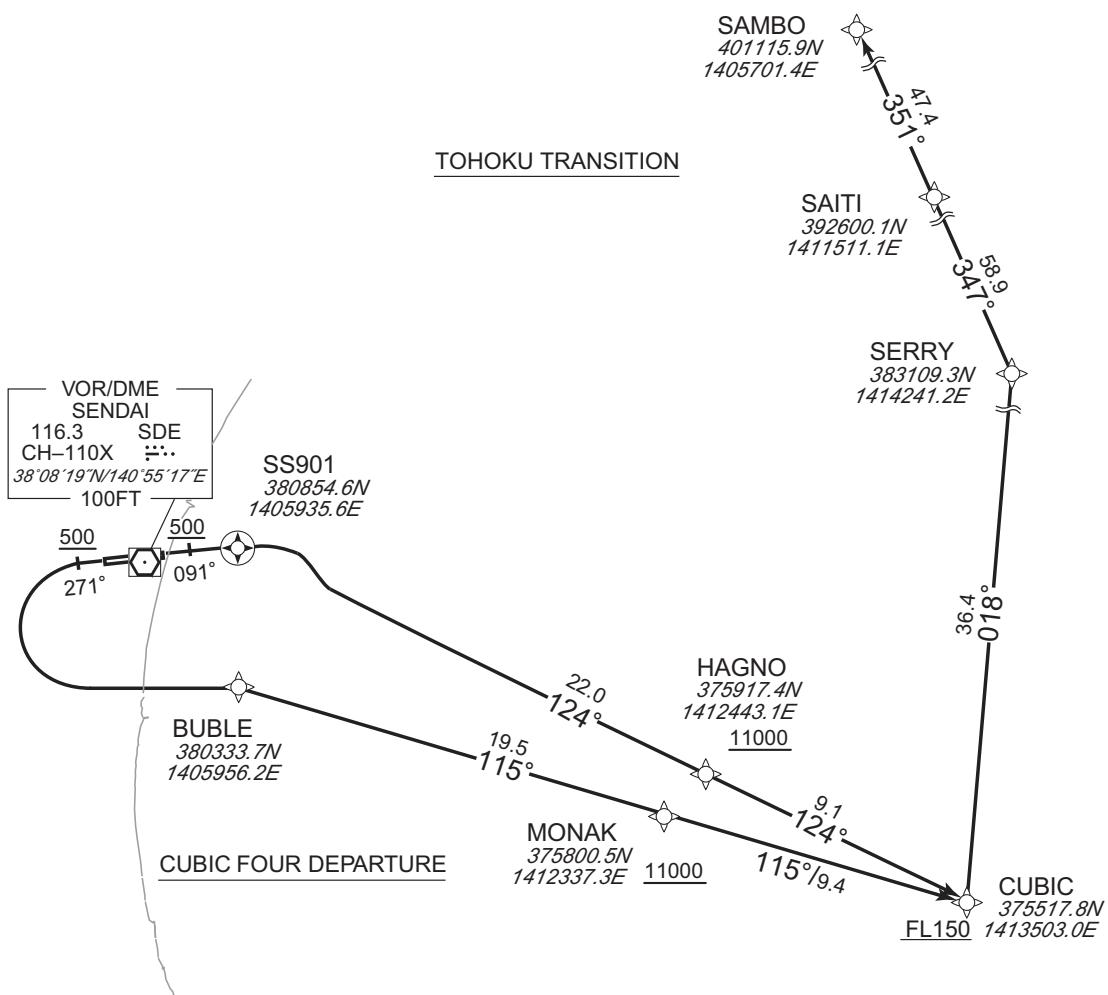
RNAV SID and TRANSITION

CUBIC FOUR DEPARTURE / TOHOKU TRANSITION

Basic RNP1

Note GNSS required.

VAR 8°W

CUBIC FOUR DEPARTURE

RWY09 : Climb on HDG091° at or above 500FT, direct to SS901, to HAGNO at or above 1100FT, to CUBIC at or above FL150.

RWY27 : Climb on HDG271° at or above 500FT, turn left direct to BUBLE, to MONAK at or above 1100FT, to CUBIC at or above FL150.

NOTE RWY09: 5.0% climb gradient required up to 500FT.

OBST ALT 62FT located at 0.2NM 103° FM end of RWY09.

RWY27: 5.0% climb gradient required up to 1000FT.

OBST ALT 919FT located at 4.1NM 269° FM end of RWY27.

TOHOKU TRANSITION

From CUBIC at or above FL150, to SERRY, to SAITI, to SAMBO.

CHANGE : Description of VAR.

STANDARD DEPARTURE CHART - INSTRUMENT

RJSS / SENDAI

RNAV SID and TRANSITION

CUBIC FOUR 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 | — | — | 091 (082.5) | -8.3 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | SS901 | Y | — | -8.3 | — | — | — | — | — | Basic RNP1 |
| 003 | TF | HAGNO | — | 124 (115.8) | -8.3 | 22.0 | — | +11000 | — | — | Basic RNP1 |
| 004 | TF | CUBIC | — | 124 (116.1) | -8.3 | 9.1 | — | +FL150 | — | — | 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 | — | — | 271 (262.5) | -8.3 | — | — | +500 | — | — | Basic RNP1 |
| 002 | DF | BUBLE | — | — | -8.3 | — | L | — | — | — | Basic RNP1 |
| 003 | TF | MONAK | — | 115 (106.4) | -8.3 | 19.5 | — | +11000 | — | — | Basic RNP1 |
| 004 | TF | CUBIC | — | 115 (106.7) | -8.3 | 9.4 | — | +FL150 | — | — | Basic RNP1 |

TOHOKU TRANSITION

| 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 | CUBIC | — | — | -8.3 | — | — | +FL150 | — | — | Basic RNP1 |
| 002 | TF | SERRY | — | 018 (009.5) | -8.3 | 36.4 | — | — | — | — | Basic RNP1 |
| 003 | TF | SAITI | — | 347 (338.8) | -8.3 | 58.9 | — | — | — | — | Basic RNP1 |
| 004 | TF | SAMBO | — | 351 (343.0) | -8.3 | 47.4 | — | — | — | — | Basic RNP1 |

CHANGE : VAR, SID renamed. Navigation specification. PROC course. HAGNO, MONAK, SERRY established. RIDER abolished. TOHOKU TRANSITION added.

STANDARD ARRIVAL CHART-INSTRUMENT

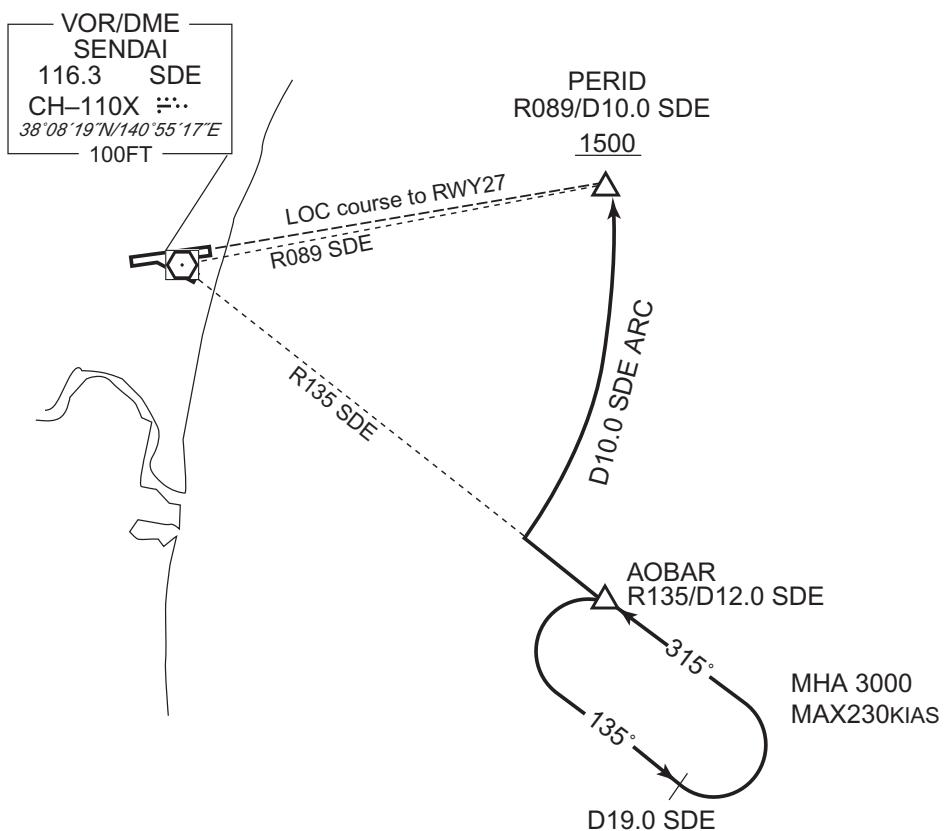
RJSS / SENDAI

STAR

PERID ARRIVAL

From over AOBAR, via SDE R135 to intercept and proceed via SDE 10.0DME counterclockwise ARC to PERID.

Cross PERID at or above 1500FT.



CHANGE : HLDG abolished(PERID).

STANDARD ARRIVAL CHART - INSTRUMENT

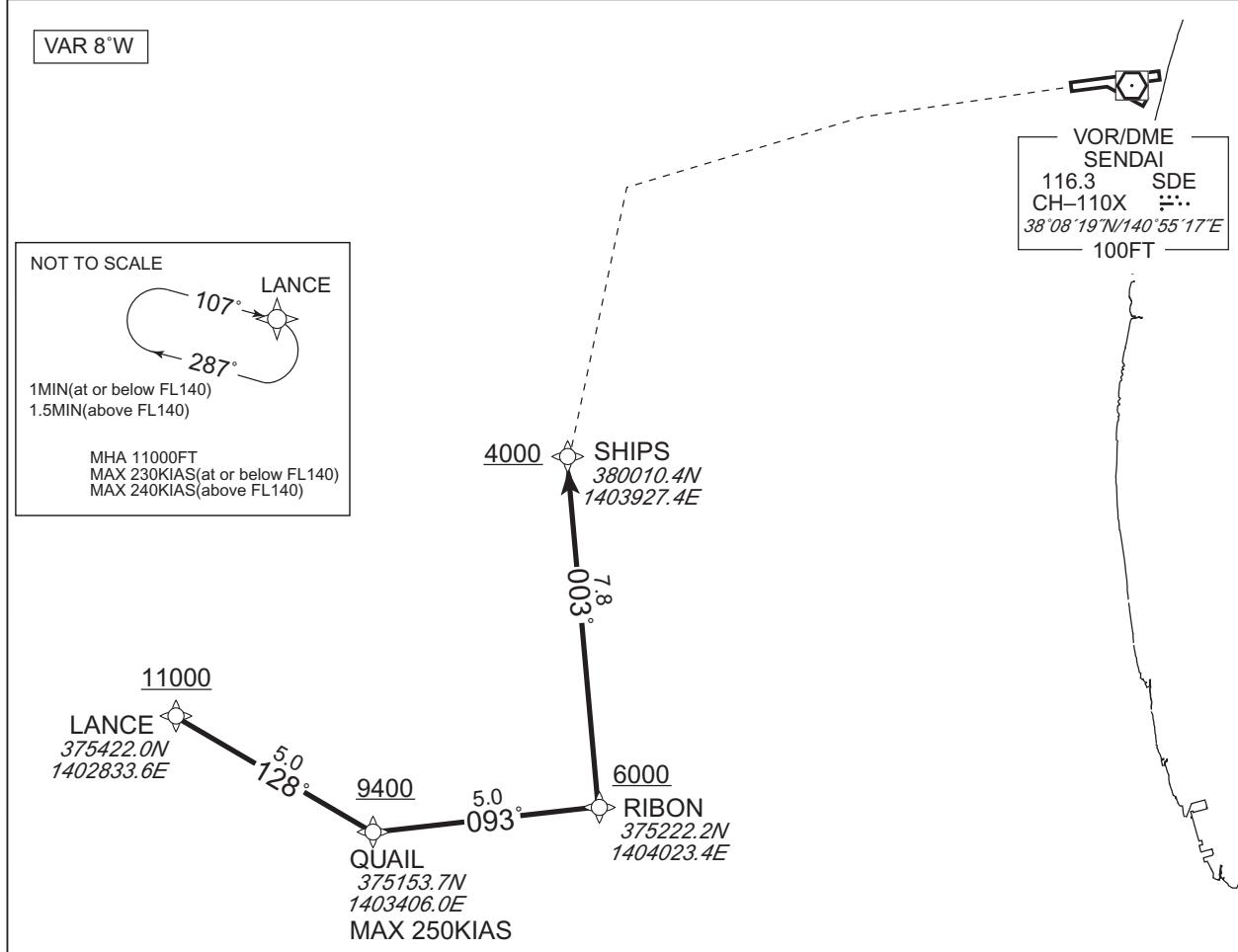
RJSS / SENDAI

RNAV STAR RWY09

LANCE WEST ARRIVAL

Basic RNP1

Note GNSS required.



From LANCE at or above 11000FT, to QUAIL, at or above 9400FT, to RIBON at or above 6000FT, to SHIPS at or above 4000FT.

| 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 | LANCE | — | — | -8.3 | — | — | +11000 | — | — | Basic RNP1 |
| 002 | TF | QUAIL | — | 128 (119.4) | -8.3 | 5.0 | — | +9400 | -250 | — | Basic RNP1 |
| 003 | TF | RIBON | — | 093 (084.5) | -8.3 | 5.0 | — | +6000 | — | — | Basic RNP1 |
| 004 | TF | SHIPS | — | 003 (354.6) | -8.3 | 7.8 | — | +4000 | — | — | 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 | LANCE | 107 (098.3) | -8.3 | 1.0(-14000) 1.5(+14001) | R | 11000 | — | -230(-14000) -240(+14001) | Basic RNP1 |

CHANGE : Description of HLDG.

STANDARD ARRIVAL CHART-INSTRUMENT

RJSS / SENDAI

RNAV STAR RWY09

OWLET WEST ARRIVAL

Basic RNP1

Note GNSS required.

VAR 8°W

NOT TO SCALE

1MIN(at or below FL140)
1.5MIN(above FL140)

MHA 13000FT
MAX 230KIAS(at or below FL140)
MAX 240KIAS(above FL140)

13000

9000

PRINK
374653.41
1403425.91

 QUIST
374723.1N
1404059.0E
MAX 250KIAS

4000 SHIPS
380010.4N
1403927.4E

6000 RIBON
375222.2N
1404023.4E

5.0
003°

374623.ON
1402747.1E

— 1 —

From OWLET at or above 13000FT, to PRINK at or above 9000FT, to QUIST, to RIBON at or above 6000FT, to SHIPS at or above 4000FT.

| 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 | OWLET | — | — | -8.3 | — | — | +13000 | — | — | Basic RNP1 |
| 002 | TF | PRINK | — | 093 (084.4) | -8.3 | 5.3 | — | +9000 | — | — | Basic RNP1 |
| 003 | TF | QUIST | — | 093 (084.5) | -8.3 | 5.2 | — | — | -250 | — | Basic RNP1 |
| 004 | TF | RIBON | — | 003 (354.6) | -8.3 | 5.0 | — | +6000 | — | — | Basic RNP1 |
| 005 | TF | SHIPS | — | 003 (354.6) | -8.3 | 7.8 | — | +4000 | — | — | 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 | OWLET | 080 (071.7) | -8.3 | 1.0(-14000) 1.5(+14001) | R | 13000 | — | -230(-14000) -240(+14001) | Basic RNP1 |

STANDARD ARRIVAL CHART-INSTRUMENT

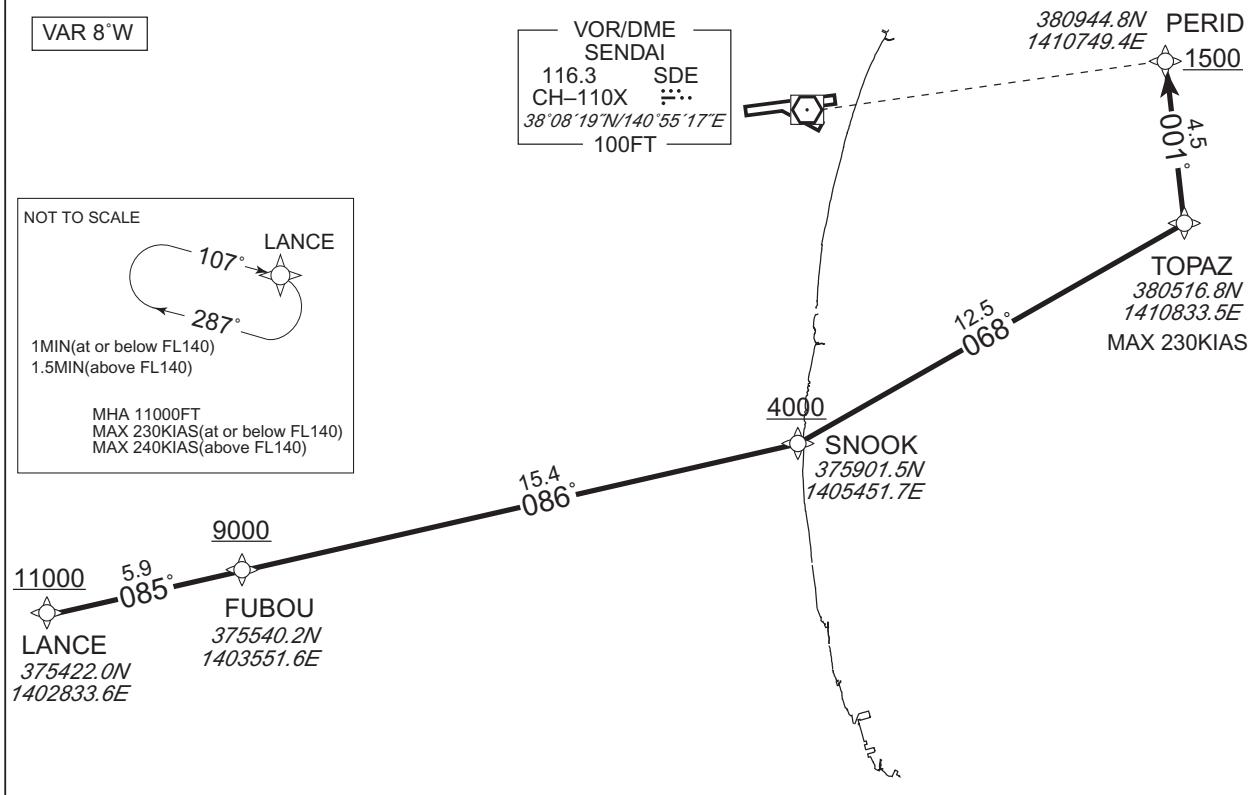
RJSS / SENDAI

RNAV STAR RWY27

LANCE EAST ALFA ARRIVAL

Basic RNP1

Note GNSS required.



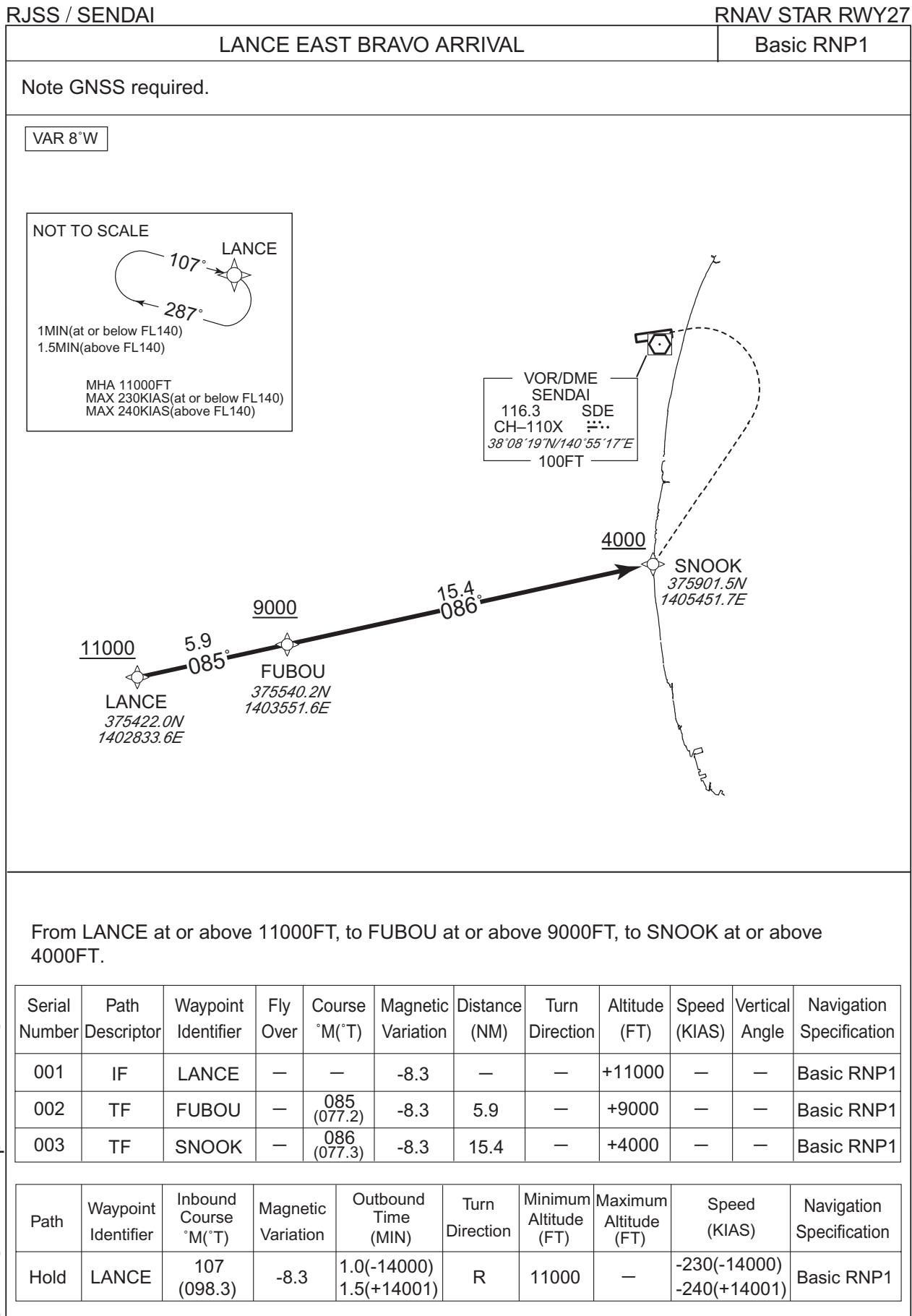
From LANCE at or above 11000FT, to FUBOU at or above 9000FT, to SNOOK at or above 4000FT, to TOPAZ, to PERID at or above 1500FT.

| 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 | LANCE | — | — | -8.3 | — | — | +11000 | — | — | Basic RNP1 |
| 002 | TF | FUBOU | — | 085 (077.2) | -8.3 | 5.9 | — | +9000 | — | — | Basic RNP1 |
| 003 | TF | SNOOK | — | 086 (077.3) | -8.3 | 15.4 | — | +4000 | — | — | Basic RNP1 |
| 004 | TF | TOPAZ | — | 068 (059.8) | -8.3 | 12.5 | — | — | -230 | — | Basic RNP1 |
| 005 | TF | PERID | — | 001 (352.6) | -8.3 | 4.5 | — | +1500 | — | — | 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 | LANCE | 107 (098.3) | -8.3 | 1.0(-14000) 1.5(+14001) | R | 11000 | — | -230(-14000) -240(+14001) | Basic RNP1 |

CHANGE : Description of HLDG.

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

RJSS / SENDAI

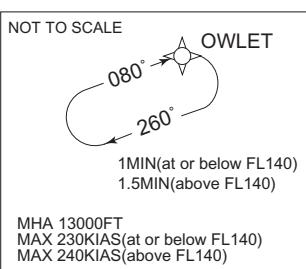
RNAV STAR RWY27

OWLET EAST ALFA ARRIVAL

Basic RNP1

Note GNSS required.

VAR 8°W



VOR/DME
SENDAI
116.3 SDE
CH-110X ⋮
38°08'19"N 140°55'17"E
100FT

1500 PERID
380944.8N
1410749.4E

TOPAZ
380516.8N
1410833.5E
MAX 230KIAS

4000
5000
SNOOK
375901.5N
1405451.7E

068°
4.4

068°

068°

068°

9000
RIBON
375222.2N
1404023.4E

067°

11.6
067°

13000
OWLET
374623.0N
1402747.1E

068°

068°

068°

068°

068°

From OWLET at or above 13000FT, to RIBON at or above 9000FT, to ORKID at or above 5000FT, to SNOOK at or above 4000FT, to TOPAZ, to PERID at or above 1500FT.

| 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 | OWLET | — | — | -8.3 | — | — | +13000 | — | — | Basic RNP1 |
| 002 | TF | RIBON | — | 067 (058.9) | -8.3 | 11.6 | — | +9000 | — | — | Basic RNP1 |
| 003 | TF | ORKID | — | 068 (059.7) | -8.3 | 8.8 | — | +5000 | — | — | Basic RNP1 |
| 004 | TF | SNOOK | — | 068 (059.8) | -8.3 | 4.4 | — | +4000 | — | — | Basic RNP1 |
| 005 | TF | TOPAZ | — | 068 (059.8) | -8.3 | 12.5 | — | — | -230 | — | Basic RNP1 |
| 006 | TF | PERID | — | 001 (352.6) | -8.3 | 4.5 | — | +1500 | — | — | 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 | OWLET | 080 (071.7) | -8.3 | 1.0(-14000) 1.5(+14001) | R | 13000 | — | -230(-14000) -240(+14001) | Basic RNP1 |

CHANGE : Description of HLDG.

STANDARD ARRIVAL CHART-INSTRUMENT

RJSS / SENDAI

RNAV STAR RWY27

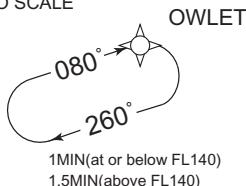
OWLET EAST BRAVO ARRIVAL

Basic RNP1

Note GNSS required.

VAR 8°W

NOT TO SCALE



MHA 13000FT
MAX 230KIAS(at or below FL140)
MAX 240KIAS(above FL140)

VOR/DME
SENDAI
116.3 SDE
CH-110X ...
38°08'19"N/140°55'17"E
100FT

4000
5000
9000
13000
OWLET
RIBON
ORKID
SNOOK

11.6 067°
8.8 068°
4.4 068°
374623.0N 1402747.1E
375222.2N 1404023.4E
375648.0N 1405000.5E
375901.5N 1405451.7E

From OWLET at or above 13000FT, to RIBON at or above 9000FT, to ORKID at or above 5000FT, to SNOOK at or above 4000FT.

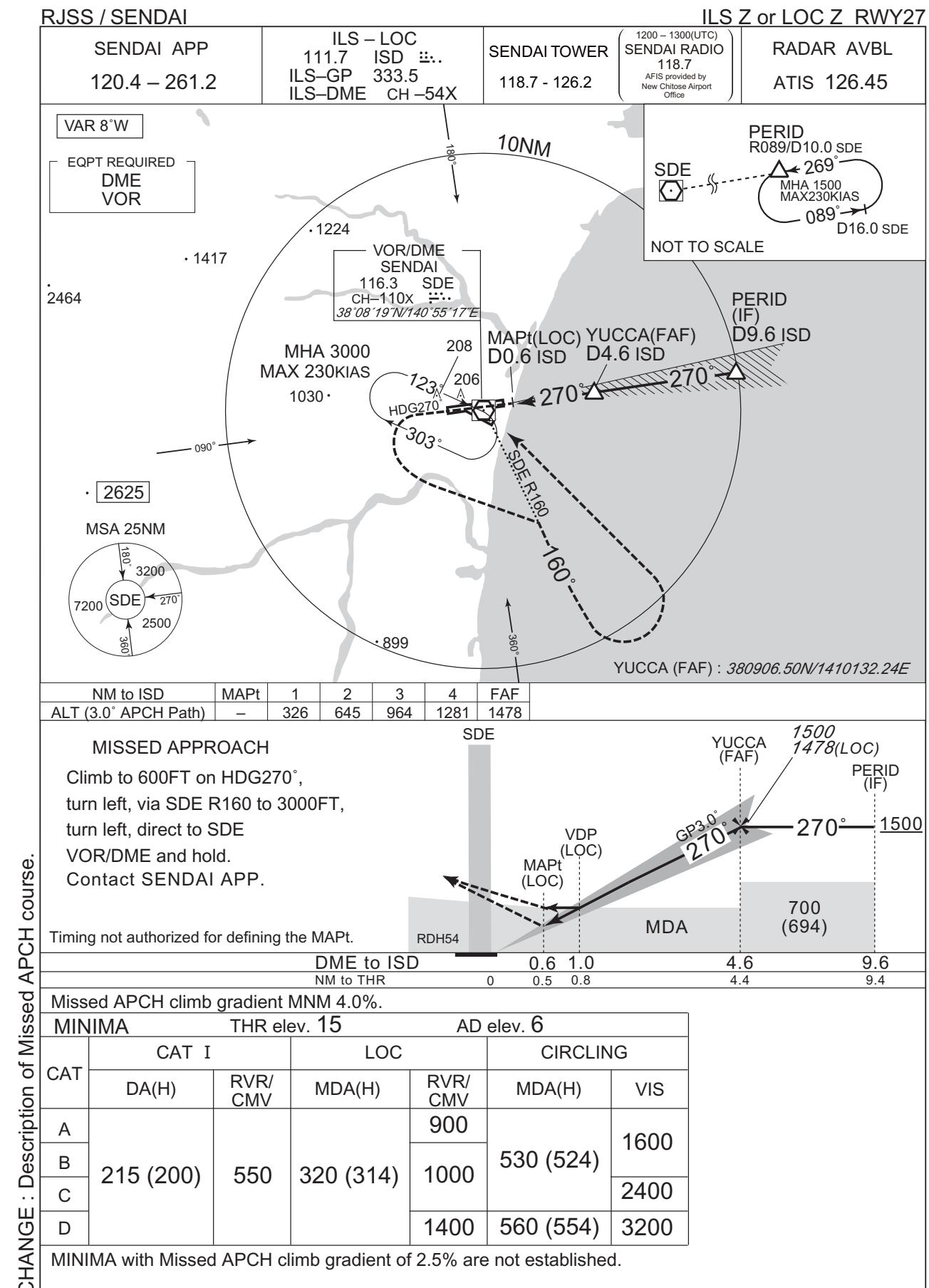
CHANGE : Description of HLDG.

| 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 | OWLET | — | — | -8.3 | — | — | +13000 | — | — | Basic RNP1 |
| 002 | TF | RIBON | — | 067 (058.9) | -8.3 | 11.6 | — | +9000 | — | — | Basic RNP1 |
| 003 | TF | ORKID | — | 068 (059.7) | -8.3 | 8.8 | — | +5000 | — | — | Basic RNP1 |
| 004 | TF | SNOOK | — | 068 (059.8) | -8.3 | 4.4 | — | +4000 | — | — | 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 | OWLET | 080 (071.7) | -8.3 | 1.0(-14000) 1.5(+14001) | R | 13000 | — | -230(-14000) -240(+14001) | Basic RNP1 |

INTENTIONALLY LEFT BLANK

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

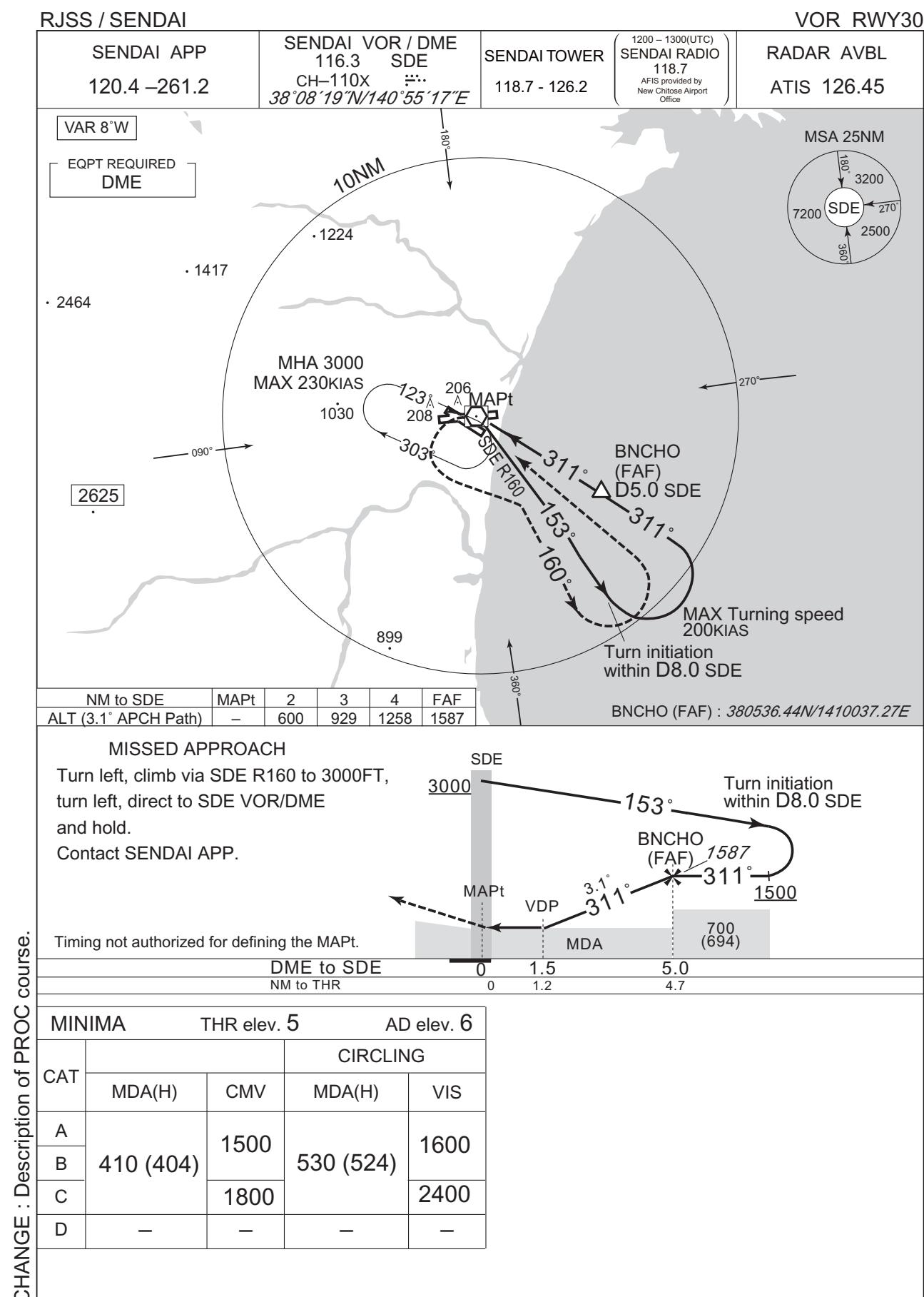
RJSS / SENDAI



INSTRUMENT APPROACH CHART



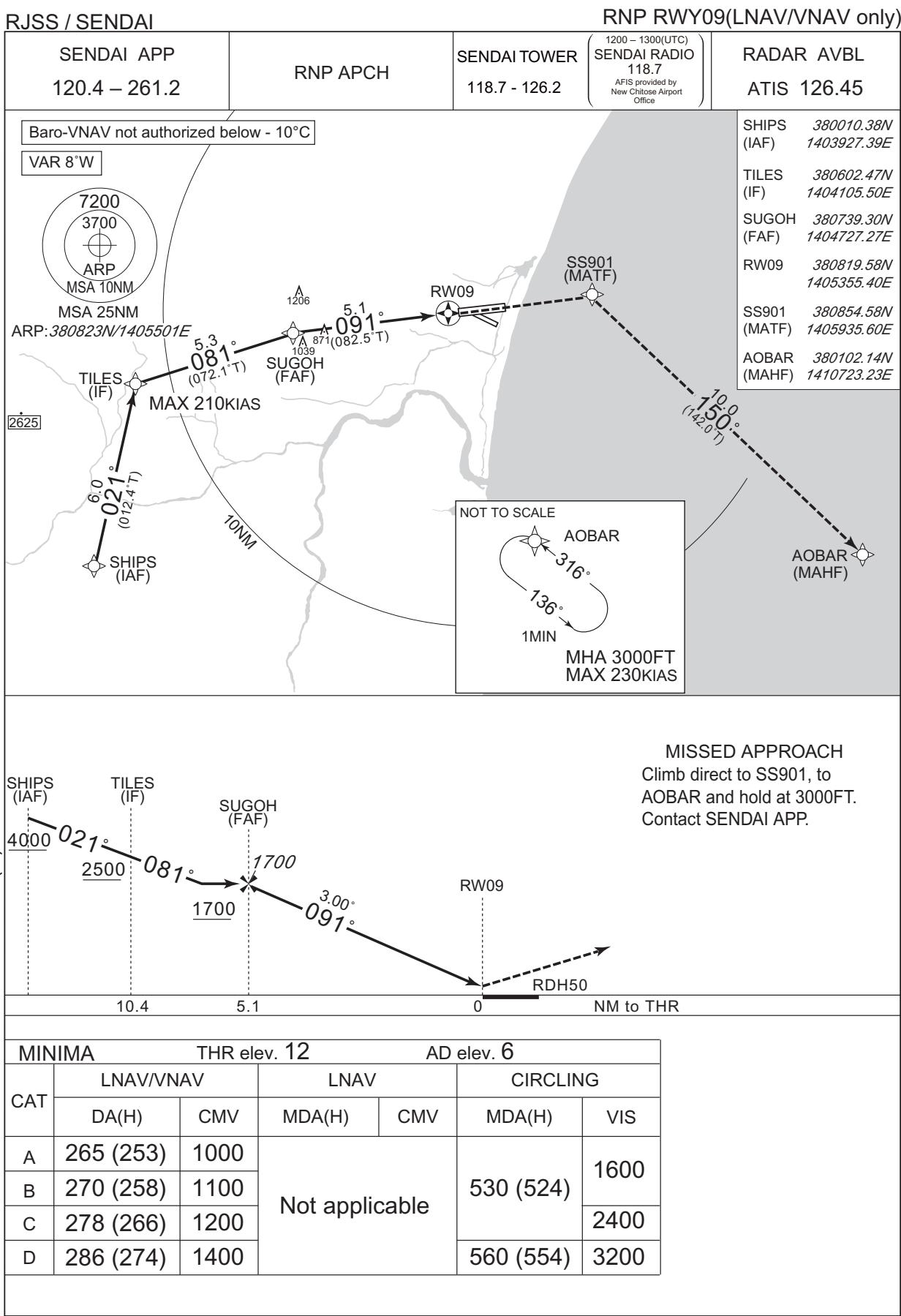
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

CHANGE : PROC renamed. Course FM TILES to SUGOH. MATF abolished. Missed APCH PROC. MINIMA for LNAV/VNAV, LNAV.

HLDG for NAVAID deleted. OCA(H) deleted.



INSTRUMENT APPROACH CHART

RJSS / SENDAI

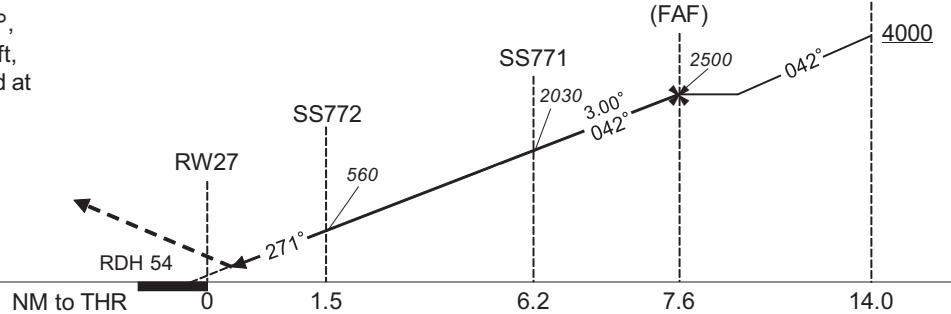
RNP RWY27(AR)



MISSED APPROACH

From RW27 on track 271°, at or above 600FT turn left, direct to SNOOK and hold at 4000FT.

Contact SENDAI APP.



CHANGE : Description of VAR.

| | MINIMA | THR elev. 15 | AD elev. 6 |
|-----|----------|--------------|------------|
| CAT | RNP 0.30 | | |
| | DA(H) | RVR/CMV | |
| A | - | - | |
| B | | | |
| C | 315(300) | 1000 | |
| D | | 1400 | |

Authorization Required

* Missed APCH climb gradient MNM 4.0%

INSTRUMENT APPROACH CHART

RJSS / SENDAI

RNP 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 | SNOOK | - | - | -8.3 | - | - | +4000 | - | - | - |
| 002 | TF | VEGAL | - | 042 (033.3) | -8.3 | 6.4 | - | 2500 | - | - | 1.0 |
| 003 | TF | SS771 | - | 042 (033.4) | -8.3 | 1.5 | - | 2030 | -165 | -3.00 | 0.3 |
| 004 | RF Center: SSRF1 r=2.02NM | SS772 | - | - | -8.3 | 4.6 | L | 560 | - | -3.00 | 0.3 |
| 005 | TF | RW27 | Y | 271 (262.6) | -8.3 | 1.5 | - | 69 | - | -3.00/54 | 0.3 |
| 006 | FA | - | - | 271 (262.6) | -8.3 | - | - | +600 | - | - | 1.0 |
| 007 | DF | SNOOK | - | - | -8.3 | - | L | 4000 | - | - | 1.0 |

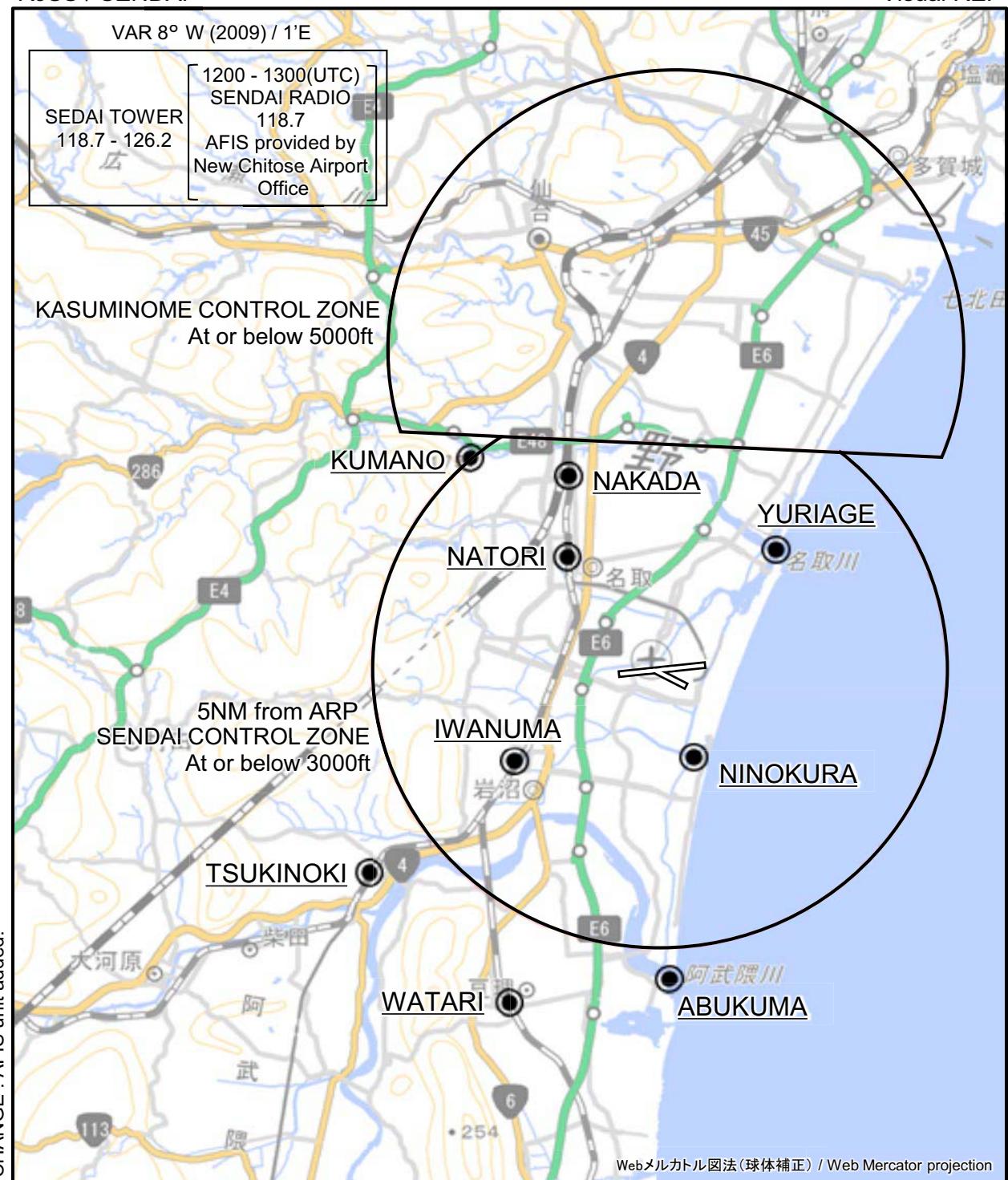
| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | Outbound Time (MIN) | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS) | RNP Value |
|------|---------------------|-----------------------|--------------------|---------------------|----------------|-----------------------|-----------------------|---------------|-----------|
| Hold | SNOOK | 080 (071.9) | -8.3 | 1.0 (-14000) | R | 4000 | FL140 | -210 (-14000) | 1.0 |

Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|--------------------------|--------------------------|--------------------------|
| SNOOK | 375901.53N / 1405451.66E | SSRF1 | 380643.74N / 1405813.69E |
| VEGAL | 380422.75N / 1405919.92E | | |
| SS771 | 380536.78N / 1410021.86E | | |
| SS772 | 380844.14N / 1405753.87E | | |
| RW27 | 380832.18N / 1405557.56E | | |

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Visual REP



RJSS / SENDAI

Visual REP

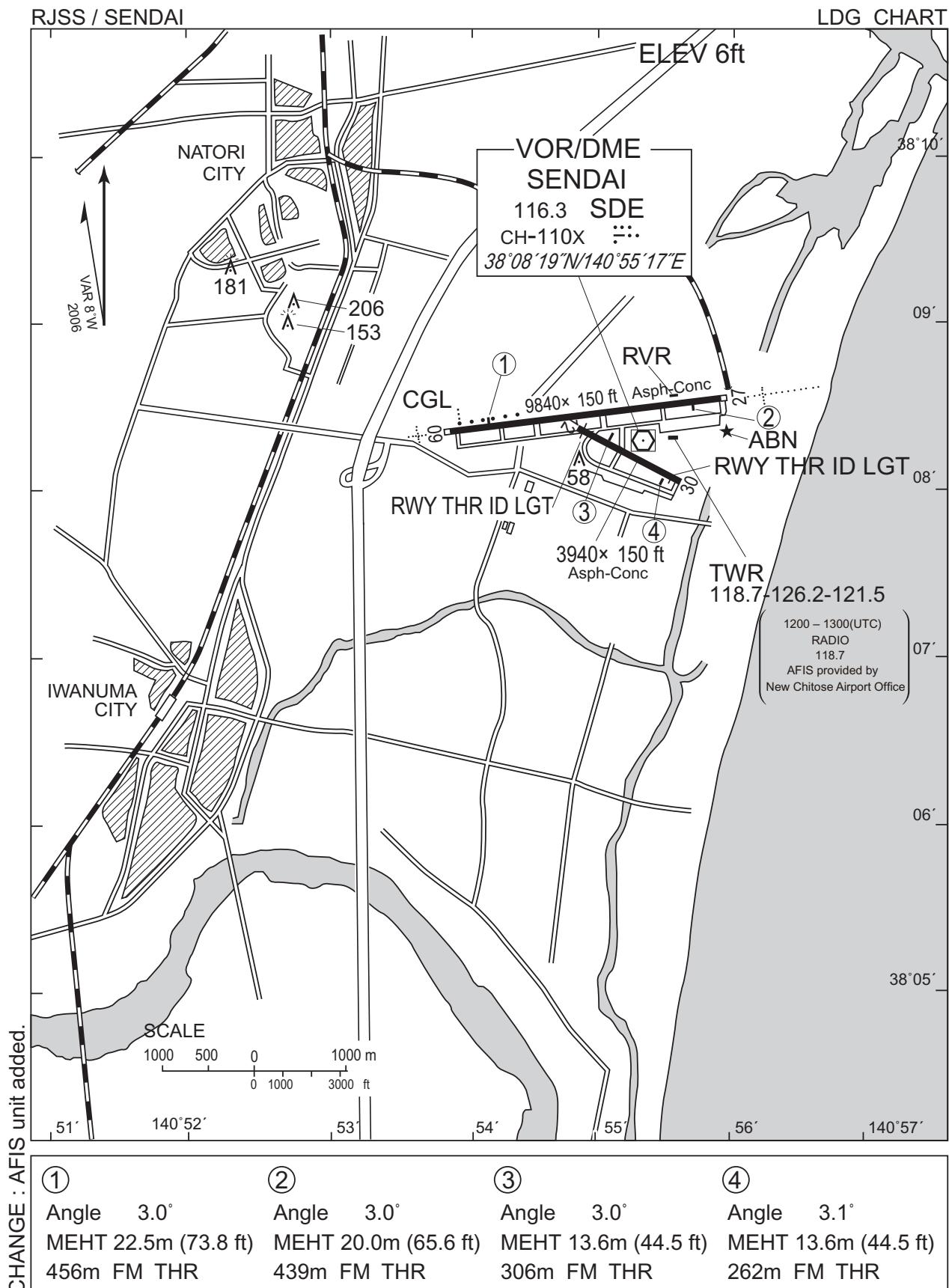
| Call sign | BRG / DIST from ARP | Remarks |
|-----------------|---------------------|--------------------------------------|
| 熊野 Kumano | 319°T / 5.0NM | 熊野神社 Kumano Shrine |
| 中田 Nakada | 336°T / 3.8NM | JR南仙台駅 Station |
| 閑上 Yuriage | 043°T / 2.9NM | 名取川河口 River-mouth of the Natori |
| 名取 Natori | 321°T / 2.6NM | JR名取駅 Station |
| 二の倉 Ninokura | 160°T / 1.7NM | 県南浄化センター Sewage disposal center |
| 岩沼 Iwanuma | 236°T / 3.0NM | JR岩沼駅 Station |
| 楓木 Tsukinoki | 234°T / 6.2NM | JR楓木駅 Station |
| 阿武隈 Abukuma | 178°T / 5.6NM | 阿武隈川河口 River-mouth of the Abukuma |
| 亘理 Watari | 204°T / 6.5NM | JR亘理駅 Station |

注：有視界飛行方式により霞目管制圏から仙台管制圏へ進入しようとする航空機は、仙台管制圏に入圏する前に仙台タワーまたは仙台レディオへ通報すること。

NOTE : When any VFR flight enters SENDAI CTR directly via KASUMINOME CTR, the pilot shall report to "SENDAI TWR" or "SENDAI RADIO" before entering SENDAI CTR.

注：VFR機とIFR機の航行の安全のため、仙台進入管制区のうち、仙台空港から15NM以内の地域をVFRで航行する場合は、仙台TCAと積極的にコンタクトすること。

NOTE : In order to ensure the safety operations for both VFR and IFR aircraft, VFR aircraft should contact SENDAI TCA positively when the flight includes SENDAI Approach Control Area, within 15 miles from Sendai Airport.



RJSS / SENDAI

Minimum Vectoring Altitude CHART

VAR 8°W (2011)

