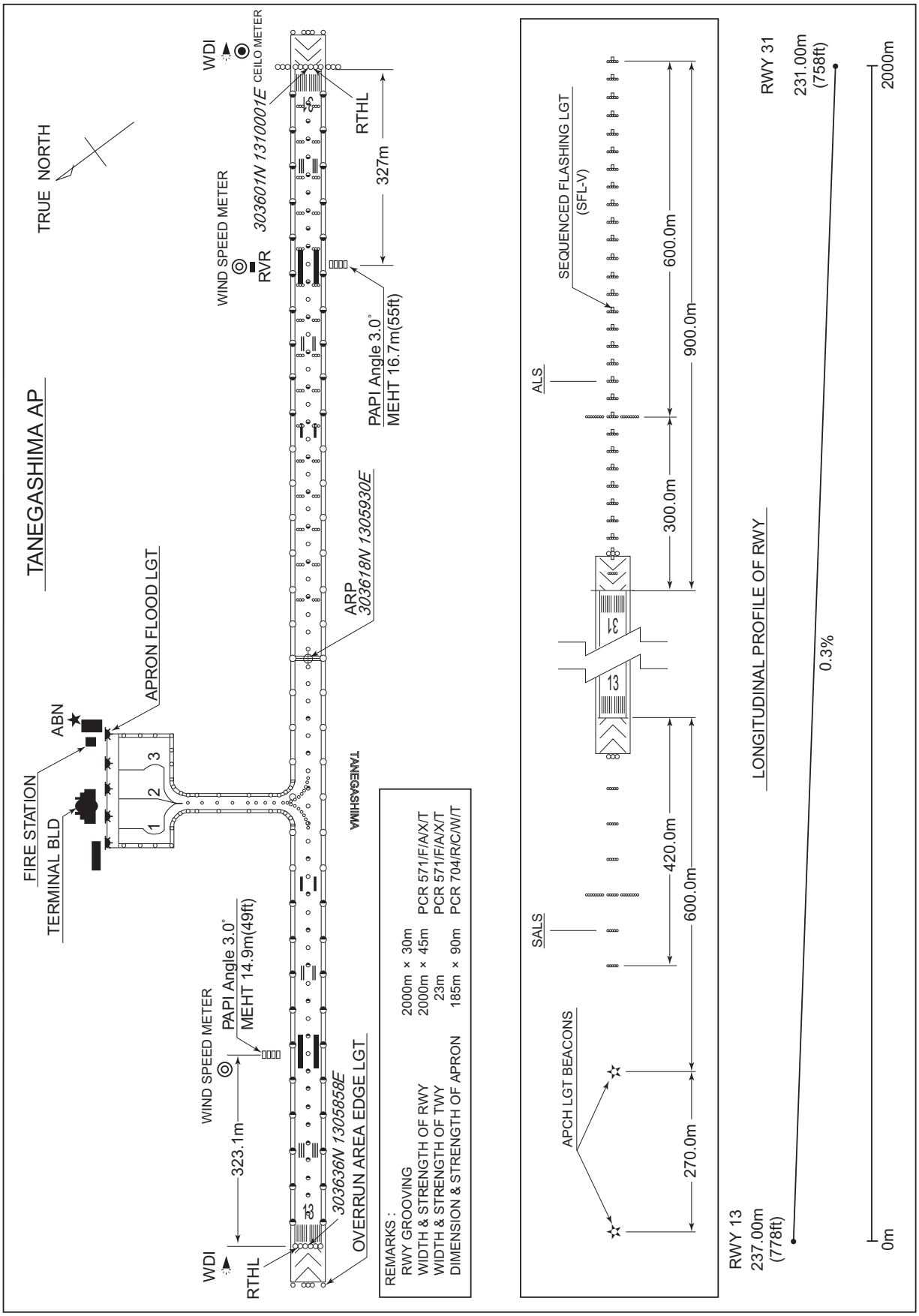
RJFG / TANEGASHIMA

AD CHART

CHANGE : Description of strength of pavement.



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STANDARD DEPARTURE CHART - INSTRUMENT

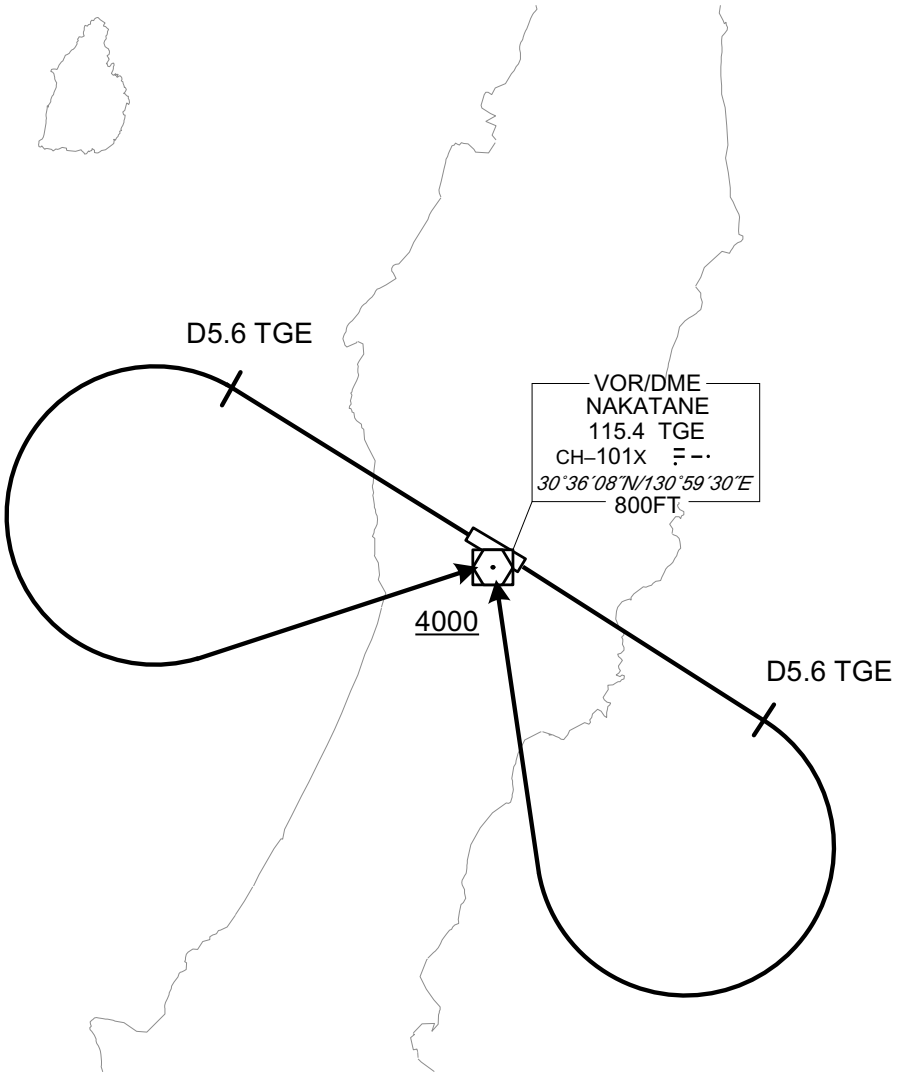
RJFG / TANEGASHIMA SID

CHANGE : PROC renamed. QUEEN TWO DEPARTURE, KINKO TWO DEPARTURE abolished. PROC course.

## TANEGASHIMA REVERSAL THREE DEPARTURE

RWY 13 : Climb RWY HDG to TGE 5.6DME, turn right,...
RWY 31 : Climb RWY HDG to TGE 5.6DME, turn left,...

... direct to TGE VOR/DME.
Cross TGE VOR/DME at or above 4000FT.



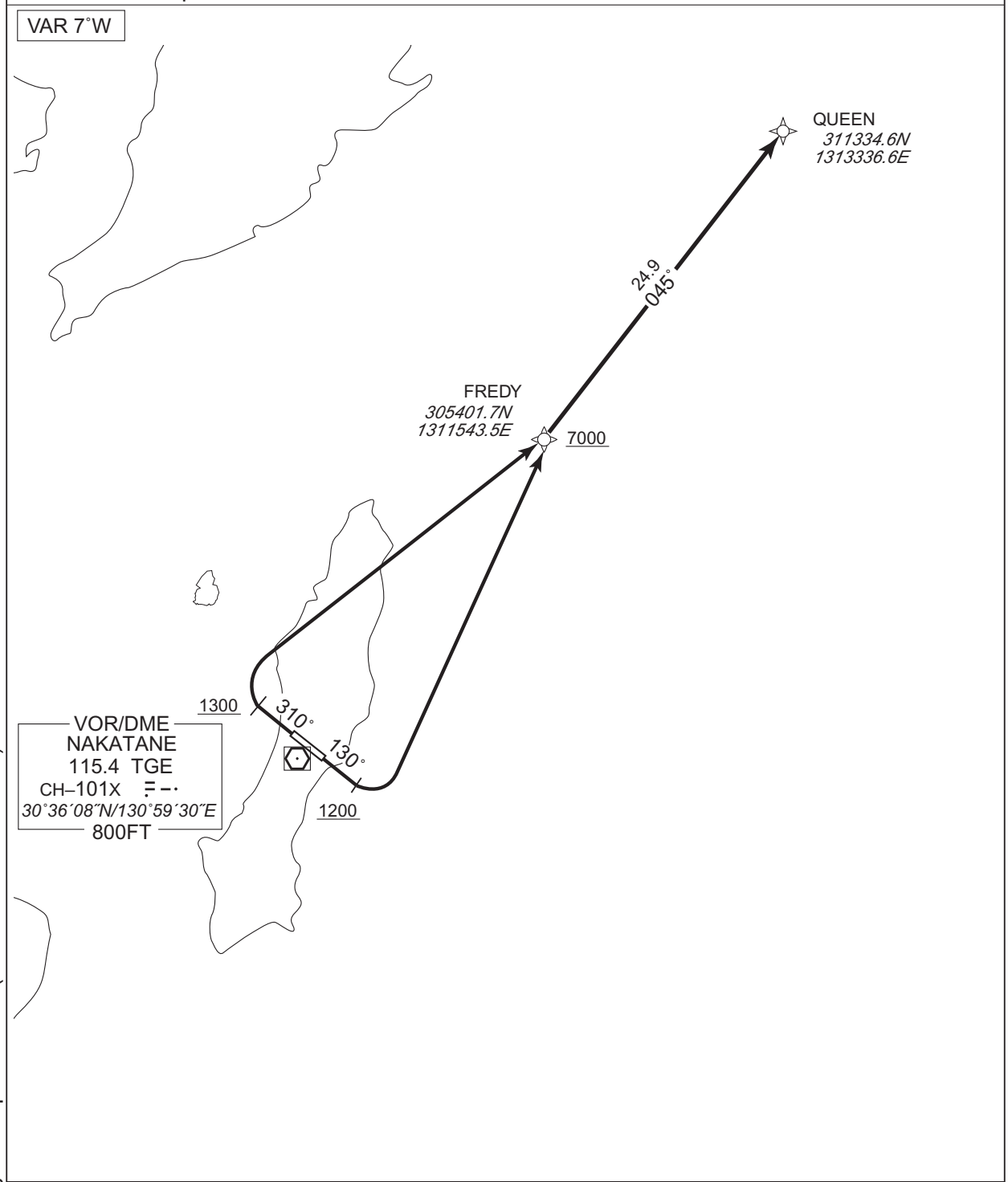
STANDARD DEPARTURE CHART -INSTRUMENT

RJFG / TANEGASHIMA

RNAV SID

| FREDY TWO DEPARTURE | RNP1 |
|---|---|

Note GNSS required.




RWY13 : Climb on HDG 130˚ at or above 1200FT, turn left direct to FREDY at or above 7000FT, to QUEEN.

RWY31 : Climb on HDG 310˚ at or above 1300FT, turn right direct to FREDY at or above 7000FT, to QUEEN.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART -INSTRUMENT

RJFG / TANEGASHIMA RNAV SID

## FREDY TWO DEPARTURE

### RWY13

| 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 | - | - | 130 (123.0) | -7.0 | - | - | +1200 | - | - | RNP1 |
| 002 | DF | FREDY | - | - | -7.0 | - | L | +7000 | - | - | RNP1 |
| 003 | TF | QUEEN | - | 045 (038.0) | -7.0 | 24.9 | - | - | - | - | RNP1 |

### RWY31

| 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 | - | - | 310 (303.0) | -7.0 | - | - | +1300 | - | - | RNP1 |
| 002 | DF | FREDY | - | - | -7.0 | - | R | +7000 | - | - | RNP1 |
| 003 | TF | QUEEN | - | 045 (038.0) | -7.0 | 24.9 | - | - | - | - | RNP1 |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

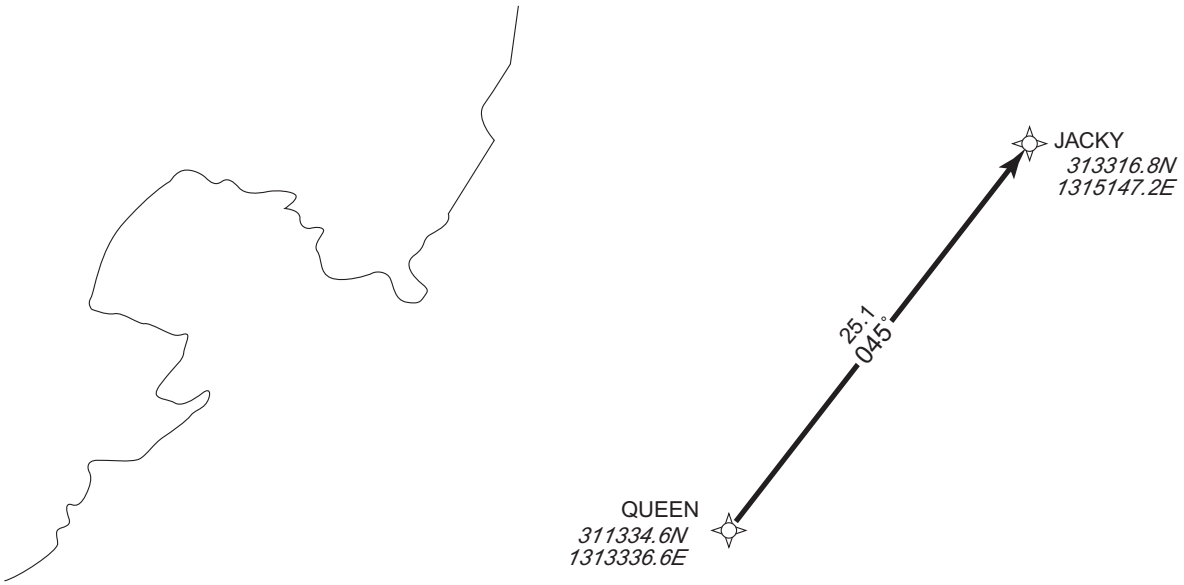
STANDARD DEPARTURE CHART -INSTRUMENT

RJFG / TANEGASHIMA — RNAV TRANSITION

| JACKY TRANSITION | RNP1 |
|---|---|

Note GNSS required.

VAR 7˚W




From QUEEN to JACKY.

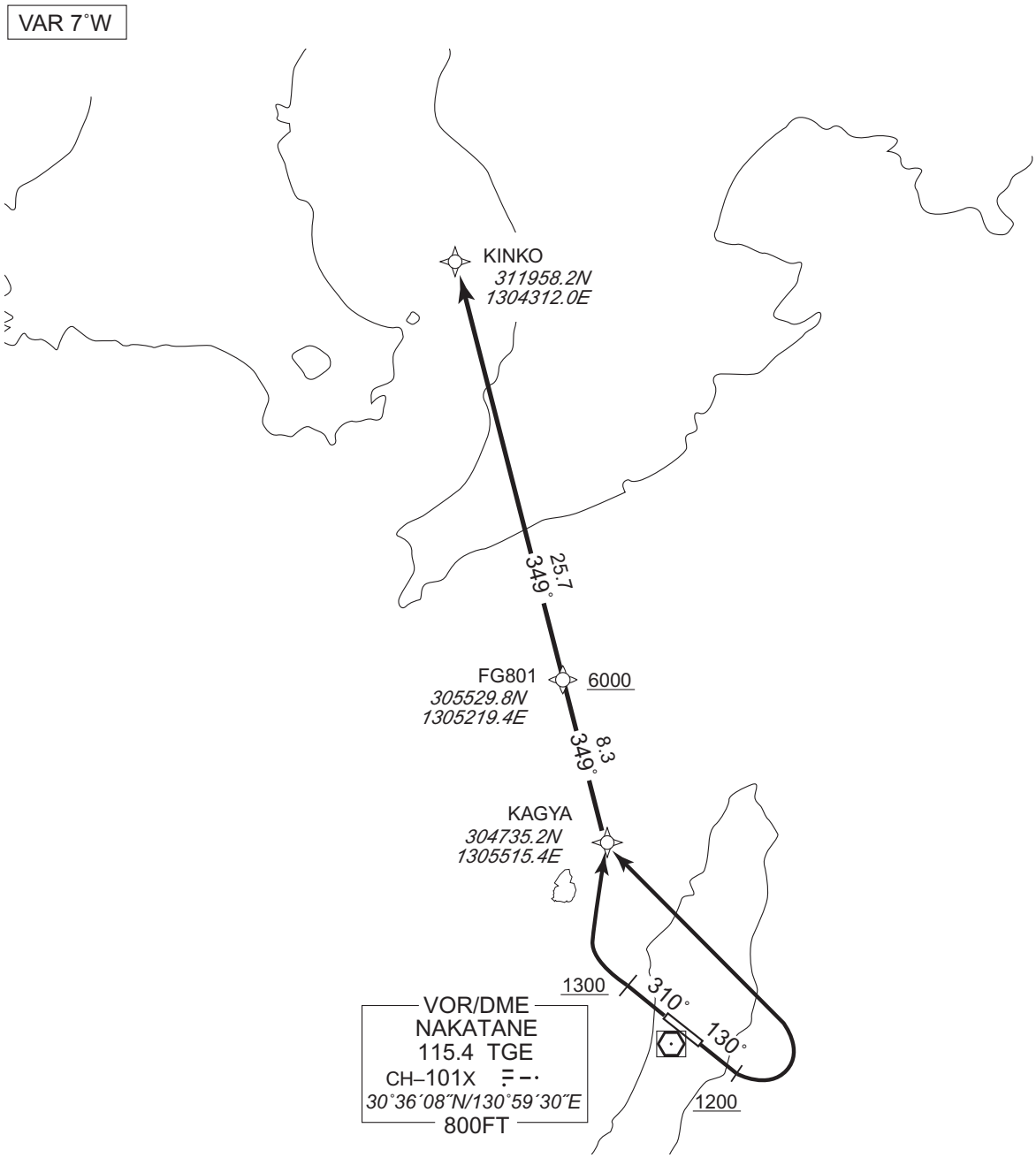
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | IF | QUEEN | — | — | -7.0 | — | — | — | — | — | RNP1 |
| 002 | TF | JACKY | — | 045 (038.1) | -7.0 | 25.1 | — | — | — | — | RNP1 |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

**STANDARD DEPARTURE CHART -INSTRUMENT**

RJFG / TANEGASHIMA — RNAV SID

| KAGYA TWO DEPARTURE | RNP1 |
|---|---|
| Note GNSS required. | |




RWY13 : Climb on HDG 130˚ at or above 1200FT, turn left direct to KAGYA, to FG801 at or above 6000FT, to KINKO.

RWY31 : Climb on HDG 310˚ at or above 1300FT, turn right direct to KAGYA, to FG801 at or above 6000FT, to KINKO.

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART -INSTRUMENT

RJFG / TANEGASHIMA RNAV SID

## KAGYA TWO DEPARTURE

### RWY13

| 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 | - | - | 130 (123.0) | -7.0 | - | - | +1200 | - | - | RNP1 |
| 002 | DF | KAGYA | - | - | -7.0 | - | L | - | - | - | RNP1 |
| 003 | TF | FG801 | - | 349 (342.4) | -7.0 | 8.3 | - | +6000 | - | - | RNP1 |
| 004 | TF | KINKO | - | 349 (342.3) | -7.0 | 25.7 | - | - | - | - | RNP1 |

### RWY31

| 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 | - | - | 310 (303.0) | -7.0 | - | - | +1300 | - | - | RNP1 |
| 002 | DF | KAGYA | - | - | -7.0 | - | R | - | - | - | RNP1 |
| 003 | TF | FG801 | - | 349 (342.4) | -7.0 | 8.3 | - | +6000 | - | - | RNP1 |
| 004 | TF | KINKO | - | 349 (342.3) | -7.0 | 25.7 | - | - | - | - | RNP1 |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

**STANDARD ARRIVAL CHART - INSTRUMENT**

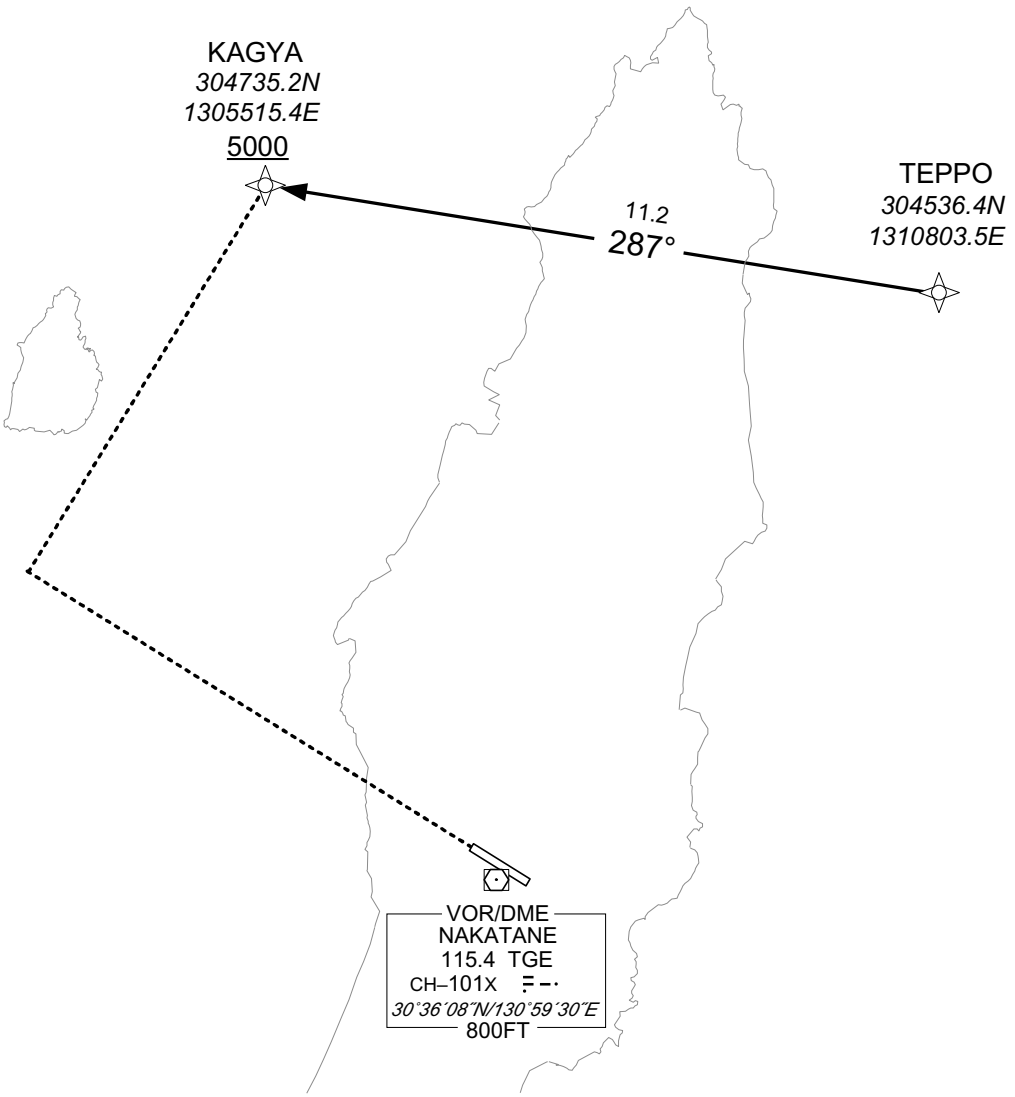
RJFG / TANEGASHIMA

RNAV STAR RWY13

| TEPPO ARRIVAL | RNP1 |
|---|---|

Note GNSS required.

VAR 7°W




From TEPPO, to KAGYA 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 | TEPPO | — | — | -7.0 | — | — | — | — | — | RNP1 |
| 002 | TF | KAGYA | — | 287 (280.3) | -7.0 | 11.2 | — | +5000 | — | — | RNP1 |

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

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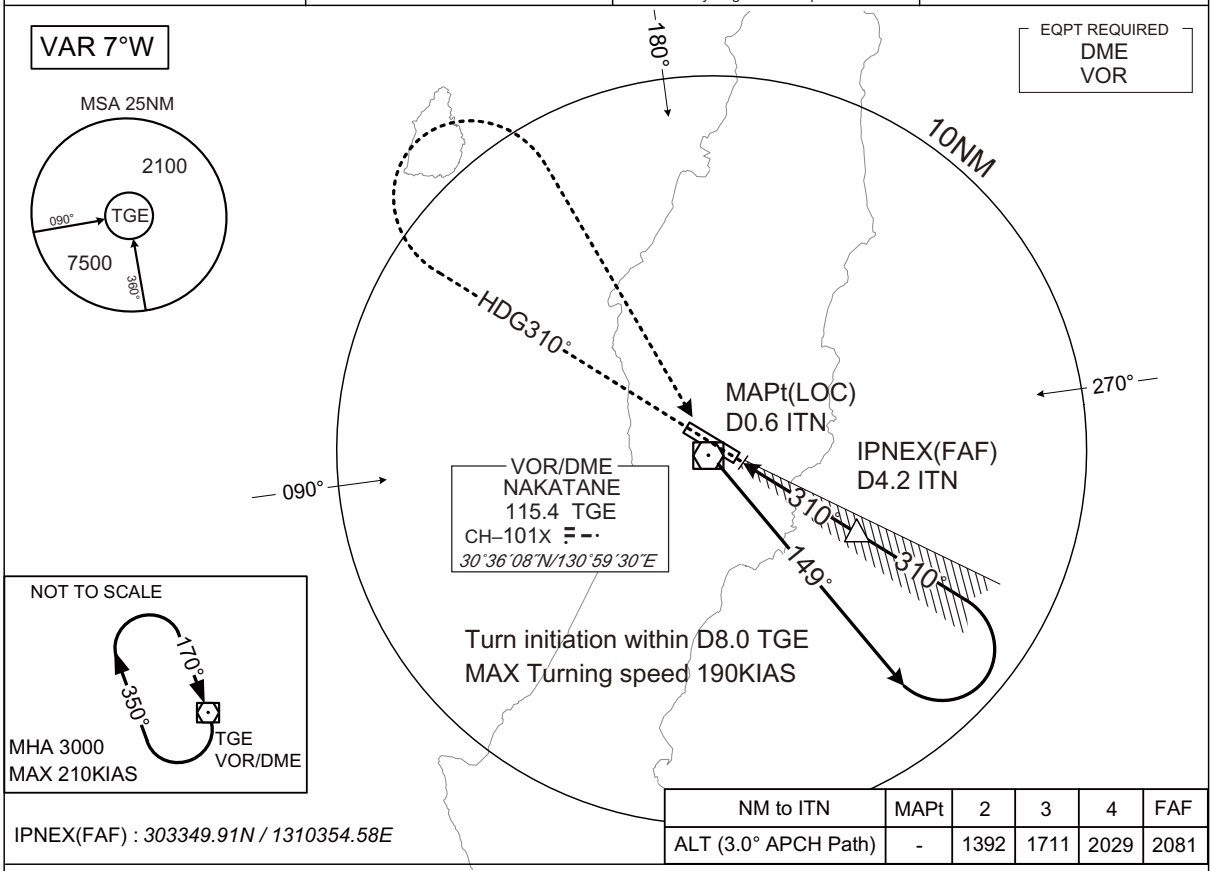
**INSTRUMENT APPROACH CHART**

# RJFG / TANEGASHIMA — ILS Z or LOC RWY31

| KOBE CONTROL | ILS – LOC | TANEGASHIMA RADIO | NO RADAR |
|---|---|---|---|
| 133.85 - 315.3<br>134.6 - 225.65 | 108.95 ITN<br>ILS–GP 329.15<br>ILS–DME CH–26Y | 118.75<br>AFIS provided<br>by Kagoshima Airport Office | |



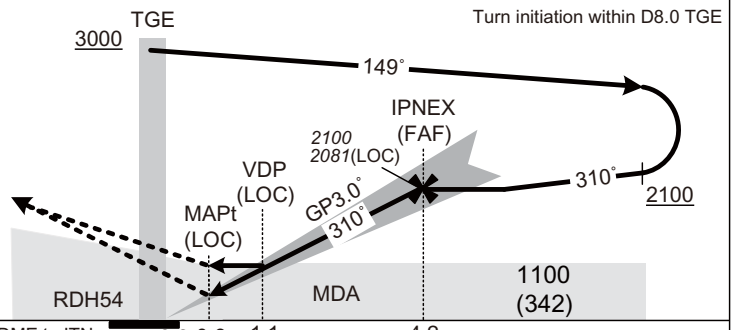

| NM to ITN | MAPt | 2 | 3 | 4 | FAF |
|---|---|---|---|---|---|
| ALT (3.0° APCH Path) | - | 1392 | 1711 | 2029 | 2081 |

IPNEX(FAF) : *303349.91N / 1310354.58E*

MISSED APPROACH

Climb on HDG310° to 3000FT,
turn right, direct to TGE VOR/DME
and hold.
Contact TANEGASHIMA RADIO.

Timing not authorized for defining the MAPt.




Missed APCH climb gradient MNM 4.0%

MINIMA THR elev. 758 AD elev. 768

| CAT | CAT I | | LOC | | CIRCLING | |
|---|---|---|---|---|---|---|
| | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 958(200) | 550 | 1100(342) | 900 | 1500(732) | 1600 |
| B | | | | 1000 | | |
| C | | | | | 1800(1032) | 2400 |
| D | | | | 1400 | | 3200 |

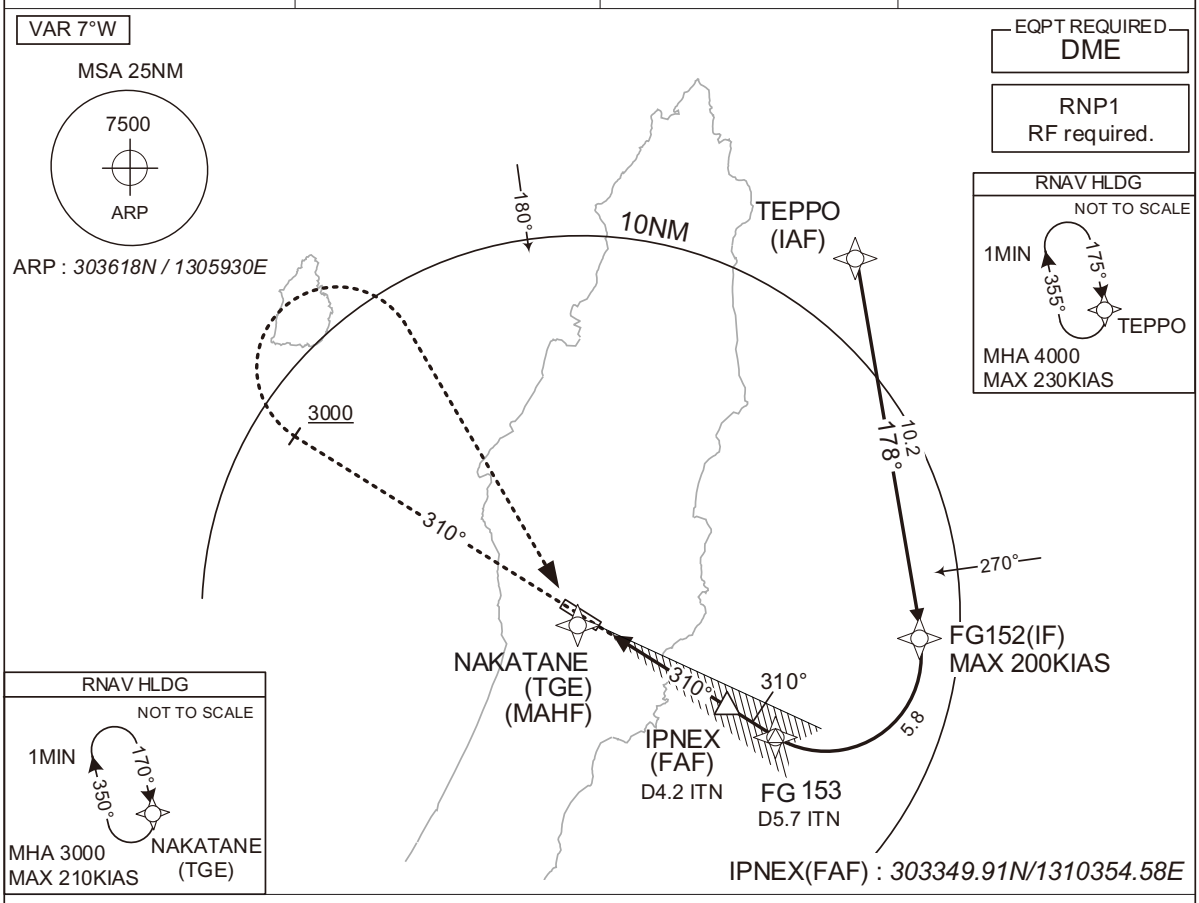
MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to NORTH side of RWY only.

CHANGE : PROC renamed.

**INSTRUMENT APPROACH CHART**

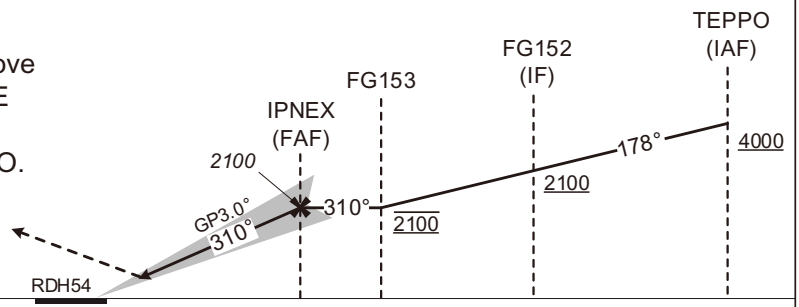
RJFG / TANEGASHIMA — ILS Y RWY31

| KOBE CONTROL | ILS – LOC | TANEGASHIMA RADIO | NO RADAR |
|---|---|---|---|
| 133.85 - 315.3<br>134.6 - 225.65 | 108.95 ITN<br>ILS–GP 329.15<br>ILS–DME CH–26Y | 118.75<br>AFIS provided<br>by Kagoshima Airport Office | |




MISSED APPROACH

Climb on course 310°, at or above 3000FT turn right, direct to TGE and hold at 3000FT.
Contact TANEGASHIMA RADIO.




| | | | |
|---|---|---|---|
| DME to ITN | 0.2 | 4.2 | 5.7 |
| NM to THR | 0 | 4.0 | 5.5 |

Missed APCH climb gradient MNM 4.0%

| MINIMA | THR elev. 758 | | AD elev. 768 | |
|---|---|---|---|---|
| CAT | CAT Ⅰ | | CIRCLING | |
| | DA(H) | RVR/CMV | MDA(H) | VIS |
| A | 958(200) | 550 | 1500(732) | 1600 |
| B | | | | |
| C | | | 1800(1032) | 2400 |
| D | | | | 3200 |

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

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

INSTRUMENT APPROACH CHART

RJFG / TANEGASHIMA

ILS Y RWY31

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

## Coding Table

| 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 | TEPPO | - | - | -7.0 | - | - | +4000 | - | - | RNP1 |
| 002 | TF | FG152 | - | 178 (171.4) | -7.0 | 10.2 | - | +2100 | -200 | - | RNP1 |
| 003 | RF Center: FGRF1 r=2.51NM | FG153 | - | - | -7.0 | 5.8 | R | 2100 | - | - | RNP1 |
| | | | | | | | | | | | |
| 001 | CA | - | - | 310 (303.0) | -7.0 | - | - | +3000 | - | - | RNP1 |
| 002 | DF | TGE | - | - | -7.0 | - | R | 3000 | - | - | 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 | TEPPO | 175 (168.4) | -7.0 | 1.0 (-14000) | R | 4000 | FL140 | -230 (-14000) | RNP1 |
| Hold | TGE | 170 (163.3) | -7.0 | 1.0 (-14000) | R | 3000 | FL140 | -210 (-14000) | RNP1 |

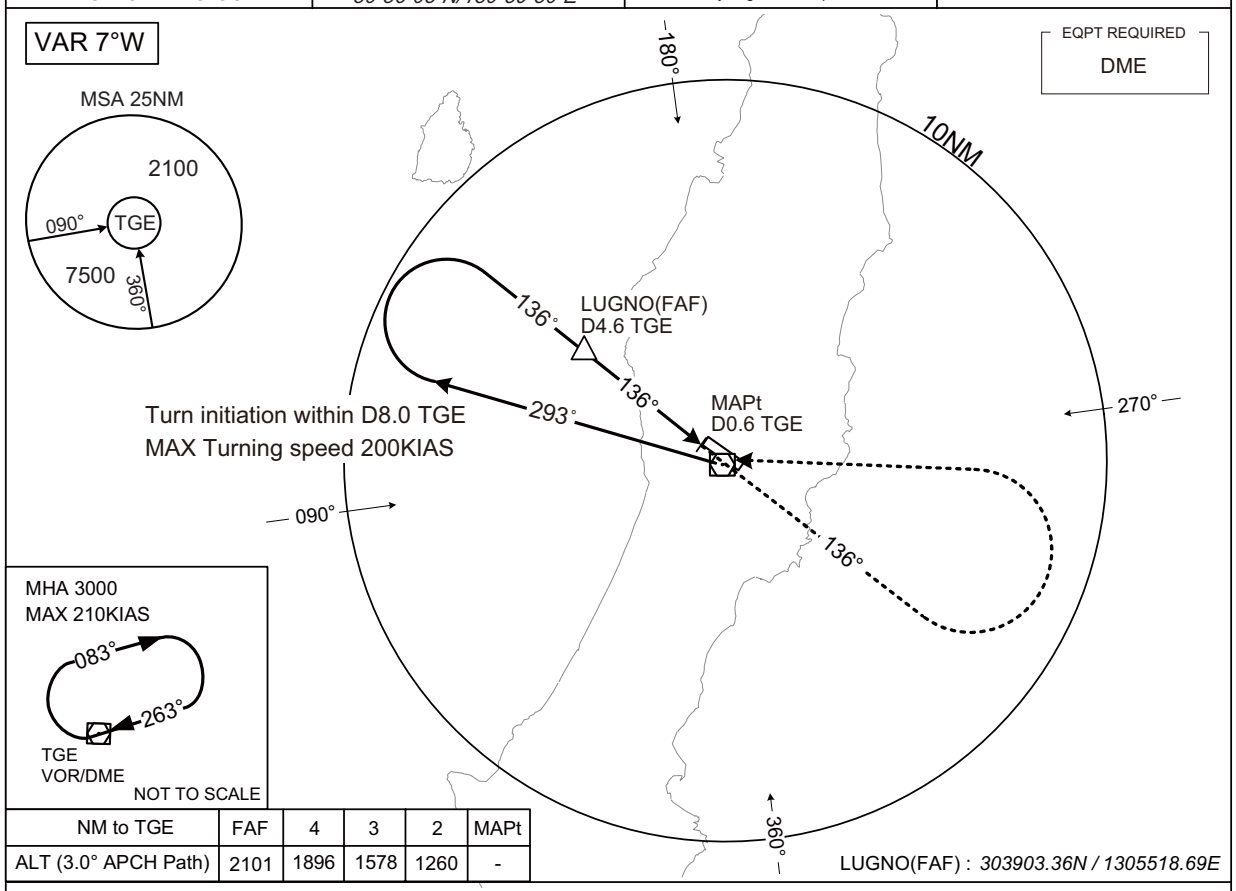
## Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---|---|---|---|
| TEPPO | *304536.42N / 1310803.50E* | FGRF1 | *303507.53N / 1310656.98E* |
| FG152 | *303530.12N / 1310949.53E* | | |
| FG153 | *303300.85N / 1310522.05E* | | |
| TGE | *303607.76N / 130.5929.52E* | | |

**INSTRUMENT APPROACH CHART**

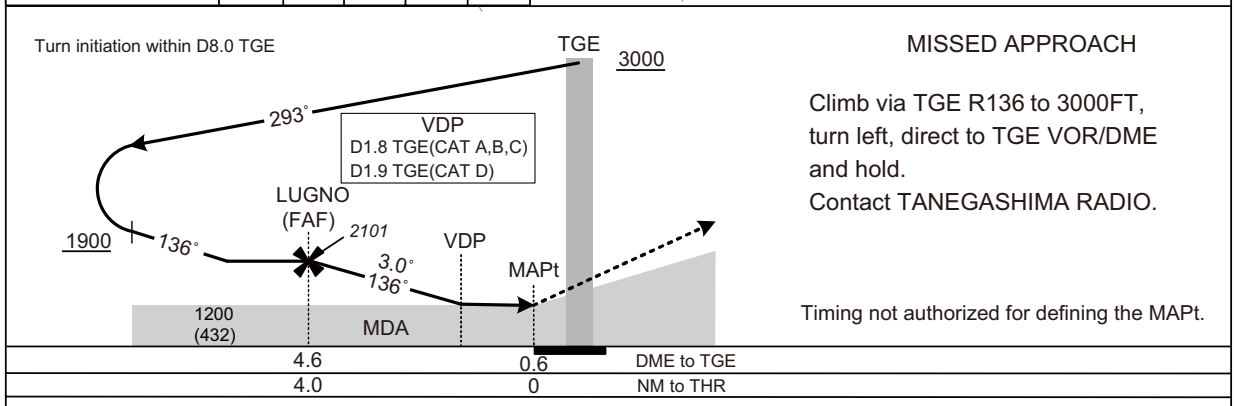
RJFG / TANEGASHIMA VOR RWY13

| KOBE CONTROL | NAKATANE VOR/DME | TANEGASHIMA RADIO | NO RADAR |
|---|---|---|---|
| 133.85 - 315.3<br>134.6 - 225.65 | 115.4 TGE<br>CH - 101X<br>*30°36′08″N/130°59′30″E* | 118.75<br>AFIS provided<br>by Kagoshima Airport Office | |




| NM to TGE | FAF | 4 | 3 | 2 | MAPt |
|---|---|---|---|---|---|
| ALT (3.0° APCH Path) | 2101 | 1896 | 1578 | 1260 | - |

LUGNO(FAF) : *303903.36N / 1305518.69E*




MISSED APPROACH

Climb via TGE R136 to 3000FT, turn left, direct to TGE VOR/DME and hold.
Contact TANEGASHIMA RADIO.

Timing not authorized for defining the MAPt.

Missed APCH climb gradient MNM 5.0%

| MINIMA | THR elev. 778 | | AD elev. 768 | |
|---|---|---|---|---|
| CAT | | | CIRCLING | |
| | MDA(H) | CMV | MDA(H) | VIS |
| A | 1160(392) | 1200 | 1500(732) | 1600 |
| B | | 1300 | | |
| C | 1180(412) | 1400 | 1800(1032) | 2400 |
| D | 1200(432) | 1600 | | 3200 |

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

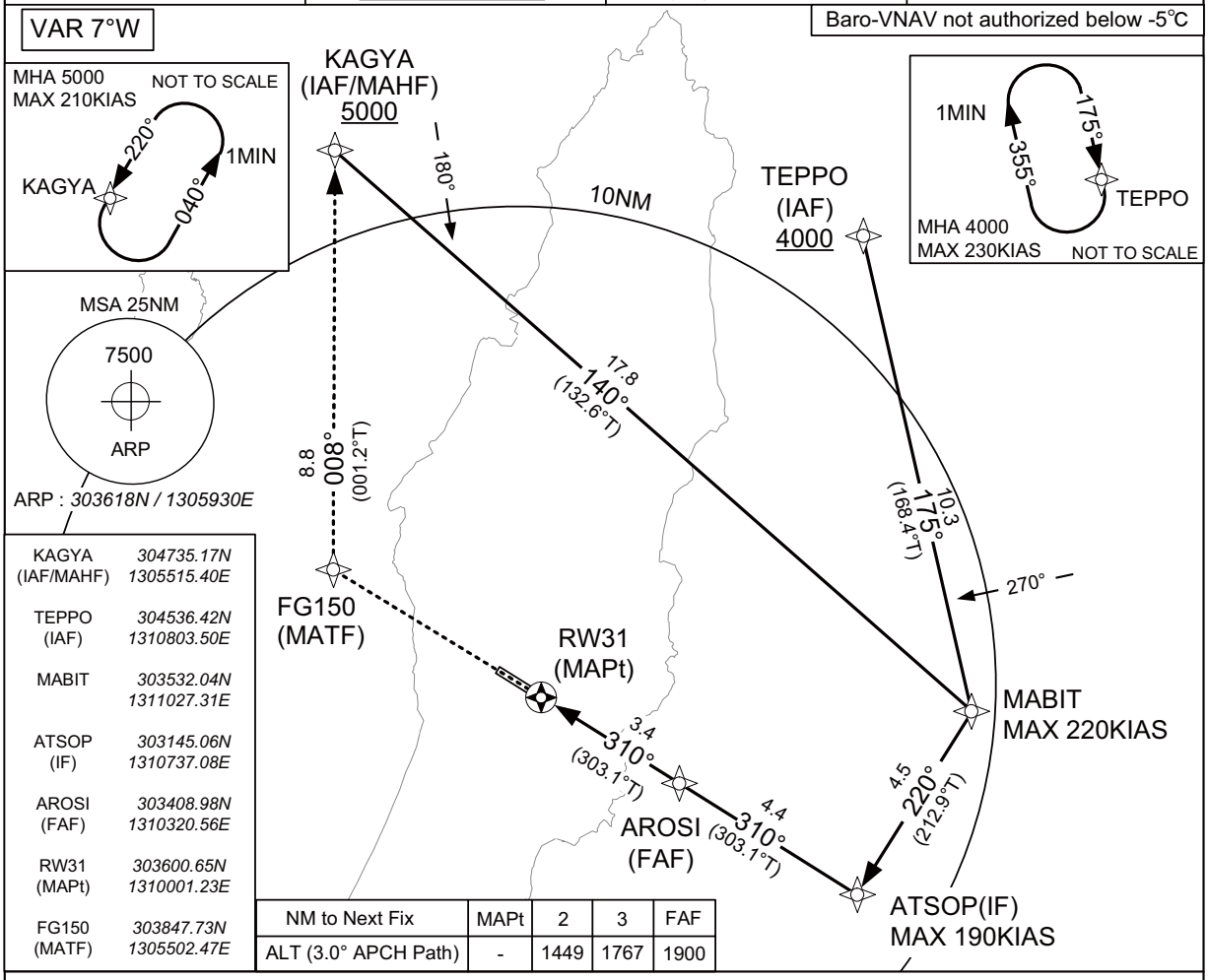
**INSTRUMENT APPROACH CHART**

RJFG / TANEGASHIMA — RNP RWY31

| KOBE CONTROL | RNP APCH | TANEGASHIMA RADIO | NO RADAR |
|---|---|---|---|
| 133.85 - 315.3<br>134.6 - 225.65 | MSAS CH88975<br>M31A | 118.75<br>AFIS provided<br>by Kagoshima Airport Office | |

VAR 7°W

Baro-VNAV not authorized below -5℃

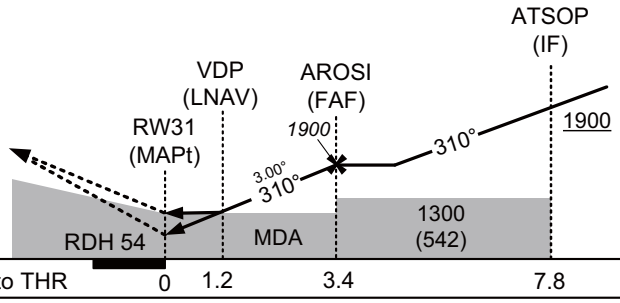



| | |
|---|---|
| KAGYA (IAF/MAHF) | 304735.17N 1305515.40E |
| TEPPO (IAF) | 304536.42N 1310803.50E |
| MABIT | 303532.04N 1311027.31E |
| ATSOP (IF) | 303145.06N 1310737.08E |
| AROSI (FAF) | 303408.98N 1310320.56E |
| RW31 (MAPt) | 303600.65N 1310001.23E |
| FG150 (MATF) | 303847.73N 1305502.47E |

| NM to Next Fix | MAPt | 2 | 3 | FAF |
|---|---|---|---|---|
| ALT (3.0° APCH Path) | - | 1449 | 1767 | 1900 |

MISSED APPROACH

Direct to FG150, to KAGYA and hold at 5000FT.
Contact TANEGASHIMA RADIO.




Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 758 AD elev. 768

| CAT | LPV | | LNAV/VNAV | | LNAV | | CIRCLING | |
|---|---|---|---|---|---|---|---|---|
| | DA(H) | RVR/CMV | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 1043(285) | 800 | 1170(412) | 900 | 1170(412) | 900 | 1500(732) | 1600 |
| B | 1053(295) | | | 1000 | | 1000 | | |
| C | 1063(305) | 1000 | | | | | 1800(1032) | 2400 |
| D | 1073(315) | 1400 | | 1400 | | 1400 | | 3200 |

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

INSTRUMENT APPROACH CHART

RJFG / TANEGASHIMA RNP RWY31

## FAS DATA BLOCK

| | | | |
|---|---|---|---|
| Operation type | 0 | LTP/FTP ellipsoidal height | +02605 |
| SBAS service provider identifier | 2 | FPAP latitude | *303635.9110N* |
| Airport identifier | RJFG | FPAP longitude | *1305858.2130E* |
| Runway | 31 | Threshold crossing height | 00016.5 |
| Approach performance designator | 0 | TCH units selector | 1 |
| Route indicator | | Glide path angle | 03.00 |
| Reference path data selector | 0 | Course width at threshold | 105.00 |
| Reference path ID | M31A | ⊿ length offset | 0000 |
| LTP/FTP latitude | *303600.6245N* | HAL | 40.0 |
| LTP/FTP longitude | *1310001.2545E* | VAL | 50.0 |
| CRC remainder | 2EE6E3AF | | |

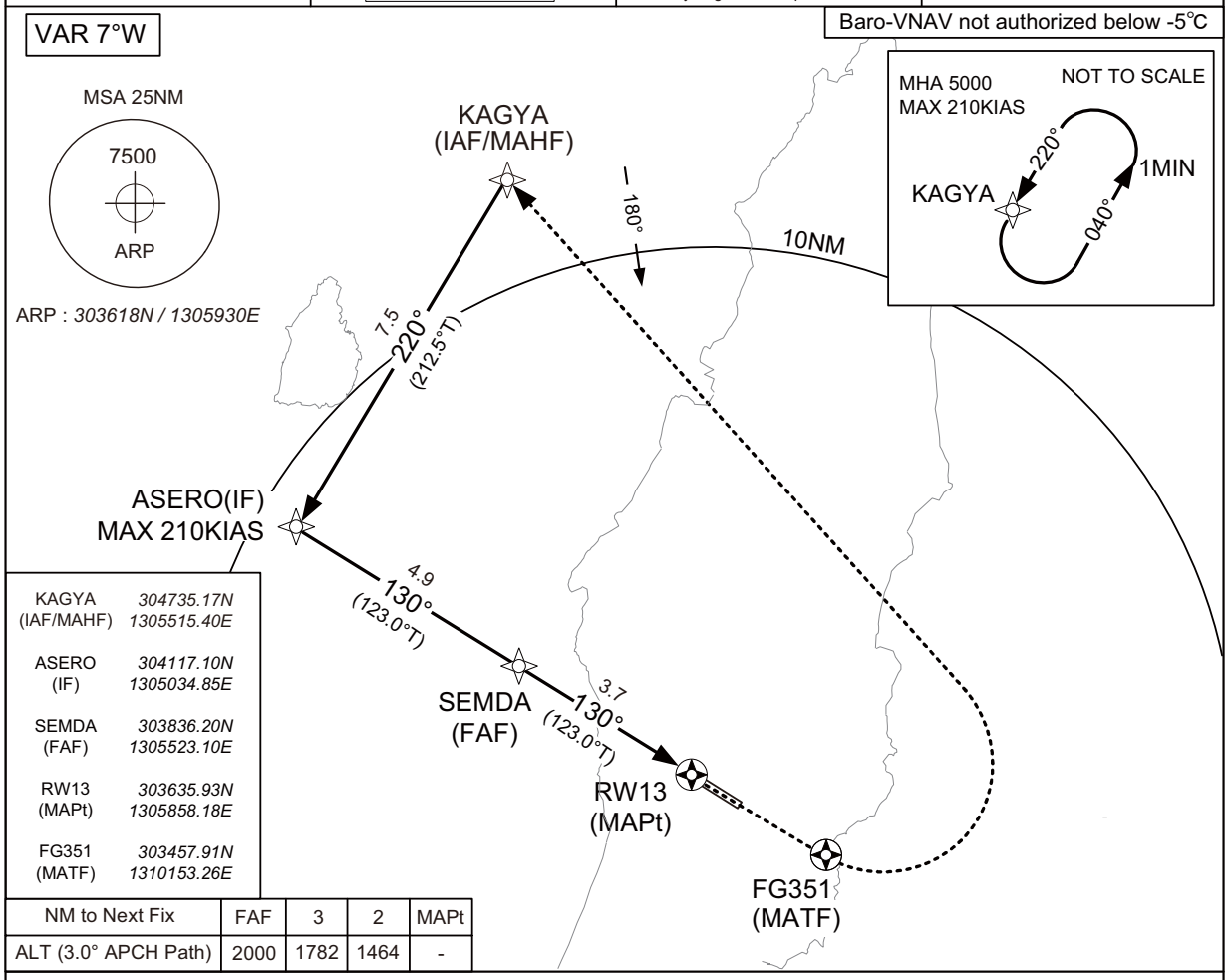
## Required additional data

| | |
|---|---|
| LTP/FTP orthometric height | 231.2 |

**INSTRUMENT APPROACH CHART**

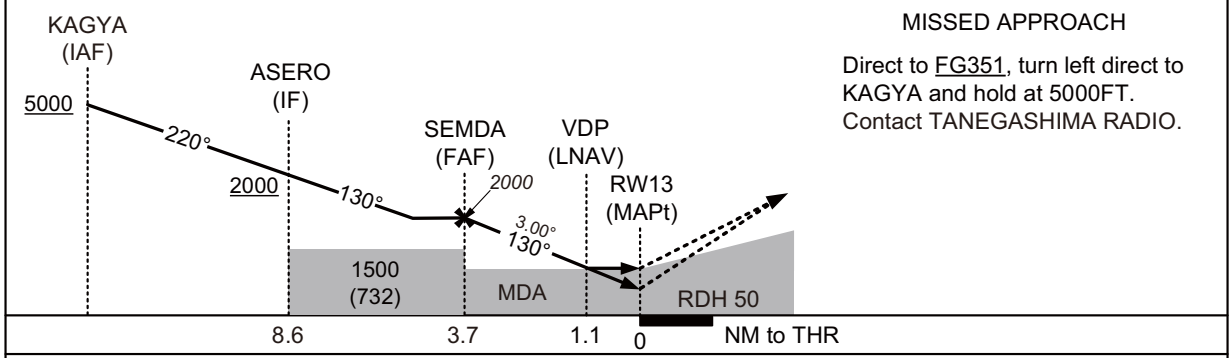
RJFG / TANEGASHIMA — RNP RWY13

| KOBE CONTROL | RNP APCH | TANEGASHIMA RADIO | NO RADAR |
|---|---|---|---|
| 133.85 - 315.3<br>134.6 - 225.65 | MSAS CH61693<br>M13A | 118.75<br>AFIS provided<br>by Kagoshima Airport Office | |




| | |
|---|---|
| KAGYA (IAF/MAHF) | 304735.17N 1305515.40E |
| ASERO (IF) | 304117.10N 1305034.85E |
| SEMDA (FAF) | 303836.20N 1305523.10E |
| RW13 (MAPt) | 303635.93N 1305858.18E |
| FG351 (MATF) | 303457.91N 1310153.26E |

| NM to Next Fix | FAF | 3 | 2 | MAPt |
|---|---|---|---|---|
| ALT (3.0° APCH Path) | 2000 | 1782 | 1464 | - |




MISSED APPROACH

Direct to FG351, turn left direct to KAGYA and hold at 5000FT.
Contact TANEGASHIMA RADIO.

Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 778 AD elev. 768

| CAT | LPV | | LNAV/VNAV | | LNAV | | CIRCLING | |
|---|---|---|---|---|---|---|---|---|
| | DA(H) | CMV | DA(H) | CMV | MDA(H) | CMV | MDA(H) | VIS |
| A | 1028(250) | 1000 | 1160(382) | 1200 | 1160(392) | 1200 | 1500(732) | 1600 |
| B | | 1100 | | 1300 | | 1300 | | |
| C | 1043(265) | 1200 | | 1400 | | 1400 | 1800(1032) | 2400 |
| D | 1052(274) | 1400 | | 1600 | | 1600 | | 3200 |

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

INSTRUMENT APPROACH CHART

RJFG / TANEGASHIMA RNP RWY13

## FAS DATA BLOCK

| | | | |
|---|---|---|---|
| Operation type | 0 | LTP/FTP ellipsoidal height | +02666 |
| SBAS service provider identifier | 2 | FPAP latitude | *303600.6245N* |
| Airport identifier | RJFG | FPAP longitude | *1310001.2545E* |
| Runway | 13 | Threshold crossing height | 00015.0 |
| Approach performance designator | 0 | TCH units selector | 1 |
| Route indicator | | Glide path angle | 03.00 |
| Reference path data selector | 0 | Course width at threshold | 105.00 |
| Reference path ID | M13A | ⊿ length offset | 0000 |
| LTP/FTP latitude | *303635.9110N* | HAL | 40.0 |
| LTP/FTP longitude | *1305858.2130E* | VAL | 50.0 |
| CRC remainder | 1527D649 | | |

## Required additional data

| | |
|---|---|
| LTP/FTP orthometric height | 237.1 |

RJFG / TANEGASHIMA

Visual REP

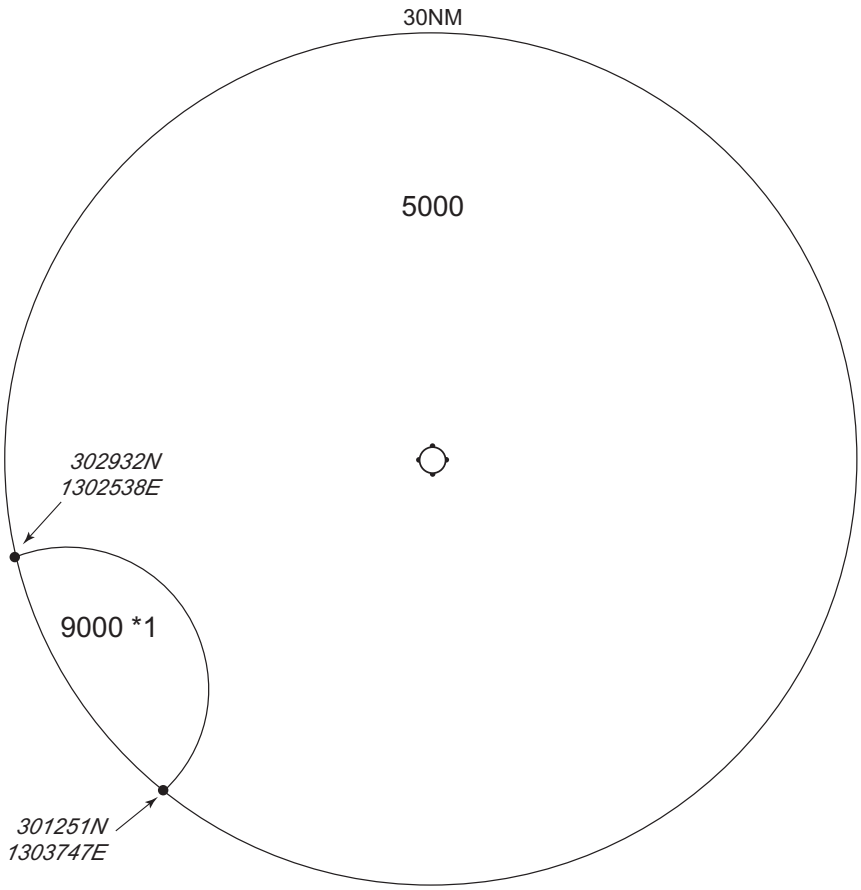
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

CHANGE : VAR.

| Call sign | BRG / DIST from ARP | Remarks |
|---|---|---|
| 喜志鹿崎<br>Kishigazaki | 014°T / 14.2NM | 灯台<br>Lighthouse |
| 西之表<br>Nishinoomote | 359°T / 7.5NM | 西之表港<br>Harbor |
| 10NM W | 270°T / 10.0NM | 海上<br>Over the sea |
| 島間<br>Shimama | 219°T / 10.6NM | 港<br>Harbor |
| 竹崎<br>Takezaki | 187°T / 13.2NM | 灯台<br>Lighthouse |

RJFG / TANEGASHIMA

Minimum Vectoring Altitude CHART




*1 : *302013N/1302957E* RADIUS : 10NM

CENTER : *303618N/1305930E* (ARP)

CHANGE : Minimum vectoring altitude(6000→5000).