



ROIG / NEW ISHIGAKI

SID

GUSUK ONE DEPARTURE

RWY04: Climb RWY HDG to 600FT, turn right,...

RWY22 : Climb RWY HDG to 600FT, via IGE R214 to IGE R214/2.8DME,turn left HDG027°...

... to intercept and proceed via IGE R072 to GUSUK.

Cross GUSUK at or above 3000FT.

MIYAKO TWO DEPARTURE

RWY04: Climb RWY HDG to 600FT, turn right HDG175°...

RWY22: Climb RWY HDG to 600FT, via IGE R214 to IGE R214/2.8DME, turn left HDG085°...

... to intercept and proceed via IGE R130 to IGE 14.0DME, turn left, via MJC R241 to MJC VORTAC.



ROIG / NEW ISHIGAKI SID

ISHIGAKI REVERSAL ONE DEPARTURE

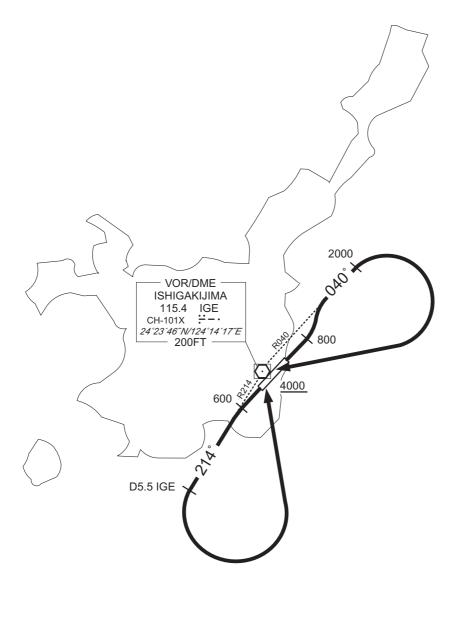
RWY04 : Climb RWY HDG to 800FT, turn left to intercept and proceed via IGE R040 to 2000FT,

turn right, direct to IGE VOR/DME.

Cross IGE VOR/DME at or above 4000FT.

 $RWY22: Climb\ RWY\ HDG\ to\ 600FT, via\ IGE\ R214\ to\ IGE\ R214/5.5DME, turn\ left,\ direct\ to\ IGE\ VOR/DME.$

Cross IGE VOR/DME at or above 4000FT.



ROIG / NEW ISHIGAKI

SID

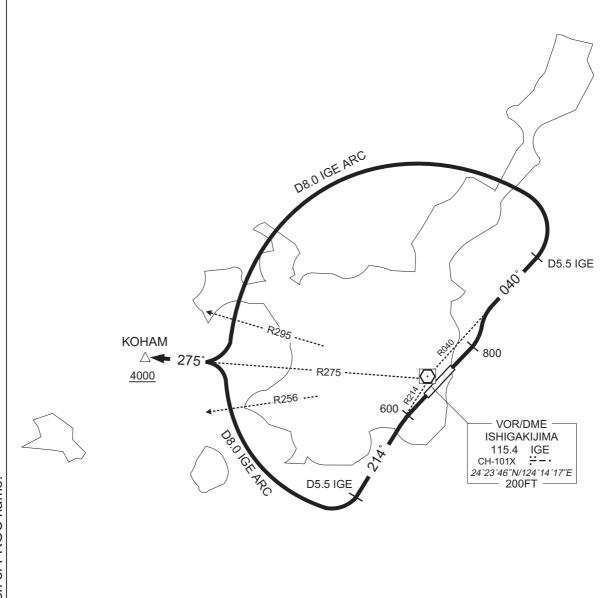
KOHAM ONE DEPARTURE

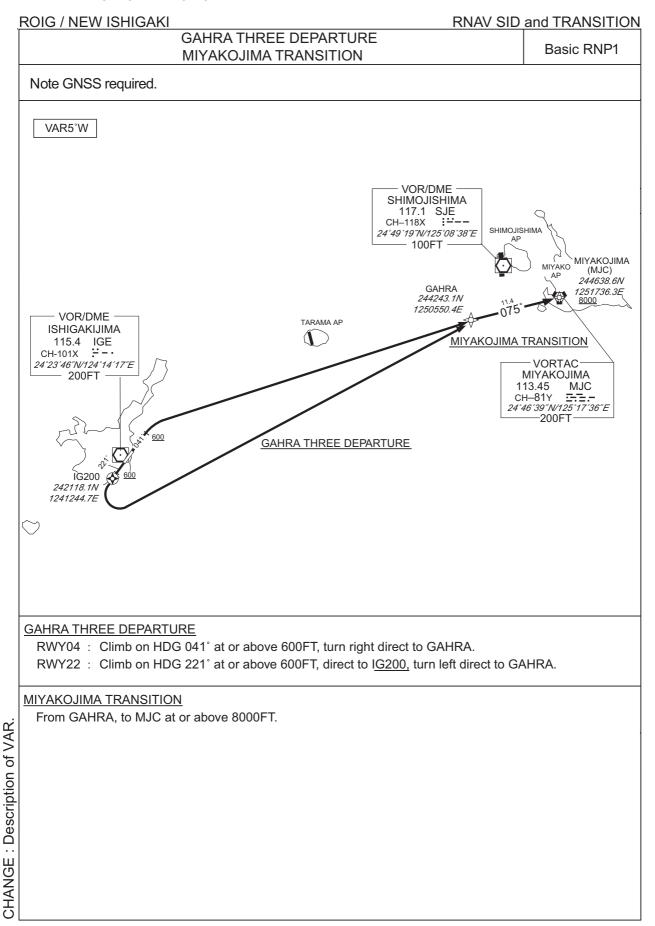
RWY04 : Climb RWY HDG to 800FT, turn left to intercept and proceed via IGE R040 to IGE R040/5.5DME, turn left, via IGE 8.0DME counterclockwise ARC, turn right to intercept and proceed via IGE R275 to KOHAM.

Cross KOHAM at or above 4000FT.

RWY22 : Climb RWY HDG to 600FT,via IGE R214 to IGE R214/5.5DME,turn right, via IGE 8.0DME clockwise ARC,turn left to intercept and proceed via IGE R275 to KOHAM.

Cross KOHAM at or above 4000FT.





ROIG / NEW ISHIGAKI

RNAV SID and TRANSITION

GAHRA THREE DEPARTURE

RWY04

| Serial Number | Path Descriptor | 7. | Fly Over | | Magnetic Variation | | Turn Direction | | l ' | | Navigation Specification |
|------------------|--------------------|-------|-------------|----------------|-----------------------|---|-------------------|------|-----|---|-----------------------------|
| 001 | VA | _ | _ | 041 (035.9) | -4.9 | _ | _ | +600 | _ | _ | Basic RNP1 |
| 002 | DF | GAHRA | _ | _ | -4.9 | _ | R | _ | _ | _ | Basic RNP1 |

RWY22

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|------------------|--------------------|------------------------|-------------|------------------|-----------------------|---|-------------------|------------------|-----------------|-------------------|-----------------------------|
| 001 | VA | _ | _ | 221 (215.9) | -4.9 | _ | _ | +600 | _ | _ | Basic RNP1 |
| 002 | DF | IG200 | Υ | _ | -4.9 | _ | _ | _ | _ | _ | Basic RNP1 |
| 003 | DF | GAHRA | _ | _ | -4.9 | _ | L | _ | _ | _ | Basic RNP1 |

MIYAKOJIMA TRANSITION

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | | Magnetic Variation | | Turn Direction | Altitude (FT) | l ' | | Navigation Specification |
|------------------|--------------------|------------------------|-------------|----------------|-----------------------|------|-------------------|------------------|-----|---|-----------------------------|
| 001 | IF | GAHRA | _ | _ | -4.9 | _ | _ | _ | _ | _ | Basic RNP1 |
| 002 | TF | MJC | _ | 075 (069.8) | -4.9 | 11.4 | _ | +8000 | _ | _ | Basic RNP1 |

ROIG / NEW ISHIGAKI **RNAV SID** Basic RNP1 AYAKA THREE DEPARTURE Note GNSS required. VAR5°W IG402 243300.1N 1241352.0E IG401 243131.1N [>]1241835.2E -_{3.0} -007° AYAKA ^{36.0}261 242414.9N - IG400 1233531.4E 242830.7N 5000 (From RWY04 only) 1241826.4E 600 VOR/DME VOR/DME -IG203 IG200 YONAGUNI ISHIGAKIJIMA 242118.1N 242055.7N 115.05 YNE 283° 115.4 IGE 1-101X ∺ - • 1241244.7E 1235025.7E CH-97Y IG202 CH-101X 24°27′54″N/122°59′52″E — 300FT — 241855.4N 24°23′46″N/124°14′17″E IG201 5000 √ 1235922.2E 241736.0N 200FT -0 1240949.7E

 $RWY04~:~Climb~on~HDG~041^{\circ}$ at or above 600FT, direct to IG400, to IG401, to IG402, to AYAKA at or

above 5000FT.

RWY22 : Climb on HDG 221 $^{\circ}$ at or above 600FT, direct to $\underline{\text{IG200}},$ to IG201, to IG202, to IG203

at or above 5000FT, to AYAKA.

NOTE RWY04: 4.0% climb gradient required up to 2000FT.

OBST ALT 836FT at 9.53NM 021° FM end of RWY04.

ROIG / NEW ISHIGAKI

RNAV SID

AYAKA THREE DEPARTURE

RWY04

| 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 | _ | _ | 041 (035.9) | -4.9 | _ | _ | +600 | _ | _ | Basic RNP1 |
| 002 | DF | IG400 | _ | _ | -4.9 | _ | _ | _ | _ | _ | Basic RNP1 |
| 003 | TF | IG401 | _ | 007 (002.6) | -4.9 | 3.0 | _ | _ | _ | _ | Basic RNP1 |
| 004 | TF | IG402 | _ | 294 (289.1) | -4.9 | 4.6 | _ | _ | _ | _ | Basic RNP1 |
| 005 | TF | AYAKA | _ | 261 (256.1) | -4.9 | 36.0 | _ | +5000 | _ | _ | Basic RNP1 |

RWY22

| Serial Numbe | Path er Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|-----------------|-----------------------|------------------------|-------------|------------------|-----------------------|------------------|-------------------|------------------|-----------------|-------------------|-----------------------------|
| 001 | VA | _ | _ | 221 (215.9) | -4.9 | _ | _ | +600 | _ | _ | Basic RNP1 |
| 002 | DF | IG200 | Υ | _ | -4.9 | _ | _ | _ | _ | _ | Basic RNP1 |
| 003 | TF | IG201 | _ | 221 (215.7) | -4.9 | 4.6 | _ | _ | _ | _ | Basic RNP1 |
| 004 | TF | IG202 | _ | 283 (277.9) | -4.9 | 9.6 | _ | _ | _ | _ | Basic RNP1 |
| 005 | TF | IG203 | _ | 289 (283.9) | -4.9 | 8.4 | _ | +5000 | _ | _ | Basic RNP1 |
| 006 | TF | AYAKA | _ | 289 (283.8) | -4.9 | 14.0 | _ | _ | _ | _ | Basic RNP1 |

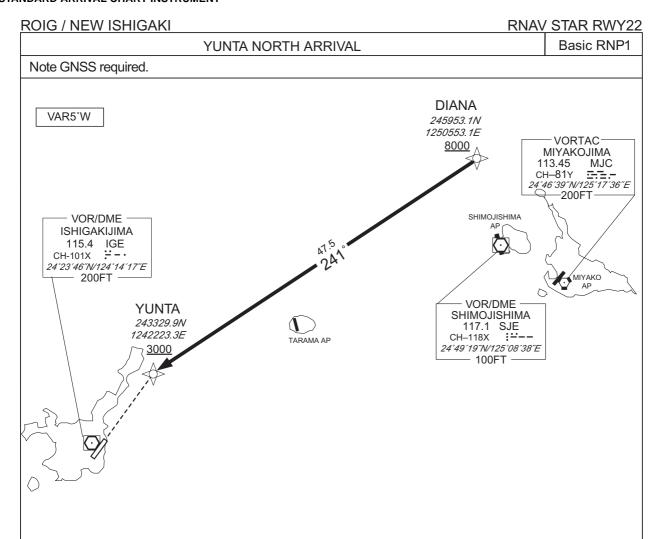
STANDARD ARRIVAL CHART-INSTRUMENT

ROIG / NEW ISHIGAKI RNAV STAR RWY04 / RWY22 Basic RNP1 MASAN ARRIVAL Note GNSS required. VAR5°W DIANA 245953.1N VORTAC-1250553.1E MIYAKOJIMA 8000 SHIMOJISHIMA VOR/DME -MIYAKO AP ISHIGAKIJIMA 115.4 IGE CH-101X VOR/DME 24°23′46″N/124°14′17″E SHIMOJISHIMA 200FT 117.1 SJE CH–118X :---TARAMA AP 24°49′19″N/125°08′38″E - 100FT MASAN 243033.2N 1242649.7E 3000

From DIANA at or above 8000FT, to MASAN at or above 3000FT.

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | | Magnetic Variation | | Turn Direction | | | | Navigation Specification |
|------------------|--------------------|------------------------|-------------|----------------|-----------------------|------|-------------------|-------|---|---|-----------------------------|
| 001 | IF | DIANA | _ | _ | -5.1 | _ | _ | +8000 | _ | _ | Basic RNP1 |
| 002 | TF | MASAN | _ | 236 (230.5) | -5.1 | 46.1 | _ | +3000 | _ | _ | Basic RNP1 |

STANDARD ARRIVAL CHART-INSTRUMENT



From DIANA at or above 8000FT, to YUNTA at or above 3000FT.

| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | | Turn Direction | | l ' | | Navigation Specification |
|------------------|--------------------|------------------------|-------------|------------------|-----------------------|------|-------------------|-------|-----|---|-----------------------------|
| 001 | IF | DIANA | _ | _ | -4.9 | _ | _ | +8000 | _ | _ | Basic RNP1 |
| 002 | TF | YUNTA | _ | 241 (236.4) | -4.9 | 47.5 | _ | +3000 | _ | _ | Basic RNP1 |

STANDARD ARRIVAL CHART-INSTRUMENT

ROIG / NEW ISHIGAKI RNAV STAR RWY04/RWY22 DENSA ARRIVAL / JOTTO WEST ARRIVAL Basic RNP1 Note GNSS required. **DENSA** 243626.5N VAR5°W 1241756.7E <u>3000</u> **DENSA ARRIVAL AYAKA** 40.5 242414.9N 1233531.4E 5000 (For DENSA ARRIVAL only) VOR/DME VOR/DME -16.7 YONAGUNI **BUKRO** ISHIGAKIJIMA 115.05 YNE 241953.0N 115.4 IGE CH-101X ∵ - · CH-97Y =:--1235006.1E 24°27′54″N/122°59′52″E — 300FT JOTTO 24°23′46″N/124°14′17″E 5000 200FT 241438.3N 1240729.7E JOTTO WEST ARRIVAL

DENSA ARRIVAL

From AYAKA at or above 5000FT, to DENSA at or above 3000FT.

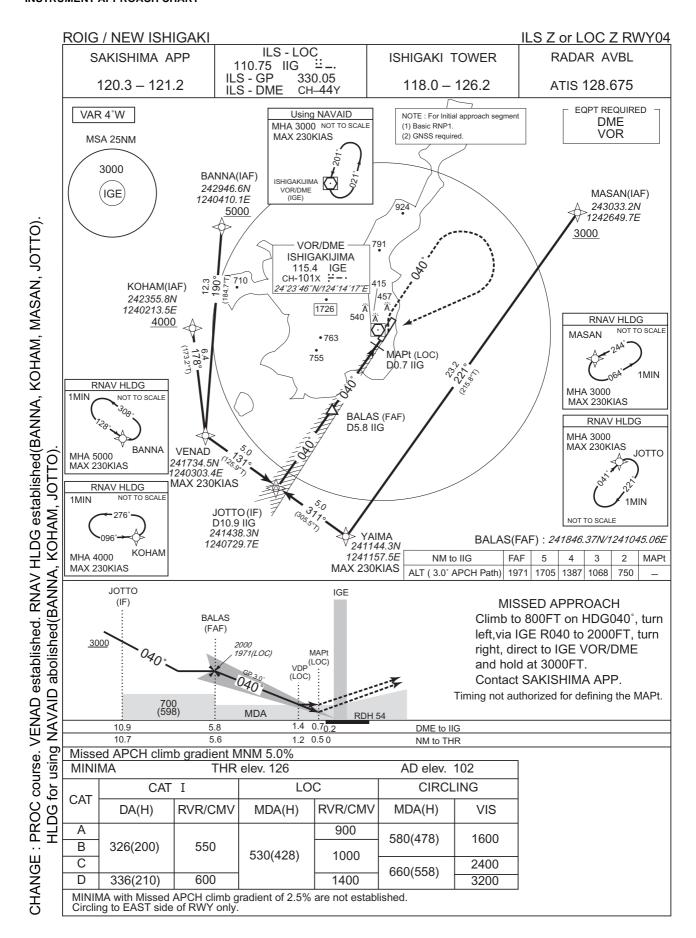
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | | Magnetic Variation | | Turn Direction | Altitude (FT) | • | | Navigation Specification |
|------------------|--------------------|------------------------|-------------|----------------|-----------------------|------|-------------------|------------------|---|---|-----------------------------|
| 001 | IF | AYAKA | _ | _ | -4.9 | _ | _ | +5000 | _ | _ | Basic RNP1 |
| 002 | TF | DENSA | _ | 077 (072.3) | -4.9 | 40.5 | _ | +3000 | _ | _ | Basic RNP1 |

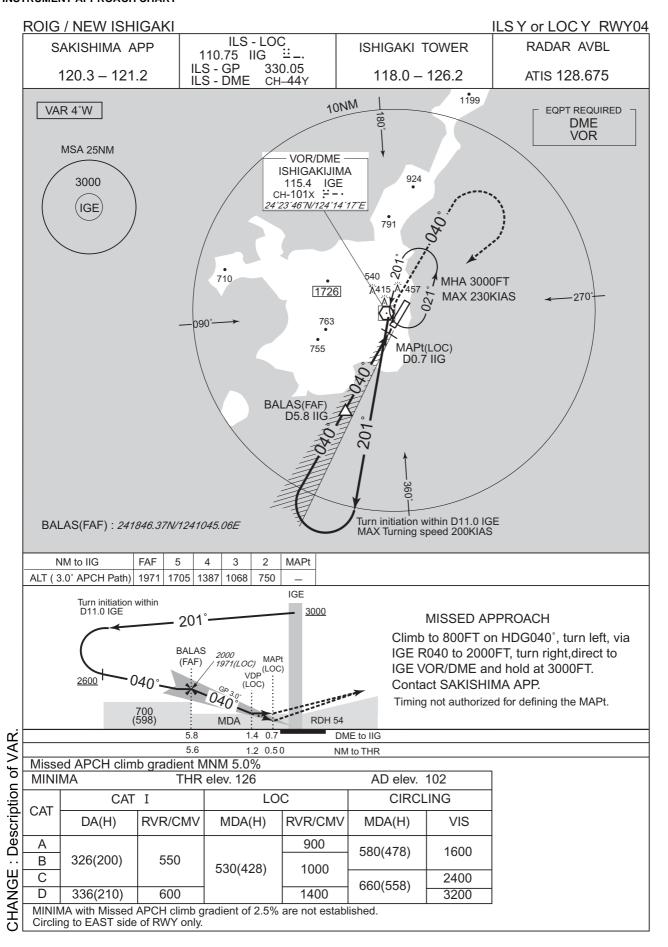
3000

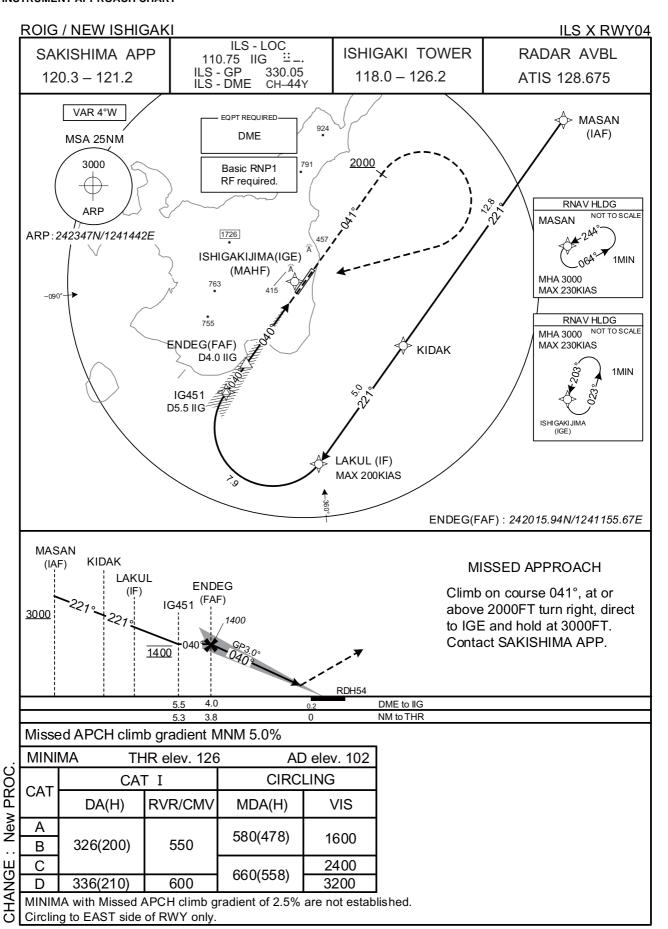
JOTTO WEST ARRIVAL

From AYAKA, to BUKRO at or above 5000FT, to JOTTO at or above 3000FT.

| Serial | Path | Waypoint | Fly | Course | Magnetic | Distance | Turn | Altitude | Speed | Vertical | Navigation |
|--------|------------|------------|------|----------------|-----------|----------|-----------|----------|--------|----------|---------------|
| Number | Descriptor | Identifier | Over | °M(°T) | Variation | (NM) | Direction | (FT) | (KIAS) | Angle | Specification |
| 001 | IF | AYAKA | _ | _ | -4.9 | _ | _ | _ | _ | _ | Basic RNP1 |
| 002 | TF | BUKRO | _ | 113 (108.1) | -4.9 | 14.0 | _ | +5000 | _ | _ | Basic RNP1 |
| 003 | TF | JOTTO | _ | 113 (108.2) | -4.9 | 16.7 | _ | +3000 | _ | _ | Basic RNP1 |







ROIG / NEW ISHIGAKI

ILS X RWY04

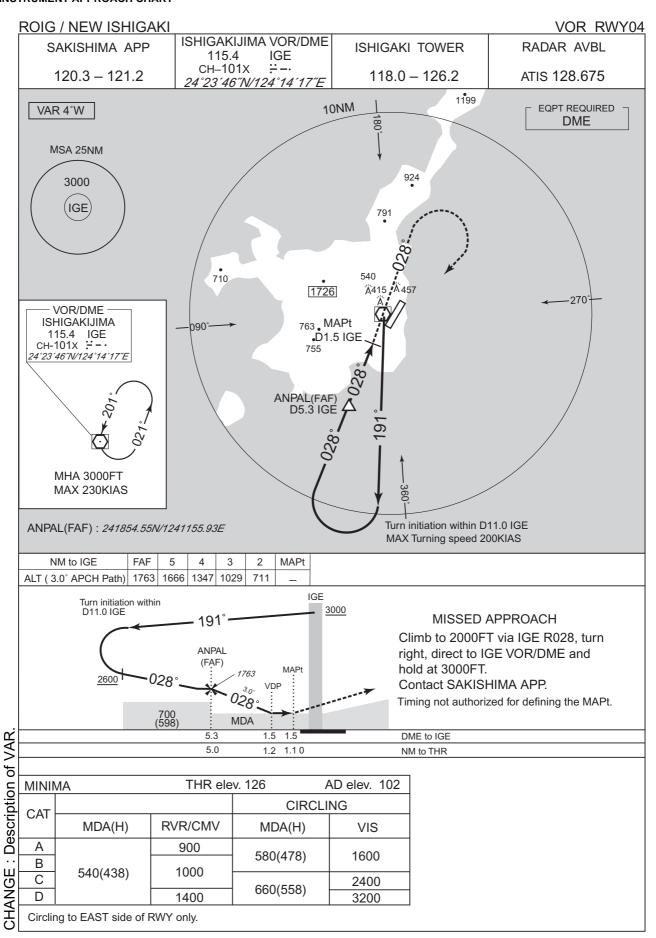
Coding Table

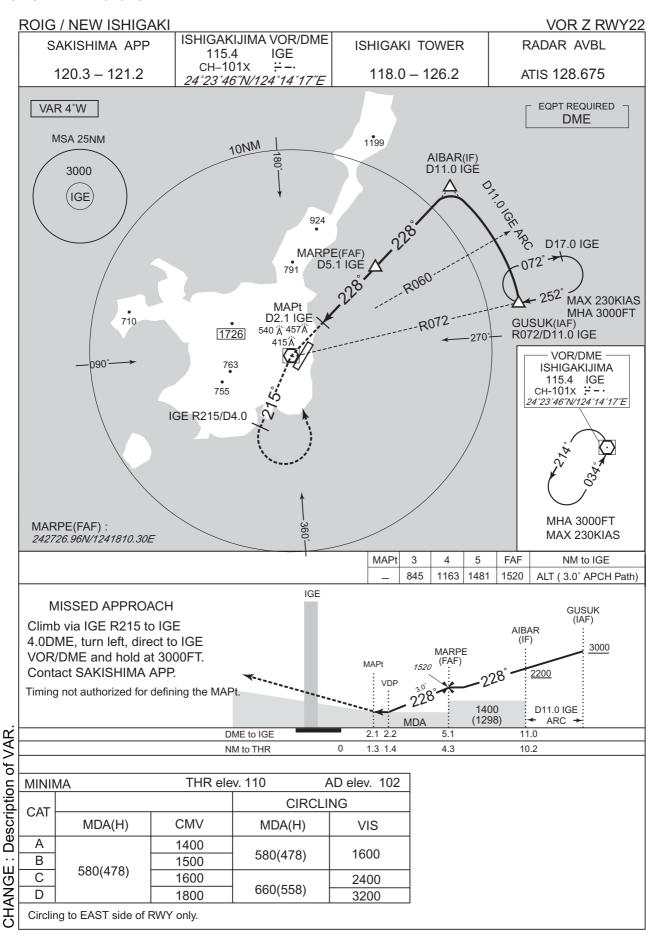
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|------------------|------------------------------------|------------------------|-------------|------------------|-----------------------|------------------|-------------------|------------------|-----------------|-------------------|-----------------------------|
| 001 | IF | MASAN | - | - | -5.1 | _ | - | +3000 | - | _ | Basic RNP1 |
| 002 | TF | KIDAK | _ | 221 (215.8) | -5.1 | 12.8 | _ | _ | - | _ | Basic RNP1 |
| 003 | TF | LAKUL | - | 221 (215.7) | -5.1 | 5.0 | - | _ | -200 | _ | Basic RNP1 |
| 004 | RF Center: IGRF2 r=2.50NM | IG451 | ı | I | -5.1 | 7.9 | R | 1400 | ı | I | Basic RNP1 |
| | | | | | | | | | | | |
| 001 | CA | _ | 1 | 041 (035.7) | -5.1 | _ | - | +2000 | _ | _ | Basic RNP1 |
| 002 | DF | IGE | _ | - | -5.1 | - | R | 3000 | _ | _ | Basic RNP1 |

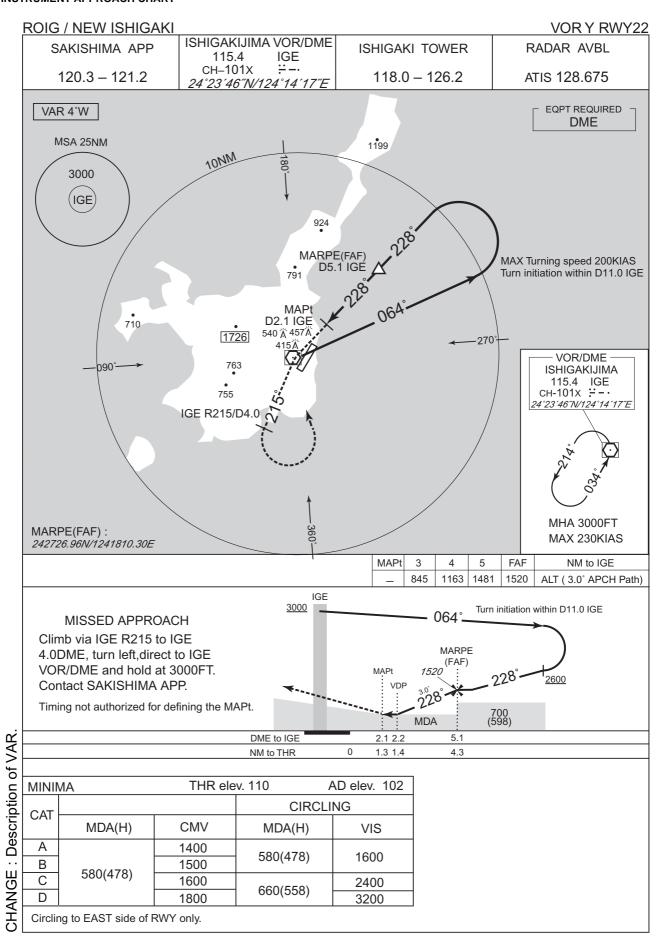
| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | Outbound Time (MIN) | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS) | Navigation Specification |
|------|------------------------|-----------------------------|-----------------------|---------------------------|-------------------|-----------------------------|-----------------------------|-----------------|-----------------------------|
| Hold | MASAN | 244 (239.3) | -5.1 | 1.0(-14000) | L | 3000 | FL140 | -230(-14000) | Basic RNP1 |
| Hold | IGE | 203 (197.8) | -5.1 | 1.0(-14000) | L | 3000 | FL140 | -230(-14000) | Basic RNP1 |

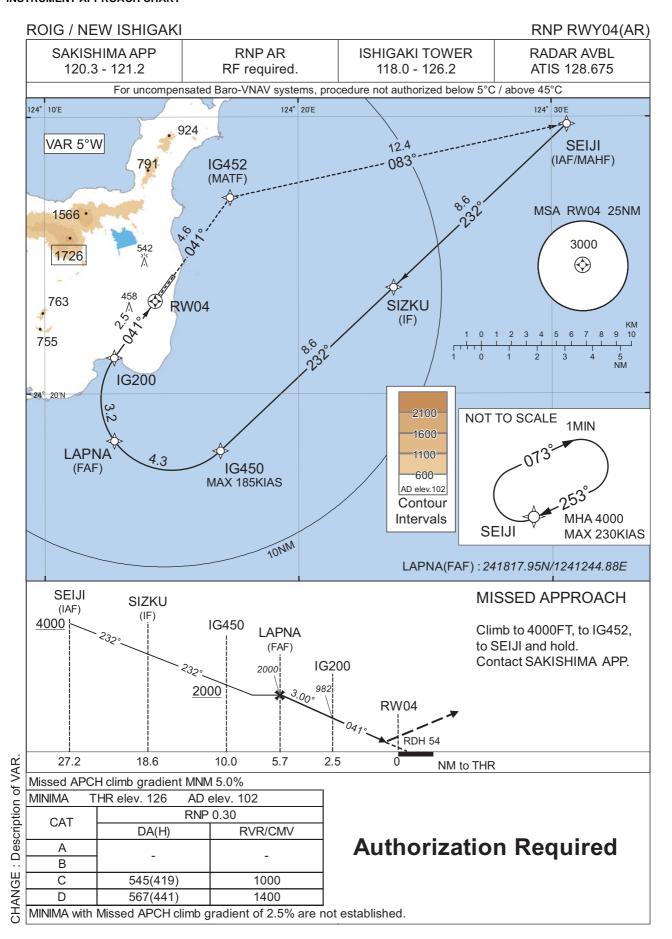
Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|------------------------|--------------------------|------------------------|
| MASAN | 243033.23N/1242649.67E | IGRF2 | 241734.58N/1241311.07E |
| KIDAK | 242010.28N/1241836.67E | | |
| LAKUL | 241606.39N/1241524.14E | | |
| IG451 | 241902.74N/1241057.95E | | |
| IGE | 242345.64N/1241416.63E | | |









ROIG / NEW ISHIGAKI

RNP RWY04(AR)

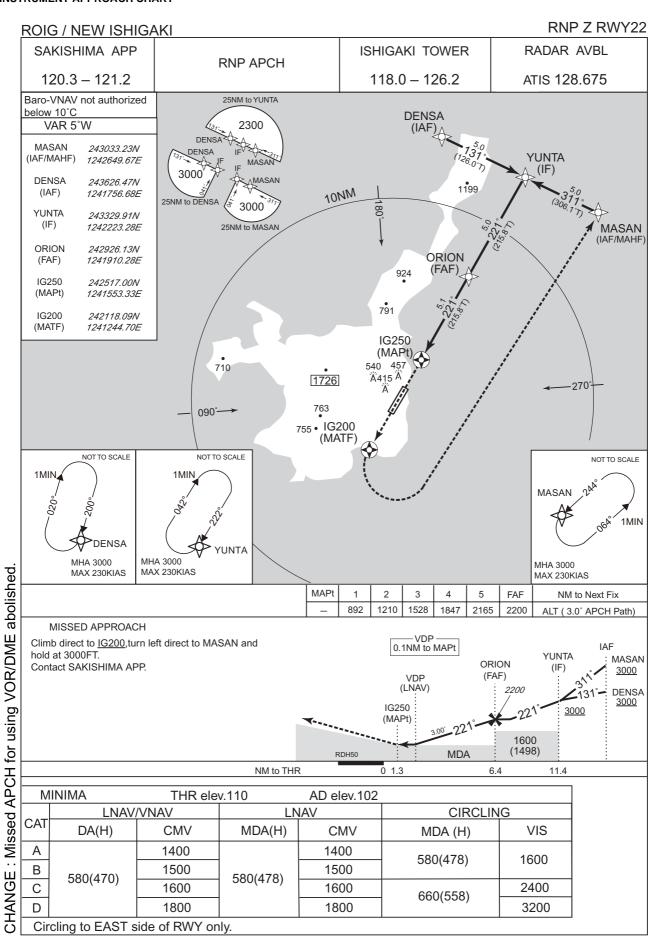
Coding Table

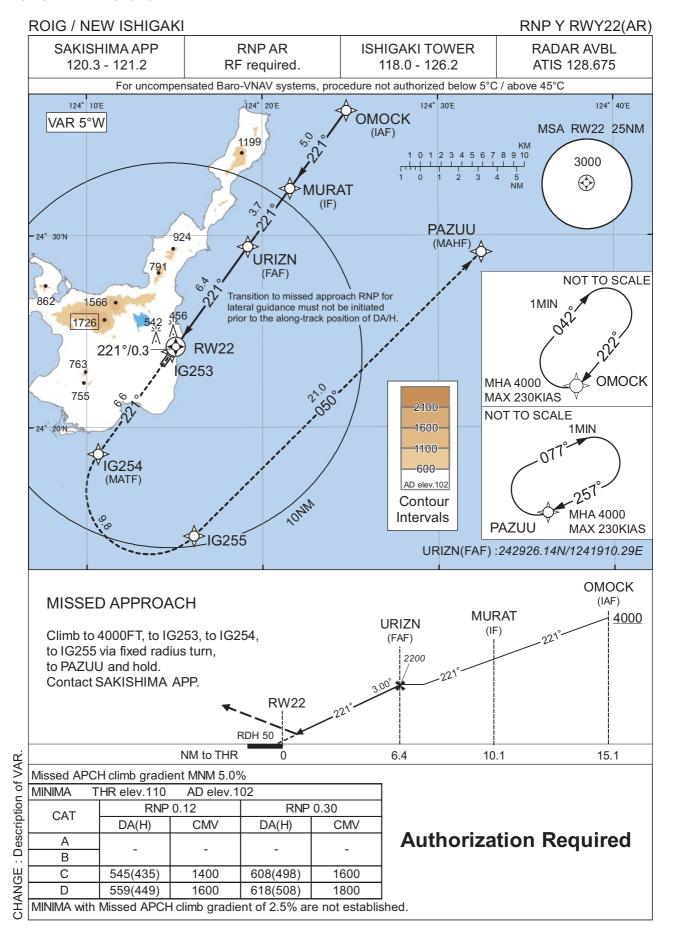
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | VPA/ RDH (°/FT) | RNP Value |
|------------------|------------------------------------|------------------------|-------------|------------------|-----------------------|------------------|-------------------|------------------|-----------------|-----------------------|--------------|
| 001 | IF | SEIJI | ı | - | -5.0 | - | - | +4000 | - | - | - |
| 002 | TF | SIZKU | 1 | 232 (226.6) | -5.0 | 8.6 | - | - | - | - | 1.0 |
| 003 | TF | IG450 | - | 232 (226.6) | -5.0 | 8.6 | - | +2000 | -185 | - | 1.0 |
| 004 | RF Center: IGRF1 r=2.55NM | LAPNA | 1 | - | -5.0 | 4.3 | R | 2000 | 1 | - | 1.0 |
| 005 | RF Center: IGRF1 r=2.55NM | IG200 | i | 1 | -5.0 | 3.2 | R | 982 | ı | -3.00 | 0.3 |
| 006 | TF | RW04 | Υ | 041 (035.7) | -5.0 | 2.5 | - | 180 | - | -3.00/54 | 0.3 |
| 007 | TF | IG452 | - | 041 (035.7) | -5.0 | 4.6 | - | ı | - | - | 1.0 |
| 800 | TF | SEIJI | 1 | 083 (077.6) | -5.0 | 12.4 | ı | 4000 | 1 | - | 1.0 |

| Path | Waypoint Identifier | Inbound Course °M(°T) | Magnetic Variation | lime | Turn Direction | Minimum Altitude (FT) | Maximum Altitude (FT) | Speed (KIAS) | RNP Value |
|------|------------------------|-----------------------------|-----------------------|--------------|-------------------|-----------------------------|-----------------------------|------------------|--------------|
| Hold | SEIJI | 253 (248.2) | -5.0 | 1.0 (-14000) | R | 4000 | FL140 | -230 (-14000) | 1.0 |

Waypoint Coordinates

| Waypoint Identifier | Coordinates | RF Arc Center Identifier | Coordinates |
|---------------------|-------------------------|--------------------------|------------------------|
| SEIJI | 242944.43N/1243036.57E | IGRF1 | 241948.12N/1241500.55E |
| SIZKU | 242350.59N/1242345.74E | | |
| IG450 | 241756.41N/1241655.55E | | |
| LAPNA | 241817.95N/1241244.88E | | |
| IG200 | 242118.09N/1241244.70E | | |
| RW04 | 242320.91N/1241421.64E | | |
| IG452 | 242705.63N/1241719.18E | | |
| 10402 | 242700.0010 1241710.102 | J | |





ROIG / NEW ISHIGAKI

RNP Y RWY22(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 | ОМОСК | ı | - | -5.0 | - | - | +4000 | - | - | - |
| 002 | TF | MURAT | - | 221 (215.8) | -5.0 | 5.0 | - | - | - | - | 1.0 |
| 003 | TF | URIZN | - | 221 (215.8) | -5.0 | 3.7 | - | 2200 | - | - | 1.0 |
| 004 | TF | RW22 | Υ | 221 (215.8) | -5.0 | 6.4 | - | 160 | - | -3.00/50 | 0.12 0.30 |
| 005 | TF | IG253 | - | 221 (215.7) | -5.0 | 0.3 | - | - | - | - | 0.12 0.30 |
| 006 | TF | IG254 | - | 221 (215.7) | -5.0 | 6.6 | - | - | - | - | 1.0 |
| 007 | RF Center: IGRF3 r=3.28NM | IG255 | - | - | -5.0 | 9.8 | L | - | - | - | 1.0 |
| 008 | TF | PAZUU | - | 050 (045.2) | -5.0 | 21.0 | - | 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 | ОМОСК | 222 (216.9) | -5.0 | 1.0 (-14000) | R | 4000 | FL140 | -230 (-14000) | 1.0 |
| Hold | PAZUU | 257 (252.1) | -5.0 | 1.0 (-14000) | R | 4000 | FL140 | -230 (-14000) | 1.0 |

Waypoint Coordinates

| Coordinates | RF Arc Center Identifier | Coordinates |
|------------------------|--|--|
| 243631.66N/1242447.35E | IGRF3 | 241641.99N/1241333.15E |
| 243227.94N/1242134.19E | | |
| 242926.14N/1241910.29E | | |
| 242413.59N/1241503.24E | | |
| 242357.98N/1241450.93E | | |
| 241837.84N/1241038.29E | | |
| 241421.38N/1241604.82E | | |
| 242908.99N/1243226.97E | | |
| | 243631.66N/1242447.35E 243227.94N/1242134.19E 242926.14N/1241910.29E 242413.59N/1241503.24E 242357.98N/1241450.93E 241837.84N/1241038.29E 241421.38N/1241604.82E | 243631.66N/1242447.35E IGRF3 243227.94N/1242134.19E 242926.14N/1241910.29E 242413.59N/1241503.24E 242357.98N/1241450.93E 241837.84N/1241038.29E 241421.38N/1241604.82E |



※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).

| 뜻 |
|-----------------|
| from / |
| BRG/DIST |
| updated. |
| : Map |
| ANGE |
| 유 |

δ.

| Call sign | BRG / DIST from ARP | Remarks |
|------------------------|---------------------|--------------------------------------|
| 野底岳 Nosokodake | 002°T / 5.5NM | 山 Mountain |
| イーストポイント East Point | 120°T / 6.0NM | 海上 Over the sea |
| 竹富島 Taketomijima | 246°T / 9.0NM | 高速艇船着場 Port |
| 観音崎 Kannonzaki | 256°T / 7.5NM | 灯台 Light house |
| 川平 Kabira | 304°T / 6.8NM | 川平湾グラスボート乗り場 Kabira Bay Boat pier |
| 底原 Sokobaru | 322°T / 2.1NM | ダム Dam |

