

AD 2 AERODROME**ROAH AD 2.1 AERODROME LOCATION INDICATOR AND NAME****ROAH - NAHA****ROAH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

| | | |
|---|--|---|
| 1 | ARP coordinates and site at AD | 261136N/1273823E 197°/1.86km from RWY 18L THR |
| 2 | Direction and distance from (city) | 4km (2nm) W of Naha city office |
| 3 | Elevation/ Reference temperature | 11ft / 32°C (2004-2008) |
| 4 | Geoid undulation at AD ELEV PSN | 103ft |
| 5 | MAG VAR/ Annual change | 5°W (2008) / 1.8 ' W |
| 6 | AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses | Naha Airport Office (CAB) 531-3,Ashimine Naha City, Okinawa Pref. AFS:ROAHYFYX Tel:098(857)1101, 098(857)1107(ATS) |
| 7 | Types of traffic permitted(IFR/VFR) | IFR/VFR |
| 8 | Remarks | Nil |

ROAH AD 2.3 OPERATIONAL HOURS

| | | |
|----|---------------------------|---|
| 1 | AD Administration | H24 |
| 2 | Customs and immigration | Customs: H24 Immigration: 2130-1300 |
| 3 | Health and sanitation | Quarantine(human): 0000-0600 Quarantine(animal): 2200-1330 Quarantine(plant): 2230-1300 |
| 4 | AIS Briefing Office | H24 |
| 5 | ATS Reporting Office(ARO) | Nil |
| 6 | MET Briefing Office | H24 |
| 7 | ATS | H24 |
| 8 | Fuelling | H24 |
| 9 | Handling | H24 |
| 10 | Security | 2130 - 1200 |
| 11 | De-icing | Nil |
| 12 | Remarks | Nil |

ROAH AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|--|
| 1 | Cargo-handling facilities | All modern facilities handling weights up to 249,250lb / 113,000kg. |
| 2 | Fuel/ oil types | Fuel grades : (CIV) JET A-1, 100/130 (JSDF) JET A-1 PLUS Oil grades : Turbine grade on prior arrangement. All piston grades |
| 3 | Fuelling facilities/ capacity | Fuel truck refueling / Ask AD administration |
| 4 | De-icing facilities | Nil |
| 5 | Hangar space for visiting aircraft | Nil |
| 6 | Repair facilities for visiting aircraft | Nil |
| 7 | Remarks | Nil |

ROAH AD 2.5 PASSENGER FACILITIES

| | | |
|---|----------------------|---------------------------|
| 1 | Hotels | Hotels in the city |
| 2 | Restaurants | At airport |
| 3 | Transportation | Monorail, buses and taxis |
| 4 | Medical facilities | Hospitals in the city |
| 5 | Bank and Post Office | At airport |
| 6 | Tourist Office | At airport |
| 7 | Remarks | Nil |

ROAH AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|--|
| 1 | AD category for fire fighting | CAT 9 |
| 2 | Rescue equipment | Chemical fire fighting truck x 3 Water supply truck Lighting power supply truck Emergency medical equipments conveyance truck |
| 3 | Capability for removal of disabled aircraft | Ask AD administration |
| 4 | Remarks | Nil |

ROAH AD 2.7 SEASONAL AVAILABILITY-CLEARING

| | | |
|---|-----------------------------|----------------|
| 1 | Types of clearing equipment | Not applicable |
| 2 | Clearance priorities | Not applicable |
| 3 | Remarks | Nil |

ROAH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

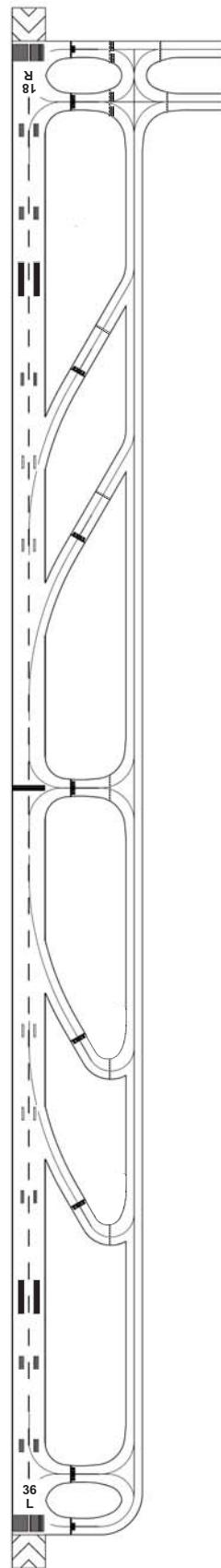
| | | | |
|---|-------------------------------------|---|--|
| 1 | Apron surface and strength | <p>Surface: Concrete and asphalt</p> <p>Strength:</p> <p>PCN 74/R/B/X/T...NR1, NR2, NR3, NR4, NR5, NR6, NR7</p> <p>PCN 62/R/B/X/T...WEST apron, TYPHOON EVACUATION apron</p> <p>PCN 48/R/B/X/T...RUNUP AREA</p> <p>PCN 22/F/A/X/T...LIGHT AIRCRAFT spot</p> | |
| 2 | Taxiway width, surface and strength | <p>Surface: Concrete and asphalt</p> <p>Strength:</p> <p>PCN 74/R/B/X/T...A1</p> <p>PCN 66/F/B/X/T...A2, A3</p> <p>PCN 66/R/B/X/T...A4, A5</p> <p>PCN 76/R/B/X/T...A6</p> <p>PCN 102/F/C/X/T...A7</p> <p>PCN 84/F/B/X/T...A8, A9</p> <p>PCN 104/F/B/X/T...B</p> <p>PCN 108/F/C/X/T...E1</p> <p>PCN 56/F/A/X/T...E2</p> <p>PCN 81/F/A/X/T...E3</p> <p>PCN 105/F/B/X/T...E4</p> <p>PCN 81/F/B/X/T...E4C</p> <p>PCN 129/F/B/X/T...E5</p> <p>PCN 91/F/C/X/T...E6</p> <p>PCN 111/F/C/X/T...E7</p> <p>PCN 70/F/C/X/T...E8</p> <p>PCN 108/F/C/X/T...E8S</p> <p>PCN 80/F/C/X/T...E9</p> <p>PCN 70/F/A/X/T...E10</p> <p>PCN 96/F/A/X/T...W1</p> <p>PCN 94/F/A/X/T...W2</p> <p>PCN 103/F/A/X/T...W3</p> <p>PCN 74/F/B/X/T...W3C</p> <p>PCN 64/F/B/X/T...W4</p> <p>PCN 59/F/A/X/T...W5</p> <p>PCN 74/R/B/X/T...N1, N2, N3, C1, C2, D1, D2</p> <p>PCN 94/F/A/X/T...J1, J2, R</p> <p>PCN 92/F/A/X/T...T1, T2</p> <p>PCN 71/F/C/X/T...T3, T4</p> <p>PCN 96/F/C/X/T...T5</p> <p>PCN 63/F/C/X/T...T6, T7</p> <p>PCN 97/F/A/X/T...T8, T9</p> <p>PCN 92/F/A/X/T...C</p> <p>Width:</p> <p>34m ...E2, E6, E8S, E9, W4</p> <p>30m ...E1, E3, E4, E4C, E5, E7, E8, W2, W3, W3C, J1, J2, C, T1 - T9</p> <p>28.5m...E10</p> <p>26.5m...B, W1, W5</p> <p>44.9m...R</p> <p>23m ...Other TWY</p> | |
| 3 | ACL and elevation | Not available | |
| 4 | VOR checkpoints | Not available | |

| | | | |
|---|-----------------|---|--|
| 5 | INS checkpoints | <p>Spot NR</p> <p>11 : 261210.16N/1273900.76E 12 : 261210.09N/1273858.76E 12M : 261209.66N/1273858.68E 13 : 261210.01N/1273856.78E 13M : 261209.58N/1273856.59E 14 : 261209.94N/1273854.80E 15 : 261208.84N/1273854.34E 21 : 261215.84N/1273900.38E 22 : 261216.31N/1273858.00E 23 : 261216.36N/1273855.70E 24 : 261217.81N/1273854.77E 25 : 261219.25N/1273855.50E 26 : 261219.51N/1273857.85E 27 : 261219.95N/1273900.35E 31 : 261225.90N/1273859.91E 32 : 261226.46N/1273857.58E 33 : 261226.45N/1273855.26E 34 : 261227.87N/1273854.30E 35 : 261229.24N/1273855.08E 36 : 261229.72N/1273857.04E 37 : 261231.50N/1273859.89E 41 : 261234.36N/1273859.19E 42 : 261236.27N/1273859.72E 43R : 261238.15N/1273859.65E 43 : 261238.72N/1273859.61E 43L : 261239.58N/1273858.62E 44R : 261241.07N/1273859.52E 44 : 261241.50N/1273859.55E 44L : 261242.50N/1273858.48E 45C : 261243.35N/1273859.18E 45 : 261243.97N/1273858.60E 46C : 261245.16N/1273859.10E 46 : 261245.43N/1273858.53E 51R : 261247.61N/1273857.57E 51 : 261248.48N/1273858.37E 51L : 261249.07N/1273857.51E 52 : 261250.52N/1273857.42E 57D : 261254.40N/1273858.52E 61 : 261255.39N/1273900.89E 62 : 261256.57N/1273902.92E 63 : 261257.30N/1273904.91E 63E : 261257.53N/1273905.52E 64 : 261258.02N/1273906.89E 65 : 261258.74N/1273908.89E 65E : 261258.95N/1273909.45E 66 : 261259.46N/1273910.88E 71 : 261235.71N/1273853.69E 72 : 261238.35N/1273853.71E 73 : 261240.74N/1273853.60E 74 : 261242.81N/1273853.51E 98 : 261141.92N/1273830.97E 99 : 261143.23N/1273830.90E</p> | |
| 6 | Remarks | Nil | |

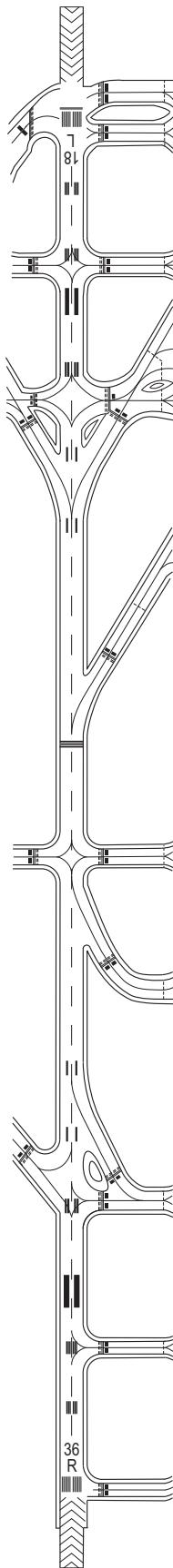
ROAH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

| | | |
|---|--|--|
| 1 | Use of aircraft stand ID signs, TWY guide lines and Visual docking/ parking guidance system of aircraft stands | <ul style="list-style-type: none"> C1, C2, D1, D2, N1, N2, N3 are designated as aircraft stand taxilane intended to provide access to aircraft stands at NR1, NR2, NR3, NR4, NR5, NR6 and NR7 apron. Aircraft stand identification sign : SPOT NR21 - 27, 31 - 37, 41 - 44 |
| 2 | RWY and TWY markings and LGT | <p>RWY : RWY18L/36R, 18R/36L (Marking) RWY designation, RWY CL, RWY THR, Aiming point, TDZ, RWY side stripe (LGT) REDL, RCLL, RTHL, RENL, RTZL(RWY36R, 18R/36L), WBAR</p> <p>TWY: All TWY (Marking) TWY CL, RWY HLDG PSN, TWY side stripe, Mandatory instruction (LGT) TWY edge LGT, Taxiing guidance sign</p> <p>TWY: E1 - E10, W1 - W4, A1 - A9, B, J1, J2, T1 - T9, C, R, ACFT stand taxilane C1, C2, D1, D2, N1 - N3 (LGT) TWY CL LGT</p> <p>TWY: E1 - E10, W1 - W5, T1 - T9 (LGT) RWY guard LGT</p> <p>TWY: E1, E2, E3, E4, E4C, E5, E6, E7, E8, E9, A2 - A4, B, J1, J2, T3 - T7 (Marking) Intermediate HLDG PSN (See Figure "Marking AIDs and Parkings Area (East side)")</p> <p>TWY: A8, T1, T2 (Marking) Intermediate HLDG PSN (LGT) Intermediate HLDG PSN LGT</p> <p>TWY: E1, E2 (LGT) RWY Entrance LGT (RWY status LGT) (See attached chart)</p> <p>TWY: T3, T4, T6, T7 (LGT) Rapid exit TWY indicator LGT</p> |
| 3 | Stop bars | <p>Stop bar LGT: E1, E2, E4, E5 - E10, T1 - T9 Stop bar lights Operations</p> <ol style="list-style-type: none"> 1) Stop bar lights are installed at each taxi holding position associated with Runway 18L/36R, 18R/36L. 2) Stop bar lights will be operated when the visibility or the lowest RVR of the runway 18L/36R and/or 18R/36L is at or less than 600m. 3) Stop bar lights on taxiways E1, E2, E9, E10, T1, T2, T8 and T9 are controlled individually by ATC. 4) Stop bar lights on taxiways E4, E5 THRU E8S and T3 THRU T7 are not controlled individually by ATC. 5) During the period stop bar lights operated, taxiways E4, E5 THRU E8S and T3 THRU T7 are not available for departure aircraft. |
| 4 | Remarks | <p>(Marking) Overrun area, Stop line(N2, N3)</p> <p>(LGT) Apron flood LGT</p> |

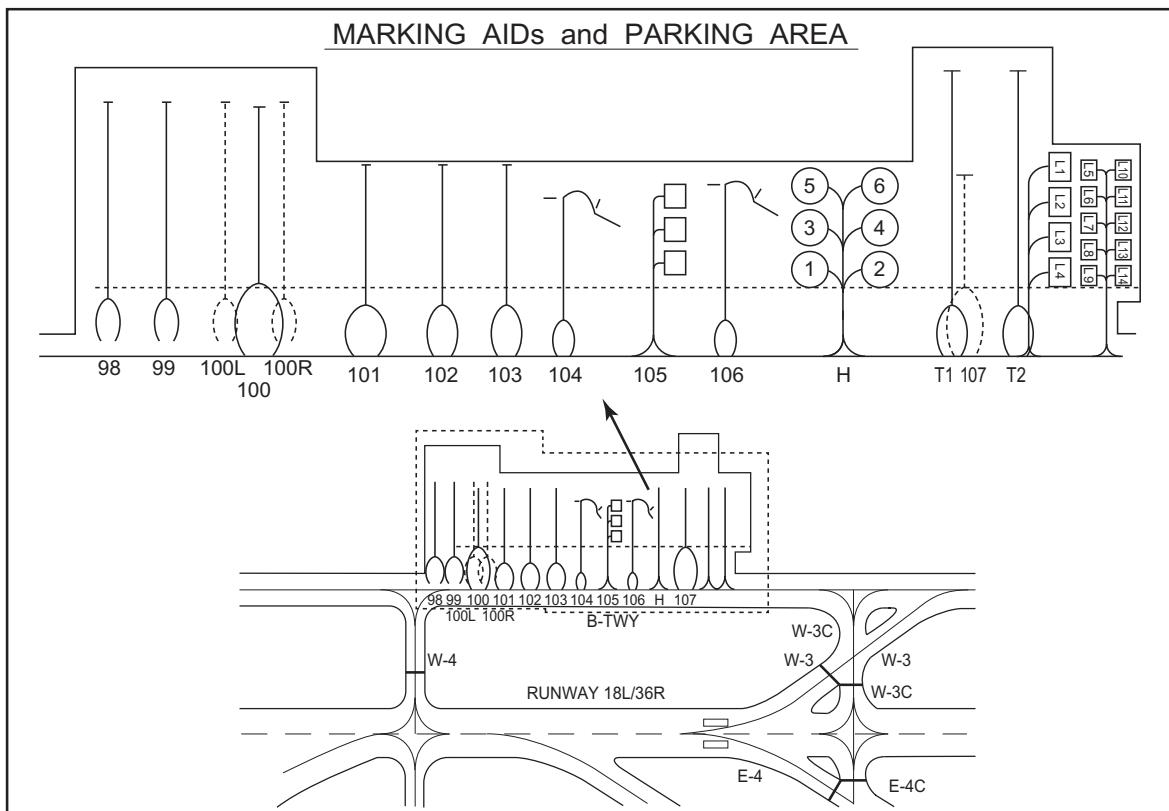
MARKING AIDS
(RWY18R/36L)



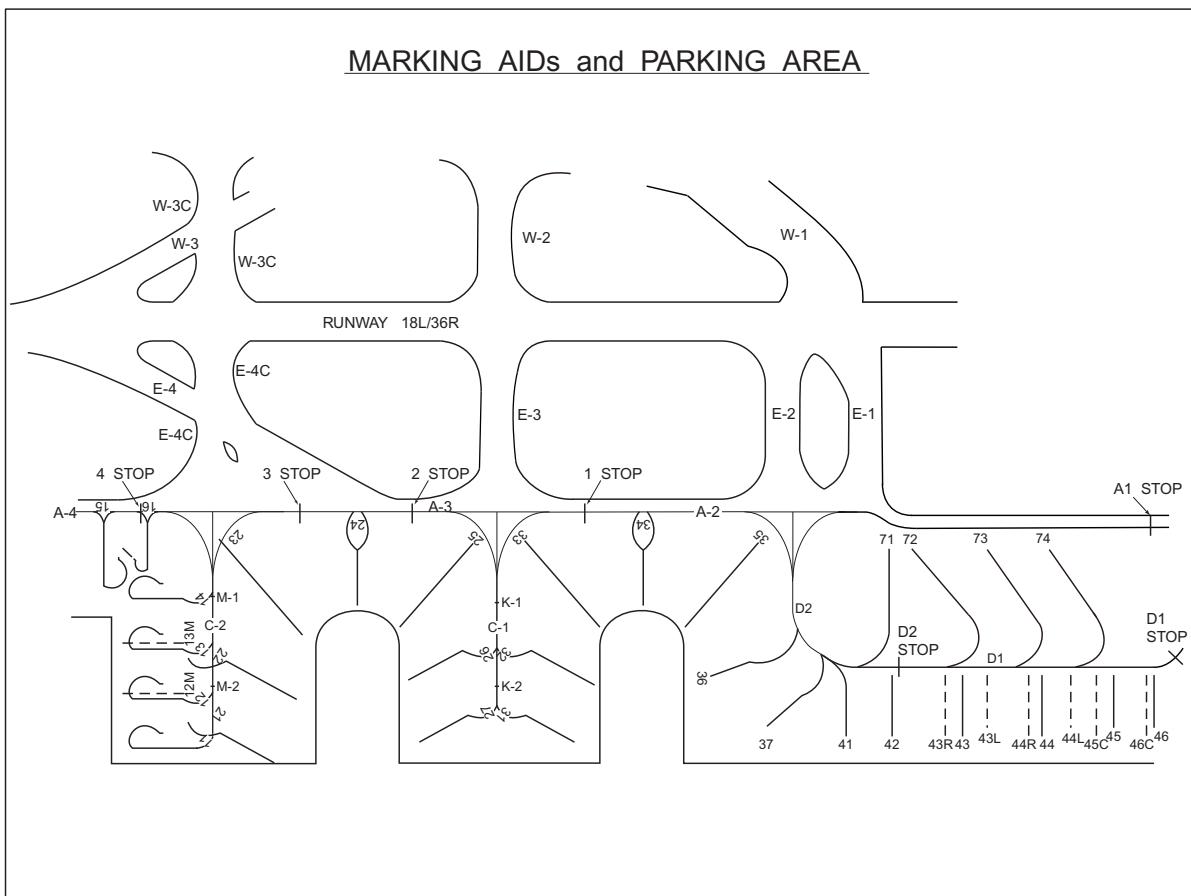
MARKING AIDS
(RWY18L/36R)



Marking AIDs and Parkings Area (West side)

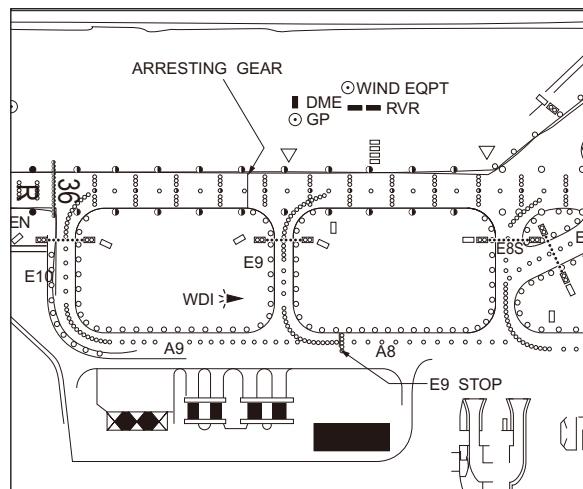
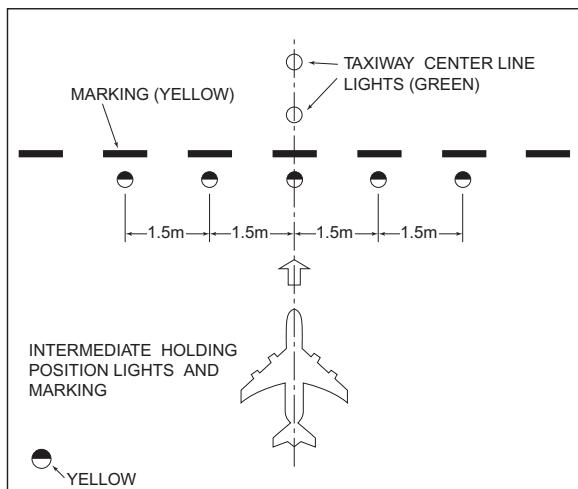


Marking AIDs and Parkings Area (East side)



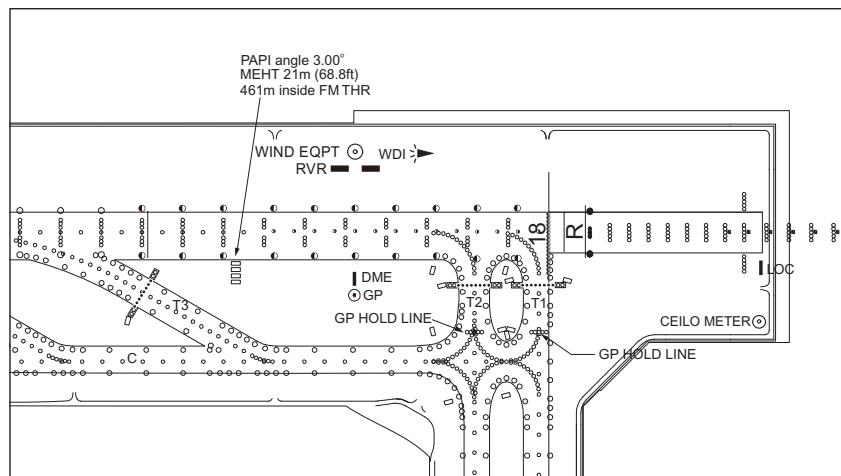
Intermediate Holding Position Marking and Intermediate Holding Position Lights

The Intermediate Holding Position Marking indicates the position where aircraft is to hold to prevent collision with other aircraft on the taxiway. The Intermediate Holding Position Lights are collocated with the Intermediate Holding Position Marking and synchronized with the taxiway center line lights. The Intermediate Holding Position Lights consist of 5 yellow lights and the Intermediate Holding Position Marking is a single broken line as illustrated in the figure below;

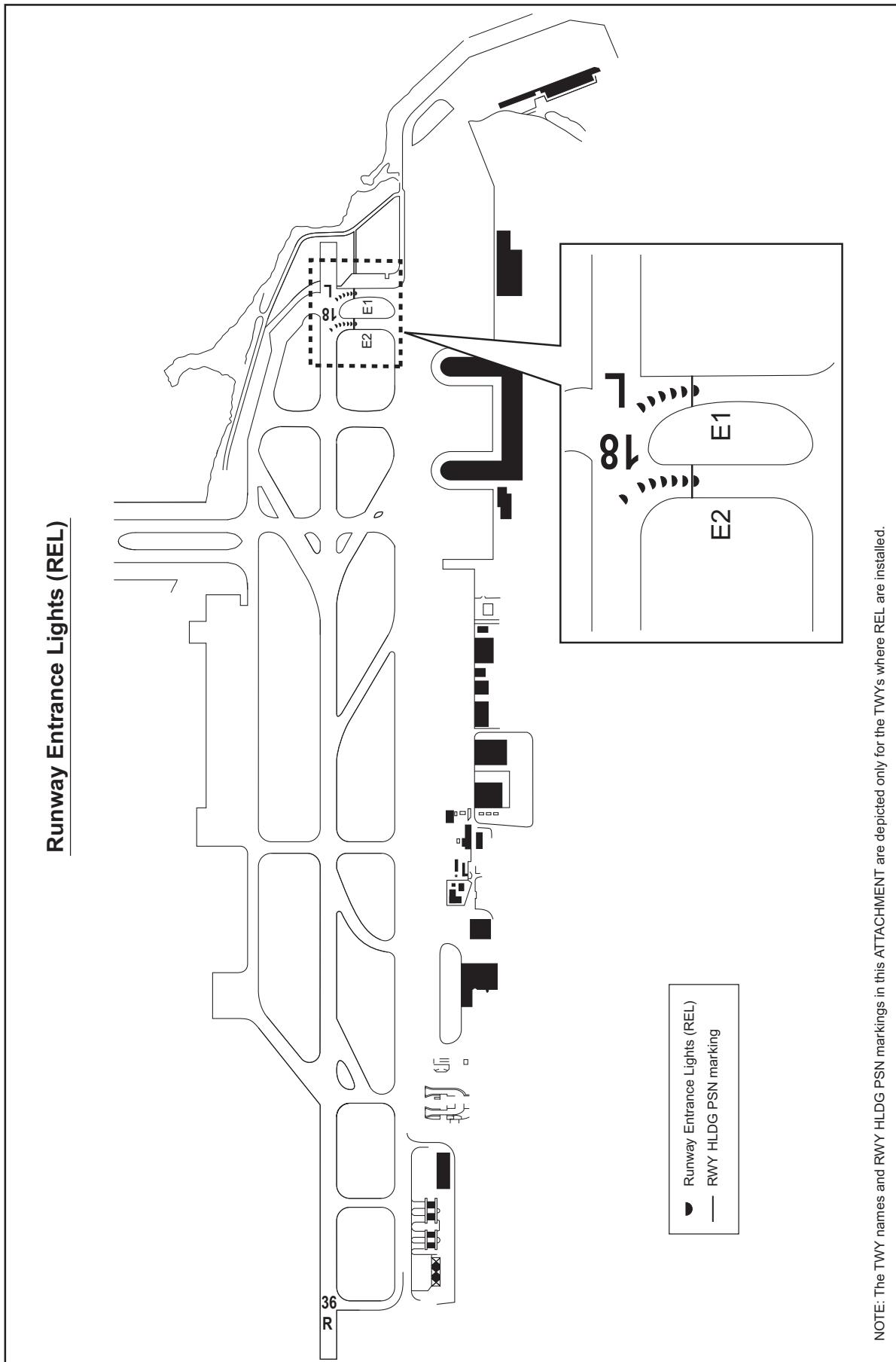


GP HOLD LINE

The "GP HOLD LINE" is installed on TWY T1 AND T2 , consists of Intermediate holding position lights and marking. (see below figure, and AD2.24-ADC-1 AD CHART) REF AD2.20.2.2.1 for taxiing procedure on the "GP HOLD LINE".



Runway Entrance Lights (REL)



ROAH AD 2.10 AERODROME OBSTACLES

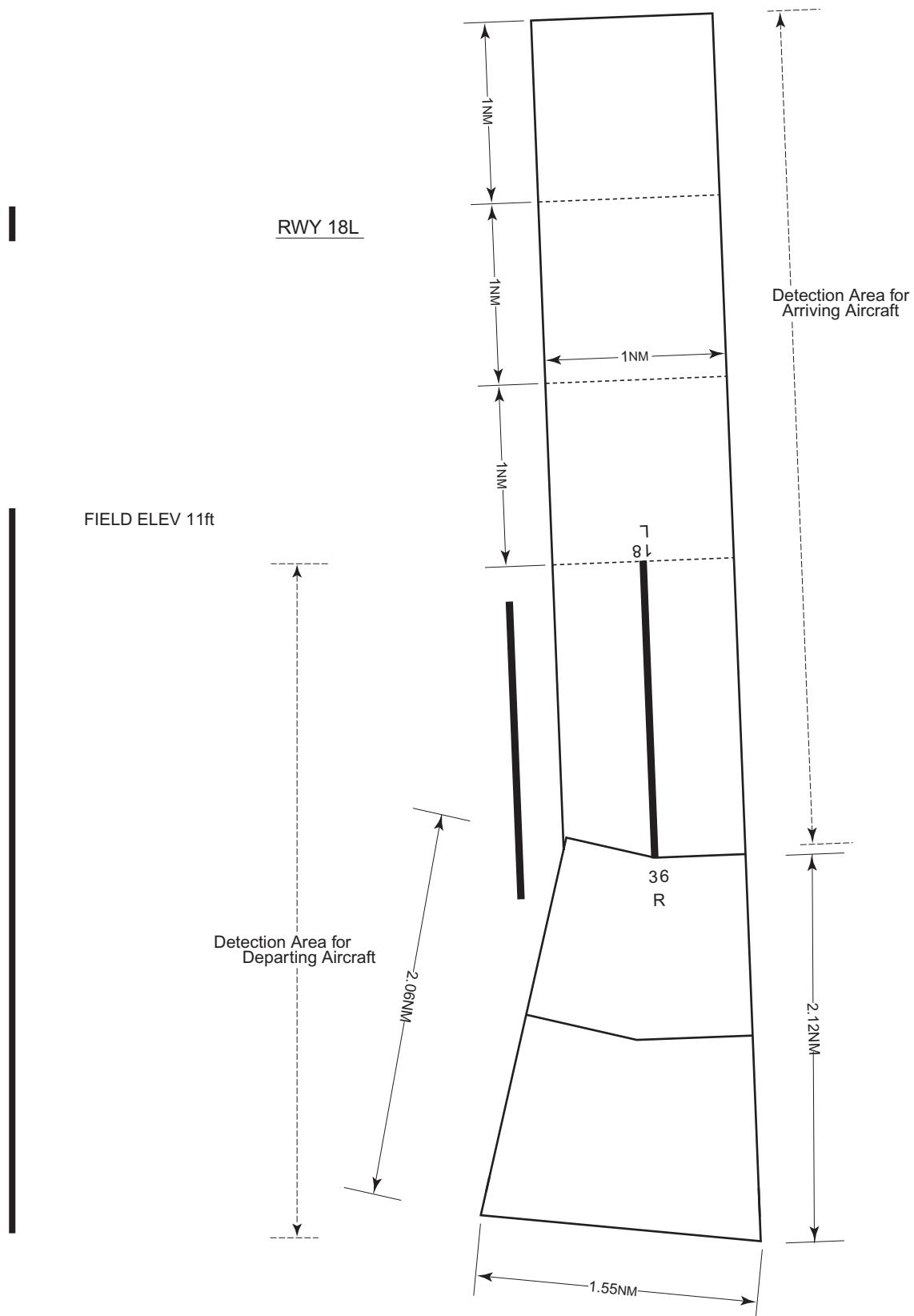
| In Area2 See Obstacle data

| In Area3 To be developed

ROAH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|----|--|--|
| 1 | Associated MET Office | NAHA |
| 2 | Hours of service MET Office outside hours | H24 |
| 3 | Office responsible for TAF preparation Periods of validity | NAHA 30 Hours |
| 4 | Trend forecast Interval of issuance | Nil |
| 5 | Briefing/consultation provided | P,Ja,En |
| 6 | Flight documentation Language(s) used | C En |
| 7 | Charts and other information available for briefing or consultation | S ₆ , U ₈₅ , U ₇ , U ₅ , U ₃ , U ₂₅ , U ₂ /T _r , P _S , P ₅ , P ₃ , P ₂₅ , P _{SWE} , P _{SWF} , P _{SWG} , P _{SWI} , P _{SWM} , P _{SW} (domestic), E, C, W _E , W _F , W _G , W _I , W, N |
| 8 | Supplementary equipment available for providing information | Doppler Radar for Airport Weather (See attached chart) |
| 9 | ATS units provided with information | TWR, GCA, APP, ATIS |
| 10 | Additional information(limitation of service, etc.) | Nil |

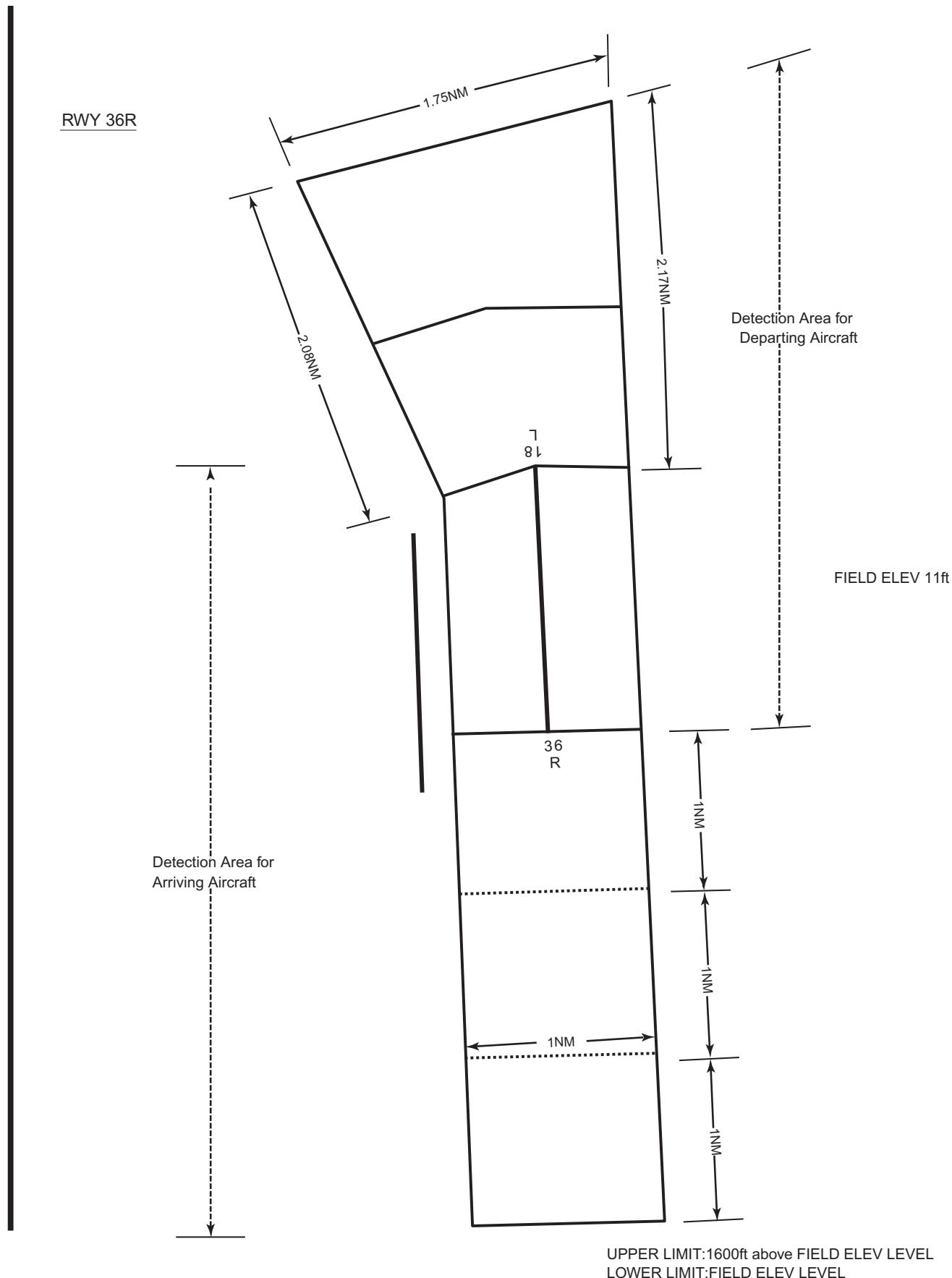
Airspace for the advisory service concerning low level wind shear (RWY18L)

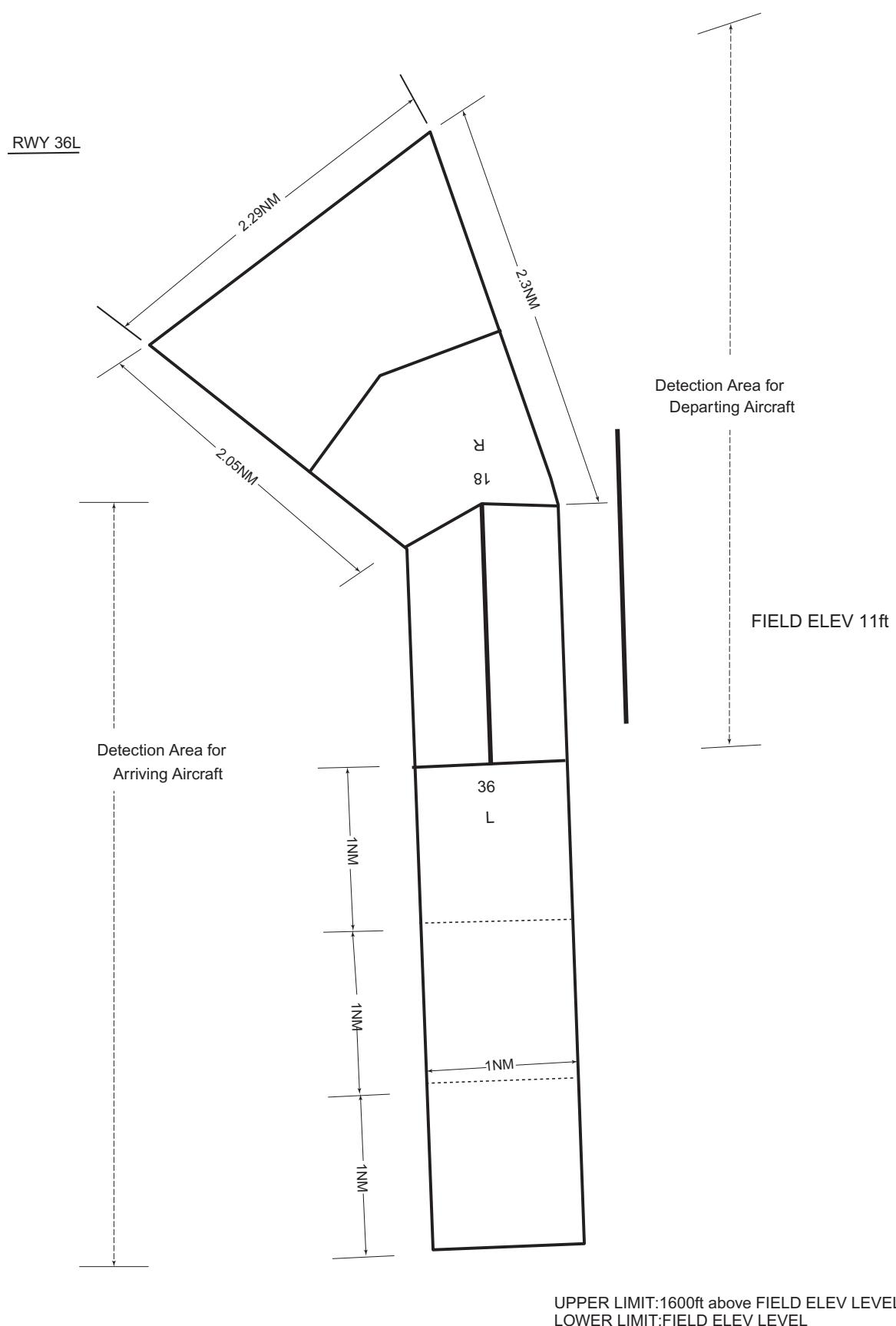


UPPER LIMIT: 1600ft above FIELD ELEV LEVEL
LOWER LIMIT: FIELD ELEV LEVEL

Airspace for the advisory service concerning low level wind shear (RWY18R)

Airspace for the advisory service concerning low level wind shear (RWY36R)



Airspace for the advisory service concerning low level wind shear (RWY36L)

ROAH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength(PCN) and surface of RWY | THR coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY | | | | | | | | | | | | | | |
|------------------------|------------------------|--|-------------------------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|--------|------|
| 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | | | | | | | |
| 18L | 177.30° | 3000 x 45 | PCN 115/F/A/X/T Asphalt | 261233.63N/ 1273842.84E 104FT | THR ELEV: 11FT TDZ ELEV: 11.5FT | | | | | | | | | | | | | | |
| 36R | 357.30° | 3000 x 45 | PCN 115/F/A/X/T Asphalt | 261056.24N/ 1273847.41E 103FT | THR ELEV: 9.1FT TDZ ELEV: 10.7FT | | | | | | | | | | | | | | |
| 18R | 177.30° | 2700 x 60 | PCN 78/F/A/X/T Asphalt | 261211.00N/ 1273756.64E 103FT | THR ELEV: 16.3FT TDZ ELEV: 13.8FT | | | | | | | | | | | | | | |
| 36L | 357.30° | 2700 x 60 | PCN 78/F/A/X/T Asphalt | 261043.34N/ 1273800.77E 103FT | THR ELEV: 14.0FT TDZ ELEV: 14.0FT | | | | | | | | | | | | | | |
| Slope of RWY | Strip Dimensions(M) | RESA (Overrun) Dimensions (M) | | | Remarks | | | | | | | | | | | | | | |
| 7 | 10 | 11 | | | 14 | | | | | | | | | | | | | | |
| See attached chart | 3120 x 300 | 90x(MNM:195 MAX:300)* | | | RWY grooving: 3000 x 30m | | | | | | | | | | | | | | |
| | 3120 x 300 | 150x(MNM:190 MAX:290)* | | | | | | | | | | | | | | | | | |
| | | *For detail, ask airport administrator | | | | | | | | | | | | | | | | | |
| See attached chart | 2820 x 300 | 240x300 | | | RWY grooving: 2700 x 40m | | | | | | | | | | | | | | |
| | 2820 x 300 | 240x300 | | | | | | | | | | | | | | | | | |
| Slope of RWY | | | | | | | | | | | | | | | | | | | |
| RWY36R | | | | | RWY18L | | | | | | | | | | | | | | |
| 9.1 | 9.1 | 10.0 | 0.04% | 10.8 | 10.9 | 10.1 | 11.2 | 11.7 | 12.0 | 11.7 | 11.5 | 10.7 | 11.4 | 11.4 | 11.5 | 11.5 | 11.0 | | |
| LEVEL | 0.20% | 0.05% | | 0.01% | 0.14% | 0.22% | 0.21% | 0.06% | 0.07% | 0.08% | 0.16% | 0.14% | 0.03% | 0.01% | 0.06% | | | | |
| 250 | 287 | 410 | | 990 | 1190 | 1350 | 1500 | 1570 | 1695 | 1817 | 1920 | 2060 | 2200 | 2370 | 2560 | 2730 | 3000 | | |
| RWY36L | | | | | | | | | | | | | | | | | | RWY18R | |
| 14.0 | 14.0 | 12.3 | 0.25% | | | | | | | | | | | | | | | 16.3 | |
| LEVEL | 0.25% | | | | | | | | | | | | | | | | | 0.50% | |
| 0 | 260 | 460 | | | | | | | | | | | | | | | | 2460 | 2700 |

ROAH AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (m) | TODA (m) | ASDA (m) | LDA (m) | Remarks |
|-----------------|-------------|-------------|-------------|------------|---------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 18L | 3000 | 3000 | 3000 | 3000 | 9843ft |
| TWY: E2 | 2904 | 2904 | 2904 | | 9528ft |
| TWY: E3, W2 | 2604 | 2604 | 2604 | | 8544ft |
| TWY: E4C, W3C | 2294 | 2294 | 2294 | | 7527ft |
| TWY: E4 | 2018 | 2018 | 2018 | | 6621ft |
| TWY: W3 | 1999 | 1999 | 1999 | | 6559ft |
| TWY: E5 | 1512 | 1512 | 1512 | | 4961ft |
| TWY: E6, W4 | 1321 | 1321 | 1321 | | 4334ft |
| TWY: E8S, W5 | 606 | 606 | 606 | | 1988ft |
| TWY: E9 | 258 | 258 | 258 | | 846ft |
| 36R | 3000 | 3000 | 3000 | 3000 | 9843ft |
| TWY: E9 | 2628 | 2628 | 2628 | | 8622ft |
| TWY: E8S | 2310 | 2310 | 2310 | | 7579ft |
| TWY: W5 | 2257 | 2257 | 2257 | | 7405ft |
| TWY: E8 | 2052 | 2052 | 2052 | | 6733ft |
| TWY: E7, E6, W4 | 1558 | 1558 | 1558 | | 5112ft |
| TWY: E4C, W3C | 606 | 606 | 606 | | 1988ft |
| TWY: E3, E2 | 296 | 296 | 296 | | 971ft |
| 18R | 2700 | 2700 | 2700 | 2700 | 8859ft |
| TWY: T2 | 2530 | 2530 | 2530 | | 8301ft |
| TWY: T3 | 1800 | 1800 | 1800 | | 5906ft |
| TWY: T4 | 1500 | 1500 | 1500 | | 4922ft |
| TWY: T5 | 1290 | 1290 | 1290 | | 4232ft |
| 36L | 2700 | 2700 | 2700 | 2700 | 8859ft |
| TWY: T8 | 2530 | 2530 | 2530 | | 8301ft |
| TWY: T7 | 1800 | 1800 | 1800 | | 5906ft |
| TWY: T6 | 1500 | 1500 | 1500 | | 4922ft |
| TWY: T5 | 1290 | 1290 | 1290 | | 4232ft |

誘導路の TORA, TODA 及び ASDA は、誘導路中心線と滑走路中心線の交点から滑走路末端までの距離を示す。

(TORA, TODA and ASDA for TWY indicate distances BTN the point where TWY CL meets RWY CL and RWY THR.)

ROAH AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | RTHL Color WBAR | PAPI (VASIS) Angle DIST FM THR MEHT | RTZL LEN | RCLL LEN Spacing Color INTST | REDL LEN Spacing Color INTST | RENL Color WBAR | STWL LEN Color |
|---|-------------------------|-----------------|-------------------------------------|----------|---------------------------------------|--|-----------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 18L | PALS 480m LIH | Green Green | PAPI 3.00%LEFT 453m 70ft | Nil | 3000m 30m Coded color (White/Red) LIH | 3000m 60m Coded color (White/Yellow) LIH | Red | Nil (*1) |
| 36R | PALS (CAT I) 900m LIH | Green Green | PAPI 3.00%LEFT 447m 70ft | 900m | 3000m 30m Coded color (White/Red) LIH | 3000m 60m Coded color (White/Yellow) LIH | Red | Nil (*2) |
| 18R | PALS (CAT I) 900m LIH | Green Green | PAPI 3.00%LEFT 461m 68.8ft | 900m | 2700m 30m Coded color (White/Red) LIH | 2700m 60m Coded color (White/Yellow) LIH | Red | Nil (*3) |
| 36L | PALS (CAT I) 900m LIH | Green Green | PAPI 3.00%LEFT 436m 67.2ft | 900m | 2700m 30m Coded color (White/Red) LIH | 2700m 60m Coded color (White/Yellow) LIH | Red | Nil (*3) |
| Remarks | | | | | | | | |
| 10 | | | | | | | | |
| Overrun area edge LGT(LEN:150m Color:Red) (*1) Overrun area edge LGT(LEN:192m Color:Red) (*2) Overrun area edge LGT(LEN:60m Color:Red) (*3) | | | | | | | | |

ROAH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|--|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: 261248N/1273908E, White/Green EV4.3sec, HO |
| 2 | LDI location and LGT Anemometer location and LGT | LDI: Nil Anemometer : RWY18L: 295m from RWY18L THR, lighted RWY36R: 432m from RWY36R THR, lighted RWY18R: 300m from RWY18R THR, lighted RWY36L: 325m from RWY36L THR, lighted |
| 3 | TWY edge and center line lighting | TWY edge and center line lights installed, see AD2.9 |
| 4 | Secondary power supply / switch-over time | Within 1 sec : REDL, RENL, RTHL, WBAR, RCLL, Overrun area edge LGT, Stop bar LGT, Runway Entrance Lights Within 15 sec : Other LGT |
| 5 | Remarks | Nil |

ROAH AD 2.16 HELICOPTER LANDING AREA

| |
|-----|
| Nil |
|-----|

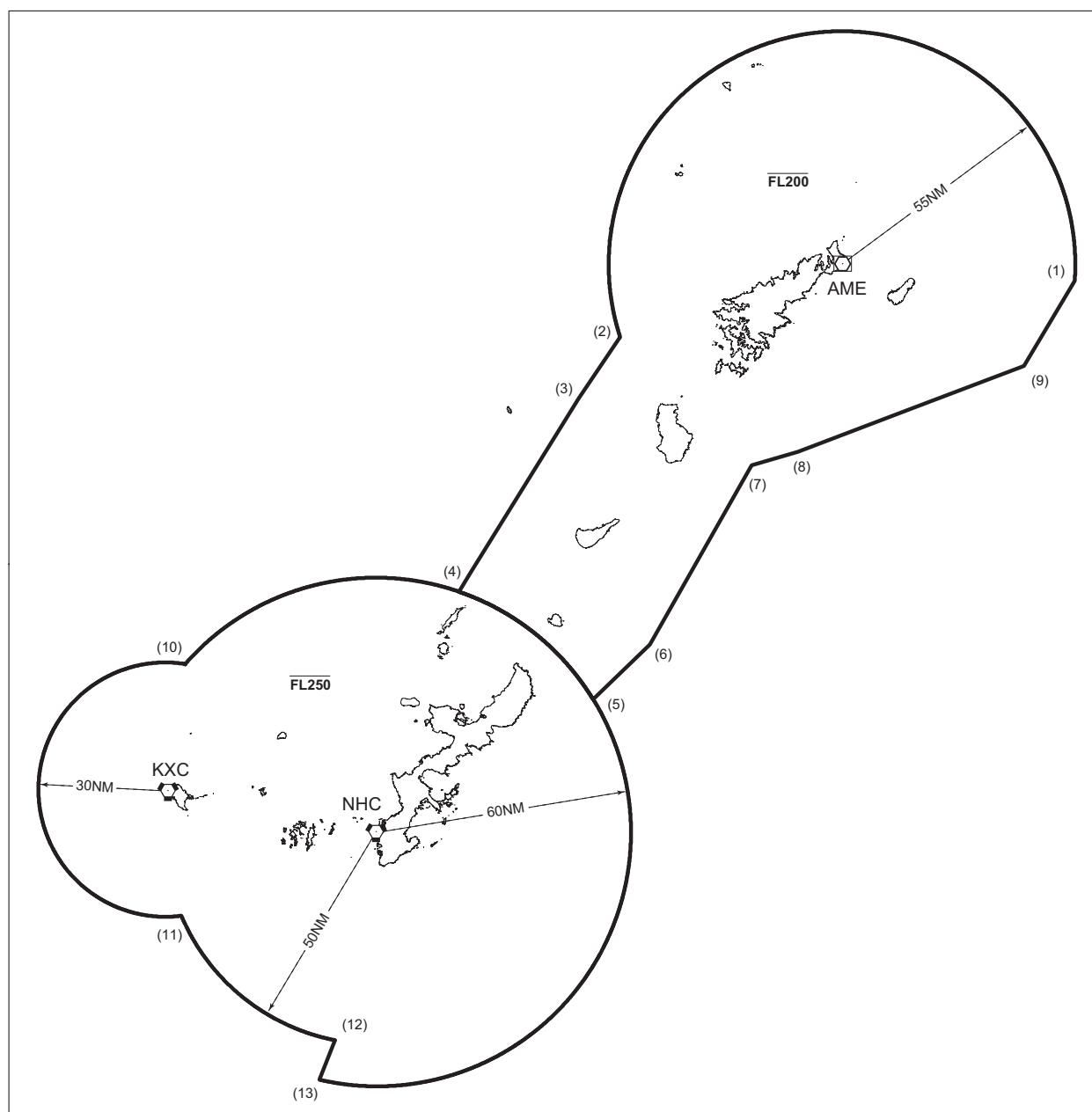
ROAH AD 2.17 ATS AIRSPACE

| Designation and lateral limits | | Vertical limits (ft) | Airspace classification | ATS unit call sign Language | Remarks |
|--------------------------------|--|-----------------------------|-------------------------|--|---------|
| 1 | | 2 | 3 | 4 | 6 |
| Naha CTR | (1) Area within a radius of 5nm of NAHA ARP (2612N/12738E), in the west side of a line extending from 261429N1274125E on 052°56'T and 125°31'T | ----- 2000 (EXC 2000) | D | Naha Tower En | |
| | (2) Area within a radius of 19nm of NHC VORTAC, in the west side of NHC 015R and in the north side of NHC 315R, excluding area(1) and area within a radius of 5nm of Kadena ARP(2621N/12746E). | ----- 700 (EXC 700) | B | Naha APP/DEP Naha RADAR Naha ARR En | |
| Naha PCA | See attached chart | | B | Naha APP/DEP Naha RADAR Naha ARR Kadena ARR En | |
| Naha ACA | See attached chart | | E | Naha APP/DEP Naha RADAR Naha ARR Kadena ARR En | |
| Naha TCA | See attached chart | | E | Naha TCA En | |

那霸特別管制区

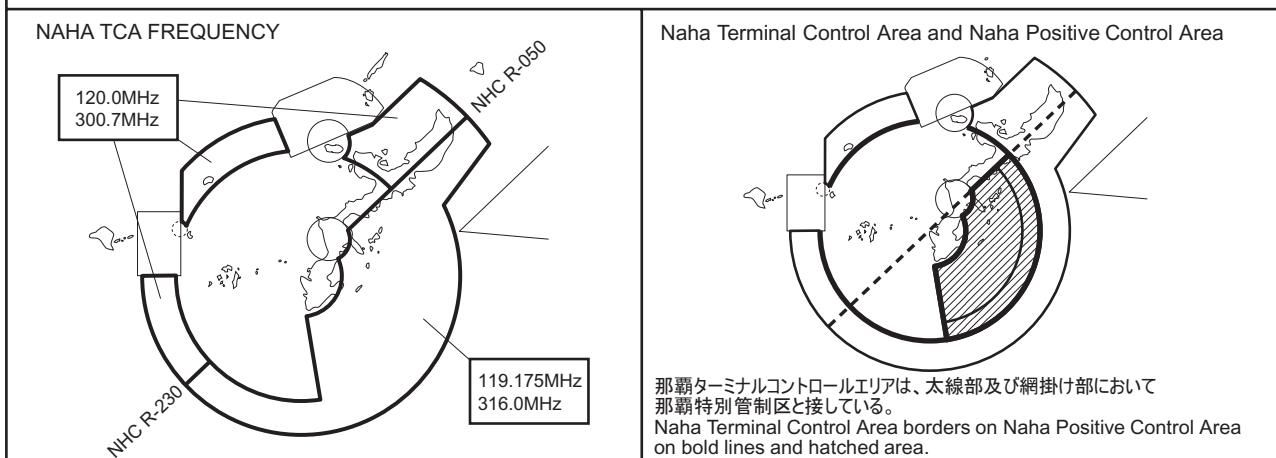
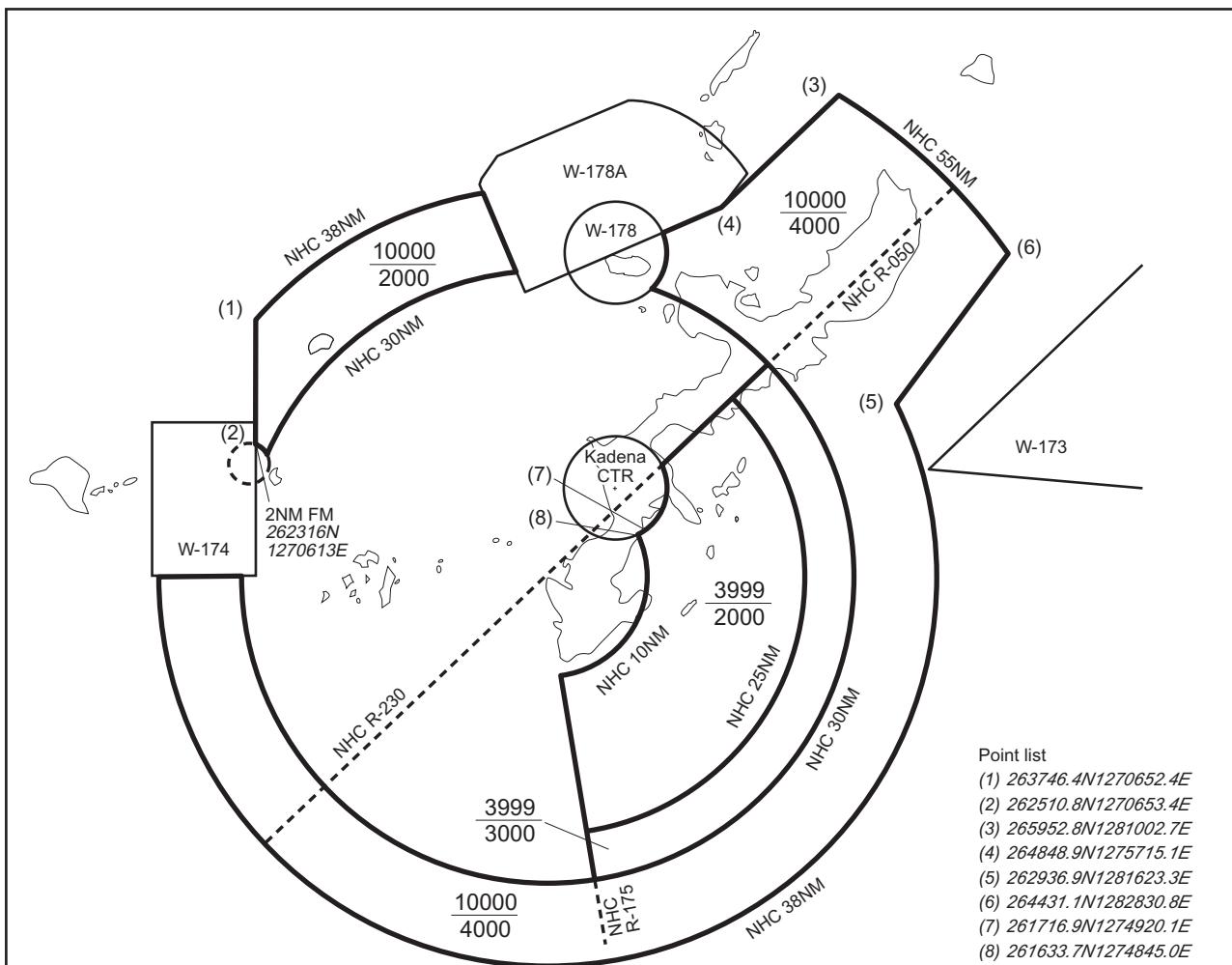
Naha Positive Control Area (Class B)

| NAME | LATERAL LIMITS | UPPER LIMIT (AMSL) | UNIT PROVIDING SERVICE | REMARKS |
|------------|-----------------------------------|--------------------------------|---|---|
| | | LOWER LIMIT (AMSL) M(ft) | | |
| 1 | 2 | 3 | 4 | 5 |
| 那霸 Naha | 下記に示される区域 The area shown below | | <p>1. 那霸VORTACのR050及びR230の線の北西で飛行する航空機: Naha APP 119.1MHz/335.8MHz</p> <p>1. Aircraft operating northwest of the Naha VORTAC 050/230 radials: Naha APP 119.1MHz/335.8MHz</p> <p>2. 那霸VORTACのR050及びR230の線の南東で飛行する航空機: Naha APP 126.5MHz/258.3MHz</p> <p>2. Aircraft operating southeast of the Naha VORTAC 050/230 radials: Naha APP 126.5MHz/258.3MHz</p> | <p>当該空域を飛行しようとする航空機は、入域前に那霸アプローチに連絡し、コールサイン、現在位置、高度及び意図を通報し指示を受けること。(当該空域と重複する那霸管制圏を飛行しようとする航空機に対しては、那霸アプローチから当該管制圏内の飛行に係る指示が発出される。) All aircrafts requiring transit of Naha Positive Control Area must call Naha Approach prior to the point of entry to provide aircraft identification, position, altitude and intention. (Pilots intending to fly in the portion of the overlapping Naha CTR with Naha PCA should maintain contact with Naha Approach for ATC clearances and instructions.)</p> |

那覇進入管制区
Naha Approach Control Area

Point list

- | | |
|----------------------|-----------------------|
| (1) 282121N/1304450E | (8) 274201N/1293022E |
| (2) 280927N/1284315E | (9) 280130N/1303045E |
| (3) 275507N/1283205E | (10) 265159N/1264807E |
| (4) 270928N/1280014E | (11) 255229N/1264740E |
| (5) 264352N/1283540E | (12) 252316N/1272802E |
| (6) 265648N/1285042E | (13) 251400N/1272404E |
| (7) 273900N/1291757E | |

那覇ターミナルコントロールエリア
Naha Terminal Control Area

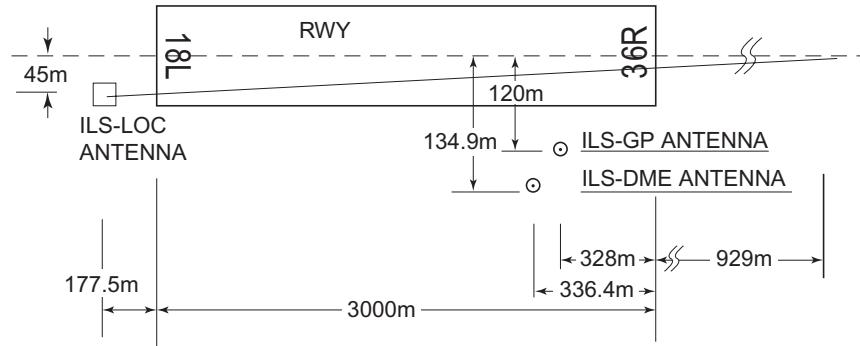
ROAH AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---------------------|----------------|---|--------------------|--|
| 1 | 2 | 3 | 4 | 5 |
| DEP | Naha Departure | 119.1MHz(1) 335.8MHz(1) 126.5MHz(2) 258.3MHz(2) 119.65MHz 228.2MHz | H24 | (1) Primary for airspace northwest of Naha VORTAC R050/R230 (2) Primary for airspace southeast of Naha VORTAC R050/R230 |
| APP | Naha Approach | 119.1MHz(1) 335.8MHz(1) 126.5MHz(2) 258.3MHz(2) 119.65MHz 228.2MHz 121.2MHz 124.95MHz(3) 280.1MHz(3) | H24 | (3) Primary for airspace within 55NM from Kasari VOR/DME |
| ARR | Naha Arrival | 118.85MHz(4) 278.5MHz(4) | H24 | (4) Primary for aircraft landing at Naha Airport |
| | Kadena Arrival | 135.9MHz(5) 255.8MHz(5) 285.4MHz | H24 | (5) Primary for aircraft landing at Kadena AB and MCAS Futenma |
| ASR | Naha Radar | 120.0MHz 121.1MHz 122.45MHz 125.55MHz 119.65MHz 121.2MHz 228.2MHz 257.5MHz 261.4MHz 270.6MHz 287.8MHz 289.4MHz 290.3MHz 297.2MHz 310.0MHz 317.8MHz 321.5MHz 363.8MHz 121.5MHz(E) 243.0MHz(E) | H24 | |
| TCA | Naha TCA | 120.0MHz(6) 310.0MHz 122.45MHz 321.5MHz 119.175MHz(7) 300.7MHz(6) 316.0MHz(7) | 2230-1130 | (6) Primary for Naha Terminal Control Area northwest of Naha VORTAC R050/R230 (7) Primary for Naha Terminal Control Area southeast of Naha VORTAC R050/R230 |
| TWR | Naha Tower | 118.1MHz 126.2MHz 236.6MHz 308.6MHz 121.5MHz(E) 243.0MHz(E) 118.75MHz 247.8MHz | H24 | |
| GND | Naha Ground | 121.8MHz 284.6MHz 121.9MHz 284.4MHz | H24 | |
| DLVRY | Naha Delivery | 122.075MHz 256.0MHz | H24 | |

| Service designation 1 | Call sign 2 | Frequency 3 | | Hours of operation 4 | Remarks 5 |
|--------------------------|----------------|--|--|-------------------------|--|
| | | | | | |
| GCA-ASR -PAR | Naha GCA | 119.5MHz 121.1MHz 124.7MHz 261.4MHz 288.1MHz 289.4MHz 296.3MHz 121.5MHz(E) 243.0MHz(E) | 119.05MHz 120.6MHz 123.85MHz 236.8MHz 304.5MHz 318.2MHz | 0100-1200 | GLIDE PATH (1) RWY 18L: 3.0° (2) RWY 36R: 3.0° (3) RWY 18R: 3.0° (4) RWY 36L: 3.0° |
| ATIS | Naha Airport | | 127.8MHz 293.0MHz | H24 | |

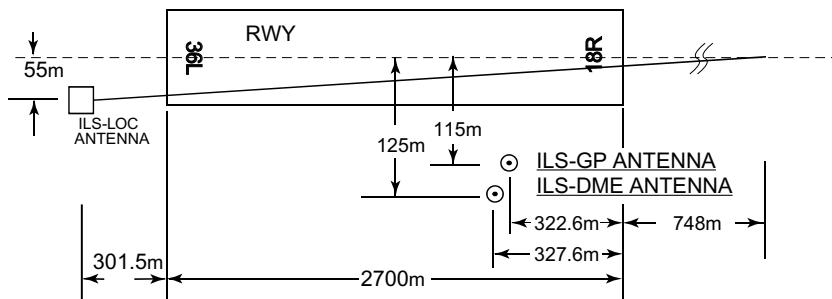
ROAH AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid (VOR declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|-------------------------------------|-----|----------------------|-----------------------|---|--|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| VOR (5°W/2014) | NHC | 116.5MHz | H24 | 261230.71N/1273834.32E | | |
| TACAN | NHC | 1199MHz (CH-112X) | H24 | 261229.51N/1273833.44E | 56.8ft | TACAN AZM Unusable: 340°-030° beyond 35nm BLW 3,000ft. 060°-070° beyond 35nm BLW 3,000ft. 070°-120° beyond 30nm BLW 3,000ft. 120°-130° beyond 20nm BLW 3,000ft. 130°-150° beyond 25nm BLW 3,000ft. 150°-160° beyond 30nm BLW 3,000ft. 170°-180° beyond 35nm BLW 3,000ft. 240°-300° beyond 35nm BLW 3,000ft. |
| ILS-LOC 36R | IOK | 110.3MHz | H24 | 261239.35N/1273840.95E | | LOC : 177.5m (582ft) away FM RWY 18L THR. 45m(148ft) W of RCL. LOC off-set 0.63° BRG (MAG) 002° |
| ILS-GP 36R | - | 335.0MHz | H24 | 261106.67N/1273842.59E | | GP: 328m (1076ft) inside FM RWY 36R THR. 120m(394ft) W of RCL. Angle 3.0° HGT of ILS Ref datum 17.4m(57ft). |
| ILS-DME 36R | IOK | 1001MHz (CH-40X) | H24 | 261107.00N/1273841.98E | 28ft | DME: 336.4m(1104ft) inside FM RWY 36R THR. 134.9m(443ft) W of RCL. |
| ILS-LOC 18R | ION | 110.15MHz | H24 | 261033.64N/1273803.22E | | LOC : 301.5m (990ft) away FM RWY 36L THR. 55m(180ft) E of RCL. LOC off-set 0.84° BRG (MAG) 182° |
| ILS-GP 18R | - | 334.25MHz | H24 | 261200.70N/1273801.29E | | GP: 322.6m (1058ft) inside FM RWY 18R THR. 115m(377ft) E of RCL. Angle 3.0° HGT of ILS Ref datum 15.8m(52ft). |
| ILS-DME 18R | ION | 1125MHz (CH-38Y) | H24 | 261200.55N/1273801.65E | 31ft | DME: 327.6m(1075ft) inside FM RWY 18R THR. 125m(410ft) E of RCL. |
| ILS-LOC 36L | IOW | 111.7MHz | H24 | 261221.27N/1273756.17E | | LOC : 316.0m (1037ft) away FM RWY 18R THR. BRG (MAG) 003° |
| ILS-GP 36L | - | 333.5MHz | H24 | 261053.50N/1273755.98E | | GP: 317.7m (1042ft) inside FM RWY 36L THR. 120m(394ft) W of RCL. Angle 3.0° HGT of ILS Ref datum 16.5m(55ft). |
| ILS-DME 36L | IOW | 1015MHz (CH-54X) | H24 | 261053.81N/1273755.60E | 32ft | DME: 327.7m(1075ft) inside FM RWY 36L THR. 130m(427ft) W of RCL. |
| MSAS | - | 1575.42MHz | H24 | | | Transmitting antennas are satellite based |

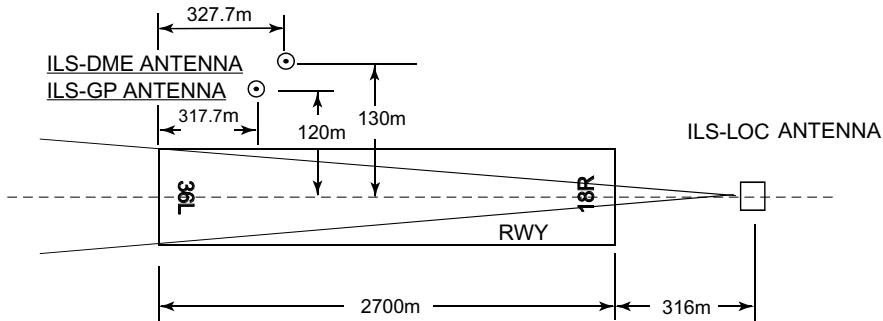
ILS for RWY 36R

REMARKS :

- | | |
|-------------------------|--------------|
| 1. LOC OFFSET Angle | 0.63° |
| 2. LOC beam BRG (MAG) | 002° |
| 3. GP Angle | 3.0° |
| 4. HGT of ILS REF datum | 17.4m (57ft) |
| 5. ELEV of ILS-DME | 8.48m (28ft) |

ILS for RWY18R

- REMARKS : 1. LOC OFFSET Angle 0.84°
 2. LOC beam BRG(MAG) 182°
 3. GP Angle 3.0°
 4. HGT of ILS REF datum 15.8m(52ft)
 5. ELEV of ILS-DME 9.3m(31ft)

ILS for RWY36L

- REMARKS : 1. LOC beam BRG (MAG) 003°
 2. GP Angle 3.0°
 3. HGT of ILS REF datum 16.5m(55ft)
 4. ELEV of ILS-DME 9.6m(32ft)

ROAH AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

1.1 定期便以外の航空機の取扱い

定期便以外の航空機による当空港の使用については、事前に空港管理者と調整すること。詳細については、大阪航空局那覇空港事務所航空管制運航情報官に連絡すること。
(電話 : 098-857-1107)

1.1 Aircraft other than scheduled

Use of this airport by aircraft other than scheduled is all subject to prior arrangements with the airport administrator. Contact JCAB Naha operations for further details.
(Tel:098-857-1107)

1.2 管制方式

航空機の運航者は、次に掲げる方式に従うこと。

(1) 一般事項

- A. パイロットは、那覇空港の標準計器出発方式、標準計器到着方式及び計器進入方式に公示される高度制限について、事前確認を徹底した上で、確実に高度制限を遵守して飛行すること。
- B. 第 6 エプロン内には、管制塔からの不可視区域が存在する。

(2) 出発機

- A. 全ての IFR 出発機は、エンジン始動 5 分前に那覇デリバリーと通信設定し、次に掲げる事項を通報すること。

- a) 航空機呼出符号
- b) 目的地
- c) 要求高度（代替要求高度がある場合は、当該高度）
- d) 駐機位置（スポット番号）

- B. パイロットは、プッシュバック及び / 又はエンジン始動が遅れる場合、又はそれが予想される場合は、管制官に対してその旨通報すること。ただし、他の航空機の地上交通による遅延、又は出発制御時刻等が付加されたために生じる遅延を除く。

- C. 那覇特別管制区を飛行しようとする VFR 機は、地上走行前に那覇グランド／タワーに対して、当該管制圏を離脱する飛行方向又は飛行経路及び要求高度を通報すること。那覇グランド／タワーは、那覇レーダーと通信設定を行う周波数及び二次レーダー個別コードを指定する。

(3) インターセクション・デパートチャ―

- A. 出発機はパイロットの同意なしに誘導路 E2、T2 及び T8 からのインターフェクション・デパートチャ―を指示されることがある。誘導路 E2、T2 及び T8 から出発できない場合は、管制官に対してその旨通報すること。

- B. AD1.1.6.3.2.2(2)(2) に記載されている出発機間の管制間隔は、次に掲げる誘導路から出発する航空機には適用されない。

- AD1.1.6.3.2.2(2)(2) における間隔を必要とする航空機は、那覇グランド／タワーに対してその旨通報すること。

1.2 ATC Procedures

Aircraft operators shall comply with the following procedures.

(1) General

- A. Pilots shall certainly pre-check and surely comply with altitude restrictions published on standard instrument departures, standard instrument arrivals and instrument approach procedures at Naha Airport.
- B. Invisible areas from control tower exist within APRON NR-6.

(2) Departure

- A. All IFR departing aircraft shall contact Naha Delivery 5 minutes prior to starting engines and advise the following information.

- a) call sign
- b) destination
- c) proposed flight level/altitude (alternative flight levels/altitudes, if any)
- d) parking position (spot number)

- B. Pilots shall advise ATC if any delay in push-back and/or engine start-up is experienced or anticipated except when delay has been caused by other ground traffic or departure time restriction such as release time.

- C. VFR aircraft intending to operate within the Naha Positive Control area shall advise the Naha ground/tower prior to taxi of intended direction or route of flight and proposed altitude to depart from respective Control Zone. The Naha ground/tower will assign a frequency to contact Naha Radar and discrete beacon code.

(3) Intersection departure

- A. Departing aircraft may be instructed intersection departure from TWY E2, T2, T8 without pilot's consent. Aircraft unable to depart from TWY E2, T2, T8 shall advise ATC accordingly.

- B. Separation for departure as in AD1.1.6.3.2.2(2)(2) will not be applied to aircraft departing from the following TWYs. Aircraft requiring separation in AD1.1.6.3.2.2(2)(2) shall advise "NAHA GROUND/TOWER" accordingly.

| 滑走路 RWY | 先行機が出発する誘導路 TWY where a leading aircraft departing | 後続機が出発する誘導路 TWY where a succeeding aircraft departing |
|------------|---|--|
| 18L | E1, W1 | E2 |
| | E3 | W2 |
| | E4 | W3 |
| | E4C | W3C |
| 36R | E8S | W5 |
| 18R | T1 | T2 |
| 36L | T9 | T8 |

(4) 到着機

- A. 全ての民間 IFR 到着機は、那覇タワー /GCA との最初の通信設定時において、駐機位置（スポット番号）を通報すること。
- B. 後続機は他の周波数にいる場合があることから、パイロットは、最寄りの誘導路経由で、又は管制官の指示に従い、遅滞なく滑走路を離脱することによって、滑走路占有時間の短縮に努めること。
- C. 全ての到着機は、管制官から指定された二次レーダー個別コードを、着陸するまで変更しないこと。ただし、管制官から別途指示された場合は、この限りでない。
- D. 那覇特別管制区を飛行しようとする VFR 機は、那覇レーダーと通信設定を行う前に ATIS を聴取するよう努め、通信設定時に ATIS 情報を受信した旨、飛行経路及び要求高度を通報すること。
- E. 那覇タワーと通信設定する VFR 機は、以下の管轄周波数に連絡し、コールサイン、現在位置、高度及び意図を通報し指示を受けること。

a) 空港標点から東象限を飛行する航空機
(VRP:PARCO CITY,AJA,YONABARU,MABUNI)
Naha TWR:118.1MHz/308.6MHz

b) 空港標点から西象限を飛行する航空機
(VRP:SANDO,DONATSU,MAEJIMA,
KERAMA NORTH,KERAMA SOUTH)
Naha TWR:118.75MHz/247.8MHz

(5) 視認進入

- A. 視認進入を許可された航空機は、進入許可発出時の指定高度にかかわらず、自機に適用される場周経路高度まで速やかに降下すること。ただし、管制官から別途指示された場合は、この限りでない。
- B. 視認進入を行う航空機は、回転翼機及び後方乱気流区分がライトの固定翼機を除き、騒音軽減のため海上を飛行すること。

(6) CDO (Continuous Descent Operation)

那覇空港への CDO は次に掲げる方式に従うこと。

1) 適用時間

THETA, KUKUL, SEIFA, VIGER 通過予定時刻が 0130JST から 0555JST の間。

2) 対象経路

- A. 滑走路 36 運用時
- OKUMA から RESORT SOUTH ARRIVAL を経由する経路。
 - GUPTI から GUPTI SOUTH ARRIVAL を経由する経路。
 - VELNO から VELNO SOUTH ARRIVAL を経由する経路。
 - ENTOK から ENTOK SOUTH ARRIVAL を経由する経路。
- B. 滑走路 18 運用時
- OKUMA から RESORT NORTH ARRIVAL を経由する経路。
 - GUPTI から GUPTI NORTH ARRIVAL を経由する経路。
 - VELNO から VELNO NORTH ARRIVAL を経由する経路。
 - ENTOK から ENTOK NORTH ARRIVAL を経由する経路。

(4) Arrival

- A. All civil IFR arriving aircraft shall advise parking position (spot number) on initial contact with Naha Tower/GCA.
- B. Pilots are encouraged to reduce RWY occupancy time by exiting the RWY without delay at the first available taxiway or as instructed by ATC, for succeeding aircraft which may be on a different frequency.
- C. All arriving aircraft shall remain on discrete beacon code assigned by ATC until making a full stop landing, unless otherwise instructed by ATC.
- D. VFR aircraft intending to operate within the Naha Positive Control area should monitor ATIS broadcast prior to contacting Naha Radar, and advise ATIS code received, route of flight, and proposed altitude on initial contact.
- E. VFR aircraft should call Naha TWR to provide the aircraft identification, position, altitude and intention using the following frequency.
- a) Aircraft operating east side of Naha Control Zone
(VRP:PARCO CITY,AJA,YONABARU,MABUNI)
Naha TWR:118.1MHz/308.6MHz
- b) Aircraft operating west side of Naha Control Zone
(VRP:SANDO,DONATSU,MAEJIMA,
KERAMA NORTH,KERAMA SOUTH)
Naha TWR:118.75MHz/247.8MHz

(5) Visual approach

- A. Aircraft cleared for visual approach shall descend to appropriate traffic pattern altitude regardless of the assigned altitude when the approach clearance is issued, unless otherwise instructed by ATC.
- B. Aircraft, except fixed wing aircraft in light wake turbulence category and rotary wing aircraft, shall remain over the water when conducting visual approach due to noise abatement.

(6) CDO (Continuous Descent Operation)

Pilot Shall comply following procedures when conduct CDO at Naha AP.

1)Applicable time

ETA at THETA, KUKUL, SEIFA or VIGER between 1630UTC and 2055UTC.

2)Routes applicable for CDO

- A.When RWY36 in use
- Arrival routes via OKUMA and join RESORT SOUTH ARRIVAL.
 - Arrival routes via GUPTI and join GUPTI SOUTH ARRIVAL.
 - Arrival routes via VELNO and join VELNO SOUTH ARRIVAL.
 - Arrival routes via ENTOK and join ENTOK SOUTH ARRIVAL.

B.When RWY18 in use

- Arrival routes via OKUMA and join RESORT NORTH ARRIVAL.
- Arrival routes via GUPTI and join GUPTI NORTH ARRIVAL.
- Arrival routes via VELNO and join VELNO NORTH ARRIVAL.
- Arrival routes via ENTOK and join ENTOK NORTH ARRIVAL.

| | |
|---|---|
| <p>3) 実施方式</p> <p>A.CDO の要求及び承認</p> <p>a) 航空機からの CDO の要求及び管制機関からの承認は、次表の CDO 経路名を用いて行う。CDO 経路には高度制限が付加されていることに留意すること。</p> <p>b) 使用滑走路が変更になった場合、CDO が再承認されるか、中止が指示される。</p> <p>B.CDO の要求時期</p> <p>航空機は、降下開始点に到達する時刻の10分前までに、THETA, KUKUL, SEIFA, VIGER 通過予定時刻及び降下開始点を付して、管制機関に対して CDO の要求を行うこと。</p> | <p>3) Procedures</p> <p>A.Request and clearance of CDO</p> <p>a)CDO route name listed below is used when pilot requests CDO and when ATC clears CDO. There are altitude restrictions on CDO routes.</p> <p>b)ATC reclears or cancels CDO when RWY in use is changed.</p> <p>B.Timing for requesting CDO</p> <p>Pilot should request CDO not later than 10minutes before reaching Top of Descent(TOD) with position of TOD and estimated time over THETA, KUKUL, SEIFA or VIGER.</p> |
| Runway 36 | |
| CDR Route name | Route |
| Runway 36 CDO Number 1 | ONC A582 OKUMA "RESORT SOUTH ARRIVAL" [Altitude Restriction] Cross HASSA at or above 11,000ft and cross SEIFA at or above 2,000ft. |
| Runway 36 CDO Number 2 | GUPTI "GUPTI SOUTH ARRIVAL" [Altitude Restriction] Cross GUPTI at or above FL200, cross HASSA at or above 11,000ft and cross SEIFA at or above 2,000ft. |
| Runway 36 CDO Number 3 | MJC Y57 VELNO "VELNO SOUTH ARRIVAL" [Altitude Restriction] Cross VIGER at or above 2,000ft. |
| Runway 36 CDO Number 4 | ENTOK "ENTOK SOUTH ARRIVAL" [Altitude Restriction] Cross ENTOK at or above FL170 and cross VIGER at or above 2,000ft. |
| Runway 18 | |
| CDR Route name | Route |
| Runway 18 CDO Number 1 | ONC A582 OKUMA "RESORT NORTH ARRIVAL" [Altitude Restriction] Cross CLIFF at or above 2,700ft and cross KUKUL at or above 2,000ft. |
| Runway 18 CDO Number 2 | GUPTI "GUPTI NORTH ARRIVAL" [Altitude Restriction] Cross GUPTI at or above FL200 and cross KUKUL at or above 2,000ft. |
| Runway 18 CDO Number 3 | MJC Y57 VELNO "VELNO NORTH ARRIVAL" [Altitude Restriction] Cross THETA at or above 2,000ft. |
| Runway 18 CDO Number 4 | ENTOK "ENTOK NORTH ARRIVAL" [Altitude Restriction] Cross ENTOK at or above FL170, cross YEEZY at or above 2,100ft and cross THETA at or above 2,000ft. |

1.3 PDA (parts departing aircraft) reporting to Airport Administration

In order to secure the safety of aircraft operations and to rectify the issue of falling objects from aircraft operating in the vicinity of Naha Airport, aircraft operators are required to notify Airport Administration (Tel 098-857-1107) of any "Parts Departing Aircraft" from flights operating to/from Naha Airport, without delay. This information shall be shared by relevant parties in order to prevent recurrence of such.

| | |
|---|---|
| 1.4 補助動力装置(APU)の使用制限 <p>航空機が固定動力設備付きのスポットを使用する場合は、管理者が特に必要と認める場合を除き、次に掲げる時間を超えて補助動力装置を使用してはならない。</p> <p>(1)出発予定時刻前の30分間 (2)到着後、固定動力設備が使用可能となるまでの最小限度の時間 (3)航空機が点検整備のため補助動力装置を必要とする場合は、それに要する最小限度の時間</p> <p>備考： スポット21～27及び31～37は、固定動力設備が設置されている。</p> | 1.4 Restrictions about the use of auxiliary power units(APU) <p>The APU should be operated only within the following time period the aircraft is on an aircraft parking stand with fixed power facilities. Exceptions apply when airport authority deems it necessary.</p> <p>(1) Within 30 minutes prior to the estimated time of departure(ETD). (2) For the minimum time required for switching over to the fixed power facilities. (3) For the minimum time required for aircraft maintenance purposes, if needed.</p> <p>NOTE: Aircraft parking stands 21-27 and 31-37 are equipped with fixed power facilities.</p> |
|---|---|

2. Taxiing to and from stands

| | |
|---|---|
| 2.1 Taxiing procedure <p>All aircraft are required to hold at "GP HOLD LINE" on TWY T1 and T2 for RWY18R until receiving taxi clearance to protect the ILS glide slope signal.</p> | |
| 2.2 エプロンにおける安全対策について <p>1)エプロン内においては、正確に黄色い導入線に沿って走行すること。 2)ジェットブラストによる地上の車両、設備及び隣接スポットの他の航空機への影響を回避するため、エプロン内においては、エンジン出力を最小にすること。</p> | 2.2 Safety measures in Aprons <p>1) While operating in the apron area, follow strictly yellow guide line. 2) In order to avoid jet blast damage to ground vehicles, equipment and other aircraft in adjacent spots, engine power should be kept to minimum within APRON.</p> |

3. Parking area for small aircraft(General aviation)

See AD2.9 Marking AIDs and Parkings Area(West side)

4. Parking area for helicopters

See AD2.9 Marking AIDs and Parkings Area(West side)

5. Apron - taxiing during winter conditions

Nil

6. Taxiing - limitations

1. Wing tip clearance at the TWY intersection (REF. AD1.1.6.8)

Wing tip clearance at the TWY intersection between the aircraft holding at the stop marking on the TWY and the other aircraft taxiing behind it are as follows.

(1) When B744 holding at the stop marking on TWY E1, E2, E3, E4C, E6, E8S, E9

| | | | |
|---|------------|--------------------|-----------|
| Wing Span (WS) of aircraft taxiing on TWY A1-A4, A5-A6 or A7-A9 | WS=< 51.1m | 51.1m < WS=< 68.1m | WS> 68.1m |
| Wing tip clearance | *A | *B | *C |

(2) When B744 holding at the stop marking on TWY W2

| | | | |
|---|------------|--------------------|-----------|
| Wing Span (WS) of aircraft taxiing on TWY B | WS=< 52.1m | 52.1m < WS=< 69.1m | WS> 69.1m |
| Wing tip clearance | *A | *B | *C |

(3) When B744 holding at the stop marking on TWY T1, T2, T8

| | | | |
|---|------------|--------------------|-----------|
| Wing Span (WS) of aircraft taxiing on TWY C | WS=< 18.1m | 18.1m < WS=< 35.1m | WS> 35.1m |
| Wing tip clearance | *A | *B | *C |

Legend:

*A : wing tip clearance \geq 15m

*B : 6.5m \leq wing tip clearance $<$ 15m

*C : wing tip clearance $<$ 6.5m

2. Restricted TWY

Taxiing from E5 to A5, and vice versa, AVBL wheelbase 9.8m or less, YS11, P3, C1, C130 and US1, for example.

3. 航空機重量制限

誘導路 A8 及び W5 を使用する A350-900 型機においては、航空機重量が下表の値を超えてはならない。

3.Aircraft weight restriction

When A350-900 using TWY A8 and W5, aircraft weight shall not exceed the values listed in the table below.

| 誘導路 TWY | A8 | | W5 | |
|-----------------|---------|---------|---------|---------|
| | (lb) | (kg) | (lb) | (kg) |
| Aircraft weight | 533,500 | 242,000 | 474,200 | 215,100 |

7. School and training flights - technical test flights - use of runways

Nil

8. Helicopter traffic - limitation

Nil

9. Removal of disabled aircraft from runways

Nil

ROAH AD 2.21 NOISE ABATEMENT PROCEDURES

Nil

ROAH AD 2.22 FLIGHT PROCEDURES**1. TAKE OFF MINIMA**

| | RWY | ACFT CAT | REDL & RCLL | | REDL or RCLL or RCL marking | | NIL (DAYTIME ONLY) | |
|---|--------------------------|----------|-----------------|------|-----------------------------|------|--------------------|------|
| | | | RVR | VIS | RVR | VIS | RVR | VIS |
| Multi-Engine ACFT with TKOF ALTN AP FILED | 18L | A,B,C,D | 400m | 400m | 400m | 400m | - | 500m |
| | 18R | | 400m | 400m | 400m | 400m | - | 500m |
| | 36R | | 400m | 400m | 400m | 400m | - | 500m |
| | 36L | | 400m | 400m | 400m | 400m | - | 500m |
| OTHER | 18L 18R 36R 36L | A,B,C,D | AVBL LDG MINIMA | | | | | |

2. WX MINIMA CONCERNING PAR APCH PROCEDURE

PAR RWY 18L

| MINIMA | | THR ELEV: 11 | | AD ELEV: 11 | |
|--------|----------|--------------|----------|-------------|--|
| CAT | PAR | | CIRCLING | | |
| | DA(H) | RVR/CMV | MDA(H) | VIS | |
| A | | | | 1600 | |
| B | 211(200) | 750 | 620(609) | 2400 | |
| C | | | | 3200 | |
| D | | | | | |

Circling to WEST side of RWY only

PAR RWY 36R

| MINIMA | | THR ELEV: 9 | | AD ELEV: 11 | |
|--------|----------|-------------|----------|-------------|--|
| CAT | PAR | | CIRCLING | | |
| | DA(H) | RVR/CMV | MDA(H) | VIS | |
| A | 219(210) | | | | |
| B | 229(220) | | | | |
| C | 239(230) | | | | |
| D | 249(240) | | | | |

Circling to WEST side of RWY only

PAR RWY 18R

| MINIMA | | THR ELEV: 16 | | AD ELEV: 11 | |
|--------|----------|--------------|----------|-------------|--|
| CAT | PAR | | CIRCLING | | |
| | DA(H) | RVR/CMV | MDA(H) | VIS | |
| A | | | | 1600 | |
| B | 216(200) | 550 | 620(609) | 2400 | |
| C | | | | 3200 | |
| D | | | | | |

Circling to WEST side of RWY only

PAR RWY 36L

| MINIMA | | THR ELEV: 14 | | AD ELEV: 11 | |
|--------|----------|--------------|----------|-------------|------|
| CAT | PAR | | CIRCLING | | |
| | DA(H) | RVR/CMV | MDA(H) | VIS | |
| A | | | | | 1600 |
| B | 214(200) | 550 | 620(609) | 2400 | |
| C | | | | | 3200 |
| D | | | | | |

Circling to WEST side of RWY only

3. PAR Missed Approach Procedure

Unless otherwise instructed by ATC, execute each missed approach procedure as follows.

- (1) RWY18L: At guidance limit, climb to 1200FT via NHC R182 to NHC15.0DME, climb to 2000FT via NHC 15.0DME clockwise ARC to OLVAL and hold. Contact NAHA APP.
- (2) RWY36R : At guidance limit, climb to 1200FT on HDG 003° to NHC 2.4DME, turn left, via NHC R341 to NHC 15.0DME, climb to 2000FT via NHC 15.0DME counterclockwise ARC to OLVAL and hold. Contact NAHA APP.
- (3) RWY18R : At guidance limit, turn right, climb to 1200FT via NHC R226 to NHC 15.0DME, climb to 2000FT via NHC 15.0DME clockwise ARC to OLVAL and hold. Contact NAHA APP.
- (4) RWY36L : At guidance limit, turn left, climb to 1200FT via NHC R308 to NHC 8.5DME, climb to 2000FT via NHC R308 to NHC 15.0DME, via NHC 15.0DME counterclockwise ARC to OLVAL and hold. Cross NHC R308/12.0DME at or above 1400FT. Contact NAHA APP.

4. Lost communication procedures for arrival aircraft under radar navigational guidance

If radio communications with Naha Approach/Arrival/GCA are lost for 1 minute, or 5 seconds on final approach(PAR), squawk Mode A/3 Code 7600 and :

- (1) Contact Naha Tower.
- (2) If unable, proceed in accordance with Visual Flight Rules.
- (3) If unable,
Proceed to OLVAL at the last assigned altitude or 2,000FT whichever is higher and execute Instrument Approach.

Note : Procedures other than above will be issued when required.

5. Trajectorydized Airport Traffic Data Processing System (TAPS)

那覇アプローチの指示のもとに、当該進入管制区を飛行する航空機は、モード A/3 の二次レーダー個別コード及びモード Cによる応答を指示される。

二次レーダー個別コードを搭載していない航空機が、当該コードによる応答を指示された場合は、管制官に対してその旨通報すること。

Aircraft flying under control of Naha Approach in the Approach Control Area will be instructed to reply with discrete beacon code on Mode A/3 and Mode C.

If an aircraft with non-discrete beacon code capability is instructed to reply with discrete beacon code, it shall advise ATC accordingly.

6. 場周経路高度

(1) 東側場周経路

- A. 固定翼機
最大離陸重量 7000kg 以下 1,000ft
- B. 回転翼機 800ft

(2) 西側場周経路

- A. 固定翼機
- a) ジェット機
戦闘機及び練習機 1,700ft
その他 1,000ft
- b) プロペラ機
最大離陸重量 7000kg 超 1,000ft
最大離陸重量 7000kg 以下 700ft
- B. 回転翼機 500ft

6. Traffic Pattern Altitude

(1) East side

- A.FIXED-WING AIRCRAFT
Maximum take-off weight 7000kg or less 1,000ft
- B.ROTARY-WING AIRCRAFT 800ft

(2) West side

- A.FIXED-WING AIRCRAFT
- a) JET
Fighter and Trainer 1,700ft
Others 1,000ft
- b) PROPELLER
Maximum take-off weight more than 7000kg 1,000ft
Maximum take-off weight 7000kg or less 700ft
- B.ROTARY-WING AIRCRAFT 500ft

ROAH AD 2.23 ADDITIONAL INFORMATION

1. RWY18L 進入区域の船舶の通過

航空機の運航に影響がある高さの船舶が RWY18L 進入区域を通過する場合、以下の対応が取られる。

- 1) NOTAM ROAH 又は ATC により船舶の情報提供が行われる。
- 2) 以下の場合において、船舶が A 点～B 点を通過する間、待機が指示されることがある。
 - a) RWY18L 着陸時
船舶高 35m(115ft)/MSL 超の場合、PAR 進入を行う到着機
船舶高 43m(142ft)/MSL 超の場合、全ての到着機
 - b) RWY36R 出発時及び着陸時
船舶高 65m(214ft)/MSL 超の場合、IFR 出発機
船舶高 96m(315ft)/MSL 超の場合、IFR 到着機

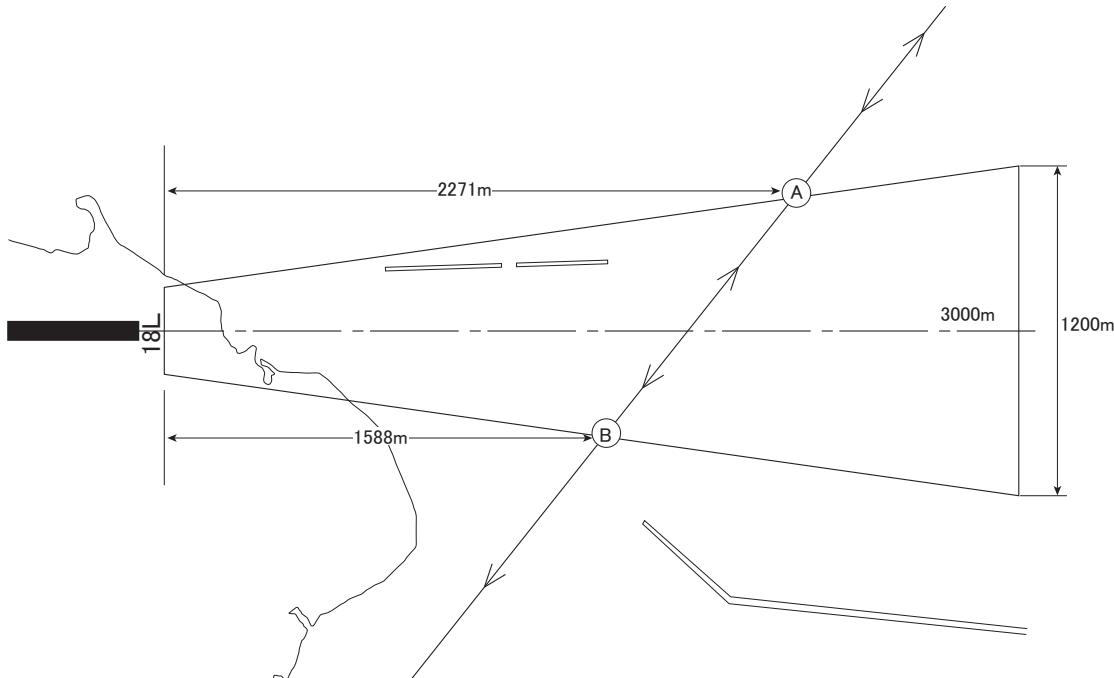
1. Passage of vessel across RWY18L approach area

While vessel with height that affects ACFT operations is passing across RWY18L approach area, the following action will be taken.

- 1) The information of vessel will be provided by NOTAM ROAH or ATC.
- 2) While vessel is crossing between point A and point B, holding instruction may be issued in the following situations.
 - a) ACFT for landing RWY18L
When vessel height is above 35m(115ft)/MSL : arrival ACFT to conduct PAR APCH
When vessel height is above 43m(142ft)/MSL : all arrival ACFT
 - b) ACFT for take-off/landing RWY36R
When vessel height is above 65m(214ft)/MSL : IFR departure ACFT
When vessel height is above 96m(315ft)/MSL : IFR arrival ACFT

船舶経路

VESSEL COURSE



2. 滑走路面上での維持工事

滑走路及び空港施設の維持工事のため、計画的な滑走路閉鎖が行われる。
(NOTAM ROAH 参照)

2. Schedule maintenance on the RWY

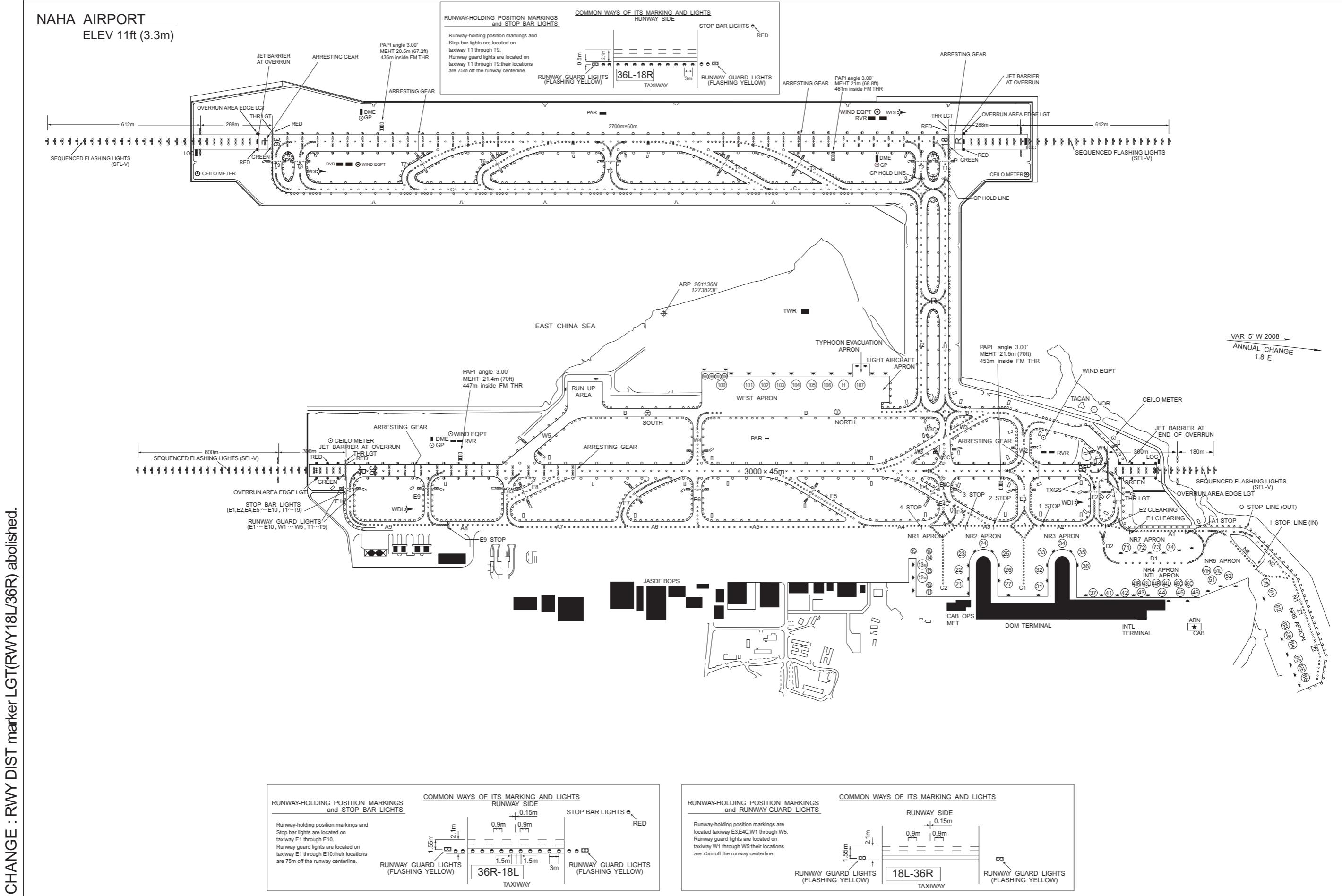
Scheduled RWY unserviceability due to RWY and facilities maintenance.
(See NOTAM ROAH)

| | |
|--|---|
| <p>3. その他</p> <p>(1) アレスティングギア (型式 : BAK-12)</p> <p>1) 位置 滑走路上の以下の場所にアレスティングギアが装備されている。(飛行場面図 参照)</p> <ul style="list-style-type: none"> a) RWY36R 進入端から 250M(820ft) 内側 b) RWY36R 進入端から 877M(2,877ft) 内側 c) RWY18L 進入端から 278M(912ft) 内側 d) RWY36L 進入端から 20M(65.6ft) 外側 e) RWY36L 進入端から 589.1M(1,931.5ft) 内側 f) RWY18R 進入端から 20M(65.6ft) 外側 g) RWY18R 進入端から 589.1M(1,931.5ft) 内側 <p>2) 通常の運用形態 使用 RWY に応じて、以下のアレスティングギアが RWY 上に張られた状態になっている。</p> <ul style="list-style-type: none"> RWY18L: 上記 1) の a) RWY36R: 上記 1) の c) <p>以下のアレスティングギアが過走帯内に張られた状態になっている。</p> <ul style="list-style-type: none"> RWY36L: 上記 1) の d) RWY18R: 上記 1) の f) <p>(2) ジェットバリア (MEN) MEN が RWY36R 及び RWY18L の過走帯端に設置されている。</p> <p>(3) ジェットバリア (型式 : BAK-12/15) BAK-12/15 が RWY36L 及び RWY18R の過走帯端に設置されている。</p> <p>(4) ノース及びサウスヘリパッド ノースヘリパッド及びサウスヘリパッドが B TWY 上に設置されている。 (飛行場面図 参照)</p> | <p>3. Other</p> <p>(1) Arresting-gear (Type BAK-12)</p> <p>1) Location Arresting-gears are installed on the RWY as follow. (See Aerodrome Chart)</p> <ul style="list-style-type: none"> a) 250M(820ft) from RWY36R THR b) 877M(2,877ft) from RWY36R THR c) 278M(912ft) from RWY18L THR d) 20M(65.6ft) from outside RWY36L THR e) 589.1M(1,931.5ft) from inside RWY36L THR f) 20M(65.6ft) from outside RWY18R THR g) 589.1M(1,931.5ft) from inside RWY18R THR <p>2) Normal configuration The following arresting-gear shall remain in the ready position for the RWY in use.</p> <ul style="list-style-type: none"> RWY18L: paragraph 1) a) above RWY36R: paragraph 1) c) above <p>The following arresting-gear shall remain in the ready position for the overrun.</p> <ul style="list-style-type: none"> RWY36L: paragraph 1) d) above RWY18R: paragraph 1) f) above <p>(2) Jet barrier (MEN) MENs are located on RWY36R overrun and RWY18L overrun end.</p> <p>(3) Jet barrier (Type BAK-12/15) BAK-12/15s are located on RWY36L overrun and RWY18R overrun end.</p> <p>(4) North and South Helipad North helipad and South helipad are located on B TWY. (See Aerodrome Chart)</p> |
|--|---|

ROAH AD 2.24 CHARTS RELATED TO AN AERODROME

| |
|--|
| Aerodrome/Heliport Chart -1 |
| Aerodrome/Heliport Chart -2 |
| Aerodrome Obstacle Chart - ICAO Type A (RWY18L/36R) |
| Aerodrome Obstacle Chart - ICAO Type A (RWY18R/36L) |
| Aerodrome Obstacle Chart - ICAO Type B |
| Standard Departure Chart - Instrument (NAHA NORTH, LAVON, OLVAL, NAHA SOUTHWEST) |
| Standard Departure Chart - Instrument (ESKOB-RNAV) |
| Standard Departure Chart - Instrument (KIZNA-RNAV) |
| Standard Departure Chart - Instrument (DORIS, GANJU-RNAV) |
| Standard Arrival Chart - Instrument (SCUBA, LAVON, LAFTY) |
| Standard Arrival Chart - Instrument (IHEYA NORTH, VELNO NORTH-RNAV) |
| Standard Arrival Chart - Instrument (RESORT NORTH-RNAV) |
| Standard Arrival Chart - Instrument (GUPTI NORTH, ENTOK NORTH-RNAV) |
| Standard Arrival Chart - Instrument (IHEYA SOUTH, VELNO SOUTH-RNAV) |
| Standard Arrival Chart - Instrument (RESORT SOUTH-RNAV) |
| Standard Arrival Chart - Instrument (GUPTI SOUTH, ENTOK SOUTH-RNAV) |
| Instrument Approach Chart (ILS Z or LOC Z RWY36R) |
| Instrument Approach Chart (ILS Y or LOC Y RWY36R) |
| Instrument Approach Chart (ILS X or LOC X RWY36R) |
| Instrument Approach Chart (ILS Z or LOC Z RWY36L) |
| Instrument Approach Chart (ILS Y or LOC Y RWY36L) |
| Instrument Approach Chart (ILS X or LOC X RWY36L) |
| Instrument Approach Chart (ILS or LOC RWY18R) |
| Instrument Approach Chart (RNP RWY36R) |
| Instrument Approach Chart (RNP RWY36L) |
| Instrument Approach Chart (RNP RWY18R) |
| Instrument Approach Chart (RNP RWY18L) |
| Instrument Approach Chart (VOR A or TACAN B) |
| Instrument Approach Chart (VOR C) |
| Instrument Approach Chart (TACAN D) |
| Other Chart (Visual REP) |
| Other Chart (MVA CHART) |

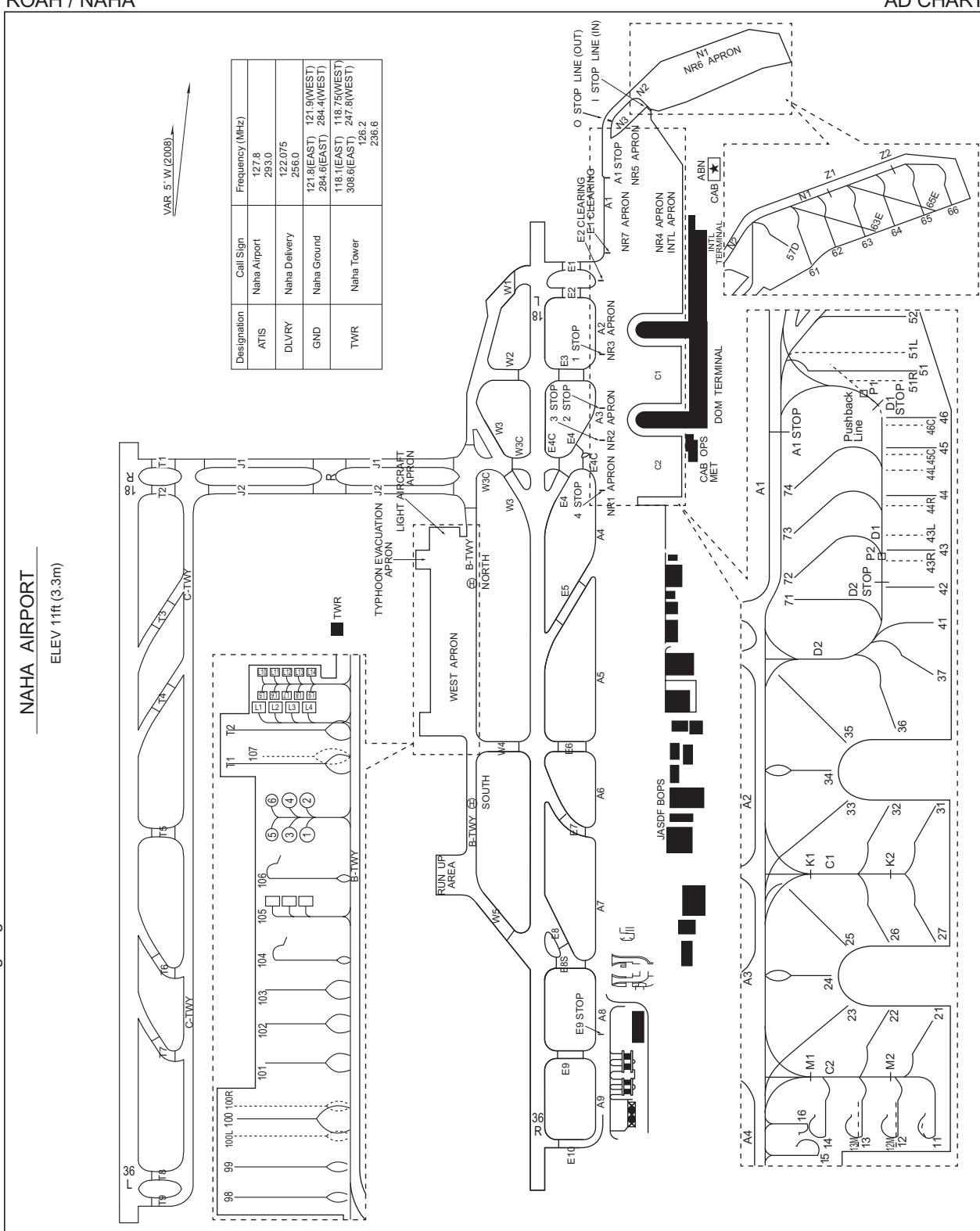
AERODROME CHART



ROAH / NAHA

AD CHART

CHANGE : A1 STOP added in the enlarged figure.

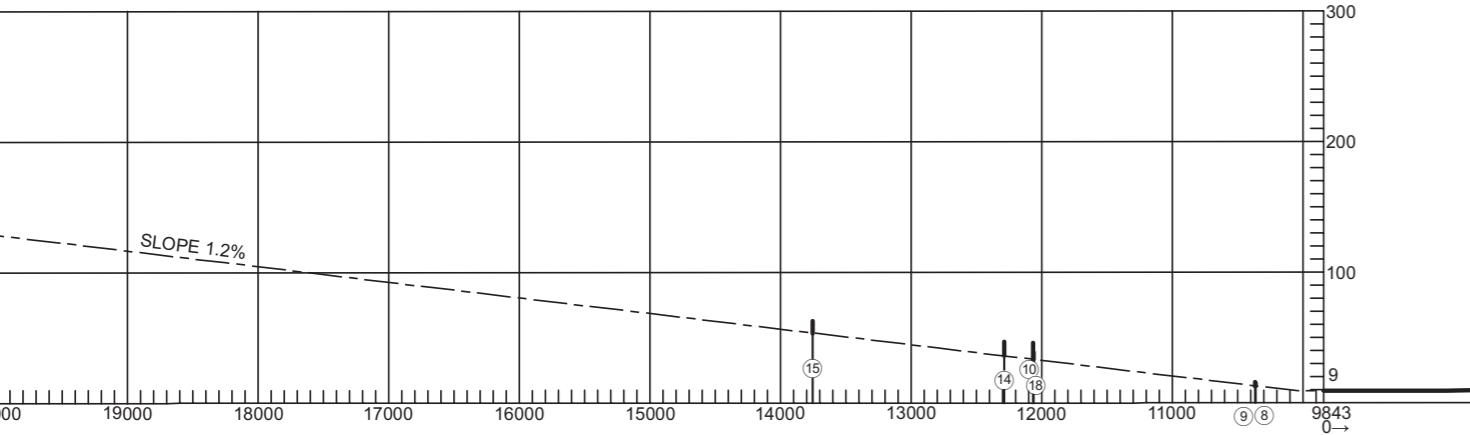


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DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC
Transverse Mercator Projection

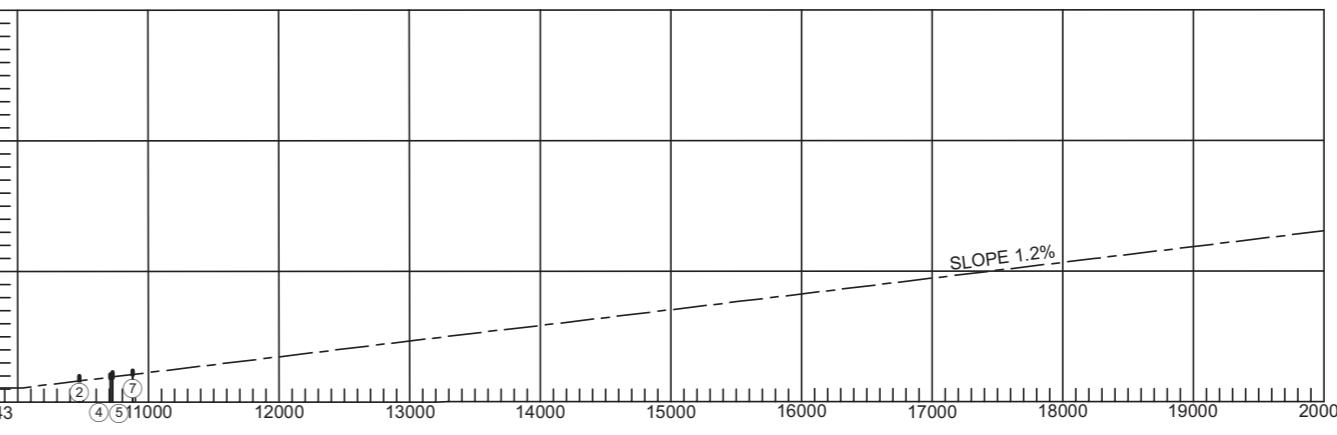
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

MAGNETIC VARIATION 6°W - FEB 2023

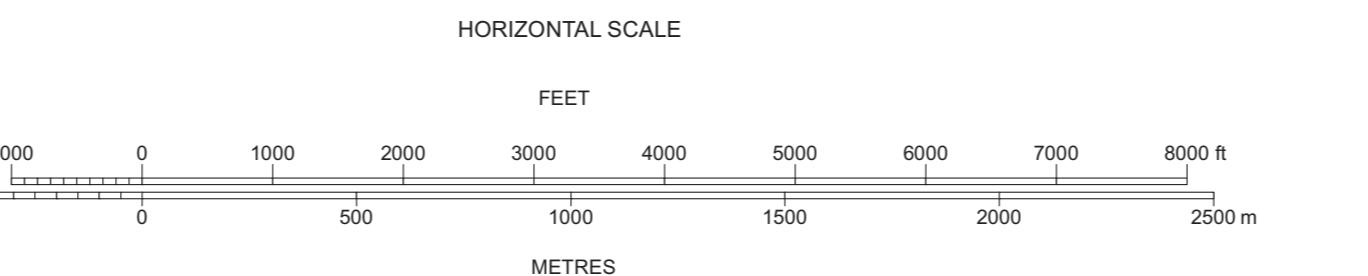
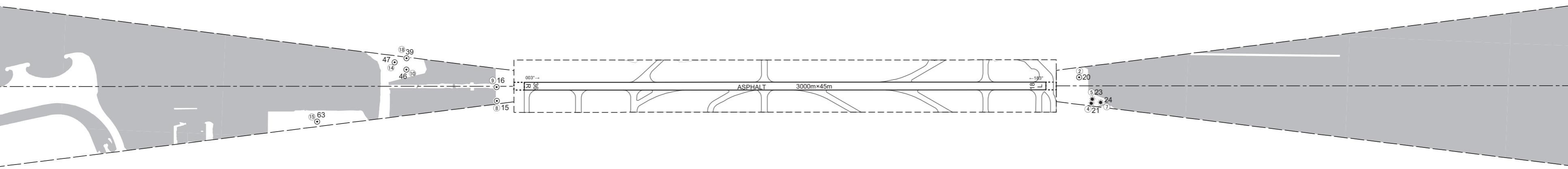


NAHA AIRPORT
RWY: 36R/18L

| DECLARED DISTANCES | | |
|--------------------|------------------------------------|-------|
| RWY 36R | RWY 18L | |
| 3000m | TAKE OFF RUN AVAILABLE | 3000m |
| 3000m | TAKE OFF DISTANCE AVAILABLE | 3000m |
| 3000m | ACCELERATE STOP DISTANCE AVAILABLE | 3000m |
| 3000m | LANDING DISTANCE AVAILABLE | 3000m |



FT M
300 100
250 75
200 50
150 25
100 0
VERTICAL SCALE



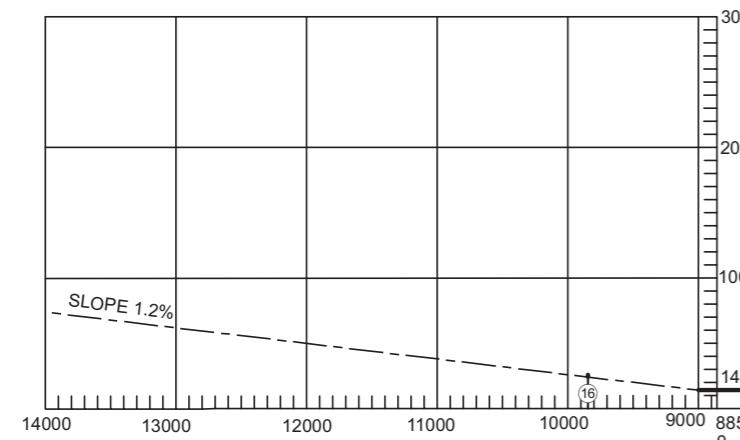
| LEGEND | | |
|--------|-------------------------------------|--------------------|
| ① | IDENTIFICATION NUMBER | AMENDMENT RECORD |
| ◎ | POLE, TOWER, SPIRE, ANTENNA, ETC | Nr DATE ENTERED BY |
| * | TREE | LEVEE |
| -+ - | RAILROAD | RIVER |
| -+ - | TRANSMISSION LINE OR OVERHEAD CABLE | |
| △ | TRIANGULATION POINT | |
| ★ | AERONAUTICAL GROUND LIGHT | |
| ■ | BUILDING OR LARGE STRUCTURE | |
| ~~~~~ | CONTOURS(ft) | |
| ※ | OBSTRUCTION LIGHT | |

測量法に基づく国土地理院長承認(使用) R 4JHs 286

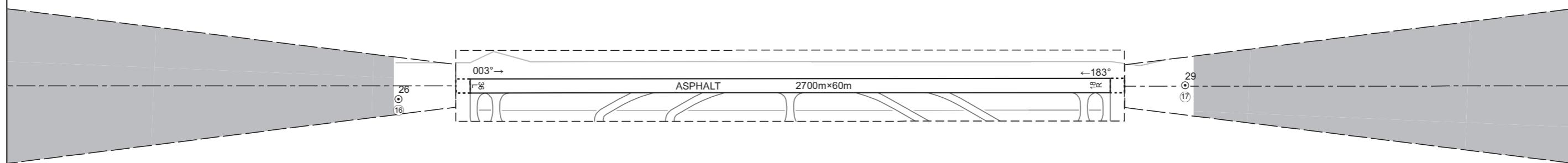
DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC
Transverse Mercator Projection

AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

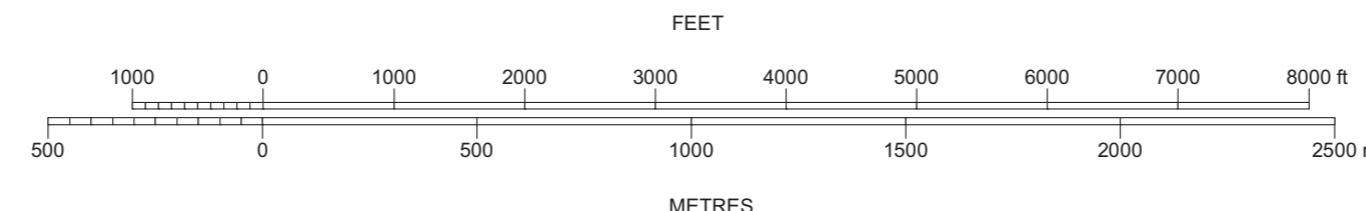
MAGNETIC VARIATION 6°W - FEB 2023



| NAHA AIRPORT RWY: 36L/18R | |
|------------------------------|--|
| DECLARED DISTANCES | |
| RWY 36L | RWY 18R |
| 2700m | TAKE OFF RUN AVAILABLE 2700m |
| 2700m | TAKE OFF DISTANCE AVAILABLE 2700m |
| 2700m | ACCELERATE STOP DISTANCE AVAILABLE 2700m |
| 2700m | LANDING DISTANCE AVAILABLE 2700m |



HORIZONTAL SCALE



CHANGE : Update.

測量法に基づく国土地理院長承認(使用) R 4JHs 286

| LEGEND | | | AMENDMENT RECORD | | |
|--------|-------------------------------------|------------|------------------|--|--|
| Nr | DATE | ENTERED BY | | | |
| ① | IDENTIFICATION NUMBER | | | | |
| ◎ | POLE, TOWER, SPIRE, ANTENNA, ETC | | | | |
| * | TREE | LEVEE | | | |
| - - - | RAILROAD | RIVER | | | |
| — + — | TRANSMISSION LINE OR OVERHEAD CABLE | | | | |
| △ | TRIANGULATION POINT | | | | |
| ★ | AERONAUTICAL GROUND LIGHT | | | | |
| ▨ | BUILDING OR LARGE STRUCTURE | | | | |
| ~~~~~ | CONTOURS(ft) | | | | |
| ※ | OBSTRUCTION LIGHT | | | | |

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC
Transverse Mercator Projection

AERODROME OBSTACLE CHART-ICAO
TYPE B



CHANGE : Update.

STANDARD DEPARTURE CHART-INSTRUMENT

ROAH/ NAHA

SID

NAHA NORTH FOUR DEPARTURE

RWY18L/18R: (Not established)
RWY36R : Climb RWY HDG to NHC 2.4DME,...
RWY36L : Climb RWY HDG to 500FT,...
...turn left, via NHC R341 to EISAR.

Note RWY36R/36L: 5.0% climb gradient required up to 500FT.

SCUBA TRANSITION

From over EISAR, via NHC R341 to 24.1DME, turn right to intercept NHC R344 to SCUBA.
Cross SCUBA at or above 4000FT.

LAVON ONE DEPARTURE

RWY18L : Climb RWY HDG to NHC 4.7DME, turn right, via NHC R196...
RWY18R : Climb RWY HDG to 600FT, turn right, via NHC R211...
... to intercept and proceed via NHC 15.0DME clockwise ARC to LAVON.

RWY36R : Climb RWY HDG to NHC 2.4DME, turn left, via NHC R341...
RWY36L : Climb RWY HDG to 500FT, turn left, via NHC R308...
...to intercept and proceed via NHC 15.0DME counterclockwise ARC to LAVON.

Note RWY36R/36L: 5.0% climb gradient required up to 500FT.

OLVAL ONE DEPARTURE

RWY18L : Climb RWY HDG to NHC 4.7DME, turn right, via NHC R196...
RWY18R : Climb RWY HDG to 600FT, turn right, via NHC R211...
... to intercept and proceed via NHC 15.0DME clockwise ARC to OLVAL.

RWY36R : Climb RWY HDG to NHC 2.4DME, turn left, via NHC R341...
RWY36L : Climb RWY HDG to 500FT, turn left, via NHC R308...
...to intercept and proceed via NHC 15.0DME counterclockwise ARC to OLVAL.

Note RWY36R/36L: 5.0% climb gradient required up to 500FT.

NAHA SOUTHWEST FOUR DEPARTURE

RWY18L : Climb RWY HDG to NHC 4.7DME,...
RWY18R : Climb RWY HDG to 500FT,...
... turn right, via NHC R196 to LAFTY.
RWY36R/36L: (Not established)

CHANGE:New PROC

STANDARD DEPARTURE CHART-INSTRUMENT



STANDARD DEPARTURE CHART-INSTRUMENT

ROAH/NAHA

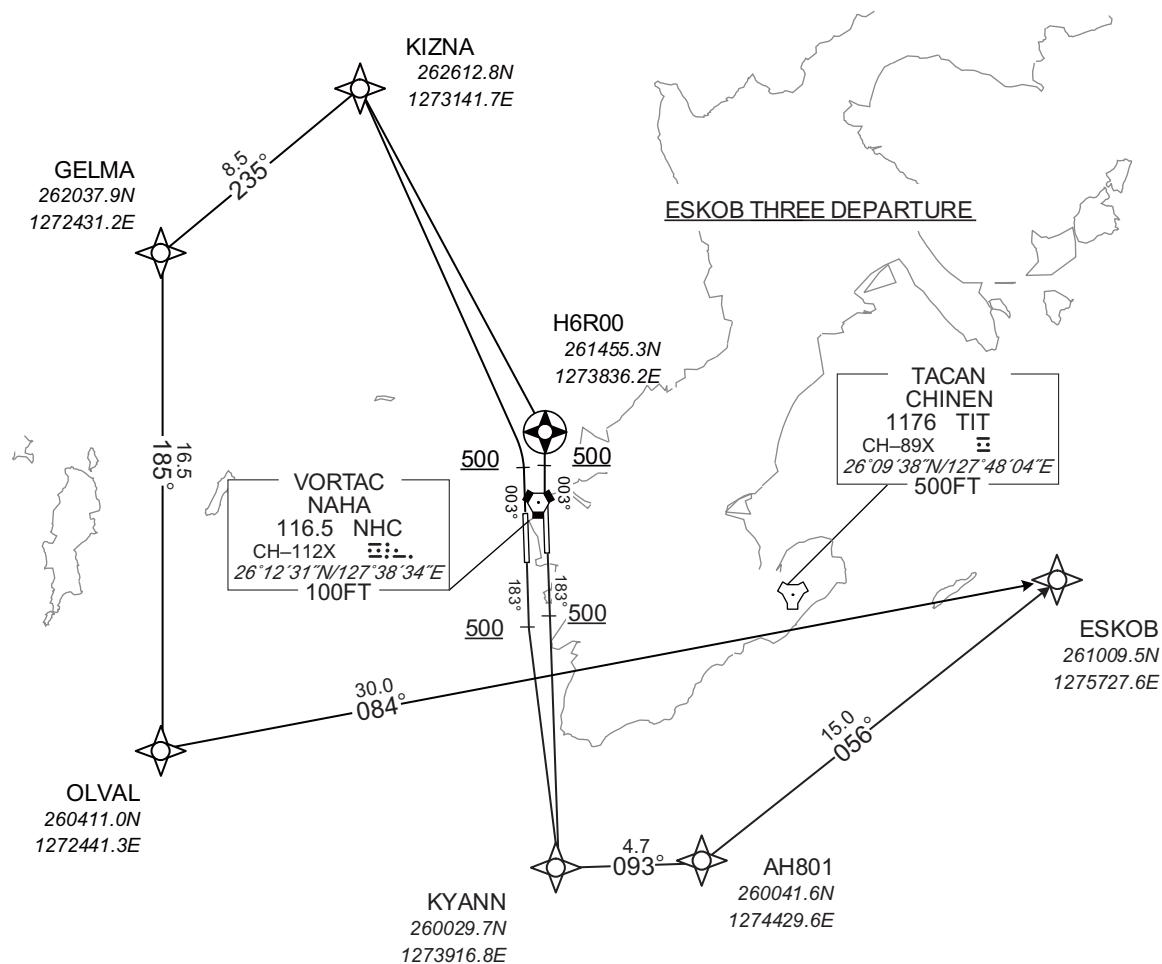
RNAV SID

ESKOB THREE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 6°W (2021)



CHANGE : PROC renamed. Navigation specification. Sensor for RNAV.

ESKOB THREE DEPARTURE

RWY18L : Climb on HDG183° at or above 500FT, direct to KYANN, to AH801, to ESKOB.

RWY18R : Climb on HDG183° at or above 500FT, direct to KYANN, to AH801, to ESKOB.

RWY36R : Climb on HDG003° at or above 500FT, direct to H6R00, turn left direct to KIZNA, to GELMA, to OLVAL, to ESKOB.

RWY36L : Climb on HDG003° at or above 500FT, turn left direct to KIZNA, to GELMA, to OLVAL, to ESKOB.

NOTE RWY36R/36L : 5.0% climb gradient required up tp 500FT.

STANDARD DEPARTURE CHART-INSTRUMENT

ROAH/NAHA

RNAV SID

ESKOB THREE DEPARTURE

RWY18L

| 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 | - | - | 183 (177.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | KYANN | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 003 | TF | AH801 | - | 093 (087.6) | -5.6 | 4.7 | - | - | - | - | Basic RNP1 |
| 004 | TF | ESKOB | - | 056 (050.9) | -5.6 | 15.0 | - | - | - | - | Basic RNP1 |

RWY18R

| 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 | - | - | 183 (177.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | KYANN | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 003 | TF | AH801 | - | 093 (087.6) | -5.6 | 4.7 | - | - | - | - | Basic RNP1 |
| 004 | TF | ESKOB | - | 056 (050.9) | -5.6 | 15.0 | - | - | - | - | Basic RNP1 |

RWY36R

| 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 | - | - | 003 (357.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | H6R00 | Y | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 003 | DF | KIZNA | - | - | -5.6 | - | L | - | - | - | Basic RNP1 |
| 004 | TF | GELMA | - | 235 (229.0) | -5.6 | 8.5 | - | - | - | - | Basic RNP1 |
| 005 | TF | OLVAL | - | 185 (179.5) | -5.6 | 16.5 | - | - | - | - | Basic RNP1 |
| 006 | TF | ESKOB | - | 084 (078.4) | -5.6 | 30.0 | - | - | - | - | Basic RNP1 |

RWY36L

| 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 | - | - | 003 (357.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | KIZNA | - | - | -5.6 | - | L | - | - | - | Basic RNP1 |
| 003 | TF | GELMA | - | 235 (229.0) | -5.6 | 8.5 | - | - | - | - | Basic RNP1 |
| 004 | TF | OLVAL | - | 185 (179.5) | -5.6 | 16.5 | - | - | - | - | Basic RNP1 |
| 005 | TF | ESKOB | - | 084 (078.4) | -5.6 | 30.0 | - | - | - | - | Basic RNP1 |

CHANGE : PROC renamed. Navigation specification.

STANDARD DEPARTURE CHART-INSTRUMENT

| ROAH/NAHA | RNAV TRANSITION |
|---|--|
| | AMAMI TRANSITION / CHERY TRANSITION / YANBARU TRANSITION |
| Note GNSS required. | |
| VAR 6°W (2021) | |
| <p>The map illustrates the RNAV transition routes. It shows the coastline of Okinawa and the location of ESKOB (26°10'09"N 127°57'27"E) at the southern tip. ADDAN (26°41'10"N 128°18'29"E) is located further north. The AMAMI TRANSITION route starts from ESKOB, passes through ADDAN, then follows a bearing of 031° to CHERY (26°55'56.4"N 128°39'18.1"E), and finally reaches AMAMI (28°26'37.2"N 129°35'02.6"E) via a bearing of 034°. The CHERY TRANSITION route starts from ESKOB, passes through ADDAN, then follows a bearing of 051° to CHERY. The YANBARU TRANSITION route starts from ESKOB, passes through ADDAN, then follows a bearing of 36.3° to TACAN CHINEN (26°09'38"N 127°48'04"E). Two boxes provide detailed coordinates for VORTAC NAHA (116.5 NHC, CH-112X, 26°12'31"N 127°38'34"E, 100FT) and TACAN CHINEN (1176 TIT, CH-89X, 26°09'38"N 127°48'04"E, 500FT).</p> | |
| CHANGE : Navigation specification. Sensor for RNAV. <p><u>AMAMI TRANSITION</u> From ESKOB, to ADDAN, to CHERY, to AMAMI.</p> <p><u>CHERY TRANSITION</u> From ESKOB, to ADDAN, to CHERY.</p> <p><u>YANBARU TRANSITION</u> From ESKOB, to ADDAN.</p> | |

STANDARD DEPARTURE CHART-INSTRUMENT

ROAH/NAHA

RNAV TRANSITION

| <u>AMAMI TRANSITION</u> | | | | | | | | | | | |
|-------------------------|-----------------|---------------------|----------|----------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 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 | ESKOB | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | ADDAN | - | 037 (031.2) | -5.6 | 36.3 | - | - | - | - | Basic RNP1 |
| 003 | TF | CHERY | - | 057 (051.4) | -5.6 | 23.7 | - | - | - | - | Basic RNP1 |
| 004 | TF | AMAMI | - | 034 (028.3) | -5.6 | 103.3 | - | - | - | - | Basic RNP1 |

CHERY 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 | ESKOB | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | ADDAN | - | 037 (031.2) | -5.6 | 36.3 | - | - | - | - | Basic RNP1 |
| 003 | TF | CHERY | - | 057 (051.4) | -5.6 | 23.7 | - | - | - | - | Basic RNP1 |

YANBARU 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 | ESKOB | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | ADDAN | - | 037 (031.2) | -5.6 | 36.3 | - | - | - | - | Basic RNP1 |

CHANGE : Navigation specification.

STANDARD DEPARTURE CHART-INSTRUMENT

CHANGE : PROC renamed (KIZNA TWO DEPARTURE). Navigation specification. Sensor for RNAV.

| ROAH/NAHA | RNAV SID and TRANSITION |
|----------------------------|---|
| | KIZNA TWO DEPARTURE RESORT TRANSITION |
| Note GNSS required. | Basic RNP1 |
| VAR 6°W (2021) | |
| | <p>The map illustrates the RNAV SID and TRANSITION routes. It shows the location of VORTAC NAHA (116.5 NHC, CH-112X, 26°12'31"N/127°38'34"E) and TACAN CHINEN (CH-89X, 26°09'38"N/127°48'04"E). The KIZNA TWO DEPARTURE route starts at KIZNA (262612.8N, 1273141.7E) and heads towards H6R00 (261455.3N, 1273836.2E). The RESORT TRANSITION route starts at KIZNA and heads towards OKUMA (264017.0N, 1280219.1E). Both routes involve climbing to 500FT and turning left to the destination. The map also shows the coastline and various islands of Okinawa.</p> |
| <u>KIZNA TWO DEPARTURE</u> | <p><u>KIZNA TWO DEPARTURE</u></p> <p>RWY18L/18R: (Not established)</p> <p>RWY36R : Climb on HDG003° at or above 500FT, direct to H6R00, turn left direct to KIZNA .</p> <p>RWY36L : Climb on HDG003° at or above 500FT, turn left direct to KIZNA .</p> <p>NOTE RWY36R/36L: 5.0% climb gradient required up to 500FT.</p> |
| <u>RESORT TRANSITION</u> | <p><u>RESORT TRANSITION</u></p> <p>From KIZNA, to OKUMA.</p> |

STANDARD DEPARTURE CHART-INSTRUMENT

ROAH/NAHA

RNAV SID and TRANSITION

KIZNA TWO DEPARTURE

RWY36R

| 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 | - | - | 003 (357.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | H6R00 | Y | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 003 | DF | KIZNA | - | - | -5.6 | - | L | - | - | - | Basic RNP1 |

RWY36L

| 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 | - | - | 003 (357.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | KIZNA | - | - | -5.6 | - | L | - | - | - | Basic RNP1 |

RESORT 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 | KIZNA | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | OKUMA | - | 068 (062.7) | -5.6 | 30.8 | - | - | - | - | Basic RNP1 |

CHANGE : PROC renamed (KIZNA TWO DEPARTURE). Navigation specification.

STANDARD DEPARTURE CHART-INSTRUMENT

ROAH/NAHA

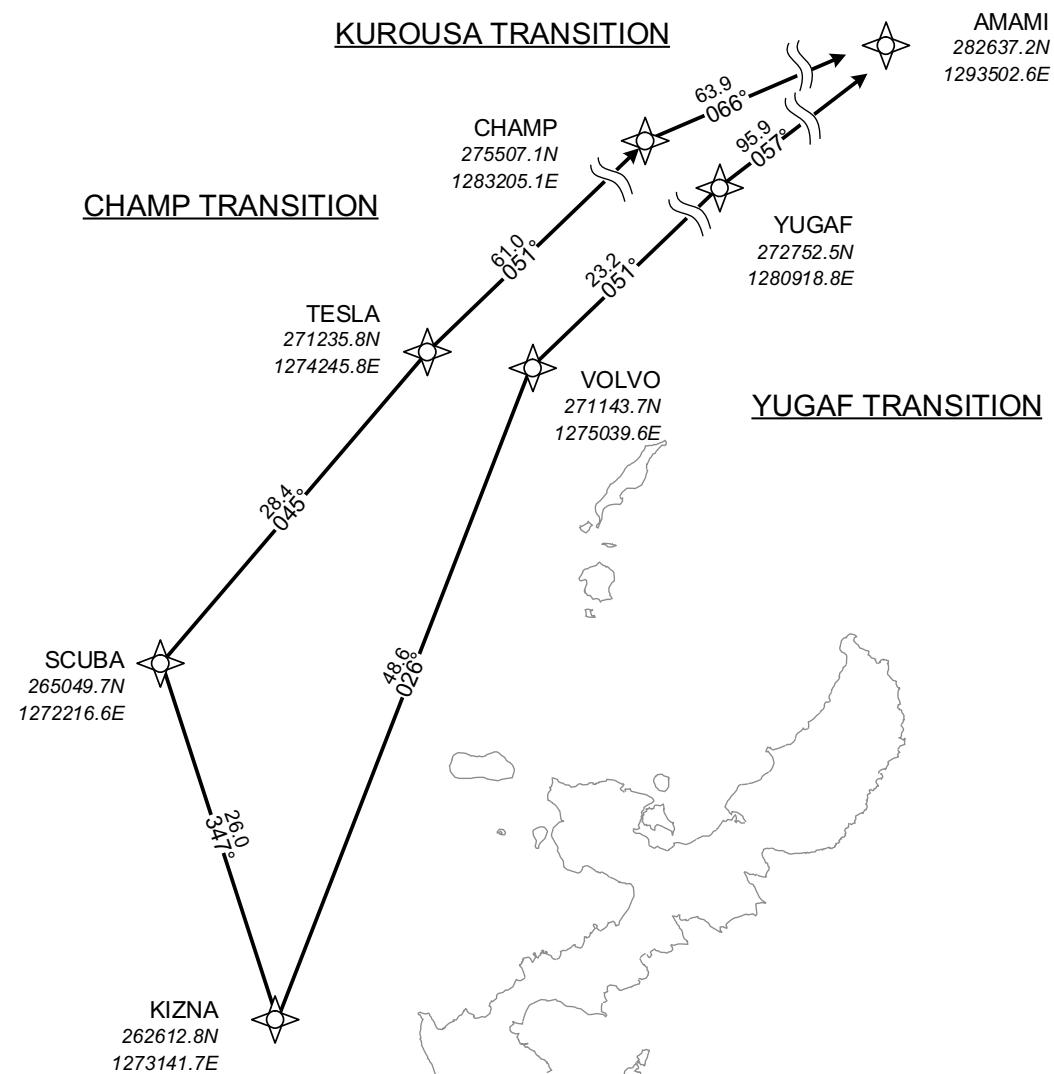
RNAV TRANSITION

KUROUSA TRANSITION
CHAMP TRANSITION
YUGAF TRANSITION

Basic RNP1

Note GNSS required.

VAR 6°W (2021)



CHANGE : Navigation specification. Sensor for RNAV.

KUROUSA TRANSITION

From KIZNA, to SCUBA, to TESLA, to CHAMP, to AMAMI.

CHAMP TRANSITION

From KIZNA, to SCUBA, to TESLA, to CHAMP.

YUGAF TRANSITION

From KIZNA, to VOLVO, to YUGAF, to AMAMI.

STANDARD DEPARTURE CHART-INSTRUMENT

ROAH/NAHA

RNAV TRANSITION

KUROUSA 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 | KIZNA | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | SCUBA | - | 347 (341.2) | -5.6 | 26.0 | - | - | - | - | Basic RNP1 |
| 003 | TF | TESLA | - | 045 (039.9) | -5.6 | 28.4 | - | - | - | - | Basic RNP1 |
| 004 | TF | CHAMP | - | 051 (045.6) | -5.6 | 61.0 | - | - | - | - | Basic RNP1 |
| 005 | TF | AMAMI | - | 066 (060.2) | -5.6 | 63.9 | - | - | - | - | Basic RNP1 |

CHAMP 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 | KIZNA | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | SCUBA | - | 347 (341.2) | -5.6 | 26.0 | - | - | - | - | Basic RNP1 |
| 003 | TF | TESLA | - | 045 (039.9) | -5.6 | 28.4 | - | - | - | - | Basic RNP1 |
| 004 | TF | CHAMP | - | 051 (045.6) | -5.6 | 61.0 | - | - | - | - | Basic RNP1 |

YUGAF 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 | KIZNA | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | VOLVO | - | 026 (020.3) | -5.6 | 48.6 | - | - | - | - | Basic RNP1 |
| 003 | TF | YUGAF | - | 051 (045.7) | -5.6 | 23.2 | - | - | - | - | Basic RNP1 |
| 004 | TF | AMAMI | - | 057 (051.9) | -5.6 | 95.9 | - | - | - | - | Basic RNP1 |

CHANGE : Navigation specification.

STANDARD DEPARTURE CHART-INSTRUMENT

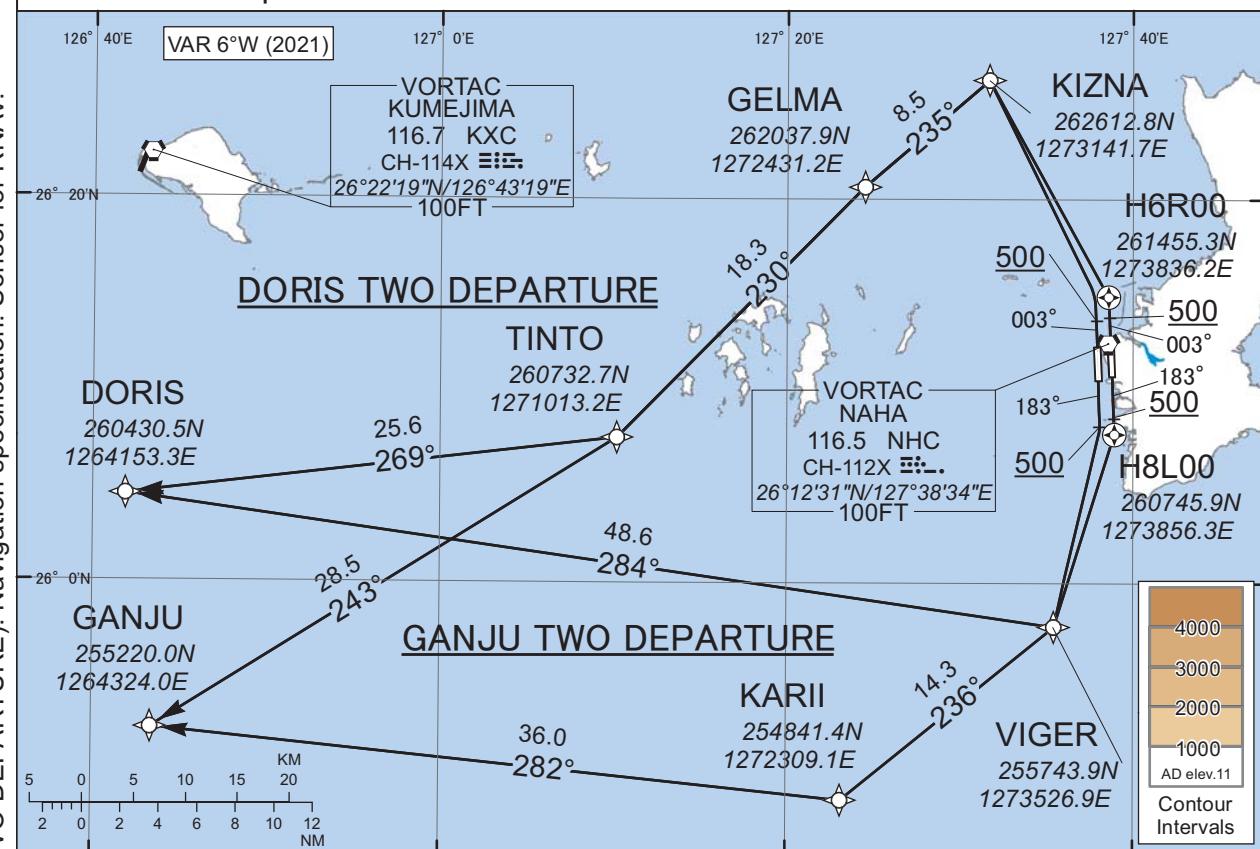
ROAH / NAHA

RNAV SID

DORIS TWO DEPARTURE / GANJU TWO DEPARTURE

Basic RNP1

Note GNSS required.



CHANGE : PROC renamed(DORIS TWO DEPARTURE, GANJU TWO DEPARTURE). Navigation specification. Sensor for RNAV.

DORIS TWO DEPARTURE

RWY18L : Climb on HDG183° at or above 500FT, direct to H8L00, turn right direct to VIGER, to DORIS.

RWY18R : Climb on HDG183° at or above 500FT, turn right direct to VIGER, to DORIS.

RWY36R : Climb on HDG003° at or above 500FT, direct to H6R00, turn left direct to KIZNA, to GELMA, to TINTO, to DORIS.

RWY36L : Climb on HDG003° at or above 500FT, turn left direct to KIZNA, to GELMA, to TINTO, to DORIS.

Note RWY36R/36L : 5.0% climb gradient required up to 500FT.

GANJU TWO DEPARTURE

RWY18L : Climb on HDG183° at or above 500FT, direct to H8L00, turn right direct to VIGER, to KARII, to GANJU.

RWY18R : Climb on HDG183° at or above 500FT, turn right direct to VIGER, to KARII, to GANJU.

RWY36R : Climb on HDG003° at or above 500FT, direct to H6R00, turn left direct to KIZNA, to GELMA, to TINTO, to GANJU.

RWY36L : Climb on HDG003° at or above 500FT, turn left direct to KIZNA, to GELMA, to TINTO, to GANJU.

Note RWY36R/36L : 5.0% climb gradient required up to 500FT.

STANDARD DEPARTURE CHART-INSTRUMENT

ROAH / NAHA

RNAV SID

DORIS TWO DEPARTURE

RWY18L

| 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 | - | - | 183 (177.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | H8L00 | Y | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 003 | DF | VIGER | - | - | -5.6 | - | R | - | - | - | Basic RNP1 |
| 004 | TF | DORIS | - | 284 (278.2) | -5.6 | 48.6 | - | - | - | - | Basic RNP1 |

RWY18R

| 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 | - | - | 183 (177.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | VIGER | - | - | -5.6 | - | R | - | - | - | Basic RNP1 |
| 003 | TF | DORIS | - | 284 (278.2) | -5.6 | 48.6 | - | - | - | - | Basic RNP1 |

RWY36R

| 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 | - | - | 003 (357.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | H6R00 | Y | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 003 | DF | KIZNA | - | - | -5.6 | - | L | - | - | - | Basic RNP1 |
| 004 | TF | GELMA | - | 235 (229.0) | -5.6 | 8.5 | - | - | - | - | Basic RNP1 |
| 005 | TF | TINTO | - | 230 (224.5) | -5.6 | 18.3 | - | - | - | - | Basic RNP1 |
| 006 | TF | DORIS | - | 269 (263.3) | -5.6 | 25.6 | - | - | - | - | Basic RNP1 |

RWY36L

| 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 | - | - | 003 (357.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | KIZNA | - | - | -5.6 | - | L | - | - | - | Basic RNP1 |
| 003 | TF | GELMA | - | 235 (229.0) | -5.6 | 8.5 | - | - | - | - | Basic RNP1 |
| 004 | TF | TINTO | - | 230 (224.5) | -5.6 | 18.3 | - | - | - | - | Basic RNP1 |
| 005 | TF | DORIS | - | 269 (263.3) | -5.6 | 25.6 | - | - | - | - | Basic RNP1 |

CHANGE : PROC renamed. Navigation specification.

STANDARD DEPARTURE CHART-INSTRUMENT

ROAH / NAHA

RNAV SID

GANJU TWO DEPARTURE

RWY18L

| 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 | - | - | 183 (177.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | H8L00 | Y | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 003 | DF | VIGER | - | - | -5.6 | - | R | - | - | - | Basic RNP1 |
| 004 | TF | KARII | - | 236 (230.8) | -5.6 | 14.3 | - | - | - | - | Basic RNP1 |
| 005 | TF | GANJU | - | 282 (276.0) | -5.6 | 36.0 | - | - | - | - | Basic RNP1 |

RWY18R

| 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 | - | - | 183 (177.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | VIGER | - | - | -5.6 | - | R | - | - | - | Basic RNP1 |
| 003 | TF | KARII | - | 236 (230.8) | -5.6 | 14.3 | - | - | - | - | Basic RNP1 |
| 004 | TF | GANJU | - | 282 (276.0) | -5.6 | 36.0 | - | - | - | - | Basic RNP1 |

RWY36R

| 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 | - | - | 003 (357.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | H6R00 | Y | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 003 | DF | KIZNA | - | - | -5.6 | - | L | - | - | - | Basic RNP1 |
| 004 | TF | GELMA | - | 235 (229.0) | -5.6 | 8.5 | - | - | - | - | Basic RNP1 |
| 005 | TF | TINTO | - | 230 (224.5) | -5.6 | 18.3 | - | - | - | - | Basic RNP1 |
| 006 | TF | GANJU | - | 243 (237.8) | -5.6 | 28.5 | - | - | - | - | Basic RNP1 |

RWY36L

| 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 | - | - | 003 (357.6) | -5.6 | - | - | +500 | - | - | Basic RNP1 |
| 002 | DF | KIZNA | - | - | -5.6 | - | L | - | - | - | Basic RNP1 |
| 003 | TF | GELMA | - | 235 (229.0) | -5.6 | 8.5 | - | - | - | - | Basic RNP1 |
| 004 | TF | TINTO | - | 230 (224.5) | -5.6 | 18.3 | - | - | - | - | Basic RNP1 |
| 005 | TF | GANJU | - | 243 (237.8) | -5.6 | 28.5 | - | - | - | - | Basic RNP1 |

CHANGE : PROC renamed. Navigation specification.

STANDARD ARRIVAL CHART-INSTRUMENT

ROAH/NAHA

STAR

SCUBA ARRIVAL

From over SCUBA, via NHC R344 to 28.1 DME, turn right to intercept and proceed via NHC R341 to EISAR.

Cross NHC R344/28.1DME at or above 3000FT, cross EISAR at or above 2000FT.

LAVON ARRIVAL

From over LAVON, via NHC 15.0DME counterclockwise ARC to VIGER.

Cross VIGER at or above 2000FT.

(When using NHC TACAN only)

From over LAVON at or above 5000FT, via NHC 15.0DME counterclockwise ARC to VIGER.

Cross VIGER at or above 4400FT.

LAFTY ARRIVAL

From over LAFTY, via NHC R196 to VIGER.

Cross VIGER at or above 2000FT.

(When using NHC TACAN only)

From over LAFTY, via NHC R196 to VIGER.

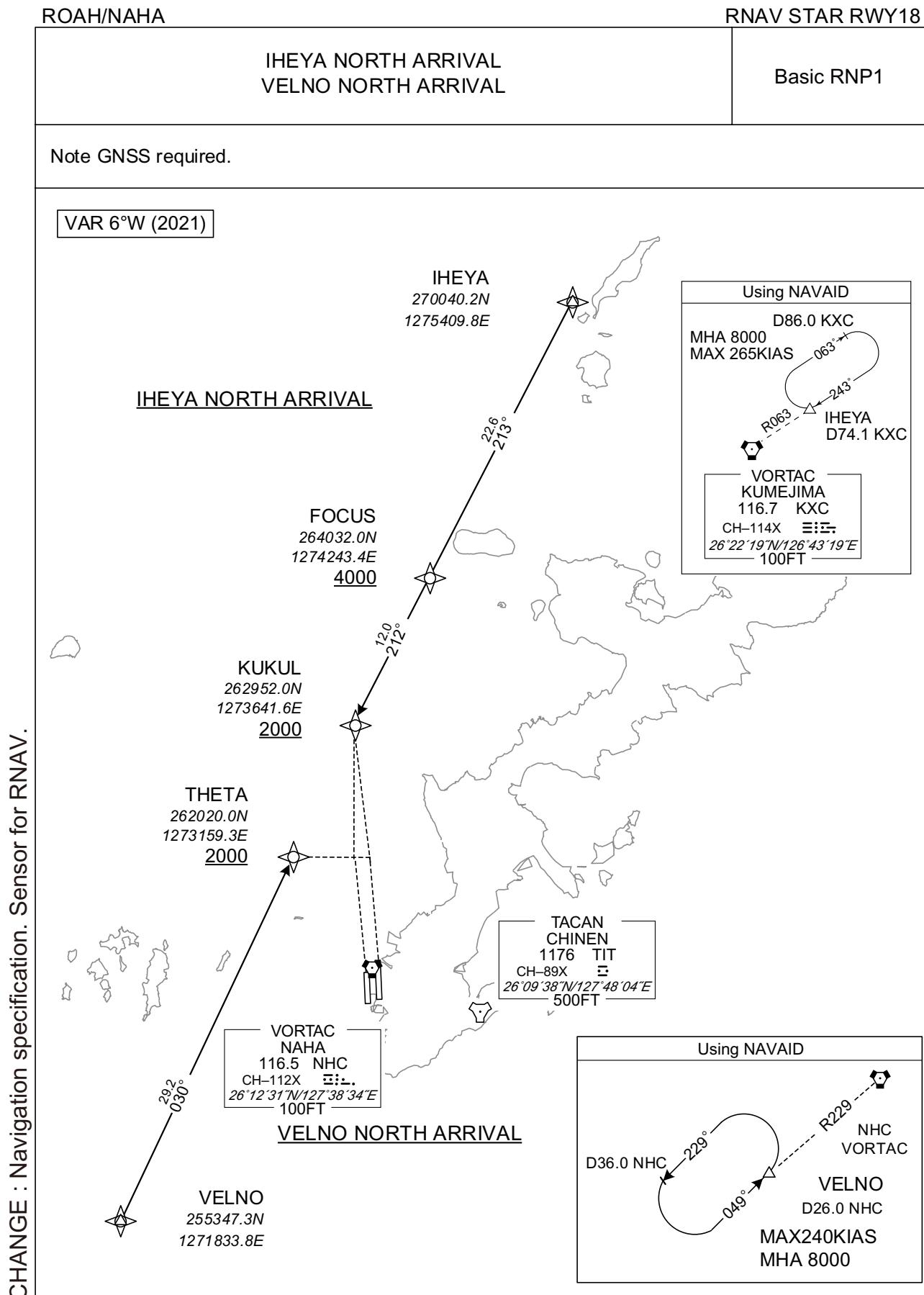
Cross VIGER at or above 4400FT.

CHANGE: New PROC

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT



CHANGE : Navigation specification. Sensor for RNAV.

STANDARD ARRIVAL CHART-INSTRUMENT

ROAH / NAHA

RNAV STAR RWY18

IHEYA NORTH ARRIVAL

From IHEYA, to FOCUS at or above 4000FT, to KUKUL at or above 2000FT.

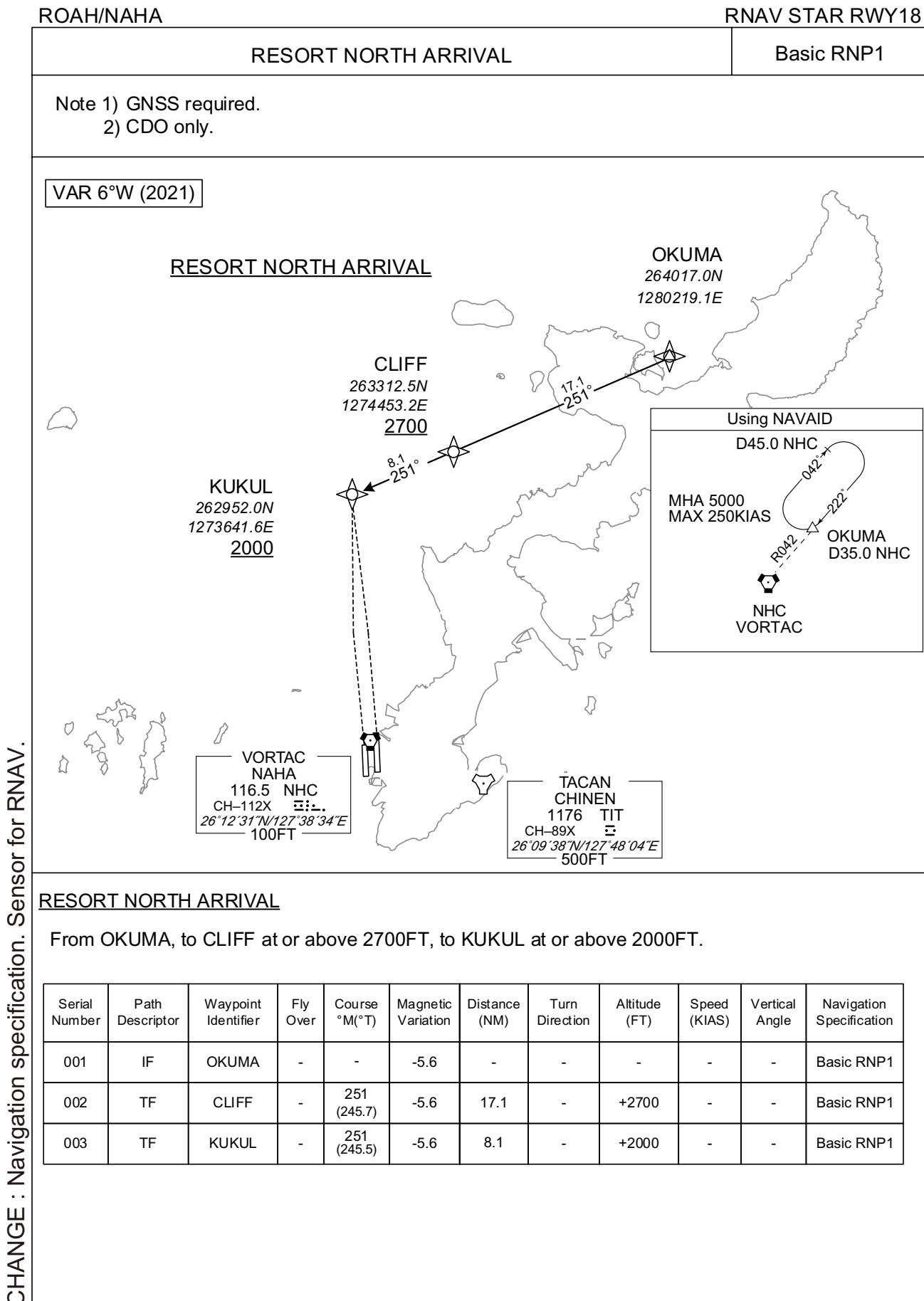
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | IF | IHEYA | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | FOCUS | - | 213 (206.9) | -5.6 | 22.6 | - | +4000 | - | - | Basic RNP1 |
| 003 | TF | KUKUL | - | 212 (206.8) | -5.6 | 12.0 | - | +2000 | - | - | Basic RNP1 |

VELNO NORTH ARRIVAL

From VELNO, to THETA at or above 2000FT.

| 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 | VELNO | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | THETA | - | 030 (024.4) | -5.6 | 29.2 | - | +2000 | - | - | Basic RNP1 |

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

ROAH/NAHA

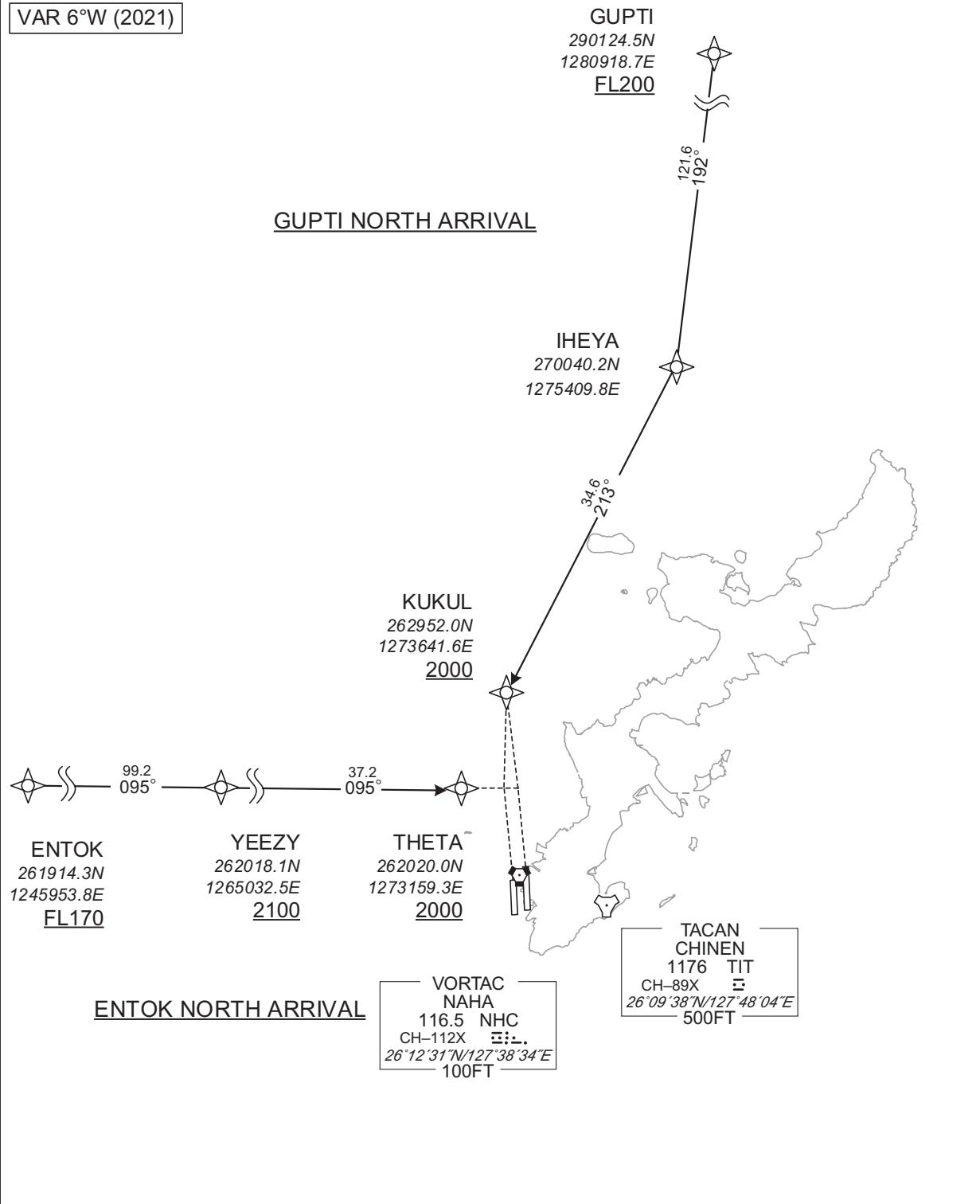
RNAV STAR RWY18

GUPTI NORTH ARRIVAL
ENTOK NORTH ARRIVAL

Basic RNP1

Note 1) GNSS required. 2) CDO only.

VAR 6°W (2021)



STANDARD ARRIVAL CHART-INSTRUMENT

ROAH / NAHA

RNAV STAR RWY18

GUPTI NORTH ARRIVAL

From GUPTI at or above FL200, to IHEYA, to KUKUL at or above 2000FT.

| 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 | GUPTI | - | - | -5.6 | - | - | +FL200 | - | - | Basic RNP1 |
| 002 | TF | IHEYA | - | 192 (186.4) | -5.6 | 121.6 | - | - | - | - | Basic RNP1 |
| 003 | TF | KUKUL | - | 213 (206.9) | -5.6 | 34.6 | - | +2000 | - | - | Basic RNP1 |

ENTOK NORTH ARRIVAL

From ENTOK at or above FL170, to YEEZY at or above 2100FT, to THETA at or above 2000FT.

| 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 | ENTOK | - | - | -5.6 | - | - | +FL170 | - | - | Basic RNP1 |
| 002 | TF | YEEZY | - | 095 (089.0) | -5.6 | 99.2 | - | +2100 | - | - | Basic RNP1 |
| 003 | TF | THETA | - | 095 (089.8) | -5.6 | 37.2 | - | +2000 | - | - | Basic RNP1 |

CHANGE: VAR. PROC course.

STANDARD ARRIVAL CHART-INSTRUMENT

ROAH/NAHA

RNAV STAR RWY36

IHEYA SOUTH ARRIVAL
VELNO SOUTH ARRIVAL

Basic RNP1

Note GNSS required.

VAR 6°W (2021)

IHEYA
270040.2N
1275409.8E

Using NAVAID

D86.0 KXC
MHA 8000
MAX 265KIAS
R063 063°
IHEYA D74.1 KXC
243°VORTAC
KUMEJIMA
116.7 KXC
CH-114X
26°22'19"N/126°43'19"E
100FTIHEYA SOUTH ARRIVAL37.1°
184°

Using NAVAID

D36.0 NHC 229°
R229 049° NHC VORTAC

VELNO D26.0 NHC
MAX240KIAS
MHA 8000

HASSA
262334.1N
1275516.0E
11000

VORTAC
NAHA
116.5 NHC
CH-112X
26°12'31"N/127°38'34"E
100FT

TACAN
CHINEN
1176 TIT
CH-89X
26°09'38"N/127°48'04"E
500FT

VELNO SOUTH ARRIVALSEIFA
260303.9N
1274448.5E
2000

VELNO
255347.3N
1271833.8E
15.7°
081°

VIGER
255743.9N
1273526.9E
2000

CHANGE : Navigation specification. Sensor for RNAV.

STANDARD ARRIVAL CHART-INSTRUMENT

ROAH / NAHA

RNAV STAR RWY36

IHEYA SOUTH ARRIVAL

From IHEYA, to HASSA at or above 11000FT , to SEIFA at or above 2000FT.

| 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 | IHEYA | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | HASSA | - | 184 (178.5) | -5.6 | 37.1 | - | +11000 | - | - | Basic RNP1 |
| 003 | TF | SEIFA | - | 210 (204.6) | -5.6 | 22.6 | - | +2000 | - | - | Basic RNP1 |

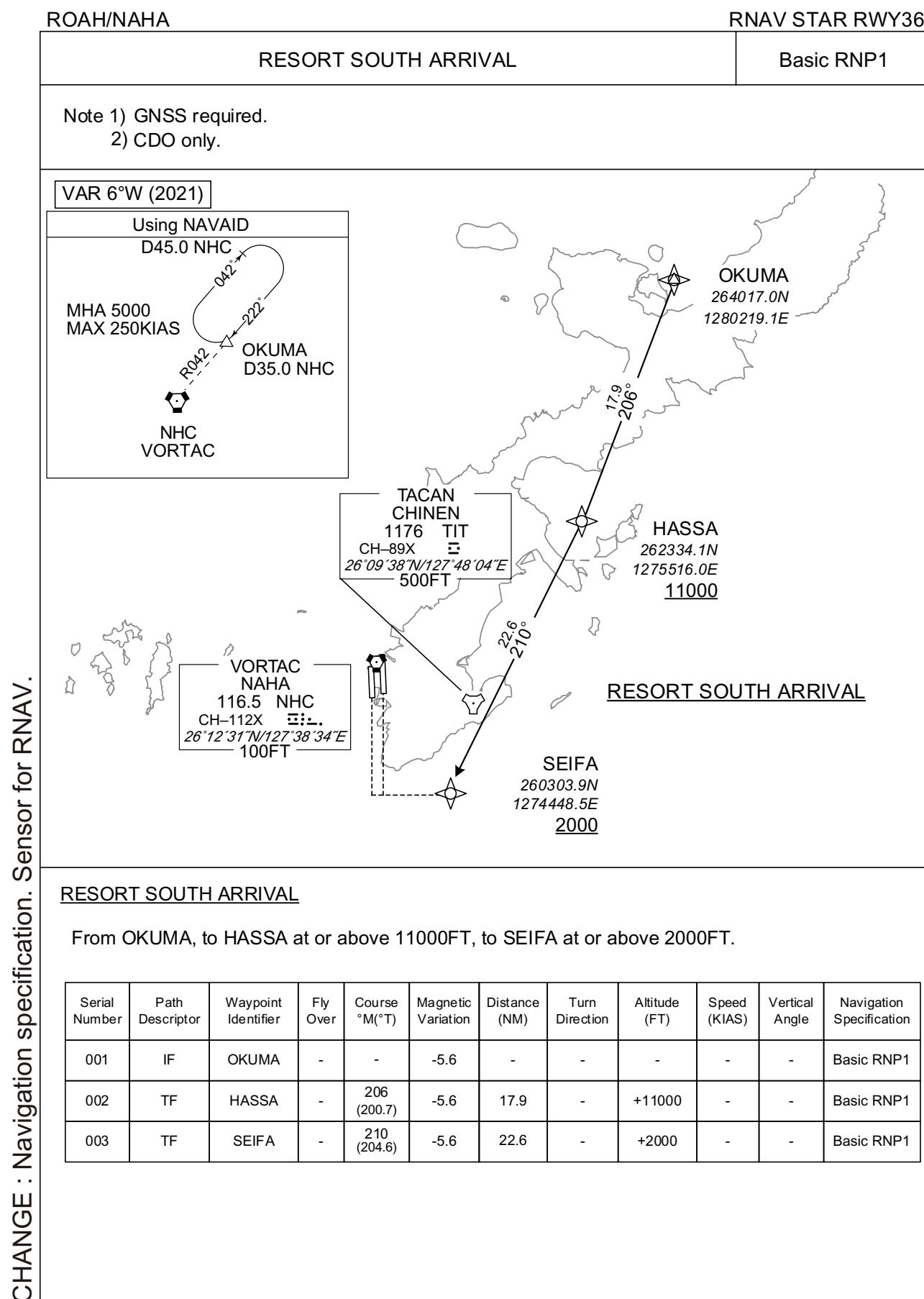
VELNO SOUTH ARRIVAL

From VELNO, to VIGER at or above 2000FT.

| 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 | VELNO | - | - | -5.6 | - | - | - | - | - | Basic RNP1 |
| 002 | TF | VIGER | - | 081 (075.4) | -5.6 | 15.7 | - | +2000 | - | - | Basic RNP1 |

CHANGE : Navigation specification. Sensor for RNAV.

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

ROAH/NAHA

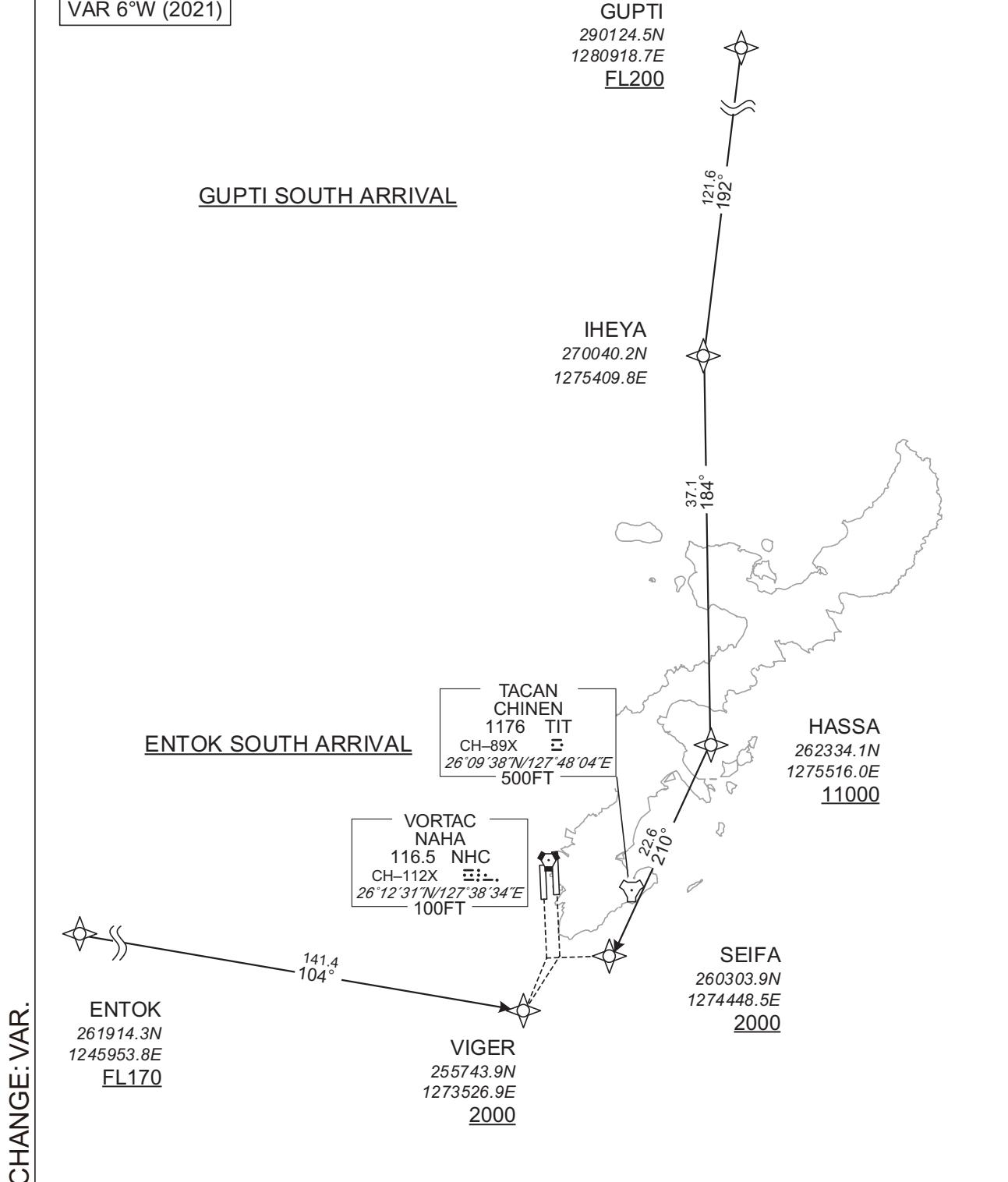
RNAV STAR RWY36

GUPTI SOUTH ARRIVAL
ENTOK SOUTH ARRIVAL

Basic RNP1

Note 1) GNSS required. 2) CDO only.

VAR 6°W (2021)



STANDARD ARRIVAL CHART-INSTRUMENT

ROAH / NAHA

RNAV STAR RWY36

GUPTI SOUTH ARRIVAL

From GUPTI at or above FL200, to IHEYA, to HASSA at or above 11000FT, to SEIFA at or above 2000FT.

| 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 | GUPTI | - | - | -5.6 | - | - | +FL200 | - | - | Basic RNP1 |
| 002 | TF | IHEYA | - | 192 (186.4) | -5.6 | 121.6 | - | - | - | - | Basic RNP1 |
| 003 | TF | HASSA | - | 184 (178.5) | -5.6 | 37.1 | - | +11000 | - | - | Basic RNP1 |
| 004 | TF | SEIFA | - | 210 (204.6) | -5.6 | 22.6 | - | +2000 | - | - | Basic RNP1 |

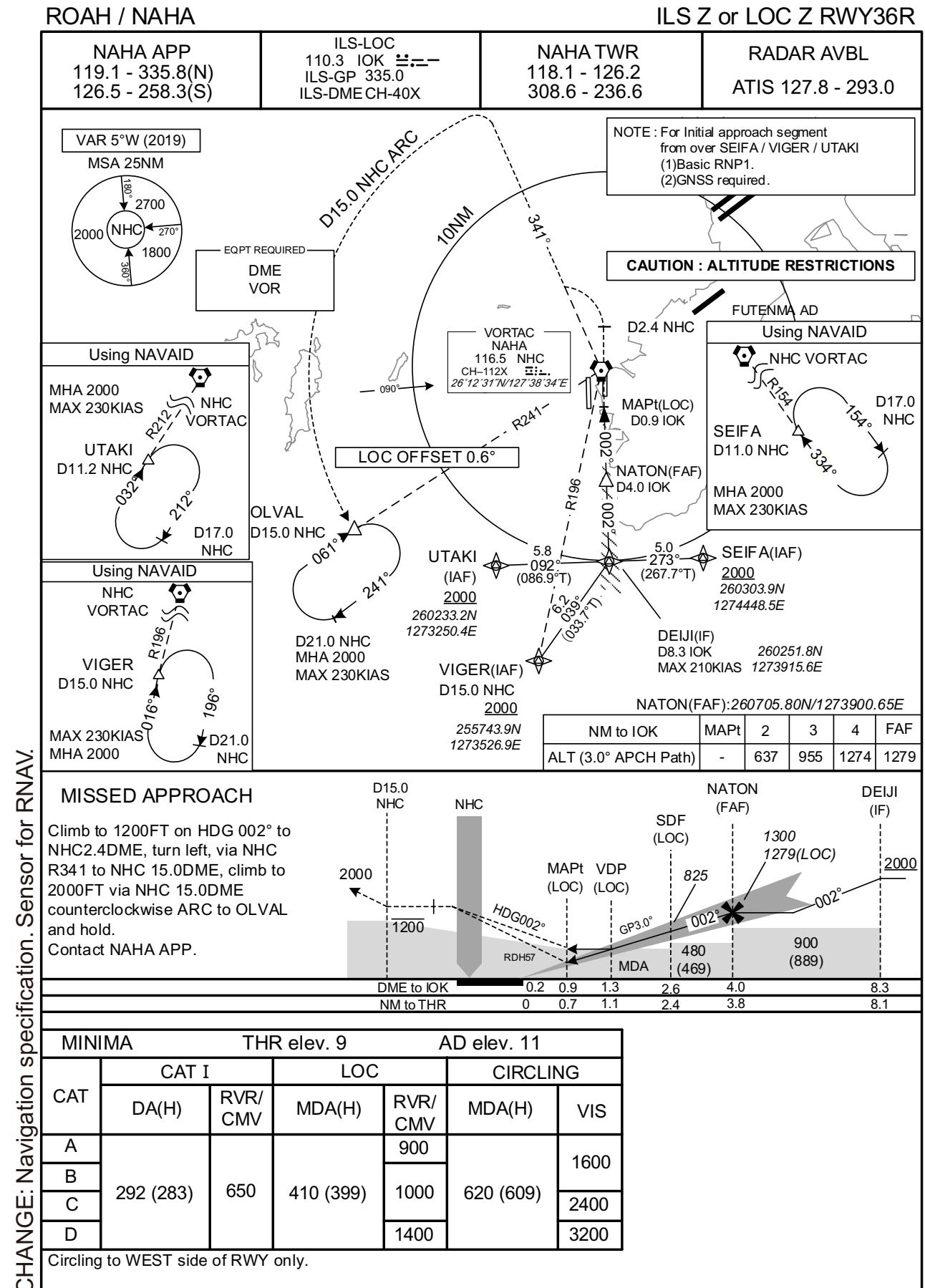
ENTOK SOUTH ARRIVAL

From ENTOK at or above FL170, to VIGER at or above 2000FT.

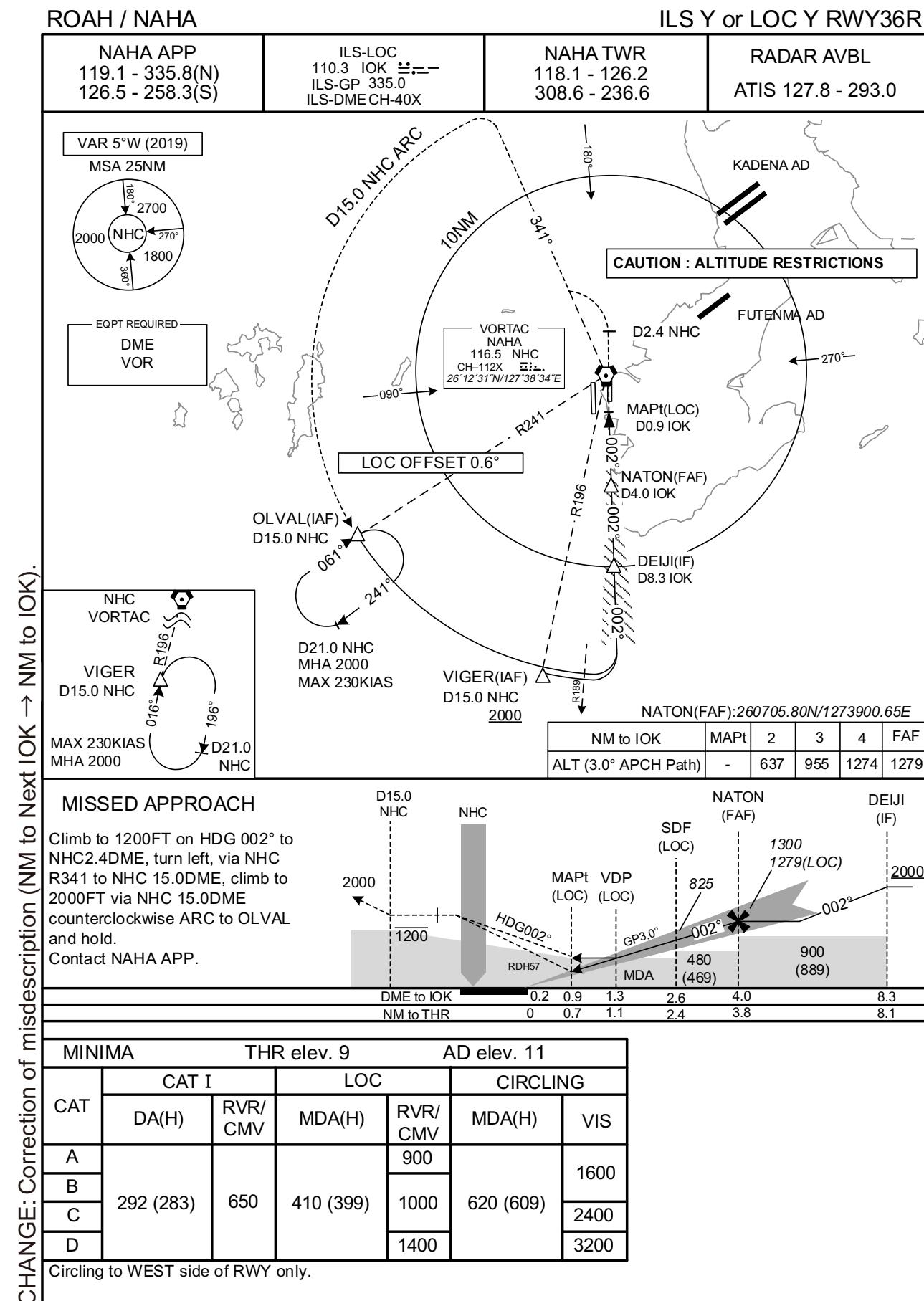
| Serial Number | Path Descriptor | Waypoint Identifier | Fly Over | Course °M(°T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KIAS) | Vertical Angle | Navigation Specification |
|---------------|-----------------|---------------------|----------|---------------|--------------------|---------------|----------------|---------------|--------------|----------------|--------------------------|
| 001 | IF | ENTOK | - | - | -5.6 | - | - | +FL170 | - | - | Basic RNP1 |
| 002 | TF | VIGER | - | 104 (098.2) | -5.6 | 141.4 | - | +2000 | - | - | Basic RNP1 |

CHANGE: VAR.

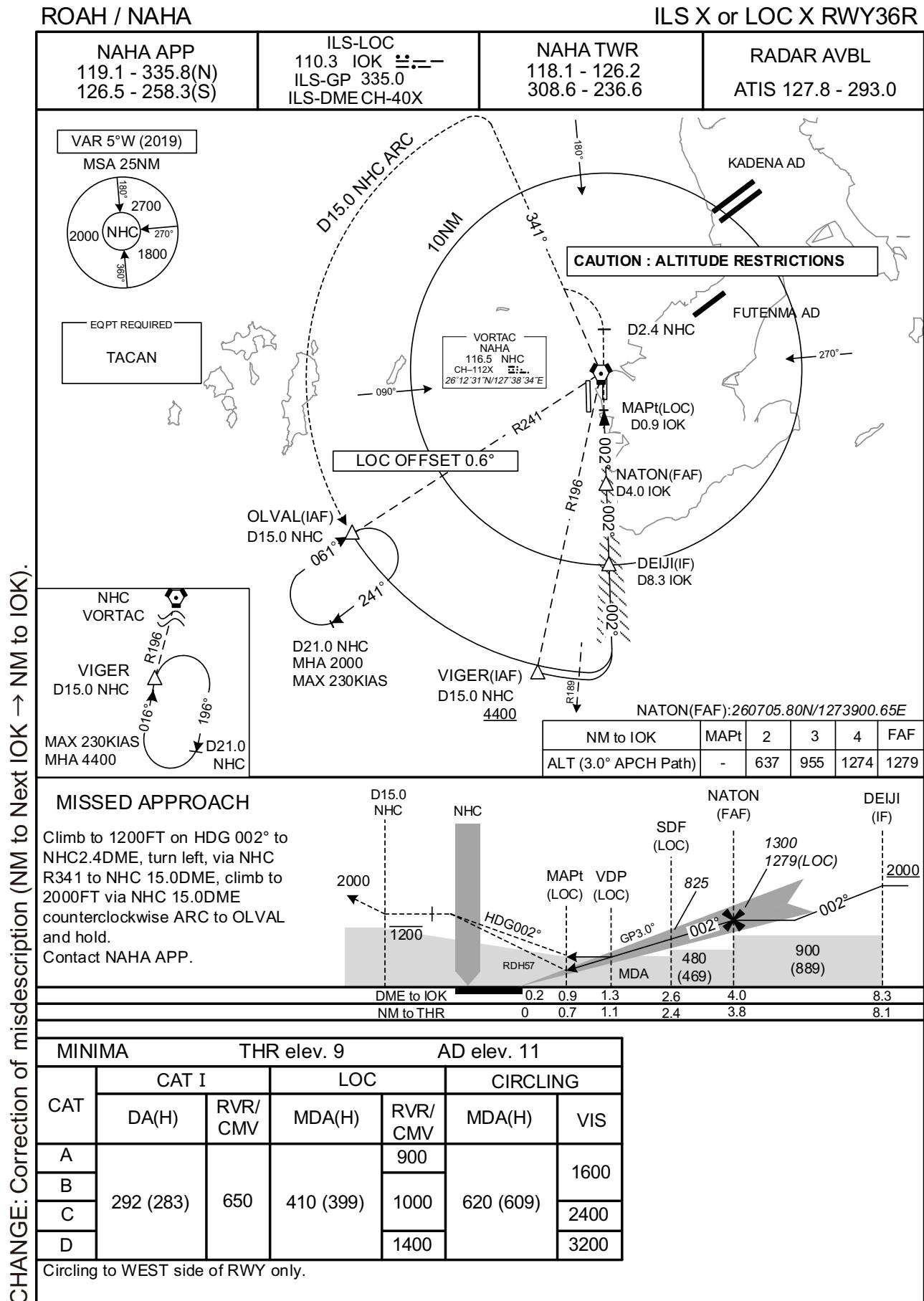
INSTRUMENT APPROACH CHART



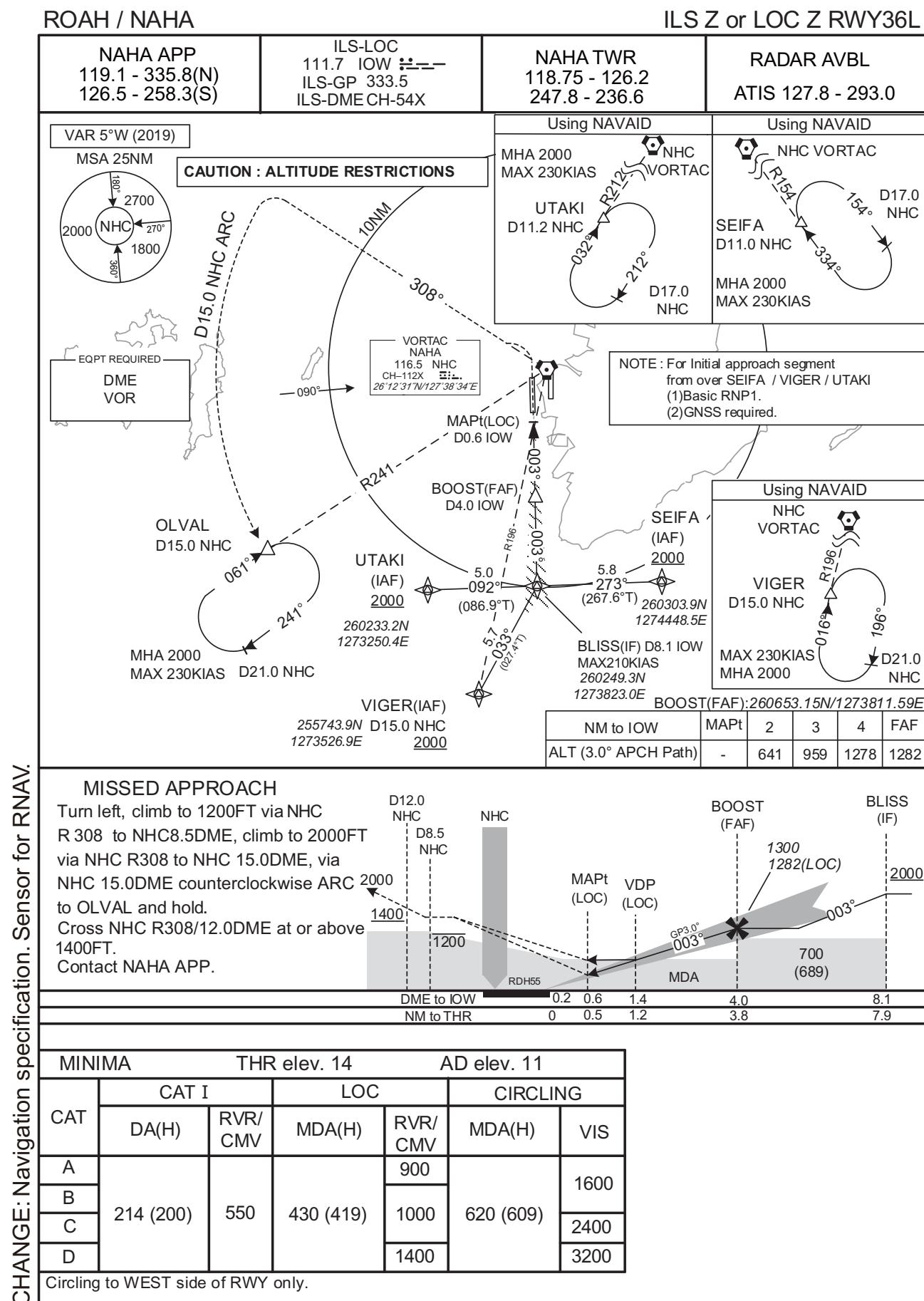
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

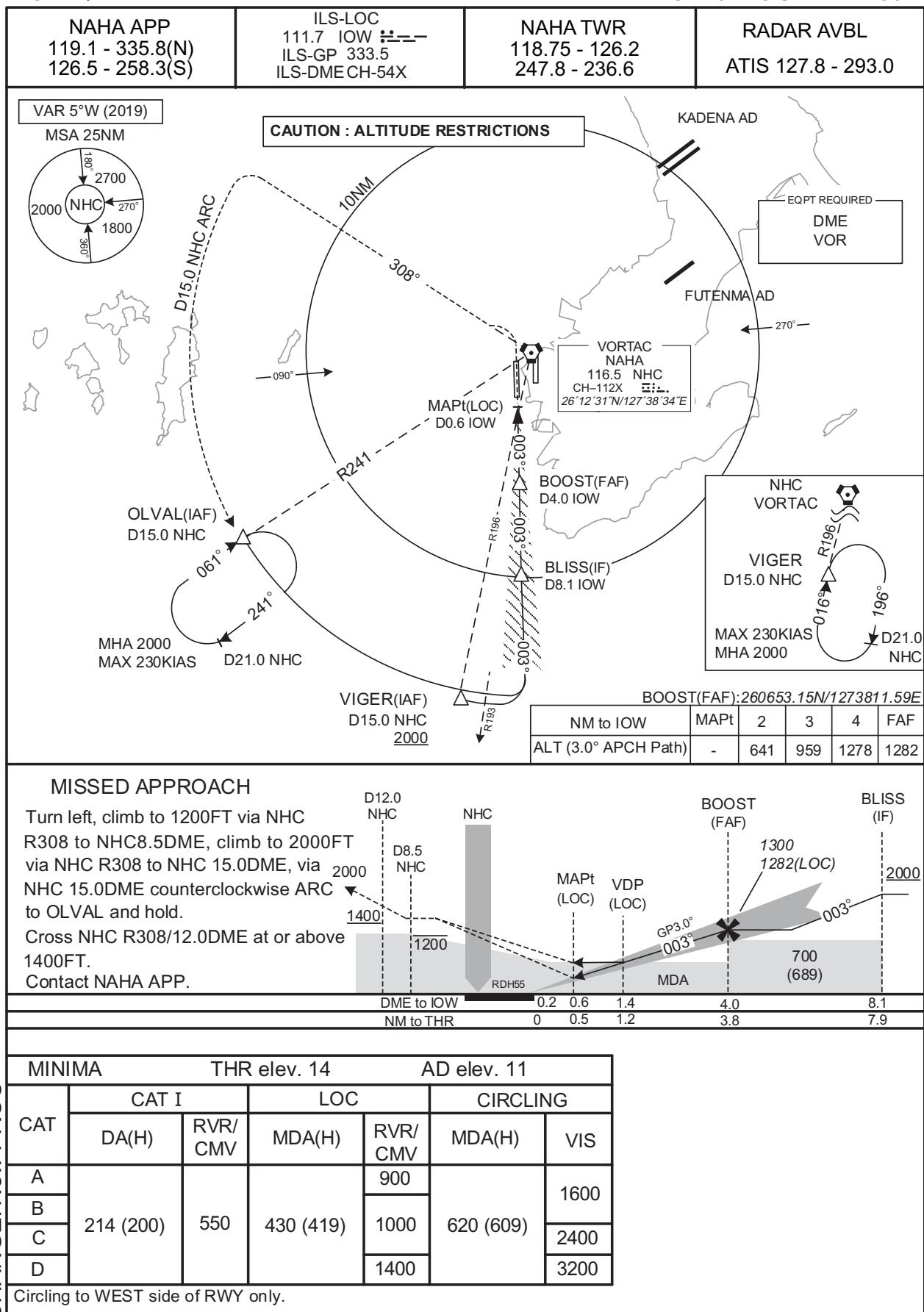


CHANGE: Navigation specification, Sensor for RNAV.

INSTRUMENT APPROACH CHART

ROAH / NAHA

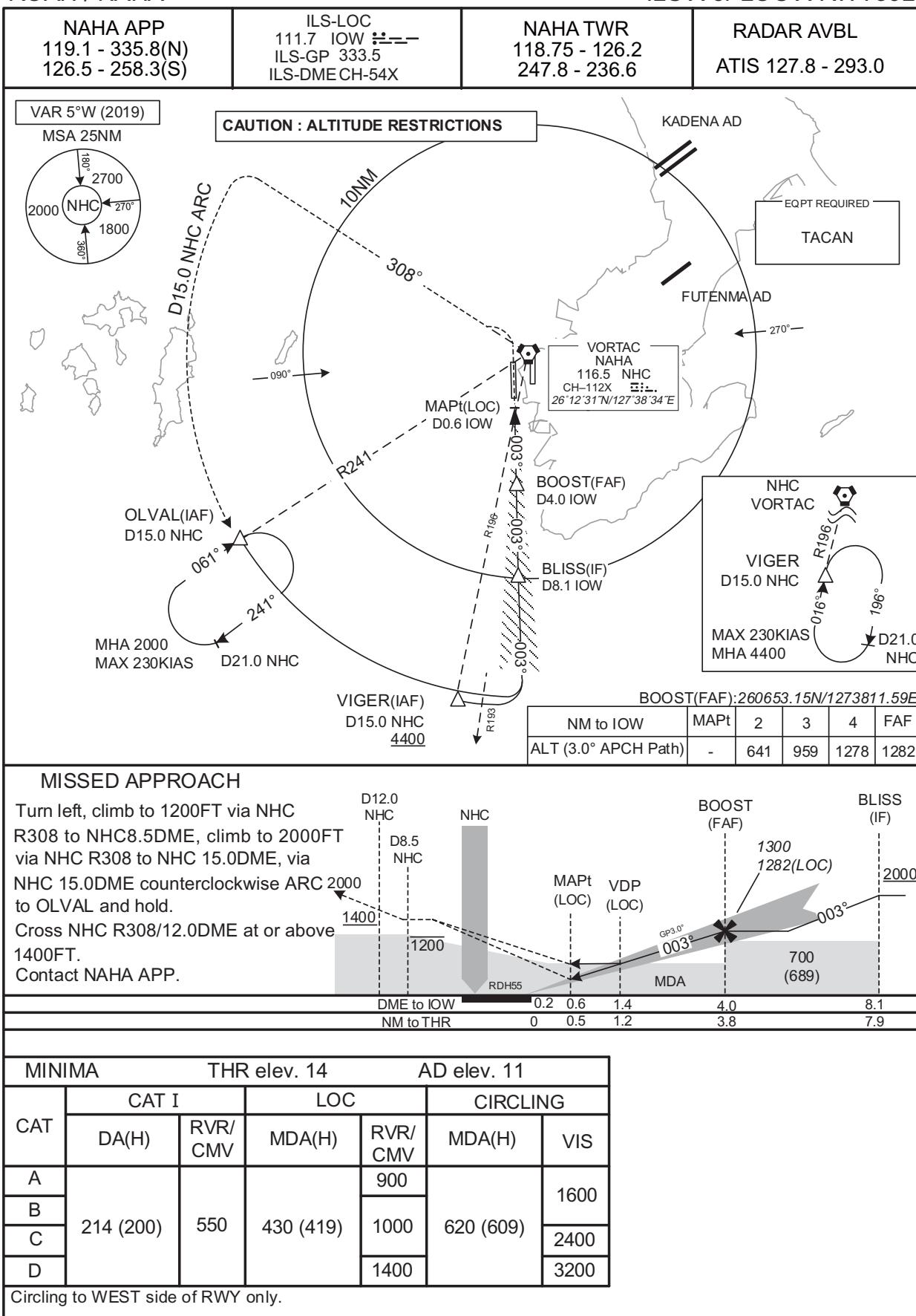
ILS Y or LOC Y RWY36L



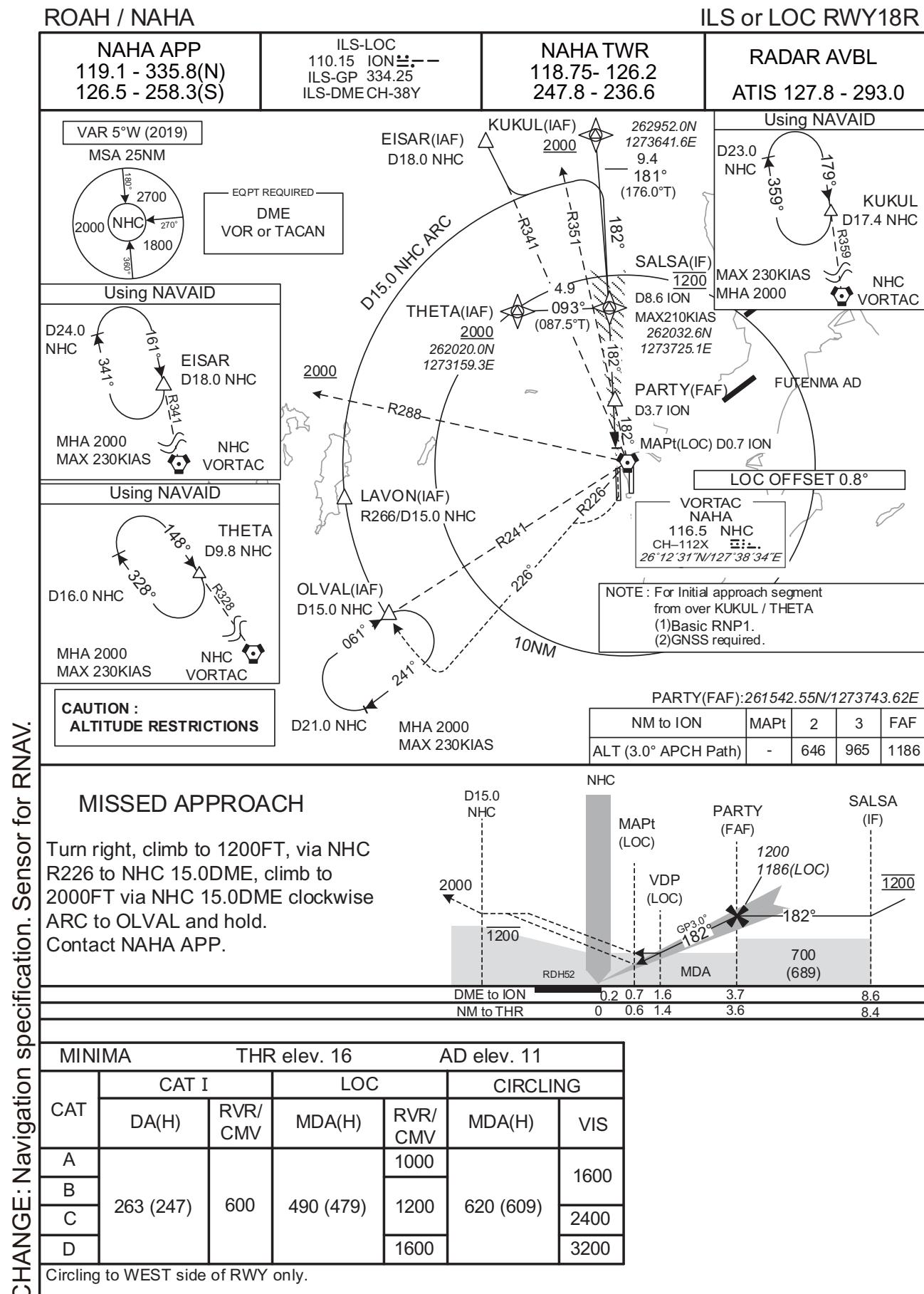
INSTRUMENT APPROACH CHART

ROAH / NAHA

ILS X or LOC X RWY36L



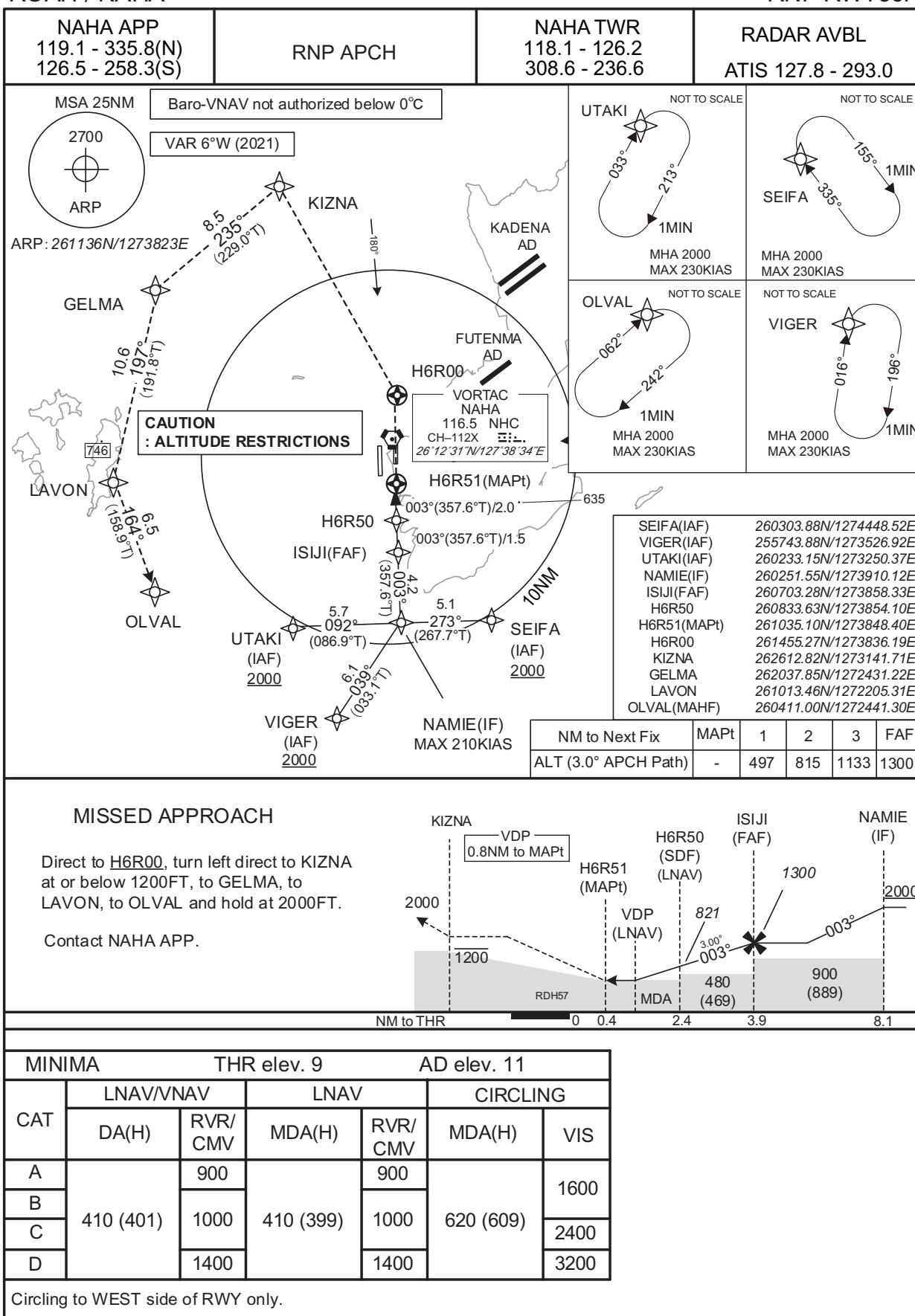
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

ROAH / NAHA

RNP RWY36R

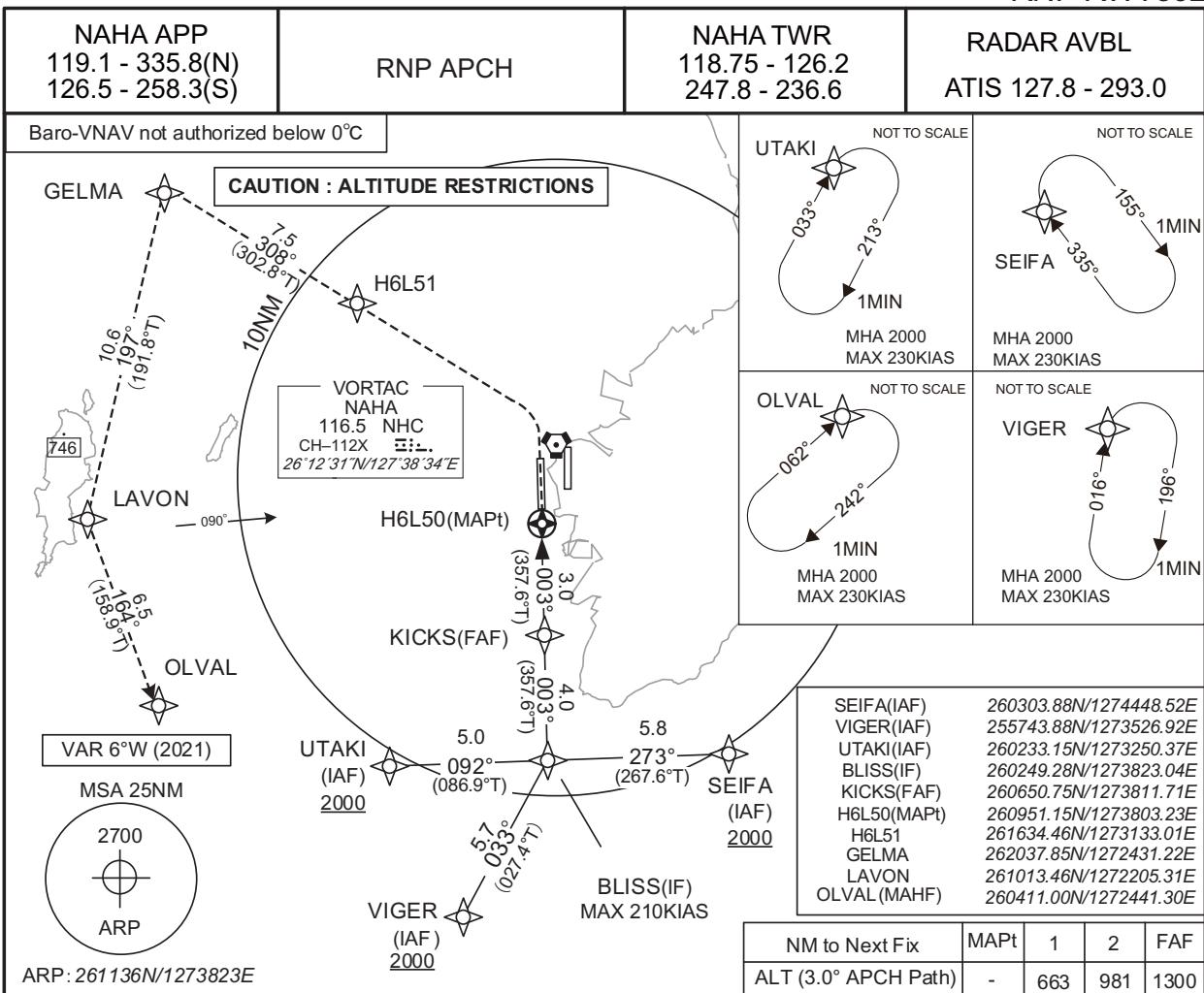


CHANGE:PROC renamed. Requirement for RNP.

INSTRUMENT APPROACH CHART

ROAH / NAHA

RNP RWY36L

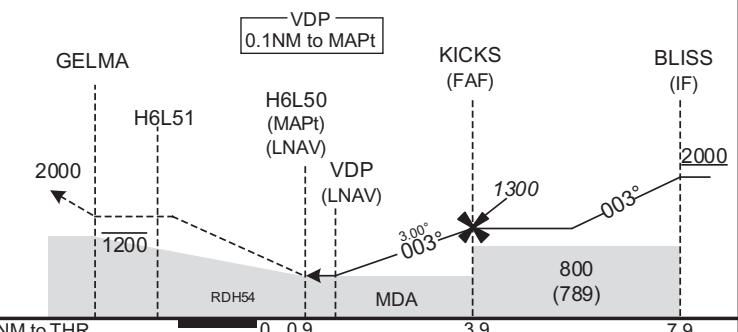


CHANGE:PROC renamed. Requirement for RNP:

MISSED APPROACH

Turn left direct to H6L51, to GELMA at or below 1200FT, to LAVON, to OLVAL and hold at 2000FT.

Contact NAHA APP.



MINIMA THR elev. 14 AD elev. 11

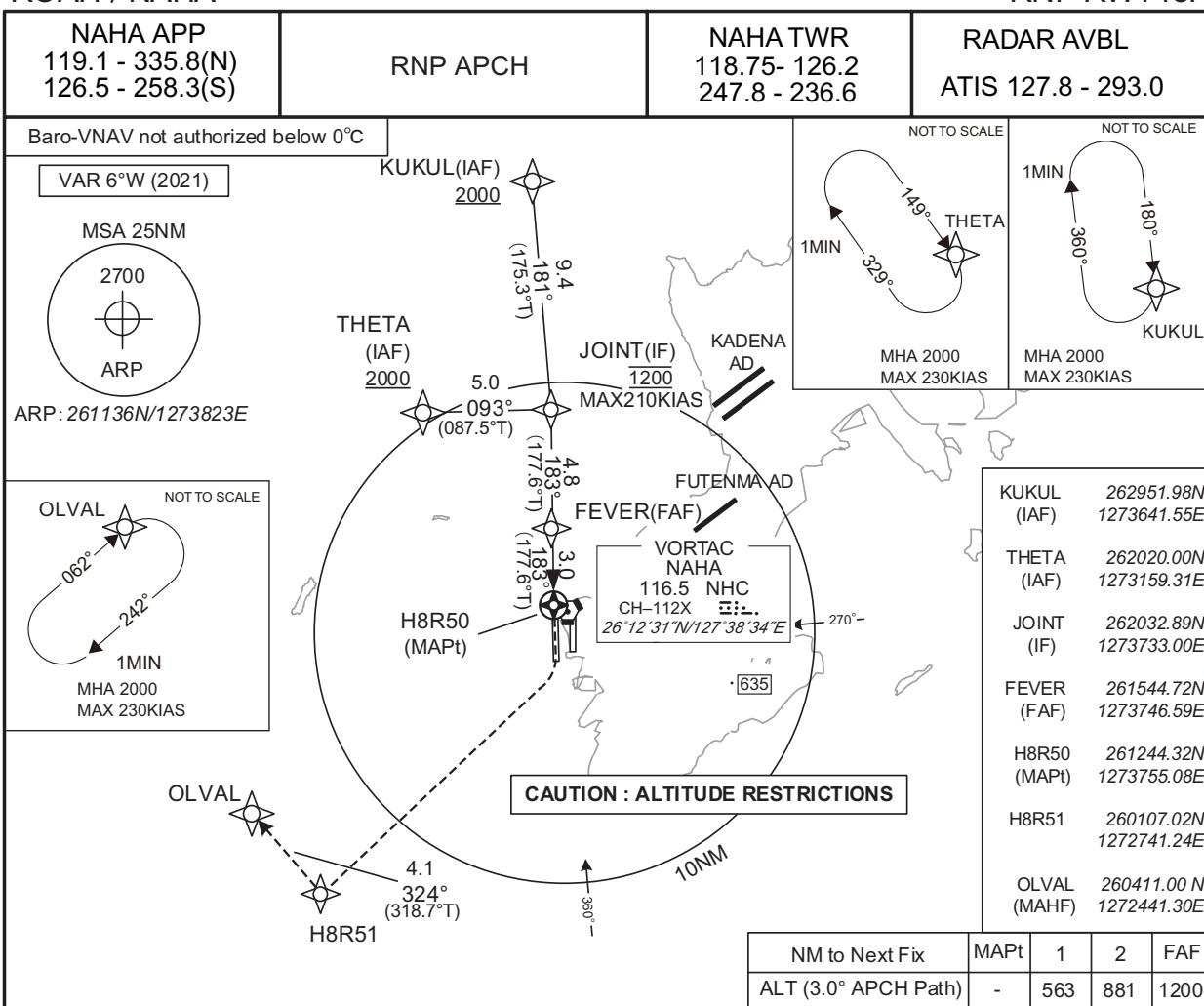
| CAT | LNAV/VNAV | | LNAV | | CIRCLING | |
|-----|-----------|---------|-----------|---------|-----------|------|
| | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | 900 | | 900 | | 1600 | |
| B | 370 (356) | 1000 | 370 (359) | 1000 | 620 (609) | 2400 |
| C | | | | 1400 | | 3200 |
| D | 1400 | | | | | |

Circling to WEST side of RWY only.

INSTRUMENT APPROACH CHART

ROAH / NAHA

RNP RWY18R

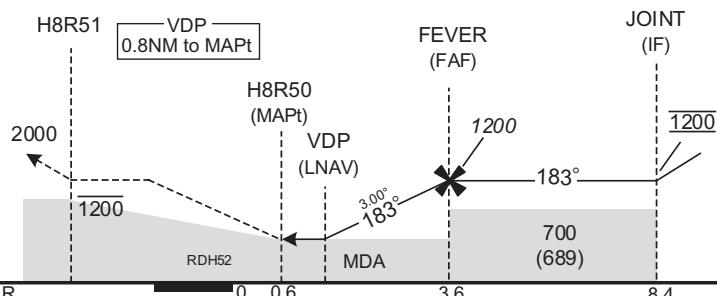


CHANGE:PROC renamed. Requirement for RNP

MISSSED APPROACH

Turn right direct to H8R51 at or below 1200FT, to OLVAL and hold at 2000FT.

Contact NAHA APP.



| MINIMA | | THR elev. 16 | | AD elev. 11 | | |
|--------|-----------|--------------|-----------|-------------|----------|-----------|
| CAT | LNAV/VNAV | | LNAV | | CIRCLING | |
| | DA(H) | RVR/CMV | MDA(H) | RVR/CMV | MDA(H) | VIS |
| A | | 1000 | | 1000 | | 1600 |
| B | | 1200 | | 1200 | | 620 (609) |
| C | 490 (474) | | 490 (479) | | | 2400 |
| D | | 1600 | | 1600 | | 3200 |

Circling to WEST side of RWY only.

INSTRUMENT APPROACH CHART

ROAH / NAHA

RNP RWY18L

NAHA APP
119.1 - 335.8(N)
126.5 - 258.3(S)

RNP APCH

NAHA TWR
118.1 - 126.2
308.6 - 236.6

RADAR AVBL
ATIS 127.8 - 293.0

Baro-VNAV not authorized below 0°C

VAR 6°W (2021)

MSA 25NM
2700 ARP

KUKUL(IAF) 2000

NOT TO SCALE

1MIN

149° 329°

NOT TO SCALE

1MIN

360° 180°

KUKUL

CAUTION : ALTITUDE RESTRICTIONS

ARP: 261136N/1273823E

OLVAL NOT TO SCALE

062° 242°
1MIN
MHA 2000 MAX 230KIAS

NOT TO SCALE

THETA(IAF) 2000

5.7 093° (087.5°T)

4.4 183° (177.6°T)

3.0 183° (177.6°T)

KAMJI(FAF)

FUTENMA AD

H8L50(MAPt)

VORTAC NAHA 116.5 NHC CH-112X 26°12'31"N/127°38'34"E

635

270°

10NM

OLVAL

7.9 (37.1°T)

H8L52 7.4 (281.5°T)

H8L51 (MATF)

NM to Next Fix

MAPt 1 2 FAF

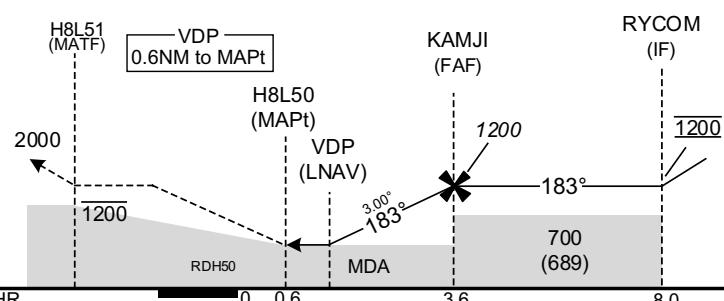
ALT (3.0° APCH Path)

| | KUKUL (IAF) | 262951.98N 1273641.55E |
|--------------|----------------------------|---------------------------|
| THETA (IAF) | 262020.00N 1273159.31E | |
| RYCOM (IF) | 262034.70N 1273820.22E | |
| KAMJI (FAF) | 261608.84N 1273832.73E | |
| H8L50 (MAPt) | 261308.43N 1273841.21E | |
| H8L51 (MATF) | 255729.03N 1273925.15E | |
| H8L52 | 255857.80N 1273119.34E | |
| OLVAL (MAHF) | 260411.00 N 1272441.30E | |

MISSED APPROACH

Direct to H8L51 at or below 1200FT, to H8L52, to OLVAL and hold at 2000FT.

Contact NAHA APP.

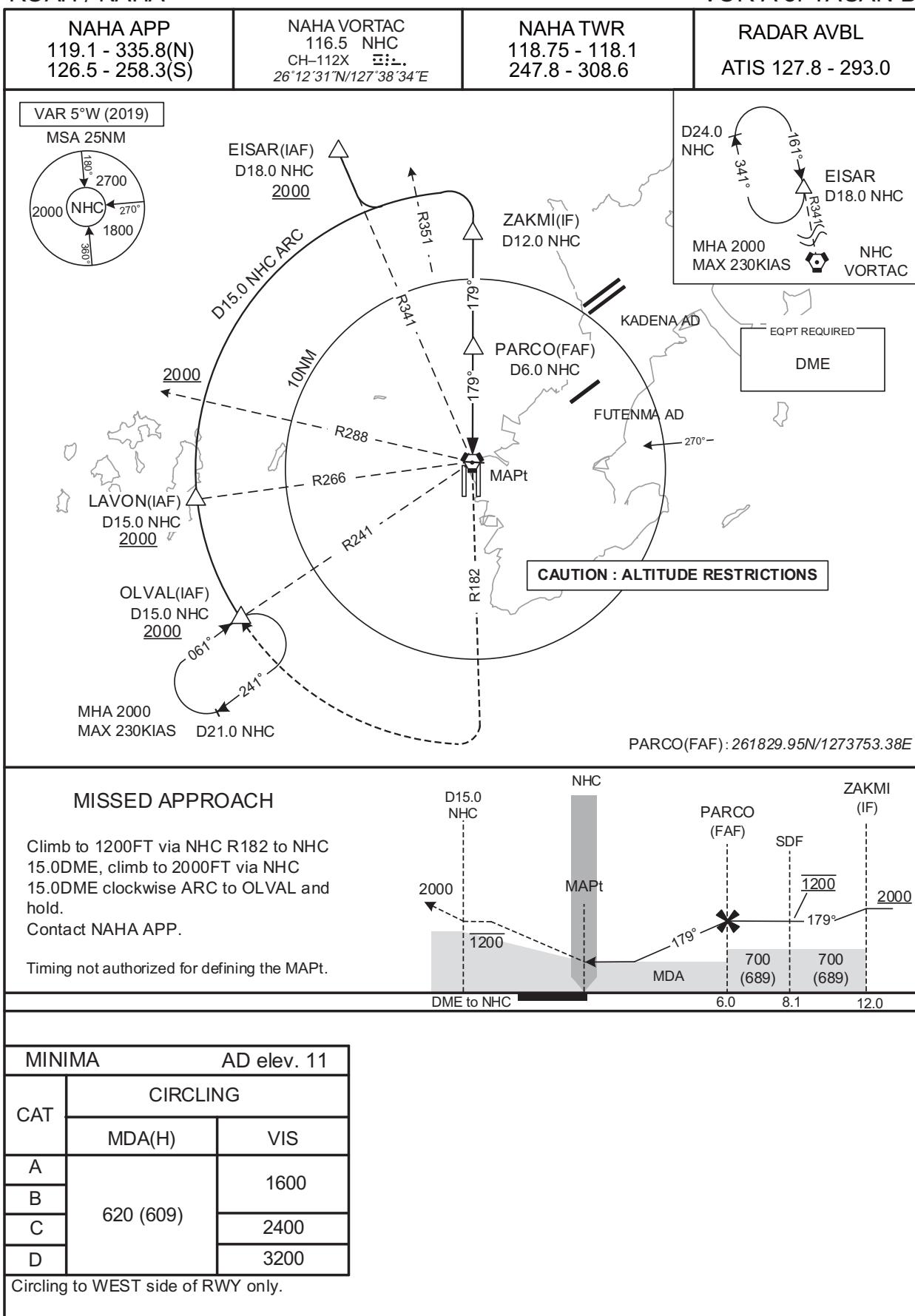


| MINIMA | | THR elev. 11 | | AD elev. 11 | | |
|--------|-----------|--------------|-----------|-------------|-----------|------|
| CAT | LNAV/VNAV | | LNAV | | CIRCLING | |
| | DA(H) | RVR/ CMV | MDA(H) | RVR/ CMV | MDA(H) | VIS |
| A | 430 (419) | 1200 | 430 (419) | 1200 | 620 (609) | 1600 |
| B | | 1300 | | 1300 | | 2400 |
| C | | 1400 | | 1400 | | 3200 |
| D | | 1600 | | 1600 | | |

Circling to WEST side of RWY only.

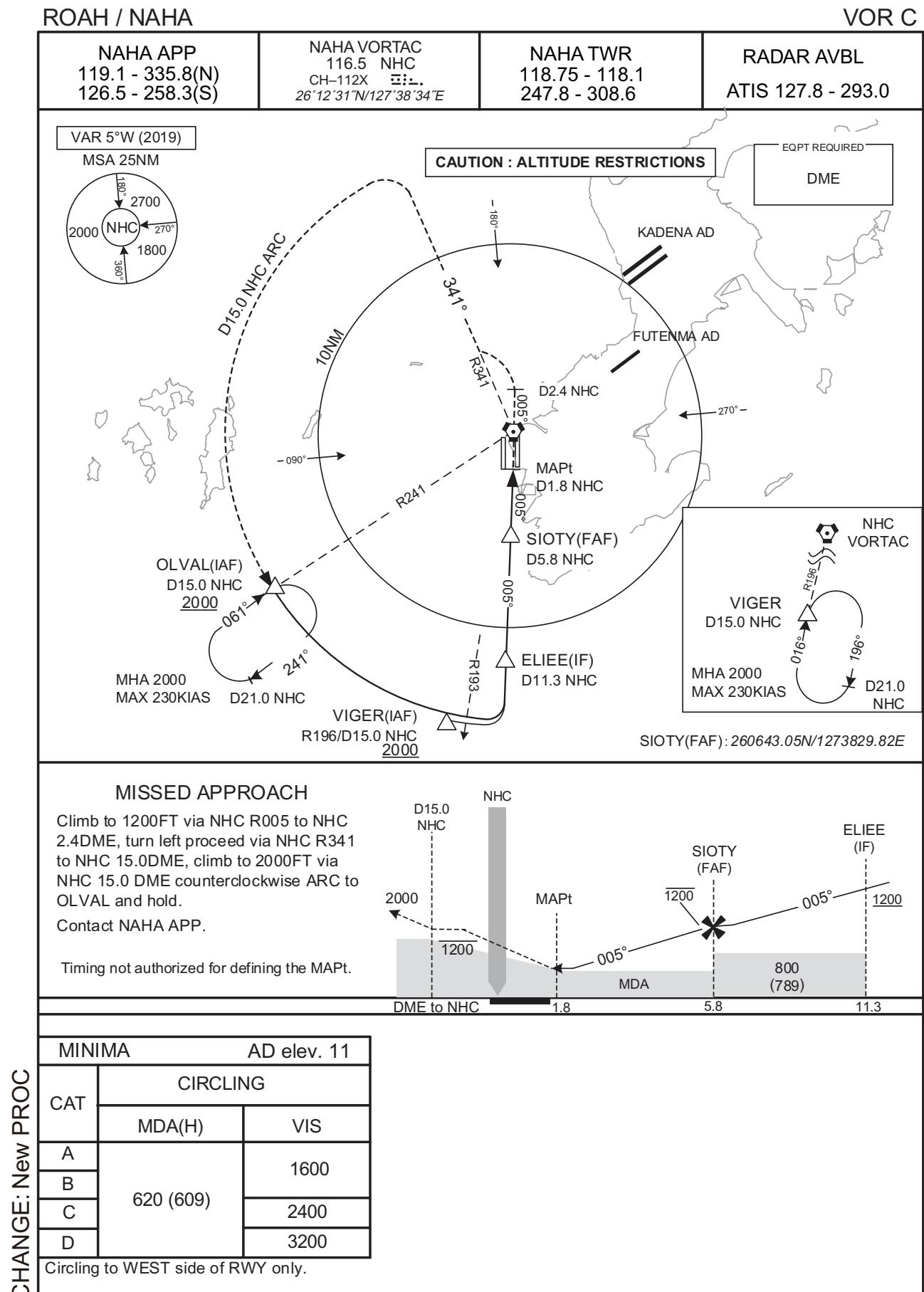
INSTRUMENT APPROACH CHART

ROAH / NAHA



CHANGE: New PROC

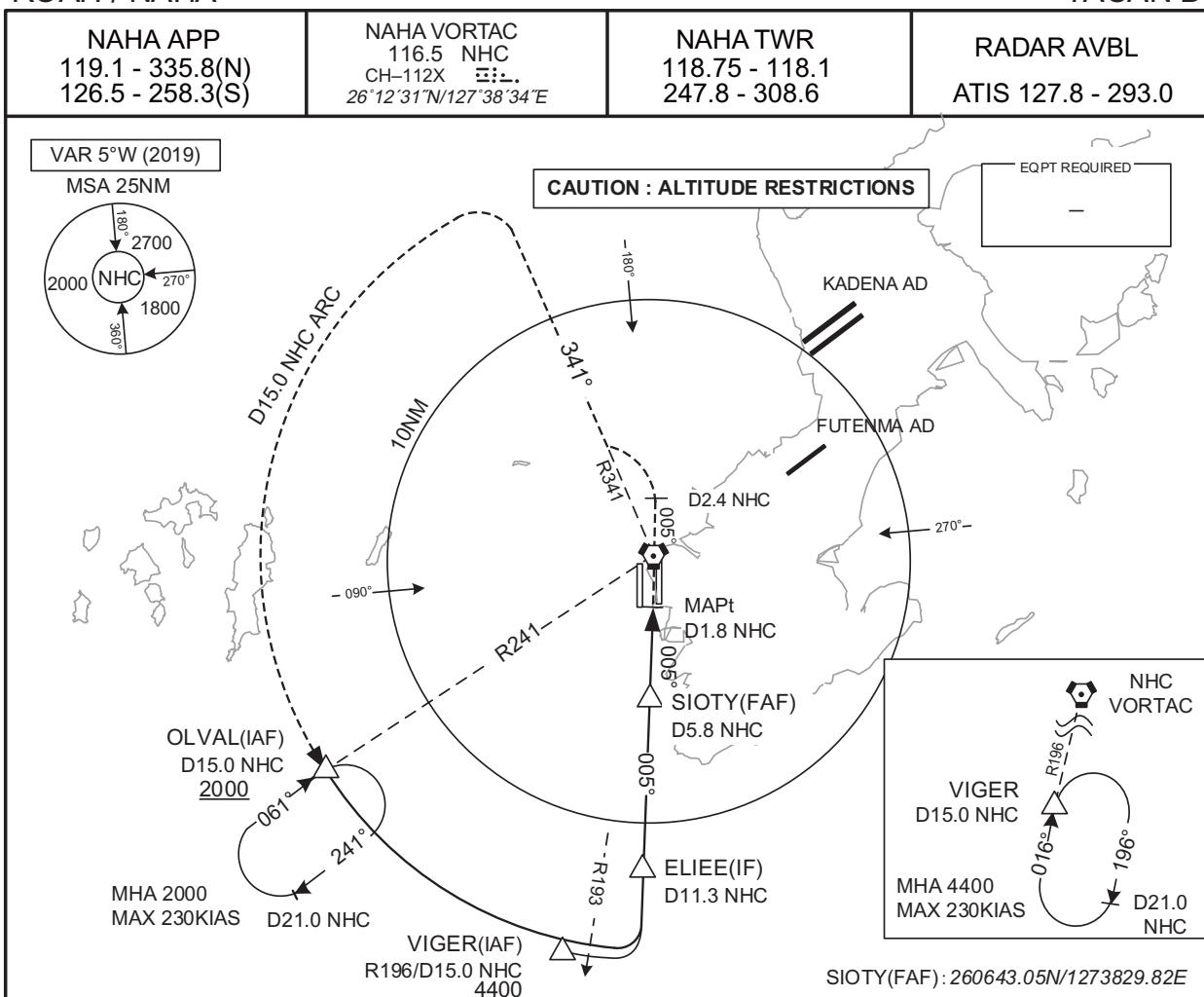
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

ROAH / NAHA

TACAN D

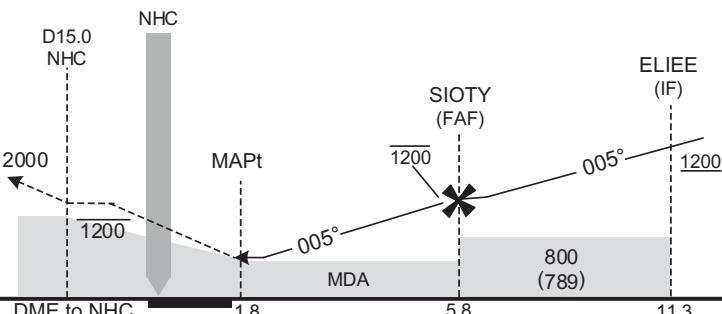


MISSSED APPROACH

Climb to 1200FT via NHC R005 to NHC 2.4DME, turn left proceed via NHC R341 to NHC 15.0DME, climb to 2000FT via NHC 15.0 DME counterclockwise ARC to OLVAL and hold.

Contact NAHA APP.

Timing not authorized for defining the MAPt.



| MINIMA AD elev. 11 | | |
|--------------------|-----------|------|
| CAT | CIRCLING | |
| | MDA(H) | VIS |
| A | | 1600 |
| B | 700 (689) | 2400 |
| C | | 3200 |
| D | | |

Circling to WEST side of RWY only.

CHANGE: New PROC



ROAH / NAHA

Minimum Vectoring Altitude CHART

VAR 5°W (2011)



- ① 1500 (1) 260301N/1270807E (6) 261829N/1271524E CENTER: 261231N/1273834E (NHC)
 ② 2600 (2) 260459N/1272121E (7) 262505N/1271157E * : 263759N/1275528E
 (3) 261057N/1273045E (8) 262154N/1274025E RADIUS 3.9NM
 (4) 261640N/1273102E (9) 263755N/1274900E
 (5) 261835N/1272422E