## VTCN AD 2.1 AERODROME LOCATION INDICATOR AND NAME

## VTCN - NAN / NAN NAKHON AIRPORT

## VTCN AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

| | | |
|---|---|---|
| 1 | ARP coordinates and site at AD | 184828.49N 1004700.31E |
| 2 | Direction and distance from (city) | 3 KM N, from city |
| 3 | Elevation/Reference temperature | 685 FT/29°C |
| 4 | Geoid Undulation at AD ELEV PSN | NIL |
| 5 | MAG VAR/Annual change | 0.85°W (2016)/0.00°E |
| 6 | AD Administration, address, telephone, telefax, telex, AFS | Director of Nan Nakhon Airport<br>Nan Nakhon Airport<br>Nan-Thung Chang Road, Moo 2 Tambon pasing<br>Amphoe Muang<br>Nan 55000<br>Thailand<br>Tel: +665 471 0270<br>+665 477 1650<br>Fax: +665 477 1308<br>AFS: VTCNYDYX |
| 7 | Types of traffic permitted (IFR/VFR) | IFR/VFR |
| 8 | Remarks | Operator: Department of Airports |

## VTCN AD 2.3 OPERATIONAL HOURS

| | | |
|---|---|---|
| 1 | Aerodrome Operator | 2300-1300 |
| 2 | Customs and immigration | On request |
| 3 | Health and sanitation | On request |
| 4 | AIS Briefing Office | NIL |
| 5 | ATS Reporting Office (ARO) | 2300-1300 |
| 6 | MET Briefing Office | NIL |
| 7 | ATS | 2300-1300 |
| 8 | Fuelling | NIL |
| 9 | Handling | NIL |
| 10 | Security | NIL |
| 11 | De-icing | NIL |
| 12 | Remarks | ATS Reporting Office (ARO):<br>Located at Phitsanulok Airport (1st floor of airport building)<br>Tel: +665 530 1078<br>+669 2262 3140<br>Fax: +665 530 1077 |

## VTCN AD 2.4 HANDLING SERVICES AND FACILITIES

| | | |
|---|---|---|
| 1 | Cargo-handling facilities | NIL |
| 2 | Fuel/oil types | NIL |
| 3 | Fuelling facilities/capacity | NIL |
| 4 | De-icing facilities | NIL |
| 5 | Hangar space for visiting aircraft | NIL |
| 6 | Repair facilities for visiting aircraft | NIL |
| 7 | Remarks | NIL |

## VTCN AD 2.5 PASSENGER FACILITIES

| | | |
|---|---|---|
| 1 | Hotels | In the city |
| 2 | Restaurants | In the city |
| 3 | Transportation | Car rent, Taxi and motorbike taxi services |
| 4 | Medical facilities | First aid at AD and hospital in the city |
| 5 | Bank and Post Office | Automatic teller machine(ATM) available but bank and post office in the city |
| 6 | Tourist Office | NIL |
| 7 | Remarks | NIL |

## VTCN AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

| | | |
|---|---|---|
| 1 | AD category for fire fighting | Category 6 |
| 2 | Rescue equipment | Yes |
| 3 | Capability for removal of disabled aircraft | NIL |
| 4 | Remarks | NIL |

## VTCN AD 2.7 SEASONAL AVAILABILITY - CLEARING

| | | |
|---|---|---|
| 1 | Types of clearing equipment | NIL |
| 2 | Clearance priorities | NIL |
| 3 | Remarks | The aerodrome is available all seasons. |

## VTCN AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

| | | |
|---|---|---|
| 1 | Apron surface and strength | Surface: Concrete<br>Strength: PCN 45/R/C/X/T |
| 2 | Taxiway width, surface and strength | Width: 20 M<br>Surface: Concrete and asphalt<br>Strength: PCN 37/F/C/X/T |
| 3 | Altimeter checkpoint location and elevation | NIL |
| 4 | VOR checkpoints | NIL |
| 5 | INS checkpoints | NIL |
| 6 | Remarks | NIL |

## VTCN 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 | NIL |
| 2 | RWY and TWY markings and LGT | RWY AND TWY: Marked and lighted. |
| 3 | Stop bars | NIL |
| 4 | Remarks | NIL |

## VTCN AD 2.10 AERODROME OBSTACLES

| In approach/TKOF areas | | | In circling areas and at AD | | Remarks |
|---|---|---|---|---|---|
| 1 | | | 2 | | 3 |
| **RWY/Area affected** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | **Obstacle type Elevation Markings/LGT** | **Coordinates** | |
| **a** | **b** | **c** | **a** | **b** | |
| NIL | NIL | NIL | Radio mast erected at field right side of RWY 20,215 M from centre line height 24 M and the another, height 153 M Both painted red and white alternatively lighted by red light on top | 184430N 1004435E | NIL |

## VTCN AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

| | | |
|---|---|---|
| 1 | Associated MET Office | Aeronautical Meteorological Station-Nan,<br>Northern Meteorological Center,<br>Thai Meteorological Department (TMD) |
| 2 | Hours of service<br>MET Office outside hours | 2200-1300<br>NIL |
| 3 | Office responsible for TAF preparation<br>Periods of validity | Supply TAF from Northern Meteorological Center<br>24 HR |
| 4 | Type of landing forecast<br>Interval of issuance | TREND<br>1 HR |
| 5 | Briefing/consultation provided | Personal Consultation<br>Tel: +665 471 8670 |
| 6 | Flight documentation<br>Language(s) used | NIL |
| 7 | Charts and other information available for briefing or consultation | S, U85, Daily Weather Forecast, satellite and radar images |
| 8 | Supplementary equipment available for providing information | Automated Weather Observation System (AWOS),<br>Weather Radar |
| 9 | ATS units provided with information | Nan TWR |
| 10 | Additional information (limitation of service, etc.) | NIL |

## VTCN AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

| Designations RWY NR | TRUE BRG | Dimensions of RWY(M) | Strength (PCN) and surface of RWY and SWY | THR coordinates RWY end coordinates THR geoid undulation | THR elevation and highest elevation of TDZ of precision APP RWY |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02 | 020.12° | 2075x45 | PCN 42/F/C/X/T Concrete and asphalt | 184800.52N 1004649.21E | THR 679 FT TDZ 681 FT |
| 20 | 200.12° | 2075x45 | PCN 42/F/C/X/T Concrete and asphalt | 184858.74N 1004712.31E | THR 682 FT TDZ 685 FT |

| Slope of RWY-SWY | SWY dimensions (M) | CWY dimensions (M) | Strip dimensions (M) | RESA dimensions (M) | Location and description of arresting system | OFZ | Remarks |
|---|---|---|---|---|---|---|---|
| 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| NIL | NIL | 225x90 | 2195x150 | 90x90 | NIL | NIL | NIL |
| NIL | NIL | 225x90 | 2195x150 | 90x90 | NIL | NIL | NIL |

## VTCN AD 2.13 DECLARED DISTANCES

| RWY Designator | TORA (M) | TODA (M) | ASDA (M) | LDA (M) | Remarks |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 02 | 2000 | 2225 | 2000 | 1925 | NIL |
| 20 | 2000 | 2225 | 2000 | 1925 | NIL |

## VTCN AD 2.14 APPROACH AND RUNWAY LIGHTING

| RWY Designator | APCH LGT type LEN INTST | THR LGT colour WBAR | VASIS (MEHT) PAPI | TDZ, LGT LEN | RWY Centre Line LGT Length, spacing, colour, INTST | RWY edge LGT LEN, spacing, colour INTST | RWY End LGT colour WBAR | SWY LGT LEN (M) colour | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 02 | NIL | Green Green | PAPI Left 3.4° (60.29 FT) | NIL | NIL | 2075 M 60 M FM 0 M - 60 M Red, FM 60 M -1475 M White, FM 1475 M - 2075 M Yellow, LIH | Red NIL | NIL | RTIL |
| 20 | NIL | Green NIL | PAPI Left 3° (53.71 FT) | NIL | NIL | 2075 M 60 M FM 0 M - 60 M Red, FM 60 M -1475 M White, FM 1475 M - 2075 M Yellow, LIH | Red NIL | NIL | RTIL |

## VTCN AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

| | | |
|---|---|---|
| 1 | ABN/IBN location, characteristics and hours of operation | ABN: At tower building, FLG W G EV 7 SEC<br>IBN: NIL |
| 2 | LDI location and LGT<br>Anemometer location and LGT | NIL |
| 3 | TWY edge and centre line lighting | Edge: TWY A, B |
| 4 | Secondary power supply/switch-over time | Secondary power supply to all tower, PAPI<br>Switch-over time: 15 SEC |
| 5 | Remarks | Flares 2 HR PN |

## VTCN AD 2.16 HELICOPTER LANDING AREA

| | | |
|---|---|---|
| 1 | Coordinates TLOF or THR of FATO<br>Geoid undulation | NIL |
| 2 | TLOF and/or FATO elevation M/FT | NIL |
| 3 | TLOF and FATO area dimensions, surface, strength, marking | NIL |
| 4 | True and MAG BRG of FATO | NIL |
| 5 | Declared distance available | NIL |
| 6 | APP and FATO lighting | NIL |
| 7 | Remarks | NIL |

## VTCN AD 2.17 ATS AIRSPACE

| | | |
|---|---|---|
| 1 | Designation and lateral limits | A circle of 5 NM radius centred on NAN DVOR/DME (184832.76N 1004657.31E) |
| 2 | Vertical limits | 2000 FT/AGL |
| 3 | Airspace classification | C |
| 4 | ATS unit call sign<br>Language(s) | Nan Tower<br>English, Thai |
| 5 | Transition altitude | 11000 FT |
| 6 | Remarks | NIL |

## VTCN AD 2.18 ATS COMMUNICATION FACILITIES

| Service designation | Call sign | Frequency | Hours of operation | Remarks |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| APP | Nan Approach | 120.25 MHZ<br>121.5 MHZ [1)] | As AD OPR HR | [1)] Emergency frequency |
| TWR | Nan Tower | 118.55 MHZ<br>121.5 MHZ [1)]<br>236.6 MHZ | As AD OPR HR | |
| ATIS | Nan Airport | 355 KHZ | As AD OPR HR | |

## VTCN AD 2.19 RADIO NAVIGATION AND LANDING AIDS

| Type of aid, MAG VAR CAT of ILS/MLS (For VOR/ILS/MLS, give declination) | ID | Frequency | Hours of operation | Position of transmitting antenna coordinates | Elevation of DME transmitting antenna | Remarks |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| NDB | NN | 355 KHZ | H24 | 184826.00N 1004711.91E | | NDB restriction, orbit coverage in mountain terrain and border limited was check and found as follow:<br>-40 NM from bearing 331-045 DEG (CW) altitude should not below 8000 FT. (due to border limited).<br>-20 NM from bearing 046-160 DEG (CW) altitude should not below 6500 FT. (due to border limited).<br>-50 NM from bearing 161-330 DEG (CW) altitude should not below 7500 FT. |
| DVOR/DME | NAN | 115.7MHZ CH104X | H24 | 184832.76N 1004657.31E | | DVOR/DME restriction, due to Mountainous terrain surround DVOR/DME station coverage check does not provide adequate signal to 40 NM.<br>At the required altitude in various areas as follow:<br>-RDL 021-110 DEG at 20 NM should not below 8000 FT.<br>-RDL 111-160 DEG at 20 NM should not below 6000 FT.<br>-RDL 161-230 DEG at 40 NM should not below 7000 FT.<br>-RDL 231-250 DEG at 40 NM should not below 9000 FT.<br>-RDL 251-290 DEG at 40 NM should not below 11000 FT.<br>-RDL 291-350 DEG at 40 NM should not below 9000 FT.<br>-RDL 351-020 DEG at 40 NM should not below 8000 FT. |
| ILS CAT I RWY02 LOC/DME | INAN | 110.3MHZ CH40X | H24 | 184903.30N 1004714.13E | 687.34 FT | LOC designated operation coverage 18 NM, ALT 7000 FT AMSL |
| DME | | | H24 | 184904.17N 1004711.85E | | DME paired with LOC FREQ |
| GP | | 335MHZ | H24 | 184808.72N 1004648.08E | | GP 3.4 DEG, RDH 58 FT |

## VTCN AD 2.20 LOCAL AERODROME REGULATIONS

To prevent runway pavement damage which may result in the closure of the aerodrome if such damage is severe, aircraft code letter C or higher shall make 180 degrees turn at the runway turn pads located on left side of runway 20 (near the threshold of runway 20). Any breach done by the aircraft operator shall be recorded and reported to The Civil Aviation Authority of Thailand/the Headquarters of that operator and shall be liable for the compensation caused by such violation

## VTCN AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

## VTCN AD 2.22 FLIGHT PROCEDURES

### 1. IFR DEPARTURES OTHER THAN VIA SID

IFR departure procedures described below are determined for the purpose of case when an instrument departure via SID is impossible or undesirable.

## 2. VISUAL DEPARTURES

Visual departures during take-off and initial climb-out are permitted during the daytime and Visual Meteorological Conditions (VMC). ATC clearance to execute a visual departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute a visual departure

- meteorological conditions in the direction of take-off and the following climb-out shall enable visual reference to terrain up to Minimum Sector Altitude (MSA) or Minimum Flight Altitude (MFA) stated in ATC clearance,
- the pilot shall be responsible for obstacle clearance until such specified altitude,
- the pilot prior to take-off shall agree to execute this procedure,
- the ATC clearance shall be readback,

## 3. OMNIDIRECTIONAL DEPARTURES

Omnidirectional departures during take-off and initial climb-out are permitted during the day and night. ATC clearance to execute an omnidirectional departure may be issued upon request of the pilot or upon initiative of the ATC and accepted by the pilot.

To execute an omnidirectional departure:

- the pilot shall be maintaining a minimum climb gradient up to specific altitude as published shown as below,
- the pilot shall be responsible for adherence to such obtained ATC clearance,
- the pilot prior to take-off shall agree to execute this procedure,
- The ATC clearance shall be readback,

- Runway 02:

NAN OMNI 02 Departure: Required climb gradient 365 ft per NM (6.0%) until 8,600 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 912 | 1216 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 3,000 ft (or altitude assigned by ATC between 3,000 ft - 7,500 ft), then comply with ATC clearance issued (or as directed by ATC).

- Runway 20:

NAN OMNI 20 Departure: Required climb gradient 365 ft per NM (6.0%) until 8,600 ft.

| Ground speed | Knot | 65 | 75 | 100 | 150 | 200 | 250 | 300 |
|---|---|---|---|---|---|---|---|---|
| Rate of climb 6.0% | (ft/min) | 395 | 456 | 608 | 912 | 1216 | 1519 | 1823 |

No turn before DER.
After departure climb straight ahead until 3,000 ft (or altitude assigned by ATC between 3,000 ft - 7,500 ft), then comply with ATC clearance issued (or as directed by ATC).

## VTCN AD 2.23 ADDITIONAL INFORMATION

NIL

## VTCN AD 2.24 CHARTS RELATED TO AN AERODROME


| Chart name | Page |
|---|---|
| Aerodrome Chart - ICAO | AD 2-VTCN-2-1 |
| Instrument Approach Chart - ICAO - NDB RWY 02 CAT C, D | AD 2-VTCN-8-1 |
| Instrument Approach Chart - ICAO - NDB RWY 02 CAT C, D (Fix and point list table) | AD 2-VTCN-8-2 |
| Instrument Approach Chart - ICAO - VOR RWY 02 | AD 2-VTCN-8-3 |
| Instrument Approach Chart - ICAO - VOR RWY 02 (Fix and point list table) | AD 2-VTCN-8-4 |
| Instrument Approach Chart - ICAO - VOR RWY 20 | AD 2-VTCN-8-5 |

| Chart name | Page |
|---|---|
| Instrument Approach Chart - ICAO - VOR RWY 20 (Fix and point list table) | AD 2-VTCN-8-6 |
| Instrument Approach Chart - ICAO - RNP RWY 02 | AD 2-VTCN-8-7 |
| Instrument Approach Chart - ICAO - RNP RWY 02 (Tabular description) | AD 2-VTCN-8-8 |
| Instrument Approach Chart - ICAO - RNP RWY 20 | AD 2-VTCN-8-9 |
| Instrument Approach Chart - ICAO - RNP RWY 20 (Tabular description) | AD 2-VTCN-8-10 |

# AERODROME CHART - ICAO

18 48 28 N
100 47 00 E

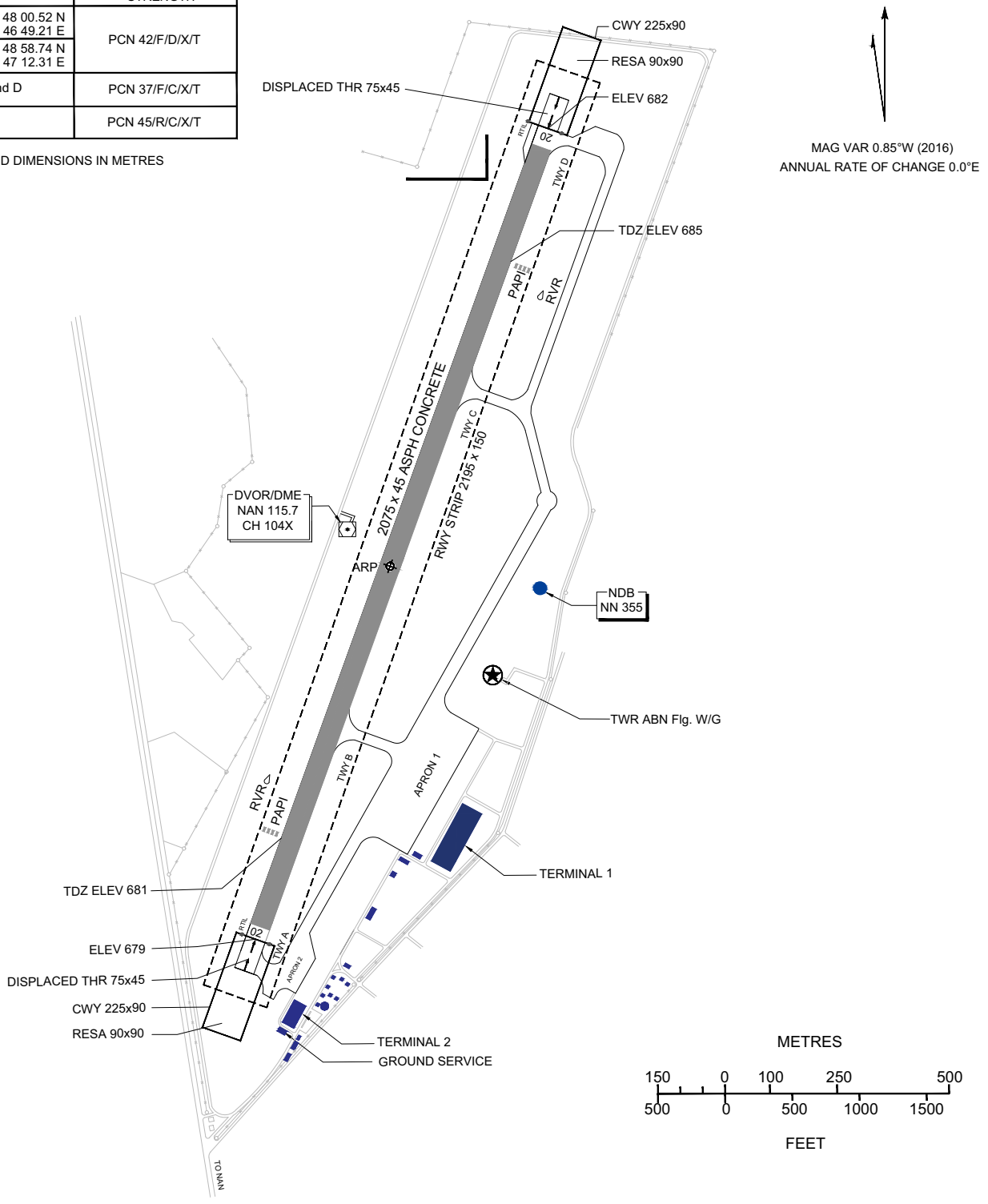
ELEV 685 FT

TWR 118.55 236.60

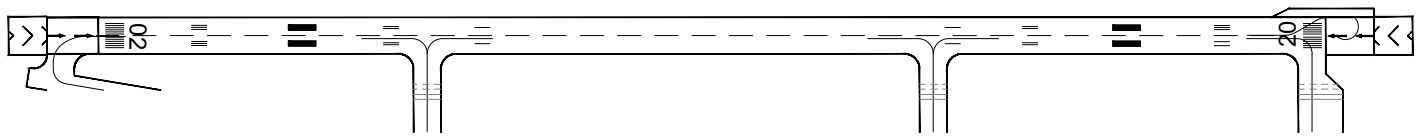
NAN / Nan Nakhon

| RWY | DIRECTION (TRUE BRG) | THR | BEARING STRENGTH |
|---|---|---|---|
| 02 | 20.12 | 18 48 00.52 N 100 46 49.21 E | PCN 42/F/D/X/T |
| 20 | 200.12 | 18 48 58.74 N 100 47 12.31 E | |
| TAXIWAY A,B,C and D | | | PCN 37/F/C/X/T |
| APRON | | | PCN 45/R/C/X/T |

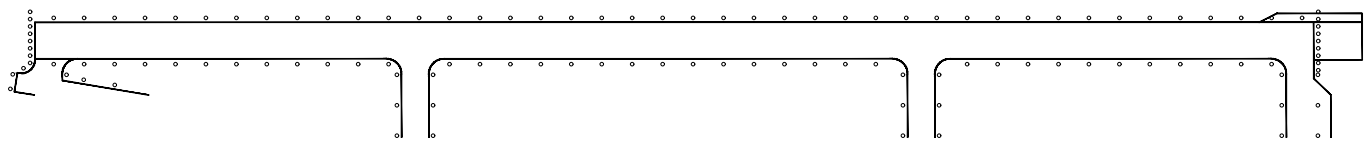
ELEVATIONS IN FEET AND DIMENSIONS IN METRES




MARKING AIDS RWY 02/20 AND EXIT TWY

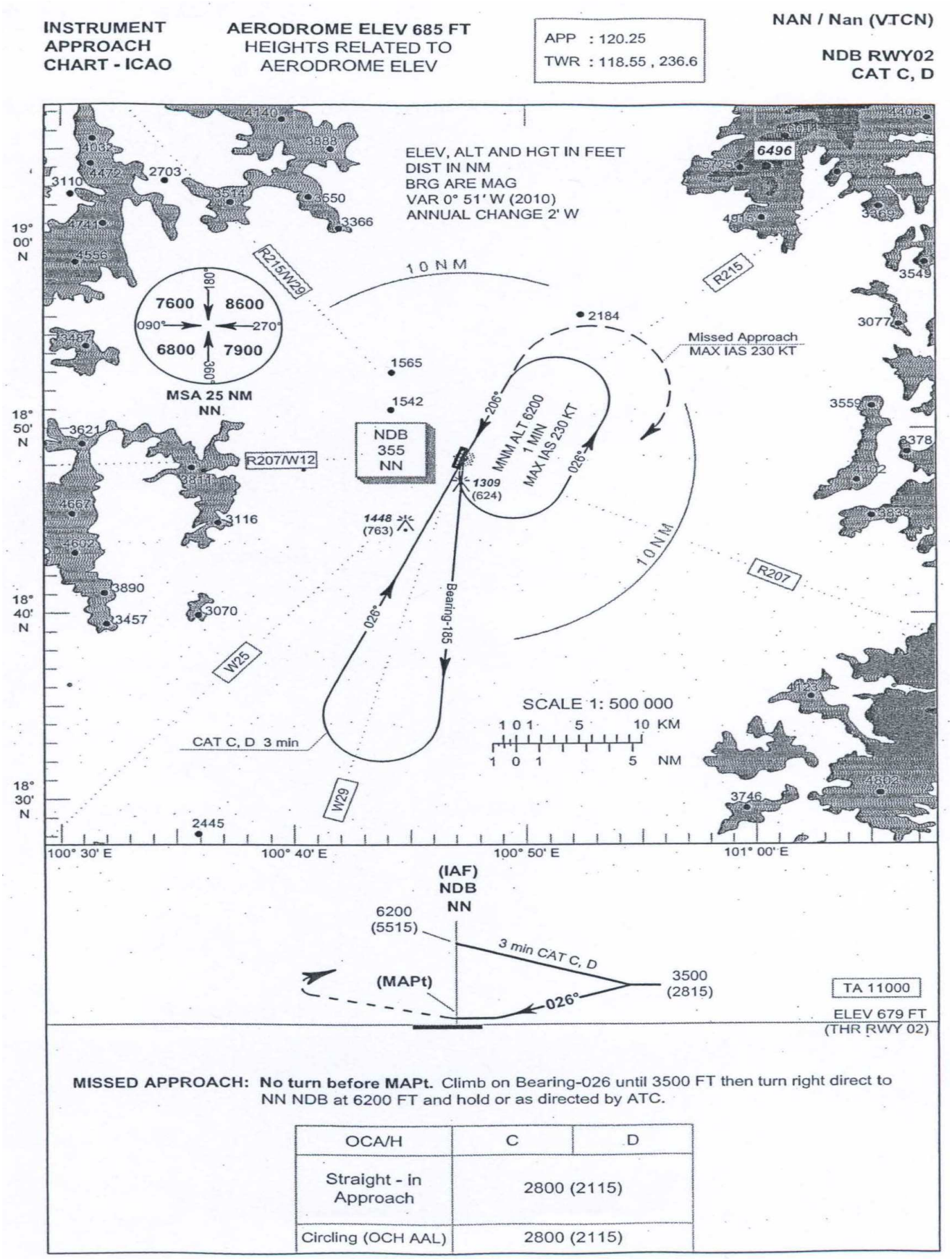



LIGHTING AIDS RWY 02/20 AND EXIT TWY



CHANGE : REVISED CHART. THR 02 COORD. RWY DIMS. RWY STRIP DIMS. DISPLACED THR DIMS. CWY DIMS. RESA DIMS. RTIL RWY 02/20 ADDED. CANCELLED RIGHT PAPI 02.

**INTENTIONALLY BLANK**




**MISSED APPROACH:** **No turn before MAPt.** Climb on Bearing-026 until 3500 FT then turn right direct to NN NDB at 6200 FT and hold or as directed by ATC.

| OCA/H | C | D |
|---|---|---|
| Straight - in Approach | 2800 (2115) | |
| Circling (OCH AAL) | 2800 (2115) | |

Date: Aug 2013

NAN / Nan (VTCN)

NDB RWY02
CAT C, D

| Fixes / Points | | Coordinates | |
|---|---|---|---|
| MAPt | NN | 18 48 26.00 N<br>18 48.43 N | 100 47 11.91 E<br>100 47.20 E |
| THR RWY 02 | - | 18 47 58.24 N<br>18 47.97 N | 100 46 48.31 E<br>100 46.81 E |
| NDB | NN | 18 48 26.00 N<br>18 48.43 N | 100 47 11.91 E<br>100 47.20 E |

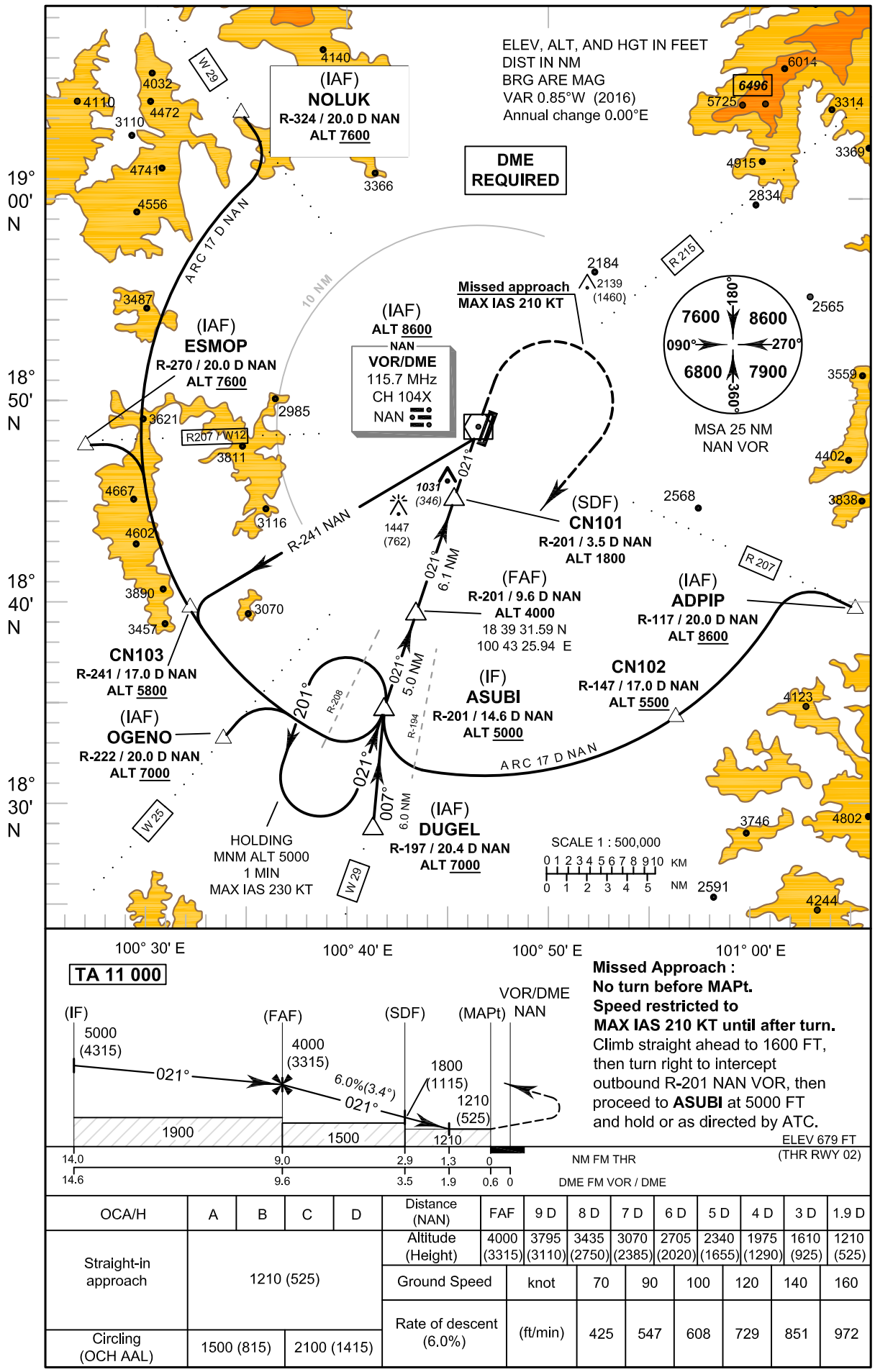
Date: Aug 2013

**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 685 FT**
HEIGHTS RELATED TO AERODROME ELEV

APP : 120.25
TWR : 118.55, 236.6

**NAN/Nan Nakhon (VTCN)**
**VOR RWY02**







| OCA/H | A | B | C | D |
|---|---|---|---|---|
| Straight-in approach | 1210 (525) | | | |
| Circling (OCH AAL) | 1500 (815) | | 2100 (1415) | |

| Distance (NAN) | FAF | 9 D | 8 D | 7 D | 6 D | 5 D | 4 D | 3 D | 1.9 D |
|---|---|---|---|---|---|---|---|---|---|
| Altitude (Height) | 4000 (3315) | 3795 (3110) | 3435 (2750) | 3070 (2385) | 2705 (2020) | 2340 (1655) | 1975 (1290) | 1610 (925) | 1210 (525) |

| Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
|---|---|---|---|---|---|---|---|
| Rate of descent (6.0%) | (ft/min) | 425 | 547 | 608 | 729 | 851 | 972 |

CHANGE: REALIGHMENT.

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 685 FT** HEIGHTS RELATED TO AERODROME ELEV

**NAN/Nan Nakhon (VTCN)**
**VOR RWY02**

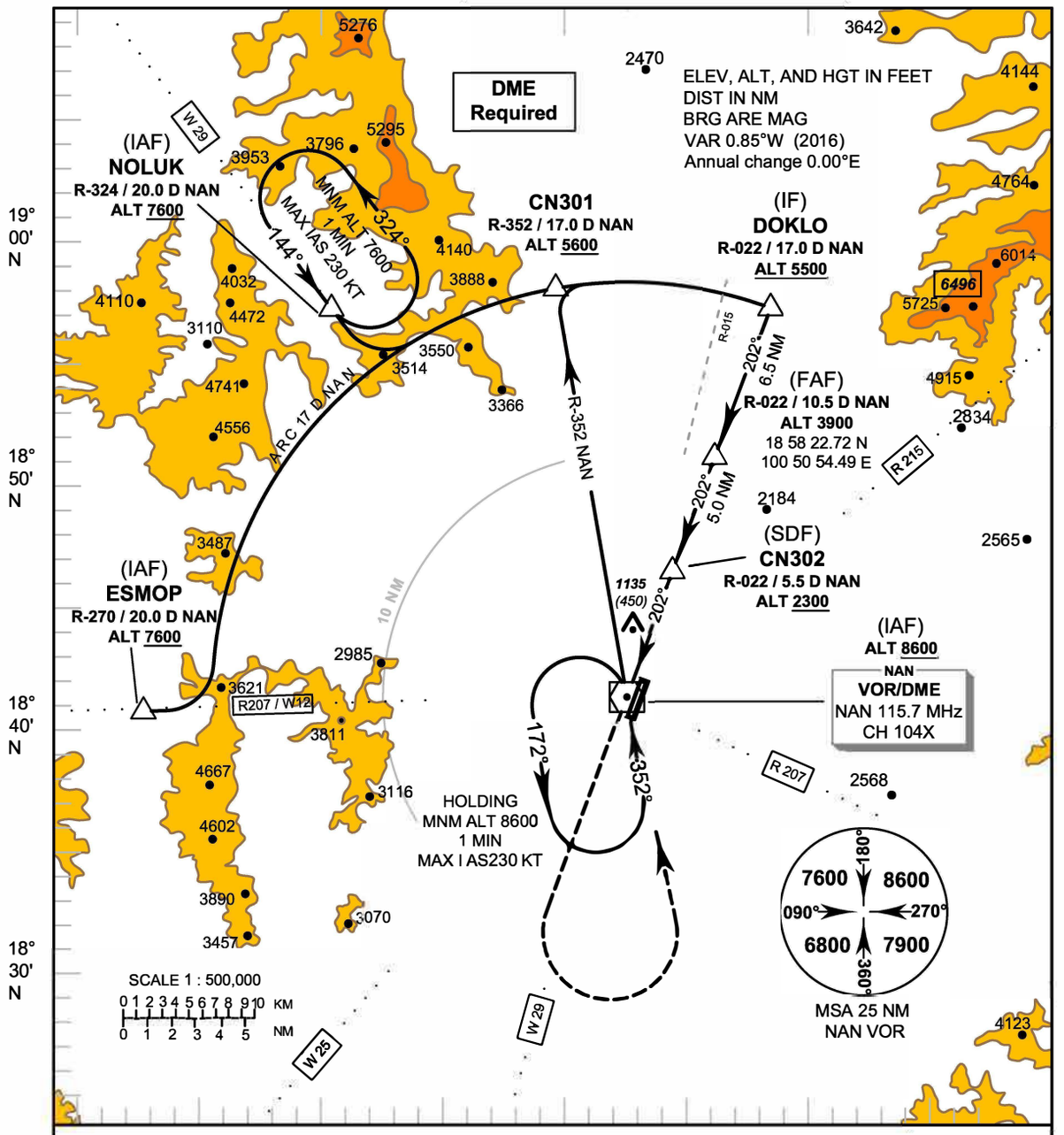
| Fix / Point | | Coordinates | |
|---|---|---|---|
| VOR (IAF) | NAN | 18 48 32.76 N | 100 46 57.31 E |
| ADPIP (IAF) | R - 117 / 20.0 D NAN | 18 39 46.40 N | 101 05 54.67 E |
| CN102 | R - 147 / 17.0 D NAN | 18 34 24.99 N | 100 56 59.93 E |
| NOLUK (IAF) | R - 324 / 20.0 D NAN | 19 04 38.32 N | 100 34 20.30 E |
| ESMOP (IAF) | R - 270 / 20.0 D NAN | 18 48 07.91 N | 100 25 52.62 E |
| CN103 | R - 241 / 17.0 D NAN | 18 40 00.13 N | 100 31 26.91 E |
| OGENO (IAF) | R - 222 / 20.0 D NAN | 18 33 27.22 N | 100 33 07.59 E |
| DUGEL (IAF) | R - 197 / 20.4 D NAN | 18 28 53.32 N | 100 40 57.94 E |
| ASUBI (IF) | R - 201/ 14.6 D NAN | 18 34 49.75 N | 100 41 36.01 E |
| (FAF) | R - 201 / 9.6 D NAN | 18 39 31.59 N | 100 43 25.94 E |
| CN101 (SDF) | R - 201 / 3.5 D NAN | 18 45 10.33 N | 100 45 38.20 E |
| (MAPt) | R - 201 / 0.6 D NAN | 18 48 01.94 N | 100 46 45.26 E |

CHANGE: MAPt COORD.

**INSTRUMENT APPROACH CHART-ICAO** — **AERODROME ELEV 685 FT** HEIGHTS RELATED TO AERODROME ELEV

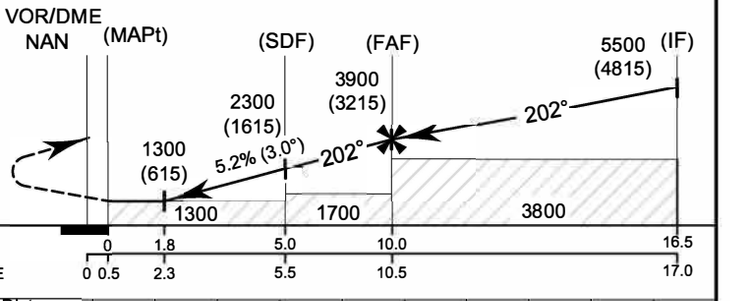
APP : 120.25
TWR : 118.55, 236.6

**NAN/Nan Nakhon (VTCN)**
**VOR RWY20**




**TA 11000**

**Missed Approach :**
**No turn before MAPt.**
Climb straight ahead to 3000 FT, then turn left to intercept inbound R-172 NAN VOR, then proceed to NAN VOR at 8600 FT and hold or as directed by ATC.




| OCA/H | A | B | C | D | Distance (NAN) | 2.3 D | 3 D | 4 D | 5 D | 6 D | 7 D | 8 D | 9 D | 10 D | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Straight-in approach | 1300 (615) | | | | Altitude (Height) | 1300 (615) | 1525 (840) | 1840 (1155) | 2155 (1470) | 2475 (1790) | 2790 (2105) | 3105 (2420) | 3420 (2735) | 3735 (3050) | 3900 (3215) |
| | | | | | Ground Speed | | knot | 70 | 90 | 100 | 120 | 140 | 160 | | |
| Circling (OCH AAL) | 1500 (815) | | 2100 (1415) | | Rate of descent (5.2%) | | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 | | |

September 2017

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 685 FT** HEIGHTS RELATED TO AERODROME ELEV

**NAN/Nan Nakhon (VTCN)**
**VOR RWY20**

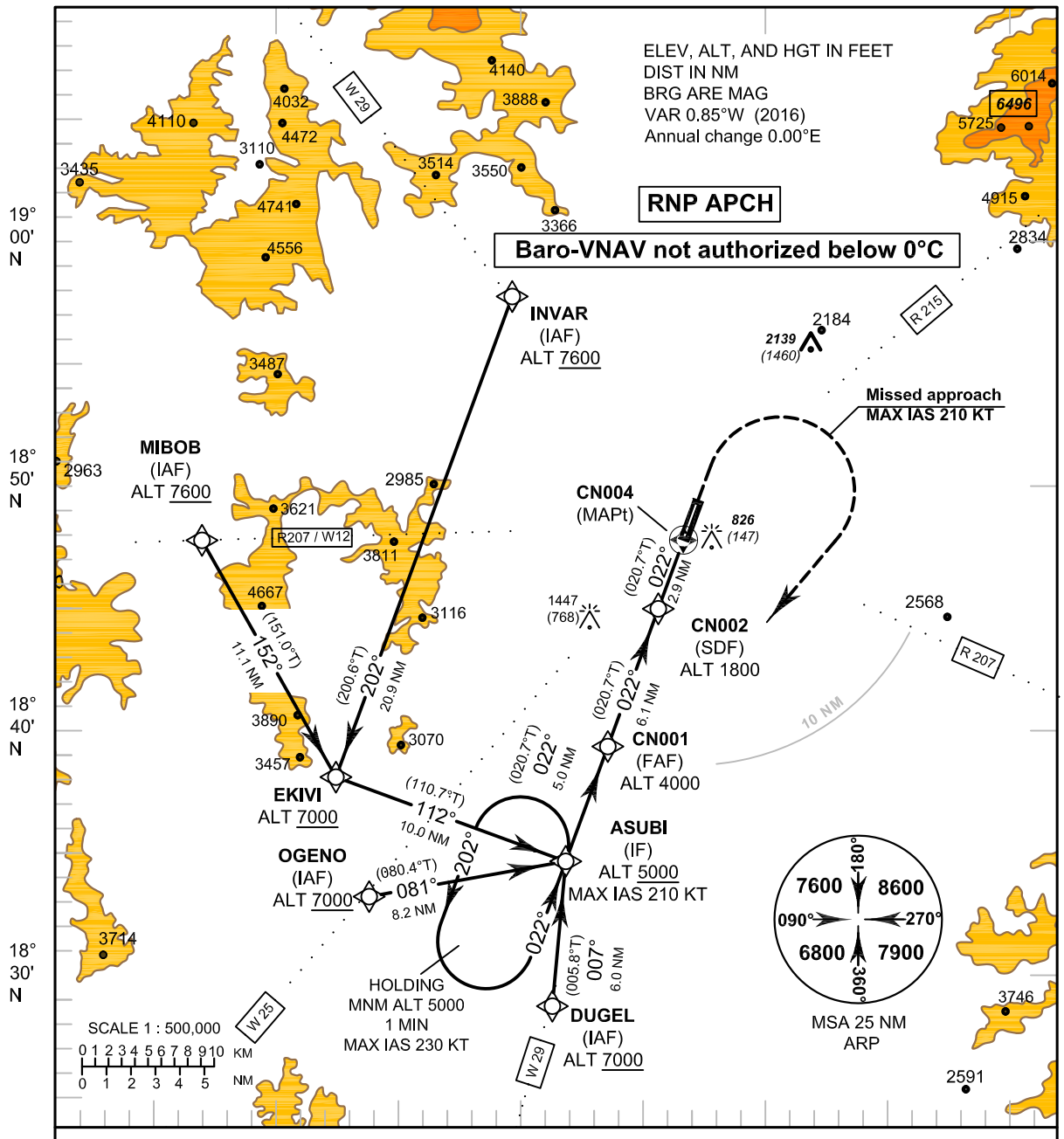
| **Fix / Point** | | **Coordinates** | |
|---|---|---|---|
| VOR (IAF) | NAN | 18 48 32.76 N | 100 46 57.31 E |
| ESMOP (IAF) | R - 270 / 20.0 D NAN | 18 48 07.91 N | 100 25 52.62 E |
| NOLUK (IAF) | R - 324 / 20.0 D NAN | 19 04 38.32 N | 100 34 20.30 E |
| CN301 | R - 352 / 17.0 D NAN | 19 05 23.21 N | 100 44 03.17 E |
| DOKLO (IF) | R - 022 / 17.0 D NAN | 19 04 29.04 N | 100 53 22.01 E |
| (FAF) | R - 022 / 10.5 D NAN | 18 58 22.72 N | 100 50 54.49 E |
| CN302 (SDF) | R - 022 / 5.5 D NAN | 18 53 41.45 N | 100 49 01.35 E |
| (MAPt) | R - 022 / 0.5 D NAN | 18 49 00.17 N | 100 47 08.34 E |

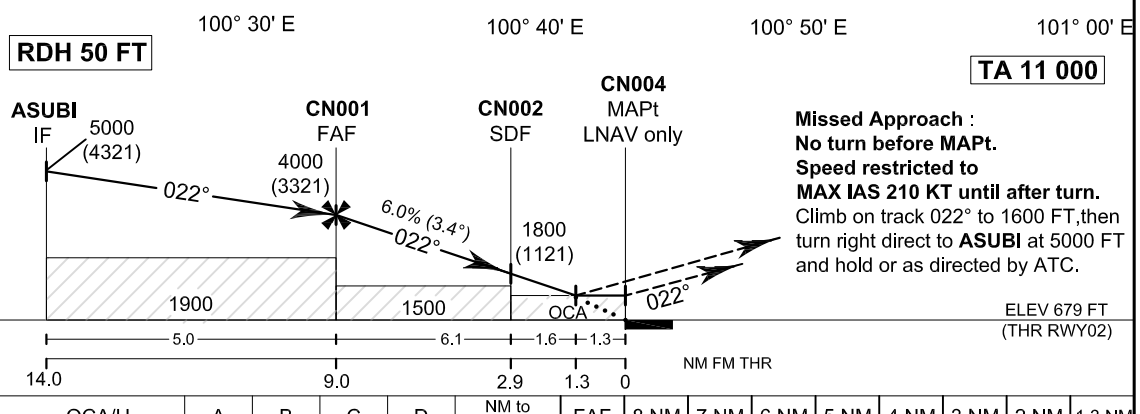
**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 685 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 679 FT

APP : 120.25
TWR : 118.55, 236.6

**NAN/Nan Nakhon (VTCN)**
**RNP RWY02**




| OCA/H | A | B | C | D | NM to NEXT WPT | FAF | 8 NM | 7 NM | 6 NM | 5 NM | 4 NM | 3 NM | 2 NM | 1.3 NM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 1200 (521) | | | | Altitude (Height) | 4000 (3321) | 3645 (2966) | 3280 (2601) | 2915 (2236) | 2550 (1871) | 2190 (1511) | 1825 (1146) | 1460 (781) | 1200 (521) |
| LNAV | 1200 (521) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 | | |
| Circling (OCH AAL) | 1500 (815) | | 2100 (1415) | | Rate of descent FAF-MAPt (6.0%) | (ft/min) | 425 | 547 | 608 | 729 | 851 | 972 | | |

CHANGE: REALIGHMENT.

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 685 FT**
HEIGHTS RELATED TO
THR RWY02 - ELEV 679 FT

**NAN/Nan Nakhon (VTCN)**
**RNP RWY02**

## TABULAR DESCRIPTION

**RNP RWY02**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | DUGEL (IAF) | - | - | +0.85 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | ASUBI (IF) | - | 007°(005.8°) | +0.85 | 6.0 | - | +5000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | OGENO (IAF) | - | - | +0.85 | - | - | +7000 | - | - | RNP APCH |
| 020 | TF | ASUBI (IF) | - | 081°(080.4°) | +0.85 | 8.2 | - | +5000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | MIBOB (IAF) | - | - | +0.85 | - | - | +7600 | - | - | RNP APCH |
| 020 | TF | EKIVI | - | 152°(151.0°) | +0.85 | 11.1 | L | +7000 | - | - | RNP APCH |
| 030 | TF | ASUBI (IF) | - | 112°(110.7°) | +0.85 | 10.0 | - | +5000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | INVAR (IAF) | - | - | +0.85 | - | - | +7600 | - | - | RNP APCH |
| 020 | TF | EKIVI | - | 202°(200.6°) | +0.85 | 20.9 | L | +7000 | - | - | RNP APCH |
| 030 | TF | ASUBI (IF) | - | 112°(110.7°) | +0.85 | 10.0 | - | +5000 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ASUBI (IF) | - | - | +0.85 | - | - | +5000 | -210 | - | RNP APCH |
| 020 | TF | CN001 (FAF) | - | 022°(020.7°) | +0.85 | 5.0 | - | @4000 | - | - | RNP APCH |
| 030 | TF | CN002 (SDF) | - | 022°(020.7°) | +0.85 | 6.1 | - | @1800 | - | - | RNP APCH |
| 040 | TF | CN004 (MAPt) | Y | 022°(020.7°) | +0.85 | 2.9 | - | @729 | - | -3.4 / 50 | RNP APCH |
| 050 | CA | - | - | 022°(020.7°) | +0.85 | - | - | +1600 | - | - | RNP APCH |
| 060 | DF | ASUBI (IF) | - | - | +0.85 | - | R | +5000 | -210 | - | RNP APCH |
| 070 | HM | ASUBI (IF) | Y | 022°(020.7°) | +0.85 | 1 minute | L | +5000 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY02**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| INVAR | 18° 58' 02.05" N | 100° 39' 31.36" E |
| MIBOB | 18° 48' 08.12" N | 100° 26' 03.27" E |
| EKIVI | 18° 38' 22.25" N | 100° 31' 44.36" E |
| OGENO | 18° 33' 27.22" N | 100° 33' 07.59" E |
| DUGEL | 18° 28' 53.32" N | 100° 40' 57.94" E |
| ASUBI | 18° 34' 49.75" N | 100° 41' 36.01" E |
| CN001 | 18° 39' 31.54" N | 100° 43' 27.52" E |
| CN002 | 18° 45' 14.84" N | 100° 45' 43.49" E |
| CN004 (THR02) | 18° 48' 00.52" N | 100° 46' 49.21" E |
| | | |

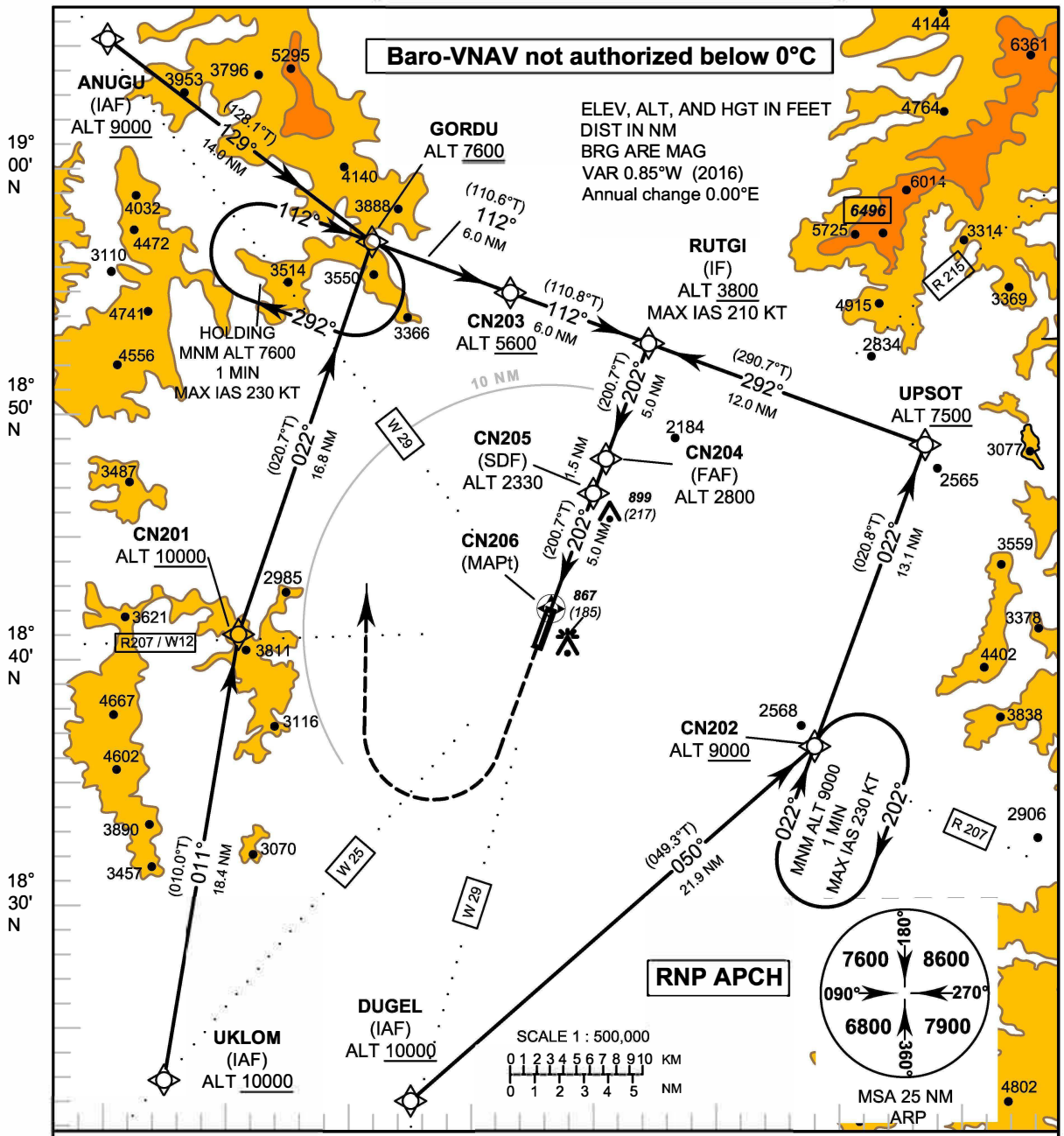
CHANGE: THR COORD.

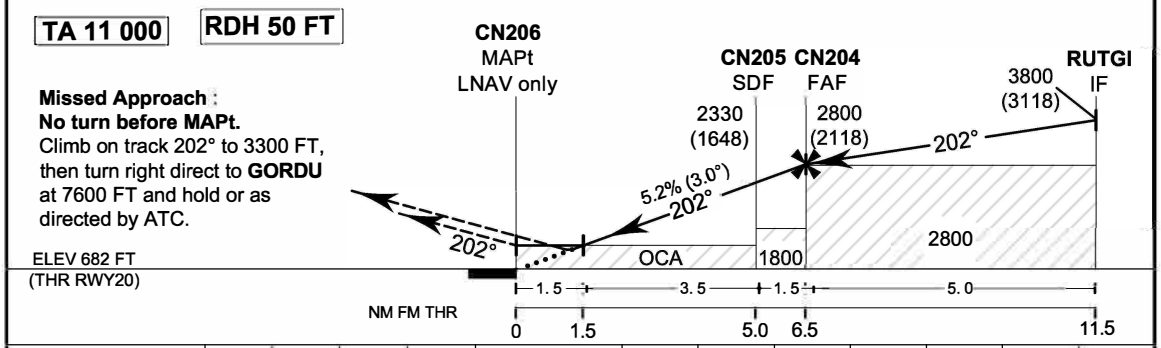
**INSTRUMENT APPROACH CHART-ICAO**

**AERODROME ELEV 685 FT**
HEIGHTS RELATED TO
THR RWY20 - ELEV 682 FT

APP : 120.25
TWR : 118.55, 236.6

**NAN/Nan Nakhon (VTCN)**
**RNP RWY20**




| OCA/H | A | B | C | D | NM to NEXT WPT | 1.5 NM | 2 NM | 3 NM | 4 NM | 5 NM | 6 NM | FAF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LNAV/VNAV | 1030 (348) | | | | Altitude (Height) | 1200 (518) | 1365 (683) | 1680 (998) | 1995 (1313) | 2310 (1628) | 2630 (1948) | 2800 (2118) |
| LNAV | 1200 (518) | | | | Ground Speed | knot | 70 | 90 | 100 | 120 | 140 | 160 |
| Circling (OCH AAL) | 1500 (815) | | 2100 (1415) | | Rate of descent FAF-MAPt (5.2%) | (ft/min) | 369 | 474 | 527 | 632 | 737 | 843 |

CHANGE: CHART TITLE.

**INSTRUMENT APPROACH CHART-ICAO** **AERODROME ELEV 685 FT**
HEIGHTS RELATED TO
THR RWY20 **-** ELEV 682 FT

**NAN/Nan Nakhon (VTCN)**
**RNP RWY20**

## TABULAR DESCRIPTION

**RNP RWY20**

| Serial Number | Path Descriptor | Waypoint Identifier | Flyover | Course ° M (° T) | Magnetic Variation | Distance (NM) | Turn Direction | Altitude (FT) | Speed (KT) | VPA/ TCH | Navigation Specification |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 010 | IF | DUGEL (IAF) | - | - | +0.85 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | CN202 | - | 050°(049.3°) | +0.85 | 21.9 | L | +9000 | - | - | RNP APCH |
| 030 | TF | UPSOT | - | 022°(020.8°) | +0.85 | 13.1 | L | +7500 | - | - | RNP APCH |
| 040 | TF | RUTGI (IF) | - | 292°(290.7°) | +0.85 | 12.0 | - | +3800 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | ANUGU (IAF) | - | - | +0.85 | - | - | +9000 | - | - | RNP APCH |
| 020 | TF | GORDU | - | 129°(128.1°) | +0.85 | 14.0 | L | +7600 | - | - | RNP APCH |
| 030 | TF | CN203 | - | 112°(110.6°) | +0.85 | 6.0 | - | +5600 | - | - | RNP APCH |
| 040 | TF | RUTGI (IF) | - | 112°(110.8°) | +0.85 | 6.0 | - | +3800 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | UKLOM (IAF) | - | - | +0.85 | - | - | +10000 | - | - | RNP APCH |
| 020 | TF | CN201 | - | 011°(010.0°) | +0.85 | 18.4 | R | +10000 | - | - | RNP APCH |
| 030 | TF | GORDU | - | 022°(020.7°) | +0.85 | 16.8 | R | +7600 | - | - | RNP APCH |
| 040 | TF | CN203 | - | 112°(110.6°) | +0.85 | 6.0 | - | +5600 | - | - | RNP APCH |
| 050 | TF | RUTGI (IF) | - | 112°(110.8°) | +0.85 | 6.0 | - | +3800 | -210 | - | RNP APCH |
| | | | | | | | | | | | |
| 010 | IF | RUTGI (IF) | - | - | +0.85 | - | - | +3800 | -210 | - | RNP APCH |
| 020 | TF | CN204 (FAF) | - | 202°(200.7°) | +0.85 | 5.0 | - | @2800 | - | - | RNP APCH |
| 030 | TF | CN205 (SDF) | - | 202°(200.7°) | +0.85 | 1.5 | - | @2330 | - | - | RNP APCH |
| 040 | TF | CN206 (MAPt) | Y | 202°(200.7°) | +0.85 | 5.0 | - | @732 | - | -3.0 / 50 | RNP APCH |
| 050 | CA | - | - | 202°(200.7°) | +0.85 | - | - | +3300 | - | - | RNP APCH |
| 060 | DF | GORDU | - | - | +0.85 | - | R | +7600 | - | - | RNP APCH |
| 070 | HM | GORDU | Y | 112°(110.6°) | +0.85 | 1 minute | R | +7600 | -230 | - | RNP APCH |

## WAYPOINT LIST

**RNP RWY20**

| Waypoint Identifier | Coordinates | |
|---|---|---|
| UKLOM | 18° 30' 05.00" N | 100° 30' 02.76" E |
| CN201 | 18° 48' 17.06" N | 100° 33' 24.54" E |
| ANUGU | 19° 12' 40.76" N | 100° 28' 00.88" E |
| GORDU | 19° 04' 02.04" N | 100° 39' 38.68" E |
| CN203 | 19° 01' 55.14" N | 100° 45' 34.52" E |
| DUGEL | 18° 28' 53.32" N | 100° 40' 57.94" E |
| CN202 | 18° 43' 14.06" N | 100° 58' 26.68" E |
| UPSOT | 18° 55' 30.53" N | 101° 03' 20.04" E |
| RUTGI | 18° 59' 46.66" N | 100° 51' 29.66" E |
| CN204 | 18° 55' 04.97" N | 100° 49' 37.70" E |
| CN205 | 18° 53' 40.46" N | 100° 49' 04.13" E |
| CN206 (THR20) | 18° 48' 58.74" N | 100° 47' 12.31" E |
| | | |