

**KATHMANDU/Tribhuvan Intl (KTM/VNKT)**

Elevation 4,395ft

**CATEGORY C**

AV brief not available

**GENERAL**

- Tribhuvan International Airport is located in the eastern part of Kathmandu, surrounded by built-up areas
- The city and airport are located in a bowl-shaped valley, surrounded by the Himalayas
- One of the top ten upcoming travel destinations in the world, one of the earlier names of the city, Kantipur, means “City of Glory”
- The Nepalese flag is unique as the only flag in the world that is not rectangular

**Threats****CFIT**

- The airfield is located in a bowl-shaped valley and there is high terrain on all sides. The most significant terrain is to the north, where the 6,000 ft contour is within 7 nm, and there is a spot height of 9,003 ft 8 nm NW
- Peaks of over 6,500 ft encircle the airfield within 10 nm
- To the W there are two spot heights of 8,379 ft asl and 8,462 ft asl at 7 nm, and further terrain in excess of 8,000 ft at 15 NM
- The 10,000 ft contour is within 20 nm N, and by 30 nm the terrain has risen to in excess of 18,000 ft asl
- Terrain is over 20,000 ft asl within 40 nm NE
- Mt Everest 29,029 ft asl 85nm/078°T

**Runway Incursion**

- Backtrack is required for full length departures from either runway

**Runway Excursion**

- The runway is situated on a ‘tabletop’ with terrain rising toward both thresholds, giving the illusion of being low with a tendency to overshoot. Make maximum use of VNAV and PAPI guidance

**Mid Air Collision**

- Paragliders operate to 6,000 ft asl 10-12 nm to the NE of the airfield in the Lafsifedi area and to 7,000 ft asl in the Bistachkap Valley area to the SE within 3-6 nm of the airfield

**Special Considerations**

- Kathmandu can be surprisingly warm and the effects of density altitude can be significant. Simfest crew see ‘HOT AND HIGH OPERATIONS’ brief for further details.

**ARRIVAL**
**Diversions Airports**

VARANASI	VNS/VEBN	190 nm/226°T	CAT A
LUCKNOW	LKO/VILK	245 nm/258°T	CAT A
DELHI	DEL/VIDP	440 nm/278°T	CAT A
KOLKATA	CCU/VECC	345 nm/150°T	CAT A

- STARs noted as 'RNP ARRIVAL' require RNP 1.0 and RF capability. If flying these STARs ensure that the RNP value is set correctly on PROG p4/4 and that ANP is sufficient. These STARs also require two GPS receivers to be operational and there are minimum temperature limits which must be observed.
- For aircraft not capable or authorised to fly the RNP arrivals conventional STARs are also available

## Approach

- Rwy 02 is the preferred landing runway and has an RNAV (RNP) approach. Simfest have special authorisation from the Nepalese CAA to fly this procedure during WorldFlight.
- VOR approaches also available
- Landing Rwy 20 will require circling from the VOR B breakcloud procedure. This procedure is not available at night and the aircraft must remain within 2.5 NM of the KTM VOR during the circuit due to the proximity of terrain to the north.
- The effects of density altitude must be considered. With an OAT of 25°C in the summer and standard pressure, the density altitude at KTM can be 6,700 feet or more, giving a TAS (and consequently GS) of around IAS + 15%. Whilst the aircraft will follow the descent profile as normal with usual configurations and thrust settings, deceleration will take significantly greater time and distance
- As a rule of thumb, a minimum of 50% extra distance should be allowed on top of normal 'gates' for deceleration. This should be increased further if other factors (e.g. tailwind, high approach speed due to weight, non-normal configuration etc) are also present.

## RNP Rwy 02

- RNP Rwy 02 approaches can start from DANFE (arrivals from N and W) or RATAN (arrivals from S). The initial approach funnels aircraft in to point KT532 from where the final approach segment is commenced.
- The approach briefing should cover:
  - Equipment serviceability (2 GPS receivers required)
  - Altimeter setting
  - How any equipment failure or loss of RNP during the approach will be dealt with
  - How navigation performance will be monitored
  - Modes and MCP altitude setting
  - Speeds and configuration points

- Handover of control for landing
- Missed approach handling
- Confirm the correct RNP value (0.30) is inserted in to PROG p4/4 prior to arrival at DANFE/RATAN. After DANFE/RATAN PM should keep PROG p4/4 displayed in order to monitor ANP vs RNP and XTK error
- It is very important that the speed restrictions on the approach are met in order to ensure the required turning radii can be achieved
- Use of LNAV, VNAV and A/P is required
- Configure early to minimise workload in the latter stages of the approach
- Handover of control for landing should occur after the aircraft is stabilised on final approach and visual references can be achieved and maintained to touchdown
- The missed approach takes the aircraft in a right hand turn overhead the airfield and out of the valley to the west. **LNAV is required.** In the event of a missed approach you will need to re-engage LNAV manually above 400R. It is critical that this is not missed!
- The missed approach also requires RNP 0.30 to DARKE and this should be confirmed and monitored on PROG p4/4 as for the rest of the approach

## DEPARTURE

- Most departures involve a climbing turn overhead the airfield to gain altitude before continuing toward the SID exit point
- Ensure SID minimum altitudes and enroute MEAs are achieved before continuing enroute
- Consider full CLB thrust and Vref + 100 kt to MEA. This can be entered as a speed restriction in to the VNAV CLB page e.g. 265/17000

## WEATHER

- The climate in the Kathmandu Valley is generally fairly temperate with summer temperatures averaging 20-25°C. Highs of 37°C have been recorded in June
- Winters are also mild with average temperatures around 10-15°C though temperatures close to 30°C have been recorded in November and 24°C in January
- Days are usually warm whilst nights and mornings are cool.
- Weather can be unpredictable with sudden and unforecast fog
- Rainfall generally associated with monsoon conditions and concentrated June-Sep. Summer sees diurnal Cb buildup with thunderstorms common in the afternoon.

**OPERATIONAL INFORMATION**

Handling Agent	Nepal Aviation
Handling Agent VHF	
Potable Water	Uplift Permitted

IF ONLY Electrical Power is required	Use at all times
If BOTH electrical power and air conditioning is required:	Use APU (ACU equipment not available). Keep GPU connected to reduce APU fuel burn.