

A DC-3 Airways World Rally 2004 flight.
Kathmandu, Nepal to Paro, Bhutan.

My thanks to Mike Ody. DC3-669.



The approach to Paro in Bhutan is one of the top forty most dangerous airports to approach in the world. You may well find out soon that it is a well deserved 'accolade'. It is imperative that you follow the described approach procedure and to be at the right speed and in full landing configuration before commencing a very steep visual approach.

A small weather file is included for this flight which when installed, will set up the weather used in the creation of the flight. Follow the included installation instructions for this.

Take off from Kathmandu Rwy 2 is in poor visual conditions, but this will clear shortly after takeoff to reveal the Himalayas in all their glory. When cruise

height is reached, if you wish, hit the 'W' key for a panoramic view of the Himalayas, and in particular look to your left to see Mount Everest which may just be visible in the distance. If you study the accompanying image, under the left wing you may just discern way below in the valley just to the left of the large outcrop what appears to be a runway...! Welcome to Paro, Bhutan!

The best of luck and enjoy a very scenic flight and a rather challenging approach to Paro.

"You are advised to start the flight with a minimum of 1,500 lb's of fuel."

From - To	<u>Flight Description.</u>				Course (Leg) deg	Distance (Leg) nm	ETE (leg) HH+MM
	Dep. Rwy : 2	Init. Hdg: 021deg	Init. Alt: 13,500ft	Apt Elev: 4,389ft			
Kathmandu (VNKT) Nepal To Paro (VQPR) Bhutan	<p>Preliminary settings. Tune NAV1 to KTM VOR/DME 112.30. Tune ADF to LDA NDB 236.0. Start flight timer on brake release at gate 4. Refer to Kathmandu, Airport layout.jpg for taxi directions to Rwy 2.</p> <p>Departure. To KTM VOR/DME 112.30: (Refer to Departure.pdf) After take off maintain runway Hdg and commence a minimum 500fpm climb to 13,500ft MSL. There is high ground straight ahead so immediately flight is stabilized commence a standard rate left turn to approximately 180degrees and fly direct to KTM VOR/DME.</p> <p>Holding Pattern: On reaching KTM VOR enter the holding pattern centered on KTM VOR. To achieve this : First make a standard rate left turn to 021 degrees and fly heading for one minute. Maintain 500 fpm climb rate. After one minute make a standard rate left turn to 201degrees and fly direct to KTM VOR. Again make a standard rate turn to 021 degrees, then continue in holding pattern until altitude of 7,500 ft MSL attained. When altitude reached, remain in pattern until next approach to KTM VOR, and then continue to En Route section.</p> <p>En Route. To LDA NDB, 236.0: (Refer to En-Route 1.pdf) Turn left to 110deg. and intercept KTM R-110 OB. Continue climb to 13,500ft MSL. Continue to track KTM R-110 until LDA NDB received. Waypoint and LDA NDB reached at KTM D-74.7.....</p>				180	5.8	00+03
					110	74.7	00+27

	<p>To BBD VOR 116.60: (Refer to En-Route 2.pdf) Turn slight right to intercept LDA NDB 111deg, bearing OB. Tune NAV1 to BBD VOR 116.60 and intercept BBD R-111 IB. Direct to VOR. Note: no DME facility at BBD VOR but for those with a DME that will read distances greater than 99.9nm, BBD VOR is located at KTM D-170.7.....</p> <p>To Fix 03: (refer to En-Route 3.pdf) Turn left to intercept BBD R-073 OB. Climb to 16,000ft MSL. Tune Nav2 to PRO VOR/DME 108.40 and set OBS to 345degrees. It is important that the course is accurately followed. Hit key 'D' frequently to ensure that the Gyro maintains calibration. Try to anticipate the turn and tune Nav1 to PRO VOR/DME 108.40 and set OBS to 345degrees. Waypoint reached when Nav 1 needle approaches center. Nav1 DME should read approximately 16.2nm.....</p> <p>Approach. To Fix 04: Turn left to intercept PRO R-345. Commence a 700fpm descent to 13,500ft MSL. When altitude reached immediately configure aircraft for landing. Lower flaps to $\frac{3}{4}$, lower gear and ensure that airspeed is no greater than 90kts when waypoint is reached. Waypoint at PRO D-1.5nm.....</p> <p>To runway: Turn left to 331deg and maintain heading as you approach a ridge. As you cross the ridge, look down into the valley and immediately ahead to the left of a rocky outcrop you should see the runway. Commence a very steep visual approach to runway. Be very aware of a large rocky outcrop prior to runway threshold. Also be aware that the groundspeed will be high due to the airport altitude and must be taken into account. The runway is generously long – thank goodness. I flew this flight many times in both FS2002 and FS9 during testing and coming safely to a halt level with the terminal building is a definite....YES!!!! Imagine the feelings of the real world pilots who do this every day!</p> <p>Land Paro Rwy 33. Length – 6,522ft. Width – 98ft. Surface – Tarmac. Refer to Paro, Airport layout.jpg for parking information. Stop flight timer when parked at terminal with engines stopped.</p>	111	95.0	00+43
		073	70.3	00+25
		345	15.0	00+08
		331	8.2	00+05

	Missed approach. A friendly word of advice – <u>Do not miss the approach!</u> But.....if you do...! I have tried to find the official procedure without success but after a degree of self sacrifice! I have determined that a turn to the left to 310 degrees and a steep climb following the course of the valleys until an altitude of at least 16,000ft MSL is achieved should place you at an altitude where you will be in a position to return to PRO VOR and a return to the approach procedure – Bona Venture!				
Flight No:- WR 04-01	Arrival Airport Elev: 7,332ft	Estimated totals for this flight>>>		271nm	01+40