

Everest Base Camp

By Ron Bushell and Norm Hancock

**My thanks to test pilots, John Achor, Bob Betts, Hoot Moninger,
Bob Reid, John Skokan, and Charles Wood .
And to my good friend, Ralph Prisel**

Read the Pictorial Essay by John Achor on his TechEd page - [Click Here](#)

For FS2002 only

An introduction from Ron.

You have been chartered by a group of marathon runners to fly from Kathmandu, Nepal (VNKT), to Janakpur, Nepal (VNJT). This is leg one of the charter. From Janakpur, the runners intend to trek up to Lukla and spend a few days in acclimatisation. Here, I quote Bob Reid....."They have chosen DC-3 Airways for this charter flight because they have heard that we are a hearty bunch of pilots who don't mind a little cooler weather, or potentially dangerous flying conditions. Due to the potential dangers these flights are daylight flights only". I would NOT recommend real weather here, at least the first time you fly them.

Leg 1 goes fine, but you are delayed due to a minor problem with fuel flow to your right Pratt engine. But here other problems begin to arise. Nepal Airways goes on strike due to labour issues with the maintenance staff, and all their Twin Otters and helicopters are grounded. You locate, Ralph, an out of work engineer, who can do your repairs. Thank goodness this fellow can also fly and knows the area. The phone calls begin from Lamidada and the runners are becoming anxious. Two of the male runners are suffering headaches and nausea and require medication to be flown in. They agree to your demand of a retainer of \$1 000 per, day which is barely enough to operate your bird but life is threatened so off you and Ralph go to Lamidada.

A word of caution...Ralph warns you that Lamidada is on a plateau and extremely difficult to spot. But unlike the next leg, you have a way out.....just gun it and fly runway heading off the plateau. Ralph recommends that before you fly this, you place your ship at Lamidada and at least have a look around. He recommends that for your first flight into here, leg two, you get the gear and flaps down early and hold altitude about 500 to 1000 feet above the runway altitude until you have good visual. Ralph also mentions that he has FS2002 at home, and

ecommands the use of the '-' and '+' keys in the mountains. He often flies with the view set at 0.31, but always remembers to increase it to normal once you have visual on the airport. Remember that to raise your seat it is shift/enter to raise it and shift/backspace to lower. To return all settings to 'normal' hit 'space'.

Now we sit at Lamidada, but thankful for the retainer. The medicine helps the sick runners and they insist on pressing on. Runners are an odd and competitive bunch, right, Norm? ;-o). Having run a fair few marathons myself - Right Ron! – Norm. A few days pass and the news you have been dreading arrives. One of the runners is in trouble at Lukla and because of the delay he has caused; the other runners are low on supplies at base camp. Your \$1,000 a day suddenly seems insignificant.

A word of EXTREME caution. We are off to Lukla and even Ralph is worried and very quiet. He cautions that there is no way out of Lukla. If you not sure about this, then you must abort before attempting the approach! Our landing is rough and Ralph is worried about the left strut. But it transpires that there is no damage and we load the sick runner with oxygen in place for all of us and away we go to base camp for the supply drop.

Note: Hoot Moninger was able to land on the glacier beside base camp, turn around and fly back down the hill to Lukla. I tried it, but seemed to take forever to slow down on the ice, and I just was not able to turn around. If you have Hoot's talent, then try it, but it is beyond me.

My recommendation is that after your drop at base camp, you turn slightly left, then do a hard 180 to the right, drop a couple of notches of laps, gear, throttle back and ride the slope back to Lukla this way.

By now you are familiar with the mountains and the next two legs are relatively easy, but don't be complacent. I had a devil of a time putting the charter together and would have given up, but for the help of the people in the header.

BTW: The idea for the charter came from Robb, my good buddy, who has run marathons twice on Everest. The 'Ralph' in this fanciful narrative is my good friend Ralph Prisel, DC3-386. Ralph is a wonderful engineer and has flown everything from Corsairs to DC3s in the real. Ralph has built four aircraft since his retirement using only hand tools and plans. No kits whatsoever.

Please be aware that you are flying an old aircraft in an extremely demanding situation. Mechanical failures did occur during flight testing but only on particular aircraft. If this should happen to you then take the appropriate action. I am not disclosing the nature of the failures; if they occur to you it will ensure an even more interesting flight!

Good luck and enjoy what has been literally months of enjoyable work by the both of us. We hope you will have fun and increase your skills flying this charter. Please send comments with your report and Ron will be pleased to post them on our DC3 Airways Website.

Ron Bushell DC3-038 and Norm Hancock DC3-134



Important. Before flying leg 1 it is necessary to make adjustments to the 'Aircraft' settings in FSNavigator in order for the flightplan to correctly display Altitude and Climb rates. To do this first open FSNavigator, go to the menu bar and click on the little black aircraft. A window called 'Aircraft' will open. **Do not forget to make a note of the settings you are about to change.** In the centre panel there is an outlined area called 'Cruise'. Change the Altitude [ft] setting to **18,000**. In the outlined area called Climb change the Rate [fpm] to **900**. In the outlined area called Descent change the Rate [fpm] to **600**. In the top panel click on 'Save' then give it a few seconds before you finally click on 'OK'. It is advisable after changing and saving the 'Aircraft' settings to close and then re-open FSNav, then re-open the flightplan you wish to use.

From - To	Flight Description. "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE(leg) HH+MM
	Dep. Rwy - 2	Init. Hdg – 152deg	Init. Alt – 11,000ft	Apt Elev. – 4,390ft			
Kathmandu, Nepal (VNKT) To Janakpur, Nepal (VNJP)	To Fix 02 After take off turn right to 168deg and intercept the 152deg radial OB from KTM VOR, 112.30. Commence a 900fpm climb to 11,000ft MSL.				152deg	11.6nm	00+05
	To JKP NDB, 287.0. When DME reads 13.5nm commence a 500fpm descent to 1,000ft MSL. When you have visual on Janakpur slow to 120kts.				152deg	58.8nm	00+23
	On station passage turn right to 241deg and fly heading for one minute. Turn right to 271deg and fly heading for one minute. Make a right 180deg turn to runway heading 091deg for visual approach to runway.						
	Land Janakpur Rwy 9. Length – 3,259ft. Width – 100ft. Surface – Asphalt.				091deg	08.3nm	00+05
Flight No. 038-03-01	Arrival Airport Elev. - 255ft MSL		Estimated totals for this flight>>>			79nm	00+33




important. Before flying leg 2 it is again necessary to make changes to the 'Aircraft' settings in order that FS Navigator may display the correct information. Follow the guidelines given for leg one but change the Climb rate [fpm] to **700**. Change the Descent Rate [fpm] to **600**. Click on 'Save', wait a few moments and then click on 'OK'.

From - To	<u>Flight Description.</u> "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE(leg) HH+MM
	Dep. Rwy - 9	Init. Hdg – 032deg	Init. Alt – 7,500ft	Apt Elev. – 255ft			
Janakpur, Nepal (VNJP) to Lamidada, Nepal (VNLD)	To Fix 02. After take off turn left to 037deg and intercept the 050deg bearing OB from JKP NDB, 287.0.				032deg	06.3nm	00+03
	To Fix 03. Tune Nav1 to BRT VOR, 114.10 and set OBS to 129deg. When needle centers commence a 500fpm descent to 4,500ft MSL. Reset OBS to 143deg. Keep to the left side of the valley. When needle centers turn right to 081deg and slow to 95kts.				050deg	43.8nm	00+18
	To runway. Track to LDA NDB, 236.0. NDB approach for a full flaps landing. Lamidada is a small grass strip situated on a plateau, marked with a white and gray cliff leading up to it. Land Lamidada Rwy 8. Length – 1,719ft. Width – 100ft. Surface – Grass.				081deg	02,7nm	00+01
Flight No. 038-03-02	Arrival Airport Elev. - 4.098ft MSL		Estimated totals for this flight>>>			53nm	00+22


important. Before flying leg 3 it is again necessary to make changes to the 'Aircraft' settings in order that FS Navigator may display the correct information. Follow the guidelines given for leg one but change the Climb rate [fpm] to **900**. Change the Descent Rate [fpm] to **600**. Click on 'Save', wait a few moments and then click on 'OK'.

A few words of advice are necessary before flying this leg. Read through the plan several times to familiarize yourself with what is required of you. You are flying in an environment where one error by you will be fatal to everyone on board. It is a difficult and demanding leg and your concentration must be absolute. A successful first flight, I guarantee, will give you a 'high' that few other flights will. That is, apart from the next leg!!

From - To	Flight Description. "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE(leg) HH+MM
	Dep. Rwy -26	Init. Hdg – 022deg	Init. Alt – 9,500ft	Apt Elev. – 4,098ft			
Lamidada, Nepal (VNLD) to Lukla, Nepal (VNLK) 	To Fix 02. After take off turn hard right to 022deg and intercept the 011deg bearing OB from LDA NDB, 236.0. Commence a 900fpm climb to 9,500ft MSL.				022deg	06.0nm	00+03
	To Fix 03. Press Shift/Enter a couple of times to raise your seat. You will observe a 'trail' which is your lifeline. Maintain a general heading of 011deg whilst observing the trail. Tune Nav1 to KTM VOR, 112.30. Set OBS to 281deg. When needle centers it will coincide with a 'Y' in the trail. Follow the LEFT fork which is a left turn to 341deg. All flying after this point is 'visual'.				011deg	07.5nm	00+03
	To Fix 04. Almost immediately you will see a further fork in the trail. Turn to the RIGHT fork on a heading of 014deg.				341deg	02.8nm	00+01
	To Fix 05. Continue to follow the trail.				014deg	02.7nm	00+01
	To Fix 06. Continue to follow the trail.				319deg	02.5nm	00+01
	To Fix 07. Continue to follow the trail.				360deg	01.8nm	00+01
	To Fix 08. When established on a heading of 019deg slow down and lower one notch of flaps and landing gear, then two more notches of flaps. Don't be fooled by a left branch of the trail here. Don't forget to press the 'space' bar to get back to regular view. Hug the left side of the valley. Lukla is situated on a little plateau visible to your right. This is a very short runway with a vertical cliff at the end. Do not attempt a landing unless you consider that you have a good chance, you will not get a second chance! Turn right to runway heading 060deg for a visual approach.				019deg	05.0nm	00+03
	Land Lukla Rwy 7. Length - 1,616ft. Width – 100ft. Surface – Grass.				060deg	01.2nm	<00+01
Flight No. 038-03-03	Arrival Airport Elev. - 9,097ft MSL		Estimated totals for this flight>>>			30nm	00+13

important. Before flying leg 4 it is again necessary to make changes to the 'Aircraft' settings in order that FS Navigator may try to display the correct information. Follow the guidelines given for leg one but change the Climb rate [fpm] to **900**. Change the Descent Rate [fpm] to **600**. Click on 'Save', wait a few moments and then click on 'OK'.

Note. You have a choice of departing left or right from Lukla. Take this from someone who has flown this leg Many times. If you turn right you will be fighting all the way, a challenge to many no doubt! If you turn left you will have the time to make an easy turn and then to 'Gun' it to the Base Camp. Likewise, on the return it is possible to land at Lukla but don't ask me to join you! Again, my 'safe' suggestion is to follow the procedure turn route and enjoy a triumphant return. This trip is completely and gloriously visual.

From - To	Flight Description. "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE(leg) HH+MM
	Dep. Rwy -25	Init. Hdg – 360deg	Init. Alt – 17.000ft	Apt Elev. – 9,097ft			
Lukla, Nepal (VNLK) to  Everest Base Camp and return to Lukla (VNLK)	The easier route is explained : - To Fix 02. Turn left to 194deg and commence a 900fpm climb to 17,000ft. After two minutes or so a wide valley will open up to your right. To Fix 06. Make a right 45/315deg turn to 005deg. (see flight plan for a graphical explanation of how to do this). The trekking trail is now easy to see, (unlike the previous leg). Keep the MP up, and use increased prop settings in this area. Climb at your best rate and try to be smooth. You will pass Lukla to your right. Three minutes after passing Lukla the trail splits. Take the RIGHT fork. To Fix 07. One minute further on the trail again splits, take the RIGHT fork. To Fixes 8/9/10/11. Continue to follow the trekking trail until a snowfield is observed ahead. You are approaching the Everest Base Camp. Make your drop, make a small left turn and then make a 180deg right turn to 232deg to place yourself on a heading to depart Base Camp. Return to Lukla. Set one notch of flaps and extend gear. Ride the slope at a nominal 600fpm and adjust rate of descent as necessary down to 10,000ft MSL. Continue past Lukla (Feel Brave, have a go!). Continue OB and complete a procedure turn as you did on the OB leg. Land Lukla Rwy 7. Length – 1616ft. Width – 100ft. Surface – Grass. Further Note: It is possible to land on the ice field and Hoot Moninger (DC3-028 and 747 Captain in the real) did just that. I tried it, but had a very difficult time turning around. If you honestly and we mean honestly! Completed this leg FIRST time Ron will be delighted to add your name to the 'Role of Honor'. If you honestly left yourself and your passengers in a snowy grave Ron will, with sorrow, add your name to the 'Role of Remembrance'.				194deg	05.1nm	00+02
					005deg	16.8nm	00+07
					029deg 058deg	02.6nm 07.9nm	00+01 00+03
					060deg	17.5nm	00+09
Flight No. 038-03-04	Arrival Airport Elev. - 9,097ft MSL		Estimated totals for this flight>>>			63nm	00+27



Important. Before flying leg 4 it is again necessary to make changes to the 'Aircraft' settings in order that FS Navigator may try to display the correct information. Follow the guidelines given for leg one but change the Climb rate [fpm] to **700**. Change the Descent Rate [fpm] to **500**. Click on 'Save', wait a few moments and then click on 'OK'.

From - To	Flight Description. "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE(leg) HH+MM
	Dep. Rwy -25	Init. Hdg – 200deg	Init. Alt – 9,500ft	Apt Elev. – 9,097ft			
Lukla, Nepal (VNLK) to Rumjatar, Nepal (VNRT)	To LDA NDB, 236.0. After take off turn initially left to 200deg. After two minutes commence a 500fpm descent to 5,500ft MSL. Follow a general heading of approx 80deg towards LDA NDB. Adjust your rate of descent as necessary to maintain a comfortable height. Aim to arrive at LDA NDB at 5,500ft at 90-120kts.				Approx 080deg	28.0nm	00+12
	To Fix 07. As the ADF needle starts to swing make a hard right turn to 285deg. Descend to 4,800ft MSL. Don't be fooled by the valley that leads back to Janakpur at 240deg. Again follow your friend, the trekking trail and hug the left side of the valley. You will attain visual on the airfield off to your right. When runway is approximately 45deg to your direction of travel turn right for a visual approach to the runway. This approach is a difficult one and so, like the others, it must be treated with great caution.				285deg	05.9nm	00+04
	Land Rumjatar Rwy 35. Length – 1,856ft. Width – 98ft. Surface – Grass.				353deg	01.4nm	<00+01
Flight No. 038-03-05	Arrival Airport Elev. - 4,498ft MSL		Estimated totals for this flight>>>			35nm	00+14



From - To	<u>Flight Description.</u> "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	ETE(leg) HH+MM
	Dep. Rwy -17	Init. Hdg – 110deg	Init. Alt – 12,500ft	Apt Elev. – 4,498ft			
Rumjatar, Nepal (VNRT) To Kathmandu, Nepal (VNKT)	To LDA NDB, 236.0. After take off turn left to 110deg and commence a 700fpm climb to 12,500ft MSL. Keep to the left side of the valley and when abeam LDA NDB make a hard right turn to 283deg. As in the last leg, do not confuse the valleys. You will see Rumjatar airfield to your front and right if you are on the correct one.				110deg	07.5nm	00+03
	To Fix 02. Tune Nav1 to BDA VOR, 113.20. When DME reads 39nm turn right to 296deg. Commence a 500fpm descent to 7,000ft MSL.				283deg	36.4nm	00+14
	To KTM VOR, 112.30. When DME reads 5.5nm commence a 500fpm descent to 6,000ft MSL. Aim to arrive over head KTM VOR at 120kts.				296deg	38.9nm	00+17
	On station passage make a left turn to 246deg and fly heading for one minute. Turn left to 201deg and fly heading for two minutes. Make a left 180deg turn to runway heading 021deg for a VOR approach to runway. Land Kathmandu Rwy 2. Length - 10,029ft. Width – 150ft. Surface – Asphalt.				021deg	13.4nm	00+07
Flight No. 038-03-06	Arrival Airport Elev. - 4,389ft MSL		Estimated totals for this flight>>>			96nm	00+42

We both trust that you have thoroughly enjoyed flying this charter as much as we enjoyed creating it. If you have completed flying all the legs of the charter and more or less survived, then you deserve a 'Very Well Done'. The testers of the charter weren't perfect you can be assured. We left rather a lot of metal up there.

One final word – **Do not forget to re-set your 'Aircraft' settings to their defaults.**