A Grand Tour Around the Great Lakes of Africa

By Norm Holman.

Your DC3 Aircraft has been chartered to fly a Team made up of Professional Big Game Hunters, Fishermen and Travel Agents around the Great Lakes of Africa and their objective is to establish suitable locations along the shores for setting up Airstrips, Camps, Lodges, etc to expand tourism in these areas.

The Flight Plans are set up mainly across the center of these Lakes but the Team will have some requests of you, the Captain, as follows: a) Can you fly lower? b) Can you go back up that cove? c) Can you fly up the left side of this Lake?

NOTAM
a) Local DCA rules are minimum altitude for Commercial Flights is 1,000 ft agl. (Include water)
b) The Flight Plan is set to regulation altitudes, but you may deviate from this per customer request, take care, the sides of the Lakes are very steep in some cases, 3,000ft.
c) Right side of Central Africa is on a high plateau, 4,000 – 5,500 ft altitude.
d) The flights are all VFR, but if using ATC, you may use the runway allocated by the Controller.
e) If using real World Weather, re-set your altimeter frequently by pressing the "B" key as there appear to be pressure changes during each flight.
f) For those who do not have FSNAV flights are also saved in FS9.
g) DAYLIGHT TRAVEL ONLY!!
h) Lake surface altitudes are given ASL.
i) Check your Navigation frequencies and altitudes, FS2000/2002/FS9 differ.

LAKES, OTHER LANDMARKS AND HISTORICAL INFORMATION

The first two Lakes, Kariba and Cabora Bassa, are "Man-Made" and are fed by the Zambezi River. They were built for Hydro Electric purposes and provide Electricity to much of the region.

All of the other Lakes, except Victoria, are situated in the Great Rift Valley which extends from Mozambique up through Africa, the Red Sea, and finishes up in the Dead Sea. They are located in deep basin type formations (The floor of Lake Tanganyika is below sea level). The Lakes are mostly Artesian, fed from the underground water table and have large rivers flowing out of them:

a) Shire River at the bottom of Lake Malawi, flows into the Zambezi. Then into the Indian Ocean.

b) Lukuga from left side of Lake Tanganyika at Kalemie, which flows into the Lualaba thence into the Congo River across Africa and into the Atlantic.

c) The Nile, which flows from Lake Victoria to Lake Albert, then through the Sudan, Egypt and into the Mediterranean, a distance of more than 2,000 miles if all the bends are included.

Lakes, Albert, Edward, George and Victoria were all named by the 18th Century Explorers after the British Monarchy at that time. (Lake Albert has been re-named Mobutu-Sese-Seko).

Kigoma (KG NDB ON FLIGHT PLAN 549-01-05) was called Ujiji and was the 'presumed' famous meeting place of Dr's Stanley and Livingstone and the coining of the famous phrase "I presume". There is currently some doubt now as to whether their meeting place was Kisangani or Ujiji.

The two Volcanoes seen on either side leaving Goma (Flight 549-01-06) are currently active and lava was reportedly flowing onto the Airfield at either Goma or Gisenye and into Lake Kivu.

FS2000/2002/FS9 NOTES
- The rivers are not all continuous and have gaps in them.
- The Democratic Republic of the Congo (DR Congo) is shown in FS2002. However, in FS2000 it is called Zaire.
- The areas you will be flying do not have many beacons and a few fixes have been inserted for FSNAV users. Every attempt has been made to accommodate the fliers who do not have FSNAV.

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-10	Init. Hdg -089deg.	Init. Alt-5500ft	Apt Elev.-3248ft.			
Livingstone **(FLLI)** Zambia to Kariba **(FVKB)** Zimbabwe	To Fix 02. After take off turn left to 089deg and intercept the 104deg radial OB from VLI VOR, 112.50. The Zambezi river will appear on your right.				089deg	04.9nm	00+02
	To Fix 03. Reached when DME reads 68nm. Your position is at the upper end of Lake Kariba.				104deg	63.9nm	00+29
	To Fix 04. Continue your heading along the centerline of the lake. After approximately forty minutes flying time turn right to 074deg and continue to follow centerline of the lake.				050deg	85.2nm	00+40
	To DW NDB. 300.0. When the coast is in sight commence 400fpm descent to and maintain 2200ft ASL.				074deg	50.8nm	00+24
	On station passage turn right to 090deg bearing OB from DW NDB. Visual approach to runway.						
	Land Kariba Rwy 9. Length – 5,412ft. Width - 59ft. Surface - Asphalt.				090deg	03.1nm	00+02
Flight No. 549-01-01	Arrival Airport Elev. – 1,702ft. ASL.		Estimated totals for this flight>>>			208nm	01+38

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-27	Init. Hdg -270deg.	Init. Alt-5500ft	Apt Elev.-1702ft.			
Kariba **(FVKB)** Zimbabwe to Blantyre **(FWCL)** Malawi.	To DW NDB, 300.0. ……………………………………………………………..				270deg	04.0nm	00+02
	On station passage turn right to the 011deg bearing OB from DW NDB.						
	To Fix 01. Reached after approximately thirteen minutes flying time from DW …. NDB.				011deg	27.3nm	00+13
	To Fix 02. Continue to follow general course of the river. Reached after roughly eighteen minutes flying time from Fix 01.				062deg	39.2nm	00+18
	To Fix 03. Again, continue to follow general course of river until it widens out into a lake. This is Fix 03.				095deg	78.8nm	00+36
	To SO NDB, 290.0. Follow centerline of the lake to its head where SO NDB is located.				094deg	114.9nm	00+53
	Track to VCL VOR, 113.30. When DME reads 20nm (Fix 04) turn left to 095deg and maintain heading.				099deg	104.4nm	00+48
	To Fix 05. Tune Nav1 to 110.30 and intercept the ILS. …………………………….				095deg	09.9nm	00+04
	Land Blantyre Rwy 10. Length - 7647ft. Width - 98ft. Surface - Asphalt. ………….				103deg	12.6nm	00+06
Flight No. 549-01-02	Arrival Airport Elev. – 2,552ft. ASL.		Estimated totals for this flight>>>			391nm	03+00

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-10	Init. Hdg -23deg.	Init. Alt-5500ft.	Apt Elev.-2552ft.			
Blantyre (FWCL) Malawi. to Karonga (FWKA) Malawi.	To Fix 02. After take off turn left to 023deg and intercept the 064deg radial OB from VCL VOR, 113.30.				023deg	06.7nm	00+03
	To Fix 03. Maintain heading until DME reads 35nm which is 3nm after passing Zomba airport and just short of Lake Chilwa.				064deg	28.0nm	00+13
	On station passage turn left to 350deg. descend to and maintain 4500ft.						
	To Club Makokola. This is a small airport located thirty one minutes flying time from Fix 03. DME will read 83nm.				350deg	65.8nm	00+31
	On station passage turn left to 319deg and maintain heading.						
	To Monkey Bay. Tune Nav1 to VLC VOR, 117.10. This airport is 53.5nm DME from VLC.				319deg	17.4nm	00+08
	On station passage turn right to 338deg and maintain heading roughly along the centerline of Lake Malawi.						
	To dvl56 ISEC. Set Nav1 OBS to 074deg. Maintain heading until needle centers.				338deg	39.8nm	00+18
	On station passage turn to 360deg and maintain heading.						
	To Orlim ISEC. Tune Nav1 to VKA VOR, 115.30 and set OBS to 152deg. Station reached when DME reads 60nm.				360deg	162.9nm	01+16
	On station passage maintain heading of 360deg.						
	To Fix 04. When the coast is reached, turn left and follow the coast. ……………..				360deg	55.7nm	00+26
	To Fix 05. Set Nav1 OBS to 210deg and when needle centers turn left to 230deg which is the base leg.				319deg	24.4nm	00+11
	To Fix 06. Descend to and maintain 3500ft. ASL. Reset Nav1 OBS to 141deg, When needle centers turn left to runway heading 141deg. Commence a VOR approach to runway.				230deg	23.4nm	00+12
	Land Karonga Rwy 14. Length - 4208ft. Width - 59ft. Surface - Asphalt. ………….				141deg	08.1nm	00+05
Flight No. 549-01-03	Arrival Airport Elev. – 1,761ft. ASL.		Estimated totals for this flight>>>			433nm	03+21

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-32	Init. Hdg -288deg.	Init. Alt-8500ft	Apt Elev.-1761ft.			
Karonga **(FWKA)** Malawi. to Kalemie **(FZRF)** Congo (DRC)	To Fix 02. After take off turn left to 288deg and intercept the 296deg radial OB from VKA VOR, 115.30.				288deg	05.7nm	00+03
	To Mbala airport. Maintain heading when signal from VKA VOR fades And Lake Tanganyika and Mbala runway will be seen shortly afterwards. On station passage turn right to 327deg and descend to 4500ft ASL. Maintain heading until KMI VOR received.				296deg	159.9nm	01+11
	Track to KMI VOR, 116.30. DME is not available. Tune ADF to KMI NDB, 261.0. When bearing to station indicates 300deg (Fix 03), turn left to that heading.				327deg	208.3nm	01+33
	To KMI NDB, 261.0. Aim to arrive at 3500ft ASL and 95kts. …………………….. On station passage turn right to 055deg. Track to KMI VOR.				300deg	10.9nm	00+06
	Land Kalemie Rwy 6. Length – 5741ft. Width – 98ft. Surface – Asphalt. ……….. **Mind the VOR mast building!**				057deg	04.5nm	00+03
Flight No. 549-01-04	**Arrival Airport Elev. – 2,568ft. ASL.**		**Estimated totals for this flight>>>**			**389nm**	**02+56**

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-6	Init. Hdg -057deg.	Init. Alt-5500ft	Apt Elev.-2568ft.			
Kalemie **(FZRF)** Congo (DRC) to Goma **(FZNA)** Congo (DRC)	To Fix 02. After take off continue on runway heading until you are at 5500ft ASL. Turn left to 341deg and intercept the 003deg radial OB from KMI VOR, 116.30.				057deg	37.8nm	00+17
	To BJA VOR, 112.30. …………………………………………………………………..				003deg	120.8nm	00+58
	To KB NDB, 321.0. Climb to 8500ft ASL. Located at the southern end of Lake Kivu.				336deg	58.5nm	00+26
	To BG NDB, 264.0. Descend to 7500ft ASL. …………………………………………...				034deg	39.0nm	00+17
	Track to GOM VOR, 116.5. Commence 500fpm descent to 5500ft ASL when DME reads 10nm. VOR approach to runway. **A tricky approach.**						
	Land Goma Rwy 36. Length – 9885ft. Width – 148ft. Surface – Asphalt.				355deg	14.2nm	00+08
Flight No. 549-01-05	**Arrival Airport Elev. – 5,085ft. ASL.**		**Estimated totals for this flight>>>**			**264nm**	**02+01**

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-18	Init. Hdg -025deg.	Init. Alt-9500ft.	Apt Elev.-5085ft.			
Goma (FZNA) Congo (DRC) to Bunia (FZKA) Congo (DRC)	To GY NDB, 310.0. After take off continue runway heading until GOM VOR, 116.5 DME reads 3nm. Turn left to 025deg. Commence a brisk climb. On station passage turn left to the 018deg bearing OB from GY NDB. Pass over the saddle between two volcanoes.				025deg	07.9nm	00+04
	To Katale airport. Reached when GOM DME reads 24nm.				018deg	23.3nm	00+10
	To Fix 02. Descend to 7500ft ASL. Reached when GOM DME reads 66nm.				002deg	42.2nm	00+19
	To KA NDB, 273.0. You will pass over Lake Edward followed by Lake George which will be seen to your right.				043deg	63.7nm	00+28
	On station passage turn left to the 027deg bearing OB from KA NDB. To Fix 03, Lake Albert. Tune Nav1 to BUN VOR, 114.00. DME is not available. Set OBS to 280deg. When needle centers turn left to runway heading 280deg. VOR approach to runway. Do not descend below 6000ft ASL until runway is in sight.				027deg	86.7nm	00+39
	Land Bunia Rwy 28. Length – 6070ft. Width – 98ft. Surface – Asphalt. **Mind the VOR mast building.**				280deg	32.2nm	00+15
Flight No. 549-01-06	**Arrival Airport Elev. – 4,041ft. ASL.**		**Estimated totals for this flight>>>**			**256nm**	**01+54**

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-10	Init. Hdg -100deg.	Init. Alt-7500ft	Apt Elev.-4010ft.			
Bunia (FZKA) Congo (DRC) to Entebbe (HUEN) Uganda.	Tune Nav1 to BUN VOR, 114.00. Set OBS to 100deg. After take off climb very briskly to clear high ground. Intercept the 100deg radial OB from BUN VOR.						
	To Fix 01. Located on centerline of Lake Albert. This can be roughly located by tuning Nav1 to NN VOR, 117.50 and setting OBS to 130deg. DME cannot be used at this distance on the DC-3. When needle centers turn left to 047deg.				100deg	29.6nm	00+13
	To Fix 02. Continue along center line of lake. You will see ahead the Albert Nile flowing out to the north. Reset Nav1 OBS to 155deg. When needle centers turn right to 077deg. Maintain general heading and follow the Victoria Nile upstream.				042deg	60.7nm	00+27
	To Fix 03. Reset Nav1 OBS to 166deg. Descend to 5500ft. When needle centers turn right to 105deg.				077deg	30.2nm	00+14
	To fix 04. Reset Nav1 OBS to 177deg. When needle centers turn right to 177deg.				105deg	27.8nm	00+13
	Track to NN VOR. When DME reads 20nm (Fix 05) turn right to 185deg.				177deg	111.4nm	00+51
	Tune Nav1 to 110.70 and intercept the ILS. Land Entebbe Rwy 17. Length – 12,016ft. Width – 148ft. Surface – Asphalt. …..				172deg	20.1nm	00+11
Flight No. 549-01-07	**Arrival Airport Elev. – 3,779ft. ASL.**		**Estimated totals for this flight>>>**			**280nm**	**02+09**

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-17	Init. Hdg -118deg.	Init. Alt-5500ft	Apt Elev.-3779ft.			
Entebbe **(HUEN)** Uganda. to Nairobi **(HKJK)** Kenya.	To Fix 02. After take off turn left to 118deg and intercept the 139deg radial OB from NN VOR, 117.5.				118deg	09.9nm	00+05
	To MU NDB, 312.0. …………………………………………………………………………..				139deg	115.1nm	00+53
	On station passage turn left to the 087deg bearing OB from MU NDB. Climb to 9500ft. ASL. Maintain heading until NV VOR received.						
	Track to NV VOR, 113.10. When DME reads 50nm turn right to 099deg ………..				087deg	154.8nm	01+08
	Tune Nav1 to 110.30. Descend to and maintain 7500ft. ASL. Intercept the ILS.						
	Land Nairobi Rwy 6. Length – 13,350ft. Width – 148ft. Surface – Asphalt. ………				054deg	35.8nm	00+18
Flight No. 549-01-08	**Arrival Airport Elev. – 5324ft. ASL.**		**Estimated totals for this flight>>>**			**316nm**	**02+22**