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)	
	Dep. Rwy-12	**Init. Hdg -089deg.**	**Init. Alt-4500ft**	**Apt Elev.-3490ft.**			
Victoria Falls **(FVFA)** Zimbabwe to Kariba **(FVKB)** Zimbabwe	After take off turn left to 089deg and intercept the 089deg radial OB from VFA VOR, 116.70. The Zambezi river will appear on your right.				089deg	68.0nm	
	To Fix 03. Reached when DME reads 68nm. Your position is at the upper end of Lake Kariba.				050deg	85.0nm	
	To Fix 04. Continue your heading along the centerline of the lake. After approximately forty minutes flying time turn right to 073deg and continue to follow centerline of the lake.				073deg	51.0nm	
	To DW NDB. 300.0. When the coast is in sight commence 400fpm descent to and maintain 2200ft ASL.				089deg	03.6nm	
	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. ……						
Flight No. 549-01-01	**Arrival Airport Elev. – 1,702ft. ASL.**		**Estimated totals for this flight>>>**			**208nm**	

From - To	**Flight Description. "Allocated runways and related information may change when flying online or using Real Weather"**				Course (Leg)	Distance (Leg)	
	Dep. Rwy-27	**Init. Hdg -270deg.**	**Init. Alt-5500ft**	**Apt Elev.-1702ft.**			
Kariba **(FVKB)** Zimbabwe to Blantyre **(FWCL)** Malawi.	To DW NDB, 300.0. ……..				269deg	03.6nm	
	On station passage turn right to the 010deg bearing OB from DW NDB.				010deg	27.0nm	
	To Fix 01. Reached after approximately thirteen minutes flying time from DW …. NDB.				062deg	39.0nm	
	To Fix 02. Continue to follow general course of the river. Reached after roughly eighteen minutes flying time from Fix 01.				095deg	194.0nm	
	To SO NDB, 290.0. Follow centerline of the lake to its head where SO NDB is located.				100deg	127.0nm	
	Track to VCL VOR, 113.30.						
	Tune Nav1 to 110.30 and intercept the ILS. ……..						
	Land Blantyre Rwy 10. Length - 7647ft. Width - 98ft. Surface - Asphalt. ……						
Flight No. 549-01-02	**Arrival Airport Elev. – 2,552ft. ASL.**		**Estimated totals for this flight>>>**			**391nm**	

From - To	**Flight Description.** "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	
	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 024deg and intercept the 068deg radial OB from VCL VOR, 113.30. To WP1. Maintain heading until DME reads 35nm which is 3nm after passing Zomba airport and just short of Lake Chilwa. At WP1 turn left to 350deg. descend to and maintain 4500ft. To WP, located thirty one minutes flying time from WP1. DME will read 83nm. At WP2 passage turn left to 320deg and maintain heading. To WP3, Monkey Bay. Tune Nav1 to VLC VOR, 117.10. This airport is 53.5nm DME from VLC. To Fix 04. When the coast is reached, turn left and follow the coast. …… To Fix 05. Set Nav1 OBS to 210deg and when needle centers turn left to 230deg which is the base leg. To Fix 06. Descend to and maintain 3500ft. ASL. Reset Nav1 OBS to 139deg, When needle centers turn left to runway heading 139deg. Commence a VOR approach to runway. Land Karonga Rwy 14. Length - 4208ft. Width - 59ft. Surface - Asphalt. ……				024deg 068deg 344deg 320deg 357deg 319deg 230deg 139deg	06.2nm 40.0nm 58.0nm 31.0nm 251.0nm 24.0nm 23.0nm 08.6nm	
Flight No. 549-01-03	**Arrival Airport Elev. – 1,761ft. ASL.**		**Estimated totals for this flight>>>**			**441nm**	

From - To	Flight Description. "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	
	Dep. Rwy-32	**Init. Hdg -288deg.**	**Init. Alt-8500ft**	**Apt Elev.-1761ft.**			
Karonga **(FWKA)** Malawi. to Kalemie **(FZRF)** Congo (DRC)	After take off turn left to intercept the 296deg radial OB from VKA VOR, 115.30. 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 325deg and descend to 4500ft ASL. Maintain heading until KMI VOR received. To WP1 continue heading 325deg until KMI VOR shows 055deg. At WP1 turn to 055deg and track KMI VOR to Kalemie airport. . Land Kalemie Rwy 6. Length – 5741ft. Wid055 th – 98ft. Surface – Asphalt. …….. **Mind the VOR mast building!**				296deg 325deg 055deg	165.0nm 218.0nm 05.0nm	
Flight No. 549-01-04	**Arrival Airport Elev. – 2,568ft. ASL.**		**Estimated totals for this flight>>>**			**388nm**	

From - To	Flight Description. "Allocated runways and related information may change when flying online or using Real Weather"				Course (Leg)	Distance (Leg)	
	Dep. Rwy-6	**Init. Hdg -057deg.**	**Init. Alt-5500ft**	**Apt Elev.-2568ft.**			
Kalemie **(FZRF)** Congo (DRC) to Goma **(FZNA)** Congo (DRC)	To Fix 01. After take off continue on runway heading until you are at 5500ft ASL. Turn left to intercept the 001deg radial OB from KMI VOR, 116.30. To BJA VOR, 112.30. …….. To KB NDB, 321.0. Climb to 8500ft ASL. Located at the southern end of Lake Kivu. To BG NDB, 264.0. Descend to 7500ft ASL. …….. 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.				056deg 001deg 338deg 033deg 354deg	1.8nm 145.0nm 59.0nm 39.0nm 15.5nm	
Flight No. 549-01-05	**Arrival Airport Elev. – 5,085ft. ASL.**		**Estimated totals for this flight>>>**			**269nm**	

From - To	Flight Description. "Allocated runways and related information may change when flying online or using Real Weather"	Course (Leg)	Distance (Leg)	

	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 4nm. On station passage turn left to the 007deg bearing OB from GY NDB. Pass over the saddle between two volcanoes. To Fix 02. Descend to 7500ft ASL. Reached when GOM DME reads 66nm. To KA NDB, 273.0. You will pass over Lake Edward followed by Lake George which will be seen to your right. On station passage turn left to the 026deg bearing OB from KA NDB. To Fix 03, Lake Albert. Tune Nav1 to BUN VOR, 114.00. DME is not available. Set OBS to 278deg. When needle centers turn left to runway heading 278deg. VOR approach to runway. Do not descend below 6000ft ASL until runway is in sight. Land Bunia Rwy 28. Length – 6070ft. Width – 98ft. Surface – Asphalt. **Mind the VOR mast building.**				183deg 007deg 040deg 026deg 278deg	03.9nm 68.0nm 64.0nm 87.0nm 32.4nm	
Flight No. 549-01-06	**Arrival Airport Elev. – 4,041ft. ASL.**		**Estimated totals for this flight>>>**			**256nm**	

From - To	**<u>Flight Description.</u> "Allocated runways and related information may change when flying online or using Real Weather"**				**Course (Leg)**	**Distance (Leg)**	
	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 99deg. 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 040deg. 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 076deg. Maintain general heading and follow the Victoria Nile upstream. To Fix 03. Reset Nav1 OBS to 166deg. Descend to 5500ft. When needle centers turn right to 104deg. To fix 04. Reset Nav1 OBS to 176deg. When needle centers turn right to 176deg. Track to NN VOR. When DME reads 20nm (Fix 05) turn right to 172deg. Tune Nav1 to 110.70 and intercept the ILS. Land Entebbe Rwy 17. Length – 12,016ft. Width – 148ft. Surface – Asphalt. …..				99deg 040deg 076deg 104deg 176deg 172deg	29.0nm 61.0nm 30.0nm 28.0nm 111.0nm 21.0nm	
Flight No. 549-01-07	**Arrival Airport Elev. – 3,779ft. ASL.**		**Estimated totals for this flight>>>**			**280nm**	

From - To	**Flight Description.** **"Allocated runways and related information may change when flying online or using Real Weather"**				Course (Leg)	Distance (Leg)	
	Dep. Rwy-17	**Init. Hdg -118deg.**	**Init. Alt-5500ft**	**Apt Elev.-3779ft.**			
Entebbe **(HUEN)** Uganda. to Nairobi **(HKJK)** Kenya.	After take off turn left to intercept the 137deg radial OB from NN VOR, 117.5. To MU NDB, 312.0. …….. 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 0115deg ……. 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. …….				137deg 087deg 115deg 053deg	123.0nm 170.0nm 7.2nm 17.4nm	
Flight No. 549-01-08	**Arrival Airport Elev. – 5324ft. ASL.**		**Estimated totals for this flight>>>**			**318nm**	