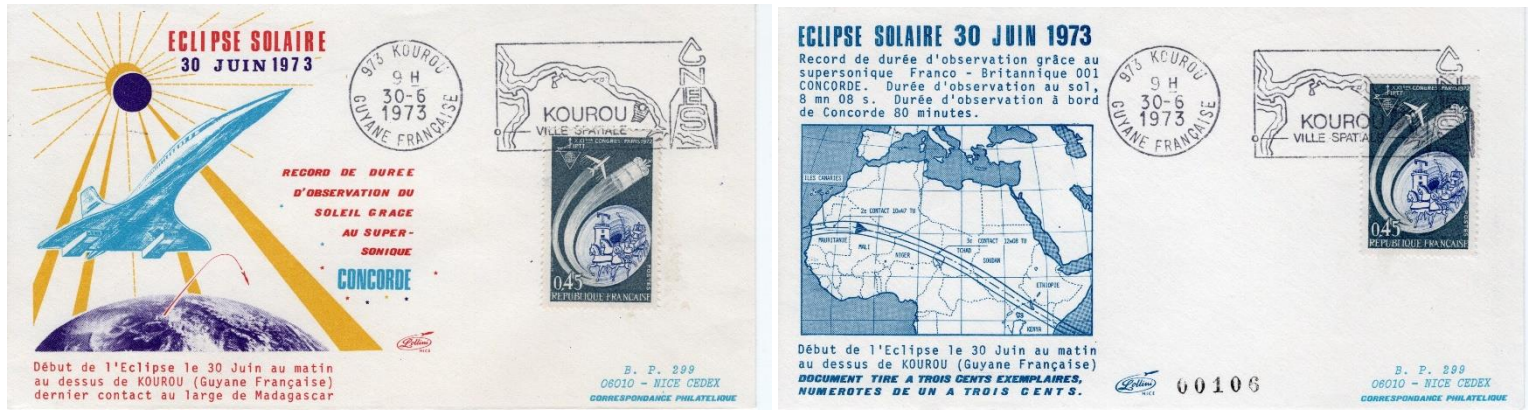


Chasing an Eclipse Across Africa: The Total Solar Eclipse of June 30, 1973

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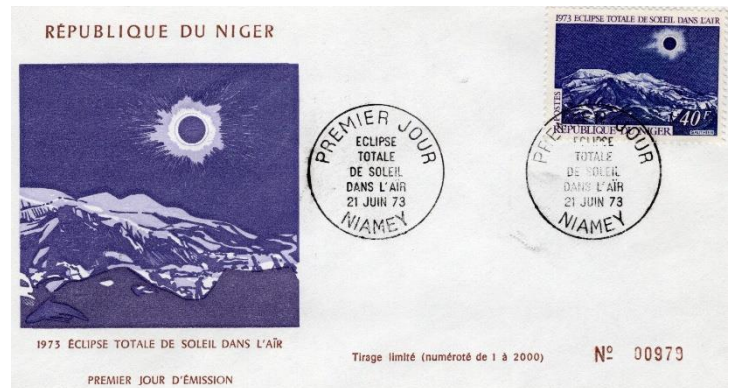
The total solar eclipse of June 30, 1973 offered an exceptionally long 7 minutes and 4 seconds of totality, just a fraction of a second under that of the June 1937 eclipse which was the longest in over 1000 years. The eclipse path traversed the northern half of Africa from coast to coast and attracted great interest from both scientists and the public. At this time the supersonic passenger aircraft Concorde was being jointly developed by France and the UK, and French astronomer Pierre Lena had an idea of using the prototype Concorde as a platform for studying the eclipse, chasing the moon's shadow and thereby lengthening the time available to observe the eclipse. Through coordination with Andre Turcat, the Concorde test pilot for France's developer, Aerospatiale, the company approved a plan to modify the prototype Concorde 001 F-WTSS with special viewing ports and to fly a team of astronomers from France, the UK and US across Africa along the eclipse path at twice the speed of sound. The now historic flight extended the total eclipse observation period to a record 74 minutes, 10 times the maximum afforded by nature, a record that has not been exceeded to this day.



At dawn on June 30, 1973 the moon's shadow made its first contact with the earth on the northeast coast of South America, very close to the French spaceport in Kourou, French Guiana. The shadow then raced across the Atlantic Ocean, making landfall again in West Africa. The covers above from the cachet maker Lollini were cancelled at Kourou on the day of the eclipse to commemorate the historic Concorde flight.



After takeoff from Las Palmas, Canary Islands, Concorde 001 intercepted the moon's shadow over Mauritania. The cover at left shows the Concorde chasing the eclipse, and also depicts observations that took place from the ground and sounding rockets.



The flight path of Concorde 001 continued along the eclipse path from Mauritania, into Mali and Niger, and then into Chad where it landed. Above is a first day of issue cover for Niger's commemorative stamp issue for the eclipse. The cover at left, with Aerospatiale postage meter franking, includes a cachet commemorating the historic eclipse flight indicating the takeoff location at Las Palmas, and landing location in Fort Lamy, Chad. The Concorde eclipse flight was a complete success from the standpoint of the science mission, as well as a demonstration of amazing precision flying, navigation and flight engineering skill.

