

Project Long Gone: 80 Hours Airborne in a B-47

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Paths to the Present
FLASHBACK



Boeing B-47E Stratojet, 53-2271 takes on a load of fuel from KC-135A Stratotanker, 62-3567. The all-jet KC-135 replaced the slower KC-97 in the aerial refueling role making it easier for the pilots of the latest jet bombers, like the B-47 shown above, which flew close to stall speeds when refueling from the earlier prop aircraft. Boeing Historical Archives.

Editor's note: The text for this product was extracted from a November 1959 report written by Captain Franklin D. Van Wart, Project Engineer assigned to the Escape Section, Biophysics Branch, Aerospace Medical Laboratory at Wright Air Development Center. Minor alterations were made for historical clarity.

A Wright Air Development Center (WADC) B-47 landed at 11:49 A.M. Monday, 30 November 1959, after 80 hours and 36 minutes in the air. The flight covered 39,200 statute miles—equal to a flight one and three-fifths times around the world. Refueled by a WADC KC-135 (S/N 55-3134) jet tanker, the B-47 (JB-47E, S/N 51-2359) was flown during the greatest part of its flight by Capt. Shelton J. Anthony Jr., of WADC's Directorate of Flight and All-Weather Testing. The longest jet flight previously was also made by a B-47 on November 17, 1955. That aircraft flew 21,000 miles in 47 hours and 35 minutes.

Primary purpose of the flight was to test the effectiveness of an experimental, tilting ejection seat equipped with a pulsating cushion and pneumatic back rest. Also studied were long-range habitability problems, minimum space requirements for pilots, and techniques necessary to keep him efficient and comfortable. This test was one of various studies to extend man's ability to fly efficiently for long periods of time that are being conducted by WADC. Extended flights in both atmospheric and space vehicles of the future were anticipated in the WADC investigations.





Prior to his assignment to the Wright Air Development Center, Captain Shelton Anthony Jr. was a graduate of USAF Test Pilot School, Class 58C. AFTC History Office photo.

Tests also were conducted on a new high-pressure refueling system during the flight.

Captain Anthony remained in the seat during the entire 80-hour flight, handling the controls except for brief rest periods. He flew all the refueling contacts. Making the flight with Captain Anthony were Captains Frank D. Frazier, and Click D. Smith, also experimental test pilots.

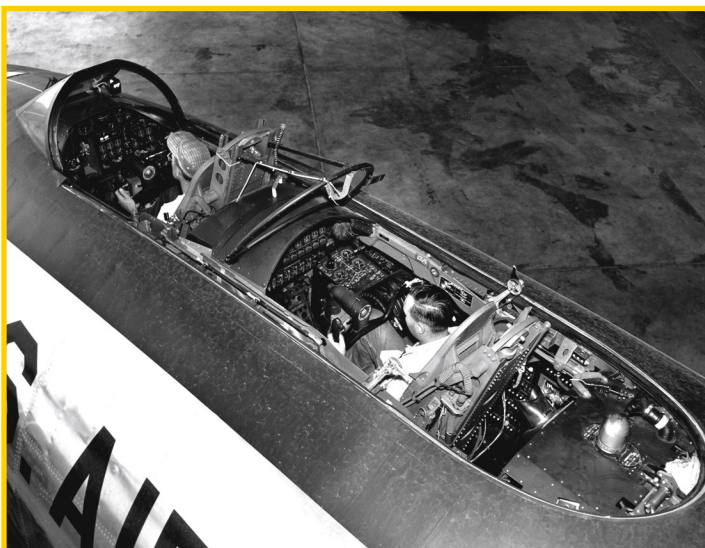
The B-47 took off from Wright-Patterson Air Force Base at 3:13 A.M. on Friday, November 27. All the refueling contacts for the flight were made in the Dayton, Ohio area. Four flight paths were flown repeatedly by the B-47 during the mission. These were Dayton to Illinois, Texas, New Mexico, and return; Dayton to Michigan, North Dakota, Montana, Colorado, Illinois, Kentucky and return; Dayton to Tennessee,

Florida, Louisiana, Oklahoma, and return; and Dayton to Maine, South Carolina, Louisiana, Missouri, Illinois and return.

Captain Anthony had the latest equipment to make his long-term "sit" endurable. The tiltable seat was equipped with a pulsating cushion which operated on a 20-second cycle. It inflated in one second and remained inflated for 20 seconds. Then it deflated in one second and remained that way for 20 seconds, after which the cycle was repeated.



The aircraft used for the long endurance flight, JB-47E 51-2359, parked on the ramp at Wright-Patterson AFB, OH. Note the Air Research & Development Command (ARDC) emblem on the nose. Boeing Historical Archives.



A lumbar pneumatic back rest could be inflated or deflated at the discretion of Captain Anthony to give him a change of position. The cushion, backrest and seat were developed by the Escape Section of the Aerospace Medical Laboratory. The pan in the tiltable seat adjusts from five degrees to fifteen degrees to twenty-one degrees aft of vertical, so that in any emergency a pilot need not straighten his seat before ejection. The seat was constructed by Stanley Aviation Company, Denver, Colorado.

The cramped confines of the B-47 cockpit show up well in this view with the canopy removed. USAF Photo.

Dr. Robert Headley, WADC Aerospace Medical Laboratory medical officer, reported all three men were in good condition after the flight. He reported no adverse effects upon the man's circulatory systems from the long period of remaining seated. Capt. Franklin Van Wart, of the Aerospace Medical Laboratory, was project officer for development of the seat. Captain Anthony was project officer for the Directorate of Flight and All-Weather Testing.

GENERAL FLIGHT DATA

Cruise Altitude- 35,000 ft.

Refuel Altitude- 23,000 ft.

Distance- 39,200 miles

Air Speed- 490 MPH/425 KTS

Cabin Altitude- 8,000 ft.

Flight Time- 80 Hours, 36 Minutes

Take Off Time- 0313 Friday, 27 Nov 59

Landing Time- 1149 Monday 30 Nov 59

I.P. - Capt. Shelton Anthony, Jr.

P. - Capt. Click Smith

C.P. - Capt. Frank Frazier



A B-47 Stratojet pulls in behind the KC-135 Stratotanker to take on fuel. Boeing Historical Archives.



With its small landing chute, and deceleration parachute, streaming in the breeze, B-47E, 51-2359, taxi's by the photographer after landing at McConnell AFB, Kansas. USAF photo.

KC-135A, 55-3134, was the only aerial refueling tanker used for the record-setting flight of the B-47. making ten aerial refuelings over the 80-hour mission. Modified later as part of the early Airborne Laser Experiment program, the designation changed to NKC-135A. USAF Photo.



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