

B-47 Operations at Wright-Patterson AFB
From "The B-47 Stratojet Centurion of the Cold War"
By Col Sigmund Alexander, USAF (Ret)

The 4950th Test Wing was disestablished in 1994, thus ending flight testing at Wright Patterson AFB that began in 1905. The historian's office of the Aeronautical Systems Center published a book entitled "Against The Wind: 90 Years of Flight Test in the Miami Valley" shortly thereafter. There is only one reference to the B-47 in the book, and that is on page 46 where it stated that in an experiment for the Weather Bureau in 1965 Rough Rider program that a B-47 dropped chaff into a thunderstorm as the F-100 penetrated the storm. There is a picture of a wing of a B-47 (unidentified), which is the cover page for Chapter Two, Test Flying Operations (1950-1975). Little credit to an aircraft which was used for almost twenty years at Wright Patterson AFB. The reasons are that the majority of tests were project oriented and the only role the aircraft played was that of a test bed and the classified nature of others precluded releasing information regarding them.

The maximum number of B-47s assigned to Flight Test at Wright Patterson AFB was fourteen, according to retired Colonel Jesse Jacobs who flew the B-47 at Wright Field. The Stratojet was assigned to Flight Test from the fifties until 1969. The aircraft were used in all weather, icing and cold weather testing and to support the various Wright Field Laboratories. The prefix N identified aircraft permanently assigned for testing and J used to designate aircraft temporarily assigned for testing. It is difficult to ascertain all the tests in which the B-47s were involved in since the B-47 was merely the vehicle for a specific test or project. Many of the tests were very interesting and important.

Both Jesse Jacobs and Joe Cotton, also a retired Colonel, flew B-47B's # 49-2643 and 50-054, which were equipped with J57s in #1 and #6 positions. The J57 equipped B-47s were used for accelerated service testing of the J57s, the engine being destined for the B-52, F-100, F-101, and the F-102. The J57 considerably improved the take off performance of the B-47, and in exercises with ADC fighters the J57 equipped B-47s were able to climb up to 48,000 feet to evade them. It would have been truly interesting if tests were conducted at this time to determine what that improved performance of the B-47 equipped with four J57s in lieu of the six J47s would have been. These tests were never run for fear that the improved performance of the B-47 could rival that of its big brother, the B-52, and thereby endanger the procurement of the Strat-O-Fortress. Interestingly enough, Pratt and Whitney's historical office has no record of the J57 equipped B-47s.

Jesse was also involved in a number of tests involving the B-47 itself. Among them tests: of various firing sequences for ATO while rolling down the runway, long bomb bay drop tests over Lake Erie that led to the development of bomb bay spoilers, and the development of the downward ejection seat. Colonel Jacobs was checked out in the LABS maneuver by Boeing test pilot Jack Funk. Jesse chaired a committee to determine which B-47s would be used to fly LABS. The alternatives were either using aircraft that required up to four units of aileron trim at 425 KIAS or going through the entire B-47 fleet to identify 150 aircraft that required only two units of aileron trim at 425 KIAS. The selected aircraft were to be modified with the AN/AJB-4 LABS system, a roll/yaw gyro, and a very accurate tube-type Lear accelerometer.

Wilbur "Bill" Giesler, An Air Force retired Lieutenant Colonel, flew B-47 # 2280 on tests used to develop Fly by Wire (FBW) Bill was the project test pilot for Phase II that incorporated a side stick controller for both FBW pitch and roll control. The controller was a radar bombing tracking handle obtained from salvage. Bill stated that the FBW B-47E was "superior in every respect concerning control" and that "best of all the feel was good". He was also involved in the testing of a laser camera developed by Perkins Elmer, which was later miniaturized and used on the RF-4 and flew in NB-47H which was used in a test to ascertain what astronauts could see on earth from space.

Colonel Bill Guthrie, USAF (Ret.), the past commandant of the test pilot's school, wrote that on his arrival at Wright-Patterson in 1959 he flew the B-47 in various avionics tests, targets for the Air Defense Command, and various other mundane tests. He was involved in early stealth tests with the B-47 in which mesh screens were mounted over the engines to determine if by so doing the radar signature could be reduced. The most memorable experience involving the B-47 he remembered related to the Shelton (Bill) Anthony flight when he flew the aircraft for approximately 96 hours utilizing in-flight refueling, while they tested a new seat for SAC. This broke the existing record of 47 hours and 35 minutes established by Colonel, later General Burchinall, in 1954. Marcelle Size Knaack in her book, "Encyclopedia of U.S. Air Force Aircraft and Missile Systems, Volume 11, Post-World War II Bombers 1945-1973" wrote that on 30 November 1959, a Wright Air Development Center B-47 set a record flying for 3 days, 8 hours, and 36 minutes. Whether it was three days or 96 hours, it was a truly outstanding achievement Colonel Harold Christian, who was in charge of the bomber branch at Wright Field stated that in addition to the seat test, the crew was involved in testing the endurance of the J57 engines. In this flight, Clark Smith and Tom Summers accompanied Anthony. The flight according to Christian refuelings and was only ended by radio failure, though extra radios were carried. He remembers that the flight lasted for around 67 hours.

Colonel Christian was involved in the early LABS testing with Boeing test pilot Dick Taylor. Christian recalls one memorable moment when he was flying chase for Taylor in an F-86, which was equipped with a camera on the wing to photograph the maneuver. The F-86 would end its chase at the top of the maneuver while the B-47 dove to earth to complete the half-Cuban eight. On this occasion Taylor inexplicably turned toward the F-86 and the two aircraft found themselves canopy to canopy only four to five feet apart. How they extricated themselves is unclear, but they managed to land and live to talk about it.

Colonel Christian spent quite a time at Boeing/Wichita working with Boeing, General Electric, and the University of Texas on testing the defensive armament system of the B-47. In 1958 or 1959, he was involved in testing a classified jammer. It was a low level mission originating in South Carolina that was planned to penetrate the New York area air defense zone. As they approached New York, the jammers were turned on which caused an almost total interference and disruption of radio and television activity in the New York metropolitan area. Needless to say the test was a success.

Lt Col. Terry Scanlon, USAF (Ret.) provided the following regarding the B-47 involvement in the Apollo program. The engineers on the Apollo program needed to

measure the stress experienced on the small Apollo chute during deployment. A test involving the B-47 was devised. A B-47 was fitted with the chute that required the B-47 to fly fifty feet above the Wright Patterson golf course at a speed ten knots above approach speed. When properly positioned, the Apollo chute would be deployed and the necessary data collected and photography taken. The first run across the golf course was to be a dry run and the second would involve actual chute employment. Unfortunately during the dry run, the copilot inadvertently released the brake chute causing the aircraft to lose 30 knots in airspeed before the Apollo chute was released. That concluded the test for the day for the day. The test was rescheduled and was accomplished successfully at a later date.

Bill Giesler stated that NB-47H 53-2104 was used in tests to determine what the astronauts could see while orbiting the earth. Bill also stated that a B-47 was used to calibrate the Mercury, Gemini, and Apollo tracking stations covering the globe. The identity of this particular B-47 is not known.

Al Devereaux flew the B-47 while stationed at Plattsburgh from 1956-62, and later while attached to bomber operations at Wright Patterson. He stated that their missions were not very exciting and for the most involved being a test bed for photo or navigation systems. However, he recalled that tests were created to try to determine why the Boeing 727 was landing short proved to be most memorable. "Someone decided we needed more data on stall characteristics of large multiengine aircraft. I was volunteered to do some deep stalls on the B-47. As I recall the handbook prohibited stalls in the B-47 and after the first attempt I understood why. The wings on the B-47 were very flexible and when I held the plane in a deep stall those wings began flapping like a sea gull. My seat belt and shoulder harness were fastened but not locked. I bounced all over the cockpit. After our first stall, I pulled the seat belt and shoulder harness as tight as possible and locked everything. I believe we flew about three missions getting the data. I don't know if it was used for anything, but it sure provided some of the wildest rides I ever had".

B-47 # 17043 was fitted with an experimental forward-firing chaff rocket pod under the wing in lieu of the wing tank. Another Stratojet was fitted with an early IR warning receiver which employed a lead sulfide detector, similar to that fitted to the Sidewinder missile, mounted on top of the vertical stabilizer of the aircraft giving it 360 degrees of coverage.

B-4Es 53-2104 and 53-2108 were used in ASD tests of reefing line cutters and operational chaff analysis. RB-47E 53-4257 was used in "Hi Acuity " tests. B-47E 53-2280 was used in terrain signal trials and photo reconnaissance work. RB-47Es 53-4257, 53-4261 and 5258 performed in a spectral filtration project. 4261 tested the QRC-228. The above tests are only the tip of the iceberg of the various tests in which the B-47 was involved in at Wright Patterson AFB. It is hoped that more information will become available regarding tests involving the B-47 before they are forgotten or lost.