

1700 TEST SQUADRON

MISSION

LINEAGE

1700 Test Squadron

STATIONS

Kelly AFB, TX, 1 Dec 1954-1 Jun 1957

ASSIGNMENTS

COMMANDERS

HONORS

Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

MOTTO

NICKNAME

OPERATIONS

The second YC-131C, 53-7887, made its first turboprop flight on June 29, 1954, joining the Convair - Air Force test program. Earlier, the Air Force had requested bids from several airlines for conducting the service testing of these aircraft, but the few bids received were for more than it would have cost the Air Force, and the job was turned over to the Military Air Transport Service (MATS).

On January 15, 1955, the two YC-131Cs were delivered to the newly activated 1700th Test Squadron (Turboprop), of the 1700th Air Transport Group, attached to the Continental Division of MATS at Kelly AFB, San Antonio, Texas. Commanded by Lt. Col. Samuel C. Burgess, this squadron was formed solely to service test new turboprop-powered aircraft. Scheduled to arrive later in the year were two Boeing YC-97Js and two Lockheed YC-121Fs powered by Pratt & Whitney T-34 engines. Squadron personnel had received intensive training on the new turboprops at Convair, Allison, and Edwards AFB, and spirit was high to prove these engines for Air Force use. Col. Claude W. Smith, Commander of the 1700th Air Transport Group, even founded a society "dedicated to the advancement of turbine-powered transport aircraft, whose range of power, versatility and economy of operation are as limitless as the winds of Aeolus." The Order of Heron of Alexandria, as the society was called, was named after the Greek mathematician and scholar credited with developing the first known turbine, the Aeolipile. A certificate of membership in the society was presented to each person who had flown in one of YC-131Cs.

The squadron's goal was to obtain 3,000 flight hours on the YC-131Cs by January 31, 1956. This was accomplished by using the aircraft in an "airline-type" operation beginning May 1. Flying scheduled and non-scheduled routes from Kelly AFB, which served as both operating and maintenance headquarters, to Travis AFB, California (via Williams AFB, Arizona) and Andrews AFB, Maryland (via Brookley AFB, Alabama).

Early in the program, the accumulation of flight hours was hampered by a shortage of YT-56 engines. The original allocation of eight engines, including the four installed in the aircraft, was eventually raised to 12 and finally to 20. Also, the initial engine overhaul time on the early YT-56s was short, but was increased from 50 hours for the prototype to 150 hours by June 1955.

The FAA considered converting the two YC-131Cs to the commercial Convair 580 configuration, and to 200 hours by the end of the program. During overhaul, each engine had to be flown to the Allison plant in Indianapolis for complete teardown and evaluation.

In spite of these restrictions, throughout 1955 the YC-131Cs set new records for utilization. At the start of the program from January to April 1955, daily utilization rates on the YC-131Cs were below four hours, but in May they jumped to 6.2 hours and by June had reached nearly eight hours per day. When flights to Travis and Andrews AFB were not scheduled, crews took their airplanes for extended cruises over the Texas countryside. The net result was a series of newly set records for twin-engine aircraft. While the 1,519-mile flight from Kelly AFB to Andrews AFB was usually made in a little over four hours (cruising at 21,000 feet at 320 mph), in the summer of 1955 a YC-131C logged 19 hours 35 minutes of flight time in a 24-hour period, but this mark was pushed to 19 hours 55 minutes by YC-131C, 53-7887, on August 20, 21 hours 30 minutes by the same airplane a few days later, and 23 hours 10 minutes set by both YC-131Cs on September 1, 1955, during a claimed world's record performance by turboprop aircraft. For this last record, both aircraft made four flights and were refueled three times during the same 24-hour period for a total air time of 46 hours 20 minutes.

The 1700th Test Squadron's goal of 3,000 flight hours with the two YC-131Cs was successfully accomplished in a little less than eight months. At the conclusion of their service test assignments the YC-131 Cs began flying standard MATS transport missions. On August 9, 1957, YC-131C 53-7886 was leased to the General Motors Corporation for developmental testing of Allison's 501-D13, the civil version of the T-56.

At approximately the same time, YC-131C 53-7887 was fitted with an extremely large radar nose, but nothing has come to light regarding this modification or its purpose. By late 1959, 53-7887 had outlived its usefulness to the Air Force and was flown to Davis-Monthan AFB, Arizona, for open storage with the 2704th Air Force Aircraft Storage and Disposition Group. The airplane was offered for a sealed bid sale (with 1,937 total airframe hours) on April 27, 1960, but was withdrawn before this date.

USAF Unit Histories
Created: 25 Jun 2021
Updated:

Sources
Air Force Historical Research Agency. U.S. Air Force. Maxwell AFB, AL.