The XCG-17 Glider

by Charles L. Day
author of *Silent Ones, WWII Invasion Glider Test and Experiment.*

In early 1944 Lieutenant Chester Joseph Decker had an idea to remove the engines from the C-47 thus making it a glider. Chet Decker was a National Soaring Glider Champion assigned to the Glider Branch as a power pilot and glider pilot at Wright Field and Clinton County Army Air Field (CCAAF), the glider test and experiment base. Official records and other writers credit William Lazarus as originator of this conversion concept. Floyd Sweet who was assigned to the Glider Branch, Wright Field from late November, 1942 until becoming head of the Glider Branch from October 1945 through its demise in 1952 has said the idea was Decker's and Decker was "shafted" for the idea because he was "out of line" for going to the Pentagon over the head of Wright Field officers with the idea. This experimental article was designated XCG-17.

Despite this conflict, at CCAAF the engines were removed from C-47 tail number 41-18496. This DC-3 had been owned by Northwest Airlines and was impressed by the Army Air Force and assigned to the Glider Branch. It was natural aluminum having never been painted Army Olive Drab. A "bullet" shaped, smooth surface aluminum fairing was fashioned to fit the front of the nacelles after the engines were removed. These created a smooth, rounded, aerodynamic shape for the nacelles. Weight was installed in place of the engines. The navigator and radio operator compartments were removed to make that space available for cargo and the floor was strengthened. A standard glider tow release was installed on the underside of the fuselage just behind the leading edge of the wings.

The work was completed in the engineering shops at CCAAF June 12, 1944. This aircraft retained the bright aluminum finish from its airliner days at Northwest Airlines. The shiny nose surface created a glare for the pilots, so the nose surface was painted flat black. Between June 12-17, 1944, the XCG-17 was flown for 12 hours and 30 minutes. These flights were made by Colonel Bruce Price, Captain Donald O. Dodd, Lieutenants Charles Eastlake and J.K. Hutchens and Flight Officer Ralph Mickey.

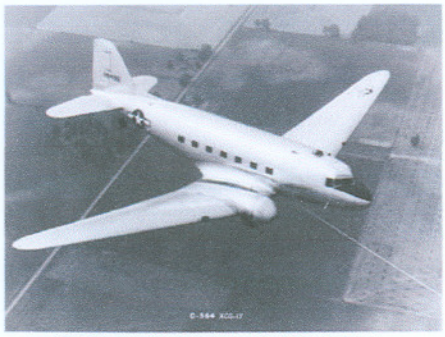
The useful load capacity was 15,000 lbs. Flight tests of the XCG-17 continued at CCAAF during the summer and fall of 1944 using various tugs. During the same period the XCG-10A and the YCG-13A gliders were being test flown at CCAAF. The tandem tug test tows of the XCG-17 were flown at this time. Lt. Charles Chase piloted the "slingshot" C-47, the center of the three plane combination. As with all the gliders, the XCG-17 became airborne first, then the "slingshot" C-47, lastly the lead C-47 was airborne. The pull of the lead tug and the drag of the glider created a "slingshot" effect on the center C-47 making it difficult to control.

XCG-17 test tows were performed using a single C-47A, tandem C-47A's, B-24D, C-46, B-17F and C-54 as tugs. The XCG-17 had a structural efficiency ratio of 60% which was higher than the CG-13A, the CG-10 or the CG-4A or CG-15A. The airframe of the C-47 allowed the XCG-17 to be towed at 290 mph. The airframe of the XCG-17 was such that it was the only USAAF glider that could be flown and landed without additional ballast for balance. Because of speed and power, the C-54 was determined to be the best tug for the XCG-17.

The XCG-17 could carry 49 troops or three Jeeps or two 105mm howitzers with small tires. In comparison, the XCG-10A could carry 42 troops or two 105mm howitzers with combat tires or one 155mm M1A1 howitzer or one 2 ½ ton 6x6 truck or one 1 ½ ton 6x6 truck. Despite superior flight characteristics, the XCG-17 was deemed unacceptable because it did not fit the USAAF glider requirement that it be capable of landing on unimproved areas normally not suitable for aircraft.

In 1946 Floyd Sweet, at Wright Field, was able to secure permission to place the XCG-17 in storage at Davis-Monthan rather than re-installing the engines. A TDY flying order dated 15 August 1946 authorized Lieutenant Jack K. Streeter and Lieutenant Albert R. Barton to ferry XCG-17 #41-18496 to Tucson, Arizona.

After printing *Silent Ones, WWII Invasion Glider Test and Experiment,* I discovered stories proclaiming the engines were re-installed in the XCG-17 returning it to C-47 status. Even Mr. Gerard Devlin in *Silent Wings* states this aircraft was re-engined. Because of the TDY order to ferry the XCG-17 glider



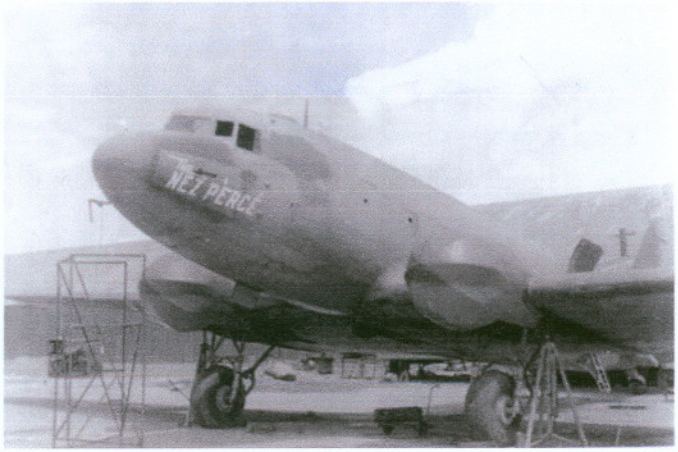
XCG-17 (C-47 #41-18496) in tow, nose painted black after repair at CCAAF. USAAF photo courtesy AF Museum.

to Arizona, this re-installation story puzzled me very much. Had the engines been re-installed, the order would have specified C-47, not XCG-17. However, I could not get anyone to tell me how they knew the engines had been re-installed in the XCG-17 or where they were re-installed. I believe I have discovered the answers to this puzzle recently in the archives of the Silent Wings Museum courtesy of Mr. Joe Hays who handed me a packet of information donated to the museum by David G. McHale III.

In 1946, near Manila, Philippines, C-47 tail number 43-16229 similarly had the engines removed. This glider conversion was done by the maintenance division of the Fifth Air Service Area Command (VASAC). Undated, unknown newspaper clippings designate the glider as XCG-47 and XCG-17 and imply it is the only XCG-17.

Similar to the original XCG-17, covers were built for the engine nacelles. However the

fairing appears to have been more elongated and were octagonal shaped rather than being smoothly rounded as were those on the original XCG-17. The aircraft carried the name "Nez Perce" and was painted Army Olive Drab Camoflage. The navigator and radio operator compartments were removed and a B-24 auxiliary power unit was installed. A Very High Frequency radio set was installed so the glider could keep in contact with the tug. The tow release was installed in the same area under the fuselage as on the original XCG-17.



The conversion of this C-47 began in January 1946 in the Philippines under the direction of William W. Lana, Air Force engineer at VASAC, Oakland, California. During my October 26, 2004 conversation with Floyd Sweet, Floyd stated he did not remember this second XCG-17 nor did he recall being contacted at Wright Field for information concerning the conversion. Because of the similarity of modifications of this aircraft compared with the original XCG-17 and the use of the XCG-17 designation it must be assumed that Mr. Lana or someone connected with his operation was totally aware of the original XCG-17.

At this time, January through March 1946, the original XCG-17 was located at Freeman Field, Seymour, Indiana having been transferred there with all other Glider Branch Engineering aircraft after the closing of the glider test base, CCAAF at Wilmington, Ohio in November 1945 by Captain Floyd Sweet. This closing was in preparation for CCAAF to become an All-Weather Flying Base in 1946. Freeman Field was used as a storage base for foreign aircraft as well as the Glider Branch Engineering gliders. Glider engineering test activities were transferred from Freeman to Wright Field, March 1946.

Public Relations Office, 403rd Troop Carrier Wing (Group)1, APO 323 release of 15 June 1946 by Robert F. Spence refers to the experiment at Wright Field (actually Clinton County Army Air Field) as being limited because all the flying was local rather than long distance. This statement certainly establishes that engineers at Nichols Field were aware of the original XCG-17 conversion and test flights. The second XCG-17 was checked out and flown by Major John Kinkaid "a glider pilot of long experience" from Kansas City, Missouri. The co-pilot was First Lieutenant Ed Barratt2 from Fern Creek,

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1 The Public Relations Office "Pertinent Poop" information release states 403rd Wing, whereas is should be 403rd Group.

2 "Pertinent Poop" states Barratt was co-pilot. However, Barratt was co-pilot only on the first check out flight. On the second flight Major Kinkaid checked out Lieutenant Colonel M. N. McCoy as co-pilot. On the third flight, Major Kinkaid checked out Colonel A. R. Walker as co-pilot. Second Lieutenant Fred M. Herr flew all five of the Nez Perce flights and was co-pilot on both legs of the flight to Japan. This information is from copies of the flight logs provided the author by David G. McHale who was Private First Class crew chief on all flights.

Kentucky who was a "power pilot with plenty of glider experience." It was towed by a C-54 carrying the name "City of Salt Lake" piloted by Lieutenant Colonel Mike N W. McCoy, operations officer of the 403rd Troop Carrier Group. McCoy, from Los Angeles, made the famous Tokyo to Washington, D.C. non-stop B-29 flight in late 1945.

The check out flight was on Monday, June 17, 1946. Taking off from Nichols Field, Manila, the glider was to be cut loose at 12,000 feet. David McHale's (XCG-17 crew member) papers indicate this was done at 10,000 feet. Apparently lacking the complete test result information from the original testing done at CCAAF, the glider was to be put through a series of turns and dives of varying severity to test structural characteristics of the airframe. As well, the stalling characteristics were to be ascertained through various attitudes. Major Kinkaid circled the glider performing the test maneuvers for approximately fifteen minutes before landing at the Florida-Blanca airstrip in Pampanga Province approximately 40 miles north of Manila. After landing, tow tests were performed with the tug and glider. After these tests the glider was to be towed to Tokyo, Japan.

The 403rd Troop Carrier Wing (Group) Public Relations Office stated the Tokyo tow was an important phase of the tests for three reasons:

1. It will be the first time a glider of this type has been towed such a distance.
2. It will be the longest over water glider tow (2,100 land miles).
3. It will prove or disprove the feasibility of this type of glider (converted C-47).

Throughout this time period the general thought of men such as Richard duPont, National Soaring Glider Champion and second head of the USAAF glider program under General Arnold, was that the future of air freight and passengers would be gliders and tugs. Other than on the XCG-10A glider, rear door loading was not yet a design of freight aircraft. At the Glider Branch, Lew Stowe had not yet perfected his two-part rear loading door/loading platform concept that progressed from the XG-18 glider through the XG-20, C-122, C-123, C-130, C-141 and is alive today in the USAF C-17 cargo airplane. The thought behind this freight flight from the Philippines to Tokyo in 1946 was, to quote Robert F. Spence, to prove feasibility of a "sky freight train". This same thought was behind the disputed 1943 1,000 article order for the XCG-16 glider which would have become "surplus" available after 1946 for use as freight and passenger gliders used in a hub and spoke system towed from small "spoke" airports to larger "hub" airports.

"The Longest Tow ?"

A few days after this checkout flight, carrying a five man crew and 5,000 lbs of freight at 0855 hours, the "City of Salt Lake" towed the "Nez Perce" aloft from Nichols Field near Manila. Their destination was Tachikawa Air Field near Tokyo, Japan. David McHale, aerial engineer aboard the XCG-17, wrote that 6 ½ hours later they landed on Okinawa where they remained overnight. At dawn next morning they took off for Japan. Two hours into this leg of the flight they ran into a rain squall. McHale stated he thought they were going to have to bail out of the glider. Despite not having oxygen

equipment aboard the "Nez Perce" the "City of Salt Lake" climbed to 14,000 feet for about 20 minutes to bypass the rain. At approximately 1145 hours the "Nez Perce" landed at Tachikawna Air Field, Tokyo, Japan. The glider and load was turned over to the 11th Airborne Division at Sendai.

McHale's information indicates the total flight was approximately 1,750 to 1,800 miles in 11 hours averaging approximately 160 mph. Robert Spence's Public Relations Office release states the flight was 2,100 land miles, the longest over water glider tow. Surface water route mileage indicates the Manila to Tokyo distance is 1,757 miles. Spence's release also states this flight exceeded the 9th Troop Carrier Command glider tow from England to North Africa. These flights in claiming "the longest tow" ignore the Hadrian (CG-4A) "Voo Doo" 3,500 mile tow from Canada to Scotland. Although this flight was not entirely over water, most of it was and one leg of the RAF "Voo Doo" flight was over 1,100 miles. Over land, the tow of the XCG-16 by a B-17 from Oxnard, California to CCAAF, Wilmington, Ohio was nearly 2,000 miles.

The engines were re-installed in the "Nez Perce" airframe while the original XCG-17 glider was ferried engineless to Davis-Monthan in August 1946. *DC-3/Dakota History*, Chapter 8, states "They (Army) restored the single XCG-17 (41-18496) to its original configuration and put it back into service. After the war it was stored at Davis-Monthan until August 1949, when it was rebuilt as N69030 ... went to Mexico in 1950."

Because the USAAF TDY flight order put the engineless XCG-17at Davis-Monthan in August 1946, the USAAF became the USAF in 1947 (losing its Army status) and if the XCG-17 was at Davis-Monthan until 1949 it very likely was never converted to C-47 status by the (Army) military. It likely was sold as surplus in 1949 and the engines were reinstalled by or for its new owner, Advance Industries.

Information reference for this article:

Author's research for ***Silent Ones WWII Invasion Glider Test and Experiment, Clinton County Army Air Field, Wilmington, Ohio.***

Notes, memorabilia, newspaper clippings and photo print copies of David G. McHale III who was crew chief on the second XCG-17, courtesy of the Silent Wings Museum Archives at Lubbock, Texas. In some of this material, Kinkaid is spelled Kinkade.

403rd Troop Carrier Public Relations Office "Pertinent Poop on XCG-17 Glider Test" of 15 June 1946 courtesy of HQ AFHSO/HOS.

Chapter 8, *DC-3/Dakota History* by Henry M. Holden and Allen R. Campbell.
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