FAIRCHILD C-119G FLYING BOXCAR AIRPLANE
Pate Museum of Transportation, 18501 Highway 377 S
Cresson
Hood County
Texas

HAER TX-121
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
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FAIRCHILD C-119G FLYING BOXCAR AIRPLANE

HAER No. TX-121

Location:	Pate Museum of Transportation, 18501 Highway 377 S, Cresson, Hood County, Texas	
Date of Construction:	Ordered December 1950. Delivered July 31, 1952.	
Military Serial Number:	51-2675	
Construction Number:	10664	
Principle Measurements:	Length:	86'-6"
	Height:	26'-8"
	Wingspan	109'-3"
	Empty weight:	39,982 lb
	Max. gross weight:	71,500 lb (take-off)
	Maximum speed:	290 mph
	Cruise speed:	200 mph
	Range:	2,000 miles
	Ceiling:	30,000'
	Payload:	10,000 lb
	Crew:	5
	Capacity:	65 troops or 35 stretchers
Engines:	Two 3,500-hp Wright R-3350-89A radial piston engines	
Manufacturer:	Fairchild Aircraft Division, Fairchild Engine and Airplane Corporation, Hagerstown, Maryland	
Original Owner and Use:	United States Air Force; cargo transport aircraft	
Present Owner and Use:	National Museum of the U.S. Air Force; lent to the U.S. Veterans Museum, Granville, Texas, as museum exhibit	
Significance:	The Fairchild C-119G Flying Boxcar is a twin-engine military cargo plane designed with distinctive twin tail booms and a suspended fuselage to allow the loading of cargo directly into the rear of the fuselage. Over 1,100 of these airplanes were delivered to the United States Air Force, the U.S. Navy, and foreign militaries between 1949 and 1955, making the Fairchild C-119 a familiar sight world wide during the 1950s and 1960s.	
Historian:	Michael R. Harrison, 2012	

Description: The Fairchild C-119G Flying Boxcar is a fixed-wing military transport aircraft designed to carry cargo, motorized equipment, personnel, and patients on stretchers as well as to drop cargo and troops by parachute. It has twin engines and twin tail booms, with the fuselage suspended beneath the wings, in order to provide clearance for the unobstructed loading of cargo through the rear of the fuselage. Its tripod landing gear assures that the cargo deck is level when the aircraft is on the ground. Cargo loading access is provided by a pair of clamshell doors at the rear of the fuselage. Troop doors through each of the clamshell halves allow for paratrooper operations and for the dropping of light cargo in flight. For heavier air drops, the clamshell doors could be removed before takeoff.

The C-119G has an aluminum framework and aluminum skin. It is powered by two 3,500-hp Wright R-3350-89A Cyclone radial piston engines driving two four-bladed propellers manufactured by Aeroproducts.

History: The C-119 Flying Boxcar cargo aircraft was a redesign of the C-82 Packet, the first American end-loading cargo plane, which was built by the Fairchild Engine and Airplane Corporation for the U.S. Army Air Forces and then the U.S. Air Force (USAF) from 1945 to 1948. Previous American cargo planes had been adapted from commercial passenger plane designs, and the C-82 was an attempt to design a military cargo transport from scratch, with a large, uninterrupted cargo deck and end-of-fuselage cargo doors. Only 220 C-82s were built, however, as the government canceled most contracts for the plane at the end of World War II.

The C-119 was a slightly larger, more powerful version of the C-82. It retained the basic twin tail boom and suspended fuselage design of the earlier aircraft but moved the cockpit from a position above the cargo deck to the front of the plane. Both designs suffered from stability problems and structural weakness in the tail booms, defects that were gradually corrected through a series of boom modifications to the C-119.

The prototype for the C-119, the XC-82B, was a modified production C-82A. It first flew in November 1947. The production models, designated C-119Bs, were delivered to the USAF beginning in December 1949. More than 1,100 were built, the last being delivered in 1955. The C-82 Packets were nicknamed “Flying Boxcars” by their crews, and this name became the official name of the C-119s.

The primary variants of the C-119 were:

- XC-82B (C-119A). Prototype. One built.
- C-119B. First production model. Two 3,500-hp Pratt and Whitney R-4360-20 engines, four-bladed Hamilton Standard propellers. Fifty-five built.
- C-119C. Same as C-119B but with dorsal fins added and tailplane extensions omitted. Several hundred built.
- R4Q-1. U.S. Navy and Marine Corps version of C-119C. Thirty-nine built.
- C-119F. Same as C-119C but with 3,500-hp Wright R-3350-89A engines and retrofitted ventral fins. One-hundred-forty-one built by Fairchild (C-119F-FA) and seventy-one built by Kaiser-Fraser Corporation (C-119F-KM).
- R4Q-2. U.S. Navy and Marine Corps version of C-119F. Fifty-eight built.

- C-119G. Same as C-119F but with Aeroproducts four-bladed props and minor changes to onboard equipment. Four-hundred-eighty built.
- C-119J. Conversion with modified rear fuselage for in-flight operable doors. Sixty-two C-119Fs and C-119Gs converted, 1954–55.
- AC-119G "Shadow." Gunship conversion with armor protection, four waist 7.62mm guns, and flare launcher. Twenty-six C-119Gs converted, 1968.
- AC-119K "Stinger." Gunship conversion with armor protection, four waist 7.62mm guns, two 20mm cannon, flare launcher, and two 2,850-lb thrust under-wing jet engine pods. Twenty-six C-119Gs converted, 1968.

The C-119 was a key USAF cargo plane during the Korean War. After the war, the USAF flew it extensively in Europe, the Pacific, and the Far East. The navy and Marine Corps flew these planes, as did many foreign militaries. As subsequent cargo plane designs came into use through the 1950s, the C-119 became the main aircraft of the Air Force Reserve and the Air National Guard. The AC-119G Shadow and AC-119K Stinger gunship versions were flown on combat missions in Vietnam. Numerous surplus C-119s found commercial use as airtankers for fighting western wildfires and as freight haulers in Alaska. Many examples are preserved in museum collections across the country and around the world.

This particular aircraft, Fairchild C-119G s/n 51-2675, was built as a C-119F-FA and later converted to a C-119G through a change in propellers and other equipment. It was ordered in December 1950 and delivered to the USAF July 31, 1952. It was assigned to the following commands during its service life:

August 1952	To 316th Troop Carrier Group (Tactical Air Command [TAC]), Sewart AFB Tennessee (Deployments to Burlington AP, Vermont; Pope AFB, North Carolina; and Shaw AFB South Carolina)
November 1954	To 316th Troop Carrier Wing (TAC), Sewart AFB (Deployment to Elmendorf AFB, Alaska)
January 1956	Converted to C-119G
April 1957	To 2469th Air Reserve Flying Center (US Air Force Reserves [AFRES]), Scott AFB, Illinois (Deployment to Bakalar AFB, Indiana)
March 1958	To 2242nd Air Reserve Flying Center (AFRES), Selfridge AFB, Michigan
November 1958	To 403rd Troop Carrier Group (AFRES), Selfridge AFB
June 1963	To 927th Troop Carrier Group (AFRES), Selfridge AFB
August 1967	To 927th Tactical Airlift Group (AFRES), Selfridge AFB
July 1969	To 930th Special Operations Group (AFRES), Bakalar AFB
January 1970	To 930th Special Operations Group (AFRES), Grissom AFB, Indiana (Deployment to Kelly AFB, Texas)
October 1970	Dropped from inventory by transfer to National Museum of the U.S. Air Force

After being declared surplus by the USAF, C-119G no. 51-2675 was lent by the National Museum of the U.S. Air Force to the Pate Museum of Transportation at Cresson, Texas. Founded by A. M. Pate Jr., the owner of the Texas Refinery Company, and his brother Sebert in 1969, this private museum was primarily a vehicle for displaying Pate's

automobile collection, but it also exhibited borrowed aircraft and a navy minesweeper. The museum was continued by Pate's family after his death in 1988, but finally closed in December 2009. In 2010, the automobile collection was sold at auction, and the aircraft were re-lent by the National Museum of the U.S. Air Force to other museums. The C-119G was moved from the Pate Museum to the U.S. Veterans Museum, Granbury, Texas, in 2012.

Sources:

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Related documentation: For the histories of two other vehicles formerly displayed at the Pate Museum of Transportation, see

Minesweeping Boat MSB 5, HAER No. TX-120
Piasecki H-21B Workhorse Helicopter, HAER No. TX-122

Project Information: This project is part of the Historic American Engineering Record (HAER), a long-range program to document historically significant engineering and industrial works in the United States. The Heritage Documentation Programs of the National Park Service, U.S. Department of the Interior, administers the HAER program. Documentation of the Fairchild C-119G Flying Boxcar was cosponsored by the Texas

Historical Commission in coordination with the Pate Museum of Transportation. Todd Croteau, HAER Project Leader, coordinated the project and prepared the large-format photographs. Historian Michael R. Harrison wrote the historical report.