
The C-119 Prototype—The One and Only

FAIRCHILD C-119A CARGO PLANE

by Kent A. Mitchell



THE 1945 INTRODUCTION OF THE Fairchild C-82A *Packet* was a welcome addition to the military's cargo-carrying aircraft fleet. Previously, the transporting of large size military items was limited to what could be side-loaded into C-47 and C-54 type aircraft. The Fairchild high-wing, rear-loading, airplane design provided unobstructed access to a large truckbed height cargo compartment through wide opening "clamshell" doors. Fully assembled, ready-to-go vehicles and artillery pieces could be rapidly loaded

and unloaded from the aircraft. Also, by removing the "clamshell" doors, those same vehicles and artillery pieces or other large articles could be air-dropped by parachute. Other *Packets*, flying in formation, could each dispense 44 paratroopers to man the dropped equipment.

Happy as they were with the capabilities of the C-82A, after nearly four years of operational experience with the *Packet*, the Air Force decided that a second-generation aircraft with increased power, payload capacity, and

The sole C-119A (AF tail No. 45-57769) sans nose gear door lifts off from the Hagerstown, Maryland airport in November 1947.

(Fairchild Photo 4-246)

Head-on view shows single large tire C-82-style landing gear on the C-119 prototype.

(Photo by Lyle S. Mitchell)

performance was desired. Satisfying these requirements was made easier due to the availability of the 3,250-hp Pratt & Whitney R-4360-20 (versus the 2,100-hp P&W R-2800-85 then used on the C-82A) which could be installed on the airframe. Another desired change



was the relocation of the crew's flight deck from the top of the fuselage to a more forward and lower position to provide improved vision ahead and below during formation flying and troop or supply dropping. Given a go-ahead, Fairchild's engineering department began work on their model M-105. Because the new design would be significantly different and more than just "a C-82 modification," the Air Force assigned C-119 as their new model designation.¹

However, the first C-119 *was* "a C-82 modification!" To test the new nose configuration and new powerplant installation, the 137th C-82A was pulled off the production assembly line and sent to Fairchild's Experimental Shop in the hangar known as Plant 7. That airplane was Air Force tail number 45-57769 and Fairchild manufacturer's serial number 10139. Redesignated as the C-119A, the airplane was still called a *Packet*, as evidenced by the logo painted on its nose. (Production C-119 models would later be known as the *Flying Boxcar*.)

Not only was the C-119A different from the C-82A from which it was derived, it was different from the production C-119s that would follow. The P&W engines installed were the R-4360-35 instead of the production R-4360-20 models. Three-blade propellers were installed whereas four-blade props were used on the production aircraft. Also, the C-119A—because it had a C-82A aft fuselage—did not incorporate the 14-inch wider cargo compartment that would be on the subsequent models.

First flight for the C-119A occurred in November of 1947. The Air Force was so impressed with the increased performance and potential payload capac-

Sometime after first flight, the nose gear door and ADF antennas were installed and the UHF stub antenna was moved from bottom of nose to top. Note the Fairchild "Packet" C-119A logo on nose. (Photo by Lyle S. Mitchell)

Three-blade propellers were installed on the C-119A's R-4360 engines. Production aircraft (C-119B through G models) had four-blade props. (Photo by Lyle S. Mitchell)

Experimental teardrop-shaped radome or fuel tank mock-ups were flown on the C-119A for a brief time. (Photo by Lyle S. Mitchell)





Teardrop wingtips gave the *Packet* a fighter-like appearance.
(Photo by Lyle S. Mitchell)



This takeoff photo shows that the ventral fins have been removed from the tail.
(Photo by Lyle S. Mitchell)

ity that it ordered 37 C-119s after the first flight demonstration.² That \$23 million contract spelled the end for production of the C-82A.

Numerous changes were made to the design, however, before production would begin for the new airplane—which would be designated as the C-119B. In addition to a widened fuselage, the wings were strengthened, the tail booms were lengthened, a new and stronger landing gear was designed (with dual wheels), paratrooper capacity was raised from 44 to 62, and the aircraft maximum gross weight was increased from 54,000 pounds to 72,000 pounds (later raised to 74,000 pounds with uprated engines).

Production of the C-82A stopped with the 220th airplane (AF 48-587, Fairchild s/n 10222) in September 1948. The first C-119B rolled out the factory door April 8, 1949. The sole C-119A was retained by Fairchild on a bailment contract from the Air Force and used as a testbed for further production aircraft changes and improvements. □

MODEL DIFFERENCES^{3 4}

	C-82A	C-119A	C-119B
Engines	P&W R-2800-85	P&W R-4360-35	P&W R-4360-20
Propellers	Hamilton Standard 33E60 (3-blade)	? (3-blade, square tips)	Hamilton Standard 24260-213 or -229 (4-blade, reversible)
Wing Span	106' 6"	Same as C-82A	109' 3 1/4"
Length	77' 1"	Same as C-82A	86' 6"
Height	26' 4"	Same as C-82A	26' 8"
Wing Area	1,400 sq. ft.	Same as C-82A	1,447 sq. ft.
Cargo Compartment			
Area	2,700 cu. ft.	Same as C-82A	3,100 cu. ft.
Width	8'	Same as C-82A	9' 2"
Max Height	8'	Same as C-82A	8'
Length	28'	Same as C-82A	36' 11"
Max Gross T/O Wt.	54,000 lbs.	?	72,000 lbs.
Crew Deck	Atop Fuselage	In Nose	In Nose
Cruising Speed	218 mph	?	231 mph
Landing Gear			
	Single Wheels	Same as C-82A	Dual Wheels
	Non-steerable Nose Wheel	Same as C-82A	Steerable Nose Wheel

REFERENCES

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2. *Yesterday—Today—Tomorrow, Fifty Years of Fairchild Aviation*, Fairchild Hiller Corp., 1970, p. 41.
3. "Condensed Data [card], C-82 Airplanes," Fairchild Aircraft Division, Fairchild Engine & Airplane Corp., March 1946.
4. "Condensed Data [card], C-119 Airplanes," Fairchild Aircraft Division, Fairchild Engine & Airplane Corp., March 1952.