

YESTERDAY'S WINGS

The Monocoupe

Until it was recently surpassed by the Beech Model 18, the Monocoupe held the record for the longest production life of a single basic American airplane design. It serves as an excellent example of the changing state of aircraft design over a period of more than 20 years. Originally built in 1928 by the Central States Aviation Company—later Mono-Aircraft—of Moline, Ill., the Monocoupe was a true pioneer in the personal aircraft field, and was always an appreciable distance ahead of its contemporaries until several years after World War II.

The name, Monocoupe, was derived from two outstanding features of its design; the monoplane wing, a rarity in the personal aircraft field at the time, and the side-by-side arrangement of two seats in the manner of the "coupe" style of automobile, a decided departure from the traditional tandem arrangement.

The powerplant of the original Model 60 was the five-cylinder 60 h.p. Velie air-cooled radial, the only true light-plane engine available at the time. Structure consisted of welded steel tube fuselage and tail surfaces and a wooden wing, and the covering was fabric. Landing gear on early models was of the old fashioned straight-axle type with high pressure tires and no brakes, but this was soon changed to a divided tripod type.

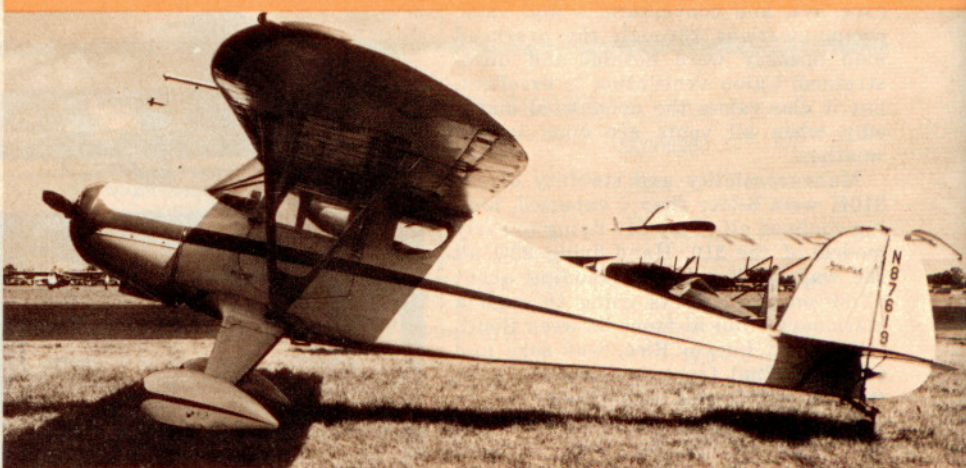
The Monocoupe won quick acceptance in the first year of the Lindbergh boom, and the company was reorganized as the Lambert Aircraft Corporation with new quarters at Lambert Field, St. Louis, Mo. In 1930, when other light two-seaters began to appear in significant numbers, the Monocoupe advanced to the Model 90, a greatly cleaned up Model 70 with graceful, elliptical wing-



● Early Monocoupe 60



● Monocoupe 90



● Postwar Monocoupe 90AL-115

MONOCOUPÉ DATA

Model	60	90	90A	90AL-115
Powerplant	Velie 60 h.p.	Lambert 90 h.p.	Lambert 90 h.p.	Lycoming 115 h.p.
Span	30 ft.	32 ft.	32 ft.	32 ft.
Length	19 ft. 9 in.	20 ft. 5 in.	20 ft. 6 in.	22 ft. 11½ in.
Wing Area	150 sq. ft.	132.2	134.5	151.7
Gross Weight	1175 lbs.	1350 lbs.	1610 lbs.	1610 lbs.
Top Speed	102 m.p.h.	120 m.p.h.	130 m.p.h.	156 m.p.h.
Cost	\$2,675	\$3,825	\$3,890

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tips and a 90 h.p. Lambert engine that had been developed from the Velie. Streamlining and performance could be further improved by the optional use of wheel pants and a ring cowl. Further refinements followed, including a variety of landing gear configurations, and resulted in the 90-A of 1935, still using the 90 h.p. Lambert but with the pants, a full cowl, and single strut landing gear as standard equipment.

A parallel development was the Model 110, normally powered with a 110 h.p. Warner engine. Special versions used the 145 h.p. Warner, and a few were modified for racing and aerobatics by clipping the wings. This power increase was accomplished without the usual beefing up. The Monocoupe was an unusually rugged design, built with such attention to detail and reliability that it is reputed to be the only American civil aircraft that has never had an FAA airworthiness directive issued against it.

The last major change to the basic 1928 design came in 1941, when a 90 h.p. flat-four Franklin replaced the Lambert to produce the Model 90AF. Initial installation of the new engines was made on airframes intended for Lamberts, with the result that the high instrument panel and bottom windshield contour were retained. Those were later modified to lower contours that gave the better forward visibility permitted by the flat engine. At the end of World War II, when Cessna and Rearwioff came out with new 85 h.p. side-by-side models and the prewar Luscombe went to 85, Monocoupe maintained its performance lead by installing a 115 h.p. Lycoming to produce the Model 90AL-115, the last of the famous line. There are 99 Monocoupes registered today, but the number still flying is unknown. END