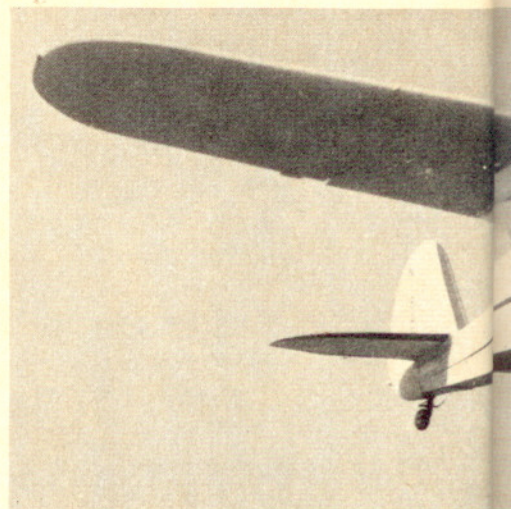


The Cessna Airmaster

by PETER M. BOWERS / AOPA 54408

Winner, in 1936, of the title
'World's Most Efficient Aircraft,' the
first post-depression Cessna
was in a class by itself

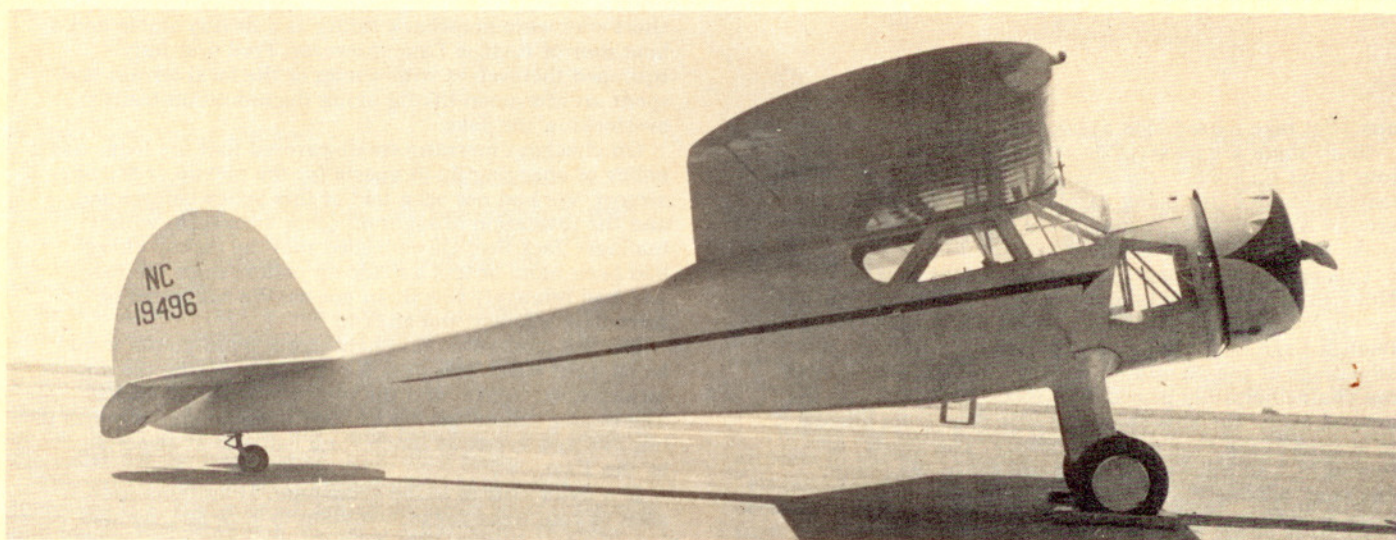


SPECIFICATIONS AND PERFORMANCE

	C-34 (1935)	C-165 (1939-42)
Wingspan	34 ft 2 in	34 ft 2 in
Length	24 ft 8 in	24 ft 8 in
Wing area	182 sq ft	181 sq ft
Powerplant	Warner Super Scarab, 145 hp @ 2,050 rpm	Warner Super Scarab, 165 hp @ 2,100 rpm (175 hp @ 2,250 rpm for takeoff)
Empty weight	1,380 lb	1,400 lb
Gross weight	2,350 lb	2,350 lb
High speed	162 mph @ sea level	165 mph @ sea level
Cruise speed	143 mph @ 8,200 ft	157 mph @ 8,200 ft
Climb	1,000 fpm	1,125 fpm
Service ceiling	18,900 ft	19,300 ft
Range	535 mi on 35 gal	485 mi on 35 gal
Price	\$4,995	\$8,275

■ ■ The Cessna Aircraft Company of Wichita, Kan., was one of many companies in the U.S. forced to shut down due to the depression of 1930-35. Unlike most of the others, however, it retained its corporate identity and its plant and was able to reopen and go into production of a new model in 1934. (To head off letters from informed readers who will claim that Cessna built airplanes in the years 1931-33, it must be noted that Clyde V. Cessna and his son,

The Cessna Airmasters were essentially refinements of the 110-hp Cessna AW model of 1928-30. This 1939 C-145 does not have missing parts; about 23 Airmasters of various models were fitted with clear plastic panels as shown and were marketed as "photoplanses."
Photo by the author, 1940





The C-38 was unique in having the flap under the belly. Note how the landing-gear legs have been bowed to widen the track. Photo by the author, 1964

Eldon, set up a separate company during this period and did turn out a number of custom models.)

The first post-depression Cessna was essentially a short-span version of the well-known "A" series of 1927-30 (January 1971 PILOT). Although it had six feet less wingspan, the Model 34 (meaning the third basic Cessna model, with 1934 as the design year) was still a four-seater. Loss of performance from the shorter wing was overcome by an increase of power gained from exchanging the old 110-hp Warner Scarab engine for the 145-hp Super Scarab. Dual stick controls were provided for side-by-side pilots, who still had a head-space problem between the windshield and the front spar.

Basic structure was almost identical with that of the "A", a welded-steel-tube fuselage and tail and a unique steel-strap truss system providing torsional rigidity for the two-spar, fabric-covered wooden wing. State-of-the-art refinements were most noticeable in the single-strut landing gear, the trailing-edge wing flaps, and the modified NACA cowling around the engine.

The C-34 received Approved Type Certificate (ATC) 537 in 1935. The aircraft was in a class by itself and enjoyed very brisk sales for the time; 42 were built and sold in 1935 and 1936. The combination of clean lines and payload-for-power won it the title of "World's Most Efficient Airplane" in 1936, and permanent possession of the Detroit News trophy.

An improved C-37 model, which appeared late in 1936, was virtually indistinguishable from the C-34. From the passenger's standpoint, however, the wider cabin was a major improvement.

Built under ATC 622, 46 were sold through 1937.

The C-38 of 1937 brought notable changes. The wheel track was widened a foot by "bowlegging" the landing-gear struts, and the wing flaps were deleted in favor of a single belly flap between the landing-gear struts. Only 16 C-38s were sold, under ATC 668, in 1937 and 1938.

The year 1939 brought a designation change. The "model year" designation was dropped in favor of a horsepower rating, so the 1938 model became the C-145 and also picked up the given name "Airmaster." The belly flap was deleted and flaps went back on the wing, but in a unique location under the rear spar. These electrically driven flaps were so narrow they appeared to be ineffectual, but they did the job and were retained for the next model. The C-145 Airmaster received ATC 701, and 42 were sold from 1938 through 1942.

The final Airmaster model was the C-165, with a 165-hp Warner. In spite of the bigger engine, the C-165 did not get a new ATC. Thirty-eight were built from 1939 through 1942, by which time Cessna was fully occupied with war work and the "C" line was discontinued.

Although they were strictly civil airplanes, some Airmasters (to follow the present tendency to extend the name back to the C-34) found themselves in the Army when various general aviation models were drafted for light transport work in 1942. Two C-34s became UC-77Bs, one C-37 became the UC-77C, and three C-165s became UC-94s. These reverted to civil status after the war.

Of the 184 Airmasters built, 25, including the prototype, are still on the U.S. civil register today. □