

The first regular production, ultralight airplane built in the United States was the Aeronca C-2 of 1929. It was a refined version of a 1925 home-built, designed by J. A. Roche of the Army Air Corps Engineering Division at McCook (later Wright) Field, who later joined the Aeronautical Corporation of America at Cincinnati, popularly known as Aeronca.

The C-2 was a single-seater that became a rather marginal two-seater when a passenger rode behind the pilot on a plank, courteously called a seat.

Power was initially a 26 h.p. Aeronca two-cylinder air cooled engine which was later increased to 30 h.p. in a later C-2 version that was a bona fide side-by-side two seater. The success of this

model prompted further refinement and a power increase to 36 h.p. and resulted in the classic C-3, which was in production from 1931 through 1936.

The early Aeroncas were unlike any other airplanes produced in the United States. The wire-braced wings and overhead cabane looked like throwbacks to early World War I days, but they paid off in light weight. The C-2 and C-3 were open cockpit models, but not the conventional type that let the pilot's head and shoulders stick out the top of the fuselage. The cockpit could more accurately be called a "sideless cabin."

Because of the high location of the engine, forward visibility was very poor during nose-high attitudes, so takeoffs and landings were usually accomplished

with the pilot leaning out the side—to his occasional embarrassment during muddy field or cowpasture operations. For cold weather, two-piece side panels could be fitted to each side of the cockpit-cabin.

The three-longeron steel tube fuselage was in a triangular form that gave the ship the nickname of "Razorback."

The C-2's and 3's were the bare minimum in flying machines, using no more auxiliary equipment than absolutely necessary. While the early C-2 used shock cord to bind a straight axle across the lower longerons, the tripod gear models used big soft airwheels and no shock absorbers at all. No brakes were provided, and a tail skid was standard equipment.

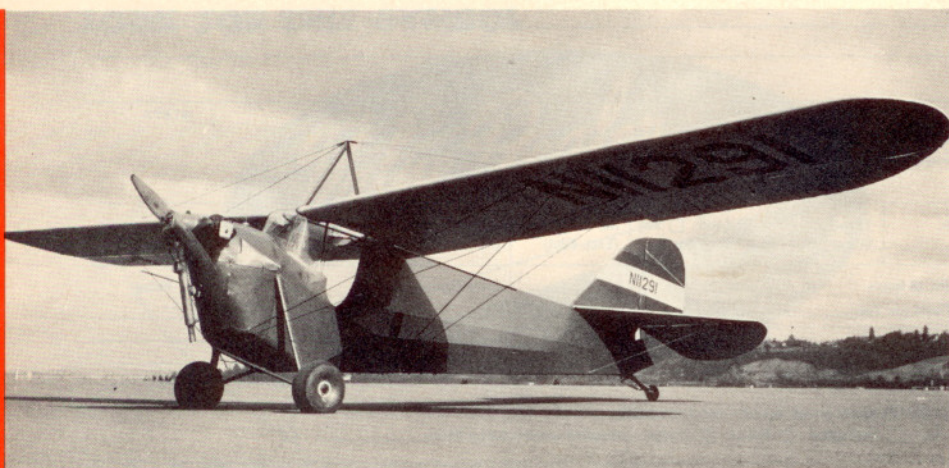
The Aeronca E-113 engine was single ignition and the carburetor heat was "on" at all times, eliminating the need for a run-up mag and carb heat check. If the engine was running, the ignition system was all right.

Basic instrumentation consisted of altimeter, tachometer, and oil temperature and pressure gauges. Airspeed indicators were not required equipment in those days, speed control being entirely a matter of the pilot's feel for the machine. Several of the approximately two dozen C-3's that are the treasured possessions of today's antique airplane fans are still in the "pure," or bare minimum, form. Most, however, have been adulterated by the addition of brakes and steerable tailwheels, a concession to modern paved airports, and airspeed indicators for the benefit of pilots who learned to fly by depending on them.

In 1934, minor refinements began to appear on the C-3. The nose contours were cleaned up considerably, the landing gear was changed to a single-strut type with oleo shock absorbers, and the area of the side opening was slightly reduced. The 1935 model took the major step of converting the airplane to a true closed cabin type with real doors. The basic triangular fuselage structure was retained, but formers and stringers were added from the cabin aft to increase the width behind the seats and round out the fuselage, so eliminating the razorback. This improvement in streamlining so improved rudder effectiveness that the area of that surface had to be reduced. This one fact alone should make the Aeronca unique, for most other designs have had to undergo an increase in tail area as weight and speed were increased during the development period.

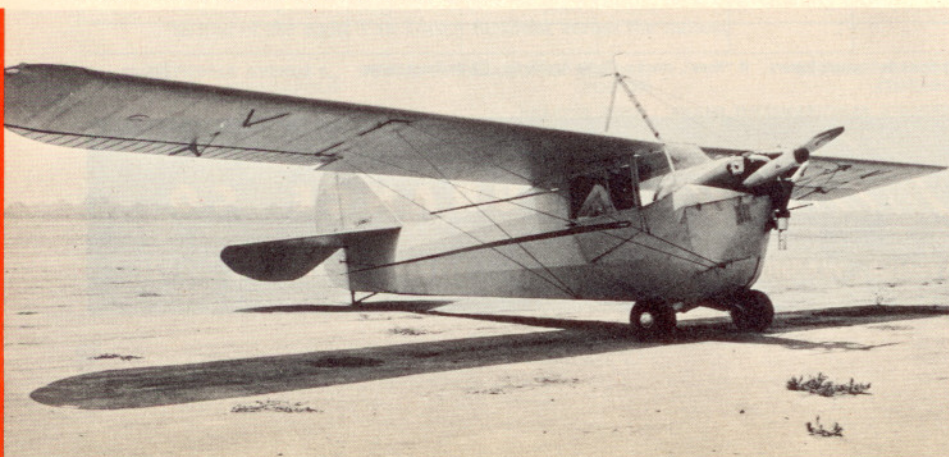
YESTERDAY'S WINGS: The Aeronca C-3

by PETER M. BOWERS • AOPA 54408



This "Razorback" model, Aeronca C-3, was built in 1931. N11291, shown here, is now owned and flown by AOPA'er Peter Bowers

An Aeronca cabin model C-3 like this one sold for \$1,890 when manufactured back in 1936. It was powered by a 36 h.p. Aeronca E-113C



Specifications	1931 Razorback C-3 Aeronca E-113A 36 h.p.	1936 Cabin C-3 Aeronca E-113C 36 h.p. (Some with twin- ignition 42 h.p.)
Span	36 ft.	36 ft.
Length	20 ft.	20 ft.
Wing Area	142.2 sq. ft.	142.2 sq. ft.
Gross Weight	875 lbs.	1,006 lbs.
High Speed	80 m.p.h.	93 m.p.h.
Price	\$1,730	\$1,890