

Original 1939 version of the Bellanca 14-9 Cruisair, with Ken Royce radial engine. This aircraft had tube-and-fabric outboard fins; later models used solid wood. Photos by the author, except as noted.

In-flight view of Cruisemaster 14-13 shows half-buried wheels, one of a variety of outboard fin shapes, and the easy transition of the design to a flat-six engine, in this case the 150-hp Franklin. Photo by A. U. Schmidt.



## VESTERDAY'S WINGS THE LONG-LIVED BELLANCA

A "Yesterday's Wings" tag on an airplane currently in production might seem to be either an author's goof or an implication that the manufacturer's production line is locked into an obsolete design with enough special utility still to attract customers.

Far from it. While the first Bellanca Cruisair was certificated in 1939, and the same basic design is still in production, it's no latter-day antique. Rather, it is probably the best example available of a good design that has been able to remain competitive through adoption of state-of-the-art changes.

The significance of a production life of 35 years (thus far) is made more meaningful by doubling that number. Seventy years ago, the Wright brothers were flying their second airplane; the Bellanca has thus been in production for half the significant period of powered flight. This record has been surpassed only by the seemingly eternal Taylor/ Piper Cub. The Cub design, however, has gone through several distinct stages.

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## **Specifications and Performance**

Span Length Wing area Powerplant

Empty weight Gross weight High speed Cruise speed Initial climb Service ceiling Range Price 34 ft 3½ in 21 ft 3 in 140.2 sq ft Ken Royce 5F, 90 hp 943 lb 1,650 lb 137 mph 120 mph 800 fpm 14,760 ft 500 mi

\$3,795

14-9 Cruisair-1939

## Turbo Viking—1974 34 ft 2 in

26 ft 3 in 161.5 sq ft Lycoming TIO-540, 300 hp 2,340 lb 3,325 lb

223 mph @ 75% power 1,170 fpm @ sea level 24,000 ft 980 mi \$45,368

The Bellanca 260C (Model 14-19-3C) had tricycle gear and a swept vertical tail that eliminated the outboard fins of earlier models. Basic configuration is that of the current Vikings.

First it was everybody's bare-minimum trainer; then it was a military liaison plane; now it's a near-STOL workhorse. The Bellanca has provided the same thing all along—fast personal transportation.

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The Bellanca Model 14-9 Cruisair, originally identified as the "Junior," appeared near the end of the era of small radial engines. The Model 14-9 (the number indicating a wing of 140 square feet and a 90-hp engine) could be fitted with the LeBlond 5E, the Ken Royce 5F, or the virtually unknown Lenape Brave. Construction was conventional for the time, utilizing a welded steel tube fuselage and tail, fabric covering, and a wooden wing. An innovation (for a lightplane) was the covering of the wing with plywood for torsional stiffness and aerodynamic smoothness, a trick borrowed from much heavier aircraft. Two pilots sat side-by-side at dual controls, and one passenger sat crossways, behind them.

Spectacular speed for a three-seater with only 90 hp was achieved by the overall cleanness of the design, the unusually high aspect ratio of 8.3 for the slick wing (anticipating Hoerner wingtips by 20 years), and the use of retractable landing gear, a first for such a light aircraft. The gear was simple, retracting straight aft only 90 degrees and leaving half of each wheel in the slipstream. A fixed-gear variant with a 70-

## **BELLANCA** continued

hp LeBlond was advertised but does not seem to have been produced.

By 1940, the little radials were going out of production, and the Cruisair was able to switch to flat-six engines, its first major update, without difficulty. The 1941 production version was the 14-12-F3, powered by the 120-hp Franklin 6AC-264. Deliveries of this model were cut short by Bellanca's switch to war work.

Production resumed after the war, when the 14-13 was fitted with a 150-hp Franklin and four seats, another significant update. The wing area was increased to 161 square feet without an increase in span. This reduced the aspect ratio to 7.2, still above the industry average, and a performance plus. The new model had competition from the North American Navion and the Beechcraft Bonanza, both all-metal fourplacers, but it managed to hold its own despite its wooden wing, rag covering, tailwheel landing gear, and dark hole of a cabin.

tailwheel landing gear, and dark hole of a cabin. The 14-19 Cruisemaster, with a 190hp Lycoming, appeared in 1950, being built together with the 14-13-3, powered by a 150-hp Franklin. Production dropped off in the early 1950s, and the design rights were sold to Northern Aircraft, Inc. That company set up a new plant at Alexandria, Minn., far from the Cruisair's birthplace at Newcastle, Del. The prototype of a new 14-19-2 Cruisemaster, with a 230-hp Continental, flew in July 1956. Passengers will say that the major improvement was enlarging the windows to let a little light in.

a little light in. The next major update took place in November 1958, when the landing gear was changed to tricycle and the engine power was increased to 260-hp. Two months later, Northern changed its name to Downer Aircraft Industries but continued doing business at the same old stand. While the erstwhile Cruisemaster retained its 14-19 model number (which had long since lost its numerical accuracy), the airplane was now advertised as the Downer-Bellanca 260. Other changes were yet to come, both

Other changes were yet to come, both aerodynamic and corporate. In 1963, the 14-19-3A appeared, incorporating the same feature that almost everyone else was switching to—a swept vertical tail. The very latest change, dating from 1971, is the option of a turbocharged 300-hp Lycoming.

In 1970, following Downer's acquisition of Champion Aircraft and its famous product line, the firm's name was changed to Bellanca Aircraft Corp., and the 300-hp 14-19 variants (Lycoming or Continental) began being advertised as Vikings.

The accompanying table compares the 1939 and 1974 versions of the same basic airplane, a classic tube-rag-andwood design that has covered half the period of powered flight and shows no sign of quitting. Would anyone care to bet against a turboprop for the next significant update?