

YESTERDAY'S WINGS

The Eastman Sea Rover

by PETER M. BOWERS / AOPA 54408

■ In 1928, the first full year of aviation's "Lindbergh boom," dozens of new designs appeared on the market to replace the staid old three-seat biplanes that had been the mainstay of the industry from the early 1920s. Although monoplanes were coming on strong in general aviation, having made their mark as transports, the biplane was still the predominant design.

One of the new models that held promise was a little two-place flying boat designed by James H. Eastman and Tom Towle at the Beasley-Eastman Laboratory in Detroit, Mich. (The "Beasley" part of the name came from the financier P. R. Beasley, who backed the firm.) But with only a 70-hp French

Anzani engine of dubious reliability, plus the weight and drag handicaps inherent in flying boats, the new model didn't perform well enough to make an impression on the market. Consequently, it was redesigned as a larger three- to four-place model with a 185-hp Curtiss Challenger radial engine.

The redesigned model was put into production in 1929 by the newly formed Eastman Aircraft Corp., which soon became a division of a holding company known as the Detroit Aircraft Corp. Detroit Aircraft was a multi-manufacturer organization established to compete with two other aeronautical giants, the Curtiss-Wright Corp. and the General Aviation Corp. Some of the

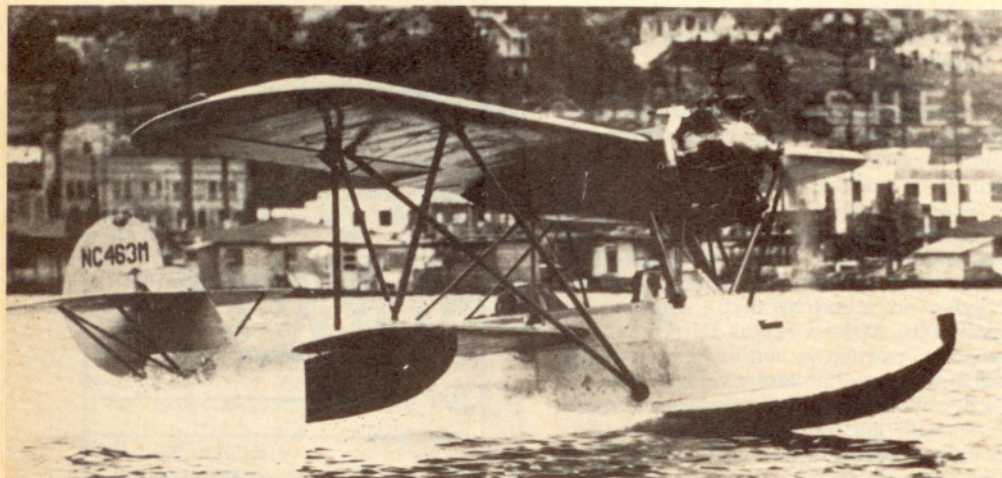
other aircraft firms that became part of Detroit Aircraft were Lockheed, Ryan, and Great Lakes.

The Eastman E-2 had originally been advertised as the Eastman "Flying Yacht," but this name was quickly changed to "Sea Rover" because of the similarity of the original name to that of the earlier Loening "Air Yacht."

The E-2 was a unique departure from most of the traditional single-engine flying boats that had been built since 1912, in that its between-the-wings engine was installed as a tractor instead of as a pusher. A further departure from tradition was the lower wing, which was shorter than, and had less than half the chord of, the upper wing. This qualified the E-2 as a sesquiplane, a relatively rare configuration halfway between a monoplane and a proper biplane.

The monoplane aspect was emphasized by the use of V-struts to carry the flight loads of the upper wing. Conventional biplane-type N-struts braced the lower wing, making the E-2 a "wireless" design that eliminated the traditional biplane flying and landing wires.

The E-2 was somewhat of an anachronism because of its open-cockpit design at a time when competing mod-



Gorst's Sea Rover on the step in Lake Union. The craft was used on the air-ferry run to Bremerton, 14 miles across Puget Sound, and made the trip in 11 minutes. Photo by Gordon S. Williams.

An Eastman E-2 Sea Rover flying boat of Gorst Air transport, photographed on Lake Union in the heart of Seattle, Wash. Note the open cockpits and rudimentary lower wing. Photo by Gordon S. Williams.



els were putting the passengers and crew into comfortable cabins. In the E-2, however, the front-cockpit passengers and the rear-cockpit pilot and extra passenger were seated both behind and below the rough-running and leaky Challenger engine, and received the full benefit of this unfortunate combination.

Plans were made to introduce a cabin version of the E-2, but nothing ever came of them. There was an amphibian version, however, which was designated E-2A (for amphibian), and given the name "Sea Pirate" to distinguish it from the straight flying boat.

The wings and tail were of conventional construction, with wooden box spars and built-up wood truss ribs for the wings and welded-steel tube and channel tail surfaces, all fabric covered. The hull was advanced for a small flying boat of the time, being all metal and divided into five watertight compartments. Crew and passengers, however, were out in the breeze as in the old days. The E-2 Sea Rover carried four people, while the E-2 Sea Pirate could carry only three because of the added weight of the retractable landing gear.

The E-2 received Approved Type Certificate A-288 on Jan. 22, 1930, and the

EASTMAN E-2 SEA ROVER

Specifications and Performance

Span (upper)	36 ft 0 in
(lower)	20 ft 8 in
Length	26 ft 3 in
Wing area	243 sq ft
Powerplant	Curtiss Challenger, 185 hp @ 2,000 rpm
Empty weight	1,745 lb
Gross weight	2,725 lb
High speed	110 mph
Cruise speed	90 mph
Initial climb	740 fpm
Ceiling	9,500 ft
Range	360 mi
Price	\$8,750 initially, raised to \$9,985 and then reduced to \$6,750 in March 1931

E-2A received ATC A-338 on July 17, 1930. Both of these certificates were issued after the start of the Great Depression, when the bottom had dropped out of traditional airplane sales. As a consequence, only 15 E-2s and four E-2As were sold before the Eastman firm shut down, following the demise of Detroit Aircraft. □