



Overall design of the S-56 originated in World War I. Note the scalloped effect produced by the wire trailing edges of the wings

## YESTERDAY'S WINGS

# THE MARCHETTI

**EDITOR'S NOTE:** *The PILOT is pleased to present again the popular series, "Yesterday's Wings," which was a regular feature during the early days of this magazine, by Peter M. Bowers, author of the short sketches on general aviation aircraft of the "early days." Pete Bowers, an aviation historian of Seattle, Wash., is one of the country's leading authorities on antique aircraft.*

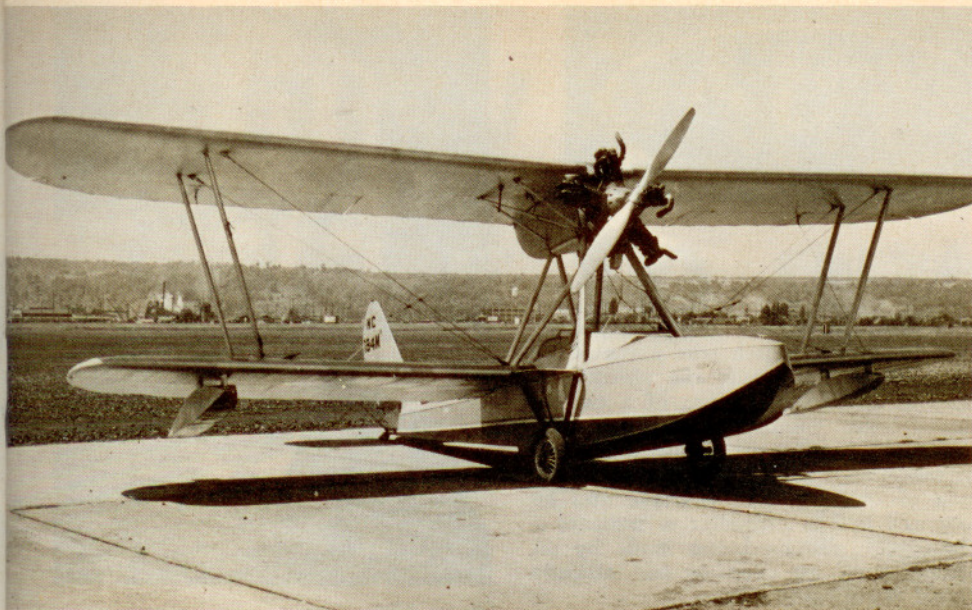
All phases of American aviation were booming after the Lindbergh flight of 1927 and new firms with hastily developed designs were popping up all over to fill the demand for new aircraft. One firm, the American Aeronautical Corporation of Port Washington, N.Y., decided to market established foreign designs rather than take the time to develop and certificate new ones. One of the designs chosen was the Italian Savoia-Marchetti S-56, a three-place amphibian.

This was a thoroughly conventional design for the period. The hull was a

wood frame plywood covered, the wings were wood frame and the tail was steel tube, both fabric covered. It was a straight-line development of the famous Italian military flying boats developed during World War I. The only notable concession made in the Americanization of the design was to use the new 100 h.p. Kinner K-5 in place of the Italian version of the French Anzani originally used. The American version was designated S-56B.

Most private flying was still open cockpit in those days, and the S-56 carried its three occupants in a single cockpit centered under the upper wing. The pilot and one passenger sat side-by-side in front with the third seat located rather unsociably in the rear. While most of the biplane flying boat types of the period were pushers, the S-56 was a notable exception in being a tractor. This put the five-cylinder Kinner, a notable user of oil, ahead of and above the occupants, with predictable results. Their comfort was in no way increased by the extremely low freeboard of the hull that contributed greatly to the

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Brakeless wire wheels of the Marchetti S-56B were cranked up and down by hand. Spray shields ahead of the leading edge of the lower wing did little to protect the occupants of the open cockpit

# AMPHIBIAN

spray problem.

The pilot had other water problems. There was no separate water rudder, and the air rudder, extremely small even by contemporary standards, did not dip into the water as it did on some other boats so was of practically no help for low-speed steering. When the wheels were lowered during taxiing, as when approaching a taxi-out ramp, their drag moved the overall center of drag well ahead of the center of buoyancy and created interesting steering problems.

However, this was still the pioneering era of private aviation and the inherent handicaps of the design were taken in stride by sportsman-pilots who appreciated the advantages of amphibious operation. The price was \$7,000, which compared very favorably with such contemporary single-engine three-seaters as the *American Eagle* with the 100 h.p. Kinner (\$4,895) and the 110 h.p. Warner-powered *Travel Air W-4000* (\$5,575). Like many another design of the period, the S-56B and its manufacturer succumbed to the depression of

the early 1930's, and the small amphibian virtually disappeared from the American scene until the *Seabee* arrived after World War II.

Oddly, the influence of Marchetti's hull construction far outlived the S-56. In 1957 Volmer Jensen obtained a basket-case S-56B that had been rotting away near Seattle. It was beyond restoration, so Volmer designed and built a new amphibian to meet his special requirements. While the lines were entirely different, many of the structural details of the Marchetti hull were perpetuated in the now famous Volmer VJ-22 *Sportsman*, one of the country's most outstanding designs for the amateur aircraft builders. □

## S-56 SPECIFICATIONS

Span	34 ft. 1½ in.
Length	25 ft. 7⅛ in.
Wing Area	274 s.ft.
Empty Weight	1,100 lbs.
Gross Weight	1,750 lbs.
High Speed	98 m.p.h.
Cruise Speed	85 m.p.h.
Climb	500 f.p.m.
Service Ceiling	10,000 ft.
Range	400 miles

PHOTOS BY THE AUTHOR