

MOTORLESS *Flight*

C. H. Jaschke

The months of painstaking labor that it takes to design and build a sailplane of the Volmer J-10 type are well worthwhile. This ship is a motorless plane that can fly in high altitudes with the best of aircraft.

The J-10 is a beautiful Diana cream colored ship, the leading edges of the wings and the drag spars being trimmed with natural finished mahogany plywood. On the rudder is the emblem, a white Sea Gull with black wing tips outlined against a field of blue. This ship has no external bracing; the wings are full cantilever with a four degree washout at the tips. The airfoil used are NACA .0018 to .0012 (symmetrical sections).

This ship has flaps and spoilers, which in spite of the high speed of the craft, enables it to land in a smaller field than a Secondary of a much smaller and slower design. The flaps may also be used in taking off by letting them down fifteen degrees; this gives the airfoil a much higher lift ratio and lowers the flying speed of the ship. The same effect may be obtained by letting the flaps remain down while in flight; this is such an aid to thermal flying that it is practically impossible for the pilot to do anything but spiral up in a thermal.

With the flaps up, the ship has a cruising speed of 65 m.p.h., and with them down one of 50 m.p.h.

The tapered wing with its span of 55 feet, containing 180 square feet, the landing speed of 38 m.p.h. with flaps and spoilers, and its desirable gliding angle of 25 to 1, that is for every foot the ship is off the ground it can glide twenty-five, all add to the attraction of the ship.

The most outstanding feature of the ship is the visibility of 90% for both occupants. The stalling speed is 35 m.p.h., and the ship has no tendencies to fall into a spin.

The thrill that comes from the great sensitivity of the controls and the maneuverability for a ship of this size can only be experienced by riding in it. The same is of course true of a knowledge of its flying characteristics. This ship has an empty weight of 430 lbs. and exerts a maximum pull on the tow line of 350 lbs. in very rough air with the flaps down 15 degrees.

This ship was flown in the West Coast Soaring Meet at Arvin, California from April 14 to 28. During this time it made a speed run to Bakersfield, gaining an altitude of 4,400 ft. above take off as a maximum. On another flight it gained an altitude of 6,000 ft. to a point where you could look over the tops of the surrounding mountains.

Within the last two months, this ship has made some 150 flights, several of these being of one hour or more in duration. It is a side by side trainer for military use, and will fill the gap in the thorough training of military pilots cheaply and expertly.

Southee Honored at National Contest

On July 2, Earl R. Southee, Chief, Standards Division, Civilian Pilot Training, Civil Aeronautics Administration, and former manager, Elmira



L. to R. Lancraft, Southee, Robinson, Barnaby.

Area Soaring Corporation, and a past president of The Soaring Society, was honored at special festivities at Harris Hill.

Earl Southee has long been identified with the soaring movement in this country and for several years he managed the national contest.

The photograph was taken at the time of the recent glider demonstration for government officials at Elmira, New York. Pictured with Southee are Robert Lancraft, general manager, Elmira Area Soaring Corporation; John Robinson, national soaring champion; and Ralph S. Barnaby, president, The Soaring Society of America.



Volmer J10