

## INTERESTING GLIDERS

by PETER M. BOWERS



Honors for the most widely-used high-performance sailplane in the world must go to the Olympia. While it was designed in Germany just before WW-II by the famous Hans Jacobs, it can hardly be called a true German sailplane today because of extensive building and redesign that has taken place in other countries. Some of these non-German products were and are the actual Olympia design while others have merely copied enough original features to be mistaken for an Olympia at first glance.

Designed early in 1939 at the Deutsche Forschungsanstalt für Segelflug (DFS) at Darmstadt, the original name adopted was "Meise." The use of "Olympia" came about as a result of the design being chosen for the soaring events of the 1940 Olympic Games scheduled to be held in Finland. The games never came off, but the name stuck to the design which went into production anyhow.

It was designed to rather rigid specifications of the technical committee chosen to establish the requirements, which called for a span of 15 meters (49.3 feet) a skid landing gear, dive brakes that would limit the terminal velocity to 200 kilometers per hour (124 mph), and relatively simple construction. None of the eight entries met all of the requirements, but the Meise/Olympia was the closest. Construction was all wood, with plywood semi-monocoque fuselage and fabric covered wings and tail built along thoroughly conventional lines.

Performance did not equal that of some of the best sailplanes then flying, but the L/D of 25.5:1 and the sinking speed of .71 meters per sec-

ond (2.3 fps) combined with economically practical structure made the Olympia the world standard sailplane in the then high-performance class. WW-II interfered with the full exploitation of the design even though plans had been widely distributed before the start of hostilities. Ironically, production got under way in many countries soon after the war, but not in Germany, its country of origin. Re-introduction of the Olympia to its homeland had to wait until 1951, when the reorganized Focke-Wulf firm of WW-II fighter fame began to build the sailplane as the Olympia-Meise 51, indicating the year of initial production.

The best-known producer of post-war Olympias is the British firm, Elliotts of Newbury, Ltd. The company was founded in 1895 to build furniture, and undertook the manufacture of wooden aircraft components during WW-II. Following the war, it was only natural that work of this kind should continue, and the Olympia was one of several designs put into production under the name of Eon. The Eon Olympia Mark I was the stock German model with skid, modified only slightly to utilize a one-piece bubble canopy and English hardware. The Mk. II (illustrated) was similar except for the addition of a built-in landing wheel, and the Mk. III was fitted with a jettisonable dolly.

The Mk. IV retained the basic dimensions and outline of the standard model but featured a laminar airfoil section. This designation was soon changed to Model 401. A 402 was built, and was merely a 401 with two meters more wingspan. The 403

was a 402 with the fuselage lengthened ten inches. The Mk. IV designation was picked up again with the Mk. 4/19, indicating a Mk. 4 (note change to arabic figures) with a 19 meter wing (62 feet). By this time, however, the changes were so extensive that little resemblance to the original Olympia remained. The horizontal tail had been moved aft and squared off, the rudder had been enlarged and squared, and even the elliptical wingtips of the original were gone. Little was left but the name. The original wingspan appeared again, this time on the Mk. 4/15, so designated to distinguish a 15-meter version (for the Standard Class) of the Mk. 4/19 from the earlier 15-meter Mk. IV.

The fact that this old prewar design, despite the British changes and lesser German refinements, is still in production twenty-one years after it first appeared is itself the best testimonial to the excellence of the basic design. It will be interesting to see what 1950 models will still be available in 1971.

### 1939 Meise/Olympia

Span . . . . . 15 meters (49.5 Ft.)  
Length . . . . . 7.27 meters (24 Ft.)  
Area . . . 15 Sq. Meters (161 Sq. Ft.)  
Empty Weight . . . 160 kg. (352 lbs.)  
Gross Weight . . 255 Kg. (561 lbs.)  
Airfoil . . . . . Gottingen 549 (Root)  
                        Gottingen 676 (Tip)  
Auto-winch speed . . 80 kmph (49.5  
mph)  
Aero Tow speed . 100kmph (62 mph)  
Speed for best L/D . . 69 kmph (42.1  
mph)  
Speed for min. sink . 59.4 kmph (36.2  
mph)  
Aspect Ratio . . . . . 15  
L/D . . . . . 25.5:1  
Minimum sink . . .71 mps (2.3 fps)

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