

leading-edge. The actual adjusting mechanism consists of a jack screw on the leading-edge of the stabilizer and is actuated by cable from either the front or rear cockpits.

Extensive flight testing since 1947 to the present was conducted to meet the rigid requirements of the CAA, for an Approved Type Certificate. At the same time several structural changes were made to provide simpler or more rugged operating parts. The flight tests were carried on by Mr. Ted Bellak, prominent gliding authority, who was director of the gliding and soaring for the State of Minnesota, and who was responsible for the University of Minnesota design and engineering of the UMGIII, through his state-wide program in 1941 and 1942.

Anybody connected with aircraft design work realizes the difference in requirements for structural analysis, vibrations tests, material and process specifications, and performance when meeting the specifications for an Approved Type certificate to produce further gliders of the same type. Special emphasis was placed on the design of parts so that they could be manufactured without the use of highly skilled labor or expensive jigs.

Whatever future use will be made of the glider and its Approved Type Certificate, we are glad that the long efforts of the Glider Club of the University of Minnesota, the continuous interest of Mr. Bellak, the persistent help of Mr. George Baggs, and the encouragement and patience of Professor John D. Akerman, head of the department of aeronautical engineering, resulted in the new type glider. Besides the availability of a new type of glider it gave broad additional knowledge and experience which will aid in the advancement of the art of gliding and soaring.

#### UMG III CLASS I GLIDER

Design Gross Weight (2 occupants)	970 lbs.
Design Empty Weight	590 lbs.
Total Wing Area	220 sq. ft.
Span	47.71 ft.
Length	24.5 ft.
Maximum height	10.0 ft.
Aileron Area	25.5 sq. ft.
Aspect Ratio	10.0
Airfoil Section	NACA 4415
Taper	0
Wing Incidence	3° 35'
Wing Dihedral	2° 15'
Wing Sweepback	4° 15'
Vertical Tail	
Fin Area	8.30 sq. ft.
Rudder Area	10.85 sq. ft.
Horizontal Tail	
Elevator Area	14.69 sq. ft.
Stabilizer Area	13.64 sq. ft.
Design Glide Speed	100 mph.
Design Auto-winch tow	67 mph.
Stalling Speed	28 mph.
Maximum Positive Load Factor	5.33
Maximum Negative Load Factor	2.67

### ● Spain In '52

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designed and built sailplanes. As has previously been pointed out we have a wealth of both the most competent pilots and sound machines. Remember that no American-built sailplane and only one American soaring pilot, has ever been in competition at a World's Championship. The one occasion an American did compete was sufficient notice to the world that we

have developed in this country some of the most skillful airmen. We refer of course to the showing made by our former great National Champion Paul Mac-Cready, Jr.

Already President Carsey of SSA has received unsolicited, pledges of funds from the following:

The Dayton Soaring Club, Dayton, Ohio....\$100.00  
Mr. Robert Lee Moore of Richland, Wash..... 100.00  
The Texas Soaring Association..... 300.00

The following is one SSA'ers views:

"—At this point I have a suggestion. I would certainly like to see Dick Johnson and the RJ-5 represent us in Spain. I would even pay to see it! Are there not enough loyal SSA members that could stand just one \$10.00 tap to get enough money together to swing it? I can furnish a ground crew of experienced Austrians who would work for board and keep. I'll bet Larry Ely would crew him with his car too. Just buy Dick and his ship a ticket on the boat and send him over. With personal supervision of loading and unloading of the glider I don't see why it couldn't be brought over safely on its trailer for a reasonable price, say 300 clams. With Johnson's passage costing 300, and help from us already in Europe, the whole thing shouldn't run over 1,500 actual dollars.

"I don't know the entire situation. Maybe Johnson doesn't have the time or inclination. Maybe you think my estimate is unrealistic. But if not, surely there are 150 SSAers who would part with \$10.00, which, after all, isn't what it used to be, for the glory of the fatherland."

—LT. COL. RALPH S. ROYCE

Salzburg, Austria.

Here we see the little people of American Aviation, virtually shaking the money from their piggy-banks, in an effort to make America's aviation star the brightest one in the sky. That other individual aviation enthusiasts and soaring and flying clubs will come forward with their best pledge of financial support—we have no doubt. Now if the big people of American Aviation will only come through in proportion, we will have the winning contestants in Spain. Let us 'small fry' of this great country's aviation family, come forward now" with our best pledge.

Write President Carsey or Mr. Setz, if you can't do anything else, at least let them know you appreciate their effort.

E. J. Reeves in Spirals

### ● Germany

(From Page 5)

second turns. I tried to explain that the thermals had been weak and I had not wanted to "wind up too tight." The instructor then explained very expertly and technically just where the fallacy of that theory lay. I had to admit that he was right. Since that I have never argued with a competent German instructor. Instead, I eagerly soak up everything they have to say, and they usually say it.

This sort of training explains, I believe, the past excellency of German gliding. It is going on today wherever machines are available.

It is too early to predict the future design and fabrication of German gliders. Most of the projects under way are old designs with steel tube fuselages substituted.

The writer is introducing aluminum construction at Bremen and has a two-place called "Bremen Lane" under way at the old Focke-Wulf plant, but it is as yet too early to predict production.

One thing is certain. The German clubs are work-