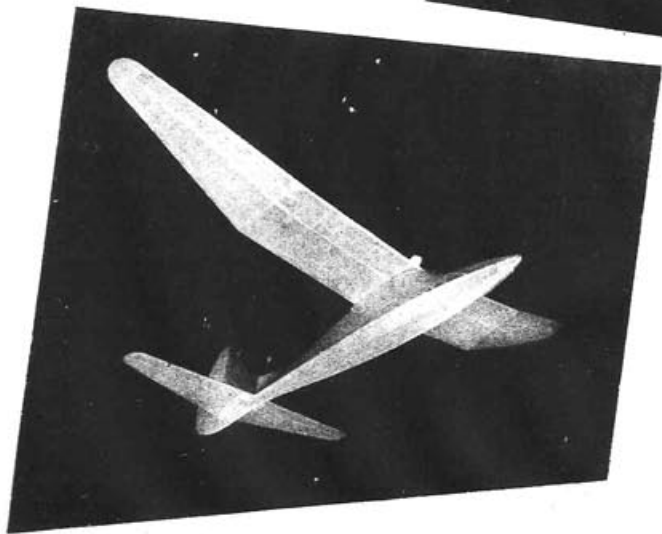
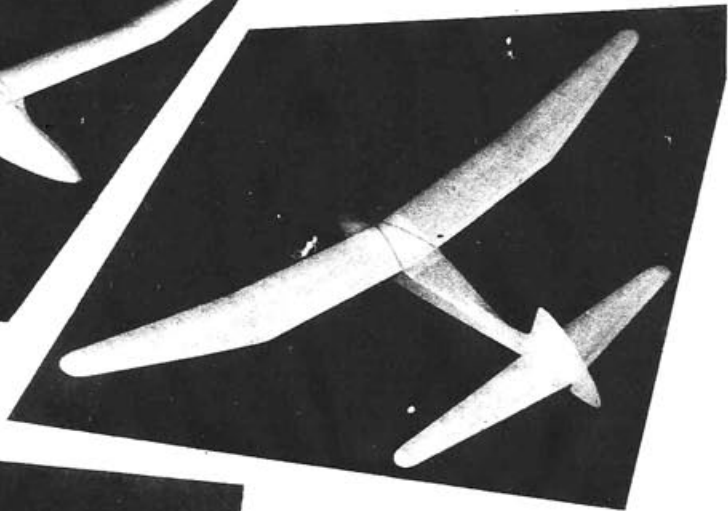
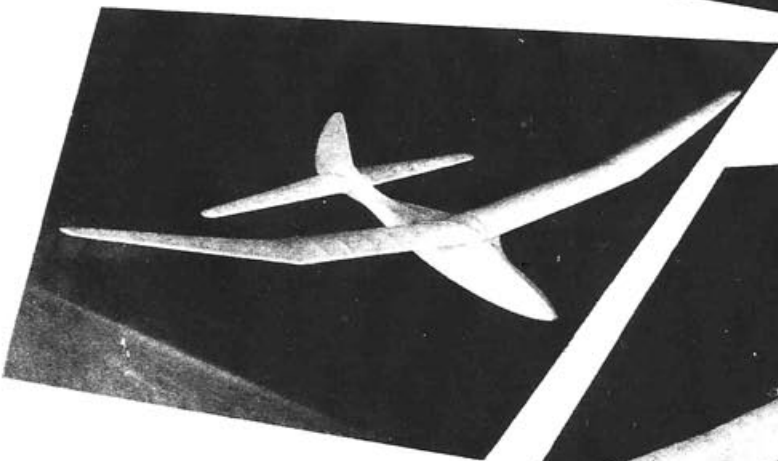
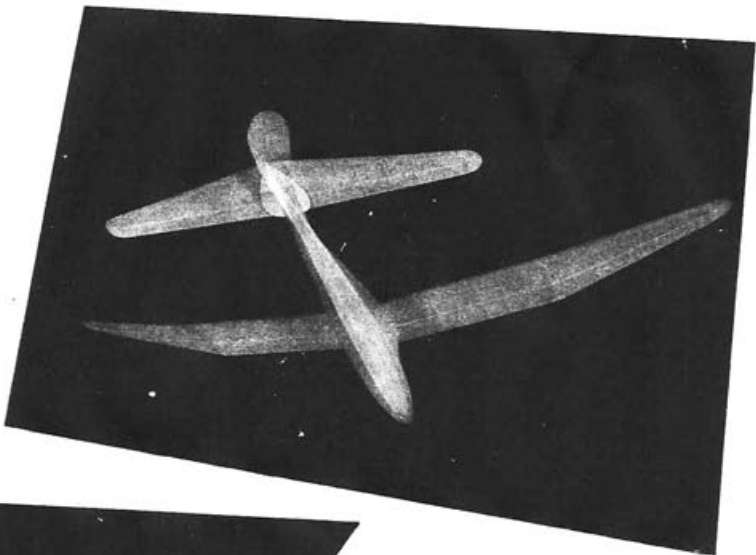


GLIDER



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There's no glider like a soaring glider
for top enjoyment

by ALAN BARRISTER

SOARING is the most beautiful and awe-inspiring form of flight, to say nothing of its being the most efficient and graceful. Even where the mighty gas model is concerned, the real flight does not commence until after the engine has cut off.

Modelers have come to regard the soarer as a complex, high-efficiency machine, but this soarer is the proof that grace and beauty may successfully be incorporated in a simplex form of construction. As you will notice from a glance at the plans, it is composed of a minimum number of parts, thus making it possible to build it in a few evenings. Coincidentally, this simplex construction is one of the strongest, rendering the model capable of withstanding almost any kind of abuse.

High efficiency is really the byword of this unique ship, for its high aspect ratio wing and low drag fuselage is a combination that is mighty hard to beat. No doubt your many hours of soaring pleasure will conclusively prove this point to you, for certainly my words alone could not approach a true justification of the ability of the ship.

As you may have noticed, the short tail moment or close-coupled force arrangement, enables the ship to maneuver in very tight circles without spinning. This helps make the soarer particularly susceptible to thermal flights. But we don't think you'd mind that one bit.

As we told you, the construction is extremely simple; now we'll show you just how simple.

The first step on the fuselage is to cut out all the formers from one-sixteenth sheet. Mark off the former positions on the sides and assemble by sandwiching the bulkheads in between the two sides in their indicated positions. The remaining two sides may then be covered with one-sixteenth sheet balsa and trimmed after the cement has hardened. And there you have the basic diamond structure. The wing mount

may then be added. It is cut from one-eighth sheet and is supported mainly by a one-eighth sheet balsa incidence former. One-sixteenth sheet platform formers complete the bracing of the wing platform. The top rear of the fuselage is shaped with two stringers cut from one-sixteenth sheet and the rest of the shaping is done with four stringers cut from one-sixteenth by one-quarter strips. A soft balsa nose block finishes off the fuselage, and there you have it.

The rudder goes equally as fast. It is made by laying out the one-eighth by one-quarter leading and trailing edges and adding the tip which is cut from one-eighth sheet. Two ribs are cut from one-sixteenth by one-eighth strips and cemented in place. The part of the rudder that joins the fuselage is made from two one-eighth by one-quarter strips, with a section cut out to allow installation at the stabilizer. One-eighth sheet gussets are added to prevent warp. The fin is cut from one-eighth sheet and is sanded to a sharp trailing edge. The dorsal fin is then cut from one-eighth sheet and installed, as is the underlung section of the rudder.

The stabilizer is made in the standard procedure, first cutting out the ribs and placing the one-eighth by one-half trailing edge and three-sixteenths by one-quarter leading edge in position. Then cut the span from one-eighth by one-quarter spar, tapering it to one-eighth square at the tips. These are pinned securely over the drawing and the ribs cemented in place. One-eighth sheet tips are then added and the indicated center section covered with one-sixteenth sheet balsa to prevent the rubber bands that secure the stabilizer in position from cutting into the tissue covering. A one-sixteenth sheet balsa platform is provided for mounting the stabilizer on the fuselage.

THE WING is made in fashion similar to that of the stabilizer, with the exception that the main spar is completely assembled before any of the other work

starts. The overlapping spar joint is employed, which is one of the strongest and simplest of spar joints. Building the spar first assures accurate dihedral angles which will add to the efficiency of your model. After cutting out all the ribs, pin the spar into position and the leading and trailing edges and add the ribs. The center panels should be made first. Then the tip sections. Sufficient time should be allowed for each section to dry before proceeding on to the next. This is to assure proper line-up and a minimum of warps.

Before covering the soarer, install all the necessary securing hooks and dope the entire framework. The tissue is applied moist to allow complete stretching and clean covering at compound curves. Dope is then applied to the covering. Two or three coats should be sufficient. Colored dope may be applied for trim, but it should be kept at a minimum to keep the weight down.

And now for the flying. This is the point where you can either mess up a beautiful job, or be rewarded for all your work. Whatever you do, do it gradually and after careful consideration. First try hand-gliding the model to be sure of the balance. Clay or lead shot may be added to the nose if necessary to obtain balance. When you are convinced that the model is gliding smoothly and flat, try a short tow. The first tow flights may indicate the necessity of slight changes in the balance as hand glides are not always true reproductions of the flying position of the model.

Once you are convinced that you have adjusted the model so that it has its longest possible glide you are ready to adjust the ship to turn. Either direction is O.K., depending upon your own particular taste. This is done by warping the fin in the direction that you want the soarer to turn. By all means do it little by little. A very small adjustment goes a long way. Keep increasing the turn until you have the desired tight spiral so essential to good thermal soaring.