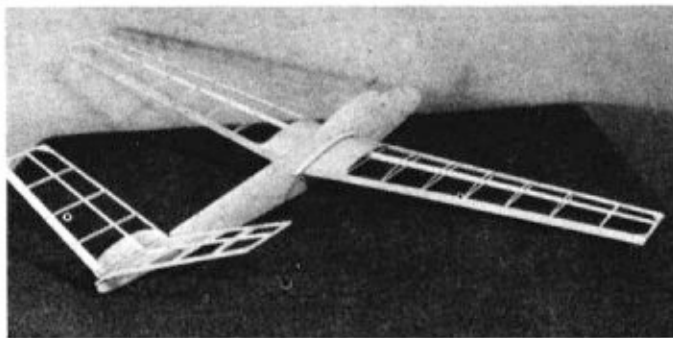
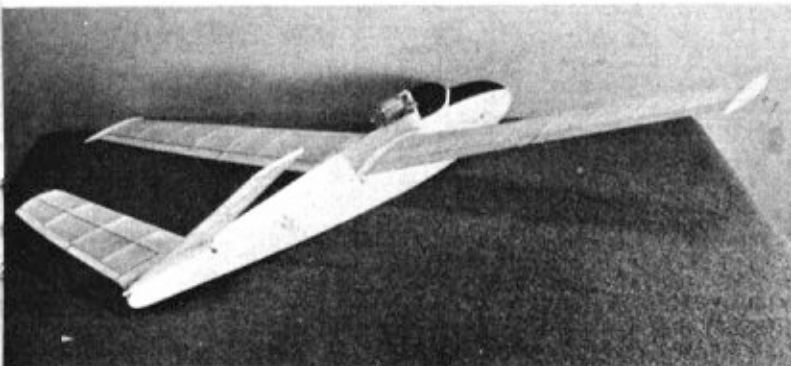


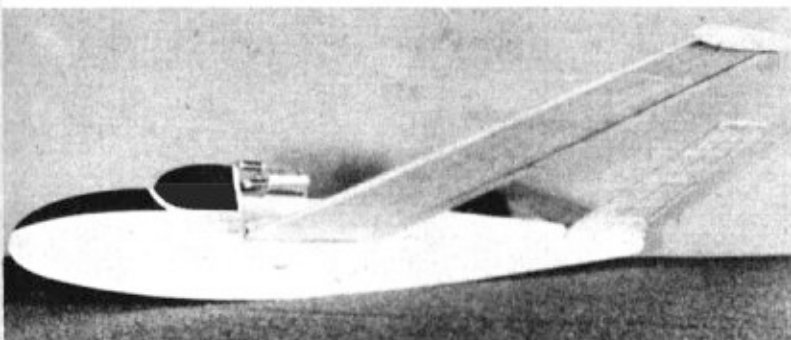
The combination of Jetex power and a super soaring sailplane provide a terrific scale jet model. Try it! A real sporty flier.



Above: The wing and tailplane are built with a straight line taper and have built-up ribs to reduce the weight of the structure. Simple platforms provide secure mounting and aid in the alignment of the flying surfaces. This arrangement helps to maintain flight consistency.



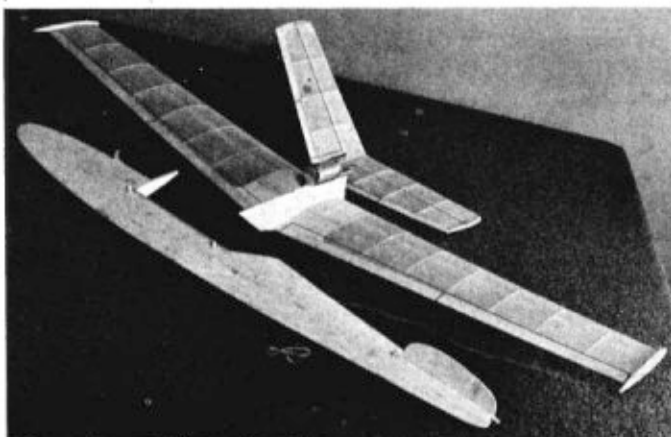
Above: A simple butterfly tail eliminates the need for a rudder and is easy to adjust. Adjustments can be made by removing the single rubber band that holds the tail down and inserting small balsa wedges to tilt the tailplane to the proper angle. The wing is held down in a like manner using two bands.



Above: Though the original uses a Jetex "100", it is possible to use the "50" or "150" without much variation in the flight trim. Full-size ribs are shown on Page 24 but it is necessary to enlarge the main plan up to full-size before you begin constructing this efficient free-flight model.

# THE FOUGA CYCLOPE

by Dick Struhl



Sheet balsa covering is added to the center section of the wing to provide a solid surface for attaching the wing fairing. Note how the Jetex unit is attached to this assembly. Because of this "out in the air" location it is possible to refuel, or add thrust adjustments, with ease. The simplicity of this model is evident since there are but three parts to the entire ship. Sheet balsa is used to make the profile fuselage.

double-size. You may use dividers or the convenient graph on the plan. Simplest of all is to have the magazine page photostatted to the proper size.

**FUSELAGE:** The fuselage is cut from firm (but not rock-hard)  $\frac{1}{4}$ " sheet balsa. Round all of the corners and sandpaper the entire unit smooth. Note the section above the wing position that is cut off. This is later cemented to the wing center section and acts as the motor mount. Add the wing and stabilizer platforms. The stabilizer platform is in the shape of a "V" to accommodate the dihedral angle. The wing platform is flat, with a strip of  $\frac{1}{16}$ " square balsa at each edge to prevent the dihedral wing from rocking. Small  $\frac{1}{8}$ " dowels act to hold the wing and stabilizer rubber strands in place. Adapt the stabilizer to your favorite type of pop-up dethermalizer. You need something to bring this model back to earth!

**STABILIZER:** The stabilizer is very simple to construct. Pin the leading edge and trailing edge to the full-size drawing. Add the  $\frac{1}{16}$ " square spar and then cement the  $\frac{1}{16}$ " square lower ribs to fit on either side of the spar. The upper  $\frac{1}{16}$ " square ribs are cemented on top of the lower ribs and the spar as shown.

When the cement has set, remove the stabilizer from the plan and sand the upper ribs to the proper airfoil shape. Next, install the right amount of dihedral. Apply at least three coats of cement to the dihedral joint.

**WING:** The wing is constructed using built-up ribs. Use Plate 2 as a guide to make a template of the upper camber at the root rib. This template is used as a pattern to cut the upper ribs. Slice as many upper ribs as you require out of a sheet of  $\frac{1}{16}$ " balsa.

Cement the  $\frac{1}{16}$ " square lower ribs in place between the leading and trailing edges. Lay the wing spar in place and cement. The top ribs are then added in place. It will be necessary to trim these to the proper length for each rib section. Trim material from both the front and rear of these ribs to get the proper camber.

When the cement has set, remove the structure from the plan and install the proper amount of dihedral. Only the upper camber of the center section is covered with  $\frac{1}{32}$ " sheet balsa. Fair the sheet into the leading and trailing edges. The soft  $\frac{1}{4}$ " sheet balsa wing tanks are added after the wing is covered. Be sure not to water-dope the covering until the tanks are in place, otherwise the end ribs will pull in when the covering shrinks.

**FINISHING:** Cover the wing and stabilizer with light grade silkspan or tissue. Spray with water to shrink the covering. Give the covering sufficient time to dry properly and then add one coat of clear dope. One coat of clear dope is applied to the fuselage and is sanded smooth before the cabin and anti-glare nose section are painted in. Use silver dope for the cabin and flat black for the anti-glare section.

**JET INSTALLATION:** Mount the engine clip on top of a sheet of asbestos paper as is shown on the plan. Do not use cement as this is a fire hazard.

**FLYING:** Test-fly the model in the usual manner. First trim the glide by adding weight fore or aft, to obtain a long, shallow turning glide. Because of the absence of torque from the jet engine, the model may be turned to the right or left with equal power stability. Once the glide is satisfactory, make all adjustments on the thrust line so that, when the power cuts, the model goes into the desired glide.

#### BILL OF MATERIALS

(All balsa unless otherwise stated.)

|                                  |  |
|----------------------------------|--|
| 1- $\frac{1}{16}$ " x 2" x 36"   | Wing spar, ribs, wing and tail platform, center section. |
| 1- $\frac{1}{8}$ " x 2" x 18"    | Wing leading and trailing edges, stabilizer tips.        |
| 4- $\frac{1}{16}$ " square x 36" | Bottom of wing ribs, stabilizer ribs.                    |
| 1- $\frac{1}{4}$ " x 3" x 36"    | Fuselage, wing tip tanks.                                |

Cement; clear dope;  $\frac{1}{16}$ " diameter dowels; Jetex 100 or Jetmaster engine; sheet asbestos paper; flat black dope; silver dope; rubber bands for wing and tail hold-down; two small wood screws for engine.