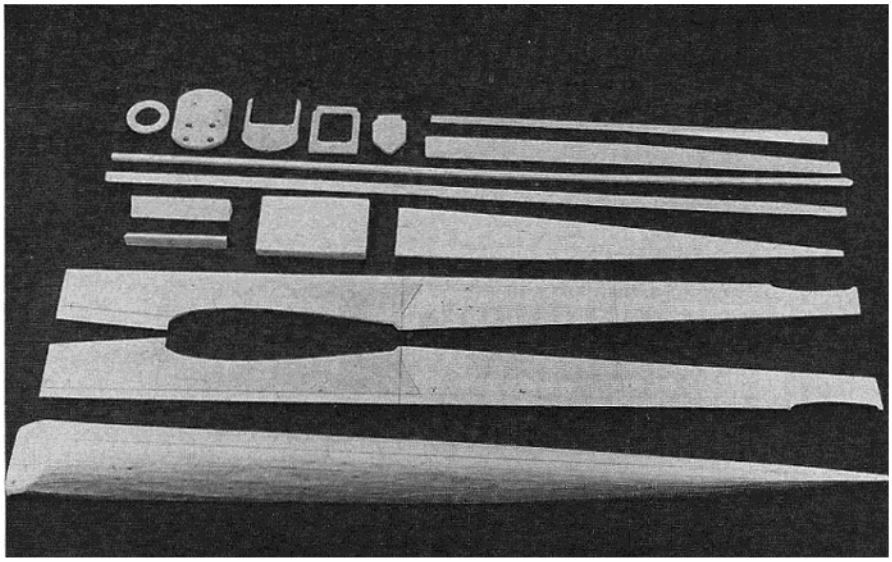
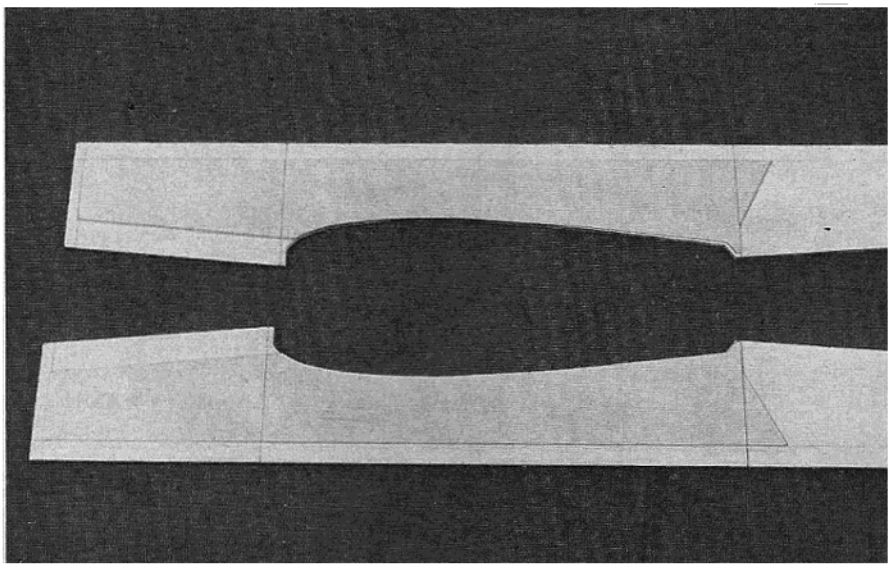
STEVE WOOLEY'S

MURA

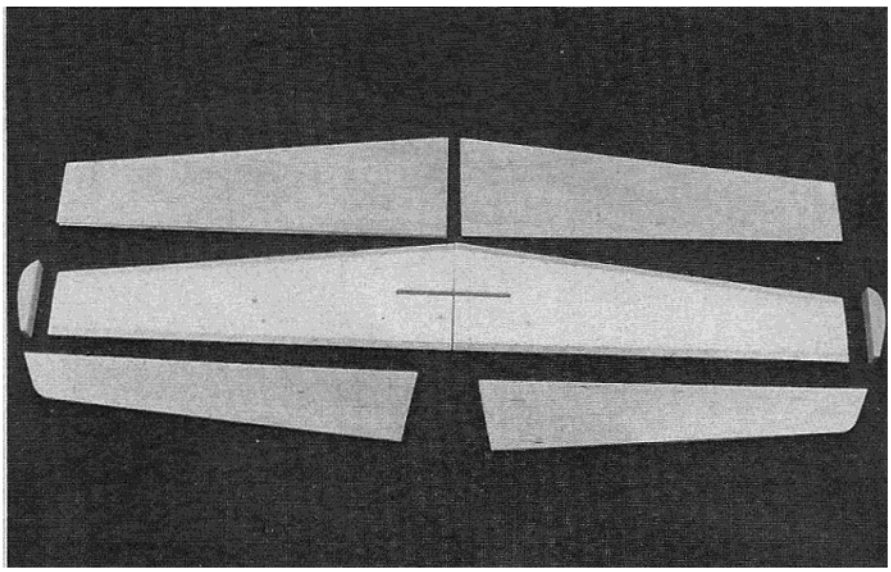
The Mura is an excellent competition Pattern design which is being presented here in the memory of its designer, Steve Wooley. Well known in the competition control line circles, Steve was fatally injured in a race car accident only a week after the test flights of the Mura were made. With the permission of his mother, further tests of the prototype and this article were completed by Francis L. Fluharty in whose shop The Mura I was built. On the opposite page, and at the right, Miss Sharon Strum of Vienna, West Virginia, poses with the designer's prototype.



All parts cut out, except the nose block, for construction of fuselage.



1/32" doublers attached in place with contact cement. Make sure they are attached to right and left side of fuselage.



All parts for construction of stabilizer and elevators.

The Mura is being presented to you in memory of the designer, the late Steve Wooley.

Steve was not known too well for his competitive flying in the R/C field; but if you talk to any of the control line precision aerobatics flyers, they will remember Steve and his original control line designed Cobra - - - not only here in the States, but in many European countries. Steve served as a member of the United States FAI control line team and one year as Team Manager. He was selected one year to serve as a FAI judge.

The Mura was constructed in my shop, and I saw this plane take shape and completed down to the final finish. If you have seen Steve's Cobra, you can see some of its line characteristics built in the Mura, particularly the long stabilizer and wing configuration. The wing area is 660 square inches with engine, wing, and stabilizer set at zero-zero degrees.

Steve completed the plane on a Friday, and we put in 7 flights that evening, with only one slight trim adjustment made on the ailerons. It was unfortunate that Steve was involved in a fatal accident on the following Sunday and did not really have the opportunity to compete with this aircraft. I have flown the plane several times and will have to say, "It really grooves." For anyone interested in flying R/C pattern, this plane will serve them well.

In drawing up the plans and constructing the second Mura for this article, there were two changes made from the original plane:

1) The engine was side-mounted. (Steve indicated he would do this on the next plane.)
2) Retractable gears are shown on the plans and installed in the second plane.

By now you have probably looked at the photos and plans and have seen that most of the construction is conventional.

There are some parts of the construction I feel should be explained, so, here we go.

FUSELAGE:

Cut all the fuselage parts out except the nose block before starting assembly. Make sure that both 3/16" fuselage sides match perfectly. Contact cement 1/32" plywood doublers to the fuselage sides. (NOTE: Be sure to get one on the left and one on the

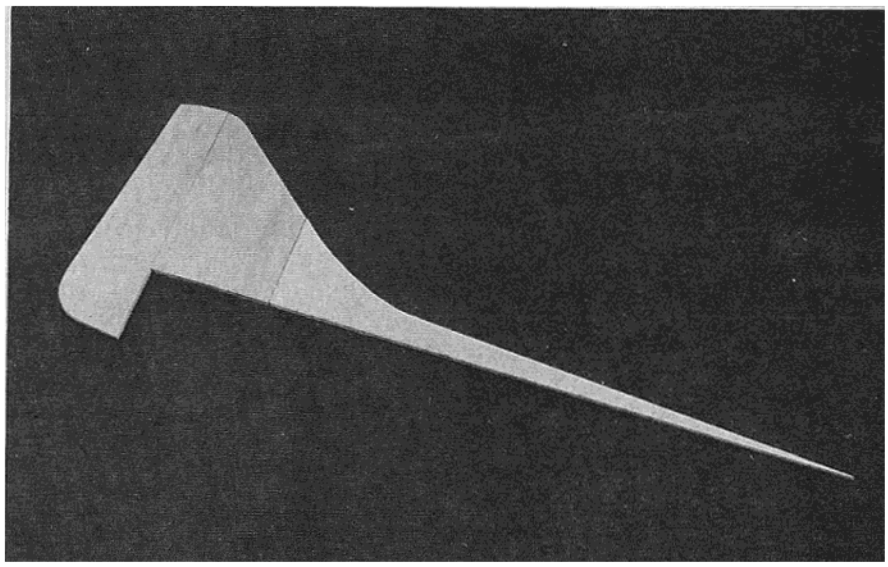
right side of the fuselage. You will not be able to change them once you have made contact.) Glue the ½" triangular longerons to the top of the sides as shown on the plans. Be sure the ½" angular stock is cut down as shown. This will allow bulkheads 3, 4, and 5 to fit properly.

The ¼" plywood firewall should be drilled and blind nuts installed to accommodate the engine mount and the front nosegear. Next, cut out a template of the top view of the fuselage. Pin the fuselage sides upside down on the template, with the nose section at the firewall extending over the edge of your work table. Glue firewall No. 2 and bulkheads 3, 4, and 5 in place, making sure they are kept true with the center line on the template.

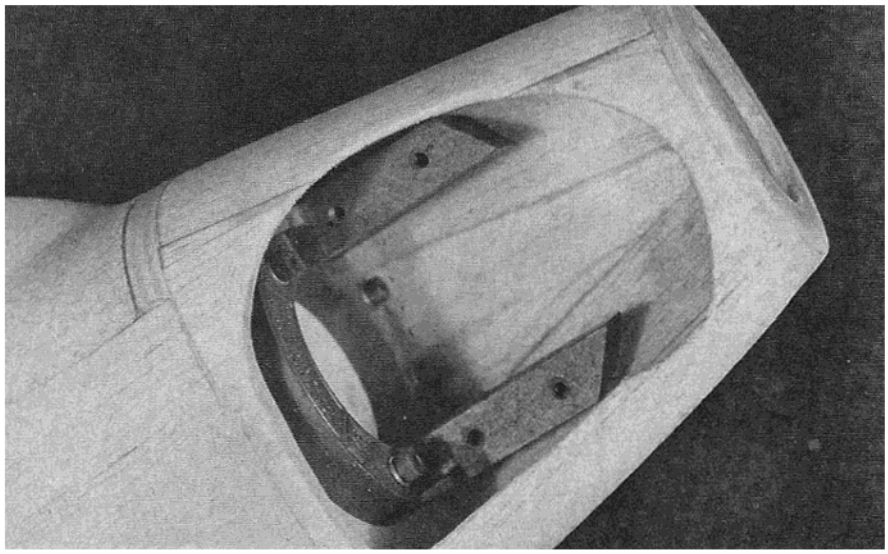
After the glued joints have dried completely, remove from the template and tack glue the top block in place. (The top block will be removed later to hollow out.) After the spot glue has dried on the top block, glue the ¾" triangular longerons to the bottom sides as shown, making sure not to pull the sides out of shape. Glue the 1/8" bottom sheet in place as shown, making sure it is cut true and the sides line up with its edges. Glue the ¾" triangular pieces in the bottom front section of the fuselage and the pre-cut belly block.

Take four pieces of soft balsa blocks and glue together to form the approximate shape of the nose area. Tack glue this assembly in place to the firewall. Glue the 1/8" plywood nose former in place, making sure it lines up with the center lines on the top and sides of the fuselage. Now glue the pre-cut balsa wing fillets to the fuselage. These fillets will add strength to the wing area section of the fuselage and improve the overall appearance of the model. The shaping of the fuselage can be done at this time, and the plans should be followed very closely to make sure it is shaped as shown. (NOTE: The canopy is formed in the top block.)

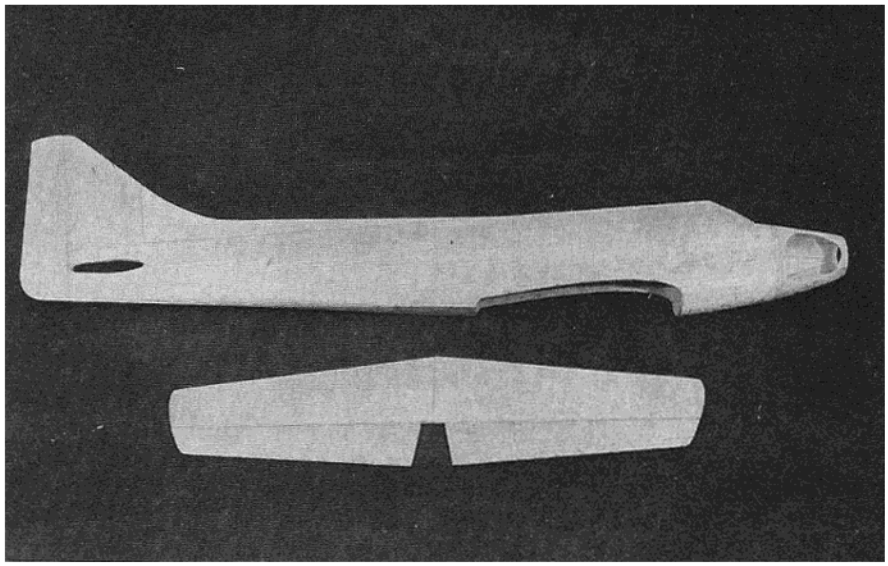
After the fuselage has been completely formed, remove the top block, hollow out and glue permanently in place. Remove the nose block of the engine cowl section and hollow out so that the engine will drop in the cowl, then re-glue permanently to the nose section. The nose area is covered with lightweight fiberglass cloth and epoxy to add strength to the engine compartment area.



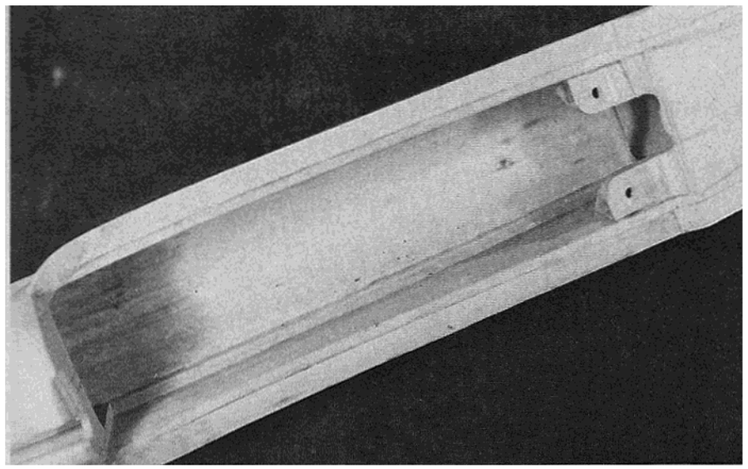
Rudder and fin assembly.



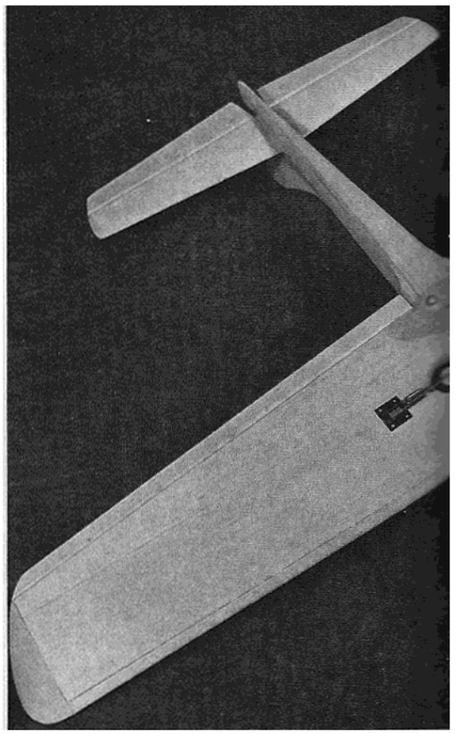
Detail of nose block section showing motor mount in place.



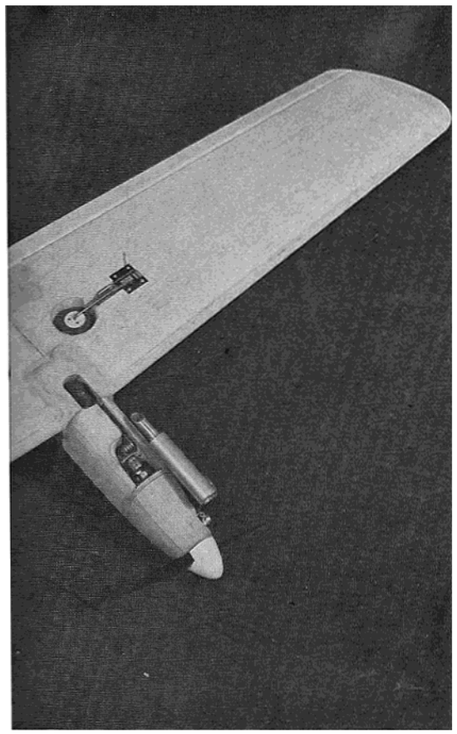
Fuselage, fin, stabilizer and elevators completed, except for sanding and covering.

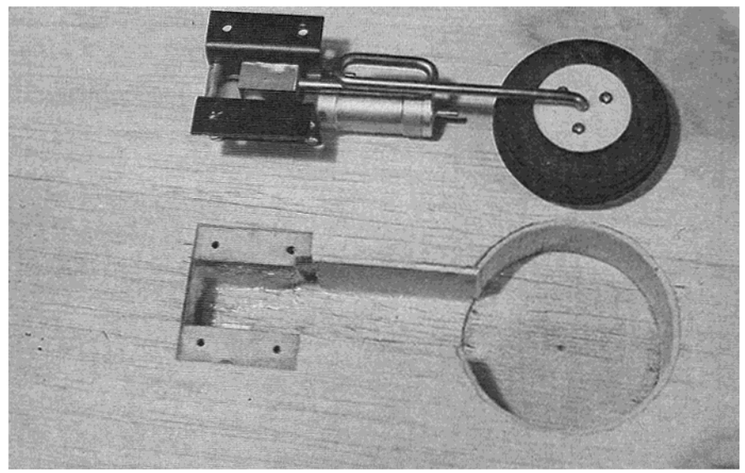


Detail of inside of center section of fuselage showing wing fillets installed.

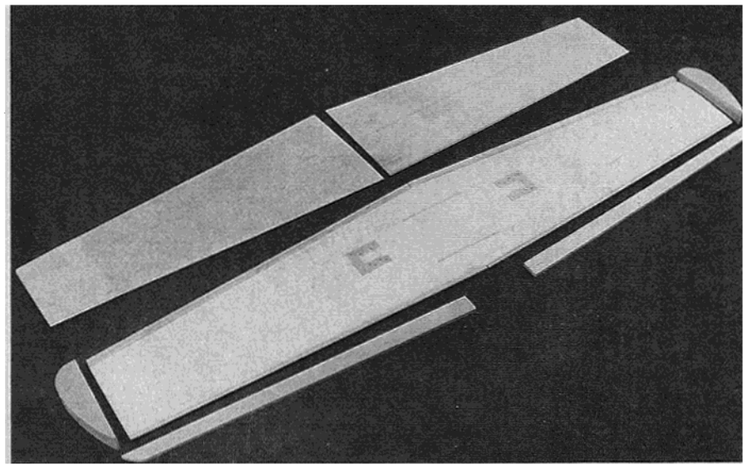


Bottom section of plane showing retracts installed – note filleting at center of wing.

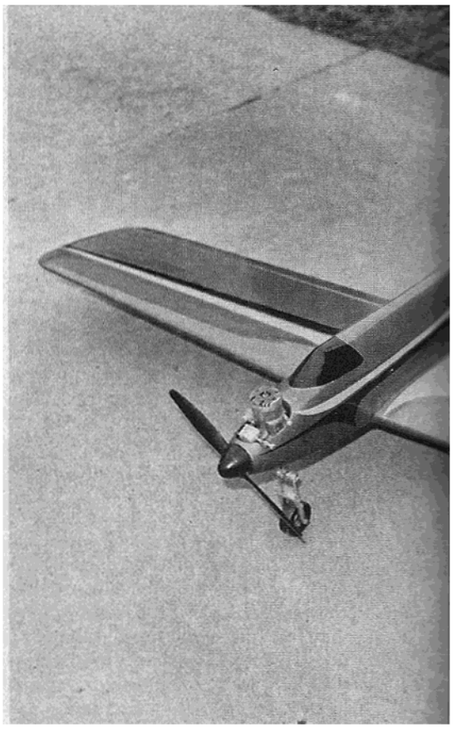


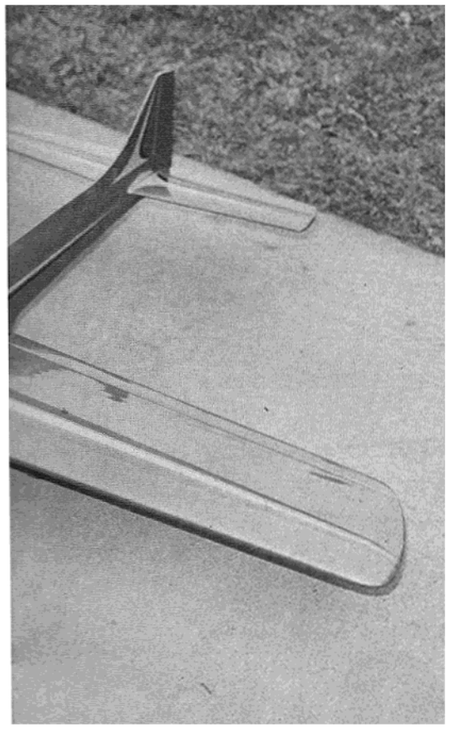


Detail of cutout for retract gear.

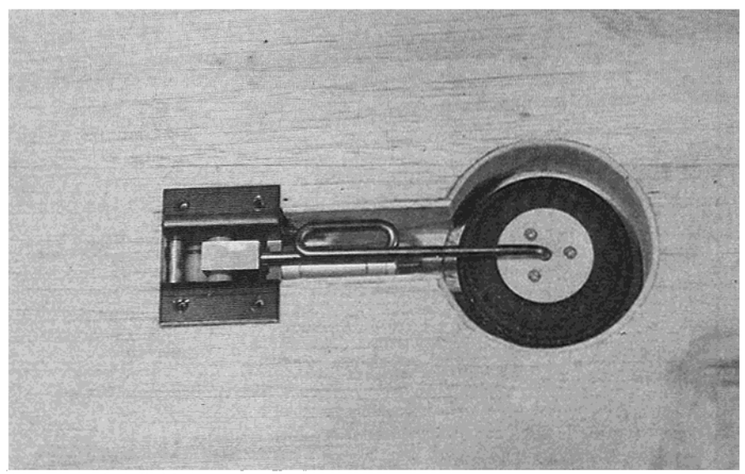


Parts cut out for construction of wing.

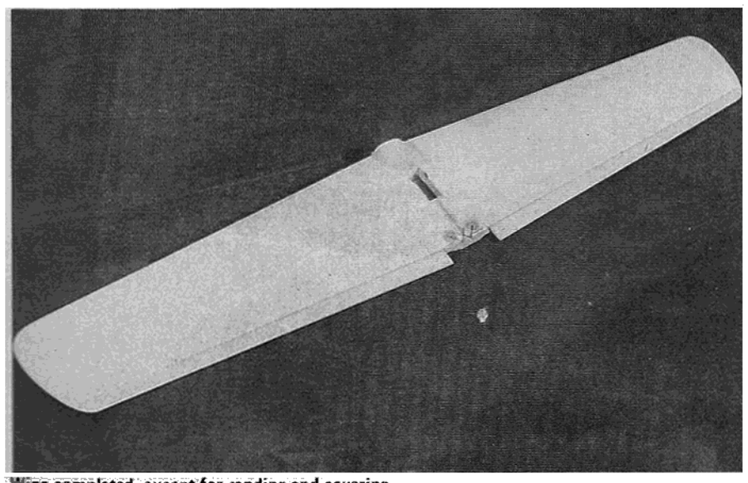




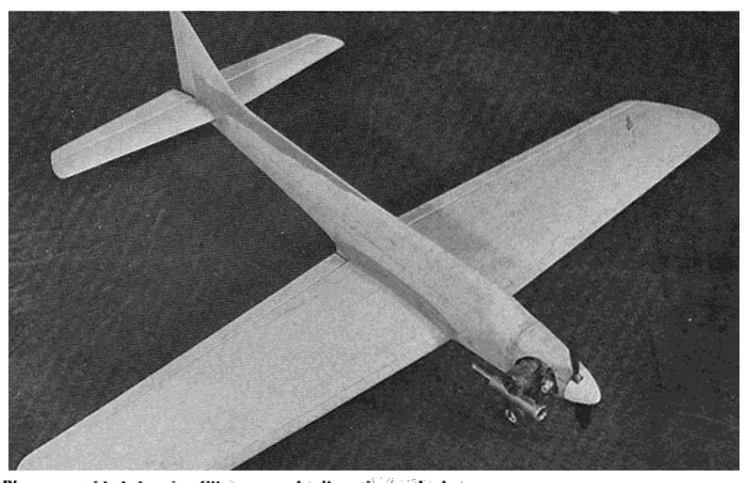
Mura I finished with acrylic auto lacquer.



Retract gear installed in gear and wheel well.



Wing completed, except for sanding and covering.



Plane assembled showing fillets around tail section and wing area.

From RCModeler June 1973