

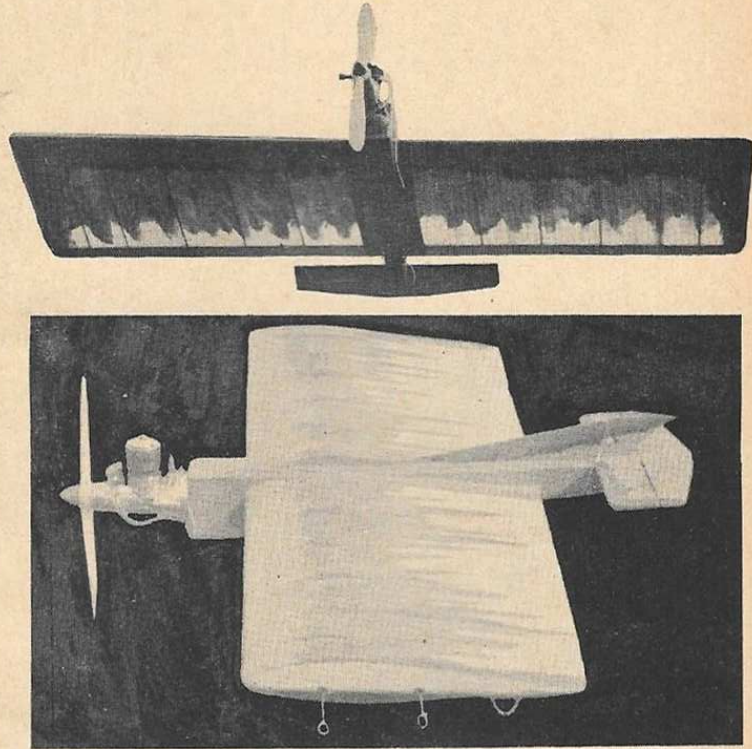
...the minimum

FAST 1/2A COMBAT, EASY TO BUILD FLY AND MORE IMPORTANT, EASY FOR THE NEOPHYTE. NO BETTER TIME THAN NOW TO TRY YOUR FIRST FAST COMBAT FLYING.

By Ricky Maginnis

► One of my friends built a trim, fast combat ship for 1/2A. To most people's eyes, this was a masterpiece. However, a few details were missing and we decided to find out what could be done about them, and as a result of this research, the Minimum was born. This idea for building this plane was taken from the Flying-Wing type of aircraft. Shortening the body added stability, but since the plane was small, it did not detract from the speed. I also experimented with different fuselage lengths and came to the conclusion that the present length was the best possible one. I have used many different engines and the Minimum has performed well with all of them, and they have given the ship speed and smooth easy handling which I wanted to achieve. The Minimum was so named because it can be built at a minimum of cost. Design does not call for a particular type of engine, only specification is the displacement which must be between .049 and .99 cubic in. Speed and maneuverability have enabled it to take top honors at many of the local contest. It is my belief that if you follow the instructions, you will be rewarded with many hours of exciting entertainment.

WING: This is the key part of the plane, as other parts are built around it. Cut out trailing edge and wing ribs from a sheet of 1/16" medium balsa.



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The Minimum

Use good, straight wood in order to prevent warping. Pin one strip of the TE to the plans and glue wing ribs to this. Allow to dry. Then, apply glue to the other side of the wing ribs and pin the other strip of the trailing edge down on top of them, completing the trailing edge. Allow to dry. Cut a spar of $\frac{1}{4}$ " square hard balsa 24" long, and glue this to the front of the wing ribs and allow to dry. Now, reglue all parts and allow to dry thoroughly. Install plywood bellcrank mount and $\frac{1}{4}$ " sq. wing tips and glue.

To plank the mid-section, use a sheet of $\frac{1}{16}$ " medium balsa. Cut strips 6 inches long. Glue planks to both top and bottom of the mid-section. Allow to dry. Sand all

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The Minimum

the rough edges on the wing.

Next big item to build is the fuselage, this is constructed by cutting out the fuselage sides and sliding them over the wing and to the center. Then, cutout the engine mount or firewall and glue it securely into place with Epoxy cement. Be sure that both sides of the fuselage are parallel to each other and in line with the wing, glue and allow to dry.

Assemble the stab, also secure the mounting nuts for engine to the firewall and glue. Plank top and bottom of fuselage; be sure that the fuselage tapers to the back as shown in the plans. Sand off edges and hook up the stab.

Then, cut out rudder, glue it to the fuselage. Grain must be running in the right direction. After allowing time to dry, reglue all the open parts of the plane.

FINISHING: Before you cover the plane, sand all the rough edges with #400 grid paper. Give the frame one coat of clear dope and allow it to dry. Now apply the covering. For this, use either paper or silk. I used Silkspan and found it excellent.

The covering method is the wet covering method and is used by many model builders. Wet the covering material and place it on a piece of newspaper. Apply dope to all parts of the framework except the middle ribs. Stretch the paper, or silk, over the framework and work with it until it is all fastened and all the wrinkles are out of the covering. Do this individually on each surface of the wing. Doping should now be started. Three coats should be applied to the wing. Sand after each coat with fine paper. After the three coats of clear dope, apply at least two coats of color, over which another coat

of clear should be applied. Be sure to let each coat of dope dry thoroughly before applying the next.

Now that you have finished your Minimum, I am sure that you will want to see how it flies. On this subject I have some advice for both the learner and the expert. The Minimum was designed for for snappy speed and delicate handling, so it would be better to fly your first few flights with a slow engine and plenty of line.

As your confidence increases, so may the speed of the engine, but still use plenty of line. Do not shorten the line until you hav mastered most of the simple tricks you can do.