

The great bulky fuselage of the "Jug" has been thinned, while retaining the individual look of this fighter.

The WWII heavyweight: 8-50 calibres made it a potent beast.

Nick Zioli's

Republic P-47 "THUNDERBOLT"

◆ The all round versatility of the "P-47" make it among the better known fighters of WWII. It was a heavyweight with the distinction of being the heaviest single engined fighter of the war. In spite of this, it's performance was quite outstanding. A 2,000 h.p. Pratt Whitney twin row radial engine with a turbo charger gave it a top speed of 420 mph and a ceiling of over 40,000 feet. As a tactical bomber it could carry an "impossible" load of bombs for it's day. As many as three external auxiliary fuel tanks could be carried to increase the range for bomber escort missions.

One of the "Jugs," as it was nicknamed, distinguishing marks was it's great firepower. Eight 50 caliber ma-

chine guns, stagger mounted in the wings. Four in each panel. By the end of the war, over fifteen thousand P-47's had been built.

As a model "P-47" is outstanding. Though by no means exact scale, the features of the old "Jug" are definitely there. Performance, as always, is the primary consideration. Simplicity of construction runs a close second. This one has both these desirable features.

In the performance department, it leaves little to be desired as an acrobatic sport model. The model shown weighs 5 lbs. 2 oz. ready to go except for fuel. A Merco .49 was used for power and makes the model the potent machine it's full size counterpart was.

A .49 may seem like a lot of power



Nick and the P-47. It is most realistic in flight.

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"THUNDERBOLT"

for a sport model of approximately 520 sq. inches of wing area. I feel that an excess of power when it's needed can get you out of trouble where a lack of it won't and may be the cause of the trouble in the first place. High power applied gradually, should be used for takeoffs. Throttle back a little once in the air and use power as required for maneuvers. The requirements that make muffled engines necessary is another reason to use more cubic inches.

"Controlaire" radio equipment was used in our P-47. Many flights have been made without incident. The small S-4 servos are used. These are light, powerful and due to the rotary output can be mounted crosswise or lengthwise. There is ample room in the P-47 for the largest airborne equipment. However, the miniature light weight systems, such as the "Controlaire," have the advantage of producing a lighter, thus better performing model.

I used a color scheme that I thought would best disguise the strip ailerons and slimmer than scale fuselage. The camouflage and invasion stripes do a good job. I used the color drawings in the centerfold for the September 1968 issue of American Aircraft Modeler for reference.

Construction of this P-47 is not difficult at all. The most time consuming task is the planking required on the top of the fuselage and wing fairing.

Planking scares a lot of model builders because it looks difficult. If a little time is taken to make each plank fit well, very little additional time is required to bring the surface to final shape. It is important to try to select the same density wood for each planking strip. Stripping down sheet balsa is one way of obtaining similar strips.

Start by cutting the fuselage sides and doublers from $\frac{1}{8}$ " medium sheet. Locate the servo rail notches in the doublers to suit the servos used. Cement them together to form one right and one left hand side. Clear out any cement that runs into the notches

This somewhat thinned down version makes a practical, rugged flyer, a realistic look, superb in the air.

First of a pair of WWII's, a companion FW-190 coming soon . . . Should liven up the sky!

where formers will go later. Cement the $\frac{1}{8}$ "x $\frac{3}{8}$ " and $\frac{1}{2}$ " triangular stock along the top and bottom of the sides. Mark the location of the uprights but do not install now.

While the sides are drying, cut the formers wing ribs and $\frac{1}{4}$ " tail parts. Cut the fuselage uprights to length from $\frac{1}{8}$ "x $\frac{3}{8}$ ". Shape the ones at F-6 similar to the sides of F-4. The uprights at F-7 should have a little less curve to them.

Join the sides with F-1, 2 and 4. Use rubber bands to pull the sides tight to the formers. Cement the uprights in place. Use spring type clothespins to hold each end against the sides. This gives the required curve. Taper the triangular stock at the tail so the sides will come together and cement. Install F-8, 7, 6, 5 and 3. Make sure F-3 is at the right height. Check this by holding an $\frac{1}{8}$ "x $\frac{3}{8}$ " strip along the top from F-1 to the tail. The strip should touch each former and produce a smooth curve.

Cut the $\frac{3}{8}$ " x $\frac{1}{2}$ " hardwood rear wing hold down block to shape. Drill and tap the 10-32. Epoxy it and F-5 in place. Sand the triangular stock off flush with the bottom. Cut the $\frac{1}{2}$ " soft bottom sheet to rough shape and cement in place. Start planking the top of the fuselage, a beam on each side and work towards the top. Bevel and taper each plank as necessary. I alternate between planking and other assemblies. A couple of strips are applied and while these dry, work can be started on the bottom wing.

Epoxy the $\frac{1}{8}$ " plywood doublers to ribs W-3 and W-5. Pin the $\frac{1}{4}$ " square lower spar down on the plan. Also pin a $\frac{3}{16}$ " sq. rib shim down. This should start $2\frac{1}{2}$ " in from the rear tip of W-1 to the extreme tip of W-10. With this in place each rib will sit with it's cen-



In color you get the effect. The camouflage is realistic.

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Fuselage is planked, time consuming, but easy to do. Controlaire R/C equipment.

P-47 "Thunderbolt"

terline parallel to the building board.

Cement the ribs to the lower spar. Add the top spar, $\frac{1}{4}$ " square leading edge and $\frac{3}{16}$ " trailing edge. Cement the $\frac{3}{32}$ "x $1\frac{1}{2}$ " trailing edge top sheet in place. When this is dry remove from the building board. Turn the wing over and install the $\frac{3}{16}$ " square hinge blocks and trailing edge bottom sheet. Make sure the trailing edge is straight. Join the two panels with the plywood joiner. Epoxy the hardwood landing gear blocks in place.

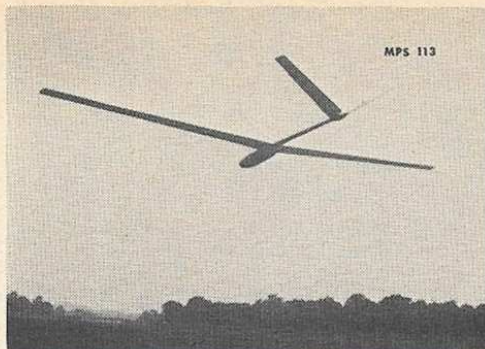
Bend the landing gear legs to shape from $\frac{5}{32}$ " dia. music wire. Mount in the wing and install the retaining clips in W-3. The wire should be loose enough in the clips so the landing gear can be removed and replaced. Remove the gear and sheet the leading edge and center-section. Cement the $\frac{3}{32}$ "x $\frac{1}{4}$ " capstrips in place. Rough carve the soft 1" block wing tips to shape and cement in place. When dry finish carving and sand the wing to final shape. Cover with silk.

If you have worked along on the fuselage planking as you proceeded with the wing it should be completed by now. Sand the planking off even with the firewall. Mount the engine and mounts now while the back of the firewall is still accessible. Drill holes for the fuel tanks, fill and feed lines. Remove the engine and mounts. Epoxy the 1" bottom block and side blocks in place. Carve and sand the fuselage to shape.

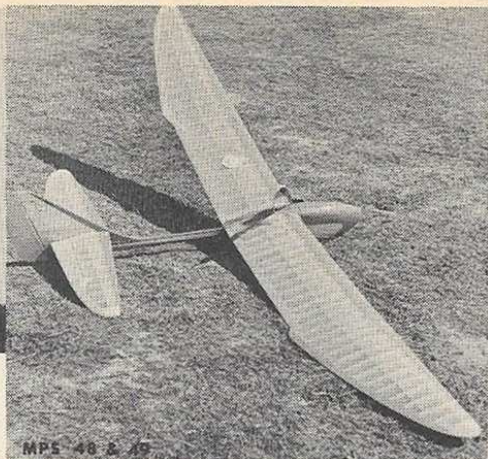
Cut and fit front wing hold down block. Drill and tap the 10-32 hole and epoxy in place. Fit the wing in place on the fuselage. Shape the fuselage

For Summer Fun

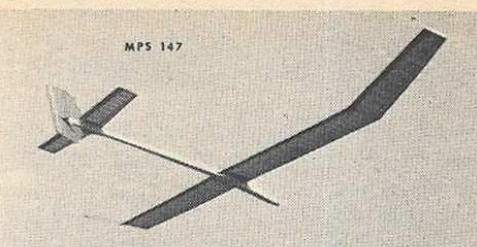
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opening to match the wing. Run a 10/32 screw down through the wing mount blocks from the inside far enough that the end of the screw will hit the wing if it were in place. Put the wing on exactly where it should be and press it down so the screws will leave an indent in the top surface. Remove the wing and drill a 3/16" dia. hole at these marks. Now mount the wing with 10/32 screws. I use regular steel machine screws.

Cement F-2B, 3B and 4B in place, while the wing is on the fuselage. A piece of Saran Wrap over the leading and trailing edge at the center-section of the wing will keep cement off the fuselage. Add braces to F-2B and 4B. When dry remove the wing and plank the fairing with 1/8"x3/8" strips.

Cut the ailerons from 1/4" sheet and sand to shape. Bend both aileron horns to shape with the tubing on them and epoxy to the ailerons. Hinge the ailerons and elevator assemblies in place. Cement the stabilizer and fin to the fuselage. Cut out and shape the rudder fairing blocks. Cement them in place. Hinge the rudder in place. Bend the tail wheel strut to shape and epoxy to the rudder. Hinge the rudder in place.

Wing fillets were formed with Sig "Epoxolite" A balsa fairing is cemented to the fuselage between it and the ailerons. Cover the wing center-section with "Saran Wrap" and mount in place. Mix up a batch of "Epoxolite"

and apply generous amount all around the wing root. Form a smooth radius with a round object about 1" dia., a ball is best. Scrape the excess off the wing and fuselage sides. Fill any low spots and form again. Use water while forming to get a smooth finish. When satisfied with the shape set aside and cure. After curing remove the wing. Sand the sharp feather edge down to the point where it has some chip resistance.

I covered the entire fuselage and tail surfaces with Silkspan after a couple of coats of dope were applied. This was followed by additional coats of dope, sanding between coats. Build up enough coats to produce a smooth surface for the color dope. Just remember that dope alone can't give a good finish. Plenty of sanding is required.

Colored dope was sprayed on. Only enough was used to give a good solid covering. No more than two coats of any color was found to be necessary.

Finish by adding the canopy wheel well covers and as much detail as desired.

Install the radio equipment, push-rods, engine and fuel tank. A neat orderly installation goes a long way towards added reliability.

Flying is pure pleasure in both appearance and performance. Decked out in it's colorful war paint it will steal the show at any flying field. If you are looking for a high spirited scale-like model, give this one a try. ●

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