

No tissue to tear! If you do fumble, both wings knock-off readily. Doesn't require a prairie flying field—none of those 50 mile treks!

SNOOPY

By TED STRADER

If you fly for fun, you need contest free flights like a hole in the head. Try this rugged, sensible .049 sport.

► This model is dedicated to the proposition that a lot of modelers like to fly just for the fun of it with a plane that generally appears like a life-size ship.

On the other hand, our tests with the Atwood Signature .049 up front indicate "Snoopy" could cause quite a bit of consternation in contest circles.

Tests to date have been made with two engines. For primary tests, and weak hearts, our .035 Torpedo worked nicely. For the supreme test we re-installed the Signature at 9 degrees down

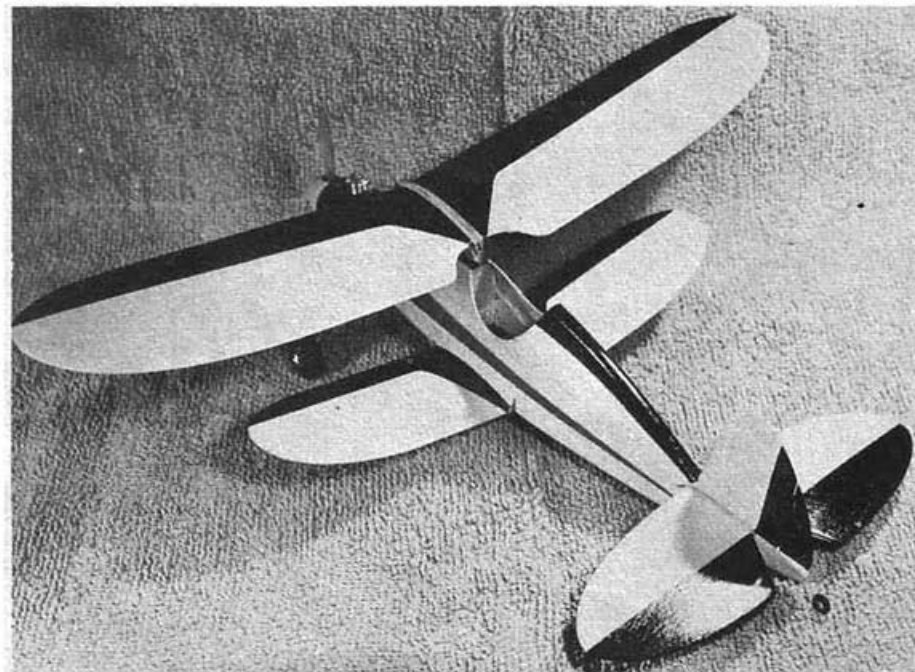
thrust and 3 degrees right, tried to slow it down a little and closed our eyes. Better we should have forgotten to put on the propeller. "Snoopy" took off in left circles and made like a bird. In about 20 seconds it was a speck. The transition from power to glide was smooth and the model then proceeded to climax a thrilling test hop with a beautiful, flat, left-hand, slow glide.

For those who would rather spend their flying time in a confined area and not on safari into uncharted corn fields, we would suggest an .049 of less wallop than the one we use. The contest boys can use their own judgment. CONSTRUCTION: With very few exceptions, "Snoopy" is fashioned completely from 1/16" sheet balsa. There are only two places on the fuselage where the curvatures approach a multiple compound attitude. One is the top forward engine enclosure and the other is the part of the fuselage aft of the cockpit from the center line to the base of the headrest. The application of a little warm water, patience and rubber bands will deal with this problem in jig-time. Construction can be speeded up by cutting out all parts needed before building is actually begun.

FUSELAGE: Transfer the center line and all former and doubler locations directly onto the 1/16" sheet balsa side patterns to assure a more perfect alignment. Cement doublers and the 3/16" square landing gear base reinforcement in place. When dry, install firewall former 1 and former 3 in place, cement-

Continued with plans on next page

Sanded carefully and given a few coats of sanding sealer, the little biplane will glisten.



ing them up the fuselage sides only as far as they are straight. The doublers will help keep the framework alined. Check before the cement dries to be sure.

When dry, install former 2 in place, cemented in the manner of the first two formers. Next join the sides at the tail and when dry, install the remaining formers (4-5-6) in place. These, too, are cemented only up as far as they are straight, for the time being.

The next step is to form the top half of the fuselage. The full nose doublers 1 and 2 will necessitate the use of a little hot water applied with a cleansing tissue to the nose section. Do not cement the sides.

Wrap lightly with rubber bands until the sides assume the shape of the formers 1, 2 and 3. Allow to dry completely. When dry, remove rubber bands, cement, re-wrap with rubber bands and allow to dry.

The landing gear can now be bent of 1/16" steel wire, laced with thread to the 1/16" plywood landing gear base, and this unit cemented in place. Do not cement the landing gear to the plywood base yet. The thread will hold it in place sufficiently for the time being. Later, when the bottom forward 3/32" sheet is installed, it can be alined and cemented.

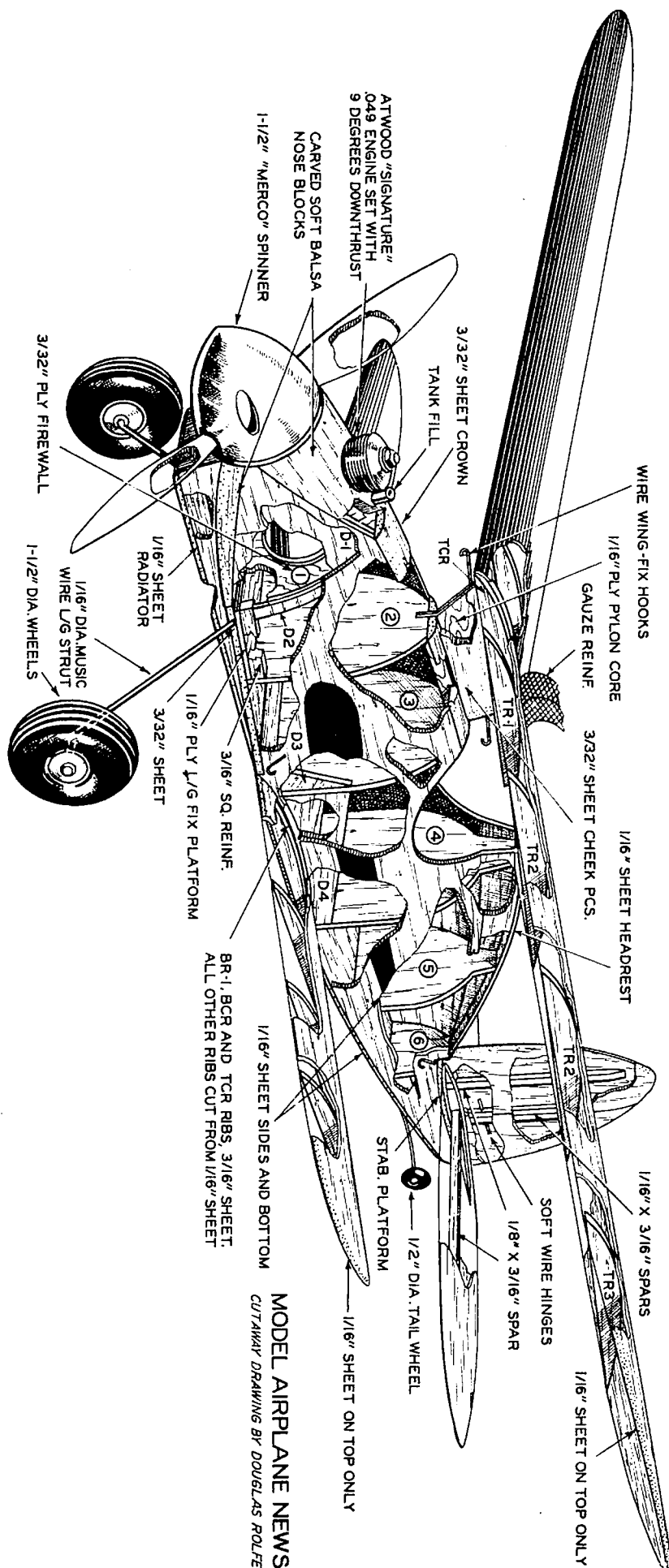
With the front half of the fuselage dry, we are ready to draw the aft top section into shape. Wrap a few rubber bands lightly around it and see if it will readily conform to shape. If so, cement bulkhead to sides. If a little difficulty is experienced, employ the same procedure used to form the front portion of the fuselage.

Next, cement the headrest pieces into place. Then sand the top and bottom of the entire fuselage to take the remaining sheeting, including the nose section.

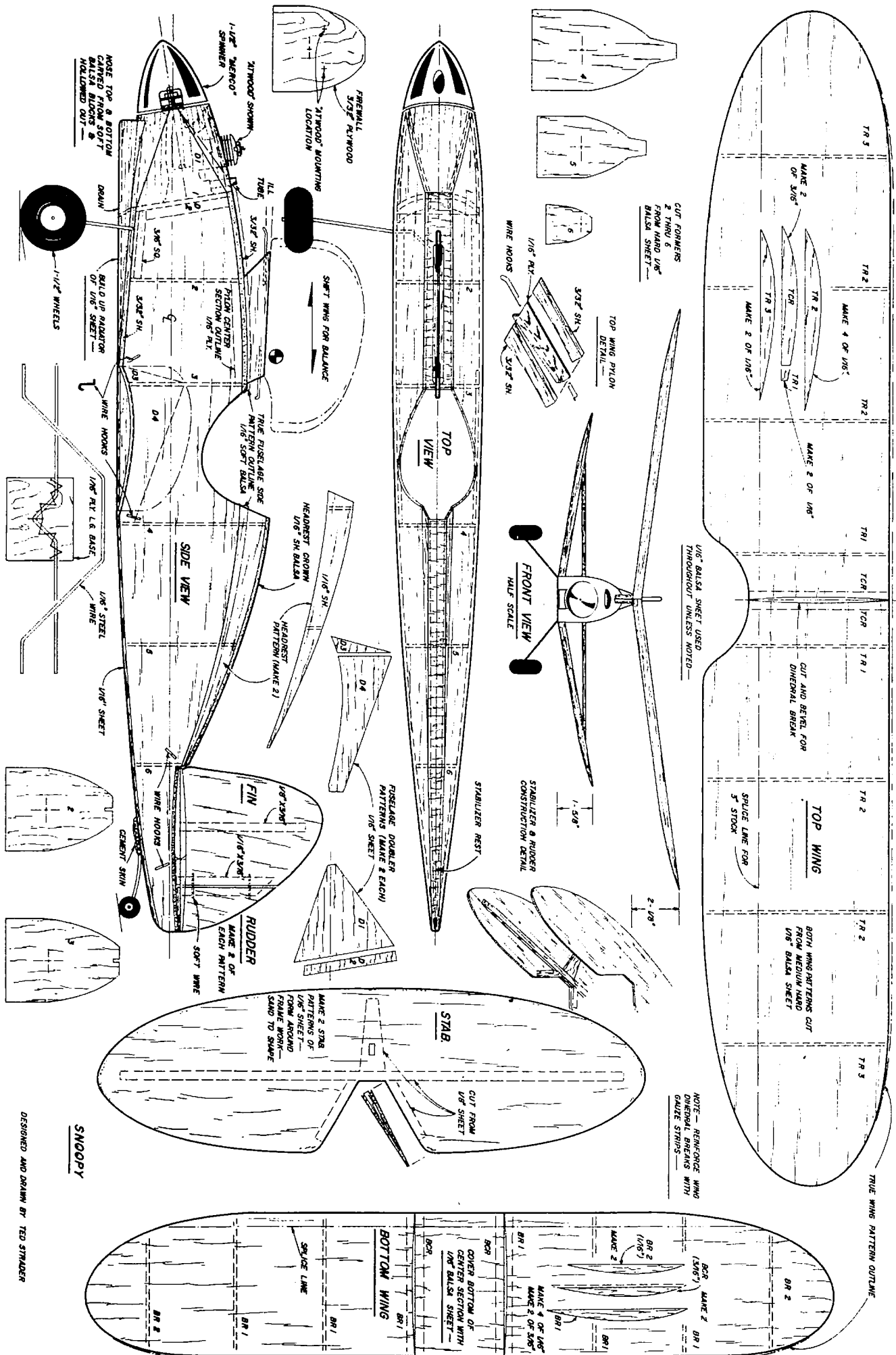
The headrest crown, stabilizer rest, and aft bottom sheeting can be cut to rough outline and cemented in place. Here, again, rubber bands will give a much neater appearance than using pins.

At this time the center section of the top wing pylon, which is cut from 1/16" plywood, is set into the slots in formers 2 and 3 and cemented in place. The outer 3/32" sheet pylon pieces are installed later. Carefully cut a 1/16" slot in the 3/32" forward top sheet and cement into place.

Now, line up the landing gear. Set the 3/32" bottom sheet into place and press against the landing gear to make an impression. Gouge out a slot to accommodate the landing gear, re-check the landing gear alinement and cement it and the forward bottom sheeting in place. Select two soft balsa blocks of the proper size for the nose and cement in place. A piece of square balsa strip, 1 1/4" long, can (Continued on page 38)



MODEL AIRPLANE NEWS
CUTAWAY DRAWING BY DOUGLAS ROLFE



FULL SIZE PLANS AVAILABLE. SEE PAGE 52.

DESIGNED AND DRAWN BY TED STADLER

SNOOPY

NOTE - REINFORCE WING DIHEDRAL BREAKS WITH GAUGE STRIPS

1/8" Balsa sheet used throughout unless noted

CUT FORMERS 2 THRU 6 FROM HARD 1/8" Balsa sheet

TOP WING Pylon DETAIL

FRONT VIEW HALF SCALE

STABILIZER & RUDDER CONSTRUCTION DETAIL

TOP WING CUT AND BEVEL FOR DIHEDRAL BREAK

SPRUE LINE FOR 5" STOCK

BOTH WING PATTERNS CUT FROM MEDIUM HARD 1/8" Balsa sheet

STAB CUT FROM 1/8" SHEET COVER BOTTOM OF CENTER SECTION WITH 1/8" Balsa sheet

BOTTOM WING

COVER BOTTOM OF CENTER SECTION WITH 1/8" Balsa sheet

MAK 4 OF 1/8" BR 1

MAK 2 OF 1/8" BR 2

MAK 2 OF 1/8" BR 1

MAK 2 OF 1/8" BR 2

MAK 2 OF 1/8" BR 1

MAK 2 OF 1/8" BR 2

TRUE WING PATTERN OUTLINE

Snoopy

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be cemented across the very tip of the nose to draw the sides together while the blocks are drying. This will make the nose conform to the top view curve and ultimately with the spinner. This is removed when cement had dried.

Shaping the nose blocks can be done either with a sharp knife or coarse sandpaper. We prefer using a very coarse sandpaper and gradually switching over to smoother grades as the blocks take shape. To get a more perfect match between the spinner and nose, hollow out the blocks and cut a hole in top, sufficient to accommodate the engine. Install the engine and spinner and mark spinner base outline with a soft lead pencil. Remove the engine and finish the sanding process. With the pencil marks as a guide, the spinner can be held in place to check the sanding operation until the job has been completed to satisfaction. All that remains is cutting a drain hole, building up a false radiator, installing the wire hooks to the top wing pylon, and completing the pylon sandwich by cementing the two outer 3/32" sheet pieces in place. After the final sanding has been done to the fuselage, the wire hold down hooks for bottom wing and tail assembly, plus the tail wheel, can be installed.

WINGS: This phase of construction should

offer no challenge. If wider stock is available, ignore the splice lines. We cemented the ribs in place by applying cement to the back third of each rib. When dry, cement was applied to the rest of each rib, the wing turned right side up and pinned down. The bottom of the lower wing center section is sheet covered. Dihedral breaks are reinforced with gauze or silk strips.

STABILIZER, FIN, RUDDER: Like the wings, these, too, offer no problem. They are built around a light framework, not because they need to be extra strong, but because, one; extra weight was needed to balance the model without employing sinkers, BB's, and an old rim wrench, and, two; this type of construction is not as subject to warps as might have been encountered had we used a single layer of thicker material with comparable weight. The fin center filler is extended to fit into the slot in the stabilizer for added strength. Soft wire, or very thin aluminum, is installed as a hinge for the rudder to trim "Snoopy" for flight.

FINISH: Sand the entire framework with very fine sandpaper. Apply two coats of VERY thin dope and allow ample drying time between each. We specify VERY thin dope, contrary to the thinking of some, because it will penetrate farther into the wood, giving a better base for later coats and also adds tremendously to

the strength of the wood. It that the primary coats of dope wings be VERY light also, and the UNDERSIDE of the wing applied to the top. This will reduce the chances for warps. When coats are completely dry, sand with fine sandpaper. Apply two more clear coats of normal consistency between each coat (when the first with No. 400 wet-or-dry paper final trim is up to the individual will excuse any FF contestant want to keep weight down, experimenting of their own, top off the finish process with fuel-proofer, even if we have dope, just for gloss.

FLIGHT TRIM: There is little regarding steps preparatory flight. However, (here commercial) a few things might absolutely certain that the stabilizer are exactly at the angles the plans. This will govern Power-on flight trim can be later. If you trim the flying accommodate the engine thrust might be smooth, but the glide and may cause the plane either stall to a crashing conclusion tain the glide path is flat air rather slow. In trimming

(Continued on page

around the marked center of gravity. It is best to have Snoopy just the least bit tail heavy on the first glide. This design has a decided preference to mush, rather than stall, if a little tail heavy or, if in gliding, the launching speed does not quite approximate the actual flying speed. Be certain to have the prop and spinner on while testing (we haven't broken a prop yet in faulty test glides) for their weight enters into the overall balance picture. Shifting the top wing back and forth should correct any previous erratic behavior. If a motor of the type we use is employed, effect about three or four degrees right thrust for the initial flights, decreasing the off-set, in proportion, as the relative engine power is decreased. If you have any qualms put the prop on backwards for the first few flights.

We hope you enjoy Snoopy. It's a rugged little rascal.