#572

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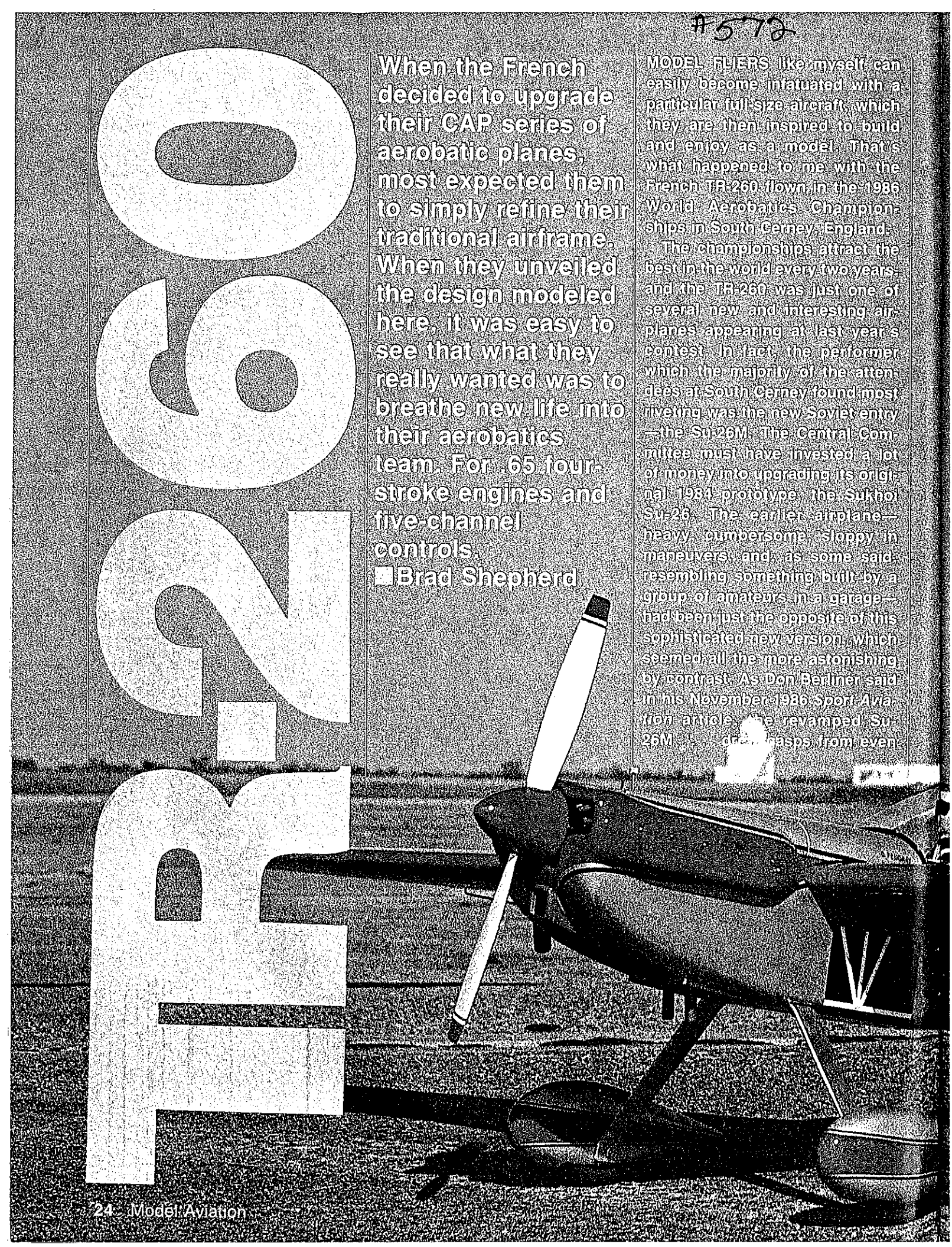
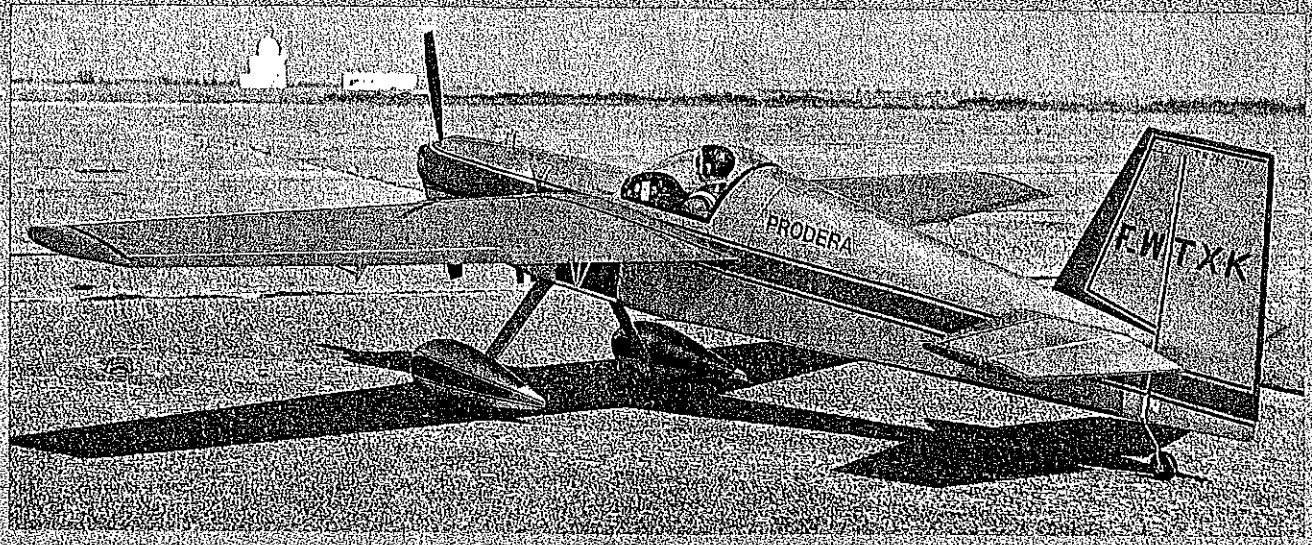
When the French decided to upgrade their CAP series of aerobatic planes, most expected them to simply refine their traditional airframe. When they unveiled the design modeled here, it was easy to see that what they really wanted was to breathe new life into their aerobatics team. For .65 four-stroke engines and five-channel controls.

■Brad Shepherd

MODEL FLIERS like myself can easily become infatuated with a particular full-size aircraft, which they are then inspired to build and enjoy as a model. That's what happened to me with the French TR-260 flown in the 1986 World Aerobatics Championships in South Cerney, England.

The championships attract the best in the world every two years, and the TR-260 was just one of several new and interesting airplanes appearing at last year's contest. In fact, the performer which the majority of the attendees at South Cerney found most riveting was the new Soviet entry—the Su-26M. The Central Committee must have invested a lot of money into upgrading its original 1984 prototype, the Sukhoi Su-26. The earlier airplane—heavy, cumbersome, sloppy in maneuvers, and, as some said, resembling something built by a group of amateurs in a garage—had been just the opposite of this sophisticated new version, which seemed all the more astonishing by contrast. As Don Berliner said in his November 1986 *Sport Aviation* article, the revamped Su-26M [illegible] grasps from even





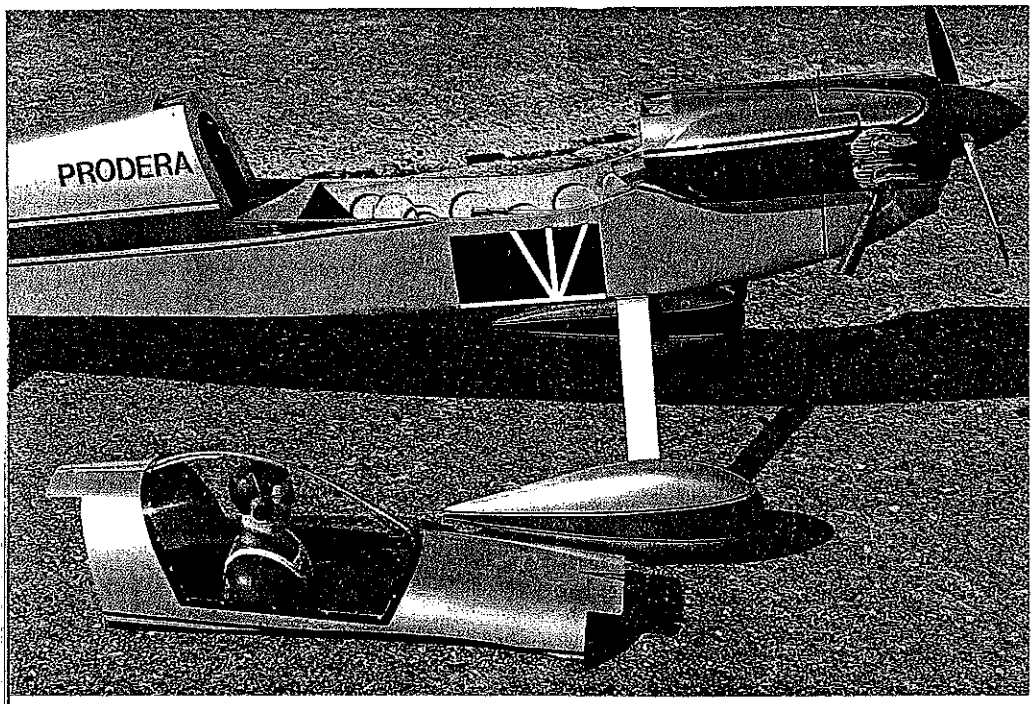
Our author's rendition of the newest French aerobatic mount sits on the tarmac in both of these pictures at the Victoria Regional Airport in Texas. Although it borrows lines from both the Laser and Akro, our author says it is a better flying model than his earlier Laser.

the most jaded of observers. *(Editor: See Don Berliner's article in this issue.)*

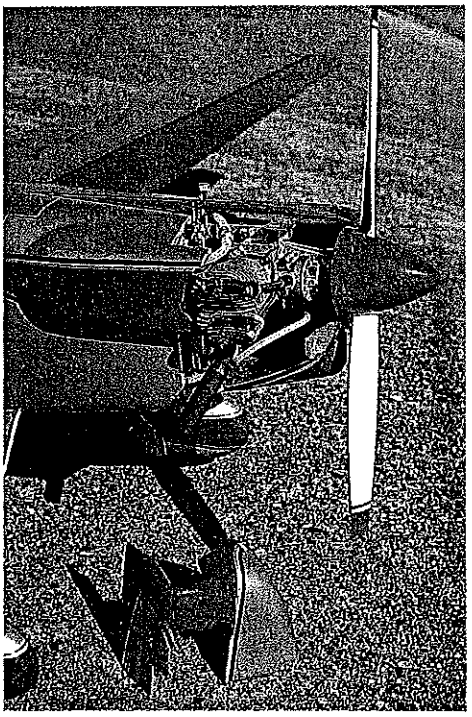
However stunning that airplane's performance, and nice as it was to look at with its big nine-cylinder radial engine up front, the one that really caught my eye, and got the juices flowing was the TR-260. This new French creation had Stephens/Laser lines coming out from almost every angle. Exceptions were that it had the CAP-series cowl, the tail section brace wires were missing, the forward fuselage had nice rounded lines, and the landing gear legs were somewhat longer than average.

Since there was no question about the fascination this airplane held for me, making the decision to build a TR-260 model came easy. Establishing a data base from which to build it, however, took a little more effort. Assuming that the plane followed the basic Stephens/Laser layout, I first roughed out a drawing of the wing for a model in the .60 .65 four-stroke range. Once I'd built the wing, though, it was apparent that constructing an accurate replica was going to require more information.

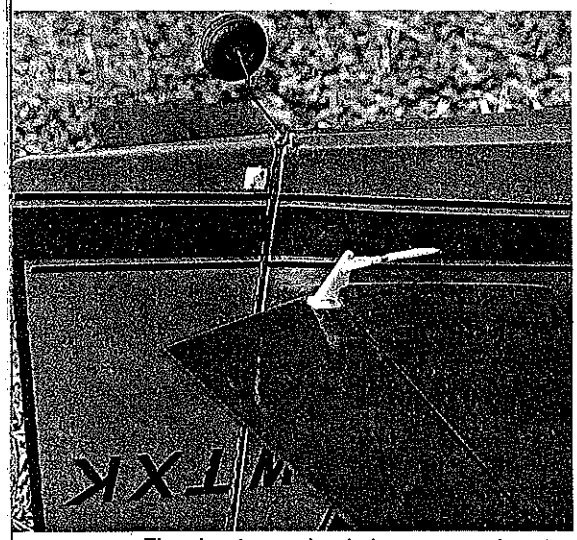
Contacting fellow aviation writer Don Berliner, I was told that he did have more material, but had sent it to Carl Wheeley for an article in *Model Aviation*. A subsequent letter to Carl produced pay dirt. I received some color shots of the airplane as it was presented in the April 1987 issue, along with a small three-view drawing.



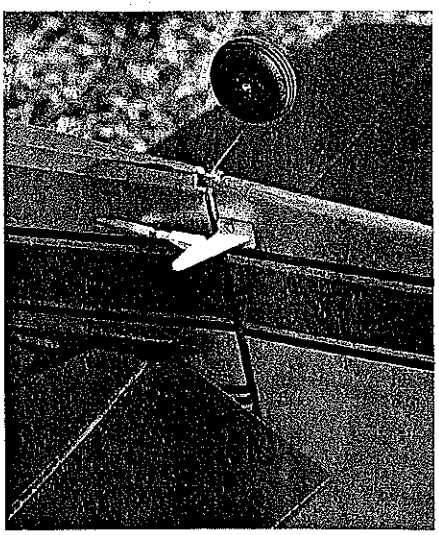
The entire center section above the wing removes for easy disassembly and convenient access to all the insides. The Saito .65 exits the cowling nicely for a clean, smooth front end.



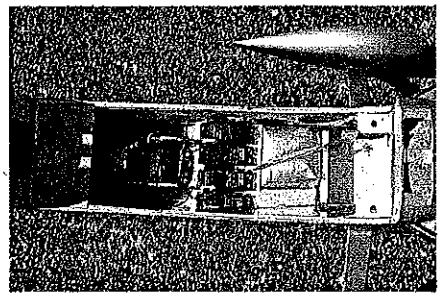
The cowling splits to allow installation and tinkering with the engine. Use either a modified CB Associates mount or Saito's mount.



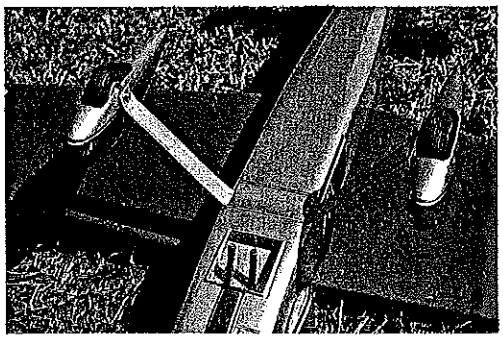
The elevator pushrod shows a neat installation of Sullivan hardware. These rods do have some drawbacks, but they are easy to install, don't vibrate, the exit hole can be nice and smooth, and they are inexpensive.



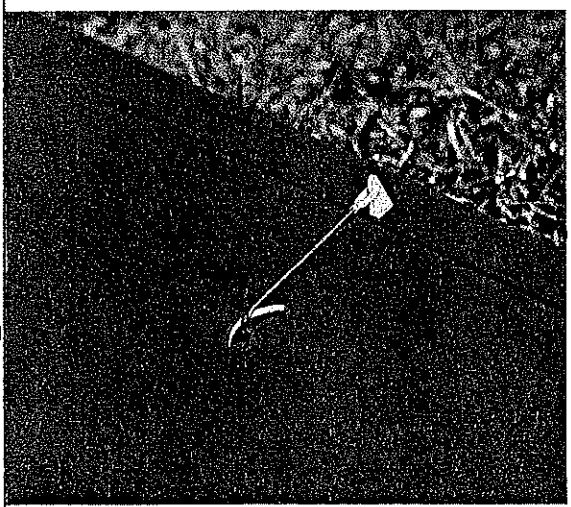
The hidden tail wheel arrangement makes a neat and practical setup for a steerable tail wheel. The rudder pushrod and exit hole should also be neat and trim for lowest drag.



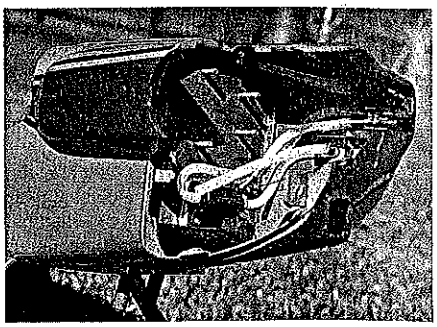
Due to the lightweight construction and heavy Saito engine, the radio equipment will have to be installed as far back a possible to keep the model from coming out nose heavy.



The landing gear fairs nicely into the surrounding ¼-in. sheet fuselage bottom. Note the 1/16 ply edging around the vent hole and the dummy exhaust stacks that poke out.



Our author says this is his typical arrangement for setting up the aileron actuator system. It's slop-free and allows the covering to be put on without interfering with the link.

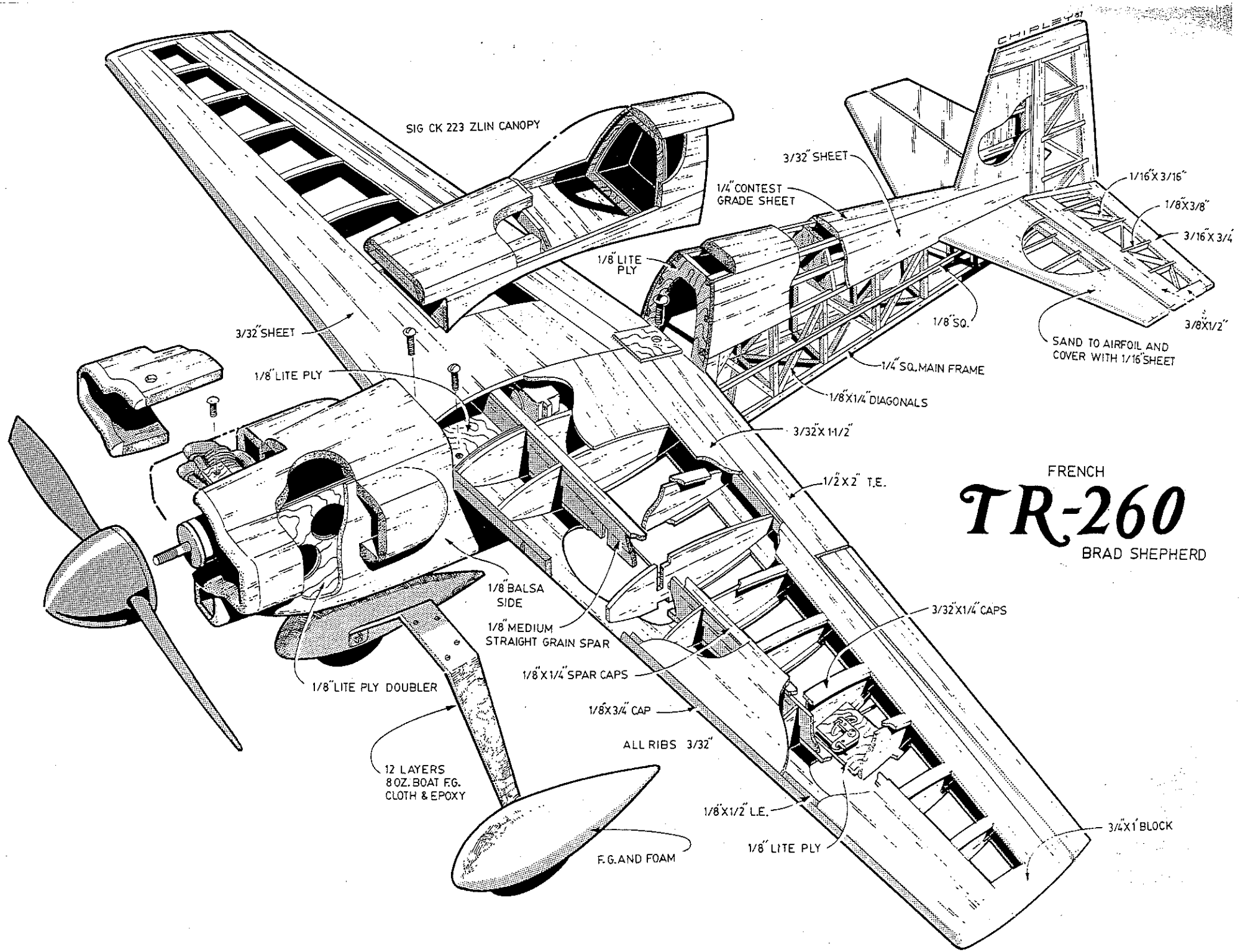


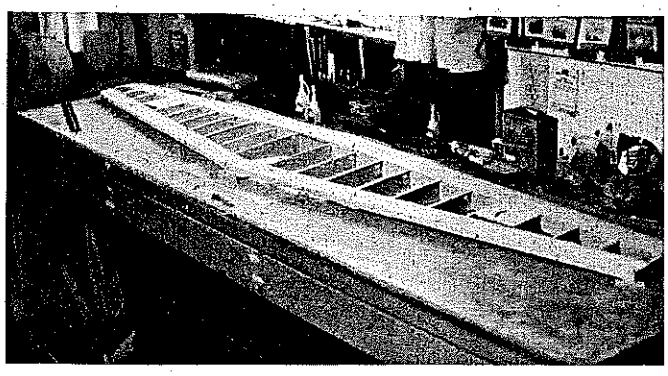
Picture shows details for all the plumbing and the Perry pump for the smoker system.

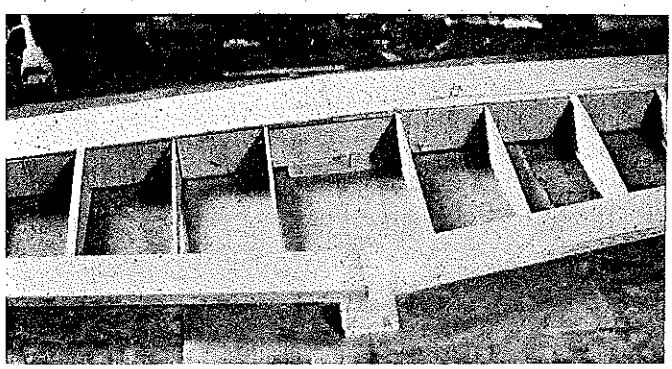
and two pages of French with metric callouts—enough to move the project along.

Ignoring the French and the metrics, I compared the three-view with those of the Laser variations that were in my stockpile. Using the pictures to get some shapes firmed up, I laid out the fuselage to accommodate the engine and tanks, as well as to establish the force arrangement. Since it appeared that the stab was lower in relation to the thrust line than the Lasers, I decided on that arrangement. The tail section airfoils are constructed in the same manner as on the CAP series—although not as thick, making them much easier to build.

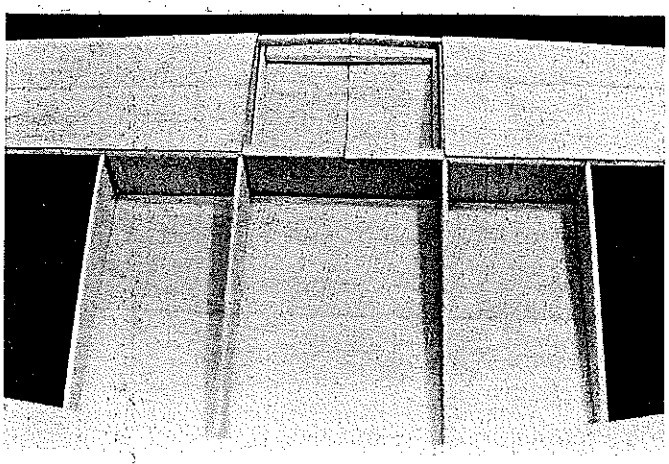
I don't know whether Don assigns the TR-260 to the "ugly" or the "beautiful" category in his collection of aircraft subjects over the years. What I do know about this model is that it is one beautiful-flying airplane that should please any modeler

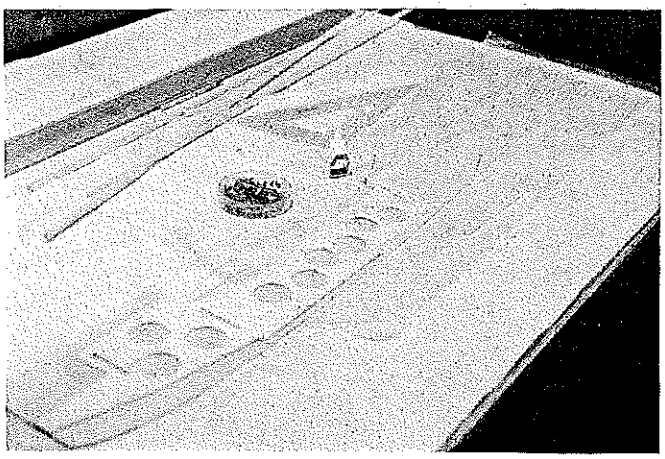

SIG CK 223 ZLIN CANOPY
3/32" SHEET
1/4" CONTEST GRADE SHEET
1/16"X 3/16"
1/8"X3/8"
3/16"X 3/4"
1/8" LITE PLY
1/8" SQ.
3/8"X1/2"
SAND TO AIRFOIL AND COVER WITH 1/16" SHEET
3/32" SHEET
1/8" LITE PLY
1/4" SQ. MAIN FRAME
1/8"X1/4" DIAGONALS
3/32"X 1-1/2"
1/2"X 2" T.E.
FRENCH
TR-260
BRAD SHEPHERD
1/8" BALSA SIDE
1/8" MEDIUM STRAIGHT GRAIN SPAR
3/32"X1/4" CAPS
1/8"X1/4" SPAR CAPS
1/8" LITE PLY DOUBLER
1/8"X3/4" CAP
ALL RIBS 3/32"
12 LAYERS 8 OZ. BOAT F.G. CLOTH & EPOXY
1/8"X1/2" L.E.
3/4"X1" BLOCK
1/8" LITE PLY
F.G. AND FOAM



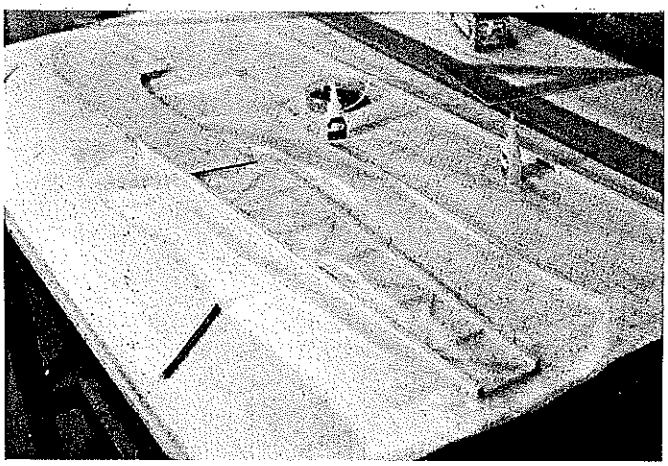


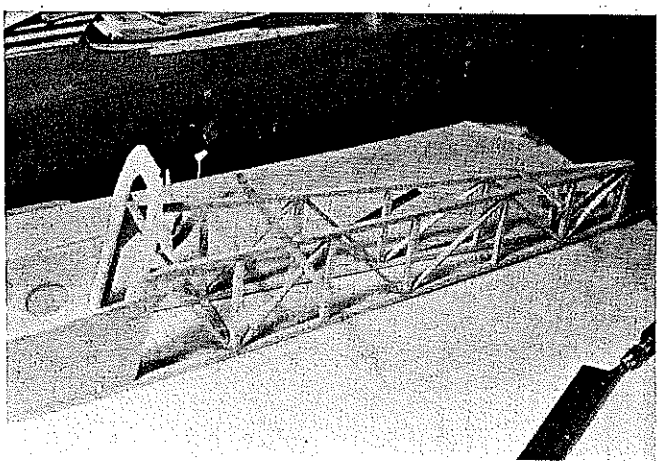
Left: Assemble the wing on a workbench covered with a piece of Celotex sheeting to make it easier to insert the stick pins. Note the shims at the trailing edge which are referred to in the text. Right: Epoxy the plywood dihedral brace against the spar stubs and inside the spar caps.





Left: After the bottom sheeting is glued on, turn the wing over and epoxy the ¼-in. LEB balsa brace and the 1-A ply sub-ribs into their proper places. Right: Build the fuselage side directly over the wax-paper-covered plans. Note the lightening holes in the ply doubler and its location.





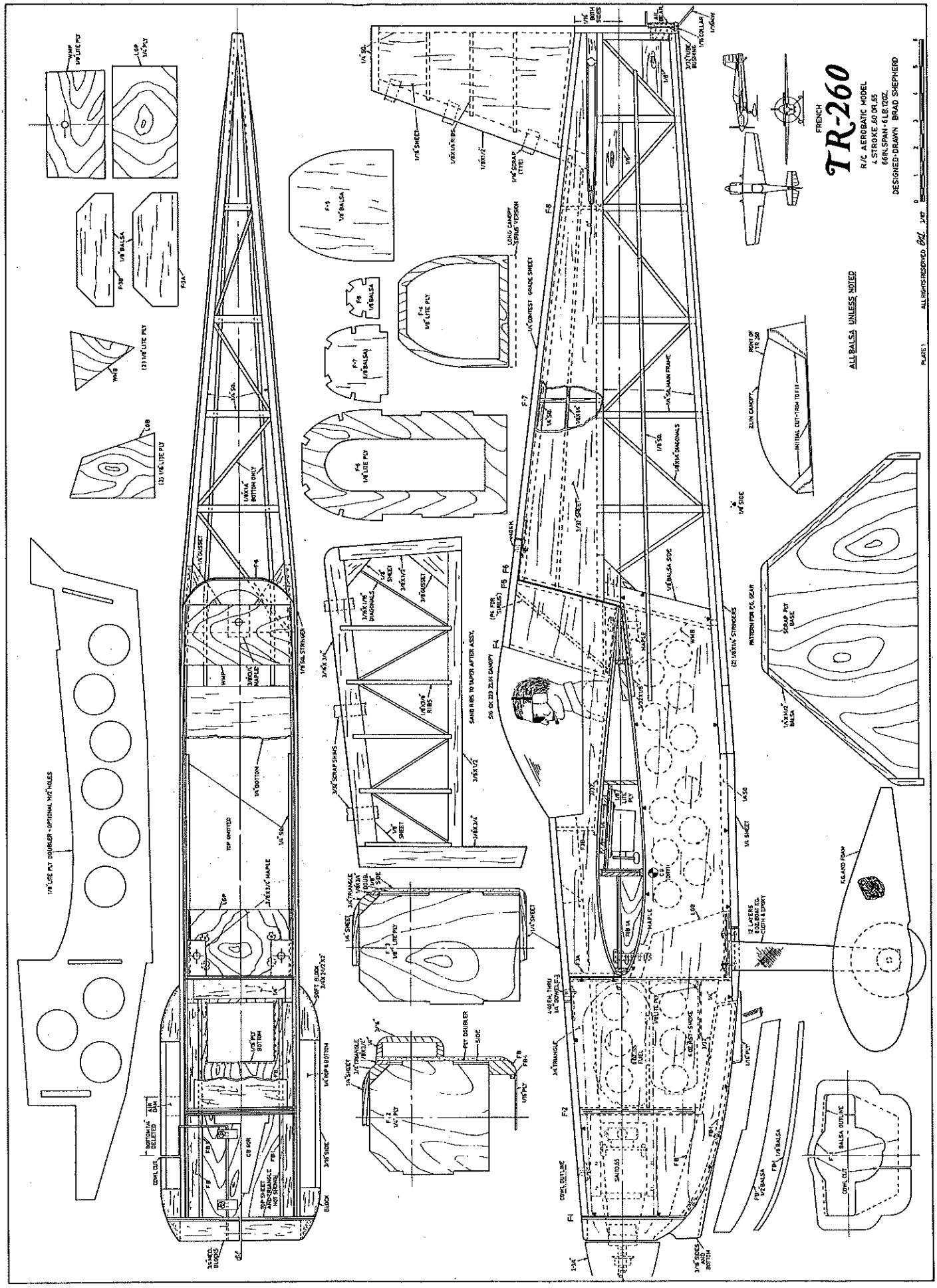
Left: The left fuselage side is built directly over the wax-paper-covered right side to assure both sides will match and a straight fuselage will result. Right: Assemble the fuselage over the top view. Install Former F-6 and glue on temporary braces to keep the structure square while the remaining ¼ sq. and ⅛ x ¼ sticks are glued in. This method of fuselage construction results in a lighter structure than with sheet construction.

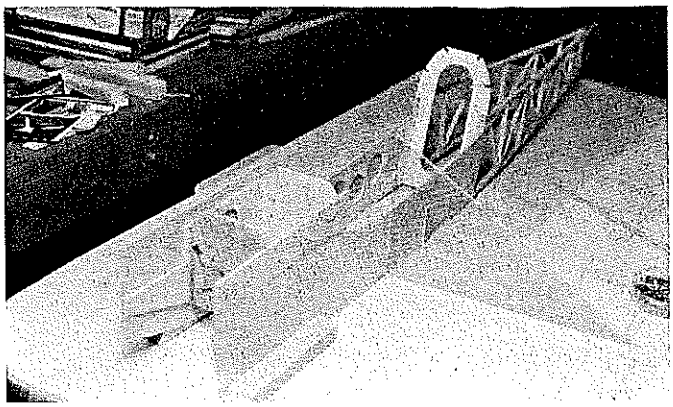
with a predilection for aerobatics. And the sound of the four-stroker with its realistic exhaust is a bonus.

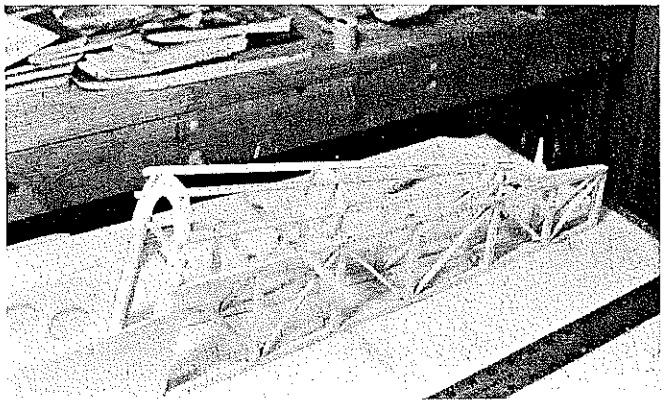
My first test flight with the TR-260 in March of 1987 proved instructive. Flying buddy Leon Folse and I loaded up his Cherokee and headed north to a flying field owned by one of our modeling friends. Our friend mowed the site out of some of the flatland he works as a farmer/rancher, and one fabulous flying site it is—all close-cropped grass in the middle of nothing—with no trees, houses, or power lines in sight. Another modeling friend from a coastal town joined us for a most pleasant afternoon. I don't know what Bill Winter's Shangri-la is like, but this place must come close.

The others unloaded, assembled, and were in the air as I occupied myself with readying the TR. I had a close call when I fired up the engine, which I'll describe in hopes of preventing your getting into a similar situation. A CG 2½-in. spinner was used on the model along with a Master Airscrew 13-6 prop. The spinner had to be reworked in order to enlarge the cutouts to receive the prop; I also had to file a little off the prop to make it fit. After the engine fired up, and as I was advancing the throttle, the prop and spinner came flying off. The prop hit my right hand between the thumb and forefinger, leaving a two-inch gash. It could have been much worse had the prop taken a different route. As it was, my hand was numb for about five minutes, the bleeding stopped, and, as I didn't think stitches were required, I proceeded with the testing.

Naturally, I concluded that the method I had used is essentially unsafe for a four-stroke engine of this size. I am not at all sure a prop can be tightened sufficiently using this arrangement, and I'm flying without a spinner until a better setup can be de-

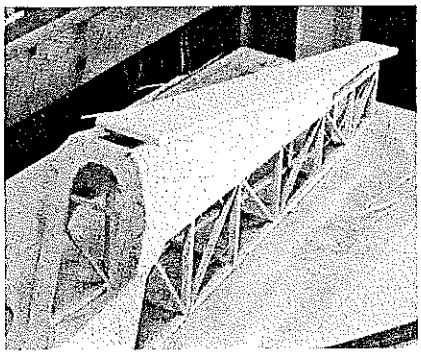

FRENCH
TR-260
R/C AEROBATIC MODEL
4 STROKE .60 OR .65
66IN.SPAN - 6LB.12OZ.
DESIGNED-DRAWN BRAD SHEPHERD
ALL BALSA UNLESS NOTED
ALL RIGHTS RESERVED
PLATE 1



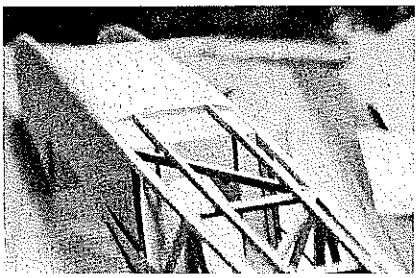


Left: Epoxy the firewall and Former F-3 into place while keeping the fuselage sides square. Pin balsa blocks to the outside line of the top view to secure the sides while the glue sets. Right: Position the turtledeck stringers, and glue into place with CyA. Remove the temporary braces.

Sheet the turtledeck with 3/32 sheeting. This is not an extreme curve, but it is better if "easy to curve" A-grain light balsa is used.



Glue the top 1/4-in. sheeting onto the turtledeck, and trim it to rough shape with a knife.



Glue the bottom 1/4-in. sheeting and the 1/8 x 1/4 stringers into place. Note how the transition from round corners on the sheet to the stringers has been sanded into the sheeting.

termined and fitted.

One of the goals in designing this model was to keep the weight down in the 6- to 6½-lb. range, making it aerobatic with the four-stroke .65 and giving it good vertical capability. Although the final weight edged up over our goal at 6 lb. 12 oz., performance was not hindered in the least because I had grossly underestimated the power of the Saito.

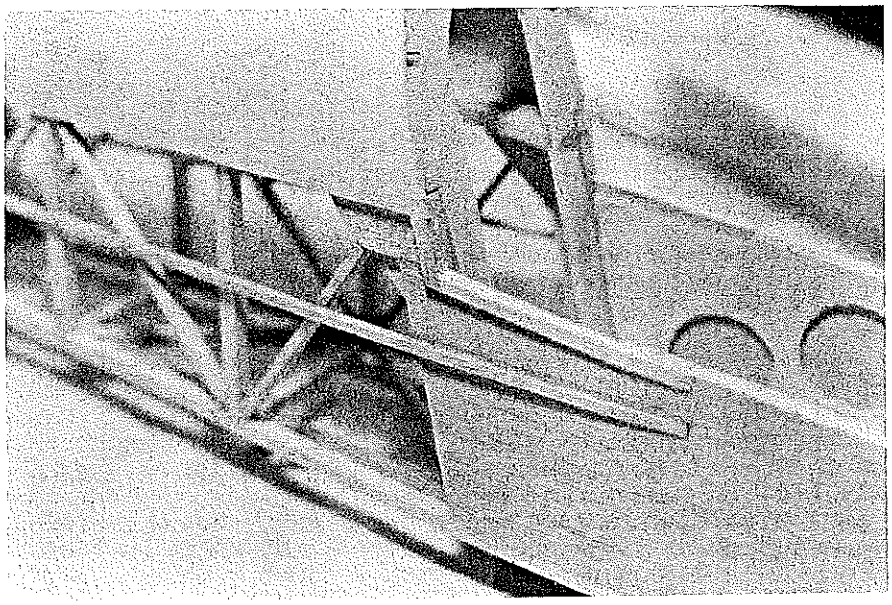
In fact, I was more than mildly taken aback the first time it took off, literally jumping off the ground as the throttle was opened. I let it climb out straight for some distance while adjusting the servo trims slightly, made a turn back, and watched it fly hands-off the length of the field.

After such a promising start, I moved on into some maneuvers—loops with snaps, inside and outside loops, square loops, hammerheads, vertical rolls, four-points, and so forth. On a vertical climb with a snap roll, the model just kept going up, pushed by that irrepressible dynamo of a Saito.

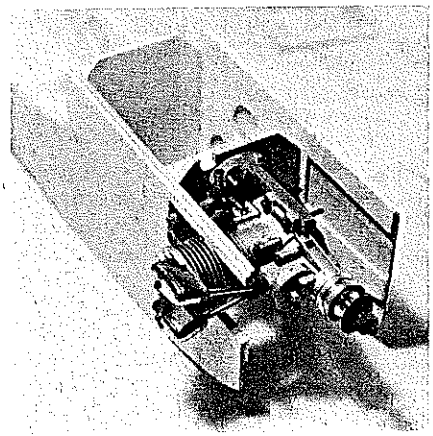
On the second flight I got a little fancier, making inverted passes into outside loops with an outside snap on top. When I handed the transmitter to my friend Leon for critical comments (Leon steered business jets around before he retired), he grinned broadly while pronouncing the TR-260 far superior to the Laser I had designed a few years ago. That judgment carried special force with me, because in my own mind the Laser was *the best* flying model I had ever designed and built.

Construction. To achieve my goal—a model with all the talents of a full-size aerobatics ship—I chose building techniques geared toward keeping the airplane light enough for the most intricate maneuvers.

Wing. Any of the various methods used in cutting out a set of ribs for a tapered wing is appropriate. Rather than dictating a particular method, I suggest using the one you are

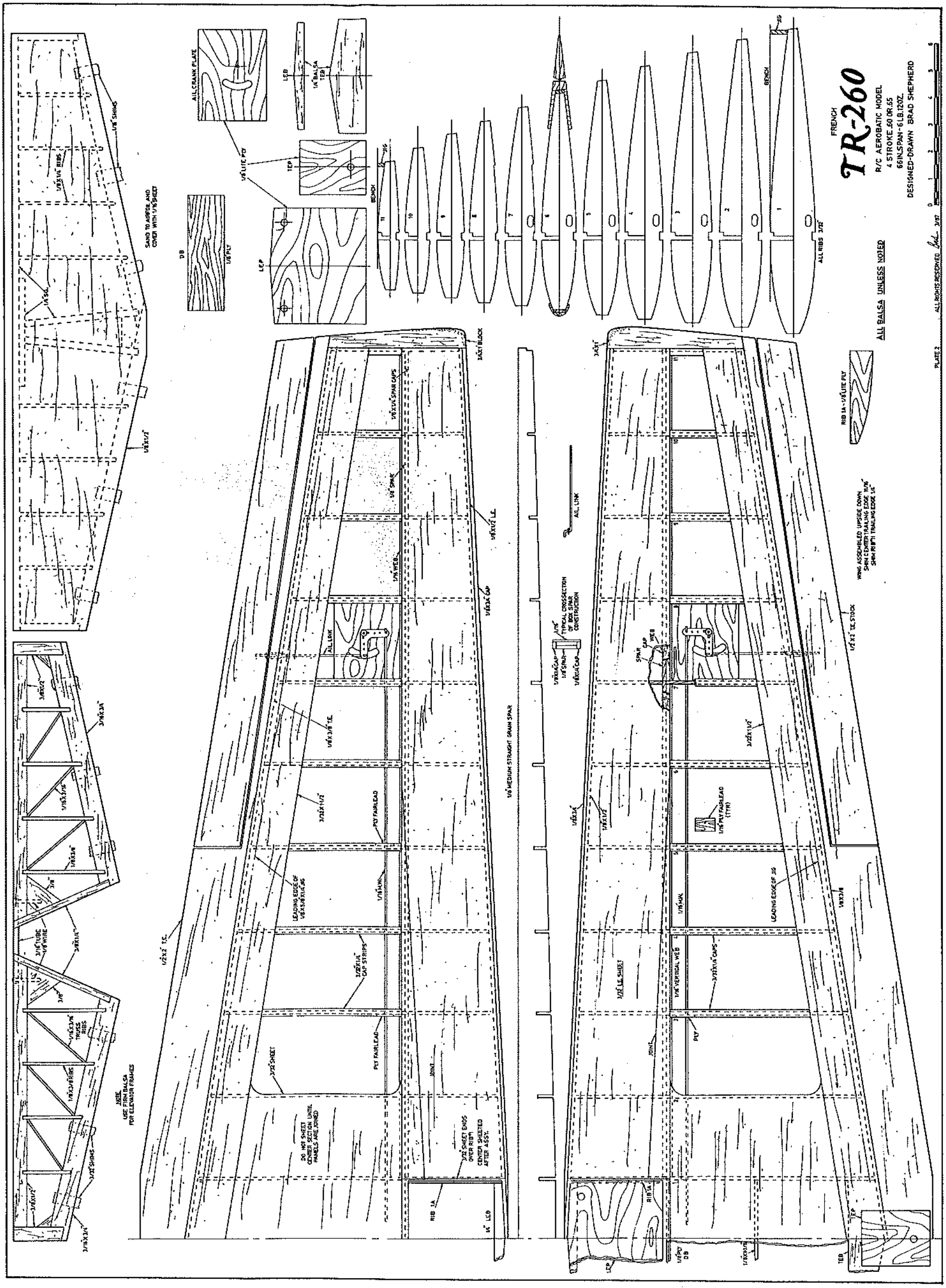


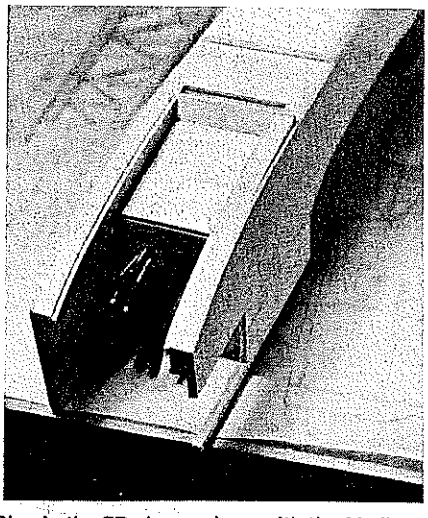
Glue the 1/8-in. side stringer and 3/32 strips around the wing saddle, and sand into a nice fairing.



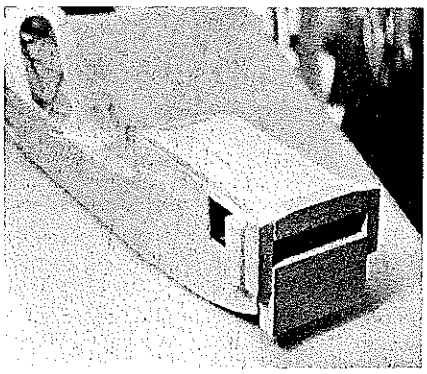
Cut the right side of the fuselage away to allow the engine to be fitted and so the throttle pushrod location can be established. Glue the 1/8 x 3/4-in. balsa onto the sides where the stock triangle pieces are to be located.

Full-Size Plans Available . . . See Page 178

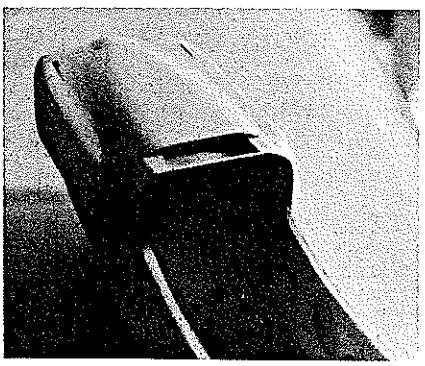




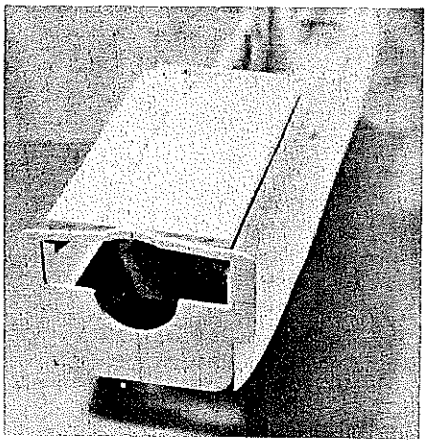
Glue in the FB pieces along with the 3/32 floor and air dam. After the glue sets, epoxy the whole area for fuel proofing, then install the 1/16 plywood bottom. Protect the tubes and tanks from dust while sanding and finishing by putting a piece of plugged tubing in each.



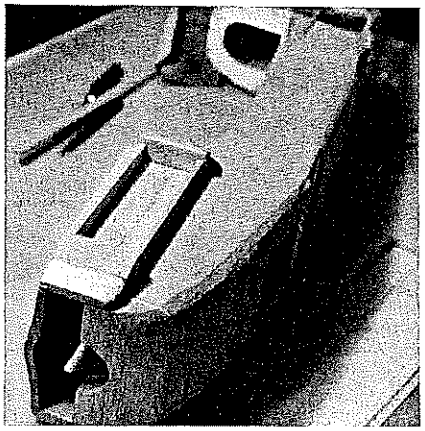
Once glued into place, this is how the nose blocks should appear. Lots of sanding with #100 grit sandpaper will shape it up nicely.



The front end shape rough-sanded to its approximate final shape. The cheek cowls were changed somewhat after this photo, and the final outline is shown on the plans.

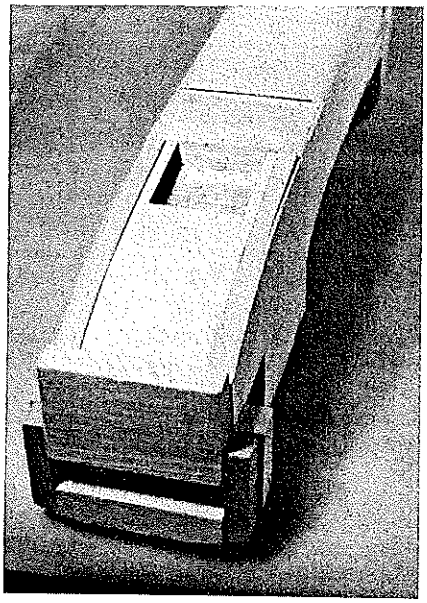


Glue Former F-1 into place. Notice the alignment mark on top of the 1/4-in. sheeting to assist in getting the former glued on squarely.

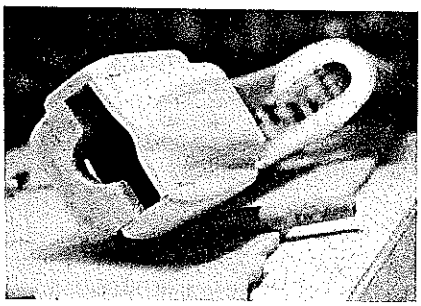


The cheek cowls under construction, lacking only the side sheeting. Rough out the inside shape of the nose blocks and the bottom block, and round off the corners on FB.

After the front end is sanded to final shape, cut the cowl off, and install the plywood tabs and their blind nuts. Build up the air scoop.



Glue on the 3/4-in. nose blocks, the front blocks of the cheek cowls, and the 1/16 ply bottom. Note the grain in the nose blocks.



The right side of the top has been roughly carved with a knife while the left side has already been carved and sanded to its primary shape. At this point it is a good idea to lay the model on sheet foam to prevent dings.

most comfortable with.

A full set of ribs has been laid out on the drawing so that a tracing or copy can be made. The method I use in cutting out parts from plans is to make a tracing, spray contact cement on the paper, press it on the wood, cut it out, then peel the paper off the part.

Please don't get the "willies" when you look at the lightweight wing construction: I've never had a wing give up in flight using this method. The box spar, being not only lighter but stiffer than two large balsa sticks, almost totally resists twisting of the panel. Another advantage of this method is that you are guaranteed a straight wing if the workbench is straight.

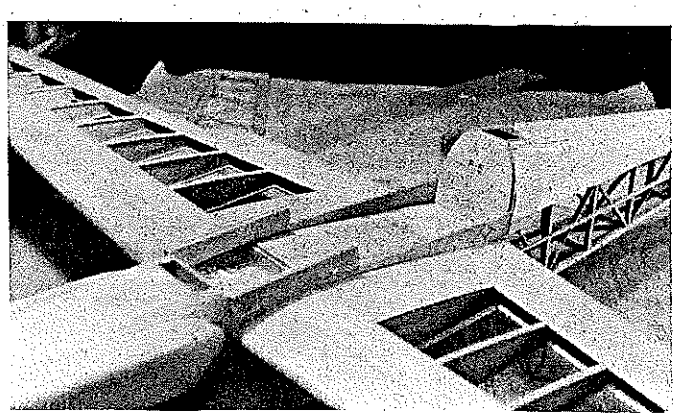
Select a sheet of medium-to-hard, straight-grained 1/8-in. balsa. Lay out the spars and the jig used at the trailing edge (TE). Note that the jig is only 31 1/4 in. long, and 5/8 in. at the #1 rib tapering to 1/4 in. at the #11 rib.

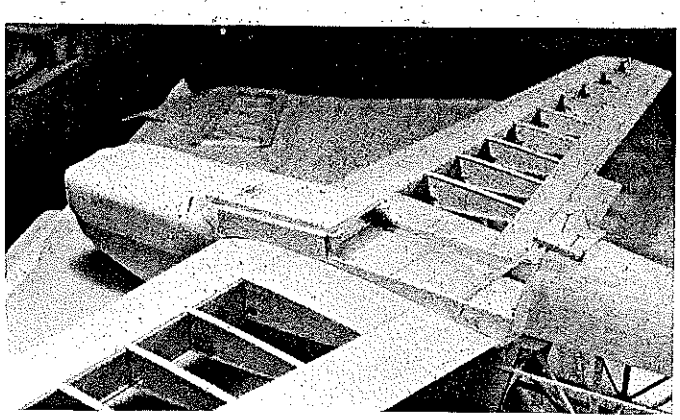
Pin a 1/8 x 1/4-in. cap to the plans; then glue the spar, slots up, to the leading edge (LE) of this cap. Set the ribs in place, trial-fitting them and trimming where necessary. Pin the ribs to the spar and jig, then go over the joints with thick cyanoacrylate (CyA) glue.

Lay a bead of glue along the top of the spar and install the 1/8 x 1/4-in. cap. Glue the 1/8 x 1/2-in. LE to the ribs. Glue a 1/8 x 3/8-in. strip to the edge of a 3/32 x 1 1/2-in. sheet of quarter-grain balsa. Glue the sheet to the ribs, making sure the 1/8 x 3/8-in. strip butts against the TE of the ribs. I use aliphatic resin glue for this job.

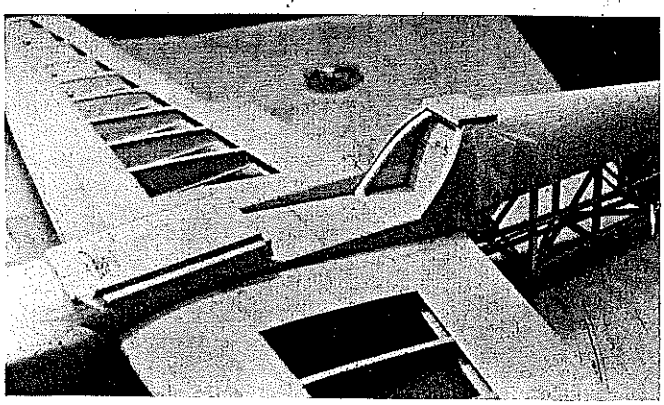
Select some medium, straight-grained 'A' wood for the LE sheeting. Using a long block, sand a bevel into the 1/8-in. LE to conform to the rib shape. Lay the sheet in position on the panel with the edge parallel to the 1/8-in. LE. Roll the sheet back and mark it at the TE of the spar cap, then trim this excess off.

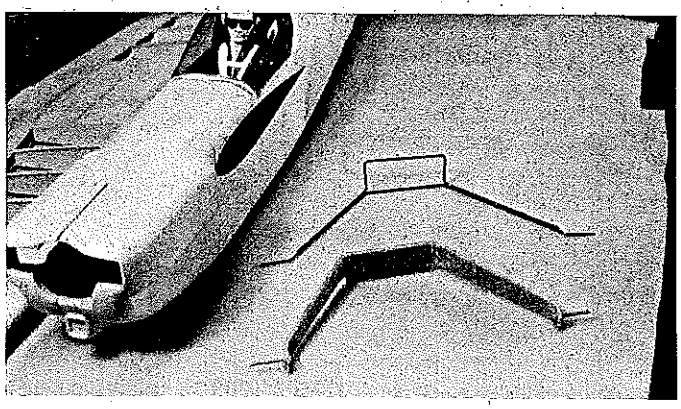
Using Sig's handy mini glue gun full of aliphatic resin, lay a bead on each rib. Lay a bead of thick CyA on top of the 1/8-in. LE. Carefully place the sheet in position over the LE and place some pins along the sheet. Wait a few seconds, then lay a bead of CyA on the spar cap, roll the sheet back, and pin it to the spar cap. If you feel any qualms about using CyA and botching the job, use





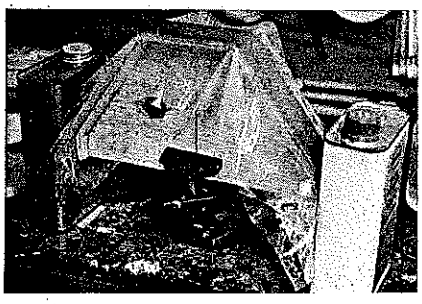
Left: Build the removable section over the wing by first covering the wing and fuselage with plastic wrap, and then pinning F-3A, F-5, and the double 1/8-in. front portion into place. Right: Next, install triangle pieces, instrument panel, 1/4-in. top sheet, F-4, and the 1/4-in. rear top.



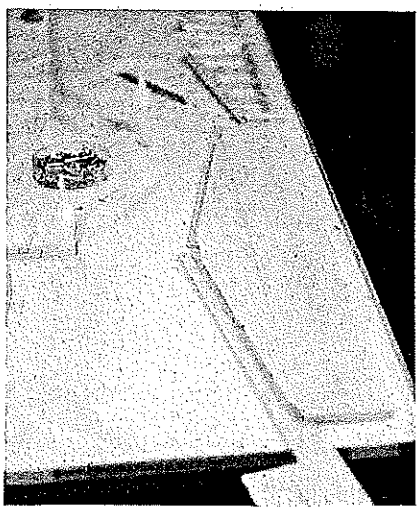


Left: Here the 1/8-in. sides have been completed at formers F-4 and F-5, and the unit is ready for shaping and fixing up the cockpit. Right: Note the final shape of the fuselage and the rounded corners of the cowl. Two types of landing gear were tried, but the wire version was too flexible.

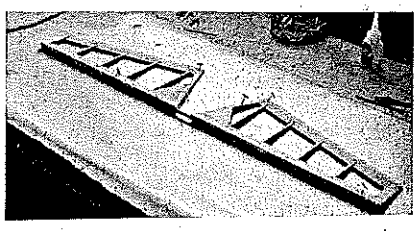
This is the form used for making the fiberglass landing gear. It takes only a few minutes to construct, and the variations on this theme are just about infinite, so a custom gear can be fabricated for any special need.



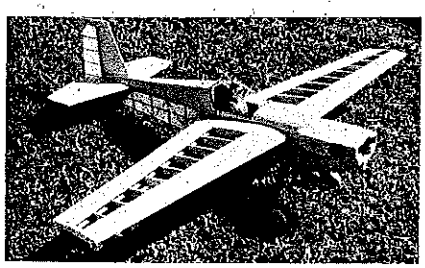
The landing gear cures on the form. Note the plastic wrap on both sides of the material. The fiberglass is laid one layer at a time. A top layer of plastic sheet is then put on and smoothed to shape by hand. Brace the bottom with weight. When dry, saw to rough-shape, and finish with a file and sandpaper.



Sand the stab and fin ribs to an airfoil shape before sheeting, and use a 1/16 shim under the leading edge to keep the unit square.



Using the stab as a guide, position the elevator halves. Pin them down and epoxy the brass tie bar in place. Note the airfoil shape.



All the beautiful looks of a finished balsa-wood model. It's almost a shame to put a lot of color on it and hide all this beautiful work.

aliphatic glue for everything and pin generously, which gives a little time to position the sheet.

Glue the vertical 1/16 spar webbing in place. Glue the aileron crank plate, then the cap strips, in place. *Do not* sheet the center section yet. Turn the panel over and pin it down, using the jig again. Sheet the top of the panel using the same method as described for the bottom. Again, do not sheet the center section or the area inside rib #1 on the LE.

When both panels are completed, draw a straight line on your workbench at least 66 in. long as a guideline for pinning the panels. Lay some wax paper or poly sheet down on the bench at about midline, and pin the panels upside down at the spar cap along this line. Shim the center section at the TE 1/16 in. Shim the TE at each of the outboard #11 ribs 1/4 in. and pin down securely.

Epoxy the 1/8-in. ply dihedral brace to the spar stubs inside the spar caps. Glue the TE and LE 1/4-in. balsa braces in place. Glue

the bottom center-section sheet in place. Turn the wing over and epoxy the 1A ribs in place; epoxy the ply plate LE panel to these, the spar, and the LE.

Glue the ⅛-in. balsa sheet in place between the #1 ribs. Sheet the center section behind the spar only, leaving the area over the ply plate uncovered until after the wing has been bolted to the fuselage. Epoxy the ply TE panel in place.

Unpin the wing and lay aside temporarily. Cut the proper angles into the ½ x 2-in. TE stock where they meet at the center section. Take the wing and press it down at the TE on the bench and trial fit the TE stock to it, sanding where necessary to eliminate any gaps. While holding the panel down and the TE snug to it, hit the joint with CyA. Hold the wing up and eyeball the TE for trueness. If satisfied, finish gluing it up. Repeat the procedure on the other panel.

Lay out the ailerons and cut them out of the TE stock. Install the block tips and rough out the shape following the plans. Install the aileron cranks on the plate along with the 1/16 music wire pushrods and the 1/16 ply fairleads; then lay the wing aside.

Fuselage. In an effort to save weight over previous designs using a full-sheeted fuselage and full-depth Lite Ply doublers, I used sheet in the stress areas and lightened the ply doublers with holes, building the remainder with sticks. This proved to be a strong arrangement which still weighed in light on the scales.

Cut out the doublers and lay out the ⅛-in. sides. It will be necessary to piece some sheet together to get enough width. This is quickly accomplished with CyA. Lay out the balsa side using the thrust line as a benchmark. When cut out, glue the doublers to the sides with contact cement and go around the edges with CyA glue. Lay the side over the plan and construct the aft lower section of the sides using ¼-in.-sq. and ⅛ x ¼-in. balsa. Trace the former patterns, contact-cement them to the ply as noted, and cut them out.

Glue a temporary brace of scrap balsa ¼-in. stick about halfway down across the opening in F-6. Pin the sides down over the top view from F-6 to the tail post after sanding the bevel in the sides at the tail. Slip F-6 in place and brace the sides temporarily so they are 90° to the workbench. When square, glue the tail post and F-6.

Glue the ¼-in. crosspieces and the ⅛ x ¼-in. diagonals in place. Cut a gusset out of ¼-in. sheet balsa for each of the top longeron joints at F-6 and glue in place.

Unpin the fuselage and repin about two inches behind F-3. Pin blocks over the plan at the front of the fuselage to hold the halves in alignment, then slip F-3 and F-2 firewall formers into their slots and epoxy in place.

Unpin and repin the aft end of the fuselage. Trial fit F-7 and F-8 by pinning them to the frame and trying the stringers. Trim if necessary so the stringers and formers are in a straight line; when satisfied, glue in place.

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Letters to the Editor

Continued from page 12

oriented public relations is a better way for all of us to go.

Martin Dilly
West Wickham, Kent, England

We can't think of anyone who wouldn't like to see a high respect for airplane modeling by the general public, but unfortunately there doesn't seem to be any magic answers to assure a giant leap in that direction.

Safety/Preston

Continued from page 22

of the accident, there was no one else at the field. Just two minutes before the accident, two other members left, leaving just the two of us there. When the accident happened, I grabbed my torn finger, and Sue helped load me into the van. She drove me to a nearby fire station where a paramedic gave me a preliminary check and said that I was going to live. He bound up the wound, and off we went to the hospital.

"After receiving seven stitches in my finger, several days later I returned to the field with the T-Craft. It did it again! This time the prop flew off and hit me in the leg (no hospital trip this time, but it made a deep cut). After a lengthy discussion with the club president and engine expert Frank Warren and electronics expert Ron Roeder, I bought a zero-to-five-ohm, wirewound rheostat which could handle 25 amps. I found it at a local surplus outlet (for $1.50) and also picked up a toggle switch for 50 cents. Those little fellows went on the power panel of my field box.

"Since then I've had no problems. Frank and Ron contended that the glow plug was getting too much juice, and that was causing a detonation problem which was loosening the prop nut and causing my insurance company to shudder. I would recommend this addition to anyone firing up a four-stroke. The toggle switch works as a kill-switch to the glow plug so that I can cut the heat quickly."

I haven't personally tried out Duke's suggestion. However, if it worked for him, it may work for others. Meanwhile, I wonder when engine manufacturers are going to provide some means to positively retain the prop nut on the shaft? This column has discussed several methods which have been suggested by readers, so it's not exactly new technology!

To wrap up this month's column, a letter from Joe Wagner (New Wilmington, PA) points out that the "buddy system" is not infallible. I'll let Joe tell the tale:

"I'm responding to your latest column (September '87) mentioning the 'buddy system.' I do a good bit of model flying alone and, although I've never had problems, I agree that it's better to have a buddy along. However, make sure that you've got a dependable one!

"An experience of mine back in 1942 is a case in point. I was building solid Scale models with a friend of mine in his basement. The big knife that I was using to roughly shape a Short Stirling fuselage slipped and made a huge gash in my hand. Blood was everywhere before I could even pick up a rag to slow the flow. When I turned to my buddy for help, I saw him collapsed in a heap on the floor!

"I learned later that, despite his Boy Scout training and merit badges for First Aid, my friend was one of those people who simply cannot stand the sight of blood. I did not know that then. Bleeding hand and all, I managed to carry my friend upstairs (we were alone in the house), lay him down on the couch, and make sure that he was breathing OK before I left and made my way to a doctor's office.

"In the circumstances, I'd have been better off alone. Even now I wonder about some of the people I occasionally fly with. How would they react in the case of a bloody accident? (Maybe I ought to ask them—tactfully, of course . . .)"

Have another safe month.

John Preston, 2812 Northampton St., N.W., Washington, DC 20015.

TR-260/Shepherd

Continued from page 34

Select some 'A' grain 3/32 sheet for the turtledeck sides, and cut them a little oversize. Wet the outside of the sheet so that it will curve over the formers and stringers more easily, and use CyA glue to attach it. Sand the top of the sheets flush with the formers and top stringers, then glue ¼-in. light sheet to the top. Cut the excess off the sides of the ¼-in. sheet, and sand the top with a long, straight block.

Glue the landing gear plate in place with epoxy. Glue the bottom ¼-in. sheet in place

cross grained, then glue the two bottom 1/8 x 1/4-in. stringers. Glue the 1/8-in. side stringers and the 3/32 fairing strips around the aft end of the wing saddle. Sand these to fair into the fuselage, noting the picture.

Assembly. The CB Associates mount works OK with the Saito engine if the top portion above the bolt holes is cut away. This allows the engine to slide back on the mount and not interfere with the throttle and choke plate. If you have a Saito mount, by all means use it. Remove the fuselage side inside the cheek cowl outline in order to bolt the engine in place and to locate the throttle pushrod hole; refer to the picture. Drill the hole for the pushrod and install plastic tubing (I used the outside tube of Gold n' Rod for the prototype). Make up the tank—or tanks, if you are going to smoke, and install them.

Glue FB-1 to FB about 3/32 in. inside the outer curve, then glue them in place on the sides. Glue the 3/32 sheet under the smoke tank in place. Glue the 1/16 ply bottom with the vent hole cut out as per the top view. Glue the top 3/4-in. triangles and the top 1/4-in. sheet in place.

Use the centerlines on F-1 to align it square with the fuselage, and glue it in place. Noting the direction of the grain in the picture, and shaping the inside of the blocks according to the drawing of F-1, glue the 3/4-in. medium blocks to the front of F-1. Glue the blocks, tops, and sides of the cheek cowls in place and rough-carve to shape along with the top sheet and triangles, first noting the shadows and highlights in the photos. A good, sharp pocket knife and 80-grit sandpaper are recommended for this procedure. The air inlet on the bottom is constructed out of 3/16 sheet and sanded to shape.

Cut away the removable cowl half using a Zona Saw; take care with this procedure. Install the maple blocks and the trailing edge ply sheet WMP using epoxy. Epoxy the LGB and WMB ply braces in place, making sure the WMB is up against the bottom of WMP.

Mount the wing in the fuselage saddle, sanding the LE of the wing square and removing enough TE to allow a proper fit. Align the wing square with the fuselage and pin it firmly in place. Drill the holes for the 1/4-20 hold-down bolts, remove the wing, and tap the maple blocks for the 1/4-20 nylon bolts. Bolt the wing back in place.

Lay out or trace the sides of the removable top above the wing onto 1/8-in. balsa sheet. Make double side portions in front of the instrument panel F-3B, noting the configuration in the photo of the prototype top under construction. Take some poly sheet long enough to cover the front F-3 and rear F-6 formers, and place it on top of the wing. Pin or clamp F-3A to F-3, and pin F-5 to F-6. Pin the sides in place and glue to F-3A and F-5.

Glue former F-4 in position. Glue the 3/4-in. triangle stock to the sides flush with the top. Glue the top 1/4-in. sheet to the front of the cabin section and the piece on top of F-4 and F-5. Sand the cabin section to conform to the rest of the fuselage after installing the 1/4-in. dowels and the 4-40 hold-down bolts with blind nuts.

Fix up the cockpit to suit your fancy. The pilot is a Williams Bros. 2 5/8-in. figure with the head cut off, a little plastic trimmed from one side of the neck, and the head glued back on at an angle. Carefully trim off the front and back of the canopy along with the bottom flange, and start fitting it to the fuselage. Trim just a little at a time as you go along. I use a small felt-tip pen to rough out the outline; but even then I botched one canopy by cutting too much off at once (expensive lessons!).

Two landing gears were built to check weight and strength, one out of double 1/8-in. music wire and one out of fiberglass and epoxy. The wire gear was a little too springy, so I opted for the fiberglass one. As the pictures show, with the form held in a vise the layered, epoxy-saturated fiberglass is placed between two sheets of poly draped over the form and held against it with some heavy objects. (If I'm not mistaken, credit for this idea goes to Pet Reed, who described it in an earlier article in one of the mags.) Cut the fiberglass strips oversize and use a slow-setting epoxy. Sig was used in the prototype, and it resulted in a strong gear that flexes well.

The stabilizer, elevator, fin, and rudder are constructed directly over the plans using conventional building methods. The elevator tie bar is fashioned out of 3/16 brass tubing. Solder the 1/8-in. wire arms to the tie bar, and epoxy the assembly into the elevators.

Finishing. Supershrink Coverite was used for the fuselage up to and including the cabin section, rudder, and elevator. The remainder of the fuselage was covered with Sig medium Plyspan using butyrate dope. The entire setup was given four more coats of dope, one of which contained some talc, and then sprayed with polyurethane colors.

The wing was covered with MonoKote aluminum and Coverite Black Baron red plastic heat-shrink. The serial letters were made of Sig blank decal sheet sprayed with two coats of the red poly paint. The letters were laid out and cut, dipped in water, and transferred to the model.

The "PRODERA" lettering was created with Presto Stik vinyl letters in 3/4-in. Helvetica, found in office supply stores. They're not perfect, but they resemble the original closely enough for a realistic look. The pinstriping is black tape. For the shoulder harness and parachute straps on "Jean-Claude," I turned to shoelaces, while the sunglasses are a Williams Bros. pair with the back side painted black.

If you choose to build the Sirius version, leave off the wheel pants and move former F-4 into a rearward position.

Whichever version you choose, if you enjoy an aerobatics performer with the virtuoso capabilities of a full-size airplane, you'll find the TR-260 a rewarding model to build.