NEGOTIATOR

In spite of the fact that the Negotiator was designed to look like an airplane, it is both easy to build and easy to fly. Get out your .40 and go to work. We're sure you'll be pleased with the results.

By George Jennings

The Negotiator was designed to meet the trend toward more realistic looking R/C models. I, for one, am growing weary of the current crop of sport pattern ships that appear to be designed to look like baseball bats that have sprouted wings and a tail. Yes, I know every airplane design is a compromise and pattern ships are designed for performance. Well, fellow modelers, have you been to a full scale aerobatic show lately? When I go, I see Pitts Specials, Chipmunks, Citabrias, and even Warbirds — flying like airplanes not sleek guided missiles!

The Negotiator is a good performer in spite of its looking like an airplane and, in the hands of an experienced pilot, should bring home a prize or two. My guess is, though, that most of you who build this ship don't give "two hoots" about competition, but are Sunday flyers, like me.

The Negotiator has been designed for easy, fast construction and will get you in the air quickly. The constant chord semi-symmetrical wing with rib tabs assures true construction without a wing jig! The simple strip ailerons take the drudgery out of building ailerons. The upright engine insures easy starting and handling and the top sheeted fuselage transforms the ship into a pleasing, realistic looking airplane. Because of the tricycle landing gear, ground handling is a breeze.

In the air, the Negotiator is rock solid and handles wind with no problem. With controls set to the minimum it is a fairly docile and easy airplane to fly. When control throw is increased things begin to happen fast and the roll rate can be described as rapid. Inverted flight and outside maneuvers require minimal trim changes. The speed range is very broad and on landings the ship may be slowed down to a walk with no tendency to drop a wing, roll over, and play dead! If you have built and flown several R/C models, the Negotiator should give you no problems — assuming you know how to fly ailerons, of course!

Before actual building begins, a few things should be noted. First of all, since you are probably not a rank beginner, only the highlights and questionable items will be covered in the construction text. Aliphatic resin glue, such as Titebond, should be used in all cases except where 5-minute epoxy is specified. You may want to tack parts together with one of the instant glues such as Hot-Stuff. However, you should go over each of these joints with Titebond. Do not substitute 5-minute epoxy for aliphatic resin because of the rapid weight build-up. Ideally, this airplane should weigh 4.5 lbs., ready to fly and if yours comes out more than 5 lbs., you have built too heavily. If you want a beefed-up indestructible airplane, carve one from soft pine, finish it carefully, and hang it up to admire. Remember, the more weight, the higher the wing loading, the poorer the performance, and the bigger the crash!

NEGOTIATOR
Designed By : George F. Jennings

TYPE AIRCRAFT
Sport Pattern
WINGSPAN
54 Inches
WING CHORD
10¾ Inches
TOTAL WING AREA
580 Square Inches
WING LOCATION
Low Wing
AIRFOIL
Semi-Symmetrical
WING PLANFORM
Constant Chord

DIHEDRAL, EACH TIP
1 Inch
OVERALL FUSELAGE LENGTH
44 Inches
RADIO COMPARTMENT AREA
(L) 10" x (W) 3½" x (H) 3"
STABILIZER SPAN
20 Inches
STABILIZER CHORD (incl. elev.)
7 Inches
STABILIZER AREA
125 Square Inches
STAB AIRFOIL SECTION
Mid Fuselage
STABILIZER LOCATION
Flat
VERTICAL FIN HEIGHT
6 Inches

REC. ENGINE SIZE
.35-.45 Cubic Inch
FUEL TANK SIZE
8 Ounce
LANDING GEAR
Tricycle
REC. NO. OF CHANNELS
4
CONTROL FUNCTIONS
Rud., Elev., Throt., Ail.

BASIC MATERIALS USED IN CONSTRUCTION

Fuselage	Balsa & Ply
Wing	Balsa & Ply
Empennage	Balsa
Wt. Ready-To-Fly	72-80 Ounces
Wing Loading	18 Oz/Sq. Ft.

It is suggested, that you purchase all construction materials and actually cut out a kit of parts before you start gluing. Construction goes much faster that way! Okay, let's build!

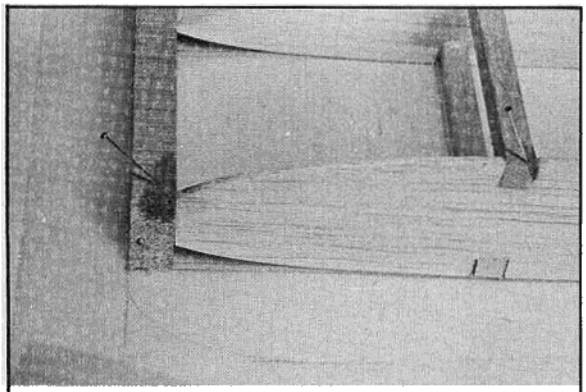
CONSTRUCTION

Wing:

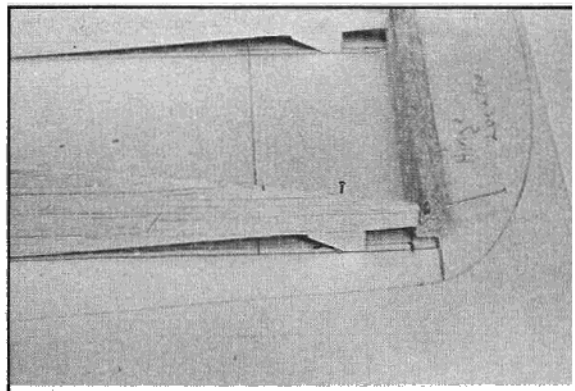
Start building the left panel by pinning the 3/8" x 1" balsa leading edge, the 1/4" sq. balsa lower spar, and the 1/4" x 1" balsa trailing edge directly over your wax paper covered plans. Glue in all six R1 ribs and the two R2 ribs. The ribs should rest on the building board at the spar and on the wing rib tab. Next, add the top 1/4" sq. balsa spar and finally the 1/16" rear top sheeting. Let the structure dry thoroughly. When building the right wing panel, repeat the previous steps for the left panel. Leave rib tabs in place after removing the panels from the building board.

The center section is built next. Start by sandwiching two pieces of 1/4" sq. spar material between the two 1/16" ply dihedral braces and glue in place with 5-minute epoxy. When cured, pin dihedral brace over the plan. Pin the 3/8" x 1" balsa leading edge and 1/4" x 1" balsa trailing edge in place. Slip the four R2A and R2B ribs in place and glue. Add the 1/16" ply rear top sheeting. Glue the 1" x 1" balsa block in place between the two inside ribs next to the leading edge as shown on the plan. Again, do not remove wing rib tabs as they will be used to get proper alignment of center section and wing panels when these are joined in the next step.

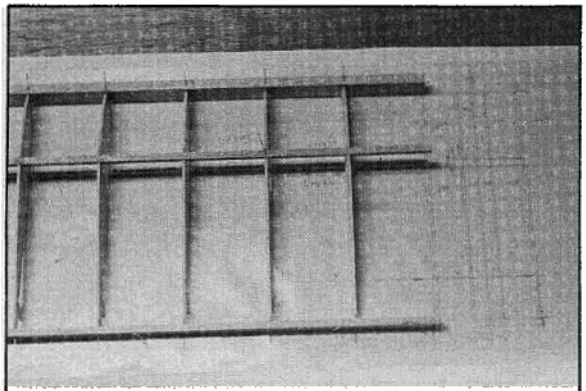
Start by pinning the center section flat to your building board over the plans. Slide the left wing panel into place for a trial fit. Block the panel up so that you have 1" of dihedral under the outboard tip rib. You will have to trim the 1/4" sq. top spar and slightly bevel the leading and trailing edge for a proper fit. When everything fits, use 5-minute epoxy and join the panel. Be sure to get a thin film of epoxy on all contact points. Add the R2C



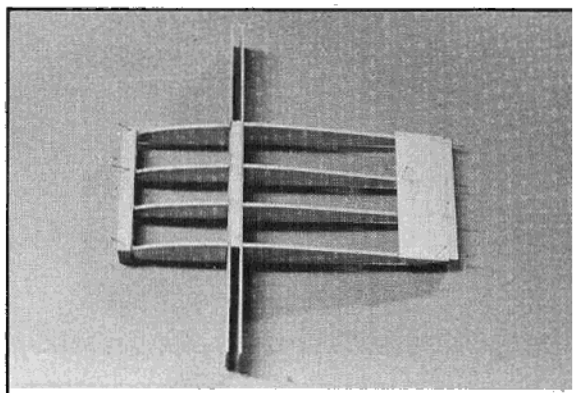
3/8" x 1" leading edge is pinned directly to building board.



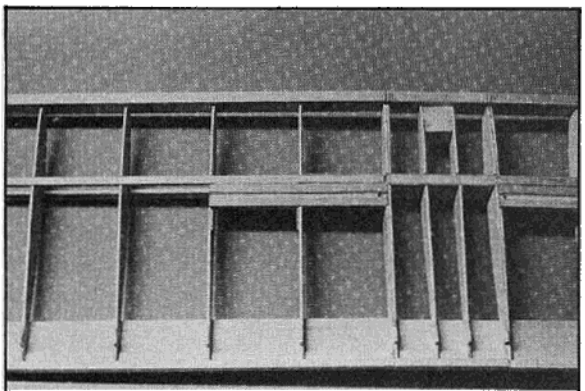
Wing rib tab is pinned directly to the building board.



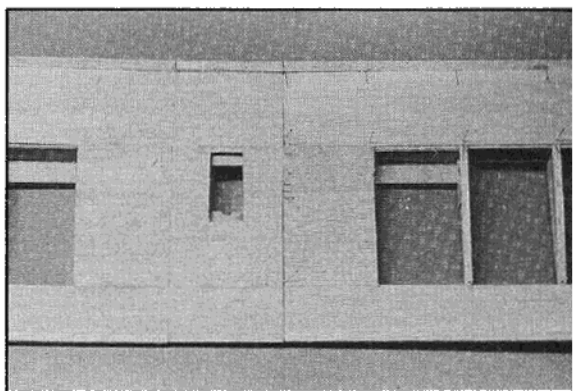
Left panel pinned to building board and glue applied.



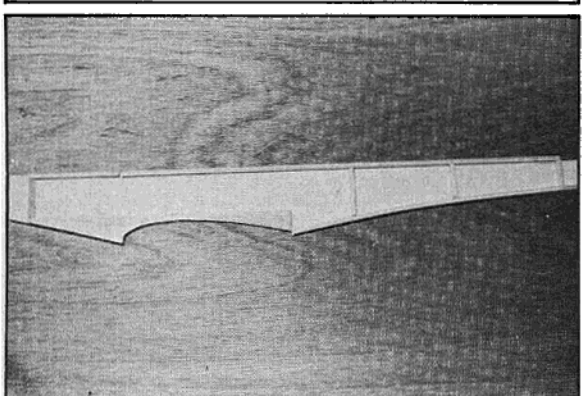
Wing center section ready for wing panels.



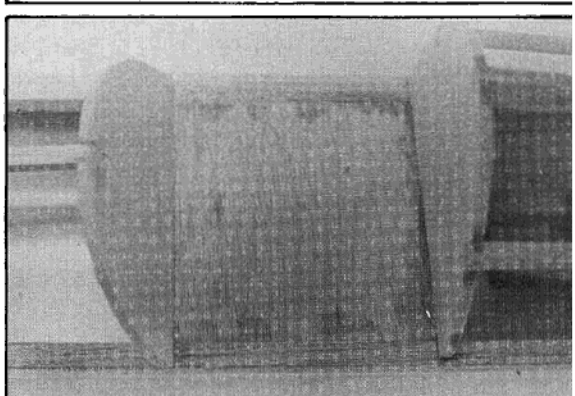
Wing panels and center section joined, landing gear blocks installed as well as 1" x 1" balsa block that anchors wing hold-down dowel.



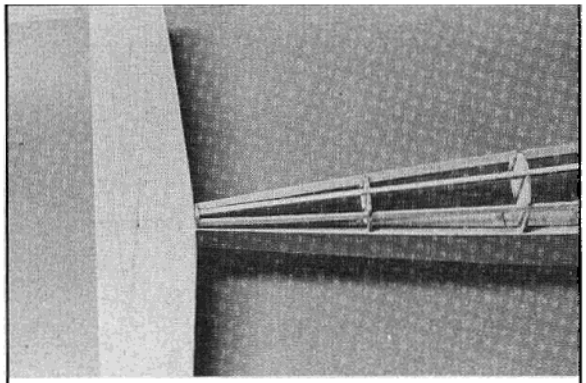
Top wing sheeting in place. (Note) Servo location is cut out and small hardwood cross braces installed to mount servo.



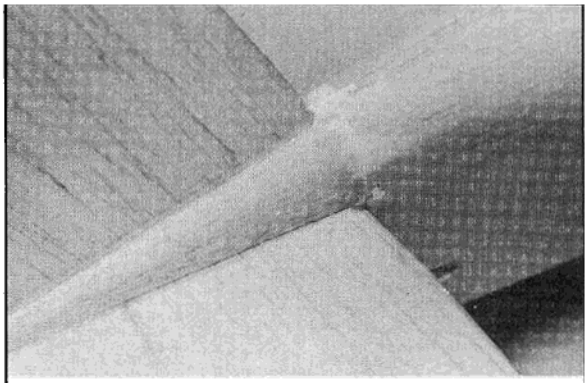
Sig Lite-Ply fuselage side showing balsa doubler and 1/4" sq. balsa longerons.



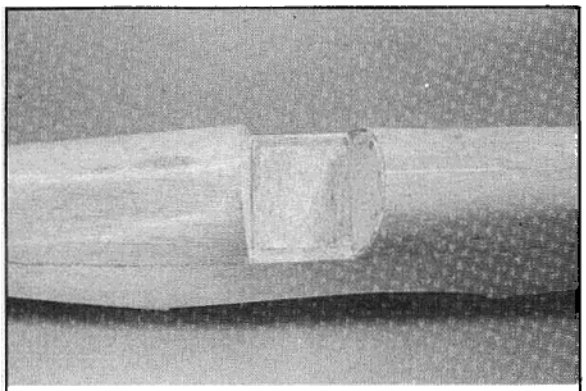
Cockpit floor detail as well as former F1A and stringers installed.



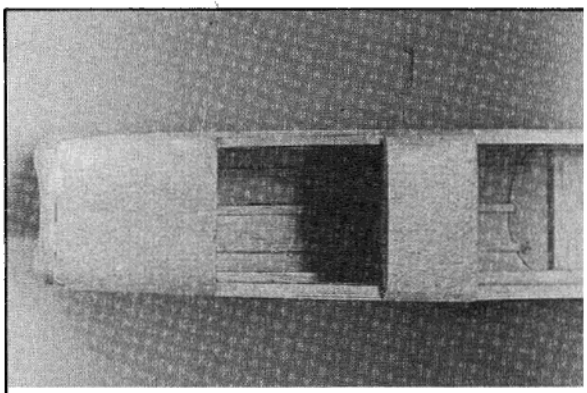
Rear top fuselage just prior to sheeting with soft 1/8" balsa sheet –stab is installed.



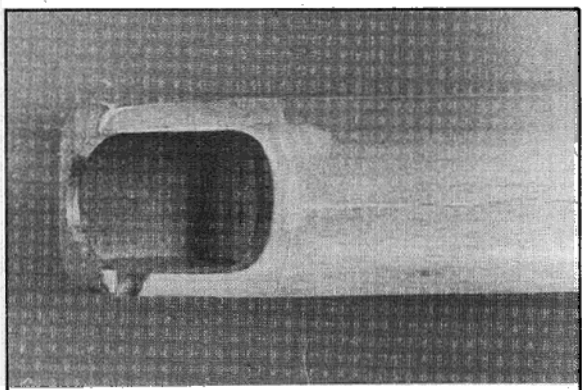
Soft balsa blocks are carved to blend in with fuselage and glued to each side of fin.



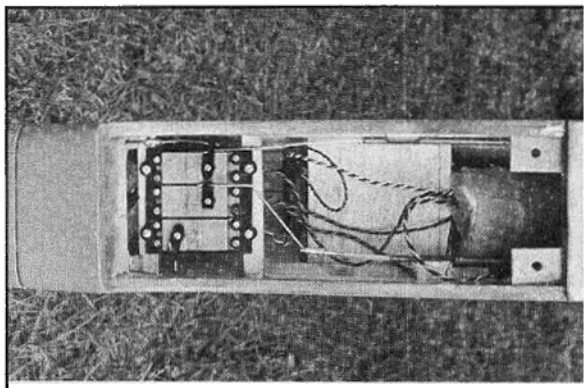
Fuselage completely sheeted both fore and aft.



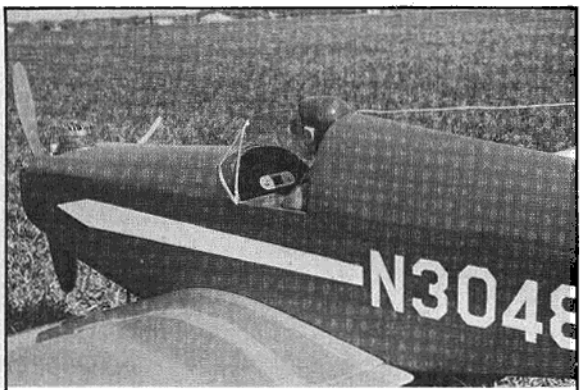
Bottom of fuselage nose showing tank and battery access hatch removed.



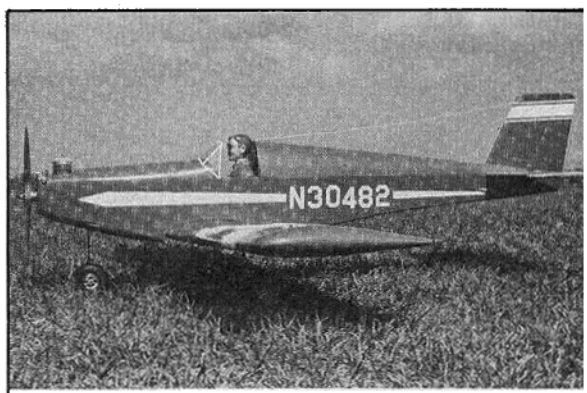
Noseblocks carved, fitted and installed.



Equipment installation. (Note) Receiver is installed behind cockpit.



Note location of receiver switch.



Slick clean lines and rarin' to fly!

then sanded smooth. This was followed by a second coat of surfacing resin sanded smooth and then polished with 320 grit wet-dry sandpaper used wet. K & B Super Poxy was then sprayed on and trim consists of MonoKote trim sheets. The windscreen is cut from heavy clear plastic sheet and Hot Stuffed in place. Striping tape was used on the edges for realism.

Flying:

Be sure you balance your Negotiator as shown on the plans. Add nose weight if necessary and do not fly it tail heavy. Start out with moderate amounts of throw on the ailerons and elevators and add more throw as you become accustomed to flying the ship. The prototype flew right off the board with only a slight aileron adjustment being necessary.

I think you will like this airplane as it attracts a lot of attention. I hope you get as much enjoyment from yours as I have from mine. □

From RCModeler Mar. 1979