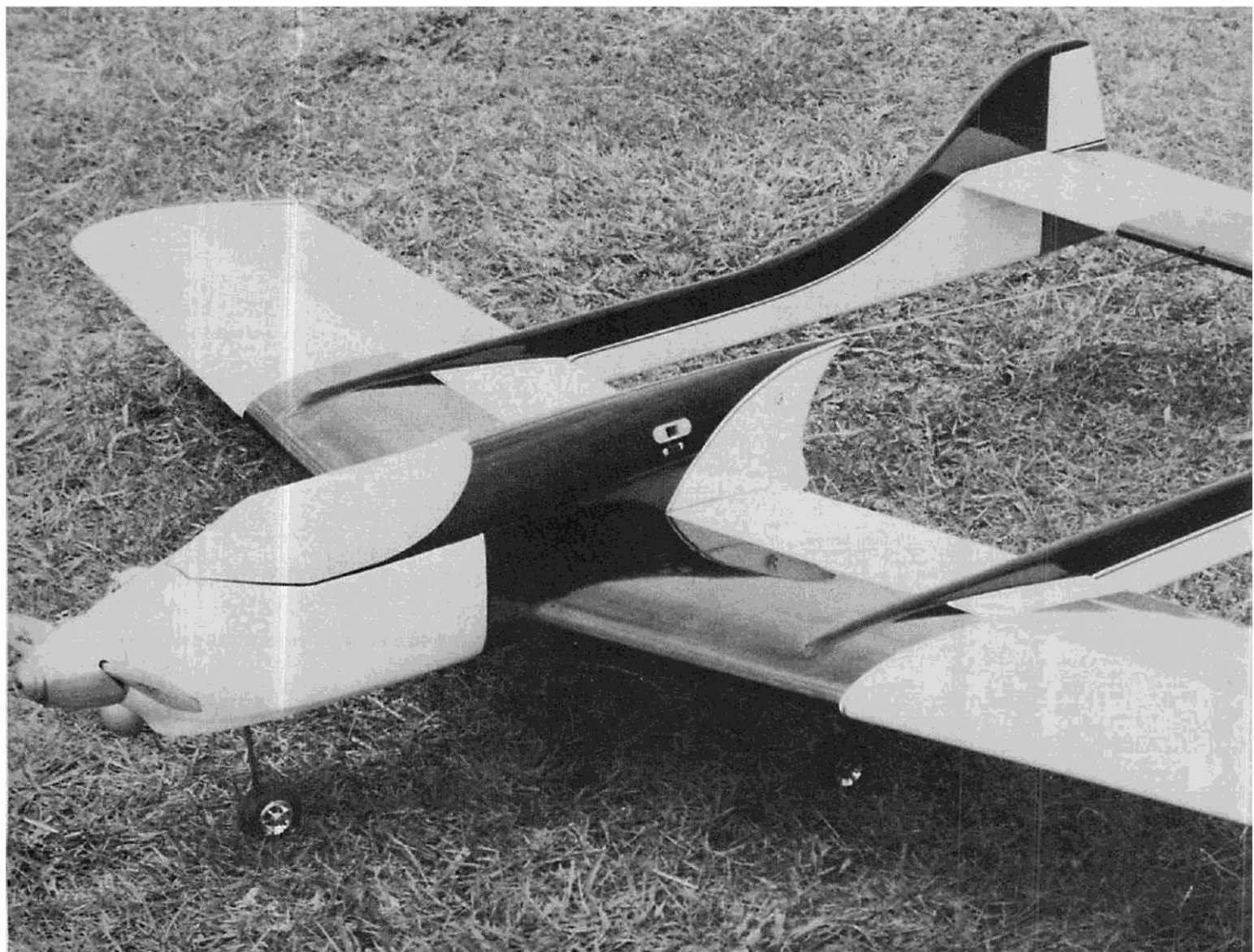
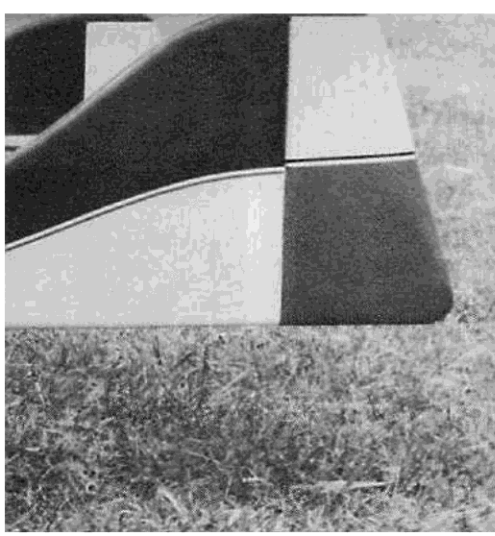


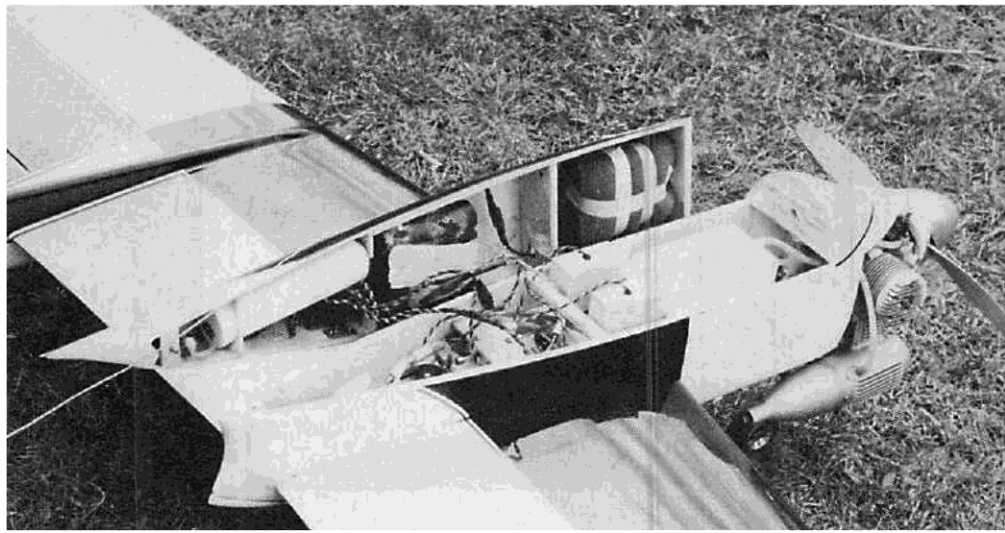
# Twin-Boomed **CHALLENGER**

PHOTOGRAPHY: BOB GODFREY





Where is it written that all pattern aircraft have to look alike? This one's Exotic yet simple to build. A performer/**Bob Godfrey**



Not much fuselage, but it all fits in one way or another. Top hatch pulled here for your eyeballs. Note air tank, battery pack in hollowed top block. Antenna passes aft between booms. **At right and below:** Twin booms for a distinctive look. Super simple to build, install. Elevator, rudder Nyrods pass through boom.

### Forward by Jack Sheeks

The model you see here came into existence due to the persistence of one Robert Godfrey. A good friend, and a pattern flyer with the desire to fly something a touch different. Some years back, when Bob was just learning the foibles of the pattern he accompanied me for the maiden flight of a twin boom Controline design called the Sea Vixon. Some FM readers may remember it. The ship seemed to impress Bob very much and when he became a competent competitor in the event the memory lingered on. From time to time he expressed a desire to build such an aircraft for R/C pattern meets. Not being a draftsman, "what Bob would like to have" really translates into a subtle hint for old Jack here to draw up a set of plans for him. Being on the busy side, I kind of hoped he would forget it or go sleep it off, but no, not Bob, he's a very persistent type. As time was slipping by I finally decided I had better get at sketching up a set of plans to his liking before a friend was lost. What Bob had in his mind's dream was a foam swept-wing design utilizing the Verdige airfoil. You might like to know we talked Arnold Stott of Foam Flite into making the wings, so you can order them from Foam Flite if you are not adept, or set up for foam core cutting.

A few lines were on paper for the wing's configuration, but Bob was already pressing ideas into my mind. He wanted the central body to be removable for various reasons. I decided the top of the fuselage should be an access area as well, so the radio system could be worked on without removing the fuselage and disturbing all the servo settings. Anyway, the drawing progressed with Bob leaning over me driving me on. Two heads are better than one as the saying goes. Mostly however Bob was there to put an end to my stalling tactics.

With enough of the pencil plans in his big hot hands he was off and running. I didn't hear from him for about two whole weeks, at which time he then announced the ship was almost ready to paint. He brought the aircraft by the house so we could get a couple of shots of the ship's framework before it was all put together, but one roll of film didn't

come out at all. I think we were a little too involved with appreciating Charlie's Angels and not quite up on the darkroom chemistry. At times I guess our minds wander a bit.

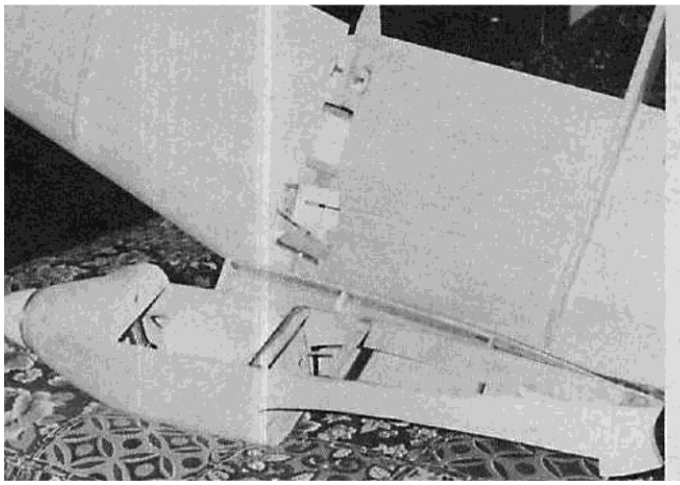
Once the epoxy paint was put on, Bob was really hot to trot, time to test fly the new bird. He claims he got no answer from my old phone and thus proceeded to the field with only his lovely wife Pat to witness the maiden voyage. How could he forget me like that? I love a good wreck. I'm not sure, but I think he did this in case the twin-boomer turned out to be a dud, but no matter, it truly flew great! We'll let Bob take over the text here and explain this part as he is a far better R/C pilot than I. (This is the only way to get Bob Godfrey to write an article - get it started for him, then he has to take over in the middle to defend himself - The Editor.)

Bob continues: When I first saw Jack's twin boomed Sea Vixon I couldn't believe my eyes. The old fuselage hung out in front like a sore thumb with two other sleek booms extending along behind it. The configuration flew beautifully and it made Jack look like a pro. As he said, it remained stuck in my mind and I finally conned him into drawing me one and this is how it ended up. The aircraft as an R/C, grooves, it is stable and penetrates into the wind like a knife. I think if you try it in the air you'll agree with me and I plan to fly it competitively as often as a contest comes along.

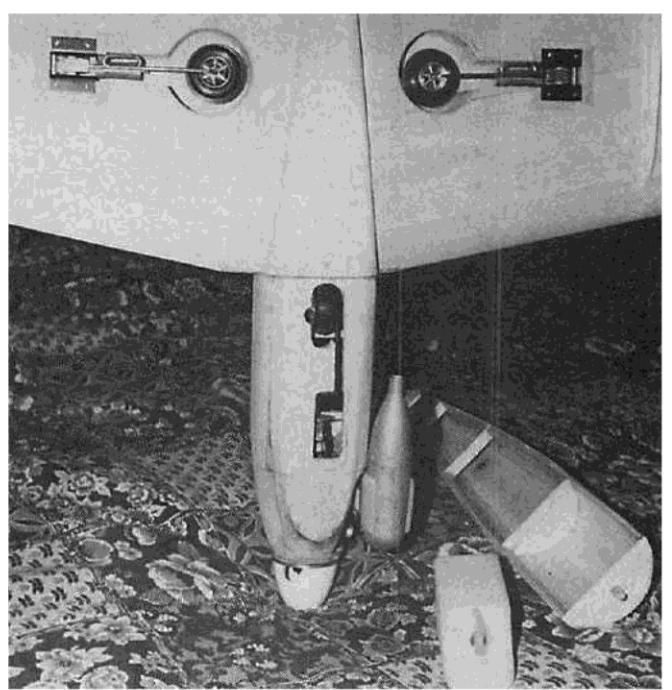
As for the name, the thought of building three bodies seemed to hit most modelers as something of a challenge, but they are in reality structurally easy and quick to build. If they weren't, we wouldn't have become all that involved, so don't give up, you may be the only flyer at the next meet that isn't flying the same old recipe. And that may perk the judges up just enough to remember your flight, even if you are not one of the hallowed set. If you're interested in a practical machine with a touch of difference, then read on, it won't hurt a bit.

### The Construction

Begin by obtaining, cutting or modifying the wing. This means that you have a choice, order a wing from Foam Flite, 628 West 6th,



The wing center and fuselage structure, tank installed. Serves for ailerons, elevator, rudder mount in wing center. At right: The Rhem-Air retracts clean up the aircraft, easily installed in a conventional manner. Photo below: Bob contemplates the next flight to come. It makes a good competitive design.



Mankato, Minnesota, cut your own from the patterns on the plans, or possibly modify a Verdigo II wing. Anyway you slice it, a wing is needed!

The barn-door sized ailerons were cut first, operated from torque rods made from brass tubing. Next, cut out and line the retract wheel area with  $\frac{1}{32}$ " plywood, with  $\frac{1}{4}$ " stock for the mounts. The servo area is designed for three servos. Slots for the rudder and aileron linkages were cut after the wing was covered with  $\frac{1}{16}$ " balsa and the booms were installed as we were not quite sure where the final placing would be. We do know for certain now, so follow the plan's notations for these functions.

The booms themselves are built up from  $\frac{1}{4}$ " square balsa and sheeted with  $\frac{1}{16}$ " balsa sheet after the Nyrods are installed. Rudders are assembled right along with the booms. The stabilizer and elevators are built in just

about the same way. Does that sound easy? Now rig the extra foam the wing came packaged in so that you can use it as a set-up for the boom fitting.

Slide the booms into place and mark them carefully. Now move them back and make your initial control hook-up, after which you may slip the stabilizer into place, aligning all the little goodies. When satisfied you may epoxy them into position, blocking the booms up at the rear for some support. Now that wasn't hard, was it?

While all this stuff is setting up, build the center fuselage as you would any other. The only difference is that it is shorter. You may install the retracts after the fuselage is complete. Note the fuselage is strengthened somewhat by reinforcing it with  $\frac{1}{16}$ " plywood. This body is very roomy and it offers you plenty of space for all that exotic hardware you want to pack into it. We could

go into a glue A to B routine, but if you still need such instructions you are picking on a bird a little too advanced for your present skills.

The engine, the retract servo, battery and receiver were installed in the removable fuselage top canopy (hollowed top block) or whatever you wish to call it. Rhom Air retracts were used, with a Kraft 13 oz. tank to juice the O.S. 60 engine. Hobbyoxy was used for the finish and the radio selected to guide this  $8\frac{1}{2}$  lb. machine was a Pro Line. The ship came out just a little nose heavy and about two ounces of lead was added to the tail section.

The Challenger adds up to a rather impressive looking aircraft and it's unusual platform detracts not from the competitive capability. We believe you'll enjoy the experience, so hopefully we'll see you on the field.

