

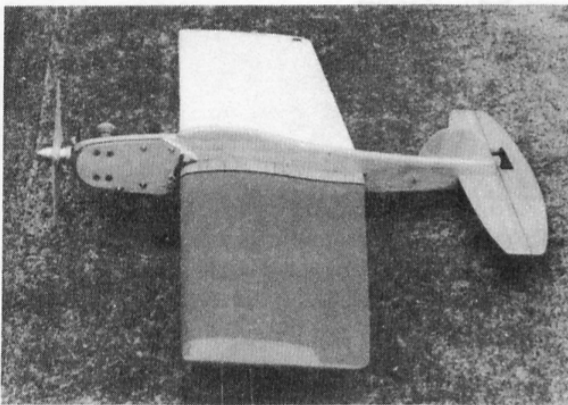
# NW SUPER SPORT Ringmaster

by Mike Hazel

Not too many racing contests ago, my team partner John Thompson and I had a little mishap during a pit stop. It seems that the "Killer" (our legendary long-lived and very well traveled SS racing craft), suffered a "fuselageous bendous" during a fast catch. No problemo, we have the technology and know-how to effect repairs before the next heat race. One of us grasps the fuselage and moves it into it's original position, while the other one of us squints and grunts approval for application of CA glue. The glue quickly sets and we are ready to race, except for the fact that the controls don't move. Oh, did I mention the fact that this plane had internal controls? Oops!

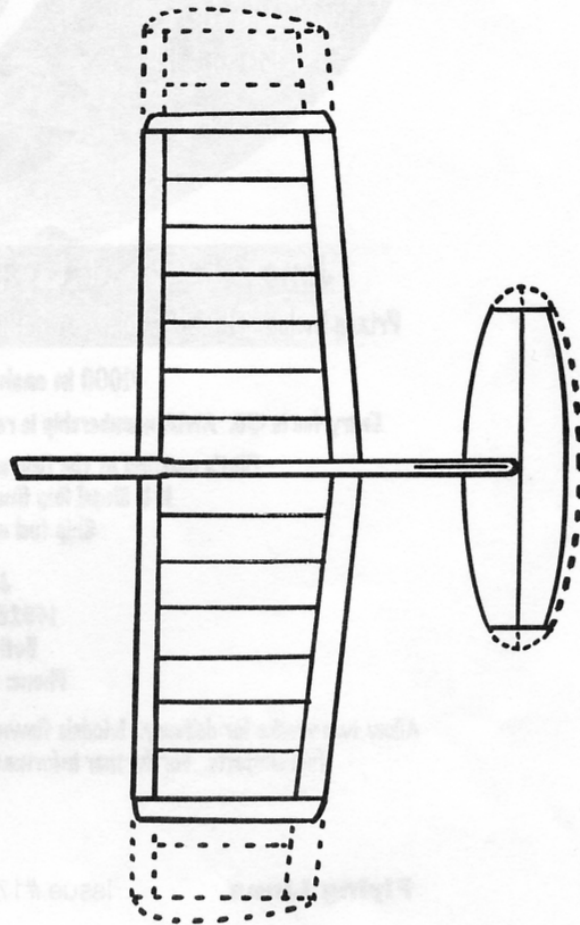
Well, the repair could have gone OK, as we had done this once before. But this time the glue went where it should not have. The "Killer" has been around the block a few times (JT long ago estimated that the plane had an actual 2500+ miles of racing accumulated). We decided on the spot that the plane would be retired and further attempt at repair would be made.

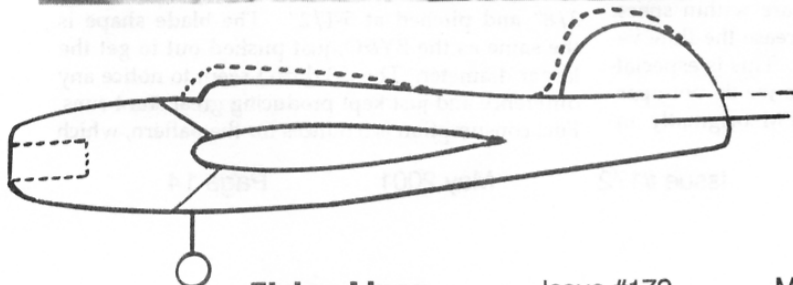
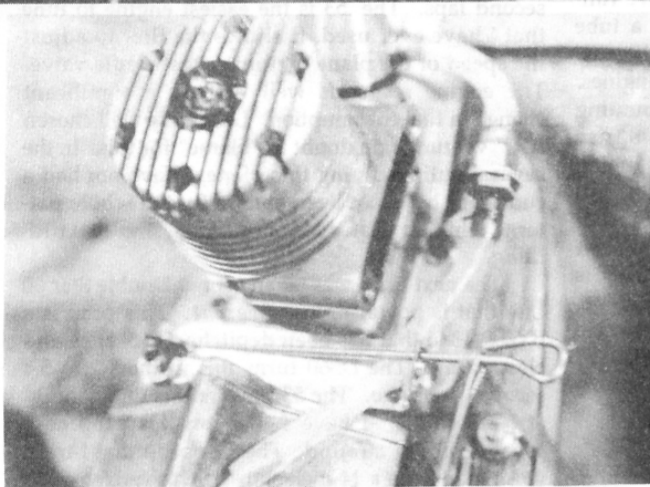
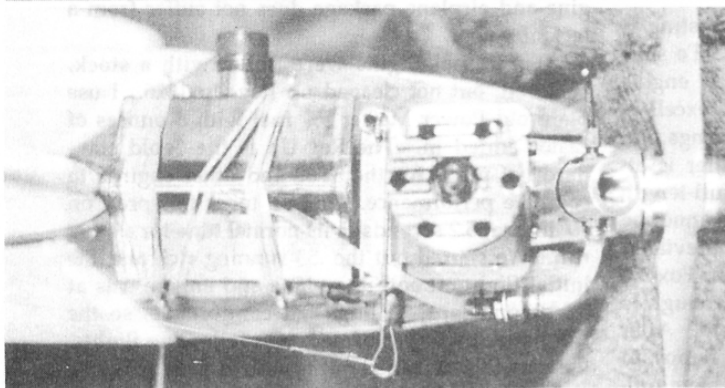
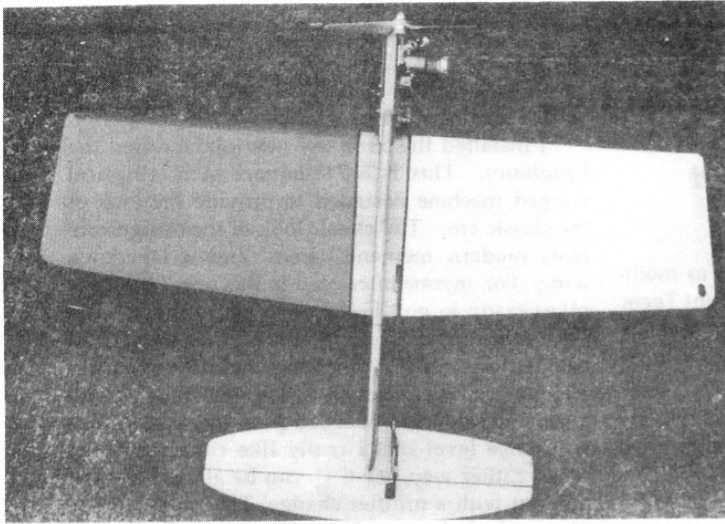
Now that brings us to the subject of this article. The next meet was coming up, and we needed a plane. I did not have the time to make another super-duper airframe, so figured something simple and quick to build and race is lots better than nothing to race! There was an old S-1 Ringmaster on the kit shelf just screaming to get out of the box, so I sez why not? After all, we have used many for Fox 35 Sport Race. Since the Super Sport class does not require a kit design, only specific minimums, I would use the kit as a base and modify as desired.



Nothing radical was done with the kit, and in fact I wanted to see if one could make the Ringmaster into a competitive airframe without substituting lots of parts. As it turned out, the only significant piece that I added to the kit wood, was the addition of a 1/16 inch plywood doubler on the inboard side. This was in addition to the existing doubler. This strengthened the front end, plus cleaned up the open engine cut-out hole.

Naturally the wing was clipped, since only 300 squares are required. This cuts down on some frontal area, eliminates some weight, but most importantly, helps make the plane fly like a racer instead of a stunter. The last two rib bays were eliminated, and one inch wide balsa stock was added for the tips to bring the wing up to the spec. area.





Speaking of wing specs, resist all temptation to thin the wing. It's already thin enough, considering the covering sag between ribs. By the way, this old S-1 version kit is better for racing than the newer version with sheeted leading edge. That old big solid leading edge is just better for racing, plenty strong!

Other "trimmings" can be clearly seen in the sketches. Also note that the horizontal stab assembly was relocated from the top of the fuselage.

Other details: Since the engine cutout hole was eliminated, a filler block was put into the nose section and relieved for the engine crankcase. This stiffens the front end a bit. Aluminum pads were fabricated to put under the K&B 40 engine lugs. Plenty of room for a tank, in this case an old Veco profile style with fast fill added and extra vent soldered closed.

The landing gear is a stout 5/32 wire, bolted onto the inboard side with gear clips. The fuel shutoff is bolted onto the back of the engine, and is easy to make.

This plane weighs in at 31 ounces ready to fly, which isn't bad for a racer and also includes a little bit of lead in the tail. (we came out nose heavy)

Prop used on this plane is the author's own Super Zoot 9 x 7, trimmed to 8-1/4 inch diameter. Typical airspeed is 95 mph, and that's with a completely stock engine.

This plane is not very zoot-looking, but was quick to build and got us back in the air. And despite the fact that it's not as clean as a purpose-built SS, I don't think we are giving away much speed.

The NW SUPER SPORT RACE event is great fun, and if you have been considering some racing flying, take a good look at this class. As you can see, the planes don't have to be real trick, and this is a nice airspeed to race at.

Rules were published in the last issue of FL, so refer back there for specific details. Just remember that if you have a sport style K&B 40 and a kit similar to this project, you can go racing! Hope to see you on the racing circle!