

# On the 'Wing...

Bill & Bunny Kuhlman, <bsquared@themacisp.net>

## Redwing, *Addendum to Part 3*

We've been spending the last few weeks finishing off the internal structure of our two meter *Redwing*, and the basic airframe is now ready for fiberglass and Monokote.

A few minor items have been added to the main structure:

The pushrods exit the wing trailing edge directly through the trailing edge webbing. As there must also be clearance for the control horn, ball link, and other hardware, the exit hole is rather large and of an odd outline. We were concerned about some loss of strength in this area, so added 1/32" plywood doublers to the inside of the upper and lower skins.

We decided on a push-pull control system for the rudder. Small diameter tubing was placed into the fuselage from the rudder servo location back to an exit on the upper surface of the fuselage next to the fin.

Small diameter soda straws were spliced together end to end and inserted into drilled holes in the forward portion of the wing ribs and extending from the wing root out to the tip. This serves to hold the receiver antenna.

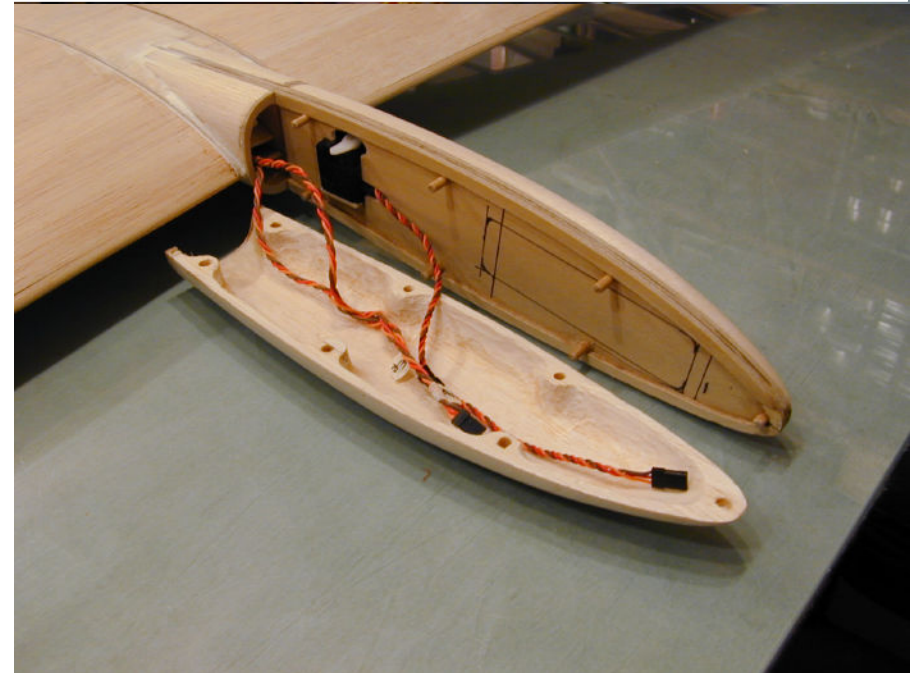
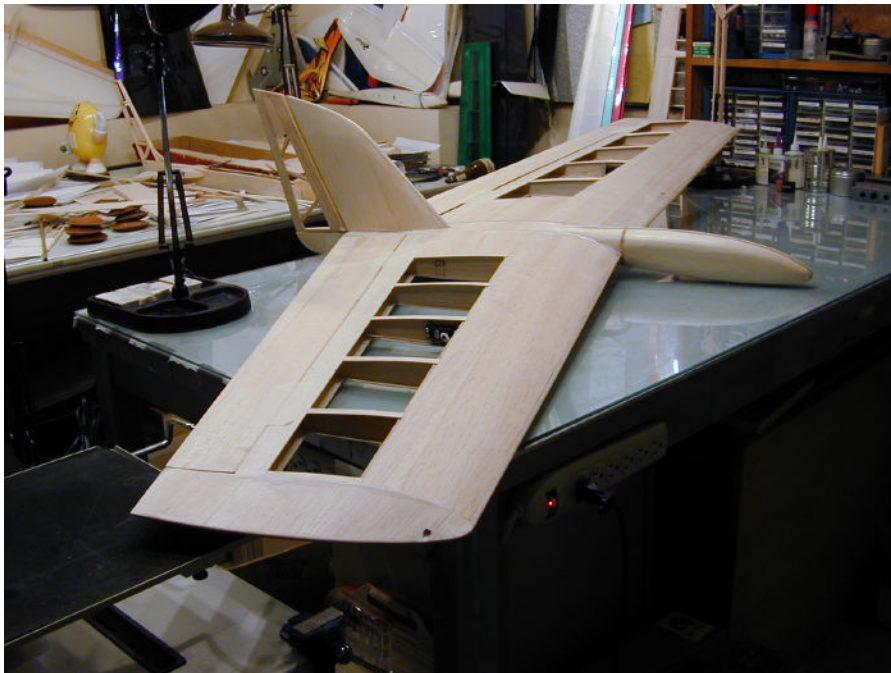
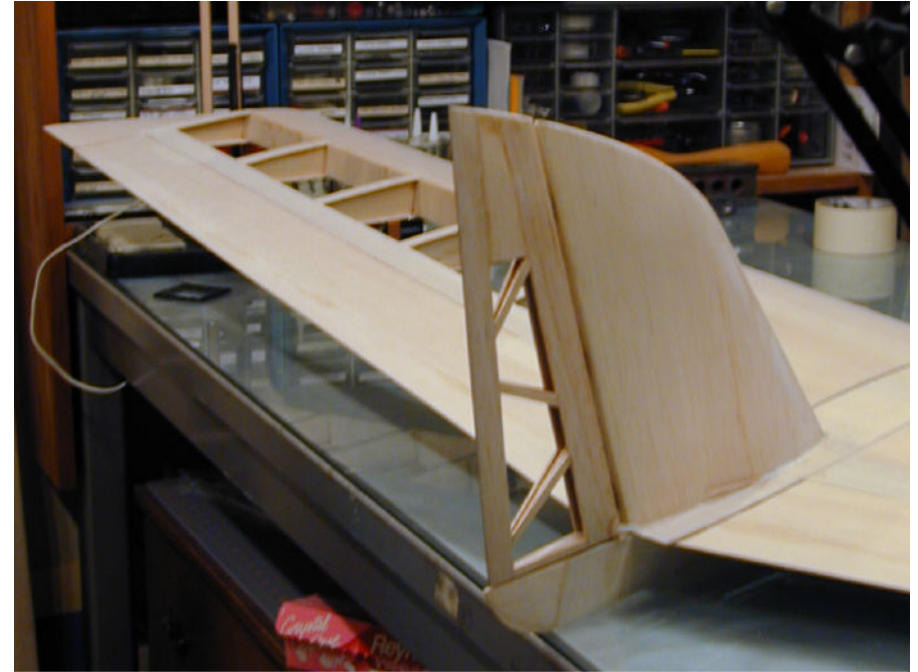
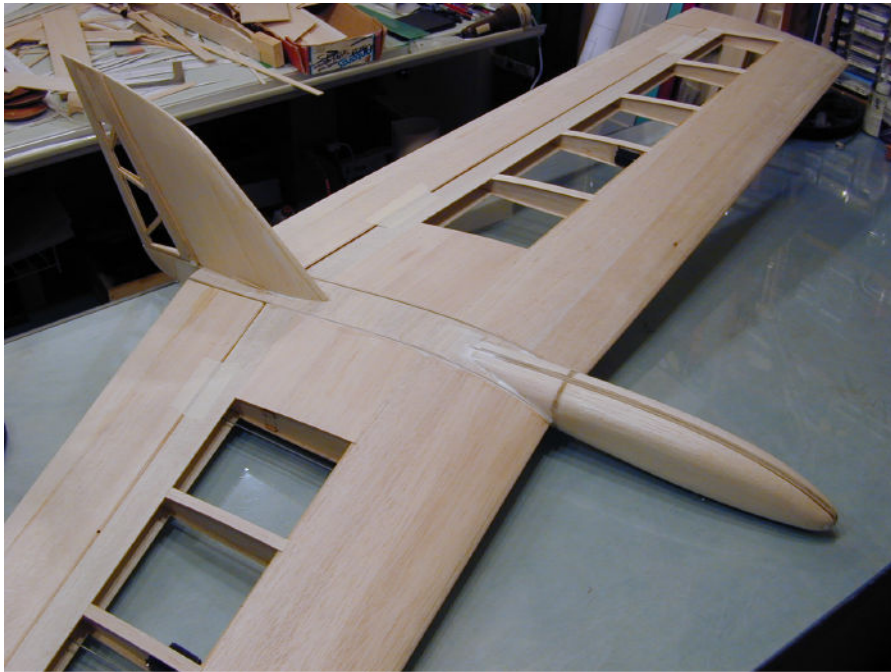
(At the field, a yellow inner Nyrod is pushed into this tube from the wing tip, the end of the antenna is then fed into the Nyrod some distance, and the Nyrod is then withdrawn. This drags the antenna from the fuselage and extends it out the wing inside the soda straw tube.)

After the external fuselage shaping was completed, the inside of the forward fuselage blocks was hollowed out. Finally, cutouts for the rudder servo, receiver, and battery pack were created.

Part 4 will conclude this series with an overview of covering, hinging the control surfaces, and test flying.



Granddaughter Alyssa shows off the framework of the *Redwing 2M*. Weight at this point, ready to 'glass and cover, with all servos installed, is 50 ounces.



A few shots of the completed Redwing 2M airframe on the building board. This has been a great building project!