

On the 'Wing...

WINDLORD XC

Ken Bates' Standard Class 'wing gains ailerons and is enlarged to 128"

Bill & Bunny Kuhlman, bsquared@themacisp.net

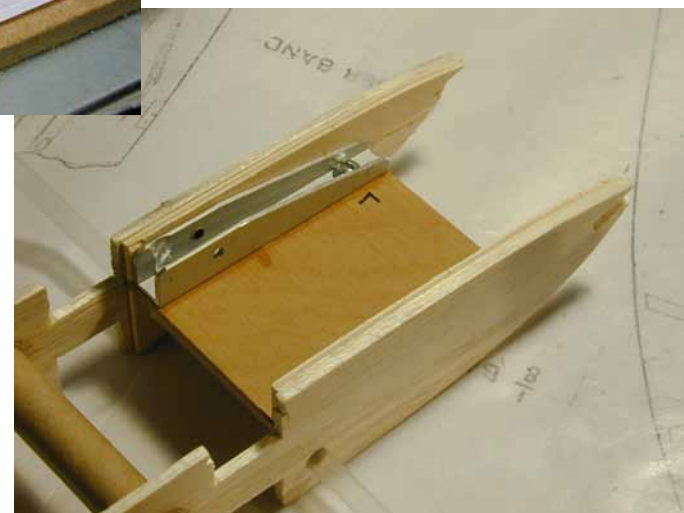
It doesn't appear that much progress has been made on the Windlord XC over the last four weeks, but we're still in the process of making parts for both wings while concentrating on getting one wing finished.

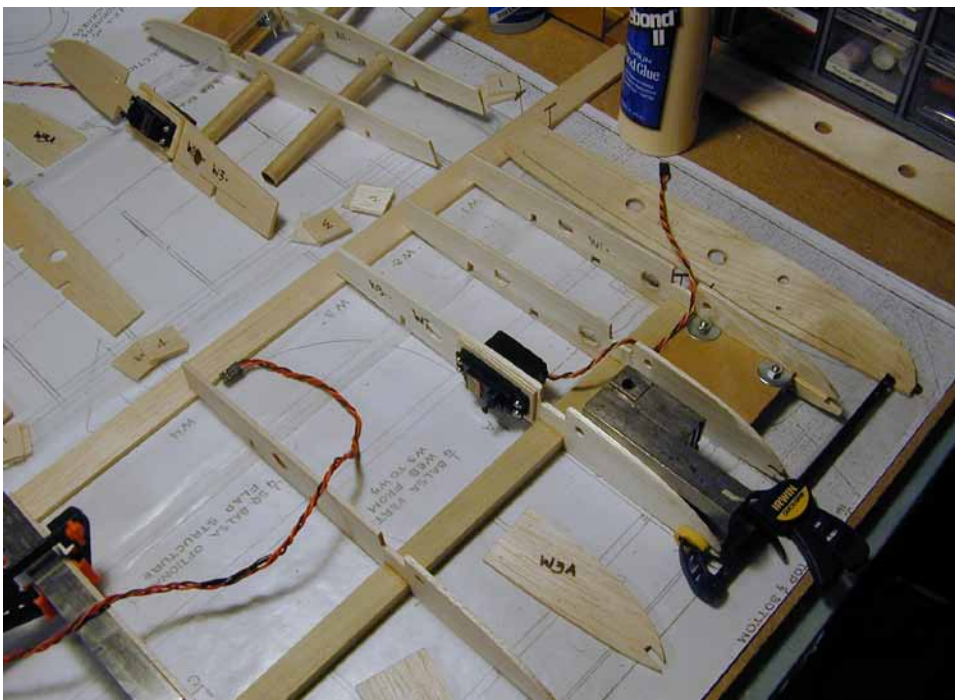
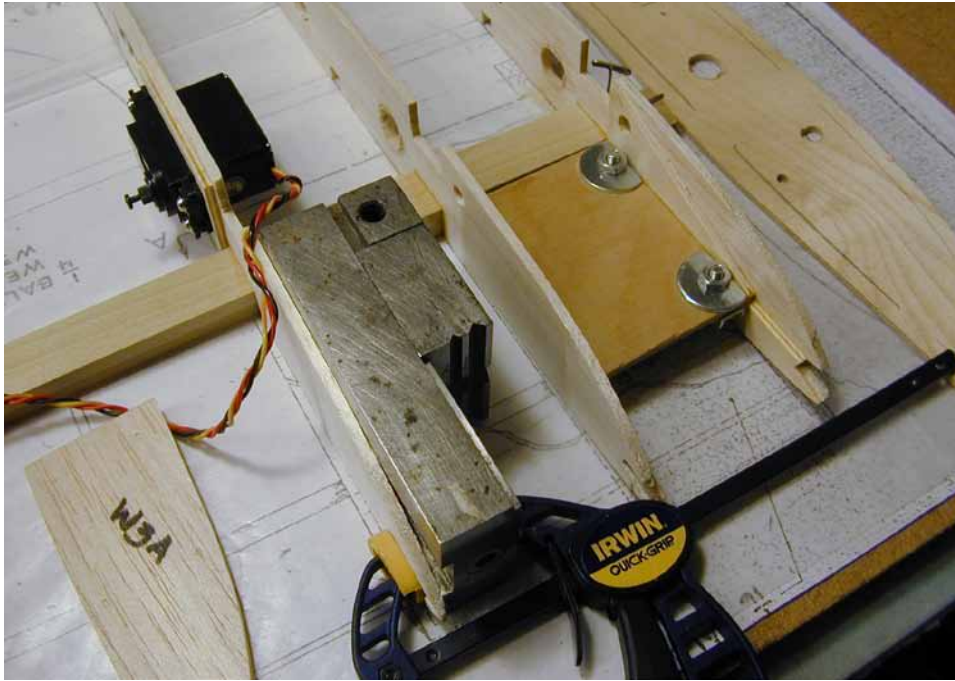
We built the releasable tow hook assemblies and have one completed unit mounted in the left wing, currently under construction.

The releasable tow hooks are simply aluminum channels with a retractable music wire pin holding the tow ring. The channel is bolted to a plywood panel supported by plywood reinforcements bonded to the wing ribs.

The plywood support, with the channel bolted on, was first glued onto the root rib using 30 minute epoxy while held in position with machinist blocks and clamps.

Once the epoxy hardened, the plywood was glued to the support on Rib 2, again





using epoxy. This part of the assembly was accomplished while both ribs were on the main spar and properly aligned in relation to each other. Once the spar is installed, additional support will be added. A drawing of the completed releasable tow hook assembly and installation appeared in the July issue of *RCSD*.

Wing construction started with drilling holes in appropriate locations for the cable routing from each servo to the wing root. By drilling a hole in one rib and using that rib as a pattern, the drill press and Forstner bits made quick work of the process.

All of the ribs were then glued to the lower spar, holding them in place with machinist blocks and clamps. With the ribs still in place, the full span secondary spar was glued onto the ribs and the short rib pieces between the secondary spar and the elevator spar were glued into place while being careful to get correct alignment. The elevator spar was then glued into place as well.

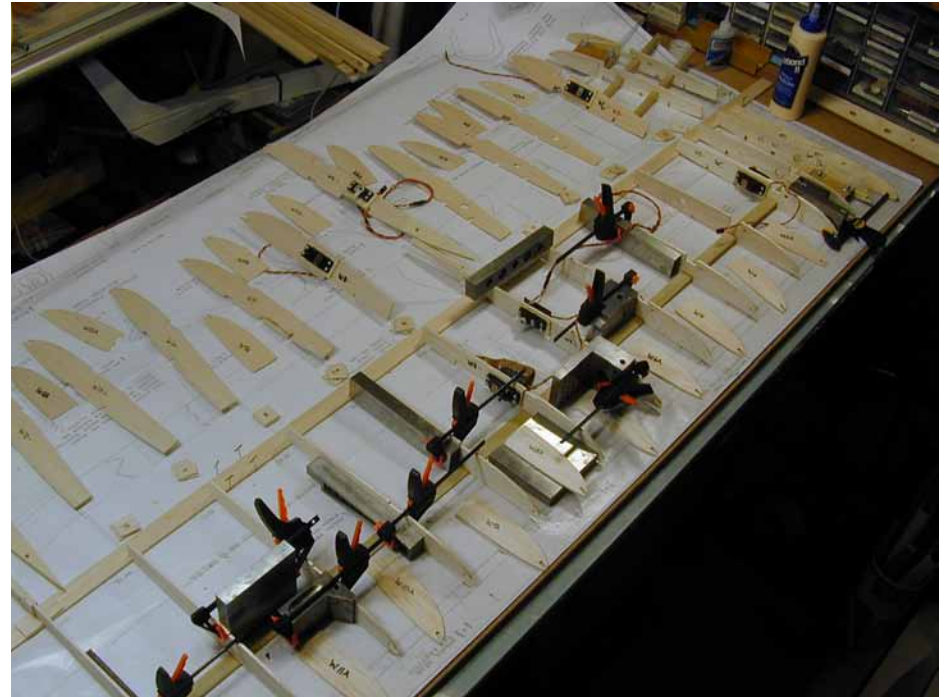
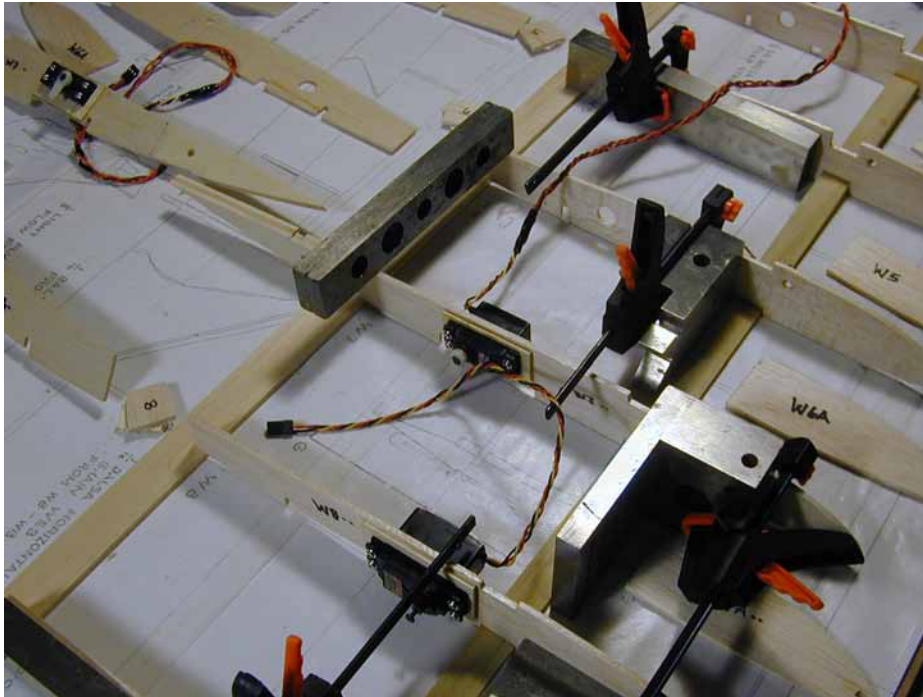
With the framework made sturdy, the cable conduits and leading edge were glued in. Now it's on to building the control surfaces!

On another front, we've cut out the template needed for the leading edge of the fin and the template for the plywood fuselage sides.

So, slow but steady progress with the goal of flying before the end of summer still in sight.



Opposite page: Combined photos show the entire right wing under construction. Releasable tow hook is on the right of the photo, mounted between Ribs 1 and 2. The full span spar is not yet in place. The tip rib requires 1/8" washout, hence the additional balsa block on top of the main fixture.



Above: Detail photo showing the aileron servo (closest to the camera) and flap servo mountings and overview of structure set up.

