Ron Gray - Leprechaun XL Build blog 5

Not a lot of progress to show for a day's work as I had some serious head scratching over the arrangement of the tailplane parts which resulted in me having to cut out and re-do a couple of areas.

Tailplane construction. I started with the central section which is built up from 2 ply ribs with the ply mounting plates slotted into them. The false TE is 2 pieces of balsa glued together, one 5mm thick the other 6mm. The bottom piece of the false TE extends under the tip pieces and that is where I encountered my problem when it came to fitting the end ribs. I had merrily laid out the ribs and slotted them into the false TE with their undersides resting on the building board, the trouble was that if I had them in this position, when I came to sand the false TE I would have to sand away the top layer so that the profile met with the profile of the rib, therefore leaving nothing to support the tip piece! I didn't realise this until after I had glued the top spar in place, but fortunately I was able to carefully cut the glue join around the rear of the ribs, free them and then raise them so that there will be an equal amount to sand off from the top and bottom of the false TE.

The LE is formed from some 10mm x 10mm balsa set diagonally into a bird's mouth in the front of the ribs. To make it curve you cut a slot along the length of the curve, corner to corner, in effect leaving 2 triangular pieces which after squirting glue into the saw cut can be easily bent to the curve.

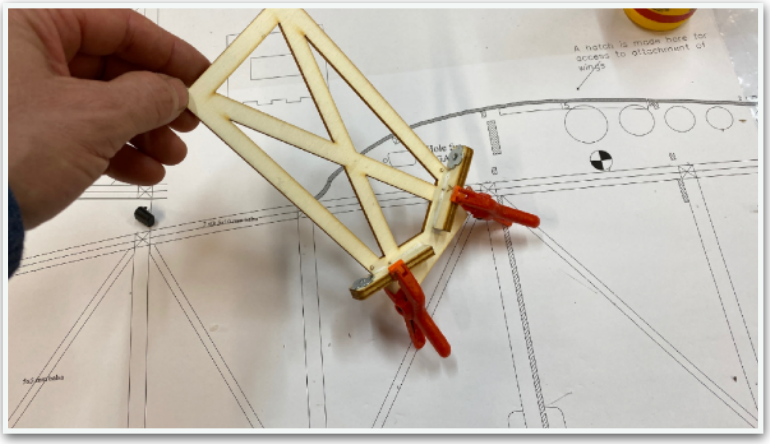
Whilst that was drying I started on the elevator.

Then back onto the tailplane for the diagonal strutting (5mm x 5mm)

Just need to add the lower spar, elevator servo mount and top and bottom sheeting to the centre section plus the elevator LE.

Back to the fuselage and time to fit the ply former that includes the fuselage fixing points for the wing struts. Firstly it meant cutting out sections from a couple of the 10mm x 10mm uprights, trying desperately not to break them away from the rest of the structure whilst doing so.

This photo is another one taken from Dane-RCs instruction photos:



Then back to my build:

Former inserted, glued and clamped in place:

10mm x 10mm diagonal bracing to add strength (does it need it??). I was quite pleased as I formed a half lapped joint rather than butt joining them. Shoulder blocks added to both sides of the uprights.

Then it was on with the diagonal 5mm x 5mm bracing.

In the meantime work has stalled on the tailplane due to me not understanding how the drawn setup for servo installation and pushrods can work with a removable tailplane.

Now the brilliant thing about uploading the build is that as soon as I started pulling the various photos together to try and highlight the problem, the answer suddenly came to me and it had been staring right at me, I just didn't see it! I was then able to get the tailplane finished off, still on target for having the fuselage and tailplane finished, bar sanding, in the first week!

Final odd bits and pieces to do before putting the fuselage and tailplane to one side.

All diagonal bracing now done!

So onto the tailplane pylon, top surface, 3mm balsa.

With holes for the tailplane mounting bolts and the elevator servo cable.

The plans show the underside of the tailplane mounting should be sheeted with 3mm balsa. I pondered over this for quite a while as, to me, if it sits on top of the ribs and spar then there will be an awkward joint to be covered in film. So I decided to sheet it with 1mm ply instead. (Slot is for servo arm).

Servo mounting plate glued to the sheeting

And a double check to make sure that the servo does fit!