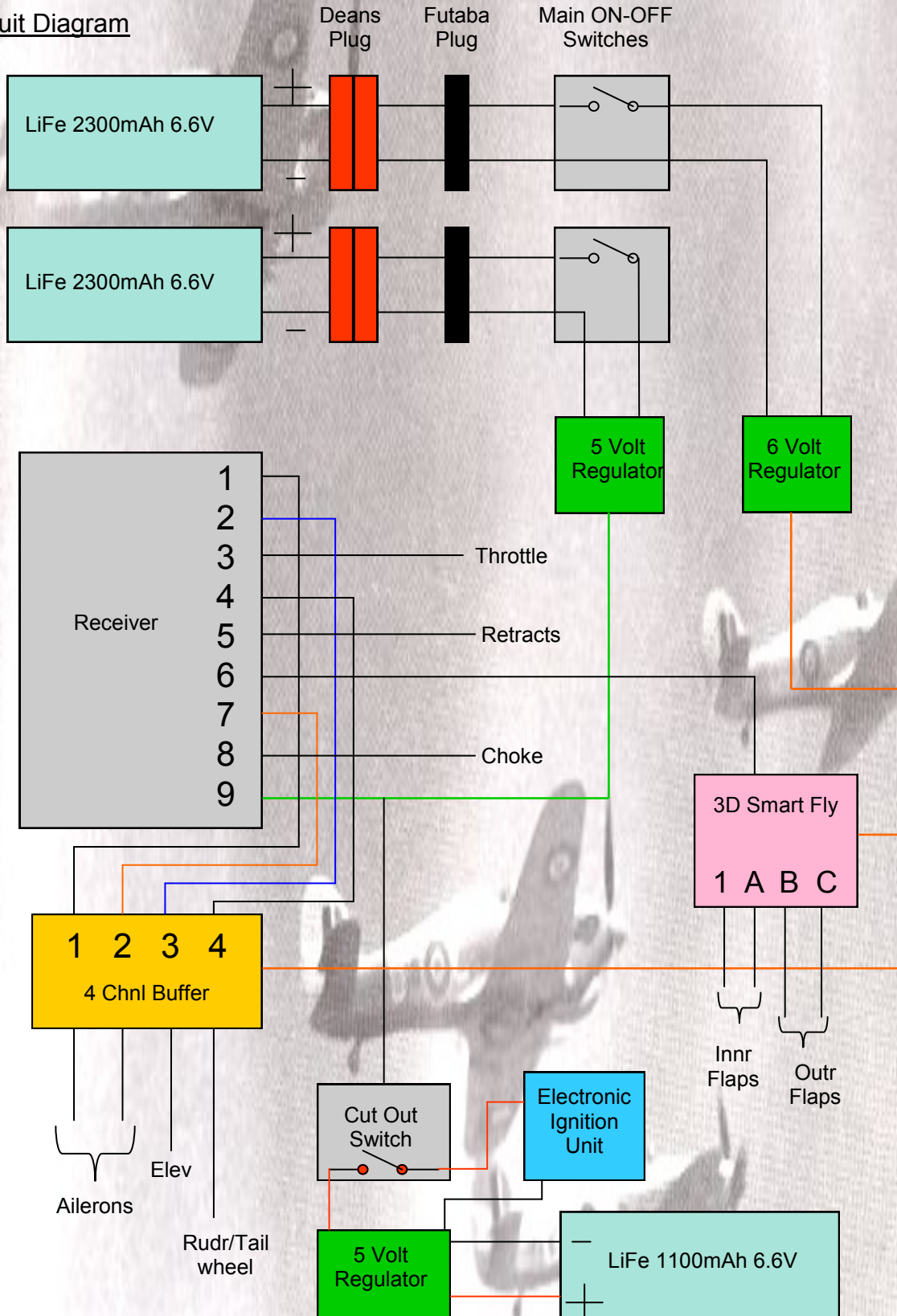
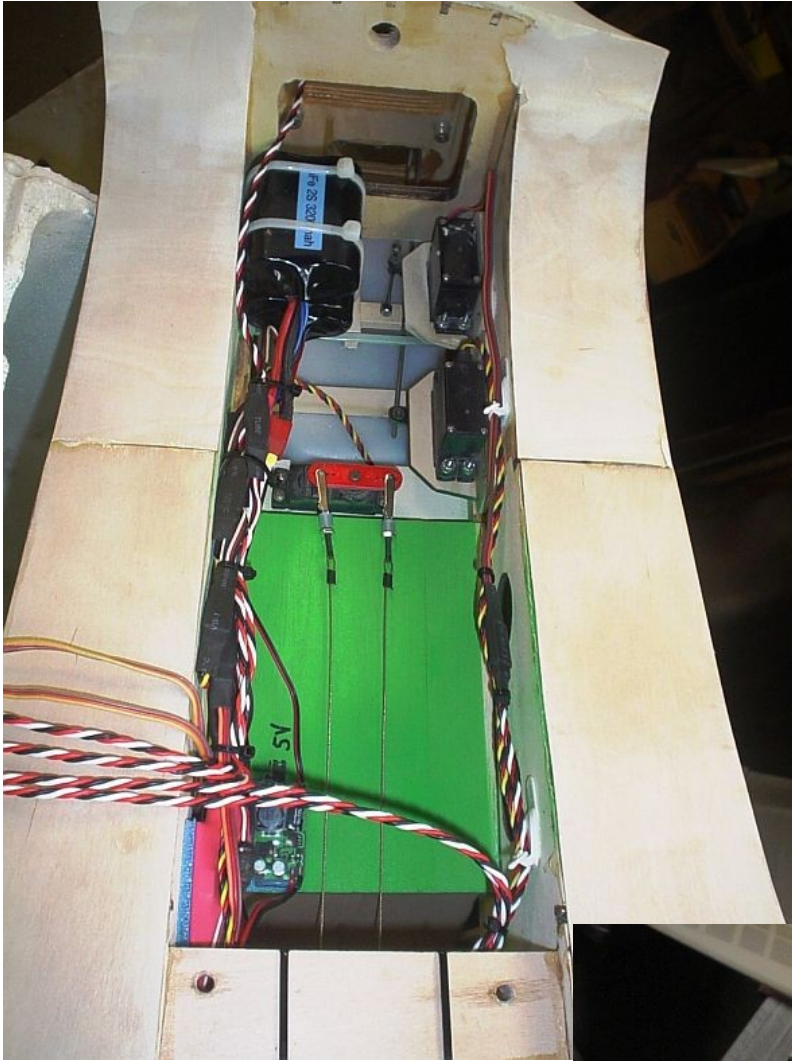


Building a Vailly Aviation Hawker Hurricane...Instalment 8

Wiring: The wiring of the Hurricane is a bit more complex than your average sport model as it needs to power the **Futaba** receiver, an **MAS** four channel buffer, the **Rexcel** ignition, the **3D Smart Fly** servo balancer and the 12 servos. This will require three batteries.

Circuit Diagram



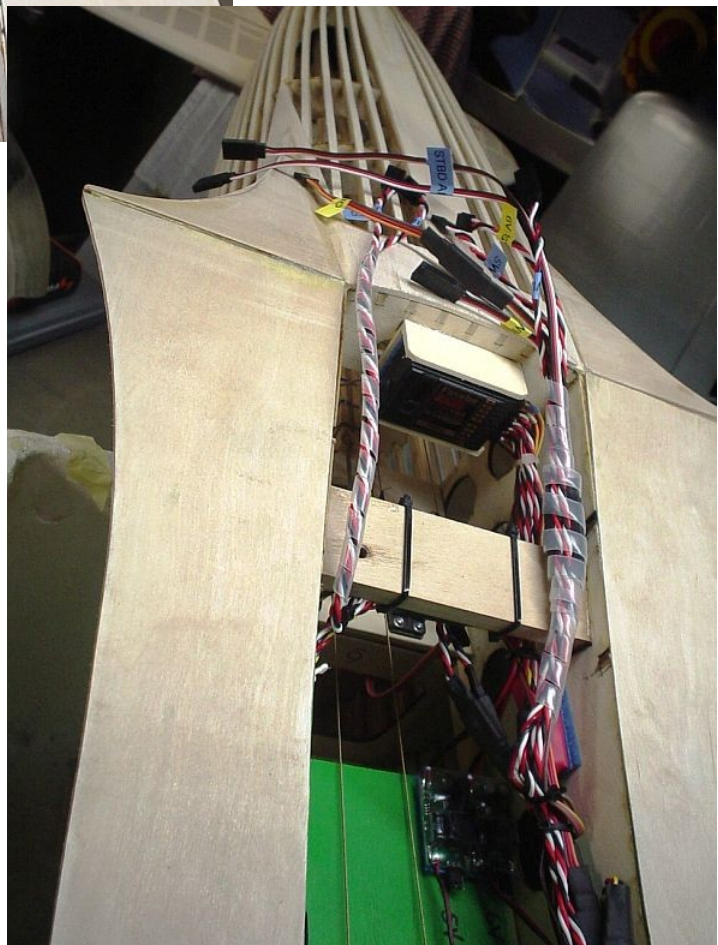


I no longer will use LiPo batteries as I am concerned about their volatility and I like to charge my batteries in the plane without the risk of fire and brimstone. All the batteries in the Hurricane are LiFe technology. The two packs that supply the 5V and 6V systems can be seen tied to a substantial platform of Hoop Pine in the front left up against the wing former. The batteries are 6.6V 2300mAh and I buy them online from [Cyclone Toys and Hobby](http://www.cyclonetoy.com) www.cyclonetoy.com

The two regulators are on the left, rear and are identical except the volt select jumpers are set to regulate to 5V and 6V. The regulators will supply 3 Amps each which is enough for a non aerobatic plane. I buy them online from [Hobby City](http://www.hobbycity.com)

www.hobbycity.com.

The receiver is mounted as far away from the ignition as possible and is attached with [Velcro](http://www.velcro.com) in a plywood box

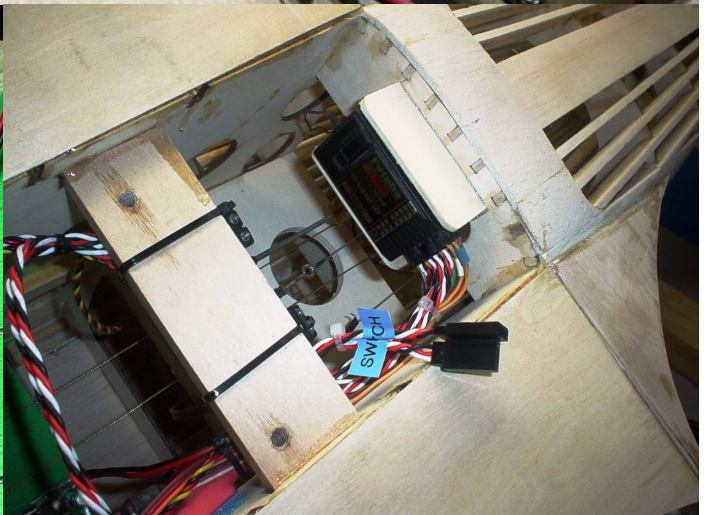
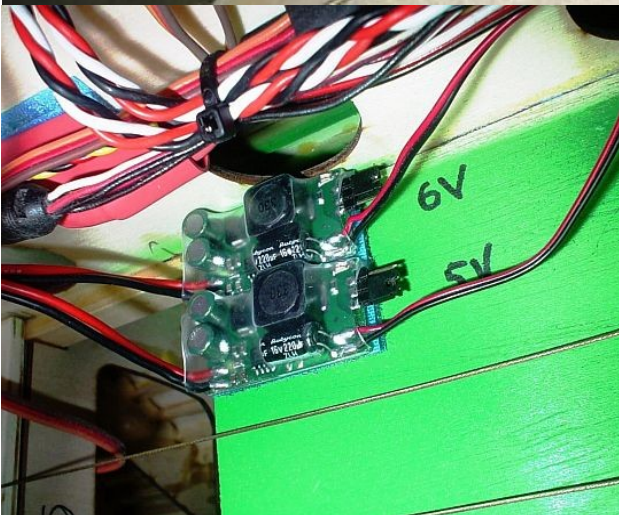


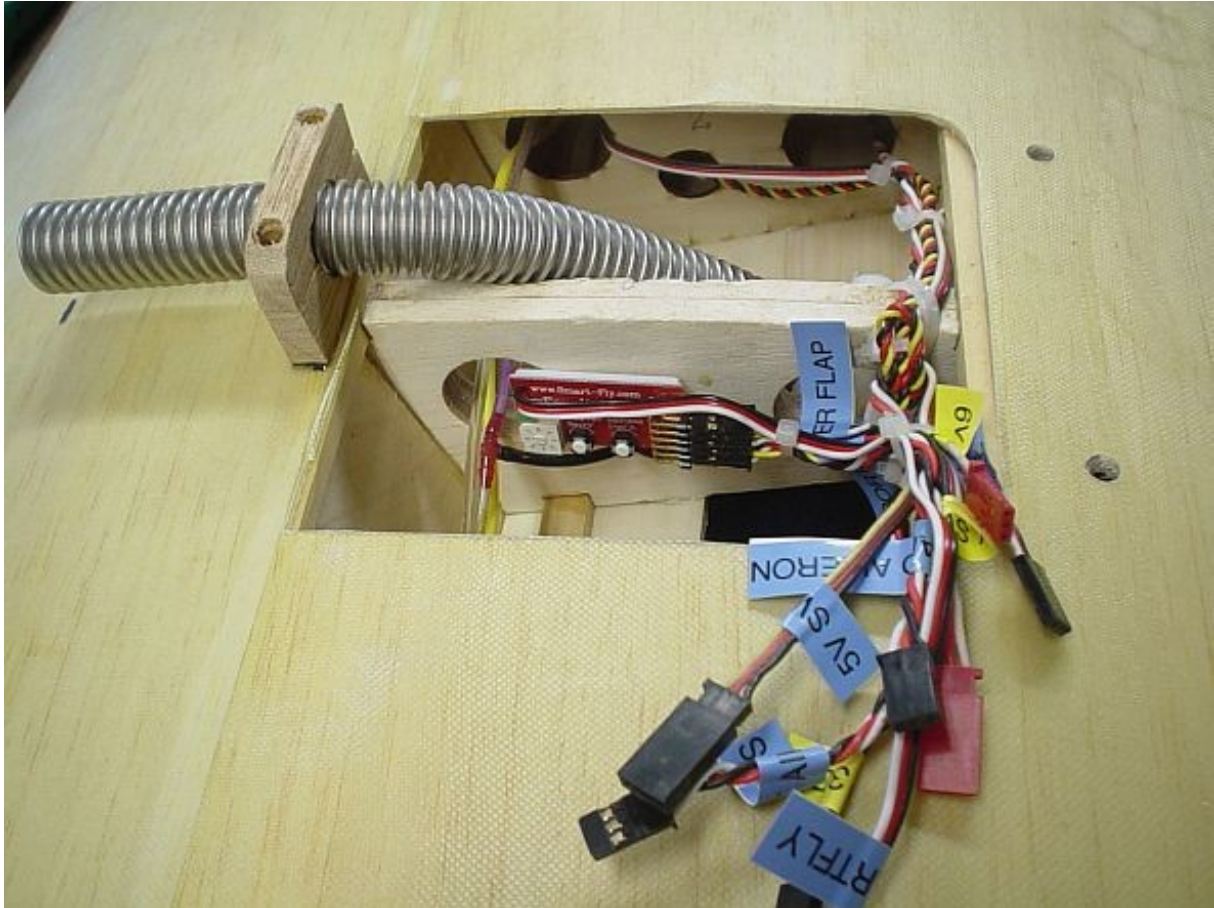
The wiring looms are made up from various heavy duty Futaba extension leads that I buy online from [Hobby City](#).

I cover all the permanent extension lead connectors with shrink-wrap tubing from [Jaycar](#) to avoid nasty open circuit surprises caused by vibration. The looms are led down the side of the wing formers as the exhaust pipe and exhaust pipe insulation tunnel is coming down the middle.

The fly leads are gathered together with a wrap of [Spirap](#) and all the leads are labelled and colour coded.

The regulators and receiver are mounted on [Velcro](#). [Hobby City](#) has the best [Velcro](#) that I have ever used.

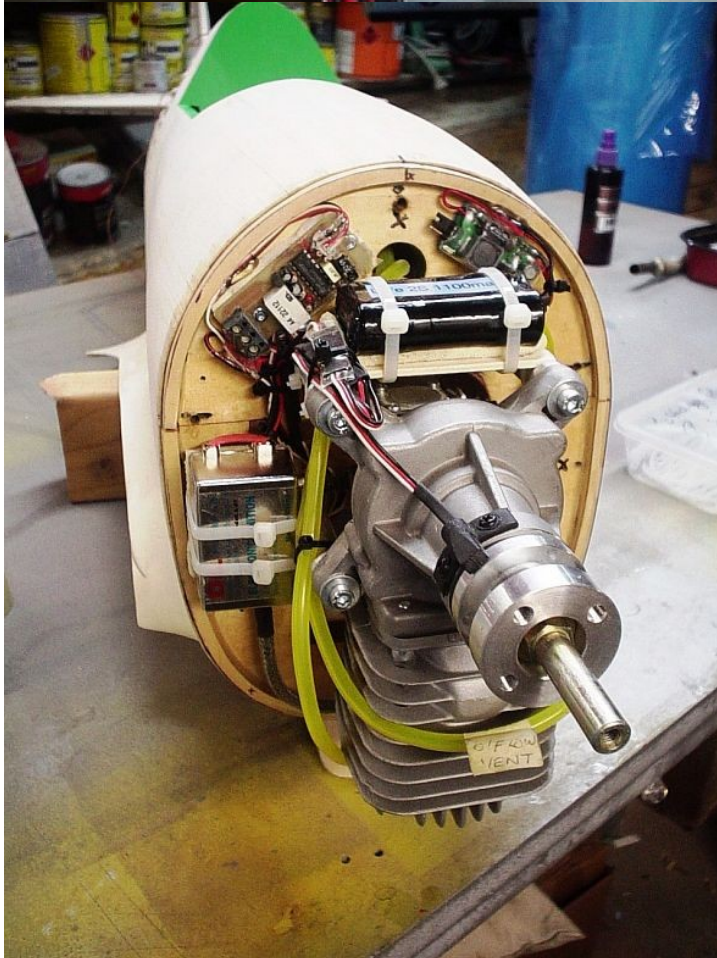




The leads in the wings have all the permanent connectors shrink-wrapped and then are cable tied into looms and positioned as far away from the exhaust pipe as possible. All fly leads are labelled and colour coded. The **3D Smart Fly** servo balancer is attached to the centre wing ribs with **Velcro**.

The ignition circuit is all forward of the firewall with the exception of the fly lead that actuates the cut off relay and the ignition battery charging lead. The cut off relay is an old **Robbe** one that has stood the test of time. It is mounted on a rubber pad and should it fail the motor ignition will be switched off.





The ignition battery is a 6.6V 1100mAh LiFe made up from two cells purchased online from [Hobby City](#) and is strapped to a rubber pad and ply plate over the engine standoffs.

The CD ignition draws 650mA at 7000 rpm so, theoretically, 1100 mAh should give me close to two hours in the air !!

The battery is charged from a fly lead led back through the firewall and wing former so I don't have to take the prop and cowl off to charge and I don't have to have an ugly external charging socket.

From the photo you can see it is a pretty busy engine room and I will still need space for balancing weight. We'll cross that bridge later...

Covering the Fuselage:

Now that all the wiring is complete and all the bits and pieces are mounted inside the fuselage all that remains to be done before glassing is to cover the rear of the fuselage with **Solartex**. This is straight-forward and the **Solartex** is ironed on in three pieces per side, the joins overlapping the lower piece.

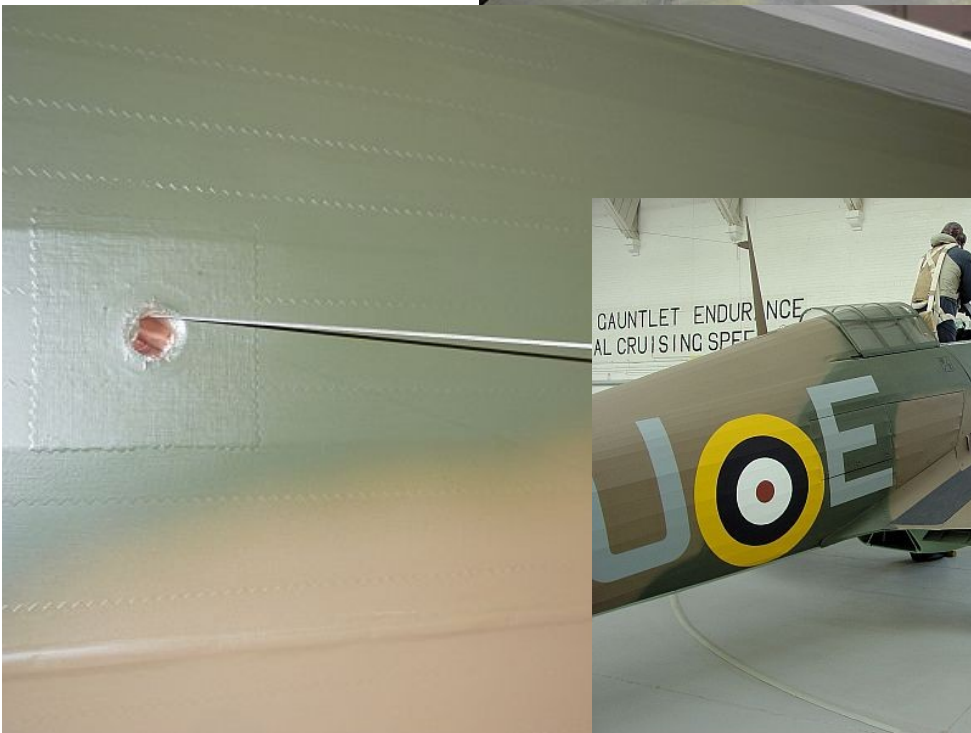


Start at the bottom, finish at the top..

At last this thing is starting to look like a Hurricane....

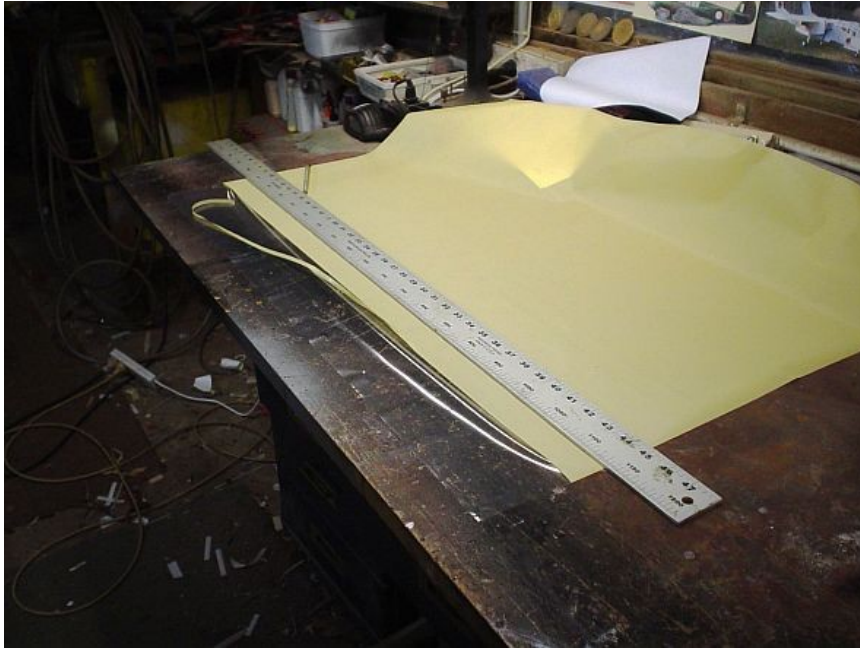


I think the full size must have had the fuselage fabric attached to the wooden stringers some how as I can see in photos that there are strips of fabric doped lengthwise on the fabric over each stringer. The strips look similar to the serrated fabric



strips over rib stitching on wings and tail-planes.





To achieve the same look I have torn 5mm wide strips of **Solartex** and have ironed them over the fabric over the stringers. I didn't cut the strips as I want a rough edge of tearing to simulate the serrated pinking on the full size.. The weave of **Solartex** is very consistent and so therefore are the torn strip widths.

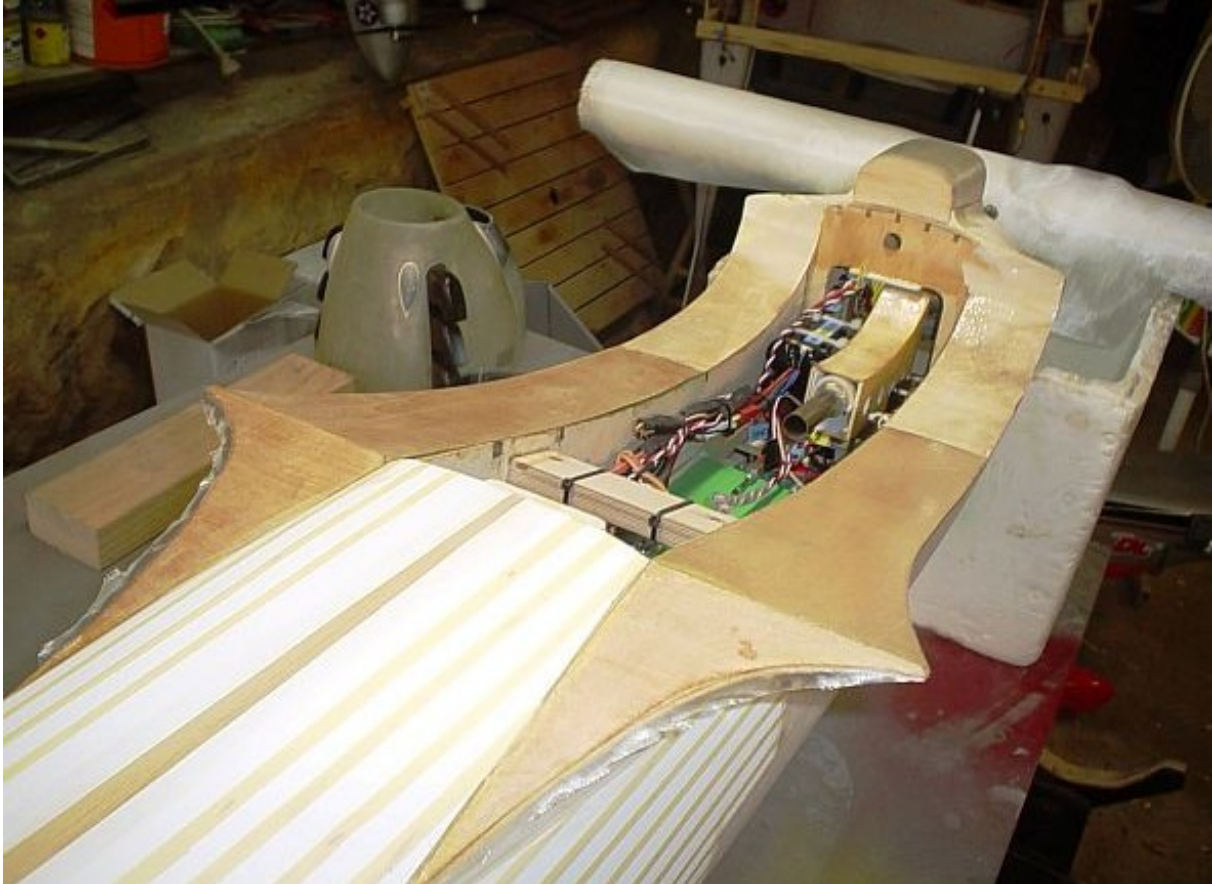


The spacing of the stringers is much closer on the full size than the model but the effect will still be there after painting...I hope...



Glassing the Fuselage:

The fuselage forward of the fabric section is covered with two layers of 3/4 oz. cloth and the aft section under the tailplane with one. I have overlapped the fabric by about 10mm on the join both fore and aft. The glassing is pretty straightforward albeit time consuming using **ZAP Epoxy Laminating Resin** and my trusty Amex card as a squeegee.



It took me four days to complete the glassing, one day for all the underside, the next day for the wing fairings and one day each for each side of the fuselage. I glassed all the inside of the flaps as well while I was on a roll.





Preparation for Primer:

Now the complete plane will be covered with a coat of primer over the rough glassing then the whole plane will be sanded with ever finer grit finishing with wet and dry to leave a beautiful smooth hard finish with primer only left in irregularities. Before this can happen a fair bit of preparation must take place..

Because the Hurricane had fabric covered ailerons and a completely fabric covered tailplane the effect of a framework has to be simulated in these areas. I do this with a build up of paint starting with the primer over masked panels that when the masking is removed will leave a surface at a different level and texture to the surrounding

frame. The final colour coats will then be applied after the masking is removed. The masking is a bit tedious and is definitely a six stubby job but the finished effect is worth the effort.



The building part is now complete and the fun starts now with decorating the plane.

The next instalment will cover priming, surface preparation and surface detailing.

See you in a couple of weeks.
Stan