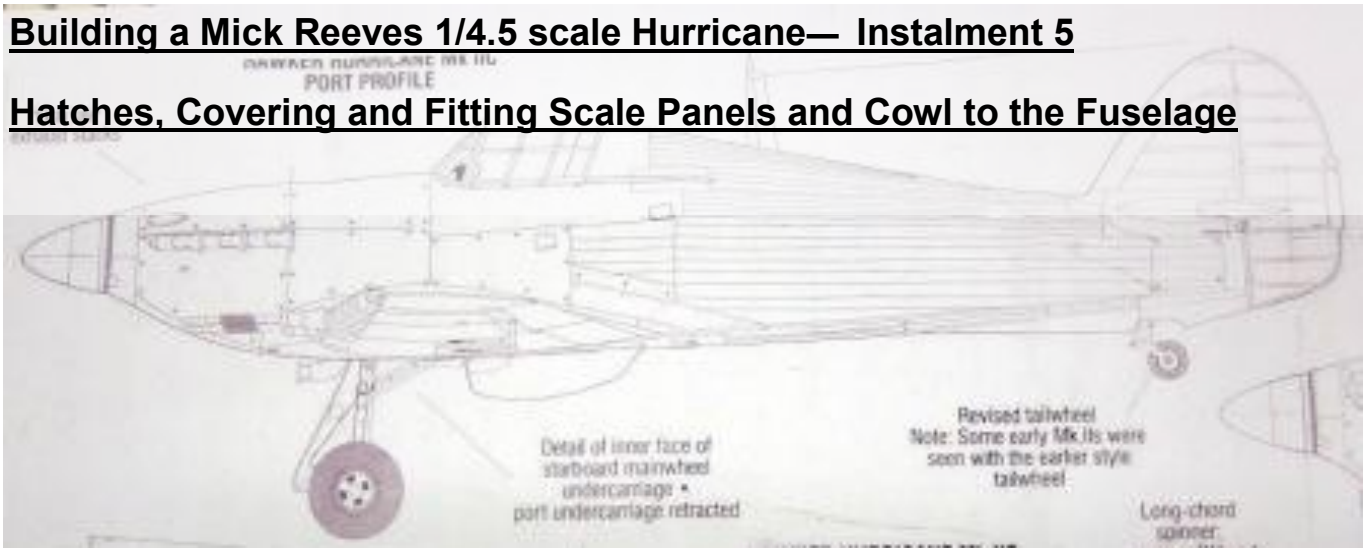
Building a Mick Reeves 1/4.5 scale Hurricane— Instalment 5

Hatches, Covering and Fitting Scale Panels and Cowl to the Fuselage



Scale Hatches

Before I get to stick the first Proskin panel on the airframe I have to make all the scale hatches and cover the fuselage with Solartex fabric.

The above pictures are of the hatch on the mid port side of the fuselage.

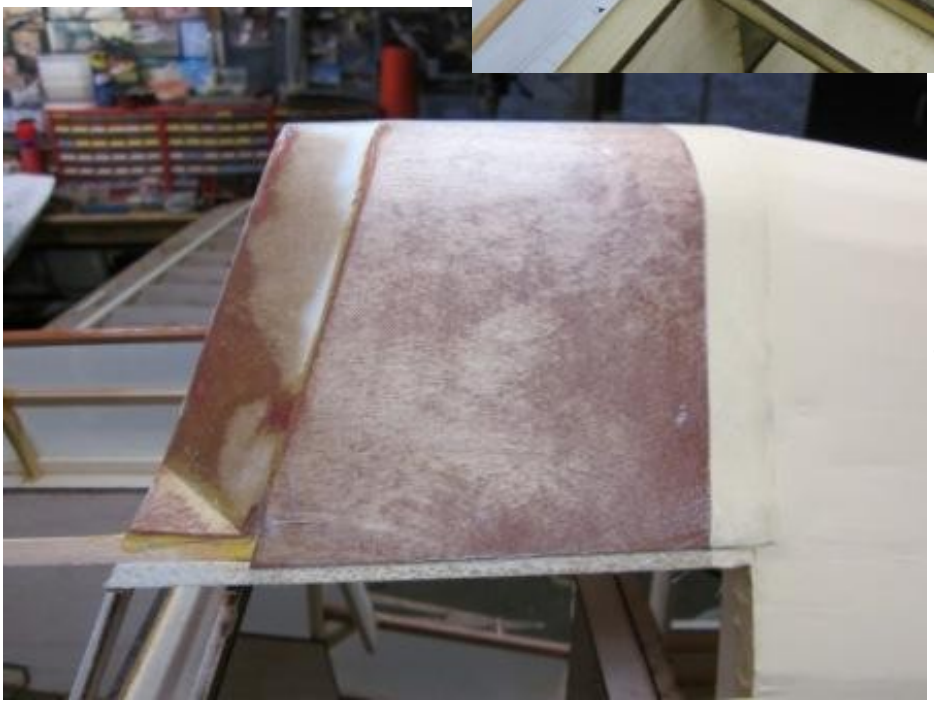
This picture is of the starboard side fuselage hatches.

There is a further hatch built the same way on the rear of the port side to provide access to the elevator and rudder controls.

All of these hatches will be glued to the frames built into the fuselage sides to retain structural integrity

Headrest

I chickened out on using Proskin on the headrest and used a 0.3mm aircraft ply just like the full size. You can see the bending is extreme and across the grain but the plywood had less tension than the Proskin.



This view shows the finished headrest covered with half ounce fibreglass cloth ready for primer.

Behind the headrest there is sheeting for the provision of the sliding canopy rails.

Covering: I've now got three colours of Solartex on this plane, bits of rolls that have been left over from previous projects and any other pieces that I've stored away in the "it might come in handy one day" bin. This stuff is getting hard to get now and is not cheap at $40 a small roll..

I've started covering at the bottom of the fuselage as I have to fit the anti spin dorsal fin over the covering.

Mick supplies vac formed moulding for the front part of the dorsal fin to suit a Sea Hurricane so they are in two pieces to allow for the arrestor hook, as I'm making a land based Hurricane I need the forward part to be one piece and have made one up from two pieces of 3/32" balsa capped with a piece of 3/8".

I will cover each side with two pieces of Solartex, always overlapping the joints downward. Now we are starting to look like we have a Hurricane on the bench.

Hatches fitted in this view.

Finito...

Rib tapes and stringer strips:

The full size has strips of doped fabric over the rib stitching and lengthwise along the fuselage stringers. 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 to simulate the serrated pinking on the full size.. The weave of Solartex is very consistent and so therefore are the torn strip widths.

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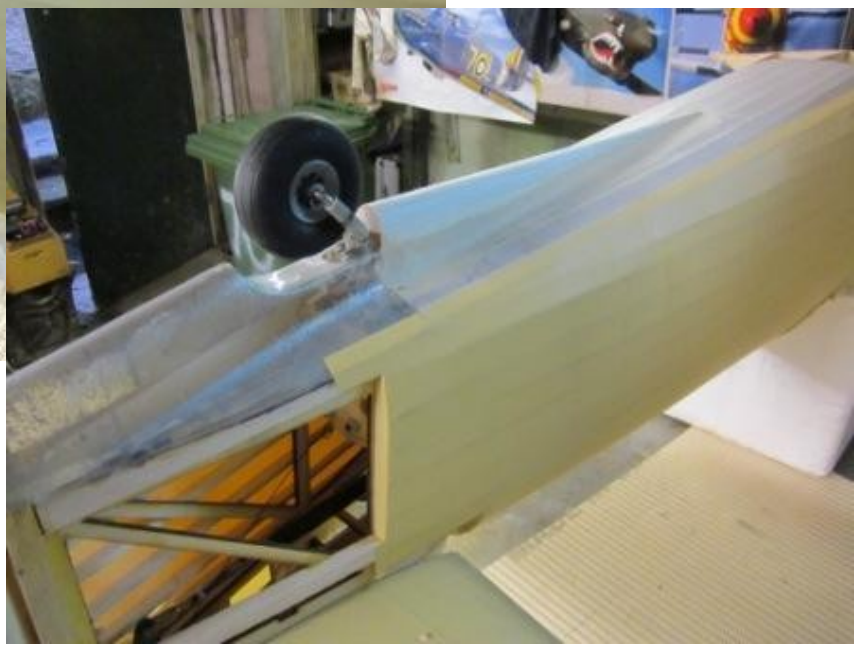
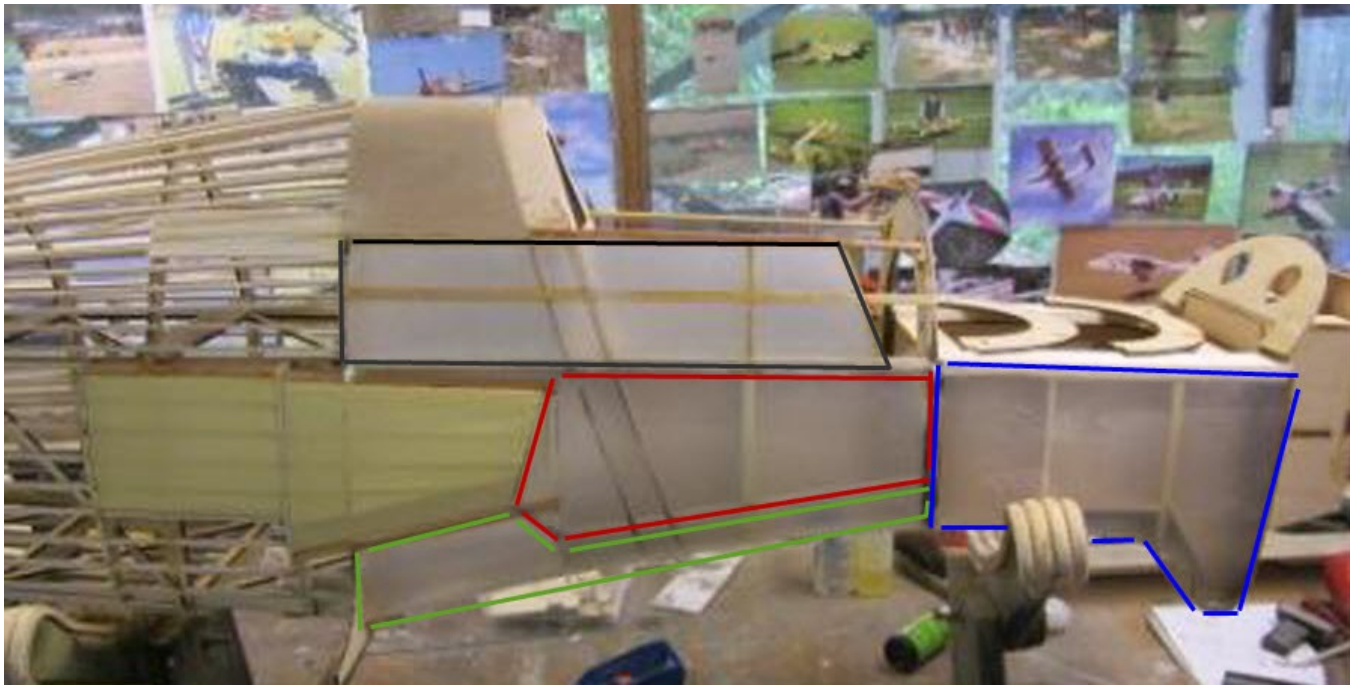
The spacing of the stringers is much closer on the full size than the model but the effect will still be there after painting...I hope...



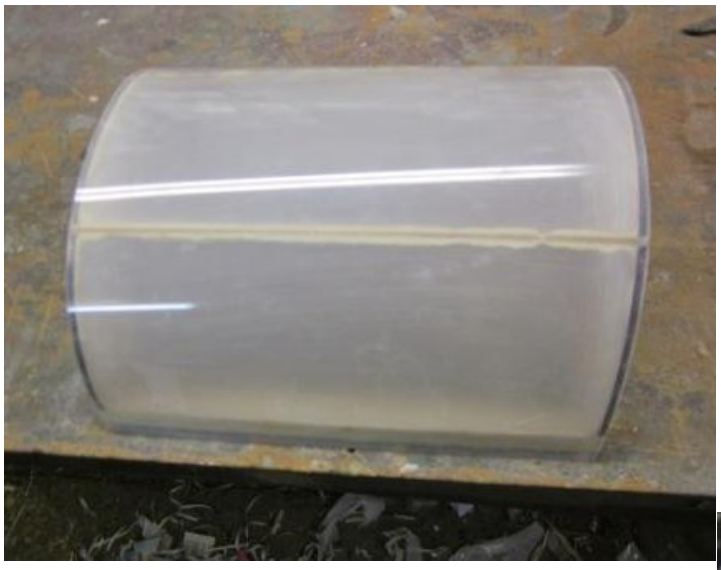
To finish off the anti spin fin I've put a slurry of micro-balloons down the join to the fuselage to create a fillet to match the vac formed rear part.

Scale Panelling:

The picture above is of the extra framework needed if you are going to fit scale panels. Below is a picture of four scale panels fitted, there is a further panel over the instrument panel to be fitted. I am going to make a large removable hatch from the instrument panel frame to the rear cowl frame for access to switches, batteries and fuel filler valve.



Service Hatch: Directly in front of the windscreen is a great section of the fuselage that I am going to turn into a service hatch. I hope to have everything but the receiver exposed in this area. Switches, batteries and battery charging for receiver, buffer box, ignition, nav and landing lights and retracts and the fuel filler.



The only reason I don't include the receiver in this area is that I think it is a little close to the ignition for my liking and it will be situated on the wing centre section.

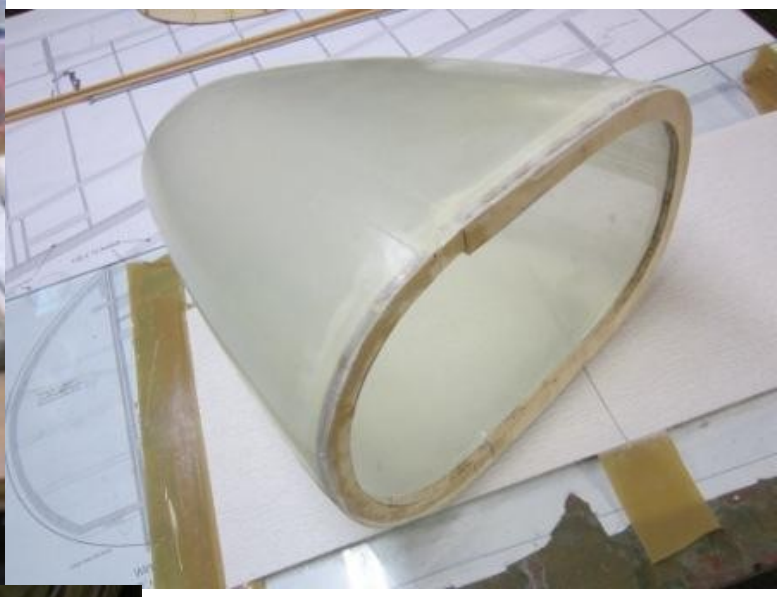
The framing was assembled with CA glue and the Proskin was attached to the frame with the foaming Probond glue that Mick sells. CA was used along the sides of the frame.

A good spin off from having this section as a hatch is that I can mount the cowl via screws through the firewall into the cowl ring frame.

The hatch will be attached with a hidden hatch latch front and back. The skin on the hatch extends past the bottom rail of the hatch and over hangs the fuselage sides so there cant be any sideways movement.

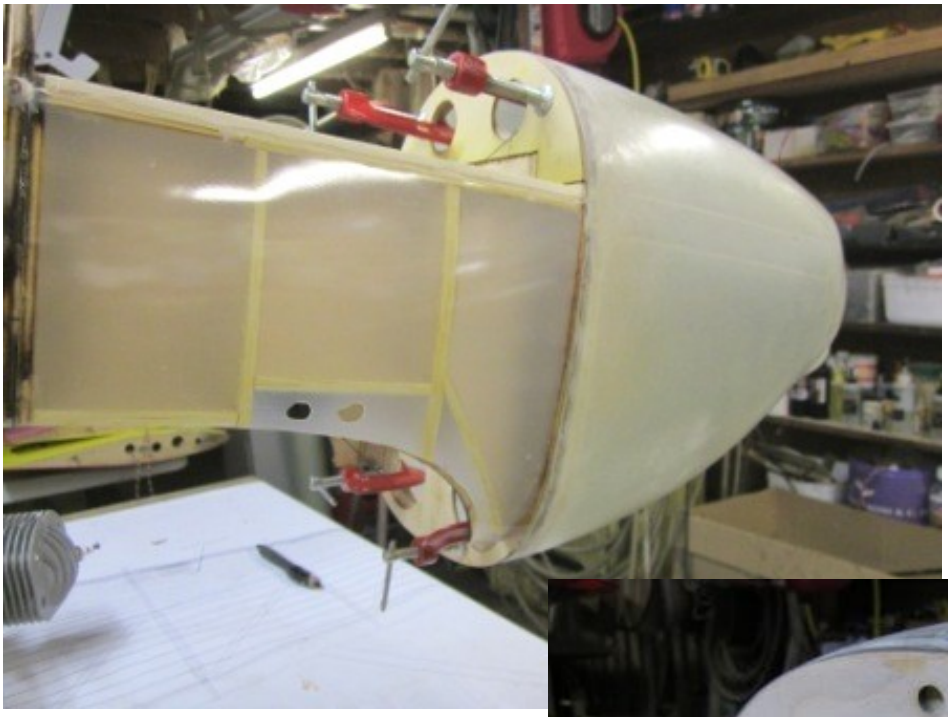
Fitting Cowl:

The cowl as supplied is a substantial epoxy glass moulding with panel lines moulded into the surface and it's trimmed to correct length.



I like to radially mount the cowl and that involves making and fitting a very accurate frame that shapes the back of the cowl to perfectly match the firewall former. This frame is made up from high quality 8mm 5ply and is glued to the back edge of the cowl with Hysol.

The back of the cowl with the frame have to be perfectly flat and I achieve this by taping a couple of 80 grit sheets of sandpaper to a sheet of plate glass and push the cowl back and forth until its flat. I will also use this method to correct any side or up and down alignment problems that might have snuck into the equation



The cowl is then clamped to the firewall and mounting holes are drilled through the firewall into the cowl ring frame. The cowl is the removed and the holes in the ring frame are tapped to suit the 6-32 cap head screws, thin CA is applied to the tapped holes and the tap is run down the holes again after the CA reinforcing.

The firewall holes are drilled out as clearance holes for the cap screws and a filler frame is fitted over the cap screw heads..

Any gaps can be filled and minor misalignment can now be sanded out while the fuselage and cowl are assembled.

The wires you can see in the picture above are the rudder and tail wheel cables.

Next instalment will be about shoe-horning all the servos and batteries forward of the C of G, Fitting the engine and finding room for a petrol tank.

Cheers
Stan