

Building a Vailly Aviation Hawker Hurricane....Instalment 9



Decorating:

For me, the model is about half finished when the construction is complete. I find the decorating bit is difficult and hugely time consuming. I certainly don't claim to have the best methods or techniques for this phase but maybe there is some info here that others can pick up, use or modify along the way.

Surface priming: As soon as all the fibreglass covering is complete I will mask up and spray the model with an acrylic surface primer. I don't sand or prepare the glassed surfaces in any way prior to applying the paint.



I use **acrylic surface primer** from **Auto One**. 4 litres costs about \$50. I thin the primer with at least an equal amount of acrylic thinners before spraying.

I will spray on four coats al-

lowing 10 minutes between coats to flash off.

It took a litre of primer to do the complete Hurricane. The down side of this is that I will sand about 99.9% of the stuff off with all the excess surface fibreglass resin.





I start sanding with 80 grit then 120 and end up with 240 grit, all dry. The 80 grit removes all the fibreglass joins, weave and daggy bits but care must be taken not to break through the glass cloth.

I'm after a super smooth surface that I will give a thin coat of light



grey which will be further sanded with wet and dry to provide a perfect base finish for the addition of panel lines, rivets and all the other surface details required. The light grey coat also highlights surface irregularities and any small dings collected along the way which I will fix with either **Auto One** body putty or **Squadron White Putty**.

The photos above are after the heavy surface primer coats have been applied.



The sanding process is a bit tedious as it will take about 8 hours of continual sanding to arrive at a finish ready for the base coat. A six pack will help....or two..



From the photo on the left you can see I use many shaped foam sanding blocks, these blocks are absolutely necessary to get into the fillets, nooks and crannies.



This is the finished fuselage, note how the primer has filled the weave and low points.



I had to be careful sanding over the fabric covering and used 120 grit to remove the rough primer followed up by 240 grit.



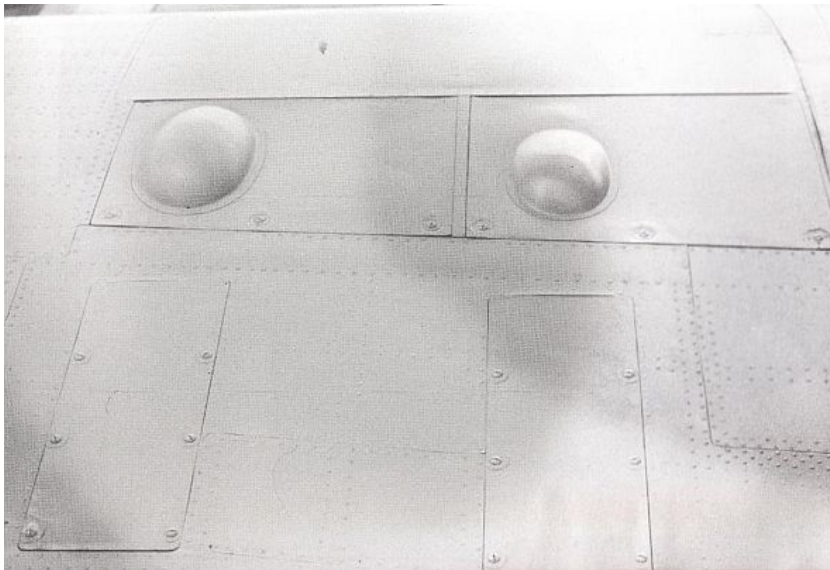
The wings took a lot of sanding. From the photos you can see the feathering on the edges of the layers of glass cloth. The MK I fingertip is an absolute marvellous tool to indicate when the surface is smooth without voids or weave.

It is vitally important that the wing sheeting is sanded by hand as it is all too easy to produce the dreaded "hungry horse" effect if you use power sanders. Power sanders

will remove more surface material over the wings hard ribs and less material over the soft sheet between the ribs resulting in a corrugated surface. Not good !!

I measured the weight of the wing before priming, after priming and after sanding and managed to end up with a wing 100 grams lighter than when I started and a helluva dirty workshop.



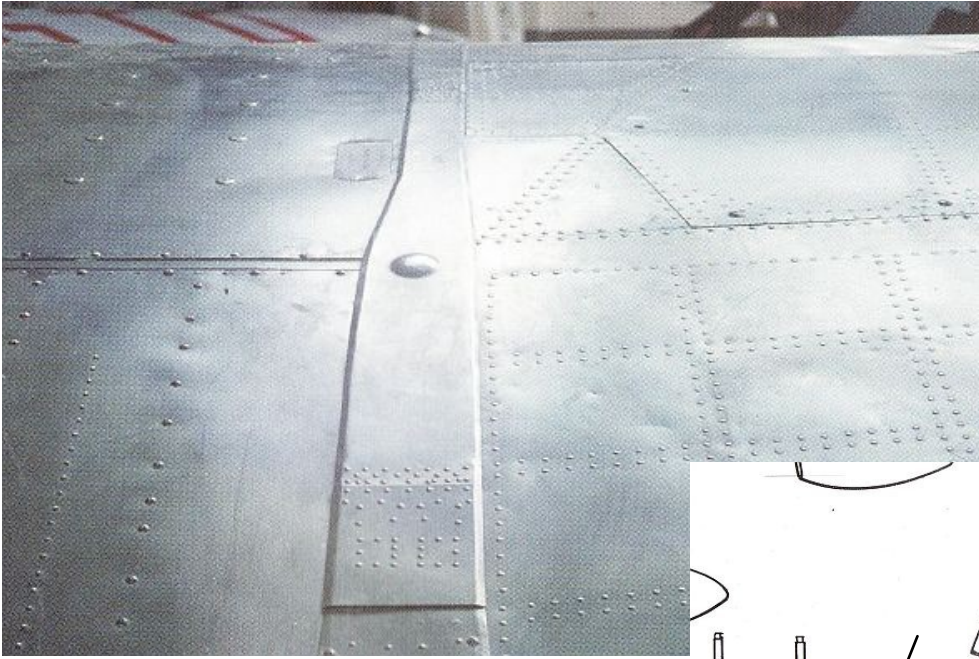


Before I spray the wing with the base coat there are a couple of surface details that must be done.

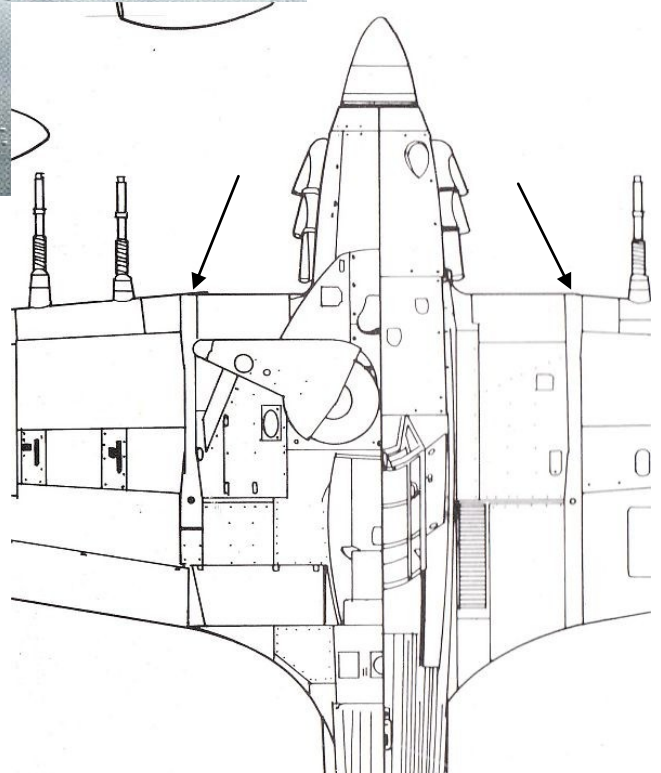
The Mk IIc Hurricane had to have blisters on the upper surface of the wing to cover the protruding 20mm cannon magazines. I'll make them from blobs of **Selleys PlastiBond**.

From the pictures below you can see I have marked the position and size of the blisters on clear tape and masked the area off. Generous dollops of **PlastiBond** are applied to the taped wing areas and after they have gone off I will shape them to look like the picture of the full size above and glue them to the wing surface with **Hysol**. The surrounding panels and fastenings will be replicated later.





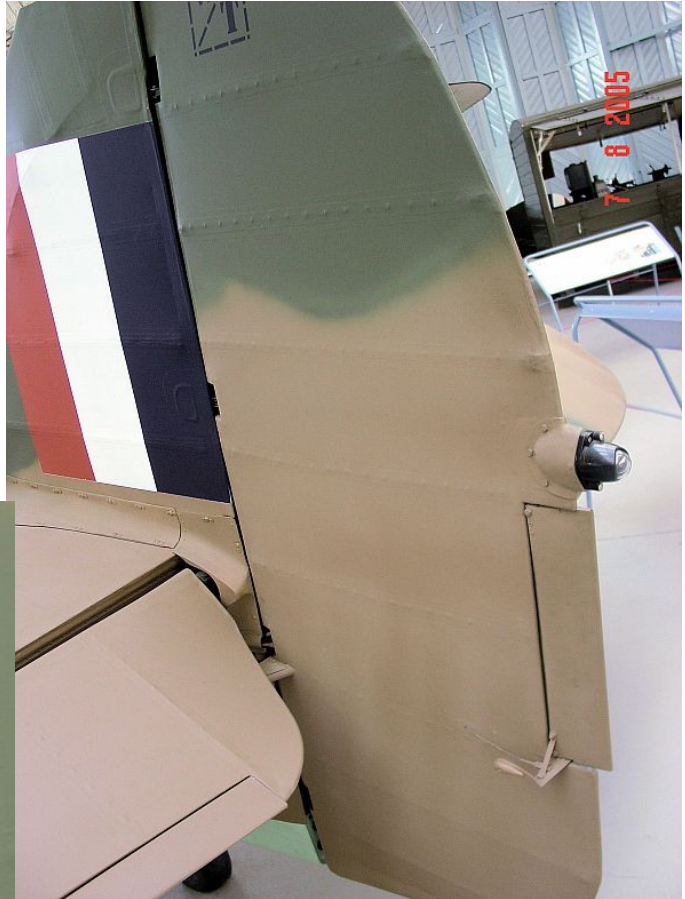
Another obvious detail is the wing joiners, these cover the joins of the inner and outer wings and are full chord on top and below the wing.



I have made them from 0.6mm ply covered with adhesive aluminium ducting tape and glued them to the wings with 30min epoxy.



The last detail I need to do before spraying is the tail light on the rudder, this is quite prominent on the full size and needs accurate replication.



I am going to use a clear **5mm LED** from **Jaycar** and will mount it on the rudder by epoxying the legs on the LED into drilled holes in the trailing edge.

Later on I will add the usual bog around the LED to create the fairing and add rivet and screw detail.



Now that the surface detail is done, sprayed with primer and sanded back its time for the base coat. This base coat is the first serious colour coat and if my form is as usual it will show up glass voids, cloth weave, dags, pin holes and all the other imperfections that will have to be eliminated before the camouflage top coats can be applied.



Its turned out pretty well, there are a few little spots that will require a bit of duco putty but overall not too bad.



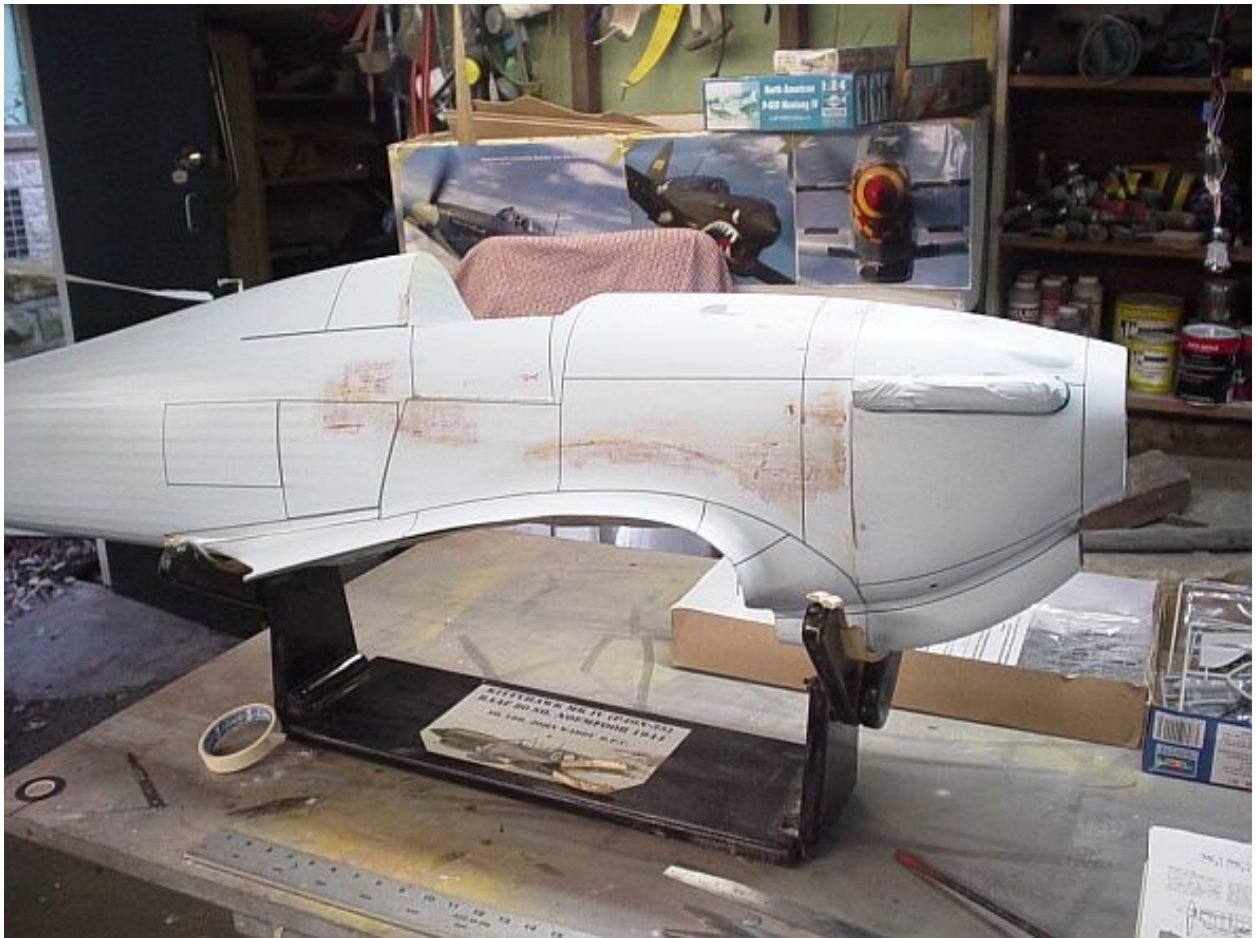
The next job will be to draw all the panel lines, hatches and rivet lines onto the base coat.

I use a soft pencil for laying out and will refer to three view drawings and the 1/24th scale plastic model to get it right



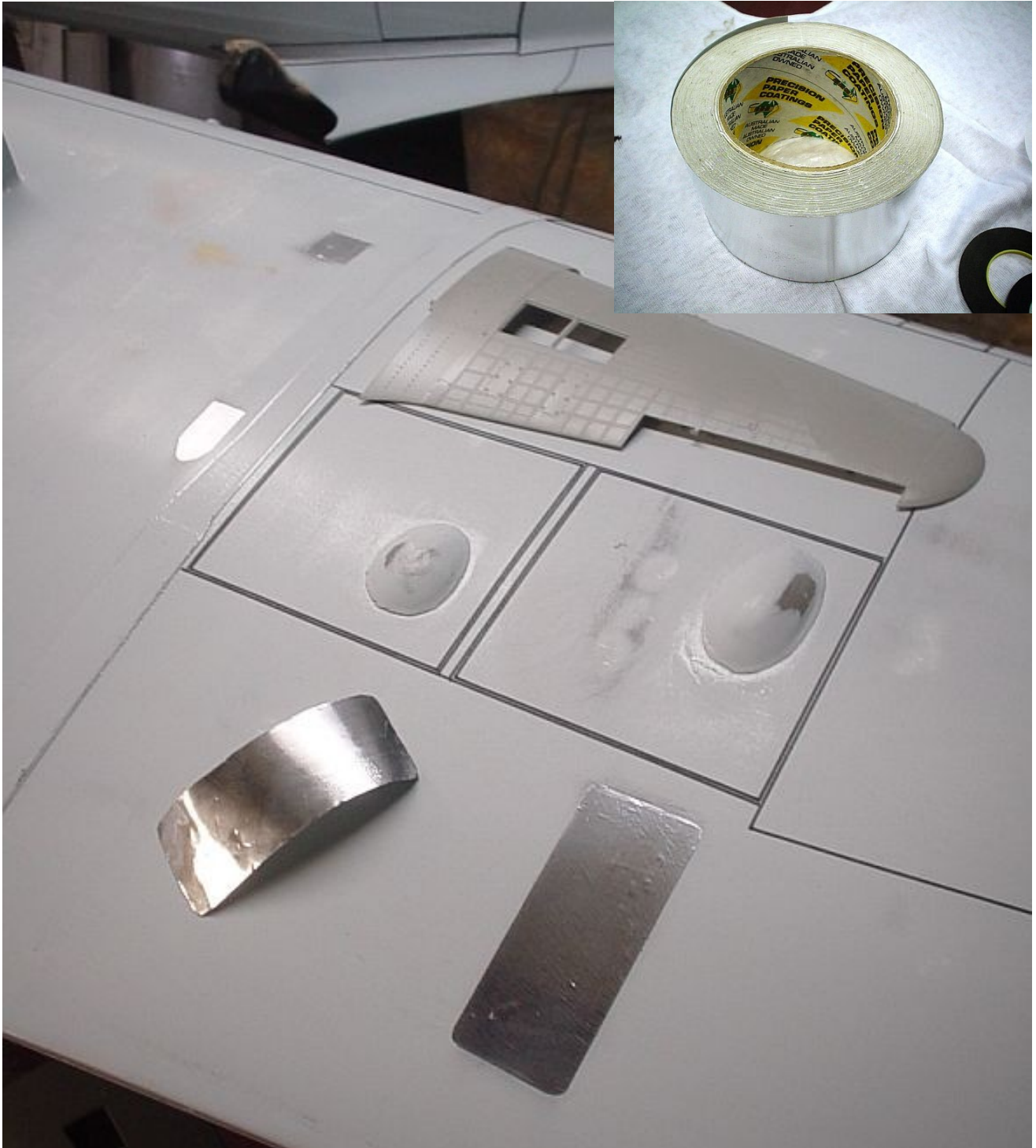
The pencilled panel details are the guide for applying 1/32" adhesive tape. More paint will be applied over the taped lines and when the tape is removed a nice trench is left in the surface simulating butt joined panels. The tape is available from [Aero Accessories](http://www.aero-accessories.com)

-Accessories, their website is <http://www.aero-accessories.com/Builders.html>
 The tape costs about \$5 to \$6 a roll. You can get it in 1/64", 1/32" and 1/16" widths. This plane is roughly 1/5th scale so I have gone for the 1/32" tape as $1/32" \times 5 = 5/32"$ seems a likely panel gap for the age and time these things were made.



The hatch hinge is simulated by cutting a length of **KS** aluminium tubing into 6mm sections, thread the sections onto a piece of thin wire and glue the lot into a scribed trench in the airframe. When its painted it will look like a piano hinge

The fuselage and wing panel joins are now all marked out ready for about four coats of paint to be applied over. Rivets come later



Removable hatches and panels can be simulated by using an adhesive aluminium tape. The tape is a couple of thou thick and sticks like you wouldn't believe.

After the panel has been applied I burnish out any creases with an old propeller.

I like to use this aluminium tape when simulating hatches as when the model is weathered later on and paint is removed to simulate scuff or working marks the raw aluminium shows through realistically.



All the panels are now marked out with 1/32" tape and all removable hatches are simulated with the adhesive aluminium tape. The aluminium will need to be painted with a bit of primer before hitting it with a bit of colour.

The taped panel lines will be sprayed with about 4 coats of the same grey paint to build up a reasonable trench when the tape is removed.

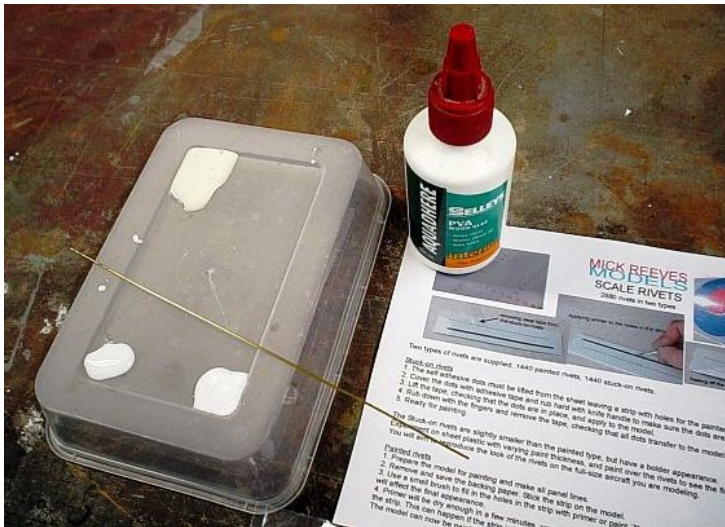


Panel layout tape is now removed, tailplane masking is removed, canopy tracks fitted using 1/8" plastic channel from [Evergreen](#).

Simulating Rivets: Next step is rivet line layout and applying thousands of rivets to wings and fuselage.

All the rivet lines that are curved or where I want to simulate rib stitching will be hand done using a 1mm brass tube dipped into [Selleys Aquadhere PVA](#) glue and applied to the surface. The [Aquadhere](#) dries in a nice clear 1.5mm diameter blob which after painting over will look the goods.

All the straight rivet lines will be applied using a [Mick Reeves](#) product.



Pretty basic riveting kit, a piece of **K & S Engineering 1mm** brass tube, a bit of cheap PVA glue, a steady hand and a lot of patience...

Mick Reeves Scale Rivet System:

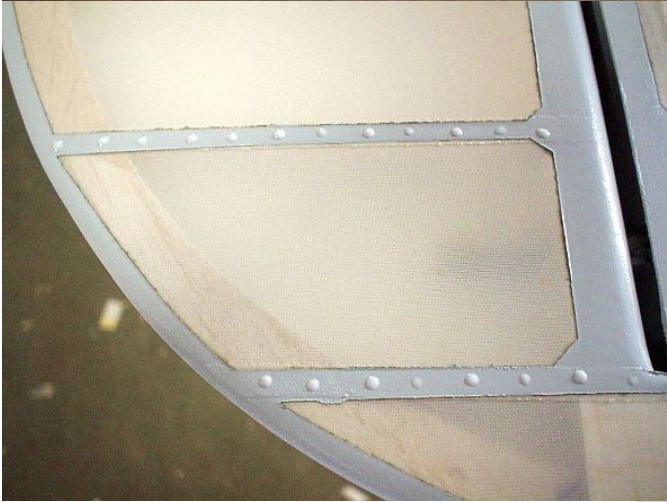
This is the first time I have used this system and I did so because the guy who designed the Hurricane must have had a son that sold rivets. The wings alone have many thousands of them. The thought of replicating them all by hand forced me to think that there had to be a better way

The kit is basically a thin adhesive vinyl tape with perforations every 4mm. It is cut into strips and household sticky tape is used as a transfer tape by applying over the line of the rivets, rubbed down hard and then removed, this sticks all the little centres of the perforations to the transfer tape which is then applied onto the pencilled rivet line on the plane. The transfer tape is then peeled off leaving a line of perfectly sized and spaced 'rivets'. That's the theory, in reality, it takes a bit of practice to achieve a good result but the consistency of size and spacing makes it worth the effort.



<http://www.mickreevesmodels.co.uk/>

The rivets are available in three sizes 1/4, 1/5 and 1/6 scale and cost GBP4 per pack of 1440 rivets. My tip here is to buy a few extra sheets than your calculated need.



PVA rib stitching simulated on tailplane.

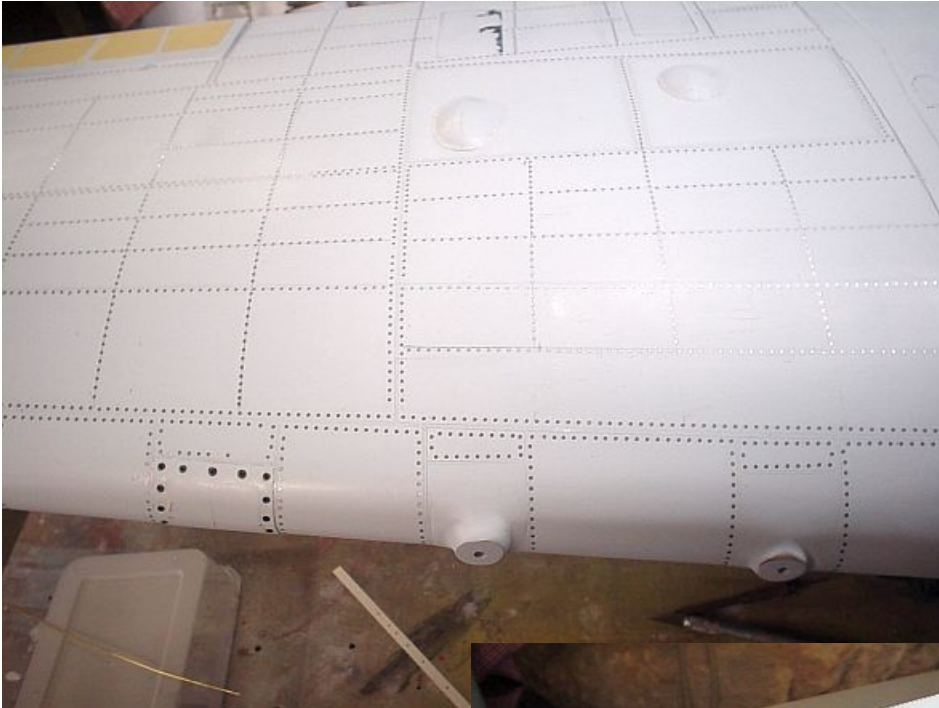


Full Size Port Wing

Wing Rivets: The Hurricane wing was assembled with thousands of rivets. My mind boggles about the time involved doing this during the extreme pressure of war and a pending invasion.

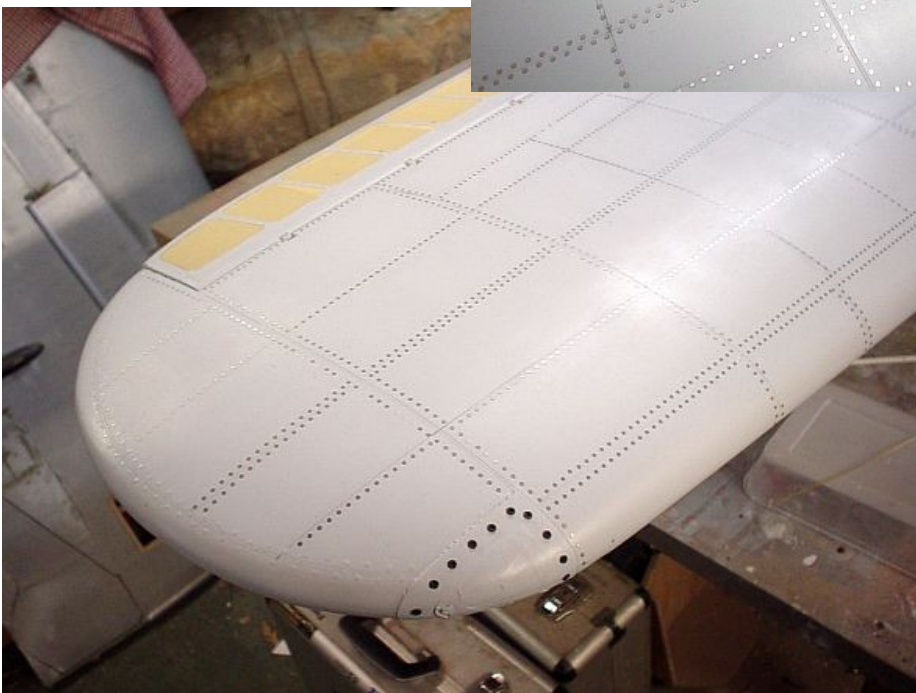
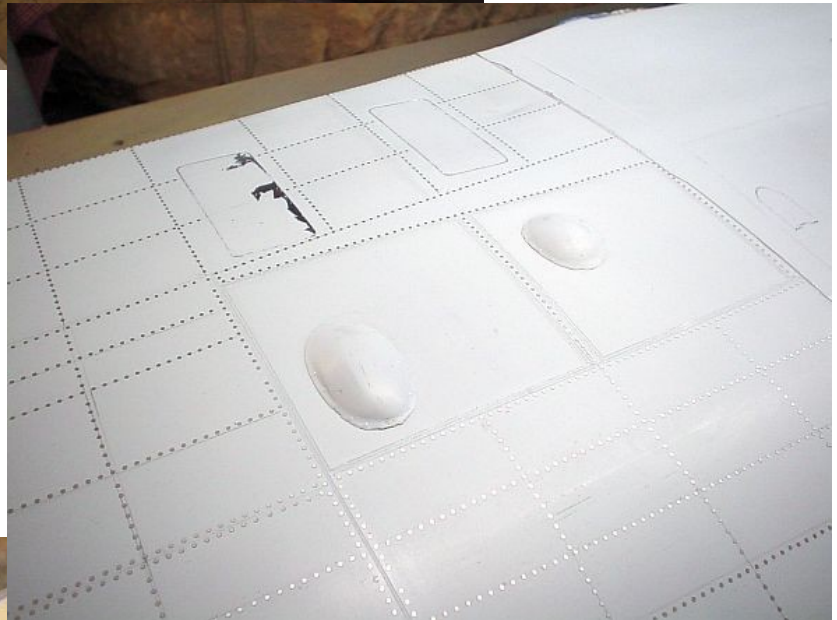
1/5th Model Starboard Wing





Rivets, thousands of them! In fact 7,200.

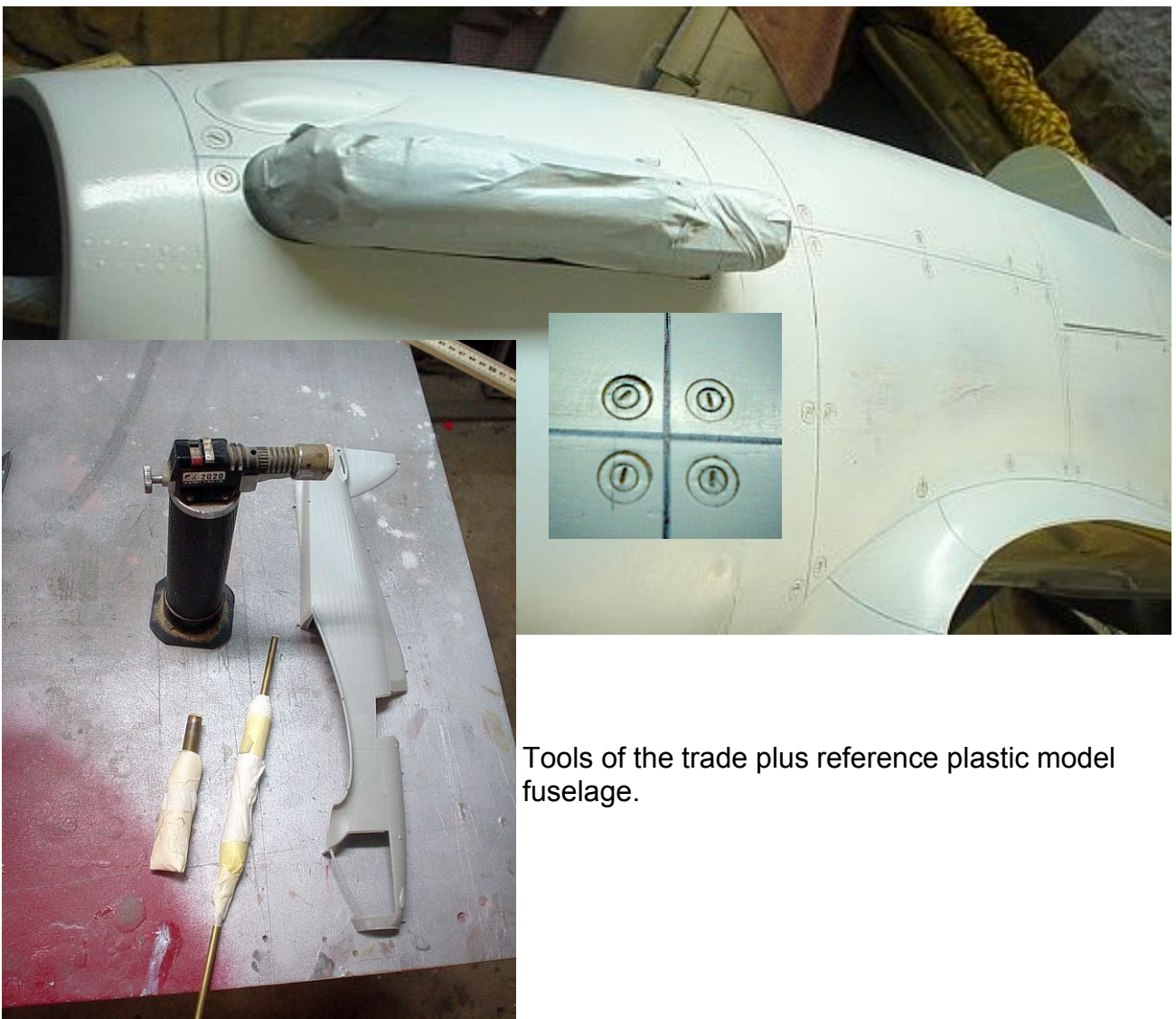
It took me five days to do the upper surface and as you can see from the photos I have gone for effect rather than scale fidelity. Cop out ? You bet.



Small 00 countersunk Phillips Screws from [Micro Fasteners](http://www.microfasteners.com/) <http://www.microfasteners.com/> complete the tip navigation light covers



Other Airframe Fasteners: The fuselage has relatively few rivets but as all the panels were removable, a half turn fastener, similar to the modern Dzus fastener, was used. I will try to replicate these fastener by heating and applying to the painted surface various sized, sharpened brass tubes and small screwdriver blades .

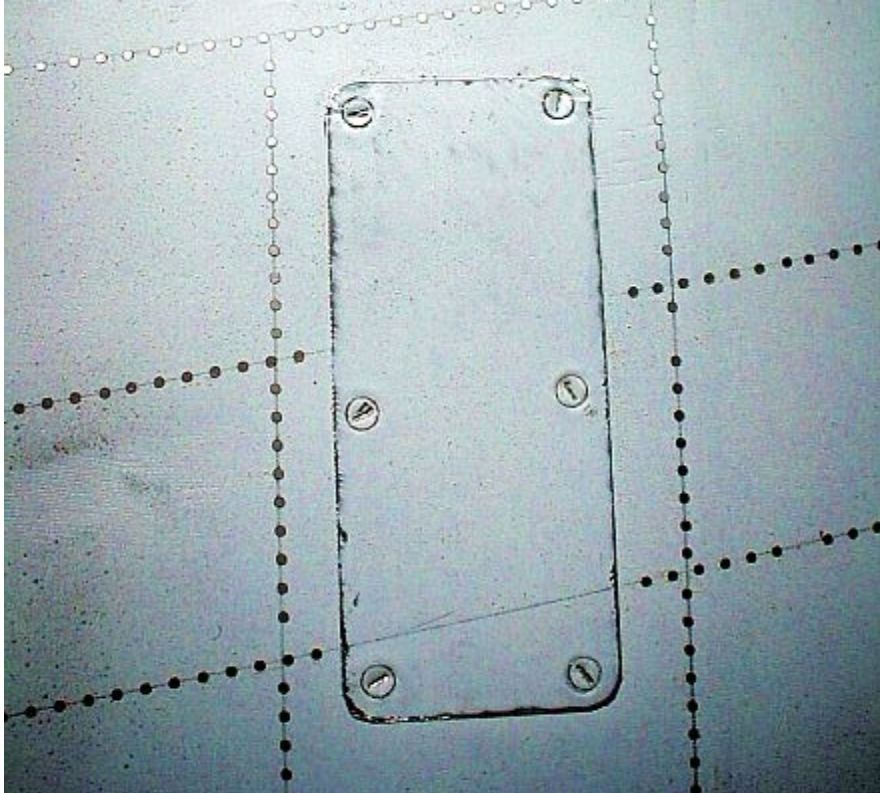


Tools of the trade plus reference plastic model fuselage.



All of the half turn fasteners were burnt into the fuselage and hatches and then lightly sanded, each fastener will then have four rivets of PVA glue applied to finish the airframe surface detail

Cannon hatches. Later on when weathering the finish I will lightly sand back the leading edges to simulate wear and tear. The aluminium then disclosed should look pretty real I hope.



Next instalment will cover fitting the undercarriage and UC doors then onto final painting and finish up with making and applying decals.

Cheers
Stan