

Building and Flying a Zirolì P40E Kittyhawk... Instalment 7

Glassing, Priming, Surface Preparation, Surface Detailing:



Glassing the Fuselage:

Glassing the fuselage is a pretty straightforward job. I am going to use 1.5—2oz woven cloth that I buy from [Fibreglass Australia](#) in Willoughby and [Zap Finishing Resin](#). This resin starts to go off in about 30 minutes of working time so the fuse has to be glassed in



stages. I have developed a new technique that works well for me and my secret weapon is a small absorbent throw away roller that you can buy from [Bunnings](#) for about three bucks. I brush on the resin to the area to be glassed, lay the glass cloth over it and roll it down with the roller. The

roller brings the resin through the cloth and distributes it evenly and also soaks up the surplus. Works better than my old Amex card squeegee method...





All finished.

Next job is mask the fuselage and the wings and then hit them with a heavy coat of primer.

I will sand most of the primer off and fill any imperfections with duco putty before achieving a finish that can take the start of the surface detail...



Surface Preparation:

The usual lay up of masking prior to primer coat.

Ditto with the wing...

One heavy coat of **AutoOne** acrylic primer is sprayed over all surfaces to be painted.

A lot of elbow grease will be applied and nearly all of this primer will be sanded off using



80 grit dry paper.

All of the glass overlaps and other dags and imperfections will

be removed with the primer until I have a fair surface.

This is followed up with wet sanding with 200 grit leaving a finish ready for the base undercoat.





Sanding took about 6 hours and six stubbies, the surface is looking OK. I had doubled up the glass cloth over the top of the fuselage and this has faired in nicely with a lot of the predicted elbow grease. At least now I shouldn't get any dents from the cradle when I invert the fuze to fit the wings.

I had broken the surface in a couple of spots. This was repaired with duco putty and the re-sanded with wet paper.



1st stage of surface prep is now complete. The fuselage, wings, stab, rudder, cowl, spinner and wheel hub covers have all been primed and sanded back ready for an under coat, this will be a light grey and will show any missed surface inconsistencies for further filling and sanding.

To be able to sand off the primer and rough glass in all the nooks and crannies I use various shaped foam blocks wrapped with 80 and then 140grit. The picture below is a selection I used on this plane.





All the photos above are after spraying with the light grey base coat. Ross Pay's P40 has a gloss finish which is going to be a bit of a challenge for me as I am a lousy painter. I do know enough that if I don't have an immaculate base surface I'm going to have a lousy top surface and a finish that will look terrible.

The base coat went on well and did what it is supposed to do by highlighting dry fibreglass weave and some pin holes, it would have been fine if the plane was going to have a matt finish but not good enough for gloss so more filling and sanding.

The photos below are of the wing and the fuselage after touching up the pin holes and the dry fibreglass cloth with duco putty and spray putty .

More bloody sanding now, starting with 200 grit wet and dry and finishing with 400 grit.





Surface Detailing:

After a final sanding the surface is now ready for some detail. This will consist of replicating overlapping panels, butt joint panels, rivets, screws, rib stitching, hatches etc.. Hatches will need some detail as to how they are fastened to the airframe, some hatches will be hinged with piano hinge and some will be attached with Dzus fasteners.

I refer to accurate three view drawings and scale plastic models for the correct type and placement of all of these details



Overlapping Panels: The most obvious overlapping panels are the fillets at the wing and tail. I do these by marking out the outline of the fillet with a soft pencil and then applying two layers of electrical tape to the outside of the line and another parallel line of masking about 12-15mm to the inside of the line. I fill between the two with duco putty and then remove the inner masking tape. When the putty is dry I wet and dry from the fillet to the tape until I have faired the putty into the fillet and exposed the edge of the electrical tape. Then remove the electrical tape to leave a lovely simulation of an overlapping panel two layers of electrical tape thick.



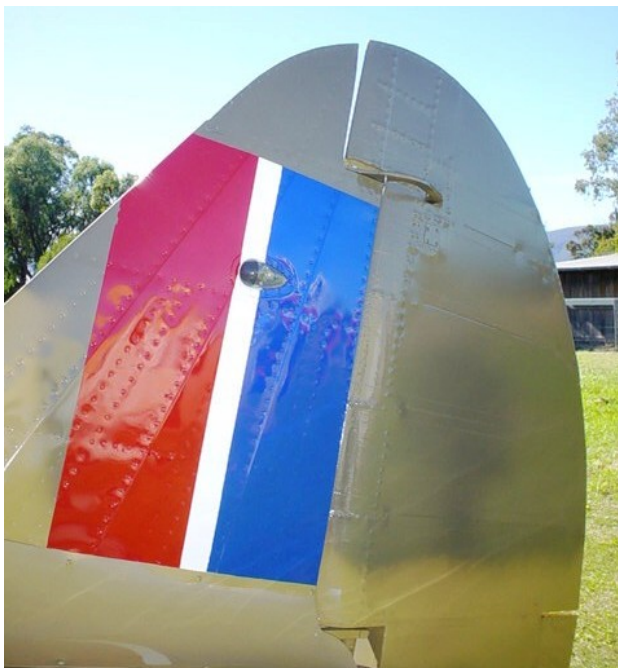
Above is the finished overlapping wing fillet simulation.

Butt Panels:



Butt panels are simulated by laying down lines of adhesive 1/32" tape. Filler putty is then sprayed over the tape until flush and then lightly sanded until the tape is exposed. When the tape is then removed it leaves a nice trench simulating two panels butt joined. I've found a new source for these tapes as they have been hard to get. Try [Amazon.com](https://www.amazon.com). Search for tape, single, crepe, black, 1/32" x 603" and you should win. It's only USD1.50 per roll against the USD6 per roll that I used to pay.

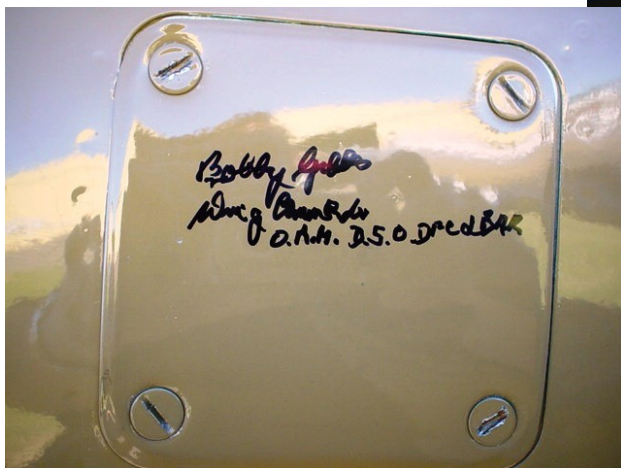
The photos below give you a rough idea of how the panel lines are set out.



Hatches and Access Panels:

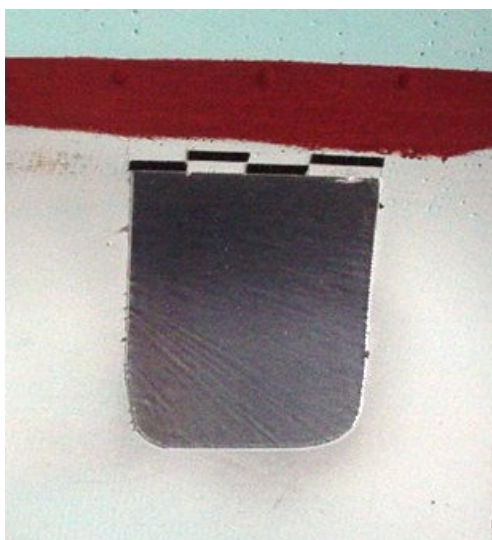


The Kittyhawk has a heap of access panels and hatches on the flying surfaces and on the fuselage.



The access panel on the left was signed by Bobby Gibbes, I'm going to have to copy it somehow in 1/5th scale.

I cut out adhesive aluminium tape to shape and burnish them into place to simulate these panels.

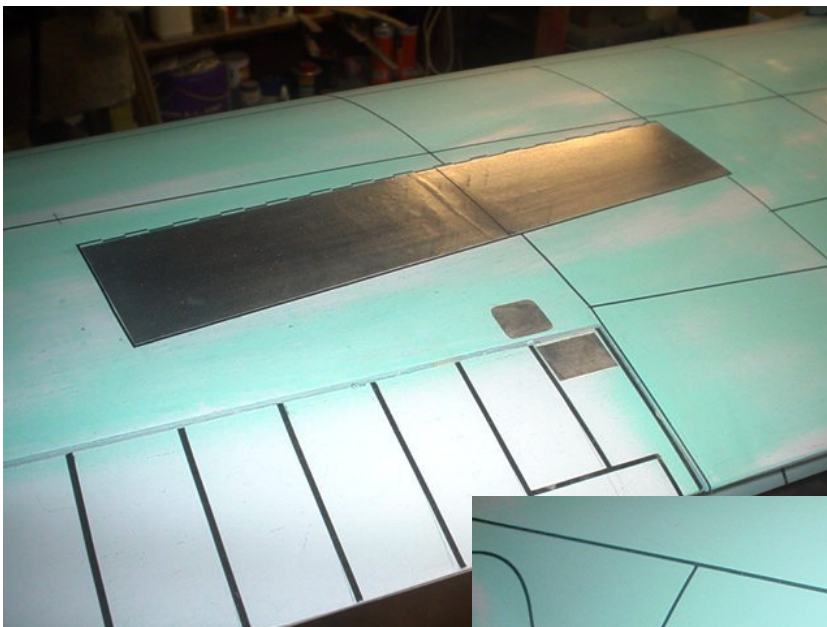


Some of the panels are screw-fastened and I have to add that detail after painting. Some of the hatches are hinged and that detail must be added before painting. The hinge simulation is done by applying two parallel lines of the 1/32" tape and then carefully cut through the two tapes evenly along their length. Every alternate piece of tape is removed to leave you with the piano hinge effect on the left. After painting it looks quite realistic



I've done the easy bit first and the fuselage is finished awaiting the spray on filler putty build up. I'll now have a go at the wings. I expect the wings will take a bit of time as they are covered in detail that if i don't replicate accurately the whole model just won't look right.

Wings:

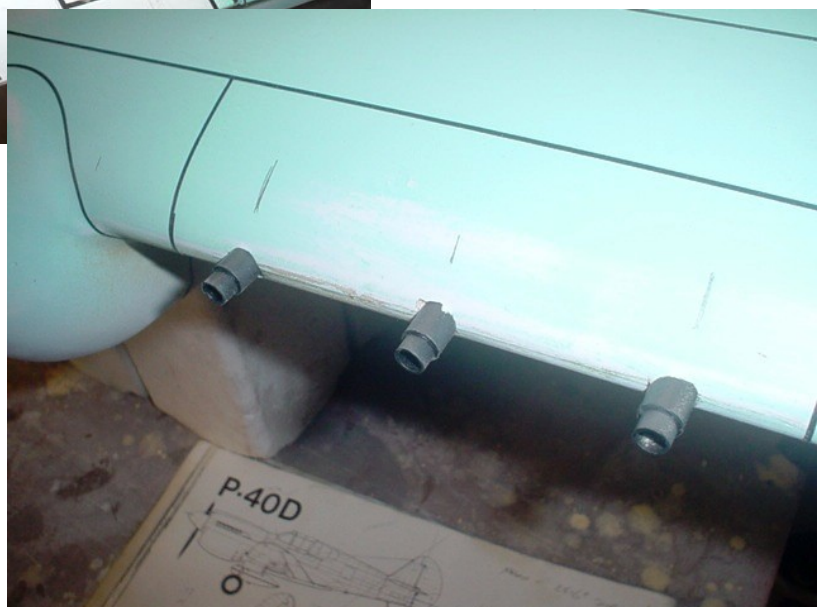


The following photos are of the surface detail on the wings. The main features on the top surface are the two large ammo trough covers and then panel lines and guns, then there are various covers to allow access for control adjustments etc..

The P40 gun barrels are easy

and are made from two diameters of **Evergreen** plastic tubing glued into the leading edge with **Pacer** Canopy glue.

The underside wing detail is mainly about the wheel well and u/c leg fairings, panel lines and the gun breech cover panels.





Gun breech cover panels, full size on the left

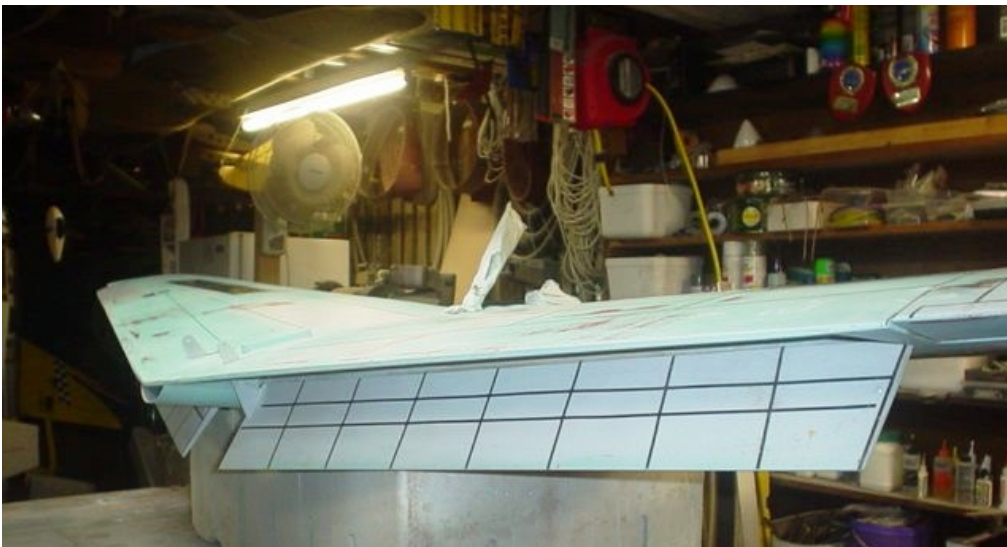
roughed out top right and then finished ready to paint and detail.

The breech cover panels were made up



with a profile of 3mm balsa sheet, the usual bog sanded to shape. 3/4oz fibre-glass cloth over. You can see from the photos that I have used an **AutoOne** filler primer to blend them into the surface of the wing.

Finished wing on left, ready for panel line filler primer build up.



Simulated flap ribbing with adhesive tape.



Filler primer and spray putty has been applied to all the panel lines marked out with the 1/32" tape. I will sand the filler back with 600 grit wet and dry until the tape shows and then after removing the tape I will end up with a nice trench simulating a butt join in panelling.

Well, that's about it...Next riveting instalment will be about simulating riveting which is pretty boring, installing cockpit and canopy detail which I enjoy, painting which I hate. Stick around if you can handle it.....

Cheers

Stan