

# XP-72 Build

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Paul Fleming and Jim Lake  
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It has been almost five years since we completed the Telemaster X project. We did a full build of the plane on RC Scale Builder:

[https://www.rcscalebuilder.com/forum/forum\\_posts.asp?TID=29339&KW=XP%2D72](https://www.rcscalebuilder.com/forum/forum_posts.asp?TID=29339&KW=XP%2D72)

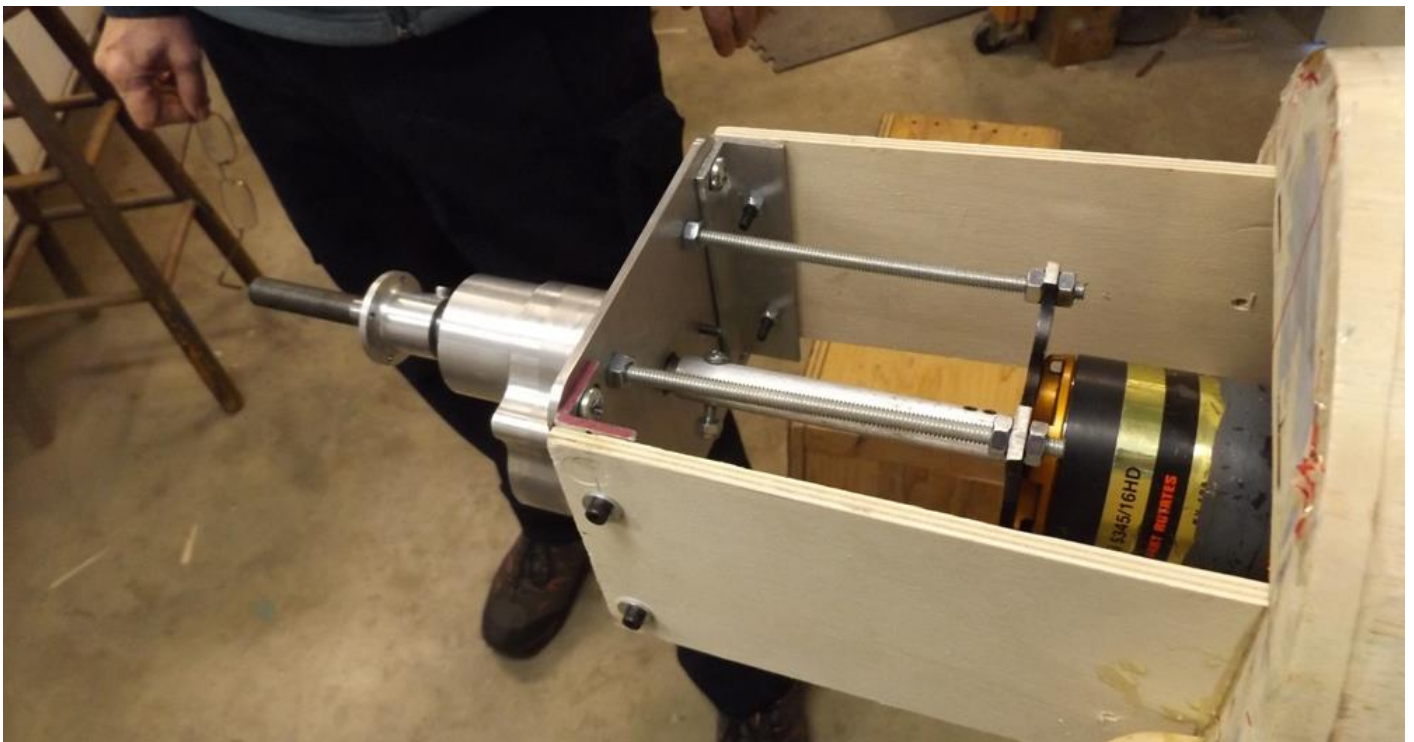
For some reason I failed to send a comprehensive write up of the project for Rob to include on our construction web page. I am going to blame it on my advanced years or if you prefer just being a dumbass. The write up on the Telemaster X page says the plane has been retired. Yes, but the gearbox is now flying at Warbird events around the state and will continue to do so.

Rather than rewrite what you can see on the link above I am going to discuss some of the more interesting points of this project and things it may lead to.

If you will remember, I had posted want adds for a used or slightly bent P-47D to be used as the basis of this project. I never found an acceptable candidate, so I ended up purchasing a new Top Flite almost ready to cover ARF. This turned out to be a real good choice. Everything forward of the wing and below would have to be reconfigured to match the XP-47. Fortunately, the Top Flite plane had a full fiberglass cowling and a removable belly pan.



We simply sawed off everything forward of the wing and built a new motor and gearbox mount.



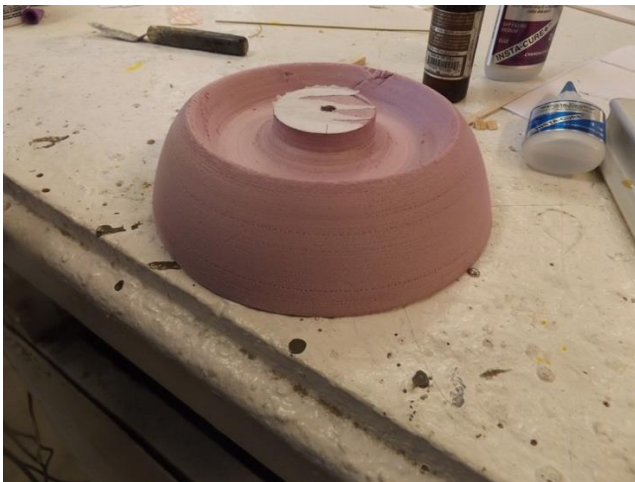
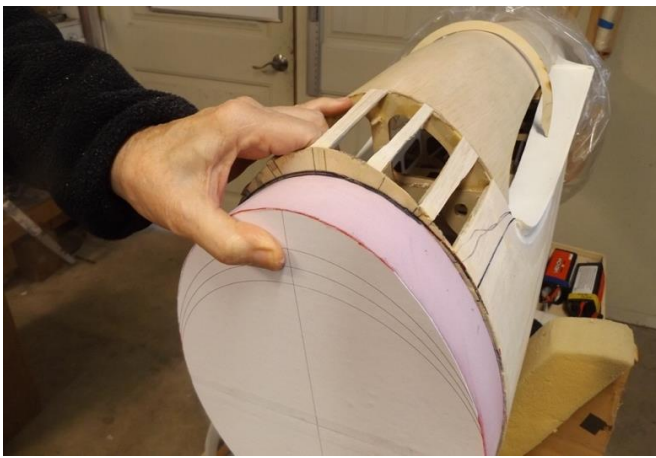
On our test plane the motor was just behind the firewall bolted to the gearbox. For weight and balance purposes we moved the motor six inches behind the gearbox.



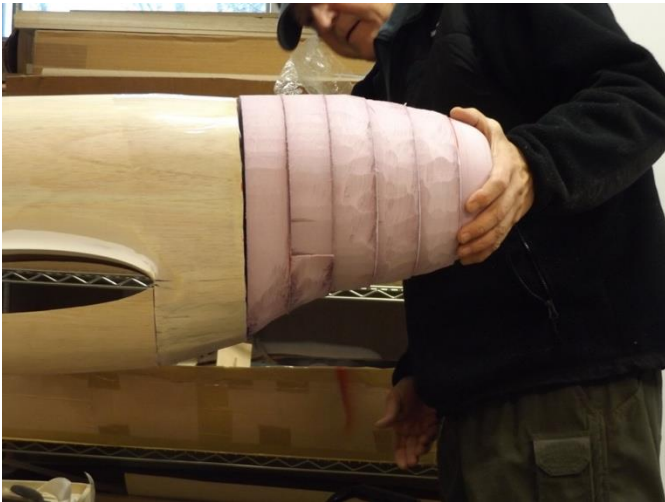
Republic extended the nose of their P-47 to compensate for the length of their gearbox and the larger motor. The R3350 that replaced the R2800 was about twice its length. This required a longer and slightly rounder cowling. We decided to use the lost foam casting pattern method. We scaled the cowling and plotted the cross section every two inches. We used adhesive spray to stick the printed plots to the foam. Next, we stacked them on a threaded rod through the center line.

We were able to use a lathe to form the first two inches of the nose. The rest of the plug was just too big to turn. After that it was hand sanding and hot wire trimming to get down to the correct shape.





It took about three days off and on to file sand and shape. We did encounter one problem. When you glue your paper templates to the foam don't glue within about 3/16 of an inch of the lines you will sand down too. The glue tends to harden the foam under the paper and rather than a smooth surface you get a hard edge that at times chipped out and had to be filled. It was a long and tedious process to get down to the point that we were ready to glass. At this point we made our second mistake. We decided to wax the plug before glassing. We use a soft car wax. We should have used a hard floor wax.



Next, we covered the fuselage with clear plastic stood it on its tail and got ready to glass it.

We used West System 105 Epoxy Resin with 205 Hardener. The glass cloth 7 oz cut unto three-inch-wide strips. We applied four layers of cloth with a final covering of  $\frac{3}{4}$  oz cloth to give a smooth surface.





After the glass dried, we applied automotive glazing resin and sanded.

We glassed the plug about two inches longer than necessary to insure we could cut it off in exactly the correct place.

