

XP-72 Build

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One of the interesting parts of this build was the selection of the propellers. Since our propellers were counterrotating we were quite limited on the availability of clockwise (left hand) turning props in the size and pitches we could use. We selected APC 22x10 two blade nylon propellers. We also used XOAR 20x10 wood propellers. We knew the APC would be more efficient but the three bladed were more scale.



We were fortunate to obtain a pair of custom made XOAR three blade props that were purchased as a reserve set for a plane that no longer exists. Now these props cost \$150 each.

We flew the planes with both three and two blade propellers and there is only one real difference between the two. That being the three blade props will produce more drag at idle.

In flight when a propeller has no power applied it produces flat plate drag equal to the surface area of the blades. This helps slow the plane. When counter rotating propellers are reduced to idle the whole prop arc area becomes flat plate drag. This has a dramatic effect on slowing the plane.

On my second flight I was about six feet off the ground just prior to touch down. I was a little fast, when I closed the throttle the plane stopped flying and dropped to the ground. I crushed the landing gear and broke both of the three blade props. I sent the landing gear into Robart for repair. I said replace everything that is bent. They wrote back and said the only thing that wasn't bent was the air in the cylinders.

This was totally pilot error on my part. We had learned from some 3D guys in Germany to expect the rapid loss of speed when the throttle is closed. Rapid is a bit of an understatement. It just stops flying. While flying a 3D plane this is a real bonus while on your "Down Line". On a 31 pound warbird, not so much.



The last picture of our beautiful three bladed props



Taking the walk of shame

