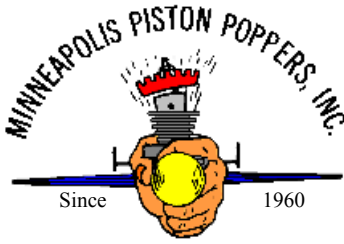


Prop



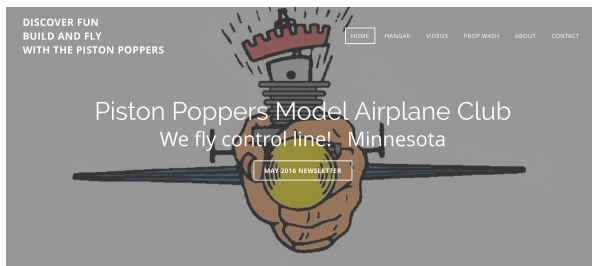
Wash

Prop Wash is a publication of the Piston Poppers Inc., an AMA U-control club

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Any articles for the newsletter are greatly appreciated and will be published as soon as possible.

September 2022



<http://www.pistonpoppers.com>



No Meeting Notes

My Pathfinder with Graphics now
Sean Emery



Model Airplane News Covers

I was always interested in aviation and planes ever since I can remember. I never knew any pilots and I was 16 before I ever got a plane ride. But before that, one of the things that kept my interest up was reading Model Airplane News in my Junior High school library. I loved the great art work on the covers, which fed my fantasies through the 60's. My greatest interest has always been the Golden Age of aviation.

The artist who painted all those beautiful covers on M.A.N., many other magazines and Aurora plastic model boxes was Joe Kotula. Joe made his debut in 1932 and painted covers for 40 years. Joe was born in Poland in 1910 and emigrated with his parents when he was 6 months old and lived in the U.S. until 1998. He earned his Private Pilots license in 1936 and illustrated Air Force Training manuals, sometimes delivering his work by air. He also did art for the Saturday Evening Post, Colliers, Newsweek and Popular Science.

So here are a few of his works for you to enjoy.

Jim Gevay





Pathfinder Profile Build

I am getting the itch to build again. So one of the first things that I do with a kit is to inspect the wood used for the flaps and elevators. I have found wood for a flap that I would have to register as a dangerous weapon with the police department, if used. It was so heavy and hard, it was difficult to believe it came from a softwood tree. On this kit one of the flaps was so weak that it was easily broken and it broke like foam not wood. Checked my stash and found some nice A-grain for a replacement. I ended up with two flaps that had good grain and were not too heavy. But of course both pieces of wood had a bend, but not bad. The purpose of this article is to explain the method I use to straighten out wood like that. I do not take credit for this method, as I read this years ago in Stunt News. This method requires that the wood must be firm enough to resist compression. The tool that is used is my kitchen formica countertop edge. A firm, smooth and well rounded edge is required. This method bends the wood opposite the curve in the wood against the formica round edge. I first mark the wood so that I know how the wood was curved at the beginning. Then grab hold of the wood on either side of the bend and press the wood against the curve of the countertop. At the same time move the wood up and down the length of the flajp. How far you move it, you will learn by doing. The bigger the bend the more you have to move it. With a small bend, little movement is needed, but



more force is required. This has to be done in small steps or it is easy to break the wood. It took over six weeks to remove the curve in my two flaps. Going slow has two benefits: less likely to break the wood and the wood will remember the new setting better. A side benefit is that you will learn just how much the wood can be bent without breaking (most of the time) and how much movement is needed. But of course there may be casualties. Most of the time I just glue it together and continue with the bending. This time there were two pieces of 1/8" 4" x 22" Lite Ply that had a large bow in them. I had to modify my technique, because the Lite Ply is so flexible. I had to work on small sections. Got the one piece straight enough and the other piece had a small bend about 1/3 of the way from the end. Well that attempt produced a crack, with some glue this piece will be usable. Hope this helps you.

John Christensen



A little bit of overkill here. I added an aluminum angle iron to the top. To ensure that both sides are as straight as they can be. Maybe the wood will learn to stay that way when I remove the clamps.



Balsa Density

The fellow on stunt hangar makes videos on construction techniques. On his video about building a full bodied fuselage, he said he constructs his fuselages with light weight balsa between 3 pounds and absolutely no more than 7 pounds.

"Pound" weight of balsa is a measure of density. In imperial units it is measured in pounds/cubic feet (just referred to as pounds). You can use a spreadsheet easy enough, or a calculator, but this site has a handy tool to do it for you. When entering thickness use a decimal number (e.g. $1/8" = 0.125"$).

<http://pldaniels.com/flying/balsa/howtos/calculate-balsa-density>.

The calculator page is part of this interesting site. It has a bunch of information applicable to working with balsa and building airplanes.

<http://pldaniels.com/flying/balsa/index.html>

Using the calculator on the website and a sheet of balsa measuring

48"x4"x1/8":

0.5 oz = 2.2 pounds

1.0 oz = 4.4 pounds

1.5 oz = 6.7 pounds

2.0 oz = 9.0 pounds

If you use 3 sheets of 4.4 pound balsa instead of 9.0 pound balsa, you save

yourself 3 ounces during construction. That may be 5% of the weight of the airplane. The fuselage will be more fragile, but will fly better.

Besides, if you hit the ground hard enough, and believe you me that I have, even 9.0 pound balsa won't save the airplane. Something other weak spot will break. Maybe the wing or the tail will shear off. For example, on two occasions the carbon reinforced fuselage of my Brodak profile ME-109 stayed intact while an entire wing panel sheared off. Anyway, they fly better when they are light and that may keep me out of trouble.



MEETING NOTICE: September 29

Tom Sontag

To use this calculator, just type in the values for your balsa sheet and it will automatically calculate the density for you

Metric	Imperial
Weight (g) <input type="text" value="42.52"/>	Weight (oz) <input type="text" value="1.5"/>
Length (mm) <input type="text" value="1219.2"/>	Length (in) <input type="text" value="48"/>
Width (mm) <input type="text" value="101.6"/>	Width (in) <input type="text" value="4"/>
Thickness (mm) <input type="text" value="3.18"/>	Thickness (in) <input type="text" value=".125"/>
Density (kg/m ³) <input type="text" value="107.94"/>	Density (lb/ft ³) <input type="text" value="6.74"/>

Comments about this density:

