

TRIMMING A MODEL AIRPLANE

By Chris Boehm

*Published in the July/August 2013 Issue of the Cloudbusters
Newsletter, Chris Boehm, Editor*

There have been numerous articles published about trimming model airplanes and most of them contain a statement about making sure the flying surfaces are straight and true. Many of them put it a little more, bluntly. Get the warps out of your plane. I remember when I first started trying to fly built up stick and tissue models, this time. I read a book called Peanut Power by Bill Hannan. In the book he pointed out that most beginners that have a model that will not fly, if they ask an old timer about it, they will be told about balancing the model and getting rid of the warps. This is where many of us have problems — seeing the warps.

I have found over the years that in almost all aspects of life, if you want to understand the little problems, or to see the small things, exaggerate them. Blow them up as big as you can, take it to an extreme, then you can see how the little things can make all of the difference. Let us take a 16-inch wing span model. If it has a warp in the wing that measures 1/16", blow that up to full scale. Let us say that your model is 1/24 scale. That means your wing would be warped by a full 1 1/2 inches. If you have a pilot you might want to trust him to compensate for that warp. We DO NOT have pilots. Remember we fly free flight. That 1/16 inch warp could mean a dreaded spiral into the ground.

The question arises as to how can you see a little tiny 1/16 inch warp. Well, exaggerate it. Get you some straight, I repeat, straight, light weight strips of wood. You can use balsa, bass, or as I have in the pictures here, bamboo skewers. (Ed. Note: I use 1/8" aluminum tubing) Strap them to the bottom of your wing with small rubber bands. Put on as many as you may need, probably at least four.

I thought that I had a warp in the wing of this model, it would spiral to the right as the power went down. It turns out, the wing was not warped, but look at that skewer on the fin. I had a lot of right rudder, that I did not know I had. Looking from the side I could see that I had good washout, and EQUAL. After straightening the rudder, I got rid of that dreaded spiral to the right.

Do not forget to check the stab. A warped stab, can give you all kinds of headaches, especially if it amounts to differential stab. That is where one side of the stab is up or down in relation to the other side.

If your wing, stab, or fin is not symmetrical, or flat bottomed, you can rubber band some little brackets to the skewers to help get your warps out. Go ahead, exaggerate your warps for easy spotting and trimming. Just do not exaggerate your stories or your flight times. Well—maybe your stories.