Molding Props Made Easy
by George White

After reading everything I could find concerning how to mold props, I settled on the formula provided in Bill McCombs' book *Making Scale Model Airplanes Fly*. Incidentally, whether you build scale models or whether even the thought of a scale model causes your eyes to glaze over, that book is a resource every model builder should own — it goes far beyond scale models.

Using the formula McCombs provides on page 6.3 of the book, I made several wedges of varying pitch angles plus a block to hold a prop wire. To each wedge I epoxied Forcefield Magnets (http://www.wondermagnets.com/) (described in the March 2004 issue of this exciting rag) and used Easy Built Models' metal building board (http://www.easybuiltmodels.com/) (a bargain at about $20) as the work surface.

Well, I soon learned there is a more accurate and simpler way to do the job and it doesn't involve trigonometry. George Brehoff who owns Volare Products solved this problem ten years ago. He sells a set of instructions he calls the Volare Prop Forming Pack. For his method, you only need the block to hold the prop wire and one 45° wedge and/or one 60° wedge. You can make
these wedges using a grade school kid's triangle.  
To get one of these packs, go to:  
http://www.flyingacesclub.net/volare/modules.php?name=CCart  
and scroll down to publications and software. When that screen comes up, scroll down and select either the hard copy or the digital copy of the Prop Forming Data Pack. If your computer will open pdf files, the pack is only $2.50, otherwise, the hard copy is $5. If you are computer handicapped, write George at 7686 B. Drive South, Battle Creek, MI 49014-8582

A couple of words concerning the Data Pack. There are several points which are not well explained in the instructions. On the page entitled 60 & 45 degree Pitch Location Chart, the numbers shown in the 60° and 45° columns actually represent the number of inches from the center of the hub to which the wedge is to be located. The diameter of the prop is not relevant to this location. Another unclear point concerns the 3-bladed prop setup. The marks on the lines radiating from the center represent inches from the hub center to where the appropriate wedge should be place. I found the instructions difficult to follow, so I’ve rewritten them so that a simple guy like me can understand them. Send me an email at White76@cox.net and I’ll be happy to give you my simplified version. The Volare method indeed makes a very accurate prop with the exact pitch and twist you need, and is well worth the money.

Whether you use the Volare method or do the extra work to use McCombs method, I recommend using the magnets and the metal building board as being the best way to hold the jigs in place while gluing.