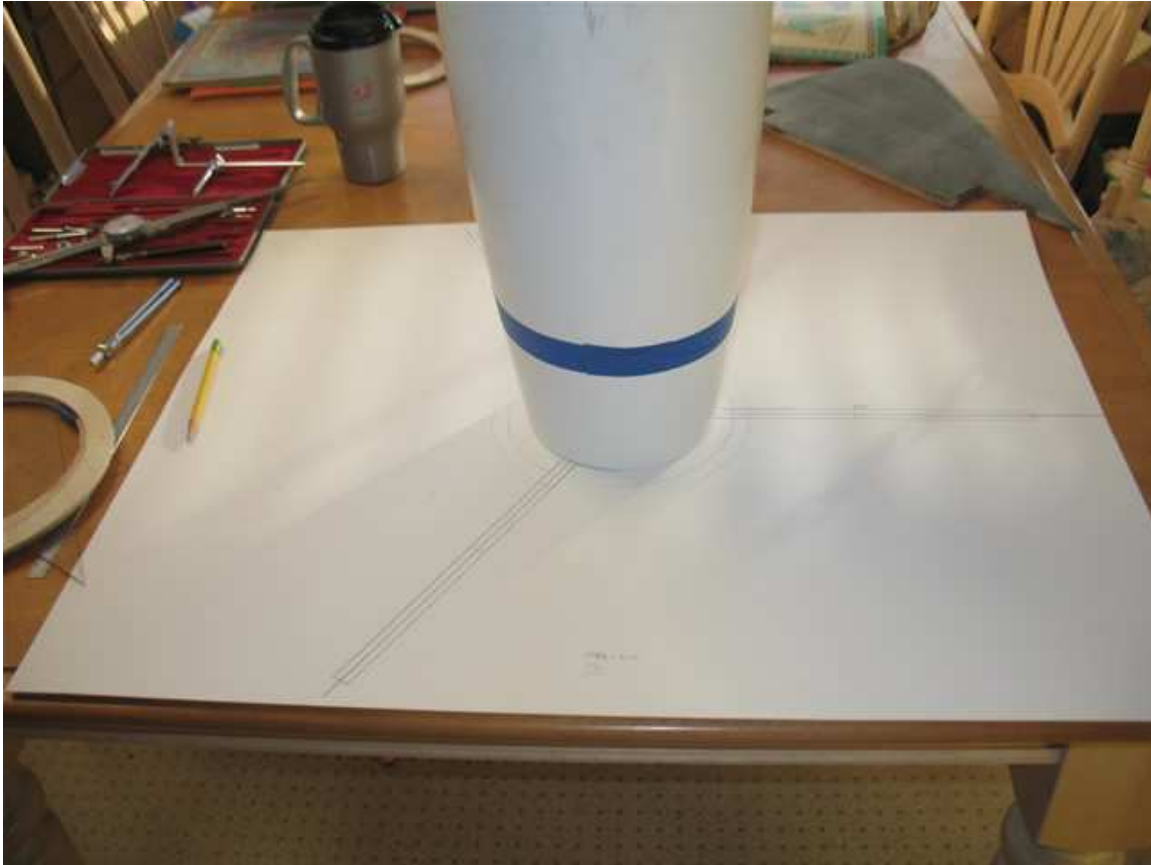


## Fin Alignment Jig and Fin Slots

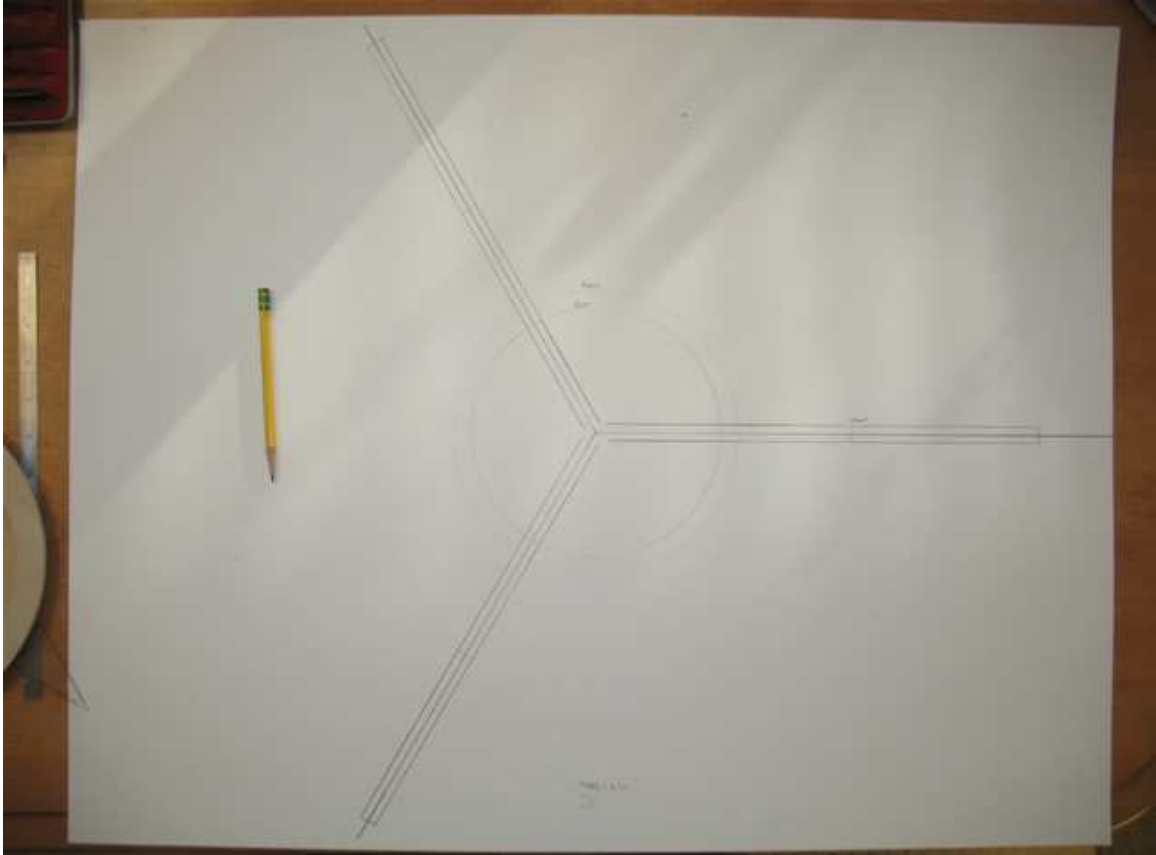
The fins are mounted in the boat-tail before the boat tail is attached to the lower airframe. After mounting the entire boat tail fin assembly can be reinforced. After reinforcement is applied then the airframe is attached.

To assure proper alignment several pieces of plywood are used to make an alignment jig. These are slotted to assure the fins are straight. Holes are cut in the jig for the boat tail to slip into. The holes also assure the boat tail is kept exactly round.

On to the pictorial...



First on a large piece of pattern paper the slots and boat tail cutouts are drawn. There are two sets of plywood, but just one pattern is used to make both pieces. This assures the slots are exactly aligned.



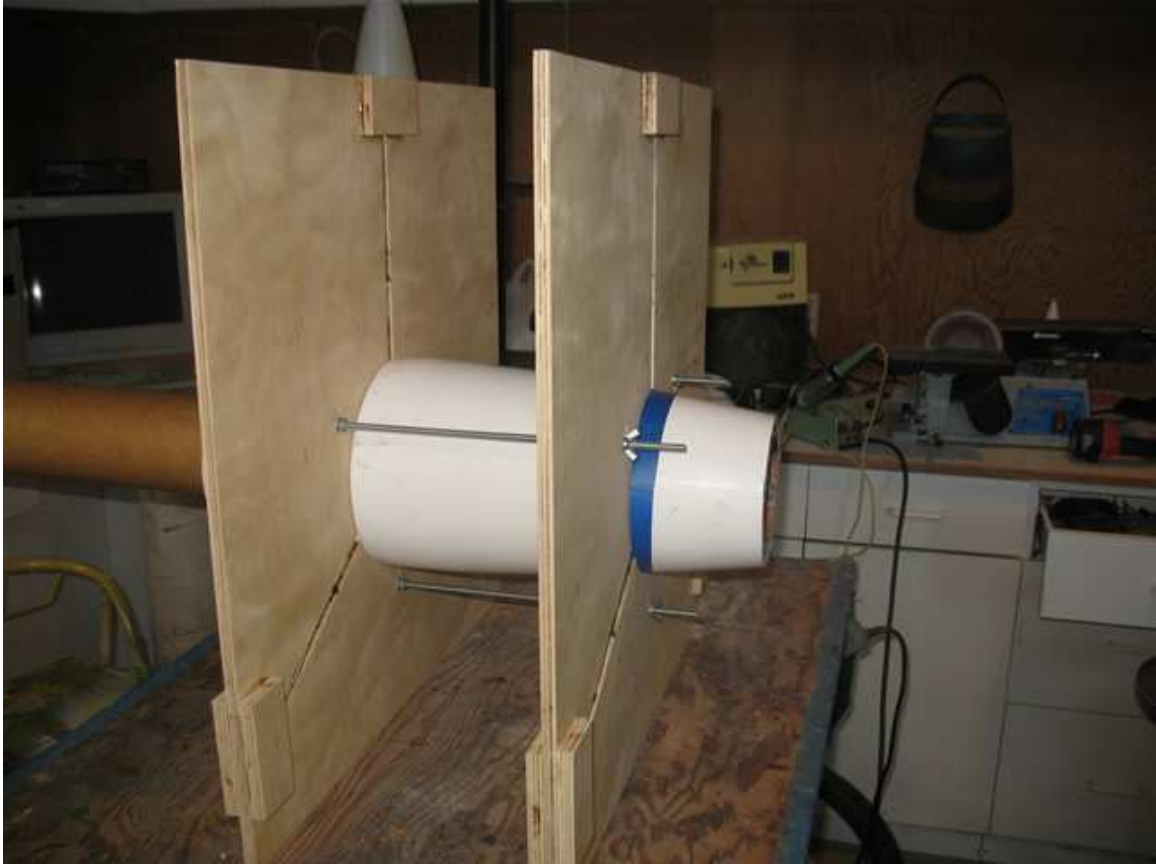
Here is the completed pattern. Note there are two sets of concentric circles. One will set the aft boat tail cutout, and the other the front cutout.



The pattern is transferred to the plywood. Both pieces of plywood are clamped together to assure the slots are precisely aligned. A circular saw is used to cut the slots.



After cutting the pieces are separated. Since the slots approach the edges an extra piece of ply is glued to the tips to stiffen these up.



Next the center holes are cut and threaded rod used so they can be joined. Here are the jigs mounted on the boat tail.



Another view. The center holes assure the boat tail is exactly round then the fins are installed. The forward ply rests against the boat tail shoulder so the entire assembly can be tightened. The boat tail on it's own is not exactly round.

### **Cutting the Fin Slots**

The fin alignment jigs are used to set the position of the fin slots. Again this assures precise alignment of the slot to the jig.



Pieces are ply wood are used to insert into the slots so the slot positions can be exactly marked.



Here is another view. The wood extends up the airframe (not yet attached) and is used to make sure the fins are lined up with the center line of the airframe.





The slots are them cut. Sorry I don't have pics of this ☹

Next up – attaching the fins...