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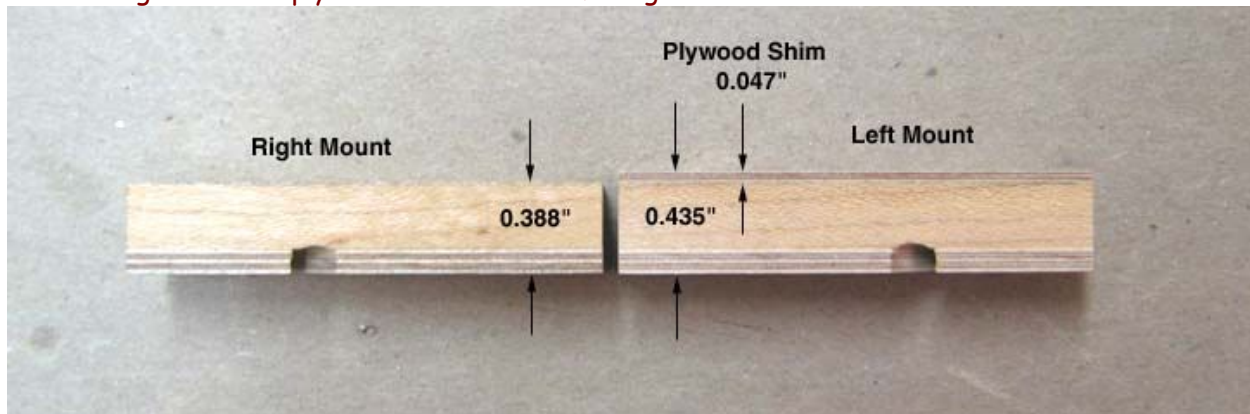
Date: 3/28/2009 8:23:14 PM

Subject: 64b Sailplane Statrting New Cowl Frame Construction

Comet Sailplane Project

Yesterday I dismantled the existing cowl frame and with much care, I was able to salvage both the forward and rear cowl bulkheads. I am already well on my way to starting construction on the new cowl frame as you will see.

Several approaches were considered for measuring changes in shimming the engine thrust line and determining when alignment with the center line of the fuselage was achieved. My friend Jerry Burk came over in the afternoon and after several failed attempts, we came up with a crude, but adequate method. This resulted in adding an 0.047" plywood shim to the left engine mount as shown below.



Again the radial alignment of the cowl's front bulkhead with the firewall was accomplished as shown below. This picture also shows how the cowl's front bulkhead was salvaged by regluing the "plug" with the plywood on it back into the bulkhead. The bulkhead is once again jugged in place and aligned to the cowl's rear bulkhead on the fuselage's firewall. Notice the two straight reference strips of 1/4" square spruce projecting forward and held tightly to either side of the fuselage with a series of rubber bands around the fuselage.



These two 1/4" square spruce strips are aligned and projected forward to achieve a "proof measurement" of engine's thrust line alignment with the center line of the fuselage as shown below. While this method is somewhat crude in that it relies on the sides of the fuselage as having the same curvature, it is adequate for the purpose of insuring symmetry when the cowl frame is built.



I stopped working this evening after finishing up the two primary 3/16" x 1/4" spruce supports that secure the cowl frame to the fuselage as shown below. After church tomorrow, I will add in all of the rest of cowl frame members to complete the cowl frame.....Tandy

