

Dave Harding

From: Tandy C. Walker [tandyw@flash.net]

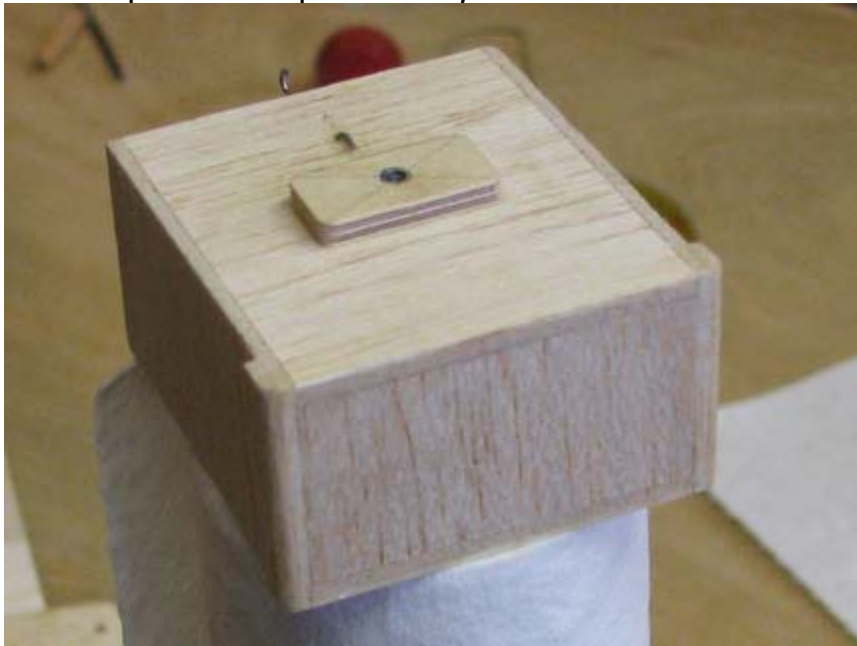
Sent: Saturday, February 27, 2010 4:42 PM

To: Undisclosed-Recipient: ;@smtp102.sbc.mail.mud.yahoo.com

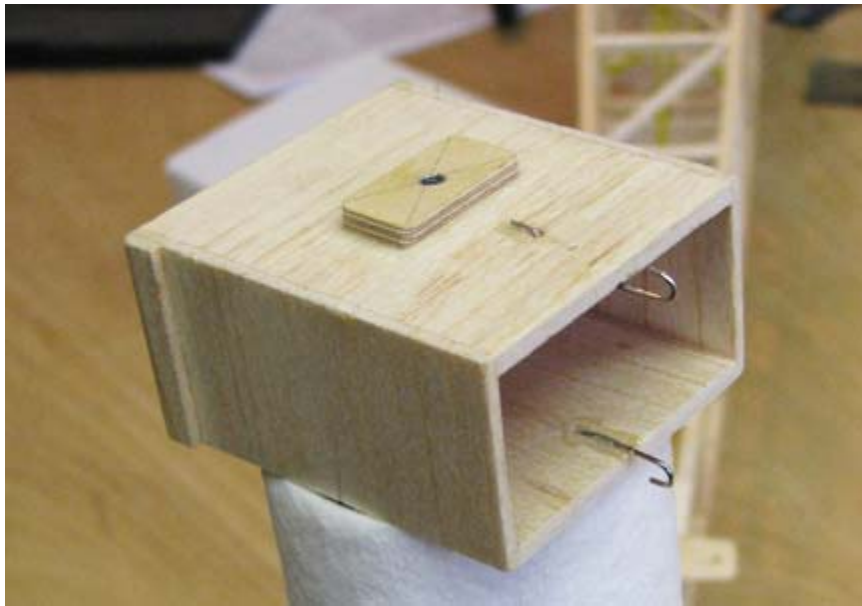
Subject: 72 Speed 400 Cloudster - Revised Battery Box, Suspension Insert, and Tail Wheel

Speed 400 Cloudster Project

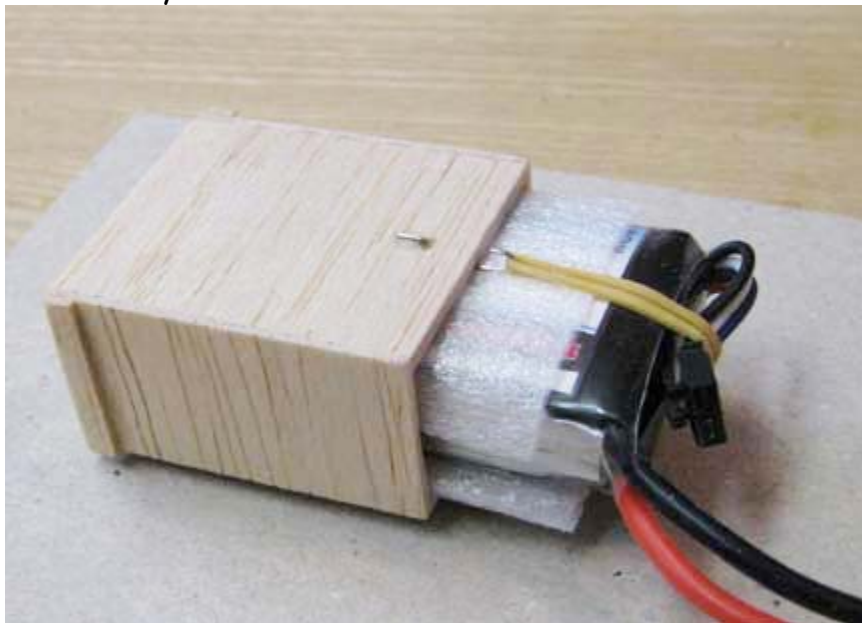
My cold is still with me, but I am beginning to feel a some better so I decided to do a little work on the Cloudster. I may need the ability to shift the large Li-Po battery back slightly to trim the balance point. To do this, first a vertical grain 1/16" balsa back was put in the open battery box as shown below.



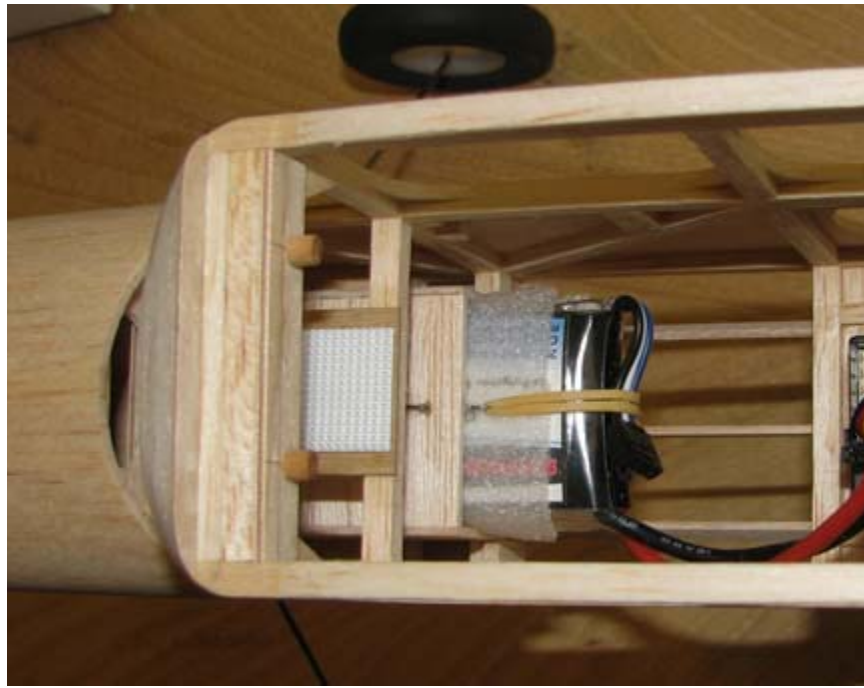
Next, two hooks were bent up out of extra long straight pins to shape and CA'd to the battery box's top and bottom as shown below. These hooks have a half-loop on one end for a rubber band to hook into and Z-Bend on the other to hook through the balsa as can be seen below.



This allows the battery to be secured in its box with a single No. 10 rubber band as shown below. Now the battery can be moved aft in the box by placing a balsa filler or spacer in the box before the battery is secured.



In the picture below, you can see the battery and box installed in the bottom of the fuselage.

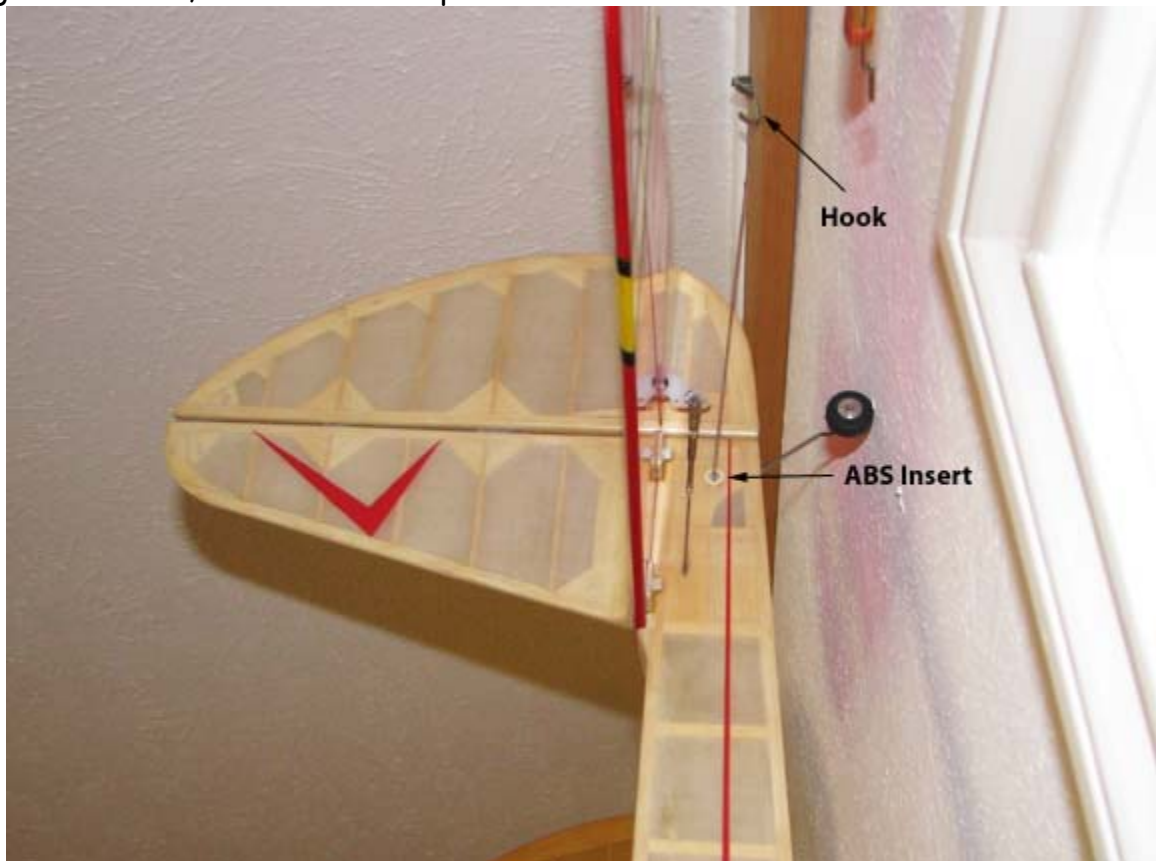


I hang the fuselages of all of my models on the wall of the model room as shown below. Notice the Class B Airborn fuselage on the extreme right.



In this close up, you can see how the Airborn is hung on the wall. During construction, I insert a piece of white ABS plastic tubing through the fuselage's structure at the rear

and sand it down flush with the fuselage's sides before covering. This permits the model to be hung on the wall with loop of waxed cord that runs from the hook on the wall, down through the insert, and then back up to hook as shown below.

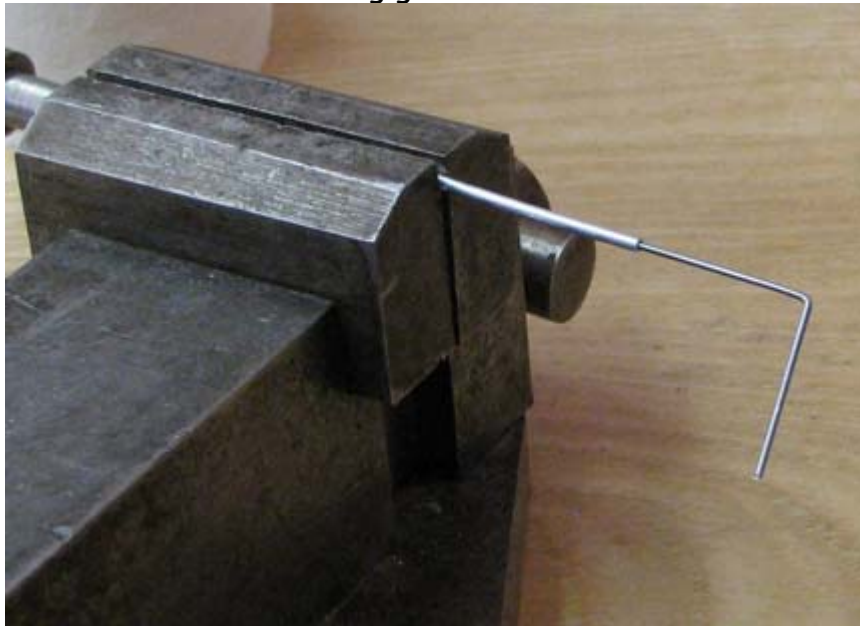


As you can see in the picture below, an ABS plastic insert has been installed through the two large gussets between the lower longeron and tail post. This will permit the Cloudster fuselage to be hung on the wall in a similar manner.

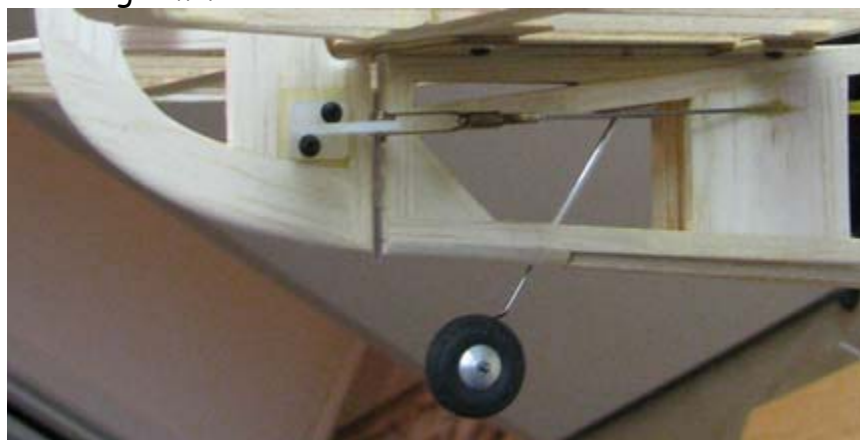


The wire tail skid inserted in the aluminum tube in the picture above was made out 0.035" piano wire, but I could never locate any more 0.035" piano wire to make a landing gear

for the tail wheel. Since 0.032" piano wire was loose inside the aluminum tube, particularly in torsion, I conducted a test using 0.032" piano wire and a separate length of aluminum tubing. A slight zig-zag was bent in the .032" wire and the wire inserted into the aluminum tube. The wire fit pretty tightly, but could be rotated very easily. Then I placed a drop of thin CA on the wire and it instantly wicked down in between the wire and the tube. I rotated the wire around several times and then let wire/tube combination set for about an hour. The tube was then placed in the table vise shown below and I proceeded to twist the wire. It was rock solid! In fact, I twisted the aluminum tube off in the vise without the wire ever rotating relative to the tube. This proves that the 0.032" could be used to make the landing gear for the tail wheel.



A tail wheel landing gear was bent up out of 0.032" piano wire for an aluminum hub 3/4" tail wheel. Again a slight zig-zag was put into the portion of the wire that slides up into the aluminum tube. A trial fit of the tail wheel is shown below, but the wire will not be CA'd in place until after the fuselage is covered. By the way, the weight of the tail wheel assembly is less than 2 grams.



Hopefully tomorrow I will feel good enough to finally start on our income taxes.....Tandy