

David Harding

From: Tandy C. Walker [tandyw@flash.net]
Sent: Sunday, February 07, 2010 5:15 PM
To: Undisclosed-Recipient: ;@smtp107.sbc.mail.mud.yahoo.com
Subject: 56 Speed 400 Cloudster - Making the Battery Box and ESC mount

Speed 400 Cloudster Project

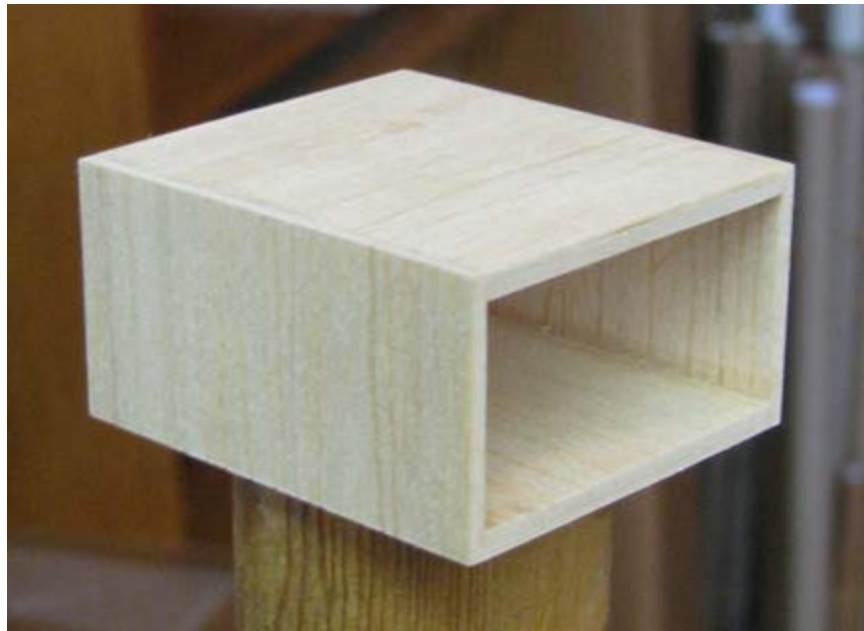
To obtain a light stiff battery box, the top and bottom of the box was made by laminating 1/32" sheet balsa with 1/16" sheet balsa. Since these were bonded with aliphatic glue, they had to be clamped down tightly while the glue dried as shown below.



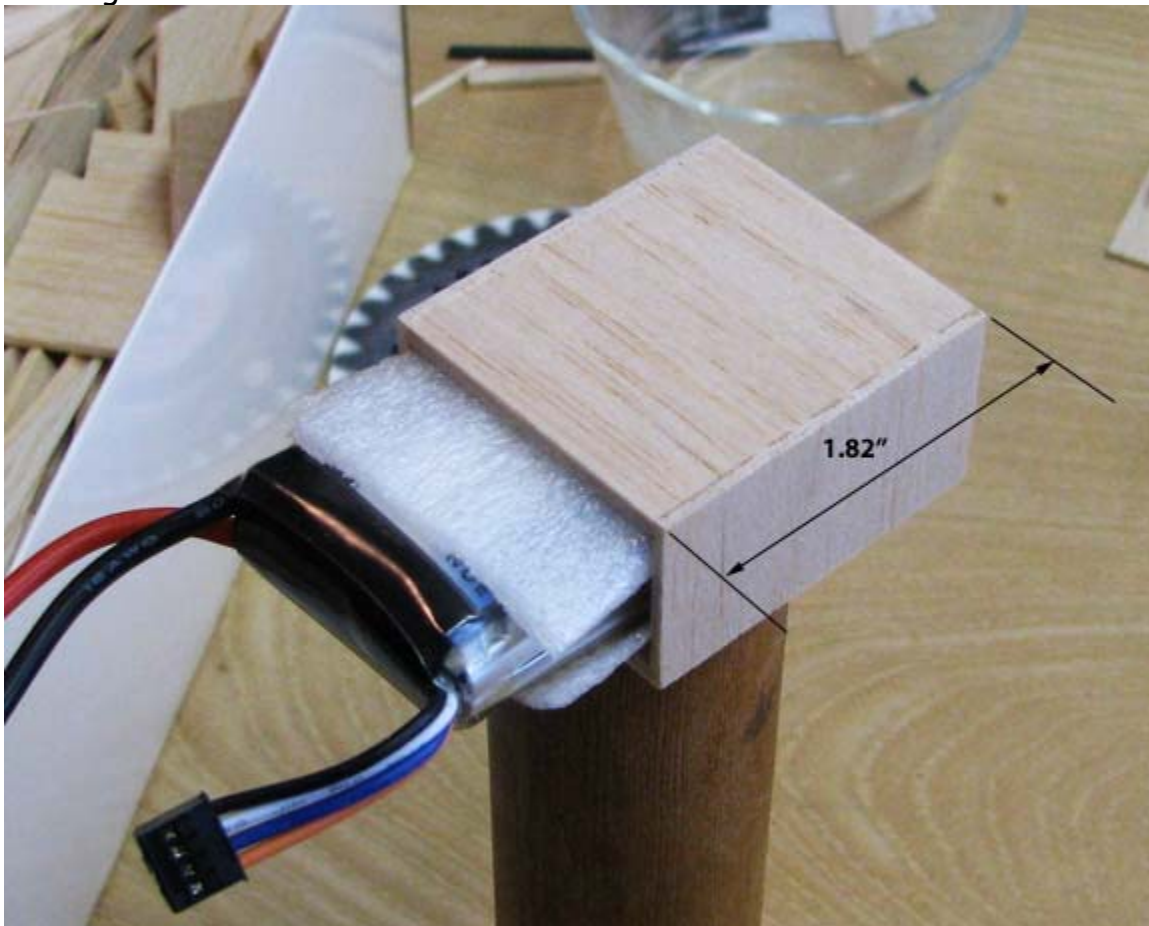
Here you can see the edges of the box's laminated top and bottom.



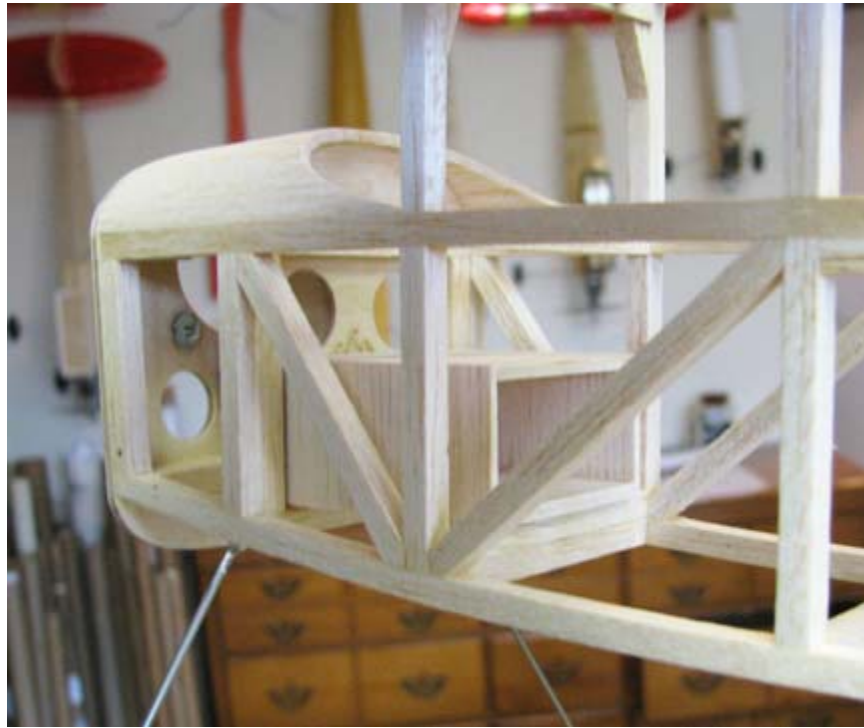
This shows the battery box assembled with 1/16" balsa vertical grain sides.



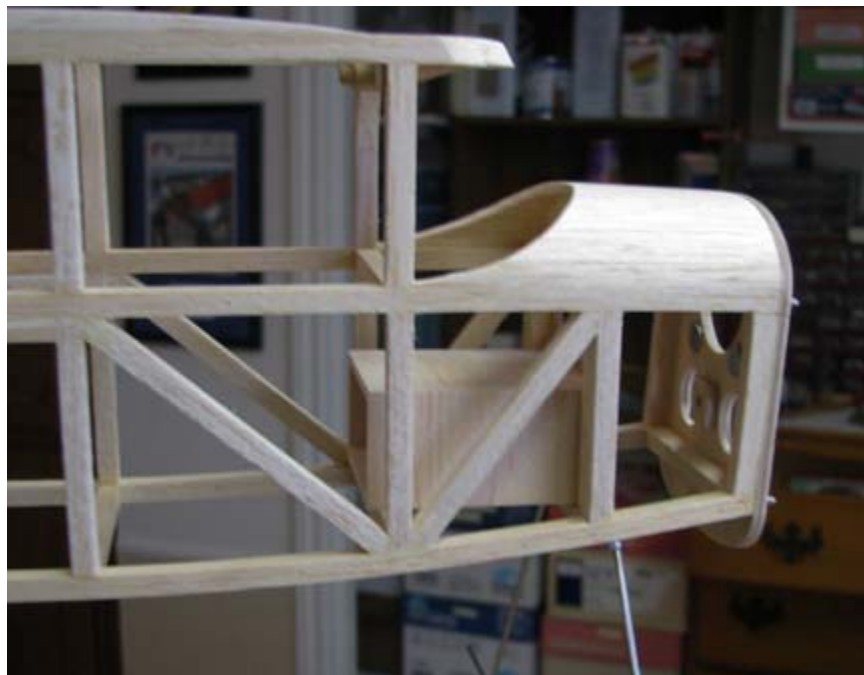
This picture shows the Li-Po battery slipped the battery into the box with foam to snug it up. The length of the box is 1.82" as shown.



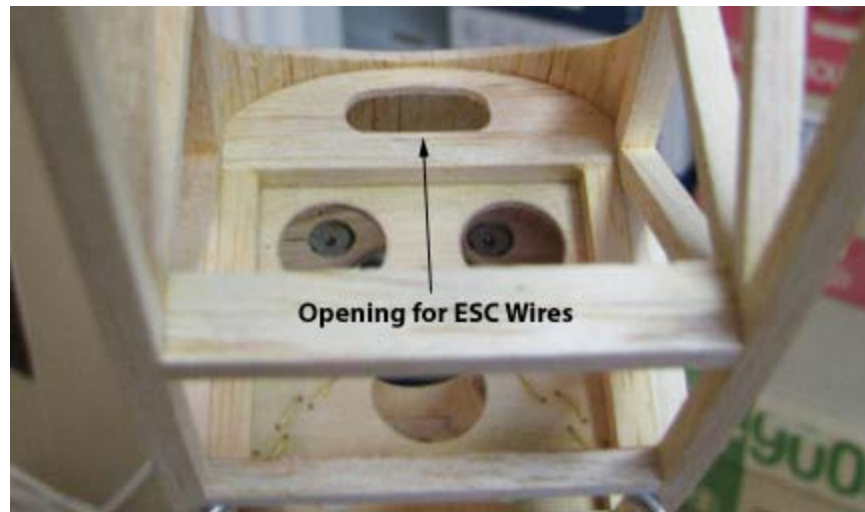
A trial fit of the battery box inside the fuselage structure is shown below.



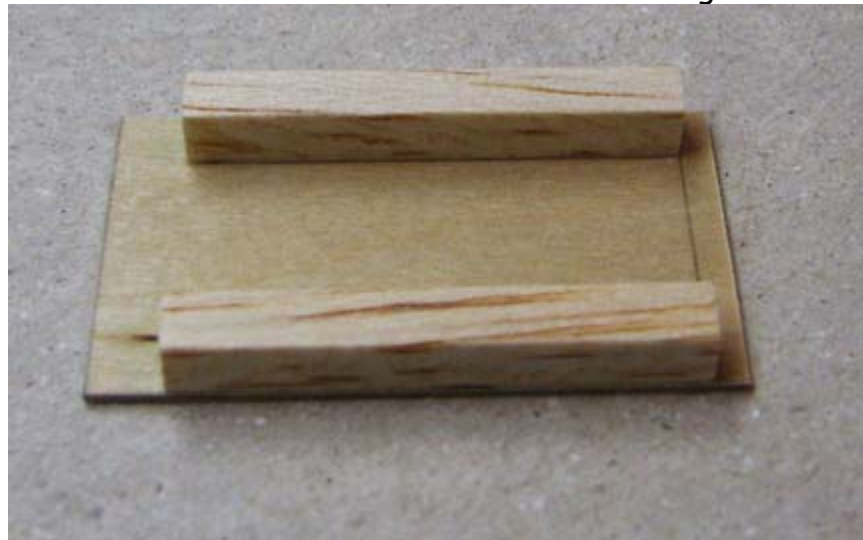
The length of the battery box is constrained so that the battery can be removed for charging from the bottom bay directly below and behind the battery box as shown below. This bay will be fitted with a removable hatch cover.



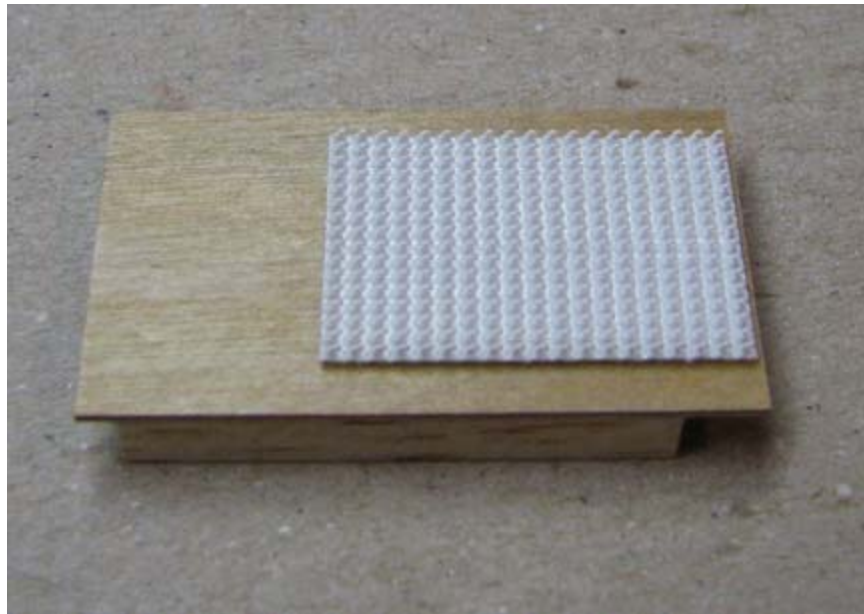
The Electronic Speed Control (ESC) will be mounted on a shelf above the battery box. Therefore it was necessary to go in under the planked turtle deck and make the opening shown below for the ESC wires to go through to the Speed 400 motor. This was a little difficult, but doable.



The shelf for the ESC was constructed of $1/32$ " plywood with two $3/16$ " square balsa runners as shown below. The shelf was 1" wide and $1-11/16$ " long.



The top of the shelf was given two coats of clear dope with a light sanding in between coats. Then the hook side of Velcro was attached as shown below.



The shelf was then glued into the fuselage structure as shown below.



This shows the shelf from the bottom with the two runners.....Tandy

