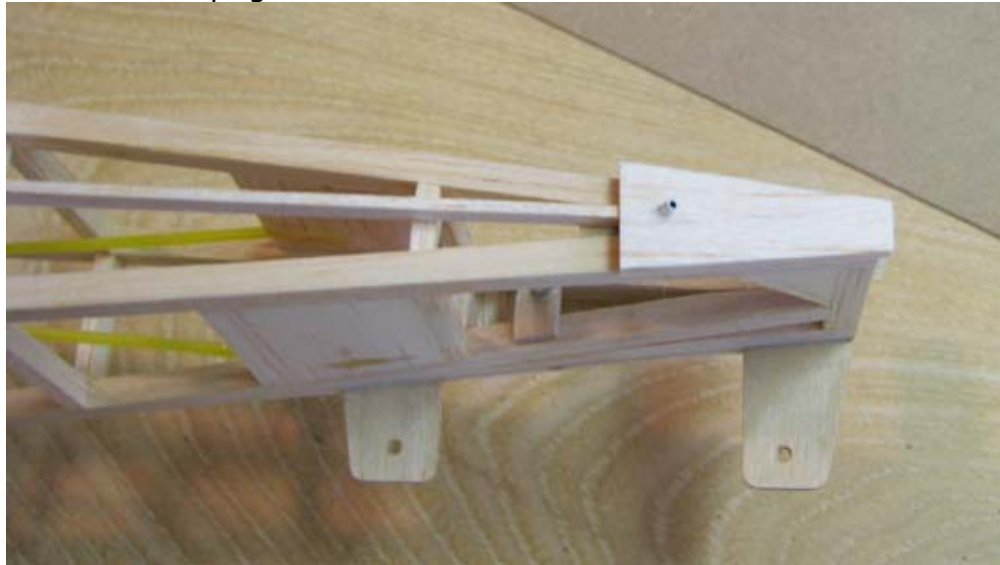


David Harding

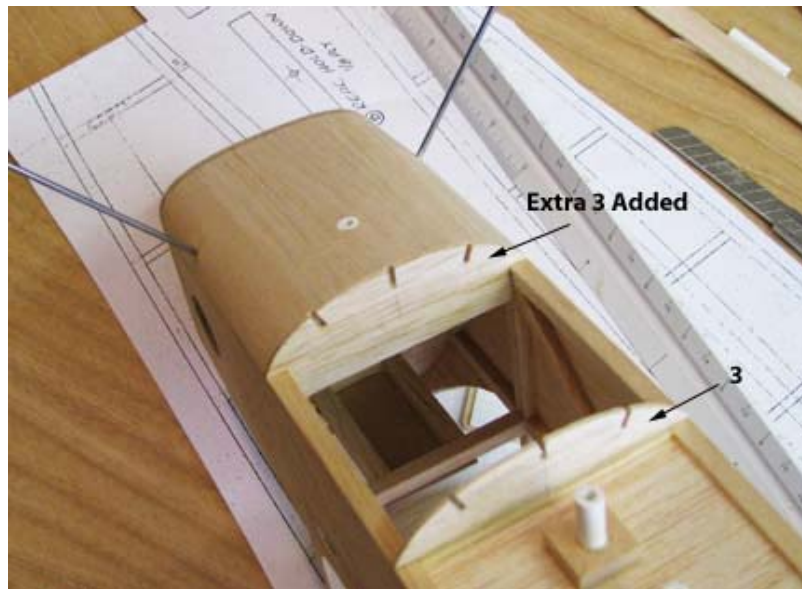
From: Tandy C. Walker [tandyw@flash.net]
Sent: Saturday, February 20, 2010 7:56 PM
To: Undisclosed-Recipient: ;@smtp102.sbc.mail.mud.yahoo.com
Subject: 66 Speed 400 Cloudster - Completing Fuselage Bottom Structure

Speed 400 Cloudster Project

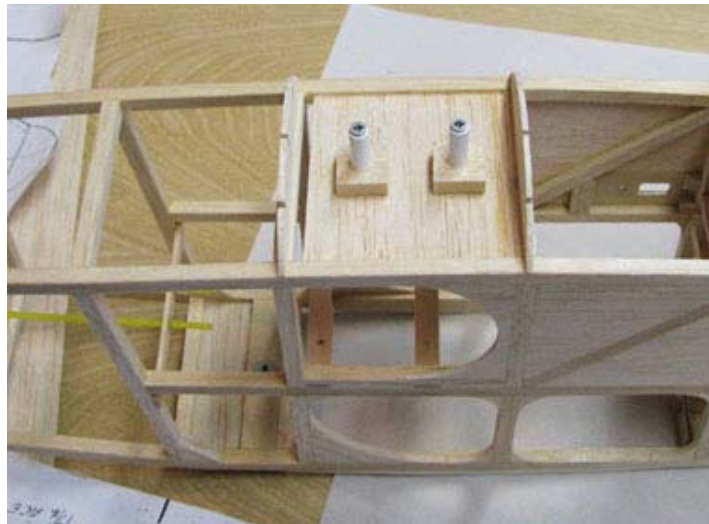
I have stayed pretty focused all day today on trying to finish the bulkhead/stringer structure on the bottom of the fuselage. I have always had problems fairing in a group of stringers at the back end of the fuselage and making them look right. To avoid this issue, I put in a solid balsa block at the rear to serve as a tail cone which can be more easily trimmed to shape than a bunch stringers! So before the 1/16" X 3/16" center bottom stringer was glued on, a .063" inclined hole was drilled in a triangular soft balsa block for the tail skid tube to slip through and the block was glued in place as shown below. Then the center stringer was glued in the bulkhead notches, which now butts up against the front of this tail cone.



Also an extra No. 3 bulkhead was glued on the back of the bulkhead supporting the bottom forward strip planking as shown below. This provides the location and support of the three 1/16" X 3/16" stringers that butt up against the back of the forward planking.



Since the two pieces of white ABS tubing for securing the receiver mount are on the centerline of the fuselage as shown below, the center stringer had to be pieced in between and on either side of the two tubes.



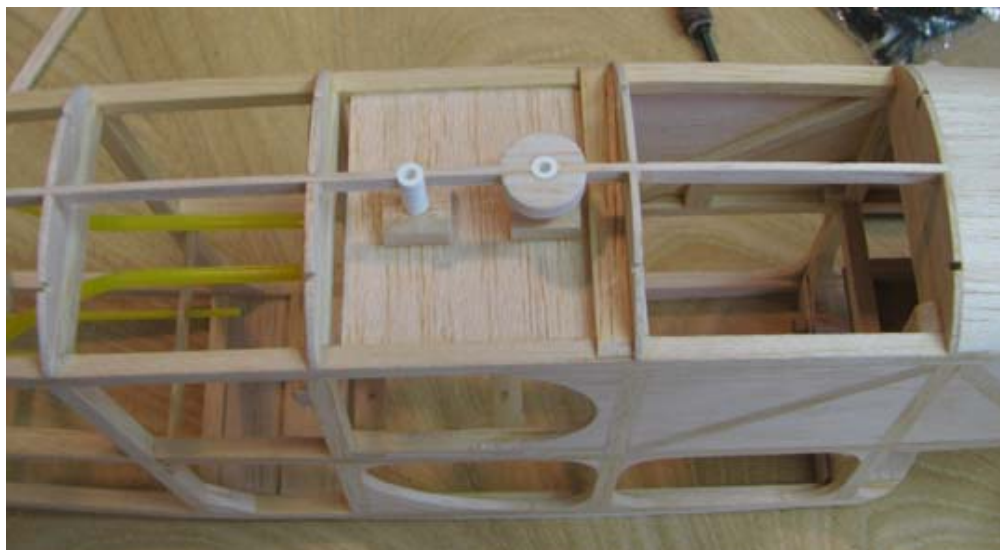
A surface has to be provided around these tubes in order to have an area to attach the bottom covering to. A No. 12 drill bit (.189") was used to drill a hole in a piece of 3/16" balsa sheet. The balsa was trimmed and sanded around the hole to form a .594" diameter flat disk shown below.



This disk was then split with the grain and a 1/16" wide piece removed from the center.



Each half of the disk was then glued in on either side of the stringer around the front tube as shown below.



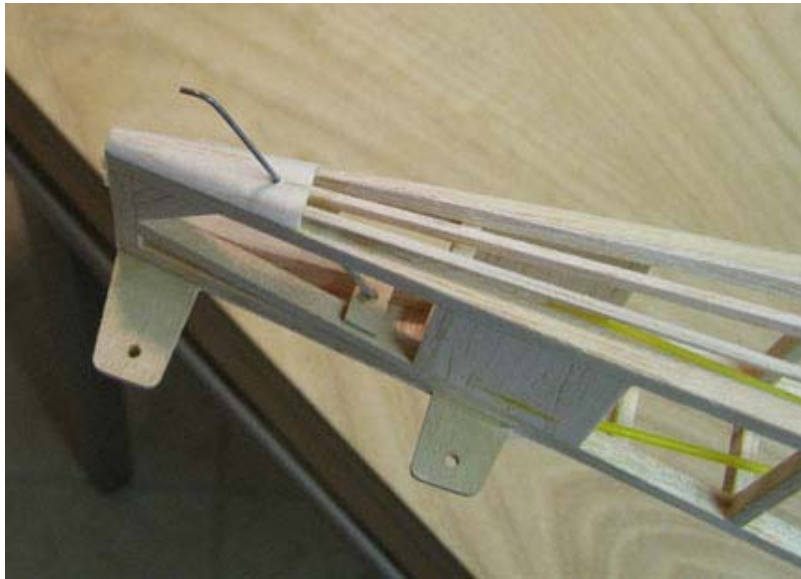
This was also done around the second tube as shown below. These two disks will be contoured to the shape of the bottom of the fuselage and serve as areas to attach the covering material to.



All three of the bottom were glued in place and the two disks and tail cone were contoured to the shape as the picture below shows.



This is close up of the tail cone.



This is a close up of the stringer fillets that were added at the stringer attach point on the



forward planking.

In the picture below, you can see that the bottom bulkhead/stringer structure has added considerable depth to the fuselage giving it a more attractive profile. I still have to add the fuselage block in front of the wing leading edge up above the cabin and then do all of the finish sanding on the fuselage before it is ready for covering.



There is one final decision I have to make on the bottom bulkhead/stringer structure. The oval shaped bulkheads are an extension of the oval shape of the bottom forward planking. However, the covering will stretch tight in a straight line across each stringer and cause the edges of the oval bulkheads to stick out under the covering. The oval bulkheads need to be sanded down to form either a straight line between stringers or recessed concave between stringers so as not to touch the covering at all. I am favoring the recess concave approach, but would appreciate any comments or recommendations?.....Tandy