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Date: 2/12/2009 3:23:42 PM
Subject: 42 Sailplane Fuselage Right Side Stringers and Rudder Push Rod Exit

Comet Sailplane Project

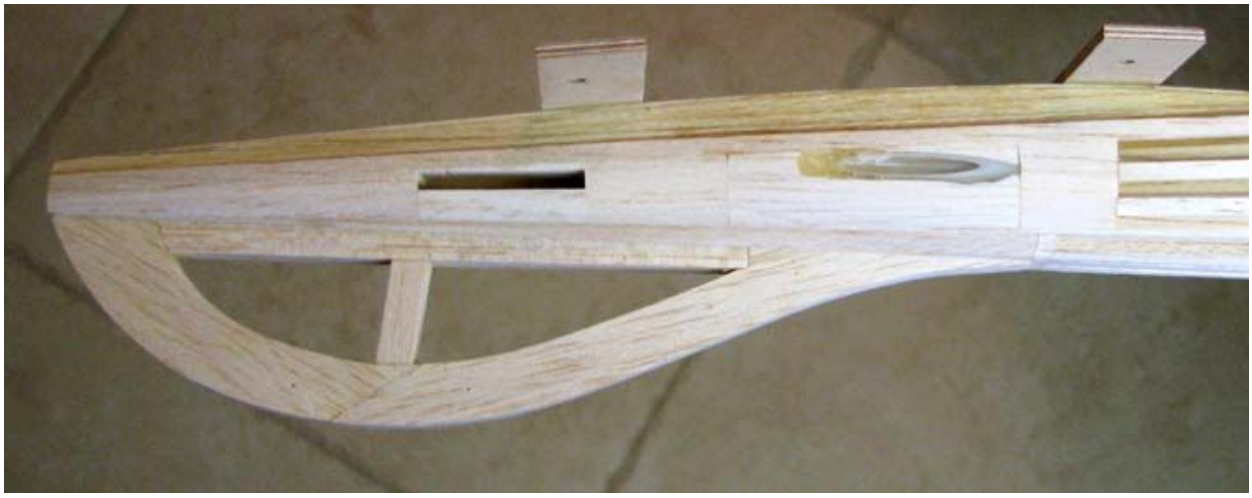
I have been struggling for the better part of three days with the rudder push rod tube exit out the right side of the fuselage. Back in Report No. 28, I showed the picture below of the rudder push rod. The problem is related to the somewhat shallow angle that the rudder push rod makes with the side of the fuselage as you can clearly see below.



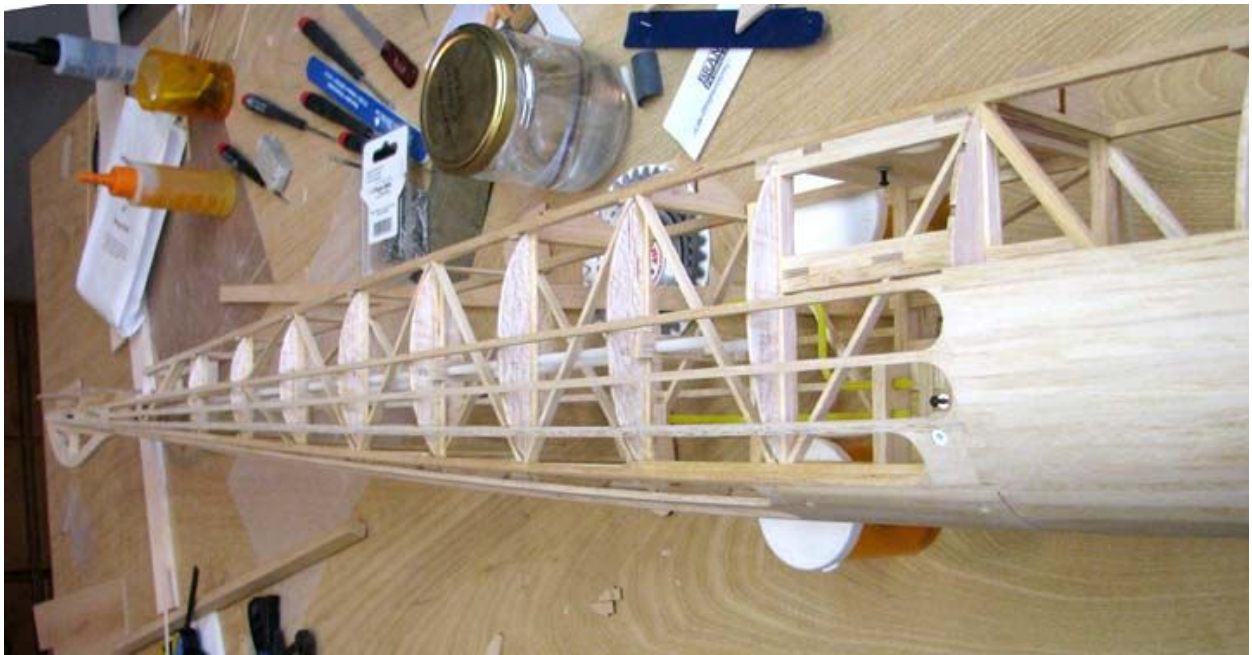
To begin with, I drilled out a 1/4" balsa block and epoxied it in place over the rudder push rod tube as shown (*the block on the left in the picture below*).



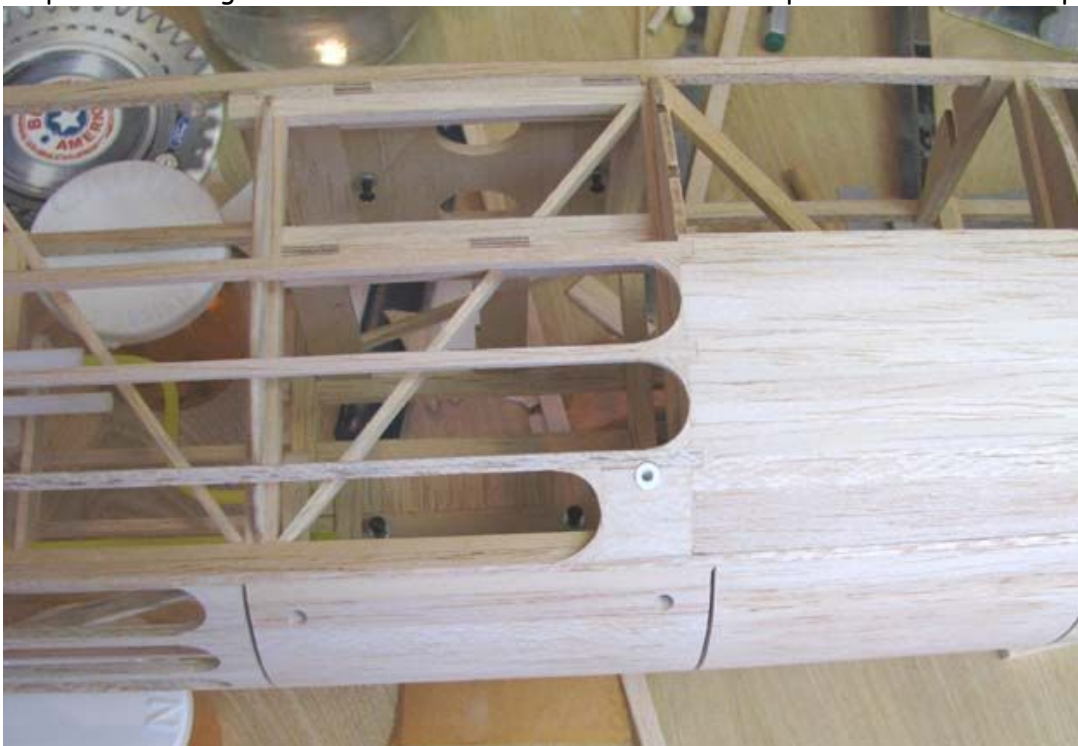
Before I finished, I ended up with a total of four separate balsa block pieces to fit, sand, and fair in the rudder push rod tube and to frame in the rudder tiller (*control horn*) rectangular opening shown below.



Once this had been accomplished, I was able to then install the two lower stringers on the right side as shown below.



Here is a close up of the stringer fillets that were added at their attach point to the forward planking.



I particularly wanted you to see the close up view below of how the lower 1/8" square stringer is integrated into the structure around the radio switch push-pull outlet.



Below is shown a right side view of how the rudder push rod exits the fuselage and attaches to the rudder tiller. This is a long slender structural area under the stab and was particularly difficult for me to get right. I still have to fill in the void above the top stringer with balsa. Then I can glue on the rest of the stab platform planking forward, between, and aft of the two 1/8" plywood stab mounting plates.



This is a bottom view of the aft fuselage structure under the stab showing how the shallow angle that the rudder push rod makes with the side of the fuselage was preserved. Of course the 1/4" sub rudder has not been sanded to shape yet and is not yet glued in place.



I want to close this report with this picture of the overall Sailplane structure to give you a feel for how this project is progressing. I plan to lay up the primary structure of the pylon next so I can complete the structure in the top of the fuselage.....Tandy

