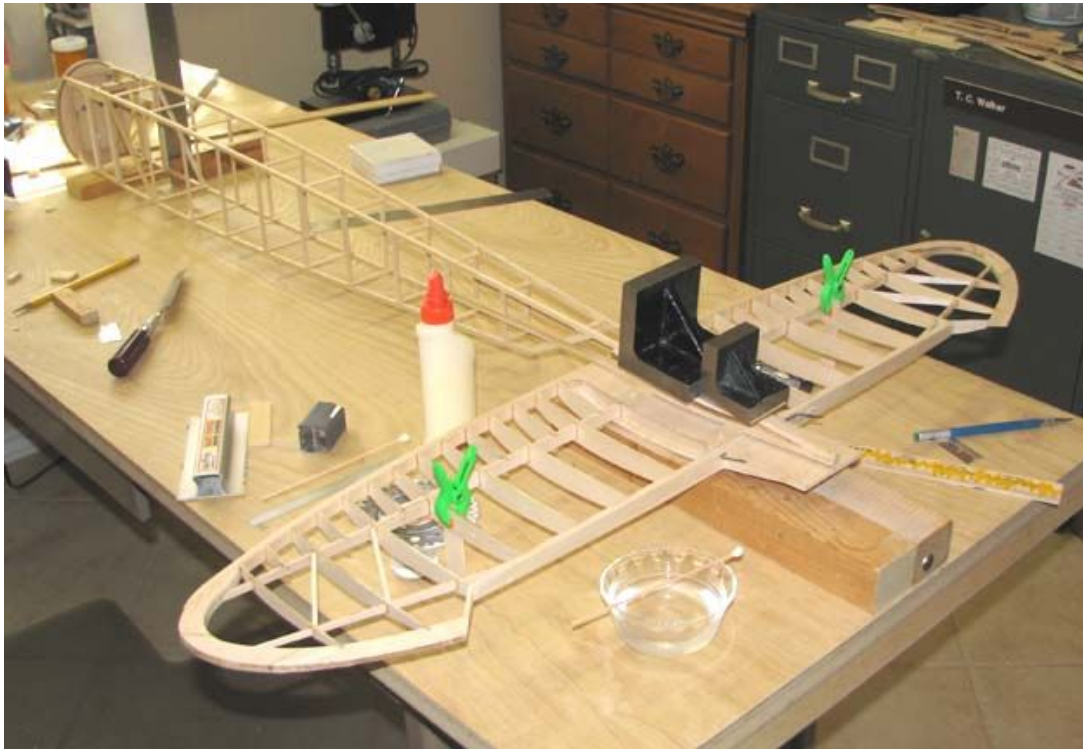
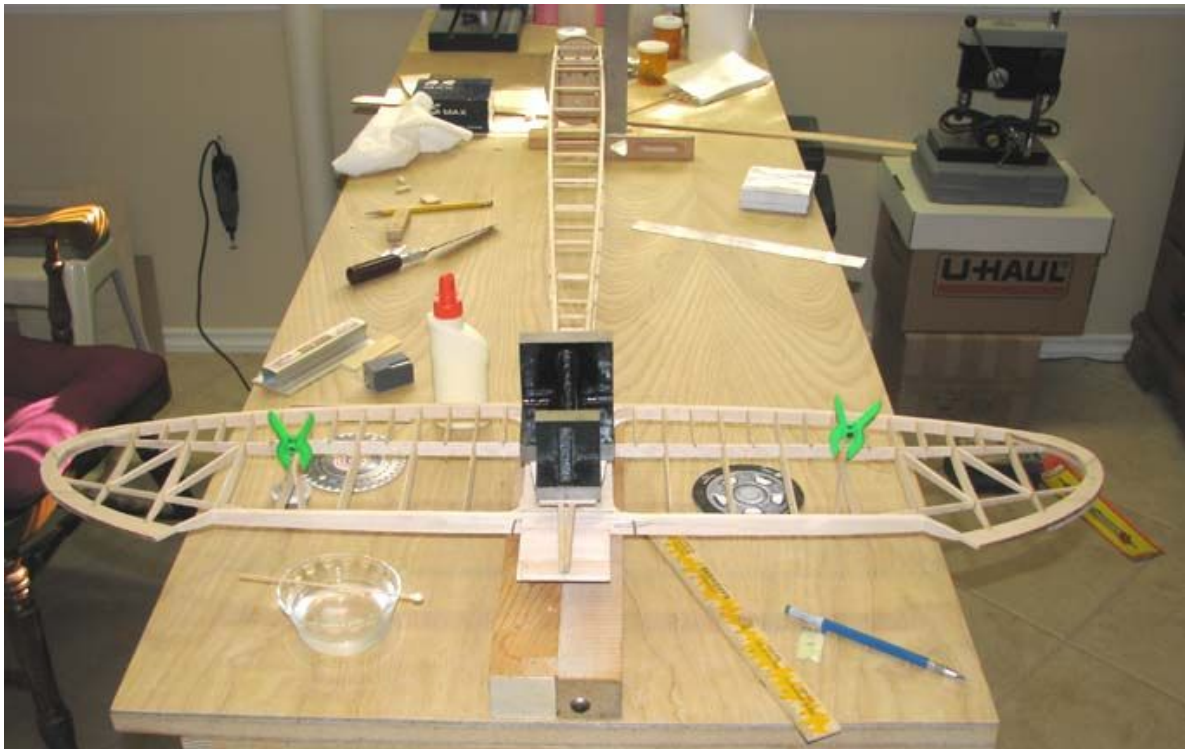


From: ["Tandy C. Walker" <tandyw@flash.net>](mailto:tandyw@flash.net)
To: ["Walker, Tandy C." <tandyw@flash.net>](mailto:tandyw@flash.net)
Date: 12/26/2008 12:03:58 PM
Subject: 23 Sailplane Set Up for Gluing Two Stab Mounts

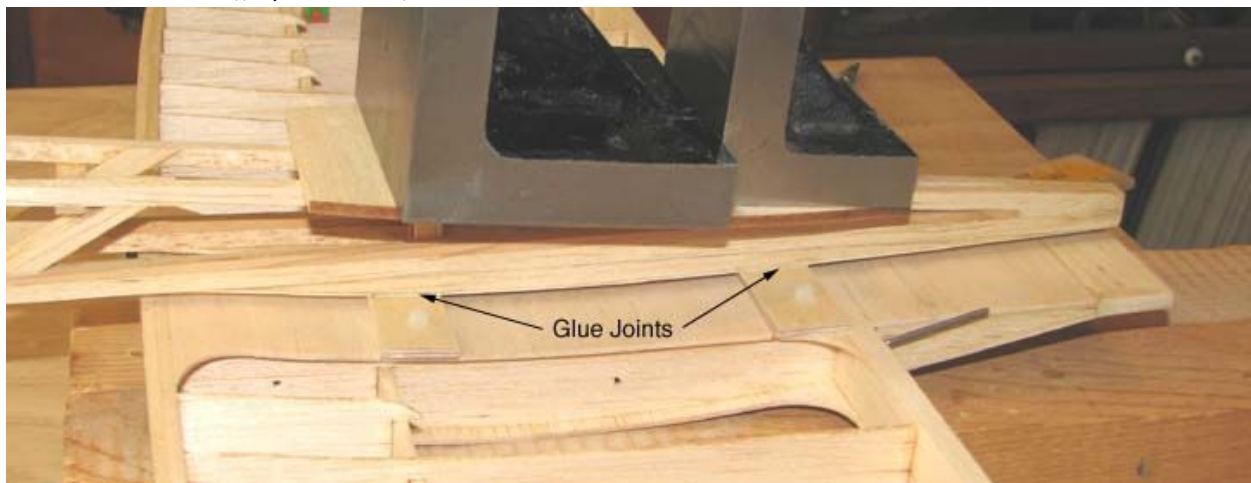
Now that the Christmas holiday activities are winding down, I managed to set aside a couple of hours to glue the two 1/8" plywood stab mounting supports onto the fuselage. The set up I used is shown below. The two 1/8" X 0.7" X 3" plywood stab mounting supports were screwed to the bottom of the stab with four 4-40 nylon Allen head screws. 3/16" X 0.7" balsa filler blocks were glued in between the top longerons on the fuselage where the plywood supports fit to stiffen the structure and increase the gluing footprint for the plywood supports. The top of the stab was placed upside down on two pine blocks and leveled with work table with two outboard vertical props held in place with the green clamps. The fuselage structure was placed upside down resting on a pine block up at the front and the bottom of the stab at the back. The fuselage was aligned with the bottom of the stab and a carpenter's square seen below at the front of the fuselage was used to insure the sides of the fuselage were vertical. The rear of the fuselage was pressed on to the two plywood supports for gluing using one large and one medium size steel block squares. Elmer's carpenter's aliphatic glue was for the bonds.



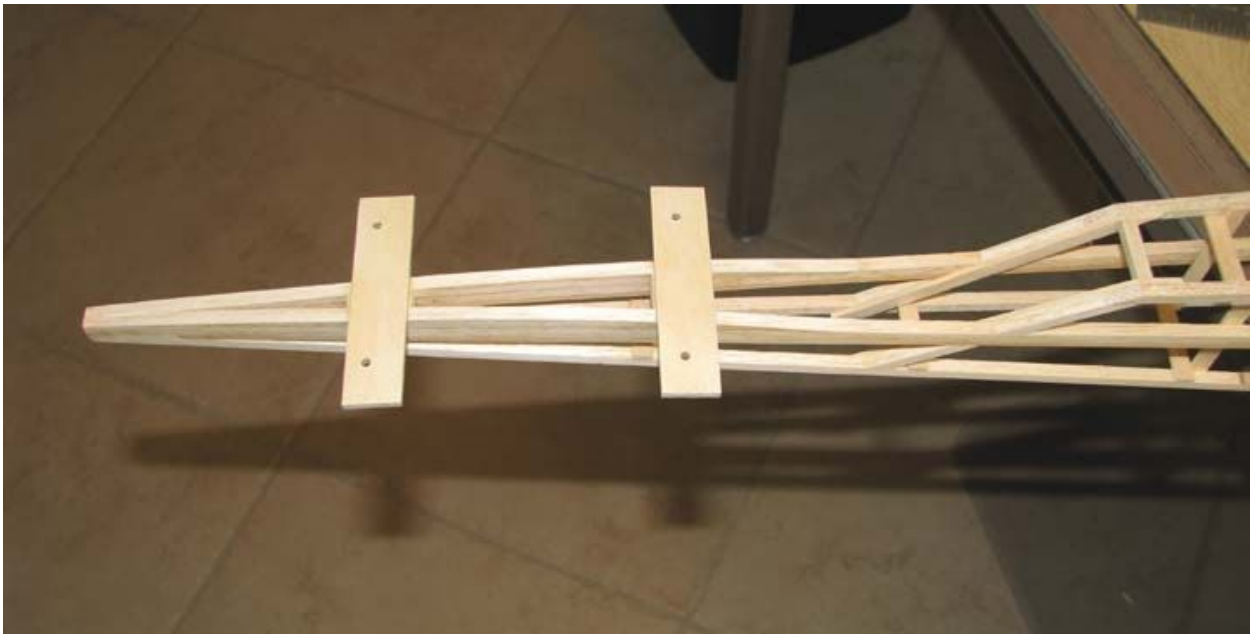
This another view of this set up looking forward.



This is a close up showing the two glue joints between the fuselage's top longerons and the two 1/8" X 0.7" X 3" plywood stab mounting supports. Note the two 4-40 nylon Allen head screws that can be seen holding the plywood stab mounting supports to the bottom of the stab. Also notice the 1/8" gap between the top longerons and the bottom of the stab.



Once the glue dried, the four nylon screws were removed and the stab taken away exposing two 1/8" X 0.7" X 3" plywood stab mounting supports as shown below.



The Sailplane's 1/8" balsa stab platform is shown below. Later, sections will be removed and the three segments glued in flush with plywood stab mounting supports shown above.



With the stab mounted to fuselage as shown below, I am concerned about the weakness of the fuselage in torsion! Of course there are bulkheads, a number of stringers, and a Polyspan Lite/silk double covering to be added, which should provide much needed torsional rigidity. However, I am still worried! I am considering adding some 1/16" side planking to try to help stiffen up the rear of the fuselage frame. What do you guys think? I would appreciate any comments, especially from those of you with first hand experience who have built the Sailplane.....Tandy

