

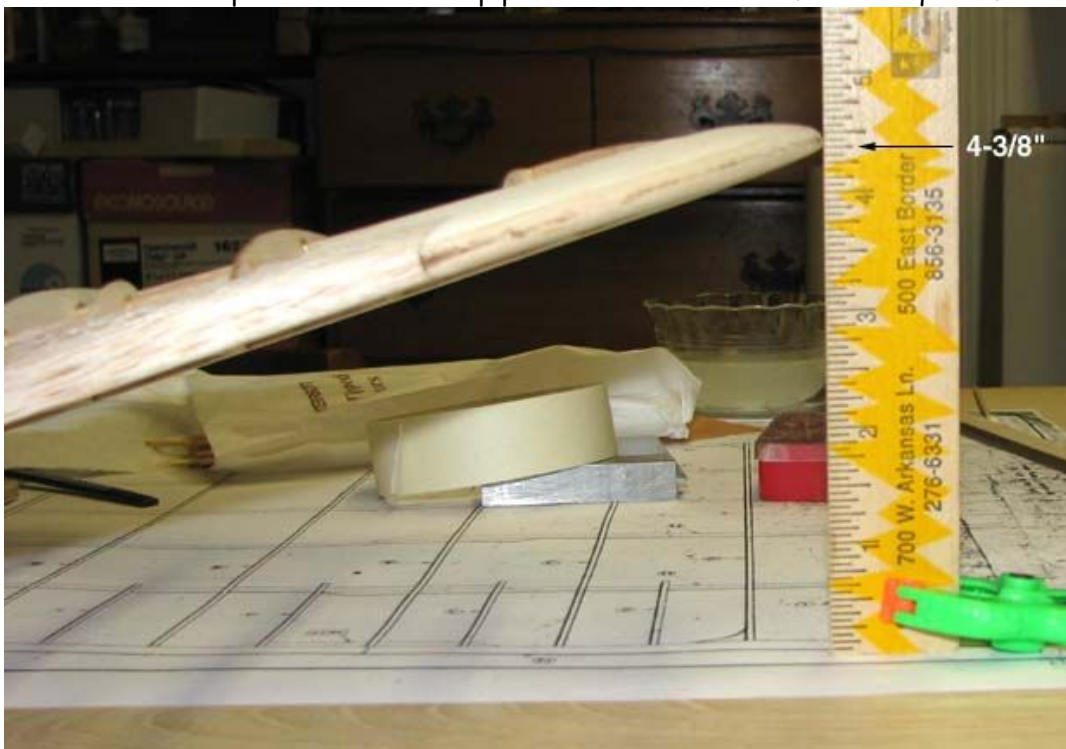
From: ["Tandy C. Walker" <tandyw@flash.net>](mailto:tandyw@flash.net)
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Date: 5/25/2009 8:47:39 PM
Subject: 105 Sailplane Left Wing Polyhedral Joint

Comet Sailplane Project

The wing's left tip panel was jugged up to the inner panel with a rise of 4-3/8" and the leading and trailing edge joints were glued first and let dry. The wing half was removed from the work table. Elmer Carpenter's aliphatic glue was then worked down in between the four spar overlaps, one at a time, and clamped to let dry. Once the four overlaps had dried, the rise in the tip panel was again checked as shown below.

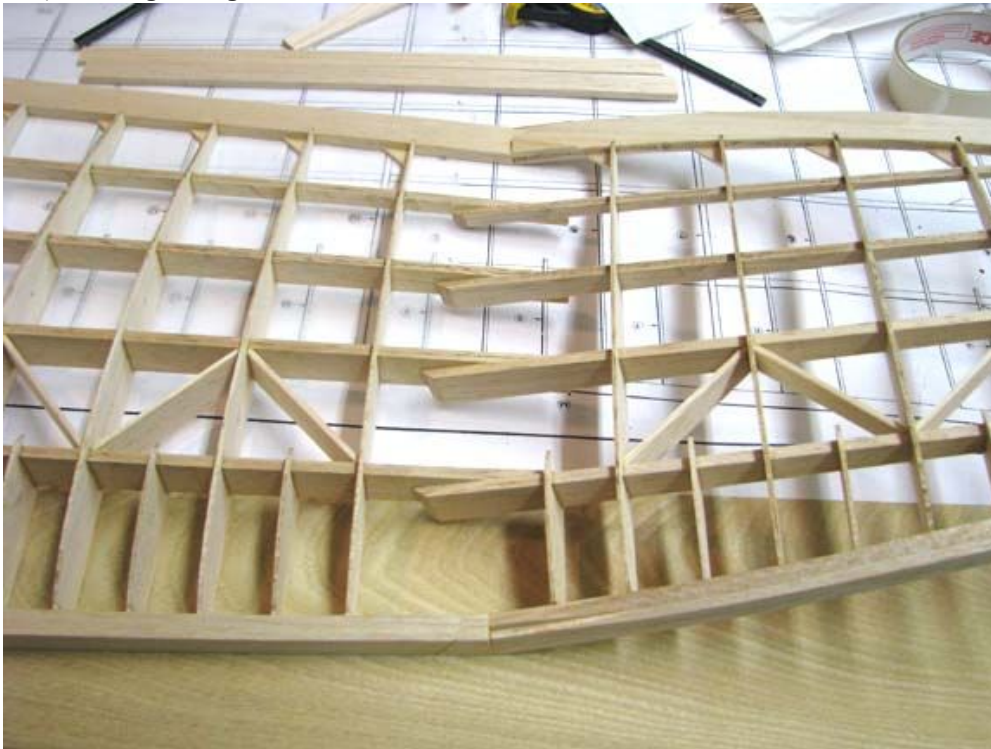


This close up shows that the tip panel was elevated 4-3/8" as required.

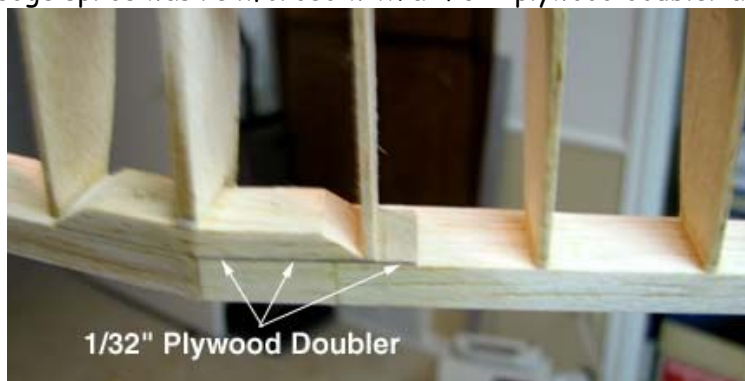


The four glued spar overlaps are shown below before they were trimmed. Noticed that the leading edge of

the inner panel has been spliced just before the polyhedral joint. The 5/16" sheet stock I cut the leading edge from was not quite long enough.



This leading edge splice was reinforced with a 1/32" plywood doubler as shown below.



After trimming the spar overlaps and gluing in the leading and trailing edge doublers, the 1/8" polyhedral joint rib was fitted and glued in place. Then the last two joint diagonals were added to complete the continuous semi-span Warren Truss. The picture below shows a top view of the completed polyhedral joint. Final shaping and sanding of the leading and trailing edges have yet to be done.



This is a second view of the completed polyhedral joint from the bottom.....Tandy

