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Date: 6/2/2009 9:50:20 PM
Subject: 109 Sailplane Building a Jig and Checking the Dihedral angle

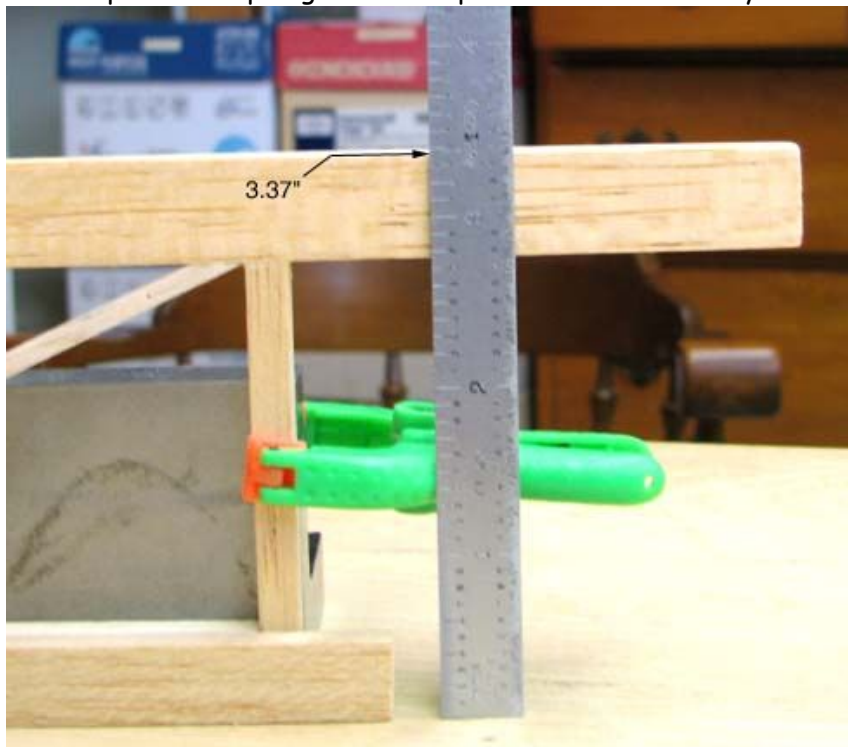
Comet Sailplane Project

In Report No. 104a, the wing's inner panel dihedral was specified with a 10" rise at the tip of the wing's tip panel. This was used to calculate the 3.37" rise of the inner panel at the polyhedral break and a dihedral angle of 9.71 degrees.

The 3.37" rise of the wing's inner panel must to be relative to a straight line between the bottom of the leading and trailing edge joints at the polyhedral break. Therefore, a support jig was made and clamped to two steel building blocks as shown below.



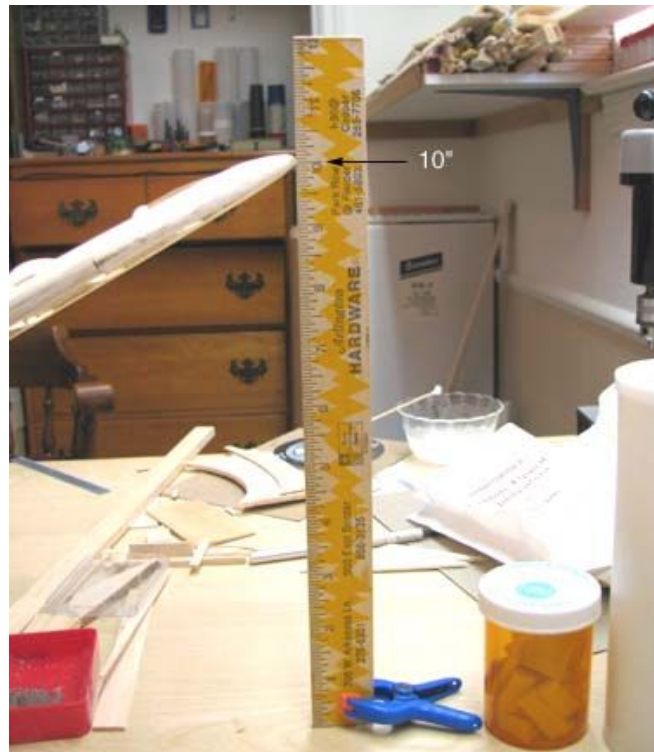
From the work table up to the top edge of the top rail was made exactly 3.37" as shown below.



This support jig was positioned under the wing's polyhedral break as shown below.



As a check, the height of the tip panel was measured as shown below. Would you believe it measured 10" right on the money! :O)



The dihedral angle of 9.71 degrees was divided by two to get 4.86 degrees. The leading and trailing edges of both the inner panels are beveled at 4.86 degrees. As a check, one end of the leading edge of the wing's center section was beveled at 4.86 degrees and placed up against the end of the inner panel leading edge. The leading edge fit was as it should be as shown below. The bevel angle is correct. I will now proceed with building the wing's center section.....Tandy

