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Building Tips and Tricks 1 of 4

by Tandy Walker

Layout and SAM Site Integration and Editing by Web Master Ned Nevels

(material provided by builder Tandy Walker)

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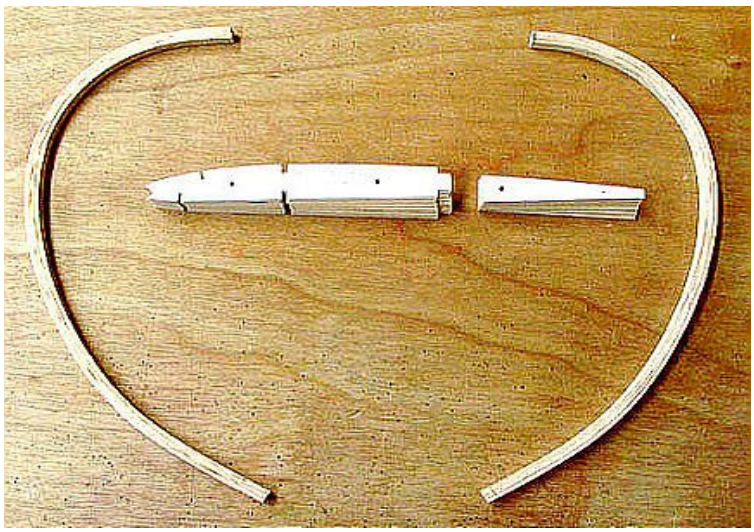
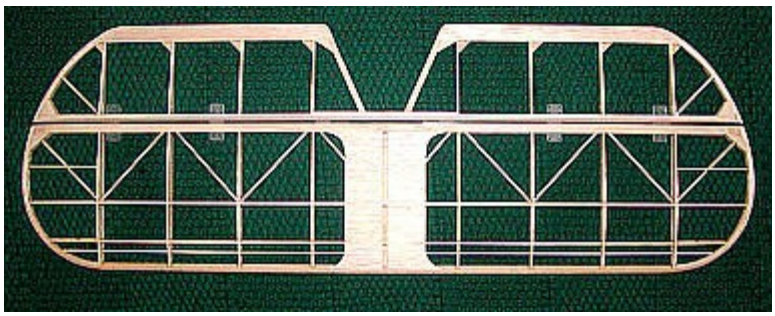
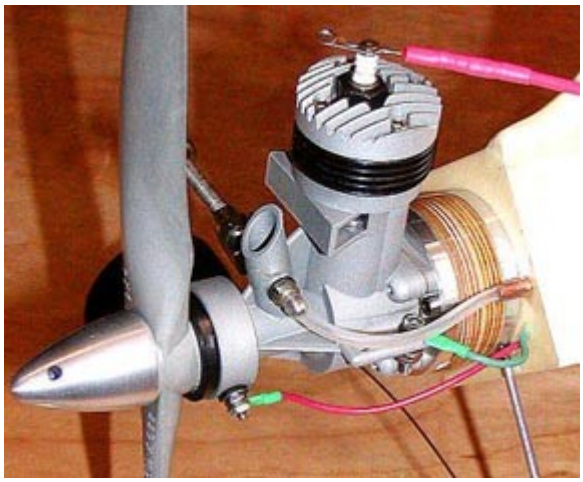
I have started building another Class A Lanzo Bomber for SAM R/C Assist Class A LER Ignition competition. Picture 1 This shows the lay up of the left stab tip. The spline is made up of a lamination of three 1/16" X 1/4" balsa strips. They were soaked in hot water for two hours and then Tite Bond alaphatic glue was spread between the strips, which was then formed around a cardboard form as shown in the picture. Picture 2 This shows the right stab tip after it was removed from the form. Picture 3 This shows the lay up of the left wing tip. This spline is made up of a lamination of four 1/16" X 3/8" balsa strips.



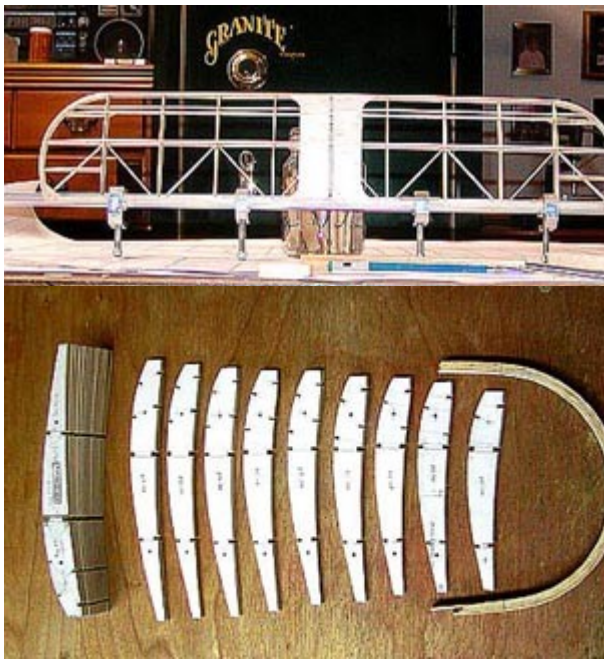
After completing the Class A Bomber stabilizer and elevator, I hinged the two together. I noticed the built up rear spar of the stabilizer, which holds the the forward portion of the hinges, could flex for and aft rather easily. Therefore, I added some 1/16" X 3/32" diagonal members to form an inplane truss between the mid spar and aft spar as shown in the picture below. Notice that a strip of aluminum angle is clamped to the stab rear spar in four places to keep the structure straight while gluing in the diagonal truss members. The rear spar is now stiff as a board! Later I will send some close up pictures of the laminated tip integrated into the stab and elevator structures.

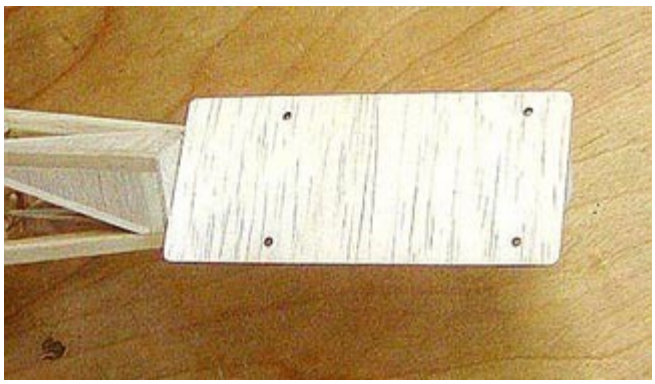
Tandy Walker ,of Arlington Texas, is a A retire Engineer from Vought Aircraft and a long-time member and, quite obviously, a talented and meticulous Model Builder. Tandy is shown abo the 1998 SAM Champs with his full-sized Chet Bomber. Tandy generally documents his mode building projects with a digital camera during various construction phases. He recently finish Class A Lanzo Bomber in which he has been s his efforts with several of us by way of digital attached to e-mails almost on a weekly basis past eight months. Tandy's e-mails have beer informative and instructive that I decided to t collection of his e-mail material and develop a to" article for the SAM web site. The intent of article is to provide less experienced modelers techniques and insights on building a competi OT/R/C model that Tandy has developed durir modeling career of over 60 years.



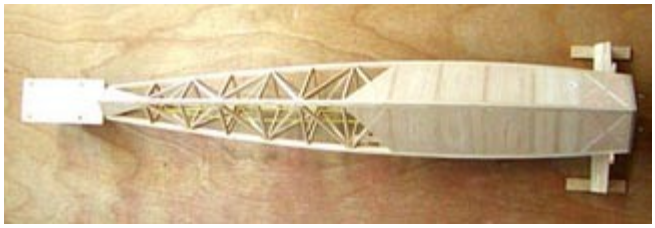


Tandy's Use of Cardboard as template material for his laminations is both effective and cheap.(shown above right) It is readily available and easy to shape.



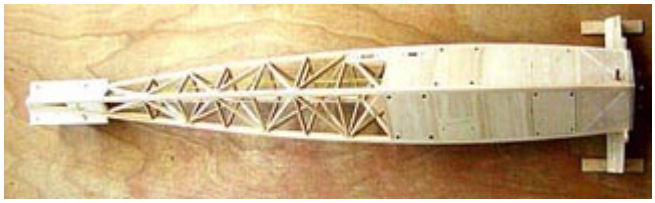


I have attached two pictures below showing the completed fuselage planking on the Class A Bomber. Picture 1 This shows the top of the diamond shaped fuselage. The planking is inlaid between the structure frame members. Diagonals were added aft of the planking. The pylon structure attaches to center top longeron. The eyelet on the forward right is opening for the high tension lead. Picture 2 This shows the bottom of the diamond shaped fuselage with the right side to the top of the picture. You can see the three hatches I use for equipment installation and access...

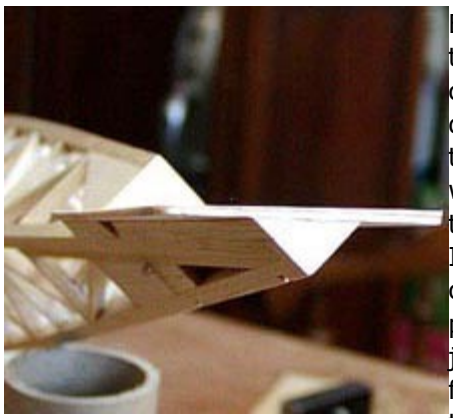


The first picture below shows the 1/16" stab mounting platform now glued on to the fusela longerons. The top longeron had to be remov this area in order to mount the stab platform. the two plywood inserts integrated into the pl where the nylon mounting screw holes are.

The second picture is a bottom view of the sta mounting using the four nylon screws and nyl washers. I use nylon screws because they are and because they do not vibrate loose like me screws. Notice the spruce doublers used to re the insides of the two longerons that the stab platform is bonded to. These doubles are usec compensate for having to cut the top longeror notice the 3/16" triangular strips bonded to th longerons, which are used to provide the inter between the longerons and the stab platform.



Tandy and wife Sue Walker of Arlington Texas with Tandy's A LER Bomber, powered by the Shilen Old Timer .19



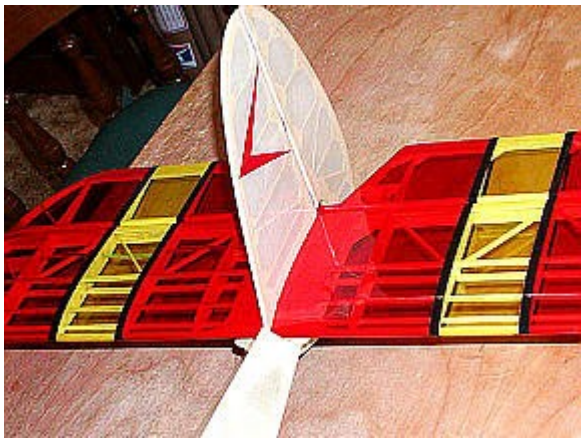
Before I sta the wing construction decided to c the alignme wing saddle the stab pla I screwed th onto the sta platform an jigged up th fuselage so the wing sa was level. Bless my soul, the stab was in fact misaligned! @#%$&

So I have been busily going about developing shim to tilt the stab and align it with the wing saddle. For reference, the first picture below s the stab mounting platform glued onto the fus structure. I selected a piece of medium 1/32" sheet, cut it into three pieces, and bonded it together cross grain. I mixed up some 45 min epoxy and squeegeed it out into a thin layer c stab mounting platform. The 1/32" balsa shee made up was placed onto the the epoxy and r around to smooth out and press out the exces epoxy. Some spruce strips were placed longitu on the top of the 1/32" balsa sheet near the e and a row of cloths pins was used on each sid clamp the sheet to the platform and this was to dry overnight.

Next, the four mounting holes were drilled thr the 1/32" balsa sheet and the sheet overhang trimmed back to the platform edges. This is s the second picture below. Now for the tricky p Since the stab was tilted right tip down, I plac strip of masking tape along the right edge of t sheet to preserve 1/32" thickness. Using the f side of one of these nail file made for sculptur artificial nails, I began the long process of car

sanding and working down the left side of the balsa sheet, using the masking tape along the edge as a sanding guide to preserve 1/32" thi on the right side. Effectively, I was shaping a across the entire stab mounting platform.

Once I got this stab shim worked down, I scre the stab onto the stab platform, jigged up the fuselage, and checked the alignment. After so three iterations, I finally had the stab shim sh to bring the stab into alignment. The last itera was done with the masking tape removed so shim could be sanded as a unit. The final shim can be seen in the last picture below.



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