# Sky Bench Gulf Coaster building tips. Sept. 07.

**Fuselage:** **1/8" lite ply is used for Stab base. Holes will provide a strong bond to the stab. Use medium to long cure epoxy to glue stab to base after the fuse and stab parts are covered with heat shrink plastic covering.**

**Note, 1/16" balsa is used to cover hole ( as shown on the plans ) in top of fuse behind the stab to reduce drag.**

**The fin fits in the slot. Rudder pushrod protrudes through top sheeting before gluing the top down and is housed in a plastic tube.**

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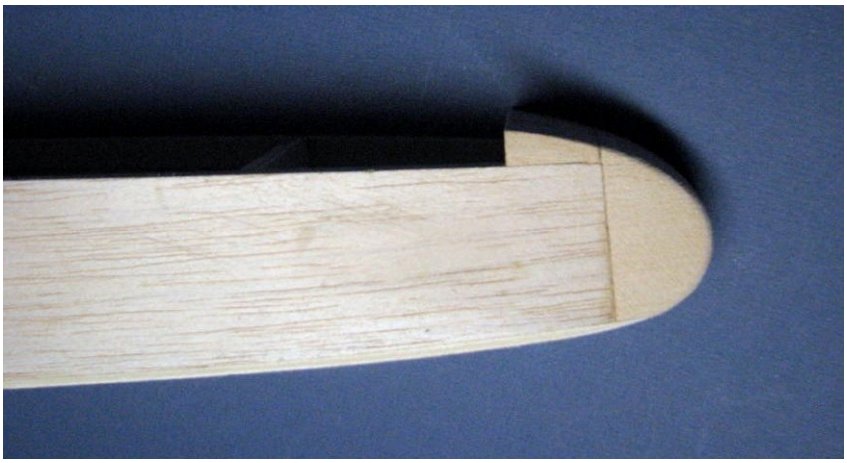

**Cross piece added behind nose block to improve strength to hard use area.**

**Several reinforcements added to nose section. A 1/8 lite ply piece was also placed behind former #1 between the top fuse sides, just long enough to allow the battery to slip in and out. This creates a box structure to help stop twisting and for a solid nose block base. Note, I did not use the furnished plywood keel.**

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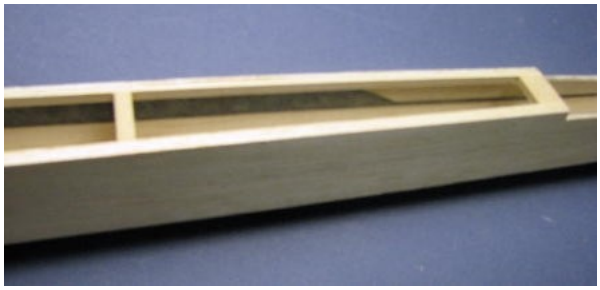
**I added two spruce longerons in the sides and .014 x 1/2" carbon strips on each side at the top. Also, a strip on the under side of the fuse top. This method of fuse construction will take a beating. Apply carbon before assembling.**



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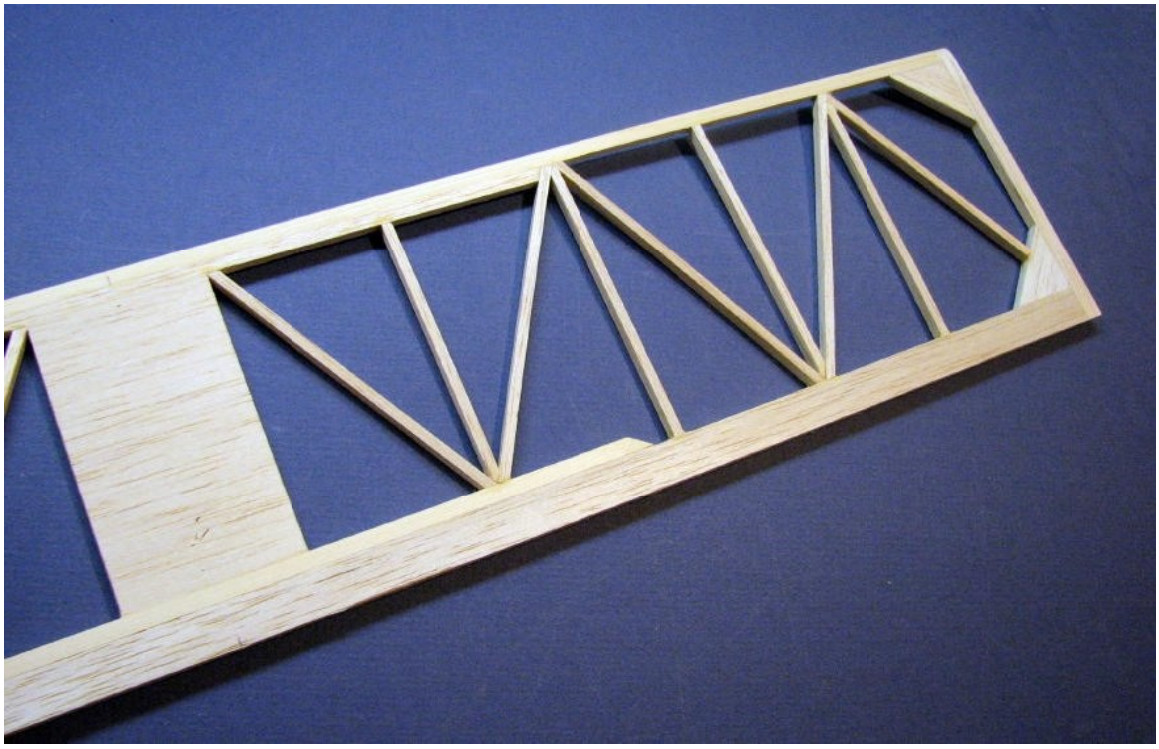
**Do not use wood glue to apply 1/64" doublers to fuse sides.**
**Water content in glue will cause a permanent bow in fuse sides.**
**Use a very thin application of long cure epoxy.**



**Leading edge is spruce backed with a balsa stick, balsa trailing edge is reinforced with a shorter spruce stick. Note grain in center piece is span wise for greater rigidity when glued to fuse stab base.**

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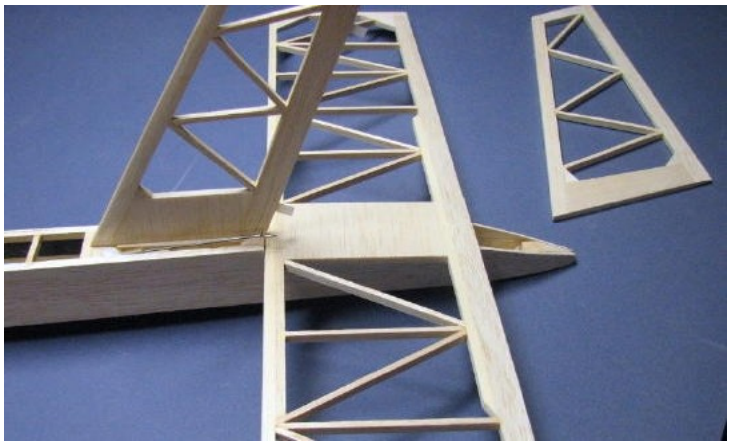
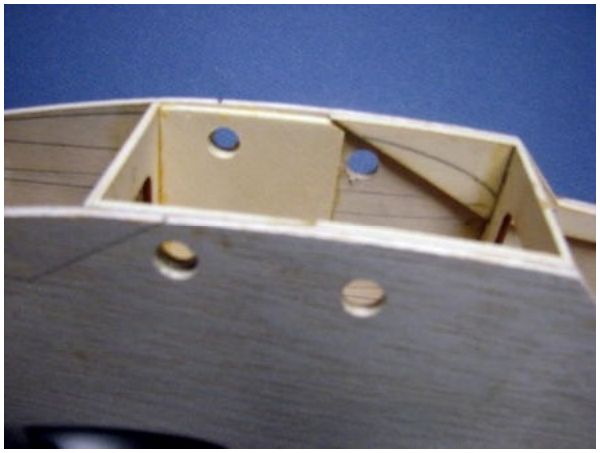


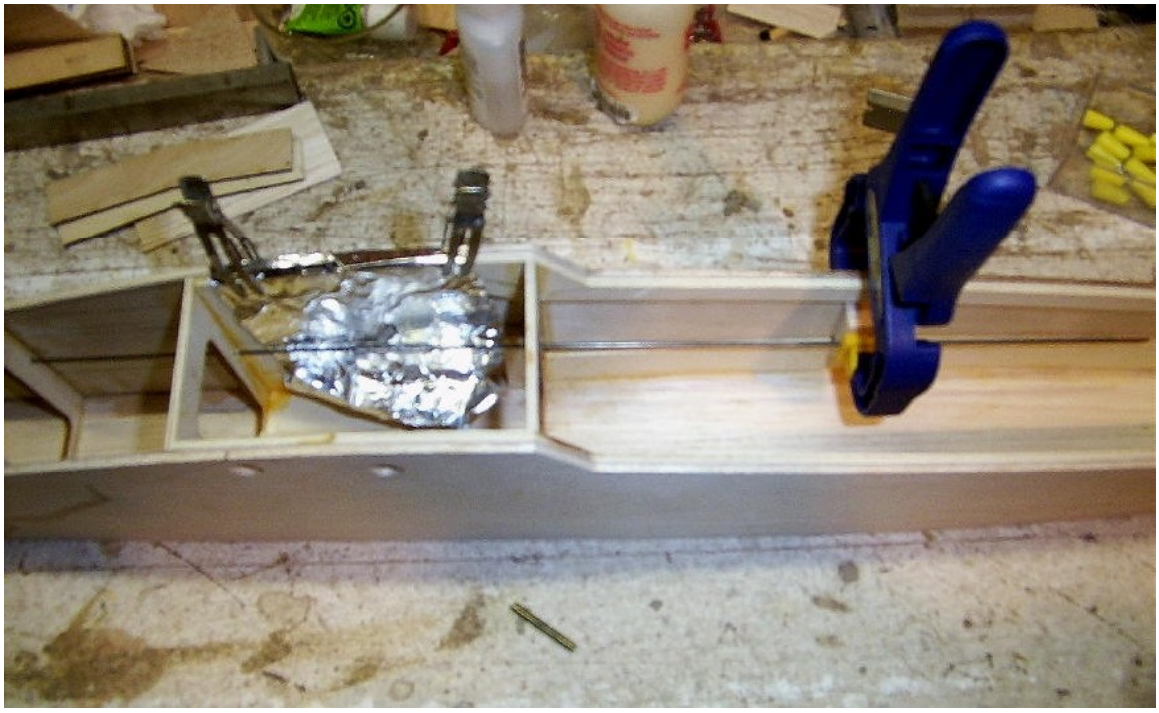


**Front holes are servo wire access.**

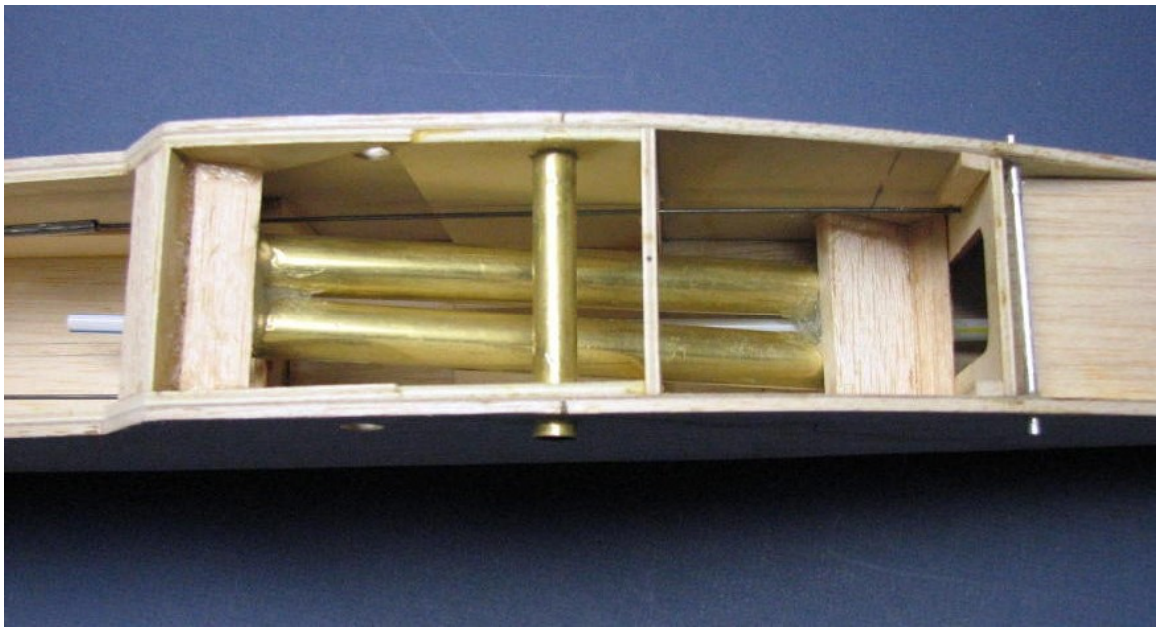
**Rear holes are for the wing rod brass tube.**

**Added vertical grain 1/8" lite ply pieces inside to improve strength of wing tube area for zoom launching.**

**Do not omit installing the 1/16" ply wing root caps on the outside of fuse, with the brass tube extending through the caps. The caps provide extreme strength to the wing joiner area. The rear alignment tubes in the wings and fuse and wire are not installed yet in this photo. The blocks under the wings provide perfect alignment of both wings when installing the wing joiner tubes in the fuse. Note top fuse sheeting extended to former. The front top sheeting over the wing area is beveled into the rear top sheeting. Paul Siegel purchased this plane, I'll build another one.**



**Tin foil used to protect the wood from solder iron when installing a push rod coupler joining the push wires together. Large clamp is holding wire in position while soldering coupler. I pre-heat the coupler.**



**Ballast tubes, the glue holding the tubes is silicone. Note soda straw for antenna installation, don't laugh, it is nearly weightless.**

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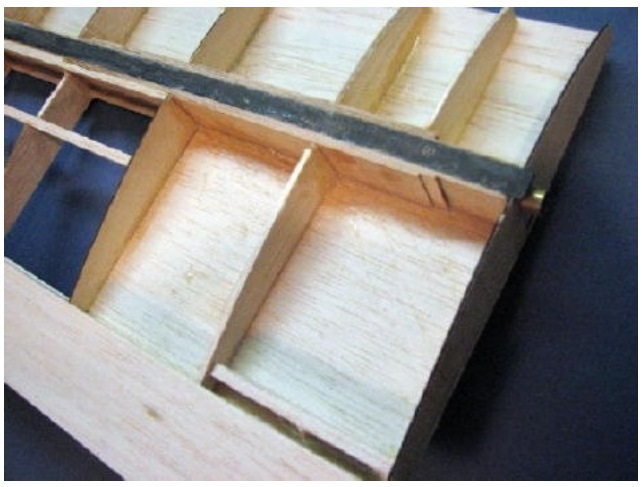
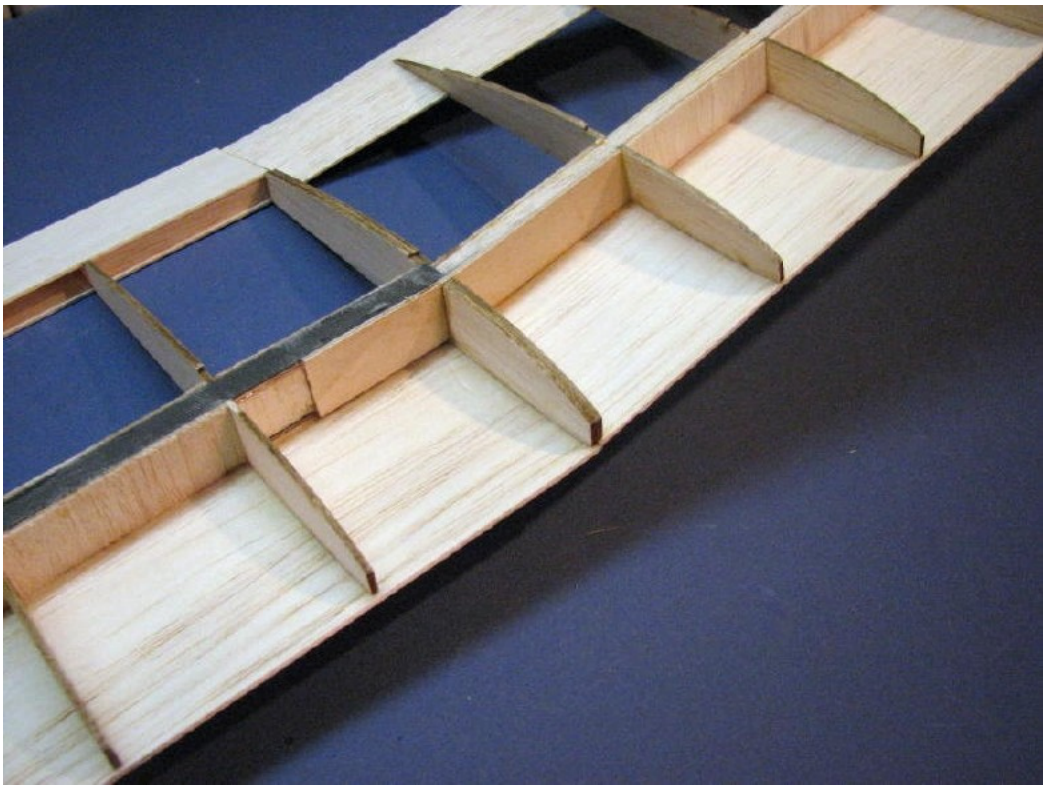
# Wing:

**Start by pining trailing edges on plan ( make sure they are not bowed ), use a rib to locate the front bottom sheeting and pin down. Don't try to locate the front bottom sheeting by using the plan, use a rib for dead on accuracy. Plans tend not to be accurate based on moisture content and accuracy of reproduction equipment. Use a rib to locate spar on top of bottom sheeting.**



**Note 3 staggered layers of 1/16" ply on both sides of spar. I didn't want the spar to break during zoom launching at the end of the brass tube. Spars are filled with 3/8" wide vertical balsa.**

**Note the brass tube protrudes through the ply rib # 1. Don't file flush until the root cap is attached. The tube extends thru the root cap.**



**1/16th balsa sheers on both sides of spars. Before attaching tip panel, install inner panel rear trailing edge. Fin/rudder area is minimal so you may want more inner panel dihedral. After top sheeting is glued on, sand protruding top and bottom front edge sheeting flush with ribs and install leading edge.**


# Sky Bench

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**Fort Wayne, Indiana 46804**
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