CONST. FILE 4, NOSE BLOCK, CANOPY & SKIDS (Sept. 5, '09)
By Harley Michaelis

Nose blocks can be made as 1-piece or 3-piece items. The 1-piece is favored since it can be hollowed at its center for a mix of resin & lead shot. See next page about both.

Starting 1" behind the front of the slab side (SS) lay your battery pack, receiver & stab servo in place. To not shorten the canopy any more than needed, decide how small an opening you'll need ahead of F1 to insert the foam wrapped battery & receiver. Size a ¾" thick closed compartment block (CCB) to leave that minimum opening. While the CCB is rectangular in shape, bevel its rear end as plans illustrate.

As the fuselage front end is shaped, the triangular stock (TS) on top just behind the nose block will be sanded into. Cut it from 3/8" balsa. Round off the inside rear edge to not snag on foam wrapped battery or receiver. Attach the TS even with the SS's for the CCB to glue to.

Look at the plans & pics below. Note how the nose block, CCB & canopy form a nice profile line. Decide how to position the block between the sides to get that. Trim the sides of the canopy to lower it as needed to get the smooth profile. Angle its front end to meet the CCB, but trim off as little as possible lengthwise so it will extend back & around the LE of the wing.

After the drilled out nose block has been secured in 1" from the front of the SS's, it should essentially be worked to final shape, so softer parts can be sanded down to it. Taper the ¾" CCB down to about 1/16" higher in profile than the nose block. On the CCB underside, mark along the fuselage balsa doubler edges. Trim off the excess. Glue the rough CCB in place.

Lacking the wing at this stage, it's useful to make a 2" wide "wing LE profile block" to approximately match the wing contour at the LE & a bit back. Over the profile block pattern drawn low on the plans, make pinholes into Sintra for a pattern to cut & use to mark the block. This will help to establish how high the canopy is to be at its rear end.

Between the high point of the saddle & the CCB, narrow the fuselage by contouring the 1/8" balsa doublers toward the outer edges of the 1/16" ply SS's. Don't sand down the balsa behind the high point. The canopy is to fit to the SS edges. It may be too wide or too narrow. With heat gun, heat it to" smell point" to make it pliable. Press it with a glove to widen it. Squeeze it between boards, etc. to heat & narrow it. When satisfied with the fit, butt it to the CCB & mark around it.

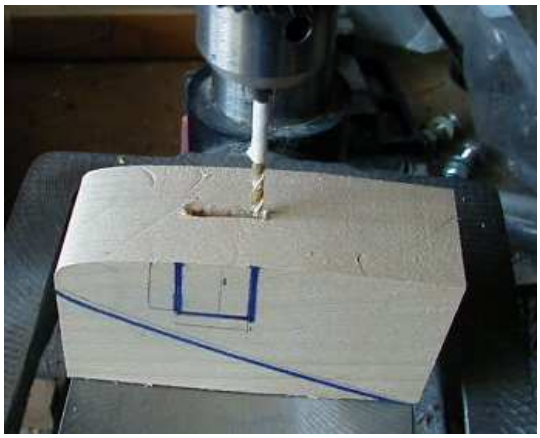
Using a razor plane, Stanley trimming plane & sanding blocks, shape the CCB down to merge to the nose block, canopy & SS edges. Finished results can be as seen below.

Interchangeable & removable single tooth skids made from 1/8" bar aluminum are durable, look nice and work effectively to bring a ship to a halt. Parts packages now include the 1/8"aluminum.

To shape aluminum, clamp in a vise or C clamp. With hacksaw or Dremel with cutting disc, take off triangular shaped piece. Smooth remainder with metal file, disc sander or Dremel accessory.

<u>3-PC BLOCK</u>: 1/8" ply can be used for the nose core. Add cheeks to the core. If you get a tight fit, the aluminum piece will stay put in the slot but be removable. If the ply is thicker than the aluminum, sand it down or wax the aluminum & fill around it with thin ply or epoxy to get a snug fit.

Optionally, support the assembly on a side, squared up on the drill press table. Drill a continuous hole for a 1/8" dowel pin.



For slotting a 1-piece nose block, trim the bottom contour. Position block to make a series of uniform depth holes. Work the slot back & forth on the bit. Wax the tooth, insert it nicely squared up & fill around it with epoxy reinforced with Fillit, etc. to make a snug fitting slot.

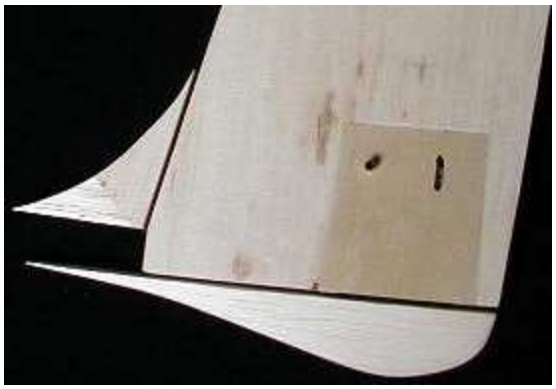
For pinning, drill a 1/8" hole through block & tooth. Hold tooth in a vise. Tap on the block to remove it.

When drilling a recess for lead shot, avoid cutting into the slot.

Here a solid bass nose block is shown. The 1/8" balsa doubler has been feathered into the 1/16" SS during sanding to shape. The fill is Icing putty mentioned in the Fine Finishing file. The longer the nose, the further the fill will extend forward.

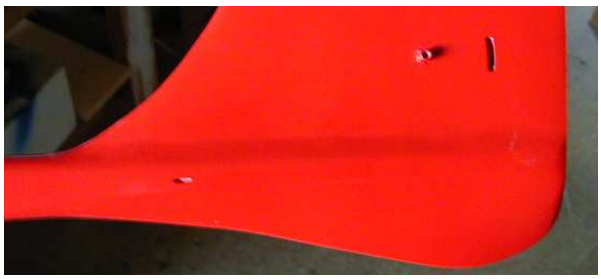
A 1/8" dowel pin secures the removable tooth, but will shear landing on concrete, etc. to help avoid enlarging the slot. A little hardwood wedge will close an enlarged slot.

<u>TAIL SKID</u>: After the fuse is closed up & worked to shape with the fin & before glassing-over, a light & practical tail skid can be attached.



This skid, a 3-layer item, extends back in a nice curve from the front of the dorsal. The bottom ½" of the center layer is 1/8" ply. The remainder of the center layer & the outer layers are very light 1/8" balsa. The sides of the skid are tapered in a straight line down to the ply. The remainder is smoothed & filleted to fuselage contours with light spackle.

Note here that the dorsal is a 2 piece balsa item, with the grain running toward the pointy ends for easy feathering to the fin and fuse.



The top pic here shows the tail end after glassing over & priming. Note the rudder cable exit.

A simple, highly visible and nice looking color scheme for the fuse/fin is overall red with white trim & black canopy.

The top coat here is the very bright Rustoleum Sunrise Red Gloss Protective Enamel.