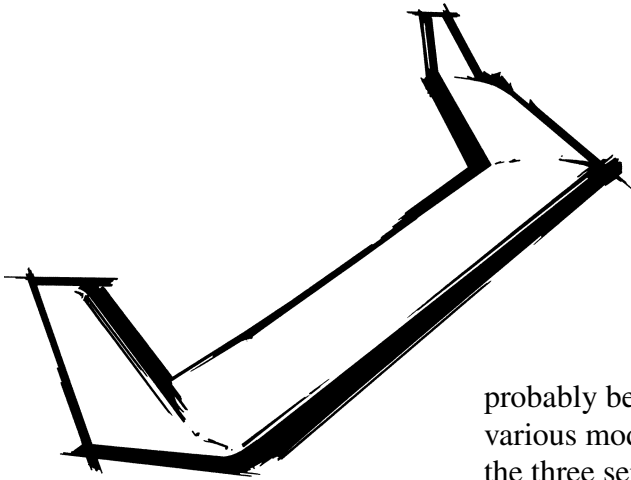


# On the 'Wing...

Bill & Bunny Kuhlman, <bsquared@themacisp.net>



probably be used to complete various modifications and to get the three servo control system installed and set up.

Because the Alula construction manual is readily available on the internet, we're going to focus on "tips and techniques" which aid the construction process, and the specific modifications required to make this three servo version.

Figure 1 shows the rough shaped fuselage. Since the fuselage arrives as a simple contoured block, there is quite a bit of foam to be removed in order to obtain the desired ovoid shape. Rather than using large grit sandpaper, we opted to use a razor plane with a brand new double edged blade installed. As can be seen in the photo, this method removed a lot of material, and did so without tearing the foam. A small amount of finish work with 120 grit

sandpaper completed the job in short order.

The original Alula places the two elevon servos side by side in a cavity in the fuselage. The wiring is then threaded straight through a precut hole into the receiver/battery compartment. As we'll eventually have a single servo in the fuselage to drive the elevators and two aileron servos in the wing panels, there will be three sets of leads (plus the antenna) which must be brought toward the conduit leading to the front compartment. The aileron servo wiring and antenna are in place in Figure 2, ready for the wings to be covered.

In preparation for the packing tape covering to be applied, starting with the bottom surface, we set up the wing beds to firmly hold the wing halves in place, avoiding the potential for warping. Figure 3 illustrates the fixture with both wing cores in place.

The core surface to be covered needs to be facing upward of course, and the second wing core is used to support the underside of the fixture while covering the wing bottoms.

Lastly, the elevons which come in the Alula kit have a precut outline which takes away from the area at the wing root. As this is going to be where the separate elevator halves are located, we needed to replace that area to maintain elevator effectiveness. We took some contest grade 1/16th inch balsa and, using the elevons as a template, carefully cut the glue line contour while leaving a bit of extraneous material to be trimmed off later. The completed elevons, with restored center area, are shown in Figure 4. The glue line has been enhanced to more clearly define the added material.

More next time!

We've been working on our second Alula, alongside a few other projects, and wanted to keep *RCSD* readers apprised of our progress.

Our primary goal in building this Alula is to separate the elevon into outboard ailerons, each driven by Hitec HS-50 servos, and two central elevator halves to be driven by a single HS-55 through a divided pushrod.

Contrary to the construction of our first Alula, we decided early on to not spend a bunch of time "painting" the airframe. Rather, we're simply going to add black to the bottom wing surface by means of a large felt tip pen.

The time saved by using this simple color scheme will

