



In the interest of furthering builder input, and because I had earlier promised to submit some ideas, I have enclosed some information and drawings which might be of interest to those builders in the early stages of construction. My Osprey project started in July, 1981 after about 3 years of helping another builder get his project started. It has been about 6 months now since I have done anything with my bird because of other demands, but with winter coming on, it will take up all my spare time until spring.

Since I'm working alone, and building from scratch, I probably spent as much time building jigs as I did in actual construction. One of my ideas that helped me tremendously is that I constructed the entire fuselage including the gunnel rails, floors and keel, water drain, and all gussets without once removing the fuselage from the framing jigs. This was accomplished by constructing the fuselage upside-down in the jig. As strange as this might seem at first, the result was a much stronger fuselage without the use of any support braces across the cabin area when the fuselage is finally removed. This procedure allows the gunnel rails to lie perfectly flat in the jig, and by mortising the inner gunnel rail into the nose former, there was no tendency for the rail to twist inward as I had seen on other projects. Additionally, there is no movement of the fuselage before the floors and keel are attached, eliminating the need to jig and brace the fuselage

twice to apply floors, as my plans called for. I also used a carbide saw blade with welded tips which were just thousands of an inch narrower than the 1/8" kerf needed for the keel batten, and a simple clamp/jig was used to attach the batten without any pre-bending. (see drawing #1).

With the fuselage removed from the construction frames and the aft deck attached, I built another jig to position and hold the fin spars for glueing. (see drawing #2).

When I constructed the fuselage side frames, I pre-beveled the uprights which saved enormous amounts of work and frustration. I found also that by adjusting the upright at Sta. 102 to maintain 27" between it and Sta. 70, when the fuselage sides were bent, the main and rear spars installed, I had exactly 26 7/8" between the spars and no shims were required for the rear spar. This is the correct distance for the wing ribs. DO NOT change Sta. 70 to accomplish this.

I also found that had I followed the cabin width dimensions called for in my plans, my particular fuselage sides would not have had a smooth curve from the nose to the tail. I opted to adjust my fuselage jig accordingly to allow such a smooth curve and gained 1" in cabin width which is not enough to interfere with gear retraction.

I also had a problem setting my stabilizer correctly using the dimensions in my set of plans. In order to correctly set the stabilizer, I had to use a larger mount block and longer attaching bolt, and the rudder/hinge stab. mount fixture had to be rebuilt, but this was necessary to obtain the +2 deg. edge spar. Additionally, after constructing the entire tail group and installing same,