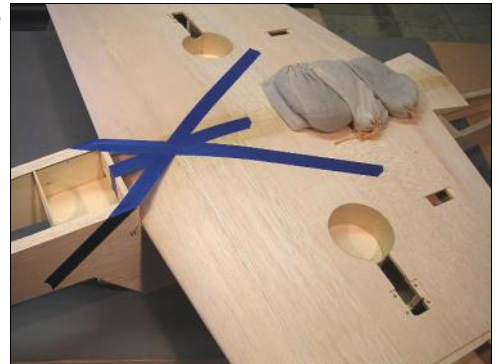


# 8

## WING AND TAIL MOUNTING

*Time to put the big chunks together. Like any airplane, the alignment between the wing and the tail and the fuselage is extremely important and ultimately affects the flight characteristics. Misalignments become even more noticeable the faster an airplane flies, so it's particularly important with jet models.*

- ❑ Trim and sand the rear edge of SIDE-2 even with SIDE-1. You want the balsa sides to extend about 1/16" aft of bulkhead F-5.
- ❑ Sand off the LE point in the center of the wing to create a flat spot that is four inches wide.
- ❑ Trial fit the wing to the fuselage, paying close attention to the fit at the leading edge. When satisfied, tape and pin the wing into its final position. Measure carefully that the wing is centered on the fuselage and the distance from the wingtip to the aft end of the fuselage is equal on both sides.



- ❑ Drill 1/4" holes for the wing dowels into the wing through the holes in F-5. This, I admit, is easier said than done. I ended up using a long drill bit and twisting it by hand. A short piece of fuel tubing slipped over the end gave a better grip. After drilling about an inch on each side, I removed the wing and finished the holes with a power drill.

Use plenty of glue, and leave about 3/4" of the dowels sticking out from the LE. This is a little extra long, but it will help later when you are assembling the model at the field.

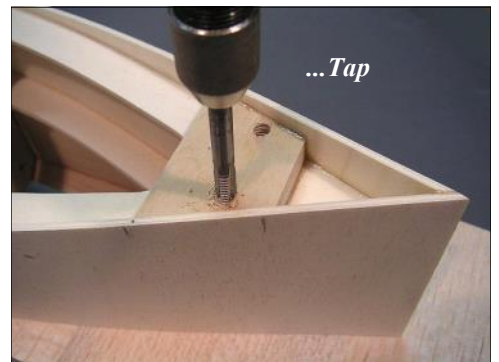


- ❑ When dry, put the wing back into position. The dowels will be pretty tight right now, but they will eventually conform to the holes and become pleasantly snug after putting the wing on a few times. Double check that the wing position is accurate, then tape and pin it firmly in place.

The holes for the wing bolts should be centered fore and aft on the wing bolt plates and spaced 5/8" from the wing center on each side. Mark the holes accurately, then drill all the way through the wing and the plywood wing mount with a 3/16" drill bit. Do your best to keep the drill perpendicular to the wing so that the heads of the wing bolts will sit flush on the wing bolt plate.



- ❑ Tap the wing mount with a 1/4-20 tap, and harden the threads with thin CA.

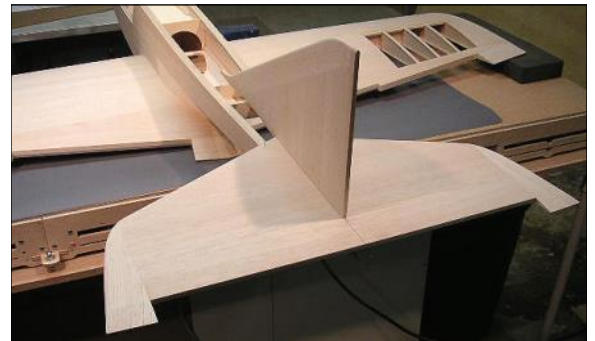


- ❑ Re-drill the holes in the wing with a 1/4" drill bit. Aluminum 1/4-20 x 3" screws and nylon washers are provided in the kit for the wing bolts. The aluminum screws can be shortened to 2-1/2" if you wish, but be careful to keep the threads intact.
- ❑ **OPTIONAL:** The edges of the boat tail are fairly narrow and may cause dents in the top surface of the wing when it is tightened down. You can add some balsa on the inside of the boat tail to provide more surface area if you wish. You can make a perfect wing/fuselage joint by wrapping the wing in saran wrap, coating the wing saddle area with an epoxy filler, then bolting the wing in place. The filler will ooze out on each side, but can be sanded away easily when dry. I like to use Stits SuperFil epoxy for this operation. Visit [www.stits.com](http://www.stits.com) for more info.
- ❑ Position the horizontal stabilizer on the stabilizer mount. The front of the stab should align with the stab mount. Measure carefully to make sure the stab is centered and that the distance from the stab tip to the wingtip is equal on both sides. Also, stand back about ten feet and look directly at the rear of the model. If the stab is tilted in relation to the wing, you may need to lightly sand one side of the stabilizer mount. When satisfied, pin the stab in place.
- ❑ Mark the stab mount through the two holes in the stab, remove the stab, and cut the holes in the stab mount.

❑ Glue the hardwood pushrod housing clamp to the rear-most strip of balsa sheeting on the bottom of the fuselage. The groove should be facing down, and should also be aligned with the center-line of the model. A drill bit placed in the groove temporarily will help with visual alignment. This hardwood block is being glued in now because it will form the base of the structure contacted by the rear fin post when the fin is installed.



❑ Replace the stabilizer, using the same pin holes that you used originally, so you won't have to measure again. Trial fit the fin. The two fin posts may need to be trimmed slightly to allow the fin to seat firmly on the stabilizer. Use a triangle to be certain the fin is vertical, then pin it firmly in place.



❑ The bottom of each fin post is braced on either side with short lengths of 5/16" sq. balsa. Cut four pieces, 3/4" long, and carefully glue them to the fuselage (not the fin!). The front braces are glued to the bottom balsa sheeting and the rear braces are glued to the hardwood pushrod housing clamp. The idea here is to get the braces in place while you still have access through the fuselage bottom. You do not actually want to glue in the fin right now, just the braces. Remove the fin and stab.

**NOTE:** The tail pieces have not been "officially" mounted yet, but they are ready. When the time comes later to glue them to the fuselage, proper alignment should be quick and easy. The proper time to glue the tail surfaces to the fuselage is up to you. I like to cover everything and then glue, but some modelers prefer to glue their tail on before covering. Either way works - just be sure to use epoxy and pay careful attention to alignment.