

4 WING SUBASSEMBLIES

Time for a bit of tedium here. Once these time-consuming tasks are done, you will be ready to take on the final assembly of the wing panels with minimal delay. Let's roll...

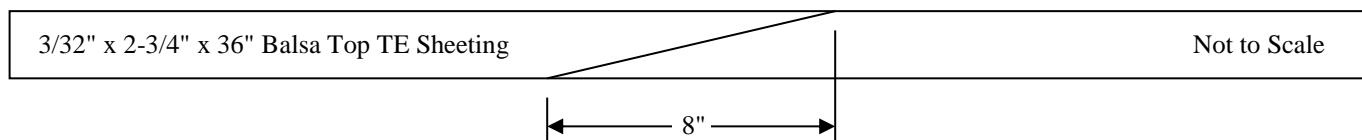
- ❑ **Sort the Balsa Sheets** - Go through the 3/32" x 3" x 36" sheets provided and sort them as follows:

16 Leading Edge Sheeting - *Look for medium weight, long grained pieces that bend uniformly*
 8 Center/Wing Joint Sheeting - *This can be slightly heavier than the leading edge sheeting*
 8 Trailing Edge Sheeting - *Use the heaviest, stiffest sheets here.*
 12 Aileron/Flap Sheeting - *Light to medium wood is okay, you want to keep the control surfaces light*
 2 Leftover - *You'll need some for the Fuselage, but mainly these are extras (you know, just in case)*

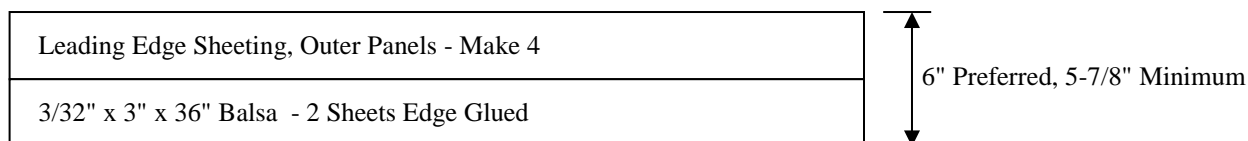
- ❑ **Flap Sheeting** - Select six 3/32" x 3" sheets to use as flap sheeting. Cut all six sheets to a length of 24" and save the 12" cutoffs for later. Take four of the 24" sheets and slice them down the middle, lengthwise. Now you should have eight pieces, 1-1/2" x 24". These will be used as the top and bottom sheeting for the flaps (two on top, two on bottom of each flap). If the edges are slightly bowed, you can trim them again to a width of 1-3/8"; it's not critical. Take the two remaining sheets and slice each slightly off-center so that you end up with a piece that's 1-5/8" and another that's 1-3/8". The 1-5/8" x 24" strips are for the front face of the flaps and the 1-3/8" x 24" strips are for the rear face of the wing. Mark the sheeting as you go so you'll remember their uses later on.

- ❑ **Aileron sheeting** - Select another six sheets and slice four of them in half along their full length. These eight 1-1/2" x 36" pieces will be used for aileron sheeting. Cut the remaining two sheets to 1-5/8" and 1-3/8". Like the flaps, the 1-5/8" x 36" strips are for the front face of the ailerons and the 1-3/8" x 36" strips are for the wing rear face.

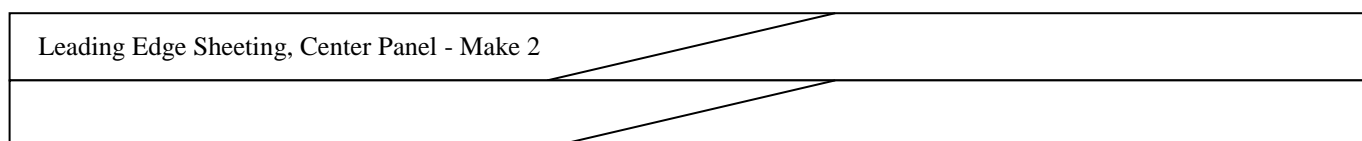
- ❑ **Trailing Edge Sheeting** - These need to be trimmed slightly. Trim four sheets to a width of 2-3/4"; these will be used on the top surface of the wing panels. Trim four pieces to 2-1/2" to use on the wing bottom. The top and bottom sheets for the center panel will need to be spliced. Make the splices in all sheeting at least 8" long.



- ❑ **Leading Edge Sheeting, Outer Panels** - Make four sets of LE sheeting. Each set is made from two pieces of balsa, edge glued along their entire length. The tricky part here is that the final width of the LE sheet **MUST** be as close to 6" as possible, which means there is very little room for trimming. Fortunately, most sheets are slightly oversize, so it may be possible to trim them if necessary. Try to find sheets that match without trimming.

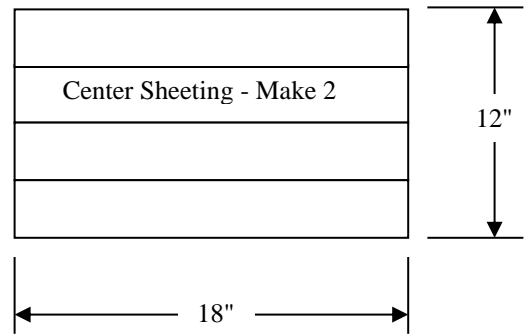


- ❑ **Leading Edge Sheeting, Center Panel** - Make two sets. This one is the trickiest. If I can do it, so can you. Start with the splices, then do the long edge joint. Again, keep the overall width as close to 6" as possible.

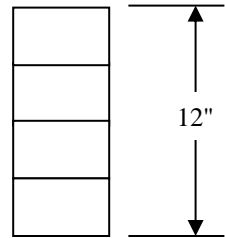


WING SUBASSEMBLIES, CONTINUED...

❑ **Center Sheeting** - You'll need four 36" sheets to make two center sheets (one top, one bottom) for the wing center panel. If you look ahead, you will see that I got a little fancy with my center and wing joint sheeting, adding curved edges to the corners. This is totally unnecessary; I just think it looks cool and may help avoid those nagging little covering wrinkles that often occur where sheeting meets at 90°. If you want to try this on yours, plan ahead now and use extra balsa as necessary. This is where those leftover sheets may come in handy.

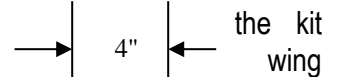


❑ **Wing Joint Sheeting** - Make eight sets of these, all identical. Again, you may want to add extra wood for trimming curved corners later.



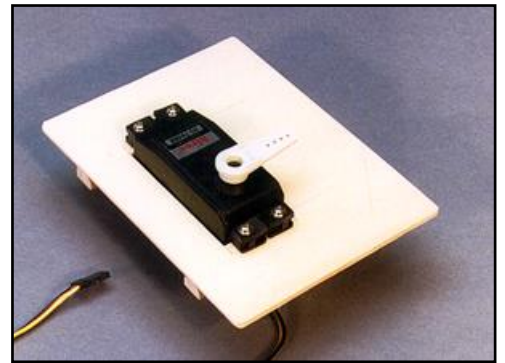
❑ **Center TE Sheeting** - (no diagram) This is to sheet the small wing section between the flaps in the center wing panel. The final piece for the top should be 4-1/2" x 10-1/8" and the piece for the bottom should be 6" x 10-1/8".

❑ **Wing Filler** - (no diagram) Six pieces of 1/2" x 2-3/8" x 4" balsa are provided in to be used for beefing up the areas in the wing where the dowels attach and where the bolts pass through. Glue three of the balsa pieces together to form a single block that measures 1-1/2" x 2-3/8" x 4". Repeat for the other three pieces. Later, you will cut filler pieces from these blocks to fit the wing structure.



❑ **Servo Mounts** - Make four servo mounts for the ailerons and flaps. The mounts consist of a lite-ply plate and rails cut from 1/4" x 3/8" basswood. First, make a cutout in the plate to fit your servo. Leave about 1/16" clearance all around the servo case. Next, cut rails the full width of the plate and glue them to the back of the plate. Position the rails so the servo screws will bite into them.

-SFK



Servo Mount - Lite-ply with bass rails. This servo is a Hitec HS-700BB. It's physically a very large servo with lots of torque and a surprisingly low price. Note the heavy-duty Du-Bro servo arm.