

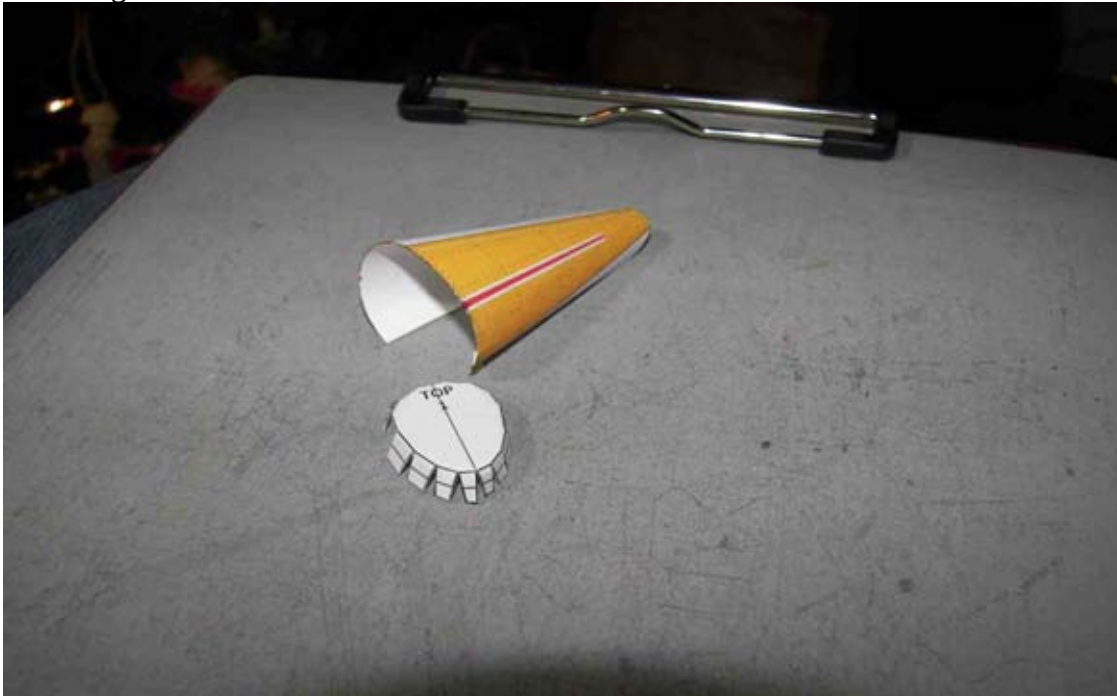
Here is the model in unbuilt form:



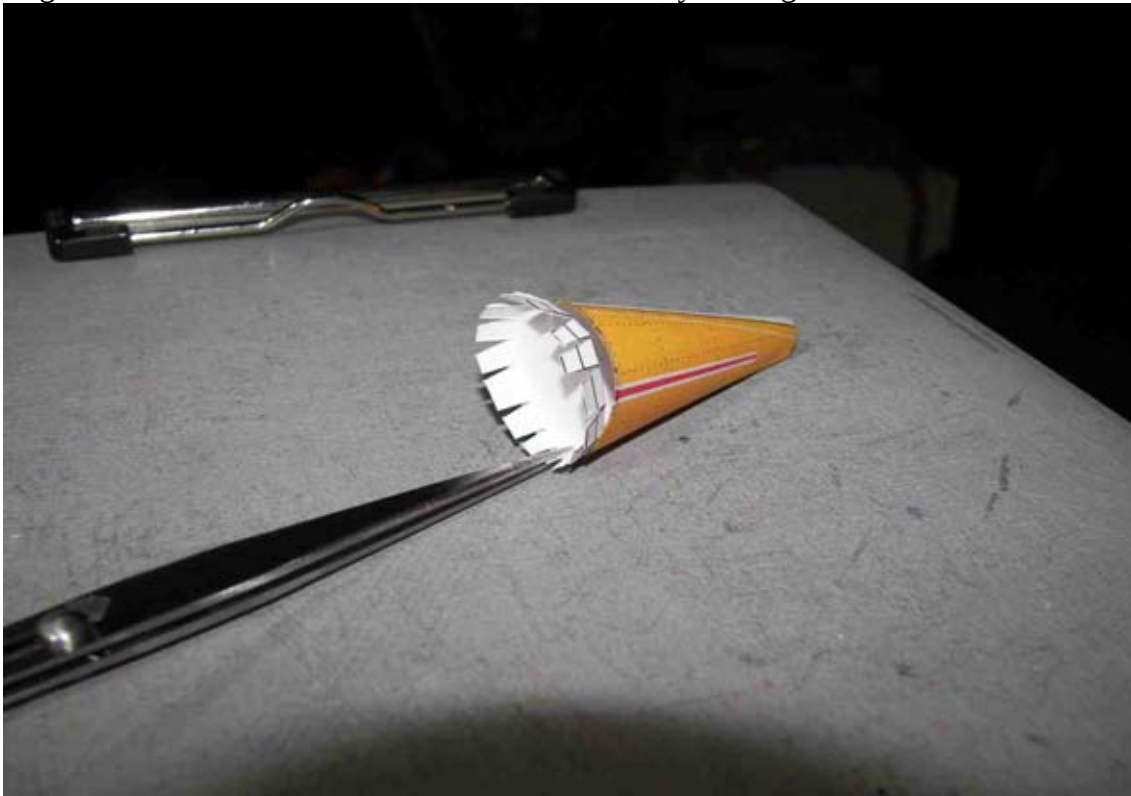
The first thing I do is cut out the tail cone and the aft bulkhead (marked with a number 1)



Next I form and glue the tail cone and bend all of the teeth on the bulkhead



Start gluing in the teeth with the bottom two. Make sure they are aligned with the seam.



Next glue the top tooth – it lines up with the markings for the vertical tail.



Work your way around the tail gluing all of the teeth one by one. Then cut out the next section of the fuselage.



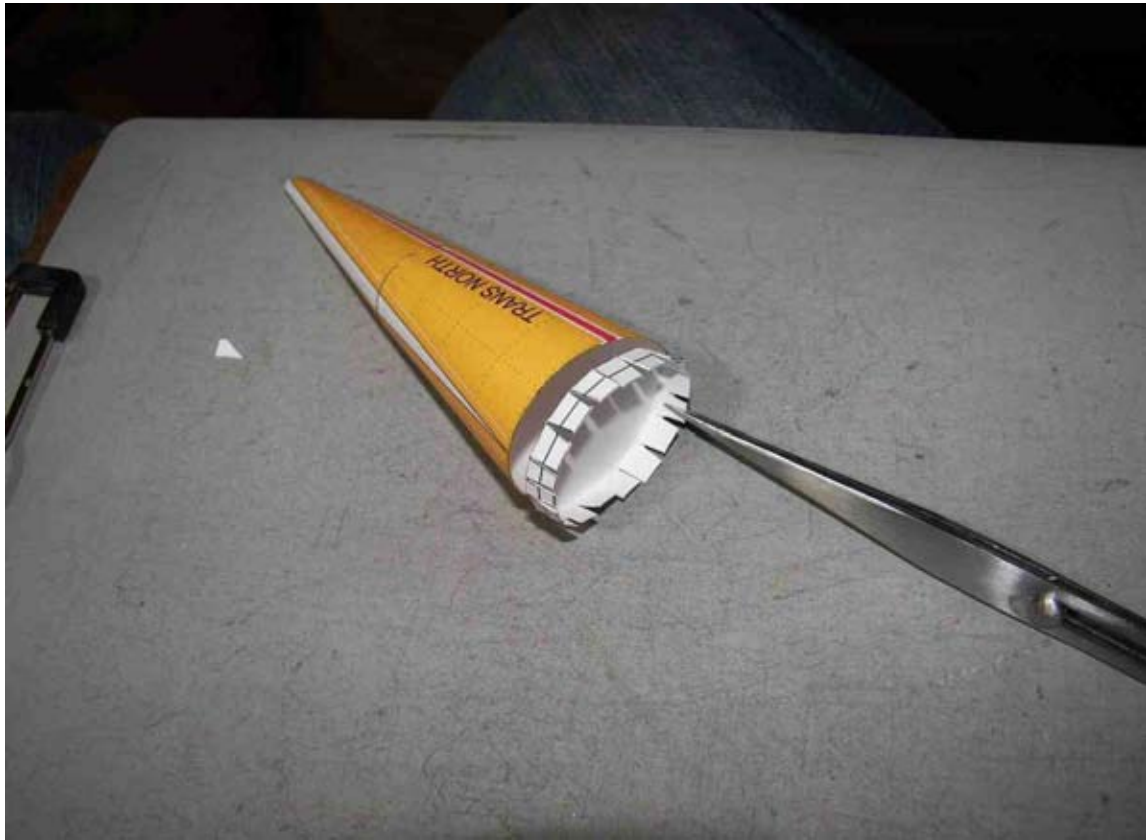


Form and glue the fuselage section and cant the teeth on the aft section inward. Apply glue to the inside of the fuselage section and join the sections. Reach through and cinch all of the teeth with a tweezer.

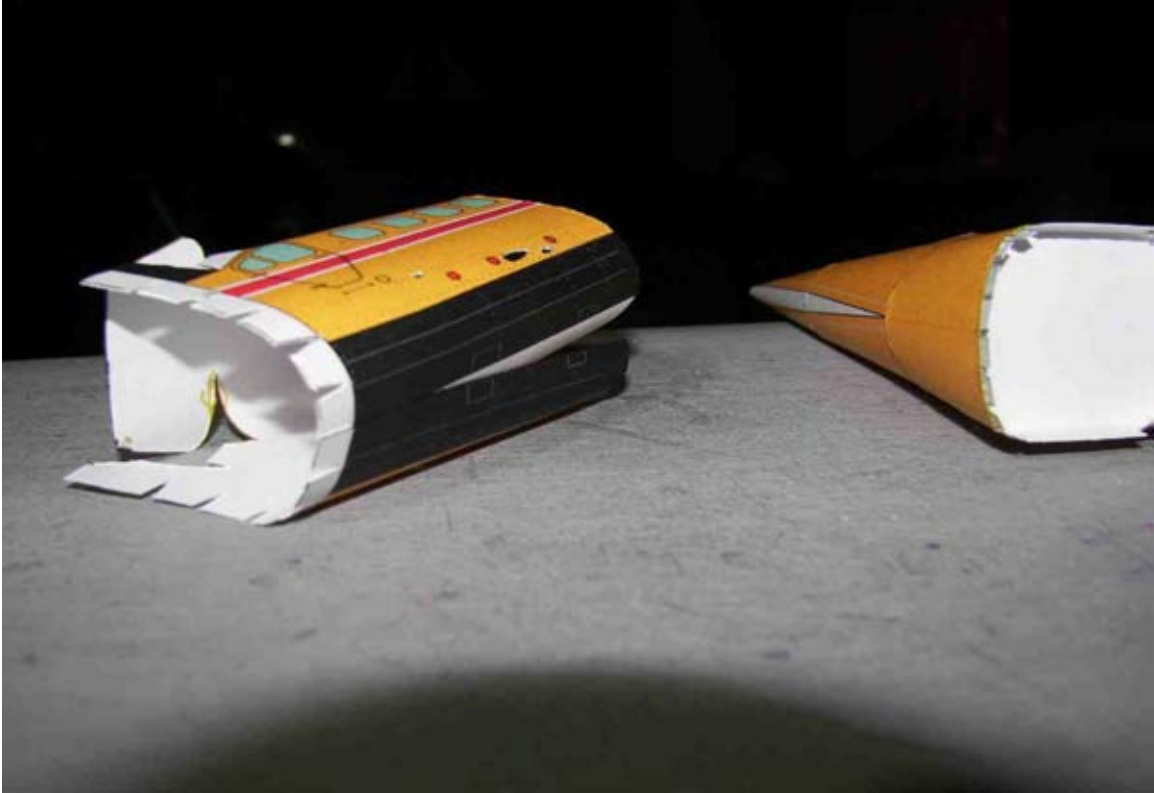




Now it is time to get redundant... install the second bulkhead in the same manner used for the previous bulkhead.



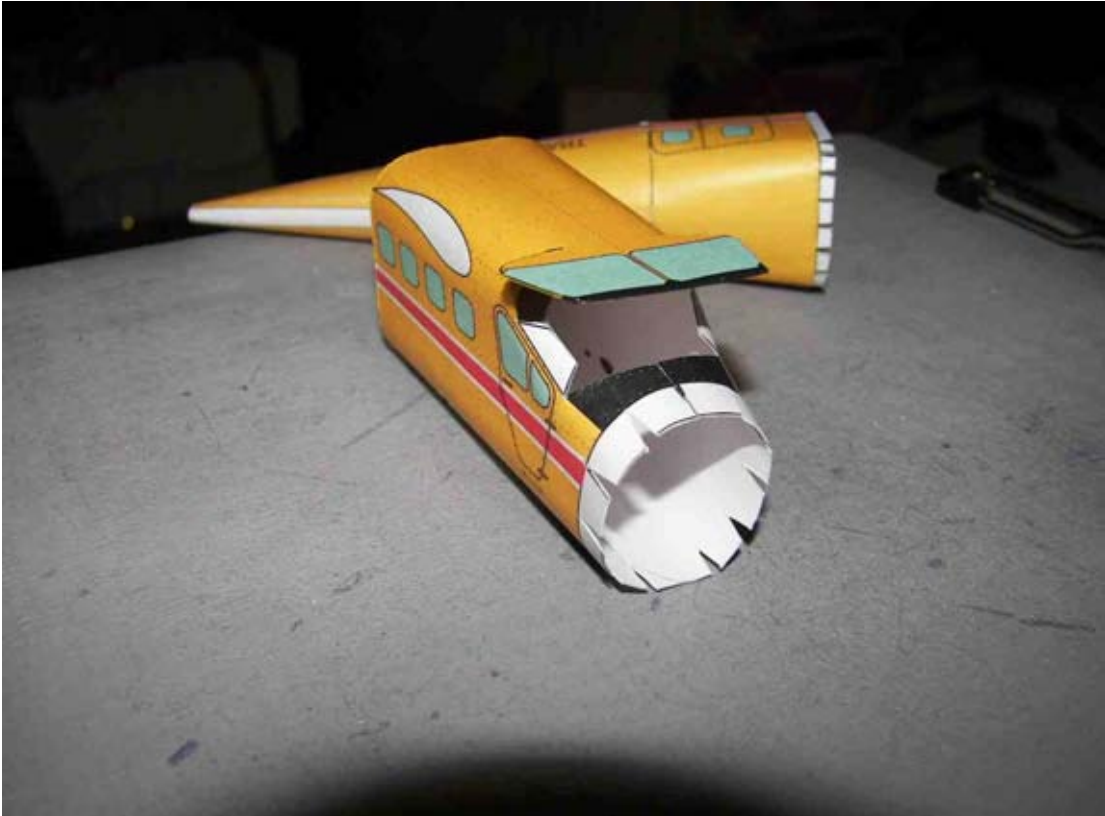
And now in a similar fashion install the third bulkhead.



With the third bulkhead installed and drying, start forming the cabin of the fuselage. I always start the cabin by gluing the front glue tab on the bottom of the cabin. This will allow me to get my meaty hands inside the cabin from the rear until everything gets sealed up.



This picture shows that the bottom of the fuselage needs to be rounded.



Shape and glue the fuselage ahead of the cabin.



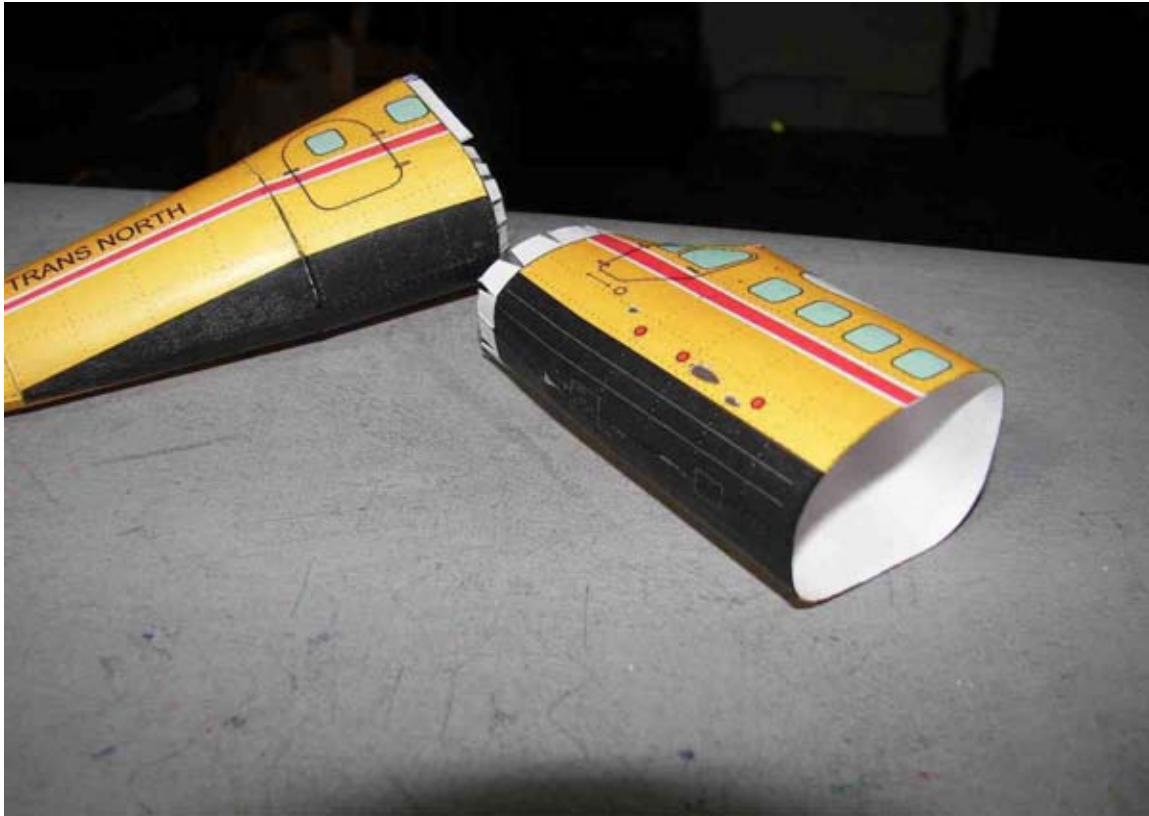
I use a metal dowel to round the windscreen



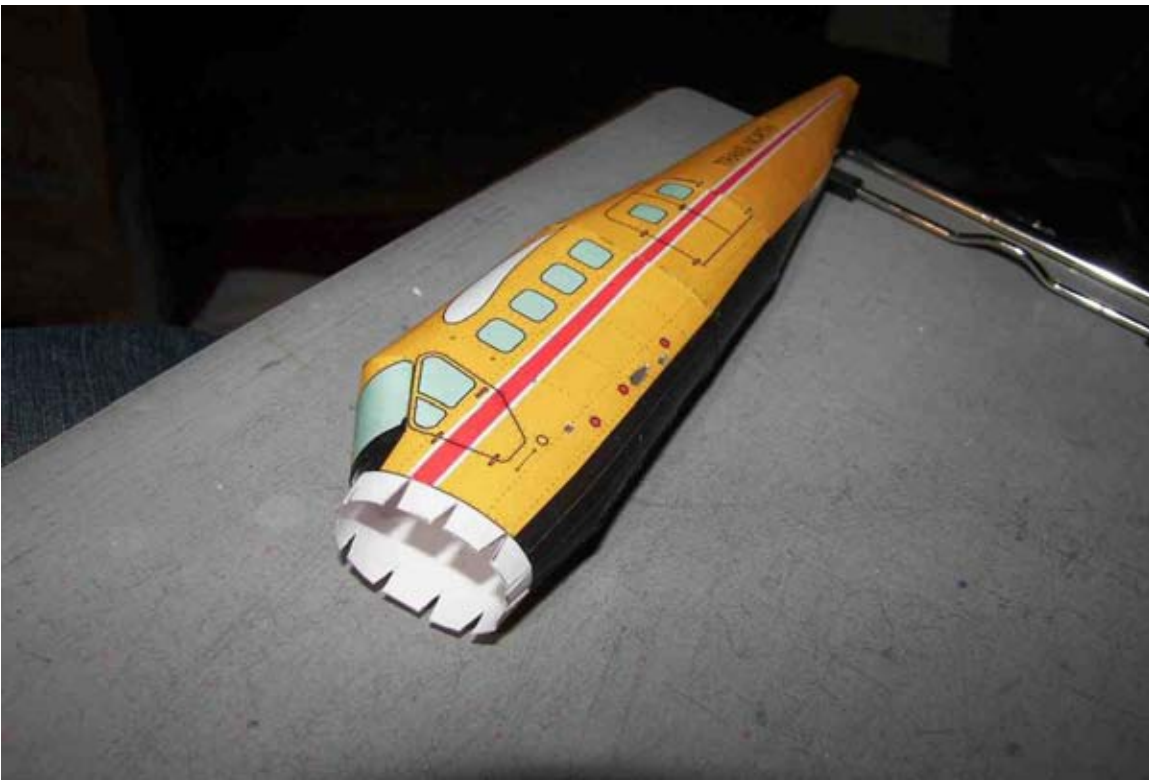
I think that getting the windscreen lined up and glued onto the tab is the hardest part of the whole build. I find that getting fingers inside helps a lot to get things to fit.



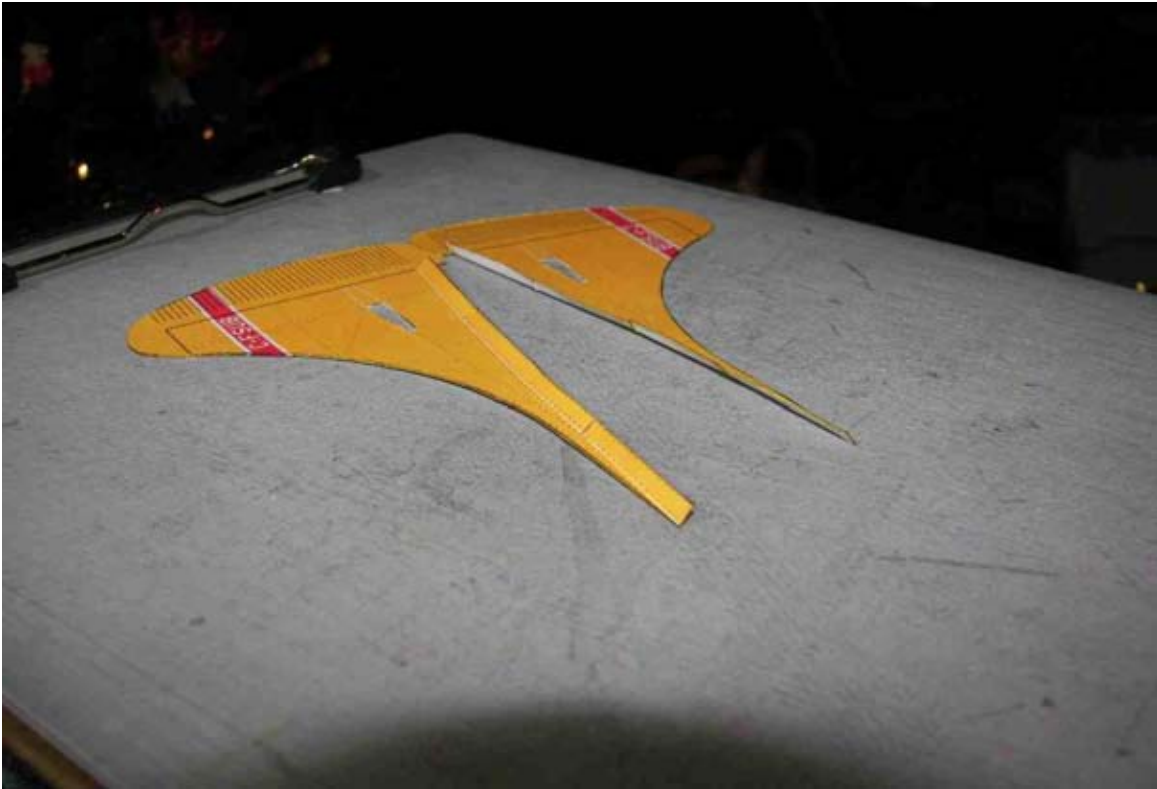
Here is proof that you can get things reasonably lined up. I can hardly wait to see this model built at 1:200 scale ;) Someone is going to have to have mighty small fingers!



These fuselage pieces are ready to join



It is challenging to reach through the long cabin to reach the fingers on the bulkhead to cinch them down.



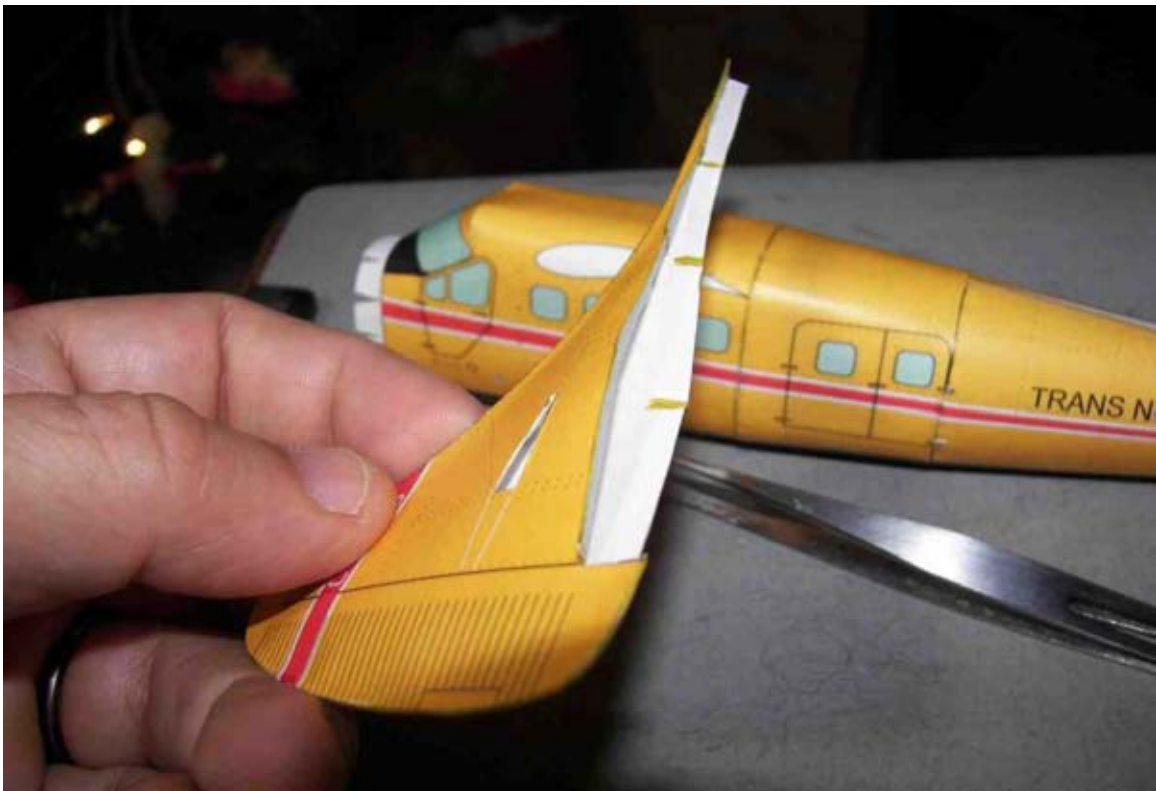
Next I am turning my attention to the vertical tail. Cut the pieces out and bend the glue tabs outward as I show in this picture.



Put a thin strip of glue round the top and rear of the tail piece. Glue the pieces together and allow to dry. In this picture I am getting ready to stuff the tail with half a piece of toilet tissue that I folded and grasped with my tweezers.



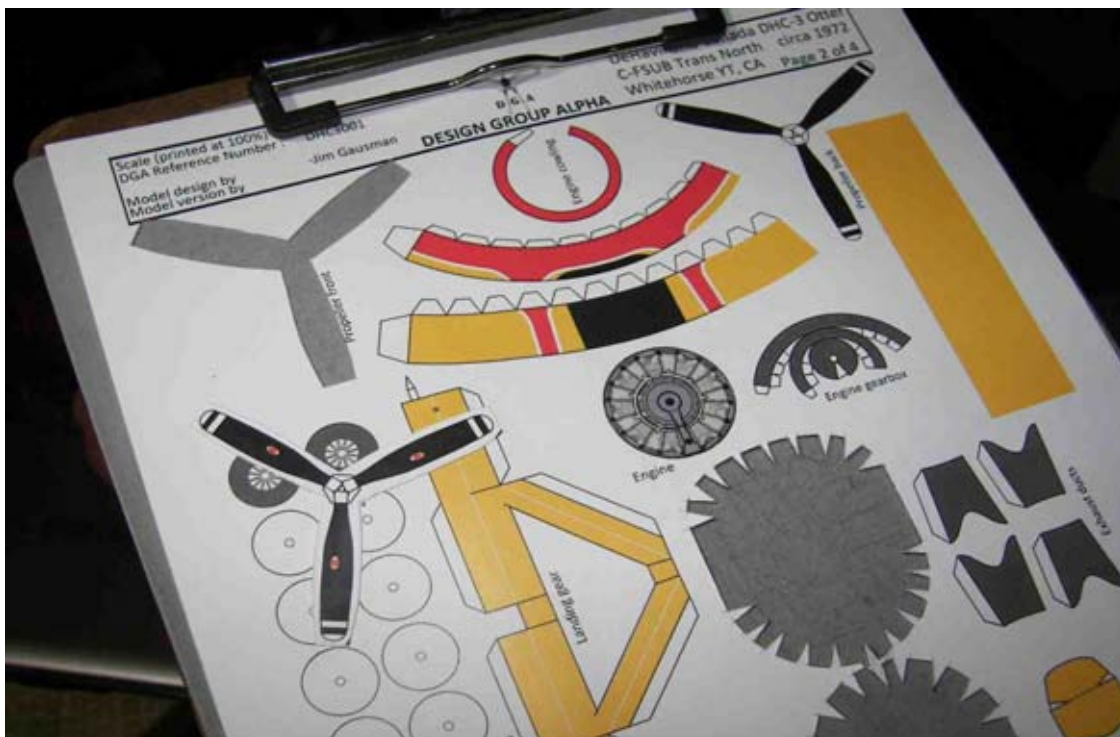
This first piece of tissue gets stuffed into the rudder (at rear of tail)



Use more tissue as needed to fill the tail to your satisfaction, but be careful not to block the openings for the horizontal tail.



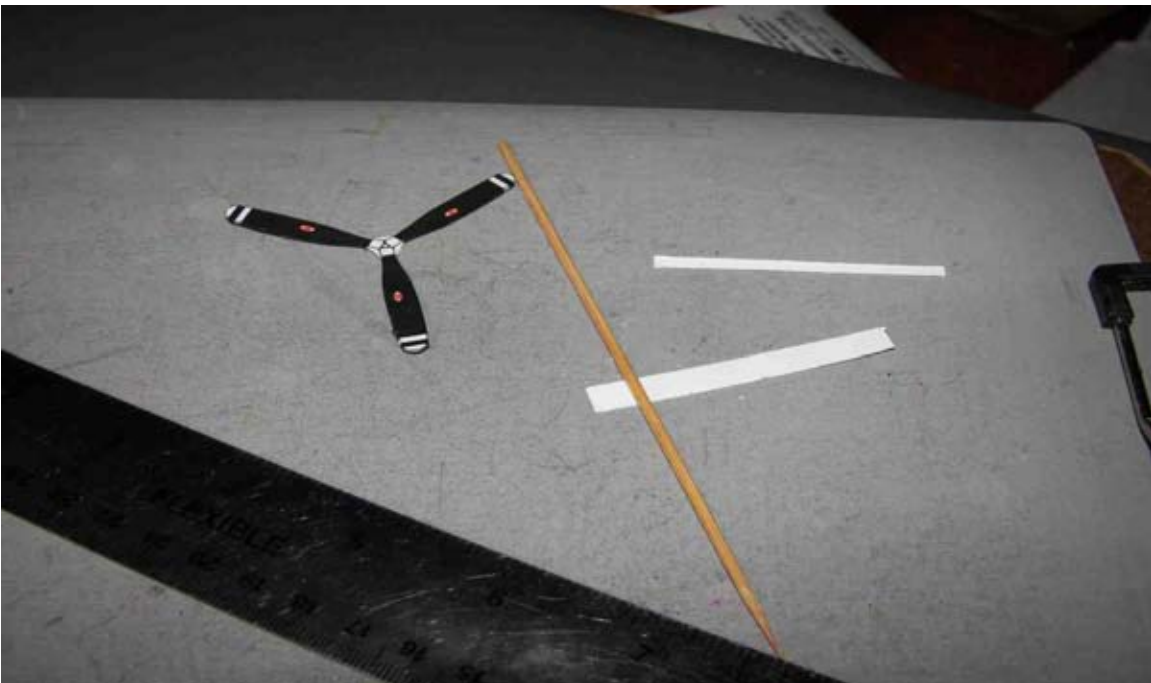
Glue the vertical tail to the top of the fuselage and the ventral strake to the bottom. Since I am building a floatplane version of this model, I have omitted the aft part of the ventral strake as this would get covered up with the ventral fin.



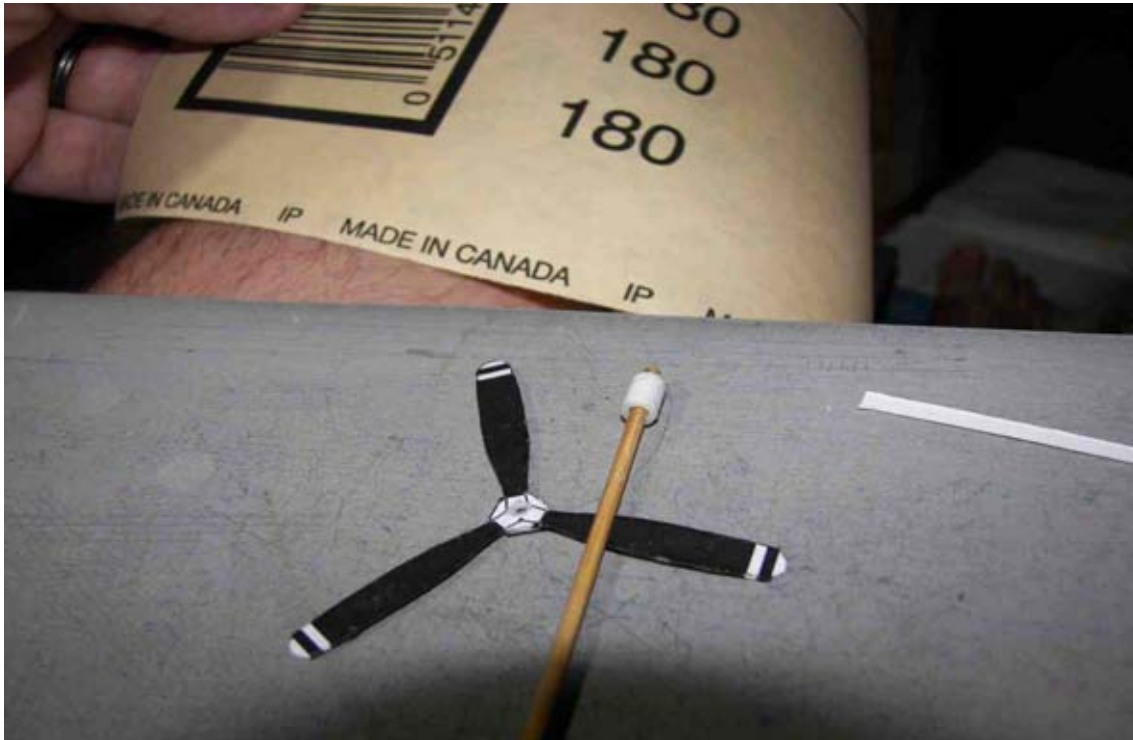
Next I am going to build the propeller. I like to build these three layers thick, so first I cut out the front or the back of the propeller and glue it to cardstock that will otherwise go unused. Since I am building a floatplane, I won't need the landing gear.

Next thing I do is to carefully cut out both the front and the back of the propeller and glue them together.

I don't trim the blade tips of the propeller until the front and back are plied together. I have acquired a special tool that I think must have been made for trimming the tips of propellers.



Now for the propeller hub. I use a bamboo skewer for the engine shaft and I cut out two pieces of waste cardstock to fashion the hub. The pieces I cut are two and a half inches long. One of the pieces is a quarter of an inch wide and the other is an eighth of an inch wide.



I roll and glue the piece that is a quarter inch wide around the blunt end of the skewer leaving about a sixteenth of an inch of bamboo protruding from the rolled paper. Next I find my sheet of sandpaper and verify that it is made in an appropriate country for the model that I am building.

When the glue is dry, I sand the propeller hub into a nice rounded shape using a motion like striking a match on the sandpaper while spinning the shaft.



Drill a hole in the middle of the propeller and slide onto the shaft and glue in place.



Wrap and glue the eighth inch wide piece of cardstock around the shaft to for the base of the propeller hub. Colour the hub with a silver marker.



Here I have assembled the engine and cowling and it is ready to glue on. Note that I trim the bamboo skewer (I use a toenail clipper). Since I give almost all of my models to kids, I used a chunk of hardened glue as a retainer to hold the skewer in place.



In this picture I have already adhered the chin scoop to the bottom of the fuselage and I have assembled the exhaust pieces and they are ready to attach.



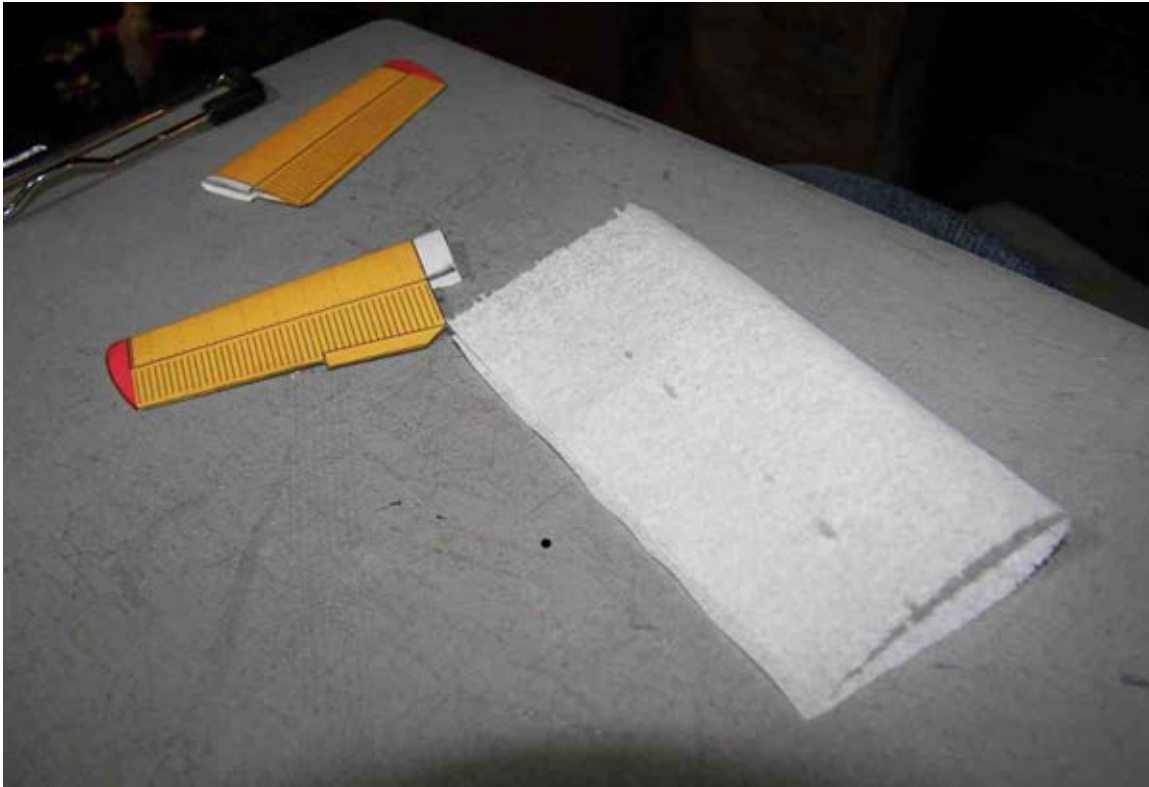
Note that the port and starboard exhaust fairings are different and that they attach to the fuselage adjacent to the chin scoop with the seam lines lining up with the cowling seam.



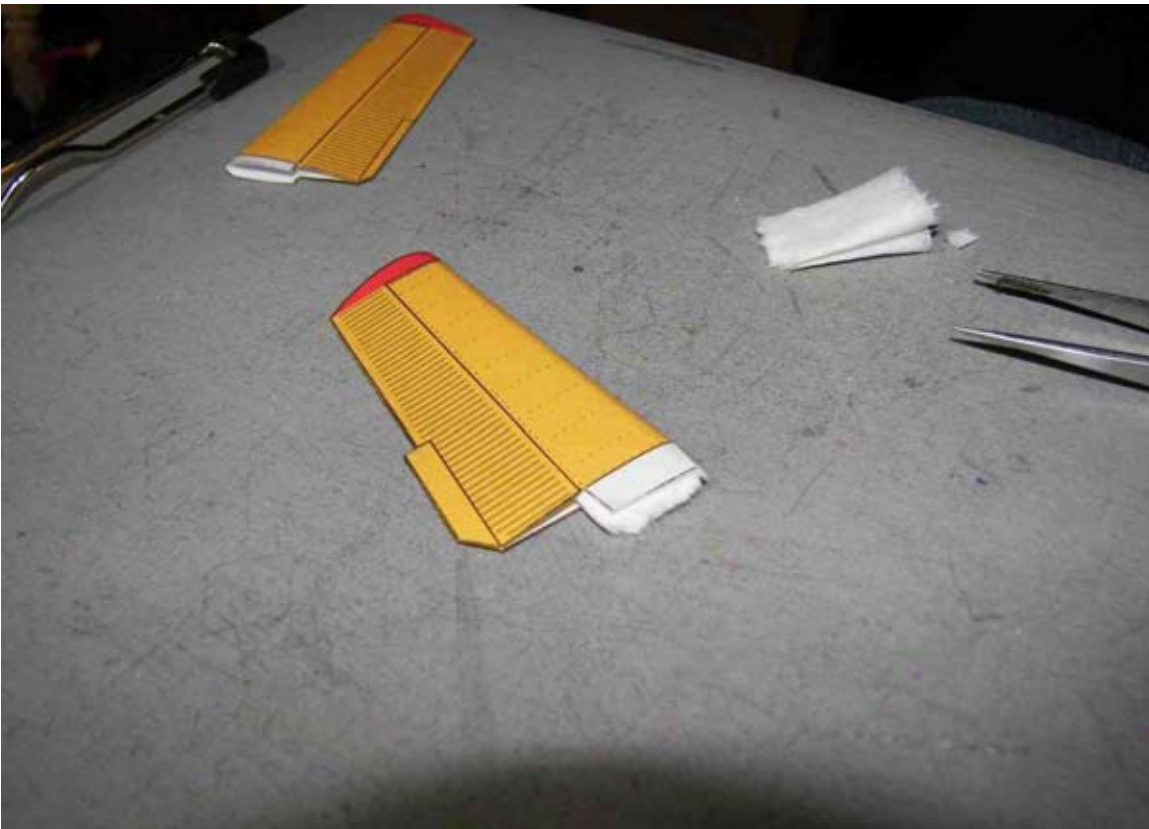
Cut the openings for the wings and extend the cut past the marking and into the next section of fuselage back to the bulkhead.



Form the horizontal tail pieces and glue the trailing edges



I use a piece of toilet tissue for batting inside the horizontal tail. I separate the plies of the tissue so I am using a single ply.



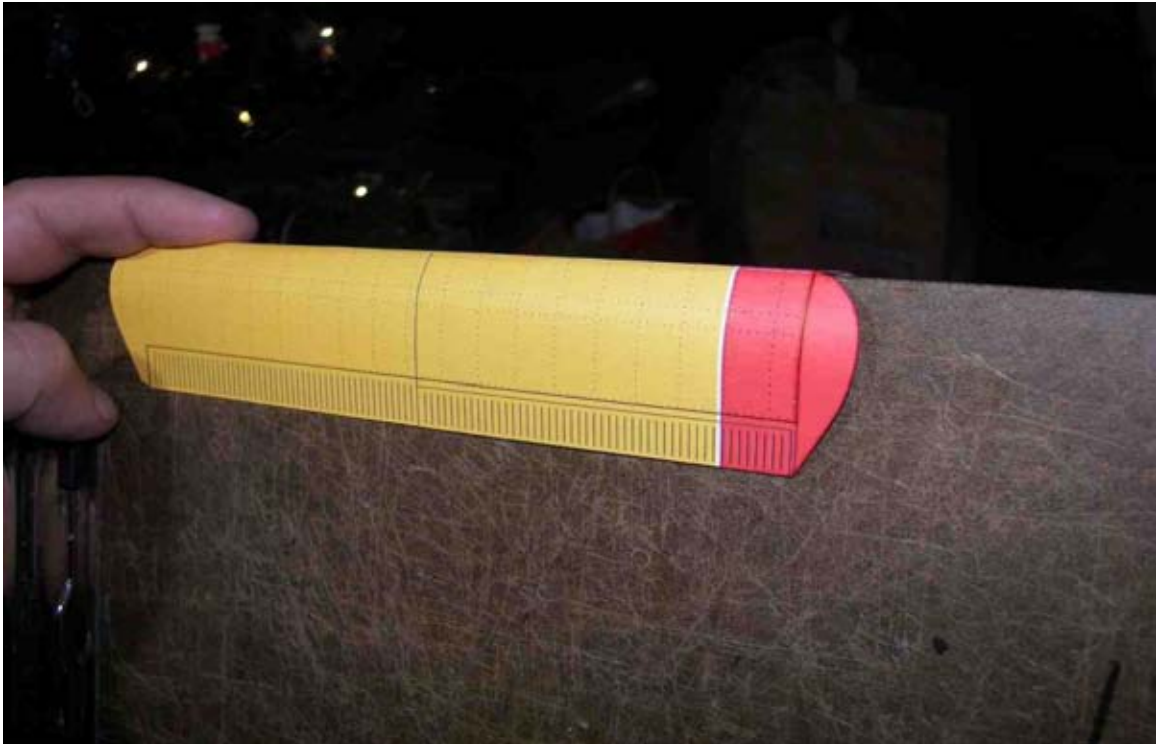
I stuff the tissue between the long glue tabs on the port stab and I tear off excess tissue.



I dry fit the starboard stab and then I reach through the vertical stab and apply glue inside the starboard stab. Then I stick the long tabs of the port stab through the vertical stab and into the glue inside the starboard stab. I use enough glue that I have a little working time to align the port and starboard stabs. I pinch the starboard side to set the stabs in place.



Here is the horizontal tail completed.



Now for the wings... I form the wings and glue the trailing edges.



I glue the wings together with the center section applying glue only to the tabs on the bottom. This is when it is essential to get the leading edges of the wings lined up straight. Please note that I have already formed the undercamber of the wings so that they match the shape of the airfoil on the fuselage cutouts.



Flipping the wings over, I force the wingtips downward so I can get glue under the roots of the wings



Using one binder clip to clamp the trailing edge of the center section to my clipboard, I use two additional binder clips on the clipboard to give the wing dihedral. On the 1:48 scale model, the wingtips should be a quarter of an inch higher than the wing roots.



While the wing is drying I get the fiddly bits ready... the flap hinges and the struts and the wing fences. Please note that I took a shortcut and used only one pair of wing fences. I glued that pair to the backside of the spare colour panel from sheet two of the model. This is easier than cutting out all four of the wing fence pieces and gluing them together.

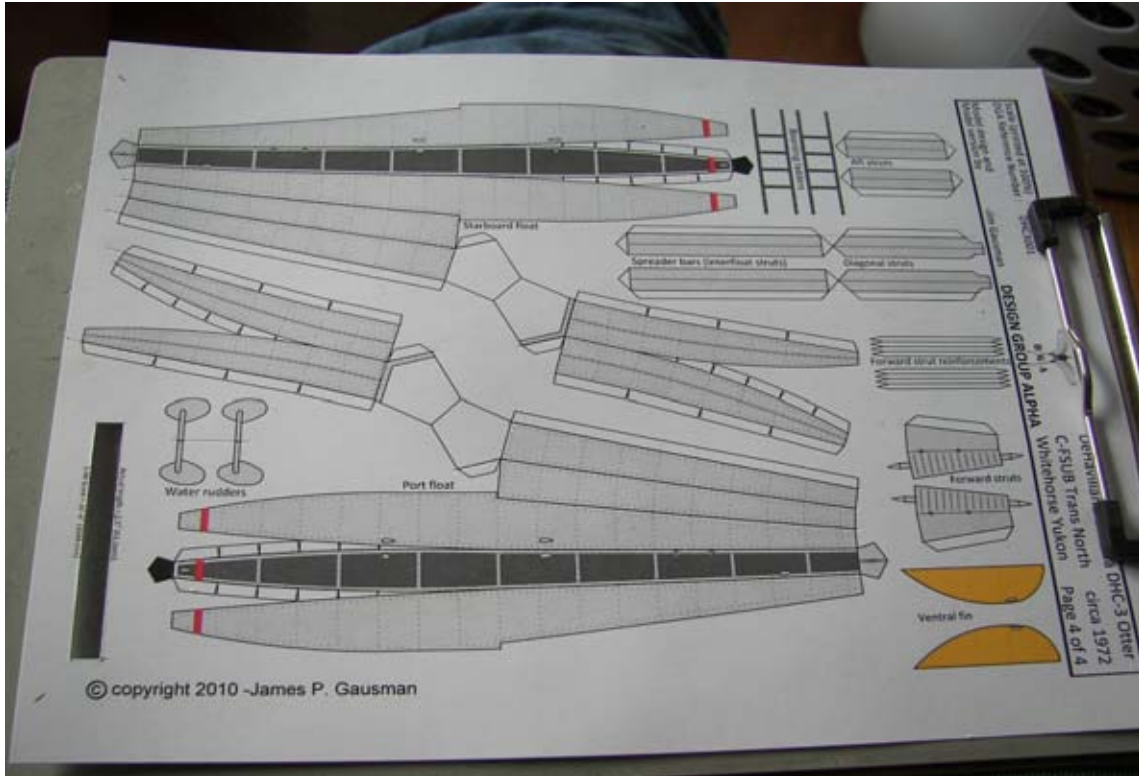


Slide the wing into the fuselage BEFORE gluing on both wing fences!

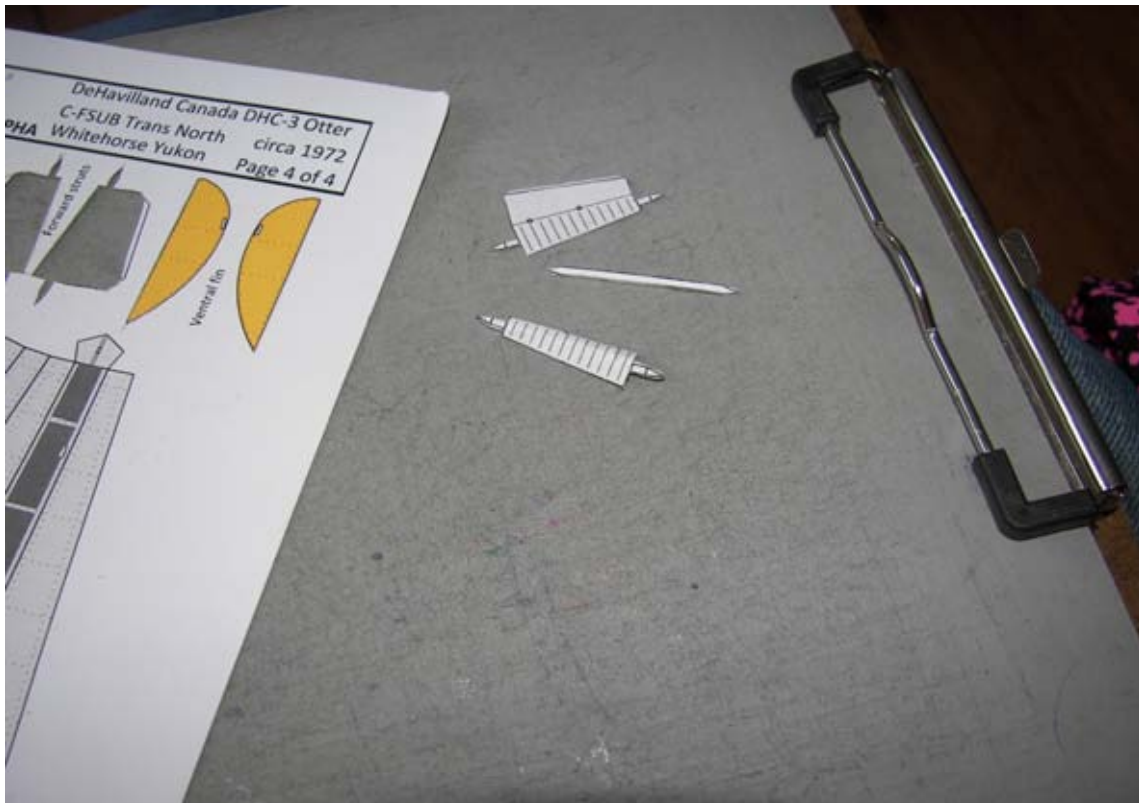


This is the fuselage and wings all together.

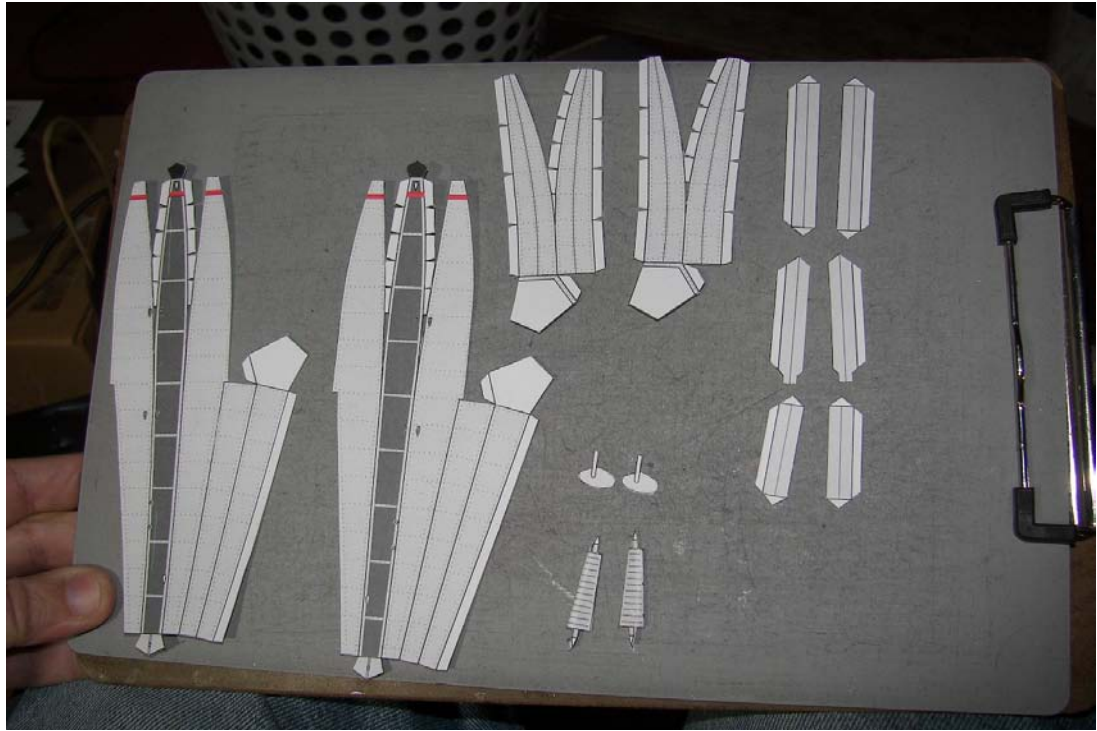
Now to build the floats:



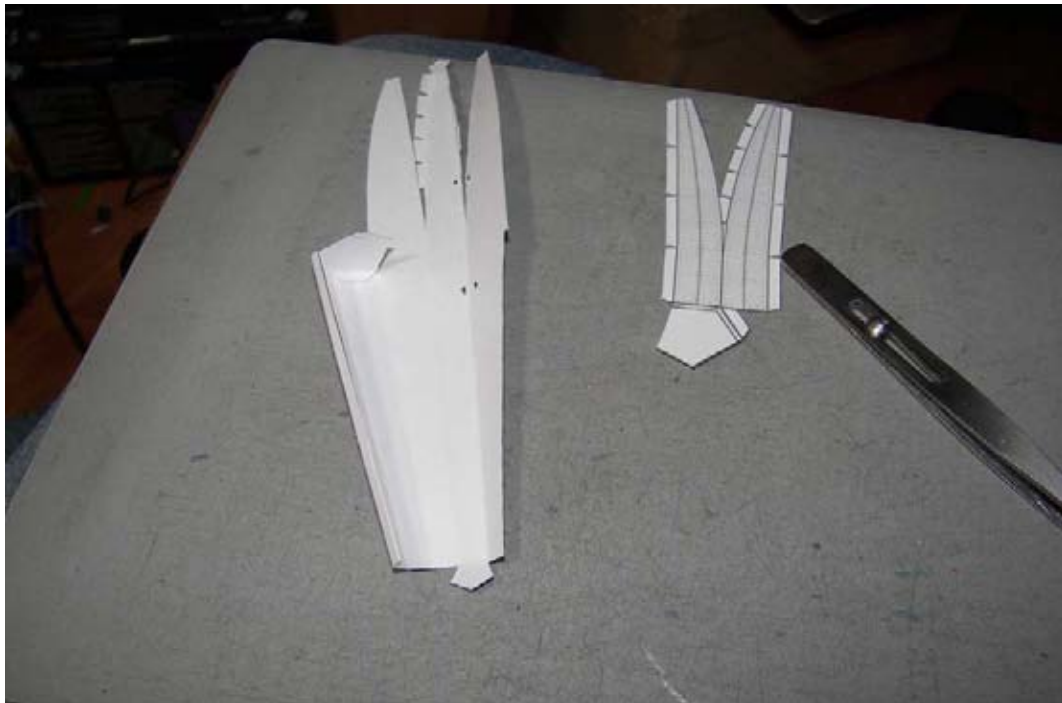
I started by assembling the forward struts. You are certainly welcome to use toothpicks as the strut reinforcement. I use four layers of paper.



I have scored all of the fold lines and cut out all the rest of the float pieces. Note that I chose to cut the floats themselves into two pieces. I have built several pairs of floats scoring and folding the bulkhead, but I feel it is easier to cut it apart. It does not matter for the sake of these instructions which way you choose to do it.



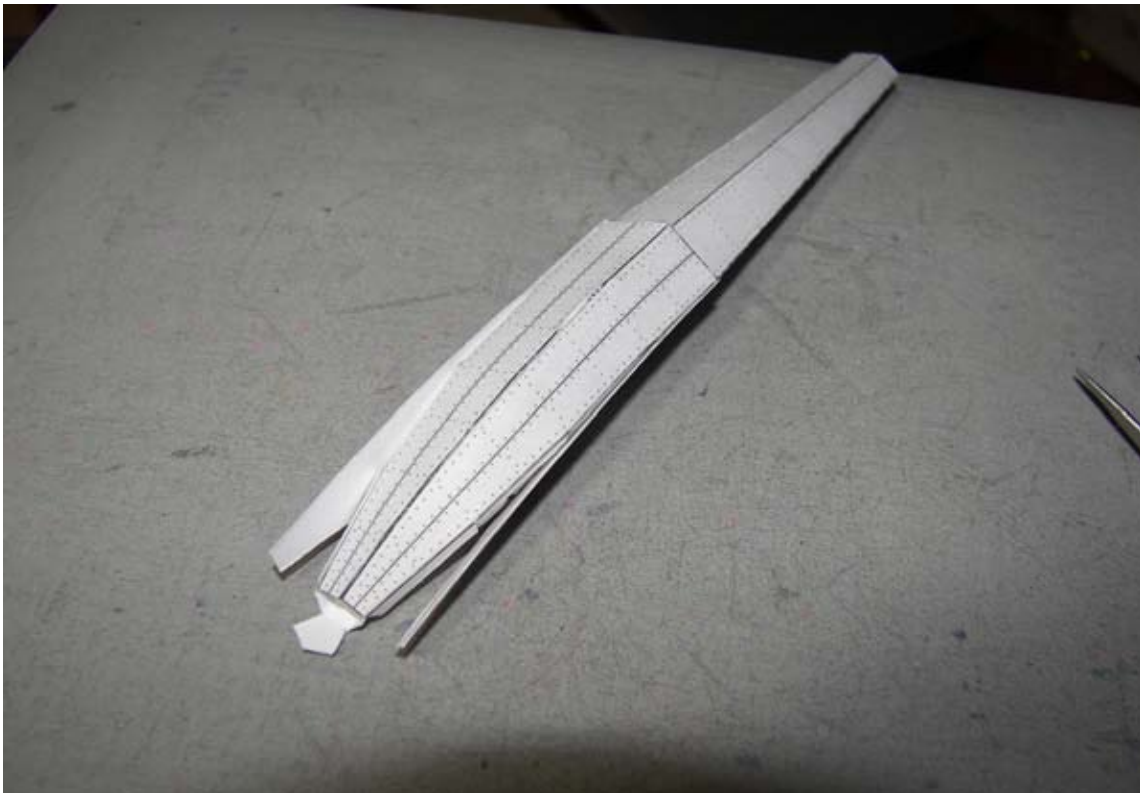
I have started to bend all of the fold lines.



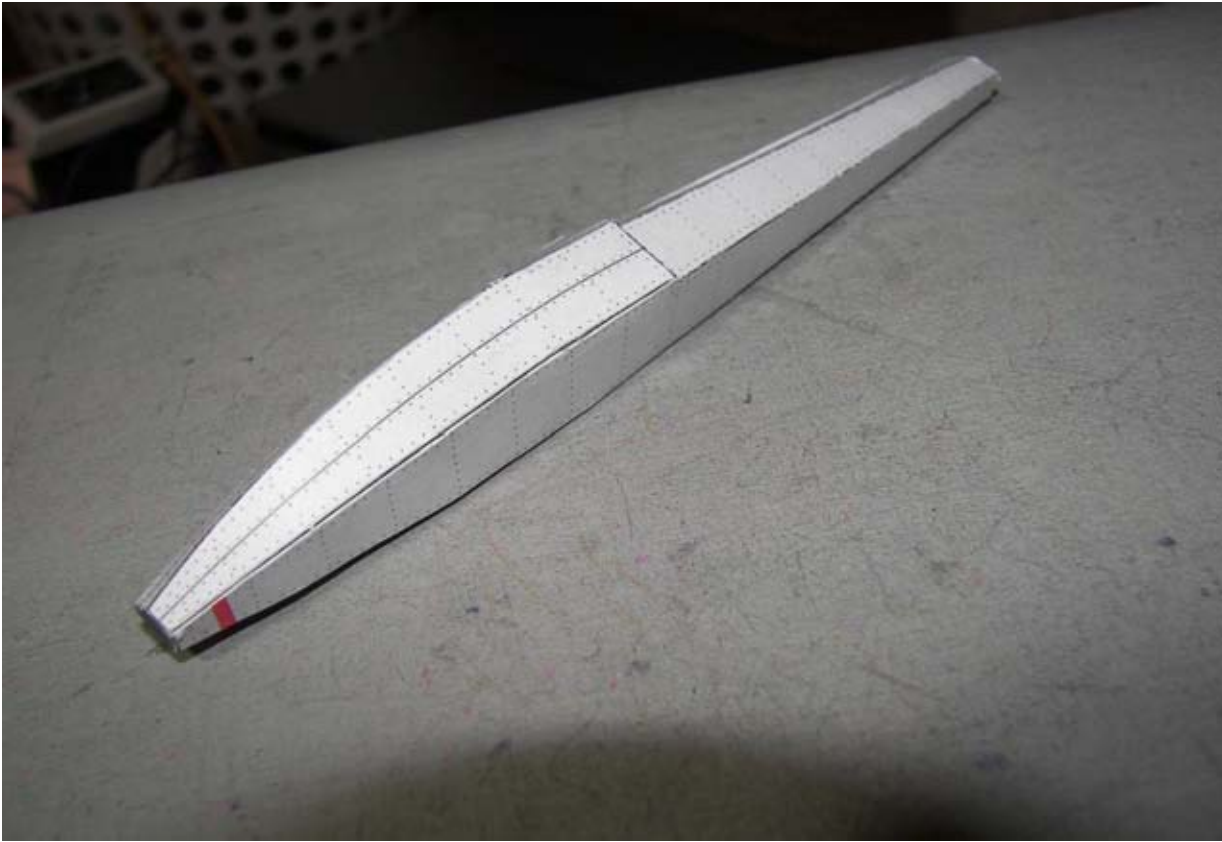
In this picture the long glue tab at the aft end of the float has been glued in place. Also the front of the hull has been formed and glued.



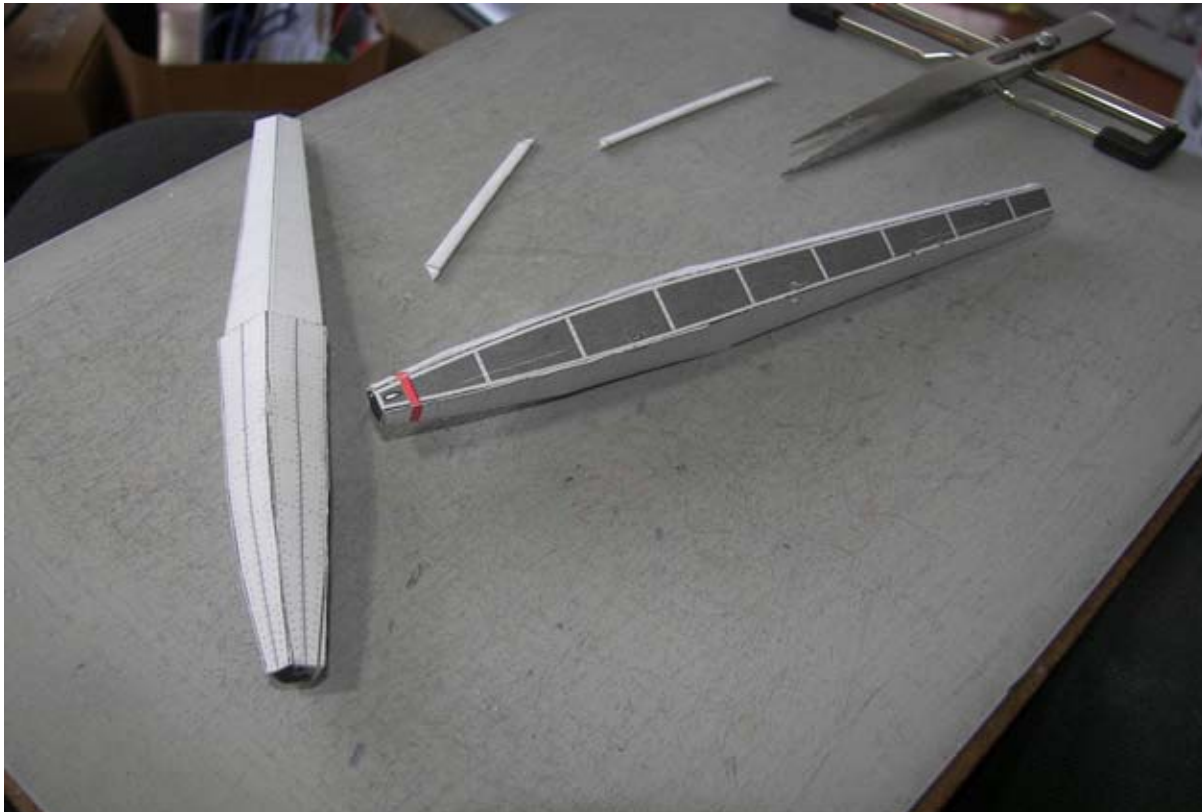
Now the bulkheads from the forward and aft pieces have been glued together



Glue the rest of the tabs to finish the float hull. Glue the tabs one at a time working toward the front of the float.



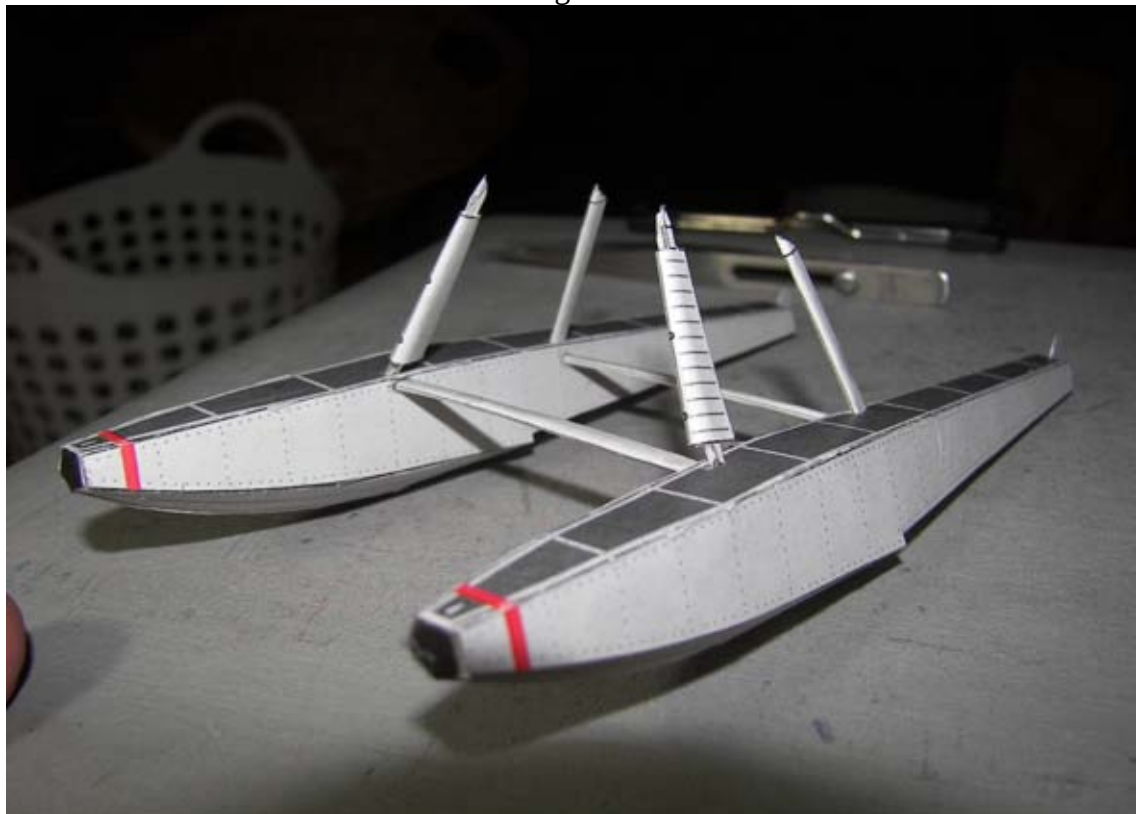
Repeat the process to form the second float hull.



I dry-fit the spreader struts into the float hulls, and then I apply glue. I set the assembly upside down on a surface that glue does not stick to and I leave it to dry. I set my tweezers on top of the spreader struts to add a little weight so that everything will be straight when it is finally dry.



The next thing I do is to glue the forward and aft struts into the float hulls and leave this assembly to dry. Note that I have lanced the rear of the float hulls and glued in the water rudders.



Now I am dry-fitting the float assembly to the fuselage.



The tops of the float hulls should be parallel with the windows. When it is all lined up, I apply glue to the roost of the struts.



Aside from the boarding ladders, the diagonal struts are the last piece to complete the model. The struts are intentionally too long and need to be trimmed to fit.



Finally here are a few pictures of the completed model.



