

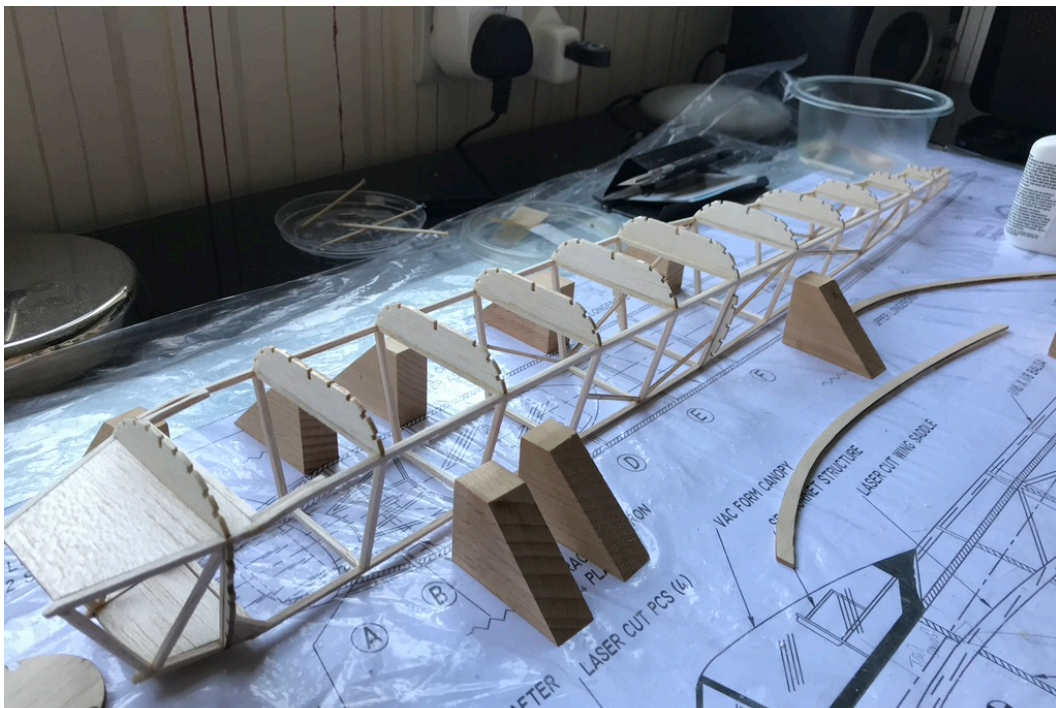
# De Havilland Hornet build, part 3

I haven't spent nearly as much time with this as I had expected. We have run into some great spring sunshine and sitting at my building table has had a lot less appeal.

Equally it's a sufficient challenge to my skills that pausing is essential to work out how the next part will be done, but bad because its easy to loose site of the basics as I struggle with the unusual.

But I am pleased with the progress. It doesn't look like a lot, but that's down to ineptitude on my part and, frankly, a few more challenges.

I carried on by fitting the bottom formers:



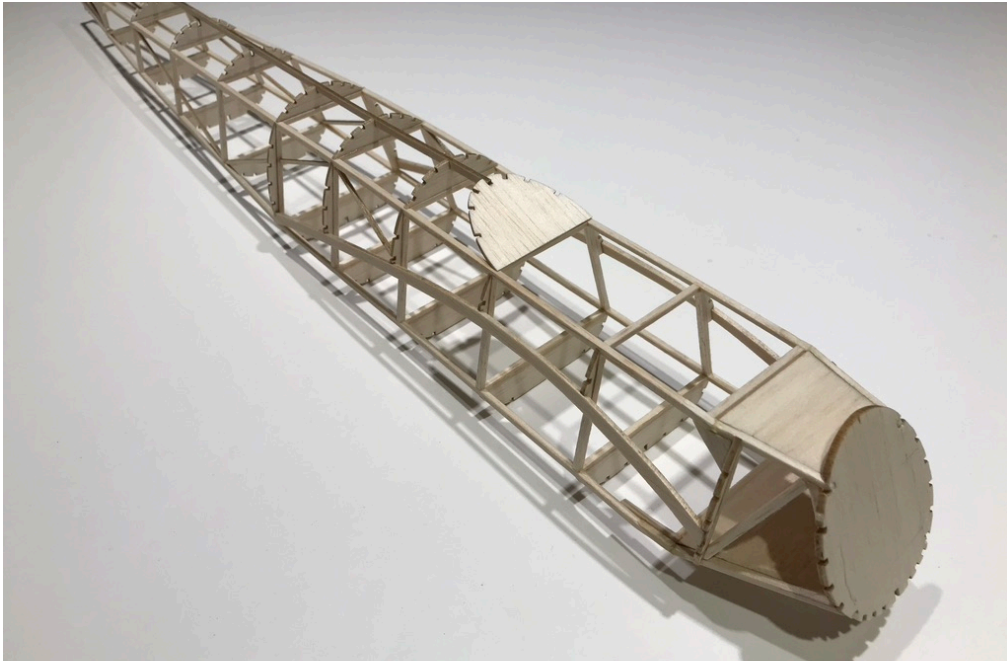
And immediately fell into the trap of too little time spent concentrating on the build in hand. I contrived to place them all square to the sticks forming the base of the inner trapezium shape, overlooking the rise towards the tail, leaving the rear formers all slightly angled backwards.

Every former was a challenge to place and stick. Despite taking care to sand the top and bottom flat (the longerons are angled to form the trapezium), every one of the little devils had to be hand held whilst the Superphatic glue I use set. There's a few hours in those 11 small bits of wood.

I also added the diagonal strapping between A and B to ensure that the front would remain square and true after the faff last time.

With a lot more care squaring the upper surface, the top formers were a lot easier, although I made a big deal of angling former D (forms the rear of the cockpit) when the solution is really quite obvious - the upper centre keel when fitted must end flush with the former. No need for carefully constructed exact angle blocks etc, etc.

Side formers (mostly) fitted, along with wing braces and former A at the front. The wing saddle strips went on after side formers B & G, to allow correct alignment of side formers C-F. I fitted the forward part of the top keel whilst fitting D in place to hold it accurately whilst the glue set.



And finally with all bar two side formers fitted, top and bottom keels are in place (straightening the awry lower rear formers in the process), plus gussets added to brace the rear of the wing saddle.

So, it doesn't look a lot, but it took me a while and currently it is square and true.



# Building Notes

I paused before adding the many stringers. In part because I couldn't understand their endpoints. Its the one part of the plan, so far, that has foxed me. The statement on the plan that 'some 1/16 sq stringers and formers omitted for clarity' only answers the question about why are all these slots here.

- Tricky outer formers mentioned above. There must be a way of attaching the upper and lower ones without 10 mins finger time each, but I don't know it. Side former H - could go either way up and anywhere up the side - I have left them off until fitting the stringers when it should become clear.
- Upper stringers - must terminate at former L, because a cardboard fairing is provided for continuation of the body curves. The instructions are clear that the tailplane should not be firmly attached, to allow for adjustment. I assume that this is a higher skill enjoyed by free flighters, though I have never seen it referenced before. I shall be firmly attaching the tailplane to enable elevator control.
- Lower stringers - some may terminate at K, some at L. But if so the last bay has little to support its shape. On the other hand the plan seems to show a balsa infill, although I can find no reference to it, and the extra weight would seem to be counter intuitive. There is a photograph which shows a pair of forward lower stringers terminating *just after* former C.
- Side stringers - the building instructions say that some finish at former L, some at K. Unfortunately it looks as though the laser cutting file was changed from the original plan. There are 4 stringers provided for, but only 3 indicated on the plan. One of those is drawn in to scale, but not in a position allowed for by the laser cut formers.

I have built free flight models where stringers end at formers. I have also built them where stringers are faired into other components (e.g. the recent VMC Hurricane build). I have also built one model designed for RC (Dragon Rapide by Pat Tritle) where stringers have been finished mid support. But I have never come across a tentatively attached tailplane.



So, I guess that I will make it up when I get there.

Meanwhile I paused to clarify where the control components will go, and may divert to building flying surfaces to help clarify. Battery access is going to be tricky.

In summary so far. Great fun, definitely challenging but a mostly excellent plan very accurately cut parts. Its a perfect project as a distraction from current realities beyond your own home.

Photo shows a spliced joint between a 1/16 sq strip and a 1/16 x 1/8 longeron, ahead of attaching a second 1/16 sq strip, to get the longeron comfortably around the lower nose curve.