



## THE RATCLIFFE SPITFIRE P9503

Supported by The Leonard Stillwell Bursary and The Spitfire Society  
THE WORLD'S ONLY SPITFIRE BUILT BY STUDENTS

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### Correction

In Bulletin 17, I incorrectly announced that the passing of former ATA pilot Mary Ellis closed the chapter on its surviving members. Many thanks indeed to John Webster, Secretary of the Air Transport Auxiliary Association for putting me right. I quote from his email:

...**Mary Ellis**...not actually the last, despite having played a significant role in recent years as our most celebrated ATA ambassador and Hon. ATAA Commodore. There are in fact three remaining ladies who flew for the ATA, namely:

**Jaye Edwards** ~ former Third Officer Stella Joyce Petersen - now 100 - living in Vancouver, Canada

**Nancy Stratford** ~ former First Officer Nancy Miller - now 99 - living in California, USA

**Eleanor Wadsworth** ~ former Third Officer - now 101 (as was Mary) - living in Bury St Edmunds

Sadly we have just lost former Third Officer **Stephen Innes** who was believed to be the last surviving male pilot...

I should perhaps add that there are a number of surviving members of ATA's ground staff as well; for at its peak, ATA's total workforce numbered in excess of 3,500.

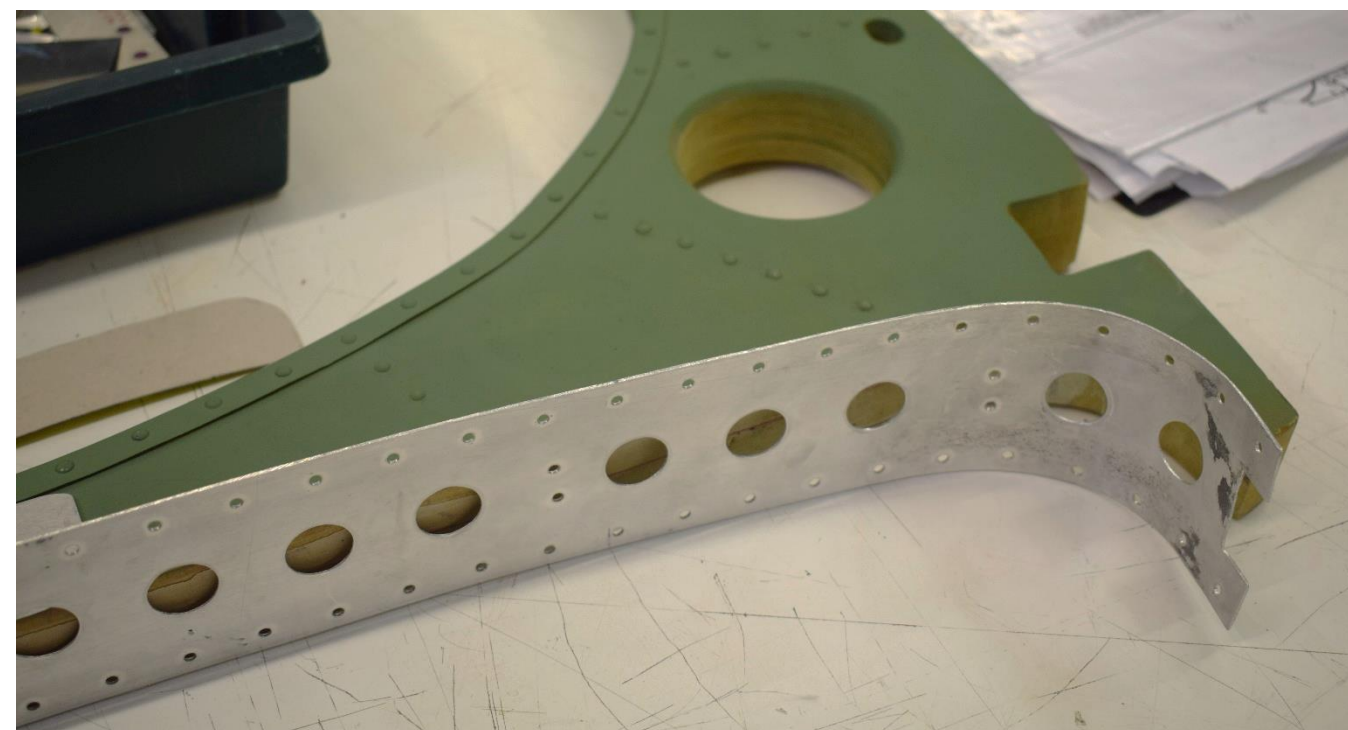


### The Build

This term I have moved the project day from Wednesdays to Mondays as we were running the risk of losing a few key members this term due to clashes with other commitments. This is working well, although inevitably it in turn has prevented some students from attending. We continue with the detailing of frames. On Frame 11 we have, in particular, been focusing on the brackets that fix the frame to the datum



longerons and seat support, (see image above)...there are a total of 16! They are not particularly complicated, but with limited tooling take us a long time to make; however, we have now begun fitting some... Zoe has already made all of the intercostal brackets, so Frame 11 should be fully assembled and in final paint shortly.



Frame 8 is being worked on by 2 Year 8 students appropriately, Will and Quinn, and is almost done. The top section that 'caps' the frame(above) is well under way. I must express my pride at the quality of work being done by these boys, it is faultless, their diligence and attention to detail is quite remarkable for their age. I have promoted them both to seniors as they have definitely proved their reliability, maturity and





commitment. When the top section is done and fitted, the frame will be complete; a significant milestone to tick off.

The image to the left shows Gavin and daughter Zoe preparing to cut a strip of aluminium in order to make more intercostal brackets.

Jacob is having to juggle his attendance at Duke of Edinburgh with Spitfire, so the aerial progress has slowed, but he will come back as soon as he is able.

### The Ratcliffe Spitfire – the definition of ambition

Perhaps this should be the title for the project? The Ratcliffe Spitfire project has always striven to push to be as ambitious as it can be. In the beginning it started with the idea of being nothing much more than a solid polystyrene ‘film prop’ that would look fine from a distance. Then we got ambitious, and thought about adding a bit more of a cockpit; some detail on the inside. Then we got ambitious again, and looking at the rear fuselage we began to think that we might be able to hone our skills enough to make parts of it out of wood. And then again, we toyed with the idea of maybe adding bits of aluminium here and there for ‘feel’ and ‘effect’. Then we went all in, and, using original factory blueprints started the seriously ambitious task of building each separate element of the airframe to spec (albeit mostly from wood).

Well, I find myself at a crossroads in the project again. Decision time, whether we should raise our game once more? Below I detail the options that I’m considering, the pros and cons...oh, and my decision! We are making good progress, and have learnt a huge amount along the way. The build is progressing, although we still can’t assemble anything until we have a suitable space. So, do we continue as we are, or do we step up, perhaps reaching out to the natural conclusion of the project?

*Option 1:* We keep going as we are, and complete the build in line with the way we have been working to date, using the same materials and tools.

*Option 2:* We use all of the skills we have gained, as well as the hundreds of hours of problem solving and experiences already banked, and start again...in aluminium...

...I’ll let that sink in for a minute...

Below is a table of pros and cons as I see them:

	<u>Cons</u>	<u>Pros</u>
<b>Time</b>	Might take longer as we will have to make parts we’ve already made	Actually, working in aluminium is quicker than wood in many instances, and some of what we have already made can be used as templates
<b>Tooling</b>	Some parts can require hugely expensive tooling	We are good at problem solving and have already made some aluminium parts without the need for expensive tooling
<b>Parts</b>	Some parts are exceedingly difficult to make without years of metal fabrication experience.	True, but we can possibly source parts
<b>Material costs</b>	Cost of aluminium	We could explore more donations of aluminium
<b>Tools</b>	We would have to buy some new tools	Yes, we would.
<b>The end result</b>	None	<b>The Ratcliffe Spitfire becomes as close to a real Spitfire as it is possible to be, rather than a wooden copy.</b>

...So, my decision...

I think we should build in aluminium. But I think we should approach it as we have the project all along, step by step. I actually think that we would be doing the project a disservice if we didn’t continue to be ambitious. We will begin by making the easier parts from aluminium, building our confidence and skills, and see where it takes us. Nothing is lost from what we have already done; the biggest investment in a project such as this is in the time it takes to problem solve, and none of that will be lost if we do this. In my opinion, the pros outweigh the cons significantly...watch this space!

