

Waikato - Thames Valley Chapter – Sport Aviation Assoc of NZ

Newsletter - May 2022

About us:

We have 75 people in our club email list. Unfortunately, almost no response to my shout out for articles and pictures. While I was tempted to take some big liberties, I have just gone with what I have. Thanks to those who sent me the following, especially the 'Other News'...

Hope you enjoy the newsletter. –Tony.

Committee News:

Visit to Bart Burgers this Sunday 22nd in Taupo to see the Spitfire-in-Progress (and a really big engine!)

Weather doesn't look good for flying on Sunday, I guess we will have to see on the day. As per Scott's email try and get there for 10.30am with something to BBQ.

Building News:

- **Grant Horn: RV7A:** – Has been doing a little more completing of the elevators and rudders all look pretty good now. No pics this month.
- **Bart Burgers, Pegasus Spitfire MK9 (Full Scale):**- Just a bit of progress. I am very much looking forward to the SAA visit on the 22nd of this month. I have been conscious of the fact that I would be running out of space so I built a "Wing section" for my wings (to be build). I did not want to push my fuselage out in the open..Ya right.... I added about 100m2 to my already exciting spitfire cave, now under cover and dry (still drafty)...no concrete floor yet, but I have started work on my wing spars. My pile of wing ribs is mounting. The canopy has arrived long last and I have been studying the plans how to fit it..one step at the time. I have ordered my instrument panel as this is forming an integral part of the cockpit configuration and how the panels and entrée door will fit in place, forming a base for the sliding track of the canopy..

*2 photos showing 'piles of ribs and an **Engine (!!)**', 1 more of the Wing section for rib positioning I guess:*



- **Tony Ashworth: STAAKEN Flitzer Z-21A:** – After closing up the rear of my fuse I have been gluing cross bracing to lock it all into position in the Jig. I am using a laser at the tail end on a tripod to be sure it all stays aligned. I have the seat back in place, and lots of gussets and all. Next will be the rear skid and sternpost to make and install.

I have separately been working on my upper wing spars, gluing on a number of ply diamonds to support the pickups for the interplane struts and compression ribs. Biplanes certainly have lots of parts!

2 Photos showing the fuselage cross bracing and gussets being glued, and some wing spar diamonds on my upper 2.7m wing spars (Upper Front/Rear Spars x 2):





Other News:

- **Flitzer Z21A Accident:** – One of the two currently flying Flitzers in NZ has unfortunately had an accident. The pilot Hayden sent me this report, and has given permission to share it with you, for education purposes. He emailed as follows:

Hi Tony,

Nice progress you're making there. You'll be flying in no time.

Unfortunately, the same cannot be said for FTZ. It will require some rebuild which could take some time. Essentially the right rudder cable has become disconnected from the pedal on landing, I'm not sure exactly how yet as I am in no condition to look at it in any detail. This caused full deflection to the left, accelerating into a ground loop which I was already trying to correct when the cable detached. The right wingtip dug in at speed causing the Flitzer to flip onto its back. As a result, I've broken vertebrae in my neck from my slightly too high seating position.

Once I'm able in will get to the hanger and take some photos and try and identify what caused the failure in the first place, but that will be weeks away yet as I'm only just out of hospital, and have a neck brace on for at least 6 weeks.

Cheers

Hayden

Photo shows the RH rudder cable has pulled through the crimp:



Note there is an AD for homebuilt aircraft that covers proof testing these cables to 50% of capacity on the CAA website.

AD: DCA/ABUILT/13 Flight Control Cable End Assemblies - Proof Load

- **Other Projects:** – This poem came in from a partner of a homebuilder with a request to remain anonymous. Hope you enjoy and can relate...

The Forgotten Plane

In a long-neglected garage
there's a part completed plane.
It was started many years ago
when enthusiasm reigned.
But life and farm work stole the days
and before he blinked an eye
He'd lost the mojo needed
And two decades have raced by.

The parts he had completed
from the days he used to potter
are now covered up with dust and mess
and 20 years of clutter.
The droning voice on video
and bright and harsh work lights
have been consigned to memory
with him no longer working nights.

When club members came to visit
all the pieces were unearthed
and I thought it might relight the fire
so the plane could be rebirthed.
But it disappeared again
under inconsequential stuff
the time should be committed
or else he'll never have enough.

The project needs a kickstart
But the farm gets in the way,
Can someone tell him to retire?

- **Aircraft Design Concepts:** – Bruce Cooke has sent through this article and photos of a scale model he is using to concept ideas. Many designers do this on paper, but this is a novel way of imaging a new type of aircraft: build a model:

1/72 “What If” RNZAF Aquarius Waterbomber Resin Model – Bruce Cooke.

Over summer, I have been a bit limited to what I could do in terms of building or flying full-sized aeroplanes, but I have kept myself busy with the largest and most complex Scratch-build model aircraft I have ever done. A few years ago I had CAD modelled a hypothetical Amphibian waterbomber and light transport aircraft of my own design. The Tongan Volcanic eruption prompted me to post a picture of it on Facebook, as it would have been an ideal aircraft to respond to the emergency.

The Aquarius concept is for an aircraft that can be a firefighting waterbomber when required, but be a true multirole aircraft to justify its existence outside of the fire season. Slightly smaller than the well-known Canadair CL415, it would be built from Carbon Fibre – Nomex composite and powered by two 1800HP Pratt and Whitney Canada PT6A engines (The world’s finest small gas turbine...). The key feature of the design is a rear ramp loading door, enabling rapid swap out of the waterbomber tanks and easy unloading of bulky items onto beaches or other unprepared environments. The aircraft would have a multi-mode IR / daylight / night vision sensor turret in the nose, a search radar in one wingtip and observation blister windows to allow it to be used for “Coast Guard” inshore patrol work, special operations support (e.g. launching SAS boats) or other medium freighter duties such as supporting inshore naval vessels.

Anyway, in response to my Facebook post, a friend challenged me to build a 1/72 scale model of it to add to my collection of RNZAF aircraft models. Over the next 3 months or so I scratch built the model using the resin casting process. This is a 4-step process whereby master patterns are made from wood and aluminium, Silicone moulds are taken from those, parts are cast using hard epoxy resin, and then the model itself is assembled from those parts. This creates a hardwearing and accurately detailed model – and extra sets of parts can be produced if required. I sent an extra set to the friend who suggested it, to see what he could come up with too. The model has a wing span of approx. 370mm and is 290mm long. Inside, the cockpit and loadmasters station are fully detailed, and the model sits on detailed 3D printed undercarriage legs.

The model is finished in contemporary RNZAF colours as NZ7453 of No 1 Squadron, based at Whenuapai. (This squadron last operated Andovers in the 1980s) the squadron insignia on the tail and the blue and white checkers alongside the roundel are correct for that unit. High-Viz white wing stripes and full coloured roundels are unusual on a “gunship grey” base scheme, but fit with the compromise between low-viz for military ops and high-viz needed for firefighting. The tiny placards around the aircraft all make sense – down to the correct grade of oil for a PT6! The whole intention has been to give the model a plausible back story, without resorting to fantasy. It’s been a fun project, and I am extremely happy how the model has turned out – next project is building another glass cabinet to display it (and some other future model projects) in.







