

Waikato Chapter of Sport Aviation Assoc (SAA) of NZ

*(Dedicated to building, flying, designing, modifying - and talking about - **home-built aircraft**)*

Newsletter - August 2024

- *This newsletter is broken into three sections. The 'Of Interest' covers anything not specifically in the 'Currently Building' or 'Been Flying' sections.*

Thanks to all our contributors! As always, the more the merrier...

Seems a bit quiet over winter, Grant and I were talking the other day about our plan to build like crazy over the winter so we have something to fly in the summer and not waste the winter downtime. However the cold dark days are not very motivating to get out into the workshop so the plan and reality seem to be a bit of a challenge. We kind of compete and push each other to get a move on, but I suspect it takes a certain kind of person to push on regardless. Well done to all of you building and planning, I hope this newsletter inspires you all...

Cheers, Tony.

Separately Russ Ward (our Secretary) asked me to pass on this message:

AGM

The AGM is to be held at Bart Burgers place at Kinloch, Taupo on Sunday Sept 8th at 11 am. We will provide a BBQ for lunch after the AGM. Please put in your diary. Please put this in your diary, Should be interesting to see where Bart has got to with his project since the last club visit a year ago. All welcome. - Russ.

Currently Building:

Bart Burgers, Pegasus Spitfire MK9 (Full Scale) reports:-

Not too much to report, I have been away for 6 weeks so my build did not progress much in that time.

Since I am back I have started to put the wings in place and started to attach the spar plates. I use 2024 T3 Alloy (1/2 inch thick) for the spar plates, which I cut out with my 'Skilly' and a tungsten blade. I have a drill press so all holes are drilled properly in 1/2 inch and 3/8 inch. The biggest obstacle in the whole process was to drill 170mm deep holes (horizontally) through the wings spares and fuselage. I did a few attempts on scrap wood to make sure I was drilling straight. I then made a 'guide' out of some old steel square tube, by drilling a hole through and through on my drill press., and then clamped the 'guide' to the spares and fuselage and drilled all the way through the 170mm wood....it worked well and I am very pleased with the results.

I also had the privilege the have Paul Waterhouse to come for another inspection. He wrote a whole report about his now 3rd inspection. It's a bit much to add that here but if you interested to read it, it's on my Facebook blog page: Pegasus spitfire MK9

Three photos attached:



Above: Cutting 1/2" 2024 with Skilsaw....



Side: Drilling the holes in the cleaned up part. Note laser center.

Below: View of front fuse bulkhead with main wing spars front and rear in view with bolts through the plates.

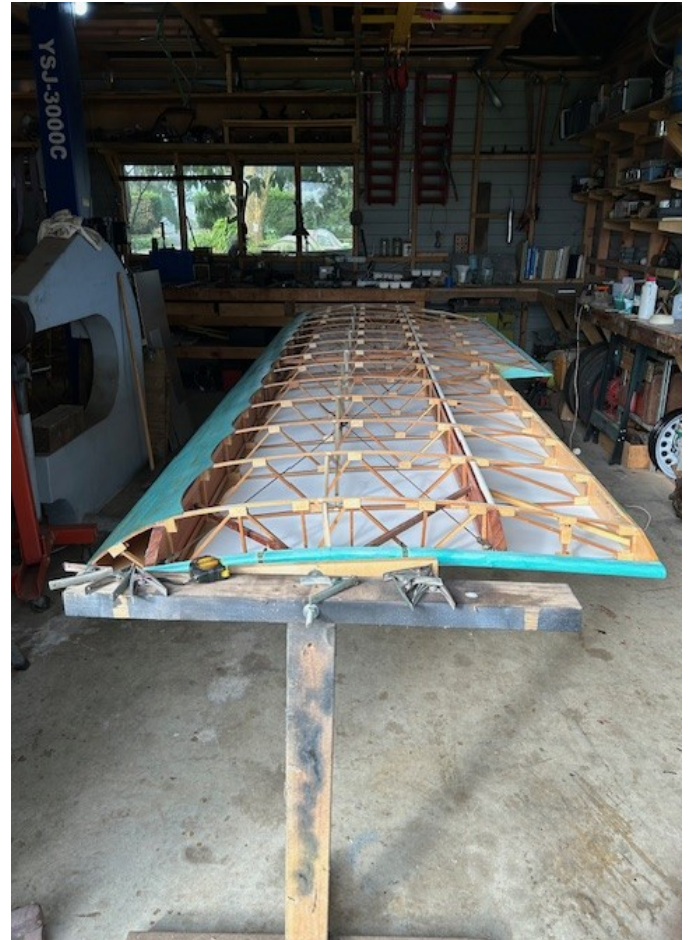


- **Paul Waterhouse: Pietenpol AirCamper ZK-BZY repair, reports:** – Paul sent me 4 photos showing progress recently.



Above: Fuse looking pretty complete now.

Below: Left wing on a rotating jig with the bottom surfaced covered and the top one next. Note the scalloping along the leading edge ply to spread the wing forces into the ribs. It looks classic. The bottom pic looks ready for rib stitching next.



- **Dan Harcourt: Rans S-21 ZK-MRS reports: –**

I've recently finished the cowl fasteners and baffle seals and had a coat of black etch primer sprayed on the cowls- not the final finish but looks better than white. Final stripe painting will be done post test flying. I'm currently waiting on an inspection date from CAA before that begins. Taxi camera fitted and tested ok on a taxi run.



- **Tony Ashworth: Jodel D.18 ZK-OWL - reports:** – I have been working on the firewall/ forward bulkhead, and also my instrument panel. The thin stainless panel is in place with ceramic fibre blanket behind which is both light and more fire proof than using aluminum. Slightly ironic using it on a wood aircraft but if it gives me some minutes to get to the ground i guess worth it and no empty weight penalty. The (tenth and hopefully last!) instrument panel i designed up on a free CAD program and output as a dxf for my local laser cutting shop to cut from 1.5mm aluminium. It also folds down to make the wiring accessible which is very useful for my next 'wiring up' phase and future changes or trouble shooting. I have mounted the engine to figure out the throttle and mixture cable routes. The AeroVee engine uses the Aeroinjector carb which has a reversed action to operate - Push closed, Pull open. I am looking at what the simplest option is to give me this throttle action whether to use a bellcrank or a Sonex style quadrant. As the carb is pretty low down, the existing cable hole in the firewall could line up with the top of the bellcrank and the lower end closer to line up with the slidecarb. That's the preferred option, but we will see. As they say in engineering 'simple is hard'... sometimes it takes a few goes to get a simple result that fits.

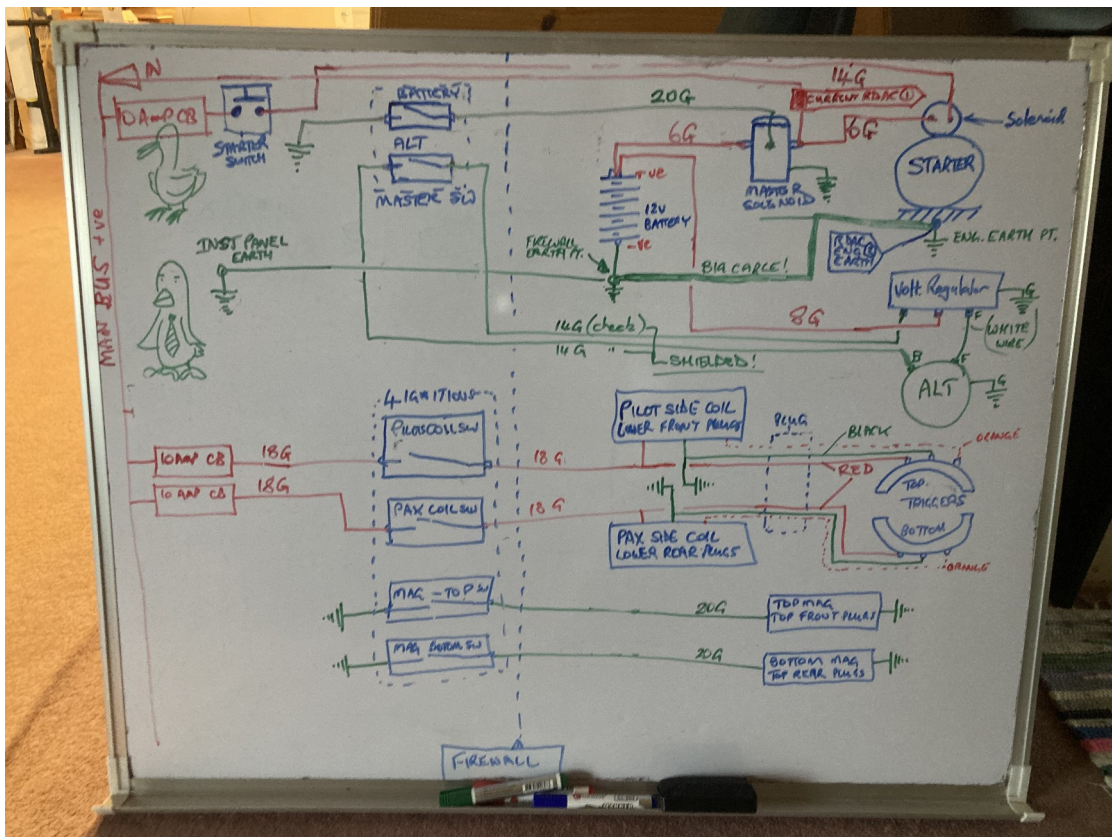
Below: Shiny firewall allows me to see the back of the engine during pre-flights



Below: Instruments in new panel, some switches missing, not all switches and circuit breakers are in place yet. Fixed air vents to go on left and right of panel, not made yet. I am planning a stick-on overlay with labels, still in progress currently. Panel folds down for wiring access.



Below: Whiteboard layout of my wiring diagram, probably not the final one. I have copied bits from a number of sources and will put it into the computer at some stage, but hope to talk to a few experts before finalising it. (All advice on the Master switch Alt wiring greatly appreciated...) Thanks also to all the Sonex/AeroVee experts out there, and yes i do have 4 ignition switches for 2 coils, 2 magnetos...



Below: AeroVee engine mounted for the moment to plan the throttle and mixture cables routes through to the low mounted carb, and also have a look for any interferences after layout of the firewall ancillaries.



Below: Test fit of unpainted cowl parts, I'm quite please with the look. Still lots to do however, it needs brackets and fitting and painting etc etc...



- **Simon Teague: Bearhawk 5 kitset – reports:** Simon reports that calving time is keeping him busy at present, so not a lot of aircraft building going on... which is probably true for a lot of our Waikato builders and flyers. (I'm going to have to apologise for interrupting important work with requests for newsletter content. Sorry to all the farmers...)

- **Grant Horn: Vans RV-7a ZK-DRV – reports:**

Some progress has been made on my project. Obviously not as much as one would like. Quite often problem solving seems to take up a fair amount of time. Never the less, progress is progress.

I was about to start riveting the bottom skins on now that the inboard aileron doublers are in place. I am not sure what two doublers are going to achieve as opposed to one.

Below: Aileron doubler on right, 2nd doubler on left...



Anyway its done now as per Vans (AD) plans and instructions so I don't have to worry about trying to retro fit them with the skins in place which would be more time consuming.

As I was starting to say, when I was about to rivet the bottom skins on I realised the Flap hinge is riveted to the flap brace and the bottom skin. The plans say to dimple the skin and then using the hinge as a pilot m/c countersink the flap brace and then rivet all 3 components together. Thankfully in my wisdom I had not dimpled that line of rivet holes in the skin so no drama other than knowing where about to drill the rivet line in the hinge. Drawings say approx 1/4" from edge but that does not guarantee the trailing edge of the aileron when in the neutral position lines up with the trailing edge of the flap. So now I have to fix the ailerons to the wing, cleco the flaps back together and find out exactly where the rivet lines are in the hinge. Work in progress.

Talking about the flap hinges. For what it's worth I was advised not to go with the folded piano hinge supplied with the kit but to purchase the same size hinge, but extruded. Much stronger and in my mind a better option. No doubt the folded one is satisfactory but I had the option and so took it. See the photo, compare, and make your own mind up.

Below: lower rolled hinge supplied with kit, above hinge is stronger extruded type...



- **Noel Bailey: Storm 300SP ZK-ULT reports:** I've bought Storm 300SP and enjoy flying it!



- **Pete Kirby: SuperCat - reports:** 'Bob' has now been in my shed for a year and I've acquired a full-case 1600 VW project for it, although it's still not at my place due to a prolonged winter illness. I continue to check the original build vs the plans but I'm always aware that the SuperCat had flown 30 hours before I got it out of 13 years of storage.

Below: 'Bob' in the shed...



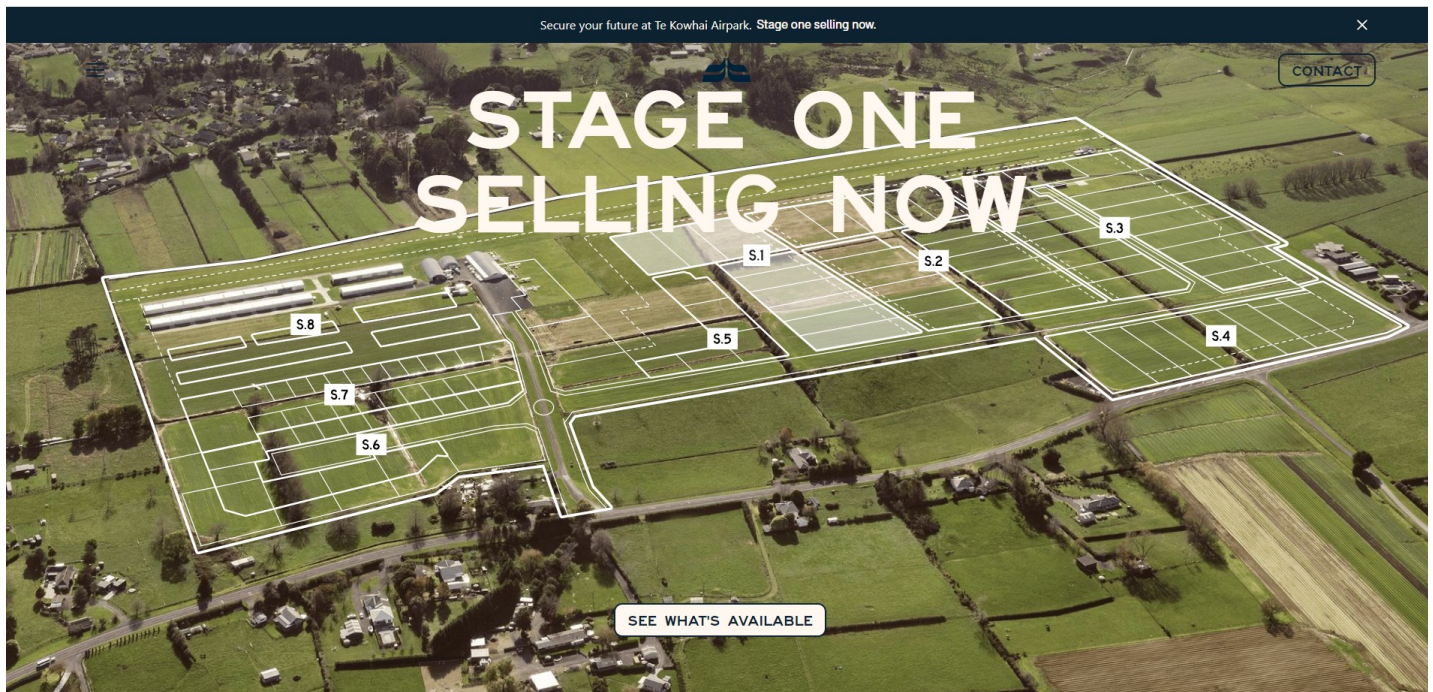
Been Flying:

Case Groot: Vans RV-6a ZK-RVC: Was visiting our hangar at Matamata Airfield recently and i got this shot as he was about to taxi out to fly to his home strip locally.



Of Interest:

Paul Andrew from Te Kowhai Airfield sent me an email regarding developments. If you go to their website you can read up further. Paul has said there are new sections for sale for hangar homes and you can sign up for interest. The website is www.tekowhaiairpark.co.nz. This snapshot image below shows the sections in the shaded area A1 below just released for sale. There is a price list on the website you can download...



Jim and Irena Ledbetter had a visit to Oshkosh this month and I asked them to send me some pics and a report. Sounds like they had an experience of a lifetime....

For Jim and I going to Oshkosh was a great achievement, considering the health issues Jim has gone through in the last 18 months. We stayed at the University of Wisconsin which was really good and the food they served was excellent and kept us going for most of the day. We were bused to the show each day, if you're building a plane there's everything you need available, workshops, parts, etc. Must admit I was air-planed out by the end of the week. The amount of planes that flew in and camped was phenomenal. The last night there was a fireworks display that was absolutely brilliant, pyrotechnics that were unbelievable.

Warmest regards, Jim & Irena



