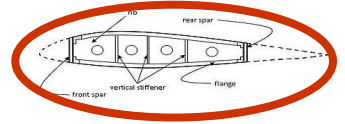


The Spare Rib News



*The monthly newsletter of the
Kapiti Aeromodellers Club*

September 2021

www.kapitiaeromodellersclub.org.nz

The Presidential Scribe



So much has changed since last month.

The day for August club night was miserable to say the least with heavy rain causing slips on Centennial Highway and a train being derailed.

The decision was taken to postpone the club night to the next week as many members come up from further South, including our quiz master.

Experience said an earlier call is better than a late call, but as it turned out the weather cleared as did the road.

Having taken such decisions and looking forward to the next week, Covid got in the way again and all bets were off.

So, club night and the BBQ were cancelled as was Spade Aid.

I believe the planting that was to have been done will now be done by various small groups at some point. I do know from the same cancellation last year, that the plants need to be planted, so no doubt it will happen.

As advised in Club Notices, a grazing licence is being advertised for the next 3 years and public submissions are being sought. The rationale is providing some management of the open spaces whilst the new PNP master plan is developed. Go to this link to have a look.

<https://haveyoursay.gw.govt.nz/qep-grazing>

It's well worth reading the rationale and having a look at the associated park map.

You will notice on the map the change to our Southern boundary.

Wayne is looking to have bailage cut during spring to clean the place up a bit.

Some fencing changes will be done prior to grazing beginning.

The new license is for some 208 hectares vs 350 that Beetham's farmed.

I don't know when we'll have our next club night and Silver Fox BBQ. It all depends on level changes. Like last year, the strip probably won't be open until we hit level 2.

Have you joined our new FB Group?

Kapiti Aeromodellers Club Group

Have a good month.

Steve

WANTED

John Pfahlert is on the lookout for an engine mount for an OS15LA engine. 25mm across the crankcase. Email him at: jpfahlert@gmail.com

Crozy.

Last lockdown, Crozy gave us the 'CrozDuster'
This time he's asking for members help.

I am looking at another 'lock down' project to do and have located the engine shown. I require help and advice from any club member who are familiar with this type of engine, of unknown vintage. There is no spark or glow plug, nowhere to plug in a battery and no instructions. The fuel tank is rather large and has a BBQ thing-a-me underneath. Also, what type of aircraft would be best suitable for this engine?



If you can help, you know where to find him!

Thanks.

Ian Crosland.

Clipped Wing Cub.

Jamie Lafrentz is making good progress on the clipped wing club he got from Ross.



Jamie is also rebuilding an Xtra he picked from somewhere and installing a DLE111 in it.



Paul Buckrell writes.

My Mamba 70 biplane is fitted with six AR7434 HV servos on ailerons, elevators and rudder that I bought 2nd hand through RC Trader.com. As some members have seen, the top left aileron tended to jitter when the motor was idling after starting. When the aileron had airflow over it in flight it behaved normally. To stop the concerned comments, I decided to replace the servo. The replacement is an AR7434-S. 'Good-oh' one would think. Not so. John Pfahlert noticed after I'd landed that the top left aileron was drooping. On checking it was as if the servo was not connected. I missed that doing my pre-flight control checks.

The new servo operated no problem when connected directly to a receiver so that made me wonder if there was a servo extension lead problem. Replaced the lead and the new servo still did not activate in the model. I phoned Booma RC and learned that there are both hardware and software changes between the 7434 HV and 7434-S. The 7434-S needs to receive a signal within 2 seconds of it receiving power or it will not activate. My Mamba has an Aura 8 module in it that splits out one aileron signal from the transmitter into four channels, one for each aileron. It also mixes throttle to aileron to produce crow and has a 3-axis gyro function. All the programming normally set up from one's transmitter is set up in the Aura 8 including servo direction, sub-trims, high and low rates, expo, and gyro gain. Even trims are stored in the aura after the trimming flights are completed. After power-on, the Aura 8 takes approx. 3 seconds to stabilise and send signal to the servos. Because the 7434-S needs a signal within 2 seconds it will



never activate unless one powers on the model, disconnects the lead to the 7434-S and then reconnects the lead thus providing signal within 2 seconds of power on. Totally impractical.

Booma RC advised that there is nothing wrong with the old servo. The jitter is caused by a very narrow dead band (1 microsecond) and with no airflow over the aileron the servo overshoots centre in both directions. So, I've re-installed the old 7434 HV.

Flex Innovations has been informed and asked if the Aura 8 can be updated to send signal to servos within 2 seconds of power on. No reply.

The big brother to the Mamba 70 is the Mamba 120 that uses the Aura 8 Professional with two heavy duty battery input leads. I suggest that anyone using that combination use Flex's Potenza servos or Savox servos readily available in NZ.

Velox time.

It's been a good number of years since I bought the Velox from Don. It's had a couple of major birthdays in the ensuing years. It's a bit like grandad's shovel. Rebuilt (but different) fuse, wings built from 2 crashed models etc.

Early on, I had some engine problems and found the big end bearing destroyed with subsequent damage to the cylinder. This meant a new crankshaft, conrod, piston ring and cylinder head.

That engine has been pushed pretty hard for some years and was playing up recently.

First flight of the day was always fine but would dead stick on the 2nd. The tank would only be down a small bit, enough for a few more flights. A full tank seemed OK. This indicated a fuel feed problem. After much changing of fuel system parts over several attempts to sort the problem, it at long last seemed OK.

Tuned and ready to go.

Alas, the same thing happened and this time I couldn't get the engine restarted. On going over it, I found little compression.

Stripping the engine I found a lot of play on the big end, although it seemed intact. There was, however, metal through the cylinder. Piston was gouged and ring pinched.

I'm not sure where the metal came from, as although worn, there didn't seem to be any collapse of the big end bearing.

Fortunately for me I had recently taken possession of another DLE 20. This looked pretty rough on the outside. The carb had been hacked with a hacksaw cutting of the butterfly stop.

I stripped this engine and gave it a good clean. The inside was like new.



Refreshed and waiting for assembly

Reassembled with my carb, it started first time.

I'm not sure which of the engines is the newer, the con-rod ends are different.

The one that failed, the conrod big end is tapered toward the bottom and an oil hole at the top on each side. The conrod on the replacement engine has a slit on each side to allow oil into the bearing.

I'm not sure which is the best design.

Time will tell.



As you can see, 2 different big end designs.

Need a new canopy?

Mike Coleman posted on the group FB page, info about a canopy he made.

He agreed to write it up for us.

I brought a new / old plane. A 2m 350 edge is what it was listed as and it has a 26cc 2stroke petrol engine
The seller advised he had damaged the canopy by kicking it with his foot when stepping over it.
So, I took on the challenge to make a new one.
I started by roughly taping the old canopy up to its shape before being broken and used this as my approx. shape
I put a little bit of oil on the inside of the canopy to prevent it from sticking to my mould.



As I own a panel shop the next thing I did was use car body filler to make a 30mm layer on the inside of the mould

Then to stop the body filler from cracking I used expanda foam to fill the rest of the inside of the mould

After this I sanded the canopy mould and test fitted it into the old canopy hole to check the shape

After sanding the mould back and it looking like it would fit well, I attached a piece of 4x2 to the middle and glued it into place so it wouldn't move around.



I got a sheet of .75mm pet-

g plastic from my mates at watermark signs as they used this in the past to make signage boards and it's super malleable when heated

First try was getting it to temperature in the oven and sort of melting it over the top of the mould but my oven isn't big enough and by the time you get it out of the oven to try to do it by hand it's already setting.

PS. wear gloves

Second attempt was cutting a square piece of plastic and screwing two pieces of wood to either side then heating the top and pulling it over. This worked great, but just heating the top stretched the plastic too thin and made it quite flimsy.

Soo... Attempt number 3 screwed the same bits of wood to either side of the sheet and heated the plastic bit by bit and stretched it over the entire canopy. Worked mint. Is a nice solid cover with minimal stretching. It's definitely a two-person job as heating and pulling at the same time can be a nuisance.

Next was to cut the edges to shape which was done easier with scissors rather than using a knife. Then some finishing touches with some hardy tape to protect the edges after all that hard work



Not what you want



Just like a bought one!

Aermacchi 339

Ryan Groves is another who posted on FB showing a jet repair underway.

So, I asked Ryan for the 'good oil' on what was going on.

During the Warbirds over Awatoto meeting in Napier this year (a must-see event for all club members), I was informed that Tony Withy had had an unfortunate flame out of his lovely Aermacchi at the event a year earlier, which sadly resulted in a river landing and was retrieved by some hardy young lads.

A real shame for such an iconic NZ aircraft.



This is the scheme the model is copied from

Jump forward a month, I was talking to Tony at our club Rally in March this year and he informed me of the crash and damage. During the day I asked him what his plans were for the Macchi. He'd not really had much thought about it but I said to him if he wanted to consider selling the crashed aircraft I'd be honoured to have the opportunity to get it up and running again. After a couple of phone calls and a bunch of photos, I went up to Tony's and bought the model (10hr road trip). As I said to Tony, it will be an honour to see this model back in the air for all to enjoy. I think the Macchi has a special place in many New Zealanders hearts and it's one of my favourite planes as I remember having seen it at air shows I attended with my dad and poppa when I was young.

The rebuild.

The port wingtip had been peeled open and a small part of the spar (300mm), wingtip, and part of the tip tank had been lost to the river. The rebuild would've been a heap easier with the missing pieces but that's the way it goes sometimes. The wing was made up of a glass balsa glass sandwich skin top and bottom. I needed to rebuild the wingtip and somehow rebuild the tip tank fittings so they were strong and in the same incidence as the other wing. These are removable for transport. This was done over a few months of thinking and creating a new spar that had to be spliced into the original. I had to remove a section of the lower wing skin to be able to fit the new section of spar and glass. Even though I've been slowly chipping away at the rebuild this lockdown has given me a chance to really get into this project and I now have the wing back to painting stage and the tip tank is ready for undercoat and with some more time in level 3 yet I'm hoping to have this complete soon.



This model had been flown by Tony for over 10 years and it really is an impressive build of his. I've yet to figure out how I'll match his paintwork! The model has had a gear facelift as with water damage and such a lovely aircraft I've learnt you just can't be too careful...very hard for a dutchman to put stuff in the bin I might add! I've taken the Jetcat p120 out and will rebuild it with new bearings and electrics as a separate project. The Macchi will now have a Kingtech 160 bolted in, so we'll have a little more get up and go for those short runways or longer grass.



Paul has become a biplane man of late.



Paul writes.

Hangar 9 Pitts S2B 1/3rd scale powered by Saito FG-61TS twin petrol four stroke. Temporarily equipped with a Futaba optical rpm sensor to be able to see how many rpm the engine pulls in the air. It is 6,000 rpm on the ground with a 22x10 prop. The model has an iGyro3Xtra with GPS sensor installed. The gyro is set up in two modes: Normal on all surfaces to counteract turbulent conditions and another that has normal on ailerons and Attitude Assist on elevators and rudder.

Both Hangar 9 Pitts S2B and Flex Innovations Mamba 70 in the same photo. The Mamba 70 is powered by a DA-70 twin two stroke on standard Slimline mufflers. One elevator, aileron, rudder and throttle channel is fed into the Flex Aura 8 module that splits the aileron into 4 channels, one for each aileron. The Aura has 3 flight modes: low rate, low rate with crow on ailerons, and high rate. In crow mode at lowest throttle setting there is maximum crow that reduces to no crow at half throttle. All servo directions, sub-trims and trims are set in the Aura. Gyro function can be turned on or off via a transmitter switch. As James has so ably demonstrated, the model is fully 3D capable in the right hands.



Both models supplied by Firebrand.

Paul Buckrell.



John Pfahlert writes.

Benefits of lockdown. Good progress being made on the Leprechaun II kit from Dane RC. 103" and around 2.4kg. Electric. Should be a real floater on calm Kapiti evenings.

Vintage.

From Stew Cox.

Reminder - The final Levin Club Vintage event for 2021 is the John Selby Memorial Event. It has been decided to make this and future Levin Vintage events a one-day event on a Saturday. Details are:

- John Selby Memorial Vintage Event - All clubs welcome.
 - Saturday 25 September (wind-date Saturday 9 October).
 - The event will only take place at Level 2 or lower and providing this can be done within the COVID regulations applying at the time.
 - Any RC Vintage class may be flown.
 - Start time 9.30am
 - Levin Club site, Tararua Road.
-

And that's it for another month.

As Don would say "Fly hard, land soft"

Steve

When this virus thing is over with... I still want some of you to stay away from me.



The
SCOTTISH VARIANT
At least you can hear it coming.

**So in retrospect, in 2015,
not a single person got
the answer right to "Where
do you see yourself 5
years from now?"**

It may take a village
to raise a child, but
I swear it's going to
take a whole vineyard
to homeschool one.