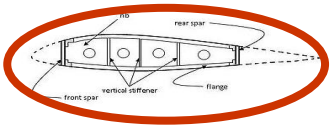
The Spare Rib News



The monthly newsletter of the Kapiti Aeromodellers Club

www.kapitiaeromodellersclub.org.nz

December 2020

MERRY CHRISTMAS TO YOU ALL. HAVE A GREAT ONE.

Feeding the horses!

This time of year there's plenty of grass about when mowing the strip.
Alastair Rivers makes sure the 'horses' in Crozy's MX5 will perform to expectation on the way home!

The Presidents podium

Hi all.
This is the last newsletter for the year, and I get a month off.

November has brought its normal mixed bag of weather, lots of wind and rain. I don't think the weekend warriors have had any luck at all during this month. There have been a few mid-week flying days lately, but other commitments have meant I haven't had the opportunity on most of them to participate.

Club night was a bring and buy/show and tell, and given a number of regulars unable to attend, we had a pretty good turnout.
This past week we also held our annual dinner. This has been a moveable feast over the years, starting as a mid-winter Xmas, a celebration of daylight saving and this time just to celebrate because we could.

It's been a difficult year, but we only have to look at what has been happening elsewhere to realise how lucky we have been in God's own.

Xmas is just a few weeks away.
Enjoy your time with your family and friends, don't eat too much and hopefully we'll see you at the strip over the festive period.

Newsletters. Always looking for input. Small, large, photo or anything. Any input appreciated.

Enjoy the month ahead. *Steve*

QEP

As you all will have observed, farming has ceased on the park at this time.
In conjunction with Doc who manage Whareroa across the road, grazing licences will be advertised for the next 3 years.
You will note that the pasture has really taken off around the patch with no animals to eat it down.
Wayne has been talking with contractors to have these areas cut for bailage and later for hay.
As much as anything, that will reduce the fire risk over this summer.
As has been previously advised, the driveway paddock is being retired as part of the 128 hectares the park will replant in the next year or so. The flat area will be kept for access and parking.

The car park project near Kotare, which has been out off a number of times, is due to start early next year.

Steve.

Wanted

John Pfahlert is after a 2m span pattern ship.
He has the fancy (brand new in a box) OS 140 nitro motor with tuned pipe.
He's just looking for something to put it in.
Any condition considered.
Contact John at:
jpfahlert@gmail.com

For Sale.

Neil is still selling off his Dad's kit.

Items that didn't sell at club night are listed below. Proceeds to the club.

K & B 45 (missing needle valve) - $???
Dremel Scrollsaw - $35
Turnigy Accucell charger - Lipo/LiFe/NiMH/NiCd/Pb - $20
HobbyKing Watt Meter – Volts/Amps/Watts etc - $10
MultiMeter – Volts/Amps/Ohms etc - $10
Tower Hobbies Tacho – 2/3 blade props - $5
4-way Plug Spanner $3-4

Make Neil an offer on any of these items.
There are some other bits and pieces which will be put in the club house for a donation to the club.
Contact Neil at: -
neil.upton@slingshot.co.nz

November Club Night

Our final club night for the year was a bring and buy, show and tell type of night.
Ian Crosland brought along the now famous 'Croz Duster'. Ian always has an interesting tale to tell, and his interest in crop dusting goes back to his time as an apprentice aircraft engineer at Rongotai airport. He told of the time they held up airport operations so he could fly his control line, Tiger Moth duster, with a hopper controlled by a 3rd line and dropped super phosphate on the tarmac, scrapped from a hopper of a real Moth duster.

His self-designed 'Croz Duster' started as a lock-down project, with plans drawn on pieces of wallpaper. It's a beautifully presented model.
The original name of 'Croz Dresser' was changed for obvious reasons!
Crozy regaled us for some time on the build and a never ending well of stories.

Steve covered the – to date – rebuild of his Seagull Edge 540, lost in a stupid aileron reversal error some months back.
That rebuild story told elsewhere.
A number of members brought stuff along including Roy Hoare who came up from Wainuiomata.
Neil had a collection of bits from his late Dad, Bob, a founding member.
Proceeds from the sale of any of these items are going to the club and we will buy/build something (perhaps another starter table) in Bob's memory.
John von is selling off his models and brought many along, featured elsewhere.
A 30-minute video of the establishment of commercial aviation in New Zealand, on the West Coast was shown. This centred in part around a memorial gathering held in the mid 80s.
Crozy seemed to know a bit about what was going on, and it turned out he had been there at that function!.

The night was wrapped up with supper from the indefatigable von and Colin and a piece of Mrs. H's world-famous Xmas cake.

Rebuilding the EDGE

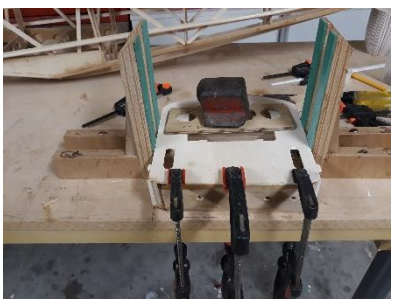
Whilst I thought this would have been finished by now, other things have needed doing.
The rebuild to date has been an interesting exercise and as always with these things, we learn as we go.
The pile of bits shown here and featured some months ago, sat on a table for some weeks before I got the nudge to get going. The trigger for that was a new wing tube. You will recall that I mentioned I was looking for one when I published the photo of the bits, well Harry Perebooms from Egmont obliged. Harry and Garry from Egmont have been regulars at our rally for years.
Anyway, Harry was coming down this way and dropped one off.
Another influencing factor was the lack of damage to the wings. None of any consequence.
One challenge going forward will the colour scheme. It won't be as it was. However, that dark blue was very hard to see, so we'll concentrate on making it a bit more visible.
An annoying thing is the tailplane. It would be so much easier to repair the fuse if this could be taken off. Given it is manufactured in 2 halves, has a wing tube and each half is screwed to the fuse, why on earth would you glue the thing on the tube?

Rebuilding an ARF has some advantages.
The accuracy of the laser cutting and use of mortise type joints makes for a very accurate and strong build.
However, we all know that laser cuts need the charcoal scrapped off to make a strong glue joint, and this mostly never happens with an ARF.
Couple this with the glue used and which often isn't 'in' the joint, such models tend to fly apart as much as break.
We've all experienced or seen firewalls depart for a lack of fastening and undercarriage mounts pull out for the same reason.
So it was with the Edge.
The engine mount system smashed as that had been repaired previously and the undercarriage mount went nowhere, as that had also been strengthened.
In other places, whole formers were in one piece, on the ground.
The secret is to collect every bit of balsa you can to be able to make templates.

I was able to stitch together pieces to make a template for the front 2 formers, which form a narrow box structure. The bottom being the undercarriage mount and the top is skinned.
I was also lucky in that one side of the fuse broke off well back and was in one piece, enabling a pattern to be made for the fuse sides.
The complete fuse side and what was left of the other, had their ply doublers still in one piece and using a multi tool, I was able to remove these and re-use.

Template used for front 2 formers

The undercarriage mount was a 12mm ply lamination. At about 30mm wide, there is no way that 12mm was needed for strength. However, it would have been needed for gluing surface and load spread. Originally this had come adrift in a heavy landing (insufficient glue) and there were a lot of braces holding it back in place.
The new lamination is 10mm. It is not only glued in but also pinned.
Getting this box section square would be the secret to the accuracy of the build.



The undercarriage plate was first glued to the rear former and squares used to make sure it was true.

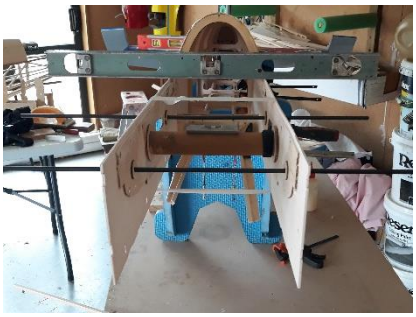
When the front former was glued, again squares were used to make sure the structure was as true as possible.

When dry, a series of holes were drilled through the formers and undercarriage plate. 5mm bamboo skewers were then used to pin the structure together. For this I use gorilla glue as it expands into any little crevice.

Having then cut new fuse sides, the rebate holes for the wing roots needed to be cut accurately. A lot of time was spent on this to make sure each side was identical and when assembled, wing incidence would be correct. The doublers were then glued in place. To make sure these were also identical the fuse sides and doublers were drilled and bolted together so they were identical and then separated and each side glued, bolted to maintain integrity and clamped for a good join.

Fortunately, the fuse sides didn't break opposite each other, so there is a staggered join. Joins have fish plates etc. for strength.

Joining the sides back to the rear of the fuse was the major undertaking with a lot of measuring to make sure each side was the same length. The sides were done separately, with a lot of work on the first to make sure everything was on the right plane.
When the 2nd side was joined, carbon fibre tubes were run through the wing bolt holes and along with the wing tube outer tube, spirit levels were used to make sure everything was true.



Whilst the photo only shows 2 spirit levels, the smaller level was used across both carbon fibre tubes as well.
I was rapped when completed as it was as good as I could get it.
The next step was to add the box section to the front of the fuse sides.
This needed some fettling but turned out to be as good as I had hoped.

With this done, the rest of the fuse could be completed. The bottoms of most formers were unbroken complete, and the internal mounting plates were also in one piece. New formers weren't made up in one piece but built up. The ply land that runs around the inside of the top of the fuse was not replicated, instead 6.5mm square hardwood was used. This was easier and stronger. This was also used as cross members.
Once this was all happy, the engine mounting box structure was built in situ. The firewall laminated and glued in place. Hardwood triangle stock used internally and externally in the structure and then the firewall was pinned, again using 5mm bamboo skewers with the holes drilled at angles through the firewall, through the triangle stock and through the sides.
It ain't going nowhere!

Another consideration when starting this repair, was weight.
Repairs usually add a bit of weight, depending how joins are done. ARFs are usually very light and need weight - sometimes a lot – added to get balanced. So, adding weight in and around the centre section to make things stronger, isn't usually a problem.
However, this model required nearly 400gms of lead up the front in its prior life.

Most of this was strapped across the standoffs as far forward as I could get it. The batteries and ignition module were immediately behind the firewall. The tank would normally sit here, but this had been moved as far back to COG as possible so that the burning off of fuel affected the COG as little as possible.
Most of these larger ARFs have dual elevator servos and these are mounted just forward of the tailplane. I'm sure the decision here is about cost, because very short push rods are required and no internal guide tubes.

There is a lot of leverage with the servos so far back that needs to be compensated by weight up front. In a simple exercise, I Joined two carbon fibre rods to make a length that ran from the firewall to the rear of the servo mount. I pivoted the rod at the COG mark. The servos being used are 54 gms each. To offset one servo required 228gms of weight at the firewall position.
I hate dead weight, so the servos have been moved to just aft of COG. I have made up CF push rods and I reckon a lot less weight up front will be required.

The hardest part is done, I've just got to find the time to finish it.

Steve

Club Dinner

Normally we try and organise a mid-winter Xmas celebration or daylight-saving celebration, but this year things haven't been normal and arranging something fell down the list.
We did, however, manage to put something together for Saturday Night 21st November.
A number couldn't make it who would usually be there, but we still had good numbers, and all enjoyed their evening.

Crozy's wife, Cath, in replying to the invite said, "I would like to come and is it ok to bring Ian?" Bring him she did and Ian did behave, not embarrassing her in the slightest.
3 spot prizes for the men and 3 for the ladies were drawn and the Presidents bottle of wine was won by Joanne Kettle.
The club is, and needs to be, so much more than just turning up for a fly.
I'm already looking forward to the next one.

Evening Flight Training/Practice

With the Park being open until 9 these days, flying can happen late in the day. As there are some who are under instruction and find it difficult to get down, and others who may need some help, we're looking to put together some sessions late in the day. Say around 5. An email will go out to gauge interest.

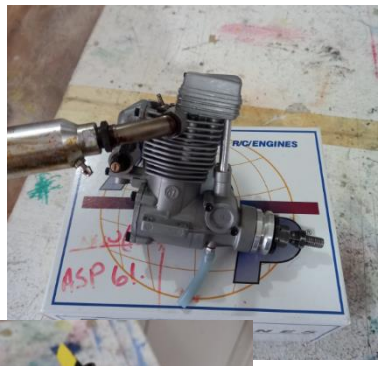
For Sale.

John von is still selling off his models etc.

He has the following as shown in the photos.

Pinwheel 60 sports flyer. 61 ASP 4 stroke.	$250.
Elder40 Airframe and servos. No motor:	$100.
61 ASP 4 Stroke motor. Not done a lot of running.	$175.
46 ASP 2 Stroke motor,	$75.
Ranger 1600 electric plane. Only flown twice. Needs to fly.	$270.
2 Batteries @$30 each for Ranger.	

Contact John on 0274417592.



Ian 'Crozy' Crosland writes.

Observed this pretty little aeroplane over my head on finals and just had to go and have a brief chat with the pilot.

It's a two place 3/4 scale P51 Mustang powered with a modified Honda Odyssey engine.

	Km/hr	Date
Max Average Speed	64	Tuesday, 10 November 2020
Max Gust	85	Sunday, 8 November 2020

HOLFUY

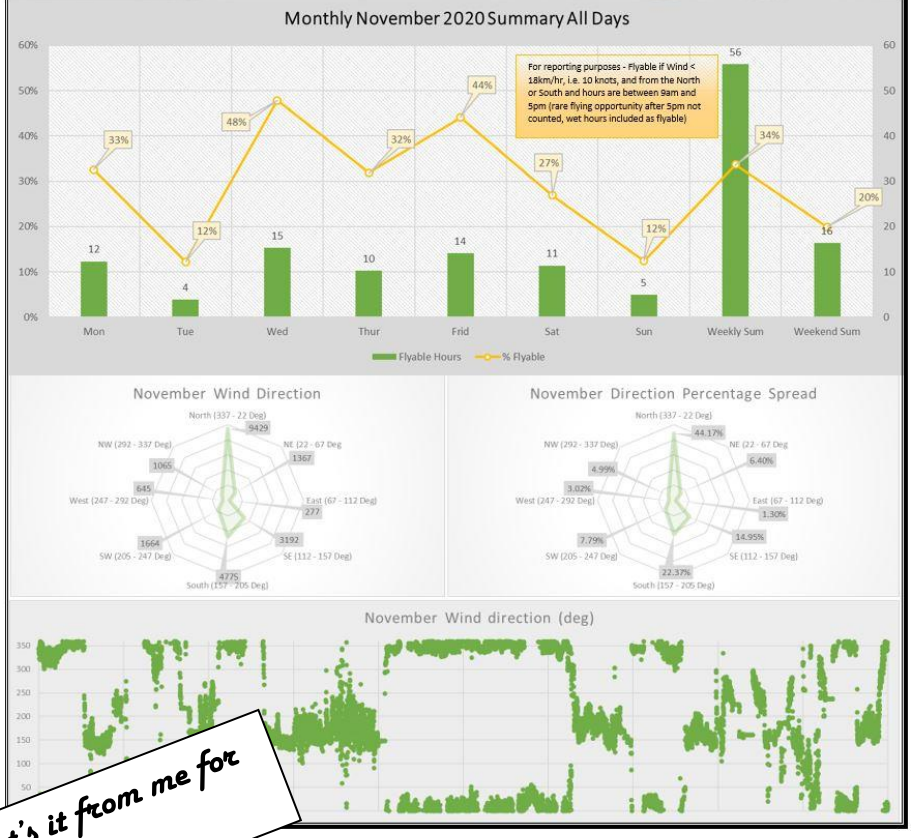
KAPITI AEROMODELLERS' CLUB

November Weather Woes – The Von Report

Most are probably envious of anyone who enjoyed some fly time this month!

Our weather watcher stats show conditions have once again not been the best over the month, stronger than normal winds and a few wet calm days all out of step with the time of year. A long hot summer promised so maybe time yet for some improved flying conditions.

If you can't fly how about testing your graphic art skills !



And that's it from me for this month.

Steve