# Club Update--- May 2018


Photo by Alastair Rivers

## Durafly - Tundra

So this is what the website tells us about this plane.

"*From the beginner pilot to the experienced flier this plane will do it all. The Tundra is an extremely versatile plane that is easy to fly and would make an ideal club trainer whilst still being highly entertaining for the experienced pilot with aerobatics and excellent vertical performance.*"

Made from tough EPO foam it should be able to withstand a few knocks, and looking at those wheels , if the weather gets bad and the grass on the strip ends up a bit longer than usual it should handle that as well.- I look forward to getting a flight review on it .

So if you are wondering why this plane has been singled out ... read on...

( No ! I haven't bought shares in the company)

## From the Prez.

Hi all. Another month gone, and we are heading into winter. Those flying days we have had, have been really good. This time of year, we seem to get less sea breeze and a truer South/North direction. So, when it's good, it's really good.
From monitoring activity at the strip, Owen takes the prize for being the most persistent in taking advantage of any weather condition that look flyable. Ian Hill (Windy Hill) still stuns when he turns up in conditions most of us wouldn't contemplate and has a good few flights. Often this is at the end of a mowing trip and John and I get to witness a model that just sits in the wind, flown with great authority. Nothing seems to faze the man.

Well, the AGM has been and went. I was worried we wouldn't get a quorum, but perhaps because of my worrying and mentioning we had a good number turn up to the AGM. I'm now entering my 4th term as President. I was only in the club 5 months before Alastair strong armed me into being Vice President. I don't intend to hold the position permanently!
Going into the AGM, we were down a couple of general committee members with resignations from Jonathan Michelson and Ross Monk. Mike Hall volunteered from the floor and Neil Upton accepted a nomination, so we are full strength and IO thank those gentlemen for stepping forward.

Also, at the AGM, Jonathan Shorer came along to join us and spoke and answered questions after the AGM itself was completed. One of the things questioned by a couple of members was the insurance policy and the need for a better understanding. The policy is currently being re-negotiated and Jonathan intimated there may well be some better terms. Like all policies though, the premium will increase dramatically. Probably double. Not an insignificant sum.

Looking forward to the new year and some new projects. I believe the club is in good heart.

Steve

### Rabbit Control.

After the non infected carrot baits were put out a few nights the other week, the infected baits were put out by GWRC on Monday evening, 23rd. The un consumed baits were collected again the next morning. We have been asked to report any carcasses, so if you see any, let me know and I will report to the right people. The below received from GWRC.

Steve

Hi everyone
*Thank you very much for being involved in the Wellington Region RHDV1 K5 release. Now the virus is out there, hopefully doing its thing, and on its way to hopefully reducing rabbit numbers throughout the region. Landcare Research have a pretty good website if you want more info*
*https://www.landcareresearch.co.nz/science/plants-animals-fungi/animals/vertebrate-pests/biological-control-of-rabbits*

*We are really keen to get at least one liver sample out of dead rabbits at each site, so if you see any dead rabbits please let us know and we'll pop out and take a sample. It is really important that dead rabbits aren't moved around, and that the virus is able to spread naturally to maintain the strongest possible strain and reduce the likelihood of immunity developing.*
*Our staff will most likely pop out for a bit of a scout around for any carcasses at the beginning of next week.*

*Cheers , Glen*

*Glen Falconer* | *Team Leader, Pest Animals*
***GREATER WELLINGTON REGIONAL COUNCIL***
***Te Pane Matua Taiao***
*1056 Fergusson Drive, Upper Hutt 5018*
*PO Box 40847, Upper Hutt 5140*
***T: 04 830 4417 | M: 027 248 1657***
*www.gw.govt.nz*

## Flying of Drones

One of the things Jonathan Shorer mentioned to me recently, was that there are a large number of drones being brought in by tourists for the taking of selfies etc when travelling around.
A couple of weeks ago, Kath and I met up with some English friends in Rotorua and showed them around there and then down to the Huka Falls.

The below photos are of signs at both Wai-o-Tapu and Huka Falls.

In fact there was another sign at Huka Falls that declared the area a 'Drone free Zone'.

I guess safety plays a part in this but the sheer nuisance factor must also be a consideration.


Steve

## RC Model Engine Collectors

Some of you collect model engines.
There is a Facebook group that has been set up for those with such an interest, and the moderator has been in touch to see if any are interested. Go to this link to access.https://www.facebook.com/groups/1994263070838971/?fref=gs&dti=171220656350781&hc_location=group

Steve

## Helping new club member getting started.

by Catherine Crosland

Picture shows capable new member Vaughan Heberley completing the assembly of a very nice Tundra. Ian Crosland observes and is impressed while John Miller programs the transmitter. Programming in the flaps was a challenge which John Ellison was able to rectify. The photo was taken by Alistair Rivers. The next stage is getting Vaughan safely into the air with John on the buddy box. Group projects and assistance as this is a lot of fun and fun is what we are all about, [says Ian].

Photo by Alastair Rivers

## Alistair Haussmann's Spitfire.

Photos by Alistair Haussmann

After waiting for the right time and the right weather, Alistair eventually plucked up the courage to give it a nudge. I was expecting a bit more excitement, but the model gently lifted off the runway and flew like it was on rails. It's a really nice looking model and if you want further details have a look at the link below.
www.horizonhobby.com/spitfire-mk-xiv-12m-bnf-basic--efl8650

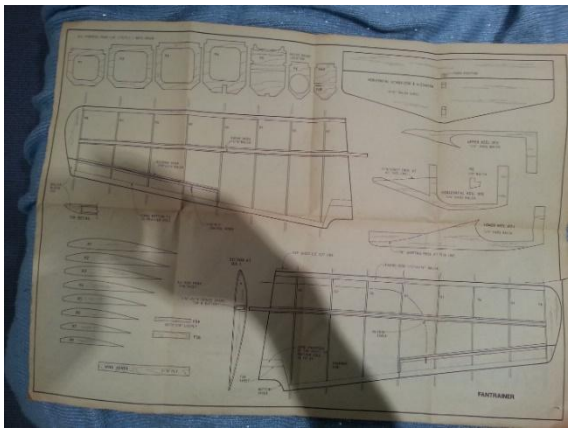
## Fantrainer 400 (Adapted), Flies after a 27 year build.

by Alistair Haussmann

I picked up an RC Scale Aircraft mag way back in 1991, which along with some good reading covering the Fantrainer 400 and 600 aircraft, it included a free plan for a Paul Willenborg designed RC hand launch model using a 0.49cc glow engine in a shrouded duct pusher prop arrangement. I was drawn to the nice lines of the aircraft and therefore had my mind set on making one so rushed ahead and ordered a vacuum formed canopy that was available from Traplet Publications at the time of publication. The initial rush resulted in starting to build the duct shroud and fuselage with the thought of building an electric version, but alas the project died with other distractions taking over.

Purchasing the canopy at the time was to become enough commitment for me to want to complete the build at some point, so here we go rolling forward some 27 years, when a patch of 2017 bad weather (yes one of the many) and another rush of blood caused the project to get resurrected. After starting to resurrect the parts previously built and looking at what needed to be done, I decided another approach might be in order to minimise time investment in what seemed like some of the more tedious aspects of the build; like laminating the engine shroud and sanding to shape without the assistance of a lathe (but I'm sure if I had put the word out someone may have been able to help). It all seemed too time consuming to me now living in the world of PNF, BNF foamies all put together in an hour or two.

Looking around the internet for Fantrainer kits to make life a bit easier didn't result any hits. I was aware World models make a Unijet with a 70mm EDF ducted fan which has similar lines to the Fantrainer but I had seen Jonathan fly one at the field, alas it came to a not too ceremonious end, so didn't go down that path as I knew I could scratch build one cheaper using what I already had at hand.

Hence, as I had a plan and some ideas I thought I'd build my own version as an "Adapted" Fantrainer 400 using bits and pieces I'd bought for other reasons (possibly other abandoned projects, not that I'd admit to that again). Most parts are from Hobby King, 2x 50mm Dr Mad Thrust ducts, 2x Aero Star 40A ESC, 4xTurnigy DS56MG Metal Gear servos, Light weight landing gear with 65mm light foam wheels retrofitted, plus steerable nose wheel. I'm powering it from 2 - 4cell 1800mAH Lipo's (now proven flight time of about 5 min), one for each motor and have split the electrics across both batteries. Receiver and 1 motor on one, all other servos and the other motor on the other. The ESC's only have 5V, 3A outputs hence why I've split like I have, so all servo load won't pull down the receiver (I doubt it would anyway but I might as well make use of both ESC BEC outputs since they are there). I could split the servo load a bit further if I wanted, but no arrangement is totally fool proof and it all seems to work nicely as described.

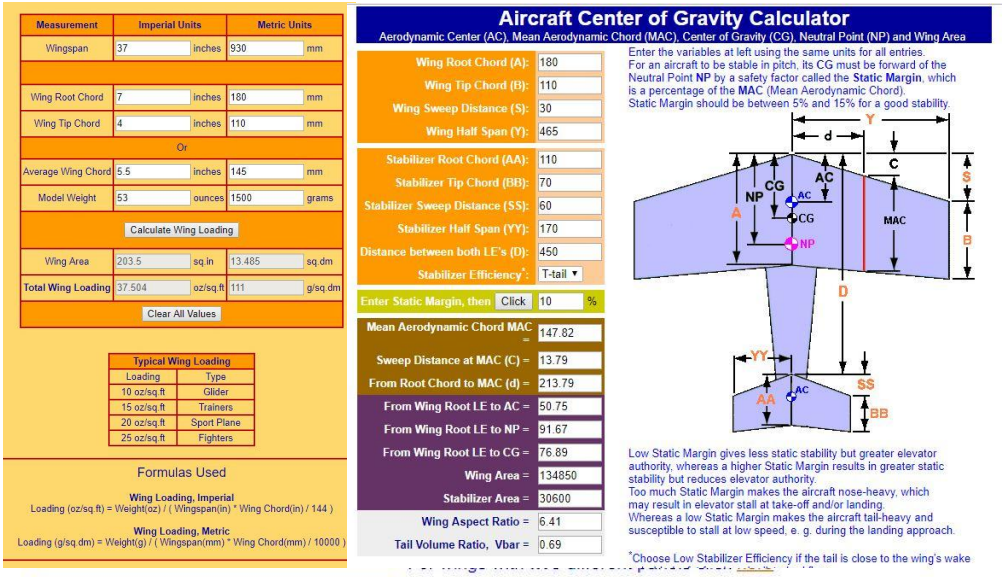
Unfortunately, after carefully storing the canopy for 27 years it had became a bit brittle and yellowed and I managed to crack it test fitting during the build which has been completed largely as per the plan, for fuselage, tail and wings but a number of parts have been 3D printed to minimise build time. Printing the fan mounts and duct was a huge build time saving although they needed to be drawn using CAD software and massaged to suit 3D printing *(thanks to Kapiti3d aka James being able to prototype parts before committing to a final print)*.

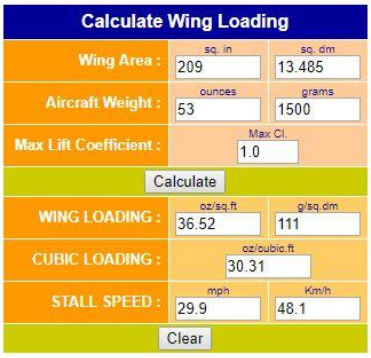
Without battery it weighs about 1.1kg so overall is pretty heavy. The fans put out about 650g of thrust each hence the power to weight would still appear OK and as confirmed the plane needs a bit of ground speed to get airborne *(better than the offer of Andrew to give it a good toss seeing it was originally designed for hand launch anyway, thanks Andrew but no thanks. I've seen what happens when hand launch goes wrong)*. Covering is HK iron on film with tissue and dope covering on the tail section (just to make it a bit lighter being the thought at the time).

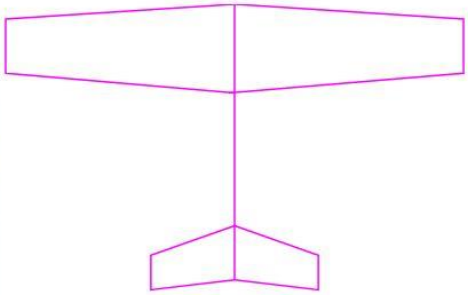
I had been thinking with the motor arrangement deviation from the original design it might have been a bit tail heavy. COG, on the plan is 30mm from leading edge, I was working on using about 40mm (because it felt right), i.e. approx. where the undercarriage is (but as the original plane didn't have under carriage I could have put it anywhere to make the story sound good).




After a few consultation sessions and pointers to calculators *(thanks Don for pointers to* [*http://www.flyingsites.co.uk/downloads/wingloadcalc.htm.*](http://www.flyingsites.co.uk/downloads/wingloadcalc.htm.) *,* [*https://rcplanes.online/cg_calc.htm*](https://rcplanes.online/cg_calc.htm) *and also Andrew for more on site consultations)* with the build weight at around 1500gm total (including batteries), number crunching indicated it was going to fly like a Fighter, to be any other class it would need to be about ½ the weight so near impossible with my light build capability. From the calculator the AC is about 50mm, so my COG would have been in front AG (more stable but less control). If I use a COG from the calculator 70mm will put it be COG behind AC (less stable but more control). All according to the numbers that popped out of the calculators below.



Despite what the calculators were saying the proof needed to be in an actual flight. It seemed to have enough thrust on grass after a few taxis up and down the field. After a few delays for the weather conditions to be better it has now been proven in flight with a successful ¾ field taxi and take off *(thanks to our in-house test pilot James "steady hands" Farrow)*.

With some initial trimming resulting in a lot of up elevator being added and mechanically corrected after flight, future take offs will hopefully require a little less runway. COG balanced at about 40mm for the initial flight however the test pilot's report suggests we move it back slightly which also might help with the ground rotation and further reducing the need for the up-elevator trim. Although reasonably responsive in flight, moving the COG back more will possible make it a little less stable, so small changes will need to be made to complete final trimming to suit myself with less ability to fly than our resident test pilot *(thanks also to our test flight observers, especially Lindsay's encouragement to go "lower and faster James", Lindsay don't forget your transmitter when you come flying next so we can see that Bixler go lower and faster as well).*

As the test flight was successful the addition of a couple of pilots *(thanks Don)* will be in order, I will also look to improve cooling by cutting a few larger vents in the fuselage and building some shrouds around the vents to make the holes look nice.

So, I've ticked the box on that little project for now (started the actual build again in May 2017 finished around Dec 2017, as usual the best builds are completed in dribs and drabs as time permits. I might stick to PNP or BNF again for a while although nothing is currently planned there always seems to be another model that you come across and just can't help thinking would be a nice addition to your own collection.

Ok. Actually I lie slightly. I should finish the British Aerospace Harrier GR7 Jump jet that I also started in the 90's. This thought train though has recently morphed into a Lockheed Martin F-35B Lightning II. Maybe I'll be able write that one up in another 27 years time, probably not... realistically this will need to be within the next 5 maybe 10 years at a stretch with a lot of work to do in the meantime.

## Club Night - April.

As Steve mentioned earlier, club night was replaced by the AGM , which I thought went very well. Thanks to all those that attended.

**May's** Club night (**Tues 15th May**, 19h30. Kotare Room, Queen Elizabeth Park ), will be another good one. Andrew Farrow has managed to get his mate Russell Bell to come and talk to us. Russell is a full size aerobatic aircraft pilot. He has been flying aerobatics competitions in both Australia and New Zealand. He won this year's Unlimited class trophy unopposed. He is a modest guy but he might bring the trophy.

He owns and flies this Giles G200 single seater.


So if you ever wondered how these guys do the crazy stuff they do , this will be the time to find out.

## Preflight checks.

I know I probably sound like a stuck record, but I really can't emphasise this enough.

A couple of weeks back we had an aircraft hit the dirt shortly after take-off. Air crash investigators quickly identified the cause, reversed ailerons.!!

The trainer plane had been flown earlier that day, via a buddy cord and was not behaving very well with some very sloppy aileron response. After landing, the aileron servo was checked and found to have a lot of play around the centre. The servo was exchanged for another and all appeared to be fine... except, the control surface movement was not checked. The boys found out too late that different brand servos have different rotation directions. The result was a write off. The aircraft only just cleared the pits ( taking off to the South) before rolling to the right and crashing on the threshold. Fortunately, no people, cars or animals were harmed.

It always pays, prior to take off ( every take-off) to check that the control surfaces are operating in the correct direction. It takes about 10 seconds but can save plenty of rebuild hours. In this case it would have saved buying a new plane.

## Need some more parts / models ??


I know I had this in last months issue but if you need some extra bits, it might be worth a trip up to the Tauranga Model Aircraft Club auction.

**That's about it for this month.**

If you have anything to contribute , please send to me or Steve.
Couple photos and a short story , always appreciated.

Till next time.

Fly hard... land soft.

Cheers
Don