

Model Flying Hawkes Bay



Club Newsletter # 143 2022

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zzzzzzzz	RECOVERING !!!!!
Sat 31	NEW YEAR'S EVE Party Party Party
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Contributors to this issue; Clive Baker /Barrie Russell / Brett Robinson / Marty Hughes / Rob Lockyer / Graeme Rose / Dave Crook / Alan Rowson / Kevin Botherway / Mike Anderson / Ash / Russ Nimmo / Phil Sharp / Brian Voyce / John Aitken / Anthony Hales / Danny Young / E&OE /

NDC is over for this year. Next calendar year 2023 the **NDC** rules have changed to allow the monthly competitions to be flown on any day during that month. So, watch those weather forecasts, we will have a big **Vintage and Soaring NDC** competition schedule coming up in 2023 all year long.



Last call for Club Dinner places, ph Mike 027 420 5480

Model Flying Hawkes Bay's CHRISTMAS PARTY.

Sunday 4th December

At the **FILTER ROOM, Meeanee**

From 4.00pm on with dining **From 5.00pm**

Limited numbers so booking will be essential

Please phone Mike Shears on 06 8434675 / 0274 205 480

MFHB CLUB NIGHT

Wednesday 7th December 2022 at the National Services Club, HASTINGS.

This club night is a special occasion. Two members, **Ross Mitchell and Ray McPeake**, both long standing and enthusiastic members are retiring from flying have gifted much of their gear and models to the club

- 7.00pm Doors open, social ½ hour
- 7.30. Club Meeting followed by a talk/demo on member health and safety at Awatoto Field by Dr. Brian Hitchcock.



- 8.00. Show and tell session by Ray McPeake on his Taube aircraft.
- 8.15. **Monster club Auction conducted by Marty Hughes.**
- 9.00. Sales Table and supper.

From the Editor's Desk Nov'22



Twenty-five days to Christmas and all that food and those prezzies .. roll on New Year !!

This is it for 2022, I'll be having December off and we'll publish again some time early in the new year Jan/Feb.

My grateful thanks to those few of you who regularly support these pages and make this editor's job worthwhile. We have the usual fare with some interesting data from Clive and another update on Phil's Camel progress. President Marty continues his Workshop Series, be prepared to feel his hand on your shoulder for next year's contributions.

We have a great Club Night / Auction night coming up next week and encourage your participation. Remember, visitors are very welcome (good PR for the Club and hobby) and with the great list of Auction lots the more the merrier for a successful sale. We are very grateful to Retiring (from flying) members Ross Mitchell, Ray McPeake and John Aitken for their more than generous donation of goods together with other member's gear for the Auction and a Sales Table. Come and Bid and Negotiate for your share of these goodies, and bring your park flying friends

We'll see you there or at the field. From the Editorial Staff, we wish you all a very Merry Christmas and a safe, healthy and prosperous New Year.

Barrie the editor mfhb Nov/Dec '22.



CHRISTMAS IS COMING, HAVE YOU BEEN TO SEE SANTA YET AND ORDERED YOUR GOODIES FOR DELIVERY ?

Prez Sez. Nov 2022



Hi Members, Here we are already counting down the sleeps until the big fat man comes down our chimney and leaves a 90 cc Saito Radial



engine under the tree.. (That's a big fat hint if you are reading this Simone.) I've been a little detached from the club as of late but this month I switch work roster and I'm back to Sunday flying so looking forward to re-connecting with you all.

A few things to look forward to; First up we have our **MFHB Christmas party on Sunday the 4th** at the Filter Room. Sunday morning club day at the field then a get together in the evening. If you haven't already **RSVPd to Mike Sheers**, please do so .

Then a few days later on **Wed night the 7th of December** , 7pm ant the National service club Hastings is our Club night . We will have a guest speaker , General business then an Auction to auction off models and RC gear that has been donated to the club. If you have anything you would like to donate for Auction then please contact Barrie Russell asap. We are raising money for a new Motor for Ray McPeak's Taube that he has donated to the club. Ray will have the Taube on display on the night.

The field is green and very flyable . Just need less wind and more Sun.

See you soon. Marty.

Notes from the Committee



November 8th '22.

- Field Officer Lance reports spraying of fence lines. Not necessary to proceed with any grass remedial work. Advised the HBRC are investigating installing a security gate at field driveway to be locked at night time. A MFHB lock to be included.
- Roadway in has been upgraded by the Napier City Council.
- 75th Anniversary Postponed again and to be held in conjunction with the Warbirds 2023 rally.
- Ray McPeak and John Aitkin have both decided to become associate members. Both Ray and John are donating some planes and gear. It was decided these should be auctioned. Ray is also donating his Taube aircraft that will be maintained and flown by members to honour Ray's work at the Warbird events and Club Rallies.
- CLUB NIGHT / AUCTION December 7th at National Serviceman's Club, Hastings. Mike Sheers to also arrange a safety display by a health professional. Marty & Barrie to arrange Auction.
- Rules Final approval on latest club rules version, emailed out to all members.

Next Meeting Next Meeting Date | time, 7:00pm Tuesday 13th December 2022

Club Captain reports. Nov '22



Merry Christmas Members,

Its been an interesting and challenging year for us. Sadly, we have had to say good bye to a few good friends, Some have had some challenging illnesses, then with covid and weather putting a halt to War Birds, the ongoing general weather patterns depriving us of good flying conditions. Topping all that off was the first of two floods that took out the field for an extended period of time. Now as we look forward to some warmer settled weather we are still being hammered with strong winds and rain. Way more often than we are use to seeing this time of year. We can only hope that the new year will see things settle down so we can enjoy our chosen pastime in relatively good conditions. Due to all this the numbers at the field have been up and down even when the conditions have been right. I hope that when this weather breaks and we have all got those pre Christmas chores for her indoors completed we can get into the habit of heading to the field Sunday morning for a catch up and even a fly.

I wish all of you and your families a safe and enjoyable Christmas. **Derek Whelan** . Club Captain.

MFHB Club Night

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This club night is a special occasion. Three members, **Ross Mitchell, Ray McPeake & John Aitken**, long standing and enthusiastic members are retiring from flying have gifted much of their gear and models to the club

Program;

7.00pm Doors open, social ½ hour

7.30. Club Meeting followed by a talk/demo on member health and safety at Awatoto Field by Dr. Brian Hitchcock.

8.00. Show and tell session by Ray McPeake on his Taube aircraft.

8.15. Monster club Auction conducted by Marty Hughes.

9.00. Sales Table and Supper.

Ray is keen to see his magnificent Taube monoplane live on and be maintained and campaigned by MFHB members. The model is in need of a new engine, and to that end it has been decided to hold tonight's auction to raise funds for the purchase of a suitable motor and gear. This has been helped further by the offer of a generous discount on an NGH 38 four stroke petrol motor from Firebrand RC in Taupo. The model will be restored and maintained by members in the club "Shed" be available for suitably qualified members to fly along with the present club Cub.

The lists of the auction lots and sales table are attached, much of the offering is in new or near new condition. Members attendance is encouraged, we look forward to your participation in this final event for this year. If for some unfortunate reason you cannot attend but wish to make a purchase, then let Marty or me know and we can handle your bids. **Non-Members Welcome also.** We look forward to your company and making it an event to remember.

Marty ; 021 427 380. Barrie 06 8353896.

MFHB 2022.

AUCTION SALE / CLUBNITE WEDNESDAY DEC 7TH 2022

National Services Club Hastings.



Lot 1



Lot 2

LOT 1. Vintage, "Carmen", a Vic Smeed MODEL 1100 span & spare wing and ready to fly , all gear and orange Rx

Lot 2. Almost NIB Fuzzy Iron, the best covering film iron on the market. (Current repl value \$139.00)



Lot 3



Lot 3

Lot 3.

Clubba, this is the last of the Club build Clubbas, has all the gear, Orange Rx, 45 Amp ESC , Gold Turnigy 3542/6 1000kv motor. All brand new. Bind it to your Tx and it's all ready to fly. The cost of the materials alone including the "Clubba Kit" close to \$200. A brilliant flying semi-advanced trainer.

Lot 4. 2x Spektrum Transmitters, case and chargers and buddy cord etc. A DX 6i and a DX 8 which looks brand new ! Wonderful for a new member into the hobby or as backup sets.



Lot 4



Lot 5; Another Clubber, complete with Orange Rx **Lot 6;** Radian with Orange Rx



Lot 7; Hobby King BIXLER foam powered glider. 1500 span, all gear and orange Rx included. In New condition and current replacement cost \$230 plus postage !

Lot 8; Firstar 750mm powered glider with Rx ready RTF.



Lot 9; Trainstar High wing trainer 1400mm span, in new condition, fully set up and ready to fly.

Just fit a battery and bind to your Tx and go fly....

Lot 10; A collection of old and troubled diesel motors. As-is where is! Included there appear to be and Elfin 149 / Webra15 / DC1.5 / ED Baby .46 / Unknown Diesel (Paw?) plus a few bits and pieces and some props. All offered as a job lot,



Lot 11: A "Russell" Rebuilt Radian, original wings and tail feathers and gear in a new built up fuselage. Flies like new.

Lot 12; Large Radian XL 2.6 meter motor glider. In flying condition, has had some minor repairs.





Lot 13; Spektrum DX7 transmitter and case. **Lot 14;** Electric starter. New condition, current price on Ali Express \$120.



Lot 15 Trainer model, 52inch wingspan, complete with servos and a fuel tank, however missing the engine. in reasonable condition, was evidently a good flier. Would suit electrifying or re-fitting an new IC motor.

Lot 16. Ex- Hobby King 45 inch span Storch in reasonable order. No receiver and flap horns may need a drop of ca. Has had the original ESC replaced with a more substantial one.



1

Lot 17. Guillow Catalina PBY kit, also 45 inch wing span. Kit is for a display model . I had ideas about making it flyable with a couple of small electric motors but like a lot of things I never get round to it, so maybe someone else might like the pleasure. **Russ Nimmo.**



Lot 18. High wing Clubba Type model from the Russell stable, 59 inch span, foam and brown paper wing with ailerons and flaps, Depron body over a liteply box. Comes with 6 servos, Orange 8 channel receiver, Scorpion 3014/1040kv brushless motor and new 50 AMP ESC. Plug in a 3 or 4 cell battery and go fly if you have Spektrum DSM2 or X.



Lot 19. Foam Board fun cub also from the Russell stable. 48 inch span with a PropDrive 35 brushless motor and new 40AMP ESC. 4 Servos. Just needs Rx and batteries and go and have some fun.



Lot 20. A 2300 mm span Piper Cub built from a Great Planes plan. Has gear etc but no motor. Was originally IC powered and/or could suit electric if preferred. This is a great flying model.



Club Nite Sale Table.

Sale 1. Fuzzy covering iron, well used but in good going condition. Best covering iron on the market.

\$ _____



Sale 2. Asstd Scale equipment, 2x guns, 2x instrument panels and pilot bust.

\$ _____



Sale 3. Building Jig set.

\$ _____



Sale 4. Brushless electric motors

1x Turnigy D3542/6 1000kv as used in the Clubba series

\$ _____

1x Scorpion 3014 – 1220kv with 45Amp ESC

\$ _____

1x Brushless motor 4250 / 500kv with ESC.

\$ _____



Sale 5.

Woodpecker tool, used for pin pricking covering balsa sheet before filming.

\$ _____



Sale 6. Various wood propellers. (13x)

3x Turnigy 17x8 \$ _____ each.

3x Turnigy 18x8 \$ _____ each.

2x Turnigy 20x8 \$ _____ each

1x Master 20x8 \$ _____ each.

1x Turnigy 20x10 \$ _____ each.

2x Turnigy 21x10 \$ _____ ea

1x Russprop



Sale 7.

A Pair of 5 inch Skylite wheels on sprung aluminium oleo legs.

\$.....



Sale 8. Set of three compartmented plastic equipment boxes, ideal for workshop storage.

\$.....



Sale 9. Metal/plastic tool box, exceptional quality 580mm x 450 with internal tray.

\$.....



Sale 10.

The buy of the century !!
Another "Russell Brainstorm from yesteryear!" A couple of kitsetted fuselage boxes complete with fibreglass cowlings. Design your own foamboard or balsa built up sport model around them

\$



Sale 11.

One pair of 5in ? vintage wheels.

\$.....

**Sale 12.**

OS Brushless motor. The Rolls Royce of electric motors 3825/750 Kv. 30 sized motor current new replacement cost \$189.00

\$.....



All these items are on the **FOR SALE** Table which will be open and manned after the auction.

Come and make an offer and negotiate with our friendly staff.

*During this week I heard what I think is the worst ever excuse for not coming flying. I suggested to a certain gentleman (who shall remain nameless) that we visit Awatoto, only to be told that today is Black Friday and thus he has to go shopping with his beloved and buy her a Black Friday present ! I asked if he was spending as much as a new engine, "more than that" he replied, so if the rules of "Contra" apply, look out for a new shiny bright model on the lightline sometime soon ? **My lips are sealed ha ha. Ed.***

CLUB ACTIVITY November'22



Tuesday 1st shed morning took place mainly at the field, the weather was so inviting. **Marty** had a great morning re-introducing his lovely Lysander to the sky with the Saito radial sounding so good. Now that he has his mobile hangar/workshop/strobe lighting / charging station up and running, drop in any time for a charge and a cuppa. What's that ?? No kitchen facilities yet, we live in hope **Marty** and maybe a bunk bed?



Mike S had fun with his Mamoielle, **ex-Harvey Stiver** model and then completed an arrester wire arrival after the battery departed from his Lidl mid-flight and the model brought itself back to earth. No damage !

Rob enjoyed some good flying with his electric aerobat with Mike calling some sequences.

Good to have **Bill R** back in the fold after his recent eye surgery and hopefully back on the flight line before too long.

Tony Ward brought his long awaited Tiger Moth out for an engine and taxi run and for **Mike** to check over the settings etc.





The petrol Evolution motor ran faultlessly until the muffler loosened, and the taxi run topped out at about two meters above Awatoto field and she wanted to fly until **Mike** relented and put her back on the ground. The noise of **Tony's** knees knocking was too much to bear ! With a couple of small things to sort out, it is going to be one seriously nice aeroplane to fly, well done **Tony**.

And of course, the "Brains Trust" was in session offering advice and comment to all and sundry all am.



And the good news is The access road from Waitangi Road to the stopbank has now been resurfaced thanks to the good work of the HBRC. You no longer need a four wheel drive vehicle to negotiate the potholes !

Also spied on the strip during the week, **Mike** doing a high speed run trying to get **Dad's** Morgan airborne. To me it's never going to happen, the C of G is way too far back ?



Tuesday 8th Nov, the weather was so good the “shed morning” moved down to the strip and **Tony Ward** finally got his Tiger airborne under **Mike’s** control..... Well done that man.



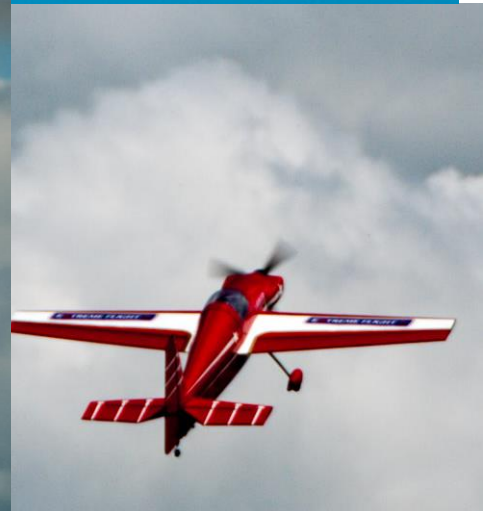
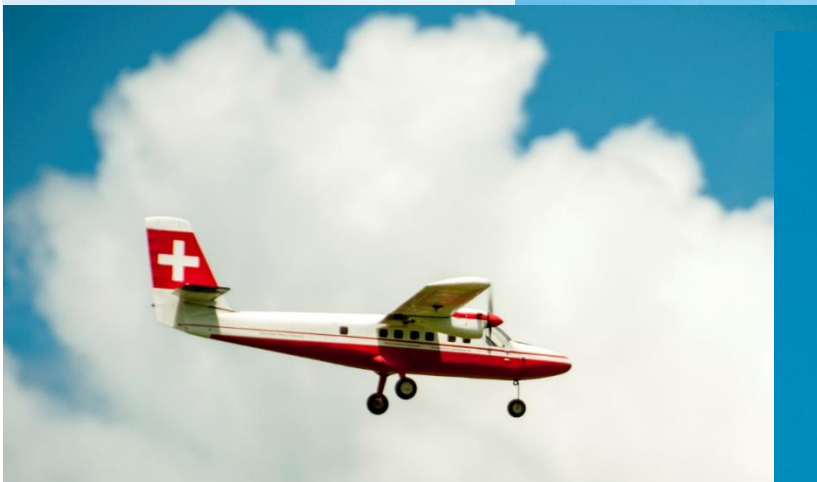
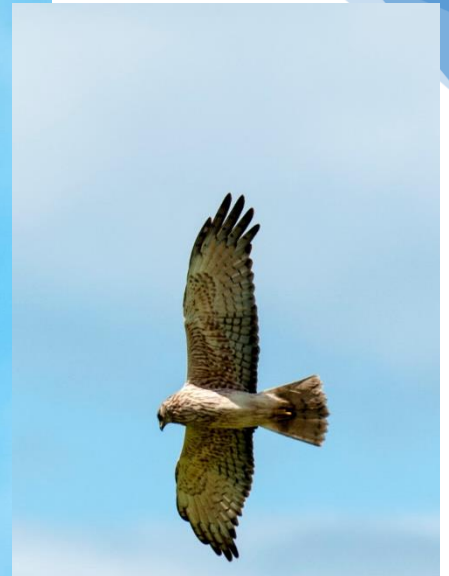
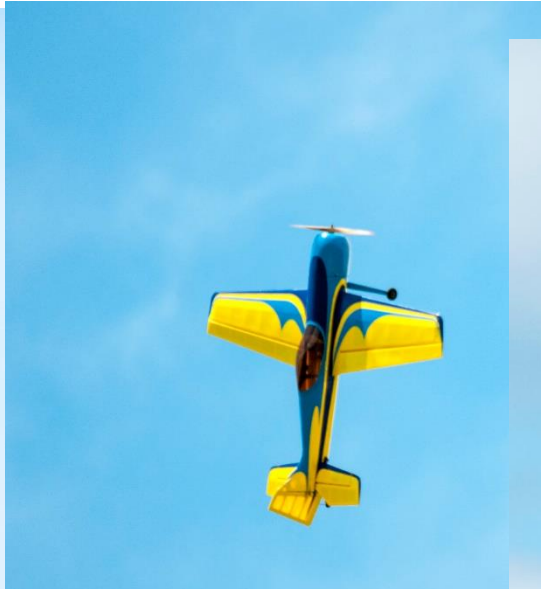
Captured by Clive, the Tiger Moth is always a great subject and sight, just needs that pilot to complete the realism.

Sunday 13th; Barbecue Sunday, At least the helps to bring the troops out, beaut day with a bit of a cross wind early on, but settled in to a light sea breeze around late morning.



Dave and Mike were on duty in the kitchen and the Deans Shelter was a good spot for a chat whilst waiting for the cross wind to subside. Clive was busy and got some great aerial shots of proceedings. James Black’s Sukhoi flew well until a loose motor mount put paid to the day’s flying. I’m sure I gave him all the screws when I sold him that plane ?





From Top Left Clockwise; Mike's Hellcat guzzling nitro ! / Dave Kenwright's IMAC ? / Local soaring showing how it's done / Vic, Pawnee now fitted with an electric start / ?...? ? / Phil Sharps Storch heading off on another sortie / John Clarle's electric twin Otter. A good day was had by all. Ed.

Sunday 20th Once again, where have all the players gone ? Bit of a cross wind for starters, but that shouldn't stop flying. More to the point it might mean members need more practice coping with cross wind conditions. Eventually it went round to the east as predicted and finished a very flyable day.

Myles had a binful of models in his "Hearse" and was flying the Harvard well.

Mike and Robert were campaigning their Hellcat, burning through gallons of fuel !



Tuesday 22nd Nov.

Good attendance at the shed. **Marty and Rob** took their new Stearman baby out to the field for some motor running and taxi trials, all went well. **Danny** had his new purchase **ex-Rob Clubba**, he and **Mike** were coming to terms with the new AX3/SAFE Spektrum Rx set up. Don't know how they got on but were busy most of the morning.



Stan tried to get the DLE30 in his refurbished Thunderbolt running, but carb troubles seem to preclude that, so off to the Carb Shop. Generally a good chatty and helpful morning for all, **Blair and Anthony** and **Tony and Phil** and **Peter and lance** and others all joined in with advice and a looksee and a cuppa.



AROUND the BUILDING BOARDS Nov '22

Graeme Rose reports;

Hi Mr Editor, Just thought you may like to see what I'm up to, doing some mods to the big Greenley making it faster and stronger than before during the refurbishment. Original configuration inset.

I'm going to paint the fuzz this time, the petrol was bubbling the covering so my son is going to paint it as he is a car painter. As we are doing this work on it we are fitting a bigger motor up front. It will have a DLE 120 That will give it some more pull.



And in the photo the front plane is the standard Greenley that has RCGF60 up front for the smaller Gliders. You can see the size difference in the photo, The big one is 2.6 metre and the smaller one is 2.2m span They are so nice to fly. In England they use the smaller one for a trainer. Cheers, **Graeme.**

I purchased a tired King Kobra from the Hamilton Sale and fitted new gear and re-painted and recovered all. Took 9 ounces of paint off the wing alone would you believe ! Still 8 lbs ready to fly. Should do the Classic Pattern okay ?? With a decent pilot, Yeah right ?



Dave Cantell reports on the continuing progress on his Cessna build;

Hi Barrie,

still moving along slowly have the cowl ready for painting doors now fitting correctly . Next task is to paint the cockpit then I will be able to look at covering the fuselage.

Best wishes for all and safe travels over the holidays.

Cheers Dave



Marty's "Members' Workshops" #4 Nov'22



This month I ventured into the hills of Havelock North and got myself into the workshop of **Phillip Sharp**.

Now you may not know this but **Phil** was the chief Mechanic for the McLaren Racing team in the UK for many years so he is no stranger to perfection so I was rather excited to be visiting him in his workshop.

Well I wasn't disappointed.

On entering the workshop I was confronted with a view that stretched as far as the eye could see over Hawkes Bay.

Marty : Oh my god Phil ?? Are you serious ?? This is an amazing space to create. I bet you never get tired of this view?

Phil: Yes Marty, we are very lucky to live in a nice place.

Marty; Your work shop is full of all sorts of machines and equipment?

Phil; Every machine has its purpose and rather than sending things out for fabrication, I try and do most things in house.



Marty: Please show me around Phil and tell me about these models. Are they all scratch built?

Phil: Yes Marty says Phil with a laugh. Many hours have gone into each Model. The Big Sopwith Pup Biplane you see in the trailer is running a CRRC 55 Twin engine with a custom made reduction gearbox to spin a 32 inch prop. Under the Pup is the Storch that fly's at the field on regular occasions.



Marty : Tell me about this other big War Bird in the main Workshop?

Phil: That's my Tempest, Running a DA 100 Twin . If you look close you can see the custom built exhaust coming out each side.



Marty: Ok Phil, This motor I mean WOW !! Where did you get this from?? Just kidding , I know you made it. Everything but the spark plugs was made right here aye Phil? Bloody amazing.

Phil: Thanks Marty, it's been a bit of an ongoing project but I'm happy with the result. It's a third scale direct copy of the Gnome Rotary engine and worked out to be 470cc.

Marty: Phil , you're the first guy if met that's has made his own engine. So now what Phil, what will you do with it now its finished and runs?

Phil: Look at this over here ... The latest project I'm building to house the rotary. It's a Sopwith Camel that I think will do the engine justice.

Marty: Looking forward to seeing that finished. Thanks for your time Phil, I thinks it's now coffee time.

Phil : Agreed , let's go have one.





THE FOKKER DR1 TRIPLANE

First flown. 5 July 1917

Wing span	Upper wing	7.20 m
Gross weight		586 Kg
Power Plant	1x Oberusal 9 Cylinder rotary engine 110hp	
Maximum speed		180 kmph.
Service Ceiling		20,000ft
Armament	2x 7.92 mm Spandau machine guns	

www.fokkerdr1.com

One thing I know about the Fokker DR1 is that a lot of people like it. Omaka have flown a formation of 7 full size Triplanes at one of their shows and a lot of people ask why haven't they done it again. We have two active models in the club at present.

Could it be that appearing in films has widened its appeal? It appeared in two films one British one American. The films were not all that great. The Blue Max did have Ursula Andress in it but she could not get into the cockpit of the Fokker. In the Great Waldo Pepper the Triplane is flown against Jenny trainer in an apocalyptic dogfight in which it is so badly damaged it cannot land and has to fly on forever.

The background to the Fokker Triplane was as a reaction to the introduction by the RAF of what was essentially a triplane version of the Sopwith Pup na

Early in 1917 the Sopwith Company produced a Triplane which essentially was a three-winged Pup even down to the bevel outer edge to the ailerons. The wing chord was reduced which improved manoeuvrability and visibility. In battle it was very successful despite being lightly armed. A captured Tripehound, as the British aircraft was known, was inspected by Anthony Fokker who issued an order to his chief designer to produce a triplane.

Anthony Fokker wasn't a German by birth. He was actually born in Indonesia to Dutch parents. When war broke out he decided that his employment opportunities were better with the Germans than the Dutch and set up his factory there. At the end of the war, he railed all his personal baggage back to Holland in 6 long trains

(He went on he produced a range of transport aircraft including the Southern Cross of Kingsford Smith fame.)

The Fokker DR1 first flew in July 1917. It was a small single seat aircraft equipped with two machine guns firing through the propeller arc. In addition to the three wings, a further lifting

surface was provided by a small wing mounted in the undercarriage. The wing span of the largest wing was only 7.29 metres and it was 7.15 metres long. The cockpit was described as small.

It was powered by a 110 kW rotary engine which gave a top speed of 180 kmph said to be slow compared with other fighters at that time. I looked up the speeds of a number of single seater aircraft operating at that time and the all seemed to be about the same.

At this stage of the war the Allies blockade was causing problems for the Germans. Castor oil was the preferred lubricant for rotary engines but Germany had no access to supplies of this commodity. This may have resulted in Fokker only building 300 Triplanes.

Operationally Germany was achieving success with what was known as a flying circus or *Jagdgeschwader*. This was a special unit comprising pilots of above average ability. They were not permanently based at an airfield but were transferred to locations where they were needed. Their leader was Manfred von Richthofen member of the German aristocracy. This allowed him the right to concentrate on destroying enemy aircraft while the remainder of the flight gave him protection. This enabled him to build up a record of 80 enemy aircraft destroyed. While identified with the Fokker Triplane von Richthofen did not fly it exclusively.

Von Richthofen was shot down on 28 April 1918 and was buried with full military honours by the RAF. It was shortly after this that the Triplane was withdrawn from service.

In any case Fokker factories were concentrating on the D VII biplane that entered service in May 1918. Certainly, the Allies were more impressed with this aircraft and the armistice agreement specifically stated that all Fokker D VII aircraft were to be handed over to them, the only plane mentioned in the agreement. In the meantime Anthony Fokker had established a factory in Holland which produced Fokker DVIIIs to re-equip the French Air Force. This was achieved using the 6 trainloads he had brought back to Holland as his personal baggage.

Pre internet chat room using
An old version of windows...



Phil's Rotary Magic. Pt 16 Nov'22



And still the magic rolls on with this latest instalment from Phil regarding his Camel build, he writes;

Hi Barrie,

Well another month has rolled by, at least we are getting a bit of flying now!

A steady month on the Camel, starting with some beautifully 3D printed guns thanks to Derek. Much better than the vac formed ones that I had. (Fig 1)



Fig 1

(Phil tells me he found a program on the web for 3D printing of the guns which was right up Derek's alley, who then printed them for him ! Ed.)

A little bit of work to assemble them and then paint with a plastic etch primer (Supercheap auto), followed by regular primer and matt black final coat. (Fig1)



Fig 2

The mounting brackets are brass plate and tube (Fig2)

After that was the aluminium cowling parts. These are formed from 20 swg ali, with a fair bit of panel beating required.

I made a form block first, from wood, and then got stuck in with the hammer!

The ali sheet needed softening first, and I found a good tip on Dr Google. Scribble the surface with a "Magic Marker", and then heat the sheet until the marker just disappears, then quench in water. It works well, but I had to repeat the process two or three times to keep the ali nice and soft.

After a lot of hammering and trimming the panels are smoothed out with progressively finer sand paper, before a final polish. (Still to be done)

They are held in place with M2 screws and need to be easily removable to get to the oil tank which will be fitted underneath.

The round hole in the right hand panel is for the oil tank cap. This has a reinforcing plate which I made from litho-plate, using the form tool shown.

The next job will be the side panels and cowl mounts.



Fig 3



Fig 4



Fig 5



Fig 6

Pictures above.

- Fig 3.** Form block.
- Fig 4** Left hand centre panel
- Fig 5.** Painted Gun
- Fig 6.** Mounted Guns



Fig 7



Fig 9



Fig 8

- Fig 7.** Right hand panel before sanding.
Fig 8. Right hand panel with Oil Tank access hole.
Fig 9. Form tool and reinforcing plate.

That's all for now.

Regards, Phil

A History of the Rotary Engine. *By Clive Baker*



When WW1 broke out in 1914 the aeroplane was in its infancy. The Wright brothers first flight took place only 10 years before the outbreak of hostilities in Europe. The aircraft that were available to the warring nations in 1914 were at the very base of aviation development. We are lucky in our club at being able to see Ray Mc Peake's model of the iconic Rumpler Taube. This was typical of the planes flying in the pre-war years.

One of the major limitations of aircraft development was the engines available at that time. The plane flown by Bleriot that crossed the Channel was powered by a 25 hp engine. Engines bigger than this had serious problems of how to get rid of waste heat. Water cooling was heavy. Air cooling was not effective at keeping engines operating at design temperatures.

The rotary engine was a way of overcoming these difficulties. A rotary engine was one where the crankshaft was fixed as part of the mounting for the engine while the crankcase and the cylinders and propeller arranged radially around it, rotated. The propeller was fixed to the crankcase. The hot parts of the engines were moving through the air even when the plane was stationary or taxiing.

We have several models in the club where the full-scale original was powered by a rotary engine. There are two Fokker triplanes, and Phil Sharp's Sopwith Pup, and his Sopwith Snipe which is under construction. The Snipe is to be powered by the scale rotary engine which Phil has built.

The cowlings on the full-scale Triplanes and the Pup look as though it hid a radial engine but actually they contained the rotary engine. Rotating inside the cowling improved the efficiency of the waste heat transfer.

A rotating engine sounds bizarre but it was actually an elegant solution. The cooling fins on the cylinders were smaller and lighter, crankcase was smaller and lighter than other engines. and valve arrangement was simpler. As a result, the power to weight ratio of the rotary was better than the conventional engines available at that time. They were easier to start. The inertial effects of spinning the engine ensured that it moved over several compression stages.

Bizarre they might seem to us but more than 4,000 had been built before the out-break of World War 1. Design work was carried mainly by the French and Britain and Germany manufactured them under license. (What is bizarre is having the same engine used in aircraft on opposing sides.) Rotary engines were used by the British and the German aircraft designers in planes like the Bristol Scout and the Fokker Dr1. The Avro 504K that was the first aeroplane to cross Cook Strait was using a rotary engine

They did however have inherent design problems. The rotating engine acted as a large flywheel. This was fine and actually stabilised the aircraft while it was flying straight and level but when making minor movements like raising the tail off the ground during take-off or major changes during dog fighting the aircraft was subject to forces known as precession. The reaction of the aircraft to the precession forces were complex. When turning right aircraft nose would drop and the turn tighten up but would respond sluggishly when turning left and the nose would lift. Resuming straight and level flight was complex.

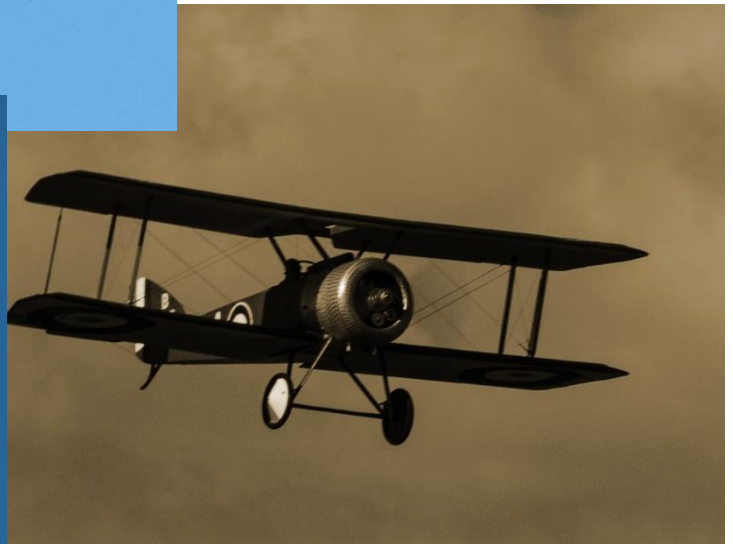
A lot of time and money was spent on trying to overcome the forces of precession. Engines with two rows of pistons rotating in opposite directions were tried and even before the war a British engineer demonstrated an engine where the crankcase turned one way and the cylinder heads the opposite; each driving a separate propeller. One aspiring designer produced a twin-engine aircraft with each rotary engine mounted on the opposite side of the fuselage driving the propeller through a gear box.

The configuration of the rotary engine was such that fuel was passed to cylinders via the crankcase. This meant that the lubricant, castor oil, became mixed with the fuel. The unburnt gases in the exhaust system were hard to collect and the pilots were sprayed with castor oil, some of which inevitably got into their digestive systems. This was bad enough for pilots on both sides but the Germans had the added problem that they had no access to supplies of castor oil

But the final nail in the coffin of the rotary engine was that as they became bigger a greater proportion of the energy the engine produced was absorbed in pushing the cylinders through the air. Which is proportional to the square of the radius of the engine.

The rotary engine died at the end of WW1. It provided a short term solution to a problem but war sadly provides great impetus to development and the future was liquid cooling or radial engines.

Top Left Clkwise; Mike's DF1 / Phil's Pup / Ray's Taube / Marty's DF1 Tripe / Harvey's Nieuport ?



Info & Things November 2022



Russ Nimmo writes;

Hi Mr Editor, I have been asked to pass on the attached anonymous article in the interests of model aircraft safety by a concerned friend.

Some of you will recognise the map here as part of the chart relating to our area of operations in our Memorandum of Understanding with Airways Napier.

A word of Caution, the Blue Diamond in the centre of the MFHB Operating Area is now known to be a very powerful model aeroplane magnet.

A number of our members have discovered this and recently Lance had to give directions on to how to reach the "island" to another unfortunate member whose aeroplane had been drawn in by the Magnet.

If your aeroplane should start to behave mysteriously and be drawn in by the magnet, to save you having to call Lance, the feet dry route to the island is to drive out to the main road, head South toward Clive and after crossing the first bridge you will see a railway crossing sign. Make a U turn and park behind the armco barrier. It is then a reasonable walk in following a mown track and heading in the general direction of the Deans shelter in the distance. When you can line up the windsock on the pilot box with the windsock by the Deans shelter you are very close. Beware the magnet is very powerful. Just mentioning this on behalf of a friend! **Regards, Russ.**



Funny thing, over the past years, that magnet has gone by various names ... "Radio Interference" / "Flat battery" / "I had Nothing" / "Just lost sight of it" / "Bugger it" / "Flew perfect last time" **!! Ed.**

Further to our growing interest in Rotary engines, **Phil and Robert** are working on a way to electronically replicate the mechanical "Blip Switching" used to control the speed of the early Rotary aircraft engines. **Rob** has submitted a very interesting article and writes....

Hi Barrie.

Have a look here <http://www.kozaero.com/> : in "Articles", "look at the Gnome"

About half way down he starts talking about the blip switch, and then goes on to talk about the RPM selector switch. You will see the firing order in the white panel within the text.

This is what I am going to try and do electronically. **Cheers, Rob.**



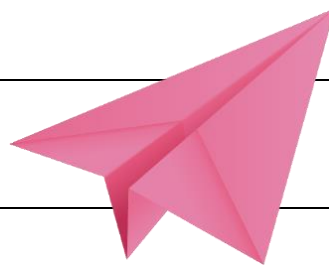
“SHED” NEWS Nov ‘22

Tuesday “Shed” mornings continue to be well attended by the membership, often graduating down to the strip when the conditions are too good to not go flying. Further, we’re becoming quite well endowed with modelling gear donated by members and from estates. If you’re wanting; Servos, Electric Motors, ESC’s, Wheels, Landing Gear, Leads, Fuel Tanks, propellers, engine mounts etc, etc, etc. They are there for the membership and for the taking, so don’t hesitate to drop in or contact a key holding member who might be able to assist you in your search for the right piece of gear. Here is a snap shot of some of that gear available;



Plus there is a good selection of tools and bench space there for your convenience. And lots of advice of course !

Southern Fling 2022 Oct '22



Report from "Rowdy" mfhb.

Planning for this one is now a regular on the calendar and this year we decided to include F5K (electric hand launch) we started entries after Soarchamps then we worked out Joe was away in the USA for these dates. Unfortunately the date is the only one that suited a few others so we couldn't change it for a bit later. Right on the last day before Peter Williams sadly had to also withdraw due to a really bad cold. All good with the draw done 7 to 8 in DLG and 4 entered in F5K we carried on the forecast for the weekend looked Ok but likely to get some wind. Saturday started great with nice day as usual for Hawkes Bay as we moved on the wind started to build. Thermals weren't easy but they were there. By eleven o'clock the wind was getting up there for these light aircraft so it was time for an early lunch break. During this the wind got really strong we decided to stick with sitting it out for a while by three it was okay for some all up last down fun along with heaps of land outs and walking. The problem was the outer grass was long and it took Myles about half an hour to find plane in the long grass.



We had two groups of F3k and then followed by one group of F5k this worked out cool with enough timers to go around. We completed the first day by five and then a big rush home for shower and out for the night at a local restaurant. Sunday started with enough wind to make it marginal again but everyone was keen which meant we all did some thermal and lift chasing in more wind than everyone would go and fly in for fun on a usual Sunday. We carried on beating each other up until 11.30 when it all got quite rugged and we were only getting one minute flights! After the final round 2 was completed we called it done. With the scoring working well on glider score and the QR code system we did prize giving a big congratulations to Steve Warner topping off the Sportsman class and huge thanks to everyone for getting in and making it an easy competition to run.

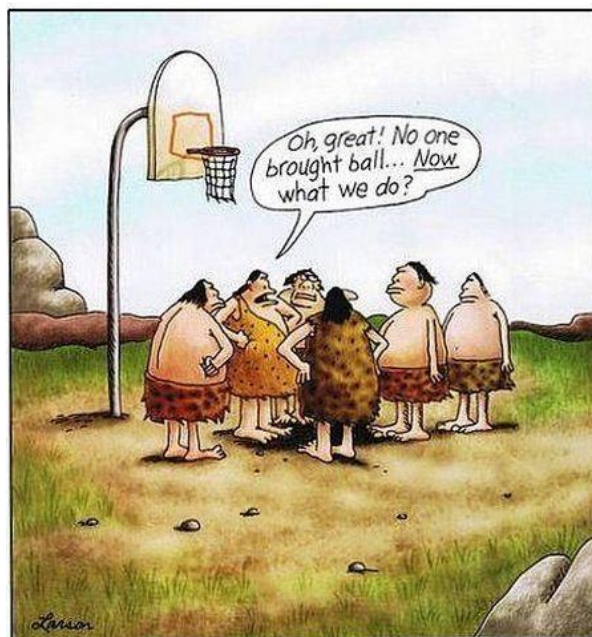


F5K Electric handlaunch

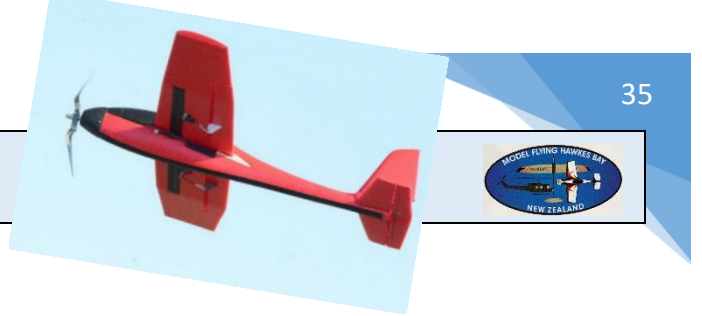
- 1st Kevin Botherway
- 2nd Peter Glassey
- 3rd Andrew Stiver

F3K DLG

- 1st Kevin Botherway
- 2nd Myles Moloney
- 3rd Peter Glassey



The Birth of Head-Hunting



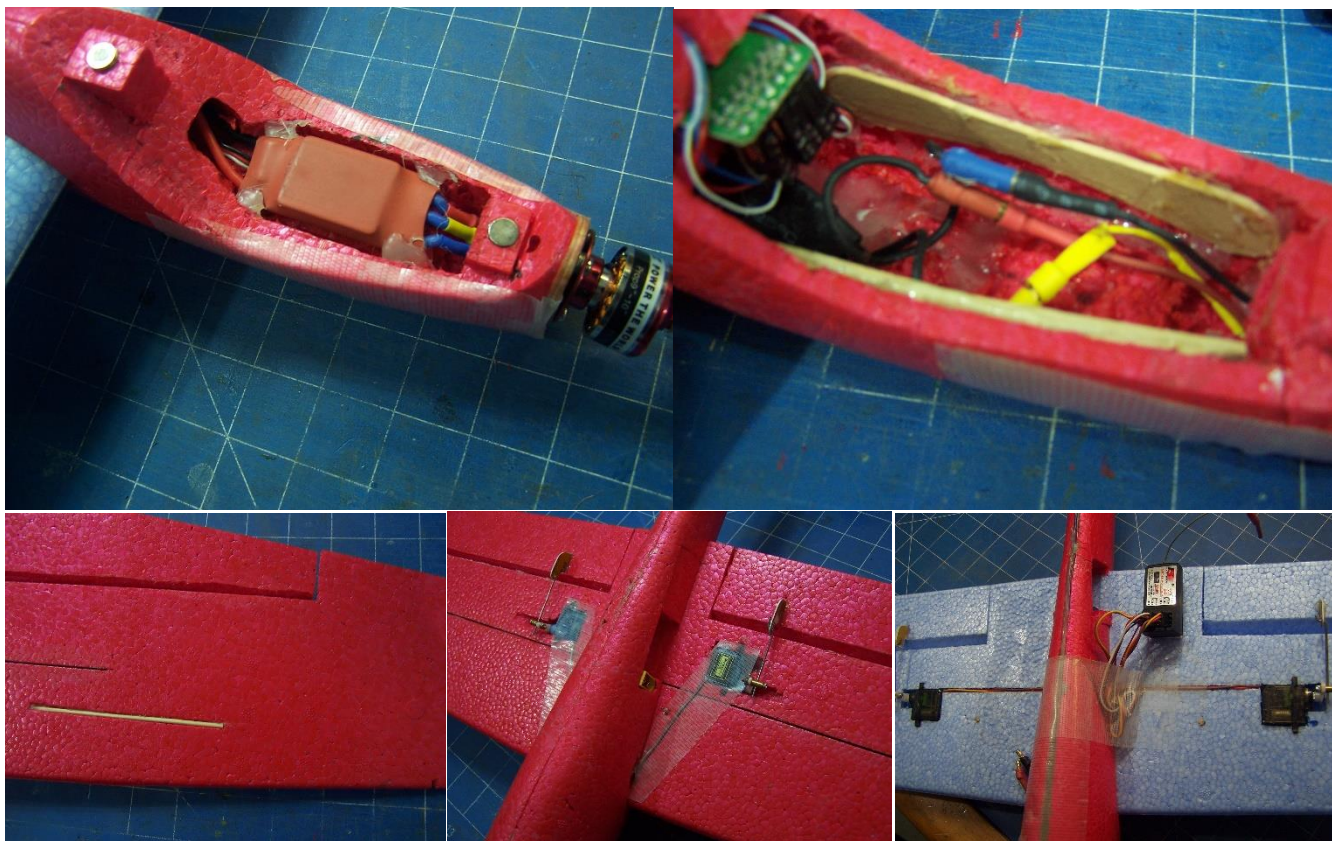
Some interesting developments in the Lidl (K-Mart Big Foam Glider) scene, though inflation is taking it's toll with a price increase from \$12 to \$13.00. It's tough on the pension. I've asked for some feedback from our Lidl builders (they're not all little, some are quite big men!) and it gladdens this editor's heart to receive the following and share.

Anthony Hales writes;

Lidl Glider converts.

A few months ago at the field, Mike and Barrie were test flying converted Lidl Gliders bought from Kmart. They appeared to be flying well and both Danny and I were offered the transmitter to have a go, we were hooked. On the way home we called in to Kmart and bought ourselves our \$12.00 gliders to convert. I don't remember now how many we bought on that day but I now have a Red one, a Blue one, a Red and Blue one and a Blue and Red one. I set myself a challenge that apart from the cost of the planes the glue and tape, I was not going to buy anything else. The motor, ESC, servos and fittings would have to come from my scrap stash or begged, permanently borrowed or stolen. I had enough for only two planes, and then the club had a club night and Auction. Of the stuff left unsold and to be donated to the rubbish tip, I found a couple of ESC's, Motors and a truck load of Fly-Sky receivers most of which have now been given new homes. For the first one I started by removing the canopy with a knife, it was well glued on. I removed the weight from inside the canopy, a large bolt that I added to my tin of large bolts that will probably never be used, then started to carve away foam from the fuselage under the canopy to accommodate the gubbins required for an electric aeroplane. I found that by removing the amount of foam to get everything including the battery into this area left it very weak. I strengthen each side of the fuselage by gluing ice block sticks, forcing me to eat many Magnum Chocolate cheesecakes ice blocks to enable me to find enough nice straight ones. The nose was cut off about 3mm in front of the canopy and ply glued in place to screw the motor onto. I bored a hole through the foam with a piece of wire heated over a camping stove and shoving it through a hole in the ply into the gubbins bay through which the three motor cables pass. I needed to strengthen the fuselage with a carbon rod, I only had a piece of 6mm x 1mm carbon strip so I cut a slot in the bottom of the fuselage with a knife and widened it slightly with a hot wire into which first would go the cables for the elevator and rudder servos and then the carbon strip. When I was about to insert the carbon strip I realised the bottom of the fuselage was curved and thought that I needed to keep that curve in order to maintain the correct angle between the wing and tail, if I straightened it the tail would cock up at the back leading to a aeroplane that wants to loop, therefore I had to deepen the reinforcing slot at each end to get coverage for the carbon strip in the centre of the curve. The tail was fairly simple I cut a slot along much of its length to put in a bamboo stick for strength then cut off the elevator and cut an angle on the underside side to allow movement up and down, I put it back in place using tape as a hinge then glued the tailplane into the fuselage slot. I did much the same with the fin/rudder. The servos were fitted into the fin; I cut a hole through the fin and glued the two servos together in the hole. They were coupled to the moving surfaces with wire into gift card horns. The cables for the servos was laid into the slot for the fuselage reinforcing before it that was inserted, again I used the hot wire to poke a hole from the slot into the gubbins bay. The Wing dihedral was flattened using an iron and damp cloth and a length of carbon strip let into the wing centre just a bit short of the dihedral, I'd have used carbon strip all the way if I had a piece long enough so bamboo reinforcing was inserted across the dihedral. The ailerons were cut out and angle cuts made for movement before refitting with a strip of tape for a hinge. Holes for the wing servos were routed using my Dremel and wire and horns as per the tail servos. I had to leave one wing servo off until after the wing was inserted through the fuselage. The motor was fitted and all wired up. To my dismay it was very nose heavy, I had to remove the battery, I had to cut a slot through the fuselage at the back of the wing. This finding also resulted in a lot less foam having to be removed from the other two planes when I converted them. I've now fitted the receiver under the wing resulting in only the ESC under the canopy. The test glide was spot on and I had a very good maiden flight. That one is still going well which is more than can be said for the other two; they do fly but not as well. I have used

2208 motors and 20A ESC with 3S batteries for these three but will do something much lighter for the last one. There is no rudder on the last two planes as I've not needed it on the first one. **Cheers, Anthony.**



Danny Young writes of his experience;

Lessons learnt on a Lidli build

1. Take out of the box and first check for conformity, no twists etc.
2. Do not cut too much out of the cockpit, it creates an area of weakness, especially when it lands on its nose.
3. When stiffening the fuselage frame do not change the curve line.
4. Beware cutting into area under the wings to place battery. Less cutting is best, use a small light battery. See 5.
5. Hang Rx and battery under wings. A velcro strip will allow their positioning to help get the correct balance.
6. See if finished plane still glides properly before adding power.
7. If needed get an experienced colleague to do first flight and the trimming that will be required.
8. Enjoy. Some pictures of my efforts attached.

PS. When broken use CA glue as it works great !! **Cheers, Danny.**



Anthony and Danny are getting good mileage out of their models being frequent flyers on the local golf course and getting to know all the trees and obstacles intimately !

Dave Crook now a Waverly resident recently visited his old stamping ground Hamilton MAC, and reported on **Gordon Meads'** efforts, saying;

*Now, **Gordon** who has the reputation of making anything fly has been at it again. This time joining two and a bit K Mart foamies together. I.e. nearly twice the wingspan, 2 motors and of course 2 ESC's and 2 batteries. Both 3S 450's.*

Believe me this hand launched and flew beautifully and a lot better than any single K Mart planes I've seen flown before. Twice the power and the beautiful sound of the duel motors. Very stable in the air and in all axis.



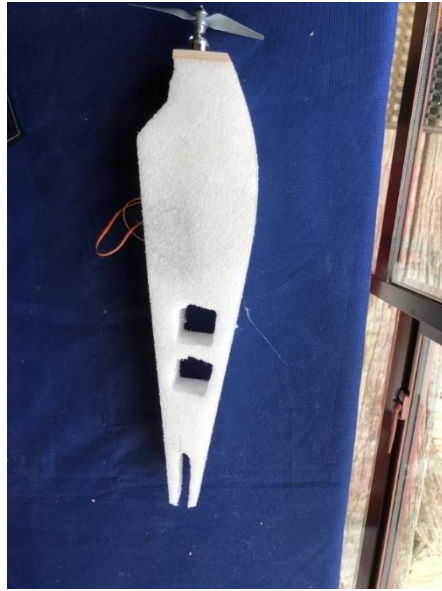
Thanks **Dave and Gordon**, just might have to have a go myself with my "spares". **Ed.**

Marty and John C have taken a different approach and converted their chuckie to a true electric glider and towed to height behind **Marty's** Trojan. A simple conversion with aileron and elevator control and the towline release mechanism is just a piece of Velcro. They found it helpful to dampen down the control throws and lengthen the nylon towline for a more controllable tow. In the right conditions the lidl soared surprisingly well.



And as they say, "No Show without Punch" so it's back to **Dr Mike** who was the cause of all this Lidl mania in the first place, beavering away in his workshop down on the shores of lake Hawea. He Writes;

I am calling this "leftover" for obvious reasons, You may recognise the origins of the wings, tailplane and rudder..... I am making the fuselage out of foam and will veneer it with balsa.....the aim is for an indoor model or a 'park flyer' in totally calm situations 😊



The purpose of showing you this was I couldn't resist trying out my new 'hotwire' device on the fuselage! (I need the 'volume' in the rest of the fuselage for the battery, and maybe wheels). Watch this space !

I thought Mike A was going to send me some more information and this arrived . **ED.**

The End. *****



**** FOR SALE ****

November'22



Graeme Rose is having spring clean in his workshop and offering the following goodies for sale;



First off is this great modelling Lathe , an **Emco Compact 5 with Milling** attachment and a comprehensive load of bits for it, 3 and 4 jaw chucks etc, Collets etc. and so on.

\$2500 ono

I have 2 pair of DuBro wheels
The silver one's are 6 1/2"
1/3 scale ? **\$15**
And the white one's are
Golden age 5" **\$10**





2x True turn spinners 3Blader 3 1/2" **\$20 EACH**

1 pair of DuBro 5" pump up wheels **\$30**

Phone Graeme on ; 0224093546

WANTED: OS 61FX TWO STROKE MOTOR, ANY CONDITION CONSIDERED. **Ph Barrie 06 8353896.**

FOR SALE Foam Board
SPITFIRE. 1200mm wingspan.

One of my Foam Board warbird series, almost finished, just needs a little tidy up and painting.

Comes complete with 4x new Hobby King 933 Mg digital servos, a new 40Amp Skywalker ESC and a near new 3530 / 1400kv One Drive brushless motor.

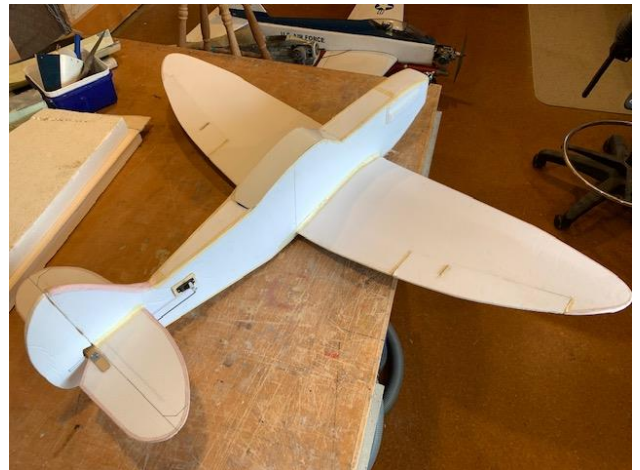


Surplus to my requirements and present interest.

You can have it for less than the cost of the four servos **\$40 That means the ESC, Motor and model for free !**



Ph Barrie 06 8353896



John Aitken who is retiring from flying is reluctantly offering these 3x beautiful ARF aircraft for sale;

#1 VQ Model - Cessna 208 Grand Caravan EP/GP 55 Size ARF - DHL Version



Wing span: 1700 mm - Fuselage: 1175 mm. In almost new condition, a great flier. Electric/brushless motor and comes with 2x Turnigy 4S 5000mah lipo batteries, all gear and a Spektrum AR10100T Receiver
Replacement cost of the total package in excess of \$1600.

For Sale now \$ 850.00

#2 VQ Model - DHC-6 Twin Otter EP 25 Size ARF - Swiss Version



- Wingspan: 1840mm (72in.) A near new and beautiful model, again a lovely flyer, well detailed. Comes complete with motors 2x Brushless motors and ESC's and x servos and Spektrum 8 Channell Rx. All in near new condition. Replacement cost in the vicinity of \$1300 +

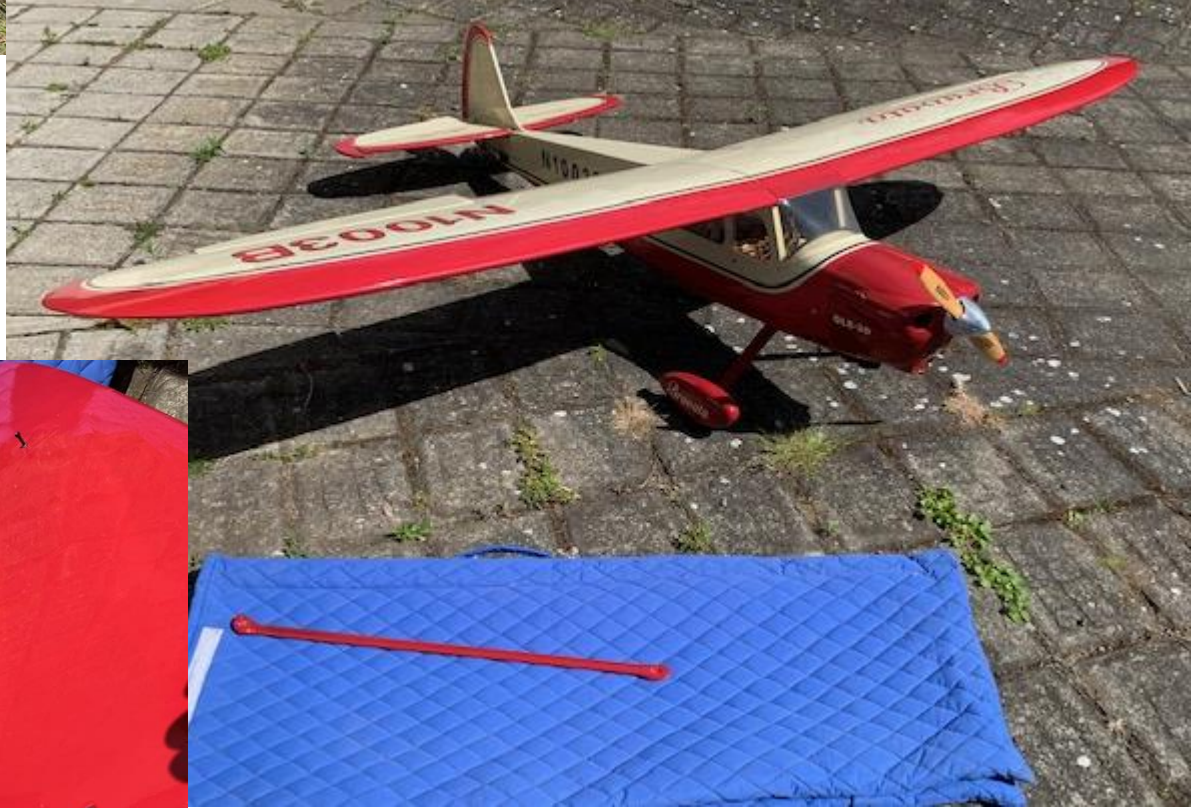
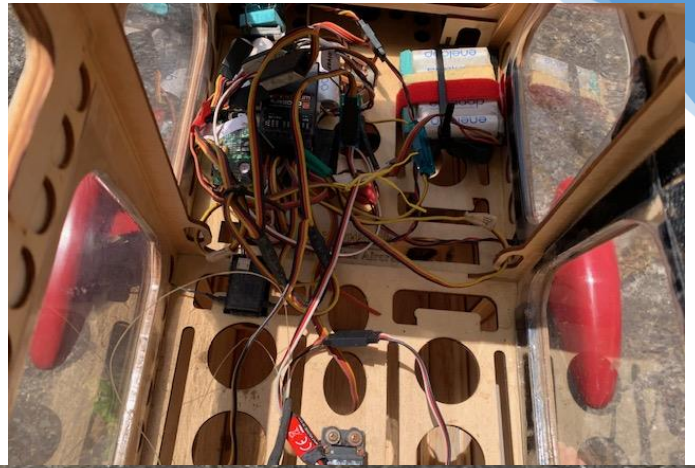
For Sale Now \$800.00

#3 Aeroworks 30cc BRAVATA

A semi-scale high wing monoplane, excellent flyer, 112 inch wingspan with flaps. All gear included, servos and batteries and comes with a 9 channell Spektrum receiver. Comes complete with custom built wingbags. Powered by a DLE30 which has had little work. Replacement cost in this condition in excess of \$2,300.
This is a special aircraft for the discerning buyer.

For Sale Now \$1200.00





**For interest in the above three models, please contact;
Mike Shears on 06 8434675 or mob 027 420 5480**

Mike is handling the sale on John's behalf.





On Special from K-Mart; A do-it-yourself Christmas Tree;



**Well, that's it for another year, here's wishing you and yours a Very Happy Festive Season
and we'll look forward to an even Better and Brighter New Year**

Barrie the editor, mfhb.