

Model Flying Hawkes Bay



Club Newsletter # 132 DEC 2021

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Thur 2	"Vintage" Awatoto
Sat 4	
Sun 5	CLUB SUNDAY
Tues 7	Shed Morning
Thur 9	
Sat 11	IMAC AEROBATICS @ Galloways NORSEWOOD.
Sun 12	CLUB SUNDAY
Tues 14	Shed Morning
Thur 16	"Vintage " Awatoto
Sat 18	
Sun 19	CLUB SUNDAY
Tues 21	Shed Morning
Thur 23	Vintage Awatoto
Sat 25	Christmas DAY OPEN PREZZIES
Sun 26	Boxing day BUY MORE PREZZIES
	FLY PREZZIES
	FLY PREZZIES
	Oh Dear Bye more Prezzies
Sat 1st	Good luck & Happy New Year.

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Contributors to this issue; Barry Kerr /Barrie Russell / Derek Whelan / Stephen Wessel / Rod & Marty Hughes/ Clive Baker / Phil Sharp / Brett Robinson / Jose Lecardio / Barry Lennox / Mike Shears / Joe Connolly / Stu Sturge / Gus Black / Brett Robinson / Peter Hamlin / E&OE

The MFNZ NATIONALS are ON. The MFNZ Council unanimously agreed that Vaccine Passes would be required by all participants in the MFNZ 74th Nationals. This action will allow the Nationals to proceed under Orange without limitations on numbers of participants at the event and help protect all participant's health and safety.

In the event of Carterton being at Red, MFNZ Nationals will proceed, but will have a limitation of 100 people in venues at one time (for instance the main building)

All participants over the age of 12 years old will be required to show the Vaccine Passes on registration. It was also noted that anyone travelling over the Auckland "border" will require a Vaccine Pass as well those travelling on the Cook Strait ferry.



Mr Secretary Says. November 21



21.11.16 Meeting Notes

All Committee Members were present at the November Meeting, delayed a week through illness. This was a very quiet meeting with no issues to contend with. The Club is still financially sound; there have been no new Member nominations for a couple of months, and unfortunately we have lost a Junior Member to sailing and a Senior Member to Auckland.

Covid is still having an impact around the country and may well impact on Warbirds reducing the event to a "Pilots Only" one. Fingers crossed! There is still a need for a working bee but we're postponing the Club Auction which was to be held before Xmas.

There has been some comment about the Rules Review and by now Members will have received an invitation from the President to make a written response which will be considered by the Rules Review Sub-Committee.

Barry Kerr, MFHB Secretary

*** Letter to the Editor; ***



Model Flying Hawkes Bay

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2 December 2021,
Editor, MFHB Newsletter.
Emailed to: barrierussell@xtra.co.nz

Dear Barrie, **LETTER TO THE EDITOR: Warbirds Catering**

Once again you have excelled with the content of Newsletter 131! Congratulations. Members of MFHB have been treated to another edition full of photos, valuable information, updates on projects and comment.

It is a comment in "From the Editor's Desk" in the latest Newsletter that has initiated this "Letter to the Editor" in the hopes that greater clarification may be given to all Members. We refer to the Editor's reaction to the statement in the Secretary's "Meeting Notes" relating to the decision that Warbirds catering "will be provided by outside caterers".

We, who have undertaken the catering responsibilities over the last few Warbirds events, understand your disappointment as the initiator of the "Hamburger" meals. However you are mistaken in your belief that the decision was made because volunteers were unavailable. MFHB Members need to be aware of the following reasons which all contributed to the Committee decision:

1. There being no "rain date" for the Warbirds 22 event, outsourcing the catering mitigates the risk of having food left over, the primary reason for the decision.
2. Covid-19 continues to potentially impact the Warbirds event and we are both reluctant, as is the MFHB Committee, to be responsible for food preparation in other than Level 1.
3. Caterers will provide a risk-free income through a proportional donation.

There are other reasons pertaining to food preparation that come into the mix. Members might like to note that MFHB is financially stable, and at no time has the Club been solely dependent on "Hamburger" meals to ensure subscriptions are kept low, opportunities for members to mix and enjoy the camaraderie are afforded them, and potential for profit has not given way to common-sense.

Yours sincerely, **Barry Kerr (On behalf of the MFHB Committee)**

From the Editor's Desk:

October was a sad month in the Russell household, we had to lay our much loved Samantha to rest two weeks after her twenty-second birthday, seemingly been with us forever. But



as they say one door closes and another opens and this month we've been blessed (or is it cursed ?) with a three month old delightful and frenetic replacement Burmese kitten presently called Rosie !! She is starting her apprenticeship as a newsletter publisher and if she ever grows up and acts responsibly then she might follow Sam and learn the art of aircraft inspection. I live in hope, watch this space !



Another year draws to a close, been difficult for many so let's hope the New Year brings some return to the old order and values. At this time one wonders if the world will ever be quite the same again.

A co-editor in another club once advised me, *"If I want to get response from members, I purposely make a mistake with their name or aircraft or say something considered controversial by the powers that be"*. Well done Secretary Barry and your band of merry men, that's a first, may there be many more comments and contributions to follow. I take it as a compliment that someone actually reads my ramblings. Keep up the good work fellows even if occasionally we agree to disagree.

As this will be the last Propwash for 2021, may I wish you all a very Happy Christmas from the editorial staff, and may we all be blessed with a better and healthier New Year and lots of interesting goodies under that Christmas tree.

My grateful thanks to all those who have contributed and made my job interesting and easier. It is not my intention to publish again before the end of January/early February so please keep your cameras and your copy at the ready and we'll see what New Year brings.

Barrie the editor. mfhb Dec 2021.

Club Captain's report November 21



Club Captains Rumblings.

Hello Fellow Members,

Another month has past and it's time to get that letter of interest off to Santa as that dreaded D-Date rapidly approaches. The other trick is to leave the computer or tablet around with the web browser open on the new gadget you have been longing for.

The nationals are just a hand full of weeks away and at this stage still on. We have yet to hear what the traffic light system will do to events like that. With early days of the Covid spread getting out of Auckland I'm sure even the government's not even sure how January February is going to look. This may also affect our yearly Warbirds weekend, we are just going to have to sit and wait, see what happens and follow instructions. I am sure we are going to see restrictions applied to us some time in the near future as case numbers increase in the provinces. The best thing you can do is get out and enjoy as much flying as you can now.

We are seeing the normal seasonal winds this time of year, but some days are flyable and when the wind is straight down the strip landing is still easy. Don't let the wind put you off. A wise man once said to me. "The plane doesn't know it's windy" and it's so true.

We had a great Club Aerobatics Day last weekend and was great to see a good number of members attending to take advantage of the free tuition. I think they all surprise themselves at how many of the manoeuvres they can do and how easy they are. We all like to fly in our comfort zone and there for stall in or skill levels. These weekends are all about slow but constant improvement in your flying skills. Ask around other members, ask them how they find the days, consider giving it a go yourselves. The other thing to do is ask for help, myself Barrie, Mike, John, Rob, are all in the position to give out a few tips or stand beside you while you attempt a new manoeuvre, Talk you through it for the first couple of times. Then just practice it as you fly.

Lastly, I will point out the committee is constantly listening to policy and rule updates re Covid and will advise all members of any procedure changes needed by E mail as they happen.

In the meantime, just to remind you if you or another family member is unwell stay home, get a test.

If you have been out of town or outside your normal bubble, stay away from the field or shed for 10 days just to be sure you have not been exposed. Look after yourselves and others, stay safe and I will see you at the field.

Derek Whelan, Club Captain.

Re; Recent Rule Change Proposal. Copy of Email sent to members from the President's office.

Model Flying Hawkes Bay

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2 December 2021

MFHB Members. (Emailed to Address on Record)

*Dear Member, RE; **MFHB AWATOTO FIELD RULES REVISION.***

As you will be aware, the MFHB Committee through the appointment of a sub-committee, spent a lengthy period of time reviewing the Rules pertaining to the mix of activities at Awatoto Field. The Rules and their associated recommendations were adopted at a recent meeting.

Considerable thought and discussion was put into the review, the main purpose being to keep the rules relevant, while adopting a style of wording and format that is educative and collaborative.

While there has been some feedback and comment, I have determined that the next step is for the membership as a whole to make comment in writing so the sub-committee and full Committee can consider if and where changes might be made.

It needs to be considered by Members that the Rules and Recommendations as they stand are not immutable. The Committee will genuinely consider any submission received by 10 December and any points accepted will be considered for Version II.

The Committee is aware that changes may be required to the Field Map and this will occur as and when necessary. I look forward to your response.

Yours sincerely.

Lance Hickey, President MFHB. (copies attached of present & proposed Field rules.)

Awatoto Flying Site Field Rules. (May 2018.)

Main gate: You open it, you lock it. No exceptions

Field Gate/Shed: The gate to the pits & Shed must be closed & locked when unattended. If you find yourself the first or last at the site your responsibilities are:-

If First

- **Turn electric fence off leaving door open**
- **Put out flight equipment:- Located in field shed on 2 wheeled cart**

If you are the only flyer on field, it is not necessary to put out the equipment. However as numbers on the field increase, the implementation of the equipment above is required to ensure that we maintain our safety procedures.

If Last

- **Clear field**
- **Lock field gate**
- **Check & lock Shed**
- ~~Turn electric fence on Close & lock~~
- **LOCK MAIN GATE**

Key Your gate key MUST NEVER be loaned.

Rubbish Must be taken home with you.

Safety Requirements: All powered planes should be restrained by the starting polls provided by the club, or a suitable restraining stop, when starting. These poles are located in front of the pits. If starting with a restraining stop, it should be done adjacent to the starting poles in front of the pits.

The Club strongly recommends the use of an observer on the flight line at all times, especially Sunday mornings. Members wishing to fly without an observer on the flightline **must** have the appropriate Wings Badge accreditation for the type of model being flown.

Members that are yet to achieve a Wings Badge accreditation, MUST have a suitably qualified wings badge holder with them on the flight line as observer/mentor.

Dogs must be tethered or on a leash and kept off the field. This is to protect our models and the animals. It is a requirement of our lease to occupy with the HBRC that **"No dogs are allowed to run loose"**.

Field Rules and Flying Procedures.

1. Height – no model is to exceed a height of 400 feet (120m). In the event of any "Full Size" aircraft over flying the area ALL MODELS must descend to a low level and / or land and wait until the area is clear. On Club Days a whistle will be blown to warn fliers of approaching full size aircraft. This whistle is attached to the frequency board.
2. Models are not to be started or run up in the pits. Your model should be taken to the starting polls which are located in front of the pits . If the startup polls are un- suitable for your model you must use some other form of model restraint. If you need to run your engine for an extended period of time please take your model to either end of the field to avoid excessive noise to fellow modelers.
3. Do not turn on your transmitter on under any circumstances until you have placed you name on the frequency peg board. If you use 2.4Ghz equipment you are exempt from this requirement.
4. Carry out a range check as directed by your equipment's manufacturer to ensure your transmitter and receiver are functioning correctly. If you radio equipment has a failsafe function ensure it is setup to cut the throttle on loss of signal.
5. All new or rebuilt aircraft should be checked by the club captain or designated safety officer before being flown.
6. **Main flight line**
 - (a) The safety fences are to be used when power flyers are using the main flightline. The fences may be removed if the field is being used solely for glider flying. If you remove the fences please replace them at the completion of your flying session

- (b) It is recommended that a maximum of four models be in the air at any one time.
- (c) Please make sure that there is a vacant space before taxiing from the start box.
- (d) All pilots to remain behind, and in close proximity to the safety fences. Exceptions may be made for take-off only.
- (e) Check that nobody is about to land before announcing your intention to take off and seek approval from pilots already in the air. Once airborne, move back from the strip to a vacant space behind the safety fence All flying must be flown in circuits either left-hand or right-hand (Depending on wind direction) with the aircraft turning away from the flight line after take-off.
- (f) Please be aware of changes in wind direction, and the possible need to change the direction of the circuits being flown.
- (g) No power models are to be flown behind the pilot line. Special care must be taken to not over fly the stop bank-walkway at the southern (inland) end of the field.
- (h) A diagonal vector to the North or West may be used for landing only, when the appropriate cross wind is prevailing.
- (i) Announce your intention to land loudly so other pilots flying can hear.
- (j) If flying alone, **or with the agreement of ALL pilots on the flightline**, the restriction on flying circuits, may be waived.

7. Alternate Flying Areas

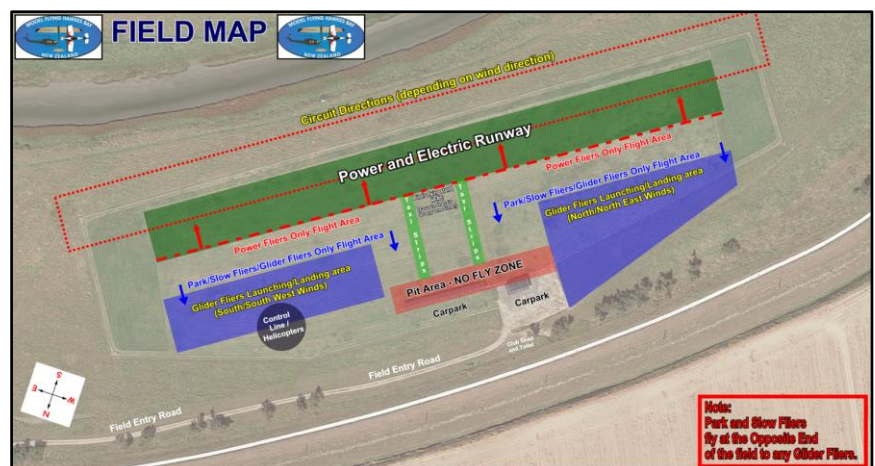
- (a) North Eastern (seaward) flying area – When the wind is from south easterly through to westerly direction
 - (b) South Western (inland) flying area – When the wind is from a north westerly through to easterly direction
 - (c) These areas may be used for gliders, electric gliders, slow-fly park fliers, and helicopter hovering. Pilots flying from either the northern or southern flying areas must not allow their aircraft to over fly the powered aircraft flight line, or the pit area. Similarly it is recommended that flying below 100ft (30m) in the area between the flight line and the pits, and the two taxiways be avoided as it is alarming for a power plane or helicopter pilot to see shadows or feel the presence of another model behind, which he cannot see and certainly cannot dodge, should that become necessary.
 - (d) Bungee anchor and/or winch turnaround to be located on the edge of seaward, or inland taxiway as may be appropriate for wind direction, with launching of models from adjacent to the appropriate boundary fences.
8. Some form of engine silencing must be used and must conform to Model Flying NZ rules regarding acceptable noise levels.
9. All wreckage and rubbish must be removed from the site.
10. The buzzing or chasing of stock and/or birds, and/or people with a model is strictly prohibited.
11. No un-financial member will be permitted to fly at the club site and must surrender their gate key.
12. Please keep the shed and toilet clean and tidy.

Please remember that courtesy and communication are the best tools we have to maintain Harmony on the Field. The Rules are only there to help us maintain a focus on safety, for ourselves and others.

Breaches of Flying Field Rules or etiquette will be dealt with in the following manner:

First Breach: The Club Captain, or any Committee Member present, when informed of the incident, will give a verbal warning to the offender. Also, a formal written warning will be issued by the Committee.

Second Breach: The offending Member will be banned from using the Club Field for the number of Club Days specified by the Committee. This will be published in the Club Bulletin.



Model Flying Hawke's Bay Awatoto Field (October 2021) **"Proposed" Rules and Recommendations.**

Purpose.

The primary purpose of these **Rules and Recommendations**, along with links to Civil Aviation Authority (CAA) and Model Flying New Zealand (MFNZ), is to signal the priority Model Flying Hawke's Bay (MFHB) places on safety, and the importance for Members to have read and to follow any such rules and documentation. Accordingly, MFHB promotes the MFNZ Wings Badge scheme.

Introduction.

MFHB Field Rules apply differentially depending on location on the field, its use by other Members, and the type of aircraft being operated: main flight line, park flying, centre field and racing quad copters. It is the flier's responsibility to ensure appropriate aircraft and transmitter functionality prior to flying. Some rules necessarily apply to all members, as they fall under current CAA regulations (Refer Addendum).

General.

No aircraft shall be flown higher than the CAA approved 120 metres (400 feet) unless approval has been given to the Club on application, and the requirement to land or avoid full size aircraft in close proximity to the field shall be followed.

The main gate shall always be left locked after entry and exit. The last person to leave needs to ensure the shed, car park and field gate are padlocked.

Unaided line of sight shall be maintained, with an observer for FPV flights. Flying shall only occur during daylight hours.

Aircraft shall be started on the starting poles and never in the Deans Shelter. Electric motors shall only be run in the Deans Shelter with the propeller removed.

Aircraft shall not be launched towards other people.

Situational awareness needs to be maintained and assisted by observers where required.

Main Flight Line Observers are required for fliers who do not hold a current Wings Badge.

1. Circuits shall be away from the flight line

Recommended Actions

1. When 2 or more aircraft are intending to use or are using the flight line, the taxi strip should be set up by a circuit flier to facilitate entry to and from the flight line (Cones, fire extinguisher, etc.)
2. Fliers using the field for circuit flying shall indicate their presence on the flight line and announce their intention to land and take off.

Park Flying Area/Centre Field

1. Winch, bungee launch, and large electric powered sailplanes shall be launched away from the centre field and landed toward the centre field.
2. Take offs and landings, including low level flights, shall be a safe distance from the Deans Shelter and car parking areas

Recommended Actions.

1. Awareness of people on the stop bank is necessary at all times.
2. Aircraft using the centre field area should only transit between the starting area and the flight line at a high enough altitude (recommended >50m) so as not to interfere with any operations between the flight line and the starting area

Quad Copter and FPV Area

1. Racing Quads and all FPV aircraft shall only be flown within the immediate environs of the flagged area if there are any other flying groups on the field.
2. No person shall enter the FPV flight area while any FPV flight is occurring.
3. Pilots shall announce their intention to commence flight.
4. An observer for each flier shall be maintained

Recommended Actions

1. Spectators shall not enter the flying area at any time

Conclusion.

The adoption of these **Rules and Recommendations**, along with high operational situational awareness, will ensure safety is a priority for both members and others in the environs, and follow CAA and air traffic obligations. Education and co-operation is paramount.

Addendum.

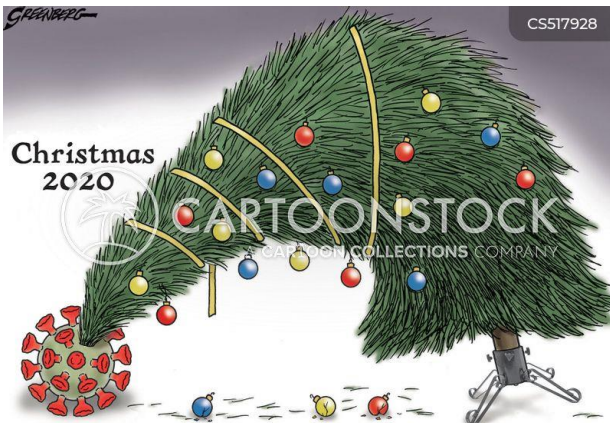
The following are links to CAA and MFNZ, much of which applies to MFHB Members: <https://www.aviation.govt.nz/drones/rules-and-regulations-for-drones-in-new-zealand/part-101-rules-for-drones/> provides a good general introduction.

https://www.aviation.govt.nz/assets/rules/consolidations/Part_101_Consolidation.pdf - Sub-part E is applicable to MFHB Members, particularly pages 21 through 26.

https://www.modelflyingnz.org/docs/general/MFNZ_Members_Manual_2018_Rev_0.pdf - pages 7 and 11 through 19 are important.

Version 1 Adopted October 2021

MODEL FLYING HAWKE'S BAY CHRISTMAS DINNER 2021



That was last year! Let's not let the Kiwi Grinch completely steal Xmas 2021!

Napier Sailing Club Friday 17 December 2021 6.00pm

- Need to be double vaccinated and have a pass
- Need to wear a mask to enter and order from bar
- Need to sign in as a guest of Barry Kerr, NSC Member

RSVP to Secretary prior to 13 December stating number and vaccine status.

CLUB ACTIVITY

November 2021



Slow start this month with a wet week and limited attendance. Rod and Marty sent in some interesting pictures captured from their drone of Awatoto Field, surrounding area and the sea fog we've been experiencing these last few days



Tuesday 9th saw the “Shed Guys” heading out for a good morning’s flying, **Clive** captured these flying shots..

Right;

Luke James, 20cc RCGF Powered Pilot ARF Laser, 57in model and performing nicely.

Below;

Stu Sturge when he needs a bit of light relief and good fingers time flies his Clubba. What a great success that design has been, with still a considerable number surviving from the club build back around 2014/15.



Thursday 18th, Hooray, the nor’westers final blown away and we have a few days of sea breezes.

How lucky we are to have members of the calibre of **Russ Nimmo, Phil Sharp** and the **field mowing team**, so easy to take these guys for granted. Russ seen here doing a maintenance job on the car park fence and de-electrifying the gate into the western end. Now some of you won’t see sparks any more when you handle the gate.

Thanks Russ. Ed.



Sunday 21 Nov, surprisingly quiet, arrived late not much activity. **AB v France rugby Test Ugh, say no more !!**
 Good to see the Tansley's from P.Nth enjoying the air, having stayed over from yesterday's aerobatics.



Joe Connolly enjoying the sun, Joe arrived out on Thursday in his mobile electric chair, took him about an hour and a half each way and still arrived home with about 40% in reserve. Those new batteries are great ... Whew !! Joao Dib had some flying with his Jungmeister with help from Rob Lockyer (Mode 2 !)



Pits scene as the wind was getting up a bit late morning.

Sunday 28th, Quiet day at Awatoto Field, Mike mowed during the week and the field was a picture as usual thanks to those workers in the club. The grass growth is full on at present. Not a lot to reports, here are a few pictures of member's activity through my and **Clive's** lenses.



Lance's Timber landing under full flap, and my Vintage Stardust 52" on an NDC ½ E Texaco flight in some good lift.



Stan preparing his Aircobra for another flight. **Mike's** profile Zero, ex-**Tony Smith's** from the club Profile warbird building project. Talk about a Tom and Jerry moment, I'm flying after **Mike** launched for me and the plane is dancing all over the sky with the battery hanging out swinging on it's connector chords. We used one of my batteries which have the reverse Velcro setting. Exciting but we lived to fly another flight !



John A was dealing with some issues with his Cessna Caravan, and **Anthony** had another of his "Foamies" flying well.

Shed morning Tues 30th. Was a busy session.



General discussion and camaraderie, coffee and advice.

Stan needed some help with refitting the c choke system on his yakkity Yak.

Peter Hamlin brought his Tiger Moth under construction for a look at and advice.

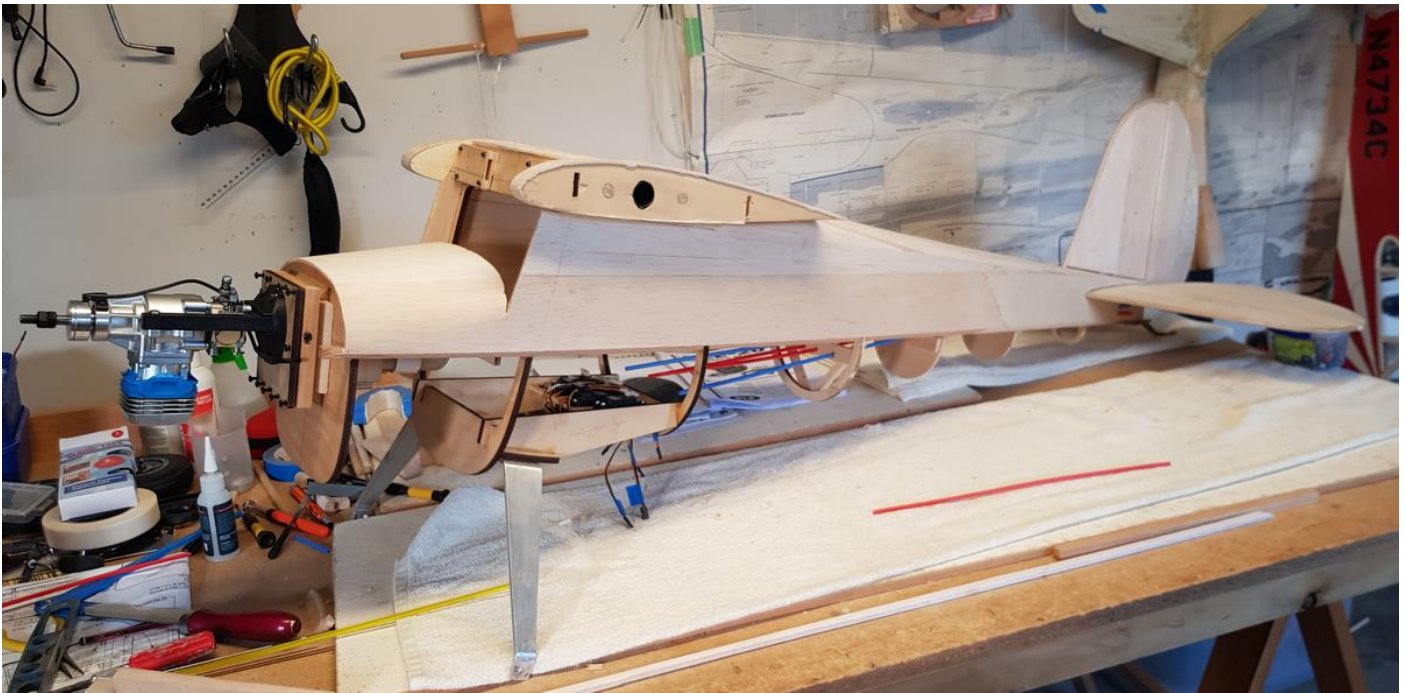
And yours truly and Mike had a session on the logistics of setting up Mike's "Beetle" classic pattern model, and then an end of year tidy up after all had departed !

That's it for this year's reporting, see you at Awatoto Club Activity in 2022. Ed.

AROUND the BUILDING BOARDS Nov '21



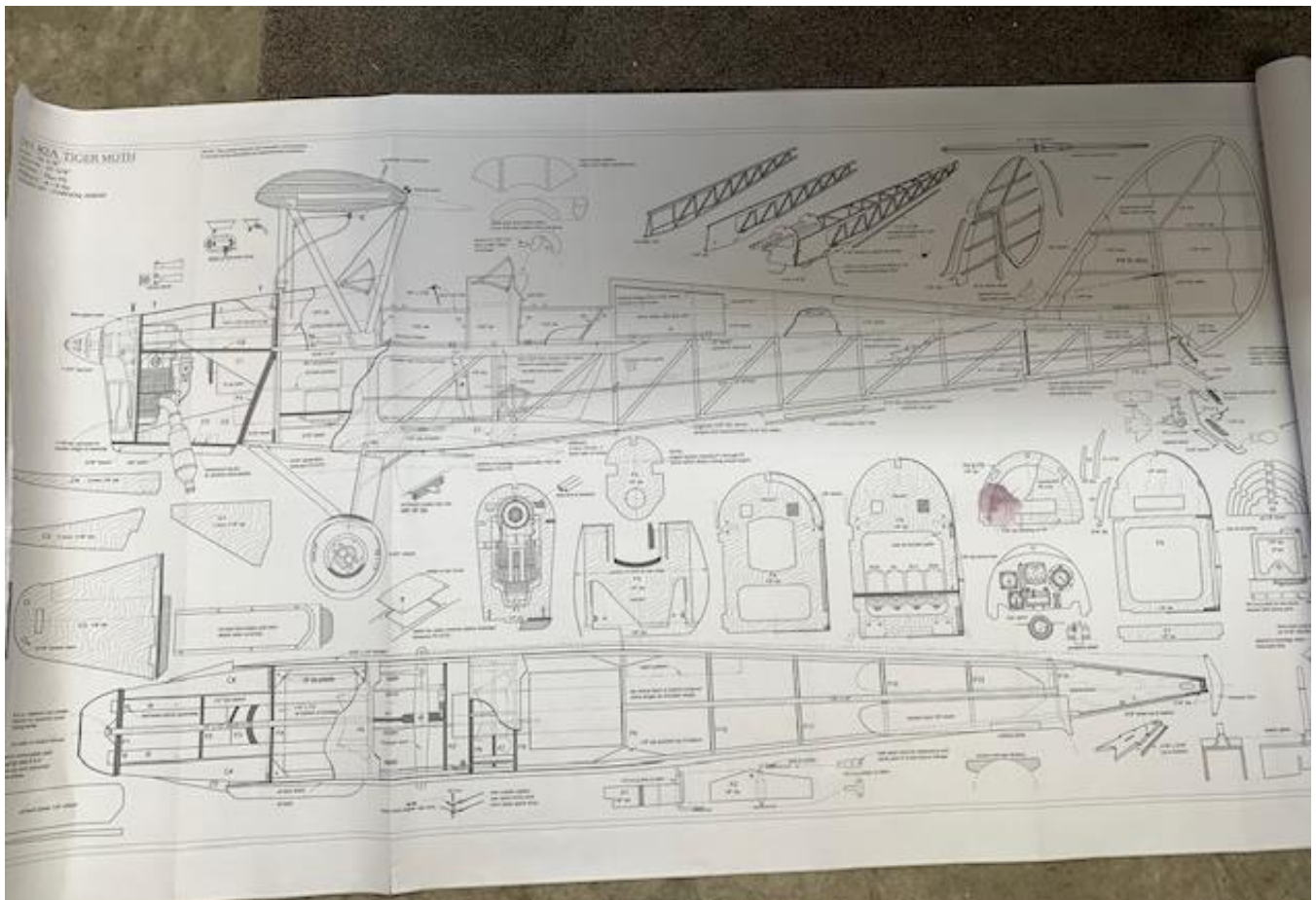
Dave Cantell is making good progress on his Cessna (started by ex-member **Jim Bourke**). The following photos show progress to date. Basic construction is almost complete, he's a master builder and **Dave**, making a great job.





A nice airy workshop and the family car enjoys the outdoors !!.

Peter Hamlin has embarked on the building of a 70 inch DH82 Tiger Moth from a Laser cut kit from Hangar One.
<https://www.hangarone.co.nz/shop/laser-cut-aircraft-kits/scale-aircraft-kits/de-havilland-tiger-moth-dh-82a-70-90-size-laser-cu?gn=Scale%20Aircraft&gp=7>



So far just working on the fuselage and making a very tidy job of the build which he brought out to the shed yesterday for a looksee. He is going to power it with a Four Stroke OS 90 Surpass motor.

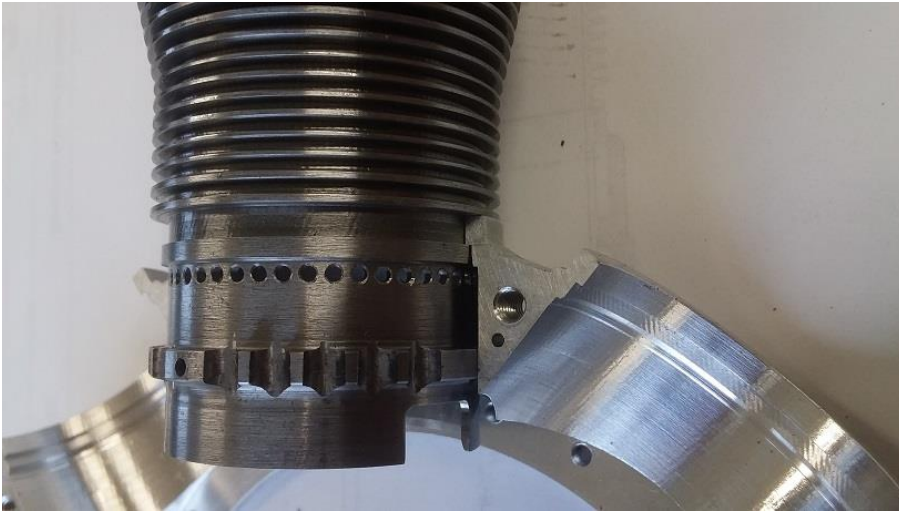


Phil's Rotary Magic. Pt 6 November 21



A week of rain and Phil's been revelling in it, it's calm and dry in his operating theatre/workshop . Friday 5th Phil reports; Great weather for some, the farmers and me!! Attached are a couple of pic's. The cylinders are 100% finished, a big relief! Now to finish the pistons and make the rings.

PS. I know I sent similar pictures last time but these show the transfer port details. Phil.



I asked Phil what is the significance of those large gear like teeth around the bottom. Are they for location ? His reply;

These are definitely one of the more complicated parts. Yes the lower ring is for location but the cut outs are to allow the fuel/air mix to reach the transfer ports, the ring of holes below the cylinder fins.

I have attached a picture (*Here on the Right*) of the full size cylinders made by CAMS in Blenheim.

<https://cams.net.nz/>



17th November. Phil writes; I thought you might like these two pictures. Cylinders, crankcase, etc, but no pistons, or conrods fitted yet.

Nice to see it together for the first time. Regards, Phil.



27th November, Phil's latest report; Hi Barrie,

Well another month has flown by but with a reasonable amount of progress. I have finished the cylinders by milling the four remaining fins around the spark plug hole, and drilling and milling the transfer ports. There was also a lot of filing and polishing of the fins. Each cylinder now weighs 7 1/4 ounces, times 9 is just over 4 pounds, so a large proportion of the 11 to 12 pounds overall. I then did a trial fit to the crankcase, and was relieved when it all slotted together nicely.



The next task was machining the final OD of the pistons and cutting the ring grooves. The rings are 0.040 by 0.045, so quite fragile. They are the same cast iron as the cylinders and will need heat treating to 600 deg C while held apart to give them a little spring.



Above Top Left clockwise; Machining the piston ring grooves, Piston rings with heat treating fixture, Piston and Gudgeon pin. Valve spring.

The gudgeon pins were also made , 6mm silver steel with a couple of holes drilled. They will need heat treating as well.

I spent some time cutting the valve seats and lapping the valves, but they need some more work. I wasn't happy with the springs that I made, so Merv at Simply Springs made some proper ones! Very nice thanks!

There is still a lot to do but the list is getting shorter. The main parts left are the Tappets, Rockers and Pushrods, as well as the Oil pump and propeller shaft etc. Quite a few very small parts amongst that lot!

The spark plugs and ignition module arrived from RC Xcell, and an electric fuel pump is on it's way.

Regards, **Phil.**

Thanks again Phil, You're allowed to take a break on Christmas and New Year Day's and we'll resume normal transmission in the New Year. Ed.



“Just stay under there and give everybody else a happy Christmas.”



Stephen Wessel. Engine Builder. Part 3 2021



Once again we are graced by the generosity of this incredibly talented man, who writes;

Hello Barrie, Here is Part 3, about the ENV "Aviation Motor" plus photos. There are far too many of these so I will let you take your pick. So that's it and I hope your readers will find something of interest. I am more than happy to be contacted by anyone wanting further info.

I was telling a NZ friend here about you and the flying club. He knows the area well and told me that Napier is a "gorgeous" town, Hastings too with its little opera house. I learned of the earthquake in the 1930s that flattened Napier so they must have done a good job rebuilding it.

Keep in touch, Best wishes, Stephen.

A tale of three historic engine models

Part 3 - the ENV Type F 60Hp - a water cooled V8 in ½ scale.

By Stephen Wessel.

Having finished the Lynx I felt confident to start a third engine, on a roll so to speak. By then I had joined the Rolls Royce Heritage Association and had access to its museum and archives at Filton, Bristol. These included drawings of all the famous sleeve valve engines designed by Roy Fedden which I had begun to study in some detail. I also had a friend, sadly no longer with us, who had built two Bristol Aquilas and a Hydra both in ¼ scale I think. But he had no interest in running them which was a great pity.

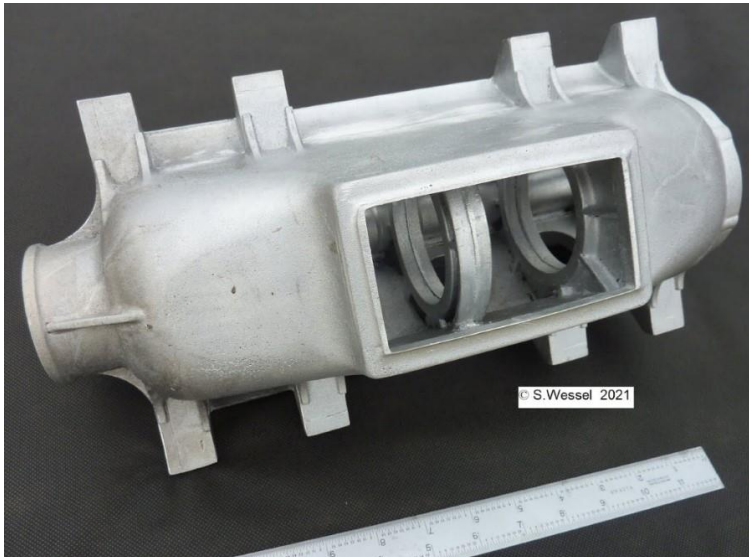
Two things struck me very forcibly about those engines, first their sheer complexity meant either more, difficult casting, or investment in serious CNC equipment about which I had no knowledge and less interest. The second problem however was the deciding factor: these machines have little or no visual aesthetic value – they are brutes, whose ugliness may be completely redeemed by the brilliance of the engineering within but which would give me little joy to replicate.

I realised it might suit me to look backwards in time rather than forwards, to an era when designers still had an eye for satisfying 'lines' and were perhaps less concerned by warlike preparations going on elsewhere. In 1910 flying was still very new, suitable motors were scarce and aviators were regularly killing themselves. The E.N.V. Syndicate started out as the London & Parisian Motor Co, specialising in water cooled V8 machines which had been a French invention back in the 1890s. It is not known how many were built but the tally of survivors is about half a dozen, all wrecks. At least one found its way to New Zealand to power the famous Manurewa which made the first powered flight in that country. A friend in Auckland is convinced the engine is still lying in a field somewhere!

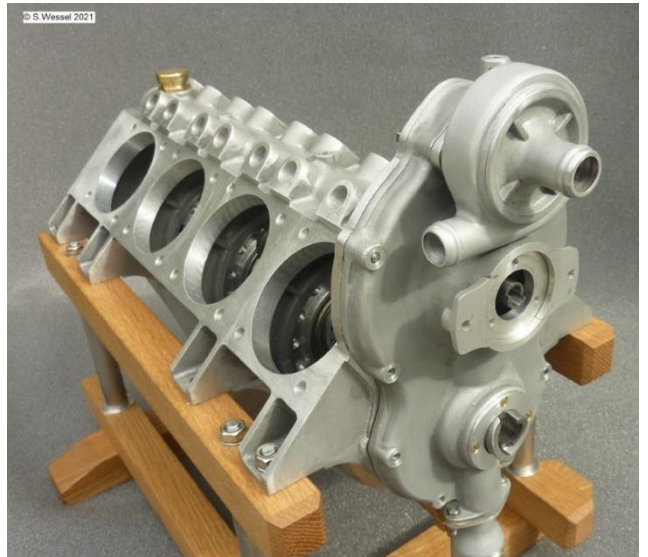
As this is a relatively small engine I decided to go for a scale of one half, just possible with my lathe and mill. This would give a total swept volume of 950cc. The crankcase is a one-piece aluminium casting without the usual centre line split. This was because the crankshaft runs in ball bearings and is installed through the rear end of the box. Pattern making was complex with many interlocking pieces, likewise the core boxes. I had managed to get the foundry on board at an early stage knowing they relished the

challenge of something different. Having delivered it all along with copious instructions on how to assemble everything I then waited for about three months becoming ever more convinced that they had abandoned the job and couldn't summon the courage to tell me. One day the phone rang: the usual cliché, "we've got some good news plus the not so good news. Are you sitting down?"

Well in fact it wasn't so bad; one of the cores had been set slightly in the wrong place (my fault for allowing that possibility in the design). So they tried again and the second casting was spot on. The episode brought home to me just how hard it is to remove completely all ambiguity in instructions to others, whether verbal or written, and to design the elements in such a way that they *cannot* be assembled incorrectly.



The cast crankcase.



Crankcase Completed.

I then had to decide how to machine this thing, in particular which surface would become the datum and how to support it rigidly in machines working right at their limits of capacity.



Before and after electroforming.



Left; Electroforming Jackets.

Right; Cylinders awaiting their copper jackets.



The most obvious feature of this engine is the copper jacketing of the eight cylinders. The company used the well-established technique of electroforming in order to avoid the need for rubber seals. The process is long-winded and full of uncertainty when done on a small scale in a home workshop but it is possible. Part of the problem for me was that all the online information is aimed at amateur jewellery makers, not engineers, so I had to experiment and work out procedures to give the precision and repeatability I needed. The results were better than expected and there have been no leaks at all.



Left; ENV Crankshaft.

Right; Fabricated heads.



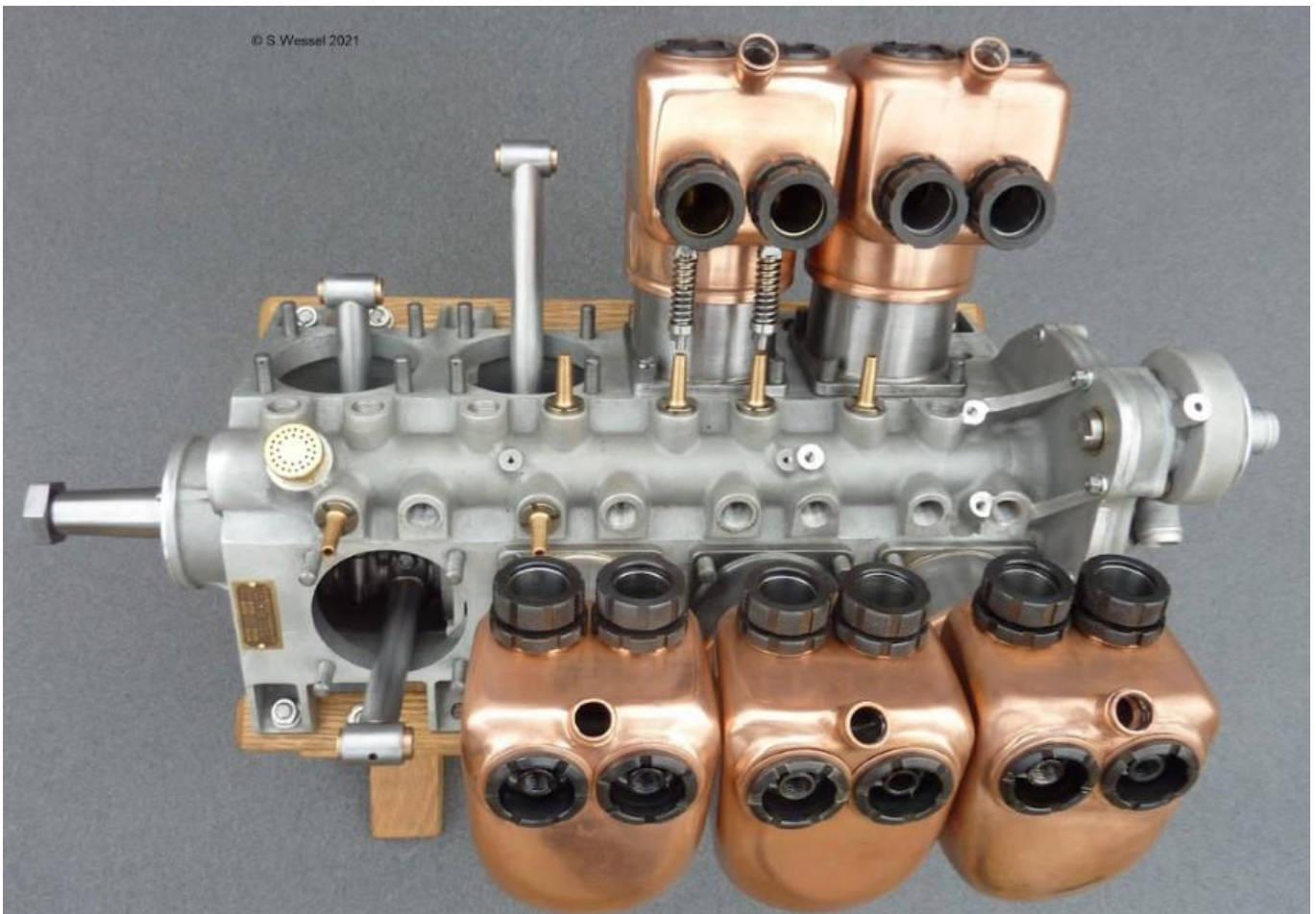
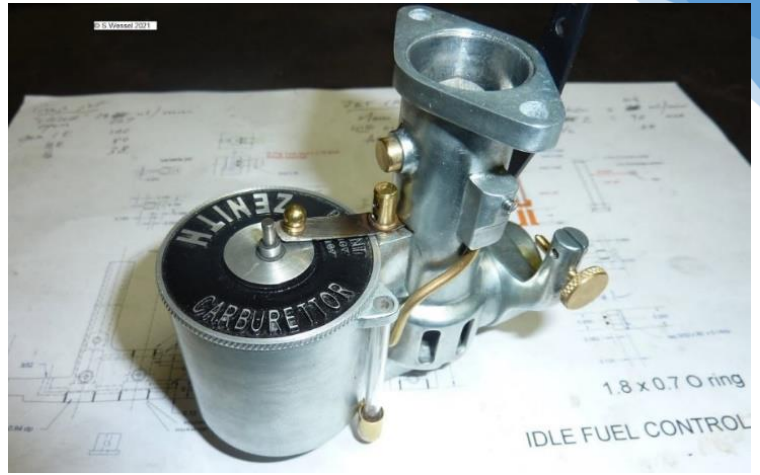
Below Right; Electroformed pipework

Unlike the previous models I had built, this time there were no handbook or drawings anywhere, so I relied almost completely on one partly sectioned example in the Science Museum and another in the USA, taking measurements and photos in as much detail as possible. There was also a publicity article in *Flight* magazine, October 1910, that was useful.



The carburettor is interesting because it appears to be one of the very first Zeniths, designed by the French engineer, M. Baverey in 1906. I found a copy of his US patent application complete with diagrams that conformed precisely with the Museum engine. The half size copy seems to work very well.

Nothing is now known of the cam design or timing in these motors so I had to design these in accordance both with contemporary practice and my own rather basic facilities.



Above; *Nearly there.*

The motor carries a 48" x 30" prop in the French style of the period which at 2000rpm makes a glorious sound and gives a measured static thrust of 20Kg. I think it's probably the only working ENV anywhere in the world and also one of the earliest aero engines to be modelled in any scale. It runs beautifully with excellent throttle response, no smoke and no vibration. It makes the Mono rotary that arrived a few years later seem quite primitive! (Sorry Phil!!)

More about it can be found by following the link to Youtube:

<https://www.youtube.com/watch?v=HVdvR0v4o9Y>

Letter from Portugal November 21



Recently received this letter from our old friend Jose Lecardio.

Jose is a prolific scratch builder, multi-talented and a professional in CAD design and draughting. We have seen the fruits of his building labours in the past and here is a pictorial progress of his latest build, a Cessna T-37.

*The **Cessna T-37 Tweet** (designated **Model 318** by **Cessna**) is a small, economical twin-engined jet trainer type which flew for decades as a primary trainer for the United States Air Force (USAF) and in the air forces of several other nations. 30 of which were purchased by the Portuguese air force from the USA in 1961 and retired in 1992.*

Jose is an avid reader of our monthly Propwash newsletter, he wrote;

“Good morning to you but to me good night.

Here it is 22 o'clock on the 3rd then it is the 4th day of my 63rd birthday but it's very good

I will try to give some information about the model T 37

The air force of Portugal had these models for conventions, WINGS OF PORTUGAL

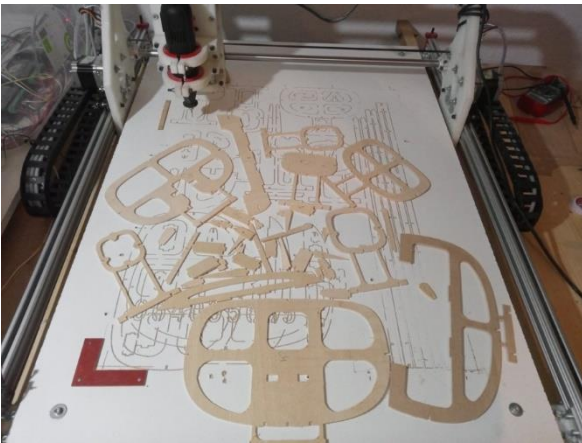
But a few years ago a model due to lack of maintenance, one of the wings broke and the pilot died, they never flew this model again.

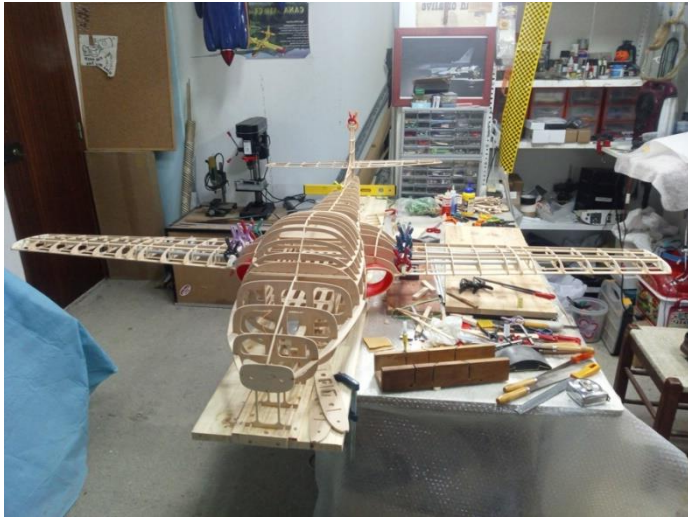
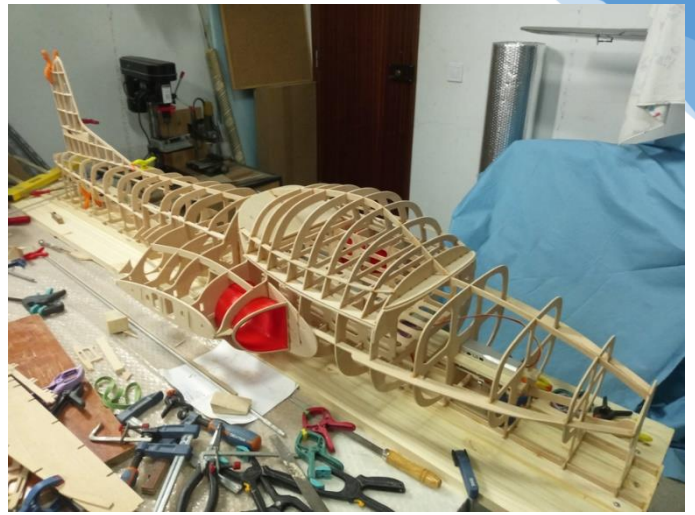
Two years ago I thought about designing one and making this model

I built a CNC cutter and since then it has been my free time.

It has been a challenge for this Aeromodeller as well as our friend from Taube. (*He is referring our Ray McPeake who sent him info on his Taube as Jose plans to build one some time in the future !*)

A big hug to you all, Jose.”







A very interesting construction technique from someone who has the CAD drawing computer skills. Jose makes it look so easy. Saves all those countless hours with a razor blade and cut fingers !



Right; shows a capture of the retracts working.

If you click on https://mfhb.org.nz/wp-content/uploads/2021/11/Jose_retract_gear.wmv You will be able to see a video clip of the gear and doors working that **Brett** has managed to download/install for us from **Jose's** files.

Many thanks for sharing **Jose**, we look forward to seeing the finished model and the good news of it flying. **Ed.**

Pattern Aerobatics Norsewood Nov 21



Saturday 13th November, down at Galloway farm in Norsewood was like a weather oasis in the middle of a countrywide storm of wind and rain. Put a few of the less brave souls off, but eleven pilots from Hawkes Bay through to Manawatu trusted Hamish's forecast and were rewarded with great conditions and flew in Clubman and classic Pattern Aerobatics.



From Left; Derek Whelan, Rob Lockyer, Geoff Hall, Simon Tansley, Sean G, Ewan G, Hamish G, Cormack G, Gary Palmer, Mike Shears, Barrie Russell.

As usual the Galloway hospitality was superb, great barbecue lunch, farm killed patties and home grown salad veges and buns. The field was a picture with the usual well mown strip and pits area, you can't get much better than that, and calm, warm and flyable all day. The wind and rain arrived just as we were departing around 5.00pm. Click on this link to view Hamish's video of the pilots and proceedings

<https://www.facebook.com/hamish.galloway.18/videos/567795594307620>



Above; Barbecue lunch with a few helpers. & **Right;** Derek at work



A very relaxed and enjoyable day and trialling the Nautomatic scoring system which under Derek's control worked amazingly well with all the judging and scoring being done in real time and instantly relayed back to the master program for an instant result. Two classes were flown, Pattern Clubman and Classic Pattern for the more advanced pilots. All went well apart from Mike losing our steed when the yellow UFO decided to be a submarine in the far cow paddock with a loss of any "Up" elevator ! Great to see some new and a few old pilots turning up for a go and the results were very encouraging. If young Sean and Cormack Gs can perform as well as they did, then we should all be out there practising and lookin' over our shoulders. Good to see Gary Palmer, now residing in Dannevirke having his first go at aerobatic competition, and also to see Geof and Sandy Hall back competing after some years of absence since the pylon days. The following photos I shot around the day's activities mostly speak for themselves.



The hangar / Pits / Car Park scene at Galloway Farm.



Above Left; Rob flying, Mike calling (Clubman) and Sean & Ewan Judging.

Above Right; The Galloway Field hangar. A fair resemblance to "Aladdin's Cave" ?

Left; And the Grand Daddy of them all, Ewan with his scratch built Twister. Goes like a streak of blue weasel S*** with it's wah wah muffler, but beautifully controlled !





From Top Left Clockwise; Cormack with his Super 60 / Sean's new electric Laser./ Geof and Sandy with Kaos / Mike's UFO accompanied by my vintage Stardust for a bit of light relief / UFO after being exhumed / Geof's Kaos, plane and pilot performed well / Derek still awaiting the birth of his classic models flew his very Ugly Stik / Simon flew this smaller 46 sized Kaos

Classic



Classic - F3A APA 3FlightDiscard

Norsewood - November 13 2021

Preliminary Results



Pos	Competitors	Total	Flight no 1 Finished			Flight no 2 Finished			Flight no 3 Finished			Flight no 4 Finished		
			Raw score	Net	Norm	Raw score	Net	Norm	Raw score	Net	Norm	Raw score	Net	Norm
1	GALLOWAY Hamish (Worms) (907)	NZL 2000.00	273.00	273.00	1000.00	250.50	250.50	1000.00	254.75	254.75	1000.00	0.00	0.00	0.00
2	GALLOWAY Sean (908)	NZL 1804.50	233.25	233.25	854.40	238.00	238.00	950.10	180.25	180.25	707.56	0.00	0.00	0.00
3	GALLOWAY Ewan (906)	NZL 1677.19	238.00	238.00	871.80	201.75	201.75	805.39	182.00	91.00	357.22	0.00	0.00	0.00
4	TANSLEY Simon (961)	NZL 1038.39	126.00	126.00	461.54	144.50	144.50	576.85	77.00	77.00	302.26	0.00	0.00	0.00
5	RUSSELL Barrie (960)	NZL 716.12	195.50	195.50	716.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	SHEARS Mike (949)	NZL 656.60	179.25	179.25	656.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Clubman



Clubman - F3A APA 3FlightDiscard

Norsewood - November 13 2021

Preliminary Results

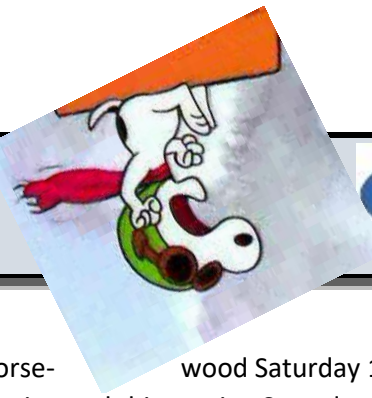


Pos	Competitors	Total	Flight no 1 Finished			Flight no 2 Finished			Flight no 3 Finished			Flight no 4 Finished		
			Raw score	Net	Norm	Raw score	Net	Norm	Raw score	Net	Norm	Raw score	Net	Norm
1	HALL Geoff (963)	NZL 3000.00	143.50	143.50	1000.00	146.25	146.25	1000.00	127.75	127.75	1000.00	132.25	132.25	1000.00
2	LOCKYER Rob (921)	NZL 2638.65	97.75	97.75	681.19	124.75	124.75	853.00	110.75	110.75	866.93	121.50	121.50	918.72
3	WHELAN Derek (925)	NZL 2440.08	113.75	113.75	792.69	115.00	115.00	786.33	110.00	110.00	861.06	95.50	95.50	722.12
4	GALLOWAY Cormac (953)	NZL 2138.47	114.50	114.50	797.91	100.75	100.75	688.89	83.25	83.25	651.67	0.00	0.00	0.00
5	PALMER Garry (962)	NZL 2076.17	106.75	106.75	743.91	97.25	97.25	664.96	67.50	67.50	528.38	88.25	88.25	667.30



Classic Pattern

November 21



An excellent Pattern day comp was held at Galloway farm in Norse-wood Saturday 13th of this month, see reports elsewhere. Interest in club aerobatics seems to be growing and this coming Saturday 20th we have a Classic Pattern day scheduled and the weather is looking okay. Fingers crossed for a good turnout.

Within the club, model building continues. **Stu Sturge** is making positive progress with his Dirty Birdy as seen in these latest two pics just received. Almost at the covering stage and gear fitting.

Not a lot to report on Tiger tail, the body is all glassed now, just awaiting the incentive to start painting and covering.

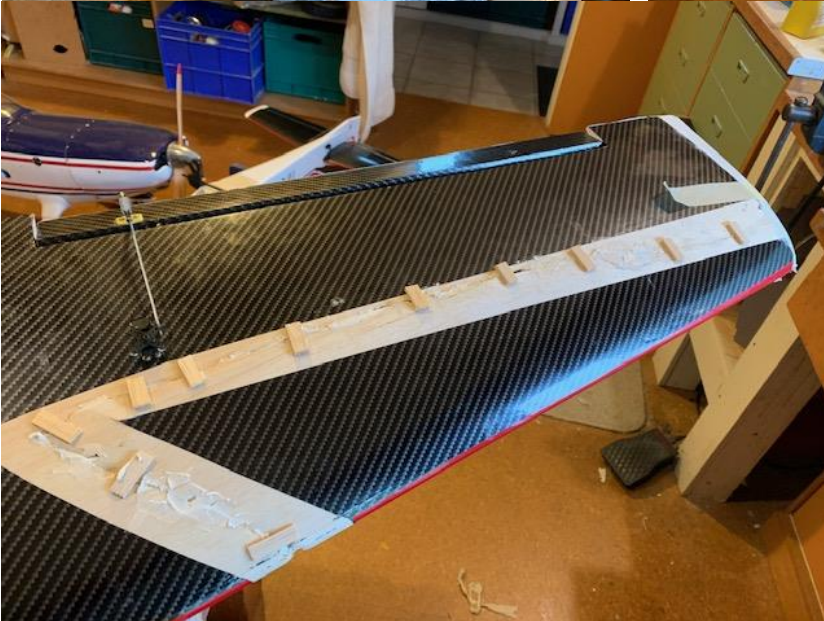
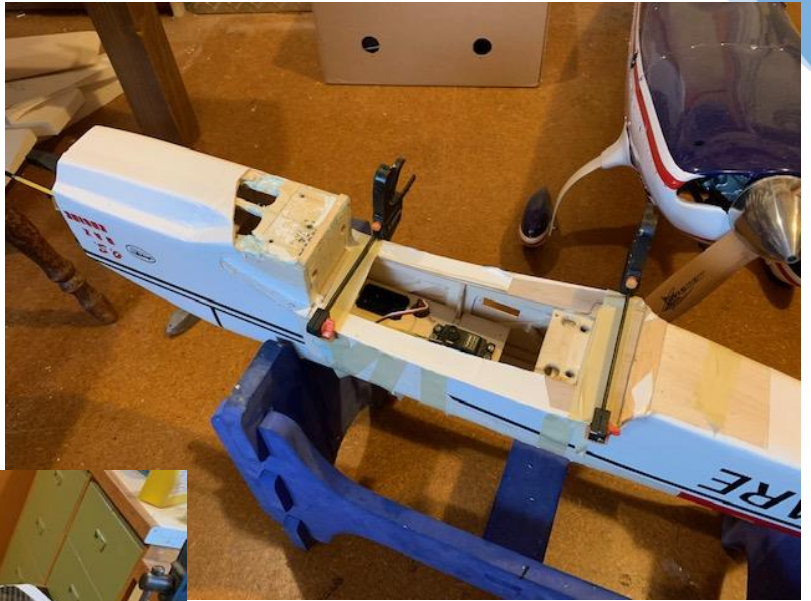


I had a bit of a setback losing elevator signal with my Tiporare and it shredded itself on the top wire of the boundary fence trying to make it back to the strip ! The result wasn't pretty, however the breaks were clean and I finished up with four pieces and a split

U/C blank . All the gear survived so on the way to the rubbish skip I decided instead to glue it all together with a light slow epoxy bog and lo and behold it lives to fly another day. Not knowing the cause, I've discarded the receiver and fitted a new 8 channel Rx and satellite, a second switch and now carrying two batteries. Also re-programmed it onto my other X9 Transmitter just in case there was a corruption in the TX and programme. We've put on about ¼ pound of weight, but **Mike** assures me it will be even better in the wind now, so I'm off to



the field now that the wind has finally dropped, wish me luck.



Thurs 18th Test flew this morning and apart from some slight trim change, she flew straight and true and the extra weight seems of no consequence, still has unlimited vertical with the 11x7 APC propeller. My next move is to try a 13x6 prop and see if it will slow it down a bit without losing vertical performance. **Ed.**

Below, back in the land of the living and flying



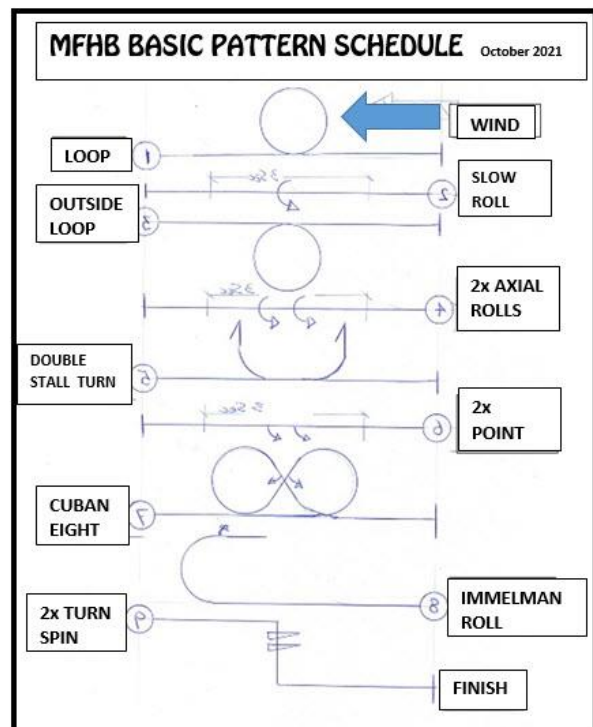
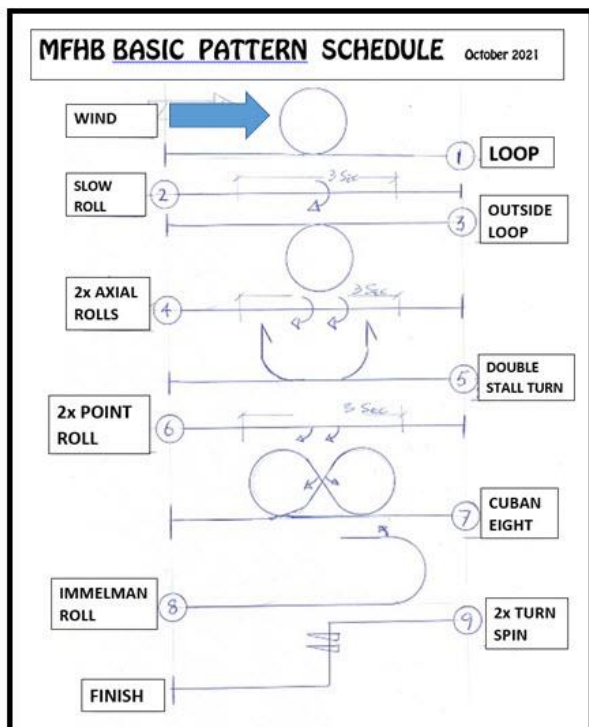
Classic Pattern Day at MFHB Awatoto. Saturday 20th Nov 2021.

Saturday morning 9.30 saw some fifteen pilots setting up to fly pattern aerobatics at Awatoto Field, how good is that. Skills ranged from newbies to expert and what a great day was had by all under the expert guidance of CD **Hamish Galloway**.





The weather couldn't have been better, warm with a light to moderate sea breeze down the strip and a cloudless sky. Great to welcome Geoff and Sandy Hall and Simon and Mel Tansley from Palmerston north, Ewan, Hamish and Sean Galloway from Norsewood, and local members, Derek Whelan, Mike Shears, Rob Lockyer, Barrie Russell, Stu Sturge, Ian Grant, Brian Hitchcock, Bill Roydhouse and Danny Young. Our thanks to Anthony Hales who with help manned the barbecue, and also to Russ Nimmo who spent most of Friday on the tractor and had the field manicured to perfection.

The day was very much about learning and enjoying aerobatics. Competition with the Nautomatic scoring system was held in Clubman and Classic pattern, and those less experienced flew the MFHB Basic pattern schedule under Hamish's tutorage and how very successful that proved to be with some now very keen converts! The beauty of a day like this was that no one was under pressure, you could fly and compete to the level you aspired and the help, advice and encouragement from the top was magnificent. At MFHB we




have compiled a simple Classic Pattern schedule for the newcomers to pattern flying and it is working a treat. From here they can get a taste of pattern flying then graduate to Clubman, Classic and upward. Today six pilots took advantage of this schedule and flew under Hamish’s guidance. Their flights weren’t scored so the atmosphere was very relaxed and they learnt heaps and gained a lot of confidence. You can download the schedule here https://mfhb.org.nz/wp-content/uploads/2021/10/Basic_Pattern.pdf The Nautomatic scoring system was put to good use and three rounds of Clubman and two of Classic flown with some good competition and no dramas. The cream rose to the top with Hamish showing the way in classic, great to see Sean flying so well, and congrats to Rob Lockyer taking out the Clubman after a close



Clubman - F3A APA 3FlightDiscard

Awatoto - November 20 2021

Preliminary Results




Pos	Competitors	Total	Flight no 1 Finished			Flight no 2 Finished			Flight no 3 Finished		
			Raw score	Net	Norm	Raw score	Net	Norm	Raw score	Net	Norm
1	LOCKYER Rob (921)	NZL 2000.00	133.75	133.75	1000.00	109.25	109.25	761.33	146.00	146.00	1000.00
2	HALL Geoff (963)	NZL 1981.31	131.25	131.25	981.31	143.50	143.50	1000.00	137.50	137.50	941.79
3	TANSELY Simon (961)	NZL 1712.09	103.75	103.75	775.71	112.75	112.75	785.72	135.25	135.25	926.37
4	WHELAN Derek (925)	NZL 1593.49	112.00	112.00	837.39	108.50	108.50	756.10	0.00	0.00	0.00
5	HITCHCOCK Brian (964)	NZL 743.91	0.00	0.00	0.00	106.75	106.75	743.91	0.00	0.00	0.00

Classic - F3A APA 3FlightDiscard

Awatoto - November 20 2021

Preliminary Results



Pos	Competitors	Total	Flight no 1 Finished			Flight no 2 Finished		
			Raw score	Net	Norm	Raw score	Net	Norm
1	GALLOWAY Hamish (Worms) (907)	NZL 2109.83	266.25	266.25	1041.06	272.00	272.00	1068.77
2	GALLOWAY Ewan (906)	NZL 1890.19	245.25	245.25	958.95	237.00	237.00	931.24
3	GALLOWAY Sean Jr (908)	NZL 1598.49	191.75	191.75	749.76	216.00	216.00	848.73
4	RUSSELL Barrie (960)	NZL 1592.04	169.25	169.25	661.78	236.75	236.75	930.26



tussle with Geof Hall.

Pilot's briefing held 1st thing at around 10.00am and then judges took their seats Mike & Derek 1st up.



Derek Whelan with his Calypso.



The Galloway clan's Twister.



Geoff Hall's OS pvd Kaos & Dubb Jet Muffler



Barrie Russell's re-born Tiporare. OS .61/Dubb Jet



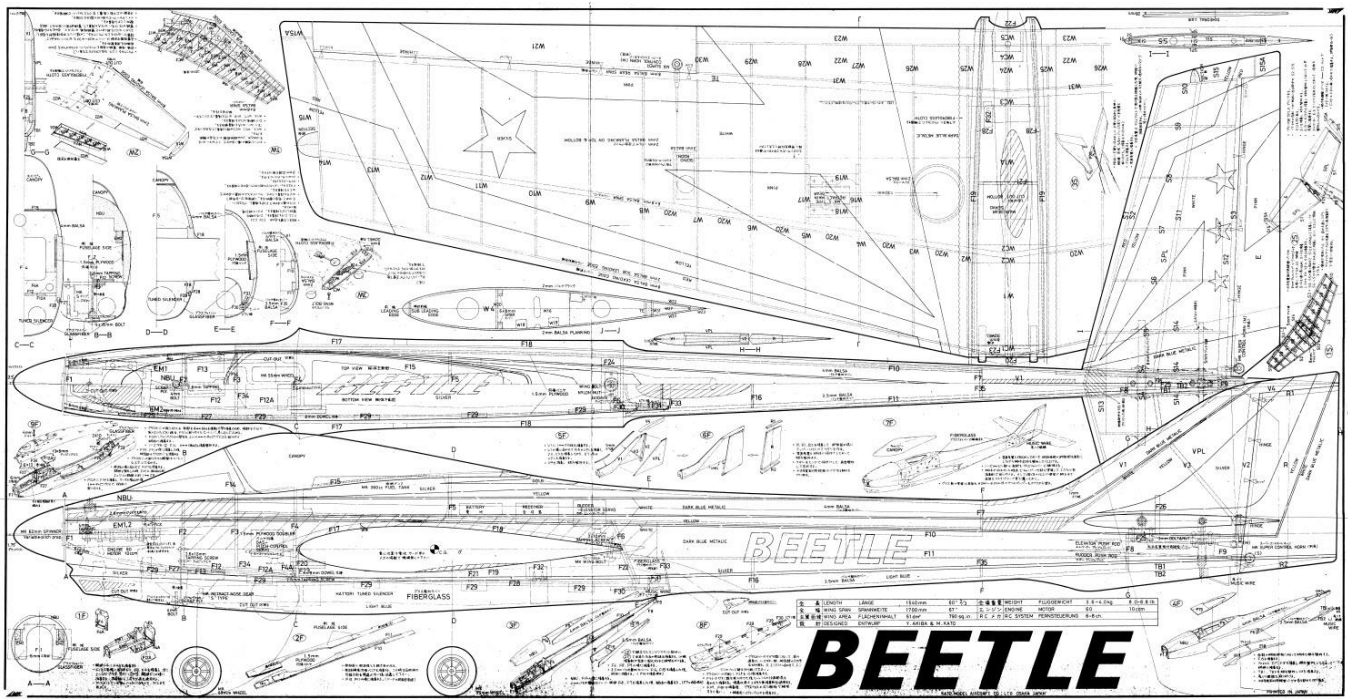
**Stu Sturge flying under Hamish's watchful eye.
Right; Pits view early in the day.**

A thoroughly successful day, enjoyed by all and lots of enthusiasm for repeat performances. Our aim at MFHB is to have regular monthly Saturday sessions starting say late morning so other club flying is not compromised, watch this space. With



the interest growing there are at least four new classic pattern models under construction which speaks positively for the future. **Barrie the editor. mfhb.**

Derek's trip to the South Island brought back a partially built Beetle which has fallen into **Mike's** hands and looks to have lots of potential. The wing is fully built up and skinned, and the body is blocked in foam ready for shaping and glassing. A lovely looking model with lots of potential especially when coupled to **Mike's** .60 MVS and Pipe !



The fuselage is now shaped and glassed with glass cloth and carbon fibre and planning is under way for all the gear placement. Just a tailplane to build and we're away !!

Stan Nicholas is enthusiastic about this new discipline and is making a move to purchase a laser cut short kit from Hangar one, just a matter of making the all important decision as to which one ?? Exciting times ahead and if any member wants to join our happy band of "Aeronuts", give Mike or Me a call and we'll add you to the email list of interested parties. **Ed.**

VINTAGE REPORT

November 2021



Not a lot to report this month, vintage activity seems to have gone off the boil a bit. Come the New Year and a fresh round of NDC, that will hopefully kick along the enthusiasm again.

Stan and I managed an E Rubber Texaco NDC event during the month and on our second flights both got into some amazing lift, great what sustaining air you can find at just under 400 feet. Results in from **Brett** who was our time keeper for the event. **Stan** flew his Gollywok and **I** flew my Voodoo.

Hi Barrie,

Scores for E-Rubber as below.

NAME	MODEL	ROUND									GRAND TOTAL
		1 AGE				2 AGE					
		FLIGHT	LAND	BONUS	TOTAL	FLIGHT	LAND	BONUS	TOTAL		
STAN NICHOLAS	GOLLYWOCK	1483	20	11	1514	2089	20	11	2120	3634	
BARRIE RUSSELL	VOODOO	1446	20	1	1467	1919	20	1	1940	3407	

Good scores!

And a good morning was had by all.

Then **Brett and I** flew our 52 in span Stardusts in the ½ E Texaco NDC event and again found some good air, Brett excelling in his second flight to take the honours.

½ E TEXACO

NAME	MODEL	ROUND									GRAND TOTAL
		1 AGE				2 AGE					
		FLIGHT	LAND	BONUS	TOTAL	FLIGHT	LAND	BONUS	TOTAL		
BRETT ROBINSON	STARDUST 51	661	20	10	691	1606	20	10	1636	2327	
BARRIE RUSSELL	STARDUST 51	1000	0	10	1010	1179	20	10	1209	2219	

That wraps up the Vintage NDC competition for 2021, we had a good range of entries and results. It would be nice to see an increase in participation from the club in 2022, here's hoping for a good year to come.

Hopefully Vintage will remain alive and well, it's been a difficult year in the Covid climate with travel and participation being severely limited. The Nationals lie on a fine balance, hopefully we will have a competition to attend, but even as I write, that is up in the air. My serving on the SIG committee is coming to an end as I'm not available for re-election. I'm saddened to report that the remit for combining some classes and simplification rule changes will not be going ahead, even though the vote was successful with the required majority, albeit a small one. I don't agree with the outcome as confidence was lost in the vote due to some last minute lobbying which I think is against the spirit of a democracy. So be it, we'll carry on, business as usual.

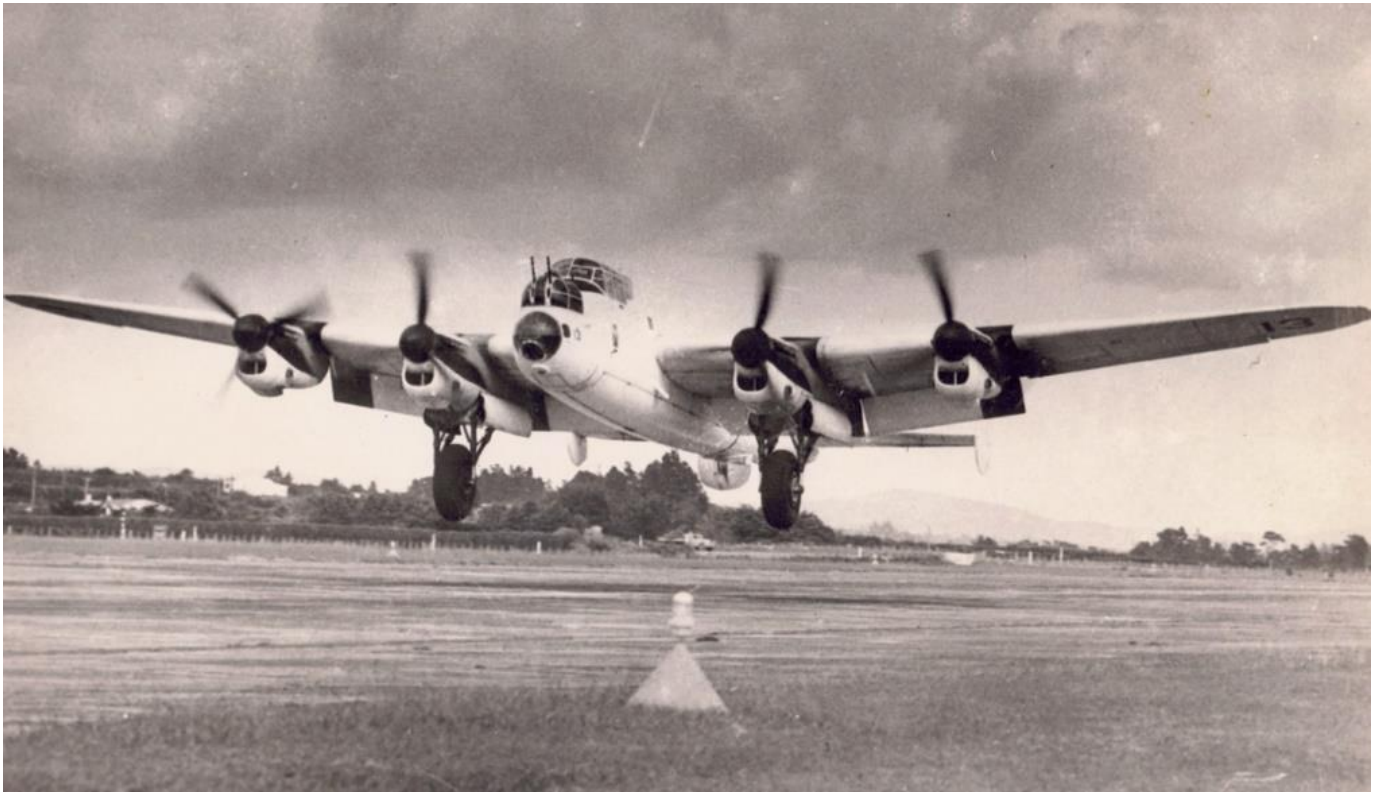
Barrie Russell. MFHB November 2021.

Nostalgia Files

November 2021



Joe Connolly has been delving into his treasure trove of old files and memorabilia and is sharing some pictures from the past that might stir a few nostalgic memories;



Above; The MOTAT Lancaster arriving at Mangaree Airport. Motat's Lancaster Bomber was presented by the French Government to the people of New Zealand in 1964 in recognition of the 6000 New Zealanders who served in the RAF Bomber Command during the Second World War. Almost 2000 New Zealanders died serving in the Bomber Command.

Right; The late Bill Shannon of the "436 Model Shop" fame in New Plymouth with his model of the famous Dick Twoomy's "Leprechaun".



Left; Joe's Ladybird Special 1964/5 RC powered by a 1cc Typhoon Hobby Diesel. APS Plan PET508



Above, “Big Bird 2” built from an RCM plan 84” with an OS.35FSR. Taken at lake Kaneri near Hokitika in 1979.

Top Right; Jo with “My oh My” in Hamilton in the late eighties. RC model 54” span OS.15

Right; With a glider at Reefton “TNT”



Mike Shears is in seventh heaven, **Archie Chynowyth** presented him with his (Archie’s) first Radio Control set, purchased in Hasting back in the early 70’s which **Archie** still had in the original box along with all the servos and gear. An early OS digital Tx & Rx. Cougar Set. Just needs a conversion to 2.4mhz.



Our friend **Barry Lennox** has long been into refurbishing old to ancient transmitter and converting some to 2.4mhz.. He gave a number of old sets acquitted from an estate to a friend in Wellington who has posted some interesting information on the following links for those of you who are technically wired.....

<https://mode-zero.uk/viewtopic.php?f=27&t=1345>

<https://mode-zero.uk/viewtopic.php?p=11359#p11359>

Barry went on to say *“I have modified 3 myself, A Teletrol one that has the full "Bells and whistles" with the Arduino encoder. A quite rare Wright hand-held transmitter; same guts as the old biscuit tin on the ground model, but with smaller batteries and only a 2 section antenna. It was designed for boats, but I gather a few went to the USA, where some brave folks used them for slope-soaring. It's single channel only, and lastly then a very near new Skyleader 6 channel set (circa 1974) . I have a few more as well, but how many transmitters does a man really need?”*

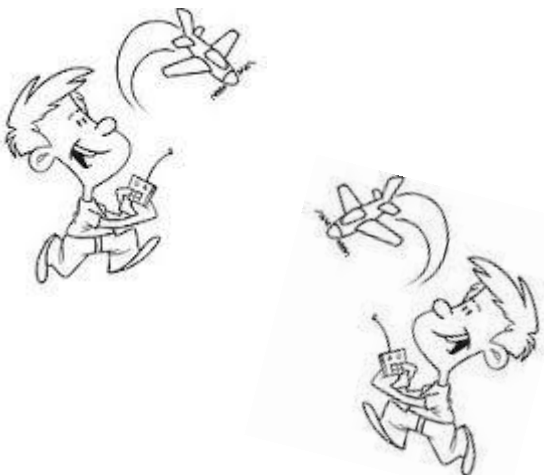
That all sounds like true Vintage, well, sort of, someone will be turning over in his grave hearing talk of converting an old “Bang Bang” set to 2.4, such sacrilege, but a hell of a lot more reliable !

Barry further says ... *“However, there is a large following of enthusiasts in the UK, and a couple of us here in Godzone too, that are busy converting them to 2.4 GHz, also with small, simple but feature-rich encoders based on the Arduino and some other ridiculously cheap baby microcontroller boards. Sean Garrity, Phil Green, and mates in the UK often have a column in "RCM&E" with their latest conversions. but they also have a very large and fascinating website at.”*

<http://www.singlechannel.co.uk/>

<https://modelflying.co.uk/postcard-pontefract>

Barry has promised me an article (I really didn't have to twist his arm toooo far”) on these old set conversions, watch this space soon in the future. Nice one BTR. **Cheers, Ed.**



FOR SALE / WANTED November '21



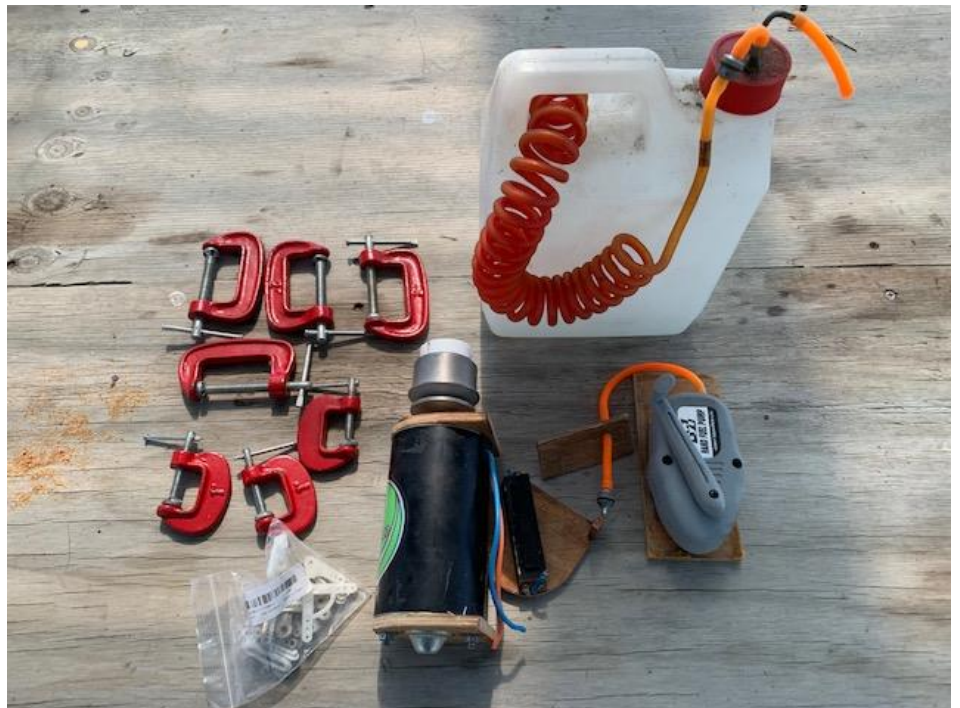
WANTED;

Gus and James Black are looking to purchase a scale aerobatic aircraft, petrol powered and 35 to 55 cc size suitable for a more serious entry into Aerobatics for **James**. Anything considered so if you think you might have something suitable, please give **Gus** a call on **021 0238 1615**.

GIVE AWAY;

Joe Connolly has been having a tidy up in his workshop and has these items to **GIVE AWAY** to a good home.

1. selection of small clamps.
2. 12V Starter (needs switch re-wiring)
3. Fuel pump, hand crank and fuel bottle with expandable filler pipe.



First in first served, give **Joe** a call on **021 195 2389** , just give him time to get to his phone and put his hearing aid in !!

Thanks Joe, much appreciated. Ed.

A CLOSING SMILE. Nov 21



Modeller's Lament.

OLD FISHERMEN NEVER
DIE,

THEY JUST SMELL
THAT WAY.

OLD MODELLERS
NEVER FLY,

THEY JUST COME OUT
TO PLAY.

Editor's Lament.

IF YOU DON'T WRITE ME
A LETTER.

THIS 'LL NEVER GET
BETTER

I'LL JUST CONTINUE
HAVING MY SAY !!

SHOCK HORREUX.

Anon.



May we wish you all a Very Happy Christmas and a Safe and Prosperous New Year.

This is our last Publication for 2021, we'll be back some time early in 2022 so keep your copy and comments, reports, pictures and articles rolling in. We need all the help and assistance we can get ! Ed.