

## Club Newsletter # 127 June 2021

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Thurs 1	Vintage Awatoto Field	
Sat 3		<b>NDC</b>
Sun 4	CLUB DAY	<b>NDC</b>
Tues 6	"Shed Morning"	
Thur 8	Vintage Awatoto	
Sat 10		<b>NDC</b>
Sun 11	CLUB DAY 2 <sup>nd</sup> Sunday Barbcue	<mark>NDC</mark>
Tues 13	"Shed Morning"	
Thur 15	Vintage Awatoto	
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Contributers to this issue; Barry Kerr / Barrie Russell / John Andrews / Robert Lockyer / Jack Clark / Mike Shears / Brett Robinson / Ash F / John Clarke / Harvey Stiver / Kevin Botherway / Blair Jepson / Phil Sharp / Frank Jaerschky / and others?

## Vintage & Soaring NDC Comps for July 2021......,

Jul/21	137	VINT	RC Vint and Clas Scale Tex
<b>Jul/21</b>	138	VINT	RC Classical Precision
Jul/21	139	VINT	RC Sport Cabin IC Texaco
Jul/21	140	VINT	RC Sport Cabin E Texaco
Jul/21	419	SOAR	Thermal H (2 Metre Glider)
Jul/21	420	SOAR	Thermal A (Open)
<b>Jul/21</b>	421	SOAR	FAI F5J, 4 Rounds (Total )
<b>Jul/21</b>	422	SOAR	ALES 123 Class N

Master Craftsman Phil Sharp is embarking on a Rotary Motor building project, read all about it this month and following .......



## From the Editor's Desk June 21



#### Greetings All,

Welcome to the 127<sup>th</sup> Propwash, doesn't the time fly when you're enjoying yourself. Not quite as much activity at Awatoto field, the winter weather doesn't seem as attractive as it used to be. Nothing to do with the age factor of course?

Some interesting contributions this month, great to hear from John Andrews in the UK keeping an editorial eye on the Vintage scene over there. Phil Sharpe has embarked on another build using his remarkable engineering skills in a series that will be well worth following, I can't recall an engine builder in the club in my time.

It is great to see the "Drone" community operating at the seaward end of the pits. Recent new member Jack Clark has given us an interesting insight into their activities. Wander down and have a look at them flying. They're happy to share their knowledge and enthusiasm.

I look forward to being able to report on our committee's forward planning for **Club Nights, Theme Days and Club Competitions.** How about another **Club Photograph**, a few years since we've had one, and it could easily be combined with one of our barbecue days?

As usual I crave your contributions for upcoming issues, your reports, building projects, for sale items. Anything of interest to the modelling scene where your comments and copy are vital to ensure continuing interest in Propwash's future.

Barrie the editor. mfhb. June 2021.

## Mr Secretary Says:



210608 Meeting Notes

This meeting was the first of the new Committee following the AGM, and not surprisingly, all were present! The correspondence, both inwards and outwards was quickly dealt with, as were the finances with the Treasurer being on the ball as usual: there is money in the bank!

Membership was again discussed: Luke James, a proficient flier and a local looking for a place to fly is a new member. Welcome, Luke. I believe existing members need to take some responsibility for either checking or being conversant with the status of their membership. Some have still not resigned or paid their current subs; some have made a personal decision to resign but have not informed the Club; others are requesting membership cards in spite of notification that there was a delay at the MFNZ end. Come on, Members!

The first item of General Business was the appointment of a Sub-Committee comprising Joe Wurts, Russell Nimmo, Derek Whelan and Barry Kerr to consult with members and determine where changes to the existing Club Rules might be and should be made. Look for requests for input!

Hayden Purdy has done a marvellous job updating the web site while holding down other responsibilities, and he has done it all at no cost! Brent Stiver will continue to liaise with Hayden with the intention of bringing operation and updating back to Hawke's Bay. Thank you Hayden, from the Committee.

Warbirds planning is already under way! Well, it's only 7 months away and the voluntary co-opted Air Vice Marshall Marty Hughes shall once again co-ordinate the whole shebang! Look forward to being asked to contribute some time, and mark February in RED!

That's it!

Barry Kerr, Secretary MFHB

## Club Captain reports. june 21



### **Club Captains Rumblings.**

Another month has past, and we are 4 weeks deeper into winter, the rain outside is bucketing down. Surface flooding on the street but at least its not to cold to get out into the shed for a spot of modelling. I have discovered the club shed lately. I know there is a group of people that use it midweek, but I have enjoyed a few evenings and weekends down there sorting out issues on my planes. There is a great deal more room to set up the aircraft and work around it than in my available space. It is a great asset for the club and members to use but do remember to leave it as clean and tidy as you found it.

I am just rapping up 5 weeks holiday and a house move from Auckland to here in the Bay. I now have all my aircraft, spares and tools at hand. Access to these leaves a lot to be desired as things were jammed into boxes and are now stacked into a storage shed waiting on a final destination. Finding a place with large shed to take all my "stuff" will be problematic but I have time on my side. I need to hold out till the right thing comes along.

As I have been on holiday and moving you will have noticed my absence from the field in the weekends. I plane to put that right now I not dividing my time between here and Auckland. I hope people have been getting out for some stick time on those fine days available to us. Andrew, Jayden and myself had a great day at the classic comp at Waharoa on the 12<sup>th</sup>. Could not have asked for better weather. These days do pop up in winter, just get out when you can and make the most of them.

Derek Whelan, Club Captain.

# CLUB ACTIVITY June 2021





Winter is showing it's cooler face so activity is down a bit. Our hard working, long suffering Treasurer has been taking a long overdue break cruising around the upper South Island and forwarding back these records of his and Lee's sight-seeing efforts.





Only four hundred bucks for a half hour flight in the Stearman, but his Scottish ancestry precluded him from shouting Lee a ride!



The FW 190 just happened to be doing an engine run up when he cruised past Omaka aerodrome. Perhaps the whole trip could be summed up with this cartoon Rob included in his last email....

## " JUST DREAMIN' "

Welcome to new member **Luke James**, met him at the field test flying his latest acquisition, a Hangar 9 model called the Meridian and powered by a 10cc Evolution petrol motor. A very tidy nice looking model and flew off the board with no apparent vices. James flies off his orchard property in the Esk valley, but the aircraft are getting a bit big now so he's joining us at Awatoto. A keen and competent (Mode 2) pilot, welcome aboard Luke





Thursday 10<sup>th</sup>. Glorious weather, quiet morning, Rod H was setting up his newly acquired biplane with Mike's help, and Mike spent the morning boring holes in the sky, practising his Classic Pattern schedule. Stan and

Russ and I had a mini vintage comp in practice for this month's NDC with Barry K and Anthony H doing the timing. We flew our Stardusts and shared the honours across Duration and Precision.

**Sunday 13**th **June.** Quiet attendance, conditions good till the cross wind got up around midday. **Pits view** a

bit sparse. Below, Vic had his Pawnee back for some more engine testing and



were out in force putting on some exciting displays.





Who said two into one won't go?

Setting up their course at the eastern end of the pits. As their skills increase, it seems to get more challenging each time they set it up. What fun, talk to them and come and find out about it all and have a go. They are a growing and very friendly discipline within the club.





Nick Twin had an interesting brace of FPV camera ships along. He chased my Popsie around the sky, I'm waiting to see if he managed to capture an airborne photograph.

**Below**, Popsie and Bomber spent a pleasant morning gracing Awatoto skies.





## AROUND the BUILDING BOARDS June 2021





Blair Jepson has increased his portfolio with the purchase of this Reed Falcon model, bought from a deceased estate in Oamaru. The model was built back in 2004 from a Circus Hobbies kitset. It has a 1.5 metre wing span and is powered by a Saito 4 stroke motor. Good luck with that one Blair, looks a nice, interesting model.





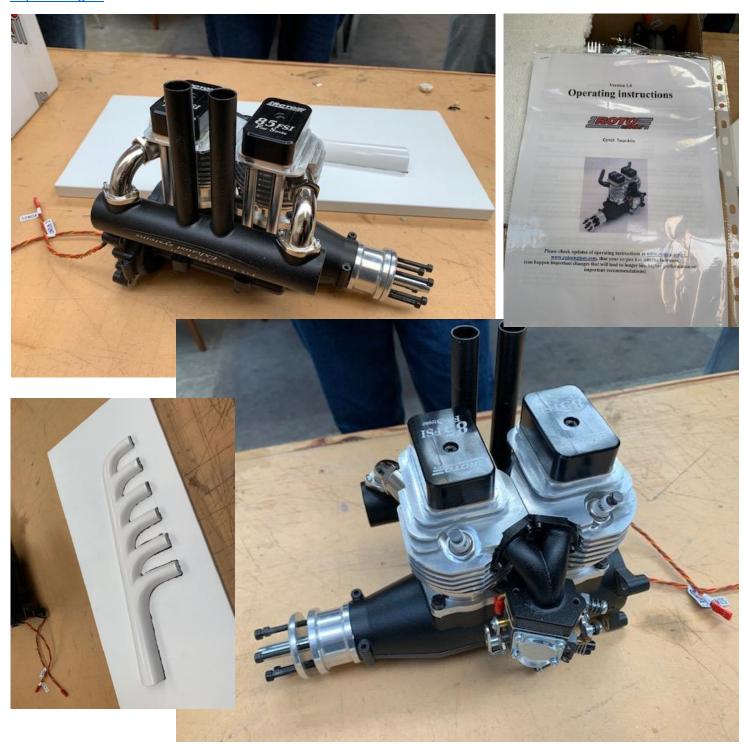


Our resident artist Brett Robinson has been putting his artistic bent to good use, he's just finished this "Pilot" for Barry Price's yet to be completed DH 2. "Joe" certainly looks the part though his piloting skills are yet to be tested!

OH Boy oh boy oh boy! Not a Lincoln Toy, but a real Roto Motor. Last year we published this photo on the left of Russ Nimmo's nearly finished DH4. On final assembly before covering it was found to be needing in excess of two and a half kilos of lead up front to get the CG in the ball park.

Russ took advice from Phil Sharp and has decided to swap the DLE60 for a Roto Motor 85 cc inline twin, and what a piece of machinery that is. We all oooed and aaahed over it in the shed this morning. At three plus kg it's not light, but will certainly help to solve the CG problem, swing a larger prop and have power to spare.

http://www.rotoengines.com/rotomotor/eshop/0/0/5/36-ROTO-85-FSI-two-cylinder-four-stroke-gasoline-RC-airplane-engine



A beautiful of piece of Czech engineering. The DH4 scale manifold on the left, Russ is using to make a plug and mold with Phil's help, to be made in carbon fibre (2 of). Working scale with the double exhaust leading into it on one side.

John Sutherland is overseeing the Large Model requirements (15kg+ and over 75cc). This model is going to be a joy to behold and listen to. Well done Russ, we look forward to it gracing the Awatoto skies. *Ed.* 

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Figure 2A

(2)

## This in from Rob Lockyer, a SebArt Wind S 50E

Rob Writes, An small, 62' electric pattern model, or F3A. Something to add to the aerobatic fleet next season. ( A

small electric model to go in my small electric car!).

Second hand from Derek Whelan, never completed by him or the original owner.

I have been working in it over winter. Re worked a couple of things and made some missing parts.

#### Specifications;

Motor battery 6 cell, 4500mAh

Motor: 1400 Watt, 400Kv.

ESC: 90 Amps

Prop: 16 X10

All Digital, metal gear servos

Weight; 3.4kg (with motor battery)

The electrical setup uses one flight battery backed up by the BEC in the ESC,

So if the flight battery or switch fail the BEC will provide power to the receiver, be it at 5 volts compared with the flight battery's normal 6.6 Volts.

This setup gives me battery redundancy. The radio is setup up to alarm at 5.5 volts, so I will know if the main system has failed and hopefully land using the BEC.

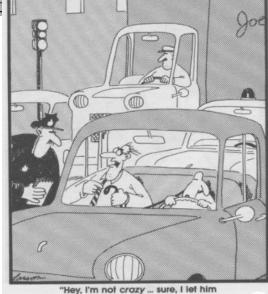
Nice one Rob, look forward to seeing it performing Aerobatics. At AWATOTO. Ed





FCS





## Drone Racing at Awatoto June 2021



I'm sure many of us have been fascinated by the activities of our new memore "drone flyers" operating at the eastern end of the Pits most Sundays. I certainly have been and I approached Jack Clark and his family and friends to maybe give us some insight into their discipline and what they're about. Jack has come up trumps and sent in the following....

## Hi Barrie

Our journey started with a casual K-mart visit, in the toy section I found a small 40-dollar toy drone and couldn't help myself.

I was so in love with them I thought everyone should have one so I bought one of my friends one and he soon became addicted as well.

Several weeks and many broken K-mart drones later I was ready to move up in the world so bought my first bugs quad but very soon I was ready to move up again (Much to Jess's dismay more money so soon again). We had been watching lots of videos about FPV drones on Youtube so I decided to give it a go and bought an Eachine wizard running a 4s lipo from Banggood. This was much more powerful than I ever realized possible so crashes were a common occurrence and things started breaking, with that it was time to learn how to fix them and as time went on, I realized I could build a much better one from scratch, that's where the hobby got expensive! ( You could hear Jess groaning from Hastings!!)

For the first 2 years the focus was on "freestyle" flying and racing wasn't even on the mind, finding new locations with trees and picturesque back drops to fly around, hitting small gaps and trying to be as smooth as possible was the goal.

I soon got bored with that but didn't want to stop flying, we had recently heard of a group in wellington that race drones so we attended one of their events as spectators, the NZ open where people from Australia came over for a 3-day knockout event up in Rotorua,

after seeing the family focused and friendly warm environment, I had to give it a go and I've not looked back! My partner Jessica and daughter Tillie were also intrigued by the event and wanted to try out getting on the sticks themselves. (I was delighted as I had the green light to spend even more and she couldn't complain!!)

As the focus changed to racing so did the equipment, the drones we use now are built to be as light as possible using only 5mm carbon fibre arms and 4in 1 ESC's, rather than using a single esc per motor as we did in freestyle.

The frames are ultra-light coming in at only 59 grams dry weight, for racing the power was increased we now use 6s lipo batteries as standard paired with a 50amp per channel 4in1 esc and 2306 1900kv motors. with a 50-degree camera uptilt the batteries only last around 3 minutes if you're not too hard on the throttle but that's ok as the standard race is only 2 minutes.

Nearly 2 years after that we are still race focused and have bought the equipment to set small tracks at the lovely model flying Hawkes Bay field, slowly introducing new people to the sport and convincing their partners to give them a drone budget ③. The goal is to get to a point in which we can compete with other clubs but mostly enjoy the family time and have fun! So come down and say hi we just love to chat about the sport if anyone has any questions, you will find us down the far end jamming on the sticks.

The follow are some pictures of us and our activities to give an insight into the wonderful world of

"Drones"

**Photo 1:** The first photo of the quad on the scales. This was my first race build and first 6s quad, (mode2 ghost) it was a minimalistic frame. this frame was so bare one could nearly not fit the electronics inside. this quad only had about 4 flights before it was a write off due to its design and exposed electronics.

it nearly put me off racing. After that we turned to the hyperlite floss frame which is a good balance between weight and durability and have been using that since.

**photo 2:** One with the screen and jess flying. this was shortly after we

attended the NZ open, this is one of jess's first flights after spending some time on the simulator



**Photo 3:** The one with Tillie and a bare frame.



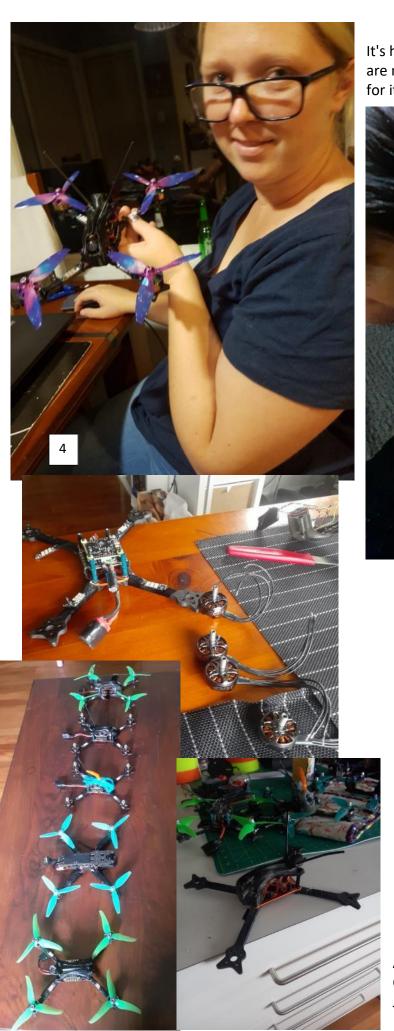
Tillie started off with a tiny hawk but that was not suitable for outdoor flying due to its small size and lack of power. this quad the (TBS source one) was bought for her for her 8th birthday and we slowly built it up for her over time as behaviour permitted.

that frame lasted her around 6 months and now sits in broken pieces on her draws but she refuses to bin it or gift any useable parts to others. She now flies a freestyle type quad the Impulse Rc reverb when she's not distracted by the other kids at the field.



Photo 4: The one with Jess holding a finished build.

this was Jess's first build, she built it over lockdown. after some soldering lessons it took her around 12 hours to build. she was very proud and still has the original frame and motors today. it's been through many cameras and flight controllers but remains her favourite quad to fly.



It's her baby and is like gold as the original motors are no longer made, she even has the original props for it when it was built.





Above, some random photos of our operation. Come and visit and experience our fun. Jack Clark. MFHB.

## Aeromodelling in the UK: SAM1066 John Andrews

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In return for a favour from Barrie Russell, I am tapping out a few words at his request on various aspects of our aeromodelling obsession here in the UK.

Who am I: I am the ageing editor of 'The New Clarion', the online monthly newsletter of the Vintage/Classic Free-Flight society SAM1066 here in the UK. The society is a splinter group of free-flighters from SAM35, set up by one David Baker after some long forgotten disagreement way back before my renewed interest in FF. Our society, SAM1066, well over 25 years or so back had the use of what was said the largest grass airfield in Europe, at Middle Wallop.





Looks pretty big to me, would not want to mow it with me fly-mo.

The society flourished in the late 1990's at Wallop, running contests throughout each year culminating in a three day event which was acknowledged as one of the largest in Europe. To give you some idea of the size of attendance, there was always a mass launch at the end of the meeting and flyers had to sign in, there were over 400 models flown one year.

The society was something of a one man band run by David, he assembled copy for the monthly A5 hard copy magazine 'The Clarion' which kept the society together. The society prospered until he became very ill and eventually publication of 'The Clarion' ceased and the society foundered.

Thankfully some time circa 2006 three wise men, Mike Parker, John Thompson and Lindsey Smith rejuvenated SAM1066 and the society was up and running again. Lindsey had military ties and was our liaison officer with Middle Wallop, this got our meetings up and running again. The new organisation is all electronic and all matters are handled on-line. It was decided that no membership fee would be charged and society income would be derived from gate fees and competition entries, this situation still survives today. One member, Vic Willson, was persuaded by Mike Parker to start up a new newsletter and thus the 'New Clarion' was born. The magazine is only published on-line and can be accessed from the society web-site:

www.SAM1066.ora

The first copy came on-line in January 2007, I took over as editor due to the untimely death of Vic in February 2010 and still soldier on.

The society flourished yet again, principally due to the ideal flying field at Wallop. Competitions were well supported and there was always a large contingent of sports fliers. Many flying the old American designs with the unmistakable exhaust bark of their vintage spark ignition engines. We had a well-stocked prize presentation table with quite a few impressive trophies, the source of which I never really discovered. I did however partake of a bottle of wine or two which are awarded to the winners of the various competitions. Usually for the first three places.





Easter meeting 2012. - This lot is just about as vintage as you can get.



2010 Championships - Fliers gather for the prize presentation, took a while.





2009 yours truly picks up 'The Jaguar' trophy and a bottle of wine.

Presented, from the well laden trophy & prize table, by John Thompson (deceased) our chairman at the time.

It was in 2016 that the society almost came to an end, health & safety issues within the military and a new station commander together with a new airfield manager culminated in SAM1066 finally losing Middle Wallop as its flying venue. The committee, with membership approval, decided to carry on and use Area 8 of Salisbury Plain as our meetings venue. The use of Area 8 has been negotiated by the BMFA Free Flight Tech

Committee for weekend use, with prior approval from the MoD, who operate training activities across the Plain at regular intervals.

The Plain is an army tank training area and, although a vast area far greater than Wallop, movement across it is fraught with problems, many tracks being impassable by cars, even 4x4's can run aground.



Salisbury Plain from one of the useable flying areas

We continue to use the Plain although initially attendance at meetings was small by comparison to the good old days, difficult access, rugged flight recovery and ageing membership being suspected reasons. Things were picking up then the covid pandemic put all model flying on hold.

SAM 1066 is now just starting to pick up where we left off as restrictions are eased and we hope to continue to thrive, albeit, I suspect, not like the good old days.



The flight-line on the Plain 2017





8oz Wakefield Trophy winner, must have been a low entry as my Korda is not all that competitive.

Note the bottle of red tucked under me arm

Well that's SAM1066 to date, congratulations to those of you who manage to stick with it to the end.

**PS:** Our website www.SAM1066.org contains a great deal of information.

We are fortunate to have accumulated a huge archive library of hard copy magazines and digitised plans. Much of its content originates from the collection of David Baker & the kindness of his two daughters, who donated all of their father's extensive collection to SAM1066. The co-operation, liaison and work by Mark Venter of the Christchurch Club & Roland Friestad in the USA that went into the digital plan library by interchange has further boosted the plan content. The content of both the magazine & plan library are downloadable from our website.

The DBHLibrary is a permanent legacy in memory of our founder David Baker. John Andrews

# The Jodel / Robin.

**Harvey Stiver June 2021** 



Most aircraft enthusiasts will remember a French designed aircraft called the "Jodel" as there were more than 3000 built, with many countries having examples. Designers Edouard Joly and Jean Delemonte based the design on two of their earlier projects.

The design was known for its wing tips which were bent up by 28 degrees giving stability to learner pilots. The first "Jodel" example flew on 4 April 1950 with great acclaim from assembled viewers. The "Jodel" was of conventional tail wheel layout featuring a fixed spatted undercarriage with pilot and passenger side by side. History shows there were 30 variants of the "Jodel" mainly due to customer requirements, such as upgraded power plants, cockpit layout, fixed undercarriage brakes and the numerous types of kit sets available. Most "Jodels" were mainly built by amateur aircraft enthusiasts as they were able to obtain a plan and instruction set, partial kitset, full kitset or maybe for the few, a fully built, ready to fly "Jodel".

## The "Jodel" Specifications;

Cruise Speed 195 km/h Ceiling Height 5000 metres

Crew 1 / Seating pilot and passenger
Length 6.5 m.
Wingspan 8.22 m
Height 2.07 m
Empty Weight 345 kg
Gross Weight 600 kg
Fuel 30.63 US gal
Power Plant Continental C90 4 cylinder piston engine
Max Speed 207 km/h



I did find an interesting fact when researching this article, The French Airforce ( Armee De L' Air ) after 1955, ordered many "Jodel" aircraft as pilot trainers, they proved to be both a stable and safe aircraft to fly, as opposed to many other designs submitted. The only thing that got some trainee pilots in trouble was the tail dragger undercarriage with some ground loops resulting in flip overs and the odd broken propeller, no injuries were recorded.

# The main reason for the "Jodel" summary is I have recently obtained another version of the "Jodel" called a "Robin".

My "Robin" is a Graupner, German manufactured, ready to fly, fully scale model of the DR 400/160 "Robin" aircraft built by the Avons Pierre Aircraft Co.

The "Robin" was designed by Jean Delemonte and Pierre Robin and featured a luxury 4 person max capacity aircraft for executive travel. If you remember the American Morrisey "Bravo" that aircraft was designed for executive travel throughout the USA, had seating for pilot and 3 passengers. It was constructed to a high standard with the latest avionics, plush leather seats and lots of wood trim. It was a great plane to fly safely with long range and comfort for pilot and passengers. Manufactured by the Sig Model Aircraft Co. a model of the "Bravo" was produced, selling many. I bought a kitset for my first "Bravo", sold it sometime later and bought another fully built, both great planes to fly.

Back to the DR 400/160 "Robin" this aircraft was built for executive travel throughout the European continent with the latest avionics, plush leather seats all to the "Bravo" standard.

The "Robin" was first flown in 1972 and was soon ordered by many, with the company facing prosperity and an ensured future. Gone were the take off problems as the newly designed tricycle undercarriage proved to be a great success with no take off or landing problems.

The "Robin" Specifications
DR 400/160
Crew 1 / Capacity 3 passengers
Length 6.72m
Wing Span 8.72m
Height 2.23m



Empty Weight 600 kg / Max Weight 1100kg / Fuel 62 imp. gallon with 33 imp. gallon auxiliary Power Plant Lycoming 0-360A air cooled flat 4 cylinder Engine / Max Speed 278 km/h Cruising Speed 249 km/h/ Range 1,470 km / Ceiling Height 4,720 metres

I purchased the "Robin" scale model from Steve at Firebrand RC Taupo as he had required the model from a purchaser not able to complete construction.

As the "Robin" has a fixed nose wheel I needed to make a wooden cradle to transport the model and for storage.

As normal, when you take over an unfinished project you find strange issues to resolve. All the servo horn attachment screws had been Loctited into the servo horns without first centering the horns. I was able to remove all by a long screw driver with heat being applied and firm pressure on the screw driver.

I was then able to realign all horns and adjust prior to re-loctiting. The "Robins" DLE 60cc Twin Cylinder opposed petrol motor provided ample power, on test fly day, for level and mild aerobatic flight.

My son Andrew was test pilot for the first flights and said all was well with a correct C of G and little trim changes needed.

Graupner "Robin" Specs. DR 400/180 Scale Model Length 1.91m (75in) Wingspan 2.5m (98in)

Weight 11.5kg (25lbs)

Power DLE 60cc Twin opposed petrol engine

This model is from the Graupner ARF range.



Patron.

Model Flying HB Inc.



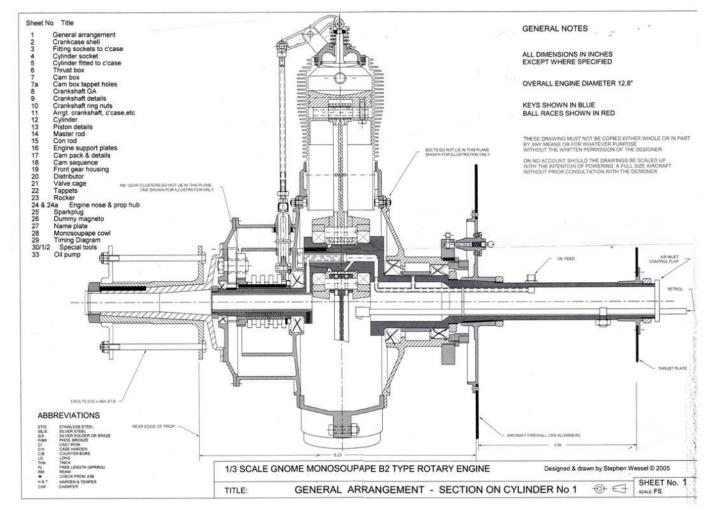


## Phil's Rotary Magic. June 21



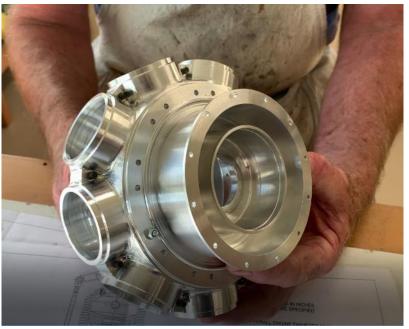


Following success with his Storch taking the "Pilots Choice" Trophy at this year's Warbirds Rally, I asked Phil Sharp the obvious question, what aircraft next, maybe another WW1 Warbird? No, he thought he wanted a break. A few weeks later he handed me this sheet of paper and said, "been looking, what do you think of this?" ......



It looked like a single cylinder pump, but I could read the writing, and there it was, a 1/3 scale 9 cylinder Gnome Rotary engine. Are you serious? "Well, just thinking about it at this stage." A few weeks later he pulls out his phone and shows me this picture of a beautifully machined crankcase for a nine cylinder rotary engine. 'nuff said.

Artists speak with their paint brushes, writers with their pens and musicians with their fingers. I think Phil combines all these skills and produces some amazing results. A thing of beauty 'twill be music to our ears. Will follow this build with great interest and hopefully I can bring it to you over the next few months (he said two years, ha ha) for



your enjoyment. He says he's not in a hurry! (ha ha again). I think Anne- Marie is taking his lunch into the workshop on a regular basis.

A little edification, what is a Rotary as opposed to a Radial engine? A rotary has the crankshaft stationary and fixed to the firewall and the cylinders rotate around that shaft with the propeller being fixed to the front of the crankcase. It is in fact quite a simple motor with a lot less moving parts than say a radial. It is a single overhead valve four stroke engine. On the priming stroke, the valve stays open during about half the piston's decent filling it with air then closes and the rest of the down stroke lowers the pressure in the cylinder. At the bottom of the stroke the transfer ports open ( that's a ring of 45 x 0.9mm holes around the bottom of the cylinder) through which the fuel air mixture in the crank case is sucked into the cylinder. The piston rises for the compression (5:1) and firing stroke, fires at the top and as the piston nears the bottom of the power stroke, the valve opens again and releases the exhaust gases as the piston rises for the exhaust stroke, thus four cycles all through a single overhead valve.

The motor has no traditional carburettor, fuel from an electric pump is sprayed into the crankcase through the rear of the hollow crankshaft. Essentially the motor runs either on or off with the firing blipped on and off through the ignition switch. Some control can be obtained altering the fuel flow and Phil has yet to decide how he is going to attempt to regulate the speed. Monosoupapes (means single valve) therefore had a single petrol regulating control used for a limited degree of speed regulation. In early examples, engine speed could be controlled by varying the opening time and extent of the exhaust valves using levers acting on the valve tappet rollers, but this was later abandoned due to causing burning of the valves. Instead, a blip switch was used, which cut out the ignition when pressed. This was used sparingly to avoid fouling the spark plugs, since it was only safe to be used when the fuel supply was also cut. Some later Monosoupapes were fitted with a selector switch which allowed the pilot to cut out three or six cylinders instead of all nine when hitting the blip switch, so that each cylinder fired only once per three engine revolutions but the engine remained in balance.

I sound quite knowledgeable but don't you believe it, all the above information I've gleaned from giving Phil the third degree and having the odd peek on the web. Phil is building his engine from drawings by Stephen Wessel, an English engineer and celebrated flute maker now retired. He has built numerous scale working rotary and radial engines and a search of the web can reveal much about him and his work and hobbies.

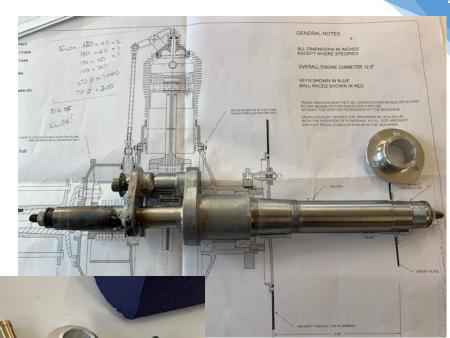
https://www.youtube.com/watch?v=sJLhpvOY3v0 Well worth a look, screen shot below.

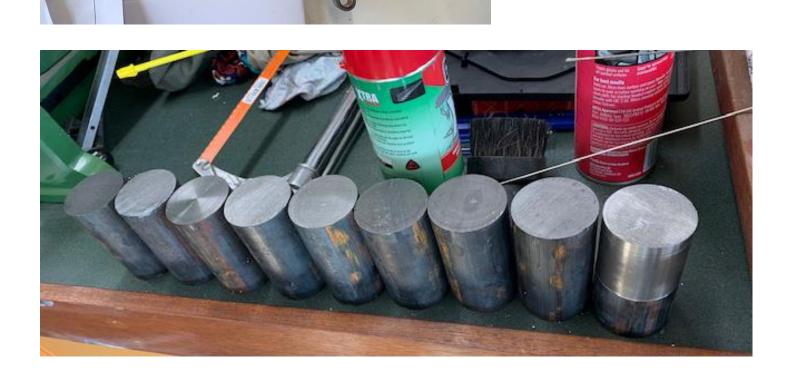


**Right.** The start of the crankshaft with it's threaded locking rings. It is still to be bored out, oil channels drilled, the journals silver soldered and the centre piece removed. Turned from a piece of 1045 medium tensile steel.

**Right.** The crankshaft shown here in relation to the engine drawing. At present covered in flux prior to silver soldering.

**Below.** Components of the Master conrod, with big end pins etc. Eight more conrod arms to go! All beautifully machined, he makes it look so easy





Nine cylinders all in a row to be turned and milled out from these rods of cast iron SG Iron - spheroidal graphite - (Mehanite)



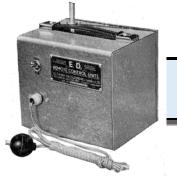
Work in progress at the lathe face. I think this is to become the end mounting plate on the back end of the crankshaft. Needless to say, Phil's workshop is filling up with drums of metal swarf! For every piece of metal billet turned in the lathe or mill, there is much more waste cut out than is used in the finished product.



And this is where the motor is intended to finish up, the "Pup". Keep watching, there will be lots to follow.

**To be continued.** Barrie the editor mfhb June 2021.

# What MODE? June 2021





This article sent in by **Mike S**, taken from the American Radio Control Modeller Magazine around 1973. Worth

# BACKWARDS SI SOMETIMES BETTER

# Or, How I Changed Transmitter Modes And Learned How To Fly BY CLIVE SADLER

This article is based on personal experience. Those who have the same physical quirk that I do, may find it provides immeasurable help in attaining a good measure of flying competance and enjoyment, with a simultaneous gross reduction in crashes, near crashes, and time spent on the bench rebuilding damaged aircraft!

Others may decide that I am fooling myself, forever relegating myself to the 'minor leagues' of RC flying. Doomed to awkward flying, never to fly with the ease and grace they are capable of. Perhaps they are correct, but I don't think so.

Remember, as you read the following experience, that "normal" is not necessarily a concrete, well-defined term. Normal for you may be abnormal for me. Keep an open mind.

We have all seen the occasional new R/C enthusiast who enters the hobby with all the proper equipment, a good reliable radio, easy to fly high wing trainer, a basic knowledge of building aircraft, aerodynamics, engines - - perhaps even a good grasp of the theory behind digital proportional radio. He (or she) is mature, willing to take advice when offered or willing to ask for it when in doubt.

He is safety oriented and insists that a more experienced flier test his new aircraft and eventually starts to take over the controls once in the air, at a safe altitude, feeling out the controls and in the event of problems, turning the radio back to the expert.

A perfect student! A novice everyone

expects to progress from the beginners stage to a qualified flyer in a few weeks, perhaps a "hot shot" flier within the year! This is often not the case.

Six months and 250 flights later our good prospect has still not advanced much beyond the proficiency he had had during those first few sessions. Our flyer is O.K. on take-off and flying high lazy circles, but when attempting to shoot touch-and-go's he becomes erratic, zooming and diving, spiraling down in a dangerous manner, all while attempting to get back on the ground or perhaps just straight and level and safe.

A windy day is disaster, a little gust upsets the aircraft and any attempts to straighten it out result in more and more erratic flight and the inevitable crash occurs.

Eventually, he tires of rebuilding after each session, costly radio repairs and frustration. He sells out and takes up golf. Lost: one good potential RC enthusiast and all for no good reason.

I believe the above flyer describes my entry into RC fairly well. I had a good quality, completely dependable 3 channel radio (O.S.) and a 7 foot glider (Lil' T) with rudder and elevator. I flew with both a power pod and off the Hi-Start. I also had a high wing .19 powered trainer. After approximately 200 flights on the glider, I still could not fly in wind, as any upsetting of the aircraft which required simultaneous operation of both rudder and elevator caused wildly erratic flights. The only way I could fly was to fly the glider as a rudder only, using the elevator trim tab for pitch

control. If I ran out of trim range, watch out!

The power plane was even worse. Although I had over 150 glider flights before my first power flight, of the 15 flights I made on the power job, 10 resulted in damage and the remainder could, at best, be called controlled crashes. Practice was just not the answer!

In the Fall of 1970, Kraft Systems brought out its 2 channel "brick" radio. To the consternation of most people, it had an "awkward" (Mode I) stick arrangement, elevator on the left single axis stick, rudder on the right. I bought one figuring that I could do no worse than the conventional (dual axis) stick arrangement that I had been using. It was installed in the glider.

The first flight was a disaster, a complete wipe-out trying to give up elevator with the rudder-only stick. A rebuild job was followed by an hour of "dry flying," piloting an imaginary aircraft with the dual stick arrangement.

Back to the field and BEHOLD it's a whole new ball game. The glider settles down. I can fly it out of trouble by operating both rudder and elevator simultaneously, without thinking about it! It was completely natural to fly with both hands.

I sold my 3 channel radio, bought the Heathkit 3 channel system (dual single axis sticks) and, presto, instant success! I'm flying under full control. No zooming, no spiraling. Crashes have been reduced by 95%. I feel secure in the hobby now and I moved to a Cirrus glider and to other power planes. Still no problems! It's natural for me!

My method of flying is not without problems. No one else can safely test fly my new models, so I do it myself. I cannot fly other aircraft at the field, while others cannot fly mine. But, most important, is that I found the key that opened the door of RC to me.

What is the reason that I can fly a radio system that others find awkward or impossible, while I cannot handle a system most others find normal? Perhaps I have a simple neurological quirk; I don't know, but I do know what works for me.

The only real problem I have with my method of flying is attempting to convince others that I am as comfortable and natural flying my way, as they are flying theirs. This I can live with.

So, if you know of someone who just can't seem to "grab hold" in spite of continued practice, suggest he try the "backwards" way.

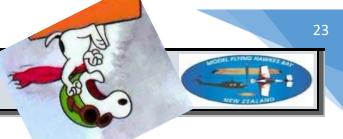
To try it out, simply set up your transmitter as shown below:

LEFT STICK RIGHT STICK
Elevator Rudder (Aileron on 4 ch.)
(Rudder on 4 chan.) Throttle

The 4 channel arrangement is, of course, Mode I. (For lefties, perhaps the above could be reversed?)

Remember, at first it may seem awkward, so get a slow stable aircraft up high so you can feel it out. Try it. You may like it

# Classic Pattern June



Interest is growing with several of us wanting to build what takes our fancy. The trouble is that our "Fancy" changes every time we open another classic pattern link and see another beautiful pattern-ship from bygone days! The Senior Pattern Association (USA) <a href="https://seniorpattern.com/">https://seniorpattern.com/</a> is a great site to let your

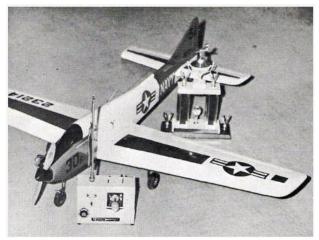
imagination juices run!

So what's catching our members' imagination .....

Here's Mike's dream ship, a Don Coleman CUTLASS.

<a href="https://outerzone.co.uk/plan\_details.asp?ID=12836">https://outerzone.co.uk/plan\_details.asp?ID=12836</a>

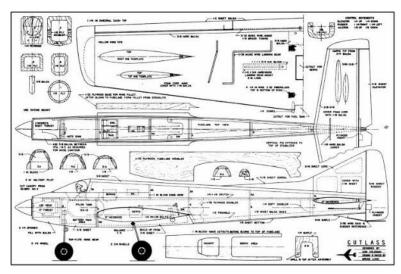
Mmmmm ?





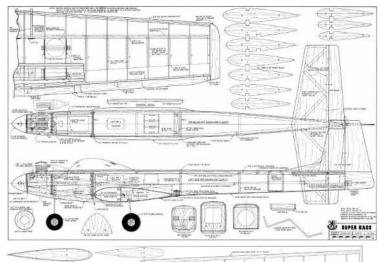
Then Jayden has his say.... EL GRINGO more modern https://outerzone.co.uk/plan details.asp?ID=5523

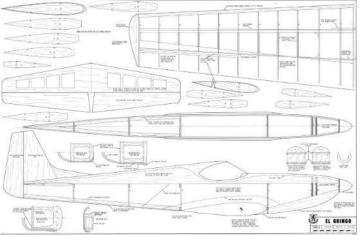




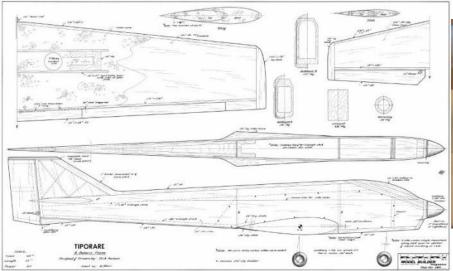
Then we have Robert's dream ship ... the **SUPER KAOS BY Joe Bridi.** <a href="https://outerzone.co.uk/plan\_details.asp?ID=5523">https://outerzone.co.uk/plan\_details.asp?ID=5523</a>

Mmm I wondered what the attraction was?





Then of course, I have to have my say, the most beautiful model of all of them, Oh Hail the "TIPORARE"







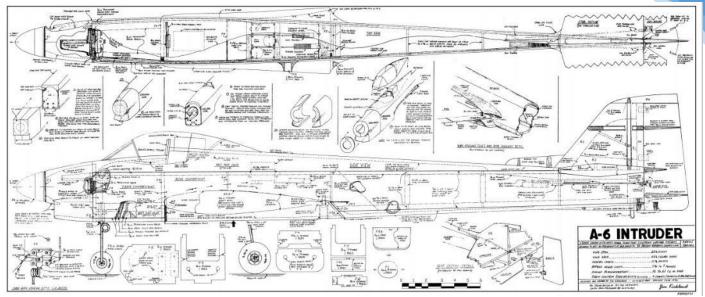
I've opted for a tail dragger configuration based on the KISS principle. Powered by a (NIB) OS 61 FSR and built light enough I hope to not need a pipe. At the last weigh up I was looking at 6lb before covering and have just covered the bottom of the wing with film which added only one ounce. Work in progress.

Now would you believe, Robert our Treasure is having another Classic

love affair. **Stinky** went to the Waharoa Classic pattern day and then on to the Tauranga aircraft auction on the Sunday and look what he brought home for **Robert**. A Jim Kirkland classic pattern **A-6 Intruder**. Looks an interesting restoration project, and the bones are certainly there.







Wow, the list is growing, there will be Classic Pattern aircraft appearing everywhere, Great, let's get flying and practising and competing. Have you signalled your interest to Mike yet? Roll on some flying and competition.



# UINTAGE REPORT June 2021



**Saturday 12<sup>th</sup> June.** Perfect weather for Vintage RC NDC flying. Small turnout, Just Russ Nimmo, Mark Larsen and myself, with Mike, Anthony and Danny arriving to help with the timing. With NDC, it pays to fly the competition when you get a good forecast, the rest of the month could be C R A P! Today was beaut, no wind and reasonably

buoyant air. We each flew three flights in both Vintage Duration and Vintage Precision, the comps set down for June. Neither Russ nor Mark have much NDC vintage competition experience, and both flew well with some excellent results, scores on the board for MFHB.

Below, Mike timing for Russell who is all concentration flying his Playboy, a beautiful model.





Stanley flew his NDC the following day, Sunday 13<sup>th</sup>, I timed for him and he put in a good performance apart from his landing on the third precision flight when he suffered a "Senior moment" forgetting his ten age bonus points available and could have made the spot easily!

#### NDC Results; Precision.....

NDC Event Number	134   Jun/21   VINT   RC Vintage Precision
Members MFNZ Number	11417
Members Name	Russell Nimmo
Club	018 Model Flying Hawkes Bay Inc
Total Score	191 / 200 / 200 = Total 591
NDC Event Number	134   Jun/21   VINT   RC Vintage Precision
NDC Event Number  Members MFNZ Number	134   Jun/21   VINT   RC Vintage Precision
Members MFNZ Number	2287

NDC Event Number	134   Jun/21   VINT   RC Vintage Precision
Members MFNZ Number	12510
Members Name	Mark Larsen
Club	018 Model Flying Hawkes Bay Inc
Total Score	200 / 196 / 200 = Total 596

NDC Event Number	134   Jun/21   VINT   RC Vintage Precision
Members MFNZ Number	10922
Members Name	Stan Nicholas
Club	018 Model Flying Hawkes Bay Inc
Total Score	200 / 200 / 189 = Total 589

## **NDC** RC Vintage Duration.

NDC Event Number	135   Jun/21   VINT   RC Vintage E Duration
Members MFNZ Number	11417
Members Name	Russell Nimmo
Club	018 Model Flying Hawkes Bay Inc
Total Score	315 / 311 / 320 = Total 946
NDC Event Number	135   Jun/21   VINT   RC Vintage E Duration
NDC Event Number Members MFNZ Number	135   Jun/21   VINT   RC Vintage E Duration 12510
Members MFNZ Number	12510

NDC Event Number	135   Jun/21   VINT   RC Vintage E Duration
Members MFNZ Number	2287
Members Name	Barrie Russell
Club	018 Model Flying Hawkes Bay Inc
Total Score	320 / 320 / 320 Flyoff 559 Total =1519
NDC Event Number	135   Jun/21   VINT   RC Vintage E Duration
Members MFNZ Number	10922
Members Name	Stan Nicholas
Members Name Club	Stan Nicholas 018 Model Flying Hawkes Bay Inc

It's a pity a few more didn't join in to make the best of the excellent conditions, but guess it all depends on availability. Looking ahead, July's RC Vintage NDC is for V & C Scale Texaco, Classical Precision and Sport Cabin E Texaco, get practising playmates.

\_\_\_\_\_\_

#### Harvey has just finished his latest build, Miss America, he writes...

#### **Miss America**

Previous article in April showed the start of construction of The Miss America from Hangar One kitset.

Finally finished, and now waiting, for some fine weather to test fly. Miss America was designed by Frank Zaic as a free flight model for spark ignition back in the 1930's.

Redrawn by Joe Wagner in 1964, the Miss America with the first radio control units proved to be a very popular design. Hangar One have produced many popular designs to add to their every growing list of semi-kits.

This models plans and laser cut balsa are of the highest quality. Over the years Peter Leaver and Gwynn Avenell have researched techniques to improve their products.

As always when you are adding radio control and better motor types to a previous free flight model the need to strengthen the design is well thought out by the Hangar One team. Have looked through Frank Zaic's designs, which are many, for a future project to start, once a few other upgrades have been completed.

## Harvey Stiver.



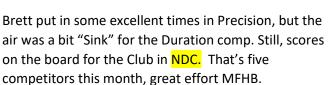


**Hello Squaddie,** Are you reading this? This is the model I was suggesting to you for your next excellent Vintage build. Go talk to Harvey and then look at <a href="https://www.hangarone.co.nz/shop/laser-cut-aircraft-kits/vintage-aircraft-kits/miss-america-84-35-45-size-vintage-laser-cut-short?qn=Vintage%20Aircraft&qp=5">https://www.hangarone.co.nz/shop/laser-cut-aircraft-kits/vintage-aircraft-kits/miss-america-84-35-45-size-vintage-laser-cut-short?qn=Vintage%20Aircraft&qp=5</a>

\_\_\_\_\_

**Saturday 26**<sup>th</sup> . Last chance at June NDC. Brett flew both Vintage duration and Precision. Seen here being PATRON-ised by Lifer Harvey who came out to test fly his Miss America. A lovely model, but just before launch a problem with the fixing of the rudder and elevator showed up so the testing was left for another day once remedied.





NDC Event Number	134   Jun/21   VINT   RC Vintage Precision
Members MFNZ Number	2980
Members Name	Brett Robinson
Club	018 Model Flying Hawkes Bay Inc
Total Score	200/ 200/ 200 + Flyoff 179 Total 799
NDC Event Number	135   Jun/21   VINT   RC Vintage E Duration
NDC Event Number  Members MFNZ Number	135   Jun/21   VINT   RC Vintage E Duration 2980
	· · · · · ·
Members MFNZ Number	2980

# SOARING REPORT June 21



## Kevin "Rowdy" Botherway reports......

#### Hawkes Bay Soaring report June 2021.

We have had some great turnouts of pilots for practices which has mostly been F5J on some great winter days. While some of us have to work Fridays have been quite a solid turnout and NDC comps in mind we are trying to pick the

best weather options for some good results. Andrew Hiscock got a NZ record in ALES 123 (class N) and Joe Wurts and Kevin Botherway equaled their existing one with maximum NDC points in the same event.

We had scheduled F3K (hand launch) and F5K (electric hand launch) for the weekend of 19th and 20th of June at our local Black Bridge field. Entries were good with 11 in F3K and 5 in F5K. The forecast wasn't looking great but as many had bookings for accommodation etc it made things awkward to postpone or cancel so we soldiered on. The Friday practice day was spectacular with toilet and Notam etc all organized we had John Shaw arriving from Timaru early and headed straight to the field for some flying. We did some F5J practice and then moved on to practice and electric and standard hand launch. The wellington boys were to arrive quite late after dark – so plan was to get straight into the competition first thing Saturday.



Sun tan lotion was in order for Friday it was almost full on summer again!



Andrew Hiscock and Joe Wurts preparing to fly F5J



John Shaw (Timaru) getting his F5J plus X ready

Saturday kicked off with the pressure of rain arriving in the morning sometime so we started off with some great soaring. The first round of handlaunch was a 5 minute flight with a 7 minute working time with 3 throws allowed. The thermals were very soft if found at all with overcast skies which made a 5 minute flight very hard. Next was electric unfortunately we had 2 pilots withdraw but still it was awesome to fly this new event and confirm its gonna be great in the future!

By round three of hand launch things started to get a little wet and we decided to abort for the rest of the day so we managed 31/2 rounds of F3K and 4 complete rounds of F5K this was advised at the start if we had 4 complete rounds we would have enough for a full competition. It was awesome competitive flying with lift being so soft and hard to find many got caught out early in their flights and the ground got in the way which made some short flights. The great thing with the rain was we had time to have a meeting



between all the pilots and talk about planning our Nats schedule for 2022 and came up with some great ideas for this. Then we all agreed on a venue for a night out at Brave Brewery – Hastings

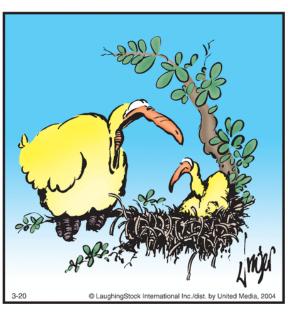


Scores online: http://www.gliderscore.com/OnLineScores.aspx Cheers,



"Who d'you think wants to drink that after you've been sitting in it?"

Cheers, Rowdy.



"I had over 200 hours of flying time when I was your age."

The last weekend of June was busy with the soaring "Boys" getting three competitions completed for the month's NDC Soaring.

**First up ALES 200**. Open to any electric powered sailplane, powered to a 200 metre launch height and in this case a 10 minute flight time and landing points.

1<sup>st</sup> Joe, 2<sup>nd</sup> Kevin, 3<sup>rd</sup> Andrew.

1	ALES 200										1										
2	Date	27/06/2021			100	Round 1		Round 2						Round 3		Round 4					
3	Pilot	MFNZ	Total	Min	Sec	Landing	R1 Score	Min	Sec	Landing	R2 Score	Time	Sec	Landing	R3 Score	Time	Sec	Landing	R4 Score		
4	Joe Wurts	9725	2349	9	41	50	631	9	11	45	596	9	35	50	625	7	32	45	497		
5	Kevin Botherwa	7554	2330	9	59	50	649	8	32	50	562	9	54	50	644	7	5	50	475		
6	Andrew Hiscock	8992	1989	9	18	50	608	9	14	30	584	6	9	40	409	5	38	50	388		

**ALES Radian Class P.** for Radian or equivalent 2m all foam models. 200 metre launch height and 7 minute flight time with landing points.

## 1<sup>st</sup> Andrew, 2<sup>nd</sup> Joe, 3<sup>rd</sup> Kevin.

1	ALES Radian Cla	ss P																
2	Date	26/06/2021			F	Round 1			F	Round 2		Round 3						
3	Pilot MFNZ		Total	Min	Sec	Landing	R1 Score	Min	Sec	Landing	R2 Score	Time	Sec	Landing	R3 Score			
4	Joe Wurts	9725	1145	5	29	25	354	4	56	25	321	7	0	50	470			
5	Kevin Botherwa	7554	1103	4	43	50	333	4	10	50	300	7	0	50	470			
6	Andrew Hiscock	8992	1232	6	7	50	417	5	26	50	376	6	54	25	439			

## **F3K** Discus Launch Gliders.

## 1<sup>st</sup> Joe, 2<sup>nd</sup> Kevin, 3<sup>rd</sup> Andrew.

1 F3K NO	DC			Task	B Last	2,41	ninut	te max	Tas	Task D Two Flights only, 5 minute ma Task G Best 5 flights, 2 minute max									Tas	Task H Best 4 flights 1,2,3,4 maximum (flown any c														
2 Date		26/06/2021		Flig	ht1	Flig	ht 2		Fli	ght 1	Flig	ght 2	11		Flig	ht 1	Flig	ht 2	Flig	ht 3	Flig	ht4	Flig	ht 5		Fli	ght 1	FI	ight 2	Fli	ght 3	Fli	ght 4	
3	Pilot	MFNZ#	Total Sco	reMin	Sec	Min	Sec	Score	Mir	Sec	Min	Sec	Score		Min	Sec	Min	Sec	Min	Sec	Min	Sec	Min	Sec	Score	Min	Sec	Mir	Sec	Min	Sec	Min	Sec	Score
4 Joe W	/urts	9725	175	3 2	20.0	2	46.0	306.0		2 27.0	2	5.0	272.0		2	0.0	2	0.0	1	59.2	1	59.6	1	50.2	589.0	3)	46.0	0	2 0.	)	3 0.0	4	0.0	586.0
5 Kev B		7554	168	6 2	39.0	2	19.0	298.0		2 14.0	1	20.0	214.0		2	0.0	2	0.0	2	0.0	2	0.0	1	48.2	588.2		46.2	2	2 0.	)	2 59.9	4	0.0	586.1
6 Andre	w H	8992	146	8 1	13.0	2	13.0	206.0		2 24.0	1	43.0	247.0		2	0.0	2	0.0	2	0.0	1	40.3	1	45.2	565.5		1 0.0	0	1 47.	7	2 3.0	2	38.6	449.3





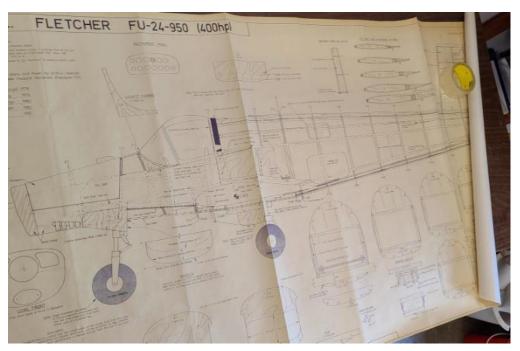
# FOR SALE / Wanted June 21

Frank Jaerschky our retired ex-Flight Controller and member, now living in Canada has been having a clear out and is offering this set of Fletcher plans for sale from NZ Aero Products. **He is asking \$50.00 US** 

**ONO** which includes postage.







If anyone is interested, please give me a call on 06 8353896 and I will put you in touch with Frank. *Ed.* 

\*\*\*\*\*\*WANTED \*\*\*\*\*

**Mike Shears** is looking to beg, borrow, buy or steal a Robart air retracts **pump** with gauge.

If anyone has one they're past using, could they give Mike a call on **027 420 5480** 



# A CLOSING SMILE. June 2021





This contribution from John Andrews, Editor of the SAM1066 New Clarion Newsletter from the UK.

#### Candidate for a Pullet Surprise. by Mark Eckman and Jerrold H. Zar

I have a spelling checker, It came with my PC. It plane lee marks four my revue Miss steaks aye can knot sea. Eye ran this poem threw it, Your sure reel glad two no. Its vary polished in it's weigh. My checker tolled me sew. A checker is a bless sing, It freeze yew lodes of thyme. It helps me right awl stiles two reed, And aides me when eye rime. Each frays come posed up on my screen Eye trussed too bee a joule. The checker pours o'er every word To cheque sum spelling rule. Bee fore a veiling checker's Hour spelling mite decline, And if we're lacks oar have a laps, We wood bee maid too wine. Butt now bee cause my spelling Is checked with such grate flare, Their are know fault's with in my cite, Of nun eye am a wear. Now spelling does knot phase me, It does knot bring a tier. My pay purrs awl due glad den With wrapped word's fare as hear. To rite with care is quite a feet Of witch won should bee proud, And wee mussed dew the best wee can, Sew flaw's are knot aloud. Sow ewe can sea why aye dew prays Such soft wear four pea seas, And why eye brake in two averse Buy righting want too pleas.

If you think you are smarter than the previous generation...50 years ago the owners manual of a car showed you how to adjust the valves. Today it warns you not to drink the contents of the battery.

\*\*\*\*\*\* And this just in from Alex W, it shor saz sumpin dunt tit!!

And my bridge partner Ash is at it again, worried about some of his aging mates. During a visit to his doctor, he asked him, "How do you determine whether or not an older person should be put in an old age home?" "Well," the Doc said, "We fill up a bathtub, then we offer a teaspoon, a teacup and a bucket to the person to empty the bathtub." "Oh, I understand," Ash said. "A normal person would use the bucket because it is bigger than the spoon or the tea cup." "No" the Doc said. "A normal person would pull the plug. Do you want a bed near the window?"

ARE YOU GOING TO PASS THIS ON, OR DO YOU WANT THE BED NEXT TO MINE? Nite, nite. Ed, MFHB June 2021.