

# Model Flying Hawkes Bay



## Club Newsletter #151 Aug 2023

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<b>Sun 3</b>	<b>CLUB SUNDAY Awatoto Field</b> <b>Father's Day Barbeque "High Noon"</b>
<b>Tues 8</b>	<b>COMMITTEE MEETING</b>
<b>Sun 10</b>	<b>CLUB SUNDAY Awatoto Field</b>
<b>Sun 17</b>	<b>CLUB SUNDAY Awatoto Field</b>
<b>Sun 24</b>	<b>CLUB SUNDAY Awatoto Field</b>
<b>Weekday</b>	<b>Field open Flying as usual.</b>

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**\*\*CLUB WORKING BEES NOTIFIED AS REQUIRED.\*\***

## VINTAGE & SOARING NDC September 2023

149	VINT	RC Vintage 1/2A Texaco
150	VINT	RC Vintage A Texaco
151	VINT	RC Sport Cabin IC Texaco
152	VINT	RC Sport Cabin E Texaco
430	SOAR	ALES 200 Class M
431	SOAR	ALES Radian Class P
432	SOAR	Thermal J (2,4,6,8,10)

**Contributors to this issue;** Brett Robinson / Barrie Russell / Marty Hughes / Paul Buckrell / Bernard Scott / Clive Baker / Barry Lennox / Joe Wurts / Kevin Botherway / Allan Baker / Mike Harris / Phil Sharp / Ash / Graeme Rose / John Sutherland / Rob Lockyer/ **E&OE.**



**Mike Harris's** friendly soul mate MAX, well known to all passed away this week. A regular and happy visitor to the Shed and Awatoto Field. **RIP Max**

## From the Editor's Desk;

Greeting's All, Well what started off as a blank page has finished up as a rather full canvas. MFHB Members have competed with distinction at both the World F5J soaring champs in Bulgaria and the F3A World Champs in Australia. It is with sadness that we note **Ken Duffell's** passing. **Phil Sharp** is back with his continuing Rotary Magic reporting good progress. **Bernard Scott** graces our pages again with his interesting series from his Old Propwash archives. **Paul Buckrell** shares his latest jet build Raptor F-22, and **Clive** continues with his aircraft series. My trip down south yielded some interest. Great to have the Web Cam back on line thanks to **Rob Lockyer's** ministrations. He is working on the weather station and will hopefully have that operational soon so at present ignore the current weather display. We have the usual reports and club activities and info, I hope you enjoy the read and look forward to your continued support with copy, comment, reports and pictures,

Barrie the editor mfhb

## Prez Sez.



As you read this , we are just about to or have just moved into spring. It's been a long cold winter.... So cold that I bailed for a couple of weeks during the month in search of some Sunshine. As I was away, I didn't get a chance to get into any members Workshops for the Marty's Members Workshop segment of Propwash this month . Sorry for that but tidy up those workshops because I'm coming for you.

On another note, Its with sadness that I accepted the resignation from Derek Whelan as our club captain and from the committee effective immediately . Derek has commitments outside the club for the foreseeable future and feels he can't do the job justice. On behalf of the committee, I would like to thank Derek for all his work and dedication on the committee over the last few years . His input and energy has been invaluable .

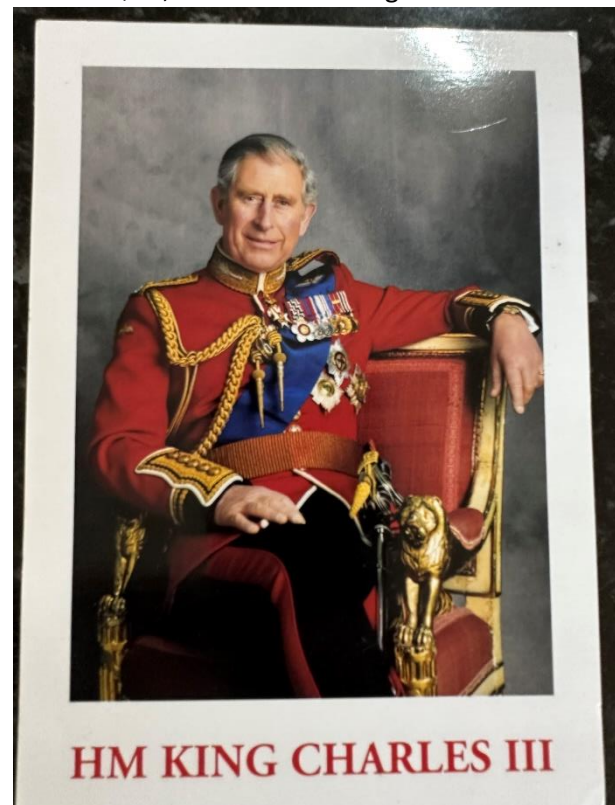
Now for some great news. As you know we had to replace the tractor as Cyclone Gabrielle claimed the last one. Our old Tractor was insured for \$15,000 but as it was a commercial policy, the replacement of that tractor like for like was as much as \$23,000. So the insurance company has paid to us the amount of \$23,000. Brilliant result.

Now the mower also went under . It was a reasonably new mower but once we dragged it out of the shed and water blasted it out, we found it was usable to get the grass cut , although Lance has already replaced some bearings and a belt. The insurance company has written off the Mower and paid out as much as \$16,300. We then bought the Mower back off the insurance company for only \$1,400 ..... Yes only \$1,400. WINNING!!!. We have ordered a new Mower that is bigger and wider and more suited to the Larger more powerful Tractor but it's a wait time of at least 3 months but we can nurse the old mower along until then . When the new Mower arrives, we believe the old Mower will have a resale value of at least \$6000. We can thank Lance for all the creative accounting. insurance has also paid out the first large chunk of cash for the club shed repair and the builder will start the rebuild very soon so you Tuesday coffee drinkers will have your Gang HQ back before you know it.

**Final note....** If this Propwash edition reaches the UK and Stan Nicholas is reading this..... Where's my bloody post card **Stanley???**

Marty out. **Marty Hughes** President MFHB.

**Ps.** So two days after writing my Presidents report I receive this post card in the mail . It's from our very own **Stanley** . As we know , English people don't go on holiday they go abroad . And Stan Nicholas was currently abroad so thanks Stan . Know I now know how it feels when the centurions get a letter from the queen ..... shame shame . **Marty**





## Secretary Reports.



### MEETING NOTES 08 AUGUST 2023

Not really a lot of business at this meeting, and with the President overseas eating scorpions and the like, we didn't want to make too many decisions. As you are aware, the field condition is improving all the time. Insurances have all been paid, the mower has been written off and a new one ordered. The builder will commence work on the shed this week, if all goes to plan.

Decisions have been made with regard to the fences: all fences will be removed and the wire cut into short lengths for destruction. The fencing posts are recycled plastic, have a 50 year life span and don't require insulators.

Future consideration needs to be given by the club to update our Safety Plan and get up to date with new regulation 102 (more to come).

Barry Kerr, MFHB Secretary





# VALE Ken Duffell

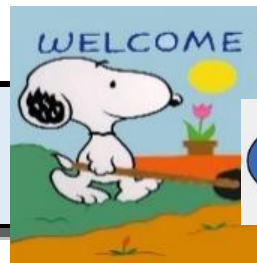


**Ken**, a significant long time member of Model Flying Hawkes Bay sadly passed away suddenly early this month. He will be remembered by many, John Sutherland a close friend writes;

*Ken was born 24<sup>th</sup> September 1950 and sadly passed away 12<sup>th</sup> August 2023. Ken had been a keen recreational fisherman and a dedicated Aeromodeller with a strong interest in gliding. He did a lot with F3 B and hand launch glider. He had participated in powered flight also and electric in later years. He had served on the committee for a good number of years using his expertise as treasurer. I started in the club in 1985 and that is when I first met Ken he had been designing and building a new glider which had not gone well and I could see from that he was serious about how things needed to be with his models. He has a son Sean and a daughter Kate from his first marriage and he and his late wife Janice had been together for over 30 years.*

**RIP Ken.**

# CLUB ACTIVITY August 2023



## Friday 4<sup>th</sup> August.

Message from our **Club Captain Derek** and **President Marty**; *Hi all, Just had an update from our Club Captain Derek to say the that Awatoto access has been re-instated. It's dry and the field is ready for some action.*

*Thunder Birds are go ... Awatoto is open. I'm away for a few weeks from Sunday afternoon so might not make it but looking forward to getting amongst it when I'm back. Happy flying and remember to keep the blue at the top and the green at the bottom.*

**Marty Hughes President MFHB**



## Sunday 6<sup>th</sup> August.

**Wow !** What a fabulous patch of HB winter weather that finished up reasonably warm, calm all day and dry under foot and the access was clear and dry also. Just like the early days at Awatoto Field before there were any facilities though the strip and outfield were way better thanks to **Lance's** ministrations. Attendance was good I counted in excess of twenty cars and pilots and the flightline was kept busy. There were a couple of casualties over the river area, not sure the cause, but generally most pilots managed to complete one landing per take off. I managed to catch some of the activity in the following pictures.





**Danny** was one of four members flying Club Delta's today, would have been five if I hadn't left my batteries behind ! **Mark, Phil and Myles** all had several flights with theirs. **Rob Lockyer** was doing the "Mode 2" thing and came to terms with **Mark's** delta and suggested that having the top and bottom in different colours might help with his orientation ! When I saw it gyrating in the distance it was a bit suspect ! **Myles** had his 26cc petrol powered Harvard above in flying mode.



Some thirty-plus years ago, I scratch built this Dago Red Mustang. Due to a rearward CG it's only flight was a disaster. It has resided in the roof for the past 30 years and before **Gabrielle** I decided to fix it or bin it. The old OS was locked solid so put new bearings in an OS 46AX that I had under the bench. Made repairs and adjustments, and new gear and test flew this morning. Turned out very successful and with fixed U/C it's a great Sunday Hoon machine. Gave **Mike** a flight so I could get some pictures and he had a ball !



**Graham Dawson** brought out his 3D printed Sabre and what a magnificent machine and so had to believe it all came out of a printer ! It flies on 6 Cells lipo ( 2x 3cells in series) powering a 90mm fan unit. Impressive on the ground and even more impressive in the air. No

effort taking off down the strip and cruised at a little over half throttle. Fully aerobatic and with flaps and retracts it really is the full deal.





**Anthony and Danny** were along with their foam airforce, and **John Sutherland** got in some good aerobatic air time until his tail wheel departed ? All in all a very pleasant day and great to be back on a well grassed and well presented **Awatoto Flying Field**.

### Sunday 13<sup>th</sup>

Nothing to report as I was away and there has been no incoming info.

### Sunday 20<sup>th</sup>

**CLUB WORKING BEE.** Very disappointing turnout, okay a bit of drizzle to start the morning though not enough to deter the **FIVE members** who turned out to start the mammoth job of clearing up. When you have a look at the hours put in by a few, particularly **Lance**, then you have to wonder what the membership expects.





**Sunday 27<sup>th</sup>** Another pristine weekend, average sort of turnout but those there enjoyed the morning. Sadly, **Graeme Rose** lost his Greenly Glider Tow aircraft which did not respond to any input after half a circuit and entered the ground vertically for a total result. **David Kenwright** had some great flights with his Mamba putting some real airshow manoeuvres, powered by a 70cc twin DA engine.



**Phil Sharp** had some good flying yesterday and today with his Storch. He was having a few engine tuning problems which affected a couple of flights, so was going home to check he carburetion system and tuning. He has really come to terms with this model and is flying and presenting it so realistically. Seen below in discussion with **John Sutherland**, ( his large model inspector)





Luke James flew this very nice P-51, DLE 20 powered ARF, looked and sounded great.

Wed 30<sup>th</sup>, too good a day to stay home and some members were out to play !



Most notable was **Mark's** Lidl adapted flying wing, **Stan** had two attempts at keeping it airborne but even his skills were tested, the jury is still out but maybe CG and control throws have a bearing ?????? Incidence ?? There sure was an incident !!

Graham Dawson flew this scratch build Mustang, electric powered on 5 or 6 cells ? Complete with retracts, flew well.

*And that's it for August. I'm not always available, so I would appreciate members taking pictures of activity at the field and sending them with copy. You all have phones and it only takes a moment to record the activity and email it.*  
Thanks, Ed.



## AROUND the BUILDING BOARDS Aug'23



**Paul Buckrell**, associate member from Wellington has shared this great Power Point presentation he gave to the Kapiti MAC clubnite on his F-22 Raptor turbine model. **Paul writes;**

*Thanks for the latest issue of Propwash that I always enjoy reading.*



*Attached is a PowerPoint presentation that I gave to the Kapiti club on my F-22 project. That night was the first time I had loaded the model into my station wagon. It fitted, but the bag containing the wings, fins and elevators had to be placed on top of the model. Unbeknownst to me while driving out to the meeting the wing bag slid back over a ply fixing tab for a fin that punched a hole in the top of the composite left hand wing. I wondered how the heck I would repair it and called on the services of Terry Beaumont who did repairs on fibreglass boats for many years. Five weeks later I got call from Terry to say that he'd effected the repair. That is a story in itself with special tools having to be made to manoeuvre carbon fibre tape and thin ply through holes in ribs and then press the tape and ply up into the top surface. A successful and strong repair that I'm now painting over.*

*The next steps are to adjust the left slat servo in the closed position a little, rerun the gyro wizard and check directions before loading it into the wagon and taking it up to Ashurst where Rene Redmond and Tarquin Brooks will inspect it. Hopefully I'll get it maidenend end September and continue with the 1 hour of test flights required.*

*In the PowerPoint I mention Wind RC is making a 1/5 scale F-22. Anyone interested can follow them on Facebook. They are at the stage of assembling the prototype for flight tests. It is of no interest to me because it is too big to fit in my wagon, too expensive and I'm never going to have a trailer.*

*Great to see that Awatoto is recovering thanks to the efforts of the local members.*

Kind regards, **Paul Buckrell.**

Click on [Paul Buckrells Presentation Raptor F22](#) to view Paul's PPT presentation in Pdf form.

Hi Barrie

As requested, some more photos attached.



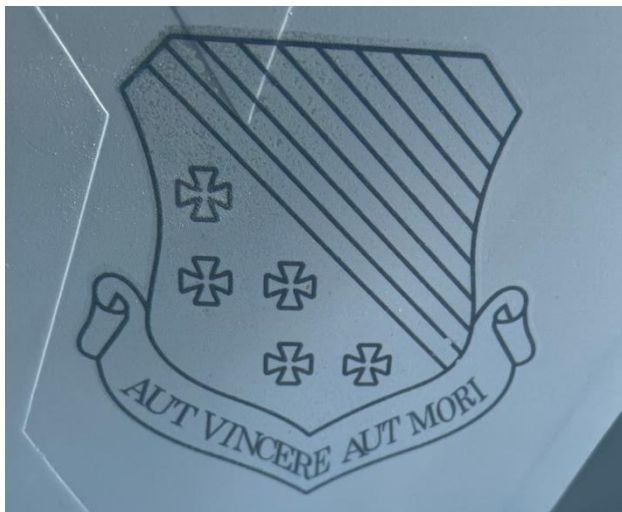
- The lights can be all on or all off. Even with all lights on the landing lights switch off at gear up.



- The British fast jet pilot figure was in my stock. At the completion of test flights I'll get a USAF pilot from Warbird pilots. I believe Adam Martin makes a detailed F-22 pilot.



- The rudders are direct driven from the servos. The model has all internal linkages.



- Fin detail is self explanatory. The number of rudder hinges was increased from 3 to 7 after a failure of the prototype and the layup is carbon fibre replacing fibreglass.
- 1Fighter Wing latin motto Aut Vincere Aut Mori translates to Conquer or Die.

- Experience with the prototype showed heat damage at the rear of the aircraft, particularly after a lot of high powered vector thrust use. Vector thrust is +/- 20 degrees in pitch only. Aluminium plates were added to disperse heat. You can just see part of a Unlight ultrabright afterburner ring. They glow orange above about ¾ throttle and are bright! All the emitters have heatsinks and should not be active until take-off due to the large heat buildup.



It now looks like inspection won't happen until Oct because Tarquin will be overseas all of Sept. The model is too heavy for me to safely lift onto a CG stand and Rene who is my inspector obviously can't help.

Hope this is useful to you.

Cheers, Paul.

# F5J World Champs Bulgaria.



The New Zealand Team or should we say the Model Flying Hawkes Bay Team representing New Zealand at the F5J 2023 World Cup in Bulgaria this month were; **Team New Zealand: Andrew Hiscock – pilot / Joe Wurts – pilot / Kevin Botherway – pilot / Jonathan Shorer – Team Manager / Jane Hiscock – helper / David Pratley – helper.**

This was last won by New Zealand in 2019 which included two of the three team members. There were approximately 30 teams which included 88 competitors that took part in the competition – a large part of the competition was held in high winds of approximately 40kph and New Zealand fielded 3 pilots as a team, two helpers and one team manager.



The following is the log copied from the team's Facebook page posted by team manager Jonathan Shorer from the 13<sup>th</sup> to 19<sup>th</sup> August 2023.

**New Zealand R/C Soaring** · *Day one complete. Phew! No planes damaged and decent scores all around. It has very very wearing spending the day in a 40 kph breeze with the tentage beating itself to death around our heads. It hasn't been uncommon to have all of the planes on the ground after 5 minutes. A standout round was someone who made 8 minutes. We have watched plenty of planes reversing over the landing area like some kind of canard plane but the fact is, if it can't fly faster than 40 kph, backwards is the way you are going and there has been plenty of downwards from however high you can get under power. But we have done pretty well. Rowdy and Andrew have both got 1000's and we have finished the day with the team 4th.*

*There has been some walking for land outs and quite a few models carried back in bits. We hope the wind will be slightly less tomorrow. We have a late start after the Juniors, but there is a whiff of lightning in the forecast.*



**New Zealand R/C Soaring** · *Competition day two.* Another equally windy day. The juniors were on first so we went out to the field at 10am. After nine hours out there, we know how chips feel when you turn on the air fryer. We have been pretty well blasted. Another day of climbing to as near 200 metres as possible then trying to find the least bad air. Lots of rounds of everyone down in 5 minutes. We have followed flocks of storks with their wings folded in to make headway and seen clutches of gliders reversing across the field. However, given the conditions, we have flown well and consistently. We have climbed to second position but we are not even halfway through the competition yet. There have been other factors. Yesterday, we heard the German team had a mystery tummy bug and this morning that the Australia Team manager was ill. By lunchtime Joe was under the weather and he had to persevere through feeling terrible. He had the odd lie down and was a bit perkier by round 6 to score a 1000. Living with the wind is a bit special. We have to tie the models down to avoid them being blown over. Chairs have to be laid down or they blow over and our tents all have holes as they gradually disintegrate. Hopefully, it won't rain later in the week.

*Lighter winds tomorrow and some actual thermalling. We hope so!*



**New Zealand R/C Soaring** · *Competition day three.* Be careful what you wish for. Today we started with light winds. We assembled light models and went out onto the field. We did pretty well. At lunch we maintained a solid second place about 200 behind the leaders and 650 ahead of the chasing pack. We had a lunch break then a photo session to get the "group photo" and resumed. Then wind had strengthened, which led to lots of debate about which model to fly and how much ballast to carry. The result was that Rowdy and



*Joe had poor rounds and Andrew did well. The air was very tricky. Hero and Zero were inches apart. But we have slipped back to 3rd. On the bottom step and some treading on eggshells with 5 rounds to go. The day has not been without excitement. During one round we got a call, "would the owner of the Opel come to event control" it wasn't that he'd left his lights on but rather that the loud bang we heard was a model impacting his roof! There have been a couple of mid airs resulting in carbon rain showers and a spectacular failure on launch leading to a graceful trajectory from ground to sky to back to ground again. Misery has been well distributed.*

*On the non competition side, the hills were shrouded in haze this morning with some quite pretty clouds and the flying field is home to lots of creatures. As you walk across the grass, there is a bow wave of grass hoppers leaping put of the way and plenty of mice dashing for their holes. In one of the photos below, you can see Rowdy launching towards the tree of thermal doom. Whenever we get near to it, bad things happen. Tomorrow the Juniors start the day, so by noon when we start, the wind is promising to blow. We hope to push ahead and regain a better podium position.*

## **New Zealand R/C Soaring. Yesterday at 7:04 AM ·**

***It is getting to the tense part of the competition.** We have tried to make steady progress at all times but conditions have been super tricky. Sometimes everyone goes towards the mountain and the lift is over the village, sometimes the exact opposite and then shortly afterwards, there seems to be no lift at all. The storks have failed to appear to show us where the lift is apart from the odd one furiously flapping across the field at low level. The Juniors had nice conditions in the morning but pretty much all afternoon the wind has blown between 30 and 40kph.*

*But progress we have made. In fact we are now sitting at the top of the table with two rounds to go. Kevin started the day flying in the first group and finished flying in the final group of the day at about 7.15pm. The real revelation has been Andrew in his first World championships making steady progress and is currently 2nd overall out of a field of 88.*

*Having finished quite late, we thought to pick up a Chinese takeaway. Entering the shop, a lady customer asked us if we were from New Zealand. "I come from Auckland" she said. I'm here visiting my mother in law. She rapidly became our saviour as the menu was only in Bulgarian. Having got our order, Jane thanked the owner in Chinese, bit she she didn't speak Chinese! If it hadn't been for our kiwi shirts, we'd have been eating pizza. In the photos that follow, you'll see a couple of shots of landing. Note how the plane is being hovered overhead in the violent turbulence and the energy in the stances of Joe and Andrew as the plane lances towards the ground.*





## New Zealand R/C Soaring

### **WE WON!**

*We had a tense final two rounds. It was thermally at first but suddenly the wind came up and it was back to trying to win the lottery of which side of the sky was the least brutal. After some tough days, Joe had better flights and we maintained a narrow lead into the final round. Joe flew our last flight in the fifth group and then we had the long wait for the competition to complete and the results be published. Eventually a cheer went up from the Australians as they had got two pilots into the individual fly offs. Joe did our sums and we held our breath until the score sheets confirmed that we were the winners. Second and third had swapped places and we extended our lead slightly. A great result for consistency and team play.*



## New Zealand R/C Soaring .

*The flying is done, the prize giving is done, all the other palava is done. The team managers bag is lighter by 60 shirts and the teams baggage is heavier by two trophies. The competition trophy is solid brass and very suggestive of the thermals that we have all searched for so hard. It is also another 8.5kg. The closing ceremony was held in front of the town hall and it was a great relief to find that the steps were used rather than having to crowd 4 people onto a small wooden box designed for one. We had best juniors best females, best seniors best junior teams best senior teams. Lots of flags going up and down. Only three National Anthems, lots of France, lots of Germany but last and most loved by us New Zealand. We are off to the capital Sofia shortly to begin our journey's home. This morning the wind is calm. Our battles with the conditions and the competitors are over.*

*It has been fun.*

**Jonathan Shorer,**  
**Team manager.**



***What a great effort and result Guys and Gal, MFHB are proud of you.***



# F3A WORLD CHAMPIONSHIPS Australia 2023



Ewan Galloway

18h · 🧑🏻



A successful campaign for the NZ F3a aerobatic world champs team in Warwick Queensland. This is the most successful team ever with Andrew 21st, Frazer 23rd, Sean 33rd and Steve 34th. The juniors Sean was 2nd which is an outstanding achievement at 15 and he is still eligible in 2 years time.

A lot of fine tuning and mentoring of a sound skill base by [Andrew Jesky](#) which definitely who finished 2nd overall definitely improved the end result by many places.



# Marty's Thai Dream



Our tired over worked and under paid (Ha Ha) President flitted off to Thailand this month for some R&R. He thought he was in aeroplane heaven and sent these shots back;

*Marty wrote; Wandering around the streets of Pattaya Thailand. At first I thought I found the missing Malaysian Airline flight 370 but this one isn't a 777 . !!*







## CLIVE'S CORNER. #11 July 2023

*Another month goes by and Clive continues his interesting series of aircraft, both full sized and some modelled by club members. This month in a double header he visits the early WW2 jet aircraft;*

### Meschersmitt 262. / Gloster Meteor

Sadly enough wars are times of great technological advances. One of the great advances of WW2 was the development of the gas turbine, a branch of the internal combustion engine.

In the car or aero engine hot gases exert pressure on the pistons which through a series of mechanical devices turn wheels or propellers to move the vehicle. They are complex systems involving lots of moving parts which reduced their efficiency. Various ways have been used to improve their power out-put. by the way the fuel-air mixture was loaded into the combustion chambers. Things like fuel injection, superchargers, intercoolers and sleeve valves. Slip stream was used to assist in extracting the used exhaust.

What wasn't realised until the 1930s that piston engines were not only limited by their own internal complexity but also that propellers were limited as a way of converting the energy of the engine into work. This limit was imposed by the speed of sound.

Engineers began looking for ways to build a completely different get round this complexity. Engineers had toyed with the idea of a very simple reactive engine for years. The basic process was to compress the gas and fuel, ignite it and extract the exhaust. The expansion of the gases produced a high-speed exhaust jet which drove the aircraft forward.

A German engineer Hans van Ohain proposed to take a standard piston engine and use this to drive a compressor that pumped air and fuel into a combustion chamber. It was simpler but still involved a complex piston engine. This engine was first flown in 1938 in the Heinkel 178.

In England a serving Flying Officer Frank Whittle proposed a pure jet engine to the RAF. He had realised that the exhaust gases could be directed through a turbine which could drive a compressor doing away with the separate motor. Unfortunately his compressor was centrifugal type which meant that the air flow had to be turned through 90° twice before it got to the combustion chambers and increased the diameter of the engine significantly and resulted in a loss of power.

Whittle's engine, and its derivatives were built by a number of manufacturers, and first saw service in the Gloster Meteor, a twin engined fighter, similar in configuration to the Messerschmitt 262. It first entered service in July 1944 in very small numbers. For security reasons it was only used within British airspace against the V1 also driven by a proto jet engine.

It remained in service until with the RAF, RAAF and several other countries until 1954. Nearly 4,000 were built, but its service record was poor with 890 lost to accidents. The Meteor saw service in the Korean war against the Mig 15 powered by a Russian licence built Rolls Royce Nene engine.

Three squadrons of Meteors were based at Biggin Hill. After three Meteors crashed into the nearby village on the same day and another one a few days later the local inhabitants expressed a desire for them to be moved elsewhere. The air force first offered to put a traffic light on the main road to show when the airport was operating but when this offer was rejected the air force acceded to their request and it is now home to a myriad of corporate jets as is Farnborough.

The RNZAF did not use the Meteor although one was brought to New Zealand in 1946. I remember it flying over Orakei School at about 300m making an incredible amount of noise, probably the cause of my deafness.

Frank Whittle was knighted for his efforts although he remained a Flying Officer in the RAF. However, the British government did decide that perhaps more recognition was required and gifted him a one-off payment of 100,000 pounds.

Today only a few Meteors are left. A Meteor was mentioned recently in RCM&E magazine. Ironically it is flown as a testbed for Martin Baker ejector seats, ironic because the original was never equipped with an ejector seat and a lot of lives would have been saved if it had been.

### Meteor specification

Length	13.59m (44ft 7ins)
Wingspan	11.33m (37ft 2ins)
Gross weight	4,846kG (10,684 lbs)
Max speed	970 kmph 600mph
Range	970km 600mph
Ceiling	13,000m (43,000ft)
Power Plant	2x Rolls Royce turbojet engines
Power output	16kN (3,600 lb thrust ea)
Armament	4x .20m Hispano cannon, 16x60lb RP3 rockets

Note The speed given here was for a specially prepared Meteor, high polished, tape covering for the gun ports etc.

### Messerschmidt 262

#### Specification

Wing span	12.6 m	(41ft 4ins)
Length	10.6 m	(34ft 9ins)
Gross weight	6173kg	(14,271 lb)
Max speed	900 kmph	(560 mph)
Range	1050 km	(650 mls)
Ceiling	11,450 m	(37,756 ft)
Power plant	2 x Jumo 2004B -1 axial flow engines	
Power out put	8.8 n	1980 lb thrust
Armament (typical)	4 x 30mm Mk 108 Machine guns	
	24 x 55mm RAM rockets & 2x250lb bombs	

In Germany Messerschmidt started work on the design of their first jet aircraft in 1938. Like the Meteor they were forced into a two engine configuration because of the limited power of the jet engines available. Unlike the Meteors whose engines were mounted so that their axis was on the midpoint of the wings they were slung under the wing on the Me 262.

But the Messerschmidt had swept back wings and the fuselage was limited in cross section. It is generally described as shark like which is singularly appropriate. It was significantly faster than the Meteor.

But everything was against it having any real effect on WW2. Germany had expected the war to be over quickly. There was no need to make a gigantic leap into new technology. The fighters that they started the war with were all they needed. To build new fighters involving new technology was defeatist.

The new engines operated at high temperatures which required special steels that Germany didn't have, hence were not reliable. The initial prototypes were designed with a tail dragger undercarriage. The efflux from the already low slung jet engines bounced off the runway interfering with air flow over the rudder and tailplane. It took an experienced test pilot to operate the main wheel brakes while accelerating to get the aircraft into a horizontal position. Once this was achieved a shorter take off was achieved. But it meant that the undercarriage had to be redesigned in a tricycle configuration.

And if the German aero industry had been reluctant to enter into new designs earlier in the war the Luftwaffe decided the jets gave them a new blank canvas. The Me 262 could be used anywhere. In short order they wanted in addition to the basic 262 fighters and fighter bombers

- specialised bomber destroyers with heavy cannon and supplementary rockets to destroy the myriads of B17 that were attacking them.
- a night fighter with addition accommodation for a radar operator.
- a two seat trainer.
- a reconnaissance version equipped with cameras
- a bomber version capable of carrying 2 x 250 kg bombs.
- an insulated version for use in the eastern front

At the same time suggestions were made for radical new high speed fighters and bombers powered by rocket engines and V-1 pulse jet engines.

All this when it was estimated that the number of operational Me262 to be around 10 to 20 at any one time, and their engines had to be stripped down and rebuilt after every sortie. There was a shortage of pilots and the allied pilots had quickly realised that the Me262 was vulnerable while landing.

Manufacturing was slowed by the damage caused by the Allied bombing campaign and had been forced to go underground or into makeshift accommodation in rural locations. Getting the finished machines from factory to aerodromes was difficult over the damaged railway system.

It was a case of too little too late. Quotes in Wikipedia suggest that of the 1,300 built only 25% became operational.

In 2023 two Messerschmidt 262s were built in Texas. They were powered by reliable American made jet engines and taken to England. They were flown at an RAF base at Fairford in conjunction with a Spitfire. One was subsequently gifted to the German people.

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## Info and Things August 2023



This interesting treatise from Allan Baker ( Nelson region) who is Clive Baker's brother and Phil Sharp's cousin. There must be some aviation genes there somewhere !

### **SPIN RECOVERY, especially in a HARVARD.**

**Clive writes;** Allan and I were having a discussion about spinning. I was talking about the antispin stroke on the Mark 31 Freighter, I couldn't see why it was needed. I was surprised by the drama in it 50 years on, in fact I have bowdlerised it a bit, and have broken it up into paragraphs but I am not sure if it helps.

#### **Allan's Comment;**

"Spinning. ALL aircraft will spin. Or so the wisdom goes. Some need inputs at very precise times and airflows. CT-4 was difficult to spin. In fact, it was only after delivery that they worked out how to do it. But it takes three things: a stalled wing, yaw, and (in a stable autorotation) pitch up. From the stall yaw induces more lift from one wing than the other which causes roll in the direction of the spin. Differential drag causes the yaw to continue and maintain the stable self-perpetuating state.

In the Harvard entering spin was easy. Stall the wing and kick in a bunch of yaw. And wait - not long either. In a badly rigged Harvard (and they were all different) tiny differences in wing incidence was enough to induce yaw with the stick back. With the wheels down and 20% flap they would all go into the incipient stage (pre-spin) and develop a full spin real quick. Once established the spin would be maintained even with rudder and stick neutral. 5000ft/min rate of down I recall. Harvard recovery was very particular, although the fundamental technique for all aircraft. Check direction of rotation with the turn indicator (the rate of turn was fast and it was easy to get confused about the direction), stop the yaw by full opposite rudder and hold it in,

Decrease the angle of attack by moving the stick centrally and progressively forward until the spin stops. Expect an increase in rotation for the last two turns before it comes out (due to the pitch down decreasing the effective moment of inertia from the wings and the conservation of angular momentum at work. (50 years ago but etched in memory). That's what fear does. Breath relief as the spin rotation increases but stay with the inputs, pushing that nose down. Don't begin pull-out at this stage. Centralise rudder.

Ease out of the dive and apply power when the nose comes up. Hold the stick central as after a prolonged spin eye nystagmus could set in and the subsequent eye flicking quite disorienting. Pull out with too much 'G' and she would stall and go again. Inhale 120 octane fuel spilling from the carb. Develop bladder cancer. At night time it was fun to watch the flames burn back over the canopy. We were only allowed to spin at night with an instructor. I was too chicken anyway.

**If anybody reading this is learning to fly and wants to experience spinning please listen to your instructor. Don't try it by yourself. And if you are a model flyer get advice before entering a spin."**



From Mike Harris, and interesting video look at the Seagull factory assembly line.  
[\(12\) MODEL FLYING HAWKES BAY. | A video of a trip through the Seagull factory for those interest | Facebook](#)



[https://www.insulationwholesalers.co.nz/Online\\_products/Architectural-Models-and-Model-Plane-Foam-AKA-Depron-p101886083](https://www.insulationwholesalers.co.nz/Online_products/Architectural-Models-and-Model-Plane-Foam-AKA-Depron-p101886083)

For those interested in Foam Board building.

There is a source of 5mm Depron from **Insulation Wholesalers** in Palmerston North At \$13.00 a sheet of 900 x 900 x 5mm it's dearer than Uncle Bills Foam board but a similar cost to the heavier artist quality FB but is a better all round closed cell product and can be formed with heat.



Plane Foam AKA Depron

**Architectural Models and Model Plane Foam AKA Depron**

\$13.00

Size (Per Unit)

5mm x 900 x 900 @ \$13.00 ea

In stock

Foam Core XPS Extruded Polystyrene sheet - AKA Depron. Widely used for Modelling, Diorama Base Foam Blocks, Miniature Landscaping Platform, DIY Terrain Scenery, High Density Styrofoam Plate Model Building, Architectural building concept designs, Signage, advertising, photo mounting, POP signs, exhibit displays, screen printing, arts & crafts and educational materials. Our Modelling foam enables designers to create their concepts in the smaller scale before moving on to the full scale build. Modelling foam qualities - Light weight, durable, rigid, waterproof, glossy and ultra-smooth closed cell structure makes it easy to cut/trim, sand, bend in addition Foam Core accepts most glues and paints. We use PBT couriers and ship to North and South Island please Click "Request a Quote" to have freight quoted for your

*I will be ordering a quantity next week which will keep the freight cost down. I've already sent a note out to the membership, but if you missed it and want some, get in touch with me pronto Ed.*





## South Island MAC's Roundup.

Just back from a ten day trip to **Dunedin** ( Mosgiel to visit my sister) and then **Christchurch** where I took the opportunity to visit some of the local Model Aero Clubs, view their activities and meet some members. What stood out like dog's things was how lucky we are to have the wide open unrestricted space of Awatoto Field. My first visit was to the **Dunedin MAC** who fly about 5K out of Mosgiel at their School Road site, which I found after half an hour of wrong turnings !



Needless to say the temperature was a few degrees cooler than HB but the reception was warm. I met their **President; Geoff "Smarty" Smart** seen below explaining the mysteries of his new swing wing foamy



and **Roger Dixon** a friend of our late **Harvey**, and will be known to some locals and has visited Awatoto.

Their models were a collection of small to medium sized electric and IC and gliders and like us they fly a circuit pattern beyond the flight line.





Then to Christchurch where I spent three nights with **Barry and Di Lennox** visiting his two local flying clubs and carrying out an audit **Barry's** workshop ! First stop was just down the road to the **Kaiapoi MAC** where they fly on a local farmer's field.

**Tuesday 15<sup>th</sup>**; **Barry** flew his FB Delta which flies great on a 2S lipo, but he flies that strange Mode 2 so I took my RX and TX down and borrowed his little "Sharkface" and had a ball, we had the field to ourselves and a nice sunny windless day made for a pleasant outing.



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**Wednesday 16<sup>th</sup>** dawned cloudy and cool and we made our way to the **Waimak Radio Flyers** field at Kendall Park where they fly per favour of the local council on the sport soccer field. **Barry** is Secretary. On the right here is their **President Lester** who is one of the club's four FB delta builders following our article, all of which fly very successfully I'm told.





It was a raw Christchurch day with a very grey cloudy sky which eventually turned to rain and we finished our morning thawing out in the local coffee shop. A very friendly group of mainly retired gentlemen flying mostly electric power and gliders and the odd medium sized IC trainer etc.

Always good to see how the other half live and fare and to make contact, an enjoyable experience. **Ed.**

## “Members’ Workshops” #12 August’23



A little different this month, with **Marty** being on holiday, I thought I’d share with you my trip to **Barry Lennox’s** emporium/ workshop/ man cave supreme. Barry may not be a member, but he qualifies for inclusion as he contributes more to our newsletter than most members ! ( Is there a message there somewhere ?) I spent three days staying with **Barry and Di** at their lovely home in Manderville, Christchurch. Much of which was in his workshop looking at and talking about some 60 years of aeromodelling and electronics accumulation ! It’s a real model aviation history as Barry qualifies for that “ I won’t throw it out as it might just come in handy one day” persona ! His shed is really three sheds, only two of which feature here ! Just a small collection of past present and future projects, what more could a man want ?? He has an extensive collection of modelling magazines and literature where we spent considerable time oohing and aahing over the articles and pictures.



Then I got a look at his transmitter collection and that is something to behold if you’re a fan of early model radio transmitters. His mission is to convert them to 2.4 Ghz to fly his vintage collection which with his electronic knowledge and ability is a breeze. All beyond me though !



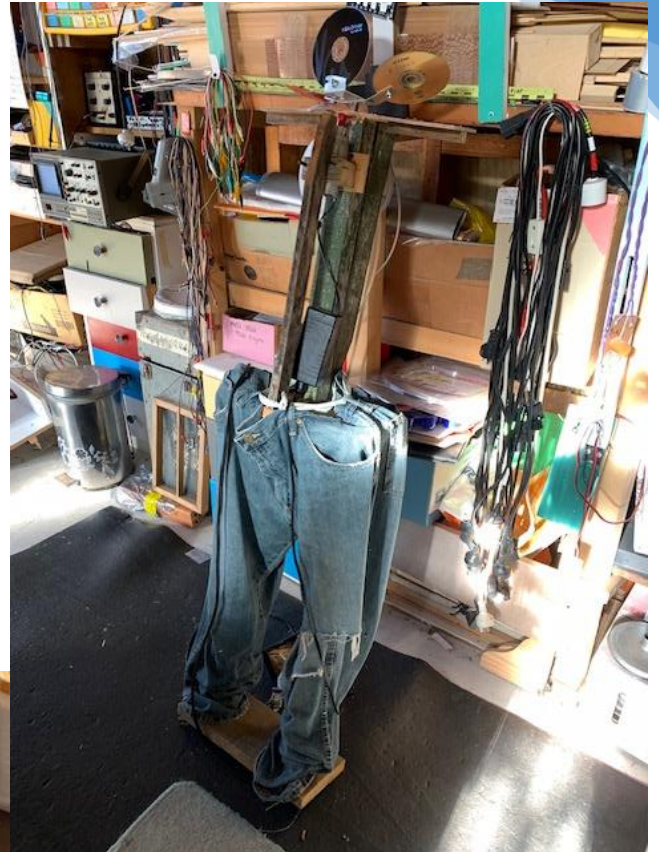
Of course his talents aren't just confined to aeromodelling and the need for a **working bird scaring scarecrow** in his orchard required all his mechanical and electronic skills to be put to the test. Unfortunately the





head fell off at some stage and has been transplanted with an array of spinning computer discs. Quite ~~frightful~~ frightening if I might say so.

There had to be a big plus to all this time spent workshoping and I spied an interesting box amongst his collection of **“Kits to be made in my retirement”** . A complete “Curare” Pattern aerobatic ship, a classical beauty from the designs of Hanno Prettnner. He admitted it was unlikely he would get around to building it and so after some long and deep discussion and the promise of swapping some motors, I became the proud owner and couldn’t get it on the plane quickly enough before he changed his mind. He had tears in his eyes when I left with it under my arm and I really don’t think he was **that saddened** to see me leave ?



A bus full of politicians took a curve on a country road too fast and it rolled down the hill and crashed against an oak tree on a field. The farmer, who owned the field, after inspecting the crash, dug a large hole and buried the politicians. About a week later, a policeman was driving by and noticed the wrecked bus on the field. So he knocked on the farmhouse door and asked the farmer what happened to the passengers. The farmer said that he had buried them. “Gosh! Were they all dead?” The policeman asked. **“Well, some of them said they weren’t,”** the farmer replied, **“but you know what politicians are like; you can’t believe anything they tell you.”**



## From the **OLD PROPWASH ARCHIVES.** Pt 4

*This is the fourth in a series of a history of the club back in the eighties drawn from old Propwash Bulletins when **Bernard Scott** was both Secretary and Bulletin Editor. **Bernard** continues to make the past available and keep it alive. Ed.*

### **PROPWASH : September 1987**

Click on the Propwash cover for the full bulletin. 

It was 1987 and most struggled to program their video players just to record the latest Coronation Street episode, so what they would make of the first topic for the September club meeting is anybody's guess.



**CLUB NIGHT** Sept 14th, 8:00pm, Pakowhai Hall.

After a demonstration of how to trim your video player for aerobatics, a tape on airbrushing techniques, then one on carrier aircraft.

The 'Prez Sez' column was full of joyful tidings: the end of the annual field closure for lambing season; a working bee to get the strip in order; clubhouse planning consent had been obtained; and a target of Labour Weekend was set for its establishment on site. There was more - the coffers were in a robust state with fifty-five paid up members, even though a few had not rejoined in protest against the various plans to develop the club (no, that's not a typing error).

Pit Spy had heeded the pleas of his, or her, followers and returned to the bulletin with a report that exposed the foibles of a good portion of the club membership.

A write-up on Vintage aeromodelling brought this area of flying to readers' attention. At this stage the NZ Vintage movement was in its infancy and it would be another year before the Association of Vintage Aeromodellers was formed. In 1987 there were five Vintage events and only one of them was RC, going under the catch-all name of Vintage RC Assist. HBRF member Graham Main was the Club's most active Vintage flier, becoming a motivator (a "Spark Plug" as they say in the USA) of the local Vintage movement. Graham devised rules for balancing Vintage designs with modern day equipment and performance. Not an easy task, yet much of Graham's input has stood the test of time and remains applicable today.

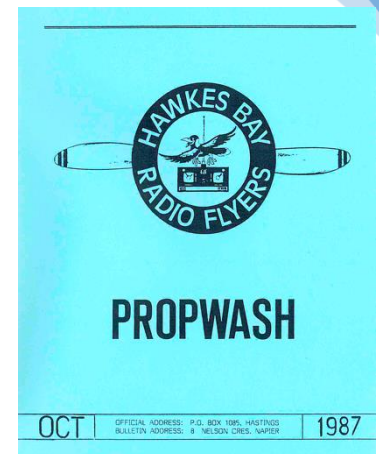
Name tags and frequency clips were to be distributed at the next meeting. The name tags went on to perform double duty when the club introduced its Wings Scheme, years ahead of the NZMAA initiative. Red and gold enamelled wings were attached to a member's name tag when the flight test was passed. All you old-timers have still got yours, right?



## PROPWASH : October 1987

Click on the Propwash cover for the full bulletin. 

It was announced that “the windy weather” was with us. Back then, we had the luxury of predictable weather patterns. Also announced was the upcoming report on Club developments.



CLUB NIGHT Oct 12th, 8:00pm, Pakowhai Hall.

SPECIAL MEETING Presentation of what you've all been waiting for...finalised proposals for field development, for your consideration, discussion, and hopefully, your approval.

Two contests had been scheduled for the field reopening day, Aggregate and Dead Stick. The first will be familiar to most, 30 minutes in which to rack up the most air-time with a free flight model. Only three tested their legs, lungs, and flicking fingers with Graham Main triumphing over John Urry\*\* and myself. It appears that we flew sequentially rather than together - perhaps there was a lack of timers. The Dead Stick contest was similar to today's Vintage RC Precision event, aiming for flights of 180 seconds with spot landings. Going by the name, landings were made with power off.

Pit Spy gave the Club Magpie a mention. This beautiful bird often graced our field with its inquisitive behaviour and morning songs. It became such a feature that it was incorporated into both Club and Propwash logos. During nesting season it favoured a willow at the corner of the flying field about 150 metres from the strip, and would leave its nest if a model came too close. This was not usually a problem but if fliers miscalculated and flew very close there might be a scratched canopy or a hole in covering. This seemed a reasonable arrangement - *don't threatened my babies and I won't chase your models* - but a shotgun ended the relationship.



Five members flew in the Wellington MAC Thermal Invitational at Levin with Harvey Stiver bringing home the bacon. And the contest cup.

*\*\* For those who remember John Urry, he is living north of Townsville, Queensland, and is still active in both free flight and radio control. When John moved to Australia he left me his 900 square inch Starduster, a free flight model in which I installed an OS.40 FSR. It flew in spectacular style - safe climbs to great height with many decibels from the un-muffled engine. When I in turn left Hawkes Bay the model was given to a club member – can't recall who, did it fly again? BS.*

# Phil's Rotary Magic. Pt 22 Aug '23



*Phil is back and writes;*

A short update on the Camel. As you know the last couple of months have been busy getting a bit of a rebuild on the heart and the eyes, both very successful fortunately.

I am really enjoying my flying again, and am looking forward to finishing the Camel to hopefully fly December time.

Since the last instalment I have finished all the covering and the rib stitching and have just made a start on the painting.

The covering, using Proffi Cover (all 16 metres of it) went well as it is a very easy product to use, and is very tough. Perfect for a large model although the frame has to be substantial as it has quite high shrinkage.



Fig 1

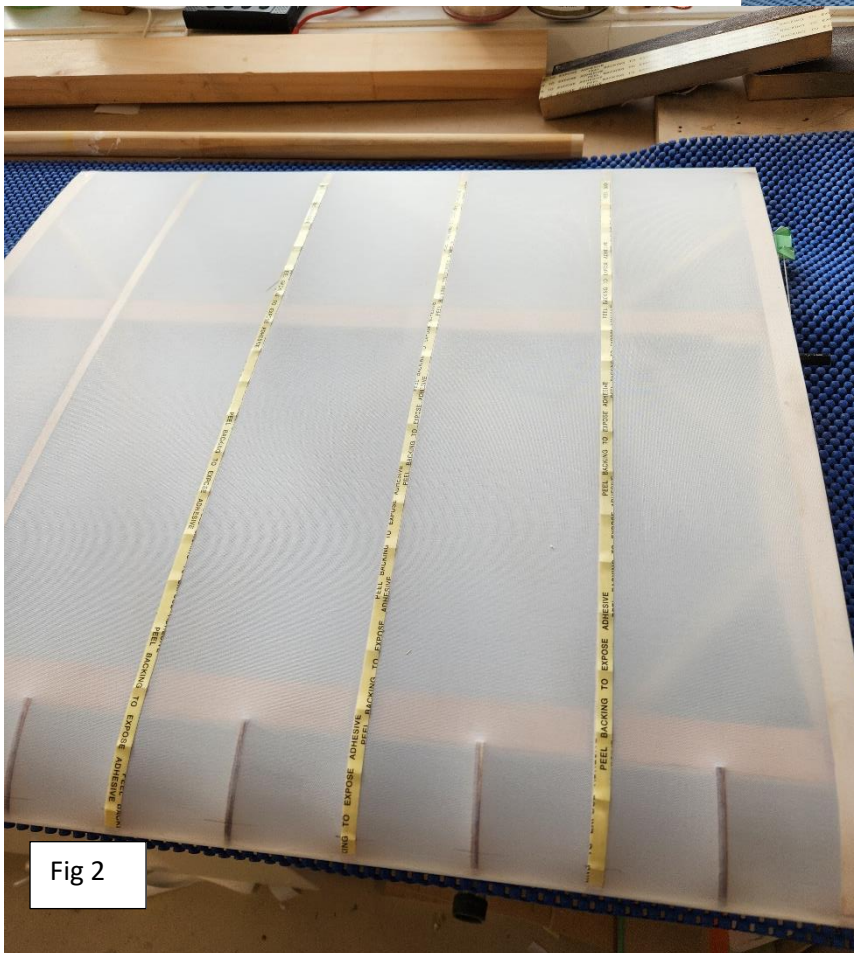
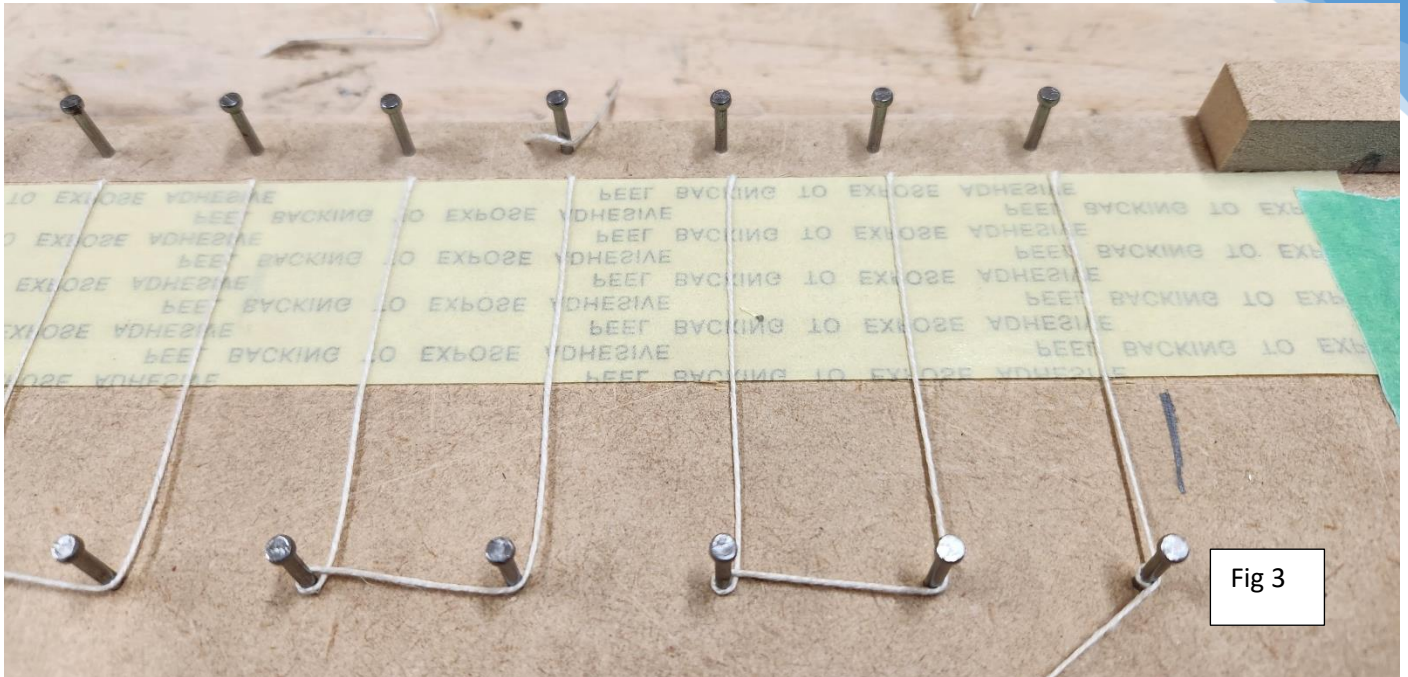


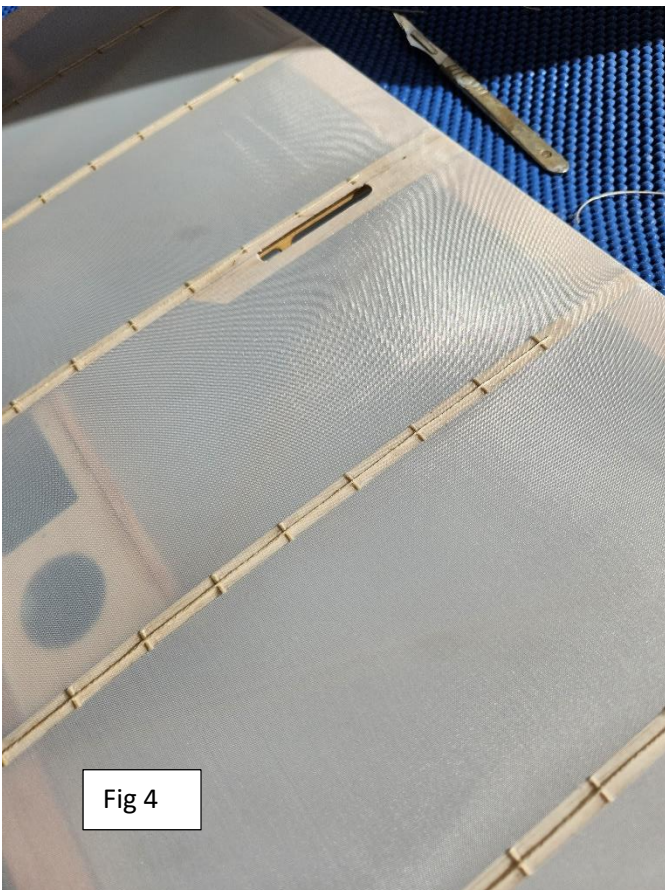
Fig 2

The rib stitching is done using a method from the internet, and also consulting with Russell who used the same method on his DH. Once I had made a simple jig for getting the string spacing correct it was fairly quick and easy to do, and two or three days work had all the wings done.

A 30mm wide strip of double sided tape was held to the jig and one side of the backing removed. String was then run between the nails, and pressed onto the tape. This was then cut into 6mm strips with a very sharp blade. These were then stuck on the wing over the ribs. Another piece of string was then stuck along the length of the rib. Finally they were sealed with strips of covering. I cheated a bit and only did the topsides, only the ants will notice!!!



A final careful run over with the heat gun finished the job. After all the covering was done I then fitted the ailerons and covered over the hinges.



After various trials with paint and methods I am using water based enamel, (again thanks to Russell). I tried spraying, thinned with water and Flotroll, but have decided to brush on several coats using a very fine 1inch brush. By thinning about 10% with water and Flotroll it brushes out nicely, and after drying you can still see the weave of the fabric. It needs a couple of coats and then a good dry, followed by a light sand to get rid of the furry bits of the covering. The final finish will be a coat of oil based satin clear. Hopefully it will look scale like!



Fig 6

*Fig 1. Covered wing panel. / Fig 2, Centre section with first stage of stitching / Fig 3. Jig for double sided tape and string. / Fig 4. Stitching stuck on with longitudinal string. / Fig 5 Covered stitching. / Fig 6. Cockpit coming / Fig 7. A picture of the full sized Camel in the Imperial War Museum.*



Fig 7

Cheers,  
Phil.

# Vintage Report August '23



**Graeme Rose** sent in these pictures of his 60" Simplex he which acquired at the Tauranga Auction. He's re-furbished and re-covered the model which just needs the electric "go" thing up front and will be ready for flight and comps ?



**Saturday 26<sup>th</sup> August** saw four vintage pilots in **NDC** action taking advantage of a good weather forecast at Awatoto Field. **Brett, Stanley** ( all tanned and back from his Northern summer soiree ), **Mark and self** flew Vintage Precision. Conditions were good but a couple of wayward landings apart from Brett who flew three maxes and a flyoff. Brett and I flew Classical Duration with our Night Trains. Stan was going to, but his Night Train didn't fly very

well without the elevator which he'd left at home ! We were joined by **Barry K and Russ Nimmo and Dave Cantell, Danny and Anthony**, all of whom helped out with timing duties. **Dave C** is showing an interest in building Vintage, that's the way to go Dave, maybe a larger Mam'selle ? Results; .....

#### VINTAGE E-PRECISION.

NAME	MODEL	YEAR	BONUS	ROUND															GRAND TOTAL
				1				2				3				FLYOFF 1			
				FLIGHT	LAND	BONUS	TOTAL	FLIGHT	LAND	BONUS	TOTAL	FLIGHT	LAND	BONUS	TOTAL	FLIGHT	LAND	TOTAL	
BRETT ROBINSON	LANZO BOMBER	1938	12	170	20	12	200	176	20	12	200	177	20	12	200	179	0	179	779
STAN NICHOLAS	STARDUST	1940	10	180	20	10	200	177	0	10	187	179	20	10	200				587
BARRIE RUSSELL	STARDUST	1940	10	177	0	10	187	178	20	10	200	178	20	10	200				587
MARK LARSEN	LANZO BOMBER	1938	12	145	0	12	157	172	20	10	200	159	0	10	169				526

#### CLASSICAL E-DURATION

NAME	MODEL	1	2	3	FLYOFF	GRAND TOTAL
		FLIGHT	FLIGHT	FLIGHT		
BARRIE RUSSELL	NIGHT TRAIN	300	300	300	436	1336
BRETT ROBINSON	NIGHT TRAIN	300	294	300		894



A very pleasant and successful morning was had by all.

The good news is that **Dave Cantell** went home with a Vic Smeed Mamselle plan, what better entry into Vintage flying could you have ? **Ed.**

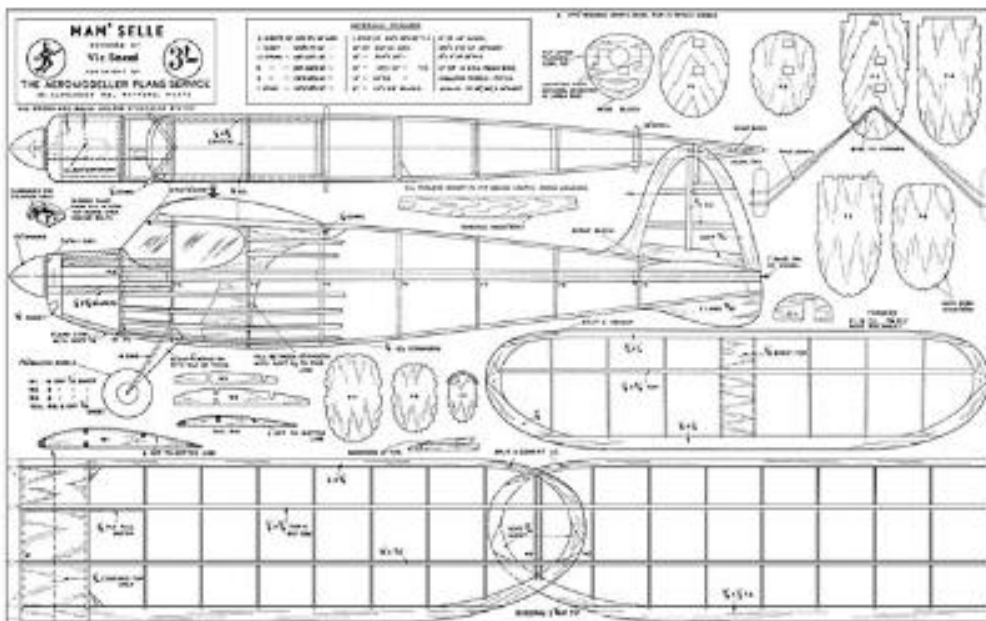
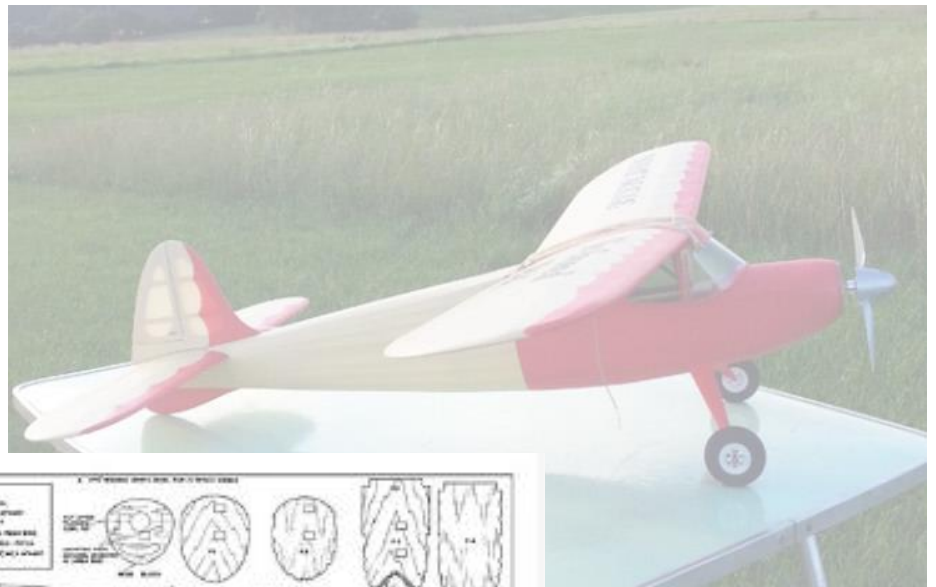
**Wed 30<sup>th</sup>.** Another glorious Bay day, **Stanley** remembered his Night Train tailplane this time and flew his **NDC** Classical Duration flight. Managed 300 / 240 / 300 = Total 840 points. I flew **NDC** E Texaco Duration with my Stardust and a 2S 550 battery for 1227 + 893 = Total 2120 points.



# LEVIN VINTAGE RALLY

The Next Levin Vintage Event, the John Selby Memorial Saturday 16 September / Wind date Saturday 30 September Levin MAC flying site, Tararua Road. 9.30am start. Any RC Vintage or Classical Classes may be flown. Precision is normally the most popular event. We can help you if unsure of the basic rules – just sign out as this is all about having fun. Sport flying of Vintage models and small field Vintage Free Flight also welcome. No entry fees or prizes.

This is a low key fun get together of like-minded Vintage fliers. BBQ – The Levin MAC normally runs a sausage sizzle at lunchtime at purely nominal cost so bring a few coins. Postponements – Any postponement decisions will be advised on the Levin Club website Levin Model Aeroplane Club - Home (sporty.co.nz) and via the Vintage Email List which Stew Cox uses to provide reminders and updates concerning these events. If you aren't on the Vintage Email List and want to be added, send Stew your email address [Flierstew@gmail.com](mailto:Flierstew@gmail.com) Weather – If unsure on the day, consult the Levin MAC weather station at <https://holfuy.com/en/weather/1073> rather than making a call based on your local weather as Levin has a much better microclimate for model flying than anywhere else in the lower North Island west of the main divide. Feel free to ring Stew if unsure. For any further details please contact joint organiser Stew Cox– 027 548 1894, [Flierstew@gmail.com](mailto:Flierstew@gmail.com) Hope to see you there.



**\*\* FOR SALE \*\***

August '23



## Charger; **FOR SALE** \$120.00 ONO

From Marcus Gallagher, The item I'd like to sell is a "HOTA D6 325W 15A 1-6s dual channel DC smart charger". Replacement cost is about \$160 +P&P And if anyone is interested they can contact my phone at 0274708116.

Thanks, Marcus.



### **LiPo BATTERIES FOR SALE**



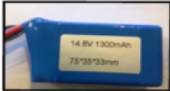
**3S 11.1v 40C 1500mAh (for Radians)**

**PRICE - \$45.00**



**3S 11.1v 40C 2200mAh (for small foamies)**

**PRICE - \$49.99**



**4S 14.8v 25C 1300mAh (for general flying)**

**PRICE - \$55.00**



**2S 7.1v 40C 1300mAh (for general flying)**

**PRICE - \$25.00**



**1S 3.7v 30C 1300mAh (for Receiver battery)**

**PRICE - \$19.95**



**3S 11.1v 40C 2800mAh (for general flying)**

**PRICE - \$55.00**

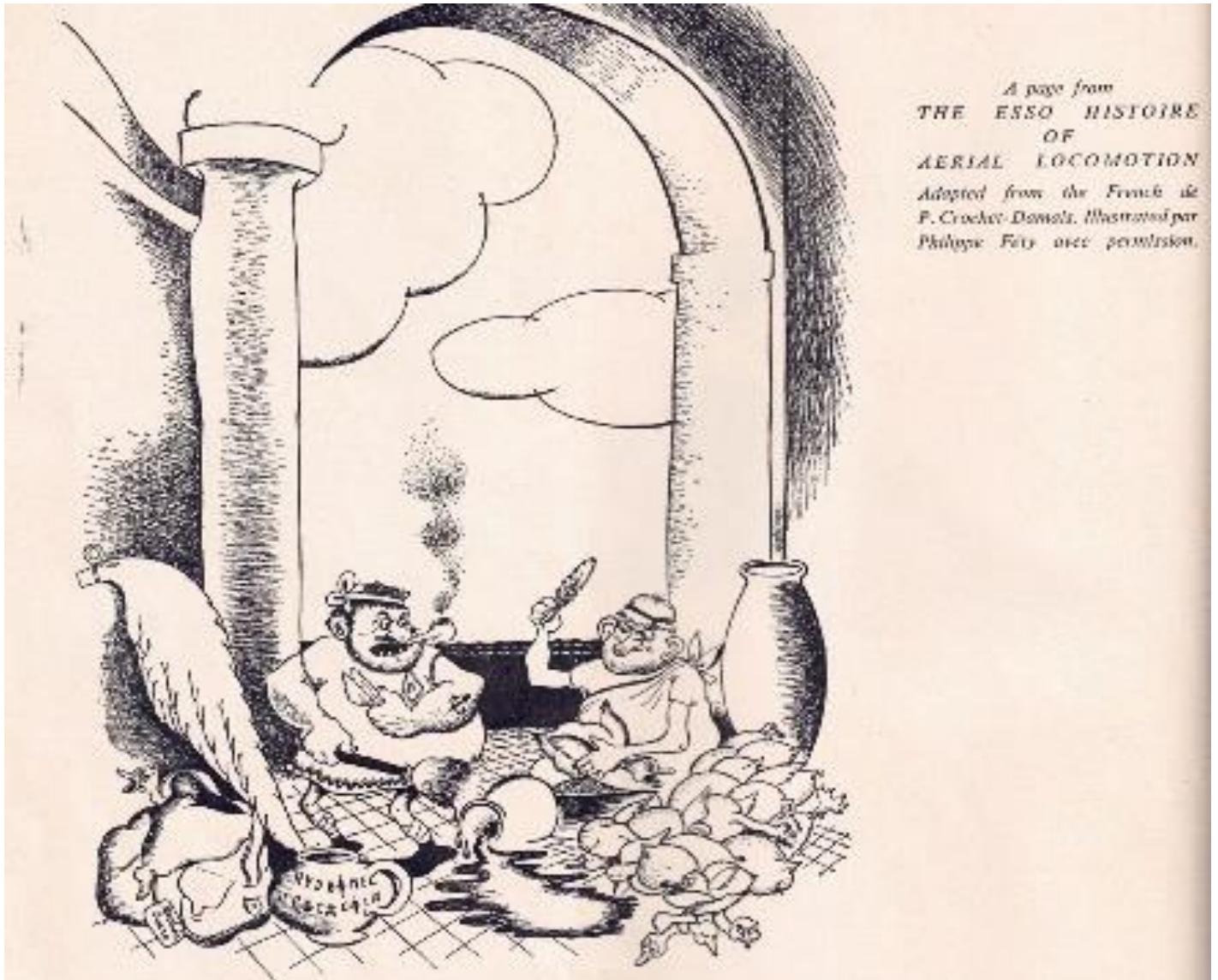


**3S 11.1v 40C 2200mAh (for general flying)**

**PRICE - \$49.99**

For details contact: Gavin Shute: 021 656 999 or [gavinshute@gmail.com](mailto:gavinshute@gmail.com)

We've all heard of Icarus and his flight to the sun, maybe there is more truth in the story than we first thought. This published in the UK Flight Magazine in May 1954 and I believe everything I read, don't you?



*A page from  
THE ESSO HISTOIRE  
OF  
AERIAL LOCOMOTION  
Adapted from the French de  
F. Crochet-Damala. Illustrated par  
Philippe Fety avec permission.*

### ICARUS AND THE WAXEN WINGS

**K**ING Minos of Crete was exasperated beyond measure by the slow progress of his labyrinth and the appalling inflation of Daedalus's expense account. Mind you, Daedalus was handicapped by building regulations and, no doubt, had trouble with the unions.

Finally the king threw one of his tantrums, seized Daedalus and his son, Icarus, and locked them both in the beastly labyrinth . . . and that might have been the end of the affair. But the building, you will remember, was still incomplete. It had no roof, and Daedalus had only to invent and manufac-

ture a helicopter to win his freedom. Patiently (so Ovid records) the architect and his son set to work: they plucked a thousand chickens and fixed the feathers with linen and wax to two light wooden frames . . .

Daedalus took off first and flew direct and as the crow flies to Sicily, thus breaking the world record for a "heavier-than-air" flight (336 km). But Icarus never made it. Rumour reports that he became intoxicated by his aerial achievement, attacked the height record (2 m.) and got his wings melted by the heat of the sun. A pity in a way.

*Today genius gets results by remembering that it pays to say*



*That's it for another month, See you in the Spring. Ed.*