



BULLETIN OF THE AUCKLAND MODEL AERO CLUB INC. EST. 1928  
**August - September 2022**



Can you name this subject? A scale RC model brought to the June meeting by Don Foley (See p. 6). *Photo: Stan Mauger*

# Kit Scale at Karaka



This is a new precision-style event for Kit Scale models.  
It will be run whenever there are sufficient models to time.  
There will be no scale judging.

## Indoor Free Flight Morrinsville Day

**Sunday October 16, 2022**

- F4D Rubber Scale
- F4F Peanut Scale
- Memorial Scale
- Kit Scale
- Hangar Rat
- HL Glider
- Modelair Hornet

**Westpac Stadium Hall, 21 Ron Ladd Place, Morrinsville**

Contact Stan Mauger 09 575 7971, stanm09c4@gmail.com  
for more information



Organised by the Auckland Model Aero Club Inc  
in conjunction with the Scale Free Flight & Control Line SIG

## Editorial – Flexibility

When Covid first hit us I am sure that most would have imagined that we might be over it by now. Of course that is not the case. The Club committee have had to adjust meetings, events and venues around this challenge. It has been great to see widespread mask wearing at meetings and indoor events, which quite apart from the Government requirement to do this under our present Covid level, has undoubtedly enabled us to avoid any known spreading of Covid through contact at Club events. Whilst the attendance at both Club meetings and indoor evenings has been noticeably down, I feel confident in suggesting that on the basis of meetings so far, providing masks are worn and with a little social distancing, there is probably little likelihood of picking up Covid through meeting attendance. I do, however, respect the decisions of those who have chosen to avoid public gatherings, particularly with BA5, until things improve.

And speaking of meetings, it would be good to see more support of both monthly Club meetings and also indoor nights at Drury. With only four flying at Drury on the July evening it was not possible to run scale events and whether we are competition minded or not, competition flying does tend to focus attempts to sort out models. This is particularly relevant with the Morrinsville indoor day not that far away. If you would like assistance with model preparation or transport to get to Morrinsville, please let anyone on the committee know. Indications are that a number intend coming and as this day has proved to be a lively focus of both indoor free flight classes and indoor free flight scale, it is well worth the effort to attend.

Sunday flying at Karaka has tended to be compromised by winter weather but if conditions are looking good on the day before, please do a ring around so that others can be encouraged to join you. Apart from the usual RC and free flight flying, there is the opportunity to kick off the precision style Kit Scale event listed opposite, on these days. Ricky is also set to run the RedFin Precision event when we get the right day. That will be convened at short notice. If you are a starter, please let him know, so you can be contacted when it is about to be run. Hoteo is also available for models that need the wide open spaces, just check with Paul first if you wish to fly there, to confirm that it is open.

If you have a Cloud Tramp (or would just like to watch) please come to the MIMLOCT event on August 6 as noted on p.5. No great endurance is expected from these models, it is just a mass launch after all, but some models may need repairs after the Cloud Tramp Challenge in May.

Stay well . . .

STAN MAUGER

### Slipstream contributions

Contributions of reports and photos on flying activity as well as articles and information about latest projects are very welcome. Please just send them in.

**Photo credits:** Unless otherwise noted, all photographs are by the authors of each article.

# Monthly Club Night- Stan Mauger

13-6-22

Present were Geoff Burgess, Ricky Bould, Paul Evans, Don Foley, Stan Mauger, Ken Smith, John Swales, Charles Warren, Tony Woodroofe and visitor, Rob Macdonald. Notwithstanding the stormy night, this was still a lower attendance than on pre-Covid evenings, so here's hoping that things may improve as the year proceeds.

Notice was given of the upcoming MIMLOCT Cloud Tramp commemoration to be flown off in the Domain on August 6. There was also a reminder of the Morrinsville Indoor Day in October. The RedFin Challenge Event has been moved to later in the year to allow time for a few model projects to be completed and for the weather to improve.

Rob Macdonald, Chairman of the Macdonald Memorial Trust had come to the meeting to make a presentation of the trophy to this year's recipient, Stan Mauger whose citation is to be found on p.4 of the March 22 Model Flying World Magazine available on the MFNZ website. Stan thanked Rob for coming up and making the presentation and the Trust for selecting him.

The Theme for the evening was modelling tips and gadgets. Charles Warren took us through the stages of producing floats for his MidStar 40 RC model which he is intending to fly at Lake 'D' (Lake Tainui) near Horsham Downs next weekend. He had used some ABS floats for a plug. His new set of epoxy fibreglass floats used an initial Gelcoat then glass cloth and epoxy built up with the aid of some structural reinforcement. This took the form of a wood strip for undercarriage mounting, polystyrene for bulkheads and ply for the keel. Discussion followed regarding increasing the angle of the floats to assist water take-offs.

Tony Woodroofe responded to the challenge of the theme by bringing his hot wire foam cutting set up and demonstrating the cutting process. He also explained how this light construction method could be used to advantage in his experimental concept models for



**Above:** Charles Warren took us through the process of making floats for his MidStar 40 RC model set to be flown at the fly-in at Lake 'D'(Lake Tainui) near Horsham Downs..

full-size microlight aircraft. Some of his models with ultra-low Reynolds number wings written up in Slipstream article on p.18 of the September-October 2021 issue, entitled *Float like a butterfly*, were flown in the clubhouse to prove how stable they were.



**Above:** Tony's concept model for a full size microlight aircraft that shows wing ribs sliced off from a common foam form.



## MIMLOCT Saturday August 6, 2022

### **(Memorial Mass International Launch of Cloud Tramps)**

Bring your Cloud Tramp for the mass launch. We will assemble at the Domain at 4pm. Phone Ricky on 478 8949 for cancellation if the weather looks uncertain.

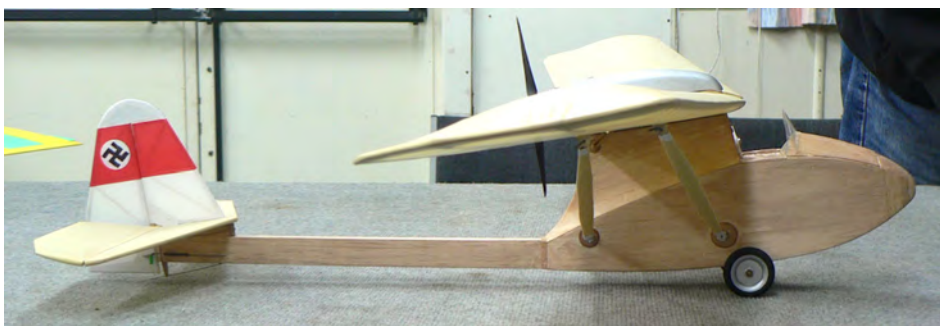


John Swales also followed the theme with a couple of simple sanding tools. These were sanding boards made from T section aluminium extrusions. Stan Mauger took us through his experiments with silicon mould-making for dummy engine cylinders for free flight scale models. He had moved from two part moulds to a single cylindrical mould. Parts were moulded in quick cure resins.

Paul Evans had completed his electric RC Rearwin Speedster started over lockdown and now awaiting some test flights. The fullsize plan was from an RC magazine and the model followed free flight sport model practice using stripwood and film covering

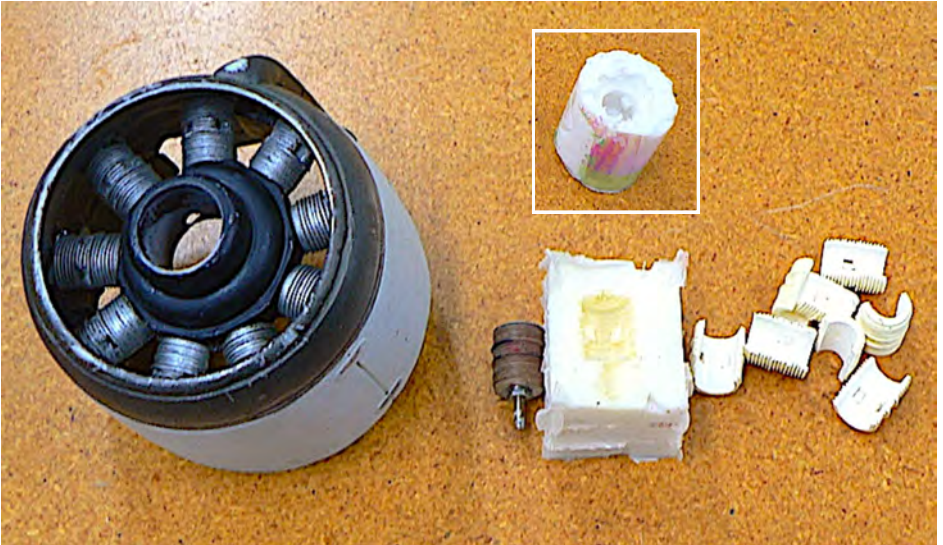
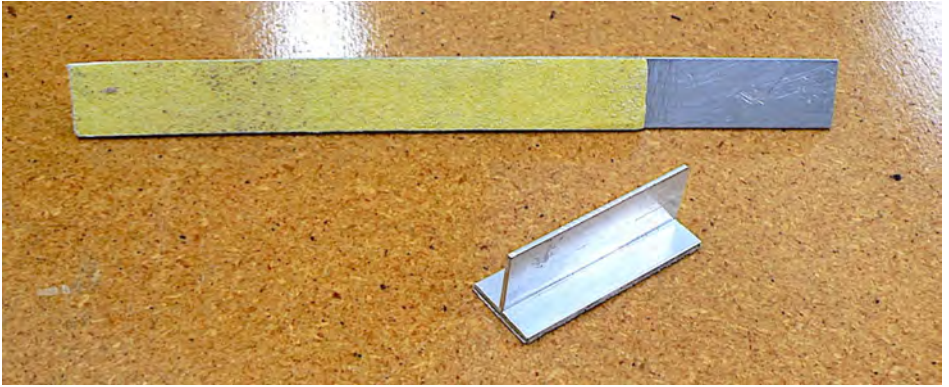
Don Foley, had us all puzzled with the identity of an electric powered RC model that he had recently acquired and that was built by the late Bob McGrath of Wellington. Turn to the cover to see if you can recognize it.

Finally, at the end of the table, there were a number of diesel engines that had been donated to Charles Warren. These were up for reasonable offers and created interest from admirers of British diesels.



**Upper:** Paul Evans had completed his electric RC Rearwin Speedster started over lockdown and now awaiting some test flights.

**Above** Don Foley's recently acquired mystery subject.



**Upper:** John Swales had put Aluminium T section to good use for making sanding sticks.

**Centre:** Stan Mauger's two-part mould and plug for making cylinders for his Vildebeest.

**Inset:** New one-piece silicone mould for making cylinders.

**Left:** Who can resist a few diesels from yesteryears.





**Top:** An unidentified hand-launched glider brought by Guy Clapshaw.

**Above:** Ken Smith and Tony Woodroffe looking through a bagful of modelling items and tools from various sources brought by Brendon Neilson, which were free to a good home. Partly obscured by John Swales's large RC Zero is Charles Warren who is seen going through balsa from Arthur Pearce.



# Monthly Club Night- Stan Mauger

11-7-22

Present were Guy Clapshaw, Paul Evans, Don Foley, Brian Howell, Stan Mauger, Brendon Neilson, Ken Smith, John Swales, Charles Warren and Tony Woodroofe.

Charles Warren stepped in for Ricky Bould who was in the UK, to run the evening's table. Stan Mauger reminded us of the Morrinsville indoor day that is still a couple of months off, but it is not too soon to review and trim models for it. He reported that he had heard that the Richmond scale rally had been curtailed due to the gathering rain and eventual floods that occurred in Sydney. George Fay had been rushed to hospital but was now on the road to recovery. Brian Howell confirmed that indoor would take place at Drury on the following Monday, as usual.

The identity of the first model on the table, Guy Clapshaw's hand launched glider, proved to be a puzzle. It dated back twenty years or more and was thought to be a Modelair design. Built for his grandchildren, it had provided hours of flying fun.

Next in line was a paper bag of modelling bits and various small tools brought by Brendon Neilson and all free to a good home. They had come from Bill Smith and the late Geoff Northmore as well as from Brendon. The pile was reduced during the course of the meeting.

The 1/5 scale Seagull Zero ARF brought by John Swales dominated the far end of the table. It had called for a trip to Whangamata for collection. John took us through the changes that he had made to prevent loss of control due to failure of servos, flight packs or receiver. Adopting a policy of 'redundancy' he had doubled up essential control mechanisms, mindful of the outcomes of any failures on an RC model weighing 10kg. The Zero is an impressive model and should be test flown shortly. The model dwarfed Stan Mauger's Modelair Hornet, brought to support the night's theme, but also to start discussion about how best to set up this apparently simple indoor model. The consensus was that some right thrust and the usual CG and wing thrust angles should suffice.

Stan's other model had a rebuilt Tomboy wing combining the polyhedral wing design of a Madcap, with a Tomboy fuselage, with an eye to making an ideal model for Aggregate (Scramble or Aggie) events. It was also a great way of utilizing a spare Tomboy fuselage. Should be just the thing for the coming RedFin Challenge.

Brendon Neilson had been given a Culver V by Mike Fairgray. The model was later passed on to Bill Smith who had recently decided to give up model flying, so the Culver came back to Brendon. Surveying the model, he had decided that a tricycle undercarriage with wheels of this size would be impractical for RC operation so the model was converted to a taildragger in the style of the Culver Cadet. This involved a bit of work and the conversion to electric also involved rebuilding the nose structure.

Stan Mauger had brought a collection of Paul Matt Historical Aviation Journals and model magazines donated by Arthur Pearce, but of more immediate interest were the boxes of sheet balsa, balsa strip and hardwood strip at the far end of the table, also donated by Arthur, that continued to go down in the course of the evening.



**Top:** What do you create when you combine the wing layout of a Madcap with a Tomboy fuselage? Answer - a Madboy of course! Stan has the idea that his new creation might be just the ticket for Aggie. Note the two piece wing for easy transport. An MP Jet .06 should have plenty of power for it.

**Above:** Mike Fairgray's Culver V has found a new life as a taildragger in Brendon Neilson's RC electric conversion. The model is ready for some testing.



**John Swales brought his 1/5th scale Seagull Zero**

**Left:** With the fuselage hatch open, there is a good view of the complex RC internals.

**Below:** This view of the model gives an idea of its size.



# A Hotwire Cutting Table for Foam Modelling

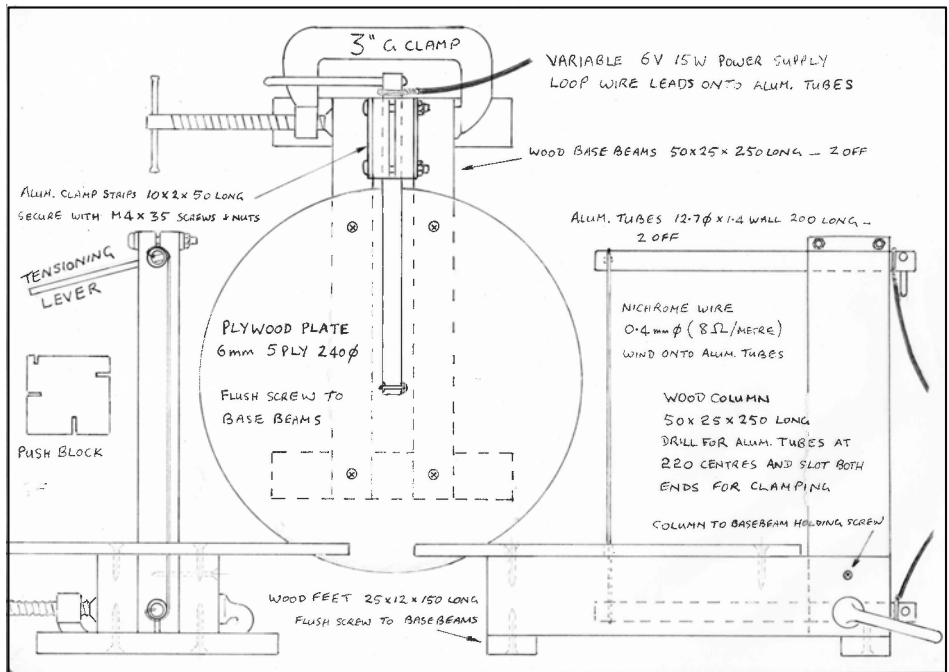
## Tony Woodroffe

Epoxy bonded plywood skin - foam core structures applied to ultralight aircraft design show some of the highest performance results in strength to weight ratio. Simple design, ease of construction and low cost just happen to be extra attributes as well.

As part of the design process, problem solving and verification of construction methods can be enhanced through structural modelling. Working to one tenth scale for example 0.16 mm art paper and 0.6 mm cardboard can substitute for 1/16th inch and 1/4 inch plywood respectively. Either blue styrofoam or white expanded polystyrene foam can replace rigid PVC foam and PVA glue makes for easy assembly and low mess. (See the concept model on p.5 - Ed)

Using a hotwire cutting table, thin sheets, profiles and other model components can be easily fabricated from foam - even from discarded blocks of foam packaging.

The drawing below illustrates a simple hotwire cutting table that I made from wood, plywood and aluminium tube. Various adjustable cutting fences from wood or aluminium angle can be fastened to the plywood plate with panel clamps. A wooden push block, accurately squared 50 x 50 x 10 with notches cut at various offsets to clear the hotwire can be used against the cutting fence to push items clear past the hotwire. A small hairdryer directing cold air beneath the plywood plate can alleviate localised overheating of

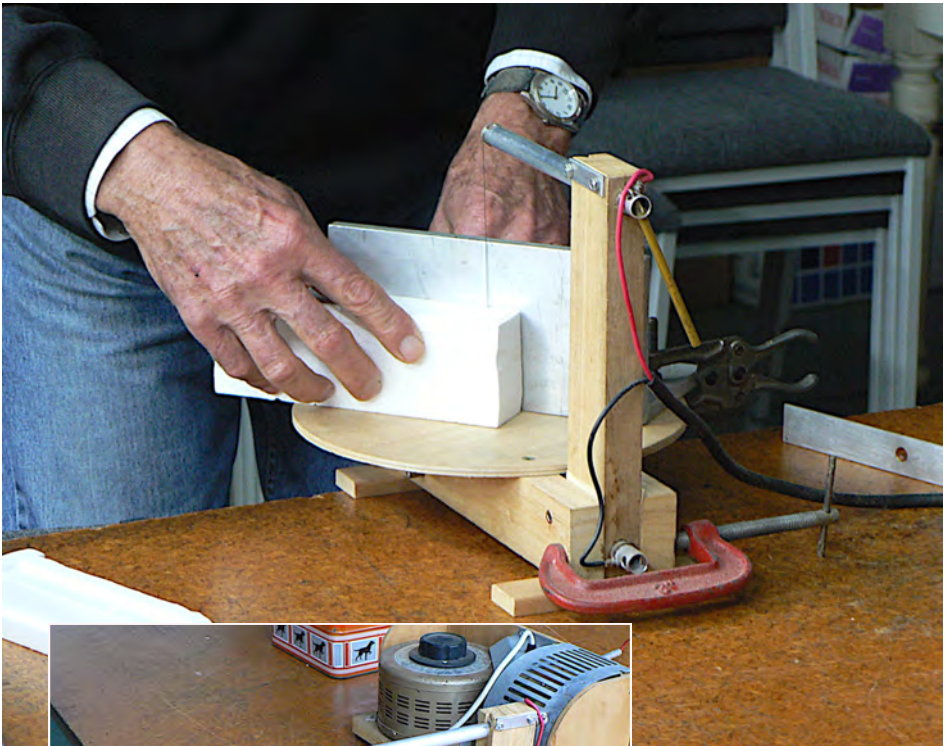


Above: the hotwire cutting table set up.



the cutting edge at the surface above. A variable 6V 15W power supply is required. An old heavy duty battery charger running through a light dimmer or rheostat may suffice - talk to an electrician. I have the advantage of having acquired VARIACS, heavy duty step down transformers and nichrome wire in a past life of electric element, industrial lighting and vacuum packing equipment design and development. As for nichrome wire I have over 2,000 metres if any reader would like some.

And finally, after any cutting operation always release the tension on the hotwire BEFORE switching off - otherwise PING!



**Above:** Cutting a 1.5mm slice of foam from the polystyrene block, against a 100mm x 100mm aluminium angle plate.

**Left:** The cutting table and Variac/transformer power supply.

# Drury Indoor - Stan Mauger

20-6-22

This report is compiled from accounts from those present. Flyers included Geoff Burgess, Wayne Cartwright, Brian Howell, Bernard Scott, Ken Smith and Tony Woodrooffe. It was great to have Bernard and Wayne join us as they have quite a journey from Hamilton to be there. Both Wayne and Bernard were flying Hangar Rats. Wayne was getting flights over a minute, but Bernard probably got the best flights of the night in the two minute plus region, and it was noticed that he even managed to get his model to taxi back to him. He also brought out a hand launched glider for some indoor practice. Ken Smith had both his Kit Scale Cessna and Modelair Hornet out for trimming but was challenged by both.

Geoff Burgess flew three RC ARFs. His Pup is an easy flyer and has the advantage of wings held on with magnets, so any possible damage is minimised. His Space Walker was flying well but was touchy if the CG was not right. His Kyosho Citabria flown with Spectrum gear, was in Geoff's words, "very nice to fly" and was capable of some aerobatics. He finished off the evening with some leisurely Vapor flying.





**Upper:** Bernard Scott and Ken Smith keeping an eye on Bernard's Hangar Rat.

**Centre:** Wayne Cartwright's Hangar Rat (Left) and Ken's Modelair Hornet (Right).

**Left:** Ken's VMC Kit Scale Cessna was brought for some trimming.

*(Photos: Brian Howell)*



# Drury Indoor - Stan Mauger

18-7-22

Present were Ricky Bould, Brian Howell, Stan Mauger, Ken Smith and Tony Woodrooffe. The night was down for indoor rubber scale competition, but with the small number present and the need for trimming the models brought, this was out of the question.

Ricky Bould had several models out for trimming. His Dime Scale Miles M-18 built from a Mike Nassi plan completed a circuit of the hall but was still needing to be trimmed. Also at the trimming stage was his Kit Scale Comper Swift. The model achieved some low hops but showed the need for further attention. It was sad to see his immaculate VMC Kit Scale Cessna in trouble when it hit the wall, but the damage seemed repairable.

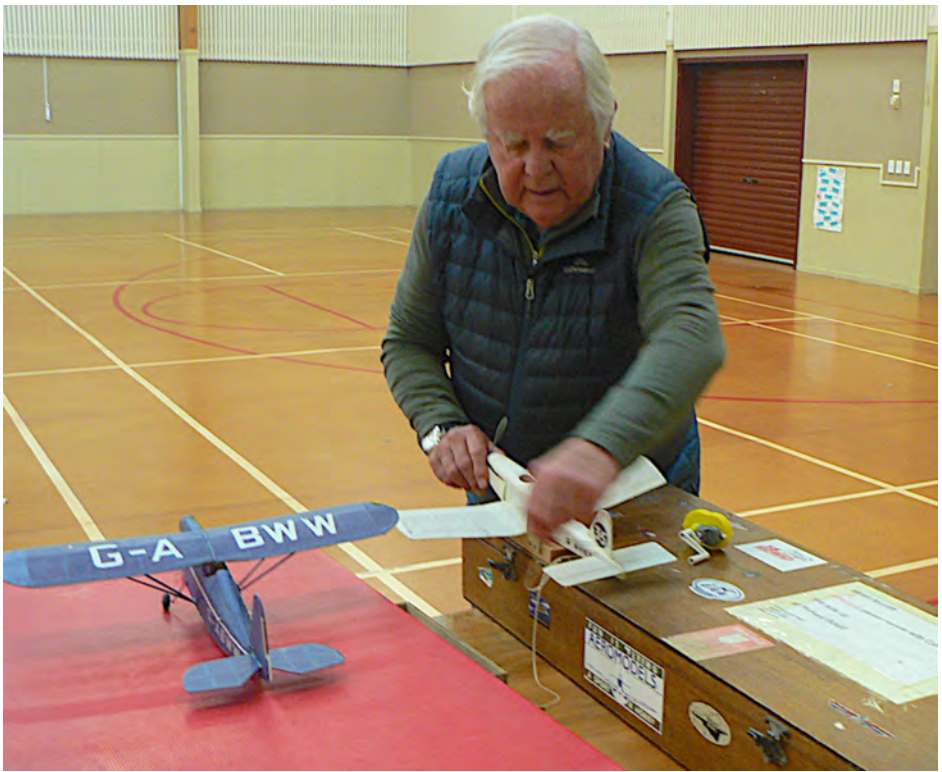
Stan Mauger brought his restored Keil Kraft Auster Arrow. With the benefit of some outdoor trimming in the morning, a reasonable flight was likely. After the first flight in which the model seemed under-elevated, Stan recalled that the model had need a bit of weight on the tailskid to counteract the weight of the magnet in the nose, used to retain the noseblock. With this adjustment the model was transformed and looked likely to collide with beams as it headed for the ceiling. He had less success with his Skyleada Curtiss Owl that had done better in park testing and with port wing drops probably needed some thrust line adjustments.

Stan also assisted Ken Smith to get his nicely built VMC Cessna flying. After a good flight limited only by the number of winds on the motor, the model made a better flight with the advantage of more turns and showed its true potential. Brian Howell was persevering with his Hangar Rat. The model initially looked under-powered and flying improved greatly with a change to a motor of greater size.

The evening proved to be a productive time for trimming models. Lets hope that we can get back to greater numbers and some organized indoor scale events soon.







**Opposite page**  
Stan Mauger's Skyleada Curtiss Owl presented trimming challenges.

**Above:** This Miles M-18 was the first of Ricky Bould's models for testing. His Comper Swift waits next in line.

**Left:** His very tidy VMC Kit Scale Cessna before trimming flights.



**Upper:** Ken Smith setting up his VMC Kit Scale Cessna before trimming flights.

**Right:** Brian Howell attending to his Hangar Rat, Tony Woodrooffe looking on.

## Calendar August - September

For information about the location of club fields and cancellations or postponement of flying, contact the field stewards.

### KARAKA

**Karaka Sports Park**

**Free flight and radio flying within field limitations**

Model trimming and flying  
Precision style event for Kit Scale models (see P.2)

### HOTEO

**Sundays**

Call the field steward if you would like to go up and do some free flight and vintage flying there.

**NDC FF Vintage events**

(refer to MFNZ under NDC list).

**Hoteo Steward**

Paul Evans      479-6378      ziplly@xtra.co.nz

### AKA AKA

Saturdays & Sundays

**Aka Aka Steward**

Intending flyers should phone Lloyd Hull to arrange to fly  
Lloyd Hull 09 235 2890

### CONTROL LINE

As advised

Control line flying  
Intending flyers should phone Stan Mauger  
to confirm where and whether there will be flying.

**C/L Steward**

Stan Mauger 575 7971 stanm09c4@gmail.com

### INDOOR EVENTS

**Drury**

Monday August 15

Monday September 19

**Indoor Steward**

**Drury School Hall**

Hangar Rat, (7.30 - 10.00pm).

Practice night for Morrinsville (7.30 - 10.00pm).

Brian Howell      020 4121 5201      b.how@xtra.co.nz

## Calendar Looking Ahead

**DOMAIN**

August 6

Refer to notice on P.5

**MIMLOCT** Cloud Tramp mass launch.

**KARAKA**

**RedFin Precision Event** **as notified**

**MORRINSVILLE**

October 16

Refer to notice on P.2

**Indoor Free Flight classes**

Hangar Rat, Hand Launched Glider, Modelair Hornet.

**Indoor Free Flight Scale classes**

F4D Rubber Scale, F4F Peanut Scale, Memorial Scale, and Kit Scale.

## OFFICERS OF AUCKLAND MODEL AERO CLUB INC.

Patron	Vacant		
President	Ricky Bould	478 8949	unimec1994@gmail.com,
Secretary	Vacant		
Treasurer	Virginia Fairgray	636 8439	amacsecretary@outlook.com
Recording Officer	Stan Mauger	575 7971	stanm09c4@gmail.com
Bulletin Editor	Stan Mauger	575 7971	stanm09c4@gmail.com
Membership	Mike Fairgray	636 8439	amacsecretary@outlook.com
Committee	Paul Evans	479 6378	ziply@xtra.co.nz
	Brian Howell	020 4121 5201	b.how@xtra.co.nz
	Brendon Neilson	09 239 3204	2neilsons@gmail.com,
	Ken Smith	298 6402	kensmith@xtra.co.nz
	Charles Warren	09 238 9430	cpwarren@ps.gen.nz

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## Club subscriptions

NZMAA Affiliation is mandatory for Club flying

**Senior** \$50 (+\$95 NZMAA)    **Family** \$55 (+\$100 NZMAA)

**Junior** \$10 (+\$30 NZMAA)    **Non-flying** \$40

Intending members with current NZMAA affiliation pay only the AMAC sub

Please make payments using online bank transfer to the Club bank account  
030291-0086069-00 (please use your name as the reference)

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## NEXT CLUB MEETING AND NATTER NIGHT

**Monthly Club meetings 7.30pm ASME Clubrooms,  
Peterson Reserve, Panmure.**

**Monday August 1**

**Theme: Indoor models**

**Monday September 5**

**Theme: From the building board**

Masks required and social distancing expected!

**Trading table: Buy swap and sell.**

**Visitors and intending members welcome**