



BULLETIN OF THE AUCKLAND MODEL AERO CLUB INC. EST. 1928

**August/September 2018**



Mike Mulholland was suitably pleased with the way his rubber powered Free Flight Scale Borel Hydravion flew at the Richmond scale weekend. See report on p.20.



# & Tomboy Texaco

Tomboy and 1/2A Texaco will be flown as a monthly competition at either the AMAC field at Karaka or the Tuakau Club field.

Contact Keith Trillo for confirmation of site and possible postponement,  
Mobile: 027 460 7180.

AMAC placings count to event Club points

*Charles Warren's RC Tomboy. Photo: Keith Trillo.*



# Open Rubber

Put in flight times for this year's Open Rubber competition at either Karaka or Hoteo

*Mike Fairgray's Flying Aces Moth. Photo: Mike Fairgray.*

## Editorial – In this issue

Quite by the way, I came across a photograph of the diploma awarded to Fred Macdonald for his model aeroplane entered in a competition in 1911. For those of us who have wondered how far back aeromodelling goes in New Zealand in the twentieth century here is an early example. Without wanting to reveal too much more from the article on page 12, I can say that I was fascinated to learn that balsa was being used a decade later. Fred was the founder of our Club, surely the first in the country. Thankfully its history has been recorded by Maurice Poletti and later collated and archived by the late Michael Taylor. My thanks to Angus Macdonald for providing a background to the diploma.

Still on the topic of history, a reminder to Cloud Tramp flyers that the annual MIMLOCT commemoration of Charles Hampson Grant has come around again, although the time of day has been adjusted for us sedate folk who no longer cherish being at the Auckland Domain at 4.00am to join the rest of the world, at the same moment. Refer to p.17 for details of the changed time and venue. There must now be plenty of Cloud Tramps available for a fly-off, but watch the number of turns that you put on!

Now that Slipstream has moved to bi-monthly publication, there are two meeting reports presented. Special thanks to our tireless scribe Mike Fairgray for writing these up. Thanks also to Keith Trillo for his regular Karaka outdoor reports and Angus Macdonald for reporting on the Drury indoor evening. Keeping results flowing, keeps contest activity alive in the Club. Having just had prizegiving, a fresh year's activity awaits us. Apart from regular competitions the Club is offering its support to indoor flying classes once again, in association with the Free Flight & Control line Scale SIG, by running the coming indoor free flight contest day at Morrinsville. October is not too far away, so it is timely to think about having models trimmed for this day.

It is timely also to mention the recent success of free flight scale flyers from the Club who flew in the Trans Tasman F4A Challenge, F4D Rubber Scale and Kit Scale events at Richmond at the start of July. This is reported on page 20. Later in the month a trio of club members will be departing for the UK to attend the BMFA free flight scale Nationals at RAF Barkston. There will be a report on the contest in the next Slipstream.

Until then great flying . . .

Stan Mauger

### Slipstream contributions

Contributions of photos and information about latest projects are very welcome for the Building Board section of the bulletin. Field reports and articles are too! Please just send them in.

**Deadline for articles for the October Slipstream is September 20.**

### Photo credits

Unless otherwise noted, all photographs are by the authors of each article.

# June Club Night - Mike Fairgray

4-6-18

Present were Guy Clapshaw Mike Fairgray (Secretary/Treasurer), Angus Macdonald (Patron), Tony Hill, Brian Howell, Stan Mauger, Arthur Pearce, Bryan Spencer, Don Spray, Keith Trillo, Charles Warren, Keith Williamson. and Tony Woodroffe.

Prizegiving took place with certificates given to all who were present to receive them.

Angus Macdonald and Keith Trillo received the most certificates followed by Ricky Bould and Stan Mauger. The recording Officer Keith Trillo said that poor weather conditions during the year stopped outdoor competitions being run so the certificates presented for free flight were for indoor only. It would be good to see more entries in Club competition events to spread the awards around the members.

## Certificates Awarded

### Hangar Rat

1. A. Macdonald
2. M. Mulholland
3. W. McGarvey

### Modelair Hornet

1. K. Trillo
- 2=. R. Bould
- 2=. A. Macdonald
- 2=. W. McGarvey

### F4F Peanut Scale

1. K. Trillo
2. A. Macdonald
3. R. Bould

### Indoor Kit Scale

1. K. Trillo
2. S. Mauger
- 3=. R. Bould
- 3=. A. Macdonald

### F4D Indoor Rubber Scale

1. S. Mauger
2. R. Bould

### I.C. Tomboy

1. K. Trillo
- 2=. B. Neilson
- 2=. C. Warren

### E-Tomboy

1. A. Macdonald
2. K. Trillo
3. B. Spencer

### 1/2 E-Texaco

1. B. Spencer
2. R. Northcott

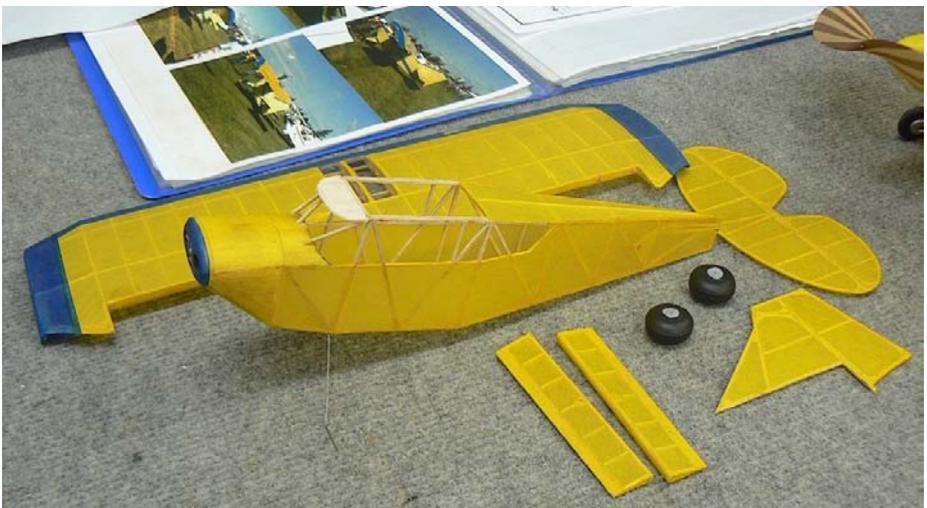
**Below:** Don Spray's Piper Super Cub enlarged from a Herr kit is progressing well.





**Top:** The Fike E built by Rudi S Marczis, who has provided detailed three views, plans and photos for Keith Trillo's new Peanut scale model, **Lower**.

**Centre:** For comparison, Keith's original Fike E.



Don Spray raised the issue of the declining number of models being brought along by members for the table. The table viewing is the centre of Club Night meetings and generates a lot of discussion with members being able to pick up different construction methods and see just what others are building. Discussions often lead on to explanations about the competitions that the models are entered in. The Committee struggle at each Committee Meeting to come up with ideas for a theme for the upcoming month's table. Don said the Committee would welcome members ideas for themes for the table. He also made the point that models brought along for the table need not be just models that met the theme but can be any model.

### **Theme for the night was Winter Projects**

It was a disappointing show of models with only two members turning up with their models. So, in quick time Don Spray who was standing in for Ricky Bould dealt with the models. Stan Mauger had brought along a bundle of photocopied Christmas Aeromodeller covers for anyone who would like them.

Keith Trillo had brought his new model of the Fike. His old model has competed at the Nationals and Morrinsville but fell down due to not having a three view with enough detail. He has been able to get in touch with Rudi S Marczis who had detailed three views, plans and photos of the full size Fike E that he built. This has given Keith the details and information that he wanted to build a more scale like model of the Fike E. The new model was built to Keith's high standard. He had cut the wheels from foam to keep the weight down. The model is rubber powered and intended for Peanut Scale contests.

Don Spray has yet another scale model under construction. His model a Piper Super Cub from a Herr Engineering kit increased 20% to 36 inch span. It was covered in red and white tissue and only required detailing. Rubber was the motive power to get wind under the wings and it will no doubt fly as well as Don's other models.

Arthur Pearce had a photo of Bruce Keegan with other Club Members taken at the Easter Show. The Club had a presence for a number of years at the show selling small chuck gliders and exhibiting a collection of models. The model that Bruce is holding is a Control Line model is a Foxy fitted with a 10cc motor. The Club built three of these models for the show, where members gave demonstration flights.

So, this completed another table walk around so it was off to tea, biscuits and a natter. Well that is what was planned, however, before the first coffee was poured DISASTER the power to the building went out! Luckily several members had torches and after checking the fuses all were found to be OK, so it was pack up by torchlight and we had an early night. Subsequent information from the Model Engineers Secretary identified the fault to be a short in the immersion heater which tripped the main power fuse that was situated in the basement of the building.

# July Club Night - Mike Fairgray

2-7-18

Present were Ricky Bould (President), Guy Clapshaw, Mike Fairgray (Secretary/Treasurer), Angus Macdonald (Patron), Tony Hill, Brian Howell, Stan Mauger, Brendon Neilson, Geoff Northmore, Arthur Pearce, Bryan Spencer, Don Spray, Keith Trillo, Charles Warren, Keith Williamson. and Tony Woodroffe,

Mike Fairgray following on from Don Spray's plea for more models to be brought along on club night, requested again that members to bring along their models both old and new, under construction, kits, or just plans of models on their wish list. The items on the table generated interest and discussions and made the night interesting, as did items of equipment or tools that they may have made or purchased to assist in construction or at the flying field. He requested that members give some thought to giving a presentation on some of their skills such as covering, rubber stripping or construction methods. Starting next month, items on the table would be judged to select the most interesting, best constructed or finished, by two members who have not brought along something for the table. The prize would be an aviation DVD or book. Hopefully this would encourage more members to bring something for the table. Members would receive further details in a Secretary Newsletter.

## **The theme for the night was: Scale Models**

Stan Mauger had his scale model of the RAF Mark IV Vickers Vildebeest prototype. This is his second model the first being a quick build to be able to test construction methods, sort out the engine installation and scale details to be transferred to the detailed scale model. The model on the table had had its first flight test flight which saw the model fly reasonably well. A great deal of research had gone into ensuring that the colour and other details were correct and he received a lot of information from the RNZAF Museum as these aircraft were in service with the RNZAF. A new tail had to be made to help correct the C of G. A hard landing on his test model showed that some modification needed to be done to the undercarriage as the tubing used tends to bend and jams the flexible undercarriage. There is still a lot of detail work to do on the model, however, the finish and detail so far certainly showed the dedication Stan has put into the construction of the model.

George Fay had his PE2 twin rubber model that he will be taking to enter the Trans Tasman scale event to be held in Richmond on the 8th July. He explained how he manages to wind both motors and lock the propeller in place until launched. He inserts a pin into the front of the Cowl which extend forward and locks the propeller. When he is ready to launch the model he quickly removes the pins and off it goes.

Brendon Neilson had a desk top solid scale model of the full size Fokker F27 Friendship which he flew for 12 years. The aircraft was built in the US by Fairchild. A total of 792 aircraft were built. It was found that when operating in desert conditions the fuselage stretched up to six inches and to overcome the effect that this would have on the control cables an innovative design was used on the pulleys to offset the changes of the stretching. He gave some interesting stories about his experience while flying the aircraft

which he said he thoroughly enjoyed. Don Spray who was also attending the Trans-Tasman had his models packed into their transport box. Everything was very compact, however, he had to leave his model of choice, his scale Piper Super Cub, behind as the fin was too high to be able to fit into the box with the other models. Keith Trillo had his Stardust Special E Rubber model. It was not proving competitive enough against the Golliwocks being flown in the same class so a new model will have to be built. In answer to a question about how Keith made the tube fuselage, he said that he formed the balsa around a piece of exhaust pipe. Keith had also come across a 1949 Air Trails magazine report where six New Zealanders had entered in a contest with their models being proxy flown and Angus Macdonald came 15th.

Charles Warren had his 62 inch R/C scale Hawker Hurricane built from a free plan in the 2008 RCM&E special edition magazine. The model had been designed by Tony Nijhuis and could be powered either by a 0.61 4 stroke or electric motor. Charles had yet to fly the model, he was just waiting for the right person to come along to test fly the model. Originally fitted with an electric motor, it required a considerable amount of weight up front to get the C of G correct. Now fitted with an RCV .060 motor it needed no additional weight. The model weighs in at around 7-8 pounds and the only alteration to the plans was to swap the solid tail with a built-up version that weighed less. The rotary cylinder valve (RCV) motor when mounted looks like a conventional engine that has been mounted on its side. The prop shaft exits from what would normally be the top of the engine where the glow plug would be. The engine is very compact and fitted with the purpose-designed muffler allows for full cowling. The principal difference from a conventional 4 stroke engine lies in the cylinder. This is mounted on bearings and rotates at exactly half of the crankshaft rotational speed and is driven from the crankshaft by a gear train and runs in the opposite direction to get the propeller running in the correct direction. These engines are made for many applications other than model aircraft use.

Ricky Bould had his AOP9 Auster which will be entered in the Trans Tasman event. Powered by an AM10 diesel engine and with a span of 48 inches, it weighs in at 26oz. The model has experienced some odd flying patterns and the cause has now been identified as differing wing incidence. This was only identified after using an incidence meter. The fully working struts are held on by shear pins.

Mike Fairgray had a number of scale models including a Frog Moth Minor, KK Cessna and Frog Chipmunk, all constructed from plans downloaded from the Internet. The Modelair Auster was from a kit. All were rubber powered. A Herr Engineering Cessna Bird Dog, also from a kit was powered by a KP01 electric motor. In addition, some work had been done on his Curtiss Hawk P6e scaled-up from a design by Chris Gould, offered as a free plan in Flying Scale Models. A number of additions had been made to the model to provide a more scale like appearance. Mike is presently working on the lower wing. He gave a short description of the P6e, noting that the only surviving aircraft, painted in the Snow Owl scheme, is presently in the National USAF Museum. The P6e was the last of the pursuit biplanes to see service in the US Army Air Force.

There was lots of discussion after the table walk around with supper and no loss of power.

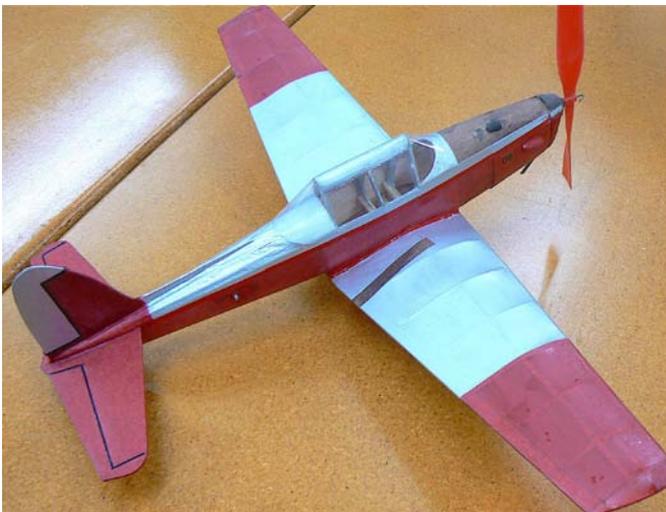


**Top:** Charles Warren's RCV engine powered RC Hawker Hurricane, just waiting for someone to test fly it for him.

**Centre:** Ricky Bould's free flight scale Auster AOP9 has had some trim adjustments and will be flown in the F4A scale Trans Tasman Challenge at Richmond NSW.

**Left:** Don Spray had managed to fit a number of free flight scale models for the Richmond scale weekend, in this box.

**Above:** George Fay's regularly flown PE2 twin about to be packed away for the rubber scale class at Richmond.



Mike Fairgray had a bevy of models for the night's scale theme including his Keil Kraft 3/6 Cessna **Top left**, and Modelair Auster **Top right**.

His Frog Chipmunk is also a nostalgic reminder of the days of fifties rubber scale kits, **Lower**. Mike's Herr Bird Dog **Centre**, looked close to flying. All models were very nicely built.



**Top:** Keith Trillo's Stardust Special E Rubber model, showing the tubular balsa rolled fuselage.

**Centre:** Stan Mauger's Vickers Vildebeest MkIV power by a 1cc Jena side port diesel, still at trimming stage with markings and scale details still to complete.

**Left:** Brendon Neilson expressed fondness for his Fokker Friendship display model that evoked warm memories of flying the full sized aircraft

## Frederick Charles Macdonald.

Born 1899, Fred Macdonald was four years old when the Wright brothers first flew. His father was a mining engineer at the Waihi goldmines so he obviously inherited the desire to 'make things' at an early age. This diploma was awarded for a 'model aeroplane' in 1911 at 12 years old. Motorbikes, cars and a Scottish pipe band followed. However, aviation had a hold on him and in 1918 he trained with the Walsh brothers at 'Kohimarama', now Mission Bay and attained his 'wings' on 25th July. Very soon he was in UK to join the Royal Air Force which was just recently formed from various Army and Navy flying units and was still training at the time of the 1918 Armistice. Back home and together with the Chinnery-Brown brothers, a glider was made in the early twenties for bungee launching. When preparing to take off, a stretched bungee broke and destroyed his left eye.

Gliders and model aircraft became his main interest. He bought balsawood and Ambroid cement from USA. He bought a bit more and sold it on to friends, thus was started the



**Right:** A remarkable document. Fred Macdonald's diploma for a model aeroplane. Note the date.

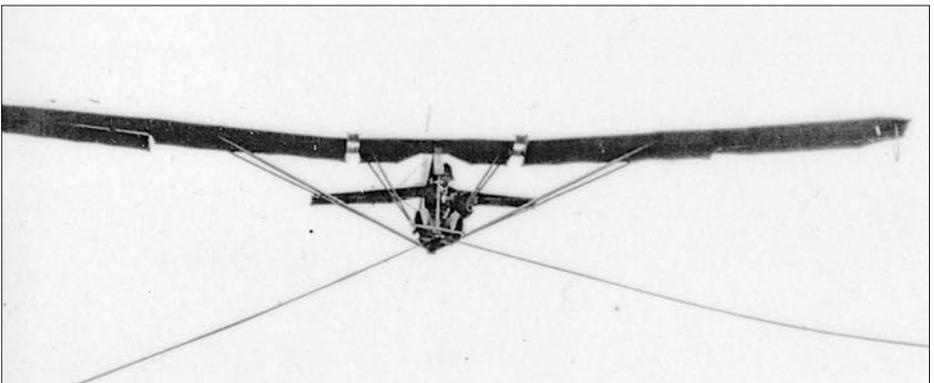
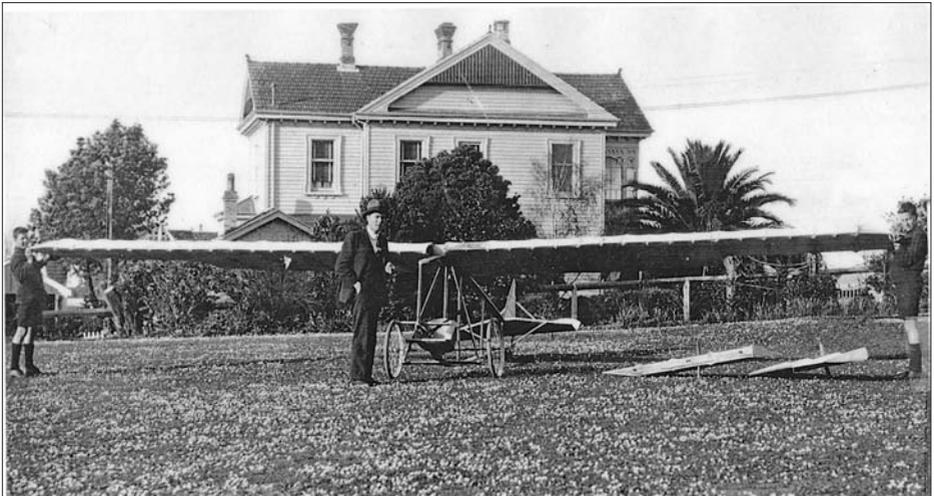
Model Aeroplane Supply Co., (MASCO). This name clashed with the Masco Wool Co., so 'Modelair' was born. Sawn balsa wood and kitsets etc were produced in sheds in the rear of homes. Steady growth of Modelair necessitated his retirement as Sales Manager of Tappenden Motors, to run the home-grown business which was now established (1935) in an Osborne St, Newmarket building. 1937 saw the move to Broadway, Newmarket, until 1993. World War II saw him back in the RNZAF as a Supply Officer in Headquarters, Wellington. On his death in April 1952, his son Angus took over control of Modelair.



**Left:** Pilot Wings achieved at the Walsh Brothers NZ Flying School in 1918.

**Centre:** Fred in front of the glider made with the Chinnery-Brown brothers.

**Lower:** A glider on the bungee launch.



# Hangar Rat at Drury - Angus Macdonald

18-6-18

In spite of the cold, almost mid-winter night, about a dozen flyers and about eight spectators turned up. There were seven entered in Hangar Rat, the official contest for the night. The cold conditions would no doubt make it hard to go much over the two minute mark and so it turned out, but this did not deter many, who made many flights. There were few moments when there was not a 'Rat' in the air. It must be acknowledged that the forbearance of the R/C flyers whose models stayed down when there was a competition flight in the air, was truly appreciated.



**Top:** Setting up the Drury hall for a busy night of 'Hangar Ratting'.

**Centre left:** Ken Smith with yellow Hangar Rat.

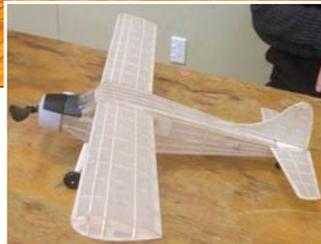
**Centre Right:** Angus's No. 6 Hangar Rat.

**Right:** Angus had too many Hangar Rats. John Swales now in charge of them.



**Results [Best two flights]**

1. B. McGarvey	2:19	2:18				<b>4:37</b>
2. A. Macdonald	2:24	1:54	1:25			<b>4:18</b>
3. R. Bould	1:13	1:12	1:36	1:48	1:55	<b>3:43</b>
4. K. Trillo	1:52	1:29				<b>3:21</b>
5. G. Avenell	1:20	1:29				<b>2:49</b>
6. L. Avenell	1:50					<b>1:50</b>
7. K. Smith	0:31					<b>0:31</b>



**Top inset:** Tony Hill seen checking his Peanut SE5a.

**Centre:** Steve Fiefeld with his kit scale Auster and Hangar Rat, foreground.

**Left upper:** John Swales brought a kit scale DHC Beaver.

**Left lower:** Ross and Noeline Craighead take a break from RC Pylon Racing to see how the 'other half' live.

**Far Left:** Ken Smith and Eastbourne Monoplane.



**Top:** The RC corner.  
**Above:** Lawrence Lynn with EDF (electric ducted fan) MiG 15.  
**Right upper:** RC Citabria ARF.  
**Right lower:** Brian Howell with Night Vapor.

# Indoor Free Flight Morrinsville Day

## Sunday October 7, 2018

### Free flight classes

- Hangar Rat
- HL Glider
- Push E
- Modelair Hornet

### Free flight scale classes

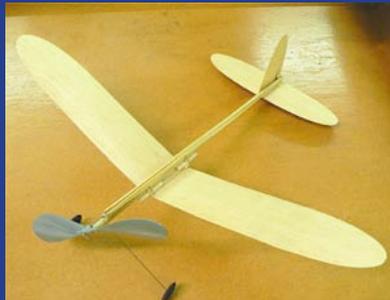
- F4D Rubber Scale
- F4F Peanut Scale
- Kit Scale

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



## MIMLOCT

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

To be flown at 4.00pm on Saturday August 4  
For venue details call Ricky on 478 8949.

## Karaka Diary - Keith Trillo

10-6-18

There was a very good turnout at the Karaka Sports ground where the weather was over-cast and cold. A light Southerly wind was blowing, that backed to Southeast at altitude.

Don Spray flew the following rubber powered models, Fairchild Ranger, D H Puss Moth, Bellanca Skyrocket, Jimmie Allen and a CO2 Piper Pacer. Angus Macdonald flew his 1/2E Texaco Eight Ball, Kea and Tomboy.

Tony Hill flew a catapult glider and had trimming flights with his rubber powered SE5A. George Fay flew a PE2, Skyraider, Folkerts SK4 Racer and Cloud Tramp.

One of the highlights of the morning was Mike Mulholland doing trimming checks with his outstanding rubber powered Sopwith Triplane which showed great promise. Mike decided it needed a little more power.

Keith Trillo had his best Cloud Tramp flight ever of 2mins 5sec. It went from near the Southeast boundary and ended up in the tennis court by the Club House.

Brendon Neilson and Brian Howell came for a social visit.



George Fay had good flying with his with Cloud Tramp and Folkerts Racer.



**Top:** Mike Mulholland had his Sopwith Triplane out for testing.

**Centre:** Don Spray's van full of models included Jimmy Allen cabin model, Piper Super Cub, DH Puss Moth, Piper Pacer and in the foreground, his Fairchild Ranger. Apart from the Pacer, all were rubber powered.

**Lower:** Angus Macdonald and his 8Ball.

## Trans Tasman Scale Challenge— Stan Mauger

This year's Trans Tasman free flight scale challenge event held on July 7-8 at the turf farm beyond the Richmond Air Force Base west of Sydney was unlike other years in several respects. We were not blessed with the usual calm conditions enjoyed in a straight run for ten years, so the event was run over two days and also in response to the number of rally flyers that have been present in previous years, Kit Scale was run for the first time.

It was an advantage to get flights in early on the Saturday morning as it became more breezy as the day went on and Sunday was no better. Bob Craine and Stan Mauger were lucky to get the pick of the weather in F4A by flying early and both had models flying well. However, Ricky Bould achieved a great flight in the same event in the Sunday breeze with his Auster AOP9 after a first flight that looked as though it might have precluded more attempts. Mike Mulholland's beautifully presented DH Tiger Moth showed promise but needed trimming on the day, while Don Spray's well trimmed Curtiss Robin suffered from the turbulent conditions on the Sunday. Phil Mitchell flew his Sopwith 1½ Strutter and Roy Summersby, his FE8 on the Saturday morning, though the wind was starting to build by that stage in the day. When marks were totalled, the New Zealand team were clear winners of the Hope-Cross Trophy F4A Power Scale event.

In Rubber Scale Mike Mulholland's Borel Hydravion flew well on the Saturday and achieved a high static score. George Fay received a round of applause for his Folkerts SK4 that handled the wind well on the Sunday. Phil Warren has flown some challenging subjects over the years. Last year it was his Auster B4 Ambulance, that proved tricky to trim. This year's Peyret Taupin tandem winged model flew remarkably well. However, he opted to fly his Comper Swift in the Rubber Scale event.

Whilst it did not attract a bevy of flyers, the newly introduced Kit Scale event saw varied models and is likely to be a fixture for future Richmond weekends. Results show very close marks between those models that were finished simply and more detailed models. Mike Mulholland had his Avetek CT4 flying well in the better air early on the Saturday. Four flyers have pledged wagers of \$100 each, to be paid if they fail to appear with Kit Scale models for next year's Richmond scale rally. How's that for a commitment!

Despite the challenges in working around the weather, this was still a most enjoyable weekend of free flight scale flying, well worth the trip to be there. As always, we enjoyed warm camaraderie and continue to make great friendships with those over the Tasman. It would be great to see some new faces from New Zealand in these events in next year's NSW State Champs. The weekend also attracts its share of spectators too. If you would like to compete or come to enjoy the weekend, contact the Club president Ricky Bould, who is also the secretary of the Control Line and Free Flight Scale SIG, email: unimec1994@gmail.com

### **Opposite page**

**Upper left:** George Fay brought his rubber powered Douglas Dauntless. His Folkerts SK4 Racer, also rubber powered, flew well in the windier conditions on the Sunday.

**Lower:** George launching his Petlyakov PE2 rubber twin. *Photos: Glenn Crouch*

## Results

### F4A Free Flight Scale - Hope-Cross Trophy Challenge event

1. S. Mauger (NZ)	Auster C4	1437.5
2. R. Bould (NZ)	Auster AOP9	1090.1
3. R. Craine (Aus)	Comte AC4	1029

### F4D Free Flight Scale Rubber - Reg Jude Trophy event

1. M. Mulholland (NZ)	Borel Hydravion	882.2
2. P. Warren (Aus)	Comper Swift	737.9
3. G. Fay (NZ)	Folkerts SK4	440.7

### Kit Scale

1. Roy Summersby (Aus)	Stinson Voyager	139.5
2. M. Mulholland (NZ)	Avetek CT4	133.5
3. P. Warren (Aus)	Piper Cub	133.0





**Top:** Ricky Bould's Auster set for a great flight.

**Centre left:** Don Spray checking his Fairchild for Kit Scale. It flew well.

**Centre right:** Don's Curtiss Robin was challenged by the windier weather on the second day.

*Photos: Glenn Crouch*

**Lower:** John Goodwin steadying Mike Mulholland's handsome Tiger Moth to assist judges with static marking. The Hope-Cross Trophy for F4A power Scale is on the table to the right





**Top left:** Stan Mauger's Antarctic Auster, now a regular at Richmond Trans Tasman contests.

**Top right:** Phil Warren had his Rubber Scale Peyret Taupin flying nicely.

**Centre:** Phil Mitchell's Tiger Moth and Sopwith 1½ Strutter set for flying on the first day.

**Lower:** Roy Summersby opted not to fly His Sopwith Swallow as the model needs calm conditions.

# Mastering Testors decals - Stan Mauger

Two forms of decals suitable for producing finely detailed markings are available. Even minute graphics can be printed by Inkjet printers, on to either a clear (9201) or white base (9202). They fill a gap where computer-cut lettering is difficult to produce and apply, apart from looking more like painted graphics. All of which suggests that Testors decals have real relevance to free flight scale and other branches of modelling. However, producing and applying these decals has its own problems for the unwary. In fact in my first attempts I became so frustrated that I was ready to give up on them. Decals fell to bits as backing was slid off them, adhesion was inadequate and delicate clear base material would often curl under as I attempted to apply them to the model. There are several key additions to



the steps set out by Testors in the instructions for using decal sheets that help to overcome these problems, in the process I outline below. Here is a description of my method including the extra work that makes all the difference.

1. Photocopy your markings or set them up in a computer file and print out on photocopy paper. Cut markings to size and check that they are the right size for your model by placing them where the decals will be applied.
2. If the size is correct, print them again on photocopy paper to check that they will fit within the area of your decal paper when printed.
3. When you are confident that everything is set up properly, copy or print out the markings on the decal paper.
4. When Inkjet printing is thoroughly dry, spray Testors Bonder in light mistings over the printed decals. Do not over do the spraying. You may want to do some tests by masking off a spare test piece so that some areas receive progressively more bonder than others to see what works best.



5. Follow the maker's instructions exactly. Make sure that decals are allowed plenty of time to dry completely after spraying. Putting them in the sun helps to speed up the drying process. Don't hurry this or any later stages!
6. When decals are thoroughly dry, trim them close to image areas to avoid any visible border of carrier material.
7. Set up a saucer of cold water inside a plate and place on a paper kitchen towel to save splashes. Reach for a stopwatch and place it by the dish.

8. With a soft brush paint the area on your model where the decal will be placed, with Gum Arabic (available from good art stores). This is a great help because it ensures better adhesion and allows the decal to slide easily so that you can place and align it properly. The decal is also less likely to break up.



**Above and left:** Don't worry about uneven coverage of Gum Arabic. It spreads with the pressure applied to the decal as you place it.

9. Start the stopwatch and pick up the decal (use tweezers if it is very small). When the stopwatch reads just under 10 seconds immerse the decal in water. Hover over the decal and be ready to fish it out on 14 seconds. As the Testors instructions state, it must be in





the water no longer than 5 seconds. This is important. Too long affects the adhesion of the decal and too short makes it hard to slide it off the carrier paper.

**10.** Place the decal on the paper towel for a few minutes so that there is time for the adhesive to soften.

**11.** Putting the decal between your fingers, gently attempt to slide it off its backing slightly. If it moves without too much resistance it is ready to apply.

**12.** Place the decal with backing still partially slid away (still attached), on the prepared place you want to apply it on your model.

**13.** Pressing firmly on the protruding part of the decal that has no backing under it, gently slide the remaining backing paper away from the decal. Take your time over this stage as nothing will dry quickly and the Gum Arabic allows time to move the transfer just where you want it.

**14.** Gently dab the area of the decal with a paper tissue to remove any excess Gum Arabic. Leave to dry, preferably overnight.

**15.** If the decal is applied to an IC powered model it needs to be protected from the ravages of fuel. When the decal is completely dry, seal it with painted on satin or gloss water-based polyurethane, ensuring that the edges are sealed.



This may sound a complicated method, but all steps are easy, with practice. The final result is well worth the effort.

**FOOTNOTE:**

*There are also some other producers of similar products that can be found on TradeMe® or eBay®, or even at art and hobby stores, so you could experiment with them.*

# Calendar August/September

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

## KARAKA

Sundays

**Tomboy Extravaganza** (*for Club points*)

Flying can take place between 10am and 2pm  
(9am to 3pm for gliders and other silent models)

**NDC RC Vintage events** (refer to MFNZ under NDC list).

**Karaka Steward**

Keith Trillo 09 298 4161 027 4607180 careith@hotmail.com

## HOTEO

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 ziply@xtra.co.nz

## AKA AKA

Saturdays & Sundays

Intending fliers should phone Lloyd Hull to confirm that there will be flying.

Instructor

Brett Naysmith

**Aka Aka Steward**

Lloyd Hull 09 235 2890

## CONTROL LINE

As advised. Intending Control line 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

(For Club points)

**Drury**

**Drury School Hall**

Monday August 20

Indoor Free Flight practice night (7.30 - 10pm)

**Drury**

**Drury School Hall**

Monday September 17

Indoor Free Flight scale. Peanut Scale, Kit Scale and Open Rubber Scale (7.30 - 10pm) - *For Club points.*

**Morrinsville**

**Westpac Stadium**

Sunday October 7

Free Flight and free flight scale classes (10.00 - 4pm)  
See notice on page 17.

**Indoor Steward**

Bryan Spencer 570-5506 bspencer@xtra.co.nz

## CLOUD TRAMP

**August 4**

MIMLOCT Mass International Memorial Launch of Cloud Tramps 4.00pm [for venue details call Ricky 478 8949]

**Note time and venue change**

## OFFICERS OF AUCKLAND MODEL AERO CLUB INC.

Patron	Angus Macdonald	575 7232	angusmac@xtra.co.nz
President	Ricky Bould	478 8949	unimec1994@gmail.com,
Secretary	Mike Fairgray	636 8439	amacsecretary@outlook.com
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	Don Spray	828 4892	drilmspray@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 (+\$75 NZMAA)    **Family** \$55 (+\$75 NZMAA)

**Junior** \$10 (+\$20 NZMAA)    **Social** \$40

Intending members with current NZMAA affiliation pay only the AMAC sub

## Please make payments to

The Treasurer Auckland Model Aero Club

Mike Fairgray,

3 Kanohi Tce Mangere Bridge 2022, Auckland

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## NEXT CLUB MEETING AND NATTER NIGHT

Monthly club meetings 7.30pm at ASME Clubrooms,  
Peterson Reserve, Panmure.

## August 6

**Theme:** Gwyn Avenell will talk about his  
Swiss FAI F4H Scale contest experience

## September 3

**Theme:** Electric powered models

**Your other current projects, models, plans, engines and  
photographs are also welcomed for the table at monthly  
meetings**

## Items for the table:

Models, plans, engines, photographs etc

## Trading table:

Buy, swap and sell

**Visitors or intending members welcome**