

July 2014



Mike Mulholland with his Class A Texaco Playboy, flown in ideal conditions at Karaka.



# Tomboy C Texaco

Tomboy and 1/2A Texaco are 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

# Editorial - Keeping the competition classes going

Now that the new competition year is under way, there are a number of opportunities for contest events each month, and it would be good to see more support of these. The Karaka Tomboy and Texaco events are progressing well with interest in these each month. But I am sure that the regular Karaka fliers would welcome some new faces in these events and Karaka is of easy reach from anywhere in the city.

The Hoteo field is ideal for Club and the NDC events that are down for each month and it would be great to have more support for these. There must be plenty of free flight and vintage models that have not been aired for a while that could be flown in this month's schedule.

Indoor support is desperately needed at the moment, as Bryan Spencer has indicated in his event notice emails. With the winter months now upon us, indoor flying venues are of course independent of the changes in weather. This month's Balmoral evening is down for Peanut and Open Rubber and Profile Scale Classes. If you have not flown these classes for a while but have models, or are even just interested come and watch the action. There are two scheduled evenings each month at Ellerslie for RC Indoor flying. On the second evening ARF, Simple Scale and Full Scale RC scale classes can be flown in this good indoor flying space.

Scale fliers will be interested in the postal Plan Scale event running throughout the year. See the notice below. It is a straightforward rubber scale class based on building quality and model endurance that can be entered at any time during the year (refer to Mike Fairgray's article on page 13).

Further afield, Ricky Bould George Fay and myself are heading to Richmond west of Sydney in the first weekend in July, for the Hope-Cross Trophy F4A Challenge event for free flight power scale as the New Zealand Team. This event was set up and promoted by David Hope-Cross and ex-pat Lloyd Willis back in 2003 and has continued to grow since then. More on this in the August bulletin.

To all who support the Club's competition events, best wishes for fun and success.

#### Stan Mauger

### Postal Plan Scale Competition 2014

Any rubber powered scale model built from a published plan (or kit) qualifies. Flights may be put in at any site including your local park as long as the flight is timed by someone else.

Refer to April 2014 Slipstream for rules and entry form

# Monthly Club Night - Angus Macdonald

#### 5-5-14

Present were John Bercich, Ricky Bould, George Fay, Paul Evans, Angus Macdonald, Stan Mauger, Louis McNair, Rob McNair, Arthur Pearce, John Raybould, Bryan Spencer, Don Spray, Keith Trillo, and Keith Williamson.

In the absence of El Presidento Charles, V.P. Keith Williamson took charge. Guest Rob Costello was welcomed and there was news of two long standing members. Bruce Keegan is now in care and has had to sell up his home. Several members are sorting and finding good homes for his vast collection of models. Our best wishes to you.

Stan Mauger reminded us to get our times in for the ongoing 14/15 Annual open rubber contest. Brian Spencer brought up the lack of attendance at recent indoor meetings. There has been a steady drop for some time culminating in the last two meetings having only two fliers. The rent remains the same and now there is only enough in 'kitty' for June. It has been left until the 7th July Club night, when a decision will have to made. Do we drop it altogether? Reduce to one night for all types and fly free flight and R/C on alternative months? Think on it, talk to friends and be at the July club night. On a happier note, Keith Trillo reported that the last six Sundays were all flyable, mostly calm and sunny.

And so on to the table. Louis McNair, a new member, displayed the framework of a nicely constructed DH 60 Gipsy Moth Peanut scale from a Peck Polymers kit. Very tiny bits and fiddley to work on was his comment. Don Spray had the ex Bruce Keegan framework of an Earl Stahl Stinson Voyager which he will be completing. His Heinkel He 46 has advanced to the green tissue covering and now sports a lovely big scale radial engine. A bolt of about 16mm dia. and 1.5mm pitch was used as a master for a mould to produce very realistic cylinder fins. A Mills 1.3 will give the urge.

Ricky Bould produced a kit of one of his favourite aircraft. The 'Fairey Firefly' was active in WW2 but in the latter stages was reduced to being a radio controlled target drone. He has not yet decided on CO2 or rubber power. Also on display were two plan sheets each with three vintage designs reduced in span to suit the popular (in UK), mini bungee launch using three metres of 1/8" rubber and twelve metres of line.

His "AJ Interceptor", a catapault launched glider of about 18" span was unusual in that its folding wings went flat against the rear sides of the profile fuselage and a rubber band pulled them into position at the top of the trajectory.

Stan Mauger had an ex Bruce Heasley rubber power Corsair (Wingleader kit we think) FTAGH. Louis was seen later studying it and asking questions about covering. I think it has found a good home.

In the spirit of the evening's theme of "Rubber Power", Angus produced from a very small box, a half size (7" span) Modelair Hornet which regularly bangs about in the ceiling of the Balmoral hall. George Fay a had rubber powered Kyoshi Shinden, a pusher canard of WW2, which saw a little service near the end of the war. Unlike the original which was not

very successful, George's model flies well. A lovely F4A (power scale) Douglas Dauntless will accompany him to Sydney soon for the Hope-Cross Trans-Tasman scale meeting. Best of luck George.

The framework of a Yonder class 'D' stick model is the basis of Keith Trillo's 'e-rubber duration entry. Very tiny servos, completely hidden in the base of the rudder and under the centre of the tailplane (protruding down into the rear of the fuselage) will help to balance the weight of the electric motor in the long nose. Keith is experimenting with a low Kv outrunner motor and reduction gearbox in an attempt to use a larger (scale type) balsa prop.

The 1997 'Jabberwok' was Keith Williamson's offering for the night's theme. The 'Gollywok' was the same aircraft with a slightly different fuselage. Paul and Martin Evans had some of Bruce Keegan's models including a 'Cloud Tramp' which may encourage another attendee at the annual 4 am. start to the "Memorial International Mass Launch Of Cloud Tramps".

Arthur Pearce's Flightpath magazine detailed the flight of a replica (full size) Bristol Boxkite which took off, to the minute, 100 years after the take-off of the first Boxkite in Australia. To round things off in fine fashion, the First place trophy for F4A Free Flight Power Scale at the 2014 Northern Area Scale Day on May 4th was presented to George Fay. Congratulations George. And so to 'Natter' and coffee and bikkies.



Above: Keith Williamson's Jabberwock rubber endurance model has been flown in the U.S.







**Upper:** Angus Macdonald's miniature Modelair Hornet came out of the box and was flown to show how well it flies.

**Centre:** Louis mcNair has accepted the challenge of building at Peanut scale with skilful results.

*Lower:* Ricky Bould's KK Competitor has already proved itself a great flier in the on-going Open Rubber event this year.









#### **Opposite page**

**Upper left:** George Fay has his handsome Douglas Dauntless flying well, after much perseverance.

Left: Also by George, an ambitious Don Shrulldesigned rubber powered Shinden. He has had good flights from it.

Left: Don Spray has made impressive progress with his new larger Heinkel free flight scale He 46, now at silk-covering stage

*Inset:* The Mills 1.3 is snuggled very neatly in the dummy radial engine.



# Trevor Martin - A tribute

Trevor Martin who died on 17th June will be sadly missed by his many friends in AMAC and throughout the wider model aviation sphere. Trevor became interested in model aircraft as a young man, having joined New Plymouth MAC in 1958. He attended the World Free Flight Champs in Germany in 1962 when he also witnessed indoor flying in Britain's Cardington R101 airship hangar. He then settled in Auckland, marrying Ngaire and pursuing his career as a draughtsman. Living in Avondale, Trevor joined the Roskill Club but flew indoor models at Mangere Hall and became an Auckland MAC member in 1967.

He was soon on the club Committee and over the years has served repeatedly in various capacities, including Bulletin Editor and Recording Officer where his concern for accuracy is legendary. Over this period he has been a regular at club nights, attending practically every special event held by the club and often prominent in the arrangements involved.

Trevor's highly skilled building and flying has encompassed a range of outdoor and indoor disciplines, including the challenging area of microfilm models (where he was Nats winner 15 times). He has represented the club at the Nationals on many occasions, winning A/1 and A/2 tow-line and hand-launched glider contests and has brought further honour to the club as a team member in Trans-Tasman and World Championship events. Running and flying in the 1986 Moffett Gold Commemorative Contest at our old Karaka site is another achievement of which Trevor was justifiably proud. We extend our deepest sympathy to John and Kim, Janine and Andrew, and Trevor's grand-daughter Lucy by all of whom he will be deeply missed. The aeromodelling movement has lost an outstanding exponent, while friends and family together grieve for someone that we liked and admired.

Michael Taylor

#### Trevor as we remember him ...



A regular flier in indoor events at Balmoral.



A very good competition flier, here receiving the President's Trophy in 2010.

# Karaka Diary - Keith Trillo

#### 15-6-14

A fine calm morning with sufficient high cloud to provide a back drop for high flying models. Mike Mulholland had some good flights with his Modelair kit scale rubber powered Auster. He then flew his beautiful Playboy. Some of the flights were short due to the PAW 19 being a little fickle.

Bryan Spencer, Angus Macdonald and Keith Trillo flew E Tomboys on 1 min engine run with Clive Norman and John Raybould helping with the timing. Bryan and Keith flew two flights each with 1/2A Texaco models, having good flight times when the Cox 049 decided to use all the fuel available instead of getting the sulks after a minute or so.

Results				
E Tomboy 1 min LER				
B. Spencer	3:28	4:32	4:01	
K. Trillo	3:54	3:55	4:33	
A. Macdonald	2.15	2:14	2:47	
1/2A Texaco				
K. Trillo	4:22	11:07	Skipper	
B. Spencer	8:46	1:56	Slicker	
A-Texaco				
Mike Mulholland	1:05	6:39	0:42	7:52



# MIMLOCT Sunday August 3, 2014 (Memorial Mass Launch of Cloud Tramps)

Plans for the Cloud Tramp were published in the October 09 Slipstream, or are available from the Editor • There is now plenty of time to start building one of these simple models.



*Top:* There was a strong Tomboy presence as well as Playboy, Slicker, Austers, Humming Bird and Cloud Tramp. Beyond, Angus Macdonald checking radio gear. *Above:* John Raybould giving Mike Mulholland a hand to wind his Modelair Auster.

# How I kitsetted the SE5a and why I'm OK with it - Mike Mulholland

On a cold and foggy Waikato morning in a scene that could have come straight from Dawn Patrol I finally maiden-ed my Rubber Scale SE5a. I built this model about 10 years ago based loosely on the 27" Doug McHard power version, but with complete scale structure, packed with every possible detail and as light as I could build it. The idea was to attempt a museum quality scale model that would fly well. To give some idea this model had a sprung tailskid mechanism, aileron pulleys inside clear inspection panels in the wings, spiral bound tachometer cable. From a mechanical point of view the model was designed to be easily adjustable with a screw operated variable incidence tailplane (as per the real aircraft) and a fully adjustable thrustline device. The model had a few test glides when it was first built, which demonstrated that it was rock steady and slow. All it needed was the rubber. At that point fate intervened and our ex-cat walked on the tailplane. Repairing this properly was going to be a major job if I wanted to maintain the perfect finish, so it got shelved. Fast forward ten years of career, kids and hangar rash to the present and we have an aging and brittle once beautiful, but now somewhat blown



The SE5a set for some flying on the Scale Day

upon hangar queen. That model would sit there like the elephant in the room looking accusingly at me from its perch, and daring me to start anything new - how could you leave me like this? And yet to do the thing justice and achieve the original aim would be nigh on impossible. And then came the 2014 Patetonga scale day. Having nothing current to fly in Rubber Scale I decided that one way or another I would get a flight out of the old cow. I worked until 1am that morning feverishly knotting and splicing to get it all ready. After a few short hours' sleep I was on the field and ready to go. The initial flights were very promising. Rock steady wide circles to the right, lightly loaded even with the rubber and very slow. By the time I had worked up to 500 turns it was clear that the 4 strands of 3/16 weren't quite enough and so the decision was made to put in another loop. It was in the course of winding for the first flight with the extra loop that we went bang with about 600 turns on. The fuselage was completely disembowelled, eviscerated. In the shocked silence that followed I realised to my surprise that I was not upset. Not just the affectation of sang-froid that convention dictates in these circumstances - I was genuinely not upset. I think on reflection that I lost that model 10 years ago when it was damaged. At this point, with the ravages of age, it was never going to be what I had intended it to be, and if I hadn't taken it to Patetonga that day it would have sat on the shelf until it spontaneously collapsed. I had some good trimming flights that proved both the model and the method and I have been released to go forth and build beautiful new scale subjects. And if one of those happens to be an SE5a I have a supply of very nice scale parts for one...

#### **Choosing a model for the Plan Scale Event** Mike Fairgray

I like building a model that looks like a real aircraft type, but I do not want to spend hours adding detail to the model as required for Scale Competitions. The plan scale competition allows me to build the model as presented on the plan which usually shows minimal detail. What type of model to choose? I find that the best aircraft type is the high wing civilian cabin with a long nose. For outdoor flying a wingspan of at least 25 inches and up to 35 inches is best as this makes for a stable flyer which can handle varying wind conditions. My choice of model was the 25in span Interstate Cadet from an Aero Modeller plan by Philip Kent downloaded from the Hip Pocket Builders web site complete with building instructions. This is a great site for all types of plans as well as books, magazines and model companies' kits.

I like to strip my own wood and for the larger models I strip the balsa 1.5mm x 2mm. I mark one end of the balsa sheet with an ink marker prior to stripping so that I know what side is 1.5mm. My reason for this is that I lay the balsa over the plan with the 2mm side uppermost and this gives me ample wood to sand without going below the 1.5mm thickness. Next I make a kitset of all the parts that I need to complete the model. The wing has a lot of ribs that are easily made in one hit using the template/sandwich method. I used Selleys Aquadhere Quick Set PVA glue for most of the build, which follows the normal procedure of building the fuselage sides on top of each other, then adding the cross pieces and bringing the sides together. The wing was easy to build with the ribs having a straight under side. I chose to not make the wings removable. I like to attach the wing end of the struts using a small aluminium tube. I take a piece of 1.5x5mm strip sew the tubes at the correct position and then glue this to the side of the rib just so the tubing is protruding above the rib. The strip of balsa gives the tissue something to stick to. The struts have wire sewn to them at the wing end and bent to go into the tubes at the correct angle. The other end is glued into the model at the correct point and reinforced with balsa. I find this a better approach than gluing the struts to a platform glued to the rib. The finished weight, less rubber, was 61 grammes. The tailplane and fin are made from 1.5mm balsa sheet. The model was covered with tissue attached with a 50/50 mix of PVA and water. The tissue was shrunk with water and then doped. The glazing was from overhead transparency sheet. I took the blue and yellow finish from the real aircraft NC37411 from the book "American Classics of the Air commercial and private aeroplanes from the 1920s to the 1960s."



# Hangar Rat at Balmoral - Stan Mauger

#### 26-5-14

With many regulars away, this eveing's Hangar Rat flying got down to a contest between Angus Macdonald and Keith Williamson. Angus discovered some repairs needed to the leading edge of his model, but had them repaired quickly and the model readied for flight. Keith was surprised to fine some holes in the covering his model presumably because moths or silverfish have a liking for Jap tissue. Modellers beware! Undaunted, Keith soon had his model assembled and flying well. However, on its first flight the parasol became detached from the wing and repairs were needed. Once repaired, the model was flying well and put in good times as the results below show. Angus had gradually improved his times having a good final flight, to put him in the lead. The Balmoral evenings could do with more support. Please come along if you fly in these classes and support the evenings.

#### Results

1. A. Macdonald	1:46	0:58	2:12
2. K. Williamson	0:25	0:40	0:56



**Right:** Keith holding the two dislodged surfaces together whilst the glue dried. The model was soon put back together again and flying well.

## Fun with a Powawing! - Geoff Northmore



Some twenty odd years ago I was looking for something original and different for the Old Warden Vintage Weekend R/C scene. Every year the same relatively few vintage models designs were on parade so I endeavored to both build and fly a model that was out of the ordinary. Unfortunately, even today, there are still many who don't produce anything apart from those old and very familiar designs.

In Ben Buckle's plans catalogue I found the Powawing a 75" span free flight flying wing which was a design of the late Howard Boys dating from 1948. This looked very different from the norm and a challenge to convert to R/C so the plan was bought.

Upon its arrival I decided to keep very closely to the original practical construction, but not use a Mills 1.3 for power as shown on the plan although I had one. I was anxious to get my, as yet

unflown, G Mark 0.12 twin glow airborne and it seemed to fit the bill for motive power. A note on the plan cautioned against any over powering, but with careful throttle handling there wouldn't be a problem, or so I imagined.

The Powawing has a fuselage shaped like an army boot and a three piece wing consisting of a centre section and two outboard portions each with a trimming surface for free flight and a fixed fin at each wing tip. As changes are inevitable for an R/C conversion, local strengthening plus a radial mount for the engine, to replace the beam mounting of the plan, and provision for the radio installation, were the major items. My Tx had mixing capability so the original plan's trimmers were changed to elevons for control. A micro servo in each outer wing section for the elevon had an extension lead to the fuselage Rx. Next the fuselage and wing centre section were constructed as a single unit for simplicity. The throttle servo, Rx and battery were a tight fit within fuselage.

My outer wing sections had an angled light alloy joiner fitting in boxes between the top and bottom spars to mate up with the centre section. Cellotape at the join would keep all secure for flying – I hoped! The Rx aerial ran internally through a drinking straw tube in the left hand wing because of the pusher engine installation.

Construction moved apace and proved straight forward. Ply plates were used in the fuselage and wings for the undercarriage. A vertical ply former provided a mount for the engine and its throttle micro servo. The completed model was covered in heavyweight

tissue and doped. Unexpectedly the engine needed to be moved further aft for C of G purposes whilst the model weight at 2lb 5oz was rather more than desired.

Came a calm day at the patch and, the surface being too rough for a take-off, a club member offered to launch Powawing for me - not the easiest thing as he had to grip the fuselage with one hand in front of the wing. Powawing climbed gently away and took up a slow left hand turn. A touch of right stick did nothing and finally full deflection plus trim had the same result. I throttled back and the model slowly started to



descend and the turn straightened up. I landed straight ahead after a single minutes flying. Before trying again I adjusted the elevons for maximum throw – need not have bothered for all the difference it made. A tree was collected, after a minute or so, this time!

Next I adjusted the elevons for a permanent right turn and had another go. This time I let the model get to a decent height before trying a right turn – foolish old man – eventually it homed in on another tree. I called it a day and went home and, using wedges, added five degrees of engine side thrust and drilled a lower hole in the elevon horns to increase their effective throw.

On my next session the same volunteer launched for me with the same general result, but Powawing turned left much more slowly and would even fly straight with the throttle opened a trifle – promising stuff! On the spot I increased the side thrust to 9 degrees and launched again. Success at last! And I managed a RIGHT turn under power and I flew for 4-5 minutes on a rather erratic path. Then for no apparent reason the model pitched down and plunged vertically from about 50 feet striking terra firma a frightful blow! Powawing instantly became Cat E in R.A.F. parlance, re-kitted or reduced to produce, being other definitions.

Retrieving what was possible from the remains and tackling the new challenge Powawing 2 was built with some major modifications. I had come to the conclusion that the model was exceptionally stable in roll – far too much for R/C so the dihedral was reduced by

**Opposite page:** Powawing Version 1 in 1994 **This page:** Powawing Version 1 showing G-Mark engine installation a third and some of the washout removed from the wing. This time two half wings were built using wire joiners into fuselage tubes, as is common in glider practice, to mate up. The elevon servos were repositioned to the wing root, some wing sheeting was no longer required and the engine bulkhead was repositioned with built in side thrust. A few ounces in weight were saved by these alterations.

When finally flown the model still had a natural left hand turn, but right hand turns under power were possible at last. Hurray! However, it left a lot to be desired overall.

Some time later I visited my friend Dave Stokes taking the wing with me. We flew it from his local patch. Dave thought the model yawed on commencing a turn and recommended differential aileron inputs. He showed me an article about a full sized German flying wing glider which had had a similar problem cured by wingtip rudders.

Back home I soon set up the differential aileron part of the elevons, but the rudders were a problem if I was to avoid a major rebuild. After some lengthy thought I came up with the following idea which is shown and explained with the sketch - basically the principle is you can't push things with string! This enabled me to modify the fixed wingtip fins whilst retaining the full elevon area. A Powawing or so later, at a fellow modelers suggestion, an even simpler method was tried with excellent results. A second horn on the elevon operated a pull only wire to a vertical horn on the in board rudder.

Back at the field there was real success as the model turned and handled much better after some short flights and altering the throws a little at a time. As confidence grew I even tried a loop, but it was a no go and rolls were impossible as was spinning.

After completing about an hours total flying Powawing suddenly threw a wobbler and Kamikaze attack, but luckily from a low altitude so only superficial damage occurred. Whilst repairing the damage I took the opportunity to install more powerful servos with a larger disc these changes enabled more differential aileron and thus rudder movement.

The next few flights were real fun although sluggish in pitch, but the throttle had a marked effect and could be used deliberately to adjust pitch.

I plucked up courage and took Powawing plus sundry other models to the Old Warden Vintage weekend. Dave Stokes was there and hand launched for me and Powawing behaved magnificently for the 10 minute slot. I eagerly booked another and – you've guessed it – a vertical dive to the ground. How I smiled as I picked up the remains to the applause of my fellow fliers, such sympathy and good fellowship!



Three dives were too much so I began to think back. Each dive had occurred with the engine throttled to idle. Now the G Mark will happily run in either direction and I remembered it had reversed once whilst idling on the ground after start up, but I'd thought nothing of it at the time. If it should reverse in the air it would explain the Kamikaze effect. Oh, clever me! I had a good look at the remnants and decided the wings were salvageable so a new fuselage and a change of engine to an OS10 should solve the problem – it did not as after a few good flights self destruct was the order of the day for Powawing 3.

Prior to building Powawing 4 I had conversations with other flying wing operators and came to the conclusion that my reduction in the original washout coupled to the high thrust line and general over powering was a lethal combination. So for the latest version the reduced dihedral was retained, but the washout was increased to nearly the original value. This time my MK 1 Mills 1.3, fitted with a Mills throttle, provided the oomph!

Now I've found a Mills will throttle over a small range, but prolonged idling can cause problems when trying to open up as acceleration is slow and the engine tends to flood if the throttle is opened quickly – so beware if you try it.

This version gave no trouble and has been flown on many occasions and when I left the U.K. to live in N.Z. I passed Powawing on to Bob Kemp who being an electric enthusiast installed an electric motor and battery pack. Powawing flew in a brisk manner and has not had any Kamikaze tendencies as far as I'm aware using this method of power.

The photo below shows Bob and me holding his electric conversion. If anyone is tempted to have a go I can guarantee you'll have a model with a difference and you may even enjoy the experience.



**Opposite page:** Powawing 4 Mills 1.3 installation. **Above:** PowaWing now electric powered and flown by Bob Kemp.

# Checking Wing Incidence - Stan Mauger

I have sometimes been suspicious of differences in wing incidence when a free flight scale model shows a nasty turn under power. I decided to be a little more scientific than just sighting the two wings from the trailing edge end, when this happened to my 48" span Auster. The simple construction that I made to check this took under an hour and was enough to reassure me that the wings are now at the same incidence angles. Here's how I went about it.



**1.** Cut the underside contour of the wing aerofoil using a template. I used a piece of 75mm x 3mm balsa and cut the shape from each side as above.



**2.** Then cut through the balsa sheet to create two templates of roughly the same size.



**3.** Cut two panels to support the templates. I made mine out of 3mm ply but thick corrugated cardboad or foamboard could also be used. I made them 250mm x 250mm. Only a thin glue line is needed. Aliphatic adhesive is ideal.



**4.** To ensure a good bond, the first template was clamped to the first ply plate.



5. Pin the second rib template over the first, lining up as carefully as possible.6. Run a glue line over this template.





**7**. Then line up the bottom edge of the second sheet over the first using a strip as a stop.

**8.** A 3mm balsa scrap was needed between the two clamped sheets above to pack out the second sheet.



**9.** When thoroughly dry, each of the two template/panels was held in place with a G-clamped triangular "set square" that I had used for biplane rigging. These are useful for aligning jigs, and used here to keep the templates vertical.







#### Calendar

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

KARAKA				
Sundays	<b>Tomboy Extravaganza</b> (for Club points) Flying can take place between 10am and 2pm (9am to 3pm for gliders and other silent models) NOTE 1/2A Texaco is included in the Karaka/Tuakau Programme			
Karaka Steward	Keith Trillo 09 298 4161 027 4607180 careith@hotmail.com			
ΗΟΤΕΟ	<b>NDC events</b> Vintage RC Precision, Paylod, 1/2A Power, Open Glider, Vintage FF Precision, Vintage FF Miniature replica Vintage FF Texaco Scale Classic RC Precision events may all be flown at Hoteo.			
Hoteo Steward	Paul Evans 479-6378 ziply@xtra.co.nz			
ΑΚΑ ΑΚΑ				
Saturdays & Sundays	Intending fliers should phone Brett Naysmith to confirm that there will be flying.			
Instructors	Grant Domigan and Brett Naysmith			
Aka Aka Steward	Brett Naysmith 09 235 8803 brejo@xtra.co.nz			
CONTROL LINE				
As advised	Control line flying Intending fliers 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 Balmoral July 28	<b>Open Rubber Scale, Peanut Scale, Profile Scale</b> and <b>Kit Scale</b> [7,00-10pm] - for Club points			
Ellerslie Tuesday July 15	Michael Park School Hall Indoor radio flying (7.00-10pm)			
Tuesday July <b>29</b>	Indoor Radio Scale including ARF Scale, Simple Scale and Full Scale classes [7.00-10pm] - for Club points			
Indoor Steward	Bryan Spencer 570-5506 bspencer@xtra.co.nz			

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#### **Club subscriptions**

NZMAA Affiliation is mandatory for Club flying Senior \$53 (+\$67 NZMAA) Family \$55 (+\$72 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 Mrs Jeanette Northmore, 20 Larsen Road, Panmure 1072, Auckland

#### NEXT CLUB MEETING AND NATTER NIGHT

Monthly club meeting 7:30 PM

#### Monday July 7, 2014

ASME Clubrooms, Peterson Reserve, Panmure.

#### Theme: Winter aeromodelling projects

#### Items for the table:

Models, plans, engines, photographs etc.

#### Trading table:

Buy, swap, sell and donate.

#### Visitors or intending members welcome