



## FROM THE EDITOR

I am sorry I am a little late this time, but thanks to the number of you who have submitted articles and pictures we have a quite a variation of topics.

It is good to see some Engines articles coming through, thanks to Ian Munro for some notes on his replica Mills diesels, that takes model building to the highest level when you also produce your own engine. The articles by Bryan Treloar have stirred Andy Brough from the UK to providing some beginners tips on Spark Ignition that may help some others into this side of real Vintage modelling. Your Editor is still struggling with his Spark job but will persevere.

On the Building side we have a great article by Roger Riley on his build of the Black Magic, and another from Allan Knox with a Scram.

The Electric power side of Vintage is growing rapidly from all accounts so we have news of an event to be held in Tauranga in November and as a guide there are some good tips from Brian Harris on what works for the various classes. Hopefully the allotted day will be fine so that a good competition will ensue. The Electric RC classes will be flown at the January 2012 Nationals so there is a further competition for your model.

The Top Ten Leader board has had a good response with good times being posted, this should encourage others to participate in those events that yet to have an entry.

The Nostalgia 1/2A/ Min replica Postal starts this next month, it is unusual in that it only asks for the two best times flown in the period. This is just to enable those with limited field size to have a go to get a taste for the class. The class is to be flown at the January 2012 Nationals so all will not be wasted. 1/2A was a very popular Class in the 50/60's as described by Ron Magill in his article, even your Editor flew it and made a 3rd place in a Nats long ago.

The Plans Service is growing and our Plans Man Mark Venter describes the latest progress. Maybe you can help with submitting your old plans to add to the list let him know what you have available.

Well that's about it from me, time to get back to the warm fire, we even had snow on the high hills in Northland a week ago, nearly unheard of.

*Graham Main.*

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### ***NEXT TIME***

*Competition*  
*Results*

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## **HAWKEYE BUILDS A BLACK MAGIC...**

You need a new hobby!" Well, that was what she had said (my dear long-suffering wife that is!) and so here I was buying balsa like it was going out of fashion at the local hobby shop.

Maybe I had better start from the beginning. About 2 years ago I joined the Hamilton Model Aero Club to foster and develop a dream I had when I was 7 years old. At that age my uncle made those wonderful Keil Kraft kits of the 'Eaglet' and 'Senator' for me and I ended up making the 'Cadet'. As luck and life would have it I was never able to develop this interest to I/C engines and R/C so when I joined the HMAAC it was with a desire to learn how to fly - and at the back of my mind to make the Black Magic - a beautiful 1946 vintage design by Fred Hemsall a picture of which I kept from my boyhood days in an old Aeromodeller annual my uncle gave me from his childhood.

After much thought and reading of many ancient aeromodelling magazines I thought I knew enough to be dangerous so I sourced a plan of Black Magic (in fact several) through Mark Venter at the AVANZ Plans service and had them printed off at the appropriate size. I then approached my long suffering club captain and trainer Gordon Meads for advice and guidance and a few pointers on how to start off. Actually Gordon gave me tremendous encouragement without which I would have been truly stuck.

So finally I was standing in front of the building board, plan of the wings pinned to it and my first sheet of balsa in front of me about to start my first scratch build. It was here I tried to cut the ribs individually and discovered I needed to cut templates in order to do this (did I tell you this was a huge learning curve?). However eventually they were completed accurately and to my beginners eyes they looked good too! The wing tips and trailing edges were then cut glued and pinned to the board. I shaped these to section and later on I was glad I had as I discovered it was easier to plane and sand them before all the ribs had been added. Lower sheeting and spar were then added with the appropriate packing before the ribs were added ensuring everything was square and true. When the leading edge, top spar and dihedral braces were added the wing began to really take shape.



Washout I thought was something you got with flooding but learned it helps to prevent tip-stall (I was learning the terminology as well!) and this was duly built into the wing trailing edges. Shear webs, top sheeting and finally the diagonal rib braces were added to complete the first wing.

The second wing followed a lot quicker than the first - culminating with the gluing of the entire wing to the dihedral braces and the other wing root ribs. I took time at this stage to ensure that the different woods were blended and smoothed as I had been warned that this is really important when covering with iron-on materials.

The construction of the tailplane, fin and rudder came next and building-wise this was very quick but involved some considerable thinking out on my part as to how the tail would all be secured and come together in the final assembly. As the tailplane comes halfway up the rudder it was a potential point of weakness which I decided could be overcome by pinning the entire structure together with a short piece of doweling without adding too much extra weight.



The building of the fuselage was where I planned the installation of the R/C gear and I have to say when I first started out I only had a vague notion of how to lay everything out - this developed as construction progressed. I soon realized that this process should be well thought out **before** the construction commences to avoid awkward re-modelling in order to accommodate the push-rods and servos and most of all the installation of the engine. So much

to think about! The engine went in and came out more times than I care to admit but finally I had it nussed out. Soldering was another skill I needed to acquire in order fit the undercarriage and here again Gordon came to the rescue.

From here on the plane seemed to come together very nicely - the installation of the avionics were completed successfully along with the engine and fuel tank and tubing - side panelling and windscreen fitted and glued in place. There were a few hairy moments such as gluing the top engine hatch to the cutting board with CA because I didn't realize how well it was able to wick through ply! But, no worries ay, it's all good! I just made another!

It had now come to the point I had been nervously anticipating and that was the covering. I had decided on the colour scheme a long time previously - it would be iron on film to help give the model as fuel proof a finish as possible and the colours - solid black and see through burnt orange with white stripes. I was a little worried I was being over ambitious here for a first model but I needn't have worried as I was given some great advice and the confidence to put iron to plastic by Tom Charlesworth - again without which I would have struggled. I discovered that all the hard work and patience of building can be enhanced or destroyed by your covering job and a good covering job has a lot to do with how you prepare the wood surfaces to accept the film covering.



I have to say that the end result is very pleasing - this is something I have wanted to do for longer than I care to admit! I also have to say what a great hobby this is both from a personal satisfaction point of view and the fact that it has the ability to bring people of like minds together to create something good. I am very grateful to all the people who have offered me encouragement and advice throughout this project - without it the learning curve would indeed have been ..... greater!

Now she only needs to fly!

Roger Riley aka "Hawkeye"

*What a great job you have done Roger, you certainly asked the right advice and the right guys to assist, but in the end it was you that did the job. Good to see that final necessary part being done getting the balance in the right place. I hope you have had a chance to fly your model by now it certainly is a good feeling. Ed.*

**LOOKING BACKWARDS.....1/2A POWER MEMORIES***From Ron Magill*

Editor's Note: *Not all the designs mentioned by Ron in this Nostalgic look back at the popular 1/2A Class are within the dates for the Nostalgia class those that are outside the dates are noted with an asterisk \**

Engine Eligibility

Why go to the effort and expense of trying to locate Atwood's, Hornets and Thermal Hoppers? I did about 15 years ago and did get an O.K. "Cub" and a McCoy which I put into VINTAGE models. There are plenty of Tee Dee .049's and similar Cox motors around which could be used.

Model Eligibility

I referred to an article (unpublished) that I wrote for FFONZ NEWZ when Chris Murphy was the Editor. There were two plans from the "Model Aircraft" range available in the AVANZ plans at the time. The "Sunstreak by Brain Faulkner, the original had an Atwood Wasp, mine had a D.C Bantam. The other was Paul Newells "1/2A Wunda"\* (MA 4/61). The only other clue I could find was a photograph of Al Wisher's "Thermal Hopper" model which looked a lot like Tony Young's "Dynamo" published in 1962. Tony and Al were flying mates at the time; not club mates as SAME rules called for timekeepers to not be from the same club, so they all joined different Clubs!

Better stick to American designs, or use a 1.5 cc diesel design such as Aeromodeller's "Eliminator" or "Y- Bar" with a good Tee Dee .049; should be easy to trim, but the light engines and huge around 50% tails would make locating the C.G. a bit of a problem.

"Model Aircraft" had three designs in their Plans catalogue. Ian Lucas's "Clot", Woodrow's Isotope and a sneaky one, the Dave Posner "Mini Weaver",\* (MA 4/63) which was a scaled down "Dream Weaver". Other scaled down 2.5 cc designs would be "Gastove"... Paul Newell made a super replica of this Mike Gaster World Championship winning model complete with planked fuselage and original colour scheme for a Tee Dee .049. There are copies of Vic Jay's "Jays Bird" in 1/2 A size. If you really wanted to make life hard for yourself, you could scale down Pete Buskell's "Slick Stick".

Another option would be to use a Payload design like Joe Bilgri's "Payhopper" (designed for the Thermal Hopper) or Pet Ferrara's "Atlas". I'm leaning towards the latter as I have the magazine article, which has an easily scaled up plan and lots of full size parts.

Don't build a "Zeek" or any of the Hogan series as these are really Vintage designs under NZ rules except for the "Ultra Hogan". The "Kiwi" by Lew Mahieu is OK as is the "Asteroid" (like a "Satellite"). Plenty of food for thought here. *Ron Magill*

*Editor's note: (yet again), A trawl through my incomplete library of UK "Model Aircraft" magazines came up with the following designs That would fit the Nostalgia period 1/2A category without scaling*

<i>Plan No.</i>	<i>Name</i>	<i>Designer</i>	<i>Span</i>	<i>Date</i>
<i>MA 90</i>	<i>Minotaur</i>	<i>R Twomey</i>	<i>39.5 inch</i>	<i>02/51</i>
<i>MA 96</i>	<i>Milli</i>	<i>H Auser</i>	<i>38 inch</i>	<i>03/51</i>
<i>MA 121</i>	<i>Contender</i>	<i>J Gorham</i>	<i>46 inch</i>	<i>02/52</i>
<i>MA 131</i>	<i>Scrambled Egg</i>	<i>T Smith</i>	<i>30 inch</i>	<i>08/52</i>
<i>MA 161</i>	<i>Centaur</i>	<i>J van Hattum</i>	<i>47 inch</i>	<i>09/53</i>
<i>MA 165</i>	<i>Red Raider</i>	<i>E Helliwell</i>	<i>38 inch</i>	<i>11/53</i>
<i>MA 189</i>	<i>Clot</i>	<i>J Lucas</i>	<i>46 inch</i>	<i>07 /54</i>
<i>MA 196</i>	<i>Penny Rocket</i>	<i>A Hatfull</i>	<i>36 inch</i>	<i>10/54</i>
<i>MA 225</i>	<i>Incentive PAA</i>	<i>R Firth</i>	<i>45 inch</i>	<i>12/55</i>
<i>MA 237</i>	<i>Isotope</i>	<i>W Woodrow</i>	<i>44 inch</i>	<i>5/56</i>
<i>MA 245</i>	<i>Sunstreak</i>	<i>B Faulkner</i>	<i>36 inch</i>	<i>07/56?</i>
<i>MA 335</i>	<i>Slipstream</i>	<i>B Cox</i>	<i>45 inch</i>	<i>11/60</i>

Note: The Nostalgia 1/2A/Min Replica class will be flown at the January 2012 Nationals. The valid design period is 1st January 1951 to 31st December 1960

## **Spark Ignition for beginners** *from Andy Brough in the UK Member of SAM35 and BMFA liaison*

*Editors Note: Andy is a strong promoter of Spark ignition in the UK and has managed to have a Spark only event for some competitions, this is his guide to getting into Spark Ignition operation. Our regular contributor Bryan Treloar has given us a start will others follow? Will we see more that Alan Douglas flying Spark Ignition models at our Nationals? Lets hope so. Over to Andy and we make no apologies for the UK references, though I will try to give a guide to where NZ fliers may get some of the items referred to.*

Following on from the news of the promotion of ignition flying at the BMFA (UK) Nationals this year, I realise there is little information available to the budding ignition flyer. This article hopes to address all the major issues and most importantly where you can lay your hands on the bits and pieces. Diesel lovers will wonder why go to all the bother of coils, capacitors, batteries and all the attendant wiring? The answer is simple; excitement, loads of character and all those lovely sounds and smells. This is aero modelling like the pioneers used to do it but with modern batteries, coils, capacitors and better insulation to improve the starting and running. With a methodical approach to the accessories and the wiring, relatively trouble free operation can be had. Trust me, you can do it!

This advice is aimed mainly at the free flight or perhaps R/C assist flyer but the principles remain the same whatever you do with the engine! Where to start? I would rule out large or small models at this stage although large ones do have a lot going for them but can be difficult to handle physically. What you need is something around the Junior 60 and Simplex size; 60" span or so. This will carry the weight of accessories with no significant increase in wing loading and puts you right in the popular 23 to 29 cu in sized engines. What will it cost? If buying retail, a good Ohlsson 23 side port should cost anything from \$150 to \$250 depending upon the condition. Front rotary 23's or 29's are cheaper! \$150 to \$200. Don't be afraid of using a 29 as the beauty of ignition is that it can be controlled to slow it down, both by the needle valve and more importantly, with the advance and retard.

I have shown my favourite choice in this capacity class and it is the Ohlsson 23 side port which was recently acquired by me by along with a similar front rotary version and other engines of the same size. These will be perfect for the likes of the Southerners, Black Magic and Simplex. All these were swapped for Mills and the like; this was a way back in to spark ignition by not spending money! Worth a punt I think. It used to be that a spark ignition engine was worth 3 diesels now like the euro, it's more like 1 for 1!

Whatever engine you get or have I would recommend running it on a test stand and getting to know its characteristics before installation in a model or even before starting to build. Unlike a diesel you can't just stick it in a stand and run it. Lashing up coils and wiring is not a good idea so you need to make an ignition box which will house a coil, capacitor and batteries with fly leads terminated with insulated crocodile leads. So this is the first task. Obviously you need a suitable coil. If there is a problem with spark ignition, then this is it. Definitely not a model shop item! There are two UK sources I can find, one is Hemmingway and the other is Flitehook, the details of which are at the end. Swap meets are also a good place to hunt and I've got a few that way. For the purposes of the ignition box an old motor cycle coil run on 2v would be ok if not a little bulky or even an old car coil. I used to use a spare from my old Morris 1000, running on a 2v Cyclon cell, which was great. However a proper model coil is smaller and all the bits can be contained in a small box that will go into the flight box and be taken to meetings for diagnostic purposes.

Most coils will require 3.6v although some do say 2.4v such as the Dunham. Actually I have found that even with 3.6v these coils deliver a poor spark, although they are light. Some flyers do get away with 2.4v on Modelectric coils but I still think 3.6v is better. Our technical expert of the FFTC tells me that Nicads deliver the better output instantaneously which is what we require of an ignition system; 5-8000 times per minute! A single Lipo is an attractive proposition but I have stuck with the traditional Nicad. You can get tagged Nicads or Ni-MH of 1000mAh or more from Jaycar In NZ at around \$ 10.00 each. **Don't** use plastic cell boxes as they are not designed to carry amps! Solder leads on using the tags. Use a decent thickness and flexible wire such as Jaycar DC Auto cable WH3082 and WH3080 which are black and red cables made out of 41 strands of fine copper wire with a thick flexible insulation that will take 25 amps!

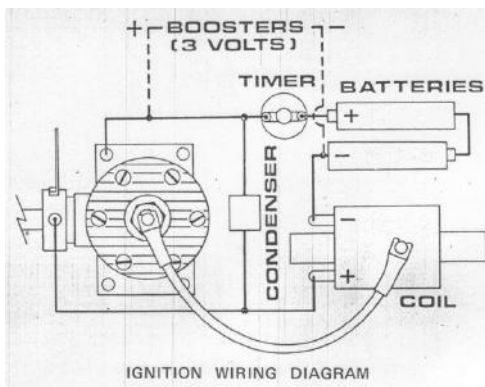
You will need to standardise on power connectors for all your battery packs model connections and charging lead. I happened to use Tamiya style connectors as I already had some but there are other high current types that are used with electric models that will suit. I made several 3 cell packs and taped the cells together with heavy duty carpet tape with a thin layer of foam to provide some resilience. Cover one side of the pack with Velcro which is a great way of locating battery packs securely especially to a vertical plywood former. The former should be doped before the self adhesive Velcro is attached, otherwise the wood, over time, dries out the adhesive.

You need some way of reducing the spark across the points either with a capacitor or an electric circuit. These items not only suppress the spark but also act as part of the tuned circuit producing a faster switch which in turn collapses the field in the primary circuit of the coil more quickly leading to a higher voltage at the secondary, leading to a bigger spark!

For the time being simply use a minimum 250v 0.1 micro farad capacitor such as a Jaycar RM 7125 or RG 5125 Polyester 0.1uF. The capacitor does not need to be close to the points and so in the ignition box mine is next to the coil soldered between two pins which carry the leads which go to the points. The 3 leads, one of which goes to the insulated terminal for which I always use a red wire, one goes to earth and the high tension to the plug. All three end with small insulated crocodile clips which I use for the plug end on all my high tension leads. The HT lead, if routed away from other wires, it can be the same cable or cover with silicone fuel tubing which is a great insulator.

A basic wiring diagram is nearby. As I said earlier the capacitor can be mounted away from the engine. In the model, I solder separate leads and tags on to the capacitor so it can be replaced as a separate item.

The close up of the inside of my ignition box shows all the bits in place. When this pick was taken I was trying the Modelectric coil on 2 cells and one of 'those' plastic battery holders. I would never use one in a model! The wires are knotted to prevent them being pulled out. At the top of the picture you can just see the small toggle switch and in front of the coil is the capacitor. The wiring in your model can be exactly the same with the timer ignition switch replacing the toggle switch.



There is no need to use a boost battery as 1.0 Ah batteries will last for many flights and you should have more than one pack with you.

You need a reliable engine timer. I've mentioned Mike Woodhouse's ignition cut off timer in other articles but it really is a good one and saves one fiddling about with switches and old clockwork timers. I usually use modified KSB squeeze off timers, as I have collected many of them, by the addition of a micro switch. You can use of both lever operated and button types. If buying new perhaps the lever ones are better but the metal bracket that holds the fuel tubing needs removing whilst the button type can be used without modification. Some folk do use Austin or Snip timers which are hydraulic and in my experience prone to sticking and you don't exactly know when the engine will cut. Suitable switches can be sourced from Jaycar SM1039 5A 250v and nice and small complete with lever that requires bending to stop the timer arm going right past. If R/C is anticipated and 2.4 GHz is ideal for use with spark ignition then a 10K ohm resistor is required in the lead end next to the plug. Also always use separate power supplies for radio and coil.

The next issue is whether to use petrol or methanol. Methanol will allow the engine to run cooler, which for long runs in control line and radio, may be better. However for free flight I use unleaded petrol as not only is it more vintage the residue does not attack dope as methanol does. Some older engines will have their fuel tanks dissolved by methanol. Methanol also has another disadvantage in that rather than the pops and bangs you get from petrol the exhaust catches fire in such a way that you can't see it until some damage has been done! Petrol seems to extinguish itself and you get more feel from the engine.

I mix 3 parts unleaded to 1 part SAE 50 vintage motorcycle oil but have used Castrol R40 (The Castrol R of motorcycle racing fame) which unlike other castor oils does seem to mix with petrol. My only issue with this is the yellow tint left on the model after some months of flying!

I hope I have whetted your appetite and will have a go at ignition flying and join us at the FF Nats and of course all the other Vintage meetings around the country.

List of suppliers, not exhaustive but tried and tested:

Gettig Coils: This ignition system measures 1.25 inches long with a diameter of 0.75 inches, and weighs a mere 2.22 oz. (including batteries), coils2@gettig.com Don't take cards but will take Paypal.

www.woodysengines.com Woody Bartels sells all sorts of stuff and does take cards but you have to buy a catalogue to find out what you want. Costs \$15 plus p&p.

www.hemingwaykits.com "Exciter" Ignition Coil (expensive @ £42.80) Rimfire plugs (£16.50), very good and Tungsten Points for home builds and repairs! Hemingway Kits, 126 Dunval Road, Bridgnorth, Shropshire. WV16 4LZ. Tel 01746 767739 Email: info@hemingwaykits.com

Just Engines. Tel: 01228 712800 www.justengines.unseen.org Very good Chinese plug at £6.39!! Much better and cheaper than NGK's. I bought 4 of them.

Mike Woodhouse for Timers: www.freeflightsupplies.co.uk or email to mike@freeflightsupplies.co.uk

Larry Davidson, 66 Casa Mia Circle, Moneta, VA. 24121-5307. Tel: (540)721-4563 Email: samchamp@jetbroadband.com Great bloke for all sorts of bits and pieces. Doesn't take cards but will accept \$ bills! Email for prices and p&p.

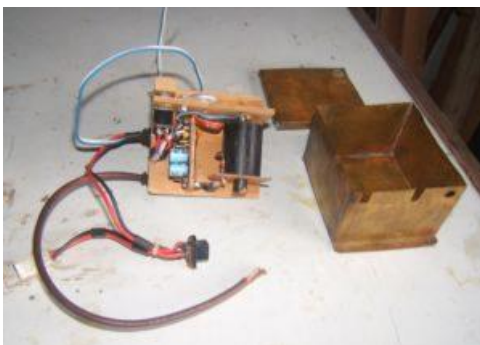
Marvin Stern 7 Abbot Crescent, Jackson NJ 08527 at ign-sw@optimum.net has Aero Tech Coil Saver Ignition units available and takes PayPal

Texas Timers at www.TexasTimers.com have an Ignition shutdown timer for FF use.

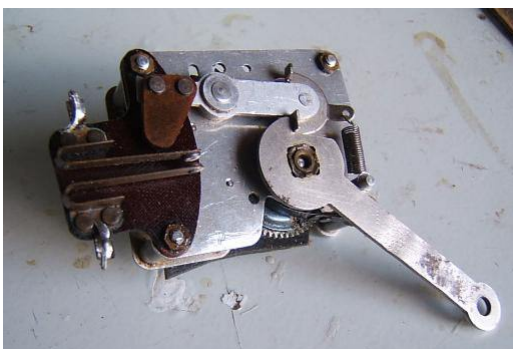
In New Zealand

Jaycar for all batteries, wire etc www.jaycar.co.nz They have a new catalogue out for \$3.95 with all sorts of useful stuff for the modeller Editor.

**Andy Brough acbrough@hotmail.com**



Left is an Ignition set up made by Dave Richardson for his Super Cyclone, The copper box was to minimise spark interference in his Miss America. It worked well This would be similar to Andy's bench testing box.



Left is a ED clockwork timer for Ignition cut off, the modern versions are less complicated.

## VINTAGE DIESEL MODEL AERO ENGINES

Diesel engines are great power plants to use in vintage duration events as they give very good economy and provide a certain sense of nostalgia. The smell of the fuel certainly takes me back to my early days of model flying. Popular motors are of course P.A.W's but some vintage side port motors such as E.D Comp Specials and Mills are in use. Side port Diesel designs give good motor runs but are probably not quite as frugal as some of their more modern front induction counterparts.

In recent years I have used my own home-made Mills replicas to fly in vintage events. These long stroke 1.3's are in fact 1.5 cc capacity to fly in A Texaco events. All of these motors shown have been flown at Central Region events and also at the Nationals. They have aluminium alloy crankcases and some have been anodised to hopefully replicate the old chromate magnesium look of the original.

Side port Diesels are known for their easy starting characteristics and are still a very popular choice in free flight events such as 'Aggie'.

These replicas have surface hardened high tensile steel cylinders in combination with lapped cast iron pistons. The crankshafts are turned from solid high tensile steel and are also surface hardened. Aircraft grade aluminium alloy is used to make the con-rods.

Vintage diesels tend to prefer a high oil content traditional mix of fuel. I now use Klotz synthetic/castor blend in preference to straight castor.

These modern highly processed oils are to be preferred to the messy castor oils of the past. All Mills motors like a bit of 'dope' in the mix. I use a small percentage of D.I.I. (diesel ignition improver).

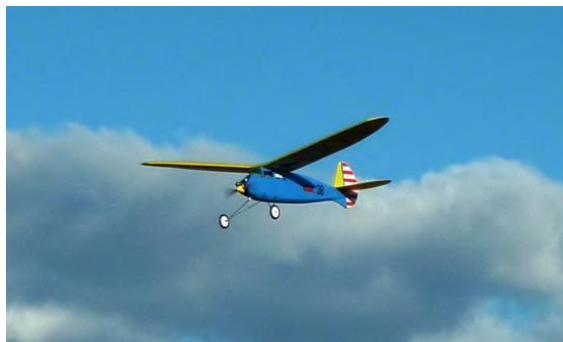
Constructing model motors is time consuming but can be very rewarding. It's an incredible bummer though when a model flies away on you as has happened to me on a few occasions.

Some of these engines can be seen bench running as video clips on YouTube.

Just type in - [pietenpol100](#)

Ian Munro.

## Allan Knox's latest Vintage model



Another one on the flight line. I must be getting slow. This one took 5 months. 4 pounds 5 ozs and 900 sq in measured the rules way. 11 ozs / ft sq which I think is good for a large model. The old OS H40P runs

beautifully but I could do with a bit more grunt for duration.

Only one flight so far late Sunday in the wind and turbulence so it is early days yet but it shows promise. Lovely stable glide and good control responses. That rudder is huge and is rated down 50% for powered flight.

*Allan Knox (Text taken from Christchurch MAC Torque Newsletter: Ed)*





## One man's approach to the new Electric Duration and E Texaco Classes.

By Brian Harris

Greetings to you all in Vintage land.

After the introduction of specific Electric classes which were voted in at the Hamilton meeting of 19<sup>th</sup> March 2011, I sat down with Calculator and Chardonnay to dismantle and analyse the rules especially looking initially at E Duration and discovered a peak in wattage allowance around the 500 sq inch size model.

But what was on my mind was to build a new model with peak power allowance, minimum wing loading (8 oz/sq.ft.) that also suited the E Texaco (over 400 sq. inch class).

So again I cranked away at the Calculator to discover there is no peak power allowance with the E Texaco rules. So any size is good in that event, but I wanted a model competitive in both events.

The next step was to consider the peak size in E Duration with the wattage allowance for the E Texaco event using the new "Nanotech" batteries that have recently been introduced. What stood out was that the 500 sq inch model suited the 850ma Nano and the 580 sq inch model suited the 1000 ma Nano.

I would need to use 2 cells for the E Texaco and 3 cells for the E Duration and to build a model to 8 oz per sq ft so as to have the maximum power allowance.

This would require a motor of approximately 100 to 140 gram and around 1100 to 1300 Kv, preferably with high torque on 2 cells (i.e. windings thick enough to provide good efficiency around 28 amps), this being my objective for both 2 and 3 cell applications.

There is an especially large array of cheap motors to be had on the Hobby King web site and fortunately I was familiar with the 35 mm diameter range of out runners (based on the AXI type) as I have used all of the Kv options in different applications.

So it looked like the following options may suit:

Motors: T 35-36-1100Kv	T = Turnigy
T 35-36- 1300Kv	35 = Diameter
T 35- 42-1250Kv	36/42 = Length
T 36- 32- 1200Kv	Kv =Revs/Volt (no load)

The 35-42-1250 is longer in the body and heavier than the others, but provides good torque so would be best for %80 sq inch models and may not require a prop change from 3 to 2 cell application.

At the time of writing I have learned that the 35-36-1300Kv may be out of production.

So I settled on the T 36-32- 1200Kv and found that it draws around 30 amps on a 10 x 7 APC electric prop on 3 cells, and I decided to use a so as not to cane the battery so hard in the E Duration 20 second motor run.

It will require a larger prop on 2 cells to get to its efficient revs/torque of around 80% or probably 28 amps (under load) for E Texaco.

It was necessary to weigh all the materials used as I built the 500 sq inch "Playboy" and the all up weight came out about 4 oz under weight so I used that up by reinforcing the pylon and fuselage and also used heavier wheels to achieve 8 ozs per sq ft and correct CG location.

The power loading is 12W/ounce input (192 W/lb) so again that magic climb in E Duration. The glide is nice and floaty with positive turning with a little exponential to desensitise the neutral stick position.

In my patch (Tauranga) there is growing interest in Vintage, mainly due to John Ingram-Seal's promoting these events, but most new "Vintageents" have chosen to go with Electric power.

Subsequently I have received a flurry of requests as to what model, what size and which components to use. Most have followed similar lines to myself as outlined above and these budding Vintage types are keenly awaiting the first Electric Vintage event which we hope to stage in Tauranga later this year. (see page 10 for meeting notice)

*Later, Brian reports...*

The weather has now allowed some flight testing of both E Duration and E Texaco configurations and it was concluded that:-

E Duration. 10 x 5 prop provided adequate climb at 28 Amps. This allows the small LiPo battery to hold voltage as the heavier discharge results in voltage drop which could reduce the battery's life and not necessarily attain more height in the 20 seconds allowed..

E Texaco. I chose the highest pitch 11 inch APC propeller that was available at 8.5 inch and it pulls 23 Amps on the 2 cells (around 5.5 watts per ounce). Flight test reveal a slower but still vertical ascent and also provide a longer motor run once height has been achieved. This being the object of E Texaco, an economical use of the limited energy allowance. A 12 inch propeller would possibly spoil the glide more that the 11 inch used.

Brian Harris

## **Top 10 Leader Board' Competitions for all RC Vintage and Classical Classes**

The Vintage SIG 'Top 10 Leader Boards' competition is under way (see page 11 for results) for all the Vintage RC classes.

A contestant records one score each month for each chosen class. The classes may be flown at any times during the month and a contestant is permitted to fly a class several times and send in the best score. The NDC rule for fly-offs applies – there is a single fly-off round.

Each issue of AVANZ News will publish for each class the current 'Top 10 Leader Board' which will rank the best ten scores for the year to date. At the end of each year, the contestant ranked first in each class will be declared the winner and receive a certificate at the AGM. New Leader Boards will be established for the next year.

AVANZ News will also list the recorded monthly scores that did not make the Leader Board, so send in all scores, whether or not they are good enough for the Top 10.

The 2011 competition commences immediately, so scores may be recorded for July.

Please send scores to Wayne Cartwright, by email to [waynecartwright@wave.co.nz](mailto:waynecartwright@wave.co.nz) or by mail to 1 Millennium Heights, Flagstaff, Hamilton 3210. When you send in your scores please include information about the design, motor, and battery (if applicable). This information will be posted on the Leader Board.

### **Tauranga Spring RC Vintage Contest 5 November (rain date 12 November)**

**IC and Electric classes will be flown:**

- **RC Vintage Precision (IC and Electric both eligible)**
- **RC IC-Powered Vintage Duration**
- **RC E Vintage Duration**
- **RC E Texaco**
- **RC 1/2E Texaco**

**Starting time: 9.30**

**Venue: Tauranga MAC field, North Road, between Bethlehem and Katikati**  
(Approaching from north, take second right after Aongatete, onto Wainui South Road, then immediate right onto North Road. Flying field is on left near end of road. From south, Wainui South Road is first left after Apatā.)

**Seminar: At conclusion of flying (around 4.30), Brian Harris will lead a seminar on choosing model/battery/motor/prop combinations for E Duration and E Texaco.**

**Dinner: Booked at the Tauranga RSA for 6.30 – a good opportunity to continue discussion from the seminar. Please let Brian Harris know if you plan to attend.**

**Club liaison: Brian Harris: 021 256 0052**

**CD: Wayne Cartwright: 07 210 0298, 021 198 4840, and at [waynecartwright@wave.co.nz](mailto:waynecartwright@wave.co.nz)**

### Top Ten Leader Boards to 23/7/11

The first scores for the Top Ten Leader Boards have been posted. It is great to see the concept coming to life. The RC Vintage Precision Leader Board is already showing excellent performances, with John Butcher's fly-off just ahead of John Ensoll's.

Scores have been posted in two of the new RC Electric classes. Mark Venter has set the bar high with the very first Vintage ½ E Texaco result. He achieved this score with a set-up that runs at very low power, drawing less than 2 amps, but he comments that this approach may suit only calm conditions, so the way is open for other approaches to be tried. In the other new electric class – Vintage E Duration – David Gush used a 2S, C=35, 1100mah battery in his 48in model.

#### RC Vintage Precision

1. John Butcher	Miss Fortune X: Saito 40 FS	600	FO: 194
2. John Ensoll	New Ruler: ASP 65 FS	600	FO: 190
3. Mark Venter	Comet Clipper : electric	600	FO: 182
4. David Gush	Miss Fortune X: OS 25 FP	578	
5. Stu Grant	Simplex : ASP 52 FS	566	
6. Peter Stott	Buzzard Bombshell: OS 40 FS	516	

#### RC IC-Powered Vintage Duration

1. David Gush	Miss Fortune X: OS 25 FP	775	
2. John Butcher	Miss Fortune X: Saito 40 FS	770	

#### RC Vintage E Duration

1. David Gush	Buzzard Bombshell: S2, C35, 1100mah	885	
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#### RC A Texaco

1. David Gush	Miss Fortune X: PAW 1.5	1860	FO: 644
2. John Butcher	Truman Texaco: OS 10FP	1860	FO: 233
3. M. Horlacher	Miss Fortune X: OS 10FP	1651	

#### RC ½ A Texaco

1. Neil McDougall	Anderson Pylon	1246	
2. John Butcher	Lanzo RC-1	923	

#### RC Vintage ½ E Texaco

1. Mark Venter	Woody's Wagon	1440	FO: 719
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First scores are yet to be posted for:

#### RC Vintage E Texaco

#### RC Classical E Duration

#### RC Classical E Texaco

#### RC Classical ½ E Texaco

#### RC Vintage R Rubber Texaco

Keep posting your scores to my email or mail address. Remember, each flyer may record one score each month for each chosen class. The classes may be flown at any times during the month and a contestant is permitted to fly a class several times and send in the best score. The NDC rule for fly-offs applies – there is a single fly-off round. (See page 10)

Wayne Cartwright

waynecartwright@wave.co.nz

1 Millennium Heights, Flagstaff, Hamilton 3210

# EVENTS CALENDAR

## CPMAA VINTAGE RC CHAMPS

**Saturday September 17th & Sunday  
September 18th 2011**  
**( Any flight may be made on either  
day)**

**Venue:** Levin MAC field, Tararua Rd, Levin.

**Events:** RC Duration (IC only), RC Duration Electric (25 sec motor run), RC Precision, 1/2A Texaco, A Texaco.

For further information contact Neil McDougall, Ph (04) 479 3106

## NDC Vintage Events 2011

Aug 14th	119	Nos FF Power Dur'n
	120	Vint FF Power Dur'n
Sept 11th	130	Vint RC 1/2A Texaco
	131	Vint RC A Texaco
Oct 16th	141	Vint Catapult Glider
	142	Vint Hand launch Glider
Nov 13th	160	Classic FF Power Dur'n

Notes: Vint = Vintage models prior to 1/1/51  
Nos = Models from 1/1/51 to 1/1/61  
Classic = Models from 1/1/61 to 1/1/71  
FF = Free Flight RC = Radio controlled

## Thames Blackfeet Vintage Meet November 26th and 27th 2011 Blackfeet Field Torehape Road Ngatea.

Vintage Flying and models at their best. So RALLY round !

Lunches par excellence!

Contact: Frank and Carol Crowfoot 07 868 8023.  
or Dale Bradley 021 274 1844

Weather check on the day: Mobile 027 235 6345



### Marlborough Members with their NDC models

Allan Knox (left) and Razvan Rocas with their NDC models flown for NDC recently at the Blenheim.

Allan reports: "Great flying here in Blenheim. Calm and extremely cold (3 deg C). It was our first use of our new grass flying field, brilliant."

Flight times were very good too, 1296 total for the Chilton in 1/2A Texaco Scale and 777 for Razvan with his Miss Philly in RC Precision.

## AVANZ Plans.

The new plans library <http://www.co-op-plans.com/> is up and running and new plans are being added daily as they are scanned and digitally restored back to "as new" condition. This is a long term project and the (currently around 10,000) plans we have listed all take a bit of time to be processed and descriptions and where available, photo's added as well. Currently we are over the 400 mark on the website and counting.

When you visit, there are a number of tabs along the top with information on the website, how it is run, how to order plans and how to join (membership is free)

The system is non profit and run and maintained by a number of dedicated folks around the world and charges for any plans are purely for website maintenance & running costs. Since AVANZ is a co-op member, all the AVANZ plans are (or in the process of being) listed and as such, AVANZ members have the option of ordering plans directly off the website or via myself with the normal requirements that only requests that include your phone number and NZMAA membership number will be processed.

Plan charges when ordering via myself are up to three plans for every \$5 of which half will go to AVANZ and the other half back to the co-op for running costs.

You can send cash, cheque (made out to AVANZ) or I can provide with a bank account number for direct transfer when you send in your request.

Now, how can you help?

1] We need descriptions or photo's to go with the plans. If you have any, you can send them to me to post up. Same if you have built or flown any of the models listed, we would love to have some comments on ease/complexity, results, advice on building/trimming etc.

2] If you have any old plans sitting around or on their way to the dump (sacrilege!) you can send them to me to work through. Many of our plans are in a poor state and either not suitable for restoring or would involve way too many man hours so we are always on the lookout for better plans.

3] You will get "credited" for any plans you supply that we use and you can use these "credits" in turn for downloading plans off the website.

4] Do you have time & patience (and a fast PC) to assist with digital restoration of scanned plans? If you are interested to assist then I would like to hear from you.

5] Where are all the NZ designs ??? If you have any NZ designs then please contact me as I am keen to create a separate "New Zealand Designs" plans list. I fear that many of our designs have or will be lost for ever if we do not preserve them now.

Mark Venter

AVANZ Plans Co-coordinator

[avanz.plans@xtra.co.nz](mailto:avanz.plans@xtra.co.nz)

### Nostalgia 1/2A/Miniature Replica Free Flight Postal Event.

In order to encourage participation in the new Nostalgia 1/2A / Miniature Replica FF class AVANZ is running a Postal event.

The class rules are repeated below for your information and the Contest is as follows

**Flying date:** Any day between Saturday 14th August and Sunday 2nd October 2011 including both start and finish days.

**Procedure:** You can fly the class as often as you like with the **best two** times to count as your score. Note the flying window includes NDC Nos FF Power Duration, Open FF Power, and FF 1/2A Power so you can use your times as NDC times if flown on the appropriate weekend.

Forward your best **two times** in to Graham Main at gramain@xtra.co.nz or G R Main, PO Box 55, MAUNGATAPERE 0152

**Note:** Any Nostalgia design in the period 1 Jan 1951 to 31 Dec 1960 inclusive may be used and can be scaled appropriately. (The Editor apologises for the error last issue where it was advised that 1/2A models should be the original size. The Nostalgia scaling rule applies to these models

#### NOSTALGIA 1/2A/ MINIATURE REPLICA

A combined Class for small Nostalgia 1/2A Power Duration and Miniature Replica style models. 1/2A models to have a maximum motor capacity of 0.051 c.i and Miniature Replica models to have maximum span of 36" and maximum motor capacity of 0.034 ci (0.55 cc). Models must have been kitted or the design published prior to 1st January 1961

1. 3 flights, 120-second maximum
2. Maximum motor capacity 1/2A 0.051 c.i., Min Replica 0.034 c.i (0.55cc)
3. Motor Runs    Min Replica    Glow 12 secs  
    Diesel 15 secs  
    1/2 A            Glow 7 secs  
    Diesel 9 secs
4. Hand launch



### L'AQUILONE SAM 2001 (ITALY) TOMBOY RALLY 2010-2011

UGO BALDARI	ITALIA	IC	47,02
ZDENEK SLAPNICKA	REP.CECA	EL	38,06
BRIAN DEASON	AUSTRALIA	EL	31,29
GIORGIO ZENERE	ITALIA	IC	29,59
DETE HASSE	AUSTRALIA	EL	26,56
MICK WALSH	AUSTRALIA	IC	25,30
GIANFRANCO LUSSO	SWISS	EL	22,40
LES DAVIS	AUSTRALIA	EL	22,28
GIANCARLO WESSELY	ITALIA	EL	18,02
EROS CAVALLARO	ITALIA	EL	14,28
CURZIO SANTONI	ITALIA	IC	10,25
SILVANO LUSTRATI	ITALIA	IC	9,57
ANTONIO RICCARDELLI	ITALIA	IC	8,20
GRAHAM MAIN	New ZEALAND	IC	5,27
GIANFRANCO DICHIARA	ITALIA	IC	5,16
GIANCARLO WESSELY	ITALIA	IC	2,35
MARIO GIORDANO	ITALIA	IC	0,55

Only one NZ entrant and that was the Editor! Still I did not get the lowest time. I am sure the Christchurch team could do far better though 47 minutes with an IC model would be hard to beat. More details next issue.

## VINTAGE SIG Report

### Annual General Meeting

Notice is hereby given that the ANNUAL GENERAL MEETING of the VINTAGE SPECIAL INTEREST GROUP will be held on Tuesday 3rd January 2012 at 3.00 pm at the Nationals Headquarters, Carterton Showground.

### Agenda

- Apologies
- Minutes of the previous AGM
- Matters arising from the Minutes
- Committee Report
- Financial Report
- AVANZ Report
- Election of Officers
- Notices of Motion /Remits
- General Business.

### Notices of Motion/Remits

No Notices of Motion or Remits have been received at this time. You can still put these forward for the meeting if you wish.

### The 63rd Nationals at Carterton

We trust all Vintage flyers are gearing up to get to these Nationals at Carterton in January 2012. A Nationals Programme has been prepared and will be in the September issue of the MFW. We still require Nationals Event Coordinator and volunteers to be Vintage CD's for each event day, especially the 3<sup>rd</sup> and 4<sup>th</sup> days where we have morning FF and all day RC events.

The event schedule is the same as the last Nats with the addition of RC Electric Duration, E Texaco and 1/2E Texaco. FF Nostalgia 1/2A/Min Replica will also be flown

### NDC Programme for 2012

The NDC programme has been put forward. The events will include the new classes as well as some proposed Classical Classes so there will be a full calendar of vintage events all year. As usual some of the dates have needed to be shifted around the Easter period

### Polling for Proposed Rule changes. (Section 6 and 7)

So far there has been a limited response to the Poll to change the rules for Sections 6 and 7 of the current Vintage rules. This has been compounded as the e mail address for the SIG Secretary in the July Model Flying World was incorrect. We have also had difficulty in getting the Proposals up on the MFNZ Web site. You still have time to put in your Vote. The full proposal was in the July 2011 MFW and was also in the last edition of the News No. 119. Attached to the NZ circulation list is a further separate Voting form if you wish to participate in the Poll. Note the poll closes on 31st August 2011, that is the end of this month.

We can send hard copies of the Proposals and Voting forms to you if required

Contact for all Vintage SIG matters above is  
Graham Main P O Box 55 Maungatapere 0152  
E mail gramain@xtra.co.nz  
Phone 09 434 7333