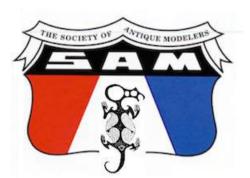
AVANZ NEWS





Newsletter of the Vintage Special Interest Group of Model Flying New Zealand

Issue 150 July / August 2016



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From the Editor

Last issue had a much appreciated report on Australian SAM activities; this issue welcomes John Andrews from the UK and Editor of SAM 1066's New Clarion; sections of AVANZ News have appeared in several overseas Vintage newsletters, and it has been added to the newsletter page on SAM USA's web site. All these are positive steps in sharing information with, and receiving it back from, the Vintage community.

One of the notions we seem to have picked up from overseas is that an aeromodelling year is divided into a flying season in the warmer months and a building season in the cooler months. Looking back to the 1970's, I do not recall there being such a split in the year's activities - flying and building went on all year round. Certainly, winter flying sessions were shorter, a little less frequent, and an extra woolly jumper was called for, but there was never a period when flying was ruled out simply because it wasn't "the season".

Whether we blame winter model flying inactivity on advancing years, climate change, or any other handy scapegoat, opting out of putting on that extra woolly jumper carries the onus of actually doing the other thing - building. It's easy to go overboard with this and start several projects rather than concentrating on one at a time. The result can be a lack of progress on all fronts and a frustration that, while trying to make the best use of it, time is in fact wasted.

Guidance is to be found in Vintage wisdom - in this case quoted in an engaging little book by Elisabeth Bailey called "The Sound of a Wild Snail Eating"

Think not of the amount to be accomplished and the difficulties to be overcome, or the end to be attained, but set earnestly at the little task at your elbow, letting that be sufficient for the day.

Sir William Osler (1849-1919)

Oriental advice from Kobayashi Issa, 1763-1828, is typically succinct and existential

Climb Mount Fuji O snail but slowly, slowly.

I may just have space and time enough to engrave the second quote onto my Stanley knife before I check what's at my elbow and return to the slow climb or, maybe, even put on that extra woolly jumper.

Bernard Scott

Contributors to this issue

John Andrews Neville Mines Allan Knox Chris Murphy Wayne Cartwright John Butcher

On the Cover Mass launch of A-frame models. (See pg 7 for an up-coming mass launch event)

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COMMITTEE NOTICES



VINTAGE FLYING RULES Completion of Re-formatting Project

The Vintage SIG Committee has completed a project that has re-formatted and edited the Vintage Flying Rules, incorporating a revised Code of Practice. Bernard Scott managed this process and edited the document, Wayne Cartwright assisted him, and the Committee reviewed the draft.

The project aimed to improve layout and readability without changing the meaning of the rules. Three rules actually did require relatively minor changes, and these were recently approved by email vote. The Rules can be downloaded from the Vintage Page and Competition Rules Page of the MFNZ website.

TWO BELATED AWARDS

The Committee is pleased to recognise Rex Anderson as the winner of the *2015 IC Tomboy Contest*. Rex's score of 1432 was made using a Doonside Mills. The winning score of 1782 in the *2015 Electric Tomboy Contest* was also recorded by Rex Anderson.

The winning scores, along with the second highest scores in both contests, were all made at the NI Vintage Championships. Congratulations to Rex who has been presented with the two \$50 prizes for the events.

NORTHERN NORTH ISLAND RC VINTAGE CONTEST COMMITTEE

This Committee, comprising Dave Crook and Tony Gribble, is now organising and running RC Vintage contest / rally flying in the NNI. If you have enquiries or suggestions, contact Dave at chloecat@xtra.co.nz.

FREE FLIGHT NOSTALGIA AND CLASSIC GLIDER AT THE NATIONALS

There has been little support for the FF SIG's Classic A/2 Glider at recent Nationals. The FF SIG has suggested combining the event with the Vintage SIG's Nostalgia Glider Duration and Classic Glider Duration events, which would then be flown as a single combined event called *Free Flight Nostalgia and Classic Glider Combined*.

The time span of Classic A/2 already qualifies such gliders to fly in existing Vintage events as either a Nostagia Glider or a Classic Glider, but by combining the two events, all Classic A/2s will be able to fly in the same event.

The Vintage Committee has agreed to trial this at the next Nationals, as it will extend the opportunity for free flighters to fly Classic A/2 models in a single event

and hopefully boost entries over those previously obtained in the separately run Nostalgia Glider Duration event and in the Classic Glider Duration component of the Classic Combined event. FF Vintage Glider will continue as a separate event.

In the interest of clarity, at the next Nationals the existing Classic Combined event will be renamed *Free Flight Classic Power and Rubber Combined*. For entry and competition points purposes, the *Free Flight Nostalgia and Classic Glider Combined* event will be under the auspices of the Vintage SIG.

These trial alterations apply only to the upcoming Nationals and do not change in any way existing competition or NDC arrangements.

Hi Bernard,

Pleased to hear the *New Clarion* has a following, it makes the effort worthwhile.

Thanks for copy of *AVANZ News*, a really good effort, I wish I could get the same picture definition with the New Clarion and still keep a reasonable file size. The concept of publishing in Landscape is excellent, it makes a whole page readable. I would like to do the same with our NC but I know many people print it out to book form for fellow modellers. At one time if I published an issue with more than 50 pages one modeller, who used to print out 6 copies for friends, said he had to iron the pages to keep within postal charge limits. Things have changed since then.

I've always maintained that contestants want to see a full list of results, the also rans like to know where they finished. I do not like reports that only list winners.

I may pinch some of your content sometime if I may? Please feel free to purloin some of mine if anything takes your fancy. Please keep me up to date with AVANZ.

I will try to put a picture package together for you from our Nationals at the end of this month. Please feel free to remind me if nothing turns up.

Attached a few pics from Sunday's BMFA 4th area comp at North Luffenham. Pic ID's I think they are obvious.

- Flight line, same number of cars this side of runway.
- Yours truly assembling Pinochio for Mini-vintage, lost for most of day after monster themal on second flight, 6+ minutes, DTd OK but would not come down.
- Ivan Taylor, scale man with rubber powered Mosquito.
- Yours truly again, with better half, having made flights for SAM2001 International Tomboy event Regards,

John A.







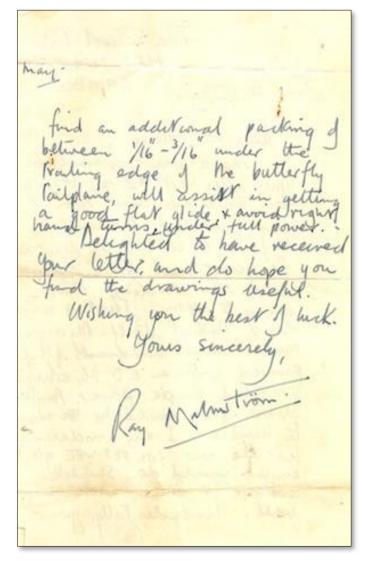


INCOMING 2 Neville Mines

Whilst searching around the web for Ray Malmstrom's designs I came across the July / August AVANZ newsletter with the *Push Up* plan in it. I recall buying the Model Aircraft magazine in which that was published, and in the write-up with it Ray stated that you could write to him for a copy of the drawings of the "crew". So, with the enthusiasm of a 13 year old I did just that. Attached are the drawings he sent me and the letter that accompanied them. I thought you may find them of interest.

Regards, Neville Mines.

The School House breidenfally.





FUTURE EVENTS

RC Vintage Contest and Rally Schedule 2016/2017

September 10, 11 NNI Contest and Rally JR Airsail October 22, 23 NNI Contest and Rally Blackfeet Tuakau (TBC) November 19, 20 **NNI Contest and Rally** January 3 - 7 **National Championships** Waharoa February 18, 19 **NNI Contest and Rally** JR Airsail NI Championships March 18 - 20 Levin and Gareth Newton Memorial Tuakau (TBC) April 22, 23 **NNI Contest and Rally** May 7 (TBC) **Bob Burling Memorial** Levin May 20, 21 **NNI Contest and Rally** Blackfeet

Event Schedule for 2017 North Island RC Vintage Championships at Levin

Saturday 18 MarchSunday 19 MarchMonday 20 MarchVintage PrecisionVintage E DurationVintage Open TexacoClassical PrecisionVintage 1/2A TexacoVintage E TexacoVintage IC DurationVintage 1/2E TexacoVintage A TexacoClassical IC DurationV and Cl Scale Texaco**Classical Electric Duration

Vintage E Rubber Texaco

Classical 1/2E Texaco* Tomboy IC

*New event: Classical 1/2E Texaco will be introduced through a One Design event using the

Jumpin'Bean design - see announcement Page 8

**New event: See announcement Page 8

RC Vintage Event Schedule for 2017 National Championships

Day 1
Vintage Precision
Vintage IC Duration
Classical Precision
Classical IC Duration

Day 2 Vintage E Duration Vintage 1/2A Texaco Vintage 1/2E Texaco Day 3 Vintage A Texaco Vintage E Texaco Day 4
Vintage Open Texaco
Vintage E Rubber Texaco
Classical E Duration

Location: Waharoa Domain

Location: Proctor Road

Tombov E

FF Vintage Event Schedule for 2017 National Championships

Day 1
Vintage CAT Glider
Vintage Power

Day 2
Vintage Rubber
Nostalgia Power

Day 3
Vintage Glider
Small Nos/Vintage Power

Day 4
Nos Rubber
Nos / Classic Glider
(Combined)

Day 5
Precision
Classic Power /
Rubber (Combined)



CLOUD TRAMP MIMLOCT

This year's *Memorial International Mass Launch Of Cloud Tramps* will be, for NZ fliers, on the morning of Saturday 6th August at 4:00 AM.

A single flight is all that is needed, so it's possible to slip down to the local park just before the synchronised hour, make your flight and be back in bed before you are missed. Sure, out there it will be dark, cold, and probably wet, but what's that compared with sharing a simultaneous modelling moment with like-minded modellers around the world?

Interested in becoming certified for the growing list of participants?

Check for details, plan and helpful hints in AVANZ News 143 or at http://www.mikedparker.karoo.net

Caroline Ambrose Martin Ambrose Sam Burke CAN Al Yuhasz USA Brian Ross USA Jim Norfolk CAN Gary Hinze USA Jim Bair USA Dottie Bair USA Tom Ersted USA Stu Cummins USA Gary Hunter CAN Les Sayer CAN Jean Sayer CAN Janet Moseley CAN Jim Moselev CAN Jean Andrews USA Dick Strang USA **Bob Morris USA** Jim Polles USA

Carol Dennis USA Neil Dennis USA Sue Batkin Barbara Jones John Jones Ron Marking Colin McKenzie Tia Osborne (aged 8) Dave Powis John Ralph Dave Scholefield Peter Brecker GER Bobby Mathison USA Jimmy Welch USA Judy Welsh USA Mariorie Mathison USA John Tate USA Fran Hurd USA Steve Kolet USA Mike Ose USA

Dianne Tate USA Dean Giaceopassi USA Garrett Sisk USA Janelle Sisk USA Peyton Sisk USA Travis Sisk USA Dick Roddy USA Reese Otts USA Ron Boots USA Mike Myers USA Gary Acord USA Luke Napier USA Jim Lueken USA Dave Gee USA Ricky Bould NZ Paul Evans NZ Martin Evans NZ Hildur Lundhaug NOR Ole Torgersen NOR Paul Burdett

Keith MacDonald CAN Jim Cowle Robin Willes Margaret Willes Alex Cameron Pete Cameron Tom Thompson Ian Lisseter Martin Stonelake Ken Taylor **Bob Taylor** Howard Furness Malcolm Jagger David Lambert Cedric dela Nougerede Mary dela Nougerede Rod Green Mike Branson Roger Marples Mike Eyre

Samuel Matthey Jack Darby Tony Tomlin John Privett Tim Mountain Peter Michel Jamie Lambert Frank Thurlow Derry Eggs John Jones Mike Parker Yvette Wilkinson Paulo Rossi ITALY Roberto Viti IT Carlo Casale IT Giuseppe Moschini IT Simone Ghilardi IT Paulo Riboli IT Lory Riboli IT GianMario Cella IT

Fabio Suardi IT Mauro Cella IT Marco&Laura Pagani IT Don Ratzlaff USA Jon McVey USA Paul McIlrath USA Rick Knight USA Allen Shields USA **Bernard Scott NZ** Su Scott NZ Barry Woodbridge USA Joe Rosenthal USA Terry Herrera USA Bert Halter USA Ed Baxter USA Eric Grigg CAN Kevin Grigg CAN Heather Grigg CAN Peter&Val Dickson Milan Jezik SVK

Marek Mach SVK Alena Rabekova SVK Pavel Rabek SVK Adam Jakes CZ Lubos Koutny CZ Julius Kakos SVK Karel Osmera CZ Andrej Janovec SVK Viliam Valent SVK Ludovit Pec SVK Miroslav Dvoracek CZ Ray Millard Wendy Millard Pat Jupiter USA Lee Duckling Fred Smith Alby Hunter John Clinton Could B You

Bohus Jezik SVK

INTRODUCTORY EVENTS at the 2017 VINTAGE CHAMPIONSHIPS

Vintage and Classical Texaco Scale and Classical 1/2E Texaco classes will be flown for the first time at the NI RC Vintage Championships next March. They will also be included in the April and May NNI events that follow and, given sufficient interest, at the 2018 Nationals.

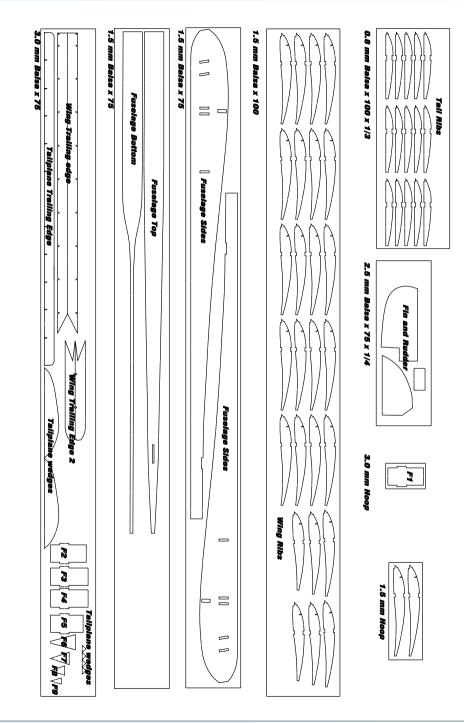
Scale Texaco already has three starters, and it is hoped that many more fliers will be encouraged to participate in this event. Allan Knox's article on the class starts on page 11 and suitable subjects will be presented over the next few issues. There is no shortage of good-flying, easy-building subjects, as Allan points out. Remember that Scale Texaco does not demand scale accuracy because we build according to the plans of the Vintage and Classical periods when many subjects were drawn up for flying characteristics rather than exactness. It is the Texaco element that is the main emphasis, and because of the way our rules have been worded, this can be approached using any one of three power options.

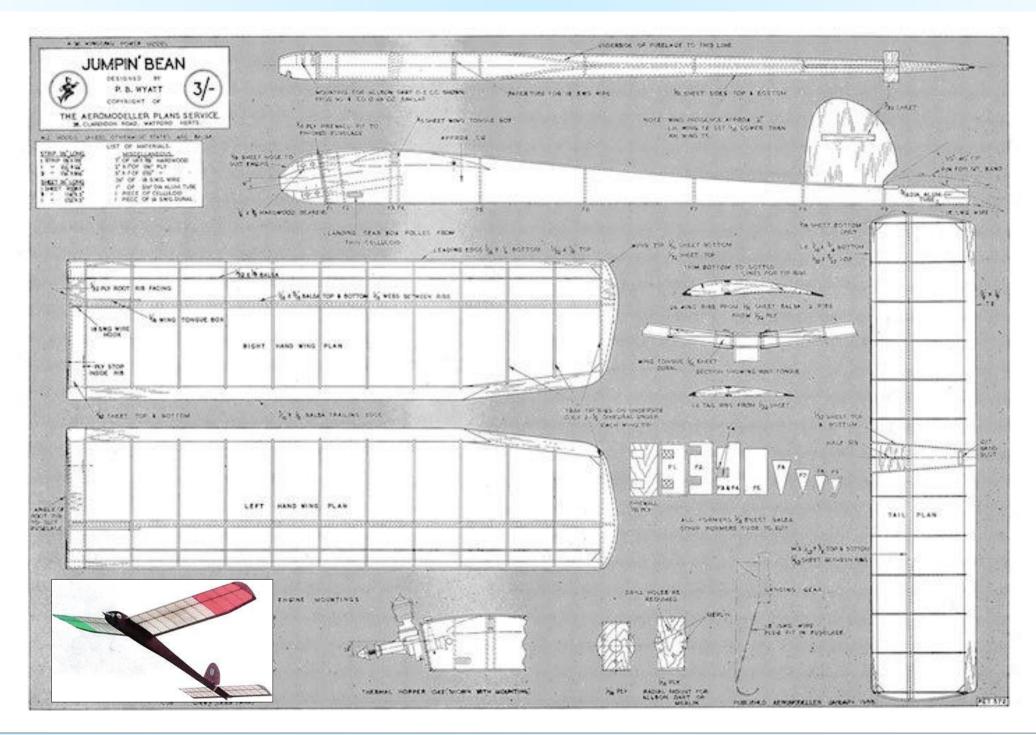
Your entry could be powered by a Cox .049 - in effect a 1/2A Texaco model from a scale plan. Alternatively, it could use the option taken from Open Texaco where fuel is allotted according to wing area. For those who don't want to be bothered by fuel residue, it could take an E-Texaco approach using the battery allowance of this class. So, there are options, even before getting to the choice of subject. There is no scale judging in this event, but at the 2017 Champs a special Concours d'Elegance award will be made on the basis of overall appearance, this being decided by the votes of all fliers at the Championships.

Classical 1/2E Texaco has rules similar to Vintage 1/2E but the eligible designs are from 1951-75 and there is no age bonus and no landing bonus. To the Committee's knowledge, no-one has yet built for this class, so this makes it a suitable candidate for making the first official event a One-Design Contest. This should give Classical 1/2E a good kick-start at the 2017 Champs and at the time of writing, there are five starters for the event. The chosen design has to be economical, quick and easy to build, and have the potential to remain competitive when other designs appear at later events. The design considered to best meet requirements is Jumpin' Bean from the Aeromodeller of January 1955. Built to 42" wingspan, the wing area is 223 square inches, right on what has been found to be a sweet spot for Vintage 1/2E Texaco. As a bonus, a second use for Jumpin' Bean would be in Classical Precision in which Graham Main's 2015 Nationals win with a Gigi showed that smaller models can be competitive.

Gwyn Avenell of Avetec can supply laser-cut *Jumpin' Bean* kits for \$64.40 plus postage. These are very complete (see contents at right) and using one will greatly speed construction. Orders may be placed directly with Gwyn at *aveteknz@gmail.com* A pdf of the plan is available if you wish to print your own, or full size plans will be available at cost - both from the editor.

As a further incentive to build for the One-Design Event, there will be a draw at the Champs to select one *Jumpin' Bean* flier who will have the cost of his kit refunded.





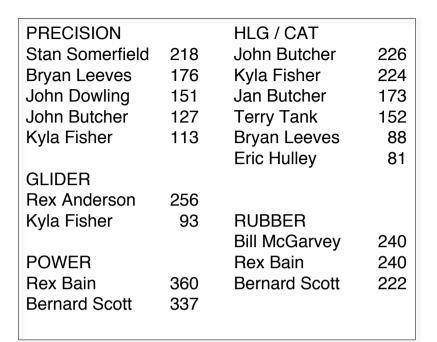
Waikato Nostalgia Champs 8th May 2016

CD Bernard Scott









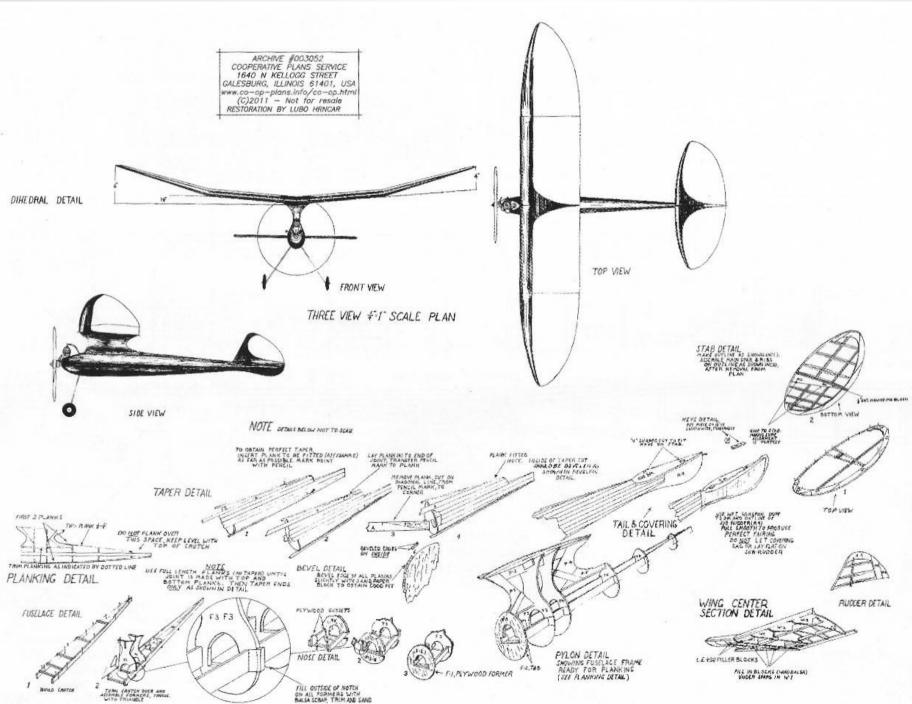
TOP LEFT: Box of HLG and CAT models for Eric, our budding junior. Keep them coming!

TOP RIGHT: Contra-rotating auto-gyro had even the builder wondering. Terry did get it up and away for some entertaining flights.

LEFT: Editor's tree-loving *Shadow* did it again. This is the model that lived in an Otago tree for a couple of weeks after the Balclutha Nationals. Farm manager John brought up a tractor with an elevating scoop in which he lifted his son Eric high enough to dislodge the model.

RIGHT: Bryan's Modelair *Kea* never fails to please. Flew well and looks great in the air.





INDTRUCT:

The construction of Womanian 57 to the best newthership of simulating and efficiency per againsts. Describing the best foreigness of the arotate and of the acceptant types, it brings the building of a streamlined gre coded into the range of alacest any model building.

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Issue 150

VINTAGE SCALE TEXACO

Allan Knox

We now have new rules for Scale Texaco thanks to the remit that was passed at the Nationals. I'm hoping it will be popular. I certainly enjoy my little 1/2A Chiltern DW1 which was built for the 1/2A Texaco class.

Imagine, a good looking scale model that you can proudly take down to the strip on Sundays to fly with all those club mates flying around with their scale foamies, and you also have a great looking competition model for vintage days. Who knows, do a good enough job and you could even fly it in scale contests



The new rules allow a huge range of potential models. Any plan, R/C or FF scale, published before 1976 is fair game and you can even convert a rubber scale plan thus opening up all those light scale designs that were so prolific in the vintage era. Also, what about those great little scale models from the 50s designed for small English Diesels? They may not have flown too well as free flighters but with the addition of modern lightweight radio they would be ideal. Remember too, you are not confined to just rudder and elevator, in Scale Texaco you can make these models full house using some of the cheap as chips servos from the likes of Hobby King.

There are two options for IC power plants, the ubiquitous Cox Babe Bee, or anything else. Fuel economy is essential for Texaco events so I recommend a 4 stroke glow or quality diesel like a PAW - in other words, motors that work for A-Texaco and Open Texaco. If you are adventurous, you might even try spark conversion of a 4 stoke and move to petrol

which has the potential to double run times.

Models with powerplants other than the Babe Bee have a 540 second target flight time with their tanks set up as in Open Texaco, that is, 1cc for every 50 sq inches of wing area (rounded down to the last full 50 sq in) as measured by NZ rules. In Open Texaco we fly a 15 minute maximum, always a hard ask, but for Scale we have a easier target that is achievable with the right model and engine set-up.

What would be the right size model for non-Babe Bee models? I think something around 60 inches, built down to 8 oz sq foot would be good. Anything bigger is likely to be above minimum loading due to the cube rule (*). So let's say 60 inch, 500 sq inches of wing at 8 oz per sq foot that gives a weight of 28 oz. This would be great for a 2.5cc PAW BB RC. Or even an OS20 4 stroke if you build light enough, though the 4 stroke is likely to weigh twice as much as the diesel.

Babe Bee powered models get a 120 sec bonus on each flight so their maximum is 420, a minute less than in 1/2A Texaco. This should be achievable despite the drag of scale details if you build to around 300 sq inches at 16 - 17 ozs. Set the Cox up with a big prop such as a 9x4.7 Slow Fly and with a run of over 5 minutes, Bob's your Uncle. (Bernard published information on this set up in AVANZ News 147)

All models can also score 20 points for each spot landing.

As for a models, there are thousands of designs out there, but monoplanes with reasonably high aspect ratios and big wings would be best. Think motor glider and you get the idea. The little light sport aviation aircraft of the 30s and 40s are also good as they had to make do with very low power engines so had to be lightly loaded and efficient. Some examples: Dart Kitten, Klemm, DH Moth Minor, BA Swallow (my favourite) and there are many more. I like the Schweizer SG 30 glider tug with its long high aspect ratio wing.

If you want a more universal contest model then that is possible too. Choose a scale IC power free flight model

design that is Vintage and qualifies for normal Texaco events. Provided you use only rudder and elevator flight controls you could fly Vintage Precision and Vintage IC Texaco events with your scale model.

I need a new 1/2A Texaco model because the Chilton is a bit big and heavy so I'm going to build a Piper Cub from a 1940 Megow plan that will do for both Scale and ½ A Texaco. It has extra dihedral on the plan and will be lovely on rudder elevator at about 45 inch span and 16-17 ozs.

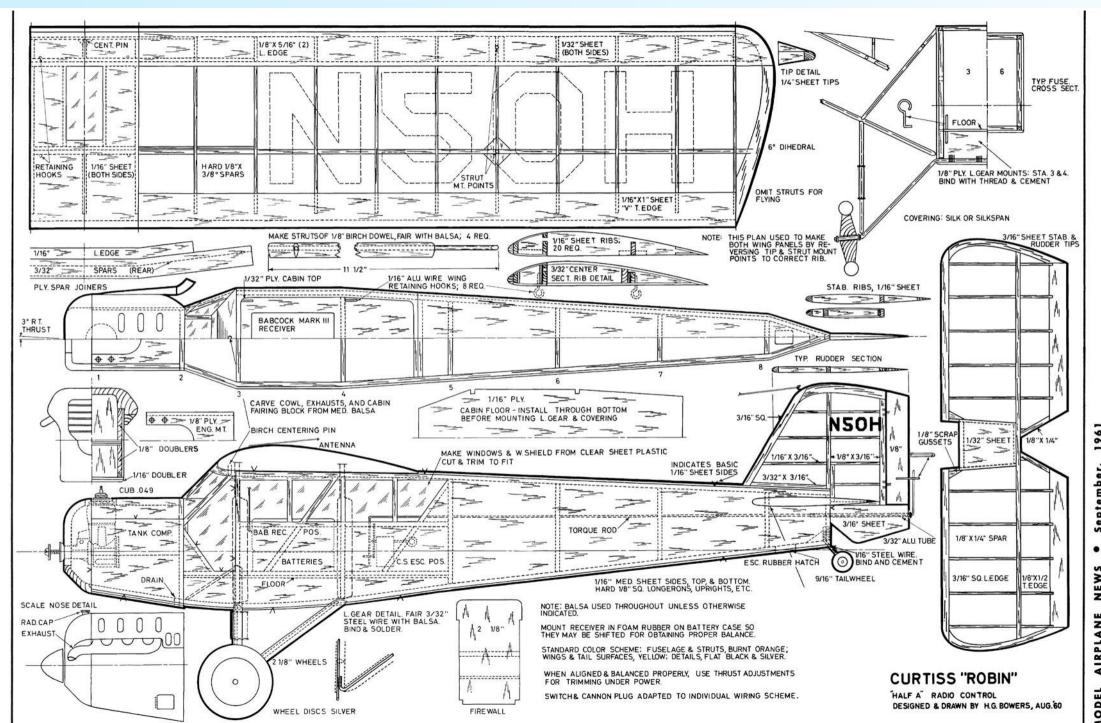
Where do you go for plans? Old Aeromodellers for those little diesel scale models or, if you are like me, then straight into OuterZone on the Net. If you can't find something amongst the thousands of free plans then you are hard to please! Remember that you can scale up and down to suit and amend structure within the rules. I always recommend beefing up undercarriage wire sizes and tie the gear into substantial structure to survive those spot landings.

That's it then. Have a go, there is something very special about building a scale model and now you can get to enjoy it in the Vintage competition scene too.

Remember there are at least two opportunities to fly Texaco Scale in the NDC calendar and in time, if we support the class, then it will be flown at regular contest weekends. Perhaps best of all, you will get to share some sport flying time down at the club strip and have a chance to introduce club mates to a class of Vintage flying they can relate to.

Allan Knox

(*) Cube rule. The way I think about this is - if I scale up a model to twice the wing span it will have 4 times the surface area (2 squared) and 8 times the volume (2 Cubed). Now assuming the same materials (same density) then weight is proportional to volume so the model is 8 times as heavy! Now wing loading weight / wing area. Let's say our model was 8 oz/ sq foot before scaling up - when doubling the span, its loading goes up 8/4 x 8 = 16 ozs/ sq foot. Darn!



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Step One

When you purchase the 049 engine it is best not to try to run the engine. Start by disassembling the engine. This is a simple five minute job. Pull off the plastic pick up tube. It is usually hard. Throw the tube away. Assuming we are using an old Babe Bee, pull out the retainer clip and remove the reed, usually a copper one.



Step Two

Put all the parts in some type of cleaner. I use carburetor cleaner with a dip basket. Let it soak for one to two hours. Don't leave it overnight or forget and leave it for a long period of time or the parts may become tarnished.

Step Three

When parts are ready to come out, put on rubber gloves as the carburetor cleaner is toxic.

Find a cup or a can and fill it one half full with denatured alcohol. This is less toxic than methanol alcohol. Methanol can be absorbed thru the skin and cause health problems. A toothbrush and Q-tips are good tools to clean parts. Clean parts, then pick out the venturi gasket and head gasket carefully. The head gasket can be reused. Give special attention to the back plate. If you have compressed air, blow out the venture passage and fill tube.

Step Four

The goal in putting this engine back together is to make sure it doesn't leak fuel or air and has a pick up tube that completely empties the tank. The pick up tube requires a drill press and a length of aluminum 1/16 outside diameter tube.

Step Five

Take the back plate and put it on the drill press table. Chuck up a 1/16 drill bit and set the stop on the drill press so the bit can't go any deeper than the casting. The nipple is protruding fiom the casting 5/32 of an inch. You are going to drill inside this nipple 5/32 deep. Go slow and be careful or your drill bit can come out the side. Don't drill too deep or you will get into the needle valve housing and Venturi. Bend a 1/16 diameter tube to clear the tank intake tube and cut the length so that it is right on the bottom of the back plate on the tank line. Rolling the tube with a razor blade or exacto knife makes the cutting this easy. Sand with fine paper and make sure there is no foreign matter in the tube.



Step Six

Gluing the tube in the nipple is one thing I have not perfected. Most adhesives including JB weld will not hold up to alcohol and nitro methane. The best I have come up with is to carefully glue the tube in with JB weld. Be careful to put a small amount on tube only. Sanding the tube helps adhesion. Let cure overnight.



Step Seven

Next put a small amount of silicone around the nipple. While it is still wet slide a 1/4 inch heat shrink tube over the silicone and shrink this to protect the JB Weld. Even if the JB weld fails, the tube will still work pretty well.

Step Eight

The tank is next. The back plate and tank almost always leak. One way to solve this is to clean the tank groove. Fill the groove 1/3 to 1/2 half filll with gasket silicone. Work around with a Qtip and let cure overnight.

Step Nine

Next install the reed in the tank. The best reed to use is a stainless steel reed. The old copper reeds work pretty well. Do not use Teflon reeds. They work poorly at lower rpms.

Step Ten

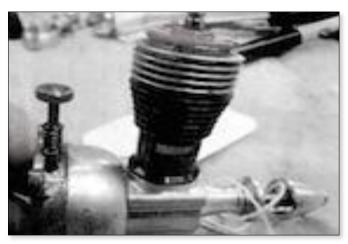
Back plate screws are always a problem with threads holding all kinds of foreign matter. A nice touch is to chuck them up in a drill press or lathe and file off the sharp part of the threads leaving the last 1/8 inch in full thread where it goes into the crank case.

Step Eleven

Needle Valves all seem to work equally well. The important thing to do with a needle valve is to cut or paint an indicator line so you can see this when you tune the engine.

Step Twelve

Next is the Venturi Gasket. Make sure the gasket is new. Either buy one at the Cox Supply or you can make your own with black fuel tube slid inside of a brass tube. Using a razor blade, cut thin gaskets off of the fuel tube using the brass tube as a guide. It may take making more than one to get a good one. I find it easier to wax the razor blade. It cuts with less drag and makes a truer cut.



Step Thirteen

Reassemble the engine with a new crank case to tank gasket. Oil the piston and crank. Install cylinder and piston in the crankcase and assemble tank with the back plate. That should complete the assembly.

Last but not least—Fill the tank with fuel and check for leaks. One spot to watch is the back plate screws. If one is leaking, remove it and put a small amount of silicone on it. The engine is now ready to run.

Editor: Thanks to John Butcher for sending this article. There was as much again before what appears here, dealing with the best motors to select parts from, but as these motors are unlikely to be available here, this section was omitted. Should anyone be interested in reading it, I can email a copy on request.

Comments:

Step 6. Using JB weld or any other adhesive for the 1/16 tube is unnecessary for plastic backplates as the tube can be a force fit in the hole if this is drilled carefully.

Step 9. Teflon and mylar reeds have been found to work very well at low rpm (below 5000 rpm) in all the motors I have tuned.

Step 10. Altering the backplate screws is a modification that is outside NZ rules.





WORK IN PROGRESS



When it's not parked up a tree, the old *Shadow* does ok at Vintage FF Precision, but recovering won't cure its fuel soaked wood or its general tattiness. Having spent many hours over the past ten years coming to accept its peculiar flight patterns, it seemed right to build another one - exactly the same, but different. No more fuel saturation, the new one would be electric.

Possible pitfalls were considered, and a list of desirable features was drawn up

- 1. Adjustable motor run duration
- 2. Motor speed control
- 3. Dethermaliser
- 4. Power cut-out on landing
- 5. Fused power supply
- 6. Battery accessible and of a common size.

1-3 could have been simply handled by a commercial timer for electric models, but I wanted to meet these requirements, and the other three, with traditional, mechanical means. The result is a rather heavy and clunky set-up (think Arkwright's shop till rather than a modern check-out counter) but it works.

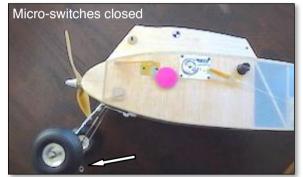
A trip-wire, arrowed at right, contacts the ground before the wheels, swings back and cuts current through the front microswitch. The rear microswitch is held on by the pink disc which swings out, timed by the KSB, to cut motor power. DT is activated in the usual way by the KSB timer.

The Voltaic Shadow is now ready for trmming.

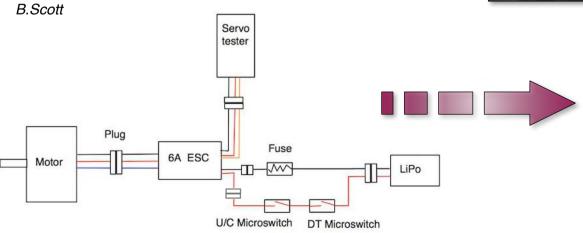


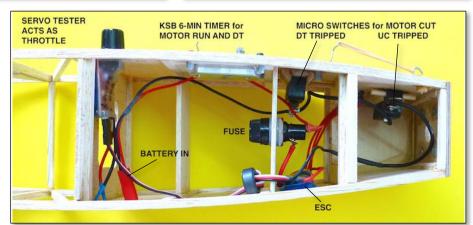




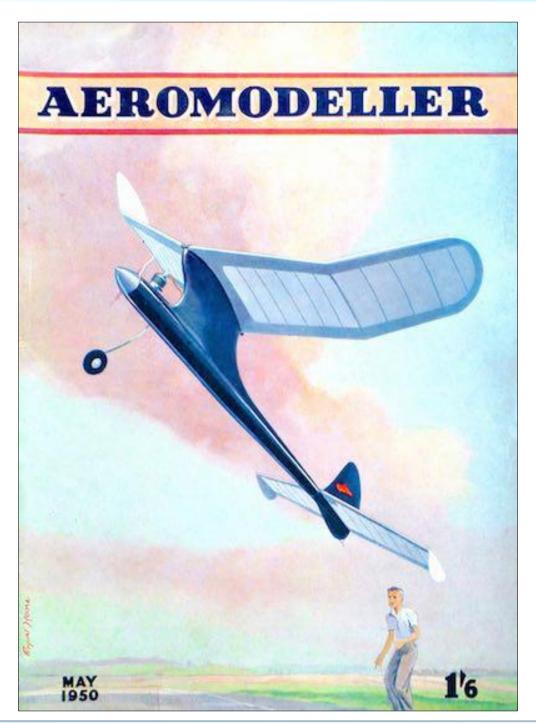


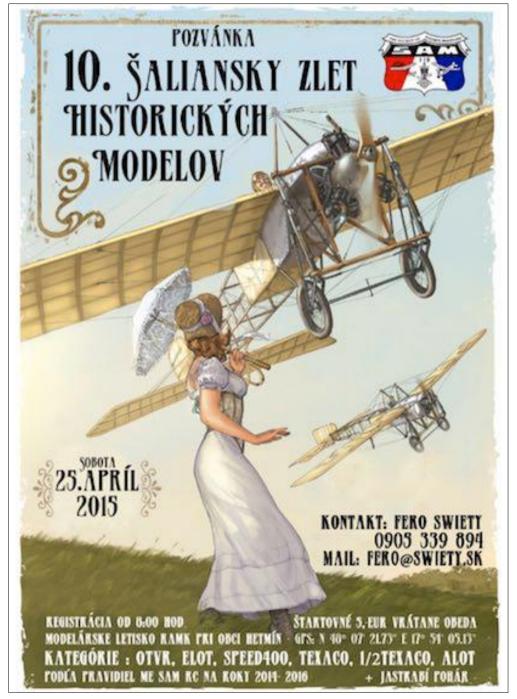






COVER STORIES





BRITISH, JAPANESE and CONTINENTAL .049 ENGINES

In the last column we looked at the heyday of 1/2A engines in the USA, a period spanning roughly 15 years or so from ca1950 until the mid-1960s when the market had been saturated and went into slow decline. This decline spanned some 30 years through into the late 90s and only the arrival of small electrics in the last decade really finished it off. By the mid 1960s the US 1/2A market was firmly in the hands of Cox for both engines and RTF models, and Testors McCoy for RTF models.



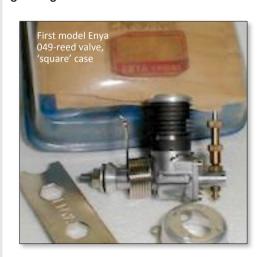
Herkimer OK engines was still in business, but was largely an unseen player. Cox was garnering the competition glory while Testors collected the accolades for RTF innovation and development.

That a huge market existed for small cheap entry level glow engines did not go unnoticed in other parts of the world, not least because in the post WW2 era large numbers of US military personnel were stationed in the UK, Germany and Japan. As a result, modelers and manufacturers were exposed to US modelling trends either though servicemen modelers, or through

US magazines such as 'Model Airplane News', 'Flying Models' and 'Flying Aces'.



The financial aftermath of WW2, with severe limitations on currency exchange and tight restrictions on imports, coupled with strong protection of local manufacturers, meant local manufacturers in the UK, Europe and Japan saw opportunities in what was a new and growing market.



The 1950s was a time of great public interest in aviation, and aeromodelling was a recognised aspect of this interest.

In Germany and Japan both large and small manufacturers ventured into the 1/2A arena. In Japan the well established brands of Fuji and Enya produced both 049 and 061 sizes, Fuji being content to follow the wellestablished style of early 1950s US 1/2A designs and Enya initially opting for reed valves.



Fuji also saw the merit of producing small outboards, following Atwood and Allyn in the US, producing 049 and 061 outboards based on their aero engine-and continuing



in later years with larger .15 and 19 sizes.

Chris Murphy

Pt.1

Smaller firms such as KO, which had largely copied OK and Ohlsson & Rice designs for its larger.19 and .29 engines, produced a range of diesels in .049, .09 and .15 sizes-of which the .049 owed much in style and design to the radial mount McCoy .049 'Duroglow' diesel of 1953.

Interestingly, OS, as with Fox in the US, stood aloof from this new market, and did not get involved until around 1961, when they produced the exquisite OS Max 6, a miniaturized OS Max in every respect but it was a case of too little, too late.....and most importantly, too expensive! The Max 6, just like the Fox 049 FAI only survived a couple of years in the market.



Meanwhile, Fuji moved on to more competitive areas such as general purpose R/C and C/L motors, focusing on the economy end of the market and producing a range of engines in .099, .11, .15, .19, .21, .25, .29, .35 and .40 sizes. This was no doubt both as a consequence of better export possibilities in the US and UK and also as a result of competition from Cox in the Japanese home market.

BRITISH, JAPANESE and CONTINENTAL .049 ENGINES

Chris Murphy

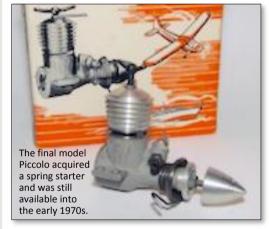
Enya continued with 1/2A engines right up into the 1970s, the rear reed valve models having been replaced by front induction models in both standard and integral R/C carb variants. The .06 model also being available as a .08 and a .10, which makes little production sense in terms of the existing long established and well performing Enya 09 engine. There is a belief that these 'odd' sizes were only made for the domestic market, and never exported. Both the early reed valve and later front induction .06 engines were also produced as diesels, but apparently this was never applied to the .049 models.

There was interest and a range of manufacturers large and small in both Germanys, although those in East Germany were constrained as to what and how much they could manufacture. In the west, Webra was the largest manufacturer and from 1954 produced the .048 Piccolo diesel, a compact little unit that owed a lot to the 1953 McCoy Duroglo.



Later this engine evolved into a beam mount red head version and finally in the mid-60s into a plain head version equipped with a spring starter that was still available into the early 1970s.





The Piccolo glow was introduced in 1956, in response to a request from Schucho-Hegi for a suitable power plant for their ARTF C/L trainers. The Piccolo glow represented a new design, while showing Atwood influence, and delivering a similar performance, peaking at an unusually high (for the time) 18,000rpm. The Piccolo glow design formed the basis for the last model Piccolo diesel, suggesting that it was inherently a much better design than the original Piccolo....!



Jaguar diesels were produced in small numbers in 0.5cc, 0.8cc and 2.5cc sizes, all to a common design, with black heads and spinners, and with the almost standard German layout of both beam and radial mounting lugs on the crankcase (also used by OK and Wenmac in the US).



The other big manufacturer was Hans Hornlein, producing a range of diesels for the big Graupner company from ca 1951 onwards. His 'Taifun' brand engine range was well marketed in NZ where by some quirk of distribution it was still possible to

find examples of the 1cc Hobby diesel on shop shelves right into the 1980s. But, his innovative and distinctive Foxie 0.44cc glow of 1960 never made it into production as Graupner had acquired the European distribution rights for Cox and did not want one of their own products competing directly with the Pee Wee.



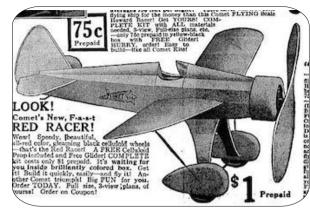
So, this distinctive little engine with rear disc, not reed valve, never made it to the shops. Many years later, Ronald Valentine produced a number of versions using a mix of the original and his own produced parts. It is believed that parts for 200 Foxies were manufactured, making it a rare beast. The Valentine units came in a range of colours in both diesel and glow versions. So, the German contribution to 1/2A was relatively small, with only Webra getting an .049 on the market in numbers.

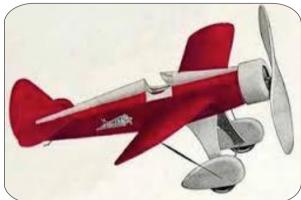
Chris's descriptions of these beautiful little engines will continue in the next issue



RED RACER

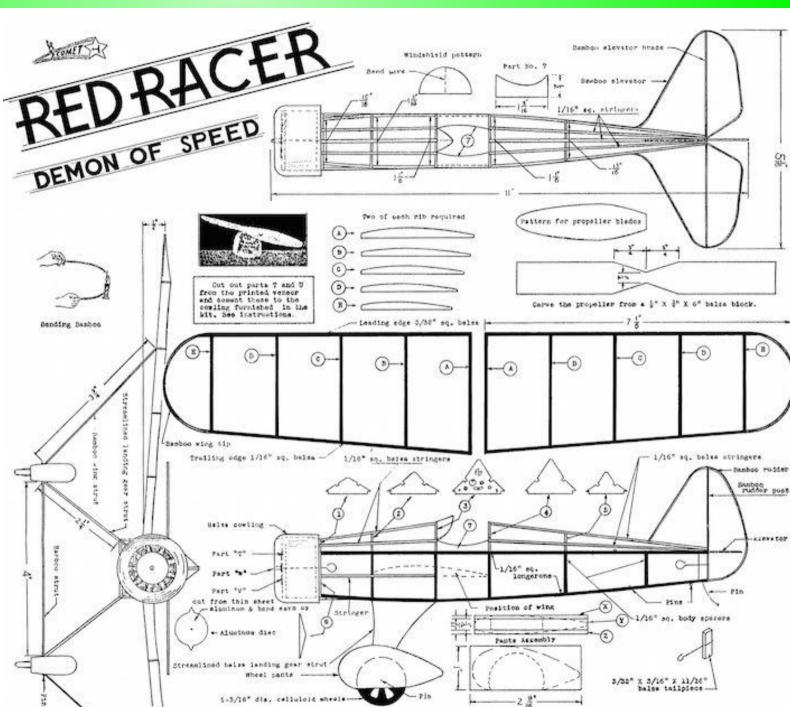








RC version of the *Red Racer* (above), found at: http://pulling-gz.blogspot.co.nz/2012/08/rc-modellerplan-and-article-series_5246.html



AVANZ NEWS July / August 2016

NDC 83

210

9 John Ryan

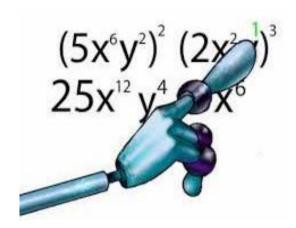
To 1st July 2016

Leader Board highest ever scores are shown at top right of events results

Vintage Precision	B.Harris, G.Meads, P.Hall,	A.Knox 800	Vintage 1/2E	Техасо	2016 K.Trillo	3188	Vintage Open	Texaco	2014 J.Butcher	3320
1= Brian Harris Bomber		600 + 200	1 Keith Trillo	Stardust Special	Nationals	1480 + 1708	1 John Butcher	Lanzo RC-1	Champs	1836
1= Allan Knox Lancer	NDC 104	600 + 200	2 Bernard Scott	Bombshell	Nationals	1480 + 1325	2 Bernard Scott	Playboy Cabin	Nationals	1760
3 Don Mossop Bomber		600 + 199	3 Rex Anderson	Tomboy	Nationals	1480 + 1235	3 Allan Knox	Lancer 45	Nationals	923
4= John Butcher Miss Fo		600 + 197	4 Wayne Cartwrig	•	Champs	1480 + 1163	4 Ian Munroe	TD-Coupe	Nationals	601
4= Stewart Cox Playboy		600 + 197	5 John Butcher	Miss Fortune X	NDC April	1480 + 995	5 John Selby	Turner Special	Nationals	575
6 David Crook Playboy		600 + 193	6 Dave Crook	Playboy	Nationals	1480 + 933	o comi cony	ramor opoolar	rationalo	0,0
7 David Gush Miss Fo		600 + 191	7 Martin Evans	Brigadier	Champs	1324				
8 Stewart Cox Playboy		600 + 189	8 Tony Gribble	Stardust Special	Tuakau	1301	Classical Pred	ision	2016 B.Harris	598
9 Graham Main Miss Tre		600 + 171	9 Mike Rice	Tomboy	Nationals	1182	1 Brian Harris	Humbug	Champs	598
10 Stuart Lightfoot New Ru		600	10 John Selby	Playboy	Nationals	614	2 Graham Main	Gigi	Tuakau	581
To otdart Eightfoot Thew Ha	ici Onamps	000	10 donin ociby	Паувоу	Nationals	014	3 David Gush	Tyro	Tuakau	578
							4 Don Mossop	Madcap	Nationals	563
Vintage IC Duration 2014 R.Anders		on 1308 Vintage A Texaco		aco	CO 2016 A.Knox 3		5 Bernard Scott	Frisco Kid	Champs	550
1 Bernard Scott Playboy		780 + 447	1 Allan Knox	Lancer	Nationals	1860 + 1309	6 David Thornley	Satellite 1000	Champs	351
2 Allan Knox Cumulu:		780 + 333	2 John Butcher	RC-1	Nationals	1860 + 12	7 John Warner	Spook	Nationals	343
3 John Butcher Miss Fo		780 + 311	3 Charles Warren		Nationals	1860 + 755	7 John Warner	ороок	Nationals	040
4 David Thornley Bomber		780 + 311 780	4 Allan Baker	Scorpion	Nationals	1852				
5 Rex Anderson Playboy		700 721	5 Ian Munroe	Simplex	Nationals	1849	Classical IC D	uration	2014 D.Thornley	, 1102
6 Gordon Meads Playboy		695	6 Bryan Treloar	Airborne	Nationals	1840	1 Bernard Scott	Raider	Champs	797
7 David Gush Miss Fo		663	7 Rex Anderson	Cloud Snooper	Nationals	1698	1 Demard Scott	riaidei	Onamps	131
8 Stewart Cox Playboy		636	8 Bernard Scott	Simplex	Nationals	1592				
9 Allan Baker Zipper	Nationals	450	9 Graham Main	Simplex	Nationals	1521	Classical E Du	ıration	2014 B.Harris	1217
10 John Selby Playboy		391	10 John Selby	Turner Special	Nationals	836	1 Bernard Scott	Frisco Kid	Champs	900
10 John Selby Flayboy	Nationals	391	10 John Selby	rumer opecial	Ivalionais	030	2 Brian Harris	Humbug	Tuakau	844
							3 John Warner	Texan	Nationals	729
Vintage E Duration 2014 B.Harris 15		1512	Vintage E Tex	aco	2012 W.Cartwrigh	+ 3325	4 Graham Main	Gigi	Champs	621
1 Don Mossop Playboy		924	1 Keith Trillo	Stardust Special	Champs	1860 + 694	5 Don Mossop	Texan	Nationals	600
2 Bernard Scott RC-1	Nationals	915	2 Wayne Cartwrig		Champs	1860 + 573	6 Wayne Cartwrig		Champs	242
3 John Butcher Miss Fo		902	3 Rex Anderson	Kerswap	Champs	1860 + 369	0 Wayne Canwing	iii ivig ivog	Champs	242
	t Special Champs	901	4 David Crook	Bomber	Nationals	1860				
5 Allan Knox Scram	Nationals	893	5 John Butcher	Miss Fortune X	Champs	1855	Tomboy IC		2015 R.Anderson	1/32
6 John Warner Playboy		870	6 Allan Knox	Scram	Nationals	1832	1 Graham Main	Mills .75	Champs	651
7 Rex Anderson Anderso		833	7 Doug Baunton	PB-2	Champs	1698	2 Keith Trillo	Mills .75	Tuakau	476
8 Stuart Lightfoot New Ru		813	8 Rex Anderson	Kerswap	Nationals	1651	3 Charles Warren		Tuakau	194
9 Davis Crook Bomber		805	9 Bernard Scott	Bombshell	Champs	1616	4 Rex Bain	Mills .75	Tuakau	82
10 Brian Harris Bomber		800	9 Demaru Scott	DOMDSHEII	Champs	1010	4 Nex Daill	IVIIIIS .75	Tuakau	02
TO BHAIT HAITIS BOTTIDET	Tuakau	000								
			Vintage E Rul	her Tevaco	2016 J.Butcher	3117	Tomboy E		2014 S.Grant	1935
Vintage 1/2A Texaco	2016 J.Butche	r 2290	1 John Butcher	Golliwock	Tuakau	1860 + 1257	1 Keith Trillo	180.2S	Champs	1609
1 John Butcher Miss Fo		1500 + 790	2 Keith Trillo	Yonder	Tuakau	1860 + 942	2 Dave Crook	180.2S	Champs	1069
2 Bernard Scott Stardus		1500 + 790	3 Wayne Cartwrig		Champs	1860 + 741	3 Graham Main	180.2S	Champs	942
3 Allan Baker Slicker	Nationals	1494	4 Doug Baunton	<i>*</i>	Champs	1600 + 741	4 Bernard Scott	180.2S	WFFC	942 845
		1378	4 Doug Daumon	UM SKUKIE	Onamps	1000	+ Demain Scott	100.23	WITO	040
4 Rex Anderson Playboy 5 Keith Trillo Skipper	Nationals Nationals	1376								
• • • • • • • • • • • • • • • • • • • •			Vintage 1/2A	Scale Tevace	2016 A Vnov	707				
6 John Selby Playboy		1261 392	•		2016 A.Knox NDC 91	797 797				
7 Allan Knox Skipper 8 Martin Evans Miss Ph	Nationals	239	1 Allan Knox	Chilton DW1	NDC A1	191				
0 John Dyon 2	iladelphia IV Champs	239								

To 1st July 2016

Leader Board highest ever scores are shown at top right of events results



Vintage Power	Playboy Junior	R.Bain, B.Scott	540
1 Lynn Rodway		NDC #97	309
Vintage Rubbe	er <i>W.Mo</i>	:Garvey, A.Koerbin	540
1 Bill McGarvey	?	NDC 78	180
Vintage Glider 1 Rex Anderson 2 Stephen Wade 3 Stewart Cox 4 John Butcher	Oderman Lulu Lulu Sky Roamer	2013 R.Anderson Nationals Nationals Nationals Nationals	427 331 195 186 97
Vintage / Nosta	algia Small Pov	Ner 2016 B.Scott Nationals Nationals Nationals	353
1 Bernard Scott	Dixielander		353
2 Rex Bain	Shaboom		334
3 John Butcher	Kerswap		164
Vintage Precis 1= Dave Jackson 1= Bernard Scott 3 Charles Warren 4 Bruce Weatheral 5 Stewart Morse 6 Lynn Rodway 7 John Selby 8 John Butcher 9 Roy Gunner 10 Alwyn Graves	Kerswap Shadow Tomboy	2014 G.Burrows NDC 96 Nationals NDC 96 NDC 96 NDC 96 NDC 96 NDC 96 Nationals Nationals NDC 96 Nationals	270 270 246 214 199 177 176 155 93 18

Vintage Catapi	ult Glider	2012	J.Butcher	339	
1 Des Richards	Hervat	Natio		288	
2 John Butcher	Mayne		NDC 101		
3 Ron Magill	?	NDC		261 253	
4 David Gush	?	NDC		232	
5 John Selby	Hervat	Natio		207	
6 Daniel Warner	Mite	Natio		184	
7 Charles Warren	Hervat	Natio	nals	180	
8 Ray Cordell	?	NDC	101	175	
9 Peter Wilson	Whirly	Natio	nals	174	
10 Josh Warner			Nationals		
Nostalgia Pow	er	R.Ba	in, B.Scott	540	
1 Rex Bain	Jaysbird	Natio		540	
2 Bernard Scott	Dixielander	Natio	nals	469	
3 Stewart Morse	Stomper	NDC	98	256	
4 Lynn Rodway	Stomper	NDC	98	195	
4 Rex Anderson	Ramrod	Natio	nals	139	
Nostalgia Rubl 1 William McGarve 2= Paul Squires 2= Bernard Scott 4 Chris Murphy 5 Alwyn Graves		W.McGard Natio Natio Natio NDC Natio	nals nals 81	540 540 525 525 343 17	
Nostalgia Glide		2015 Natio	M.Evans	470 398	
2 Bernard Scott	Aiglet	Natio		322	
3 Rex Anderson	Sans Egal	Natio		295	
4 Bruce Bonner	Inchworm	NDC 100 256		200	
Classic Rubbe	r	2015	L.Vincent	485	
1 Paul Squires	?	NDC		408	
2 Chris Murphy	?	NDC	82	100	
Classic Power		2015	R.Bain	540	
Classic Glider		2015	R.Andersor	540	



CLASSIC or CLASSICAL?

When referring to NZ contest events, the words "Classical" and "Classic" are non-interchangeable: radio control events are Classical while free flight events are Classic.

BETTAIR CATALOGUE

sought by Chris Murphy treebeard@snap.net.nz

AIR TRAILS PLANS

I have purchased a full digital set of *Air Trails* magazines. This US magazine was not imported in the quantities that UK publications were, so copies rarely turn up today. This is unfortunate, as many excellent Vintage era plans appeared only in *Air Trails*.

Permission has been obtained from the copyright holder to share printed copies of AT plans, with the proviso that only the cost of printing and postage is charged. For an A4 copy of a plan, send a self-addressed envelop plus one "Kiwi stamp" per plan to the editor at the address on the cover. Add a couple of extra stamps if you want the full construction article.

An index of AT plans is on the net - search for "Air Trails Index". Editor

I have just come into possession of an **ETA** .29 which is offered for sale. The motor's development can be found at http://www.modelenginenews.org/cardfile/

eta29.html I would identify this motor as a Mk III by the serial number, except the plug is canted which is only supposed to apply to the original Mk I. Either way, it would be a nice addition to a collection. Downsides are a missing spray bar/needle assy and a chipped exhaust port. Otherwise, it is in fairly good shape considering it was probably made in the early 50s and has been raced. The motor came with an old Class B team racer which can go with the motor if anyone is prepared to go the extra postage.









Dave Richardson d.richardson@infogen.net.nz



Free Flight Notices



Free Flight contest days Indoor flying at Morrinsville

Sunday May 15, 2016 Sunday October 9, 2016

Put them in your diary!

- Hangar Rat
- Peanut Scale

• Push E

- Kit Scale
- HL Glider
- Rubber Scale

Come and join us

Venue: Westpac Stadium Hall, 21 Ron Ladd Place, Morrinsville

Programme: 9.45am Arrive and unpack ready for start time

10.00am Hangar Rat, Push E and HL Glider plus Scale static judging until 12.30pm

12.30pm Peanut Scale, Rubber Scale, Kit Scale

3.45pm Prizegiving 3.55pm Hall vacated

Fliers Entry: \$20.00

Spectators welcome

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