

CHRISTCHURCH MODEL AERO CLUB EXECUTIVE 2013 / 14



President.	Grahame Hart	6B Middlepark Road. Upper Riccarton. (grahamehart1@clear.net.nz)	021 726367
Secretary.	Ian Harvey	55A Lochee Rd, Upper Riccarton. (harveyi@plantwise.co.nz)	348 8206
Treasurer.	Trevor Henderson	82 Rose St., Spreydon. (bigtrev@xtra.co.nz)	337 1091
Recording Officer	Gary Burrows	29A Sumnervale Drive, Sumner. (garyburrows@xtra.co.nz)	384 0994
R/C Power.	Graham Moffat	gmoffat@xtra.co.nz	341 5455
R/C Glider.	Alex Hewson	me3d_lx@hotmail.com	027 341 3154
Free Flight.	Dave Jackson	2 St Pauls Place, Burwood. (dave.jackson@paradise.net.nz)	960 2290
Vintage	Mark Venter	30 Manor Place, Bryndwr (mventer@xtra.co.nz)	351 6193
Indoor./ control line		Contact Bill Long for info	322 7202
Web Master	Mark Venter	30 Manor Place, Bryndwr (mventer@xtra.co.nz)	351 6193
"Torque" Editor	Gary Burrows	29A Sumnervale Drive, Sumner. (garyburrows@xtra.co.nz)	384 0994

CHRISTCHURCH MODEL AERO CLUB (INC)

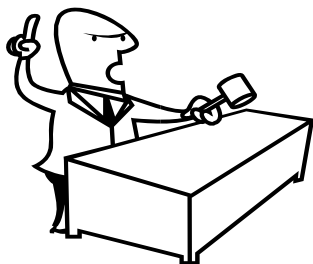
June 2013

Torque



If undelivered please return to P.O. Box 14115 Christchurch Airport





THE PREZ SEZ

Junior / Junior = under 18
 Junior = 18 to 60
 Senior = 60 to 80
 Senior / Senior = 80+
 Club perceived age / knowledge

Not that I want to be called a sissy but I would imagine I am not the only one finding a bit cold modeling in the shed or garage at the moment.

As I write this we are in the midst of what the Media has called “the worst storm in 30 years” or is that 20 years, hang on now its 7 years, either way we can never truly predict the vagaries of the weather. Although the forecasting is now a very refined art, I still remember talking to an 80 year old farmer when I was a teenager – his words were “we are only a spec in the ocean”

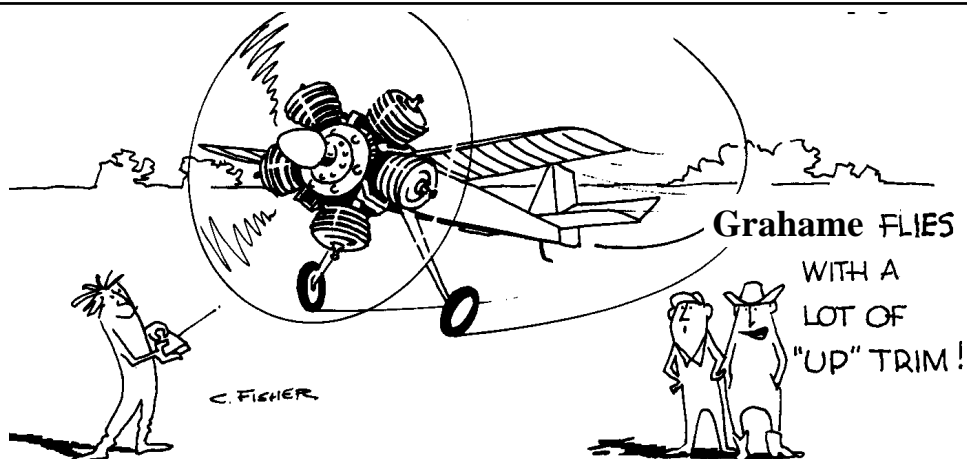
The vagaries of our sport is what makes Model flying so interesting, we not only battle the weather, but our own flying skills, new technology and often our own state of mind. So it’s onwards and **upwards**, the weather will clear, the seasons will change.

Happy Flying

Grahame



In better weather our Prez about to unleash his Bravo to the elements



Minutes of CMAC committee meeting, Thursday 13th June 2013
Held at – 6bB Middlepark Road, Upper Riccarton

Present: Grahame Hart, Ian Harvey; Trevor Henderson, Dave Jackson, Graham Moffat

Apologies: Mark Venter, Alex Hewson, Gary Burrows

Minutes of last meeting: moved and carried (Grahame, Trevor)

Business arising from last meeting: - Feasibility and procurement of monograms and club transfers and decals is ongoing.

Correspondence in:- From NZMAA Model Flying NZ – Up-date on Wings Certification – forwarded to be included on the CMAC. See later in OAB

Correspondence out: nil

Treasurer's report: Cheque book balance at \$5695.40 and saving account at \$2,584.64. Payments this month – cheque for fuel and BBQ

Section officers' reports:-

R/C glider: Cirrus trophy scheduled for Saturday; several CMAC members attended F3K (DHLG) at Ashburton club field previous Saturday.

Free Flight/Vintage: With NDC contests being now scheduled on designated days, a good crowd turned up for the P30 contest recently, but wind blew the day out! Coming up – Avon Trophy on 22nd June. Also coming up is HL glider and catapult glider. If rained (or snowed) out, could use the rally day at the end of the month to complete the NDC monthly contests

Pylon: A few new models ready for the air, and meeting scheduled for Sat. 22nd

R/C Power: Power-up padded restraining waratahs have been installed just off the taxi way (with assistance from Andrew Palmer). There has been a limited flying days but field is in great condition with the installation of the electric fence to keep the cattle out. Some new members (one with a Radian). BBQ / rally day was rained out, so look forward to a good one at the end of June. Some of the magazines from the container were put on Trade Me with a few enquiries but no sales.

Other business:

Club needs an additional Wings Badge instructors (and examiners) to John Ensoll. Grahame Hart (President) to be nominated to MFNZ by the committee. It has been suggested that the club organise a day (possibly combined with rally day) when trained members can be examined and certified for their "Wings Badges".

A set-up table (or maybe 2) for the power patch was suggested and Ivan to be approached to come up with a design and build.

Possible club / committee projects were discussed and one was the formation of a possible travel fund for seniors / juniors to attend the Nationals or travel overseas to international events. Another was the idea of having a building evening to produce profile electric models. Another was the design and creation of an indoor pylon plane; one design RC electric.

Meeting ended at 8:38pm; date of next meeting – Thursday 11th July 2013 at same venue

<p>Can an atheist get insurance against acts of god?</p>



IN THE TRUE ANZAC TRADITION COMES AN AWARD

“In my capacity as President of the MAAA it give me great pleasure to advise that at the 2013 MAAA Council Conference held in Melbourne last weekend you were nominated and elected by the MAAA Council to the MAAA Hall of Fame in recognition of your achievements in F3D Pylon and in particular your 2nd place in the 1993 F3D Pylon World Championships held in Austria.

On behalf of all MAAA Council and members I congratulate you ; your achievement reflects credit on the yourself, the MAAA and aero modelling in general.”

Neil Tank President Model Aeronautical Association Australia (MAAA)

Congratulations to Big Trev on this prestigious award for helping his old pylon mate Ranjit Phelan from Australia and together they managed to get second

KNOW YOUR BEARINGS.....HAD TO THINK CAREFULLY ABOUT THAT!

As understood by Big T

Although the typical engine has only six moving parts, two of them, the ball bearings are not made by the manufacturer and are absolutely critical to the engines performance. Good bearings allow for the engine to develop its maximum power by reducing the internal friction of the moving parts of the engine....never forget that the power being produced by the engine is being transferred through the bearings to give the aeroplane the / your desired performance.

The bearings not only absorb all the thrust created by the propeller but also absorb all of the horizontal motion, and acceleration of the piston and conrod assembly as it moves up and down thousands of times per minute- the bearings that we use are generally very good but like most things do have their limitation. They are not capable of generally handling sharp blows caused by crashes and at times continual use of the electric starter, and also nose-over's.

For us aeromodellers a bearing is deemed past its useful life if you can feel any roughness-whether with, or without the propeller. Because of their size and vulnerability at being at the front end of the model, the front bearing are the most susceptible to damage, and in most cases the smaller of the two bearings. For the average aeromodeller he doesn't really understand bearings and his main concern is how well his engine runs.....! Yes, piston and liners are very important for power but the bearings should also be considered as equally as important for transmitting that power.

If you have any doubts about your bearings then feel free to call me and I can indicate the best procedure for checking- that's best done with you engine in my hand and I can show you what to feel for.

So what makes a bearing develop roughness and become unusable?

Lets first describe how a bearing is constructed – it is made up of an outer race, an inner race, the balls and the cage, which some refer to as a retainer. A precision item that is fitted to very close tolerances and in the ideal condition should stay that way but as aeromodellers

we expose them to fuel, dust , crashes, scarcely lubricated (fuel mist) and generally being ignored.

From my understanding of bearings the balls are heat treated to a higher hardness than the races so any dust or dirt that enters the cages tends to have a gouging effect on the trough section of both... the balls will show signs of damage but that isn't always possible to the human eye..... and its that damage that one can feel when turning over an engine.

Generally speaking a big prang will cost you both model and rest assured damage to the front bearing

Changing a bearing is not difficult and generally its wise to do both at the same time as heat is required to remove them. Heat is applied by heat gun, oven or some prefer to immerse the crankcase into boiling water., each has its merits but all require the use of a heat resistant mitten as hot crankcases are prone to leave heat blisters on ones fingers.

Bearing technology is a 'black art' that needs another article, however one should be aware that one of the secrets to good bearings and bearing fits is the 'clearance' of the bearing- don't forget that as the crankcase expands with operating heat then it has an effect on the internal clearance of the bearing, that's the manufacturers clearance between the balls and the races. In a model engine one ideally requires a 3 dot bearing- but I will explain that in my continuing article.

DOWN AT THE POWER PATCH BY GRAHAM MOFFAT

Hi Not much to report this month. The Sunday mornings have been mostly to windy or to wet to fly.

You will see an addition to the field a Start up Restraint for large models has been installed just off the main taxi way.

The restraint is two standards covered in foam tube and a inner tube. The inner tube is to stop the rabbits eating the foam. Apparently the rabbits like the foam. If the location causes any issues please advise as we can move it.

There are a number of models currently under repair. We are looking forward to seeing Graham out with the yellow Tiger Moth. I am still working on repairing the damage to my To-cano but going to be some time before she is flying again.

We are looking at giving the container a good cleanout. I tried selling a box of magazines on Trade Me top bid was \$5.50. Not a big impact on the club funds so if you are interested in any of the publications in the container please advise, only condition is please do not bring them back.

See you at the StripGraham



Start up
Restraint
posts

NEW BUILD

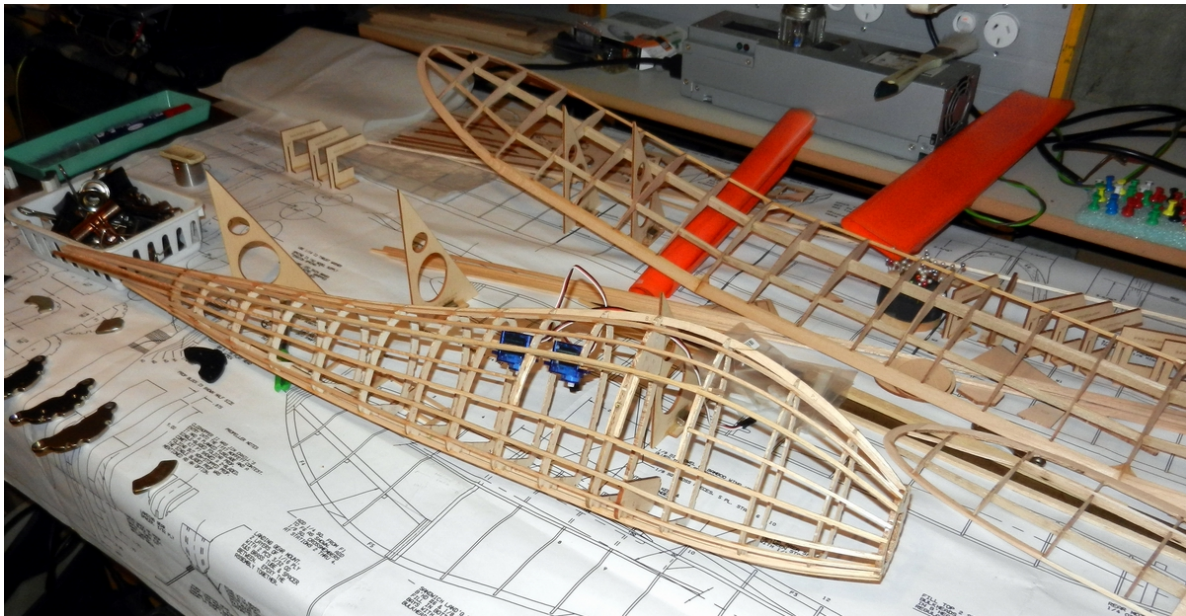
CLODHOPPER 2

This is the first in a series of new models on the building board and our first is a vintage Wakefield model designed and built Jim Cahill of the USA now produced as a laser cut kit by Bob Holman of the USA

A bit of history (a fuller history can be seen on <https://www.modelaircraft.org/files/CahillJamesRobert.pdf>)

Clodhopper II was the 1937 Moffett Trophy winner at the Detroit Nationals and the 1938 Wakefield Trophy winner in Paris. *Clodhopper I* was lost at the 1936 Nationals at Wayne County Airport in Michigan. *Clodhopper II* used a single-blade folding propeller, the first successful folder.

Comet Models produced a simplified version in kit form with solid spars and a paper covered fuselage it is this version which is being built by “Mr Rainbow” Mark Venter as a electric R/C rubber model to meet the new vintage rules.



INDOOR REPORT 9TH MARCH BY BILL (WELL COMBED HAIR) LONG

The event we flew was Hanger Rat N.D.C. It was a difficult day for all of us, Hanger Rat could be considered a noddy class although possibly one of the hardest indoor classes to obtain constantly good results. I tried a new approach which made thing worse until I capitulated and with only time for one last flight managed to put in a good flight. Kay's prop bearing broke. Nev's model flew well but couldn't find the right rubber that was needed to get those better times that seem to elude him. Dave and Rachel turned up later with Rachel getting one good time in and Dave suffering with times like the rest of us and that was it.

Results. Bill. 2min.59sec + 2min.14sec. Nev. 2min +1min.53sec. Rachel. 2min.38sec.+ 54sec. Dave. 1min,49sec.- 1min. 48sec. KAY. 1min.15sec.- 50sec.

Next meeting 14th July event F.1.L.

SOARING REPORT BY ALEX HEWSON , SCOTT CHISHOLM, IAN HARVEY

No real action on the soaring scene apart from an F3K comp held down in Ashburton.
Scott reports:

A great days flying very little in the way of lift.

We had some madness through the day with a few people playing with trees.

Alex was getting good a retrieving models for people from the trees. It was noted that Peter France managed a worlds first I reckon in flying into trees on two straight flights. I reckon he was the winner of the special case trophy at the end of the day.

Thanks to all that came and we'll see you all for the next one in August.

Scott Chisholm

Alex Hewson won the event (actually got first equal to world champion NZ team member – Kevin (Rowdy) Botherway). Scott Chisholm was third.

Alex Hewson checking out the conditions.
Photo Ian Harvey

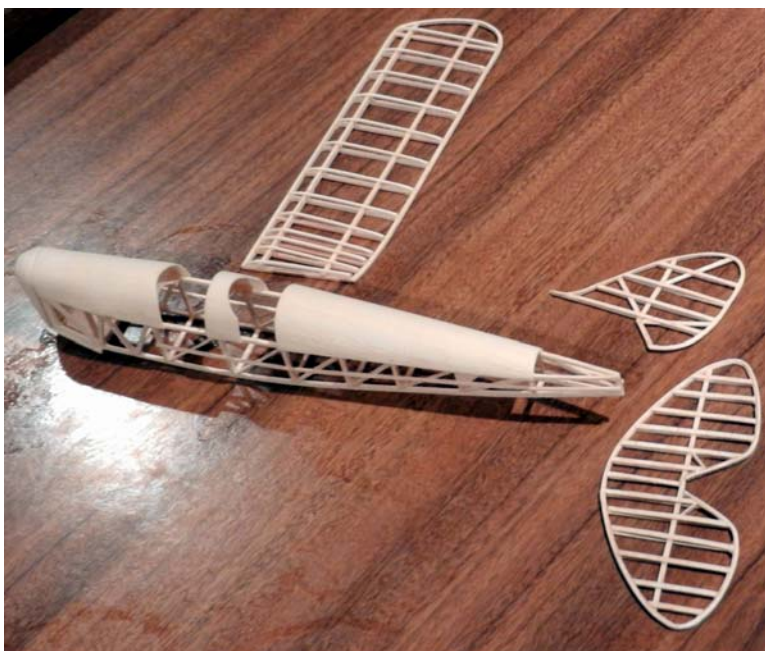


TIGER MOTH DH82.

It seems that we have a increasing population of these wonderful old biplanes being produced on the building boards of club members at the moment, from Peanut ones up to ARF electric versions and others in between.

The latest in the production line, is a Peanut one by Granddad Ensoll (who once held a pilots licence to fly the full sized one) the attached photos are of the progress currently achieved. John says he is also going to produce a bigger model as well.

- Lynn Rodway has his Hobby King one well underway with a little help from Mark Venter in the electrical department.
- Our presidents DH82 is still in the hanger under maintenance before gaining its certificate to fly.
- The Spindlers DH82 I understand is no more (while I never saw it I understand that it was a joy to behold) and it probably was the seed that has started this interest.



JUNE CLUB NIGHT REPORT.

For those who missed it or are unaware of the meetings (you do read your Torque right?) June/July meetings are "hands on" practical demonstrations on covering models.

We are doing these two at a time, i.e. two people demonstrating two differing methods so that you have a choice on just what method (or both) you can get some tips on for your next covering session.

So our June session kicked off with *John Dunstan & Mark Venter* both demonstrating iron on coverings, but with different goals in mind and hence different methods of going about essentially the same process.

John demonstrated his method of applying normal iron on film plus adding trim and graphics etc. Obviously the preparation required prior to covering needs to be meticulous since the finished result can only be as good as what is underneath and sufficient care (& practice) are required to achieve the great results that John produced.

Mark demonstrated a different process where less preparation & care are required since this is basically the "base" for the 2nd step in the process. Mark demonstrated the application of iron on "laminating" film. This requires less meticulousness to apply and hence the job can be finished quite a bit quicker, but obviously it still needs to be done properly since the next stage depends on it looking good. So what is this "next stage" ? Well it is to get that final vintage look and feel i.e. tissue or silk finish.

That is the basic difference between the two methods being demonstrated. John's covering is a nice shiny modern finish, accomplished in a single process whereas the finish Mark is working towards is that genuine vintage tissue or silk finish which is a two stage process. Why all the bother and not just cover directly with tissue or silk? Well the answer is pretty simple - tissue especially can be quite fragile and is very prone to tears and rips not to mention great big holes from fat fingers.

Tissue over film is nearly indestructible and there is hardly any (if any at all) additional weight penalty using this process. It also adds a huge amount of extra strength and rigidity over a tissue only covering.

Please note that we are mainly talking about power models here.

So, that takes us on to our July club night. We again have a John and a Mark.

This time it will be John Ensoll giving us a talk through his process of silk covering his models and getting those fantastic finishes, while Mark will demonstrate applying tissue to those parts covered in the clear film at the June meeting.

Due to being indoors, we unfortunately will not be able to use any dope, so John will not be able to demonstrate his actual process of doping but Mark will be applying his tissue using water based polyurethane which is pretty much the same process, but without the shrinking properties of dope.

Right - you have completed the covering of your new model - what next? Take it out to the field and fly it of course!

Well that takes us to our August Club night and I have finally managed to twist the arm of one Alex Hewson to help out to setup that new model correctly for that all important first flight, just so that you can safely and happily take it home again all in one piece.

Don't miss out - attend our club nights!

Mark



1



2

Club night



3



4



5

- 1 Attentive audience
- 2 Putting hot air to good use!!!
- 3 Why is he grinning??
- 4 Bill Ferguson and his immaculately covered Smiths Mini Plane
- 5 Mark Venter showing a alternative method

Sorry some of the photos are not as good as they should be BGGG



Seen on June club night as part of Mark Venter's demo– Tail Plane of 48 in Tomboy and Vic Smeed Debutante (x the late Owen Moore)



One part of a 4 bay workshop by a very active modeler



"Gatewing" in its carry box part of May club night demo

TOMBOY TALES

BUGGER an other cancellation this time due wind (don't you just hate it when the weatherman actually gets it right!!!) he did last time with the rain and wind, but at least we could stand around and do a bit of teeth grinding (talking).

It was a pity as we had nearly 100% attendance of the TB brigade with Lynn Rodway, Mark Venter, Gary Burrows, John Ensoll, Stew Morse, Ashley Glubb, John Dunstan and Stu Grant attending the only missing ones are Bruce Bonner, Dave Jackson and Paul Lagan. I can only presume that we were all keen to try out the new "Ladder" contest dreamed up by that fertile mind of BGGG.

The only "**comments**" came from our noted specialists in this department, one who reckoned that we should fly, after all his nationality would have done so back home (is he English or a Rainbow person) though I noticed that he didn't put his model into the air just to shame us all!!! The other person is still complaining about the 2 minute limitation on his electric powered model (It has come to our attention that after having grovelled to BGGG to increase the battery capacity for the 48in version he sneakily put in a more powerful motor that would climb the model out of sight in 2 minutes!!!!).

This has caused for BGGG to allocate the September (he can't do it before then as he is away overseas) TB contest (there is no June one) to his tender loving care as Contest Director, with **his set of rules** to be published at least 30 days before the contest to allow us underlings the ability to adjust our models to suit, just like he does.

The gauntlet has been thrown!!! Below is our young Tomboy Audience!!!! Learning!!!!



2013/2014 SUBS NOW DUE

Senior	\$145.00	Family	\$155.00
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Junior	\$ 68.00	CMAC Life	\$122.00
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All are NZMAA affiliation inclusive
Affiliate CMAC Membership is less NZMAA fees (NZMAA fees are \$67 senior and \$72 family)

THIS IS YOUR LAST BULLETIN

Subs may be paid to the club bank account but the member must advise the treasurer of doing so by email thanks.

The bank account details are as follows:

Bank Account Name: Christchurch Model Aero Club

Bank Westpac

Account number 030854 0563982 00

POOPY PUPPY POOPER SCOOPER REPORTS

- It seems to me that our two new life members show the trend, that as age goes on we get smaller, see if you can work out who is the oldest and who is the youngest!!!!
- I have been privy to seeing the latest Electric R/C Vintage Rubber model called the “Clod Hopper 2” Me thinks that version 1 was called “Cloud Hopper” but due to lack of performance it was renamed. Hope the electric version can insert the “U” back in the name due improved flight performance!!! Hope springs eternal doesn’t it Mark!!!
- Lynn Rodway you “Old Son of a Gun” how did you let the Modernists affect your brain into a rush of blood and purchase of a electric scale kitset of a DH82 Tiger Moth. It is good to see though, that you are not just an old die hard traditionalist and sticking to oily and messy IC motors, but keep an open mind on the electric subject (just like BGGG). After all, electric motors are cheaper and more reliable at starting after you have figured out the intricacy's of speed controller setting up, battery charging, wiring, Positive and Negative “SH_t maybe putting fuel in the Mills and flicking it wasn’t such a bad problem after all” Lynn, they are just like computers, when you buy one you get a specialist (MV) to set them up and you just use them making sure that they perform when in competition with (MV) as he may have just adjusted your system to perform less than his!!!!



Is that a look of admiration on Lynn’s face at Marks expertise in sorting out his electric problems Yeah Right!!!



Not a good photo, but there is a electric motor with prop rotating

You will never get the work bench to fly Mark!! Are you sure Lynn, that this man knows what he is doing???

Weather Station Phone Number

021 02943562

Operating times Monday to Friday 0700—1300hrs and 1400—1700hrs

Saturday and Sunday 0700—1600hrs

CMAC WEB SITE <http://www.cmac.net.nz/>

EDITORIAL MANURE. # 106, MANY MORE TO COME

- This bulletin is being produced while we are out of our rental accommodation in Sumner while it is having EQC repairs done, luckily we are baby sitting the Late Ron Hind's (an old modeler) house while this is taking place, 6 weeks they say, before we will be back in it. Our house rebuild hasn't got out of the starting blocks yet and we asked if we would be back in it this time next year — SILENCE.
- SILENCE is not what I aspire to with Torque and will continue to produce it regardless of the trials and tribulations (11 issues a year) "Action, on time performance and full communication regardless" is my motto. Pity that Insurance Companies and Government don't follow these high ideals. Please let me know if I need a hurry up!!!!
- How is your building program going this year?? Let me know so I can photograph progress (elsewhere in the bulletin I have sneakily photographed two of our members latest projects, Vintage electric of course as he is one of John Dunstan's Modernist group, the other is of the smaller caliber)
- Me, I am about to go to a FF/RC scale project (that's after the recovering I need to do, refer last bulletin) As I observed at the last nationals there is a great potential for enlarging the competitive group of scale modelers, and I need to give Stew Morse some competition!!! I certainly won't be going to the standard of those UK Modelers which is just out of this world, but do my best with the specific approach that I believe will work (follow the scale rules as written as closely as possible which seems to be the average scale modelers down fall)
- horizonhobby.com website is promoting a ARTF trainer model called the "Apprentice S15E" which is using S.A.F.E. technology (Sensor Assisted Flight Envelope) which purports to take the hassles out of learning to fly. The purchase price is US \$299 which includes a Spectrum DX5Edsmx transmitter and special receiver plus everything you need to make it fly, just assemble, charge the batteries select your skill level and away you go. (first, remember to read the 32 page manual fully)

The model is a high wing 59inch trainer type fully electric (.15ci size)

They have no stock at the moment!!!!

- What a great club night we had on the 4th June, a great turn out regardless of the weather, Mr. "Modernist" John Dunstan was in his element on his specialist subject "Film covering" ably assisted by Mark Venter (mylar and tissue specialist), and Bill Ferguson with his beautifully film covered SIG "Smiths Mini plane". See report and photos page 8 & 9

BGGG

Please note that there are changes in the program from that published in the May Torque

02-Jul-13	TUESDAY 1900hrs				CLUB	CLUB MEETING	Condell Ave
06-Jul-13	Saturday AM 0900-1200hrs	SOARING	127	NDC	CLUB	Altitude Limited Electric Soaring	Willows
06-Jul-13	Saturday AM 0900-1200hrs	SOARING	129	NDC	CLUB	10 minute Duration (class B)	Willows
06-Jul-13	Saturday PM 1300-1600hrs					SPARE	Willows
06-Jul-13	Saturday PM 1300-1600hrs	SOARING	128	NDC	CLUB	FAI (F3F) Timed 10 lap Slope	PMH
07-Jul-13	Sunday AM 0900-1200hrs	F/F	122	NDC	CLUB	Payload (Class C)	Willows
07-Jul-13	Sunday AM 0900-1200hrs	R/C POWER			CLUB	TOMBOY 36 and 48 R/C EVENT	Willows
07-Jul-13	Sunday AM 0900-1200hrs	VINTAGE	132	NDC	CLUB	Vintage R/C 1/2A Texaco Scale	Willows
07-Jul-13	Sunday AM 0900-1200hrs	VINTAGE	133	NDC	CLUB	Classical R/C IC Precision	Willows
07-Jul-13	Sunday PM 1300-1600hrs					SPARE	Willows
13-Jul-13	Saturday AM 0900-1200hrs					SPARE	Willows
13-Jul-13	Saturday PM 1300-1600hrs					SPARE	Willows
14-Jul-13	Sunday AM 0900-1200hrs	VINTAGE	130	NDC	CLUB	Vintage FF Precision	Willows
14-Jul-13	Sunday AM 0900-1200hrs	VINTAGE	131	NDC	CLUB	Vintage FF 020 Miniature Replica	Willows
14-Jul-13	Sunday PM 1300-1600hrs					SPARE	Willows
14-Jul-13	Sunday PM 1300-1500hrs	INDOOR		NDC	CLUB	FAI Class F1L	Templeto
14-Jul-13	Sunday PM 1300-1500hrs	INDOOR	125	NDC	CLUB	Fuselage	Templeto
20-Jul-13	Saturday AM 0900-1200hrs					SPARE	Willows
20-Jul-13	Saturday PM 1300-1600hrs	PYLON			CLUB	Pylon Race Day	Willows
21-Jul-13	Sunday AM 0900-1200hrs	F/F			CLUB	VIC SMEED PRECISION	Willows
21-Jul-13	Sunday AM 0900-1200hrs	F/F	126	NDC	CLUB	Open Glider	Willows
21-Jul-13	Sunday PM 1300-1600hrs					SPARE	Willows
27-Jul-13	Saturday AM 0900-1200hrs					SPARE	Willows
27-Jul-13	Saturday PM 1300-1600hrs					SPARE	Willows
28-Jul-13	Sunday AM 0900-1200hrs	F/F	123	NDC	CLUB	1/2A Power	Willows
28-Jul-13	Sunday AM 0900-1200hrs	F/F	121	NDC	CLUB	Coupe D'Hiver (FAI Rubber Class F1G)	Willows
28-Jul-13	Sunday AM 0900-1200hrs			NDC	CLUB	Club Rally day, cancelled events and NDC final day for month	Willows
28-Jul-13	Sunday AM 0900-1200hrs	ELECTRIC			CLUB	Club Electric X5J Extreme	Willows
28-Jul-13	Sunday PM 1300-1600hrs					SPARE	Willows

- I went to a bookstore and asked the saleswoman, "Where's the self-help section?" she said if she told me, it would defeat the purpose.
- One nice thing about egotists: they don't talk about other people.

03-Aug-13	Saturday AM 0900-1200hrs	SOARING	140	NDC	CLUB	Formula 500 (class D)	Willows
03-Aug-13	Saturday PM 1300-1600hrs					SPARE	Willows
04-Aug-13	Sunday AM 0900-1200hrs	F/F	134	NDC	CLUB	Aggregate (Class B)	Willows
04-Aug-13	Sunday AM 0900-1200hrs	F/F	137	NDC	CLUB	Kiwi Power	Willows
04-Aug-13	Sunday AM 0900-1200hrs	F/F	138	NDC	CLUB	Cranfield Classic	Willows
04-Aug-13	Sunday PM 1300-1600hrs					SPARE	Willows
06-Aug-13	Tuesday PM 1900hrs				CLUB	CLUB MEETING	CONDELL
10-Aug-13	Saturday AM 0900-1200hrs					SPARE	Willows
10-Aug-13	Saturday AM 0900-1600hrs					SPARE	Willows
11-Aug-13	Sunday AM 0900-1200hrs	F/F	135	NDC	CLUB	Catapult Glider	Willows
11-Aug-13	Sunday AM 0900-1200hrs	F/F	136	NDC	CLUB	Hand Launched Glider	Willows
11-Aug-13	Sunday AM 0900-1200hrs	F/F			CLUB	Tip Launched Glider	Willows
11-Aug-13	Sunday PM 1300-1600hrs					SPARE	Willows
11-Aug-13	Sunday PM 1300-1500hrs	INDOOR	139	NDC	CLUB	Open Tissue	Templeton
17-Aug-13	Saturday AM 0900-1200hrs					SPARE	Willows
17-Aug-13	Saturday PM 1300-1600hrs					SPARE	Willows
18-Aug-13	Sunday AM 0900-1200hrs	VIN-	144	NDC	CLUB	Vintage RC IC Duration	Willows
18-Aug-13	Sunday AM 0900-1200hrs	VIN-	145	NDC	CLUB	Vintage RC Electric Duration	Willows
18-Aug-13	Sunday AM 0900-1200hrs	VIN-	141	NDC	CLUB	Vintage FF Power Duration	Willows
18-Aug-13	Sunday AM 0900-1200hrs	VIN-	142	NDC	CLUB	Nostalgia FF Power Duration	Willows
18-Aug-13	Sunday AM 0900-1200hrs	VIN-	143	NDC	CLUB	Classic FF Rubber Duration	Willows
18-Aug-13	Sunday PM 1300-1600hrs					SPARE	Willows
24-Aug-13	Saturday AM 0900-1200hrs					SPARE	Willows
24-Aug-13	Saturday PM 1300-1600hrs	PYLON			CLUB	Pylon Race Day	Willows
25-Aug-13	Sunday AM 0900-1200hrs	R/C			CLUB	TOMBOY 36 and 48 R/C EVENT	Willows
25-Aug-13	Sunday AM 0900-1200hrs			NDC	CLUB	Club Rally day, cancelled events and NDC final day for month	Willows
25-Aug-13	Sunday AM 0900-1200hrs	ELECTRIC			CLUB	Club Electric X5J Extreme	Willows
25-Aug-13	Sunday PM 1300-1600hrs					SPARE	Willows
31-Aug-13	Saturday AM 0900-1200hrs					SPARE	Willows
31-Aug-13	Saturday PM 1300-1600hrs					SPARE	Willows

