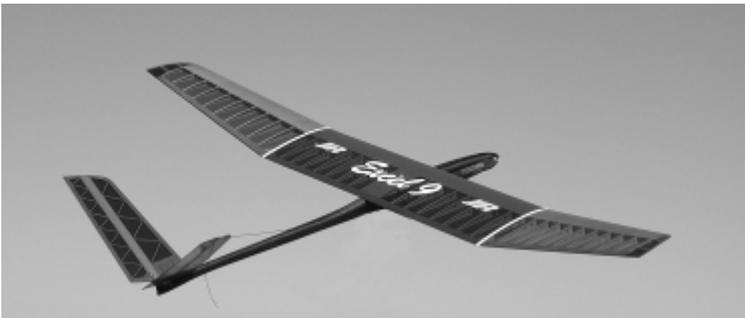




PROP TORQUE



Official Newsletter of the...
LAUNCESTON MODEL AERO CLUB Inc.
VOLUME 10

MARCH

2002



Prop Torque..... March 2002

Cover Picture: Greg Robertson's Excel 9. His own design which was 1st in the 7 Cell Championships. 2nd with the same design was Jacques Wakae. George stopped a trifecta of Excels coming third with his Defender. (Kerry Gray was 4th with another Excel).

EXECUTIVE..

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SECRETARY Gerry de Groot (03) 6369 5284
TREASURER Nigel Keefe (03) 6344 6079

Next Committee Meeting:
Monday, April 8th at
7:30pm at the Waddle
residence
35 Collins St., Evandale

Prop Torque is the Members Magazine Why not make a contribution?
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Copy Deadline: Friday after 2nd Monday of each month

CONTENTS

Captains Report	Page 3
Secretary's Report	Page 4
From the Editors	Page 6
Hugh & Jackie McLennan at Coffs Harbour	Page 8
Contest Directors Report	Page 10
Elactrasite by Jacques Wakae	Page 14
Tasmanian Electric Fly-In Entry Form	Page 16
Event Calendar (Tear out and keep)	Page 18
Membership Renewal	Page 19
Advertisers	
Birchalls	Page 17

Prop Torque..... March 2002

CAPTAIN'S REPORT
Peter Kidson (03) 6394 4380
p.kidson@microtech.com.au



Captains Report

Hello once again.

It seems the weather can't make it's mind up recently with warm to hot days for the past three weeks, must be summer all over again.

The annual General Meeting is being held soon and as you all know although it's not compulsory to attend it would at least give you all a chance to take part in voting for your committee members as some positions will be changing and some won't.

It is my belief that the committee we have at present can take the club forward. We have come to some decisions on behalf of the club which will over a period of time help to not only boost club events on the competition side but also to help boost membership. We have in the past had one or two decisions backfire but on the whole I for one am very pleased with the way this last club year has gone.

So, if you want to have a say in how the clubs run come up and air your thoughts on the night, take your vote and help to keep the club moving forward.

The club dinner will be coming along again shortly so watch out for that date and put it in your diaries.

I've been talking with a few people in the know about the standard of Judging at the different competitions we hold. Things like what's involved with judging and what do you look for, just simple things like that. I thought it might help if an article in our newsletter about it may help so hopefully in the near future I can sit down and put some things to paper.

(Continued on page 4)



Prop Torque..... March 2002

I might add this time I just didn't get time to do the bit on mixing and landing procedures. I will get it done for next time.

That's it from me for this month,

See you at the field...

Pete...



SECRETARY'S REPORT

Gerry de Groot

Ph: 0417 536 200 (BH) or 6369 5284 AH

gdegroot@vision.net.au

Hello All.

As mentioned in my previous column, fees for 2002/2003 will be due when our club year finishes at the end of March. So I am asking for the cooperation of all club members by paying your subscriptions promptly when due.

In this issue you will find a membership renewal form. The first thing you will see is that the cost of membership has gone up. The reason for the increased cost is due to only one factor - INSURANCE. Since the collapse of HIH insurance last year, the cost of insurance has risen sharply. Unfortunately, the Committee has no alternative but to pass on the cost to members. (Remember that last year's rise of \$5.00 imposed by the MAAA was paid for out of club funds. This year all costs need to be passed on.)

(Continued on page 5)

Prop Torque..... March 2002



(Continued from page 4)

The fee structure for 2002/2003 was set at the last Committee meeting. We had information about the MAAA fee, but nothing from the TMAA. (Last year's TMAA fees are shown in *italics*.) However, the Committee decided to set fees anyway so that the process of collecting subscriptions is not held up. Fees for 2002/2003 will be:

Membership	LMAA fee	MAAA fee	TMAA fee	Sub	(Last year)
Senior	40.00	50.00	<i>5.00</i>	95.00	(80.00)
Pensioner	14.00	50.00	<i>5.00</i>	69.00	(50.00)
Junior	28.00	20.00	<i>Nil</i>	48.00	(40.00)
Associate	45.00	N/a	<i>Nil</i>	45.00	(45.00)
Social	10.00	N/a	<i>Nil</i>	10.00	(10.00)

The other thing to mention is that we need to update our club database. While we have information, we have come across examples where data is out of date, incorrect or we don't have it at all. (For example, a member has asked "who in the club flies Mode 2?" We can't tell him since we don't have this information.) For this reason you will see a list of questions to be answered when you return your membership renewal form. Hardly Big Brother stuff, but it will certainly help us to help you, our members.

That's it for now.

Until next month, happy flying.

Gerry de Groot





Prop Torque..... March 2002

From the Editors

Hi everyone,

After our big trip we've settled down again but isn't it always the way, a mad rush before you go away on holiday and then when you return there seems to be so much to catch up on that after a few weeks you feel you need another holiday! Nonetheless I managed to get in a flight before the 7 cell competitions (first one since before Christmas). I was very happy with the 3rd place in the championships but it's obvious that the model should now be retired as the competition is pretty hot with the winning model reputed to be worth \$1000 compared to my Defender at about \$600

I have just finished building a 7 cell electric glider called a "Lowatt". I downloaded the plan from the internet www.klneumann.com.au. Knut Neumann is a supplier of carbon fibre products and small electric motors etc. I did this as an experiment in low cost flying but to be honest, after flying the Defender that has an excellent climb rate, the Lowatt seems a bit pedestrian!

Initially I was sold 7 x 1000 mAh Nickel Metal Hydride cells, in place of the recommended 500 mAh Nicads. Same weight but the Nimh have a longer duration. Maybe so but the result was less than satisfactory. You cannot draw the same current out of the Nimh. The model struggled to gain height without circling and appeared to be a little tail heavy. Some on field advice suggests the tail area is too small also.

However whether it is a computer program or a model airplane, I believe in addressing one thing at a time and observing the effect of the changes rather than change everything and then review the effect.

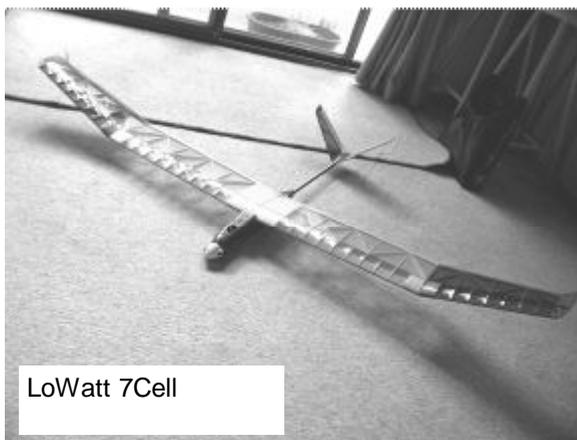


I moved the CG forward slightly and changed the battery to a 500 mAh Nicad. The model climbed much better (still too pedestrian for me) but still seemed to be a handful in flight, requiring constant input to stay level. A good glider should only require trim input to adjust from thermalling to speed (to travel away from sink to lift) The instability in level flight problems may be due to the small tail area and also the incidence on the V-Tail. I am rebuilding the tail and will look at a different method of mounting the V-Tail as I found it difficult to align the two tail sections at 100° and also ensure the chord of the tail was parallel to the fuselage. This was made all the more difficult by the fact that the fuselage boom was a carbon fibre tube.

The model uses a Aeronaut Speed 300 motor (\$15) with a 9:1 Aeronaut gearbox (\$54) and swings a 12 x 8 carbon prop. It also uses a 3mm carbon tube as the leading edge which I found easy to build and quite a neat finish. It has a wingspan of 1.6m and an all up weight of about 18 ounces. Once I sort out the glide and if I'm happy with the performance I'll look at a different motor combination (possibly brushless).

Kerry and I received an e-mail from Hugh and Jackie McLennan who have recently moved to Coffs Harbour. I have included a copy of their e-mail as it shows some of the obstacles that some flyers have elsewhere and how fortunate we are to have the facilities we have. Hugh's sense of humour will also give you a laugh.

*Put a spark in your
life—Fly Electric
George & Kerry*



LoWatt 7Cell



Prop Torque..... March 2002

Hugh & Jackie McLennan at Coffs Harbour

Hi Kerry & George,

Just a note to give you my new address. Jackie and I have shifted to Coffs Harbour to live. We have sold up in Tassie and are living in our unit in Coffs until we either find a house or a block so that we can build. Our address up here is unit 4 No 21 Moore St Coffs Harbour. Postal is P.O Box 1494 Coffs Harbour 2450. If you would be so kind as to let me know what a associate membership is I will send a cheque so that I can keep in touch via the newsletter

I have joined the club here. \$120 per year. The members are a nice lot, mostly retired chaps in there 70's or older. The only other member that fly mode 2 is 85 and a worse flyer than I am, so I am on my own . No Merv Camerons' or Mike Adams' to give me a hand if in trouble. The strip is a funny one. It is surrounded by virtual jungle on 3 sides. Full of snakes (big ones) and ticks and leaches. I know, as My Ugly Stick with the Wankle Engine in it decided to take it on itself to do an inverted loop and disappear.

To find it I purchased a pair of Gumboots (for the snakes) and a compass (so as to find my way out again). I found the plane which was minus the tail (reason of the inverted loop) but the wing is still up in a tree.

I had the first flight on Tues with my little Piper Cub (a great Planes 30 size) that has your OS40FS in. It putts around very life like. I am building a Scimitar 60 size which will be completed when I get a workshop. That will have the FX 60 that you sold me in it. The biggest plane that is at the club is my old Cherokee that you may have seen. It is about 60" span. All the other planes are smaller, mostly old timers about

(Continued on page 9)

Prop Torque..... March 2002



(Continued from page 8)

50" except for the gliders which there are a few. Bit haphazard.

The gliders fly behind the strip and are winch launched, so it is not unusual for a RC model to tangle in the winch line. The club shares with the local gun club which shoots on a Sat .

We fly AM on Tues - Fri & Sat, about 10 to 15 turn up on a good day. Flying usually starts at 8 (I get there about 10 because we swim every morning) and finishes around 12 noon. About 10.30 a sea breeze comes up and howls at right angles to the strip so after that not much can be done. Not from me anyway. Cannot afford to crash as I have no repair facilities as yet.

Regards to you both and please pass my best wishes on to all the other members. If anyone happens to be up this way please call in as we can always find a bed or at the least a cup of tea

Hugh .





Prop Torque..... March 2002

Contest Directors Report

The day of March 16th saw the 2002 7 Cell State Glider Championships held at Symmons Plains. By contrast to earlier in the week when the weather was quite warm and fine, the day was overcast over the field and a quite fresh North-West breeze meant that coats were kept on for most of the day. The heater in the clubhouse was fired up to make things a bit more comfortable for our use at lunchtime and afterwards but otherwise the weather held okay.

We started with eleven entrants and finished the last round with seven, although all but Richard Cooper who crashed on take-off on his first round went on to finish three rounds and most did four rounds.

John Derrick also did not do so well on Round 1 but did do Rounds 2, 3 and 4 successfully. Dave Jacobs also bent his model rather badly on landing in Round 3 and could not continue as with Peter Haworth in Round 4. When the final scores were added up it was found that we had two pilots with exactly the same score for four of the five rounds and their lowest round, which was dropped as with the rest of the entrants, were also exactly the same, so we had no alternative but to have a fly-off of another round. George Carnie had the highest score over Steve Ralph for this fly-off.

The pressure was surely on as Steve landed very heav-

(Continued on page 11)



(Continued from page 10)

ily trying to make the spot and severely damaged his model.

All in all a great day of fun and togetherness was enjoyed by all and as it turned out four of the Tasmanian clubs were represented which was great.

The next contest on our field was the State Open Glider Championships held on March 23, I will give you the results of this event in next months newsletter.

Next month on April 20 is the proposed State Fly-In come Fun-Fly but at this stage I have no response to our letter from the other clubs regarding any participation, which I hope will be forthcoming before then.

It seems that the shield to be competed for is at Kelly-field not at NWAM as I first thought (sorry for the misinformation). Seeing as I do not know how many will be coming so as to plan what we will be doing, all I can say is if you plan to be there and fly then a model capable of taxiing and killing the motor in midair would be an advantage. We will also have any type of electric as well but thermal gliders will be permitted so long as they are launched leaving the strip free for other users at the same time.

We will give everyone points for just being there and each flight they make but we will keep the actual teams

(Continued on page 12)



Prop Torque..... March 2002

(Continued from page 11)

representing the clubs score separate to the individual scores for the day.

I must emphasise this will not be a contest just a low key day of flying and hopefully fun.

That's about it for me for now the scores and totals are as follows.

Happy Landings All.

Geoff C.D.

POINTS TOTALS					
After 10 Contests					
Division A			Division B		
Contestant	Contests Entered	Points	Contestant	Contests Entered	Points
G Robertson	10	1087.10	A. McEntyre	7	658.07
P. Kidson	9	925.74	K. Hay	7	592.71
J. Wakae	6	535.70	D. Jacobs	6	317.48
G. Carnie	5	485.19	R. Cooper	3	252.71
			K. Gray	2	207.10
			M. Lynton	1	98.35
			G. deGroot	1	85.60
			J. Derrick	1	76.69
			M. Cameron	1	59.23
			C. Murray	1	32.68



Electrasite

Obedying the instructions of our revered Captain, this series of articles will cover information regarding electric flying. As this is not a course on electrics per se, various aspects of this field will be covered in a haphazard way, hopefully most aspects will be discussed in time.

Some Batteries to Use

Regarded as a necessary evil, the motive power of the electric plane is by choice the Nickel Cadmium battery although lately the Nickel-Metal-Hydride is making inroads and is now suitable for medium current sports-flying type of models. Mostly used at present is the N-1250SCR, with the following specs;

1200 mA capacity, 6.9 mOhm resistance, 23mm diameter, 34mm high, 43 gr mass.

A new contender on the block is the CP-1300SCR with better weight to capacity;

1300 mA capacity, 8.5 mOhm resistance, 23mm diameter, 26mm high, 35 gr mass.

As you can see it is smaller and lighter but has a slightly larger capacity, against it is the fact that it has a much higher internal resistance, i.e. 11.2 mOhm more for a 7-cell pack, it is thus only useful for average current drains and will notably impact on the performance of a contest-type model, also it is more expensive!

Battery packs

The method used to assemble a battery pack has a profound impact on its performance a common method still used is to stack the cells adjacent to each other with jumpers connections, this method creates a heavy pack with up to 130mm of extra wire, read 'increased resistance = loss of power'. An other way is to spot weld 2 stacks of 3 cells each with the 7th cell lying across the bottom of the pack. That is a better method but the



small contact area of the weld spots is insufficient at high current loads, therefore best practice is to create 2 stacks of 3 cells each, but to solder the total electrode area, this is achieved with the use of a double-headed soldering iron where the top of one cell and the base of another are heated together and then the 2 cells are slammed together extremely quickly.

Care of Batteries

Nickel-Cadmium batteries, henceforth referred to as Nicads, need to be stored in a discharged state, optimum discharge Voltage level is 0.7 to 0.8 Volts per cell, a Nicad Pack should never be discharged totally. Much use is made in conjunction with Nicads of the term 'C', this represents the Coulomb of the cell as a unit of measurement relating to the quantity of charged energy. Thus it is use to indicate the capacity of the Cell as being 1C regardless of the type of cell, e.g. 1C of a 1250SCR is 1200mA and 1C of a CP-1330SCR is 1300mA.

Fast charge Nicads (SCR type) can be charged safely up to 3C (3750mA for a 1250SCR) Maximum safe discharge is between 20C and 30C. If a pack has been unused for a time, it is recommended to trickle charge it at C/10 for up to 14 hours, the reason for this is that Nicads are individualists and will always do it their way, even so-called 'matched packs' will become 'unmatched' after a few Charge/discharge cycles. In any pack one cell will discharge/self-discharge quicker than others and a slow overcharge will hopefully bring all cells to their max. capacity.

Jacques Wakae

jlwakae@bigpond.com





Prop Torque..... March 2002

HOBART PHANTOM FLYERS (INC) TASMANIAN ELECTRIC FLY-IN 2002

PILOT REGISTRATION FORM

Name

Address

Contact phone number

Club

I would like to reserve __ place(s) at the dinner on Saturday night.
Please forward this form with the \$5.00 registration fee to

The Secretary
Hobart Phantom Flyers (Inc.)
400 Acton Rd.
Acton Tas 7170

If you have any questions, contact the
organiser, Dean Williams on (03)
6243 5645 (AH)

By April 12th 2002

Thank you and see you there!

We plan to do a report on this event and it would be helpful if you could supply some details in the form below of the models you plan to bring to the event.

	Model 1	Model 2	Model 3
Model Name			
Wingspan (cm)			
Weight (g)			
Prop			
Gear ratio			
Motor(s)			
ESC			
No. and type of cells			
Own design/ Plan/Kit			

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Hobby Department

Ph. 1800 806 867

E-mail: dleonard@birchalls.com.au



CLASSIFIEDS Free to Members!

Coming Events



DATE	EVENT	DETAILS	TIME
Apr. 20	Fun Fly	State Fly'in	10am
Apr 27&28	Tasmanian Electric Fly-In contact - Dean Williams 6243 5465	Sandford Sth Arm Highway. 50m down Dorans Rd	9:30am

“BOLD” text denotes LMAC events

Contests to be on the day specified. If weather is not suitable, then the next day, Sunday. If that too is not suitable then the event is cancelled and we move to the next contest scheduled.

**“Club Day” is the first Saturday in each month.
“Cafe Symmons” will operate each Contest Day and Club Day.
(Please come along to both these events. These are important fund raising events for your club . Ed.)**

If not claimed within 14 days
please return to
P.O. Box 1204
Launceston Tas. 7250

