

PROP TORQUE

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Official Newsletter of the... LAUNCESTON MODEL AERO CLUB Inc. VOLUME 12





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

Hello to all.

As you know we held our clubs Annual General Meeting at the end of April and thanks to those who attended. One of the items up for discussion as always is the nomination of committee members. This year it was the turn of the President, and two other committee members, Geoff and Andrew. It looks as if you all have faith in the way we do things for the club because all three of us were voted back for another term. Thank you for having the confidence in not just the three of us but in the committee as a whole.

Geoff, (who has also decided to take on the position of contest director again) and I were asked at the last meeting if we would attend the TMAA AGM in Oatlands in April, which we did and all went well. LMAC has secured two State championships for this coming competition year. The seven cell electric glider and also the open glider both being held at Symmons Plains. There was some talk of the open glider being held at Bothwell but this is not to be, however we will strive to hold both comps over two days as this we feel may help to make them bigger and better. I'm sure Geoff will have things to say about these in his report.

One of the items I brought up at the meeting was the method of attaining a large model permit. It seems we may have to get an inspector in the club. Merv Cameron has been nominated and all that is left is to obtain the necessary paperwork, fill it in and wait and see. On the issue of large models, one or two of the members have been experimenting with whipper snipper motors, the next few months should be interesting to see what and how big these models will be. I am building a small one at the moment, an eight foot span Citabria, at almost stand-way back in the paddock sort of nearly scale it will be my first large model but maybe, (all

things going well), may not be my last.



I can just see the bomber's lined up on the runway, bristling with bombs, gun turrets, bullets and the smell of fuel, both engines running at idle waiting for the moment the brakes are released, then charging down the runway, straining at the sky because of the weight on board, (in those immortal words of Austin Powers), yeah baby!!!!

We held a novelty fly in last Saturday and it seemed as if everyone had fun, Geoff will cover this also I hope.

The Annual dinner was on the 17th of this month and I feel it was a great success. It was held at Scarlet's Restaurant up by the casino. The attendance was excellent with 30 members turning present. The chatter was non stop that was until it was time to give out the trophies for this year. Geoff as contest director has done a very good job as always and those who received their rewards were more than pleased. The dinner is a chance for us all to meet up, have a chat, air our thoughts and basically relax with each other somewhere other than the field. I for one look forward to it.

George and Kerry spent most of the evening taking photo's of the night. Each recipient had there photo taken receiving their trophy from non other than yours truly. I'm sorry if I ruined your photo but George assures me he can do the appropriate editing to get rid of me. No comments from you Sylv either...

Well that's it for another month. We can look forward to the cold weather coming, the morning fog, rain, sleet, snow!! ah reminds me of a typical English summers day. 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.

With the AGM behind us, the committee is now focused on the year ahead. We have a good contest calendar and look forward to another good year. Here is a summary of proceedings from the last committee meeting, held on 13 May:

- The VMAA has released its Directory and LMAC have a copy. It's full of useful information and will be available for shortterm loan. See the Secretary if you want to borrow it.
- Notice of all State championships to be run by LMAC will be forwarded to the VMAA for advertising on their website. This is to attract participants from interstate, where possible.
- TMAA fees were set at the recent TMAA AGM. Fees are unchanged from last year.
- The committee is working on a project to write a set of simplified rules for the contests we run each year. The aim is to explain the objectives, rules and scoring for each competition type. We are hoping this will increase interest in competitive flying generally. These will be kept at the clubhouse for general reference.
- As noted at the LMACAGM, the club makes an annual contribution to the upkeep of the access road to the Youl property, where we fly. It is worth remembering that we owe a great debt to the Youl family for allowing us to fly there. The best contribution we can make as individuals is to treat the road with respect.
- Member manuals have been printed and will be distributed to all current members, as well as new members when they join. The booklet outlines all the safety rules, as well as club operating procedures. New members will receive with their booklet a *(Continued on page 5)*

note explaining that they will need to discuss the safety rules with the Safety officers in order to get their booklet signed.

That's it for now.

Until next month, happy flying.

Gerry de Groot



Hello for another month.

This month—no words from us but a few pictures from the Annual Dinner.

Until next month.. Put a spark in your life—Fly Electric George & Kerry



Dave Jacobs receiving his trophy for 3rd in Division B

PROP TORQUE



Andrew McEntyre receiving his trophy for 2nd in Division B





The Impressive Trophy table at the Annual Dinner

PROP TORQUE

May 2002

Norman Bainbridge 1932—2002 (as printed in the Australian Control Line News)

Norman died suddenly at home on the 17th of February 2002. He was 69. Still an active aeromodeller in Tasmania, although these days more RC than CL, he and wife Mary were at



the Albury Nats, some of you may have seen them at the TAR watching team race, watching combat and vintage team race at the grass circles or at the dinner.

Norman started aeromodelling as a teenager in the UK in the late 1940's and after a break picked up again to join Ryde/Epping model aero club where he flew CL and was the secretary for more years than he would care to remember! At REMAC he flew everything but mainly racing with me from 1975 until about 1991, when I moved to England, he last raced Goodyear with Mark Godfrey at the Wagga Nats. He was a keen committed aeromadeller and was always willing to help newcomers, particularly juniors, many of whom are still flying today. In 1994 Norman retired to Tasmania, he and Mary took retirement seriously, they bought a brand new house and spent their time together, going to shows, travelling and enjoying life. As there was no CL to speak of, Norman flew free flight and learnt to fly RC gliders with some success with the Launceston Model Aero Club and the Launceston UFO'ers. His interest was not only confined to model aeroplanes; trains, bots and real aircraft all interested him. He had more hobbies and interests than time! Always the quintessential, quiet reserved Englishman, Norman loved Australia as a country and considered himself an honorary Aussie, having been evacuated to Sydney from Hong Kong during WWII. He spent lots of time exploring the country, usually as a result of driving to and from flying contests! Norman was known and respected by many, his death is a real loss not only to his family but to his friends and colleagues as well, most of all, he was a good bloke, please remember him as you knew him.

Mary and Duncan Bainbridge

Contest Directors Report



Well the last event of the old contest calendar 2001-02 and the first event of the new contest calendar 2002-03 has been run and won.

The last event on the previous calendar was the State Fly-In on April 20, which saw a turnout of 10 contestants; 5 from N.W.A.M. and 5 from L.M.A.C. The weather was good and a very enjoyable day was had by all.

We had 6 events on the day which saw all competitors having a go. It was great really as we had an even number from both clubs so it was easy to score individual as well as club points. We introduced our now quite popular "bomb drop" to our NW friends who took to it like fish to water, and the lolly scramble dropped from a loft so all 9 on the ground racing each other to see who could pick up the most as each lolly carried 5 points.

It was a great day and N.W.A.M. took home the shield with 791 points to L.M.A.C.'s 713. Well done N.W.A.M. It was a bit disappointing that only two of the Tasmanian clubs took part as this event was initially designed to bring all aeromodellers together for a fun event. Anyhow that's life.

Our first event for the new contest year, 2002-03 was held on May 18 and it too was a Novelty Fly-In. Another good day weatherwise, albeit if it getting rather chilly now at this time of year. We had 5 events which we ran through and a great deal of fun was enjoyed by all.

Dave Jacobs flew his electric glider in the bomb drop event and after a bomb release he nearly caught it again after coming out of his loop, he went on to win that round with a near perfect drop and landing. The jelly bean courier flight once again saw Dave put on a show as on take off with his load of jelly beans, did a little bit of a hop and all the jelly beans flew out before he left the actual strip. Then Greg fouled the balloon holding tether which wrapped around *(Continued on page 10)*

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the prop of his electric model and all came down gently to earth, pulling the support pole out of the ground and no damage at all to the model. It was a good day of fun for all.

The results of the State Fly-In are as follows -

Contest Scores 2001-2002					
State Annual Fly-In 20th April 2002					
Conte stant	Score	Points		Division	
Scott Kay	274	>>>>>>	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	N.W.A.M.	
Peter Thompson	262	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		N.W.A.M.	
Kevin Hay	235	110.00		В	
Gary Anderson	233	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		N.W.A.M.	
Jacques Wakae	219	110.00		А	
Steve Ralph	216	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		N.W.A.M.	
Peter Kidson	209	95.43		А	
Greg Robertson	205	93.60		А	
Andrew McEntyre	200	85.10		В	
Bob Stewart	161	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>			

You'll find the results for the first event for the New Year and also on how the year ended up and the various winners which were presented at the very successful Annual Dinner of Friday, May 17 at the end of this article.

The new contest calendar is also enclosed for your reference. The next event on our field will be the 7 Cell Electric Glider on June 15. This type of flying is really catching on now.



Well that's it for me for now, hope to see you at the field.

Meanwhile... Happy Landings All. Geoff C.D.

Contest Scores 2001-2002						
	POINTS TOTALS					
	After 12 Contests (Final Scores)					
Di	vision A		Division B			
Contestant	Contests Entered	Points	Contestant	Contests Entered	Points	
G Robertson	12	1290.70	K. Hay	9	774.84	
P. Kidson	10	1021.17	A. McEntyre	8	743.17	
J. Wakae	7	645.70	D. Jacobs	7	387.52	
G. Carnie	5	485.19	R. Cooper	3	252.71	
			K. Gray	2	207.10	
			B. Nye	1	110.10	
			S. Boag	1	103.52	
			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	



Contest Scores 2001-2002					
		Individu	ual Events		
Contestant	Contests Entered	Points	Contestant	Contests Entered	Points
Fun F	ly's/FlyIr	IS	7 Cell Electric		
G Robertson	5	520.70	G. Robertson	3	330.00
P. Kidson	5	471.17	J. Wakae	3	319.42
A. McEntyre	5	452.33	G. Carnie	2	213.13
K. Hay	5	437.27	K. Gray	2	207.10
J. Wakae	3	220.41	R. Cooper	2	181.75
D. Jacobs	3	144.55	J. Derrick	1	76.69
G. deGroot	1	98.35	D. Jacobs	2	21.13
M. Cameron	1	59.23			
M. Lynton	1	58.45			
C. Murray	1	32.68			
Open Thermal Glider		Pattern			
G.Robertson	2	220.00	P. Kidson	5	550.00
D. Jacobs	2	148.84	A.McEntyre	3	290.84
B. Nye	1	110.00	K. Hay	3	265.44
J. Wakae	1	105.87	G.Robertson	2	220.00
S. Boag	1	103.52			
G. Carnie	1	73.13			
K. Hay	1	72.13			
R. Cooper	1	70.96			

MODEL AERO



Divisional Scores 2001-2002				
Conte stant	Points	Division		
Greg Robertson	1290.70	А		
Peter Kidson	1021.17	А		
Jacques Wakae	645.70	А		
Kevin Hay	774.84	В		
Andrew McEntyre	743.17	В		
Dave Jacobs	387.52	В		

Contest Scores 2002-2003 Novelty Fly-In 18th May 2002				
Contestant Score Points Division				
Greg Robertson	800	110.00	A	
Peter Kidson	582	82.75	A	
Dave Jacobs	531	110.00	В	
Andrew McEntyre	446	93.99	В	
Kerry Gray	419	88.90	В	
Kevin Hay	354	54.25	А	
George Carnie	232	53.69	В	
Richard Cooper	105	29.74	В	

PROP TORQUE

More on Batteries

Just joking! Lets look at the requirements and decisions facing somebody deciding to give 'Electrics' a go. This power mode has a major handicap, the weight of the airborne batteries. It becomes necessary to keep track of the weight of each component as you assemble your model, select your balsa to suite each purpose, replace ply by Liteply whenever possible, incorporate exotic materials like carbon or Kevlar, rethink the way you used to do things and above all be sparing with the glue, the days of adding that small piece of ply, etc.. making it 'just a little bit stronger' are gone! If your landings are rough don't beef-up the landing gear just learn to fly better. To make the transition to electrics easier, start with an electric glider which lends itself very well to that type of conversion, after all you are only replacing the lead in the nose and the beefed-up wings, so necessary to winch launch, by the batteries and motor.

A good start-up choice is a glider around 1.8M to 2.2M in wingspan with polydihedral wings, that way you only need 2 servos. A rule of thumb is that the airframe should not weigh more that the rest of the bits (motor, battery, radio) put together. Gliders do not pose major stresses on the control surfaces, so you can get away with mini or even micro servos, a good choice is the JR371 which weighs in at 9 gram and is quite friendly towards the BEC (more about that later). Installation of components is different from conventional, from nose to tail you should install; motor, controller, batteries, servos and receiver, yes that's right, the receiver as far away as possible from the two major sources of interference in electrics which are the motor and the speed controller. Lets consider possible choices and installation of each of the major components in turn.

Props these whirly bits are only useful whilst you climb, after that they are a handicap as the wind milling prop acts like a huge

airbrake plus they tend to break on landing, therefore we need a folding prop. Such a prop opens-up due to its traction in the air and the centrifugal force, the traction and centrifugal forces keep the prop in a constant balance which is very beneficial to the motor shaft as hardly any side force is applied, to fold the prop it needs to slow down enough for the air pressure on the blades to overcome the centrifugal force, that can be done by reducing the airspeed like in a stall or a bit easier by having the speed controller placing a short across the motor terminals, since the motor behaves like a dynamo the braking is most effective whilst the motor is revving fast, the braking effect reduces as the RPM reduces, therefore it is possible in some pitch, diameter, airspeed combinations that you still need to nose the model up slightly to enable the prop to slow down enough for the blades to fold back.

Correct prop selection is the 'black art' of electric flying, the selected prop must match demands and capabilities of the model, motor, controller and batteries, often changing one thing leads to a cascade effect through the rest, an analogy in I.C. motors would be like saying that for each different prop you would need a matching set of cooling fins, matching carburetor, different fuel mix and differently sized tanks, which have altered fuel flows. If the tank gets too large you need a bigger model, which requires a bigger motor, which needs a different prop, which needs.... I think you get the idea.

To start in electrics, just watch other electric models, ask a lot of questions, make-up your mind and copy your chosen setup quite shamelessly. When you have progressed a bit, then it is time to consider refining things by the use of Watt meters, thrust measurement devices, tachos and whatever will help, reading books about electrics and obtaining specifications on motors, batteries and speed controllers does not go amiss either. The conventional prop assembly for electrics consists of;

a) a prop adapter which fits over the motor shaft and has a threaded shaft to take the prop,

(Continued on page 16)



- a middle part fitting over the prop shaft, said middle part is like a prop hub with two short shafts that act as pivots for the folding blades. The pivots are located far enough from the center so that when the prop is folded the blades will lay nearly flat against the fuselage,
- c) propellor blades of your choice with a hub thickness to suit the spacings of the middle part, normally 6mm for small props and 8mm for larger ones,
- d) a spinner, not so much to make the model look good but to absorb the impact from a hard landing and transfer the force to the fuselage, that protects the motor shaft which quite often is small in diameter. For shaft protection to work you must have the smallest possible gap between spinner and fuselage.

There are other methods of attaching a propeller to a shaft but these are normally integral units which encompass prop adapter, middle part, blades and spinner as one, sometimes it can be hard to obtain spare parts for those units. Cost wise it comes about even, but the individual bits way gives you more flexibility of choice.

Jacques Wakae

jlwakae@bigpond.com.

NEWS FLAS H—14 April 2002 Around lunchtime, Richard Cooper was flying his 'A lbatross' electric glider, about 20 meters up, just off the strip.

Along from the farm area came a big bad eagle who positioned itself right behind the glider and then with an almighty crunching sound, just pulverized the whole tailplane of Richard's glider. The eagle performed a 360 turn, to inspect his work, I'm sure, then flapped away straight back to where it came from.

Score is; Richard nil, Eagle 1.

Don't Forget—Badges are available for sale. Price \$10.00 (incl. 2 stickers).

Contact Kerry, George or any Committee member if you require some.

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Coming Events



Club Day		
Glider Day	N.W.A.M. (Don)	9:30am
7 Cell Electric	Round 1	9:30am
	Glider Day	Glider Day N.W.A.M. (Don)

"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.)





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May 2002

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