



PROP TORQUE

Official Newsletter of Launceston Model Aero Club Inc. PO Box 1204 Launceston TAS 7250

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From the President

Hello all

My sincere thanks to those members who took the trouble to attend the AGM. As I'm again contributing the President's column, it will be obvious to the remaining members that I was re-elected. I have no agenda for major reforms (to borrow a phrase from politics), but I am keen to work towards LMAC continuing its proud tradition of sports flying in good company, done in a safe manner.

The Old Timer Day was good fun, albeit in cold and breezy conditions. Yours truly campaigned his trusty Cicada, powered by an OS 40FS. This model is just a good, strong, nice handling older model (ca 1959) which, in spite of its unremarkable looks, is a pleasure to fly (at least for me). However when the flyers were briefed, it seems we were to fly with a 30second engine run, shut down, and then glide for as long as possible. The trusty Cicada managed to get just high enough to do a circuit and then land! Well, someone has to come last! (A handicap was later applied and the model was able to gain a lot more altitude, but that's another story.)

While on the subject of events, this year the club will try a totally different approach to holding events. Previously the

committee has decided on a year's worth of events and then implemented those through the elected CD. This approach has had limited success. This year the committee will again nominate a calendar, but only of "core" events that have demonstrated ongoing popularity. These are (not necessarily complete, and not in any order) Old Timer/Tomboy, Electric glider (LEG) and Thermal Glider. In between these, there will be non-core events such as (for example) pattern, electric wings, fun fly, etc. No CD will be elected; instead each event will be run by ("hosted by"?) a different person. That person will be nominated by the group of flyers wanting to hold the event. This means a pattern flyer (or someone acceptable to that group) will run the pattern event, and so on.

It will be up to the group of flyers wanting to hold an event to let the Committee know well beforehand, not only so that the event can go into the newsletter and web site, but also that catering arrangements can be made a sensible time beforehand. Incidentally, you may want to let the committee know sooner rather than later about your event, in order to secure a good spot on the calendar.

If anyone wants to know more, feel free to give me a call, or send me an email.

.....Gerry

From the Secretary's Desk

Hi All,

Well another month has gone and possibly a good point emanating from that statement so has the first month of winter. The end cannot come soon enough as at our recent Tomboy/Old-timer event we were all frozen to our bones in the more than crisp temperature on that day.

We have had our AGM and we weren't really impressed by the number of members that came but we did have just over the amount for a quorum, and I would like to say thank you to those members who were not able to come but did send in an apology, of which there were 5. The meeting went very smoothly and we were able to elect members to the positions that were becoming

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vacant.

The committee remains largely unchanged for another year with Gerry DeGroot being re-elected as President,

Terry Pearson was re-elected to the committee and Fred Willis was elected to replace Greg Robertson who has stepped down this year. Kevin Hay was re-elected as Club chief flying instructor for another 12 months. All the above positions were elected for a 2-year term.

Some points from our last committee meeting: - At this meeting it is customary to elect 3 positions that of **Newsletter editor** to which Richard Cooper was re-elected, **safety officer** to which the whole of committee is again responsible.

The **contest director's** position has not been filled in the normal way, and after discussion it was decided that we would try something different: the President has expanded on this in his column above.

The committee has decided to purchase another small lawn mower to replace our existing one, which has finally come to the end of its useful life.

It was agreed that next year's Annual General Meeting would be held on Thursday 9th of June 2011

We have only one birthday to celebrate this month and that is Peter Ferguson: we do convey to Peter our best wishes for a great day on his special day and the year ahead. Well that about wraps it up for me for another month.

I would leave this little bit of humour with you: answers from kids, to a couple of questions:

Q. Name the four seasons.

A. Salt, Pepper, Mustard and vinegar

Q.How can you delay milk turning sour

A.Keep it in the cow

So as always
Happy landings all
Geoff.

Contest Director's Report

Saturday 19th June Tom Boy & Old Timer events.

The morning started off cool but clear with a variable breeze, but as the contestants started arriving so did the clouds and a stiffer breeze. It also became noticeably cooler.

I decided that the Tom Boys should be first up in case the weather deteriorated further. Seven starters lined up for the mass launches that proved to be quite amusing at times, with the lower powered models struggling to gain height

Tony along with Scott Webberly , Peter Allen & Will Deal who ably assisted me with timing all made the trip up north , joining Greg Robinson , Kevin Hay , Terry Pearson & Andrew DeWater We managed 3 rounds before the lunch with some good flights coming despite the not so favourable conditions.

Looking around the room during the lunch break I noticed something interesting: "Diesel dabblers" are often referred as members of the Oily Hand Society, but from what I could see they should perhaps also be known as the Wet Knee Society!

After a hearty lunch prepared by Alice , Kerry & Faye we reverted to Old timers for 3 rounds of power & glide with Greg , George , Terry , Kevin , Gerry & Tony competing , it became obvious after the first round the power difference between the models was putting some at a real disadvantage so to even things up we let the lower powered planes go 30 seconds ahead & then the others with all cutting engines at the same time , this proved to even things up nicely with a great improvement in the flight times bringing some better competition to play.

Following this event we had enough time to squeeze in one more round of Tom Boys before the weather closed in threatening rain, and our visitors had to head back to Hobart.

Final results for Tom Boys.

Greg Robinson first Kevin Hay second & Terry Pearson third followed by Tony, Peter, Scott and Andrew.

Final results for Old timer.

Greg Robinson first, Tony Gray second & George Carnie third followed by Kevin & Gerry

This is my last report as C.D, I hope some one else will step up for a go at this position it has been rewarding at times but challenging at others.

Signing off

Chris Klimeck

Contest Director.

From the Editor's Desk

Further thoughts on vibrations: motors.

Last month I reported on the methods for correcting unwanted vibrations due to imbalanced propellers. Having had very helpful advice from several members of the club, after having had a sudden onset of severe vibration in my new Multiplex Parkmaster 3D model, at high revs, (above $\frac{3}{4}$ throttle) on the test bench, (which I ignored, thinking that I shall use only up to half throttle on the maiden flight!) the motor started vibrating during the third flight and then broke partly off its mounting which naturally resulted in several fuselage fractures and a broken motor axle not to mention a spectacular unwanted flick roll before I could shut down the throttle! I had actually meticulously balanced the propeller before hand, using a Dubros balancer, so was seeking help in case I had missed something.

The next thing to consider in the the advice that you all sent, was vibration in the motor itself. In correspondence with Mike Adams a few months ago when I was deciding what Park flyer to get or build I was intrigued by his suggestion that a Tucano as published iin RCM&E some three years ago is a good robust model for this role, but that it needs some modifications for the electric motor mount because the original firewall design is not strong enough to withstand electric motor vibrations which are high frequency and not visible. This has been noted by several people apparently.

Others from LMAC responding to my request for help last month also point out the problems of considerable forces exerted at the various mounting points especially in outrunner brushless

motors. The large diameter, high mass (of the imbedded magnets) rotating bell in this type of motor has high torque and gyroscopic forces acting on its bearings and therefore the mount. These forces are increased if the motor is fixed to the firewall by rear mounts attached to the stator end of the motor. Some larger brush less motors have a mount at both ends because of this.

It follows therefore that the mounting method must be rigid just as it should be in internal combustion engines. As Brian Winch describved in an article in RCM&E in 2004, where he showed an economical method of building a vibration free engine mount for IC motors, this may be applicable for electric planes.

The sources of vibration in IC and electric motors can be worn or faulty bearings, bent propeller shafts/crank shafts, unbalanced bell rotor or inaccurate gluing of magnets in the rotor in brushless motors and unbalanced spinner in any aircraft.

Methods of detecting some of these imbalances may be difficult, particularly where dynamic balance is at fault. I shall be trying to work out how dynmic imbalance is determined for a future subject. If anyone has a good explanation it would be good to have a short article sent in on the subject!

As to detecting imbalance of motor components this is difficult. The Dubros propeller balancer is quite versatile in that the object attached to the axle can be suspended outside the main mount, bearing on the rotating knife edge wheels. A motor shaft and bell may therefore be balanced with this device in theory. As I have a few more tests to do on the original motor/propeller combination referred to in the first paragraph, I haven't yet reached a diagnosis (apart from operator error in taking off in the first place when there is unexplained and untreated airframe vibrations) because I have several tests to do yet. The repaired plane is going well with new motor and props meanwhile!

...Richard..

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MAAA Life Membership

Congratulation to Joe McGuffin, MAS NSW, and Garth Wilmot, TMAA, who were elected as MAAA Life Members at the 2010 MAAA Council Conference for 'services to aeromodelling'.

MAAA Hall of Fame

At the 2010 Conference held in Adelaide at the end of May, Des Slattery was inducted into the MAAA Hall of Fame for 'long term contribution to free flight and MAAA competitions'. Congratulations Des.

Manual of Procedures

The Manual of Procedures is a "live" document and is continually being updated. Please check the MAAA web site from time to time to ensure that you are aware of the latest editions of the documents. The MAAA has recently released the following amended documents in the Manual of Procedures:

MOP032 Certification of Plans and Drawings – MOP032 was introduced to ensure that those MAAA members or non members nominated by the MAAA Scale Subcommittee for the purpose of certifying plans and drawings are appointed, reappointed, registered and deregistered in a standard and traceable process.

MOP030 Gas Turbine Rules - Section (e) was amended to include the requirement of additional information to allow the MAAA Executive to make informed decisions in regard to issuing Fire Ban Waivers. To assist Event Organisers to provide this information, a new MAAA Form 025 has been introduced.

MOP058 2.4GHz Equipment - Amendments to MOP058 - Added to Appendix A: Frsky V8 ACCST 2.4 GHz and the Fly-Dream V3 2.4 GHz radios.

2010 - 2011 MAAA Membership Fees

As has been the practice in the past, every three years MAAA tests the insurance market and invites quotes from other brokers. Of the two received for the 2010/11 period, the current broker, Willis Australia, provided the most favourable insurance quote with a small decrease in premium. Albeit with some increases in budgeted spending, the MAAA fees for the coming year remain the same.

MAAA fees are as follows: Seniors - \$60.00, Pensioners - \$60.00 and Juniors - \$30.00. State Association and Club fees are in addition to the MAAA fee. Half year fees will apply after 1 January 2011 for new members.

Sticking Membership Cards

Members have brought the problem of membership cards sticking closed to the attention of the MAAA Registrar. This has become especially prevalent with the current card. Investigations have shown that the laminate on the inside of the card has started to break down over the two years since being produced, mainly due to heat. The problem is more pronounced with

cards carried in wallets rather than in handbags. To solve the problem I do not suggest you all go out and buy a handbag!! As the current stock of cards has just about been depleted, new cards were ordered for the renewal period 2010/11 which have no laminate on the inside so the problem should be eliminated.

Outcomes from Reported Incidents

Over the last twelve months there has been a sharp increase in insurance pay outs for the repair of vehicles damaged by model aircraft or stones. In several of these cases, the uncontrolled flight path of the model due to structural failure caused damage to cars that were acceptably parked. In other cases, damage could probably have been avoided with some extra thought when parking. It is difficult to advise members on the best position to park cars at model fields or to give an indication of what is a safe distance to be when mowing is taking place. As stated in the incident reports, in the case of stones being thrown by mowers, these distances can be large. However, members are asked to consider the safety of all vehicles when parking at the field to avoid the cost and inconvenience of having repairs carried out.

In one incident which resulted in damage to a vehicle, an electric model was fitted with a 'toggle' switch to turn it on and off. Whilst the exact reason for the model being uncontrolled from the point of launch was not able to be determined due to the destruction of the model on impact with the vehicle, investigations established a strong link to the on/off switch being accidentally moved at the time of launching. If 'toggle' switches are being used, then members are requested to ensure that these switches are well protected from external unwanted activation.

In another incident, a model was launched from a part of the field which then resulted in it being flown over an out-of-bounds area containing parked vehicles. Subsequently, in manoeuvring for landing, the pilot lost control of the model and it collided with a one of the parked vehicles. Fortunately, in this case the damage was minimal. As a result of this incident and as part of the 'close out', the MAAA recommends that all clubs should have a map of their field on their club notice board for members' and visitors' information, and it should included details of the out-of-bounds flying areas.

2010 Free Flight Trans Tasman Competition

Congratulations to the Australian and New Zealand Free Flight teams who competed for the 'Rose Bowl' in Omarama, New Zealand in April. Reports indicate that all three classes had to be flown on the same day, Friday 16th, because the preceding day, which was to have been for F1A, was extremely windy. The results are quite outstanding as Omarama is always a tricky site even when it is calm. However, it was noted that the NZ Team put in their best ever performance – it was just that the Australian team did better. Two thirds of them maxed out, including all three Wakefield flyers, which meant finding space on the flight home for the Bowl.

Wings and Forms

A couple of issues of the MAAA Newsletter ago, it was explained that irrespective of which State Association you are a member of, the insurance enjoyed by all MAAA members is the same value. Similarly, this also applies to 'Wings'. Whatever type of wings is issued, it is issued by an MAAA Instructor and Gold or Bronze Wings issued through one Association apply throughout Australia.

Following a successful flight test for 'Wings' the application form needs to be lodged with the member's **State Association Secretary** for processing. The flight test depicted on the forms only changes if endorsed by the Flight Training Subcommittee, the MAAA Executive and the MAAA Council, and then for good reasons such as safety. From time to time however, it is necessary to amend the form for other reasons, such as adding a line for an email address or clarifying a word. While the latest form should be used, common sense should also apply when processing 'Wings' applications.

2011 F1A, B & C World Championship Team Trials

Multiple Team Trials for this event to be hosted by Argentina in early 2011 are programmed as follows:

Proposed Events Program

Western Australia State Championships

F1B	24 th Jul 2010	Meckering
F1C	25 th Jul 2010	Meckering

International Events

All these events are to be F1A, F1B and F1C classes open to all flyers, sanctioned by CIAM and published on the CIAM website, flown to FAI rules and conducted within the selection period.

F3D (Pylon) 2011 World Championship Team Trials

The 2011 F3D Pylon World Championships are being run in Australia from the 12 to 14 August. AMPRA will be hosting the following multi team trials for the 2011 F3D Pylon event. Any one of the following State Champs:

Victorian State Champs, Hamilton 16 - 17 October 2010
Queensland State Champs, Bundaberg 21 - 22 August 2010
NSW State Champs, Pitt Town 7 - 8 August 2010
64th Nationals Queensland 29 Dec.2010 to 7 Jan 2011

In addition to the competitors, the Organising Committee for the 2011 F3D World Championships would like to hear from as many members or interested people who wish to be part of this event in the capacity of a helper. A World class event such as this requires an enormous amount of outside assistance so if you are able to help please contact the Secretary of the 2011 F3D Organising Committee at secretary@F3DWC2011.com

F3K (Hand Launch Glider) 2011 World Championship Team Trial

This is a new event on the World Championship calendar, to be held in Sweden from the 4 to 10 July 2011.

Proposed Team Trial

Contest Event - Australian F3K Hand Launch Glider Championship 2010
Diggers Rest Victoria, Davis Road (Melways 351 F1)
Saturday 27th & Sunday 28th November 2010

Contest Organisers : Brett Anthony 0412 518 554 brett@f3k.com.au

Theo Arvanitakis 0414 626 464 theo@rcga.org.au

Contest Director - Gerry Carter

World / Continental Championships and Trans Tasman Events Calendar

2010	
EVENT	Awarded to
F2A, F2B, F2C, F2D	Hungary Dates: 23 July – 1 August
F3J	France Dates: 28 July - 8 August
F4C	Poland - Czestochowa Dates: 30 July – 8 August
F5B, F5D	USA - Muncie Dates: 20 – 25 August
Space Models	Serbia - Irig Dates: 21 – 28 August
F3A Asia-Oceanic	Philippines Dates: 19th - 25th September, Bacolod-City
F3C Asia-Oceanic	Tung-shih (Chinese Taipei) 17-23 Oct
2011	
EVENT	Awarded to
F1 A,B & C	Argentina- Late April early May (dates to be confirmed)
F3A	USA – Late July early August (dates to be confirmed)
F3B	China
F3C	Italy Dates: 18 – 28 August
F3D	Australia Dates: 12-14 August
F3K	Sweden Dates: 4-10 July

Some Images from the June Old Timer and Tomboy contest:



George C and his Phoenix on June 19th. Hyperion Brushless motor. Photo by Will Deal.



Kevin Hay's Sportster: with MP Jet.



Tomboy contestants - Andrew Dewater, Kevin Hay (Sportster), Peter Allen HMAC,

Tony Gray (Cardinal) HMAC, Scott Webberley HMAC, Terry Pearson,

Greg Robertson (Electric Tomboy)

Oldest Boeing Airliner.

This is as it should be - passengers in closed cabin, pilot in open cockpit so he will stay awake. The airplane is in Spokane, WA, USA and is the oldest flying Boeing in the World. After 8 years of repair, rebuilding and 8,000 hours of toil the Boeing 40C rolled out last winter as a finished airplane. They had to wait a few weeks for the snow to melt to fly this baby. They received their Standard Airworthiness Certificate from the FAA and completed the engine pre-oil and fuel flow tests for the first of the taxi tests.

Facts for the Boeing 40 project:

221½ gallons of dope/reducer and 120 yards of 102 ceconite fabric. 12 gallons of poly urethane paint for the sheet metal. The wings have 33,000 individual parts in them. The airplane weighs 4080 lbs empty, has a gross weight of 6075 lbs. It is 34 ft long and 13 feet tall with a wing span of 44½ feet. Wing loading is 10 lbs per sq ft and power loading is 10 Pounds per HP. It should cruise at 115 mph using 28 GPH, and 32 GPH at 120 mph. It carries 120 gallons of fuel in three tanks. 350 - 2 inch brushes were used to apply 6 gallons of West Systems epoxy, and 181 rolls of paper towels for cleanup. There were a total of 62 volunteers who worked on the project to some degree. 21 of the volunteers did a significant amount of work, and 9 of the volunteers worked continuously during the 8 year project.



EVENTS CALENDAR

DO YOU HAVE A FAVOURITE EVENT?

Is it Tomboy, LEG or Thermal Glider, maybe Old Timers, Scale or something else?

If you do, why not get a group together and schedule an event? When you're ready, contact a committee member to put it on the Schedule. Make sure you give enough notice so it can be advertised in Prop Torque and on the web.

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