



PROP TORQUE

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

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March 2010

From the President

Hello Everyone

Welcome to another edition of Prop Torque. We hope that you continue to enjoy your club magazine. A compliment here or there (or constructive criticism) from the membership is always welcome, however, if you are so inclined!

I thought it might be helpful to take a quick look at the role of technology in our hobby. If you look at the magazines of yesteryear (which is interesting to do, now and then) you begin to appreciate that the technology of radio control has come a long way since the early days. It has occurred to me that what has also changed is people's attitude to technology. In earlier days, it seems there was a great interest in the "nuts and bolts" of equipment, possibly because we were less exposed to technology in ordinary life, and we were more excited at the newness of miniature electronics and the like. These days, however, radio control equipment is more likely to be regarded as something of no intrinsic interest; it is merely a tool. This may be due to the fact that we are now exposed to a wide range of electronic devices in everyday life.

However, to come to the point, this wider exposure seems to have dampened people's interest in the programming of their (computer) radios. It is widely reported that many flyers are less than excited about this aspect of the hobby. They happily accept and use the facilities, but there is not the keen interest in understanding the programming principles and finer points of their particular equipment. The end result is that after initially setting things up (or getting a mate to do so), they soon forget how to do it, and just fly. If a problem occurs, or if settings need to be changed, the same people will simply ask someone else to do it for them. This is a form of intellectual laziness that one reads about and hopes would not occur at LMAC. (It is worth remembering that holders of a bronze wing are supposed to know enough about the workings of their radio equipment to be able to make all necessary adjustments and change settings by themselves; it's part of the syllabus.)

My view on computer radios is simple: they confer great advantages, but you need to put a certain effort into learning the ropes and staying

competent. If you don't want to make the effort, then don't use a computer radio! (You don't have to, you know! There are other ways of dealing with owning multiple radio models.)

Well, that's your bloomin' lot until next time (with apologies to a certain gardening personality)

I wish everyone good (and safe) flying.

.....Gerry

.....Gerry.

From the Secretary's Desk

Hi All,

Another month has slid away and our two major contest events has been run and won, It was a bit disappointing to see that they both were not very well patronised by the other clubs in the TMAA for what ever reason.

Those that did come were more than pleased for the enjoyment that they each got out of competing.

I do not have anything to report on from the committee meeting this month but I would like to welcome into our membership two new senior members Michael Hope and Jason Grosser with Stephen Cashion rejoining after an absence of some 2 years.

Would you all make them feel welcome as you meet them on the flying field?

Well we have a large group of birthdays for this month they are: - Richard Cooper, Peter Daniel, Andrew De Water, Robert Garnett, Mark Lucas, Jacques Wakae, Kane Williams, Kerry Carnie and Fred Willis, we do wish them all a very happy birthday on their special day and all the best of wishes for the year ahead.

You will find enclosed in this news letter two MAAA newsletters one being the first one for this year and a special one outlining the passing and the life of Gordon Burford who was a man very instrumental in developing in many ways Aero modelling in Australia.

That's it from me for now but I leave you with this thought---

“Every new day gives us the opportunity to start afresh, to set new goals and make new choices”

So as always
Happy landings all

Geoff.

Contest Director's Report

Because I had other commitments I could not attend the contests this month. Please see George's report from the web site elsewhere.

Chris Klimeck
Contest Director.

From the Editor's Desk

The Use of Colour on model aircraft.

The visibility of a model aircraft depends on its size and distance from the pilot as was covered in last month's column, and therefore on the pilot's ability to see, (visual acuity or sharpness of vision). The effect of the plane's colour scheme on visibility is complicated because opinion and ability to appreciate colour is all important.

8 to 9% of men and 1% of women have some form of hereditary colour blindness. This is usually a red/green colour deficit of variable degree. It affects both eyes and many people with this problem are totally unaware of it until tested. I am aware of at least one, possibly two members of our club who have this type of colour vision just from the colours that they use for their aircraft coverings. Naturally I have not asked them whether they have that type of vision!

The reason why this abnormal colour appreciation has evolved in humans is thought to be due to its being very useful for hunters. They can see camouflaged animals and targets which people with normal colour vision cannot. Therefore they have usually been the best hunters, snipers, warriors, survivors and aircraft observers in human communities over the past 500,000 years or so! Much rarer than this is a blue congenital defect.

If there is something wrong with the eye, optic nerve or vision parts of the brain then the commoner types of defect are in blue/purple or yellow sensitivities. Some of these affect one eye only, and are therefore more easily noticed by the patient.

All this means is that opinion is really the main factor in how colour choices are made. However there are some practical things to say about colour schemes. The first is that pure bright or fluorescent colours have greater visibility. If the colours contrast with clouds or sky, this will help with detecting the airframe. In general someone with a red/green abnormality should perhaps choose contrasting yellow and blue or purple as colours. A broad stripe of dark colour along the wing leading edge is a help with seeing the 'plane at a great distance.

Orientation of the airframe is a difficult problem, even with experienced pilots at distance. Contrasting patterns or brightness of the upper and lower surfaces of the wings and tailplane are usually recommended. Opposing colours, i.e. red versus green or yellow versus blue can be chosen. Naturally white or black panels can be used as contrasts. For example a white under surface of the wing could be combined with a dark blue upper surface.

Wing tip colour differences are also helpful. If patterns or roundels are placed on upper or lower surfaces they should be large enough to be seen at a distance as shown in the tables in last month's column. This will depend on how good your vision is and is therefore directly proportional to the distance of the airframe from the pilot. When trying to judge what might work for you, it is helpful to watch your colleagues' aeroplanes in flight. It is also sometimes helpful to look at *pictures* of aircraft, deliberately defocused by bringing them up close to each eye, i.e. within 5 cms or so, and trying to judge orientation of the airframe.

Finally I should mention the clothes line effect on stereoscopic vision. I am not sure how important this is with moving targets such as aeroplanes, but it is well known that the human cannot easily judge their distance from a horizontal line because of the way in which our visual system is "hardwired" so to speak. A model aeroplane coming towards you, or receding into the distance presents this problem. With this situation, in order

to judge orientation, making small changes in pitch and/or roll are useful, particularly if the colours or patterns of wing surface panels contrast in brightness.

I have touched on the effects of colour and patterns of colour on model airframe visibility and perception of orientation, together with the effect of colour vision anomalies in about 9% of the male population, who are able to see camouflage patterns where we can't!. Hopefully this helps makes some sense of a very interesting area of vision. I shall naturally welcome any contributions from other members who I am sure know a lot more than I about the hobby.

...Richard.

Around the Hangar,

or jottings from George Carnie.

L.E.G. Tasmanian State Championship 2010

Held at LMAC March 20th 2010.

As I was contemplating writing this report I said to myself "don't preface this with any mention of the weather" because all of our reports seem to start with a tale of the wind, rain or whatever. However the wind was so strong and conditions so difficult, I have no choice but mention it up front. Were it not to be the State Championships, the consensus was that no one would fly but being either foolish or brave we went ahead. The winds throughout the day varied from around 20kph to over 40kph!!

For those not familiar with the rules, the objective is to fly for 5 minutes exactly, maximizing the glide time and land as close as possible to the "spot". Points are awarded as follows - 1 point for each second of flight time (maximum 300pts) LESS any time over the five minutes, LESS any motor run time (1 point for each full second) PLUS points for proximity to the spot (25 points if ≤ 3 metres down to 5 points if ≤ 15 metres. A theoretical maximum score is 325.

Sadly only six entries were received, in part due to the fact that some had written off models whilst practicing in earlier weeks (hello Geoff), one had an hospital appointment for an operation (get well soon Terry), Hobart held a Model Exhibition at the

Derwent Entertainment Centre (how inconsiderate ☹) and others found any excuse not to fly. Dave Jacobs did a remarkable job to rebuild his Excel glider after what looked like a total write off a fortnight earlier. Once the model was rebuilt he spent a few hours with me as we tweaked the motor set up and Dave was quick to recognize the benefit of a LiPo upgrade when I demonstrated the power difference. He was using a Hyperion 2220-10 outrunner with a 13x8 folder. His model went from 4850rpm to 6800rpm just by going from a 7 cell NiMh (8.4v nominal) to a 2S LiPo (7.4v nominal). The reason being that the LiPo can hold a higher voltage at a given current level. He was so impressed he took the pack off my hands. Unfortunately when Dave got to the field he found the new wing had a significant warp. He then decided conditions were so bad he wouldn't risk it and brought out the trusty Spirit which was still powered by a brushed motor.

Next casualty was Kevin Hay. I had prepared one of my gliders so he could compete - the Lowatt. He had tried it in the March 6 competition but in an effort to "find the spot" there was some damage to the v-tail and control rods. During the past week I repowered with a Hacker B20-15L and 4:1 gearbox, repaired the v-tail and the control rod and thought all was ready. Only to find when about to set up the model, the carbon wing tube was missing. and a search could not locate it. We were now down to five competitors.

1. Greg Robertson: Own design Excel 9, Hacker B40-5L 4.4:1, Hyperion GX3300 2s LiPo
2. Jacques Wakae: Excel 9 with modified wing, Hacker B40-5L 4.4:1, Hyperion GX3300 2s LiPo
3. George Carnie: Organic, Hacker B40-5L carbon 4.4:1, Hyperion GX3300 2s LiPo
4. Dave Jacobs: Spirit, Leisure Gold brushed 3:1, 7 x NiMh
5. Ian Campbell: Excel 9, Hyperion G3025-06 outrunner, Hyperion 3300 2s LiPo

ROUND 1: Greg R got the event underway and we were all happy for him to test out the atrocious conditions! Greg gave us an insight into how difficult flying would be; No lift, a howling gale and turbulence coupled with ground effect that made finding the strip difficult let alone the spot! Nonetheless, Greg managed 5.04 (5 min 4 seconds), 11s motor and 9.6m from the spot. It was going to be a hard day at the office! Next was

Jacques Wakae and his result suggested he was flying in different conditions - 5.00min, 13s motor and 2m from the spot! The gauntlet had been thrown down. I was next and by virtue of an overrun of the spot I did another quick circuit (no need for any motor as the wind was blowing enough). Time 5.12, motor 6s and 3.9m from the spot. Dave Jacobs then braved the conditions however the brushed motor proved to be well under-powered for the conditions and Dave wisely retired and saved his model for another day. Well done for turning up and having a go Dave! Ian Campbell was the last competitor of the round and the first with an out runner motor configuration. Ian used the now redundant Hyperion G3025-06. This was coupled with a 2s x 3300mAh LiPo, probably a Hyperion but I'm not sure. Ian quickly demonstrated he would be a strong contender with a time of exactly 5 minutes, motor run of 13 seconds and 4 metres from the spot. Winner of Round 1 was Jacques with 312pts followed by Ian Campbell on 307pts.

ROUND 2: Conditions were not improving and with Dave now retired, the remaining four had to battle the conditions. Winner of Round 2 was Greg R with 317pts again followed by Ian Campbell on 312pts.

ROUND 3: The wind was not easy to contend with however it did provide some lift if you cajoled your model into the wind with a bit of up elevator. Not easy with a stall resulting if you got it wrong! Winner of Round 3 was Greg R with 310pts followed by George on 304pts.

A break for lunch was next and it didn't take long for pilots, timers and spectators to make a quick break for the warmth of the clubhouse and a nice barbecue! Thanks to Kerry and Alice for preparing the welcome nourishment. As we all sat in the clubhouse contemplating the next rounds, ears were pricked listening to the howling gale outside. Were we silly enough to go and fly in this - of course we were!

ROUND 4: Everyone was fed and watered and we ventured outside again to fly the remaining rounds. The increased wind, a few spits of rain and it was confirmed; we were all mad! However the round was completed and the winner of Round 4 was George with 309pts, followed by Ian Campbell on 299pts.

ROUND 5: The penultimate round (or so we thought). Winds were now gusting in excess of 40kph! The pilots were getting a bit anxious as no-one wanted to go home with a damaged model. Will we fly - of course we will! Ian Campbell defied the conditions when his landing was right on the "spot"! Somehow he managed to organize the wind to drop to almost dead calm as he made his landing approach. Well done Ian! However it wasn't enough to win him the round as his motor run was 21secs. Winner of Round 5 was Greg R with 309pts, followed by George on 307pts.

ROUND 6: The pilots were getting uneasy, the wind was howling and very turbulent at ground level (as it was for most of the day). A quick vote and it was decided to proceed. Greg R launched and was nearly completing his flight when on approach the model was being thrown around like a cork in the surf. Greg tried to get his model back on track with a quick burst of motor but that proved to be fatal with the wind combined with power throwing his model back downwind and straight into the ground. The model was a write off. It was then decided to abandon the round.

Best score of the day was Greg R with 317pts. Best time was shared by Jacques and Ian with 5 minutes exactly. Shortest motor run was George with 6 seconds and best landing was Ian C "on the spot"!

The event would not happen without, the sponsors, organizers, timekeepers and canteen ladies. A big thank you to all of you, Especially Peter Pine of Electric Flight in Australia (www.flyelectric.com) and Dave from Aircraft World (Hyperion) (www.aircraft-world.com) Last but not least, the spectators that braved the weather at least by turning up you contribute to the club camaraderie and make it all the more worthwhile for the competitors. Ian Campbell summed it up in an email to me where he said: " Must say I really enjoyed myself at the L.E.G on Saturday with the chaps, in a very cordial environment. All the best, Ian."

Hope to see more of you turn up for our next event. If you don't want to compete at least show some club support by being a spectator or better still a helper, timer or whatever.

George



(L-R) 4th Jacques Wakae, 3rd Ian Campbell, 1st Greg Robertson and 2nd George Carnie

First Place - Greg Robertson - Prize of a Scorpion Motor and a Scorpion ESC kindly donated by [Electric Flight in Australia](#)

Second Place - George Carnie - Prize of a Hyperion G3025-06 motor kindly donated by [Air Craft World](#)

Third Place - Ian Campbell - Prize of a Hyperion G3025-06 motor kindly donated by [Air Craft World](#)

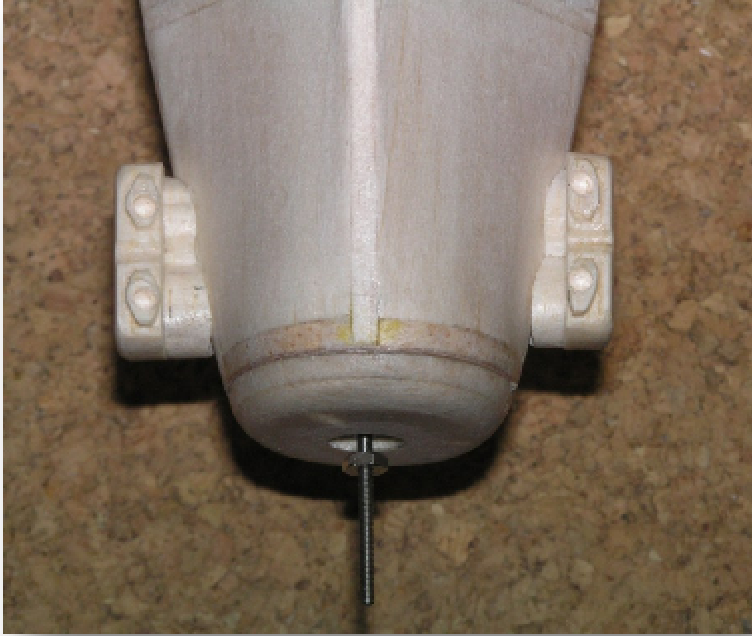
Fourth Place - Jacques Wakae - Prize of a Sealing Iron kindly donated by IC Electronics

<u>Place</u>	<u>Entrant</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>TotalBest4</u>	<u>Normalized</u>
1	Greg Robertson	295	317	310	295	309	1231	3955
2	George Carnie	302	286	304	309	307	1222	3943
3	Ian Campbell	307	312	293	299	299	1217	3907
4	Jacques Wakae	312	307	293	287	298	1210	3877
5	Dave Jacobs						DNF	DNF

More Hangar Talk from George.....

- Greg R has kindly donated his written off Excel 9 to master rebuilder Dave Jacobs. If anyone can resurrect a model that would otherwise be trash it's Dave. Dave's words to me "I'll enjoy the challenge". "From what I saw Dave, "challenge" is an understatement but I don't doubt your abilities!
- Greg has replaced his usual own design gliders with a new Ty "Ginger" fully molded model.
- Dave J has also started work on a [Great Planes ElectriFly Fokker DVII WWI ARF](#) Look forward to seeing it Dave!
- George has almost finished a [E-Flite Extra 260](#) Powered by a Turnigy C3530-1100, Hyperion G3-2200x3s Lipo. Just waiting on a new ESC to arrive.
- Peter Riall is well under way with his Multiplex Easy Star glider. A lot of fun can be had with these and after watching a video online bought one myself!
- Jacques Fokker DVII is still under construction – it's 92 years since WW1 let's hope it's not as long before this one flies Jacques!

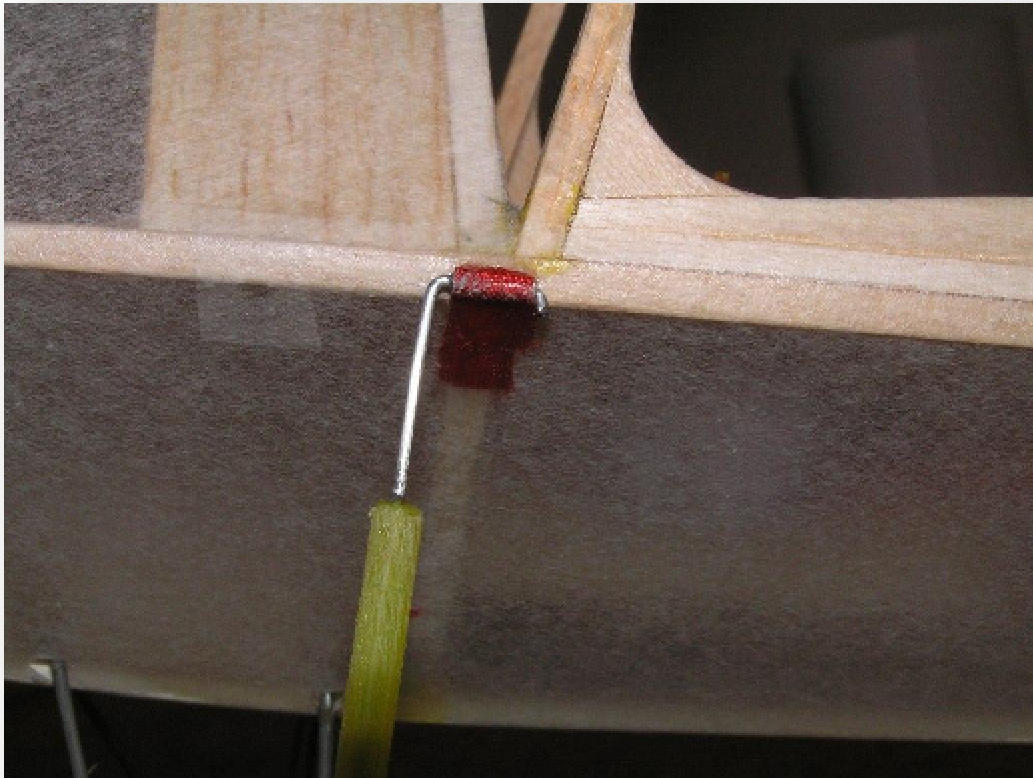
- Terry Pearson has just spent an uncomfortable time in hospital. News reports are all is well and Terry will be back flying soon. Look forward to seeing your smiling face Terry!
- Merv Cameron has spent a day in hospital and he reports that the results were good. Merv is due to return for another op during this month and then his major knee replacement on May 17. Is the food that good you keep going back Merv?
- Gerry has been building a Ganagobie 3ch micro electric model. Here is a couple of progress pictures -



This photo is of the underside of the engine. The funny looking bits area meant to represent flanges for securing the exhaust pipes. The holes will be used to locate some scraps of heat-shrink tube, suitably painted, to represent the exhaust stubs. In a fully detailed engine we would also expect to see an inlet tube on each side, located in between the exhausts. Depending on my reserves of patience, these may not be included.



Here is a pic of the fuselage with tissue covering in place. FWIW, I used lightweight tissue on the aft top and aft bottom, with medium weight on rest of the bottom and on the nose. This was to keep weight concentrated on the front and also to add a bit of resistance to the inevitable spiking from dry grass on landing as I fly from a grass paddock. I have no issues with plastic film, but I felt that a model this small would benefit from the lower weight (he says, hopefully!) and extra torsional strength of tissue.



Slow progress, but at least it is going ahead. . Today I completed the landing gear structure with the addition of the compression struts. I had to decide between two schemes: to fix the struts at each end and make them able to lengthen/shorten with movement of the gear, or to fix one end and allow the other end to be free. I chose the latter. Because of the gear shape, I had to make the fixed end hinged.

I made the struts from thin wire and hinged them at the top with some aluminium tubing attached to the fuselage with a small strip of silk (see photo). The yellow bit is a piece of plastic control rod (inner) with the flutes sanded off. These will be painted to represent the strut springs that provide the "suspension" in the landing gear.

EVENTS CALENDAR

Date	Events
Apr 3 rd	Club Day
17 th	Fun Fly Novelty events
May 1 st	Club Day
15 th	<u>Proposed scale fly in</u>
June 5 th	Club Day
19 th	To be advised-Possibly special Old Timer event

Note: Starting times: - F/Flight----- 9 AM

Old Timer-----11 AM

All Other events except where noted----- 10 AM

This Calendar is subject to change that will be notified as required

Club AGM will be held Thursday June 10th 2010 venue TBA

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