PROP TORQUE

Official Newsletter of the
LAUNCESTON MODEL AERO CLUB Inc.

IN THIS ISSUE:

Kevin Hay gets his big Moki smokin' at the Scale Day held on 24 September at LMAC, while Merv Cameron holds on. The Ultimate is one mean beast, with a powerful sound that thrills. See inside for other Scale photos.

Volume 20

SEPTEMBER 2005

EDITORIAL:

Welcome to the September issue of Prop Torque. We are pleased with the continuing positive response to our efforts as editors.

A couple of comments about our feature "Snippets From The Past" are in order. In the previous issue we said that Geoff Hays was the author, writing under the pseudonym "Sleuth". While this is true, we were not supposed to say who the real author was, so the editors apologise to Geoff, for "blowing his cover", to borrow a term from television cop shows. Another apology is for inadvertently wielding the editorial axe too harshly on the last Snippet. A correction is therefore in order: the reference to the 9th dinner in 1992 did not apply to the photo; in fact a caption above the photo was edited out which stated the photo was of "Trophy Winners for 1983-4 Contest Year". Another caption below the picture, which gave the names of those winners, was also omitted. Because some readers have asked who the members were, we have run the picture again, with the missing captions, for your interest. Oh well, such is the Editors' lot……

Our request in the last editorial column asking for contributions has apparently fallen on deaf ears. This is a pity, since we know there is a lot of collective knowledge out there, and some of our members go back a long way, so there must be a lot to write about. We would like to ask you again that if you can make the effort to write something, however short, please do so. If you want any editorial help, let the editors know. You do not need a computer as handwritten copy will do fine.

In an effort to broaden our collective horizons, so to speak, we have included a short piece about slope soaring. This discipline of aeromodelling offers a lot of challenges and is a way of making use of a windy day!

Readers will see that we have not received any advertisements for this edition, maybe that is in anticipation of the coming Car Boot Sale day. Details elsewhere in the magazine.

We are still keen to hear from suppliers wanting to place regular advertisements in Prop Torque. So far response has been slow, but we trust this will improve.

We hope that you enjoy this issue

Gerry and Virginia de Groot.

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CAPTAIN'S REPORT

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Hello Everyone

This month has seen its fair share of interesting happenings. The 7-Cell Electric Glider competition scheduled for 10 September was cancelled due to bad weather, however a very successful Scale Day was held on 24 September. Andrew's CD report gives all the details. For me, the great thing about the Scale Day was not so much the weather (which was nearly perfect for most of the day) but the fact that eight flyers took part, yours truly included. All were from LMAC. I tend to agree with others who voiced the opinion that interest in scale model flying within LMAC seems to be on the rise.

Many were impressed with Kevin Hay's Ultimate Biplane model, sporting a 60cc twin cylinder Moki. This plane and engine combination seemed to be well matched, with a beautiful finish as well. The sound of the Moki doing its thing was awesome. There were a number of other models that were also impressive and were flown well. However, so far we have not seen the exceptional detailing that characterizes models at other scale competitions, where documentary evidence must be supplied with the model to get a good Static score. (Yours truly is just beginning to realize that three servos and a fuel tank do not necessarily qualify as scale cockpit detail in a Piper Cub!)

By way of a contrast with big and powerful models (scale or otherwise), small models are a lot of fun and seem to be making huge inroads into aeromodelling, if the Internet and magazines are anything to go by. There seem to be two groups of 'small' models: the first group includes models powered anything by up to 0.25cu in (4.0cc) or the equivalent in electric. Diesel engines are popular in this class. The second group are the really tiny models, right down to the very small 'micro-models' weighing only a few grams, and that includes the radio control equipment! A lot of these models are of course only suitable for indoor operation. However, with wing loadings down to an ounce per square foot, speed is walking pace and flying in tight circles means ones of 3m or less. A good pilot could fly one of these in a large lounge room.

For my own part, flying a nice model out in the open air on a sunny day is something I look forward to. There is pleasure too, in sharing a day with others at the flying field.

I would like to remind everyone about the Car Boot Sale (also Swap Meet, Buy 'n Sell, or whatever you want to call it) to be held on Club Day, 3 December. This will be an opportunity to sell your junk and then buy someone else's. I'm hoping this event will receive a lot of support. Remember that it will help the club, since a gold coin donation is charged for each Boot 'stall'. Bring anything surplus that you wish to sell – complete models, spare set of wheels, engine spares, battery pack, transmitter, servos, etc. Limited only by your imagination and how much cash you bring with you on the day. In other places these events have become legendary. Let's hope ours does, too.

I hope to see you all at the flying field

Gerry

SECRETARY'S REPORT

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Hi Everyone

September: - Spring has sprung, the grass has risen: yes it is that time of year again; Winter has slipped behind us for another year and the longer, warmer days are ahead.

Spring usually brings fickle weather with it and this is evident at the moment with our first 7-Cell Electric and inaugural combat wing contests having to be canned due to unfavourable weather.

We just have to go with the flow so as to speak, the weather is not under our control, and perhaps it is just as well that it isn't, or we could get ourselves into more trouble than it would be worth.

Speaking of contests and weather, this was discussed at our last Committee meeting, and we decided to adopt a new approach as to communicating with the membership on the status of contests having to be cancelled due to unfavourable weather or other circumstances. You will find details regarding this elsewhere in this issue of PROP TORQUE.

The Committee was made aware that we had scheduled our thermal glider event on November 5th, which is in fact our usual Club Day; we agreed that Club Day should remain as is and so the Glider event has been re-scheduled to be run on October 22nd. Adjust your contest calendars accordingly.

Last month I made mention that the Committee was looking into finding a suitable model to be built as a club project. Much like what we have done in the past, as yet this has to be finalised, and we will keep you informed as to the outcome in due course.

The club has had received notification that Phoenix Flyers are planning to hold another Scale Fly-In at their field at Panshanger. This is will be on the 6th and 7th of May 2006 and they are planning for a contingent of mainland Scale modellers to come over and be part of that event.

This is in addition to the Scale Fly planned for November 27th this year.

The May event follows the State Scale Championships that will be held at Easter April 15-16th 2006 at Symmons Plains, this will be an interesting exercise seeing that Easter is usually a busy time for most people. We would be hoping to have some feed back from scale modellers as to their support for this event, so as planning can commence.

TMAA have advised that the logos agreed to at the last state AGM are now available and these will be used as state and special events take place, the use in this way will make the state assoc more relevant.

There will be a car boot sale at the clubhouse on club day Dec 3rd - more on this next month.

Last month you would have all received your member lists, and I have a change for you to apply, an address change and details for Peter and Sylvia Kidson, this is as follows: - 119 Kayena Road Kayena 7270, Phone 6394 7526.

Well that wraps it up for me for this month I leave you with this thought------

Always remember " failures" are only problems waiting to be solved.

Happy Landings All

Geoff.

CONTEST DIRECTOR'S REPORT

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Hello Everyone

As we all know it has not been very good weather wise on scheduled contest days over the last month. The Pattern day on August 20th and the 7-Cell Glider event on September 10th were both cancelled due to the weather. Let's hope the weather improves heading into spring and summer; there has been some confusion from member in regards to finding out if a contest is going ahead or not.

At our last committee meeting I raised the question of how best to let everyone know if the contest is on or off, so we have set a good formula to correct this problem. Firstly on the front page of our website George Camie has posted a **Stop Press** which will inform everyone if the contest is going ahead or not. In some cases I may cancel the contest on the Friday night, based on the forecast, but sometimes the forecast can be wrong, so you need to check the Stop Press info on the day of the competition. The other way you need to check is by contacting me at Home or on the Mobile up till 8am on the day of competition.

Our next scheduled event is 7-Cell Electric Glider on Saturday, October the 8th, let's hope the weather is in our favor and we are able to run this event.

Please note a change to the Contest Calendar:
Open Thermal Glider scheduled for Saturday November 5th has been moved to **Saturday October 22nd** 9.30am.

This is a very short report this month but a few lines about the format for 7- Cell Electric Gliders and Pattern may be in order, as these events are coming up. There are three categories for 7-Cell Electric:

- Electro 400 speed 400 geared or direct drives.
- Electro 600 speed 600 –680-700 geared or direct drive.
- Electro Open all brushless motors.

For all the Pattern flyers a reminder that the new 2006 Pattern schedules are now in force and there are a number of changes to the old schedules. If you don't have the new list let me know and I will arrange a copy, as the next Pattern event is at NWAM on November 5th.

Happy Flying

Andrew.

Slope Soaring

As a way of illustrating the different disciplines in aeromodelling, here is some information about slope soaring, where we use the lift off a slope or hill instead of thermals to fly a glider. This part of our hobby has a large and dedicated following, both in this and many other countries. As an activity it can be relaxing or exhilarating, and anything in between. It all depends on your model, the hill and the wind speed. In Tassie we have a lot of slope soaring sites with generally good winds and sea breezes. The other thing is that the view from most slope sites is a whole lot better than the view from a flat field, such as LMAC. The SEAT club at **http://www.seat.lonnie.com.au** has a lot of good information on slope soaring sites in this state and is well worth a visit.

The photo is not of Tasmania, but illustrates the point about the views. In the UK, where slope soaring has a very strong following, it is not unusual to literally have to hike cross-country for up to an hour to get to a good site. Most sites in Tasmania are a lot more accessible.

Thermals are also found at the slope and an intermediate model with moderate wing loading can use slope lift to gain altitude and then fly in thermal lift.

EPP foam slope soarers are wonderful to fly on the slope as they overcome the biggest problem with slope soaring: landing. It's no secret that it can be difficult to land on a small hill-top; it may also may have obstacles such as rocks, fences, bushes, etc. EPP models such as the Zagi can be brought down quite hard without damage. The other way is to use a more conventional model with some means of controlling the glide-path – crow braking, flaps, flaperons or spoilers all being useful.

Remember to go warmly dressed; the chill factor on a hill can make you cold very quickly when it is quite warm on the flat, where the wind speed is less. If you want to have a go at slope soaring, talk to someone that does it and go and take a look. You may be very pleasantly surprised at how much fun it is!

- Gerry de Groot

The Glider and the Tree

Material and photo kindly provided by Dave Jacobs.

The aircraft in the photo belongs to Dave and is a large glider with a fibreglass fuselage and built-up, fully sheeted wings using hardwood spars. Wingspan is 14ft (about 4.3m). Dave had fitted it with a power pod mounted above the wing to make it self-launching. For taking off, it had a launch dolly. After some attempts by Dave, he got the model airborne.

Unfortunately, control difficulties were immediately experienced due to the high thrust line of the propeller. However the model was kept aloft, but was allowed to get further and further away, until it eventually flew into a large pine tree, estimated by Dave to be 80ft (24m) high. And there it wanted to stay; it did not want to return to earth on its own.

None of this is really the point of the story; the real point is that the plane was actually rescued by someone who climbed to the *top* of the tree and coaxed the plane down. The rescuer was Bruce Nye, a former LMAC member and now a member of the SEAT club, who came along, as Dave recalls, with a whole lot of climbing gear. Dave has asked that to pass on his gratitude to Bruce for getting his model back.

As a sequel to this story, Dave has since repaired the damage and repainted the model. He suggests that there was a lesson learned, he hopes!

(*In the original photo, the paint scheme as seen from underneath is all red with no contrasting colours. With gliders, which generally have a small fuselage cross-section and are therefore more difficult to see from the side or head-on, it is a good idea to add some bright and reflective surfaces to the fuselage as an aid to visibility, especially to see which way the plane is turning*. Ed.)

Results of damage testing

It seems the US Federal Aviation Administration (FAA) has a unique device for testing the strength of windshields on airplanes. The device is a type of gun that launches a dead chicken at a plane's windshield at approximately the speed the plane flies.

The theory is that if the windshield doesn't crack from the carcass impact, it'll survive a real collision with a bird during flight. It seems the British were very interested in this and wanted to test a windshield on a brand new, speedy locomotive they were developing.

They borrowed the FAA's chicken launcher, loaded the chicken and fired. The ballistic chicken shattered the windshield, went through the engineer's chair, broke an instrument panel and embedded itself in the back wall of the engine cab. The British were stunned and asked the FAA to recheck the test to see if everything was done correctly.

The FAA reviewed the test thoroughly and had one recommendation:

"*Use a thawed chicken*."

SCALE COMPETITION Round 2 held on Saturday, 24 September 2005

← Very nice ARF Corby Starlet flown by Stephen Reece

Dave Jacobs' lovely Auster had engine trouble and was unable to be flown →

← Kevin Hay's big Ultimate with the smoke system in action.

More from the recent SCALE DAY.....

Andrew McEntyre's Cosmic Wind pylon racer – very powerful and very fast. →

← Pete Kidson's smart quarter-scale Citabria about to rotate. Peter gained first place in Scale with this model.

Merv Cameron flew his Diabolo very convincingly.
Merv's only comment: "Not enough power!" →

Snippets From the Past *by "Sleuth"*

Last month I took you back to the start of our trophy night dinners, this month we will start having a look at the establishment of our clubhouse at Symmons Plains. For those who can remember and those of you who have joined us since this was built this will explain a bit of club history.

Before the clubhouse we had to use our cars to escape from the weather or simply pack up and go home. When we had any special events such as Championships or other type of events we would erect a small square tent and a trestle table, and one small round BBQ. This was our catering service; water had to be brought from town to the field or run the tap near the old hangar for about 20 minutes or so to clear the rusty water enough to be used.

We often spoke of something better but it never got more than that, just talk. But it did come a step closer at the AGM in April 1992 when the idea began to gain momentum.

It was at the June committee meeting that the decision was made to approach Mr John Youl with the prospect of obtaining the old hangar for the purpose of establishing it into our clubrooms. However this was deemed to be unsatisfactory.

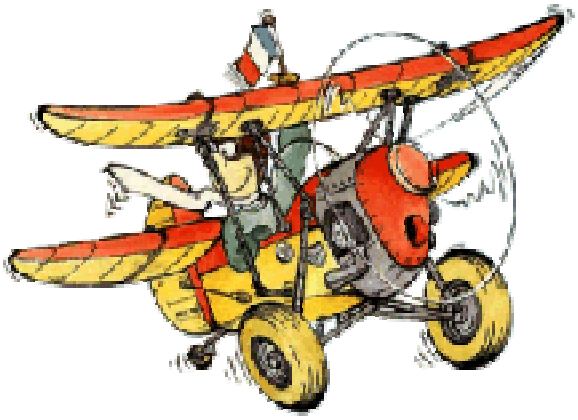
The suggestion was then made to erect a new building on our present site and Mr Youl gave his approval, this then started the planning as to what, how and when we would build the new structure and most importantly how to finance the project. A special general meeting was called to discuss all the implications as to these questions, following a healthy discussion it was finally moved, seconded and passed that the project should proceed, this was then left to the committee to implement.

The type of building that you now see was agreed upon and fund-raising began, which included a fashion parade, cinema nights, and raffles. As well as these and to get the project under way as quickly as possible, a number of our members gave various amounts of cash in the form of interest free loans to get the job under way. Site preparation and boxing of the slab commenced on Saturday May 8th 1993, a total of 14 members came armed with a variety of implements.

Mr Youl provided his large front-end loader and a truckload of gravel, which was used as a base under the slab and generally spread about in front of our existing sheds. (*See the accompanying photo of this happening*). The following Tuesday saw 6 members come to help pour the slab, and from then on there were many working bees to aim for our planned December opening. "*Believe it and you will achieve it.*" *(To be continued next month)*

Left to Right: G Robertson, B Green, B Vandersee, B Nye, G Hays, G Waddle, A Robertson

The Flying Flea



One aircraft that does not get a lot of exposure in aeromodelling these days is Frenchman Henri Mignet's classic tandem wing aircraft, affectionately called "Le Pou du Ciel" or the "Flying Flea".

It was arguably one of the earliest homebuilt aircraft and would have revolutionized aviation, but for an unfortunate tendency to tuck under during a dive, leading to its being banned in many countries, including the UK (where it is still banned). Elsewhere it may be built and flown as with any other homebuilt aircraft (including in Australia, where a number of fleas exist.

As a scale modeling subject it is certainly unusual. It is a tandem-wing aircraft of very small size (the full size aircraft has a wingspan of only 20ft or 6m) and requires only low power. Mignet's main claim for his series of Flea aircraft was that they were stall and spin-proof. This is an ambitious claim, as the number one cause of light aircraft accidents the world over is still the stall-spin. Henri had tried to learn to fly on a conventional three axis aircraft, but he claimed that the coordination required was too difficult for him, so he turned to a two-axis control scheme for the Flea. It has a rudder for turning (operated by left-and-right movement of the joystick) while pitch is controlled by varying the angle of attack of the front wing with fore-and-aft movement of the joystick. The most famous is the HM14, the original Flea designed in the mid 1930s, which is again being built in large numbers in France and elsewhere.

Here is a French HM 14 built in 1992 by Dominic Morenne.

The modern variant is the HM293, which has the same wing layout and controls, but looks more streamlined and has folding wings.

← Pictured is the French Ultralight version HM293/E; the two Frenchman are not tall which gives an idea of the small size of the aircraft. Engine is generally a smaller Rotax geared two-stroke.

If you visit the site **http://www.users.bigpond.com/ozflea/fleaworld.html** you will find a lot of information about the history of the Flea in Australia. This applies to both historically significant aircraft in Australia's early aviation history (they started building them in about 1936), but also to later models that are currently airworthy.

Henri Mignet's son, Pierre, was until recently building commercial versions of the Flea, called the Balerit and the very smart-looking Corduan, pictured below.

Much has been written about the aerodynamic quirkiness of the early Fleas. However the early problems can be traced to two factors: the airfoil and the set-up of the aircraft.

Mignet's early airfoils had large variations of center of pressure with angle of attack. This created stability problems in certain attitudes. Modern airfoils used now have eliminated this problem.

The set-up is quite critical; for instance it is essential to have part of the propeller arc above the top of the wing. Another factor is that, whereas Mignet had the wings overlapped, modem practice is to have fore-and-aft separation. The CoG must also be set up correctly.

In terms of scale models, they have been around for years and apparently fly very well if the above points are attended to. They can be free flight or r/c and require only low engine power. They are certainly not aerobatic. A scale HM14 would need a lot of work to faithfully reproduce the elliptical dihedral that Mignet used; however the HM293 uses straight spars and so is simpler to construct.

I hope that this information about a very famous if unusual aircraft may challenge your interest as a subject for a future Scale competition. - Gerry de Groot

Correction to last month's Snippets Column

As mentioned in the editorial column, here is the picture supplied with last month's Snippets, together with the missing date and names information.

Trophy Winners for 1983-4 contest year.

**Left to Right: - S Baldock,T Sydes, R Walker, D Jacobs, D Kuo, P Daniel;
Club Patron- Mr P Grandjean, W Nermut , Inaugural Club Champion- Glenn Hays,
C Klimick, M Wiggins, I James.**