



PROP TORQUE

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

Volume 19, Issue 1

February 2010

From the President

Hello All

This month's column will be brief as I have not flown, nor been at the field, for what seems like a very long time. I am presently heavily involved in work again and we are also renovating our house.

I hope that you all had a wonderful Christmas and an enjoyable holiday season.

Although I have not spent any time in the workshop recently, I did manage to read an interesting book. It was a biography about one of Tasmania's more interesting aviation personalities, the Flying Fisherman, Dick Ritchie. The book was written by Dick's son, Ted, and is a great read. All the more so, because in my younger years I used to occasionally see Dick's plane flying around the north coast. I was always interested to read about his exploits, especially his role in search and rescue work. His last aircraft was a Piper PA-18 Super Cub and was registered VH-DLR, after his wife Della Ritchie. His ability to pilot the plane in and out of tight spots (small beaches, etc) is now the stuff of legend. I also did a bit of test flying of the now completed discus-launch glider (Apogee Sport) in my back yard (five acre paddock, complete with power lines). When finished, it came out at 104gm flying weight (with battery charged, so it

includes the weight of the electrons), including about five grams of nose weight to get the C of G spot on. Anyway, flying it is awesome. Being so light, it responds to the slightest lift (and sink!). It flies quite quickly, but is manageable. I tried a few discus launches and was very surprised at how little effort was needed to get some decent height. The downside is that it is not exactly what you would call rugged; an out landing in some long dry grass caused substantial dents in the soft tail plane leading edge.

As you will read in more detail elsewhere, the club will be installing more shade area soon for use by flyers and their models. This can only be a good thing.

I wish everyone good (and safe) flying.

.....Gerry.

From the Secretary's Desk

Hi All,

Well here we are at the beginning of another calendar year and the weather yes the weather! I could not start my report to you without mentioning the weather could I? It has been fairly good lately and very "HOT" but well it is summer after all.

Not much to say this month as we have only had 1 committee meeting so far this year and that was filled up with catch up from last year.

We had one member's letter to table on some things that he would like to see the club do to go towards making things in general a bit better for the membership as a whole.

What the members may not be aware of is that the committee had compiled a projects list of some of the items that were included in this member's letter.

One of these is extending the shade area in the pit enclosure for member's comfort, both for getting out of the hot summer sun, and for placing your models in shadow as well. This will require a working bee and you will be notified in due course when this will happen.

There are other projects of course but one thing at a time: you will be kept informed.

INSIDE THIS ISSUE

- 1 From the President,
- 1 From the Secretary,
- 2 Contest Directors report,
- 2 From the Editor's desk. Vision and modeling.
- 4 Mystery plane...Jacques Wakae and Around the Hangar., jottings from George Carnie
- 6 Calendar & Contacts

There was quite a lot of discussion regarding forthcoming contests and we would encourage the members to support these as they occur.

Birthdays for this month are: - Michael Green, and Bill Hellings, we do wish them both a happy day on their day and all the best for the year ahead.

Well as I said I did not have a lot this month which wraps it up for me, but I would leave this thought with you all to ponder upon: - It is titled "Inspiration".

(Some men see things as they are and say why? – others dream things that never were and say why not?)

So as always
Happy landings all

Geoff.

Contest Director's Report

Saturday 20th February saw the culmination of the last few months practice sessions for our pattern competition which was designed to try to promote and revive the flagging competition calendar across the state.

The day saw quite a few spectators turn up to watch and enjoy the lunch time barbecue with lamingtons and fruit buns for dessert.

The morning started clear and fine with a slight breeze blowing directly down the strip from the northerly direction.

Kevin was unfortunate to have a flame out in the early morning warm up due to a "balky" engine which resulted in a down field landing, half tearing out the undercarriage. After a quick repair he was back in the air only to have the engine quit on landing approach, the result being further damage to the already weakened undercarriage, putting him out of the running.

We were able to fly four rounds before lunch break with the wind increasing. It was decided not to continue after lunch as the wind had increased dramatically during the break and with four rounds flown we could drop our worst round for the final result.

George was in charge of the scoring having developed a program on his laptop to add up the

judges scores, incorporate the "K" factor and then normalising the final result.

After all that Terry Pearson took out top spot flying his trusty Extra, followed by Greg Robertson in second with his own design electric powered Stinger and myself in third place flying my Ultrasport 1000.

As mentioned it's a pity we couldn't have had more participants: even the lesser skilled pilots could learn something by having a go at the sportsman class, as most trainer aircraft could fly the manoeuvres we had in the pattern for this. We are after all in it for the fun of it and not playing for the sheep station! There are plenty of willing coaches to help guide those prepared to have a go.

Chris Klimeck
Contest Director.

From the Editor's Desk

Visual acuity standards in driving and model aircraft flying.

Having watched the Tomboy competition and seen the altitudes that these small planes reach in good thermal conditions, I was interested to work out the distances at which our models can be seen by someone with normal vision. I shall address part of the problems of calculating visual acuity, literally sharpness of vision, this month before addressing the types of colour schemes that may be helpful in next month's new sletter.

One of the first English records of visual acuity calculation was by Robert Hooke in the late 17th century! He noted that although one could see two stars separately with a telescope, the unaided eye or eye without a spectacle lens, in most people cannot make out the separation of two stars unless they stand apart by an angle of 1 minute of a degree at the retina. There are however a very few who can see better than this and can make out a separation down to one third of a minute. As a matter of interest, a colleague has documented that this is more common among full blood aborigines than in Europeans in Australia. (Professor Hugh Taylor.)

How good is your visual acuity? Not everyone knows how well they can see because they haven't had a vision test. A simple way of

knowing whether you are driving legally (and therefore safely!) is by reading a car number plate at various distances. I have measured the line width of the letters and numbers on a car number plate, which is 10 mm. From this I have calculated a table below to show what the visual acuity is when seen at different distances from the plate. This is unlike the medical or optometric vision chart which uses a set distance usually of 6 metres or 20 feet, with a letter stroke width of 1.75 mm. This width is altered for each line of the chart, so that the top letter representing 6/60 vision, 20/200, 0.1 or 10% vision, has a stroke width of 17.5mm.

Another way of thinking about this is that the 6/60 top letter of the chart can be seen by someone with *normal* vision at 60 metres, but only just at 6 metres if you have only 10% vision. The minimum driving vision allowed in Australia is 6/12, (20/40, 0.5 or 50%), in the *better* eye, with glasses if you need them for distance!

From the table below I have written in the *minimum* distances from a clean number plate in good light that you should be able to read with your better eye, *with* distance glasses on, if you wear them. If you can read the number plate at 17 metres you have about 50% vision (0.5, or 6/12, or 20/40) and are just able to drive legally! If you can read it at 35 metres, you have 100% vision, (1.0, 6/6 or 20/20).

Distance Of plate	% Vision	Decimal Vision	6/ * Vision	20* Vision
3.5	10	0.1	6/59	20/196
5.0	15	0.15	6/41	20/138
10	29	0.29	6/21	20/69
15	44	0.44	6/14	20/46
17	49	0.49	6/12	20/40
20	58	0.58	6/10	20/34
30	87	0.87	6/7	20/23
35	102	1.02	6/6	20/20
40	116	1.16	6/5	20/17
50	145	1.45	6/4	20/14

Table for estimating your vision or visual acuity from a (clean!) Tasmanian car number plate.

These figures are only approximate because of lighting variations, clarity of the number plate, how clean it is, etc.! *Test each eye separately!*

Depending on the size of various features of a model aeroplane, one can work out the distances at which these are clearly visible depending on your visual acuity. Naturally it will depend on the

angle that the wing is presenting to you, which in turn depends on the attitude of the airframe, as to the visibility of the wing or fuselage etc. The table below is based on a wing chord of 200mm.

Distance to pilot M.	Altitude Feet	Visual Angle Minutes	Decimal acuity	Snellen Acuity(6/*)
30	98	22.9	0.04	138
50	164	13.8	0.07	83
70	230	9.8	0.10	59
100	328	6.9	0.15	41
200	656	3.4	0.29	21
300	984	2.3	0.44	14
400	1312	1.7	0.58	10
500	1640	1.4	0.73	8
600	1969	1.1	0.87	7
700	2297	1.0	1.02	6

Table to show the distances from the pilot at which a wing chord of 200 mm is visible for a range of visual acuities or sharpness of vision.

This means that if on the bottom line of the table you have a visual acuity of 6/6, 1.0 or 100%, you will be able to see the wing at 700 metres or about 2300 feet, providing it is roughly overhead (at right angles to you) or is climbing or descending at a steep angle. If the plane is climbing or descending at a shallow angle say 45 degrees, only half of its width would be visible, therefore you would see it only at half that distance: 350 metres. If the plane is coming horizontally straight toward you and the wing *thickness* is 20 mm, the wings would be only just visible at 70 metres (230 feet)! The fuselage however being about say 100 mm in height or width would be visible at 350 metres. In a banking turn providing the wing span is between 1 and 2 metres, you should be able to see the aircraft easily at 700 metres, unless the chord is very narrow, i.e. well below the average of 200mm.

As you can see this is all approximate but quite interesting to calculate. If you have a visual acuity of 6/12 or 50% or 0.5, i.e. at the driving limit, the distances at which you will be able to see the average sized features would be half of the above. If you are flying a Park sized aircraft you obviously need to fly in close even with normal vision!

I am happy to enter into correspondence in this area if the points I have tried to make are not well expressed or understood. Next month I shall try and cover colour schemes and their effect on visibility.

...Richard.

Mystery Plane: request for identification please from Jacques Wakae.



Year: 1958; Jacques is holding the plane.

Email from Jacques:
Could you include this photo in the new sletter please.

I remember the name of the motor, an "Albon dart" and the name on the beer bottle "Simba", (*translated "Lion" in Swahili, Ed...*) but not the name of the model. it was an English kit, - the second one I built whilst in the colonies. The first one destroyed itself when I test glided it from the first floor of a building. It flew straight into the flagpole that was in the middle of the parade ground!

I would appreciate if some old timer can come up with an answer.

The model only had one flight and finished up on the roof of the hangar that you can see in the background. For all I know, it is still there. By the way, the hangar was full of AT-6 Harvards.

For those interested in retrieving it; go to Kamina Airbase, Katanga province, the country used to be called Belgian Congo, then Zaire, now something like Republic of Congo, I think.

Another Email: forwarded by my wife for inclusion in the Newsletter:



Title: Helicopter crash near Broome.
(Perhaps she's getting used to my frequent unscheduled arrivals and constant repairs on the dining room.)

Around the Hangar, or jottings from George Camie.

Saturday, January 30 saw a few of the guys turning out for a bit of Pattern practice. In the last pattern practice, Greg R had tried an electric pattern composite model the "Adrenaline 90" however a severe weight penalty coupled with limited battery capacity meant this model struggled on the "up lines". Today a new model was on the scene. Greg R's reincarnation of the "ACE". This was however an enlarged version and has been renamed "STINGER". This model had the same power train as the Adrenaline but was 3lbs lighter! Power coming from –

- Hyperion HP-ZS4020-12,
- ESC: HP-TITAN-80-PSW316
- Battery: HP-LG325-5000mAh 6S,
- Prop: 16x10 APC-E

There was no shortage of power on take off and Greg was very happy with the performance. The model was not yet completely finished with more decals still to be applied.



Greg Robertson and his yet to be fully detailed, STINGER

Club Day, Saturday February 6 saw the usual good turnout but today was something special. Kevin Hay arrived with his new Christen Eagle. I won't give all the details as it was featured in an earlier article on the web site. The pictures don't do the model justice. In the "flesh" the quality of finish is typical of Kevin's models - beautifully painted and a true reflection of the full size Jones Airshow Pitts that this was modelled on. The paintwork is pristine.

Kevin and his "sidekick" Merv Cameron unloaded the model and set about the task of assembling it. This is a process in itself. Many guy wires to rig as well as aileron linkages between the top and bottom wing. When you see the 30" XOAR prop and the spark plug leads protruding from the cowling you soon realize this is **not** a model but a **miniature aircraft!** (And not that miniature really).

After assembly, the model was fuelled, range checked and again all necessary checks were carried out by Heavy Model Inspector Merv Cameron. The big DA150 twin was fired up again and you could almost feel the earth vibrate! The anticipation from all around was growing with every revolution of the big twin. Merv guided the Christen Eagle on to the runway and we're not sure who was the most nervous, Kevin with the sticks, Merv hanging on as Kevin gave the model a bit more throttle or the onlookers watching! It's never easy taking off any

new model with a few onlookers especially with all the money invested in a model such as this. Nevertheless Kevin's well up to the task having done this many times!

All's well, Merv lets go and Kevin advances the throttle and the CE is roaring along the runway! Up goes the tail and a bit more power and an uneventful takeoff is the result. However I'm sure the nerves are still playing havoc. The grins on the onlookers' faces as they watch the big model take to the skies and the sound of the big twin reverberated around the field said it all. It was a beautiful model on the ground that really lit up when it took to the air. Your resident cameraman had a bit of a job keeping up with it and low fly pasts were not going to be on the agenda for these early flights.

Kevin noticed some engine issues and it was decided to bring her in for a check. Nothing seemed obvious so a refuel was in order. Ah there's the problem - the refill tube had moved from its original position and had melted on the exhaust. Off came the cowling, new fuel mounting clips were put in place and a new tube piece inserted, well clear of any exhaust. Another uneventful take off and Kevin put the CE through its paces with huge loops, big barrel rolls, stall turns and a few more thrown in. Landings were a challenge given the fluctuating wind conditions but Kevin took her home in one piece. Great job Kevin (and Merv)!



Kevin Hay's Christen Eagle

A couple of more pictures of Kevin's Christen Eagle



EVENTS CALENDAR

Date	Events
Mar 6 th	Club Day- AM Gen flying -- PM Electric Glider
20 th	State Electric Glider Champs 9:30 am Start
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

CONTACTS

President	Gerry de Groot	6369 5284 / 0429 196 560	degroots@activ8.net.au
V.President	Kevin Hay	6326 2990 / 0417 011 839	zzkevin@skymesh.com.au
Secretary	Geoff Hays	6326 7967 / 0408 559 806	ghays7@bigpond.com
Treasurer/Webmaster	George Carnie	6398 2141 / 0418 134 672	george@thecarnies.ws
Committee	Greg A Robertson	63431753	
	Merv Cameron	6344 5614	mervcameron@internode.on.net
	Terry Pearson	0438 053 255	tnt13@bigpond.net.au
Editor	Richard Cooper	63695142	richardlc@activ8.net.au
Contest Director	Chris Klimeck	0458 448 674	cklimeck@bigpond.net.au
Web Site	www.lmacrc.com		