

1<sup>st</sup> April 2019

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## Headline - Previously “Extinct” Pouakai Eagle found at TECT Park Special report by junior cub reporter Andy Avgas



A colony of the previously thought extinct Pouakai eagle has been found living in the TECT Park jungle. This sub species *Hieraetus moorei tectus* is the largest eagle known to have existed. It is believed that the TECT Park colony has evolved from eating mowers to now live on a diet of carbon fibre and lithium sandwiches. It has been sighted attacking multirotors which are known to inhabit the area. See full report -

[https://en.wikipedia.org/wiki/Haast%27s\\_eagle](https://en.wikipedia.org/wiki/Haast%27s_eagle)

## Weather Rock

After several complaints about our weather station we have decided to install a more traditional but proven technology. The new system is claimed to be the most comprehensive, guaranteed, accurate form of climatic measurement known.

- If the rock is swinging – its windy. Not suitable for flying
- If the rock is spinning– it’s a tornado. Not suitable for flying
- If the rock is wet - its raining. Not suitable for flying
- If the rock is dry its not raining – OK to fly
- If there is a shadow under the rock, the sun is out. OK to fly
- If you can’t see the rock its foggy or the sun has gone down. Not suitable for flying
- If the rock is above the tripod it’s a thermal. Get the glider out.
- If there are fish swimming around the rock, the airstrip is flooded. Floatplanes only.



## Wings test questions

Question	Model Answer
8. What would you do if a person walked into the flying area?	Yell out "F- off". Buzz them as close as you can. If they don't move, throw your transmitter at them.
37. Describe flight line etiquette	Simple courtesies eg:- <ul style="list-style-type: none"> <li>• Wear fashionable clothes. Remember that we are gentlemen. No hoodies. No man-kinis. Collar and tie are preferable.</li> <li>• Bring lunch for your instructor.</li> <li>• Do not run over other flyers models when parking your trailer.</li> <li>• Offer your plastic sack to help pick up the pieces of your mate's model.</li> <li>• Offer a shoulder to cry on and counselling when your buddy uses your plastic sack.</li> <li>• Use a LiPo to light the BBQ.</li> </ul>
40. What is the best action to take when an engine stops in mid-flight?	Call "Oh S----T" . Throw a tantrum. Jump on your transmitter. Put your boots on, collect the machete and prepare for some jungle bashing. Take a plastic sack.

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And now for something serious !

### The month in general

A very unusual month with unprecedented long periods of dry weather which lifted the fire risk and required field closure for a week. TECT Park management were highly complementary of the way our club members responded by avoiding flying while the risk was high – well done guys. While we have had some rain and overnight heavy dew, enabling the ban to be lifted, there is still a lot of dry material in the forest. Please be careful and vigilant.



### March Club night

This was originally planned to be held at TECT park with a fly-in and BBQ. Unfortunately this was cancelled due to high fire risk. Hopefully this situation does not re-occur. The club night was reconvened at short notice as a normal session at the Gliding Club. Despite the short notice change of venue some 20 members turned up. **Dave M** talked about recent developments in the club and the upcoming AGM. He requested that members send in their nominations for committee positions.

**Mike Rice** talked about a vintage "Miles" bungee launch glider he is building from a Peter Leaver kit. He also spoke about his approach to bungee launches. Pictured is Mike holding his bungee anchor screw. This is adapted from a dog restraining device (He assured us that this is a humane way to restrain a dog but the mind boggles with possibilities of how this might work).

The ever-enthusiastic **Caleb Day** brought along a 70% completed Beagle Pup which he is building from a Jack Hedley design from the RCME plan. This was originally rubber powered with huge dihedral, but Caleb plans to convert it to electric power.

**Steve Noyes** showed some FMS LED strobe lights which he plans to fit to his next plane. Very bright and individually powered.



## AGM

Our 73rd AGM is on the third April (2 days time) in place of our normal club night. This year we see the departure of Bill de Renzy and Gary Powell. Bill has served in various roles on the committee for around 20 years and is regarded as the repository of much historical knowledge about the club. Bill took over from Roger Hutson in 2013. Bill's departure marks a change in the committee focus. While Roger was the inspirational leader and driver behind our move to TECT Park, Bill has had the role of operationalising (is that a word ?) the field and getting equipment and facilities in place. The role of the new committee will be more oriented towards ongoing maintenance, organising events, training and other steady state activities. The outgoing committee has been very effective in their role and has a large number of achievements to their credit.

Candidates for the new Committee roles include some new faces:

- **Caleb Day** – Caleb is one of our younger members and has already stacked up an impressive experience in model aviation. He has been building and flying models for some 7 years. He gained his wings last year and competed in the last Nationals junior scale event, with his “ Smith’s Miniplane”. Caleb aspires to a career as a commercial pilot. While new to the concept of committees and governance, Caleb will be an asset in representing our junior membership, and helping to build more members in the junior category.
- **Mike Wilson** - Those of you who have seen Mike fly will realise that he is no newcomer to model flying. His impressive aerobatics, including hovering and rolling circles leave most of us in awe. He has been flying models since 6 years old, and RC for some 30 years. He is a former V.P. and Club Captain of Hamilton MAC. In real life he works as a software and app developer for a science text/workbook company and is a part time workbook author (*is he our next newsletter editor?*).

One position that we do not as yet have a candidate for is the role of Vice President. This position is very flexible and can cover a lot of ground depending of the persons interest. In addition to standing in for the President, the VP can also oversee major projects, managing maintenance, overseeing training etc. It's a very interesting role which can be as big or small as you want it to be. Its not too late to hold your hand up.

This year we have 2 remits to vote on.

The first is in response to Bill stepping down. We propose the establishment of an “immediate past president” role on the Committee. This role is to ensure continuity during the changeover from an outgoing to an incoming committee.

The second is to set up the provision for electronic voting. It is anticipated that by adopting electronic voting we will capture a greater proportion of membership votes than we currently get from physical attendance and proxies at a normal General Meeting of members. The remit leaves the details of how this is to be carried out yet to be determined, but includes some safeguards to ensure one member/one vote and that members are fully informed of issues to be voted on.

Please attend the AGM. Its an opportunity to be fully informed on the club's health and to have a say on the future direction of the Club.

## Auction June 16th

This is the next big event on the club timeline and is our single (hence largest) fundraising event of the year. The process is well developed and there are enough “old hands” to ensure it runs smoothly. We ask that all club members offer their services for this day. There are lots of small tasks to be done ranging from layout of chairs and tables, through to marshalling of items up for sale.

- Make up a “wish list” of things you want to buy
- Clear out your workshop and get things ready to be sold.

We are already starting to get inquiries from outside the area for the auction. These include at least one estate and a fully equipped modelling trailer. I will shortly post a link on the website so you can download registration forms.

## Whats on?

- AGM 3<sup>rd</sup> March. This will take the place of our normal club night 3<sup>rd</sup> April, 7.30pm Gliding Club rooms. The AGM will be followed by a normal club meet so bring those projects and enjoy a cup of tea with other members.
- Aerotow meet TECT Park 5th, 6th & 7th April. This will be organised around normal flying so come out, watch the action, and get some flying in.
- Auction June 16<sup>th</sup>

## General snippets

- Did you know that you can see previous pictures from our webcam. Under the current photo, there is a tab "View Gallery". If you click on this you can select a day and time going back a couple of months.
- Congratulations to Dom Clarke who won the NZRCAA "Loop, Roll and Win" competition.

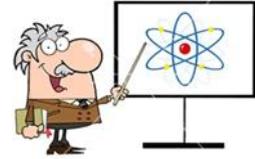
## Scale Stuff (by Prof Flapbracket)

So – when you are scaling a model up or down, how do you get a feel for landing characteristics, engine size etc.

Some rule of thumb guidelines. If you double the wingspan:-

- The length and height all increase by a factor of 2 – easy peasy.
- The wing area increases by a factor of 4 ( $2^2$ )
- The weight increases by a factor of 8 ( $2^3$ )
- The wing loading increases by a factor of 2 (weight/area =  $2^3/2^2$ )
- The lift of the wing is proportional to the speed squared. If the wing loading is doubled, then the stall speed is increased by  $\sqrt{2} = 1.41$ . ie if you double the size of the plane it will land 41% faster, all other things being equal.
- Engine power is primarily related to weight, and speed ie  $2^4$ . This explains why a 1.5m span model can fly on 10cc, but a 3m model will need 160cc.

These relationships hold generally true for scale changes within the range we normally associate with model aircraft. They may not apply to reductions from full size where other aerodynamic effects such as a Reynolds no, Mach no., different airfoil sections must be taken into account.



## Avalon Airshow 2019

Bill, Roger and Tony attended the recent Avalon (Melbourne) air show. Lots of heavy metal present including a UAV flown directly from the USA, a B52 and the new F35 aircraft as acquired by the Aussie air force. Rumour has it that they are planning a presentation to a future club night. The photos are a taste of what the show was all about. It was fast, furious and spectacular but also extremely hot, up to 41 degrees. Totally different to NZ shows as it was mostly the latest jets and military equipment.



## Wot's Dave building ?

Dave's latest project is a Great Planes Midget Mustang. This is on "loan" from Roger Peddle. The plane is powered with an ASP 91 FS. The long nose meant that the plane originally needed lead in the tail (very unusual) to achieve the correct CG position. Dave's rebuild has shed some 200g of weight and brought the CG under control. Waiting for a suitable day for a test flight.



## Useful links – sometimes slightly oriented towards aviation

- Is this how to clear the jungle around the flying strip ? <https://youtu.be/Pla06PO6Odk>
- Avalon airshow arrivals - <https://youtu.be/Pla06PO6Odk>
- What does the inside of a glow motor look like?. This video was sent to me by Juan Seren of Buenos Aires, Argentina. <https://www.youtube.com/watch?v=KBIKQMIUotk&feature=youtu.be>
- Kiwi Yak-3 at Reno <https://thisnzlife.co.nz/kiwi-racing-new-heights-world-war-ii-soviet-era-yak-3/>
- Building aeroplanes in 1918. Some scary health and safety issues – particularly machining propellers ! Best with sound OFF! <https://www.youtube.com/watch?v=YVG0-sbx3wA>
- You can always go around ! [https://www.youtube.com/watch?v=opMdtzhg5\\_Q](https://www.youtube.com/watch?v=opMdtzhg5_Q)



That's all for this month

Dave M  
Editor

(if you want photos of aeroplanes – send me some !)