



## The News Letter of the Hobart Model Aero Club Inc. February 2018

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## So! You think you can fly?

On Thursday evening, 18<sup>th</sup> January I went outside to savour the cool air. The sky was cloudy and the wind southerly. My house is about midway between Lindisfarne Bay and Natone Hill. As has been my habit for over 50 years, I scanned the sky and saw nearby what appeared to be a Peregrine Falcon lazily flying overhead. As it was cloudy, I couldn't see his (or her) markings so I can't positively identify the type, but what followed left little doubt in my mind.



The bird began circling as it neared the ridge and trebled its altitude in a couple of minutes and soon was over the hill soaring back and forth without flapping a wing. The hill rises to 265m (870ft) above sea level so the falcon may have been about 1,000ft high. After tacking back and forth for a few minutes he turned upwind and flew back with wings folded toward Lindisfarne Bay at astonishing speed. Yes, that was upwind, not downwind.

Now I am used to observing model aircraft flying towards me at high speed but I can assure you that he was covering the ground at least twice as fast as any model I have seen, except for Bernie McKay's pylon racers I saw at Kelly Field a few years ago.

The falcon slowed down, turned around and soared his way back over the hill. By this time I had called my wife to come and see the rare sight. As the bird reached one end of the ridge, he turned around and did another high speed run along the length of the ridge (perhaps half a kilometre) covering the distance in a matter of seconds.

Once more he turned around to soar quietly for a time over the ridge and at last he must have felt it was time to go home. He headed straight for the Bay (heading upwind) with his wings folded very close to his body. This time he passed by fairly close to where we were standing moving like a brown cruise missile. That's the last we saw of him.

As far as I know, he was not hunting or chasing prey. He was simply having fun. We see this often. I remember once flying over NE Victoria on a hot summer's day at 12,500 feet (3.8km) and I saw two Wedged Tailed eagles thermal ling at the same altitude. The obvious question is, why were they flying so high? My view is that they do it because they can and were just having fun enjoying a free ride.

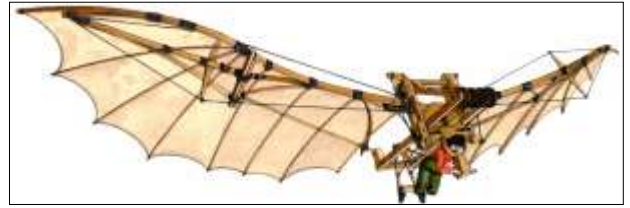
We model fliers are privileged beyond most men, the reason being that we look skyward much of the time. As we do, we see things that most people don't see and we are witnesses to the master aviators of Creation winging their way across the sky. We see Wedged Tailed Eagles, Swans, Pelicans, White bellied Sea Eagles, Magpies, Harriers and many other birds too numerous to name. What they all have in common is the mastery of flight, and a grace in flight that far surpasses any model we can make.

Many years ago I saw a modeller harass a bird in the air with his model (it was not at KF). I was disgusted at the time, for it is we who are the interlopers in the avian domain and should respect the absolute right of the birds to fly where they will. The occasional attack (remember it, Stuart?) is forgivable and goes, as they say, with the territory. How privileged we are.

It was Leonardo Da Vinci who said in the year 1519;

*“When once you have tasted flight, you will forever walk the earth with your eyes turned skyward, for there you have been, and there you will always long to return.”*

I couldn't agree more, but the question now is; did Da Vinci fly 400 years before the Wright brothers did? Go to; <http://sped2work.tripod.com/davinci.html> and decide for yourself.



*Ian L Searle*

NB

The YouTube below shows a falcon in dive clocked at 390 kph, let hope there are none at KF as I do not think we have models fast enough to escape. Ed

<https://www.youtube.com/watch?v=j3mTPEuFcWk>

## **A wing with class**

As most of us already know, if you want to be in a position to fly at Kelly Field on those windy days that unfortunately seem to be getting ever more frequent, you can't do much better than having a Wild Wing in the boot of your car! Unfortunately the kits are of course no longer available but, my recent experiment in scratch building a wooden version, has proved that you can however build a similar balsa Wing that will perform just as well as the original foam version, or perhaps even better!



So, if you fancy building your own, I would of course be happy to provide copies of the plan and assist, if necessary, with advice on the build and kit cutting. A word of warning; construction of the prototype was not particularly difficult, but certainly more challenging than a Tomboy, and not perhaps suitable for a first time builder.



So, if you have some light weight radio gear in a drawer doing nothing, and something like my original bell outrunner motor or similar, why not give it a go? Construction costs will certainly not break the bank - about 4 sheets of 1/16 balsa and one of 1/4 together with some odd bits and pieces plus covering material, will be about all that you will need!

Believe me, the end result will however be well worth the effort involved. It truly is a stunning little model to fly - just be prepared to set it up with minimal control throws; plenty of exponential and no more than about

50% throttle.,It really does fly considerably faster than the foam original!

Chris Rowe

## **Presidents Corner**

I know this may sound repetitive but all has been quiet at KF again this month.

The Scale Day set down for March 11<sup>th</sup> is underway and we have had instant response to the Flyer going out. This is just a fun day for like minded people and a BBQ will allow for some idle chatter. Bill Jennings and Jason are attending to the flying agenda and prizes for the day. All we need is good weather.

You will have noticed that the driveway has been resurfaced to get rid of the potholes.

This has turned out well considering that it was to be a temporary repair at minimal cost.. Depending on how it consolidates and manages the wet weather that may come, it should last for some time with a top up at a later date.

I have been in touch with Jemma Oakley regarding the return of the horses to KF and she assures me that they should be back at the end of the month.

If this were not to happen then we would have to entertain the idea of getting the paddocks slashed to reduce the fire risk.

Our members have settled back in their new outdoor setting chairs and it has created a nice social area for cake! Flying may happen.

Club clothing i.e.: Beanies, Caps and Polo shirts with a new upgraded logo are underway and will be available in a fortnight. The shirts will be on request to your size. In the meantime I will have one that can be viewed as the sample.

The car stickers have almost gone so some new stock will be ordered. I hope members have put them to good use as they are good promotional material and encourage new like to be members to make enquiries. As you know, all clubs no matter what their interests are facing a downturn in numbers so new members are essential to the long term viability of all clubs and ours is no exception.

At the request of a member, the provision of a all wooden table for the setting up of Quad copters is being attended to. The present steel tables at the circle apparently may cause interference during setup of these craft.

Quite a few new models have appeared at KF recently so keep up the momentum. We will see if we can get some of these into our website to update the Gallery.

That's all folks.

Happy flying,

Barry Gerrard

## **Mishaps explained and fixed**

The saga of gremlins living in the far SW corner of Kf continues and contains a lesson relating to a problem seen now and then in the pits when control surfaces start to flutter without pilot intervention.

I and others maintain that there is nothing lurking within the laws of physics that could affect radio waves and models in this particular area thus leaving pilot error as an explanation in the majority of cases.

Then a few weeks back we did find another possible explanation relating to electric models when Stuart had his glider crash over towards the SW. The systems were checked when the remains were

back in the pits and everything worked as expected so of course I pointed out he either stalled or pushed one to the sticks in the wrong direction . His response was dismay that I could be so unsympathetic. What me unsympathetic? Hell, everything worked when tested, so that was the simple conclusion short of equipment failure. To be fair even Stuart saw the logic of this.

With a lingering suspicion relating to the SW corner Stuart tells me he tried again returning with the repaired model. Being suspicious he was prepared when again he briefly lost control suffering no damage that a wash and change of underclothes couldn't fix. The curious thing - it happened in the NW area of Kf when on finals into the South.

On the next trip to Kf with exactly the same model in rather better condition than when it returned home previously, with all its original equipment still fitted, and while preparing for a test flight Stuart discovered some weird control activity which could well have been interference of some sort. He asked me to have a look and sure enough, whilst everything worked ok, just occasionally we saw the elevators twitch to full up and the elevator and rudder surfaces go into a flutter (no ailerons fitted). Not continuous movement but just an occasional flexure. Thinking it could be the way the Tx was held I threatened to nail his hands to the bench, and taking the hint and kept his thumbs in clear view but the uncommanded movements continued.

What the devil was going on?

If there was outside interference then it was pretty strange in that the Pitt area is not the SW corner and other models were flying, so it was a safe bet that the cause lay in the model's equipment. We developed a series of checks to isolate the problem. The key observation here so far - all the controls worked properly, including the motor with just this be-damned intermittent twitch which was certainly severe enough to cause a crash. This made further airborne experimentation unwise and back home Stuart started to check the sundry components involved and as luck would have it (or exceptional intuitive skill as Stuart maintained) he took the ESC out of the circuit and wired up the Rx independently to just run the radio gear. The twitch vanished!

So the ESC became the suspect and was replaced, with so far, no repeat of the problem. A further series of checks with the replacement ESC confirmed this. Initially I dismissed the ESC as the source of the problem in that the disturbance remained even with the throttle closed. Although speed control circuits can be inherently noisy handling quite large currents it is unlikely with a closed throttle . This left the BEC (battery eliminator circuit) which is now fitted to almost all ESC's, being a switch mode power supply for the receiver and servos which as long as owners stick within the current limitations gives little trouble.

So - what can we gain from this? If you do get control flutter prior to take-off (or any time, if the model hasn't already self destructed) one check should be to remove the ESC from the circuit and either hot wire the rx with a separate battery, or take the easy way out and change the ESC to see what transpires.

And so another brick is removed from the wall of ignorance which notwithstanding still has good structural integrity!

Safe flying guys Nils

## **Around the hangar.**

It was pleasing to see Peter launch his big wing using the bungee launcher, which mean the back of Nil's is now safe.

I understand that Ray has bought a I-phone operated drone for his grandson!

## Barry's new model



**'1.5m Seagull ARF. Super Dave scale based on aircraft of Dave Matheson, aerobatic champion of Canada.**

**60 OS motor x 500kv, 100amp ESC and 6s/5000 lipo. 2200 NiMH flight pack.'**