Leek & Moorland Model Gliding Association

Web Sites: - http://lmmga.org
http://www.lmmga.co.uk/

Sept 2010

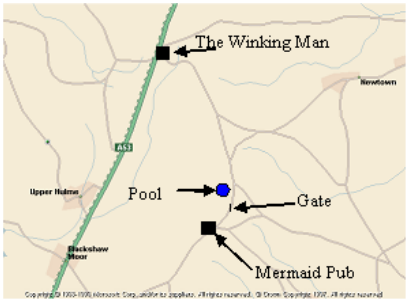
IN THIS MONTHS ISSUE

L&MMGA Annual General Meeting

Date…**Sunday 14th November**
(Remembrance Sunday)
Venue...**The Winking Man**
Time……**2 pm**

Agenda

Minutes
Officers Report
Election of Officers
Rubbish in trailer and box (gate)
Tag board ~2.4 gig (Missing)
AOB



Directions to The Winking Man from the Mermaid pool .

Meals are available from 12 noon

Please come along and have your say in how the club is run ~ See you there

Front Cover Centre; Phil Clarke with his Mongoose see page 18 ~~ (TL) Keith Rathbbone (TR) Julian Bayley (BL) Eric Parr (BR) Stuart Howell

[3] Don't worry! The ground will stop it!

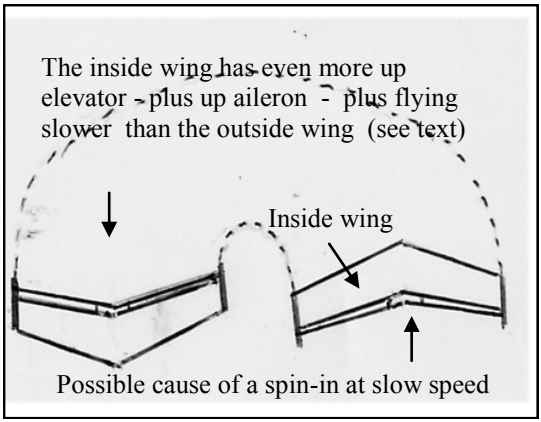
I've lost count of the number of times I've heard someone say "The bloody thing just spun in!" This is nearly always said with a degree of surprise that infers that someone else was responsible for decking their model or if not someone else, it must be that old favourite; a radio glitch.
I've been flying and watching gliders for most of my life and I know that some strange weather anomalies can occur and there are the odd radio problems that adversely affect our models. However, I've come to the conclusion that in 99% of these mysterious spin-ins; the villain of the peace is usually the guy with the transmitter in his hands. Mind you! There's always the odd exception of course, and that's when I'm holding the transmitter!....

One of the many types of models seen on the slopes that come under the heading of flying wings (Elevons)

Spin-ins can happen to all shapes and sizes of models but I think the models most prone to the dreaded spin-in is the flying wing (Halfpipe and Zagy ilk) These are the models with a single control surface that acts as both elevator and aileron 'Elevons' I've also noticed that this (mysterious?) spin-in happens mostly in poor lift conditions. This leads me to the question :> why flying wings and what has poor lift got to do with it? ~

First let me deal with the poor lift aspect.
The only time we know the model is in poor lift is when it starts to lose altitude. This is of no consequence if the model is all but touching the underside of some cumulus cloud. The only time it

is of concern is when the model is scraping along at ridge or below ridge height. Right? Now what do most of us do when our model is in this situation? Come on be honest!!



Possible cause of a spin-in at slow speed

We start to feed in up trim until the model is flying almost at the stall. This is in spite of all those clever guy with a fist full of aeronautical certificates from umpteen universities telling us that an aeroplane flying at an almost stalled attitude is not flying efficiently. In fact, they tell us that a plane in an almost stalled situation loses height much quicker than it would if it was being flown at neutral trim. ~ We never learn!

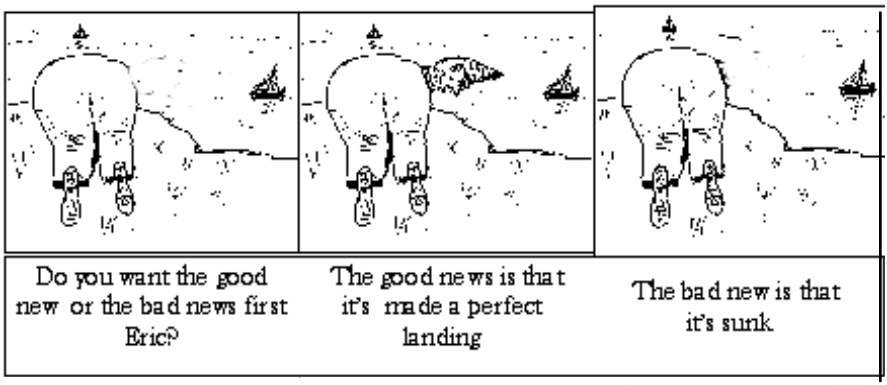

Dave Gains with his Halfpipe

Second; lets look what happens when our model is wallowing along the ridge in this almost stall state. When the model comes to the end of the ridge and has to make the turn to bring it back towards us. ~ What do we do? We tend to put a tad more up elevator in to keep the nose up during the turn and at the same time operate the ailerons to activate the turn.

Several things happen at this point to cause the model to be more prone to stalls;

1) The tad extra up on the elevator to keep the nose up reduces the model's speed even more.
2) The aileron movement puts even more up on the inside wing
3) The wing on the inside of the turn flier slower than the wing on the outside during the actual turn (see sketch)
The combination of all these factors is highly likely to cause the inside wing to go into a vicious stall before it as completed the turn.
These spin-ins usual happen at low altitude because models are rarely flown so close to the stall when they are at a safe height.
This is the reason why the majority of these type of stalls end up with a fetch. (not enough height to recover)
I suppose one saving grace is that most of these wings are made from EPP foam so their survival rate is good. *Ivan B*

From Left ~Ian Webb Ivan Bradbury Ian Buckley all with Pogo's



Andy Calvert sent this in ~ It shows a Gannet Soaring over a lake in Ireland ~ another reminder of how far we are behind mother nature when it comes to the art of soaring

Tom Ravenscroft

Ay You!

Don't you think its time you made a contribution to your newsletter?

Jump to and get something off to Ted ASAP

Please send your contributions to:
Ted Horton
1 Ridge Croft
Stone
ST15 8PN
e-mail: eghorton@talk21.com

1/3rd scale Duo Discus

Anthony (Ant) Jervis said that the Editor's appeal (June's Newsletter) had finally got to him; so, to help swell the pages of September's newsletter he's sent in details of his latest project.

It is a 1/3rd scale Duo Discus which is very nearly finished ~ it has a 6.7m wingspan, with a 34to 1 aspect ratio and is completely glassed and professionally sprayed. It weighs in at 38lbs, has all digi servos and 2x5000mhp lipos
Ant says the wing plan is unusual. It has a forward sweep that has 3 breaks in the leading edge, this puts the CG on the undercarriage doors which will make it difficult to hand launch and impossible to self launch. He says that ideally it should be aero-towed which he's not a great fan of preferring to get the slope wind blowing through his hair. (Come on Ant! It's not worth making an issue about the wind blowing through no more than half-a-dozen hairs)
At the time of writing he is waiting for a 2.4gh module and a RX ~ He says he is getting a little fed up with the waiting

Ant at the last scale event

From the pictures Ant, it looks great Ed

Model Glider Aero Tow

The 4th Scale Model Glider Aero Tow event will take place at the Derbyshire & Lancashire Gliding Club on **Monday 4th October 2010**. All welcome with gliders 1/4 scale and above.
Tug pilots also very welcome. Event starts at 09:30 till late afternoon. **Entry fee £6:00. Tug pilots free. Current Insurance documents required for inspection. No documents no flying.** We would prefer all radios to be operating on 2.4 gHz for safety. You can now purchase reliable 2.4 conversions for JR & Futaba etc including receivers for under £50! See Giant Cod website. Watch the video on Giant Cod the web site.
Andy Wagstaff/Rob Faulkner - Event Organisers

Best Wishes Andy Wagstaff

Have you lost your plastic peg-board tag? If so you can get a replacement by sending £1 to ⟶

Mr Keith Rathbone
36 Grangefields Biddulph
Stoke-on-Trent
ST8 7SA
01782 515128

The £1 also covers P&P

Losing the Plot? *By Derek Illsley*

Derek Illsley

Early in June I stood looking at the latest creation, a two metre long steerable dolly. It rested upon a nine foot long model box, unused except by the cat as its boudoir. The deep foam was no doubt the epitome of comfort for our feline entrepreneur and was noisily defended against any would be interlopers.

My mind went back fifty years or so to the legend on the Market Hall clock at Swadlincote. "Time the Avenger" were the words and I wondered whether, in common jargon of the present day I had finally lost the plot.

A fortnight earlier my much abused 4m electric glider had given up the ghost. It was a glorious sunny day, the model had made a perfect take off from its dilly and the blue and metallic finish glittered in the sky. It was in a gentle turn about a couple of hundred feet high when one wing raised itself in a farewell salute and the model emulated the vertical descent of a gunned down Stuka.

In late April or early May my Wren turbine had decided that it needed new bearings after about two hundred flights. Parsimony on my part had also resulted in some damage to a thirty year old glider. The drive battery had given plenty of warning that it was on its death bed and it packed in when about ten feet high after a hand launch.

This Dolly is a predecessor to the larger one mentioned in Derek's article

So, as I looked at the big dolly, I tried to assess the situation. The 6.5m electric glider should be OK on the dolly for flat field launching, it had been flown by Simon Cocker and the trim subsequently adjusted.
The Zagi was happy in winds from 10 to 20 mph and I had

a 2.5m floater. There was a small fun fly for calmish evenings and weekends and the turbine would have to wait.

In the short term I could cobble together a double delta which, if it could be persuaded to fly, should be good for over 100mph with electric power. It would also be capable of flying in near gale conditions on the slope. The memory of my deceased friend also meant that the thirteen year old glider should be repaired.

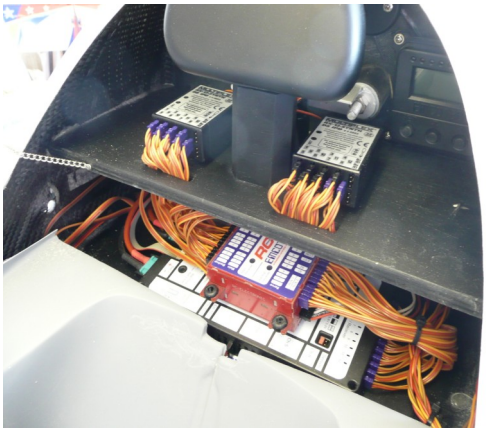
Simon Cocker

About a week later I went to the gate (Mermaid) because my wife had gone shopping at Manchester with my daughter, who lives in Holms Chapel. As ever, I thoroughly enjoyed the day, especially as a fairly healthily north westerly was blowing. Discursion and the sight of Simon's Pilatus soaring away crystallised my thoughts. Largish gliders flying in beautiful hilly country were what gave me the most pleasure. Modern technology in the form of Lipos allied to powerful out-runners are an added bonus since, amongst other things, they can get one out of trouble if needs be.

Simon's 1::3 scale DG 1000 Weighs in at 76lbs

Right, the next major project is a largish electric glider, but just how large is the question. Weight rises exponentially as the span increases and ones strength decreases with age. Something between six and seven metre span is likely to weigh around 35lbs. OK, at Leek and Moorlands where the necessary muscle is usually present but not if you are one of a pair well passed retirement age.
Logistics also come into the equation and powerful servos demand an opto-isolator with a big battery, cost and building time need to be conceded and there maybe bits and pieces in the workshop which can be reused.

My recent 4m machine weight nearly 15lbs but on 9 cells it only drew 1200w from the batteries. Perfectly adequate for reasonable performance but its predecessor of similar weight was something else. On one memorable occasion at the 2008 Chester Fly-in, its paddle wheel prop, with Ollie Wilt on the tranny, pulled over 2kw. A vertical climb rolling all the way up was what I had been after for three years.



Some of the wiring in the DG 1000

Stretching the 4m design to 4.5m and installing 12s batteries should give a maximum weight of 20lbs and 2.8kw to drive it. That power to weight ratio is in the same field as the Chester episode. I have a Hacker A60 14L which hasn't been used yet together with its 75amps controller. The Hacker will be driven at pat its recommended amperage but everything will be tested before commitment to the glider.

So, have I lost the plot? Well, it all depends upon what the plot is. If it is to have hours of entertainment at the least expense then have a Zagi or a similar type of foamie. £35 for the kit four years ago and endless hours of flying, the best value for money I've had from a model.

Derek's 21 footer

If the plot is for tranquil relaxation in calmish weather then an electrified light weight glider could be the answer. Something around 7 to 8 feet span, which can easily be hand launched and which could fly in still air for a possible 45 minutes. With a light breeze of about 5mph they should also float around on a good slope.

For the would-be F1 racing driver there is a whole plethora of RTFs from 1.5m to 3m. Not much chance of being left out in the cold and losing the plot there. Scale gliders and sailplanes come in all shapes and sizes and have a large following. Most are elegant in flight and a friend flies a couple of 4m examples several times a week if the weather is anything like reasonable. One of the really big scale jobs plus all the gear etc. can represent an investment of £10,000 or so might make the flier wonder whether he had got something slightly wrong, but, in the sailplane field such giants are not particularly common.

This is the box Derek used to bring his 21 footer to the 2008 scale event. It has since been modified

Now, six weeks after looking askance at the 2m dolly, the worktop has been cleared and a start made on the 4.5m model. Second thoughts about the power though, my Holy Grail for four years has been 400w/kg with a model weight of, say 8kg that means 3,200 w with 12 cells, that's 80amps and too much over the 15 seconds burst capacity of the Hacker A60 14L. The unused controller would also cut out at 75A.

It's losing the plot time and there are three choices. Do I go for the four year dream and have a sailplane capable of prop-hanging? This means yet another electric motor and a 100w controller. The second choice is to go for a performer which my existing kit can safely give and the third is to opt for a Chris Williams glider.

Be dammed to it, I'll go the whole hog! The present 6.6m glider has a 6kw

Derek with his new 7foot dolly and his 'Double Delta' slope soaring model

motor but is constrained by a 100w controller so that the 100w controller will be replaced by one capable of 150w to give a power on 12 cells of 6kw to match the motor.
The glider will then have a power weight ratio of nearly 400w/kg and the proposed 4.5m machine will have its 100A controller. A new more powerful motor of a different make will be needed. As the old Pharaohs said "So let it be written, so let it be done". ~~~~~

I've noticed that over the last 12 months, both the trailer, (the one that the wall builders left behind when they repaired the wall) and the metal box by the gate are filling up with rubbish. I suspect that some of it is caused by random parkers and not modellers. However, it reflects on the modellers with us using the site so often. Please make sure you take all your own rubbish home with you. Thanks

July at the Gate:> Dave Wheeler with a concentrated look as he thumbs out a text ~ Not sure whether his thumbs are more adept at sending texts or twiddling tranny sticks ~ On second thoughts, stick to texting Dave!

Julian Bayley's impressive
Micro size RC plane
Flies really well
even in strong winds
The wing was originally a
tailplane

Is this a spot landing challenge set by Wayne Haycock or as someone cracked a joke?

FFF Comp Results 25/07/2010

There was a really good turn out of both competition flyers and sport flyers at the Gate site, in a good 15 - 20 mph North westerly

1st Mark Ollier (Sting)
2nd Scot Ravenscroft (Wizard F3F)
3rd Ian Webb (Mini Dragon)
4th Julian Bailey (Pace)
5th John Day (Storm)
6th Simon Cocker
7th Ivan (Foamies)
8th Ron (Foamie)
9th Keith (Foamie)

Fastest time of the Day -
Mark Ollier (Sting) 44.17

Mark Ollier
Didn't see it myself but there was talk of money changing hands

Could he be the LMMGA's Dick Dastardly

The Dreaded Black Wire Syndrome

There have been countless articles/reports written in magazines and more recently on the internet about black wire syndrome. The first time I came across this was sometime in the early 1960s when I tried to re-solder a plug to the end of a negative wire attached to an oldish NiCad. No matter how much I scrapes the darkish wire to remove what I thought was a touch of oxide, or how much flux I applied to the wire, it would not accept the solder (I couldn't tin the wire) Since then, I have seen some negative wires on batteries range from slightly discoloured to so badly corroded that it could be crumble if rubbed between the thumb and finger

What is Black Wire Syndrome? (This for those newer members who haven't yet heard of it) It is something that affects a battery's negative wire causing it to discolour, go high resistance and in extreme cases turn brittle and crumbly.
Why Black Wire? Because it only affects the negative wire (Never positive) and, the insulation on all or most negative wires were originally black in colour; hence, black wire.

Over the succeeding years I have read all manner of reasons why the negative wire from a battery has this problem. The only one I've not heard mentioned yet is that it's some cunning plot specially thought up by aliens in order to prevent modellers from using rechargeable batteries. (I think I'll suggest this as a possible cause on some forum ~ it should get 'em going)

I won't bore the pants off you by relating some of the alleged causes I've read and heard about black wire other than to say that they have ranged from the highly technical and plausible, to the absurd. It seems that every man and his dog who has come across black wire has an opinion as to the possible cause.

These modellers are a bloody racist lot Ethel; they're on about Black Wire again

What can we do about it? There is NO cure for Black Wire! The only thing to do if you find it is to bin it! (And be ruthless) Black wire if left can migrate from the

battery, through the switch harness and eventually to the receiver.
Can we prevent it? Well to be honest I'm not sure. I have had comparatively new batteries suffer from it (12 months to two years old) and yet, I've had batteries for many many years that have not shown any sign of it. However, when you've been modelling for as long as I have, and talked to so many modellers, (from all over the country I may add) you'd be an unusual hombre if you hadn't formed some kind of opinion as to what caused black wire or more to the point, what helps to prevent it.

My two pennyworth on prevention for what it's worth::
I've never had black wire effect batteries that have been in constant use no matter how long I've had the battery. On these long serving batteries, the battery has become suspect before any onset of black wire was noticed.
Batteries that have been taken out of models prior to being put in storage, (waiting for repair or some other reason) have never been affected. On the other hand, the only batteries that have been affected have been batteries that I've left in models which have been stored in the garage, garden shed or the attic.

Conclusion::
Models that are kept in outside buildings or attics are usually in long term storage.
The range of temperature and humidity over a year in outbuildings can be extreme when compared with the atmosphere inside the house. And, out of sight out of mind tends to mean that batteries kept in models that are stored in outbuildings are forgotten and are left to slowly discharge to an un-healthy state.

My opinion is that it is one or a combination of these conditions that causes black wire syndrome. Therefore, I would suggest that you should remove the battery from a model that's not in use and store the battery in the house, and, recharge it from time to time.
However, its worth remembering that when you compare the price of a battery with the price of a model it's not worth taking a chance. .A suspect battery or switch harness should be replaced ASAP

Ivan B

PS:>
If you think that Black Wire Syndrome is a thing of the past and wont affect you; this Blogg was sent to our new web site www.lmmga.org by Dave Gains on the 13th July this year

Check those Battery Wires
I nearly had a major disaster flying my Mini Dragon off the Orme the

other week. After flying at the usual break neck speed around the cliff top. I took her up to dotsville whilst I had a chat with one of the locals. All of a sudden I had NO control. All I could do was watch it steadily spiral down picking up speed as she came down. It came banking in at high speed over the landing zone and I knew it was going to end badly. At about 2 metres high it suddenly shook itself and I regained control. This was followed by a rapid landing and it was packed up in the car whilst I had a cup of tea to calm down.

Dave Gains

The subsequent investigation revealed the battery black wire had turned to dust and it fell apart in my fingers. I have read about this problem but I always wondered how I could check for this. I now know that it would have been obvious if I had visually inspected it or gently pulled it.
I recommend that if your model has been tucked away for a while give those black wires a quick inspection.
I did do the lottery that night but I think I had used up all my luck

Please use the peg board and tags

I suppose it seems pointless for guys with 2.4 GHz having to put a frequency tag on the peg-board.
Nevertheless, the reason the club chose to adopt a peg on the board system was for two reasons

1. To prevent a mix-up of frequencies (Not a concern of 2.4GHz)
2. To show at a glance that the flier is a current member and therefore has BMFA cover (Name and date are on the tag and members have to have BMFA cover to receive the membership card and tag

This saves the safety officer the embarrassment of asking someone he doesn't recognise if he is a member of the club or to show evidence of their insurance .

Remember everyone is an acting safety officer and it is in everyone's interest to fly safely and if the worst does happen to have third party insurance

2.4 tags can be put on the row of colours at the bottom of the peg-board

Ivan, (Re model on front cover Ed)
The model in question is called 'Mongoose', designed as a 'Club 20' racer by a guy named Alec Delgardo in the late seventies/early eighties. Plan is advertised in 'Model Aircraft Plans Book 1992/93' (which Rex Collier kindly passed over to me sometime last year) and may still be obtainable. Jonathan and myself both built one and they were powered by bog-standard OS 20 glow motors. Don't know what happened to his but he did fly it under power at Hucknall before he defected to the USA. I never did fly mine under power so a couple of years back I converted it to a 'sloper' and the accompanying pictures are witness to it's one and only outing. A bit reminiscent of the 'Mustang' when airborne - must bring it up to the slope again sometime.
Phil.

This looks like a cheek clenching moment for Phil

Scale weekend

This is a limited report because I made two misjudgements over the scale weekend. I only went up to watch and take a few photographs on the Saturday. I arrived just before a downpour around dinner time. After an hour or so it stopped raining but a thick clag had descended on the hill and it looked to me as though it was set for the day so I called it a day and went home. Big mistake! It cleared and some great flying took place for the rest of the day

Ivan launching Phil's Mongoose

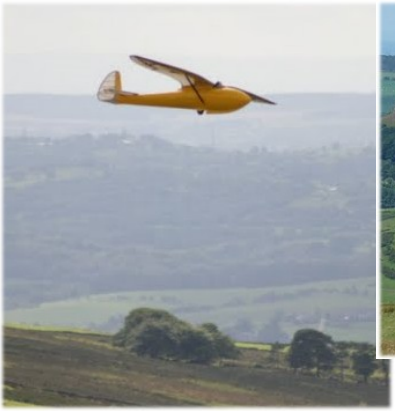
On Sunday the forecast was for little or no wind, At home, there wasn't even a gnat's fart so I thought it wasn't worth while going up to the slope. With my experience I should have known better. Mediocre lift in the morning but good flying during the afternoon

Other than a mid-air on Saturday afternoon, there was some good uneventful flying over the weekend. Robbie Bridson model was judged the best vintage model. John Watkins was judged the best landing and Simon Cocker for the longest duration

Some of the pilots and models at this years scale event

Nigel Brewer launching his 'Windrider Fox' a 66" span EPP model with rudder elevator ailerons and spoilers for landing

John Watkins beautiful finished Skylark II



A few of the pictures taken at this years scale event