

Leek & Moorland Model Gliding Association

Web Sites: - <http://lmmga.org>

<http://www.lmmga.co.uk/>

Sept 2012



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L&MMGA Annual General Meeting

Date...**Sunday 11th November**

(Remembrance Sunday)

Venue...**The Winking Man**

Time.....**2 pm**

Agenda

Minutes

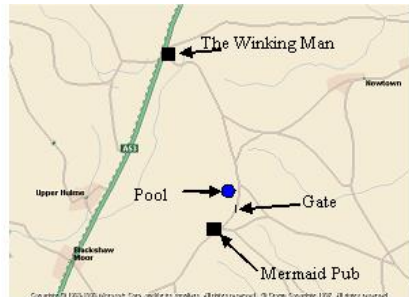
Officers Report

Election of Officers

Cost of Newsletter

Rubbish around site and in bin

AOB



Directions to The Winking Man
from the Mermaid pool .

Meals are available from 12 noon

**Please come along and have your say. What type of club do
you want and what changes if any would you like to make?**

See you there!!

Front Cover

Brian Lee's 108" span 'Bird of Time' It was designed by glider guru Dave Thornburg in the early 1970's for F3B competition

The wing shape makes it an unmistakeable silhouette in the sky



This is Dave Gains with his Schwalbe (swallow)

It was on the front cover of June's Newsletter

The full size gullwing has a 16m span and was made in Austria around 1938 .

The model has a wingspan of 2.64m 104"

Below is a bit of the models history supplied by Dave

Hi Ivan

I'm sure that you have seen me with this model. If not, I intend bringing it to the scale competitions. If you look on the internet there is some history and flying reports of the original, of which there were only two or three built. It is a nice looker. I fell for it as soon as I saw it. There are more flying shots of it on our web site under 'Dave Gains pics 2'. It was built from scratch by a bloke who used to fly at the Long Mynd, so this is a one off. Unfortunately he has died and the model was passed on to a friend of mine in Stafford who is the chap who started this forum, Malcolm. He sold the model on and eventually after a few other owners I managed to get my hands on it. Malcolm later regretted it and he wanted to buy it back. After that failed he found the original plans and decided to build another one. This is when he started this forum and I sent him the photos to assist. I also took the model round to his house for him to have a detailed look. He took lots of photos and made lots of requests on the forums but then all of a sudden he gave up modelling and sold up! I think he now spends his time clay pigeon shooting.

A Labour of love

You're standing on the slope with your brand new un-flown model poised ready for the off ~ another quick check to see that everything is working OK, the third time in as many minutes ~ can't delay the launch any longer ~ a couple of guys have got their beady eyes on you ready to shed their crocodile tears and give their smiling condolences if the dreaded happens ~ no pressure ~ one big heave and up it goes as straight as an arrow. Bloody Great!!!

After five minutes the adrenaline level has dropped to somewhere close to normal and you're just starting to enjoy the flying when ~ Bang!! A mid-air. This is what happened to Pat Kennelly's 2M all moulded Whisper towards the end of 2011.

Standing there, I almost felt as gutted as Pat. Pat doesn't like building models and even putting the radio gear in the Whisper had been a first for him. I felt so dreadful about his appalling luck that I volunteered to have a go at repairing it. It was either that or a new wing (they don't sell separate panels) so what was there to lose?

I know I've recently done a fibreglass project in the June's newsletter about Stuart Howard's Spinner but I'm sure that if I show how I tackled this repair it will be much more relevant to members than Howard's large spinner was' after all, a damaged wing on a mouldie is something that can happen to any of us. This was the first time I'd tackled this type of repair so it was going to be a bit of a



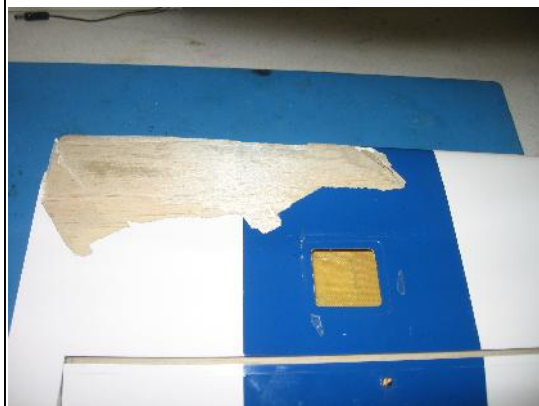
Pat's model after the repair

learning curve for me and I thought that if I logged it as I went along, it would give some of the would be DIY guys in the club some tips on what to do but more likely what not to do .

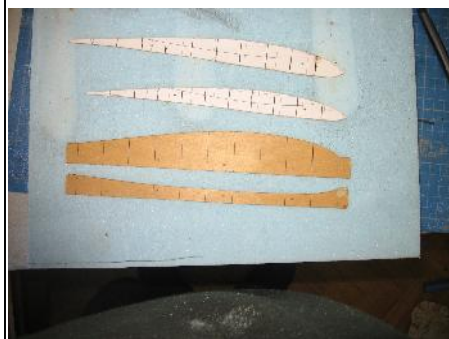


The top picture shows the starting point after I'd removed all the mangled outer top skin

The root rib was fracture and had broken off and there was a slight cracking in the balsa wood under the glass that extended further down the wing. (difficult to see in this shot) The microballoons and resin mix that had attached the outer skins to the main spar had sprung lose and needed to be re-attached



The middle picture shows that there was less damaged to the under surface. Pat had removed some of the glass finish leaving a somewhat roughened balsa



I'd already decided to use a foam inner core section to support the two outer skins. ~ The bottom picture shows two types of plywood wing sections used as formers to hot wire cut the foam.

The bottom pair make up just one section ~ I've found that using this type of former is a far more accurate method of cutting foam wings



This shows the foam core glued in place and the 1/16'' sheet balsa capping coated in a latex glue (like Copydex) Anyone needing any amount of this type of glue would be well advised to get it from a carpet fitter ~ same stuff as Copydex but MUCH CHEAPER than the small bottles from B&Q .(This is a water based contact adhesive ~ the two surface are coated and aloud to dry) I've slid the foam further down the wing under the cracked outer skins (about an inch) this to strengthen and support to the cracked balsa/glass skin
 Note: The plywood support root rib is now glued in place ~ Just needs skinning with balsa



The balsa capping piece is fixed ~ The leading edge of the foam core has been sanded square and a quarter square piece of balsa glued with PVA to form a leading edge, this was held tightly in place with masking tap I used the bottom outer foam shells (that I'd cut the foam core from) to line the whole thing up while the glue set



Roughing down the leading edge with a David Razor Plane and then sand to the correct matching radius

I find the David plane an excellent tool for trimming Balsa wood down to size



There's always a few cracks and hollows to fill in on a job like this ~ Some guys use a commercial car body filler which is usually easy to sand

I used a stiff mix of epoxy resin and microballoons ~ even with plenty of balloons added it tends to flow (self levelling) and balloons make the resin easier to sands down



After sanding down with a sanding block (600grit) I cut a single piece of surface cloth (95gm/sq metre) that would lap round the LE to cover both top and bottom skins
This was then trimmed carefully to allow about 1/2 inch of overlap onto the existing finished glass skin.

It was then wetted out with epoxy resin ~ The epoxy resin

I used throughout this job was the sort that takes about 24 hours to harden off at room temperature.



Big mistake at this stage

When Ian Webb and I had a spell of glass skinning foam core balsa veneered wings, we found that if we lined the foam shells with a sheet of plastic (.05 mm thick) and then placed the glass wing and shells into a vac-bag, the resin in the cloth would be squeezed through the cloth to the surface giving a finish equal to a bought glass plane.

I thought that if I stretched a piece of thick plastic from a shopping bag over the fibreglass I would get a similar finish . I got the finish OK but I was unable to stretch all the wrinkles out of the plastic, resulting in a number of resin wrinkles in the finish . Took over half an hour of careful sanding to get them all out.

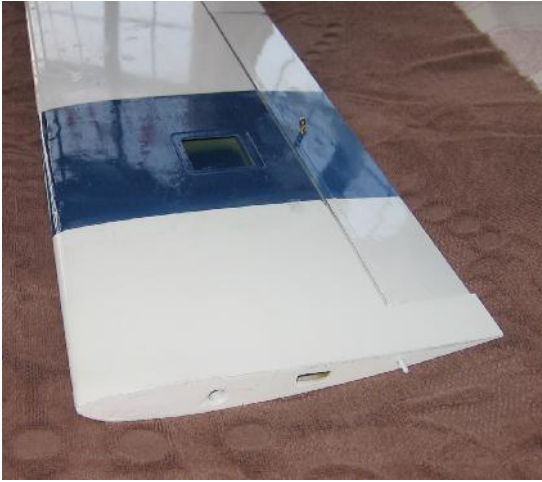


The glass has been sanded with 600 wet and dry ~ I used a rubber sanding block for this ~ Then a mist spray of white primer ~ This is again sanded down to show up any high/low spots ~ these can be filled and sanded if necessary and primed again

The photo show the wing just before the final coat of primer



The top surface of the wing all primed up ~ I only masked up the ailerons because they were OK. ~ I then placed a loose piece of paper across the wing as a partial masking (Not taped to the wing) this was done so that I would get a feathered edge between the old and new instead of a thickish straight line



Two coats of finish sanded with 1000 grit wet and dry between coats ~ Job done!! The only advice I can give about spraying from one of these aerosol tins is:: shake the can really well before use ~ put the tin in a bowl of hot water for a few minutes before spraying ~ this increases the pressure in the tin and I think you get a finer spray ~ hold the tin about 6" to 8" from the work and spray a thin coat in sweeping strokes across the wing (I spray in the same direction on these smaller patches) ~most problems are caused by putting too much on in one go or spraying from a stationary tin in an attempt to touch a spot up (resulting in thick patches/runs)

I wouldn't advice using ordinary masking tape to mask off between different colours, you will get creep. You can get the real McCoy from a car accessory shop ~ Alternatively, if you spray a light coat of the same colour as that under the masking tape first it will seal the edge of the tape and you shouldn't get any creep.



← Neil Barnett with his expensive specs

→ Tweedel Dum and Tweedel Dee sheltering from the rain at the pool



Designed

to Fail?

I suppose there are several reasons why we choose to buy a particular model.~ We may choose it because we like its looks :~ We liked the way it performs :~ Maybe a friend has recommended it to us or perhaps it's the result of reading a review..

I bet there's one thing that few of us ever think about before we make the purchase and that is:: *Will it stand up to the normal wear and tear models are subjected to on the type of moorland sites slopesoarers fly on*

What do I mean by 'normal wear and tear' ? I mean those good landing approaches where the model sometimes comes to an abrupt halt against a tuft of grass or when a wingtip catching a thistle or patch of reeds and skew round on touchdown. I say this because on the sort of sites slopesoarers fly on, ~ rough undulating ground with reeds beds, thistles and molehills etc, ~ this sort of thing happens to us all regardless of skill. If models that are predominately designed for hill soaring won't stand up to these landings, are the 'Fit for Purpose' ??



Cary Furnival's Tomcat ~ one of RCRCM's models Cracking performer, Its fast and capable of doing crisp manoeuvres'~ Since this photo was taken the fuselage has been broken both in front and behind the wing ~ It's repaired now



The Tomcat's fuselage repaired with carbon tow ready to be sanded down and sprayed

Over the last twelve months or so I've seen several glass fuselages'

damaged on what to me appeared to be a reasonably good landing. I'd always put this down to bad luck but after Sunday 13th of May, when I saw four fibreglass fuselages damaged with only one of them rating a mild to heavy landing, I began to think that Lady Luck had little to do with it. What raised this doubt in my mind was the fact that although there were several glass models flying that day all the damaged models were made in the same country and by the same manufacturer ~ The country, China ~ The manufacturer, RCRCM



Neil Barnett with his pristine Typhoon before it bit the dust ~ This was a heavy arrival. One you wouldn't expect to get away with. No blame on RCRCM for this

It's flying again now ~ Good repair Neil

I subscribe to a slope soaring forum, so, I took the opportunity to ask a question that had been bugging me for a while and I thought that if I involved a larger group than just the guys I fly with on the Leek slopes, I would get a much wider cross-section of opinions.

This was my question:: Over the last couple of years I've seen a significant increase in the number of glass fuselages that have been damaged from what to me looked like a reasonable landing. Have the guys on the slopes I fly on had a run of bad luck or are some of today's fibreglass models not fit for purpose?

Note:: I deliberately didn't mention the names of the models nor the manufacturer because I didn't want to lead opinions.

There were almost 140 replies but as with any forum you have to

sort out the chaff from the wheat. Nevertheless one thing was abundantly clear. Although RCRCM models scored well in both looks and performance, they were almost unanimously voted top of the 'Crap Fuselage League'.

A term like 'eggshell fuselage' was a common description. Most of those who had bought RCRCM models said they'd suffered from broken and fractured fuselages shortly after purchasing them. One guy who had worked closely with

RCRCM and has designed several of their current models said that RCRCM were quite aware of the problem because he had discussed this issue at length with them. He said that this built in weakness was a deliberate decision on their part because selling replacement fuselages was a good money spinner. (He no longer is associated with them)

There were a few who said that RCRCM models were at the cheap end of the market inferring that anyone buying them shouldn't expect anything other than shoddy goods. ~

Now I admit that when you do the price comparison, ~ RCRCM models versus those all carbon high performance models, ~ they are markedly cheaper, but, I paid £320 for my last glass model (which was a RCRCM model) and I like many other modellers am not in the same financial group as those well-heeled affluent band who can refer to 320 notes as if it was a bit of loose change. In any case, how many of the guys who do invest in models costing up to and sometimes above a grand have landings in mind when they buy their model? I've never met one yet!! All they are bothered about is how well the plane looks/performs in the air. These costly models are usually all carbon and primarily deigned to cope with



Three Vectors 3's ~ Two have now got repaired fuselages



A Mini Vector Fuz repaired in front and behind the wing

very high speeds stresses during say dynamic soaring or the rigors of f3f events. The fact that they are stronger than the average glass job and therefore can cope with the odd rough landing better is an added bonus.

The vast majority of slopesoarers either fly on their own or with the same small group of friends. This means that most of the information about new models and equipment is either got from magazines or the internet. If you are one of the guys who rely on the current crop of magazines for this information assuming their articles and reviews have readers' interests at heart and always give honest opinions warts and all ~ mmmmm, well they must have changed since I last read one.

Passing information on is the reason I'm writing this article. It's not simply to lambast RCRCM, more to inform club members about what I've seen, read and heard over the last couple of years. Maybe reading this will at least make you aware that there are models out there that are not kosher; this hopefully before you off-loading a shed full of your hard earned money,

I know the quality control of several Eastern European manufacturers has also left something to be desired at times but if one manufacturer's name is singled out by many fellow modellers for manufacturing many of these 'Eggshells' it's something you should be mindful of.

Anyone who has been at this game long enough is under no illusion that there are only two types of models ~ "Those already in the skip and those in waiting" ~ Nevertheless, before the inevitable happens we all hope/expect to get value for our money. This means that the model should perform as promised in any blurb, and with luck, it will clock up a few flying hours before it sees the inside of that skip. We can't possibly hope to achieve this if we're playing

against a stacked deck

There's no excuse for producing fragile glass models. With modern resins and the right fibreglass techniques the difference in producing good quality models as opposed to these 'eggshells' can be done with only a little extra cost in time, materials and price when done during the manufacturing stage and it wouldn't affect the performance one jot. A lot of nonsense is talked about keeping models ultra light. This shouldn't be used as an excuse for shoddy work.

Like I've said; the RCRCM models I've seen look and perform

extremely well and they are very competitively priced ~ a winning formula. ~ So, it is unlikely that my decision not to buy another RCRCM model until they get their act together will affect their strategy one iota. However, maybe if all the guys who have experienced a "*Run of bad luck with RCRCM Models*" drop them an email letting them know their feelings on the 'eggshells' they are producing, who knows, I might be in the market for another model with a RCRCM sticker on it sooner than I think.



Can happen to the best of models ~ Scott's heavily ballasted model came in vertical from a 'Dot' ~ If you look carefully onto the hole you can just about see the end of the ballast tube. This is an arms length down~ The point of the nose was estimated to be close to a meter deep and this wasn't in soft soil.

Frightening 'ain't it

The Two Day Scale Weekend

Sat Sun 18th 19th Aug

. Not the best of weekends as far as the weather and wind was concerned. On Saturday, the lightish wind couldn't make its mind up whether to blow from the south or southwest leaving Ant Jervis, the event's organiser, with a quandary. Do we stay at the Mermaid pool site or move to Edgetop?

Eventually, most of the non scale fliers moved to Edgetop leaving the pools site for the scale models; a wise move considering the marginal lift conditions. It turned out that both sites were flyable. During the afternoon session conditions at the pool improved significantly and some good flying took place.

Sunday turned out to be a complete washout. The forecast was so bad I decided to stop at home and increase my stock of brownie points to pay for future slope visits. I emailed Ant to ask him how Sunday's flying turned out, this was his reply....



When there's no flying taking place at the pool it gives the visitors a chance to sit down and do a bit of Mermaid spotting in the famous Pool

Hi Ivan, unfortunately nothing to report about Sunday, it was a complete washout, but Saturday was excellent. The wind was full on South and it was decided that we move to Edge Top. A few said that they would wait until other friends arrived before moving so they began to fly and one by one the others also decided to fly even though the lift

was not booming. This move (or not) made the day because as you know the sports flyers went to Edge Top and the scalies stayed at the Mermaid. During the day there must have been between 25-30 scale gliders ranging from my SGU1-7 circa 1938 right up to a DG



Colin

808, even the Colditz Cock managed a flight. People from all over attended... Newcastle on Tyne, Oxford, Kendal, Lincoln to name but a few and everybody had a great time. As usual a few onlookers came to see what all the fuss was about including the world wide wedding party from the Mermaid self catering establishment, they really enjoyed the site and what we were about..again the skinny dippers made a showing... not my cup of tea that ! All in all a great day which set the scene for Sunday. The forecast gave low SW winds with some sunshine. It drifted East with rain and by dinner tome it had swung SW so we moved to the Pond site to be greeted by the most unusual cloud formation I



Paul Jubb

have ever seen...
 zero visibility and
 wet. Much banter
 was had and
 eventually we
 made our
 separate ways.
 Even though we
 only flew on
 Saturday, there
 was a lot of flying
 with a wide range
 of scale gliders
 and many new



From Left:: Billy a newcomer to the hobby from Blurton. Not sure who the guy is sitting down is but he comes from Newcastle upon Tyne and was there both days. Malcolm Holmes is standing with Ant, He turned up on Sunday all the way from Kendal with his friend Bill Martindale ~ Pity about Sunday's weather..

faces, I can only say that it was a great success and again it



has put the LMMGA on the
 map..can't wait for next year.

Ant.

Colin flew this unusual 1/4 scale model
 of a Genesis . It was its maiden flight.

Paul Jubb's Swift took to the
 sky several times on the
 Saturday



Converting to 2.4 GHz

By Rob Faulkner

History

The thought of converting ALL my models over to 2.4 GHz gave my wallet a very nasty turn....

But then, the thought of stuffing my favourite £500 mouldie due to some other b*gg*er's stupidity frightened me even more so the stage was set ~ but where to start ?

I really did not want to buy even one let alone several new transmitters ~ I can just about program my Futaba FF8 and have even got close to programming my FF9 so I did not want to start all over again (not at my age !).

The answer is that there are 2.4 GHz modules available to plug in to your Futaba Tx in place of the 35 MHz module which means that (a) you don't have to re-program all your models and (b) you can continue to operate some models on 35 MHz and others on 2.4 GHz as long as you remember to change the module and the model memory (always a challenge at the best of times....).

So following advice from fellow modellers (always a risk because you don't know who may be winding you up) I bought the FrSky Tx module (about £20) and 8 channel Rx (about £17) which operate on the ACCST system. I also bought a Blade Mx mini helicopter then found out that it operates on the Spektrum DSM2 system so I had to buy another 2.4 GHz module so that I could fly it with my FF9.

You can see which way this is going, can't you ???

Then I saw some lovely micro 2.4 GHz receivers (TFR6) which were only about £11 (too good to be true ?) so I bought three ~ then found out that they were operating on the FASST system.

There may well be yet more incompatible systems but I haven't managed to buy them yet !

Pros and Cons

1. Futaba FASST. The Tx is very high quality but moderately expensive ~ especially if you have a perfectly good existing Tx. The 2.4 GHz plug in module is expensive at about £105 from Steve Webb and about £60 if you

know somebody who visits Hong Kong. Even on eBay they are expensive and you don't know where they have been.

However, you remember that I am now the proud owner of 3 FASST receivers? so I bought a nearly new Futaba 6EX-2.4 GHz Tx for about £40 on eBay. A bit restricted on functions but it has 6 channels, elevon, V tail, and flaperon mixing plus two more programmable mixers so you could probably fly a 4 servo wing ~ but with light weight receivers I shall use it for foamies and parkflyers.

Spektrum DSM2.

I seem to remember paying about £60 for the module but current prices seem to be around the £100 mark which is a pity because there are lots of DSM2 receivers (AR600, etc) on eBay at reasonable prices (about £10 to £15). Very small and light but you might want to use these for foamies.

3..FrSky ACCST.

My system of choice because (a) their prices are extremely good and I have never had any problems and (b) the service at both Giant Cod and T9HobbySport is excellent ~ I reckon Mike at GC sends them out before I even place my orders !

Tx plug in module DFT = £21.06, 8 channel Rx D8R-II = £21.47 at Giant Cod <http://www.giantshawk.co.uk>

Might be even cheaper at T9HobbySport <http://www.t9hobbysport.com/>

I reckon that these are so reasonable that I don't even bother with eBay ~ there usually aren't any on there anyway.

Telemetry

The coming thing but perhaps subject of another article. The Tx module and Rx from FrSky above are both telemetry capable ~ same price as non-telemetry (which seem to be going out of production anyway). However, you need to add several bits and pieces on both the Tx and the Rx ~ screen, hub, sensors, etc which adds to the cost and so far I have got it working but I am not sure how to interpret it ~ it is not straightforward (to me !). It would be nice to know what my Rx battery voltage is, and there is a variometer sensor which has to be cheaper than the Piccolario (at £200 plus).

But, once again, there are several different systems and prices and I know that Ian Webb and Scott Ravenscroft are also playing with this technology....

Watch this space !



Yours truly explaining the principle of controlled flight to a charming group of ladies from Elkstone. Unlike some of the friends I regularly fly with, they seemed to hang on to every word I said and I wasn't interrupted once neither was I asked any questions at the end of my summery. This either showed a level of intelligence I'm not use to on the slopes or; my little chat was unbelievably simple to understand



How many times have I got to tell you that the Big Wing goes at the front and the Little Wing goes at the back? By the way! Only an idiot puts the fin on the bottom of the fuz And! what on earth is that thing sticking out at the back? See full report on the Velivole next issue