# Leek & Moorland Model Gliding Association

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

*Dec 2012*

# In This Months Issue



Keith Rathbone has ordered some badges for the club There are two types suitable for blazers and flying suits; one can be ironed on the other is sewn on. Both of these are 75x75mm (see photograph on the left

There's also a hard enamel metal badge suitable for hats and lapels etc. This is fastened with a pin and rear stud similar to a ladies earring . It has a diameter of 25mm

All types are **£3.50** each

To order one contact Keith at 01782 515128

or email keithrathbone@msn.com

Would you please take all your rubbish home with you including any bits off broken models. It's not only unsightly, it can be a danger to animals.

And please don't put rubbish in the box by the gate.

Thank You

Front Cover

Gary Furnival with his D40 ~

It looks as though today's score is

Gary - - - nil-points Weather - - - 10 points

A Belated report on the

# Fly for Fun comp

Sunday the 24th June saw winds gusting in access of 30 - mph. This made this years Fly for Fun a little challenging particularly for the foamies
A bit of daring flying by Mark O Conner in the limbo got him voted 'Top Gun' . Neil Barnett and Gary Furnival came in at an honourable joint second.

As usual with all the Fly for Fun Comps, there were more laughs than good flying

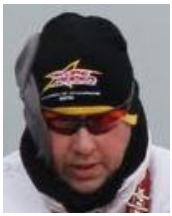
Mark can be seem second from left in front of Gary Furnival .

I've been told, by a very reliable source that Mark O'Conner has been chosen to play **'Marina'.** (the leading part in a new series of Stingray) which will be performed **in the Mermaid pool** early spring of 2013
Dave Gains will play **Captain Troy Tempest**, and Garry Furnival ( an obvious choice for this part) will play **Oink** the seal from the Supermarionation , .

# September's F3F Event

The last of this year's competitions

Despite a good blow being dead square on at Elkstones, and, a weather forecast that promised no rain until late afternoon, only four competitors had turned up by the scheduled start time. Eventually, ¾ of an hour later, Mark Ollier (Comp Sec.) decided to call the competition off because there weren't enough fliers to make it a viable event. Pity because the lift was stunning.
Just as I was going back to the car for a bite of something to eat and a slurp of warm coffee the number of fliers on the slope had increased by one.
I know the weather has been appalling this year, but having said that, I've noticed that over the last few years the number of members attending club competitions has been slowly falling off, the exception being the 'Fly for Fun' events
There are probably several reasons for this but I think one of them is that over the last decade, some model manufacturers have been designing models for a specific event (e.g. Dynamic soaring – F3F competitions) This means that anyone who owns one of these more specialised models, which incidentally are usually at the top end of the price range, has a marked advantage over the more general purpose model that most club members fly. This makes quite a few members feel that they're only turning out just to make numbers up.
It will be interesting to see what thoughts members have if the falling attendance at club competitions is discussed at this year's AGM

These are the four keenos who turned out


Ivan,
Am enclosing a brief summary of last winter's project. I know it isn't a glider but thought you might be interested and welcome a little help towards the club magazine.
This design appeared in the Aero modeller sometime during 1946 (I was only 14 years old then – how time flies when you're having fun). Have always been interested in the unorthodox and when I came across the plan whilst browsing the plans lists on the internet, I remembered it and thought I would have a go . If you want to relive your childhood, then go to SAM 1066 and view their monthly mag.called 'The Clarion'. In fact , in a very recent issue, they included the actual 'Velivole' plan but, as you will see, I had already built and flown mine.

The original was, of course, rubber powered but with today's micro-technology you don't have to chase them or even wind them up so this

version is electric powered and guided with very small 2.4Ghz. radio. I happened to have almost everything needed to complete the model, i.e. a tiny Feigao1208430 S (for short) in runner motor and also a GWS 5.6:1 ratio gearbox,which, with a APC 7x4 prop, consumes just 1.8 amps. The only purchase required was a suitable lightweight speed controller.More than 2.0 amps and you would harm the motor, so I thought I might just get away with it.

The model spans just 32”and being a canard the foreplane is also loadbearing. Radio is a 4-channel FrSky 2.4 GHz Rx. with a couple of 6gm. Towerpro servos – all from HobbyKing.. Battery is a 2-cell 360mah LiPo. Total Flying weight is 6.8 oz.

I found building such a small model a bit taxing – I used to have quite nimble fingers but now they feel more like pork sausages!

I tried to get the correct C.G position by locating the servos in the appropriate bay of the fuselage but they ought to have been another bay rearwards. To compensate, I changed the streamlined K.K wheels for some home-made super light ones and I also managed to move the receiver rearwards just one bay.

.

Early flights showed that the c.g was indeed too far forward since it required all available up trim to just maintain level flight.Pulling the stick back even slightly took the foreplane into a stall condition.and the model would not climb. Incorporating the mods. mentioned above improved the flight characteristics considerabley. There may be even more to come but moving the servos would have required too much time and effort so I decided to leave things as they are and move on to the next project.

I was agreeably surprised at the flight performance with this tiny motor. It compares favourably with the more conventional Copland’s Wakefield which I tried a couple of years back, though this is a bigger model – 45” span and so has the larger version of the same motor, also a 10 : 1 gearbox. However, both models are lightweights and you need flat calm conditions for best performance.

Plans Websites:- www.model-plans.co.uk

www.myhobbystore.co.uk

Phil Clarke

# Obituary.

It is with the deepest sense of lost that I have to tell you that on September the 10th after a long battle against a viral colour infection, my 'HP Officejet Pro K550' passed away in a blaze of flashing lights and few stuttering gasps from somewhere near the print-head region. Its very last words that appeared on the monitor were ~ "Sorry for the crap pictures in September's newsletter but I did my very best"

Naturally I did all the usual stuff like mouth to cartridge resuscitation ~ vigorous shaking the print-heads in tune to the beat of that Bee Gees song **'Stayn' Alive'** and; as a last resort I even threatened it with my five-pound lump hammer, This usually get the wife going but I'm afraid it had no effect whatsoever on the printer. It remained as lifeless as the parrot in that Monty Pythons sketch. As some of you know, I ended up having to write out all the addresses on the envelopes by hand instead of printing them off on sticky labels. What niggled me the most however, was the fact that it apologised for the poor picture quality in the newsletter but the bugger never said a word about the inconvenience it caused me, its life long friend.

It goes without saying that my 'HP Officejet Pro K550'will be sorely missed. We've spent many happy hours together printing page after page of the L&MMGA's newsletters.
I fondly remember the times when on numerous occasions it mischievously dragged three or four pages through its mechanical innards at the same time with only part of the picture being printed on each page; and there was another occasion when it decided to churn out 40 copies of 2010's December newsletter when I'd clearly typed only number 4 in the 'Number of Copies Box'. ~~~ Laugh! There have been times when I've laughed so much I've ended up with damp patches in the Goballs Area. ~ These are only a few of the many fond memories I have of K550

My one comforting thought is that I know beyond any shadow of doubt that K550 will, at this very minute, be in Mr Hewlett- Packard's chapel of rest in the sky, frolicking about with thousands of other printers and trillions of HP inkjet cartridges that have also, like K550, met with an untimely death.

Ivan Bradbury

# Letters

Received this email from Ant Jervis in September.

I thought I'd let you know that the LMMGA swept the board at the Mynd Scale Comp..... even though it was just a fun fly.

**1st in vintage** was Simon Cocker with the Condor.....
**1st in modern** was Anthony Jervis with the Discus.
A bit Tongue in cheek judging but on paper it reads the Leek boys won both honours.....lol. See you soon. Ant.

Always said LMMGA fliers were the best ... (IB)

Hi Ivan

A few flyers have got together and started an indoor flying club, we are called Potters Indoor Flyers and fly Tuesday nights 6:45 until 8:45 at Birches Head High School ST2 8DD and we are looking for new members, we fly fixed wing electric up to about 800mm and helicopters up to but not including T-rex 250 size or virtually any size with plastic blades see our forum http://pottersindoorflyers.proboards.com then general board **Possible New Flying site** this is the hall we now fly at. If any LMMGA members wish to join the forum they are welcome, it helps to stay in touch over the winter with fellow flyers for a bit of banter.

I was wondering (hoping) if you could place a link on the LMMGA website and I will also cc this to Ivan to see if he could do something for the next LMMGA newsletter.

If anybody is interested they can contact me by email at charles-hampson@lineone.net

Regards Charles Hampson

# An Unusual Kind of Fish

It must be at least two years now since Mark Ollier and I were discussing the possibility of making a really good acrobatic fun model; ~ not too expensive ~ something more on the cheap and cheerful line

Later that week, I got an email from Mark with an attachment that simply said "Look at this". The opened attachment showed a model called 'Le Fish'. It was an all EPP light weight model that looked as though it would do 'The Business'~

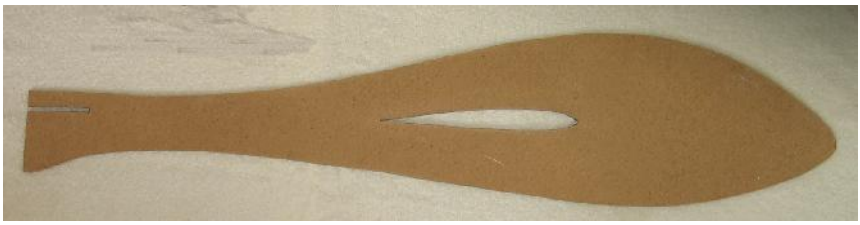
There'd been a block and half of EPP wasting away in the rafters of my garage since before my mates Wilbur and Orville got into the flying business; ~ time it was put it to some use I thought. So I rang Ian Webb and arranged to go up to his house to cut some wings.

Ian and I had made a hot wire cutter that would automatically churn out wing cores once it had been set up. After we'd cut several blanks to the right thickness and plan form, we decided to call it a day and leave the actual section cutting until a later date. That later date turned out to be well over twelve months later: It wasn't until Dave Gaines bought himself a Fish that I was spurred on by a load of verbal abuse from Mark and Dave about dragging my feet etc, Mind you! It was the bet on who would be the first to fly a Fish that clinched it for me.

The following are a series of photographs I took during the make with a few notes thrown in to explain things. I hope you find them interesting and maybe find some useful ideas you can adapted.

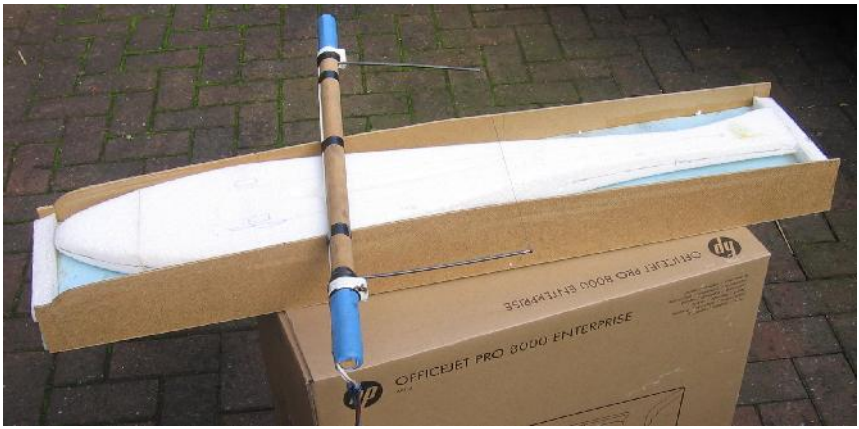
When making more than one model, I always make up a set of

templates' and or jigs; ~ bit of a pain at the time but I've found it pays back fourfold during the actual make.
All these templates were made out of hardboard.

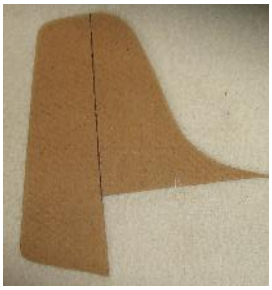


Templates and Jigs

This is the profile of the fuselage. The wing section and tail plane seatings have been marked out and cut to give the correct angle of attack ( The angle of the wing relative to the tailplane)
The template was attached to a 50mm thick block of EPP foam with a couple of pieces of double sided tape. The hot wire bow (see below) was clamped in my 'Workmate' making sure the wire was vertical (check this or the cut won't be accurate). ~ The foam was then pushed along the wire using the template as a guide ~ then I drilled a hole, large enough to tread the bow wire through where the wing section was to be cut out. I threaded the wire through the hole ~ re-connected it and cut this out using the same method.



The next photo shows the template/jig I made to cut the tapers down the length of the fuselage. Two pieces of hardboard were cut to shape and glued (using a latex glue) to a 50mm piece of blue foam making a box to fit the exact size of the fuselage (I just happen to have a piece of blue foam lying about ~ anything can be used to make the box)
The fuselage is firmly placed in the jig and the hot wire is then pulled over the box making sure to keep the wire in contact with the box. The fuselage is then turned over (This before separating the shell) and the other side is cut.

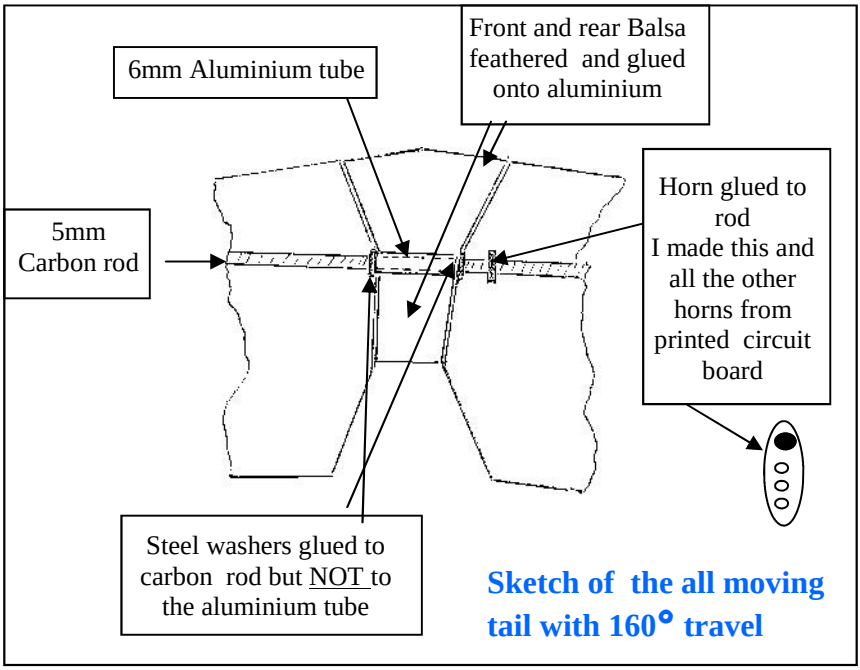


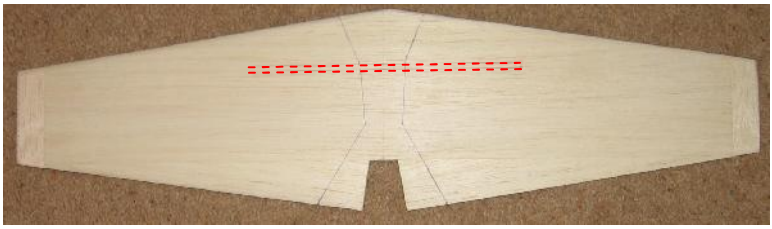
Above are the templates for the rudder/fin and tail plane. ~ Making these may seem a bit of an over kills but once they're marked out, it is only a few seconds work with a band saw. All I have to do then is to hold them firmly on a piece of $\frac{1}{4}$ inch balsa and cut round them with a scalpel ~ Much quicker when you are making several models at the same time


The root and tip wing sections ~ these were cut from 1/16" ply ~ Formica or Printed circuit board makes a much better template but I hadn't any at the time~ the templates to cut the mainspare groove are on the left.

## Fin Rudder and Tailplane

I'd read somewhere about this guy who'd made an all moving tail that would pivot almost 90° up and 90° down. It was alleged to be capable of performing some really stupid manoeuvres. "Mmmmmm," I thought. "The Fish is supposed to be an acrobatic model so why not give this type of crazy all moving tail a go"



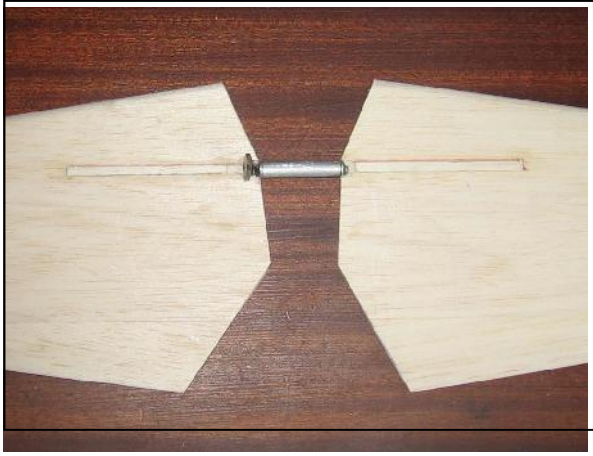



The marked out tail plane showing the position of the carbon rod ~ Note the change of grain direction at the tips This helps to prevent twist/warping

This shows the carbon rod with the aluminium tube held in place by two steel washes ( washers are epoxied in place)

It is important to make sure the tube can freely rotate after gluing the washers

You can just about see the PCB horn in this picture ~ This has also been well and truly glued to the carbon rod.
To prevent tail flutter that some all moving tails seem to suffer from.; the pivot should have aprox ¼ of the total tails area in front of the pivot point and ¾ of the total area behind the pivot point

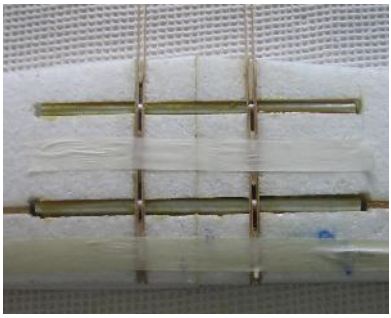


The carbon rod has been glued in and capped with balsa ~ its now ready for the balsa centre pieces to be epoxied on to the aluminium tube ( see below)

This is the finished tailplane and rudder/ fin ~ I bonded the balsa centre fillets to the tube with a few carbon tows and to keep the all up weight down as much as pos. I drilled holes in the tail and fin/rudder.
Look at the size of that rudder ~ Stall turns should be a doddle

## The Wing

These are several cut wings ~ Note the grove ~ it is cut almost completely through the section . This is for the main spare ~ The spare is made up of five carbon tows in the bottom of the groove ~ then a tapered balsa spacer with a further five tows on top all capped off with a strip of thin balsa which, when dry, was sanded flush to the section

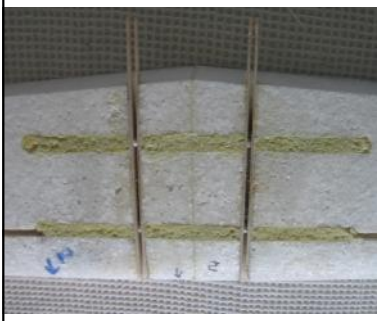


The original model has a one piece wing glued into the fuselage but Mark and I thought transportation would be a problem with a 66" wing glued to the fuz so it was decided to make a two piece wing

This shot shows the two wing panels together with the75mm centre section ~ This centre section will be glued in the fuselage later.

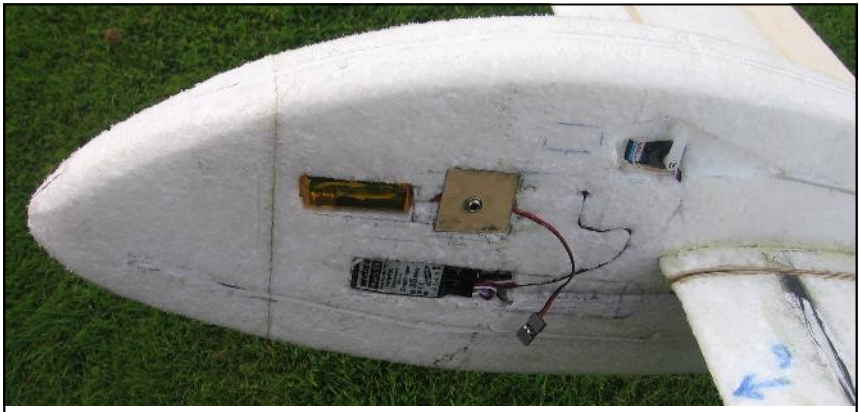
The centre section and wing panels have a 1/16 " ply ribs glued to strengthen the contact surfaces ~ these had been pre-drilled to take the 10 and 8mm aluminium wing joiner tubes.

**Note** the packing between the ply ribs ~ this is the width of a hacksaw blade. It will make it easier to cut the tubes after they are glued in position.



The wing joiners were glued in with Gorilla Glue. This was the first time I'd used it and I was impressed to say the least.~ I applied the glue around the joiners and gave it a squirt of water from a fine spray ~ 1½ hr later the glue had foamed up completely filling the space in and around the joiners ~ The surplus was sanded off when completely hard. The trick when filling a gap with Gorilla Glue is judging just the right amount of glue to use to fill the space.

## The Fuselage



I was going to reduce the depth of the fuselage by quite a bit from that of the Fish because although I may sometimes use other guys basic ideas, I always like to put my own stamp on a model. This would have undoubtedly reduce any possibility of doing a knife edge. However, in all my time on the slopes I've never seen a glider hold a true knife edge position for more than a few micro seconds so this wouldn't have been such a loss. Nevertheless, when I'd marked out the rough position of all the radio gear on a drawing of the reduced fuz, it looked as though most of the beef in front of the wing would be removed so I reverted back to something like the original.
The vertical line down the front of the fuz is an extension piece I glued on in order to use the EPP block more economically (this was done before shaping) I used 'Time Bond' It's a contact glue ~ excellent for EPP; makes a joint equal to the parent material.
The wing was fully assembled before I glued the centre section in the fuz. I used Gorilla for this. It gave ample time to align the wings up with the tail plane, fuselage and fin.
If you look carefully you may see where I've let the control linkage in the fuz plus a tube to thread the RX aerial down ~ four carbon tows run the full length of the fuz ( on both side) ~ all smoothed off with a light weight filler. The Battery and receiver were capped with 1/16 balsa (See the reason why in the notes on covering)

The finished tail bits get a dry run to check alignment before final covering and gluing permanently in place

Almost finished ~ just the wing servos to fix and then the covering.

I used those green Multiplex plug/ sockets for the wing servos so that they just plug in when the wings slide together, hang the expense but I couldn't be arsed with all that fiddling every time I assembled the model.

Having said that, my aim was to make a lightweight, cheap and cheerful acrobatic knock about model.. This meant that covering with Profilm was off my menu

I'd covered several veneered wings and tailplanes in the past with surface class cloth stuck on with water based varnish instead of epoxy resin . ~ Never tried this method directly on EPP so I did a sample test (see photograph ) to see how the varnish would stick the cloth to the EPP and also to see whether or not it would stand up to all the knocks a model is likely to get on the slopes. It stuck really well and despite it being subjected to a load of abuse that included twisting and stamping on it, I was impressed enough with the result to cover both wings and fuselage with varnishing glass cloth directly on to EPP. This meant I had to cap the battery and receiver to prevent varnish seeping through the cloth and possibly shorting the battery out and gluing the cloth to the RX and battery.

In keeping with the water based theme and the low coast mode. I decided to paint the model with water based acrylic paint another first for me.~ When doing the covering trial, the holes in the tail/fin had caused a bit of a problem. The cloth wouldn't keep taut over the holes during drying so I ended up covering the tail end in some translucent Solafilm I found in the attic.

I find this simple hot wire gadget very useful for cutting all manner of holes and grooves in foam

Made from 150 x15 x 6mm balsa with two pieces of piano wire taped down the edge and a couple of the brass innards from a straight connecter. I attached a piece of nickel chrome wire bent to whatever shape hole/grove I need to make ~ plug it into my transformer ~ Job done!

Mark Ollier with his flashy looking fish on the right and me with my cheap angry looking beasty on the left
Marks model flew great straight from the off, a proper little dream machine ~ so did mine for the first thirty seconds and then it became a horrible nightmare. It was completely uncontrollable ~ not a glitch type of interference, more of a clash of frequencies (Someone else on the same frequency)
This state of affairs lasted over several visits to the slope despite my best endeavours. Nevertheless, I did finally nail the problem but I've run out of space in this edition so a full report on how these models performed will have to wait until next time ..

Simon Cocker with another one of his biggies

There's no danger of Ian Webb getting lost in this get up

# A Brief Summary of the 2012 AGM

It was good to see a so many members at the meeting considering the distance some of them had travelled.
There were 29 present plus several wives
Apologies were received from John Matthews, Garry Furnival and Graham Gibbons

**Officers Report**

**Treasurer:**
Keith Rathbone handed out and explained the balance sheets showing the club's income and expenses for the current year. Copies are available to any member on request.
He said the club had purchased some club's logos ~ there were three types available, Two suitable for blazers or flying suits ~ one that can be iron on and one that needs sowing on; both are approximately 3" in diameter . The third was 1" diameter metal badge suitable for pinning on to hats or lapels. They cost £3.50 each

**Competition Sec:**
Mark Ollier said that the turnout for most competitions over the last few years, other than the Fly for Fun event, had been very disappointing and in his opinion it was hardly worth continuing to put them on.
After a lengthy discussion it was agreed that for 2013, we only have two Fly for Fun events ~ one Cross Country event and the Two Day Scale Event (This is the one open to non members that Antony Jervis organises sometime in August. Dates will be published in the March newsletter
We also discussed having an advertised open flying day where anyone including beginners can turn up for a day's flying but no final decision was made.

**Safety Officer:**
Stuart Howard said no incident had been reported to him this year and other than the fact that some members, in spite of the matter being talked about at several past meeting, were still flying too fast too close to the flight line

**Editor:**
Ivan Bradbury again thanked all those who had sent copy in for the newsletter. ~ He said that with the recent increase in the cost of second class stamps (from 36p to 50p) the cost of sending out hard copy had become expensive.

Members put forward several ideas ranging from charging members who receive hard copy paying a little extra to cover postage to fazing hard copies out all together and only send emails. It was thought this would be unfair on members who had no computers (mainly elderly members). Eventually Peter Garsden said that if he could put an advert in the newsletter, his firm would print and post them provided Ivan sent him a copy of the finished newsletter and the sticky labels with addresses on them. His offer was very gratefully accepted.

**Election of new officers:**
There were no nominations for new offices so the existing officers were re-elected unopposed.

**AOB:**
With some of the AOB topics being included and discussed in the officers report the only other business brought up here were questions about our web sites

It was asked whether or not it would be possible for members to have direct access to our websites so that they could place articles and ask forum like questions etc. without it going through the webmaster. This was frowned on by most because they thought someone should have overall responsibility for content. There was talk about a Facebook type of web site but again this was ruled out for several reasons. . It was suggested that the website should contain an application form with all details so that a potential new member could easily fill it in and send it to Keith. This was accepted
There was a significant number who felt that the club newsletter should only be available to member and if this can't be arranged by the webmaster they shouldn't be published at all.
It was asked if the club needed two sites and wouldn't it be better if the good points from our two sites were joined up to make one excellent site ~ Chris Hunt, one of our webmasters wasn't present so it was agrees that a members of the committee should have a word with both Chris and Mark Ollier to get their thoughts on taking some of these suggestions forward.

Peter Garsdend said he has had experience in setting up and running several websites and offered his services with help in planning and any changes that were made. He also offered his help in up-dating information if present webmasters were short of time..

There were no other points raised ~ the meeting was closed with Ivan thanking everyone for coming

## L&MMGA 2013 Subscriptions

Remember!! If you send in you subs before the end of February it will only be £8
From March 1st onward it will be £10

What to do >>
Send a cheque made payable to LMMGA

Keith will need to see your 2013 BMFA membership or a copy
(Your BMFA membership will be returned )

Please send a stamped addressed envelope so that Keith can return your 2013 pegboard fob and BMFA

Keith Rathbone
36 Grangefield Biddulph
Staffs
ST8 7SA

The email address is keith@gmx.com