

Leek & Moorland Model Gliding Association

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

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

June 2013



In This Months Issue

- Page 2. Two day Scale Event (17th & 18th Aug.)
- Page 4. Building a Vulcan Bomber from plans By Peter Garsden
- Page 10. Safety Sense By Derek Illsley
- Page 15. 2012 Wenlock Games
- Page 18. Ant Jervis just Loves Big Scale Models

Have you had a look at our new web site? www.lmmga.co.uk. Its been up and running now for two or three months .

It's still in the process of being tweaked a little as Peter Garsden (Webmaster) receives suggestions from members or spots a problem.

You can log on as a visitor but if you log on as a member there is much more information/articles available to you. To log on as a member you need to type in your e-mail address and password . If you have a problem with this, contact Keith Rathbone on keith@gmx.com



Just a reminder of what the weather was like up to the end of March and this after a record wet 2012.~

Picture of Ian Buckley at Ipsones taken in March

Front cover

A couple of Foamy's flying at the gate with Hen Cloud as a backdrop

Two Day Scale Fly-In

Don't forget our two day Scale Fly-In on Sat & Sun. Aug17th and 18th. This is the club's only event that is open to non-members .



If we are blessed with good weather I'll guarantee a cracking weekend's flying for both fliers and spectators.

It is an informal fly-in for scale models .

Depending on the scale turnout, Ant Jervis will decide (on the day) whether or not there will be a dinner time break in scale flying so the non scale models can have a fly .

There will be three prizes awarded

Best landing approach and landing

Best model in in show

Best flight of the day

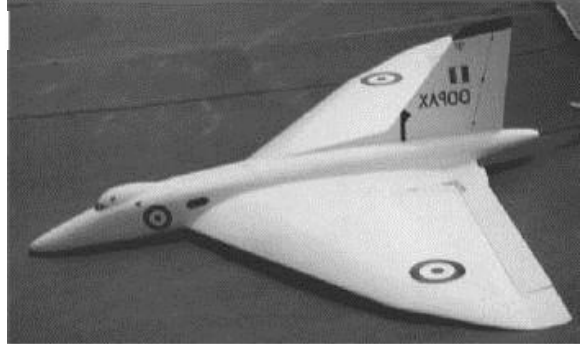
If you want further information contact Anthony Jervis

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The Building of a slope soaring Vulcan Bomber from plans

By Peter Garsden

I find it interesting to read how people build models, so I thought I would share with you, how I built a model of a 50" wingspan Vulcan Bomber from an RCM&E plan priced at £17 accessed through the "My Hobby Store" website.



I have always admired the Vulcan, ever since one flew beneath me when I was flying at Moel Famau North Wales, in or around 1982 whilst I was at Chester Law School. It was a magnificent sight. A "tin triangle" it certainly isn't.

I had read about laser cut parts so thought I would contact SLEC <http://www.slecuk.com/> in East Anglia . They explained that the cost of drawing out the parts would probably be prohibitive - it was at £140. The chap explained that if enough people wanted to build the model, then it might be cost effective. If you fancy building one let me know - petergarsden@abny.demon.co.uk. So I opted to buy just the balsa from them, which at £45 was much more reasonable.

It was so much easier to source all the wood from one supplier than trying to select the correct grade of balsa for different parts of the design from the local shop, who never has everything you need.

Stripping the wood is easy if you have a tool for the job but I don't

The first job was to buy some carbon paper - not in plentiful supply I can tell you. I found some in a stationery shop in Sheffield (not a special trip - I was there on business)

Because the Vulcan wing root was so deep, it nearly didn't fit on my bench. I am sure there is a market for polythene to cover the plan. I have heard that people use the backing from Solarfilm. I used some of the trouble and strife's baking paper. She hasn't noticed yet. No cheese pies for tea methinks.

The one disadvantage of plan building is having to cut out all the parts. I would definitely consider using a laser service if this was a big scale job, but it is really a fancy flying wing - so less whinging and get on with the job.

The building sequence on the plan said start with the wing, so I obeyed. I changed one of the wing spars on the plan for spruce instead of balsa. Even with 1/16" cross grain wing shear webs I thought a bit of extra strength was required. Let's hope there is not too much weight added. I am also anxious that the wing tips are a bit weak and exposed, so I am



You can see the wing structure in the photograph There will be quite a lot of strength added by the 1/16" balsa sheeting, so maybe I'm being a bit over cautious

proposing to wrap them in fibreglass tape and resin. In order to cut the spars for the left hand wing, I was going to duplicate the lengths from the right hand wing. Then I realised that the left wing on the plan is longer by about half an inch than the right wing. I checked and double checked but it is true. Giving the designer the benefit of the doubt, it might be a scale feature, but I doubt it.

The question is, how will it affect the flight? We will have to see.

So, rather than redraw the plans, I decided to battle on. The other strange feature is that the trailing edge is shown packed up by 10mm - both metric and imperial measure are mixed on the plan. I consulted with Simon Cocker,



Note packing

who explained that this is to compensate for the lack of a tail on a flying wing. I looked at the photograph of the model on the plan, which also shows the elevator tipped up.

As I have another flying wing (SAS Fusion), I know how sensitive the elevator is - so the maiden flight will be somewhat nervous methinks.

The build of the wing passed fairly uneventfully. I have been overwhelmed with a choice of glues compared with when I last built aircraft 35 years ago, when the choice was between balsa, PVA or 5

minute epoxy. Crynaocrylate is a revolution, but not for very stressful joints. I used it for most of the joints in the wing, other than joining the trailing edge, for which I used both epoxy, and aliphatic resin. I also came across some clear joint filling glue for under carriage attachment and used it for filling the few gaps I couldn't avoid.

The installation of the servos was a bit of a challenge. The plan is obviously quite out of date as it refers to a servo in the centre of the wing which operates both elevons. Takes me back to the old days.

You are given the option of either split flaps and ailerons or two moving surfaces (elevons) with computer mixing. As I have a brand new Futaba 8FG I opted for computer mixing. I also fancy large control surfaces which can do both jobs. Ideally I would like to use flaps, elevator, and aileron for one surface. I don't think even my transmitter will do this, but I haven't studied the manual fully yet.

I used a wing servo installation, I had seen on the net using a piece of plywood screwed to spruce support blocks. Another tip I found on t'internet – wrap the servo in masking tape to make it easier to extract – particularly if you have glued it say with Hot Glue. You can see the system in the photographs.



I made the groove to take the servo arm using a Dremmel type tool, which I have photographed to show you. I used a tiny grinding disc which made mincemeat of the job in seconds. In the old days I would have battled away with a balsa knife and a file - one of the advantages of coming back to the hobby afresh is that I needed and bought a completely new set of tools, including this amazing Chinese made tool with scores of attachments for any job - all for about £10 - would have cost much more than that in the old days.



So having finished the wing, I set to with the fuselage - a much simpler affair using 3/16" ply formers and 3/32" sides, which I cut out with my coarse grade fret saw blade. It made a bit of a dogs dinner of it. I have now swapped for a fine grade blade.

Another faux pas on the plan. The end fuselage former (F4) was the wrong shape. I will now have to part the sides, trim to the correct profile, and reglue - bit of a pain. I keep coming across errors on the plan.

I am presently having a debate about the fin, which is shown as 1/16" balsa sheet, which I think is too flimsy and was going to replace with ply. I am now, however, concerned about the weight, and am considering whether to simply



cover with resin and fibreglass cloth.

The plan for finishing off is to use light fibreglass cloth on the fuselage and coat with resin. I have bought some new acrylic resin which cures in 15 to 20 minutes. Hopefully the resin will strengthen the fin.



I have been trying to source some neutral shade Solartex for the wing which I will then paint in camouflage colours. I have already bought some Tamyia spray paints in the correct colours. Despite re-ordering twice, however, Cheshire Models in Macclesfield cannot source the Solartex, which seems constantly out of stock. Don't know why that should be.

In the next newsletter I will tell you how the fuselage turns out and the covering routine.

Then hopefully I can photograph the maiden flight.



One of our new member's, Martir Friedrichs, putting his Windrider Fox through its paces at Mermaid pool site

Safety Sense

By Derek Illsley

Two friends of mine have had broken legs due to model aircraft impact. One happened when radio control shows were a novelty and he; with his young family were spectators. A model went out of control and lead to the accident. There was nothing that he could do because of crowd density. The second occurred about twelve years ago and was due to pilot error. This mistake was by a close friend with whom I fly regularly who, has a B certificate and who prior to the accident had been a flier for about 40 years. He prides himself, or at least did, on landing close to his feet. This time he got it wrong, big petrol hit one of his legs and caused a compound fracture. He was lucky that another flier was on the field who had a mobile phone. Had this not been the case there could well have been a fatality. As it is the leg is noticeably bent and one shoe has a built up heal.

I personally will not go flying by myself, partly for safety reasons and partly for the company aspect. Usually on flat field flying, one takes the other in his car, and on the hills, wind direction usually means there a group on the same site. Be this as it may, on November the 5th

the afternoon was cloud free and there was a gentle northerly wind. I had had a short flight with a ten foot span aerobatic glider with a



Most of us have been flying a model when it has gone end on and disappeared for a second or two. On very rare occasions, the flier fails to pick it up again which means a demoralising long search for a lost model.

Ian Webb's D40 disappeared while flying on the Orme. Fortunately it was found undamaged a good 1/4 mile down wind

powerful electric motor prior to my friend flying his electric 'Wot 4'. The battery was running down he elected to go round again but landed in an adjoining field. Wide ditches necessitated a long walk and it was half an hour before he was back. The sun was getting low in the sky and I decided to have a last flight as he dismantled the Wot 4. I took off and he came across to get the dolly out of the way and then returned to the Wot 4. My model was a few hundred feet high and I decided to do a low pass. By now it was just about flat calm as I flew northerly so that the setting sun would pose no problem. A



Ken Degg's Algebra disappeared while flying at the pool > It was found weeks later in the trees on the other side of the road

gentle left hand turn to show the plan form of the upper wing surface and then a touch of aileron to land the model. At this stage I would have expected to see sun light reflecting off the metallic fluorescent covering on the leading edge but nothing, the plane was not visible. A glance to the right and a shout to ask Lynne (My Friend) if he could see it but before he could react there was a loud whoosh and the sound of a model breaking up. Ten feet or so to my left a cloud of little bits was flying through the air, the electric motor was embedded in the ground and I was in shock. Collecting the bits with Lynne revealed that the motor shaft had broken and the Lipos were badly crushed. Diligent searching failed to find a foot long 6mm steel wing joiner even though I returned the next day with a rake. The chances of a similar episode are almost certainly less likely on the hill since one is usually turning away from the slope. Ivan tells me however that it does happen and that gliders can and do occasionally disappear against the backdrop.

The problem is the small profile when the model is end on to where one stands so that effectively I was looking at a plank ten feet long and just over one inch thick. In the middle was a three inch diameter circle of polished aluminium. Had I been coming in from the east the sun may have glinted on the florescent blue leading-edge but it is easy to be wise after the event. In retrospect, it was an accident waiting to happen. The plane would occasionally go out of view for a couple of seconds or so and then be visible again. This has happened several times but what to do?

The problem is obviously loss of visibility and several factor lead to this. The bigger the model the higher the wing loading (as a general rule) and the faster it flies. Thinner wing sections also result in an increase in speed and the larger the model the more air space it needs. This results in them being flown further away from the pilot and the perceived belief that they are easier to see is negated to some degree.

So, we have a fast flying model of considerable weight with possibly, zero stability coming towards us and which cannot be seen. The nose drops slightly and its usual flying speed of 25 mph increases dramatically. On a calm day and flying from the flat field this is more dangerous than hill soaring. There is much more ground speed when landing and, on the hill the ground speed is also less during much of the flight time.



Stuart Howard wasn't smiling when his model (Bird) vanished while flying at the gate. Found next day on the other side of the road

As ever the answer might be blindingly simple. Flap deployment on a well-trimmed model causes little, if any, trim change and having them bright red underneath and deploy them if the model goes out of sight when end on. Speed will be reduced and the visual cross-section increased. The movement itself will also be more noticeable.

I am told that this visibility problem is increasing as a result of telemetry installation. Glancing at the transmitter to read the output is sufficient for visual loss of the model. Something else to think about.



Derek's Illsley's own designed 21 footer ~ If this ever disappears while flying I'll buy him a white stick and Labrador Dog!!

As of now a 12 foot span electric glider nears completion. Hopefully the wing loading will be down to a one pound per square foot and, with an under cambered wing section flying speed might be a little more civilised. It is intended for the lighter winds; only upper aileron movement is available and the flaps will have the aforementioned bright colouring

A combination of two crippled friends, nearly killing myself and advising age colour ones outlook on life. Electric speed controllers with 3kw behind them bursting into flames do not help either, but that is another story. For the time being the flying sledgehammers will be restricted to hill soaring and smaller lighter models used on the flat. As the old adage has it "If it can happen it will and if it can't it might"

Ed.

I once heard a commercial pilot, on the radio, talking about near misses.

He said that if you looked into space (in his case from a cockpit) you could, in seconds; lose all sense of focal length. He suggested that most peoples natural focus length, if not actually focused on something such as when staring into space, was only a few yards in distance; he said it could be as little as 30yds. He went on to say that this meant that it was quite possible not to see a converging plane while there was still ample time to take evasive action. He said that this may explain a reason why there was the occasional near miss reported.

This lose of focal length could explain why, when a model plane is flying at a distance and you lose sight of it; if you don't catch sight of it again within those first few seconds, you can sometimes fail to see it again even though you are looking in the right direction. Fortunately to lose a plane this way is extremely rare but; I think we've all had that scare when we've momentary lost sight of a plane as it goes end on reducing its profile to that of a thin plank.



Disusing tactics are > Ivan Bradbury, Graham Gibbons,
Nigel Brewer and Rodger Moreira



This is a picture of Mont Blanc. At 15, 781 ft. it is the highest mountain in Europe. This photograph was taken in Aug 2012 by Rob Lockett from the cockpit of his glider (Rob is an X member of the club) ~ Not the ideal spot to run into a touch of sink me thinks!! .

2012 Wenlock Games

In the last newsletter (March 2013) there was a small piece about gliding being reintroduced in the 2012 Wenlock Games ~ *The Wenlock Games were the historic inspiration behind the modern Olympic movement and in recognition of this; the London Olympic mascot was named 'Wenlock'.*

If you remember the article said that that as a result of the introductory gliding trial in the 1936 Berlin Olympics; a decision was made to include a gliding event in its own right in the 1940 games. Unfortunately, the war put a

stop to that.

It also said that to give all contestants an equal chance; competitors would have to fly the same type of plane. The plane chosen was the Olympic mono-class glider

The Olympia turned out to be such a good plane in its day, that production continued for quite a few years after the war in several countries, including the UK and there are quite a few of these planes still flying today.

The number of glider entries for the Wenlock Games was limited to 40. Many of the pilots were from the UK but entries were received from all over Europe. All pilots had to bring their own gliders. (All Olympias')

Throughout the week there were static displays as well as flying events The inclusion of gliding in the 2012 Wenlock Games was such a success they are hoping to do the same again in 2016.

Below are a few of the photographs Rob sent me after I twisted his arm a little



This is Rob in his Olympia.

He purloined it for a song a few years ago and spent many hours giving it TLC to restoring it to this pristine condition

At the end of the Wenlock Games he found himself in second place and was presented with the silver medal





Rob Lockett's
Olympia's control
panel

Rob sitting in his friend
'Hols de Defuel' The
Hols was also designed
by Hans Jacobs in the
mid 1920's

Don't know what it
performs like but it
looks a real beaut !!

A credit to its owner



Ilan Webb Launching
Simon Cockers Pilatus

Ant Just
Loves
Big
Scale Models



On the 24th March last year Anthony Jervis flew to Austria to pick up a 6m ASW 15 .This is a picture of the baggage staff loading the box onto the truck at Luton Airport

Most of us these days do the vast majority of our model shopping online. In fact; if we have to pop down to our local model shop for the odd bit we need in a hurry, we think of it as a day out shopping ~ Not so our Ant !!

He saw a 6m ASW 15 advertised in Austria ~ arranged with the owner to pick it up at Saltzburgh airport flew over there ~ met and paid the guy and brought the model back home with him ~ Now that is what a call a real day out shopping..



Ant thanking the
guy who delivered
the ASW 15 safely
to his home



This picture was taken sometime in early March at Forton, Shrewsbury. It shows Ant (on the left) with a couple of his buddies at an aero tow meeting,



Ant says he has re-furbished his 40% OLY 463 and it is now ready to maiden,

The picture shows the OLY on the left, a 1/4 scale Grob in the middle and a 36% SGU on the right.

Looks like he needs a bigger hanger



It looks as though summer as finally arrived . ~ This picture was taken at the gate on the last weekend in May. Let's hope the rest of the year makes up for the appalling weather we got in March and April ...

BMFA Achievement Scheme

Finally on the third attempt, the previous two having been cancelled due to bad weather, several of our club members took their BMFA achievement scheme on Saturday the 1st June

Peter Turner, Chief Examiner, put seven of our members through a series of flying manoeuvres followed by having to answer several questions on safety from both the BMFA's hand book and club rules.

Five took the 'A' test and two took the 'B' test . I'm pleased to say that all passed. Peter did say to me that he had been impressed with the standard of flying he'd seen.