Leek & Moorland Model Gliding Association

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

March 2009

In This Months Issue

INSURANCE …. Please read

Keith Rathbone and I went to this years BMFA's Chairman's Meeting at Pontefract at the beginning of March. Amongst other topics, the matter of insurance came up.
With today's society being such a' Blame and Claim' one; it was stressed how important it was that fliers who flew at BMFA affiliated Club sites had BMFA membership.
If complicity can be levelled at a club (uninsured fliers allowed to fly on a club's field) the club would be in deep Sh*t with the underwriters if a claim was made. The club could lose its indemnity
Therefore! Please do not be offended if, on a spot check, you are asked to show your current LMMGA or BMFA Membership card – You should always carry one or both. ....Thanks'….

Front Cover I don't know anything about this photograph other that it was in a batch I had off Simon Cocker. I wish I could take 'em like this.

Landings are Mandatory

I was sitting on the grass, at the Gate, watching an assortment of planes as they came round on their landing approach. It was on one of the last good days of 2008. (I think we did get one) The sorts of day that was just about warm enough to sit on the grass without suffering from a mild form of frostbite, and, dry enough not have to standing on the flightline with a wet backside trying to convince colleagues that it was not a lack of bladder control that had caused the problem.
Sitting there I couldn't help thinking how far our hobby had come since I'd launched my very first 'real' model in 1944; a 40" 'Keilkraft Invader'. I was so proud of that Invader, and, despite having to waterproof the tissue covered wings and fuz with a brown coloured shellac that gave it a unique used toilet paper appearance; surprisingly, it flew quite well. {There was no clear cellulose (dope) on the market at that time ~ shortages due to WW 2}

There was a mixed bag of models flying that day which depicted a potted history of model design and development through the years. They ranged from those old balsa open frame construction ones, (which I must admit I still have a place in my heart for), to those very modern, wallet emptying, all carbon moulded ones. There were also a few nondescript EPP models thrown in for good luck,

Watching them landing, I was reminded of that old maxim in the 'Aircraft Universal Manual' which says: ~ "It's optional to launch but mandatory to land". Therefore, with terra firma being responsible for re-kitting more models than mid-airs, engine failures, battery and frequency problems put together; soft gentle landing are a must if a model is to survive to a ripe old age.
Once you can land with confidence you can call yourself a reasonable pilot. Mind you! Landings can be a cheek clenching moment even for the most experienced of model fliers if it's a new model or the conditions are really turbulent.

With landing in mind, I've become a firm advocate of Crow or Butterfly breaking. I've not always been so keen and in those earlier years, I only thought that models with a 2.5M span and over warranted putting four

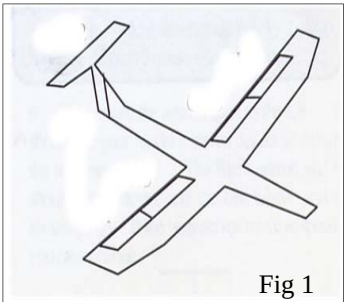


Fig 1

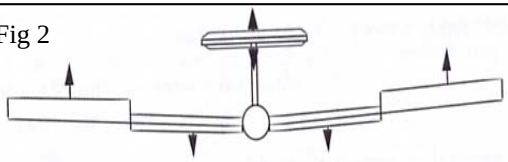
A minimum number of four independent control surfaces are required for Crow breaking

servos in the wing. However, with the size of servos getting smaller and lighter by the year and models flying faster, I've seen 1.5M and smaller models use crow breaks to good effect.

Dave Gain's Pike on final approach

An explanation for the beginners in our club…
The crow breaking configuration needs four independent surface controls in the wing. (see Fig 1 and Fig2)
When the in board flaps go down it greatly increases drag and slows the aircraft down at the same time it creates more lift allowing the aircraft to continue flying at this reduced speed without stalling. The reflex on the ailerons lowers the angle of attack at the tips providing an excellent safety margin against tip stalls. This makes the model extremely stable on the final approach.
I have often seen models landing without any forward speed at all when the right wind conditions prevail.
I'm now convinced that this configuration greatly extends the life of many models.
Of course, it goes without saying that a suitable transmitter will be needed to operate the four wing servos independently, but most modern reasonably priced TX's will have this facility as one of their preset programs. As for setting the model up; It's the old story of suck it and see; but, from my own limited experience and observations, I would have as much down movement on the flaps as I could get especially if it is a top hung flap, and, a fair dollop of up on the ailerons provided there's enough movement left for lateral control. On all the models I've flown with crow breaks it's needed a bit of down programmed in on the elevator to stop ballooning when the brakes are deployed. However, with there being so many types and configurations of models with crow brakes, it would be impossible to give a too prescriptive setting for the control settings and as usual, a bit of tweaking after the initial set up will be required to get the ultimate results.
Finally, It's better to have the brake control on the throttle stick so that they can be operated proportionately rather than on a switch

Fig 2



Crow breaking set-up: ~ Inboard flaps down ~ outboard ailerons up ~ usually crow breaking also requires a touch of built in down on the elevator to stop ballooning when deployed

Dates for 2009 Competitions

April 19th …….Fly for Fun
May 17th ……...F3F
Aug 29/30 ……..Scale Weekend (see Simon Cocker for details)
Sept 13th…… F3F
Oct 11th ……..Spare day

Come and have a bash ~ The order of the day is not so much the competition but the Mickey taking and Banter

A Spectacular Scale Glider Aero Tow Event.

20th April (Monday) Scale Aero Tow Event at **Derbyshire** and Lancashire Gliding Club Camphill Gt Hucklow Nr Buxton Derbyshire SK17 8RQ. In the event of poor weather our back up date will be Monday 27th April 2009

The club have kindly lent us their excellent plateau site in the beautiful Peak District for the whole day. Event starts at 10:00 a.m and finishes early evening. Event is free to all those with 1/4 scale gliders and upwards however, glider pilots will be expected to contribute to tug pilots, fuel costs. Tug pilots also welcome. Food and refreshments available. Hangers will be open to inspect the full size aircraft. Air experience flights can also be arranged for future dates.

For further information please contact:
Andy Wagstaff on 0161 292 2412 evenings.
Mobile 07747 756 140
E-mail: pumpman50@hotmail.com

Is There a Slope Soarer at Crackfield House??

(More ramblings from an Ancient Aeromodeller)

It's not surprising that the BMFA, like all large organisation, have their supporters; people who think they are the best thing that's happened since sliced bread, and those who think they are a total waste of breath.
As an official of the L&MMGA for many years, I've talked to modellers from both sides of the divide.
As for me, I've been firmly perched on the fence slap bang between the two apposing camps for most of my modelling life. I admit that I'm fairly easy to please, and, I've never asked the BMFA for anything other than their third party insurance cover. Nevertheless, like many other bog standard club members who have never represented their country in any overseas flying events, (hardly surprising in my case) I've felt that their annual subs were a tad high for what I got in return. Still; I suppose that if we hadn't got the BMFA we would have to enlist the services of some other organization to represent our interests nationally and internationally

Early in 2007 I fell off my neutrality perch and ended on the anti BMFA side of the fence. I didn't so much as fall off the fence as was pushed off by the BMFA themselves
What caused my change of attitude towards the BMFA was the advice they gave to the LMMGA on how to deal with the MoD, Peak Parks regarding flying on our Mermaid sites. They almost insisted that we applied for planning permission and even volunteered to do all the paperwork for us. If we had taken their advice it would have cost the club over £300 in fees and would have been ill-advised according to two independent solicitors Keith Rathbone spoke to. They both said that to go down the planning permission road could possibly end up with severe restrictions being put on flying or even loosing some of the moorland sites altogether. The two solicitors advice was never refuted by the BMFA. (This was reported fully in the March 2007 newsletter)

I became even more disillusioned with the BMFA when I heard how they had (helped?) Slope Soarers at Teggs Nose. (This is a slope site in south Cheshire used by Bramhall Area Thermal & Slope (BATS) and some other fliers.

It appears that as a result of several complaints by the wardens/rangers who patrolled Teggs Nose; Cheshire County Council eventually put a ban on model flying there. The reason given was that it was a possible danger to the general public ~ this in spite of the fact that there had never ever been a reported accident in the last 30 years, and, as far as I know, there had never been a complaint made by a member of the general public

The BMFA were asked to do a risk assessment on behalf of Cheshire CC. Roger Bellingham from the BMFA (Flying site advisor) did the risk assessment I believe .

No reference was ever made to the effect that Bats had been using the site without hindrance, accident or incident for over thirty years. Roger's submission advised that there might be some conflict since footpaths crossed the area close to the flying site (Many slope sites have footpaths close by particularly coastal sites)

After several meetings, Bats being the oldest established group were selected to represent model fliers at Tegs,

Low cloud stops play: ~ Dave Read and Ken Buckley are seen here having a picnic in the mist. The metal box at the gate makes a good table

Proposals were received from the Cheshire CC legal department in the form of a document (License) This was 15 pages of legal gobbledygook that was full of rules and clauses that would have taxed a solicitor's brain to understand. The rules were such that it would have been impossible for anyone to properly enforce and a nightmare for a club to police the site.
BATS had to get two or more of its members to sign and accept responsibility for controlling the site according to the rules laid down in the licence.

I'd only read 20 of the 88 clauses and sub-clauses before I felt a bad attack of migraine coming on. By this time, I had come to the conclusion that the only chance BATS had of getting someone to sign the licence was for them to mounted a recruitment drive inside some mental institution,
It beggars belief that an organisation like the BMFA, who's main function is to look after the interests of modellers (at least that's what I thought) could possibly expect the club to accept such conditions.

To give some idea of the lunacy of the licence; the members who signed the licence had to do so before they knew how much the licence would cost. And, the fees would be revised year on year

Cheshire CC could change the rules of the licence any time they wished, and according to Chas Gardner, (member of BATS) the BMFA refused to offer any

indemnity to the signatories. This meant that they not only put their heads on the chopping block trying to keep to the letter of the law, they would also put all their assets up for grabs in a case of litigation..

When one of our members, Chris Hunt, contacted the BMFA and asked to see a copy of the report they had submitted to Cheshire CC. They wouldn't give him one saying that he would have to contact Cheshire CC ~

If the support/advice given to both L&MMGA and BATS is typical of the way the BMFA supports Slope Soarers throughout the country. I question the wisdom of involving them into any site dispute especially with a moorland type site. My advice to the soarers fraternity is to keep the BMFA at arms length; or, get the club to buy a grass cutter ~ Prepare a nice take-off/landing strip on the slope and put large IC engines on the front of your gliders. Maybe then, slope soaring clubs will fit more snugly into one of the slots the BMFA are more at home with..

Who do I personally blame for this state of affaires? Certainly not the large band of volunteers who man the barricades and flight lines at shows ,or ,those who check out budding fliers, on their behalf, to see if they have reach the prescribed standard of competence
No! If I am to put the blame on anyone, I blame myself.
When it comes to voting for BMFA officials, I nearly always just scan the list of candidates on the voting form and then file it directly into the waste bin.
If as I suspect this is typical of most of the BMFA's rank and file, is it surprising that many of our representatives get elected by default?

Jet Man Rossy ~~ Was this taken while he was doing his channel crossing?

Tony Mansfield

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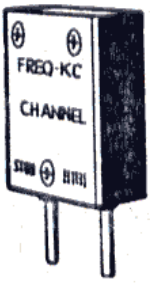


Always Up with the Winners!

PLANS HANDBOOK

contains 160 pages fully illustrated of the world's leading model designs—all available as full size working drawings to enable you to build a model equal to the best, in aircraft, boats, yachts, with special emphasis on suitable r/c designs like Smog Hog illustrated above. Also useful articles, etc. Sent to you for **2/-**

Aeromodeller Plans Service

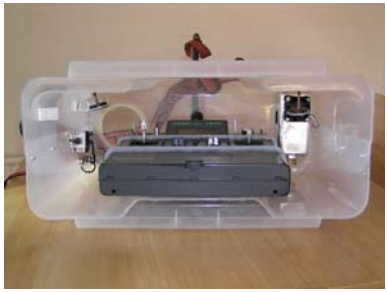
38 Clarendon Road, WATFORD, Herts

This page contains a collection of adverts from a RCM&E mag (March 1962) ~ No doubt it will brings back a few memories for some of our older members ~ Some of our (younger?) members will probably need an interpreter particularly with working out the true cost of some of these items which are in old money ~ If you add annual inflation to these 1962 prices they'd be surprisingly expensive if bought today.

Letters

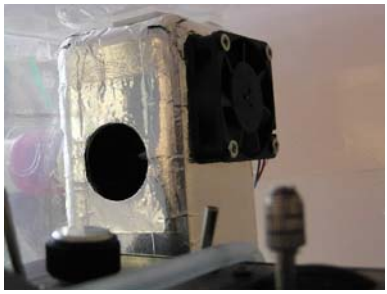
Tips and Gadgets

Ed - - - -Many many moons ago when I was an avid reader of any RC modelling magazine that I could lay my hands on, nearly all of them had a regular section in them that came under the general heading of 'Tips and Gadgets', I found it invaluable. Basically, they were ideas in the form of notes and sketches, sent in by reader's'. Most were simple ideas that could be made from material usually found in the "Junk but too good to throw away box". A few weeks ago Paul Gray sent me something that reminded me very much of those articles ~ Here it is…



Hi Ivan

I know you slope soarers are a hardy lot but for us lesser mortals the winter can be an unwelcome interruption to the pursuit of our hobby. So just in case some of you are as 'nesh' as me, here's my interpretation of Dave Probert's hand warming tranny box.



The tranny box is a cut down storage bin. The heating element a 12v 60/55w car headlight bulb controlled by a three pole switch and the warm air is by a 12v 330ma fan. The bulb and fan are housed in a shampoo bottle covered in silver foil looking, very 'Heath Robinson'.

It all works quite well and after an initial burst on two filaments to get the temperature up to circa 90degrees I switch to one filament. Running single the current is 5amps and on two filaments about 9.5amps.

I originally tried drawing fresh air (witness the nasty hole on the left side of the box) but converted to recycled air. I use a plastic curtain (Not shown)

at the back of the box to keep in the warm air.
You're welcome to the 'Hot hands' email; perhaps it will encourage others to copy – and improve on the idea.
The battery is a 12v 7amp gel type giving an average running time of an hour. The battery weighs 2.6k and measures:- length=15cm x breadth= 65cm x height=100cm.
The box and gubbings without the tranny.
The 12v 330ma fan cost £1.85, measures 4cm x 4cm bought from Pott's at Green Lane, Derby

Happy Flying
Paul Gray

Ed::::: Another nostalgic trip down memory lane from Phil Clarke. I received this from Phil at the beginning of December

Ivan,

I always seem to be apologising for not having been in contact with you for what seems to be some considerable time. Can't give you a specific reason but you may know that I spent last weekend in 'Bruxelles' just so that I could have a ride through the 'Chunnel' -(do they still call it that?) so that buggered me up a bit. However, a piece for the Mag. maybe. Nothing to do with gliding but I know that you and probably many other club members are interested in other branches of our hobby, so here goes:-

Phil's 45" Wakefield was designed by Bob Copland just after WW2. Its streamlined fuselage was an instant hit with modellers at the time,

My first project after retirement way back in 1988 was to have a go a building Bob Copland's 45" Span Wakefield, for no other reason than I had always thought what a beautiful looking model it was. After construction was completed I thought - ' I can't cover up this beautiful framework and even if I did I would never risk flying it, particularly with rubber power - think of the carnage if the motor broke'. So, it stayed indoors and I would occasionally spend the odd minute admiring it - like you do. About twelve months ago, I started to put into practice an idea that had been floating around in my mind for a year or two and that was to electrify it and also

to include radio to minimise, or hopefully eliminate, the risk of a flyaway - I'm too old now to chase after free flight models, which the original was of course. My aim was to try to keep the all-up weight the same as the original rubber powered version i.e 8.5oz. This meant that I had between 3 - 4oz. to play with by substituting the rubber motor with a package comprising an electric motor, speed controller, receiver, two servos, battery and a lighter prop. assembly. Seemed a tall order but when it was ready to go it weighed in at an astonishing 9oz.with a 2-cell LiPo.

For propulsion I chose a GWS 10.5 : 1 gearbox powered by a small brushless in-runner, the 12mm dia. Feigao 1208436-4100Kv which would just fit into the original fuselage outline. Since, in the original, a lot of the rubber would have been behind the C.G.

I decided to put the two micro servos right at the back to operate the rudder (the original trim tab extended down one panel) and an all-flying tailplane, chosen because elevators would have looked a bit odd on a 'free-flight' model but more importantly, I wouldn't have to make a new tailplane.

A 5 Amp speed controller was attached to the rear of this package with the Receiver (a small 6-Ch 'Jamara') and battery placed in a purpose-built box just in front of the wing L/E. and accessed from the top of the fuselage.

Are these conjoined twins or is it Dave Wheeler and Ian Webb just rubbing shoulders?

I have to be honest, I was not at all confident that there would be enough thrust to fly the model so first flights were made with a hand launch and using a 3-cell 360mAhr LiPo. This pack put the overall weight at 9.5oz. but Ken (Buckley) and I were amazed to see the model pull away into a relatively snappy climb.

The prop. used was an 11x4.8 slowfly which seemed fine but would not windmill with power off.

Second flight with the same set-up was an ROG (run off ground) which it coped with perfectly well.

For the third flight, the prop was changed to a 10x6 and the 3-cell LiPo was exchanged for the 2-cell (also 360mAhr). Climb rate was much reduced but still adequate and it looked just like rubber powered models used to look in the days of my youth.

The coarser pitched prop. would now windmill nicely with power off and I consider the project to have been reasonably successful, though I am still amazed that such a small motor can haul a 45" model into the air.

One final thing left to do is to see if there is enough poke on two cells to do a

off. I think from a smooth enough surface I might get away with it. We shall see.

Ivan

This may be a bit of a filler for the club newsletter. See what you think….It isn't slope or even model related but may never less be of interest to some.

As you know I work for the 'dark side' or Staffordshire police as it is better known. For a number of years now both the police and military have been interested in unmanned airborne vehicles (UAV's) and I'm sure that we have all seen the military UAV's currently used in wars zones. I have seen numerous demonstrations ranging from normal model helicopters with a camera strapped underneath up to very expensive alien looking machines. Having worked on the force helicopter for many years I remained sceptical about such 'daft' ideas.

During recent years, however, I have seen demonstrations of a new type of machine which have changed my mind. I had seen it used at the recent V festival and was impressed with the results it gave us. Staffordshire Police have now bought one of its own and it's called an 'Air Robot'

I had lots of questions for the demo pilot regarding the safety aspect of flying such a machine over the heads of thousands of people and I could also definitely foresee problems with orientation. I was reassured by his answers. He even offered me a go on the controls, and that

was before I had told him that I flew models. (maybe if he knew that he wouldn't have offered)

Knowing how long it can take to learn to fly models I asked about the training programme and was staggered to find that he talked about a few hours and most of that was about learning to operate the systems. In other words, it really is an Air Robot and the pilot effectively tells it where to go..

The machine has a GPS positioning device and will hold its position until requested to go elsewhere. I have seen it leaning into wind so as to hold position without any input from the pilot. It has a height hold so the pilot doesn't have to hover it like a helicopter. It has a ceiling height of 3000 feet, a battery run of 30 minutes and if the battery goes flat it automatically come down slowly so as to avoid injury and in any event it is made of carbon and is extremely light weight

Of course it can carry lots of equipment which is the whole point of the robot. These gadgets are equally impressive but in its basic form it will carry a video camera which is capable of down linking live pictures. I can vouch that the picture quality is very high.

There are a few things about it that a modeller may be familiar with such as brushless motors, lipo batteries and a familiar transmitter but as for the flying side it bears little resemblance to the average model. Just imagine if we could learn to fly our models in a couple of hours with a height hold facility! It may save a few crashes but wouldn't it be boring?

Maybe you will get to see the robot yourself as it works around the county but just remember that the operator isn't having anything like the fun that we do struggling with the ever changing conditions of slope soaring. I am impressed with its ability and the technology is superb but give me a mini dragon every time!!

Dave Gains

Hi Ivan
Just a few notes about the Hurricane that I can remember. I don't know if these

are the sort of notes you had in mind but you can edit them as you please and if you need any more info I will try to help.
Obviously this has nothing to do with slope soaring but some people knew that I had started building this model in the stone age and wanted to know how it was going. As far as I am concerned it is finished. These are just a few notes for anyone interested

Before I joined the L&MMGA in 2000 I flew mainly aerobatic type models at Hucknall. In 1991 I was looking for something a bit different to build that wouldn't take too long before taking to the air. I am not really a scale modeller but as I couldn't think what else to build at that time I had a look at Brian Taylor's plans catalogue and decided to start his 70ins span Hurricane Mk1. This is a scale of 1/6.9.

Some idea of the amount of work that goes into this type of construction can be seen at the rear end of the fuz

I knew that this project was going to take quite a bit longer than I wanted but I didn't expect it to take me 17 years on and off, mostly off. Every time I came on to an area I didn't fancy doing, like cutting out slots in the rear formers for over 50 1/16ins thick stringers, I stopped sometimes for up to a year then did a bit more only if there was absolutely nothing else to do.

The finished model

The model is basically built using balsa. The wing is sheeted with 1/16ins thick balsa and covered with glass cloth and epoxy. The fuselage and tail feathers are covered with Solartex. The spinner, cowling and canopy were supplied by Brian Taylor. The engine is an OS 91FS and the retracting undercarriage is Rom-Air.
Unfortunately the model is 1lb over weight at 11lbs 4ozs due mainly to having to add 2lbs in the nose for balancing. The first flight will be at Hucknall when we

get some warmer dry weather.
I don't feel too embarrassed now about the building time as Andy Sephton, according to the BMFA News, hasn't finished a Peanut size model started in 1988

Dave Read

I know the feeling well Dave. Sometimes building/repairing can be so daunting at times
ED

REVELATION *by Derek Illsley*

The Sunday of the 2008 All Electric Fly In organised, by the Chester M.F.C. was just about the only real Summer Sunday of the year. Hot, a gentle breeze along the take-off strip and wall-to-wall sun-shine.

The 3.5m glider featured on the front cover of our September 2008 news-letter had been readied for the event. Shown here (Photo 1) sitting on a steerable dolly it had made several flights over the preceding weeks and all seemed O.K. Its 13½lb weight was powered by a Hacker A60M rated at 1500W giving a thrust approaching 20 lbs, this generated by 9s of LiPo cells.


Photo 1

"Little Brother" (mark 1 fuselage) prior to the Chester Fly-in and subject of article. Doll has radio controlled steering, bolt on wing crutches that are suitable for several models ~ Mark 2 fuz has a aluminium spinneret ~ the one on the photo looks crude without one

Oliver Witt, a show pilot for Overtec and a fellow clubmate at Lancaster, was at the Chester event and quite happy to fly the glider. Perfect take-off from the dolly, a minute or so to check all was O.K. and then I asked him to open it up. Rolls, loops, chandelles and a Himmelman followed, the sun reflecting off the blue and silver metallic finish. A few seconds of sedate gliding and then a steep glide to give a fast low level pass.

Overhead was a solitary small patch of cumulus, obviously delineating a thermal. Full power and a searing climb to just below the cumulus to give a few minutes of gentlemanly thermalling before landing with flaps deployed.

"Flies well, doesn't it?" Ollie's opinion, was explained upon downloading the controller. 75 amps at 32 volts equated to 2400 watts, or, in other words, a fifty per cent overload on the Hacker. The controller was rated at 75 amps and had reached 60° C so no problems there. Just over 20C on the batteries, OK, but what had changes?


Photo 2

Wife holding part built fuselage
Note start of 1/64th ply sheeting at stern

I knew that LiPos caused difficulties in my gliders at low temperatures but then recalled reading somewhere that they only came onto full song at 30º C. No problem perhaps in your normal power model where power is used all the time but different in the glider, a much more efficient flying machine with relatively long periods when, no power being drawn, the batteries cool down. The patterns flown by Oilie may have contributed towards the fifty per cent motor overload but the 22x12 folding prop with its carbon paddle-wheel blades was clearly too big on a hot day if the model was flown to the limit.

Memories of that flight at Chester would not go away and the old challenge thing raised its head. The 7m scale glider flown by John Greenfield and with a gas turbine clapped on the top had started me off on this big electric glider road and the Chester flight showed the way toward. A 21 footer similar to that flown at our 2007 scale event would weigh around 35lbs with at least 6KW being needed. Oilie regularly flies a large scale power model drawing around 4KW from its 6KW motor and has had no problems. The said 21 footer has lost its original Hacker to the "Chester" model and the outer 8ft wing panels can be filched for the new machine. I can't use the fuselage since its nose diameter is too small and there are other minor changes I would like to make.

Photo 3 shows the 1/16th inch Balsa sheeting being fixed

As of now a similar "Tornado" motor has been purchased together with its relevant (fan cooled) controller and the 12s LiPos from the 21 footer will also be filched for the initial flight attempt. 12s will give say, 42V, and for 6KW, an amperage of 140 would be drawn. The controller is good for 200A but the LiPos would be hit for 32C. R.P.M. will be about 7,200 generating

a thrust of 70lbs. There will be around half a ton centrifugal force on each carbon prop blade and things get interesting. A 22x12 folder will be used initially following a thorough workout on a test rig.

Photo 4 ~ Wing Seating to be cut out later

So much for the strategy now for some technical details. The part built fuselage is shown in Photo 2 and the doorway in the background gives an indication of its dimensions. Maximum diameter is six inches and the construction is essentially of three layers. The base layer is formed from tapered eighth sheet balsa planking interspersed with four lengths of half by eighth hardwood strips. This is covered by sixteenth balsa put on in as wide as possible sheeting. Thereafter the whole is covered in sixtyfourth ply. Fuselage taper is constant for six feet or so to the tail and, theoretically, the ply sheeting can be tapered in a straight line. Absolute accuracy is however required and this is beyond my abilities with resultant imperfections arising. Photo 3 shows the sixteenth sheeting going on at the nose area with Photo 4 showing eighth fixing strips ready for cutting out over the wing seating length.

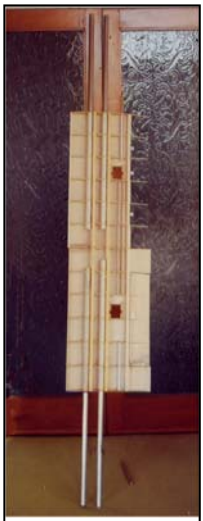


Photo 5 shows the Part built centre section.
Note 4 X 1" Dia alloy joiners

Wing construction has been described in an earlier article but essentially the bending stresses are taken by millimetre ply sheeting. The four feet centre section with the inch diameter alloy wing joiners is shown in Photo 5, the aforementioned doorway again being in the background. Carbon cloth wing joining material is still to be applied this reaching out from the centre to beyond the inner extremities of the alloy tubes. So, hopefully the model will be ready to go sometime in April, the initial flight being from a LMMGA slope when conditions are right. Experience with "little Brother" shows that 3KW should give what most would call adequate glider performance but twice that?
Well I haven't yet seen a 6M glider pull away from a vertical hover ~ Geronimo, Banzai! and all that

Bill Harper

For Sale

Dragon with all the gear, just charge and fly, well flown £225.

1/3:5 scale ASW 20 kit, some work done, comes with retract, 350mm multiplex airbrakes,14x2mm blade and brass wing joiner, hard balsa trailing edge and hardwood leading edge fitted just needs final shaping, canopy frame done and fitted acetate, joiner fitted in wing and tips fitted to make it 4:85m span, as new. £175.

1/3rd scale Rosenthal Discus 5m span with all gear including 12 channel multiplex rx, well flown, pic in 2007 scale do on L&MMGA web page. £400.

1/3rd scale Ventus 2ax 5m span fully moulded from Faltus HF Modell, 12 servo,s, Futaba PCM R149DP rx, Opto isolator and Axel pilot, imaculate.£1,000.

Contact Anthony Jarvis ~ 07903220420.

Simon Cocker with his Ventus

Please keep sending your Letters. Articles, Pictures and Tip in for the newsletter.

Thanks

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This is **Enola Gay** the B29 that dropped the first atomic bomb on Hiroshima
It is now completely restored and is on display at Udvar-Hazy Museum Dallas

Photograph sent in by Andrew Beswick

A couple of 2 metre Models ~ Left: Dave Read with his Espresso from the Valenta range and Brian Lee with his new Falcon
Both models seem happy in a wide range of wind speeds

Graham Gibbons at full stretch launching his Signal on one of those rare warm sunny days of 2008

Finally! A massive thanks to all those who make the effort to send stuff in for our newsletter.

It not only makes my job much easier, it make for a much better read.

Thanks.