

wbmgc **news**

West Blackdown Model Gliding Club

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January 2008



Colourful Christmas Collection



A happy New Year to one and all and welcome to new members **Graham Bell** and **Gareth Davis**. Membership is slowly building but I do need to give my annual reminder to all members who haven't paid up yet to contact Pete Guyan, our Membership Secretary. If you don't you are not insured and this is the last copy of the NL you will receive. The other thing I usually moan about at this time of the year is the weather. Looking back through my editorials it seems that it has become normal for this time of the year for the weather to vary between days when the wind is so strong you can hardly stand and other days when only the lightest of floaters will stay aloft. This year there has been another ingredient.....the rain! I don't ever remember missing as many flying sessions before because of so much rain. Add to that the frequent NE winds and it's not been a lot of fun really. One good development has been the emergence of Bossington hill as a premier site. Make a note in your diaries to take an opportunity to fly there this year. You won't be disappointed.

I didn't make it to the AGM this year as I was stuck in my car on the motorway for three and a half hours. This delay was caused by a multi-car pileup between the Taunton and Wellington exits. So the AGM report is a little sketchy I fear. And now for my sins,

since no one volunteered at the AGM, I am the Club Secretary, Webmaster and Newsletter Editor! It does make sense, however, as these three jobs are very interrelated so I hope I will be able to keep you all up to date and informed about local and national events.

As I said in the last issue this year will see a change in the newsletter format in that the January and October issues will be smaller reflecting the amount of activity going on. Hopefully the April and July issues will remain the same or even be a little larger.

It would seem that the website is doing its job because we have had several contacts from interested parties via this route. To this end I have been looking at improving things and have just added some video clips. They are very modest but will improve when I get a better camera or if members who have video equipment get in on the act. I see no better way of giving punters an idea about how we go about things. I can, eventually, see us going the same way as the PSSA and becoming completely web based so now is the time to think about moving into the 21st Century and getting online, if you aren't already. If you are, at least check your email regularly. You will be getting regular missives from me and you can keep in touch with the group. So keep a regular watch on your inbox and we'll see you on the slopes!

Club News

AGM

14 members attended the AGM this year. The chairman, Treasurer and Safety Officer gave their reports.

Reports

To summarise: Members were thanked for their work during the year and for donated raffle prizes. They were also reminded that the club shop was well stocked with balsa. The shop had made a small profit in 2007. At the time of the AGM the club had 31 adult members and 2 juniors and the accounts remain healthy (£1,219.76 in hand) as there had been little expense during the year. The North Hill Fun fly evening had been successful at a cost of only £7.00 to the club. The BMFA subscription for 2008 will increase to £28 but to offset this a little WBMGC subs will be reduced to £10. Safety Officer, Steve Alford, alerted members intending to fly at the Tiverton slope that there is now a group of helicopter modellers who fly at the bottom of the hill at Butterly which could cause frequency problems for us. Bossington may now be the better slope when the wind is NW.

Election of Officers

Ted Williams was re-elected Chairman and Pete Guyan agreed to continue as Treasurer and Membership Secretary. David Baker said he wished to retire from the post of club Secretary and as no one at the meeting felt able to do the job Colin Wavell was approached and has agreed to take it on.

The Arthur Withers Award

Tim Prett was the winner of the Arthur Withers' Award in recognition for his efforts in designing and producing the amazing 'Sniper'. There are composite and EPP versions of this 60" F3F/Pylon Racer plank wing which will be seen on the slopes in the coming year.

Rules and Constitution

All those present were given a copy of the club rules and constitution containing amendments and these were agreed.

Goodwill gifts

It was agreed to organise goodwill gifts of booze and chocolates for the various landowners /farmers who assist the club.

A and B Certificates

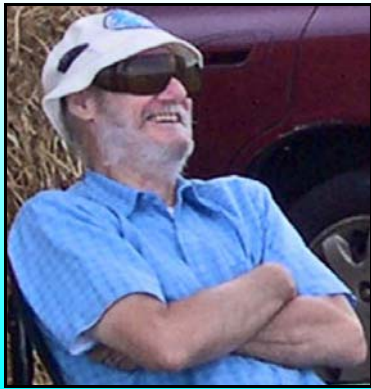
The subject of A and B proficiency certificates was raised and Ted said he would look into getting an examiner from the South West region to visit us in order to test members wishing to go through the process.

Front and Back Cover Pictures

Finally made it to fly on Boxing day!

Usually for most club members the Boxing Day meeting is just out of bounds due to family commitments...as it should be! This year Ted and Colin and Colin's partner Elaine made it up to the Beacon with a colourful collection of planes. The lack of other flyers was more than made up for by a huge audience of post lunch walkers. Our colourful craft entertained the masses and every time we achieved a combat hit or pulled off an impressive aerobatic manoeuvre up went the whoops and cries. Lots of interesting questions were asked and there could even have been one or two prospective new members amongst their number. Elaine was experimenting with video on her relatively new digital camera. Check out the website to see her first video of Colin's Le Fish





Chairman's Chatter

My wife says that this hobby of ours has become an obsession with me and I am inclined to agree. Recently when filling out a questionnaire, where it asked for religion, I entered C of G !

I hope to see you all on the slopes this year with the good weather we're going to get (well you've got to be optimistic).

There is a slight problem with our meetings venue as the Beambridge Hotel is closed for refurbishment until Easter. Suggestions for alternative venues on a postcard please!

Saturday is King!

On a couple of weekends recently the various internet weather forecasts made it very clear that our usual Sunday flying slot would be weathered off. Rain, rain, gales and more rain! Heavy rain will always stop us flying. Gales up to 30 MPH are flyable, with the right plane, but gusts up to and beyond 50 MPH are not really much fun! Saturday has been our saviour. It's always worth looking at the coming weekend's weather on <http://www.xcweather.co.uk/> or you can access this from the website www.wbmgc.co.uk. If you want company on the slope and it looks like Saturday will be good, and Sunday will be bad, it's worth giving me a ring because it's likely that at least Colin and I will be flying.



Move over you



.....gimme some space!



My Aggressor



Colin's Fish



Your tail's not on straight!



If you'd hit the ground as many times as me your tail wouldn't be straight!

Saturday 2 February was an absolute cracker!

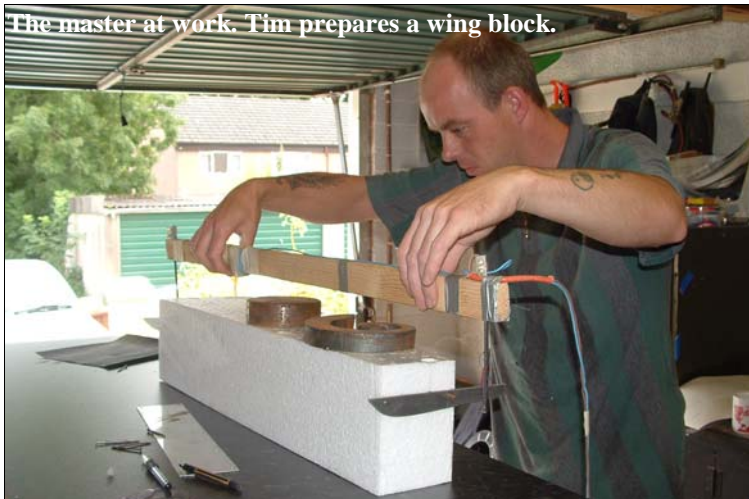
We started flying on the West slope at the Beacon and conditions were bumpy to say the least. Later in the afternoon as the wind moved round to the south slope it was a different story. It was perfect for the aerobatic models and models like the Aggressor, Le Fish and the Guppy came into there own and manoeuvres not seen on our slopes before were achieved!Ted.

EPP Sniper

By Steve Clarke

Readers may perhaps recall in the July 2006 newsletter, Tim Pre-
vett's article on his composite 60" 'plank' design, the Sniper. Since
then Tim has built 2 more, including a carbon one, and there are
several more on the way. In fact it was for his work in developing
this design that Tim was voted winner of the Arthur Withers trophy
at last year's AGM. Seeing the really impressive performance of the
composite Sniper immediately set me thinking that an EPP foam
version might be a very competitive 60" EPP pylon racer for use in
the BMFA pylon league. Tim and I decided to put our heads to-
gether and try to develop such a model, drawing on his engineering
skills, and my experience of building with EPP.

The first hurdle to overcome was getting hold of some EPP. It's not
the sort of stuff you can just walk into a model shop and buy over
the counter. Indeed, in the year and a half we have been working on
the EPP Sniper, sourcing foam of an adequate quality and at a rea-
sonable price has been a big problem. It comes in various densities.
For foamy gliders the most often used densities are 1.3 lb/cuft (=20
g/t) and 1.9 lb/cuft (=30 g/t). Generally the denser stuff is stiffer
and less easy to crush but we have discovered that there can be a
huge variation in the structural quality of foams from different
manufacturers. Some have good structural integrity where the indi-
vidual expanded beads are well bonded to each other. Other blocks
we have sourced are much weaker and more prone to crumbling
even though their density might be higher.



The master at work. Tim prepares a wing block.

We decided on a general approach to construction which would in-
volve a fuselage made in two halves with a fibreglass tube longeron
running down the middle. This is how most planes of this ilk are
built, although a foam clad ply box is also not uncommon. The
depth of the fuz had to be raised slightly compared to the glass ver-
sion to accommodate the shoulder mounted, glued in wing which we
chose in preference to a bolted on configuration. The fin was to be
wire cut from foam with a couple of 4mm carbon rod vertical in-
serts. For the wings I had managed to buy some carbon fibre golf
driver shafts from Ron Broughton (he of the SuperRonik Balistik
fame) at a BMFA league comp. These make superbly strong and

stiff spars and we decided to join them in the middle with length of
aluminium tube epoxied inside them. Inside the ali tube was a cen-
trally located 3" steel bar turned on Tim's lathe. These wings were
not going to clap hands!

The spar was to be glued into a U shaped, hot wire cut channel in
the wing with foaming PU wood glue. This glue is monster strong
as it penetrates the EPP as it foams up and expands thus providing

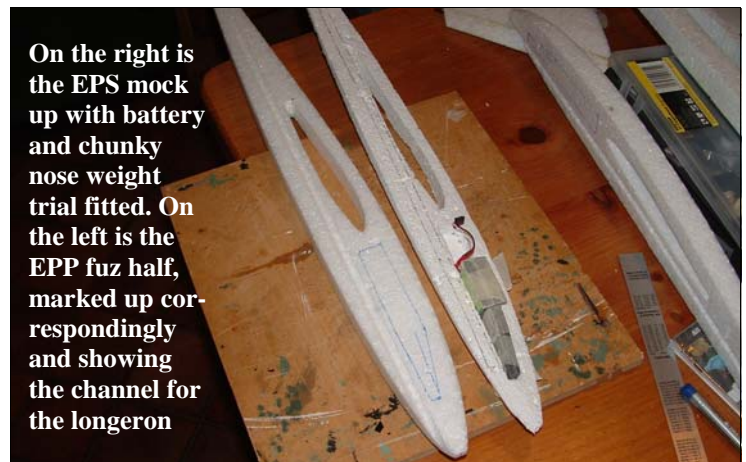


CF spar test fitted in the hot wire cut channel in a wing

a really good bond.

Tim's first composite Sniper used Robart knuckle hinges inside a
thin walled aluminium tube which gave a superb gap free hinge.
Enthralled by the cleanliness of this we set about making a similar
but more robust version to withstand the rigours of pylon racing.
Tim devised a genius system involving an 8mm glass tube cut into
2" lengths which were epoxied alternately to the wing and elevon.
The elevons were then vacuum bagged by Tim, with their tubelets
in situ and accurately aligned - no mean feat! A 6mm carbon tube
was then slid inside the glass tubes to "lace up" the hinge. The re-
sult was like an oversized piano lid hinge and, although it was very
heavy and put a lot of weight behind the CG, it worked bril-
liantly..... on the bench!.....

Our first batch of foam was some reject blocks from Stan Yeo at
Phoenix Model Products. This stuff ultimately proved to be both
too low density and too loosely bonded to be robust enough for the
punishment we gave it but at first it was all we could find at any-
thing approaching a reasonable price.



On the right is the EPS mock up with battery and chunky nose weight trial fitted. On the left is the EPP fuz half, marked up correspondingly and showing the channel for the longeron

I was immediately keen for Tim to get busy with the hotwire cutter but he insisted that we take our time and make some mock up parts out of some white polystyrene foam he had rescued from a skip. That proved to be wise counsel indeed as it enabled us to fully tackle the tricky details of where each component and cut out had to go in relation to each other by playing with 3D objects rather than drawings. This saved a lot of wasted EPP. Once everything had been worked out Tim cut me a set of parts and the Mk1. EPP Sniper was built just in time for Tim to take it to a 60" race meeting at the Bwlch. . The plane proved to show a lot of promise but received a thorough impact testing – in fact a proper roasting and a new fuselage and longeron were required. Also the gapless hinges were proving a little tight and were stressing out one of the servos.



Mk1 EPP Sniper

A new fuselage was duly built with a carbon longeron this time and we took it back to Wales a few months later. On this occasion we got a thorough soaking and water got into everything. One of the hinges seized up because of swelling in the spruce drag spar causing misalignment of the glass tubes. Some auto grease partially cured this and later in the afternoon when the wind got up to 60mph (I jest not) we had some pretty exciting flying. This ended in tears though and we broke the longeron again and knackered another servo. I was now convinced that the design concept was very sound but that we had some problems with certain aspects of the construction and with general weakness of the foam. Time for a Mk.2! We managed to get a couple of blocks of much more promising (and, at £19 a block, much cheaper) black 30 g/l EPP from one of the Welsh lads and Tim set about cutting 3 sets of parts for Mk.2 planes which he passed on to me to put together.

We ditched the problematic gapless hinge in favour of a conventional taped one and switched to a shaped balsa fin for simplicity. The Mk.2s all have vac bagged carbon elevons, a carbon ribbon drag spar and use Futaba S3150 digital metal geared servos.



A carbon golf driver shaft spar being installed in a Mk.2 wing with foaming PU glue.)

Many moons later we have flown, crashed, broken and repaired a couple of these and a third awaits delivery to Mark "Big and Dangerous. Having now had the chance to fly it competitively I can attest that the EPP Sniper does indeed hold up very well against some of the fastest planes out there and has proved its mettle against Gulps and HP60s.

Unfortunately even the improved black foam is proving insufficiently tough. Like the first white batch this comes from a company called Linpac who seem to be the only UK manufacturers. Even at 30g/l their foam is pretty crumbly and not very impact resistant. We did some useful "field testing" on that when Tim and I managed to mid-air our Mk.2s with a closing velocity of around 100mph at another Bwlch event!



Oops!

Even multiple coats of thinned Goop, double layers of strapping tape all topped off with pro-film will not preserve a plane made out of squishy, crumbly foam.

We have now, after a lot of searching on the net, sourced some EPP from a German company called Hei-Tec. www.hei-tec.de. This stuff is totally the badger's nadders (at £50 a block you're gonna hope it would be!) and we have 3 more sets of parts in white 30g/l foam currently being assembled. Although the foam is much more expensive it has great integrity and is infinitely stiffer. Tim is cutting about 4 ½ sets of parts from a block so still worth it I think. I am very optimistic that these planes will be extremely resilient and intend to campaign a couple in the forthcoming BMFA pylon league. These are really just Mk.2s but my first one has an 8mm glass fuselage longeron with a Gooped in 4mm carbon rod inner core. I have installed some much beefier "high impact" carbon driver shaft spars in the wing and the drag spar will be a carbon ribbon and spruce sandwich. The whole wing will be strapping taped all over on the 45 deg. bias with an additional lengthways layer of tape over the D-box. There will be dual 12" ballast tubes packing a maximum of 2 lb of lead! The Sniper needs to fly fast to get the best out of its pacey aerofoil so there's no point building 'em light. In good conditions..... **it's going to be a tough contender!**

Contacts and Dates

Paid Up Members List

Club Dates For your Diary

Club Meetings

Club meetings are usually held at the Beambridge Hotel but as it is closed for refurbishment until Easter an alternative venue has to be arranged...at least for the first meeting. Those online will be informed by email nearer the time. Those not online will be informed by telephone or snail mail.

Monday Feb 25

Monday April 7

Friday June ??? North Hill Fun Fly and BBQ

Actual date is still to be arranged but traditionally it is held as close to the longest day as possible'

Monday Sept 15

Monday Dec 5.....AGM... Including build and fly competition

Slope Soaring

As a club we meet all year round (weather permitting) on Sunday afternoons from about 2 p.m If it looks like it's bad on Sunday but good an Saturday we will fly on Saturday. We also try to get out on Wednesdays. From late April to September, we meet in the evening from about 5 PM and during the winter months from about 11 PM. Contact Ted on **01823 663754** to confirm times and which site will be used.

Flat Field Flying

Flat field site is at Nynehead near Wellington. Ring Ted on the above number on the Saturday or Sunday morning for information and directions. Flying starts at 2.00 PM

Sunday May 25 Sunday June 29 Sunday July 27

Sunday August 31 Sunday September 28

Woodspring Wings Model and Full Size Air Show.

July 5th and 6th

This was cancelled last year due to flooding so if you can only manage one show in the year this is the one to see. Support your local show!

South Wales Soaring Association

Bad weather has meant that no decisions have been made yet.

We are usually invited to three competition weekends at the Bwlch. The Saturdays are for 60"F3F and the Sundays are for Combat. Spend the whole weekend and do both! Cars will be going so make enquiries.

Look here, and on the website, for competition dates and information throughout the year

If your name is not listed above this indicates that you must renew your club, and possibly, your BMFA Membership. If you don't , this will be the last newsletter you will receive. Also remember that if you are flying without BMFA insurance you could be risking our flying sites and huge costs to yourself if you cause injury to others.

Officers of the Club

Chairman	Ted Williams zen63441@.zen.co.uk	17 Wardleworth Way Wellington TA21 OBA	01823 663754
Treasurer & Membership Secretary	Pete Guyan JOYGUYAN@BTINTERNET.COM	1 Virginia Cottages Downend Crescent Bridgwater TA6 4TH	01278 686915
Secretary & PR Officer Newsletter & Website	Colin Wavell colin@wavell.net	52 Addison Grove Taunton Somerset TA2 6JH	01823 327205
Safety Officer & Competition Secretary	Steve Alford s.alford05@tiscali.co.uk	Kirkdale Stoneyford Cullompton Devon EX15 1NU	01884 32121



The Aerobatic Guppy