Biggles News - 2013

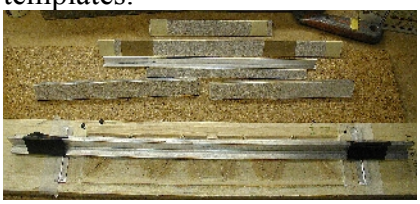
Roger Heap:
My first and possibly my last attempt at the Biggles News! - I hope it goes well. Thanks to Andrew, John, Brian, Noel, Steve and Chris, ...and to non-Biggles, Alan and Gary for their contributions.

Biggles FFT members - David Brawn, John Cooper, Brian Lavis, Neil Cliff, Chris Strachen, Trevor Payne, Noel Parry, Chris Parry, James Steers, Stephen Brewer, Andrew Crisp, Mike Evatt, Pete Tomlinson, Roger Heap and Sam Heap.

My new stuff...
There's so much electrickery about these days! I'm still firmly stuck in the clockwork and balsa era! Though busy fixing planes for Sam and doing catapult gliders for both, I've refreshed my 'squadron' with three new A1's. An early start meant less of a pre-season rush. They are almost identical, all with solid balsa 'D' box two-piece wings and hardwood spars. The tailplanes use a large balsa leading edge, 'W' ribs and no spar. I had real trouble keeping track of so many bits and pieces!

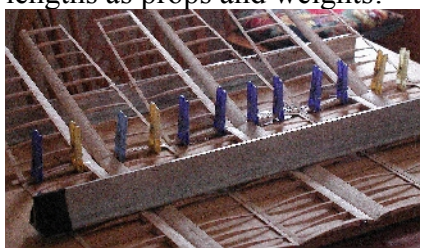
I quite like the woodwork, but not the mess! As usual, I left fuselages until last, and, as usual, they took ages to finish. I never think my creations feel like planes until the wings are covered, ...is it just me thinks like that?

Useful tools...
I'm probably repeating myself when I mention the most useful tools are my 'T' section aluminium sanding bars with stuck-on sandpaper? Up to about 11" make handy files. Longer lengths finish off wings nicely, and the largest make handy right-angle jigs. Below, I'm finishing off a tailplane between two aluminium templates.

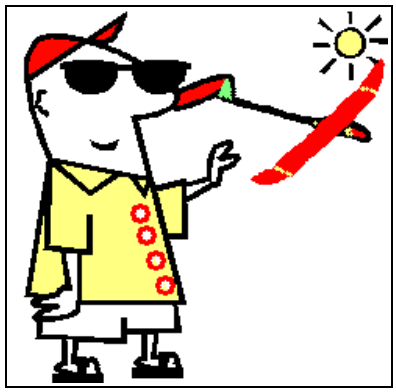


Using coarse 80 grade sandpaper and thin plastic parcel tape was not so good as it wore through in contact with the templates. Electricians tape was OK and using 120 grade was slow, but safe! Here is my gauge to get the dihedral joint just right.

...Here, lots of clothes pegs hold joints together - with alloy lengths as props and weights!



...Sunglasses ON!..



...The finished product...

Trevor Grey once said my paint scheme was rather 'bling'. I don't care, so long as they are easy to spot at extreme range!

After all this building, there's always lots of other pre-season preparation to do, - making up new lines, sorting out the toolbox, etc.! I tell myself it's fun!

...more

Catapult gliders...
Chris P. gave Sam a catapult glider, a kindness that Chris probably regrets as it flies well! I made some approximate copies, increasing the fuselage thickness to 1/4" after some breakages and added button d/t timers to some.

An elevator d/t was easy to make with a sticky tape hinge. Actuation is by 'synthetic - elastic - spandex' beading threads bought from various craft shops. I have both 0.5mm and 1mm diameter threads in various colours. The stretch does vary between brands, but set-up is no problem. Using a d/t (much to Chris's disgust, ...he doesn't like 'high tech'...) has saved some fly-aways. But, at the '12 Anglian Gala, I lost 3rd place to Dave Truluck after a tie. Both models were lost o.o.s., without setting d/t's!

This button timer is sleeved on the arm to increase leverage as the (clear) line tension drops towards the end of the d/t run.

Good reading...
I was lucky to find a second-hand Pelican/Penguin paperback book called - 'The Science of Flight'. The book is informative and advanced, even though it was published in 1949, just when supersonic flight was becoming possible! The author was Mr. O.G. Sutton, a distinguished mathematician who worked for government scientific establishments. In the book he describes:- air viscosity, resistance, skin friction, boundary layers, drag, stability and flow, both laminar and turbulent. He makes a point about the wave-like oscillation sometimes seen in models - phugoid motion. The term was derived from the Greek words meaning 'fugitive flight' and not 'bird flight', as you might expect!

Little critters...
Michael Palin the comedian and traveller, wrote about a 'most unpleasant illness', later identified as Lyme Disease. He described it as a tick-borne bacteria that affects the nervous system, causing: - blindness, deafness, facial palsy and excruciating pain. Signs of infection include a circular 'bull's-eye' rash accompanied by 'flu-like symptoms. He wrote that an early diagnosis, by a simple blood test, meant treatment and recovery could be started quickly. But, prevention is always the best option and the advice was:- cover bare flesh, use insect repellant and be vigilant...

...Professionals say that pulling out biting bugs with fingers or burning the tiny blighters does not work well and a proper 'tick-tool' is the right thing. At a pinch, fine tweezers or a plastic card with a slot cut in it would do. Once the mite is completely removed, an antiseptic should be applied to the bite area. More can be found at:- ***www.lymediseaseaction.org.uk***

Quoted from the Collins Dictionary...
...ALIPHATIC - adj. (of an organic compound) not aromatic, especially having an open chain structure, such as alkanes, alkenes, and alkynes [19th century: from Greek aleiphat-aleiphar oil]...
...OK?...

...More about glue - I always use strong glue for critical applications, but recently I tested a P.V.A. adhesive found in my local craft shop. Impex make a lot of glues including '...Original - Hi-Tack - all purpose - very sticky glue...'! It is supposed to stick china, metal, polystyrene, wood and glass. It is air drying, fairly waterproof, a bit rubbery and can also be heat bonded. I tested it with carbon fibre and balsa and it works very well. So, I'll be using it for carbon cap-strips in preference to superglue or 'poxy in the future. - If I ever get round to building 'carbon' planes, that is!

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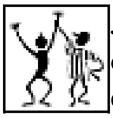
Biggles League 2012...



John Cooper and Mick Lester took home the 2012 trophies for glider and power, a repeat of last year! John could not be overtaken before the Midland Gala, but the power competition was close, and not decided until the final fly-off! 2001 was wrecked by the foot & mouth epidemic and last year, non-events, cancellations and bad weather reduced participation. However, for the first time ever, maximum points were awarded in every glider event where flying took place! Looking forward, Area Events are to be incorporated into the Biggles League for 2013. A quick poll had positive feedback from most responders, - not unexpectedly from those unable to get to the familiar Gala venues. Most felt they would like a chance to feature in the results! There are a possible 11 glider and 7 power comps. eligible for points.

Year	F1H events / scoring competitors	F1J - 1/2 A events / scoring competitors
2001	3/11	1/1
2002	10/21	7/13
2003	7/21	7/19
2004	9/25	8/15
2005	9/26	8/17
2006	10/18	6/14
2007	9/22	6/15
2008	9/24	5/11
2009	8/17	6/15
2010	9/24	6/10
2011	8/23	5/13
2012	7/14	5/10

Biggles League information, updated results, and a copy of this newsletter are at:- www.bigglesleague/highsociety.org/ Some News pages are 'sideways' and best printed to read, unless you can rotate the file on the screen. The website also has details of the F1H Euro Challenge 2013, also at www.creasus/ikarus/. Our 3 of 32 nominated events are the BMFA Nationals, the Oxford Gala and the Southern Gala. There is also a 6 event F1J Euro Challenge, with the UK holding 4 of them! Details at:- www.f1jeurochallenge.jimdo.com

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Gary Madelin: *"It is nice to see an upsurge of interest in this (F1H) class, 32 contests in 15 countries is real progress given the initiative only started in 2011. I for one will be giving some of the events a visit. - Another initiative that the Germans are pushing is the 'Europa Cup revival', over the August Bank holiday long week-end. They are suggesting teams of three F1H flyers make up "national teams" as a pre-cursor to initiating a "Euro Champs" for the mini classes."*

(...Gary would have won the 'unlucky' award two years running, - if we'd got one! His full participation was spoiled after a transport breakdown in '11 and a 'self-inflicted' broken ankle, last year!...)

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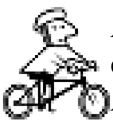
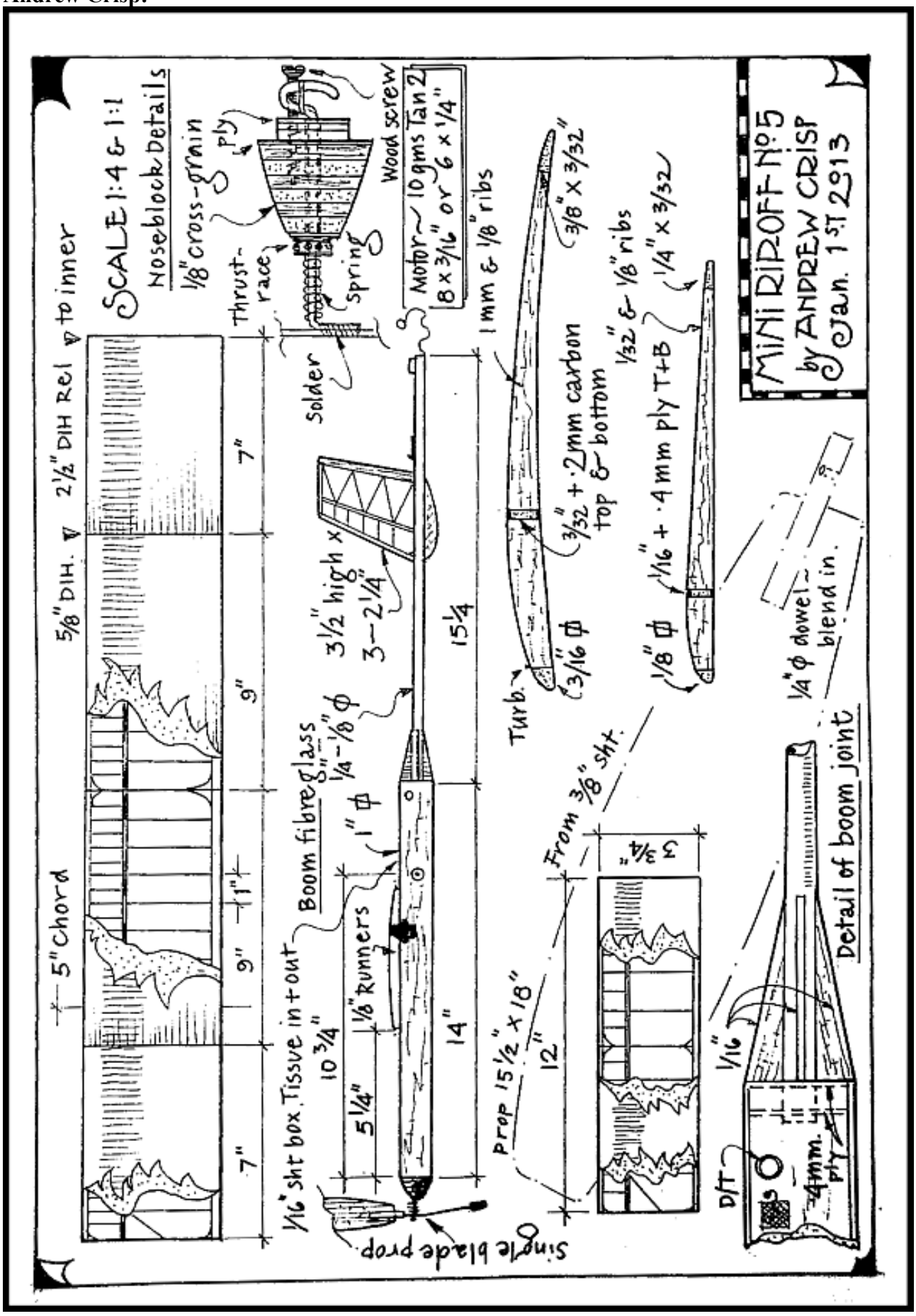


And finally, - special thanks to Andy for extracting Sam from the stream at Oxford,. You can leave him in next time! Thanks also to the organisers who make our hobby run so well. And, good luck to everyone - while flying at home and abroad. I see the Aero-Modeller magazine has returned! Issued bi-monthly, I'm sure it will do well!

Roger Heap Jan 2013

Andrew Crisp:



MINI RIPOFF No 5 by ANDREW CRISP.

I have always been attracted to French, built-up fuselage style Coupe d'hiver designs ever since I first saw them impressively in action at the first Aero Modeller Coupe International at Halton in 1975. Incidentally, I still have, in flying condition, the model which I made especially for that event!

Eventually Georges Matherat's "Les Trumeaux" was published in the A/M and in Bill Hartill's excellent World Free Flight Review.

A while back I built my version of "Les Trumeaux", but with a completely built-up fuselage, rather than a motor section and rear fibre-glass rod. It is a fine flier — easy to operate with no gadgets and right/right trim. Despite its great size — its total area is on the upper Wake limit - 294 in², it can handle modest turbulence as well as more benign conditions.

However, just for a laugh, I fancied

something at the other end of the size spectrum, for flying in mind. So, using the same wing and tail airfoil templates as the large job, and with more than a nod to Bernard Boutillier's "Microcorico", I made a Coupe which is not much bigger than a P-30. This has completely traditional construction, and being covered in the rather porous light weight Salzer tissue, is pretty strong. The small prop, 15"x17" gives a short, fast run of 30 sec which gets it up pretty quickly despite not having V·I·T etc. Again a R/R pattern is flown.

Mini Ripoff No 5 presented here is a development using more modern construction. A single blade propellor is used, mainly because I had one in my "prop. drawer"! I have started to make all my blades in the Phil Bell manner, which itself is evidently derived from the "Urchin" design. I'm not quite sure of the pitch distribution, but providing your nominal designed pitch is set at 70% radius, they

3 seem to work OK. I cover as a paddle, then insert at 1/4" or 5/16" dia. dowel in the root, cricket bat style to take the hinge tube and forward stop.

There is a nod towards contemporary construction in the flying surfaces. I have made many tails for all sorts of model using the mainspar capped top and bottom with 1/64" ply method. For larger stabs eg. F1A, you can use ply doublers in the centre. No mucking about with cyano or epoxy — UHU Hart balsa cement works fine, as it does for nearly all my construction.

Covering — JOD's plain silver mylar, shiny side outwards, or straight Jap if you like. I stick on mylar using Exterior Evostic W P.V.A. I dope the airframe to seal the woodgrain, then send lightly. Paint on slightly thinned P.V.A., wait for a moment for it to go "tacky", then lay on the mylar and pull tight as if you were using tissue etc. Do not attempt to just wipe with your hand, iron straight away, or the mylar will bubble, but leave for

4 15 minutes or so. You can stick a turbulator on tightened nylon by doping a 1cm wide strip of Jap or Modelspan on the silver covering, then gluing a suitable turbulator cork on top of that.

Trim — although I tend to trim later, more highly powered rubber jobs like Wakes, Open and Tail-less, right/left to handle a strong first-burst, I prefer Right/right for Coupes. This trim uses up less "sky" and, as they don't get that high relative to other rubber powered classes, they tend to stay in any good air that they might have been launched into.

For R/R I tend to favour small amounts of a combination of several trimming areas — viz: zero incidence on the wing, with negative to suit on the tail. No down-thrust if possible, but a shade of right thrust. Slight right rudder and right tail tilt. Models wants across the wing, eg. left tip 1/8" wash-out, left inner flat, right inner 1/16" wash-in,

5- right tip 3/32" wash-out.

Motors — I'm old-fashioned. I don't like 1/8" rubber. I still have some Tam 2 (and even Tam 1 (!)), and use 8 strands of 3/16" or 6 of 1/4". With luck and a fair wind I can get on over 400 turns. Of course a winder-tube is used, but I still use a fuse for DT. There may be a tracker for 2013!

A.J.C 1.1.13

John Cooper:

Electronic Gliders – 7 years on.

Whilst this article relates mainly to my experiences with electronic F1A's and F1H's, some of the principles will doubtless apply to all forms of electronic free flight.
Within the article there are several comments on battery/timer performance, these are all based upon my practical testing, rather than by reference to the theory involved. E.G. if I want to know how many flights per day I can get from a particular battery/timer combination, I set the fuselage up with a fully charged battery and then spend a few minutes moving the hook around (to simulate the circle tow phase) then unlatch it and leave everything sitting on the side and repeat once an hour (to simulate an FAI contest with hourly rounds and long retrieves). N.B. such testing is restricted to wet and cold weekends when I'm not planning to go out! The only test equipment I have is a very basic voltmeter.

My first foray into electronic models was in early 2006 but I've now 'electronicised' all my good models - 7 x F1A and 3 x F1H. All bar 2 are equipped with 2 or 3 servo Black magic timers.
The batteries have varied over the years, starting with both 4.8v and 6.0v and with capacity increasing (particularly as I moved to 2 or 3 servos). In general they were NiMh and the capacity was the largest that I could build into the fuselage nose, consistent with getting the correct CG. I initially dabbled with LiPo's, but the performance of the early ones that I tried was poor, hence I didn't continue with this.

As of mid 2010 this meant that I used:

- F1H - 4.8v, 120 mah, 16gms. This gave a safe maximum of 15 back to back trimming flights or 3 flights an hour apart with power left on between flights.
- F1A- 4.8v, 300 mah, 32 gms. This gave a safe maximum of 40 back to back trimming flights or 7 flights an hour apart with power left on between flights.

Because the batteries were fairly bulky it meant that removal wasn't an easy task (the timer needed removing first). As a result I needed to charge the 'fuselage' rather than the battery and a flat battery during a contest required a break of at least 30 mins to carry out charging. To avoid the risks inherent in having fuselages sitting around on charge on the field, I tried to restrict charging to home or hotel etc.

NiMh batteries were of course well known for leaking charge quite rapidly in storage, which necessitated charging them on the day of the contest (or possibly the day before). Not a problem when I only had 1 model, but quite a hassle with 10 and needing to charge several the day before to allow for both calm and windy conditions.
A full days trimming at Lost Hills would sometimes involve flying 8 models, hence the entire evening in Motel 6 had to be dedicated to the recharging. [This of course restricted how much time was available for the gourmet fast food dining and drinking for which Lost Hills is renowned!!!].
I'd also had occasional problems with NiMh packs which had 1 slightly substandard cell in the pack of 4 or 5 – and hence checking the overall voltage suggested it was OK. In practical terms this gave problems with the Hall effect switches not working correctly. As you started a circle on the line the model either DT'd or bunted – not good, particularly not during a contest!

Preparations for Poitou 2010 convinced me that this approach was overdue for change. The day before leaving I had to charge 6 models, 4 spare batteries, my tracker receiver, 2 palm pilots, my mobile phone and my electric razor – what a waste of a day. Whilst sitting in the Pas de Jeu camp site charging batteries, I noticed quite a lot of beeping from other battery chargers – clearly I wasn't

the only person wasting time on this!

Before heading off to Lost Hills in October 2010 (with another pre travel battery charging marathon) I decided on my new approach, carried out some tests and converted 2 models for testing at Lost Hills.

The approach decided upon was:

- Lipo batteries (which had improved since my early tests and have virtually no charge leakage over time)
- A standard battery size for all models
- Enough capacity for a full days flying on a single battery
- Batteries that can very easily be removed from models

The intention was that:

- 'batteries' rather than 'models' could then be charged
- batteries could be charged at a convenient time, rather than immediately pre the contest
- no need to charge batteries when away from home for overseas contests i.e. just take enough batteries with you

Performance Concerns. After my earlier tests I was concerned whether a single 3.7v LiPo could adequately replace a 4.8 or 6.0v NiMh. The servos do run a fraction slower with a single LiPo, but testing at Lost Hills in October 2010 showed no need for any trim changes on my models. [If this is a concern then the Black Magic timer does allow you to alter the servo speed if required]. It is possible to fully resolve the problem, by adding a voltage booster (up to 5 or 6v) between the battery and the timer and I did test these. However the results weren't good! I had 2 versions of 1 type of voltage booster catch fire, apparently because I put heat shrink over the chip. The second version that I tried worked well, but continued to draw power even after DT between flights – this reduced the number of potential flights per battery by over 50%.

Batteries. My initial intention had been to use standard consumer cells, rather than the LiPo's marketed for modelling. These cells are fairly readily available and aimed at digital camera use, sized as either AAA (500 mah) or C123 (900mah). However, both of these proved unsatisfactory. Both had a peak voltage of 4.05v (rather than the normal 4.18 v for a LiPo) and both did still exhibit charge leakage (albeit, nowhere near as much as with NiMh). In practical terms all of my servos had a constant buzzing sound with these batteries.
I've now settled on using a mix of single 750 mah and 500 mah LiPos for my models (choice depends upon free space at the front of the fuselage!) all bought on eBay from Hong Kong / China at about £2 each. These are 45mm x 26mm x 9mm and weigh about 20gms for the 750mah and 40mm x 25mm x 7mm, weighing 12 gms for the 500mah. As a quick quality test I also bought an identical spec 'original' 750mah battery within the UK – this cost £12.50 but had no better performance than the cheap batteries from eBay. At £2 each they are virtually a throw away consumable item. These batteries have enough capacity for 50 back to back trimming flights or 9 flights an hour apart with power left on between flights.
These batteries are not really intended for constant handling as they are moved in / out of models and the wiring connections do look a bit flimsy, I do therefore tape the wires down the side of the battery and add a tape 'pull tab' so that I don't need to pull the actual wires to remove the battery from the model.
Incorporating these batteries into my models did require a bit of work, with some models requiring the timer to be turned through 90 degrees to allow the battery to slide into the nose. Extra nose

weight was of course needed for all models.

Making the changes to all 10 models took about 3 days work, but should pay dividends on future trips abroad. Now, if only I could get the same batteries incorporated into the Palm Pilot, the tracker receiver, my mobile phone and razor!!

Airline Regulations

Most airlines have regulations on carrying LiPo batteries (both re the actual amount of Lithium that can be carried and how / where they are carried). With the airline that I use, the regs allow up to about 30 batteries of the sizes that I use to be carried) but they can only go in hand luggage. I must admit that I was a bit dubious about going through Heathrow security with my hand baggage containing, Binoculars, Palm Pilots, GPS, Trackers plus a dozen loose LiPos, but it passed the security scanner with no queries.
N.B. Consumer goods with built in LiPos e.g. electric razors or cameras, are allowed in the hold.

Follow up – January 2013

I've now used this approach for over 2 years and it works well. For UK contests and Poitou (a 5 day trip) I travel with just batteries and no charger. For trips to Lost Hills (about 10 days) I must admit that I do take a charger – just in case it all goes wrong!
The last 2 years of practical use of this approach has also produced the following approach to deciding whether or not a battery is 'good' to use.

Good batteries:

When charged they have a peak voltage of 4.15 to 4.20 volts.
When stored for (say) 3 months over the winter the voltage drops to between 4.05 to 4.15 volts.
When stored for a long period (say 12 months) the voltage drops to between 3.95 and 4.00 volts and then sits at this level.

Bad batteries:

Anything that falls outside of the above parameters!

Lipos are meant to become 'bloated' and 'squashy' when faulty or when discharged too much. I've never encountered this but have had a few batteries that fell well outside the above parameters:
3 batteries that simply wouldn't charge to more than 4.1 volts
1 battery that discharged over the winter to around 3 volts
1 battery that would discharge from 4.2 volts to just under 4 volts within an hour of charging.

I regarded all the above as 'faulty' and disposed of the batteries – at £2 each it's just not worth taking a chance of flying with a faulty battery.

My best ever purchase was a batch of 6 batteries – they charge to 4.18 volts and even after sitting over the winter they still show 4.18 volts and take under 1 minute to re-charge. A pity the firm ceased trading before I could buy any more!

John Cooper

John Cooper

January 2013

Brian Lavis:

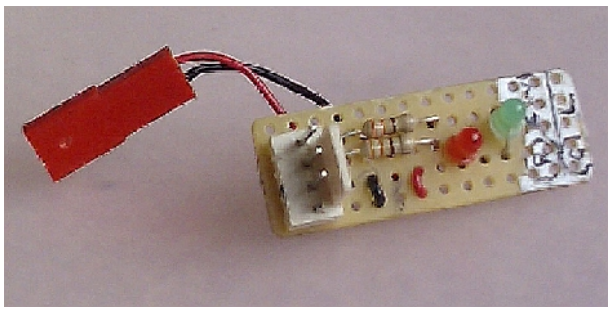
Last season ended for me when I put a foot down the drainage gulley at North Luffenham resulting in a severely sprained ankle – which has not yet completely healed. It was lucky that I was just strolling, winding in a line, rather than running – it could have been broken leg, pelvis, whatever. I went back later to check that the hole was as deep as I believed – it was, at about 32" – and repeated every 10 yards or so. Beware!

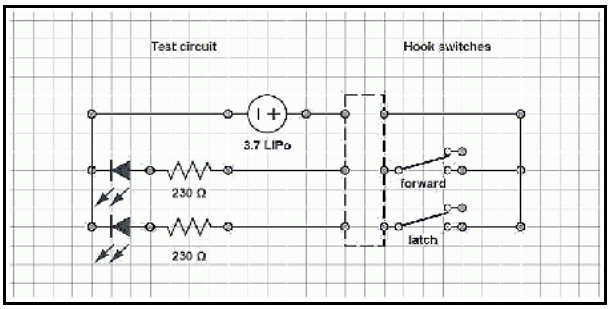
Most winter seasons start with high hopes of all the models that are to be designed and built. This year was different & I started with the single task of converting the forked-tongue mechanism on my Vasily Beschasny F1H to the Stamov twin pulley components. Somehow I managed to spend hundreds of hours happily (mostly) involved in modelling activity. Incompetence helps greatly. If you enjoy doing something then why not do it badly so that you have to repeat it several times.

The following is a list of the tasks with a few of the failures. Sorry the pictures are poor – they were taken with my camera which is not good for close-ups.

Vasily modification
The hook had already been modified to remove a chunk of the metalwork & replace the Hall-effect switches with a mechanical forward & reed unlatch switch. That worked. Threading the multi-strand wire through the minute holes on the pulleys is always a problem to me. The wire unravels despite dipping in cyano and it takes me at least 3 lengths of wire before succeeding. Get the wires in & you find that they are twisted around the rudder line & nothing works. That problem was finally resolved but now the switches had stopped working. The hook was rewired & a hook tester created. So the model is converted & I just need some flying weather to show me what is still wrong with it.

Electronic hook tester
The tester consists of a small piece of PCB with a 3-pin connector to the hook and LEDs to show the state of the 2 switches. Sadly I knew nothing about LEDs; that the ones I used won't take 4.2v and that current direction is significant. They burnt out of course, Another trip to Maplins to buy more LEDs, rewire the right way round and put 230 Ω resistors in series. So now I have a neat little tester that shines red & green lights and is still working!





Hook switch tester

Moulding F1H fuselage pods

I started this paragraph to be a full description of making the pods but it got too long (and who would read it anyway) so I have cut it down to just this winter's differences.

- Clamping boards when moulding
- Wooden fuselage half models
- Body-filler moulds in wooden frame
- Reusable rubber for compression
- Moulded halves
- Halves plugged together & hatch cut

Over the years I've made quite a lot of fuselages for F1Hs and they have always been adequate but with the carbon grain showing through. I wanted the nice smooth finish of the professional items and the two halves to fit together without taping the join. I haven't aspired yet to fusing the sides together during curing. Maybe next winter for that. The shape was to be more or less the same as the M&K but with a bit less cut-out at the TE.

After some abortive experiments the final method didn't differ much from my usual: a wooden frame, filled with car-body filler & the wooden plug (half-fuselage template of 9mm obechi (?)) squeezed in. For a change I drilled holes through the wooden frame to ease the squeezing out of excess filler. Sadly this was forgotten when used and I finished up with a heap of filler spaghetti all over my trousers & the carpet. The trousers went straight in the bin but the carpet was saved.

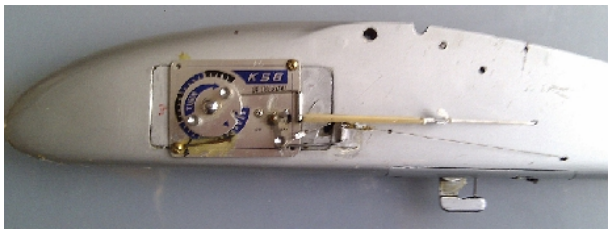
To allow the fuselage halves to plug together one of the plugs had an additional 4.5mm wooden lamination glued onto the back & shaped to match. When the 2 moulds are created and cleaned up, a 4.5mm strip of 1mm thick self adhesive wax is carefully fitted around the inside of the deeper mould. This material has the advantage of being uniform in thickness, adhesive backed, non-stick to epoxy & will pull out to allow extraction of the moulded pod half. It was a great surprise how well the halves fitted together. Some cleaning-up was needed at the spigot but otherwise it just worked.

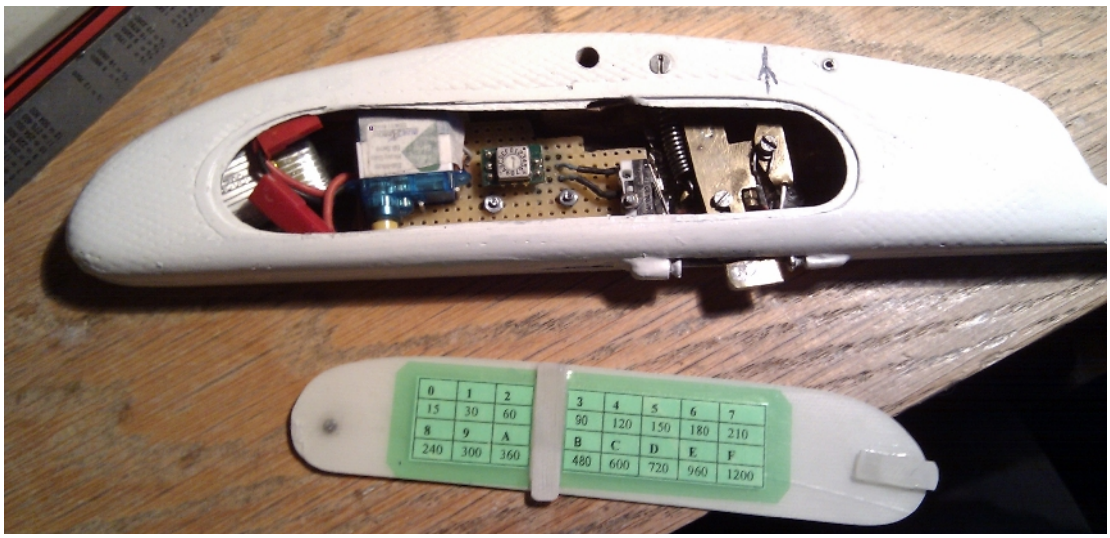
The improved surface came from using a gelcoat which is allowed to dry to the tacky stage before carbon and epoxy is inserted. The gelcoat was a success but also gave me another cause for failure – the carbon wasn't pushed into good enough contact and bubbles were left. Unsupported gelcoat isn't much good. Trylon remeltable PVC rubber was used to push the carbon down into the mould. This material is heated to about 150C, poured into mould & allowed to cool. Just heated in a saucepan on the gas cooker it can give out pretty noxious fumes – after the pouring the pan was put on the doormat by the open kitchen door. Alas the doormat melted at the pan temperature & now has a round hole burnt into it. No allowance was made for skin thickness but the rubber squashes well and is marvellously non-stick to epoxy. The bubbles arose because it didn't push completely under the wax edging or into the edge of the hatch cover depression. Two pods were made & both are perfectly usable though one will need filling where the gelcoat failed. I plan to remake this one side. I must do better!

Of course I spent far more than the cost of buying a couple of ready-mades.

Simple electronic (SE) timer

I fitted these timers into F1Hs a couple of years ago but have not done much with them. It was too easy to break wiring when parts (timer, servo, switch, battery) floated around. Now, apart from the battery, they are assembled onto a few inches of PCB. It was very difficult (for me) to wire up the very small timer but now it is mounted on 5 PCB pins and the wires easily connected onto the board. A couple of bolts hold this in the fuselage & allow adjustment to the hook position. That has not been a problem. As my knees continue to deteriorate I find calm weather even more difficult for F1H towing so like some up-elevator applied (to the model). On the old KSB timed models this was created by a latch under the timer arm which releases when the timer starts. I have fiddled with alternatives for the SE model with not much success but have just modified one model very simply. The line which went from top of latch arm, over hook pivot to KSB is now just led backwards straight to the cam that raises the tailplane TE. It has the disadvantage over the original method that the 'up' is always applied when latched and not an option as it used to be. The modified model hasn't been flown yet but should be ok.

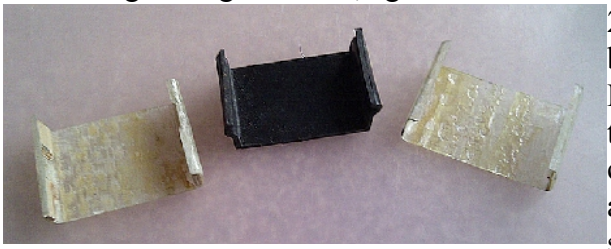




Components mounted on PCB

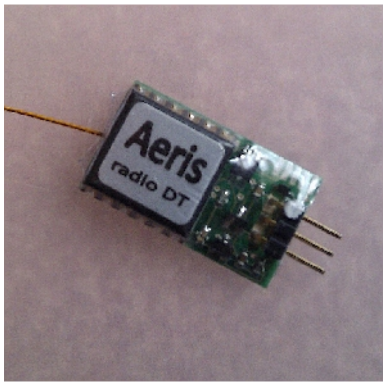
Timer mounts

The Black Magic timers that I use on my bunters have very little free area for a mount. I have spent happy hours making suitable mounts. The technique is not perfected yet! The first attempt was to mould 1.5mm plasticard around a wooden section. The pattern was a bit too small and it was also difficult to mould-in the channel for the edge of the timer. This material isn't strong enough to cut an adequate groove. It will be worth trying again with 1mm card & a better pattern. Instead I moved to moulding from glass cloth, again around a wooden pattern. To cut down the no. of layers of cloth 2 of 250gm were used. This gave the right stiffness but is too thick to get the sharp edges I hoped for. More layers of thinner cloth would be better. All the mouldings do the job but none is pleasing. Of course each attempt produces a strip from which about a dozen mounts can be cut so just one success will supply me for life..



Timer mounts from fibreglass & Plasticard

Aeris RDT



Another new toy is the Aeris radio DT. Flying at Lodge Farm I have already got models far too close to the trees so RDT could be a model saver. Apart from making up a couple of leads to connect to the electronic timers there were no problems apart from finding space for the gadget. That applies to the 2 multi-servo Black Magic timers but the oldest, single-servo, model doesn't have the appropriate connector & after soldering in wires I also found it doesn't have the necessary program either. It has gone off to Roger Morrell for re-programming/re-chipping whichever is necessary.

Buying

I seem to have bought a lot online over the winter. This has included epoxy, gelcoat, glasscloth, brushes, car body filler. There have also been a lot of connectors for electronic timer and batteries. Some of the items rank as best buys:

1. A new set of Bosch drills. So now I have bits from 1mm to 10mm in 0.5mm steps instead of scores of blunt, broken bits that have been gathered over 35 years modelling. I wish I could bring myself to throw away the rubbish.

2. An Onion Pad – a multi-layer mixing board. This is 100 sheets of impermeable paper about 250*220mm. Now there is no looking around for tin lids, etc to mix dabs of epoxy. Sheets are also large enough for bigger jobs.

3. A 500*500mm polypropylene sheet as a base board for laminating etc.

Finish

I think that's already too much from me. I've just been listening to a Seasick Sam song whose title I had hoped to blend into the text. I couldn't find any way so I'll just include it because it amuses me.

'I started out with nothing and still got most of it left'

Brian Lavis: Winter 2012-13

Has this happened to you? **by Alan Gibbs**

It must have been back in the 80's when some of the power flyers, particularly the F1C lads, were keen to try Kevlar covered foam wings. I was a member of the Birmingham club at that time and at our club HQ (also known as the Tipperary Inn) Ray Monks said he fancied building a wing to try. Bill Colledge said he would cut the foam as he had done a bit in his combat days and still had a bow and transformer. As they were longish panels Bill said it might be better as a two man job and so I was volunteered as I lived near Bill. Ray produced the two templates at the next meeting and Bill and I met up a couple of days later. Being very professional we marked each template 0-10 to ensure an even cut. With Bill calling out the numbers and me following we kept the bow even and everything appeared to be fine. This is where everything went wrong as Bill was following the top of the profile and I was following the bottom. Ah well, we all make mistakes! The shaped foam covered in Kevlar would have made a good prop for a microlite. Can't remember if we ever told Ray about our first effort. Since then I have built several A/1 and A/2 D-boxes with foam cores and skinned with Kevlar and carbon, but have used a sanding bar to get the section, not a bow. I wonder why?

Noel Parry:

CAPRICE YES! *(...but not as we know it...)*

Noel Parry's twist on this famous design!

At last years Nationals (2012) you may have caught a glimpse of a rather large Caprice floating above the Barkston runways on the first day of the major 3 day Free Flight event? - The first ever contest flights! Yes, it was Noel Parry's new 71" Caprice and with scores of 2.30, then two 2 minute plus flights that were dt'd down early to avoid the rapeseed fields, you can safely say that the 77 year old Noel had a most enjoyable first day. Weighing in at 16.5oz, some would say it's a little heavy? But, it was not built as a one flight flyoff model, but as a model that would be able to fly on most BMFA/Combined Glider days.

Noel took a standard Keilkraft plan to his local printers,who blew it up to what is almost a half size larger than the 51" Classic glider. Now with a span of 71" and a chord of 8.25", it has some wing area! So, here is the twist - to stiffen up the wing structure Noel added a chunky 8mm x 1mm carbon tube spar through the centre of the wing, 2 5/8" from the L/E, and a 6mm x 0.5mm in the tips. There are two 1/8" sq. spars, one on top, 1 1/2"from the L/E, one below, 4 5/8" from the L/E plus a 1" wide T/E and a shaped 3/8" L/E, all in balsa. It was then covered in Profilm - Oralight self-adhesive. Tailplane is of standard Balsa construction, covered in silver mylar. The fuselage is made from 3/32" sheet on top and bottom, glued to the sides with full formers at intervals throughout, which makes for a robust fuselage, covered in doped-on lightweight tissue.

Trimming was straightforward, a few test glides by hand then towing until the model went straight on the towline. Since the Nationals this Giant Caprice has done fairly well, maxing out twice at Team Glider. Noel is still getting used to the feel on towline, it has a pretty big pull at times! It has a very slow-looking glide and looks pretty sensitive to any helpful air.

This is the latest in Noel's Caprice stock, which also includes a standard version (for Classic Glider) and a carbon tube version of the 51" glider (for BMFA/Combined Glider).

Other projects??? Well, Noel is currently building a Sija and is looking forward to completing the model and trimming it ready for the HOT summer days we are all hoping for !!!!

picture and text provided by - ***Chris Parry, Jan 2013***

Steve Brewer:

Here's my all too brief contribution for Biggles News. - It takes the form of 2012 highpoints and hopes for 2013. I've managed to take quite a while to say very little!....

Looking back on my 2012 contest season initially seems a little uninspiring but when I actually look at what I managed to achieve it feels a little better. Competing in my first foreign contest at Viabon in France in February was a great experience. This was also my first and so far only F1G competition and also resulted in my first appearance in a glossy magazine!

I often gauge a season by how things went at the Nats. which was a bit of mixed bag for me. BMFA Glider went downhill after a good start and I managed to lose out on a third place in Catapult glider - by 1 second - after spiralling in on my last flight. The rain on Sunday also put a dampener on things but my efforts flying HLG were rewarded with a third place. My Monday highlight was a huge thermal flight in F1H for well over 4 minutes which landed 10 yards inside the aerodrome boundary and was rescued just before the heavens opened.

Andy's Oxford Gala was also a great day out where I managed to win HLG/CLG after making 5 straight maxes in the drizzle. I only managed to make 5 of my 7 flights after running out of time and was amazed to find I didn't need the remaining two. Taking turns to fly and time with Chris Parry and Peter Tolhurst in the last minutes of the comp. was hectic.

Later in the season I managed to reach a three way flyoff in HLG/CLG at the Grantham GP against Mark Benns and Bill College. I unfortunately messed up with two sub attempt flights but both Bill and Mark exceeded the max. with Bill's fine 1.21 taking the win.

The last hurrah of 2012 was a third place in F1H at the Midland Gala, my first podium in this class so, with these results in mind it wasn't such a bad year.

Since the Midland Gala, I've been pretty inactive, but, looking forward to 2013, my main aim is to have another F1H ready to go early in the season. I'm currently applying the finishing touches to a new straight tow fuselage to use with the flying surfaces of, an as yet un-flown, circle tow model. I would also like to mount a more serious attack on HLG at the Nats., so hope to have another DLG finished by then.

Lets just hope for some good flying conditions in 2013.

Steve

Chris Parry:

The drought continued in early 2012 and hosepipe bans were issued in numerous areas of the UK, - only for normal service and Nationals type weather to resume by the end of April, in what ended up as one of the wettest years ever recorded!

Biggles narrowly lost the Club Champs at Church Fenton, despite John Cooper's 9.29 in the C/Rubber flyoff for 1st place. In F1H, three men made the flyoff, and Gary Madelin, John Cooper and Chris Edge ended in that order. These three are head and shoulders above anyone else in this class in my opinion.

The London Gala was awful at the end of April, cold, grey, and a storm forecast to be coming in on Saturday evening. James and myself camped at the back of The Woodbridge Inn, and by morning the tent was surrounded by water with James quite damp! I had already plumped for the car - luckily for me! After a good breakfast, (surprisingly, we were the only campers,) we headed back for Day 2 on Salisbury Plain. Unfortunately the rain was chucking it down and John, Brian and myself headed home at lunchtime, leaving the two CD's, (yes, that was all of us,) to call it a day!

The Nationals was a struggle for me, 3 hours to pluck the 'Big V' out of a rape field, then a dropped last flight. Noel's large Caprice went a fair way on its 1st flight but we watched it from downwind and James helped Noel retrieve the monster! By the evening these campers were cold, so we headed off for a good meal at the Wetherspoon pub in Grantham. Day 2 and it was wet, very, very wet, so the name of the game was fly and dry off both the soggy aeroplane and flyer, it was terrible! The CD, Neil Cliff, did a great job in very testing conditions. By Day 3 the tent had had enough but the weather turned out to be much better and for most of the day there were thermals at regular intervals with only a couple of 30 minute downpours in the afternoon. Alas, I failed in F1H on flight number 4, trying to rush and get one in before a downpour. I should have waited. John beat Chris Edge in the 4 man flyoff, and that was the only Biggles success of the weekend.

The week after, and it was Andy Crisp's Oxford Rally. It was flat calm in the morning with thermals taking the models in different directions over the meadow - until the light wind eventually sent the models in the direction of the car park. This is when you don't want your Caprice to have a hissy fit on dt, unfortunately mine did and for some reason started to spin nose up after dt'ing at 2 minutes. It eventually came to grief in a rather large tree over the bridge and river, impossible to retrieve and never seen again! The afternoon became grey and wisely Andy brought forward the end of the comp., just before the rains came at around 5.30.

At the Anglian Gala, which I could not attend, (the family holiday always seems to fall on this Gala,) Roger and David Truluck flew off in CLG for 3rd place and the scores read Roger 7.55 and David Truluck 11.08, out of sight. I'd have loved to have been there for that one!

The rest of the year had its ups and downs for me, a win with 'Big V' at the Timperly Gala, maxing out, and a 2nd in C/Glider at the Southern Gala in the flyoff. F1H was hard and although I managed 3rd in the Biggles League, scoring in all the events, John Cooper had won it before the Midland Gala and took the League with Gary 2nd. Both Gary, (a broken heel stopped him from flying at the Nats.,) and Chris Edge would certainly have made more of an impact if they could have flown in a few more contests, as I mentioned earlier - these are the three men to beat.

Projects

To improve my stock, I need some better gliders than my V's and will be building a zoom launch F1H circle tow, which should be ready by the Spring. I've built a Caprice to replace the lost one and will bring out, for the first time, a 'JB' F1A, - once I've finished the repair I've been meaning to do for two years! And, if time permits, there's a SLOP using a Cox motor, for a bit of fun, ...hopefully!

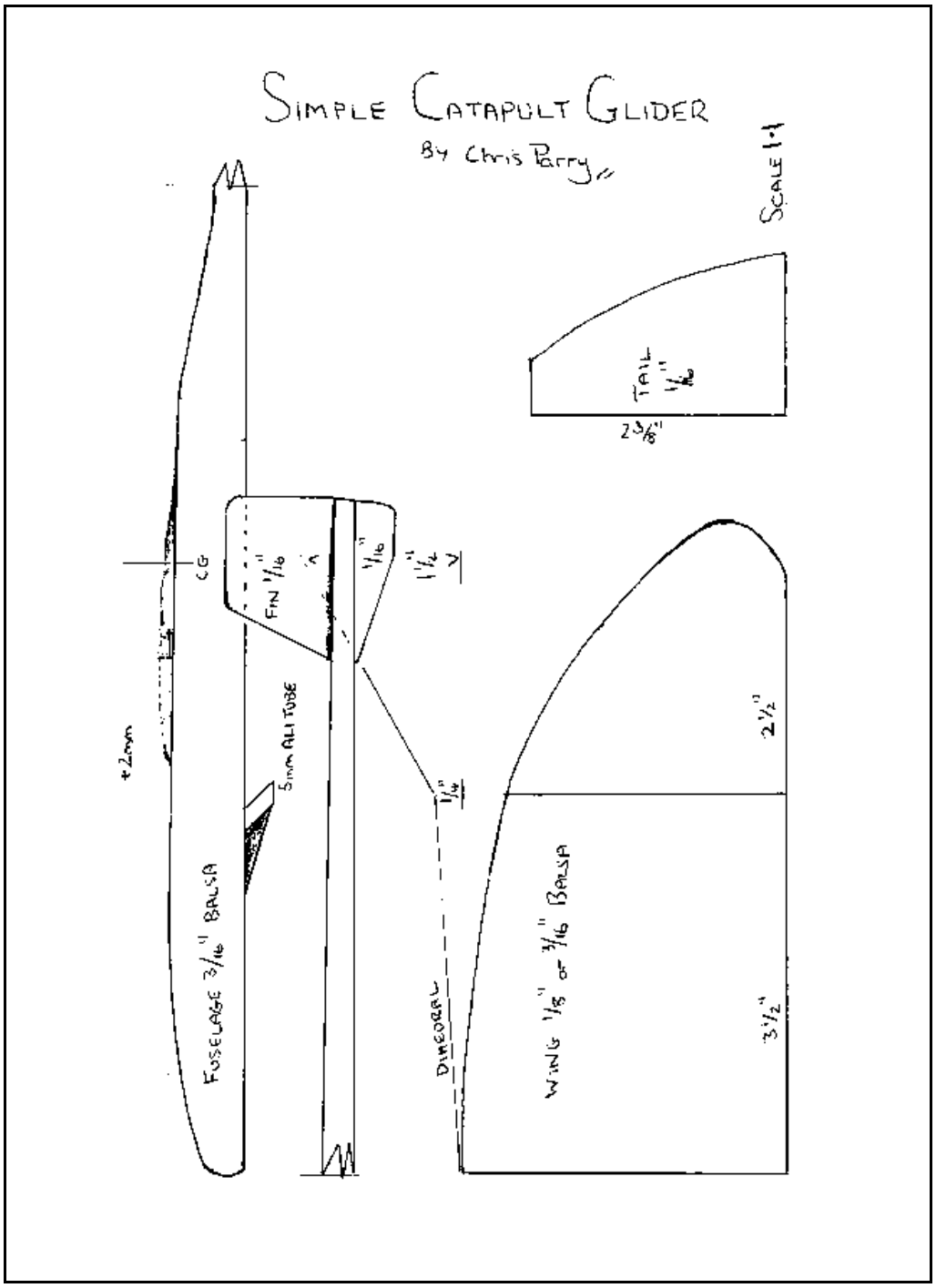
Websites

www.selecthobbies.com	Engines and Electric
www.mecoa.com	K&B - Model engine manufacturing company
www.nitrosteamengines.co.uk	Steam and aeromodelling Museum
www.rcgroups.com	Go to Topics, Exotic Aircraft, Free Flight, and scroll down to "A few F/F plans added". All are in PDF format, including plans from the late 1940's all the way through to the1990's, plus history and comment.
www.hareandhoundsfullbeck.com	Accommodation, Bar and Food - not to far from Barkston

Simple Catapult Glider -"THE BRICK" (plan on next page)

It's the only CLG I have ever maxed with! Its my version of a design by Steve Brewer which appeared in a Biggles News some years back. Roger and Sam both use the design, with a few modifications, and have had some success. I'll keep it simple - the lighter it is the better it will fly. It's small, so it doesn't like too much wind and the incidence is quite critical. You don't want more than a bare minimum for best height gain, but if you overdo it, - it comes straight back down on you! I trim for right glide and with the catapult held in my right hand, hold the underfin with my left finger and thumb, banked slightly left - it seems to work! Upward angle is by experiment. Mine does a barrel roll at the top of the climb, but I haven't worked out how that happens yet! If the glide is a bit edgy, I use a little plasticine on a wing tip to open out the glide slightly, remembering the faster it glides, the more it will turn on the rudder setting. Trim on a calm evening on long soft grass if possible and Good Luck!

Chris Parry - 2013


SIMPLE CATAPULT GLIDER
By Chris Parry
SCALE 1:1
TAIL 1/16"
2 3/8"
FIN 1/16"
1/16"
1 1/2"
CG
+2mm
5mm ALI TUBE
1/4"
DIHEDRAL
FUSELAGE 3/16" BALSA
WING 1/8" or 3/16" BALSA
2 1/2"
3 1/2"