

Meadow Flyer

Newsletter of The Oxford M.F.C.

October 2022



A Nice Pair: (L) Jon Markovitz' 24" Wingspan *Nieuport N.11* for FF and (R) the Editor's Version for RC. Both were built from the Gordon Whitehead Plan on Outerzone: <https://outerzone.co.uk>

The Editor's *N.11* has become a favourite "hack" for rough-ground flying. It flies (and bounces!) well.



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FROM THE CHAIR

I am pleased to say that the gathering momentum in club activities that I reported on in July has continued, as has the growth in club membership.

July saw us rewarded with excellent flying conditions for our monthly Begbroke meeting. Our thanks go to Messrs Trinder and Lovegrove for risking their electric control line models in the hands of beginners during an instruction session. I can report that controlling such a model with two pieces of wire is a rather different experience from using a transmitter!

The August Begbroke weather was less accommodating so little outdoor flying was possible. It was the holiday season, so it is perhaps not surprising that there was a small turnout. At least my ten-year old grandson enjoyed having the Hall in which to fly drones and helicopters instead of having to do so in the confines of his house. Unfortunately, a holiday got in the way of my attending the September "*Foamie Flyers*" event, but it sounds as if it was very enjoyable and entertaining. Several fun competition categories were run, including one for the scariest flight won by Gary Law after hitting nearly every object and person! This competition category will not be repeated with anything more than a small piece of foam!

Flying on the Meadow continued during the summer even if conditions were somewhat desert-like. On 6 August we contributed to the international Cloud Tramp Mass Launch followed by flight duration competitions for *Cloud Tramps* and P30/Coupe d'Hiver designs. The afternoon also saw the flying component of the Kit Scale competition and a Bill Dean Centenary fly-in.

September saw the return of the free flight ScaleFest which in recent years had to be cancelled because of Covid or the weather. Thanks are due to Charlie Newman who, ably assisted by others, especially Gary Law, organised this much appreciated event, having initiated it several years ago. Charlie has now reluctantly decided to hang up his event organiser's hat after a distinguished contribution to scale free flight events that he started many years ago with his Dreaming Spires Galas. It is through participation in these events and being introduced to the Club and the joys of flying on Port Meadow, that we have gained a number of new members.

One other new and successful initiative this year has been the Under 25" Vintage Rubber postal competition introduced by Andy Blackburn. Unfortunately, the third round had to be cancelled because of the need to ban 'band burner' dethermalisers to avoid the risk of setting fire to the very dry Meadow. Nine members submitted flight times with the overall winner being Andrew Longhurst who we all predicted would be the one to beat! It is hoped a similar event can be run next year.

It might appear from what you have read so far that we are just a free flight club. That is far from the case with a roughly equal division between Free Flight and R/C being the principal interests of members. Unfortunately, there is less scope for R/C competitions, not least because of the cost of participation for anyone not already in possession of a suitable model. If you are interested in R/C competition and/or have some suggestions as to what type of competitions we might mount please let me or another committee member know.

Even without competitions there has continued to be plenty of R/C flying on the patch with some members doing so for the first time. What has been particularly encouraging is the number of members taking tests and qualifying for various BMFA proficiency certificates. We now have far more qualified R/C flyers than for many years. Thanks are due to those members who have given their time to instruct others, especially Simon Burch who has devoted a lot of time and effort to encourage new members. Thanks are also due to the examiners, especially Andy Stephenson.

I have just outlined in words some of the recent club activities but for more detailed accounts please visit the Club's website (oxfordmfc.bmfa.uk). There you will find some excellent photographs taken by members and expertly collated and presented by our webmaster Chris Brainwood. It is not unusual for Chris to have posted a report of a club activity within a couple of days of it happening.

Another excellent and illustrated source of information about what is happening in the Club, along with very useful articles on aeromodelling techniques, is of course the *Meadow Flyer* which you are reading at the moment.

Finally, as I said in my last report, the best way to find out about what is happening in the Club is to attend meetings and events. Possibly the most important of these is the AGM, this year being held on 16 November. This is when you elect the new Committee and Officers and have a say in what you would like to see the Club doing. You can of course put forward your views and ideas at any time, but the AGM is a time to discuss ideas with fellow members and help us to arrive at a programme of activities which provides something for everyone. Please put the date in your diary and look out for an email containing further information in the second half of October. I look forward to seeing you on 16 November.

Here's to blue skies and gentle breezes, David Thurling

ELECTRIC MODEL PROPELLER SAFETY Simon Burch, Membership Secretary

In a change from the usual Membership Data format, Simon homes in on an important aspect of modern RC flying.

Even the most diehard IC power enthusiast would surely acknowledge that Electric Power (EP), now 'rules the roost' in RC power flying. Indeed, EP has many advantages, but it is not without its drawbacks. In this short article I'm going to focus on propeller safety.

The Risk Clearly, a rotating propeller can cause injury regardless of what power source is driving it, but it's pretty much impossible for an IC engine to burst into life without any intervention from the user. Whenever an EP model's flight battery is connected, there's always a chance the motor will run - perhaps at full power. If an object such as a finger stops the propeller, an electric motor will simply keep trying to turn harder against the obstruction and will return to its set speed once the obstruction is removed. In similar circumstances an IC engine would probably stop completely. For this reason, a powered-up EP model's propeller needs to be treated with the utmost respect. If you need convincing of the damage that a propeller can do, look online - strong stomach recommended!



The Multiplex 'Easystar' beginners' model

Bad Habits Unfortunately, it's all too easy to fall into bad habits regarding propeller safety. Many beginners start RC flying with lightweight electric models such as that pictured here. These are fitted with small motors and propellers that (usually) don't bite too hard (but still hurt!) if you make a mistake. Their benign characteristics can breed disrespect. Consequently, it's worth developing a disciplined approach from the outset - even with small, low-powered EP models. The safety guidelines are clearly laid out in the BMFA Handbook; in summary, they are:

1. Treat the model as 'live' as soon as the flight battery is connected.
2. Restrain the model so that, if the motor bursts into life unexpectedly, the model will not try to fly away. Use a helper, a secure cradle or a tail restraint.
(Note – the workbench is a prime location for this error. Always remove the propeller before powering up the model and changing the radio settings).
3. Keep well clear of the propeller.
4. Use the correct arming sequence for your Electronic Speed Controller (ESC).
Usually, but not always, this is 'Throttle closed, Transmitter ON, Receiver ON'.

I'd add to this advice by recommending that you don't fly alone unless you are content that the model is low-powered and unlikely to cause injury. If an accident does happen it's good to have somebody else on-scene to administer first aid and to call for help if required.

Fortunately, the chance of a motor bursting into life for no apparent reason is remote, especially if you're using 2.4GHz RC equipment. If it happens, and it sometimes does, the most likely cause is operator error. Here are some examples which I've witnessed:

1. Incorrect arming sequence.
2. Accidentally knocking the throttle stick to the 'open' position.
3. Operating the throttle channel reversing switch by mistake: for example, intending to reverse the rudder control and inadvertently reversing the throttle control instead.
4. When using a buddy lead, switching from the 'Slave' to the 'Master' transmitter with the master transmitter's throttle stick in the 'Open' position.



There are others. For example, here's an unusual situation that caught me out. Using a buddy-box I was monitoring a trainee who was flying an electric glider with an over-wing pylon-mounted motor, like the one pictured above. The trainee made a good landing, albeit some distance from the 'Patch'. We placed both transmitters on the ground and walked to recover the model. As I picked up the model, its motor burst into life. Of course, with no transmitter immediately to hand I couldn't close the throttle. I put the model down,

whereupon the motor stopped, and I quickly disconnected the flight battery – keeping clear of the propeller of course.

What had happened was that I'd inadvertently left the master transmitter's throttle stick partially 'open' before retrieving the model. The spring-loaded 'Trainer' switch had automatically transferred control back to the Master transmitter but, with both the transmitter and the model on the ground, there was no direct line-of-sight between them (a requirement for UHF radio communication) and the propeller didn't turn. The motor didn't activate until the model was lifted up. Putting it down again broke the line-of-sight, activating the receiver's built-in Failsafe* and stopped it. Fortunately, the model was fitted with a small, low-powered motor and it wasn't running anywhere near full speed, so there was never any serious danger.

The Remedy Given that 'Operator Error' is probably the most likely cause of an EP motor unexpectedly 'bursting into life', some means of deactivating the throttle when the model is on the ground would be a great safety enhancement.

Fortunately, most computerised RC transmitters already have this facility, usually called 'Throttle Cut'. I strongly recommend its use. To call it 'Throttle Cut' is somewhat inaccurate, because it should be regarded as a remote arming and disarming facility for the motor. With it selected 'ON' (or perhaps to 'SAFE') operation of the throttle channel is disabled even when the model's flight battery is connected. On my own transmitter, a Futaba T8J, I've allocated the Throttle Cut to a prominent 2-position switch and applied easy-to-see coloured labels showing 'SAFE' and 'LIVE' positions (see photo below). I use this switch for all my models.

Clearly, the switch won't work on its own; it needs to be used properly to realise any safety benefit, so I recommend the following procedure:

1. Before switching on your transmitter, remember the 'Two Ts' -Throttle closed, Throttle Cut to SAFE. Then switch the transmitter on and connect the flight battery as per the BMFA safety procedures.
2. Select the Throttle Cut to LIVE only when you intend to operate the motor (1) for the pre-flight failsafe and control checks and (2) immediately before take-off. You could add it as an extra 'T' to the pre- take-off SMART checks, but it's probably unnecessary. If the motor doesn't start turning, you'll remember!



3. After you've landed, and your model is ready for recovery from the landing area, remember the 'Two 'T's': Throttle closed; Throttle Cut to SAFE. Disconnect the flight battery and switch off the transmitter.

A final point – and perhaps the most important point. The proper use of the Throttle Cut (or remote arming) facility is a certainly a significant safety enhancement, but it should in no way replace the basic precautions as laid out in the BMFA handbook. It should be seen as a secondary 'belt and braces' measure.

Safe flying.

Simon Burch

**The Futaba fail-safe normally returns the throttle to the position set by the throttle stick once communication is re-established. Other manufacturers require the throttle stick to be moved to the closed position before the channel is reactivated – which is arguably safer. It's worth checking yours to see how it works.*

(Wise words from Simon. The ways in which our toy aeroplanes can injure us are legion, and I think I've probably experienced most of them. The worst occurred about six years ago and involved a trip to A&E. Explaining the severe lacerations I'd suffered to the nurse who was sewing my hand back together was acutely embarrassing! For somewhat arcane reasons that particular accident can't happen to you. The fact is, I simply didn't foresee the trivial event that triggered it – suffice it to say that when adjusting electric-powered models on the bench, I now *invariably* remove the prop.

It's also worth noting that the DX6i – the older generation of Spektrum 6-Channel transmitters which is cheap and quite popular with newcomers to the hobby does not have a Throttle Cut facility when operating in "Aircraft" mode. However, if you set your aircraft up as a Helicopter [an option with that transmitter] it is there! Trust me, the model won't mind and it will be much safer as a result. Ed.)

Club And Other Local Events, 2022

Oct. 19	Club Night - Covering Materials And Techniques: Bob Lee / Andy Blackburn
Nov. 6	Indoor Flying at Berinsfield, 9am to 3pm
Nov. 16	Club AGM
Dec. 4	Indoor Flying at Berinsfield, 9am to 3pm
Dec. 21	Fish & Chip Supper + Quiz

Jet Cats Are Go! Bob Lee

OK, so I stole the title from Thunderbirds. I guess that says something about my early TV viewing! It's all Andy Blackburn's doing; he pointed me at the Flying Aces, Jet Catapult (Jet Cat) class of models and something about them just appealed to me and I had to have a go.

What Are Jet Cat Models? Quoting from the Flying Aces rulebook, they are . . .

“Semi-scale glider models of any full-size man carrying jet or rocket propelled aircraft. Profile fuselages are permitted. Launch technique -stretched rubber catapult.”

Catapult dowel may be of any diameter. Dowel may not exceed six inches in length. Rubber not to exceed 1/2" total cross section. Example: Two strands of 1/4" or four strands of 1/8". Finished rubber loops may not exceed nine inches.”

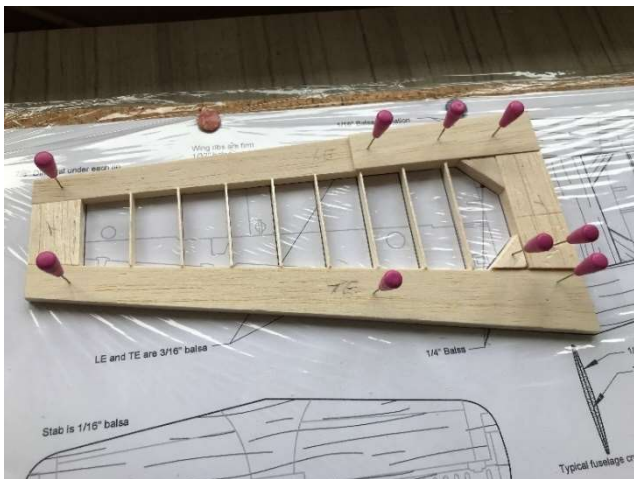
Okay, so basically they are catapult launched semi-scale jet/rocket gliders. There is no limit on wingspan but under the Flying Aces rules they must be primarily made from wood and coverings must be tissue.

But What To Build? Here you need to go to Paul and Ralph Bradley's website:-

<http://parmodels.com/flying-aces-club-jet-catapult-models> (a brilliant site for all sorts of stuff!)

There is a selection of plans there but for me it **HAD** to be a British jet, so the *Jet Provost* was a no brainer, as they say. Loads of stuff to download; the plan, some instructions and printed tissue patterns. You need to watch the scaling when you print the plan to get it the right size. The span is 17 inches (sorry it's imperial, blame those Americans) and there is a printed scale. It's designed for American letter sized paper. I printed onto two sheets of A3 but most people will have to use several sheets of A4 (ask me nicely and I'll print it on A3 for you!)

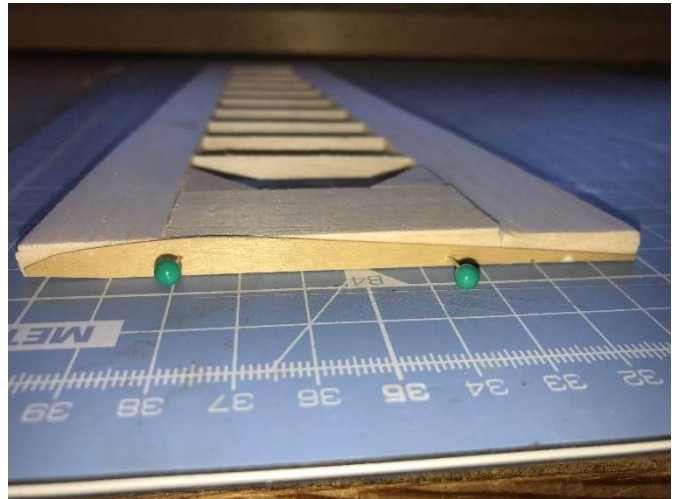
Construction is pretty straightforward, and there are build notes, so I'll just talk about the most interesting aspects, starting with the wing.



The Wing I'd call the wing 'semi-built-up' because it's halfway between a conventional built-up wing with LE, TE and ribs, and a typical catapult glider wing. It has a wide and thick LE and TE with 1/32" ribs which are initially rectangular blanks, then sanded to section after assembly. You sand away about half of the wing structure, so it generates a **lot** of balsa dust - I suggest wearing a dust mask. Not having a dust extractor, I had a vacuum cleaner by my side. I would also recommend a *Permagrit* sanding tool (essential modeller's workshop item).

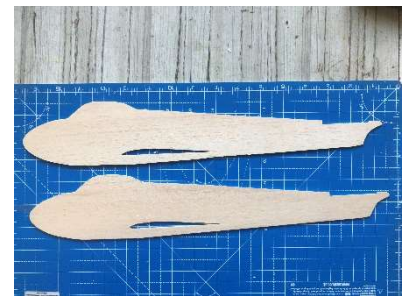
The wing is tapered towards the tips. The root is 6mm deep, so I marked off a line on the tips to make it 3mm there and just sanded in the taper. No attempt at the aerofoil at this stage; I kept the section rectangular. Sanding over the ribs is a bit strange at first. The noise is a bit like fingernails over a blackboard and yes, you will knock some of them out, so you need some cyano standing by to put them back again.

To get the section, I started by making a template from thin ply and pinning this to the root. I then did my best to draw the section on the tip. I started sanding from the high point to the T/E, the section there is a straight line (common in chuck gliders). The section forward of the high point to the L/E also has a



straight portion. This isn't because it's a badly drawn plan, it's intentional. I found that all that sanding was very therapeutic and that the result was in fact a thing of beauty. I checked the weight of each wing, intending to sand down the heavier one but found that they had turned out to be the same weights. Joining the wings was no issue. I used a slow setting epoxy but did use a trick from Andy Crisp which was to make some small holes in the roots for the epoxy to go into, in order to strengthen the joint.

Fuselage Moving on to the fuselage, the plan calls for two laminations of 1/16" balsa with a layer of Tyvek between them (Tyvek is a strong, non-woven plastic fabric used as a waterproof barrier in house construction and in making strong mailing envelopes that are available from most stationers. Ed.). The first issue was that I didn't have any nice light 1/16", or any that I was prepared to use for this model at least, and none of the usual on-line suppliers had any light material in stock. The result

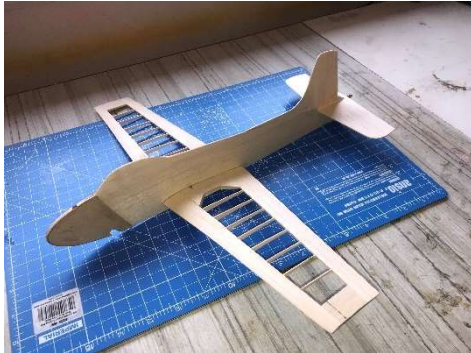
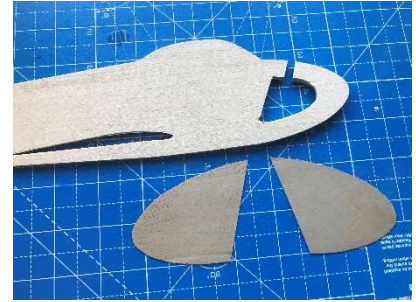


is that I made the fuselage from wood that was quite a lot heavier than ideal. Also, I didn't have any Tyvek but did have some carbon tissue so used this instead. It was a question of coating one side of the fuselage with PVA, laying on the carbon tissue, then brushing through more PVA before adding the second side.

Adding the second side was tricky as I couldn't see through the carbon tissue to get the two sides aligned, so it had to be done by feel. Once I was happy, I laid it flat on the building board and piled a stack of heavy books on top and left it overnight. Discussing this with Andy Stephenson, maybe I should have given it several days to dry out with the weight on it, since I

still ended up with a bit of a bend in the fuselage. Once the glue was dry I trimmed off the tissue and sanded the edges so that the two sides matched.

I did make one change to the plan which was to add a cavity at the front for noseweight in the form of fishing shot or ball bearings. This gets covered when the ply side cheeks are added. All that's left now is more sanding to get a cross section on the fuselage similar to the plan. This does make it look nicer and removes some weight. I also thinned the fuselage towards the back end, again to remove weight from the tail.



The fin is part of the fuselage, and the tailplane is just 1/16" balsa sheet. I was now able to dry fit the parts together. All that was left was covering the wing and finishing.

Finishing and Painting The download from the website does include patterns for printed tissue which would indeed look lovely. The issue was that they are intended to be printed on American letter sized paper and there are an awful lot of sheets, so it was off to look for a simpler

solution.

My 'go to' sources for colour schemes are Airfix instructions; easy to find on the web. That produced a very simple, all red scheme that fitted the bill nicely. I covered the wings in Martin Dilly's white Japanese tissue, applied a couple of coats of dope, then sprayed the whole model using a can of Halfords 'Toolbox Red'.

I needed to do some complex masking to spray the canopy silver, so got some Tamiya masking film. This was the first time I have ever used this and it's wonderful. I cheated a bit and drew up the masks in a CAD package and then used my Cricut craft cutter to cut them out (you could do all of that by hand). I was really pleased with the result. Some simple tape masking let me spray on the black, anti-glare panel at the front.

All the lettering, roundels etc., were done with waterslide decals, printed on an ink jet printer and sprayed with acrylic lacquer before use. Most of the lettering needs to use clear decal paper but as the roundels include white, they need to be printed on white decal paper. Again, I cheated, cutting out the roundels on the Cricut for perfect circles.

Flying I am just a beginner when it comes to catapult launched gliders and others may declare that what I am about to say is wrong. I can only talk about what worked for me and why. Feel free to go your own way here!

I added small ball bearings to the cavity that I had made in the nose until it roughly balanced and then did hand test glides, adding BluTack to the nose for now, until it stopped stalling. My first catapult launch used the catapult that I have used for my Andy Crisp *Oxcat* - a short loop of 1/8" rubber. This was hopeless; not enough power by a long way; it needed lots of **OOMPH!** I ended up with two loops of 1/8" and will change that to a single loop of 1/4" as per the Flying Aces rules. The next thing I found was that it's no use doing what you would do with a rubber model and start at low power and build up. These are only going to fly with full power so give it some 'wellie' from the start, stretching the rubber back as far as you can!

Launch Attitude On advice from Charlie I rolled the model 90 degrees to the right (reverse that if you are left-handed), so that now the wings were vertical. At this point, the fin and tailplane have swapped roles.

Trimming/Gurney Strips I added a 1/16" balsa strip to the left-hand side of the fin and the upper surfaces of the tailplane. Bearing in mind what I just said about the fin and tailplane reversing roles for the launch (power phase) the strip on the fin acts as an up elevator and causes the model to climb in the power phase. As the speed falls off and the model rolls back to level this becomes a left rudder. The strip on the tailplane acts as a right rudder on the power phase and up elevator as the speed falls off. I adjusted these Gurney Strips to give a spiral climb to the right on the power phase, which then became a left turn on the glide. The noseweight was adjusted for the best glide.

Conclusion I hope these notes will encourage more people to give this a go and then maybe we can have some fun with some low-key Jet Cat competitions at Begbroke or the Meadow. Paul and Ralph Bradley's excellent website - parmodels.com - has six designs on it and I am sure that many of the plans in *Aeromodeller* intended for reaction motors (Jetex, Rapier, TSP) can be adapted for catapult launch.



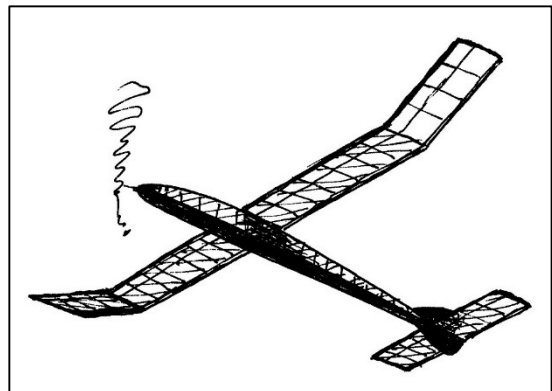
An afterthought – The Jet Provost, as drawn, has tip tanks. They are very easily damaged so either leave them off or give them a thin ply core!

Bob Lee

**Michel Etievre's 1954 Coupe d'Hiver (Winter Cup)
Andrew Longhurst**

The Club's Committee is thinking of running a competition for Coupe rubber models next year and I have been asked to write an introduction to this historic class and to recommend a suitable first model you might like to build.

The French *Coupe d'Hiver* class took off in the winter of 1938. The rules were simple: minimum of 70g airframe, maximum of 10g rubber and a minimum fuselage cross-section of 20 sq.cms or 3.1 sq.ins. The cross-section requirement was dispensed with around the turn of the century, so modern designs are slimmer than those from the 1900s.



Michel Etievre's 1954 *Coupe d'Hiver*

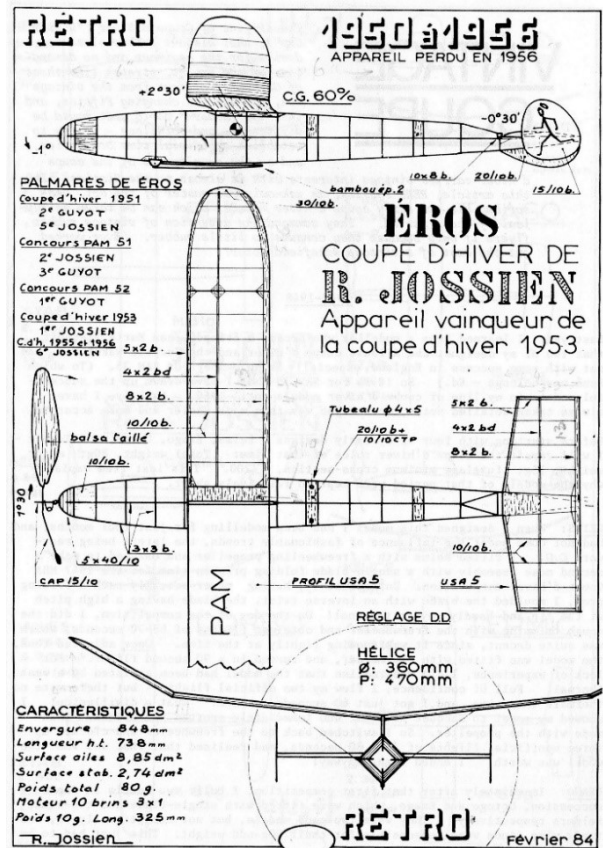
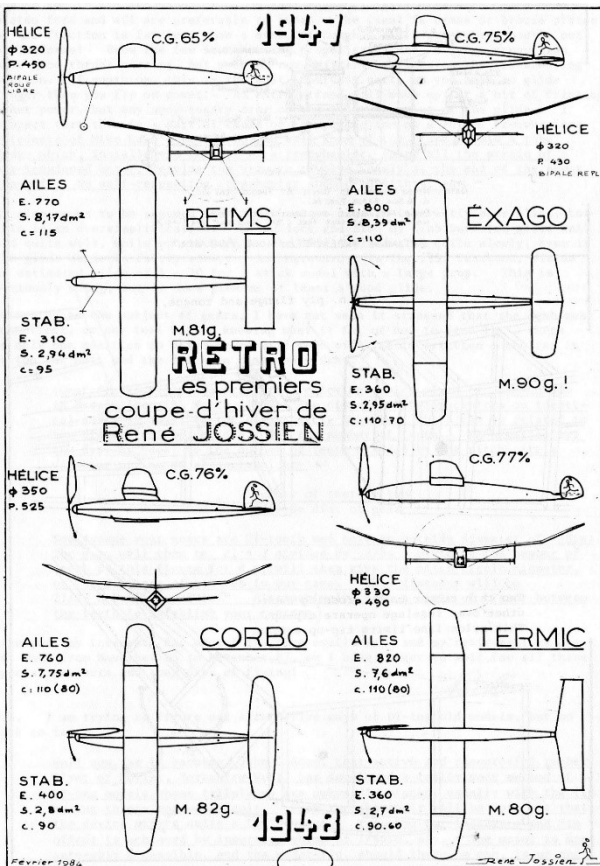
The class was flown up to and through the War when limited amounts of wood, tissue and rubber made aeromodelling only just about possible. Peace brought new enthusiasm and designs improved apace. By the 1960s Coupe d'Hiver was gaining popularity in Britain, boosted in 1972 when the class was recognised internationally as F1G. The Aeromodeller provided further encouragement in 1975 when the first Aeromodeller Trophy contest was flown at RAF Halton.

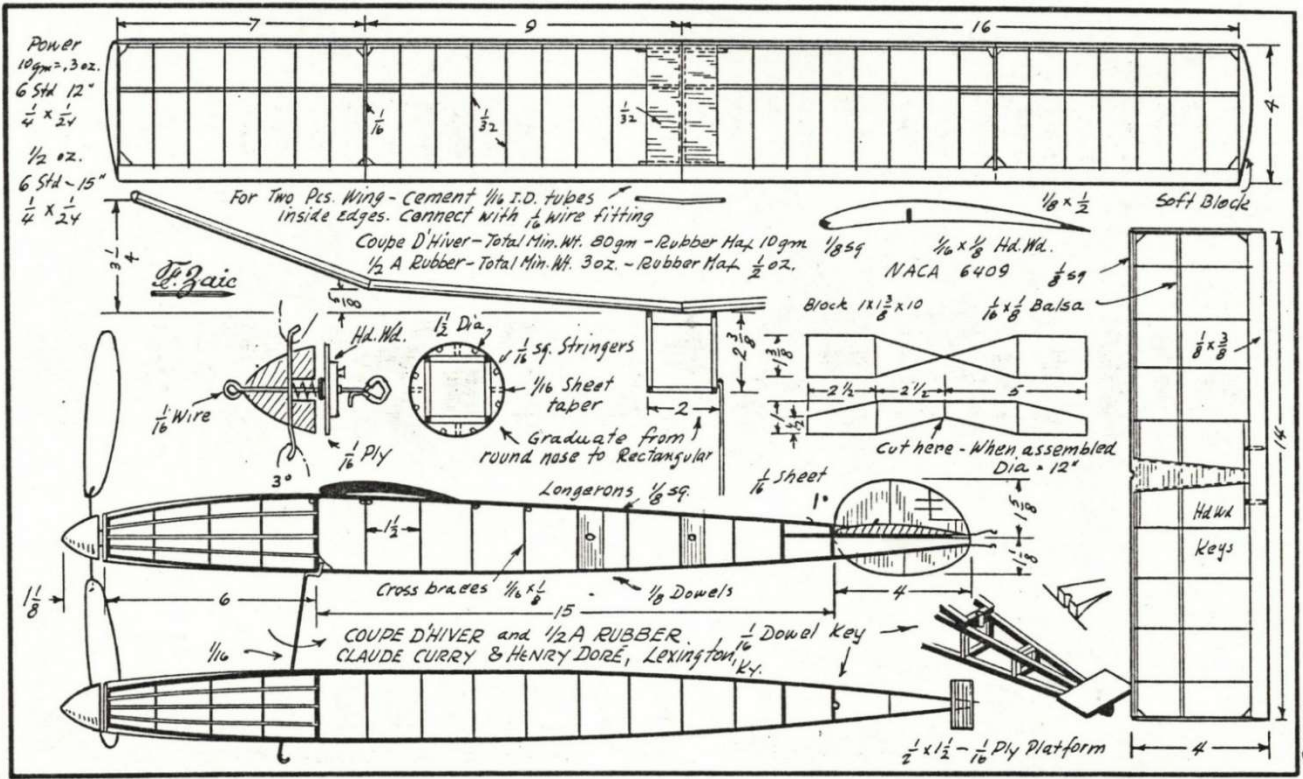
Some of the 1940s and '50s plans were quite eccentric and almost all involved the use of single blade folding propellers. Whilst single bladers avoid the hassle of producing two identical blades and mounting them at identical pitch, they are inefficient and probably cut the climb by 25% compared to a modern twin blader. This loss is caused both by several vibration components and the drag of the whirling lead weight. Consequently, vintage Coupes can be quite a challenge because anything worse than neutral air and you are down in less than a minute. So, flying them in competition is an exercise in air picking.

On the other hand, the low power available soon led French flyers to take a step forward abandoning the RAF 32 and Eiffel 400 sections favoured before the war and choose slim low camber sections like the USA 5 which did not absorb so much power on the climb.

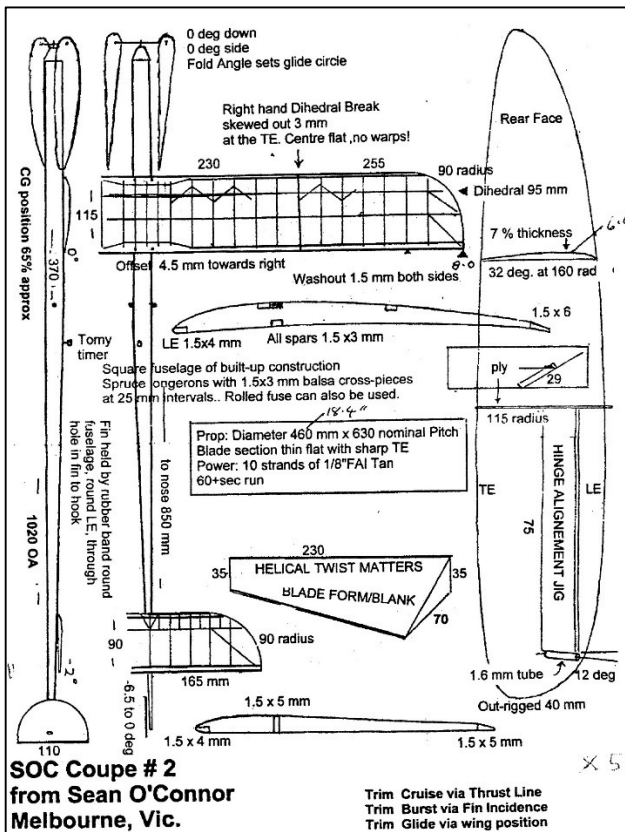
The accompanying plans and pictures illustrate how development progressed.

Among them you will find the *Curry Dore* (P.12 below) which, being of American origin, is a rare twin blader. It's a shade larger than a P.30 but it's been on my build list for years. Maybe its time has come?

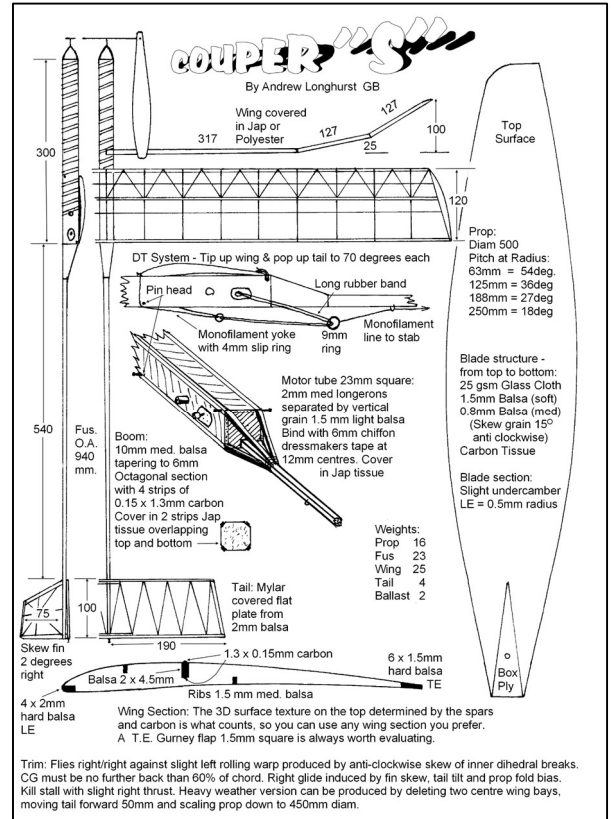




The Curry Dore Coupe



The Soc Coupe 2



Andrew's Couper S

A First Coupe

The 39ins span *Michel Etienvre* design is simple, straightforward and extremely effective. The full-size plan (which can be tile printed with Adobe Acrobat) and copious building instructions are on WWW.Outerzone. It is not strictly a beginner's model but with care anyone should be able to complete and fly one. If there is no restriction to pre 1956 Vintage models, you can use a modern twin blade Coupe prop of about 16" to 18" diameter on it. Chris Redrup is flying this hybrid very successfully today.

Post "cross-sectional area" designs include the *Soc Coupe 2* (above) which is pure stick and tissue. The writer used this one to win the Coupe Europa in the early 2000s. Lastly, there is the writer's *Couper S* (also above) design which uses the now standard carbon boom to mount the tail but is otherwise stick and tissue. You can buy the boom from Free Flight Supplies or kite suppliers in which case you want light breeze weight. I include this because of its greater wing area which maximises performance but can still be built down to the 70g minimum.

If you build a smaller model such as the *Etienvre*, check the weight when finished because you might need a gram or three of ballast. If you choose the *Curry Dore* you can use very hard balsa throughout and still need ballast.

Motors will always be 10 grams of 1/8" Supersport rubber. Vintage coupes with smaller props need 8 or 10 strands, modern larger jobs with 20ins props always use 12. Maximum turns are: 8 strands 690, 10 strands 490, 12 strands 370.

Modern Coupes glide as well or better than any model airplane in any class. Therefore, always set your DT. They are away with the birds on the slightest up current.

Any questions or further info re making props etc., email me at andrewlonghurst@yahoo.com

Andrew Longhurst Sept 2022

The Aerographics *Miles Magister* Andy Blackburn

I must have had this Aerographics *Miles Magister* kit for something like 6 or 7 years before starting to build it in 2021; 'She Who Must Be Obeyed (SWMBO) noted that I had managed to acquire far too many kits and should either build the things or get rid of them, so I picked the biggest (the *Magister* is 29" span) and made a start.

The kit was based on a plan by the noted US FF Scale designer, Mike Midkiff, and was quite comprehensive, including decals and a pair of 1.5"



main wheels which I am 99% certain are SLEC items intended for RC. They weighed a ton, so needless to say I made my own wheels.

The laser-cutting looked pretty good, although the laser-cut wing spars and leading edges needed replacing because the wood on those sheets was only about 5.5-6 lb cu ft., i.e., very soft and light. The number and sizes of strip wood supplied seemed to bear no relation to what was required to build the kit, so I stripped some more from some scrap sheet.

The ribs all required careful trimming from the rear edges to various degrees (it's a first-generation laser-cut kit) and some of the slots required a small amount of fettling, but nothing major, and it all went together quite easily.

The undercarriage legs are basically 3/16" dowel with wire fittings which plug into 7/32" aluminium tubes in the wing, so that the legs will knock-off if they hit anything hard. This does make it easy to pin the wings down whilst the dope is drying, but I do worry about losing an undercarriage leg in the long grass.



Routine but careful examination of photographs of the full-size *Magister* at Old Warden revealed a slightly different cowl shape to what's on the plan, which I have tried to replicate.

A Tricky Detail I put the model to one side just a few months after starting because I just couldn't get the cardboard undercarriage forks to work as advertised - the cardboard kept delaminating and fatiguing where it was bent, and it was clear that it wouldn't keep the wheels on. However, about a year later I now find myself in a position where I have a single flyable outdoor scale rubber model remaining, having broken or retired all the rest, so I need to finish something off and the *Magister* is in pole position. After some trials with various thicknesses of cardboard, I discovered some 30 thou plastic card and this worked quite well, but it had to be pre-curved to the right profile using a heat gun and a balsa former. Fitting the things without breaking was a right pain, though - I think I had two attempts with one leg and four attempts with the other. Thin CA with the merest hit of kicker seemed to do the job eventually; there are some minor errors, but I'm NOT doing them again!



All Done The airframe was aligned and assembled for the OMFC September club night. A moveable rudder was added on the basis that it probably won't be needed, but if it's there it's a bit like a comfort blanket . . . and, in any case, that's one less control outline that I need to draw.

Weight as shown here is a smidge less than 30 grams, which is quite encouraging.

Finally, I should note that short kits and plans are available for this and many other Mike Midkiff designs at <https://www.ozarkmodelaviation.com>

Mike is a nice person to deal with, but arranging payment can be a problem because he doesn't take PayPal.

Right: The Old Warden (Shuttleworth Collection) Magister, the subject that Andy's modelling.



Cloud Tramp/P.30/Coupe Competition



Captured at the Meadow on the 6th of August, this image of the day of the combined *Cloud Tramp / P.30/Coupe D'Hiver* comp. perfectly encapsulates the laid-back atmosphere, the sunshine and the parched grass . . . The results were almost incidental!

Preparations got under way at 4pm, with the *Grant Mimloct International Memorial Mass Launch* scheduled for precisely 5pm. This event takes place all over the world at an equivalent local time to 5pm GMT, be that 2 am in Sydney, Australia or 5pm in Sidcup, Kent.

It commemorates one of the colossi (colosses?) of our hobby, Charles Hampson Grant, a US citizen who was in his pomp during the early part of the last century. As well as aeromodelling, he contributed a huge amount to aviation in general and, along the way, designed the iconic *Cloud Tramp*. This was/is a deceptively simple 21.5" / 550mm wingspan all-sheet creation intended to encourage youthful participation in aeromodelling.

I now present one of the strangest photographs (below left) I think I've ever seen. It's the Cloud Tramp mob getting ready to launch. Nothing strange about that but look again, over on the right of the image, past the last man. Do you see that disembodied head peering over the tree line? Spooky or what? The

image was captured on my i-Phone by Gary Dickens' wife. I don't get it. No photographic or electronic trickery was involved, I promise you. Can anyone explain how this happened?



After that weirdy, here's a more prosaic image of the Cloud Tramps moments later, winging their way skywards. I think we can now deduce that the 'Mystery Head' must have belonged to one of those in the line-up, though who, and how he managed to transform himself back into a normal human being is beyond my ken!

Leaving that conundrum to one side, the subsequent Cloud Tramp duration event was won by my good friend and fellow circulatory enthusiast, Alan Trinder. Second was Simon Milan and in third place, Gary Law.

The full results of the events were as follows:

Cloud Tramp Duration (3 Flights)

	<u>Accumulated Time (Secs)</u>
1. Alan Trinder	163
2. Simon Milan	120
3. Gary Law	105
4. Aubrey King	54

P.30/Coupe d'Hiver

	<u>Accumulated Time (Secs)</u>
1. Andrew Longhurst	270
2. Bill Dennis	220
3. Simon Milan	204
4. Bob Lee	177

Kit Scale (3 Flights; Target 30 Secs +/- Difference from target)

1. Bill Dennis (<i>KK Lysander</i>)	5
2. Andy Blackburn (<i>Stinson 108</i>)	9
3. Mike Stuart (<i>Howard DGA8</i>)	13
4. Simon Rogers (<i>Comet Lockheed Vega</i>)	21

Scalefest 17 September 2022

Jet Cat After a slightly delayed start, the competitions got under way at around 11am. First up was JetCat, won in a fly-over by our Hon. Sec., Bob Lee, with his *Jet Provost* he described above. A fly-over? Because he was the sole entrant!

Kit Scale was keenly contested, the winner with a difference of just 6 seconds over the course of his three flights (compared to a target of 30 seconds for each flight) was Simon Rogers flying a tiny electric-powered foamy *Macchi M.5*. Well done that man!

In second place with his *Auster AOP9* and a difference of 13 seconds was Bob Lee. Equal third place went to Mike Stuart (*Howard DG8*) and Bill Dennis (*Westland Lysander*) at 22 seconds. In fourth place was Pete Fardell's *Fairchild*.

Open Electric was won by Ivan Taylor's magnificent *BAC TSR2*, beating Steve Glass' *SAAB J.29 (Tunnan)*. Both models flew exceptionally well.

Open Power had four entries – Steve Glass' *DHC Chipmunk*, Mike Smith's *DH4 m2*, Ivan Taylor's *FW190A* and Bill Dennis' *Piper PA12*. The oh-so-steady *Chipmunk* took the honours, with the others following in that order. I believe the Chippy has Steve's own stabilisation system and it showed to good effect.

Open Rubber saw Bill Dennis taking top spot with his *Bücker Jungman*, a deserved victory with a superb model and a series of excellent flights. Following on were Pete Fardell (*Bleriot X1*), Mike Stuart (*Consolidated Fleetster*) and Ivan Taylor (*Mig 3*).

Overall then, there was a good haul of gongs for OMFC members. More entries would have been welcome but perhaps the Thursday timing had an influence on that? The Committee will take note for next year's event. Of course, the big problem with summer events at the Meadow is that it's increasingly difficult to guarantee parking, especially at weekends.

And to finish, some images from Scale Fest . . . all courtesy of ace photographers Pete Fardell, Simon Rogers and Andy Blackburn. Thanks guys.



Rocket Attack! Simon Milan terrorising everyone with his Rapier-powered Convair B-58 Hustler.



Left: Simon Rogers' GA Hotspur just coming off the bungee with another cargo of troops



I say you chaps there, look out - Bleriot X1 above!



Ah - it's all right. It's one of ours.



Ivan Taylor's Mig 3 above and below



Mike Stuart wills his *Consolidated Fleetster* aloft





Bill Dennis hurls the *Bücker Jungmeister* off on another mission



Mike Smith's *DH-4 US Mailplane*



Steven Glass' *DHC-1 Chipmunk*. Super stable model



FW190 – another of Ivan Taylor's



Bill Dennis' *Piper Super Cruiser*



Simon Rogers' *Fairey Flycatcher*



Derek Knight's *Gloster Gladiator*



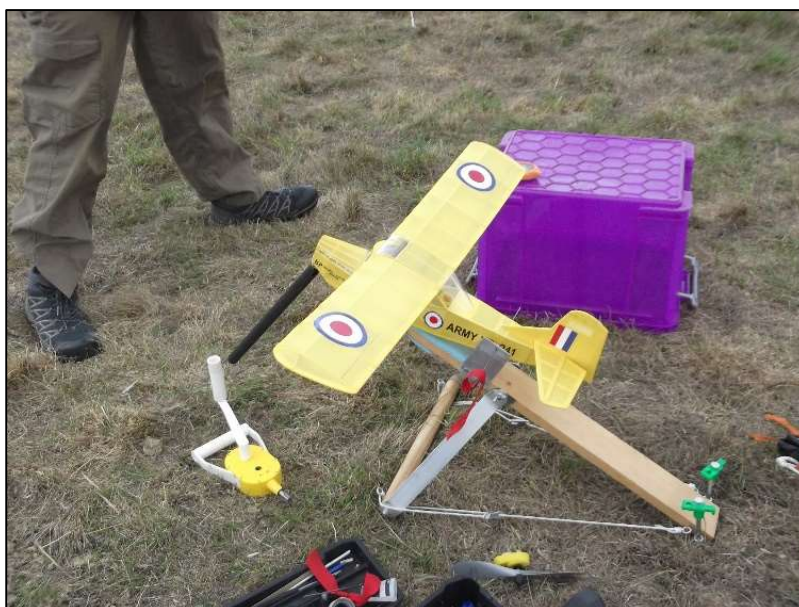
We liked this – a lot. TSR-2 by Ivan Taylor



Simon Rogers' Heinkel HE5 Hansa



Bob Lee's AOP-9



The BMFA Centenary Exhibition And Other Musings Charlie Newman

Thoughts on a visit to the BMFA's New Headquarters in the Lincolnshire wolds . . .

Let me come clean right from the start. Historically, I was never very keen on this idea, as I feared that it might well become a white elephant that a former ChairPerson bounced the Association into. I also feared that members would not travel to use it, leaving it just as a luxury; a local strip for the wains of Lincolnshire to use.

As time went by, quite a few sites were pursued and (fortunately) lost, as they all shared truly lavish levels of unsuitability! However, about six years ago the Association was approached by a company that managed agricultural land. They knew of our search for a suitable site and were friendly to model aviation. Rather than an outright sale, they went on to propose a leasing arrangement, something the Association had not previously considered. Briefly, it was deemed a runner and the rest is history, and we are now the lessors of a former riding school in darkest Lincolnshire!

The Exhibition Probably, like me, you have been reading, in Manny's columns in BMFA News, of the many groups of volunteers slaving away at Buckminster like navvies on the Burma Siam railway. Well, as the Association has put on a large centenary exhibition, I thought that it would be a good time for an inspection. As Andy Stephenson was going up to Buckminster to fly in a Classic Aerobatics comp with his *Gangster 63*, and he was offering me a lift, the die was cast. Thanks mate!

It has to be said that it is a fair drive from Oxford to Buckminster and the site is in a very rural part of The Bomber County, though with many attractive cottages, etc., built of the local stone, with red-pantiled roofs, and the occasional hostelry, similarly built. The site is not near any 'A' roads and it is easier for Oxford members to navigate to the site from the A1. It is badly in need of lots of brown signs! Driving across from the M1 to Buckminster from the west seems never-ending and it easy to get lost, even with a sat nav. However, the sight that meets you on

arrival is one of a very well-presented outfit, with neatly trimmed hedges and grass, and very smart buildings.

Left: Andy just about to fly. Just look at that parched grass! Note the rather natty starter platforms provided by a local sponsor.

The Buckminster Site

The car parking area is adjacent to these buildings and is large but covered with crushed scalplings,



which is very hard on a wheelchair user such as myself and I imagine a parent with a child in a buggy would be giving junior a rough ride. A tarmac perimeter path would be a great improvement.

There is another large car park if you follow round the old farm/stable buildings that are being brought back to life. This second car park is very different from the first and is covered in a layer of soft rubber shreadings (a legacy of its former use) which turned out to be very wheelchair and buggy friendly. Over in the (northeast?) corner is a campsite where you can also park. There is some of the famed but rare KeilKraft long trimming grass here too!

There are meeting rooms, admin. rooms, toilets and showers, including disabled facilities in and around the old farm, with much of the work having been done by Manny's volunteers, to a high standard. As to the flying facilities, apart from the outdoor grass areas, runways and Control Line circles, the covered former riding school has been thoroughly tweaked to provide a modest but excellent indoor flying site/swap-meet/exhibition venue. We are not talking Nottingham Uni here, but it is a good-sized space. Anything that we get away with flying at Begbroke Village Hall we could easily fly in here.

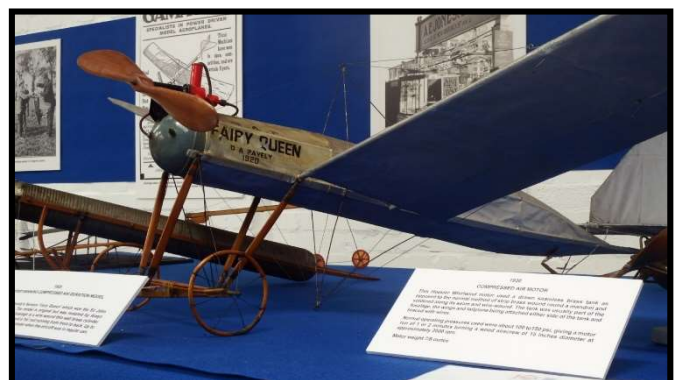


Left: This the sight that greets you as you enter the exhibition. In the foreground is the late Mike Goldby's wonderful f4c Sopwith Dolphin.

Which brings us to the BMFA Century Exhibition, which currently occupies the entire hall, floor to ceiling, although it does not come across like that in some photos. I don't know exactly how many models were on display, but a very considerable number, probably half of them hung from very neat 'suspension pyramids' fashioned from white DIY plumbing pipe. The curating team, led by Jim Wright, has put together a truly comprehensive display of model aircraft; everything from 1920's compressed air power to 21st century turbines. Each exhibit has its own storyboard and thoughtfully the display includes not only models, but engines, rubber

and even model transit boxes, heavily festooned with stickers! There is also a large photo montage, titled '100 by 100', made up of 100 portraits of one hundred people who have served or assisted with the development of the BMFA, from the KMAA and the SMAE, both paid and volunteers, as well as some key flyers down the years. All in all, the exhibition clearly demonstrates two things. One: the importance of supporting such a sophisticated and technical activity (Whittle, Camm and Roe were all aeromodellers) and two: the extraordinary variety of ways to get a model into the air – there is a large R/C scale glider suspended from the ceiling, a Polish Orlik.

Right: D A Paveley's original compressed air model from 1922. Virtually the entire fuselage is a compressed air tank. The orange device on the top of the nose is the motor.





Left: This glider happens to be on my bucket list, somewhere near the top. Published in 1948, This is the Thermalist, all 12 foot of her and a freeflight design!

Right: No exhibition of historic model aircraft would be complete without an example of Col. C E Bowden's models. Bowden was a leading light in the field of petrol engine models. This one dates from 1936.



Laid on the table below its nose are a couple of Paul Eisener's C/L speed record breakers. You might not think that there is much common ground shared by these models, but consider this – they were both built by amateurs, probably working in garden sheds or domestic garages. Both are beautifully finished, both require a small crew to enable them to fly (check out the Dynajet C/L speed models flying at the Nats, next time it's on . . .) and both give enormous pleasure to the builders and spectators, though I will admit that one is marginally louder than the other!



Left: This is the largest model on display, an r/c scale rendering of the Polish vintage glider, the Orlik.

Guys (and girls), the BMFA Centenary Exhibition is well worth the hike up to Buckminster. It is a credit to the BMFA and to Jim Wright's team and deserves a far bigger audience than it is getting. I hope that the excellent visit Buckminster. The Exhibition runs until the end of

October. Oh! And Andy had a good day with the Gangster.

Right: Here we have another compressed-air powered model on the left; centre a pre-war DH Hornet Moth f/f scale model and, lurking in the background right, a typical 30's f/f rubber job, that would have been seen on any flying field.



Conclusions?

All things considered, my visit was well worthwhile. It has put a face to the name, as it were. As a flying site, from my freeflight point of view, it is a far from perfect site, but okay for small stuff. Whether it would be possible to acquire another ring of land surrounding the existing area, I do not know, but that would certainly help. For R/C and C/L it is satisfactory, although the C/L flyers find it turbulent.



The little hall (left) is good for all sorts of indoor flying and events such as swap meets, etc.. However, I would like to see the small exterior door used to access the

exhibition fitted with what? You've guessed it! A ramp!

Thanks to Andy Stephenson for the transport (he had a good day with the *Gangster* by the way) and the volunteer steward who made me some lovely tea. Please note, I have not included any general photos of the site as there are plenty of pictures in the current issue of BMFA News, so all the photos are of the exhibition. The exhibition is open until the end of October – do try and visit – you will not be disappointed. Entry is free.



Please excuse the obvious scale bias in the photo selection but it is my favourite branch of aeromodelling! This Typhoon was built during WW2 - 5 foot span for rubber power!

Note the timeline in red and blue, which progresses right around the hall and is profusely illustrated with old photos, many never seen before.

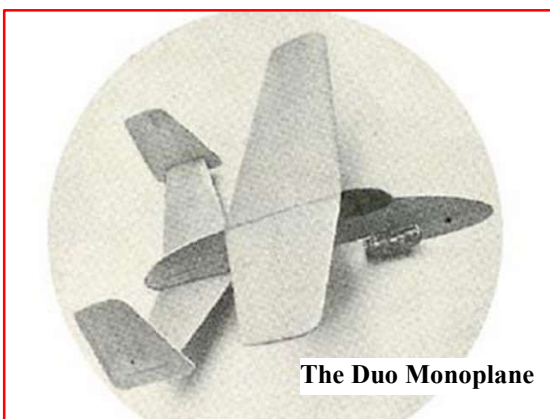
Flying Times At Port Meadow

Mon. to Sat: 10:00 hrs to 20:00 hrs or sunset* / Sunday only: 10:30am 20.00 or sunset*
All year round. *Whichever occurs first

Bill Dean's Jetex *Duo Monoplane* Revisited The Editor

About six months ago, I was at a bit of a loose end, drumming my fingers and casting around for something interesting to build. Not a major project, just something a bit out of the ordinary to occupy a few hours. RC or FF? Then, serendipitously, we had the Bill Dean event commemorating a hundred years since his birth. For those of you for whom the name is a mystery, Bill is officially credited with creating over a hundred model designs in the middle part of the last century (my territory!), many of which have been curated on the marvellous Outerzone website. Interest sparked, I started trawling through and eventually lit upon the futuristic shape of the Jetex-powered *Duo Monoplane* (Below).

If I'm not careful this could turn into a history lesson, so I'll swerve that one and just say that Jetex was/is a kind of glorified firework that was/is strapped to a (usually) smallish model. A fuse was/is lit and the whole smoking edifice hurled skywards when the fizzing reached/es its peak (the dual timespan signature is because some of us still do it!). There are modern alternatives to the Jetex system; easier to manage although sadly costing a king's ransom. Not just girls, but boys too just wanna have fun!

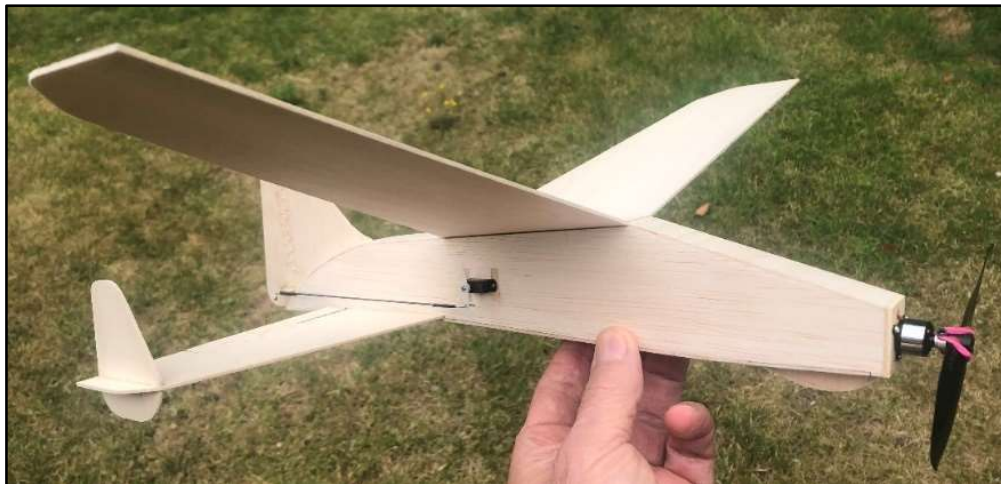


I soon spotted the Duo Monoplane, designed by Bill as a Jetex-powered freeflyer. Its wingspan is a mere 16"/ 381mm; it's an all-sheet balsa construction and is quick and easy to nail together. Best of all, a quick scribble on the back of a fag packet (only joking!) suggested that if it were scaled it up a bit and a few allowable liberties taken with the basic design, it would go well with some newly-acquired micro RC gear that I had sitting idle on the shelf. Decision made!

Out came the *crayon et papier* and very soon the few necessary alterations were cobbled together in readiness for cutting balsa. As is usual with such ad-hoc projects, the design details were sorted out as the build went along which, incidentally, was dead easy. I substituted a full fuselage in place of the simple "profile" version of the original; I increased the wingspan to 19"/483mm, added a central fin in order to have somewhere to attach a rudder, and re-shaped the fuselage to a more modern jet-like appearance. The dinky little 13mm diameter brushless motor was simply screwed to a plywood front former and the tiny 3.7gr servos surface-mounted amidships. Power was supplied by a

single-cell 160MAh UMX-type LiPo via the tiny receiver's onboard 5 Amp Electronic Speed Controller (ESC).

So far, so easy-peasy. To my considerable amazement, the Balance Point was spot-on. No added weight required – result! And did it/does it fly? Yes, superbly. Unsurprisingly, being such a titchy craft, it prefers light winds but will handle up to about 12mph with élan.



Left: The *Duo Krooza* (snappy name eh?) 57 grs of pure fun.

Just shows what you can do with a sound basic design. Good on yer, Bill.

David

Twenty-Five Seconds Is Not Enough Andy Blackburn

Kit Scale I got back into free-flight in 2017 by building an *Andreasson BA4B* peanut from a Peck kit, an excellent model which initially would fly for about 25 seconds, which was better than most of my efforts in the 1970s. The *Andreasson* was eventually persuaded to fly for much longer but somehow this notional 25-second watershed has become the standard by which rubber kit scale models are judged – if a new model can reliably fly



Andreasson BA-4B

for that long then it's a keeper, otherwise it eventually gets the Swan Vestas treatment (survival of the fittest, and all that).

My recent rubber kit scale models are also relatively average in the flight performance department:

Here are some stats:



VMC Spitfire

Model	Weight	Duration	Notes
VMC Spitfire, 18" span	1.5 oz	25-30 sec	Lots of nose weight
VMC Cessna 140, 18" span	0.9 oz	30+ sec	Potential for 40+ seconds
DPC Models Pfalz D.III, 16" span	1.3 oz	35-ish sec	Lots of nose weight
Keil Kraft Stinson Station Wagon, 20" span	1.0 oz	40 sec	Potential for more



Andy's Pfalz D.111 with the sun shining through . . .

Judging from other people's experience and the published results from things like the Masefield competition held at Old Warden, these times are typical – 40 to 45 seconds for something simple and light, about 25-30 seconds for a heavy biplane or a heavy low-winger with lots of stringers.



And his KK Stinson many of

This limited performance potential of the old Keil Kraft and Veron kits (and, to an extent, more modern kits) probably has several root causes, including but not limited to:

- We live on a relatively windy island (we don't see continental-style calm weather very often) and these kits were designed in the 1950s when the quality of balsa couldn't be guaranteed, so a degree of robustness was probably wise.
- There's probably an element of *"it's always been done this way"* – if you look at the small rubber scale designs from people like Ron Warring (e.g., *Auster Agricola*, *Hornet Moth*) or Ray Malmstrom (e.g., *Avro 504K*), construction is extremely robust, and the magazine articles promise flight times of 20 to 30 seconds. Even the relatively recent West Wings kits looked like Keil Kraft designs with accurate outlines!
- Competition rules in the UK usually rely on the presence of flight judges, and flights are marked on realism rather than flight duration – so there's no incentive for models to fly for a long time; they just need to fly for "long enough".

However, they are what they are – if you buy a kit for a model of about 18" span, you know what you're going to get and that (modest) sort of duration is what you're likely to get.

So, What's The Problem? The trouble is that I've spent 2022 flying small rubber duration models that will fly for 45-60+ seconds with no thermal assistance, which means that's what I'm now used to, so 25 seconds from a rubber-powered kit scale model is no longer enough! If I've spent all that time and effort on a model, I really want it to fly for a good three-quarters of a minute and (importantly) gain a decent altitude in the process.

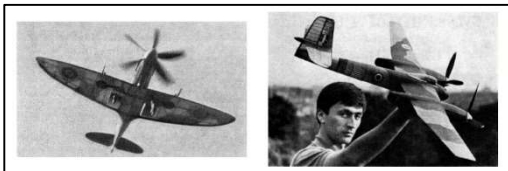
Well, What's To Be Done? Judging from various posts on sites like *HipPocketAeronautics*, it's possible to make over-engineered Kit Scale designs fly for longer

(45-60+ seconds) just by building light and replacing the wood with some light (indoor quality) wood. However, that approach does rather call into question the cost-effectiveness of buying a kit!

Another way forward is to enlarge an existing plan. It'll be a little more efficient and a DT (dethermalizer) can be fitted without too much bother. Bob Lee (our esteemed Club Sec.) has a Veron *Auster AOP9* enlarged to 30" span (136% original size) which weighs 96 grams including motor (i.e., probably around 70-80 grams empty?) and will fly, he says, for "A minute, easy".

Alternatively, there are some old kit plans that have a good reputation (some of the *Flyline* series, for example); Mike Stuart has a 25" span Earl Stahl-designed *Howard DGA-8* which is admittedly a bit overweight, but it's normally expected to fly for 45-50 seconds.

On that basis, I think the real answer is to build a bit bigger than what I've been used to. I suppose the first reasonable question is "how much bigger"? There are a couple of pieces of readily-available evidence.



Czech Models Firstly, back in the olden days of *Aeromodeller* (July 1973 onwards), the doyen FF modeller Eric Coates wrote about some free-flight rubber scale models built by modellers in Czechoslovakia, which was (at that time) behind the Iron Curtain.

Structures were light with lots of thin stringers and the wingtips often had undercambered airfoils; tissue was often dyed the right colour (rather than airbrushed) and flight times of 45-60 seconds were commonplace. At the time, we all stared at the stated duration in disbelief, and that picture of a *Spitfire XIV* above is inspirational.

Czech rubber scale models are all designed to a common 1/20th scale which typically yields a model of a single or twin-seat WW2 fighter averaging about 23"-26" span. Many of these plans are now available from Mike Woodhouse via the Free Flight Supplies website

(<https://www.freeflightsupplies.co.uk/>).

Flying Aces Club The other thing to consider is that the Flying Aces Club (FAC) in the U.S.A. runs many competitions, mainly for rubber-powered scale models. The competitions appear to be well-attended and range from simple Jet Catapult events to Jumbo and Giant Scale competitions. The full set of rules is available here:

<http://www.flyingacesclub.com/RULES/CURRENTFACRULES.pdf>

The usual model size for FAC Rubber Scale models is about 25" span, and many of these will regularly hit the max of *two minutes* (120 seconds); this sort of performance is comparable to a P30 or a Coupe D'Hiver! How on earth is this accomplished...?

Techniques Some keen F/F people will be familiar with (and may even have contributed to) an excellent Australian publication called “Free Flight Quarterly”

<http://freeflightquarterly.com/>. This covers all aspects of outdoor free-flight, and there are occasional articles on F/F scale, but – luckily – there’s also a book of articles that FAC member Bill Henn wrote between about 1979 and 2006.

This is something of a gold mine and a careful reading produced the following gems. None of these techniques is surprising, but the lengths to which they’re taken might raise the odd eyebrow;

Right: Bill Henn's 28" span Messerschmitt bf 109 H is based on an enlarged Czech plan and weighs about 1.3 ozs / 37gr. empty. This counts as "heavy".



Light Weight is Crucial Most models seem to be really, *really* light. Bill Henn has a 23" Spitfire XIV based on a Czech plan that weighs 27 grams (0.95 oz), and a 26" Fiat G.55 that weighs 36 grams (1.27 oz).

Extensive use is made of light (indoor-quality) wood in relatively small sections; harder wood is used for longerons and wing spars, of course, but for most of the structure we’re talking 1/20" balsa formers, 1/20" square stringers, etc.

The Glide is Important Normally, having a relatively large free-wheeling propeller on a model will wreck the glide because of the extra drag that the propeller will produce when it freewheels. However, if the wing loading is below about 0.4 grams /sq.in. then the glide speed and therefore the propeller drag will be reduced to a manageable level (drag is proportional to speed squared).

The Finish is Lightweight Tissue is usually the best available and is often pre-shrunk on a frame before being applied to the model and water-shrunk again (Esaki will do this, not sure about the newer stuff).

Models are often sprayed (not brushed) with thinned dope or Krylon (an acrylic lacquer that comes in a spray can), usually no more than two light dust coats. If the surface goes shiny, that’s too much dope! (Ed: I’ve often used Surgical Spirit – which the Americans call Rubbing Alcohol. It imparts a minute amount of shrinkage and smells lovely).

Printed tissue is often used for decoration and airbrushed finishes are sometimes used, but the finish is usually a bit see-through for reasons of weight. Personally, I like this look – it has a certain charm.

Airfoil Choice Not Critical, As Long As It’s Thin The choice of airfoil doesn't seem to be critical; as long as the airfoil is no more than about 10% thick, a whole range of airfoils (including cracked-rib airfoils) will work well. Given that the covering will sag between ribs anyway, this isn’t too much of a surprise.

Rubber And Prop Matching Is Important The rubber and prop combination is very important – again, not that much of a surprise. Bill Henn often uses a 10" diameter x 11" pitch balsa propeller; on the 26" Fiat G.55 discussed above. This is paired with a 10 gram P30 motor of 6 strands of 3/32" Tan II rubber – this will take repeated windings to nearly 1500 turns and provide a power run of over a minute. Commercial plastic props can be used but are matched with different rubber to cope with the lower pitch – Bill’s Spitfire XIV has a 9.5" Peck

plastic prop clipped to 8.25" span, scraped to lighten it, and paired with a motor of 4 strands of 0.110" (~7/64"). Models are often re-sized from existing plans and the structure re-designed in order to match a favoured rubber/prop combination.

Tentative Conclusions I'm driven to the conclusion that many (or most!) of the high-performing FAC rubber scale models are just large, lightly-built, indoor scale models packed with lots of rubber and flown outdoors . . .

Building Bigger From the foregoing discussion it looks as though it'll be easier to get a larger model to fly well than a smaller one, so I thought I should have a go at building one. The problem that I usually have when starting something new is that there is usually too much choice. So, I took a sensible pill and thought 'what would be relatively easy?'



It turns out that there are numerous, nice, short kits available from Hummingbird Model Products in the U.S. (other vendors are available) including pre-WW2 racers

Hummingbird Model Products Hurricane and Goon racer, both 24" span. The Hurri weighs 1.25 oz.

such as the *Chambermaid*, *Folkerts SK3*, *Goon*, and a 24" span *Hawker Hurricane Mk 1*. The *Hurricane* is enlarged and modified from the old 16" span Comet kit complete with printed tissue patterns and is aimed at the FAC Simplified Scale event – similar to Dime scale except that there's no maximum wingspan and you can use any plan.

This looked good and I was all set to hit the "Add To Cart" button when my head was unexpectedly turned by one of Fairey Aviation's most elegant by . . . one of Fairey Aviation's more, um, *individual* products...



Fairey Gannet COD Mk 4

Hideously Beautiful? I happened to be clearing out some old magazines and came across an old "Aeroplane Monthly" with a silver and dayglo orange Fairey Gannet T.5 on the cover, with a history and 3-view drawing in the middle.

I've always had a weakness for such "Hideously Beautiful" aircraft and sat down to re-read the magazine. That was enough to replace all notions of being sensible with the idea that

designing something myself would be a really good idea. How difficult could it be? We shall see.

Andy Blackburn

Andrew Longhurst sent in this amusing snippet penned by his American friend, Grant Carson, taking a wry look at life in his workshop!

IN MY WORKSHOP
Grant Carson

A whimsical look at the things a US aeromodeller has to contend with . . .

Dihedral measurement: In my workshop, there are four increments. From least to most, they are: the height of a small dope bottle lying flat, the height of a small dope bottle on its side, the height of a small dope bottle standing upright, and the height of a big dope bottle. Anyone who needs a more incremental system is pretentious.

Weight of balsa: In my workshop, there are three weights. There is that so stiff that it can't be cut with a razor knife. When I find that kind, I use it for shims to level furniture. There is that so light that it tears with the blade of a used razor knife causing one to use a new blade. That's the best stuff. And then there's the rest, which is most of what I have.

Size of balsa sticks: In my workshop, 3/32" square is the universal size. Anything smaller, I put my fingers through the structure several times before it's finished. Anything larger, I can glue some 3/32" together. Why buy odd sizes?

Size of working surface: In my workshop there is a one foot square area. That's not what I would prefer, but the way Fate has decreed. If I'm about to build a big model, I clear my workbench. But within an hour of starting, the workbench is so littered with tools, dope bottles, beer cans, and so on, there I am again working in a one foot square area.

Rate of building: In my workshop it's variable, depending upon whether there is a Spaghetti Western, Arnold Swarzenegger, or Australian Road warrior movie on the box. If I removed the TV, I would build a lot more, but what's the point? I already have the garage ceiling filled with dogs that don't have the grace to fly away.

Length of sticks cut to fit: In my workshop, there is only one length, but two approaches to achieving it. The first is to cut the piece too short at the outset. The second is to cut the stick too long and then sand it too short. With either approach, the length of a stick cut to fit is too short.

Gluing with cyanoacrylate: In my workshop, I'm safe if I glue parts pinned to the building board. But if I try to glue parts held in my hand, there are two possible outcomes. One is my fingers glued together. The other is my fingers glued to the airplane. In the latter case, I

usually destroy a goodly piece of the airplane getting my fingers free. I consider the result skilful if only my fingers are glued together.

Keeping Cyano from clogging in the tube: In my workshop, I have followed a dozen tips concerning how to keep CyA from clogging in the tube, but I've never managed to completely empty a bottle, except for the time that I was very determined to get that last bit out, and I did, all at once in the middle of the building project.

The social aspects of my workshop: In my workshop. I am King! I can escape my responsibilities and do un-social things, like watching an Australian Road Warrior movie while I glue myself together. Except that my family uses my workbench for putting away anything that needs putting away in the garage, because that one foot square area is the only free horizontal space in the garage. And, except that we installed an intercom (bad idea). Ah, me! Well, at least in my workshop I am King when I've cleared the rubbish from my one foot square space and the family is asleep. Then I can watch an Australian Road Warrior movie and glue myself together. Then life is sweet!

Gordon Whitehead's 24" Wingspan Nieuport N.11 David Lovegrove

Many years ago, as a serving RAF officer, Gordon Whitehead was based at RAF Brize Norton, near my then home in Witney, Oxfordshire, and was a member of my local club. During that time, several of his popular designs undertook their first flights on that 'instructive' strip. Instructive? - because it was situated in the corner of a small field that was variously bounded by cereal crops, a road, tall conifers and, most instructive of all, a very large pond of used aircraft engine oil that had been dumped from Brize Norton during the time of the USAF's residence there. Illegally, no doubt . . . If you dropped your model into this Black Lagoon you'd be saying goodbye to it!



Gordon and DH-103 Hornet

Anyway, I well remember Gordon's *DH82A Tiger Moth*, *Bücker Jungmeister* and his twin-engine *DH-103 Hornet* enjoying their



successful maiden flights on that strip. The last-named appeared soon after he'd witnessed the successful maiden flight of my own-designed twin-engine, twin-boomed, sports model at the club patch. I've always suspected he was inspired to design the *Hornet* after

seeing that fly!

Putting all that history aside, you have to admire the breadth and scope of the Whitehead range of plans. Not on a par with Bill Dean perhaps but it seems to me that any red-blooded scalista couldn't fail to find something in there to whet his or her appetite. From small, simple,

all-balsa, freeflight designs like the *Nieuport N.11* and the similarly sized *Bristol Scout*, to larger RC jobs such as the *Gloster Gamecock* at 60", there's plenty to choose from.

The Detail You'd probably imagine that the *N.11*, a tiny 24", all-balsa biplane, would be a quick build. Okay, but not in my workshop! Like so many others, I invariably reach a point in the build when I think the model looks almost finished, only to then realise that I'm deceiving myself. There's always at least as much to do again - "ninety percent finished; only ninety percent more to do". And so it was with the *N.11*.

The devil is in the detail of course, and here the detail is the extent and quality of the final finish. Not too difficult (you'd think) in this case as, being small, there's only so much you can add without the model starting to look cluttered. In this case, a quick squirt of rattle-can red and silver paint, a few roundels and fin flashes, plus that all-important 'Indian Head' motif, were all it took. But that was more than enough. At heart, I'm not a scale man. For me a little bit of decoration goes a long way.

RC Or Freeflight? Part of the rationale for writing this piece was to compare and contrast my own rather basic version with OMFC clubmate Jon Markovitz' far more up-market FF version, as pictured at the masthead of this issue. It's beautiful. Mine is much more utilitarian and was intended from the outset to be electric-powered and to have RC installed, while Jon's was destined for freeflight and diesel power. And having seen his *N.11* in the flesh, I quickly appreciated the amount of extra work and detailing that he'd applied to his model. It must have taken him ages.

The Build It's a while since I nailed this little critter together and my recollections of the process are sparse. Which probably means there were no particular problems along the way. I expect there would have been a bit of head-scratching at the point of constructing the cabane structure: where there's wire-bending, there often is. It's no-one's favourite job but in this case it went well. I followed the plan's directions without drama. Gordon's designs are always very practical.

As is well-known to lovers of WW1 short-nosed scale biplanes, models of these subjects have an invariable problem lying in wait right from the get-go - tail-heaviness. The *N.11* is no exception. Despite my best endeavours to keep the aft end light, I nevertheless found it necessary to stick over fifty grams (two ounces) of church roof into the cowling to achieve a flyable Balance Point. Some would baulk at that. A good friend who built his own version at the same time as me tried to ignore the imbalance, unsuccessfully. It's very painful to have to add weight to one's precious new model! But remember the old chestnut: nose heavy models will usually fly, albeit not very well, whilst tail-heavy models fly, but usually only once! Hence, it was a matter of biting the bullet and getting that BP where it needed to be.

And the initial flights proved that the position shown on Gordon's plan was spot-on. If, after reading this, you are tempted to make your very own *N.11*, rest assured that when built and balanced *exactly as per the plan*, this model will not disappoint.

One thing I did notice was that, as built, the "aileron" sections of the top wing drooped quite a bit, creating a lot of wash-in. That didn't look quite right, and it made me nervous about the aerodynamic effects. Thus, I reasoned that straightening them out, creating a touch of wash-out in the process, would do no harm. All quickly and easily achieved with the help of a bit of steam from the domestic kettle. Whether it actually made a difference, I know not, but it made me feel better.

The Power Set-Up I'm a dedicated electric man; have been since the earliest days, so this was always going to be the model's destiny. Flexibility, reliability, and cleanliness are paramount virtues for me, alongside the least possible expense. Fortunately, there are dozens of suitable cheap, small brushless motors available and I chose the smallest I thought I could get away with. It did the job admirably, but in fact, bearing in mind all that nose weight that I needed to add later, I could just as easily have installed a larger motor. It would have made no difference to the outcome.

Next on the list was the choice of LiPo. Space and weight distribution played a part so, for that reason, I decided that the best place to locate it would be hard up against the rear of the motor mount/firewall. That dictated a 450MAh, 2-cell jobbie from 4-Max. Which provided plenty of thrunge and duration.

Radio Gear Space and weight being a premium consideration, I chose a couple of titchy three-point-something gram chappies to operate the relatively massive, all-moving fin and the elevator. One millimetre carbon rod pushrods did the pushing and pulling and an "El-Cheapo" Lemon 6-channel receiver did the rest.

So How Does It Fly? Pretty damn well, actually! Having said that, another characteristic of small models is that, necessarily, the small wings need to work jolly hard to generate lift. That means they must fly relatively fast, which of course, is un-scalelike. But what must be, must be. My little *N.11* goes like an F.35 downwind but can be slowed up nicely when going in t'other direction. It's a fair compromise, and one that I happily accept. The model looks convincing in the air and is well-mannered with it. Mild, if somewhat squirrely aerobatics are also on the menu.

On Finals Now Many, many designers have visited the *N.11* over the years, most opting much for bigger sizes than this. But I doubt if many can beat the fun-per-pound-weight of Gordon's design. It's cheap to build, economically powered and generates a silly grin upon my wizened old phizzog every time I fly it. And that's often, 'cos I love it.

I doubt Mr Whitehead will ever see these words but, if by chance he should ever do so, I hereby extend my warmest thanks to him for his cracking little toy aeroplane.

Cheers mate.

Powering Down - David Lovegrove (Editor)

How was your summer? Busy, I hope, with lots of enjoyable model flying? New models built, flown and trimmed to perfection; new ARTF RC jobs acquired? Whatever your aeromodelling bag, I hope you made the best of all the fine weather of recent memory. Personally, I found it too hot at times! Us oldies don't like it too hot . . .

Like other OMFC members I have always enjoyed a variety of modelling endeavours. Starting off at an early age with freeflight (mainly the proverbial Keil Kraft 3/9d die-crushed kits), control line (still doing both of those) and then RC models, ranging from David Boddington's early designs to biggish foamies such as the *Wot-4E* and *Riot*, and on to Ultra-Micro types converted from the freeflight kits available from *The Vintage Model Company* and *Microaces*. We really are spoilt for choice.

You've probably spotted a trend there – my modelling interests have effectively turned full circle! I love the “nostalgia” thing and have enjoyed lots of different models, both RC and FF, from that era. I wouldn't say I dislike any particular genre but if I'm honest, I find the looks of the modern, “whale” - style F3a aerobatics machines rather challenging! However, it's each to his own; live and let live and all that . . . And I've never been attracted to jets although I did dabble with helicopters for a while, and even the odd quadcopter.

With the indoor flying season re-starting as I write, I've resolved to have another go at that. There's quite a big stash of suitable models tucked away around the house and garage, including a couple of rubber-powered helicopters. They never fail to please.

Speaking of indoor flying, some of you had a lively evening of fun at the September Club Meeting. This involved fiercely competitive flying of our little foamy rubber-powered models, culminating in awards for longest flight, most entertaining flight, and most stylish competitor, the latter won by be-shorted Simon Burch. A thought for those of you who might be thinking of having a go at flying indoors in a bigger venue – if you'd like to borrow one of those foamies to fly at the Berinsfield Sports Hall, you'd be welcome to do so. Admission is a tenner and allows you to fly from 9am to 3pm. Guaranteed fun. Drinks and snacks are available from the vending machines, although most people bring a sarny and a flask of their favourite tipple. Give it a go – you'll like it! Ian Melville is the genial host and he'd be delighted to welcome you!

Henceforth, Andy Blackburn is Staking up the newsletter reins.

Incidentally, Andy insists on calling this august publication “The Snoozeletter”. Make of that what you will.

See you around.

Please send your contributions by 31st of December for inclusion in the January, 2023 newsletter. Send them to: Andy Blackburn at newsletter@oxfordmfc.bmfa.uk.

If submitting photographs (which we all enjoy) it's best to send the files separately, using www.wetransfer.com.