Meadow Flyer
Newsletter of The Oxford M.F.C.

Autumn 2024

Peter Smart launches his impressive Blohm & Voss BV222 flying boat in the "Flying Only" competition at the OMFC Midsummer Scale Event [Andy Blackburn]

In This Issue

Editorial

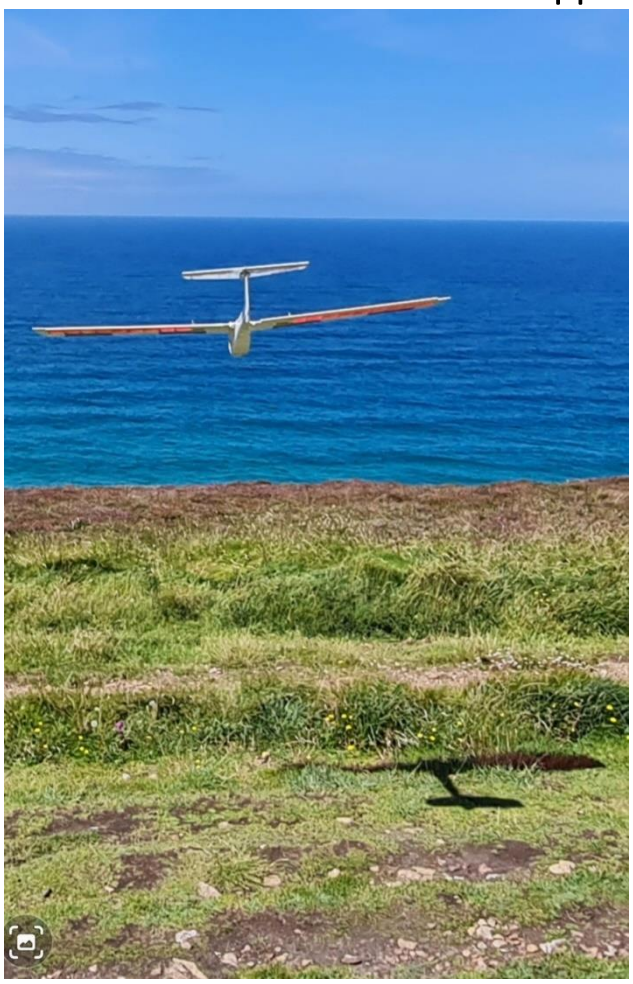
Welcome to the Autumn edition of the OMFC Newsletter, I hope you find it at least peripherally interesting. As always, please consider sending something in for the next edition if you've built something new or done something interesting that's related to model aeroplanes.

I'll be honest and admit that I have allowed matters to get away from me; there's a club duration competition in (at the time of writing) about 3 weeks' time on Saturday 7th September and I've had this Spencer Willis kit of an Aiglet A1 glider in the workshop for what must be the best part of a year. One of the reasons that we have club competitions is to encourage people to have a go at something different; I can't remember ever building a "proper" competition towline glider before, so I'm going to try and get the Aiglet built before the event. How difficult can it be?... In theory it's possible (I'll even use some thin CA), but life has a habit of getting in the way. I'll keep a log of my efforts on HipPocketAeronautics.

I'm always really grateful for photographs that people donate to the newsletter, but if there's one thing I would ask, it's that before you take the picture please look at where the horizon is and try to straighten up the phone/camera? Otherwise, my OCD will force me to try and correct matters digitally, which in most cases just takes a bit more time and faffing around. However, in one or two cases it's not possible to rotate the picture without losing something vital, like the top of somebody's head. Of course, this is Really Bad because it's something that my OCD wants to fix, but can't…

I'd like to thank David Lovegrove, Bob Lee, Roger Matthews, Andrew Longhurst, Chris Brainwood, Pete Fardell, Ivan Taylor, Simon Burch, Simon Milan, Andy Crisp and Ian Melville for providing services and content for the newsletter.

Chairman's Chat – Simon Burch pp Bob Lee



As our lacklustre summer eases its way towards autumn, the weather seems finally to have improved; indeed, we've seen some decent flying days. Trouble is, it seems that the bad weather still coincides with the days when I can make it to the Meadow. That said, I was lucky enough to enjoy a morning of superb slope soaring in July at Cligga Head in Cornwall, on the one good day in an otherwise sodden week.

Despite the weather, our July 'Scale All-day Fly-in' was a resounding success, with plenty of participants. This month's 'Cloud Tramp Mass Launch and Hi-start RC Assist' event was less well attended, with a number of people mentioning that the timing (Saturday evening commencing at 5pm) was not ideal. We'll take this feedback into account when organising future events.

Please check the website for details of our next event at Port Meadow, which is the 'Autumn Duration and Fun Fly' on Saturday 7th September. Also, we'll be holding our 'Foamie Warbird Challenge' in January next year, and short kits of materials (prop assembly, 1/64" ply, rubber, aly tube, foam) will be available, ***at no charge***, at our September meeting at Begbroke. I urge you to give this a try; our 2023 foamie challenge proved to be great fun, and it's an ideal opportunity to try designing your own model if you've never done so before. Of course, you can also use one of our suggested plans.

I'd particularly like to thank all those involved in the organisation and execution of these and our other events. Like any active club, we rely wholly upon our membership to run our programme, and we are always on the lookout for help and ideas. If you are able to help us in any way with this, please don't hesitate to let us know.

Our regular(ish) Wednesday RC training evenings have been affected by the weather; our original plan to take advantage of those warm, balmy summer evenings proved to be a fantasy. However, we've managed to achieve some decent flying training, albeit in the face of the occasional stiff breeze. I know that there are one or two RC flyers out there who are at, or near to, 'A" Certificate standard (you know who you are!). Keep an eye on the RC Training WhatsApp group (if you're not in this group, and you'd like to be, please let me know), and please do join us to brush up your skills and practise the test profile. It would be great to achieve some 'A' Certificates this year.

Finally, a safety thought: how thoroughly do you check your model before a flying session? Do you follow the checks set out in the BMFA Handbook at Chapter 13? These are, admittedly, RC-centric, but many of the checks and safety considerations apply to FF too.

That's all for now - happy flying!

Then and Now: Musings on Model Building - Roger Matthews

Keil Kraft Gemini

Many years ago, whilst at school, a friend and I built a rubber powered Keil Kraft Gemini. We had great fun trying to build with little or no experience and avoiding parental interference, so when this little gem hit me in the face whilst researching in OuterZone Plans service I couldn't help but print it out. (Yep - lots of A4 pages!)

It was built from my scrap box bits. I currently have it at the stage as per the photos, it will be free-flight electric (I made a tiny error when constructing the undercarriage support former, thus blocking any attempt at rubber!).

It will be covered in Eze-Tissue and Eze-Dope. Not sure about motor yet, but I have some ideas for 1s LiPo and controls.

I'll keep you informed on progress and eventual maidens etc. In the meantime, the next project is . . .

Mercury Tiger Moth

I bought a second-hand Mercury Tiger Moth kit at a Flite Hook Indoor flying day. When the contents were checked, some items were there, and (not unexpectedly) many others were not! The list was rather large in fact, considering that the fuselage had been started and was nowhere to be found. Oh, the joys of Spring!

On further investigation the following was ascertained (note the balance between *'Founds'* and *Not Founds*):

a) All wing ribs *were* in the box – yippee

b) Lots of spare strip for LE, TE, spars etc. appeared to be present *(mostly useless - wrong sizes*)

c) Full plans for wings and fuselage were present (*although no former, or rib cross-sections*)

d) Some cut out copies of plans for building also found

e) Half the building instructions were present

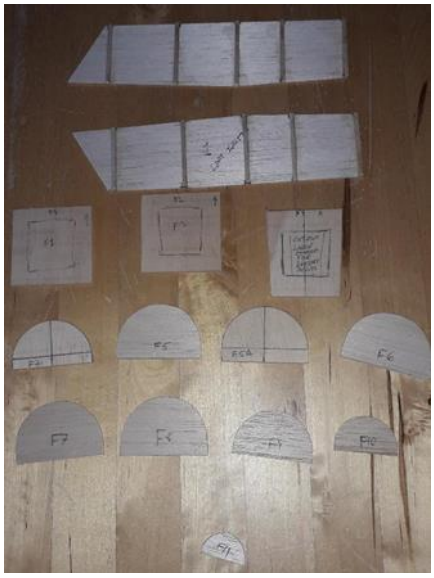
f) Tissue covering - present

g) Hardware - none found

What to do? Well, I started by trawling the internet and found the Outerzone website had copies of the plans, the instructions and, importantly, the rib and former sizes. These were duly downloaded and printed at correct sizes, getting me closer to what I needed to commence the build.

Next, I wrote a list of all the items present, those required and my preferred options for the build, including conversion to electric and full radio control.

I decided to commence on day 1 by constructing all the missing formers and other parts as shown on the plan. This would give me a basic kit of bits. From there I could decide whether to build the wings or fuselage first, whilst considering what RC components and motor size to fit.



All the formers were drawn and paper stuck to the balsa/ply sheets, ready for finishing.

The front of the fuselage sides were made up as per the plan, using 1/16th sheet and glued internal strips. Personally, I would have just built at final thickness. The first fuz side taking shape showing the front side in place plus the longerons and spars.

Wing panels laid out ready to start build.

Wing panels with ribs and spars placed to check all present ready for construction to begin.

Somewhere in here Day Two Started!

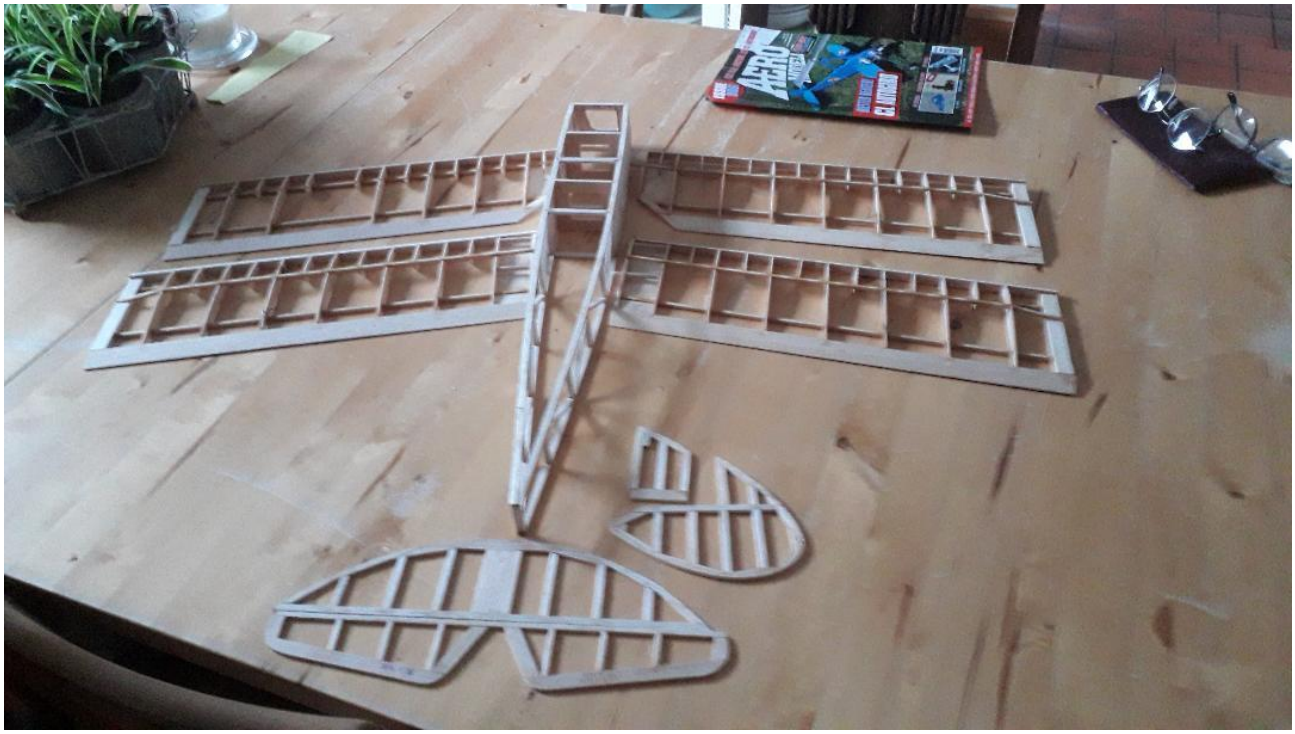
A bit more construction work completed on the fuselage and the right hand wing panels ready for finishing.

Port wing panels are go!

Day three began ok and then, as usual after a few days of building, things started to wane!

Tail parts have been quickly roughed out and are ready for trimming and sanding. Some additions for control horn mounts will be needed but not sure if push-pull or pull-pull will be used.

Let’s put it together and take a look…

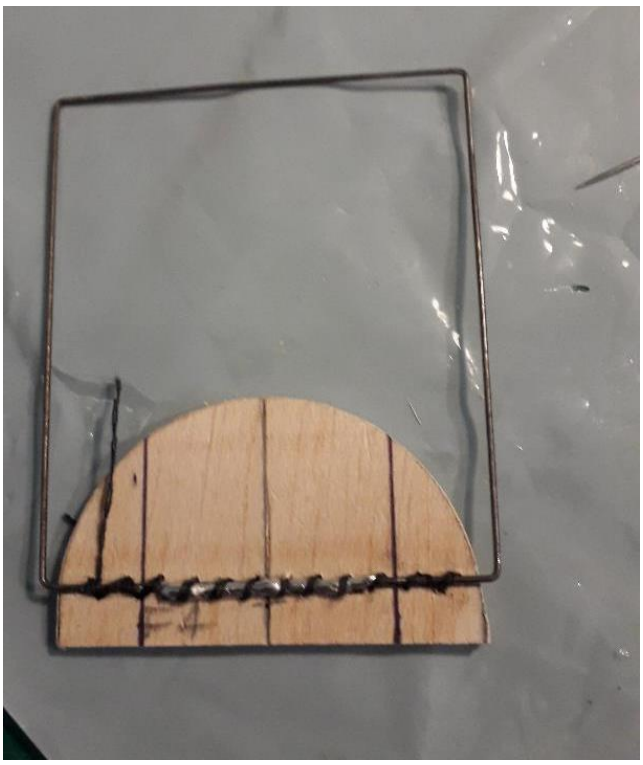


Hmm; the photos show we’re getting there, but that there’s still a lot to do!

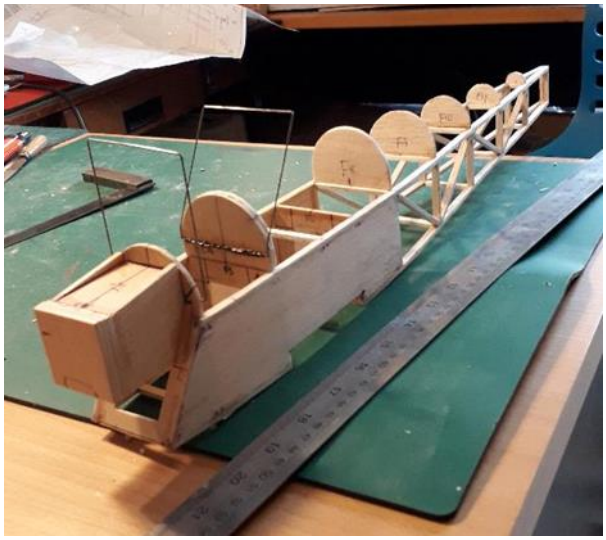
At least the wings are almost complete, although I am considering ailerons, lower wing only of course. They may be tricky, and the servos might show. Should they be individual or maybe central location? More thought is needed for the final decision. Also, what about the weight issues?

(I left this now for a few days to do the allotment and help Joy do some stuff).

On day Four I created the new formers for the cabane area followed the plan, I DO NOT LIKE SOLDERING WIRE! Completed them anyway.



Sewing the cabane basic struts to the formers. Arrgghh my fingers have gone numb! It must be old age.



I have moved on to the motor mounting and have designed a usable format, hopefully. The mount has now been attached to the fuselage and the upper rear backbone formers glued on, plus the forward cabane formers and wire struts. I've left space for the two cockpits to be a removable hatch as well, not sure why yet but it may be useful later when fitting out.

I have also removed the lower centre section below the cockpits, as I have decided to make the lower wing one piece, as well as the upper!

Space is a bit tight around the nose section as it tapers, but I'll make sure that there is enough space for gluing and still allow bottom access to the battery bay. Next will be the cowling.

I need to figure out if a central servo could be utilised here, for the ailerons, would also save weight? Might not use ailerons just rudder and elevator control.

The wings need to be completed so I have started to sand them to outlines etc. Also, the wing strut positions are as per plan and are rather clumsy but hey ho; continue or change? I've time yet to decide.

The upper wing section I've looked at and I need to alter slightly, make it wider (I made an error in the fuselage and it is 5 mm wider than the plan at the front end!) I am also probably going to replace the balsa wing joiners.

Time for a break..

(Some Time Later)

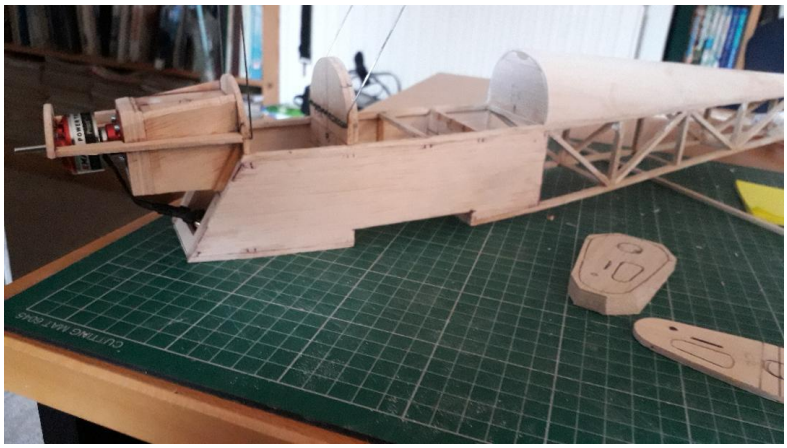
Next thing to do was start filling in the fuselage and sheeting so rear deck first; it was slightly wider than a 4" balsa sheet, so a 1/16th 3/8" balsa strip was fixed from front to rear, and the decking sheet attached to the strip, ready for rolling down the sides.

The sheet was thoroughly wetted, flowed over the sides and held in place with tape. The airframe was then left to dry out naturally.

This would then be glued using thin CA flowed over the joints.

I have moved on after the drying period and glued along the formers and the sides, done a little filling and sanded the rear deck. Looks ok!.

As can be seen, the motor has been mounted and the top of the engine cowl started. Very tricky owing to the size of the electric motor compared to a slim 049 beam mounted IC engine.



It's really taking shape now.

A couple of other things done is to measure where the rudder and elevator servos are going, and where the proposed control lines are to be led.

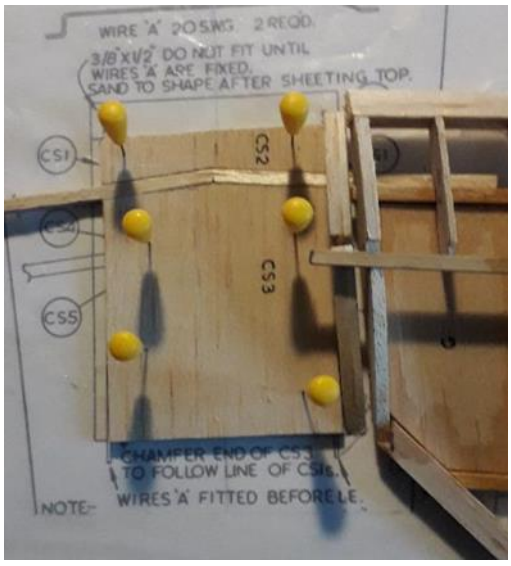
The battery tray location has also been checked to ensure I can get a battery in! Oops, what a story if I couldn't get one in.

Receiver location is also sorted but the speed controller is giving problems: not sure, yet, where to locate it.

I have also decided not to install ailerons but can retro fit them if I need to. Plenty of ways to do it so not a current worry!

(Time for another break.)

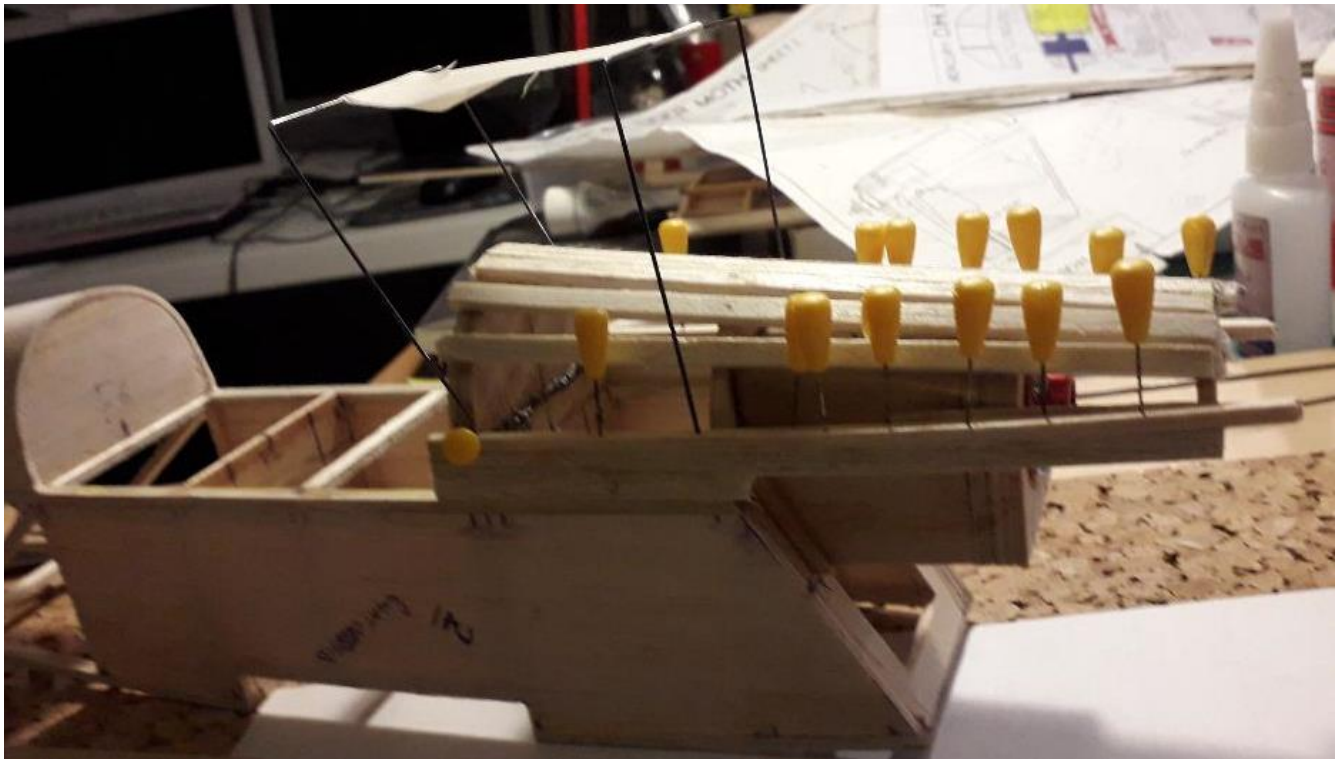
(Well, I have been a busy chap! The *ME163 Komet* has been maidened and is relatively unscathed; the *Phase 6* has had first flights on the slope albeit not windy enough – 14 mph - but successfully. Woohoo to both for the future.)



Back to business, the next stages include the finishing of the wings, so I have built the cabane section ready for joining the upper wings. A tricksy little effort but it looks as though it should work. A bit of infill and sheeting and they will be ready for covering. That's going to be another test, since I have decided to cover in tissue.

The alignment for the spars and dihedral keepers was rather interesting but seems to work.

And, the rubber band attachment is quite simple but will it be effective? Time will tell.



The front end decking has been started, by laying down 1/8th strip. Most of this will be sanded back (hopefully) to give the Tiger characteristic front end. I'm not sure whether to balsa strip or make a plastic bottle cowl. Plenty of time to think about it.

It's a slow process but should look nice when it's finished.

The clearance for the motor is quite tight and I'll need to ensure plenty of air circulation for the motor and the ESC.

It's time to start looking at the lower wing centre section and how they are to be joined, so the thinking cap is going back on and design time is required. Ah the trials and tribulations of the scratch builder.

(Some Time Later – Much Later!)

Wings and tail feathers have been completed, covered and hinged for rudder elevator controls.

The fuselage is almost complete, with nose fairings and battery access still to finalise. Some cockpit covering is done although I want to include pilots and some instruments. Inside the cockpits the electronics are installed for control surfaces. The majority of the fuselage is complete, with fairings for struts and under carriage to be added.

And there we must finish - lots more work needed and time to be found. Until next time . . .

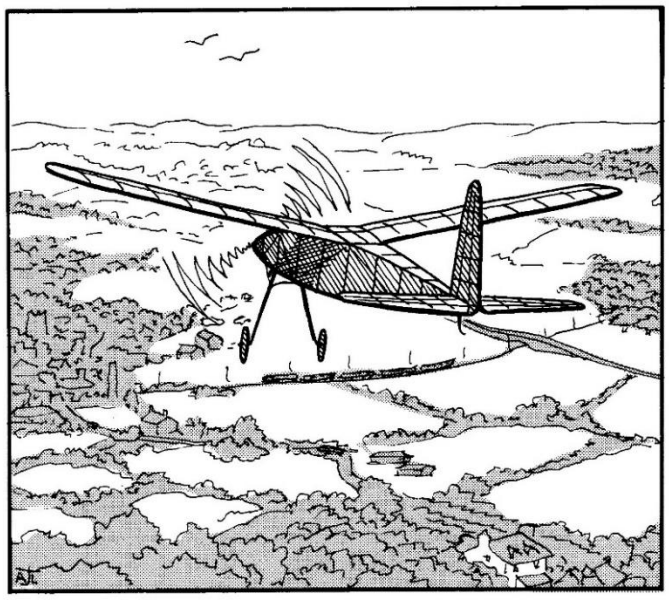
1936 Copland and Northern Arrow over Horsenden Hill – Andrew Longhurst

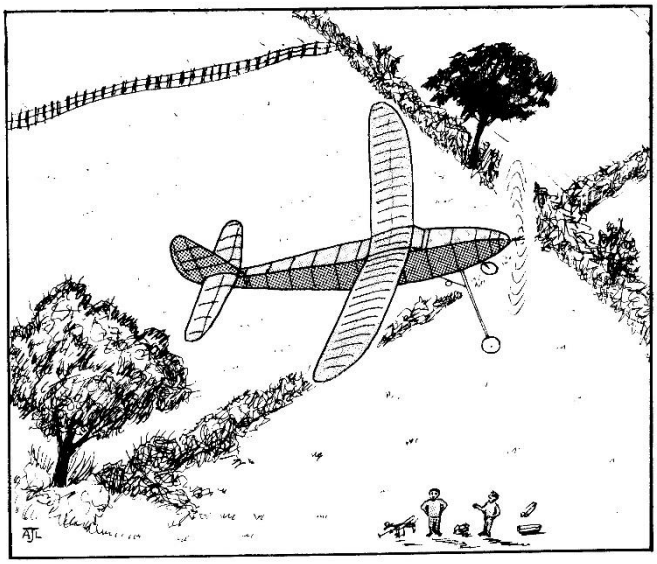
In the great depression of the early 90's (remember all that negative equity?) Maggie was at war on the public sector and I was made redundant from my Quango in '92, just in time for Christmas. Why is it always Christmas? My well-paid job which comprised sitting about all day doing nothing (according to Maggie) was over.

I spent some of my redundancy money on a new-fangled Windows computer complete with built in tutorial. I got another job offer within 40 days…at a lower salary and without a company car. But, for some obscure reason my new employers did not want me to start immediately. After a month I had completed the PC learning exercise, so I thought I had better do something else to stop my other half moaning about the kids going hungry. So, I got a couple of long-distance driving jobs for my old employer and in between trips wondered if I could earn some dosh doing cartoons. I should say I am no artist but I can draw a bit.

What I came up with are these two pictures based on the work of Alfred Bestall of Rupert Bear fame. They are of Horsenden Hill at Greenford where I flew at the time. I did some colour wash versions for sale but only sold one to my very old friend the late Ian Russell, God bless him.

After a couple of months, I was able to start my new job which was with a local authority and in a completely different field. I had to spend the next 20 years working my way up the slippery pole again. The job was hard going but toy aeroplanes kept me cheerful!





Oxford MFC Midsummer Scale Event – Chris Brainwood

(photos by Chris unless otherwise stated)

The Free Flight scale fly-in was a wonderful and well attended event, as well as general FF flying there were 3 closely fought contests for Flying Only, Scale Glider Duration and Kit Scale Duration. We had 11 entries in the flying only, 10 in the kit scale and 10 in the scale glider class which is fantastic for a new class.

Around 25 modellers turned out for the day's flying with some spectators too. Howard Metcalfe brought along an array of reaction motor powered models which could occasionally be seen and heard fizzing overhead, leaving smoke trails in their wake.

The Great Waldo Pepper's Standard J1 flies again, courtesy of Peter Smart – it's all part of the show, Folks!

Simon Rogers' delightful Dime Scale Bristol Brownie.

The weather was very overcast but with very light winds and occasionally calm. We did have a shower mid-way through the competition but it was light and many, including myself, carried on flying. Ivan Taylor recounted how legendary FF Duration flyer John O'Donnell would often fly in the rain to take advantage of the good air that can come with light rain on a warm day theorizing that the rain can cause disturbance that helps detach lift. Around the fun flying there were the three competitions all run over the same time scale of 10am - 12:30pm.

Flying Only

The Flying Only class was pretty evenly split across the various forms of power with 4 I/C models, 4 rubber powered and 3 electric. As the name implies there's no static judging, the competition takes the form of flying rounds flown in front of the CD and Judge Bill Dennis during which the models are marked on scale realism through the various aspects of the flight: climb out, cruise, landing approach etc. After 4 rounds the best scoring flight counts and awards are duly given.

Jim Paton had a nice Blackburn Monoplane with electric power which put in some nice flights while Charlie Jeffreys had entered his Rumpler Taube from the APS plan with DC Dart power. Part of the skill or luck with Flying Only is to get the model to perform at its best in front of the judge with just 4 attempts, not easy in free flight. Charlie made some qualifying flights but his later flights were much better as he fine-tuned the model.

Peter Smart entered a very impressive 6 engined flying boat, the Bholm & Voss BV222. This was built as an indoor model and had flown at the Indoor Nationals early in the year where it struggled to turn in the hall. Allowed the freedom of the outdoors and the BV222 proved it is a good flyer to the delight of Peter. With its 6 electric motors humming in unison it is a very impressive sight and sound in the air. As Peter fine-tuned each flight, it got better and better until it was looking very solid and convincing in the air.

Ivan Taylor's rubber powered P-51D Mustang [Pete Fardell]

Ivan's Heinkel He51 [Pete Fardell]

Ivan Taylor had entered a couple of models, a Heinkel He51 and a P51 Mustang. The I/C powered Heinkel put in some very good long flights and showed off its impressive glide to effect but a tightening turn under power dropped its scores. His rubber powered Mustang fared much better, claiming 6th spot. Andy Blackburn split Ivan's models with his newly completed rubber Miles Magister. This is from the Mike Midkiff kit and is a beautiful flyer with just the right sit in the air, it could be one to watch in later competitions as Andy refines it even further. The competition proved to be very close with 2nd to 7th covered by just 75 points.

Pete Fardell flew his very successful rubber powered Bleriot XI. It had suffered some undercarriage damage at the Nationals a couple of weeks before but after some in-competition trimming it was back to its old self producing some wonderfully evocative flights to claim 5th.

I entered a couple of models - a Miles Falcon and Cessna 170. The rubber powered Falcon was flying nicely but wasn't climbing as much as usual. I realized I was using an old motor from last year, with a new motor installed it was climbing out much better and gained 4th place.

Chris' Keil Kraft Cessna 170

Mike Smith's 50" span De Havilland DH4 [Andy Blackburn]

3rd was Mike Smith's DH4 Mail Plane. This is a large and very impressive superscale FF model equipped with a timer operated throttle which cuts the motor to a tickover for the glide and decent phase of the flight. On the day a slight stall crept in and my Cessna 170 managed to squeak ahead by just 15 points to take 2nd. The Cessna is from the KK kit and powered by a .5cc Redfin Millish. Along with its stable mates the Piper Super Cruiser and Luscombe Silvaire they make a great first FF scale model. After the competition I flew the Cessna in formation with Bill Dennis's Piper which was a wonderful sight but also proved how reliable they are as flyers, both flying very similar flight patterns.

Mike Stuart's Bristol freighter [Andy Blackburn]

The runaway leader though was Mike Stuart with his very impressive Bristol Freighter with twin electric power. Like the BV222 Mike built the Bristol primarily as an indoor model but the light air on the day proved ideal for it and it put in some very good flights. As it climbed out overhead with that twin engine sound, it was hard not to imagine yourself at Lydd airport watching the latest BAF flight departing for Le Touquet. The last time Mike had flown the Freighter at Port Meadow was its maiden flight when it unfortunately turned the wrong way and collided with a chair leg damaging an engine nacelle so it was even more fitting that this time out it scored the best flight of the day to win the class and the John Blagg Trophy.

Name	Model	Power	Flight score	Pos
Mike Stuart	Bristol Type 170 Freighter	electric	935*	1
Chris Brainwood	Cessna 170	I/C	875	2
Mike Smith	DH4 Mail Plane	I/C	860	3
Chris Brainwood	Miles Falcon	rubber	820	4
Pete Fardell	Bleriot XI	rubber	815	5
Ivan Taylor	P51 Mustang	rubber	805	6
Andy Blackburn	Miles Magister	rubber	800	7
Ivan Taylor	Heinkel He 51	I/C	700	8
Peter Smart	Blohm & Voss BV 222	electric	643*	9
Charlie Jeffreys	Rumpler Taube	I/C	625	10
Jim Paton	Blackburn Monoplane	electric	570	11
* + Multi-engined bonus				

Scale Glider Duration

Simon Rogers' impressive enlarged Keil Kraft Slingsby Prefect about to be launched.

The Scale Glider Duration class was new this year and has proved very popular with many new models made specifically for the event. Mike Stuart only managed to get his Schweizer painted a few days before, Pete Fardell finished his DH Sparrow with just a day to spare, while Colin Sharman was still finishing his Slingsby Prefect at 1am the previous night.

The competition was a total flight time over 3 rounds with a max set at 60 seconds; any flight over this time is scored as 60 secs with the highest total winning. There were a couple of timers on hand and competitors also took turns to time each other making for a very relaxed type of competition. A Peterborough rules bungee was provided for launching and while this is primarily aimed at 36” glider class it is clear from the scale results that size does matter. A few went for smaller 36"-and-under gliders, such as Colin Sharman's and Alan Trinder's Slingsby Prefects and Simon Burch's Slingsby Skylark from the VMC kits. These, along with my own Airspeed Tern from the AeroModeller plan, and other similar smaller subjects, struggled to match the times of some of the bigger models

Pete Fardell's newly completed DH Sparrow put in some good flights on its maiden outing but couldn't match the enlarged Earl Stahl Schwiezer TG-2 of Bill Dennis. Simon Rogers also went down the enlargement route and scaled up the Veron Slingsby Prefect to around 2x enabling him to achieve double the flight time of the best of the smaller gliders. At 60" and 140g it was the largest glider there, but it seemed to cope OK with the Peterborough rules bungee even in the calm conditions.

Peter Smart with his enlarged Willow Wren.

Peter's Willow Wren on the line, Simon Milan with his Vampyr [Pete Fardel].

Peter Smart had scaled up his own design of the Willow Wren which recently appeared in Aeromodeller, it looked very pretty in its yellow design and was my personal favourite. It didn't just look good it was also performing very well with one flight just 3 secs short of a 60 sec max. The only max of the competition went to Mike Stuart's Schweizer SGU-2-22 from the Volare Products kit. Designed by Tom Hallam, its parallel chord wings make the most of the 36" span and 50g weight as Mike proved when the model found some good air.

Simon Milan's winning Hannover Vampyr.

Mike Stuart preps his new Schweizer SGU-2-222

Simon Milan came out on top with 3 very consistent flights of over 40s with his own design Hannover H1 Vampyr, an unusual German glider from 1921. Simon based his design on the drawings in Martin Simon's book 'Sailplanes 1920 -1945' using an A2 airfoil from article by Jim Baguley in the Aeromodeller Annual 1972-73. The model is around 1/12th scale at 44" span and weighs 84g

The competition was a great hit and it is hoped to run it again next year. I for one will be building something a bit bigger.

Name	Model	Flight 1	Flight 2	flight 3	Total	Pos
Simon Milan	Vampyr 1921	46	44	44	134	1
Mike Stuart	Schweizer SGU-2-22	25	60 max	11	96	2
Peter Smart	Willow Wren	12	25	57	94	3
Simon Rogers	Slingsby Prefect	21	24	42	87	4
Bill Dennis	Schweizer TG-2	28	10	43	81	5
Chris Brainwood	Airspeed Tern	16	21	17	54	6
Pete Fardell	DH Sparrow	18	8	12	38	7
Colin Sharman	Slingsby Prefect	14	9	6	29	8
Simon Burch	Slingsby Skylark	10	6	11	27	9
Alan Trinder	Slingsby Prefect	4	5	7	16	10

Kit Scale Duration

Andy Blackburn's 29" Miles Magister from an old Aerographics kit, plan and short kit are still available from designer Mike Midkiff.

The Kit Scale Duration attracted 9 entrants though Simon Milan elected not to fly. The competition is for a total of 3 flights like the glider scale but with bonus points aimed at leveling the playing field so a small kit is as competitive as a larger model.

Chris Brainwood launches his Miles Falcon [Andy Blackburn]

My own Piper Clipper suffered a broken motor after the first flight. I didn't have a spare but tried a spare from the Miles Falcon, unfortunately the motor jumped off the hook while fully wound and formed a 900-turn ball in the rear of model. I had to cut the model open to get the motor out when I got home.

Many of the entrants showed they had their models trimmed for the BMFA Kit Scale precision and both Bill Dennis's Max Holste and Mike Smith's Aeronca produced several flights around 30s. Pete Fardell managed to get more out of his Fairchild and with a couple of 40s + flights managed a great 3rd place. Charlie Jeffreys was flying a lovely Taylorcraft Floatplane to good effect and Mike Stuart's Auster Ambulance was going well too with one flight of 51s. Ivan Taylor's Mustang showed us all the way though with an impressive 3 maxes and the best flight time of the competition. This was the same Mustang Ivan flew in the Flying Only though this time with few more turns.

Just in front by 2 points and the winner of the class was Andy Blackburn's Miles Magister using the same strategy of adding more turns than in the Flying Only competition. Andy only scored one max but the bonus awarded for being built from a kit as opposed to Ivan's OD gave him the edge.

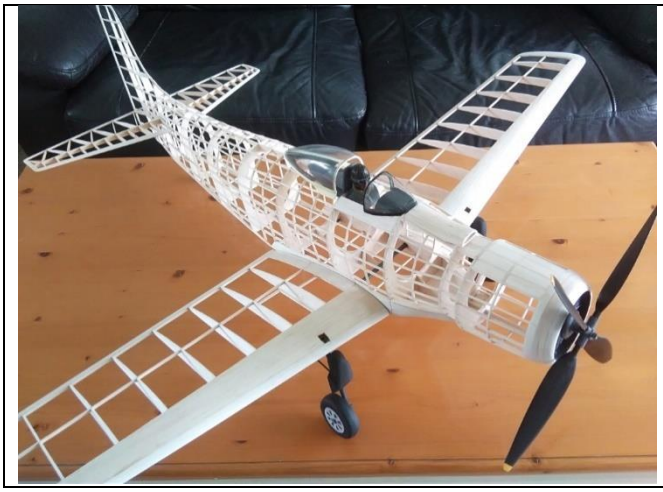
Pete Fardell's Fairchild 24.

By lunchtime the competitions had all been run and prize giving was held with bottles of wine for the winners, beer for runners up, certificates for the top 3 places and smiles all round.

Name	Model	Bonus	Flight 1	Flight 2	Flight 3	Total	Pos
Andy Blackburn	Miles Magister	25	60 max	41	56	182	1
Ivan Taylor	Mustang	0	60 max	60 max	60 max	180	2
Pete Fardell	Fairchild 24	25	29	46	40	140	3
Mike Stuart	Auster B4 Ambulance	10	37	51	34	132	4
Charlie Jeffreys	Megows Taylorcraft floatplane	25	30	22	32	109	5
Mike Smith	Aeronca Defender	10	29	30	35	104	6
Bill Dennis	Max Holste	10	30	23	27	90	7
Chris Brainwood	Piper Clipper	35	24	---	---	59	8
Simon Milan	Piper Pawnee	0					

Members' New Models

Ivan Taylor – Douglas Skyraider



Following on from my EDF Meteor and duration builds I was at a loss what to build. A few years ago I was taken with the Douglas Skyraider thinking that it would be a nice addition to my low wing rubber models but somehow was not sure. However, as I have now finished the basic construction I'm convinced it will be a good flyer, which is always my main objective. It also will look nice. The Skyraider is interesting to research. It was very large for its class and carried a huge payload.

The model is similar in size to my Zero and Spitfire at about 43" span. It should finish up lighter than both. The construction is the same as the others and this has been well documented in the Aeromodeller in recent years. I have chosen to use the camouflage and insignia of the South Vietnam air force.

David Lovegrove – VMC FROG Heron

Herewith a photo of my newly completed VMC FROG Heron. It was a trouble-free build with good, light balsa and excellent laser-cutting, covered in Esaki tissue from my dwindling stock, finished with Eze Dope. A GizmoGeezer adjustable noseplug from Free Flight Supplies was added, to facilitate quick thrustline adjustments, alongside cutting the prop down from 7" to 6.5".
Initial trimming trials in the back garden show promise. A tiny bit of nose weight was needed but also - and quite surprisingly - some significant thrust line tweaks. Is there a warp somewhere? Darned if I can see one. Proper outdoor trials will be more informative. Weight without rubber, 30.5 grams, rubber (20", 4-strand/2 loops 3/32") 7.2 grams, total 37.7 grams.

Bob Lee – Herr Cessna 0-1 Bird Dog

This is my Cessna O-1 Bird Dog built from a Herr kit. It's about the same size as my Veron AOP9 (30") but is heavier - the weight difference is in the fuselage, they are both the same length(ish) but the Bird Dog is fatter and uses more wood. The Bird Dog uses kit wood while the AOP9 is scratch built with selected wood. Both models have 10 gms of nose weight. At present both models use the same weight of rubber but I think the AOP9 is currently overpowered so the current motor should be OK in the Bird Dog.

Andrew Longhurst – VMC FROG Linnet

Hi Andy – on your recommendation I arranged to get a VMC FROG Linnet kit as a Christmas present ...and...it flies brilliantly!

It weighs 24.7g empty with the built-up stab (saves 0.5g), the kit wood is superb. It's powered by 4 grams of 3/16". Didn't have a watch on it but it probably flies for about 40 seconds or so.

Andy Blackburn – Aerographics Miles Magister

This 29” Miles Magister was built from an old Aerographics kit that I bought from Mantua Models some considerable time ago. Construction was a bit of an on-off-on-off affair which must have taken a total of about 4 years or so (!). The kit had first-generation laser-cut parts which required a bit of fettling to make fit, but it was generally quite a satisfying build.

There were a few gumption traps along the way, one of which was the wing root fairings because I just couldn’t get the arrangement on the plan to work. Eventually, by asking myself “What would Albert E Hatfull do in the situation?” the fairings were eventually done in sections using tissue-covered printer paper with a small balsa block at the front – there’s a thread on HippocketAeronatutics if anyone is interested. Some people have remarked about the Trumpton-esque blue foam pilot (Pilot Officer P. Prune), but I try not to rise to the bait.

The finish is done (mainly) using Humbrol Acrylic rattle cans, personally I think there’s far too much paint on there (although Bill (Dennis) thinks it’s OK). I still think it would probably have been nearly as convincing to use yellow-orange and dark green tissue from VMC with a more accurate shade of dark earth airbrushed on. It would certainly have been lighter, the blasted thing weighs nearly 90 grams (3.2 ounces), about 20 grams of which is noseweight!

However, all that aside, I’m very pleased to say that the Magister has turned out to have a very realistic “sit” in the air and looks great in flight. When wound to 80% max turns it’ll fly for about a minute, which is enough for sport flying – and it might not disgrace itself in a P30 competition if built considerably lighter. I’m planning on building more rubber scale models of about this size because it’s a lovely thing to fly.

Letters/Emails to the Editor

Hi Andy - As I had eaten a lot of your teacakes lately, I thought I would handicap myself by flying an Achilles! *[Oh I say, steady on – Ed]*

I have a Louis Heath MkI (built about 1990) and an Albert Hatful MkII (built about 2014) and neither flown for a decade or so. I flew them last week in a breeze to see which was better and as the MkII didn't glide at all *[A little harsh, I feel. I did once get my Achillies to glide when everything was just right. But it was just the once – Ed]*, I selected the MkI which is lighter anyway (35g) but very fragile.

The weather was brill today, 3mph and sunshine. Motor was a 10g P30 in 6 strands of 3/32 - 1300 turns. Timing was by Jim Paton and Richard Fryer

Flights were:

1. Max (1.54)
2. Max (about 1.40)
3. Max (about 1.50)

Flyoff flight was 2.18.
Flights went no more than 150 yards or so.

No one was more surprised than I was. I took some pics of the old bird which required some repairs most every flight but came through basically in one piece.

Best regards

Andrew Longhurst

Testing a Testy Hurricane – Simon Burch

I was once led to believe that, as scale warbirds go, the Hurricane was benign to fly - certainly easier than, say, a Spitfire or Bf109. Although its tailplane was rather small, it had a thick wing section, lowish wing loading, decent dihedral and a large fin: features which gave it most of the ingredients necessary to deliver straightforward handling characteristics. Or so the story goes.

Last winter I was looking to build a compact 4-channel RC aerobatic sport scale model, which would fit into a single box for easy transportation to and from the Meadow by bicycle. I had an old 2002 Adrian Britton QEFI plan for a 25" span Hurricane belly-lander which, with a few modifications, would fit the bill, and I started cutting the wood during the Christmas break. I'll skip the build details, suffice to say that it was conventional and straightforward; in my experience, when it comes to articles about RC models, most readers seem only to be interested in how they fly. In this case, the answer was 'badly'.

For the Hurricane's maiden flight, I chose an overcast day with a breeze of about 10-12 mph. Some might regard this as a little brisk; however, for hand-launching, a breeze helps to give the model a head-start in airspeed which I find helpful. Hand-launching a powered RC model on its maiden flight can be scary: it's flying at high power, close to the ground, at or near stalling speed from the moment of release, and unexpected control issues can be terminal. Some warbird types can be particularly difficult in this respect, because they lack a suitable gripping point; however, the Hurricane has a central oil cooler intake under the wing, which is perfectly positioned for an easy grip between thumb and forefinger. Thank you, Sir Sydney Camm.

Padded Box for Damage-free Transport by Bicycle

The Oil Cooler is perfect for Hand Launching

For the first launch, I used full throttle - which turned out to be a mistake. Things literally went downhill straight away as the model dived rapidly towards the ground. 'Up' elevator was needed to prevent a crash; this resulted in a near-vertical climb and an erratic roll to the left, but at least it was now well clear of the ground. The Hurricane eventually settled into a controlled climb, but it was very sensitive in both pitch and roll, and power changes led to marked nose-up and down pitching.

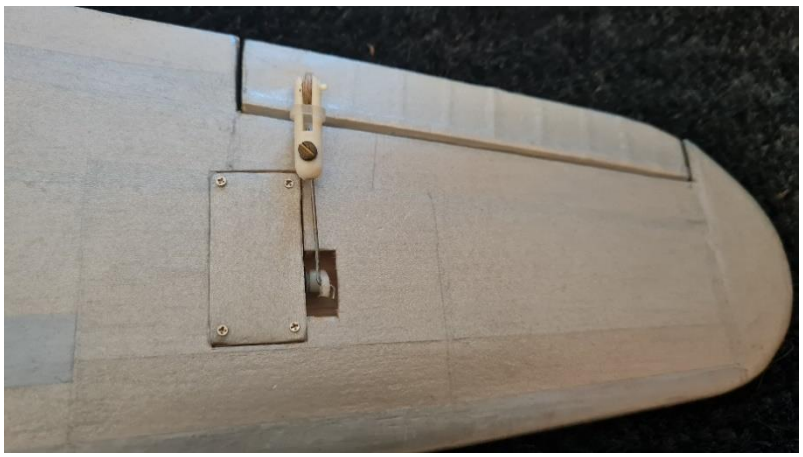
In particular, reducing power led to a sharp pitch nose-up. This was certainly not the docile model that I had expected; it was, quite frankly, a pig to fly and I didn't want to prolong its time in the air any longer than necessary. Fortunately, with power reduced, the Hurricane's handling improved; once the nose-up pitching had been corrected, its glide was floaty, and I was able to achieve a reasonable landing. Phew!

On the ground, I adjusted the throws, rates and expo in an attempt to tame the Hurricane's control response. I changed the battery and tried again. Content that it had plenty of power, I launched using about 70% throttle. This worked nicely, greatly lessening the model's tendency to dive. Gentle upwind 'lazy eight' manoeuvres revealed that the Hurricane was now much easier to control, although the pitch/power issue, of course, remained because I had done nothing to address it.

Things were looking up, or so I thought, but suddenly, and with no apparent warning, it departed from controlled flight, rolling rapidly left and entered a genuine, sycamore seed-like, spin (a rare sight which was, oddly, rather nice to watch...). With the controls centralised, it recovered itself quickly, so I started a very careful climbing left hand turn into the circuit to land. Downwind, groundspeed picked up rapidly as expected in the breeze but, otherwise, things seemed OK. However, as I turned it into wind for the approach, the model started to oscillate in roll. I applied slight corrections....and once again the Hurricane departed and nearly flicked over onto its back. This time there was insufficient height to make a full recovery. Luckily, I managed to level it and reduce speed before it crashed, and the arrival wasn’t as bad as it could have been. However, the motor mount sustained some damage and there would be no more flying that day.

I was pretty sure that I knew where the problem lay. The Hurricane's design called for a central aileron servo, with the ailerons themselves actuated by long carbon fibre torque rods. This meant that the ailerons were quite 'floppy'; not only did they not respond well to rapid inputs, but also they didn't recentralise properly from large deflections. After repairing the minor damage to the motor mount, I set about disconnecting the torque rods and installing individual aileron micro-servos in each wing. This, and the associated wiring, involved fairly

major surgery and it took longer than I wanted, but I was keen to do a good job and not to add extra weight. Eventually, the model was ready for a re-maiden; something which I approached with trepidation, but eventually a perfect evening with a gentle south-westerly breeze left me with no excuse. Time to fly.



Removable Aileron Servo Modification

This time, things were much better. Again, using about 70% power to launch, the Hurricane climbed strongly with no hint of unwanted roll. Upwind lazy eights were easy, but more ambitious manoeuvres soon revealed that handling flaws were still apparent. Closing the throttle still led to severe nose-up pitching (less so vice-versa), and gently pulling up into a loop led to a vicious stall with wing drop and a subsequent spin. On the plus side, the spin recovery was quick and the model would fly a barrel roll nicely. The landing approach was floaty, but the ongoing pitch/power issue made it difficult to maintain a smooth descent. Huge progress, but more work was still needed.

Not being an aerodynamicist, I wasn't too sure what to do about the tendency to stall when applying 'up' elevator but increasing the wing washout seemed to be a good place to start, followed by more expo on the 'up' elevator to tame the input. While checking the washout, I noticed that the left aileron didn't quite align with the trailing edge of the wing, effectively reducing the washout on that side. It was almost imperceptible, but the error was certainly there, and it could make all the difference to such a small model. A little time re-twisting the aileron over a boiling kettle soon resolved it. The pitching with power problem was less easy to rectify; the model had built-in downthrust and changing this would have meant more surgery to the nose area. I elected to try a mix instead, with 'down' elevator being applied as the throttle was closed below the half-way point. Less elegant, but a lot easier than changing the thrust line. Time for another test-flight.

Finally, the Hurricane's handling was acceptable for an everyday sport model, if still a little 'edgy'; indeed, even with the modifications and mix in place, it still didn’t feel truly comfortable in the air.

The throttle/pitch problem was still evident, but it was easier to control, and the model now looped nicely with no hint of stalling. With the big issues for the most part resolved; others now revealed themselves. I'd chosen an all-silver colour scheme which, to my eyes, looks great, but it's a big mistake on an RC model, especially a small one. Contrasting top and bottom colours would have made things much easier, and I should have known better. Also, while the Hurricane can cruise quite slowly, aerobatic manoeuvres required a lot more speed, and a fast-flying 25" model gets away from you very quickly indeed. Of course, there's little that can be done about that apart from building a larger one next time.

What did I learn from this?

1. **Avoid Long Torque Rods**. Certainly, I won't be using long aileron torque rods of any kind again. Some may ask why I did so in the first place, given the obvious deficiencies. There were two reasons:

Firstly, in a small model with relatively thin wingtips, it's difficult to find a 4.8v - 6v servo that's small enough to fit comfortably.

Secondly, I'd used a similar torque rod arrangement with complete success in a 27" Adrian Britton Spitfire. Despite this model having the same aileron floppiness and poor centralising, it handled well.

2. **Use a Contrasting Colour Scheme**. The all-silver colour scheme was a mistake. Although I was aware of the potential orientation issue, I wanted my Hurricane to look different. I had a lot of spare silver tissue, so using this made not only economic sense, but also it saved weight because I didn't need to paint it. Finally, I really didn't expect the model to be such a handful to fly.

3. **Check and Re-check Alignments**. I find it amazing that some models seem able to fly well despite warped control surfaces, bent fuselages, and twisted wings, while others are sensitive to the slightest misalignment. My Hurricane clearly fell into the second category: the slightly warped aileron, which effectively reduced the washout on one wing, was almost certainly responsible for its tendency to tip-stall.

4. **Power Calculations are More Reliable than Feel**. My Hurricane was fitted with an old 400 'can' motor. Having been deceived by brushless propaganda, I had convinced myself that it would be underpowered. In the hand, it certainly felt that way. However, Motorcalc's assessment suggested that, in fact, it had plenty of power - enough to loop and roll from level flight and bench wattmeter readings supported this.

Despite the evidence, I wasn't fully convinced, so I chose to launch it on its maiden flight at full throttle: a mistake which I was lucky to get away with. As calculated, it did indeed have plenty of power - almost certainly more than its built-in downthrust was designed for. I'm fairly sure that this was the cause of its initial white-knuckle dive. With less power applied, it proved to be much more controllable.

Would you Want to Build One?

Despite being so small, the Adrian Britton Hurricane looks convincing in the air, and models like this can be a very economical way to dip your toe into the world of scale warbirds. However, the downside is that they are inherently difficult to fly because they are so small and fast. My Hurricane took a lot of test flying, modification and adjustment to achieve acceptable handling.

In fairness, I had made a number of changes to the original plan: notably, 4-channel control, a 2S lipo flight pack and a demountable wing. In its original form, the model used a 6-NiCad power pack and smaller prop, which would deliver less power and would probably have been more manageable. Should you be interested, the Hurricane plan, and a short kit, is available from Sarik Hobbies.

In my view though, Adrian Britton's Spitfire is a better bet. Mine flew almost perfectly on its maiden flight despite its 'floppy' torque-rod actuated ailerons.

If you are looking to build a small, cheap warbird, I think this is certainly worth a punt; its only drawback is that it's a bit difficult to hand-launch. Better still, the plan is available free on Outerzone.

I won't mention my attempt to build and fly Adrian Britton's Bf109E…

Useful links:

https://outerzone.co.uk/plan_details.asp?ID=12404

https://www.sarikhobbies.com/product/hawker-hurricane-25-2/

Modifying the Ivan Horosji Towline Winch - Simon Milan

Back in 2016 when I built my first o/d 36" span Hi-Start glider, I bought one of Mike Woodhouse's Ivan Horesji towline winches to keep the towline all neat and tidy at the beginning and end of each flying session and, of course, for storing it at home.

This worked fine – though I did find the "T" handle a bit awkward to use. However there were a couple of occasions when the need to wind in very quickly due the approaching Meadow livestock did cause the towline to jump off the drum with the subsequent annoying tangles and related foul language!

I have to confess that back then when on my own - and particularly if the coast seemed pretty clear - I all too often left the towline in its post-release condition on the ground when going off to retrieve my model.

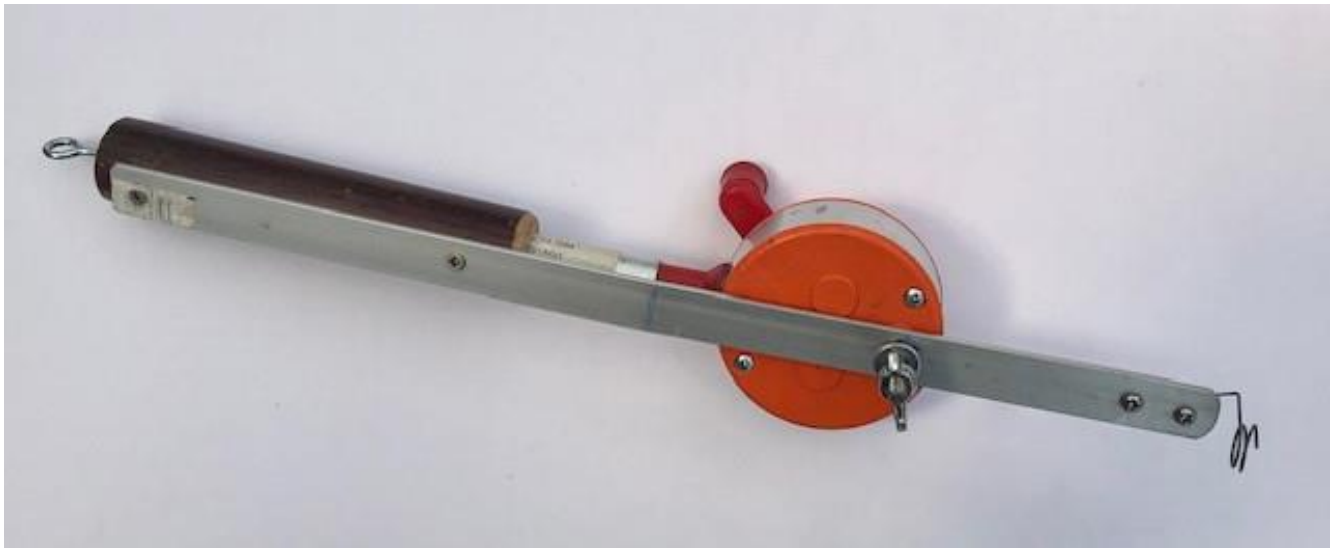
In my Hi-Start article for the Christmas 2022 MF, I stressed the importance of recovering the towline and leaving it "…in a 'safe' condition in accordance with Club Rule FF7 before heading off to retrieve your model" and noted that the best way to do this was to rewind your towline on to its winch. Having put that in print and laid down the law, I knew that I would have to seriously mend my ways and that no longer could I simply leave my towline on the ground

where it had fallen. A pretty foolproof method of quickly and reliably rewinding the towline would be necessary and, based on past experience, I was sure that my Ivan Horesji winch, as supplied, wouldn't do this.

I figured that what was needed was a) a larger winch spool with deeper flanges and b) a means of reliably guiding the towline on to the spool.

So I modified my winch to achieve this by:

- Sawing off the "T" cross piece of the handle and screwing it to a short piece of aluminium tube and inserting that in a 5" length of wooden broom handle.
- Making up new 5" dia spools from suitable plastic trays/boxes and cores made from 3 layers of 45mm dia 1/8"plywood, all screwed together.
- Screwing an approx 300mm length of 2mm x 15mm aluminium strip to the wooden handle and bolting a wire guide loop for the towline to the far end of this. A suitable size hole was drilled through this strip to allow the winch axle to pass through it.



- I also screwed a ring to the bottom of the handle to allow me to hang the winch on my Hi-Start towline tethering post. This allows me to leave the winch hanging on the post while I launch the model and to easily unhook it when I need to wind in. Is this a different font size?

As will be clear from these pics, I have rather bodged these mods using only odds and ends of stuff that I already had lying around, rather than a more carefully thought out and neater solution. However, it does seem to have solved the problem, and I now have a second "50m" spool in anticipation of OMFC's Classic A1 contest later this year.

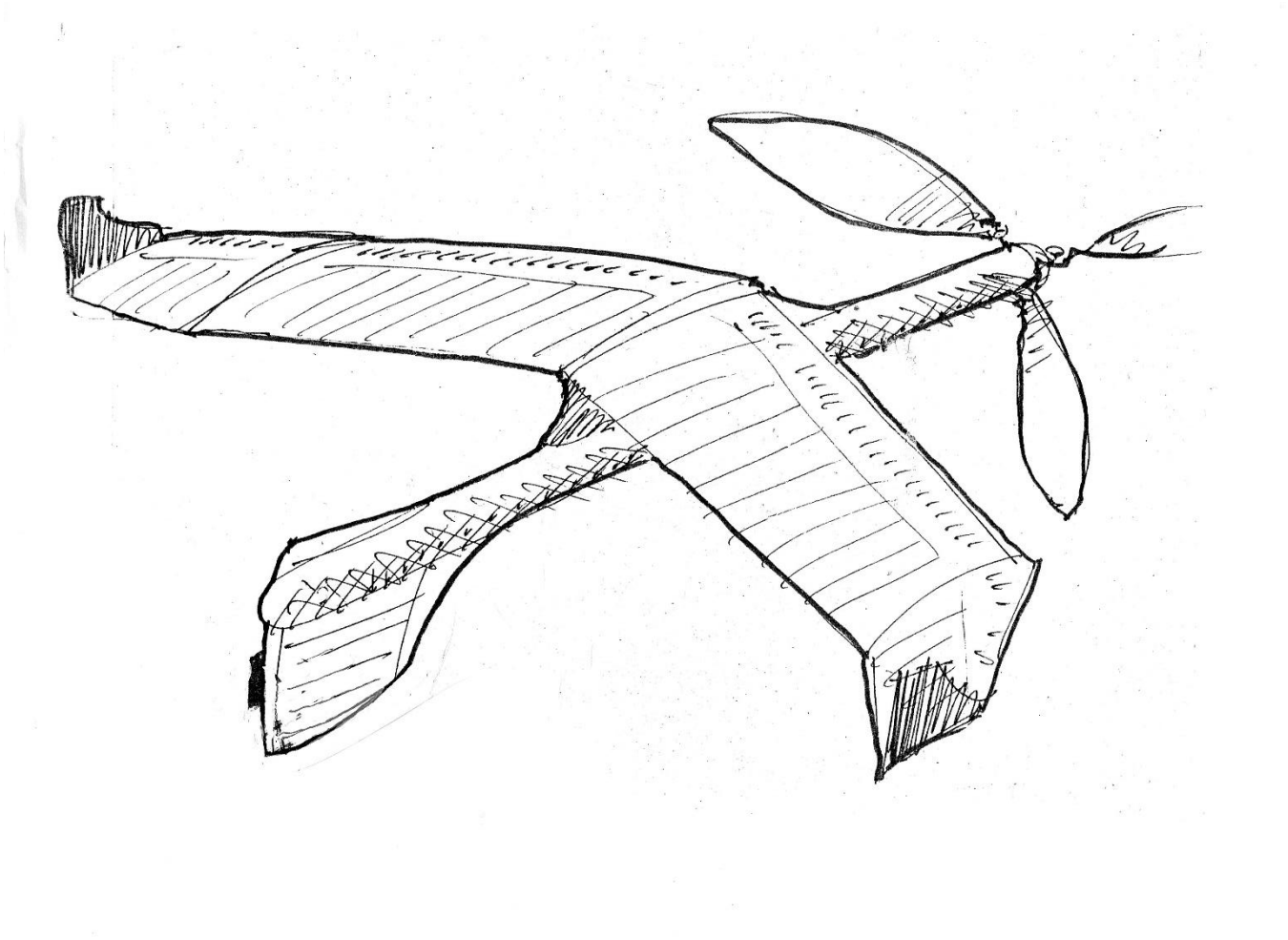
Also, with the hi-start scale glider comp now hopefully becoming an established part of the Meadow events, I anticipate making more use of this modified winch in the future.

Flying Pictures – Andy Blackburn

I recently took these pictures of Chris Brainwood's venerable 31" span DH 60 Cirrus Moth, built from John Watters' Aeromodeller plan back in 2014. It's a veteran of many scale competitions and is still going strong. It's a nice size for flying on the Meadow, it's a lovely thing to just stand and watch flying and is powered by a Redfin .5 cc diesel.

Fantasy Tailless – Andrew Longhurst pp Andy Crisp

I was discussing some tailless models with Andy Crisp at some event years ago. A month or so later he sent me some plans in a large brown envelope on the back of which was this wonderful sketch. I scanned it and was able to clean it up on the old confuser and it came out like this:



Contributions to the Newsletter

We're always looking for contributions to the newsletter and almost anything relating to aeromodelling will be most welcome. Please let me have your contributions by end November/first week in December for inclusion in the Christmas 2024 newsletter. Send them to: Andy Blackburn at *newsletter@oxfordmfc.bmfa.uk.*

If submitting lots of photographs (which we all enjoy) it's best to send the files separately, using www.wetransfer.com. However, anything less than 20 MB is usually OK on email.

Club And Other Local events, 2024

(Note that OFMAC Meetings are now back at **Berinsfield**!)

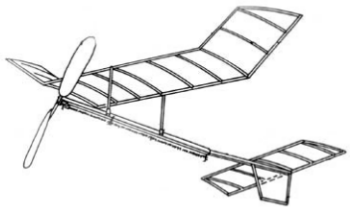
OFMAC

2024-2025 Season Dates

Indoor Model Flying

Funfly for all. Freeflight, rubber, CO2, Electric

Venue:
Abbey Sports Centre
Green Furlong
Berinsfield
Oxfordshire
OX10 7NR



Dates:

Sundays 09:00 to 15:00
6th October 2024
3rd November 2024
1st December 2024
5th January 2025
2nd February 2025
2nd March 2025
6th April 2025
4th May 2025
1st June 2025

Contact:
Ian Melville
07545158177
ofmac@redkite.aero

Club Meetings at Begbroke

Wednesday 21 August 2024	Club Night: Fun flying on the Begbroke Field
Wednesday 18 September 2024	Club Night: 'Cartoon Foamie Warbirds' introduction, demo and kits collection
Wednesday 16 October 2024	Club Night: Mini talks by club members
Wednesday 20 November 2024	Club Night: AGM
Wednesday 18 December 2024	Club Night: Fish 'N' Chip supper + Quiz

Wednesday 15 January 2025	Club Night: Cartoon Foamie Warbirds flying and judging
Wednesday 19 February 2025	Club Night: External speaker
Wednesday 19 March 2025	Club Night: Bring a model evening

Competitions on Port Meadow for 2024

Definitions:

The "Peterborough" bungee = 7.5m of 1/8 rubber and 22.5m of line.
TOTF = Total of Three Flights + Fly-off if required

Autumn Duration + Fun-Fly (Saturday 7 September – Note Date Change)
Vintage & Classic Glider: Two classes (55" Span Open and A1) for kits and designs first published pre-1961, launched by either 50 m Hi-Start bungee or towline. Re-issued kits (e.g. Spencer Willis Aiglet A1, Ripmax KK Caprice & Invader) are allowed. TOTF.
Coupe D'Hiver: Standard coupe - 70g empty, 10g motor, TOTF.
Vintage & Classic British Rubber Kit Revival: British rubber kits pre-1961, maximum span 36" (measured with a tape measure), also open to one-off (un-kitted) prototypes produced by a British kit manufacturer, and reissued Ripmax/KK kits. TOTF.
Catapult Glider (e.g. Oxcat): max 2 gm rubber (e.g. 12" x 1/8") on a 6" max handle., 9 flights, best **6** to count.
Rubber Scale Duration: Simple TOTF duration competition for rubber scale models + bonuses, no flight or static judging. Kit and Open classes.

The **2024 Under 25" Vintage Cabin Postal Competition** will be run in three Rounds.
Round 1 (Spring) runs from 1st May to 30th June.
Round 2 (Summer) runs from 1st July to 31st August.
Round 3 (Autumn) runs from 1st September to 31st October.
For full details see the Club website https://oxfordmfc.bmfa.uk/2022-under-25-vintage-rubber-postal/. In case of questions/issues, the Virtual CD is Andy Blackburn.

Tailpiece

MODEL MEETING

BY J.G.GIBBS

REFRESHMENT COMMITTEE
"I HOPE YOU BOYS ARE HUNGRY. WE'VE GOT OPEN-FACED CUCUMBER SANDWICHES, DICED ARTICHOKES AND PIPING-HOT GINGER TEA."

TREASURER'S REPORT
"I'D LIKE TO REPORT THAT ALL DUES ARE IN AND ALL BILLS ARE PAID... ... JUST ONCE I'D LIKE TO REPORT THAT."

MR. PRESIDENT
OKAY, FELLAS, THE MEETING OF THE SUPER-JET-SONIC-FLASH-SKY-DEVILS WILL COME TO ORDER!"

FIELD-SAFETY DIRECTOR
"I'VE RECENTLY NOTED SOME NEGLECT TO USE CHICKEN-STICKS WHEN STARTING LARGER ENGINES."

SECRETARY'S REPORT
"GOLLIES, BUT I CAN'T UNDERSTAND WHY YOU FELLAS KEEP MAKING ME A SECRETARY WHEN I CAN'T EVEN TYPE."

OUT-OF-TOWN GUEST
"DON'T TELL ME YOU'RE BUILDING THAT LEMON, AND THE GUYS IN MY CLUB HAD NOTHING BUT GRIEF WITH ENGINES LIKE THAT NEW ONE OF YOURS. NOW, YOUR RADIO, WELL, WE KNEW SOMEONE HAD TO GET STUCK WITH ONE NOW AND THEN OR THE COMPANY WOULD FINISH FOLDING."

FIELD CLEAN-UP COMMITTEE
"WE BEEN WORKING ON THAT FIELD SINCE NOON, AND WE'RE STARVING! HEY, YOU MEAN THIS IS THE CHOW?"

PROGRAM COMMITTEE
"I FORGOT THE FILMS OF THE '65 N.A.T.S., BUT I BROUGHT A FEW REELS OF MY FAMILY'S TRIP THROUGH KNOT'S BERRY FARM."

MEMBERSHIP COMMITTEE
"FELLAS, MEET VIRGIL SMUGGINS, A PROSPECTIVE MEMBER AND A GREAT GUY! VIRGIL'S GOT A SILLY IDEA THAT R/C TAKES TIME AND MONEY, WHICH WE ALL KNOW IS A RIDICULOUS MIS-CONCEPTION! INCIDENTALLY, VIRGIL OWNS THAT LARGE, FLAT PASTURE JUST WEST OF TOWN."

This issue's tailpiece is courtesy of Andy Crisp, and is taken from the May 1967 issue of Model Airplane News. The editor would like to apologise for anyone offended by any captions that may no longer be politically correct.