NEW Clarion

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Editorial

June, we're halfway through the year and I have yet to fly anything in anger and the nationals is one week away. I'm somewhat ready, which is unusual for me, having flown my P30 and Mini-Vintage at Buckminster (short report within) and my old 0-4 BMFA Rubber should still be in trim as it's been around for a while. Just one comp each day, it's about all we can manage, but the new electric bike should help Rachel at Barkston.

Ray Elliott provides the official organiser's report on Croydon Wakefield Day and solves the mystery as to why I lost the 8oz trophy. Ray was flying a 'Lanzo Classic' which is not a 4oz'er as I mistakenly thought by its looks.

With the cancellation of the first Wallop meeting we were able to support Alan Price and the Walsall club's indoor meeting at Sneyd sports hall in Bloxwich. I had an indifferent flying day but it was good to be out and about.

The Pylonius piece is the last from my own stock of magazines but our archivists, in the shape of Barbara & Roy Tiller, have provided my with what we believe is the first year of Pylonius's writings in the Model Aircraft magazine of 1951.

Roy Tiller has taken a break from Meccano Magazine and picks a few bits from Model Aircraft magazine May 1950. I expect it took his eye whilst trawling the archive for the Pylonius articles.

I've picked out more of my own work from the old paperback Clarion of 2003, I hope it brings back some memories for a few of you, it certainly does for me.

Nick Peppiatt is still on a digression from his Co2 articles and this issue he reports on the Indoor Scale Nationals, in which he took part. I know he was there as we cheered him on from the viewing balcony.

I found a piece on Jetex Speed models in an old Model Aircraft magazine from 1954, just before I was called to the colours for my National Service. My old flying buddy Ian and myself had a go in response to the article and oh boy!! did we get a shock. The Rugby MESAS held a small club indoor meeting in a scout hut and we made a pole and supported it with a couple of folding chairs. I tried first but launching was difficult and my model skipped about on the floor for a bit then took off inverted just as the fuel pellet ran out. Ian however with extra chuck got his away clean and the model soon was circulating at one hell of a rate. It was a good job we were on control line wire. The red model was soon a lengthening blur and when the Jetex 50 got to full power there was just a complete red circle as the blur caught up with itself. The pole was rocking about and everyone had dived for cover behind various sticks of furniture. The smoke by now, after two runs, was quite thick and we were banned from flying again.

The coupe event at Odiham is the subject of another of Peter Hall's tongue in cheek reports and the results and current league table positions are provided by Roy Vaughn.

I, together with Colin Shepherd, paid another visit to the BMFA's Buckminster flying site to check trim for the Nationals. As appears the norm these days, I dropped another clanger by taking the wrong flight box and had no winding jig or winder to fly with. L.O.L.

Gavin Manion reports on the Vintage Coupe league and in addition promises a series of articles on alternative coupes to the Etenvier in the hope of more variety.

Our secretary wraps up this issue with his monthly offering. I think I will refer to Roger as 'the late secretary' as he is usually tail end charlie.

Editor

Croydon Wakefield Day - Ray Elliott

BEAULIEU – 21st April

This contest was originally scheduled to be held on Salisbury Plain but was moved to Beaulieu because of the non-availabilty of Salisbury Plain due to filming work.

The day was blessed with light winds, initially from the North East but veering to the South East in the afternoon. This necessitated a move of control otherwise models would have been landing in dense forest.

Entries were very low, probably because of the venue (its location, difficult terrain, and the need to purchase a permit to fly) and maybe because it was Easter Sunday. It certainly couldn't have been the weather.

It was decided to combine the 4oz and 8oz Wakefield events. This contest had 3 entries with Peter Hall, flying a Lanzo Duplex, winning from Ray Elliott flying a Lanzo Classic. John Andrews was third with a Korda. Peter took home the Fairlop Cup for 4oz models while Ray received the Ted Evans trophy for 8oz models.

The other two events had one entry in each. Roy Vaughn collected the Thurston Trophy for F1B while Peter Jellis went home with the Marcus Lightweight Trophy.

Croydon DMAC would like to thank the London Area BMFA for their support for this contest.

Results

4oz / 8oz Wake

1st - Peter Hall 6.51 **2nd** - Ray Elliott 6.14 **3rd** - John Andrews 2.28

F1B - **1st** - Roy Vaughn 1.00 **Marcus Lightweights** - **1st** - Peter Jellis 1.28

Peter Hall, Wakefield Winner with 'Lanzo Duplex'

Ray Elliott

Engine Analysis: ETA 19 MarkII - Aeromodeller Annual 1960-1

Specification

Displacement: 3·254 c.c. (·1985 cu. in.)
Bore: ·640 in.
Stroke: ·617 in.
Bore/stroke ratio: 1·04
Bare weight: 4½ ounces
Max. B.H.P.: ·30 at 16,800 r.p.m.
Max. torque: 22·6 ounce-inches at 9,800 r.p.m.
Power rating: ·093 B.H.P. per c.c.
Power/weight ratio: ·067 B.H.P. per ounce
Manufacturers:
E.T.A. INSTRUMENTS LTD.,
289 High Street, Watford, Herts
Price (including Purchase Tax): £6/15/5

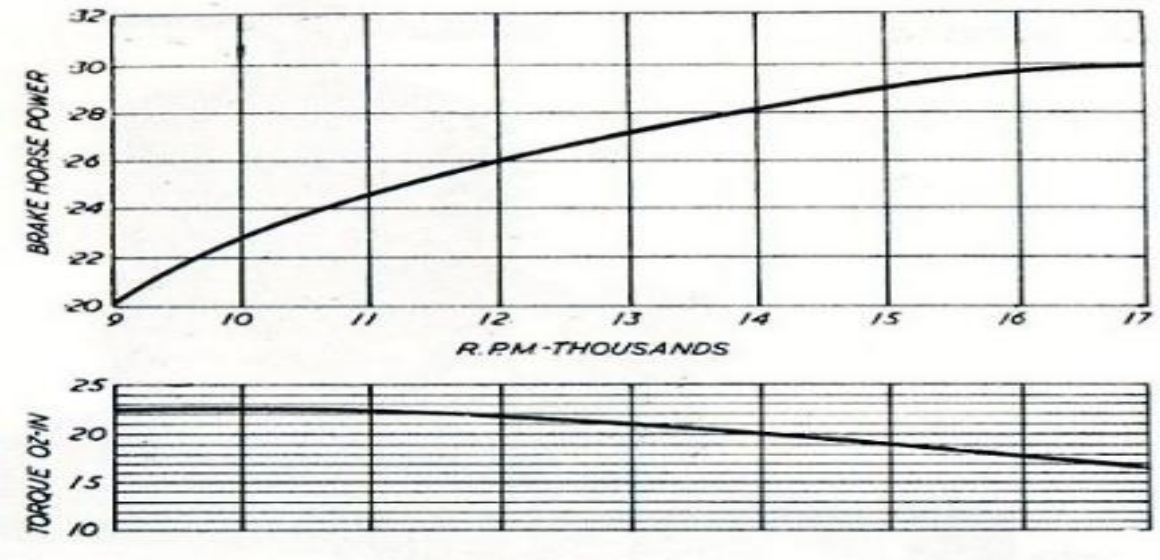
Material Specification

Crankcase: light alloy pressure die casting, vapour blast finish
Cylinder: cast iron
Piston: cast iron
Cylinder head: light alloy
Crankshaft: hardened steel
Rotor disc: tufnol
Bearings: ¼ in. ball race (rear); 3/16 in. lightweight ball race (front)
Propeller driver: dural
Prop. nut sleeve: dural
Con. rod: dural
Glow plug: Standard KLG (long reach)

PROPELLER—R.P.M. FIGURES

Propeller dia. × pitch	*r.p.m.*
10 × 6 (Frog nylon)	7,300
9 × 6 (Frog nylon)	10,500
8 × 5 (Frog nylon)	10,800
9 × 4 (Trucut)	11,400
8 × 4 (Trucut)	14,000
7 × 4 (Trucut)	16,600
7 × 3 (Trucut)	18,000 plus

Fuel used: Standard methanol; castor mixture made up to the equivalent of 20 per cent nitromethane

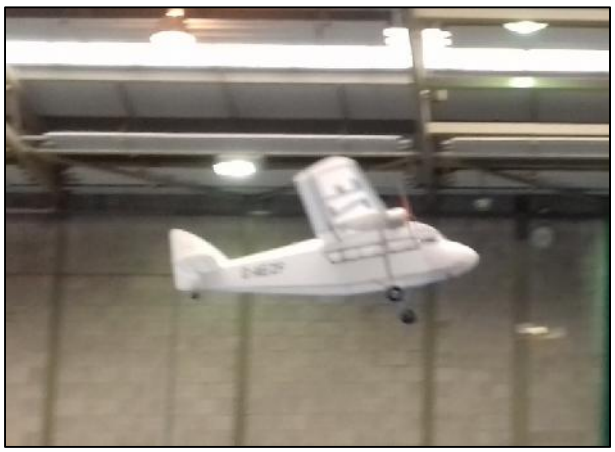


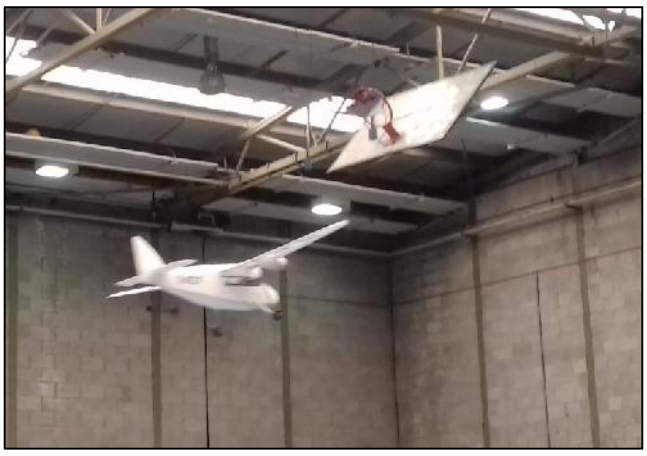
Aeromodeller Annual 1960-1

Sneyd Indoor April - John Andrews

With the unfortunate demise of our first return to Wallop, Rachel and I were able to go to Bloxwich for the April Sneyd Indoor meeting. I took my 'Gyminie Crickets' again.

This time I put together my other lightweight Cricket which, being without major repairs, should have been better than the ex Nationals one I flew at Thorns at the beginning of April. It did not prove to be the case. The model initally was hoplessly under elevated and having increased the wing incidence it flew for very short periods before flopping into a stall. It was exhibiting the zero decalage syndrome but one look could see this was not the case. A significant wad of plasticine was required on the nose before any decent flights were recorded. Not that there were any good flights as the increase in weight put the Kybosh on anything much over two and a half minutes. I gave it best and will make a new motor stick, which I suspect of bending, and move wing mounts to the rear. It's quite perplexing really as I have used the model in competition making 5 – 6 minute flights.





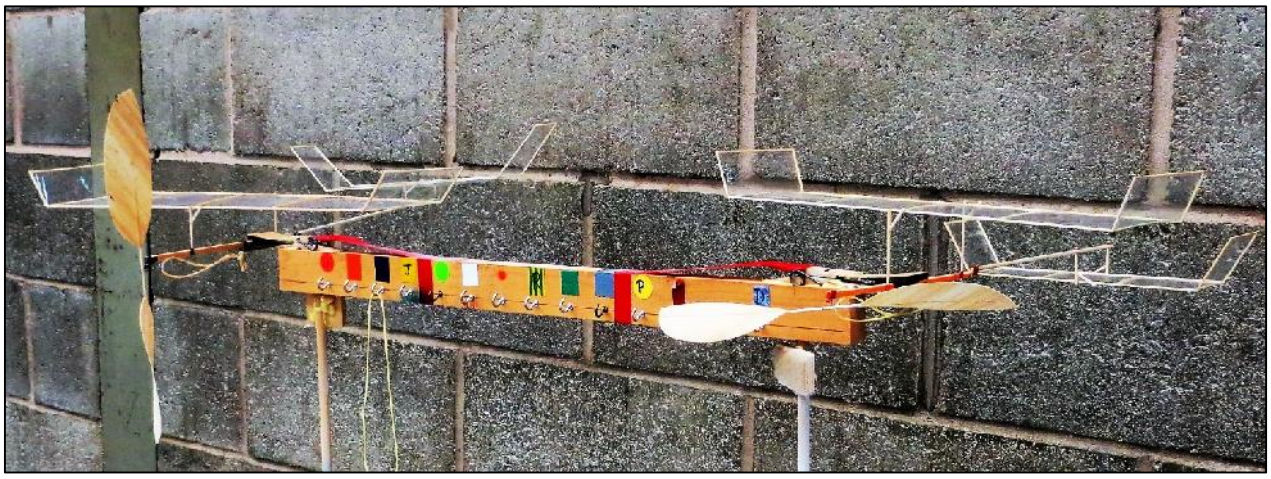
Scale man Graham Smith was flying one of his large R/C polystyrene sheet twin electric models. It is flying really well, climbing swiftly up to the roof beams and cruising comfortably around the hall. It awaits final colouring to complete an impressive model.

Whilst I was winding for one of my flights there was a familiar bang on my table leg and, turning around, I espies my long time nemesis Tom who has emigrated to Lincolnshire but was on a vacation return visit. Tom always seems to aim his errant models in my direction and sure enough a model of his was buzzing about under my table, but it was good to see him again.

My Nemesis Tom

Mike Brown winds his ½ size Jaguar

The Thompson lads,father and son were performing with son Pete's design's 'The Plank' and his latest 'Easy Five'. The Easy Five is called such as any competant builder should achieve 5min flights in a sports hall. Point of note is the quite short motor that is used. Must get details.



A good afternoon out though not too successful on the flying front, I really must get to work on some new models before I forget how to do it. I've had the motor stick, prop bearing and boom of a 'Pete's Plank' design ready for about two years now.

John Andrews

Extracts from Aeromodeller July 1976 and December 1976

Fly-Over

Manual piloting has now become a bit archaic and barnstorming. The modern pilot is no longer a joystick jockey, but more of a switch flicker who has spent most of his training in a hangar mock up. Little wonder, then, that the with-it model flyer is following suit. He has already made a start with a self-fly C/L model and, no doubt, we will soon see the fully computerised radio model being put through its 'no hands' schedule, perhaps without the flyer even leaving his car.

Come to think of it, car to car flights could be the next big thing in model flying. Not only would it dispense with the need for flying fields, but could allow the executive type to pursue his hobby even on business trips - and put it down tax-wise to overhead expenses.

Clobber-ed

What we British modellers seem to lack at present is an identifiable uniform. It is true that we now have our international teams decked out in track suit regalia as opposed to the shirt and braces or cricket order of aeromodelling's pre-sport image, but we still make for a pretty variegated bunch dress wise on the home patches, although attempts at a common identity in the past have not been all that flattering. In the fifties we had the dirty motor cycling kit, worn in all weathers, heat wave and otherwise, at a body temperature of 112 degrees Fahrenheit ('You could fry an egg on his chest'. Yes, but who would eat it?'), and there were the funny hat brigade and the even funnier T-shirt battalions, the latter making something of a comeback down south.

However, since the model flyer became car borne he seems to have forsaken all those clannish rigs for what he threw off the night before. But there are some who always wear their special aeromodelling clothes. These are usually of incredible age and of great volume: at least two pairs of baggy, cement caked trousers and up to six pullovers, cardigans and what Aunty knitted for National Service. Were the wearers to hang about a street as long as they do for a thermal to warm up, they would be taken in for vagrancy.

Very useful the rig, though. It will ensure that the wife will say, I'm not going with you if you're dressed like that, and there is always the possibility when retrieving over crops that you could be mistaken for a scarecrow.

I have just discovered what the letters **BIGGLES** mean, which are to be seen on those midland T-shirts: ***But I Go Gliding Like Every Sunday***.

(Editor: Next issue we will be back to Pylonius and his articles from 1951 that our archivists, Barbara & Roy Tiller, believe were his first.

There follows the poem from the beginning of his first article.

Malice in Dunderland

(Reports of model aircraft being Imperiously banned from parks and commons throughout the country are on the increase.)

The Red Queen, no one could deny.
Was given to a queer fixation.
"Off with their heads," she'd loudly cry
At the slightest provocation.
A drastic measure no doubt suited
To get one's orders executed.
But not a method to apply
In a wise administration.

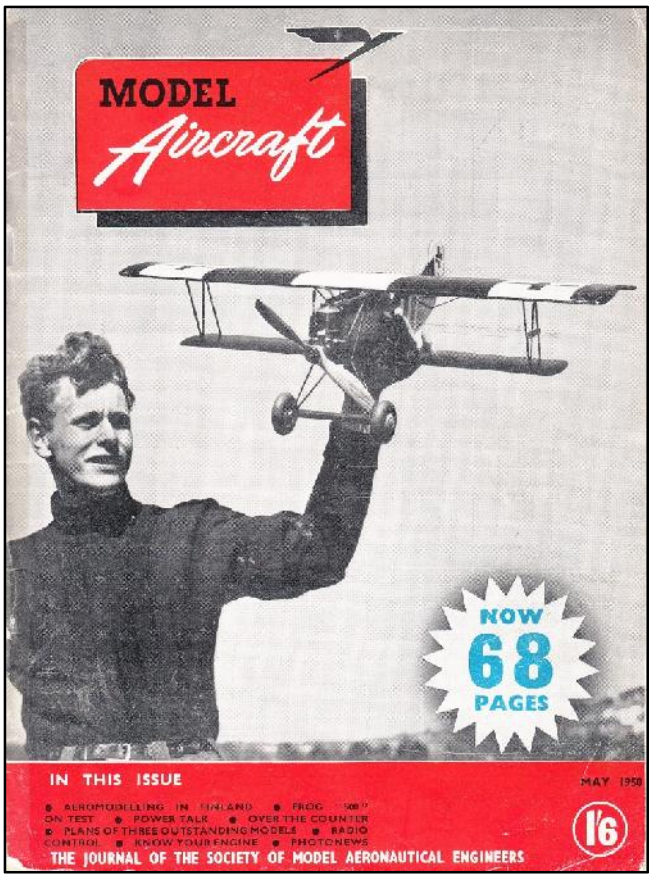
And it seems a thousand pities
That this complex should obtain
In most all our towns and cities—
Adverse to the model plane—
Where wielding bright and angry axes,
As their indignation waxes,
The Red Queens on our Park Committees
Show little feeling—less of brain.

Pylonius

The DBHLibrary (Magazines) - Roy Tiller

Report No. 100, A break from Meccano

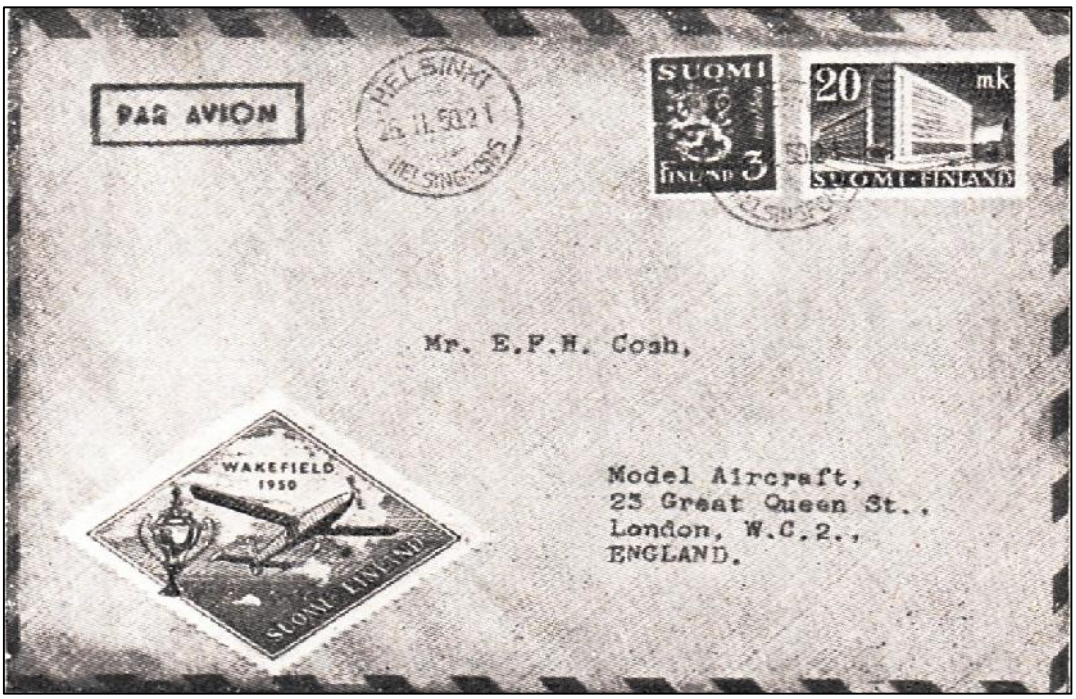
We ended last month's look at Meccano Magazine with the last issue to be published by Meccano Ltd. in July 1967 and readers were left waiting some months for a new publisher to appear on the scene. Similarly, leaving Meccano alone for a while but not taking a few months off, here is a look at Model Aircraft magazine for May 1950



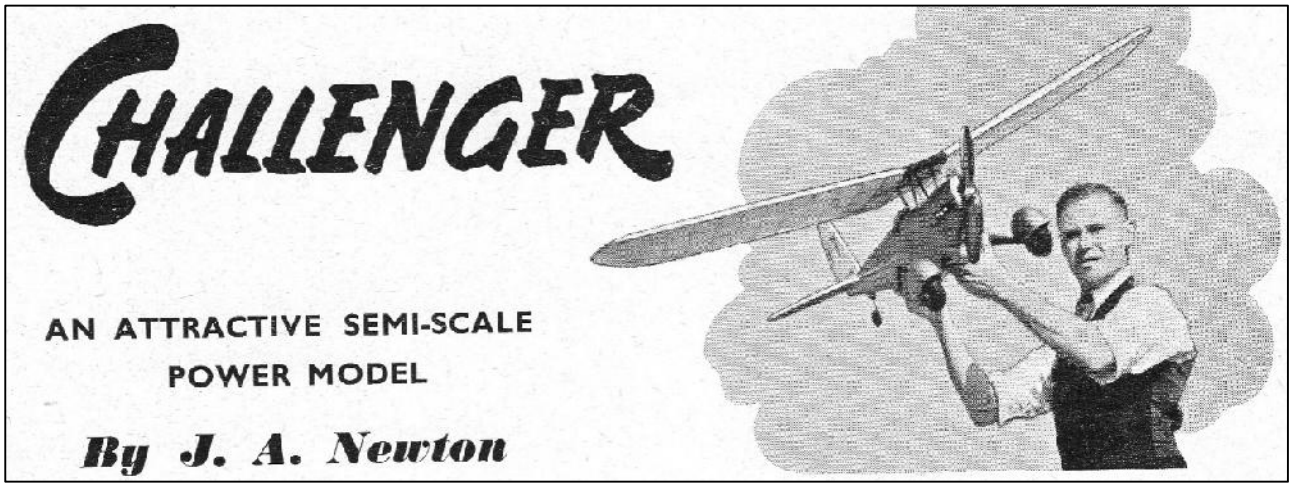
The cover carries a picture of Norman Butcher with his Fokker DVII, winner of the S.E. Area C/L Championship scale stunt event.

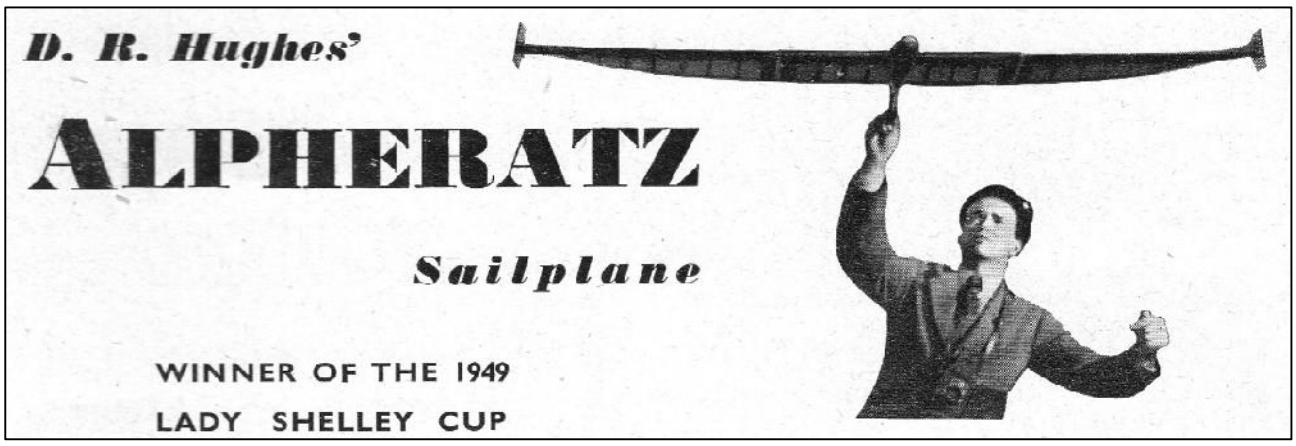
The cover also announces "Now 68 Pages", at that time the adverts were generally confined to the first and last few pages which were separately numbered, i to xviii in this case while the main content ran from page 89 to 138.

The "Editors Comments on Current Topics" included a picture, below, of the envelope which contained a letter from the Finnish Aeronautical Association concerning the arrangements that they were making for the forthcoming Wakefield Cup Contest which was to be held at Kauhava Aerodrome, the home of the Finnish Central Flying School. The point of interest was that they were facing the same problem that we had the previous year i.e. raising the necessary funds. Their answer was, in part, the sale of a special "Letter-closer-stamp" which included a picture of a Wakefield model. Not a normal postage stamp but a sticker.



This issue included three plans for which I will just show the article headings.





The main kit advertisers in this issue were as follows:-
Halfax Models Ltd. Roma 40" wingspan lightweight glider.
KeilKraft. Skystreak 40 "basic Kit" at 10/6, cockpit cover 6d, supply your own strip-wood.
Skystreak 26 dry kit at 9/6.
Mercury Models. Norsman A2 Sailplane and Musketeer C/L stunt plane for 5cc engines.
E.D. Electronic Developments Ltd. Radio Queen.
Veron. Three C/L scale, Spitfire, Sea-Fury and Focke-Wulf 190.
Three New Lightweights, Goblin 20" span, Rascal 24" span and Sentinal 34" span.
Frog. The Powavan 48"span "The last word in power model efficiency", the Vixen suitable for the Bowden Trophy contest and the Goblin 24" rubber "a good start to an aeromodelling career"
This issue also included an article entitled "Famous Firsts" which I hope that you will enjoy,

It all seems to end rather abruptly but in a couple of months' time it continues, so there is more to come.

FAMOUS FIRSTS

● EDITORIAL NOTE :—In presenting this article we fully realise that we are treading on highly controversial ground. Whenever anything " new " appears there is always someone to pop up and claim that he did the same things years before. However, be that as it may, ideas ranging from design trends to small items of detail design can generally be traced to some individual *who was the first to put it over in a practical form*, or in a manner now accepted as general practice. To him should rightly go the credit. Leonardo da Vinci is said to have " designed " a helicopter many centuries ago, but no one could seriously dispute that the successful helicopter as we know it today is largely due to the practical development of Igor Sikorsky and his associates. Sikorsky " made it work " whilst da Vinci had an idea that it might be possible. There is a very large gap between these two extremes.

IN our list of " Famous Firsts " we have tried to associate individual items with those modellers we believe the first to " make it work." A wide field is covered and if there is any we miss and on which readers would like information, we will do our best in a future issue. In the main we have not gone back too far in model aircraft history as we feel that the established nation-wide movement was really born in the early 1930's. Whilst there was a relatively strong movement before even the first World War, with international competition, current practice has so changed that such details would be of academic interest only. We will merely mention in passing that one of the first successful *flying machines* was a steam-powered model (Stringfellow, 1851), and that the first authentic record of anyone using rubber as a motor for model aircraft is credited to Penaud, a Frenchman, *circa* 1880.

Balsa was comparatively unknown in this country before the early 1930's. It was not until an American team visited England in 1930 that our modellers came up against the lightweight type of rubber model. Joe Erhardt, who won the Wakefield that year (and again in 1931) was one of the leading exponents of that type of machine at the time. Contemporary British airframe materials were spruce, birch, bamboo and wire (wing tips and tail outlines) with silk or oiled silk covering.

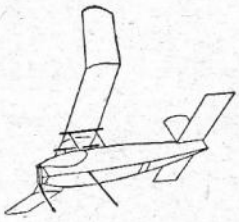
Jap Tissue—Attendant on balsa came other new materials, including quick-drying balsa cement and lightweight Jap tissue. First use of all these materials was born in America in the 1920's, early modellers first making their own cement or using a commercial adhesive known as " Ambroid. "

Silkspan—For covering is more modern development. This special waterproof paper is produced by Alden Paper Co., of America, largely at the instigation of Frank Zaic. The process is patented, so that manufacture is, at present, limited to the U.S.A., who use it also (in slightly modified forms) for stationery such as Air Mail envelopes.

Ultra-Lightweight Models, which were the ultimate outcome of using lightweight materials, were common in this country from about 1936 onwards. But the type of model we now term " ultra-lightweight," typified by parasol, polyhedral, low aspect ratio wings, short motor length in long fuselage, " prong " undercarriage and single-blade folding propeller, was first brought to something like the ultimate by Mick Farthing, *circa* 1942. ■

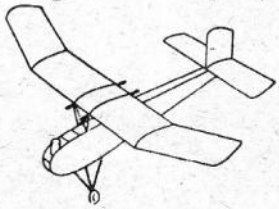
Streamliners—Representing probably the other extreme, were first produced to contest standard by R. N. Bullock. His 1936 Wakefield model was a typical streamliner, as we know them today, with stringered, tissue-covered fuselage and plug-in shoulder wings. The basic layout of streamliners has not changed greatly since that date.

Slabsiders — Cannot really be credited to any one individual. Almost all the first fuselage models were slabsiders and they do not mark any particularly outstanding design trend.



Streamlined-Slabsiders—Present a slightly different case. A. A. Judge's 1936 Wakefield winner was partially streamlined in the sense that the nose was rounded off and a spinner incorporated on the propeller. But the streamlined-slabsider as a type of contest model was really developed by Ron Warring, incorporating shoulder-wing mounting. C. A. Rippon produced the wire shoulder-wing fixing in 1940.

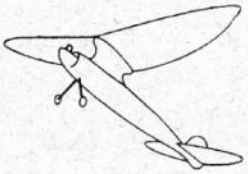
Power Duration Models—Came into being in the early 1930's, in America. Competition being open to all types of model, pioneer " gas " modeller Maxwell Bassett literally cleaned up in all duration contests until the rules were amended in 1933. Bassett was, at this time, well ahead of his contemporaries in this field. His models featured high-parasol wings and the majority of the early models followed similar trends.



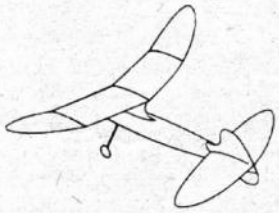
Pylon Models—Probably marked the biggest single step forward in the development of the power duration model, this layout being originated by Carl Goldberg

with his "Valkyrie" in 1938. Prior to this Goldberg has been almost exclusively an indoor duration flier. One of the first "pylon" Wakefields was C. H. Grant's "IsleFly" (1938-9).

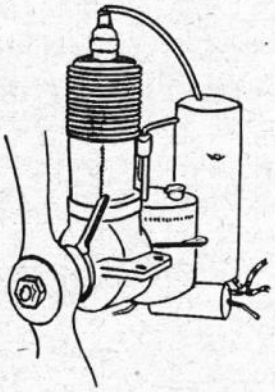
Developed Pylons—Followed the introduction of Goldberg's first commercial design—the "Zipper"—where the lines of the pylon were faired into, or incorporated in, the fuselage and one of the leading designers in this respect was Leon Shulman. His "Zombie" (1941) started a fashion for hatchet-shaped fuselages, the lines of which have been more pleasingly smoothed out in many subsequent designs of this type.



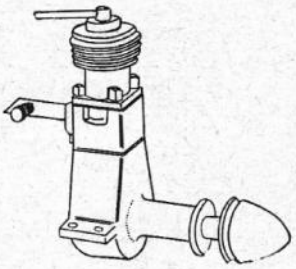
Miniature Aero Motors—Of the spark-ignition type have, of course, been produced by individual modeller-engineers for almost the past fifty years. An American book published before the first World War gives design details and data on a power plane fitted with a conventional spark-ignition motor. But the first *really* successful miniature power plant was undoubtedly produced by William Brown, these being the motors, in fact, used by Bassett in his contest-winning and record-breaking models. This motor later went into production as the Brown Junior and is still quite a good reliable job by modern standards.



Diesels—Are a war and post-war development. Their origin is a little obscure, but it seems almost certain that the first successful motors of this type were produced in Switzerland around 1940. German diesels were described in *Modelflug*, 1942-3. These were copied and subsequently developed on many different lines throughout Continental Europe during the war years, where the influence of the early Swiss model as regards layout was often most marked. One of the earliest diesels produced in this country (just after the war) was made by George Court, this subsequently becoming the prototype of the Frog "100" and another early British designer was L. Sparey.



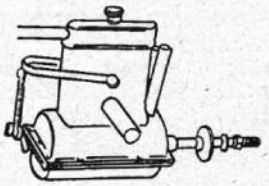
Glow-plug Motors—must rightly be credited to Ray Arden. The principle has been known for many years and there was, indeed, a "hot-coil" motor produced in America before Arden's glow-plug. In this country George Court, again, accidentally (and quite unknowingly at the time) had glow-plug running on a normal spark-ignition motor using alcohol fuel and a home-made spark plug with platinum points. But Arden is still the true "father" of all current glow-plug motors.



CO_2 Motors—Have appeared in various forms. The very early types were pre-1914, one French firm marketing a 7-cylinder model; 1930 types were of Japanese origin, working off compressed gas produced by a mixture of dry ice, CO_2 gas in frozen (solid) state and acetylene—a form of compressed air motor with mixed gas feed. The first commercial CO_2 motor of the modern type was designed and built by William Brown for the Herkimer concern—the O.K. CO_2—since when it has been much copied, even down to the smallest practical size of $\frac{1}{8}$ in. bore and stroke.

Of equal importance to progress, of course, has been the improvement in detail design of motors, and the following mark some of the major advances.

Rotary Valve Induction.—The crankshaft rotary valve used for the first time on a production motor with the "Baby Cyclone." Rotary disc valve induction appears to have first appeared on a production motor with the "Bantam" designed by B. Shereshaw. In this country E. Westbury utilised both principles on many of his designs from about 1930 onwards.



Racing Motors—As a type distinct from "free flight" motors, were originally developed for model cars, the first being R. Snow's "Hornet."

Alcohol Fuels, too, appear to have come into use at about the same time, more or less "taken over" from model race car practice.

Wanted for the SAM 1066 library.

Model Aeroplane Constructor 1938 March, April, May, June, September & October, if you have any of these for disposal please contact me by email or phone.

Roy Tiller, tel 01202 511309, email roy.tiller@ntlworld.com

Roy Tiller

Clarion Past - John Andrews

Extract from old Paperback Clarion 2003

John Andrews - Goes Indoors - Part 3

Following on from last month's ramblings, my efforts over a couple of years at Cardington resulted in a few reasonable indoor models and it soon became apparent, as I continued to visit the sports hall indoor meetings, that the flimsies were more than a little vulnerable. The penny finally dropped at Wallingford where I left two of my Penny Planes on their stands whilst I went off to eat some lunch.

On my return I found the back ends of the two models had been removed and the guy next to me explained that some high-speed polystyrene wonder had fizzed across my table, chopped off the rear ends and flew on without breaking step.

If you can't beat 'em join 'em. I had seen an article in one of the magazines about making a small indoor job, something like a Wot 4, from 2mm wall-foam insulation so off goes I to the DIY store and procures a roll of said material. Adhesive was the next problem; even I knew that showing expanded polystyrene any cellulose caused rapid disappearance of the foam around the area of contact followed by a creeping expansion over the next few minutes. Bison Clear Adhesive was the recommendation in the article and by coincidence I found some in the same store, Homebase or whatever name it went under in those days. It does not matter as the only place I can get it now is from 'the good old boys' at Flight-Hook.

Speaking of coincidences I must digress. I have one I must relate. I was at the BMFA Winter Open at Wymeswold in February flying Open Rubber and I set up alongside Ray Alban. Ray asked me to time his last flight and proceeded to wind. His model is worthy of comment, a large vintage rubber job with a single bladed wind shovel on the front that was more akin to a canoe paddle than a propeller. Double digression, back to Ray winding, he was nearly through when BANG. The motor had broken at the rear peg and the motor together with the winding tube made a quick exit out through the front former. Ray set about replacing the motor and called me again for his next attempt. All was OK, the model was launched and the flight timed down at 2-49.

I then collared Peter Martin to make a flight of my own. I was nearly through winding when BANG. The motor had broken at the rear peg and the motor together with the winding tube made a quick exit out through the front former. I replaced the motor and wound for my next attempt. All was OK, the model was launched and the flight timed down at 2-49 coincidence or what.

Digressions over, back to the polystyrene. Armed with the material and the glue I wondered what to build and settled on the good old Hanger-Rat. It was a good choice as it turned out as I think the Rat is about the largest size you can go with expanded polystyrene wings without spars.

I built the fuselage as normal and the tail-plane and fin were just cut from the sheet polystyrene and stuck in place with no support. The sheet was marked out with felt pen and cut with scissors. I tried cutting with a scalpel but even with a brand new blade I still got some tears at the edges so I always use scissors now. The aircraft surfaces are cut with the natural curve of the rolled sheet chord wise to give the aerofoil section. The fin is curved to give the right turn. Each wing has one 1/32 balsa rib about 1/16 deep at the centre and a 1/16 x 1/4 deep rib at the dihedral joint joins the two halves. The method that I use for assembly is to take each wing half and mark the centre rib position then run a bead of the Bison Adhesive along the line. I then put the rib into place and hold for a minute or so until it stays put. The sticktion of the adhesive is quite good and it does not take long. I have yet to decide the best method for the centre section and I don't remember which method I used first time. My Poly-Rat is on its third wing at the moment. An electric helicopter chewed the first one up and the second got past its sell-by date. The problem with these spar-less wings is after a year or so of enthusiastic rafter bashing you begin to notice severe distortion of the wing when the model dives after a meeting with the ceiling. Eventually you lose so much altitude before recovery its best to make another wing, it does not take long.

Where was I. Ah! Yes, joining wing halves.

Method one is to shape the joint area, put a thin smear of Bison on one half and bring the two halves together with the tips propped up at the dihedral angle. You need pins to ensure you don't lose the wing section curve. When dry, add the centre rib. This helps the rib to be kept square but uses more adhesive and takes a little longer.

Method two is to use a thicker coat of Bison on each of the wing halves and bring together onto the centre rib and do the job in one go. The danger is that you can get the rib out of square to the dihedral.

The next bit is the tricky bit, the cabane and wing struts. The construction itself is not difficult, the cabane from 1/16th x 3/16th and the wing struts from about 1/32nd.x 3/32nd. The wing strut material size depends on the hardness of the balsa.

The difficulty is attaching wing struts to the wing ribs whilst keeping cyno away from the foam. The vertical cabane struts plug into flattened alloy tube cyno'ed to the fuselage and must be hard balsa for longevity. As I said earlier, foam and cellulose or cyno don't mix, my bumble-fisted approach in the early days lead to much melting foam. It's not only keeping the glue away from the foam in the jointing area but also keeping it off your fingers. You think you have got away with a joint somewhere when a few second later the spot where your sticky fingers picked up the wing starts to dissolve. You can spit on it, spray water it but it just grows as you look at it and eventually you have to start again.

Since I first got into polystyrene wings with the Rat I've built quite a few, EZB's, biplanes, triplanes, I do tend to get carried away when I get something new to actually work.

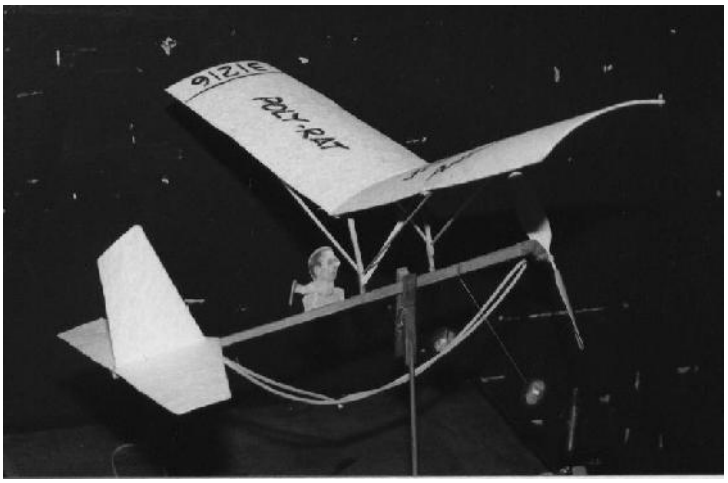
There seems to be a limit to wing chord as I have not made a polystyrene Penny Plane that will fly consistently, they seem to be flying OK and then they just seem to stop, forward motion disappears and they just flop down. It maybe that the wing chord arc needs to be shallower but if you do that you lose the stiffness when no spars are used. As I am interested in simplicity I make my wings Hanger-Rat chord maximum and no spars.

My grasshopper mind strikes again. Let's get back to making wing strut to wing rib joints. The method I have evolved is to use thick cyno (preferably the old stuff in the bottom of the bottle you never finish) and accelerator. I carefully put a spot of the cyno on the rib edge, spray the end of the stay with accelerator and then bring the two together, Bang! job done. Practice bringing the two parts together before you do it for real however as there is no repositioning possibility. Warning, watch where you point the accelerator spray, I've destroyed a part built wing on the bench before now with fallout.

Propellers, you can use commercial plastic props if you like but keep the diameter down to six inches and use thin rubber with lots of turns. It's more satisfying to make your own props though and it's easy.

The quickest method (that's for me) is to use about 3mm white plastic tube from the hobby shop material rack for the centre, a piece about 3" long. For the blades use a thin plastic yoghurt pot and cut out some blade shape you fancy at an angle of between 10 & 15 degrees sloping left to right from root to tip. The reason for the angular spread advised is the width of the blade shape you fancy. The wider the blade the smaller the angle. The reason for this is that the twist on a wide blade may cause the tip to wash right out. The blades are then stuck to the tubing at an angle of 45 degrees at the blade root. You can do this quite easily by eye. Be sparing with the cyno as it can still melt the plastic if you get too enthusiastic.

I think I'll pack up constructional details, it was not my intention to write a blow by blow how to do it article but I just sit here at the old computer and I never really know where I'm going. I like to write light-hearted offerings but I think they must be getting a little heavy of late and I fear I may be responsible in part for the last issue of the CLARION going overweight. I got away with it myself however but from reports a lot of you 1066'ers got whacked for postage due charges. David picked the right time to go Stateside did he not?



The Authors Poly-Rat (Note: -John Hook is at the controls)

My Rat pictured is one of the most reliable indoor jobs I have ever built. Please note the pilot, it's John Hook himself, could be his piloting skills that keeps the Rat so stable. I fitted John as the pilot for his 60th birthday bash at Swindon the other year; it created a little amusement here and there.

Performance wise my Poly-Rat has flown with rubber motors from .070" strip up to .110" but it's had a few different propellers, as ceiling bashing is another one of my habits. The logbook records the best flight as 2-41 made at Oundle in December 2001. The motor was a 22" loop of .080" rubber with 2,300 turns.

I was intending to dig up something on vintage indoor and to that end I looked in the Aeromodellers for 1947 and all I could find was an article by Bob Copland in which he stated that although indoor free flight in America was popular it had not yet become popular in Britain. He went on to say that round the pole flying however had become very popular, but bear in mind that this article of his was in support of his RTP Thistledown plan published in the same issue.

The RTP record up to that time was about 3 minutes with tissue covered jobs but the change to microfilm covered flying surfaces immediately pushed the record to 4 minutes and development brought about by friendly rivalry between the Northern Heights M.F.C and Streatham M.A.C. eventually brought the record to nearly six minutes. There was a photograph with the article showing Bob's own model and with it was a photograph of a free-flight model so they were flown.

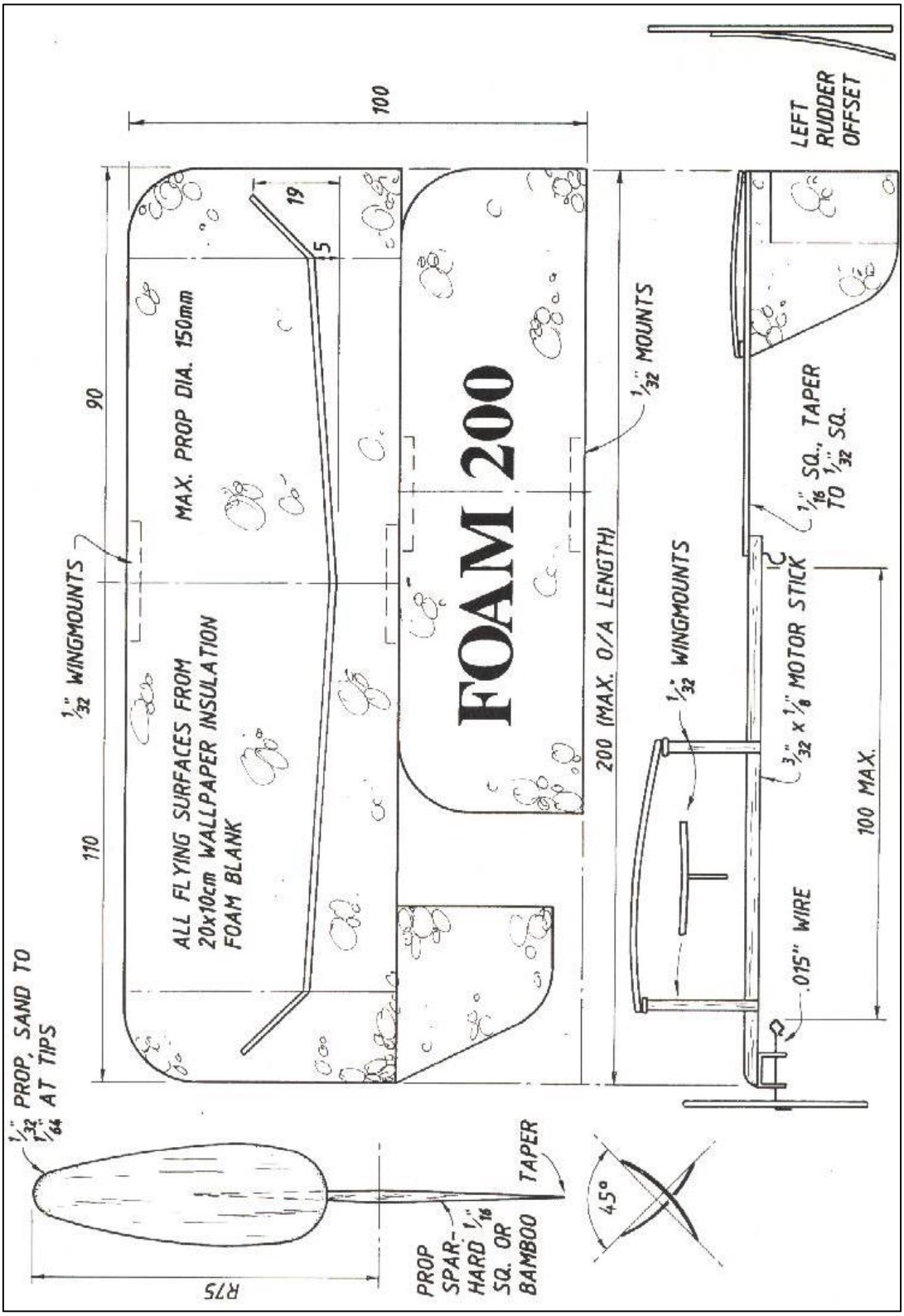
Seeing the reference to records I sent for the B.M.F.A. Records book. When I received it I was initially baffled by the contents. There are over 60 indoor record categories with various ceiling heights; 8mtr, 15mtr, 30mtr and over 30mtr. The main surprise was that only 11 records had been claimed and I have seen flights greater than the times recorded. Even I have beaten the 7-minute Pennyplane record on numerous occasions. This lack of records required a little investigation but the answer was soon found in the record book. The first difficulty is the requirement for two timekeepers, not the competition norm these days so if you want a record it is going to be a special attempt. Next problem, two certified stopwatches with an accuracy of better than 0.02% that is a 4 seconds error over a 6-hour period. It appears that records flown during the normal course of national competition would not qualify and I assume people cannot be bothered to make special attempts. I think I should pick one and have a go myself.

Whilst I was doing a bit of bedside reading I came across the Foam 200 plan, which is reproduced herewith. I have no idea how good it is for I have not built one but I have used the propeller construction method in the article accompanying the plan. The material for the prop is good old 2mm wall foam.

The method is to take four layers of foam and wrap them around a 5-inch diameter can, sandwiched between two layers of non-stick material such as self-adhesive label backing or the good ladies non-stick baking sheet. You then take a Solar-film iron set to maximum smoke and apply to the sandwich which will fuse the layers together to form a curved material from which blades can be cut as with the yoghurt pot prop. Propellers made this way are really light and will stand up to some punishment.

One point about the Foam 200 is that the wing has no structural support and this interests me no end. I am in the process of seeing how big I can go with this method. The tip dihedral joints will supply some support and preserve the aerofoil. Currently I have a 12-inch version drying in the workshop. We shall see how we go.

I'd better quit for this month or we'll be overweight again. Part 4 vintage?



Model by Dave Ridgeway, Aeromodeller March 1997

John Andrews

Indoor isn't for Everyone Pt.29 - Nick Peppiatt

Indoor Scale Nationals 28th April 2019

A little history

I first attended the Indoor Scale Nationals forty years ago in 1979, when the event was held in one of the airship sheds at Cardington for the last time on 29th April. As a comparative novice I achieved second place in Open Rubber Scale with a P-51B Mustang built from Clarence Mather's plans in the Model Builder publication 'Flying Scale Models of WWII' (please see my article last month for an illustration of the cover). Since then, I think I have only missed three meetings. In 1979, the classes flown were Peanut, Open Rubber Scale and CO_2 Scale. Looking at my old copies of the Aero Modeller, I gather this event started in 1975, again at Cardington. In his Flying Scale Column in the AeroModeller for June 1975, Eric Coates starts 'March 16th, 1975, will probably be looked back on in British aeromodelling history as the date when the Indoor Scale Model 'came of age', as this was the occasion of the first of three Scale Indoor Meetings the SMAE (now the BMFA) have planned for 1975 in the Cardington shed.' The March meeting was well attended and the competitions held were for Open Rubber and for the first Peanut Scale competition in the UK, which was run to MIAMA rules (Maximum wingspan 13", the 9" fuselage length option was added later). In contrast, the first Indoor Scale Nationals held at Cardington on the 17th August was relatively poorly attended, as was the second held on the 2nd May the following year. The 1976 event also included a CO_2/Electric class in anticipation of the availability of British CO_2 motors. However, these did not appear in time and there were no entries in this class. Fortunately, the SMAE Scale Committee persisted with the event and entry numbers have slowly increased over the years.

The Indoor Scale Nationals have been held at a number of venues in the Midlands after the early meetings in the Cardington Sheds

Derby Municipal Sports Centre in 1980, 1981 and 1983
Middleton Hall, Milton Keynes Shopping Centre in 1982
Alumwell Sports Centre, Walsall from 1984 to 1993

Nottingham University Sports Centre from 1994 to 2014. This excellent venue had a large hall and a smaller hall. The smaller hall was generally used for trimming flights and fun flying, whilst the competition flights took place in the large hall. In the latter years a Bostonian competition was also held in the smaller hall.

University of Wolverhampton Sports Centre, Walsall from 2015 onwards. This excellent venue has the advantage of being set up with a square flying area and a large adjacent pits area.

In the mid to late 1980s various more 'fun' events were introduced including kit scale mass launches and the air race.

Pistachio Scale, tiny 8" wingspan or 6" fuselage length models, which like the Peanut Scale class is a combination of static scoring and timed, rather than judged flights, was introduced in 1992.

The Kit Scale class, for models built from kits or kit plans with judged flights, started in 2007.

So the classes flown on the 28th April this year were Open Rubber Scale, Electric/CO_2 Scale and Kit Scale, which have judged flights, and Peanut and Pistachio Scale, which have flights timed for duration. In addition, there was a scale model mass launch, the last one down being the winner and the air race, where the model achieving the most laps in ten minutes around thread pylons held by balloons was the winner.

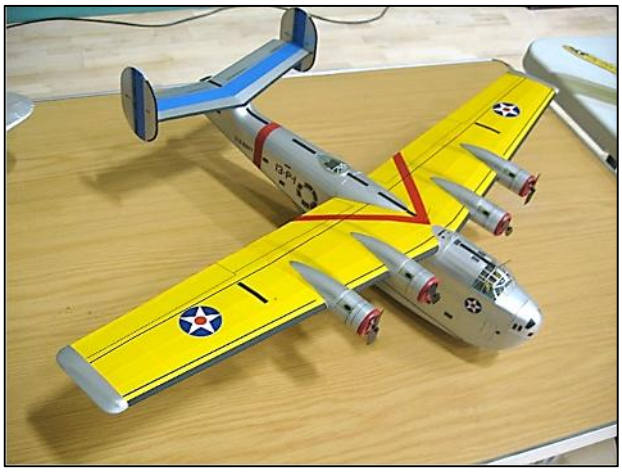
There were two other attendees of the Cardington 1979 meeting present this year; Richard Grainger, who as usual conducted the air race and provided commentary, and Charlie Newman, who has done a great deal for scale flying in the UK over the years.

Reports of the Indoor Scale Nationals were generally published in the AeroModeller in the July issue after the meeting. Reports from events from 1999 and after with many photos and

video clips can also be found on Mike Stuart's excellent website www.ffscale.co.uk . There are also tables of results in the BMFA Scale archive www.scalebmfa.co.uk .

The 2019 event

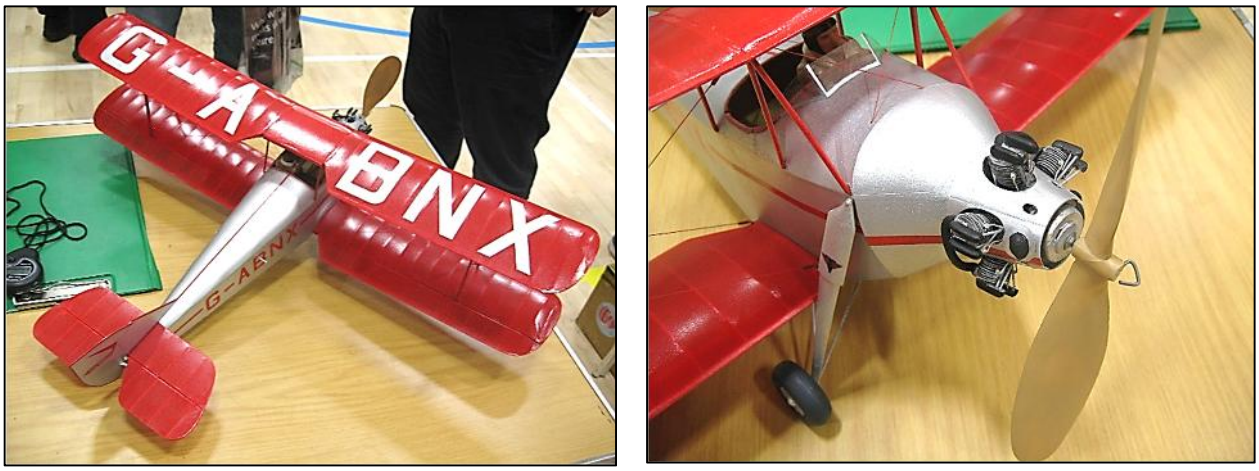
This is my view of the highlights, which is far from comprehensive, but I was also kept busy with my usual Peanut and Pistachio Scale entries. The number of entries was somewhat down this year, but still respectable, with six in CO_2/Electric, eight in Open Rubber, 24 in Kit Scale, 14 in Peanut, and 8 in Pistachio. It can be seen that the most recent class is the most popular.



Richard Crossley's electric powered Consolidated PB2Y Coronado. First in CO_2/Electric.

Graham Banham's Tipsy Nipper, Second in CO_2/Electric. from Richard Crossley's plans in the Jan 2019 AeroModeller.

There were two four-engined flying boats entered in CO_2/Electric, Richard Crossley's Coronado and Peter Smart's Latacoere 300. Unfortunately, Peter could not get his machine to fly as well as it had at Crawley, but Richard's machine flew magnificently. The Coronado has a marginal spiral stability; he has trimmed it to fly straight, but the dolly, from which it is launched, gives it a bank on take-off, which it maintains throughout its flight, causing it to turn within the confines of the hall.



Mike Stuart's rubber powered Robinson Redwing. Third in Open Rubber

Chris Blanch had a novel approach to Pistachio, which must have caused the judges a conundrum. He entered a Ford Flivver, presented to the judges as a low wing, but flown inverted as a high wing. This must also have given the pilot a headache!

The Indoor Scale Nationals are labour intensive events, requiring, amongst others, static judges for five classes and flight judges for three, timekeepers and recorders. So on behalf of the competitors I offer grateful thanks for those who give up their time to make this event possible. Full results should be available on the web in the near future, but I could not find them at the time of writing. The best source is Mike Stuart's website: www.ffscale.co.uk Unfortunately, the current BMFA results page seems rather chaotic.

Richard Crossley's Martin MB5 Pistachio Scale winner

Chris Blanch's novel Ford Flivver Pistachio entry

Veron Truflite trophy

In Kit Scale I was asked to keep an eye on the winner of the new Veron Truflite trophy, presented by the Bournemouth Model Aircraft Society in memory of Phil Smith, for the highest placed Truflite model. There were only two eligible entries, Gary Flack's Aeronca Champion and David King's Luscombe Sedan. The initial winner of this fine trophy was Gary Flack, by virtue of the Aeronca's superior flying performance. Let's hope for more eligible entries next year.

Gary Flack, the first winner of the Veron Truflite trophy

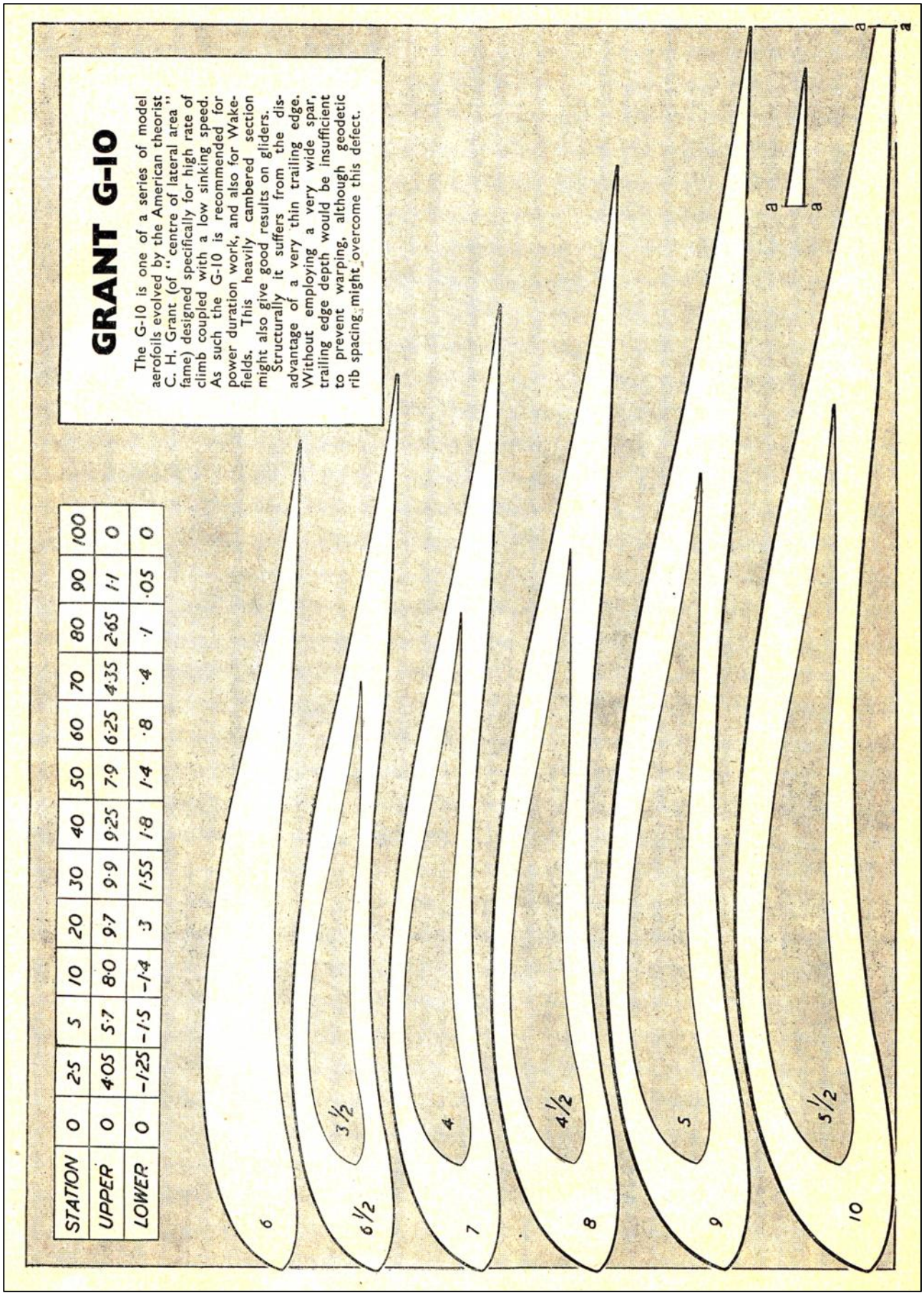
David King's, Veron Truflite entry, a Luscombe Sedan

Gary's Truflite Aeronca Champion

The Veron Truflite trophy in memory of Phil Smith.

Nick Peppiatt

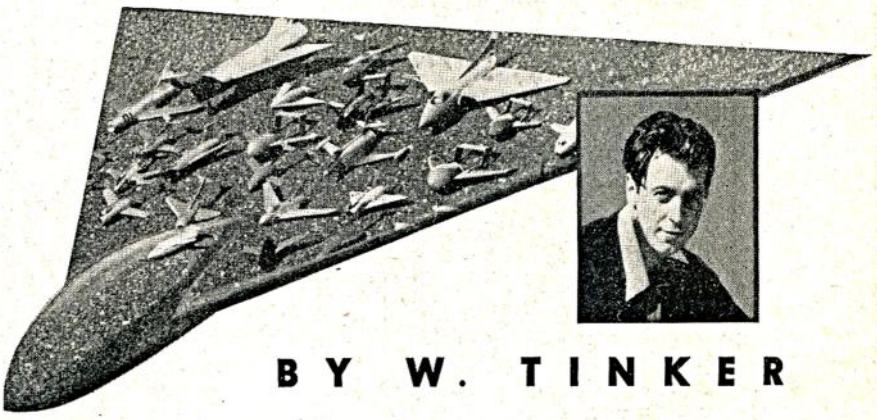
Grant G-10 Aerofoil - Model Aircraft April 1954



Jetex RTP Speed - W Tinker

Extract from Model Aircraft April 1954

JETEX SPEED *models*



BY W. TINKER

INTEREST in R.T.P. speed flying, especially with Jetex units, is spreading fairly rapidly, judging by club reports, and now with the possibility of prizes for the best speed each day at the 1954 "Model Engineer" Exhibition, interest may become even more keen.

Because it is probably the most important aspect, let us first explore the aerodynamic side of designing a Jetex speed model, and to make reference easy, each component of the aircraft will be dealt with in turn.

Wings

The mainplanes are usually very thin, having a chord/thickness ratio in the order of 5 per cent.-6 per cent., the actual thickness being between 3/32 in. and $\frac{1}{16}$ in. Chords are about $1\frac{1}{2}$ in. and below, and any advantages of using an aerofoil section are negligible. Sand wings to a symmetrical form by all means, but the precise shape appears to be of no importance.

In plan form, a tapered, swept wing looks fast, but seems to have no appreciable advantage in speed over a normal parallel chord type. However a swept wing does improve longitudinal stability and also makes line positioning a little less critical.

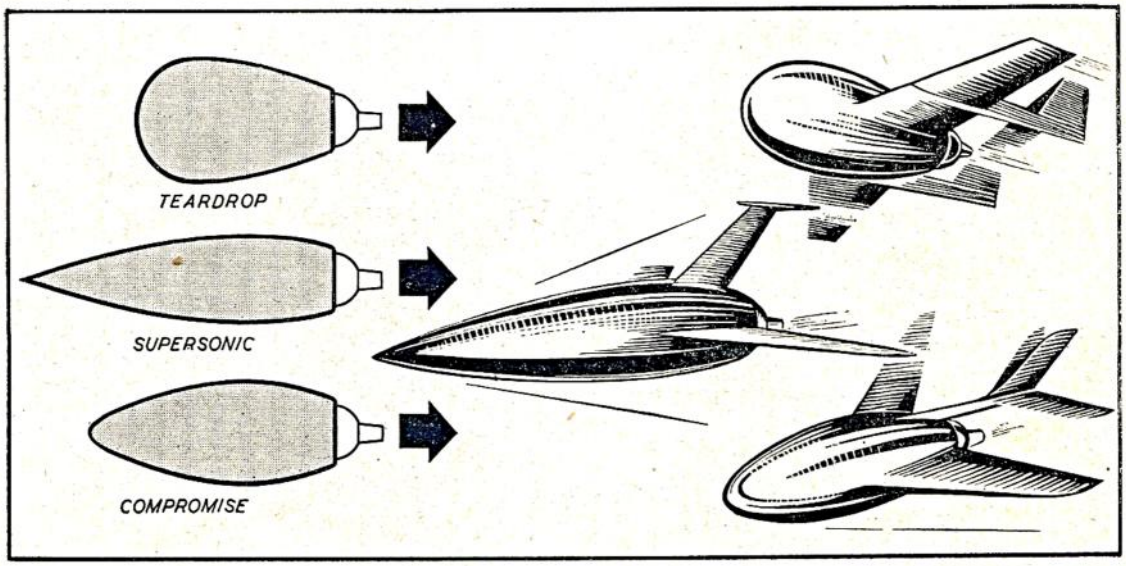
The mainplanes should be mounted on, or anywhere above, the thrust-line. Low wing models suffer from longitudinal instability, unless fuselage line attachment points are used. The angle of attack should be between zero and plus one degree in relation to the thrust-line. Negative angles should be avoided, of course.

Fuselage

The fuselage is one of the largest drag producers on the model and in the Epsom club a great deal of controversy has arisen over fuselage design. There are two schools—the Teardrops and the Supersonics.

The Teardrops maintain that it has been proved that the best aerodynamic form for a cross section of a given area is a teardrop shape with a length/diameter ratio of 4 : 1. Therefore, the nearer the designer can make the fuselage resemble this form the better the fuselage design.

The Supersonics favour a more carrot-shaped fuselage that tapers to a sharp point at the front. Aerodynamic arguments are vague but the bows



of a ship and the Americans' X3 are quoted freely.

Well, Teardrop or Supersonic, try to cut down the cross-sectional area and bear in mind that skin friction accounts for a large percentage of the total drag. In closing this discussion on fuselage shapes, the writer has a definite preference for smooth curves . . . shall we continue?

Tail Unit

The tail unit is attached to the boom(s) which is rigidly fixed to the fuselage. Tailplane area is dependent on the moment arm and latest models follow the current trend of small tailplanes and long booms. It is safer to be generous with tail areas.

Fins may be omitted, but if the model flies with its nose pointing out of the flight circle, a fin will sometimes correct this, with a consequent increase in speed.

General

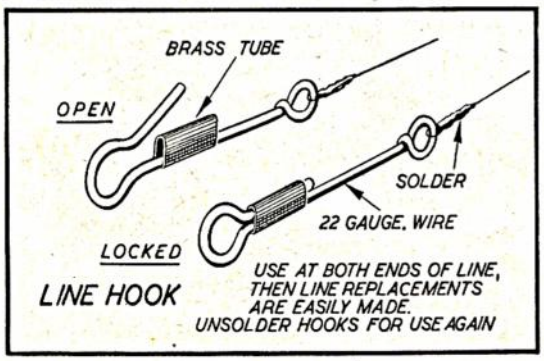
Finish is important on any speed model, so naturally an effort should be made to get the best finish possible. Here, the fuselage again causes problems. The walls are usually fairly thin and the heat from the unit often blisters the paintwork. A high gloss finish is useless if it is covered with blisters anything up to half-an-inch in diameter. For a long term policy it might be beneficial to leave the fuselage in a natural sanded finish, or at least dope only those portions not affected by the heat.

Reducing the wing area may add a few miles an hour extra, but it can quite easily be overdone, and the maximum speed will drop. This is caused by the wing increasing its angle of attack in order to maintain lift, and thereby increasing its drag.

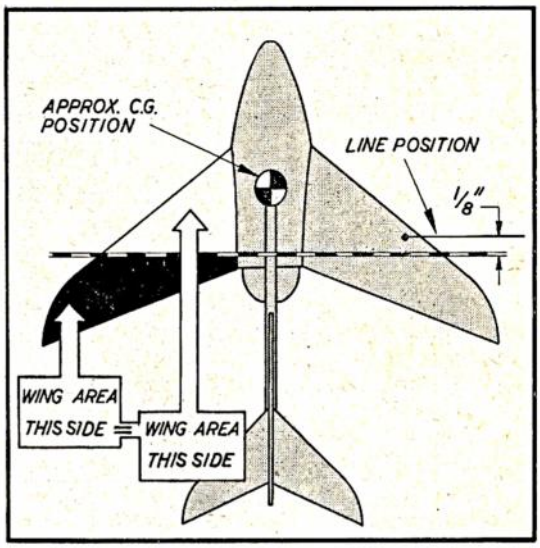
Tailless models and delta planforms have proved to be very fast, but they are much more tricky to trim. Elevons are useful, but not always essential.

Lastly, arrange the design so that the unit has the maximum amount of air around the orifice, or it will never be certain that the motor is developing its best thrust.

The "Jetmaster" and the "50" unit appear to be best for this work; the larger motors do not produce anything like the same speeds, therefore, the following construction details will only apply to these two units. In general, a mixed balsa and hardwood



Clips for use at both ends of the line. Replacements are easily made.



construction gives the best results, but models have appeared with metal, plastic, and even papier-mâché components. One enterprising Epsom member once appeared with a flying saucer built from the lid of a shoe-polish tin!

Wings

Wings are best made from 3/32 in. or 1/16 in. hard balsa or 1/16 in. ply or plastic. Be liberal with the cement around the fuselage junction, but watch the plastics for warping due to chemical action.

Balsa wings should only be used on the smaller models and the line attachment point strengthened with celluloid, inset. If the line can be attached in some way to the unit itself this would be better. Holes may be drilled straight through in ply wings.

Fuselage

Balsa fuselages are quite adequate, but turned hardwood fuselages have proved very successful and have shown a better resistance to heat, so protecting the finish. Beware of any wood that contains resin, it makes an unholy mess of the unit, if you ever get it out!

The fuselage is also the unit mount, so hollow out only sufficient to clear the body of the motor. Groove the sides to take the spring clip, making sure that the motor is not a sloppy fit. A loose unit will be ejected in the sudden acceleration of a hand launch, and a runaway motor in a small room can cause a certain amount of chaos.

Once the motor is fitted satisfactorily the fuselage walls may be reduced to a minimum of 1/16 in. thickness.

Tail Unit

Celluloid or 1 mm. ply is suitable for the tailplane, thin celluloid being sufficient for the fin.

The tail-boom has to be light but rigid; 1/16-in. dowel or bamboo can be recommended, but keep match flames clear of bamboo, or it will soften and droop. An excessively long fuse, when ignited, can also cause the same trouble.

Trimming and Flying

The model must be trimmed nose-heavy, and this should be borne in mind during the design stage. The method the writer uses for finding the approximate line position is this. On the plan view of the model draw a line so that there is as much wing area in front of this line as behind. The R.T.P. line should then be fixed somewhere on the aircraft about $\frac{1}{8}$ in. in front of this line. The c.g. is then arranged forward of the line position; the exact distance is largely dependent on the design, tailless types generally having the c.g. well forward.

If the designer is ambidextrous then the direction of flight will not matter, but right-handers fly clockwise and left-handers, anti-clockwise. Make sure the line position is on the correct wing.

Stalling, looping or an exaggerated nose-up attitude may be caused through insufficient tail area or a c.g. position near, or to the rear of, the line. Extra incidence on wing or tailplane will have the same effect. Check this and tail area, add ballast to the nose if necessary.

Diving is usually incidence trouble, try bending the boom a little or shifting the c.g. slightly rearwards.

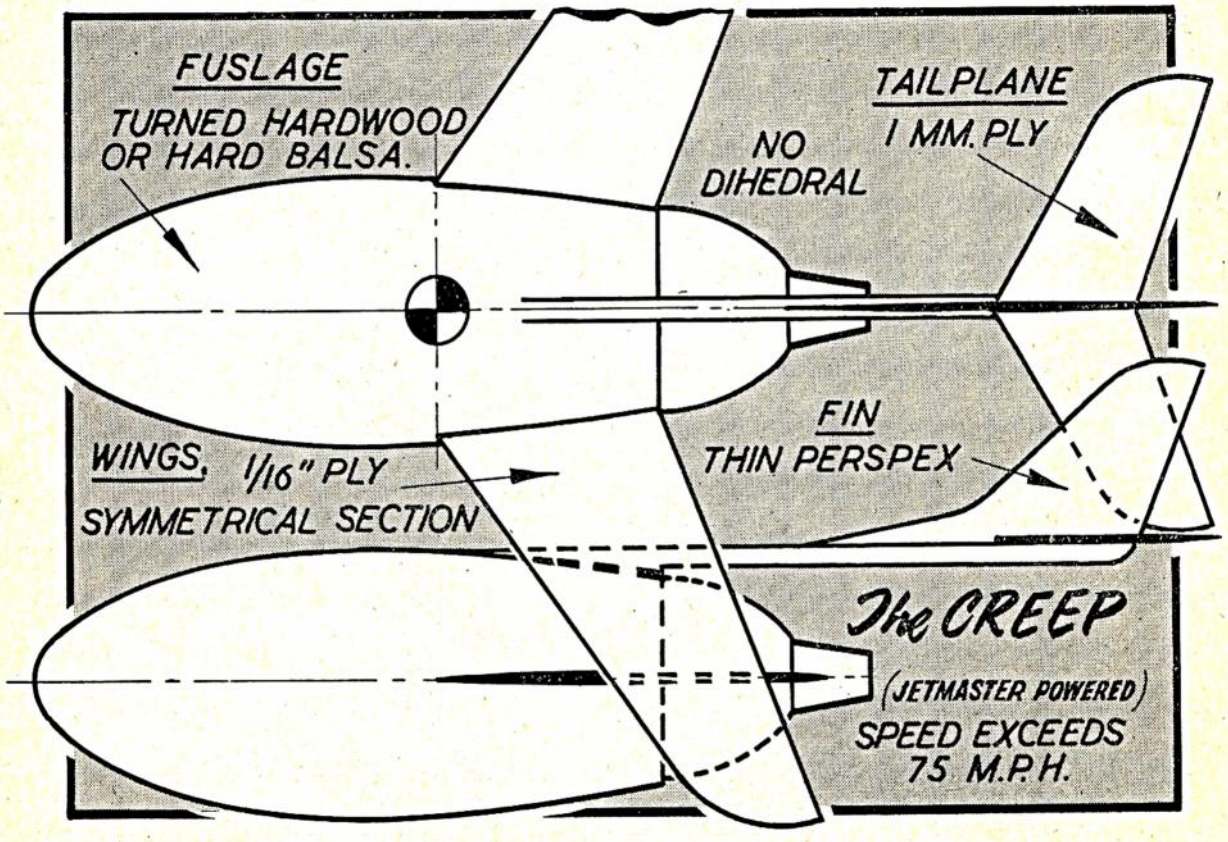
"Bouncing" is a mild form of dive and usually occurs at high speeds when the incidence of the tailplane probably changes a little. It can also be caused by a bad launch, so fly it again on a half charge to check this. Watch a "bouncing" aircraft carefully because the added stresses may build up sufficiently to disintegrate the model. Go over the model carefully for signs of strained joints, inspect the line fixing particularly.

At these high speeds (75-100 m.p.h.) safety becomes of the utmost importance. If one of these models hits at 100 m.p.h. it can hurt, and the designer must do all he can to ensure that the chances of his model breaking loose are reduced as much as possible. The strain on the model is considerable, for example a one *ounce* model flying at 100 m.p.h. on a 6 ft. radius line sets up a strain of six *pounds* in the line!

Thirty-three gauge piano wire is ideal for use as a line. See that all joints are soldered and that the hook can be locked to prevent it opening out under strain. A steel line that gets a kink must be scrapped immediately, for a kink can break easily and without warning. Reduce friction in the pole head as much as possible and hold the pole itself firmly to the floor with screws or heavy weights. The distance from the line to the floor is 18 in.

Four to five square inches wing area is sufficient for "Jetmaster" models and between three and four square inches for the "50" units. Tailless models are generally large in span, but not in area. Delta aircraft have usually a greater area. The overall length can be from one to two times the span.

You are now in possession of all the data accumulated in three years of practical development of miniature jet speed models. Don't hope to break the 100 m.p.h. limit at the first try, but the second model should be nearer to it. Experience is the best teacher.



W Tinker

Odiham Coupes - Peter Hall

A THREAT TO NATIONAL SECURITY

The two reports lay side by side on the Air Marshall's desk. One, a file an inch thick. One headed **C.A.A. Report On Threats To Air Traffic** and stamped 'Top Secret' in red, the other a sheet of A4 headed **Southern Area Gala Odiham May 5th 2019, Third Round Southern Coupe League**.

He paced his office to ease the ache from an old wound sustained as a young helicopter pilot in the Falklands war, which always played up when he was stressed. 'Stressed' does not do justice to the intensity of his reaction to the C.A.A. report. He re-read the summary -

' A new threat to National Security has been identified requiring an immediate response. A global network, long established and regarded as benign is now shown to be a threat not only to air traffic but to vital eco-systems and endangered species nation - wide. Its agents calling themselves 'aeromodellers' and often posing as harmless geriatrics, infiltrate airfields and Sites of Special Scientific Interest to launch missiles and trample nesting sites. Their motivation is obscure but it is known that as children they 'caught some sort of bug' or were indoctrinated, beginning a life-long obsession. The C.A.A. has developed a dense regulatory thicket to frustrate their activities and Natural England have banned them from their areas. Despite this, they persist. On Chobham Common for instance, in the last six months a crowd of at least three were observed in broad daylight trampling and launching missiles. Clearly a more effective deterrent is required.'

"Bollocks! Balderdash!" Snorted the Air Marshall, his moustaches bristling with indignation, he was well acquainted with these people, they were not posing as harmless geriatrics, many of them were real geriatrics and most of them were decent ordinary citizens. He had hosted the Southern Gala for years at Odiham and they had an impeccable F.O.D.- free record. He re-read the report on the last event to reassure himself.

'After cancellations in '17 and '18, at last a perfect day, well nearly perfect, and a very successful and well-organised event which should help ensure its future. Ten flew the combined vintage/F1G coupe competition. Three flights to a two minute max. were required and a ninety second D.T. fly-off ensured that models did not leave the field. In the morning the air was reasonably predictable but by lunchtime the cold light northwesterly breeze coming in over the fringe of buildings and trees behind us produced some turbulence and many surprises with undetectable patches of strong lift and sink. Not a few launched in good air only to be dumped down wind and some benefitted from the reverse - a poor start then a quite violent up escalator probably over the downwind runway.

There was the usual crop of bad luck stories. Alan Brocklehurst's prop. blade failed to fold and he spiralled down for 1'.12" on his first flight. Ken Taylor R.D.T'd too soon on his second and was down in 1'53". Gavin Manion landed in the fence around a high security area breaking the prop., and Roy Vaughn, after an impeccable first flight was dumped in a violent patch of sink for 1'23".

Jim Paton flying his very effective Bukin dropped one flight, blaming old rubber. This is not the first time I've heard Jim blame old rubber. Three made the fly-off at 4.05 p.m. Don Thompson was first off, followed by Peter Hall. Gavin Manion broke a motor and then another (old rubber?) With only seconds to go and with remarkable sang froid he installed his third and chucked just in time. Chucked is not accurate, hurled would be better, He flies P.G.I. mode with almost zero decalage. Such is the force of his throw I doubt he needs a motor at all. Gavin took first place followed by Peter and Don.

Gavin now heads the league table and the Oxford Gala, Portmeadow on June 2nd.' is the next round.

Mrs May, agitated, paced her office. "Well Air Marshall what are you going to do?" She snapped. Everything was going wrong, and now this. What did Mrs T. do when things were falling

apart? She was lucky, a nice little war in the Falklands distracted everyone and she even got a state funeral out of it. Unfortunately no wars big or little seemed in prospect. "Can't you drop a few bombs on their hideout in - where is it - Buckminster?" "We don't do bombs!" replied the Marshall through clenched teeth. Back upstairs in the flat Mrs May poured herself a large g&t and sank into her sofa. "An Air Marshall who doesn't do bombs! Ridiculous, he'll have to go." She said to herself.

Back in his office the Marshall poured himself a large scotch and flopped into his chair. "Bomb Buckminster!" Ridiculous, she'll have to go." He said to himself and made a note in his diary. '*The Southern Gala has priority in 2020*'.

Don Thompson tries to 'break- dance ' Gavin Manion's rubber.

Don Thompson chucks

Alan Brocklehurst chucks

Roy Vaughn chucks, Nick Peppiat times

Peter Hall

Southern Coupe League Table - Roy Vaughn

Odiham: Southern Coupe League Round 3 Results						
Place	Entrant	Club	Maxes	Score	Time	Flyoff
1	G.Manion	Birmingham	3	15	6.00	1.50
2	P.Hall	Crookham	3	12	6.00	1.47
3	D.Thomson	Croydon	3	11	6.00	1.37
4	J.Paton	Crookham	2	8	5.46	
5	R.Vaughn	Crookham	2	7	5.23	
6	A.Brocklehurst	B&W	2	6	5.12	
7	C.Redrup	Crookham	2	5	5.10	
8	K.Taylor	E.Grinstead	1	3	4.55	
9	E.Challis	Crookham	1	2	4.50	
10	B.Hobbs		1	1	4.05	

Southern Coupe League Table after 3 rounds											
Position	Entrant	Club	Coupe De Brum	First Area	Odiham	Oxford Rally	Southern Gala	Crookham Gala	London Gala	Coupe Europa	Total
1	G. Manion	Birmingham	3		15						18
2	A. Moorhouse	Vikings	8	9							17
3	P. Ball	Grantham	14								14
4	S. Willis	Croydon		12							12
=	P. Hall	Crookham			12						12
6	D. Thomson	Croydon			11						11
7	W. Dennis	MFFG	10								10
8	C. Foster	Morley	9								9
9	P. Uden	Crookham		8							8
=	J. Paton	Crookham			8						8
11	R. Vaughn	Crookham			7						7
12	M. Marshall	Impington	6								6
=	A. Brocklehurst	B&W			6						6
14	M. Benns		5								5
=	C. Redrup	Crookham			5						5
16	P. Woodhouse	Morley	4								4
17	K. Taylor	E.Grinstead			3						3
18	E. Challis	Crookham			2						2
19	B. Hobbs				1						1
20	R. Tiller										0

Roy Vaughn

Paper Airplane: Boxoid - Nick Robinson

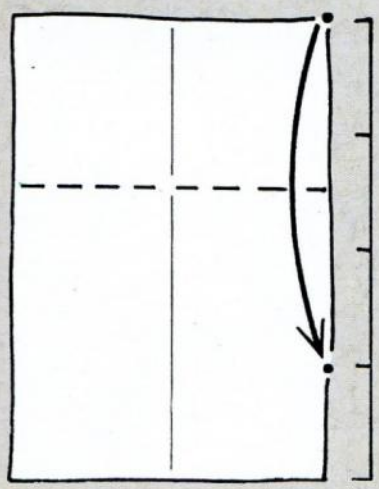
BOXOID

MICHAEL WEINSTEIN

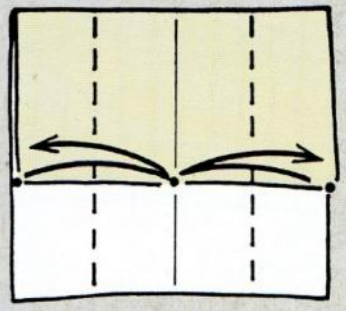
Looking at this design you might think it totally unique, but there are many origami designers who think along similar lines and discover nearly identical folds independently. London's Larry Hart created a "Box-glider" which only differs in a few respects.

This is a very mathematical design, so needs accurate folding. As the creator says, "once the flaps are locked in, nothing short of a thermo-nuclear detonation will pull them apart!"

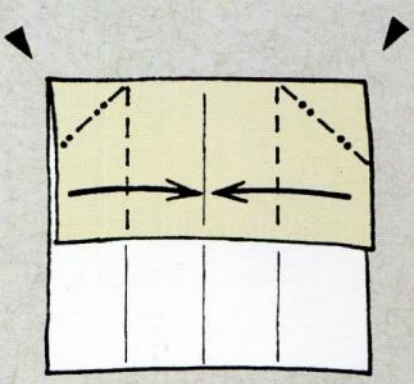
Start with a sheet of A4, coloured side down, and add the vertical centre crease.



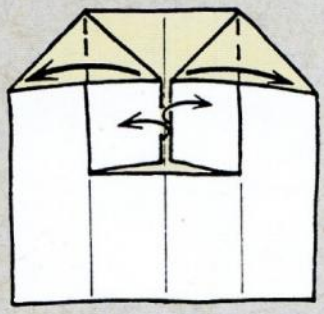
1 Locate the lower ¼ mark (see the JS Dart step 2) and fold the top edge to meet it.



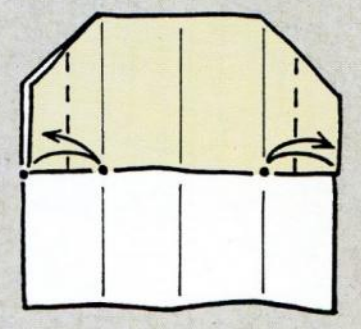
2 Fold either side to the centre crease and return.



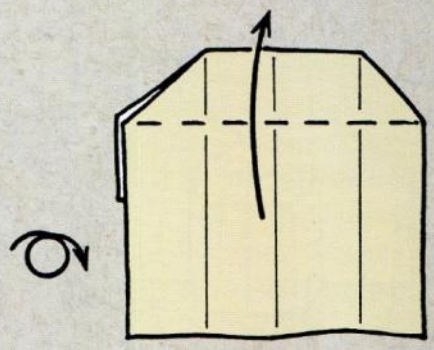
3 Perform two squash folds on either corner.



4 Unfold the two inner layers.

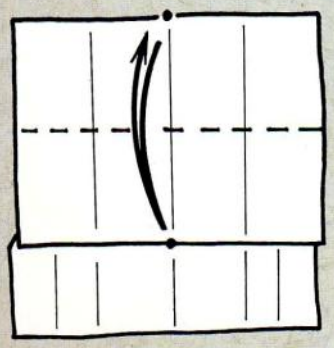


5 Fold the upper flaps in to the ¼ creases and return. These form the rudders in the final step. Turn the paper over.

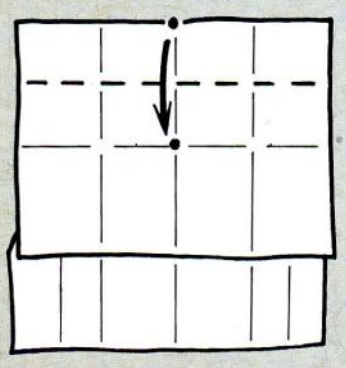


6 Fold the single layer upwards.

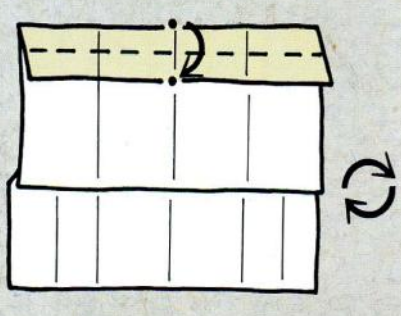
BOXOID



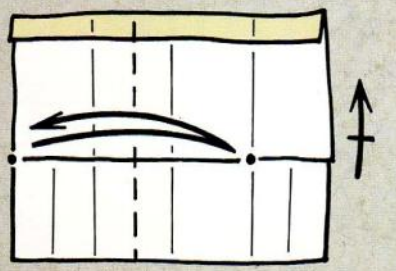
7 Fold the upper section in half and unfold again.



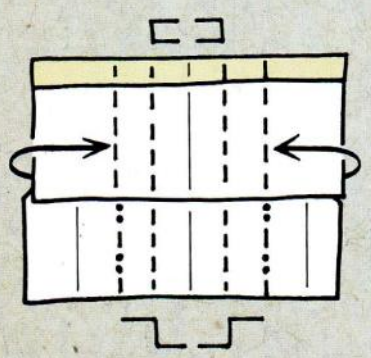
8 Take the upper edge to the crease you have just made.



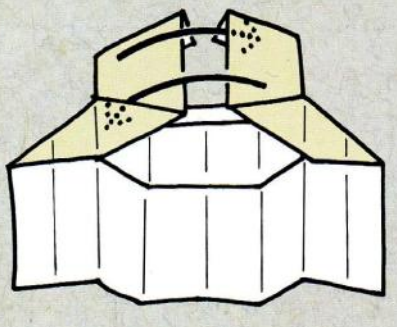
9 Fold the double layer at the top inwards in half.



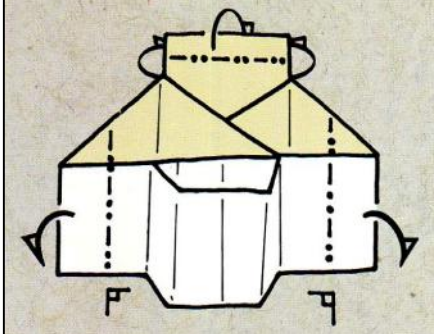
10 Take each outside edge to the opposite ¼ crease, adding ⅜th creases.



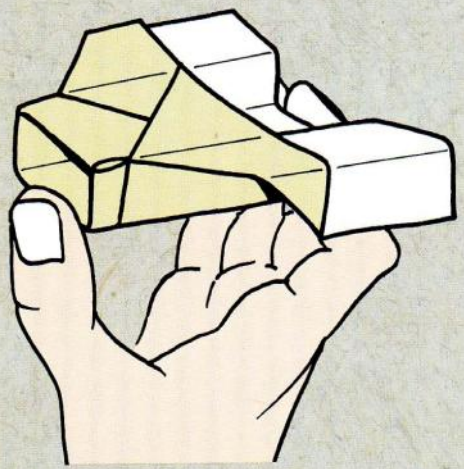
11 Study these creases very carefully before folding. The outside edges of the upper section swing inwards to meet each other. The lower section however forms into a "step". The lines above and below show the final alignment.



12 In progress . . . When you know where the various flaps are going, tuck one inside the other as shown. It isn't important which side goes in which.

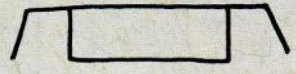


13 When the flaps are tucked in tightly (which isn't easy) lock the shape by folding the edge in, using an established crease. You have to hold the layers together whilst doing this and the paper will get crumpled slightly. Once it is all tucked in, you can flatten the layers again. Finally fold down the wingtips to the profile shown.

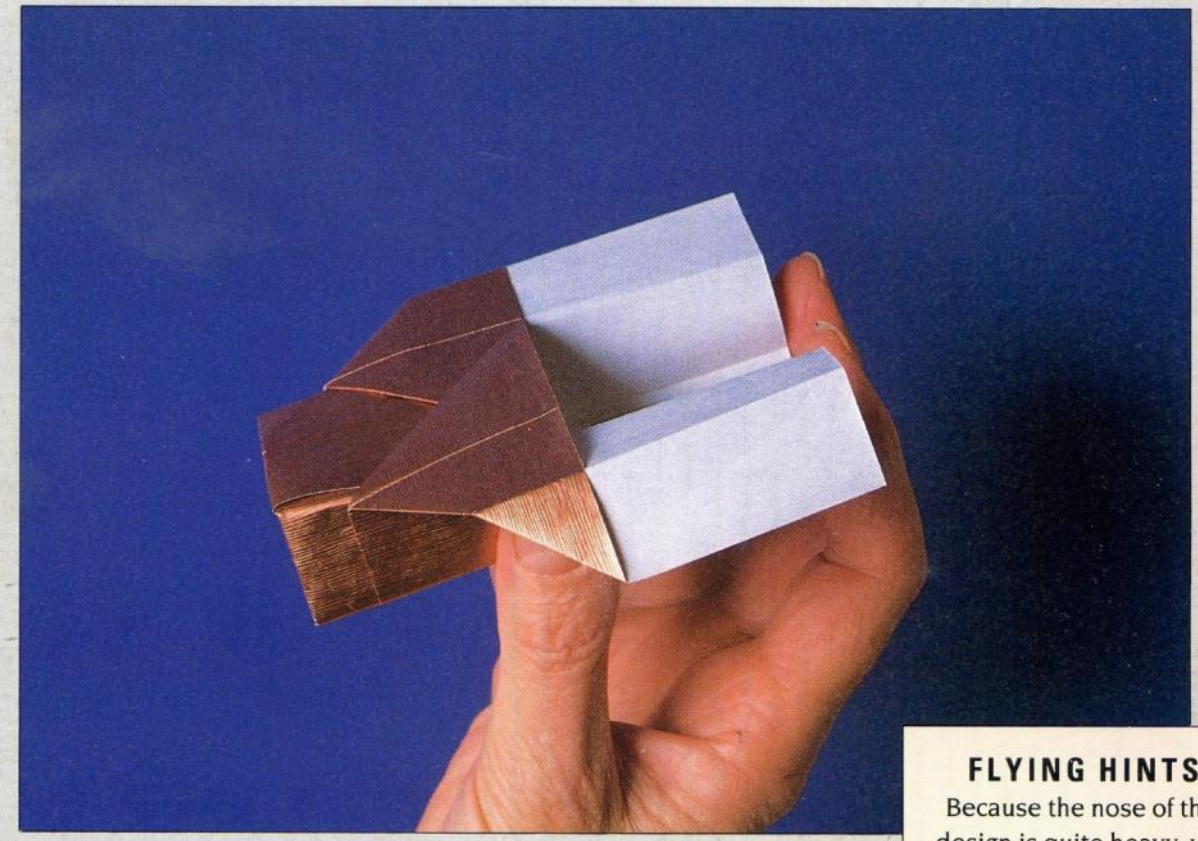


14 Ready for flight.

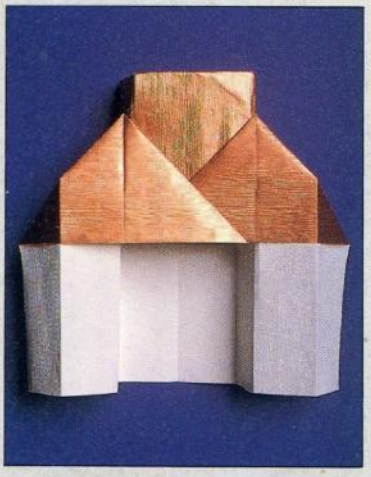
Profile of finished Boxoid.



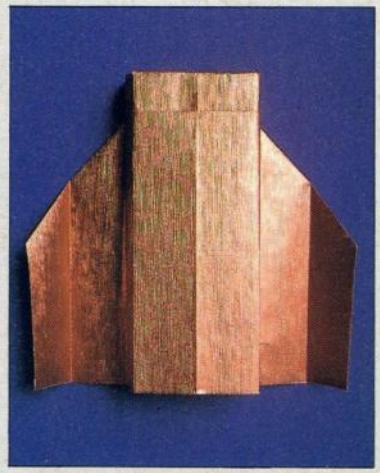
BOXOID



LAUNCHING POSITION



TOP VIEW



VIEW FROM BELOW

FLYING HINTS

Because the nose of this design is quite heavy, you can launch it much faster than the average glider. Whilst it looks too "square" to fly properly, it is quite stable in flight and should travel for quite a long way. Depending on the size of your hand (and the paper) you will hold it slightly differently. One way is to place your thumb at the front and two or three fingers at the rear, pushing it forwards. Alternatively, hold either side with your thumb and three fingers, using your index finger to propel it. Experiment to find the most comfortable and successful method of launching.

From the book 'Paper Airplanes' by Nick Robinson

Another Visit to Buckminster - John Andrews

The weather forecast for Monday May 13th was ideal for a spot of trimming so, together with Colin Shepherd and wives, I had an excursion to the BMFA flying site at Buckminster.
The idea was to check trim models for the nationals, so I had with me my P30, Mini-vintage and BMFA Rubber models being the classes I 'd entered.
We arrived at the site at about 11-15am or so to find Colin and Pat waiting in the car-park. We paid up our £8 daily flying fees and moved out onto the field. There were a few flyers gathered at the eastern end of the site so we pulled up alongside them. There was Peter from the Peterborough Club and three other guys. The wind was so light that the drift was in all directions so nothing was done for a while and eventually the drift seemed to steady with the wind from the west and Colin and I drove around to the western edge of the field and set up shop. The heading picture is the view from our encampment.

I prepared to assembled my P30 when I discovered that I had brought the wrong flight box with me, I only had my Indoor Box. I was now without rubber bands, winding jig and winder. Good job I keep my rubber motors in a separate briefcase as flying without rubber could be a little problematic.
Not a good start, Colin provided rubber bands and there were a few in the bottom of the model box although they were of course used. Colin also produced a twist drill and hook for winding.
Rachel had to hold the model and I had two low turn check flights. In about half an hour the wind swung through 180deg. and was coming from the east with the drift now to the west. That finished me as any further activity on my part and I would have been straight out of the field. Colin, for power trimming, moved out nearer the centre of the site with his flight box and model as D/Ting off the top would keep him in the field. Rachel, Pat and myself set about consuming sandwiches and drinking tea and observing Colin. His model looked quite near to trim right from the off but Colin's efforts were thwarted somewhat by the usual Cox15 reluctance to keep running. Eventually the wind got the better of Colin and a soggy engine run sent the model towards us and the cars and finishing up in the next field. At this Colin called it a day and packed up and headed home. It was now early afternoon so Rachel and I relocated back to the eastern side of the field with Peterborough Pete. Using Peter's jig and winder I had another low turns P30 flight and then put 600 turns on the 4 x 3/16 motor and had a superb flight high in the air and a poorly set D/T saw me down in the next field. An easy recovery for Rachel as I drove down to the edge of the field to bring her back up the slope. One quick check flight on low turns with my mini-vintage 'Cherokee' and I was done for the day & sunburned.
All in all a relaxing day out and I would recommend a free-flight Monday at Buckminster to one and all.

John Andrews

Vintage Coupe League - Gavin Manion

The second round of the Vintage Coupe League took place on 5th May at RAF Odiham, (the planned event at Middle Wallop for the 27th April having been cancelled due to forecast bad weather).
Only two flew, Chris Redrup beating Ben Hobbs (both flying Etienvres) and thus, under the draconian rule of "No points for being last", Chris collects the sole 3 points for his win.

Vintage Coupe League 2019
league placings, after two rounds:-

1st tied	Dave Taylor	3pts
1st tied	Chris Redrup	3pts
3rd	Colin Foster	2pts
4th	Bill Dennis	1pt


Spencer Willis's 'Etienvre'

Every point scored so far has been with an Etienvre, which means either its far and away the best model, or we've got no imagination (myself included, I've got one!)

The rule "No points for being last" doesn't apply if there is a sole entrant as, surely, that person is the winner.

Gavin Manion

Vintage Coupes - Gavin Manion

The last year or so of Vintage Coupe contests has seen the dominance of the Etienvre design to the exclusion of almost all others. It's not the whole story, Ken Taylor won Vintage at the last Coupe Europa with a Fuit 3 and Robin Kimber was third with a Dore, but Vintage Coupe stands in danger of becoming a "one model" event. Now that's a shame because there are lots of vintage designs out there, the question is are any as good or better than Etienvre? Over the next few months I shall try and introduce a few other, less well known (at least in the UK) designs which, hopefully, will tempt some flyers to try something a bit different.
Firstly a list of the designs that are easily available as full size plans detailed enough to build from directly. A few months ago, I listed the ex DBHL plans which were available on Outerzone. This prompted me to mail Roger Newman and Roy Tiller and see what the full range of DBHL Vintage Coupe plans was. By return (as ever, do they never sleep?) I received full size .pdfs of the following plans:-
Lo Zigolo, Le Jump bis, 1949 Coupe by J Morisset, Bagatelle, Machaon, Eros, 1951 P.A.M coupe by JP Beissac, Fuit 3, and Altair.
Now there's enough to be going on with you might think. Each of these is a fully detailed (ish) full size plan that you can just go ahead and build. Some have had some spurious "improvements" made in the modern re-drawing, but no one will object. They are in the main Ed Bennett's collection of plans which was for years regarded in the UK as the definitive source for this information. So, if you want a copy of one or more of these, or a brief description of what's on the plan, just send me an email and I'll ping one to your inbox (I just can't guarantee to do it by return). Roger and Roy are in full agreement with this arrangement. Of course, if you want, you can deal with them directly in the normal way.

Ok, so that's dealt with the "mainstream", but I knew that there were good and interesting designs being flown in France, I'd seen them on trips to Viabon and Peter Tolhurst had extensively photographed them and published them on Hippocket. Where were they?

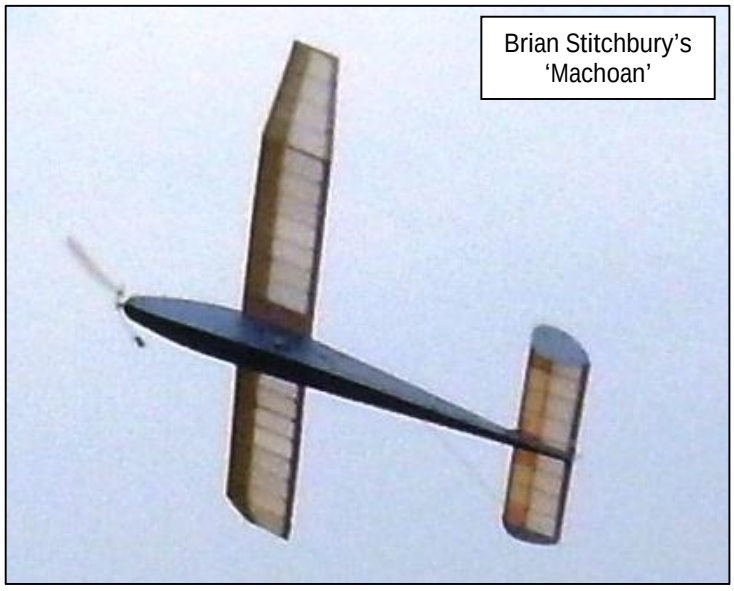
The answer is that a good number of them were "hidden in plain sight" once again in the amazing archive that is the DBHL. Roy "drilled down" (hate that phrase) through the "Plans in Magazines" archive and sent me on Excel all that had CdH in the description, there were a lot!

I'm hoping that my schoolboy French and Google Translate will make some sense out of the half dozen or so models that emerged from this search, some known to me from France and a couple of good-looking prospects that I had never seen before. I hope to start next month with "Jumping II", the amazing forward swept wing coupe by Pierre Marrot, and by way of an aperitif (we're definitely in French mode) here is Pete Tolhurst's photo of Pierre's own Jumping II at Viabon, probably in 2009.

Pierre's 'Jumping II'

Here are a couple more to whet your appetite,


Gerry Ferer's 'Bagatelle'


Brian Stitchbury's 'Machoan'

Inevitably there will be more 'Etienvre's'
This is Jim Paton's

Let's try some others

Gavin Manion

Secretary's Notes for June 2019 - Roger Newman

After all the effort, weather conspired against us for the 1st Middle Wallop meeting at the end of April. Fortunately we were able to broadcast a cancellation message. I did go to the field – just in case anyone hadn't got the news, however no-one turned up & I watched the windsock being blown horizontally with some force. I later learnt that two of the windsocks on the field had been blown away during the day!

A relative lull!

However, there is an upside, as conversations the following week have lead to an alternative date of Sunday 13th October being approved. So we won't lose out – unless of course the weather misbehaves yet again.

This means that our planned June meeting will now have the event schedule originally planned for April. The arrangements for the August meeting remain the same – a Cagnarata day of combined events plus – hopefully some sport flying, depends on how we get on in June. A program for the October meeting has yet to be sorted out. Note that we have provisionally booked to hold the AGM after this meeting, at our normal location in the Museum

Odiham Gala

Surprise – the weather gods were kind to us & some 38 fliers enjoyed an excellent day, courtesy of RAF Odiham. More precisely, through the good efforts of Peter Carter & Alex Woods (our RAF Liaison Officer) who also acted as official photographer & supplied some very good pics. Alex is apparently destined for a transfer to RAF Cosford later this year, so we all wish him well for the future.

A keenly watched coupe flight by Peter Hall

Dave Etherton
in action

Happy Gavin Manion

Retrievals by Tony Shepherd & Ted Horsey


Nick Peppiatt & Northern Arrow


Pete Carter relaxing

Odiham Results

E36:

1st - Chris Redrup (O/D) - 5.46; **2nd** - Ray Elliott (Nig Nog) - 1.32

A1 Glider:

1st - Gavin Manion (Sokal) - 3.57; **2nd** - Bob Taylor (Little Hinney) - 1.22

Combined Vintage 4oz/8oz Wakefield:

1st - Nick Peppiatt (Northern Arrow) - 6.00; **2nd** - Andrew Longhurst (Ying) - 5.53;
3rd - Jim Paton (Ying) - 3.14

Vintage L/W Rubber:

1st - Nick Peppiatt (Pinnochio) - 5.56; **2nd** - Jim Paton (Buckeridge) - 5.40;
3rd - Roy Tiller (Fledgling) - 4.16

Tailless:

1st - Andrew Longhurst (O/D) - 4.54; **2nd** - Ted Challis (O/D) - 4.37;
3rd - Ray Elliott (O/D) - 2.49

Combined CLG/HLG:

1st - Ted Horsey (Heave Ho) - 257 secs; **2nd** - Ken Taylor (?) - 217 secs;
3rd Bob Taylor (?) - 108 secs

Combined Vintage / Classic Glider:

1st - Bob Taylor (Uppat) - 5.44; **2nd** - David Cox (Chief) - 5.26;
3rd - Dave Etherton (Inch Worm) - 4.32

Combined Coupe:

1st - Gavin Manion ((O/D) - 6.00 plus 1.50; **2nd** - Peter Hall (O/D) - 6.00 plus 1.47;
3rd - Don Thomson - 6.00 plus 1.37; **4th** - Jim Paton (Bukin) - 5.46;
5th - Roy Vaughn (O/D) - 5.23; **6th** - Alan Brocklehurst (O/D) 5.12;
7th - Chris Redrup (Et'vre) - 5.10; **8th** - Ken Taylor (O/D) 4.55;
9th - Ted Challis (O/D) - 4.50; **10th** - Ben Hobbs (O/D) 4.05

Ramblings

Missed the Nationals this year due to family commitments but judging by the weather & a string of emails from our Chairman, it seems that a combination of strong breezes & light rain put a damper on proceedings. No doubt will be comments from our esteemed Editor in the next edition.

Had an email from David Parker, who kindly took on a 'Miss Worlds Fair' from the late Peter Shelton's estate. He had a very enjoyable day at the Old Warden meeting in May & sent me a couple of pics – thanks to Andre Bird for these & thanks to David for bringing the model back to life.

A happy man.

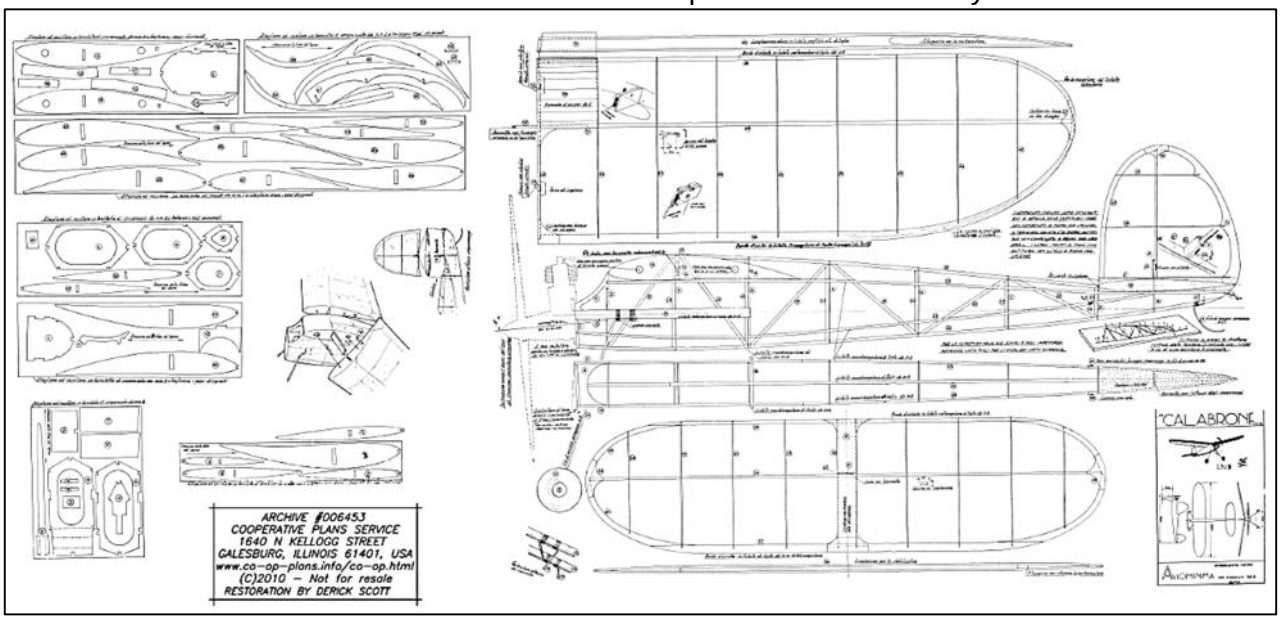
What more could one desire?

Not much else happening as non-modelling events have taken priority of late thus no flying, no building & precious little else.

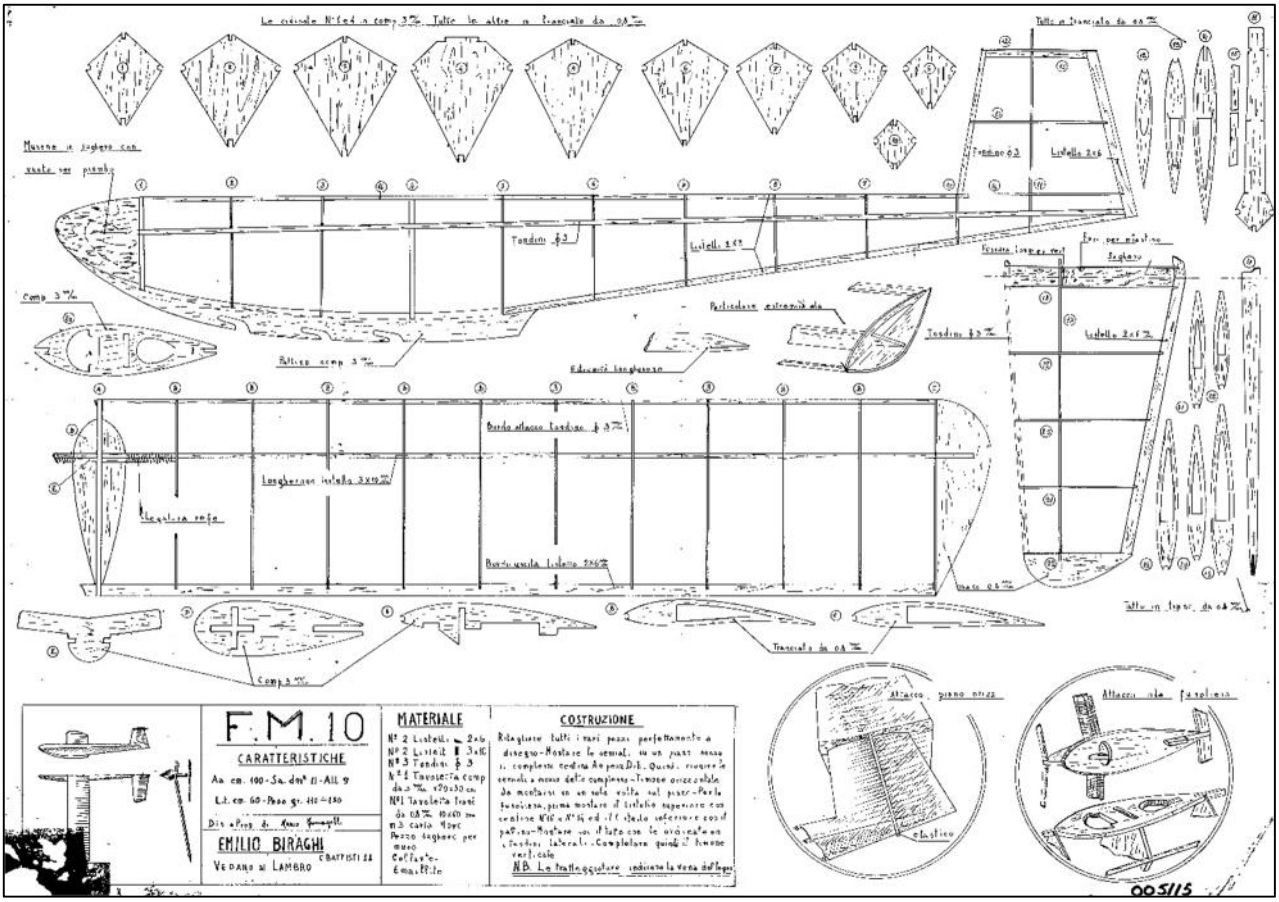
Hopefully members have responded to the BMFA request to make their voices known to the DfT & CAA over the on-going drone saga. Whether such pressure will have any effect is unknown, maybe it will but when the agenda is driven by a combination of political dogma, incompetence & half truths, it is difficult to see a positive outcome.

Plans for the month

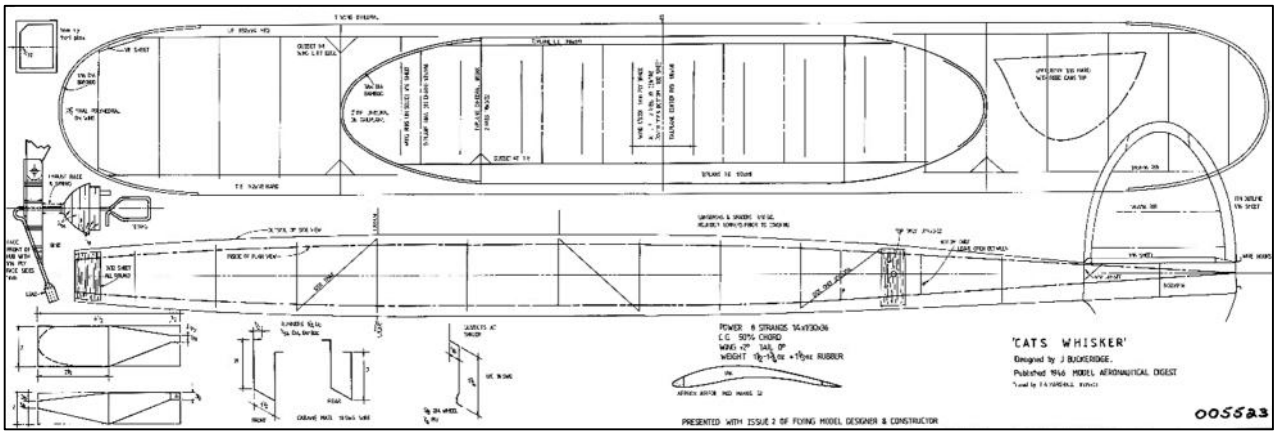
Power: Calebrone – nice little power model from Italy



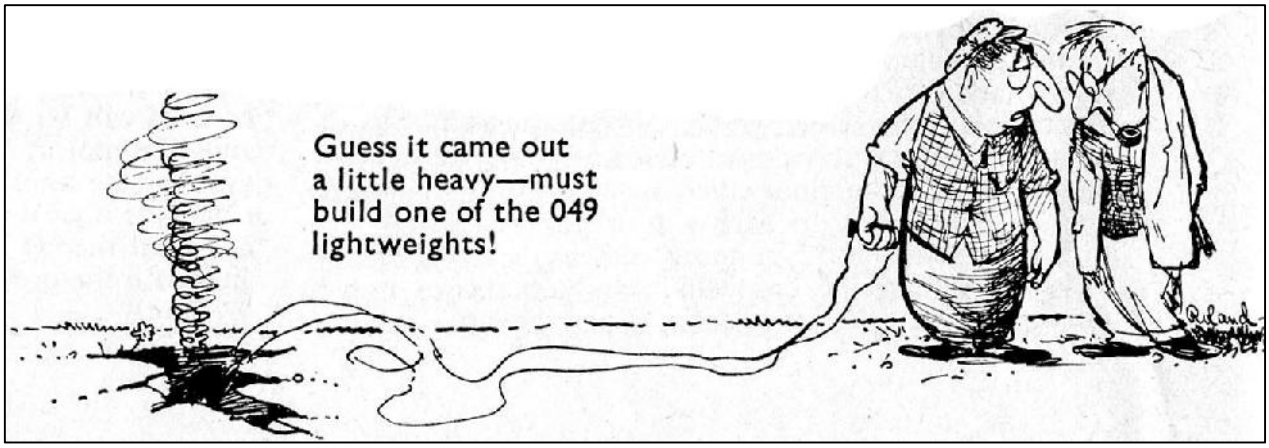
Glider: FM10 – another from Italy



Rubber: Lightweight variation on a theme – Cats Whisker



Roger Newman



Drone Zone Flying Restrictions

For those of you who wish to operate within the law as from 13th March, according to the latest Air Navigation Order amendment, there is a very good interactive map that can be accessed via Airfield restrictions - Dronesafe . You can zoom in anywhere in the UK and the restricted zones are clearly marked.
Accompanying text from this website is as follows:

UK FRZ Map

This map enables UA operators to **remain clear** of the new UA FRZs that are created as part of the latest amendment to the ANO.

It is illegal to fly any drone at any time within these restricted zones unless you have permission from air traffic control at the airport or, if air traffic control is not operational, from the airport itself.

Do have a look – if only to re-assure yourself before breaking the law!

Rules for operation at Middle Wallop in 2019:

SAM1066 has been granted three separate days at Middle Wallop,

Sat.Apl.21st, - Sat.Jun.29th, - Sat.Aug.10th.

The first meeting will be for competitions flying only. If no problems arise from the first meeting, then sports flyers can be included in subsequent meetings subject to their agreement to conditions set out below.
For all models, SAM1066 will apply the 250 gram rule which exempts model aircraft from any proposed drone regulations that encompass aeromodelling. Simply put – this means that all models flown on the field must weigh less than 250 grams.

For ALL models, the fitting & use of an operable DETHERMALISER (DT) is mandatory for all flights – clockwork or (preferably) RDT. The use of a fuse DT is not permitted.

For models entered in competitions.

1. For all comps, the max is limited to 2 minutes or less dependent on conditions prevailing on the day.
2. All competition fly-offs will be subject to the timing procedure known as "DT Flyoff"
3. ie: the flight will to be timed to the ground and a deduction made of two times any overrun of the DT time set by the CD.

For models not entered in competitions.

a. For all flights the DT must be set to operate at, or earlier than the max time set on the day.
b. All models must carry name & address label with full contact details (Name, address, mobile and/or landline number) in a visible position.
c. All models must carry BMFA membership number in a visible position.
d. BMFA membership cards must be shown on entry to the field.
e. Random checks will be carried out during the day. Anyone found to be infringing any of the above rules will be asked to leave the field.
f. Checks will be made throughout the day on wind speed & direction.

Should the wind speed and / or direction change such as to cause potential problems of keeping models on the field, the organisers reserve the right to take appropriate action which may result in a change of location or worst case, in the cessation of flying for the remainder of the day.

Salisbury Plain: - Area 8 - 2019.

The booking of Area 8 for FF use in 2019 has been a bit more protracted, and tenuous than in previous years, but has now been completed.
Every Saturday/Sunday, plus the 3 Bank Holiday Mondays have been allocated for our use, conditional on BMFA representation at the monthly Training Area Allocation Conferences, and final approval on the Friday morning preceding each weekend.
Most of you will be aware that the Area is to be used as a film set at some point and would be out of bounds to us for some time. The latest information received is that 22nd April to 17th May dates would be removed due to filming, but that the dates may change slightly. I guess that nobody really knows what will happen, and that details will be released at the monthly conferences.

For those wishing to sport fly/trim an annual season ticket can be obtained through donna@bmfa.org for £18. The terms and conditions remain the same as in previous years.
You are reminded that the annual licence is paid by the BMFA, and that anyone entering a contest, must pay a site access fee of £6. This applies to club Galas, Centralised, and Decentralised BMFA events. The exception to this is for BMFA Contest Season Ticket holders, who will not be required to pay this for BMFA Centralised events, and the World Cup events.

F1G & Vintage Coupe Events 2019

Date	Venue	F1G	Vint	Organiser	Comments
2nd Dec 2018	North Luffenham	✓*+	✓	gavin.manion84@gmail.com	Grande Coupe de Birmingham. F1G for A/M Trophy, Vintage for Vintage Plate
10th Feb 2019	Area Venues	✓*		BMFA areas	1st Area. F1G (Plugge)
27th April	M Wallop		✓	SAM 1066	Vintage Coupe
5th May	RAF Odiham	✓*	✓		Southern Area Gala Combined Vintage and F1G
27th May	Barkston Heath	✓		BMFA	FF Nationals. F1G Mon 27th for 308 trophy
2nd June	Oxford Portmeadow	✓*		laurencemarks64@googlemail.com Andy Crisp 01865 553800	F1G
29th June	M Wallop		✓	SAM 1066	Vintage Coupe
25th July	Area Venues	✓*		BMFA areas	5th Area
10th Aug	M Wallop		✓	Croydon / SAM1066	Cagnarata Day - Vintage Coupe (H'cap)
18th Aug NB Saturday	Salisbury Plain	✓*		BMFA	Southern Gala
1st Sept	Salisbury Plain	✓*	✓	Crookham	Crookham Gala , Combined Vintage and F1G
28/29th Sept	Salisbury Plain	✓*		BMFA	London Gala, Coupe on 29th
6th Oct NB Saturday	TBC	✓		BMFA	Midland Area Gala
12/13/14th Oct Note Flexi Date	BMFA Buckminster		✓?	FF Gala, John Ashmole 01406 370188	Probable Vintage Coupe
19th Oct	Salisbury Plain	✓*+	✓	Croydon Coupe Day /SAM1066	Coupe Europa. Vintage for the AAA trophy, Team F1G for the FliteHook Trophy
1st Dec	TBC	✓	✓	gavin.manion84@gmail.com	6th Coupe De Birmingham

(*) Qualifying event Southern Coupe League. (+) Qualifying event Eurochallenge F1G 2018/19
All Vintage Coupe events for SAM1066 Trophy, 1st – 3points, 2nd – 2pts, 3rd – 1pt; no points for last place!

Croydon&DMAC 2019 Competitions

CROYDON WAKEFIELD DAY Sunday 21st April, Beaulieu Old Airfield

4oz and 8oz Wakefield, - F1B (in rounds),
Marcus Lightweights (RAFF V, Bazooka, Dinahmite, Supa Dupa).

Start 10am. NB all flyers must have a Beaulieu permit which can be obtained at; http://www.beaulieumodelflying.org.uk/permits.html. cost is £10 seniors, £5 juniors. Entrance to airfield is 2.5 miles west of Beaulieu village on B3055 to Brockenhurst, opposite a small public carpark.

CROYDON COUPE EUROPA Saturday 19th October, Salisbury Plain Area 8.

F1G (in rounds), - Vintage Coupe.
Flitehook trophy for F1G teams.

Start 10am. Entrance to Area 8 is 2 miles west of Shrewton on B390 to Chittern.

For further information on events please contact:
Ray Elliott; tel 020 8997 7745, email ray.elliott8@btinternet.com.

Cocklebarrow Farm Vintage R/C Meetings 2019

7 July - 18 August - 29 September

Signposted from Aldsworth Glos.
on the B4425 between Cirencester/Burford
and off the A40 between Northleach and Burford
[follow SAM 35 signs].
All types of R/C up to 1969, sport flying no competitions.
BMFA insurance essential [A certs. not required]

Contact Tony Tomlin
Tel: 02086413505 email: pjt2.alt2@btinternet.com

DREAMING SPIRES FREE-FLIGHT RALLY-2019

DATE:- 2nd JUNE 2019 STARTING AT 10a.m.
VENUE:- PORT MEADOW, WOLVERCOTE, OXFORD
CLASSES:-
FIG (COUPE d'HIVER) } 5 FLIGHTS
FIH (A/1 GLIDER) }
MINI VINTAGE RUBBER (Max Span 34") }
VINTAGE/CLASSIC GLIDER (Comb) } 3 FLIGHTS
HI-START GLIDER }
E30/P30/CO_2 (Combined) }
HLG/CATAPULT GLIDER (Comb) ~ 7 FLIGHTS
ALL TOWLINES 50 metres

FREE-FLIGHT SCALE TO 'DREAMING SPIRES' RULES. NO DOCUMENTATION. STATIC JUDGING QUALITY OF FLIGHT etc. I/C motors up to 1·5 c.c. allowed.

ALL FLIERS MUST BE INSURED

NO STREAMERS ON POLES, NO THERMISTORS, NO BUBBLES NO I/C POWERED MODELS TO BE FLOWN OUTSIDE OF THE SCALE COMPETITION.

CONTACTS:-

ANDREW CRISP
4 GROVE ST.
OXFORD OX2 7JT
Tel: 01865 553800

LAURENCE MARKS
laurencemarks64@googlemail.com

Peterborough Flying Aces Nationals *SATURDAY* 31st August 2019
at Ferry Meadows, Nene Park, Peterborough PE2 5UU .
Competitions 10.00 to 16.15

3 NEW EVENTS FOR 2019!

Vintage Model Company "PILOT" Rubber Duration. Senior and Junior Classes Plus Fly Off - Best Senior versus Best Junior. **Note!** Intending competitors may purchase the kit from V.M.C. for only £20 by quoting the code "acesfly". Model must use kit prop. *Note! We would like to see that any junior has had a hand somewhere in the building of the model.*

Open E20 Electric Duration Max length and span, 20 inches. Any motor, battery and timer. Max motor run 8 secs. DT and RDT permitted. Certificate for best "Ferry 500" Restricted Class model. (for rules see www.peterboroughmfc.org).

Open Rubber Scale. At last! a flight profile judged class for scale rubber models that are not necessarily "Kit" models.

SCALE MODELS - NOTE! ALL scale classes, except MASEFIELD Rubber Scale are judged for flight profile and realism by the Flight Judges. They may ask for some verification, so please have the plan or, if scratch built, the 3 view available on the field .

Masefield Rubber Scale- Any scale rubber model, to which **Masefield** type bonuses will be applied. **No flight judging,** just duration plus bonuses. Present model to control for processing.

Open CO2/ Electric/ Rubber Scale Judged for flight profile and realism. Any C02 motor/tank permitted. See note re verification

Kit Scale ANY rubber powered kit model up to 36"span. Judged for flight profile and realism. See note re verification

Jetex/Rapier Authentic Scale Judged for flight profile and realism. See note re verification

EDF Authentic Scale Judged for flight profile and realism. See note re verification

Jetex/ Rapier Profile Scale Judged for flight profile and realism See note re verification

P-20. 20" span and length. Max 8" plastic prop, 6 gram motors (may be external) .

Cloud Tramp 5 flights NO MAX. (best and worst times discarded, and the remaining 3 times totalled. Note! If fewer than 5 flights logged the best and worst are still discarded.

Tailless Rubber Duration: Max span 30" (tip to tip). Max rubber 10gm, Prop 9.5" max dia. commercial plastic. (may be modified.) No in flight movable surfaces, except DT)

Frog"Senior" Rubber Duration (for plan see http://www.houseoffrog.co.uk)

Rubber Ratio: NO MAX. Any rubber powered model with wing span 15"- 25" (tip to tip). (KK" Elf "is eligible). Flight score is total time in secs (for 3 flights) divided by span inches.

Catapult Glider: Catapult, max 2 grams rubber on a 6" max handle. This equates to a 280mm length of 3/16" rubber tied into a single (140mm) loop. Any model permitted.

TableTop Precision Precision flight time Rubber event - models must Rise off Table.

36 inch Hi-Start Glider: Any glider up to 36"span launched by the supplied "Hi start" bungee. Includes a prize for best performance of a **SCALE** glider (proof of scale reqd.)

Best Unorthodox: Must be seen to fly by nominated Scale Flight judge)

Rubber Scramble: 20 minutes, use any rubber powered model that qualifies for one of the above events. Competitor must both wind and launch, from box, but may use a retriever.

Flying Swarm Mass launch for any non electric model that is eligible for one of the day's competitions. Last model down is the winner.

Young Flying Aces: Prize for Best Junior: Scrolls for top 3 (Jun. 17yrs or under on 31/08/19)

Prizes for 1st place: **Scrolls** for 1st, 2nd and 3rd:

Bumper Raffle: Note: this is a Free Flight event: No Radio Control: Proof of Insurance required for all flyers.

Revel in the special atmosphere created at this unique event: Discounted parking. Toilets, Café, and Park Visitors Centre.

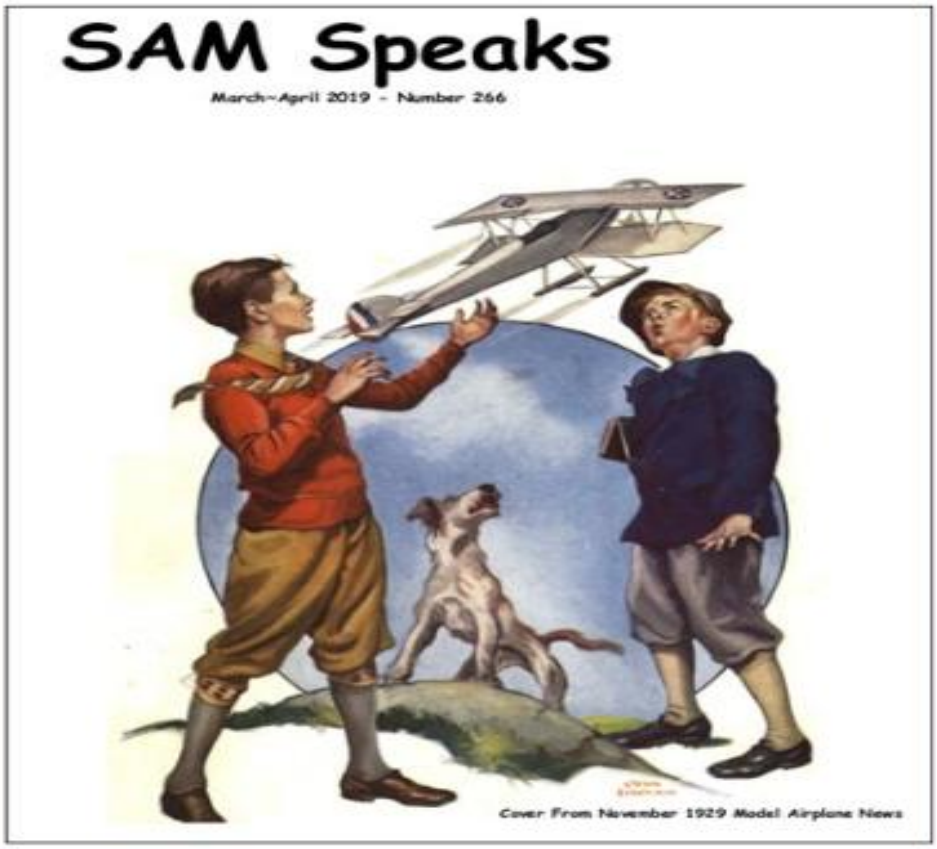
Contact Brian Waterland on 01778 343722 (07717461000 on the day).

See also Peterborough MFC Website at www.peterboroughmfc.org

SAM Speaks USA.

This bi monthly emagazine can be obtained from the Society of Antique Modellers. Web site http://www.antiquemodeler.org/ for the modest cost of $30 pa.

Quite a few UK people already belong, but a few more might help our Parent Body!



THE 2019 FREE FLIGHT FORUM REPORT

It's a Bumper Issue

The Free Flight Forum Report is now in its thirty-fourth year and it's the biggest yet, with no less than 17 papers, covering a vast range of the topics that make free-flight so fascinating.

Only Joules and Forces - Peter Watson;
Classic 1/2A Models - Simon Dixon;
Trimming the Sopwith Snipe - Mike Smith;
Russell Strips - Russell Peers;
Testing June 2016 Tan Super Sport in April 2017 - Tim Chant;
Developments in Carbon Wing Construction - Stuart Darmon;
Buckminster – We've Got It; How Can We Use It?
- Gavin Manion/Stuart Darmon;
The Management of Models - Mike Woodhouse;
Combined BMFA Rubber and CdH (F1G) - Phil Ball;
Drone Legislation and Free Flight - Dave Phipps;
The Rate of Climb of Model Aircraft - Dr. John Gibbings;
A Review of Contemporary FAI Space Modelling - Stuart Lodge;
GPS versus Radio Trackers - Mike Woodhouse;
About Time - Chris Edge;
"W" Style Geodetic Ribbing for Model Aircraft and Microlights
- Denis Oglesby;
Flat Plates, Cambered Plates and Coupe Aerofoils
- Alan Brocklehurst;
FAI Free Flight Since the BoM - Stuart Darmon.

The UK price is £13.00 including postage; to Europe it's £15 and everywhere else £17. Sales of the Forum Reports help to defray the heavy expenses of those representing Great Britain at World and European Free-Flight Championships. Cheques should be payable to 'BMFA F/F Team Support Fund' in pounds sterling, drawn on a bank with a UK branch; you may also order by credit card, which is a lot easier (and cheaper).

Copies are available from : Martin Dilly, 20, Links Road, West Wickham, Kent, BR4 OQW
or by phone: (44) + (0)20-8777-5533, or
by e-mail to martindilly20@gmail.com .

L'AQUILONE SAM 2001

TOMBOY RALLY INTERNATIONAL POSTAL CONTEST 01/07/2019 – 30/06/2020

We wish to present this competition to all the lovers of this nice model with the only aim of having fun in a postal contest which is organized to provide some fun flying together or at the same time as are all postal contests. The Tomboy Rally wants to prove the performance of this model along with the ability of the builder and pilot, without reaching the peak agonism of usual contests and only wishing to fly the model having fun in a relaxed manner. After having carried out some tests we have decided to admit the use of i.c. engines and electric motors trying to reduce the gap between them.

Model

- The 36" or 44" wing span (as per plan Aeromodeller) and 48" (as per Boddington plan or 36 " scaled up) models are admitted;
- Models may be fitted with floats as per plan (scaled-up for 48" version);
- no minimum weight;
- reinforcement or lightening of the structure with respect of the basic outline of the original model are admitted;
- materials to be used are those found on the plan;
- plastic covering in place of tissue, silk or other is admitted.
- More than one person can use same model;
- Same model can flight in L.&. or float version;
- Lone fliers can self launch and time

Engine/motors

I.C. engines are admitted within the following limits: **36"-44" wingspan:** _Any engine 1 cc. max, Fuel tank : 3 cc.
R/C carburettor is admitted.

Electric Motors:
Any electric motor is admitted with direct drive

The engine cannot be stopped and started again: the motor must run continually without interruptions till the end of the battery charge or competitor's decision. No folding prop is admitted; if a folding prop is used the blades must be held open with a rubber band;
freely assembled admitted batteries:
-450 Man 2 cell LiPo; separated batteries pack for Rx alimentation is allowed.

48" Wingspan;

I.C. Engines: Any engine with 2. 5 cc. maximum displacement; Fuel tank : 6 cc. R/C carburettor is admitted.
Electric Motors: Any electric motor is admitted with direct drive freely assembled admitted batteries: -500 Mah 3 cell LiPo separated batteries pack for Rx alimentation is allowed

The engine cannot be stopped and started again: the motor must run continually without interruptions till the end of the battery charge or competitor's decision. No folding prop is admitted; if a folding prop is used the blades must be held open with a rubber band;

Flights and results

Each competitor may fly as many flights as wished during the admitted period but only the best flight will be considered for the final result. Hand launches are admitted. The flight time start when the model is released or takes off. The flight time ends when the model lands or hits a fixed obstacle. In case the model flies out of sight the timekeeper will time for 10 seconds after losing sight of the model . Timing will continue if model is seen again or stopped after 10" deducting this time from the total time of the flight.

Awards :

A diploma for all competitors and prizes for the first three in each version rank. Special prize for best flight in float version.

Results

Results, address, photos and technical specification about model must be forwarded to the Organization within the 15th June 2018 to Curzio Santoni (cusanton@tin.it) or to Sianf ranco Lusso (gfl@orange.fr). Many pleasant flights and happy landings to ALL!!!!

Special Prize Vic Smeed

SAM 2001 have scheduled an extra Diploma that will be awarded to the best flight in Tomboy floatplane version (36".44" or 48") taking off from water. The Editor will send to the winner a Diploma signed By SAM 2001 President and a bottle of special Italian Wine to drink to Vic Smeed! Good ROW and flight

Special Prize David Baker

The 2012 was the 5th edition of SAM 2001 Tomboy Rally and we have scheduled a special prize for the three best flights obtained with 36" Tomboy F/F. Only engines diesel max 0.75 c.c. shall be used. The other rules are the same for 36" or 44" wingspan type. It is possible to use an R/C Tomboy, however, being this a free-flight contest, the time must be stopped when transmitter is used, since the aircraft model should fly freely from any control from the ground. Good thermals

Waltham Chase Aeromodellers

INDOOR F/F MEETINGS

Waltham Chase Aeromodellers, in association with South Hants Indoor Flyers, are pleased to announce the continuation of the Indoor F/F Meetings held at the Main Hall at:

Wickham Community Centre, Mill Lane, Wickham, Hants PO17 5AL

These meetings will be held on the following dates:
Meetings will run from 7.00 p.m. to 10.00 p.m. on Tuesdays in the Main Hall

2018

2nd Oct - 6th Nov - 4th Dec

2019

8th Jan - 5th Feb - 5th Mar - 2nd Apl
7th May - 4th Jun - 2nd Jul

The hall is particularly suitable for indoor free flight models of all types, with a ceiling free of obstructions.
Tables and chairs will be available in the hall, the organisers are always grateful for assistance with moving furniture. A hot drinks machine is available on site.

Admission to the meetings will be **£5** for Senior fliers, **£1** for Junior fliers and **£1** for spectators, whilst accompanied children will be admitted free.

Fliers will be required to show proof of insurance.

No R/C models may be flown at these events.

Flitehook, who carry a large stock of indoor models and accessories, will attend many of the meetings.

Waltham Chase Aeromodellers welcome all indoor F/F fliers to these events.

For further details please contact:

Alan Wallington, "Wrenbeck", Bull Lane, Waltham Chase, Southampton, Hants.
(Tel. 01489 895157) (e-mail: alan@wcaero.co.uk)

or see our web site: www.wcaero.co.uk

FLITEHOOK

Indoor Free Flight Meetings

West Totton Centre,
Hazel Farm Road,
Totton, Southampton.
SO40 8WU

Contact: Tel. 02380 861541
E-mail flitehook@talktalk.net

Café on Site

Flyers £8
Juniors & Spectators Free
Flyers must be BMFA Members

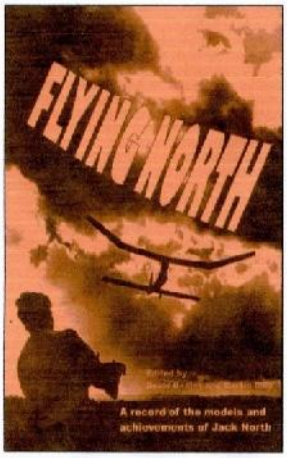
Sundays 10.00a.m. to 4.00p.m.

2019

8th Sep: 13th Oct: 10th Nov: 8th Dec: 29th Dec:

2020

12th Jan: 9th Feb: 8th Mar: 12th Apl:

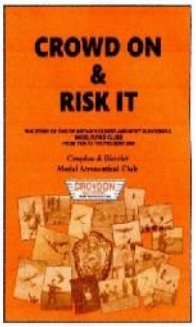


Flying North is a 163 page book covering the model flying career of Jack North, and including 23 previously un-published plans of his aircraft. Access to Jack's drawings and notes dating back to 1938 means that there are a number of designs in the book likely to be tempting to the nostalgia-minded.

Contact: Martin Dilly on 020 8777 5533 or write to: 20, Links road, West Wickham. Kent BR4 0QW or e-mail: martindilly20@gmail.com

The price in the UK is £18; airmail to Europe £20 or to anywhere else £22. Cheques should be payable to BMFA F/F Team Support Fund, in pounds sterling only, and drawn off a bank with a branch in the UK, you may also order by credit card, all proceeds help to fund the expenses of those representing Great Britain at World and European FF Championships

CROWD ON & RISK IT



This is the story of one of Britain's oldest and most successful model flying clubs, Croydon & District MAC, from 1936 onwards. The club contributed much to aviation, both model and full-size, and the late Keith Miller compiled its history till around 1960. Now, this up-dated 73 page version of the club's history, copiously illustrated with many previously unpublished photos, takes the Croydon saga up to the present. Contributions by past and present members vividly capture the atmosphere of the heyday of free-flight, with almost weekly contests at Chobham or Bassingbourn.

53 designs by Croydon members have been published in the model press and 24 of its members have represented Great Britain in World and European Championship teams. Several have gone on to notable careers in aerospace. Crowd On & Risk It covers all this and more.

Just £8 by PayPal or cheque.

Contact Martin Dilly (martindilly20@gmail.com), phone/fax 020 8777 5533 or write to 20, Links Road, West Wickham, Kent BR4 0QW for your copy.

DILLY JAP IS BACK

After a bit of a gap since the final 5 yards came off my last bulk roll of Japanese tissue several people have asked if it will be available again, so I've just received my sixth roll. Doing the sums, that means that there's now just under a mile of Dilly Jap covering models all over the world.

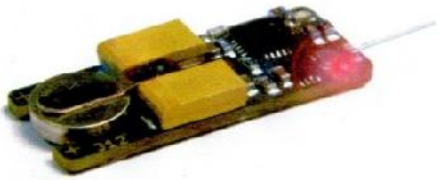
Anyhow, since the last roll came in 2015, the price is slightly higher (maybe as a result of you-know-what …xit and its effect on sterling), but it's still only £13 for a five yard roll a yard wide.

To re-cap on the details, it's 12 gm/M^2 and has a strong unidirectional grain. It's white and low absorbency, so remains very light when doped. For those of you old enough to remember, it's identical to the Harry York tissue sold at his South London model shop in the 1950s. I normally sell it in rolls at contests, as it's a shame to fold it for mailing, but I can do that if you prefer.

I'm on 0208-7775533 or e-mail: martindilly20@gmail.com

BUGS

Free Flight Model Tracker



£50.00 - each including 6 batteries
Ready to use radio tracker
Suitable for most handheld receivers
Powered by one 312 ZincAir hearing aid battery
27mm long, 11mm wide, 5mm thick 3 grams including battery
Run time around 10 days
Red LED flashes when transmitting
Available in any frequency from 140MHz to 980MHz
Supplied in protective heatshrink
Very quick delivery, often next day
On sale at
http://www.leobodnar.com/shop/index.php?products_id=217
or contact Peter Brown 07871 459291 for options

Provisional Events Calendar 2019

With competitions for Vintage and/or Classic models

February 10th	Sunday	BMFA 1st Area Competitions
March 3rd	Sunday	BMFA 2nd Area Competitions
March 24th	Sunday	BMFA 3rd Area Competitions
April 19th	Friday	Northern Gala, Barkston Heath
April 21st	Sunday	Croydon Wake. Day & **SAM1066**, Beaulieu
April 27th	Saturday	**SAM1066**, Middle Wallop (*Cancelled)*
May 5th	Sunday	Southern Area Gala 2018/9 Odiham
May 25th	Saturday	BMFA Free-flight Nats, Barkston Heath
May 26th	Sunday	BMFA Free-flight Nats, Barkston Heath
May 27th	Monday	BMFA Free-flight Nats, Barkston Heath
June 9th	Sunday	BMFA 4th Area Competitions
June 29th	Saturday	**SAM1066**, Middle Wallop
July 21st	Sunday	BMFA 5th Area Competitions
July 27th/28th	Saturday/Sunday	East Anglian Gala, Sculthorpe
August 10th	Saturday	Cagnarata day, Croydon/**1066** Mid. Wallop
August 17th	Saturday	Southern Gala, Salisbury Plain
September 1st	Sunday	Crookham Gala, Salisbury Plain
September 15th	Sunday	BMFA 6th Area Competitions
September 22nd	Sunday	BMFA 7th Area Competitions
September 28th/29th	Sat/Sunday	London Gala, Salisbury Plain
October 6th	Sunday	BMFA 8th Area Competitions
October 12th	Saturday	Buckminster Free-Flight Gala
October 13th	Sunday	**SAM1066, Middle Wallop**
October 13th	Sunday	Buckminster Free-Flight Gala
October 14th	Monday	Buckminster Free-Flight Gala
October 19th	Saturday	Croydon Coupe Day/**1066**, Salisbury Plain
October 26th	Saturday	Midland Gala, Barkston Heath

Please check before travelling to any of these events.
Access to MOD property can be withdrawn at very short notice!

For up-to-date details of SAM 1066 events at Salisbury Plain check the Website – www.SAM1066.org

For up-to-date details of all BMFA Free Flight events check the websites www.freeflightuk.org **or** www.BMFA.org

For up-to-date details of SAM 35 events refer to SAM SPEAKS or check the website www.SAM35.org

Useful Websites

SAM 1066	-	www.sam1066.org
Flitehook, John & Pauline	-	www.flitehook.net
Mike Woodhouse	-	www.freeflightsupplies.co.uk
BMFA Free Flight Committee	-	www.freeflight.bmfa.org/
BMFA	-	www.bmfa.org
BMFA Southern Area	-	www.sabmfa.org.uk
SAM 35	-	www.sam35.org
National Free Flight Society (USA)	-	www.freeflight.org
Ray Alban	-	www.vintagemodelairplane.com
David Lloyd-Jones	-	www.magazinesandbooks.co.uk
Belair Kits	-	www.belairkits.com
Wessex Aeromodellers	-	www.wessexaml.co.uk
US SAM website	-	www.antiquemodeler.org
Peterborough MFC	-	www.peterboroughmfc.org
Outerzone -free plans	-	www.outerzone.co.uk
Vintage Radio Control	-	www.norcim-rc.club
Model Flying New Zealand	-	www.modelflyingnz.org
Raynes Park MAC	-	www.raynesparkmac.co.nf
Sweden, Patrik Gertsson	-	www.modellvänner.se

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Are You Getting Yours? - Membership Secretary

As most of you know, we send out an email each month letting you know about the posting of the latest edition of the *New Clarion* on the website. Invariably, a few emails get bounced back, so if you're suddenly not hearing from us, could it be you've changed your email address and not told us?

To get back on track, email membership@sam1066.org to let us know your new cyber address

(snailmail address too, if that's changed as well).

P.S.

I always need articles/letters/anecdotes to keep the New Clarion going, please pen at least one piece. I can handle any media down to hand written if that's where you're at. Pictures can be jpeg or photo's or scans of photos. I just want your input. Members really are interested in your experiences even though you may think them insignificant.

If I fail to use any of your submissions it will be due to an oversight, please feel free to advise and/or chastise

Your editor *John Andrews*