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Editorial

Stop Press: Easter Meeting Cancelled

It must be reported that our secretary Roger Newman spent many hours with the Authorities at Wallop then took a trip to our chairman's house to appraise John T of their revised requirements. The decision to cancel was felt to be in the best interests of our efforts to try to ensure that we will eventually be able to forge mutual agreements that will enable us to continue flying at Wallop into the future.

The efforts on the part of the Authorities is much appreciated as they are anxious to reach agreement with us so that all can be comfortable for the future.

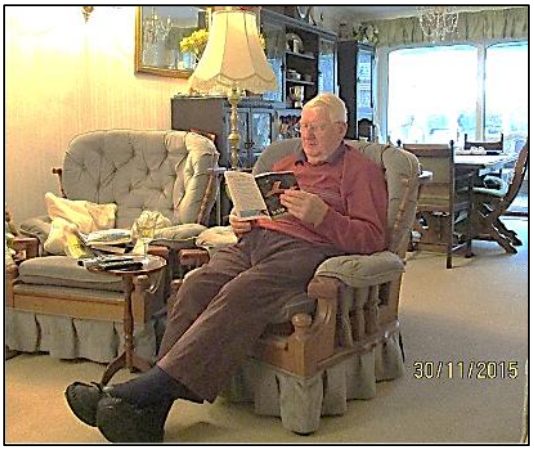
We all owe a debt of gratitude to Roger our secretary for the significant amount of his time that he puts in to keep the Authorities at Wallop on side, it is no mean task and for my money he deserves a medal as big as a frying pan.

A statement by Mike Woodhouse made at 'The future of free flight' conference.

"The Free Flight Nationals <u>will</u> take place at Barkston on May 28/29/30th".

Peter Michel is concerned about omissions from his article 'Thoughts on Wallop Contests' on Page 15 in the last NC. He omitted the '**DT**' when he referred to fly-offs but I for one automatically read it as DT Fly-offs, as I feel most would. However for the record:

'The current"fly-off" rule to be applied to all contest flights' Should read, the current "**DT** fly-off" rule to be applied to all flights. the second paragraph should also read, much-disliked **DT** fly-off rule



The effort of bringing this magazine of ours together each month weighs heavily on your editor, as can been seen in the accompanying picture. The tense body and furrowed brow are indications of the turmoil within as the end of each month draws ever nearer, and the never ending worried wait for content, which inevitably arrives with precious little time to embody into the magazine, takes its toll. The constant search for vintage magazine articles, brings discomfort to the ancient eyes that once, unaided, could spot a Wakefield at a thousand yards but now require the assistance of expensive lenses and on the flying field the services of Rachel with binoculars in hand. If you swallow that lot your dafter than I am. By the way I've bought her a nice new bright yellow stopwatch, the old one, watch that is, did not seem to have a maximum left in it.

I digressed did I not, unusual in my editorials but the picture came up on the computer screen as it went into idle and I could not resist a bit of Pylonius style literary comment.

Back to business, we have brief reports on the BMFA Free Flight Conference by myself and our Chairman. I have in hand a detailed report supplied by Mike Woodhouse which is far too large to easily publish but it has been put on the website for downloading.

My editorial plea for articles last month brought immediate responses, Nick Peppiatt sent an excellent report on the Crawley indoor meeting and I hope this will encourage others to give writing a whirl and report on their own meetings. From the other side of the world, Jim Paton put fingers to keyboard to report on his globe-trotting exploits.

David Lovegrove supplied an exchange of emails which I found interesting so I dug out a few relevant pictures and attempted to put into context.

Editor

Free Flight Conference - Editor

'The future of free flight' meeting, to give it its correct title, took place at the Coventry Gliding Club near Husbands Bosworth in the Midlands on the Sunday 31st of January 2016. The meeting was far more informative than your editor imagined it could be and the idea behind it seemed to be to identify FF problems in more detail and offer varied solutions in order to promote discussion amongst the membership. There was no attempt by the FF Tech Committee to dictate the way forward, more to collect thoughts and to take them away and prepare a prioritised action plan for the future. To this end anyone with any ideas should communicate through Chris Strachan and the FF Tech Committee.

Members of the SAM1066 committee were present, namely Chairman John Thompson and Secretary Roger Newman, also there were your Editor and his better half.

The attendance was good, some 70 or so modellers filled the hall and I think it is fair to say that the majority were competition modellers.

The BMFA were represented by the chairman of the board of directors Chris Moynihan, the chief executive Dave Phipps, and the free flight technical committee.

There is no way I can relate all the information that was imparted by the speakers nor can I effectively convey all the discussion points put forward by the floor during the general discussion period after lunch. Our chairman does a better job in his report following this one of mine.

Mike Woodhouse compered the whole affair, which was backed up by Power Point presentations, and after his initial welcoming preamble he outlined the problems facing FF today, diminishing flying sites, restrictions imposed on existing sites etc. etc.

He then introduced the BMFA chief executive Dave Phipps who presented the BMFA perspective on the problems of free flight. He gave an in depth explanation of the BMFA's involvement with the various legislative bodies both in the UK and the EU. Your editor, for one, now has an awareness of the amount of work that the executive do on our behalf and the often voiced opinion that the BMFA does little for the membership is just not valid.

Following on from Dave Phipps, Chris Strachan gave a potted history of the free flight development from its early days to the modern day and Trevor Gray then addressed the meeting offering thoughts on various options to limit performance where necessary to keep models within the boundaries of venues. The tech committee in turn then spoke on various aspects, covering model specification, adaption, event organisation, FAI competition, flying site acquisition and retention and John Jacomb from Space Modelling gave a detailed discourse on their parallel problems and the actions they were taking. Mike Woodhouse then attempted to sum up the morning and we broke for lunch, on the BMFA.

For the afternoon session the speakers faced the meeting and the floor was opened for questions and suggestions. The next two hours or so was full of lively debate with little controversy and the FF tech committee must have taken away enough feedback to keep them busy disseminating the data for more than one meeting.

The only detail I will report is that it appears that FF modellers may be contravening Air Navigation regulations in that there is a requirement to keep models within sight and have means of avoiding collisions with other aircraft. There are other considerations such as altitude weight etc. but the situation is not clear. Complementing this requirement is the military station commanders who, with ever tightening security requirements, are taking more interest in the detail of activities that they are sanctioning on their airfields. The flying of an uncontrolled aircraft in their airspace is not acceptable to them and is leading to a requirement that a means of terminating a models flight on demand must be in place. There is only one way to achieve this and remain free flight and that is to have Radio Controlled DT. A quick show of hands at the meeting indicated that well over 50% of those present were already using RDT.

I feel that it is inevitable that within two years it will be mandatory to fly with RDT. There may well be exceptions for certain types of model but in truth any model that is capable of flight can be subject to thermal flyaway.

I feel the meeting was a worthwhile exercise and although the future of free flight may not be exactly what we would like I am sure it will continue for some time yet.

Editor

There follows a report by our chairman with more details.

Free Flight Conference - John Thompson

The following comments, not inclusive of all discussions will give a flavour of the meeting.

A copy of the agenda is attached. Some 70 people attended. It was a very early start for many but I did not see anyone nod off, there again maybe I nodded off when they did! One point came to mind, similarly with the SAM 1066EGM, where I found shouting did not help really, when more than say 40 people are in attendance some form of voice amplification should be considered. It is very hard to hear at the back of such meetings.

It was pointed out that with Air Navigation Orders etc. that what one does should be legal and not harmful to others. Models should always be kept in sight, a question was raised as to whether the use of binoculars counted for this purpose?

The BMFA is in contact or indeed part of the committees dealing with the Authorities looking after the interests of all aeromodellers. Many of the new proposed Drone rules, which consider FF models the same as Drones, ie unmanned flying vehicles, hopefully will be clarified in the future. This may well take some time as it is not really known whether global, EU, or national rules will prevail. At the moment any model of less than 250 grms is not considered harmful and would not fall within the rules. This weight limit might possibly be increased.

The BMFA contact with the Military Aviation Authority MAA, who basically control our flying at Salisbury and MW, is work in progress with this relatively new body.
In any negotiation with land owners or the MOD, control of models is a vital point in their view, especially as to ensure that models stay within the confines of the area that we are permitted to fly in. No more unlimited fly offs etc. It is just not acceptable any longer if we wish to retain the use of existing sites or obtain new sites.

To this end it was pretty unanimous that RDT will be made compulsory for any BMFA events from 2017. For the smaller CLG until systems are readily available say 2018. This then of course begs the question that Sports models must, to ensure retention of the site follow suite at some time. It is no use saying they cannot be fitted etc, that's just too bad and is not acceptable.

New rules for contest models with reduced max possibilities need to be explored, some suggestions were made. The thorny question of DT fly offs was mentioned as of yet there is no real consensus on how this can be accomplished, but a solution will have to found very shortly. In general it can be said that there are only two sites that can accomplish the use of FAI models. Salisbury and Sculthorpe and even they will have to restrict the max dependant on weather to meet the "keep it on the island" rule.

A very enthusiastic John Jacob of Space modelling gave a rundown of their activities, their field problems being identical to ours. He highlighted their education programme for youngsters which is well received. Possibly space models relate to the youngsters of today just as the RAFF V did to many of us 70 years ago?

Brian Lever gave a run-down of the popular Peterborough rubber ratio class max span 25 inches which is run in the confined public field they use. Their small field event can attract up to 150 entries for the various classes they run.

The FFTC will be pulling together all the comments made at the meeting and further comments will be requested, and published so that a format can be devised for use say for next year, it is considered important that current models are not made redundant, otherwise many would drop out. Current models may require reduced rubber, shorter tow lines. Power models shorter runs. Possibly contests could be run early in the morning and late in the evening to try to avoid thermals and fly-aways. This could of course prove the death knell of ic power models, which in any case on some sites are not really approved of any way.

The case was made by the FFTC that help was needed to make this all happen on the actual contest field, gate controllers, people to ensure that people used DT's, did not fly safely etc. and other similar matters. Volunteers are a bit thin on the ground in this respect but it has to be said that it is no longer really acceptable that some folk avoid their turn at doing such jobs because they want to fly. One will have to give up some days of flying and actually do some of these jobs if we are to keep the road show going.
There are still many ideas to be explored so that hopefully we can continue with FF albeit in a slightly different style.

I believe that the meeting was unanimous that things will have to change and that we are in the hands of modern society and that MOD rules are not only for guidance but must be followed explicitly. It is the idea that we have no control that is the most damaging challenge.

I thank the BMFA folk for pursuing this cause to ensure FF does have a future.

John Thompson

Thorns Indoors - John Andrews

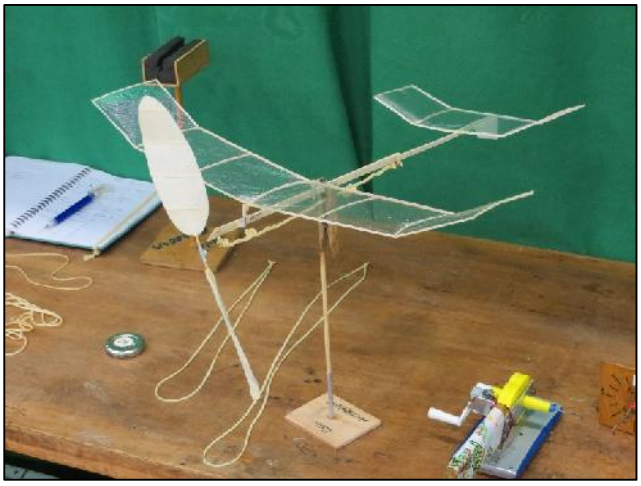
Saturday 6th Feb saw Rachel and I on our first outing to the Thorns Leisure Centre, Stourbridge to the South Birmingham indoor meeting. For the record it's about a 60 mile journey on three motorways for us, about 1¼ hours.

My action plan for the day was, once again, to check fly the models from my bits box to tighten up the flying circle diameters ready for my 'cub pack' flying demo in their new Scout Hut. I have yet to make contact with the pack leader to fix a date.

The last outing to Sneyd saw my Wilco Foodbag special somewhat reduced to a mangled mess but on investigation back in the workshop, it only needed half a wing, a new plug-in boom joint and a few spots of cyno here and there to bring back to working order.

The rejuvenated model was first up for re-trimming and flew straight off the bat. Third flight was 2¾ mins or so, so it was back in the box before my nemesis Tom the destroyer could get at it. Mike Brown suggested that I put bull-eyes on it to give Tom something to aim at.

Next up the bitsa EZB, now with the razor plane shavings propeller fitted with thinner wire shaft. Once again, straight off the bat, no re-trimming required. Looked a bit under-elevated at full turns but there should be no problems when under-wound in the scout hut.



Above sees the model at rest with alternative motors if needed and also motor winding in process. The .080 wide strip I selected was far too powerful and the model was soon up amongst the lights and beams bouncing around off everything without getting caught or deflected into the walls, luck was on my side. When the model was down, it was back in the box quick and a mental note made to drop down to .070 for the cubs and the future.

A flight or two with the ancient but reliable Polystyrene Hanger Rat completed my exercises for the day.

The 15 minute slots for lightweight RC saw an increase in numbers, even Derek Richards the next Indoor International Team Manager was on hand with a miniature drone fizzing about.

I understand that there are now clubs formed and they are running circuit racing for very swift versions of these troublesome objects.

Good luck to them as they are now an integral part of model flying but internationally there is concern and drones are the subject of possible new legislation some, if not all, of which will automatically apply to all model aircraft flying. The BMFA officers are monitoring and are part of the negotiations and will be looking after the interests of model flyers in general.

There were a few interesting moments when some of the 'not so RC controlled' models found themselves hanging in netting like many continental birds do. However organiser Colin Shepherd was on hand with pole for rescue.

It always necessary to clear models off the tables below stuck models and in this instance Rachel took care of Eric Hawthorn's 'Gyminnie Cricket', incidentally he was still struggling to get up to the 1½ minute mark.

Alan Price was also airing his Cricket but a strong contact with the roof beams and subsequent decent left him with repair work. Alan had better luck with an old RC model he had, although unused for a few years, the battery charged up and he was well up and away in the RC slot.

His rubber powered SE5A was also performing well so he was having a reasonable afternoon all round.

I'm finding action shots a bit iffy with both of the cameras we are now using and I cannot find the previous one that I had that had an action picture setting. Above is the best of a bad lot.

John Andrews

(extract from Model Aircraft June 1959)

I.C. Era

I don't pretend to understand American trade jargon, so what is meant by "the age group encompassing a 22 million segment of the American Public" apart from 22 million eager hands reaching into dollar bulging jeans, only a cigar chewing tycoon would know. But it can't be denied that the American public is taking to the model engine in a big way. The toy train, once Junior's favourite nursery companion, now puffs belatedly behind the model engine in the toy popularity poll. The skyscrapers gently vibrate to the steady rhythm of 22 million pistons oscillating in an ecstasy of togetherness, and the great highways rumble beneath the weight of huge tankers bringing fresh fodder to bruised fingers.

But here I must stop, ere I receive a segment of the editorial chair upon my nut, for this column is supposed to concern itself with model flying and not the toy trade.

(extract from Model Aircraft December 1960)

Not Cricket

One beneficial aspect of international competition is the way in which the high standard of organisation sets such a splendid example to the movement generally. We cite as a case in point a recent Chuck Glider contest held by the Little Flickem M.A.C. This event was run on strictly international lines.

A fact that will be readily appreciated from reading this report which appeared in the '*Little Flickem Echo'.*

. . . R. Twist appealed to S. Bloggs, the Competition Secretary, against the launching method of E. S. Drapple, asserting that the model was thrown and not chucked; an obvious breach of the rules in a Chuck Glider event. Mr. Bloggs upheld the objection, and declared a no flight. This decision caused a certain amount of dissension, but Mr. Bloggs maintained that, as an umpire of the village cricket club, he considered himself something of an authority on the matter.

A number of competitiors then drew attention to the catapult sling being used by P. Twang. However, the Competition Secretary declared this to be quite legal. The competitor in question had sprained his chucking finger whilst testing Mr. Blogg's engine, and Mr. Bloggs had framed a special rule for Mr.Twang's benefit, but, unfortunately, he had forgotten to mention it.

At the halfway stage J. Bloggs was in sixth position; the other five competitors leading him by a comfortable margin. But he quickly moved into fifth position after getting S. Squint disqualified on the grounds that his timekeeper had been using visual aids. The timekeeper in question protested that he could not see a thing without his spectacles, but this did nothing to alter the decision.

J. Bloggs again improved his position when he successfully disposed of several other competitors by invoking the rule which states that the timekeeper must not move from the point of launching. The timekeepers claimed that any such movement was caused by the aggressive tactics of the Bloggs' bull terrier, which, they asserted, had been deliberately unleashed.

At the beginning of the last round J. Bloggs had moved up into second position; with B.Tricep holding a commanding lead. Joe apologised for stepping on his wing, and paid a special tribute to Mr.Tricep's gallant attempt when receiving the club Sportsman of the Year Trophy.

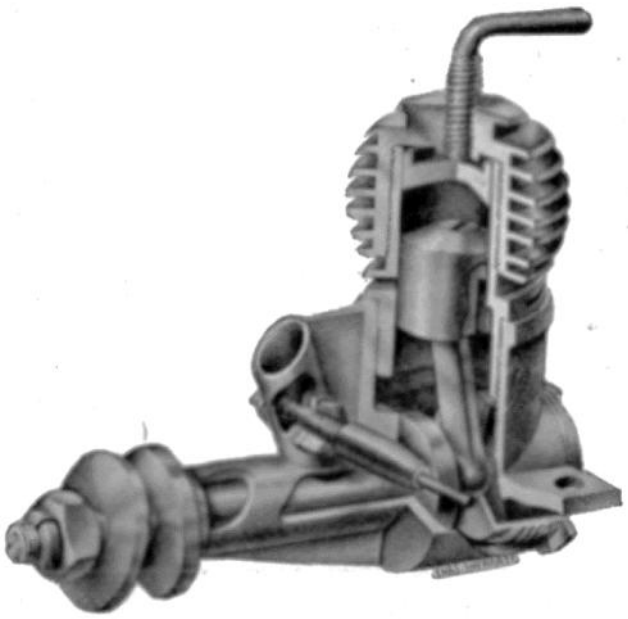
Pilot Plan

Some people say that good team race pilots are born, not made. But, however they come into existence, the homespun species does not seem to find much favour in certain foreign quarters. For one thing, the overall length appears to be a trifle extravagant by continental standards, and for another their overgrown arms are too sportingly extended for them ever to get the whip hand over their foreign rivals. Seemingly to add that extra m.p.h. to the circulating, the pilot should be short with fully retractable flipper. A pilot to this specification can get his full muscle power behind the handle and literally whip round.

I think I prefer our pilots long and sporting, after all. *Pylonius*

ALLBON "JAVELIN."

Manufacturers. Allbon Engineering Co. (Sunbury) Ltd., 51A, Thames Street, Sunbury-on-Thames.
Retail Price. 55s. *
Delivery. Ex stock.
Spares. Full spares and repair service available.
Type. Compression ignition (Diesel).
Specified Fuel. Mercury No. 3 and No. 8.
Capacity. 1.49 c.c., .091 cu. in.
Weight (bare). 2¼ ozs.
Compression Ratio. Adjustable.
Mounting. Beam, upright or inverted.
Recommended Airscrews. Free Flight: 9×4 ins., 8×5 ins.; Control Line Stunt: 7×6 ins.; Speed: 6×10 ins.
Flywheel. 1½ in. diam., approx. 2½ ozs. weight.
Bore. .525. in.
Stroke. .420 in.
Cylinder. Meehanite. Radial ports: 3 exhaust, 3 transfer. Cylinder screws into crankcase.
Cylinder Head. Dural. Screwed on to cylinder.
Crankcase. Aluminium alloy; adjusting screw in cylinder head.



Piston. Meehanite; Dural gudgeon pin carrier. Conical top. No rings.
Connecting Rod. Hiduminium R.R.56 forging.
Crankpin Bearing. Plain.

Crankshaft. Heat treated alloy steel, ground and polished.
Main Bearing. Plain, no bush.
Little End Bearing. Plain.

Crankshaft Valve. Rotary shaft inlet valve.
Special Features. Gudgeon pin being retained inside piston prevents scoring of cylinder bore.

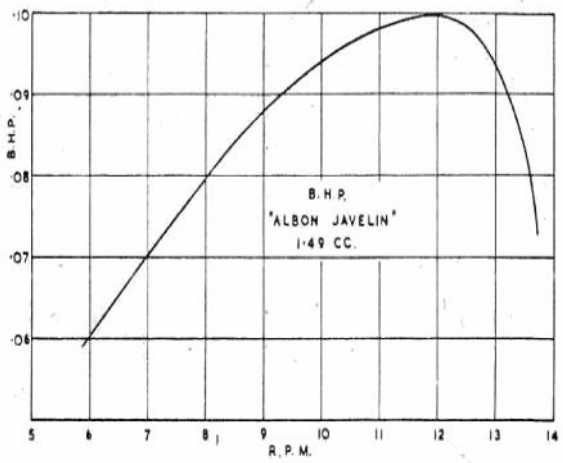
TEST

Engine. Allbon, Javelin, 1.49 c.c. Diesel.

Fuel. Mercury No. 3 and Mercury Special Ether, 1-1.

Starting. Pulley-and-cord for convenience of test; experimentally hand-started from time to time. Starting excellent under all conditions.

Running. This engine was exceptionally flexible for one of this type. Ran well and evenly at all speeds from 5,000 to 14,000 r.p.m. Throttle control not extremely sensitive, and this simplified starting. When cold, engine started more easily with compressing lever set for higher compression than was required for actual best running performance. As engine warmed up the speed increased as compression was lowered to correct amount.



B.H.P. The maximum output seems to lie in the region of 12,000 r.p.m., but very little variation appears between 11,000 and 12,500 r.p.m.; while for all practical purposes this range could be extended to include any speed between 10,000 and 13,000, as the loss between these points is only .005 b.h.p. A maximum output of .099 b.h.p. was recorded at around 12,000 r.p.m. Power dropped steeply after the 13,000 mark, but the fall was more gradual in the lower speed ranges.

Checked Weight. 2.4 ozs. (less tank).

Power/Weight Ratio. .665 b.h.p./lb.

Remarks. Engine performed well throughout tests: in particular, speed was extremely steady in the high ranges. In view of the small power loss over a fairly large speed range this engine should make a good control line unit. Engine was run-in for 1 hour at 4,000 r.p.m.

Westland N17 - Ken Bates

Editor: In the 2015 November issue, in my article 'Here & There', I guessed at the identity of Ken Bates scale entry at the Peterborough Flying Aces Meeting. I thought it might be a Sopwith but no, wrong.

Just to keep the records straight the model is not a Sopwith but a Westland N17. The Westland N16 and N17 were developed for an Admiralty order for a fast shipboard fighter but weren't developed. The N17 had long twin floats and the N16 short twin floats and a tail float.

(see Book of Westland Aircraft).

The model design is from a 1946 Model Airplane News and came to me via Tony Hall-Willis.

I don't know who the designer was. Wingspan is 15.5 inches, a 5 inch prop and a loop of 3/16 rubber 12 to 14 inches long. It required quite a lot of fishing weights divided equally between the floats. I have had flights of 35 -40 seconds with it but I doubt it will do a lot more, anyway it kitted itself (my fault) on the flight after your picture. I think it would be a very nice model if built larger and lighter.

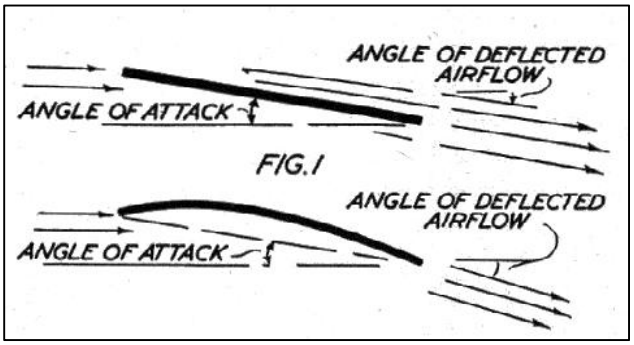
Ken Bates

Aerofoil Characteristics - Aeromodeller Annual 1955/56

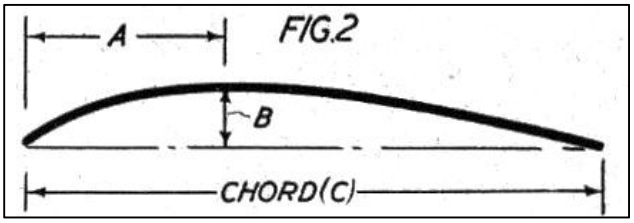
The simplest form of aerofoil is a flat plate which, for small model sizes, is also quite efficient—not because the flat plate itself is an efficient aerofoil (in actual fact the reverse is true), but because in very small sizes and at low speeds all aerofoil sections tend to become relatively inefficient. It is normally reckoned, in fact, that if the chord of an aerofoil is less than 3 in. the actual shape of the section will have little effect on performance and all shapes will tend to have similar or "flat plate" characteristics.

This is not necessarily true in all cases, but it does emphasise that in model sizes differences in the shape and form of aerofoils may not give very great differences in performance, which accounts for the apparent "failure" of many highly developed model sections and the undoubted success of many sections simply drawn "by eye", or in some cases merely formed by sanding from rectangular strips assembled as ribs when making the wing! At the same time, however, there are definite types of sections best suited to certain classes of models. Well cambered sections are generally admitted to be best for glide performance; a fairly thick symmetrical wing will transform an indifferent control line stunt model into one which will "go through the book", and so on. Hence a working knowledge of basic aerofoil characteristics is a great help in selecting the best type of section to use for a particular design. Which individual section of this type is used is then largely a matter of personal preference.

Outside the "flat plate" range mentioned, forming the flat plate into a curve produces a better aerofoil, the reason for which can be quite simply attributed to the fact that the curved plate deflects the airflow through a greater angle and therefore develops a greater aerodynamic reaction—Fig. 1.



The geometric form of the curved plate can be expressed in terms of the amount of curvature or camber (B) and the position of the point of maximum camber from the leading edge (A). Normally both A and B are expressed as a percentage of the chord length (C).



Increasing the camber (A) has the effect of increasing the amount of lift at low angles of attack besides increasing the maximum lift, as well as also increasing drag. The curved plate aerofoil will also generate a certain amount of lift at zero angle of attack whilst the angle of attack for minimum drag is higher than that of a flat plate or non-cambered aerofoil.

This latter case mitigates against the use of cambered sections for high speed aircraft, but is relatively unimportant for model work except for speed models or models which normally fly with the wings at a low angle of attack.

The position of the maximum camber (A) is rather less marked in effect. Moving A forward tends to give the aerofoil a wider lifting range (i.e., increase the negative angle of attack at which lift becomes zero), but is rather more important as a characteristic in the case of a conventional aerofoil built up by adding a symmetrical fairing to the basic curved plate. A large number of aerofoil series have been produced in this way by adding a symmetrical fairing around a camber line, which introduces a further factor to be considered—the thickness of this fairing—Fig. 3.

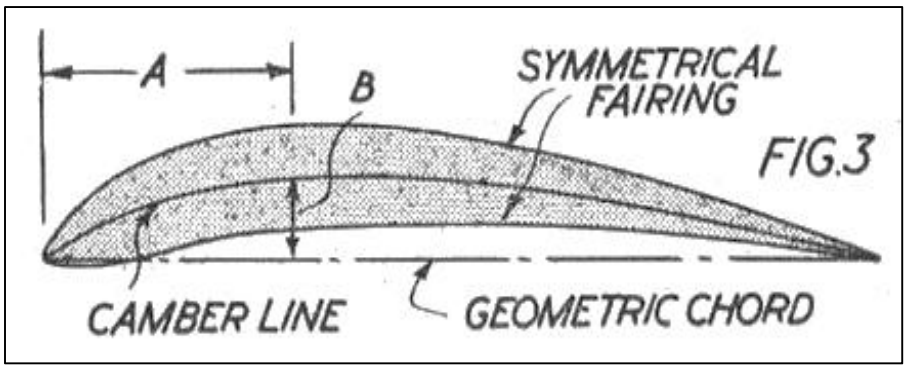


FIG.3

In related series the basic form of this fairing is the same, the thickness being varied together with A and B values. As a general rule, for every camber value (B) there is an optimum thickness/chord ratio (T/C). The greater the camber (B), the lower the thickness/ chord ratio for best performance. Additionally, the smaller the value of A, the smaller the value of the optimum thickness (T/C).

This implies that heavily cambered sections should be relatively thin, for best performance. Also, for similar cambers, the farther forward the point of maximum camber (A) the thinner the section required; and vice versa. Alternatively, to thicken up a section slightly, with a given amount of camber, move the point of maximum camber back for similar overall efficiency. Basically: very thin sections, keep the point of maximum camber well forward; with thicker sections (e.g., necessitated by required spar depth), move the point of maximum camber farther aft. Within the range of orthodox model sections the maximum aft position for the point of maximum camber is about 35 to 40% chord.

Sections with little or no camber will benefit from being thickened up. A limit to very thin sections for model work is about 5% of the chord; 10% is an average figure for normal (moderately cambered) sections; 12½% for sections with fairly small camber; and 15% for sections with no camber at all (e.g., a "flat plate" centre line). The 10% and 12½% thick sections embrace those aerofoils which produce a flat undersurface, recognised as the general purpose types for model work, the flat undersurface being produced as a deliberate straightening out of the lower symmetrical fairing applied to the aerofoil camber line, or laid out as a definite straight line with an upper surface fairing derived separately.

A flat undersurface aerofoil of less than 10% thickness/chord ratio will tend to lose in efficiency, but more particularly as regards performance in the region of maximum lift. At lower angles of attack they may have a superior performance over more cambered, or thicker aerofoils. Hence thin flat sections may well give improved power-on performance on power and rubber models (where the wing is operating at a fairly low angle of attack), but will almost invariably show an inferior glide performance (with the wing now operating at a higher angle of attack).

The usual compromise is a thin cambered section, with more camber permissible on rubber models than on power duration designs, because stability requirements are not so critical. In practice, however, there is a tendency to contradict the general rule in that rubber model sections may be thicker than the less cambered power duration sections. As a result the typical power model section is probably less efficient than its rubber model counterpart, this being dictated by the necessity of having a relatively high speed (low cambered) section for maximum climb and good climb stability.

Normally the maximum camber in a model aerofoil is restricted to about 6%, anything much higher tending to produce drag values too high to take advantage of any possible increase in lift. Also, increasing camber tends to de-stabilise the aerofoil by increasing the centre of pressure travel and make the stall more violent.

Centre of pressure travel can be reduced to the point of being virtually constant over the normal operating range by using a reverse camber over the rear portion of the camber line, producing what is known as a reflex section when the fairing is added — Fig. 4.

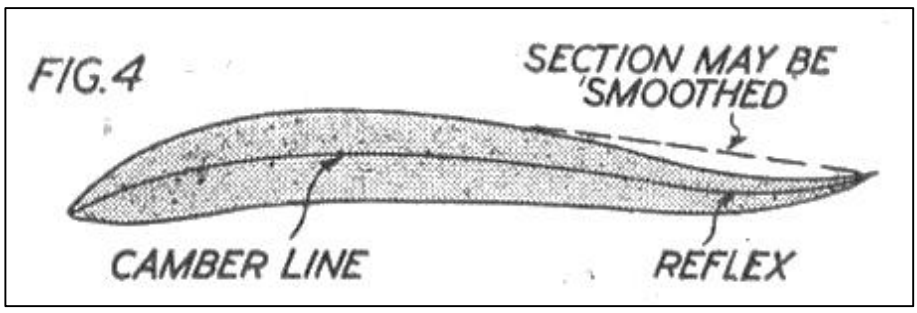


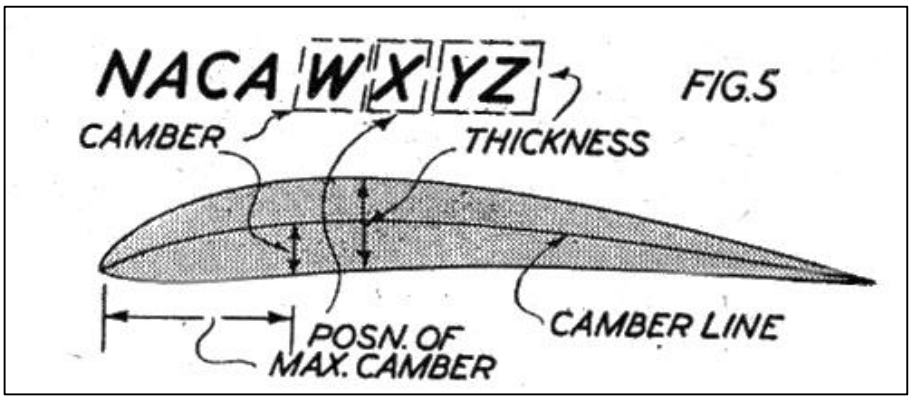
FIG.4

This benefit is gained only at the expense of loss of lift and an increase in drag. A reflex section is therefore only normally employed on models where a very stable wing is required, e.g., on a tailless model, and never on orthodox duration designs.

Where maximum performance is required, it is more common to deform the trailing edge of the section in a contrary manner to add a flap effect. This has a somewhat different effect to merely increasing the camber and is a tried and proven method of increasing lift without adding too much drag, provided only moderate flap angles are used.

The other type of "stable" aerofoil, i.e., with little or no centre of pressure travel, is the one with a straight centre line. The basic flat plate is a stable aerofoil in that the change of centre of pressure with angle of attack tends to return the section to its original position, which condition is reversed immediately the plate is curved or cambered. Symmetrical sections built up of symmetrical fairings added around a straight "camber" line are also stable, but not good lift producers unless they are operated at a fairly generous angle of attack. Even then their performance in this respect cannot compare with that of a cambered section. Thus camber is an essential feature of a good lifting section, but a symmetrical section can also be used for lifting where optimum performance is not required, or the other characteristics of the section can be put to advantage. Outstanding examples here are the symmetrical wings used on models designed to operate in inverted flight (where similar upside down characteristics are required), such as control line stunt models and advanced radio control machines. Even here, however, where the predominant flight attitude may be the right way up, a bi-convex section of generous thickness and slight camber may be expected to give a slightly superior "upright" performance at the expense of some loss of lift when inverted. A symmetrical section is not necessarily the best wing section for a model designed for inverted flying, although it is the obvious one.

With the general characteristics of camber and thickness chord ratios in mind, it is possible to assess the general merits of a particular section merely by plotting it out and studying its form. Certain sections are deformed for structural reasons (e.g., Marquardt and R.A.F. 15) in order to accommodate necessary spars conveniently; others are theoretically derived to the point where they are not thick enough to take the spar sizes considered necessary for a particular wing. Practical aspects should be weighed against potential aerodynamic characteristics in arriving at a final choice.



Some aerofoil series are also self-explanatory as to their geometric layout. N.A.C.A. aerofoils, for example, are mathematically derived with a standard formula for the shape of the symmetrical envelope added around a mean camber line. These related aerofoils are designated by four or five digits.

In the four-digit series, the first digit gives the camber of the centre line (B), the second the position of the point of maximum camber (A), in tenths of a chord; and the last two digits the thickness of the fairing as a Percentage of the chord—Fig. 5. Thus N.A.C.A. 6409 s a section with a 6% camber; the point of maximum camber four-tenths or 40% from the leading edge; and 9% total thickness (T/C). In the case of symmetrical N.A.C.A. aerofoils the first two digits become "00", with the last two digits giving the thickness as before, e.g., 0009, a symmetrical section 9% thick; 0012, a symmetrical section 12% thick, etc.

The N.A.C.A. five-digit series follows the same principle, except that the second and third digits now designate the position of the point of maximum camber. The first digit gives the amount of camber and the last two the thickness, as before. Coding of the second and third digits is 10,20,30,40, and 50, corresponding to a value of A of 5, 10, 15, 20 and 25% chord, respectively. Thus N.A.C.A. 43012 corresponds to a section with a 4% camber located at 15% of the chord, and maximum thickness 12%.

Some of the more modern model sections follow a similar system of coding. In other cases the coding of aerofoils is purely arbitrary and although the same family name is used, the respective aerofoils may or may not be part of a definite series. In the case of the R.A.F. aerofoils, for instance, R.A.F. 15 was virtually drawn in around a leading edge and two mainspars, utilising a camber of 2.5%. U.S.A. 27 introduced some years later was obtained by doubling the R.A.F. 15 ordinates. The R.A.F. series 30-33 were developed as a series, R.A.F. 30 being the symmetrical section, R.A.F. 31 and R.A.F. 32 derived from it by adding 2 and 5% camber, respectively to it. R.A.F. 33 was produced by adding a reflex trailing edge to R.A.F. 32. R.A.F. 34 came out much later as a bi-convex section with a cusp-shaped rear portion and a 4.2% camber. The Gottingen aerofoils started out as a series of "teardrop" sections, but the numbers imply only an arbitrary designation. The Munk "M" series (1-12) designate systematic variation of thickness and camber with a single profile shape (the Grant G-9 is identical with the M-9). There is also a variety of individual sections derived by "mixing" the top and bottom ordinates of established sections. In such cases, detailed examination of the actual profile will classify it according to geometric layout.

Letters to the Editor

Bernie Butler: *re George French 'Night Train'*

Good afternoon John,

Like yourself, I am a proper modeller down in Essex. There are a few of us around here but there are few places to fly, still I love building. Just bought a vintage Czech kit from Peter Scott.

Just been reading the latest Clarion, which I do enjoy and often wish I was more involved.

I was reading about the Night Train, which is a model I have always admired and, only in the last few years realised that the great George French lived about 400 yards from me. I walked past his house most days with my dog and always hoped he was in the garden so that I could have a chat. Martyn Pressnell kept in touch with him and it was sad to hear that he had passed away. He lived on the edge of the family farm and I often imagine him out there on a summer's evening trimming his models. He had an amazing memory and could talk about his competition days, including his world champs participation, his rivals, their engines and set-ups etc. Bob Wells is also local and he told me that George always annoyed him (in a nice sort of way) because he was always so smart and so bloody good!

I was wanting to know if you could put me in touch with John Thompson, the author of the article. I feel the urge to build a Night Train (I have Martyn's wonderful plan) and it would be good to talk to another George French fan.

Keep up the good work, didn't realise you lived in Rugby, I always thought you were a Southern Softie.

Regards, - *Bernie Butler - Laindon, Essex.*

1st Area Luffenham - John Andrews

The BMFA 1st Area comp, for me, was at North Luffenham and on our arrival we found our normal entrance locked and we now have to use the barrier past the golf club. This is actually more convenient as most times we fly from this side of the airfield.

I understand that the airfield is not available for the second area comp so I expect I'll be giving that a miss.

It was my hope that I would be able to fly my bitsa coupe which I had reworked since its last outing last year. It now has a new under-cambered larger wing with a new wing mount, a double bladed prop I had in hand and is set up for right/left pattern, something I've never done before. The model was assembled in the workshop where I had been fiddling with the DT so the model was in the back of the car ready to go when we arrived. Having been suffering from a long bout of a flu like cold since the new year I had not even been out to test glide the model so when I took it from the car as we settled at Luffenham I was not hopeful of being able to compete. So it turned out. I walked out onto the field with the model, stood for a while seeing if there was any hope of a test glide but the strong bitingly cold gusty wind soon dampened my ambition and I returned swiftly to the comfort of the car having chickened out once again.

I was parked alongside Gerry Ferer and Gavin Manion, these guys never chicken out so I knew I would see some activity.

Gerry Ferer waits for lift

Gavin Manion piles on the turns

Gavin spotted me and, being in need of a time keeper, asked if I would oblige. I immediately volunteered Rachel for the job but she declined so yours truly was left in charge of bins and watch. My day then consisted of listening to England go down the pan in cricket and five periodic forays out into the cold to time Gavin's flights. The timing also consisted of a visit to Walter Hodkinson in his car to report the times. Walter had been pressganged/volunteered on the day for CD and having no accoutrements was logging the flights in an old A5 diary he had with him. Incidentally I got into the act by photographing the F1G results for transmission to Gavin for his report to the Southern Coupe League aficionados.

Gavin had a good day with exception of his first flight which, after a diabolically bad launch, failed to get up out of the turbulence and was down in 41 seconds. Undeterred he soldiered on to max out, although his 5th flight had only 7 seconds to spare.

Gerry did not have a good day, he did a 3-47 on his second flight and was well off the field which left Pearl and himself wandering about for a couple of hours or so in a housing estate with a really strong bug signal but no model in sight. Eventually, having given up searching for the time being, they returned to base where a passing Trevor Payne, who had also been out there looking for one of his gigantic power models, (see left) reported that he had seen a model leaning against the wall of a house, No.6 Kings close if memory serves. Off went Gerry and sure enough he retrieved his model. Ironically he had been within 20 yards of it when he was searching.

When it was all over, Rachel and I tried for a meal in the local pub but were too early, or too late, whichever way you look at it. It was 5 o'clock and they stopped serving lunch at 4 and started again at 6 for evening meals. We soldiered on home and ate in one of our local Brewers Fayres, with a bottle wine to warm the inner man, & woman.

John Andrews

HAWK

TRAINER

SIMPLEST OF ALL MODEL PLANE TYPES, THIS 12-in. SPAN CATAPULT GLIDER LEADS OFF THE SERIES OF SIX "TRAINER" DESIGNS

BUILDING TIME: 2 HOURS

If you are a newcomer to model plane building, the ½-ounce *Hawk* glider should be your first choice, since it is by far the simplest design in the book. Construction time is only two or three hours and the completed model may be either hand-launched or catapulted into the air.

1. Start by tracing the full-size patterns (A, B, C, D and Z) on to waxed paper, then cement the 'A' one to a *medium* (*M*) strip of ? × ⅛ in. and the others to *medium* (*M*) 1/16 in. sheet. The grain direction should be as shown on the drawing.

2. Cut out the fuselage (A) with a sharp razor blade, taking particular care to make an accurate job of the angled cut-out for the stabilizer. Now cut out the sheet parts, using a metal ruler as a guide for the straight cuts. Pin the wing panel (B) to another piece of 1/16-in. sheet and make an exact duplicate by using the first panel as a pattern. Note the two small cuts in the rear edge of the stabilizer (A).

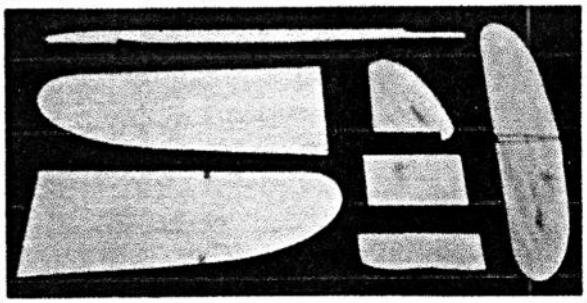
3. Place one wing panel flat on the building board, so that the root is flush with the edge. Using the building board edge as a guide, gently sand the wing root to a slight angle. Repeat for the other wing panel, then check carefully that the two root-faces match up when the panels are held together at the correct dihedral (or 'V') angle.

4. Mark the position of the dihedral packing (Z) on the underside of the right wing panel (with a pencil). Now pin the left panel down flat on the building board and join the other to it—packing up the latter with 'Z,' as shown in the top photo on page 10.

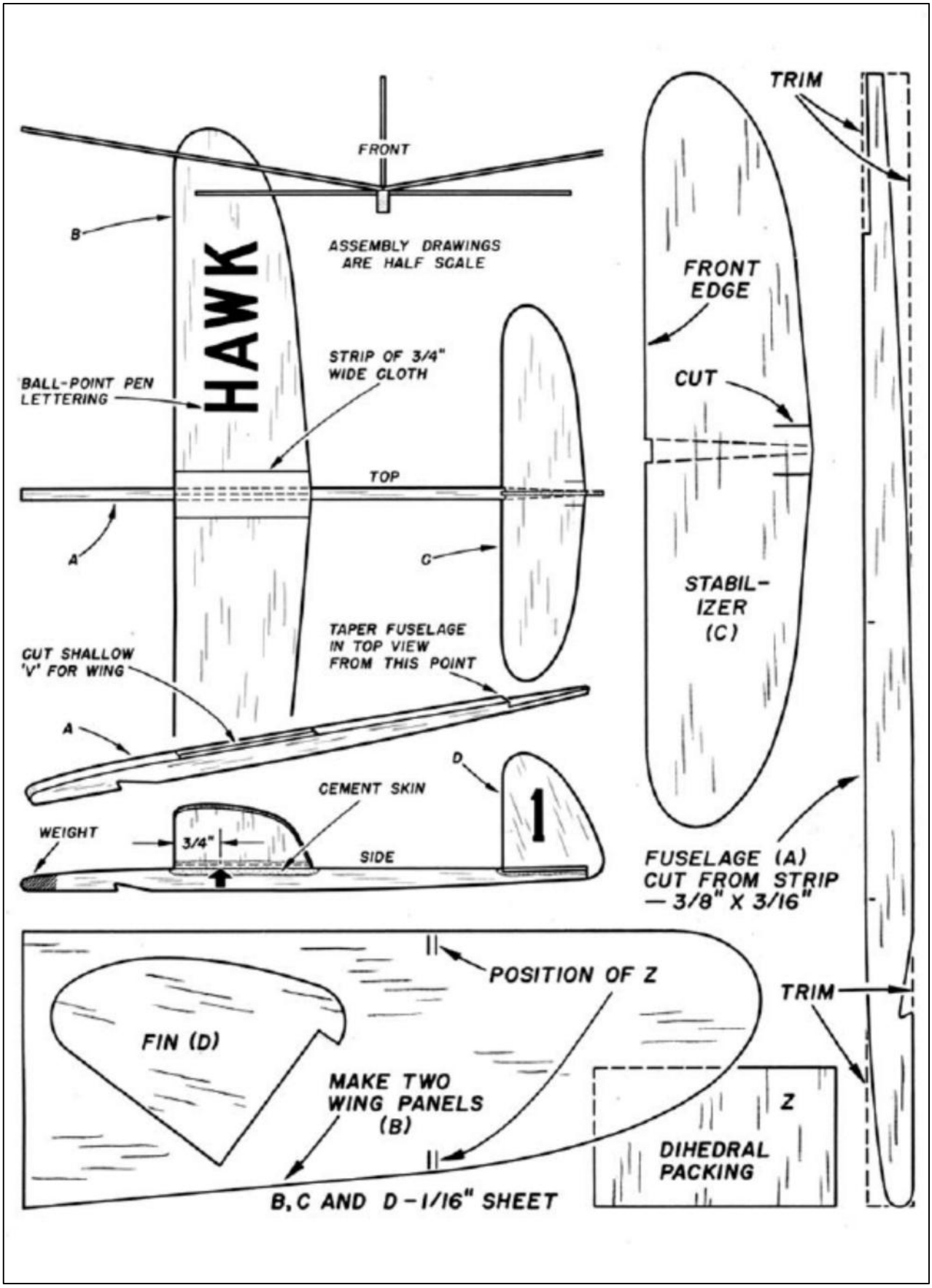
5. While the wing joint is drying, mark the wing position on the fuselage and cut a shallow 'V' (see drawing) to match the wing dihedral angle. Taper the fuselage end at the tailplane position—in the top view.

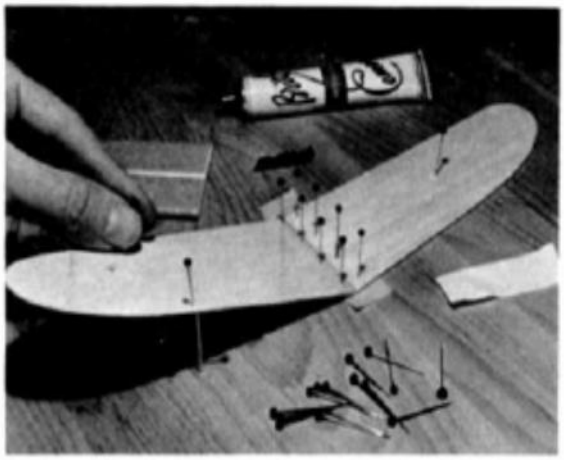
6. Cement the stabilizer to the fuselage, holding in place with pins and making sure that it lines up correctly in the top and front views. When dry, add the fin (D), checking that it is exactly at right angles to the tail plane.

7. Unpin the wing from the building board and cement to the fuselage, holding in place with pins and checking that it lines up with the fuselage in the top view and with the stabilizer in the front view. Reinforce the wing joint with a ?-in. wide strip of cloth (cut from an old handkerchief).

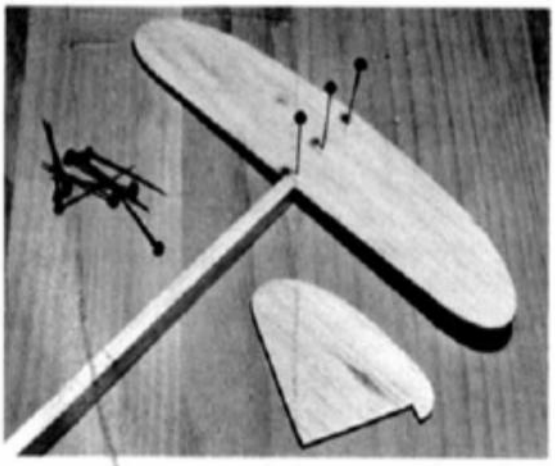


Here are all the parts—ready for cementing together. Note the pencil marks on fuselage, wings and stabilizer.

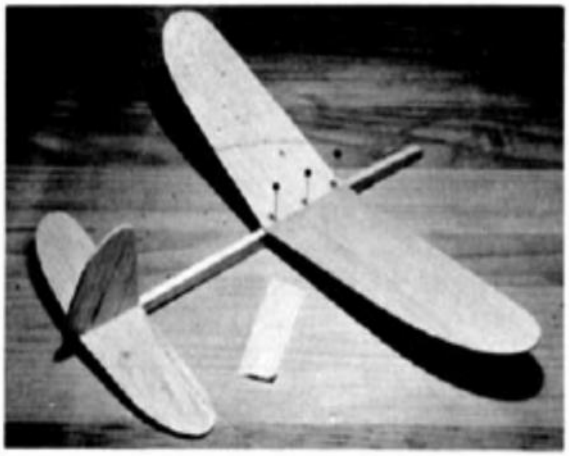

FRONT
B
HAWK
ASSEMBLY DRAWINGS
ARE HALF SCALE
BALL-POINT PEN
LETTERING
STRIP OF 3/4"
WIDE CLOTH
TOP
A
C
TAPER FUSELAGE
IN TOP VIEW
FROM THIS POINT
CUT SHALLOW
'V' FOR WING
A
D
CEMENT SKIN
1
WEIGHT
3/4"
SIDE
TRIM
FRONT
EDGE
CUT
STABIL-
IZER
(C)
FUSELAGE (A)
CUT FROM STRIP
— 3/8" X 3/16"
POSITION OF Z
TRIM
FIN (D)
MAKE TWO
WING PANELS
(B)
Z
DIHEDRAL
PACKING
B, C AND D - 1/16" SHEET



Pin one wing panel down flat, then cement other to it—packing up latter with 'Z' to give correct dihedral.



Cement stabilizer to fuselage—holding in place with pins. Check correct alignment in top and side views.



Cement wing to fuselage, hold in place with pins until dry, then reinforce wing joint with a strip of cloth.

8. Strengthen the flying surfaces/fuselage joints with cement—and complete the model by weighting the nose with a piece of a used cement tube. Correct balance is achieved by pushing a pin into the top of the wing joint ($\frac{3}{4}$ in. back from the front edge) and adding weight until the model balances level when held by the pin, as in the photograph on the adjoining page.

FLYING

Trimming the *Hawk* is easy—provided that the model has been carefully made and balances at the correct point. Check for warps by inspecting the wing and stabilizer from the sides—correcting any faults by gently twisting the surfaces. Very windy weather should be avoided as it is impossible to trim models accurately in other than calm conditions.

Face directly into wind, holding the model at shoulder height (fuselage between thumb and forefinger, at balance point) and launch on a slightly downward flight path. If the model is adjusted correctly, it should glide steadily down to a point some 20 feet ahead. However, the model may possibly 'stall' or dive to the ground at too steep a gliding angle (see sketch on adjoining page).

Correct a 'stall' by adding a little more nose weight to the nose—or a dive by slightly bending up the rear edges of the stabilizer. A diving turn will occur if any small warps are present, but this may be corrected as follows. If the model turns to the *left* sharply, gently twist up the front edge of the *left* wing panel—and vice versa for a right turn.

However, a *slight* turn in either direction is desirable, to allow maximum duration to be obtained. If you are *right* handed, a *left* turning tendency is best. Once the glide is correct, hold the model at the balance point again

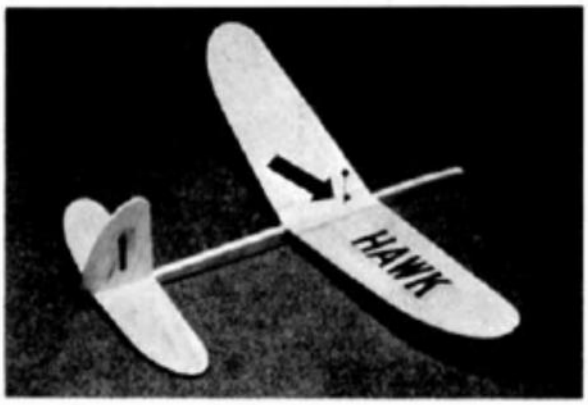
Hand launch the model as if you were throwing a ball or a javelin, with the wings tilted over to one side.

and throw upwards at a slight angle as hard as you can—in the same way as throwing a baseball or a javelin. The wings of the model being naturally tilted to the *right* during launching, the *left* trim of the model will result in an ' S ' shaped flight pattern.

As a change, the model may be launched by catapult—using a 4 × ¼-in. rubber band. Hold one end of the band between the thumb and forefinger of your left hand and loop the other end in the fuselage notch. Hold the model by the rear end of the fuselage, pull back to stretch the band and release with the wings tilted to the right—as demonstrated by Clive Smith in the heading photo on page 8. Launching with the wings level will give a loop, which is spectacular, but not the way to obtain the best flight duration.

If you are unlucky enough to hit a tree or other obstacle and damage the flying surfaces, save the piece and carefully cement it back in place again. Should any part be badly broken, remember that you can always make a replacement when you get home, so don't throw the whole model away.

Avoid flying over wet grass as dampness is the surest way of developing wing and stabilizer warps. Before setting out for the local park, it's a good idea to always slip a tube of cement and a few pins into your pocket—so that field repairs may be carried out.



Weight nose until model balances when held up by pin.

Other models in this ' Trainer ' Series are the *Swallow* Catapult/Towline Glider (14), *Vulture* Jetex Semi-Scale (20), *Buzzard* Rubber Model (26), *Condor* Towline Glider (31) and *Falcon* Cabin Rubber Model (36). Together, the six trainers comprise a complete course for beginners. Look for the 'delta insignia' headings throughout the book.

MATERIAL LIST

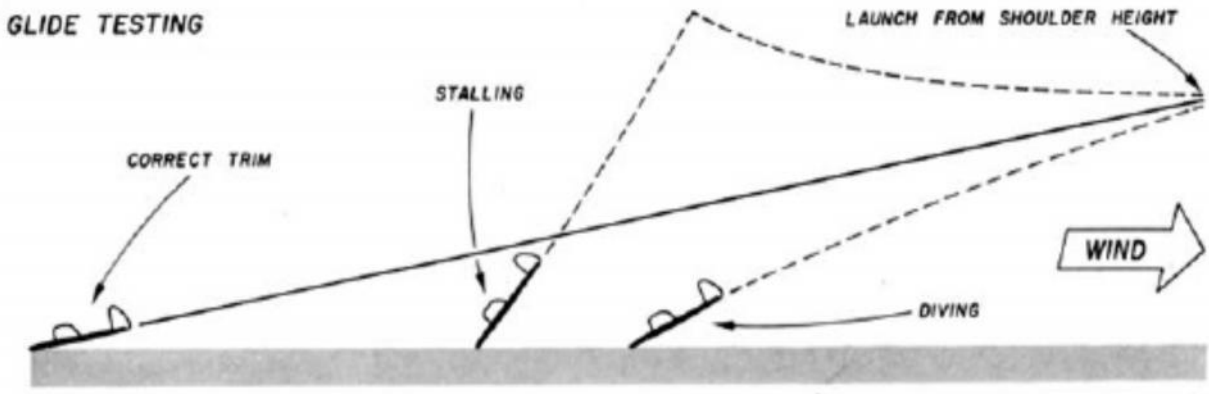
Sheet—⅛" × 3" × 18" (M) Strip—1/16" × ¼" × 12" (M)

TOTAL COST: About 20c

1 *Correct a ' stall ' by adding more weight to the nose of the model.*

2 *Correct a dive by twisting up the rear edges of the stabilizer.*

3 *Correct a left turn by twisting up front edge of the left wing.*



Bill Dean

Paton Abroad - Jim Paton

I am frankly rather fed up hearing about all the latest and possible restrictions on free flight. They are just too depressing and hopefully too pessimistic. I realise that several stalwarts put a lot of time and energy keeping our hobby and competitions alive, and I have faith in them sorting it out for us.
Also hearing about the demise of aeromodelling friends is not too pleasant either. It all makes me think that I have to be flexible and just get flying where I can and while I still can and where I am allowed. It's a great luxury being allowed to fly on MOD airfields, even with restraints. I like old fashioned free flight comps with unlimited fly-offs, but our sport is full of artificial constraints such as motor size and weight and wing spans etc. So a few more is not the end of the world.
I enjoy myself at Old Warden where there is no competition and a very small field, and also when on my own at Port Meadow trimming. Temporary loss of Salisbury Plain was seriously distressing. It's a fine line between avoiding losing sites and, some think, over reacting.
I reckon Middle Wallop meetings could end up like the free flight area of Old Warden on its aeromodelling weekends. Such flying I find very pleasant.
I am down under at the moment and have just returned from an aeromodelling event in New Zealand's Southland. I drove 80km to get there on a scenic empty main highway 1. Driving here is really a pleasure, with cruise control actually being useful. People go for pleasure drives here. Unimaginable back home!
The fly-in was in a field adjacent to an excellent air museum with several De Havilland aircraft and a few other types. It was all radio control except for an excellent control line circle, with some high quality c/l aerobatics. Not a free flight model to be seen. There were a lot of large scale models, and gliders that were aero towed rather successfully. The weather was perfect with clear blue sky, temp mid 20's, and virtually no wind. The wind here is very variable and can be very strong. I had a pleasant stroll and chat and lunch in the museum.
There was much talk of problems related to drones causing aeromodellers much worry as back at home. They are now banned here in national parks. But overall the atmosphere was very relaxed, in keeping with the national habit of enjoying hobbies and sports.
I shall return to Blighty in time for the Easter M.W do. I hope the weather obliges with a wind in the right direction.
In the meantime it's a bit of building models for the grandchildren in the garden, and bush walks and swimming in the sea. It's a hard life in the colonies when you are retired.
Balsa wood is twice the price and dope is ridiculously expensive. Paraffin and castor oil are cheap and available but I am not sure if I can get any ether from the local chemist! I might try the anaesthetics dept of the local hospital. The local Jap tissue made in China aint too bad and is ridiculously cheap, and comes in many colours.

Jim Paton

Wanted: Loc8tor Tags - Don Thompson

Does anybody have 1, or more, spare Loc8tor tracker tags that I could buy? I am looking for the type with parallel sides that was available until 2015; the new 2016 design is too large for my purpose. It is OK if the batteries are flat. Please contact me at:
‹thomson_don@hotmail.com› (underscore between n and d) or tel 0208 9989472

Data Exchange - David Lovegrove

(Editor: David Lovegrove copied me, perhaps by accident, a series of emails which indicates how useful the internet is these days for research and communication. I reproduce them here with a few pictures of the aircraft mentioned which I dug up from tinternet.)

----- Original Message ----- From: "G.Bremner" <geoffreybremner@talktalk.net>
To: "Mike Spencer" <spikespencer707@btinternet.com>;
"John Mellor" <jcm114@btinternet.com>;
"Mr DF Lovegrove" <david.lovegrove11@btinternet.com>
Sent: Friday, February 05, 2016 10:25 PM
Subject: Re[2]: Love at first sight

I looked at the plan of the Swoose Goose - it's very attractive – but one dumb question - why put the engine at the back? presume mainly to give the pilot better visibility?

The 'plane I want to find a plan for is the Fokker F VII (mono) - it's a natural for a Cyril Carr style depron model. Say about 60'' span. Looks like antecedent of Pilatus Porter?

best/Geoff

The Fokker F VII

On 6 Feb 2016, at 09:43, Mike Spencer <spikespencer707@btinternet.com> wrote:

Engine & prop at the back allows the centreline guns to be where they should be - in front of the aimer. That is one reason why things like the Airco DH2 and AV Roe 504 were (for a time) successful in WW1. As in all aviation matters, that compromise comes with a few other drawbacks !

I can't remember its name but there was a fast American WW2 fighter with the engine behind the cockpit but driving the forward prop by a long shaft that went between the pilot's legs. Needless to say there was much trouble taken to keep it well balanced. Herr Fokker GMBh did build many attractive areoplanes. My old Flair Hannibal was disguised to look (a bit) like a Fokker monoplane and covered in Red 'Tex with a suitable array of black Germanic Maltese crosses. At the annual RAF Ibsley Summer fete during a balbo of WW1 model types, the commentator (there primarily for the fullsize aircraft displays) used to love

saying " ... and now Tommy Sopwith has got the big red Fokker in his sights", generating a certain amount of tittering in the younger crowd !!
Google on "WW1 pusher biplane" for lots of data.

Airco DH2

FE 2b

Regards
Mike

David Lovegrove to Mike:

Mike, the aeroplane (airplane?) you're thinking of is the Bell Airacobra. Pete Iliffe from Coventry had a lovely micro scale r/c version a couple of years back. As usual for him, fabulous finish and it flew beautifully
Geoff; I can't find any plans for the Fokker F V11, although there are some GA drawings and images on't web. But if you wanted to build an Eindekker instead, there's a 57" version of that on Outerzone! Now that would be a cinch for Depron! I also have a slim volume stuffed with drawings and colour schemes for it, that you'd be welcome to borrow.
Just remembered: I have a spare Spektrum DX8 tranny in full working order, doing nothing in the workshop cupboard. Dead easy to programme. Would you like to borrow it for sorting out "*Project X*"?

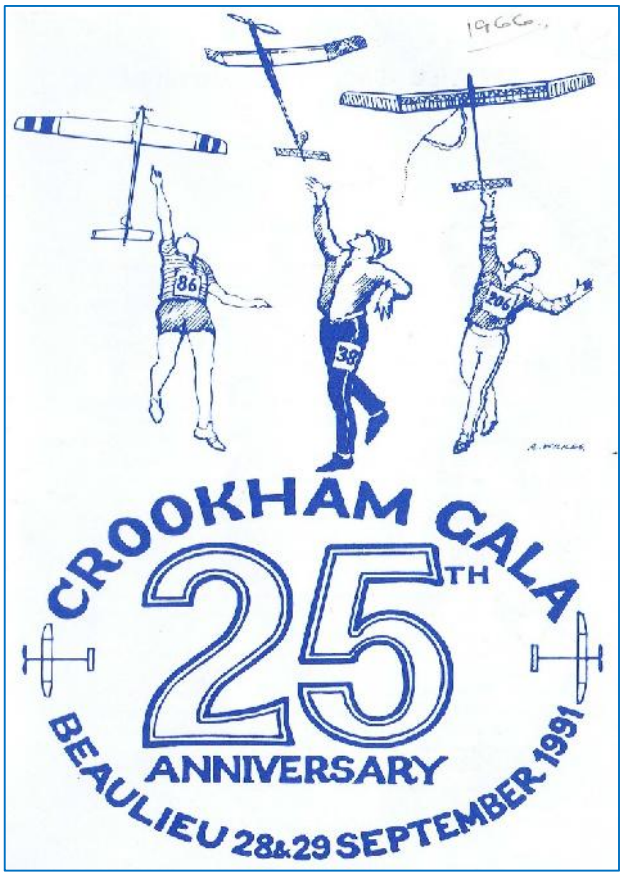
Bell Airacobra

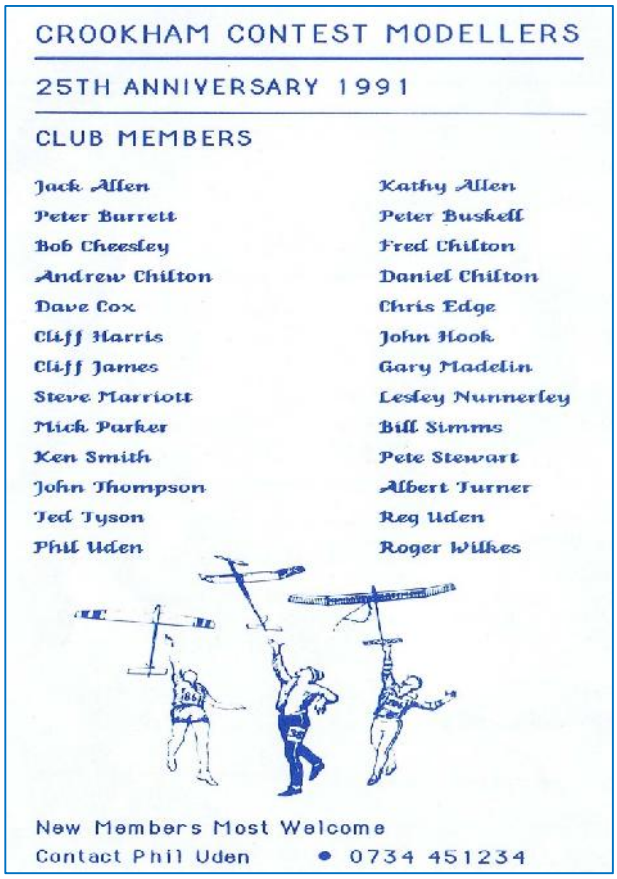
According to Bill Gunston again, the aircraft's potential weak spot, the long prop-shaft from the mid-mounted engine to the gearbox at the sharp end, was never the cause of problems while the aircraft was in service.
Cheers David

David Lovegrove

Crookham 25th Anniversary - John Thompson

Peggy Chilton dug this out and of course we will be holding our 50th Anniversary in September at Salisbury Plain . Details later.





BEAULIEU AERODROME HAMPSHIRE

Flight From Beaulieu
by Lesley Nunnerley

Following our feathered friends, there has been flying over Beaulieu by man (and woman!) since the first sighting on October 16th 1784 of a balloon , above Pylewell, probably manned by Jean-Pierre Blanchard on a flight from Chelsea to Romsey, no doubt causing mixed reactions from the residents of the New Forest. Then all was quiet until August 1909 when the Hon. Charles Rolls on his balloon flight from East Cowes to Lymington, descended towards the garden of rare shrubs owned by the mayor, much to the latters annoyance. But the balloon was restrained and momentarily moored by men of Boldre.

Yet again, on May 15th 1913, a local resident was obliged to control and tether a stray, unmanned balloon foolishly released by accident on manoeuvres by the military authorities at Winchester.

Meanwhile, in spring 1910, the Office of Woods initially refused permisssion to clear heathland for a flying school at East Boldre, so adjacent private land was used, gradually encroaching onto the Heath, ostensibly "clearing litter", with great support from the locals. After much pleading and pressure permission for "aviation and clearing of ground" was given by the Office of the Woods, in November 1910, and the new New Forest Flying School was established on Bagshot Moor, near Hatchet Pond, at East Boldre. The same site being taken over and developed by the War Office for WW1, at the end of which it took four years to destroy and remove the buildings, with much compensation to the verderers for the duration

The only building left, was the YMCA used for recreation by the Forces, still used for recreation as the village hall at East Boldre.

Beaulieu Airfield continued to be used, during the twenties when it was listed as an Automobile Association Airfield, and into the thirties as a civil landing ground.

In 1941, a new aerodrome was re-created on the north side of the Lymington-Beaulieu road, at Hatchet Moor. The verderers, justifiably feeling aggrieved by their loss of common rights received an apopogy and financial compensation from the Air Ministry, until possession was finally relinquished in 1960.

In 1958, the West Hants Aeromodellers Association applied to the verderers for permission to use the airfield which they continue to do.

Crookham Gala 25th Anniversary 1991

Venue: Beaulieu Heath
Date: 28th, 29th September 1991

Competitions

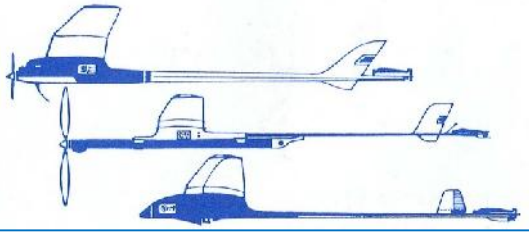
Saturday 28th September

A1, CDH, 1/2A - 5 Flights
Slow Open Power - 3 Flights
Start Time: 13:00, 1 hour rounds for mini, no rounds for SLOP 3 flights
Finish Time: 18:00, F/O to be set on the day
Champagne Flyoffs - Open R/G/P. Single flight. Start 18:30.

Sunday 29th September

F1A, F1B, F1C - 5 Flights start 10:00 am, 45 mins per round, schedule F1A then combined F1B and F1C.
Prize for top junior.
Prize for top team consisting of one member from each class and using Plugge Cup system.

Site Rules:
All competitors must have a Beaulieu flying Permit, available on the day.
No extended engine running, the site is noise sensitive.
CD decision is final.



John Thompson

So, it swallowed your rubber motor Eh!!

DIY RDT - Roger Newman

Others have previously written lucidly on this topic. However with the current state of affairs at Middle Wallop and other military airfields it seems incumbent for me to at least experiment with a bit of technology & provide my version of a "simpletons guide". Apologies here to those more clued up than me who have previously read similar but probably more technically sound words.

Radio DT or RDT is not new, but the advent of inexpensive components make it a viable cost possibility for "ordinary" free flight – as opposed to competition flying. We have all been made very much aware of the diminishing availability of various airfields over the past few years, dramatically magnified this year by a combination of increased military attention to health & safety coupled to the huge rise in popularity & arising negative publicity of so called "drones" – the latter for worse, as aeromodellers are bundled collectively together by those who know no better. There is inevitably a responsibility and an increased pressure to keep our models in the field wherever possible if we wish to retain the use of the remaining fields available to us. The use of RDT becomes another string to our bow. For further reference, look at articles written by Martin Cowley in March, April & May 2012 NC.

Initially a few questions to various people with knowledge pointed me in the direction of what to obtain by way of components – as tabulated below. Not necessarily an optimal choice but enough to get going

Transmitter Bits	Source	Cost £	Comments
Tx Module	Hobby King	22.60	DSMX/DSM2 Compatible 2.4GHz DIY Transmitter Module
Trigger Switch	Maplin	2.59	Any suitable push button sw
On/Off Switch	Maplin	2.49	Ultra miniature toggle sw. SPDT
Bullet connectors	Component Shop	0.92	2mm Bullet male/female pair – 2 pairs & heatshrink sleeve
Battery (LiPO)	Robot Birds	6.85	HYPERION G3 CX-25C 0450-2CELL LIPO. 450mAh, plenty for day's flying
Electronic "Glue" (Remote-DT encoder)	Phil Green	12.00 (delivered)	See comments below. Phil provided me an evaluation unit.
Enclosure box	Maplin	3.09	Project box, light grey. 80x60x40mm
Totals: RDT Tx		**50.54**	

Receiver Bits	Source	Cost £	Comments
Rx Module	Lemon	18.00 (5 off)	Two versions, side or end pin. DSM2 compatible 6 channel Rx (Feather light) – same price.
Servo	Component Shop	4.05	3g Micro servo (3V-4.8V), same as used previously on 36" Corsair.
Battery (LiPo)	Component Shop	2.45	3.7V 70mAh 20C) – see comments below on use
Connector	Component Shop	0.26	J – ST-BEC (for battery
Totals: RDT Rx		**10.36**	

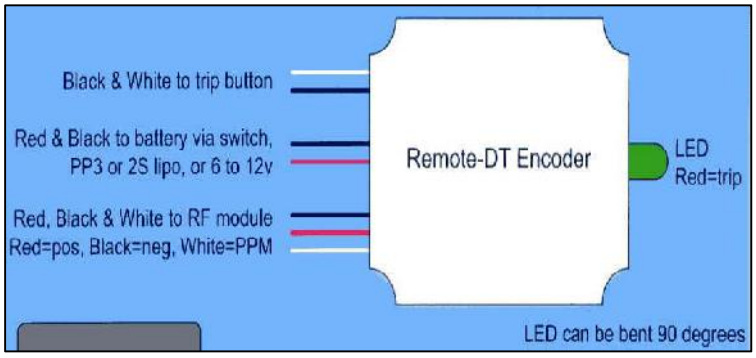
Supplier details & web links are listed at the end of this text. Connectors were 2mm bullets for Tx battery connection @ 0.46p / pair & a 2 pin JST-BEC – Male for the Rx battery connection @ 0.26p – same as used on bungee Corsair.

Note: No shipping charges included in totals.

The Tx module & a batch of 5 Rx modules were ordered direct from Hong Kong, over the Christmas period (not very sensible) but they both arrived within three weeks – a commendable service. I set up an account in each case, so the probability is there for me to place follow on

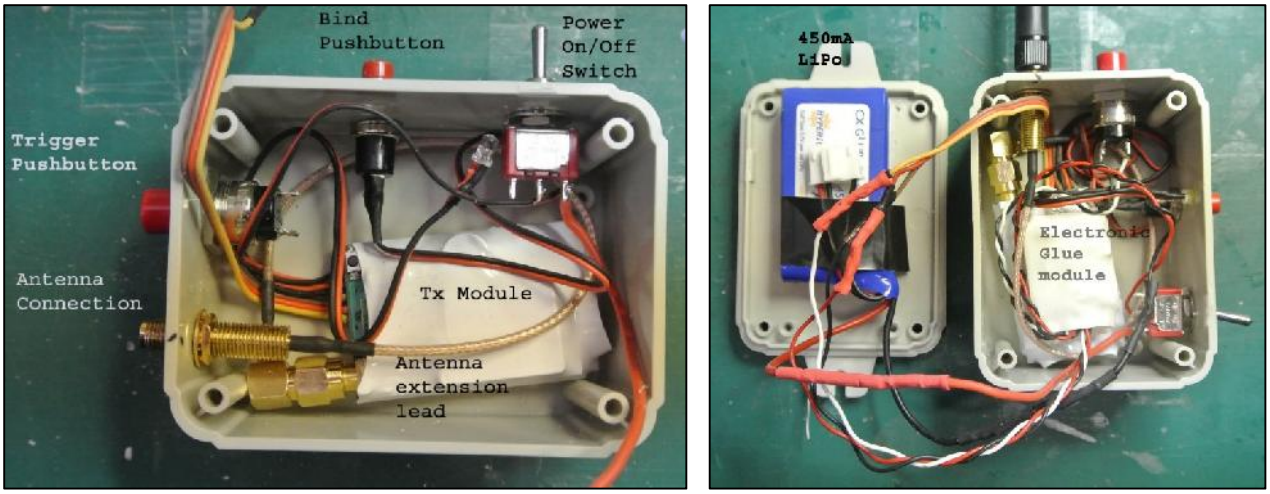
orders & the websites hold historic account data so you can see what you've previously ordered. Payment by credit card, didn't investigate Paypal. The Tx module is quoted to be "full range" - whatever that equates to in yards or miles is outside the bounds of my knowledge! The Rx version ordered was the "end pin" version, in retrospect it would have been more sensible to order the "side pin" version to save a bit of space – both are same price, also specified as "full range". There is a "no pin" version for those skilled in the art of soldering – this saves more weight. Picture below shows an "end" pin Rx. The Rx assembly used the same servo as for my smaller bungee Corsair & a similar "mouse trap" arrangement – see pics below.

The "electronic glue" or to give it a proper name – Remote-DT encoder, is a special bit of clever circuitry provided by Phil Green, who very kindly supplied me with a module for evaluation. Looking at his website indicates that his knowledge of radio control & electronics must be exceedingly comprehensive. The module was provided in a "shrink wrap" envelope, approx ¾" x 1" with various trailing wires & a small picture of what to connect to what. Have a look at Phil's website - http://www.mccrash-racing.co.uk/sc/blog.htm has pics & a short description. For anyone interested in vintage radio control, the website carries a wealth of information.



Electronic Glue aka Remote-DT encoder module connections

Orange Tx Module parts

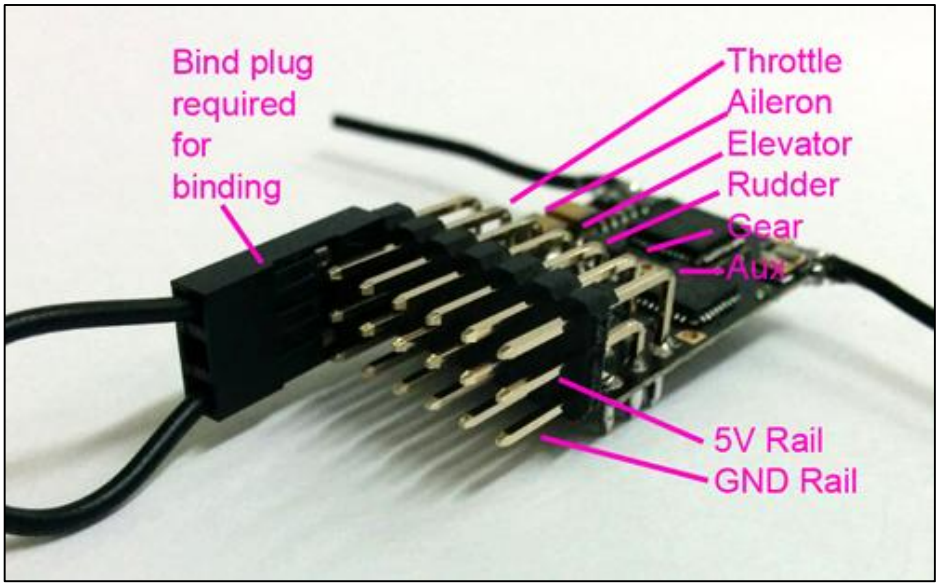


All the Tx components fitted into the Maplin box

The Tx module came as a package comprising a small electronics board with an integral antenna connector, an antenna & an antenna extension lead – electronics board was shrink wrapped with more trailing wires, two of which had a small "bind" switch attached & another two with the corresponding "bind" LED attached. The remaining three wires connected to Phil's bit as per his diagram, functions for each of these three are printed on the Tx module – match them to Phil's diagram.

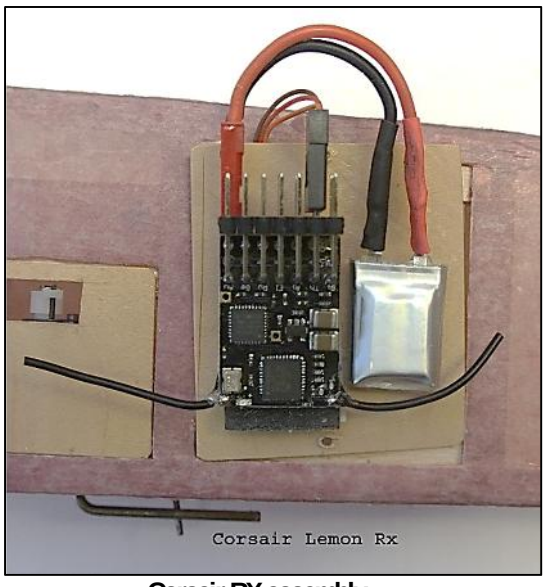
The Tx bits were all lashed up on the bench & a Rx package similarly assembled.

Lemon Rx Modules



A Module with binding plug attached

Not knowing anything different, I used the 1st channel next to the binding connector (throttle channel) for the servo connection. Followed the Lemon Rx instructions (the manual can be downloaded from the Lemon website) for binding the TX & Rx by powering on the Rx first & then the TX module whilst holding the "bind" button on. To my surprise, after a beep & flashes from leds, pressing the DT "Trigger" switch moved the servo arm (but don't forget to remove the binding connector first). Very gratifying! Next stage was to assemble the Tx bits into the box, which required five suitable size holes drilling – two on the top for the Tx antenna & the "Trigger" switch & three on the side for "On/Off" switch, the bind button & the bind LED. Note that I used the antenna extension lead which allowed for judicious use of Velcro applied to the Tx electronics module enabling it to be stuck to the bottom of the box, then the "electronic glue" module to the top of the Tx module with more Velcro & the Lipo battery likewise to the box lid. Some careful arrangement of the wires, cutting to length as necessary for the TX module to "glue" connections & soldering these together, plus the connections to the "on/off" switch & "Trigger" switch completed the job. Again, it all worked when switched back on. So far, so good. Flight tests next when the weather allows as my old Corsair A2 has been "adapted" to take an Rx assembly as a test bed. The Le Kid is now being likewise adapted but as a "new" build model.



Corsair RX assembly

Corsair installation

Curiosity point! I noticed that after several "on the bench tests" with the RX left on for a while, it all stopped working. A quick check of the Rx battery voltage revealed it was at 3.5v, right on the bottom end spec for the Rx module – changing the battery for a charged cell & it all worked again. Time for a check of the Rx module current drain? This indicated that the steady state current drawn was around 32mA, rising to around 46mA when the dt was activated but peaking momentarily around 90mA! This tells me that a single Rx battery would definitely not last for a day's flying if the Rx module was left on. Alternatives seem to be:

(i) disconnect the battery after every flight - fiddly;
(ii) fit an "on/off" switch to the Rx module – more weight but ok for a sport model;
(iii) take a few charged spare batteries & change after a couple of flights – depends on retrieval time & remembering to do it;
(iv) fit a larger capacity battery – more weight & larger size, next size up looks like 100mA.

Not much better. I think I shall follow option (iii)!

Summary: For sport flying, this is a good way to go. The Rx modules are cheap enough to be made up for specific models & "tailored" to suit in terms of fitting. However, for any form of competition flying, the Leo Bodnar system (previously covered in the NC) wins hands down as it is smaller & lighter – particularly the Rx assembly as Chris Redrup has shown. Downside is the Bodnar Rx cost, which at present is listed at around £50 for just the Rx.

Note: For the more technically advanced - Phil Green mentioned a superlight Rx from Deltang - http://www.micronradiocontrol.co.uk/rx_dt.html as a possible alternative, a quick look at the website indicates my usual lack of knowledge on such topics so I'm unfit to comment!.

Roy Tiller has assembled his Bodnar Rx components to be an interchangeable module – one assembly fits all models (as indeed does Chris's). A minor downside of this approach is to have to swap the module from model to model, but not really a problem as most folk can only fly one model at a time!

As a final comment – old age and a deterioration of near sight vision coupled to the definite loss of dexterity when soldering didn't prevent me from making a reasonable job of trying "new" (to me) technology. Now all I want is a "bring me home" bug & matched receiver to find errant models that land in those dreaded gorse clumps at Beaulieu! So have a go – you could be pleasantly surprised & small field free flight becomes very viable.

Supplier details & web links:

Orange Tx Module:

http://www.hobbyking.com/hobbyking/store/__40205__OrangeRX_DSMX_DSM2_Compatible_2_4G Hz_DIY_Transmitter_Module.html

Lemon RX Module:

http://www.lemon-rx.com/shop/index.php?route=product/category&path=59

Bits:

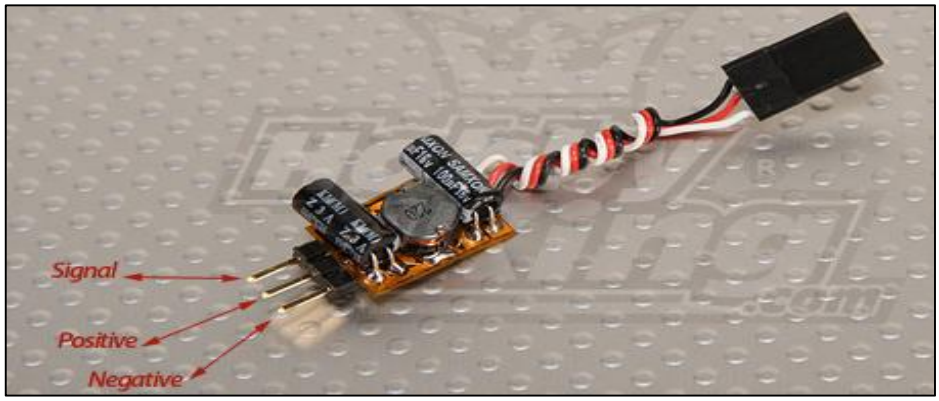
Maplin: www.maplin.co.uk
Component Shop: www.componentshop.co.uk

"Electronic Glue" alias RDT encoder

RDT Encoder module can be obtained by contacting Phil Green via email:
philg@talk21.com

Postscript from Jim Paton

Jim posted details of a voltage "booster" – in my ignorance I was unaware of such a device. It ups the nominal 3.7v dc from the single cell Lipo to a nominal 5v dc. As the lower spec limit of the Lemon RX is 3.5v dc, this seems a very sensible approach, so worth a modest investment to try. Available from Hobby King for £2.09!



TURNIGY Voltage Booster for Servo & Rx (1S to 5v 1A)

It plugs into your single cell lipoly and will boost the voltage to 5V, allowing a receiver to run on a single cell lipo! This little voltage booster weighs just 2.9g with wire and plug and full length pins. It is built on a flexible PCB (the same type used in your mobile phone to control the screen) so it's very light, flexible and thin. Removing the wires and plug plus cutting the pins down will reduce weight by a further .6g!

Operating Voltage : 3.2V - 4.2V; Operating Current : 1A: Weight: 2.9g

Roger Newman

Crawley Indoor - Nick Peppiatt

BMFA South East Area Indoor Meeting, Crawley 8th February 2016

Following our esteemed editor's exhortation in the last issue to send in reports on other indoor flying meetings, I thought a report on my experiences at this annual BMFA South East area meeting would be in order. It takes place in what must be the best indoor flying site in the area that is currently used – the sports hall in the K2 Sports Centre in Crawley. The photographs were taken to try and give an impression of its size – 54.5 m x 37 m and 12 m high –large enough to accommodate twelve badminton courts.

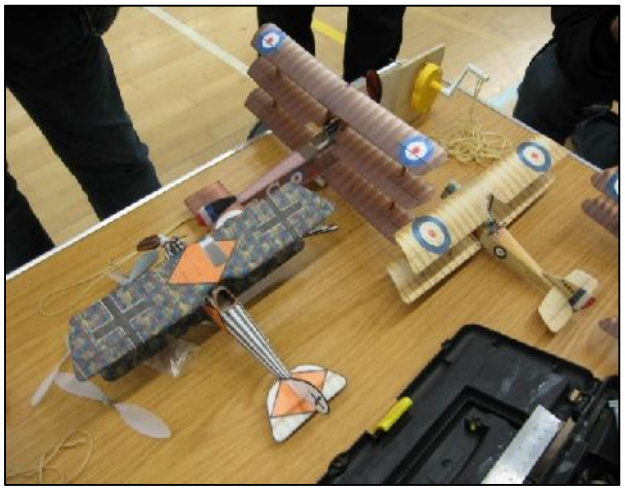
View of hall looking at one corner, SAM's stand is in the distance.

View looking at other corner of the same wall

The meeting is entirely free-flight, and although I sometimes dabble in the dark arts of indoor RC I do not like attempting free-flight when radio models are flying. To satisfy this need the Crawley & DMAC also organises an indoor RC meeting in the hall to follow the FF event.
The free flight session itself is divided into several competition and fun-fly periods.
The three competition slots, when the flying of dissimilar models is actively discouraged, are as follows: -

a. Glider – hand launch and catapult
b. Lightweight duration – EZB, Living Room Stick, and Gymminie Cricket
c. Open Scale, Peanut Scale and Legal Eagle.
   The size of the hall allows the heavier Open Scale models to circle at one end, with the lighter Peanuts and Legal Eagles at the other.

The competitions are followed by massed launches of Hangar Rats and Ikara Butterflies, the last one down being the winner.
On arrival I met up with the scale aficionados Bryan Stichbury, Mike Hadland, and Vibes and Divs Masters and shared a table with Lee Bates, who makes WW1 flying scale marvels from 2mm thick wall foam decorated with printed tissue.
I'd taken along my Sablatnig SF4 triplane seaplane for its first indoor session. The model is a design by Loubomir Koutny, which had been published in the Aeromodeller December 1992 edition and later kitted by Ikara, the kit plan clearly being modified from the AM drawing. This model had been trimmed outside in the long grass at Middle Wallop (see Russ Lister's report in the August 2014 New Clarion) and flies in a left hand circuit. I had felt that a little more right sidethrust might be needed to open out the left turn, which appeared quite tight when flow outdoors, but I'm glad I left things alone as the turn suited the indoor environment perfectly. On around 700 turns of the ¼" Tan II motor it was climbing to a good height, so things were looking encouraging.
However, a problem with this model is the lack of documentation. I have only found two photos of the original and no three view drawing. The best documentation source I have found is a Cross and Cockade article on the Sablatnig floatplanes and the photographs show no sign of the camouflage indicated on the Aeromodeller plan. Lee Bates, something of an expert on WW1 types considered my interpretation of a fabric and wood and aluminium cowl finish quite reasonable. The wood finish was achieved simply by the use of brown Esaki jap tissue. Fortunately, the lack of documentation is not so much a problem at Crawley, as chief judge Don Coe has his own original but fair methods of statically judging scale models.

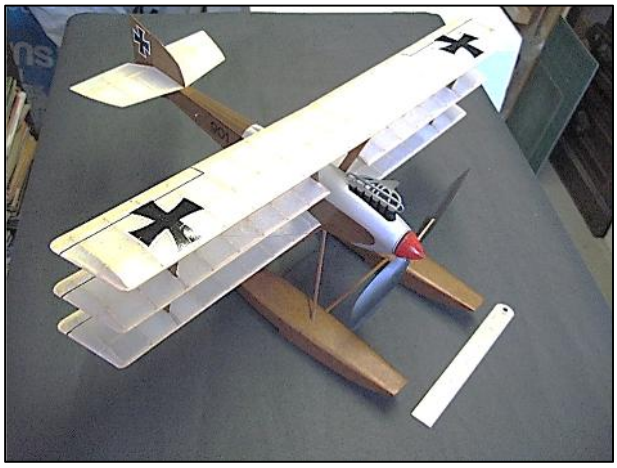


Several of Lee Bates' amazing models constructed from foam sheeting, Sopwith Triplane, Martinsyde Elephant and Pfalz D.III

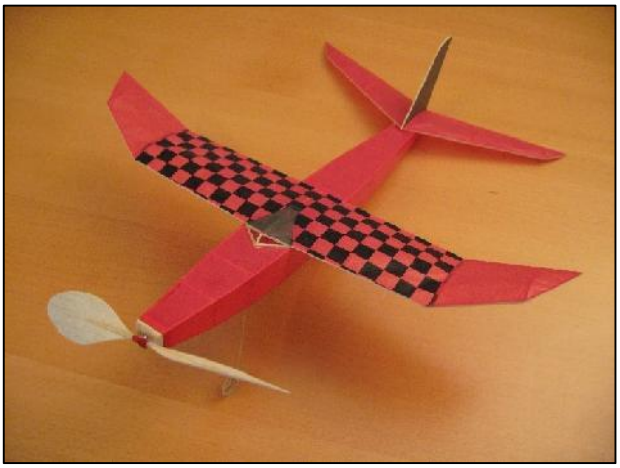
The scale judges hard at work. The chief judge, Don Coe, is nearest the camera

.

There are contradictory reports of the success of the original Sablatnig triplane; I think the fact that only one was built speaks for itself. Koutny's interpretation, however, flies in an extremely stable manner probably much better than the original fullsize.
I also flew Legal Eagle in the scale slot – the Prime Suspect designed by Dave Aronstein.
I was very pleased to get one flight of over three minutes, the first time in this hall.



Sablatnig SF4 480 mm wingspan



Prime Suspect Legal Eagle

My other competition entry was in Living Room Stick, where I flew a Joe Krush designed 777. One problem at Crawley is the roof, which is a mass of lights and girders, as can be seen in the photos of the hall; these can trap small models. They can generally be released by use of a roach pole, but this can be very time consuming, as I have found to my cost at previous meetings. After a first flight just brushing the rafters, my problem this year was a lack of climb, which I eventually put down to a loose joint between the wing and its rear mounting post.
All in all, another good Crawley indoor free flight meeting – this was the 41st and the 11th held at the K2. Many thanks are due to the South East Area BMFA Committee and the Crawley club for their organisation.
If you are interested, the full results will be available on the BMFA South East Area website www.sebmfa.org.uk.
This event is generally held on the first Sunday in February and attendance is recommended. The K2 is easily reached from Junction 11 of the M23.

Nick Peppiatt

FF Competition for Dummies - Kathy Wingate

Preparing for Competition day.

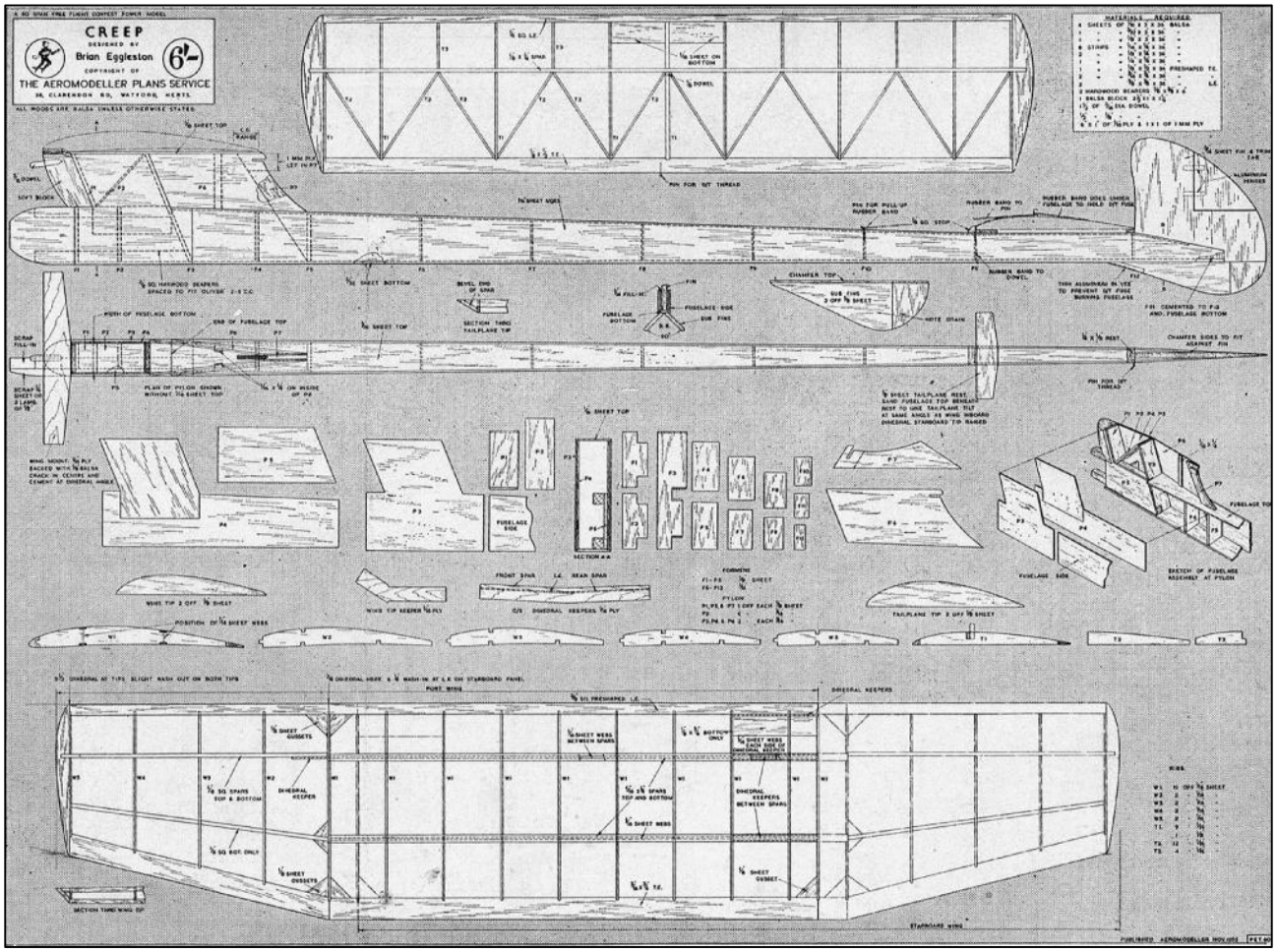
The National Championships occur once a year, usually during the May Bank Holiday, and as it covers three days it gives all aeromodellers a chance to fly their model of choice, be it Free Flight rubber, glider or power.
Of course like all models they have to be trimmed before taking to the air and problems occur with F/F Rubber, Glider and Power as they all definitely have a mind of their own. They have to be trimmed very carefully so that they fly round in circles. So even if the wind is blowing hard they don't go straight down wind and out of sight in a matter of seconds. No, hopefully they circle and climb to get a bit of height first. They are looking for thermals, a favourite pastime for these F/F models. The secret for these models is to achieve as long a flight as possible and still be within sight of the aeromodeller who is flying it in the competition. Binoculars are allowed but cannot be too strong, 8x is the limit. Don't forget you have no control

over them whatsoever once you have thrown the model into the air in the case of the rubber & power models or in the case of a glider, towed into the air.
So you need a team for these competition planes, the aeromodeller, who has been responsible for preparing the plane for the event, time keeper who must have a stopwatch and a pair of binoculars and lastly a runner. I have heard the latter being called a 'fetcher mite'. Once in the air the timekeeper and runner take over. The time keeper has to have his eyes on the model at all times until it is out of site when he stops the watch and records the time. Now he has to take a compass bearing on the point where the model disappeared for the runner to be able to retrieve it. The time keeper and the 'fetcher mite' confer to establish which point on the horizon the model might have landed near. These discussions can take a long time as the lack of features on the horizon of aerodromes don't make it easy to describe a specific point where the model was last seen. What might look like a bush from the take-off point can look very different when you get to the other side of the airfield. That bush might even be a car and could have moved by the time your runner gets there. As a potential time keeper/runner I find a straight walk out on the compass bearing is the best way to retrieve. However this is not always possible when the plane is wanted a.s.a.p. for its next flight. Sometimes the owner of the model may drive out to the other side of the airfield to start the search. In this case there is a chance you might get a ride back.
Another good thing to bear in mind is that, as all the planes are being blown in the same general direction, there is a good chance that it will be with someone else's model. So if two or three planes take off at the same time they may be out of sight but keeping each other company. This means that another aeromodeller may have found your model before you get there. In this situation aeromodellers have trained themselves to put their name and a phone number on the plane. Also friendly aeromodellers have been known to move a model into a more conspicuous position. This is very useful if the model has landed in a field of sheep or cows, the inquisitive kind! Cattle can lick a model to death, so keep your mobile on you at all times. It has also been known for models to get back to control before the runner. All aeromodellers are friendly helpful people and you hope that they have read the label on the model and informed the owner by mobile phone that the model has been found and returned to control as otherwise the owner will be left still be searching in vain.
Once the plane is back with its owner it is inspected and hopefully only minor repairs are needed. However if the damage is more severe aeromodellers are always prepared with bits of glue, balsa and tissue. They are all determined that their model will make another flight.
The last model I initially mentioned was the F/F Power model. These models have to be trimmed to glide when their engines cut out. They also need the additional members of the team to spot and retrieve. They have an engine for motive power and the duration of the engine run needs to be timed as there is a limit, usually of the order of 10 seconds, but can be as little as 5. This timing can be achieved with the main timekeeper's stopwatch by use of the left hand lap/reset button, otherwise you need a second timekeeper to time only the engine run.
Their expertise is to go straight up under power for a specific time after which their engine cuts out and they glide. These aeromodellers, as well as trimming, must get their engine timing right and hope that at the top of the climb the model finds a thermal. If their motor overruns it is a no flight and will not count. This means the flight must be re-flown and they still have to go and find the model and fetch it back.
Lots of aeromodellers have bicycles in the boot of their cars. So another essential preparation for a competition is practicing riding over bumpy fields.
I trust this gives the uninformed some idea what FF is all about

Kathy Wingate.

The Creep - John Thompson

This model was published in the November 1955 Aero Modeller. Designed by Brian Eggleston, who recently has written some articles on the development of this model.
In recent years the model has been made popular by "Our friends from the North", culminating in Mike Quinn's win at the Nationals in 2015.



The model design is that of the style that was becoming popular in the early 50's in the UK, especially those more interested in the "open" classes rather than the FAI rules models.
The relatively light weight construction is actually very sound in respect of the wing with its double I spars, resulting in a pretty rigid and warp free set up.

The wing section is excellent (what else would one expect from Mr Eggleston protagonist of the LDA sections which have swept the world in recent years in the F1A class) and fits the bill for a fast climbing model with sufficient under-camber to give an enhanced glide.
I built 3 of them over the last 25 years. The first two were not too successful, originally powered with an OS10 with Nelson head.

I had problems with erratic climbs. The model is OK up to say 7 seconds and then it would roll left out of phase or else would go vertical with a big stall off the top. Mike Quinn says his model suffers from the big stall on some days.
I tried everything that I knew, CG, warp, thrust line etc. but to no real avail. I finally got a consistent spiral climb with an Elfin 2.49 aboard, but I had done away with the double under-fin and replaced it with a much bigger one. (As an aside the magazine small view plan shows an angle of 90 degrees for the sub-fins but the later plans show 120 degrees, so all of you using the latter are not meeting the Classic rules?) To be truthful the Elfin represents more the power available in those days, rather than the high power of modern Nelson headed glows.
Trimming as discussed in the magazine article, with typical British understatement, says that with an almost 100% CG, the pull out is rather slow ------ more normally straight down into the Keil Kraft grass where we all fly ?
Late last year Roy Vaughn inspired by the Quinn model, decided to build one, powered with an AP Hornet 2.5 with Nelson head. Roy being the complete modeller, made the engine head plus an electronic timer to ensure accurate engine runs. He also installed an Aeris RDT these are now almost an essential bit of kit to have on any power model. I personally will not fly without them now. Saves so much carnage and heart ache. Roy's model is still undergoing trimming but has made one long flight which proved its worth and encouraged me to build another one..
Mine is similarly powered but uses a "Nelson Dixon" head which turns an APC 7x3 at 24.5 k, on high nitro, about 0.65 bhp

My construction followed the plan wing, but I made the tailplane full geodetic with multispars (more stable in my book). I simplified the pylon, but otherwise followed the plan. However I did use only one underfin with the same side area as the double one shown on the plan.
This allows me to use right rudder underneath which helps combat the left rolling tendency towards the end of the run, mentioned before.

The model is still in the trimming stage, it is still not always satisfactory in consistency of the climb, but is a big improvement on my previous efforts. The model uses a fast clockwork timer for the engine run, plus an Aeris stand-alone RDT.

Launched vertically it reaches 821 feet in 10 seconds, according to the altimeter. Transition is about OK but messy, not to my taste, hence more trimming sessions. These will have to be done at Beaulieu , Chobham is rather small for DT'ing from those heights. A further point is that it is, on occasions, rather difficult to see exactly what the model was doing at transition at such heights, which may require repeat flights to ensure validity of what one thought that they had seen!. The glide is pretty good, the light weight of the whole model helps here. A worthwhile build, but with the restriction of flying sites, etc, these models with longer runs than say 5/6 seconds will not be permitted.

Sad but true. Enjoy it while you can. One build item which may be of interest. I have over the last year been using Esaki Medium tissue, rather than Light over 10 micron Mylar. The weight difference is almost negligible, but importantly I found that the Medium did not seem to slacken in damp conditions. Light does so, which is not too desirable on power models.

Model details;

Engine AP Hornet 2.5 APC 7x3 24.5k

Weights;

Wing 84g, Tail 22g, Fuselage 92 g (includes pylon 20 and fin 3.5) , Timer 20g, RDT 12g, Engine etc 156g.

Total 396 g 13,9 ounces.

Rigging;

Wing washout both tips 2.5 degs, no other warps.
Wing +3.5deg; Tail +2.1 deg; CG 85 %; Thrust line 4 deg down 4 deg left.

John Thompson

● *The model that is winning everything in the North*

CREEP

by Brian Eggleston

TO FOLLOWERS of our regular Club News columns, the somewhat unusual nomenclature for this high performance contest design will be familiar reading. "Creep" has been a regular contest winner since it took first place for its then junior designer, in the Hamley event in 1953. From its many versions and with power units ranging from 1.5 to 3.5 c.c. it finally emerges in this, the latest Mk. 17 for an Oliver Tiger.

Consider the list of successes:—

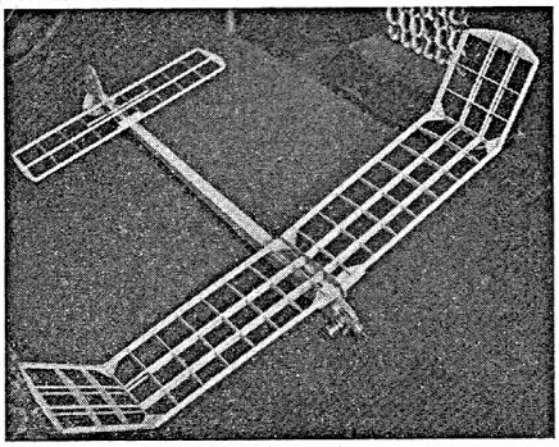
1st	Hamley Junior	1953
1st	*Daily Despatch* Rally (Junior) ...	1954
4th	Frog Senior (9 : 54)	1954
2nd	Keil Trophy (9 : 22)	1954
1st	Northern Area (11 : 34) ...	1955
3rd	,, ,, (9 : 27) ...	1955
1st	*Daily Despatch* Rally (Junior) ...	1955
4th	Frog Senior (11 : 40)	1955
5th	,, ,, (11 : 19)	1955

1st Scottish Festival (11·08) 1955.

So far this season, the contest average for Brian's model is 2 : 53, while Arthur Collinson's Torp 15 version has maintained a figure of 2 : 55. As this includes many flights made over the undulating hazards of Baildon Moor, where Bradford and Leeds men usually fly, the average is a good one and indicative of the high performance of the model.

There are really two versions to be built. A 14-ounce lightweight with a Torpedo 15, Webra Mach 1 or an Elfin 2.49 is perfect for open events, whilst with an Oliver Tiger, the weight comes in the region of 16 ozs., and a little ballast or extra heavy structure here and there brings this up to the required 17.5 ozs. for F.A.I. It is best to decide whether yours is to be F.A.I. or "open" before selecting your balsa, so that any excess weight can be utilised for strengthening the structure.

Simple framework shows an earlier version. Plan includes all latest modifications.



Construction is purposely kept as simple as possible, both to save weight and also to keep building time to a minimum. The Fuselage is all-sheet with "doublers" at the pylon area to strengthen, and a wide platform for the wing leading edge prevents wing-rocking and keeps the weight forward. Unique feature is the Vee under-fin arrangement which are for the 3-point take-off rule and also to save loads on the tailplane which occur if tail subfins are used.

Wing and tail are easy, the tail having the current vogue in anti-warp rib positioning. Keep the tail and wing-tip panels light as possible, and make sure that the advised wash-in (leading edge lifted) is applied to the starboard (right side) inboard panel of the wing.

The short nose, low pylon and long tail moment are well in keeping with the latest fashion and make this a most docile model to fly in spite of its very fast rate of climb. (Arthur Collinson's was acknowledged to be fastest of all at the '55 trials.)

Built according to the plan, the model should glide in fairly wide right hand circles. If from the hand glide it appears that some incidence is necessary, add it to the wing and not the tailplane. First power flight should be made with very low power and the model ought to climb in wide right hand circles. Any tendency to turn left should be counteracted, as this would be fatal under full power, and can be cured by using right sidethrust or increasing right rudder fractionally. Gradually increase revs., using about 8-10 secs. motor run so that the model does not stall into the ground. Proceed carefully until on full power; the model climbs in a near vertical spiral to the right. When the motor cuts, the model should roll into the glide without loss of height. With the layout used, the model has slow stall recovery so use lengthy motor runs to give the model plenty of altitude in case it stalls off the top of the climb during early test flights. Average duration is about 4½ mins. from 15 secs. engine run, but this could certainly be increased. The model will handle up to 3.5 c.c. engines, the only noticeable difference being a slightly faster climb.

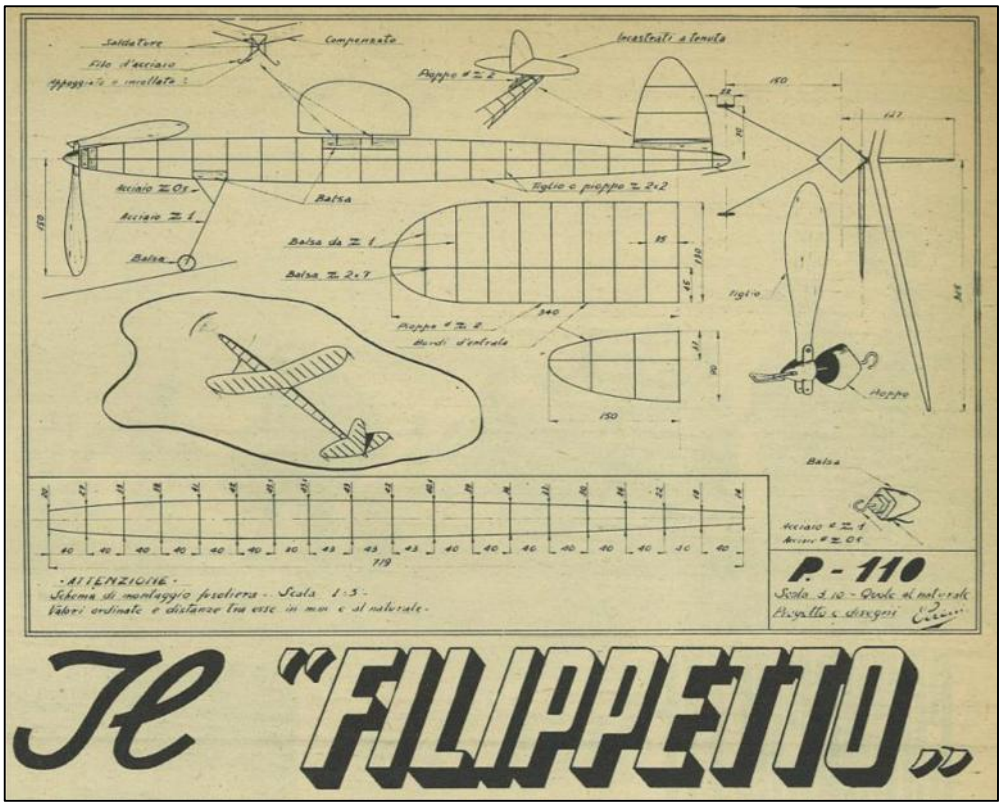
Report No. 62. More from L'Aquilone.

Some months ago, with the approach of winter and its promise of wind and rain, I included a few rather amusing covers from L'Aquilone to hopefully lighten the mood. Here now is a slightly more serious look at some of L'Aquilone starting with the cover of the first issue dated January 1931. At this time the magazine covered mostly full size aeronautics with a small content of aeromodelling. The cover shows a flight of twin hulled flying boats probably Savoi Machetti S55's which first flew in 1924. During 1933 Air Marshall Italo Balbo lead a squadron of 24 S55's on a famous flight from Italy across the Atlantic to Chicago U.S.A. completing the flight in a time of just over 48 hours.

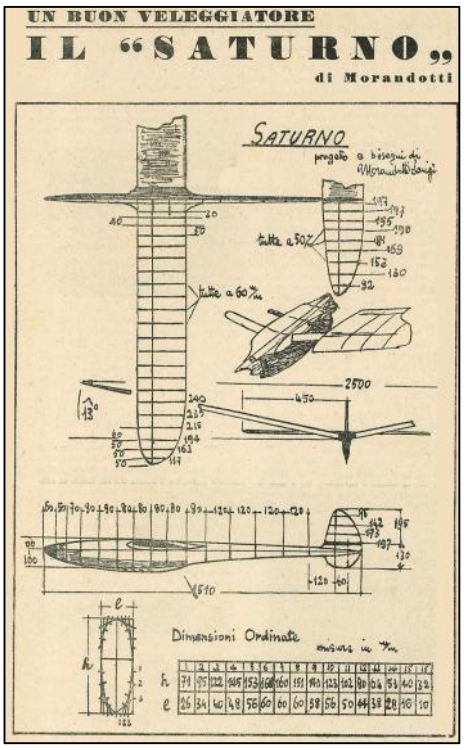
By 1933 colour had been included for the cover and Issue No. 6 shows a young boy with a quite modern looking model. The words under the L'Aquilone header translate as "Aeronautical monthly for young people". The contents include an article on built up fuselage construction and another on stick fuselages with rubber motors top and bottom, either geared or with push and pull propellers.

The January 1940 cover declares the magazine to be "Weekly for young people" and shows a rather nice float plane with two coaxial props which should solve the torque problems experienced on R.O.W. The model name is Rondine (translates as Swallow). The accompanying article, which unfortunately has no plan, reports that Rondine made an officially observed flight of 1m08s and distance of 723mtrs.

Now to a couple of plans. The 28" span rubber model Filippetto by Eraldo Perini is from L'Aquilone October 1943.



The 98" span glider Saturno by Luigi Morandotti, which according to the accompanying article has a wing section specified as "Dr. Sckukowski" and stabiliser section "Eiffel 338", is from L'Aquilone February 1945.



The language used by L'Aquilone is of course totally Italian and whilst I and Google Translate have done our best, there may well be errors in the above report. Designers names are of particular concern, could I have in error used the name of the draughtsman or the author of the article Please advise me of corrections to any errors that you may spot.

The collecting, digitising and "cleaning" of L'Aquilone magazine issues from 1931 to 1945 has been a 10 year project for Eraldo Padovano whom we must thank for making these historic magazines available to us on CD.

Should you be interested in purchasing any of these CD's, please email me for Eraldo's contact details.

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

Roy Tiller

Southern Coupe League - Peter Hall/Roy Vaughn

February 14th. Round Two of the Southern Coupe League 2016

B.M.F.A. First Area at

Ashdown Forest, Beaulieu, North Luffenham, Merryfield, Salisbury Plain and Sculthorpe.

It is Sunday the 7th of February, one week before the competition season begins with the first area meetings. The B.B.C. weather site, usually the most optimistic, predicts 17 m.p.h. and rain. Today, storm Imogen is approaching and I fear for our roof. 2016, which I predicted would be a golden year of peace and contentment, is already turning nasty. Swarms of under-regulated drones and over-regulating lawyers are threatening our innocuous sport. The N.H.S. is about to collapse, and by the end of the year, the U.K. will have left the E.U. and disintegrated, and the channel tunnel will have been filled in. Abroad, Aleppo is about to fall and North Korea has tested a missile. If D.Trump makes the White House we'll have two narcissistic megalomaniacs with strange haircuts and their fingers on the button. I'm abandoning my unilateralist stance and planning a bunker.

Where was I? Oh yes, the First Area. Crookham, piqued at being pipped at the post last year by Bristol and West, is determined to win the Plugge Cup. We are in training and expected to fly at least two if not three classes on the day. Five rounds and a fly-off with Coupe at 17 m.p.h. is at least seven miles of retrieving. Performance restrictions now being considered would at least provide some relief here. In anticipation, I have produced and flown a 30 gram B.M.F.A. rubber model (still too much performance) and I'm going to try a 5 gram Coupe. Those paying attention will have noticed that this will be round two of the Southern Coupe League. Round one was the Grande Coupe de Birmingham before Christmas. Those hanging on our every word will notice that Sculthorpe now joins us as a venue for the Area event.

It is Monday the 15th of February. The results are coming in from the venues. The average windspeed was very close to the forecast with gusts up to 25 m.p.h. cold, but no rain: an uncomfortable day. Only Merryfield reported better than expected weather but new security pass requirements prevented all but four from attending: not, I hasten to add, that Merryfield flyers are in any way insecure, it seems the new system didn't deliver in time. Only Alan Brocklehurst flew coupe, scoring the second best time overall but with only two maxes.

Gavin Manion at North Luffenham dropped his first flight badly but went on to get four maxes and so takes more league points than Alan. Gerry Ferer flew away on his second and spent the rest of the day retrieving. No-one flew at Ashdown Forest and Salisbury Plain was considered too difficult to access.

Gavin Manion's windy weather model

Mike Marshall at Sculthorpe reports that four flew, 'a hard slog all day.....hostile elements.....everyone suffered damage to their models'. At Beaulieu Lake by some miracle, no-one landed in the flood. Only two flew coupe, Roy Vaughn demonstrating that all you have to do is fly a proven model with no mistakes and perfect air- picking to take five perfect maxes and an effortless fly-off to win regardless of the conditions. Why can't we all do that? Peter

Tolhurst, spent the morning hunting Plugge points with his E36 and then flew five rounds with his Etienvre. This was out of trim with a fin repair which upset the climbs. Never mind, he is awarded the Crookham Medal for effort.

As for the league, Vaughn and Manion are clearly on form. The third round is the London Gala on Salisbury Plain Sunday 24th April. I am making no more predictions, not even that we will be flying a 90 second max. and a D.T. fly -off.

Postscript; Mr. Vaughn informs me that his performance was not as perfect as I have reported above. He had a hub explode and a D.T. failure (not R.D.T.) He flew two Coupes both wing-wiggler only. This system allowed him to place the model gently at a shallow angle into the wind; safer in the gusty conditions, than a vertical V.I.T. throw.

First Area Results

	Entrant	Club	Time	Flyoff	Maxes	Score
1	R.Vaughn	Crookham	10.00	2.39	5	17
2	A.Brocklehurst	B&W	9.13		2	11
3	G.Manion	Birmingham	8.41		4	12
4	T.Bailey	Coventry	7.03		1	8
5	P.Tolhurst	Crookham	6.10		1	7
6	S.Willis	Vikings	5.20		0	5
7	A.Moorhouse	Vikings	4.59		1	5
8	M.Marshall	Impington	4.00		0	3
9	G.Ferrer	Timperley	3.33		1	3
10	G.Hart		0.04		0	1
11	P.Adams		0.00		0	0

Southern Coupe League current standings after Rd.2

	Entrant	Club	Coupe De Brum	First Area	London Gala	Oxford Rally	Odiham	South' Gala	Crook'm Gala	Coupe Europa	Total
1	R. Vaughn	Crookham	12	17							**29**
2	G. Manion	Birmingham	16	12							**28**
3	P. Tolhurst	Crookham	10	7							**17**
4	A. Moorhouse	Vikings	10	5							**15**
5	A. Brocklehurst	B&W		11							**11**
6	T. Bailey	Coventry	2	8							**10**
7	P. Ball	Grantham	8								**8**
=	M. Marshall	Vikings	5	3							**8**
9	D. Chevanard	Beaujolais	7								**7**
10	C. Redrup	Crookham	6								**6**
11	S. Willis	Vikings		5							**5**
12	B. Dennis	Grantham	3								**3**
=	G. Ferrer	Timperley		3							**3**
14	D. Greaves	B&W	2								**2**
15	J. Wheeler	C/M	1								**1**
=	M. McHugh	Peterborough	1								**1**
=	G. Hart			1							**1**
18	P. Adams										**0**

Peter Hall/Roy Vaughn

Secretary's Notes for March 2016 - Roger Newman

Cancellation of Easter Meeting

Due to a combination of circumstances, we have reluctantly taken the decision to cancel the Easter Meeting. You may well ask - why? Here is some background.

I was invited back to MW to meet again with the Commanding Officer, the Airfield Manager & the Flight Safety Officer on 3rd March to discuss a critique of our risk assessment & for them to learn more of what we do. The tenor & dialogue of the meeting was very positive, however as it stands we do not meet the requirements that allow us to fly on the airfield with our current risk assessment as documented.

Having said that, there is a real willingness by all concerned to accommodate our activities provided we can meet requirements/rules for flying. This means essentially:

(i) Our risk assessment has to be re-written to take account of these factors & the points raised by the critique of our original submitted risk assessment;
(ii) It has to be resubmitted, appraised & re-rated – hopefully then to be in compliance with the requirements. The base Flight Safety Officer is prepared to work with me to achieve this goal, which (for me) is most encouraging.
(iii) Such rules/requirements then have to be fully communicated in a timely manner to the membership.

Your Chairman & I talked through the various aspects of what to do & we concluded that it would not be appropriate to try & rush for completion in order to hold the Easter event & in so doing possibly not do justice to what we want – which is to put in place something that gives us a longer term & mutually agreed presence at MW, in particular without unilaterally jeopardising free flight activities on other sites. Hence we decided – reluctantly, that cancellation of the Easter event was the most sensible short term action, with a goal of having everything sorted out for the late April meeting.
Apologies all round to those folk who were looking forward to getting a breath of fresh air after a long dreary winter.
A few interim comments to keep all informed. We have taken on board suggestions from the membership regarding competitions.

Comp Rules: <u>All comps</u>

a) Comps to be flown in rounds of 1 hour, <u>with max set per round</u>, except HLG/CLG
b) 3 rounds per comp except HLG/CLG – standard 7 flights
c) The current DT "fly–off" rule to be applied to all contest flights, except HLG/CLG. *(This, incidentally but importantly, should eliminate the need for fly-offs at the end of the day.)*
d) Comp flying starts 12.00 noon & finishes 3.00pm
e) Prize giving in Museum car park area at 4.15pm
f) In the near term, no ic power comps are planned

General Rules that have been defined & agreed:

g) All models must be fitted & flown with operable dethermalisers as previously stated.
(Sadly, it is appreciated this potentially excludes Flying Scale Rubber & Jetex models.)
h) Sports power models (ic engines) <u>must</u> be limited to 15 sec engine run.
i) Access times to the field is to be restricted to 11.00am – 4.00pm, during which time there would be no full size aircraft movements.
j) <u>All</u> models flown on the field must be labelled with the name, address, phone number & BMFA membership number of the flier.

Other conditions regarding the flight areas available, weather & notification of members regarding meetings are under (positive) debate. Here we see a definite willingness by the Authorities to work with us to arrive at improvements on previous proposals, consistent with a revised risk assessment document.

The provisional comp schedule for the April meeting is:

Saturday 23rd April:

36" Bungee Glider – *combined Vintage/Classic, SAM1066 rules;*
Vintage Coupe d'Hiver, *SAM1066 rules;* **Under 25" Vintage Rubber**, *SAM1066 rules*:
E36 Electric, *Crookham rules - Motor run to be set on day.*

Sunday 24th April:

Up to 50" combined V*intage/Classic Glider*, *SAM rules & 50m line;*
Small Vintage Rubber, *SAM1066 rules*; **8oz Wakefield,** *SAM1066 rules.*
Vintage/Classic CLG/HLG, *SAM1066 rules;*

As more information becomes available, it will be communicated via the website & where appropriate in the NC.

Ramblings for the month

No flight tests yet for the Electric Burd. Homebuilt RDT is the subject of a separate article this month
An RDT Rx has now been fitted to a completed Le Kid – well almost complete but awaiting the AM15 to be mounted after fuel proofing.
Also now fitted to my ancient Corsair A2.
A new, smaller esc has been purchased for the Slicker Mite but no further progress on the build front. Otherwise, not a lot else has happened.

Your Chairman & I had a rather splendid day at Beaulieu during the month, light winds & conditions on the south side were much drier than expected. Elsewhere, the peri-track was well under water & the main runways truly waterlogged.

No-one else appeared & even the dog walkers were thin on the ground. I flew a Baby Burd, Linnet & faithful Wedgy, all performed on trim but once again a fuse failure on the Baby Burd resulted in a very long walk.
Your Chairman suggested the remaining fuse hank is subjected to a few quick bursts in the microwave!

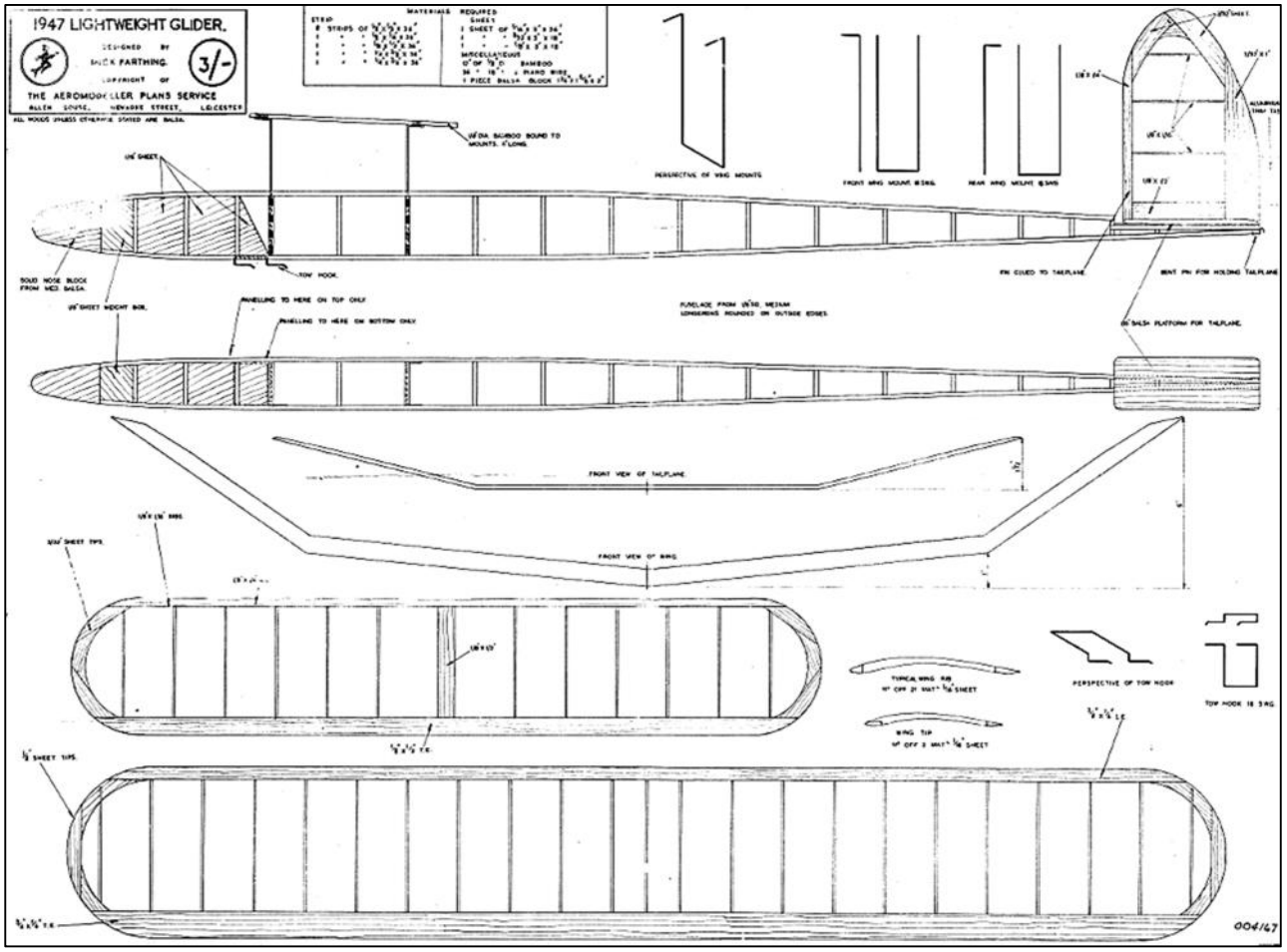
John took out an F1C model that he hadn't flown for 13 years. A few checks & true to form, it flew on rails straight up at rocket like speed! He also flew a (modified) Creep, which again went like the proverbial stuff off a shovel.

Took me back many years to when I was 15 & built a Creep with an Elfin 1.49, which staggered up – on reflection an underpowered & overweight model! Don't know what happened to it as I left home at the age of 16 to take up an apprenticeship. My parents probably gave it away along with other abandoned modelling possessions.

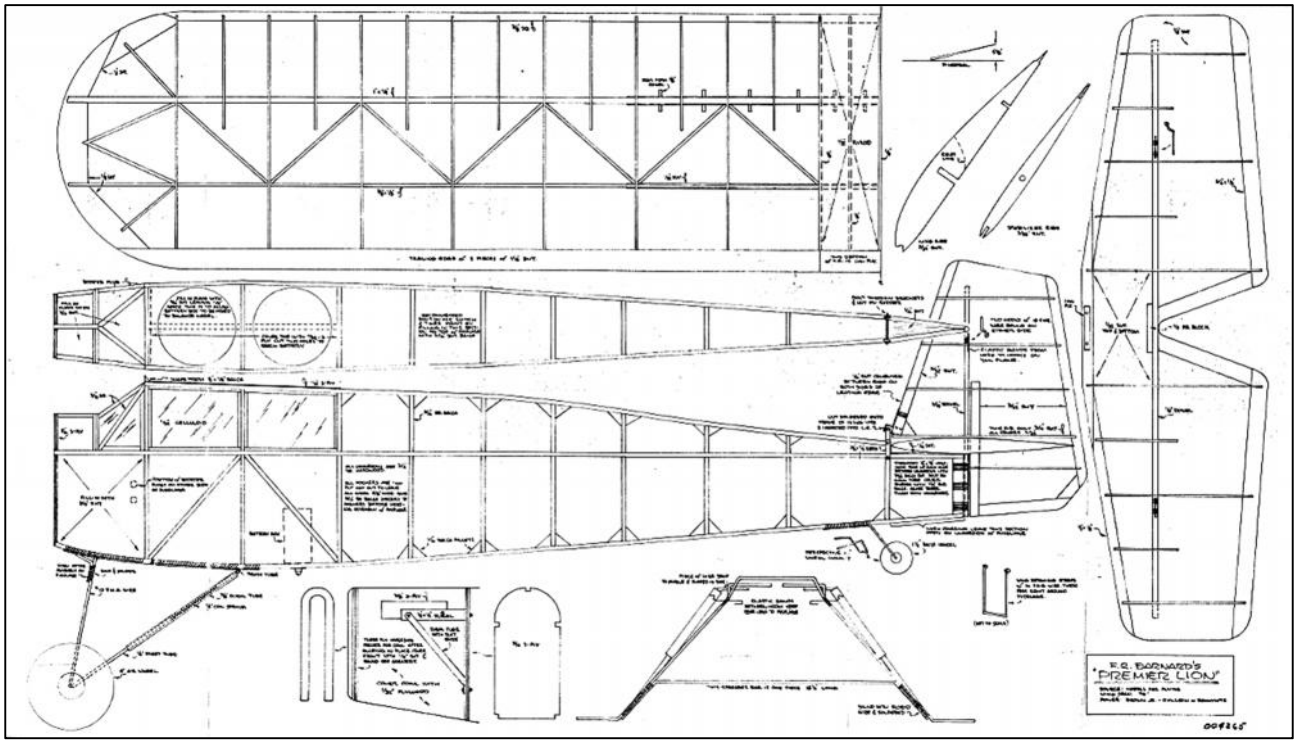
I was going to test my nice new RDT in the Corsair but – ever the complete idiot, left the Tx where I had put it – in a safe place on my work bench! Such is life.

Plans for the month

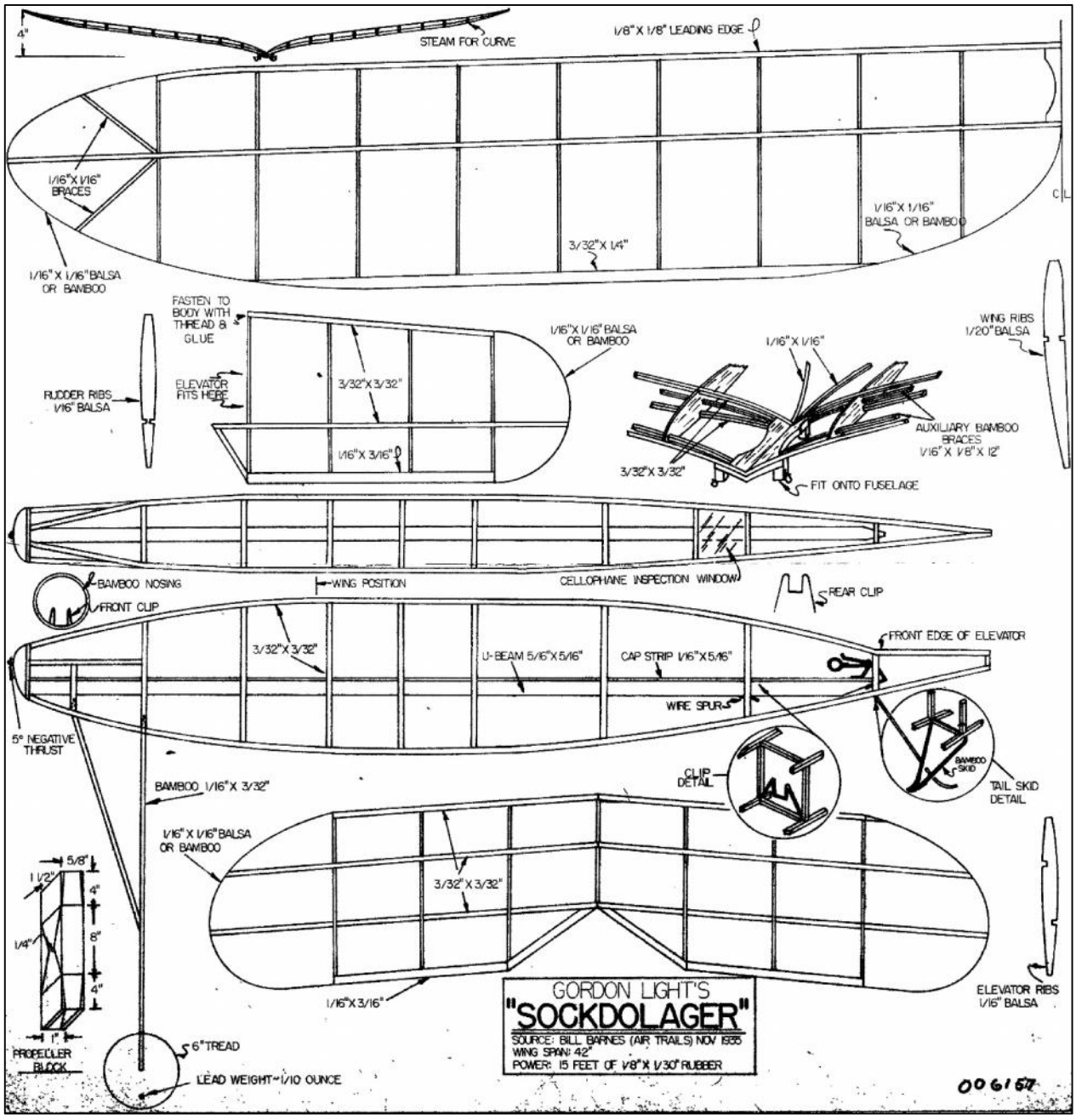
Glider: Mick Farthing rubber lightweights are seen from time to time, but rarely his lightweight glider. The late Dr Stephen Lacey was an enthusiastic proponent of similar models. Hence Mick Farthing Lightweight Glider



Power: An old timer sparkie – the Premier Lion.



Rubber: Even greater challenge than last month's choice! Look at that wing profile. Gordon Light Sockdolager – don't ask what it means.



Roger Newman

Croydon Wakefield Day

Sunday 8th May 2016

Salisbury Plain Area 8

F1B for the Thurston Trophy,
4oz Vintage Wakefield for the Fairlop Cup,
8oz Vintage Wakefields for the Ted Evans Trophy.
SAM eligible models allowed.

Marcus Lightweight Challenge
for the four Norman Marcus designed lightweights;
RAFFV, Supa Dupa, Dinah Mite and Bazooka.

Contest starts 10am. F1B will be in rounds.

Contact: Ray Elliott
ray.elliott8@btinternet.com, or tel 0208 997 7745

South Birmingham MFC

2016 Clubman Mini Speed competition

Sunday Apr 10th at Cofton Park
B31 2BQ

A) Two classes of engine, to be run in their original mode and on suction fuel feed only.
(1) Diesels
(2) Glow plug engines.
Both engine types, max capacity O.8cc or .049 Cubic inches.
It is permissible to replace burnt out glow heads with units utilising standard 1/4" UNF glow plugs. The use of Nelson, Glowbee and similar aftermarket plugs are forbidden. The PAW .55 and .8cc single ball race engines are allowed but **No** twin ball raced engines, only plain bearing units allowed. Examples are Cox tee Dee 049 and DC Merlin etc.

B) The contest will be timed run of 12 laps (l/2Mile) with the time to start from the pilots hand signal (raised Hand). The time recorded will be divided by 2 and read off a speed chart in MPH. The pilot must keep the flying handle on their chest during the timed part of the run. Approxmately head height during the run. No high flying. There is a total time limit of 7 minutes for the attempt.

C) Five runs can be recorded with the fastest to count. One re-run will be allowed per attempt if the timed run is less than two laps. Incomplete attempts over two laps will score zero points.

D) Steel lines with a minimum diameter of 0.010 inch. Length from centre of model to handle 35.00 feet. No minus tolerance but up to 6 inches over length allowed. Line groupers not allowed.

E) Only the Tom Jolley designed **"Burp"** Jan 1969 Aeromodeller
or the Chris Coote **"Meece III"** Oct 1970 Aeromodeller allowed.

F) The model can be fitted with either beam or radial mount engines.

G) Propellers must be commercially available. They can be made from Wood, Nylon or plastic (Cox propellers) No Glass fibre or Carbon fibre items allowed. Diameter may be trimmed but only one blade can be reworked to balance the prop.

H) Glow fuel will be supplied by S.B.M.F.C. with 15% nitro content total oil should be 20% castor/synthetic blend.
Diesel operators can use their own fuel mixes.

I) Proxy pilots are allowed. 'Builder Of Model' rule will not apply The entrants. BMFA membership number must be visible on the top surface of the wing.

J) Undercarriage optional

Details: contact Eric Hawthorn tel: 01384423547 email: erichaw33@hotmail.co.uk

OXFORD MODEL FLYING CLUB

FREE FLIGHT RALLY

11 & 12 JUNE 2016

Venue: Port Meadow, Wolvercote, Oxford

Sat. 11 June '16, from 6:30 p.m. "CHAMPAGNE" fly-offs.
F1G, F1H & HLG/Cata (combined)

Sun 12 June '16, from 10 a.m

Max decided on the day

F1G
F1H
E30/P30/CO_2 (comb.) } 5 flights in 2 ROUNDS

MINI-VINTAGE RUBBER (max span 34")
VINTAGE + CLASSIC GLIDER (comb.)
HI-START GLIDER (any design, 36" max span)
TAIL-LESS R+G (comb.)
} 3 flights NO ROUNDS

H.L.G/Cata (comb) 7x1 min max

ALL TOWLINES 50m. HI-START 30m. TOTAL inc. 7.5m. rubber
NO 1/C POWER MODELS TO BE FLOWN
NO bubbles, thermistors, streamer poles etc.
ALL FLIERS MUST BE INSURED!

contact: ANDREW CRISP
4 GROVE STREET
OXFORD OX2 7JT

tel:~
01865 553800

14th Sam European Championship - June 2016

We tried our best to make the competition a pleasant meeting for all people interested in these historical models, often called "old timers". We believe that our club has done everything possible so that the forthcoming championship will be a success for the competitors, companions and all people present at the event.

The event will take place at Gravity Park, partner of the organization. Without their help, it would have been impossible to organize this event. Gravity Park is a leisure centre focusing on aeronautic sports and nature discovery. Situated near the Lacs de l'Eau d'Heure, at approximately one hour from Brussels and Namur, the park spreads out over more than 60 hectares. The site opens its doors to passionate flyers and to a wider audience. On the menu, aeroplane, microlights, (motorised) gliders, helicopter or still, skydiving!

The park has all needed equipment, a huge field in an open space surrounded by nature, and all facilities needed for such an event. The restaurant has a terrace giving on the field, and it's possible to camp on the site.

We hope that the competition will not only be a sporting event and competition, but also a pleasant meeting for all modellers present.

On the following website you will learn all the necessary information about the event itself and get information concerning interesting places nearby and, of course, operational rules of the airfield.

http://www.sam-belgium.net/chapter2010/index.php?option=com_content&view=article&id=147&Itemid=261&lang=en

Organising committee of SAM 2010

Coupe Europa

Sunday 2nd October 2016

Salisbury Plain Area 8

F1G and Vintage Coupe D'Hiver.
Flitehook Trophy for F1G teams.

Contest starts 10.am. F1G will be in rounds.

Contact Ray Elliott
Email: - ray.elliott8@btinternet.com.
Tel: - 44 (0) 20 8997 7745

Impington Village College - Cambridge

Indoor flying on 20th March 2016

9 am to 5 pm

We will be using the large (100 x 50 x 28 ft) sports hall at the College. The only restrictions are no radio models in the main hall and no internal combustion engines, jets or catapults anywhere.
Also Round The Pole (4.5 metre lines) and small electric helicopter and fixed wing flying (X twin or Vapour type) in a separate hall (radio or infra-red).

SAMS MODELS will be in attendance to supply all your needs on the day.

Competitions:

There will be two, low key free flight (and one car!) competitions:

An **Indigo duration** competition for the late Clive King's model which was featured as a free plan in the November 2015 edition of Aeromodeller and is also the subject of a postal competition which is being promoted by Aeromodeller, administered by IVCMAC and will run for 12 calendar months. On this occasion we will run a special competition on the day and will also have an experienced indoor duration flyer on hand to help and advise those who are using Indigo as Clive intended – as an introduction to higher performance indoor duration flying. For more details of Indigo please look at our new website at **www.impmac.co.uk**. Please note the minimum airframe weight of 3.5 gm

A **Bostonian duration** event any design to the Bostonian formula (If you are unclear about the Bostonian formula rules ring or email the contact below). Minimum airframe weight 14 gm and all flights to be ROG.

Both competitions will be for the total of best three flights. Get your flights timed and reported to control. As many attempts as you like. Awards in each event for overall winner and best junior (under 18). All models to be weighed. No builder of the model requirement in any competition. Build one for your wife (or husband), child or grandchild who just has to wind and launch.

We will also feature the **racing car event** as usual. This is a fun event for rubber powered cars. We vary the distance to be covered, number of heats etc depending on the entrants on the day! Ring or email below for any further information and for plans of suitable vehicles.

Exhibition:

We would like models of all types in the exhibition and models other than aeroplanes are more than welcome. Bring whatever you like but please bring something (don't be shy) as this is a feature much enjoyed by our visitors - both flyers and spectators. It is also a good way of showing our kind of modelling to the public.

Seminar:

The seminar will feature a talk by Roger Simmonds and Rob Smith on their use of computer graphics to produce paper patterns which are then applied to Depron or balsa models. The results, which many of you will have seen at Old Warden and elsewhere, are most impressive and their talk should encourage more of us to try this interesting technique. Two examples are shown overleaf.

Round the Pole and Small Radio Models:

David and Will Beavor will be bringing their equipment, using Ballard's 4605 connectors at the model and will share the second hall with small R/C helicopters and fixed wing models.

Refreshments:

Hot drinks and snacks will be available from the Sports Centre

Web Site:

Have a look at our new website at **www.impmac.co.uk** for more details of club activities and the Indigo competition

Cost of admission:

Indoor Flyers - Adults £6.00, under 18s £1.50, Spectators and Chatters - £3.00

***Directions to Impington Village College*: Post code CB25 9LX**

Leave A14 at the first junction East of M11 J14, signed Cambridge B1049. At the roundabout take B1049 to North signed Cottenham, Histon. In ¾ km at 2nd lights turn right into New Road. Pass hospital entrance on right. Village College is next on right (two entrances, 1/3 and 2/3 km). Entrance to be used and car park will be signed.

Contact:- Chris Strachan Tel no: 01223 860498 Email: chris.strachan@btinternet.com

24th WorldWide Postal Contest 2015/2016

Flights may be made outdoors between **July 1st. 2015** and **June 30th. 2016** inclusive; it is not required that all flights in any event be made upon the same day but each is to be pre-nominated as 'official'.

A full report will be published in "Endless Lift" after the scores are received and compiled. To enhance the same, a brief account of weather, site, flying anecdotes, photographs, etc. would be appreciated when scores are submitted. Please ensure that all scores are posted there in **Comments**, under the **Leave a Reply** heading, below, by July 15th 2016; earlier submissions would be most gratefully received! Please provide clear notice as to which class/event they should be posted to. Reporting scores all along should stimulate participation. I welcome any comments regarding amendment to any event rules that might make same more attractive, or suggestions for other classes that might be considered of general interest in any future Contest.

For list of event classes see September New Clarion

http://www.endlesslift.com/24th-worldwide-postal-competition-2015-2016/

GOOD FLYING – GOOD LUCK – and ... above all ... HAVE FUN! - Gary Hinze

BMFA South West
Indoor Flying

Cornwall Vintage Aeromodellers
at
Saints Health and Fitness Centre
St Austell Rugby Club
Tregorrick Park, St Austell
Cornwall, PL26 7AG

Flying from 1200 to 1600 on the following dates,

2015	2016
Sunday 27 September	Sunday 17 January
Sunday 25 October	Sunday 14 February
Sunday 22 November	Sunday 6 March
Sunday 13 December	

Mainly free flight
some micro R/C (fixed wing & helicopters)

Admission:
Flyers £10 **Spectators £3**

Contact:
Cornwall - David Powis on tel: 01579 362951
Email: dave_powis@hotmail.com
Devon - Roger Bellamy on tel: 01752 257826
Email: randmbellamy@gmail.com

Flitehook
Indoor Free Flight Meetings

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

11th Oct 2015, 8th Nov 2015
27th Dec 2015,
7th Feb 2016, 6th Mar 2016

Sundays 10.00a.m. to 4.00p.m.
Flyers **£6**, Spectators **£2**
Café on Site
Contact Flitehook
E-mail flitehook@talktalk.net
Tel. No. 02380 861541

Bournemouth MAS
Indoor Flying Meetings
at the Allendale Centre,

Hanham Rd,
Wimborne,
Dorset, BH21 1AS,
7.00 p.m. to 10.00 p.m.
Free Flight only.

Competitions including Gyminnie Cricket League.
Flitehook normally in attendance.
Free parking in public car park in Allendale Road.
Contacts John Taylor Tel. No. 01202 232206
Roy Tiller e-mail roy.tiller@ntlworld.com

2015 Tuesdays
27th Jan - 24th Feb - 31st Mar - 28th Apr
22nd Sept - 27th Oct - 24th Nov

Indoor Flying with the South Birmingham MAC
Mainly Free Flight

Thorns Leisure Centre.
Stockwell Ave.
Off Thorns Road - Quarry Bank - West Midlands - DY5 2NU
Saturdays 1pm until 4pm

Jan 9th – Feb 6th – Mar 5th – Apl 2nd – May 7th

Admission - Flyers £5.50 - Spectators £2.00
Ultra-light R/C models may be flown for the first 15mins of each hour
(quad copters or heavy fast flying models not accepted)
For further information phone Colin Shepherd 0121 5506132
or e-mail colin@colinwilliam.wanadoo.co.uk

Bloxwich Indoor Flyers
Free Flight
Sneyd Community School
Vernon Way, Sneyd Lane,
Bloxwich, WS3 2PA
Saturdays 2pm until 5pm
Flyers - £8 Spectators £2

Jan 23rd–Feb 20th–Mar 19th–Apl 16th

Contact:- Alan Price: Tel: 01922 701530
e-mail: montrose32@btinternet.com

BMAS

BOURNEMOUTH MODEL AIRCRAFT SOCIETY

INDOOR MODEL FLYING 2016

ALL TUESDAYS

26TH JANUARY, 23RD FEBRUARY, 22ND MARCH,
26TH APRIL, 24TH MAY, 28TH JUNE,
26TH JULY, 23RD AUGUST, 27TH SEPTEMBER,
25TH OCTOBER, 22ND NOVEMBER.

7pm to 10pm

ALLENDALE CENTRE

HANHAM RD. WIMBORNE BH21 1AS

FREE CAR PARKING IN PUBLIC CAR PARK IN ALLENDALE RD

FREE FLIGHT ONLY

COMPETITIONS incl GYMINNIE CRICKET LEAGUE

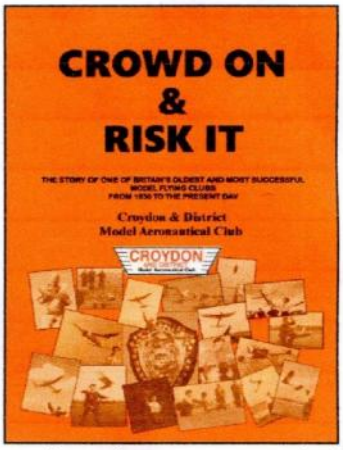
ALL FLYERS MUST HAVE BMFA INSURANCE

FLITEHOOK NORMALLY IN ATTENDANCE

Adult Flyers £5 **Spectators £1.50**

CONTACTS: John Taylor Tel. No. 01202 232206
Aubrey Bugden e-mail bugden863@btinternet.com

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.

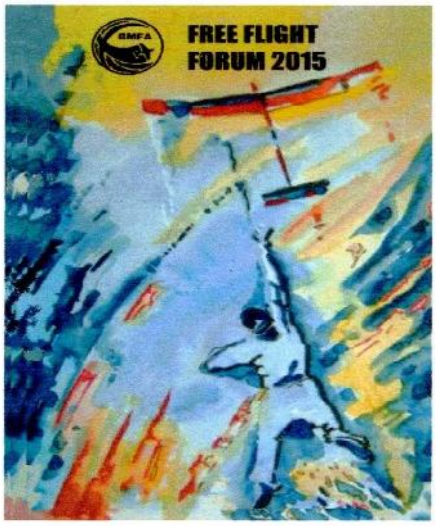
Contact Martin Dilly (martindilly20@gmail.com), phone/fax 020 8777 5533 or write to 20, Links Road, West Wickham, Kent BR4 0QW for your copy.

HOT OFF THE PRESS

THE 2015 FREE FLIGHT FORUM REPORT

For thirty one years the BMFA Free Flight Forum Reports have provided information on new developments in a wide range of free-flight activities.
This year is no exception, as the following contents list shows.

Recent F1D Developments - Tony Hebb;
Electronic Timers for F1B - Mike Woodhouse;
Personal Observations on Classic Power
- John Thompson;
The F1Q Mystery - Trevor Grey;
Experiences with Electronic Timers
– Roy Vaughn;
Free Flight, Flying Sites & the BMFA
- Dave Phipps;
The Cursed S - Why Won't It Keep Going Up?
- Alan Jack ;
Rubber- Powered Kit Scale Competition
- Andy Hewitt;
New Ideas for the F1 Rules
- Mike Woodhouse;
Revisiting Rubber Scale 55 Years On
- Ivan Taylor;
Some Interesting & Successful Models
from 2014,
which include includes Andy Hewitt's
Fokker D-VII Nats Rubber Kit Scale winner,
Ed Bennett's Thin Man Classic Rubber model,
Frank Rushby's 1/2A Mini Creep,
Chris Redrup's BMFA Rubber model;
Andy Crisp's Blue Note F1A for BMFA Glider
and Trevor Grey's Kaon E-36.



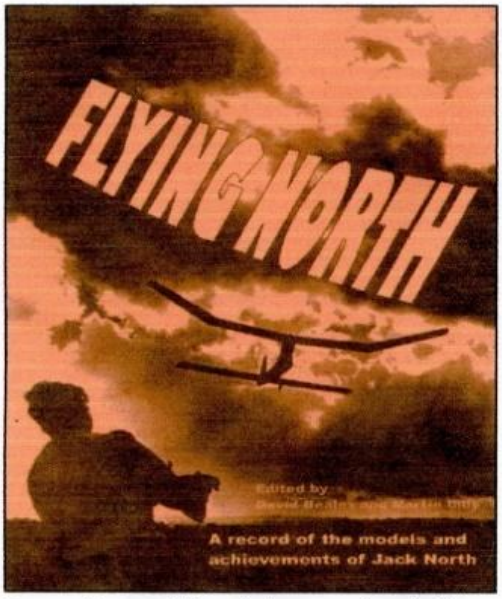
The UK price is £12.00 including postage; to Europe it's £15 and everywhere else £17.

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 or fax to: (44) + (0)20-8777-5533.
or by e-mail to martindilly20@gmail.com



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 OQW 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

L'AQUILONE SAM 2001

TOMBOY RALLY INTERNATIONAL POSTAL CONTEST

01/06/2015 – 31/05/2016

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"** (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.G. or float version; - Lone fliers can self launch and time.

Engine/motors

I.c. engines and electric motors are admitted within the following limits:

36"/44" WINGSPAN - I.C. Engines:
Any engine with 1 cc. maximum displacement; - 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 Mah 2 cell LiPo** - separated batteries pack for Rx alimentation is allowed.

48" WNGSPAN - 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; - 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: - **500 Mah 3 cell LiPo** - separated batteries pack for Rx alimentation is allowed.

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 theflight.

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 by 15th June 2015
Curzio Santoni cusanton@tin.it or to Gianfranco 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 Free-Flight

The 2012 was the 5° 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 a 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

Michael Woodhouse

mike@freeflightsupplies.co.uk & http://www.freeflightsupplies.co.uk

Plans of models designed by Geoff Lefever

47.	OTTAIR 80gram Wakefield flown in the 1956 Championships	£5.00
48.	FEVAIR 50gram Wakefield flown in the 1958 Championships	£5.00
49.	1963 Wakefield Team place 1965	£5.00
50.	1967 Wakefield first of the "long" models	£5.00
51.	ALTAIR 1955 A/2 team qualifying glider	£5.00
52.	MANTIS A 9 foot span vintage glider	£5.00
53.	OPEN RUBBER MODEL Mid 1960's model, a simplified Wakefield	£5.00

MSP PLANS PRESENTS

Vintage, Classic, Sport and other Duration Designs

MSP PLANS drawn by Martyn Pressnell, offer a collection of model aircraft designs selected for their aesthetic qualities or unique origins. 'Popular Plans' are stocked, the more complex 'Collectors Plans' are printed to order including Historic Notes. All drawings are AO size, some as twin plans.

The list below includes Vintage Models generally pre 1951 and Classic Models 1951 to 1961.
Photos of most models can be seen on my website - www.msp-plans.blogspot.com

POPULAR PLANS • £7.00 EACH INCLUDING UK POSTAGE, FOLDED FOR POSTING

MICK FARTHING 1942	The 40 in span Lightweight Contest rubber model with a diamond fuselage.
MICK FARTHING'S THE PAPER BAG'	Mick Farthing's last lightweight rubber model of 1946.
RAFF V *1947*	Designed by Norman Marcus who was National Champion in 1946.
ODENUAN'S 1950 *NORDIC A2*	Swedish Championship glider, placed second in the first World International in 1950.
SENATOR 1950	RUBBER Designed by Albert Hatfull and kitted in 1950. Twin plan with Ace
ACE 1950 RUBBER	Designed by Bill Dean and kitted in 1950. Twin plan with ***SENATOR.***
ENGLISH VIKING *1953 A2 GLIDER*	Designed by Bill Farrance twice winner of the SAM Radislav Rybach trophy.
CRESTA	A 38 in wingspan low-wing design for small diesel or electric motor installation.
FRED BOXALL'S 1956 OPEN RUBBER MODEL	Twin plan with Boxell's ***SEAPLANE.***
FRED BOXALL'S SEAPLANE (1965)	Twin plan with the 1956 ***OPEN RUBBER MODEL***
LAST RESORT 1956 CLASSIC RUBBER	Open Rubber Model designed by Jim Baguley. Twin plan with ***FIRST RESORT.***
FIRST RESORT 2006	by Martyn Pressnell for the BMFA Rubber Class. Twin plan with ***LAST RESORT.***
WINDING BOY!! 1956	by Urtan Wannop, 38 in.span, Twin plan with ***McGILLIVRAY's LIGHTWEIGHT.***
JACKMcGILIVRAY's LIGHTWEIGHT 1958	36 in. span lightweight rubber model Twin plan with ***WINDING BOY!!.***
CAPRICE 1959 GLIDER	The renowned lightweight glider of 51 in span. Twin plan with ***GAUCHO.***
GAUCH01960	power duration model for 1.5 cc engines. Designed in 1959 Twin plan with ***CAPRICE.***
VAKUSHNA1959 A2	Designed by Brian Dowling this glider won the 1960 Richer Cup

COLLECTOR'S PLANS - £10.00 EACH FOLDED OR ROLLED, WITH HISTORICAL NOTES

JUDGE 1945 WAKEFIELD	by Bert Judge to the 1945 rules as a direct descendant of his 1936 Wakefield Cup winner.
HERMES MAJOR	A 150% enlargement to 81% in span, of the 1949 *HALFAX* ***HERMES***
FRANK LOATES' 1949 WAKEFIELD	Canadian Wakefield 5th in the World Championships at Cranfield, England, in 1949.
BORJE BORJESSON'S 1949 WAKEFIELD	Swedish Wakefield 6th in the World Championships at Cranfield, in 1949.
GHOST WAKEFIELD 1951	John Gorham's 1951 Wakefield, a successful rubber model from the early 1950's.
RON WARRING'S 1952 WAKEFIELD	The geared geodetic model, developed by Ron Warring for twin motors,
NIGHT TRAIN Mk I 11960	George French's Night Train which pioneered the use of VIT systems in the UK

MSP PLANS PRESENTS NEW PLANS

HI-START GLIDERS 2013 - 36 in span

AVENGER 1952	John Gorham's classic A2
CAPRICE 1959	Neville Willis' classic lightweight glider
VINTAGE A2 1950	Odenman's.

HI-START GLIDERS 2014 – 36 in span

SATU 1950	J Bennett's vintage A2
PETREL1964	Frog's beginner's kit glider
MAD'S DREAM 1959	Brian Dowling's classic A2.

To order plans for UK delivery please write with cheque (£ sterling) made payable to Martyn Pressnell, 1 Vitre Gardens, Lymington, Hants, S041 5NA.
For overseas delivery of Popular Plans send local bank notes equivalent to £10.00.
Enquiries: please write or email martyn.pressnell@btinternet.com

Check my website : www.msp-plans.blogspot.com
This identifies the collection of plans that I have produced for aeromodellers together with the rules for the Bournemouth Club Classic Rubber class. There is also a sample of the publications produced over the years with 'Rubber Motors - Maximum Turns' as the current offering.
I hope you find this a useful website which will be updated with more information from time to time. Martyn Pressnell

DBHL Plan Service

The rules for obtaining plans.

If you want a copy of any plan from our library, please read the following:

As from 31st July 2011 only digital files of plans from the DBHL will be available. It is up to the recipient of such files to get them printed, as my local Copy Shop has closed & at present there is no alternative source for me to get plans printed at an economic rate.

The process for obtaining a digital file of a plan is:

Email request to rogerknewman@yahoo.com,
quoting Plan Name & I.D. number (1st & 2nd Cols respectively in the list).

If the plan has already been digitised, the requester will receive an email with an attachment of the plan in a digital format that can be printed at a local Copy Shop. The easiest ways to do this is either to download the plan from your PC to a memory stick & take the memory stick to your copy shop (but check with them first that they can handle digital files!), or – if your copy shop accepts emails, send them an email with the attachment, asking them to print the attachment. Scaling is automatic.

If the plan has not yet been digitised, a scan of the paper plan has to be done but this could take up to two weeks, sometimes longer if a clean-up is necessary. Once I have received the digitised file back, the requester will receive an email with an attachment of the plan.

This service is provided at no charge.

You are reminded that many more plans are available through our cooperative venture with partners in the USA, New Zealand & Slovakia. The combined list of these plans can be accessed via www.co-op-plans.com. Any plans requested via the Coop incur a small charge – see the web site for details. Exactly the same principle applies in that only digital files of **plans are available.**

Provisional Events Calendar 2016

With competitions for Vintage and/or Classic models

February 14th	Sunday	BMFA 1st Area Competitions
March 6th	Sunday	BMFA 2nd Area Competitions
March 25th	Friday	Northern Gala, North Luffenham
March 27th	Sunday	Middle Wallop **CANCELLED**
March 28th	Monday	Middle Wallop, **CANCELLED**
April 10th	Sunday	BMFA 3rd Area Competitions
April 23rd	Saturday	Middle Wallop, SAM1066 Competitions
April 24th	Sunday	Middle Wallop, SAM1066 Competitions
April 23/24th	Sat/Sunday	London Gala & Space, Salisbury Plain
May 15th	Sunday	BMFA 4th Area Competitions
May 28th	Saturday	BMFA Free-flight Nats, Barkston
May 29th	Sunday	BMFA Free-flight Nats, Barkston
May 30th	Monday	BMFA Free-flight Nats, Barkston
June 4th	Saturday	Middle Wallop, SAM1066 Competitions
June 5th	Sunday	Middle Wallop, SAM1066 Competitions
June 25th	Sunday	BMFA 5th Area Competitions
July 24th	Sunday	BMFA 6th Area Competitions
July 30th/31st	Saturday/Sunday	East Anglian Gala, Sculthorpe
August 20th	Saturday	Southern Gala, Salisbury Plain
September 11th	Sunday	BMFA 7th Area Competitions
October 16th	Sunday	BMFA 8th Area Competitions
October 29th	Saturday	Midland Gala, North Luffenham
November 20th	Sunday	Middle Wallop, SAM1066 Competitions

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 Middle Wallop 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
GAD - www.greenairdesigns.com
BMFA Free Flight Technical Committee - www.freeflightUK.org
BMFA - www.BMFA.org
BMFA Southern Area - www.southerarea.hamshire.org.uk
SAM 35 - www.sam35.org
MSP Plans - www.msp-plans.blogspot.com
X-List Plans - www.xlistplans.demon.co.uk
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

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