NEW Clarion

SAM 1066 Newsletter

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Editorial

The reply by David Phipps, Chief Executive of the BMFA, to Rogers letter published in the last (February) issue of the New Clarion, is first up in this issue. It is a considered reply but from Roger's highlighted responses it is evident that the situation is still very fluid.

There follows a review of the probable return by SAM1066 free-flighters to our ancestral home of Middle Wallop. Assuming we will be granted a couple of meetings it behoves us to demonstrate control of our activities, particularly at the initial event, where we will be under scrutiny. Please make every effort to accurately terminate all your flights within the airfield boundaries.

I report on my first visit of 2019 to the Walsall club's Sneyd Indoor meeting. Although still suffering from my post xmas flu like cold I managed to get a few flights under my belt.
Later in the month the recurring cold prevented me attending the Thorns meeting but organiser Colin Shepherd has weighed in with a few pictures.

I found, in an Aeromodeller Annual, a piece by Ron Moulton, comparing the performances of the 2.5cc engines of the early 50's. Makes a nostalgic read if you, like me, operated many of the engines described in your early days.

Peter Carter came across the old article on the project to fly a man carrying aircraft powered by a rubber band, albeit a very large rubber band. Peter himself had seen the project in its early days.

Sad to report the passing of John Barker, another aeromodelling icon. We were actually club-mates belonging to the Timperley club. I first came into contact with John when together with J O'D we three won the Gyminnie Cricket team event at the Manchester Velodrome way back. John was a gentleman in every respect, I remember him trying to explain to me, with graphs and scales, how to measure indoor motors by weight/M. I tried but I'm back on x section again now. I must be thick I assume.

Nick Peppiatt continues with his D/T articles with part 3 which includes Tomy modification techniques to make your own.

I'm afraid I've had to dig back in my old black and white picture album to get a few historic pictures of my own. I cannot seem to get any of you others to ferret out a few of your own to get a change of scene.

Model colouring is a subject not often written about so when I saw an article in an old Model Aircraft on the subject I purloined it and reproduced it for your delectation.

Meccano Magazine continues to provide Roy Tiller with a little more light reading and he imparts some of his discoveries to you in yet another of his monthly reports. No.97 this issue, he'll soon reach the ton.

Peter Hall and Roy Vaughn bring us up to date with the Southern Coupe League early meetings but weather problems made results few and far between.

Gavin Manion does likewise for the Vintage Coupe League and supplements his report with a listing of model meetings with competitions for F1G and Vintage coupes.

Our Secretary wraps up this issue with his monthly report and the usual three plans from the archive.

Editor

BMFA Reply to our Letter - Roger Newman

Here is the BMFA reply to my letter published in the February issue of the New Clarion included are my highlighted comments.

The reply is from David Phipps, Chief Executive of the BMFA

Roger,
I hope you don't mind me replying to your letter by email rather than with a letter and apologies for the delay in responding.
Not at all, as mentioned – we knew you would have your work cut out, so to take time to respond in detail is very much appreciated.

In response the questions you have raised in relation to the DfT Future of Drones consultation published in January:

1. Whatever laws are imposed to deal with 'drones' the CAA has (and will retain) the powers to issue exemptions/permissions to allow operations under different conditions. A good example of this is the 400ft permission we secured last year after the law was changed to limit all unmanned aircraft to 400ft. Future exemptions/permissions would be negotiated between the model flying associations and the DfT/CAA.
Understood

The CAA is fully aware of FF activities and is generally unconcerned.
This is most encouraging.

It is unlikely that we will be negotiating exemptions/permissions for specific activities. Our aim is to obtain exemptions/permissions which capture our multitude of activities more broadly and this will of course include Free Flight.
Understood

2. The discussions with the CAA/DfT are ongoing and there are a number of factors which determine progress, including the publication of the final EASA regulations (which the UK will be following) which is due out next week. However, some of the changes made to the ANO last year will be coming into effect this year (by November) so this is the ultimate timeframe we are working towards.
It was those changes that gave rise to concern.

In terms of the inference from Para 2.3, this is also tied to the EASA requirements so could not be specified (as they are not yet finalised/published). However, I have had advance sight of the EASA regulations and they no longer mandate online competency tests for those operating within the framework of associations.
Understood but will DfT accept this or will politics over-ride common sense?

3. We will be involved with the DfT/CAA deliberations, but there may be restrictions on what we are able to share publicly I'm afraid.
Understood.

The government put the I.T. system out to tender and the contract was awarded to BJSS https://www.bjss.com/ & their design agency Sparck https://www.sparck.io/ . I don't have the details of the tender, but Sparck are seeking input from potential end users, including BMFA members. It is not known whether it will be applied to us at this time, but we are arguing against it.
Yes – I saw the award to BJSS on the Gov website that lists awards of digital contracts. The only part listed (as far as I can see) is for the "Discovery" phase, which I'm guessing is the design spec'ing of the project. The contract award was for £87500. It was awarded late & therefore presumably finished late (in early Jan). The next phases for "Alpha" & "Beta" implementation & test phases are stated to be 40 weeks in duration before public Beta support commences – which I guess is the initial "go live" phase. If these phases start late & so far, there have not been any public indications that it has been awarded, the probability is that "go live" will miss the target date – hence our concerns regarding dispensations.

The purpose of the system is to ensure that operators/pilots have basic knowledge of the laws that apply to their activity and we are arguing that a system aimed at 'drone' pilots will be asking questions which are largely irrelevant to those operating certain types of model.
Quite right but unless you have any means of influencing the questions, they will probably be a "blanket cover" for all. .

Control Line aircraft weighing less than a kilo should be outside the scope of the regulations regardless.
Understood.

5. How any competency test will be applied is still very much in debate. The worst case is that it would apply to everyone, the best case is that they will not apply it to BMFA members at all, but there are a whole range of options in between. I cannot give a definitive answer at this time.

Understood & probably subject to political dogma rather than common sense and logic. Plus if it's an on-line test, it may well lock out a number of modelers have no access to or no awareness of web technology. Officialdom may not care about this aspect?

6. The IT system will be operated by the CAA and the 2018 changes to the ANO require it to be fully up and running by October and for operators to register by the end of November. This was published in CAP1687 (attached). Thank you. Our argument remains that we already register 35,000 members and EASA agree with this. As such, the latest EU regulations say that associations may provide registration data on their members behalf. Our hope therefore is that BMFA members will not have to register in a parallel system and their BMFA membership will fulfil this requirement.
I'm sure you are arguing strongly for this to be so – again political dogma may over-ride everything else

They cannot accept applications before 1st October as this is the date when the IT system is supposed to be operational (ready for the ANO coming into force on 30th November).
Understood

7. As with pre-Brexit preparations, I'm not aware of any plans/provisions being made for late delivery. The EASA regulations give a three year transition period for model association members to be registered and we would seek to hold the DfT/CAA to that in the worst case.
The CAA are probably fine but DfT?

The Government Response does make it clear that the registration/competency system cannot be at tax payers expense. Therefore, by default the users of the system will be paying for it (though we are arguing against this if we are forced to use it). I can't give an indication of costs (I don't think anyone can) at this stage and there are still a lot of unknown factors, such as whether registration will be a once only requirement.
I seem to recall the phrase "taxpayer neutral". Logic indicates that the DfT/Treasury will work out some equation broadly based on the project cost (inclusive of any capital equipment needed) plus annual operating cost & divide it by their estimated number of people expected to register – could be anything, we just hope it will be a sensible figure that doesn't turn people off! The CAA state that renewal of registration would be every three years

We remain confident that control line and free flight will continue as they do today other than that we will need to share your data with the CAA (or you may need to provide it directly in the worst case) and there may or may not be competency questions and there may or may not be a charge.
Understood

The CAA have been planning for a long time to make the ANO generally more restrictive for Unmanned Aircraft (to try and give better control of idiots), but have always given assurance that permissions/exemptions would be issued to Associations to allow us to continue with minimal disruption (and this is essentially mirrored in the EASA regulations). To date, the CAA have been true to their word.
Understood

In many instances, the locations where you fly are a major benefit. For instance, operating from DIO estate significantly reduces the potential for conflict arising with uninvolved third parties. The government are not really concerned with model flying and getting them to tie comments down to specific disciplines may ultimately be counterproductive (other than for multi-rotor drones!).
Understood

We remain optimistic that a sensible outcome can be achieved and the Government Response document certainly did not close any doors.
We hope you are right

In addition, I have been asked to Chair a Working Group on Drones & Model Flying for the All Party Parliamentary Group for General Aviation which has the support of more than 180 parliamentarians. This provides us with significant additional leverage/support in our ongoing negotiations.
This can only be very good news

I appreciate that this still leaves some uncertainty, but there are still many unknowns and there is still some way to go in our negotiations.
You have a difficult & potentially invidious task in trying to incorporate sensible solutions for all modellers , for which you have our best wishes.

We will of course continue to keep members updated with developments via the BMFA NEWS and Website.
Understood

I hope this helps.

Regards
Dave

Return to Wallop - Roger Newman

SAM 1066: Flying restrictions at the first Middle Wallop meeting of 2019

The possibility that we may be back on Middle Wallop within a couple of months is clearly great news and it is hoped that this will be the start of another long stay at this superb airfield. As this note is written we are of a view that the chances of it coming off are greater than 50% though right now we are still not clear on the financial liability on SAM1066 and are seeking additional clarification of the charges. However, assuming that we do get the offer and we feel that it's affordable, 27th April will see us back on the 'drome.

As has been mentioned in recent editions of NC, we are going to have to be on our best behaviour and maximise our efforts to avoid having models fly away. In the past it is probable that most of us have stood and watched as models, either our own or maybe those of others, have flown away either due to the lack of any DT mechanism or perhaps a DT malfunction. Well from now on we have to raise our game – the Authorities are fully aware of the way we fly free flight and that there are risks, and we have to be able to clearly demonstrate to them that we are adopting best practice to minimise the risk of our models flying out of the airfield to alleviate their major concerns.

Flyers must be able to show those working at the SAM 1066 Control Desk that their models have reliable & operable DT mechanisms fitted and assure Control that they will be set for use on every flight.

For the April 27th meeting we are due to be observed by staff of the airfield authorities, whilst those of us checking the models will be doing it for the first time other than when we've done our own and this may put us under considerable pressure. For these reasons we will be imposing an additional restriction in that the only models that may be flown are those that are being flown in the day's contest classes.

Sport and trimming flyers may feel that this restriction is unfair, but it is being imposed because we believe this will maximise our chances of successfully demonstrating to the authorities that we are policing the event in the most rigorous way possible and thus setting the ground for the next meeting & beyond.

In practice, if we find that the first meeting is a success and incident-free, then we will consider relaxing the restriction for future Middle Wallop days but this decision has to be evidence-based.

For completeness, an amended copy of the previously published rules for flying free flight at Middle Wallop for 2019 is appended to & forms part of this note.

Rules for operation at Middle Wallop in 2019 – applicable to 27th April meeting

(i) For all models, SAM1066 will apply the 250 gram rule which exempts model aircraft from any proposed drone regulations that encompass aeromodelling. Simply put – this means that all models flown on the field must weigh less than 250 grams.

(ii) FOR ALL MODELS, THE FITTING & USE OF AN OPERABLE DETHERMALISER (DT) IS MANDATORY FOR ALL FLIGHTS – CLOCKWORK OR (PREFERABLY) RDT. THE USE OF A FUSE DT IS NOT PERMITTED.

(iii) For models entered in competitions.

For all comps, the max will be limited to 2 minutes or less dependent on conditions prevailing on the day. For all flights the DT must be set to operate at, or earlier than the max time set on the day. Only models entered in a competition are allowed to fly, inclusive of trimming flights.

All competition fly-offs will be subject to the timing procedure known as "DT Flyoff" ie the flight will to be timed to the ground and a deduction made of two times any overrun of the DT time set by the CD.

For ALL models & fliers

(iv) All models must carry name & address label with full contact details (Name, address, mobile and/or landline number) in a visible position.

(v) All models must carry BMFA membership number in a visible position.

(vi) BMFA membership cards must be shown on entry to the field.

(vii) Random checks will be carried out during the day. Anyone found to be infringing any of the above rules will be asked to leave the field.

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

General

(ix) BMFA members who just wish to watch the days flying are most welcome but will be requested to pay the field entry fee levied on the day.

Non BMFA members who are accompanying a BMFA member will be permitted entry. at no cost.

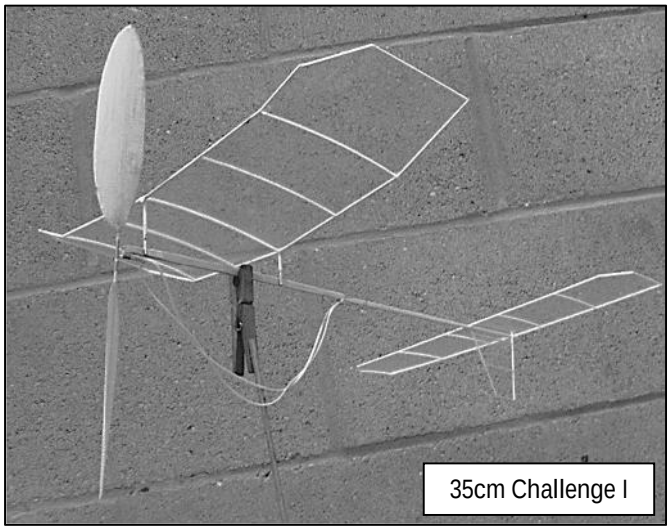
(x) The proposed competition schedule for this meeting comprises:

Vintage Coupe; Under 50" Vintage/Classic Open Glider (Towline); Combined Vintage/Classic up to 36" Hi-Start Glider, Mini-Vintage, Under 25" Vintage Rubber, Vintage Lightweight Rubber.

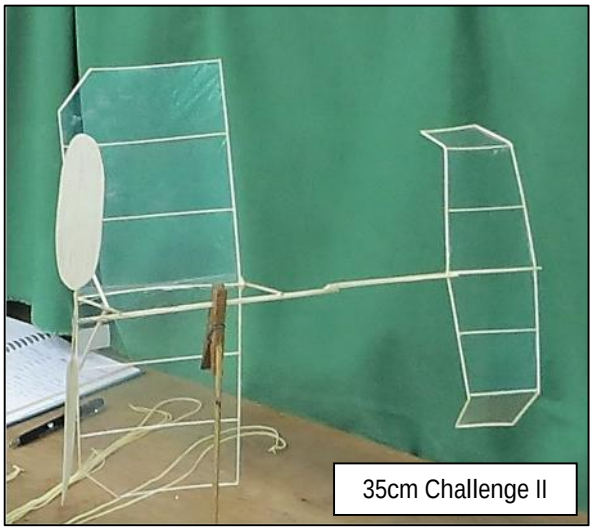
Roger Newman (for the committee)

Sneyd Indoors - John Andrews

Sunday January 26th 2019 was the first of the Walsall Cub's 2019 indoor meetings held at the Sneyd sports hall in Bloxwich. I travelled 50 miles or so up the M6 from Rugby and after depositing the wife Rachel at our daughters for the afternoon I moved on half a mile or so to the meeting venue. As the area is flat approaching the hall I take a collapsible sack barrow and load it up with the flight box, paste table and model box, this makes progress through doors that open towards you a lot easier. I had finally changed model boxes in the back of the car and was now carrying my 35cm challenge models. These models are the lightest I build but they are still too heavy for serious competition work, but they give me something to fly at the Indoor Nationals.

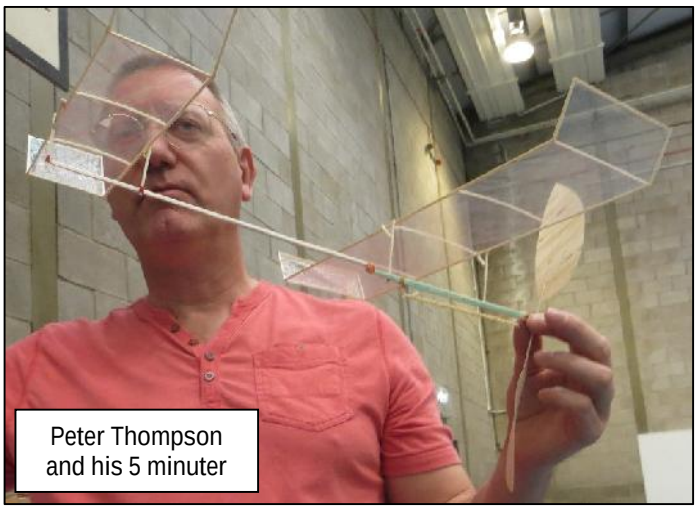


35cm Challenge I



35cm Challenge II

I started the afternoons activities with 35cm CI using .070" rubber. A bit on the heavy side but I did say they were not down to weight, in fact they are about double. Trim had disappeared and model continually dived into the floor so increasing wing incidence was required. The wing posts had been shortened on and off over the last couple of years and the rear one had many repairs to the wing joint and much chipping away at superglue was required before model was flying again. My bumble fingers broke the centre wing rib at the front wing post during the chipping process so now the front wing post is also splattered with cyno. I managed one flight in excess of 4 min, I'm not sure of the exact time as I have lost my wrist stopwatch so it was Peter Thompson who informed me of my probable time as he flew simultaneously with me. My flight with the powerful motor bounced around the lights for a while but stayed out of trouble.



Peter Thompson and his 5 minuter

Then there was a rain storm, the hall cooled down, and the cold air reduced our flight times from then on. Peter was flying his 5 minuter, a design he has developed to do what it says on the tin.

It was good to see Derek Richards, not only in attendance but actually doing some flying. Derek is recovering from his stroke and making reasonable progress. I get him to squeeze my finger with his weak left hand and I am noticing the increasing strength each meeting. His hospital gym work is obviously paying off. Derek managed to break one prop on the Penny Plane he was flying, his dexterity being far from normal, but he had a wad of replacements and was soon up and away. Fiddling about loading the wound motors onto the airframes is a major problem but it indicates the extent of his recovery that he can manage to do it.

Derek Richards, back in harness as they say

Also flying was Pete Iliffe with one of his many magnificent electric powered scale models. Not sure of the type but that's not important as it was, as usual, a superb example of a gifted scale modeller's art.

Test flying was a little fraught as the model persisted in dropping a wing to fly into the floor. But Pete would not be beaten and after numerous tweeks he had the model doing its requirement of circuits as long as the launch was perfect.

A good afternoon out for me and after a Chinese supper at our daughters it was an uneventful late trip back down the M6 to home and bed.

John Andrews

Engine Analysis: ED Super Fury 1.49cc - Aeromodeller Annual 1960-1

E.D. SUPER FURY 1·49 c.c.

Specification

Displacement: 1·49 c.c. (·092 cu. in.)
Bore: ·500 in.
Stroke: ·462 in.
Weight: 3¾ ounces
Max. power: ·162 B.H.P. at 14,000 r.p.m.
Max. torque: 14 ounce-inches at 10,000 r.p.m.
Power rating: ·11 B.H.P. per c.c.
Power/weight ratio: ·043 B.H.P. per ounce

Material Specification

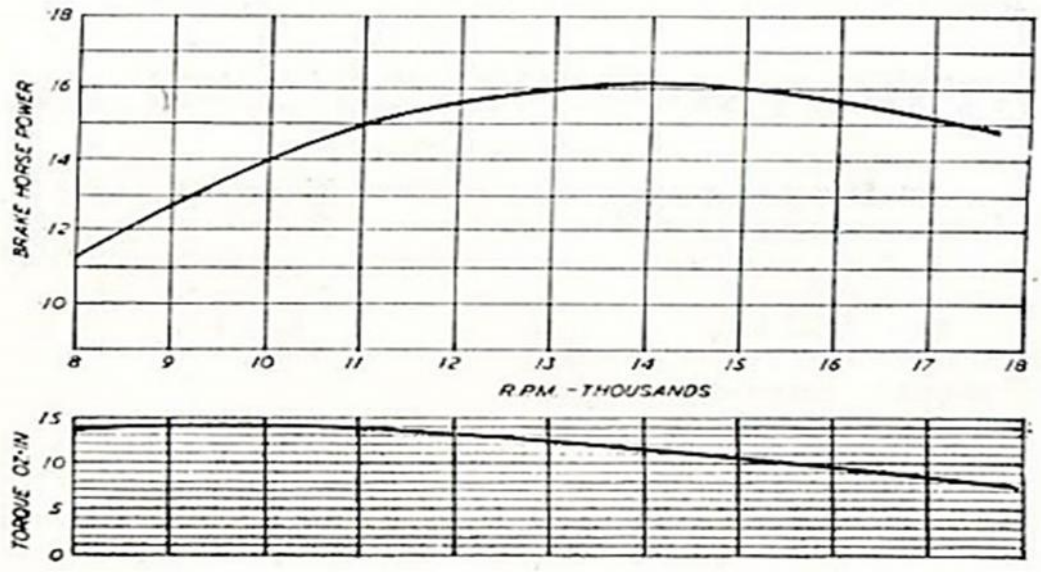
Crankcase: LM2 aluminium alloy pressure die casting
Cylinder: hardened steel (55 Rockwell). Ground and wet honed bore
Piston: cast iron
Contra piston: hardened steel
Connecting rod: RR.56 light alloy forging—heat treated and tumbled
Main bearing: ¼ × ⅜ × ·196 front ball race: ¼ × ⅜ × 7/32 rear ball race
Induction: rear disc, rotary (moulded Bakelite)
Prop. driver: light alloy (dural)
Cylinder jacket: light alloy (dural, anodised blue)
Needle valve: brass thimble
Compression locking lever: brass, cadmium plated
Manufacturers:
ELECTRONIC DEVELOPMENTS LTD.,
Island Farm Road, West Molesey, Surrey
Price (including Purchase Tax): £3/15/3

Test fuel: Mercury No. 8

AEROMODELLER Plans Service Power Coding "F"

PROPELLER—R.P.M. FIGURES

Propeller dia. × pitch	*r.p.m.*
10 × 4 (Trucut)	6,000
9 × 4 (Trucut)	8,800
8 × 6 (Trucut)	8,400
8 × 4 (Trucut)	11,500
8 × 3 (Trucut)	11,700
7 × 5 (Trucut)	12,000
7 × 4 (Trucut)	13,500
7 × 3 (Trucut)	15,500
6 × 6 (Trucut)	13,400
6 × 3 (Trucut)	16,400
8 × 4 (Stant)	11,400
7 × 6 (Stant)	12,200
7 × 4 (Stant)	13,600
6 × 5 (Stant)	15,400
9 × 6 (Frog nylon)	8,000
8 × 6 (Frog nylon)	8,400
8 × 4 (Frog nylon)	11,300
7 × 6 (Frog nylon)	13,000
7 × 4 (Frog nylon)	15,000
6 × 4 (Frog nylon)	19,000 plus



Extract Aermodeller January 1976

World Chumps

What The World Free Flight Champs have gained in professionalism over the years, they have certainly lost in charm. All those experts flying their standardised, super-efficient models leaves little room for the eccentrics and duffers who made such a joyous contribution to the old Wakefield scene. All who enter now are in with a chance, grimly notching up the successions of maxes in the specially sniffed patches of air. Gone are the old characters with their canards and six skein motors, the game lady competitor ready to defy tradition by launching the model the wrong way about, and the tardy purist winding up by finger. It's now all so scientific, with everyone scoring maxes like mad, when I can remember everyone crashing like mad in a spirit of carnival.

Then there were the colourful result sheets, not just cold statistics, but full of poetic model names: Lurchin Urchin, Smoghog, Fatso, and many other lyrical titles. A model wasn't just another stick and a wing as it is nowadays, but something of real character, almost like a pet dog - which is the way many of them performed. And the scores. Here again there was real character, with a number of self-effacing nils, and evidence of quite a few who had crossed the world for a sub twenty second total. "Coo," we used to say, "I could do better myself." Nowadays, looking at the result sheet, we say, "Coo, I think I'll take up plastic soldiers."

Simply monstrous

At a time when beginners are opting for twelve foot span, four engined radio models, there comes a salutary shot across the billowing bows of the L-plate lash-ups from the Air Ministry. That piece of bulgeosity, says the regulations, might well have sized itself into yer actual flying machine class, and as such would need special clearance (likewise if it crashes). Obviously the chaps at the Ministry have enough trouble on their hands with Concorde, and do not relish a plague of monster models just at this time. Now why we get these cuckoo type monsters stuck in our flying nests is that, in defence of our model flying freedoms, we react against any outside interference with a great show of solidarity - mostly above the ears. What has lost us friends and airfields more than anything else is the cry of 'treachery' that goes up whenever a small voice is raised in protest against the depredations of some low flying, noise rabid 'fellow' modeller. It is bad enough, the embattled modellers say, to get that thing from outside - we model flyers must stand together.

I make no bones about it - models powered by anything stronger than rubber bands make me nervous, and even the noise from a wobbly nose-block gives me the jitters, I am all for the quiet life, and my policy is never to fly anything that could hurt a fly or deafen a ladybird. I also reserve the freedom to object whenever anybody is behaving on the flying field in a way that diminishes my comfort and restricts my enjoyment. Four-engined beginners beware.

Bygones dept.

The Dornier Do X Owners Circle is established for self-help among the stalwarts who remain faithful to this lovable old flying boat. Problems of petrol supply and dry dock facilities are discussed by members on a mutual help basis. Just one North Sea oil well and a redundant naval depot is all that is needed to keep these handy little craft flying. Owners and sympathisers can get details from Tinker Smith, Flat 206b Peabody Buildings, Hoxton, London.

Fifty years on

When you read of that gallant little 1925 paper aeroplane challenging for model supremacy you can't help shedding a tear of regret for those brave days when you could earn the reputation of being a champion model flyer without ever having to exceed a flying duration of ten seconds, and if you did come spinning in at the end of it you could prove yourself a true aeronaut by saying that you terminated the flight on a spiral perpendicular. What is more you would not have to venture further than the village green or the rectory lawn to do it.

Now, if it isn't exactly blood, toil, tears and sweat to be just an ordinary model flyer, it comes very near to total commitment in struggling man hours and hard pressed family budget. Such is the time now needed to keep just one radio model flying that some people are seriously working out the economics of giving up work and going on National Assistance. And the amount of preparations are now so involved that some very keen aeromodellers never actually get to the flying field, which, when you consider the mischief caused by the few who do, is not such a bad thing.

And talking of paper aeroplanes, I wonder if it would be cheaper to make a model out of one pound notes than balsa, even if you had to use a sovereign as a nose weight.

Pylonius

Tale of Two Urchins - Derek May

No.1

Was built many years ago –very good flyer with a good spiral vertical climb. It has had at least 3 fuselages and 2 wings (perhaps a 'trigger' model!) and multiple repairs so perhaps it was showing its age.

John Leadbetter and I were flying at our local area site (we are the only 2 left now!) about Sept 2017. It was a very nice, warm, thermally day and my plane climbed in its normal fashion. I had forgotten my tracker and had reverted to fuse and when it did d.t, I took what I thought was a good compass line. I misjudged the distance and started to retrieve. But it had come down in a huge field of 6-8ft high bamboo canes making it impossible to follow the line as it was difficult even walk in. I thought I had probably walked right past it and reluctantly gave up after many hours.

It would have been a piece of cake to find it if I had the tracker - I kicked myself all the way home!

However about 6-7 months later I had a call from a local radio flyer who had found it much further in the field. He sent me a photo, it was just a mangled mess way beyond any cyano!!

- So that was the end of **No.1**

No.2

Was made as a back up to No 1 about 18 months ago.

It was hopeless -I could not get to fly properly and it would always fly to the LEFT on launch. I checked for warps, made sure that everything was straight and all angles were correct, but no good. I eventually had put in stupid amounts of right thrust to get it fly at all!

At last year's EAST ANGLIA Gala at Skulthorpe I entered it in the classic rubber. I launched it in a real boomer and to my surprise it was a dot in sky after 2 mins or so. I then decided to RDT – nothing happened , so I zoomed off on my bike hoping to get underneath it and try RDT again, I tried the tracker but only got very one short signal.

I returned to launch point to get another compass line and GPS line. It had been seen down after about 10 mins and therefore a group of us worked out where it might be.

After a long and detailed search for a few days at no time did I even get a peep from my tracker and I now think it must have come down near the main Fakenham Road and was maybe nicked by a passing motorist.

This was in temperatures of over 30C - I was not bothered about the plane, as it was rubbish, but I wanted my RDT and tracker back!!

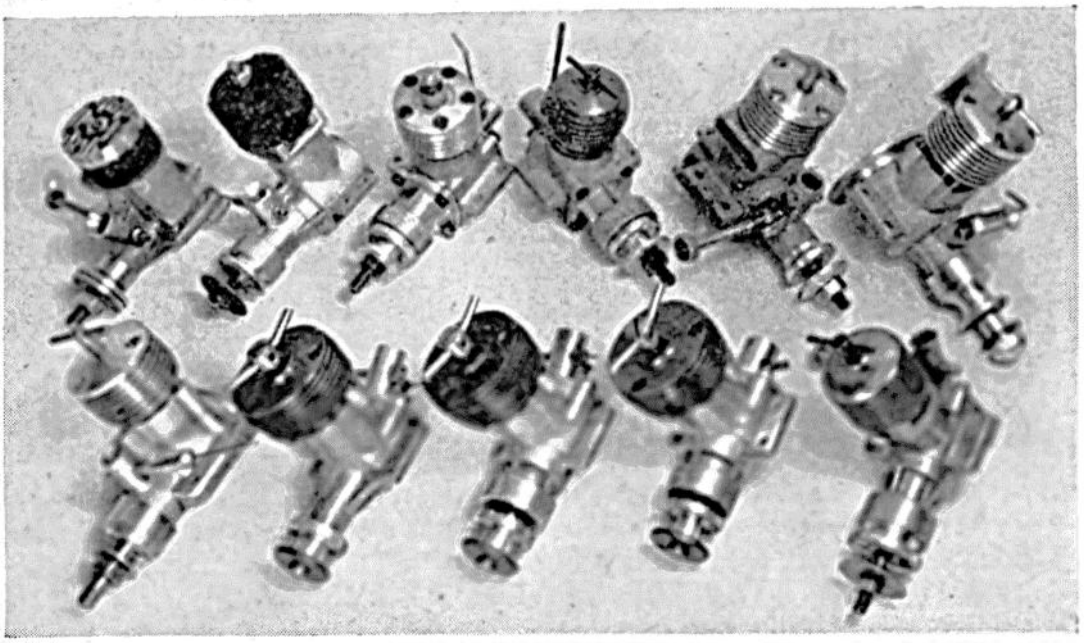
End of **No.2**

No.3 started today!!

Derek May

2.5cc Engines of the late 50's - Ron Moulton

Extract from Aeromodeller Annual 1957-8



2·5 c.c. REVIEW— R. G. MOULTON

Complete revolutions per minute tests on a series of International class engines from seven countries.

"IT'S NOT WHAT you've got—it's the way that you use it"—is a familiar phrase that has direct application to the world of Contest Aeromodelling. In the power classes, 2·5 c.c. is the International limit for duration, speed and team races, so it is not unexpected that the range of engines available in this capacity class are diverse in design and running characteristics. This brief feature follows the theme of last season's "AEROMODELLER ANNUAL" report on the ·8 c.c. units, and deals with a selected variety of engines, the majority of which were specially picked in view of the fact that they are *not* generally available, and yet offer a standard of performance that gives basis for interesting comparison.

The table gives a final summary of R.P.M. tests using a family of hand finished props, plus the die cast Frog Nylon 9 in. × 6 in. Doubtless many of the figures quoted could be improved upon by any individual modeller, but for comparative purposes with the same pair of hands operating each motor in turn through over 120 lengthy runs, using the same fuel formula for each diesel, and adapting Nitro Methane content for Glowplug, then certainly the results must show the performance likely to be expected by the average operator in normal conditions of air temperature *circa* 65-70 deg. F.

No attempt has been made to find the ideal prop. size for any of the engines, but the figures give a lead towards the peak performance range and suggest the diameter/pitch ratios most likely to absorb the full engine power. This is particularly evident in engines designed for a specific purpose such as the Czechoslovakian **VLATAVAN** 2·5 c.c. racing glowplug engine, produced

Heading: top row, O.S. MAX. 15, Barbini B.40 TN., Webra 2.5R, Webra Mach I, Enya 15D and Oliver Tiger Mk. III. Bottom row, Eifflaender Special, Zeiss Activist II, Activist IV, Activist V and D.C. Rapier.

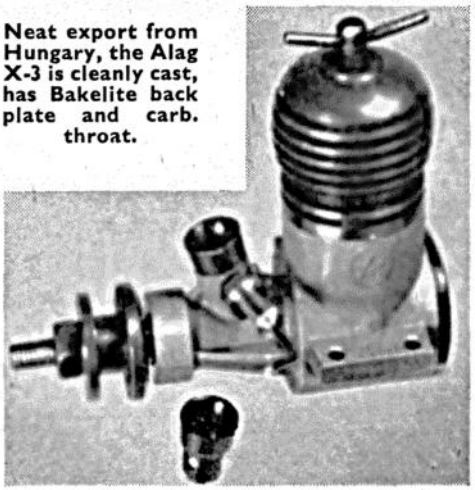
from the design by J. Sladky and J. Koci under the guidance of Zdenek Husicka at the M.V.V.S. laboratory in Brno. Likened to a miniature Dooling, the Vlatavan is remarkable as it is virtually useless with large diameter propellers. It cannot drive the Frog Nylon 9×6 with any consistency, yet on an 8 ×3½ in. it soars above all others, leading even the Oliver Tiger III, for it holds the r.p.m. without misfire and gives the impression of being able to run much faster when moving through the air. This Vlatavan is, like most of the engines tested, easy to start, but, having rings on an alloy piston which is in itself relieved of a large wall area for transfer ports, it has remarkable "one-way-only" compression, doubtless due to running-in with an abrasive. On a 6×9, it holds 14,000 r.p.m. in standard form, equal to many re-worked specials.

With plain bearings the **O.S. MAX. 15** from Japan has a disadvantage when running "light" but with an 8×4 load it matches (even passes) many of its contemporaries, including ball-race diesels. The O.S. Max has especially fine piston/cylinder fit, employing generous ports and working on the principle that close-tolerance manufacture gives a good initial output, likely to taper off through extensive use. This is not the case with the Italian **BARBINI** and West German **WEBRA 2.5R,** two widely different designs stemming from diesel experience and made to last to the bitter end. In fact the Webra, like its Mach I brother, retains the unwelcome characteristic of being so tightly lapped that a cylinder prime can wash lubricant from the walls, and the piston squeaks in protest. It is, like the Barbini, a delight to handle and with obvious leanings towards the 9×3 size, while the Italian Black-Head prefers an inch less diameter.

Handling these four top-class glowplug engines from Europe leaves one in no doubt as to why this form of ignition is more popular in foreign parts where the diesel is at all difficult to operate. The diesel is fuel sensitive in hot climates, fussy at high altitudes, and not so smooth running if Amyl Nitrate or Nitrite is not obtainable for the fuel. But for us at near sea level, in temperate climates, the diesel remains supreme for free-flight and team-racing. In speed, no one can argue against glow superiority for high r.p.m. without misfire.

One of the great advantages of the diesel is its ability to build up r.p.m. when the model gets under way, and no diesel is more impressive for this than the **OLIVER TIGER** in its various forms. For years now it has reigned supreme in Class A and F.A.I. team racing, where its most useful prop. size is 7×9—the same size used for glow-plug engines of twice the capacity in class B, giving an airspeed advantage of only 10 m.p.h. or so. Though rivalled by many other recently introduced diesels, the Tiger remains the smoothest, fastest and most predictable of all and has but one failing in being unable to hold very high r.p.m. for speed work from a ground setting.

Three engines which approach the O. Tiger's performance (in standard form) are the Japanese **ENYA 15,** British **EIFFLAENDER** and

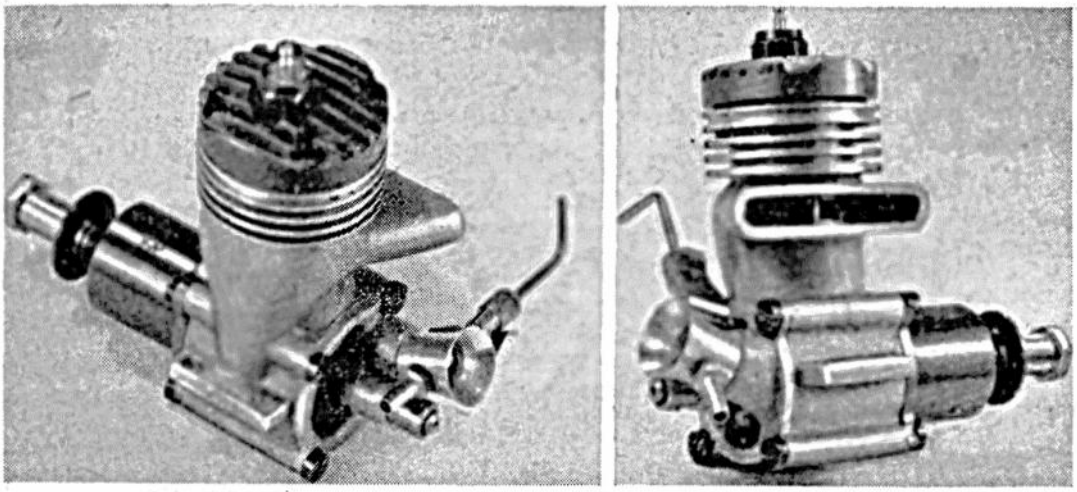


Neat export from Hungary, the Alag X-3 is cleanly cast, has Bakelite back plate and carb. throat.

FROG 249 Mk. II. Although they do not reach the same excellence in *all* categories (F/F, T/R, R/C, etc.) as the Tiger, each has particular advantages within its rev. range and, in good hands, *could* more than match the Tiger. For example, the Frog, with a Nylon 9×6 of same manufacture, can turn faster than any other 2·5 c.c. motor in our stable, and for free-flight, although far from smooth, even with liberal dosings of nitrate, it holds a respectable 15,000. Some degree of inconsistency with the Frog can be overcome with careful attention to the needle valve.

The Enya is a beautifully smooth running unit, rather rough on the control side, with coarse threaded contra piston screw and needle ; but flexible enough in settings to allow for any ham operator to find near-peak performance. Moderate consumption rate makes it a team racing rival for the O. Tiger.

The Eifflaender is so different it deserves full credit for really outstanding free-flight application. Very light weight, coupled with a peak figure around 15,000 r.p.m. and fairly heavy fuel consumption (for rapid cut-out) will make it a



Speed modellers' dream engine, in appearance at least, the Vlatavan 2·5 c.c. racing engine features all the known design requirements for power at high r.p.m.

favourite for open and F.A.I. contests. This motor can really hold its revs at a constant figure if allowed a warm-up period, and much of the credit for its smoothness should go to the large bearer lugs and near-balanced piston and rod.

For good, if less spectacular performance, the unpretentious Hungarian **ALAG X-3** and **D.C. RAPIER** from the Isle of Man can satisfy anyone who wants an engine that will last a long while, stand up to abuse and crashes, yet offering excellent handling characteristics.

The Alag X-3 is a very small job, cleanly cast and with a Bakelite back plate and carburettor throat. Like other East European engines, it needs only a light upper cylinder prime for an immediate start, and is one of the smoothest running plain bearing engines in our experience. The Rapier is equally smooth and has a burly air about it in spite of a very small prop. shaft diameter and the reduced overhang of the down draught carburettor. Slightly inconsistent above 12,500 r.p.m. it has a liking for a load, and the 9×6 gives it best opportunity to show a handsome r.p.m. figure. The prototype of this engine was exceptional on an 8×4 turning up to 14,000 r.p.m. and there is no reason to suppose that a

well run-in (with undisturbed assembly) Rapier could not approach that figure as the unit tested was "straight out of the box."

Lastly, the interesting group of Carl Zeiss engines from the Soviet Zone of Germany. Known as the **ACTIVIST,** the engine now appears in at least five, if not six, versions and these are reed ("membrane") and rear disc (with either rotation for induction timing) with plain bearing, ball race and screwed cylinder assembly variants. All are as cleanly cast and beautifully machined as one would expect from one of the world's leading camera and optical instrument manufacturers.

Yet there is a peculiarity in the Zeiss range that indicates a failing during the process of manufacture. The plain bearing version (II) is faster than those with a ball bearing supported shaft ! Alignment of the races always has been a leading point with miniature racing type engines and with all their facilities at Jena, Zeiss have a small problem on their hands. The claim for .36 b.h.p. can only be taken as an indication of East Zone optimism, but nevertheless, in spite of contra pistons that run-back, end float on race mounted shafts and power loss on warning up, the Activist series are most attractive in appearance and offer a lead to all other engine makers in the provision of an immediate cut-out devise on the disc induction system.

The table speaks for itself, and should not be taken as quoting the maximum possible r.p.m. figures for any of the units tested, but rather as a comparative table based solely on one modeller's findings.

PROPELLER-R.P.M. TESTS 2·5 c.c.

Engine		Sport or R/C 9×6	Freeflight 9×3	Stunt or F/F 8×4	Freeflight 8×3½	Team race 7×9
(DIESEL) Enya 15D	(Jap.)	9,400	12,100	13,200	14,250	12,000
Eifflaender	(G.B.)	9,300	12,250	13,500	14,800	11,600
Oliver Tiger III	(G.B.)	9,950	12,150	14,000	15,400	11,800
Zeiss Activist V (Reed BB)	(E. Germany)	8,400	10,050	11,600	14,200	10,800
Zeiss Activist IV (Disc BB)	(E. Germany)	8,800	10,600	11,800	14,300	10,200
Zeiss Activist II (Plain Disc)	(E. Germany)	9,000	10,900	12,200	14,850	11,000
Alag X-3	(Hungary)	8,800	10,850	12,000	13,200	10,900
D.C. Rapier	(G.B.)	9,100	10,900	12,200	13,600	11,000
Frog 249 Mk. II	(G.B.)	10,100	11,950	13,200	15,000	11,400
(GLOW) Barbini B.40	(Italy)	9,000	10,800	12,900	14,000	11,100
O.S. Max 15	(Jap.)	8,900	11,800	13,100	13,800	11,000
Webra 2.5R	(Germany)		11,900	13,000	14,200	11,000
Vlatavan 2.5	(Czech)		8,800	11,000	15,400	9,500

DID YOU KNOW THAT . . . ? IF your glow engine is hard to start again when still sizzling from a hot run, an injection of neat castor or sewing machine oil in the exhaust port will remedy the loss of compression. IF your diesel cylinder liner wanders round out of true line-up, it may cost you up to 1,250 r.p.m. in top end performance. IF you employ Nitro Benzine or Methane in your fuel, you should flush the engine with paraffin or thin oil after use to avoid corrosion.

The Rubber Bandit Project - Peter Carter

Recently, while looking through boxes to find a plan, I came across this article of a Rubber driven Airplane project which you may find of interest.
In 1996 I was working in Burbank Calif and joined a local model aircraft club who flew on a site in Sepulveda Basin, near Van Nuys ??? North of LA.
The topic of conversation at that time within the club was this Rubber Bandit project.
I watched them (a group from Van Nuys airport) test flying a 20in version of the full size project. I visited the hangar at Van Nuys Airport where they were building the full size version, but seeing it was 23 years ago I can only remember seeing the intended tubular fuselage and guys working on the ginni prop.
After moving on, I lost contact with colleagues at the club and never followed up to find out if it was ever completed and flew. Hope the pilot had an armour plated flying suit.

The "Rubber Bandit" Project

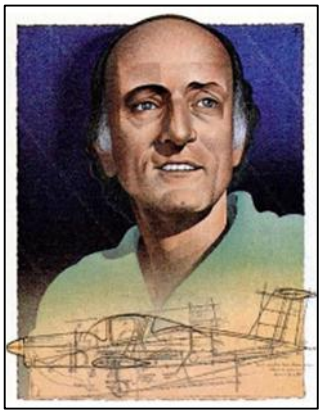
Picture an aircraft with a wingspan of 68 feet, a fuselage 33 feet in length, a propeller 18 feet in diameter, and the design characteristics of a model airplane . . . powered by a rubber band! Now, picture this aircraft carrying a **man** to an altitude of 100 feet and cruising at 30 mph for a distance of 3/4 of a mile to establish 7 world records, and you have the **"Rubber Bandit,"** the first, and **world's largest rubber-band powered, man-carrying aircraft.**

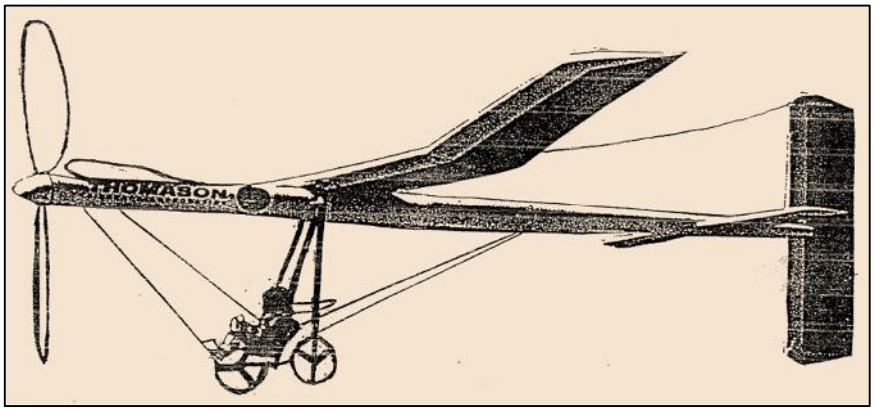
The design and construction of the **"Rubber Bandit"** has progressed over a period of two years under the direction of freelance aero engineer George Heaven, and a crew of fiercely dedicated volunteers. The project has advanced from the design stage through construction of a 1/25 scale *(27 inch wing span)* free-flight model, and a 1/4 scale *(17 foot wing span)* rubber-band powered, radio controlled model *(already the world's largest rubber-band powered airplane to take off and fly under its own power)*, to the building of the full-sized aircraft, which is now well advanced in construction. The fuselage, empennage, landing gear and rubber motor are complete, and work is in progress on the propeller and wing. Completion of the project is scheduled for the summer of 1996. Ground tests and the first flight will be carried out at the Van Nuys Municipal Airport, Van Nuys, California, before the end of 1996.

To the genuine surprise of the crew, the **"Rubber Bandit"** has captured the enthusiastic interest of aviation veterans and the general public alike, drawing fans of all ages to the Van Nuys Airport hangar (affectionately dubbed "The Rubber Works"). The Department of Airports has made the "The Rubber Works" a regular stop on its airport tour, bringing school kids by to see the "really cool" airplane, and sponsors drop by on a regular basis with friends, family, and business associates in tow to show off the one-of-a-kind aircraft. Media interest has accelerated over the past several months, becoming international in scope. An outstanding article was published in the February 1996 issue of Flying magazine, and articles in 3 other aviation publications are due out soon. NBC news has been on the scene, The Discovery Channel filmed the project for their "Flight Line" program, soon to be released in Europe, and a Canadian radio station conducted a live, on-air interview with Heaven to tell listeners about the innovative project. The Air & Space Museum in San Diego has expressed interest in displaying the airplane after the records have been set, and The Air & Space Museum at the Smithsonian Institute has been contacted in the hope that the **"Rubber Bandit"** will one day take its place there among other aviation "firsts."

To date, the project has been endorsed by a group of loyal sponsors who have supported each phase of construction with donations of necessary supplies and materials. The project is now soliciting the financial support necessary to complete the project, carry out ground testing, and secure the attendance of aviation authorities needed to officiate at the record setting events. Joining the **"Rubber Bandit"** team as a financial sponsor in this exciting project will result in high profile media attention for your company, provide a healthy focal point for employee excitement and identification, and afford the opportunity to become involved in a rare, history-making event.

The Rubber Bandit Project





By Peter Garrison

TECHNICALITIES

Rubber Power Stretches a New Design

It was about 20 years ago that Evel Knievel, a motorcycle stunt man and self-promoter—and one of the formative cultural icons of modern times—having jumped his motorcycle across increasing numbers of cars and flaming objects of various kinds, decided it would be a good idea to jump across the Grand Canyon of the Snake River. He affixed a rocket to his back and launched himself into space from a prepared ramp on the edge of the half-mile-wide canyon. I'm not sure exactly what happened next, but Knievel ended up descending by parachute into the gorge, landing not far from the edge on which he had begun.

An act of heroism like this one does not occur without creating ripples that spread through time, eventually jostling, if ever so gently, all of our lives.

Cut to the present. Two Los Angeles radio hosts named Mark and Brian have taken to dreaming up weird stunts involving a six-foot three-inch 240-pound fiberglass statue of an obese youth, the mascot of a chain of restaurants called Bob's Big Boy. They send Boy, or Bob, or whoever he is, bungee-jumping, water-skiing, and flying over football goalposts. It finally occurs to their far-darting minds to—you guessed it—launch the obese lad across the Grand Canyon of the Snake. For the purposes of this project he is dubbed "Evil Bob."

Now, somehow, somewhere along the line, some regular, more or less sensible people get involved in this project, and they transmute it. It sheds its rockets, motorcycles, and Big Boy statue, and turns into a project to fly the world's first rubber-band-powered man-carrying airplane. Did I say sensible? Well, anyway, it's true. The airplane is currently called *Rubber Bandit,* but the search is on for another name. (Personally, I favor *Don't Forget Your Rubbers, ……..* but I guess it's a bit long.) The design is the work of a man appropriately named George Heaven, a freelance aero engineer whose usual work is on Reno racers. He is building the airplane in a hangar at Van Nuys Airport in Los Angeles, with the support of a great many sponsors and helpers and of a Van Nuys FBO, Thomason Aircraft Corporation. A quarter-scale test article has already flown—beautifully—and the full-size airplane is well along in construction.

Though the linkage between the project and the Snake River is now somewhat uncertain, the canyon's enduring legacy is the requirement that the airplane take off under its own power and fly half a mile. One of the hallmarks of a real aeronautical engineer is the ability to size a design for its mission. Before *Voyager* made its nonstop round-the-world flight, there were a couple of other projects with the same aim that were plainly too small to achieve it. The *Rubber Bandit* is not too small. With a wingspan of 68 feet and a propeller 18 feet in diameter, it is in the size class of a commuter airliner. How Heaven hit upon this size I don't know—there is absolutely no literature or previous experience with rubber-band airplanes of this size - but it looks as if it's up to the job.

The shape has the stick-insect quality of model airplanes. The fuselage is a long tube, which is inserted into a very tall, spindly A-frame that joins the wing and the landing gear. As on many models, the fuselage can be ground adjusted forward or aft in this A-frame to trim the center-of-gravity location. At the back end of the fuselage is a cruciform tail. The vertical tail extends far below the

fuselage—as far below as above—in order to keep the airplane in a relatively- flat ground attitude despite its huge tractor prop. The pilot's seat, in the fashion of some ultralights, is a chair within the A-frame. There is no physical flight control system; the pilot flies the airplane by radio control. Only the rudder and elevator move; there are no ailerons.

The wing, like that of a typical Wakefield-class model, has a flat center section and upturned outer panels. It uses a modified NACA laminar-flow airfoil section of 15 percent thickness. With a four-foot chord, it has an aspect ratio of 17 and an area of more than 270 square feet—about that of a King Air's wing. All flying surfaces are built with carbon ribs and leading edge over a tubular carbon spar, with mylar cover over the aft portions. The construction is extremely light The airframe weight is expected to be 180 pounds. To this add the 180-pound Heaven and a 90-pound powerplant for a gross takeoff weight of 450 pounds.

The tubular spars are made by winding carbon around pieces of aluminum tubing and then removing the tubing. For the wing spars a tapered tube was required; Heaven cast about for a suitable mandrel that was within the very limited budget of the project One day as he sat in his car at a stop his gaze alit upon a light pole. It was just about right 30 feet long, tapered, and of the proper diameter. He was able to get one for $350.

Once the rubber has been wound tight, the airplane must be flown as soon as possible because the stored tension drains.

The powerplant consists of 800 25-foot-long strands of model airplane rubber in a loose bundle as big as your thigh. The sheaf of rubber is thoroughly lubricated to keep it from destroying itself by internal friction among strands. It is stretched to three times its natural, 'length' by a tractor and then wound several hundred times by a winch as the tractor inches forward and the rubber contorts itself into a braid of overlapping knots as dense as rhinoceros horn.

Once the rubber has been wound tight, the airplane must be flown as soon as possible, because internal creep slowly drains the stored tension from the rubber. The power output will begin with a mighty heave, delivering, at first, 13 horsepower to the propeller. The unwinding rubber will whirl and slap within the carbon and Kevlar fuselage tube, shaking the whole airplane as if it had shed a prop blade. Both torque and rpm will at first drop rapidly, reaching a level of about four horsepower after 20 seconds. By then the airplane will be airborne and at its cruising altitude of 100 feet. The rubber will continue to put out about four and a half horsepower for the rest of its 90-second duration. Flying at 20 mph, the airplane will cover half a mile and land under power; its huge paddle-bladed propeller makes it a poor glider.

There are significant safety issues involved, many of them centring around the mighty rubber band, which could easily kill a man. Heaven had one 800-strand motor tested to failure. When it burst it recoiled with such *forces* that it shattered welds on a protective steel barrier. It separated into several pieces, one of which seemingly possessed by a vindictive devil, pursued a fleeing man this way and that across the airport ramp. When they came to rest the jammed-up balls of rubber had to be poked with long poles, like mortally wounded wolverines, until they released their pent-up fury.

Although the wound-up rubber motor can explode with strobe-like force, its total power capacity is relatively modest. Very roughly, the 90-pound rubber engine produces enough power to run a 100--watt bulb for one hour. (A 100-watt bulb nominally consumes about an eighth of a horsepower—so don't forget to turn off the lights.) Surprisingly (if I have not erred in my calculations), the energy used for the flight is equivalent to only about 85 calories of the nutritional kind (one food-calorie is 1,000 heat-calories). Considering that this is the heat content of a small croissant, it would seem that a bread-powered airplane may be Just around the comer. With a short *latte* thrown in, you could go maybe a mile. Then again, perhaps more energy could released by burning (or eating) the 90 pounds of rubber than by winding it up and releasing it. -…….- It Increases one's respect for gasoline to reflect that the energy released for this fight is the equivalent of that in a couple of ounces of gasoline, burned by one of our 20-percent efficient airplane engines.- What is the motive for this strange project? Mainly, I suspect, the wide spread human susceptibility to absurd challenges that is summed up in Sir Edmund Hillary's laconic and now proverbial justification for climbing Mount Everest "Because it's there." But Heaven confesses to another motivation. He would like an airplane of his to be displayed in the Smithsonian, and since that noble institution has a childlike veneration for aviation firsts of all kinds, he hopes that by being the first man to fly on rubber-band power alone, he will gain a place there. I wish him success; he will have earned it..

FLYING / February 1996

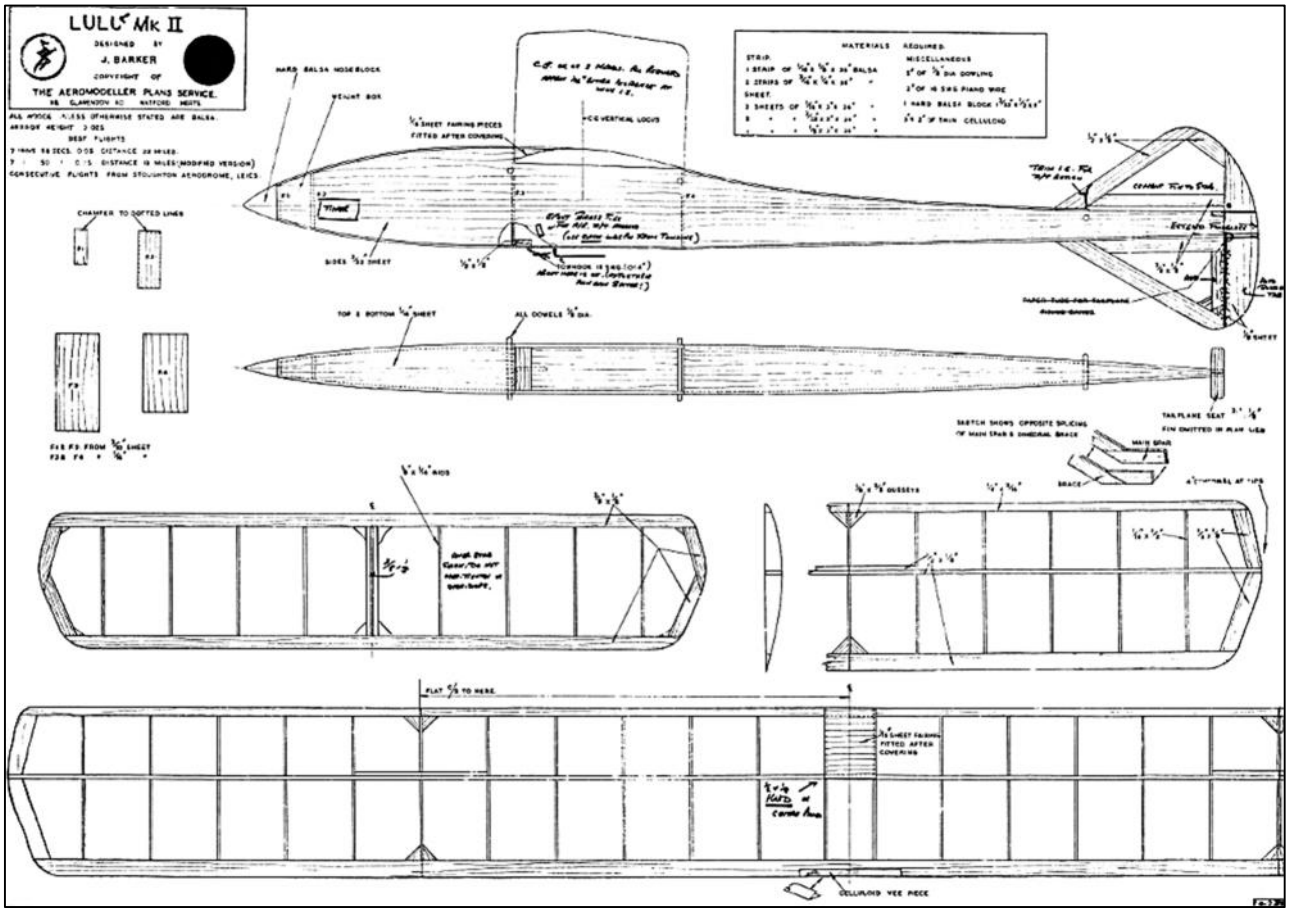
Peter Carter

Aeromodeller Departed: John Barker

John Barker:
John passed away on 31st January. He had become very frail and his body just wore out, although his mind was sharp to the end.
He died very peacefully in his own home with his family around him.
Dad enjoyed aero modelling throughout his whole life; it gave him the intellectual challenge of designing models, the satisfaction of building them, and the camaraderie of flying them with like-minded modellers.

Gill (John's daughter)

R.I.P.



One of John's major claims to fame is his simple glider design the 'LULU'. This design has been built by all and sundry across the world with many one design competitions especially for it.
As a raw beginner I built my first when the original design was published and can still remember towing it around on offset towhooks on RAF Lawford Heath near Rugby unable to release it in the strong wind. Eventually I was advised by the club secretary to throw the winch which did the trick.
I built another after my reincarnation as a vintage modeller and watched it fly way at Wallop, D/T notwithstanding, never to be seen again.

Editor.

Dethermalisers Part 3

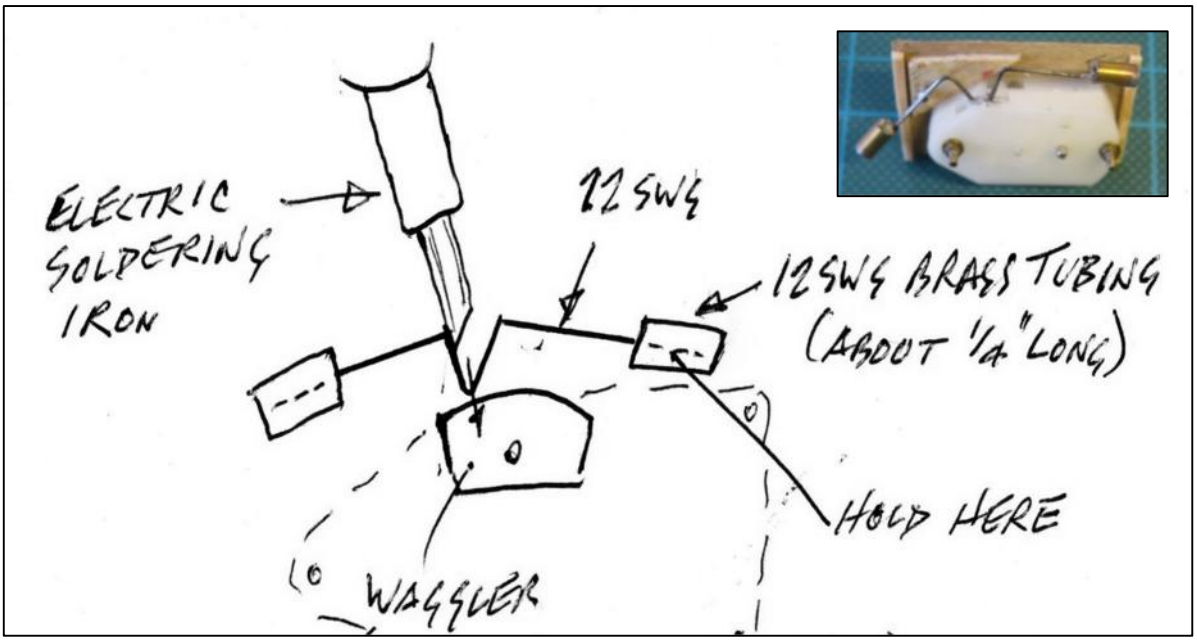
Flight Spoiler Operating mechanisms

Well, two dates for free-flight events at Middle Wallop have been announced. The rules for the operation of models in 2019 were given in the December 2018 New Clarion and specifically stipulate the use of clockwork or RDT mechanisms. Also, the use of a fuse DT is not permitted.

Clockwork timers

The only experience I have of clockwork timers is the use of modified Tomy units. However, their light weight makes them particularly suitable for the 250g maximum weight models that will be allowed at Middle Wallop.

Tomy timers came into fashion over 30yrs ago. I first became aware of them through an article of Peter Michel's published in the SAM35 Yearbook number 5 (December 1988). Peter then gave further information in 'More Tomy Tips' SAM35Speaks, June 1989 and in a letter in Mike Kemp's 'The Rubber Column', September 1990. Improvements in the setting up of wagglers for the Tomy timers were given in Dave Hipperson's Free Flight Scene column in the October 1991 Aeromodeller, where mention was made of Ian Dowsett's method of attaching the waggler. This neatly avoids the necessity of prizing the motor apart to remove the plastic escapement, which has the obvious pitfalls of the potential loss of tiny plastic components. I have extracted the sketch of this method from Peter Michel's letter in the April 1995 SAM35Speaks.

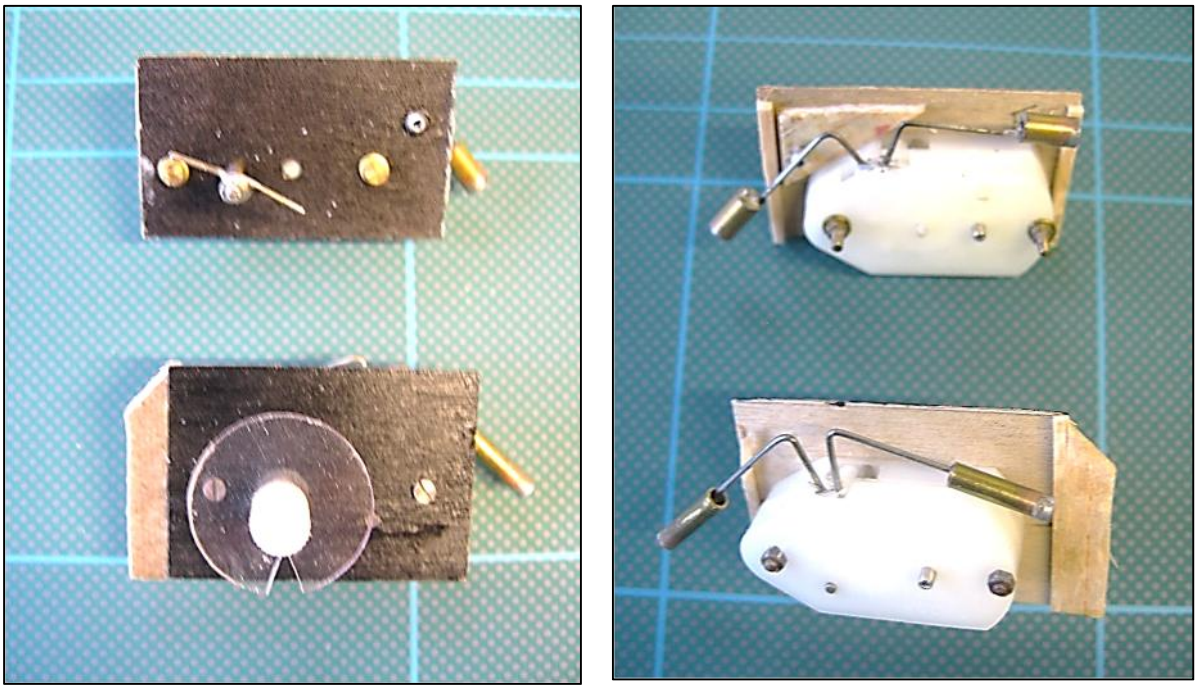


Ian Dowsett's method of attaching waggler to Tomy escapement, via Peter Michel

The Tomy motor is clamped lightly in a vice and the end of one of the waggler arms is held between the thumb and forefinger. The heat from the soldering iron through the wire melts the plastic and allows the wire to be pressed in. On cooling the wire is retained firmly. Ideally, the weights at the wire arm ends and the pivot point should all be in line and the waggler should balance about the pivot point.

The examples in the photographs below show two ways the DT line can be attached. It can be knotted and slot in a vee notch cut in a disc attached to the winder, or looped on to a wire peg soldered to the winding shaft. The waggler can be restrained by a pin or peg, which is removed just before launch.

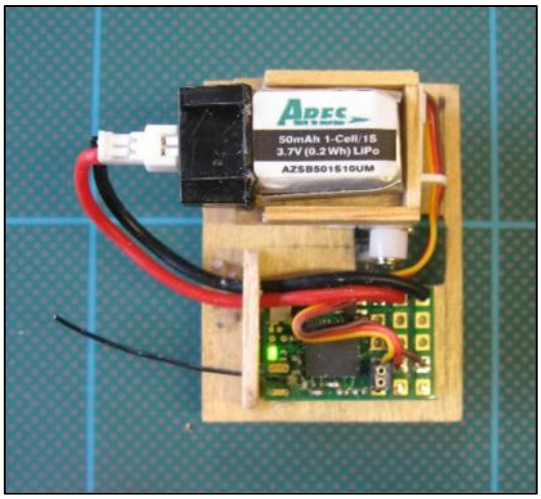
Tomy timers can be set quite accurately. I have used them in DT fly-offs and have generally managed to be within a second or two of the required time.

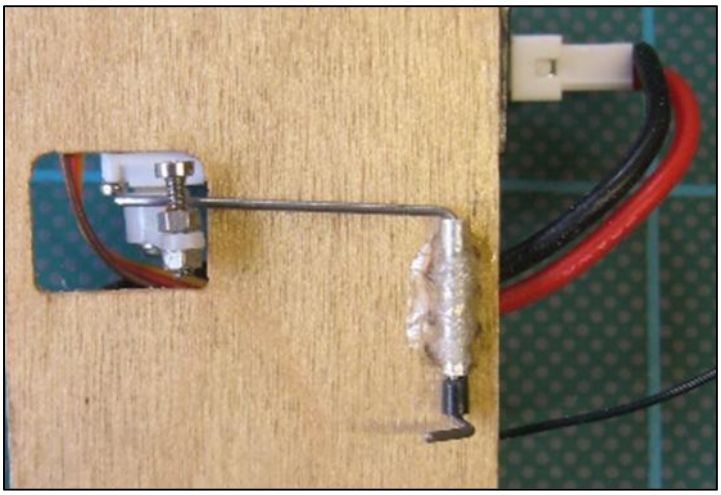


Outside and inside views of modified Tomy units. Both have been replaced by RDT.
The upper one was fitted to the Northern Arrow and the lower to the Pinocchio.

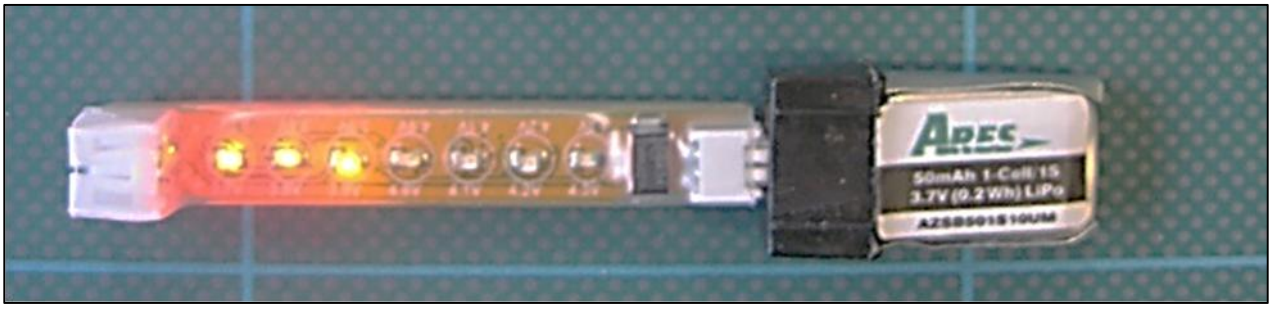
RDT systems

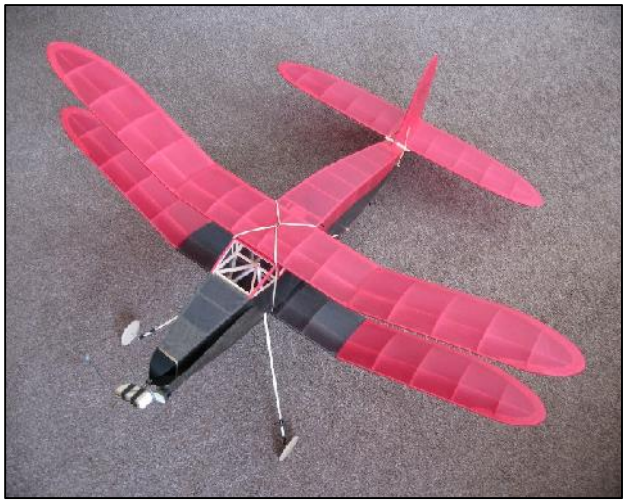
I have described the 2.4GHz based RDT systems that I use previously in the New Clarion. These use a Lemon Rx (March 2015) or Deltang Rx (September 2016). I have not used the highly regarded Leo Bodnar unit (www.leobodnar.com). Roy Tiller described his neat transferable system for this in the May 2016 New Clarion, which influenced my arrangement for the Deltang Rx unit. The disadvantage of the 2.4GHz systems compared with the Bodnar one is their considerably higher current drain, so spare fully charged batteries are required for a full day's flying. Their charge can be readily checked with the Tiny Meter from Hobbyking.
I have fitted Lemon receivers in rubber powered models, the 30" span Daedelus biplane and the Northern Arrow 4oz Wakefield, where the RDT replaced the Tomy timer previously fitted.
I use the lighter transferable Deltang Rx 27 unit in a Laurie Barr designed Pinocchio and in the Jim Buckeridge designed Hoppity MkII biplane. I am currently building a Veron Fledgeling to take this unit. The Fledgeling is a long overdue replacement for the one I lost at Middle Wallop in 2011, which was fitted with a viscous timer system (enough said). This was, of course, back in the halcyon days when the loss of a model outside the airfield was of not a great concern, apart from to the flier.
It is important to set the fail-safe when binding the transmitter to the receiver. This ensures that if the model goes out of range, or the transmitter battery dies, or it is switched off, the DT operates. Once, while walking back after a flight with the Deltang RDT equipped model, the DT operated, so it looks as though the failsafe also works when the Rx battery is low.
I have been asked the range of this Rx. All I can say is that it is adequate, as I have never had the system operate before I wanted it to with the model in sight.
Obviously, a standard 2.4GHz transmitter can be used with the RDT systems described, but when first trialling an RDT system with the Daedelus, but I found this unnecessarily bulky and so acquired the much smaller Phil Green unit connected to an Orange 2.4GHz Tx module.





Deltang Rx27 based RDT unit with Tiny Meter single cell lipo checker below





Daedelus biplane with tip-up tail DT,
using Lemon Rx based RDT

Northern Arrow 4oz Wakefield with tip-up wing DT
Now fitted with Lemon Rx based RDT.

I will conclude this series with a table giving a comparison of the weights of the various operating mechanisms. Get those dethermalisers fitted and working for Middle Wallop!

Operating mechanism	Weight
Cheepo button viscous timer unmodified	0.8g
Tube in tube viscous timer	1.5g
Tomy clockwork timer, as in photo above.	4.2g
Deltang Rx27 and nano servo	2.7g
RDT unit using Deltang Rx27 mounted on board without Lipo	4.6g
RDT unit using Deltang Rx mounted on board with 50mAh Lipo	6.6g
Bodnar RDT unit Rx and nano servo	2.7g
Lemon Rx, Nano servo and 100mAh lipo	8.7g

Nick Peppiatt

Emails to the Editor

Peter Carter: Mimi

John. Ref your article in Feb Clarion on Ray Malmstrom MIMI, please find attached a picture of my Trio. They are excellent little flyers powered by ED Baby and DC Dart.

The Green/Yellow model disappeared o.o.s when flying one day at our local club and being such a small model it was thought it would never be found. Luck was with me as it was later found by a farm worker on a track at the edge of a cornfield having travelled about 3/4 mile.

Regards *Peter Carter.*

Paul Rowley: Taifun Blizzard

Hi John,

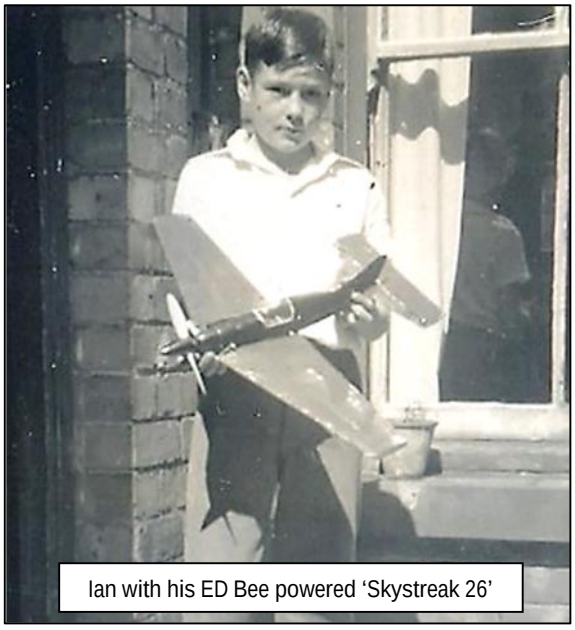
Just an update on the Blizzard, I managed to get it sold on ebay for £246 (unbelievable), it went to the States!
I do have loads of 'Flying Models' and aero modeller magazines in numerical order from the 60's & 70's there could be even earlier ones and am loathed to throw them in the recycling but not sure if anybody would be interested in them. Dad was a bit of a collector!

Regards, *Paul Rowley* E-mail: jp.r66@hotmail.co.uk

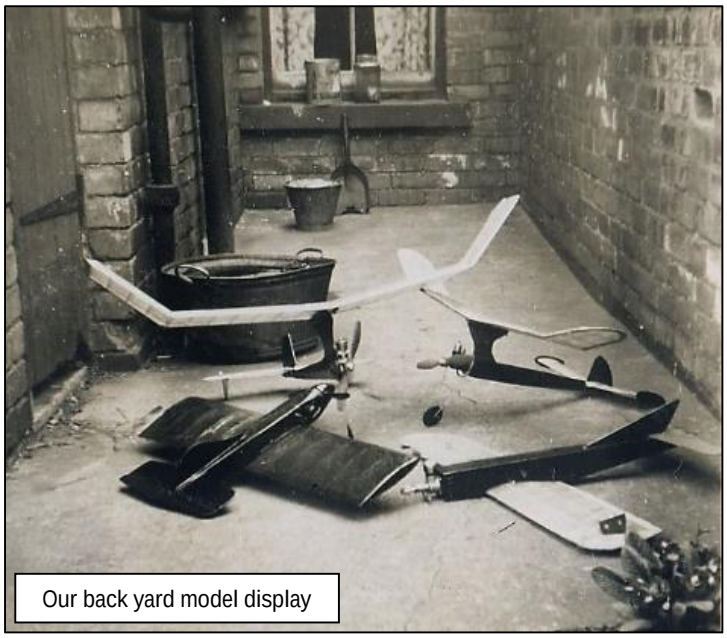
More from my Album - John Andrews

In the absence of a flood of members vintage pics from their early modelling days I will inflict upon you more from my old album. I'm not too sure which pictures I may have published before so I'll stick with the ones that are still fixed in the album to minimise the risk.

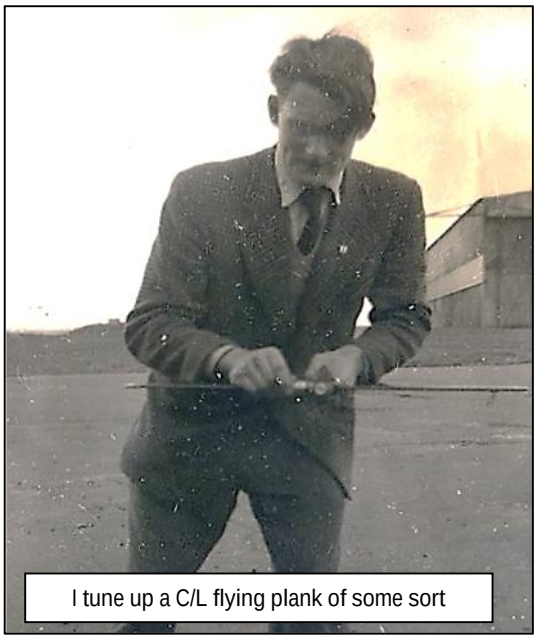
I hold whilst mate, the late Ian Lomas, winds at some rally or other



Ian with his ED Bee powered 'Skystreak 26'



Our back yard model display



I tune up a C/L flying plank of some sort

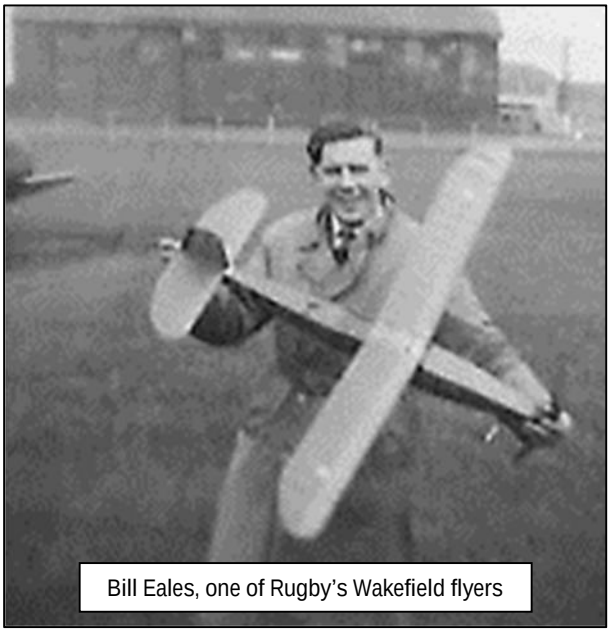
My Frog 500 powered 'Musketeer'

Gerald Jeans ETA 29 team racer

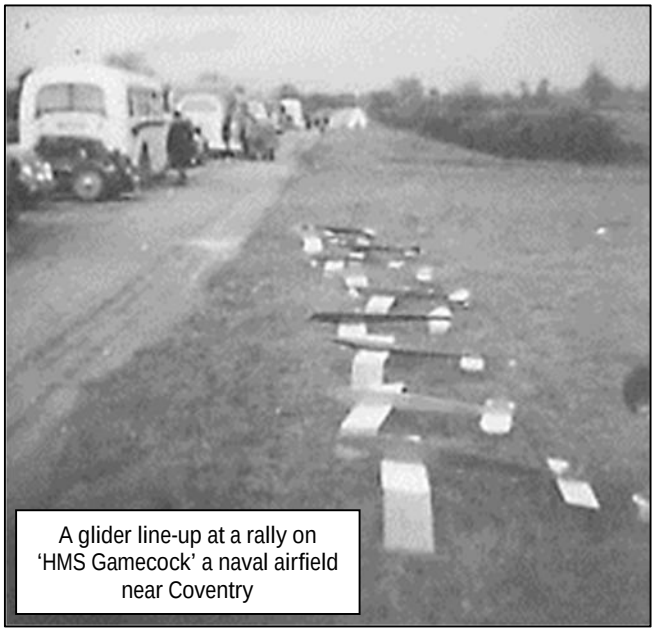
These early pictures are pretty grim quality wise, some taken with a Woolworths 127 camera and some with the cheap Kodak 2¼ square plastic thing. Late 40's early 50's

Yours truly with Frog 160 glow powered Slicker 50. Lost it

We did have someone who could build C/L scale. Don't recall who.



Bill Eales, one of Rugby's Wakefield flyers



A glider line-up at a rally on 'HMS Gamecock' a naval airfield near Coventry

Frog 500 powered team racer of mine. Never flown in anger

Ian with one of my Elfin 2.49 Power Models

Well this little lot should show it's not a photographic competition but some early illustrations of our vintage past that I'm after. You must have some old pictures somewhere. I cannot date mine accurately but are around 1950, before I played soldiers doing my National Service.

John Andrews

Managed to improve your still-air times since last year? Yes?
Then how about improving your model's visibility to match?

DAVID MILLER tells you how to select

COLOURS for CONTEST MODELS

Every time your model goes o.o.s. in a contest, the time scored depends not upon the performance of the model, but upon its visibility. So instead of scheming how to improve your still air time by another five seconds, take some time off to consider how to improve your model's chances of being seen by the timekeeper on a windy day.

Choice of Colour

Next time you are out on the flying field, have a look at a model about to go o.o.s. in the distance, and ask yourself what colour it is. If your answer is anything other than that it is a dark speck, then read no further. There's no hope for you. Against any but the darkest of skies, a model at a distance will show up black. It follows that for maximum visibility against the sky, the speck should be made as large and as dark as possible in order to contrast with the brighter sky.

Naturally, an all-black model is not a good proposition. Models are not the only things which show up black against the sky. Trees, hedges, hangars at a distance, all have the same habits. Once a model drops below the skyline, only the lighter parts of it will have a chance of showing up. A model, therefore, has to be a mixture of light and dark in order to show up against a background which is first bright and then dark.

From the point of view of contrast, black and white is probably the best choice, and, indeed, for a season or so I did use such a colour scheme on my models. Visibility against sky and dark backgrounds was all that could be desired (it is not now possible to say the best that could be obtained in view of the advent of fluorescent colours), but it took only a few occasions when the model got treed to make me realise that there is a third consideration which must affect one's choice of colours. A black and white model which gets treed just disappears, unless you are lucky enough to catch sight of a black mass which looks the wrong shape for a tree branch.

Some colour is needed which is fairly light in order to show up against a dark background, and also has enough colour to show up for retrieving purposes. The answer is easy—make a list of all the colours you have at your disposal, and then delete the unsuitable ones.

The colours will probably be found to be red; blue; green; brown; white; yellow; or mixtures of these.

Blue, green and brown are out for obvious reasons. White, by itself, has already been dismissed because of its lack of colour to make it stand out when the model is in a tree, but it can be mixed with the remaining colours in order to lighten them somewhat.

Let's try this: red and white make pink; yellow and white make yellow. One further combination remains, that of red and yellow, which makes orange.

That seems to be the choice. Yellow, pink or orange. Red can be added to this list if it is possible to obtain a red which is sufficiently bright. Most reds are rather dark and brown looking. But there's more to it yet. A friend of mine thought he had the answer with a red, yellow, orange, and black job— the back end being all yellow. He now knows better after the model flew slap into one of Chobham's black and yellow gorse bushes and buried itself in it up to the tail, thus hiding the red and orange parts ! We had to go round all the gorse bushes nearby, trying to find the bit of one that did not prick.

No kidding though, the nature of the terrain over which you normally fly should have a considerable bearing on the choice of colours. There's no point making part of the model a nice yellow if you fly near cornfields, or an exotic pink if there is a large rose-grower's holding next to your flying field. If you fly where there are no trees (just send me the address) then you can get away with a black and white model which will give you maximum contrast under all conditions. If you fly near trees and get treed regularly, then a bright yellow is one of the best colours to use.

Select your colours by looking at the colour of the countryside where your model is likely to be flown, and then choose a contrasting colour. It is no use choosing a beautiful colour scheme which merely ensures that the model will be lost as soon as it touches down.

Disposition

Having selected the colours, the next problem is where to put which. There are only two firm rules and the rest is personal preference:

1. The proportions of light to dark colours should depend upon the performance of the model.
2. Large areas of colours are best— small patches of colour lose themselves much more easily than one big patch— ref. German lozenge camouflage.

To enlarge upon the first requirement—the point is this: if your model is a long motor run rubber job which never gets above 100 ft., then obviously a large proportion of it should be a light colour because the chances are that it will be flying against a dark background of trees and hedges more often than not. Alternatively, if your model climbs like a *Thor* with the wind up, then it is going to spend a major part of its life against a sky background,

and it should consequently be a predominantly dark colour. Since this same model would probably have a brick-like glide to match, you would not worry overmuch about losing the few seconds it takes to sink from hedge height to ground.

With regard to the second requirement, it is naturally very much a matter of preference where the colours are disposed. As a guide, vertical surfaces and wing tips show up best at a distance—which colour you make them depends upon the sort of background the model will be flying against, at the distances where a colour scheme begins to matter. The underside of flying surfaces, and the portion of fuselage under the wings, never show up a light colour in flight and might as well be made dark.

My personal preference is for fairly fast climbing power models to be black from nose to tailplane and orange from there back. This has the advantage that if the model lands in a cornfield, the chances are that the bright end will remain sticking up out of the corn.

Practical Considerations

Having looked at the more theoretical side of colour schemes, it is time to turn to the practical side, and consider the finishes available.

Now it is unfortunate that the tissues at present on the market fail by a long way to achieve the brightness of colour desirable in order to ensure that the model will show up on the ground. Reds are more like dull browns, the yellow is too much of a pastel shade and all colours are subject to fading. Worst of all, it is only possible to get orange in " hard" tissue, which is not widely used in contest models. To get the most out of a colour scheme, brighter colours are needed than those provided by tissue alone.

It is possible to intensify the colours by spraying another colour on top of the tissue, but this is bound to involve some weight penalty. However, the resulting colour is so improved that it is well worth trying, particularly on F.A.I, models, where weight is now of minor importance (unless, of course, you subscribe to the current stability craze of ultra-light wing tips, etc.).

A thin coat of colour dope, sprayed on top of tissue of the same colour, will brighten up the colours beyond all recognition, and the additional weight is no more than 1/2 oz. for an A/2 when the job is done properly. Use very thin dope (25 per cent, dope and 75 per cent, thinners) and do not attempt to get an opaque finish, or even to cover. Just a thin dusting coat will give you results far removed from the drab tissue efforts usually seen. The big disadvantage comes when it is necessary to patch such a finish. To produce a neat repair one has to spray on a coat of dope the same thickness as the original, which is, needless to say, somewhat difficult.

A rather better proposition is Mercury Aerolac. This thin dye-like finish is very light and the three colours available are all useful for our purpose. The black in particular is extremely intense and gives a nice matt finish—of which more anon. The yellow (on top of *white* tissue) is an acid sort of colour which is quite eye-catching, while mixed with red (a little red, and a lot of yellow) it makes a good orange. The orange is, however, rather prone to fading. Aerolac should definitely be sprayed on to get an even coverage, and the addition of some methylated spirit, as a thinner, assists this operation.

Where we turn for salvation, however, is to the recent fluorescent colours. Early experiments with such paints were not encouraging, and, perhaps, account for their relatively infrequent use, but the dyes have been improved since then and these colours are now worth every bit of the extra weight involved. To be able to pick out your model in rough country at a range of up to half a mile or so is, surely, of much more value than the 20 sec. still air time you lose with the extra weight ?

It is possible to do just this with a good fluorescent colour. The unusual brightness makes it almost unnecessary to look for your model any more—it catches your eye instead. In improving the chances of recovery of the model, this finish will improve the contest flight times far more than the extra weight will drag them down.

The most suitable type of fluorescent paint so far discovered by the writer goes under the name of poster paint, but don't be put off by this because it smells like dope and behaves like dope and thins very well with Titanine thinners.

Called Fluorart, it comes in some really hideous shades. Even the lime green is a proposition, for there is certainly no colour quite like it in the English countryside. The paint is translucent, and, like other fluorescent finishes, should be applied over a white base, for otherwise any dark marks underneath will show through. Although the finish is waterproof in that it will not wash off, it tends to absorb any water lying on it with a consequent increase in weight, and it should, therefore, be proofed by a coat of fuel proofer or something similar. Doping over it produces a whitish powdery-looking surface which loses some of the intensity of the colour.

Having taken all this trouble over selection of a suitable colour scheme, for pity's sake do not throw away all the effort spent upon it by giving the result a glossy finish. By its very definition, a glossy finish will reflect back the light from its surroundings, and so, if the model is against a blue sky, it will reflect back a blue colour, and if it is in a tree, it will show up green. If you don't believe it, hold one of your models at arm's length in a gentle climbing attitude, so that it is pointing away from you. If there is any shine on the top of the wing at all, it will reflect back the colour of the sky rather than the colour of the finish.

A nice shiny model looks good and glistens in the sun, of course, but just count the number of times that you have seen your model, either in the air, or on the ground, by reason of its shine during the past season. Better still, approach the Club Mug (the one who does all the timekeeping, I mean) and ask him if he recalls ever having kept a model in sight by reason of its catching the sun as it circled. The occasions are few and far between.

A final word of warning; if you employ a matt black finish on any component, remember that this colour will absorb a great deal of heat. An anti-warp structure is, therefore, of paramount importance.

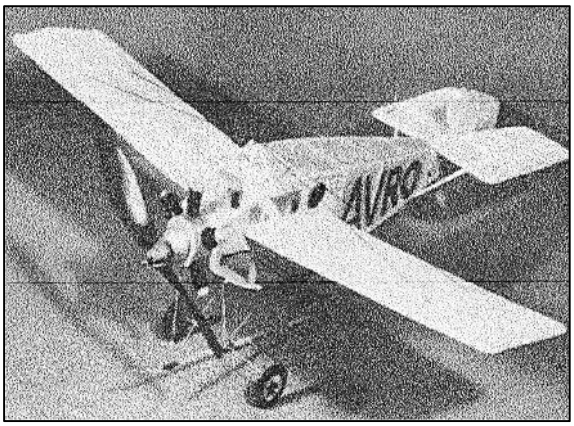
David Miller, Model Aircraft February 1960

Report No. 97. Aeromodelling in Meccano Magazine, continued.

We are now looking at Meccano Magazine from June 1965 and Ray Malmstrom continues to provide a plan every month.
The Ascenda, a rubber powered helicopter with a rotor of 16" diameter, appeared in the June 1965 issue of the New Clarion.

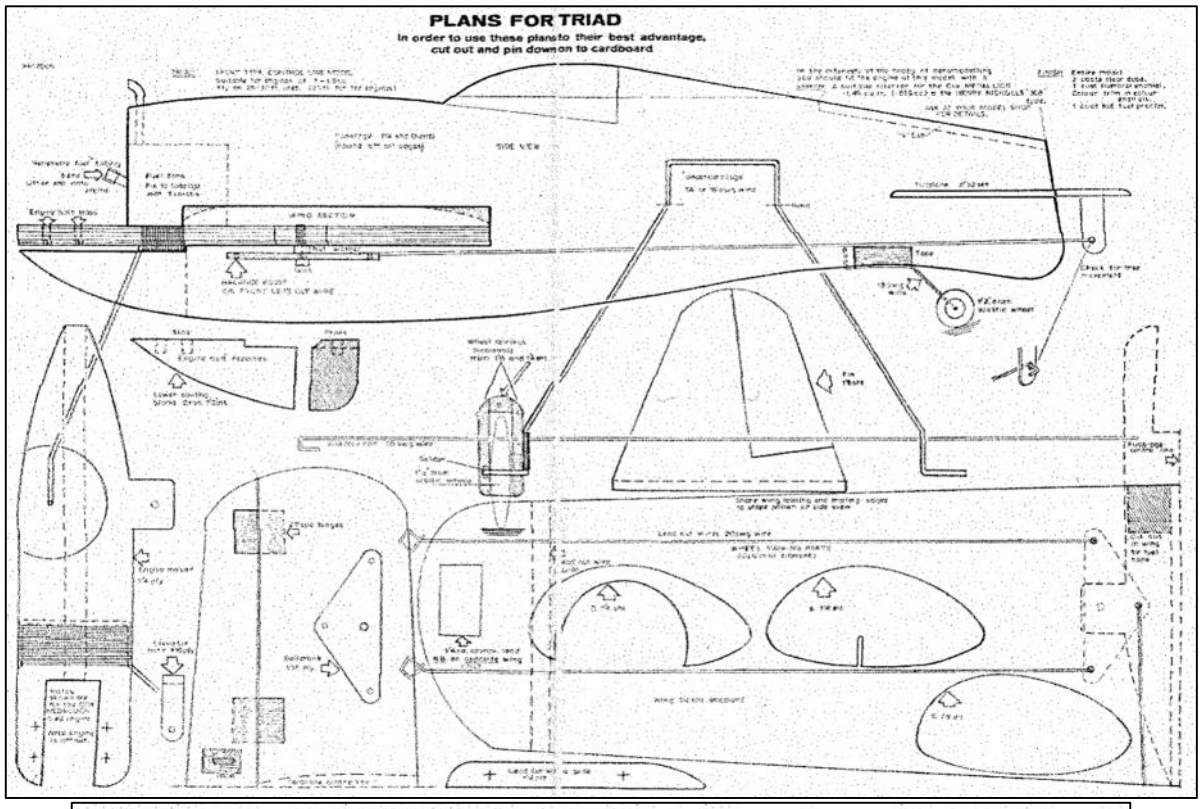
The plan, from the book "Ray Malmstrom's 60 Years of IVCMAC", appeared in Chris Strachan's contribution to the March 2017 issue of New Clarion, so is not repeated here.

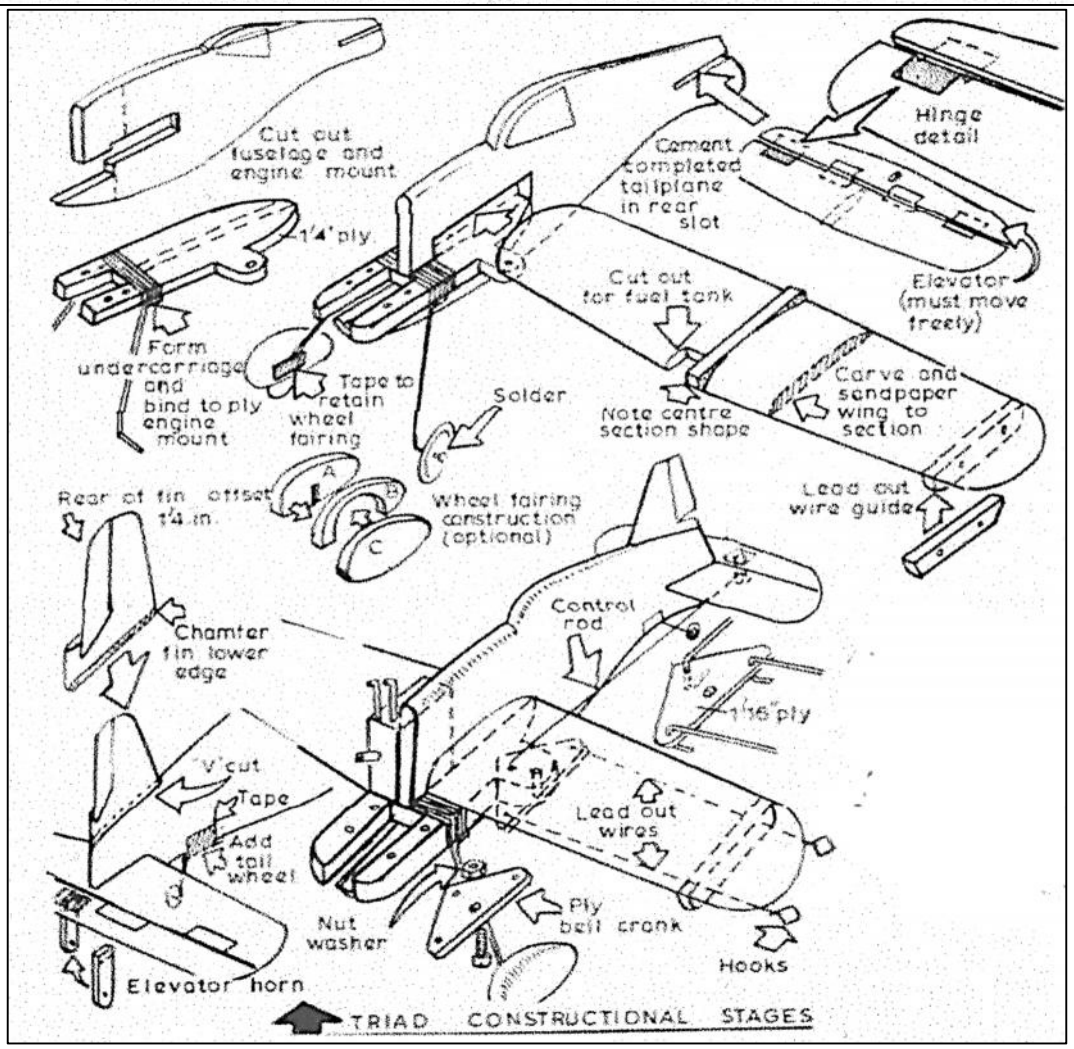
The Avro F article and plan appeared in the July issue. I checked the "first cabin aeroplane" statement on Wikipedia and found confirmation "On 1st May 1912 it became the first aircraft in the world to fly with a completely enclosed cabin"

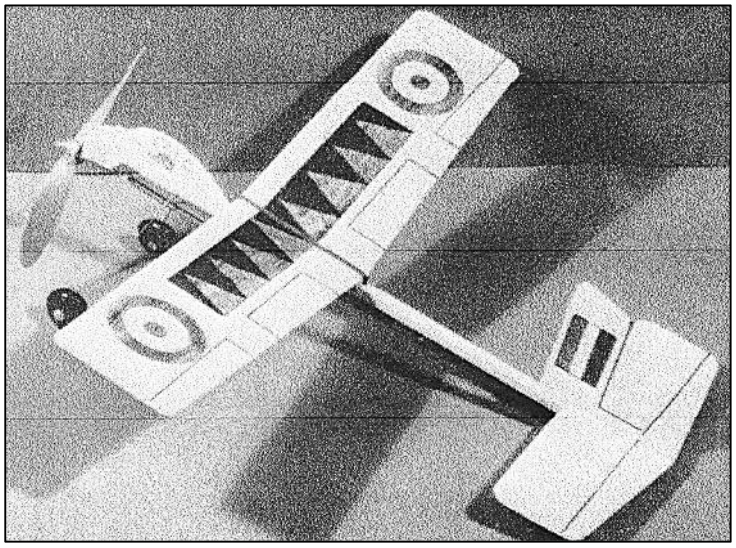


To see the plan for this 15" span model, look in New Clarion December 2015, again Chris Strachan's contribution from the book on Ray Malmstrom as mentioned above.

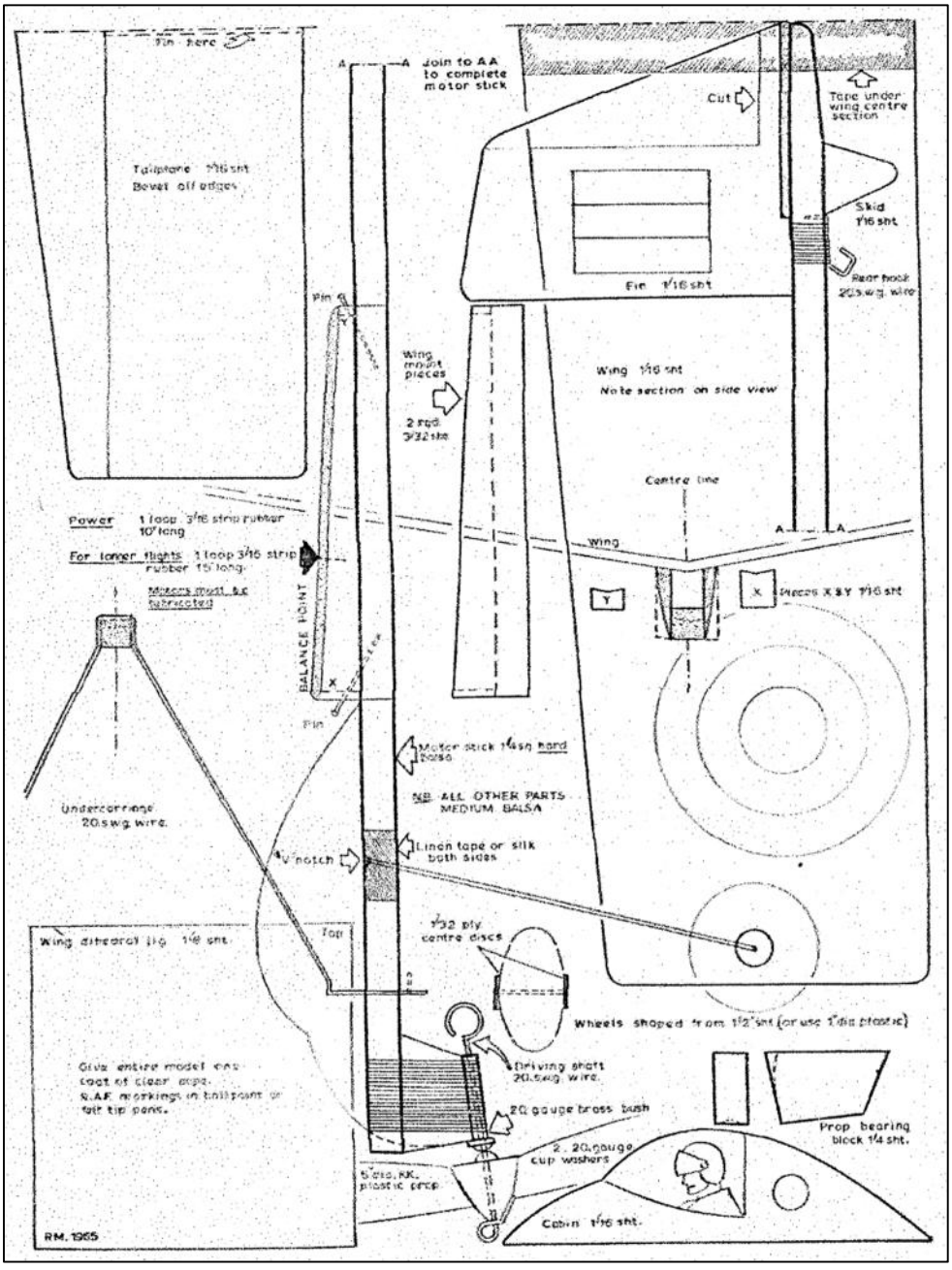
Next month Ray's plan was for the Triad, a 14" span control line model. There was no picture of the model but a good idea of its appearance can be gained from the plan and assembly sketches.







The September issue included Ray's Skyfly, a 15" wingspan stick model.
Yes, just a simple stick model but with its tapered wings, fin set foreward of the tailplane, military markings, cabin and pilot, any young lad in the 1960's could convince himself that he was right there with an RAF training squadron.
If you would like to build any of these models, all of the plans and instructions, just as they appeared in Meccano, are available by email.



More from Meccano next month. Roy Tiller, tel 01202 511309, email roy.tiller@ntlworld.com

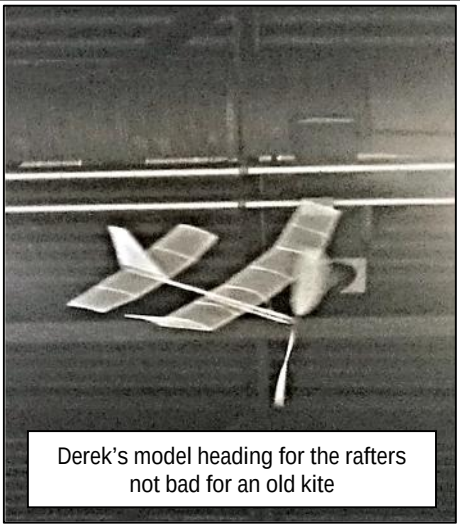
Roy Tiller

Thorns Indoor Pictorial - Colin Shepherd

In the absence of the Editor at my Thorns February meeting I have put together a few pictures from my camera phone to keep you up to date.

A serious moment for Derek Richards, flying after a long time off since his illness

Derek with his 20 year old penny plane

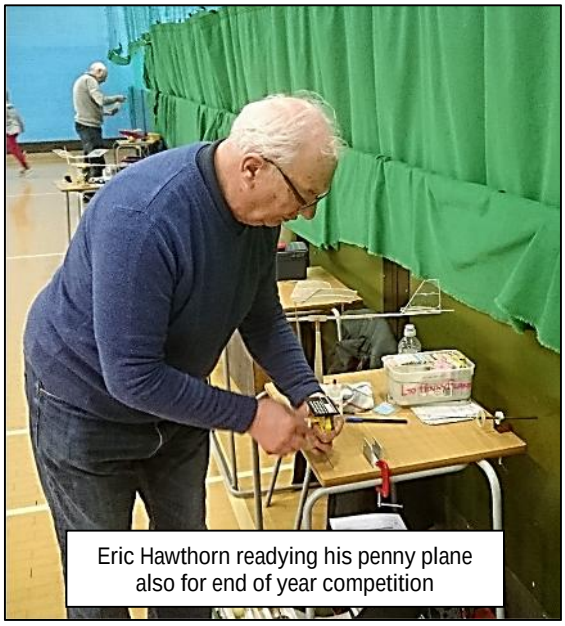


Derek's model heading for the rafters not bad for an old kite

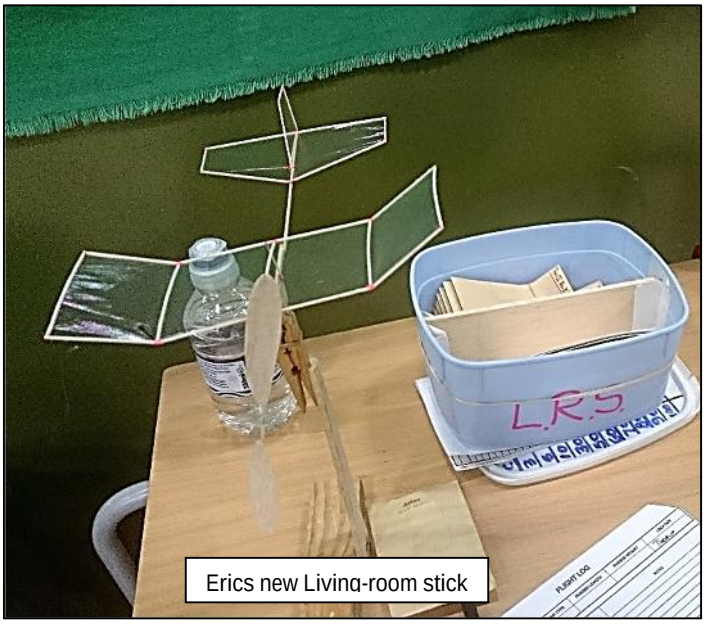
Mike Brown pondering on which model to fly next

Alan Price readies his xmas comp
'Kenny Penny' plane for a trim flight

Dave Dyer with his new creation
in process of trimming



Eric Hawthorn readying his penny plane
also for end of year competition



Erics new Living-room stick

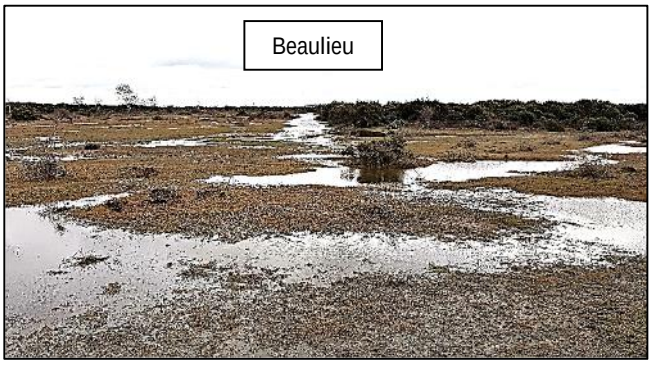
Colin Shepherd

Southern Coupe Lg.2019 Rd.2 - Peter Hall

1st Area Events, 10th February. 2019

A dismal start to 2019, but great credit to those who had a go. Various excuses drift in, I had 'flu, Gavin Manion says he had a note from his mum,

At Ashdown Forest the wind was in the worst direction for that site and Ken Taylor says that coupes were abandoned for chuck-gliders. Ron Marking reports no flying on Bodmin Moor, the forecast wind was 26- 28 m.p.h. (not gusts). Two flew but not coupes, on Salisbury Plain and there was no coupe flying at Barkston.



The peri- track at Beaulieu looked like a film-set for a re-run of the Battle of Passchendaele. Roger Newman reports a cold West South Westerly and rain until 11.0 a.m. then on and off through the afternoon. Despite this Phil Uden got two flights in with his French vintage coupe, Fuit 3.

At Sculthorpe though, Spencer Willis put in four flights and Andrew Moorhouse three in what Michael Marshall describes as 'unspeakable conditions - strong winds, persistent rain and temperatures around three degrees.' I remember seeing Spencer's windy weather launch technique some years ago at Middle Wallop, he runs down-wind, whips round and chucks. Of course, years ago these conditions would not have deterred us. We all remember on flooded sites, launching from boats after rowing hard down wind, scraping the ice off flying surfaces and wading through fifteen foot snowdrifts to retrieve. Don't we?

The next round is Odiham on May 5th. but a cautionary note is indicated. The M.o D. is engaged in a Brexit No Deal Impact Mitigation Exercise. The Air Marshal is in a fever of excitement, he sees his opportunity, he feels the hand of fate on his shoulder, he fantasizes fleets of Chinooks dropping tins of Spam and sacks of home-grown potatoes on starving villages, he sees the headlines 'The Air Marshall, Saviour of the Home Counties'. He is even prepared to sacrifice the Gala.

Southern Coupe Lg. Rd.2 - 1st Area Results

Place	Entrant	Club	Maxes	Score	Time
1	S.Willis	Croydon	0	12	5.14
2	A.Moorhouse	Vikings	0	9	3.35
3	P.Uden	Crookham	0	8	1.47

Southern Coupe League Standings after Rd.2

Place	Entrant	Club	Coupe De Brum	First Area	Odiham	Oxford	Southern Gala	Crookham Gala	London Gala	Coupe Europa	Total
1	A. Moorhouse	Vikings	8	9							17
2	P. Ball	Grantham	14								14
3	S. Willis	Croydon		12							12
4	W. Dennis	MFFG	10								10
5	C. Foster	Morley	9								9
6	P. Uden	Crookham		8							8
7	M. Marshall	Impington	6								6
8	M. Benns		5								5
9	P. Woodhouse	Morley	4								4
10	G. Manion	Birmingham	3								3

Results Tables Roy Vaughn

Peter Hall

Vintage Coupe Lg.2019 - Gavin Manion

Seemingly ages ago the first round of the Vintage Coupe League took place at the windy Coupe de Brum on 2nd December 2018. See the write up in the January Clarion for a blow by blow (pun intended) article.

As reported then, the class was won by Dave Taylor with 230s over Colin Foster with 208s. Bill Dennis trailed a little with 103s and yours truly bought up the rear with a single flight and a "flat pack" model for 90s.

Clearly 1,2 and 3 here are thus placed in the league after the first round, remember 3points for winning, then 2pts and finally 1pt for third. No points for being last and a shared place results in shared points.

Some things change; there was no show from last year's runaway winner Chris Redrup. Some things don't change in that all scoring results were posted with Etienvres! Indeed Colin Foster could have won F1G outright if he'd done all of his flights in that class with his example.

I've got some usefully vague 3 views of two more Vintage Coupes, if I can get approval from those whence they came I'll have them reprinted here if our editor allows. Meanwhile, and if you need a detailed plan to build from, the ex DBHL drawings are slowly appearing on Outerzone where you can currently find :-Ailbass, Altair, Bagatelle, Eros, Fuit3, Lo Zigolo and the 1949 freewheeler by Morriset. A browse around the DBHL link in this magazine will certainly turn the lovely Machaon by Andre Meritte and probably more, so there is no excuse for anyone taking the easy way out and building yet another Etienvre. (Oh, forgot to mention, you can get Etienvre off Outerzone as well!)

The coming contest season has been slow to gel but I think the next round will be April 27th at Middle Wallop, but watch the Coupe event list in this publication for more information. All vintage coupe events count and the lovely SAM1066 Vase to the winner."

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

(*) Qualifying event Southern Coupe League. (+) Qualifying event Eurochallenge F1G 2018/19

All Vintage Coupe events for SAM1066 Trophy, 1st – 3points, 2nd – 2pts, 3rd – 1pt; no points for last place!

Gavin Manion

Secretary Notes for March 2019 - Roger Newman

Another quiet month with very little activity, punctuated only by the 1st Area meeting, with our local bit held at a very wet & breezy Beaulieu – but it could have been worse. See brief report below.

Dave Phipps kindly replied to our open letter on the current drone legislation issues, his response appears elsewhere in this NC. I fear he is in a no-win situation where political dogma & bureaucratic ineptitude within the DfT have effectively over-ruled any atom of commonsense – as evidenced by the latest knee jerk reaction proudly trumpeted by the DfT in their most recent press release. There can be nothing more that is worthy of adding at this time.

On the good news front, we have another day allocated at Middle Wallop – 10th August. It has been decided to relocate the "Cagnarata Day" from Salisbury Plain to take place now at Middle Wallop & Ray Elliott is busily planning a schedule for various classes that sit within the 250 gram rule. The date, as always, is subject to the grant of a licence. The rules for the 1st meeting have already been circulated to the membership – remember no sport flying at this meeting but if all goes well, hopefully for other meetings. We await details on field entry etc. from the Authorities, which will be provided once the licence is agreed.

On the disposals front a very nice Zaunkonig is available, complete with an old but very clean ED Bee. To our knowledge, this model has never been flown. As per last month, email me if you have an interest.

Zaunkonig built to Aeromodeller plan

1st Area Meeting

Characterised by wet & pretty breezy weather – what else does one expect in February? Anyway, some 7 of us turned up at Beaulieu & after navigating a very waterlogged peritrack, parked up & lo – by 10.30 the rain stopped & the sun made a desultory appearance. This was sufficient for the brave to get some flights in. David Cox & Dave Etherton in glider, Chris Redrup in E36 & Phil Uden in F1G. Both David & Dave did reasonably well with a few maxs, Chris maxed out in two of his flights but was off song on the other. Phil brought out his 20+ year old Fuit III in a valiant pursuit of Plugge points, but age took its toll as the model was well off trim. Tony Shepherd had an untrimmed Le Timide & wisely decided discretion was the better part of valour so didn't attempt any flights, whilst Roy Vaughn had his Le Timide & made one trimming flight before one of the wings struts parted company with its fixing, Roy called time

at this point. Other than a light shower around lunchtime, the weather behaved & stayed dry during the day. Retrievals were lengthy, capped by David's final flight in combined glider, which maxed out & went an enormous distance – sufficient such that he couldn't make it back in time to get in his final flight.

Roy & Phil worrying about something!

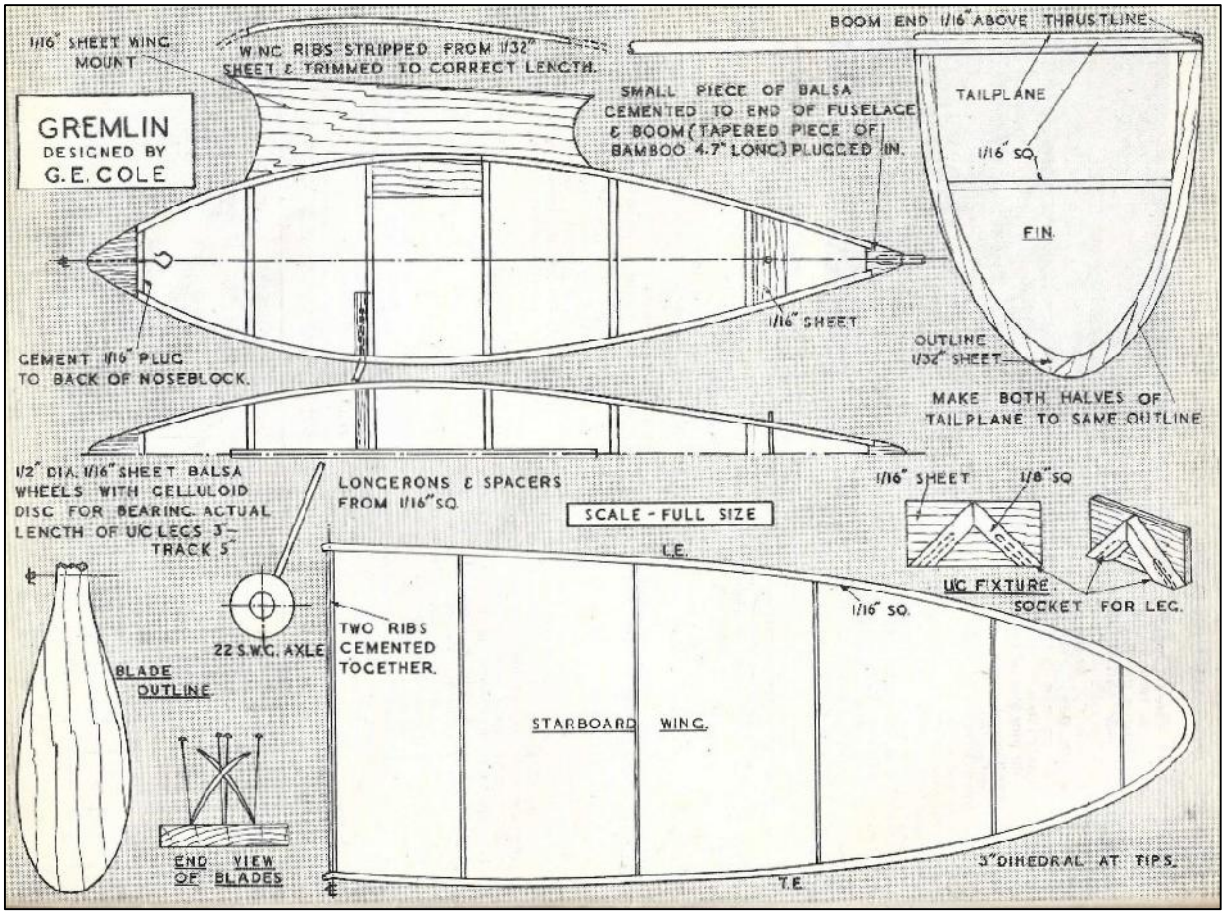
Chairman releases Dave's Nord into a stiff breeze

The past

A quiet browse of the November 1945 Aeromodeller yielded a few interesting bits. First up, a photo of Howard Boyes rog'ing his rocket powered model at the very first Eaton Bray meeting. An ensuing email dialogue with your Editor recalled him seeing Howard on many occasions at his own Club, Rugby MESAS, where Howard was then a member and President. In those days, aeromodelling was a thriving hobby, recognised & accepted by the authorities unlike current times.

ROCKET R.O.G. Spectators at Eaton Bray opening day received their full share of excitement when Mr. Howard Boys demonstrated one of his rocket driven tailless machines fitted with a tricycle undercarriage.

Next up in the same issue, revealed the "Gremlin - a high performance beginner's indoor model" complete with building instructions. As the winter season is still (just) with us, how about a quick build & fly?



The same page as the building instructions carried a half page advert for a National Model Aircraft Exhibition. Note the prizes offered!

The GREMLIN

BY G · E · COLE

A HIGH - PERFORMANCE BEGINNER'S INDOOR MODEL

Fuselage.

This is basically a simple box type structure, containing the motor, with mounts attached to support the various surfaces. This box is constructed first, and the boom (a circular piece of bamboo tapering from 3/32 in. to 1/16 in. diameter) plugged into the small balsa block.

The wing mount is cemented to the top of the fuselage, and when in place, 1/16 in. sheet braces are fixed between the compression members adjacent to the tongue of the mount, and cemented where they touch it.

Tail Assembly.

The tailplane is constructed in two halves to the same outline as the fin, and then joined together. This is then cemented to the top of the boom, and the fin underneath. Note particularly the negative angle of incidence of the tailplane.

Undercarriage.

The legs are of 1/16 in. diameter bamboo, tapering slightly to where the wire axles are lightly bound and cemented on. Complete the wheel with celluloid bearing disc, and cover it completely with superfine tissue. Build the U/C fixture, and after drilling the sockets for the legs, cement it into the fuselage.

Airscrew.

The blank is cut from 1/32 in. sheet as shown, and twisted in steam until the blade angles at the widest chord conform with those on the drawing. It should then be given several coats of banana oil, sanding between each coat, and finally pinned down to dry, still twisted as on the diagram. The hub is built up of two pieces of 3/32 in. sheet cemented each side of the prop. centre, the shaft being passed through the middle and bent back into the airscrew.

Covering.

The drawing for the wing is self explanatory, and when completed, it should be covered on the top surface with super fine tissue. This single surface covering also applies to the tail surfaces, and is not sprayed. The fuselage is covered in the ordinary way, and sprayed once with water.

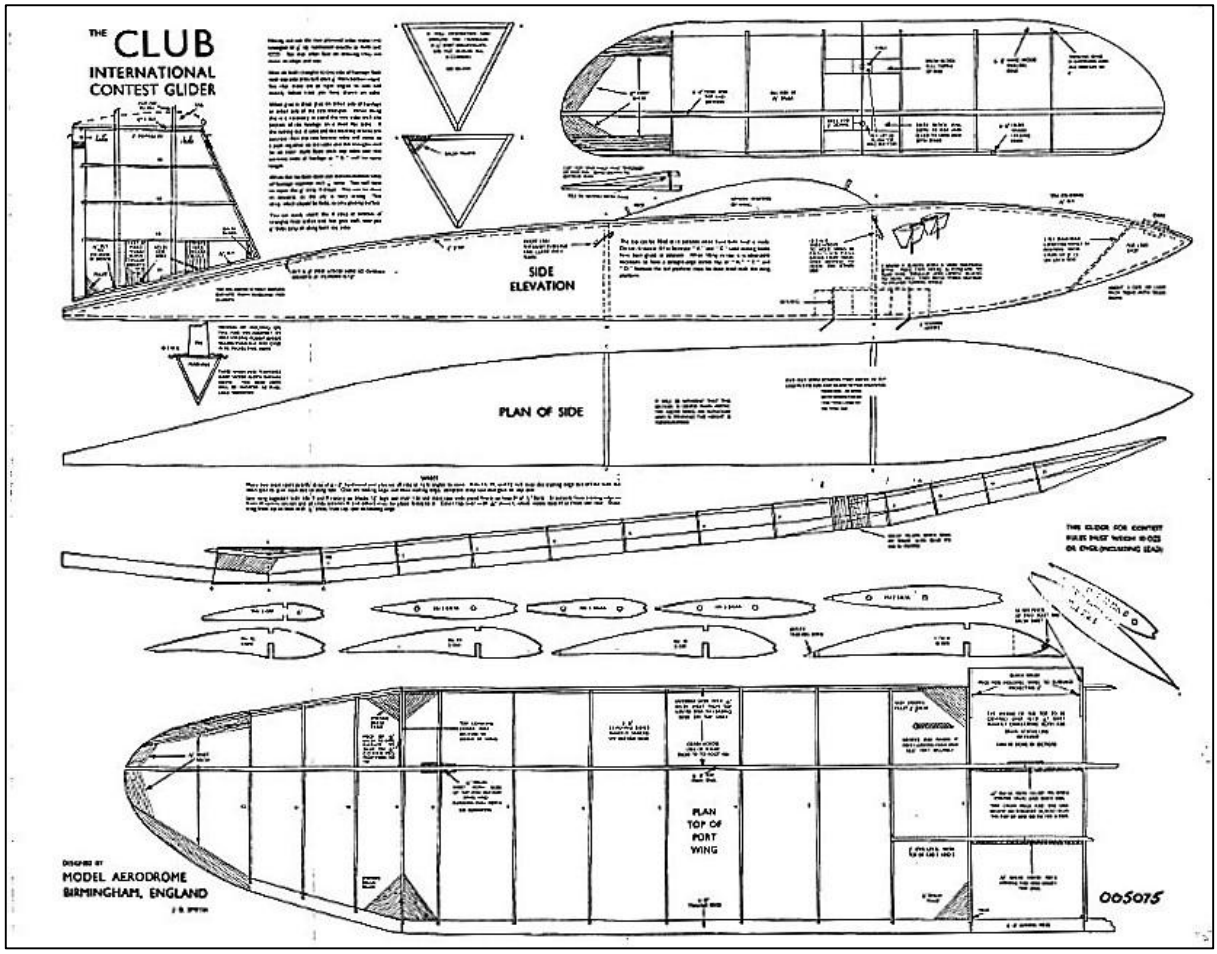
Complete the assembly by cementing the wing into position, and plugging in the U/C legs. The power is provided by two strands of $\frac{1}{8}$ in. flat, 9 in. long, this giving a maximum of 700 turns.

The model should balance fairly well if the plan has been strictly adhered to, and any adjustment needed may be provided by bending the tail boom slightly up or down. Trimming should be carried out along the usual lines for a machine of this class.

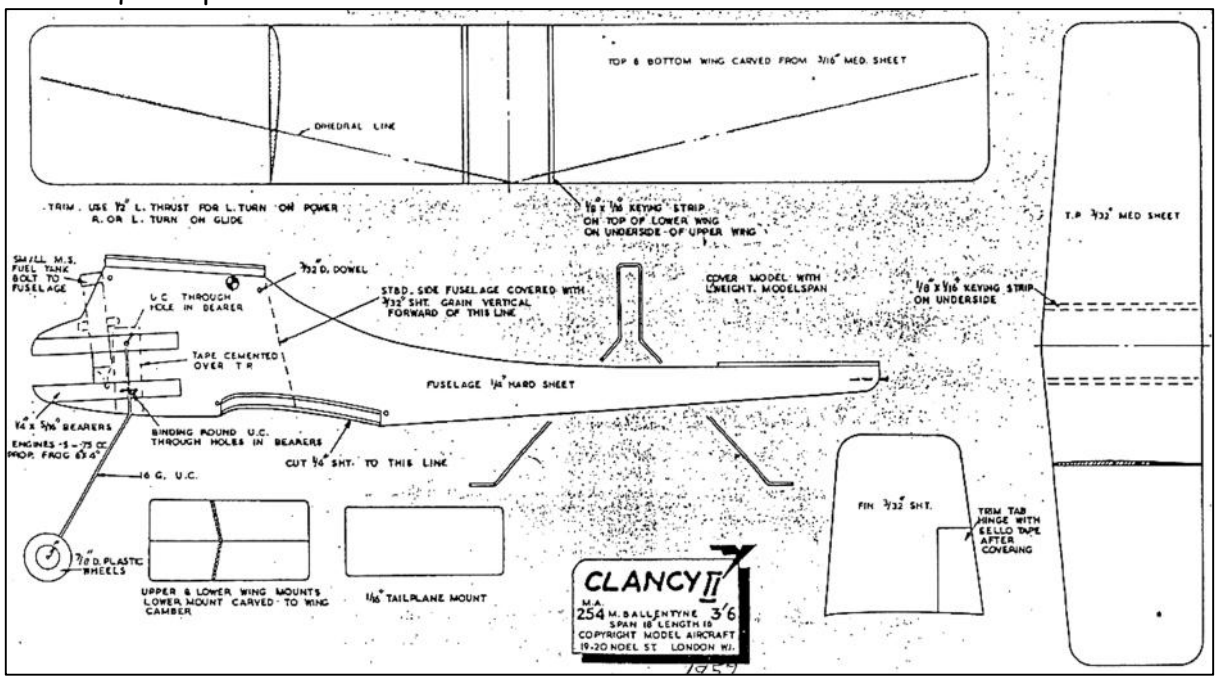
Plans for the month

Rubber: Well – you already have the Gremlin

Glider: Club International from the Model Aerodrome in Birmingham. I remember walking past this shop as we traversed the route from New Street Station to Snow Hill Station many times in the 1950's on the way to see relatives in the West Midlands.



Power: Clancy II from Model Aircraft. Note the span of 18" powered by a Mills 0.75 – would have been quite spectacular.



Roger Newman

Query from SAM USA

Looking for information on Joe H. Maxwell

Does anyone have any information on Joe H. Maxwell in Stirling, Scotland. He called his firm "Aids for Advanced Aeromodelling". Most people thought that he had several computerized machines to make his wonders in balsa, obeche and hardwood. But in 2001 he wrote a book, "the Secrets of Aids for Advanced Aeromodelling", where he revealed that his main machine was just a radial arm saw, which he used very geniusly.

If so, please respond to me at <themaxout@aol.com>,

Thanks in advance
Rick Pangell - NFFS Central VP
Editor of "The Max-Out" Newsletter

The 34th Annual

Northwich Swapmeet

Sunday 17th March 2019

10.00am - 12.30pm

(ONLY Model aircraft and associated equipment allowed)

PLEASE NOTE: There are no increase in fees, so even better value

The PREMIER FLYING model aircraft Swapmeet in the North West of England!
This event - although traditionally called a Swapmeet allows you to bring along your unwanted model flying paraphernalia (but only things to do with model planes and model workshop equipment etc.), and sell it to buy other goodies, or just take home the money if you are selling up
Each table is 6ft long.
It has been continuously running now for 30 years, and so is well established that visitors come from all over in the hope they may buy model planes, unwanted or even unused model goods, a hard to find collectable model engine, collectable aeromodelling magazines or books, or perhaps that elusive pre-war unmade kit for their collection!

Memorial Court Centre in Northwich..

Northwich Memorial Court. Chesterway, Northwich, Cheshire. CW9 5QJ

This is a large, light, airy, modern concert hall.
The event is held between 10.00 am. until 12.30 pm.,
but those who have booked a table to, can enter the hall at approximately 9.15 am. to set up.

Car parking is plentiful, and right outside!

Pre booking is essential to avoid disappointment, so complete the booking form, and send it in!
see website: http://www.northwichswapmeet.co.uk

If you wish to have a table after two weeks before the event
I advise you to telephone me first to see if there are any tables left

Queries: Phone: **01565 63 11 90 or e-mail:** northwichswapmeet@hotmail.co.uk

We look forward to seeing you all again at the new venue . . . .. . !

Wayne and Ruth Howman

Drone Zone Flying Restrictions

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

UK FRZ Map

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

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

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

250gm Rules for Operation at Middle Wallop In 2019:

- For all models, SAM1066 will apply the 250 gram rule which exempts model aircraft from any proposed drone regulations that encompass aeromodelling. Simply put – this means that all models flown on the field must weigh less than 250 grams.
- For ALL models, the fitting & use of an operable DETHERMALISER (DT) is mandatory for all flights – clockwork or (preferably) RDT.
  The use of a fuse DT is not permitted.

Models Entered in Competitions.

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

For Models not Entered in Competitions.

- For all flights the DT must be set to operate at, or earlier than the max time set on the day.

General Model Rules

1. All models must carry a name & address label with full contact details (Name, address, mobile and/or landline number) in a visible position.
2. All models must carry BMFA membership number in a visible position.
3. BMFA membership cards must be shown on entry to the field.

Random checks will be carried out during the day. Anyone found to be infringing any of the above rules will be asked to leave the field.
Checks will be made throughout the day on wind speed & direction. Should the wind speed and/or direction change such as to cause potential problems of keeping models on the field, the organisers reserve the right to take appropriate action which may result in a change of location or worst case, in the cessation of flying for the remainder of the day.

SAM1066 Committee

DREAMING SPIRES
FREE-FLIGHT RALLY-2019

DATE:- 2nd JUNE 2019 STARTING AT 10a.m.
VENUE:- PORT MEADOW, WOLVERCOTE, OXFORD
CLASSES:-

FIG (COUPE d'HIVER) } 5 FLIGHTS
FIH (A/1 GLIDER) }

MINI VINTAGE RUBBER (Max Span 34") }
VINTAGE/CLASSIC GLIDER (Comb.) } 3 FLIGHTS
HI-START GLIDER }
E30/P30/CO_2 (Combined) }

HLG/CATAPULT GLIDER (Comb.) ~ 7 FLIGHTS

ALL TOWLINES 50 metres

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

ALL FLIERS MUST BE INSURED

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

CONTACTS :-

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

LAURENCE MARKS
laurencemarks64@googlemail.com

Croydon&DMAC 2019 Competitions

CROYDON WAKEFIELD DAY Sunday 21st April, Beaulieu Old Airfield

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

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

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

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

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

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

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

3 NEW EVENTS FOR 2019!

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

See also Peterborough MFC Website at www.peterboroughmfc.org

Cocklebarrow Farm
Vintage R/C Meetings 2019

7 July - 18 August - 29 September

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

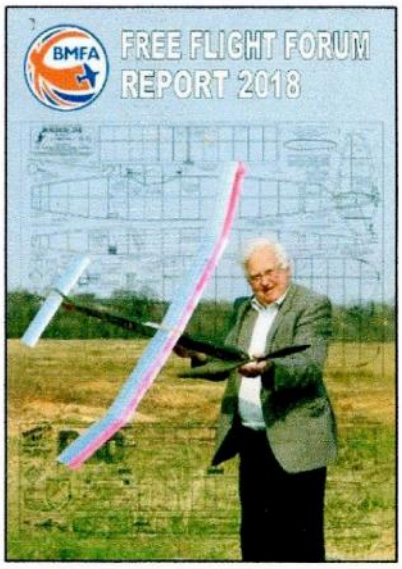
Contact Tony Tomlin
Tel: 02086413505 email: pjt2.alt2@btinternet.com

The New 2018 Free Flight Forum Report

For thirty-four years these Reports have included papers covering the widest possible range of free-flight topics. Have a look at what this year's Report covers and order yours now.

F1D Prop Selection for Slanic 2017 European Championships - Tony Hebb; The Power Egg - John Emmett; Use and Abuse of GPS Model Trackers - Chris Edge; Designing for BMFA Scale Competitions - Andy Sephton; Generating Youngsters' Interest in Aeromodelling - John Jacomb; Experience with Making Carbon/Foam "Moulded" Wings - Alan Jack;A Rubber Stranding Device - Russell Peers; Small Field Flying - John Ashmole; A Last Hurrah for the Outsize Open Glider - Stuart Darmon; All in a Day's Retrieving - Mike Woolner; Why FAI? - Stuart Darmon; A Simplified Description of Electric Drives for Free Flight Models - Alan Jack

UK price is £10 including postage; to Europe it's £14 and everywhere else £16. 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).



Be the envy of your friends, get yours now.

Copies are available from :
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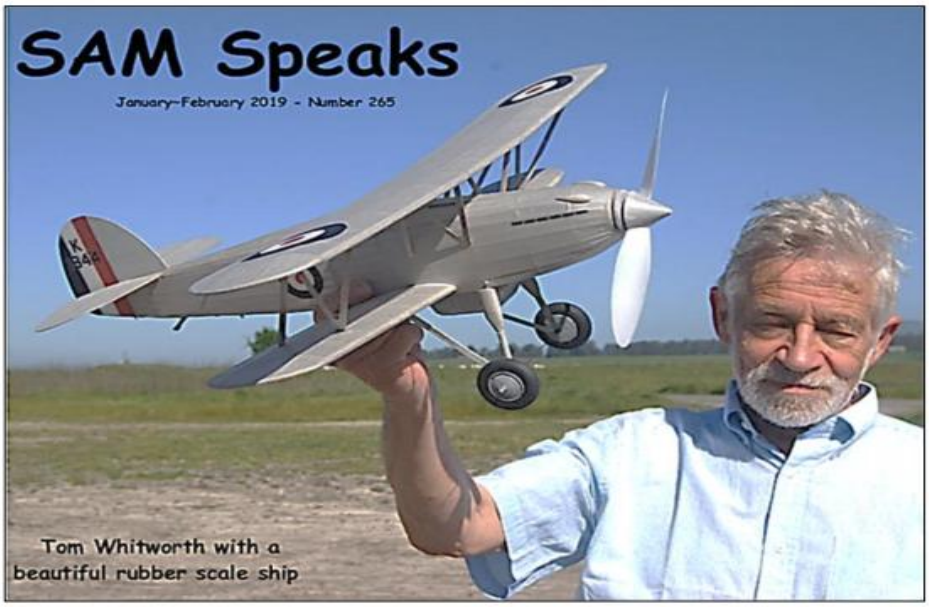
West Wickham,
Kent,
BR4 OQW

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

SAM Speaks USA.

This bi monthly emagazine can be obtained from the Society of Antique Modellers. Web site http://www.antiquemodeler.org/ for the modest cost of $30 pa.
Quite a few UK people already belong, but a few more might help our Parent Body!



L'AQUILONE SAM 2001
TOMBOY RALLY INTERNATIONAL POSTAL CONTEST 01/06/2018 - 31/05/2019

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

Model

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

Engine/motors

I.C. engines are admitted within the following limits: **36"-44" wingspan:** _Any engine 1 cc. max, Fuel tank : 3 cc.
R/C carburettor is admitted.
Electric Motors:
Any electric motor is admitted with direct drive

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

48" Wingspan;

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

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

Flights and results

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

Awards :

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

Results

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

Special Prize Vic Smeed

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

Special Prize David Baker

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

Tonbridge Gassers and Rubber Fanciers

Indoor Meetings

Kings Rochester Sports Centre
601 Maidstone Road, Rochester.
ME1 3QJ

6.30pm. to 10pm.
alternating 20 min slots for free-flight and R/C.

2019 dates:
Jan 19th. – Feb 16th. – Mar 16th. – Apl 20th.

Contacts
Eric: Phone: 01622 737814
Email: Addresseric.przyjemski@btinternet.com
or
Steve M: Phone: 0208942 5000
Email: Addressmidair@blueyonder.co.uk

Indoor Flying in Wales

Indoor Model Flying Events

Canolfan Hamdden Plas Ffrancon leisure centre
Bethesda LL57 3DT

I have organised a further series of indoor flying meetings. Provisionally they will be held on the first Sunday of the month. All 1300-1600 hrs at Plas Ffrancon Leisure Centre, Bethesda, Gwynedd, North Wales. But always check before attending

2019 Dates

3rd February - 3rd March - 7th April

Anyone is welcome, seasoned aeromodeller, complete novice or child. I have a number of models ready for people to fly at each event. There are more details and some hints on how to build your own models on my Facebook page - Indoor Model Flying in Bethesda. *Martin Pike.*

Come and have a go at flying model planes. You can fly rubber powered models, gliders or even small radio models (<100g). I have planes you can borrow, or contact me for details of kits for you to build yourselves.

martin.pike.xray@btinternet.com 07831 141418

Find us on **Indoor Model Flying in Bethesda**

Impington Village College - Cambridge

Indoor flying on 17th March 2019

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 hope to be in attendance to supply all your needs on the day.
Contact Chris Strachan shortly before the event if you need to be certain. Contact details below.

Competitions:

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

- **A Peanut** event using a simplification of the usual international rules,. Maximum size of model either 13" span or 9" length excluding propeller
  A GA drawing, photograph or any other proof that the actual aircraft existed.
  A single judge for all entrants to award up to 30 scale points and up to 90 "difficulty bonus points", the purpose being to encourage those flying models of difficult and adventurous prototypes
  Any number of flights with a 10 second bonus for ROG.
  Total of best two flights plus scale and bonus points to decide final score
- The usual duration event for **Bostonian** models. There was a healthy increase in Bostonian numbers at our last 2 meetings so let's have even more this time. 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. Total score from best 3 flights
- For both competitions 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). Bostonians 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 be given by Peter Smart and his subject will be his experience of eccentric indoor scale models and solving the problems they present! Mostly successes but some heroic failures!

RTP and Small Radio

Will Beavor will be bringing his equipment, using 4605 connectors at the model, available from The RTP Hut (www.thertphut.co.uk). As usual RTP 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 website at **www.impmac.co.uk** for more details of club activities

Cost of admission: Indoor Flyers - Adults **£6.00**, under 18s **£1.50**, Spectators & Chatters - **£3.00**

***Directions to Impington Village College*: Post code CB24 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

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THE 'INSIDERS' INDOOR GROUP PRESENT...

INDOOR MODEL FLYING 2019

STALHAM SPORTS CENTRE
Brumstead Rd.
Norfolk, NR12 9DG

Come and fly or just watch these amazing models in action. We are always happy to help and encourage beginners to this fascinating hobby.

Saturday evenings, 7-10pm

JAN 12TH **FEB 9TH** **MAR 9TH**

Admission: Flyers £6.00 ● Watchers £2.00 ● Under 16's £1.00

NOTE: NO READY-TO-FLY REMOTE CONTROLLED MODELS

Free flight models preffered ● Cafe ● Parking

For info call Richard Crossley on **01692 407936**

Waltham Chase Aeromodellers

INDOOR F/F MEETINGS

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

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

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

2018

2nd Oct - 6th Nov - 4th Dec

2019

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

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

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

Fliers will be required to show proof of insurance.

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

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

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

For further details please contact:

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

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

FLITEHOOK

Indoor Free Flight Meetings

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

Café on Site

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

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

2018

9th Sep - 14th Oct - 11th Nov - 9th Dec - 30th Dec

2019

13thJan - 10th Feb - 10th Mar - 14th Apr

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

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

2018

May 5th - Sep 22nd - Oct 20th - Nov 17th - Dec 15th

2019

Jan 12th – Feb 9th – Mar 9th – Apl 6th – May 4th

Admission - Flyers £6 - 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 cosh43@hotmail.com

Bloxwich Indoor Flyers

Free Flight & lightweight RC

Sneyd Community School

Vernon Way, Sneyd Lane, Bloxwich, WS3 2PA

Saturdays 2pm until 5pm
Flyers - £8 Spectators £2

2019 dates

Jan 26th - Feb 23rd - Mar 23rd - Apl 27th

Contact:- Allan Price: Tel: 01922 701530

e-mail: montrose32@btinternet.com

BMFA South West Area

Indoor Flying

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

Flying from 1200hrs to 1600hrs on Sundays

2018

23rd Sept. - 21st Oct. - 18th Nov. - 16th Dec.

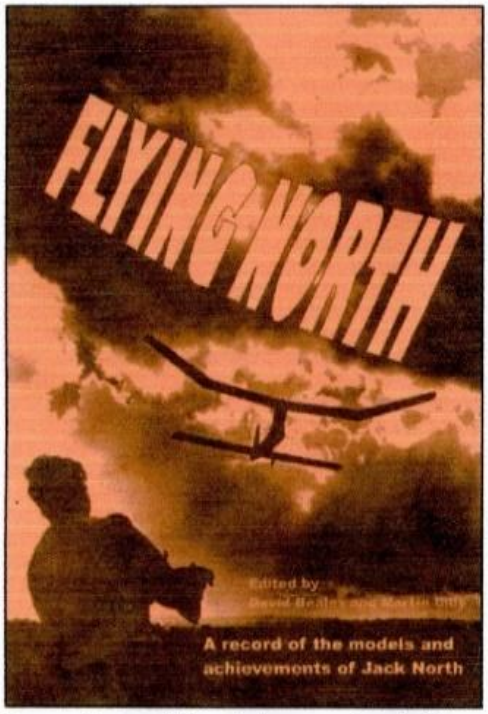
2019

13th Jan. - 17th Feb. - 17th March

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

Admission: - Flyers £10 - Spectators £1

Phone: David Powis on 01579 362951
Email: dave_powis@hotmail.com

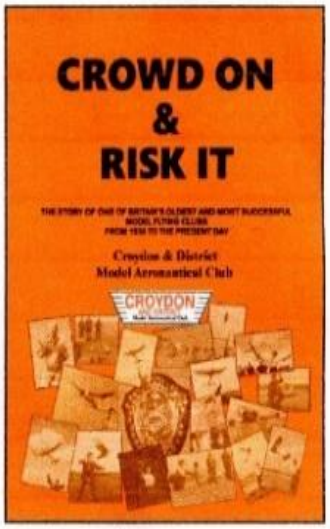


Flying North is a 163 page book covering the model flying career of Jack North, and including 23 previously un-published plans of his aircraft. Access to Jack's drawings and notes dating back to 1938 means that there are a number of designs in the book likely to be tempting to the nostalgia-minded.

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

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.

Provisional Events Calendar 2019

With competitions for Vintage and/or Classic models

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

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

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

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

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

Useful Websites

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

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*