NEW Clarion

SAM 1066 Newsletter

Society of Antique Modellers Chapter 1066

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Contents **Page**

Editorial

Another month passes and we now approach the end of the outdoor flying for 2024.
Model flying will now be centred on indoor meetings of which there seem to be quite a few.

Although I do not get many reports and articles, I still ask and hope for some budding reporters to put pen to paper or fingers to keyboards and provide some new content for the 'New Clarion'.

The membership really appreciate reports and pictures from events and what you could write may seem tame to yourself but it is of immense interest to others. End of plea.
You do not have to be a master of the English language, I can knock any input into shape. A group of pictures from an event make an article in themselves. I can use any media even hand written content will suffice. End of plea 2.

What have we got this issue:

- Barrie Russell from New Zealand reports on the flying of his rescued Gas Buggy.
- I dig out another of my past articles from July 2003 (21 years ago, unbelievable)
- Pylonius from November 1955 has a dig at foreign competitors and their will to win.
- Nick Peppiatt, in his 81st. epistle, reflects back on the KeilKraft CO_2 motor.
- News Review from 1949 features comments on prizes for rallies and Nationals, the model aviation suppliers will no longer provide rally prizes free of charge.
- Peter Watt writes of another odd aircraft, the Thunderceptor XF-91.
- Heard at the Hangar Doors from 1954 reports on the SMAE annual dinner, the use of fibre props and record flights at the Cardington meeting.
- Geoff Britain replies in detail to the query last month on the 'All Britain Rally'.
- I pop in another chapter from the Zeppelin book.
- Gerry York sent a few pictures of himself flying a model of a vintage aircraft, anyone recognise the aircraft?
- From the Aeromodeller Annual 1951, a fun model of Valentin the bird man.
- Roy Vaughn reports, with final league tables, on this year's Southern Coupe League, Benn Hobbs being the leader of the pack.
- Engine Analysis is the ENYA 15D, a good power source in its day.
- Martin Pike outlines his involvement in model flying in North Wales both indoors and outdoors. He includes a few pictures.
- Roy Tiller looks back in the archives for more from "The Theory and Practice of Model Aeroplaning" by V. E. Johnson.
- Roger Newman pens a few notes from North Wales with a nostalgic look back to the halcyon days of Middle Wallop, and the Norman Marcus Lightweights comps by the Croydon club. He also has unearthed another Lightweight, the 'Yorkshire Pudding' and provides the details.
- Our secretary reports on the Croydon 'Coupe Europa' and SAM1066 events, together with results and a picture of the Southern Coupe league winner Benn Hobbs performing.
- The usual three plans for the month are provided by Roger Newman'
- We finish on a sad note with Chris Redrup reporting the passing of one of our distinguished members and promoter of the 'Southern Coupe League' **Peter Hall**.
  A detailed obituary will appear next month

Editor

Heron Gas Buggy (continued) - Barrie Russell (New Zealand)

John: Thought you might be interested in the follow up to date. I haven't spent a lot of time on the model but have got through one test flight and this is what I've reported in our newsletter if it's of any interest. It might provoke some comment and input from a reader somewhere with knowledge of the Dutch Roll syndrome?

Dutch Roll. No it's not something to eat, according to Wikipedia ; ***Dutch roll*** *is an aircraft motion consisting of an out-of-phase combination of "tail-wagging" (yaw) and rocking from side to side (roll).*

The effect is often prevalent in some of the early free flight models that we use in vintage such as Tomboys. The Heron that I've recently refurbished for Barry had a quite alarming DR under power so I took the advice I read on a forum on the web and taped a couple of credit cards below the rudder to increase the fin area. The pundits give the cause as too much dihedral or too little fin area. I don't want to crack the wing which as a lot of dihedral so this was an easier trial move!
The result was surprisingly successful so my next move is to increase the fin size slightly, decrease the rudder component and add a sub fin beneath. The fact that I'm changing the outline will void the model from serious competition, but that's beside the point in this case. The aim is to make it a comfortable flier for a new entrant to vintage flying and it can still be flown in club fun comps.

I'm about to publish my monthly splurge and as is often the case I've struggled for up to date copy, the usual editor's lament. I was most interested to read your recollection of your work at Dunlop Aviation, you certainly have a wide range of experience. It made interesting reading.

Sunday morning here and I'm thinking I need to get going out to the club and have just seen the time on my computer. Would you believe, I've just lost an hour as I see we've just started the summer daylight saving routine. Bugger, that's another hour I won't get back ! As they say Time is precious especially at our age !

All the best, Barrie.

Barrie Russell (New Zealand)

Stomper No.2 & Windy Wallop - John Andrews

Extract from old paperback Clarion July 2003

John Andrews – STOMPER No.2 & Windy Wallop

I mentioned last month that I had built myself another STOMPER to replace the one I lost in the large field of grain on the perimeter of Barkston at last years BMFA Nationals.

I don't suppose you will recall but the first thing I ever wrote that got into the CLARION was a letter to David, in August 2000, saying how easy the STOMPER had trimmed out. All my literary efforts stemmed from that letter, I thought, well if David is going to print that, I know I can do better. Since then, I have keyboarded a few efforts and received some kind remarks so I keep going. I think I must be a frustrated novelist as I do enjoy putting these epistles together.

The original STOMPER trimmed out to full power with no adjustments in only five flights. Although later on, when I flew it in anger, it gained a little plasticine at the rear end to get it a little nearer the stall. It proved to be a reliable model, and I managed a 2nd place in Nostalgia Open Power at the SAM 35 Gala at Barkston, so when I lost it at the Nationals I just had to make another.

Having finished STOMPER No.2 I thought you might be interested in my trimming efforts with this one. When I lost the first one I was using a fuse D/T and was trying to bring the model down before the grain field but timing accuracy was not good enough. With the 20/20 vision of hindsight, I would have been better off using a long D/T and clearing the grain field, as the ground beyond was reasonably clear anyway. On STOMPER No.2 I decided to try a Tomy based D/T timer, I was not sure how it would stand up to engine vibration but gave it a whirl anyway. Up to date, fingers crossed, no problem but it has only had a dozen flights or so plus a couple of long engine runs on the ground for running in purposes.

Any way, back to the trimming of STOMPER No.2. I had learned very little about trimming power jobs with No.1, Five trimming flights and no adjustments at all, therefore I was a little apprehensive with No.2. However, I need not have worried, No.2 test glides were OK as before and the trip to Warwick Race Course proved virtually identical. STOMPER No.2 trimmed out up to full whack in five flights again. The only difference being, the addition of a small piece of 1/8th square on the fin to open out the power and glide turn. After the third flight, I thought the first turn downwind looked a little flat so I took off some turn with the 1/8th square on the fin. Looking at the model, I think I have got a little less wash-in on the R/H wing than I had on No.1, which possibly means the model has to get up to full speed before the wash-in picks the wing up to get into the spiral climb. It is also significant that subsequent flights have seen a little

plasticine added at the rear end as on No1. The wife Rachel accompanied me to Warwick and I have a blow-by-blow video recording of the whole initial trimming process. David and the lads at the Friday hanger meeting formed a captive audience and I bored them to death with the video at the first opportunity.

Happy Author with STOMPER No.2 at Warwick Race Course

I was at the wind swept Easter meet at Wallop on the Sunday and Monday. I missed the Saturday due to a club golf match but from what folks said it was the worst day of the weekend. The only positive results for me were the bacon butties I had in the Café, trouble is it makes a late start as I am straight up there as soon as I hit the airfield.

Sunday was quite a pleasant picnic day in the lee of the spinney but flying was a nightmare. I could see the models of the brave souls flying still bucketing about well over 100 yards downwind after launch so I decided to use my old heavy Senator to see if I could find any cleaner air around the corner to the left of the spinney. I had a few abortive flights, spinning round on a wing tip one flight then stalling like mad on the next. I could not decide whether it was bad trim or wind (I had had beans for breakfast). After much application of cement to split tissue the poor old Senator finally piled in cracking the wing so I gave it best for the day and

switched to chit chat and picnic mode thus saving my intended competition Hep-Cat for another day.

The forecast for the Sunday was much better, I arrived very early but the wind had obviously not heard the forecast as it was still there. The only improvement being, that it had turned through almost 180 degrees and was coming across clear ground, therefore no turbulence.

I set up alongside one Tony Shepherd and low and behold, fame was in my grasp. "Your John Andrews aren't you" says he in recognition of my portly self (I knew sticking my picture in a few of the articles would bring a result). "Yes" says I with glowing pride, although I must admit that I was a bit disappointed that he did not ask for my autograph.

Tony said he was new to competition flying however he was campaigning with two very neat P30's. I was walking back from a GIPSY trimming flight when I saw this model go rocketing up vertical for 50 or 60 feet then roll into a steady climb in good lift, obvious max potential. Then Tony passes by, big grin on his face, "is that yours?" I say. "Yes" says Tony. Some first comp flight thinks I. How can anyone turn up for his first competition with two identical models and put up a first flight like this? I suppose he just does not know how difficult it is yet.

The GIPSY was acting up again, it took two or three test flights to get the glide looking right and then when I goes for the first comp flight, I launch too square into wind. Up goes the GIPSY in a monumental stall followed by one more, then bang! Hump-backed two-piece fuselage held together only by the motor. Did not impress timekeeper Tony too much.

Tony had his second comp flight, not such a good pull off the top of the climb but he got good air again, max again.

I jinxed his third flight though; I threatened to write a complete article on his efforts if he maxed out so he put the model up in bad air. Did not save him from a mention though.

One interesting point, Tony was using those silly putty D/T timers, his first max was a flight of getting on for 4 minutes, and he had set his timer for two minutes on a ground test. The timer appeared to be running slower in the air. Anyone got any ideas?

Back to STOMPERs Tony had a nice one in the back of his car and would you believe it, he remembered my original letter/article in the 2000 CLARION. He confirmed my experience saying, " if you build them to plan they fly". The STOMPER must be a good model cos George Fuller has built one. There's a photo in the Aeromodeller section of the 'what ever they call it now' showing George Fuller with what must be a new one as it's far too clean to be the original from 1953.

22 Back next time with my BMFA Nationals debacle and odds & ends.

John Andrews

TOPICAL TWISTS

by pylonius

Topical Twists

Getting the Works

We English are not quite so green as our landscape is painted. We like to be fair minded of course, even to outsiders, but we have had our suspicions all along, and now, at last, the apalling truth has emerged. These foreign chappies don't go to international meetings for a nice, friendly spot of mutual flag waving and parley-vooing, but with the ungentlemanly intention of winning. And if this isn't a jolly, unsporting attitude to adopt, we don't know what is. Moreover, for some unaccountable reason, they have the audacity to regard model flying as a *bona fide* sport, like athletics (but, not we hope, cricket!). This we can only regard as a gross presumption, quite at variance with the modest principles of our traditional " boys with toys " approach.

To clinch our loss of faith in the un-English human animal, came the unholy success of a state sponsored works team at a recent international speed meeting. These dungaree clad heroes of the people's republic were unsporting enough to use special engines to advance the national prestige. An action which has aroused widespread indignation among our own patriots, who firmly adhere to the belief that a re-worked Dooling is a good enough toy for any boy, whatever his nationality.

Another appalling aspect of this fly-to-win element is that anyone should take advantage of the carefully avoided fact that the speed at which a model engine can be whirled around on the end of a piece of wire depends on the power of the engine. This not only destroys the sacred illusion that a speed model is a scientific work of art, in which the speed is mystically attained through ingenuity of aerodynamic layout, but is a breach of gentlemanly agreement.

When all the wailing and gnashing of teeth, and other forms of lamenting acoustics have subsided, it appears that our speed experts will be left with two possible courses to pursue; either to withdraw in humble defeat from the international field, and continue to enjoy sporty little games of rounders upon the very playing fields upon which Waterloo was reputed to have been won, or to throw themselves on the mercy of our manufacturers.

The latter course is the bolder one—and likely to yield results. A get together of manufacturers on this issue would be welcome. From it might emerge a decision to pool resources. In which case we can confidently look forward to the grandiose offer of a beginner's glider kit to the modeller making the highest time in an international event.

What's My Line

A sticky one for any B.B.C. parlour game panel would be to guess the occupation of the chap whose workaday life is spent flogging balsa wood to schools. An even stickier poser would be to fathom the educational purpose for which it is purchased.

The first answer that springs to mind is the building of model aircraft, but having had some experience of the younger generation's revulsion towards this form of sweated labour, we can dismiss this idea as wildly improbable. And, anyway, it would be unthinkable, in these enlightened times, that any modern Mr. Squeers would be allowed to inflict such inhuman practices upon his innocent charges.

One other, more feasible, use to which balsa wood might be put in the classroom is as an absorbent agent to the ravages of the posteriorly applied cane: a soft quarter grain $\frac{3}{16}$ in. stock could well prove a superior alternative to the customary exercise book. But even this possible solution must be discarded, since the cane is, now, like the speed model, a relic of a savage past; and the child, when asked to spell the name of that instrument, cannot truthfully answer, as I do towards this schoolboy puzzler: " beats me! "

Getting A-Head

I have been asked by well-wishers (and you should see the depth of that well!) if, in view of my recent achievement of placing 3rd in a chuck glider comp, I intend to apply for membership to the Size 8 Club.

The answer is, of course, no. Field achievement, even of such distinguished merit as a chuck glider third, can no longer be accepted as a qualification for membership. This decision followed a meeting of the select pub-committee, called to check the alarming inflation both of members and their cerebral attachments. Already V.I.P.'s greatly outnumber entrants in the contest areas, this being particularly noticeable in the Radio events where V.I.P.'s now congregate.

In order, therefore, to relieve congestion, it is now proposed that only Fellows of the Size 8 Society be allowed to visit the radio areas, although ordinary members will continue to enjoy certain obstructive privileges at the main control centres.

The question of the parking of members' cars also came under discussion. Cars entering areas where they would constitute a definite nuisance to competitors and officials, must in future conform to a specification now in course of preparation. Whilst little is yet known of the specification, it is expected that it will include for sports cars of not less than 3,000 c.c. capacity.

Motor cycles, on the other hand, must now be considered infra dig, and relegated to the Rubber Comp. and other less fashionable centres.

All members are asked to note that tele-lens attachments are now standard to all V.I.P. cameras.

Fly-Paper

Some people believe in giving the petulant child a toy trumpet in order to keep it quiet, but I find a paper model aeroplane—folded in the traditional style—an ideal means of keeping the infant threat at bay,

Turning out a flight of these from my stock of foolscap (paper not headgear) I meditated on the brilliance of the unknown genius whose primitive form of chuck glider has introduced countless generations of urchins to the noble art of model flying. That he never achieved fame was undoubtedly due to his scholastic pursuits being more concerned with folding the exam. papers than to answering them; a tradition to which we ourselves can attribute much of our blatant ignorance. He did, however, achieve something with a few cunning creases that eludes all our advanced wrinkles: a model that would fly straight off—or out of—the drawing paper, without any trimming or adjustment. But, then, he lived in an age that was blissfully unaware of the impending threat of c.g., moment arms and all the other depressing factors which keep our litter bins full.

Pylonius

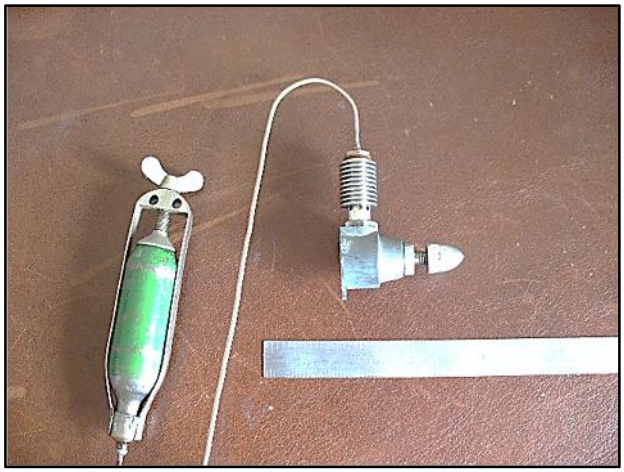
Indoor Isn't For Everyone 81 - Nick Peppiatt

KeilKraft CO_2 motor revisited

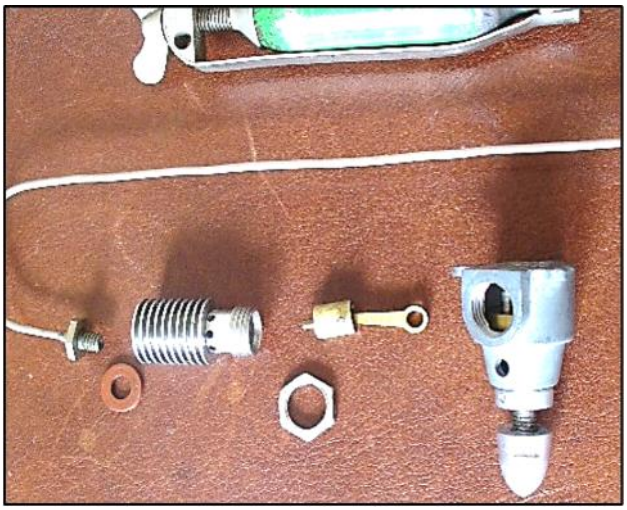
I have discussed this motor before in a couple of earlier columns. Gerard Moore has recently acquired an example and has kindly sent me some photographs and the following comments: -

'You mentioned the KK CO_2 motor back in the December 2017 edition of the New Clarion. Alas I can't help you with the how, where and when these appeared, but you may be interested in some constructional details.

KeilKraft CO_2 motor and original box.
Note the manufacturer's name 'B.B.B. Trading Co'.



KeilKraft CO_2 motor and Sparklets bulb holder



Dismantled KK CO_2 motor

Cylinder and back plate, stamped 'KK' and '2922'

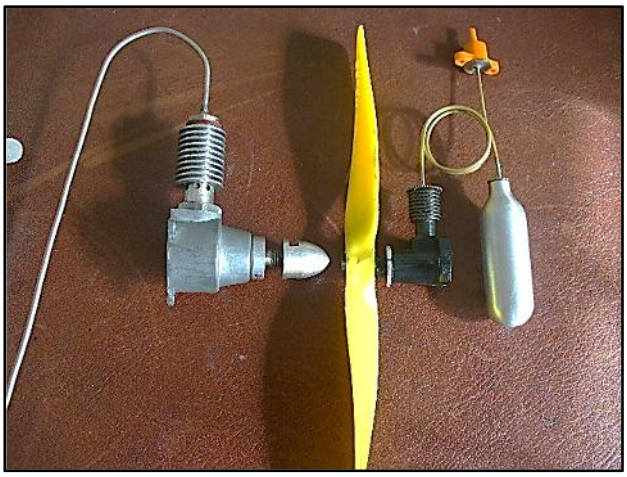
This engine is a real whopper. Bore is 0.25" stroke is 0.30" that according to my abacus gives a displacement of 0.0147cu". (0.24cc) *Weight without a Sparklet is 1.8oz (52 grams).*

The nearest contemporary engine to this was the OK CO_2 that had a bore of 0.275" and the same stroke. So the KK is slightly smaller. The cylinder is aluminium with a brass piston and conrod, and it has 10 fins and 8 exhaust ports. The threaded portion for the crankcase is 3/8 x 26 tpi. The top of the cylinder is tapped 5/32 x 32 tpi to receive the feed pipe. This as far as I know is usually a Whitworth thread or a ME thread and not likely to be used if the motor had been made in the States.

The ball valve is 1/8" diameter. The crankshaft is steel with a brass crank-web pinned to it and a pressed in steel crankpin. The aluminium prop-driver is also pinned to the shaft permanently. The crankshaft is threaded with 3/16 x 32 tpi thread. The crankcase is quite nicely die-cast, possibly zinc-aluminium with a pressed in bearing for the crankshaft.

The design is undoubtedly a Brown, The lid of the box says it was manufactured by the B B B Trading company. Could that be some initials for Bill Bill Brown?? Remember that Bill Browns dad was also a Bill and that he handled all motors with a bore larger than 3/16th and dealt with the Patent attorneys and set up the deal with Herkimers.

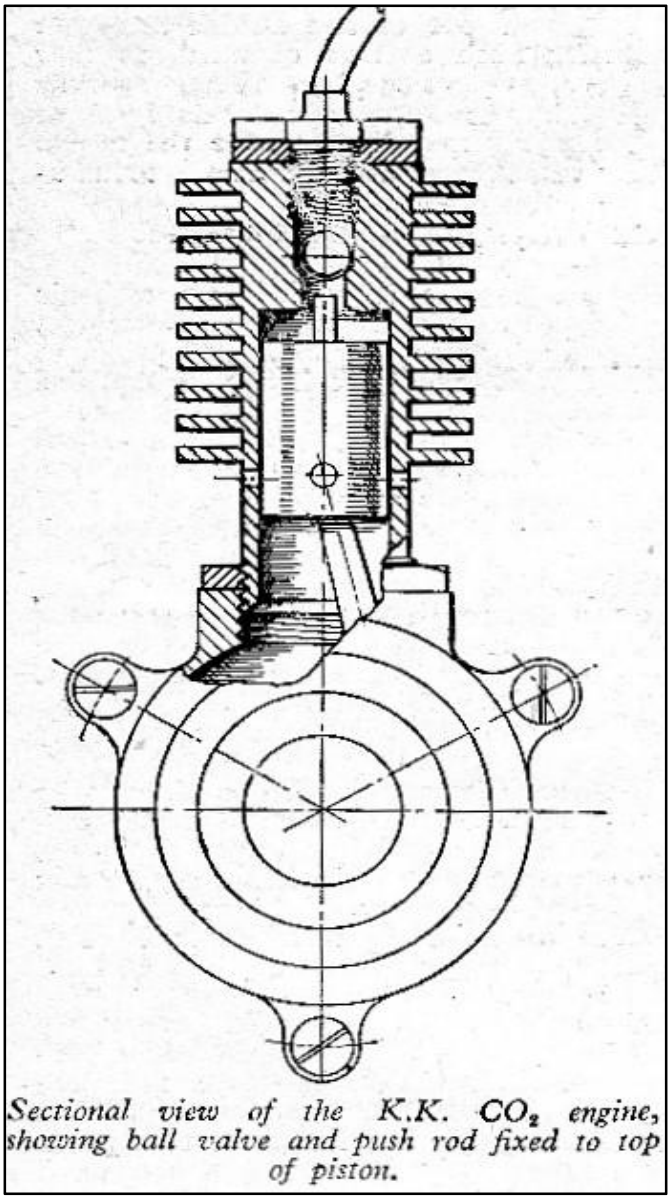
We can speculate then that Bill Brown III licenced KK to make the motors in England but that they had to be sufficiently different from the OK motor.
The serial number on mine is 2922. I have attached some pictures. For size comparison I have pictured it alongside a Telco and a Brown B100.'



KK CO_2 motor and Telco comparison

Gerard Moore's KK CO_2 motor plumbed to a Gasparin tank.

As well as being a whopper, this motor is clearly a heavy one at 52 g, without the Sparklets bulb, which itself has an empty weight of around 23 g, and is required in addition. In comparison, this is the same weight as a Mills .75 and the contemporary Herkimer OK CO_2 motor (on which the design of the KK was based?} of 0.29 cc without the bulb is around 40 g. The later Modela CO_2 motor, of 0.27 cc capacity, is half the weight at 25 g with its tank.
The valve seat for the 1/8" dia ball is machined at the bottom of the threaded hole for the pipe nipple at the top of the cylinder. This arrangement is shown in the drawings from the article 'Model CO_2 Engines' by F.J.Camm published in Newnes Practical Mechanics, June 1949, which I discussed in IIFE 43 (NC October 2020).
However, I can report that Gerard has had his example running well. He machined a new pipe nipple so that the motor could be connected to a large Gasparin tank, on which it will run for several minutes. He does, however, question the life of the cylinder/piston material combination. This, clearly, needs to be kept very well lubricated.
The serial number '2922' stamped on the back plate indicates that several thousand, at least, could have been made. However, it only appears to have been marketed for a short period. I have found it featured only in the KeilKraft advertisements in the November and December 1948 editions of AeroModeller.
Coincidentally, a letter from Tom Crompton was published in the February 2024 issue of SAM35Speaks concerning his re-working of KK CO_2 motors, particularly replacing the brass piston with a steel one carrying a rubber O-ring seal, Gasparin style.



Sectional view of the K.K. CO_2 engine, showing ball valve and push rod fixed to top of piston.

His last paragraph concluded: -

'Just a small historic note I have often heard it said these KK CO_2 are a copy of the OK……well having experienced both I have to disagree. The OK was made on very expensive machinery to I/C engine standard with I/C type materials, the KK was definitely not. It is well made as a competent model engineer or small engineering business could have made them. The only similarity is in layout. They are of different bore and stroke. I have also heard from the rumour factory that they were made by the same people that made Weston engines. KK were the agent for Weston engines so that may hold water. Does anyone know anything for certain?'

Gerard's example came with its original box, on which is printed 'Manufactured by the B.B.B. Trading Co'. This is not a name I have come across before. Does anyone have any information about this company? In his book on 'CO_2 Powered Model Aircraft' Tony Brookes also mentions the Weston motor and a French version known as the Micromoteur in the same short paragraph as the KK motor. Did B.B.B. also make these? Tony states that these motors are now rare. I'm obviously aware of examples of the OK and KK motors, but apart from these mentions I have not come across a Weston or Micromoteur, either physically or in other literature.

Does anyone know better?

I can only assume that Westons refers to Weston Model Aero Supplies of Weston-super-Mare, who supplied a now very rare and obscure small range of diesel engines. For further details of these, see Adrian Duncan's website:

AdriansModelAeroEngines.com :: Weston 3.5 cc Stunt Special.

I have checked the Weston advertisements in several contemporary editions of AeroModeller, including December 1948, where the back page KeilKraft ad includes the 'KK CO_2 engine' for 21/6*, and several in 1949 and have found no mention of a CO_2 motor. The fact that some of their advertisements are headed with the statement 'The Home of Controline', suggests that free-flight was not a major interest to Westons, let alone CO_2 motors. Can anyone shed any light on this, please? And as for the French Micromoteur, this remains a total mystery!

* or £1.075 in decimal currency, for the benefit of younger readers. In comparison, in the same issue of AeroModeller the cost of a Mills .75 was £3 7s 6d (£3.375), an extraordinary difference considering that the material and labour costs required to produce both motors must have been similar.

Nick Peppiatt

NEWS Review

Prizes for Rallies

We learn from the Federation of Model Aeronautical Manufacturers and Wholesalers that the constant demand on their members by clubs for prizes and advertisements for rallies has compelled them to regularise their system of allocation of prizes.

In future the Federation will only patronise the British Nationals. They have, however, agreed to arrange for areas or clubs who are organising rallies to purchase prizes at wholesale rates. Applications for such prizes will have to be made through an Area Committee.

While this might appear to be a hardship to some clubs, it must be realised that the touting for free prizes and advertisements in programmes—which, more often than not, are purely a list of events—has reached such proportions as to be a definite embarrassment to the trade and that the new arrangement will be fair to all parties involved.

Nationals Prizes

Owing to the unfortunate removal from the control tent at the Nationals of the result sheet by some person unknown, the Society's records of the winners who did not take their prizes at the end of this event has been lost.

Will the competitors who won prizes at the Nationals, but could not stay to receive their prizes and who are still without them, please write to the Competition Secretary of the Society, at Londonderry House, giving details of their placing.

Correspondence

In a good many cases correspondents are sending letters which they desire to be published in the pages of this journal to the Secretary of the S.M.A.E., at Londonderry House, with the result that it has been dealt with as normal S.M.A.E. correspondence.

Will all contributors please note that correspondence intended for publication should invariably be addressed to the Editor of the journal at the address given in the editorial page?

Dodging the Column

Now that the contest season is over one can take stock of the principal features of the 1949 contests.

The most serious is undoubtedly the tendency, which has been definitely detected, for certain aeromodellers to evade the regulations of the contests and enter models which do not comply with the rules.

As a result of recent cases which have come to the notice of the S.M.A.E., the Council have found it necessary to give the Area Committees authority to take effective disciplinary action in any case of deliberate dodging of contest rules.

The Area Committees must submit the evidence and details of the disciplinary action proposed to the Council for ratification, but there is little doubt that the Council will support the Areas to the full where a deliberate evasion of the rules has taken place.

News from the S.M.A.E. and the Clubs

It will be noticed that the section of this Journal which is devoted to S.M.A.E. and Club News is now printed in smaller type than heretofore. This is for two reasons.

Firstly, it will enable us, as the S.M.A.E.'s official journal, to report more fully the numerous activities of the Society.

Secondly, we shall be able to give greater publicity to a larger number of clubs, a very necessary measure in view of the vast increase in a number of clubs which has taken place in the last twelve months,

Whilst on this subject, we should like to draw the attention of Area Committee and Club Press Secretaries to the following points which, if borne in mind, will not only greatly assist our editorial staff, but also make this popular feature of even greater interest to our readers.

(1) Reports must reach the Editorial Offices by the 10th of the month.
(2) They should not normally exceed 200 words—preferably less.
(3) If possible they should be typed, otherwise they must be *clearly* written. (Ruled foolscap paper is more suitable for this purpose than club letter headings).
(4) Type or write on *one* side of the paper only.
(5) Club reports are not primarily intended to furnish information to a club's *own* members, but to propagate news of general interest to other aeromodellers, such as the details of machines which make outstanding flights, forthcoming open events of general interest, the successful overcoming of club problems, co-operation with local authorities—in fact, information which is likely to be of interest and assistance to members of *other* clubs.
(6) Whilst we are always pleased to receive copies of Area Committee and Club News Sheets, do not expect the Editor to write a report from the information which they contain, however interesting it may be—he is much too busy!

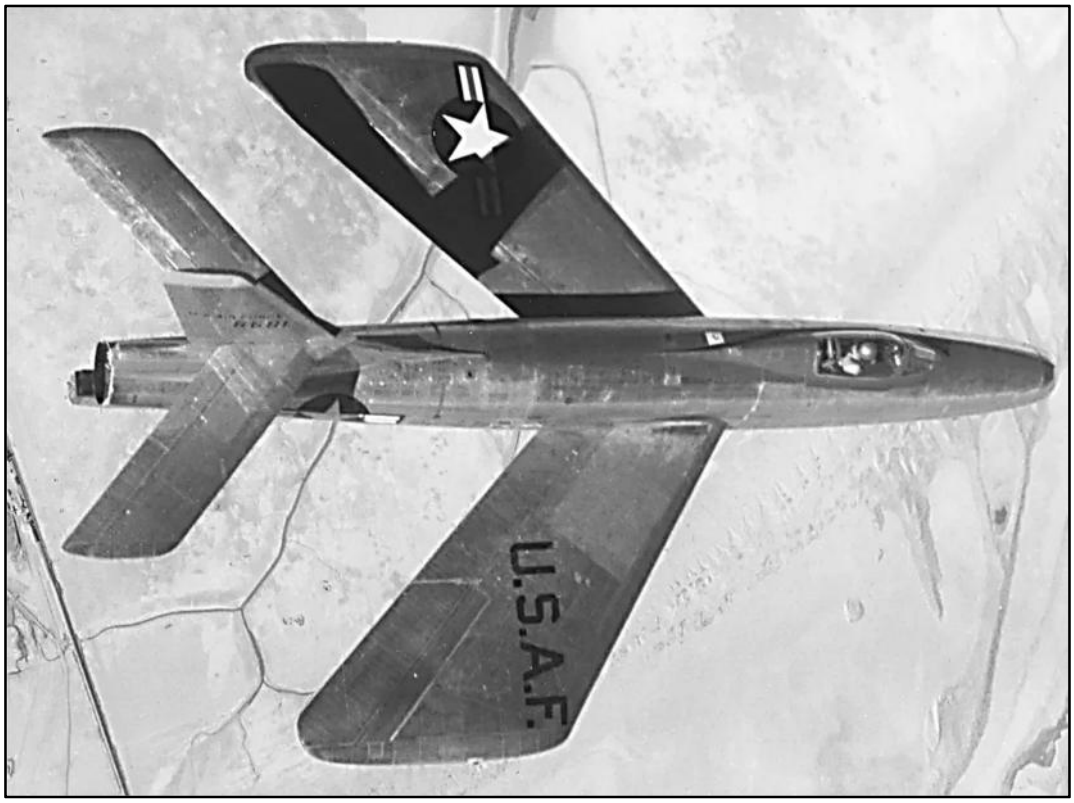
Republic Thunderceptor XF-91 - Peter Watt

During my primary school years, for the first 2 weeks of August, my parents took me to Portrush (a seaside town near the Giant`s Causeway in N. Ireland).
When I was 8-10 the first thing I would do was to make a beeline to a shop named the White House. It was one of those shops, most of which have now gone, that sold just about everything but most importantly for me, stocked a selection of plastic kits.
One year I couldn't resist the box art of a Lindberg 'Republic Thunderceptor' and had to have it. I don`t remember much about actually building it but can be pretty sure I wouldn`t have made a very good job.
A couple of years ago I found a company called KINGKIT who specialise in second hand plastic kits and lo and behold they had one.
I had to have it but was unprepared for the abysmal quality of plastic models of the 50s – poor accuracy, poor fits and detailing that made the rivets look like coach bolts.
I persevered and eventually after lots of sanding and filling produced, for me, a reasonable finished article.

In December 1945 the USAF requested designs for a high altitude interceptor and one of the submissions was from Republic which, as jet engines were still in the early stages of development, was to be powered by a combination of jet and rocket engines.
At the end of May 1946 Republic started work on drawings, a mock up and two flying prototypes under the designation XF- 91.
The design was unconventional, most notable for the wing plan form. The wings had inverse taper i.e. the chord and section thickness increased towards the tips.

Because the wing root was thin the undercarriage retracted outwards into the tips. The wing was also equipped with variable incidence which could be altered in flight. Slung under the wing were huge drop tanks which contained liquid oxygen and water/alcohol for the rocket motors plus kerosene for the jet engine. The tanks were to be jettisoned prior to combat.

The design was originally conceived with a V tail but the first prototype appeared with a conventional tailplane and fin.

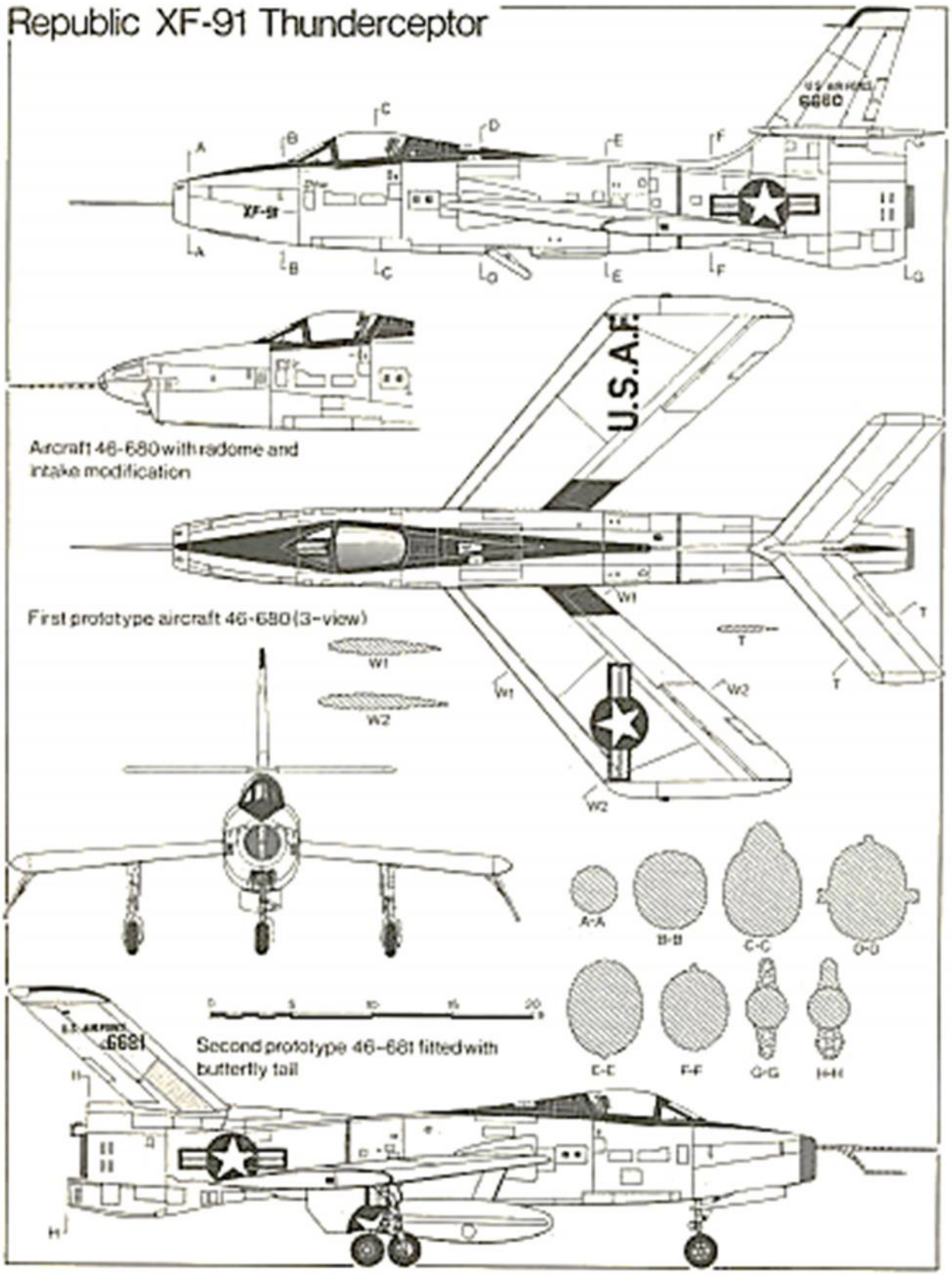


The first flight took place on 9th. May 1949 at Edwards AFB.
For such an unconventional aircraft the test flight was so successful that it lasted for 40 minutes instead of the planned 15.

Further uneventful flights followed including use of the afterburner. The main problem with the programme was the supply of the rocket motors from an external supplier. In December 1952 when supply problems were solved test pilot Russell Roth took the machine to 600mph under conventional jet power. In level flight he fired up the afterburner and ignited the rocket motors.
The aircraft broke the sound barrier and was credited to be the first non X plane to fly faster than sound in level flight.

Another characteristic of the aircraft was, with its leading edge dropped, it showed remarkable low speed stability. On landing after one test flight the Sabre chase plane couldn`t slow down and shot past the XF-91.

The second prototype as originally designed with 'V' tail

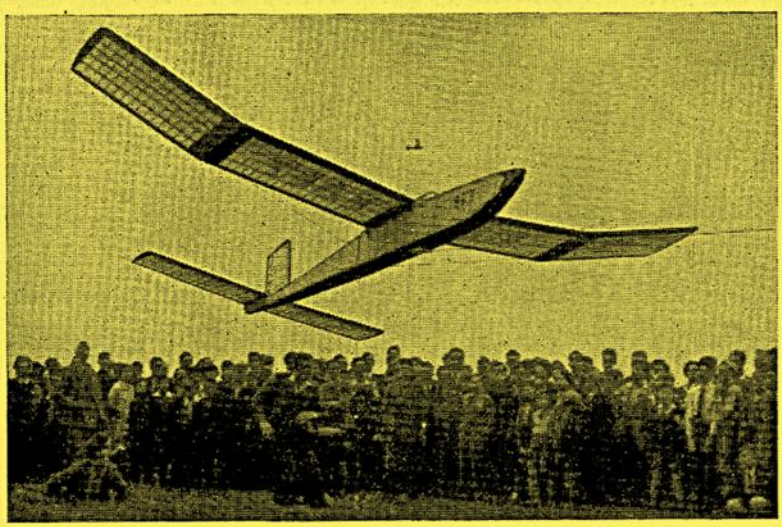


The second prototype appeared as originally conceived with the V tail and reconfigured rocket motors. It flew equally successfully but even attempts to redesign the XF-91 into an all-weather fighter with a nose radome and semi-circular intake didn`t save the project and it was abandoned in favour of more conventional and simpler designs such as the Convair or F-102 Delta Dagger. A sad end to such an interesting aircraft from the era when they were designed by men and not computers.

Peter Watt

Heard at the Hangar Doors - Aeromodeller November 1954

AERO MODELLER 574 November, 1954



Heard at the Hangar Doors

"Yorkshire Evening News" Photo

Club Effort

A significant fact arising out of our recent comment on sparsity of Northerners at the Darlington Meeting is that to date only one protest has been received.

This comes from the Novacastria M.A.S. and not without justification for as a group of sport and contest fliers they were one of the very few clubs in mass attendance at Croft Aerodrome.

Like the Lancaster and Morecambe Club from the other side of the country, the Novocastrians represent a club spirit that is to be admired. They arrive with coaches "chock-a-block" with models of all types and such diverse shapes that when out on the field photographing the odd and unusual, we always seem to get either Lancastrian or Novocastrians repeated over and over again in our notebooks.

Outstanding at Sherburn from the Lancaster Club was the massive glider depicted above which was the product of three weeks' hard labour and inestimable expense by Eric Rowley. With a span of 21 ft. 6 in., length 16 ft. 6 in. and chord 32½ in.—"Big Baby" is large enough to lift quite a fair size youngster off the ground. We understand that after

preliminary "trimming" flights hand launched from a hill, Eric in a misguided moment attempted to tow launch it from Morecambe Sands. Once released by the five people supporting the model, "Big Baby" pulled so hard that Mr. Rowley was dragged for some twenty yards across the sands whereupon he released the tow-line and spent the next six weeks boiling the sand out of his suit! With two helpers to help hold him down at Sherburn he made a most impressive flight, which, unfortunately, terminated in a near-vertical dive as the result of tail rubber bands giving up under the strain.

As the second photo shows, nose damage amounted to no more than a crumpled dozen sheets of one-eighth balsa—so "Big Baby" will soon be flying again and will perhaps enliven another rally!

Farnborough—'54

Accurate model-making and its value in publicity has never made itself more felt than in the static exhibition of the S.B.A.C. show at Farnborough. Though hardened by now to the magnificence of the professionally produced model, we must confess that the displays on some manufacturers stands' were sufficient to warrant long study and our progress through the enormous marquee was punctuated by many halts to admire finish and detail. Percivals and Saunders-Roe stand out in

our minds as having specially good models but the most impressive, if only by virtue of size and radical outline, were the Avro Deltas surmounting the Hawker-Siddeley arena, as seen in photo opposite.

Fibre Props

Started many years back by "Charlie" Chester (the BIG model man), the practice of using fibre for model props is fast catching on. Pete Buskell has of course used them to good effect on all his "Slick-Sticks," and Messrs. Bickerstaffe, Archer and Harrison of the North West are currently going up faster then ever, thanks to the thin and very efficient blade contours it is possible to obtain with fibre. Carving is tedious, but the results are worth while. See the photo on p. 313, June issue for a suitable blade shape.

Wise Guys—Huh ?

One of the people who had a good time at Sherburn was the owner of Jaguar KNC 473, who no doubt thought it very funny at the time when he plastered the car with all the signs within reach and drove off. The joke's over now however, and he is requested to return the signs to Yorkshire Evening News, Trinity Street, Leeds 1, otherwise the paper will take action which may turn out expensive for him!

Further, the type who pinched a notice board from Cranfield (see last month's issue "Aeromodelling Vandals Again") is warned that information has been received which gives a clear indication of the identity of the culprit(s). If the missing object is returned to the "Aeromodeller" offices in a plain envelope, nothing more will be said, but failure to do so within a reasonable time will lead to trouble.

We of the "Aeromodeller" are determined to do our best to assist the organisers of any meeting who are troubled with this sort of stupid action, and will have no compunction in passing on information that may lead to the apprehension of the culprits.

First Effort

Claims for long duration flights are an annual event and this year we have no exception. Outstanding duration claim is for young 15-year-old L. R. Burrows of Welling in Kent, who launched his first design, an A/2 glider of 66-in. span from a 100-ft. line at his local field on Sunday, September 19. The time was certified by many witnesses as approximately 12.30, and the model was followed until it disappeared through the clouds, drifting towards the Thames Estuary.

At 5.10 p.m. precisely works policemen observed it to land on the jetty of Fords at Dagenham, thus proving that the model had been airborne for some four hours forty minutes, covering a distance of six miles. One of the features of the A/2 was the use of the Hans Hansen airfoil described in our December 1953 issue, combined with long fuselage and small tail area.

S.M.A.E. Annual Dinner & Prizegiving

The Annual Dinner and Prizegiving of the Society of Model Aeronautical Engineers will be held at the "Horseshoe Hotel", Tottenham Court Road, London, W.1, on Saturday, December 4, 1954. Price of tickets will be one guinea, and can be obtained from the Society's offices at Londonderry House, Park Lane, W.1.

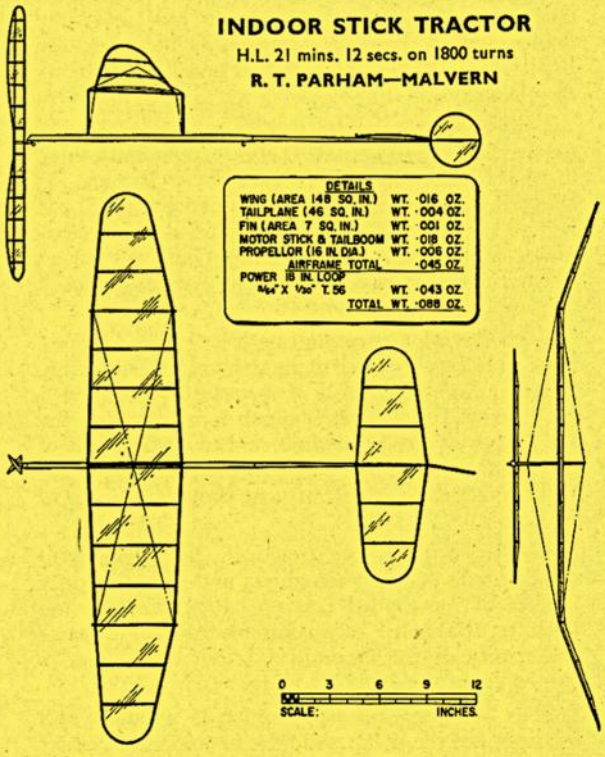
As numbers again will be strictly limited, early application will be necessary. In order to provide more time for dancing, it has been decided to start one hour earlier than in previous years, *i.e.*, 6.0 for 6.30 p.m.

Record Flights at Cardington

Records again tumbled in rapid succession at the third Cardington Meeting beginning with Bob Copland raising his R.O.G. record to 15 : 22 on half turns. Fanning out the prop to bigger pitch he made 17 : 47 on full turns and then further improved to 19 : 29 with finer pitch.

The new Stick R.O.G. record goes, however, to Ray Monks for a 20 : 30 flight and the honour of first flight to the 180 feet high ceiling to Phil Reid—also of the Birmingham Club on what would surely have been a new hand launched duration record.

Ray Monks also managed 4 : 13 with a new tailless design and Reg Parham from Malvern—13 : 16 for a new figure with his hand launched fuselage model. Reg still retains the Stick duration record at 21 : 12, the scale drawing for his model being reproduced below.



All Britain Rally - Geoff Smith

Hi John.
A response to Roger's question "does anyone have similar memories of the All Britain Rally?"

Yes I do.
I attended my first one at the tender age of 10, in 1950 and attended every one until they ceased in 1957. I had 3 or 4 programs which I gave to Roy for the 1066 archives.

I have in my possession a copy of the History of St. Albans MAC compiled in 2000 by the late Martin Pressnell, so I have extracted a few bits of information.

The first rally was held in 1946 and called the All Herts Rally. It was still called this in 1950, but sometime in the early 50's it changed to All Britain Rally, presumably due to its size.
The 3rd rally in 1948 attracted a crowd of 6000 - 8 comps attracted 348 entries from 55 clubs.

The last rally was in 1957 and it ceased for 2 reasons - the retirement of Sir Frederick Handley- Page and the management lost interest, but also the crowds and entries taxed the small St. Albans club membership (about 30).

What do I remember about those rallies?
Firstly, it was an awful drome for free flight - enormous length (had to be for Victor bombers), but oh so narrow. The wind was always across the narrow direction and a flight of a little over a minute took you over a main railway line (perfectly safe as the trains were all steam) into the fields beyond.
With the max in those days being 5 minutes, those fields were full of modellers searching for wayward models.

Sadly downsizing, 11 years ago, I got rid of my near complete set of Aeromodeller, but the rally account in one of those early 50's mags tells a story of the late George Fuller placing in the rubber comp after "building a complete new fuselage on the field" - what an achievement".

At the 1957 rally, the Junior Mirror - who remembers that?, ran 3 comps for juniors and I achieved my first FF success - placing 3rd in power with an AM25 powered Skyleda Zipper.

The prizes were presented by John "cats eyes" Cunningham the esteemed DH pilot and great supporter of the rally.

There are far too many memories to recount here, but 2 are worthy of a mention:
Firstly the unique water tank for the ROW rubber and power events
Secondly the wonderful Dynajet powered C/L Vampire built by Johny Nunn. What a noise when that fired up, people dropped everything and ran from every corner of the airfield to watch that model in flight.

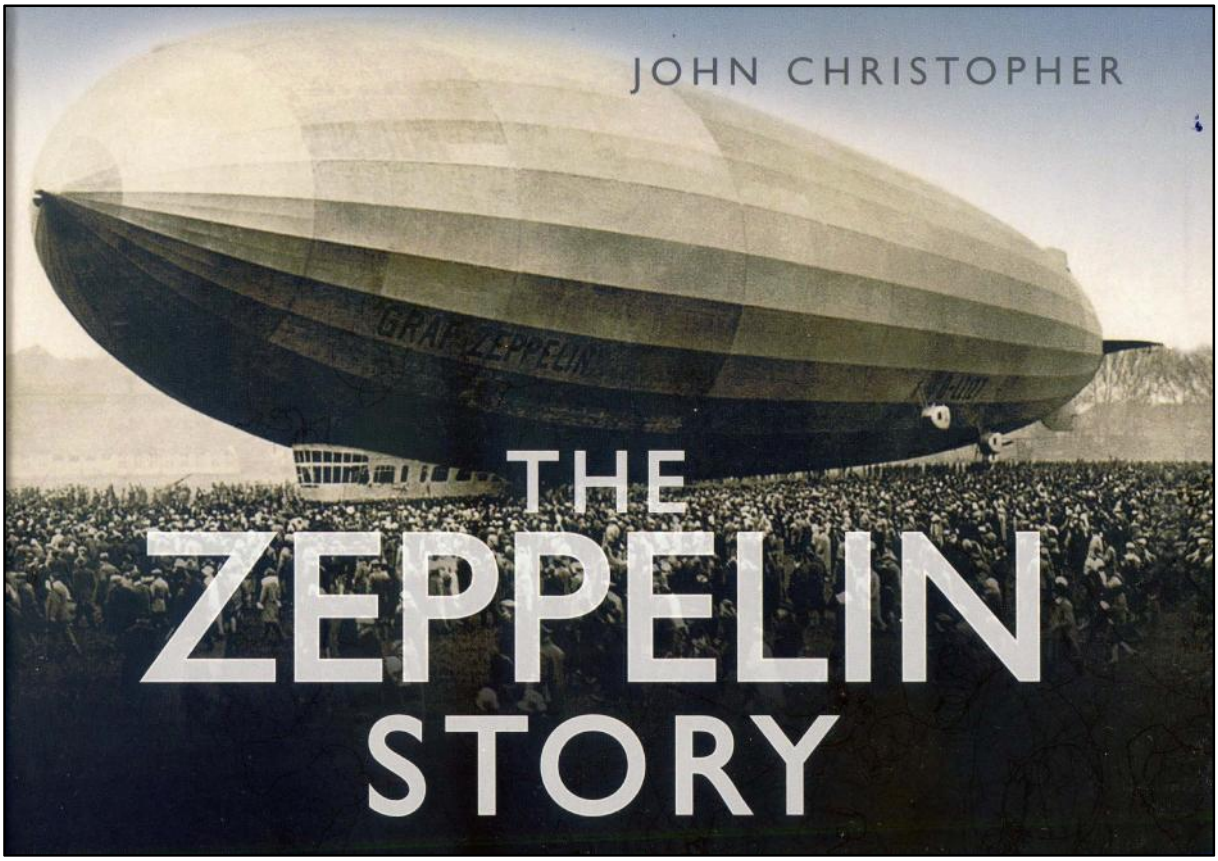
Finally I have in my possession wonderful accounts of both the St.Albans and Croydon clubs.

One other club that surely deserves similar treatment is Northern Heights. Founded in 1931, it ran excellent galas, post war, at Langley airfield near Slough and throughout the 1950's at RAF Halton.
Is there anyone out there who could produce a historical document, before it's too late.

Regards

Geoff Smith.

Zeppelin (continued) - John Christopher



PIE IN THE SKY

The 1980s may in fact prove to be the renaissance in airship operations and designs with many proposals are being expounded throughout the world.

Modern Transport magazine, 1978

While a handful of small pressure airships continued to fly, mostly in the USA, the dedicated supporters of the rigid airship were still dreaming of bigger things. During the Second World War the Goodyear Company continued to push for a new generation of rigids. When government backing was not forthcoming for a new fleet of flying aircraft carriers, Goodyear turned instead to industry and the general public for support through an advertising campaign depicting their vision for the passenger airship of tomorrow.

'Cruise the world in a flying hotel, proclaimed the headline. 'We're talking about the greatest airship ever conceived. It will carry more than a hundred passengers in uncrowded comfort. It will take you for long cruises to many lands – on two-week vacation – and bring you home as relaxed and refreshed as you'd be from a stay in the finest resort hotel. Goodyear's proposal was for a massive rigid airship, 50 per cent larger than the *Hindenburg*. With a helium volume of 10,000,000cu ft (283,000cu m) it would be 950ft (290m) long and have an operating range of over 6,000 miles (9,650km) – more than enough to fly to Europe and back again without stopping. As for the 'luxurious hotel-like comfort'

Did you know?

Metalclads were airships built with thin sheets of metal to form the gas-tight hull. Only four have been built and of those only two flew, including the US Navy's ZMC-2 which was known by her crew as the 'tin bubble'

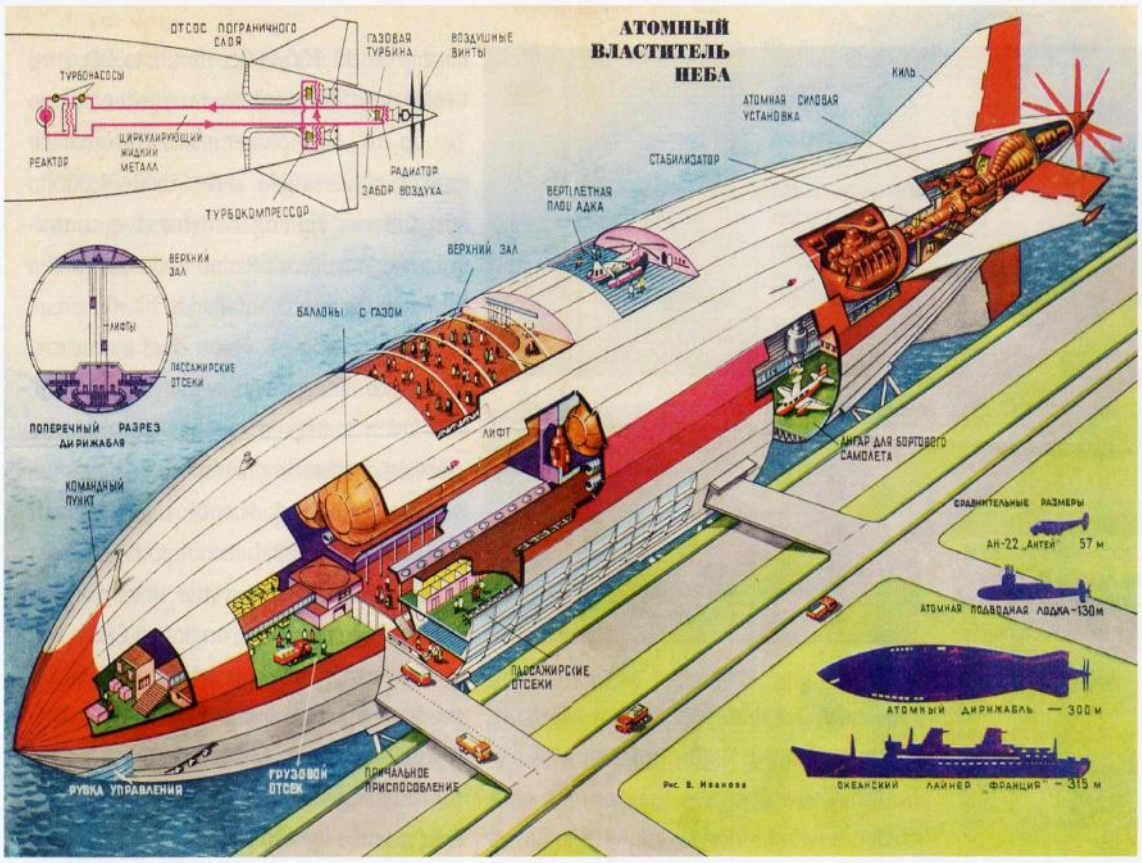
➤ *In the 1940s, Goodyear published this futuristic vision of a new generation of passenger-carrying rigid airships.*

➤➤ *This Soviet interpretation of a nuclear-powered airship seems to be closely based on the various concepts that were doing the rounds in Britain and the USA.*

the colour illustrations depicted spacious state rooms and saloons featuring that old favourite, a grand piano. Inevitably they were fighting a losing battle against the upstart airliners that had benefited from the accelerated aeronautical progress of the war, in particular with regard to jet engines, and Goodyear's super-dirigibles remained no more than a dream.

In the 1950s the prospect of nuclear-powered aircraft gave the airship's proponents a fresh impetus. The US Air Force had commenced tests to develop nuclear power plants for bombers that could stay airborne for indefinite periods, cruising within range of intended targets. Although the programme was dropped in 1961, nuclear power was seen by many as a way of solving the airship's perennial problem of fuel displacement on longer flights. A number of highly fanciful schemes began to appear in the popular press, such as the 1,000ft (305m)-long 'Atoms

102



103

➤ *Goodyear's proposal for a heavy-lift airship which combined rotors with buoyant lift was published in the 1970s. (Goodyear)*

➤ *The 'Deltoid Pumpkin Seed' was the Aereon Corporation's proof-of-concept prototype for a lifting-body airship. Officially designated as the Aereon 26, it flew without helium in 1971. (Aereon Corporation)*

for Peace Dirigible' published in *Mechanix Illustrated.* In the 1960s Professor Morse of Boston University gave the concept some credence with his designs for a large nuclear airship of 12,500,000cu ft (354,000cu m) which was designed to carry either cargo or up to 400 passengers. The nuclear power plant would drive three 4,000hp gas turbines turning two massive contra-rotating propellers situated in the tail, and a pair of 1,000hp turbofans.

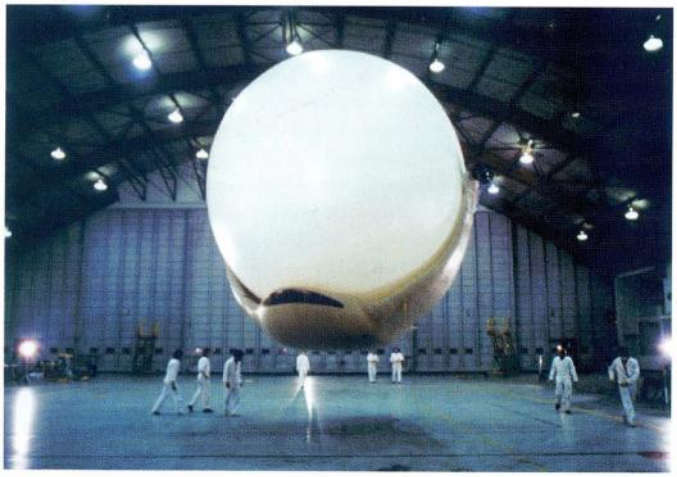
Morse's utopian vision for a nuclear-powered airship was widely publicised, and even mimicked by the Russians who published artist impressions of their own version featuring helicopter decks, aircraft hangars and palatial accommodation on a scale that left precious little space for any helium. The Austrian engineer Erich von Veress went one better with a proposal for the AVL-1 with a volume of 14 million cu ft (396,000cu m) and accommodation for 500 passengers. That none of these designs ever saw the light of day has as much to do

with the astronomical cost of building such a craft as with concerns about the safety of flying with nuclear reactors.

Meanwhile, other engineers had been focusing their efforts on augmenting the lifting power of the airship by combining the aerostatic lift of helium with aerodynamic lift generated by a wing or an aerofoil shaped hull, or alternatively through the addition of helicopter-type rotors. This has led to a whole family of variants known as 'hybrids' The use of rotors to create a heavy-lift airship was proposed by Goodyear and also by the aeronautical pioneer Frank Piasecki, who constructed a flying prototype of his Heli-Stat design using four military helicopters attached to a surplus airship envelope. During test flights at Lakehurst in July 1986, the Heli-Stat's frame was shaken apart resulting in the death of one pilot.

This accident highlighted the complexities of marrying two technologies in one craft, although more recently Boeing has taken an interest in the airship-rotor concept as a means of transporting large loads to and from otherwise inaccessible mineral mines in the northern Canada.

➤ *A scale model of the Skyship saucer design. Flown inside one of the Cardington hangars in 1975, it was typical of a number of proposals for lenticular airships.*



Proposed in the 1980s, the curious looking Magnus MA-32 featured a rotating envelope which generated additional lift through the Magnus effect. It never progressed beyond the scale model stage. (Magnus)

There have also been numerous attempts to build a hybrid known as a lifting body – an airship which gains aerodynamic lift by virtue of its shape. In 1970 the US-based Aereon Corporation succeeded in test flying an experimental craft shaped like a pumpkin seed, the Aereon 26, although larger production versions did not follow. Another shape guaranteed to capture the imagination is the lenticular airship, or flying saucer. These have been proposed for some time and became particularly popular with airship designers in the 1970s. In the UK, Thermo-Skyships proposed a lenticular airship with a 10-ton lifting capacity, leading on, if successful, to a 25-ton version. A radio-controlled scale model was demonstrated at Cardington in 1975, much to the amusement of the gathered press who labelled it the 'Zeppsaucer'. The saucer concept has been taken up by designers in other countries, most notably in Mexico and Russia, but a full-size craft has yet to fly.

One of the advantages claimed for the lenticular airship is the ability to travel in

any direction without the need for a tail and rudder, and this notion has led some to explore totally spherical designs. The Magnus airship of the 1980s resembled a bat-like creature, with the ball-shaped envelope on its back. This would be rotated horizontally to gain additional lift through the Magnus effect, created when a spinning object experiences a force perpendicular to the line of motion. A number of prototype spherical airships have also been developed by 21st Century Airships of Canada, which incorporate the control cabin within the base of the sphere itself

A manned spherical airship built and flown by Hokan Colting of 21st Century Airships in Canada. The flight deck area is contained within the envelope. (21st Century Airships)

Identify Aircraft - Gerry York

Here is a question for you. What Vintage Aircraft am I flying a model of? *(good English that)*

Gerry York

VALENTIN THE BIRDMAN

A Parachutist for Your Control Line or Free Flight Model

Some readers may remember Clem Sohn, the Birdman of the 'thirties, who was sponsored in this country by the *Daily Express*. His speciality was to dive from an aircraft and perform impressive birdlike evolutions by means of wings attached to arms and legs. He finally pulled the ripcord of his 'chute and landed safely. One day his parachute did not open . . . A modern successor is Sergeant Valentin, of the French Air Force, who provides similar entertainment and has, indeed, been billed to appear in this country. However, he wisely carries a lap pack in addition to a shoulder pack.

The model Birdman offered to our readers is based on Sergeant Valentin, and colour scheme given is his standard dress for these displays. It can be released from a control line model by means of a third line; even more satisfactory is its release from a free flight model by means of a timer. It can even be arranged for departure when dethermaliser lifts tail, giving all the appearance of baling out.

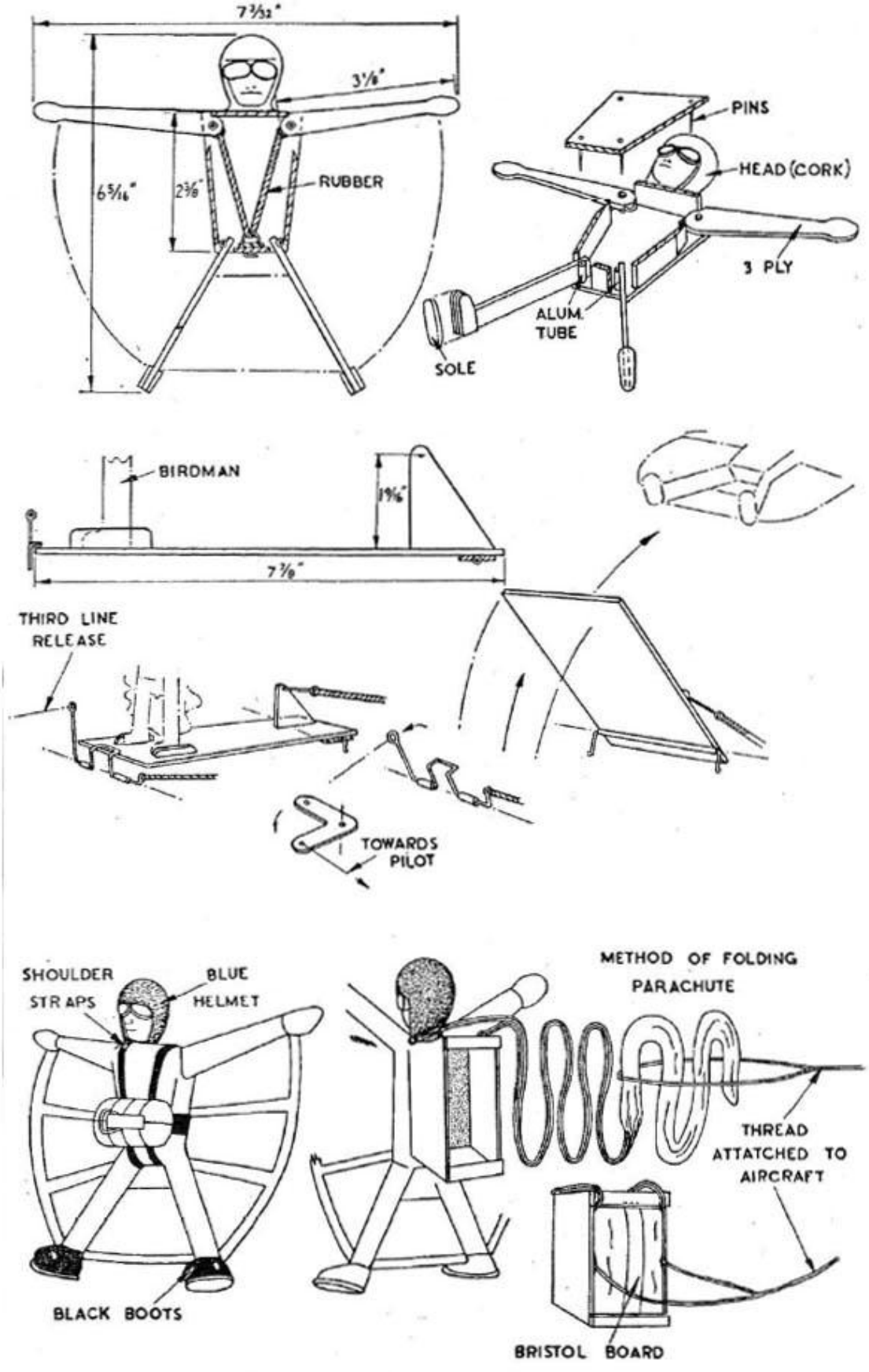
French modeller Moreau provided the model which has been thoroughly tested and proved a great success on club rallies, galas, and other occasions where a little extra spectacle goes down well. Sketches are dimensioned, and while smaller Valentins can be made, they are not recommended as they are too small to be readily visible in the air—particularly if free flight releases are to be made away from the main spectators.

Alternative release systems for third time or timer are illustrated. Basically they are the same, only difference being point of attachment of the pull cord. The basic platform is arranged inside the fuselage, so that Birdman can be slipped in place with his feet wedged between the two retaining pieces. By lowering the arms the wings are folded and retained in place by the elastic bands with just enough force to make a snug fit without jamming on release.

When the platform is released Birdman is thrust upwards and ejected. His arms swing up and he is away. Note the provision of an additional fine thread line from the aircraft attached to the parachute. This acts as a ripcord and by varying its length, duration of the Birdman antics can be adjusted.

Parachute should be of silk or stout tissue, and for size illustrated should be about 25 ins. in diameter, with sixteen lines evenly spaced round the circumference of about 30 ins. long. Note the strip of Bristol board which holds the parachute in place until jerked out by the pull of the release thread.

Valentin is an amusing figure that can be produced in less than an evening's work. Those unskilled in modelling a suitable head may find a small celluloid doll—usually acquired nude with a little bath can be decapitated to substitute for the cork carved head.


7 3/32"
3 1/8"
6 5/16"
2 3/8"
RUBBER
PINS
HEAD (CORK)
3 PLY
ALUM. TUBE
SOLE
BIRDMAN
1 9/16"
7 3/8"
THIRD LINE RELEASE
TOWARDS PILOT
SHOULDER STRAPS
BLUE HELMET
BLACK BOOTS
METHOD OF FOLDING PARACHUTE
THREAD ATTATCHED TO AIRCRAFT
BRISTOL BOARD

Southern Coupe League - Roy Vaughn

Southern Coupe League 2024

The weather and falling participation have contributed to a sparse league this year. The best attended event by far with 17 entries was the Birmingham club's gala event at North Luffenham. This benefited from a central, accessible location which attracted many occasional entrants.

The majority of events were held on Salisbury Plain which seems to put many people off. One person who has not been deterred is the winner, Ben Hobbs of Oxford. Although he didn't manage a win, he competed in six of seven events, more than anyone else, and so accumulated a full set of five scores sufficient to reach the top of the heap. Alan Brocklehurst of Bristol and West had a good season, winning all three events that he entered for second place. Ron Marking came all the way from Cornwall on a couple of occasions to accumulate a full set of top three placings for third in the League.

Ben only started Coupe flying 7 years ago at the age of 78 so I asked 'how come'? In his own words:
"My aeromodelling started in 1950,when Dad purchased a Frog Diana kit, many other models from KK, Frog and Veron were built and flown in the 'rec', surrounded by trees! This carried on till my 20's, about 1965-ish. Work and marriage then took over. One of the more interesting jobs was for a company called 'Latcade' which turned into Williams GP Engineering, I was one of 10 employees, that was 1977. I found myself buying more machine tools and taking on personnel to operate them, ordering materials and so on. Frank handed me a signed cheque to buy a CNC Lathe, prompted by Patrick Head, I had to buy Japanese because British machines were not sufficiently advanced at that time. The work was interesting, but demanding, if the team needed an item for the next race, then we would work the hours maybe till 11pm. I shared one large magnesium part with Ross Brawn, I worked till 10 pm then Ross till 9am, After 4 years we parted company, as they had grown big and needed to reorganise.

I came back to model aircraft at age 78, a bit late, and a steep learning curve, but enjoyable. I can't remember precisely what prompted me, but I have pals who fly radio, think I visited when one was building. I went up to Retford to watch F5B (12 ft span electric soaring). Over enthusiastic I bought plans for a Bill Austin model, never got built. Did not like flying a small R/C, so free flight always beckoned although I did enjoy single channel, a KK Deacon when young, flew it for years.
I have always liked to "do things my way" so my Coupes are all O/D, a bit rough round the edges, but capable. "

You will have heard of the sad loss of the League's chief protagonist, Peter Hall, recently. Peter and I had agreed prior to the start of the season that this would be our last as organisers (collators of results) of the League. That's not the end of the League however because Gavin Manion has agreed to take over the reins next year. Hopefully the move northwards will help to re-energise the Coupe scene.
For those tiring of old time designs, Coupe is surely an attractive proposition. High tech, bounty models are no guarantee of success. Traditional construction is competitive with high tech models because the class is most often a test of air-picking skill. The models are light, avoiding the need for RDT. And the two minute max helps limit the chore of retrieval for ageing legs!

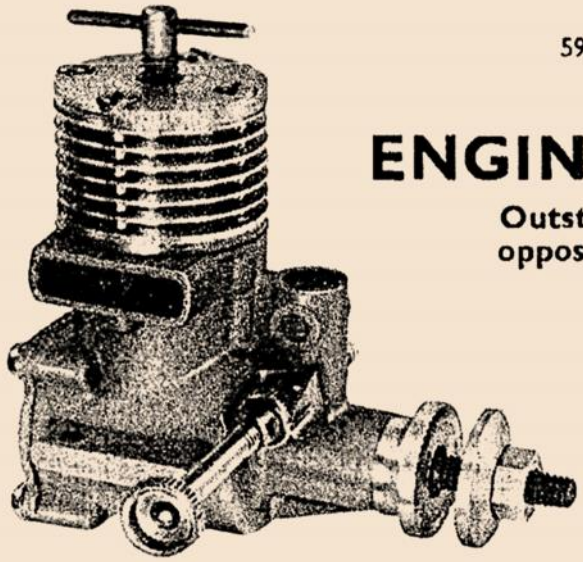
Results Coupe Europa					
	Entrant	**Club**	**Lg. Score**	**Time**	**Flyoff**
1	A.Brocklehurst	B&W	12	6.00	1.28
2	R.Vaughn	Crookham	9	6.00	
3	B.Hobbs	Oxford	8	5.10	
4	M.Stagg	B&W	7	1.46	
5	C.Chapman	B&W	6	1.45	
6	P.Masterman	Vikings	5	0.48	

Final League Standings

Place	Entrant	Club	Coupe De Brum	London Gala	Second Area	Nationals	Southern Gala	Crookham Gala	Coupe Europa	Total
1	B. Hobbs	Oxford		9	7	7	9	8	8	41
2	A. Brocklehurst	B&W		12				12	12	36
3	R. Marking	CVA			8	9	12			29
4	P. Woodhouse	Morley	12		12					24
5	M. Stagg	B&W		8					7	15
6	G. Manion	Birmingham	6					7		13
7	N. Allen					12				12
8	C. Foster	Morley	9							9
=	R. Vaughn	Crookham							9	9
=	S. Fielding	Morley			9					9
=	S. Dixon	Birmingham						9		9
12	S. Philpott	Birmingham	8							8
=	J. Paton	Oxford				8				8
=	T. Winter	CVA					8			8
15	I. Taylor	Birmingham	7							7
16	C. Chapman	B&W							6	6
17	B. Whitehead	Peterborough	5							5
=	P. Masterman	Vikings							5	5
19	A. Moorhouse		4							4
20	B. Dennis	Oxford	3							3
21	M. Marshall		2							2
22	S. Darmon		1							1
23	A. Hewitt									0
=	L. Drennan									0
=	G. Warburton									0
=	R. Elliott									0
=	P. Carter									0
=	G. Peck									0

Roy Vaughn

Engine Analysis: ENYA 15D - Aeromodeller November 1957



ENGINE ANALYSIS number 41

Outstanding 2.5 diesel from Japan with opposed porting and new design features

ENYA 15D

reviewed by R. H. Warring

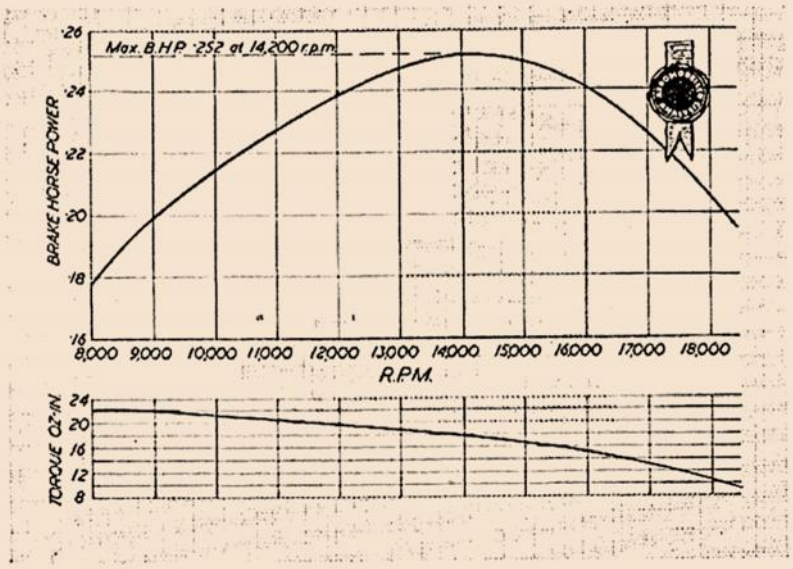
ONE HAS COME to expect outstanding engines from the leading Japanese manufacturers and the Enya 15 diesel is no exception. It is beautifully made, full of performance and especially interesting from the porting arrangement. It does, in fact, look more like a glow motor than a diesel in layout, but is actually quite different from its stable-mate, the Enya 15 glow.

Designwise the Enya 15 diesel departs from the usual circumferential exhaust and transfer porting arrangement and instead used diametrically-opposed transfer and exhaust ports of generous area, with considerable overlap, as on a typical glow motor layout, and the faster diesels. A difference, however, is that the transfer is not one main passage opposite the exhaust, but two passages cut in the lower cylinder casting in a fore and aft direction on what would be the side positions of a conventional transfer passage. These passages extend to the top of the casting and are sealed at the top end by the cylinder flange being bolted down (with two thin gaskets underneath). Insertion of the cylinder also effectively separates the two passages, except where they line up with the transfer port cut in the cylinder wall.

It is, of course, usual with this type of layout to have a deflector on the piston, but one cannot, however, be used with a contra piston, since the latter cannot be constrained against rotation and thus any "matching" shape would not necessarily stay "in line". A solution which has been tried in the past is to "step" the top of the piston as introduced by Mills Bros. to form the deflector. In the Enya the designer has utilised a conical topped piston—and quite obviously achieved a perfectly satisfactory gas flow throughout the cylinder.

Starting and general handling characteristics are excellent. Finger choking is adequate to prime. The exhaust note is peculiar, especially running rich and slow, but settles into a healthy roar. Hand starting remained easy right up to 6 in. diameter propellers and running was consistent and smooth at all speeds. The controls are nicely flexible and easy to adjust, optimum settings for any particular propeller load being obtained with a minimum of trouble. Peak power output on test was found to be slightly in excess of 14,000 r.p.m. but the excellent running characteristics are maintained up to beyond 18,000 r.p.m.

Workmanship is of the highest order throughout. The crankcase unit is a quite complicated pressure



SPECIFICATION

Displacement cement: 2·494 c.c. (·1517 cu. in.)
Bore: ·5895 in.
Stroke: ·5565 in.
Bore/stroke ratio: 1·06
Bare weight: 5¼ ounces
Max. Torque: 22 ounce-inches at 9,000 r.p.m.
Max. B.H.P.: ·252 B.H.P. at 14,200 r.p.m.
Power rating: ·101 B.H.P. per c.c.
Power/weight ratio: ·049 B.H.P. per ounce

Material Specification:

Crankcase unit: light alloy pressure die casting
Cylinder: hardened steel (ground inside and out)
Piston: cast iron (honed)
Con. rod: light alloy casting; bronze big end bush
Bearings: Rear ball race; bearing sleeve brass or bronze (reamed)
Crankshaft: heat-treated carbon steel
Cylinder jacket: aluminium (turned) with steel insert for compression screw
Spray bar assembly: nickel plated brass (flexible needle valve extension)

Manufacturer:

Enya Metal Products Co.,
5533 Araicho Nakanoku,
Tokyo, Japan

die casting in light alloy. The main bearing sleeve is of brass or bronze cast in and merely reamed to size. A ball race press or shrunk fitted into the front of the crankcase forms the rear bearing and effectively takes most of the load, such is the shaft fit that one can spin assembly more readily than many a twin ball-race unit.

A generous diameter flange is machined on the steel cylinder to seat on the crankcase casting, with the two ports cut in the walls below the flange. It is an extremely close fit in the casting and the turned dural cylinder jacket a "plug" fit over the cylinder. Four assymmetrically placed screws through the cylinder head then hold the assembly in place, one screw being longer than the others and fitting on the exhaust side.

The cast iron piston is quite light in construction with a honed finish and is an excellent fit in the bore, its skirt is cut away on the transfer side to avoid masking the transfer passage at the bottom of the stroke.

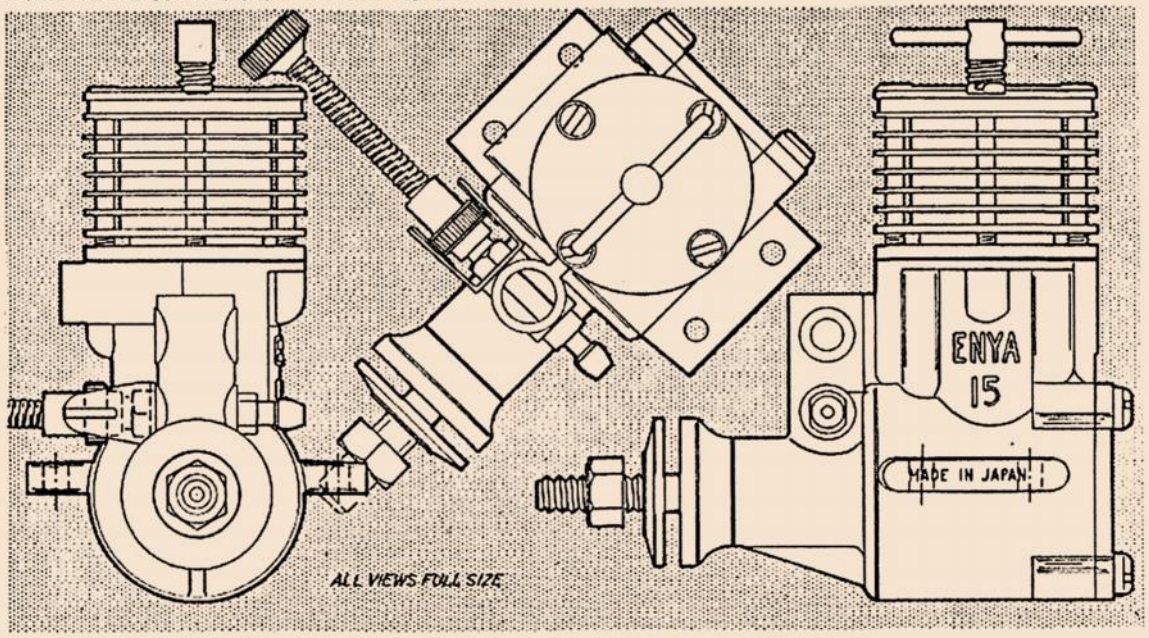
Connecting rod is a light alloy casting, with a bronze bush for the big end bearing. It is quite substantial in size to accommodate the ¼-in. diameter crankpin and ·197-in. (5 mm. brass end padded hollow gudgeon pin. Crankshaft diameter is ·3935 in. (10 mm.), stepping down to 5 mm., for the threaded length. The induction port in the shaft is circular and the shaft hole extends up the length of shaft past for lightening, crank web is partially machined away to form a crescent-shaped counterbalance.

Other interesting features are the fitting of a steel insert in the head to take the compression screw; the back cover (the fit of which, incidentally, emphasises the close tolerance held on the castings) attached by four short screws instead of screwing in; the use of typically Japanese nickel plated screws throughout and the nickel plated spraybar unit and needle valve assembly, and the really robust flexible extension of the needle valve. Provision is made for the fitting of a second spray bar and needle valve at the upper end of the intake tube for two-speed operation, although this is not drilled out on the standard model.

Propeller dia. x pitch	*r.p.m.*
9 x 6 (Frog nylon)	9,400
9 x 4 (Stunt)	10,400
8 x 9 (Stunt)	13,500
8 x 5 (Stunt)	12,500
8 x 6 (Stunt)	11,000
7 x 6 (Stunt)	13,600
7 x 4 (Stunt)	15,000
9 x 3 (Tiger)	12,200
8 x 3½ (Tiger)	15,000
8 x 4 (Tiger)	14,000
6 x 9 (Tiger)	14,600
7 x 9 (Tornado)	12,000
11 x 4 (Trucut)	7,600
10 x 4 (Trucut)	8,000
9 x 4 (Trucut)	11,200
8 x 4 (Trucut)	13,600
7 x 4 (Trucut)	16,000
7 x 3 (Trucut)	17,300

Timing is fairly conventional by modern high performance standards. The intake opens about 100 degrees before top dead centre and closes some 45 degrees after top dead centre. Both the exhaust and transfer open rather later, which is usually an advantage in extracting the utmost power from the charge and a feature which can be tolerated much more with the type of porting used. The exhaust opens approximately 120 degrees after top dead centre and the transfer approximately 20 degrees later. Bore and stroke approximate the E.D. Racer, but the use of opposed porting has given far greater over-lap.

Summarising: a truly excellent 2·5 c.c. diesel in all respects, and also a very rugged engine achieved at little or no weight penalty. It is also the first of the *high* performance diesels to appear with "glow motor" style porting—(not forgetting the much earlier Super Tigre 5 and 6 c.c. engines of moderate output)—a design feature, we feel, which will soon be followed by other engine designers, because in the Enya at least it certainly gives top performance.



North Wales - Martin Pike

Indoor and outdoor model flying in North Wales

I have been organising indoor flying sessions since 2017; initially in Bethesda (hence our Facebook page is titled 'Indoor Model Flying in Bethesda), but more recently in a larger hall in Bangor.

We meet every month during the winter (September to May) and fly outside whenever we can. There is no club, just interested people. We are lucky to be able to fly over a large upland bog (1.5x1.5km) which may not have a runway but is blessed with forgiving long grass.

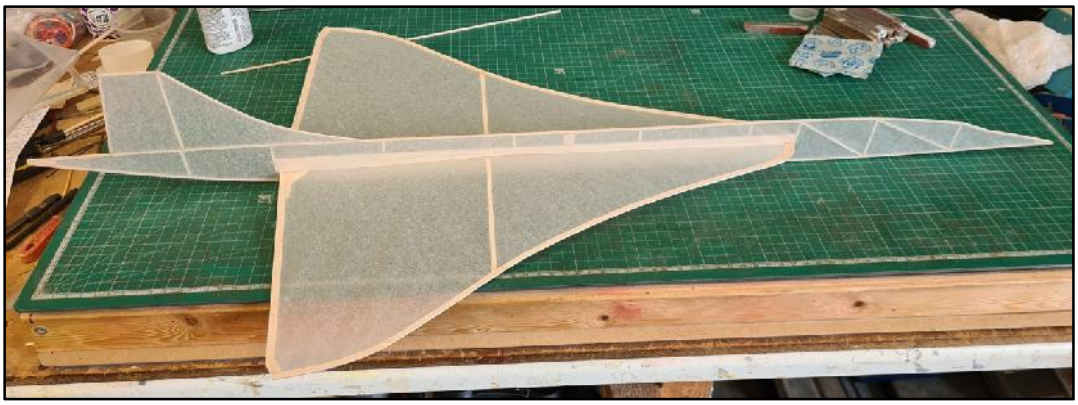
For the indoor meetings, I bring free flight models to lend out to newcomers, keep a stock of basic kits and try to help people get things flying.
Many of the RC flyers that attend have little or no experience of free flight models. We fly both RC and free flight models, no defined slots, but giving way to each other.

A Hangar Rat built and flown well by an RC pilot - John Charles

Upcoming events, all in the Brailsford Centre, Bangor, LL57 2EH

The hall is 23x25x10m with high ceiling ducts, only one of which hides a model!

Sun 3/11/24 @15:00 - 18:00
Monday 4/11/2024 @1600-1800
(an extra, trimming for Nijmegen competition)
Sun 1/12/24 @ 15:00 - 18:00
Sun 05/01/25 @ 15:00 – 18:00
Sun 02/02/25 @ 15:00 – 18:00
Sun 02/03/25 @ 15:00 – 18:00
Sun 06/04/25 @ 15:00 – 18:00
Sunday 11/5/2025 - this will be part of the Welsh indoor/outdoor flying event 10-12th May



Allan's ambitious profile scale model, also for Nijmegen

A kit scale entry for Nijmegen - the VMC kit by Martin Pike

Our outdoor site. Spartan Bomber...built by a late aeromodeller. An excellent flyer.

Martin Pike

Report No.165 Our earliest books.

Continuing with "The Theory and Practice of Model Aeroplaning" by V. E. Johnson we come to

Chapter 11. Helicopter Models.

"There is no difficulty whatsoever about making successful model helicopters, whatever difficulty there may be about full size machines.

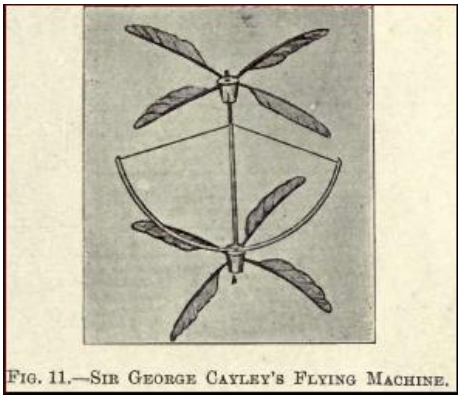


FIG. 11.—SIR GEORGE CAYLEY'S FLYING MACHINE.

"The earliest flying models were helicopters. As early as 1796 Sir George Cayley constructed a perfectly successful helicopter model: it should be noted that the screws were superimposed and rotated in opposite directions.

"In 1812 a Mr. Phillips constructed a successful power-driven model helicopter. It consisted of a steam generator and four fans supported between eight arms. By the escape of steam from the arms the fans were caused to revolve with immense energy, so much so, that the model rose to an immense altitude and flew across two fields before it alighted. The motive power employed was obtained from the combustion of charcoal, nitre and gypsum, the products of combustion mixing with water in the boiler and forming a gas-charged steam, which was delivered at high pressure to the extremities or the eight arms. This model is in all probability the first model actuated by steam which actually flew."

There were no dimensions of pictures of this steam-powered drone other than its weight, which was given as 2 lb. Should you decide to build a steam-powered helicopter ask your chemist not for nitre, instead use today's name for this material which is Potassium Nitrate.

The Author refers to the Cayley type of helicopter as little toys which can be purchased from any good toy shop for about 6d. and suggest that the reader try more ambitious types.

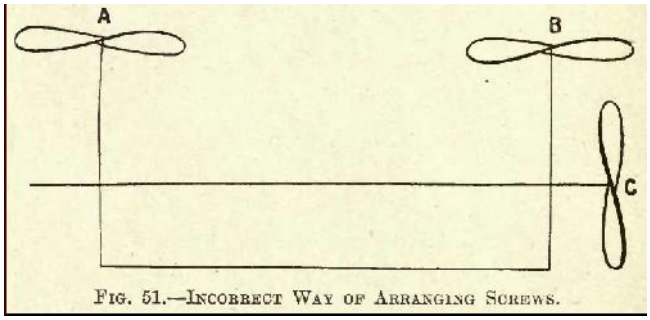


FIG. 51.—INCORRECT WAY OF ARRANGING SCREWS.

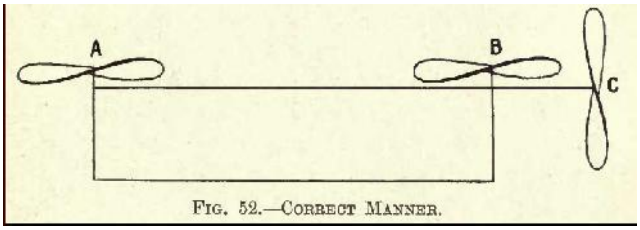


FIG. 52.—CORRECT MANNER.

"Supposing we desire to construct a helicopter of a more ambitious and scientific character, possessing a vertically rotating propeller for horizontal propulsion as well as horizontally rotating propellers for lifting purposes. There is one essential point that must be carefully attended to, and that is, that the horizontal propulsive thrust must be in the same plane as the vertical lift, or the only effect will be to cause the model to turn somersaults.

Instead of using two long vertical rods as well as one long horizontal one for the rubber strands, we might dispense with the two vertical ones and use gearing to turn the torque action through a right angle for the lifting screws, and three horizontal rubber strands for the three propellers. The model would require something in the form of a vertical fin or keel to give a sense of direction"

So, there you have helicopters, from Toys to Drones to Chinooks and all in 1910.

We are now about half way through the book, page 115, and that is the end of designing, building and flying model aircraft.

Chapter 12. Experimental Records.
This chapter is very short on words and has a couple of charts with headings but no entries.

Chapter 13. Model Flying Competitions.
At this time, there are no clear and agreed rules for competitions, each club making its own rules which may vary from meeting to meeting. Typical competitions would be open with respect to type, size and weight of model. The winner being determined by such as:-
Longest flight, measured in a straight line.
Best stability.
Longest glide, launched from a given height, without power.
Greatest height.
Swiftest flight over a measured distance.
Best all round model.

The Author suggests size classes for models running from Class A surface area 1 sq.ft. and under through to Class E surface area 8 sq. ft. and over.

Chapter 14. Useful notes, tables, formulae, etc.
This chapter comprehensively does what it says.

Appendix A. Some models which have won Medals at Open Competitions.

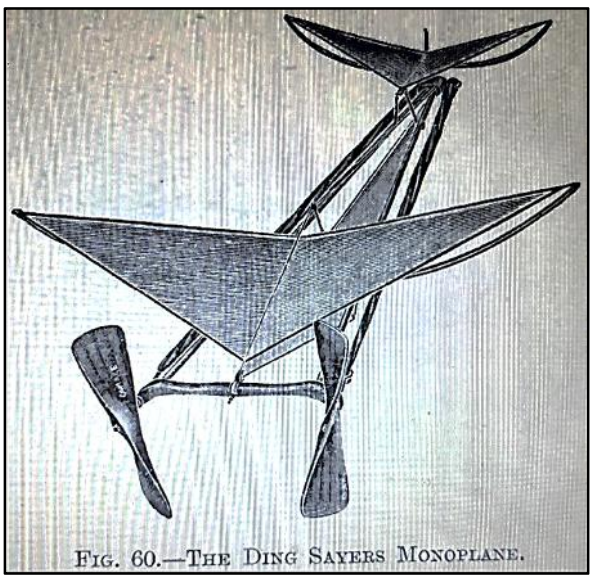


Fig. 60.—The Ding Sayers Monoplane.

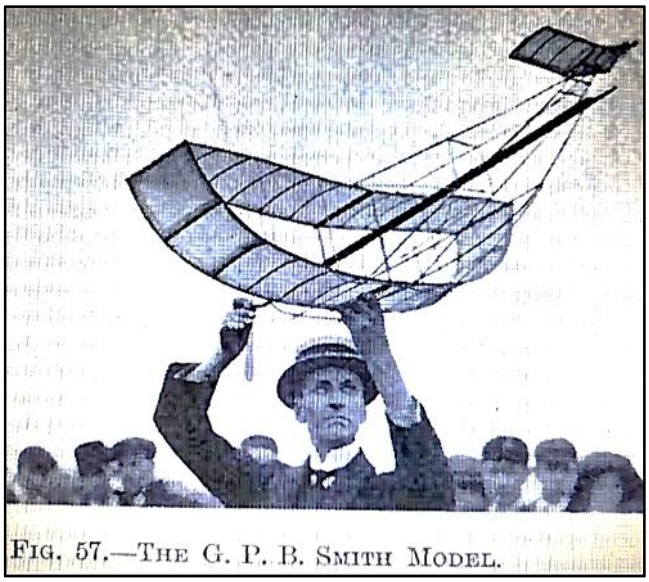
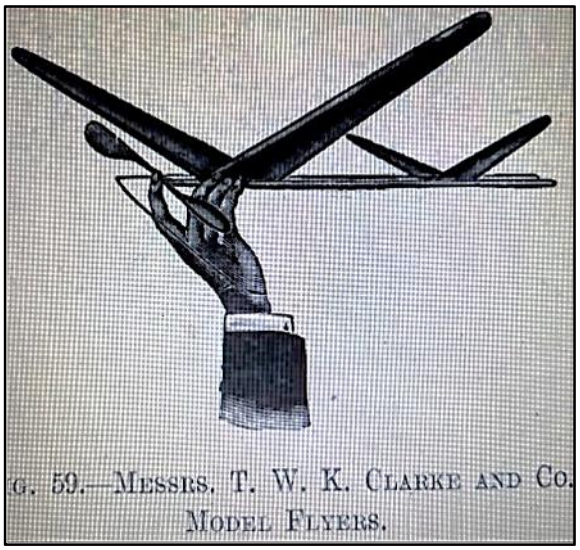


Fig. 57.—The G. P. B. Smith Model.

The winning models are predominantly of canard layout as shown in the pictures below.



G. 59.—Messrs. T. W. K. Clarke and Co. Model Flyers.

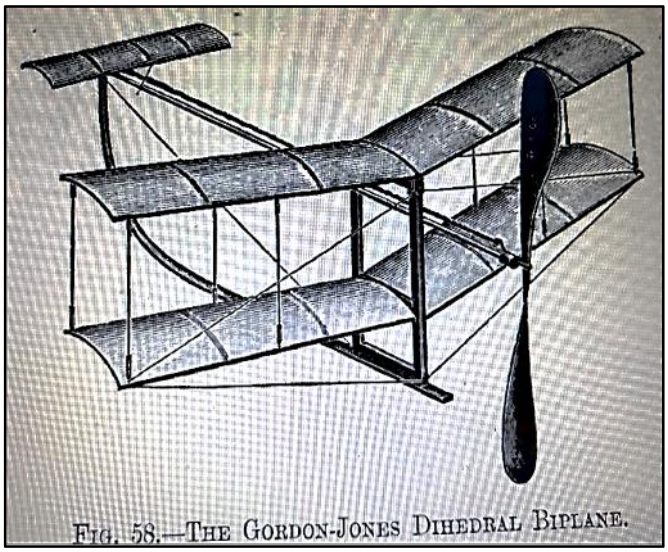


Fig. 58.—The Gordon-Jones Dihedral Biplane.

There follows:-

"A Short List of Scientific Books published and sold by E. & F. Spon, London.

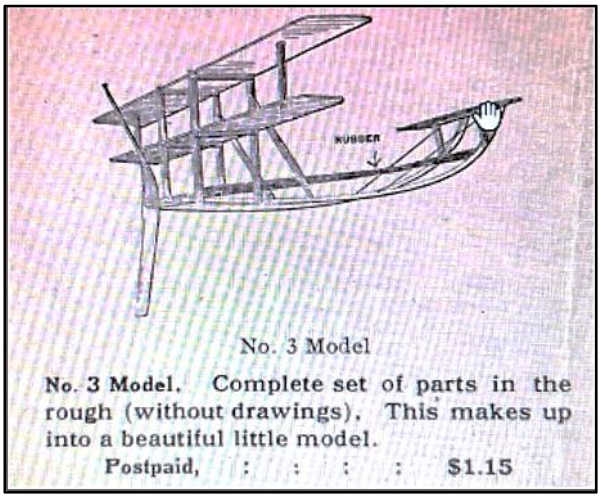
Sole English agents for the books of-

Nycron C. Clark, New York.

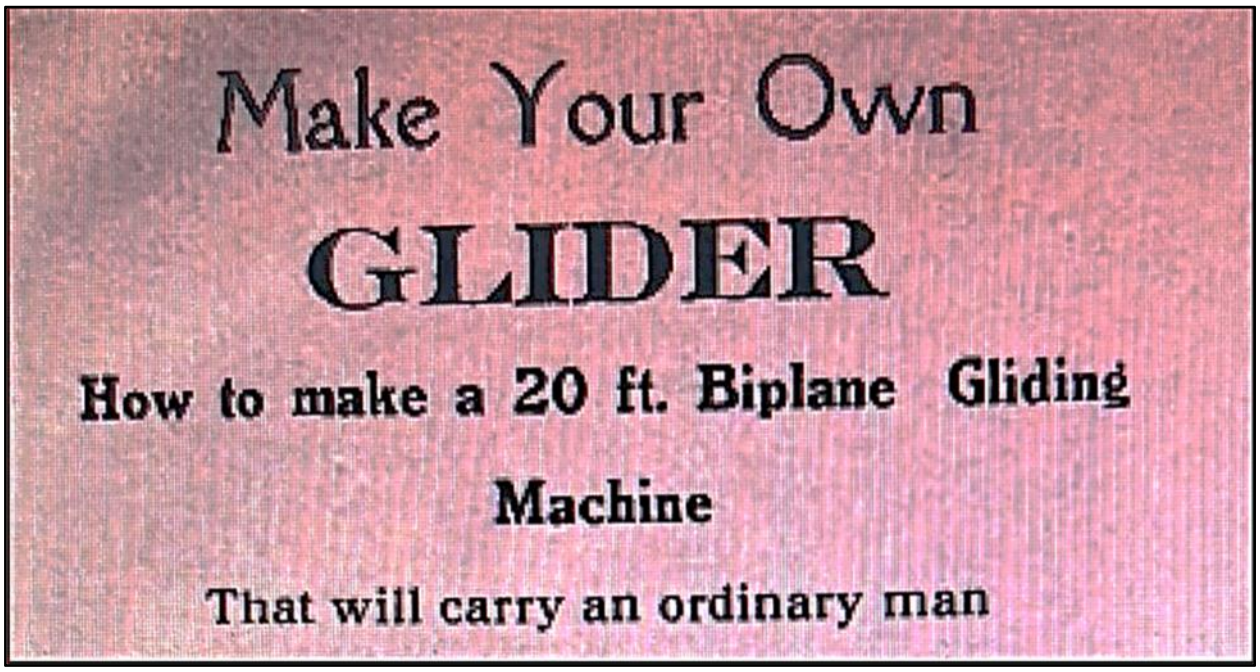
The Business Code Company, Chicago.

Spon & Chamberlain, New York."

The book's main section concluded at page 148. The "Short list", starting at page 1 and running to a total of 56 pages, makes up a remarkable one quarter of the total book. Such lists are particularly boring but, within the pages, was a "pink flyer" advertising kits and plans for sale. I do not claim to have read every word in this book, but I had not noticed any mention of the availability of plans for model aircraft until I came to that pink flyer. Some parts of the pinkie are shown below including the offer of plans and materials (in the rough) for a glider to carry "an ordinary man". So no good to all you extraordinary men out there and no complaining about the quality of the wood, we told you to expect it to be "in the rough".



We have all had kits just like that!



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

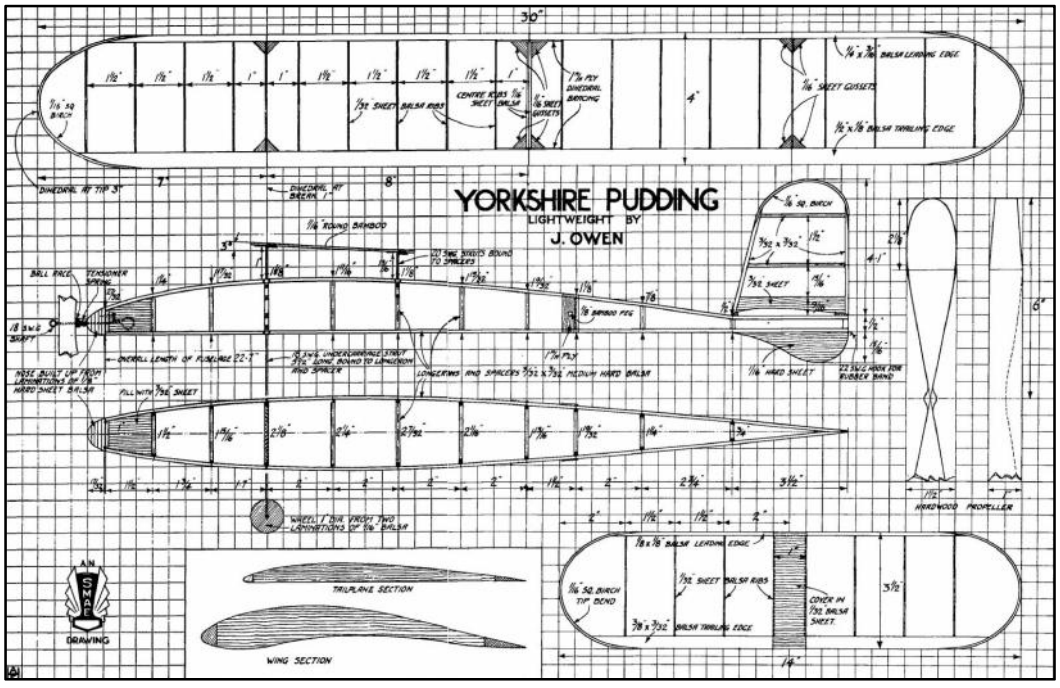
Roy Tiller

Notes from North Wales - Roger Newman

Notes from North Wales October 2024

Start with something a little different. Long (?) ago when we held SAM1066 comps in conjunction with the Croydon Club, there was a Croydon hosted comp for Norman Marcus Lightweights encompassing his four best known lightweight designs – namely Raff V, Supa Dupa, Dinah Mite & Bazooka. Norman Marcus being, of course, a Croydon Club stalwart. In the early days this comp was quite popular & was flown to SAM1066/35 rules for Small Vintage Rubber (Vintage Lightweights) – any model designed for rubber power with wingspan up to & including 34" from the Vintage period (up to January 1951). Like many good things, over time entries diminished particularly after the demise of Middle Wallop. Predecessor comps held at MW for the Small Vintage Lightweights usually attracted an excellent following & keen competition. Anyway whilst browsing the plan list for this month's plans, I came across a plan for the Yorkshire Pudding which appeared in the Sept 1946 Model Aircraft mag. This triggered a chain of thought about what other lightweights existed for this period, which in turn lead to a quick search of our plan list. Fortunately when keyed up, the spreadsheet included a commented column for model types which included Vintage Lightweights. The list revealed (not in any particular order) Bazooka, Raff V, Supa Dupa, Dinah Mite, The Collector, Cats Whisker, Hep Cat, Buckeridge Lightweight, Mick Farthing L/W, Yorkshire Pudding, Rara Avis Mk IV & Blackpool Rock. Quite a few of these have appeared at Middle Wallop over the years, flown mostly with great success.

It is highly probable that those who are expert in this field have written about, built, flown & discussed the merits or otherwise of some or all of these models. As a practitioner who is absolutely not skilled in the art of such models, I am certainly not equipped to comment – adversely or favourably, on any one of the designs but it might be of interest to our community to give them an airing before we forget all about this particular category of our hobby, which in the past has given a great deal of pleasure to the original designers & fliers & to our generation of vintage model aeroplane modellers. I am in the process of digging out original articles which – where possible, will include a thumb nail of the plan. For these, I shall be indebted to our Hon. Librarian, Roy Tiller. There are doubtless other designs from the same era, but those named above are – as noted above, extracted from our own plan library.



The first of these is the Yorkshire Pudding, which to the best of my knowledge, never made an appearance at MW – I stand to be corrected! Hopefully another next month.

The Yorkshire Pudding

D. Salloway winding up his "Yorkshire Pudding."

By J. OWEN

THE first "Yorkshire Pudding" was built in April of last year, the intention being to produce a contest model requiring very little rubber and also one that could easily be duplicated. Last summer I built and lost three of these machines at the cost of only 1 oz. of rubber. The average performance, using a 12-in. hardwood airscrew, is around 90-120 sec., but due to its slow flat glide the "Yorkshire Pudding" can take advantage of even the slightest "lift" in the air. Two of these models have held the Blackpool and Fylde M.A.S. Open Rubber record, the first being a flight of 6 min. 43.3 sec. o.o.s., the model last being seen at an altitude of about 1,500 ft. The second machine, flown by Mrs. Bentley, flew out of sight after 9 min. 18 sec., but was actually seen to land six miles away 1½ hours later.

Fuselage

The fuselage is built in the usual way, with all longerons and spacers 3/32-in. × 3/32-in. medium hard balsa. The parasol wing mounting uprights are made from 20 s.w.g. piano-wire, bound and cemented to the spacers and longerons, as shown on the plan. Two 1/16-in. round bamboo runners form the wing platform. The single-leg undercarriage is made from a length of 18 s.w.g. wire, bound and cemented to a bottom longeron and spacer.

The Wing

This is built in four pieces and then joined together. The dihedral breaks should be braced with 1 mm. ply. The leading and trailing edges are from ¼-in. × 1/16-in. and ½-in. × ⅛-in. medium balsa respectively, and all ribs are cut from 1/32-in. medium hard sheet balsa and spaced as shown. The tips are made from 1/16-in. square birch steamed to shape.

The tailplane is of a thin lifting section, the ribs being cut from 1/32-in. sheet balsa. The top of the centre section is covered with soft 1/32-in. sheet in order to make a good base for the fin, which is cemented to the tailplane.

The fin is built mainly of 3/32-in. × 3/32-in. balsa and then sanded to a symmetrical section.

Propeller and Noseblock

The noseblock is laminated from ⅛-in. hard sheet and drilled to take an 18 s.w.g. brass bush. The propeller-shaft should be made from 18 s.w.g. wire and the tensioner spring from 26 s.w.g. wire. Make sure that the spring tensioner is working well, for unless it is, the rubber will be liable to bunch and spoil the glide. The 12-in. diameter propeller used is the hard-wood commercial type cut away at the hub in order to reduce drag. The model is powered with six strands of ¼-in. × 1/30-in. black rubber, 27 in. long.

The model is covered with light-weight Jap tissue, given one coat of clear dope. Pin down the wings, tailplane and fin in order to prevent warping.

Flying

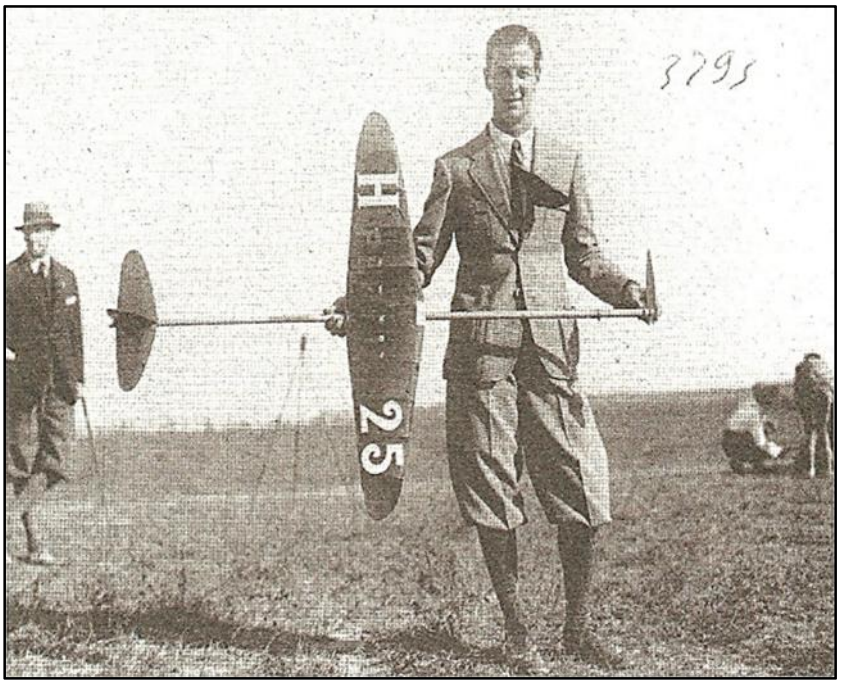
The model should be trimmed to fly in right-hand circles, off-setting the noseblock 1/32 in. and using 1/32-in. right rudder. I have never found downthrust necessary on this model.

The total weight of the model is about 2½ ozs.

An old time image from Italian days gone by; text is Google translation:

It's 1933. The famous photographer Robert Doisneau immortalised this distinguished grandfather of the time throwing his rubber band model in front of an elegant and slightly incredulous lady.

And another – note the formal dress code in both cases!



Gustavo Clerici with the elastic model with which he won the Bonmartini Cup held in Rome towards the end of 1929.

There is the regular annual BMFA Auction to be held at Buckminster on Sunday 3rd November, with viewing on 2nd Nov. The latter date coincides with the BMFA AGM. There is a further auction at the same location to be held on 24th November, again with viewing on the preceding day. These are now well established & very successful events.

The catalogue for the 3rd Nov has some 465 items currently listed with the regular selection of engines & kits.

The engines include a multiplicity of Oliver Tigers & replicas in various capacities, pretty well all looking in great condition.

For anyone wishing to stock up, a quick skim indicates quite a few desirable items. You can view the catalogue on-line at Catalogue 3rd November 2024 V2 , it has photos of each entry. Facilities exist for in attendance bidding, on-line bidding & pre-bidding.

The 77th Annual General Meeting of the Society of Model Aeronautical Engineers Ltd is to be held on Saturday 2nd November at BMFA Buckminster and online via Zoom Conferencing, at 1.30pm. For full details see https://agm.bmfa.uk/

Roger Newman

Secretary's Notes for November 2024 - Ray Elliott

Croydon Coupe Europa / SAM 1066 Competition Salisbury Plain 13th October

This competition was blessed with almost perfect weather; sunny intervals, light (but variable) winds and a temperature of around 10-11C.. With the wind forecast to vary from northerly in the morning to south easterly in the afternoon it was decided that the best place to set up control would be at the southeast corner of the trimming field. This plan was thwarted as on arrival we found that the farmer had cows grazing on the trimming field with both access tracks blocked by an electric fence.

The only option was to set up at the airstrip and that is what we did. This worked OK generally but there was an issue with a barbed wire fence on the south side of the airstrip when the wind was from the north, and then in the afternoon with the trees to the northwest with the south-easterly breeze.

Flying got underway a little after 10, due to all the shenanigans, with a mini rush of entries; we ended up with 6 in F1G (Coupe Europa), 4 in Mini Vintage and 2 in Combined Vintage/Classic Glider. No entries in Vintage Coupe and Combined Vintage/Classic Power.

Although entries were low each contest was keenly fought. F1G became a two-horse race between Alan Brocklehurst and Roy Vaughn with both maxing out. Unfortunately, Roy's model DT'd into the aforementioned trees on his 3rd flight and he decided not to get out another model for the fly off. This left Alan to make a token flight to win. Ben Hobbs was third.

Roy managed to find and retrieve his model after the contest.

Mini Vintage featured 2 rubber models and 2 gliders. The winner was Dave Cox flying a Nord, Nick Peppiatt second with a Pinocchio and Dave Etherton third with his Satu.

Dave Cox won Combined Vintage/Classic Glider with Dave Etherton second.

Results

F1G Coupe Europa

1st. -	Alan Brocklehurst	360 + 128
2nd. -	Roy Vaughn	360
3rd. -	Ben Hobbs	310
4th. -	Martin Stagg	106
5th. -	Chris Chapman	105
6th. -	Paul Masterman	48

Mini Vintage

1st. -	Dave Cox	5.58	Nord
2nd. -	Nick Peppiatt	5.29	Pinocchio
3rd. -	Dave Etherton	3.58	Satu
4th. -	Paul Masterman	1.47	Bazooka

Combined Vintage/Classic Glider

1st. -	Dave Cox	5.41	Nord
2nd. -	Dave Etherton	4.12	Satu

The Flitehook Trophy for F1G teams was won by Bristol and West.

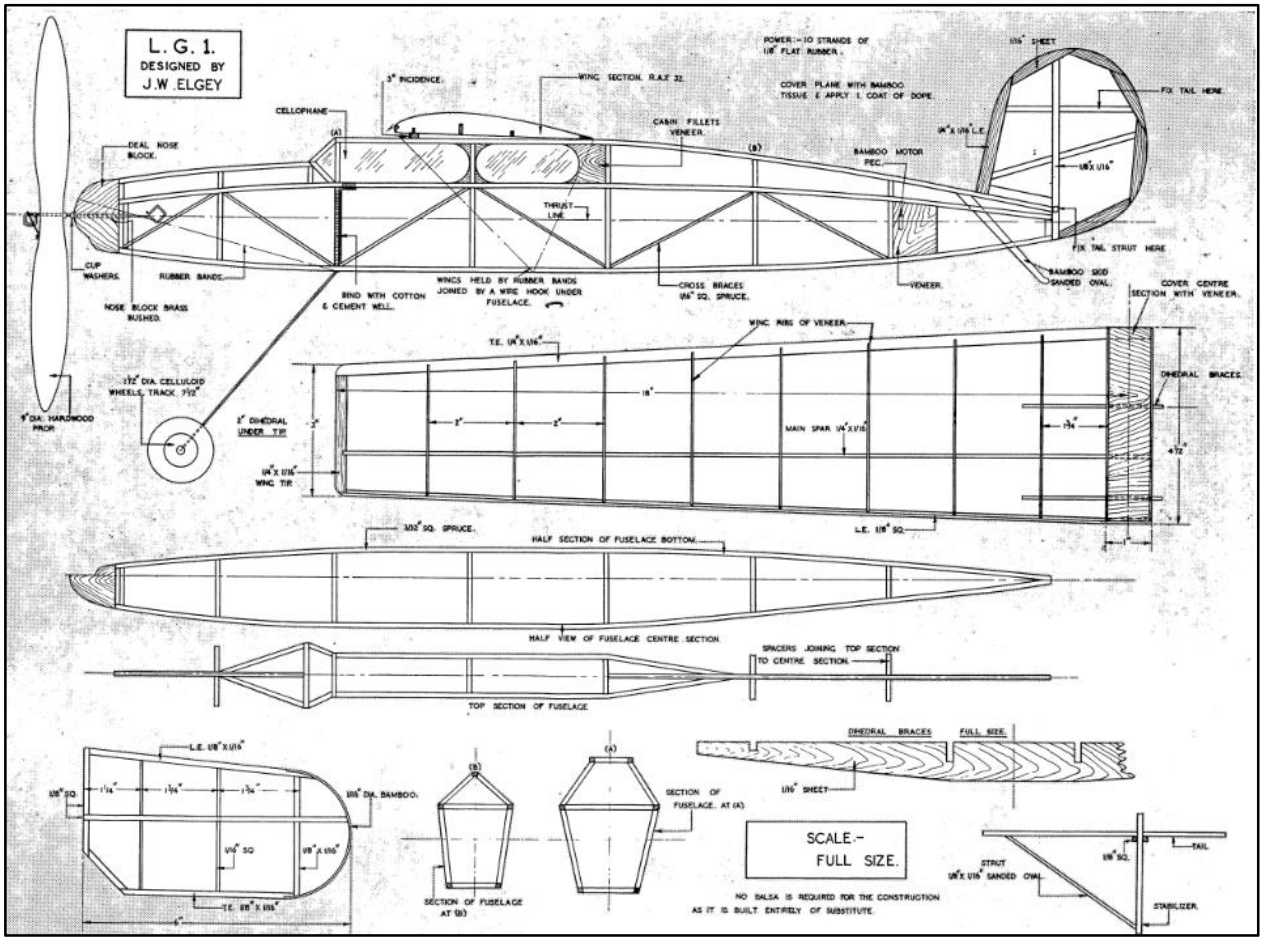
Croydon DMAC would like to thank the London Area of the BMFA for their support for the Coupe Europa.

Benn Hobbs launches his F1G with Roy Vaughn on the clock

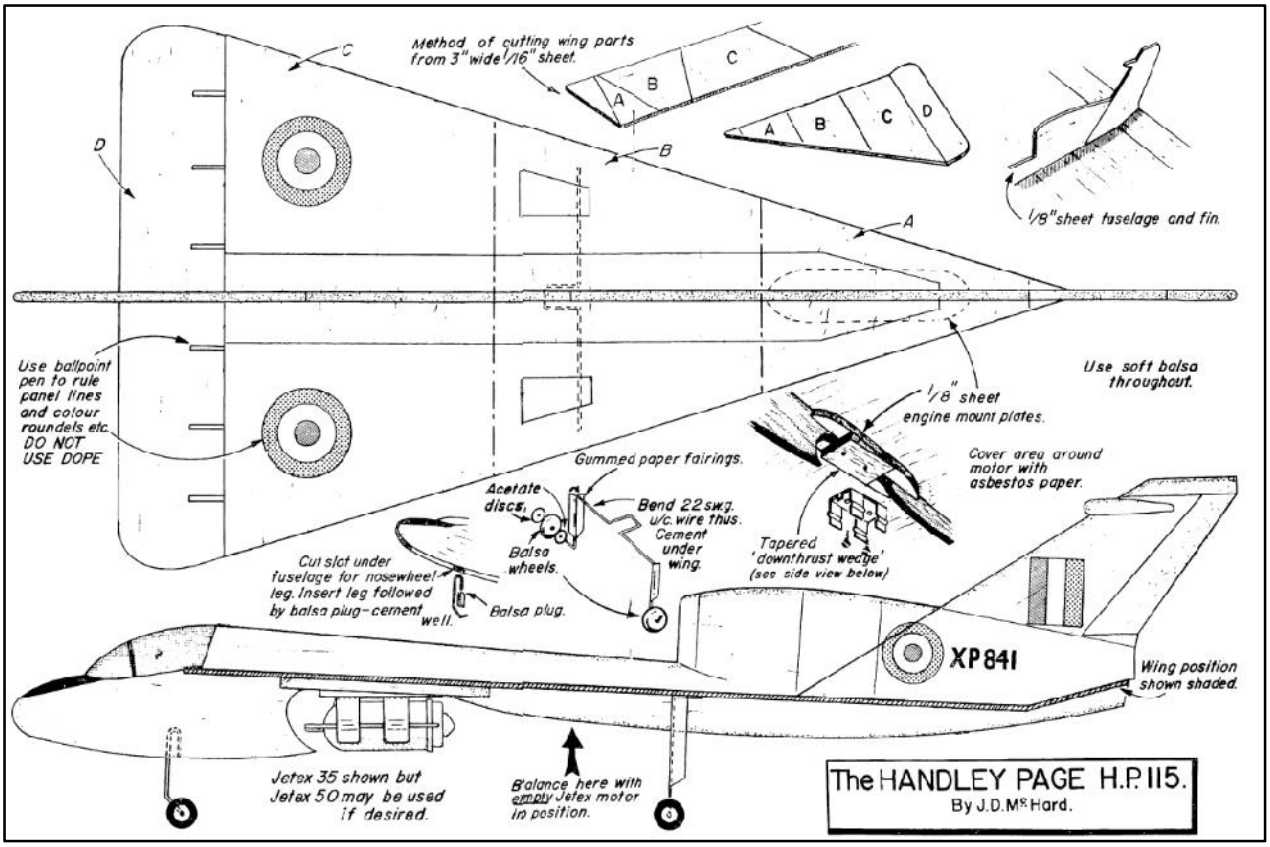
Ray Elliott

Plans for the Month - Roger Newman

Rubber: L.G.1 – quirky older time model with construction not using balsa

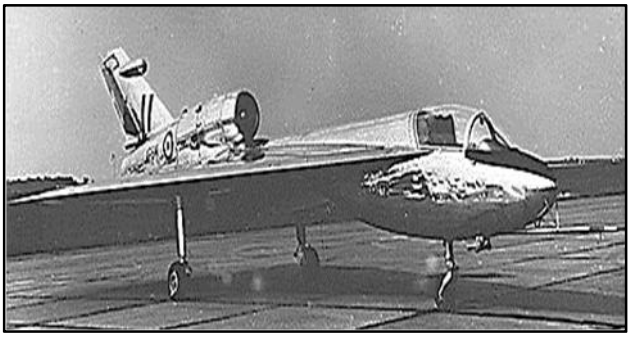


Power: Handley Page 115 for Jetex from the stable of Doug Mc Hard



Footnote "borrowed" from Wikiepedia. *The **Handley Page HP.115** was an experimental delta wing aircraft designed and produced by Handley Page. It was built to test the low-speed handling characteristics to be expected from the slender delta configuration anticipated for a future supersonic airliner.*

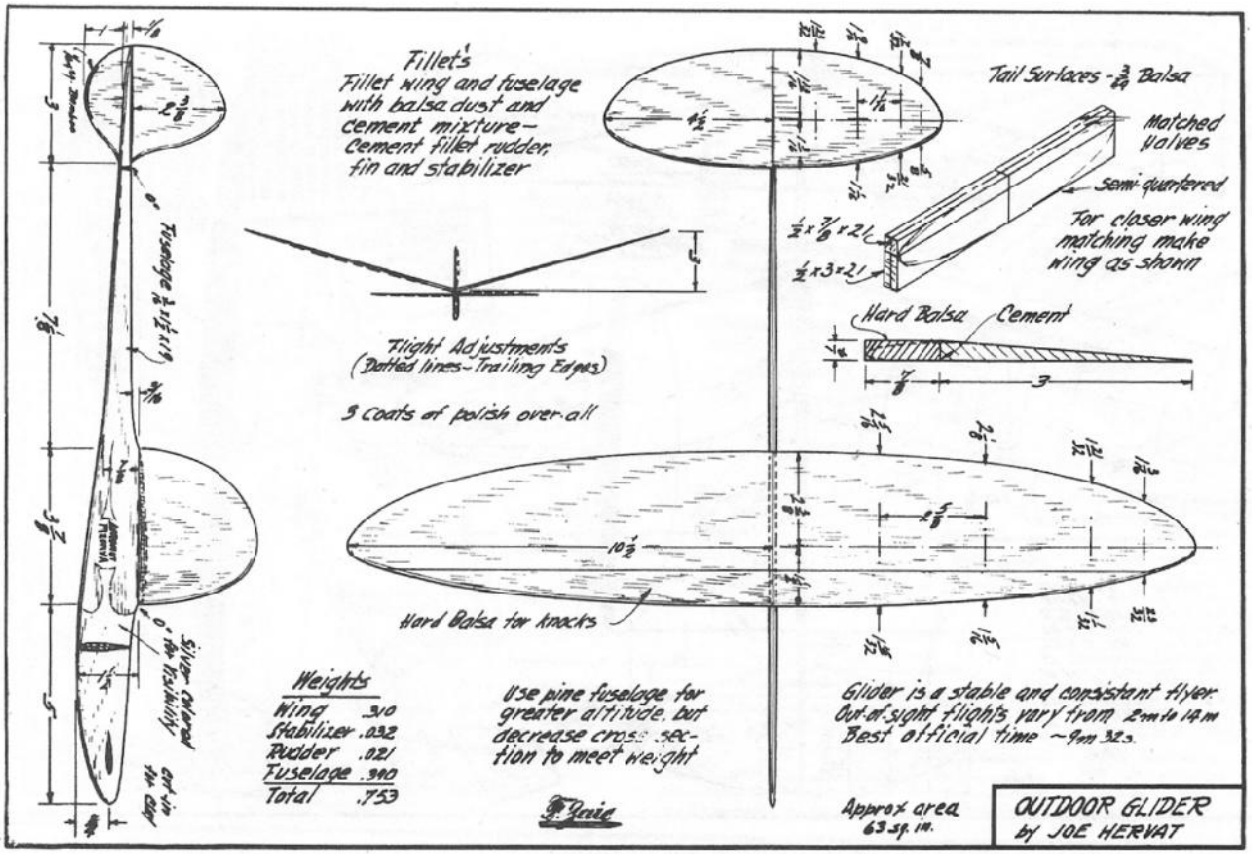
The HP.115 was designed during the 1950s as part of the wider supersonic aircraft research programme that was sponsored by the Ministry of Supply. At the time, both the delta wing and supersonic flight were relatively recent innovations. By 1956, the Supersonic Transport Committee had been deemed necessary to build a demonstrator to prove that the slender delta wing design was not only suitable for high speed flight but would also be reasonably functional at lower speeds as well. Initially, work centred around an unpowered glider, but it was determined that a self-powered aircraft would be less expensive (?). Accordingly, Handley Page was selected to produce its proposal, the jet powered HP.115.



On 17 August 1961, the sole HP.115 performed its maiden flight; flight testing of the wing commenced shortly thereafter. A separate research aircraft, the BAC 221, was also built to study the high-speed aspects of the wing research. Over a relatively lengthy period of experimental flying, the HP.115 proved itself to be relatively capable and provided significant data regarding delta wing characteristics during the take-off and landing phases.

The aircraft itself was withdrawn from the test programme in 1974 and subsequently preserved; it is presently on static display at the Fleet Air Arm Museum. The HP.115 had helped validate the properties of the slender delta wing, leading to a similar wing being adopted for Concorde, the Anglo-French supersonic airliner that entered service during the 1970s. (My foot footnote: it seems the HP 115 is now in the reserve collection housed at Cobham Hall - opposite the Museum & not on permanent display)

Glider: Hervat old timer HLG from the USA – guaranteed to develop one's chucking muscles.



Roger Newman

Aeromodeller Departed: Peter Hall - Chris Redrup

Peter Hall 1935-2024

I am sorry to have to announce that Peter Hall passed away in hospital on the 11th October, suffering from pneumonia.

Peter was a longstanding and much loved member of Crookham Contest Modellers, competing successfully in a number of rubber competition classes, although his main love was always Coupe d'Hiver. Peter excelled in this class, regularly flying his own design models to success both here and in France.

Everyone who knew Peter will have fond memories of him as a quiet, charming and amusing friend who was generous with both his time and his knowledge.

He will be greatly missed by us all and we send our sincere condolences to his wife Sue.

Details of the funeral will be announced as soon as they are available

A more detailed appreciation of Peter's interesting and varied life is being prepared by his friends for the next edition of the New Clarion.

Chris Redrup

Chairman CCM

Events and Notices

I have three brand new reprints of classic aeromodelling books

They are:

The Boys book of model aeroplanes 1910,
by Francis Collins pub.1910
& reprinted by Simmonds of Boston.

The Second Boys book of model aeroplanes 1910
by F Collins pub 1910
& reprinted by Simmonds of Boston

Theory and Practice of Model Aeroplaning
by Valentine Edward Johnson pub 1910
& Reprinted in UK in 2012

All are "as new" condition

These are from the collection of
the late Sqdn. Ldr. Mike Sparrow,
a keen vintage aeromodeller,
& designer of the "Teetering Plummett" flying device

If any of the members are interested,
I can be contacted on dunlandin@btinternet.com
Gerry York

GLIDER WINCHES AND RUSSIAN ROD

I have a couple of glider winches for disposal.
One is a standard Maxaid with 50 metres of orange Stren monofilament towline.
To you, £15.00.

The other is a Czech one, similar to the Maxaid and I believe sold at one time by Ivan Hořejsi.
That has 50 metres of braided Terylene towline and is also £15.00.

I also have an unused 50 metre hank of 1mm 'Russian rod' F1A grade towline at £10.00.

Also a used 50 metre F1H (0.75mm) 'Russian rod' towline; at £5.00

Contact Martin Dilly
on +44 (0)208 7775533 or
martindilly20@gmail.com.

Permits for Salisbury Plain & North Luffenham

There is a tab on the free Flight Technical Committee website
Where you can apply and buy the permit that you require on line

The costs are:
£20 for Salisbury Plain - £35 for North Luffenham

The details of the Conditions of Issue
And Code of Conduct are included with the application
And must be strictly followed

Options for Flying on Salisbury Plain, Area 8

The flying of competitive events on Salisbury Plain occasionally requires the launch site to be changed from the usual trimming field to the north east side of the airstrip. This is often problematic as in the past access has proved difficult but a new route has now been found which has proved to be much easier, even after wet weather. The image below shows the route.
It is hoped that on competition days organisers will place their entrance marker flags in whichever entry to Area 8 is appropriate to the location of the day's launch point.

A CENTURY OF BRITISH FREE FLIGHT

A new book, A Century of British Free Flight, has just been published to mark the BMFA's centenary. 155 pages of text, plans and photographs in colour and black and white trace the development and history of free flight from before Bleriot crossed the Channel to the present day. Nine authors have pooled their talents to cover everything from the rise of the Vintage movement to electronic timers and GPS tracking.

The histories of gliders, scale, rubber, electrics, power models and indoor are all explored by people who've spent most of their lives flying their classes. Although there's no 2022 Free Flight Forum Report we think A Century of British Free Flight will more than fill the gap. All proceeds will go towards defraying the expenses of those representing the United Kingdom in teams competing at the World and European Free-Flight Championships.

The UK price is £20.00 on the flying field or £22.00 by mail; to Europe it's £25.00 and anywhere else it's £28.00. Cheques should be payable to 'BMFA F/F Team Support Fund' in pounds sterling, drawn on a bank with a UK branch; you may also order by credit card, which is a lot easier (and cheaper).

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

Indoor Model Flying
Bangor, North Wales
at the
Brailsford Centre LL57 2EH

Sundays 15-00 til 18-00

2024 Dates:

6th.Oct - 3rd.Nov - 1st.Dec

2025 Dates:

To May - dates to be decided

Free-Flight Models & Lightweight R/C
Beginners Encouraged

Contact: Martin Pike, 07831 141418
Email: martin.pike.xray@btinternet.com

Join us, flying models. No experience needed,
We have free flight models for people to try out.
Of course you are welcome to bring your own models.
We fly: duration models; scale models; and fun-fly such as Gyminnie Crickets and Hangar Rats.
Radio models must be slow flyers to fly safely in the hall.
The hall is 25x22x10m, a good size for model flying

TWIFF

(Totton West Indoor Free Flyers)

Please bring all your toys (Free flight only)

Sundays, from 13:00-17:00

Admission for flyers £15.00
Free for spectators and helpers

2024
20th Oct - 17th Nov - 15th Dec

2025
19th Jan - 16th Feb - 16th Mar
27th Apr - 25th May

The West Totton Centre has plenty of parking, although there are a lot of people coming and going at Vaccination times.
There is a Tesco Local nearby for coffee & snacks

Location
www.google.com/maps/place/West+Totton+Centre/@50.9103094,-1.5097122,15.5

Or, if you like, car park entrance at ///playroom.pump.dorm

Contact Ken Brown email: brown53hh@gmail.com
Tel: 02380578866 or 07913814492

Chasetown Indoors

I have secured an indoor flying venue at ;
THE ERASAMUS DARWIN ACADEMY,
POOL ROAD,
CHASETOWN,
BURNTWOOD,
WS73QW

Flying 1pm til 4pm
Saturdays

2024
28th Sept, - 19th Oct,
9th Nov, - 7th Dec,
2025
11th Jan, - 8th Feb,
8th Mar.

The parking is at the far end of the car park & the sports hall is the far end of the car park, the large building.
Costs are the same as previously, £8 for flyers & £2 for spectators, children free.
Can you bring your BMFA + contact details & write them down in the supplied book please.
We need 15 flyers to break even, hopefully see you on Saturdays.
Contact: peter.thompson7406@gmail.com

Waltham Chase Aeromodellers

INDOOR F/F MEETINGS

Waltham Chase Aeromodellers have booked the Main Hall at **Wickham Community Centre, Mill Lane, Wickham, Hants PO17 5AL** for a series of twenty events on the following **Thursday** evenings:

2024:

Sep:19th., Oct:3rd., Oct:17th., Oct:31st.
Nov:14th., Nov:28th.
Dec:12th.

2025:

Jan:2nd., Jan:16th., Jan:30th.
Feb:13th., Feb;27th.,
Mar:13th., Mar:27th.
Apl:10th., Apl:24th.
May:8th., May:22nd.
Jun:5th., Jun:19th.

All meetings will run from 7.00 p.m. to 9.30 p.m. The Main Hall at Wickham Community Centre 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 will be £8 for fliers and £2 for junior fliers, and spectators accompanied junior spectators and parents of junior fliers admitted free.

Fliers will be required to show proof of insurance.

No R/C models may be flown at these events.
Waltham Chase Aeromodellers look forward to welcoming 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: indoor@wcaero.bmfa.club)
or see our web site: https://wcaero.bmfa.club

LONDON AREA INDOOR MEETING

SUNDAY 3RD NOVEMBER

Rookery Lane,
Bromley BR2 8HE - 51.387069°N 0.035389°E

1100 till 1500. Slots for free-flight and lightweight RC flying.
Hall is 70 ft x 120 ft with a 30 ft ceiling
Access from the lower car park via door marked Life Centre.

£10 for flyers (£5 for under 18s) and £2 for spectators.
Cash only please. Open to all BMFA members

Contact Martin Dilly (martindilly20@gmail.com)
or call 02087775533 for more details.

E30/RDT/BMK/E20 Batteries

The 75mAh lipo's which I sell for E30 now come with Micro JST plugs which make them suitable for BMK timers etc. Since they do not have the current limiter, they work well with the Band Burner and can also be used as lightweight E20 batteries. Just send me £10 and I will put 4 in a Jiffy bag Ron Marking, Pros Kairon, Pennance Road, Lanner, Redruth TR16 5TF. Alternatively, use PayPal but e-mail me your address. ron.marking@btinternet.com

CARBON HLG AND E-20 ROD BLANKS

My original batch of carbon rod blanks has now sold out but more are expected in early December.
They are 100cm long and 4mm tapering to about 2mm, so long enough for two booms. Weight is around 6gm, but some wet-and-dry can get this a fair bit lower.
As before it will be first come, first served.
Price is likely to be £8.00 + postage and packing.
Contact Martin Dilly on +44 (0)208 7775533 or martindilly20@gmail.com.

DILLY JAP IS BACK –AGAIN

Well, that seventh roll of tissue went pretty fast, 300 yards in a bit under three years. I've just received a new roll; almost inevitably there's a slight price rise but it's still only £15 for a five yard roll a yard wide, or £17 by mail to the UK, folded. I normally sell it in rolls at contests, but if you want yours mailed in a roll let me know and I'll sort out a length of plastic pipe and find a courier price. Doing the sums, there's now well over a mile of Dilly Jap covering models all over the world.

To re-cap on the details, it's 12 gm/M² and has a strong unidirectional grain. It's white and low absorbency, so remains very light when doped. For those of you old enough to remember, it's identical to the Harry York tissue sold at his South London model shop in the 1950s.

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

INDEPENDENT REVIEW OF DILLY JAPANESE TISSUE

The following appeared on the Hip Pocket Aeronautics Builders' Forum. Nine different tissues were tested, doped and un-doped.

"I am really impressed with how well this tissue performed. Dilly Jap tissue with 2 coats of thinned nitrate dope is around 8% stronger than the old 00 Silkspan with 2 coats of dope, yet Dilly Jap is 0.09 grams per square foot lighter. Here are the test results:

Test#	Tissue Type	gm/sqft	Avg Ten Str lb	Spec Str lb/gm
9a	Dilly tissue (UD)	1.20	14.74	12.28
9b	Dilly Jap Tissue (D)	2.04	19.70	9.66

So far, the Dilly Jap tissue has the highest specific strength of all the tissues and Silk-spans tested. Doped Dilly Jap has nearly double the strength of doped Japanese Esaki tissue and yet doped Dilly Jap weighs 0.1 grams per square foot less than doped Esaki. Dilly Jap can't be beat for weight critical contest models requiring the torsional rigidity afforded by tissue papers!"

FREE FLIGHT SUPPLIES

MICHAEL J. WOODHOUSE
12 MARSTON LANE, EATON, NORWICH
NORFOLK, NR4 6LZ, U.K.
Tel/Fax: (01603) 457754 International Tel +44-1603-457754
e-mail: mike@freeflightsupplies.co.uk.
Web site: http://www.freeflightsupplies.co.uk.
Face book https://www.facebook.com/groups/266212470107073/

I supply items, which are needed by the free flight modeller, or any other modeller, items that cannot be readily obtained through the normal model shop outlets. I also believe in the builder of the model principal so what you will find, on my list, are components, plans and kits etc. Although I am not a shop, if you are passing through Norwich, you are welcome to call in, a quick telephone call first to check that I'm at home will save a wasted diversion.

ORDERS and PAYMENT

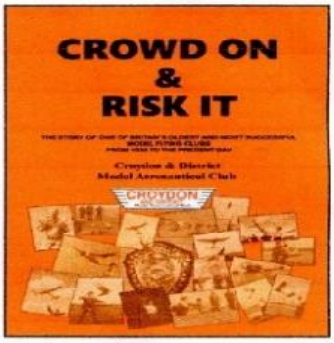
Place your order by telephone, by e-mail, CASH, DIRECT TO FREE FLIGHT SUPPLIES BANK ACCOUNT, CREDIT/DEBIT CARD, MORE!
WESTERN UNION, PAYPAL

AVAILABLE

LIGHTWEIGHT COVERING MATERIALS - HI-TECH MATERIALS – FIXINGS - RUBBER - RUBBER MODEL PROPELLERS – TIMERS - KP AERO MODELS - TOOLS - PLANS – KITS - "HOW TO DO IT" PUBLICATIONS – BOOKS.

Full details of the above items are on
the Free Flight Supplies Web site.

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.

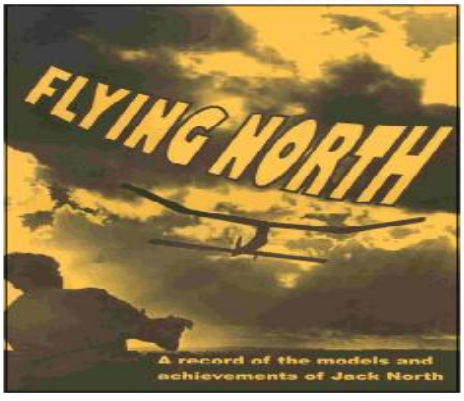
FREE FLIGHT FORUM REPORT 2021

Indoor Duration - A Challenge To Conventional Design • Tony Hebb
Coupe In A Box - Gavin Manion
Building Other People's Mistakes - Stuart Damon
The Models Of Ray Monks - Simon Dixon
Simulated 3d Flight Dynamics - An Approach To Gain Insight For Trimming And Aircraft Development - Peter Martin
Building During Lock-Down - Phil Ball
Tame Your F1b And Related Thoughts - Mike Woodhouse
What Next For A Lady Flyer - Sue Johnson
F3 Rcs • Rc For The Aging Free Flighter - Andy Sephton
From Wichita To Robin Iii - Mike Fantham
Further Thoughts On Carbon-Skinned Wings For F1a - Stuart Damon
Goo Fencing And Electronic Stability - John Emmett

The UK price is £13 including postage; to the rest of Europe its £16 and everywhere else its £20. Forum Report sales help to defray the heavy expenses of those who represent Great Britain at World and European Free Flight Championships. Cheques should be payable to UMFA FF Team Support Fund' in pounds sterling and drawn on a bank with a UK branch. You can also pay by credit card, which is far easier (and cheaper).

Copies are available from: Martin Dilly, 20, Links Road, **WestWickham,** Kent BR4 OQW
Or by phone: +44(0)2087775533 Or e-mail: martindIHy20@gmail.com

THIRD RE-PRINT JUST ARRIVED



FLYING NORTH
A goldmine for vintage and nostalgia model flyers

FLYING NORTH traces the model flying career of Jack North, one of only three people to represent the UK on all three outdoor free flight teams, Wakefield, Power and Glider. It covers his flying and models from 1938 onwards and includes no less than 24 of his previously unpublished designs.

FLYING NORTH was compiled and edited by two of Jack's Croydon clubmates, David Beales and Martin Dilly, who had access to Jack's extensive notebooks, photographs, drawings and his original models.

FLYING NORTH is a fascinating 163 page book and includes 130 photographs, reminiscences by colleagues, re-prints of all Jack's published plans and articles, including his later extensive work on thermal detection, and an outline of the professional career that also made him such a respected name in high-speed aerodynamics.

FLYING NORTH proceeds go towards the costs of the national teams representing the UK at World and European Free Flight Championships.

READERS' FEEDBACK

"... no other modeller's life and times can ever have been so comprehensively covered"

"I hope it becomes a classic."

"I am glad I bought Flying North. ..... such a huge chunk of nostalgia"

"... am immensely impressed. A splendid effort"

"A fitting memorial to an unforgettable personality. I am sure the book will become an instant classic, treasured by aeromodellers all over the world"

"A very balanced record of Jack's modelling and professional activities"

"The best aeromodelling book since the Zaic Yearbooks"

Price £22.00 in the UK, £26 airmail to Europe and £32 elsewhere.
Contact Martin Dilly on +44 (0)208-7775533 or e-mail martindilly20@gmail.com

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!

Provisional Events Calendar 2024

With competitions for Vintage and/or Classic models

All competitions are provisional. **Check websites before attending**

February 24th	Saturday	Coupe De Brum, Luffenham
or February 25th	Sunday	
March 10th	Sunday	BMFA 1st Area
March 29th	Good Friday	Northern Gala, Barkston
April 1st	Monday	Croydon Wakefield day + SAM1066 - SP
April 13th	Saturday	London Gala, Salisbury Plain
April 14th	Sunday	London Gala, Salisbury Plain
April 28th	Sunday	BMFA 2nd Area
May 19th	Sunday	BMFA 3rd Area
May 25th	Saturday	**FF Nationals,** Salisbury Plain
May 26th	Sunday	**FF Nationals,** Salisbury Plain
May 27th	Monday	**FF Nationals,** Salisbury Plain
June16th	Sunday	BMFA 4th Area
July 7th	Sunday	BMFA 5th Area
July 21st	Sunday	BMFA 6th Area
August 3rd	Saturday	East Anglian Gala, Sculthorpe
August 4th	Sunday	East Anglian Gala, Sculthorpe
August 18th	Sunday	Southern Gala, Salisbury Plain
August 18th	Sunday	Southern Area BMFA Gala, Odiham
September 1st	Sunday	BMFA 7th Area
September 14th	Saturday	Stonehenge Cup, Sculthorpe
September 15th	Sunday	Equinox Cup, Sculthorpe
September 28th	Saturday	Crookham Gala, Salisbury Plain
or September 29th	Sunday	
October 6th	Sunday	BMFA 8th Area
October 13th	Sunday	Croydon Coupe Europa + SAM1066 - SP
October19th	Saturday	Midland Gala, Venue, North Luffenham
October 26th	Saturday	Petit Classique de Brum, North Luffenham
Or October 27th	Sunday	
November 5rd	Sunday	Buckminster Gala, BMFA Centre
or November 17th	Sunday	

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 website
www.SAM35.org

Useful Websites

SAM 1066	-	www.sam1066.org
Mike Woodhouse	-	www.freeflightsupplies.co.uk
BMFA	-	www.bmfa.org
SAM 35	-	www.sam35.org
National Free Flight Society (USA)	-	www.freeflight.org
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.c1.biz
Sweden, Patrik Gertsson	-	www.modellvänner.se
Magazine downloads	-	www.rclibrary.co.uk
South Bristol MAC	-	www.southbristolmac.co.uk
Vintage Model Co.		www.vintagemodelcompany.com

control/left click to go to sites

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 members@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*