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|  | <h1 style="color: red;">NEW Clarion</h1> <h2 style="color: red;">SAM 1066 Newsletter</h2> | Issue<br>nc062022 |
|   |   | June<br>2022      |

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**Club No. 2548**  
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## Editorial

Here we are again, halfway through the year with one or two acceptable meetings behind us, just waiting for the imminent Substitute Nationals to sharpen up your competitive urges. I've had a bit of a traumatic episode, 6 days in hospital, fitted with a pacemaker, and now back in harness ticking along nicely.

Can I point you to the appeal by Martin Dilley for the offer of models to display in the SMAE/BMFA Centenary exhibition later this year. I've offered my old Kan-Doo control-liner and will have to do a little modelling to replace the ED246 currently fitted with a more appropriate ED Comp Special. I've already donated my Jim Walker 'U-Really' control-line handle which I acquired in Hong Kong in 1955. A KK Slicker of some sort is also desperately required.

What's in this issue?

It kicks off with further details of the Croydon Wakefield Day penned by CD Ray Elliott, together with a few more pictures.

Jim Moseley (Canada) writes of his International Postal competitions together with the results.

I was not able to attend Colin Shepherds final indoor meeting at Leasowes High School sports hall but I concocted a report from telephone conversations and pictures Colin had on his phone.

I've had another dip into my computer picture files and have put together an article on the old Beaulieu airfield and the one and only trip Rachel and I made to this picturesque flying venue. It's a very pleasant site if you are just visiting but if you intend to fly competitively then that's a different story. My article does not show the huge patches of dense gorse bushes which abound between the old runways. Regulars must be very adept at tissue repairs.

Nick Peppiatt reports on the Free-Flight Scale Nationals held at the Walsall Campus Sports Centre of the University of Wolverhampton.

Rachel and I together with Pat & Colin Shepherd spectated from the balcony and as usual shouted support (*or was it abuse*) when competitors of our acquaintance took centre stage. In this event, excepting the Air Race, each competitor has the floor to himself for his competition flights.

The London Gala on Salisbury Plain on the Saturday 8<sup>th</sup> May is reported by Tony Shepherd together with a picture or two. I have no info on the Sunday activities.

An article by the late Lindsey Smith published in the Aeromodeller describing his version of the P-47D Thunderbolt is the preface to the list of Lindsey's effects offered for sale through our secretary.

Roy Tiller continues to review our older magazines in the archive, this issue he compares the Aeomodeller from June 1956 with the issue a decade prior, ie June 1946. Roy then records the highlights of the 1956 issue in detail.

Our Secretary Roger wraps up this issue with his monthly notes including a nudge to the membership for the 'Cagnarata' event on Sunday 25<sup>th</sup> July at RAF Colerne and includes a map for airfield location and entry points (*details for the event can be found on adds page 39*).

He also includes some details of the late Linsley Smiths scale models and, with pictures, also enquires as to the identity of some of the late Robin Kimber's gliders.

We finally wrap up with the plans of the month.

*Editor*

*Following on from the secretary's detailed report last month here are a few more details  
From CD Ray Elliott*

### **CROYDON WAKEFIELD DAY - Salisbury Plain - 18th April**

The day was blessed with light winds varying from West to Northwest. Entries were very low, maybe because of the current high cost of fuel, maybe the venue (it's sometimes difficult terrain), and maybe because it was Easter. It certainly couldn't have been the weather.



It was decided to combine the 4oz and 8oz Wakefield events. This contest had 3 entries with Richard Fryer *left*, flying a Gordon Light, winning from Jim Paton *right* flying a Lanzo Duplex. Richard took home the Fairlop Cup for 4oz models.

The Norman Marcus Trophy for Vintage Lightweights was won by Martin Stagg ahead of Don Thomson. Both were flying Dinahmites.





Mike Woodhouse (staying for Easter with his daughter in Frome )  
collected the Thurston Trophy for F1B with a full house'  
Chris Redrup weighed in with a 1-15

Whilst Chris Redrup won P30 (newly reintroduced)  
Also with a full house, ahead of Martin Stagg.



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

*Ray Elliott*



# TOPICAL TWISTS

by pylonius

Extract from Model Aircraft May 1963

MAY 1953

MODEL AIRCRAFT

## Topical Twists

### Model Bogy

As if model flying hasn't already sufficient hazards of its own we learn with amazement that a model contest was recently held on a golf course.

The golfer, not over-famous for his sweetness of temper, must view this intrusion on to his beloved fairways with very mixed feelings. Being struck in the hindparts by a wayward model when making that critical putt, for instance, is not the sort of thing to promote self control. But, when on the exasperating occasion he slices the ball into the rough, how soothing it must be to his raw nerves to have a crispy, crunchy model plane to jump on. And how much more economical than flinging his clubs into the nearest water hazard.

### A Signal Remedy

Those frantic tic-tac exchanges between the radio modeller and his helper have always intrigued me. I've never known the exact nature of the signals passed in this long range sign language, but the procedure always seems to terminate at a point when the radio modeller, after carrying out exhaustive tests, has convinced the bystanders that his helper is a clueless clot.

Now, it seems, the whole thing is going to be systemised on an elaborate semaphore basis, with a full signal procedure to cover every possible contingency. Even so, I hazard the guess that, however efficient the new system may prove, a few of the old fashioned signals will still be retained. For example: two handfuls of hair held aloft to indicate "The model is now out of range," and both hands covering the face to convey "The model is about to crash."

### A Realist Approach

I believe in adopting a firm policy towards the fire-eating fusiliers of the Realist Brigade; keeping them in their proper place amongst the model steam boats, miniature replicas of the *Rocket*, and the 1/24th scale brass donkey engines. And seeing that the museum doors are securely bolted and barred.

Some aeromodellers, however, are inclined to be more lenient, allowing certain of the seemingly less harmful

specimens to move freely about in the enlightened circles of our progressive hobby. But, alas, only too often with the most disastrous consequences.

Take, for instance, the recent case of one such privileged realist. Mild mannered, and showing not the least sign of apoplectic strain, he was engaged with a fellow realist in a quiet, friendly argument on some of the finer points of scale verisimilitude, such as fitting commercial plastic props to scale S.E.5's, when, suddenly, he turned away and loosed a stream of bitter invective at an unsuspecting group of power duration devotees. Then, delving deeply into the abusive depths of the realist slanging vocabulary, he rounded off with a fine alliterative allusion to the "freak flying fraternity."

What incited this impassioned outburst at that particular time it is difficult to say, but my theory is that it was all due to a very unfortunate association of ideas: First World War Planes—Aerial Circuses—Flying Freaks.

### News from the Areas

#### London Area

Improved relations with agricultural interests are expected this year following an invitation to the local farmers to compete in the first of the season's events: an open ploughing contest at Fairlop.

The committee is anxious to receive more news of activities in the area. Anyone who has flown a model aircraft in the London district over the past few months is asked to submit full details, including the date when the case is due for hearing.

#### East Anglian Area

The area duration event was due to be held on February 29th, but as J. Floorem was preoccupied with the building of a radio control model it was decided to omit the routine of flying off the contest, and merely present him with the Trophy.

#### North Western Area

Principal news concerns the activities of the Black-meadow M.A.C., where the club open contest was again won by O. Winnall; the best recorded flight of the day being made by O. Winnall. Several records have been submitted on behalf of club member, O. Winnall, and the club is busily engaged in testing new models. Most promising of these is O. Winnall's Wakefield, which has been putting up consistent flights of 6 minutes in still air.

The club is confident of yet another season's successful flying if the outstanding performances of O. Winnall's new models are anything to go by.

Club publicity interests have been well catered for in the capable hands of our P.R.O.: O. Winnall.

#### Northern Area

(No report was forthcoming from this area, as the first event of the season was held in calm weather, and it was considered that mention of this fact would be bad propaganda.)

I like the idea of the model, entered in an Epsom event, making a grandstand finish. Obviously a totalisator loss.

Experimenting American aeromods are stumped for a means of improving upon the Russian held world duration records. Obviously they should try using a little more imagination.



"H'm. I think I could do with a bit of upthrust."

Pylonius

# International Postal 2021 – 2022

CD Jim Moseley, Canada

My thanks to all who supported the postal. I was surprised that the Classic 1/2A brought no interest and the KK Senator attracted only two flyers but .... so be it.

P30 brought a relatively modest return considering the general popularity of the class but the scores indicate dedication and enjoyment for all.

Ian Haigh excelled in posting maximums! He lives on a small farm and took advantage of conditions on several occasions to fly a total of 13 before eventually dropping one. Outstanding, Ian !

Caleb Finn was among those who flew triple max's, a very good time for a 6 year old lad. Not to be outdone, brother Paul (3 years) obviously showed that he'd mastered the launch of a rubber model; well done, both !

Michael Jester made but two flights with his alternative model, initially losing it on the second flight. Eventually located after a four hour search and too tired to continue with a final flight. My thanks to all who flew and enjoyed themselves.

*Jim*

## Results

**P30**

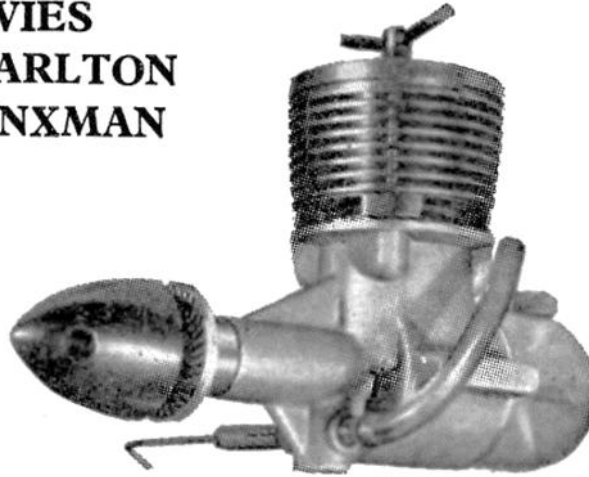
|    |                                 |  |   |   |      |
|----|---------------------------------|--|---|---|------|
| 1  | Ian Haigh, Victoria , Australia | Model : "Peregrine (Original design)                       | 120 120 120 150 150 150 150 150 150 150 150 150 133 | = | 1993 |
| 2  | =                               | Angel Fuentes, Mexico "Boomer"                             | 120 120 120   | = | 360  |
| 2  | =                               | Caleb Finn, Georgia USA "Saturno 5"                        | 120 120 120   | = | 360  |
| 2  | =                               | Eduardo Fentes, Mexico "Boomer"                            | 120 120 120   | = | 360  |
| 5  |                                 | Simon Richardson, Aberdeen, Scotland "Sweet Pea"           | 119 120 120   | = | 359  |
| 6  |                                 | Sean O'Connor, Melbourne Australia "Quattro"               | 120 113 120   | = | 353  |
| 7  |                                 | Vin Morgan , Victoria, Australia                           | 120 111 120   | = | 351  |
| 8  |                                 | Caleb Finn. Mauk, Georgia. " Echo "                        | 120 108 120   | = | 348  |
| 9  | =                               | Jean Angel Fuentes, Mexico "Square Eagle"                  | 120 120 100   | = | 340  |
| 9  | =                               | Eduardo Fuentes, Mexico "Square Eagle"                     | 120 100 120   | = | 340  |
| 11 |                                 | Michael Jester. Nevada, USA "Coastal" O/D                  | 113 120 101   | = | 334  |
| 12 |                                 | Don Thompson:- Beaulieu, England O/D.                      | 120 120 84  | = | 324  |
| 13 |                                 | Maria Dias:- Mexico "Terezka"                              | 120 60 54   | = | 234  |
| 14 |                                 | Paul Finn, Georgia ( Sorry, individual times mislaid. JM ) |   |   | 226  |
| 15 |                                 | Michael Jester: Nevada "Three Night"                       | 78 120 -  | = | 198  |

## Keil Kraft 'Senator'

|   |                             |    |    |     |   |     |
|---|-----------------------------|----|----|-----|---|-----|
| 1 | Juan Angel Fuentes , Mexico | 60 | 90 | 100 | = | 250 |
| 2 | Eduardes Fuentes , Mexico   | 40 | 50 | 90  | = | 180 |



## DAVIES CHARLTON MANXMAN



**Manufacturers:**  
Davies Charlton Limited,  
Hills Meadows,  
Douglas, Isle of Man.

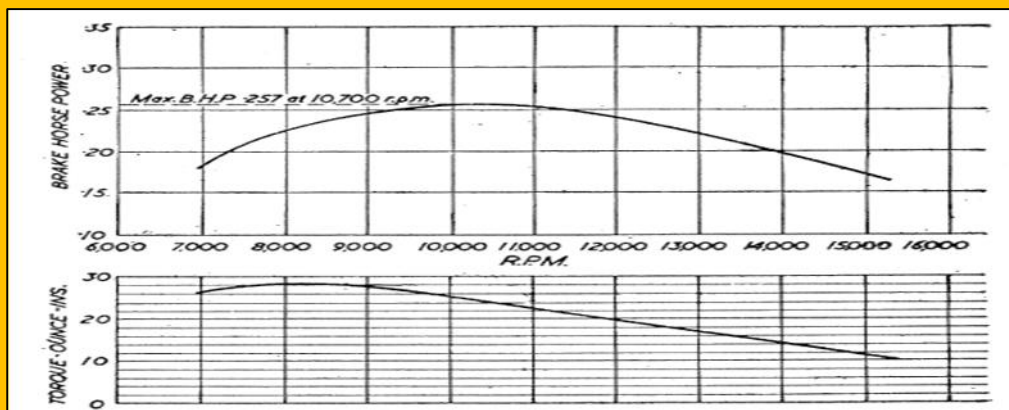
**Retail Price:**  
66/- plus 14/11 P.T.  
Total £4/0/11

Bore: .680 in.  
Stroke: .5625 in.  
Displacement: 3.444 c.c. (.21 cu. in.)  
Bore/Stroke ratio: 1.17.  
Bare weight: 6½ ounces (including tank).  
Max. B.H.P.: .257 at 10,700 r.p.m.  
Max. torque: 28.2 ounce-inches at 8,250 r.p.m.  
Power rating: .075 B.H.P. per c.c.  
Power/Weight ratio: .0395 B.H.P. per ounce.

### Material Specification

Crankcase: Light alloy die casting.  
Cylinder: Hardened steel.  
Cylinder jacket: Almn. (anodised red).  
Piston: Meehanite.  
Contra-piston: Meehanite.  
Connecting rod: Aluminium alloy.  
Crankshaft: Nickel chrome alloy steel.  
Crankshaft bearing: Plain.  
Spinner nut: Dural (anodised red).

| PROPELLER    | R.P.M. |
|--------------|--------|
| dia. × pitch |        |
| 11 × 5       | 8,000  |
| 10 × 6       | 8,200  |
| 9 × 8        | 8,600  |
| 10 × 4       | 10,400 |
| 9 × 5        | 10,500 |
| 9 × 4        | 11,000 |
| 8 × 6        | 11,200 |
| 8 × 8        | 10,000 |
| 8 × 5        | 12,250 |
| 8 × 4        | 13,000 |
| 7 × 6        | 13,300 |
| 7 × 5        | 14,000 |
| 8 × 9 (TR)   | 9,600  |
| 8 × 8 (TR)   | 10,900 |
| 7 × 9 (TR)   | 11,000 |





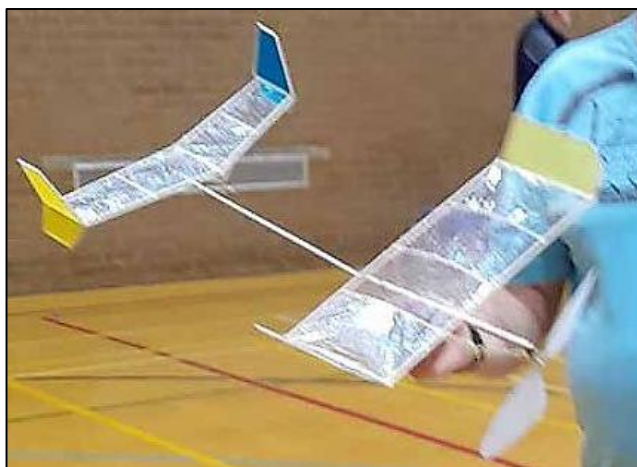
*Compiled from conversation with Editor.*

The last of the winter 2021/2022 meetings took place at the Leasowes High School sports hall on Saturday afternoon May 7<sup>th</sup>. The switch to Leasowes seems to be working OK and is proving more economical than the old Thorns hall so bookings have been made for 2022/2023. Dates in the add section.

There was a blast from the past when Mike Allen together with his son put in an appearance. Mike used to fly with the group a few years back, Mike's son did all the flying whilst Mike took it easy spectating from his a chair.



The ever present Peter Thompson was flying yet another of his lightweight designs, they always perform well and have a distinctive look and it is an easy guess as to the designer.



The meeting went well, costs were easily covered and we look forward to next September when we all start again.

*Colin Shepherd*



June 1947

# NEWS Review

## Cover Story

Flying boat models are so seldom seen that the appearance of one on the flying field is a matter of considerable interest, causing much excitement amongst spectators and aero-modellers.

The example here shown in the hands of its creator, A. D. Hall, of the North Kent club, is a particularly interesting machine since it employs twin air-screws in conjunction with a twin boom layout. The resulting machine is not only pleasing, but efficient.

The North Kent club have devoted much attention to flying boats and sea-planes and the experience gained is reflected in this practical design.

The photograph was taken by your Editor on the occasion of the preparation of shots for the film "It's in the Air," at Hounslow.

## The "Model Engineer" Exhibition.

The Model Engineer Exhibition will take place this year from August 20th to the 30th at the New Horticultural Hall, Westminster.

The S.M.A.E. is again co-operating with Messrs. Percival Marshall & Co. Ltd. in the running of the Model Aircraft Section and it is hoped that all members will try to send at least one model to the Exhibition.

The following wide range of competitions have been arranged :—

### Section F—Seniors

- Class 18. Wakefield Type Models.
- „ 19. Flying Scale Models.
- „ 20. Power Models (excluding rubber-driven).
- „ 21. Sailplanes.
- „ 22. Solid-type Models (any scale).
- „ 23. Original Flying Exhibits.
- „ 24. Rubber-driven Models.

### Section G—Juniors

- Class 25. Wakefield-type Models.
- „ 26. Sailplanes.
- „ 27. Solid-type Models.

All entries *must* be on the official entry forms, which are obtainable from the Exhibition Manager, Messrs. Percival Marshall & Co. Ltd., 23, Great Queen Street, London, W.C.2.

There will be a special sports arena this year, where race cars, speed boats and model aircraft will operate, and in addition there will be free flying by microfilm models.

All clubs are asked to co-operate with the Society in making this Exhibition fully representative of the modelling movement of the country and the finest of its kind.

A Championship Cup (to be won outright) will be awarded to the best model in each section (Junior and Senior) and silver and bronze medals will be awarded as first and second prizes in each class, subject to the work on the entries being up to the approved standard. Merit prizes and diplomas will be awarded at the discretion of the Judges in recognition of special merit in models entered in all classes.

In addition there will be awarded a special cup to the best *club* exhibit in the Model Aircraft Section. Members may enter their models or other work as individuals in the ordinary way, but their club may officially nominate three of these entries as representing the club. The club obtaining the highest number of marks for its officially nominated representatives will receive for its permanent possession a handsome silver cup, which will constitute the Club Championship for the year.

## Unauthorised Flying

The advent of mass production of miniature internal combustion engines in this country has

brought in its train a complication which will have to be carefully watched by the model aircraft enthusiast if he wishes to retain his present freedom of operation with models of this type and avoid the possibility of a total ban on this side of our hobby.

We refer to the flying of power-driven models on public open spaces or on grounds where the public have right of access.

When power-driven models were first introduced, it was foreseen by the then Council of the S.M.A.E. that the laws of this country covering third party damage would have to be given careful consideration by all who indulged in the flying of this type of model, and a set of commonsense rules were drawn up, for the guidance of aero-modellers, adherence to which would help to steer them from possible trouble. Important amongst these rules is one which states that "No power-driven model shall be flown on any public open space at any time unless special permission is obtained from the S.M.A.E. or the authorities in charge of the ground."

On a number of occasions it has been noticed that aero-modellers have been flying their models on public open spaces without having first obtained permission from the controlling authorities or through the S.M.A.E. and this practice is likely to lead the model movement into trouble if its indulgence in it is not stopped immediately.

The most obvious disregard of this elementary courtesy and precaution has been observed recently on Epsom Downs racecourse where power driven models have been flown at week-ends when large



## MODEL AIRCRAFT

June 1947

numbers of the public were about, *in spite of the fact that no permission has ever been given for power flying to take place on this ground* to any individual or club. The S.M.A.E. would like to be able to say that power models can be flown on any open space but it is obvious that the wishes of those in charge of the various grounds must be respected. Defiance of these wishes will only give aero-modellers a bad reputation and persistence in these foolhardy actions will only react to the detriment of the movement.

All clubs and individual aero-modellers should note that the flying of power-driven models of any description is not permitted on Epsom Downs, and that only rubber-driven models and gliders are allowed on this open space, to which the public have a right of access for the purpose of taking air and exercise.

Apart from the adverse view which will be taken by those in authority over the ground, should this type of flying continue to be indulged in, we would remind our readers that the flying of power models on unauthorised places is liable to invalidate their insurance should they be involved in trouble. The fact that you have taken out insurance cover does not permit you to indulge in foolhardy flying.

**Dodgers**

The deliberate evasion of the spirit of contest rules is becoming increasingly evident of late, and it is clear that quite a number of modellers who habitually enter the S.M.A.E. contests go out of their way to find methods of "getting round" the rules with the view of gaining an advantage over their more honest and straightforward adversaries.

It is always difficult to frame rules so that they are absolutely watertight and frequently impossible to visualise all the possible methods of evasion which the ingenious and fertile brain of the average aero-modeller can devise, but the S.M.A.E. rules, whatever their shortcomings, make the intention of their purport abundantly clear, and any attempt at the evasion of their spirit is not only unsportsmanlike, but borders on the dishonest, and tends to spoil the good atmosphere which has surrounded the sport of aero-modelling in the past.

It is hoped that all contest-loving aero-modellers and officials will bear this in mind and ensure that the spirit of the S.M.A.E. rules is complied with in addition to their actual letter.

Probably the most flagrantly transgressed rule is that concerning "take-off" where one sees all sorts of subterfuge indulged in from nebulous undercarriages to deliberate manual aid when taking off.

One such case which has recently come to our notice was the brainchild of an old aero-modellist who should know better, and consists of lifting the model bodily off the take-off board in a vertical direction, under the argument that this was not *pushing* it.

The spirit of the take-off rule is quite clear to everyone and is, in effect, that the model must not be given any assistance whatsoever in the take-off and that it must rely solely upon its own power and resources. It must rest on the ground by at least 3 points and must be held by the competitor in such a manner that the machine's natural position on the ground is in no way affected.

Evasions are in bad taste and they stamp those who indulge in them as bad sportsmen. Those who spend their time in the development of evasions would do far more for the cause of aero-modelling if they devoted their energies to the more straightforward aspects of the movement.

**"It's in the Air"**

The June and July bookings of this film are as follows:—

|      |       |  |         |
|------|-------|--|---------|
| June | 11th. | Cinema, Magherafelt, Ireland             | 2 days  |
| "    | 12th. | Picture Theatre, Didsbury                | ... 3 " |
| "    | 12th. | Palladium, Lancaster                     | ... 3 " |
| "    | 13th. | Star, Erdington, Birmingham              | 3 "     |
| "    | 16th. | Cinema, Whitehead, Ireland               | —       |
| "    | 16th. | Rex, Grimsby                             | ... 3 " |
| "    | 16th. | Town Hall, Wellington, Salop             | 3 "     |
| "    | 19th. | New Theatre, Ilkeston, Notts.            | 3 "     |
| "    | 20th. | Premier, Pontefract                      | ... 3 " |
| "    | 23rd. | Grosvenor, Oldham                        | ... 6 " |
| "    | 23rd. | Dale, Sneinton, Notts.                   | ... 3 " |
| "    | 23rd. | Coliseum, Belfast                        | ... 3 " |
| "    | 26th. | Oxford or Ritz, Workington               | —       |
| "    | 26th. | Duncairn, Belfast                        | ... 3 " |
| "    | 27th. | Belle, Astley Bridge                     | ... 2 " |
| "    | 30th. | Kings Cinema, Accrington                 | ... 3 " |
| July | 2nd.  | Cinema, Maghera, Ireland                 | ... 3 " |
| "    | 3rd.  | Picture House, Ilkeston Road, Nottingham | ... 3 " |
| "    | 3rd.  | Hippodrome, Moses Gate                   | ... 3 " |
| "    | 14th. | Curzon Cinema, Flixton                   | ... 6 " |
| "    | 17th. | Regent, Alcester, Warwicks.              | ... 3 " |
| "    | 17th. | Playhouse, Peebles                       | ... 3 " |
| "    | 18th. | Memorial, Much Wenlock, Salop            | ... 2 " |
| "    | 21st. | Savoy Cinema, Newry, Ireland             | 3 "     |
| "    | 30th. | Cinema, Ballyclare, Ireland              | ... 2 " |
| "    | 31st. | Queens, Littleborough                    | ... 3 " |
| "    | 31st. | Plaza, Ironbridge, Staffs.               | ... 3 " |

**Correspondence Wanted**

A letter has been received from a junior reader in Australia who desires to contact a "pen friend"

in this country who is interested in model aircraft and who would be prepared to correspond with him on the subject of model aircraft matters in general.

Our correspondent is Ray Anderson of 314, Upper Heidelberg Road, Ivanhoe, Melbourne, Victoria, Australia, and he will be pleased to hear from anyone in this country interested in the exchange of correspondence.



Another random trawl through my computer picture files. I have only visited the old Beaulieu airfield once, a delightfully picturesque place but at first sight it seemed an impossible place to fly. The locals however seem to know where all the tracks and clearings are and all must have trackers to pinpoint models when they land in the gorse.



Looks OK until you really get into it.



The direction finder wind indicator  
I actually launched over this lot



Roy Vaughn and Peter Hall  
The heart of the Southern Coupe League





I actually picked up a bottle in Wakefield thanks to recoveries by Roger Newman



The organisers Ray Elliott and Roger Newman sort out the prizes and winners



There was a box of superbly built aircraft frame works, the work of some modeller no longer with us, available to anyone prepared to finish off the models.

Martin Dilley was relaxing in the sunshine whilst keeping an eye on the models.





Peter Hall couples up his winder/blast tube ready to wind what looks like a 4oz Korda. Don Thomson looks on



Peter picks up the reward for his efforts

Rachel and I had a nice day out in the sunshine and, thanks to Roger recovering for me I managed to come away with a bottle of red. I think it would take me several visits to become confident enough to compete there, but that's irrelevant now as Beaulieu is yet another airfield lost to blind bureaucratic decisions.

*John Andrews*



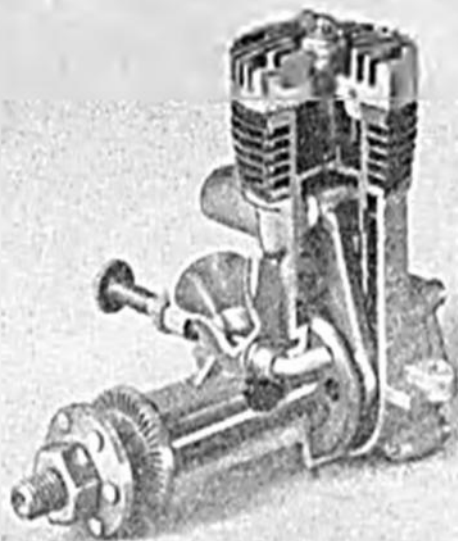
March, 1956

129

## Know Your Engine

PART I OF A NEW FEATURE THAT  
WILL EXPLAIN THE WHY'S AND  
WHEREFORE'S OF YOUR MODEL ENGINE

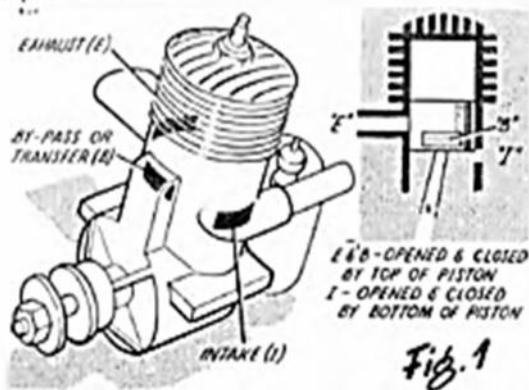
*Japanese OS MAX-1  
in section reveals detail  
described in this new  
feature*



THE ULTIMATE performance of a miniature two-stroke engine is governed largely by its porting—the disposition and timing of those passages which permit transfer of the fuel mixture from tank to crankcase, thence to the top of the cylinder and, after firing, out through the exhaust. Usually the "timing" employed has to be a compromise. It can only be absolutely right for one particular speed, which means that it is less efficient at others. Timed correctly for maximum speed, the engine may be difficult to start because the porting is too "open" for low speed running. Timed for easy starting, the same porting arrangement may "strangle" the gas flow at a fairly early period on the speed curve, so the engine will not run very fast.

Manufacturing technique also enters the picture, and physical design limitations. What may approximate to "ideal" timing for a particular design may be costly to make and is ruled out in favour of a less efficient compromise so that the selling price of the engine can be held to a reasonable level. Or perhaps the "ideal" leaves the cylinder too weak so that it can distort, or even break. Let's start from the beginning and see what all this adds up to.

Prior to about 1948 almost all production engines in this country were of the side port type—the classic three port system where all the ports are formed in the cylinder walls, opened and closed directly by movement of the piston—Fig. 1. The intake tube supplying the fuel mixture via the needle valve and spray bar assembly (standard "carburettion" on model engines) is therefore attached to the cylinder, either centrally or to one side. "Side" port does not necessarily mean that the intake tube is attached to the side of the cylinder, although this is the more usual arrangement, for reasons which we will explain in a minute.

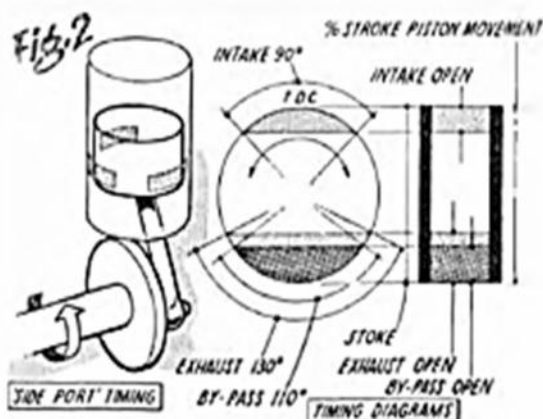


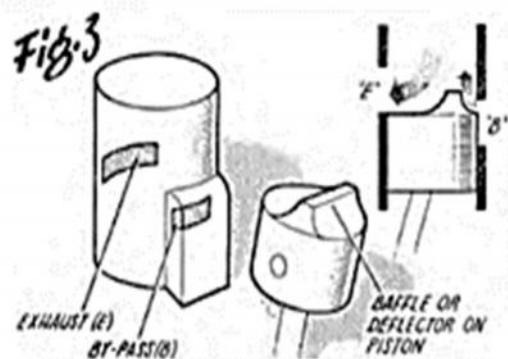
Simplifying the engine to just a cylinder, piston, shaft and con rod and intake tube, as in Fig. 2, the "timing" of the engine can be expressed in terms of crankshaft rotation (which is more usual) or vertical piston movement (which is a more correct geometric diagram). Either are quite easy to understand, and both are called timing diagrams.

Approaching the top of its stroke the piston must uncover the intake opening or port so that the lowering of pressure produced in the crankcase can draw in the fuel mixture, i.e., the intake port is so positioned that it is uncovered so many degrees of rotation, or a specific fraction of the stroke, before top dead centre. In the case of the side port engine this timing must be symmetrical; i.e., the same opening before and after top dead centre. It cannot be anything else. Also the actual "open" time is governed by the depth of the port opening in the cylinder uncovered. A typical design value is 90 degrees either side of top dead centre (T.D.C.). If excessively deep, i.e., opening too early, this may cause too much blowback through the intake, interfering with carburettion.

Some time around T.D.C., of course, the mixture induced from the previous stroke is fired (whether by spark, glow plug element or self-ignition is immaterial) and the push for the down stroke is provided by the rapidly expanding gases. Before the piston reaches bottom dead centre (B.D.C.) it must open an exhaust port for these burning gases to escape and a transfer port to transfer the fresh induced mixture from underneath the piston (where it is being pushed down and compressed into the crankcase) into the upper cylinder.

The exhaust port opens first—a "standard" value being about 115 degrees (crankshaft rotation) past





T.D.C.—and again it is obvious that the "timing" will be symmetrical, the exhaust staying open until the piston reaches a corresponding point on the next up-stroke (in this case 130 degrees exhaust opening). The transfer port opens some 15 degrees after the exhaust and therefore for a period of some 100 degrees about bottom dead centre both exhaust and transfer are open. Gases are free to flow both out and in off the top of the cylinder. To prevent the fresh gases flowing straight in and out again is largely a matter of internal design arrangement. With exhaust and transfer ports diametrically opposed, for example (known as cross scavenging) a baffle or deflector fitted to the top of the piston (in practice a shaped piston top) will direct the incoming gases up and out of the way of the expanding, outgoing gases (Fig. 3). A certain out-flow of the incoming gases is not undesirable as this promotes proper "scavenging" so that the remaining mixture trapped in the top of the cylinder as the up stroke closes both ports is all fresh fuel-air mixture.

As before, timing is controlled by the depth of the ports. Extending the exhaust port (upwards) gives an earlier opening, but means that the burnt gases are free to escape whilst still highly compressed, hence some of the power available to push the piston down is wasted. The designer aims to delay the exhaust opening until most of the useful power in the expanding gases has been extracted, but, particularly with high speed engines, is forced to compromise, i.e., between early opening in order to get the necessary time for transfer and maximum utilisation of gas pressure. If the transfer is opened too soon after the exhaust there is a danger that the burnt gases in the cylinder, still under pressure even if they are now escaping through the exhaust, will tend to blow down through the transfer, retarding the transfer of the fresh charge and producing very poor scavenging.

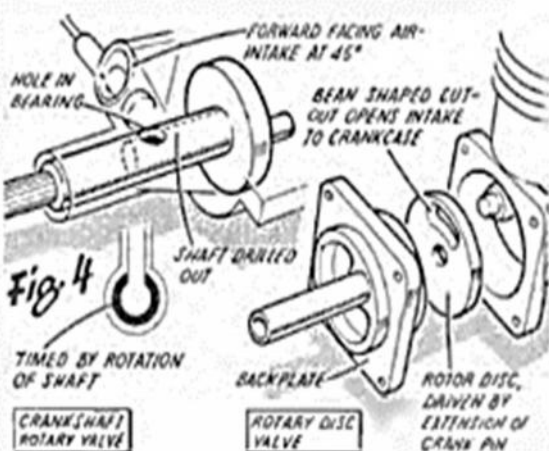
Some of the limitations imposed by timing can be offset by increasing the width of the ports, i.e., increasing their actual area. It does not necessarily follow, however, that this will automatically improve the efficiency. Excessively large port widths may also weaken the cylinder unduly. With the side port engine, in fact, due to its inherent limitations at high speed, optimum port width is about twice port depth for engines of equal bore and stroke and a similar effective area of other bore/stroke ratios.

Although a flexible enough arrangement for low and moderate speeds, the chief limitation imposed by the side port arrangement is that it cannot induct enough fuel for high speed running. In other words, the intake port cannot be opened early enough without also having an excessive opening time after T.D.C. to cause blow-back through the intake. Some other intake timing system is therefore invariably preferred for high speed engines and since most modern engines are high speed types the sideport engine is now a comparative rarity.

The advantage of a high operating speed is primarily that the efficiency of a two-stroke engine tends to increase with speed and if a torque output can be maintained then the corresponding power output (being the product of torque and speed) will be that much greater. Thus the early pre-war types of engines which, perhaps, developed comparable low speed torque had a maximum speed of 5-5,000 r.p.m. could only develop a maximum power output of about one-quarter to one-third of its modern counterpart peaking at some 14,000 r.p.m.

### Rotary valve induction

The two standard methods of providing asymmetric induction timing are the crankshaft rotary and crankcase disc type valves in which opening and closing points are independent of piston position and only related to it for



the purpose of timing. The principles are sufficiently well known to need only brief description — Fig. 4.

With the crankshaft rotary valve the port is a round or square hole cut in the crankshaft itself, opening into a hole drilled along the length of the shaft (and thus connecting directly with the crankcase). This port is timed by its appearance and disappearance past the intake tube let into the crankshaft bearing. This tube or carburettor is normally raked forwards, but not invariably so, although if a vertical tube is employed the end is nearly always cut off at an angle to produce a forward-facing entry.

The amount of forced draught produced by a forward-facing entry is quite small, as also are any improvements in induction resulting. It can be shown, however, that with a vertical squared-off tube, holding a piece of flat material above the end of the tube to deflect air down into it can result in improved induction, so some degree of forward entry would appear worthwhile. Most designers adopt a forward rake of about 20-25 degrees for the intake tube and then angling the top so that the actual entry is at about 45 degrees. A definite forward-facing entry, e.g., the open end of the tube facing directly into the airstream, tends to make needle valve setting extremely critical and has little to recommend it.

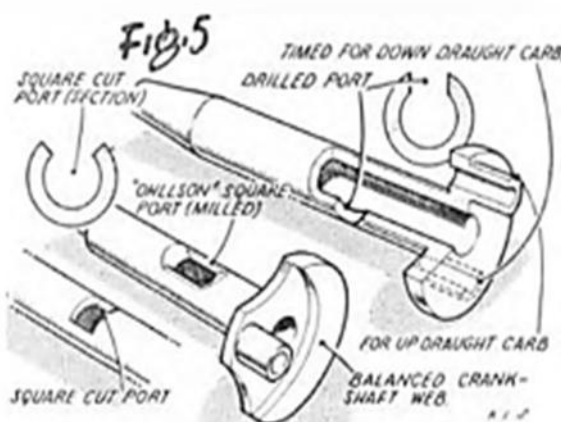
The choice of circular or square port entry in the crankshaft is arbitrary, especially as the end of the intake tube is almost invariably circular. Since a square port gives maximum area for a given width it is often preferred from the design point of view, when it can also be claimed that the type of port entry produced is more efficient in accelerating the gas mixture into the hollow portion of the crankshaft (Fig. 5). About the only objection which can be raised is that the form of stress raiser produced by "stepping" or notching the shaft weakens it more than a circular drilled hole. But as

generous crankshaft diameters are common with this type of engine, overall strength is seldom a problem.

Induction port timing is now limited by the size of the "bite" the designer is prepared to take out of the crankshaft; also, to some extent, by the size of the induction tube. Average figures for high-speed engines are about 150 degrees total opening, positioned 116 degrees before and 34 degrees after top dead centre. These figures measured off Fig. 2.49.

Rotary disc type of induction is virtually unlimited as regards timing at the expense of being a more critical proposition mechanically. It is quite obvious that to increase the opening it is only necessary to increase the length of the slot in the rotor disc, without any resulting weakening of stressed parts. In such cases extremes of timing may be encountered, such as the intake opening as much as 130 degrees before top dead centre, or with the piston only 17% of its stroke up from the bottom dead centre and closing 52 degrees after T.D.C. These figures measured off E.D. 2.46 Racer diesel. More significant from the development point of view is that port timing is readily modified during testing simply by working on the rotor disc with "cut and try" methods and without having to alter any major feature of the engine. Another advantage is the shorter gas passage with this form of induction.

On the debit side is the fact that the rotor disc must provide a good deal between the crankcase and the back-plate (which generally means hand lapping the two surfaces); mounting is a major problem since it has to be driven at very high speed; and wear is inevitable. In the main, therefore, production-minded designers are more favourably inclined towards the crankshaft rotary valve.



### "Flutter" Valves

An attractive alternative which has been exploited on model engines designs quite recently is the reed valve, which appears to have achieved for itself other designations of "Flutter", "Feather" or "Clack" valve—Fig. 6. This acts in essentially the same manner as the rotary disc valve, but without rotating parts; the opening and closing action being provided by a flap of spring material (or a spring-loaded diaphragm)—Fig. 7. Timing is controlled automatically by the differential pressure between crankcase and induction tube, tending to pull the flap open for mixture to be inducted all the time there is suction in the crankcase and closed when crankcase pressure is higher than intake tube pressure. If spring inertia is discounted this must provide ideal induction timing—a valve open for induction for the whole period there is suction in the crankcase and closing immediately the piston starts its downward travel and begins to build

up blowback. In practice, with the right choice of spring material, this ideal timing does in fact appear to be approached closely.

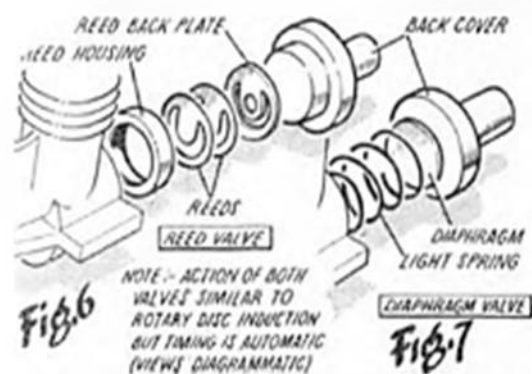
Limitations are the fatigue life of the spring material under operation stresses and the inertia of the system. The conventional reed valve consists of a flap of beryllium copper or phosphor-bronze of about .002-.004 in. thick (depending on size). How greatly this is stressed can only be guess estimated. But both beryllium copper and phosphor bronze are materials with continually diminishing strength subject to fatigue cycles and so eventually must fall under any vibratory load, however light. Since however, this should be measurable in millions and millions of cycles of reversal there is no reason why valve life should not be quite long enough for all practical purposes, with the correct initial choice of materials.

If the inertia of the valve is too great it will probably be reluctant to open at high speeds (the predominant pressure in a crankcase being positive), or it may tend to "float" in a partly-open position with a considerable amount of blowback on each revolution. It is still possible, however, that an engine could continue to run, and run quite well, under such conditions. Largely, however, reed valve design is at present governed by "cut-and-try" methods—both the type employing a clamped reed unit and that employing a spring-loaded diaphragm. The latter would appear to be far less susceptible to fatigue effects since the spring is only lightly stressed, but its inertia is higher. Certainly the reed valve is a feature which cannot be discounted in future engine designs.

Pushing up the engine speeds beyond the limits reached by side port layouts also has the effect of making the other ports more critical. The faster the speed the less time there is for the mixture to transfer from crankcase to cylinder and for scavenging to be completed. The apparent solution is an increase in port areas all round to maintain a similar volume-time or flow rate figure. Hence the appearance of the so-called 360 degree porting where the ports are cut all the way round the cylinder wall, with only relatively narrow columns of material between to maintain the strength and rigidity of the cylinder.

Here one must pay tribute to the original Arden engine which appeared on the American market in 1946. The use of a steel cylinder with almost 360 degree exhaust porting cut in the walls (the top of the cylinder being carried by only three small columns of metal remaining) and similar 360 degree by-pass transfer formed by cutting out passages in the bore at the lower end of the cylinder, set a new standard which has been copied, modified and improved upon throughout the world, but more particularly in this country, beginning with the first of the modern diesels, the Milin 1.8.

(to be continued)





### Free-Flight Indoor Scale Nationals Sunday 24<sup>th</sup> April 2022

Well, it was an early start to the day but a welcome return to the Walsall Campus Sports Centre of the University of Wolverhampton, after a hiatus of three years for Covid reasons. The Radio Control Indoor Scale Nationals had been held in the same venue on the previous day and a very nice feature this year was the introductory booklet on indoor scale flying given to all competitors and spectators.



Dutch judges, Bernard Bruins & Gert Brendel, hard at work assessing the Peanut and Pistachio Scale entries



Dave Prior's beautiful Zlin Z50M Peanut



Gerard Brink's fine Sperry Messenger Peanut

### **New Competitions and Rule Changes**

The following official competitions for flying scale models were held and their entry numbers are given in brackets: -

- Open Rubber (11)
- Open CO<sub>2</sub>/Electric (4)
- Intermediate Scale (10)
- Kit Scale (19)
- Peanut Scale (16)
- Pistachio Scale (7)
- Starter No-Cal Profile (9)

The Intermediate Scale and Starter No-Cal were new events for this year.

The rule-makers have the challenge in flying scale competitions in getting a good balance between static scale fidelity and flying ability. The changes to the rules used for the first time in this Nationals are clearly designed to encourage the flying side. For the two Open events there were no major changes -the judged flight and static scores are added together. The new Intermediate Scale class requires less stringent scale documentation than the Open classes and encourages flying performance in that the best judged flight points are multiplied by two and added to the static score. In Kit Scale the emphasis on flying is even greater with the best judged flight score multiplied by three and added to the static score. The other major change in Kit Scale is that the motive power must be as per the original kit plan.

The Peanut and Pistachio classes are assessed from the judged static score and timed flights. Previously, the flight scores and static scores were ranked separately, so that a competitor who, for example, come second in flying and third in static, obtained two points for flying and three for static. These were added together and the winner was the flier with the least points. The radical change this year was that the static score was added to three times the flying score in seconds. To prevent the flying scores completely swamping the static scores, a fifty second maximum is applied with an extra ten seconds for an ROG, so the maximum possible flight score is 180, to which the static score is added. There was an additional change in Pistachio in that there is now the ten second bonus for an ROG, whereas previously there was no bonus for a successful ROG.

### **The Competitions**

Mike Stuart has sent out the results to the competitors, but I am not sure where they are generally available at present. They should eventually be published on the BMFA website and elsewhere. (see *Mike Stuart's excellent free flight scale website* [www.ffscale.co.uk](http://www.ffscale.co.uk).)

Richard Crossley had a field day, winning Open CO<sub>2</sub>/Electric again with his PB2Y Coronado, Open Rubber with a Nakajima B5N Kate, Kit Scale with a Comet 54" Aeronca Chief and Pistachio with a Martin-Baker MB5. Jon Markovitz took advantage of the new Intermediate Scale class entering and winning with his electric powered Bristol Scout from the Lee's Hobbies kit. It would not have been eligible for Kit Scale this year for two reasons. It had won previously in 2019 and the power source was not as specified on the plan. I sneaked a win in Peanut Scale with the Nesmith Cougar, the build of which I described at the start of these IIFE columns. It would not have won without this year's rule changes and if Mike Hadland had got the very best from his Bücker Jungmann in terms of flight performance. In fact, the Cougar was the only model to get the maximum of 50s plus 10s for an ROG. This added to the 33 static points gave a total score of 213. Mike's best time was 55s, which, added to his static score of 44, gave him a total score of 209. Close! Clearly the rule changes have tipped the balance in favour of high wing monoplanes for which it is easier to achieve the maximum flight time. Doubtless, much discussion will ensue.



To complete the picture Chris Blanch won No-Cal with a Cessna 195 Turbo and had flight times of 164 and 156s. There is no static score for No-Cal.



In the land of giants: -. Both Comet kits of 54" wingspan.  
Mike Stuart's Taylorcraft,



Richard Crossley's Aeronca Chief



Richard Crossley's magnificent Open Rubber model.  
Nakajima B5N Kate



Dave Banks brought along a bunch of his pilot friends to spectate – I hope they all paid their entry money!

After the formal competitions, the mayhem of the air race followed. I achieved 19 laps with my ancient Chambermaid and the help of my pitman Dave Prior, despite the loss of the rubber motor into the fuselage after the first landing, which entailed a dash into the pits to find an extraction wire hook. It's surprising how fast a septuagenarian can move, if required. This was sufficient to win on this occasion.

Chris Brainwood has published some video of the event on YouTube, including the air race.  
<https://youtu.be/L2ior65DF54>

### **Veron Truflite Trophy**

There were only two entries in this competition for the best Truflite model, Gary Flack and John Wynn both flying Aeronca Champs. Gary, by virtue of his second place in Kit Scale won again.

It was another very enjoyable day and many thanks are due to the hard work of the organisers Graham Kennedy and Mike Stuart and their large team of judges, timekeepers and other assistants.

*Nick Peppiatt*





### Day 1: Saturday 8<sup>th</sup> May Salisbury Plain

Following much weather watching during the previous week, I selected the Saturday for my visit to Salisbury Plain for this year's London Gala. The forecast for the Sunday was marginally better but I decided that I might as well maximise my chances for a bit of competitive flying so selected the Saturday with Combined Electric and Mini-vintage being on offer for me rather than just the E30 of day 2.

As always the car-packing hassle took up much of Friday evening - "I'll have it done in half an hour after tea," I told Mo, then three hours later I'm finally ready! It's not even as if it's complicated with just two models for each class, but it's the seemingly endless stream of support gear that gets wheeled out of the garage and various cupboards that goes on and on! Oh for the days when it was a model, a can of diesel and an oily rag - before my time but was it really that simple in those carefree days when the wind never went above 5mph and the sun always shone?

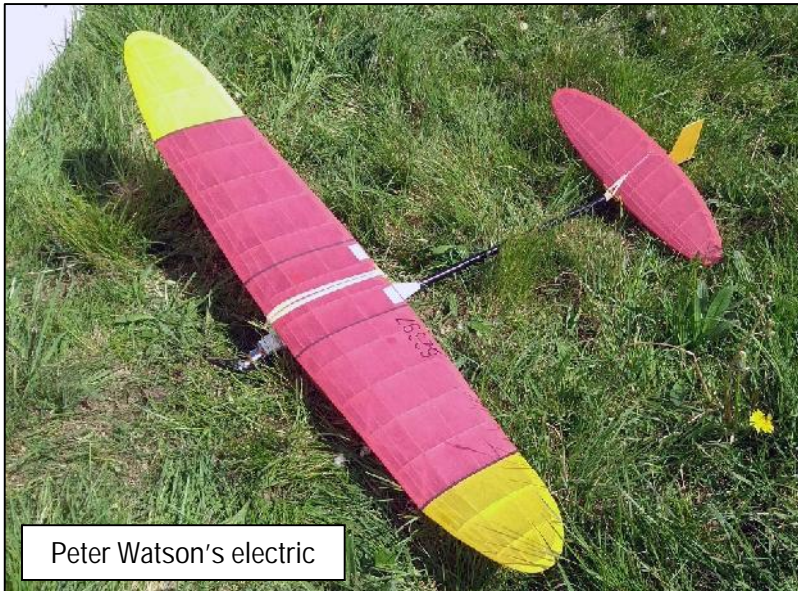
Ok, Saturday's flying. Well before that started there was some agonising over where we should fly from. We started at the west end of the trimming field. The wind was from the north and although not too strong, the performance of the models and their flyers that was likely to be evident meant that there was a strong possibility of reaching the airstrip with a max and going a long way over the other side of it if the DT descent was anything other than rapid. Our excellent CD, Simon Dixon, was aware that the guy that farms the land on the south side of the airstrip is none-to-happy to have us trample all over his crops, so it was finally decided that we should all up-sticks and go to the east end to give a longer run. And then we began.

I aimed to start with Combined Electric and only get out the Mini-vintage models if the wind dropped and time permitted. My electric jobs can handle strong winds if called upon to do so and launching in short lulls is so much easier than it is when having to start a diesel engine.



My electric model,  
landed in the cowslips





Peter Watson's electric

There were only three entrants, Chris Redrup, Peter Watson and myself. My first flight caught some nice air and was down at about 3'30" and over the airstrip but about 50yds short of the farmer's fence and a mile from the launch point. Flight no2 wasn't anything too spectacular and was definitely dropping down into the valley of doom but hung on and ended up  $\frac{3}{4}$  of a mile away and flight no3 was similar, ending up at  $\frac{2}{3}$  of a mile. Clearly my air picking wasn't overly impressive

but the model has a fantastic climb and goes up on rails with a top notch roll out. It's an electrified version of one of Dave Clarkson's slow open series that featured in a Free Flight Forum and been the weapon of choice since being built over 10 years ago. Of my two rivals, Peter was having problems with an inconsistent power pattern but still maxed out - because he always does! Meanwhile Chris hit a horrible gust immediately after his third launch and ended up heading back towards the ground so he hit the RDT which cracked the wing but didn't break it completely and the model didn't land until 21 secs so it counted to his score and so lost him a fly-off place.

For the fly-off, Peter and I decided that neither of us wanted a lengthy retrieve at that time of the day so agreed to an informal, 2 minute DT fly-off. I launched first and once again the climb was all I could've asked for and Peter's, launching about 30 secs after me, was again, quite iffy. However his model has the better glide and that was good enough to give him the win.

I suppose that I could spend time changing the trim of mine to try and improve the glide but I would have to be so careful not to change the climb. To be honest I get so much pleasure from watching that part of the flight that I'll just leave it as it is - it's the sport flyer in me that gets the most enjoyment from just watching the models fly well!

As for the other classes the only one I saw anything much of was Combined Glider. There was a 4-way fly off between John Carter, Chris Parry, Steve Brewer and fellow Crookhamite, John Hook. And that's the order in which they finished with John Carter winning but there was more to it than that. I missed the spectacle as I took longer on my fly-off retrieve than I expected but Peter Watson had seen it and said that Hooky had gone up in a beautiful patch of air and his model could well have got back to Southampton before he did had he not DT'ed it early.



Hooky



After the event I chatted with Hooky about what had happened and he said that at that stage of the day, following some arduous earlier retrieves, he was just too knackered to contemplate yet another lengthy one so let common-sense prevail.

But he was clearly so pleased with his air-picking and the trim of the model that the result was of no relevance.

I think that the largest number of vehicles I counted on the flight line during the day was 28 but there was certainly not that many entrants in the comps which is a bit disappointing given the effort people put in to get there and organise the day.

Anyway, it had turned out to be a good day and I'd guess that those that flew enjoyed themselves.

### **A few pictures**



The glorious Salisbury Plain



Richard Fryer flew his Senator in mini, timed by Jim Paton





Bernard Aslett with Pilfered Pearl  
in combined power



Dave Etherton launches for Dave Cox in combined glider



Jim Paton's Buckeridge for mini-vintage

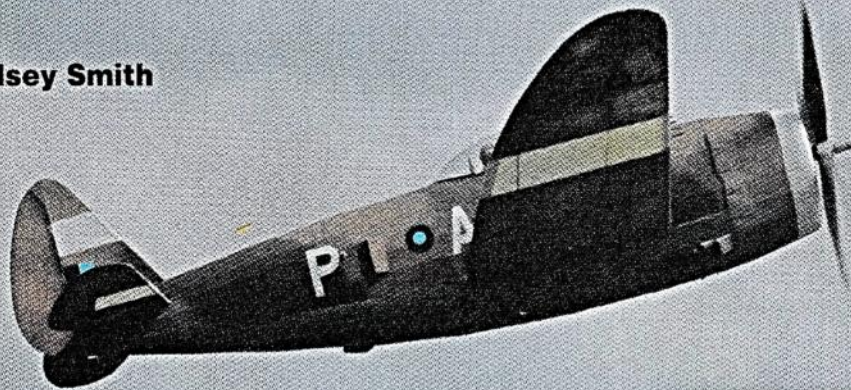


Chris Redrup's open rubber model



# Keil Kraft P-47D Reborn

By Lindsey Smith



*Recreated as faithfully as possible, this late 1940s English F/F design also offers the bonus of breakapart modular construction.*

PHOTOGRAPHY: LINDSEY SMITH

In the mid-forties, Eddie Keil, owner of Keil Kraft, one of the chief model aircraft kit manufacturers in the U.K., commissioned a series of scale rubber powered kits from his designer Albert Hatful. There were eleven types in the range, all 1/16-scale WW II combat aircraft. A twelfth model in the advertised range was a Piper Cub designed by Bill Dean. The range was heavily advertised through the late forties but did not sell and was dropped in 1950. The most likely reason for this was the availability of small diesel motors. Indeed, one of the plans in my collection has been modified as a control liner with a diesel.

In the nineties, Doug McHard and I tried to find the plans of this series which had

sunk without trace. Articles in the *Aeromodeller* magazine and correspondence with friends overseas eventually produced five of the eleven plans: *Tempest*, *Typhoon*, *Spitfire 14*, *Zero* and *FW-190* but the remaining six—*Hurricane*, *Lysander*, *Mustang*, *Thunderbolt*, *Firefly* and *Barracuda*—never surfaced. It is likely that the *Firefly* and *Barracuda* were never kitted as they never appeared in dealer's lists. It is also possible that the *Hurricane* and *Lysander* were rehashed from designs of Louis Heath which had been in the KK series before the war and by 1947 would have been antediluvian to all young builders, but the *Mustang* and P-47D were tantalizingly absent.

There are plenty of freeflight kits for the

## AT A GLANCE

|               |  |
|---------------|--|
| Type:         | F/F rubber scale   |
| Construction: | stick and tissue   |
| Wing span:    | 27 inches  |
| Wing area:    | 126 sq. in.  |
| Airfoil:      | Clark Y  |
| Length:       | 22½ inches   |
| Weight:       | 75 grams   |
| Wing loading: | 1.3 gms./sq.in.  |
| Motor:        | 6 strands 1/16-inch Tan Sport weighing 18.75 grams (25%) |
| Scale:        | 1/16 scale   |

P-51 but the P-47D is rarer, particularly the bubble canopy version which is the one in the Keil Kraft handbook advert.

So I decided to recreate this lost design. I had the five original plans, all very similar in construction. I knew the wingspan and the type so here is the result. My rough working drawings were transformed by my



The P-47D's balsa built airframe is covered with tissue (above left) and ready for the P-47D's paint scheme. The bones are balsa construction (above right)

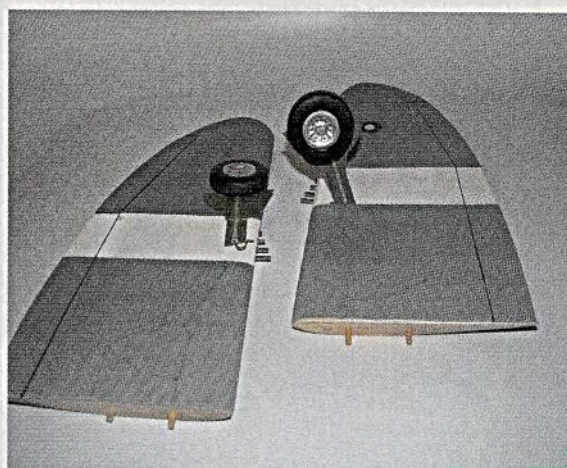


and built light and strong. The amount of planking in the nose is optional, so c.g. adjustments can be made if the plane is tail or nose heavy.





The finished prop assembly and two of the Czech Igra Prop sets (above left) from which the propeller blades were taken. The plug-in landing gear is optional



(above right), but makes a nice detail. The leg on the left landing gear has been unplugged from the built-in flattened aluminum tube in the wing.

old friend S/Ldr Bob Jones into the same format as the five original plans so if anyone out there has an original, it will be interesting to see how close we came.

### Construction

The original models were all one piece, built on the half shell principal, and you can build it as such and get a nice light airframe. Great for FAC WW II mass launch events, but since my models have to pack away for air transit across the Pond they have to come apart, so I have taken some liberties with construction which may be of interest.

**Fuselage:** Make the top and bottom and side keels from two lamination of  $\frac{1}{16}$ -inch, no plan view is shown on the plan but by taking the lateral depths of each former you can draft the required curve.

Cut out each former as a whole, not in halves, and line the center cutout with a strip of carbon fiber tow using cyanoacrylate as adhesive. This will stop the former from splitting. It is vital to ensure that the left and right halves of formers 5, 6 and 7 are identical; any deviation here will result in an imbalance of incidence with disastrous results.

With the top and bottom keels still on the plan join them with pieces of  $\frac{1}{16} \times \frac{1}{8}$  between the former locations and mark the location of the formers; do the same

with the side keels. Lift the top and bottom keels of the plan and insert the formers, do not stick them yet. Take a piece of straight  $\frac{1}{4}$ -inch square hardwood (I use and reuse an old rocket stick) and insert it into the fuselage then glue it to the right side of the vertical pieces of  $\frac{1}{16} \times \frac{1}{8}$ . You can now stick the formers to the top and bottom keels making sure they are at right angles by inserting the side keels so that the marks line up on each side.

You now have a rigid, straight armature

on which to place the stringers. It's best not to notch the formers before this, as inevitably some notches will not line up! I use a  $\frac{1}{16}$ -inch file to cut the slots as I go.

The rest of the construction is pretty normal. Break off the  $\frac{1}{8} \times \frac{1}{16}$ -inch strips and remove the rocket stick. Stick the wing root ribs in place. Plank as much of the forward fuselage as you wish or not at all and build the nose block to suit your method of rubber access.

**Flying surfaces:** These are all pretty standard, built on the plan. The only difference is an extra diagonal brace between the first and second wing ribs to give a bit of security in a downwind cartwheel. Don't forget to set the wing root at the correct dihedral angle.

**Wing retention:** The wings on my version are held on by magnets; these are the small circular rare earth ones which are now widely available. You need eight, two pairs for each wing. Cut four  $\frac{1}{8}$ -inch balsa and four 1mm ply ribs the same shape as the root ribs. Stack the ply ribs in pairs and make two holes to take the size of the magnets and two holes to take short hardwood dowel locating stubs. I use a leather punch to do this.

Stick a  $\frac{1}{8}$ -inch rib on each

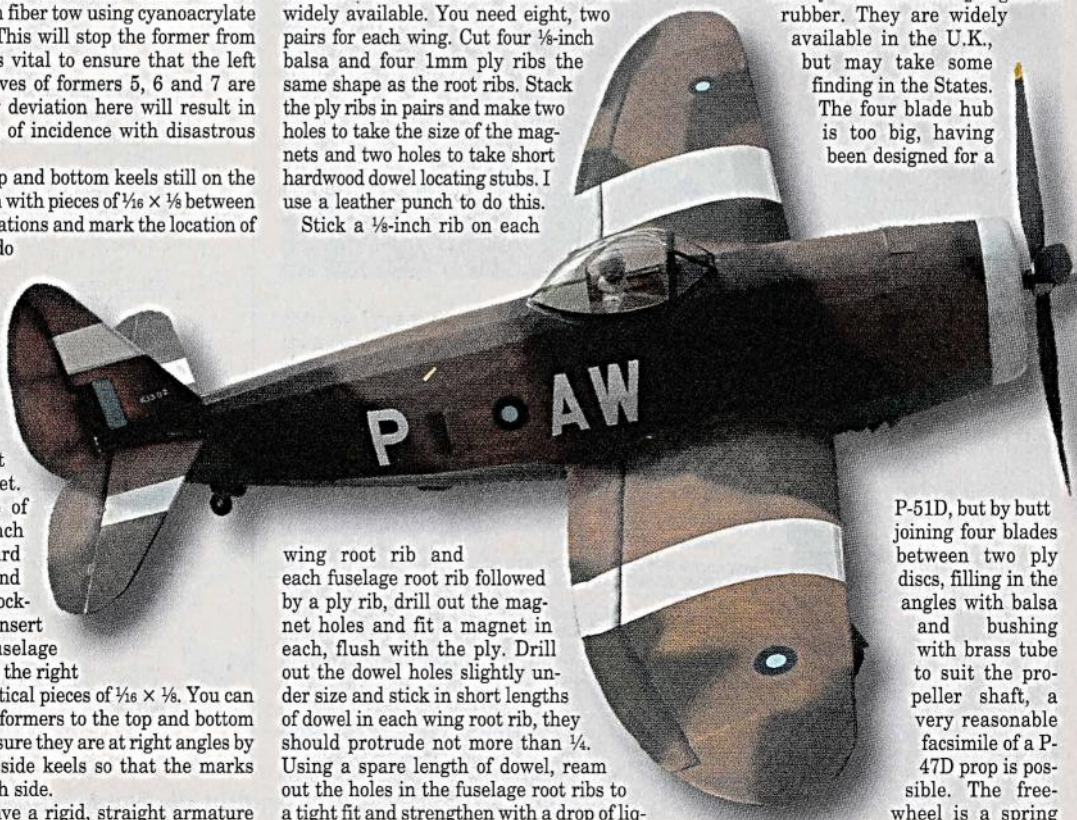
wing cyano. You should find that the wing will snap into position but release cleanly with a small amount of pressure.

**Undercarriage:** Once again this is made removable, it is not needed for Flying Aces events, but in many cases UK rules require takeoffs so the top of the undercarriage leg is bent into a "U" shape which plugs into a piece of flattened aluminum tube strongly secured to a wing rib. It will knock free in a crash, so make sure of it when you go to pick the model up.

**Propeller:** In the original kits, sawn balsa blanks were provided, two in this case which had to be lap joined and carved, and probably broke a blade on every arrival!

I have used four of the excellent Czech Igra prop blades. These come in sets of three or four with molded hubs and were originally made for ARTF foam scale kits powered by the Modela CO<sub>2</sub> engine or

rubber. They are widely available in the U.K., but may take some finding in the States. The four blade hub is too big, having been designed for a

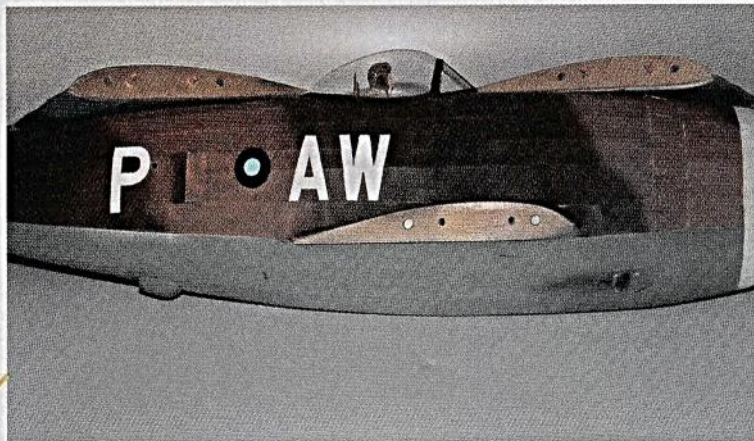


wing root rib and each fuselage root rib followed by a ply rib, drill out the magnet holes and fit a magnet in each, flush with the ply. Drill out the dowel holes slightly under size and stick in short lengths of dowel in each wing root rib, they should protrude not more than  $\frac{1}{4}$ . Using a spare length of dowel, ream out the holes in the fuselage root ribs to a tight fit and strengthen with a drop of liq-

P-51D, but by butt joining four blades between two ply discs, filling in the angles with balsa and bushing with brass tube to suit the propeller shaft, a very reasonable facsimile of a P-47D prop is possible. The free-wheel is a spring



## P-47D



The photocopied formers transferred to 1/16-inch balsa sheet with a hot iron before cutting out (at left). The wing root (above) showing the magnets and locating pegs and holes.

washer epoxied to the front disc with a piano wire rod vertical through the hub to take the strain of the right angle bend in the front of the prop shaft.

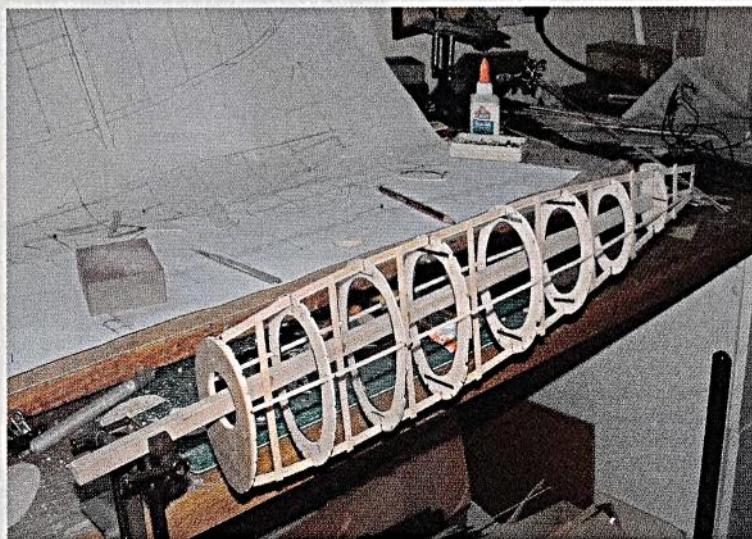
### Finishing it up

The canopy is not difficult to plunge

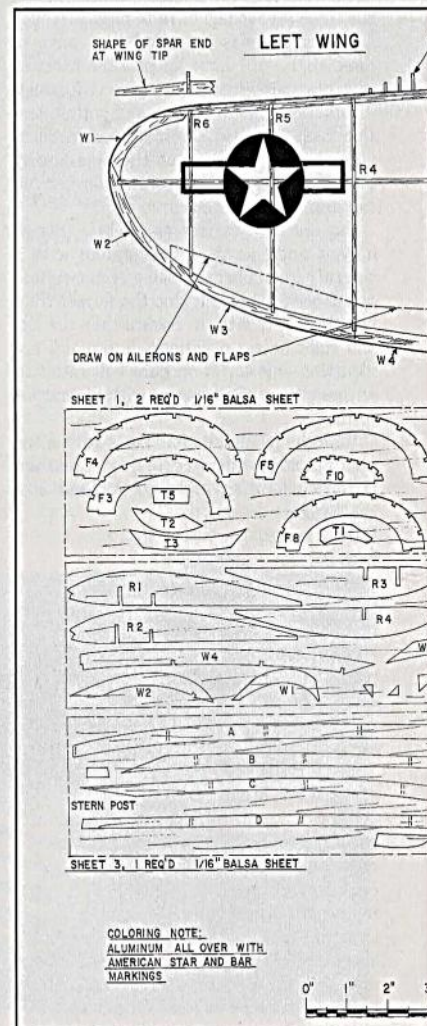
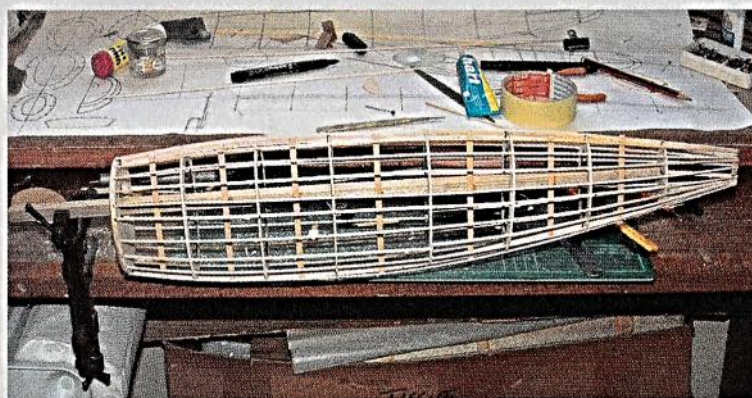
mold. Just carve a master, sanded as smooth as possible, mount it on a pillar of some sort that can be held firm. Cut a rectangular piece of acetate large enough to cover the master. Tack a piece of 1/4 square wood or dowel to each side to hold it. Put the master next to an electric hot plate.

Hold the acetate over the hot plate and pull outwards on the handles until the acetate starts to stretch then bring it down smartly over the master and hold until cool, trim and fit.

The pilot is a product of Small Scale Custom Service (my cottage industry) and can



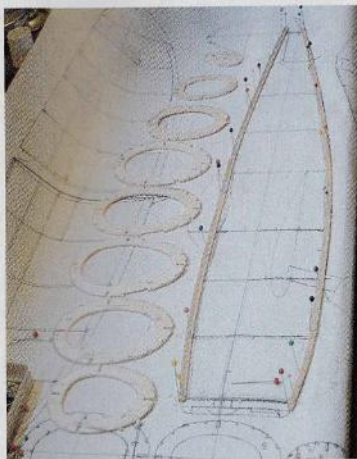
The fuselage formers set up on a 1/4-inch square stick armature (above). Note the carbon fiber lining inside each and the strips of fiber across the vulnerable vertical grain. Note the gussets, diagonal bracing strips, and strengthening for the aluminium tube gun muzzles and undercarriage plugs. The fully stringered fuselage (below) before removal from the armature.



Full Size Plans Available



The laminated top and bottom keels and formers (below) cut out and ready for assembly on the armature. The flying surface frameworks (at right) have minimal structure. Note the gear plug-in block in the wing.




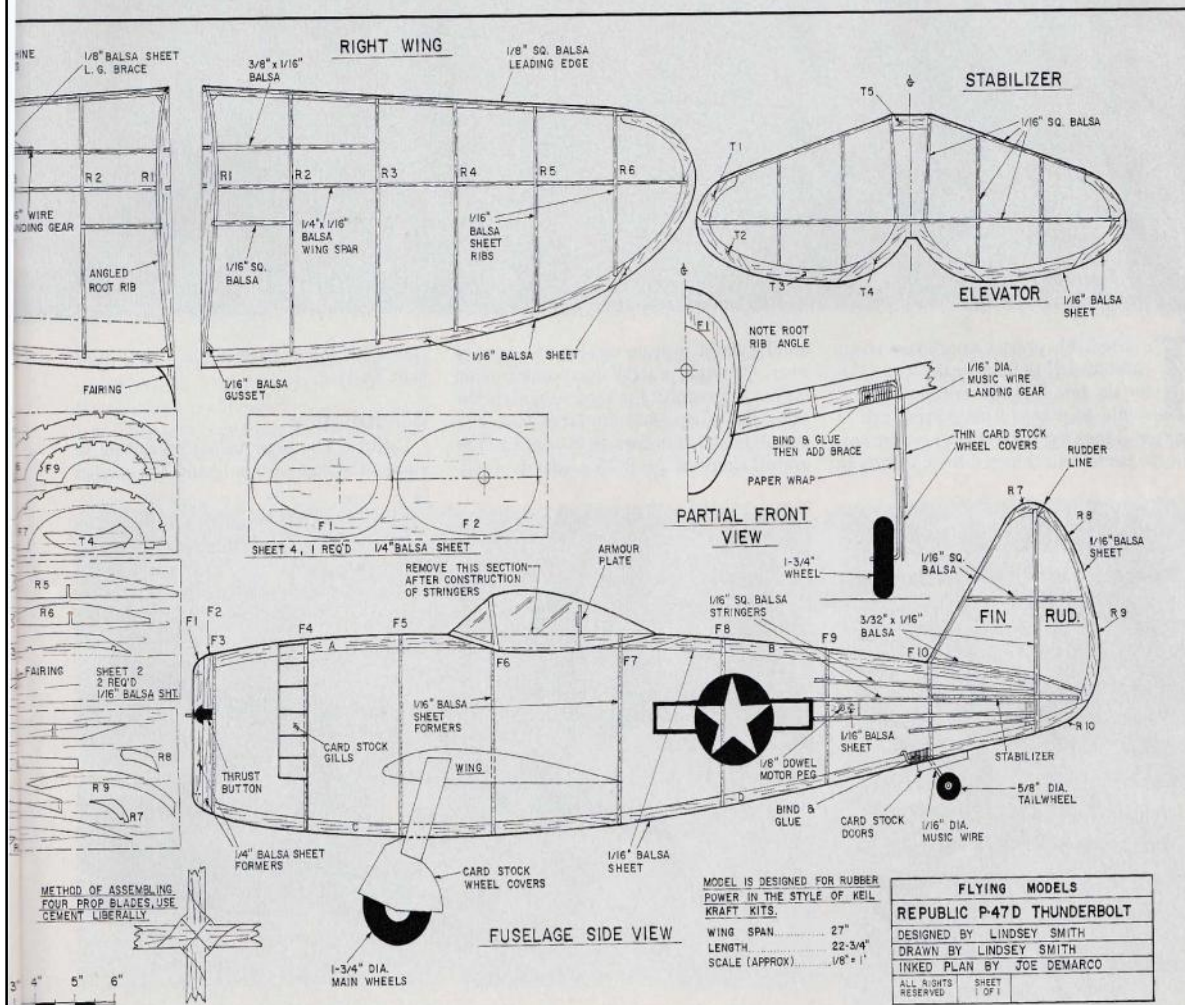
be obtained from EasyBuilt Models.

You will, of course, decorate your model to your own taste. For those who might wonder what nationality mine is, it is in the livery of the Royal Air Force in South-east Asia. At the end of WW II the red central dot of all insignia was omitted for ob-

vious reasons, but it was felt that the white center disc was too visible so insignia blue was added to tone it down making the roundels pale blue/dark blue. To add insult to injury it was found necessary to add white stripes to the wings and tail to aid aircraft recognition!

### Flying

My version weighed 75 grams which is probably pretty heavy. Its best flight at Geneseo was 65 seconds with a 25% motor and it came tenth but five out of the first ten were multi motors. So I wasn't too sad. I am going to try to do the *Firefly* next. 



Through Carstens Flying Plans

FLYING MODELS

Order Plan CD317 for \$8.00

63

Lindsey Smith

# Lindsey's Kits & Bits Sale

Roger Newman

| Id No | Item                              | Manufacturer             | Condition    | Post & Offer Price | Span       | Comments   |
|-------|-----------------------------------|--------------------------|--------------|--------------------|------------|--|
| 1     | P-51D North American Mustang      | Union Model Co           | NIB          | *                  | 340mm      | Flying Foam plane from China. Box unopened                                   |
| 2     | Westland Widgeon                  | West Wings               | NIB          | **                 | 616mm      | Classic Series   |
| 3     | Rearwin Speedster                 | Golden Age Reproductions | NIB          | **                 | 30 in      | From Seaglen Model Company, USA  |
| 4     | Competitor                        | Keil Kraft               | NIB          | **                 | 32 in      |  |
| 5     | Dayton-Wright Racer               | Jetco Models             | NIB          | **                 | 12 7/8 in  | From C A Zaic Co USA   |
| 6     | Luscombe Sedan                    | Replikit Classic         | NIB          | **                 | 36 in      | R-KK 150 range   |
| 7     | Bell UH 1 Huey                    | Copter Concepts          | NIB          | **                 | ?          | From USA   |
| 8     | Bristol Scout D                   | Lee's Hobbies            | No box       | **                 | 13 in      | Peanut scale   |
| 9     | Luton Minor                       | Andrew Moorhouse         | NIB          | **                 | 13 in      | Peanut scale   |
| 10    | Farman Sport                      | Gene Dubois              | NIB          | *                  | 13 in      | Peanut scale. One corner of box is dog-eared                                 |
| 11    | Fairey Gannet                     | Replikit                 | NIB          | **                 | 20 in      | Short kit, plan & printed balsa parts  |
| 12    | De Havilland DH 82 Tiger Moth     | Avetek Limited (NZ)      | NIPackage    | **                 | ?          | Sealed package   |
| 13    | Stinson SR-7                      | Comet                    | NIB          | **                 | 25 in      | From USA   |
| 14    | Dornier DO 335                    | West Wings               | NIB          | **                 |            | Box little battered  |
| 15    | Heinkel P1055                     | Easy Built Models        | NIB?         | **                 |            | Peanut?  |
| 16    | Hawker Sea Fury FB11              | West Wings               | NIB          | **                 |            | Classic Series   |
| 17    | Hawker Hart                       | West Wings               | NIB          | **                 | 632mm      | Classic Series   |
| 18    | Frog Single Seat Fighter (Mark V) | Frog                     | In box       | *                  |            | Looks complete, pretty old   |
| 19    | Swordfish                         | Veron Tru-Flite          | NIB          | *                  | ?          | Sealed box   |
| 20    | Druine Turbulent                  | Peck-Polymers            | NIB          | *                  | 12 in      | Peanut scale+  |
| 21    | Church Midwing                    | Classic Models           | NIB          | *                  | 13 in      | Peanut scale from USA  |
| 22    | Stinson                           | Model Air                | NIB          | *                  | 37.6cm     | From Australia   |
| 23    | Tiger Moth                        | Model Air                | NIB          | *                  | 47.5cm     | Box has been opened but all components look to be present                    |
| 24    | Focke-Wulf FW-190                 | Guillows                 | NIB          | *                  | 16 1/2 in  | From USA   |
| 25    | Aeronca C-3                       | Hi-Flier                 | NIB          | *                  | 18 in      | Box has been opened & is bit battered, all components look present           |
| 26    | Sopwith Triplane                  | Veron Tru-Flite          | NIB          | *                  | ?          | Box bit battered   |
| 27    | Spitfire                          | Keil Kraft               | NIB          | *                  | ?          | Looks like one of original Flying Scale models                               |
| 28    | Grumman Avenger                   | Guillows                 | NIB          | *                  | 16 1/2 in  | From USA   |
| 29    | Nakajima A6M2-N Rufe              | Guillows                 | NIB          | *                  | 16 in      | From USA   |
| 30    | SE5                               | Keil Kraft               | NIB          | *                  | 16 in      | Later version of Flying Scale model  |
| 31    | Fairey Gannet                     | Keil Kraft               | NIB          | *                  | 20 in      | Later version of Flying Scale model  |
| 32    | Short Seawew                      | Veron Tru-Flite          | NIB          | *                  | ?          |  |
| 33    | Westland Lysander                 | Keil Kraft               | NIB          | *                  | ?          | Looks like one of original Flying Scale models                               |
| 34    | Mitsubishi Zero                   | Guillows                 | NIB          | **                 | 27 3/4 in  | Multi puprpose kit: Rubber, 1/2A gas, U-Control or RC                        |
| 35    | Bristol Scout                     | Nowlen Aero              | Poly Pack    | *                  | 13 in      | Peanut from USA  |
| 36    | Fokker Dr-1                       | Lees Hobbies             | Poly Pack    | *                  | 13 in      | Peanut from USA  |
| 37    | Record Wrecker                    | Fresno Model Airplane Co | Not packaged | **                 | ?          | Small rubber duration model. All bits, strip wood, tissue, components & plan |
| 38    | Dornier DO-335                    | Diels Engineering Inc    | Not packaged | **                 | 22 9/16 in | Small rubber scale model. All bits, strip wood, tissue, components & plan    |
| 39    | Gee Bee R-2                       | Herr Engineering         | Not packaged | **                 | 25 in      | Small rubber scale model All printed sheet & strip wood,prop & hardware      |
| 40    | Lambert Monocoupe                 | Seaglen Model Co         | Not packaged | **                 | 30 in      |  |
| 41    | Curtiss P-40E Tiger Shark         | Comet                    | NIB          | *                  | 31 in      | Multi puprpose kit: Rubber, 1/2A gas, U-Control or RC                        |
| 42    | Sopwith F.1 Camel                 | Revell                   | NIB          | *                  | 20.6 cm    | 1:28 scale plastic kit   |
| 43    | Junkers Ju 87B Stuka              | Revell                   | NIB          | *                  | 33.5 cm    | 1:28 scale plastic kit   |
| 44    | Hawker Hurricane                  | Easy Built               | NIB          | **                 | 20 in      |  |
| 45    | Royal Aircraft Factory F.E.2b     | Forma Plane              | Looks NIB    | *                  | 7 in       | 1:72 scale styrene model   |
| 46    | Avia CS-199                       | KP Plastikovy Model      | NIB          | *                  |            | 1:72 scale plastic kit   |
| 47    | Brewter F2A Buffalo               | Tamiya                   | See comment  | *                  |            | 1:48 scale plastic kit, has been started but looks complete                  |
| 48    | German Luftwaffe Ace Pilot        | Tamiya                   | NIB          | *                  |            | 1:16 scale plastic kit   |
| 49    | Aichi M6A1 Seiran                 | MPM                      | Unopened     | *                  |            | 1:72 scale plastic kit with plan but no box lid                              |
| 50    | Focke Wulf Fw190A8/A8R2           | Tamiya                   | See comment  | *                  |            | 1:48 scale plastic kit, has been started but looks complete                  |
| 51    | Panavia 200 MRCA Tornado          | LS Jet Series            | NIB          | *                  |            | 1:144 scale plastic kit  |
| 52    | 007 James Bond's Autogyro         | Airfix                   | NIB          | *                  |            | 1:24 scale plastic kit   |
| 53    | Fairey Spearfish                  | Control Model Aircraft   | NIB          | *                  |            | 1:72 scale vacuum formed kit   |
| 54    | Military Miniatures: GermanTank   | Tamiya                   | NIB          | *                  |            | 1:35 scale plastic kit: crew at rest   |
| 55    | Military Miniatures: US Infantry  | Tamiya                   | NIB          | *                  |            | 1:35 scale plastic kit: weapon set   |
| 56    | KTM250MX with Motocross Ride      | Tamiya                   | NIB          | *                  |            | 1:12 scale plastic kit   |
| 57    | Racing Pit Team                   | Tamiya                   | NIB          | *                  |            | 1:20 scale plastic kit   |

## Notes:

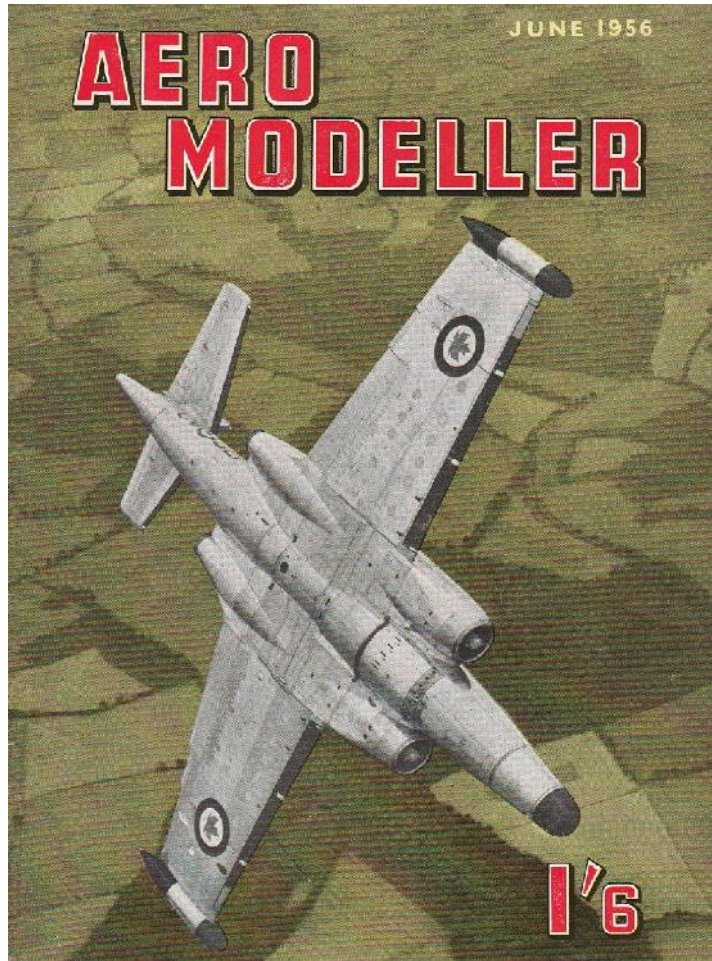
- 1: NIB does **NOT** guaranteed that the kit is complete
- 2: \* is for price of £10 for kit plus postage & packing of £3.35 RM 2<sup>nd</sup> class delivery  
\*\* is for price of £15 for kit plus postage & packing of £ 5.35 RM 2<sup>nd</sup> class delivery
- 3: Those highlighted in yellow have gone

Roger Newman



## Report No. 136 Our earliest magazines, continued.

Moving on from last month's report which compared the *Aeromodeller* issues of June 1936 and June 1946 we come to the June 1956 issue and compare it to the earlier decade's offering. The page size is the same but the front cover has changed from being the work of an artist to the product of a photographer, in this case captioned "Past the vertical in a dramatic peel-off from a flank attack is a Canadian CF-100 Mk 4 all-weather fighter of the R.C.A.F. "



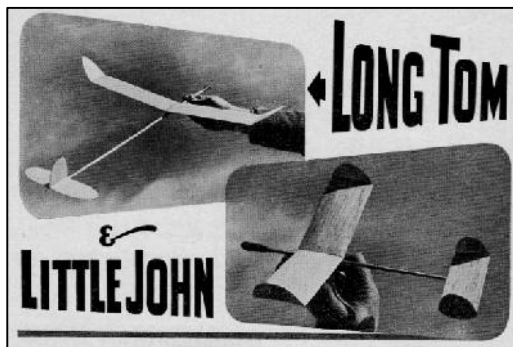
The back cover continues to be held by KeilKraft with a full-page advertisement and they have a further advert on an inside page. Still offered, after 10 years, are the **Achilles** 24" span rubber powered model, the **Polaris** 20" span solid glider and the **Junior** 60 which was originally just **Junior**, described as "Free Flight Model wingspan 60 inch. Speed still on secret list." New to this decade is a full range of **Slicker** kits from 32" to 60" wingspan, **Skylon**, **Southerner Mite**

and **Bandit**, all power free flight models, the **Stunt Queen** and **Ranger** control line models, the **Chief** A2 glider and as a sign of the times the **Eeze-Bilt** kits of 18" span rubber powered models which can be built in "less than one hour!" Scale is represented by the **Cessna 170** a 40" span power model which had come first in competitions in Frankfurt and Wiesbaden.

The KK 1946 advert also offered an engine, the K6 6cc petrol engine, whereas by 1956 it is diesels to the fore with adverts by Davis Charlton Ltd. (Super Merlin), International Model Aircraft Co. Ltd. (Frog 149), Mills Bros Ltd. (Mills P75, S75 and 1.3), J. E. Ballard & Co. Ltd. (1cc Bomb and 1.5cc Atom in both diesel and glow versions) and Electronic Developments (Surrey) Ltd. (ED 2.46 Racer and ED 3.46 Hunter).

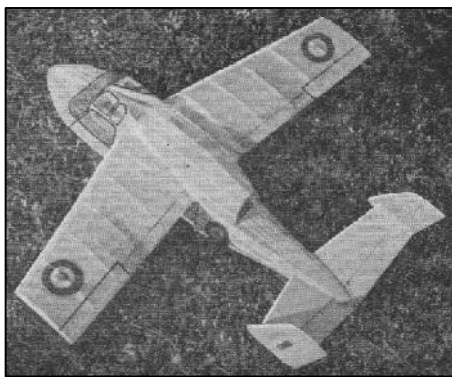
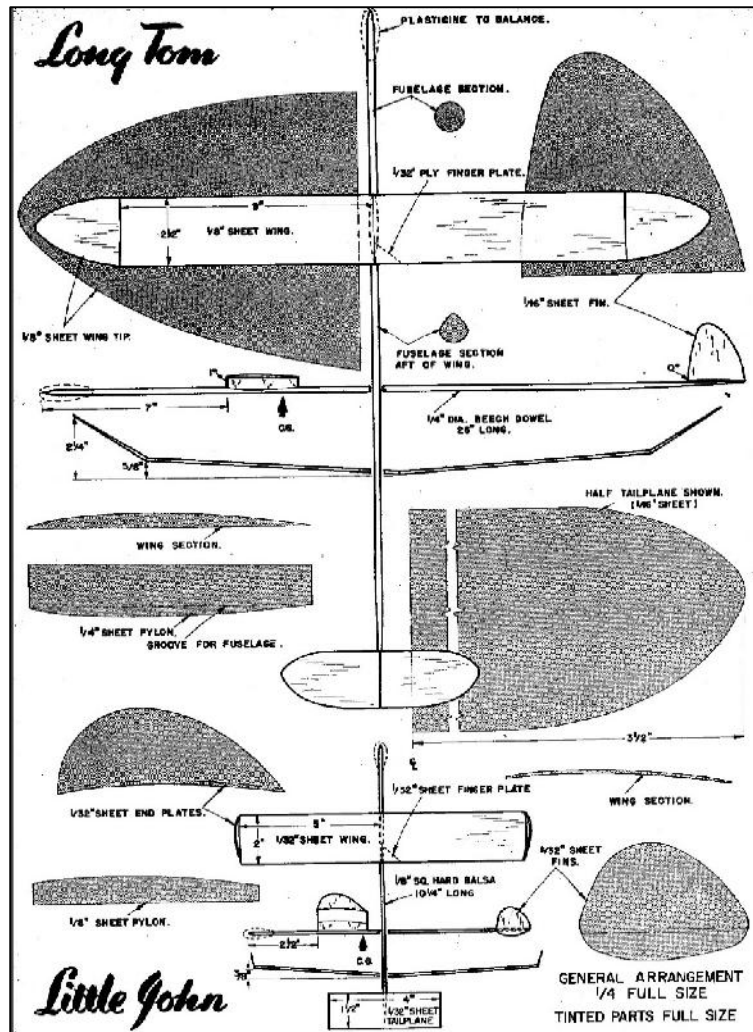
The Veron advert of 1946 lists a dozen "Competition" gliders and rubber powered models none of which survived to the 1956 advert, but what did survive was the **Truescale** solid kits which are strongly featured as "Britain's Largest Range of Solids". I remember Phil Smith, Veron's designer, telling Bournemouth M. A. S. members at an Annual Lunch and Prize Giving meeting that the solids were very good business for Veron, selling well worldwide, but that it stopped overnight with the appearance of the plastic kits. The current Veron offerings were the **Rascal** 24" span rubber powered model, the **Midget Mustang** and **Combateer** for control line and the **Cirrosonic** 34" span "Nordic" A1 glider.

The Royal Air Force took a full two-page advert for recruits offering "Variety is the essence of a career in the R. A. F. Besides flying some of the finest aircraft in the world, aircrew can expect a diversity in their work unequalled elsewhere."

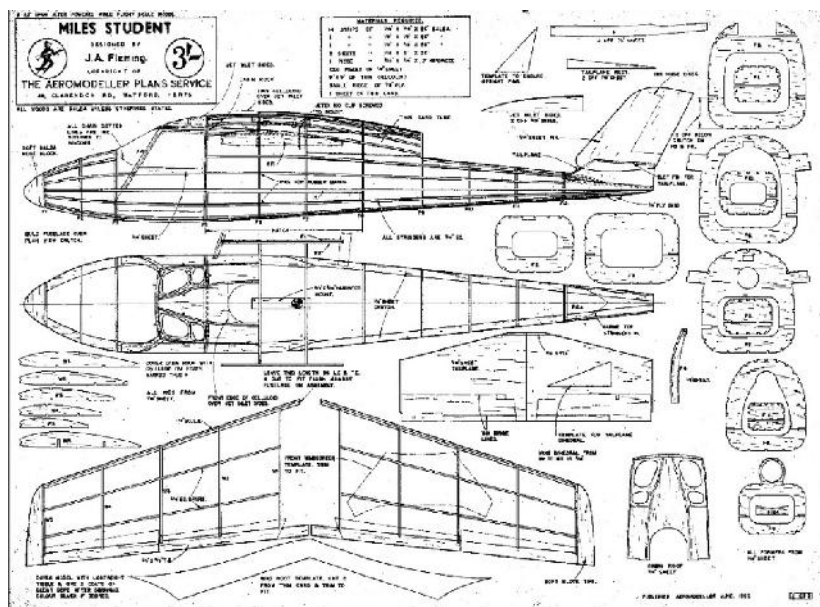


The 1946 issue had little for the 11-year old to build but, in the 1956 issue he would have found a pair of chuck gliders claimed to have good performance. Whilst the designer states that the plans are self-explanatory our young builder would have welcomed the fact that much of the accompanying article gives advice on trimming and flying the models.

The centre spread plan of a **Boeing F4b-4** biplane gave a first impression of being the regular 3 view but it was in fact for building a solid model to a 1/48<sup>th</sup> scale.

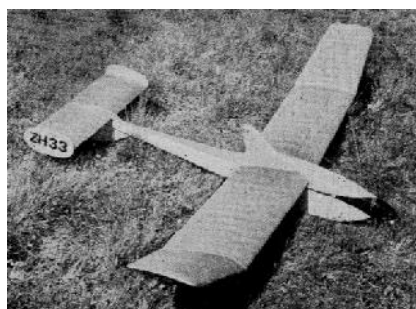


There were plans for the more experienced modeller which included a 22" wingspan model of the prototype (and only?) **Miles Student** jet trainer for Jetex 100 or Jetmaster power.



Also there was **Bicki**, a 7-foot span glider for radio control.

You will see from the header to the accompanying article that this is another model featured in this issue that won a competition in Germany.



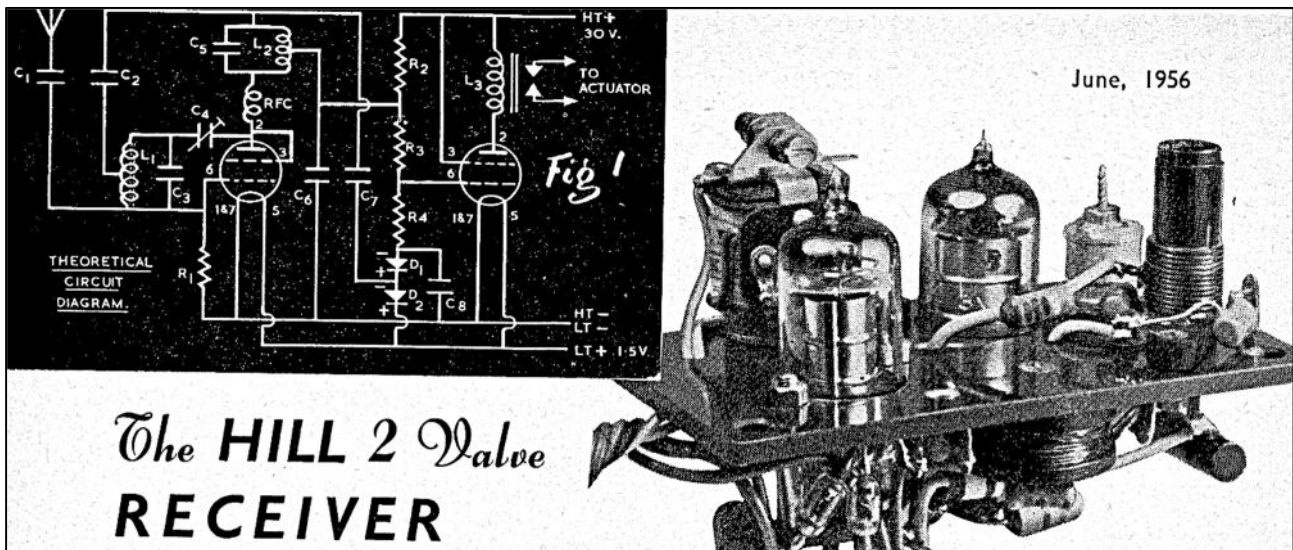
## "BICKI"

BY A. BICKEL

A 7ft. span Radio Controlled Glider-Winner of the 1955 International Radio Control Contest at Essen Germany.



As another sign of the times, the reader thinking of building *Bicki* might also consider making his own radio control equipment. A four-page article by E. R. Hill, gives instructions for building his 2 valve receiver, paragraph headings include, The panel, Winding the quench coil, The R. F. choke, Above panel wiring, The tuning unit, Final checking and, Normal tuning instructions.



Foreign news continues much as before but is less Commonwealth centred. Here are pictures from the report on the VIIth Criterium of Europe, held in Brussels. The captions are, picture 3 "Van De Dyk with 27 ounce Fibreglass racer (Oliver) which was fourth in the final, fastest in heats - whipped to 96 m.p.h.", picture 7 "Andre Chavaillaz, from Switzerland, struggled against tuned special engines with his standard Super Tigres in neat traditionally white models." and

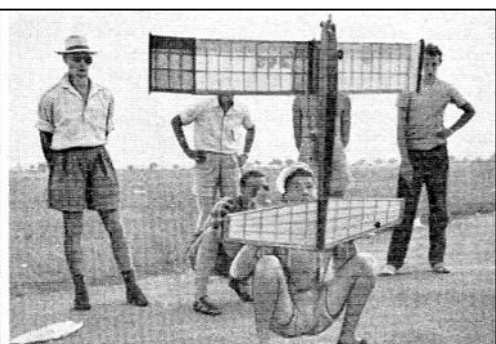
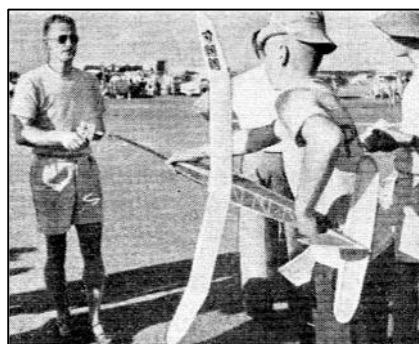
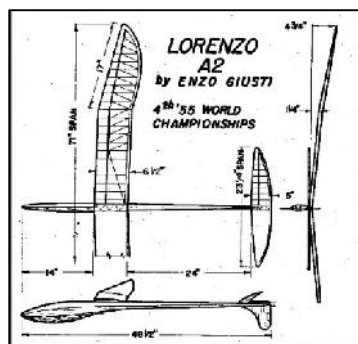


photo 12 "Pas de whipping, eh? Albert Roussel waves a warning finger at two Dutchmen, a Spaniard and Howard, at right, who doesn't understand a bit of it."



World News includes a 3view of Enzo Giusti's A2 glider *Lorenzo* which achieved 4<sup>th</sup> place in the 1955 World Championships.

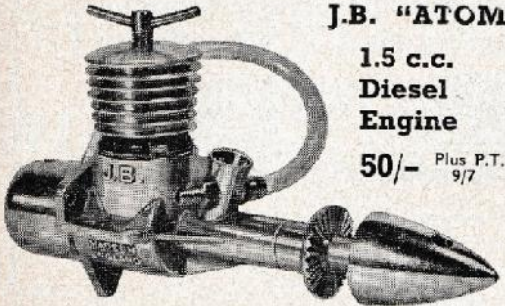
The South African Nationals report includes two pictures, that on the left captioned "Monte Malherbe piles on the turns as he winds his Wakefield motor." and on the right, "15-year-old Jan Freedman VTO's a *Ramrod 432*, as popular in South Africa as it is in California."





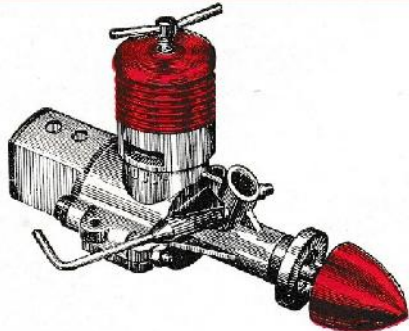


Club News sticks to the heading photo style of the previous decade, this time it is the Bridport club with the comment "Enthusiasm in the West, at Bridport in Dorset is shown by these clubsters. Since January 1955, membership has risen from 9 to 57. In centre is an A.P.S. Halifax converted for two AM-25s and with retracting u/c, by 16 -year-old builder." No name is given for the young builder, is the now 82-year old builder amongst our readers? Next, a few extracts from the engine adverts.



**J.B. "ATOM"**  
1.5 c.c.  
Diesel  
Engine  
50/- Plus P.T.  
9/7

**J. E. BALLARD & CO. LTD.**  
12a FELL ROAD, CROYDON, SURREY. Telephone: CRO 8453



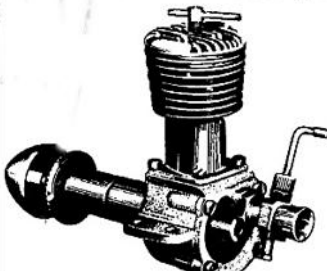
.76 c.c.—.046 cu. ins. Price  
with tank, spinner, tommy  
bar & propeller **56/9**

**DAVIS CHARLTON LTD.**

**FOR RECORDS-OR PLEASURE**



**Mills**  
for dependability!



"My F.A.I. power winner used an E.D. 2.46 c.c. 'RACER' and an E.D. 3.46 c.c. 'HUNTER' powered the 'Southern Cross' C/L Scale winner.

"Both engines concerned were won as prizes at previous Nationals.  
(Signed)  
**LAURIE ACKROYD,**  
16 Camberwell Road,  
**HAWERA,**  
New Zealand."

E.D. Engines have attained a very high standard of performance which is evident in their consistent competition successes.  
Their precision workmanship and reliability is both valued and acknowledged by modellers

**IF YOU WANT A HOT 1.5 ENGINE**

**HOP TO IT**



**THIS IS IT**



**THE "FROG 149"**  
WITH 'VIBRA-MATIC' INDUCTION

### New arrivals at the library.

Not more magazines or books or newsletters but just as important, that stuff that oils the wheels of commerce, the "reddies". Many thanks to Keith Fredericks who raised more than £100 for the library funds by selling Aeromodeller and Model Aircraft magazines on eBay. Roy Tiller, tel 01202 511309, Email [roy.tiller@ntlworld.com](mailto:roy.tiller@ntlworld.com)

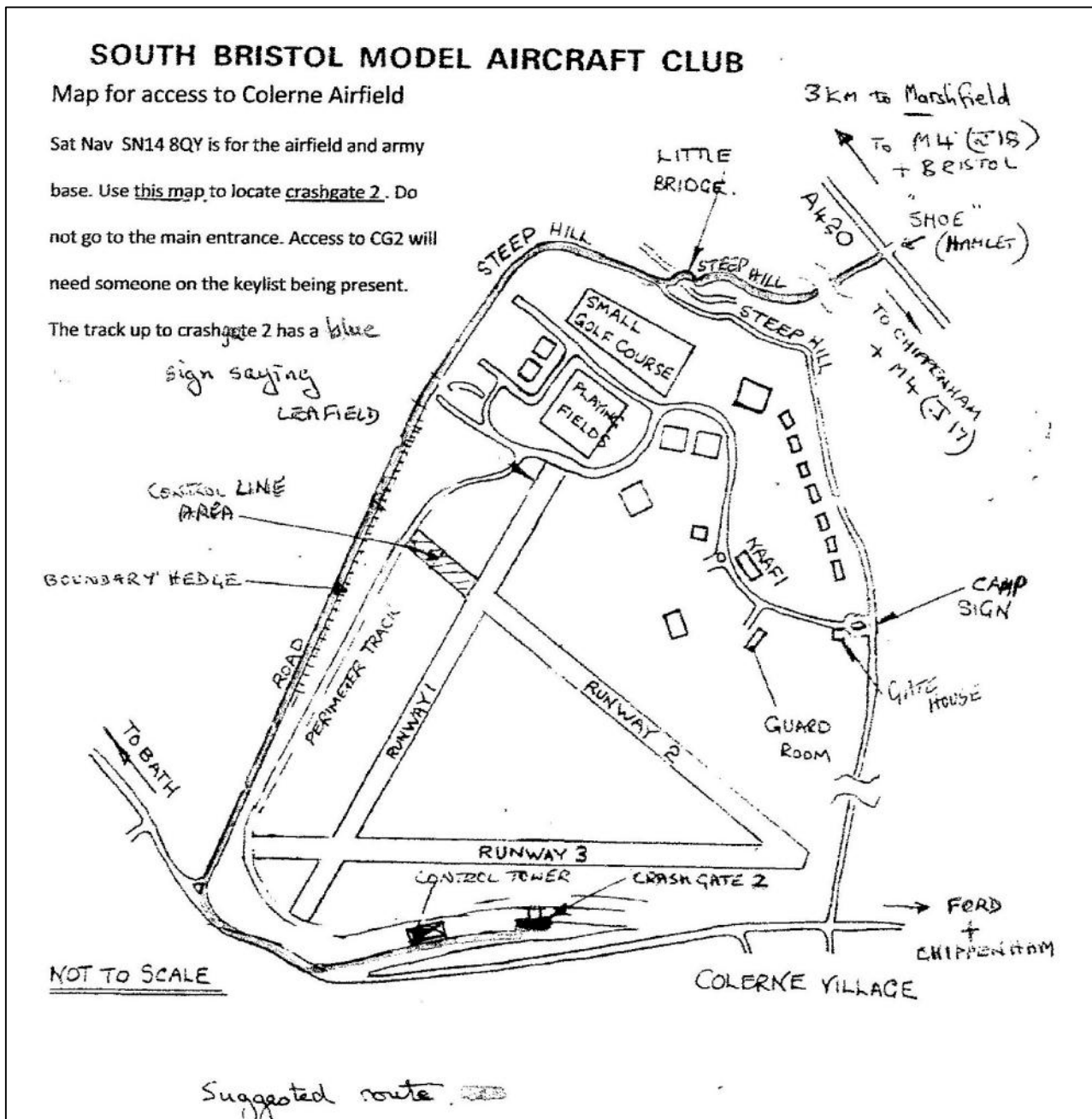
Roy Tiller



### Cagnarata meeting on 24<sup>th</sup> July at RAF Colerne;

Access & location are as per map below:

Competition details can be found at start of the adds on page 39.



Make the effort - turn up & have an enjoyable day. It's a real airfield!

### Disposal of items from Linsey's Estate

The remaining items & models from Lindsey's estate have now been disposed of with the considerable help of Nick Peppiatt, who very kindly came & sorted a great deal of indoor scale bits & pieces, plus helping to identify models & to compiling notes on the models selected for the BMFA Centenary Exhibition. Nick has taken the indoor bits for onwards disposal at future indoor meetings, some of the models have been donated to Flitehook & four as pictured have gone to the BMFA National Centre for the Centenary Exhibition later this summer.

In the pic below, reading from the top clockwise there is Mr Smoothie, Republic Thunderbolt, Hawker Tempest 3 prototype & Fairey Firefly.





The Thunderbolt was featured in an article written for Flying Models & is reproduced elsewhere in this NC.

Notes for the Exhibition were compiled for Martin Dilly as follows:

***Pearson-Williams 1938 "Mr Smoothie"***

The 1938 National Air Race in Cleveland, Ohio was the site of the Thompson Trophy Race 300 lap/300 mile race. New aircraft entry, the 1938 Pearson-Williams PW-1 Mr. Smoothie was designed around the Curtiss D-12 Conqueror engine by Rodney Nimmo capable of 375 mph and built by Bud Pearson and Lee Williams. The well-streamlined aircraft featured retractable landing gear, a tightly cowled engine and radiator installation. Cooling air entered through a truncated conical propeller spinner swirled using propeller-rotated fan blades passed through the radiator, and then exhausted via ports on the side of the engine cowling.

Wingspan of model: - 19"      Scale: - Approx 1/15

***Hawker Tempest Prototype No 3***

This is one of the first three prototypes that eventually became the Hawker Sea Fury. Following from the development of the Tempest, itself a refinement of the Typhoon; and garnering inspiration from a captured FW-190 in 1942, British Air Ministry Specification F.6/42 called for a new, lighter fighter aircraft. Hawker proposed a design that shared most of the structure of the Tempest, but with three new engine options - the Napier Sabre, Rolls-Royce Griffon and Bristol Centaurus. LA610 started life as the Griffon example of the Fury I.

Wingspan of model: - 22"      Scale: - Approx 1/22

***Fairey Firefly***

The Fairey Firefly is a Second World War-era carrier-borne fighter aircraft and anti-submarine aircraft that was principally operated by the Fleet Air Arm (FAA). It was developed and built by the British aircraft manufacturer Fairey Aviation Company.

Development of the Firefly can be traced back to a pair of specifications issued by the British Air Ministry in 1938, calling for new naval fighter designs. Designed to the contemporary FAA concept of a two-seat fleet reconnaissance/fighter, the pilot and observer were positioned at separate stations. In flight, the Firefly was superior in terms of both performance and firepower to its predecessor, the Fairey Fulmar. Due to a protracted development, the type only entered operational service towards the end of the conflict, at which point it was no longer competitive as a fighter. The limitations of a single engine in a relatively heavy airframe reduced its performance, but the Firefly proved to be a fairly sturdy, long-ranged, and docile aircraft during carrier operations. The Fairey Firefly served in the Second World War as a fleet fighter.



The model was probably created on the same basis as that of the Thunderbolt - the reproduction of an undiscovered early KK Flying Scale Series plan.

Wingspan of model: - 26  $\frac{1}{2}$ "      Scale: - Approx 1/18

### ***Republic Thunderbolt***

The Republic P-47 Thunderbolt is a World War II-era fighter aircraft produced by the American aerospace company Republic Aviation from 1941 through 1945. Its primary armament was eight .50-caliber machine guns, and in the fighter-bomber ground-attack role it could carry 5-inch rockets or a bomb load of 2,500 lb (1,100 kg).

The Thunderbolt was effective as a short-to medium-range escort fighter in high-altitude air-to-air combat and ground attack in both the European and Pacific theatres.

The construction of the model itself is based that used in Albert Hatfull's original Keil Kraft Flying Scale Series shown in the 1946 KK Handbook. A Thunderbolt is listed, but the plans for this particular aircraft have not been found. A description of Lindsey's model with plans drawn by Bob Jones was published in Flying Models June 2007.

Lindsey's model is finished in the markings of the allies South East Asia Command in WWII.

Wingspan of model: - 27"      Scale: - Approx 1/18

These free-flight models are rubber-powered and are of traditional balsa stick and tissue construction. They have been paint finished using an airbrush and decals have been applied as required.

### ***Lindsey Smith***

Lindsey, who died at the end of 2021 at the age of ninety, was a life time aero-modeller. In many ways his interests remained with the small rubber-powered scale models of his youth, built from balsa sticks and tissue in the traditional way. He successfully campaigned his Comet Curtiss Navy Racer a number of times to win the Masefield Trophy at Old Warden, took part in, won on several occasions, and was CD for the Earl Stahl events at Middle Wallop, and travelled to the USA for Flying Aces Club competitions. He also made models for power sources with similar characteristics to twisted rubber, such as CO2 motors and compressed air motors. His prolific output and interest is reflected in the wide variety of unusual and sometimes difficult to identify models he bequeathed to SAM1066, all of which appear to have been flown. Additionally, he also set up and ran Small Scale Custom Services with his wife, Jane, to provide lightweight vac-formed components for builders of the types of models that he, himself, loved to build and fly.

The kits have been listed & appear as a separate "for sale" ad in this edition of the NC. We have received payment from the Aviation Bookshop for the full size aviation books so the club finances are now in a reasonable situation.

Thanks to all who have helped in this quite formidable exercise!

### ***Elsewhere***

I missed out on the 3<sup>rd</sup> Area Meeting & London Gala due to other commitments but I believe our Chairman & maybe others did attend the latter so perhaps there are separate reports on these events. By all accounts, the weather was benign for the latter but not the former!

### ***Robin Kimber's Gliders***

Here are pics & a bit of info on models in the first batch. Any help in identifying the models would be gratefully appreciated, as would offers of a permanent home for any of them. Almost all models have two piece wings but we found no wing joiners! All are fitted with Tomy timers & auto-rudder. They are all very well built; however some of the tissue is aging & therefore potentially frail. Each would no doubt need a bit of trimming to optimise performance. The probability is that Robin may have described these models in his column in SAM Speaks, which



he wrote in conjunction with David Beales & Peter Michel for many years but as I have given all my SAM Speaks away I have no source of ready reference to hand.

No 1: Wing span 177cm; Chord 17.5cm, Fuselage length 115cm



No 2: Wing span 123cm; Chord 10.7cm; Fuselage length 95cm



No 3: Wing span 192cm; Chord 16cm; Fuselage length 116cm





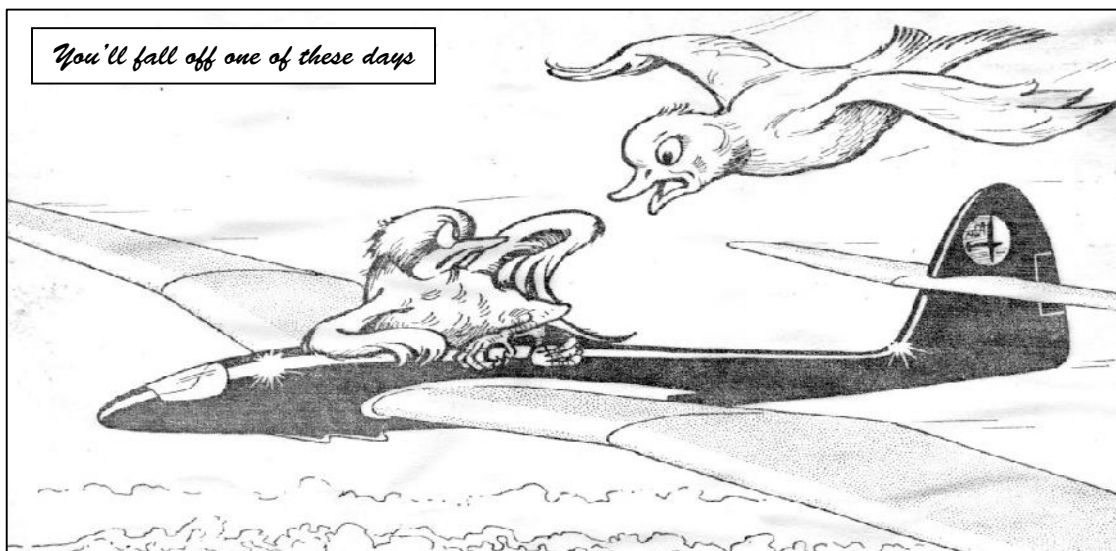
No 4: Wing span 208cm; Chord 21cm; Fuselage length 115cm (Tissue very brittle)



No 5: Wing span 176cm; Chord 15 cm; Fuselage length 81cm



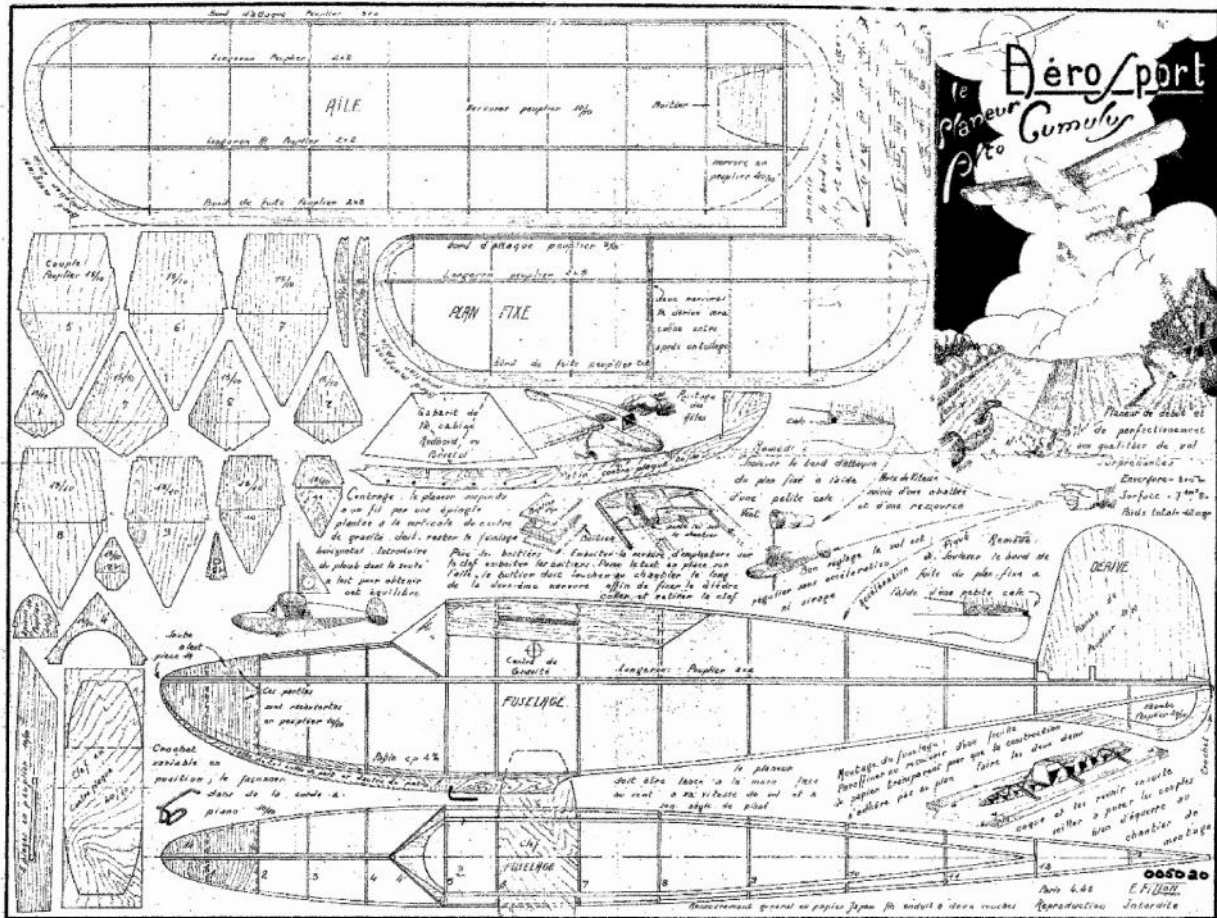
More next month - there are another 17 to follow!



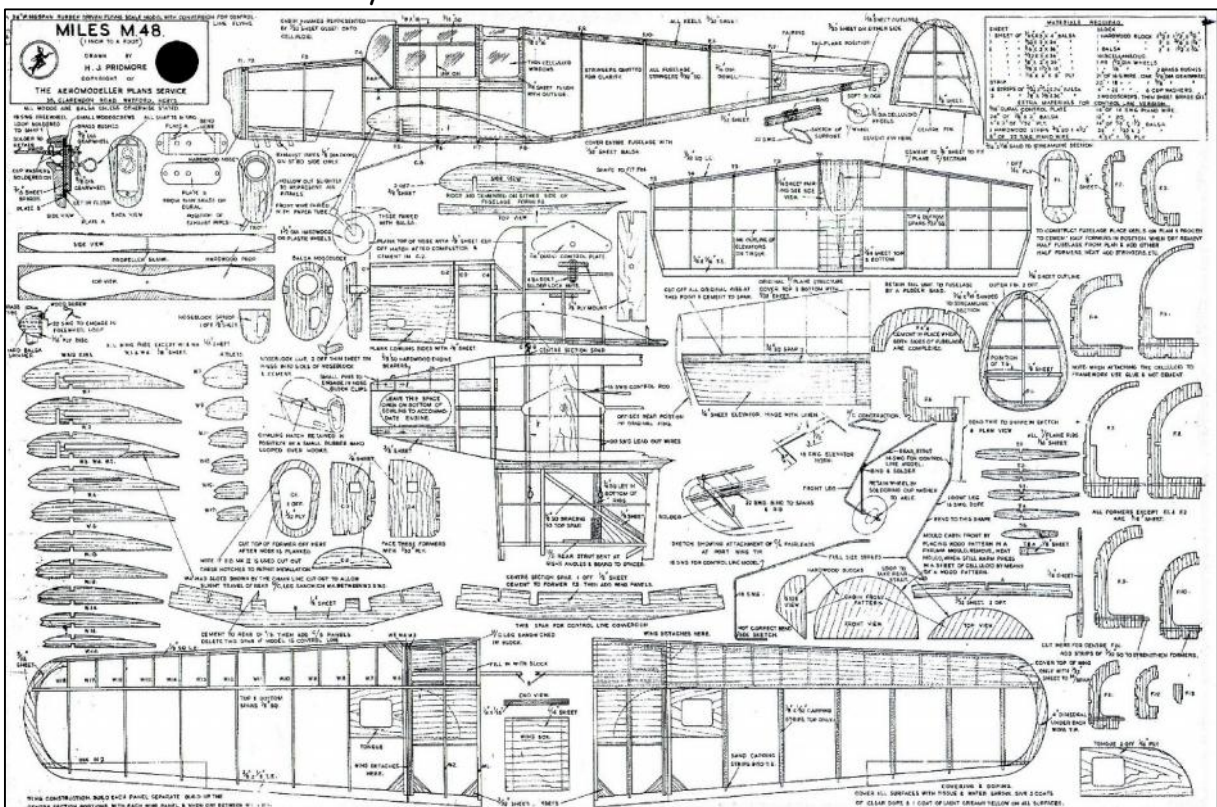
Roger Newman



**Glider: Alto Cumulus**  
listed as a beginners design by Fillon from 1943



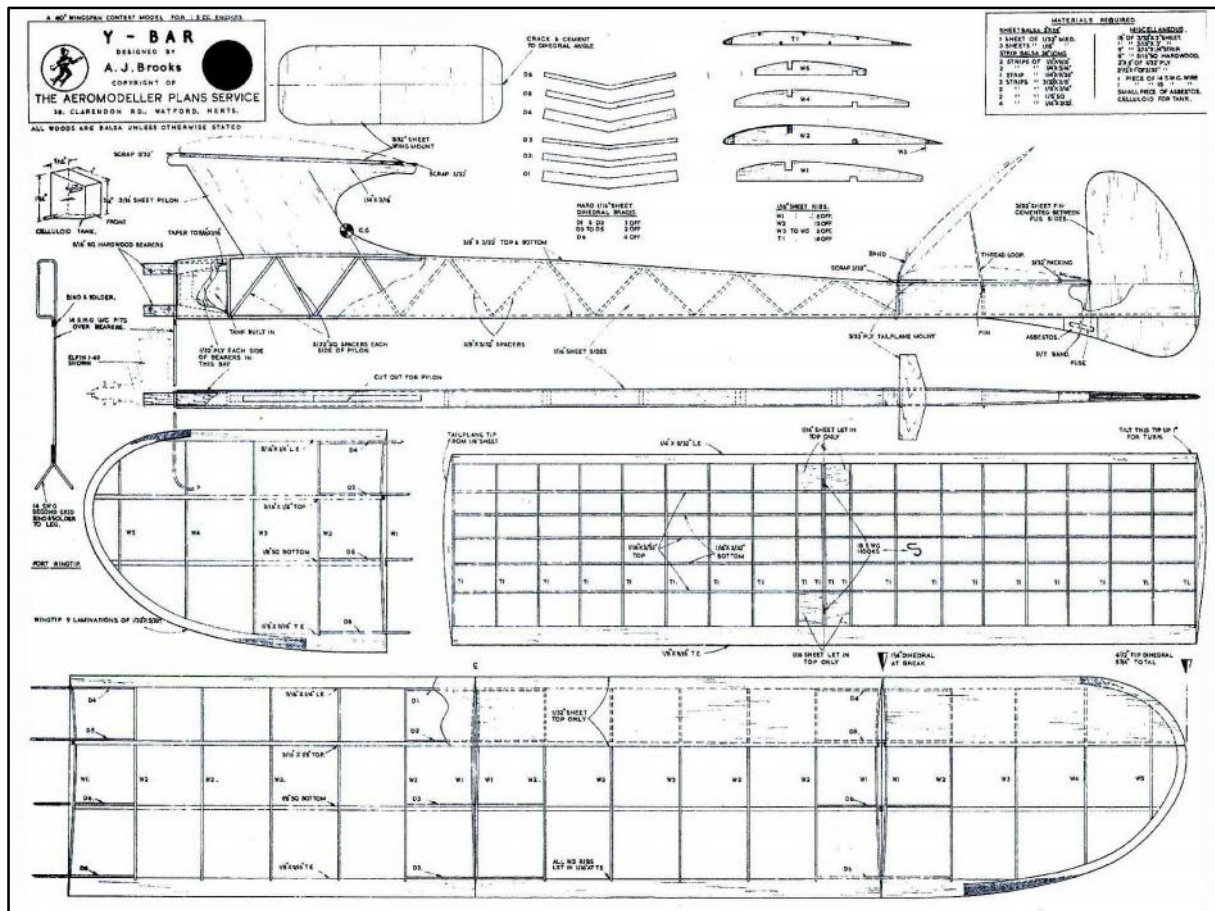
**Rubber: Miles M48**  
by a master of scale - Harold Pridmore





### Power: Y-Bar by Tony Brookes in June 1955 Aeromodeller

only because of recently talking to John Taylor, who mentioned that Bill Longley had obtained one from somewhere, converted it to electric power & was rewarded with an electrifying climb - pardon the pun!



Roger Newman

## SAM1066 'CAGNARATA' CONTEST 24<sup>th</sup> July 2022 at RAF Colerne

This contest format is popular in Italy and is basically an all-in event where models of different classes are flown against each other.

Differences in performance of the various classes are taken into account using a handicap system (K factors) with different maxes depending on the K factors. The classes to be flown with associated K factors and maxes are set out below. Each flight time is calculated by taking the actual flight time & multiplying it by the K factor.

| Classes                       | K Factor | Max (secs) |
|-------------------------------|----------|------------|
| E36 (Motor run 7 secs)        | 1        | 120        |
| M/V Power                     | 1        | 120        |
| FIG / Vintage Coupe           | 1        | 120        |
| FIII / A1                     | 1        | 120        |
| M/V Rubber                    | 1        | 120        |
| Open Vintage / Classic Glider | 1        | 120        |
| Tailless                      | 1        | 120        |
| P30                           | 4/3      | 90         |
| E30                           | 4/3      | 90         |
| CO2                           | 4/3      | 90         |
| Under 25in Vintage Rubber     | 3/2      | 80         |
| IIi Start Glider              | 3/2      | 80         |
| at /HLG                       | 2        | 60         |
| E20 (Open class) 8 sec run    | 2        | 60         |

**Note 1:** All fliers must be BMFA members

**Note 2:** 3 flights for comp, no rounds

**Note 3:** Competitors may enter more than 1 class for single entry fee

**Note 4:** DT fly-offs may be used as appropriate, fly-off time as per max in class

**Entry fee: £5 – covers comp entry and/or sports flying.  
Free entry for partners.**

**Gates open 10.00am. Flying commences 11.00am,  
finishes at 5.00pm**



## QUICK - A SLICKER

Could somebody possibly loan a Slicker for the BMFA Centenary exhibition at Buckminster. We need an example of this iconic early pylon kit model, any size from a Mite to a 60. Setting up is from July 10<sup>th</sup> and the exhibition ends on Aug. 31<sup>st</sup>.

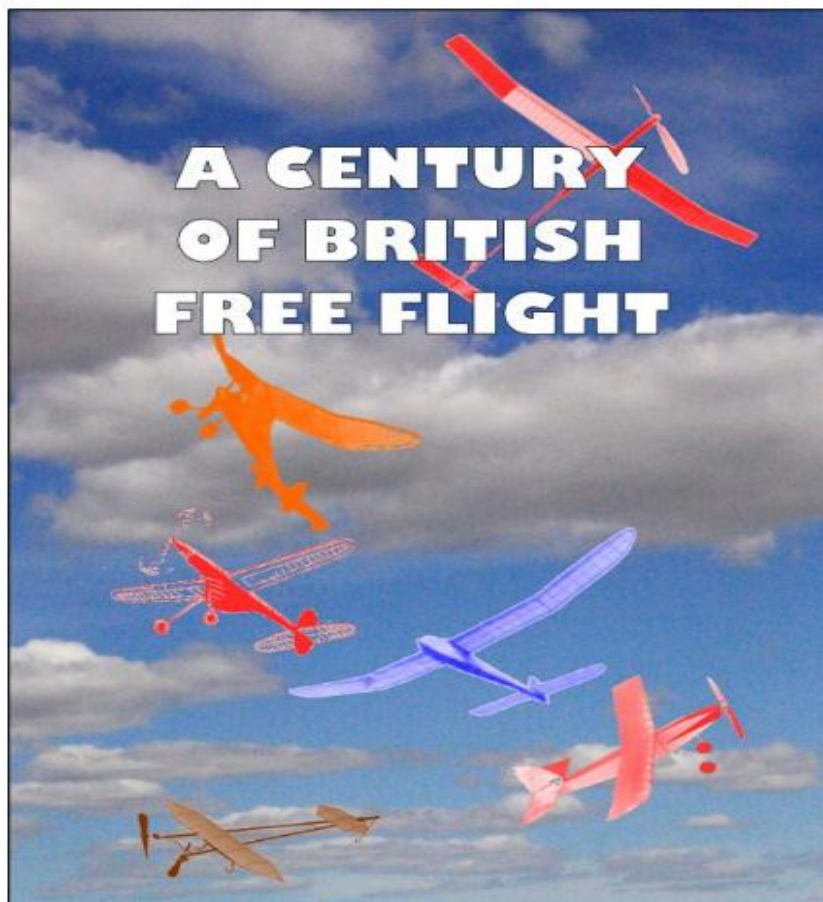
Please contact Jim Wright urgently if you can help now at:  
[jim.wright@dsl.pipex.com](mailto:jim.wright@dsl.pipex.com).

## 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](mailto:martindilly20@gmail.com).



# Free Flight Nationals 2022

## Introduction

Following the non-availability of Barkston Heath the FFTC have agreed an alternative plan for the Free Flight Nationals, in doing this the FFTC have sought to minimise the confusion and disruption, to the overall contest calendar for 2022.

## Venues

Alternative venues were considered and investigated. However, due to the shortness of time, it was agreed that we should not consider a new and untried venue but settle for tried and tested sites

- Area 8 Salisbury.
- North Luffenham.
- Buckminster

## The plan

The replacement contests be a cut down Free Flight Nationals and will not be the same as the "real" Nationals. We will apply a "light touch" organisation in a similar vein to that was operated in 2021. The contests will be flown for their respective Free Flight Nationals trophies. The contests will be run to the standard free flight gala format. SAM35 will run their free flight and control line events at the SAM35 Retrofest event on 25-27 June at Buckminster. The only event not included is the 4/8oz Wakefield this will be added to the East Anglian Gala.

## Entry and Fees

There will be no pre-entry requirement. Entry on the day. The entry fee is covered by the contest licence or payable at £10.00 per day allowing the entrant to fly in as many events/classes as they desire.

## Facilities

There will be no camping or other facilities except for the provision of toilets. The entrance gate at Sculthorpe and Luffenham will be manned. We will arrange to collect the entry fees at the gate.

## Awards

- Certificates and medals for events will be awarded.
- Hand launch glider and catapult glider will be flown at both North Luffenham and Salisbury Area 8. The best time at either event will decide the place and the awarding of trophies.

## Details

- There will be no pre-entry requirement. Entry on the day. The fee would be a simple £10.00 per day charge. This fee would allow the entrant to fly in as many events/classes as they desire
- Management on the day at North Luffenham will be Ken Faux. Salisbury Area 8 Mike Woodhouse, who also has overall responsibility being the Free Flight Nationals coordinator.
- Number of flights and maxes to be decided on the day. There will be no rounds for FAI
- Start 09:00 finish 17:00

## Free flight – Salisbury Area 8

| Saturday 4 <sup>th</sup> June – Start 0900 - 1700 | Sunday 5 <sup>th</sup> June – Start 0900 - 1700 |
|---|---|
| BMFA Glider                                       | F1A Glider                                      |
| BMFA Rubber                                       | F1B Rubber                                      |
| BMFA Power  | F1C Power                                       |
| BMFA Electric                                     | F1Q Electric                                    |
| Classic Rubber/Power                              | Hand Launched Glider                            |
| Women's Cup                                       | Vintage Rubber/Power                            |
| Catapult Glider                                   | Slow Open Power                                 |
| Frog Junior (J)                                   | Classic Glider                                  |
| Tailless  |   |
| Vintage glider                                    |   |

## Space – Salisbury Area 8

| Saturday 4 <sup>th</sup> June – Start 0900 - 1700 | Sunday 5 <sup>th</sup> June – Start 0900 - 1700 |
|---|---|
| S3A Parachute                                     | S6A Streamer                                    |
| S4A boost Glider                                  | S1B Altitude                                    |
| S9A Helicopter                                    | S2-P Payload                                    |
| S5C Scale Altitude                                | S8E/P Rocket glider                             |

## Mini - North Luffenham

| Sunday 29 <sup>th</sup> May – Start 0900 - 1700 |
|---|
| F1H (A/1 Glider)                                |
| F1G (Coupe d'Hiver)                             |
| F1J Power                                       |
| BMFA 1/8A Power                                 |
| E36 Electric                                    |
| P30 Rubber                                      |
| E30 Electric                                    |
| Mini Vintage                                    |
| CO <sub>2</sub> Duration                        |
| Catapult glider                                 |
| Hand Launch glider                              |

## Free Flight Scale - Sculthorpe

The STC have been advised that they can run the flight scale events at the East Anglian Gala. The STC will decide and advise accordingly.

## Bowden Trophy - Buckminster

To be run on Monday 6<sup>th</sup> June at Buckminster.

## SAM35 - Sculthorpe

The 4.0 and 8.0-ounce Wakefield to be run at the East Anglian Gala





## EAST ANGLIAN GALA

30 and 31 July 2022. Sculthorpe Airfield,

It will soon be that time again for free flight aeromodellers to head towards the lush green and spacious fields of Sculthorpe airfield. This site offers the largest unobstructed flying site in the UK set in the heart of the Norfolk countryside. Camping nearby at Fakenham Race Course, 01328 862388; the Garden Caravan Site, Barmer Hall, Syderstone, 01485 578220 and Fakenham Camp Site, [Fakenham.campsite@gmail.com](mailto:Fakenham.campsite@gmail.com)

| Saturday 30 July      | Sunday 31 July        |
|-----------------------|-----------------------|
| Combined Rubber       | Combined Power        |
| Vintage Rubber/Power  | Combined Electric     |
| Classic Glider        | Combined Glider       |
| Tailless              | Mini Vintage          |
| E36                   | Classic Rubber/Power  |
| P30                   | CO2                   |
| HLG-CLG.              | Vintage Glider        |
| SAM 35 4 Oz Wakefield | SAM 35 8 Oz Wakefield |

BMFA rules apply for above events.

Start time each day 9.00 am, finish 6.00 pm. Competition entry £10.00 each day for events taking place on the field.

Location. Sculthorpe airfield, OS Map reference TF 852300. 100 Metres in a NE direction along the B1454 from its junction with the A148 road from Kings Lynn to Fakenham. No refreshments on the field this year but there is a cafeteria close to the entrance. There will be toilets. BMFA membership essential. For safety reasons no motorised retrieval and no dogs.

Flyers not taking part in BMFA events, fun flyers and engine runners must register and pay the £5.00 site fee at control.

For further information on this event contact:  
Michael Marshall 01223 246142 or [mandrshall@gmail.com](mailto:mandrshall@gmail.com)

### Colin Shepherd's West Midlands Indoor Meetings Mainly Free Flight Leasowes High School Kent Road, Halesowen, B62 8PJ

2022  
Sep 24 - Oct 22 - Nov 19 - Dec 17  
2023  
Jan 14 - Feb 11 - Mar 11 - Apr 8 - May 8  
Flying 2-30 til 5-30

Admission - Flyers £8.00 - Spectators £2.00

Ultra-light R/C models may be flown for the first 15mins of each hour  
(quad copters or heavy fast flying models not accepted)

For further information phone Colin Shepherd  
07749817767 or 0121 5506132 or e-mail [cosh43@hotmail.com](mailto:cosh43@hotmail.com)

## Salisbury Plain Permits

Salisbury Plain Area 8 will be available for General Sport Flying and Trimming every weekend (Saturday and Sunday) plus Bank Holiday Mondays, in 2022, from January to December.

During this period flying on area 8 is subject to clearance being granted by Army Air Operations on the preceding Friday. When the clearance is given, a clearance number and the times available will be notified to users via their email addresses.

Users must be in possession of a current permit. To apply for a permit you must complete the application form to be found on the 'Free Flight Technical Committee' website. The cost is £20. Retain the conditions of issue and code of conduct for future reference.

It is important that you read and understand the conditions of issue and code of conduct before submitting your licence application.

Please note that the use of Salisbury Plain Area 8 for Model Flying is delegated by the MOD DIO (SPTA) to the BMFA via the management of the FFTC.

**No other use is permitted.**



## Free Magazines

There are:-

Aeromodellers: 7 x 1955, 6 x 1956 and Jan 2013 to Nov 2021 complete.

Sam Speaks 2007

AMI Aug '02 to Apr '04

The 2013 to 2021 Aeromodellers are all in perfect condition except for the removal of some free plans.

The 1955 & 1956 are without covers and consequently a little tatty.

The Sam Speaks are in perfect condition as are the AMI's

I want nothing for them just a good home!

They would need to be collected either from my home or an Area meeting, as three boxes have a total weight of just over 20 Kg.

If interested contact [john-richardson@btconnect.com](mailto:john-richardson@btconnect.com) or 01233 668767

Address is still 21 Beaver Road, Ashford

## MODELS FOR THE CENTENARY EXHIBITION

As you probably know, there will be an exhibition at Buckminster later this summer to celebrate a century (or a bit more) of British model flying. The aim is to look at our progress decade by decade, covering FF, RC and CL flying and models; obviously prior to the late 1940s there was only free flight to consider, but you, as a vintage enthusiast will know all about our first fifty years or so.

Jim Wright and Martin Dilly are organising this and we need offers of representative models, preferably original but possibly replicas, and significant bits of equipment to include in the exhibition. If you've been to the superb German museum of gliding and model flying at Wasserkuppe or the AMA museum at Muncie you'll know what's possible.

A few specifics. Does anybody have one of the L.G. Temple heavyweight gliders from the 1940s? A Rudderbug? A Chris Olsen Uproar? A Mick Farthing Lightweight glider (the one with the diamond fuselage and a pylon)? A 1920s-type compressed air model? A Banshee? A combat model from the days when they had fuselages? A Bill Morley Thunderbolt F2B model?

Any suggestions of what needs to be included, whether models, equipment or developments will be most welcome as soon as you like.

Jim is at [jim.wright@dsl.pipex.com](mailto:jim.wright@dsl.pipex.com), phone 01525-221543 and

Martin is at [martindilly20@gmail.com](mailto:martindilly20@gmail.com), phone 0208-7775533.

## Cocklebarrow Vintage R/C

Sundays

17<sup>th</sup> Jul: 21<sup>st</sup> Aug: 25<sup>th</sup> Sep

Signposted from Aldsworth Glos.  
on the B4425 between Cirencester/Burford  
and off the A40 between Northleach & Burford  
(follow SAM35 signs)

All types of R/C up to 1975  
Sport flying, no competitions

**BMFA Insurance Essential**

Contact: Tony Tomlin  
Tel: 02086413505 & 07767394578



## Peterborough Flying Aces Nationals Saturday 3<sup>rd</sup> September 2022

at  
Ferry Meadows, Nene Park, Peterborough PE2 5UU.  
Competitions 10.00 to 16.15

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

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

**Open Rubber /CO2 / Electric Incorporating KIT Scale:** Judged for flight profile and realism. Any CO2 motor/tank permitted. See note re verification. Up to 36" Span. Judged for flight profile and realism. See note re verification

**TSP L-1 Rocketplane Duration (New for 2022!)** Models can be of any type of construction, propelled by a single reaction motor of the TSP L-1 type. These motors will be supplied on the day. No others will be allowed and motors may not be modified in any way. All motors shall be mounted in a tube or clip securely attached to the model. Note the motors have a diameter of about 10.2mm. Best Three from five flights to count to a Max set on the day (see [www.peterboroughmfc.org](http://www.peterboroughmfc.org) for full rules and details)

**Jetex / 1 Shot Rocket Motor/ EDF Authentic Scale:** Judged for flight profile and realism. See note with regard to scale model verification

**Jetex/1 Shot Rocket Motor /EDF Profile Scale:** Judged for flight profile and realism. See note with regard to scale model verification

**P-20:** 20" span and length. Max 8" plastic prop, 6 gram motors (may be external), 3 flights to a Max.

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

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

**VMC "PILOT" & KK "ROBIN" Rubber Duration:** Senior and Junior Classes.

Models must use plastic prop and kit prop size. Note! We would like to see that any junior has had a hand somewhere in the building of the model.

**Rubber Ratio:** NO MAX. Any rubber powered model with wingspan 15"- 25" (tip to tip).

(KK "Elf" is eligible). Flight score is total time in secs (for 3 flights) divided by span inches.

**Catapult Glider:** Catapult, max 2 grams rubber on a 6" max handle. Any model permitted. 9 flights to a Max set on day. all flight times recorded, best 6 to count.

**Tabletop Precision:** Precision flight time Rubber event - models must Rise off Table.

**36 inch Hi-Start Glider:** Any glider up to 36", tip to tip, not flat span, launched by the supplied "Hi-Start" bungee.

**Best Unorthodox:** Unusual models. Flight must be seen by the nominated Scale Judge

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

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

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

**Young Flying Aces:** Prize for Best Junior: Scrolls for top 3 (Jun. 17yrs or under on 3/09/22)

**Prize for 1<sup>st</sup> place:** Scrolls for 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup>;

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

**PLEASE NOTE! NO GROUND PENETRATING STOOGES PERMITTED**

Revel in the special atmosphere created at this unique event.

Toilets, Café, and Park Visitors Centre.

Contact: Luke Goymour on 07752 236645 or [revgoymour@googlemail.com](mailto:revgoymour@googlemail.com)

See also Peterborough MFC Website at [www.peterboroughmfc.org](http://www.peterboroughmfc.org)

Where applicable, Maxes for each class will be set on the day

Govt. and BMFA Covid restrictions applying at the time will be enforced

## Southern Area BMFA Free Flight Gala

### R.A.F. Odiham

Saturday August 6<sup>th</sup> 2022.

0900-1800hrs,

The licence application is now being prepared,

having been given the OK by the RAF.

Date set for Sat August 6<sup>th</sup> with reserve date of Aug 13<sup>th</sup>.

General Sport flying and competitions

#### Competitions

E36, Mini Vintage, coupe d'Hiver, Vintage classic glider combi,

Vintage wake 4/8oz, Vintage classic HLG/CLG.

Models to be CAA registered (if applicable).

C.D. Chris Redrup.

For security reasons, all attendees are required to pre-register, therefore those wishing to attend must send the following details to Peter Carter by post including entrance fee with cheques payable to Southern Area BMFA.

Name

Address

Contact details(phone/e-mail)

BMFA no

Vehicle. Reg no, Make, model and colour.

Entry fee payment of **£12** for flyers.

Arrive RAF Odiham main gate from 0800hrs onward  
and by 0945hrs latest and have a photo i/d

Peter Carter:-

74 Buckland Avenue,

Basingstoke, Hants, RG226JA

Tel 01256 352922. E-Mail. [P.carter34@btinternet.com](mailto:P.carter34@btinternet.com)



# THE CROOKHAM GALA 2022

will be held on Sunday 18th September  
on Salisbury Plain Area 8

## EVENTS

### Modern And Vintage Coupe combined

(3 flights only. Prize for best vintage score)

### Combined Glider: Mini Vintage: E36

(Prize for best Classic A1)



### COMBINED POWER

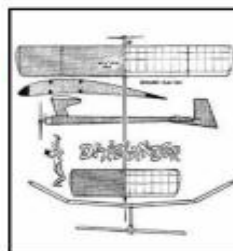
(Including George Fuller Trophy  
for best placed Dixielander)

1st, 2nd & 3rd cash prizes

for best Dixielanders

plus prize for best placed

other George Fuller design.



### CASH AND WINE PRIZES FOR ALL CLASSES

Comps Start: 10.00am Finish 5.00pm

Contact: Chris Redrup: Tel; 01483 487273

Mob; 07544533509, email [chrisredrup@yahoo.com](mailto:chrisredrup@yahoo.com)

Supported by Southern Area BMFA

## Southern Coupe League Calendar 2022

| Date                     | Event                 | Venue           |
|--------------------------|-----------------------|-----------------|
| 7 <sup>th</sup> Nov 2021 | Coupe de Brum         | N Luffenham     |
| 27 <sup>th</sup> Mar     | Second Area           | Area Venues     |
| 8 <sup>th</sup> May      | London Gala           | Salisbury Plain |
| 26 <sup>th</sup> May     | Dreaming Spires       | Port Meadow     |
| 29 <sup>th</sup> May     | Nationals             | N Luffenham     |
| 10 <sup>th</sup> July    | Fifth Area            | Area Venues     |
| 24 <sup>th</sup> July    | SAM1066 Cagnarata     | RAF Colerne     |
| 6 <sup>th</sup> Aug      | Southern Area Meeting | RAF Odiham      |
| 21 <sup>st</sup> Aug     | Southern Gala         | Salisbury Plain |
| 18 <sup>th</sup> Sept    | Crookham Gala         | Salisbury Plain |
| 9 <sup>th</sup> Oct      | Coupe Europa          | Salisbury Plain |

## Bodnar RDT

As many will be aware since my departure from LBE service of RDT systems has been 'tricky'

Over time I have received enquires as to if I could help, this was not possible.

However.

It is my intention to obtain the remaining parts of the RDT systems. To that end I may be able to help.

I DO NOT intend to supply any new starter kits merely service systems of previous owners.

Once the remaining parts are sold they will NOT be remanufactured so supply is limited.

Contact me at [fifiuk@hotmail.com](mailto:fifiuk@hotmail.com) or phone me on 07871 459291

Peter Brown



**Waltham Chase Aeromodellers**  
**Indoor Free Flight Meetings**

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

**Thursday Evenings 7-0pm til 9-30pm, £5**

**2022 Dates:**

**Jan 20<sup>th</sup> - Feb 3<sup>rd</sup> - Feb 17<sup>th</sup> - Mar 3<sup>rd</sup>**  
**Mar 17<sup>th</sup> - Mar 31<sup>st</sup> - Apl 14<sup>th</sup> - Apl 28<sup>th</sup>**  
**May 19<sup>th</sup> - Jun 9<sup>th</sup> - Jun 23<sup>rd</sup> - Jul 7<sup>th</sup>**  
**Sep 22<sup>nd</sup> - Oct 6<sup>th</sup> - Oct 20<sup>th</sup> - Nov 3<sup>rd</sup>**  
**Nov 17<sup>th</sup> - Dec 1<sup>st</sup> - Dec 15<sup>th</sup>**

Due to current restrictions, for the immediate future the organisers will need attendees to pre-book their slot at each meeting with the maximum number of attendees being set at **14**. If the number of pre-bookings is significantly less than **14** then the organisers may have to reduce the meeting duration to avoid running at a significant financial loss. Hopefully, in the not too distant future, the coronavirus situation will calm down and we will enjoy greater numbers of attendees such that pre-booking and event duration adjustment will not be necessary. For the time being it is also a requirement that you wear a face mask.

**To book a slot** at a meeting (and for any further information) contact the meeting organiser, Alan Wallington, via email at [alan@ajwallington.co.uk](mailto:alan@ajwallington.co.uk) or by phone on 01489 895157. This should be with Alan by the morning of the Wednesday before the meeting you wish to attend. You will receive confirmation of your slot on the Wednesday evening.

And finally all flyers must be current members of the BMFA. Please bring your 2022 certificate with you to your first meeting or alternatively email it to Alan with your first pre-booking request.

**E30/RDT Batteries**

I have had another delivery of 75mAh 1s lipo's which other users tell me are the best E30 batteries they have ever had. They are of course also suitable for RDT. If you send me £10 I will put 4 in a Jiffy bag and send them to you.

Ron marking, Pros Kairon, Pennance Road, Lanner  
 Redruth TR16 5TF

**CARBON BOOMS**  
**For Hand Launched Gliders**

If you need tapered carbon tubes for HLG booms I may have what you want. As supplied they are 99cm long, taper from 5.2mm to 2mm and weigh 6.4gm. As a rough test a 58cm length, suitable for a Yashinskiy type of model, weighs 3gm after a little application of wet-and-dry paper (used wet, of course) and it looks as if there's quite a bit more that can come off. The thin end that's left is good for a catapult glider.

Price is £7.00. In normal times I'd sell direct at contests, but postage and packing would be extra, depending on how many you need.

Contact Martin Dilly to order  
 Tel: 0208 7775533 or e-mail [martindilly20@gmail.com](mailto:martindilly20@gmail.com).



## 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](mailto: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.

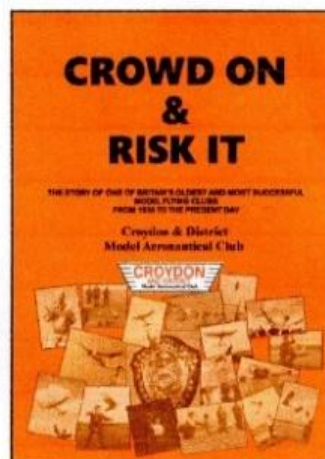
## CROWD ON & RISK IT

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 Basingbourn.

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





## DILLY JAP IS BACK

After a bit of a gap since the final 5 yards came off my last bulk roll of Japanese tissue several people have asked if it will be available again, so I've just received my seventh roll. Doing the sums, that means that there's now just 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.

Anyhow, since the last roll came in 2015, the price is slightly higher (maybe as a result of you-know-what ...xit and its effect on sterling), but it's still only £13 for a five yard roll a yard wide, or £15 by mail to the UK. I normally sell it in rolls at contests, but lately many people have had it sent lightly folded, so I can do that if you prefer.

I'm on 0208-7775533 or e-mail: [martindilly20@gmail.com](mailto:martindilly20@gmail.com)

### INDEPENDENT REVIEW OF DILLY JAPANESE TISSUE

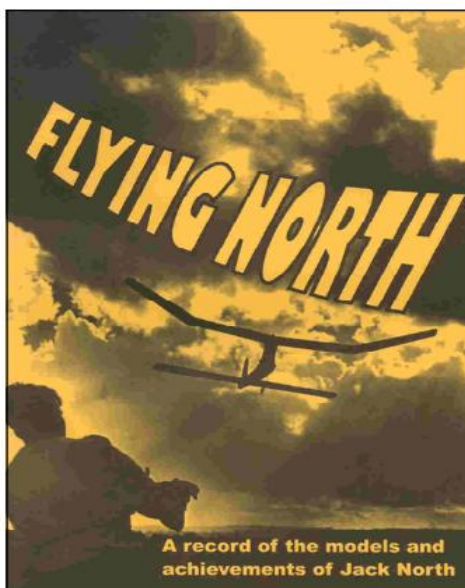
The following appeared on the Hip Pocket Aeronautics Builders' Forum. Nine different tissues were tested, doped and un-doped.

"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 Silkspans 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!"

## 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 £20.00 in the UK, £24 airmail to Europe and £30 elsewhere.  
Contact Martin Dilly on +44 (0)208-7775533 or e-mail [martindilly20@gmail.com](mailto:martindilly20@gmail.com)



## 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 Darmon  
 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 RES - RC for the Aging Free Flyer - Andy Sephton  
 From Wichita to Robin III - Mike Fantham  
 Further Thoughts on Carbon-Skinned Wings for F1A - Stuart Darmon  
 Geo Fencing and Electronic Stability - John Emmett

The UK price is £13 including postage; to the rest of Europe it's £16 and everywhere else it's £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 'BMFA 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,  
 West Wickham,  
 Kent  
 BR4 0QW

Or by phone: +44(0)2087775533  
 Or e-mail: [martindilly20@gmail.com](mailto:martindilly20@gmail.com)

### FREE FLIGHT FORUM REPORTS OVERSTOCK SALE

There's an excess stock over the years of the following Free Flight Forum Reports – 1997, 1998 and 2016. There's an enormous amount of information there on a wide range of free flight topics as the following contents list shows.

1997- Slow Open Power - One Man's View by Dave Clarkson; Vintage Lightweights by Andrew Longhurst; Testing Balsa Quality by Bernard Hunt/ John Taylor; Return of an Old Tosser by Chris Edge/ Mike Fantham; Some Rambling Thoughts on Free-Flight Aeromodelling Design Trends by Andrew Crisp; Electronic Timers - An Overview by Chris Edge/Martin Gregorie; Selecting Slippery Stuff by John Barker.

1998 - Computer-Aided F1A Fuselage Layout by Mike Fantham; Fast Track to F1C Flying by John Cuthbert; Micro-Meteorology and Thermals by Mark Gibbs; The Latest Thinking in F1B Trimming by Peter King; F1A Tailplane Structures by Mike Fantham; Is the Weather Better on a Sunday or a Monday? by Phil Ball; A Practical Introduction to Electric Free-Flight by John Godden; Avionics and the Future of Free-Flight by Mike Fantham; GPS - A Global Position Paper by Julian McCormick; Builder of the Model - Where Next? by Mike Fantham

2016 - Indoor Scale Free Flight Gliders by Andy Sephton; Juniors in Free Flight by Mark Gibbs; Carbon Fibre for Aeromodellers by Mick Lester; The Making and Testing of F1B Rubber Motors by Peter Brown; Computations at Low Reynolds Number and a New Aerofoil for F1G (Coupe d'Hiver) Models by Alan Brocklehurst; Carbon Fibre Covered Prop Blades from Simple Tooling by Phil Ball; Weather Forecasts - How Good Are They and How to Interpret Them by Mark Gibbs; Capitalising on Low Drag Aerofoils and All That by Alan Brocklehurst; Basic Propeller Theory by Andy Sephton; Methanol to Lithium by Peter Watson; Some Interesting & Successful Models from 2015 by Phil Ball; Dave Greaves 1942-2016 - An Appreciation

To clear the excess we're offering all three Reports together at a special discount price of £15.00, a saving of £21 on the single copy prices. To Europe the cost is £18 and anywhere else it's £21. 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](mailto:martindilly20@gmail.com) .



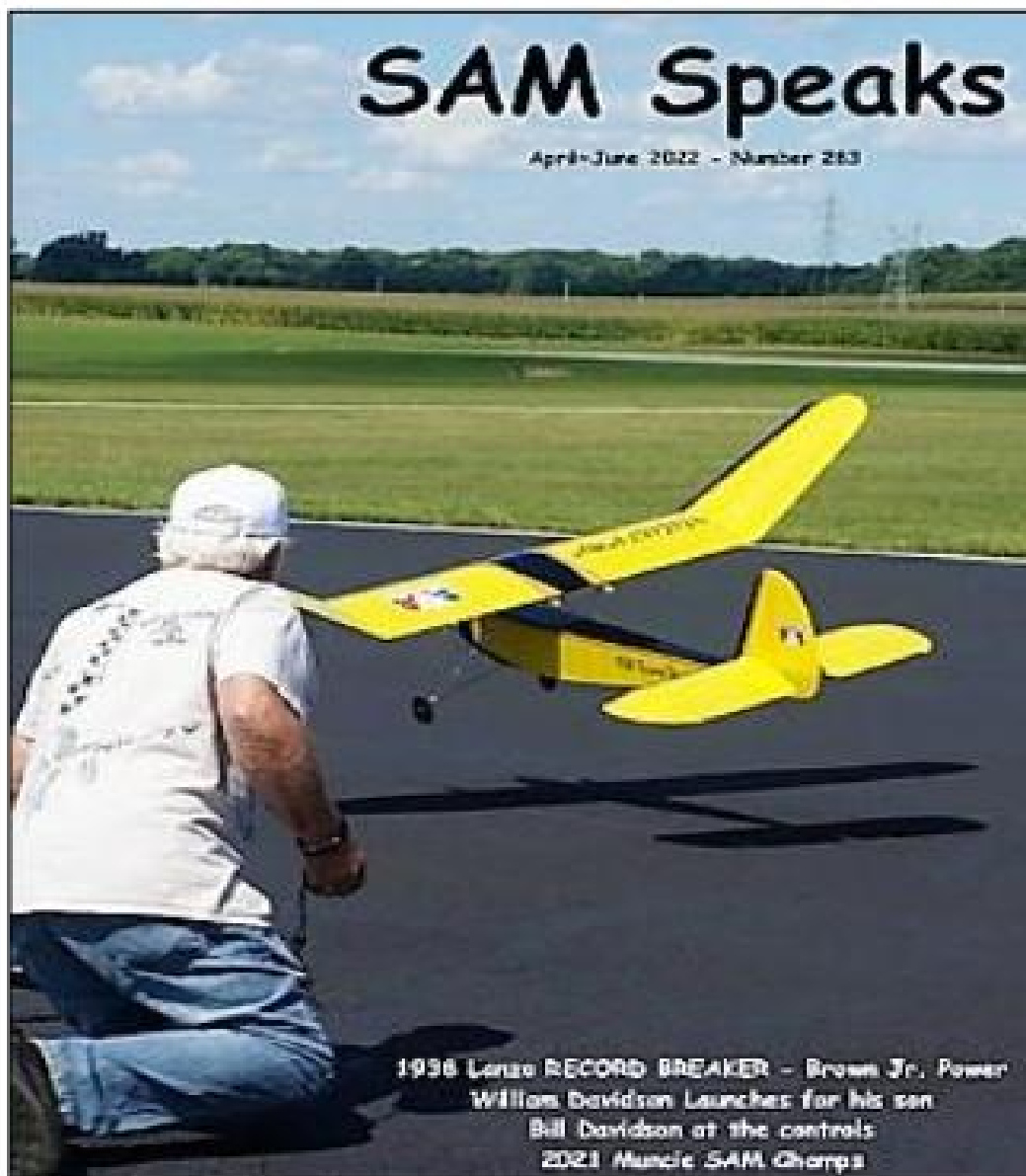
# **SAM Speaks USA.**

This bi monthly emagazine can be obtained from the Society of Antique Modellers. Web site

<http://www.antiquemodeler.org/>

for the modest cost of \$30 pa.

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





## Provisional Events Calendar 2022

With competitions for Vintage and/or Classic models

All competitions are provisional and Covid restrictions may apply, **Check websites before attending**

|  |               |   |
|--|---------------|---|
| February 27 <sup>th</sup>                                | Sunday        | BMFA 1st Area Competitions                                  |
| March 27 <sup>th</sup>                                   | Sunday        | BMFA 2nd Area Competitions                                  |
| April 3 <sup>rd</sup>                                    | Sunday        | Le Petit Classique de Brum, N Luffenham                     |
| April 15 <sup>th</sup>                                   | Good Friday   | Northern Gala, Barkston                                     |
| April 18 <sup>th</sup>                                   | Easter Monday | Croydon Wakefield Day & <b>SAM1066</b> ,<br>Salisbury Plain |
| May 1 <sup>st</sup>                                      | Sunday        | BMFA 3 <sup>rd</sup> Area Competition                       |
| May 7 <sup>th</sup>                                      | Saturday      | London Gala, Salisbury Plain                                |
| May 8 <sup>th</sup>                                      | Sunday        | London Gala, Salisbury Plain                                |
| May 29 <sup>th</sup>                                     | Sunday        | <b>FF Nationals, Mini</b> , N Luffenham                     |
| June 4 <sup>th</sup>                                     | Saturday      | <b>FF Nationals</b> , Salisbury Plain                       |
| June 5 <sup>th</sup>                                     | Sunday        | <b>FF Nationals</b> , Salisbury Plain                       |
| June 19 <sup>th</sup>                                    | Sunday        | BMFA 4 <sup>th</sup> Area Competitions                      |
| July 10 <sup>th</sup>                                    | Sunday        | BMFA 5 <sup>th</sup> Area Competitions                      |
| July 24 <sup>th</sup>                                    | Sunday        | SAM1066 Club (BMFA) Centenary event.<br>RAF Colerne         |
| July 30 <sup>th</sup>                                    | Saturday      | East Anglian Gala, Sculthorpe                               |
| July 31 <sup>st</sup>                                    | Sunday        | East Anglian Gala, Sculthorpe                               |
| August 6 <sup>th</sup>                                   | Saturday      | Southern Area BMFA Gala, RAF Odiham                         |
| August 21 <sup>st</sup>                                  | Sunday        | Southern Gala, Salisbury Plain                              |
| September 3 <sup>rd</sup>                                | Saturday      | Peterborough Flying Aces, Ferry Meadows                     |
| September 3 <sup>rd</sup>                                | Saturday      | Stonehenge Cup, Salisbury Plain                             |
| September 4 <sup>th</sup>                                | Sunday        | Equinox Cup, Salisbury Plain                                |
| September 11 <sup>th</sup>                               | Sunday        | BMFA 6 <sup>th</sup> Area Competitions                      |
| September 16 <sup>th</sup>                               | Friday        | Indoor FF Nationals, Daventry Leisure Ctr.                  |
| September 17 <sup>th</sup>                               | Saturday      | Indoor FF Nationals, Daventry Leisure Ctr.                  |
| September 18 <sup>th</sup>                               | Sunday        | Indoor FF Nationals, Daventry Leisure Ctr.                  |
| September 18 <sup>th</sup>                               | Sunday        | Crookham Gala, Salisbury Plain                              |
| October 2 <sup>nd</sup>                                  | Sunday        | BMFA 7 <sup>th</sup> Area Competitions                      |
| October 16 <sup>th</sup>                                 | Sunday        | BMFA 8 <sup>th</sup> Area Competitions                      |
| October 29 <sup>th</sup>                                 | Saturday      | Midland Gala, Venue T.B.C.                                  |
| November 6 <sup>th</sup><br>or November 13 <sup>th</sup> | Sunday        | Buckminster Gala  |

**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](http://www.SAM1066.org)

For up-to-date details of all BMFA Free Flight events check the websites

[www.freeflightuk.org](http://www.freeflightuk.org) or [www.BMFA.org](http://www.BMFA.org)

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

[www.SAM35.org](http://www.SAM35.org)



## Useful Websites

|                                    |   |  |
|------------------------------------|---|--|
| SAM 1066                           | - | <a href="http://www.sam1066.org">www.sam1066.org</a>                           |
| Flitehook, John Hook               | - | <a href="http://www.flitehook.net">www.flitehook.net</a>                       |
| Mike Woodhouse                     | - | <a href="http://www.freeflightsupplies.co.uk">www.freeflightsupplies.co.uk</a> |
| BMFA                               | - | <a href="http://www.bmfa.org">www.bmfa.org</a>                                 |
| BMFA Southern Area                 | - | <a href="http://www.southern.bmfa.uk">www.southern.bmfa.uk</a>                 |
| SAM 35                             | - | <a href="http://www.sam35.org">www.sam35.org</a>                               |
| National Free Flight Society (USA) | - | <a href="http://www.freeflight.org">www.freeflight.org</a>                     |
| Ray Alban                          | - | <a href="http://www.vintagemodelairplane.com">www.vintagemodelairplane.com</a> |
| Belair Kits                        | - | <a href="http://www.belairkits.com">www.belairkits.com</a>                     |
| Wessex Aeromodellers               | - | <a href="http://www.wessexaml.co.uk">www.wessexaml.co.uk</a>                   |
| US SAM website                     | - | <a href="http://www.antiquemodeler.org">www.antiquemodeler.org</a>             |
| Peterborough MFC                   | - | <a href="http://www.peterboroughmfc.org">www.peterboroughmfc.org</a>           |
| Outerzone -free plans              | - | <a href="http://www.outerzone.co.uk">www.outerzone.co.uk</a>                   |
| Vintage Radio Control              | - | <a href="http://www.norcim-rc.club">www.norcim-rc.club</a>                     |
| Model Flying New Zealand           | - | <a href="http://www.modelflyingnz.org">www.modelflyingnz.org</a>               |
| Raynes Park MAC                    | - | <a href="http://www.raynesparkmac.c1.biz">www.raynesparkmac.c1.biz</a>         |
| Sweden, Patrik Gertsson            | - | <a href="http://www.modellvänner.se">www.modellvänner.se</a>                   |
| Magazine downloads                 | - | <a href="http://www.rclibrary.co.uk">www.rclibrary.co.uk</a>                   |
| Aerofred Plans                     | - | <a href="http://www.aerofred.com">www.aerofred.com</a>                         |
| South Bristol MAC                  | - | <a href="http://www.southbristolmac.co.uk">www.southbristolmac.co.uk</a>       |

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 [membership@sam1066.org](mailto:membership@sam1066.org) to let us know your new cyber address (snailmail address too, if that's changed as well).

P.S.

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

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

Your editor  
*John Andrews*