

# NEW Clarion

## SAM 1066 Newsletter

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The Society of Antique Modellers Chapter 1066

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## Editorial

Not much of a year for free-Flight as yet. Here we are, well over halfway through a season of wind-blown events with several cancelled meetings due to forecasts of dire conditions by the weather men.

Indoor meetings are ever nearer as most Kick-off in September. I will be attending the revived events at the Sneyd sports hall in Walsall and have hopes of making some sort of effort to fly, although my increasing immobility makes things difficult.

That's enough griping, what have I and our contributors managed to cobble together for this issue:

- ]) First up, a piece by a new contributor Rory Pike, our membership secretary's son, reporting on a trip to a wind-blown Modelaire event at Old Warden.
- ]) Next, our secretary has unearthed a mystery model from the back of his shed. It is the complete framework of a rubber powered scale 'Lysander' seemingly from a plan by Howard Boys. Howard was one time president of my old club 'Rugby MESAS' and it was rumoured in the club that he attempted to market a Lysander kit, failed and had stacks of printed balsa sheets under his bed.
- ]) Pylonius has a train of thought as to what might occur if our hobby were to reach the dizzy heights of the likes of football and to be pursued by hordes of fans. What a ghastly idea.
- ]) I report on what will have been the final visit by Rachel and I to The East Anglian Gala at Sculthorpe. Another wind-blown event.
- ]) Engine analysis the powerful Enya 15D.
- ]) The CD Stephen Bowles reports on the East Anglian Gala with full results table.
- ]) MA News Review from 1948 discusses the poor quality of many models entered in national competitions and reviews take-off techniques.
- ]) Next I'm afraid is Part 3 of my article on Rugby MESAS is next, chronicling the clubs new power flier one John Bickerstaffe who was to become my best friend.
- ]) Nick Peppiatt continues his investigations into CO2 motors and highlights Gerard Moore's detailed work and manufacture of motors of his own.
- ]) Heard at the Hangar Doors Dec 1956 reports the death of Sir Richard Fairey founder of the aircraft company. Also the passing of an iconic aeromodeller, Ted Evans, designer and builder of several outstanding Wakefield models.
- ]) I follow up with more on Zeppelins, this time with pictures of the Cardington Sheds.
- ]) Followed by another of Ray Malmstroms designs, his 'Flier Phils Flier'.
- ]) Archivist Roy Tiller digs again into some of our oldest magazines. How he manages to file and find them at the drop of a hat beggars belief, you just ask a question and 99 times out of 100 he's back with the answer in no time flat.
- ]) Having featured the smallest aircraft built, now comes the biggest, the 'Antanov 225'.
- ]) Peter Hall profiles yet another coupe flier, this time the victim is Martin Stagg.
- ]) Sad to report the death of a SAM166 founder member Peter Tomlinson, aged 91.
- ]) There follows a series of four reports on the Southern Gala and Southern Coupe league which is approaching its end with Gavin Manion in an unassailable position. Alan Brocklehurst weighed in with a few event pictures.
- ]) Finally our secretary's Notes for the Month and the usual three plans wrap up this somewhat longer issue.

*Editor*

## Scale Weekend 22-23rd July 2023



This is a review of our July visit to the ModelAir weekend at Old Warden in Bedfordshire. Unfortunately the forecast for the weekend wasn't the most favourable, with high winds and rain for Saturday and around 12mph winds but no rain on the Sunday.

After arriving at the airfield we noticed that the usually packed trade line was looking rather empty. Much scouring was done, especially of the AI's hobbies tent. From what I remember we bought only a few tins of bits and bobs.

As the weather turned fouler and fouler, we decided to escape to the dry café and gift shop of Old Warden. After a good lunch we decided to explore the brilliant museum. We oooed and aahhed over potential planes to model, most notably the De Havilland Puss Moth. As with any visit to ModelAir, I felt obliged to use their RealFlight Rc sim. It was now around 4pm so most people were packing up and leaving. We thought this would be a good time to snatch a deal. We managed to grab a Middle Phase 2 for a bargain £25 with servos and battery. That'll be a fast one on the slope.

Sunday gave us much better weather so flying was possible but required some long walks. The trade stands were thankfully much bigger,



I managed to get a good deal on a 60 or so inch electric Extra 300. This will be a fun model when I get it flying. Dad Martin managed to snag a Mercury Magna and an Easy Pigeon (Electric glider). In terms of flying on that day, our friend Allan sadly couldn't get anything into the air the wind was a bit too extreme. Martin was 2nd in the SAM 35 Masefield Competition, but because of the high winds he was beaten by the other contestant by several seconds.

In 30 seconds Martin's Pilatus Porter flew over the perimeter hedge of the airfield.

After looking at the enormous trophy that could have been won we were thankful that we didn't win.



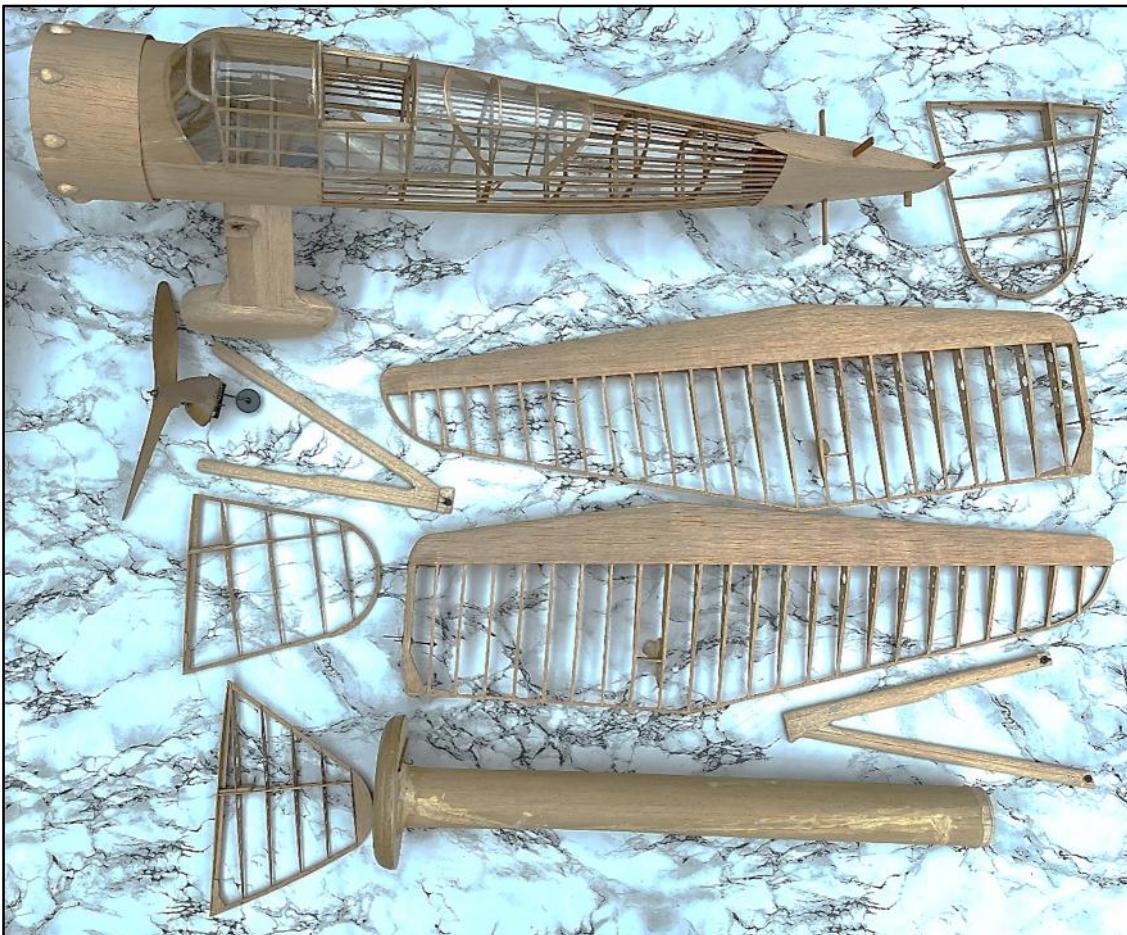
The last purchase was from a late aero modeller and it was a rather charming twin EDF model.



After packing/squashing everything into our car it was time to make the 4 hour journey back home. Overall a rather unique ModelAir and I look forward to the September one.

*Rory Pike*

Hazards of starting something! Going north again prompted me to sort out a load of plans to take to Derick Scott for his archives & potential scan candidates. This required moving various boxes from where they were stored. In so doing, I discovered an old model box buried under the various boxes of plans. In it was the complete framework of a rubber scale model.



The actual model is not a mystery - it's a Westland Lysander which is built but uncovered. The build quality is top notch. Judging by the bits of newspaper surrounding the framework, it must have been constructed around 1989. There are a couple of stickers indicating possible appearance at a Model Engineer show, which I'm guessing must have been at Wembley.

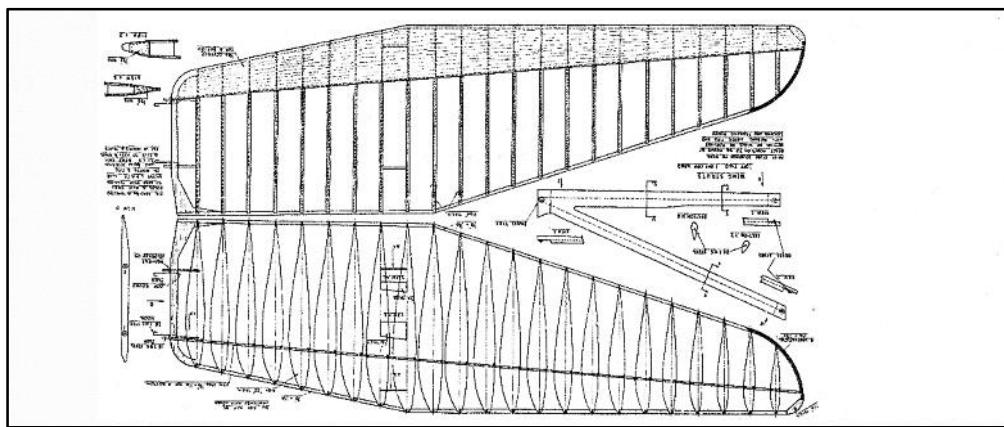
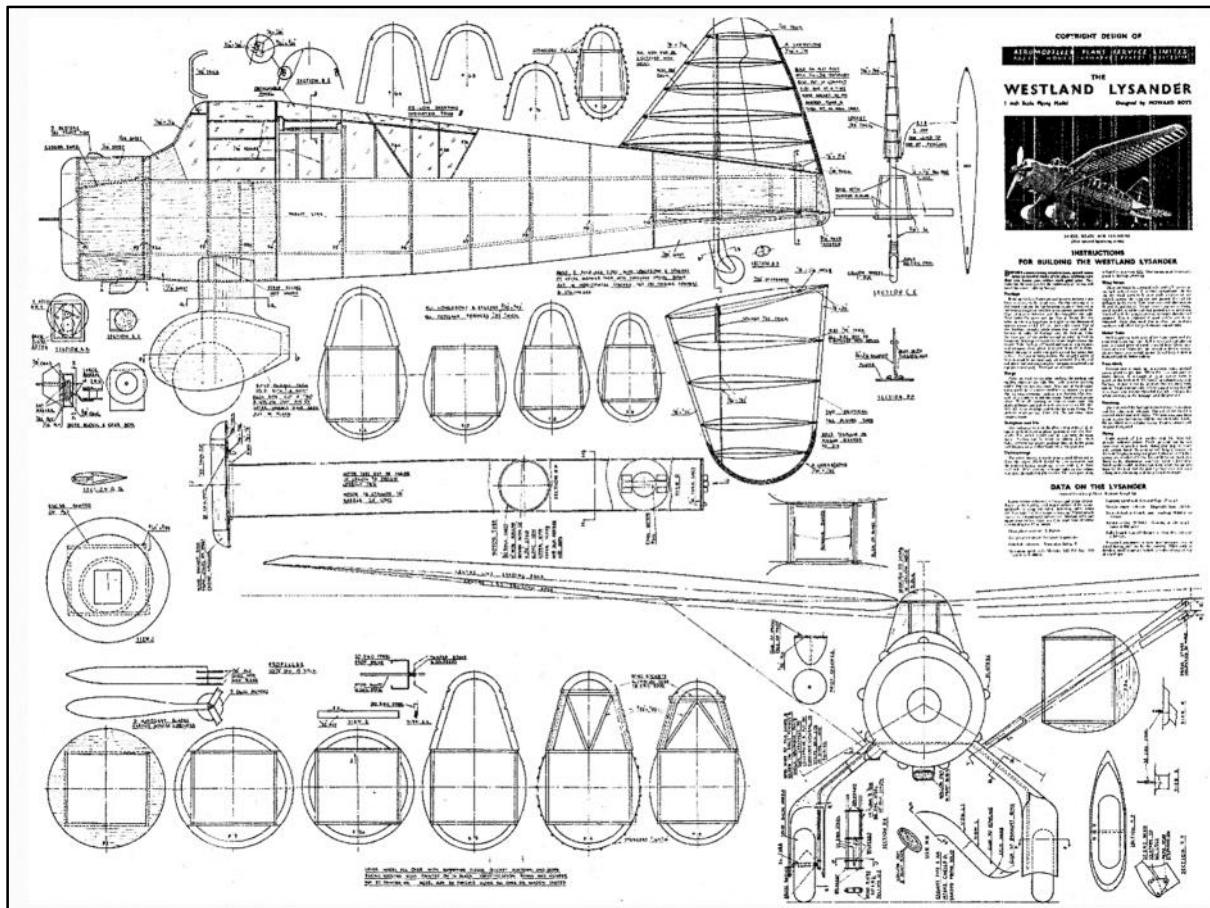
Now the mystery.

The model has its own model box & (I think) was amongst all the stuff recovered from Lindsey Smith's estate. Now whether Lindsey built it or not will forever remain a mystery. He may well have done but why was it not ever finished? Again, we shall never know.

However, a bit of digging through our plan file listing revealed that it could have been built from a Howard Boys plan - an early Aeromodeller plan, as it carries the Leicester address - FSR 161 as a flying scale rubber powered model - 50" span. Going through various indexes of Aeromodeller mags past still uncovered nothing that referenced FSR161. So I turned to the index of our Hon Librarian as my backstop & lo - it is listed however with a caveat that says "AM Plan Service not found". A call to Roy & a long conversation following some further digging by him still revealed nothing new. As the Aeromodeller moved office from Leicester to Hemel Hempstead around April/May 1952 the plan obviously predates the move.

Then - have we a scan of the plan in our DBHL plan library? Answer - yes but! The scans I have are .cal files - no pdf files. Fortunately I have a file converter - XN View, now we have a pdf plan - two pages complete with full building instructions, but still no information on the plan about when it was published. However the plan & model match - a win at last. So next a flog

through pre 1952 Aeromodeller magazines to find the publication date if possible - if indeed it was ever published in an Aeromodeller mag. But that can wait until I am back home, which is likely to be several weeks.



What to do with this lovely model? It's far too good to discard. All the component parts are there, including a beautifully carved three blade prop complete with noseblock & authentic gearing as per plan. **Anyone who would like a challenge e.g. a promise to finish the model & fly it, can have it.** It would certainly look the part at a future Old Warden meeting. Contact me by email as I'm on my travels yet again.

This little exercise throws up another question. Is there an authentic indexed list of published Aeromodeller plans from day 1 of the magazine anywhere in existence? If not, there is a compilation task for someone with a lot of spare time! Having had a quick look at early mags, there seems not to have been any rhyme or reason as to how early plans were referenced or indexed - indeed if they ever were? Maybe out there, someone has "a priori" knowledge which would be great to share!

*Roger Newman*



Extract from *Model Aircraft* September 1954

## Topical Twists

### The Pure in Heart

Undismayed by all the jet propelled advances in the world of aviation, our friends the Realists are still doggedly plugging that vintage cabin model as the last word in scale verisimilitude. The only difference is that they now call themselves Purists, which suggests that they see something frightfully immoral in the present day passion for speed and efficiency.

But perhaps I misjudge them. That vintage cabin model might well be a true scale counterpart of some full size aircraft. I'll have to pop into a museum one of these days just to check up.

• • •

Modern variant of that old story about the chap who was so lucky, that if he fell down a drain he'd come up with a bunch of violets, is the starry-eyed type who forgets to light his d/t and finishes up with a world record.

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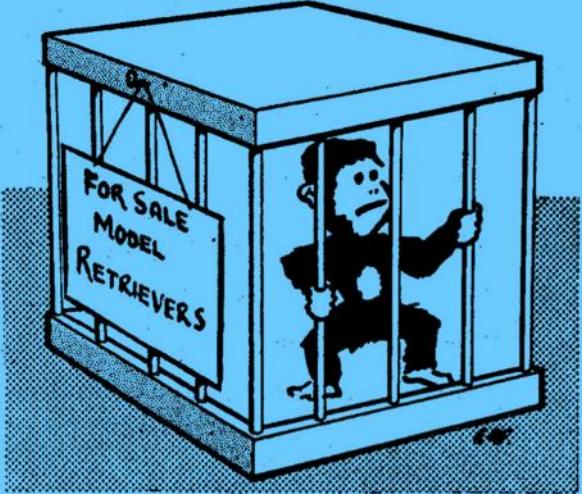
### Offside Comment

A writer in this journal has claimed that ". . . model flying is deserving of the interest accorded to football . . ."

Now, I don't know what black grievance this chap harbours against us poor, unoffending modellers for him to wish such a ghastly fate upon us. It's bad enough to try to cope with the relatively minor nuisance of the prying small boy and the odd, inquisitive dog, without having the multitude at large descending upon us in wild, enthusiastic hordes.

Craving as we do, the deserted quietude of the un-trodden cabbage patch, we are thankful that public interest in our quaint habits is limited to an occasional, but not very determined, effort to have us thrown off. To attempt to fly our models amidst a sea of cloth caps and waving rattles would be fatal to our hobby—and, indeed, to quite a few of the cloth capped fans, too.

Fortunately, it seems that our well-wishing friend will have to wait some little while before the grandstands and



turnstiles appear on Chobham Common, or, indeed, till we overhear this typical snatch of everyday conversation.

"Any luck wiv the treble chance, 'Arry?"

"Nah! Clottenham Modspurs let me dahn sumfink rotten."

"Well, wot abaht the Breezy Six?"

"Dead unlucky. The wevver turned right calm. Not a single out-of-sighter in the lot."

"No luck wiv yer twelve results, either?"

"Not a blinking sausage. There was me wiv twelve stone-bonkers all lined up, and the perishing area fergot to send in the results!"

• • •

### A Flowery Future

If, at some future time, model flying does assume the status of a national pastime, such as football, cricket, kit-buying etc., it may well be that some of the B.B.C. experts will have to switch over to model flying topics. Take the gardener, for instance:

"At this time of the year your winter stocks will either have been destroyed or left in a poor way by the abnormal weather which we always get at this time of the year. The late summer varieties should be coming along well, though, and after digging up a few of last year's old standbys—which may possibly require just that little bit of trimming—you should still be able to make a brave show on the autumn cabbage patch.

"Probably you will now be looking for a good climber. Well, by far the commonest species is Pylonia Convolvulus. Both the Northern variety, Silvio Stratospherus, and the Southern variety, Buskellia Slickstickus, can be recommended, but, perhaps, the most popular of all is the 'scrub' stock, which all too often come to grief when planted too firmly into hard, rocky ground. Of a lesser order is the gentle rambler, Sportus Cabinolia, which can be reared quite successfully on even the smallest plot. Care, however, should be taken to avoid that particularly dense specimen, Blowyu Jackus.

"Now, this being the damp season of the year (January to December) you must be specially cautious when laying out the new frames. See that you cover them well and spray lightly with water before applying your liquid warping solution. Even the novice can produce that beautiful white bloom, known as the Blushing Tissue, which looks so becoming on the coloured varieties.

"And just a few hints and tips to end with. First a word about that difficult customer, the Odoriferous Thyme-keeper. For maximum results careful cultivation is necessary, with liberal applications of soft soap, plus a little gentle twiggling. Do not, however, overdo the latter treatment, as it is unwise to disturb that friendly little chap, the Late Tick. A less friendly visitor to cabbage patch is that persistent pest, the Upwind Mayfly. This is best removed by a strong dose of salty verbiage.

"Finally, a reminder about that Sunday morning task: do see that you root out the late club specimen, Memberus Deadlossia, from their beds first thing."

• • •

Newest development in model aviation is something that looks suspiciously like a flying clothes horse (Peg-asus?).

Obviously just the thing to take out for an airing.

**Pylonius**

**East Anglian Gala: Sculthorpe July 29<sup>th</sup> & July 30<sup>th</sup>.**

Rachel and I trekked over to Erica's B&B in Fakenham where we have stayed, together with our friend from Ireland Peter Watt, for quite a few years now. This trip will I fear will be our last attendance at the Gala as we are finding it a little arduous when staying away from home these days.

The meeting was all but blown away, with strong winds on the Saturday and even stronger on Sunday. As spectators there was little activity for us to see but more than a few hardy souls managed to get some flights in. We were supporting Peter, only morally, and he made three flights with his P30 to finish in second spot. Boy was he knackered after his third retrieve.



Peter Watt winding and then preparing to release

**A few other pictures I managed to snap**

BMFA Secretary Paul Hoey defends his lunch "you're not getting any of mine"



Phil Ball gets his Dynamite away



Peter Watt winding again with Paul Hoey in support



An unknown to me Mini Vintage power flier getting set and launching



This picture just about sums up the weekend.

The flagpole in the picture is during one of the less windy spells, most of the time it was bent over like a fully drawn long bow.

Eating out in the evenings with Peter at one or other of the various establishments was the best part of the weekend for us.

We will miss it in the future.

*John Andrews*

594

November, 1957



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

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

## ENGINE ANALYSIS number 41

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

### ENYA 15D

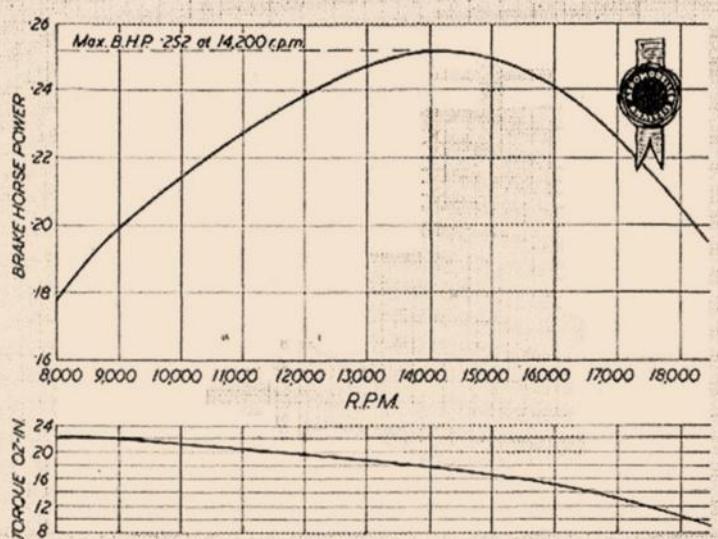
reviewed by R. H. Warring

effectively separates the two passages, except where they line up with the transfer port cut in the cylinder wall.

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

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

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



#### SPECIFICATION

Displacement c.c. (1517 cu. in.)  
Bore: .5895 in.  
Stroke: .5565 in.  
Bore/stroke ratio: 1.06  
Bare weight: 5½ ounces  
Max. Torque: 22 ounce-inches at 9,000 r.p.m.  
Max. B.H.P.: 252 B.H.P. at 14,200 r.p.m.

Power rating: 101 B.H.P. per c.c.  
Power/weight ratio: .049 B.H.P. per ounce

**Material Specification:**  
Crankcase unit: light alloy pressure die casting

Cylinder: hardened steel (ground inside and out)

Piston: cast iron (honed)

Con. rod: light alloy casting; bronze big end bush

Bearings: Rear ball race; bearing sleeve brass or bronze (reamed)

Crankshaft: heat-treated carbon steel

Cylinder jacket: aluminium (turned) with steel insert for compression screw

Spray bar assembly: nickel plated brass (flexible needle valve extension)

**Manufacturer:**  
Enya Metal Products Co.,  
5533 Araicho Nakanoku,  
Tokyo, Japan

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

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

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

Connecting rod is a light alloy casting, with a bronze bush for the big end bearing. It is quite substantial in size to accommodate the  $\frac{1}{4}$ -in. diameter crankpin and .197-in. (5 mm.) brass end padded hollow gudgeon pin. Crankshaft diameter is .3935 in. (10 mm.), stepping down to 5 mm., for the threaded length. The induction port in the shaft is circular and the shaft hole extends up the length of shaft past for lightening, crank web is partially machined away to form a crescent-shaped counterbalance.

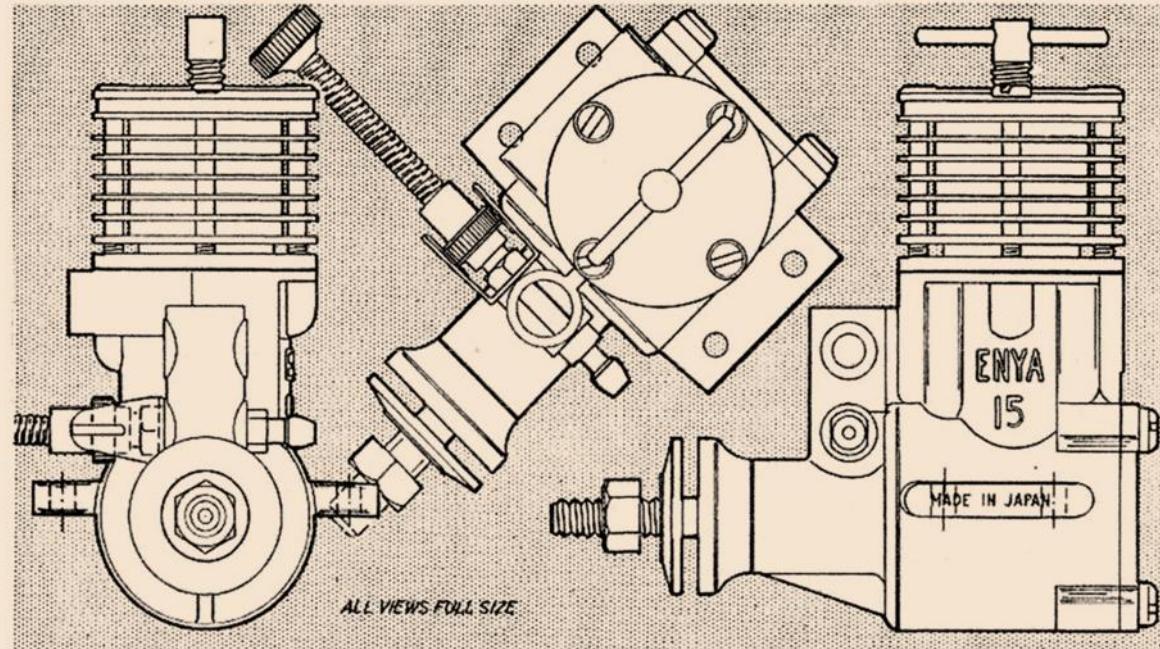
Other interesting features are the fitting of a steel insert in the head to take the compression screw; the back cover (the fit of which, incidentally, emphasises the close tolerance held on the castings) attached by four short screws instead of screwing in; the use of typically Japanese nickel plated screws

throughout and the nickel plated spraybar unit and needle valve assembly, and the really robust flexible extension of the needle valve. Provision is made for the fitting of a second spray bar and needle valve at the upper end of the intake tube for two-speed operation, although this is not drilled out on the standard model.

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

Summarising: a truly excellent 2.5 c.c. diesel in all respects, and also a very rugged engine achieved at little or no weight penalty. It is also the first of the *high performance* diesels to appear with "glow motor" style porting—not forgetting the much earlier Super Tigre 5 and 6 c.c. engines of moderate output—a design feature, we feel, which will soon be followed by other engine designers, because in the Enya at least it certainly gives top performance.

Propeller	r.p.m.
dia. x pitch	
9 x 6 (F100, nylon)	9,400
9 x 4 (Stant)	10,400
8 x 9 (Stant)	13,500
8 x 5 (Stant)	12,500
8 x 6 (Stant)	11,600
7 x 6 (Stant)	13,600
7 x 4 (Stant)	15,000
9 x 3 (Tiger)	12,200
8 x 3 $\frac{1}{2}$ (Tiger)	15,000
8 x 4 (Tiger)	14,000
6 x 9 (Tiger)	14,600
7 x 9 (Tornado)	12,000
11 x 4 (Trucut)	7,600
10 x 4 (Trucut)	8,000
9 x 4 (Trucut)	11,200
8 x 4 (Trucut)	13,600
7 x 4 (Trucut)	16,000
7 x 3 (Trucut)	17,300



**Saturday 29<sup>th</sup> July.**

A sunny morning with a stiffish breeze, conveniently almost straight down the main runway, greeted most of the usual suspects gathered for this year's competition. As is now often the case, P30, E36 and Vintage R/P attracted the most entries but resulted in only two perfect scores overall.

Michael Marshall, who has curated this event for upwards of ten years, took a well-earned back-seat and came close to pushing Phil Ball to what would have been the only fly-off but ran out of time for a third flight after two convincing maxes.

**SUNDAY 30<sup>th</sup> July**

A different story. The wind, though now in a broadly similar direction, was averaging around 18mph and regularly gusting to 25 mph.

A two minutes max for all classes was quickly decided upon. In the end only eight stalwart individuals choose to fly - however two of these, Colin Foster in Combined Electric and Nick Botham in Vintage R/P, returned perfect scores.

By popular consensus, with no sign of conditions improving, proceedings were terminated at 3.30 and well-earned certificates presented to the brave few.

**Results****Tailless**

1 <sup>st</sup> .	A. Moorhouse	62373	Vikings	4.12
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**P30**

1 <sup>st</sup>	B.Lavis	72364	Biggles	5.24
2 <sup>nd</sup>	P.Watt	10895	Mid Ards	5.03
3 <sup>rd</sup>	C.Redrup	34457	Crookham	4.56
4 <sup>th</sup>	P.Hoey	48541	Impington	4.55
5 <sup>th</sup>	D.Norwood	19346	Delyn	4.07
6 <sup>th</sup>	S.Fielding	67400	Morley	2.00

**Cig/Hig**

1 <sup>st</sup>	N.Botham	12225	Morley	3.02
2 <sup>nd</sup>	P.Gibbons	76597	Peterboro'	2.43

**Classic Glider**

1 <sup>st</sup>	C.Parry	73338	Biggles	7.08
2 <sup>nd</sup>	N.Botham	122255	Morley	6.31
3 <sup>rd</sup>	R.Heap	73338	Biggles	5.12

**Vintage Rubber/Power**

1 <sup>st</sup>	D.Cox	73114	Crookham	7.30
2 <sup>nd</sup>	P.Ball	57180	Grantham	6.54
3 <sup>rd</sup>	C.Foster	17203	Morley	6.32
4 <sup>th</sup>	D.Norwood	193646	Delyn	5.37
5 <sup>th</sup>	R.Mosley	100178	Morley	4.01

**E36**

1 <sup>st</sup>	J.Cooper	3432	Biggles	6.00
2 <sup>nd</sup>	S.Philpott	64218	Birmingham	5.50
3 <sup>rd</sup>	C.Redrup	34457	Crookham	5.19
4 <sup>th</sup>	D.Ginns	84235	Crookham	5.05
5 <sup>th</sup>	P Gibbons	76957	Peterborough	4.54
6 <sup>th</sup>	G.Williamson	170419	Peterborough	4.51
7 <sup>th</sup>	N.Botham	122255	Morley	2.00
8 <sup>th</sup>	C. Foster	17203	Morley	1.56
9 <sup>th</sup>	G.Warburton	54828	Morley	1.48

**Combined Rubber**

1 <sup>st</sup>	P.Ball	57180	Grantham	7.30
2 <sup>nd</sup>	Marshall	55419	Impington	6.00

**Combined Power**

1 <sup>st</sup>	N.Allen	39572	E.Grinstead	6.00
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**Mini Vintage**

1 <sup>st</sup>	N.Botham	122255	Morley	6.00
2 <sup>nd</sup>	D.Norwood	19346	Delyn	4.00

**Classic Rubber**

1 <sup>st</sup>	D.May	56714	Delyn	0.30
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**Vintage Glider**

1 <sup>st</sup>	C.Parry	62525	Biggles	4.10
2 <sup>nd</sup>	R.Heap	73338	Biggles	3.41

**Combined Electric**

1 <sup>st</sup>	C.Foster	17203	Morley	6.00
2 <sup>nd</sup>	D.Ginns	84235	Crookham	3.27
3 <sup>rd</sup>	G.Williamson	107419	Peterboro'	1.30



*Stephen Bowles*

# NEWS Review

## "National" Models

One usually expects to find a certain number of entries of poor quality at all national model aircraft meetings of the "open" type, but one was very forcibly struck by the generally poor standard of the majority of machines entered in the 1948 Nationals.

How some of the entrants had the temerity to enter at all is difficult to understand, as a large number of machines were both poorly constructed and badly handled, and gave the impression that the owners were sadly in need of more contest practice with their club or area before justifying the expense of the journey to the Nationals.

Far be it from us to deny the beginner the chance to "have a go" with the more experienced aeromodellers—we have all had to make a start at some time—but we do seriously suggest that many competitors should obtain more experience locally before wasting their time, and that of the organising officials, by entering unsuitable and badly handled machines in such important events as the National Contest.

As an instance, an appalling number of machines in the glider events were promptly put out of commission through their wings collapsing while on the tow line, and an examination of some of these indicated that the designers and builders had a poor knowledge of the elementary principles of structural design in most cases, since the wing attachment devices were quite inadequate for anything but a dead calm.

There is really no excuse for such a state of affairs in these enlightened days, as this subject has been dealt with adequately in the pages of the model aeronautical publications, including this journal, on more than one occasion.

## Take-Off Technique

It is surprising the large number of entrants one sees in competitions who display faulty "take-off" technique, chiefly through not taking enough care or not giving enough thought to the effects of wind direction on the model during the few vital seconds after its release.

The most common fault is to point the model at the wrong angle to the wind, so that the wind assists the machine's natural turn. This is all right in faint breezes; but is disastrous in anything of a boisterous nature, as the helping hand of the wind heels the model violently over beyond the recovery powers of its natural stability.

The model should always point at a slight angle to the wind, so that the upsetting tendency of the wind-force is opposed to the machine's natural turn, in short, so that the forces counter each other instead of augmenting each other.

The other glaring fault is the still prevalent tendency to "push" the machine at take-off. This fault is most prevalent with power model enthusiasts, who seem to be quite unable to resist the urge to give their machines a supposed "helping hand" on release.

A properly designed and trimmed machine does not require a "helping hand" to take off, indeed, the sooner it is allowed to become airborne naturally, the better. Any other method is likely to give it too much initial speed, with the danger of stalling. This also is particularly important when high winds exist, as a model which is stationary relative to the ground, may still possess an excessive flying speed for a proper take-off. Obviously under these conditions a push merely serves to aggravate the situation, and does not help the model.

Apart from being the only fair method of release, the S.M.A.E. "no pushing" rule is also the only technically correct method of release, and nothing is to be gained by trying to dodge the issue.

## The Passing of a Pioneer

It is with the greatest regret that we have to record the death of C. J. Burchall—one of the most enthusiastic model aircraft constructors which the movement has produced.

A member of the old controlling body, the Kite and Model Aeroplane Association, he was also an early member of the London Aero Models Association, the Parliament Hill Model Flying Club, the Northern Heights Model Flying Club, and the late Model Aeroplane Club.

He was a founder member of the Edgware Club and an honorary member of many, including Blackheath and the Park Model Air League.

Always a staunch supporter of the S.M.A.E., he was one of its first members to be granted the honour of "Fellowship," and in the early days of the society he did much to consolidate its work and to help the tyros to overcome their initial difficulties both constructional and aerodynamical.

A strong believer in the value of first-class workmanship in flying models as an aid to performance, he has been responsible for transforming more beginners into first-class constructors than any other man in the movement.

His presence at flying events will be deeply missed and model aviation loses one of its most outstanding figures.

Extract from the old paperback *Clarion*, July 2001

*John Andrews and*  
**THE RUGBY MODEL ENGINEERING SOCIETY**  
**AERONAUTICAL SECTION**  
Part 3

*Here we go again, I hope some of you are still with me, I don't know about you but I am finding this literary exercise quite an interesting trip down memory lane, things are coming to mind that I thought I had long forgotten.*

Now where was I, Ah yes, power flyer John Bickerstaffe. As I said in the last episode John came to Rugby from Accrington in 1952. JB, as I have always called him, brought with him the leading edge power designs of the time, developed by himself in conjunction with Eric Lord his Accrington clubmate. The models were lightweight built-up fuselages of 1/4 square strip, high 1/4 sheet pylon mounted wings with flat-bottomed airfoils. The power plant was the fabulous Elfin 2.49 radial diesel. This motor was run with a red KeilKraft Truflex 8x8 plastic propeller, not the best choice but the engines seemed to like it. Later in his career JB got into home-made props from Tufnol fibre carved and shaped with broken glass as a cutting edge, these were real finger choppers but worked more efficiently than the commercial props.

Before I forget, here is the Ray Malmstrom caricature of JB that I promised last issue, it took a bit of finding as I got the date wrong 1960 not 1958. I spent a lot of time at the hanger going back and forth through David's 1958 volume of *Model Aircraft* to no avail, I finally located the copy with my mate John Nicholson.

Speaking of Ray Malmstrom I feel a digression coming on. Outdoor Free-flight being currently curtailed by foot & mouth I took the opportunity to fly indoors with the Impington Village College MAC which was founded by Ray in 1946. The event took place in the college sports hall on March 18th. an all day 9 to 5 event at modest cost £4 flyers, £1 spectators. This meeting, I understand, was the first effort at indoor by the club and in my humble opinion was the perfect model for indoor events and I hope and trust it will be repeated.

The event had well publicised flight time slots with PA system announcements. There were three low key competitions, general flying and individual demonstration slots. The demo slots were aimed at Joe Public who had his own bounded viewing area and with a car-boot sale being adjacent Joe was

MAY 1960

**AEROBODS OF NOTE**



**JOHN BICKERSTAFFE**

John is one of aeromodelling's top power men. A member of the British team at the 1958 World Power Championships.

present in abundance and the cause of aeromodelling must have been well advanced by this coincidence or foresight.

The demos ranged from multi-motored scale to state-of-the-art F1D. The F1D demos by maestro's Laurie Barr and Bob Bailey must have been real eye-openers for spectators and many modellers alike. Bob's flight was a particularly fine effort, the model appearing, to me, to be trimmed for a tighter turn than normal to fly in the hall and if my eyes saw correctly using about a 1/4 weight motor with ballast stick. In the words of Michael Caine, I bet "not a lot of people know that". The event was supported by a static exhibition in an adjacent hall with excellent cafeteria facilities, all in all a first class event which I believe will be an annual event and would be well worth repeating more regularly.

Digression over, back to Bickerstaffe, this was the first time the Rugby club had seen at first hand real competition Free-fight power. We had two good Wakefield fliers, Roger Dowdeswell the son of an agricultural engineer who followed the Ted Evans designs and Bill Eales who's own designs were more akin to the Boxall Brothers but JB was our first real power man. John and I soon became firm friends and we travelled to the competitions on motorcycles in those early years. One incident sticks in the mind when we were bound for Cambridge

one weekend. On board my 500 Triumph was myself and pillion passenger, neighbour and modelling mate Ian Lomas carrying the inevitable standard 6 foot model box / coffin across his back. It was a wet road day and we came up to a road island where I lost the back end, it stepped out then flicked back, the bike then squared up but I had lost the plot by now and we jumped the kerbstone, did a long wobbly excursion across a thankfully large grass verge and rejoined the road well past the island. JB following on his Norton reported that the exhibition had been witnessed by an open mouthed spectator in an adjacent pub car park. (He probably thought I'd taken a short cut)



One of the high points of JB's competition career was competing in the 1956 World Power Championships as Proxy flier for Sorjo Ranta of Canada. John was the leading 'Canadian' flier after the first two rounds and was given first choice of flight time for the third flight. A calm warm spell was chosen and to John's utter dismay two failed take-offs resulted in a no-flight being recorded. Retiring to lick his wounds John recalled that, whilst trimming, the model had exhibited a nose down pitch immediately after a hand-launch and reasoned that the complete lack of wind was the culprit resulting in the model dropping to the ground as the retracting nose leg folded on release. John had hit the problem right on the nose, he added a few inches to the nose leg and proceeded to max. out. What might have been the result if a fixed leg had been used.

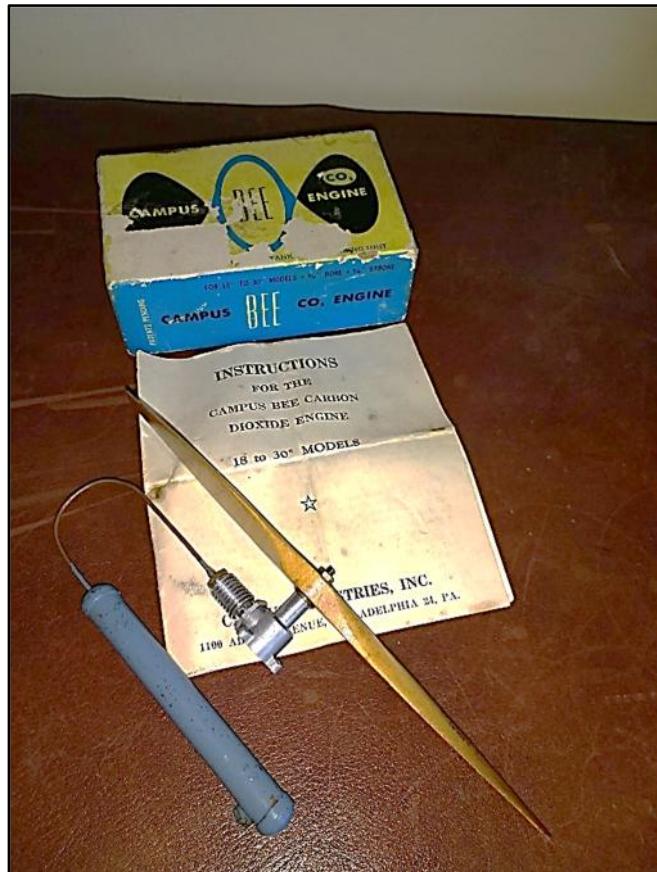
The event was won for GB by John's friend Ron Draper of the Coventry Club. John recalls that on one flight Ron and he were in the same patch of air and he was convinced that his Canadian model had a superior glide to that of Ron's winning model. John puts Ron's success on that day down to a fast climbing model with timer tuning being bang on the 15 seconds every time resulting in the his model being one of the highest climbers. (there ain't no substitute for altitude)

The peak of JB's career was as a member of the 1958 UK Power Team but that will have to be next time.

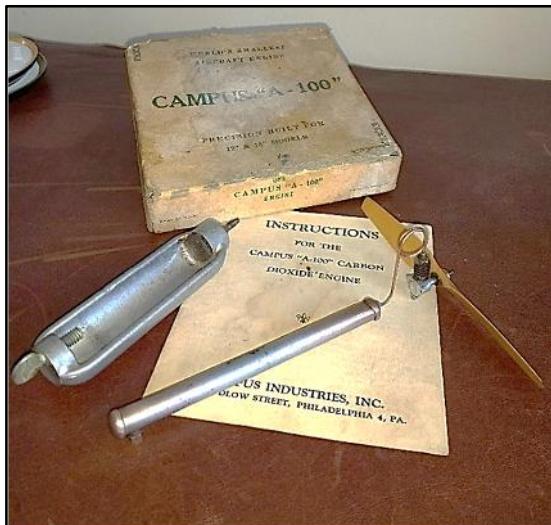
*In the words of Arnold Schwarzenegger "I'll be back" with part 4.*

*John Andrews*



More on the Brown CO<sub>2</sub> MotorsCampus CO<sub>2</sub> motor ad. from 1949 Air Trails.

Campus 'Bee'. Looks in remarkable condition for a 74y old motor.



Campus 'A-100' with endurance tank.

305 MARCH 1950 POPULAR MECHANICS

approximate weight of trailer you wish to assemble. Send 10c for postage and handling.

FAYETTE MFG. CO. 600 FRONT ST., FAYETTE, OHIO

**POWERFUL CAMPUS "BEE"**

**ENGINE**

**RUNS** Like Magie on CO<sub>2</sub>, which is Sold at All Drug and Hardware Stores!

3/16" bore & stroke, 8000 RPM, weight 5/8 oz. Complete piston-type engine, ready to run. For model planes, boats, rock cars, etc.

Charging unit included. Safe, economical, precision engineered.

CAMPUS INDUSTRIES • 1100 Adams Ave., Phila. 24, Pa. Manufacturers of World's Smallest Engine

**ACTUAL SIZE**

**4.95** Postpaid GUARANTEED

Send Check or Money-Order

**THE BIGGEST VALUE ON THE MARKET DIRECT FACTORY TO YOU**

**DYNAMIC ARC-WEL** Super Charged

**LOWEST PRICED**

Help easy; face and valuable. Have this sand

PO B025

FREE! "How shop. SAY YOU SAW I

Campus 'Bee' ad. from 1950 Popular Mechanics

That master magician of the CO<sub>2</sub> motor, Gerard Moore, has recently acquired a couple of early Brown motors for refurbishment. These were sent to him by Mike Watters and include their original packaging. Gerard has kindly sent me a couple of photos, which I have included above, along with some advertisements from the contemporary modelling press.

The first motor is the Campus 'A-100', which I mentioned initially in IIFE 17 (NC December 2017), and some, now vintage, models designed for it in IIFE 35 (NC February 2020).

As a reminder, this small motor has a 1/8" bore and stroke, giving a displacement of 25mm<sup>3</sup>. Gerard's example has the larger endurance tank, which, unfortunately, is now somewhat rusty, otherwise it would be great for Frank Ehling's 'Dioxide Darling'.

The second motor is an example of the Campus 'Bee', which is larger with a 3/16" bore and stroke giving a displacement of 85mm<sup>3</sup> (see also NC March 2020). Unusually for a Brown motor, it has an aluminium cylinder - most are steel. The fact that the piston is steel makes the tribologist in me shudder at this combination! Obviously, this is a motor that needs to be kept well lubricated. However, Gerard has worked his magic on the "Bee" and got it running well. The "A-100" requires some more work. If interested, you should find videos of the running motors, as well as the photos, here: -

<https://photos.app.goo.gl/g2NWdJieubnvcsvB8>

Going forward some 20y, Gerard sent me a copy of a photo of cutaway parts from Brown '.005'. This motor has the same stroke and bore as the earlier 'Bee'. We have met this motor a number of times in these columns before, most recently in IIFE 60 (NC January 2023). There was a discussion about the retention of the valve ball in the cylinder head.

The cutaway photo shows the integral ball retention seat illustrated in the U.S. patent 3,703,848, in the centre, and the, apparently, more common, and much simpler open seat on the left. The motor in the centre has a steel piston, which is representative of the first batch of 500 made.

The second batch of 500, of which the complete motor shown is an example, had Nylatron plastic pistons. Remembering that the bore diameter of these motors is slightly under 5mm, the craftsmanship used in their manufacture is remarkable, particularly the ones with the integral retention of the ball. However, here the replacement of the ball and cleaning of the seat must be difficult. This is certainly an example of where Bill Brown changed his design and approach during a manufacturing run.

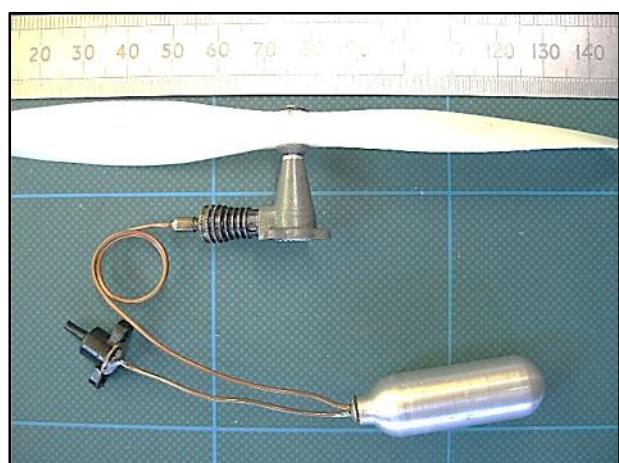
According to Joe Clements' review of 'The Carbonic Model Engines', in the Engine Collectors' Journal, January 2005, this motor has a magnesium crankcase with aluminium bearings.

The tank is formed from aluminium tubing. This results in a light motor.

The complete Brown '.005' in the photo below weighs 8.7g, without the propeller. In comparison a Telco motor, which has a somewhat smaller capacity weighs 12.3g.



Cutaway of Brown '.005' cylinders and tank



Complete Brown '.005'. Apologies for the Telco filler!

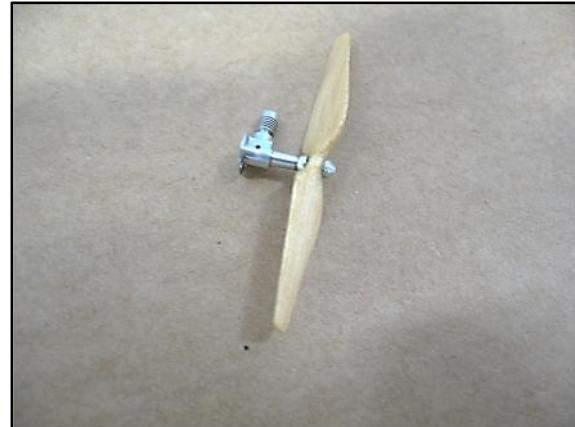
Gerard came across the photo of the cutaway parts on an RCGroups thread, where it had been posted earlier this year by Ken Hannan, who is son of the late Bill Hannan, who, in turn, had been sent it by Bill Brown.

### Gerard's Gems

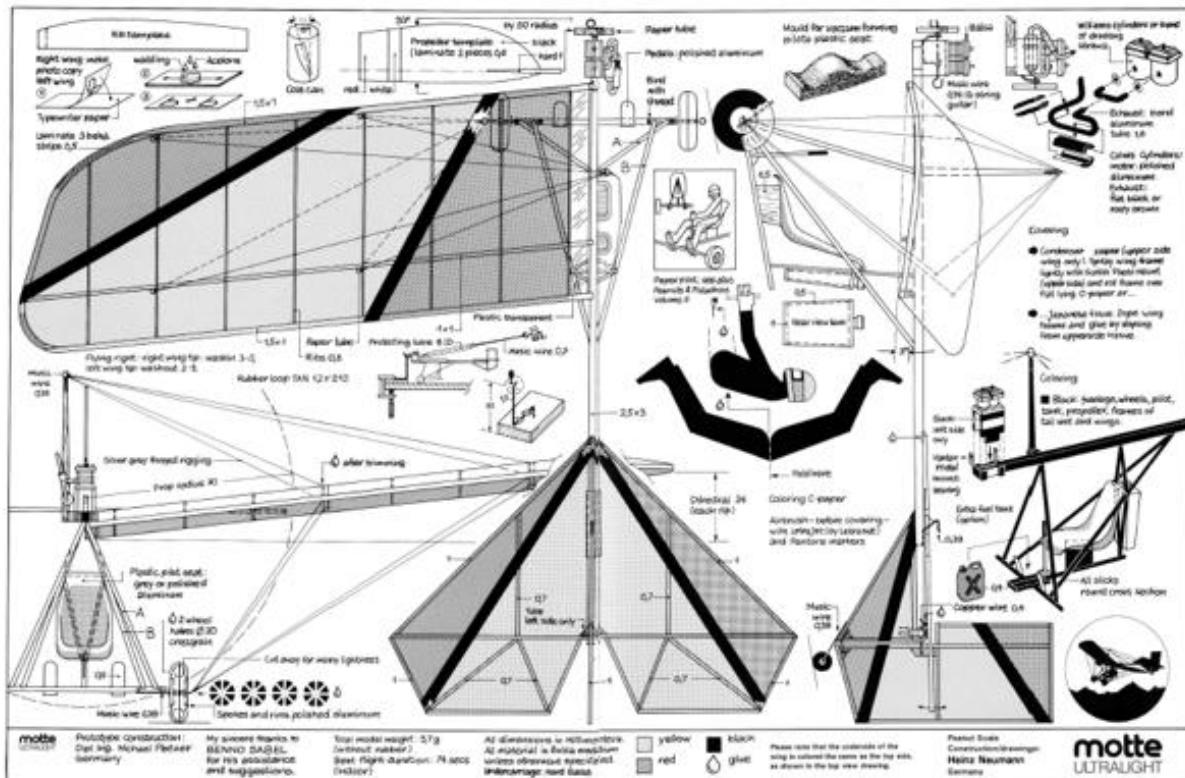
Of course, Gerard Moore also makes his own  $\text{CO}_2$  motors. He has made a copy of a Gasparin 2.6mm<sup>3</sup>, which successfully powers a Pistachio sized version of the Platzer Motte ultralight. This model often appears at the Trinity indoor meetings and flies quite beautifully. As a further challenge, Gerard is currently working on a 0.7mm<sup>3</sup> motor, also in the Gasparin style. I will report on any further progress in due course.



Gerard Moore's 2.6mm<sup>3</sup>  $\text{CO}_2$  motor in a Pistachio sized Platzer Motte



Gerard's 0.7mm<sup>3</sup>  $\text{CO}_2$  motor, which is currently under development.



Heinz Neumann's plan for a Peanut Scale Platzer Motte ultralight, from Bill Hannan's Stick & Tissue Vol 3.

*Nick Peppiatt*



### Christmas once more

Sgt. WOODROW's model of the Drine Turbulent, cleverly posed in front of one of the R.A.F. Northolt hangars, reminds us that yet another year has passed, for it was made from last December's free plan insert. If the "Aiglet", presented with this issue, achieves anywhere near the same degree of popularity with our readers as that attained by the Turbulent, then we shall be seeing a flush of A/1's in the coming season.

Aside from this feature in our pages this month, we should draw your attention to the tremendous amount of research and cross-checking (involving some hundreds of hours) which has gone into the production of the most authentic Albatros and F.E.2B. drawings ever reproduced. In our endeavour to see that AEROMODELLER readers have nothing but the best, we left no stone unturned in our search for information, and in our humble opinion George Cox has set a standard in his treatment of the "Famous Biplane" 1/48th scale solid model that will establish a new "high" in such drawings.

Aviation fans of pre-war years will rejoice in Arch Whitehouse's story of his encounter with the famous "Red Baron", for Arch was the great attraction in that much-sought-for publication "Flying Aces", now alas, no longer published as such in the U.S.A. Comments on this introduction of true aviation stories to our columns will be welcomed.

### Two important functions

The Annual Dinner and Prizegiving of the S.M.A.E. takes place on December 8th, 1956, and will again be held at that venue almost synonymous with aeromodelling social activities, the Horseshoe Hotel, Tottenham Court Road, London. We presume you have your tickets ordered!

A week later sees the Annual General Meeting held once again outside the London area. Venue is the Great Northern Hotel in Leeds, and it is to be hoped that Northern modellers take better advantage of this facility than they have so far accorded

### Wot—no report?

A TRAGIC SERIES of misfortunes and delays having prevented our on-the-spot reporter returning from Italy in time for the inclusion of his comments in this issue, we ask the indulgence of our readers for a further month, in the sincere hope that we shall be able to grace the pages of our January issue with story and pictures of his Italian Siesta. If not, try to picture the AEROMODELLER Staff scouring the Alps complete with St. Bernard dogs in the interests of "yet another AEROMODELLER Service". Excelsior and all that!

contests arranged in their districts. Many matters of vital import to the future of organised aeromodelling in Great Britain are tabled for discussion, and it is up to all enthusiasts to ensure that they are either present or represented at this very important function. Date is December 16th, 1956, and again, the place is LEEDS. (That's oop in Yorkshire if tha doesn't know!)

### Pioneers passing

With the death of Sir Richard Fairey, M.B.E., Hon.F.R.Ae.S., Hon.F.I.Ae.S., founder of the aviation company that bears his name, aeromodelling loses a link with the early days of the hobby in this country. Born in 1887, he was educated at the Merchant Taylor's School, and at the Finsbury Technical College, where he qualified as an electrical engineer. Right from the start he took a keen interest in aviation, devoting all his spare time and energy to models with which he had achieved by 1910 a number of height, distance and speed records.

At the age of 28 he founded his own aircraft company with a factory at Hayes, and the Fairey Aerodrome became the mecca of aeromodelling activities before the last war. Practically every meeting of consequence took place at "Faireys", and Sir Richard was invariably a keenly interested spectator (We understand that the original wooden shed, gathering place of so many pioneer aeromodellers, is still standing, though somewhat swamped by the grandeur of London Airport that now covers the site of the old aerodrome.)

Pre-war aeromodellers will also recall the name of W. E. Evans with something of nostalgia, for "W.E." was synonymous with the early days of the hobby, and provided many enthusiasts with their modelling timber before balsa made its debut in this country. Mr. Evans, who was a Fellow of the S.M.A.E., passed away on September 14th at the ripe age of 81, leaving his business (now entirely devoted to furniture making) to be carried on by his sons.

**Terrific new record**

During the course of the World Speed Championships at Florence, Ray Gibbs, apart from his flight of 211 k./hr. which won the Individual honours for him and Great Britain, decided that his model was motoring well enough to warrant having a go at the current International Record, already in his possession with a speed of 208 k./hr., made at Heston last December.

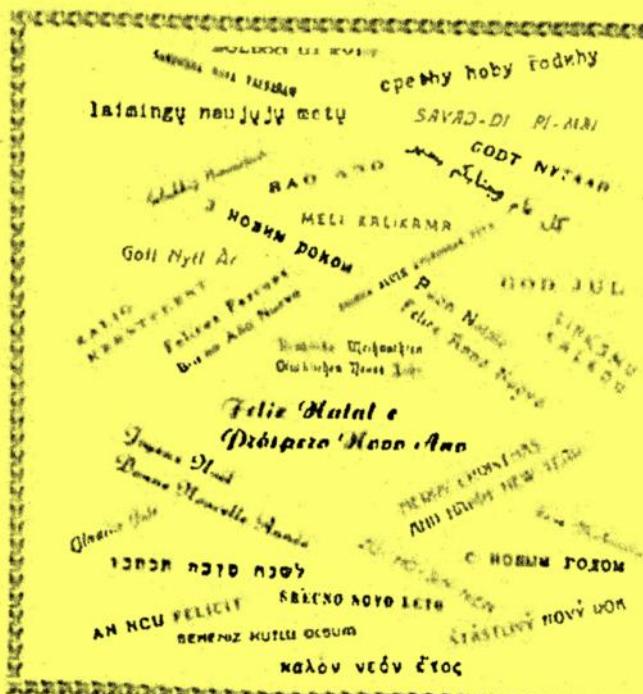
In failing light, the attempt was made with timekeepers and other officials keyed up, and Gibbs returned the fantastic speed of 225 k./hr. We say "fantastic", for in our opinion when speeds get up into the higher brackets of international competition it is hard enough to reach the 5 k./hr. increase required under the regulations for the recognition of a new record. To better the previous best by no less than 17 k./hr. is an achievement of great credit to Gibbs, and perhaps even more so to Fred Carter who had put the fluence on the motor to such good effect.

We understand that the S.M.A.E. has requested details from the Italian authorities in order to enable a claim to be submitted through the proper channels.

**Spain in Kent**

A shadow fell across the litter of model boxes, packing and aeroplane parts which decked the

grass, and one boy looked up from his assembling and exclaimed with more vigour than elegance "Blimey! Look at that!" "That" was a large bull, surveying them from the distance of a few feet. The Springpark Model Aeroplane Club retired over the fence with varying degrees of grace but uniform speed. The bull proceeded to investigate their possessions. At first he just blew and snuffed, but when he went on to turn out the contents of the boxes this proved too much for one member. He went back over the fence and advanced on the bull with peremptory gestures and authoritative tone. "Gerron, Get out!" The bull retreated a step and the amateur matador said to himself "Bulls! nothing to it! Chase one a day before breakfast! GERRON, GET OUT!" The bull retreated two more steps before his slow brain took in the real situation; then he turned and began to paw the ground and blow steam through his nostrils. The aerobod abruptly reconsidered his programme. "All right," he said placatingly, "Good bull, I didn't mean it." He glanced behind him, hastily assessing the distance to the fence and hoping the bull would be as deliberate in his preparations for action as he had been in his original meditations. From the flurry round the boxes, where the S.P.A.C. was frantically flinging its combined possessions over the fence, came a precise voice, "Don't run! Remember he is more afraid of you than you are of him!" "Don't be silly, he'd be flat on his face," came the reply as the aerobod, abandoning both dignity and advice, bolted incontinently for the fence and flung himself over to safety. The rest of the club and its possessions had already landed on the right side, leaving Ferdinand master of his domain.



## To all Aeromodellers wherever you are

The Editor and staff send Christmas greetings and best wishes for a happy and prosperous New Year. May all your landings be three-pointers, your dethermaliser fuses burn brightly, your lines never snag, and your lost models always return safely home.

## Extracts from the book 'The Zeppelin Story' by John Christopher

With Germany's aviation industry on hold in the years immediately after the First World War, the way was left open for its former rivals to push forward with their own aerial ambitions. Great Britain, in particular with its far-flung territories, saw itself at the hub of aeronautical development and, following the successful Atlantic flights of the R34, the airship was seen by many as the solution for long-distance transportation to link the empire.

The Imperial Airship Scheme, put forward by Sir Dennistoun Burney of the airship building company Vickers, was taken up

by the newly elected Labour government in 1924. Initially, the plan was to construct two rigid-framed airships of 5 million cu ft (141,500cu m) volume and each capable of carrying 100 passengers a distance of up to 3,500 miles (5,600km). One of these prototype airships would be government-built at the Royal Airship Works at Cardington, Bedford, while the other was to be privately built by the Airship Guarantee Company, a subsidiary of Vickers.

In design, the two airships showed a deliberate move away from the German Zeppelins, with a more swollen 'fat cigar'



▲ The twin sheds at Cardington still stand as gigantic monuments to the Imperial Airship Scheme to link the empire. Photographed from the Zeppelin NT03 in August 2008.

profile. The R100, in particular, which was designed by Vickers' engineer Barnes Wallis and built at Howden in Yorkshire, featured only thirteen longitudinal girders giving it a flat-sided appearance. At 709ft (216m)

long and with a maximum girth of 133ft (40.5m), its actual volume was slightly over target at 5,156,000cu ft (146,000cu m). Passenger accommodation for both airships was located within their hulls which meant that it was far roomier than any other airships so far. This included spacious saloons, observation decks and comfortable cabins. It is interesting to note that the R101 even had an asbestos-lined smoking room on the lower deck, thus preceding the *Hindenburg* by several years. One difference between the two British ships was the choice of engines. The R100 was fitted with six Rolls Royce Condor petrol engines, two of which had reversing capabilities for improved mooring manoeuvring, while the R101 had five Beardsmore Tornado diesels, including a rear engine that faced backwards.

In the event, it was the R101 that won the race to be first in the air, on 14 October 1929. The R100 was two months behind, launching on 16 December. Following a number of test flights, including a fifty-four hour endurance flight over southwest England and the Channel Islands, the R100 was prepared for a proving flight to Canada and back. On 29 July 1930 the airship departed from Cardington on the 3,870-mile (6,280km) flight to land at the Saint-Hubert Airfield, near Montreal, almost seventy-nine hours later. The transatlantic crossing hadn't been without incident, however and, driving against strong winds over the Strait of Belle Isle, they encountered violent squall conditions which rolled the airship and caused rips in the fabric on the lower and starboard fins. One hole was described by a crew member

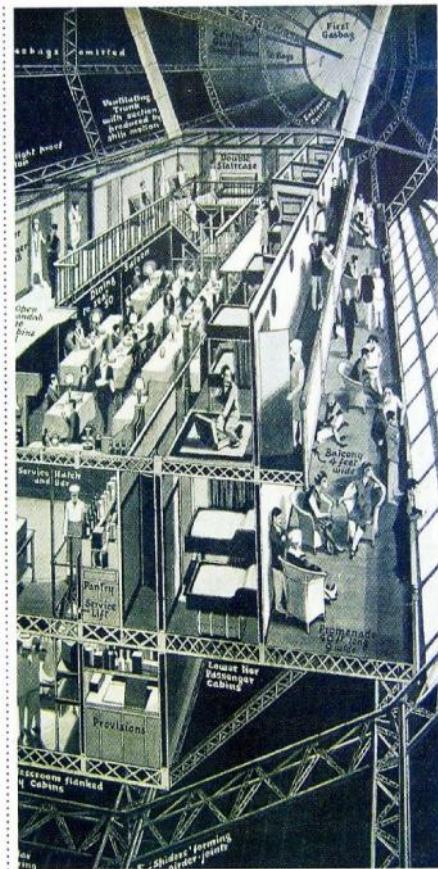


as being 'large enough to drive a double-decker bus through'. Later on, a strong up-draught abruptly tossed the airship's nose skywards and pitched it down again, sending every moveable object tumbling and causing further damage.

Having reached Canada, the crew of the R100 spent twelve days in Montreal while the airship was repaired, refuelled and stocked for the return flight, which

▲ Designed by Barnes Wallis, the 'capitalist airship' R100 riding the high mast at Cardington.

► Cutaway illustration showing the passenger accommodation located within the hull of the R100.



► The R101 at Cardington. The circular holes are 'gills' for ventilation; the entry hatch can be seen in the lowered position beneath the nose.

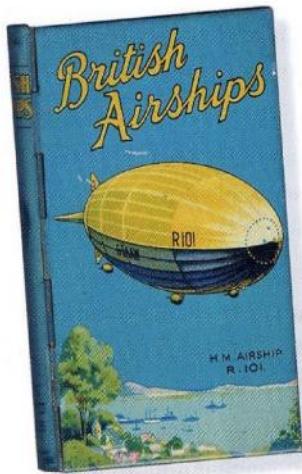
began on 13 August 1930. Blessed with a tail wind, the R100's homeward journey took just under fifty-eight hours. Back at Cardington, the R100 was returned to her shed while every effort was directed to getting the R101 ready for an even more ambitious flight, to take the Air Minister, Lord Thompson, to the Imperial Conference being held in India in October 1930. Found to be lacking in sufficient lift initially, during the summer the R101





► Fitted out with folding tables and lightweight cane chairs, the lounge or saloon area of the R101 was the most spacious seen on any airship up to that time.

was chopped in two and extended with (160,000cu m). Under pressure from an extra gas bay, increasing her length to Thompson, the enlarged R101 was rushed 777ft (237m) and volume to 5 million cu ft through a series of woefully inadequate test



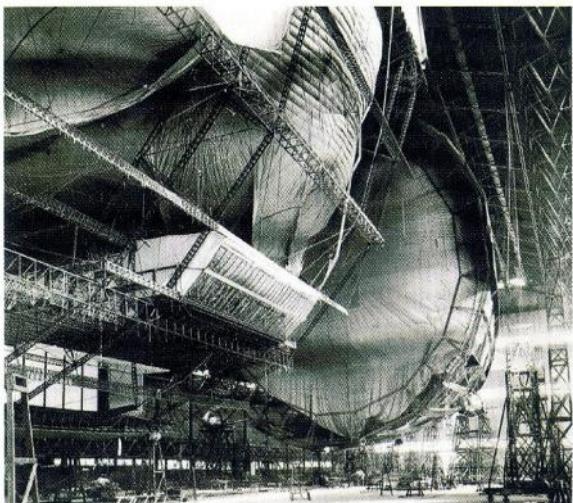
▲ This novelty money box produced by Chad Valley reflects the nation's pride in the R101. It was the Concorde of its age.



► The R100 at Saint Hubert's airfield, near Montreal, after crossing the Atlantic in 1930.

flights, and on the evening of 4 October 1930 she detached from the mooring mast for the first leg of the India flight, with a stopover scheduled at Ismailia, Egypt.

From the start many onlookers observed that the airship was struggling to gain height, and around 4 tons of water ballast was dropped before she disappeared into



◀ During the summer of 1930 the R101 was chopped in half so another gas cell section could be inserted to increase lift. The passenger decks can be seen on the left-hand section.

◀ Loading luggage aboard the R101 prior to departure on her ill-fated flight to India in October 1930.

the overcast. On board was a crew of forty-two, plus fourteen VIPs, including Lord Thompson. After supper most of them turned in for the night, but the airship was already encountering blustery headwinds causing a loss of precious hydrogen. The R101 was making little headway – thought to be only 20mph (30km/h) or so – when she suddenly lunged downwards, momentarily righted herself and then dived over France which made her roll, possibly again. The nose of the R101 struck rising:

45



▲ R101 dropping water ballast as she backs away from the mooring mast at Cardington.

ground near the small town of Beauvais and within seconds the entire airship was engulfed in flames as the hydrogen burned. Forty-eight men lost their lives, while only eight managed to clamber clear of the inferno, and of those two more died of their injuries over the next few days.

In that terrible moment Britain lost the cream of its airship men, and the future of the Imperial Airship Service was thrown into uncertainty. The R100 remained in her shed while the politicians debated her fate. She never flew again and by November the following year, 1931, work began on dismantling her framework, which was sold off as scrap metal.

# Flier Phil's Flier

Ray Malmstrom

From the book '60 years of IVC MAC courtesy Chris Strachan

# FLIER PHIL'S FLYER

DESIGNED BY RAY MALMSTROM

USE MEDIUM GRADE RALSA AND BUILD MODEL AS LIGHT AS POSSIBLE FOR BEST FLIGHTS.  
Cover with **yellow** tissue and dope with **ONE** coat of dope thinned 40/60 dope/thinner. The original  
POWER with two loops of 1/8 rubber 12" long.

USE MEDIUM GRADE Balsa, AND BUILD MODEL AS LIGHT AS POSSIBLE FOR BEST FLIGHTS.  
Cover with **lightweight** tissue and dope with ONE coat of dope thinned 40/60 dope/thinner. The original

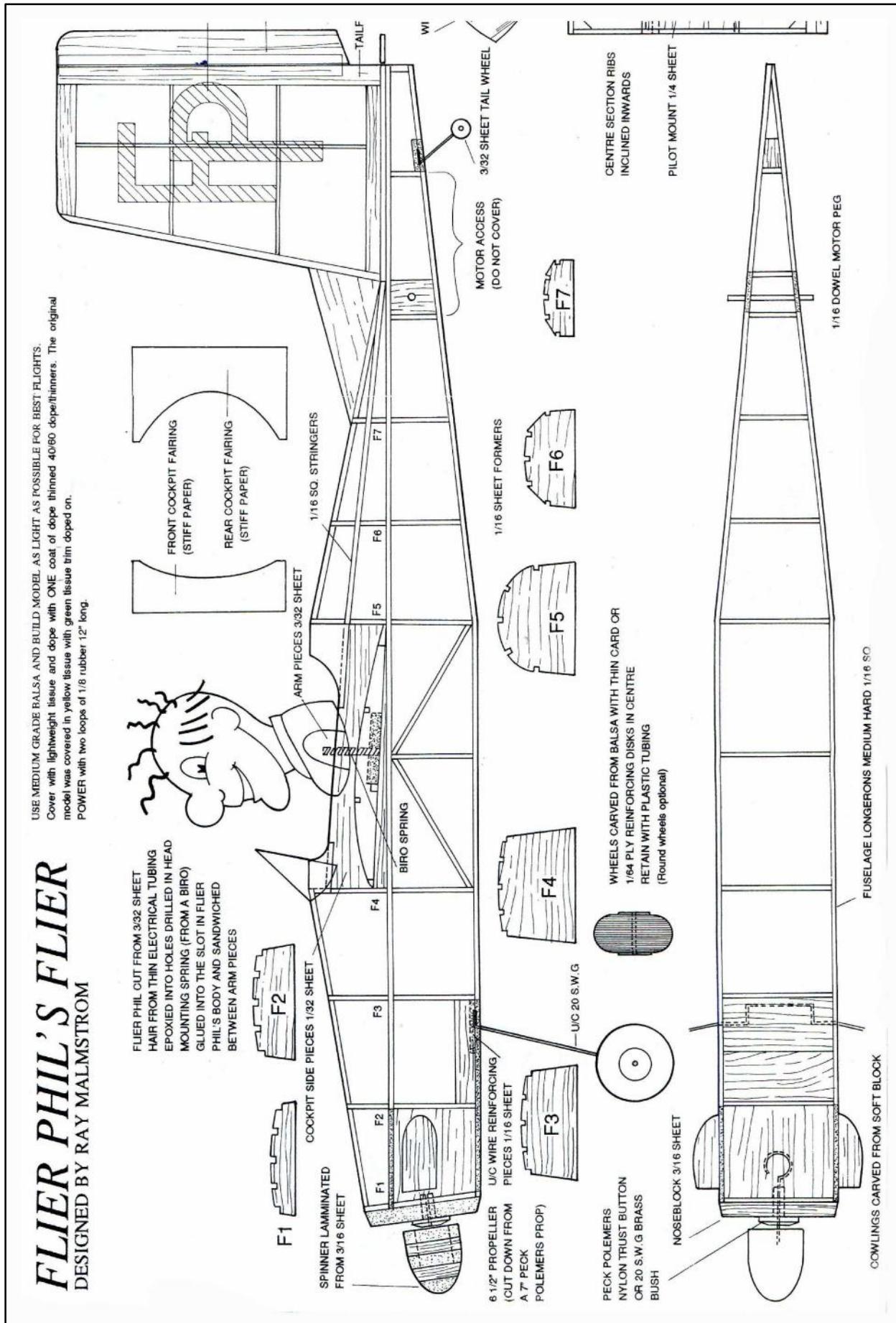
COVER with lightweight tissue and tape with ONE coat of tape trimmed 40/60 do per trimmers. The original model was covered in yellow tissue with green tissue trim doped on.

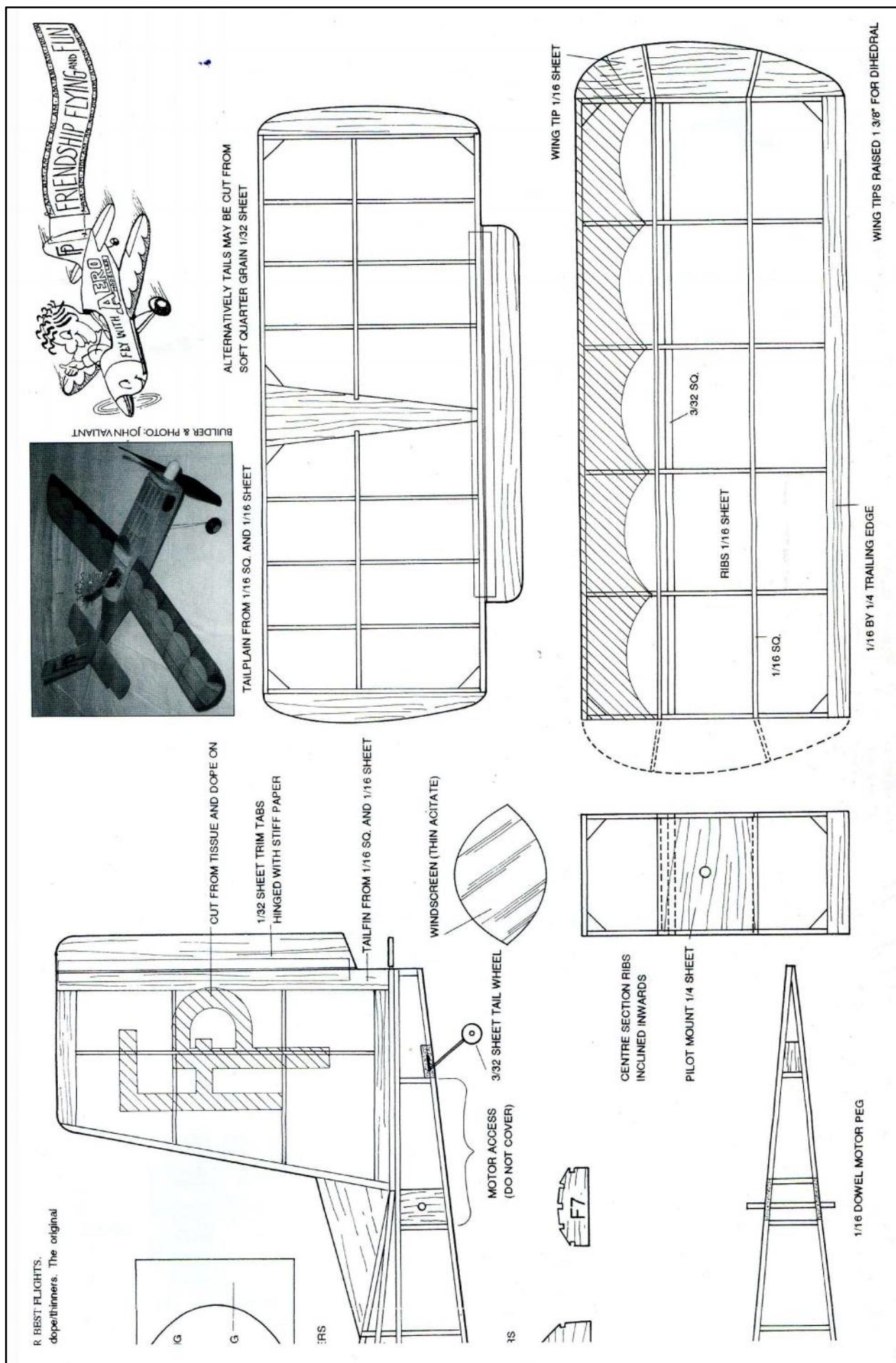
POWER with two loops of 1/8" rubber 12" long.

USE MEDIUM GRADE RALSA AND BUILD MODEL AS LIGHT AS POSSIBLE FOR BEST FLIGHTS.  
 Cover with lightweight tissue and dope with ONE coat of dope thinned 40/60 dope/thinner. The original  
 model was covered in yellow tissue with green tissue trim doped on.  
 POWER with two loops of 1/8 rubber 12" long.

COVER with lightweight tissue and tape with ONE coat of tape trimmed 40/60 do per trimmers. The original model was covered in yellow tissue with green tissue trim doped on.

POWER with two loops of 1/8" rubber 12" long.





*Ray Malmstrom*

## Report No.151 Our earliest books.

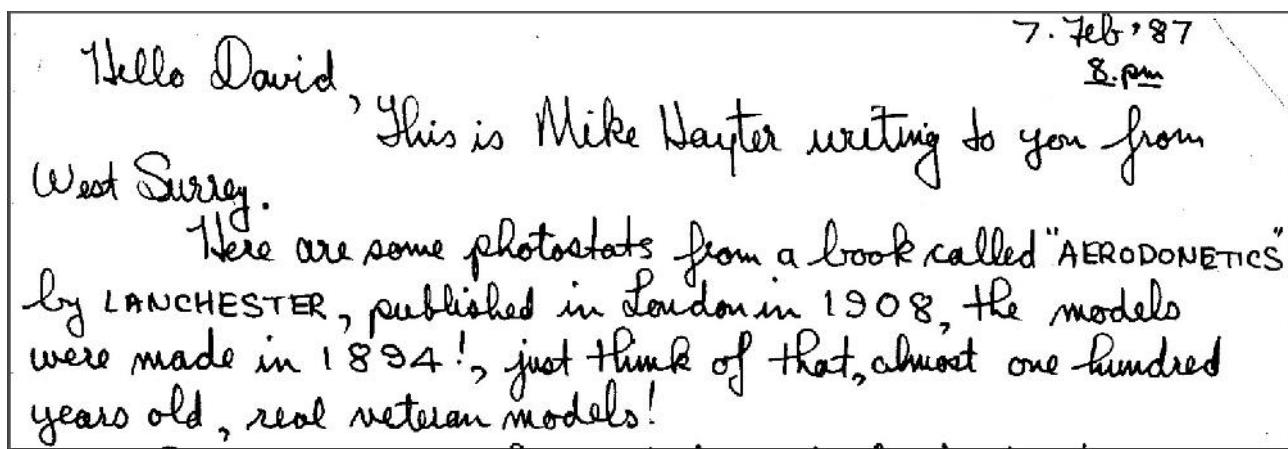
Before we start to look at our earliest books, just a few words on the difference between magazines and books as it affects your archivist.

Magazines are a joy to deal with, they come in a consistent size, are identified not only with the title but also date and/or number of the issue. The contents of our type of magazine, i.e. those with no R.C. in the title, are at least of 90% interest to the real aeromodeller. Listing the magazines held, as well as showing those issues which are still required, is made clear by using a spreadsheet and depending on whether they are printed or digital, they can readily be stored in an easily accessible system of archive boxes or on a hard drive.

Books are a bit of a mixed bag. The "series" books, such as Aeromodeller Annuals, SAM 35 Yearbooks, Free Flight Experts Forum reports and the NFFS Symposium Reports, are full of aeromodelling interest and are just as much a joy to deal with as magazines. Other "Annuals" such as Boys Own, Hobbies, Eagle etc. usually have such a small amount of aeromodelling content that it is difficult to justify giving them shelf space, but on the other hand, that small content may include a rubber cabin model by Warring and it would be a shame not to have and list every Warring model aeroplane plan that can be found. The best answer is a digital copy of the book, if that is available, otherwise it is a matter of scanning just the required pages, or in extremis removing and retaining just those pages. Books with significant aeromodelling content are usually readily identified by their title. It is my practice to list books alphabetically by Editor then by date of publication and then by title, and to store them in that sequence. With all of this information collated on a spread sheet it is easy to find the storage location, be it physical or on a hard drive, of any of the books.

Now to look at our earliest book.

We have a letter, dated 7th February 1987 sent by Mike Hayter to David Baker, referring to the book Aerodonetics by F. W. Lanchester published in 1908. Along with his letter, Mike included some "Photostats" from the book which he hoped would be of interest to SAM 35 Speaks readers. Part of the letter and some of the pages from the book are reproduced below which I hope will be of interest to readers of New Clarion.



The pages from the book include a photograph of Lanchester holding his model, which he called the "Aerodrome" and a dimensioned general arrangement drawing of the model. The Model was launched on its experimental flights from a window of Lanchester's house, the window being about 15 feet above the ground, which "falls away at a slope of about 1 in 25." Sketches were included showing the flight paths and elevation achieved.

5600 Alexander Graham

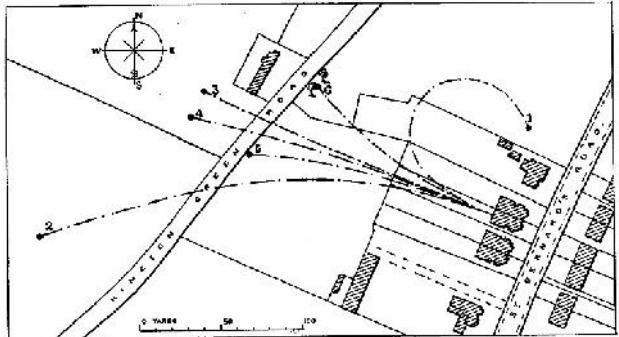
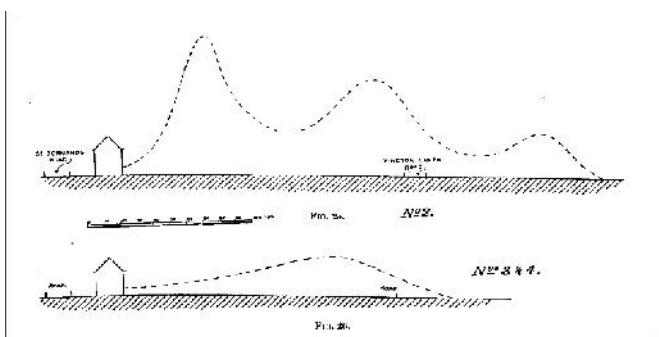
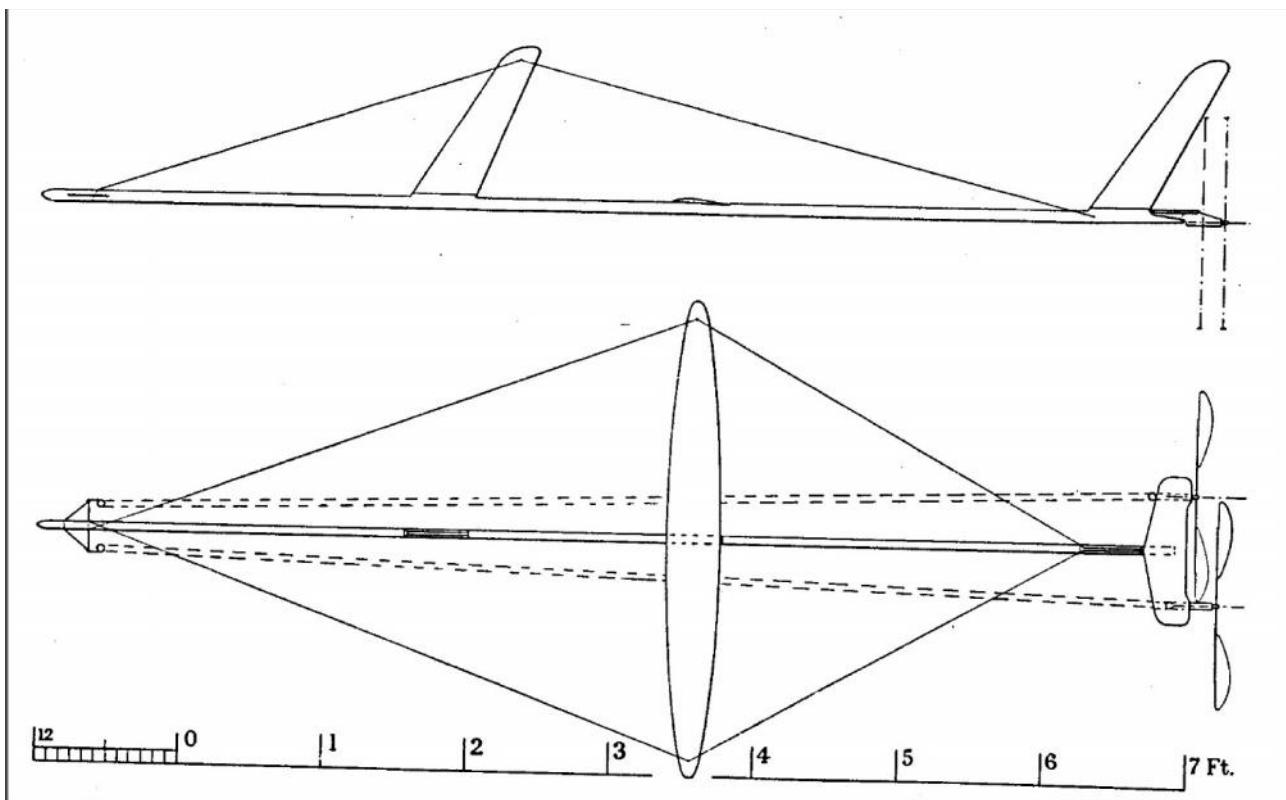
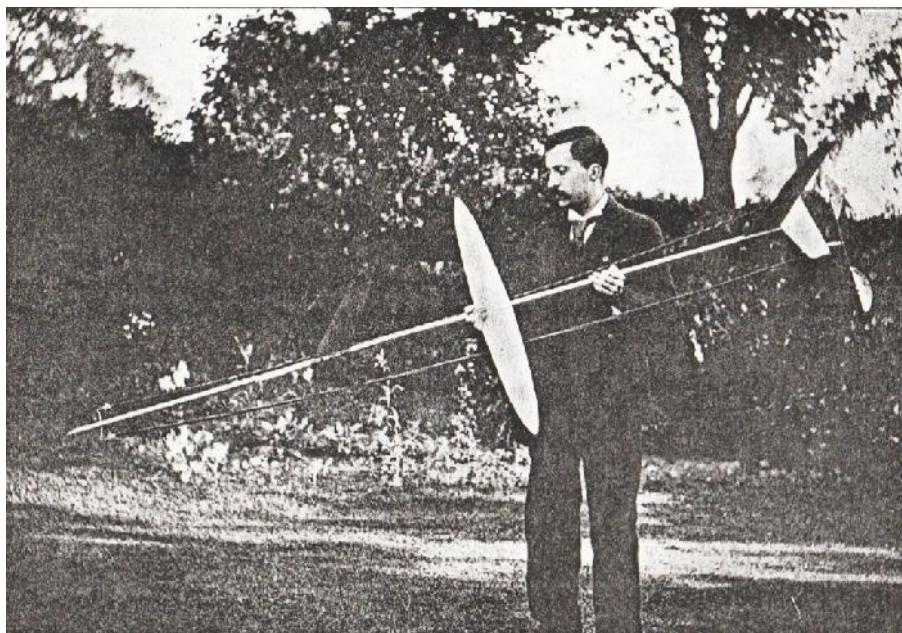
# AERODONETICS

CONSTITUTING THE SECOND  
VOLUME OF A COMPLETE  
WORK ON AERIAL FLIGHT

BY  
F. W. LANCHESTER

*With Appendix on the Theory  
and Application of the Gyroscope, in  
the Flight of Projectiles, etc.*

LONDON  
ARCHIBALD CONSTABLE & CO. LTD.  
ORANGE STREET LEICESTER SQUARE  
1908



To read this book go to

<https://openlibrary.org> and search under Author for Lanchester F. W.

Roy Tiller, tel 01202 511309, email [roy.tiller@ntlworld.com](mailto:roy.tiller@ntlworld.com)

*Roy Tiller*

The Antonov An-225 Mriya (Ukrainian:

-225, lit. 'dream' or 'inspiration'; NATO reporting name: Cossack) was a strategic airlift cargo aircraft designed and produced by the Antonov Design Bureau in the Soviet Union.

It was originally developed during the 1980s as an enlarged derivative of the Antonov An-124 airlifter for the express purpose of transporting Buran-class orbiters. On 21 December 1988, the An-225 performed its maiden flight; only one aircraft was ever completed, although a second airframe with a slightly different configuration was partially built. After a brief period of use supporting the Soviet space program, the aircraft was mothballed during the early 1990s. Towards the turn of the century, it was decided to refurbish the An-225 and reintroduce it for commercial operations, carrying oversized payloads for the operator Antonov Airlines. Multiple announcements were made regarding the potential completion of the second airframe, however its construction has largely remained on hold due to a lack of funding. By 2009, it had reportedly been brought up to 60–70% completion.

With a maximum takeoff weight of 640 tonnes (705 short tons), the An-225 held several records, including heaviest aircraft ever built and largest wingspan of any aircraft in operational service. It was commonly used to transport objects once thought impossible to move by air, such as 130-ton generators, wind turbine blades, and diesel locomotives. Additionally, both Chinese and Russian officials had announced separate plans to adapt the An-225 for use in their respective space programmes. The Mriya routinely attracted a high degree of public interest, attaining a global following due to its size and its uniqueness.

The only completed An-225 was destroyed in the Battle of Antonov Airport during the 2022 Russian invasion of Ukraine. On 20 May 2022, Ukrainian president Volodymyr Zelenskyy announced plans to complete the second An-225 to replace the destroyed aircraft; Antonov announced plans to rebuild the destroyed aircraft in November 2022.

### Development

Work on what would become the Antonov An-225 would begin in 1984 with a request from the Soviet government for a large airlifter as a replacement for the Myasishchev VM-T.<sup>[2]</sup> The specifics of this request included the ability to carry a maximum payload of 231,838 kilograms (511,116 lb), both externally and internally, while operating from any runway of at least 3,500 metres (11,500 ft). As originally set out, the mission and objectives were broadly identical to that of the United States' Shuttle Carrier Aircraft, having been designed to airlift the Energia rocket's boosters and the Buran-class orbiters for the Soviet space program. Furthermore, a relatively short timetable for the delivery of the completed aircraft meant that development would have to proceed at a rapid pace.



The An-225 in its 2009–2022 livery

<b>Role</b>	Outsize cargo freight aircraft
<b>National origin</b>	Soviet Union (Ukrainian SSR)
<b>Design group</b>	Antonov
<b>Built by</b>	Antonov Serial Production Plant
<b>First flight</b>	21 December 1988
<b>Status</b>	Destroyed 27 February 2022; 17 months ago <sup>[1]</sup>
<b>Primary user</b>	Antonov Airlines
<b>Produced</b>	1985
<b>Number built</b>	1
<b>Developed from</b>	Antonov An-124 Ruslan



The An-225 carrying Buran (1.01) in 1989

Accordingly, the Antonov Design Bureau decided to produce a derivative of their existing Antonov An-124 Ruslan airlifter, although its payload capacity was almost half of what was required. The aircraft was stretched via the addition of fore and aft fuselage barrel sections, while a new enlarged wing centre was designed that facilitated the carriage of an additional pair of Progress D-18T turbofan engines, increasing the total from four to six powerplants. A completely new tail was also required to handle the wake turbulence generated by the bulky external loads that would be carried on the aircraft's upper fuselage. Despite the novelty of its scale, the design of the An-225 was largely conventional. The lead designer of the An-225 (and the An-124) was Viktor Tolmachev.



Antonov An-225 with Buran at Le Bourget, 1989, Manteufel

On 21 December 1988, the An-225 performed its maiden flight. It made its first public appearance outside of the Soviet Union at the 1989 Paris Air Show where it was presented while carrying a Buran orbiter. One year later, it performed a flying display for the public days at the Farnborough Air Show. While two aircraft had been ordered, only a single An-225, (registration CCCP-82060, later UR-82060) was finished. It could carry ultra-heavy and oversized freight weighing up to 250,000 kg (550,000 lb) internally or 200,000 kg (440,000 lb) on the upper fuselage. Cargo on the upper fuselage can be up to 70 m (230 ft) in length.

A second An-225 was partially built during the late 1980s for the Soviet space program, however, work on the airframe was suspended following the collapse of the Soviet Union. By 2000, the need for additional An-225 capacity had become apparent; during September 2006, it was decided that the second An-225 would be completed, a feat that was at one point scheduled to occur around 2008. However, the work was subject to repeated delays. By August 2009, the aircraft had not been completed and work had been abandoned. In May 2011, the Antonov CEO reportedly stated that the completion of the second An-225, which would have a carrying capacity of 250 tons, requires at least \$300 million; upon the provision of sufficient financing, its completion could be achieved in three years. According to different sources, the second aircraft was 60–70% complete by 2016.



The revival of space activities involving the An-225 was repeatedly announced and speculated upon throughout its life. During the early 2000s, studies were conducted into the production of an even larger An-225 derivative, the eight-engined Antonov An-325, which was intended to be used in conjunction with Russia's in-development MAKS space plane. In April 2013, the Russian government announced plans to revive Soviet-era air launch projects that would use a purpose-built modification to the An-225 as a midair launchpad.

In May 2017, Airspace Industry Corporation of China (AICC)'s president, Zhang You-Sheng, informed a BBC reporter that AICC had first contemplated cooperation with Antonov in 2009 and made contact with them two years later. AICC intends to modernize the second unfinished An-225 and develop it into an air launch to orbit platform for commercial satellites at altitudes up to 12,000 m (39,000 ft). The aviation media cast doubt on the production restart, speculating that the ongoing Russia–Ukraine conflict would prevent various necessary components that would have been sourced from Russia from being delivered; it may be possible that China could manufacture them instead. That project did not move forward but UkrOboronProm, the parent company of Antonov, had continued to seek partners to finish the second airframe.

On 25 March 2020, the first An-225 commenced a series of test flights from Hostomel Airport near Kyiv, after more than a year out of service, for the installation of a domestically designed power management and control system.



Three of six Ivchenko Progress D-18T turbofan engines on the An-225

### Design

The Antonov An-225 was a strategic airlift cargo aircraft that retained many similarities with the preceding An-124 airlifter that it was derived from. It has a longer fuselage and cargo deck due to the addition of fuselage barrel extensions that were fitted both fore and aft of the wings. The wings, which are anhedral, also received root extensions to increase their span. The flight control surfaces are controlled via fly-by-wire and powered by triple-redundant hydraulics. Furthermore, the empennage of the An-225 is a twin tail with an oversized, swept-back horizontal stabilizer, having been redesigned from the single vertical stabilizer of the An-124. The use of a twin tail arrangement was essential to enable the aircraft to carry its bulky external loads that would generate wake turbulence, disturbing the airflow around a conventional tail. The An-225 is powered by a total of six Progress D-18T turbofan engines, two more than the An-124, the addition of which was facilitated by the redesigned wing root area. An increased-capacity landing gear system with 32 wheels was designed, some of which are steerable; these enable the airlifter to turn within a 60-metre-wide (200 ft) runway. Akin to its An-124 predecessor, the An-225 incorporated a nose gear designed to "kneel" so cargo can be more easily loaded and unloaded. Additional measures to ease loading and unloading activities included the four overhead cargo cranes that could move along the whole length of the cargo hold, each of which was capable of lifting up to 5,000 kilograms (11,000 lb). To facilitate the attachment of external loads, such as the Buran orbiter, various mounting points were present along the upper surface of the fuselage.



The An-225's main landing gear



The nose gear of the An-225

Unlike the An-124, the An-225 was not intended for tactical airlifting and was not designed for short-field operations. Accordingly, the An-225 does not have a rear cargo door or ramp, as are present on the An-124, these features having been eliminated in order to save weight. The cargo hold was 1,300 m<sup>3</sup> (46,000 cu ft) in volume; 6.4 m (21 ft 0 in) wide, 4.4 m (14 ft) high, and 43.35 m (142 ft 3 in) long—longer than the first flight of the Wright Flyer. The cargo hold, which is pressurized and furnished with extensive soundproofing, could contain up to 80 standard-dimension cars, 16 intermodal containers, or up to 250,000 kilograms (551,150 lb) of general cargo.

The flight deck of the An-225 is at the front of the upper deck, which is accessed via a ladder from the lower deck.<sup>1</sup> This flight deck is largely identical to that of the An-124, save for the presence of additional controls to manage the additional pair of engines. To the rear of the flight deck is an array of compartments which, amongst other things, accommodate the crew stations for the aircraft's two flight engineers, navigator, and communication specialist, along with off-duty rest areas, including beds, which facilitate long range missions to be flown. Even when fully loaded, the An-225 was capable of flying non-stop across great distances, such as between New York and Los Angeles.

As originally constructed, the An-225 had a maximum gross weight of 600 t (660 short tons), however, between 2000 and 2001, the aircraft received numerous modifications at a cost of US\$20 million, such as the addition of a reinforced floor, which increased the maximum gross weight to 640 t (710 short tons). Both the earlier and later takeoff weights establish the An-225 as the world's heaviest aircraft, exceeding the weight of the double-deck Airbus A380 airliner. Airbus claims to have improved upon the An-225's maximum landing weight by landing an A380 at 591.7 t (652.2 short tons) during testing.



The Antonov Airlines An-225 landing at Hostomel Airport, 2014

### Operational history

The Antonov An-225 Mriya was originally operated between 1988 and 1991 as the prime method of transporting Buran-class orbiters for the Soviet space program. Its first pilot was Oleksandr Halunenko, who continued flying it until 2004. "Antonov Airlines" was concurrently founded in 1989 after it was set up as a holding company by the Antonov Design Bureau as a heavy airlift shipping corporation. This company was to be based in Kyiv, Ukraine, and operate from London Luton Airport in partnership with Air Foyle HeavyLift. While operations began with a fleet of four An-124-100s and three Antonov An-12s, the need for aircraft larger than the An-124 became apparent by the late 1990s.

By this time, the Soviet Union was no longer in existence and the Buran programme had been terminated; consequentially, the sole completed An-225 was left unused and without a purpose. As early as 1990, Antonov officials were openly speaking on their ambitions for the aircraft to enter commercial use. Despite this, in 1994, it was decided to put the An-225 into long-term storage. During this time, all six of its engines were removed for use on various An-124s, while the second uncompleted An-225 airframe was also stored. As the 1990s progressed, it became clear that there was sufficient demand for a cargoliner even bigger than the An-124. Accordingly, it was decided that the first An-225 would be restored. The aircraft was re-engined, received modifications to modernise and better adapt it to heavy cargo transport operations, and placed back in service under the management of Antonov Airlines. It became the workhorse of the Antonov Airlines fleet, transporting objects once thought impossible to move by air, such as 130-ton generators, wind turbine blades, and even diesel locomotives. It also became an asset to international relief organizations for its ability to quickly transport huge quantities of emergency supplies during multiple disaster-relief operations.

Under Antonov Airlines, the An-225 received its type certificate from the Interstate Aviation Committee Aviation Register (IAC AR) on 23 May 2001. The type's first flight in commercial service departed from Stuttgart, Germany, on 3 January 2002, and flew to Thumrait, Oman, with 216,000 prepared meals for American military personnel based in the region. This vast number of ready meals was transported on 375 pallets and weighed 187.5 tons. The An-225 was later contracted by the Canadian and U.S. governments to transport military supplies to the Middle East in support of coalition forces. An example of the cost of shipping cargo by An-225 was over 2 million kr. (about €266,000) for flying a chimney duct from Billund, Denmark, to Kazakhstan in 2004.

During 2016, Antonov Airlines ceased cooperation with Air Foyle and partnered with Volga-Dnepr instead. This in turn led to the An-225's blue and yellow paint scheme, was added in 2009. These matched the colors of the Ukrainian flag and led to the An-225 becoming "Ukraine's winged ambassador to the world," in the words of The New York Times.

When the COVID-19 pandemic impacted the world in early 2020, the An-225 participated in the relief effort by conducting flights to deliver medical supplies from China to other parts of the world.

The aircraft was popular with aviation enthusiasts, who frequently visited airports to view its scheduled arrivals and departures.

## Couprofile No. 15, Martin Stagg



Martin, you are a longstanding and dedicated coupe flyer, tell us about your free flight experience and about your latest coupe. How do you pick the air and what developments would you like to make?

*It all started when I was about 7 years old. (c1950) I lived in southeast London and there was a model shop about a mile away called Crystal Palace Models. Several models hung from the ceiling including a KK Chief glider and a KK Gypsy rubber model. I would gaze longingly through the window at them for ages.*

*I am not sure how, but I came to buy a KK 'Cutie' toy chuck glider that slotted together, wings forward for stunts, back for long flights. I threw this about in the road outside my house (no cars then) until it got broken. I bought another one about 2 weeks later and did the same, this set a pattern. I learned instinctively how to trim these and thus learned the basics of trimming. My Dad, who was a very capable and practical man but knew very little about model planes, made a KK Ajax which we took to the local park. Wound it up (by hand) and launched it for a perfect flight of 100m or so. That was it, I was totally hooked.*

Fast forward a few years and I joined the Blackheath MFC, at that time the oldest club in the country. There I could observe such luminaries as Laurie Burrows and George Sharp. I made trips by train to Chobham common or Epsom downs to fly whatever contraption I had cobbled together, mostly open rubber models, with a couple of power models thrown in. I never became very proficient, lacking the patience to apply myself properly.

Fast forward again past the teenage years, (girls, parties, sport) then marriage and children. We moved to Kent, and I discovered that there was a club in Maidstone and that flying took place on Ashdown Forest, about  $\frac{1}{2}$  hrs drive away. I had kept up my interest in Aeromodelling (never missed a copy of Aeromodeller and Model Aircraft magazines) and the bug bit again. Again, my main interest was f/f rubber. I tried F1B (failed miserably), also F1A glider (ditto). About this time, I built my first Coupe. I ALWAYS build my own designs (except, of course, Mini Vintage etc). Of course, they end up like other designs of the time. I cannot remember much about this Coupe other than getting quite excited the first time I achieved a flight of over 1 minute!

For a long time, I continued in this vein, slowly improving my building skills and occasionally placing in a competition (never winning) but thoroughly enjoying it.

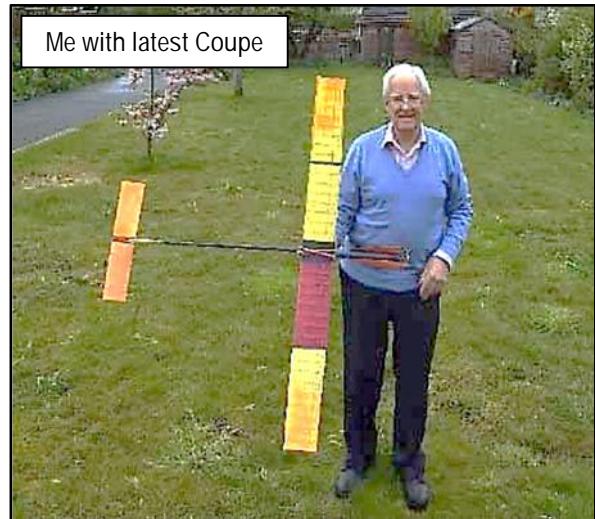
Happy days. Tuesday evening on the forest trimming, followed by a pint in 'The foresters' pub to discuss our latest triumphs and failures.

Fast forward again to 2012/13. Moved to Somerset & joined Bristol and West MAC. Here I had the luxury of flying on Merryfield, not a very large airfield but adequate. Also, quite a picturesque setting, with some interesting wildlife, but I digress....

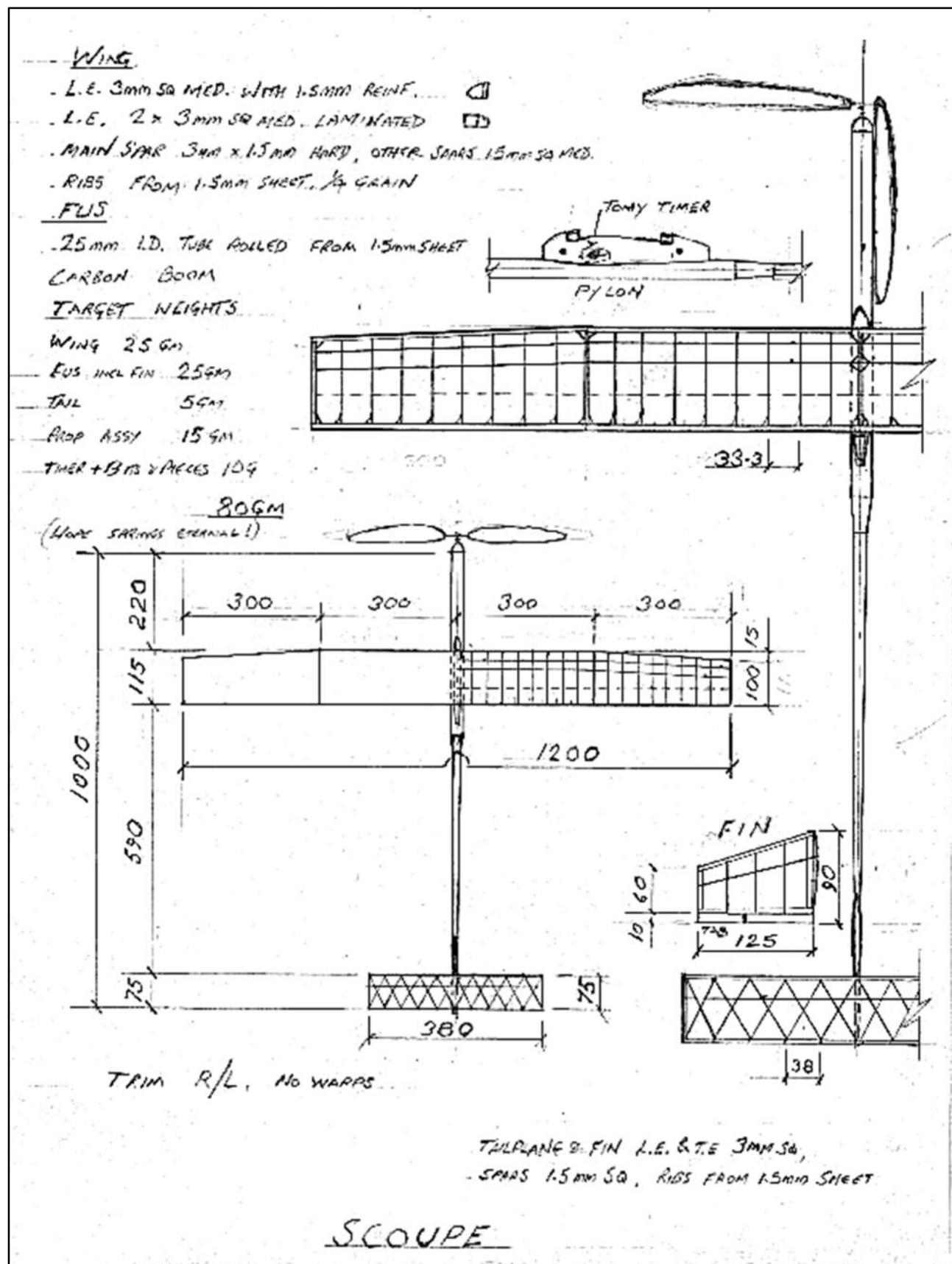
I was made very welcome by my new clubmates. I found myself admiring Alan Brocklehurst's coupes and being drawn more and more towards the class. I already had one old and battered coupe which never flew very well so I refurbished it with a new wing and prop, also I re trimmed it to fly right/left. This eliminated the 'coupe swoop' and worked much better. Encouraged, I 'designed' and built a new coupe using valuable information gleaned from Alan. This flew well but was overweight, so I built another similar model as per the accompanying diagram and photo and managed to get the weight down to only a few grams over the limit. This shows promise, but I have not been able to get it fully trimmed. Flying on Salisbury Plain (SP) limits the opportunities for trimming.

I find picking the air on SP trickier than it was on Merryfield, which doesn't really make sense. I have never been able to use electronic thermal detectors, relying instead on mylar streamers and the 'feel' on my skin, coupled with waiting for a lull. Some people say wait for the infill after the lull, but I have never had the nerve to do that!

So where do we go from here? I would like to build another model with a more extreme design (higher aspect ratio wing, bigger prop for longer run and with more carbon/Kevlar in its construction.) but I need to get the weight down, all my coupes have been overweight. I don't think I would employ any gadgets (VIT, delayed prop release etc) as they are all more things to go wrong but I would like to incorporate retrieval aids such as RDT, GPS, etc as per the BMK system that seems to be in favour at present. Trouble is I am useless at electronics. Also, I must get more organised, at home and on the field. I must learn from Alan Brocklehurst!



Finally, I need to overcome some health issues and get fitter. At present long retrieves are a problem.



Plan, as built. AUW came out at 86 grams.

Peter Hall/Martin Stagg

### A correction to Southern Coupe League 5th. Area report in August issue

In my report, Michael Marshall comments ' ...reports after the Nationals that Ivan Taylor was managing 410 turns on his CdH motors spurred a new interest in pre-event motor stretching but I was still only able to achieve 320-330 turns.

I subsequently read that Ivan was using 12" long motors, mine are about 9"....'

Ivan has now corrected this saying that he was using 9" X 12 strand motors.

Michael and Ivan have asked for this correction to be published so as not to mislead any possible newcomers.

It may be helpful to refer to John Barker's excellent article 'Prop. Picker' published I think in the Aeromodeller in 2005. He describes a simple formula for approximating the number of turns a motor will take before breaking. In the case of coupe motors and probably in reference to Tan2 rubber, -

Take the length of the motor in inches, cube it and divide by the weight in grams (10) take the square root of this and multiply the result by 44. (for different weights a different factor is needed) Let's try this with Ivan's motor-

$$9 \times 9 \times 9 / 10 = 72.9, \text{ square root of this} \times 44 = 376.$$

But if you assume the motor was 9.5 " long you get 407 very close to Ivan's motor (410).

Over years I have found this formula very reliable for use with Super Sport rubber . I aim to use 9.5" motors and in temperate conditions get around the target turns.

Super Sport rubber batches have only varied slightly in thickness, not so much in energy storage capacity. It's possible recent rubber may have improved or Ivan's motors were a bit over 9" and his preparation and winding procedures are very very good.

Notice that motors are identified by their length, not number of strands because of variations in thickness.

Peter Hall  
Ivan Taylor  
Michael Marshal

## Aeromodeller Departed: Peter Tomlinson



With regret I must inform you all of the passing of Peter Tomlinson.

Peter died on the 10 August, aged 91 in Northampton General Hospital after a prolonged illness.

Peter had not been in the best of health for a number of years. Whilst still flying competitively he had mobility problems which presumably finally led to the end of his competitive flying.

Peter was primarily interested in Gliders and flew regularly at Middle Wallop in company with his cohorts Dick Twomey and Alan King.

Sadly this trio are no longer with us.

Peter was in at the birth of SAM1066 and regularly attended David Bakers monthly meetings at the 'Hangar' in Pine trees. I think Peter could be said to have been David's right hand man. Peter was a come what may flier and would make his flights whatever the conditions, good or bad. If there was the sniff of winning a bottle of wine he would willingly risk wrecking his model to post a time, even if it was a no-flight time. I know cos I timed one.

Peter was also a Table Tennis league player, playing for Headlands in the Northampton League. Another string to his bow that I was not aware of.

R.I.P.



The Gliding trio at Wallop

Peter Tomlinson

Dick Twomey

Alan King

*John Andrews*

**Southern Gala Results.**

Weather- Sunny with 10 to 18 mph wind

**Combined Electric**

1 <sup>st</sup> .	C.Redrup	Crookham	34457	7.30
2 <sup>nd</sup> .	J.Pennington	B & W	25139	5.10
3 <sup>rd</sup> .	R.Elliott	Croydon	33303	5.00

**Combined Power**

1 <sup>st</sup> .	D.Cox	Crookham	73114	7.19
2 <sup>nd</sup> .	R.Vaughn	Crookham	69977	1.55

**Combined Glider**

1 <sup>st</sup> .	D.Cox	Crookham	73114	7.30
2 <sup>nd</sup> .	C.Parry	Biggles	62525	7.14
3 <sup>rd</sup> .	D.Etherton	Crookham	59852	5.44
4 <sup>th</sup> .	R.Heap	Biggles	73338	2.30

**Combined Rubber**

1 <sup>st</sup> .	C.Redrup	Crookham	34457	7.30
2 <sup>nd</sup> .	J.Paton	Crookham	156623	7.19

**E30**

1 <sup>st</sup> .	T.Grey	Crookham	33877	6.00
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**F1H**

1 <sup>st</sup> .	C.Parry	Biggles	62525	7.04
2 <sup>nd</sup> .	R.Heap	Biggles	73338	2.00

**F1G**

1 <sup>st</sup> .	G.Manion	Birmingham	35505	4.00
2 <sup>nd</sup> .	A.Brocklehurst	B & W	2547	1.42

**HLG/CLG**

1 <sup>st</sup> .	J.Pennington	B & W	25139	4.31
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*David Cox*

**Southern Gala, August 20th 2023 Salisbury Plain**  
**Round 8 Southern Coupe League**

A beautiful day and scarcely a whisper of breeze greeted the packed field of competitors.....

Sorry, must have dozed off and was back in 2003/4/5.



Two flew the coupe event. Yes two. Was it the wind, the site, the rival attraction, the Ladies World Cup? After a reasonable start with ten flying Coupe de Brum. this season has seen threadbare attendance. Gavin Manion took first place and Alan Brocklehurst second. Here are their comments,

**Gavin first -**

*"As is usual, down the night before, f&c in Devizes, etc. etc. For all I complain that it's all very samey, I do love my trips down to Salisbury, long may they continue.*

*It was forecast as bright and breezy and so it was. The direction determined that we would be flying from the airstrip which I'm not very familiar with. I took the route up from our usual site and very hairy it was too. Chris Redrup (CD) had marked a much easier route but I never got to his signs having left the B309 too early. Chris was frustrated that he hadn't been able to get an announcement out about the preferred route which is very straightforward being mainly over grass, I left the field that way with no worries at all.*

*The wind direction was towards the usual site, apparently known by regulars as "the trimming field". Recovery took us down a long slope and then up to the track. In the lighter winds up to lunch time I was covering ~700m in two and a bit minutes so, say, 15mph or a bit less. But what a retrieve it was. The grass was uncut and at least knee high (well it was to me!) with a wonderful crop of Wild Parsnip, Ragwort, Ox-eye and Cornflowers. It looked lovely, full of butterflies, but it was exhausting to walk through, particularly the climb back.*

*I flew alongside Ray Elliott and put in two maxes then went for a chat with my co-competitors, more correctly with Alan Brocklehurst who'd arrived late and had yet to start. I suggested that, when he'd done a recovery, we might think about whether we could agree to just three flights and he seemed amenable to that.*

*As it happened Alan dropped his first flight, I'm sure he'll explain why in his report, and no one else showed any signs of flying so I thought to just sit tight on my maxes and watch the scoresheet. It became clear in conversation that Alan could see no point in continuing with the increasing wind speed knowing that he needed two more flights to beat me. Plus, as he said, if he flew again then I would and he was probably right.*

*So that was it, I was lucky to be fast out of the starting blocks when the wind was easier. I flew my oldest model, No4, which is at its best in breezy thermally conditions, and I picked two patches, one off my streamer and the other by having Chris Parry's excellent V dihedral A1 obligingly fly buoyantly over my head.*

*Sometimes you just take the win and be grateful...mind it would be nice to have a few more friends to fly with, hopefully "The Croydon" will see a return to normal."*

### Alan reports -

The forecast 12mph south-westerly wind meant that we had to fly from the ridge on the southern side of the site. Of course, I should have arrived earlier, as initially the wind strength wasn't at its peak. While I was getting set up, Gavin Manion was making his first flight in F1G and his model got away nicely for a certain max, landing across the valley on the trimming field. I then encountered a minor panic with the BMK Flexi-Display bleeping at me due to low battery warning, despite being fully charged the night before! To play safe, I plugged it into the car 12V socket and waited a while - time for a sandwich and a cup-of tea! Anyway, re-charging the battery cured the problem. I re-calibrated the voltage indicator and had no problem after that. Although, prior to launching, I forgot to start the data-logger - but no matter - it wasn't a big flight and the flight was in wind and turbulence, so of little academic interest! Again, in retrospect, one should always wait longer and choose better air! Initially it looked like it might max, but encountered turbulence from the ridge and came down on the opposite side of the valley about 650m away for 1:42, as it disappeared into the long grass. The BMK tracker took me straight to it. By the time I got back, Gavin was recording another max on the score sheet. But now the wind was starting to increase, with the wind sock rising and falling and swinging from side-to-side! Had the day been calmer and the long grass less adept at grabbing my boots, particularly when walking back up the hill to the launch point, I would have continued in the hope that Gavin might drop more time than I had already done. But, there didn't seem much point in playing catch-up with only the two of us flying in F1G, and anyway, Gavin is well ahead of me in the Southern Coupe League, so I resigned myself to be second! Gavin did well to pick the air and deserved the win



Alan's Coupe resting against the winding stooge ropes, sheltered behind the car.  
Note the long grass, angle of the wind-sock, lovely blue sky and convective cloud

The final event this season is Coupe Europa on Salisbury Plain, 8th October. Gavin Manion is 32 points ahead of Michael Marshall and Ivan Taylor and so is assured of the League Cup. Gavin has attended six events, Michael and Ivan three each so their average scores are 9.5, 8.3, 8.3

*Peter Hall*

**Southern Coupe League Table**

-

**Roy Vaughn**

<b>Southern Gala Results</b>			
	<b>Entrant</b>	<b>Club</b>	<b>Score</b>
1	G.Manion	Birmingham	12
2	A.Brocklehurst	B&W	9

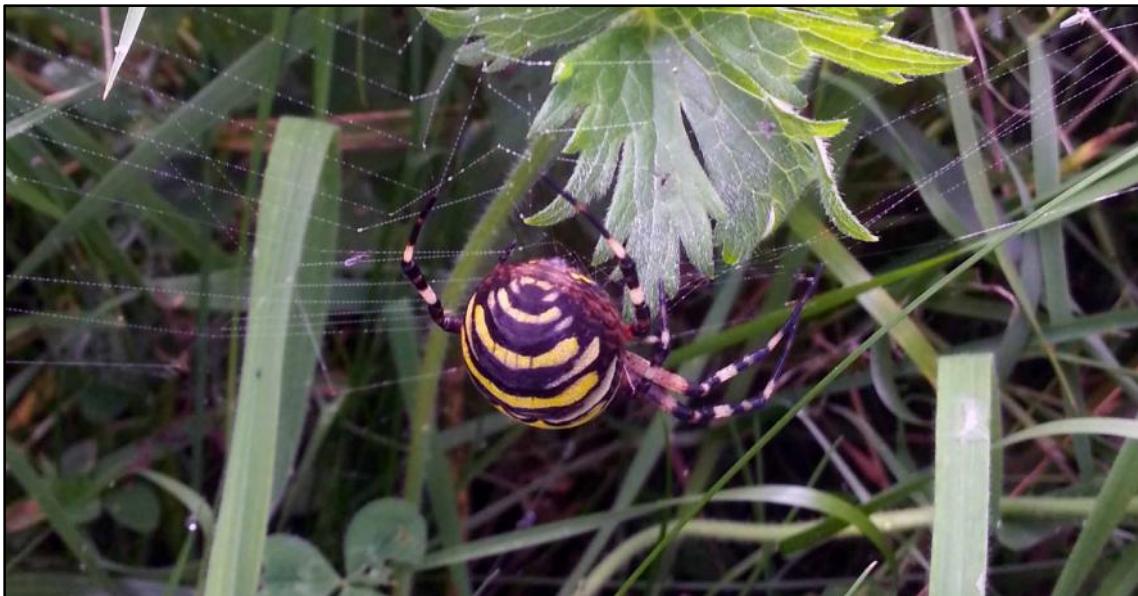
**Southern Coupe League Table After 8th Round:**

	Entrant	Club	Coupe De Brum	Second Area	London Area	Crookham Gala	Nationals	Fifth Area	Cagnarata	Southern Gala	Coupe Europa	Total
1	G. Manion	Birmingham	12	9		12	12	7		12		57
2	M. Marshall	Impington	6				7	12				25
=	I. Taylor	Birmingham		7			9	9				25
4	A. Brocklehurst	B&W				7	8			9		24
5	P. Woodhouse	Morley	9	8								17
6	S. Willis	Croydon	1	7				8				16
7	S. Darmon	Birmingham	8	5								13
8	S. Fielding	Morley		12								12
9	R. Fryer	Oxford				9						9
10	J. Paton	Crookham				8						8
11	B. Whitehead	Peterbrough	7									7
12	M. Stagg	B&W				6						6
=	B. Dennis	Oxford					6					6
14	R. Elliott	Croydon	5									5
=	B. Hobbs	Oxford				5						5
=	G. Peck	C/M					5					5
17	C. Foster	Morley	4									4
18	C. Redrup	Crookham	3									3
19	R. Vaughn	Crookham	2									2
20	M. Woodhouse	Vikings										0

*Roy Vaughn*

Herewith some pics for the magazine.

I have it on good authority that the large wasp-like insect that I saw in the long grass on Salisbury Plain on Sunday was a Wasp-Spider and is apparently quite rare. It can bite, but doesn't sting and is fairly harmless. It was waiting patiently in its web when I first saw it, but then it became a little camera shy!



Wind was 12mph, SW, so we flew from the ridge by the wind-sock.

Very low turnout, only two entries in Coupe!



The Discus Launch Glider belongs to Julian Pennington, the sole entrant in HLG, who also features in the other photo where he is launching his E-36.



The Chris Redrup support group, all with an eye on the meter.



*Alan Brocklehurst*

Another month mostly away from home so very little activity on my part. Another meeting cancellation as well, in that the Southern Area Gala was cancelled not once but twice on successive weekends due to (mostly) adverse wind coupled with the prospects of dampness. This summer has indeed been pretty disastrous for the free flight community.

The indoor season commences at Totton in September. Our advertised date is 20<sup>th</sup> Sept - see ad in this months NC - however there is some confusion - which at the time of writing this note has yet to be clarified. It seems that the booking may have been inadvertently made for 13<sup>th</sup> Sept - hence there may well a late email note to members in the next few days confirming the correct date. There is also the annual Croydon Coupe Day on Salisbury Plain on 8<sup>th</sup> October - advance notice as a reminder.

You have probably seen the recent BMFA notices regarding the CAA revisiting current drone regulations through a 28 page consultation document. The BMFA has issued its response & suggest that members respond using it as a "guide". Quite why the CAA cannot treat model flying as a distinctly separate activity from drones has always been somewhat incomprehensible but who am I to query their policies. Anyway with probably less than a very few hundred regularly flying free flight, I can't imagine there will be any significant change to our activities other than diminishing places to fly. For those who may be interested, the consultation can be accessed via:

[Call-for-Input-Review-of-UK-RPAS-Regulation-v3\\_1-CAP2569.pdf \(bmfa.org\)](https://bmfa.org/wp-content/uploads/2023/08/Call-for-Inputv2.pdf)

& the BMFA response at,

<https://bmfa.org/wp-content/uploads/2023/08/BMFA-Response-to-CAA-Call-for-Inputv2.pdf>

any responses have to be posted by 7<sup>th</sup> Sept.

There have been very few interesting news releases from the proper Aviation world of late. However one that did catch my attention concerned the funding of a blended wing prototype by the US Air Force - see pic. Brings back past experiments with the same concept from days long gone. Here is a link for anyone interested - a recent article from Aviation Week.

[Opinion: Why It Is Time For The Blended Wing Body | Aviation Week Network](https://www.aviationweek.com/avweb/Opinion/Why_It_Is_Time_For_The_Blended_Wing_Body/853332.html)



Blended Wing concept

On a like note Chester Lanzo produced a lifting body (fuselage) design, versions of which have appeared at Middle Wallop in the past, entitled Swayback - Belair do a short kit. Never really caught on?



The mystery Westland Lysander model & plan as per separate short article - I received a note from Roy regarding the plan or rather lack thereof! He says:

Hi Roger,

My thoughts on this model.

First mention is in "Scale Model Aircraft that Fly" 1940 book by Towner & Boys. Photographs only in section on photographing models.

Second mention is in "Aviation in Miniature" 1944 book by Russell. Found in list of plans available from Aeromodeller. Shown as Plan No. 161 which suggest in the early 1940's.

I have found no evidence of a plan of this model having ever appeared in Aeromodeller or Aeromodeller Annual.

Plans on Outerzone.

1. Single sheet plan with Aeromodeller title box but no plan number.

2. "Alternative" 2 sheet plan but only sheet 1 available. Sheet 1 is as your supplied sheet 1 but with building instructions included. These are headed Aeromodeller and the designer stated as Boys.

Outerzone state that these plans are as the photograph seen in "Scale Model Aircraft that Fly" but they make no mention of "Aviation in Miniature". In error they attribute this plan to Aeromodeller February 1968. The Westland Lysander in Aeromodeller February 1968 is a 60" span power model with the design attributed to "Aeromodeller Staff" which I think means redrawn by. A plan of this model was originally available "to order", no reduced plan being shown, in Aeromodeller April 1942 designed by Welsberg. I have never seen a copy of this Welsberg original plan.

Reference the 2 sheet plan received from yourself. When I open these files I get a message "Page size out of range might be truncated".

Sheet 1 is as the Outerzone "Alternative" sheet 1 but without the building instructions perhaps this is explained by the "truncation". Sheet 2 shows the wings and looks complete.

I am sure that Outerzone would be pleased to receive the missing sheet 2 and perhaps they should be advised of the attribution error bit I will leave all of that to those who deal with plans.

Best wishes,

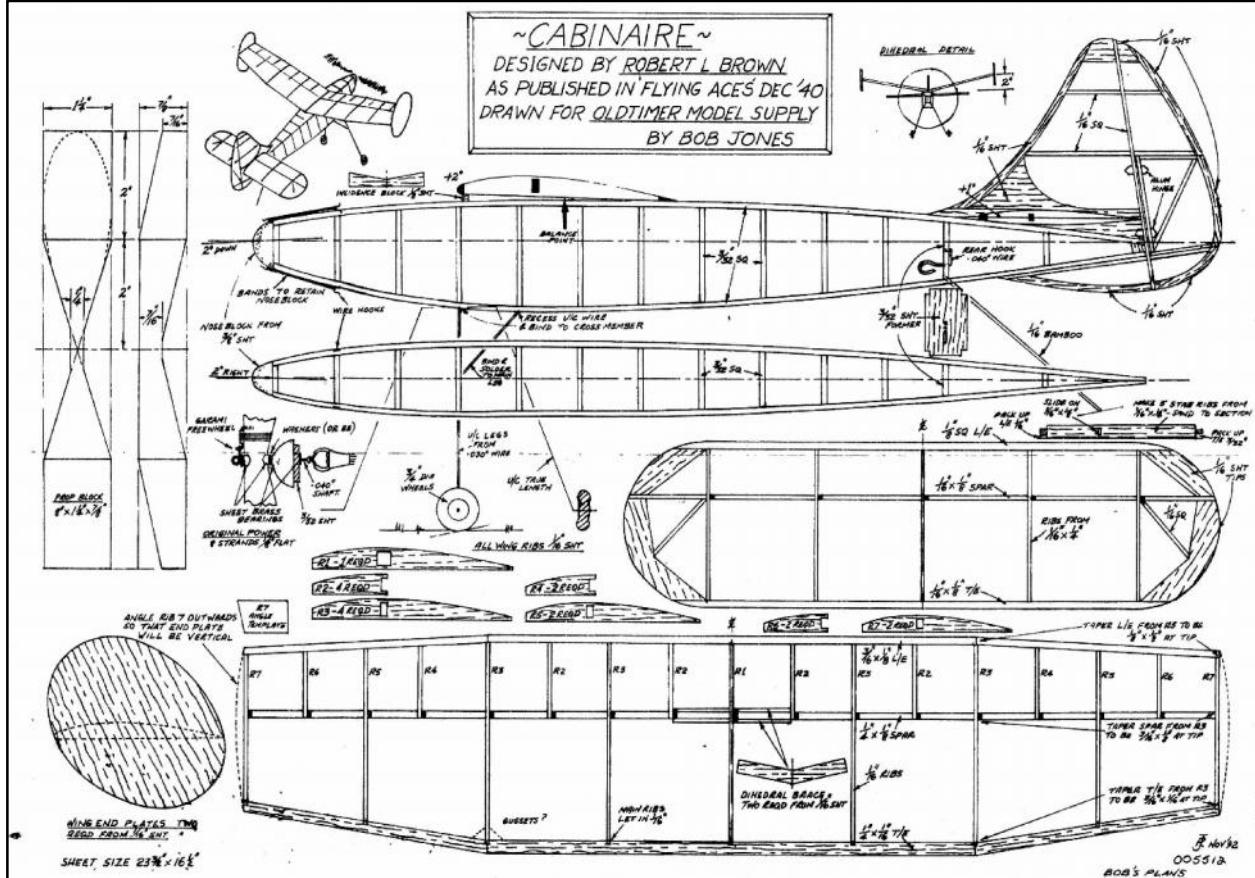
Roy

I haven't been through my back issues of Aeromodeller so don't know if it was ever published - from Roy's comments, it seems unlikely, so from where did it originate?

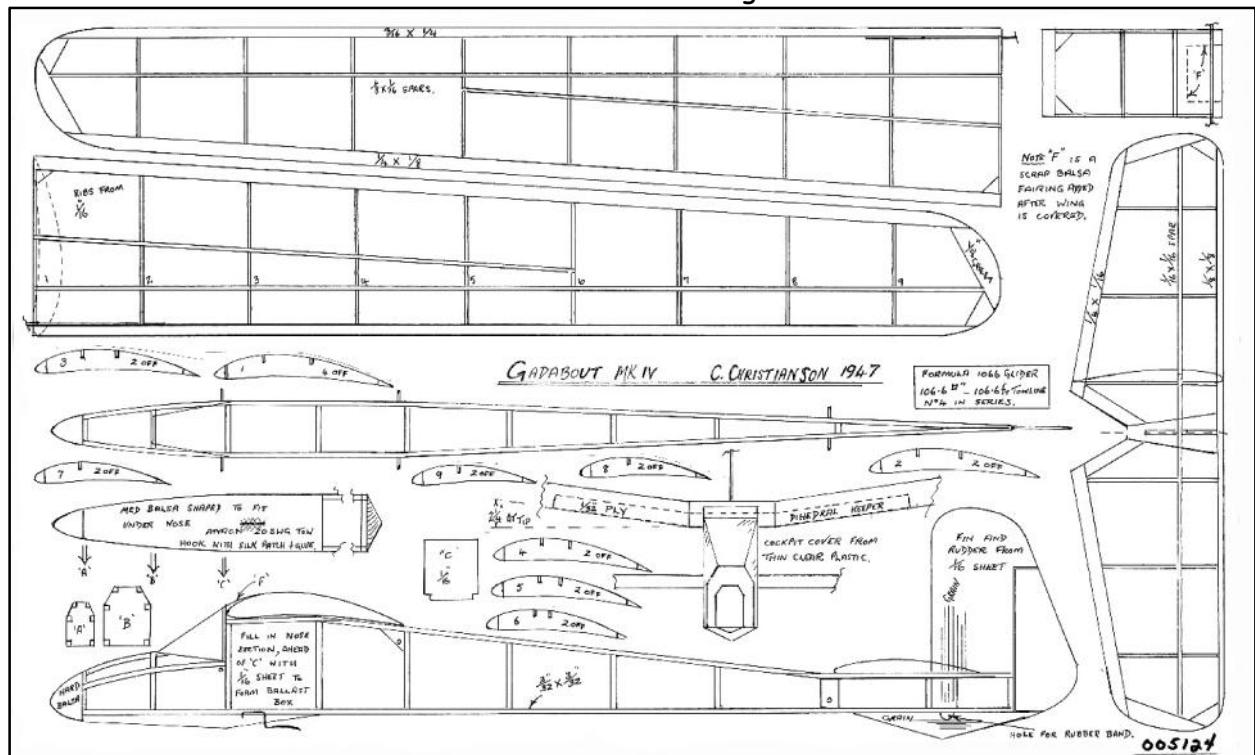
That's all for this month apart from our monthly plans offering.

## Plans for the month

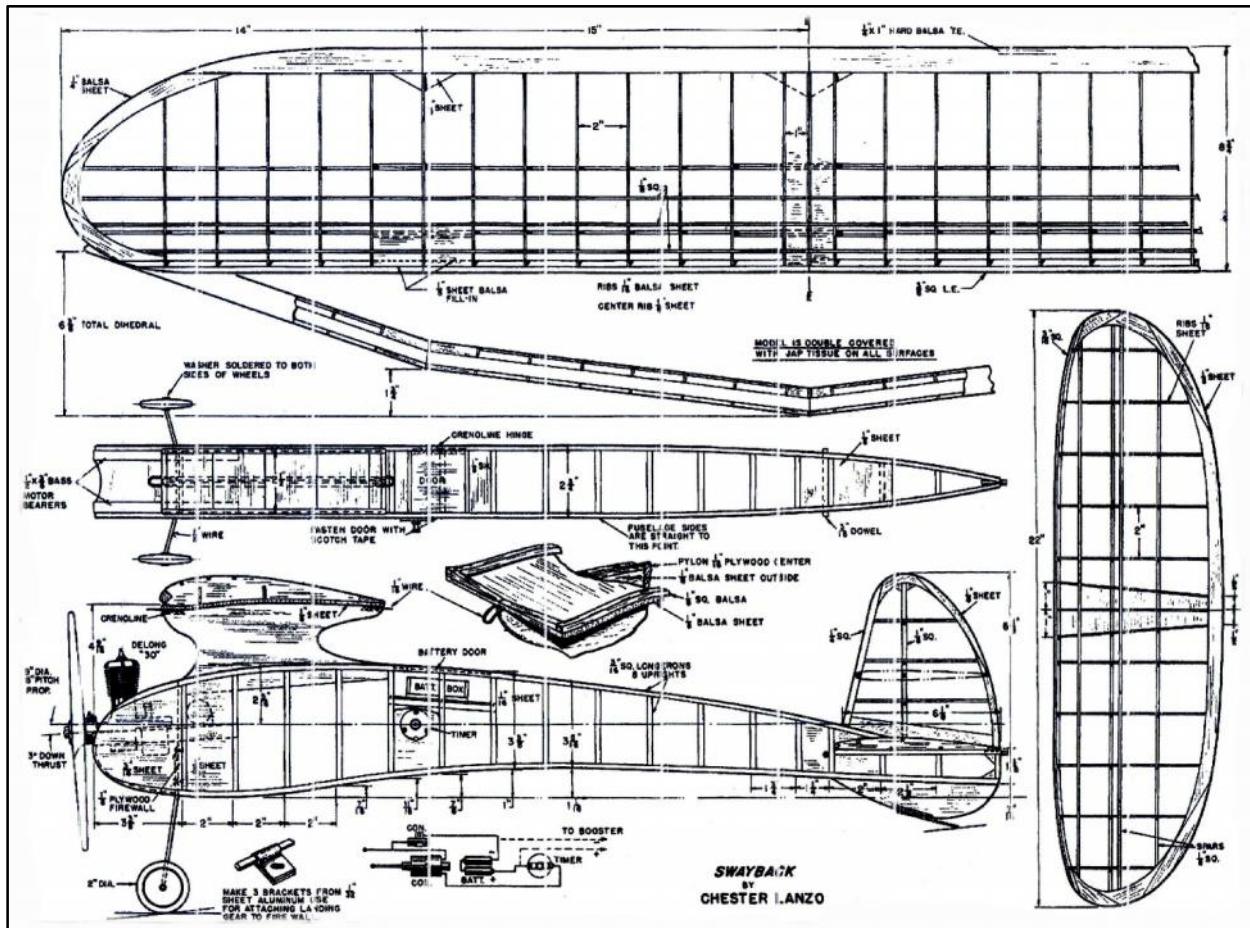
**Rubber:** Cabinaire - pretty little small field model



**Glider: Gadabout** - one of the 1066 bungee redraws from 1947



## Power: Swayback - why not



*Roger Newman*

# Indoor Model Flying Bangor, North Wales

September to May - see dates below  
Brailsford Centre LL57 2EH

Freeflight models and lightweight RC planes welcome. Beginners encouraged.

Contact : Martin Pike, [martin.pike.xray@btinternet.com](mailto:martin.pike.xray@btinternet.com) or 07831 141418

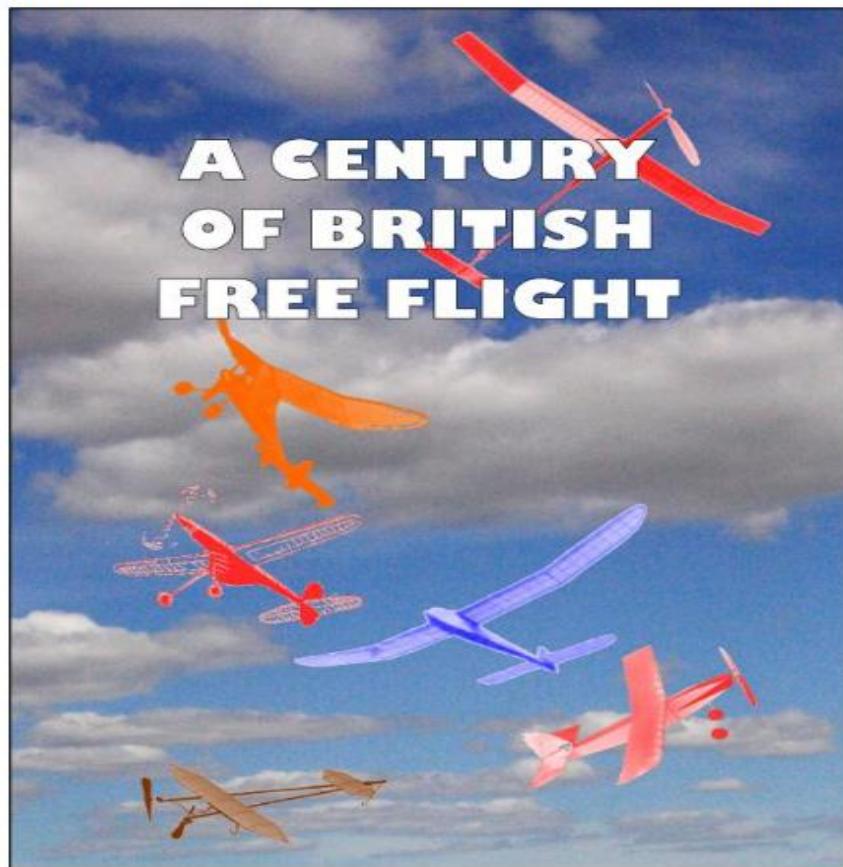
03/09/23 - 1700-2000, 01/10/23 - 1600-1800, 05/11/23 - 1600-1800, 17/12/23 - 1600-1800, 07/01/24 - 1700-2000, 04/02/24 - 1600-1800, 10/03/24 - 1600-1800, 07/04/24 - 1700-2000, 05/05/24 - 1700-2000

## 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) .

## Permits for Salisbury Plain & North Luffenham

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

The costs are:

£20 for Salisbury Plain - £35 for North Luffenham

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

# Southern Coupe League

## Programme for 2023

The country may be on its knees but the S.C.L. is in rude health and will stride boldly into the new season offering a rich and challenging programme. These are the confirmed events so far and we intend to include all the season's Coupe events in the League. You may wonder then why we do not change the name to the 'National Coupe League'. It is a peculiarly British trait to retain and celebrate the obsolete and look with suspicion on the new-fangled. The first event will be La Grande Coupe de Birmingham on either the 18th or 19th February depending on the weather. at North Luffenham. The date will be publicized as soon as a reliable weather forecast is available. Assuming ten events, your five best scores will count.

18 or 19 February	Coupe de Brum	North Luffenham
12 March	2nd Area	Area venues
30 April	London Gala	Salisbury Plain
7 May	Crookham Gala	Salisbury Plain
4 June	Nationals Small Classes	North Luffenham
9 July	5th Area	Area venues
20 August	Southern Gala	Salisbury Plain
8 October	Coupe Europa	Salisbury Plain

## Cocklebarrow Vintage R/C Dates for 2023

**Sundays**

**16<sup>th</sup> Jul: 20<sup>th</sup> Aug: 24<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

# Croydon Coupe Europa

## & SAM 1066

### 8th October

## Salisbury Plain Area 8

Start 10.00 am

Coupe Events: -F1G ( in rounds), & Vintage Coupe

SAM1066 Events: -

Combined Vintage/Classic Glider; Mini Vintage

Contact Ray Elliott - tel: 07513 649734

Email: [ray.elliott8@btinternet.com](mailto:ray.elliott8@btinternet.com)

## Classic A1 Email International 2023

The second 'official' postal contest for Classic A1 gliders will run from June 1st to December 31st 2023. Top three individuals plus top team of up to three flyers will be awarded engraved glass trophies, and thanks to the generosity of Peter Brown, once again the winner receives a complete stand- alone RDT system.

### Eligible models

A Classic A1 is any towline glider of total area not exceeding 18 sq. DM (279 sq. in.), built to a design published or kitted between January 1951 and January 1961.

**N.B** the 'Ghost', 'Top Kick' and 'Lil' Dip' will be considered eligible for this year's event.

There is no minimum weight requirement. Any form of dethermaliser may be fitted.

### Towline

50 metres (164 ft.) maximum. Alternatively launching may be via a 'bungee' containing no more than 20m. of rubber and not exceeding 50 m. relaxed length, anchored to the ground (provided the whole flight is over substantially level ground).

### Scoring

All flights for each entry must be made on the same day, using the same model. An individual may make up to three entries, so long as a different model is used for each. Flights must be timed by a person other than the entrant.

The max for the first flight is 30 seconds. If this is achieved, the entrant may make a second flight, of max 60 seconds and so on, the max increasing by 30 seconds each time until a max is not achieved (or flying cannot continue, e.g. because the model is lost or damaged). The total score for each entry is the sum of all flights, including the last sub- max. This should be submitted in the form of an addition, e.g.

$30+60+90+112 = 292$

### Entry

Entry is free of charge. Score should be submitted to

[stuardarmon1a@yahoo.com](mailto:stuardarmon1a@yahoo.com)

or by post to **Stuart Darmon, 1 Post Office Cottages, Main Street,  
Theddingworth, Leicestershire LE176QP, United Kingdom**

to arrive no later than January 10 2024. Please include your name, the name of your timekeeper, the design you flew, and the location of your flights. Additional information and photos would be most welcome.



## Flitehook Indoor Free Flight



**West Totton Community Centre SO40 8WU**

**2023 Winter Dates:**

**20<sup>th</sup> Sept; 18<sup>th</sup> Oct; 15<sup>th</sup> Nov;**

**12.00 noon - 4.00 pm**

**BMFA Membership mandatory**

**£8 per session**

**Spectators & Juniors are free of charge**

**Easy access; Cafe; Toilets; Parking**

**Flitehook Sales Table**

**Any queries**

**email [rogerknewman@yahoo.com](mailto:rogerknewman@yahoo.com) or phone 02392 550809**

**Supported by Southern Area BMFA**



## Bloxwich Indoor Flyers

**Free Flight & lightweight RC**

**Sneyd Community School**

**Vernon Way, Sneyd Lane,  
Bloxwich, WS3 2PA**

**Saturdays 12 noon until 4pm**

**Fliers - £8 Spectators £2**

**2023 dates**

**16<sup>th</sup> Sep - 14<sup>th</sup> Oct - 11<sup>th</sup> Nov - 16<sup>th</sup> Dec.**

**Contact:-**

**Peter Thompson: [peter.thompson7408@gmail.com](mailto:peter.thompson7408@gmail.com)**

## E30/RDT/BMK/E20 Batteries

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

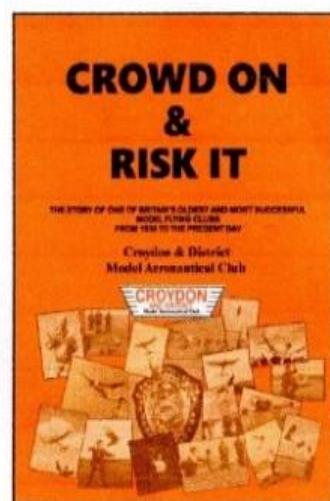
## CROWD ON & RISK IT

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 Bassingbourn.

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

Just £8 by PayPal or cheque.

Contact Martin Dilly ([martindilly20@gmail.com](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 £16 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

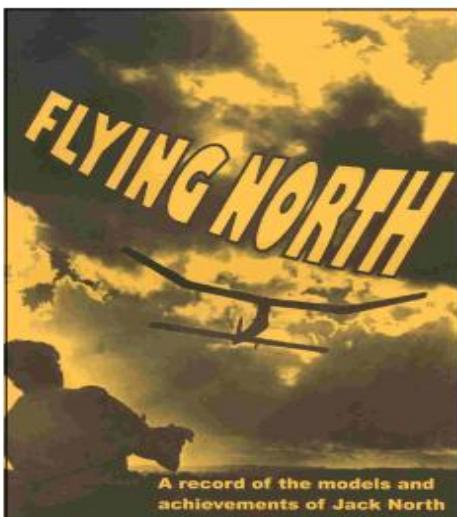
The following appeared on the Hip Pocket Aeronautics Builders' Forum. Nine different tissues were tested, doped and un-doped.

"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



A record of the models and achievements of Jack North

### FLYING NORTH

A goldmine for vintage and nostalgia model flyers -

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

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

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

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

## READERS' FEEDBACK

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

"I hope it becomes a classic."

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

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

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

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

"The best aeromodelling book since the Zaic Yearbooks"

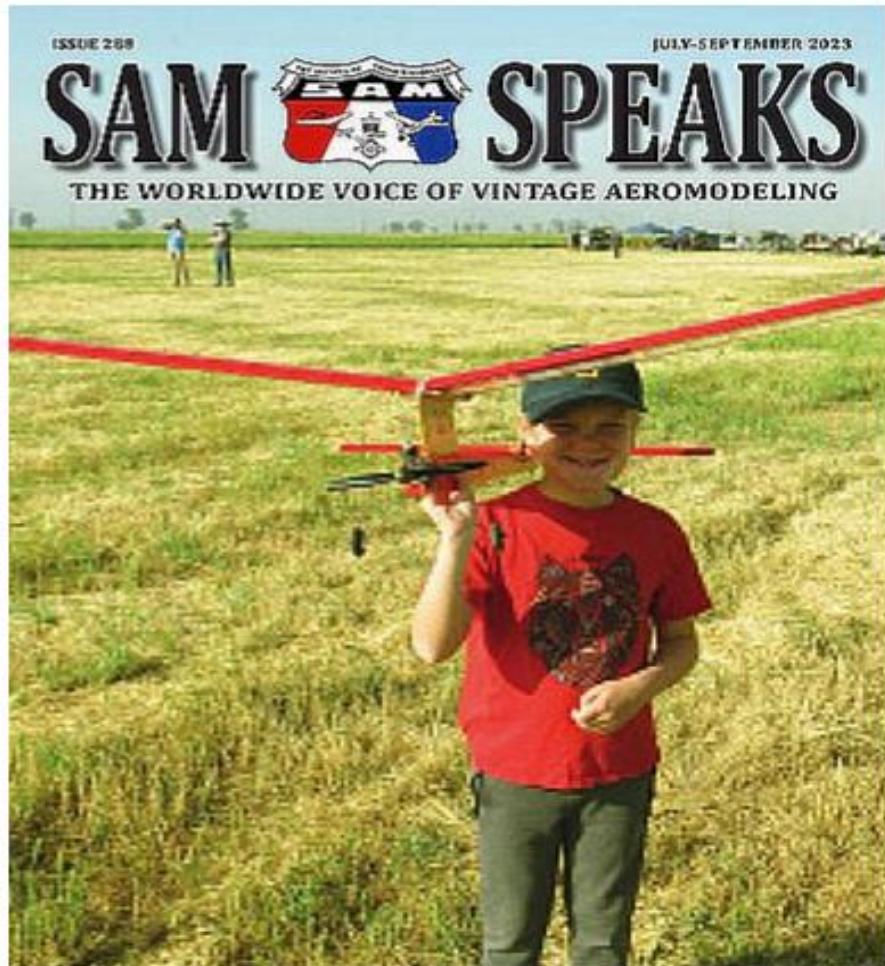
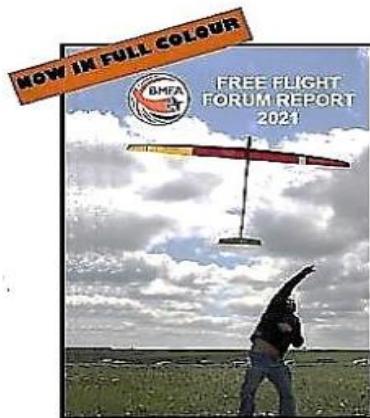
Price £22.00 in the UK, £26 airmail to Europe and £32 elsewhere.  
Contact Martin Dilly on +44 (0)208-7775533 or e-mail [martindilly20@gmail.com](mailto:martindilly20@gmail.com)

## 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 Damon  
 The Models Of Ray Monks - Simon Dixon  
 Simulated 3d Flight Dynamics - An Approach To Gain Insight For  
 Trimming And Aircraft Development - Peter Martin  
 Building During Lock-Down - Phil Ball  
 Tame Your F1b And Related Thoughts - Mike Woodhouse  
 What Next For A Lady Flyer - Sue Johnson  
 F3 Res + Rc For The Aging Free Flyer - Andy Sephton  
 From Wichita To Robin Iii - Mike Fantham  
 Further Thoughts On Carbon-Skimmed Wings For F1a - Stuart Damon  
 Geo Fencing And Electronic Stability - John Emmett

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

Copies are available from: Martin Dilly, 20, Links Road, **West Wickham**, Kent BR4 0QW  
 Or by phone: +44(0)2087775533 Or e-mail: martindlHy20@gmail.com



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

## Provisional Events Calendar 2023

With competitions for Vintage and/or Classic models

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

February 26 <sup>th</sup>	Sunday	BMFA 1st Area Competitions
March 12 <sup>th</sup>	Sunday	BMFA 2nd Area Competitions
March 26 <sup>th</sup>	Sunday	BMFA 3 <sup>rd</sup> Area Competitions
April 7 <sup>th</sup>	Good Friday	Northern Gala, Barkston
April 10 <sup>th</sup>	Easter Monday	Croydon Wakefield Day + <b>SAM1066</b> , Salisbury Plain
April 16 <sup>th</sup>	Sunday	Le Petit Classique de Brum, N Luffenham
April 29 <sup>th</sup>	Saturday	London Gala, Salisbury Plain
April 30 <sup>th</sup>	Sunday	London Gala, Salisbury Plain
May 7 <sup>th</sup>	Sunday	Crookham Gala, Salisbury Plain
May 27 <sup>th</sup>	Saturday	<b>FF Nationals</b> , Salisbury Plain
May 28 <sup>th</sup>	Sunday	<b>FF Nationals</b> , Salisbury Plain
June 4 <sup>th</sup>	Sunday	<b>FF Nationals, Mini</b> , N Luffenham
June 18 <sup>th</sup>	Sunday	BMFA 4 <sup>th</sup> Area Competitions
July 9 <sup>th</sup>	Sunday	BMFA 5 <sup>th</sup> Area Competitions
July 23 <sup>rd</sup>	Sunday	<b>SAM1066</b> Cagnarata Day, <b>Salisbury Plain</b>
July 29 <sup>th</sup>	Saturday	East Anglian Gala, Sculthorpe
July 30 <sup>th</sup>	Sunday	East Anglian Gala, Sculthorpe
August 13 <sup>th</sup>	Sunday	Southern Area BMFA FF Gala, RAF Odiham
August 20 <sup>th</sup>	Sunday	Southern Gala, Salisbury Plain
September 2 <sup>nd</sup>	Saturday	Stonehenge Cup, Salisbury Plain
September 3 <sup>rd</sup>	Sunday	Equinox Cup, Salisbury Plain
September 17 <sup>th</sup>	Sunday	BMFA 6 <sup>th</sup> Area Competitions
October 1 <sup>st</sup>	Sunday	BMFA 7 <sup>th</sup> Area Competitions
October 8 <sup>th</sup>	Sunday	Croydon Coupe Day + <b>SAM1066</b> Salisbury Plain
October 15 <sup>th</sup>	Sunday	BMFA 8th Area Competitions
October 28 <sup>th</sup>	Saturday	Midland Gala, Venue, Barkston
November 5 <sup>th</sup> or 12 <sup>th</sup>	Sunday	Buckminster Gala, BMFA Centre

Dates for events are confirmed as: Croydon Wakefield Day 10th April; Crookham Gala 7th May; SAM 1066 Cagnarata Day RAF Colerne (provisional - subject to grant of licence) 23rd July; Croydon Coupe Day 8th Oct; There will be a couple of SAM 1066 events on both Croydon days. All on Area 8 of SP.

**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>
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>
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.wessexam1.co.uk">www.wessexam1.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.modellvanner.se">www.modellvanner.se</a>
Magazine downloads	-	<a href="http://www.rclibrary.co.uk">www.rclibrary.co.uk</a>
South Bristol MAC	-	<a href="http://www.southbristolmac.co.uk">www.southbristolmac.co.uk</a>
Vintage Model Co.	-	<a href="http://www.vintagemodelcompany.com">www.vintagemodelcompany.com</a>
John Andrews	-	<a href="http://www.johnandrewsaeromodeller.webs.com">www.johnandrewsaeromodeller.webs.com</a>
Switzerland	-	<a href="http://www.gummimotor.ch">www.gummimotor.ch</a>

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### Are You Getting Yours? - Membership Secretary

As most of you know, we send out an email each month letting you know about the posting of the latest edition of the *New Clarion* on the website. Invariably, a few emails get bounced back, so if you're suddenly not hearing from us, could it be you've changed your email address and not told us? To get back on track, email [membership@sam1066.org](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