

	<h1 style="color: red;">NEW Clarion</h1> <h2 style="color: red;">SAM 1066 Newsletter</h2>	Issue nc112023
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The Society of Antique Modellers Chapter 1066

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Editorial

Christmas will soon be on us and indoor meetings will be in full swing. Can one or two of you take a few pictures and scribble a few words on the meetings to keep up the New Clarion content.

If anyone has any items for sale or wants something, I can run a 'For Sale' column, it all helps to fill the magazine.

OK, what have we got in this issue?

-] We lead off with an article on Northrop's YB-49 put together by Ireland's Peter Watt as a follow-up on Northrop's flying wing YB/XB35 from the last issue.
-] Tony Shepherd has been sorting out some 'Southern Dragon' bits ex Roger Newman and reveals his plans for the debris.
-] I inflict Part 5 of my old Clarion articles on the Rugby Model Engineering Society Aeromodelling Section onto any interested parties who may be still with me.
-] Zeppelins, more from the book I have. They were amazing things, particularly size wise, I find it difficult to imagine them. My visits to the sheds at Cardington should have given me a clue but my mind just cannot create an image.
-] Pylonius has a few digs at the contest flyer and shares his thoughts on the scale modeller and his models from the spectatorial view.
-] Engine analysis gives details of a couple of continental 2.5's, both looking good for Free-Flight power, the Alag in particular.
-] 1948 News review tells of difficulties getting the Wakefield team to the contest in the US. It also warns on the use of metal propellers and finally reports on the Irish Nationals where high winds made flying difficult but Bob Copland and Bill Dean took the honours for England. It sounds like it was a rough meeting but praises Irish hospitality.
-] Initially I was very short of content so I set to and wrote an article on my exploits with my 'Jaguar' Wakefield which was given to me by Colin Shepherd. It has served me well over the years and I still have it. The prop is in a bit of a mess but I do have a replacement, one made for me by Spencer Willis, a master piece of modelling, which unfortunately remains unfitted.
-] Tony Shepherd has acquired a fuselage which he cannot identify, it is a bit Tomboyish but larger and he wonders if anyone can identify it.
-] Heard at the Hangar Doors reports on a dinner given by the Royal Aero Club to notable Aeromodellers who had won World Championships. Ron Draper and Ray Gibbs were among those entertained. Recognition at last.
-] CO2 motors are the usual subject for Nick Peppiatt's offering but this time he also covers some small electric powered models and pictorially illustrates a novel Meccano built thrust measuring device.
-] Peter Hall and Roy Vaughn report on Coupe Europa together with SCL final results.
-] One David Caudrey has penned a piece on his past search for a Rubber Winder.
-] I reproduce the introduction to the first Aeromodeller Annual, published in 1948.
-] Roy Tiller, as normal, writes more on old magazines from our archive.
-] Nick Peppiatt reports on SAM1066 comps at Coupe day.
-] Tony Shepherd appeals for whereabouts of the SAM1066 competition trophies.
-] Finally our Secretary Roger Newman, soon to relinquish his office, has a few words for the month and offers yet another three plans.
-] Then we are into info on remaining meetings and indoor events and advertisements etc.

Editor

YB-49 Northrop`s Last Tailless Bomber

Following the failure of the YB- 35 as detailed in last month's New Clarion, Jack Northrop updated the design by replacing the vibration prone piston engines, contra rotating propellers and associated gearboxes with 8 jet engines. It was thought that it would not only solve the vibration but also give a decent speed increase.



The first aircraft flew in Oct. 1947 and quickly set height/endurance records. However problems appeared and there were three disasters. The aircraft required constant corrections in yaw which would make bombing runs difficult.

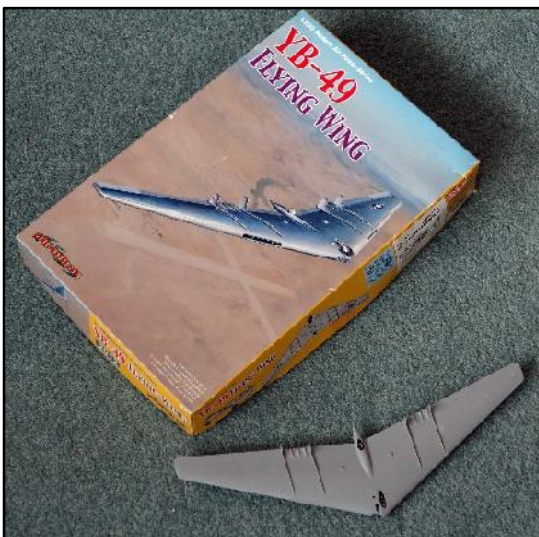
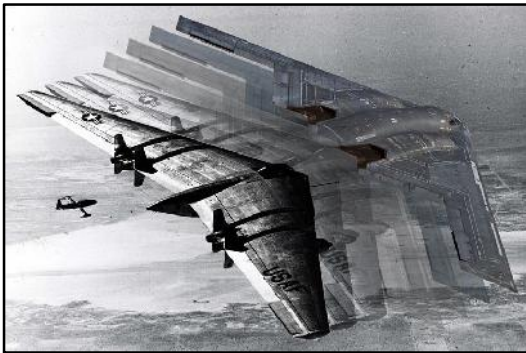
No doubt if a fly by wire system had been available the problem would have been solved.



On one flight half of the jet engines failed. It was found that oil starvation was the reason and sabotage was suspected. The second aircraft, on a test flight out of Muroc base suffered collapse of the outer wing panels killing all crew members. Muroc was renamed Edward`s AFB in honour of the co-pilot. A third aircraft was totally destroyed by fire on the ground when under taxiing trials, the under carriage collapsed.

The project was abandoned in 1949 just two years after the first flights.

The YB-49 obviously had a low profile and has often been heralded as a precursor to the B-2 stealth bomber and of course two wags had to produce this Photo shopped image and montage.



Finally, because I've always had an interest in early post war jets "designed by men before computers got involved", I looked for a kit. Some months ago I found a 1:200 scale plastic kit produced by Cyber Models about 2010 and bought one from King Kit. It is strange that on such a small model there is a fully detailed crew cabin which disappears when the top and bottom wing shells are combined. My model is just about ready for priming and painting. A second and much larger plastic model was produced by an American company called AMT which can still be found if you search on e-bay.

Peter Watt

Southern Dragon - The Sequel

Firstly I must apologise for my total lack of contributions to the New Clarion this year. In summary I had a fairly major operation back in February and was somewhat knocked for six by the recovery period. For the first couple of months I was pretty immobile and when things began to return to normal I was very conscious that my level of general fitness and enthusiasm for life was severely degraded. For me model flying and anything associated with it requires me to be out in the field chucking stuff up in the air and my condition and the generally mediocre weather has been enough to put paid to any urge to get out and fly or do anything associated with the hobby. Anyway, I now feel that I'm on the up so I'm keeping everything crossed for a good end to the year even if that just involves some indoor flying.

Enough of all this self-pity. Those of you who have read earlier pearls of wisdom that have come from this keyboard might remember an article I wrote on the Southern Dragon cabin model that was produced by Southern Modelcraft of Brighton in December 1947. In it I said how much I liked the lines of the design and I still do, so remembering this, Hon Secretary Roger, during his house clearance process, let me have both of his. During my collection visit the first bit that came to light was the fuselage from the model that was in the opening picture in the article (New Clarion May 2018 - isn't google wonderful?) but it had changed quite a lot! Clearly it had spent time being subjected to the worst that the weather could throw at it - perhaps a heavy landing in a tree? Tissue faded and peeling away, windshield half off, corrosion of the PAW80 on the front, several longerons damaged and a broken engine beam. Here it is after having windshield and engine removed.



The second fuselage with its PAW55 is a lot better though still in need of TLC. Tissue punctures and on-site repairs are evident but de-clagging of the engine bay and re-covering should get it looking as it did when Roger originally built it.

It does have some lovely, hollow aluminium wheels! The last time I'd seen it fly was back in 2018 at a very wet Beaulieu when it glided into a large puddle/small lake and end up on its wing tips and tail fin, partly submerged (see NC May 2018, page 16 - happy days).



The wing from the second fuselage was also to hand and seems to have come out of storage in pretty good shape, perhaps thanks to its Litespan covering. As for the engines, both were very gummed up but a complete strip down, internal clean with Iso-propyl Alcohol and re-assembly with sewing machine oil got them back to useable condition and they now run well again.

So, what's to do? Well my own attempt to build one only got as far the very basic fuselage structure, outline of the tailplane and a kit of wing parts so lots still to do.



I expect I'll clean up and cover the second of Roger's fuselages, re-cover the wing and finish my own tailplane possibly over the winter, but we shall see. I also have a sweet Mills 75 in my engine box without a home, so that would be perfect for some lazy sport flying.

Whatever bits get used, if I do get one to fly then it'll definitely have those aluminium wheels on it!

Tony Shepherd

Extract from old hardback Clarion August 2001

John Andrews and
THE RUGBY MODEL ENGINEERING SOCIETY
AERONAUTICAL SECTION
Part 5

I am delighted to report that I have at least one follower of my ramblings, an obviously avid reader by the name of Keith Miller, seeing the mention of John Bickerstaffe, dug in his photographic archives and kindly sent us the picture below with the attached comment and asked that we forward the photograph to John. (Job done, John sends his thanks)



John Bickerstaffe ROW's his power model from the tank at an
All Herts/All Britain Rally at Radlett in the early 50's.
George Fuller times.

When I handed over the picture I asked John what he could remember of the event. (If you recall I said his memory was worse than mine). It would appear that only disasters make a significant imprint on John's memory for all he could bring to mind was that the aircraft had failed to leave the water before it tripped over the edge of the tank.

(He is insistent that the tank was too small for a real power model)

Back to the Rugby Club, we had enough members in those days to run club championships with trophies for the three main classes. I recall one trophy, possibly for glider, was a pewter tankard on a plinth and when picked up a music box in the base played Men of Harlec or some such tune. Another trophy was a slender vase type on plinth called 'The Redding Trophy' this was for the combined championship for all three events. I can't bring to mind what might have been the

rubber trophy. (Rubber was my main event so you may assume I failed big time, I did say last issue that we had two good rubber flyers, I was obviously not one of them)

The Redding Trophy reminds me of another flyaway of mine. We were holding the club championships in the early 50's on Lawford Aerodrome about 5 miles from Rugby. I didn't have a glider for the event so I built a quickie. A 1/2" square balsa fuselage, with 1/8th. sheet each side at the front for a wing mount, carrying an old power model wing and for the tailplane I used a short section of a broken rubber job wing. How about that for design, flat bottom wing section and an NACA 4612 tail. (that's not a mistake, I used to use the 4612 in preference to the 6412 because it had a flat trailing edge). I did put a simple auto-rudder for towing but no D/t. I had previously built a Lulu with offset towhooks and on its first outing using the front hook one windy day I had mastered its weavy tow and got it as high as it was prepared to go but couldn't get it off the line. There was I wandering about with Lulu in tow looking for Ken Sansome our club secretary/glider expert who promptly advised that I throw the winch away. This was news to me, but he was the expert, so up went the winch and away went the Lulu, another lesson learned. I don't remember why I no longer had the Lulu for the comp but model attrition was pretty severe in those days.

I digressed again didn't I, the fly-away, the makeshift glider was towed up to a fair height and released in good air. It was a fairly calm day and my buddy Ian & I followed the glider across the drome on our bikes. We beat it to the edge of the field and sat on the fence watching the plane come up the runway at about 20ft. altitude waiting for it to land. It didn't, it hovered around at 20ft. until the end of the runway then boom it got sucked up at a hell of a rate. By the time we reached the road it was way up in the clouds. I retired back to the airfield to get my power flights in and left the chase to Ian, who volunteered to follow the plane as long as he could. It was very much later in the day when Ian eventually returned somewhat shattered to report on his efforts. The aircraft headed in the direction of Rugby and the road home was sort of a triangle and as Ian cycled diagonally down the back road the plane lost its form and became just a speck resulting in him up-ending himself in the ditch at the side of the road twice as he rode along head in the air. On the second leg of the triangle the plane was straight in front of him, which was just as well as he was on the main road into Rugby. As he entered the outskirts of the town he noticed that he could see the form of the model again and reasoned that the town had broken up the thermal so he pressed on into town. Now Rugby is on a hill and the plane got lower as he struggled up the hill to keep up with it. It went straight across the centre of the town passing directly over the Clock Tower at only about 100ft., it was just as well that it was a Sunday afternoon. The snag now was that, although the plane was descending, it was through the town centre and now going downhill again and it was another halfmile before it was flitting across rooftops with Ian zigzagging through streets of terraced housing. Ian estimated which street to search and spent the next hour going up and down entry's searching back gardens until one householder gave him a clue, having seen the plane cross his garden. The beauty of this tale is that Ian was now only three streets away from where we lived, so he dumped the plane at home and returned to the aerodrome to tell the tale.

That's another two pages of memories, hope its not too boring. I'm not quitting yet, next time perhaps modelling in Hong Kong.

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

LZ127 – GRAF ZEPPELIN

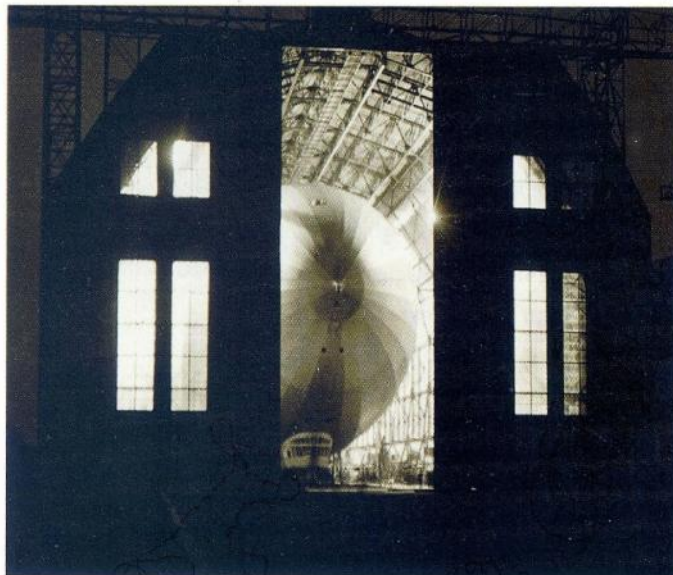
The *Graf Zeppelin* is more than just machinery, canvas and aluminium. It has a soul

Lady Grace Drummond-Hay, 1929

I have always felt that such effects as were produced by the Zeppelin airship were traceable to a large degree to aesthetic feelings. The mass of the mighty airship hull, which seemed matched by its lightness and grace, and whose beauty of form was modulated in delicate shades of colour never failed to make a strong impression on people's minds.

Dr Hugo Eckener

Having kept the Zeppelin dream alive through the construction and delivery of the LZ126 – the *Amerikaschiff* – Hugo Eckener was rewarded by a relaxation of the post-war restrictions imposed by the Allied Control Commission. With an eye on the transatlantic passenger service, the LZ127 *Graf Zeppelin* was to reassert Germany's lighter-than-air lead and in the process, became the most famous airship in the world. In comparison with the later Zeppelins, in particular the *Hindenburg*, the profile of the LZ127 is much slimmer more like a thin pencil, with a length-to-diameter ratio of 7.8 to 1. In fact, the airship was smaller than Eckener would have liked as the limiting factor was the size of the



▲ Pre-dawn and the nose of LZ127 Graf Zeppelin is seen behind the hangar doors at Friedrichshafen.

construction hangar at Friedrichshafen. The Zeppelin Company could not afford to build new facilities and only raised the money to build the *Graf Zeppelin* through a public fund and, later, with a contribution

from the government. The overall length of the LZ127 was 775ft (237m), with a maximum diameter of 100ft (30.5m). Her volume of 3,707,550cu ft (105,000cu m) made her the largest airship built at that time (although not as big as the British R100 and R101 which were not completed until after the LZ127).

Within the duralumin framework, the hull was divided into two spaces; the upper two thirds were occupied by gas cells for the hydrogen and the remaining lower space was fitted with cells to contain a gaseous mixture of propylene, methane, butylene and hydrogen. Known as 'Blaugas', this cocktail of gases was only very slightly heavier than air and would be consumed as fuel by the five 550hp Maybach VL2 engines without significantly altering the airship's buoyancy. The consumption of



▲ The Graf Zeppelin flying over Friedrichshafen, the historic home town of the Zeppelin Company.

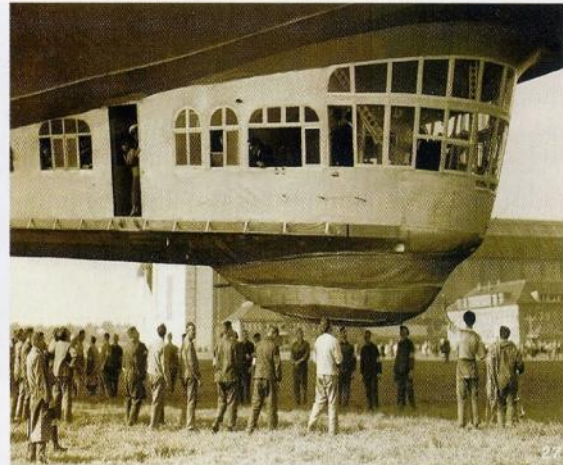
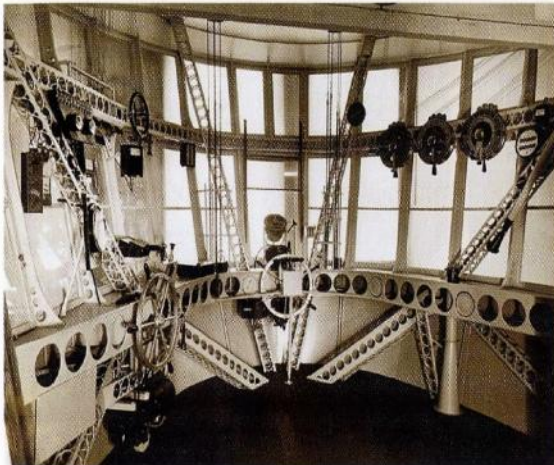
conventional fuels causes an airship to become progressively lighter on long flights as the fuel is used up.

Compared with the enormous size of the hull, the accommodation was not especially roomy. It was arranged within an external gondola, 98.5ft (30m) long and 20ft (6m)

wide, located near the front of the airship. This included the control room which housed the rudder and elevator wheels, gas valves and ballast controls, and behind that the map and radio rooms. On the starboard side was a compact electric-powered galley or kitchen, and then came the lounge or saloon with a corridor leading to ten double-berth cabins for the passengers. Each cabin featured a couch which folded upwards to form a bunk bed a small table and an external window. The toilets and washrooms were at the rear of the gondola.

Passengers were expected to spend most of the time in the saloon area which also doubled up as the dining room. The accommodation was not as comfortable as a transatlantic ocean liner perhaps, the menu maybe not as lavish but this was more than made up for by the faster

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crossing times. Many passengers also appreciated the absence of seasickness when travelling by airship.

The *Graf Zeppelin* first took to the air on 18 September 1928, and such was the confidence in the new airship that after only five test flights she departed on the inaugural transatlantic run to New York

less than a month later on 11 October 1928. Financing for the flight had come from a number of sources including the carriage of special airmail and postal covers, fare-paying passengers and a contingent of newspaper reporters and cameramen. Among them was the British journalist Lady Grace Drummond Hay who, along

◀▲ Control cabin of the Graf Zeppelin with the rudder-man's position facing forwards at the front and the elevator controls on the left-hand side.

▲ Side view of the Graf Zeppelin's control cabin, showing the cushion beneath the gondola.

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▲ The stylish dining room of the Graf Zeppelin also doubled up as the public lounge or saloon area.

with her colleague Karl H. von Weigand, represented Hearst's Newspapers, and their day-by-day accounts of the voyage were devoured by a news-hungry public. Lady Drummond Hay described the comforts of airship travel, including the tiny cabins

and the catering arrangements. It proved to be something of a picnic lifestyle as she confided: 'The tiny kitchen is inadequate to supply luxuries for passengers as well as cook innumerable cans of steaming food for the thirty-nine members of the crew.'

Taking charge on the first crossing, and on many of the subsequent flights, was Hugo Eckener himself. Widely recognised as the most skilful of airship commanders with a legendary and almost intuitive grasp of the weather's every nuance, Eckener was also an affable host who inspired great confidence in his crew and the passengers.

This was just as well, for although he had selected a southerly route to avoid the seasonal storms expected to the north, the airship was caught in a powerful squall line out over the Atlantic. The nose pitched downwards and in response the crewman

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◀ The artist Ludwig Dettmann joined official photographers aboard the Graf on the first transatlantic flight. This is his pastel impression of the airship encountering stormy weather above rough seas.

◀◀ Passenger cabins aboard the Graf Zeppelin were very compact. The rear of the couch folds upwards to form a bunk bed.

on the elevator controls over-reacted, thrusting the airship's nose upwards. It was breakfast time in the saloon and the passengers found themselves, the furniture and their breakfast, tumbling into a heap at one end. The lone voice of calm in the confusion was Lady Drummond Hay, who laughed out loud at their predicament.

The Graf withstood her violent shake-up, although a large part of the outer cover had

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been ripped from the port side fin. Eckener slowed her down to half-speed, radioed the US Navy to have a vessel on standby, and dispatched a repair team to the damaged fin. Among them was Eckener's son, Knut. It was a race against time as the airship slowly settled towards the grey waters. At a height of around 300ft (90m), Hugo Eckener had no choice but to increase engine speed and, thankfully, the men working on the tail had managed to scramble to safety in the nick of time. It was a close call which added to the drama and excitement of this first scheduled passenger crossing of the Atlantic by airship and served to heighten the enthusiastic reception they received upon their arrival at the US Navy's airship base at Lakehurst, New York. The flight from Friedrichshafen in Germany had taken a little under 112 hours, and on 28 October

1928 the *Graf Zeppelin* made the return trip in under seventy-two hours.



◀◀ If ever a city cried out to be seen from a Zeppelin, then it must be New York.

◀ An advertising brochure for the Graf Zeppelin's transatlantic passenger service.

TOPICAL TWISTS

by pylonius

Extract from Model Aircraft November 1954

Topical Twists

Those contest types . . .

Amidst all the paeons of praise inspired by the unqualified success of one of the big Southern rallies came the usual whining moan from that spoiled darling of the model world, the contest flier. Not satisfied with the perfect weather, and all the other superior amenities laid on for his special benefit, he displayed his customary bad grace by seeking out and magnifying the one tiny flaw in the organisation which everyone else had charitably overlooked: the absence of a flying field.

On the other hand, that more harmonious and reasonable creature, The Average Modeller, was in no way disturbed by this minor oversight. With ample room at the garden party for the ice cream kiosks, refreshment buffets and other indispensable modelling facilities, he was more than content to stretch out in front of the club coach and bask in the glorious sunshine, and in the even greater glory of the admiration bestowed upon the super scale model carefully arrayed at his feet. Not for him the rigours of model flying, and anyone who gave it even the slightest thought jolly well deserved to lose their models anyway.

Another quite unwarranted grouse comes from those Pye-in-the-sky hopefuls, who earnestly believe that the radio recovery service should be used for the retrieving of their lost models. This is nothing but pure selfishness. Surely they don't imagine that anyone influential enough to acquire one of the coveted walkie-talkie sets is going to skulk in the obscurity of an empty cornfield when he could be strutting pompously among the crowds, twiddling knobs and uttering portentous commands.

In any case, it should be obvious even to the most benighted contest flier that the wireless gear is just an adornment. After all, the chap in the cornfield has only to wait for the breathless model owner to come labouring along the ditch, and simply say: "It went over there, chum." Which seems to suggest that a gramophone would be a more useful item of equipment.

A Minor Upheaval

I was alarmed to see an illustration of a lethal looking pulse jet job accompanying an advert for a publication with the innocent title, "Model Jets and Rockets for Boys." My first thought was that it was possibly written for the personal instruction of rocket expert, Howard



"Why, Mr. Smith, I never knew my glider could fly so far."

Boys, but it seems fairly evident that the boys referred to are, in fact, those budding geniuses of the Third Form, who, having developed the inky dart to its ultimate perfection, are seeking new aeronautical fields to conquer.

It must come as something of a shock to our speed fraternity to find that their much vaunted jet models, once the darling of the popular press, have now been relegated to the toy counter. On the other hand, they might derive some grim comfort from the possibility that the whole idea of foisting such explosive contraptions on embryonic aeromods is all part of a diabolical plot; a fiendish ruse, perpetrated by farmers and other model-harassed citizens, to secure the extermination of the up and coming generation of model pest.

A Question of Looks

Give the contest flier the opportunity of holding forth on his pet subject, and he will do so without bitterness or rancour, sure in the simple faith that the building and flying of duration models is the highest destiny to which man can aspire. Give the same opportunity to a devotee of the scale realist school and there ensues the most violent denunciation of all other forms of model life, with such crushing contempt for the functional deviationists as to be a model for any budding political journalist.

Apparently, the only way to extol the virtues of scale flying is by the oblique method of consigning anything of a cabinless nature to the refuse bin, and its goofy operative to the loony bin. A strategy which has much to commend it, since it diverts attention from the fact that scale flying ranks high among the world's greatest bores. Once the thing has limped round the airfield at zero altitude the rest is just repetition.

Of course, the true value of the scale model lies in its audience potential. The family and friends are not going to be over-impressed by the austere appearance of a spidery duration job, but are guaranteed to go into raptures over anything with a lick of coloured dope and a glassy cabin. Even Aunt Tabitha is aroused from her indifference to bestow a "clever boy" pat.

Audience reaction on the flying field is equally satisfying, the gallery being all agog at the wealth of radiant realism. And the larger the model the bigger the crowd, which is perhaps why our realist brethren are just that teeny bit envious of the radio boys who can boast such Crystal Palace cabins and Wembley crowds.

Whilst the naïve contest type might rejoice at the sight of an empty airfield, the scale enthusiast would avoid it like the plague. His aerial capers are strictly reserved for the more densely populated areas. Indeed, one well-known expert will definitely refuse to fly if the audience concentration is less than one person per square yard of airfield.

This means that scale flying is limited to the more popular rallies, where it serves some useful purpose in attracting spectators away from contest areas, where they might cause impedance to the serious business for which the rally was organised.

This in itself should serve as a caution to the more vociferous realists to ease up in their campaign for the abolition of all cabinless craft, for without the contest types to give purpose to a model rally it would become an extinct form of entertainment, and what would happen to the audience potential then?

Pylonius

Engine Analysis: Alag X-3 & Webra 2.5R Glow

Aeromodeller January 1958



ALAG X-3

Two continental engines

Reviewed by

Ron Warring

THE ALAG is a Hungarian engine of extremely neat appearance and clean design, now available in limited quantities in Great Britain. The layout is quite conventional for a modern, plain bearing diesel (the apparent "housing" cast in front of the crankcase unit is there only for appearance) and performance, whilst perhaps on the moderate side, is consistent. The Alag is extremely well made and finished and starting and general handling characteristics excellent.

We found, on test, a fairly rapid fall off in torque and power past the peak, which occurred at 12,700 r.p.m., but the engine still continued to run well and steadily at much higher speeds on propeller loads. It has something of a vicious "bite" for hand starting on 7- and 6-inch diameter propellers, but if the compression is slackened right off and the engine well choked, starting remained virtually instantaneous. Above about 11,000 r.p.m. smoothest running was obtained on a fairly heavily nitrated fuel (e.g., Mercury No. 8). On a straight diesel fuel, or a fuel with less than 3 per cent. nitrate, control settings were a little critical at the higher speeds, with a tendency to "miss" when running.

On bench tests, too, there was an appreciable falling off in power as the Alag warmed up—and it does get quite hot with only static slipstream cooling. A "hot"

re-start sometimes produces the "continental squeak" common to Webra, Schlosser, and Taifun engines. It can be remarked, however, that although the cylinder tended to get extremely hot the main bearing remained quite cool, showing it to be a nice, free-running fit. There is, in fact, appreciable side play on the bearing, consistent with a present-day trend.

Constructionally the Alag features a clean, light crankcase casting bushed with a press-fitted brass or bronze alloy sleeve for the main bearing. This bearing is reamed to size. The casting is threaded to take the cylinder and the screw-on backplate, the latter being a thermoset plastic moulding of the Bakelite type. The back cover screws in to a considerable depth, leaving a minimum of crankcase volume.

Three exhaust ports are milled circumferentially through the top of the flange, with six transfer passages cut on the inside of the cylinder terminating square roughly $3/64$ in. below the bottom of the exhaust ports. The bore is very generously tapered to relieve the bottom end, this in fact being more or less obligatory with this type of porting as otherwise the hone is likely to bounce in finishing the bore. The result is a very free fitting piston at the bottom of the stroke and one which tends to be relatively tight at the top.

The cast iron piston is relatively heavy, ground to finish with a slightly conical top. Its gudgeon pin is $.157$ in. diam. (4 mm.), press fitted and appreciably shorter than the bore size. Connecting rod is machined from dural with ball-shaped ends.

The hardened steel crankshaft is $.334$ in. diameter (8.5 mm.), tapered down at the front to a $.194$ in. (5 mm.) metric thread. Length of thread is relatively short ($1/2$ inch), but the propeller sets back a further $3/16$ in. over the boss of the drive washer, so quite high pitches can readily be accommodated. The only inconvenient point is that the diameter of this boss is rather large, calling for a hole through the propeller hub of $7/16$ in. diameter.

Agents:

Ripmax Ltd.,
39 Parkway,
Camden Town,
N.W.1.

Price:

£3/15/0 plus 12/1
P.T.

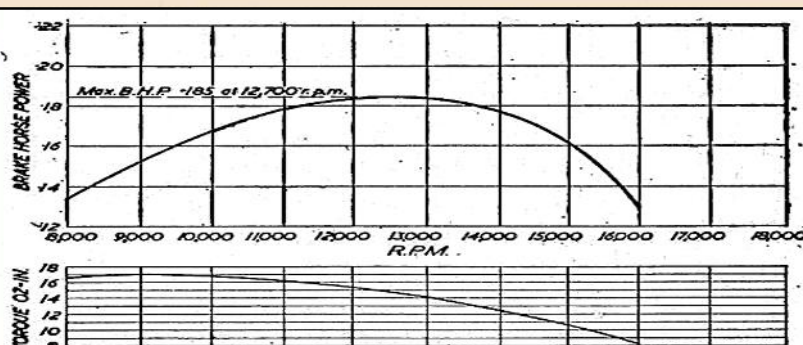
Fuel used:
Mercury No. 8.

Specification

Displacement: 2.456 c.c. (.1498 cu. in.).
Bore: .5905 in.
Stroke: .5470 in.
Bore/stroke ratio: 1.1.
Bare weight: $4\frac{1}{2}$ ounces.
Max. power: .185 B.H.P. at 12,700 r.p.m.
Max. torque: 17 ounce-inches at 9,000 r.p.m.
Power rating: .075 B.H.P. per c.c.
Power/weight ratio: .045 B.H.P. per ounce.

PROPELLER—R.P.M. TESTS

Propeller dia. x pitch	r.p.m.
9 x 3 (Tiger)	10,600
8 x 4 (Tiger)	12,000
8 x 3½ (Tiger)	13,200
7 x 4 (Stant)	13,600
8 x 4 (Stant)	12,200
8 x 5 (Stant)	11,700
8 x 6 (Trucut)	9,200
8 x 4 (Trucut)	12,200
7 x 9 (Trucut)	9,100
7 x 4 (Trucut)	13,800
7 x 3 (Trucut)	15,400





Webra 2.5 R Glow

Workmanship is of the highest standard, with good attention given to detail and fits. The internal components are of the more "massive" construction associated with diesel design, yet the total weight of the motor is kept down to a matter of 4½ ounces. Externally the finish is adequate, without being outstanding.

The extremely solid cylinder liner screws into the light crankcase casting, sealing by means of a copper gasket. Semi-circular transfer ports are cut on the inside of the cylinder, terminating just below the level of the exhausts. The piston is effectively supported at the bottom of its stroke by eight narrow pillars of metal between the transfer passages. The transfer opening is quite shallow at the bottom of the stroke.

The cylinder jacket screws on to the outside of the liner to just below the level of the top of the liner. The head then plugs into the top of the cylinder, sealing with a fairly thick non-metallic gasket and is held in place with six short screws threading into the cylinder jacket. The glow plug mounts centrally in the head and is of Webra design, featuring a relatively large air chamber around the plug element. This has the effect of maintaining a higher element temperature, although on test the original plug quickly burnt out and was replaced by a K.L.G. type. Running and handling characteristics remained unaffected by the change.

WEBRA 2.5R SPECIFICATION

Displacement: 2.47 c.c. (15 cu. in.)
 Bore: .612 in. (15.5 mm.)
 Stroke: .513 in. (13 mm.)
 Bore:stroke ratio: 1.2
 Bore weight 4½ ounces
 Max. B.H.P.: .202 at 13,200 r.p.m.
 Max. Torque: 19 ounce-inches at 9,000 r.p.m.
 Power output: .082 B.H.P. per c.c.
 Power/weight ratio: .0436 B.H.P. per ounce
Material Specification:
 Crankcase: light alloy die casting
 Cylinder: hardened steel
 Cylinder jacket: Machined light alloy
 Cylinder head: machined light alloy
 Piston: cast iron
 Con. rod: dural
 Crankshaft: hardened steel
 Main bearings: two ball races
Manufacturers:
 Fein and Modelltechnik,
 5 Genestrass Berlin-Schönberg.
Price:
 (Germany) DM.49.50 (£4 5s. 0d.).

PROPELLER TEST DATA	
Propeller	r.p.m.
10 x 9 (Stant)	9,600
9 x 9 (Stant)	10,300
8 x 9 (Stant)	12,500
7 x 9 (Stant)	14,000
6 x 9 (Stant)	16,200
7 x 6 (Stant)	12,800
6 x 6 (Stant)	14,400
9 x 3 (Tiger)	11,900
8 x 31 (Tiger)	14,200
8 x 4 (Tiger)	13,000

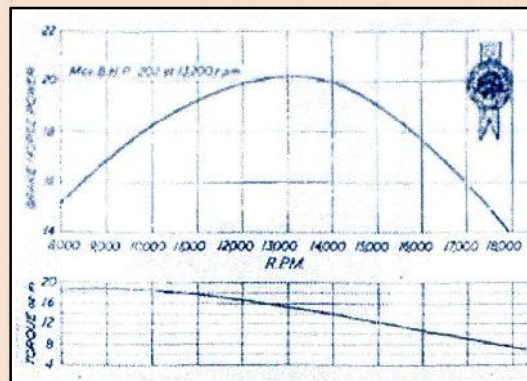
Fuel used: Methanol 40%;
 Nitromethane 25%;
 Castrol M 35%

The back cover casting is relatively light and thin, carrying a rotor disc of moulded Bakelite or similar thermo-setting plastic. This appears to be a perfectly satisfactory material, showing not the slightest signs of wear at the conclusion of the tests. The venturi intake opens out sideways past the spray bar into a relatively wide port opening in the back cover, the shape of this passage being carried on by the leading edge of the rotor disc after the manner of most "re-worked" engines. A conventional paper gasket seals the back cover to the crankcase, fixing being by four Allen head screws.

The crankshaft bearing assembly is cast integral with the crankcase front cover as a detachable unit, again held by four similar screws and sealed with a thin gasket. The shaft is mounted on two ball races and the whole is assembled as a permanent unit, comprising shaft, bearings and connecting rod locked in place on the crank pin. Connecting rod itself is of dural, machined to finish and of generous section. The cast iron piston is relatively heavy, with the gudgeon pin press-fitted in place. The whole assembly, including the piston, can be withdrawn from the front of the engine on removing the front cover screws. It is necessary to check that all holding screws are tight after initial running, especially as these engage only to a depth of about ¼ inch.

Summarising, the 2.5 R appears to be a particularly veeless engine, sturdy, compact and very easy to handle. It is capable of extremely consistent high speed running, when it has a particularly avid thirst for fuel. After long periods of fast running the cylinder and piston remained perfectly clean, indicating exceptionally efficient scavenging. It is probably the noisiest of all 2.5's.

Webra 2.5R Components show Huted Cylinder parts and plastic timing disc



NEWS Review

The Wakefield Cup

Negotiations with the Academy of Model Aeronautics in America for the transportation of European teams to New York for the Wakefield Contest, which started very promisingly at the beginning of the year, broke down at the last moment and the S.M.A.E. found itself without any transport to get the team to the scene of the contest.

We are pleased to say that approaches to a number of persons and firms resulted in a response sufficient to justify the Council of the Society to decide on sending the team. Air passages were therefore booked for them and by the time this issue reaches you we hope they have won the cup.

The prompt way in which nearly all the persons approached responded to the Society's appeal for the necessary funds is very much appreciated by the Council of the Society and by all aeromodellers.

Metal Propellers

We would point out the danger of using metal propellers on power driven aircraft if this had not already been realised.

In the first place there is the strong potential danger to the owner himself, and anyone who has had a cut finger from a wooden propeller can well imagine the dire results of a similar contact with a metal bladed one. A metal propeller is capable of decapitating your fingers with the greatest of ease and we respectfully suggest that your fingers are far more important to you than any propeller and are deserving of every consideration on your part.

Secondly, you have a duty to avoid the use of any device which is likely to involve the risk of injury to other persons, and there is no doubt that the use of metal propellers involves a greatly increased risk.

All sensible minded aeromodellers will, we feel sure, avoid using metal propellers which have little to commend them and no appreciable advantage over the wooden propeller, while possessing such serious disadvantages from a safety point of view.

In addition we would point out that metal propellers are forbidden under F.A.I. rules.

The Irish Nationals

The Model Aeronautics Council of Eire held its annual Nationals Contest for Wakefield and Power models at Baldonnell Airport, Dublin, on July 25th, and we are pleased to be able to report that S.M.A.E. members again won both events.

Bob Copland succeeded in regaining the Trophy for Wakefield models, which he lost to J. L. Pitcher last year, by the narrow margin of 10 sec. from the holder, who was defending his title.

Both flew remarkably well in view of the gale which was blowing, and both lost their models on their first flight and were unable to find them.

During the latter part of the day, however, they were both found by one of the Eire contestants while he was searching for his own machine, and J. L. Pitcher decided to make a second flight in an attempt to wipe out his 10 sec. deficit. Unfortunately for him the wind had gathered even greater force and it turned his model over before it could get away—with disastrous results. Bob, with the trophy in his pocket, wisely decided to leave it at that and keep his machine intact for another day.

In the Power contest, Bill Dean triumphed with his larger edition of the "Slicker" and thoroughly deserved his win in the arduous conditions prevailing. Indeed, most of the models were breaking up in the wind before their owners, assisted by innumerable helpers, could even get them to the launching area, so strong was the wind, and it was a heartbreaking sight to see model after model folding up as its owner struggled to get it to the starting position.

What was otherwise an excellent day was completely spoilt by the terrific wind which one could literally lean against and we sincerely hope that our Irish friends will have better luck with the conditions at their next Nationals.

Gilbert Row, as control officer, assisted by J. Briscoe, ensured that everything was properly co-ordinated, while Chris Bruton, as commentator, kept everyone well informed and in good humour with his ready wit.

Secretary B. M. Stuart had a field day with his model, but Mrs. Stuart functioned efficiently as recorder to release her husband, a duty which she carried out very well indeed.

No Irish Nationals would be complete without Dr. and Mrs. Charles, and we were glad to see them both in attendance with Dr. Charles looking much better after his recent illness.

Another figure which has become inseparable from the Irish Nationals is Bill Brazier and his broad profile was much in evidence, although he was obviously having trouble with wind resistance. The eddies in his wake must have been truly terrific, but they failed to daunt his spirit.

The day ended with a dinner of the type only seen in Ireland these days, to complete one of the most enjoyable events of the year, and we look forward to seeing more S.M.A.E. members patronising this event next year.

My 'Jaguar'

John Andrews

I have a 'Jaguar', it was gifted to me by Colin Shepherd many moons ago, around 2007 I think, and I have used it in 8oz Wakefield competitions quite a few times and in the process I have been fortunate enough to get my name on the 'Jaguar Trophy' a few times.



I've always used 16 strands of $\frac{1}{4}$ when I fly Wakefields, my models were normally a little on the heavy side and I like to see a fast climb. Using 16 x $\frac{1}{4}$ in Colin's Jag proved a little too much as Colin had kept the model weight down. I would have liked to use 14 strands but did not fancy the odd pre-tensioning requirements, so I settled for 20 strands of $\frac{3}{16}$ equivalent to 15 strands of $\frac{1}{4}$ on which the model proved to be quite lively. I think the model would perform well on 12 x $\frac{1}{4}$ but would be a little too sedate for my taste.



One annoying detail was the Big Keel that necessitated the winding of the Jaguar upside down in the winding jig. Not a great inconvenience as the rear dowel was horizontal. But if the dowel had been straight across the diamond fuselage, the position in a winding jig would have been at an awful angle.

I first won the 'Jaguar Trophy at Wallop in 2007. I have dug out my report for the 'Clarion' which tells in detail the goings on of the day.

"Digression over, back to the nitty-gritty, 8oz Wakefield was the order of the day with Reg campaigning with the Keil-Kraft 'Contestor' which he won with in 2004 whilst I was using the 'Jaguar' I acquired from Colin Shepherd. Reg had his three max's on the board in quite short order but I myself took a little longer as I was continually pinching Reg's winding tube having left all mine at home.

My maxes were not without incident, I had been trimming the 'Jag' using 90gms of rubber in 20 strands of 3/16 and all seemed OK but I had never really wound it up. I had a quick check flight then gave it the works. The 'Jag' climbed away a bit on the quick side and was soon well up in good air. When the power ran out the model must have been on the edge of the lift as the left wing kicked up and a tight glide circle verging on a spiral ensued. After a few nail biting moments normal service was resumed and reasonable glide circle maintained until D/T.

I figured that the tight circle had occurred due to the wing being kicked up and perhaps the large 'Jag' keel contributed lift attempting to hold that side up. After that brainstorm I took off a small amount of rudder turn and wound up for the second flight. I noticed a broken strand but as it was well wound in I just carried on winding stopping short of maximum.

A nod to Kath on the watch and I pushes the 'Jag' into the air, off it goes straight up into a near vertical climb, no hint of the power turn for about 50 feet, prop hangs for a bit, then into the normal climbing turn and the wider glide circle was OK so max No2 was in the bag. A quick change of underpants and I was off for recovery.

Flight number three, I scratch about in my rubber motors looking for a replacement and the only pre-tensioned one I had was 80gm in 20strands of 3/16. I figure 3 minutes should be easy so I installs the 80gm motor and winds up. When I launch the model it goes up like a rocket straight into an absolutely vertical climb and as the power ran down the model helicoptered about for a while before tumbling into the climbing turn, another max and change of underpants, three max's, were in the fly-off.

I now started thinking again, always a mistake, what motor to use for the fly-off. I really wanted to use 14x1/4 but I couldn't figure how to strand it for pre-tensioning. My brain was hurting so I gave up and decided to knot and re-strand the original 90gm motor. There were actually 3 breaks in it as it transpired so I knotted the bits together and with Rachel holding her arms high in the air I stranded the motor up hanging the loops from her fingers, then pre-tensioned ready for the fly-off to come.

Fly-off time, Reg and I decided that 6 minutes to the edge of the field was about right, neither of us are into losing models, so D/T's it was.

The fly-off, I put a bit of business card to give a little right/down thrust to tame the straight climb and, if you remember, I was using Reg's winding tube so he wound first and I waited for the tube. I inserted the tube in the 'Jag' and hooked up to wind. When I stretched the motor and started to wind, I immediately noticed something was amiss, the pull was too much. I backed off the turns and got Kath Wingate to count the motor strands, you guessed it 24 strands, that's equivalent to 18 strands of 1/4. I did not have time to change the motor and panic set in. Kath, cool as a cucumber, says don't put so many turns on and so I calm down and chickened out at only 540 turns.

I move out to launch, Reg was already away and I waited for a while but detected no warmth so I gave the 'Jag' the old 'heave ho'. The bit of business card had done the trick, I have never seen a Wakefield climb so fast, it went up like a bullet. The climbing turn was perfect and the model was quite high in no time flat but, of course, the 540 turns were soon gone but after settling into the glide, good air was found and we were away.

I D/T'd and was down in 6-48 one yard short of the edge of the airfield, job well done but not without the need of another pair of underpants when I had found out the size of the motor. Reg had done 7 minutes or so and did not find his model until the next day, we were well satisfied with our performance and, as it transpired, I had won the 'Jaguar Trophy'."



A proud author receives the magnificent Jaguar Trophy from our hard working organizer Mike.

All has not been plain sailing tho', as the following extract from my 'Clarion' report of my efforts to retain the Jaguar Trophy the following year, 2008.

"Sunday I set about destroying my Jaguar in my defence of the Roy Chesterton Memorial Trophy that I won last year.

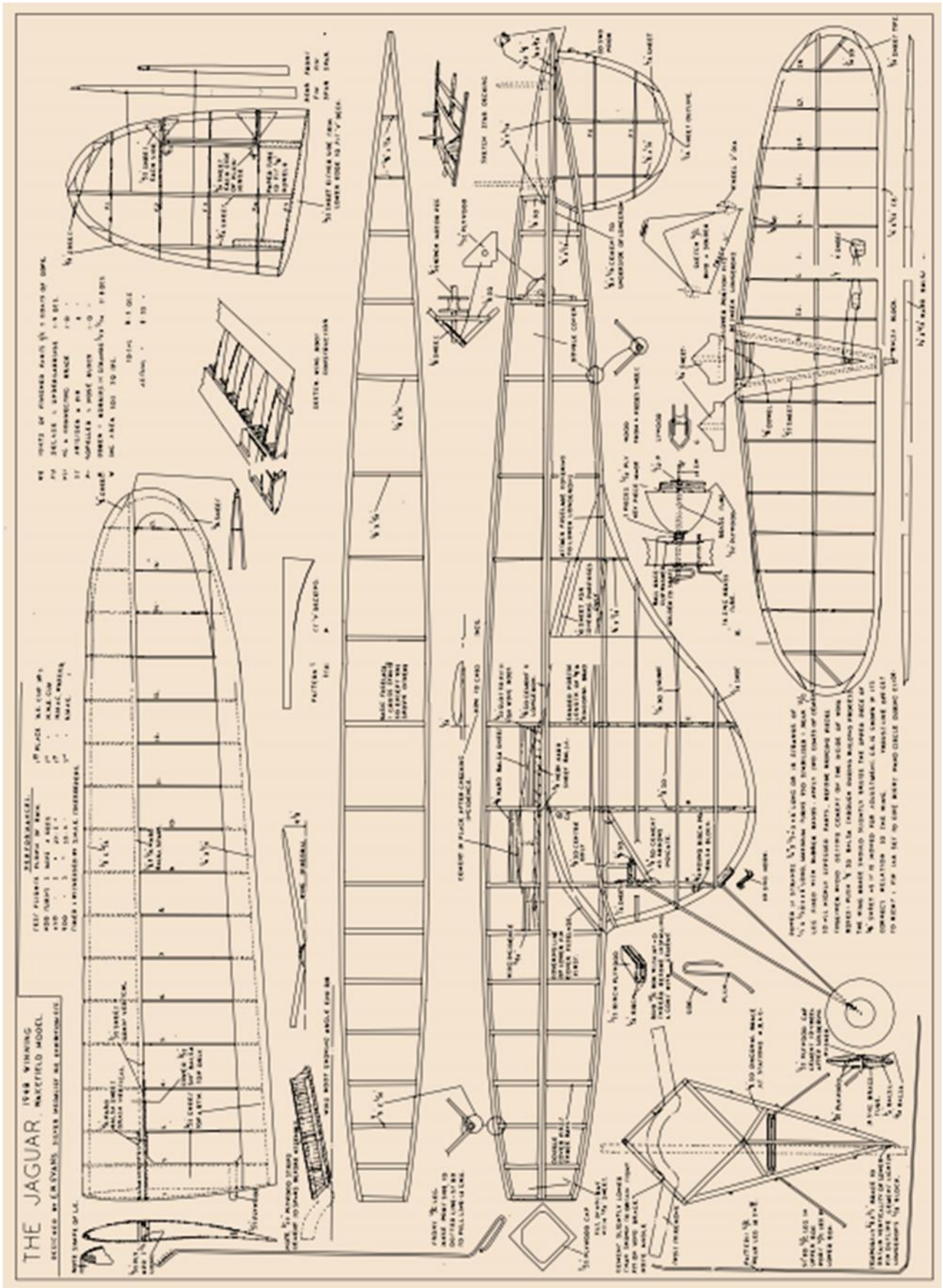
I put the model together and had a quick flight to check the trim with a new motor and then wound for a comp flight. The model was in the winding jig, Rachel was steadying the model in the wind, I hooked up the motor to the prop and secured the nose block, the Jag was ready to go. I reached round to pull out the dowel pin and 'BANG' the fuselage evaporated, a writhing fully wound motor gave Rachel a wrap on the knuckles as it shot down to the rear end. Somehow the motor had detached itself from the prop hook, the prop will have a closed hook next time.



More repair work to do, it's giving me the willies looking at all the curves but it has got to be done, the Jaguar is such an elegantly ugly model."

I still have the model, the prop is in a bit of a mess with umpteen repairs, but I have a Spencer Willis replacement which I suspect will never be used.

John Andrews



More details available on Outerzone

Unidentified Flying Object

OK, no need to worry, I'm not going to get all conspiracy theorist, it's just that I have recently picked up several models or parts of models from members who are no longer flying and I can't identify them (the models, not the flyers!). Some of these I'm not too worried about but others have pleasing lines or are sufficiently quirky to make me want to know more about them so I'm asking the 1066 membership for help with identification.

As you will all hopefully be aware, Hon Secretary Roger vacates his post at the forthcoming AGM (date still TBA) and he is also moving to North Wales and the result of this is that he has drastically reduced his collection of model aircraft to just a few gliders and indoor models. Those of you who have tried to rehome the free-flight models of others will know what a difficult task this is so Roger has adopted the sensible approach and scrapped the unwanted models, just keeping the valuable hardware for resale. I am currently going through the engines that are still mounted on fuselages and removing them for servicing and running up prior to putting them on eBay.

Among this lot is the rather nice fuselage below and I have to say that I don't recognise it. It has a FOK10 diesel on board and is 32" long - I'd therefore guess the span of the associated wing would be at least 48". I don't think that Roger built it so that's about all I can tell you at this stage.



So, dear member, if you happen to know what it is then I'd really like to hear from you either directly or via our Hon Editor. Thanks in advance.

Tony Shepherd

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Realistic Rapide

The elegance of the De Havilland 89a Dragon Rapide has been most realistically captured by D. Stather of West Hartlepool, whose 60-in. model is seen in this month's heading photo. Finished in maroon and cream, and weighing 2 lb. 14 oz. for its two E.D. Bee diesels, it is a remarkable free-flight experiment and has already passed initial flying tests. Both engines are fed from one central tank, and a pendulum operated rudder takes care of unequal power.

S.M.A.E. Activities

Two worthwhile functions of the Society of Model Aeronautical Engineers we have attended recently were the Annual Dinner and Prizegiving Dance held at the Horseshoe Hotel on Saturday, December 8th, 1956, and the Annual General Meeting held at the Great Northern Hotel, Leeds, on Sunday, December 16th, 1956.

The Dinner was well attended and the principal guest, Mr. R. T. Hughes, Secretary of the Society of British Aircraft Constructors, emphasised the high regard in which the full size industry held the S.M.A.E., mentioning the many famous men of aviation who had started as aeromodellers. Mr. Maurice Inray of the Royal Aero Club proposed the toast to the Society and commented on the worthwhile successes achieved on the international contest field during the past ten years. Mr. D. A. Gordon, proposing the toast to the guests and the ladies, mentioned the practical way in which the S.B.A.C. had supported the Society by donating the sum of £500 towards the International Contest Fund in 1956. The friendly relations enjoyed with the Royal Air Force Model Aircraft Association represented by their Chairman, Group Captain Saw were also commented upon. Mr. Gordon emphasising how important these relations were in view of the aerodrome situation!

Following the prizegiving by Mrs. Hughes, (and never was there such a fine display of trophies,) a general evening of fun and festivity ensued. Not the least entertainment being the sight of S.M.A.E. Chairman Alex Houlberg being persuaded into

a "rock 'n' roll" session by a most agile lady partner.

On a more serious note the S.M.A.E. Annual General Meeting at Leeds voted unanimously an increase in membership fees, Seniors 12s. 6d. (10s.), Juniors 6s. (5s.), Country Members 20s. (15s.). The general feeling was that rising costs more than justified these increases, the only bone of contention being the fee for Associate Members. Here the meeting divided on a poll vote, 31 for and 25 against, the original fee of 3s. was

carried against a proposed increase to 5s. Under the election of new officers Mr. D. A. Gordon became the Vice Chairman of the Society, replacing Mr. R. F. L. Gosling who was re-elected F.A.I. Delegate.

Achievements Acknowledged

November 27th, 1956, marked a significant step in the recognition of aeromodelling and those connected therewith, when members of the Royal Aero Club gave a dinner to a number of persons who had achieved notable aeronautical successes during the year.

Among those so honoured were Ron Draper and Ray Gibbs, winners of World Model Championships during 1956. Tribute was paid to the successes of S.M.A.E. members during the season, for Great Britain won two of the four individual World Championships, was second in one, and third in the other. In addition, the Power Team Championship was secured by a British team, also third placing in the Wakefield team event. All in all, a very good year for British representatives, and this point was well received by the gathering at the Aero Club.

Both modellers made excellent speeches in reply to the citations read out by Col. Preston, and paid tribute to their fellow members, and to the Society which had made it possible for them to represent their country in such important contests.

Other guests honoured were Commander H. C. N. Goodhart and Mr. Frank Foster, winners of the Two-seater World Gliding Championships, and Messrs. E. C. Bowyer, L. L. Bridgeman, P. B. Mayne, and Wing Commander W. R. Parkhouse M.B.E., recipients of F.A.I. Paul Tissandier Diplomas for 1955.

Flying Scale Models

Scarcely a day passes by without kind comment arriving at AEROMODELLER offices on the recently published book entitled "Flying Scale Models". It seems that the scale fans have been quick to recognise the comprehensive coverage of the subject in this fact-packed volume. There is one item within its covers that calls for a minor amend-

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ment, and this is brought to our attention by Hunting Percival Aircraft Ltd., who supplied several of the particularly fine line illustrations. Referring to the scale drawing on page 54, we learn that the twin-engined Prince 5 is now officially titled "President", the change being made during the preparation of the book. Another small point is that the company emblem for Hunting Percival is a winged hunting horn, usually displayed on the fin.

Brink of Hell

No—this does not mean we are about to take leave of the Universe; it refers to the title of a "Toluca" Productions Film, due to have a general release through cinema circuits in Britain within the next few weeks. Solid modellers will especially enjoy this panorama of Edwards Air Force Base in California, where close-up shots both on the ground and in the air treat the viewer to hitherto unrevealed angles of the B-36, B-47, B-50, F-86d, F-94, F-100, F-101, F-102, Douglas X-3 and the two "star" aircraft, the Bell-X2 and the Martin XB-51 (appearing as the Gilbert XF-120).

The plot is melodramatic but closely allied to actual case histories of the aircraft involved and the incidents for which they have gained their great reputations. We follow the X2 in flight, right down to landing as though watched from a chase plane's cockpit, and we see flying of extremely high standard, with no recourse to obvious models.

William Holden plays the lead, with Lloyd Nolan as his tough commander, and script was by Col. Beirne Lay, Junr., who was also responsible for "Twelve O'Clock High", "Strategic Air Command" and "I Wanted Wings". Distributed by Warner Bros., it is a film all air enthusiasts will want to see.

Wipe Your Feet!

It may not be realised that farmers have some cause for concern following the crossing of their fields by anxious aeromods., searching for that



The little-known Martin XB-51, seen in "Brink of Hell"

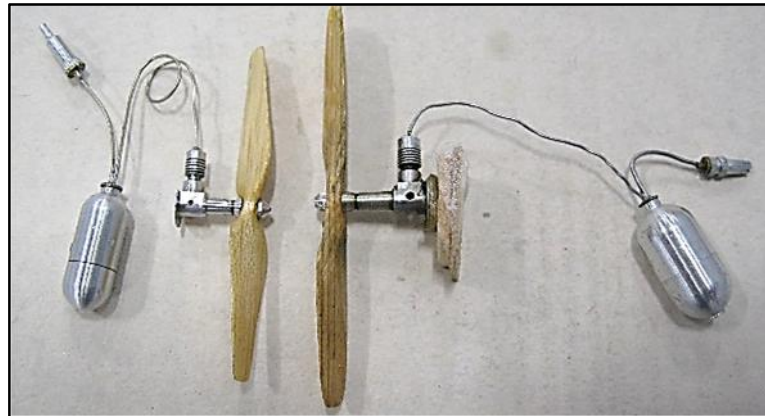
lost plane. We well know the heartaches caused by inconsiderate trampling of growing crops, but conversation with a friendly shepherd the other day, cast new light on the subject, when he remarked that "he didn't mind the local boys running around, but it was a bit risky when chaps from other counties walked across the fields". Our puzzled enquiry brought forth the fact that that serious livestock disease, Foot and Mouth, can be so easily transmitted, that he and other livestock owners have to keep a very sharp lookout. Makes you think doesn't it . . . or does your anxiety to recover that straying model at all costs, blind you to such considerations?

Mrs. York Senior and family desire to express their sincere thanks to the many friends who sent flowers and letters following their recent bereavement, and ask that this announcement be taken as due acknowledgment to the many who they cannot hope to reply to individually.

Happy times at the S.M.A.E. Annual Dinner and Prize-giving. Henry J. Nicholls shows an appreciative broad grin as Silvia Lanfrouchi accepts the Gamage trophy on clubmate C. P. Miller's behalf from Mrs. Hughes. Alex Houllberg observes in the background and Editor Harry Humbleby—acting as Master of Ceremonies, listens to the ever-ready Silvia quip.



Indoor isn't for everyone 70

The GM07 CO₂ motorGM07 motor – all of 0.7 mm³ capacity!

GM07 motor in comparison with a Gasparin G2,6

A photo of Gerard Moore's work in progress was shown in IIFE 68 (NC September 2023). At the September Trinity Indoor Flyers meeting, Gerard gave a demonstration of his now completed GM07 motor. As can be seen from the photos above, this is a Gasparin style motor. The relevant dimensional details are as follows: -

Capacity: - 0.7 mm³ Bore: - 0.9 mm Stroke: - 1.1 mm

Weight with 44 mm diameter carved wood propeller: - 0.84g

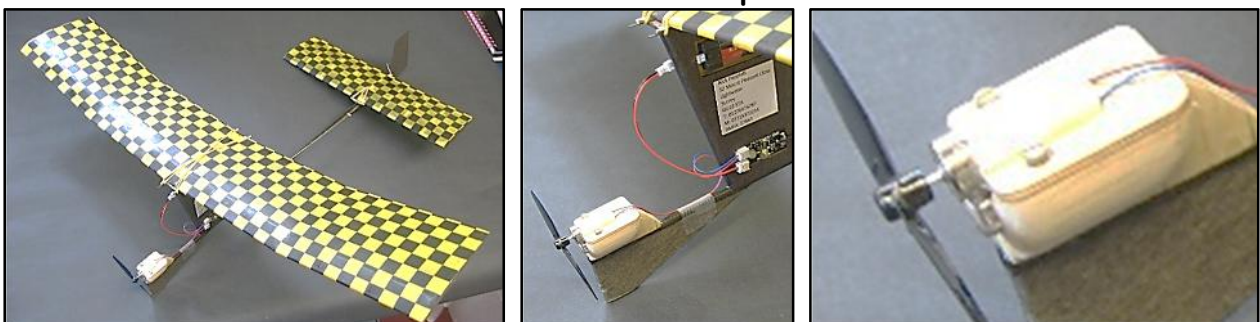
The filling nozzle is 1mm diameter, and the tiny static seals are cut from very small diameter silicone tubing. The piston sealing ring was fettled down from a very small 0.5 mm inside diameter by 0.3 mm cross section O-ring to an even tinier 0.5 x 0.2 mm, to suit the 0.9 mm bore diameter. Gerard's comment was that he hoped that he didn't need another one anytime soon! If any reader knows of a potential source of such micro O-rings, I'm sure Gerard would be delighted to hear. Please contact me, nickpeppiatt@hotmail.co.uk, if you have any information. The cylinder head ball valve is 0.5mm diameter. The 0.25cc tank was made again in the Gasparin style from two turned aluminium alloy shells bonded together with epoxy resin adhesive.

What a magnificent miniature engineering achievement! It was a joy to see it running.

It will be interesting to see if Gerard takes up the challenge of building a tiny model to suit his new motor.

According to the old website www.gasparin.cz, Stephan Gasparin produced a 2mm³ motor (G2) in 1983 and the G1 of 1mm³ capacity in 1985. The G2,6, of 2.6mm³, with Peter Smart's example shown in comparison with the GM07 in the photo above, was designed in 2002 and made as a practical production proposition. Peter's motor was the one that Gerard measured up to produce his replica, which powers his Pistachio sized Platzer Motte - see IIFE 68.

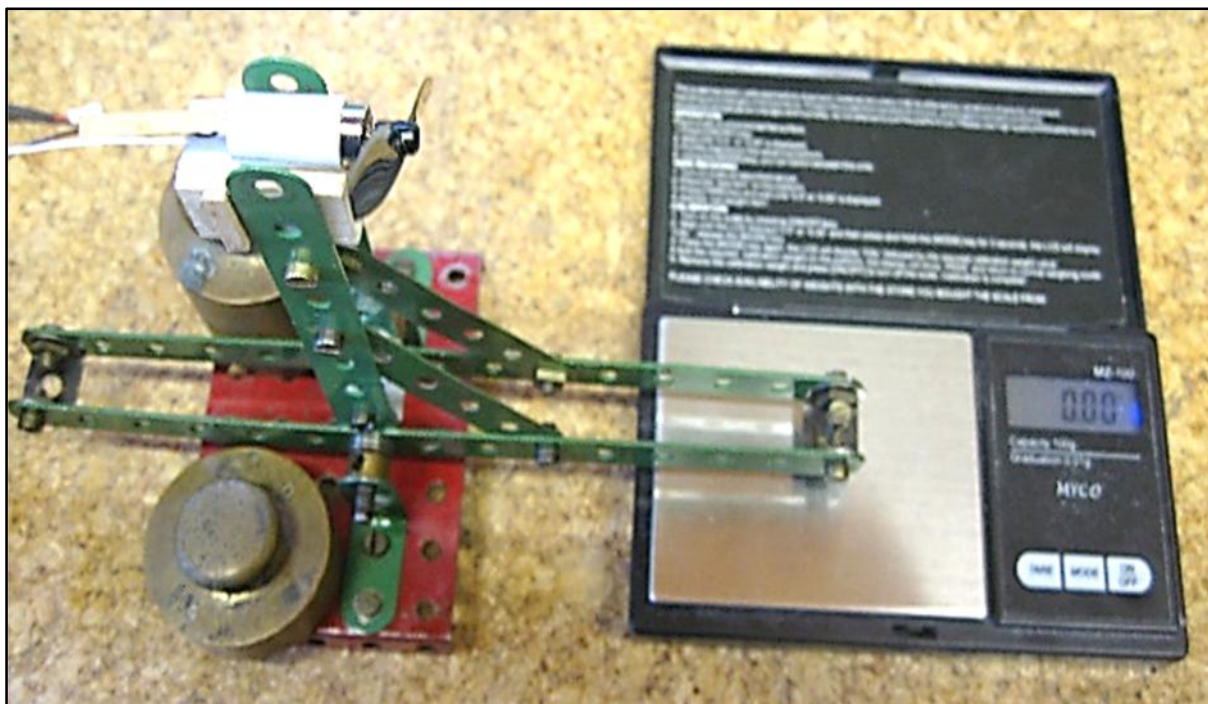
Small model electric power



20 x 8.5 coreless motor powered E20, based on the Ferry 500 design

As I have mentioned before electric power has largely superseded CO₂ power. It is more reliable, consistent and controllable, but nowhere near as charming.

I recently ventured into making an E20, basing it on the comprehensive Ferry 500 article by Jonathon Whitmore, published in the June 2019 edition of AeroModeller. I replaced the 2S electric motor system shown with the single cell system provided by Melih Karakelle (www.bmks.co.uk) with an 8.5 x 20 coreless motor and a control board containing a motor run timer and band burner D/T timer. Rather than glue the motor on directly, which obviously makes thrust line adjustment difficult, I fabricated a beam mount from a paper tube, wrapped with glue stick to give a tight fit around the motor. This was then attached to a U-shaped piece of 0.8mm ply along the centre line to provide the beam mount. This was attached to a mating plate on the nose with a pair of 10BA nuts and bolts. The motor was retained in the tube with a dab of UHU Por. I incorporated 2° down and left thrust in the mounting, as suggested in the Ferry 500 article, and I have not seen any reason to change this as yet.



Meccano thrust measuring rig for coreless 8.5 x 20 motors

I was somewhat disappointed by the climb on the early test flights, although the model is somewhat heavy at 42.5g. There is a thrust measuring device shown in a video clip on the BMK website. Before doing anything more drastic, I thought I'd check out the motor thrust and compare with other 8.5 x 20 motors. So I constructed the thrust measuring device, shown in the photo above, using my old Meccano set, which had lain unused in the loft for years.

This is where the readily removable motor came in handy. Testing the motor fed directly from the battery certainly gave a healthy thrust reading compared with other motors of the same size. However, using the on board timer gave a thrust figure of only 2/3rds of that when connected directly to the battery. The problem appeared to be mainly the resistance caused by the tiny UM connectors (1.25mm contact spacing). UM connectors are often found on single cell LiPo batteries, and the BMK board has two, one to supply the motor and the other from the battery. Cleaning and adjusting these improved the available thrust and flying performance considerably, but I do think I'll need to construct a lighter model. If any reader has any hints or tips on maintaining or improving the contact of UM connectors, I would be very interested to hear from them.

Nick Peppiatt

**Coupe Europa Salisbury Plain October 8th
Final Round Southern Coupe League 2023**

Our heads were in heaven, our feet in hell. Forgive the extravagant metaphor but the farmer had forgotten to cut the hay on Area 8. A glorious day, but retrieving was like a snail crossing a hairbrush, if you'll forgive the ridiculous simile. Ten entered and Ivan Taylor and Chris Chapman maxed out and flew off.

Ivan Taylor in first place says -

What a lovely patch of weather we got.

A really well organized contest and smiles all day.

OK the site is a bit hard going as we age but what a wonderful landscape.

The drift seemed a bit more than was expected at ground level, but such smooth air all day. Picking the air on instinct more than positive indication from streamer or thermistor got me through the day.

The only problem I had with the model was the initial burst pattern after the first two flights. The issue was discovered on Monday morning. The VIT trigger had moved slightly and reduced the already small amount of positive on the Stab.

Great to meet up again with friends and meet some of these Southern coupe flyers.

I took my brand new F1G which is merely a copy of the one I have been flying. This remains untrimmed but will be before Gavins December bash.

Chris Chapman in second place says -

The Coupe Europa day was blessed with a gentle breeze, and warm autumn sunshine.

The grass on the field was long and thick, which made walking a struggle. I am most grateful to my wife Marion for her efforts in retrieving.

I flew my newest Coupe, which has a span of 46 inches and a cord of just under 4 inches to give an aspect ratio of 12 to 1. My more usual models are about 42 inches span with a cord of around 4.75 inches. The new model has a good climb, but I think there is some room for improvement in the glide, where there tended to be a more open turn than would have been ideal in the breeze.

I struggled with frequent broken motors, it is time to make up a new batch and I still have several un-opened boxes of rubber.

The first flight in the rounds was 2 minutes and 3 seconds, but from then on, I maxed easily.

I was full of confidence in the fly off and I launched at the same time as Ivan. The air could have been better, but I would have to concede that Ivan had by far the better model on the day. I must try harder in future.

Thanks are due to Ray Elliot and his Croydon friends for such a good day.

By the way, this is just a suggestion to those members of the free flight community beginning to experience the limitations of advancing years, have you tried indoor rubber scale, which comes in different forms to suit varying abilities, it is great fun.

Alan Brocklehurst in third place says -

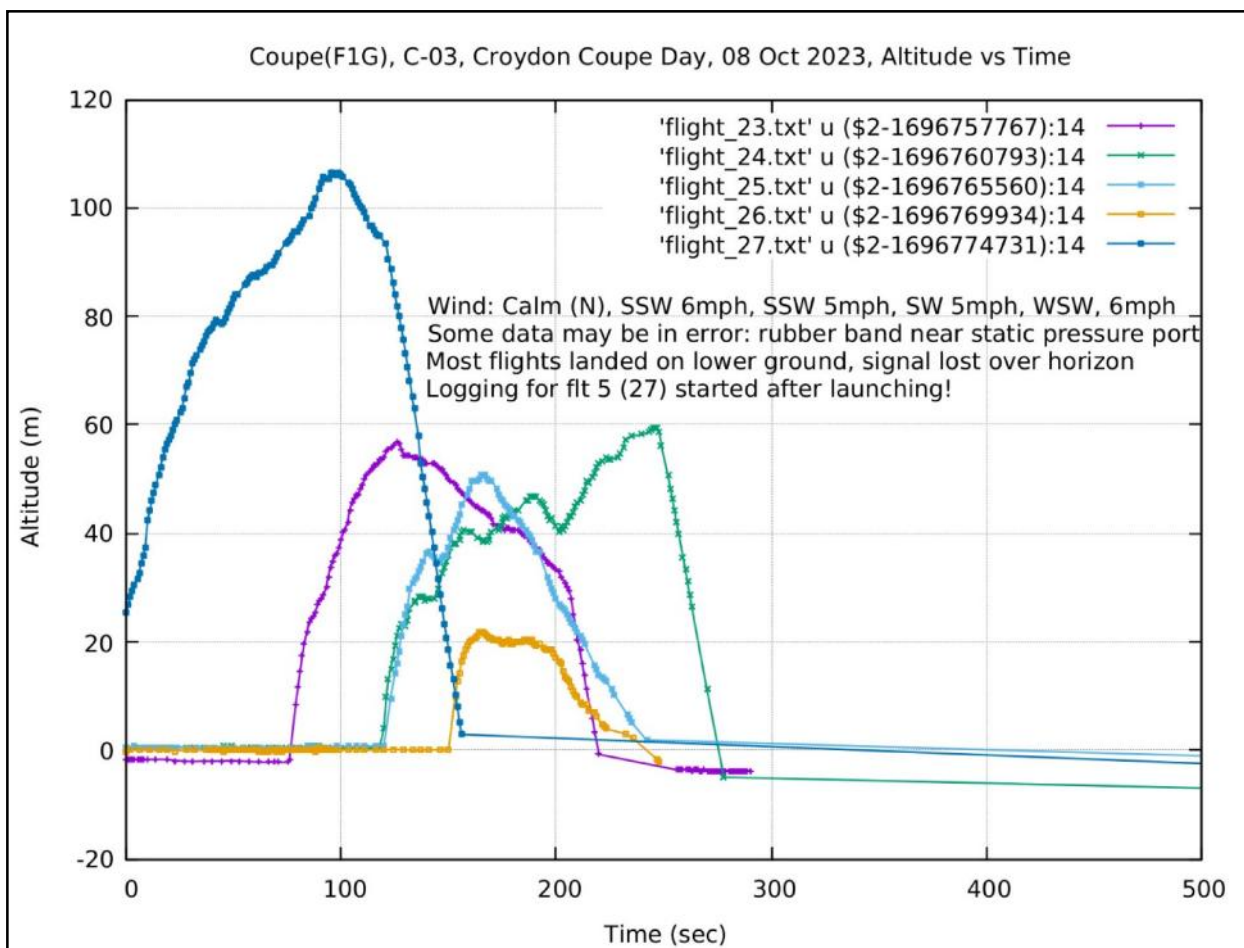
I had been really looking forward to flying again from the 'trimming field' in reasonably calm air and couldn't have wished for a better day! On this occasion, I arrived in reasonable time and acquired a streamer pole from Martin Dilly which was to prove quite useful in the calm conditions (except for my fourth flight!). My first flight climbed nicely in good air and circled lazily above, then DT'd down, landing only a short distance to the south of the launch point for

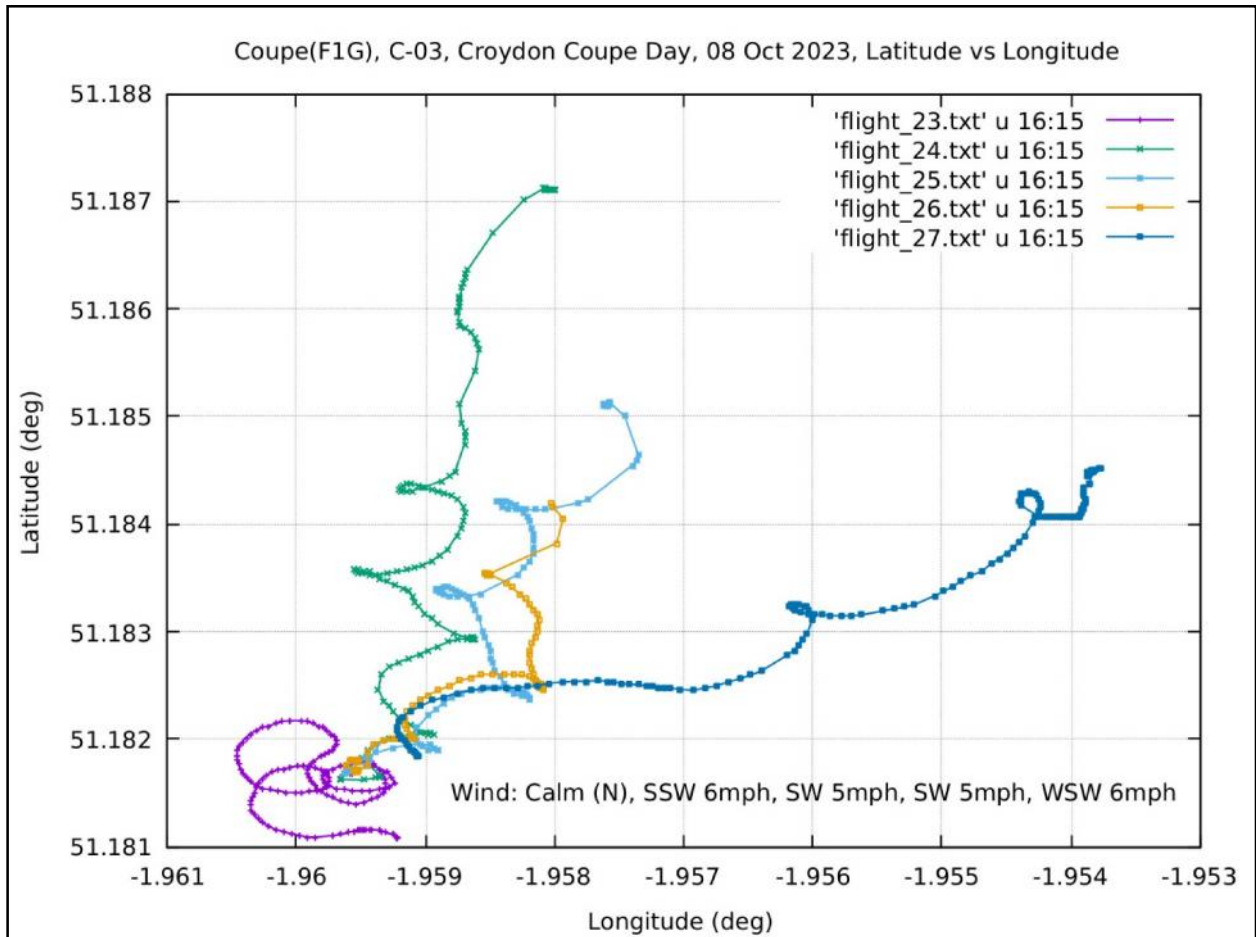
a lovely max (in contradiction to the forecast SW wind direction). By the time I had wound for my second flight, the wind speed had picked up to a gentle breeze of perhaps 6mph, but was now more southerly than expected. The model got away nicely and carried on climbing in the glide before it DT'd down from moderate height. My third flight didn't get quite so high and didn't get much help on the glide, but it DT'd from about 50ft, for another max. As I walked out for my fourth flight the air felt quite nice, but I was reluctant to launch straight away...then you have a long wait and think that surely it must now be OK by now, but no! I got it wrong (again) and the result was 1:48. However, my final flight was really great, straight into good air, and as it transitioned from right to left it centered up nicely in strong lift. It took some time to come down on DT and landed towards the western edge of the field (nicely short of the trees!). In the B&W camp, Martin Stagg started well, but felt unable to continue after 2 maxes, while Chris was clocking up max after max, though seemed to be breaking motor after motor in the middle of the day. Good to meet Ivan Taylor who also maxed out and then got better air than Chris in the fly-off, while Gavin opted to fly in Vintage Coupe, but a worthy winner of the SCL trophy, nevertheless. Apart from the long grass that grabs at your boots and made retrieving arduous, it was an excellent day! Thank-you Croydon.

Gavin Manion won the League Cup. He was so far ahead that he didn't need to fly in this event. The results table looks a bit threadbare this year. Only partly due to the weather. The first event in SCL 2024 will be the Coupe de Birmingham as usual. That is if these apocalyptic times allow.

Peter Hall

Below are two flight recordings from Alan Brocklehurst





Event pictures by Alan Brocklehurst



Chris Chapman



Ivan Taylor



Gavin Manion picks up the League Trophy

Coupe Europa Results			
	Entrant	Club	Score
1	I.Taylor	Birmingham	12
2	C.Chapman	B&W	9
3	A.Brocklehurst	B&W	8
4	R.Fryer	Oxford	7
5	R.Vaughn	Crookham	6
6	B.Hobbs	Oxford	5
7	M.Stagg	B&W	4
8	W.Butler	Crookham	3
9	P.Hall	Crookham	2
10	P.Masterman	Crookham	0

Southern Coupe League Final Standings after Round 9

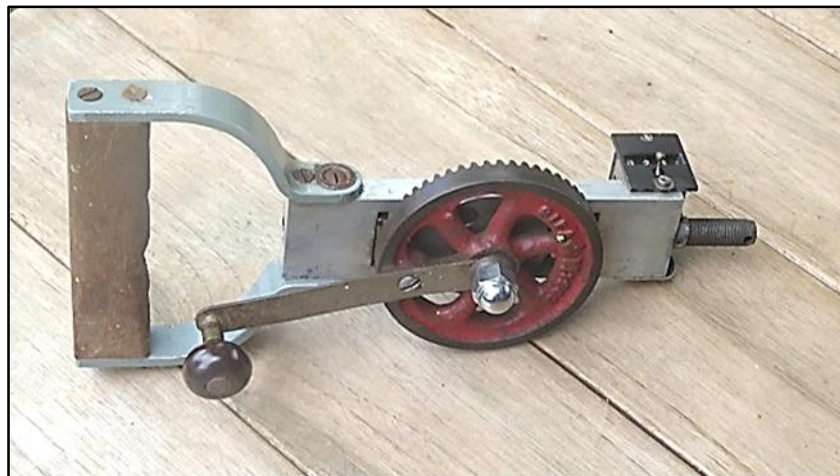
Note: 1 - Best five scores to count .
2 - London Area and Cagnarata meetings cancelled due to weather.

	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	I. Taylor	Birmingham		7			9	9			12	37
3	A. Brocklehurst	B&W				7	8			9	8	32
4	M. Marshall	Impington	6				7	12				25
5	P. Woodhouse	Morley	9	8								17
6	S. Willis	Croydon	1	7				8				16
=	R. Fryer	Oxford				9					7	16
8	S. Darmon	Birmingham	8	5								13
9	S. Fielding	Morley		12								12
10	M. Stagg	B&W				6					4	10
=	B. Hobbs	Oxford				5					5	10
12	C. Chapman	B&W									9	9
13	R. Vaughn	Crookham	2								6	8
=	J. Paton	Crookham				8						8
15	B. Whitehead		7									7
16	B. Dennis	Oxford					6					6
17	R. Elliott	Croydon	5									5
=	G. Peck	C/M					5					5
19	C. Foster	Morley	4									4
20	C. Redrup	Crookham	3									3
=	W. Butler	Crookham									3	3
22	P. Hall	Crookham									2	2
23	M. Woodhouse	Vikings										0
=	P. Masterman	Crookham										0

In the early days of our meetings at Middle Wallop I needed to equip myself with a winder and stooge. I remembered seeing a compact stirrup handled hand drill at work in the 1960s called a Leytool and I decided that it would be the ideal basis for a winder for stretch winding rubber motors. Not only was it compact, but it was also lightweight.



Apparently the Leytool was developed for use in aircraft repairs during WWII. It appeared that it was available in different versions e.g., with a Jacobs type or cone type chuck. I guess that being compact was a boon when working in airframes. I decided to try and acquire one if possible, searching magazine 'for sale' advertisements and visiting scrapyards etc. I was unsuccessful in this quest, and I decided to cobble up something myself using parts from a standard wheel brace as shown below. Ironically finding one on the 'net' is a doddle nowadays!



The result, as shown above, employed the main gear, bevels and shaft from an Air Ministry wheel brace dated 1940, incorporated in an aluminium plate and furnished with a stirrup handle. Quite a task without machine tools. It is fitted with the mechanical bits of a Post Office counter (the type used in telephone exchanges not where one buys stamps) with a manual reset. Most of these devices were four digit and I was lucky to find a rarer three-digit example for 1000 turns maximum.

I related this saga to a friend Morgan Jones (a name you might be familiar with if you are interested in valve audio amplifiers) and he managed to find an example at a model engineers jumble sale and restored it for addition to his toolbox.

The other day he turned up with another one for me. I cleaned it up and found to my astonishment that it was made from plastic and thus somewhat lighter in weight than the aluminium version. I am not talking about cheap and nasty material but real engineering grade stuff such as Delrin or Noryl. In fact, apart from the wheel retaining screw, the knob retaining rivet and the chuck shaft assembly which incorporates a ball/thrust race, everything is made from plastic.

Like the better types of wheel brace it has two bevel gears; a feature not found in all aluminium versions it appears.



I had not heard of the plastic version and there is very little, if any, information regarding it online. Had I known of its existence, I suppose my original quest for one would probably have been something like the quest for the Holy Grail.

Having furnished myself with a winder, I also needed a winch for a glider towline. When I was a kid, Woolworths used to sell a mini bench grinder, which clamped to a short length of broom handle instead of a bench and fitted with a suitable reel in lieu of the stone, made the perfect glider winch.



Obviously I was highly unlikely to find one anywhere but in my search for a Leytool I did unearth a hand driven grinder in a scrapyard.

Far heavier than the little Woolworth grinder, much effort was expended in weight reduction by removal of surplus metal and drilling lightening holes.

Fitted with a handle the final product, shown, is a little on the heavy side but it can easily retrieve a released towline before it reaches ground.

David Caudrey



INTRODUCTION

1948 IN RETROSPECT

THE year 1948 will long be remembered as noteworthy by aeromodellers, marking as it does the beginning of what we hope will be a new era for all those interested in the sport, hobby and pastime of model aeronautics. For it was in this year that Her Gracious Majesty The Queen gave permission for the annual award of a trophy to be known as "The Queen's Cup," and personally presented the magnificent silver-gilt prize to its first winner, Phil Smith of Bournemouth, on the occasion of Northern Heights annual gala at Langley Aerodrome. Such royal approval for this essentially virile and twentieth century hobby cannot but have favourable repercussions throughout the country. It is hoped that local authorities and others responsible for providing recreational facilities will see in this an appropriate example that they cannot do better than follow.

In 1948, too, a British team travelled to the United States for the first time since 1939 to take part in that best known of all international model aircraft contests, The Wakefield Trophy. Thanks to the generosity of their many well-wishers and the enterprise of the Society of Model Aeronautical Engineers it was possible for a full team to fly over for the contest. Their efforts were well rewarded, for, with a magnificent series of flights, leading trials member Roy Chesterton brought back the trophy once more in British hands. Next year should see a strong European challenge, when the event takes place on British soil within easier reach of the many countries eager to participate.

Looking back in retrospect, the year has also been noteworthy as the first since the merger of the former Association of British Aeromodellers into the Society of Model Aeronautical Engineers, so that enthusiasts are once more united in a single body pressing forward for the well-being of all. Support for the Society's competitions has been greater than ever. The Nationals held at Sywell Aerodrome, near Northampton, indeed, represented so great an increase in entries that only a damaging wind saved the organisers from being swamped by numbers. This meeting was also the venue of the first British Control Line contest on a national scale, which served to indicate the growing interest in this phase of aeromodelling.

At Eaton Bray was staged the Third International Week—this for the first time under F.A.I. licence—when visitors from France, Belgium, Holland, Switzerland, Italy and Portugal met British visitors in friendly competition, with the approval and assistance of the governing body. Much still remains to make Eaton Bray a worthy centre for such international events, but the organisers have every hope that by next season improvements will have been made to meet the constructive criticism offered by visitors, and enable every one to enjoy added comforts and conveniences.

The trade, too, has struggled manfully despite peace-time difficulties to supply an ever increasing range of model equipment and accessories, both for the home market and for the ever present export drive. Diesel engine manufacturers have forged ahead, until there are now nearly forty varieties of motor available to the aeromodeller ranging in price from just over a pound upwards, in all sizes from miniatures of .2 c.c. capacity to over 5 c.c. Not content with filling an established need the more progressive firms have been quick to follow the American lead with hot-wire, or "glow-plug" engines, and a number of these are now on the market. In the same way American enthusiasm for the larger size of spark ignition engine has fired British manufacturers to produce a number of designs that after some initial trials may well prove to be the equal, if not the better, of many famous makes, known in the main only by hearsay in these Isles. Finally, a British jet engine has been produced, and as we go to press first announcements are appearing of those fascinating little CO₂ engines that serve as the bridge between rubber and power flying. Nor has the kit field been neglected—a plethora of new construction sets being available for those unable or unwilling to design their own models. In fact, for the first time, we can claim that British modellers are now as well served by the trade as any group anywhere in the world.

Such is the year that marks also the introduction of this, the first *Aeromodeller Annual*. We make no pretence of originality in the thought that inspired it, and take this opportunity of acknowledging our debt to such pioneers as Frank Zaic, who conceived the idea at a time when it was considerably harder to bring it to fruition. We acknowledge, too, the many valued contributions to its pages that we have received from our correspondents all over the world, and the many sources that we have unashamedly dipped into to make it as representative as possible. In this connection, we should like to name in particular our contemporaries overseas, *Air Trails*, *Model Airplane News*, *Modele Reduit d'Avion*, *L'Ala*, *Repules*, *Hobbyboken*, and apologise in advance to any publication whose name we may have omitted, whose columns have been gleaned to make our harvest. To our readers we would say that this is intended as an annual event, and their criticisms, comments, and contributions will help to make each successive number that much better. It is impossible to please everybody, but we have tried to include something of as much as possible; if, alas, some favourite aspect has been treated sketchily, or not at all, please bear with us, and let us know what is wanted next time.

Report No.153 Our earliest books.

Continuing our look at "Model Flying Machines Their Design and Construction" by W. G. Aston, published in 1910, we come to chapter seven "Designs", but first a brief recap on chapters one to six to aid the reader's thoughts on how these are reflected in the "Designs".

Chapter One, "General Principals..." shows the airflow over a "curved surface aerofoil", the section of the aerofoil shown, being somewhat like a "Wright 1908", is probably a good place to start for model flying machine lifting surfaces.

Chapter Two, "Power" quite sensibly for the time concentrates on rubber power. It would seem that neither "stretch winding" nor "cording" had been thought of at the time, with the rubber available at the time likely to have been far inferior to that which we are used to now. All of this probably explains the interest in the use of multiple rubber motors geared together.

Chapter Three, "Supporting surfaces" covers the construction of built up wings using American white wood, bamboo, screws, nails, copper wire and rubberised cotton fabric. Balsa wood was not available and Japanese silk was considered to be unsuitable. The resulting finished product was likely to have been rather heavy.

Chapter Four, "Screws" has a drawing of a pretty good propeller design complete with blade sections at points from near the root to near the tip.

Chapters Five and Six, "Tails and elevators" and "Fins" recommends all sheet construction for these items and includes details of methods for adjusting the angle of incidence.

Reproduced at the beginning of this report is the drawing from the cover of the book. The featured model looks to be an entirely practical proposition for the time and the available materials. A twin pusher to avoid torque problems, a canard layout for its "soft stall" characteristics and some stability enhancing dihedral added to the main plane by means of a cord applying tension from wing tip to tip. Perhaps a little complicated for the beginner, primarily due to the need to produce a pair of matched contra rotating propellers.

Below is much of what Mr. Aston offers in Chapter Seven, "Designs".

No. 1 Simple Monoplane. The note with this design reads much like a "Junior Experimenters" guide, lots to try and lots to learn.

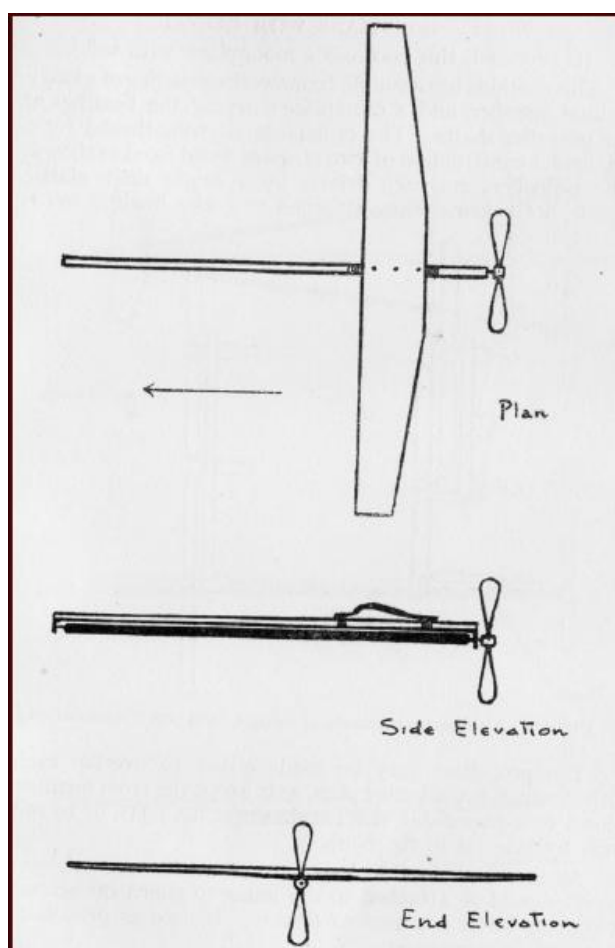
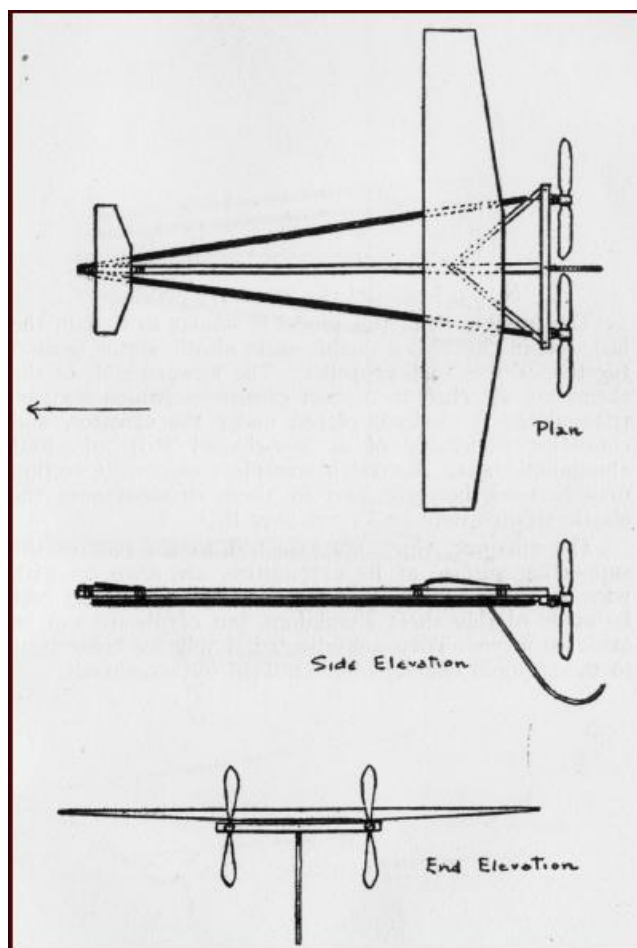
NO. 1.—SIMPLE MONOPLANE.

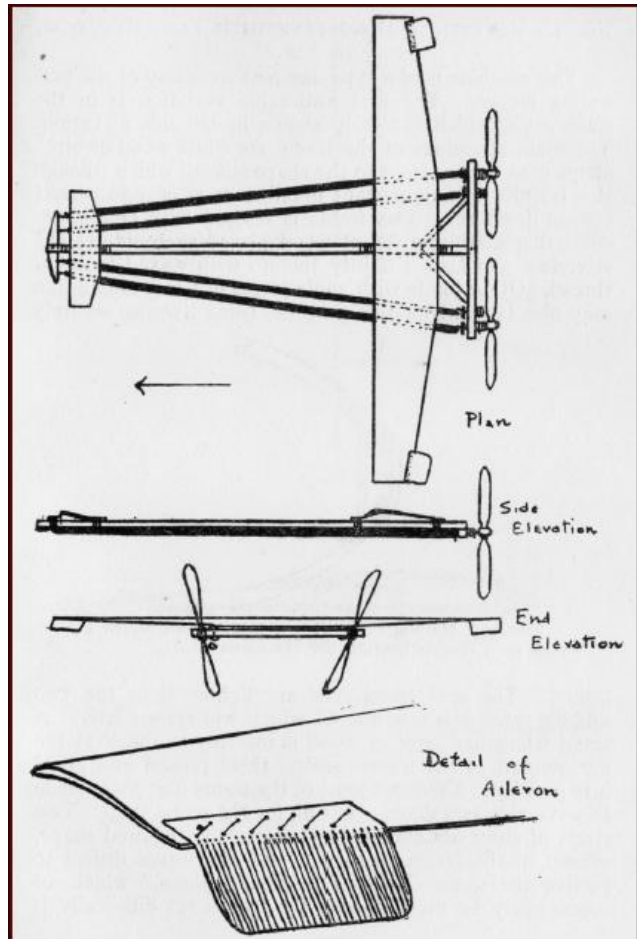
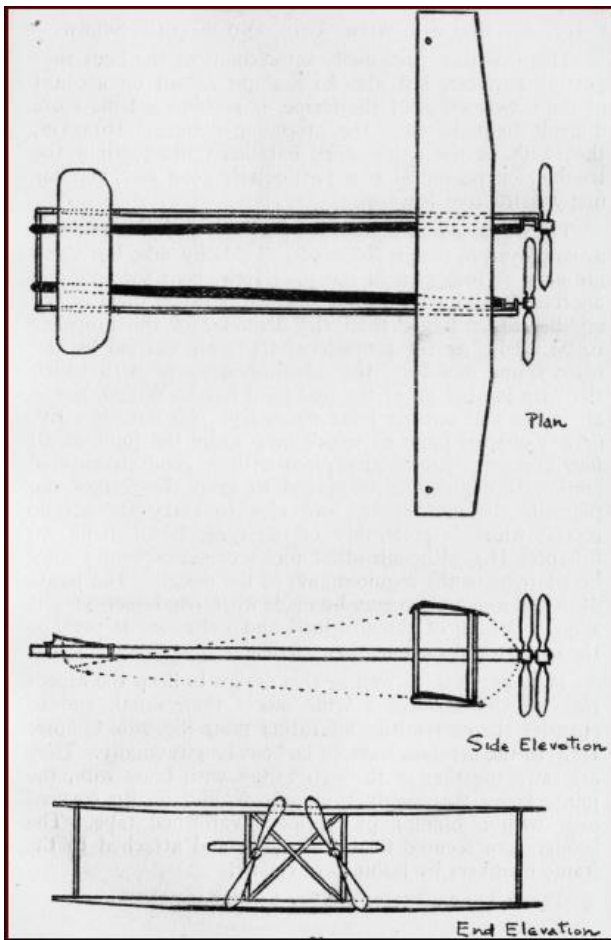
This machine has a single skein rubber motor driving a single propeller. Adjustment is made by sliding the supporting surface along the frame, which is a simple stick of suitable wood. The locus of the centre of gravity of the machine should be roughly the centre of the sustainer, as marked in the figure with a dot.

If desired, the elastic can be enclosed in a light tube of stiff paper, aluminium, or celluloid, this tube forming the main frame.

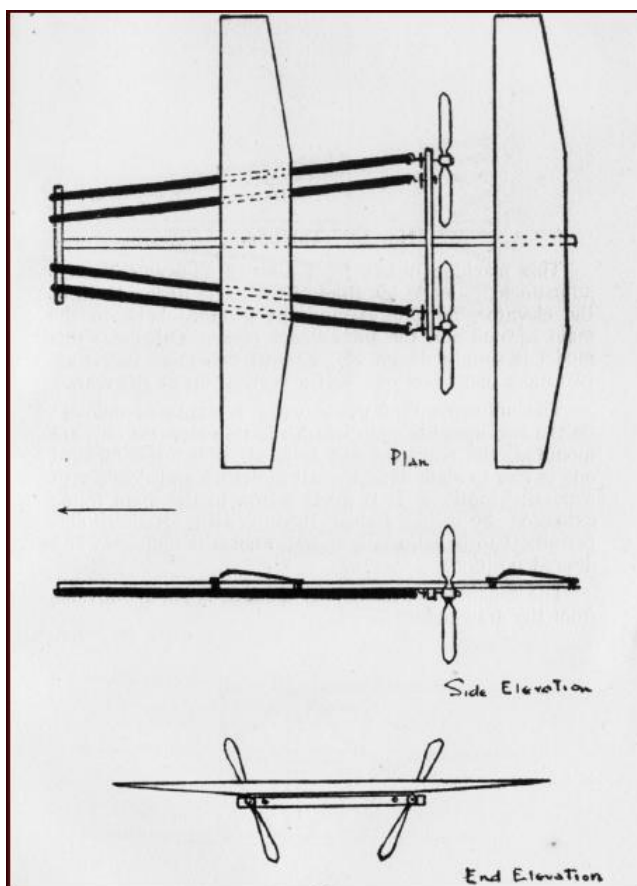
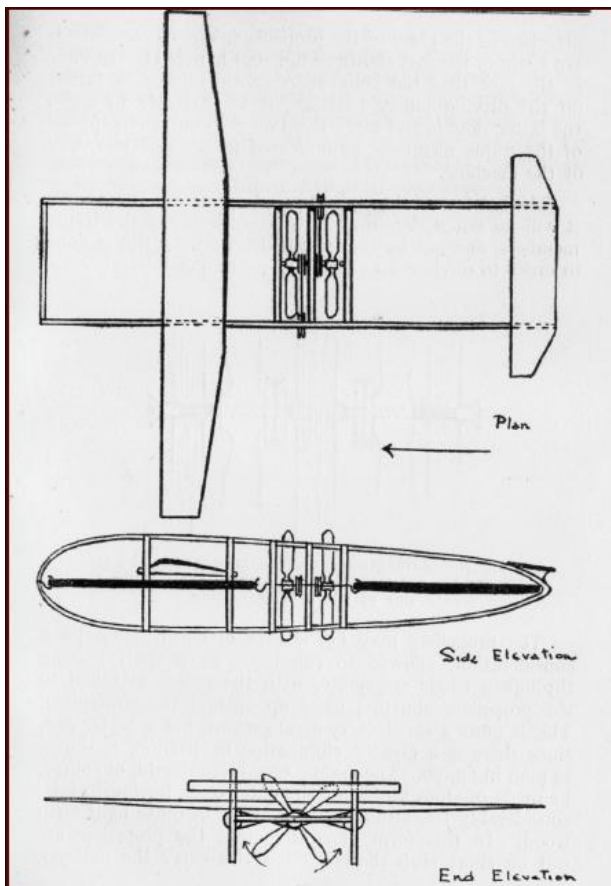
Tests of this machine running in either direction may be made by reversing the "plane," whilst a small elevator or tail may be added. The effect of a vertical fin placed at various points in front and behind the plane may be noted.

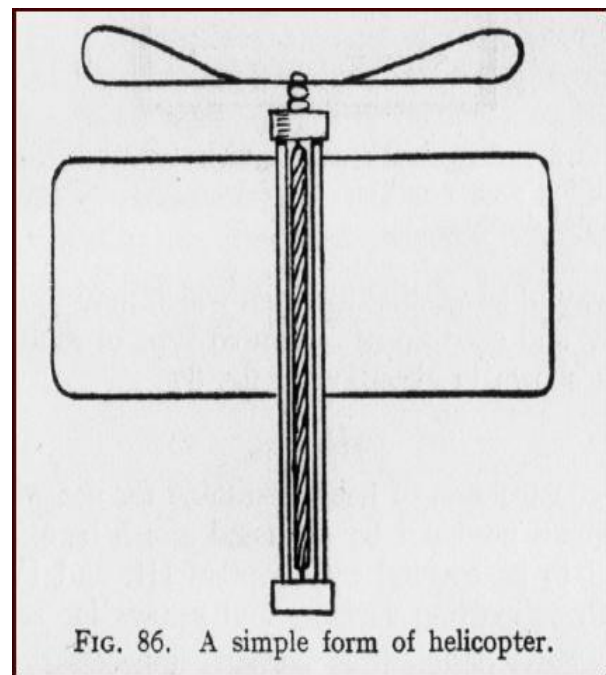
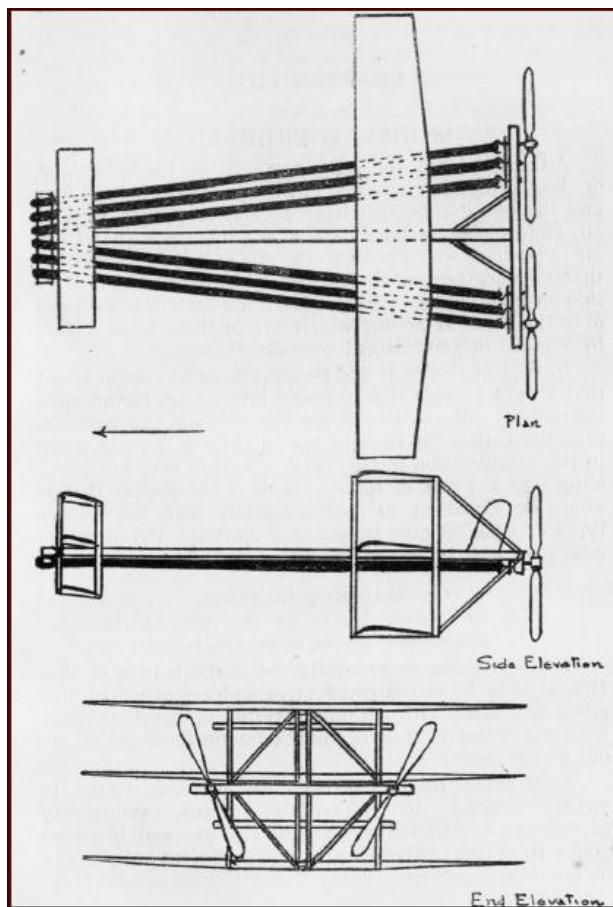
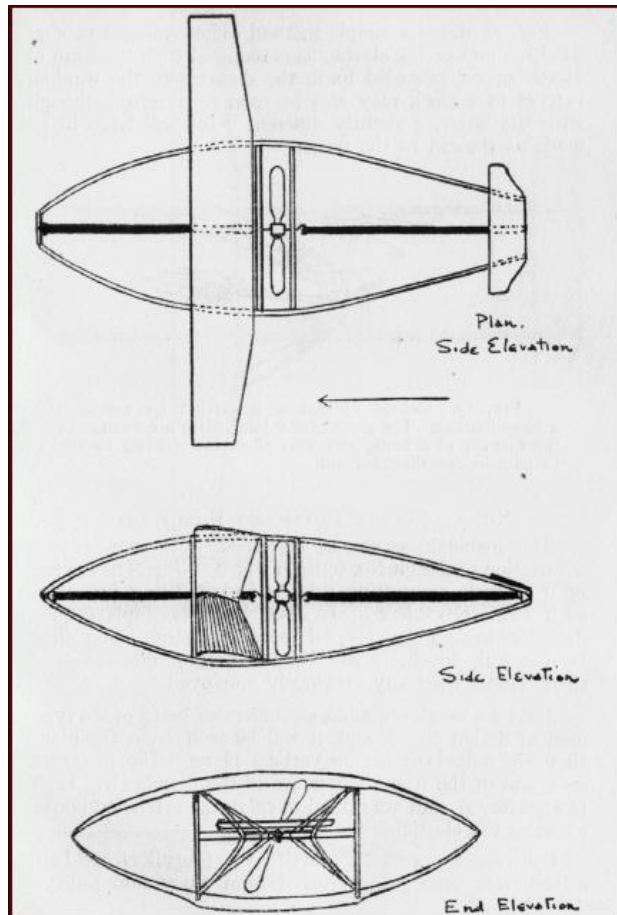
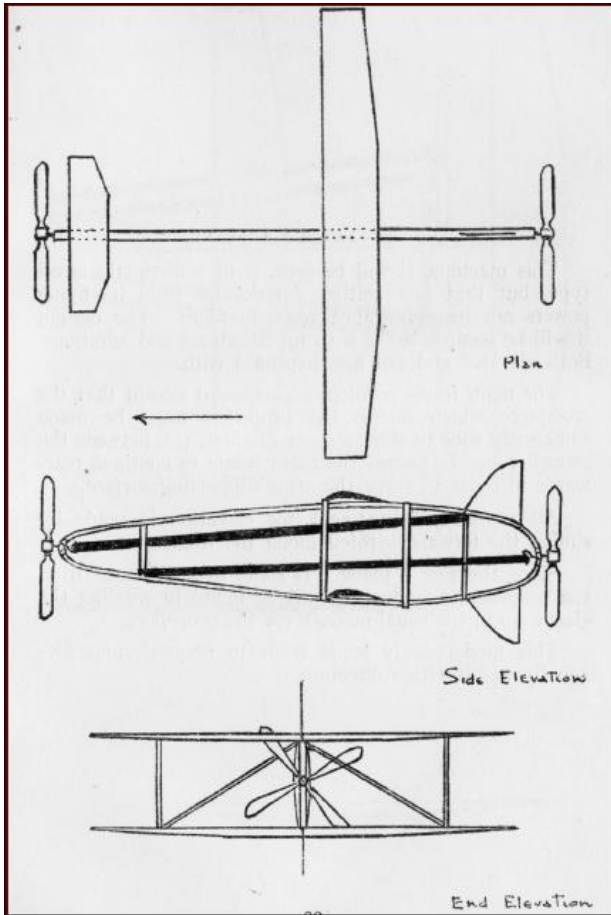
Having learnt from the Simple Monoplane the next to try is the Twin Pusher which, if made to the guidance in the earlier chapters and the general arrangement drawing provided, should result in a satisfactory flying model.





Further designs are very much experimental, please let me know how you get on with building and flying yours.





Finally, whilst the editor notes that there has been no successful man carrying helicopter produced, he offers a simple model helicopter design that looks to have the possibility of achieving flight, even if of only short duration.

SAM1066 Competitions on the Croydon Coupe Day, 8th October

You've no doubt heard of the legendary Keil-Kraft long grass. In fact, there were acres of it on the trimming field of Area 8 on Salisbury Plain when the October SAM1066 meeting was held, in conjunction with the Croydon Coupe day. The weather forecast for the day was very promising, unlike all the previous SAM1066 events this year that had to be cancelled. The flight-line was not like the days of meetings at Middle Wallop, but there was a reasonable contingent of about twenty cars.



Dave Cox's Nord 2.



Ivan Taylor anticipating his fly-off winning launch in Coupe.



Gavin Manion's Vintage Coupe winning Jumping III. design by Pierre Marrot. Model built by the late Robin Kimber
See also NC July 2019 for more details.



Nick Peppiatt's Pinocchio, after second flight. The stabiliser looks out of line, possibly as a result of the landing

Conditions were very calm initially, enabling me to carry out some test flights on my E20. A gentle breeze then sprang up, which carried models a surprising distance, but enabling the two Daves, Cox and Etherton, to launch their towline gliders for both the Mini-Vintage and Vintage/Classic Glider competitions. They must have been particularly tired at the end of the day, after six flights each, because the long grass was hard to walk through. I entered my somewhat ancient Pinocchio in Mini-Vintage. This model must now be about 15y old, far longer than originally intended for such lightweight models. These were designed to be built during the week and to be flown and, perhaps, lost at the weekend.

Its longevity has been helped by the use of RCDT and a tracker, which was essential here because of the long vegetation. In the first flight it climbed in a right hand spiral to a very good height, but the prop did not fold correctly, resulting in a straight glide down wind. A slight adjustment of the prop stop resulted in the following flights the model returning to its more normal right left pattern.

To add to the entertainment, in the distance the Army was carrying out firing exercises using what looked like Bronco All Terrain Tracked Carriers or Warthogs.

All-in-all it turned out to be a lovely day for flying, particularly in comparison to what we've had so far this year.

SAM 1066 Mini-Vintage results 8 th October 2023 (2min max)						
Name	Model And Designer	Flt 1	Flt 2	Flt 3	Total	Pos.
Nick Peppiatt	Pinocchio (Laurie Barr)	2.00	2.00	2.00	6.00	1
Dave Cox	Nord 2 (J.G.Joyce)	2.00	2.00	1.42	5.42	2
Dave Etherton	Satu (J.M.G.Bennett)	0.56	2.00	2.00	4.56	3
Chris Redrup	Buckeridge Lightweight (Jim Buckeridge)	1.16	2.00	1.30	4.46	4
Jim Paton	Bazooka (Norman Marcus)	1.52	1.32		3.24	5

Sam1066 Vintage/Classic Glider Results 8 th October (2min 30 Max)						
Name	Model	Flt 1	Flt 2	Flt 3	Total	Pos.
Dave Cox	Nord 2	2.13	2.30	1.42	6.25	1
Dave Etherton	Satu	1.38	1.53	2.30	6.01	2

Nick Peppiatt

The SAM 1066 Trophy Cabinet

-

Tony Shepherd

Over the years SAM 1066 has accumulated many trophies which were typically presented at the big 3-day meeting in August at Middle Wallop. Some flyers liked trophies but I would suggest that most found the complication of getting them engraved and ensuring their return for the next year far outweighed any pleasure in having them. Certainly your previous Chairman was very much against them and felt that their days were over - a sentiment which I heartily endorse. A bottle of wine and a round of applause was always more than enough for me if I managed a top three placing!

The sad demise of Middle Wallop and plummeting competition entry levels adds further weight to the idea of the disposal of the trophies with perhaps keeping a couple back "just in case". There is also the problem that someone has to keep them and probably specify them in their household contents insurance. At a recent indoor meeting I attended I was talking to someone from a club where their trophies were given to the most recent winner to keep and those that were now just surplus to requirement were



either scrapped or if made from silver or something similar then sold for their metal value.

Nick Peppiatt has been talking with the BMFA about their archive and it may be that anything of any historical value could go there but before we can start that dialogue then we need to know what we have. **With that in mind would anyone who currently holds a SAM 1066 trophy please contact myself with details of what the trophy (or trophies) is and, if possible, a photograph of it.**

Please send to chair@sam1066.org

Tony Shepherd

Secretary's Notes for November

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Roger Newman

Oh dear - late again. A very polite hint from our esteemed Editor came as a timely reminder.

The move to Newbridge in North Wales has been completed, so now I know where very little is located other than whatever I am looking for is somewhere in a box or bag. The majority of my models have been crunched into the skip, as were pretty well all the Aeromodeller & Model Aircraft mags. However a few of both models and mags were given away but even less were retained. I did relent & kept all the '50s Aeromodellers as they covered my teenage years when everything to do with flying - full size & models, was new & exciting. Likewise, I have retained three small power models - an electric Baby Burd, a Vic Smeed designed Ballerina & a Keil Kraft Bandit, the latter two both powered by DC Merlins, as being sufficiently sedate for an oldie plus a few favourite gliders like the Lulu, Corsair, Caprice, Woodford Special, Night Owl & one oddity - the Keil Kraft Aquarius of plastic rib notoriety.

All in the hope that I can find somewhere flat & large enough to fly occasionally. Time will tell.

In the meantime, as I keep an interest in things railway, there is the opportunity to volunteer on the Cambrian Railway at Oswestry & maybe do a spot of railway modelling. But this I suspect will not be until the New Year as there is much to occupy me in the near future that is totally unrelated to any form of modelling activity.

Our Chairman asked that I write a "job spec" for the role of SAM1066 Secretary. Since the loss of Middle Wallop, the impact of Covid & the significant reduction in members flying competitively, coupled with the loss of other flying fields the role has become somewhat of a non-role as sadly there are no licenses to be acquired & administered and very few competitions to organise & run. Additionally this year the weather seems to have been particularly unkind. All this coupled with a distinct lack of activity on my part due to a profound change in my personal circumstances makes it exceedingly difficult to document an objective statement. There is of course the need to write some notes that may be of interest to members each month to support the New Clarion. So I think really we need someone who can bring back enthusiasm, redefine and breathe fresh life into the task. In this context, all the SAM 1066 files since taking on the role in 2011 are in electronic form & can therefore be readily made available to an incoming incumbent.



On a closing note, early evening view from Newbridge

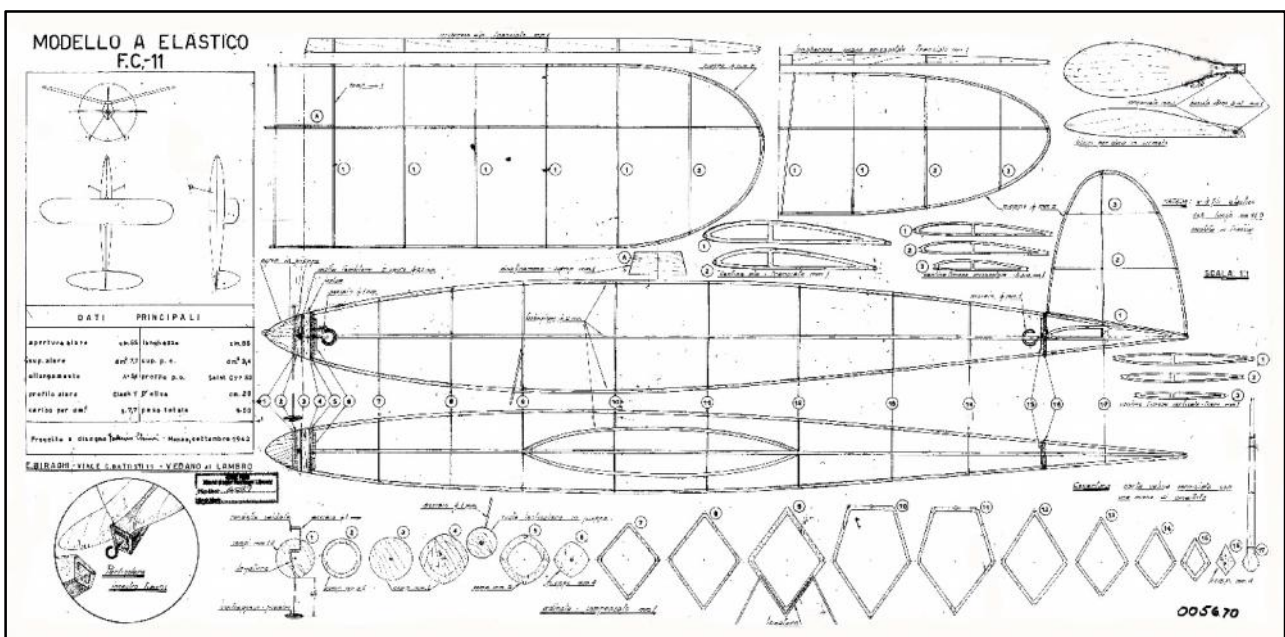
Roger Newman

Plans for the Month

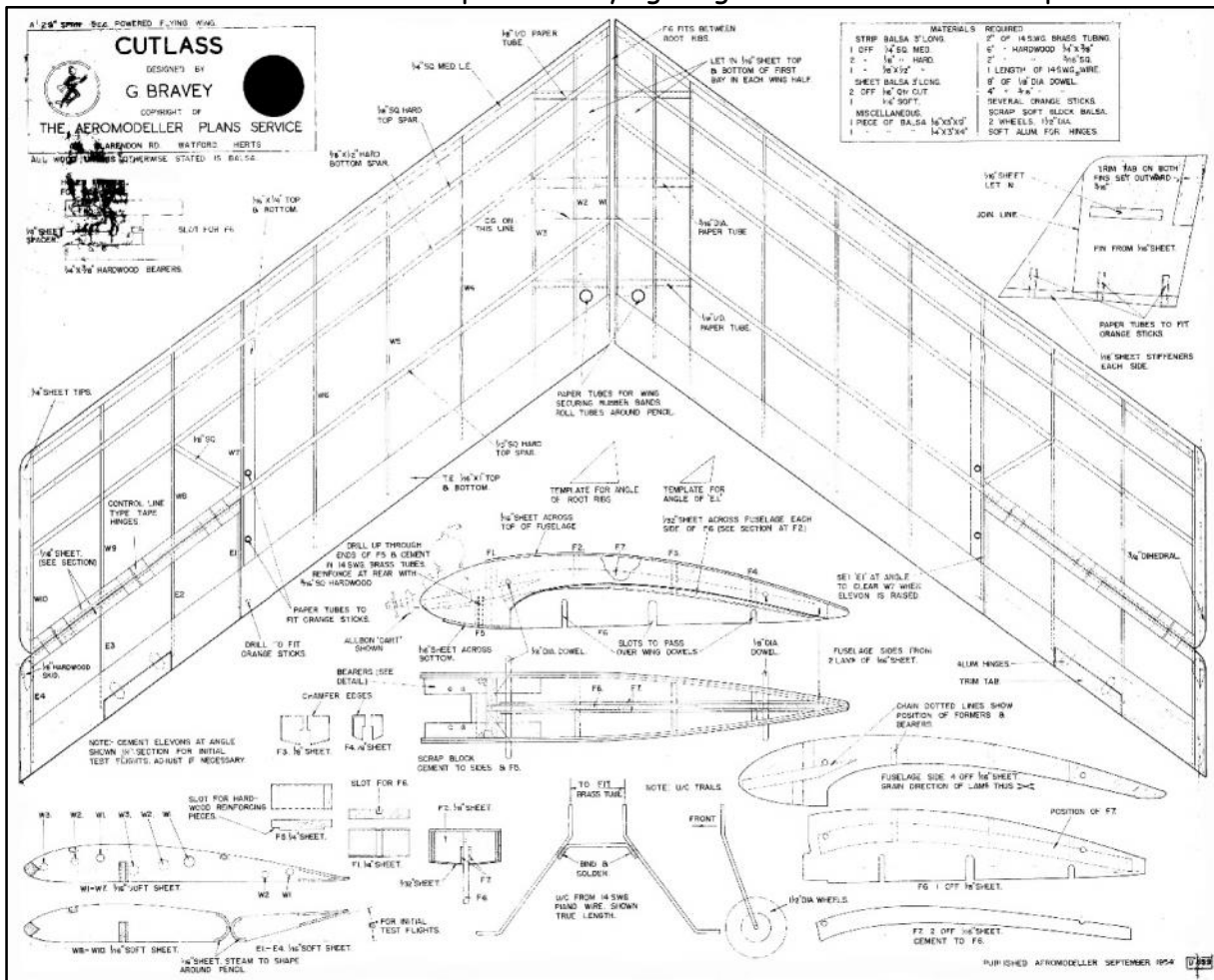
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Roger Newman

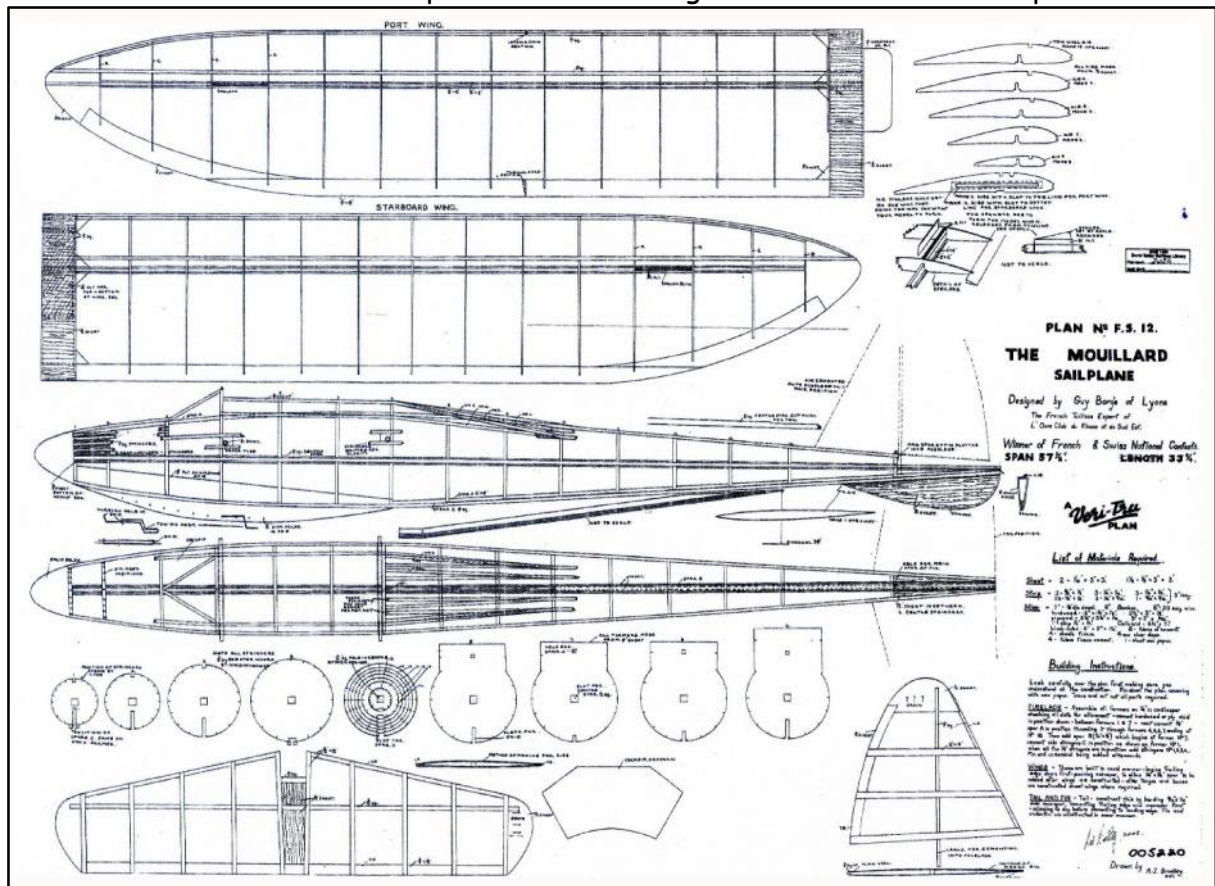
Rubber: Italian Lightweight - FC-11



Power: Cutlass - small DC powered flying wing from Aeromodeller Sep '54



Glider: Mouillard Sailplane - French designer listed as a Veri-Tru plan



Options for Flying on Salisbury Plain, Area 8

The flying of competitive events on Salisbury Plain occasionally requires the launch site to be changed from the usual trimming field to the north east side of the airstrip. This is often problematic as in the past access has proved difficult but a new route has now been found which has proved to be much easier, even after wet weather. The image below shows the route.

It is hoped that on competition days organisers will place their entrance marker flags in whichever entry to Area 8 is appropriate to the location of the day's launch point.



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

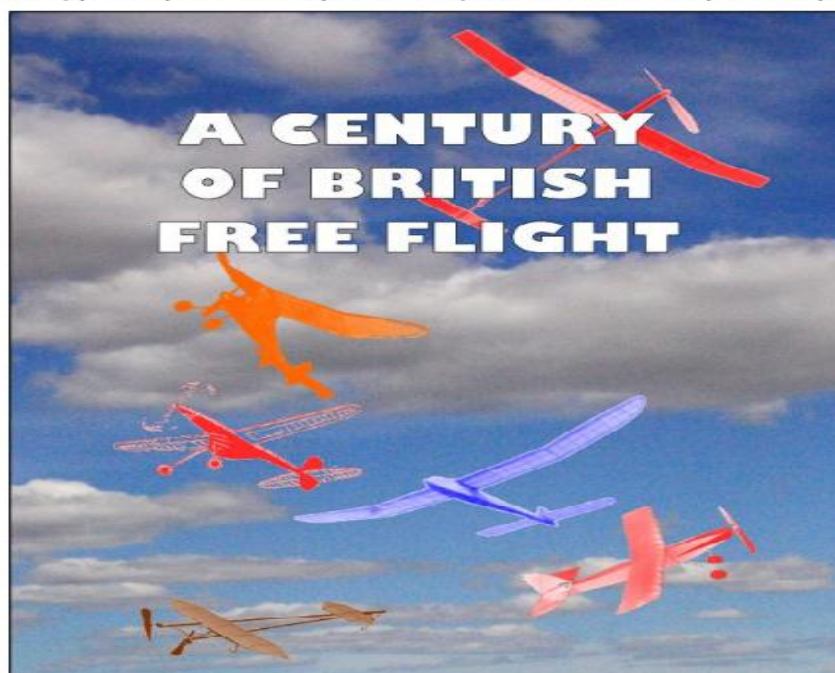
And must be strictly followed

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, electric, 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.

La Nintième Grande Coupe de Birmingham

Saturday 2nd OR Sunday 3rd December 2023

Pending the approval of the FFTC and field availability this event will take place at MOD North Luffenham on starting at 10:00

F1G for the Aeromodeller Trophy: Two flights between 10:00 & 12:00 then three rounds to published timetable.

Pre 1970 Coupe Three flights (no rounds) start 10:00. Within this event models which meet our pre 1958 cut-off date will fly as Vintage Coupes.

Pre 1970 Coupe may double up with F1G as at previous year's events. Contacts below for details if unsure.

Both events finish at 14.45 followed by fly-offs as required (Not DT!)

Maxes will be determined by conditions on the day.

Prizes for 1,2 & 3 in F1G and Pre 1970 Coupe. The winner of F1G will be awarded the Aeromodeller Trophy and the top placed Vintage Coupe the Vintage Plate.

Entry Fee £10 covers both events (includes £5 field fee for ALL competitors).

The organisers will determine which of the two days of that weekend are likely to have best weather and will email potential attendees on the evening of Thursday 30th November to confirm the chosen day. Will all potential fliers please email Gavin Manion on gavin.manion84@gmail.com ahead of time so that they are included in that confirmation email. Single registrations on behalf of a group of fliers would be very welcome.

For further information contact: -

Gavin Manion at: gavin.manion84@gmail.com tel: 01543 422509
 Or Stuart Darmon at: stuardarmonf1a@yahoo.com tel: 01858 882057

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 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

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

stuardarmonf1a@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.

TWIFF (Totton West Indoor Free Flyers)

Please bring all your toys (Free flight only)

Wednesdays, from 12:00-16:00

Admission for flyers £10.00

Free for spectators and helpers

2023

20th September - 18th October

15th November - 20th December

2024

10th January - 21st February - 20th March

17th April - 15th May

The West Totton centre has plenty of parking,
although there are a lot of people coming and going
at Vaccination times.

There is a Tesco Local and the world's best Card shop
on site (no commission!)

The centre has a café with hot drinks and meals.

Location

[www.google.com/maps/place/West+Totton+Centre/
@50.9103094,-1.5097122,15.5](http://www.google.com/maps/place/West+Totton+Centre/@50.9103094,-1.5097122,15.5)

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

Contact: Ken Brown:

email - ken@templebrown.plus.com

Tel: 07913814492 or 0238057866



Waltham Chase Aeromodellers

INDOOR F/F MEETINGS

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

2023:

September: 21st.
October: 5th., 19th.
November: 2nd., 16th., 30th.
December: 14th.

2024:

January: 4th., 18th.
February: 1st., 15th., 29th.
March: 14th., 28th.
April: 11th., 25th.
May: 9th., 23rd.
June: 6th., 20th.

All meetings will run from 7.00 p.m. to 9.30 p.m. The Main Hall at Wickham Community Centre is particularly suitable for indoor free flight models of all types, with a ceiling free of obstructions. Tables and chairs will be available in the hall, the organisers are always grateful for assistance with moving furniture. A hot drinks machine is available on site.

Admission to the meetings will be £6 for fliers and £1 for spectators and junior fliers, whilst accompanied junior spectators and parents of junior fliers will be admitted free. Fliers will be required to show proof of insurance.

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

Waltham Chase Aeromodellers look forward to welcoming all indoor F/F fliers to these events.

For further details please contact:

Alan Wallington, "Wrenbeck", Bull Lane, Waltham Chase, Southampton, Hants.

(Tel. 01489 895157)

(e-mail: indoor@wcaero.bmfa.club)

or see our web site: <https://wcaero.bmfa.club>

Bloxwich Indoor Flyers

**Free Flight & lightweight RC
Sneyd Community School**

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

Saturdays 12 noon until 4pm

Flyers - £8 Spectators £2

2023 dates

16th Sep - 14th Oct - 11th Nov - 16th Dec.

Contact:-

Peter Thompson: 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

FREE FLIGHT SUPPLIES

MICHAEL J. WOODHOUSE

**12 MARSTON LANE, EATON, NORWICH
NORFOLK, NR4 6LZ, U.K.**

Tel/Fax: (01603) 457754 International Tel +44-1603-457754

e-mail: mike@freeflightsupplies.co.uk.

Web site: <http://www.freeflightsupplies.co.uk>.

Face book <https://www.facebook.com/groups/266212470107073/>

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

ORDERS and PAYMENT

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

WESTERN UNION, PAYPAL

AVAILABLE

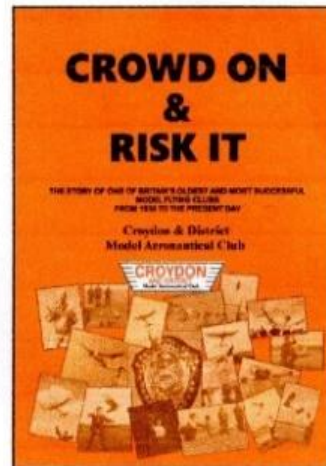
LIGHTWEIGHT COVERING MATERIALS - HI-TECH MATERIALS - FIXINGS - RUBBER - RUBBER MODEL PROPELLERS - TIMERS - KP AERO MODELS - TOOLS - PLANS - KITS - "HOW TO DO IT" PUBLICATIONS - BOOKS.

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

CROWD ON & RISK IT

This is the story of one of Britain's oldest and most successful model flying clubs, Croydon & District MAC, from 1936 onwards. The club contributed much to aviation, both model and full-size, and the late Keith Miller compiled its history till around 1960. Now, this up-dated 73 page version of the club's history, copiously illustrated with many previously unpublished photos, takes the Croydon saga up to the present. Contributions by past and present members vividly capture the atmosphere of the heyday of free-flight, with almost weekly contests at Chobham or Bassingbourn.

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



Just £8 by PayPal or cheque.

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

DILLY JAP IS BACK -AGAIN

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

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

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

INDEPENDENT REVIEW OF DILLY JAPANESE TISSUE

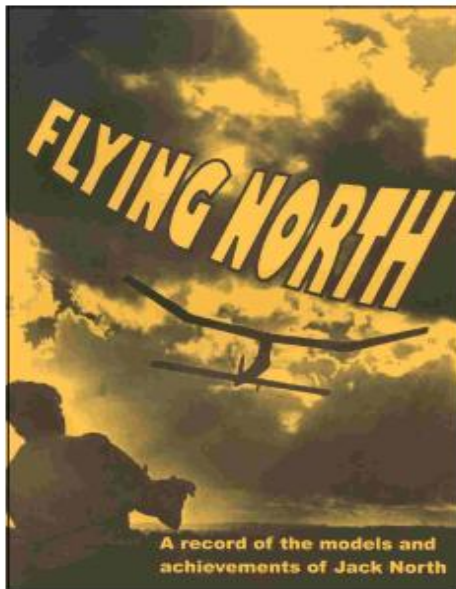
The following appeared on the Hip Pocket Aeronautics Builders' Forum. Nine different tissues were tested, doped and un-doped.

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

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

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

THIRD RE-PRINT JUST ARRIVED



FLYING NORTH A goldmine for vintage and nostalgia model flyers -

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

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

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

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

READERS' FEEDBACK

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

"I hope it becomes a classic."

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

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

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

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

"The best aeromodelling book since the Zaic Yearbooks"

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

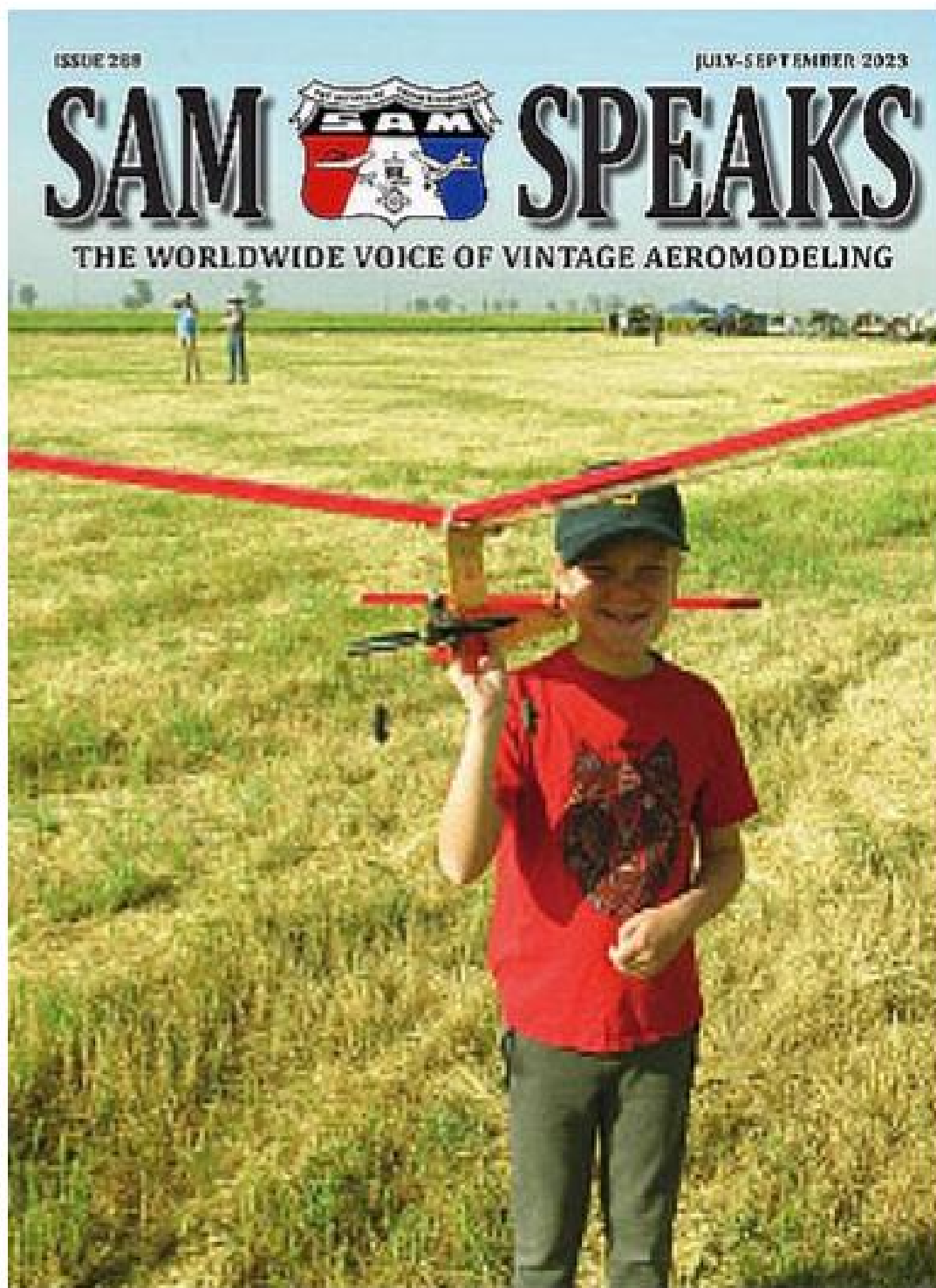
FREE FLIGHT FORUM REPORT 2021

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 Flighter - Andy Sephton
From Wichita To Robin Iii - Mike Fantham
Further Thoughts On Carbon-Skinned 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: martindilly20@gmail.com





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

Provisional Events Calendar 2023

With competitions for Vintage and/or Classic models

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

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

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

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

www.freeflightuk.org or www.BMFA.org

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

www.SAM35.org

Useful Websites

SAM 1066	-	www.sam1066.org
Mike Woodhouse	-	www.freeflightsupplies.co.uk
BMFA	-	www.bmfa.org
SAM 35	-	www.sam35.org
National Free Flight Society (USA)	-	www.freeflight.org
Ray Alban	-	www.vintagemodelairplane.com
Belair Kits	-	www.belairkits.com
Wessex Aeromodellers	-	www.wessexaml.co.uk
US SAM website	-	www.antiquemodeler.org
Peterborough MFC	-	www.peterboroughmfc.org
Outerzone -free plans	-	www.outerzone.co.uk
Vintage Radio Control	-	www.norcim-rc.club
Model Flying New Zealand	-	www.modelflyingnz.org
Raynes Park MAC	-	www.raynesparkmac.c1.biz
Sweden, Patrik Gertsson	-	www.modellvänner.se
Magazine downloads	-	www.rclibrary.co.uk
South Bristol MAC	-	www.southbristolmac.co.uk
Vintage Model Co.	-	www.vintagemodelcompany.com
John Andrews	-	www.johnandrewsaeromodeller.webs.com
Switzerland	-	www.gummimotor.ch

control/left click to go to sites

Are You Getting Yours? - Membership Secretary

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